



Solid Waste Management
Board



No. SSWMB/ED(1)/NIT-4/FE/1071/2016

Government of Sindh

Dated: 25th November 2016

The Managing Director,
Sindh Public Procurement Regulatory Authority,
Government of Sindh, Karachi

Subject: Publication of 'NIT for FRONT END COLLECTION AND DISPOSAL OF MUNICIPAL SOLID WASTE FOR DMC (MALIR), DMC (WEST) & DISTRICT COUNCIL KARACHI - PAKISTAN' - INTERNATIONAL COMPETITIVE BIDDING

Please find herewith an advertisement for Publication of 'NIT for FRONT END COLLECTION AND DISPOSAL OF MUNICIPAL SOLID WASTE FOR DMC (MALIR), DMC (WEST) & DISTRICT COUNCIL KARACHI - PAKISTAN' - INTERNATIONAL COMPETITIVE BIDDING.

2. The NIT has already been uploaded on SSWMB website and published in Daily Dawn (English) Karachi, Kawish (Sindhi) Hyderabad and Jang (Urdu) Karachi. The bidding documents are being finalized and shall be sent shortly.
3. Copies of i. Published NITs, ii. Notification of Procurement Committee, iii. Notification of Complaint Rederessal Committee and iv. Annual Procurement Plan are attached.
4. You are requested to direct the concerned to upload the NIT on Sindh Public Procurement Regulatory Authority Website.
5. An early action shall be highly appreciated.


(Dr. A. D. Sajnan)
Managing Director

Copy for Information to:

1. Deputy Director (A&F), Sindh Public Procurement Regulatory Authority, Government of Sindh, Karachi
2. Deputy Secretary (Staff) to Chief Secretary Sindh / Chairman, SSWMB
3. Master file

SINDH SOLID WASTE MANAGEMENT BOARD

Bungalow No. 13, Al-Hamra Housing Society, Shaheed-e-MillaT Road, Karachi

Tel: 021 9933 3705 -06; Fax: 021 9933 3707 URL: www.sswmb.gos.pk, email: info@sswmb.gos.pk

3364
30-11-16



Sindh
Solid Waste Management
Board

**GOVERNMENT OF
SINDH**



**INVITATION OF BIDS FOR FRONT END COLLECTION, SWEEPING,
TRANSPORTATION & DISPOSAL OF MUNICIPAL SOLID WASTE –
DMC (WEST), DMC (MALIR) AND DISTRICT COUNCIL KARACHI ZONES
KARACHI, SINDH – PAKISTAN**

INTERNATIONAL COMPETITIVE BIDDING

Sindh Solid Waste Management Board (SSWMB) is in the process of establishment of integrated Municipal Solid Waste Front End Collection, Sweeping & Transportation Project in Karachi.

2. Karachi is the largest mega polis of Pakistan and the capital of Sindh province with a population of about Twenty Two Million generating approximately 12,000 tons of waste per day. The City is divided into six districts each having a separate District Municipal Corporation (DMC) plus one District Council for whole Karachi.

3. This NIT is for following Zones, each being a separate project:

- i. NIT - 4.1 - DMC (WEST) - Karachi Zone
- ii. NIT - 4.2 - DMC (MALIR) - Karachi Zone
- iii. NIT - 4.3 - District Council Karachi Area

4. SSWMB hereby invites sealed bids (Separate for each Zone) from interested National and International firms or Consortium/ Joint Ventures, having sound experience in the field of Municipal Solid Waste Management for above work / services.

5. Each Zone is a separate project hence separate sealed bids with separate Bid Security is to be submitted.

8. The successful firm will be investing in and managing the entire **Front End Collection, Sweeping and Transportation of Municipal Solid Waste Project** and perform following works against payment that they will be paid on **Item Rate Basis**:

- Door to door collection of garbage & Revamping of bin system.
- Sweeping of roads, streets, lanes, footpaths, medians and open spaces.
- Washing of important roads as and when required.
- Lifting and transportation of MSW from dustbin sites & collection points to GTS / designated sites.
- Establishment of Complaint Management System, Community Awareness Programme and its implementation.

9. The Bids (SEPARATE FOR EACH ZONE) MUST CLEARLY STATE "PROPOSAL FOR FRONT END COLLECTION AND TRANSPORTATION OF MUNICIPAL SOLID WASTE FOR DMC WEST — KARACHI ZONE, DMC MALIR — KARACHI ZONE OR DISTRICT COUNCIL KARACHI ZONE (AS THE CASE MAY BE).

SCHEDULE

Tender Enquiry No.	Assignment Area	Bidding System	Tender Document Availability	Bid Submission Date	Bidding Opening Date
SSWMB / NIT - 4.1	DMC (WEST) ZONE	SINGLE STAGE — TWO ENVELOPE PROCEDURE UNDER RULE 46 (2) OF SPPRA RULES, 2010 (AMENDED 2013)	29 November 2016 to 16 January 2017	16 January 2017 at 3 PM	16 January 2017 at 3:30 PM
SSWMB / NIT - 4.2	DMC (MALIR) ZONE				
SSWMB/NIT - 4.3	DISTRICT COUNCIL KARACHI AREA				

Pre-proposal / Pre bid meeting will be held at the office of SSWMB, Bungalow No. 13, Al Hamra Housing Society, Shaheed-e-Millat Road, Karachi, on 7th December 2016 at 1500 hours.

6. All interested bidders are required to be registered with relevant tax authorities of Islamic Republic of Pakistan. However in case of foreign firms, bidding alone or as leading firm in the Joint Venture or Consortium, they will be given appropriate time to get registered with PEC and relevant tax authorities after acceptance of the bids.

7. Interested companies can obtain necessary documents including eligibility criteria upon payment of Tender Document Fee through Pay Order or Bank Draft of Pak Rs. 5000 or US\$ 50 in favor of Sindh Solid Waste Management Board as per schedule given above from the office of Assistant Director (Finance) SSWMB during office hours or may also be downloaded from the website www.pcrsindh.gov.pk or www.sswmb.gos.pk. The companies downloading the documents from the websites must submit Tender Document Fee as mentioned above at the time of submission of the bid.

10. The Bids (SEPARATE FOR EACH ZONE) must be delivered in English language under sealed envelope by hand / dropped in tender box or through courier as per schedule given above.

11. All interested firms are advised to carry out a comprehensive on-ground survey of the project area and come up with a practical strategy and project proposal in order to minimize any complication during implementation phases.

12. Sindh Solid Waste Management Board will not be responsible for any cost or expenses incurred by bidding firms and reserves the right to terminate the procurement process at any time subject to relevant provision of Sindh Public Procurement Rules, 2010 (Amended 2013).

Note: In case of any Emergency / Holiday announced by the Government, on the scheduled date of opening of the bids, the bids shall be opened on next working day at 3:30 PM.

ENGINEERING CONSULTANTS (CONSTRUCTION) PVT. LTD.

Bungalow No. 13, Al Hamra Housing Society, Shaheed-e-Millat Road, Karachi.

Tel: (+92 21) 9936 3704 - 06 Fax: (+92 21) 9936 3707 URL: www.sswmb.gos.pk Email: info@sswmb.gos.pk

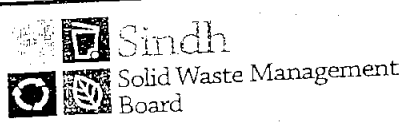
Certified

DAKSHIN KAWATS

ڪاوش روزانو

Friday, 23 November, 2016

جلد (27) جمع 25 نومبر 2016 ع بمطابق 24 صفر المظفر 1438ھ (شمارو 112) قیمت 15 روپيا



گورنمينٽ آف سنڌ



DMC (ويست) (ملير) ۽ دسترڪٽ ڪائونسل ڪراچي زون، ڪراچي سنڌ پاڪستان لاءِ فرنٽيئر ڪليڪشن، سوئپنگ، ٽرانسپورٽيشن ۽ ميونسپل سالڊ ويسٽ جي نيڪال لاءِ واڪن جي دعوت

بين الاقوامي مقابلي وارا واڪ

- سنڌ سالڊ ويسٽ مئنيجمينٽ بورڊ SSWNB ڪراچي ۾ مربوط ميونسپل سالڊ ويسٽ فرنٽيئر اينڊ ڪليڪشن سوئپنگ اينڊ ٽرانسپورٽيشن پروجيڪٽ قائم ڪرڻ جي ڪوشش ۾ آهي.
- ڪراچي، پاڪستان جي هڪ وڏو ڪارپوريشن وارو شهر آهي ۽ سنڌ حڪومت جو گادي وارو شهر به آهي، جنهن ۾ 2 ڪروڙ 20 لک ماڻهن جي آبادي آهي جيڪا روزاني آٽڪل روه 12 هزار ٽن ڪچرو ٺيڻدا ڪري ٿي. انهيءَ شهر کي ڇهن ضلعن ۾ ورهايو ويو آهي، جن مان هر ضلعي کي هڪ ڌار ميونسپل ڪارپوريشن (DMC) آهي ۽ سموري ڪراچي لاءِ هڪ اضافي ضلع ڪائونسل به آهي.
- هيءَ اختيار هيٺين زونن لاءِ آهي جن مان هر هڪ وٽ پنهنجو ڌار پروجيڪٽ آهي.
 - DMC 4-1 NIT (ويست) ڪراچي زون
 - DMC 4-2 NIT (ملير) ڪراچي زون
 - 4-3 NIT ضلع ڪائونسل ڪراچي ايريا
- SSWNB هن ذريعي دلچسپي رکندڙ قومي يا بين الاقوامي ڌرم يا ڪنسنوريشنل جوائنٽ وينچر يا جن وٽ مٿي چاقايل ڪم آسوس لاءِ ميونسپل سالڊ ويسٽ مئنيجمينٽ جو ڪافي تجربو آهي تن کان (هر هڪ زون لاءِ ڌار ڌار) ميل ميٽر شيٽ واڪ گهراڻي ٿي.
- هر زون وٽ پنهنجو هڪ ڌار پروجيڪٽ آهي تنهنڪري ڌار ڌار واڪ سيڪيورٽي سان گڏ ڌار ڌار ميل ميٽر شيٽ واڪ ماڻڻا وڃن.

ٽينڊر انڪوائري نمبر	ذميوارِيءَ وارو علائقو	واڪ سسٽم	ٽينڊر دستاويزن جي موجودگي	واڪ امانت جي تاريخ	واڪ کولڻ جي تاريخ
SSWMB/NIT - 4.1	DMC (ويست) زون	سنگل اسٽيج ٽو اينڊيلپ	29 نومبر 2015 کان	16 جنوري 2017	16 جنوري 2017
SSWMB/NIT - 4.2	DMC (ملير) زون	ٽريفيڪٽار SPPRA جي رولز 2010 جي قاعدي (2) 46 تحت	16 جنوري 2017 تائين	16 جنوري 2017	16 جنوري 2017
SSWMB/NIT - 4.3	ضلع ڪائونسل ڪراچي ايريا	ٽريفيڪٽار SPPRA جي رولز 2010 جي قاعدي (2) 46 تحت	16 جنوري 2017 تائين	16 جنوري 2017	16 جنوري 2017

ٽينڊر/واڪ کان اڳ واري گڏجاڻي SSWMB جي آفيس واقع بنگلو نمبر 13، الحمراء ڇانوڻي سوسائٽي، شهيد ميمڻ روڊ ڪراچي ۾ 7 دسمبر 2016 تي 3 وڳي ڪم ٿيڻي آهي.

6. سمورن واڪ ڏيندن کي گذارش آهي ته اهي اسلامي جمهوريه پاڪستان جي سمورين ٽيڪس اختيارين وٽ پاڻ کي رجسٽر ڪرائي ڇڏين. بهرحال پرڏيهي ڌرم جي صورت ۾ اڪيلي سر واڪ ۾ شرڪت ڪرڻ يا ڪنهن مکيه فورم سان گڏجي ڪم ڪرڻ يا ڪنسنوريشنل جي صورت ۾ ڪم ڪرڻ جي نيوٽيٽ ڪانڊيٽ، PEC ۽ واسطيدار ٽيڪس اختيارين وٽ پاڻ کي رجسٽر ڪرائڻ لاءِ مناسب وقت ڏنو ويندو.

7. دلچسپي رکندڙ ڪمپنيون سموري دستاويزن جن ۾ آفيس جو معيار به شامل آهي، سان پاڪستاني 5000 روپيا يا 50 آمريڪي ڊالرن جو سنڌ سالڊ ويسٽ مئنيجمينٽ بورڊ جي ٽي آفيسر يا ٻيڊ بوائز ٽي اسٽيفٽ ڊوڪيومينٽيشن ۽ ٽيڪس ڊيٽا بيس SSWMB، ٽي آفيسر ۽ ٽي آفيسر جي ويب سائٽ سان ڏانهن لاءِ ڪم ڪرڻ سگهجن ٿا. جي www.pprasindhi.gov.pk ۽ www.sswmb.ges.pk جي ويب سائٽ سان ڏانهن لاءِ ڪم ڪرڻ سگهجن ٿا. جيڪي سائٽ ڏانهن لاءِ ڪم ڪرڻ سگهجن ٿا، انهن سائٽ ڏانهن لاءِ ڪم ڪرڻ سگهجن ٿا.

نوٽ: واڪ کولڻ واري ڏينهن تي ڪنهن به خطي يا ڪنهن به ڪم ڪرڻ واري ڏينهن سلسلي ۾ ڪا به ڪم ڪرڻ جي ڪوشش نه ڪئي وڃي.

ڪي بيڪٽريال ڊسٽريڪٽو ايريا - ڪراچي

SAY NO TO CORRUPTION

1118 6337

011-35733333



**INVITATION OF BIDS FOR FRONT END COLLECTION, SWEEPING,
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DMC (WEST), DMC (MALIR) AND DISTRICT COUNCIL KARACHI ZONES
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EXECUTIVE DIRECTOR (OPERATIONS - I), KARACHI

Bungalow No. 13, Al Hamra Housing Society, Shaheed-e-Millat Road, Karachi.

Tel: (+92 21) 9933 3704 - 06 Fax: (+92 21) 9933 3707 URL: www.sswmb.gos.pk Email: info@sswmb.gos.pk



Ref No: SEC/SSWMB/2015/87
GOVERNMENT OF SINDH
Dated: 19, March, 2015

Notification

In line with requirements under Rule 31 of SPPRA Rules 2010, the following Complaint Redressal Committee (CRC) is constituted for all the procurements in Sindh Solid Waste Management Board.

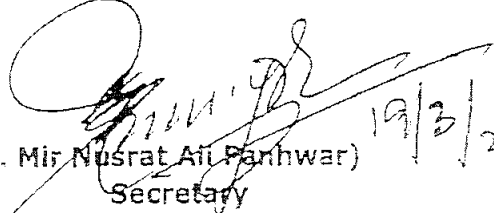
Complaint Redressal Committee:

- | | |
|--|----------|
| 1. Managing Director
Sindh Solid Waste Management Board | Chairman |
| 2. Representative of Accountant General Sindh | Member |
| 3. Independent Professional from the relevant field | Member |

Functions and Responsibilities of the Committee

The complaint redressal committee upon receiving a complaint from an aggrieved bidder may, if satisfied;

- Prohibit the Procurement Committee of SSWMB from action or deciding in a manner inconsistent with the SPPRA rules.
- Annul in whole or in a part, any unauthorized act or decision of the Procurement Committee.
- Decide a case to be declared as mis-procurement if material violation of Act, Rules, Regulations, orders, instruction or any other law relating to public Procurement, has been established.
- Reverse any decision of the Procurement Committee or substitute its own decision for such a decision.
- The Complaint Redressal Committee shall announce its decision within seven days and intimate the same to the bidder and the SPPRA within three working days. If the committee fails to arrive at the decision within seven days, the complaint shall stand transferred to the Review Committee as per SPPRA Rules 2010.


(Dr. Mir Nusrat Ali Panhwar)
Secretary

Sindh Solid Waste Management Board

Copy for information to:

- Accountant General Sindh
- Managing Director, Sindh Solid Waste Management Board
- Managing Director, SPPRA Government of Sindh
- Members of CRC Committee
- Office Copy



*** ANNUAL PROCUREMENT PLAN FOR 2016-2017**
 (Under Rule 11 of the Public Procurement Rules 2010 Amended 2012)
 Name of the Procuring Agency : **SINDH SOLID WASTE MANAGEMENT BOARD KARACHI.**

Dated: 01.11.2016

2	4	5	6	7	8	9
Name of Procurement (Description)	Estimated Cost (Rupees)	Procurement Method **	Tentative date of Procurement Notice Publication	Tentative date of Award of Contract	Tentative date of Completion	Remarks (if any)
Procurement of Office Furniture	28,000,000	Open Competitive Bidding	July 2016	October-16	Nov-16	
Procurement of Air Conditioner	4,600,000	Open Competitive Bidding	July 2016	October-16	Nov-16	
Procurement of Office Stationary	2,700,000	Open Competitive Bidding	December-16	January-17	Mar-17	
Procurement of Training of Electrical Staff	550,000	Open Competitive Bidding	July 2016	October-16	Nov-16	
Procurement of Fixing of Network System	1400000	Open Competitive Bidding	July 2016	October-16	Nov-16	
Procurement of Installation of Diesel Generator	4,600,000	Open Competitive Bidding	August-16	November-16	Dec-16	
Procurement of Security Guards	2,500,000	Open Competitive Bidding	August-16	November-16	Nov-16	
Procurement of Installation	1,500,000	Open Competitive Bidding	December-16	January-17	Mar-17	
Procurement of Computer / Hardware	6,300,000	Open Competitive Bidding	December-16	January-16	Mar-16	
Procurement of Computer Stationary	1,100,000	Open Competitive Bidding	December-16	January-17	Mar-17	
Procurement of Transport	20,000,000	Quotation from authorised dealer	September-16	December-16	February 2016	
Procurement of Seven Individual Consultants & Three Consulting Firms	30,000,000	Open Competitive Bidding	November-16	December-15	April-16	
Procurement of Six Garbage Transfer Stations with Material Recovery (MR) and Biogas Derived Fuel (BDF) facility in Karachi	1660.796 Million	Open Competitive Bidding	November-16	December-16	April-16	
Procurement of Integrated Solid Waste Management Project Nawabshah Municipal Committee, Shaheed Benazirabad District (Phase - I)	438.326 Million	Open Competitive Bidding	December-16	January-17	June-17	

The Annual Procurement Plan may be prepared on the assumption that total allocation budget will be released.
 Procurement method means Open Competitive Bidding / Petty Purchase / Quotations / Direct Contracting / Negotiated Tendering.

(Please add additional sheets if required)



ORDER

With the approval of the Competent Authority i.e. worthy Secretary Local Government Department, Government of Sindh, in partial modification of SGA&CD's Notification No.SO(C-IV)SGA&CD/4-21/01 dated 11.02.2016 and in pursuance of Rule-7 read with Rule-67 of Sindh Public Procurement Regulatory Authority, Rules-2010 (Amended 2013), the following Committees of Sindh Solid Waste Management Board are hereby constituted as under: -

1. RULES MAKING COMMITTEE

1	Executive Director (Ops-I), Karachi	Chairman
2	Secretary, SSWMB	Member
3	Deputy Director (Legal), SSWMB	Member
4	Deputy Director (Finance), SSWMB	Member
5	Deputy Director (Admn), SSWMB	Member
6	Assistant Director (M&E), SSWMB	Member/ Secretary
7	Any Co-opted member (up-to-three)	Member

2. PROCUREMENT COMMITTEE-I (Operation/Project Purpose)

1	Executive Director (Ops), SSWMB (Concerned)	Chairman
2	Deputy Director (Finance), SSWMB	Member
3	Representative of Public Health Engineering Deptt.	Member
4	Representative of K.M.C	Member
5	Director / Deputy Director (Procurement), SSWMB	Member/ Secretary

3. PROCUREMENT COMMITTEE-II (Procurement of +1 Million for Head Office, SSWMB)

1	Secretary, SSWMB	Chairman
2	Deputy Director (Finance), SSWMB	Member
3	Representative of Industries Deptt / PHE Deptt.	Member
4	Representative of K.M.C	Member
5	Director / Deputy Director (Procurement), SSWMB	Member/ Secretary

4. PROCUREMENT COMMITTEE-III (Procurement of less than 1 Million for Head Office, SSWMB)

1	Secretary, SSWMB	Chairman
2	Deputy Director (Finance), SSWMB	Member
3	Representative of KMC/ DMC(s)	Member

5. CONSULTANT SELECTION COMMITTEE, SSWMB

1	Executive Director (Concerned), SSWMB	Chairman
2	Director/Deputy Director, SSWMB	Member/Secretary
3	Representative of P&D Department, Govt. of Sindh	Member
4	Representative of Finance Department, Govt. of Sindh	Member
5	One Technical Member shall be taken from the concerned departments for consultation having adequate experience in the relevant field not below the rank of BS-18 or equivalent;	Technical Member
6	Two Co-opted Members (up-to-two) Having adequate technical knowledge and experience in the relevant field, for providing technical input to the committee.	Co-opted Member (Technical)

Contd....P/2



6. RECRUITMENT COMMITTEE

1	Secretary, SSWMB	Chairman
2	Additional Secretary (S-I), SGA&CD	Member
3	Executive Director (F&P), SSWMB	Member
4	Deputy Director (Procurement & Contract Management), SSWMB	Member
5	Deputy Director (Admn), SSWMB	Member/Secretary

2. The above committees shall function as per Sindh Public Procurement Rules, 2010 (Amended 2013).

**SECRETARY
LOCAL GOVERNMENT DEPARTMENT
GOVERNMENT OF SINDH**

No.AD(Admn)SSWMB/Committees/2015/804. Karachi dated the 26th August, 2016

A copy is forwarded for information & necessary action to: -

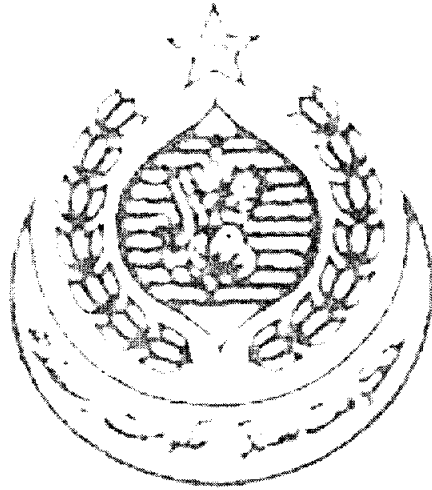
1. The Additional Chief Secretary (Dev.), P&D Department, Govt. of Sindh.
2. The Secretary, Local Government Department, Govt. of Sindh, Karachi.
3. The Secretary (Services), Services, General Administration & Coordination Department, Government of Sindh, Karachi.
4. The Secretary, Finance Department, Government of Sindh, Karachi.
5. The Secretary, Industries Department, Government of Sindh, Karachi.
6. The Secretary Public Health Engineering Department, Govt. of Sindh, Karachi.
7. The Managing Director, Sindh Public Procurement Regulatory Authority, Karachi.
8. The Managing Director, Sindh Solid Waste Management Board.
9. The Administrator, Municipal Commissioner (DMCs)/Karachi Metropolitan Corporation (KMC).
10. The Administrator, District Municipal Commissioner (s).....
11. The Chairman/Members of the Committee (All) *Deputy Director (F...) SSWMB*
12. The Deputy Secretary (Staff) to Chief Secretary Sindh/Chairman, SSWMB.
13. P.S to Secretary (I&C), SGA&CD.
14. Master file.


(NADIR KHAN)
SECRETARY (SSWMB)



Solid Waste Management
Board

REQUEST FOR PROPOSAL (RFP)
FOR
FRONT END COLLECTION AND DISPOSAL OF
MUNICIPAL SOLID WASTE FOR ZONE WEST (DMC
WEST AREA) KARACHI, SINDH, PAKISTAN.



Executive Director (Operation-I)
Sindh Solid Waste Management Board
(SSWMB)
Govt. of Sindh

SSWMB- NIT _____

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Disclaimer

Though adequate care has been taken while preparation of this document and information provided therein, but it is advised that bidder must satisfy himself for the correctness and sufficiency of the Data. Information on any discrepancy should be intimated to this office immediately. If no information is received from any of the bidders within the time of submission date, it shall be presumed that this document is correct and complete in all respects. If considered necessary in the interest of work Sindh Solid Waste Management Board (SSWMB) reserves the rights to modify, amend or supplement this document.

Section-I

Preamble

Section-I

1.1. Purpose of Request for Proposal (RFP)

The purpose of this RFP is to invite all eligible, reputed and experienced waste management firms or individuals whether National or International (a foreign bidder is entitled to bid only in a joint venture with Pakistani firm in accordance with relevant provisions of PEC by-laws) to submit their technical/operational and financial proposal for sweeping, collection/Transportation and disposal of MSW of DMC West Karachi under single stage two envelop procedure, open International competitive bidding method.

1.2. Scope of Work / Assignments.

1. Door to door collection of garbage & revamping of bin system.
2. Sweeping of roads, streets, lane, footpath, medians and open spaces and sweeping waste collection and disposal.
3. Washing of important roads as and when required on special occasions.
4. Lifting and transportation MSW from dustbins sites & collection points to designated GTS.
5. Establishment of Scientific Monitoring and Tracking of Entire System i.e. vehicle, sanitary staff, assets etc.
6. Establishment of complaint management system.
7. Community awareness program and its implementation.

1.3. Brief Description of DMC West

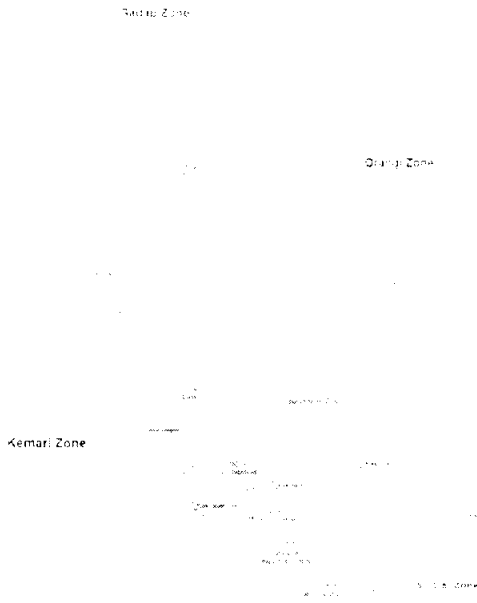
District Municipal Corporation (West) is one of the Six DMC of Karachi City. DMC West comprises of the following zones:

- a) Orangi Zone.
- b) SITE Zone
- c) Baldia Zone.
- d) Kemari Zone

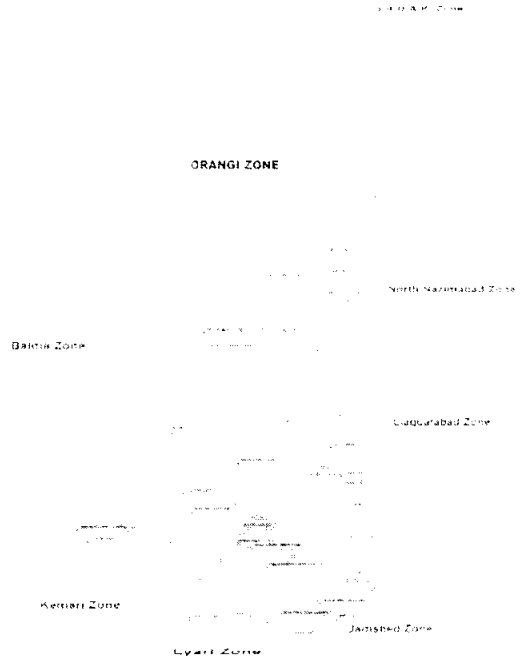
Total No of UC	Population forecasted in 2015 at growth of 5% Per annum	Area in Sq KM	MSW Generation Per Day (Ton)	MSW Generation Per Year (Ton)	Existing Solid Waste Collection and Transportation Vehicles	Available Human Resources (Staff)		Details at Annexure
						Office	Field	
38	4513695	469.59	1732.71	632439	157	66	2353	1-20

1.4. Map of DMC West

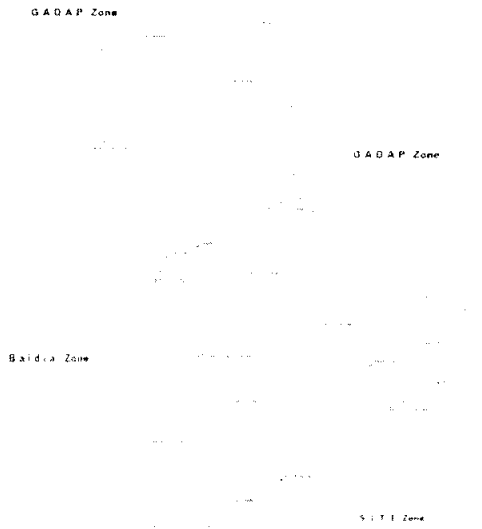
Baldia Zone



S.I.T.E. Zone



ORANGI ZONE



Kemari Zone



1.5. Definition & Interpretation

- a. "Agreement" means agreement signed between the parties (SSWMB and Successful Bidder).
- b. "Client" means Sindh Solid Waste Management Board. The Procuring Agency.
- c. "Contractor" mean the bidder any entity or person, firms, company, joint venture / consortium that may provide or provides the work and services under the agreement.
- d. "Days" mean calendar days
- e. "Years" mean calendar year
- f. "RFP" means Request for Proposal prepared by client.
- g. "Proposal" means the technical / operational proposal and financial proposal.
- h. "W&S" the mean the work and services to be performed by the contractor pursuant to the agreement.
- i. "Terms of Reference (TOR)" means the document in RFP which explains the objective scope of work activities task to be perform, respective responsibilities of client and contractor and expected results and deliverables of assignments.
- j. "Bidder & Tenderer" mean any person or persons, contractor, firms, consortium of firms, joint venture submitting the bid or tender.
- k. the word "Tender" is synonymous with "bid" and the work tender document with bidding document and proposal document
- l. "contract price" means the sum stated in the letter of Acceptance/Award as payable to contractor for execution, performance and completion of works and services according to the scope of work
- m. "Client representative" means any representative of client appointed from time to time.
- n. "works" means all services to be provided and work to be done by the contractor under the contract.

1.6. Abbreviations

- a) MSW = Municipal Solid Waste
- b) UCs = Union Councils

- c) EPA = Environmental Protection Agency
- d) SPPRA = Sindh Public Procurement Regulatory Authority.
- e) SWM = Solid Waste Management
- f) SSWMB = Sindh Solid Waste Management Board
- g) EOBI = Employees Old Age Benefits Institution
- h) \$ = US-Dollars – Currency of United State of America.
- i) PA = Procuring Agency/Sindh Solid Waste Management Board

1.7. Sections of RFP/Bidding Documents

All Section of RFP and Annexure, Forms are integral part of RFP and considered as tender / bidding documents.

1.8. Procuring Agency Rights to cancel any or all proposal / tender.

The SSWMB is not bound to accept any proposal and reserved the rights to annual the selection process at any time prior to agreement award without thereby incurring any liability to the bidder. The applicant will not be entitled to make any claim from Procuring Agency due to cancellation of the tender.

Section II

Instructions to Contractor/Bidder

Instructions to Contractor/Bidder

2.1. Information Related to Procuring Agency

Name : Sindh Solid Waste Management Board.
Address : Bungalow No.D-47, Block-2, Clifton, Karachi, Pakistan.
Phone No. : +92 21 3537 2982-4 and +92 21 35
Fax No. : +92 21 35863029
e-mail : info@sswmb.gos.pk
Website : www.sswmb.gos.pk

2.2. Language of Proposal and Correspondence

All documents/ proposal and respective correspondence shall be made / prepared in English Language.

2.3. Method of Procurement.

International competitive bidding under SPP Rules 2010 (Amended 2013)

2.4. Period of Contract.

Seven (07) Years after issuance of Work Order extendable for further Three (03) Year based on mutual written consent of contractor and client and on performance of contractor and on same terms and conditions.

2.5. Pre-Proposal Meeting/Pre-Bid Meeting

Pre-proposal meeting will be held on _____ 2015 at _____ hours at the office of the SSWMB.

2.6. Clarification, Modification of Bidding Document

Contractor/bidder may request a clarification of RFP Documents not later than 07 days before the proposal submission date. Any request for clarification, must be sent in writing to the Procuring Agency address. The procuring agency will respond in writing including explanation to the queries to all bidders/contractors, should the procuring agency deem it necessary to amend the RFP as a result of a clarification. It shall be done according to the concerned clause mentioned in this section.

