

Özkartallar Campak Joint Venture

Solid Waste Management Plan for Begum Kot (UC-01)

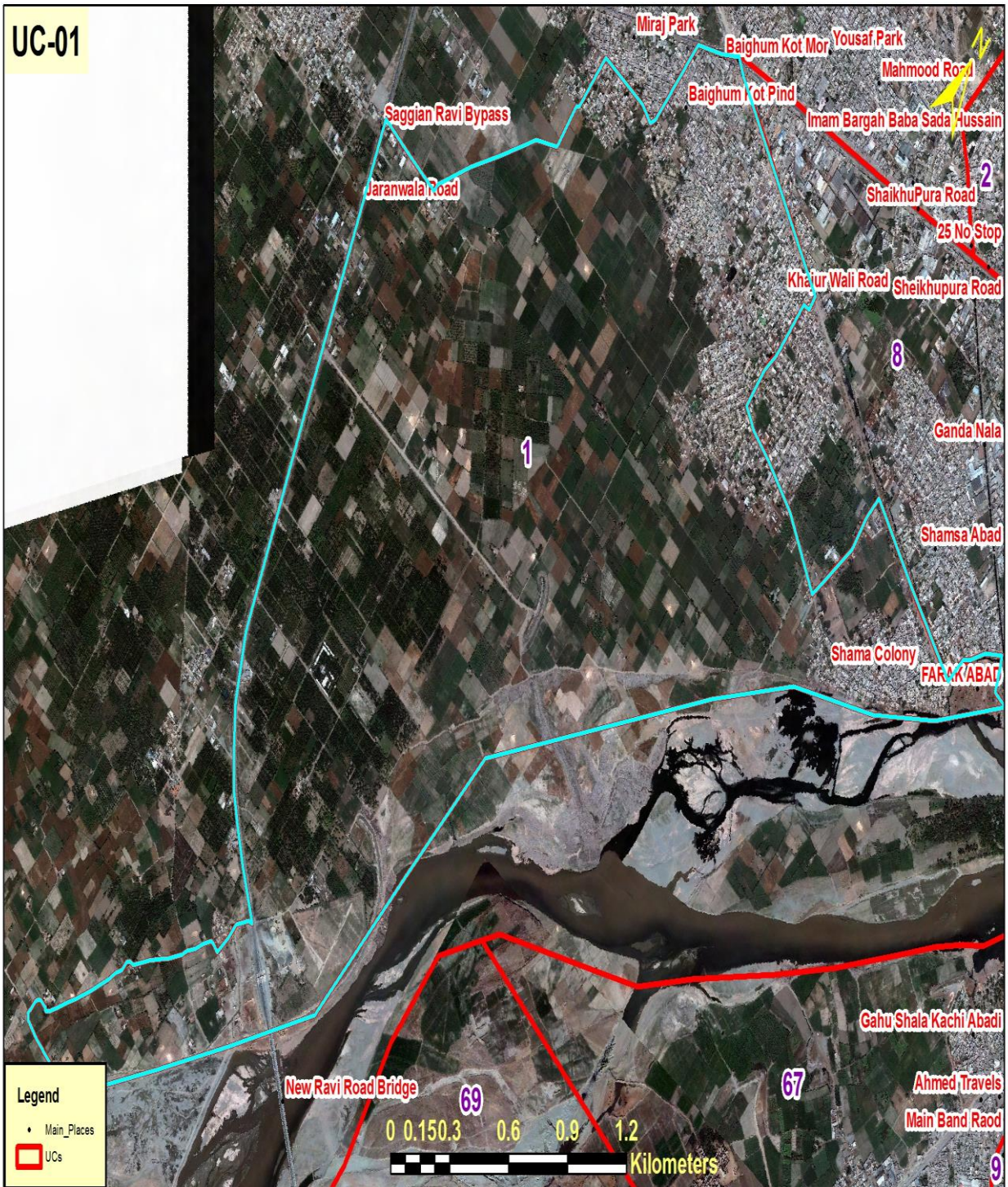


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UC-01



Map of UC 01 Begum Kot

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1. INTRODUCTION

Union Council –1 (Begum Kot) is located in Ravi Town. Total population of UC-01 is 69758 with area 7499430 m² and predominantly low income area with unplanned settlement/infrastructure.



Fig: 1. Pictorial View of Important Areas of UC-01

1.1. IMPORTANT PLACES OF UNION COUNCIL-01

From Sanitation point of view Union Council-01 has important Places like Commercial Markets, Parks, Graveyard Important Roads, and Mosques etc.