2.7. Visit of the Area of Service/site visit.

- a. The bidder are advised to visit the area of service/site of works and its surroundings and obtained all informations that may necessary for preparing their proposal/bid, and to acquaint themselves with the area, the existing system, the vehicles, offices, workshops and workforce of the existing system of Solid Waste Management of District (West), however the contractor/bidder can do so at their own expenses.
- b. The bidders and any of their personnel or agents will be granted permission by the procuring agency to enter upon his premises and lands for the purpose of such inspection, but only upon the express condition that the bidders, their personnel and agents, will release and indemnify the procuring agency, his personnel and agents from and against all liability in respect thereof and will be responsible for death or personal injury, loss of or damage to property and any other loss, damage, costs and expenses incurred as a result of such inspection.
- c. All the interested firms/bidder are advised to carried out a comprehensive survey of the Zone of the project area and come up with a very practicable strategy and project proposal in order to minimize complications during implementation.

2.8. Utilization of Existing Workforce on SWM of DMC West (mandatory)

- a) It is mandatory upon the contractor/bidder to utilize the transferred staff out of the existing SWM workforce of DMC West under this contract. The proposal must include the utilization plan for existing workforce.
- b) Zone wise detailed of staff, their grade wise salaries and cadre of service are given in Annexures. However, it should be clear that around 1000 employees (plus minus 10%) shall be transferred on detailment basis to the contractor. The approximate salary paid to them by the DMC (West) would be around Pak Rs.300 million. The bidder must keep this in mind and must separately give a proportionate discount in the Tipping Fee proposed.

- c) If need arises, the procuring agency, at its discretion, may ask the contractor to take up services of more than 1000 employees out of the existing workforce of sanitation/SWM Department of DMC West. In this case salaries of these additional employees shall be payable by the contractor and shall be deducted/adjusted from monthly bill of the contractor.
- d) The Contractor/bidder however may be allowed to select the workforce (Field & Office Staff) on the basis of fitness and willingness basis.
- e) The workforce will be provided to the contractor/bidder on detailment basis by the procuring agency for the period of contract.
- f) The contractor/bidder will pay 25% (Twenty Five Percent) detailment allowance on their running basic pay directly to the workforce provided to the contractor on the basis of their performance.
- g) The detailment allowance must be paid to each individual through his or her bank account only and not through open cheque, cross cheque or in the form of cash amount. The details of such allowance so paid must be provided to the procuring agency mentioning the Name, Father's/Husband's Name, Employee No., Amount of allowance and his/her performance at the work.
- h) The Detailment allowance shall be calculated on the basis of Running Basic Salary of the individual worker provided to contractor.
- i) The contractor will provide 48 Nos. of soaps and 24 Nos. of dusters per year to the individual workforce of grade 01 to 07 against an acknowledgement receipt, copy of which to be provided to the procuring agency.
- j) Casual Leave as admissible under the Sindh Local Council Leave Rules will be granted to the individuals on the request in writing by any individual workforce. Detail of the same shall be provided to the procuring agency in writing.
- k) The contractor/bidder shall pay one honorarium of Rs.1,500/- to the individual of workforce of grade 01 & 02 of service cadre of Sanitary Workers, Muqaddam and Motor Coolie and one honorarium of Rs.2,000/- to the individual workforce of grade 05 to 07 of service cadre i.e. Drivers and Heavy Drivers. The honorarium is to be paid on the occasion of EidUIAzha.
- l) A committee will be constituted by SSWMB comprising of the officers of SSWMB and nominated persons of successful bidder for the purpose of redressal of any dispute that arises between contractor/bidder and the workforce.

- m) The cases of Earned Leave or Medical Leave requested by any individual of workforce must be sent immediately to the committee or authorized officer for necessary action. The committee or authorized officer will decide that either detailment of such individual is cancelled or the leave is granted as per the Sindh Local Council Leave Rules. The decision of the committee shall be final and conclusive.
- n) The Contractor may reject any or some individual workforce if contractor considers that they are unwilling to work with the contractor or if not satisfied with their performance. In case that workforce made available to contractor carries out strikes contrarily to law, the contractor shall immediately inform the procuring agency of this act of misconduct by the workforce. The committee formulated by the SSWMB for the purpose to resolve issues of workforce will take appropriate action in this regard and the decision of the committee shall be conclusive and binding to the workforce and the contractor.
- o) The lien of workforce so provided to the contractor on detailment will however remain with the Parent Department or Procuring agency.
- p) The contractor must account for the costs incurred on the benefits and allowances of the workforce provided to the contractor in their financial proposal/bid cost in the manner described under the contract document or as decided by the Procuring agency before the final agreement.
- q) The contractor shall recruit and provide staff and workers in addition to the workforce of DMC West, to fulfill the requirements to take up the scope of work satisfactory as mentioned in the contract/RFP Document.
- r) For further detail regarding utilization of existing workforce of DMC West reference be made to technical specification of RFP document

2.9. Utilization of Existing Solid Waste Collection and Transportation Vehicles of DMC West (Optional)

- i. The Contractor may inspect the existing fleet that DMC can spare and decide to take over.
- ii. A Joint Committee will assess the value of the vehicles and that amount will be then recovered in equal installments during first three years of the contract and adjusted from the monthly bill of the tipping fees.
- iii. In addition to these 20% vehicles from DMC (West), the contractor may acquire 10% of the total vehicles on lease but all vehicles must be revamped and improved in an environment friendly manner by the contractor on his own expense.

- iv. The contractor / bidder will however ensure balance 70% of the fleet of vehicles for new standard solid waste machinery purchased and owned by the contractor in view of the requirement as suggested in this document.

2.10. Utilization of Existing Facilities i.e. Workshop, Offices of DMC West

The contractor may utilize existing offices in the area of respective UCs of the Zone and the central workshop of DMC West, however this facility shall be provided to the contractor on the basis and such terms and conditions as defined and set out in the contract agreement

The contractor will responsible to keep these offices, workshop hander over to them in neat, clean and well maintained conditions throughout the contract period.

No major addition, alteration in existing structure shall be allowed. The contractor shall be responsible for the payments of all utility bills in respect of theses offices and workshop on due dates and a copy of the same shall be submitted to procuring agency.

Area, Location of workshop and offices is mentioned in the annexures.

2.11. Amendments through Addendums

At any time before submission of proposal the procuring agency may amend the RFP by issuing an addendum in writing. The addendum shall be sent to all contractor / bidders and will be binding on them. The contractors shall acknowledge receipt of all addendums issued by the procuring agency. To give reasonable time to contractor to take in to account these amendments in their proposal, the SSWMB may, if the amendment is substantial, extend the deadline for submission of proposal. Amendments so made shall form binding on the bidders and will be part of this document.

2.12. Cancellation of Tender before Tender Time

Cancellation of tender/proposal before submission date & time if the matter are found in the tender document which are not possible to be corrected or in case where procuring agency find if necessary, the tender may be cancelled before last hours of submission of tender. If tender is cancelled all submitted tender documents shall be deemed to be rejected and returned to the contractors without being opened. The bidder/contractor will not be entitled to make any claim from procuring agency due to cancellation of tender.

2.13. Proposal Preparation /Cost of Bidding.

The bidders shall bear all costs associated with the preparation and submission of their respective proposals/bids, and the procuring agency will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

2.14. Bid submitted by a Joint Venture/Consortium.

Bids submitted by a joint venture/consortium of two (2) or more firms shall comply with the following requirements:

- (a) one of the joint venture/consortium partners, lead firm shall be nominated as being in charge; and this authorization shall be evidenced by submitting a power of attorney signed by legally authorized signatories of all the joint venture/consortium partners/firms;
- (b) the bid, and in case of a successful bid, the Form of Contract Agreement shall be signed by the authorized partner so as to be legally binding on all partners/firms;
- (c) the firm/partner-in-charge shall always be duly authorized to deal with the procuring agency regarding all matters related with and/or incidental to the execution of works as per the terms and Conditions of Contract and in this regard to incur any and all liabilities, receive instructions, give binding undertakings and receive payments on behalf of the joint venture/consortium;
- (d) all partners of the joint venture/consortium shall at all times and under all circumstances be liable jointly and severally for the execution of the contract in accordance with the contract terms and a statement to this effect shall be included in the authorization mentioned under Sub-Para (a) above as well as in the Form of Bid and in the Form of Contract Agreement (in case of a successful bid);
- (e) a copy of the agreement entered into by the joint venture/consortium partners shall be submitted with the bid stating the conditions under which it will function, its period of duration, the persons authorized to represent and obligate it and which persons will be directly responsible for due performance of the contract and can give valid receipts on behalf of the joint venture/consortium, the proportionate participation of the several firms forming the joint venture/consortium, and any other information necessary to permit a full appraisal of its functioning. No amendments / modifications whatsoever in the joint venture/consortium agreement shall be agreed to between the joint venture/consortium partners without prior written consent of the procuring agency;
- (f) submission of an alternative Letter of Intent to execute a Joint Venture/consortium Agreement shall be mandatory.

- (g) Bidders shall also submit proposals of work methods and schedule, in sufficient detail to demonstrate the adequacy of the bidders' proposals to meet the technical specifications and the timely completion as per schedule each day, each month and every year of the contract till completion of the contract successfully

2.15. Place, Date, Time and Manner of Submission of Tender/Bid Document/RFP

- i) The bidder/contractors are required to submit their proposal/bid at the office of Sindh Solid Waste Management Board not later than _____ 2015 at _____ hours (Local Time).
- ii) The Contractors/bidders must submit their proposal/bid under **single stage two envelop procedures** of SPP Rules. Proposal Bid shall comprise a single package containing two separate sealed envelopes. Each Envelop shall contain separately the Technical/operational proposal and the financial proposal.
- iii) Envelopes shall be marked as Technical/Operation proposal and Financial Proposal in bold and eligible letters.
- iv) The package (Outer Envelop) containing the envelopes shall be marked as proposal for Front End Collection and Disposal of Municipal Solid Waste for DMC West Karachi Division in Bold and legible letters.
- v) The package (outer envelope) shall also be marked the submission address of the Proposal/Bid and Name, Address of Contractor/Bidder.
- vi) The Package (Outer Envelop) shall be sealed, signed and stamped by the contractor or its authorized representative.
- vii) Submitted tender shall not be retrieved or changed for any reason whatsoever.
- viii) Proposal/Bid shall be submitted by hand or may be sent by registered airmail post. Proposals/ bids that are not submitted until due date and time of the submission of proposals/bid will not be considered.
- ix) Where delivery of bid is made by registered mail and the contractor/bidder desired to receive an acknowledgement of receipt of such bid, he shall make a request for such acknowledgement in a separate letter attached to the package (outer envelope) but will not be a part of sealed envelope.
- x) Upon request, acknowledgment of receipt of bids will be provided to those making delivery in person or by representative.

- xii) Bid submitted through telegraph, telex, fax or e-mail will not be considered.
- xiii) Each page of the proposal/bid document must be signed by the contractor/bidder. In case the proposal/bid document is signed by the authorized representative of the contractor then, the authorization shall be in the form of written power of a attorney accompanying the proposal or in any other form demonstrating that the representative has been duly authorized to sign.
- xiv) The procuring agency at his discretion, extend the deadline for submission of bids/proposals by issuing an addendum notified in newspaper. All rights and obligations of procuring agency and the contractor will thereafter be subject to the deadline as extended.
- xv) The Technical/operational proposal shall not include any financial information. A Technical proposal containing financial information may be declared non responsive.

The technical proposal shall provide the information as indicated in the following Para.

- a) A brief introduction of contractor's organization and an outline of recent experience of contractor (each, partner in case of joint venture) on assignments of similar nature.
- b) A description of the approach and methodology for performing the assignment covering the following subject, technical approach, methodology, organization and staffing.
- c) The list of the proposed professional, staff team by area of expertise, the position that would be assigned to each staff members and their tasks.
- d) While preparing the technical proposal, contractor must give particular attention to the following:
If the contractor considers that it may enhance its expertise for technical operational management and monitoring parts for the assignment to accomplish in a best suited way and in accordance to the requirement of RFP Document he may associate with other contractors/firms. Any such association must clearly indicated in the technical proposal. In case of joint venture, all partners shall be jointly and severally liable, and shall indicate the lead firm of joint venture.
- e) Alternative professional staff shall not be proposed and only one curriculum vitae (CV) may be submitted for each position.

- f) Comments and suggestions may be given on the terms of reference including workable suggestions that could improve the quality, effectiveness of assignments and on requirement of the DMC (West) workforce, machinery and facilities including administrative support, office, workshop and rehabilitation scavengers and any other. However client is not bound to consider the suggestions as whole or partially or otherwise as indicated in RFP Document.
- xv) The financial proposal shall include all cost
- a) Associated with scope and performance of work, management and operational cost, remuneration for staff monitoring system and other incidental charges business taxes, income tax, local & provincial taxes, professional taxes, duties, fees, that may levied according to the laws and regulation in being prior to the closing date of submission of proposal and taxes and fees on the equipment, and machinery required and on services performed under this contract. Nothing in the contract shall relieve the contractor/bidder from his responsibilities to pay taxes that may be levied on the profit made to him in respect to contract.
 - b) The financial proposal shall contain NO OVERWRITING, CORRECTION and CUTTINGS, the contractor or his authorized representative who signed the proposal must initial such corrections, overwriting and cuttings.
 - c) The contractor/bidder is required to quote the cost of every work item and total cost of works correctly in figure and words. The price and cost of works and services under this contract must be expressed in USDollars (\$).
 - d) Bid Security equal to 1% (one percent) of total bid amount in the shape described in clause 2.24 will be attached with financial proposal No Cheque, Demand Draft or Insurance Guarantee shall be accepted as bid security.
 - e) All the cost towards allowances of the workforce transferred by procuring agency to the contractor shall be incorporated in the financial proposal.

2.16. Currency Unit of Offers and Payments

The bidder shall quote the bid price for each work, item (Services) and the total bid amount in US Dollar (\$) and the interim/running monthly bill payment will be made to contractor in Pakistani Currency at the conversion/exchange rate declared by the State Bank of Pakistan on the date of submission of interim/running monthly bills.

For the conversion of total bid amount and the amount of the each item of work & services given in BOQ, the rate of exchange shall be the exchange

rate declared/notified by State Bank of Pakistan prevailing 28 (Twenty Eight) days before the date of opening of the bid specified in bidding document.

2.17. Conditional and Partial Offers

Contractor / bidder are hereby cautioned that proposal with conditional offers or deviation from the conditions and instructions contained in RFP Document or other requirement stipulated therein shall result in rejection of proposal /bid as non responsive and shall not be considered. Partial offers are not acceptable under this contract. Acceptance shall only be granted for complete job.

2.18. Alternative Proposal not Acceptable. One Bid per Bidder

Alternative proposal not acceptable only one proposal fulfilling all conditions, instructions and requirement contained in RFP should be submitted by each bidder. Alternative proposal shall not be entertained. Each bidder shall submit only one bid either by himself, or as a partner in a joint venture/consortium. A bidder who submits or participates in more than one bid will be disqualified.

2.19. Eligible Bidder.

This Invitation for Bids is open to all interested bidders who are eligible under provisions of Sindh Public Procurement Rules as mentioned below and the criteria given in the Notice Inviting Tender (NIT)/ Bidding Document.

Firms and individuals, national or international, may be allowed to bid for the work. Any conditions for participation shall be limited to those that are essential to ensure the bidder's capability to fulfill the contract in question.

- (a) Bidders may be excluded if;
 - (i) as a matter of law or official regulations, commercial relations are prohibited with the bidder's country by the federal government, or
 - (ii) a firm is blacklisted/ debarred by the procuring agency and the matter has been reported to the Authority, subject to Rule 30 of Sindh Public Procurement Rules 2010.
- (b) Government-owned enterprises or institutions may participate only if they can establish that they are;
 - (i) legally and financially autonomous, and
 - (ii) operate under commercial law.

Provided that where government-owned universities or research centers in the country are of a unique and exceptional nature, and their participation is critical to project implementation, they may be allowed to participate; and Bidders shall include all those contractors who are registered or incorporated in Pakistan, irrespective of the nationality of their owners and professional staff, and

(c) Bidders are:-

- (i) registered with Pakistan Engineering Council in CB or CA (No Limit) category and discipline, CE10 or CE01 and ME06 or ME05 (A foreign bidder is entitled to bid only in a joint venture/consortium with Pakistani firm in accordance with relevant provision of PEC by laws.
- (ii) registered with relevant tax authorities (income/sales tax, wherever applicable)

2.20. Disqualification for Participating in Tender

Contractor or sub contractor cannot participate in tender in any manner directly or indirectly, in their name or in the name of any other person or firm.

- a. Those who are prohibited to participate in tender by any Govt. institution, authority and those who prohibited by law due to having any criminal record or conviction.
- b. Those who have been declared bankrupt by the authorities or have filed bankruptcy.
- c. Those who have been declared or announced as an insolvent by court of law or tribunal or any other authorities or institution.
- d. Those who are under liquidation.
- e. Those whose affairs are run by any tribunals.
- f. Those who are under settlement with any financial institution or creditors.
- g. Those who have suspended their affairs or those who are in similar position as per the law of their country.
- h. Those who have been declared defaulter of social security contribution or premium payments under the law of Pakistan or as per law of their country.
- i. Those who have been declared defaulter of taxation or revenue department for nonpayment of income tax, sales tax, customs duties, or any other tax levied from time to time in Pakistan or as per law of their country.

- j. Those who have been condemned by decision of any court or law or tribuna because of their non professional or unethical activities or professional malpractices.
- k. Those who have been determined by any institution or organization or authority or agency for adopting or performing non professional attitude or unethical or immoral activities or professional malpractices and such determination resulted from administering them during their jobs.
- l. Those who do not provide the required information or provided misleading or false representation or deliberately suppressed the information to be provided as required in RFP Document.
- m. Those who have been prohibited from professional activity by the Chamber of Commerce in Pakistan or any other equivalent body established for same purpose in the country where they are registered before the date of submission of the bid.
- n. The contractors/bidders who are the blacklisted by Federal Govt., Provincial Govt., Autonomous Bodies and State Bank of Pakistan.

2.21. Exclusion Prohibition and Acts forbidden

The contractor/bidder shall be excluded from participating in tender under following circumstances.

- a. Those who are authorized by procuring agency in any way for preparation of RFP and the committees set out by the procuring agency in this regard.
- b. Those who are authorized by the procuring agency to finalize and to approve the tender process.
- c. The institutions established, with whatsoever reason, in relation with the procuring agency or existing structure of the procuring agency and institution such as foundation, association, union and the companies associated with the procuring agency.
- d. Those firms and companies who are rendering the advisory or consultancy services in preparation of RFP Document.
- e. The following acts and attitude are forbidden in the tender:
 - i. To rendered the activities of other participants doubtful, to obscure them from participation in the tender or to offer an agreement to the participant or to influence them to act in a manner, which will effect the other participant or tender process

- ii. The act and attitude towards fraud, threat, influence, bribery or by any other way to win the tender.
- iii. To issue and use false documents regarding Bid Security or Performance Security etc.
- iv. More than one offer in the tender directly or indirectly in the name of themselves or in the name of others, as in person or in mandate.

The Contractor who participate inspite of these disqualification, prohibitions and exclusions shall stand excluded and their bid security shall be forfeited.

2.22. Subcontracting and Responsibilities.

Bidders/contractors may execute subcontracts for services up to 30% (Thirty Percent) of the total services for each job of solid waste management collection/transportation, door to door collection, manual and mechanical sweeping and mechanical washing and other services which are covered under this RFP Document, subject to approval of SSWMB. The contractor/bidder is responsible for performance of subcontractors to the procuring agency.

2.23. Bid Validity.

Validity period of proposal / bid is 120 (One Hundred and twenty) calendar days following the last date of submission of RFP/Bid Document. Bidder/Contractor may be requested to extend the validity period in writing, and consent of the bidder shall be obtained. If applicants do not agree in such extension bid security of the applicant will be returned.

2.24. Bid Security.

The bidders are required to furnish a bid security equal to 1% (One percent) of total bid amount in the currency in which the bid is priced/quoted, which shall remain valid for a period of 28 (twenty eight) days beyond the validity period of the bid.

The proposal must accompanied with a bid security equal to 1% (one percent) of the contract price in the currency in which the bids is priced/quoted in the form of bank draft / payorder or in the shape of bank guarantee from any scheduled bank of Pakistan in favour of SSWMB.

2.25. Responsiveness of Bid to Bidding Document/RFP.

In preparing their proposals contractors are expected to examine in detail the document comprising the RFP. Material deficiencies in providing the information requested in the RFP document may result in rejection of a proposal as non responsive.

Prior to detailed evaluation of Bid the procuring agency will determine the substantial responsiveness of the bid to bidding document. A substantially responsive bid is one which confirms to all the conditions of bidding document without material deviation.

A material deviation is one

- i) Which effects in any substantial way the scope, quality or performance of works and services.
- ii) Which is inconsistent with bidding document/RFP and limits in any substantial way, procuring agency rights or the obligation of the contractor/bidder under the scope of work or restriction/adoption of such conditions that would effect unfairly the competitive position of the bidder presenting substantially responsive bid.

2.26. Examination of Bids and Determination of Responsiveness.

- a. Prior to the detailed evaluation of bids, the procuring agency will determine whether the bidder fulfills all codal requirements of eligibility criteria given in the tender notice such as registration with tax authorities, registration with PEC, turnover statement, experience statement, and any other condition mentioned in the NIT and bidding document. If the bidder does not fulfill any of these conditions, it shall not be evaluated further.
- b. Once found to be fulfilling the eligibility criteria, as mentioned in sub-clause a. and in clause 2.19, the bids of eligible bidders will be evaluated for technical responsiveness as per specification and criteria given in the bidding documents. Technical and financial evaluations may be carried out in accordance with, single stage-two envelopes, bidding procedures.
- c. A bid will be considered technically responsive if it (i) has been properly signed; (ii) is accompanied by the required bid security in the manner described in the bid document; and (iii) conforms to all the terms, conditions and specifications of the bidding documents, without material deviation or reservation. A material deviation or reservation is one (i) which affect in any substantial way the scope, quality or performance of the works; (ii) which limits in any substantial way, inconsistent with the bidding documents, the procuring agency's rights or the bidder's obligations under the contract; or (iii) adoption/rectification whereof would affect unfairly the competitive position of other bidders presenting substantially responsive bids.

- d. If a bid has major deviations to the commercial requirements and technical specifications will be considered technically non responsive. As a general rule, major deviations are those that if accepted, would not fulfill the purposes for which the bid is requested, or would prevent a fair comparison or affect the ranking of the bids that are compliant with the bidding documents.

(A). Major (material) Deviations include:-

- (i) has been not properly signed;
- (ii) is not accompanied by the bid security of required amount and manner;
- (iii) failing to respond to specifications;
- (iv) failing to comply with Mile-stones/Critical dates provided in Bidding Documents;
- (v) sub-contracting contrary to the Conditions of Contract specified in Bidding Documents;
- (vi) refusing to bear important responsibilities and liabilities allocated in the Bidding Documents, such as performance guarantees and insurance coverage;
- (vii) taking exception to critical provisions such as applicable law, taxes and duties and dispute resolution procedures;
- (viii) a material deviation or reservation is one :
 - (a) which affect in any substantial way the scope, quality or performance of the works;
 - (b) adoption/rectification whereof would affect unfairly the competitive position of other bidders presenting substantially responsive bids.

(B) Minor Deviations

Bids that offer deviations acceptable to the Procuring Agency and which can be assigned a monetary value may be considered substantially responsive at least as to the issue of fairness. This value would however be added as an adjustment for evaluation purposes only during the detailed evaluation process.

- e. If a bid is not substantially responsive, it will be rejected by the procuring agency, and may not subsequently be made responsive by correction or withdrawal of the non-conforming deviation or reservation.

2.27. Return of Bid Security.

- a. The bid security of the contractor / bidder who is awarded the work shall be retained and the bid security of other bidders shall be returned (in the shape it is deposited) after award to successful bidder.
- b. Bid security of the successful bidder (to whom the contract is awarded) will be returned upon submission of performance security. (in the shape it is deposited)

2.28. Forfeiture of Bid Security.

The bid security may be forfeited

- a. If the contractor/bidders withdraw his bid during the period of bid validity.
- b. If the contractor/bidders does not accept the correction of his bid price.
- c. If the successful bidders fails
 - a. To furnish required performance security
 - b. To sign the agreement

2.29. Proposal/Offers to be non responsive without bid security.

Proposal/offers which are not accompanied with required amount of bid security in the shape noted above will be rejected as non responsive.

2.30. Evaluation Criteria

Criteria, sub-criteria and point system for evaluation of technical proposal are as under:

1.	Company Profile	Marks
1.1	Number of Similar assignment /work completed by contractor during last five years	5
1.2	Value of Similar Assignment/works	10
1.3	Value and Numbers of appropriate Solid Waste Machinery owned by the company	10
1.4	Organization Structure/Relevant Experience of the firm	5
1.5	Networth (Financial) of the contractor including bank financing not less than one billion rupees.	10
	Sub Total	40
2	Technical/Operational approach & Methodology.	Marks
2.1	Approach & Methodology for the works & services	10
2.2	Responsiveness to RFP	10
2.3	Goal Oriented Work Plan	15
	Sub Total	35
3	Technical/Operational & Operational Team	Marks
3.1	Education & Qualification	10
3.2	Relevant background	10
3.3	Time expend with the contractor	5
	Sub Total	25
	Grand Total	100
The Minimum Technical Score to qualify is 75 Marks		

2.31. Manner Place, Date and Time of Opening of Bid

- a. The proposal/bid will be opened on _____ 2015 at _____ hours by the Tender Opening Committee at the office of Sindh Solid Waste Management Board.

- b. Initially, only the envelope marked "Technical/Operational Proposal" shall be opened.
- c. The enveloped marked "Financial Proposal" shall be retained in the custody of client without being opened
- d. The evaluation committee of the procuring agency shall evaluate the technical/operational proposals on the basis of their responsiveness to RFP, applying the evaluation criteria, sub-criteria and point system specified in RFP Document without reference to the price. Any proposal which is found non responsive shall be rejected at this stage and particularly if the proposal fails to achieve the minimum technical score indicated in RFP document. No amendment in technical proposal shall be permitted during technical evaluation.
- e. After the technical evaluation is completed, the procuring agency shall inform the contractor/bidders, the technical scores obtained by their technical proposals and shall notify those contractor/bidder whose proposal did not meet the minimum qualifying marks or work considered non responsive to the RFP and their proposal will be returned unopened after completing the selection process.
- f. The procuring agency shall simultaneously notify in writing to the contractor that have secured the minimum qualifying marks and that the date and time and location for opening of financial proposals.
- g. The financial proposals shall be opened publically in the presence of contractor or their representative who chose to attend.
- h. Rectification of arithmetical errors will be made on the basis that if there is discrepancy found between the unit price and total price, that is obtained by multiplying the unit price and the quantity, the unit price shall prevail and the total price shall be corrected accordingly.
- i. If there is the discrepancy found between words and figure, the amount in words shall prevail.

2.32. Preliminary Examinations and Determination of Responsiveness of Bid prior to detailed evaluation of Bid.

1. The procuring agency will examine the bid whether:
 - a. The bid is complete and does not deviate from the scope of work for any computational error.
 - b. That required securities are furnished.
 - c. The documents have been properly signed.
 - d. That the bid is valid till the required period.
 - e. That bid does not deviate from basic technical requirement.

- f. That the bids are generally in order.
2. The Tender Proposal shall be rejected and not considered:
- a. If each page of the proposal/bid is not signed by bidder.
 - b. If its validity is less than specified period.
 - c. If it is submitted for incomplete scope of work.
 - d. If it is conditional and contained alternative proposals.
 - e. If it indicate that bid price not inclusive the amount of all taxes, incidental charges.
 - f. If not accompanied with bid security
 - g. If bidder participated in more than one bid.
 - h. If received after the deadline for submission of bid.
 - i. If submitted through Fax, Telex, Telegram or e-mail.

2.33. Clarification of Bid.

In examination, evaluation and comparison of bids the procuring agency may at his discretion ask the contractor/bidder for clarification of his bid. The request for clarification and response shall be in writing and no change in price or substance of bid shall be sought, offered or permitted. No bidder shall be allowed to alter or modify his bid after the expiry of deadline for the receipt of the bid.

2.34. Correction of Errors before Financial Evaluation.

- l) Bids determined to be substantially responsive will be checked by the procuring agency for any arithmetic errors. Errors will be corrected by the procuring agency as follows:
 - a. where there is a discrepancy between the amounts in figures and in words, the amount in words will govern; and
 - b. where there is a discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by the quantity, the unit rate as quoted will govern, unless in the opinion of the procuring agency there is an obviously gross misplacement of the decimal point in the unit rate, in which case the line item total as quoted will govern and the unit rate will be corrected.

- ii) The amount stated in the Form of Bid will be adjusted by the procuring agency in accordance with the above procedure for the correction of errors and with the concurrence of the bidders. The amount thus corrected shall be considered as binding upon the bidder. If the bidder does not accept the corrected bid price, his bid will be rejected, and the bid security shall be forfeited in accordance with clause 2.28 hereof

2.35. Financial Evaluation and comparison of Bids

- i. The procuring agency will evaluate and compare only the Bids determined to be substantially responsive in accordance with clause 2.26.
- ii. In evaluating the Bids, the procuring agency will determine for each bid the evaluated bid price by adjusting the bid price as follows:
 - (a) making any correction for errors pursuant to clause 2.34;
 - (b) making an appropriate adjustment for any other acceptable variation or deviation.
- iii. The estimated effect of the price adjustment provisions of the conditions of contract, applied over the period of execution of the contract, shall not be taken into account in bid evaluation.
- iv. If the bid of the successful bidder is seriously unbalanced in relation to the procuring agency's estimate of the cost of work to be performed under the contract, the procuring agency may require the bidder to produce detailed price analyses for any or all items of the Bill of Quantities to demonstrate the internal consistency of those prices with the methods of performing the work and schedule proposed. After evaluation of the price analyses, the procuring agency may require that the amount of the Performance Security set forth in clause 2.36 be increased at the expense of the successful bidder to a level sufficient to protect the procuring agency against financial loss in the event of default of the successful bidder under the contract

2.36. Performance Security

- a. The successful bidder shall furnish to the procuring agency a Performance Security in the form of pay order or bank guarantee from any scheduled bank of Pakistan, and the amount stipulated in the bidding data and the Conditions of Contract within a period of 28 days after the receipt of Letter of Acceptance, but 07 days prior to expiry date of bid security.
- b. Failure of the successful bidder to comply with the requirements of Sub-clause a. or clauses 2.37 or 2.40 shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security.

- c. Validity of performance security shall extend at least seven months beyond the date of completion of contract, or as mentioned in the bidding data to cover defects liability period or maintenance period subject to final acceptance by the procuring agency.

2.37. Signing of Contract Agreement.

- 1) Within 14 days from the date of furnishing of acceptable Performance Security under the Conditions of Contract, the procuring agency will send the successful bidder the Contract Agreement.
- 2) The formal Agreement between the procuring agency and the successful bidder shall be executed within 14 days of the receipt of the Contract Agreement by the successful bidder from the procuring agency.
- 3) A procurement contract shall come into force when the procuring agency requires signs contract, the date on which the signatures of both the procuring agency and the successful bidder are affixed to the written contract.

2.38. Stamp Duty

The formal Agreement between the client (Procuring Agency) and the successful bidder shall be duly stamped at rate of 0.3% of sanctioned price and as stated in Letter of Acceptance. The successful bidder shall be responsible for payment of stamp duty.

2.39. General Performance of the bidders

Procuring agency may in case of consistent poor performance of the contractor and his failure to remedy the underperforming contract may take such action as may be deemed appropriate under the circumstances of the case including the rescinding the contract and/or black listing of such contractor and debarring him from participation in future bidding process.

2.40. Integrity Pact

The bidder shall sign and stamp the Integrity Pact provided at Annexure-10 to the bidding documents. Failure to provide such Integrity Pact shall make the bidder non-responsive

2.41. Defect Liability Period

Defect liability period shall be 06 (six) months after the date of completion and expiry of the contract agreement.

2.42. Return of Performance Security

The performance security of the contractor shall be returned after 06 (six) months (defect liability period) of completion and expiry of the contract period, upon determination that the obligation under the contract have been duly fulfilled in accordance with the provisions of contract document and agreement and the contractor has no liability to the procuring agency due to this contract. In case the liabilities of the contractor to the procuring agency and other tax amount due to the contract, then such amount shall be recovered from the amount of performance security and balance amount of the performance security shall be return to the contractor.

2.43. Retention Money.

Retention money shall be deducted from contractor's running performance bill at the rate of 5% (Five Percent) of monthly bill amount. The retention money shall be released in the currency in which it is deducted (Pak Rupees) after 12th (Twelve) running bill payments of the contractor for the work successfully executed for last twelve month. The amount due to the contractor in respect of retention money shall be released (within 60 days after end of twelve months contract period) after deduction of such amount as are required to be recovered on account of default of contractor in performing his functions, if any, under this contract.

2.44. Format Contract Agreement

Format of Contract Agreement at annexure 18.

2.45. Form of Bank Guarantee for Performance Security

Format of bank guarantee for performance security is attached at annexure 16.

2.46. Inspection of Work & Services performed by the contractor

Representative of procuring agency shall inspect the work and services performed by the contractor under the contract and any deficiencies of work and services shall be notified in writing giving warning letter to the contractor. If the contractor does not recover/remove the deficiencies indicated a penalty as per penalty clauses shall be imposed.

2.47. Letter of Acceptance.

After announcement of tender decision, letter of acceptance will be sent to successful bidder/contractor, inviting for signing of agreement the contract agreement shall be signed within 14 (fourteen) days following the date of letter of acceptance.

2.48. Arbitration

Any dispute that is not amicably resolved shall be finally settled, unless otherwise specified in the Contract, under the Arbitration Act 1940 updated from time to time and would be held anywhere in the Province of Sindh at the discretion of procuring agency.

2.49. Information Related to Contractor / Bidder

- a. Contractor/Bidder Full Name _____
- b. Address _____
- c. Telephone No. _____
- d. Fax No. _____
- e. E-mail Address. _____

2.50. Bidding Data

<u>Bidding Data</u>		
Srl#	Data	
1	Name of Work	Front End Collection and Disposal of Municipal Solid Waste for Zone West (DMC West Area) Karachi, Sindh, Pakistan.
2	The Name of Procuring Agency's Official	Executive Director-I SSWMB
	Address	Bungalow No. D-47 Block-2, Clifton, Karachi, Pakistan.
	Telephone#	+92 21 35372982-4
	E-mail	info@sswmb.gos.pk
	Facsimile	+92 21 35863029
	Website	www.sswmb.gos.pk
3	Procedure of open competitive bidding (International Competitive Bidding – ICB)	Single Stage – Two Envelop Procedure <ol style="list-style-type: none"> a. Proposal shall comprise a single package containing two separate sealed envelopes. Each envelop shall contain, separately the Technical/Operational Proposal & Financial Proposal. b. The package (Outer Envelop) shall be clearly marked the name of the Proposal, date and time of submission and the address and place of the submission and name and address of the contractor/bidder c. The package (Outer envelop) containing the two envelopes must be sealed, signed and stamped by the contractor or its authorized representative.
4	Proposal shall be submitted by hand or may be sent by registered airmail. Proposal submitted through telegraph, telex, fax or e-mail will not be considered.	

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5	Financial Proposal to be submitted with Technical Proposals.
6	Pre-proposal/Pre bid meeting will be held at the office of SSWMB-Bungalow No. D-47, Block-2 Clifton, Karachi, Pakistan
7	The proposal/bid submission address is at the office of SSWMB Bungalow No. D-47 Block-2 Clifton, Karachi, Pakistan. Proposal must be submitted no later than the following date & time.
8	Proposal must remain valid for 120 (One Hundred and Twenty) days after the proposal/bid submission deadline
9	Bid Security Bid security equal to 1% of total Bid amount will be attached with financial proposal in the form of Payorder, Demand Draft or Bank Guarantee in favour of SSWMB. The bid security shall remain valid for a period of 28 days beyond validity period of the bid. Bid security shall be submitted in the same currency as that in which the bid is priced/quoted.
10	Clarification may be requested not later than 7 (Seven) days before the submission date. The address for requesting clarification is Executive Director-I Sindh Solid Waste Management Board Karachi Division, Bungalow No. D-47 Block-2 Clifton, Karachi Pakistan e-mail info@sswmb.gos.pk , Facsimile +92 21 35863029
11	The proposal as well as all related correspondence exchange by the Contractor/Bidder and procuring agency shall be written in English however it is desirable that the firm's personnel have a working knowledge of the national and regional languages of Islamic Republic of Pakistan.
12	Alternative proposals are not acceptable, only one proposal fulfilling all conditions, instructions and requirement contained in RFP should be submitted by each bidder. Alternative proposal shall not be entertained.
13	Valid Registration Certificate of the following Authorities must be attached with the proposal . a. Pakistan Engineering Council in category CB or CA (No Limit) and Discipline CE10 or CE01 & ME06 or ME05 b. Tax Authorities & NTN No.
14	The Contractor/Bidder should quote the cost for each item of works under this contract and total bid price in US Dollars and interim payment/running bill payments shall be made in Pak Rupees (conversion/exchange rate declared by the State Bank of Pakistan shall be applicable of the date of submission of interim bill/monthly running bill for payment.
15	The Contractor/Bidder should quote the cost for each item of works inclusive of all National, Provincial, Local taxes, duties, expenses, contingencies and incidental charges.
16	Contractor/ Bidder must submit the original Technical/Operational Proposal, and the original of the Financial Proposal.
17	Successful Contractor/Bidder is required to submit performance security at 1% (one percent) of the contract amount in form of pay order or bank guarantee in favour of Sindh Solid Waste Management Board, in the currency in which the bid is priced/quoted.
18	Contractor/bidder shall undertake to sign Integrity Pact as per Format provided by SSWMB under this contract.

Section III

Description of Zone West (DMC West Area)

Description of Zone West (DMC West Area)**3.1. Orangi Zone- Brief Description**

Orangi Zone is in the south west of Karachi city and adjacent to the west part of Baldia Zone, the total area of the zone is about 20.90 KM² and the population according the population statistics of 1998 is 721694 persons and in view o growth rate 5% per annum, the population of this zone is 1648268 persons/km in the year 2015. The average population density of the zone is 78827 persons / KM². Orangi zone is near to the existing Gondpass landfill site while the far most union council of the zone i.e. UC-12 is only 10 KM away from it. Thus MSW of each UC of Orangi Zone will be transported to Gondpass landfill site directly. The MSW generation in orangi zone is large due to its population density per KM². Orangi Zone is congested and mostly undeveloped in way of Katchiabadi comprising of small housing units, in fact Orangi Zone is a big Katchiabadi. It may be considered as a congested and compacted unit, while planning for MSW collection and transportation.

The details of Municipal Solid Waste generation in each UC of the Zone, its population and other details are given in Annexures.

3.2. Demographics.

The Orangi Zone belongs to low to middle income group very congested comprising of small housing units, small home industries exist coming in most of its union councils, except peripheral and connecting roads, other internal and link roads and lanes are narrow in general.

The zone comprises of following UCs:

UC No.	UC Name	UC No.	UC Name
1	Mominabad	8	Bilal Colony
2	Haryana Colony	9	Iqbal Baloch Colony
3	Hanifabad	10	Gobal Colony
4	Muhammad Nagar	11	Data Nagar
5	Madina Colony	12	Mujahidabad
6	Ghaziabad	13	Baloch Goth
7	Chushti Nagar		

UC-1 Mominabad

The UC-1 Mominabad consist of following localities/areas, the infrastructural condition, housing Units type, income group and name of localities in the area are detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Mominabad	Undeveloped	Low to Middle	80 & 120 Sq Yards	
2	Zia Colony	Undeveloped	Low to Middle	80 & 120 Sq Yards	
3	Mujahid Colony	Undeveloped	Low to Middle	80 & 120 Sq Yards	
4	Qaid-e-Awam Colony	Undeveloped	Low to Middle	80 & 120 Sq Yards	
5	Agarwar Colony	Undeveloped	Low to Middle	80 & 120 Sq Yards	
6	Khaber Colony	Undeveloped	Low to Middle	80 & 120 Sq Yards	
7	Bijji Nagar	Undeveloped	Low to Middle	80 & 120 Sq Yards	
8	Islam Nagar	Undeveloped	Low to Middle	80 & 120 Sq Yards	
9	Kashmir Nagar	Undeveloped	Low to Middle	80 & 120 Sq Yards	

UC-2 Nasir Colony/Qayumabad

The UC-2 Haryana Colony consist of following localities/areas, the infrastructural condition, housing Units type, income group and name of localities in the area are detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Faqir Colony	Undeveloped	Low to Middle	80 & 120 Sq Yards	
2	Haryana Colony	Undeveloped	Low to Middle	80 & 120 Sq Yards	
3	Bismillah Colony	Undeveloped	Low to Middle	80 & 120 Sq Yards	
4	Shah Muhallah NO.01	Undeveloped	Low to Middle	80 & 120 Sq Yards	
5	Shah Muhallah NO.02	Undeveloped	Low to Middle	80 & 120 Sq Yards	
6	Qayaum Khani Muhallah	Undeveloped	Low to Middle	80 & 120 Sq Yards	
7	Usmani Muhallah	Undeveloped	Low to Middle	80 & 120 Sq Yards	
8	Hazarvi Muhallah	Undeveloped	Low to Middle	80 & 120 Sq Yards	

UC-3 Hanifabad

The UC-3 Hanifabad consist of following localities/areas, the infrastructural condition, housing Units type, income group and name of localities in the area are detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Al Farooq Society	Undeveloped	Low to Middle	80 & 120 Sq Yards	
2	Arshi Muhallah	Undeveloped	Low to Middle	80 & 120 Sq Yards	
3	Hanifabad	Undeveloped	Low to Middle	80 & 120 Sq Yards	
4	Kashmir Muhallah	Undeveloped	Low to Middle	80 & 120 Sq Yards	
5	Miraj un nabi Muhallah	Undeveloped	Low to Middle	80 & 120 Sq Yards	
6	Ghazi Nagar	Undeveloped	Low to Middle	80 & 120 Sq Yards	

UC-4 Muhammad Nagar

The UC-4 Muhammad Nagar consist of following localities/areas, the infrastructural condition, housing Units type, income group and name of localities in the area are detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Muhammad Nagar	Undeveloped	Low to Middle	80 & 120 Sq Yards	
2	Sector 11-D	Undeveloped	Low to Middle	80 & 120 Sq Yards	
3	Sector 11-E	Undeveloped	Low to Middle	80 & 120 Sq Yards	
4	Al Mustufa Colony	Undeveloped	Low to Middle	80 & 120 Sq Yards	
5	Madina Colony	Undeveloped	Low to Middle	80 & 120 Sq Yards	
6	Faiz-e-aam Colony	Undeveloped	Low to Middle	80 & 120 Sq Yards	

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7	Raneem Shah Colony	Undeveloped	Low to Middle	80 & 120 Sq Yards	
8	Fard Colony	Undeveloped	Low to Middle	80 & 120 Sq Yards	
9	Islam Nagar	Undeveloped	Low to Middle	80 & 120 Sq Yards	
10	Baba Willayat Ali Shah Colony	Undeveloped	Low to Middle	80 & 120 Sq Yards	

UC-5 Madina Nagar

The UC-5 Madina Nagar consist of following localities/areas, the infrastructural condition, housing Units type, income group and name of localities in the area are detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Iqbal Baloch Colony	Undeveloped	Low to Middle	80 & 120 Sq Yards	
2	D Block	Undeveloped	Low to Middle	80 & 120 Sq Yards	
3	J Block	Undeveloped	Low to Middle	80 & 120 Sq Yards	
4	Imam Colony	Undeveloped	Low to Middle	80 & 120 Sq Yards	
5	Millat Colony	Undeveloped	Low to Middle	80 & 120 Sq Yards	
6	Gharib Nawaz Colony	Undeveloped	Low to Middle	80 & 120 Sq Yards	
7	L Block	Undeveloped	Low to Middle	80 & 120 Sq Yards	
8	Baba Willayat Ali Shah Colony	Undeveloped	Low to Middle	80 & 120 Sq Yards	
9	Bawa Quater	Undeveloped	Low to Middle	80 & 120 Sq Yards	
10	Siddiq Akber Colony	Undeveloped	Low to Middle	80 & 120 Sq Yards	

UC-6 Gulshan-e-Behar

The UC-6 Gulshan-e-Behar consist of following localities/areas, the infrastructural condition, housing Units type, income group and name of localities in the area are detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Gulshan-e-behar	Undeveloped	Low to Middle	80 & 120 Sq Yards	
2	Gulshan-e-ahbab	Undeveloped	Low to Middle	80 & 120 Sq Yards	
3	Bismillah Colony	Undeveloped	Low to Middle	80 & 120 Sq Yards	
4	Ghaziabad	Undeveloped	Low to Middle	80 & 120 Sq Yards	
5	Gulshan-e-zia	Undeveloped	Low to Middle	80 & 120 Sq Yards	
6	Arkaniy Colony	Undeveloped	Low to Middle	80 & 120 Sq Yards	
7	Al Ghaza Society	Undeveloped	Low to Middle	80 & 120 Sq Yards	
8	Christan Colony	Undeveloped	Low to Middle	80 & 120 Sq Yards	

UC-7 Chishti Nagar-C

The UC-7 Chishti Nagar consist of following localities/areas, the infrastructural condition, housing Units type, income group and name of localities in the area are detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Chishti Nagar	Undeveloped	Low to Middle	80 & 120 Sq Yards	
2	Mansoor Nagar	Undeveloped	Low to Middle	80 & 120 Sq Yards	
3	Lai Shahbaz Nagar	Undeveloped	Low to Middle	80 & 120 Sq Yards	
4	Yaqoobabad	Undeveloped	Low to Middle	80 & 120 Sq Yards	
5	Sadiqabad	Undeveloped	Low to Middle	80 & 120 Sq Yards	
6	Rais Amrohe Colony	Undeveloped	Low to Middle	80 & 120 Sq Yards	
7	Sadat Quarter	Undeveloped	Low to Middle	80 & 120 Sq Yards	
8	Tori Banggash Colony	Undeveloped	Low to Middle	80 & 120 Sq Yards	
9	Rehmat Chowk	Undeveloped	Low to Middle	80 & 120 Sq Yards	
10	Khalidabad	Undeveloped	Low to Middle	80 & 120 Sq Yards	

UC-8 Bilal Colony

The UC-8 Bilal Colony consist of following localities/areas, the infrastructural condition, housing Units type, income group and name of localities in the area are detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Bilal Colony	Undeveloped	Low to Middle	80 & 120 Sq Yards	
2	Shamsi Colony	Undeveloped	Low to Middle	80 & 120 Sq Yards	
3	Bangla Bazar	Undeveloped	Low to Middle	80 & 120 Sq Yards	
4	Sector 14 C	Undeveloped	Low to Middle	80 & 120 Sq Yards	
5	Sector 14 H	Undeveloped	Low to Middle	80 & 120 Sq Yards	
6	Sector 14 J	Undeveloped	Low to Middle	80 & 120 Sq Yards	
7	Azizabad	Undeveloped	Low to Middle	80 & 120 Sq Yards	
8	Sector No.15	Undeveloped	Low to Middle	80 & 120 Sq Yards	
9	Foiji Hotle	Undeveloped	Low to Middle	80 & 120 Sq Yards	
10	Thorani Goth	Undeveloped	Low to Middle	80 & 120 Sq Yards	

UC-9 Iqbal Baloch Colony

The UC-9 Iqbal Baloch Colony consist of following localities/areas, the infrastructural condition, housing Units type, income group and name of localities in the area are detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Iqbal Baloch Colony	Undeveloped	Low to Middle	80 & 120 Sq Yards	
2	Ghosia Baloch Colony	Undeveloped	Low to Middle	80 & 120 Sq Yards	
3	Aziz Nagar	Undeveloped	Low to Middle	80 & 120 Sq Yards	
4	Junaid Nagar	Undeveloped	Low to Middle	80 & 120 Sq Yards	
5	Thorani Goth	Undeveloped	Low to Middle	80 & 120 Sq Yards	
6	Mehmoodabad	Undeveloped	Low to Middle	80 & 120 Sq Yards	
7	Habib Bank Quarter	Undeveloped	Low to Middle	80 & 120 Sq Yards	
8	Ali Nagar	Undeveloped	Low to Middle	80 & 120 Sq Yards	

UC-10 Gabool Colony

The UC-10 Gabool Colony consist of following localities/areas, the infrastructural condition, housing Units type, income group and name of localities in the area are detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Gabool Colony	Undeveloped	Low to Middle	80 & 120 Sq Yards	
2	Sector 13 H	Undeveloped	Low to Middle	80 & 120 Sq Yards	
3	Sector 13 F	Undeveloped	Low to Middle	80 & 120 Sq Yards	
4	Secto 13 D	Undeveloped	Low to Middle	80 & 120 Sq Yards	
5	Multani Muhallah	Undeveloped	Low to Middle	80 & 120 Sq Yards	
6	Jinnah Colony	Undeveloped	Low to Middle	80 & 120 Sq Yards	
7	Zia ul haq Colony	Undeveloped	Low to Middle	80 & 120 Sq Yards	
8	Ittafaq Colony	Undeveloped	Low to Middle	80 & 120 Sq Yards	
9	Ittihad Colony	Undeveloped	Low to Middle	80 & 120 Sq Yards	
10	Sector 13 C	Undeveloped	Low to Middle	80 & 120 Sq Yards	
11	Sector 12 L	Undeveloped	Low to Middle	80 & 120 Sq Yards	

UC-11 Data Nagar

The UC-11 Data Nagar consist of following localities/areas, the infrastructural condition, housing Units type, income group and name of localities in the area are detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Data Nagar	Undeveloped	Low to Middle	80 & 120 Sq Yards	
2	Sector 8 A	Undeveloped	Low to Middle	80 & 120 Sq Yards	

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3	Sector 3 B	Undeveloped	Low to Middle	80 & 120 Sq Yards
4	Sector 3 E	Undeveloped	Low to Middle	80 & 120 Sq Yards
5	Sector 7 E	Undeveloped	Low to Middle	80 & 120 Sq Yards
6	Sector 7 C	Undeveloped	Low to Middle	80 & 120 Sq Yards
7	Sector 7 A	Undeveloped	Low to Middle	80 & 120 Sq Yards
8	Naseemabad	Undeveloped	Low to Middle	80 & 120 Sq Yards

UC-12 Mujahidabad

The UC-12 Mujahidabad consist of following localities/areas, the infrastructural condition, housing Units type, income group and name of localities in the area are detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Mujahidabad 6 E	Undeveloped	Low to Middle	80 & 120 Sq Yards	
2	Ali Ghar Colony	Undeveloped	Low to Middle	80 & 120 Sq Yards	
3	Bukhari Colony	Undeveloped	Low to Middle	80 & 120 Sq Yards	
4	Banaras Colony	Undeveloped	Low to Middle	80 & 120 Sq Yards	
5	BanarasNagar	Undeveloped	Low to Middle	80 & 120 Sq Yards	
6	Gulshanabad	Undeveloped	Low to Middle	80 & 120 Sq Yards	
7	Sector 1 A	Undeveloped	Low to Middle	80 & 120 Sq Yards	
8	Sector 1 D	Undeveloped	Low to Middle	80 & 120 Sq Yards	
9	Gulfamabad	Undeveloped	Low to Middle	80 & 120 Sq Yards	

UC-13 Baloch Goth

The UC-13 Baloch Goth consist of following localities/areas, the infrastructural condition, housing Units type, income group and name of localities in the area are detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Baloch Goth	Undeveloped	Low to Middle	80 & 120 Sq Yards	
2	Shahfasai Colony	Undeveloped	Low to Middle	80 & 120 Sq Yards	
3	M P R Colony	Undeveloped	Low to Middle	80 & 120 Sq Yards	
4	Bakra Chwkh	Undeveloped	Low to Middle	80 & 120 Sq Yards	
5	Jamot Muhallah	Undeveloped	Low to Middle	80 & 120 Sq Yards	
6	Naseemabad	Undeveloped	Low to Middle	80 & 120 Sq Yards	
7	Muslimabad	Undeveloped	Low to Middle	80 & 120 Sq Yards	
8	Banaras Muhallah	Undeveloped	Low to Middle	80 & 120 Sq Yards	

3.3. Maps of Orangi Zone.

ORANGI ZONE



3.4. SITE Zone Brief Description

The area of SITE Zone is about 24.2 KM². The total estimated population according to population statistics of 1998 is 463593 person and in view of grown rate of 5% per annum, the population of this zone in the year 2015 is estimated to 1064901 persons. The average population density of this zone is 44022 persons/KM². The MSW generation is about 405 Ton Per Day. The Union Councils of the Zone i.e. UC-1 (Pak Colony), UC-2 (Old Golimar), UC-5 (Pathan Colony), UC-6 (Frontier Colony), UC-7 (Banaras Colony), UC-8 (Qasba Colony) are area wise small, but MSW Generation is on higher side, i.e. 46.86 Tons per day.

The details of Municipal Solid Waste Generation, in each UC of the Zone, its population and other details are given in Annexures.

3.5. Demographics of SITE Zone

SITE Zone is a well demarcated area, well developed but thickly populated and congested, the zone belong to low to middle income group, the housing unit ranges from 60 to 80 Sq Yard in general but in some areas, flat type of residence exist, the infrastructure particularly roads are wide and developed, but internal road and link roads are narrow. The zone is of residential cum commercial type. However, SITE Industrial area is a separate unit under control of SITE Industrial Association and is not a part of SITE Zone as far its Solid waste generation and other infrastructural facilities are concerned.

The Zone comprises of the following UCs.

UC No.	UC Name	UC No.	UC Name
1	Pak Colony	6	Frontier Colony
2	Old Golimar	7	Banaras Colony
3	Jahanabad	8	Qasba Colony
4	Matroville	9	Islamia Colony
5	Pathan Colony		

UC-1 Pak Colony

The UC-1 Pak Colony consist of following localities/areas. The infrastructural condition, Housing Units type, income group and name of localities in the area are detailed below:-

Sri.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Hasrat Mohani Colony ABCD	Developed	Middle	40 Sq Yards	
2	Willayatabad NO:1,2	Developed	Middle	80 Sq Yards	
3	Zubari Colony Block- A,B,C,D,E,F	Developed	Middle	80 Sq Yards	
4	Asif Colony Ward A,B,C,D,E,F,G	Developed	Middle	80 Sq Yards	
5	Faton Compound	Developed	Middle	80 Sq Yards	
6	Johear Colony	Developed	Middle	80 Sq Yards	
7	Pak Colony	Developed	Middle	120 Sq Yards	
8	Pak Modern Colony	Developed	Middle	120 Sq Yards	

UC-2 Old Golimar

The UC-2 Old Golimar consist of following localities/areas. The infrastructural condition, Housing Units type, income group and name of localities in the area are detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Chatagang Colony	Developed	Lower/ Middle	80 & 120 Yards	
2	Saleh Muhammad Village	Developed	Lower/ Middle	80 & 120 Yards	
3	Noor Muhammad Village	Developed	Lower/ Middle	80 & 120 Yards	
4	Mola Dad Village	Developed	Lower/ Middle	80 & 120 Yards	
5	Haji Pirya Village	Developed	Lower/ Middle	80 & 120 Yards	
6	Ghulam Muhammad Village	Developed	Lower/ Middle	80 & 120 Yards	
7	Kadeemi Mohallah	Developed	Lower/ Middle	80 & 120 Yards	
8	Naik Muhammad Para	Developed	Lower/ Middle	80 & 120 Yards	
9	Badal Village	Developed	Lower/ Middle	80 & 120 Yards	
10	Ghafoor Village	Developed	Lower/ Middle	80 & 120 Yards	
11	Gorgage Village	Developed	Lower/ Middle	80 & 120 Yards	
12	Ali Muhammad Village	Developed	Lower/ Middle	80 & 120 Yards	
13	Central Muslimabad	Developed	Lower/ Middle	80 & 120 Yards	
14	Ghareeb Nawaz Colony	Developed	Lower/ Middle	80 & 120 Yards	
15	Bariga Village	Developed	Lower/ Middle	80 & 120 Yards	
16	Hingora Village	Developed	Lower/ Middle	80 & 120 Yards	
17	Mistari Khan Village	Developed	Lower/ Middle	80 & 120 Yards	
18	Rexer Colony	Developed	Lower/ Middle	80 & 120 Yards	
19	Muslimabad	Developed	Lower/ Middle	80 & 120 Yards	

UC-3 Jehanabad

The UC-3 Jehanabad consist of following localities/areas. The infrastructural condition, Housing Units type, income group and name of localities in the area are detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Haroonabad Main Bazar	Developed	Middle	40,80,120	
2	Haroonabad Baloch Mohallah	Developed	Middle	40,80,	
3	Bilal Aria	Developed	Middle	80,120	
4	T.P One Colony	Undeveloped	Middle	80,120	
5	Baloch Mohallah	Undeveloped	Lower	40,80,120	
6	Bradari Mohallah	Developed	Middle	40,80,120	
7	Brohi Mohallah	Developed	Middle	80,120,200	
8	Nazim Sahib House	Developed	Middle	120,200	
9	Ismati Mohallah	Developed	Lower	80,120	
10	Magsi Mohallah	Developed	Middle	40,80,120	
11	Lashari Mohallah	Developed	Middle	40,80,120	
12	Dahani Mohallah	Developed	Middle	80,120	
13	Sindhi Mohallah	Undeveloped	Lower	120,200	
14	Azra Mohallah	Undeveloped	Lower	80,120	
15	Minawali Colony	Undeveloped	Lower	40,80,120	
16	Chaghi Mohallah	Developed	Middle	80,120	
17	Hasan Oliya	Developed	Middle	80,120	
18	Salahi Para	Developed	Middle	80,120	
19	KMC Flat New	Developed	Middle	40,80	
20	Kivic Flat Old	Developed	Middle	40,80	
21	Pangu Village	Developed	Middle	40,80	
22	United Colony	Developed	Middle	40,80	
23	Mewa Shah Road	Developed	Middle	40,80,120	
24	Phool Chowk To Habib Muhammad	Developed	Middle	40,80,120	

UC-4 Metroville

The UC-4 Metroville consist of following localities/areas. The infrastructural condition, Housing Units type, income group and name of localities in the area are detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Yards	Sq.	Remarks
1	Metroville Sector 1	Developed	Middle	120 To 240		Some House 80 Sq Yard
2	Metroville Sector 2	Developed	Middle	120 To 240		Nil
3	Metroville Sector 3	Developed	Middle	120 To 240		Nil
4	Metroville Sector 4	Developed	Middle	120 To 240		Nil
5	Metroville Sector 5	Developed	Middle	120 To 240		Nil
6	Bhawani Chai	Developed	Lower & Middle	100,80,40		
7	Labor Squire	Developed	Lower & Middle	Flat 4 th & 5 th Floor		
8	Al Falhah Colony	Undeveloped	Lower	40,60,100		
9	Postal Colony	Developed	Middle	Flat 4 th Floor		

UC-5 Pathan Colony

The UC-5 Pathan Colony consist of following localities/areas, the infrastructural condition, Having Units type, income group and name of localities in the area detailed below:-

Srl #	Area/Locality	Infrastructural Condition	Income Group	House Units	Sq. Yards	Remarks
1	Hyder Chai	Developed	Middle	40,60,80,100		
2	Shahi Bagh	Developed	Middle	60 To 80		
3	Sunyara Bazar	Developed	Middle	80 To 120		Pahari Area
4	Haqani Mohallah	Developed	Middle	80 To 120		
5	Sectory Road	Developed	Middle	40 To 120		
6	Pahari Area	Developed	Middle	40 To 120		
7	Malang Hotel	Developed	Lower	40 ,80, 120		
8	Bacha Karai Chowk	Developed	Lower	40,80		
9	Rehmani Mohallah	Developed	Lower	40,120		
10	Rubani Mohallah	Developed	Middle	80,120		
11	Rehmania Pahari Wala	Developed	Middle	80,120		
12	PMT Chowk	Developed	Middle	40,80		
13	Graveyard Road	Developed	Middle	80,120		
14	Jilani Mohallah	Developed	Middle	40,80		
15	Toehti Mohallah	Developed	Middle	40,80, 120		
16	Makka Chowk	Developed	Lower	80,120		
17	Subhani Mohallah	Developed	Lower	40,80		
18	Muhammadi Mohallah	Developed	Lower	80,120		
19	Akbari Mohallah	Developed	Lower	80,120		
20	Mastan Chali	Developed	Middle	40,80,120		
21	Khyber Mohallah	Developed	Middle	8,120		
22	Main Bacha Chowk	Developed	Middle	40,80,120		
23	Noor Shah Mohallah	Developed	Middle	80,120		
24	Mala Kand Mohallah	Developed	Middle	80,120		

UC-6 Frontier Colony

The UC-6 Frontier Colony consist of following localities/areas. The infrastructural condition, Housing Units type, income group and name of localities in the area are detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Yards	Sq.	Remarks
1	Sector 5:E	Developed	Middle	80 & 120 Yard		
2	Sector 4-CDEF	Developed	Middle	80 & 120 Yard		
3	Darul Salam	Developed	Middle	80 & 120 Yard		
4	Sher Khanabad	Developed	Middle	80 & 120 Yard		

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Post Office	Developed	Middle	80 & 120 Yard	
2	Bahrin Road	Developed	Middle	80 & 120 Yard	
3	Muhammadi Mohallah	Developed	Middle	80 & 120 Yard	
4	Rehmani Mohallah	Developed	Middle	80 & 120 Yard	
5	Police Wala Road	Developed	Lower & Middle	80 & 120 Yard	
6	Farooqi Mohallah	Developed	Lower & Middle	80 & 120 Yard	
7	Siddique Mohallah	Developed	Middle	80 & 120 Yard	
8	Tuba Mohallah	Developed	Middle	80 & 120 Yard	
9	Noorani Mohallah	Developed	Middle	80 & 120 Yard	
10	Qubah Mohallah	Developed	Lower & Middle	80 & 120 Yard	
11	Islamia Mohallah	Developed	Lower & Middle	80 & 120 Yard	
12	Subhani Mohallah	Developed	Lower & Middle	80 & 120 Yard	
13	Qadr Mohallah	Developed	Lower & Middle	40,80,100,120 Yard	
14	Madina Mubark	Developed	Lower & Middle	40,80,100,120 Yard	
15	Nazerya Mohallah	Developed	Lower & Middle	40,80,100,120 Yard	
16	Muslim Town	Developed	Lower & Middle	40,80,100,120 Yard	
17	Bilal Unit	Developed	Lower & Middle	40,80,100,120 Yard	
18	Ghosia Mohallah	Developed	Middle	40,80,100,120 Yard	
19	Seweri Baba Chowk	Developed	Middle	40,80,100,120 Yard	
20	Lal Baz Chowk	Developed	Middle	40,80,100,120 Yard	
21	Al Wajid Town	Developed	Lower & Middle	40,80,100,120 Yard	
22	Bukhari Colony	Developed	Middle	40,80,100,120 Yard	
23	Haqani Mohallah	Developed	Middle	40,80,100,120 Yard	
24	Khyber Bazar	Developed	Middle	40,80,100,120 Yard	

UC-7 Banaras Colony

The UC-7 Banaras Colony consist of following localities/areas. The infrastructural condition, Housing Units type, income group and name of localities in the area are detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Post Office	Developed	Middle	80 & 120 Yard	
2	Bahrin Road	Developed	Middle	80 & 120 Yard	
3	Muhammadi Mohallah	Developed	Middle	80 & 120 Yard	
4	Rehmani Mohallah	Developed	Middle	80 & 120 Yard	
5	Police Wala Road	Developed	Lower & Middle	80 & 120 Yard	
6	Farooqi Mohallah	Developed	Lower & Middle	80 & 120 Yard	
7	Siddique Mohallah	Developed	Middle	80 & 120 Yard	
8	Tuba Mohallah	Developed	Middle	80 & 120 Yard	
9	Noorani Mohallah	Developed	Middle	80 & 120 Yard	
10	Qubah Mohallah	Developed	Lower & Middle	80 & 120 Yard	
11	Islamia Mohallah	Developed	Lower & Middle	80 & 120 Yard	
12	Subhani Mohallah	Developed	Lower & Middle	80 & 120 Yard	
13	Qadr Mohallah	Developed	Lower & Middle	40,80,100,120 Yard	
14	Madina Mubark	Developed	Lower & Middle	40,80,100,120 Yard	
15	Nazerya Mohallah	Developed	Lower & Middle	40,80,100,120 Yard	
16	Muslim Town	Developed	Lower & Middle	40,80,100,120 Yard	
17	Bilal Unit	Developed	Lower & Middle	40,80,100,120 Yard	
18	Ghosia Mohallah	Developed	Middle	40,80,100,120 Yard	
19	Seweri Baba Chowk	Developed	Middle	40,80,100,120 Yard	
20	Lal Baz Chowk	Developed	Middle	40,80,100,120 Yard	
21	Al Wajid Town	Developed	Lower & Middle	40,80,100,120 Yard	
22	Bukhari Colony	Developed	Middle	40,80,100,120 Yard	
23	Haqani Mohallah	Developed	Middle	40,80,100,120 Yard	
24	Khyber Bazar	Developed	Middle	40,80,100,120 Yard	

UC-8 Qasba Colony

The UC-8 Qasba Colony consist of following localities/areas. The infrastructural condition, Housing Units type, income group and name of localities in the area are detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Peerabad	Developed	Lower	60,80,120 Yard	
2	Muslimabad	Developed	Lower	60,80,120 Yard	
3	Muhammad Pur	Developed	Middle	60,80,120 Yard	
4	F-Area	Developed	Middle	120 Yard	
5	K-Area	Developed	Middle	120 Yard	
6	E-Area	Developed	Middle	120 Yard	
7	H-Area	Developed	Middle	120 Yard	
8	G-Area	Developed	Middle	120 Yard	
9	4/L Quarter R-1	Developed	Middle	80,120 yard	
10	A-Area	Developed	Middle	120 Yard	
11	L-S, 5 AL	Developed	Middle	40,80,120 Yard	
12	A-1, Area	Developed	Middle	200 Yard	
13	Gareeb Nawaz colony	Developed	Middle	80,100 Yard	

UC-9 Islamia Colony

The UC-9 Islamia Colony consist of following localities/areas. The infrastructural condition, Housing Units type, income group and name of localities in the area are detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Islamia Colony No-01	Developed	Middle	No	80,120,200
2	Islamia Colony No-02	Developed	Middle	No	80,120,200
3	New Mianwali Colony	Developed	Middle	Yes	80,120,200,400
4	Nusrat Nager	Developed	Middle	Yes	60,80,120
5	Farooq-e-Azam	Developed	Middle	Yes	40,60,80
6	Baloch Mohallah	Developed	Middle	Yes	80,120
7	Gilgati Mchallah	Developed	Lower	Yes	60,80,120
8	Kwari Colony	Developed	Middle	Yes	80,120
9	Awan Colony	Developed	Middle	Yes	80,120

3.6. Maps of SITE Zone

S.I.T.E. Zone



3.7. Baldia Zone Brief Description

The Baldia Zone is at the North West of Karachi and it is nearer to the existing Gondpass Landfill site, the farthest Union Council of the Zone i.e. UC-8 is about 9.8 KM away from Gondpass landfill site, so MSW in each UC of Baldia Zone will be collected and transported to Gondpass Landfill site.