Commercial Markets

- Begum Kot Main Bazar
- Main Sunday Bazar Baradari Road
- Fazal Park Bazar

Graveyards

- Ilm Deen Colony

Important Roads

- Saggian Road
- Sharakpur Road
- BarDari Road

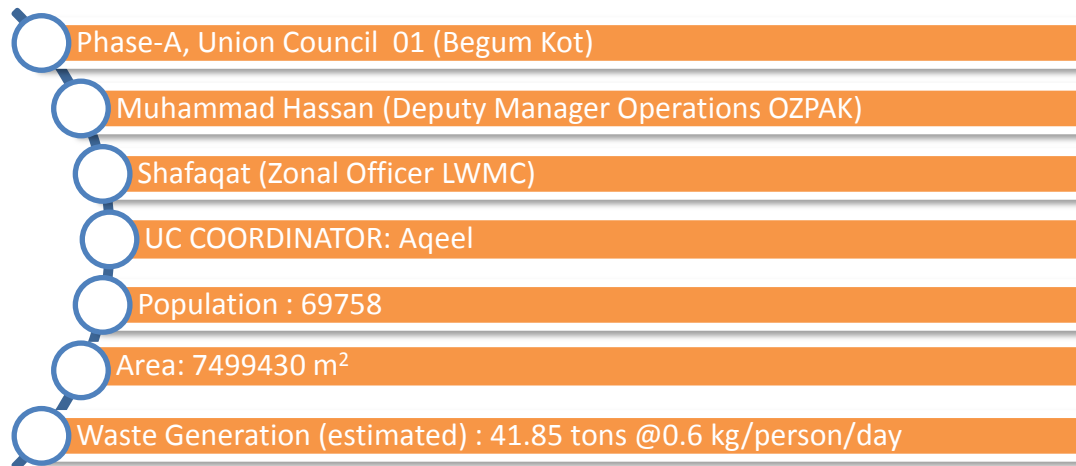
Mosques

- Jamiya Masjid Tayyaba (main bazar farukh abad)
 - Masjid Noor Sain (Farukh abad street no 6)
 - Masjid Siddique Akbar (Farukh abad Masoom shah road)
 - Masjid Hanfia Ghosia (cheema wala khooh main bazar)
 - Masjid Ronaq Ali shah (main bazar mehar pura)
 - jamiya Muhammdia masjid Ehal Hadees (melay wala boharr begum kot)
 - Masjid Rehmania Ehl Hadis (Begum kot Nazim house k sath)
 - Jamiya Masjid Usmania Ehl.E.Sunnat (begum kot dera peer bakhsh)
 - Masjid Mubarak Ehl Hadis (begum kot cheema wala khooh)
 - Jamiya Masjid Naeem al.Quraan (shaukat colony begum kot)
 - Masjid Peer Sabz (begum kot peer sabz road)
-

1.2. SOLID WASTE GENERATION

Estimated solid waste generation is 41.85 metric tons per day @ waste generation rate of 0.6 kg/person/day.

1.3. PARTICULARS



2. SOLID WASTE MANAGEMENT PRACTICES

This area is under control of M/s. OZPak J.V for solid waste management. Existing arrangements for SWM based upon actual operations are as follows:

2.1 . OPERATIONAL ACTIVITIES - FIRST SHIFT PLAN

MANUAL SWEEPING OPERATION

Manual sweeping of the roads, streets, markets, footpaths and every paved and unpaved passageway is being done with Sanitary Workers equipped with all necessary operational tools and PPE's (Personal protective equipment's)

- ✓ Manual sweeping in first shift is carried out from 6AM to 2PM.
- ✓ Personal protective equipment's include Proper uniform, Gloves, Mask, Proper Shoes, Long Boots and Rain Coat in case of monsoon Season.
- ✓ Operational Requirement for Sanitary Worker includes Broom, Shovel, Wheelie Bin, Waste Bags, Scrapper and Hand Cart.



Broom



Hand Cart



Whellie Bin



Shovel



Proper Uniform with PPE's



Waste Bag



Scrapper



Shovel 1



Monsoon SOP's (Long Boats & Rain Coat)

Fig: 3. Pictorial View of Operational Equipment's, PPE's & Monsoon SOP's for Sanitary Worker

- ✓ Sanitary Workers are managed by Sanitary Supervisors in Union Council and each sanitary worker has its own defined Beat (Area).
- ✓ During Manual Sweeping Operation in 1st Shift, Waste is also collected by sanitary workers from households i.e. collected from their house entrance.
- ✓ Waste Bags are also used by sanitary workers to collect waste from the roads, streets and households which are then hauled through wheelie bins and hand carts to the waste containers.
- ✓ Furthermore to increase the efficiency of waste collection we are distributing waste bags daily to every vendor on main roads(to stop littering and open heaps of waste)



Waste Bags Distribution in Begum Kot Vendors

MANUAL SWEEPING OPERATION DETAILS

- Sanitary Workers Strength: 55
- Sanitary Supervisors: 2
- Wheelie Bins: 7
- Hand Carts: 18
- Waste Bags: 15 Sacks of waste bags Every Month (1 sack = 400-500 Waste Bags)
- Brooms: 2 Bags of Brooms Every Month (1 Bag = 70 Broom)

OPEN PLOT CLEARANCE OPERATION

Large Number of open plots are present in Union Council 1 and as it is a cattle free area with poor infrastructure of roads and sewerage, access of machinery is not possible in every area of Union Council which results into daily throwing of waste in open plots by house holds.



begum kot qebrestan.jpg



chemmy wala khoo (1).jpg



dhera peer bakhsh (1).jpg



dhera peer bakhsh (2).jpg



chemmy wala khoo (2).jpg



chemmy wala khoo (3).jpg



fazal park (1).jpg



fazal park (2).jpg



ilem deen colony.jpg



ilm deen colony.jpg



ilmdeen colony (3).jpg



ilmdeen colony (4).jpg



ilmdeen colony (1).jpg



ilmdeen colony (2).jpg



ilmdeen colony (5).jpg



ilmdeen colony (6).jpg



ilmdeen colony (7).jpg



ilmdeen colony (8).jpg



nain sukh (1).jpg



nain sukh (2).jpg



ilmdeen colony (9).jpg



masoom shah road.jpg



nain sukh (3).jpg



nain sukh (4).jpg



nain sukh (5).jpg



nain sukh (6).jpg



peer sebz derbar.jpg



shema colony .jpg



nain sukh (7).jpg



nain sukh (8).jpg



shema colony,.jpg



shema colony.jpg



shoka toky wala.jpg



shoket colony (1).jpg



shoket colony (4).jpg



shoket colony (5).jpg



shoket colony (2).jpg



shoket colony (3).jpg



shoket colony (6).jpg



shoket colony (7).jpg



shoket colony (8).jpg



tiba ja.jpg



usman block (2).jpg



usman block (3).jpg



tiba jaferia.jpg



usman block (1).jpg



usman block (4).jpg

WORKING PLAN FOR MANUAL CLEARANCE OF OPEN PLOTS

Manual Clearance of Open plots is conducted after 11am Daily in Group Working and daily 2-3 plots are cleared in Union Council 1.

UNION COUNCIL 1	
Day	Open Plots Plan
Monday	Shama Colony(2 plots)
Tuesday	Shoukat Colony A-B block(3 plots)
Wednesday	Mariam Clinic + Ilm Deen Park(2 plots)
Thursday	Dera Peer baksh(2 plots)
Friday	Sabz Peer darbar(2 plots)
Saturday	Ilm Deen park street 1(3 plots)
Monday	Masoom Shah road(2 plots)
Tuesday	Ilm Deen park street 3(3 plots)



EMPTY AREAS MANUAL SWEEPING PROTOCOL

Large Population of shadra expanded over vast area of land. That's why we have many empty areas where we have no sanitary worker to provide regular waste collection and sweeping services. So we cover these empty areas in group working after 11am according to fix schedule.

EMPTY AREAS UC-1

UNION COUNCIL 1
Usman block
Achar wali factory
Pindi wala road
Masoom shah road
Saggian water land road
Farkabad service road
Saggian kalan road
Nain sukh saggian road
Meer pur streets
Mahar kanta road

GROUP WORKING PLAN UC-1

Union Council-1	
Day	Areas to Cover
Monday	Bara Dari Road
Tuesday	Ilm Deen Colony + Miraj Park
Wednesday	Shaukat Colony + Qabrastan Baigam Kot
Thursday	Shama Colony
Friday	Chamian Wala Kho
Saturday	Naain Sukh

SOLID WASTE COLLECTION OPERATION (CONTAINER COLLECTION & DOOR TO DOOR COLLECTION)

Solid waste collection process is done through two ways.

1. Container Collection
2. Door to Door Collection

CONTAINER COLLECTION

Solid waste generated is stored in waste containers (Collection Capacity is 250kg/0.25 tons) which are placed all over the Union Council. These waste containers are lifted by Hydraulic Compactor Vehicles moving in the union council on a specific route for the purpose of waste collection. This waste is then dumped at dumping Site (Mehmood Booti).