The area of Baldia Zone is 34.3 KM², the total estimated population according to statistics of 1998 was about 406165 person and in view of growth rate of 5% per annum, the population of this zone in the year 2015 is estimated 925073 person. The average population density of this zone is 26,970 person / KM². the area of UC-1, UC-02 and UC-03 is greater, but the population density is smaller, it is about 12002 person/KM². the density of garbage is also relatively smaller and it is about 4.56 Ton/KM², the area of UC-4, UC-5, UC-6, UC-7 and UC-8 is small but population density high more than 89241 person/KM², the Density of garbage is also relatively high and it is about 45.10 Ton /KM².

The detail of MSW generation in each UC of the Zone, its population and other details are given in Annexures.

3.8. Demographics of Baldia Zone

The Baldia Zone is a well demarcated area, it is bordered by SITE Zone and Orangi Zone to the east and by Kemari Zone to the North and West with most of the western boundary framed by part of RCD Highway, Baldia Zone belong to low to middle income group, mostly undeveloped, comprising of small housing units ranging from 80 to 120 Sq Yard, congested areas with narrow internal roads and streets.

The Zone comprises of the following UCs.

UC No.	UC Name	UC No.	UC Name
1	Gulshan-e-Ghazi	5	Saeed Abad
2	Ittehad Town	6	Muslim Mujahid Colony
3	Islam Nagar	7	Muhajir Colony
4	Nai Abadi	8	Rasheed Abad

UC-1 Gulshan-e-Ghazi

The UC-1 Gulshan-e-Ghazi consist of following localities/areas. The infrastructural condition, Housing Units type, income group and name of localities in the area detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Abidabad	Undeveloped	Low to Middle	80 Yards	
2	Gulshan-e-Ghazi	Undeveloped	Low to Middle	80 Yards	
3	Islam Nagar	Undeveloped	Low to Middle	80 Yards	
4	Jaddah Colony	Undeveloped	Low to Middle	80 Yards	

UC-2 Ittehad Town

The UC-2 Ittehad Town consist of following localities/areas. The infrastructural condition, Housing Units type, income group and name of localities in the area detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Ittehad Town	Undeveloped	Low to Middle	80 Yards	
2	Nawab Colony	Undeveloped	Low to Middle	80 Yards	
3	Qaim Khani Colony	Undeveloped	Low to Middle	80 Yards	
4	Sector 9-B	Undeveloped	Low to Middle	80 Yards	
5	Sector 9-D	Undeveloped	Low to Middle	80 Yards	
6	Sector 9-E	Undeveloped	Low to Middle	80 Yards	
7	Sector 9-F	Undeveloped	Low to Middle	80 Yards	
8	Khyber Chowk	Undeveloped	Low to Middle	80 Yards	

UC-3 Islam Nagar

The UC-3 Islam Nagar consist of following localities/areas. The infrastructural condition, Housing Units type, income group and name of localities in the area detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Dawood Goth	Undeveloped	Low to Middle	80 Yards	
2	Naval Colony	Undeveloped	Low to Middle	80 Yards	
3	Yousuf Goth	Undeveloped	Low to Middle	80 Yards	
4	Mouch Goth	Undeveloped	Low to Middle	80 Yards	
5	Hassan Goth	Undeveloped	Low to Middle	80 Yards	
6	Sajjan Goth	Undeveloped	Low to Middle	80 Yards	
7	Sector 11	Undeveloped	Low to Middle	80 Yards	
8	Saad Ullah Goth	Undeveloped	Low to Middle	80 Yards	
9	Sector 14	Undeveloped	Low to Middle	80 Yards	
10	Sector 9-F-1	Undeveloped	Low to Middle	80 Yards	

UC-4 Nai Abadi

The UC-4 Nai Abadi consist of following localities/areas. The infrastructural condition, Housing Units type, income group and name of localities in the area detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Sector 8-A, B, C, D	Undeveloped	Low to Middle	80 Yards	
2	Sector 4 A, B, C, D, E, F	Undeveloped	Low to Middle	80 Yards	
3	Sector 4-I, H, G.	Undeveloped	Low to Middle	80 Yards	

UC-5 Saeed Abad

The UC-5 Saeed Abad consist of following localities/areas. The infrastructural condition, Housing Units type, income group and name of localities in the area detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Sector A-3, B-3, D-3, C-3	Undeveloped	Low to Middle	80 Yards	
2	Sector 5-A, 5-B, 5-C, 5-D	Undeveloped	Low to Middle	80 Yards	

UC-6 Muslim Mujahid Colony

The UC-6 Muslim Mujahid Colony consist of following localities/areas. The infrastructural condition, Housing Units type, income group and name of localities in the area detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Sawat Colony	Undeveloped	Low to Middle	80 Yards	
2	Azeemabad	Undeveloped	Low to Middle	80 Yards	
3	Lasi Para	Undeveloped	Low to Middle	80 Yards	
4	Madina Colony	Undeveloped	Low to Middle	80 Yards	
5	Mianwali Colony	Undeveloped	Low to Middle	80 Yards	
6	Majoti Colony	Undeveloped	Low to Middle	80 Yards	
7	Shamozai Colony	Undeveloped	Low to Middle	80 Yards	
8	Balouch Muhallah	Undeveloped	Low to Middle	80 Yards	
9	Ghose Nagar	Undeveloped	Low to Middle	80 Yards	
10	Chor Ward	Undeveloped	Low to Middle	80 Yards	
11	afradi colony	Undeveloped	Low to Middle	80 Yards	
12	shahfaisal colony	Undeveloped	Low to Middle	80 Yards	

UC-7 Muhajir Colony

The UC-7 Muhajir Colony consist of following localities/areas. The infrastructural condition, Housing Units type, income group and name of localities in the area detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Madina Colony	Developed	Low to Middle	80 Yards	
2	Anjam Colony	Developed	Low to Middle	80 Yards	
3	Wadi Para	Developed	Low to Middle	80 Yards	
4	Patni Muhallah	Developed	Low to Middle	80 Yards	
5	Rohani Muhallah	Developed	Low to Middle	80 Yards	
6	Ghosia Muhallah	Developed	Low to Middle	80 Yards	
7	Shehanshah Colony	Developed	Low to Middle	80 Yards	
8	Kachi Colony	Developed	Low to Middle	80 Yards	
9	Turk Muhallah	Developed	Low to Middle	80 Yards	
10	Qasai Muhallah	Developed	Low to Middle	80 Yards	
11	Kokan Colony	Developed	Low to Middle	80 Yards	

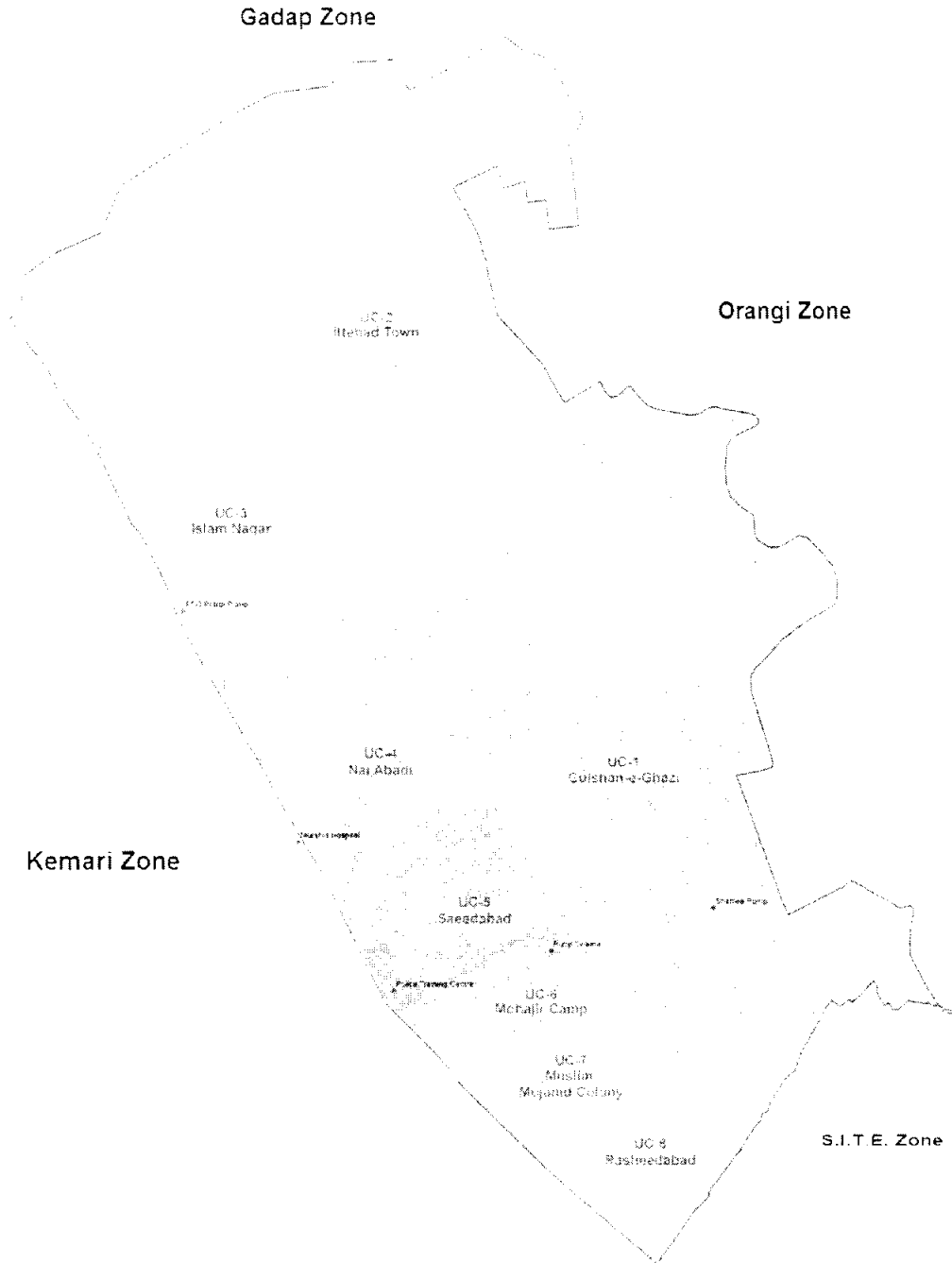
UC-8 Rasheed Abad

The UC-8 Rasheed Abad Consist of following localities/areas. The infrastructural condition, Housing Units type, income group and name of localities in the area detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Kumhar Wara	Developed	Low to Middle	80 Yards	
2	Denli Colony	Developed	Low to Middle	80 Yards	
3	Banglori Muhallah	Developed	Low to Middle	80 Yards	
4	Gujrat Colony	Developed	Low to Middle	80 Yards	
5	Gasai Muhallah	Developed	Low to Middle	80 Yards	
6	Balouch Muhallah	Developed	Low to Middle	80 Yards	
7	Punjabi Muhallah	Developed	Low to Middle	80 Yards	
8	Jona Garh Muhallah	Developed	Low to Middle	80 Yards	
9	Niyazi Muhallah	Developed	Low to Middle	80 Yards	
10	Arab Muhallah	Developed	Low to Middle	80 Yards	

3.9. Maps of Baldia Zone

Baldia Zone



3.10. Kemari Zone Brief Description

Kemari Zone is situated at west of Karachi the total area of the zone is 417.2 Sq KM and population as of 1998 census statistics is 384378 persons and in view of growth rate at 5% per annum the population of this zone in 2015 is about 875453 persons the population density of this zone is 2098 persons Per Sq KM, however this density does not reflect the actual situation on ground as the area of the zone is widely spread and residential populations are in pockets at considerable distance to each other the zone MSW generation is about 420 tons per day.

Eastern part of Kemari Zone of UC#01, 02, 03, 05 and 07 is of greater population density and MSW out put are also on higher side in this part. Western region of Kemari Zone are sparsely populated of UC# 04, 06, 08 with population density on lower side and MSW density in these UCs is also respectively low. There is an existing Gondpass landfill site in the North East of UC#8 of this zone near Gadap Zone.

The detail of MSW generation in each UC of the Zone, its population and other details are given in Annexures.

3.11. Demographics of Kemari Zone.

Kemari Zone consist of a blend of thinly and thickly populated pockets in comparisons of its area the population density is very low and in pockets type of residential Goths, at distance to each other. It is mainly a costal zone having large area and low population. Its UC# 04 Baba Bhit comprises three Islands.

Kemari Zone is a compact unit bordered by prominent physical features such as RCD Highway, Lyari River, Circular Railway Track, M.T. Khan Road and connected with the boundary of Balochistan Province. Karachi Port is also exist in this zone. Kemari Zone comprises of low income group, small houses of 80 to 100 Sq Yard in majority and some parts of its apartments type dwelling exist. Area of Kemari Zone is large as compare to the area of other zones. The disposal of solid waste in its UC name Baba Bhit needs special attention as its comprises of the three Irelands.

The Zone comprises of the following UCs.

UC No.	UC Name	UC No.	UC Name
1	Bhutta Village	5.	Machar Colony
2	Sultan Abad	6.	Maripur
3	Kemari	7.	Sher Shah
4.	Baba Bhit	8.	Gabo Pat

UC-1 Bhutta Village

The UC-1 Bhutta Village consist of following localities/areas. The infrastructural condition, Housing Units type, income group and name of localities in the area detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Opp. Shirin Jinnah Colony	Undeveloped	Low to Midder	60 and 80 Sqyrd	
2	Kambella Chowk	-do-	Low	120 Sqyrd	
3	Yaqub Munda Chowk	-do-	Low	120 Sqyrd	
4	Zaroobi Colony	-do-	Low	120 Sqyrd	
5	Katchi Para	-do-	Low	120 Sqyrd	
6	Panjri Para	-do-	Low	120 Sqyrd	
7	Charnal Road Area	-do-	Low	120 Sqyrd	
8	Massan Road Area	-do-	Low	120 Sqyrd	

UC-2 Sultanabad

The UC-2 Sultan Abad Town consist of following localities/areas. The infrastructural condition, Housing Units type, income group and name of localities in the area detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Behind MT Khan Road and Mai Kolachi Road	Undeveloped	Low to Middle	60 and 80 Sqyrd	
2	Samaji Tanzeem Road	Undeveloped	Low to Middle	60 and 80 Sqyrd	
3	Kohati Mohalla	Undeveloped	Low to Middle	60 and 80 Sqyrd	
4	Ashfaqe Colony	Undeveloped	Low to Middle	60 and 80 Sqyrd	
5	Gali No. 13. to Block-5	Undeveloped	Low to Middle	60 and 80 Sqyrd	
6	Tikes Road	Undeveloped	Low to Middle	60 and 80 Sqyrd	
7	Tauheed Masjid Road	Undeveloped	Low to Middle	60 and 80 Sqyrd	
8	Jadun Road 60ft.	Undeveloped	Low to Middle	60 and 80 Sqyrd	
9	Block. 1,2,3,4,5 area	Undeveloped	Low to Middle	60 and 80 Sqyrd	
10	Intelligence Colony Sultanabad	Undeveloped	Low to Middle	60 and 80 Sqyrd	
11	Nomania Masjid Road	Undeveloped	Low to Middle	60 and 80 Sqyrd	
12	New Haji Camp Road.	Undeveloped	Low to Middle	60 and 80 Sqyrd	
13	Jadun Ground Area	Undeveloped	Low to Middle	60 and 80 Sqyrd	

UC-3 Kemari

The UC-3 Kemari consist of following localities/areas. The infrastructural condition, Housing Units type, income group and name of localities in the area detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Jackson/ Jungle Shah area	50% Develop and 50% undeveloped	Low to Middle	Yes	Flats and 60/80 Sqyrd
2	KPT Gate No. 1 to 17	Developed	Middle to High	Yes	Flats.
3	Jackson Bazar Area	Developed	Middle to High	Yes	Flats.
4	Humayun Khan Road.	Developed	Middle to High	Yes	Flats.
5	Hussain Bux Road	Developed	Low to Middle	Yes	Flats.
6	Tara Chand Road Block 1 to 44	Developed	Low to Middle	Yes	Flats.
7	Docks Colony	Undeveloped	Low to Middle	Yes	Flats.
8	Majeed Colony	Undeveloped	Low to Middle	Yes	Flats.
9	Umer Khan Road	Undeveloped	Low to Middle	Yes	Flats.
10	Saeedia Muhallah	Undeveloped	Low to Middle	Yes	Flats.
11	Tashkand Colony	Undeveloped	Low to Middle	Yes	Flats.

UC-4 Baba Bhit

The UC-4 Baba Bhit consist of following localities/areas. The infrastructural condition, Housing Units type, income group and name of localities in the area detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Islands Keamari Area	50% Develop and 50% undeveloped	Low	60 Sqyds and Below	Garbage Burned and Dumped in Earth
2	Baba Island	Developed	Low	60 Sqyds	Garbage Burned and Dumped in Earth
3	Bhitt. Island	Developed	Low	60 Sqyds	Garbage Burned and Dumped in Earth
4	Shams Pir Island	Developed	Low	60 Sqyds	Garbage Burned and Dumped in Earth
5	Younasabad Island	Developed	Low	60 Sqyds	Garbage Burned and Dumped in Earth
6	Salehabad Island	Developed	Low	60 Sqyds	Garbage Burned and Dumped in Earth

UC-5 Machar Colony

The UC-5 Machar Colony consist of following localities/areas. The infrastructural condition, Housing Units type, income group and name of localities in the area detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Adjacent at Fisheries area	Undeveloped	Low	60 Sqyds and Below	Katchi Abadi
2	Siraj Muhallah	Undeveloped	Low	60 Sqyds and Below	
3	Shah Jalal Muhallah	Undeveloped	Low	60 Sqyds and Below	
4	Akhase Muhallah	Undeveloped	Low	60 Sqyds and Below	
5	Shamsha Muhallah	Undeveloped	Low	60 Sqyds and Below	
6	Kaipana Muhallah	Undeveloped	Low	60 Sqyds and Below	
7	Madina Colony	Undeveloped	Low	60 Sqyds and Below	
8	Meharban Chowk Area	Undeveloped	Low	60 Sqyds and Below	
9	Muree Chowk Area	Undeveloped	Low	60 Sqyds and Below	
10	Azad Muhallah	Undeveloped	Low	60 Sqyds and Below	
11	Shahi Muhallah	Undeveloped	Low	60 Sqyds and Below	
12	Aifalah Muhallah	Undeveloped	Low	60 Sqyds and Below	

UC-6 Maripur

The UC-6 Maripur consist of following localities/areas. The infrastructural condition, Housing Units type, income group and name of localities in the area detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Maripur area near PAF Base Masroor	Undeveloped	Low	60 Sqyds and Below	
2	Moosa Para Grex	Undeveloped	Low	60 Sqyds and Below	
3	Jiskani Muhallah	Undeveloped	Low	60 Sqyds and Below	
4	Masoori Muhallah	Undeveloped	Low	60 Sqyds and Below	
5	Muslim Colony No. 1, 2	Undeveloped	Low	60 Sqyds and Below	
6	Silk Colony	Undeveloped	Low	60 Sqyds and Below	
7	Baloch Muhallah	Undeveloped	Low	60 Sqyds and Below	
8	Father Colony	Undeveloped	Low	60 Sqyds and Below	
9	Madni Colony	Undeveloped	Low	60 Sqyds and Below	
10	Sher Muhammad Village	Undeveloped	Low	60 Sqyds and Below	
11	Tikri Village	Undeveloped	Low	60 Sqyds and Below	
12	Masroor Colony	Undeveloped	Low	60 Sqyds and Below	
13	Dil Falah Abad Colony	Undeveloped	Low	60 Sqyds and Below	

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14	Block 1 and 2 Area Sher Shah	Undeveloped	Low	50 Sqyds and Below
15	Block 3 and 4 Area	Undeveloped	Low	80 Sqyds and Below
16	Naver Colony	Developed	Middle High	100 and Above Sqyds Bungalows
17	Budhn Goth Area	Undeveloped	Low	120 and Above Sqyds Bungalows
18	Custom Colony Area	Developed	Low to Middle	120 and Above Sqyds Bungalows

UC-7 Sher Shah

The UC-7 Sher Shah consist of following localities/areas. The infrastructural condition, Housing Units type, income group and name of localities in the area detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Shersah area and Gul Bai area	Undeveloped	Low to Middle	60 Sqyds and Below	100 Nos. and above Nos Good owns along with 200 small factories.
2	Toor Baba Road Block-C	Undeveloped	Low to Middle	60 and 80 Sqyds.	
3	Alamgir Muhallah	Undeveloped	Low to Middle	60 and 80 Sqyds.	
4	Jinnah Road Block-C	Undeveloped	Low to Middle	60 and 80 Sqyds.	
5	Urdu Bazar Road Block-A	Undeveloped	Low to Middle	60 and 80 Sqyds.	
6	Muhammadi Road Block. A & B	Undeveloped	Low to Middle	60 and 80 Sqyds.	
7	Delight Cinema Road Block-D	Undeveloped	Low to Middle	60 and 80 Sqyds.	

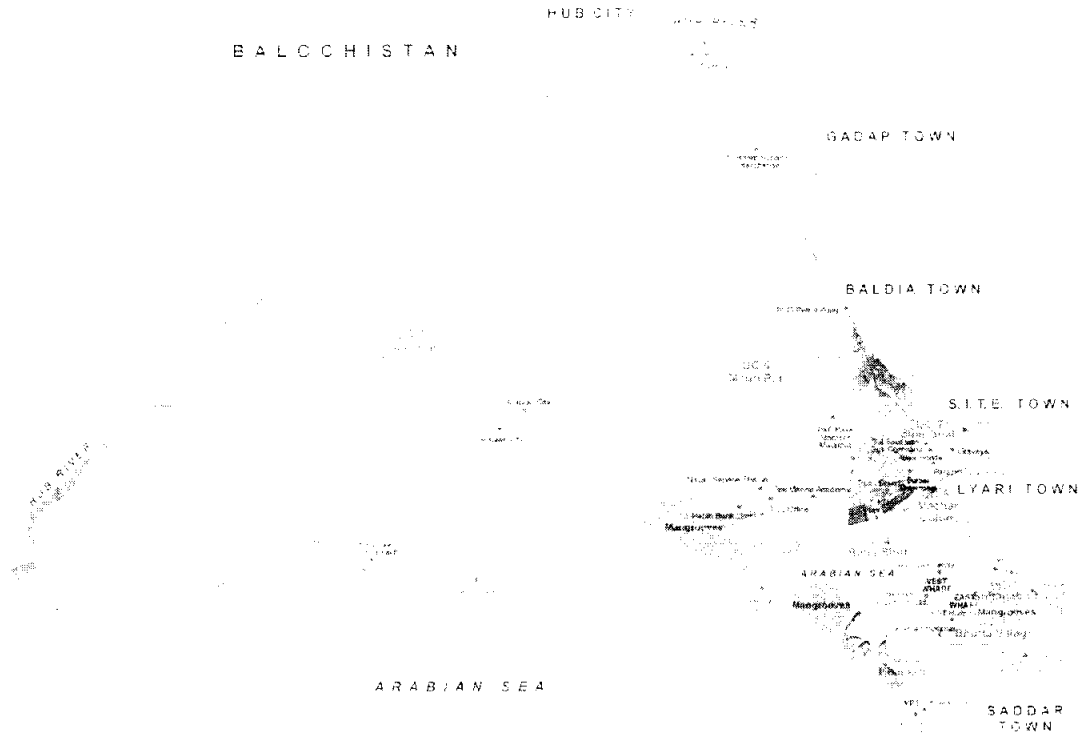
UC-8 Gabo Pat

The UC-8 Gabo Pat Consist of following localities/areas. The infrastructural condition, Housing Units type, income group and name of localities in the area detailed below:-

Srl.#	Area/Locality	Infrastructural Condition	Income Group	House Units Sq. Yards	Remarks
1	Hawksbay Road area 500 Qts. And Mushra Factor Muach Goth area	Undeveloped	Low to Middle	60 to 240 Sqyds	250 Nos. Goodowns.
2	Wichar Muhallah	Undeveloped	Low to Middle	60 Sqyds	
3	Mianwali Para	Undeveloped	Low to Middle	80 to 120 Sqyds	
4	Katchi Para	Undeveloped	Low to Middle	80 to 120 Sqyds	
5	Baloch Para	Undeveloped	Low to Middle	80 to 120 Sqyds	
6	Ghafoori Chowk Area	Undeveloped	Low to Middle	80 to 120 Sqyds	
7	Sheikh Muhallah	Undeveloped	Low to Middle	80 to 120 Sqyds	
8	Bukhari Muhallah	Undeveloped	Low to Middle	80 to 120 Sqyds	
9	Noor Shah Muhallah	Undeveloped	Low to Middle	80 to 120 Sqyds	
10	Lasi Para	Undeveloped	Low to Middle	80 to 120 Sqyds	
11	Pathan Colony	Undeveloped	Low to Middle	80 to 120 Sqyds	
12	Katchi Abadi Area	Undeveloped	Low to Middle	80 to 120 Sqyds	
13	Qasim Ali Shah Colony	Undeveloped	Low to Middle	80 to 120 Sqyds	
14	Sindhi Para	Undeveloped	Low to Middle	80 to 120 Sqyds	
15	Amma Zeenat Road	Undeveloped	Low to Middle	80 to 120 Sqyds	

3.12. Maps of Kemari Zone

KEAMARI ZONE



3.13. Existing Solid Waste Management System in DMC West

i. Door to Door Collection.

At present collection of municipal solid waste at door step do not exist in DMC West.

Residents of DMC West throw their household waste to nearby kachrakundi (dustbin) during every time of the day. The shopkeepers of commercial areas and attendants of shopping malls, and residents of DMC West usually throw garbage at the corner of each streets, and in front of shops etc. No any strategy or collection plan for door step collection do exists in DMC West in general. No any MSW collection system in the industrial area exist though a considerable quantum of MSW is generated in the industrial area too.

ii. Street Sweeping.

Main roads, and lanes in DMC West are cleaned manually using brooms and brushes and the sweeping stuff is kept in the form of numbers of small heaps, besides kerbs and on road sides, which are then lifted with help of Belcha and transported to nearest dustbin site/collection point using wheelbarrow/handcarts. Sweeping stuff is normally thrown into the dustbin. Sweeping is done normally in two shifts i.e. 6:00 AM to 10 AM and then 2:00PM to 5:00PM. Mechanical sweeping is not done in DMC West except on some occasion on the main road when such machines are provided by KMC.

iii. Washing of Main and Important Roads.

Currently no such practice is being carried out.

iv. Transportation of MSW from Dustbin/Collection points to GTS or nearest Landfill Sites.

Garbage vehicles i.e. Arm Roll, Compactor, Dump Trucks, Tractor Trolley designated to each UC of the Zone collects and transport waste from collection points/dustbins to GTS of the Zone. In some cases MSW is transported to nearest land fill sites. Each vehicle is supposed to made 3 to 4 trip a day to clear garbage from dustbins/collection points. Though complete lifting of garbage form the zones could not be made due to unavailability of required numbers of vehicles. Usually containers of 4 to 7 Ton capacity are placed at collection points/dustbins, however in some areas of DiviC West garbage is dumped, at open places, such garbage is lifted using loaders and bobcat type of machinery and labours using basket to pick and to load into refuse vanes or compactor which is then transported to GTS of Zones. The machinery for lifting and transportation of MSW available

with DMC West is very old and not compatible with the machines usually required for MSW lifting and transportation.

v. Location of GTS of the Zones of DMC West.

Orangi Zone. Baldia Zone is nearest to the existing Gondpass Landfill site therefore its GTS is located at Gondpass Landfill. Whereas for Kemari Zone the Gondpass Landfill site is in the North East of UC-8 of this zone near Gadap therefore GTS for Kemari Zone is also at Gondpass Landfill site. However for SITE Zone GTS is located at UC-1 Pak Colony and UC-8 Qasba Colony.

3.14. Existing System of Offal Collection & Disposal in DMC (West)

On the eve of Holy festival of Eid Ul Azah every year, thousands of animals, i.e. goat, lamb, sheep, cow, bulls and camels are offered as a sacrifice. These sacrifices is done (as custom) on the door step or within the premises jointly or individually on the roads sides open ground and the offal and other residuals like bone skin parts offals and other intestinal organs etc. are thrown at the door step, road side in the bushes, open ground and collection points, dustbins sites etc. creating an unclean environment with a pungent odor of blood which is seen almost in each area on this event.

This situation is dealt with MSW Management of each zone efficiently and effectively, initiating a specific campaign under an offal collection plan. A day before the event clearing the garbage from dustbins sites is done. The special offal collection campaign usually started just after Eid Ul Azha prayer. The offals and other residual animal waste are then collected through machinery within the zones including hired rental vehicles and disposed off in the pits already excavated at designated places where the offal are buried in a manner that create no hazard to the surrounding. Sprinkling the chalk powder and other insecticidal / perfume spray is also done to create pleasant atmosphere.

The campaign is managed in such a manner that area is made clean and clear by the evening of each day event which continuous for three continuous day. An estimated numbers of offals that is collected and buried in DMC West are about 292639 numbers.

Days of Eid-ul-Azha	Orangi	SITE	Baldia	Kemari	Total
1 st Day	18500	15000	24500	18000	76000
2 nd Day	38200	31215	39259	35150	143824
3 rd Day	18040	13969	23200	17596	72805
Total	74740	60184	86959	70756	292639

3.15. Problem & Short Coming in Existing System

- Waste has never been assigned priority by Government.
- Non existence of Door to Door Collection System.
- Poor attendance of Sanitary Workers /Officials affecting street sweeping and waste disposal.
- In effective system of monitoring / reporting causing indiscriminate dumping of waste on open spaces and road sides, also causing delay in complaint redressal system.
- Deficient number of concrete dustbins (katchra kundi)/containers in the most of the areas, resulting in open and scattered dumping of garbage.
- Irregular collection of garbage from community bins/collection points due to:
 - Poor Supervision.
 - Too many dustbins sites.
 - Defective, un-appropriate and old garbage vehicles.
 - POL problems.
 - Political/labour Union intervention.
 - No fix timing of garbage vehicles to collect garbage from dustbin sites and transportation to landfill site.
 - Open transportation of garbage causing environmental pollution.
 - Encroachments, specially in market / commercial area causing difficulties in sweeping, collection and transportation to GTS /Land Fill Site. Hence the required number of trips are not achieved.
 - No proper GTS facility
 - Scavenging specially on open spaces and road side dustbins causing scattering of garbage.
 - Existing rules with regards to SWM need to be reviewed, strengthened and enforced.
 - Lack of public awareness/ civic sense regarding SWM collection and disposal.
 - Lack of scientific approach for integrated SWM.

Section IV

Proposed Plan for DMC (West)

Proposed Plan for Zone West (DMC West Area)**4.1 Front End Collection Plan (Proposed Plan)**

Front End Action Plan. It Includes followings scope of Work and services

1. Door to door collection and revamping of bin system.
2. Sweeping of roads, streets, lane, footpath, medians and open spaces and sweeping waste collection and disposal.
3. Washing of important roads as and when required including on special occasions.
4. Lifting and transportation MSW from dustbins sites & collection points to designated GTS.
5. Scientific monitoring and tracking system for entire management and operation plan.
6. Community awareness program and its implementation.