- ✓ Total 50 waste containers are in place in Union Council at 30 different Points.
- ✓ Total waste storage capacity in 50 containers is 12.5 tons in one time lifting.
- ✓ These Waste Containers are lifted by Hydraulic Compactor Vehicles having a Compaction Ratio of 1:3.
- ✓ One Large Compactor is deployed for waste collection in Union Council 1. Compactor has two helpers equipped with all necessary operational tools and PPE's (Personal protective equipment's).
- ✓ Compactor's responsibility is to lift all the containers in its route during the shift and also to collect all open heaps from the roads and linked streets to maintain efficient cleanliness standards.



Compactor Hydraulic System



Compactor



Proper Uniform with PPE's



Broom



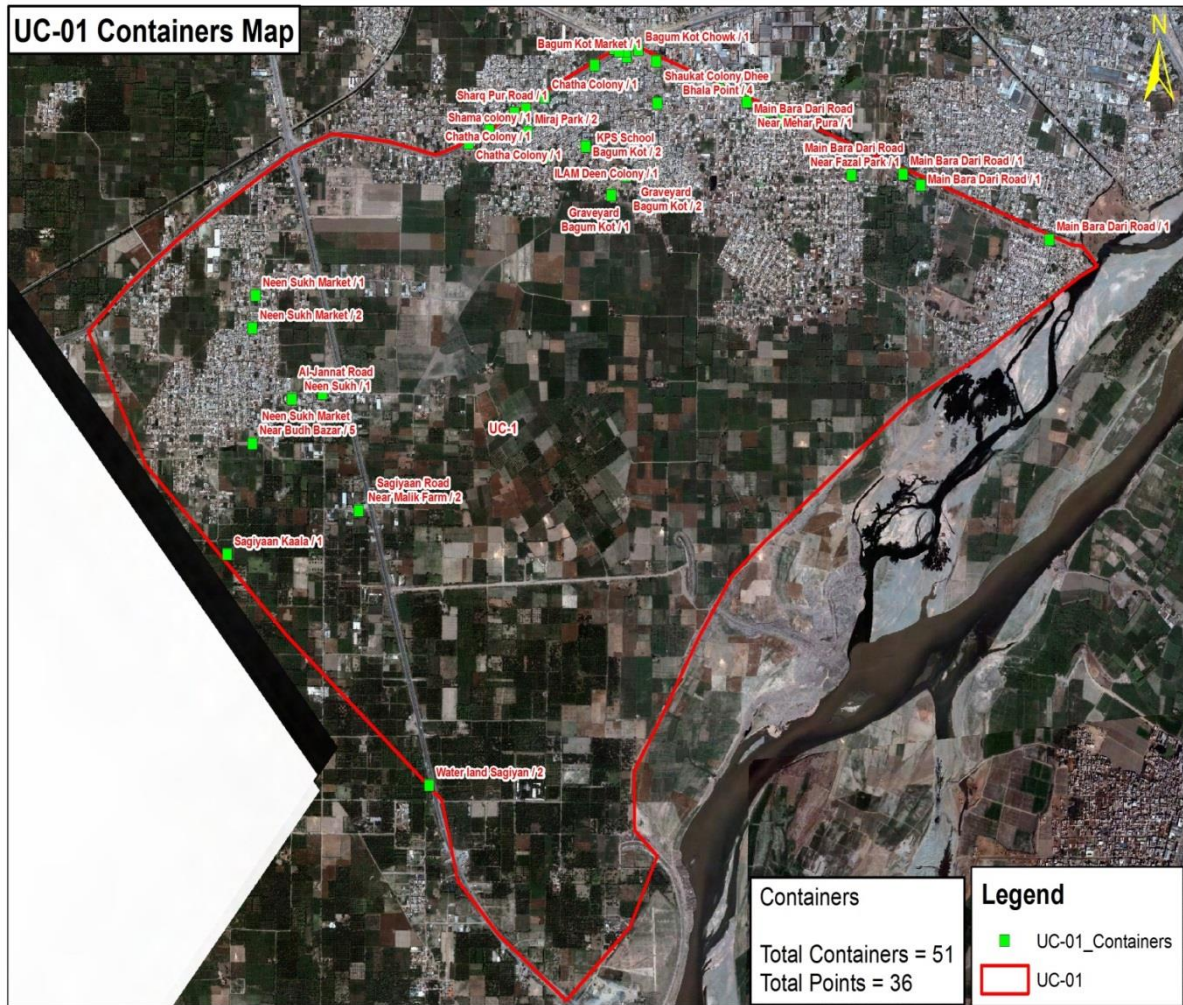
Shovel 1

Fig. 4. Pictorial View of Vehicles & Operational Equipment's for Helpers

SOLID WASTE COLLECTION OPERATION (CONTAINER COLLECTION) DETAILS

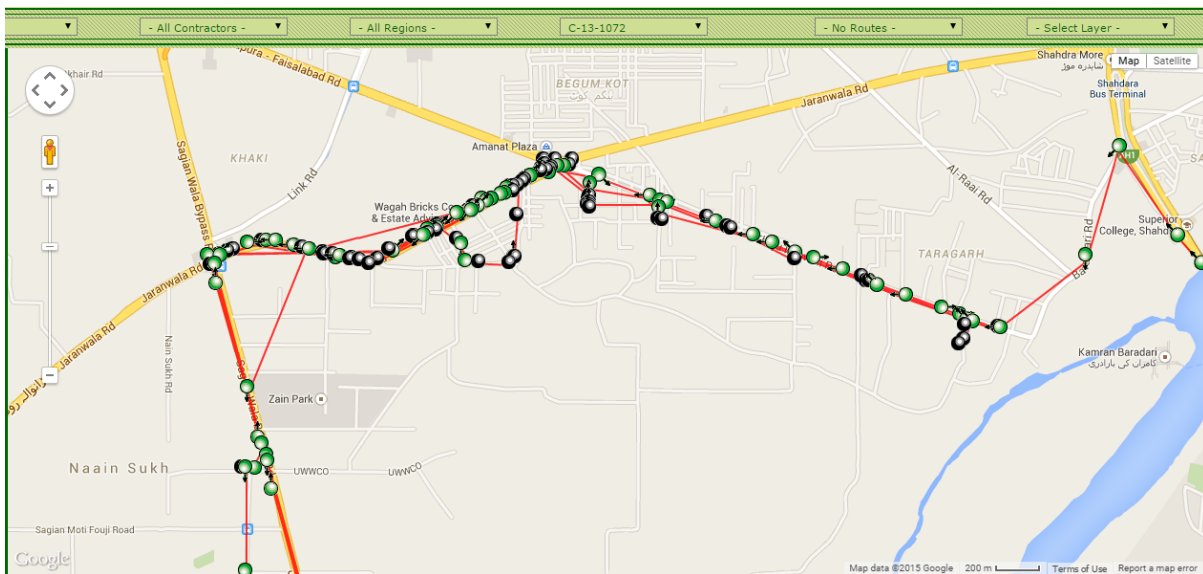
- Containers Placed: 50
- Container Points: 30
- Compactor Vehicles: C13-1072 (13m³ Compactors)
- Compactors Waste Collection: 13m³ Compactor can carry 9-12 tons of waste with single trip in 1st shift so the Collection Capacity in 1st Shift is 12 tons.

CONTAINER LOCATIONS ON MAP UC 01



Map: 01. Location of Containers

COMPACTOR WORKING IN UNION COUNCIL 1



DOOR TO DOOR COLLECTION

- ✓ Door to Door Waste Collection is the backbone of Solid Waste Management Operation. But it is very difficult to implement Door to Door Waste Collection service in area like Shadraa with low income rate, low literacy rate, Poor roads and sewerage infrastruture. But still we have successfully implemented Door to Door Service in Union Council 1(Areas having access and infrastructure for Door to Door Collection)
- ✓ MD-30 is the code of mini dumper which is deployed for UC-01 working with OZPAK JINGLE collecting Door to Door waste. Door to Door Waste Collection time is from 08:00AM to 01:00PM.

Note: Door to Door Waste Collection service is provided to houses having access of Mini Dumper. Our sanitary workers are collecting waste from areas where infrastructure is poor with narrow streets and sewerage problems.