4.2 Door to door collection mechanism

Door to door collection for Front End Collection Plan/mechanism is categorized as:

(a) Block Collection.

Wherein waste collecting vehicles with one or two waste collecting workers move around the residential blocks on a specified time each day and sounds horns or ring bell and wait at intermediate location for residents to bring waste in polythene bags to the collection vehicles or where the workers with the collecting vehicles collect garbage in a basket at the door step of the residents and throw in the collecting vehicles, which is then disposed off to nearest dustbin site.

(b) Door Step Collection.

Wherein waste is left outside the property by the residents in plastic/polythene bags and picked up by waste collecting vehicles moving in and around the residential area at specific time each day or collected at door step by the sweepers every day, equipped with wheel barrow, handcart and disposed off to nearest dustbins sites.

(c) Shared containers type collection.

Wherein a container of suitable capacity is placed at an appropriate place within a residential block, apartment building market and shopping area and residents and other generators, put their waste stuff inside the container, these containers may be of hook and lifting type or may be bucket type with proper tipping

arrangements, which are then emptied at by compaction container type compactor vehicles and then again placed at the location. However this operation is done as many time as required to keep the container free of garbage. The location where the such containers are placed are kept cleaned and spilled out garbage is swept from the surrounding.

Anyone or all defined categories will be adopted under the front end collection plan for door to door collection keeping in view the demographics of the area, however for the purpose of guidance, sweeping methodology in various UCs of the Zones of DMC West is mentioned hereunder.

Plastic bag will be provided free of cost by contractor/operator to all residential units for the first two months only. The size and grade of polythene bag is given in the technical specification.

Note.

Where block collection and door step collection is adopted, and where possible in case of shared container type collection, organic and inorganic Municipal Solid Waste are to be collected separately and transported to GTS in a manner that these two types of MSW be disposed off at GTS separately as directed by SSWMB officials and this practice is to be adopted in each zone. Organic and inorganic MSW is to be collected in different colored bags and litterbin and containers as the case may be.

Strategy for door to door collecting in various zones of DMC West

Orangi Zone

Name of UC	Door to door collection Strategy	Suggested Tools and Machinery for door to door collection type.																												
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SITE Zone

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Baldia Zone

Name of UC	Door to door collection Strategy	Suggested Tools and Machinery for door to door collection type.																		
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Kemari Zone

Name of UC	Door to door collection Strategy	Suggested Tools and Machinery for door to door collection type.
<p>UC#1 Bhutta Village</p> <p>UC#2 Sultan Abad</p> <p>UC# 3 Kemari</p> <p>UC#4 City Baba Bhit</p> <p>UC# 5 Machar Colony</p> <p>UC#6 Maripur</p> <p>UC#7 Sher Shah</p> <p>UC#8 Gabo Put</p> <ul style="list-style-type: none"> • Low Income Group • Residential area in pockets and distant to each other 	<p>Shared Containers Type Collection</p> <ul style="list-style-type: none"> • Steel Containers of appropriate size & capacity must be placed at appropriate distance. When filled up must be lifted and disposed off into a compactor vehicle and empty container must be placed again on the location. The operation of clearing the container be done at least twice a day or as many time as required to keep the container free of garbage • Block Collection Strategy: Block collection may also be adopted in some area which are congested and thickly populated using small vehicles moving around the area on fixed timings along with one or two waste collecting workers. 	<p>Details of bucket and bin, bin sizes, frequency of placement, tool to be utilize, polythene bags are given in technical specification.</p> <p>Details of Type of garbage collecting and transporting vehicles, bin mechanism are given in technical specification.</p> <p>Small Compactor vehicles type or small Suzuki typing type may be used.</p>

4.3 Street Sweeping and Sweeping of Main Roads

i) Classification / Type of Roads.

a. **Primary Main Roads.**

There are the main roads connecting zone in a district (dual carriageway), planned and constructed on established Engineering practices with proper road geometry 3 or 4 lane carriageways.

b. **Secondary Main Roads.**

May be classified as main roads but secondary type, connecting various UCs in a Zone mostly single carriageways. However in some parts double carriageway facility. Planned and constructed on normal Engineering practices with without outside walks, median or edge stones and without proper road geometry, three lane single carriageways.

c. **Streets.**

These are internal roads, connecting various residential blocks, around market and commercial areas mostly 2 lane dual carriageways type with or without sidewalks. Constructed on conventional practice.

d. **Narrow lanes and streets.**

Paved or unpaved narrow internal streets in old resident areas markets and around old commercial areas, single lane to double lane i.e. 10 to 20ft wide with or without sidewalks or edge stone.

ii) Sweeping Methodology.

1. **Conventional Type (i.e. manual).**

With the help of sweepers, using broom/brushes and sweeping waste is collected through wheelbarrow, transported and disposed off to nearby buckets containers with tipping arrangements.

2. **Mechanical Type (i.e. using machine sweepers).**

Appropriate, vacuum type mechanical sweeping vehicles including built-in sweeping waste containing facility, shall be used. The sweeping waste shall be disposed off to nearest bucket or container having tipping arrangements.

iii) **Proposed Sweeping System under Front End Collection Plan.**

a) **Secondary Main Road, Streets and Narrow Lanes. (Manual Sweeping).**

It is suggested that on secondary main roads, streets and on narrow lanes and streets manual sweeping be adopted along wheelbarrow and Suzuki Pickup type of vehicles to transport the sweeping waste from the beat (area) to bucket or containers. Sweeping on internal streets of residential area may be done as per schedule, guideline given at technical specification. whereas in market/commercial area and in bazaar type of market area, sweeping is required two times in a day as mentioned schedule of sweeping at technical specification. Contractor must make its own schedule, for the purpose, however the area must be cleaned and cleared from garbage.

b) **Primary Main Roads and Secondary Road. (Mechanical Sweeping)**

Using mechanical sweepers of appropriate size and capacity for sweeping of these roads as enlisted is to be done. Sweeping stuff may be disposed off to nearest dustbin site or to GTS. Mechanical sweepers of self contained and vacuum type is best suited for the purpose.

List of Primary and Secondary main Roads Mechanical Sweeping

Primary Main Roads (Dual Carriageway)

S No.	Name of Road	Length (KM)
Orangi Zone		
1	Malik Chowk to Mujahid Colony UC-01	0.76
2	Badar Chowk (Mominabad Police Station to Noori Masjid	0.61
3	Faqir Colony Road Madina Chowk to Shah Mohallah UC-02	1.22
4	Faqir Colony to Zaheer Chowk	1.09
5	Faqir Colony to Malik Chowk	1.09
6	10 No Market Road UC-03	0.67
7	Noori Masjid to Madina Masjid Chowk & Faqir Colony	1.52
8	Urdu Chowk to Baldia Town	2.20
9	Urdu Chowk to T & T Office UC-04	0.91
10	Nishan-e-Hyder to Fareed Colony	2.20
11	5 No Roundabout to Shell Petro Pump	0.55
12	Molana Shoukat Ali Road UC-05	1.50
13	Ali Nagar Road UC-06	6.00

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14	German School to Bay Pass Road	6.00
15	Islam Nagar Duba More to Raja Tanveer Colony UC-07	5.00
16	Al Mustufa Colony Road	0.30
17	Shah Wali ullah Nagar Road	2.00
18	Shahra-e-Qaddafi Sony Chowk to German School UC-08	3.00
19	Sony Chowk ro Grave Yard	4.00
20	Shahra-e-Orangi from Nishan-e-Hyder Chowk to Habib Bank Quarter UC-09	1.00
21	Ali Nagar Road Old Police Station to Rehmat Cowk	1.00
22	Power House to Sony Chowk UC-10	1.00
23	Shahra-e-Qaddafi 1 No Chowk to Sony Chowk UC-11	1.50
24	Shahra-e-Qaddafi to Qasba More to 1 No Chowk UC-12	0.50
SITE Zone		
1	Road from love lane Bridge to Banaras Chowk	4.87
2	M.P Road from Bacha Khan Chowk to New Nazimabad Road	3.96
3	Main Metroville Road from Bab-e-Khyber Badar Chowk	1.68
4	Main Qasba Road Shehzad Mor to Qalandaria Hotel	0.91
5	Qalandaria Hotel To Muhammadi Masjid	1.83
6	Main Wali Gate to Bismillah Hotel Mominabad Road	0.61
7	Faiz-ur-Rehaman Road from Master C.N.G to Moinabad	1.22
8	UC Office Road from Saher Plaza to Shoe Maker Sho[0.61
9	Fatima Masjid Road from Model Park to Dilawar House	0.55
10	Model Park Road from K.E.S.C Office Metroline Hospital	0.46
11	Sector IV & III Road from Tea Hotel to Educator School	0.46
12	Quba Masjid Road	0.31
13	Block V Road from P.C.O to Graveyard	0.76
14	Block V Road Agha Khan Flat to Graveyard	5.5
15	Shahen Hotel to Ali Imam Bargh	0.25
16	Road from Bhitai Library Grak Bridge	1.46
17	Stadum Road from Badar Chowk to Bori Khan Hospitai	0.46
18	Imam Bargh Road from Bori Khan Hospital to Imam Bargh	1.07
19	Road from Dhobi Gath Bridge to Bakra Piri Bridge	0.91
Baldia Zone		
1	Hub River road 02 number to Hassan Goath	13.00

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2	5.B Road	2.00
3	13.D Road	4.00
4	Gulshan e Ghazi Dabble Road Uc.4	3.00
5	Stadium Road Uc 03	5.00
6	Naval Colony Roaduc.03	4.00
7	Rasheedabad Road uc.07	2.00
Kemari Zone		
1	M.A. Jinnah Road from Netti Jetti Bridge to Gate No. 1	4.50
2	Massan Road	1.50
3	Noor Uddin Road	1.50
4	Qasim Shah Road	1.50
5	M.T. Khan Road	3.00
6	Mai Kolachi Road	4.00
7	Maripur Road	3.50
8	Hawksbay Road	15.00
9	Dockyard Road	2.50
10	Whest Wharf Road	2.50
11	Agha Khan Road	1.00
12	Main Sher Shah Road from Paracha Chowk to Meran Naka Bridge	2.00
13	Sparco Road	12.00
Total		161.00

Secondary main roads (Single Carriageway)

S No.	Name of Road	Length (KM)
Orangi Zone		
1	Bijli Nagar Road UC-01	0.85
2	Mominabad chowk to Zia Colony Grave Yard	1.22
3	Metrowill Road to Water Tank Zia Colony sheet II	1.50
4	Mominabad Block A Market to Zia Colony Sheet I	1.50
5	Mominabad Niazi Chowk Road B/W Block A & B	0.55
6	Mominabad Nasir Hotal Road B/W Block B & D	0.51
7	Mominabad Tayyaba Masjid Road up to Zia Colony	1.22
8	Khyber Colony Road Sector 4	1.00
9	Aggror Colony Road Sector 4	0.31
10	Islam Nagar Colony Quetta Hotel to UC-02 area Hill Side	1.22
11	Bismillah Colony Road up to Mominabad UC-02	1.22
12	Admore pump to Mominabad	1.20
13	Zahoor Chowk to Mominabad	1.22
14	Umer Baloch Mohallah Road	0.60
15	Muslimabad Road from Faqir Colony Main Road	1.98

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16	Haryana Colony Mangal Bazar Road	1.13
17	Haryana Colony Aslam Chowk K K Colony	0.67
18	K K Colony Road to Faqir Coony	0.76
19	Shahfasal Masjid Road from Faqir Colony Road to UC-03	1.21
20	10 No Market Road Fareed Colony UC-03	1.00
21	Phool Wali Gali to Ibrahim Ali Bahi School	0.54
22	Hyder Imam Bargha to Faqir Colony	0.54
23	K K Abdul School to Faqir Colony Road	0.55
24	Madni Masjid 10 No Road to Noori Masjid Road	0.60
25	Al Fatha Grave Yard Road	0.37
26	Madni Masjid to Panjab Chowk	0.55
27	Maraj un Nabi Masjid to Ara Machine road	1.22
28	DMC Office to 10 No Market Road UC-04	0.49
29	National Bank to Sabbari Chowk	0.85
30	Pakistan Book Centre to Muhammadi Chowk	0.85
31	Rizwan Steel to Chamcha Hotel Road	0.60
32	Chamcha Hotel to 10 No Market Road	0.67
33	Raheem Shah Colony Road up to Ploice Station Chowki	1.22
34	Urdu Chowk to Irani Camp Road	0.67
35	Madina Colony Road up to Awami Chowk	1.00
36	Mustfa Colony Road (Allah Wali Masjid Road)	1.00
37	Ali Madical Store Road up to Raheem Shah Hill Side	1.06
38	Shahzadi Patti Road up to Raheem shah Colony	0.85
39	Faeedi Masjid Gali No 6 Fareed Colony	1.22
1	Al Fatha Hall to Last Z Bus Stop UC-05	1.00
2	Masjid Firdous to Chandni Chowk	1.00
3	Pakistan Bazar Road	1.22
4	Dillagi Road	1.00
5	Khalil Market Road Baba Willayat Ali Shah Colony	1.37
6	Opp Masjid Quba to Masjid Siddiq -e-akber Block j	1.22
7	Noori Hotel to Molana Shoukat Ali Road Block D	0.73
8	Islimi-e-Masjid to Baldia Willayat Ali Shah Colony	1.22
9	Islimi-e-Masjid to Bawa Qatter	1.00
10	Touheed Chowk Baldia town	1.22
11	Touheed Colony Road via Grave Yard to Raheem Shah Colony	1.00
12	Bissmillah Chowk Road UC-06	1.50
13	Pakistan Chowk Road	0.70
14	Rehmat Chowk to Mawaty Chowk	2.50

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15	Chirstan Colony Road	2.00
16	Zia ul haq Chowk to Datta Chawk Road UC-07	2.00
17	Al Hira pump lal Masjid road	1.00
18	Sadiqabad road	1.00
19	Qureshi Market Road	1.00
20	Al Mughani School Road	0.50
21	Safina-e-ahlabat Road	0.75
22	New 1-D Bus Stop road	0.65
23	All Jannat Hall to Ejtimagha Road UC-08	1.00
24	Sector 14 Road	2.00
25	Faisal Chowk Road	1.00
26	Akber Shaheed Road (Market Wali Road)	1.00
27	Islam Chowk to Disco More UC-09	0.50
28	Islam Chowk to 1 K	0.50
29	Old Police station to Bangla Bazar	0.75
30	Pakistan Bazar to Safaid Chowk	0.75
31	12 L Road UC-10	0.60
32	Kamal Pump to Shahra-e-Qaddafi	1.00
33	Power House to Govt School	0.50
34	12 L Road to Allah Wala College	1.00
35	Gabol Colony Road	1.00
36	Banaras Chowk to Sohni Chowk via Qatter Hospital UC-11	1.00
37	1 No Chowk to Mangopir Road UC-12	1.00
38	Metro Cenima ti 1 No Chowk	0.50
39	Mangopir Road to Grave Yard MPR Colony UC-13	0.75
40	Bilal Masjid to Ladies Park	2.00
41	Babo Hotel to Qater Hospital	1.00
SITE Zone		
1	Saud Hospital to Babu Hotel	4.57
2	Road from Hafiz Textile Mill to Parada Park	1.83
3	Road from Bakra piri Bridge to KMC Work Shop to KMC Flat Via Tajuddin Baba Mazar	1.22
4	Main Shair Kahanbad Road from Hazara Chowk to Matro Cause way	1.22
5	Rabbani Mohallah Block B,C,D.	3.78
6	Hammad Chicken Shop to Zahoria MAzar	0.25
7	Muhammad Pur Road Bismillah Masjid to Mujeeb House	0.30
8	Khyber Road Khyber Bridge to Ghosia Pumping Station	2.13
9	Chota graveyard to Frontier Colony	1.52
10	Mian Wali Road Muhammad Khan Niazi House to Masjid Aqsa	0.24

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11	Back Side Road Samad Petrol Pump	1.22
12	Majeedullah House to Graveyard	0.61
13	Road from Chatri Chowk to Nadra Office and parda Park Road	1.22
14	Road from Asif Colony to MAhajir Chowk	0.76
15	Road From Noorani MASjid to new abadgari	0.91
16	Road from Union Council Office to Punjabi Mohallah	0.61
17	Road from Union Council Office to Eidgah Ground	0.76
18	Main MAnghopir Road to Waja Wali Muhammad	0.46
19	Road from Shireen Bakery to GAreeb Nawaz Colony	0.67
20	Road from Bakra Piri to Lashari Mohallah	0.61
21	Road from Union Council Office to Magsi Muhallah	1.22
22	Road from Jahanbad Thana to pankha Hotel Main Khabari Bazar	0.76
23	Main Khyber Road from Gate to Sewru Baba Mazar	0.55
24	Muhammad Pur Police Chowki to Graveyard	0.25
25	Road from Barood Khana School Main Manghopir Road and Warsi Masjid	0.91
26	Road from Dish Mandi to SMD Culvert	0.61
27	Const: of Road from SMD Culvert to Birohi Muhallah , Sindhi Muhallah and Meva Shah Graveyard	0.98
28	Jameel Biryani Road Hazara Chowk to Technical College	0.46
29	Sector 4/E Road from Chudhary School to Grill Shop	0.91
30	Main Pirabad Road Bacha Khan Markaz to Katti Pahari	1.83
31	A Or A-1 Area Road	4.57
32	Madina Hotel to Opposite Office	9.15
33	Subhani Road	0.37
34	Nadir House to F-11 Bus Stop	1.24
35	Different Road from Christen Mohallah	0.46
36	Road from Warsi Masjid to Chatri Chowk	0.30
37	Road from Bismillah Hotel to Bangali Masjid	0.30
38	Road from Ayesha Manzil to K.B Contractor School	0.24
39	E, F Area Road	0.91
40	Kanwari Colony Road Ibrahim Masjid to Christen Abadi	0.46
Baldia Zone		
1	K. S Mujahid Road uc.08	2.00
2	Gosiea Road uc.07	1.25
3	Mir Alam Baloch Mohala Road uc. 08	1.00
4	Kosor ChockRoad Uc.07	1.00
5	Guldad Shah Uc 06	1.00
6	Iqbal Roaduc.06	1.00
7	7 Number Grave yard Road uc. 06	1.00

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8	Tipu Sultan Road uc. 06	2.00
9	Jhangir Road uc.05	1.05
10	Quaid avenue road muc.05	1.05
11	Rana ground Road uc.05	1.00
12	Police Training Road uc.04	1.50
13	Lahori Hotel Road uc.04	1.05
14	Qabail Road uc.04	1.05
15	Memon Colony uc.04	1.05
16	Jungle Colony Road uc.04	1.05
17	Jaddah colony Road uc.04	1.05
18	Dabba Colony Road uc.05	1.05
19	Madina colony road uc.05	1.05
20	24 Marcket Road uc.05	1.05
21	Jam sahib Road uc.05	1.05
22	Shahrah e Ali road uc.05	1.00
23	Baba Ishaq Road uc.05	1.05
24	Peala Hotel Road uc.05	1.00
25	Govt School Road uc.05	1.00
26	Jhangir road uc.02	1.00
27	Eid gah to m.khan colony roadm uc.02	3.00
28	Hahi Iqbal road uc.02	2.00
29	Malik Fafaz road uc.01	1.05
30	Gulshan e ghazi hazara block D uc.01	1.05
31	09 number road uc.04	1.05
32	Power House road uc.04	1.00
33	100 Quarter to bin qasim road uc.04	2.00
34	Ahmed raza road uc.04	1.00
35	Lagari shoes to pakora chock road uc.03	1.05
36	Qazi hospatil road Dubble road uc.03	1.05
37	Al sadad chock road uc.03	1.50
38	Qaimkhani road uc.03	3.00
39	K.S.Mujahiditthad town road uc.02	1.50
40	Maki Masjid road uc.02	1.00
Kemari Zone		
1	NLC Road Sultanabad	1.20
2	New Haji Camp Road Sultanabad	1.50
3	Rehmania Masjid Sultanabad	0.75
4	Saifur Rehman Road Sikandarabad	1.25
5	Sadia Masjid Road	1.50
6	Hussain Bux Market Road, Keamari	2.50
7	Umer Khan Road	3.00
8	Samaj Tanzeem Road	1.00
9	Tara Chand Road	1.75
10	Jungle Shah Road	1.50
11	Endrus Road	1.00
12	Custom Club Road	1.00
13	Zia Uddin Hospital Road Keamari	2.00
14	Mohammadi Road Sher Shah	1.50

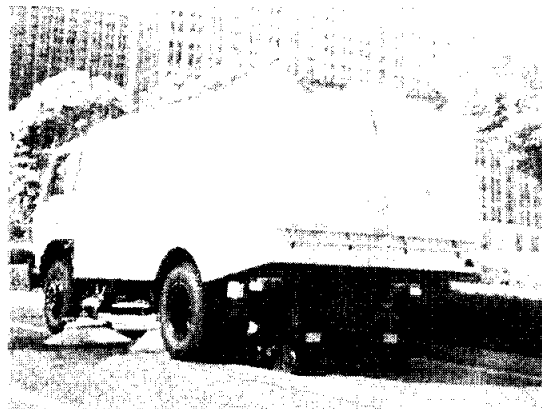
Sindh Solid Waste Management Board

15	Urdu Bazar Road	1.50
16	Toor Baba Road	1.50
17	Akber Road	1.50
18	Nayab Road	1.50
19	Caltex Pump Road Gul Bai	1.50
20	Marine Academy Road Maripur	1.50
21	Father Colony Maripur	1.50
22	Madina Colony Maripur	0.50
23	Dil Falah Abad.	0.50
24	Tikri Village Road	1.00
25	Thandi Sarak Road.	1.00
26	Bilal Masjid Road	1.50
27	Katchi Para Road Muach Goth	1.50
28	Qasim Shah Colony Road	1.00
29	Brohi Mohalla Road	1.00
30	Bukhari Mohalla Road	1.00
31	Sheikh Mohalla Road	1.00
32	Main Market Road	1.00
33	Lassi Road	1.00
34	Pathan Colony Road	1.00
35	Qasim Ali Shah Colony Road	1.00
36	Amma Zeenat Road	1.00
Total		228.10

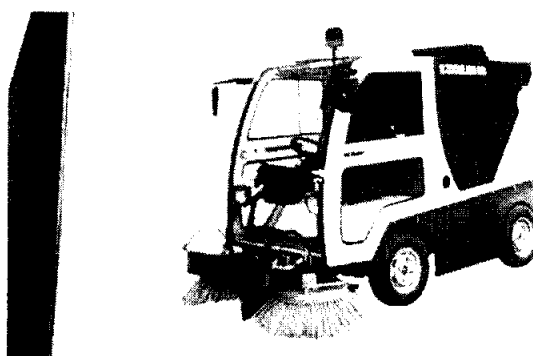
Proposed Machinery for Mechanical Sweeping and contained sweeping waste capacities under Front end collection plan.

Mechanical Sweeper -B1

- Type- Vacuum type wet brushing mechanism
- Maximum sweeping width 3.5 Meter
- Operating speed 5 to 10 KM Per Hour
- Contained sweeping waste capacity 8 to 10 cubic meter
- Water tank capacity 250 to 350 liters
- Total number of machine **Required= 08 Number**



- Type- Vacuum type wet brushing mechanism
- Maximum sweeping width 2 Meter
- Operating speed 5 to 8 KM Per Hour
- Contained sweeping waste capacity 2 to 3.5 cubic meter
- Water tank capacity 80 to 100 liters



Proposed Machinery for Washing of Main Roads under Front end collection plan.

Mechanical Washers -C1

- Type- Automatic sprinkling washing mechanism
- Maximum Washing width 3.5 Meter
- Operating speed 5 to 10 KM Per Hour
- Contained water tank capacity 1000 to 1500 Gallons
- Total number of machine **Required= 04 Number**



**c) Footpath, Medians, Roundabouts and Open Spaces.
(Manual Sweeping)**

It is suggested that on footpath Medians, Roundabouts and open spaces, manual sweeping be adopted along wheelbarrow and Suzuki Pickup type of vehicles to transport the sweeping waste from the beat (area) to bucket or containers placed nearby the area. Sweeping be carried out as per schedule of sweeping provided in technical specification. The purpose is that the area must be cleaned and cleared from garbage.

iv) Proposed Lifting & Disposal of MSW from Collection Point/Dustbin Sites to GTS.

Under the proposed plan efficient and effective collection & transportation system for MSW is to be adopted using appropriate MSW collection, transportation, machineries and collection system. The suggested numbers of such machines of different MSW contained capacity to handle 1732 Tons Per day MSW generation of DMC West satisfactorily is 70 numbers. A system schedule must be developed that helps keeping the area free of garbage. To coop up the target numbers of collection point / dustbin sites are to be significantly reduced that can be done using:

1. Containers, bucket, bins having tipping arrangements is to be provided at appropriate location that can be emptied into a compaction type container mounted on vehicles.

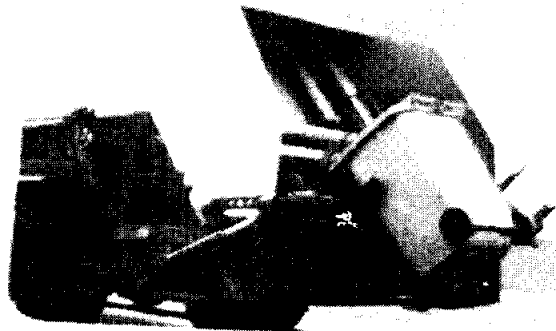
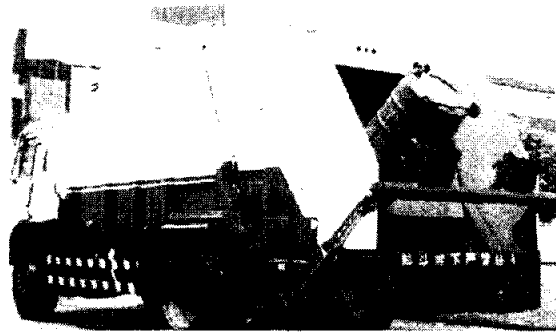
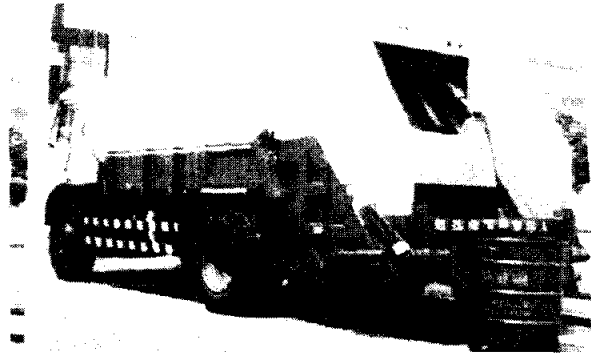
Using compaction type containers mounted vehicles save labour cost and frequent cleaning of bin, buckets and containers help discourage scavengers, reduce insects/rodents problems, prevent windblown trash, control odor, save inside storage space and outside parking spaces, reduce the hazards of open dumping. For various such reasons emphasizes is made to use appropriate machinery for solid waste management and transportation.

The bins, buckets and containers mechanism the vehicle type that are recommended for collection, transportation are mentioned hereunder along with pictorial view of desired vehicles and their tipping mechanism. Operation schedule of machines, number required and proposed plan for operation is given in technical specifications.

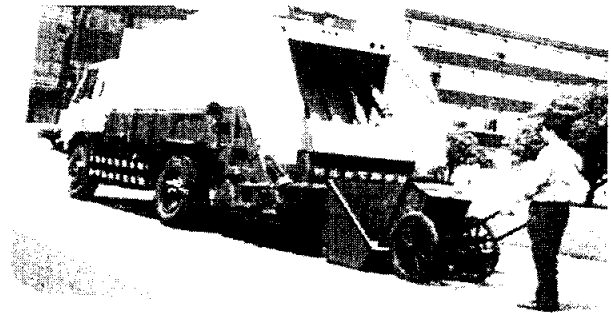
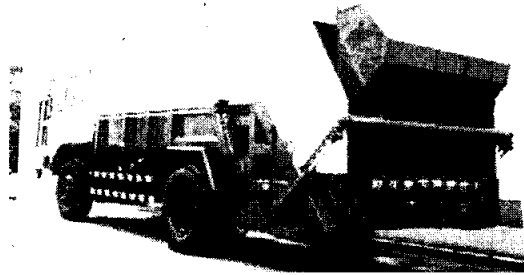
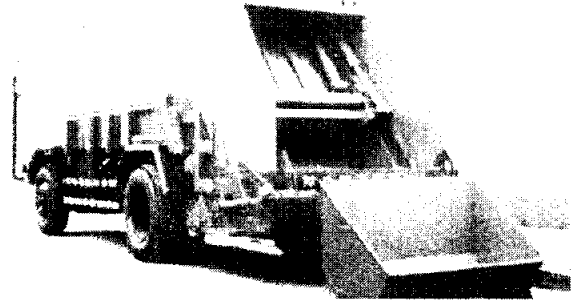
Proposed Machinery for lifting and Transportation including bin Tipping Mechanism under Front end collection plan

Bin tipping Mechanism -A1

- Appliance- standard metal or plastic rubbish bin.
- Bin cubage 0.24 to 0.3 cubic meter



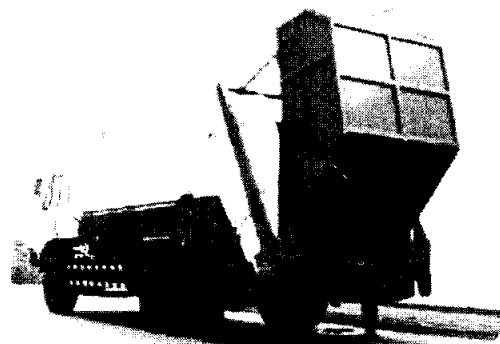
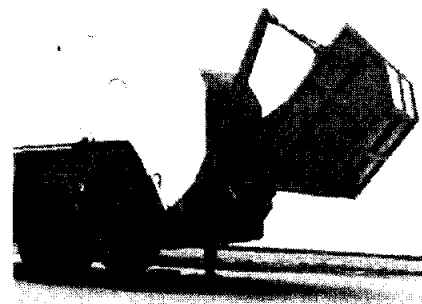
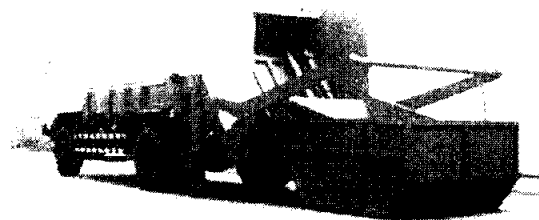
Bin tipping Mechanism A2
Appliances- metal bucket
Bucket cubage= 0.8 meter cube



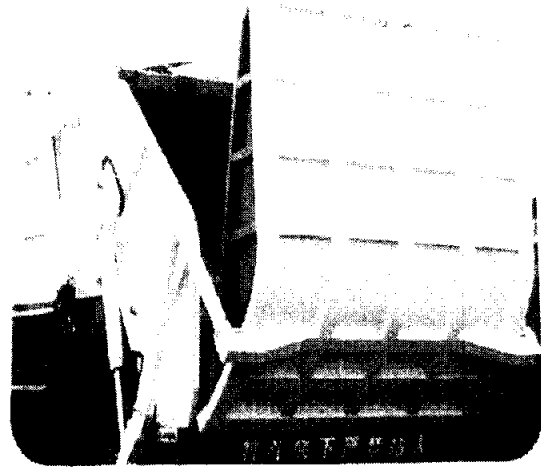
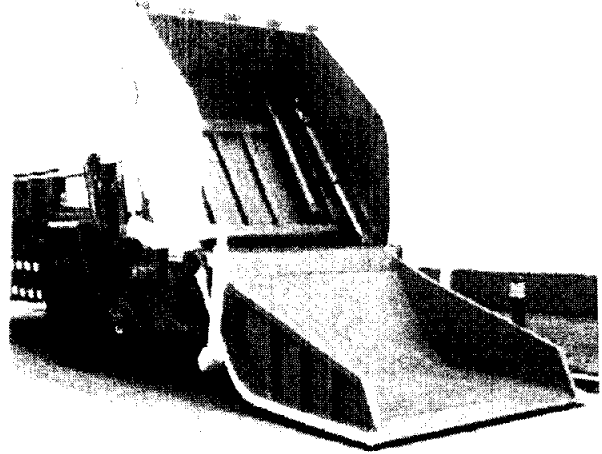
Bucket raising Mechanism A3

Appliance- big metal rubbish bucket

Bucket cubage =3.35 meter cube



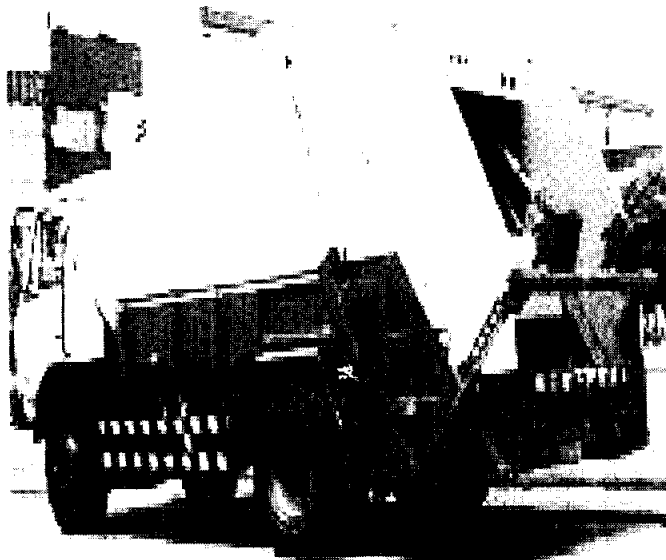
Bucket tipping mechanism-A4
Appliances- special metal covering
bucket.
Bucket cubage =1.4 to 2meter cube



Type of Vehicle –Tipping Mechanism –Bin category and type of vehicles

Vehicle Type - compactor semi Automatic or Automatic compaction type. Container in-built vehicle with

- BIN tipping Mechanism –A1
 - BIN tipping Mechanism-A2
 - Bucket raising Mechanism-A3
 - Bucket tipping Mechanism-A4
 - Container volume
 - 6.6 M³
 - 10 M³
 - 12 M³
 - 16 M³
 - Number required
 - A suggested number of machines having different container capacity that are required to handle MSW generation of DMC West on Daily Basis are mentioned as under:
 - **Vehicle with Container Capacity of 6.6 M³ = 08 No.**
 - **Vehicle with Container Capacity of 10 M³ = 06 No.**
 - **Vehicle with Container Capacity of 12 M³ = 08 No.**
 - **Vehicle with Container Capacity of 16 M³ = 09 No.**
- Total = 31 No.**

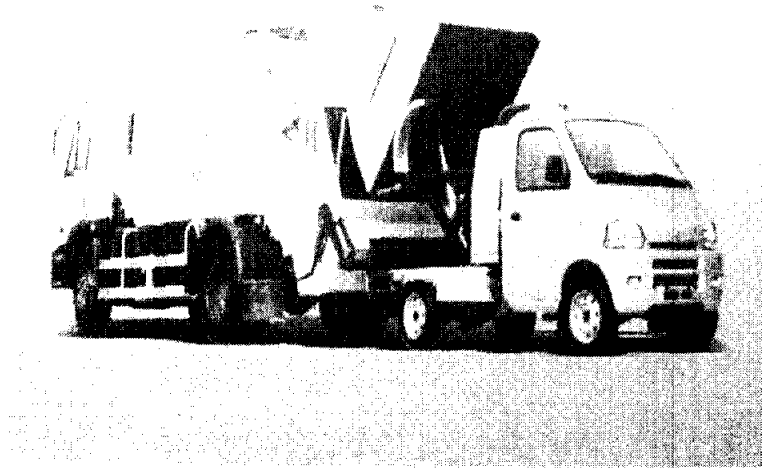


Small vehicle tipping mechanism

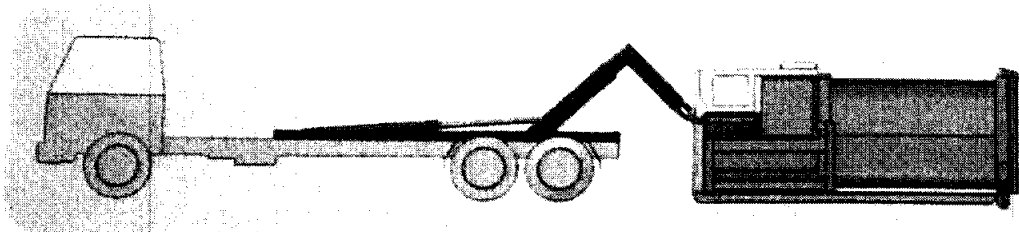
Appliances- auto tipping bucket
Small vehicle bucket cubage = 1.4 meter cube
Capacity of in-built container = 1.5 to 2.5 meter cube

Number Required

As many numbers as required in view of the physical conditions.



Container Hook Lifting type Mechanism



Hook Lifting type Mechanism-B

Appliances- metal container

Container Cubage

- 1. 10 m³
- 2. 07 m³
- 3. 05 m³

Number required

- Suggested number of machines required of different container Volume capacity is

05 M³ Volume=	13 No.
10M³ Volume=	13 No.
07M³ Volume=	<u>13 No.</u>
Total =	39 No.

4.4 Schedule of Works

Proposed schedule of work and services is given at term of reference and technical specification.

4.5 GTS of Zones and Locations.

- a. Orangi Zone, Gondpass Landfill site or as designated by Procuring Agency.
- b. Baldia Zone, Gondpass Landfill site or as designated by procuring agency.
- c. Kemari Zone, Gondpass Landfill site or as designated by procuring agency.
- d. SITE Zone GTS is at UC-1 Pak Colony & UC-8 Qasba Colony or as designated by procuring agency.

Section V

Terms of Reference & Technical Specification

Terms of Reference & Technical Specification**5.1 MSW by Definition**

Municipal Solid Waste, commonly known as trash or garbage is a waste type consisting of everyday items that are discarded by public includes food waste, market waste, yard waste, landscape waste (tree cutting, bushes, grass cuttings etc). Domestic waste, Slaughter and Sacrificial animal waste (like offals, bones, skin etc.) and other miscellaneous solid waste from residential commercial, institutional areas but do not include demolition waste (inert waste) Industrial waste, agriculture waste, Medical Waste or sewage sludge.

The total estimate MSW generation in DMC West is 1732 Ton Per Day, the composition of MSW and its quantum varies depending upon, type of dwelling population density, commercial activity and density of different type of bazaar and markets in the area, the quantum of MSW also reflects its variation on various occasion, like Eid Festival in the month of Ramdan and Eidul Azha. The quantum also depends on seasonal variation.

Municipal Solid Waste can be classified in several ways, but the following list represent at typical classification:

- Biodegradable Waste i.e.
Food and kitchen waste, green waste, waste from houses, gardens, papers.
- Recyclable Material i.e.
Like paper, glass, bottles, canes, metals, plastic, fabrics, clothes, batteries, old types etc.
- Electrical and Electronics Waste
Like discarded, electrical appliances etc.
- Composite Waste.
Waste clothing, Tetra Pack, Plastic like toys etc.
- Hazardous Household Waste
Like paints, chemical in daily residential usage, light bulbs, tube, spray cane, garden fertilizer, different type of plastic bottles and cans garden pesticide, herbicides etc.

Municipal Solid Waste as defined here above includes all type of waste that is collected at dustbins/collection points except, demolition waste (inert waste) industrial and medical waste, agriculture waste, sewage sludge but includes sweeping waste with a minor component of dirt.

5.2 Transition Period

Transition period for the purpose of implementation of this contract is 03 (three) months starting from date of signing of agreement and work order. The contractor shall be liable to function its activities at the work and services even in the transaction period.

5.3 Terms of Reference

a. Scope of work

1. Door to door collection of garbage & revamping of bin system.
2. Sweeping of roads, streets, lane, footpath, medians and open spaces and sweeping waste collection and disposal.
3. Washing of important roads as and when required on special occasions.
4. Lifting and transportation MSW from dustbins sites & collection points to designated GTS.
5. Establishment of Scientific Monitoring and Tracking of Entire System i.e. vehicle sanitary staff, assets etc.
6. Establishment of complaint management system.
7. Community awareness program and its implementation.

b. Objective of work and services

The objective of work and services is to provide an efficient, cost effective, environment friendly solid waste collection transportation its efficient and effective management and operation systems for the public to live in waste free and healthy environment. Effective management and monitoring shall help out in obtaining desired results in time.

c. Task to be performed.

1. Door to door collection.

Door to door collection for Front End Collection Plan/mechanism is categorized as:

(a) Block Collection.

Wherein waste collecting vehicles with one or two waste collecting workers move around the residential blocks on a specified time each day and sounds horns or ring bell and wait at intermediate location for residents to bring waste in polythene bags to the collection vehicles or where the workers with the collecting vehicles collect garbage in a basket at the door step of the residents and throw in the collecting vehicles, which is then disposed off to nearest dustbin site.

(b) Door Step Collection.

Wherein waste is left outside the property by the residents in plastic/polythene bags and picked up by waste collecting vehicles moving in and around the residential area at specific time each day or collected at door step by the sweepers every day, equipped with wheel barrow, handcart and disposed off to nearest dustbins sites.

(c) Shared containers type collection.

Wherein a container of suitable capacity is placed at an appropriate place within a residential block, apartment building market and shopping area and residents and other generators, put their waste stuff inside the container, these containers may be of hook and lifting type or may be bucket type with proper tipping arrangements, which are then emptied at by compaction container type compactor vehicles and then again placed at the location. However this operation is done as many time as required to keep the container free of garbage. The location where the such containers are placed are kept cleaned and spelled out garbage is swept from the surrounding.

Anyone or all defined categories will be adopted under the front end collection plan for door to door collection keeping in view the demographics of the area, however for the purpose of guidance, sweeping methodology in various UCs of the Zones of DMC West is mentioned hereunder.

Plastic bag will be provided free of cost by contractor/operator to all residential units for the first two month of the contract only.

d. Street Sweeping and sweeping of main roads

1. Conventional Type (i.e. manual).

With the help of sweepers, using broom/brushes and sweeping waste is collected through wheelbarrow, transported and disposed off to nearby buckets containers with tipping arrangements.

2. Mechanical Type (i.e. using machine sweepers).

Appropriate, vacuum type mechanical sweeping vehicles including built-in sweeping waste containing facility, shall be used. The sweeping waste shall be disposed off to nearest bucket or container having tipping arrangements.

e. Collection and transportation of MSW

Under the proposed plan efficient and effective collection & transportation system for MSW is to be adopted. A system that help keeping the area free of garbage. To coop up the target numbers of collection point / dustbin sites are to be significantly reduced that can be done using:

1. Containers, bucket, bins having tipping arrangements is to be provided at appropriate location that can be emptied into a compaction type container mounted on vehicles.

Using compaction type containers mounted vehicles save labour cost and frequent cleaning of bin, buckets and containers help discourage scavengers, reduce insects/rodents problems, prevent windblown trash, control odor, save inside storage space and outside parking spaces, reduce the hazards of open dumping. For various such reasons emphasizes is made to use appropriate machinery for solid waste management and transportation.

f. Responsibilities of procuring agency

1. In case the procuring agency does not fulfill its obligation regarding signing of agreement the procuring agency may relinquish its commitments 45 (forty five) days after receiving the acceptance letter by procuring agency.
2. The procuring agency shall assist and facilitate the contractor in performing the work and services as per the contract in respectful and honorable manner throughout the period of contract.
3. The procuring agency shall make all due payments to the contractor in respect to verified monthly bills timely and will be careful and justified in imposing penalties.

g. Responsibilities of contractor

1. The contractor will perform the work and services under this contract in respectful, honorable manner with desire to serve people of the area.
2. The contractor will submit his monthly performance bill in time and in accordance work performed correctly and in justifiable manner.
3. Contractor shall follow the instruction, guideline issued by client or by representative of client and shall comply with all such instruction timely.
4. Contractor is responsible for ensuring good behavior to public and follow the code of conduct detailed in contract document

5.4 Technical specification.

A. Revamping of Bin System.

The contractor shall provide bin, bucket, containers having tipping mechanism compatible with compactor vehicles in the color scheme noted below

Orangi Zone – Golden Brown
SITE Zone – Sky Blue
Baldia Zone – Silver Brown
Kemari Zone – Sea Green

Marking of Logo and Letters

Sindh Solid Waste Management Board and the Zone Name shall be written in Capital Bold Letter and its logo shall be placed on bin, buckets and containers with the approval of the Procuring Agency.

Bin Type and Sizes

1. Plastic Litterbins of bin cubage 0.24 to 0.3 Meter cube.
2. Standard metals bucket with the following cubage:
 - a. Bucket cubage of 0.8 to 1.4 m³.
 - b. Bucket cubage of 1.4 to 2 m³.
 - c. Big bucket cubage 3.35 to 4 m³.
3. Standard Metal Container of container cubage 5 to 10 m³. All the bins, buckets and containers shall be of tipping type.

Bin Requirements

Zones	Plastic Litterbins of different sizes and colors	Standard metal bucket of different sizes and colors	Standard Metal container of different sizes and colors
Orangi	1500 Nos.	1000 Nos.	200 Nos.
SITE	1000 Nos.	500 Nos.	150 Nos.
Baldia	1500 Nos.	1000 Nos.	200 Nos.
Kemari	300 Nos.	500 Nos.	150 Nos.
Total	4300 Nos.	3000 Nos.	700 Nos.
Area of placement	in market & shops	in market shopping malls & commercial centre & residential Unit	At appropriate places in residential areas, apartment blocks, residential blocks and public places

REMARKS:

Contractor shall provide bins, buckets, and container on prior approval for numbers to be provided at first stage second stage and third stage as desired by procuring agency.

B. Plan for Placement of bins, buckets and containers

The contractor will prepared a comprehensive plan for placement of bins, buckets and containers in various union councils of each zone as per guideline for revamping of bins system.

The plan submitted by successful bidder shall be reviewed by client after award of the contract and a revise plan shall be prepared with mutual consent of client and contractor and with the approval of client, the approved plan shall be implemented for provision work and services under this contract.

C. Polythene bag

Polythene bag of size 0.5X1 meter in black color of 30 micron thickness with letter and logo of SSWMB printed on it shall be provided by the contractor for door to door collection in the areas where door step strategy is adopted. Contractor will provide such bags free of cost for the first two week of the contract and thereafter bag will be provided to residents on payment. Prior approval of the client shall be required for the cost of the bag provided to residents. Samples of polythene bag shall be sent for approval of client with required printing. Approved bags only shall be supplied to the residents. Polythene bags shall be provided for everyday collection solid waste to the residents.

D. Cost of Polythene bags provided free of cost

All cost towards providing/supplying of polythene bags free of cost (for the first two week of the contract) shall be included in unit cost of work and services mentioned in price list.

E. Door to door collection plan

Domestic waste shall be collected via strategy for door to door collection defined under front end collection plan contractor shall submit plans for implementation of this system for door to door collection along with the tender. Such plan shall be review and reworked with the consent of client and successful bidder and shall subject to approval of competent authority. The approved plan shall be implemented. The strategy for door to door collection defined herein the documents using UC wise parameter are basic once and the bidder is supposed to give their own appropriate plan and strategy. Innovation and out of box ideas shall encourage

F. Handcarts and other tools for door to door collection

1. Contractor will collect waste from narrow streets which can not access by garbage vehicle through workers using wheeled handcart and empty them to nearby container or to the compactor vehicle standing nearby locality.
Wheeled handcart bin cubage = 120 Litters
2. Contractor may also collect waste from congested residential colonies through workers using wheel barrow and basket

G. Manual sweeping

Manual sweeping of roads shall be done by man/woman sweepers using broom/brushes and sweeping waste is collected through wheel barrows and sweeping waste disposed off at nearby container or bucket or compactor vehicles standing nearby the locality.

Tools for manual sweeping

1. Broom and brushes
2. Shovel and spades
3. Racks
4. Basket
5. Hoe.

H. Length and area for manual sweeping

a) Orangi Zone	667.80KM
b) SITE Zone	222.75KM
c) Baldia Zone	451.35KM
d) Kemari Zone	731.46KM
Total	2073.36KM

e) Length and area for manual sweeping under following subhead is noted below.

a) Medians	103890 Sq Meter
b) Footpath	34545 Sq Meter
c) Roundabouts	14300 Sq Meter
d) Open spaces	24000 Sq Meter
Total	176735 Sq Meter

I. Workforce required for manual sweeping

Minimum suggested workforce required for sweeping of roads, medians, footpaths, roundabouts and open spaces under manual sweeping 2500 persons.

J. Schedule for manual sweeping

Type of roads	Manual sweeping length meter	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Secondary Main Road	309500	Yes	No	Yes	No	Yes	No	No
Streets	897550	No	Yes	No	Yes	No	Yes	No
Narrow lanes	766313	Yes	No	Yes	No	Yes	No	No
Type of Area	Manual sweeping Square meter	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Medians	103890	Yes	No	No	Yes	No	No	No
Footpath	34545	No	No	Yes	No	No	Yes	No
Open spaces	24000	No	No	No	No	No	Yes	No
Roundabouts	14300	Yes	No	No	No	No	No	No

Manual sweeping shall be done in 02 (two) shift according to the schedule of sweeping.

06:00AM –to- 10:00 AM Shift-1

02:00PM –to- 06:00 PM Shift-2

All cost towards workers, bins, bucket, container, tools must be included in the unit cast of works and services items mentioned in the price list.

K. Schedule for mechanical sweeping on primary and secondary main roads

DMC	Mechanical sweeping length meter	Number of Sweeping Machine	Mon	Tue	Wed	Thu	Fri	Sat	Sun
West	264932	8	Yes	No	Yes	No	Yes	No	No

Standard mechanical sweeping machine of vacuum type with self contained in-built waste collection container shall be applied at the work.

L. Plan for mechanical sweeping.

Contractor will prepare a comprehensive plan for mechanical sweeping work of each zone as per guideline given herein above and will attached the same with the contract document. The plan submitted by the successful bidder shall be reviewed by the client after award of the contract. The approved plan shall be implemented for operation of work and services under this contract.

M. Plan for collection and transportation of MSW and schedule of operation.

Name of DMC	MSW Generation Ton Per day	Number of collection and transportation vehicles of different Capacity	Mon	Tue	Wed	Thu	Fri	Sat	Sun
DMC West	1732	70	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Door to door collection	Inclusive as above	Tool as per requirement	Yes	Yes	Yes	Yes	Yes	Yes	Yes

N. Plan for mechanical washing of the road

Name of DMC	Length of washing of main roads Per Year	Number of Washing vehicle	Mon	Tue	Wed	Thu	Fri	Sat	Sun
DMC West	600	04	Occasionally when asked for. On written orders						

Note:-

The schedule and work plan given herein above are based on basic parameters and of tentative basis and the bidder are suppose to give their own appropriate plan strategies and schedules. Innovation and out of box ideas shall be encourage.

O. Proposed Managerial and operational staff requirement

Sri No.	Designation	Numbers	Qualification	Remarks
01.	Manager Operation	01	Well experienced high qualified professional engineer	Please attached the C.V. of the personal
02	Manager Monitoring & Tracking System	01	Personal may be an I.T. Specialist at least B.S in computer science with specialization in networking and system management sciences	Please attached the C.V. of the personal
03	Zone Field Incharge	04	Graduate having sufficient experience in SWM.	Please attached the C.V. of the personal
04	Supervisor	38	Graduate having sufficient experience in SWM.	Please attached the C.V. of the personal
05	Asst. Supervisor	76	Intermediate sufficient experience in SWM.	Please attached the C.V. of the personal
06	Muquddam	114	Metric having sufficient experience in SWM.	Please attached the C.V. of the personal

5.5 Basis of current date prices

i. Source of price (Diesel)

The source of prices of diesel shall be either obtained from Government of Pakistan (GOP) Federal Bureau of Statistic (FBS) monthly statistical bulletin or Pakistan State Oil (PSO) however for a particular adjustable element the same source shall be used throughout the currency of the contract.

ii. Source price – Labour (Unskilled)

The source price for labour shall be either Govt. of Pakistan (GOP) Federal Bureau of Statistic (FBS) statistical bulletin and statutory notifications. However for a particular adjustable element the same source shall be used throughout the currency of the contract.

iii. Element for price adjustment

Following specified elements is subjected to price adjustment

- Fuel (Diesel) for vehicles collecting/Transporting MSW only
- Labour (unskilled)

iv. Standard Procedure and Formula for Price Adjustment Calculations.

A) Applicability.

- The provision for price adjustment shall be applicable to this contract and price adjustment shall be applicable as payable in full for original scheduled completion period.

- b. In the event the completion of contract exceeds the original scheduled period then:
- i. In case of default on the part of contractor causing delay in original schedule completion, the rate of price adjustment will be frozen at the original scheduled date of completion, however price adjustment will be applicable till actual completion. While computing price adjustment beyond the scheduled completion period, in the event the rate is reduced then that reduced rate will be applicable.
 - ii. The price adjustment will be payable in full for the extended period, if the contractor has been granted an extension of time for no fault on the part of contractor duly approved by Sindh Solid Waste Management Board (the procuring agency).
- c. The Basis for compensation (Price Adjustment) will be only those element as specifically listed in clause No.5.5(iii) of this document.
- d. There shall be no price adjustment for the elements which the employer has either supplied free of cost or at fixed prices as well as for those elements for which an umbrella exgratia or escalation cover is provided by the Government through an executive order or Statutory Regulatory Order (SRO).
- e. The price adjustment provided herein is only for price adjustment in Local Currency (Pak Rupees).
- f. No method other than given in this document is applicable to compute the price adjustment.

B) Base Date Price and Current Date Price

a. **Base Date Price.**

The base date price (or Base date index) of the element specified in clause 5.5 (iii) shall be the price of the element which was prevalent twenty eight (28) days prior to the date of submission of tender and such price is to be indicated in writing in the document, as required to be provided by the bidder under appendix-A along with the documentary evidence of specified source. The base date price of the specified element shall be obtained from the sources specified under clause No.5.5

b. **Current Date Price.**

The current date price (or current date index) of the element specified under clause 5.5(iii) shall be price of the element, which was prevalent twenty eight (28) days prior

to the start of the execution month (calendar month) to which a particular monthly statement (monthly running bill) is related. The current date price of the specified element shall be obtained from the source specified in the contract and its documentary evidence is to be provided by the contractor along with monthly bill statement.

c. Procedure.

The monthly bill statement (monthly running bill) as submitted by the contractor, will be

- i. Subjected to verification by procuring agency or its authorized representatives. In case the billed amount is for more than one month, the amount of bill shall be segregated for actual work done for each month.
- ii. Considering the base date price and current date price, the price adjustment in the billed amount then be calculated for the month under consideration in accordance with the formula for price adjustment

C) Formula for Price Adjustment (generalized form)

$$P_n = A + b \frac{L_n}{L_o} + c \frac{M_n}{M_o} + d \frac{E_n}{E_o} + \dots$$

P_n = is Price Adjustment factor for the work carried out in the period n.

A = is a constant or non adjustable portion of the price adjustment factor as specified here under representing the non adjustable portion of contract price.

b, c, d ... = are the coefficient or weightage order 0.xx (i.e. fraction having two significant digits) for each specified element of adjustment in the contract. The sum of A, b, c, d, etc shall be one.

L_o, M_o, E_o, \dots = are the base date indices for the specified (adjustable) element.

L_n, M_n, E_n, \dots = are the current date indices of the specified (adjustable) element.

If P is the amount payable (prior to adjustment) at the rate entered in the price schedule of work carried out in period n then adjusted payable bill amount to the contractor for the work carried out in period n shall be equal to $P_n \times P$.

5.6 Rate analysis

The contractor shall provide rate analysis for each item of BOQ mentioned in the price sheet. The rate analysis should indicate breakup of Unit Cost by activities involved in an item. The consumption of fuel at current rates, factored cost of machines, cost of Litterbins, buckets, containers, polythene bags (that are provided free of cost for two months only), tools, labour cost, managing and monitoring and other cost breakup while evaluating unit price for the items of works and services and shall also provide breakup of cost of other items that are inbuilt in items of works, and the way of evaluation the unit prices. The details are required to assist the reasonability of rates quoted by the contractor.

5.7 Chargeable works

The contractor shall provide polythene bags to the resident free of cost for the first two week of the contract period, after words contractor shall charge the cost of polythene bag from the area residents to whom the bags are provided, however the cost of bag shall be approved by the client. In any case no cost towards supplying polythene bags to the residents shall be included or inbuilt in the unit price of the item mentioned in the price list except that provided free of cost for first two week of the contract. After two weeks the residents shall be at liberty to buy these polythene bags either from the contractor or open market (as per approved specification).

5.8 Procuring agency representative, duties and authorities

The procuring agency will appoint a supervising consulting firm or supervising personnel to examine whether work is being performed in accordance with the standards, quality and specification. The supervising consulting firm shall verify the monthly performance bill checked monthly performance and shall report to the client. The contractor shall confirm to the instructions of the supervising authority.

5.9 Uniform

All field staff of the contractor shall wear a proper uniform as approved by the client. A logo of SSWMB shall be placed on the front pocket and on the back of the uniform, the cost of uniform shall be included in the unit price of work item mentioned in the price list.

5.10 Weightment of MSW.

Payment of MSW collection and Transportation shall be based on weight (Metric Ton=1000Kg), subjected to weight quantified/measured through a designated weighbridge (weighbridge designated and approved by SSWMB). The weighing charges shall be born by the contractor and deem to be included in the Unit Cost of the item.

5.11 Tentative Weight Assessment.

The weight of Municipal Solid Waste shall be assess on the basis of its density as (Weight / Volume) Tons Per Cft. (This density shall be subjected to verification by SSWMB and the contractor prior to execution of work. The jointly verified density shall be used for assessment of weight of MSW throughout the contract). The Assessment of weight by density shall not be the basis of Payment. This tentative assessment of weight is a check to ensure that any construction debries or inert waste is not mixed with MSW. Contractor for the purpose of assessment shall provide cubage of each and every vehicle container transporting MSW to GTS or Landfill.

Debries and inert waste shall not be mixed with MSW. Any weight of debries or inert waste shall not be subject to payments. If mixed with MSW strict action shall be taken including imposition of penalties and actions that such weight shall not be allowed for payment.

5.12 Rating System and Payment Criteria for sweeping work (Manual and Mechanical).

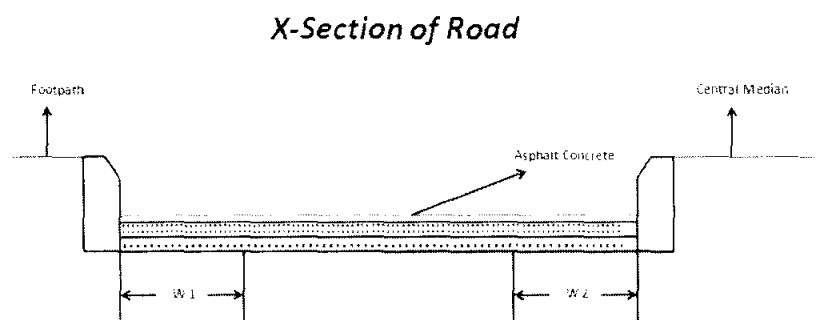
A) Street Cleaning Rating System in Term of Litter and Dust.

Numeric Value	Service Standard sweeping works	Payment in terms of percentage of cost of work done
1	a) A clean street no litter b) A clean street no dust and particles	100%
2	a) A clean street, except for a few one piece of litter b) A clean street, except for a few dust particles micron>40	90%
3	a) No concentration of litter. There are no piles of litter, and there are a large gaps between piece of litter. b) No concentration of dust. There are no piles of dust, and there are a large gaps between minor heap of dust particle or small gaps between dust particle.	80%

4	<p>a) Litter is concentrated in spots. There may either be large gaps between pile of litter, or small gaps between pieces of litter.</p> <p>b) Dust and particle micron <600 is concentrated in spots, there may either gaps between minor heap of dust particle or small gaps between dust particle</p>	70%
5	<p>a) Litter is concentrated and there are only small gaps between piece of litter.</p> <p>b) Dust and particle micron <1000 is concentrated in spots, there may either gaps between minor heap of dust particle or small gaps between dust particle</p>	50%
6	<p>a) Litter is highly concentrated with no gaps in the pile of litter, the litter is straight line along the curb.</p> <p>b) Dust is highly concentrated with no gaps in the heaps of dust and particle. The dust is straight line along the curb.</p>	30%
7	<p>a) Litter is very highly concentrated and there are no gaps between the piles of litter. The litter is a straight line along and over the curb.</p> <p>b) Dust is very highly concentrated and there are no gaps between the dusts. The dust is a straight line along and over the curb.</p>	0%

B) Bases for Payment for Sweeping Work.

- i. Manual sweeping of Road/Streets with Kerb at both edge with or without footpath but not including sweeping of footpath.



W1= 2 Meters Minimum from the edge stone of road

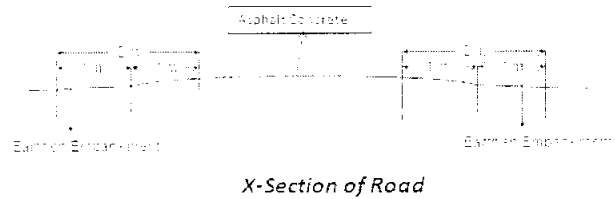
W2= 2 Meters Minimum from the edge stone of road

L = Length of sweeping

Sweeping work measured in KM in one direction of road= W1 and W2 both for length of sweeping L

Note: Single length L of sweeping in one direction (inclusive of both W1 and W2) shall be considered for payment.

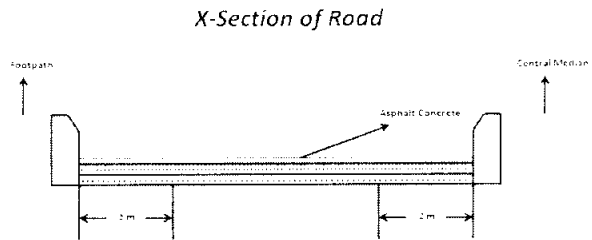
- ii. Manual sweeping of Road/Streets with earthen embankments or sides without kerbs.



Note: Single length L of sweeping in one direction inclusive of both W1 and W2 shall be considered for payment.

- iii. Mechanical sweeping of roads single or double carriageways.

- a) Mechanical sweeping of roads (single or double carriageways) with kerb at both edge with or without footpath, but not including sweeping of footpath



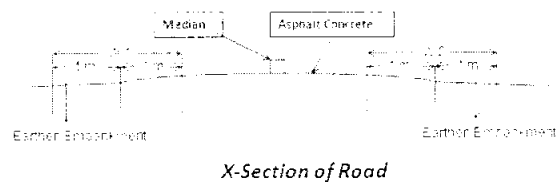
W1= 2 Meters Minimum from the edge stone of road

W2= 2 Meters Minimum from the edge stone of road

Sweeping work measured in KM in one direction of road= W1 and W2 both for length of sweeping L

Note: Single length L of sweeping in one direction (inclusive of both W1 and W2) shall be considered for payment.

- b) Mechanical sweeping of roads single or double carriageways with earthen embankment sides without kerbs having central median or without central median.



Sweeping work measured in KM in one direction of road= W1 and W2 both for length of sweeping L

Note: Single length L of sweeping in one direction (inclusive of both W1 and W2) shall be considered for payment.

5.13 Submission of Monthly Bill

- A. The contractor shall submit the bill for the work and service performed by 7th day of every month. Monthly bill shall be supported by zone wise MSW weight slips along with detail of lifting of MSW along with date, time and location. An inventory of roads on which sweeping work is done with length and reference date, time and location shall be provided by the contractor in support of their bill. Contractor may use GIS System and other latest technology to provide informations in support of his monthly bill submission.
- B. Minimum amount of monthly bill (interim / running payment certificate)
The amount of interim running payment shall be equal to the amount of certified monthly works executed. The monthly bill shall be paid within 15 days of its submission.

5.14 Demolition, Construction/Building Material and Debris Management Service.

The contractor shall be required to provide demolition construction/building material and debris management service on phone call or on complaint for removal/lifting and disposal of debris of demolition, construction/building material from the area of service (the area of service of DMC West) at his own risk and cost. For the purpose of this management the contractor shall be required to:

- a) Provide as number of vehicle as required to lift and transport of demolition material and debris.
- b) Provide as much staff as required to manage this service.
- c) Construct, manage and operate a construction demolition/building material and debris yard at appropriate place within the same area where demolition material and debris shall be dumped.

The contractor will however be allowed to charge free from the public requesting for lifting/removal of such demolition material and debris. The fee/charges for this service shall be fixed at the rates approved by the SSWMB.

The contractor will also be allowed to sell out demolition construction/building material dumped at the yard at the rates approved by the SSWMB.

The contractor is hereby warned that:

- Dumping of demolition, construction/building material in the community dustbins, on road, streets, lanes, footpath, central median, roundabout & open places is strictly prohibited any violation in this regard will be dealt strictly and penalized as per law / rules.

5.15 Notices.

Prior to impose penalty, the contractor shall be informed by procuring agency officials of his deficiencies through two consecutive notices at week interval after that penalty will be imposed.