Mini Dumper Hydraulic System



Mini Dumper



Proper Uniform with PPE's



Broom



Shovel 1



Waste Bag

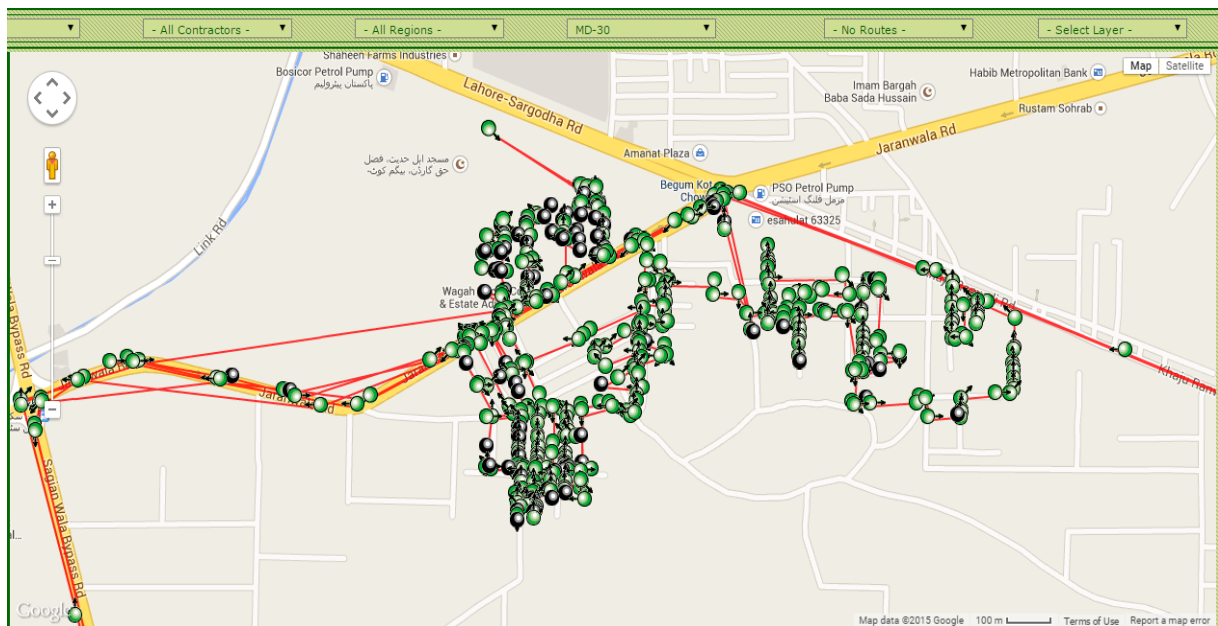
DOOR TO DOOR COLLECTION DETAILS



Mini Dumper: MD-30

Mini Dumper Driver: Sohail (3214042094) with 1 Helper (Properly Equipped)

DOOR TO DOOR WORKING OF MINI DUMPER IN UNION COUNCIL 1



LIFTING OF WASTE BAGS FILLED DURING GROUP WORKING

Manual Open Plot Clearance is a major part of solid waste management operation in Shadra. Due to involvement of Mini Dumper in DTD Collection. It was big problem to lift waste filled bags from narrow streets with mini dumper during 1st shift. For this purpose we are using one extra mini dumper to lift waste bags daily from plots all over the shadra zone in 2nd Shift.



2.2. OPERATIONAL ACTIVITIES - SECOND SHIFT PLAN

MANUAL SWEEPING OPERATION

Manual sweeping of the Main roads, Important markets, 1139 complaints is done with Special Gang (Group of Sanitary Workers) equipped with all necessary operational tools and PPE's (Personal protective equipment's)

- ✓ Manual sweeping in 2nd shift with Special Gang is carried out from 2PM to 10PM.

- ✓ Personal protective equipment's include Proper uniform, Gloves, Mask, Proper Shoes, Long Boots and Rain Coat in case of monsoon Season.
- ✓ Operational Requirement for Special Gang includes Broom, Shovel, Wheelie Bin, Waste Bags, and Scrapper.