Price Adjustment Under Clause 5.5 of Section-V of Contract Document

The source of indices and the weightages or coefficient for use in the price adjustment formula under Clause 5.5 shall be as follows:

Cost Element	Description	Weightages	Applicable index
1	2	3	4
Non Adjustable Portion			
(i)	Fixed Portion	0.49	Official price from public sector organization or statistical bulletin published by Federal Bureau of Statistic (FBS), Statistical Division Govt. of Pakistan Statutory Notification.
Adjustable portion			
(i)	Fuel Diesel	0.08	Govt. of Pakistan by Federal Bureau of Statistic (FBS), Monthly statistical bulletin or Pakistan State Oil
(ii)	Labour (unskilled)	0.43	Govt. of Pakistan (GoP) Federal Bureau of Statistic (FBS), Statistical Bulletin and Statutory Notification.
Total		1.00	

1. For Base Date and Current date indices refer clause no.5.5. The base cost indices or prices shall be those applying 28 days prior to the latest day for submission of bids. Current indices or prices shall be those applying 28 days prior to the last day of the billing period.
2. Any fluctuation in the indices or prices of elements other than those given above shall not be subject to adjustment of the Contract Price.

Price Adjustment Under Clause 5.5 of Section-V of Contract Document*(To be filled in by bidder/contractor)*

Srl No.	Description	Base Date Price	Source
1	2	3	4
(i)	Fuel (Diesel)		As given under Clause No.5.5-i
(ii)	Labour (unskilled)		As given under Clause No.5.5-ii

Srl No.	Description	Current Date Price	Source
1	2	3	4
(i)	Fuel (Diesel)		As given under Clause No.5.5-i
(ii)	Labour (unskilled		As given under Clause No.5.5-ii

Note: *The bidder/contractor is hereby cautioned to read clause 5.5 and price adjustment procedure given therein carefully while filling the above appendix.*

List of Subcontractors

I/we intend to subcontract the following parts of the work to subcontractors. In my/our opinion, the subcontractors named hereunder are reliable and competent to perform that part of the work for which each is listed.

Enclosed are documentation outlining experience of sub contractors, the curriculum vitae and experience of their key personnel and type of contracts carried out in the past.

Part of Works (Give Details)	Subcontractor (With Complete Address)
1	2

Note: *While filling the above reference may kindly be drawn to Clause No.2.22 of this document.*

List of Solid Waste Machinery / Vehicles & Equipments

Owned Purchased or Leased	Description of Unit (Make, Model, Year)	Capacity HP Rating	Condition	Present Location or Source	Dated of Delivery at Site	Fuel consumption Per Kilometer
1	2	3	4	5	6	7
a. Compactor along with tipping arrangements						
b. Suzuki Pickup Type Vehicles with tipping arrangements						
c. Arm Rolls Type Vehicles with tipping arrangements						
d. Mechanical Sweepers vacuum type with wet sweeping mechanism and contained dirt provisions						
e. Mechanical Sweepers vacuum type with dry sweeping mechanism and contained dirt provisions						
f. Mechanical Washer						

Note: *While filling the above reference may kindly be drawn to Clause No.4.3 carefully of this document.*

Appendix-E**List of Solid Waste Machinery / Vehicles that the contractor intend to purchase from the DMC (West)**

Make Model of the Machinery	Type of Machinery	Registration No.
1	2	3

Note: *While filling the above contractor /bidder is requested to survey the existing machinery of the DMC West with due care and diligence*

Breakdown of Unit Cost of the item in BOQ by the Activities and Works in that item.

Group of Activities in an item of BOQ: _____

No.	Description of the Activities in the Item	Unit	Unit Cost	Quantity	Cost in Pak Rupees	Cost in US\$
1						
2						
3						
4						
5						

Cost = Unit Cost x Quantity

Note: *While filling the above contractor /bidder is requested to study the document and description of Items in BOQ carefully*

Estimated Progress Payments .

Bidder's estimate of the value of work which would be executed by him during each of the periods stated below, based on his Programmed of the Works and the Rates in the Bill of Quantities, expressed in thousands of Pakistani Rupees.

Quarter/Year/Period	Amounts (Million of Rupees.)
1	2
1 st Quarter	
2 nd Quarter	
3 rd Quarter	
4 th Quarter	
5 th Quarter	
6 th Quarter	
7 th Quarter	
8 th Quarter	
9 th Quarter	
Bid Price	

Section VI

Performance Evaluation & Monitoring System

Performance Evaluation & Monitoring System**6.1 Scientific Monitoring and tracking system for entire management and operation Plan**

The monitoring of processes included in front-end services should be aimed to ensure that the objectives of solid waste management plan are realized and achieved. The proposed mechanism for different processes include:

COMMAND AND CONTROL CENTRE

- Central as well as District Command and Control Centre is planned to be established by SSWMB.
- However the Contractor shall have to setup his own Control Room for effective monitoring and execution of the scheme.
- Members from District Municipal Corporation and Sindh Solid Waste Management Board shall be given access to the control room.
- Radio monitoring system to be established at control room.
- Android-based monitoring system be established at control room.
- GPS tracking system for garbage transportation vehicles.

Section VII

Conditions of Contract and Price Sheet

Conditions of Contract and Price Sheet**7.1 Compliance of Laws & Rules Regulation**

The contractor shall be bound under this contract to comply with all substantive and procedure laws of Islamic Republic of Pakistan which may include but are not limited to the followings:

- i) Labour Laws
- ii) Land Laws
- iii) Environmental Laws
- iv) Local Govt. Act./Laws
- v) All National and Provincial Rules and Regulation applicable to the nature of services and works under this contract.

Inability of successful bidder to comply with all laws, rules, regulation and procedures will result in penalization, as per penalty clauses provided in this contract.

All substantive and procedural laws of Islamic Republic of Pakistan including Sindh Public Procurement Rules 2010 amended 2013 shall govern this document.

7.2 RFP Document

All section of RFP documents i.e.

- | | | |
|-------|--------------|---|
| i) | Section-I | Preambles |
| ii) | Section-II | Instruction to Contractor |
| iii) | Section-III | Description of the Zones of DMC West |
| iv) | Section IV | Proposed plan for DMC West |
| v) | Section-V | Terms and reference and Technical Specifications. |
| vi) | Section-VI | Performance Evaluation and Monitoring System |
| vii) | Section-VII | Conditions of Contract & Price Sheet |
| viii) | Section-VIII | Annexures |

All Sections noted above and the clauses contain therein are part and parcel of RFP Document and are integral parts of the agreement and shall be binding upon client and contractor.

7.3 Correspondences-Communications-Notices

All correspondence, communication and notices required or permitted under this contract shall be in writing and in English language and shall be give (to and from contractors & client) at official address provided in this contract document. Change of address shall be duly notified by the relevant parties.

7.4 Language of Agreement

Agreement will be prepared in English language.

7.5 Type of Agreement and Contract Price

The agreement is a unit price contract, the sum of amounts is calculated by multiplying quantity of each work item as indicated in the price list and unit price quoted by the contractor for that work / services items. The payments of each work/services performed by the contractor shall be based on the unit price quoted by the contractor.

7.6 Duties and Taxes

All of the taxes, duties, fees, and other contractual costs regarding the signing of the contract shall be born by the contractor.

7.7 Expenses included in the Contract Price

All costs associated with the operational management, monitoring and performance of works and services according to the contract, expanses related with fuel, spare parts, maintenance and repair, depreciation of vehicles (solid waste collection and transportation vehicles) etc. and cost of other incidental items, cost of transportation, cost of trollies, polythene bags, containers, dustbins, litterbins and others mentioned in various sections of the contract. Cost of any or all insurances related to and for the purpose of works and cost of all taxes required to be paid by the contractor pursuant to laws of Pakistan. All the above mentioned costs and those mentioned in the sections of the contract document, must be taken into account and included in bid price.

7.8 Intermediate payment / Running Bill

The contractor shall submit running bill in the first week of every month for the work and services performed by him. The monthly performance shall be checked and determined by the client subject to verification through client representatives and on the basis of such verified determinations by the client payment shall be made within 15 days after submission of monthly performance bill/running bill by the contractor.

7.9 Insurance of work & work places

The contractor shall be responsible for safeguarding of work and work places the contractor shall take all insurances required by pertinent legislations and submit the policies thereof to the client. The contractor shall be responsible for any damages cost by him or his Subcontractor's personals in respect of work performed under this contract.

7.10 Indemnification by Bidder/Contractor

Contractor shall indemnify, defend and hold harmless the client (SSWMB), its member, officers, directors, employee and representatives from and against any and all claims arising out of or in anyway connected with gross negligence, fraud, or willful misconduct of the contractor or any one acting in contractor's behalf or under its instructions in connection, with this contract and contractor's obligations there under. Any cost or expanse incurred by the contractor pursuant to its indemnity obligation under this clause shall be the sole responsibility of the contractor.

AND

The contractor/bidder shall indemnify the SSWMB, its employees against all losses and claims in respect of:

- a) Death or injury to any person, due to accident.
- b) Loss or damage to any vehicle, plant, property which may arrived out of accident or public roit or in consequences of execution of work and against all claims, proceedings, damages, cost, charges and expanses, whatsoever in respect of or in relation thereto the contractor shall indemnify the client, its officers, employee for any loss claims, demands or lawsuits resulting from defects in contractor's performance during execution of work and services.

7.11 Contractor Liability for Indemnification

The contractor shall be directly responsible for the choice or use of defective or noncompliant tools or machineries deficiencies of performance in works and services, mistakes in sufficient supervision or any failure to fulfill his obligation in accordance with the provisions of this contract and specification and any other losses and damages that may occur due to similar reasons. The contractor shall indemnify such losses and damages in accordance with pertinent legislation.

7.12 Penalties & Cancellation of Contract.

Penalties as noted below shall be imposed if negligence, discrepancies and deficiencies on the part of the contractor to fulfill their obligations on the performance of works and services and the requirements to perform such works and services are found during the period of this contract.

If the procuring agency finds any non-conformity / activity contrary to the job description defined in this document, the contractor shall be bound, given a chance to bring his work standards to the satisfaction level of the procuring agency and if the non-conformity is not corrected within the time limit granted by the procuring agency, the penalties will be imposed on the contractor.

If non-conformity continues despite penalties, the procuring agency may terminate the agreement and damages to the procuring agency due to these non-conformities of the contractor shall be recovered from his performance securities.

a.	If door to door services is not rendered up to the mark or door to door services is rendered partially and non compliance of the requirement for door to door services mentioned in the technical specifications	Rs.15000/- Per Day Per Zone
b.	If number of manpower provided is found insufficient to perform works and services satisfactorily and not in accordance with the minimum requirement of manpower mentioned in the contract	Rs.400/- Per Day Per Person
c.	If the vehicle used for collection, transportation of solid waste is found inappropriate to the standards of solid waste management system. (Except where SWM vehicles of the procuring agency is utilized.)	Rs.50000/- Per Day Per Vehicle
d.	If numbers of Solid Waste collection and transportation vehicle is deficient to the minimum requirement for successful collection and disposal of MSW as proposed by the bidder in their proposal.	Rs.100000/- Per Day
e.	If the SWM vehicles are not cleaned and washed and found on road in dirty, out of order and unsafe conditions.	Rs.2000/- Per Vehicle Per Day

Sindh Solid Waste Management Board

f.	If leachate is dropped from the vehicle on roads and working routs.	Rs.5000/- Per Vehicle Per Day
g.	Failure to operate machinery and manpower and vehicles during emergency conditions	Rs.500000/- Per Day
h.	Improper collection of Solid Waste from dustbins and collection point including road sides collection.	Rs.1000/- Per Day Per collection point
i.	If debries are found mixed with MSW while taking weights of MSW at designated weighbridge.	Rs.5000 Per Trip
j.	Number of Garbage Containers, litterbins, tipper bins are found less than the requirement as proposed by bidder in their proposal.	Rs.50000/- Per Day
k.	Failure to clean public areas and removal of waste there from.	Rs.10000/- Per Day
l.	Sweepers personals not wearing uniform (Identifiable to procuring agency)	Rs.500/- Per Person Per Day
m.	Failure to collect domestic waste on road sides footpath and streets in 24hours.	Rs.1000/- Per Day
n.	If garbage containers are not cleared properly and timely as required under the contract	Rs.10000/- Per Day
o.	Repeat violation of cleaning and street sweeping services	Rs.20000/- Per Day
p.	On open transportation of garbage	Rs.5000/- Per Vehicle Per Day
q.	If polythene bags for door to door collection to the residents of the area are not provided as mentioned in the contract.	Rs.5000/- Per Day Per Zone
r.	If the works and services to be delivered are not started within the stipulate time i.e. 15 days after signing of agreement.	Rs.50000/- Per Day
s.	If dumping of garbage and other solid waste to any other place other than the approved dispcosal site.	Rs.10000/- Per Day
t.	Segregation of MSW is prohibited under front end collection plan. If segregation takes place by scavenger or other persons at collection point, dustbins sites, at containers and stage of door to door collection.	Rs.25000/- Per Dustbin Per Month

If the procuring agency finds any non conformity/contrary to the job description defined in this document. The contractor shall be bound giving a chance to bring his work standards to the satisfaction level of the procuring agency and if the non conformity is not corrected within the time limit granted by the procuring agency, the penalties will be imposed on the contractor.

If non conformity continuous, despite the penalties the procuring agency may terminate the agreement and damages to the procuring

agency due to these non conformities of the contractor shall be recovered from his performance securities.

7.13 Resolution of Dispute

- a) **Amicable Settlement:** If any dispute and differences arises between procuring agency and contractor in connection or arises out of this contract, the procuring agency and contractor shall attempt to settle such disputes (within the provisions of the contract) through discussion in the first instance. The designated representatives of procuring agency and contractor shall promptly used their best efforts in good faith to reach a reasonable and equitable resolution of such dispute.
- b) **Settlement through Arbitration:** After coming into force of the procurement contract dispute between the parties to the contract shall be settled by complaint redressal committee defined in SPPR 2010 amended 2013 or through arbitration in accordance with arbitration Act. 1940 and Laws for the time being in forced in Islamic Republic of Pakistan.

7.14 Code of Conduct

The contractor that attempts to get secrete information to conclude illegal agreements with the competitors or to effect the procuring agency during the phase of tender inspection, evaluation and comparison shall result in their offers cancellation and this situation shall be penalized administratively.

The contractor shall act objectively and trust worthy in accordance with rule of business ethic. It should avoid making public announcement regarding the works and services without prior permission and authorization of the procuring agency.

The contractor and its staff shall not act inconsistent way towards his obligation against the procuring agency and they shall not accept any type of the contributions that may effect their decisions at execution, performance, reporting at the works and services.

Assets of the procuring agency shall not be utilized without appropriate documentations and valid permissions in accordance with the contract. Procuring agency assets shall not be used for personal interest.

Contractor is responsible to ensure that its employees keep good behavior with public during execution of services in the area. Contractor shall be constructive with the public and shall not behave in a disgusting manner to the public. The services that are to be

performed are to serve the public. Briberies, tip or commission offered as incentive or reward to any person shall be considered as fraud, which is strictly forbidden under this contract. If the contractor found guilty under forbidden clauses of the contract, action shall be taken accordingly.

7.15 Time extension in conditions, situations of force majeure

Time extension shall be granted to the contractor in condition and situation of force majeure, but such condition and situation shall be certified by procuring agency and competent authorities.

The contractor shall not be liable for any failure or delay in performance of his obligation under the contract which is caused by circumstances beyond his control under force majeure.

Time extension shall be granted to the contractor in case where the procuring agency fails to fulfill its obligation regarding performance of the contract due to any reason not related with the contractor.

7.16 Access to the service area

Procuring agency and their authorized representative shall have access at all time to service area, offices of the contractor and any document, materials and record and accounts relating to the works and services performed under the contract for the purpose of inspections and reviews.

7.17 Termination upon notice by procuring agency

Procuring agency may terminate the contract upon 30 (thirty) days prior written notice to contractor in the event

- i) That contractor violets and continues to violation of any law applicable to the services, where the violation may have a material adverse effect on the management and operation of services under the contract.
- ii) Procuring agency may terminate the contract immediately upon the bankruptcy of the contractor or in other conditions as specified in the various clauses of the contract.

7.18 Termination by contractor

The contractor may also terminate this contract upon 30 (thirty) days prior written notice to procuring agency in the event

- i) That procuring agency failure to perform its material obligations under this contract in timely manner. If the failure do not redressed properly by the procuring agency in 30 (thirty) days, but in no case such redressal is made beyond 90 (ninety) days except if procuring agency continuous to pursue for redressal of such failure.

7.19 Work in emergency

The contractor in case of emergency may be called upon to provides works and services as per scope of work under this contract and the contractor shall comply with such emergency orders of procuring agency without excuses. Non compliance of the contractor shall lead to disqualification and will be dealt accordingly

7.20 Payment of Income Tax

The contractor, sub contractor and their employees shall be responsible for payment of all taxes and all type of income taxes, other taxes and taxes on income arising out of the contract and rate and prices coated by the contractor shall be deemed to cover all such taxes.

7.21 Local Taxation

The price coated by the contractor shall include all customs duties, import duties, business taxes income and other taxes that may levied in accordance with law and regulation in force in Pakistan as of the date, 28 days prior to the closing date for the submission of bid and taxes on vehicle machinery tools acquired for the purpose of the contract and on services performed under the contract, nothing in the contract shall relived the contractor from his responsibilities to pay taxes that may levied in respect of the contract.

7.22 Liability of the contractor

The contractor and their sub contractor or assigns shall follow strictly all relevant labour laws including workman's compensation act, and the procuring agency fully indemnified for all claims arising out of any damage by the contractor, his sub contractors or assigns and labour employed by them.

7.23 Price List and B.O.Q.

Item No	Description of Item	Unit	Quantity	Offer Unit Price (US \$) In Figure & in Words	Total Price (in US \$) In Figure & in Words
1.	Providing for and collection of MSW waste, sweeping waste including cost of door to door collection , management, operational, monitoring cost and cost of machineries, labours, sweepers, coolies, drivers, transportation, etc, cost of all taxes and other incidental cost as per the contract document.	Tons	632439 Per Year		
2.	Providing for and manual sweepings of roads and streets including management operational, monitoring cost, labour, drivers, coolies cost and cost of tools and other incidental cost and cost of all taxes as per contract document.	Kilo Meter	284164 Kilo Meter Per Year		
3.	Providing for and manual sweeping of footpath, Greenbelts, medians, Roundabouts, open spaces including management operational, monitoring cost, labour, drivers, coolies cost and cost of tools and other incidental cost and cost of all taxes as per contract document.	Sq Kilo Meter	15.13 Square Kilo Meter Per Year		
4.	Providing for and mechanical sweeping of roads including management operational, monitoring cost, labour, drivers, coolies cost and cost of tools and other incidental cost and cost of all taxes as per contract document.	Per Kilo Meter	61216 KM Per Year		
5.	Providing for and mechanical washing of main roads including management operational, monitoring cost, labour, drivers, coolies cost and cost of tools and other incidental cost and cost of all taxes as per contract document.	Per Kilo Meter	600 KM Per Year		

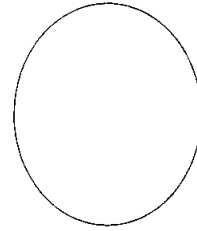
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6.	Providing and supplying at site of works litterbins, metal buckets, metal container (tipping type) compatible with Solid Waste Machinery including painting of bucket, bin and container in desired color including cost lettering as directed, cost of transportation, manufacturing etc. complete				
	a) Plastic Litterbin as per required standard having bin cubage of 0.24 to 0.3 Meter Cube	Each	4300 Nos		
	b) Standard Metal Bucket of bin cubage 1. 0.8 to 1.4 Meter Cube 2. 1.4 to 2 Meter Cube 3. 3.4 to 4 Meter Cube	Each Each Each	500 Nos 1000 Nos 1500 Nos		
	c) Metal Container of container cubage 1. 6.6 Meter Cube 2. 10 Meter Cube 3. 12 Meter Cube 4. 16 Meter Cube	Each Each Each Each	200 Nos 300 Nos 100 Nos 100 Nos		
7.	Providing for and collection and transportation of offals and other sacrificial animal waste (on eve of Eid ul Azha) from door steps, roads, streets, lanes open ground i.e. from the whole area under contract including cost of collection, transportation and disposal to landfill site (Jam Chakro Landfill site) including cost of management, monitoring, labours, machinery, incidental cost and cost of all taxes etc. complete	Ton	2341 Ton Per Year		

I. Per Year cost of work and services for item listed in price list / B.O.Q. in Figures _____

II. Per Year cost of work and services for item listed in price list / B.O.Q. in words _____

- III. Discount on account of labours/workforce obtained from DMC. Total Amount Per Year _____
- IV. Net Cost of Works and services for item listed in Price List/B.O.Q in Figures _____
- V. Net Cost of Works and services for item listed in Price List/B.O.Q in Words _____



Seal & Signature

Name of Contractor/Bidder _____

Address: _____

Landline & Cell # : _____

Fax # : _____

e-mail address : _____

7.24 Form of BID

FORM OF BID

Bid Reference No. _____
(Name of Contract Work)

To:

1. Having examined the bidding documents including Instructions to Bidders, Bidding Data, and Conditions of Contract, Specifications and Bill of Quantities and Addenda Nos. _____ for the execution of the above-named work, we/I, the undersigned, offer to execute and complete the work and remedy any defects therein in conformity with the Conditions of Contract, Specifications, Bill of Quantities and Addenda for the sum of US Dollar _____ (\$ _____) or such other sum as may be ascertained in accordance with the said conditions.
2. We/I understand that all the Annexure attached hereto form part of this bid.
3. As security for due performance of the undertakings and obligations of this bid, we/I submit herewith a bid security in the amount of US Dollar _____ (\$ _____) drawn in your favour or made payable to procuring agency and valid for a period of _____ days beginning from the date, bid is opened.
4. We/I undertake, if our bid is accepted, to commence the works and to complete the whole of the works comprised in the contract within the time stated in the contract document.
5. We/I agree to abide by this bid for the period of _____ days from the date fixed for opening the same and it shall remain binding upon us and may be accepted at any time before the expiration of that period.
6. Unless and until a formal Agreement is prepared and executed, this bid, together with your written acceptance thereof, shall constitute a binding contract between us.
7. We do hereby declare that the bid is made without any collusion, comparison of figures or arrangement with any other bidder for the works.

We understand that you are not bound to accept the lowest or any bid you may receive.

9. We undertake, if our/my bid is accepted, to execute the Performance Security referred to in Conditions of Contract for the due performance of the Contract.

10. We confirm, if our bid is accepted, that all partners of the joint venture/consortium shall be liable jointly and severally for the execution of the Contract and the composition or the

Sindh Solid Waste Management Board

constitution of the joint venture consortium shall not be altered without the prior consent of the procuring agency.

(Please delete this in case of Bid form a single bidder)

in the capacity of _____ duly authorized to sign Bids for and on behalf of

Dated this _____ day of _____ 20 _____

Signature: _____

(Name of Bidder in Block Capitals) (Seal)

Address: _____

Witness:

Signature: _____

Name: _____

Address: _____

Occupation: _____

Section VIII

Annexure

Annexure

Orangi Zone	
Annexure-1	MSW Details in Each Union Council
Annexure-2	Statics of House Hold Unit
Annexure-3	Road, Footpath, Median & Open Spaces
SITE Zone	
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MSW Details in Each Union Council of Orangi Zone (including Sweeping waste and land scrape waste)

Annexure- 1

S. No.	Union Council		Population Statistics in 1998	Population (Forecasted) in Karachi Master plan 2005	Population forecasted in 2015 at growth of 5% Per annum	Area in Sq KM	MSW output of each UC (t/d)	The Straight Distance b/w UC Center & GTS in KM	No. of Collection Point in UC		Masonry Dustbin / Collection points
	UC #	Name							Container Collection	Open Collection	
1	1	Mominabad	56160	85273	127909	2.13	48.61	9.15	0	20	0
2	2	Haryana Colony	64570	98042	147063	1.13	55.88	8.50	0	12	0
3	3	Hanifabad	54372	82558	123837	1.27	47.06	8.29	0	12	0
4	4	Muhammad Nagar	63753	96802	145203	1.90	55.18	7.50	0	29	0
5	5	Madina Colony	58772	75916	113874	1.88	43.27	5.78	0	29	0
6	6	Ghaziabad	57402	90195	135292	1.29	51.41	5.99	0	29	0
7	7	Chushti Nagar	58582	88950	133425	4.56	50.70	5.00	0	18	0
8	8	Bilal Colony	64776	98355	147532	2.12	56.06	7.19	0	27	0
9	9	Iqbal Baloch Colony	53474	94517	141775	1.43	53.87	6.40	0	18	0
10	10	Gobal Colony	56121	85213	127819	1.15	48.57	8.65	0	23	0
11	11	Data Nagar	56964	86493	129739	0.55	49.30	9.64	0	25	0
12	12	Mujahidabad	51866	78753	118129	0.85	44.89	10.13	0	27	0
13	13	Baloch Goth	24882	37781	56671	0.65	21.53	10.40	0	25	0
Total		13 UC	721694	1098848	1648268	20.91	626.34		0	294	0

Note: The above Data is just an estimation subject to verification by the bidder / Contractor. The purpose of information is to assist the bidder / contractor in formulation of methodology for collection and disposal of MSW. the contractor /bidder should conduct its own investigation and analysis to the check the accuracy of the Data

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Statistic of Household Unit in Orangi Zone.

Union Council		Area of UC in Sq KM	Population Statistics in 1998	Population forecasted in 2015 at growth of 5% Per annum	Statistic of Housing Unit in 1998	Housing Units projections for 2015	Income Group	Housing Unit Wise Area Density	MSW out put of each UC /ward (t/d)	
S. No.	UC #									
1	1	Mominabad	2.13	56160	127909	7561	17221	Low	Congested	48.61
2	2	Haryana Colony	1.13	64570	147063	9327	21243	Low	Congested	55.88
3	3	Hanifabad	1.27	54372	123837	7705	17549	Low	Congested	47.06
4	4	Muhammad Nagar	1.90	63753	145203	9500	21637	Low	Congested	55.18
5	5	Madina Colony	1.88	58772	113874	8842	17132	Low	Congested	43.27
6	6	Ghaziabad	1.29	57402	135292	8947	21087	Low	Congested	51.41
7	7	Chushti Nagar	4.56	58582	133425	9404	21418	Low	Congested	50.70
8	8	Bilal Colony	2.12	64776	147532	9489	21612	Low	Congested	56.06
9	9	Iqbal Baloch Colony	1.43	53474	141775	8044	21327	Low	Congested	53.87
10	10	Gobal Colony	1.15	56121	127819	8006	18234	Low	Congested	48.57
11	11	Data Nagar	0.55	56964	129739	8481	19316	Low	Congested	49.30
12	12	Mujahidabad	0.85	51866	118129	7576	17255	Low	Congested	44.89
13	13	Baloch Goth	0.65	24882	56671	3191	7268	Low	Congested	21.53
Total		13 UC	20.91	721694	1648268	106073	242259			626.34

Note:

1. Numbers of Houses figures are taken from 1998 District Census Report of Karachi West, Population Census Organization Statistic Division Govt. of Pakistan Islamabad. Projection for 2015 is tabulated on Prorata basis on statistic report 1998.
2. Housing Unit wise area density noted above is excluding to the katchi abadies in the UCs wherein Area Density is thickly congested.

Road, Footpath, Medians & Open spaces in Orangi Zone.

Annexure- 3

S. No.	Road Category	Area of the Zone (Sq KIM)	Methodolgy of Sweeping	Length of Road (Meter)	Width of Road (Meter)	Area (Sq Meter)	Remarks
A	Primary Main Roads		Mechanical Sweeping	44520	a) 30 to 36 Dual Carriageway	1469160	
				25970	b) 18 to 30 Single Carriageway	623280	
B	Secondary Main Roads	20.91	Manual Sweeping	111300	a) 12 to 18 Single / Dual Carriageway (Inter connected roads)	1669500	
				296800	b) 12 to 15 Single Carriage (internal roads)	4006800	
				259700	c) less than 9 Meters (Back Lane/ Narrow Lane)	2337300	
C	Medians		Manual Sweeping		a) 01 Meter	45000	
D	Footpaths		Manual Sweeping		b) 01 to 02 Meter	7500	
E	Chowrangi		Manual Sweeping			6000	
F	Open Spaces		Manual Sweeping			10000	
Total						10174540	

Note: The above Data is just an estimation subject to verification by the bidder / Contractor. The purpose of information is to assist the bidder / contractor in formulation of methodology for Sweeping work, the contractor /bidder should conduct its own investigation and analysis to the check the accuracy of the Data.

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MSW Details in Each Union Council of SITE Zone (including Sweeping waste and land scrape waste)

S. No.	Union Council		Population Statistics in 1998	Population (Forecasted) in Karachi Master plan 2005	Population forecasted in 2015 at growth of 5% Per anum	Area in Sq KM	MSW out put of each UC (t/d)	The Straight Distance b/w UC Center & GTS in KM	No. of Collection Point in UC		Masonry Dustbin / Collection points
	UC #	Name							Container Collection	Open Collection	
1	1	Pak Colony	54955	83443	125164	0.76	47.56	1.02	0	31	2
2	2	Old Golimar	42662	64777	97165	0.79	36.92	1.81	0	24	0
3	3	Jahanabad	39702	66306	99459	7.24	37.79	2.43	0	21	0
4	4	Matroville	55907	84889	127333	10.03	48.39	3.52	0	23	3
5	5	Pathan Colony	50225	76261	114391	0.94	43.47	3.39	0	10	5
6	6	Frontier Colony	60795	67676	101514	1.66	38.58	3.52	0	47	0
7	7	Banaras Colony	47655	96993	145489	0.76	55.29	3.39	0	0	4
8	8	Qasba Colony	59051	89662	134493	0.88	51.11	1.02	0	44	0
9	9	Islamia Colony	52641	79929	119893	1.13	45.56	1.41	0	22	0
Total		09 UC	463593	709936	1064901	24.19	404.66		0	222	14

Annexure-4

Note: The above Data is just an estimation subject to verification by the bidder / Contractor. The purpose of information is to assist the bidder / contractor in formulation of methodology for collection and disposal of MSW, the contractor /bidder should conduct its own investigation and analysis to the check the accuracy of the Data.

Statistic of Household Unit in SITE Zone.**Annexure-5**

S. No.	Union Council		Area of UC in Sq KM	Population Statistics in 1998	Population forecasted in 2015 at growth of 5% Per anum	Statistic of Housing Unit in 1998	Housing Units projections for 2015	Income Group	Housing Unit Wise Area Density	MSW out put of each UC /ward (t/c)
	UC #	Name								
1	1	Pak Colony	0.76	54955	125164	7318	16667	Middle to Low	Congested	47.56
2	2	Old Golimar	0.79	42662	97165	6333	14424	Middle to Low	Thickly congested	36.92
3	3	Jahanabad	7.24	39702	99459	5925	14843	Middle to Low	Congested	37.79
4	4	Matroville	10.03	55907	127333	8022	18271	Middle to Low	Congested	48.39
5	5	Pathan Colony	0.94	50225	114391	6705	15271	Middle to Low	Thickly congested	43.47
6	6	Frontier Colony	1.66	60795	101514	7690	12841	Middle to Low	Thickly congested	38.58
7	7	Banaras Colony	0.76	47655	145489	5734	17506	Middle to Low	Thickly congested	55.29
8	8	Qasba Colony	0.88	59051	134493	8109	18469	Middle to Low	Thickly congested	51.11
9	9	Islamia Colony	1.13	52641	119893	7084	16134	Middle to Low	Congested	45.56
Total		09 UC	24.19	463593	1064901	62920	144531			404.66

Note: 1. Numbers of Houses figures are taken from 1998 District Census Report of Karachi West, Population Census Organization Statistic Division Govt. of Pakistan Islamabad. Projection for 2015 is tabulated on Prorata basis on statistic report 1998.

2. Housing Unit wise area density noted above is excluding to the katchi abadies in the UCs wherein Area Density is thickly congested.

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Road, Footpath, Medians & Open spaces in SITE Zone.**Annexure-6**

S. No.	Road Category	Area of the Zone (Sq KM)	Methodology of Sweeping	Length of Road (Meter)	Width of Road (Meter)	Area (Sq Meter)	Remarks
A	Primary Main Roads		Mechanical Sweeping	27500	a) 30 to 36 Dual Carriageway	907500	
				24750	b) 18 to 30 Single Carriageway	594000	
B	Secondary Main Roads	24.19	Manual Sweeping	49500	a) 12 to 18 Single / Dual Carriageway (Inter connected roads)	742500	
				96250	b) 12 to 15 Single Carriage (internal roads)	1299375	
				77000	c) less than 9 Meters (Back Lane/ Narrow Lane)	693000	
C	Narrow Lane		Manual Sweeping		a) 01 Meter	4000	
D	Medians		Manual Sweeping		b) 01 to 02 Meter	5625	
E	Footpaths		Manual Sweeping			2500	
F	Chowrangi		Manual Sweeping			5000	
	Open Spaces		Manual Sweeping		Total	4253500	

Note: The above Data is just an estimation subject to verification by the bidder / Contractor. The purpose of information is to assist the bidder / contractor in formulation of methodology for Sweeping work , the contractor /bidder should conduct its own investigation and analysis to the check the accuracy of the Data.

M/SW Details in Each Union Council of Baldia Zone (including Sweeping waste and land scrape waste)

Annexure-7

S. No.	Union Council		Population Statistics in 1998	Population (Forecasted) in Karachi Master plan 2005	Population forecasted in 2015 at growth of 5% Per annum	Area in Sq KM	MSW out put of each UC (t/d)	The Straight Distance b/w UC Center & GTS in KM	No. of Collection Point in UC		Masonry Dustbin / Collection points
	UC #	Name							Container Collection	Open Collection	
1	1	Gulshan-e-Ghazi	51096	77584	116376	8.30	44.22	6.34	0	29	0
2	2	Ittehad Town	46475	82942	124413	11.94	47.28	4.78	0	45	0
3	3	Islam Nagar	39879	60552	90828	7.40	34.51	5.12	0	49	0
4	4	Nai Abadi	41182	59138	88707	2.13	33.71	7.02	0	42	0
5	5	Saeed Abad	62000	85157	127735	1.41	48.54	7.90	6	5	0
6	6	Muslim Mujahid Colony	63557	96504	144756	1.19	55.01	9.24	0	23	0
7	7	Muhajir Colony	50571	76786	115179	1.00	43.77	8.65	0	13	0
8	8	Rasheed Abad	51405	78053	117079	0.93	44.49	10.01	3	22	0
Total		08 UC	406165	616716	925073	34.30	351.53		9	228	0

Note: The above Data is just an estimation subject to verification by the bidder / Contractor. The purpose of information is to assist the bidder / contractor in formulation of methodology for collection and disposal of MSW, the contractor /bidder should conduct its own investigation and analysis to the check the accuracy of the Data

Statistic of Household Unit in Baldia Zone.

Union Council		Area of UC in Sq KM	Population Statistics in 1998	Population forecasted in 2015 at growth of 5% Per anum	Statistic of Housing Unit in 1998	Housing Units projections for 2015	Income Group	Housing Unit Wise Area Density	MSW out put of each UC /ward (t/d)
S. No.	UC #								
1	1	8.30	51096	116376	7770	17697	Middle	Congested	44.22
2	2	11.94	46475	124413	6798	18198	Middle	Vast	47.28
3	3	7.40	39879	90828	5717	13021	Middle	Congested	34.51
4	4	2.13	41182	88707	5992	12907	Middle	Congested	33.71
5	5	1.41	62000	127735	9220	18995	Middle	Congested	48.54
6	6	1.19	63557		8571	19521	Middle	Congested	55.01
7	7	1.00	50571	115179	7320	16672	Middle	Congested	43.77
8	8	0.93	51405	117079	6926	15775	Middle	Congested	44.49
Total		34.30	406165	925073	58314	132815			351.53

Annexure- 8**Note:**

1. Numbers of Houses figures are taken from 1998 District Census Report of Karachi West, Population Census Organization Statistic Division Govt. of Pakistan Islamabad. Projection for 2015 is tabulated on Prorata basis on statistic report 1998.
2. Housing Unit wise area density noted above is excluding to the katchi abadies in the UCs wherein Area Density is thickly congested.

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West

Executive Director (Operation-I)
Karachi

Contractor

Road, Footpath, Medians & Open spaces in Baldia Zone.**Annexure-9**

S. No.	Road Category	Area of the Zone (Sq KM)	Methodology of Sweeping	Length of Road (Meter)	Width of Road (Meter)	Area (Sq Meter)	Remarks
A	Primary Main Roads		Mechanical Sweeping	33150	a) 30 to 36 Dual Carriageway	1093950	
				25500	b) 18 to 30 Single Carriageway	612000	
B	Secondary Main Roads	34.30	Manual Sweeping	102000	a) 12 to 18 Single / Dual Carriageway (Inter connected roads)	1530000	
				178500	b) 12 to 15 Single Carriage (internal roads)	2409750	
				170850	c) less than 9 Meters (Back Lane/ Narrow Lane)	1537650	
C	Medians		Manual Sweeping		a) 01 Meter	45000	
					b) 01 to 02 Meter	6750	
D	Chowrangi		Manual Sweeping			5000	
E	Open Spaces		Manual Sweeping			8000	
					Total	7248100	

Note: The above Data is just an estimation subject to verification by the bidder / Contractor. The purpose of information is to assist the bidder / contractor in formulation of methodology for Sweeping work , the contractor /bidder should conduct its own investigation and analysis to the check the accuracy of the Data.

MSW Details in Each Union Council of Kemari Zone (including Sweeping waste and land scrape waste)

S. No.	UC #	Union Council Name	Population Statistics in 1998	Population (Forecasted) in Karachi Master plan 2005	Population forecasted in 2015 at growth of 5% Per annum	Area in Sq KM	MSW out put of each UC (t/d)	The Straight Distance b/w UC Center & GTS in KM	No. of Collection Point in UC		Masonry Dustbin / Collection points
									Container Collection	Open Collection	
1	1	Bhutta Village	62125	94330	141495	3.39	56.60	9.00	2	6	0
2	2	Sultan Abad	49544	75227	112840	5.22	45.14	6.00	1	13	0
3	3	Kemari	55420	84149	126223	7.67	50.49	8.00	2	10	0
4	4	Baba Bhit	19043	28915	43372	37.34	17.35	0.00	Burned & Dumped on Earth		
5	5	Machair Colony	40637	89260	133890	3.86	53.56	5.00	0	15	5
6	6	Maripur	47925	72769	109153	95.54	43.66	3.00	3	12	6
7	7	Sher Shah	71629	81203	121804	4.87	48.72	4.21	3	14	8
8	8	Gabo Put	38055	57782	86673	259.30	34.67	8.00	2	14	6
Total		08 UC	384378	583635	875450	417.19	350.18		13	84	25

Annexure-10

Note:

The above Data is just an estimation subject to verification by the bidder / Contractor. The purpose of information is to assist the bidder / contractor in formulation of methodology for collection and disposal of MSW, the contractor /bidder should conduct its own investigation and analysis to the check the accuracy of the Data

Statistic of Household Unit in Kemari Zone.

Union Council		Area of UC in Sq KM	Population Statistics in 1998	Population forecasted in 2015 at growth of 5% Per annum	Statistic of Housing Unit in 1998	Housing Units projections for 2015	Income Group	Housing Unit Wise Area Density	MSW out put of each UC /Ward (t/rd)
S. No.	UC #								
1	1	Bhutta Village	62125	141495	7081	16128	Low Income	Congested	56.60
2	2	Sultan Abad	49544	112840	7117	16209	Low Income	Congested	45.14
3	3	Kemari	55420	126223	8018	18262	Low Income	Congested	50.49
4	4	Baba Bhit	19043	43372	2735	6229	Low Income	Congested	17.35
5	5	Machar Colony	40637	133890	6617	21802	Low Income	thickly congested	53.56
6	6	Maripur	47925	109153	7015	15977	Low Income	Congested	43.66
7	7	Sher Shah	71629	121804	9316	15842	Low Income	thickly congested	48.72
8	8	Gabo Put	38055	86673	6383	14538	Low Income	congested in the area of residents	34.67
		08 UC	384378	875450	54282	123631			350.18

Annexure-11

Note:

1. Numbers of Houses figures are taken from 1998 District Census Report of Karachi West, Population Census Organization Statistic Division Govt. of Pakistan Islamabad. Projection for 2015 is tabulated on Pro-rata basis on statistic report 1998.
2. Housing Unit wise area density noted above is excluding to the katchi abadies in the UCs wherein Area Density is thickly congested.

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Road, Footpath, Medians & Open spaces in Kemari Zone.**Annexure-12**

S. No.	Road Category	Area of the Zone (Sq KM)	Methodology of Sweeping	Length of Road (Meter)	Width of Road (Meter)	Area (Sq Meter)	Remarks	
A	Primary Main Roads	417.19	Mechanical Sweeping	55013	a) 30 to 36 Dual Carriageway	1815429		
				28529	b) 18 to 30 Single Carriageway	684696		
B	Secondary Main Roads			Manual Sweeping	146700	a) 12 to 18 Single / Dual Carriageway (Inter connected roads)	2200500	
	Streets				326000	b) 12 to 15 Single Carriage (internal roads)	4401000	
	Narrow Lane				258763	c) less than 9 Meters (Back Lane/ Narrow Lane)	2328867	
C	Medians					a) 01 Meter	9890	
D	Footpaths			b) 01 to 02 Meter	14670			
E	Chowrangi				800			
F	Open Spaces				1000			
Total						11456852		

Note: The above Data is just an estimation subject to verification by the bidder / Contractor. The purpose of information is to assist the bidder / contractor in formulation of methodology for Sweeping work , the contractor /bidder should conduct its own investigation and analysis to the check the accuracy of the Data.

Existing Budget (2015-2016) on Solid Waste Management of Orangi Zone

Annexure- 13

(Salaries)

S. No.	Designation	BPS	Total Number of Employees	Basic Pay Scale	Establishment Charge / Pay	Allowances	Pension Contribution	Group Insurance	Gross Salary Per Annum
	Office Staff								
1	D.T.O. (Sanitation)	17	1	16000-1200-40000	314400	288396	94080		696876
2	A.T.O.(Sanitation)	16	3	10000-800-34000	604800	559608	221760		1386168
3	Accounts Assistant	14	1	8000-610-26300	224100	247188	57624	2856	531768
4	Head Clerk	14	1	8000-610-26300	143580	177564	57642	2856	381642
5	Comp Operator	11	2	6600-460-20400	186000	284808	90760	5712	567280
6	Sub-Registrar	5	1	5400-260-13200	144360	170940	31248	1668	348216
7	Clerk	7	5	5800-320-15400	495840	662964	178080	8340	1345224
8	Naib Qasid	2	4	4900-170-10000	390240	544176	100128	5712	1040256
	Overtime/Benefits								
Total			18		2503320	2935644	831322	27144	6297430

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Existing Budget (2015-2016) on Solid Waste Management of Orangi Zone

Annexure- 13											
(Salaries)											
S. No.	Designation	BPS	Total Number of Employees	Basic Pay Scale	Establishment Charge / Pay	Allowances	Pension Contribution	Group Insurance	Gross Salary Per Annum		
	Field Staff										
1	Inspectors	14	6	8000-610-26300	1286040	1581444	345744	17136	3230364		
2	Sub-Inspector	11	13	6600-460-20400	1938000	1977004	579936	35940	4530880		
3	Driver	7	4	5800-320-15400	543360	485236	142464	6672	1177732		
4	Driver	5	24	5400-260-13200	2740800	3552221	749952	40032	7083005		
5	Munshi	5	8	5400-260-13200	885540	1117440	236880	11904	2251764		
6	Muccadum	4	16	5200-230-12100	1903360	2409346	465024	22848	4800578		
7	Muccadum	3	10	5050-200-11050	1084760	1387659	270480	14280	2757179		
8	Naib Qasid	2	4	4900-170-10000	390240	544176	100128	5712	1040256		
9	Karkun (Cocily)	2	33	4900-170-10000	2768100	3299665	450576	25704	6544045		
10	Tractor Cooly	1	60	4800-150-9300	3834000	6228720	1421280	85680	11569680		
11	Cleaner	1	30	4800-150-9300	1917000	3114360	710640	42840	5784840		
12	Sanitary Worker	2	337	4900-170-10000	36230500	46074148	13371994	481236	96157878		
	Total				55521700	71771419	18845098	789984	146928201		
Total	Overtime/Honorium		545		55521700	71771419	18845098	789984	152232201		

Existing Budget (2015-2016) on Solid Waste Management of SITE Zone

(Salaries)

S. No.	Designation	BPS	Total Number of Employees	Basic Pay Scale	Establishment Charge / Pay	Allowances	Pension Contribution	Group Insurance	Gross Salary Per Annum
	Office Staff								
1	Head Clerk	14	1	8000-610-26300	136260	174504	57624	1428	369816
2	Clerk	7	5	5800-320-15400	568800	716880	178080	4200	1467960
3	Naib Qasid	1/2	3	4900-170-10000	227700	342720	72408	2160	644988
4	Chokidar	1/2	3	4900-170-10000	297780	396504	73752	2160	770196
	Overtime/Benefits								
Total			12		1230540	1630608	381864	9948	3252960

Annexure-14

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Existing Budget (2015-2016) on Solid Waste Management of SITE Zone

(Salaries)

Annexure-14									
S. No.	Designation	BPS	Total Number of Employees	Basic Pay Scale	Establishment Charge / Pay	Allowances	Pension Contribution	Group Insurance	Gross Salary Per Annum
Field Staff									
1	Chief Sanitary Officer	17	1	16000-1200-40000	285600	333336	94080	0	713016
2	Asst. Sanitary Officer	16	3	10000-800-34000	681600	807456	221760	0	1710816
3	Sanitary Inspector	14	3	8000-610-26300	518580	617940	172872	4284	1313676
4	Motor Vehicle Inspector	14	1	8000-610-26300	136260	183372	57624	1428	378684
5	Sub Inspector	11	10	6600-460-20400	1349520	1662192	1662192	14280	4688184
6	Driver	5/6/7	30	5800-320-15400	3778320	4666812	989856	25200	9460188
7	Munshi	4/5	6	5400-260-13200	696780	880260	176568	4440	1758048
8	Mucaddam	3/4	14	5200-230-12100	1618860	2039160	386736	10080	4054836
9	Cooly	1/2	142	4900-170-10000	10217640	19075656	3510192	102240	32905728
10	Sweeper	1/2	290	4900-170-10000	26552520	41356632	7249872	208800	75367824
Total					45835680	71622816	14521752	370752	132351000
Overtime/Honorium					45835680	71622816	14521752	370752	134851000
Total					45835680	71622816	14521752	370752	134851000

Existing Budget (2015-2016) on Solid Waste Management of Baldia Zone

(Salaries)

S. No.	Designation	BPS	Total Number of Employees	Basic Pay Scale	Establishment Charge / Pay	Allowances	Pension Contribution	Group Insurance	Gross Salary Per Annum
Office Staff									
1	Chief Sanitation Officer.	18	1	20000-1500-50000	352000	418264	98560		868824
2	Asstt. Sanitary Officer	17	1	16000-1200-40000	345840	231506	96835		674181
3	Asstt. Solid Waste Officer	17	2	16000-1200-40000	396880	418352	111126		926358
4	Office Superintendent	16	2	10000-800-34000	324280	264385	90798		679463
5	Computer Operator	11	2	6600-460--20400	298276	308330	83517		690123
6	Head Clerk	14	2	8000-610-26300	324302	313830	90805		728937
7	Accountant (SCUG)	11	1	6600-460--20400	131736	148940	36886		517562
8	Clerk	7	5	5800-320-15400	655820	1079020	183630		1918470
9	Chowkidar	2	2	4900-170-10000	266244	231682	74548		572474
10	Naib Qasid	2	3	4900-170-10000	385902	378670	108053		872625
	10% Increase					824902			824902
	Overtime/Benefits								
Total			21		3481280	4617881	974758	0	9073919

Annexure-15

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Existing Budget (2015-2016) on Solid Waste Management of Baldia Zone.

Annexure-15										
(Salaries)										
S. No.	Designation	BPS	Total Number of Employees	Basic Pay Scale	Establishment Charge / Pay	Allowances	Pension Contribution	Group Insurance	Gross Salary Per Annum	
Field Staff										
1	Health Inspector	14	4	8000-610-26300	1187208	1200725	332418		2720351	
2	Sub Inspector	7	16	5800-320-15400	2280432	2339599	638521		5258552	
3	Munshi	4	5	5400-260-13200	609246	536052	170589		1315887	
4	Muccaddam	4	20	5400-260-13200	2433530	2442440	681388		5557358	
5	Sanitary worker	2	525	4900-170-10000	62267150	55187264	17434802		134889216	
6	MV Inspector	14	1	8000-610-26300	244860	268675	68561		582096	
7	Time Keeper	5	1	5400-260-13200	121550	116182	34034		271766	
8	Heavy Vehicle Driver	9	4	6200-380-17600	506638	528286	141859		1176783	
9	Driver	7	5	5800-320-15400	721402	747175	201993		1670570	
10	Driver	5	25	5400-260-13200	3327038	3354175	931571		7612784	
11	Coolies	2	70	4900-170-10000	7507830	7618160	2102192		17228182	
	Total				81206884	74338733	22737928	0	178283545	
	Overtime/Honorium					3000000			3000000	
	Additional Pay	10%				17828354			17828354	
Total			676		81206884	95167087	22737928	0	19911899	

Existing Budget (2015-2016) on Solid Waste Management of Kemari Zone.

(Salaries)

Annexure- 16

S. No.	Designation	BPS	Total Number of Employees	Basic Pay Scale	Establishment Charge / Pay	Allowances	Pension Contribution	Group Insurance	Gross Salary Per Annum
Office Staff									
1	Director-II (Health)	18	1	20000-1500-50000	330000	419604	117600	8312	875516
2	Clerk	7	3	5800-320-15400	335520	566532	106848	4986	1013886
3	Munshi	5	5	5400-260-13200	508080	752160	156240	8310	1424790
4	Sub Registrar	5	1	5400-260-13200	161520	150432	31248	1662	344802
5	Chowkidar	2	3	4900-170-10000	245040	370584	72396	4275	692295
6	Peon	2	2	4900-170-10000	133200	244200	47376	2850	427626
					1713360	2503512	531708	30395	4778975
Overtime/Honorium									
	Additional Pay	10%				477898			477898
Total			15		1713360	2981410	531708	30395	5256873

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Existing Budget (2015-2016) on Solid Waste Management of Kemari Zone**(Salaries)**

Annexure- 16									
S. No.	Designation	BPS	Total Number of Employees	Basic Pay Scale	Establishment Charge / Pay	Allowances	Pension Contribution	Group Insurance	Gross Salary Per Annum
Field Staff									
1	Assistant Sanitation Officer	17	1	16000-1200-40000	292800	365544	94080	5700	758124
2	M.V.I	17	1	16000-1200-40000	321600	365544	94080	5700	786924
3	Inspector (Health)	16	3	10000-800-34000	705600	874260	221760	12825	1814445
4	Driver	7	29	5800-320-15400	3275280	3610368	749952	39888	7675488
5	Mucadam	4	14	5200-230-12100	1514400	1898232	406896	19950	3839478
6	Notice Surveyor	2	1	4900-170-10000	110880	115299	25020	1425	252624
7	Cleaner	2	1	4900-170-10000	113880	126384	25020	1425	266709
8	Sanitary Worker	2	542	4900-170-10000	61290680	49927062	13567344	772350	125557436
9	Karkun/Motor Cooly	2	40	4900-170-10000	4684014	3974557	1001280	57000	9716851
	Total				72309134	61257250	16185432	916263	150668079
	Overtime/Honorium					3700000			3700000
	Additional Pay	10%				15066808			15066808
Total			632		72309134	80024058	16185432	916263	169434887

Existing Solid Waste Machinery / Vehicles in Orangi Zone

Annexure- 17

S.NO.	VEHICLE NO.	MAKE	TYPE	MODEL	Remarks
1	O713584	Bobcat	Bobcat		Off Road
2	CH-708915	Kamatso	Bobcat		Off Road
Total			02 Bobcat		
1	GS-3188		Cess Poll		Off Road
Total			01 Cess Poll		
1	CH-159038	Volvo FL-6	Dumper		Off Road
2	CH-101122	Volvo FL-6	Dumper		On Road
3	CH-101284	Volvo FL-6	Dumper		On Road
4	CH-21291	Hino FF	Dumper		Off Road
5	CH-10044	Hino FD	Dumper		On Road
6	CH-16068	Hino FB	Dumper		On Road
7	CH-11398	Hino FB	Dumper		Off Road
8	CH-21287	Hino FF	Dumper		On Road
9	159039	Volvo	Dumper		On Road
10	158505	Volvo	Dumper		On Road
Total			10 Dumper		
1	702571	Wheel Loader 385	Loader		On Road
2	CH-12912	Kamatso Loader	Loader		On Road
3	O774990	Bach Hoe Front Loader	Loader		On Road
4	O702570	Bob Cat Skid Loader	Loader		Off Road
Total			04 Loader		
1	CH-10905	Hino FB	Refuse Van		On Road
2	CH-10784	Hino FB	Refuse Van		On Road
3	CH-16112	Hino FB	Refuse Van		On Road
4	636	Hino (Titan)	Refuse Van		On Road
5	GS-3246	Bed Ford	Refuse Van		Off Road
6	GS-8756	Issuzu	Refuse Van		On Road
7	992	Master	Refuse Van		On Road
8	972	Master	Refuse Van		On Road
Total			08 Refuse Van		
1	CH-2806	Tractor Front Loader 385	Tractor Loader		Off Road
2	CH-500253	Tractor Front Loader 385	Tractor Loader		Off Road
Total			02 Tractor Loader		
1	CH-G002807	Tractor Trolley	Tractor Trolley		On Road
2	CH-G002907	Tractor Trolley	Tractor Trolley		On Road
3	CH-161453	Tractor Trolley MF 240	Tractor Trolley		On Road
4	16427	Tractor Trolley	Tractor Trolley		Off Road
5	GS-9050	Tractor MF-240	Tractor Trolley		On Road
6	CH-2808	Tractor Trolley 385	Tractor Trolley		On Road
7	CH-2902	Tractor Trolley	Tractor Trolley		On Road
8	161-353	Tractor	Tractor Trolley		Off Road
Total			08 Tractor Trolley		

Existing Solid Waste Machinery / Vehicles in SITE Zone

Annexure- 18

S.NO.	VEHICLE NO.	MAKE	TYPE	MODEL	Remarks
1	10990		Arm Roll	2001	MAJOR DEFECT
2	15817		Arm Roll	1988	ON ROAD
Total			02 Arm Roll		
1	CH-07708		Bobcat	2007	MAJOR DEFECT
2	02728		Bobcat	2006	MAJOR DEFECT
3	CH-07707		Bobcat	2007	MAJOR DEFECT
4	CH-02729		Bobcat	2006	ON ROAD
5	00490		Bobcat	2001	MAJOR DEFECT
Total			05 Bob Cat		
1	GS-3236		Cess Poll	1979	ON ROAD
Total			01 Cess Poll		
1	Applied	Rickshaw Garbage Careier		2015	ON ROAD
2	Applied	Rickshaw Garbage Careier		2015	ON ROAD
3	Applied	Rickshaw Garbage Careier		2015	ON ROAD
4	Applied	Rickshaw Garbage Careier		2015	ON ROAD
5	Applied	Rickshaw Garbage Careier		2015	ON ROAD
Total			05 Rickshaw Garbage Carrier		
1	CH-16104		Dumper	2001	MAJOR DEFECT
2	11402		Dumper	1992	MAJOR DEFECT
Total			02 Dumper		
1	000302		Front Loader	2001	MAJOR DEFECT
2	84138		Front Loader	2010	ON ROAD
3	84134		Front Loader	2010	ON ROAD
Total			03 Front Loader		
1	Applied		FAW Mini Van	2015	ON ROAD
Total			01 FAW Mini Van		
1	CH-10054	Hino F.D	Loader	1992	ON ROAD
2	CXG-00953		Loader	2010	ON ROAD
3	045532		Loader	1993	MAJOR DEFECT
Total			03 Loader		
1	CH-10046		Multi Loader	1992	ON ROAD
2	21288		Multi Loader	1992	MAJOR DEFECT
Total			02 Multiloader		
1	GS-8992	Bedford	Refuse Van	1979	MAJOR DEFECT
2	GS-3068	Bedford	Refuse Van	1979	ON ROAD
3	700060	Bedford	Refuse Van	1988	ON ROAD
4	600822	Bedford	Refuse Van	1988	ON ROAD
5	CH-10913	Hino F.B	Refuse Van	1989	MAJOR DEFECT
6	CH-16058	Hino F.B	Refuse Van	2001	ON ROAD
7	10786	Hino F.B	Refuse Van	1989	ON ROAD

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Sl	CH-10900	Hino F.E	Refuse Van	1989	MAJOR DEFECT
		Total	03 Refuse Van		
1	CH-0236	Tractor	Tractor Trolley	2003	ON ROAD
2	GL-9058	Tractor	Tractor Trolley	1988	ON ROAD
3	CH-0481	Tractor	Tractor Trolley	2007	ON ROAD
4	CH-0442	Tractor	Tractor Trolley	2007	MAJOR DEFECT
5	CH-0444	Tractor	Tractor Trolley	2007	MAJOR DEFECT
6	CH-0499	Tractor	Tractor Trolley	2007	ON ROAD
7	GL-8012	Tractor	Tractor Trolley	1988	ON ROAD
8	CH-0440	Tractor	Tractor Trolley	2007	MAJOR DEFECT
9	CH-214120	Tractor	Tractor Trolley	1988	ON ROAD
10	161-357	Tractor	Tractor Trolley	1988	ON ROAD
11	0487	Tractor	Tractor Trolley	2007	ON ROAD
12	0457	Tractor	Tractor Trolley	2007	ON ROAD
13	0464	Tractor	Tractor Trolley	2007	ON ROAD
Total			13 Tractor Trolley		

Existing Solid Waste Machinery / Vehicles in Baldia Zone

Annexure- 19

S.NO.	VEHICLE NO.	MAKE	TYPE	MODEL	Remarks
1	CH-101482		Arm Roll	1990	Off Road
2	CH-21302		Arm Roll	1990	On Road
3	CH-14888		Arm Roll	1982	Off Road
Total			3 Arm Roll		
1	CH-03300	Bobcat	Bobcat	2008	Off Road
2	CH-1505	Bobcat	Bobcat	2008	Off Road
3	CH-00376	Kumatso	Bobcat	2002	Off Road
4	CH-175659	Case	Bobcat	1990	On Road
Total			4 Bobcat		
1	GL-3062	Bedford	Cess Poll	1979	Off Road
2	GL-8754	Bedford	Cess Poll	1979	Off Road
Total			02 Cess Poll		
1	CH-3601068	Isuzu FTR	Dumper	1991	On Road
2	CH-16041	Hino FB	Dumper	2002	On Road
3	CH-12156	Hino KR	Dumper	1980	On Road
4	CH-3500492	Isuzu JCR	Dumper	1991	On Road
Total			04 Dumper		
1	CH-0101	Tractor	Front Loader	2002	Off Road
2	CH-0300	Tractor	Front Loader	2008	Off Road
3	CH-0056	Tractor	Front Loader	2007	On Road
Total			03 Front Loader		
1	CH-21289		Multiloader	1990	Off Road
2	CH-10045		Multiloader	1990	On Road
Total			02 Multiloader		
1	CH-204228	Master	Refuse Van	2007	Off Road
2	CJ-204225	Master	Refuse Van	2007	Off Road
3	CH-204227	Master	Refuse Van	2007	On Road
Total			03 Refuse Van		
1	CH-95742	Loinggong	Shawl	2008	On Road
Total			01 Shawal		
1	CH-161-373	Tractor	Tractor Trolley	1988	On Road
2	CH-0343/08	Tractor	Tractor Trolley	2004	On Road
3	CH-0346-23	Tractor	Tractor Trolley	2008	Off Road
4	CH-0338/06	Tractor	Tractor Trolley	2004	On Road
5	CH-9006/09	Tractor	Tractor Trolley	2004	Off Road
6	CH-161-351	Tractor	Tractor Trolley	1988	Off Road
7	CH-0346/20	Tractor	Tractor Trolley	2008	Off Road
8	CH-0326/06	Tractor	Tractor Trolley	2008	Off Road

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9	CH-0346-30	Tractor	Tractor Trolley	2008	On Road
10	CH-131-398	Tractor	Tractor Trolley	1988	Off Road
		Total	10 Tractor Trolley		
1			Motorcycle		
			Rickshaw with container		
		Total	19 Motorcycle Rickshaw with container		

Existing Solid Waste Machinery / Vehicles in Kemari Zone

Annexure- 20

S.NO.	VEHICLE NO.	MAKE	TYPE	MODEL	Remarks
1	CH-101281	Volvo	Arm Roll	1993	On Road
2	CH-101279	Volvo	Arm Roll	1993	On Road
3	CH-15869	HINO (FF)	Arm Roll		On Road
4	CH-21303	HINO (FF)	Arm Roll		On Road
Total			04 Arm Roll		
1	CH-713591	Bob Cat	Bob Cat	2007	On Road
2	CH-175658	Case	Bob Cat	1993	On Road
Total			02 Bob Cat		
1	CH-159041	Volvo.	Compactor	1993	On Road
2	CH-159040	Volvo	Compactor	1993	Off Road
Total			02 Compactor		
1	CH-16043	HINO (FB)	Dumper	2003	On Road
2	CH-16099	HINO (FB)	Dumper	2003	On Road
Total			02 Dumper		
14	CH-84192-1	MF-385	Front Loader	2008	On Road
15	CH-84093-3	MF-385	Front Loader	2005	On Road
16	CH-01-04	MF-385	Front Loader	2003	Off Road
Total			03 Front Loader		
1	CH-10053	HINO	Multi Loader		On Road (With Container)
Total			01 Multiloader		
1	CH-02481	Kumartsu	Skid Loader	2006	On Road
2	CH-00591	Kumartsu	Skid Loader	2005	On Road
Total			02 Skit Loader		
1	GS-3203	Bedford	Sucking Vehicles	1972	On Road
2	GS-3210	ISUZU	Sucking Vehicles	1993	On Road
Total			02 Sucking Vehicles		
1	GL-8013	MF-240	Tractor Trolley	1985	On Road
2	GL-9057	MF-240	Tractor Trolley	1985	On Road
3	CH-066	Bellarus	Tractor Trolley	1982	On Road
4	CH-40731-11	MF-240	Tractor Trolley	2010	On Road
5	CH-40731-12	MF-240	Tractor Trolley	2009	On Road
6	CH-40731-14	MF-240	Tractor Trolley	2009	Off Road
7	41592-19	MF-240	Tractor Trolley	2008	On Road
8	CH-97065	MF-240	Tractor Trolley	1982	Off Road
Total			08 Tractor Trolley		

Format for Performance Guarantee

To be provided to the successful bidder/contractor
after acceptance of the bid.

Integrity Pact

DECLARATION OF FEES, COMMISSION AND BROKERAGE ETC; PAYABLE BY CONTRACTORS.

(FOR CONTRACTS WORTH RS. 10.00 MILLION OR MORE)

Contract No. _____ Dated _____
Contract Value: _____
Contract Title: _____

..... [name of Contractor] hereby declares that it has not obtained or induced the procurement of any contract, right, interest, privilege or other obligation or benefit from Government of Sindh (GoS) or any administrative subdivision or agency thereof or any other entity owned or controlled by it (GoS) through any corrupt business practice.

Without limiting the generality of the foregoing, [name of Contractor] represents and warrants that it has fully declared the brokerage, commission, fees etc. paid or payable to anyone and not given or agreed to give and shall not give or agree to give to anyone within or outside Pakistan either directly or indirectly through any natural or juridical person, including its affiliate, agent, associate, broker, consultant, director, promoter, shareholder, sponsor or subsidiary, any commission, gratification, bribe, finder's fee or kickback, whether described as consultation fee or otherwise, with the object of obtaining or inducing the procurement of a contract, right, interest, privilege or other obligation or benefit in whatsoever form from, from Procuring Agency (PA) except that which has been expressly declared pursuant hereto.

[name of Contractor] accepts full responsibility and strict liability that it has made and will make full disclosure of all agreements and arrangements with all persons in respect of or related to the transaction with PA and has not taken any action or will not take any action to circumvent the above declaration, representation or warranty.

[name of Contractor] accepts full responsibility and strict liability for making any false declaration, not making full disclosure, misrepresenting facts or taking any action likely to defeat the purpose of this declaration, representation and warranty. It agrees that any contract, right, interest, privilege or other obligation or benefit obtained or procured as aforesaid shall, without prejudice to any other rights and remedies available to PA under any law, contract or other instrument, be voidable at the option of PA.

Notwithstanding any rights and remedies exercised by PA in this regard, [name of Supplier/Contractor/Consultant] agrees to indemnify PA for any loss or damage incurred by it on account of its corrupt business practices and further pay compensation to PA in an amount equivalent to ten time the sum of any commission, gratification, bribe, finder's fee or kickback given by [name of Contractor] as aforesaid for the purpose of obtaining or inducing the procurement of any contract, right, interest, privilege or other obligation or benefit in whatsoever form from PA.

[Procuring Agency]

[Contractor]

Format for Contract Agreement

To be provided at the time of Agreement