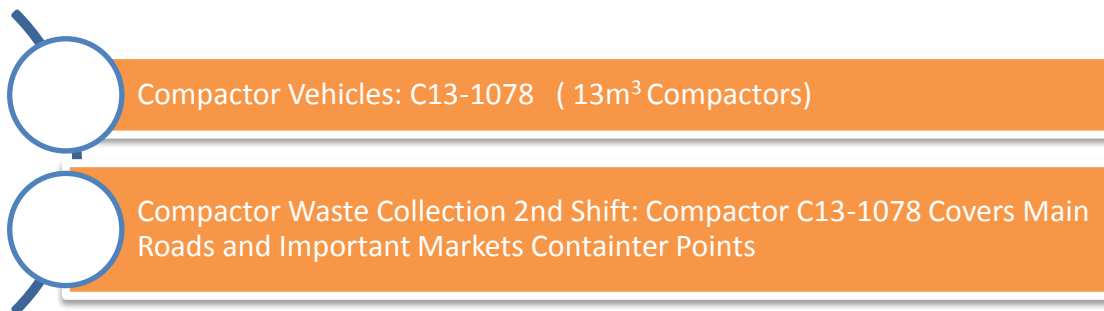
MANUAL SWEEPING OPERATION DETAILS



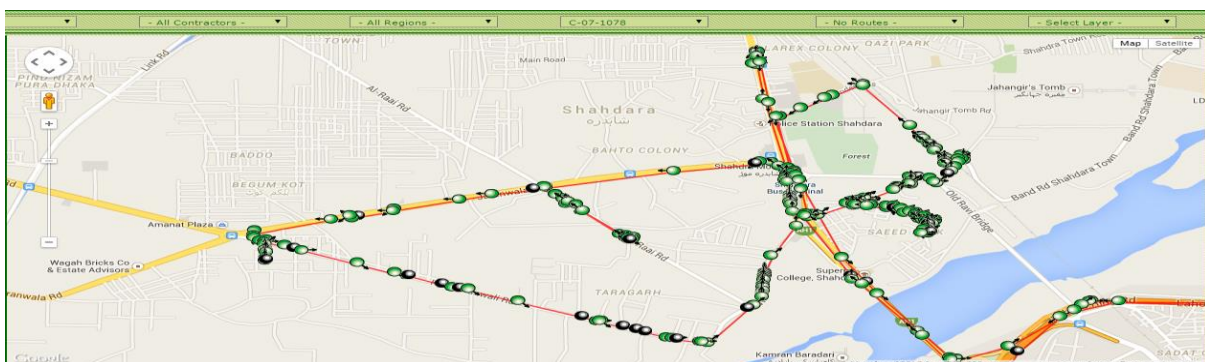
SOLID WASTE COLLECTION OPERATION (CONTAINER COLLECTION)

Solid waste generated is stored in waste containers which are placed all over the Union Council. These waste containers are lifted by Hydraulic Compactor Vehicles moving in the union council on a specific route for the purpose of waste collection and dump the waste at Dumping Site (Mehmood Booti).

SOLID WASTE COLLECTION OPERATION (CONTAINER COLLECTION) DETAILS



COMPACTOR WORKING 2nd Shift



2.3. OPERATIONAL ACTIVITIES - THIRD SHIFT PLAN MANUAL SWEEPING OPERATION

Manual Sweeping Operation is not carried out in 3rd Shift.

SOLID WASTE COLLECTION OPERATION (CONTAINER COLLECTION)

Solid waste generated is stored in waste containers which are placed all over the Union Council. These waste containers are lifted by Hydraulic Compactor Vehicles moving in the union council on a specific route for the purpose of waste collection and dump the waste at Dumping Site (Mehmood Booti).

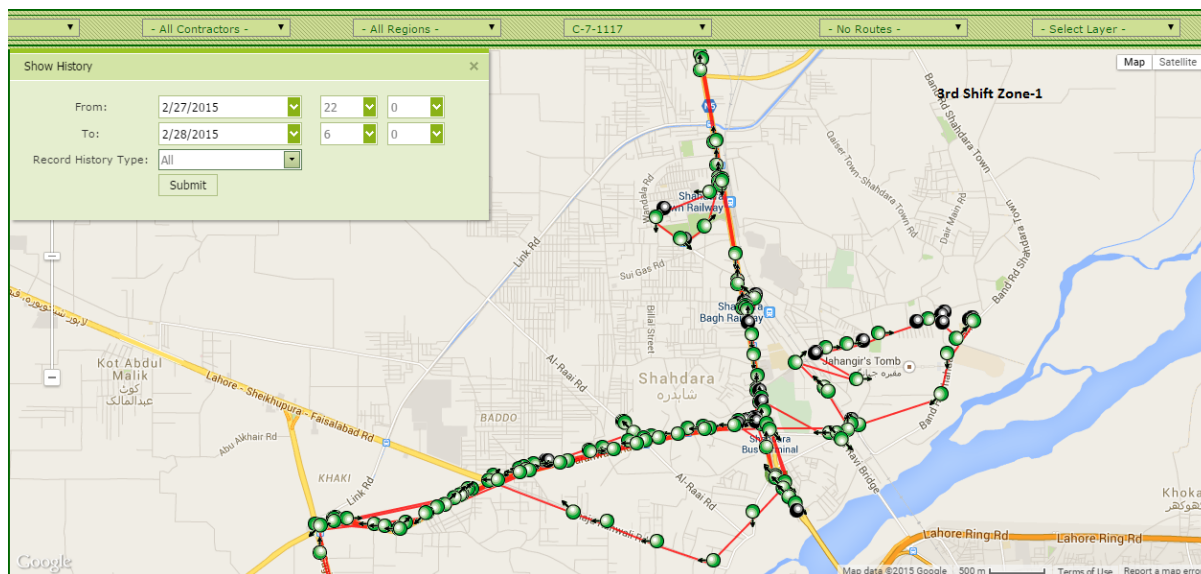


Compactor Vehicles: C07-1117 (7m³ Compactors)



Compactor Waste Collection 3rd Shift: Compactor C07-1117 Covers Main Roads and Important Markets Container Points and Problematic Points covering all Union Councils

COMPACTOR WORKING 3rd Shift



3. COMPACTOR VEHICLE STAFF DEPLOYMENT FOR UNION COUNCIL 01

Detail of vehicles deployed in all three shift and contact number of responsible persons are given below:

Conservancy Staff Union Council 1, Zone-1		
Overall Incharge = Muhammad Hassan (0300-8482390)		
Supervisor = Babar (0320-8431703) &	Supervisor = Babar (0320-	Supervisor = Taj (0300-

M Shahid (0346-4382320)			8431703) & M Shahid (0346-4382320)		5258304)	
1st shift			2nd shift		3rd shift	
UC	Vehicle No.	Driver Name & Mobile	Vehicle No.	Driver Name & Mobile	Vehicle No.	Driver Name & Mobile
01	1072	Mushtaq Ahmad(3467507096)	1078	Sabir(3214115393)	1117	Ashraf Laal(3224891824)

Table: 02. Conservancy Staff UC-01

4. UC COORDINATOR JOB DESCRIPTION/LIST OF WORK

06:00AM-07:00AM

Attendance Points:

- ✚ Manual and Android Cards Attendance Marking on these fixed attendance points
 - Nain Sukh Chowk
 - Sharak Pur Road Taali Point
 - Begum kot Chowk
 - Farkhabad

Finding Problematic Points & Deployment of Human Resource and Machinery:

- ✚ Check arrival of Compactor and Mini Dumper in Union Council
- ✚ Deploy Human Resource on Main Roads, Commercial and Residential Areas
- ✚ Highlight important open heaps points, Filled Waste bags points and problematic overflowed containers to Compactor and Mini Dumper drivers to attend on priority.

07:00AM-08:00AM

- ✚ Check Manual Sweeping on Main Roads, Sanitary Workers Attendance and Containers Collection.
 - Saggain Road
 - Sharakpur Road + 8 Containers
 - Bara Dari Road + 8 Containers

08:00AM-10:00AM

- ✚ Check Manual Sweeping, Worker Attendance, Container Collection & Door to Door Waste Collection in Inner (Residential) Areas.
 - Shaukat Colony + 6 Containers
 - Cheera Chowk Streets
 - Shama Colony Streets
 - Miraj Park Streets
 - Iilm Deen Colony Streets + 2 Containers
 - Begum Kot Qabrastan + 5 Containers
 - Chemaan Wala khu

- New Fazal Park + 1 Container
- Masoom Shah Road + 2 Container
- Tariq Colony KPS Road + 3 Containers

Note: On Monday 20 workers cover bar dari Sunday market waste from 7am to 9am

- ✚ During Visit Focusing on Manual sweeping Quality, presence of worker in allocated area, Door to Door Collection efficiency and staying in touch with compactor driver for timely lifting of containers.

10:00AM-11:00AM

- Break Time from 10:00am to 11:00am
- Workers gather at Attendance Points

11:00AM-01:30PM

- ✚ Divide work force in groups to cover empty areas, absent worker area, problematic areas are and open plots.
- ✚ Send workers in group in empty areas and on open plots daily according to a fix schedule
- ✚ Check working in empty areas, open plots.
- ✚ Resolve PMS & 1139 Complaints on priority basis if any
- ✚ Checking again main roads manual sweeping & container collection including some problematic container points
 - Sharakpur Road + 8 Containers
 - Bara Dari Road + 8 Containers
 - Shaukat Colony + 6 Containers
 - Masoom Shah Road + 2 Container
 - Tariq Colony KPS Road + 3 Containers
 - Iilm Deen Colony Streets + 2 Containers
 - Begum Kot Qabrastan + 5 Containers
 - Budh Bazar Streets
 - Main Bazar Nain Sukh and Streets + 1 Container
- ✚ In Final Round Checking focus is to check Group Working, Main Roads Sweeping and Container Collection of important Points.

01:30AM-02:00PM

- ✚ Manual and Android Cards Attendance Marking on these fixed attendance points
 - Nain Sukh Chowk
 - Sharak Pur Road Taali Point
 - Begum kot Chowk
 - Farkhabad

5. CRUCIAL POINTS

From Solid Waste Management(Waste Generation, Waste Collection & Social Environment) perspective we have some focus points in every Union Council which are focused daily on priority.

Qabrastan Containers Points:

Very important point in terms of quantity of waste and location(near cemetery)



Note: In UC-1, we have 6 such points where more than 1 container is deployed and all are our focus points.

Baigam Kot Chowk Sweeping and Vendors:

Baigam Kot Chowk is very important as it connects important roads like Bara dari road, Sheikhpura road and Sharkpur Road. So maintenance of sweeping and container protocols and managing vendors is very important.



6. RECOMMENDATIONS

As Door to Door Collection is the back bone of waste management system and it is the best way to reduce waste load on containers and compactors by directly collecting waste from houses. To collect waste completely from UC-01 one mini dumper is not enough. One more mini dumper is necessary for 80-90 % Door to Door Collection efficiency.