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NATIONAL TRANSPORT RESEARCH CENTRE

GOVERNMENT OF PAKISTAN

MINISTRY OF COMMUNICATIONS



**DILIGENCE CHECKS OF NHA TOLL PLAZAS M-9
(Preliminary Evaluation)**

NTRC 329

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ABSTRACT

In February and March 2013, during meetings of Chief, NTRC with the then Joint Secretary (Technical) Ministry of Communications, it was decided that a study on Diligence Checks at Toll Plazas on National Highways and Motorways should be carried out to examine the operations of NHA toll plaza under Operation and Management Contractors (OMC). Accordingly, a preliminary study was designed and initiated to collect requisite data from field and from NHA for Jamshoro and Karachi Toll Plazas. Following field surveys were designed and conducted to collect requisite data:

- A. Manual Classified Traffic Count Survey
- B. Photographic survey.
- C. User perception survey.

The results of survey show that daily traffic at Karachi and Jamshoro Toll plazas is 11,386 vpd and 11,314 vpd respectively. The peak traffic was observed from 1800 Hrs to 1900 Hrs at Jamshoro whereas at Karachi Toll Plaza, the peak traffic was observed during 1300 Hrs to 1400 Hrs.

The gross and net revenues have been estimated on the basis of twenty four hour classified traffic count survey. The estimated gross and net revenues for Jamshoro Toll plaza are Rs. 271M and Rs. 244 M respectively, whereas for Karachi the revenues are Rs. 245 M and Rs. 220 M respectively.

As per contract agreement, the Contractor is bound to pay fixed monthly installment by the 5th of every month in advance. Karachi toll Plaza was taken over by M/S NLC w.e.f 8th September 2012 at annual guaranteed revenue of Rs.212 Million (monthly fixed installment of Rs. 17.667 Million). By 5th August 2013, NLC is supposed to deposit Rs. 212 Million but as per record provided by NHA, they have deposited only 143.324416 Million upto 17th September, 2013. NLC have neither deposited Bank Guarantee (equal to one month revenue amounting Rs17.667 Million) nor toll revenue security (equal to one month revenue amounting Rs17.667 Million).

To ensure the transparent and effective privatization of the toll plazas on National Highways and Motorways, the services of NTRC experts may be utilized by NHA to conduct a comprehensive study "Monitoring and Evaluation of Toll Plazas Operations". As a third party, the NTRC can play an effective role in determining reserve price during privatization of toll plazas for bringing impartiality and transparency in the process.

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1. BACKGROUND

During meetings of Chief, NTRC with the then Joint Secretary (Technical) Ministry of Communications, in February and March 2013, it was decided that a study on Diligence Checks at Toll Plazas on National Highways and Motorways should be carried out to examine the operations of NHA toll plaza under Operation and Management Contractors (OMC). Keeping in view the nature and magnitude of the project, a pilot study was designed and initiated to collect requisite data from field and NHA. For this purpose two most important toll plaza locations on M-9 were selected i.e. one at Jamshoro and the other at Karachi.

2. INTRODUCTION

There are 85 toll plazas on national highway network. Most of these toll plazas are being operated by private contractors called Operation and Management Contractors (OMCs). These contractors were assigned the task of revenue collection from toll plazas through the process of competitive bidding. The basic criterion is the amount of net annual guaranteed revenue to NHA. The contractor offering highest net annual guaranteed revenue to NHA is awarded the contract. The mechanism successfully enhanced the annual revenues of NHA from toll plazas. However, under the intense competition among the competing private operators, the level of service aspect of the operation of toll plazas started suffering. To gain the optimum level of profit, the operators tend to curtail the manpower to reduce their operating costs. This adversely affects the performance of toll plaza operations which results in compromise over the service quality measured in terms of delays at the toll plazas.

There are various sections of national highway network which carry traffic to the tune of 50,000 vehicles per day which means the peak hour flows of roughly 3000 vehicles per hour. The traffic delays in term of long queues become significantly visible during these peak hours.

Keeping above said observations, a pilot study has been conducted to evaluate the performance of toll plazas in terms of facilitation to the road users as well as benefit to the organization in terms of realization of true revenue potential.

3. OBJECTIVES

The objectives of the study are as given below:

- To estimate the optimum revenue generation potential of toll plazas for NHA
- To explore the existing condition of toll plaza site
- To determine the level of user comfortability with respect to behavior of tolling staff
- To study the delays and queuing at toll plazas
- To identify the level of adherence of operators as per contract terms and conditions

4. SCOPE

Prior to conducting a full-fledged study on the entire highway network, the pilot study is pre-requisite. This has dual advantage of identifying actual factors / issues on the system as well as giving hands on training to young NTRC researchers. The scope of study is restricted to only two toll plazas on M-9 which are one at Jamshoro and other is at Karachi.

5. THIRD PARTY EVALUATION

It is high time to evaluate the performance of the operations of these toll plazas by an independent third party evaluation. This would not only provide relief to the commuters / road users but also ensure transparency and impartiality in the matter. As per expertise, the NTRC can very effectively evaluate the performance of the selected toll plazas without any bias.

Being the only research organization in the field of road and road transport, NTRC has been taking up collaborative projects with NHA in the past. Moreover, NTRC has played an instrumental role in developing the mechanism of privatization of these toll plazas in 2008. NHA assigned the task to NTRC for estimating the reserve price for privatization of various toll plazas to NTRC upto 2011. This reserve price formed the basis of bidding process for award of Operation and Management (O & M) Contract of toll plaza to the contractor. NTRC therefore has the capability to conduct monitoring and evaluation of the Toll Plazas operation and services to facilitate road users and concerned authorities.

6. METHODOLOGY

The study is primarily based on data collection through field surveys and Toll revenue collected at NHA. Following field surveys were designed and conducted to collect requisite data:

- A. Manual Classified Traffic Count Survey
- B. Survey site Photographs
- C. User perception survey

Brief description of each survey is as given below:

A. MANUAL CLASSIFIED TRAFFIC COUNT SURVEY

A one day (24-Hour) Classified traffic count survey was carried out on an hourly basis. The survey was required to get an estimate of the revenue earnings of the Toll Plaza. Moreover it also gave an insight into traveling patterns on the section.

B. SURVEY SITES PHOTOGRAPHS

The photographs of survey sites were taken and observed following physical condition at toll plazas:

- Physical infra structure.
- Tolling shed,
- Office building
- Vehicle barriers
- Pavement surface Condition
- Speed breakers Condition
- Road markings and other information signs
- Uniforms of toll charges collection staff
- Security arrangements

C. USERS PERCEPTION SURVEY

The objective of the survey is to assess satisfaction level of road users with the behavior of Toll Plaza Staff. The survey was conducted through questionnaire. The diligence checks also involved exploration of revenue details / statistics and other information available with NHA.

7. LITERATURE REVIEW

7.1 Diligence

"Diligence" is a term used for a number of concepts, involving either an investigation of a business or person prior to signing a contract, or an act with a certain standard of care.

It can be a legal obligation, but the term more commonly applies to voluntary investigations. A common example of due diligence in various industries is the process through which a potential acquirer evaluates a target company or its assets for an acquisition.

7.2 Types of Toll Plazas on National Highway Network

NHA has privatized the operation and maintenance of toll plazas on national highway network. Following types of toll plazas are being operated by private sector in the National Highway Network:

- Manually operated Toll Plazas
- ETTM operated Toll Plazas

The private operator is entitled to collect toll fee from the vehicles as per rates set by NHA which are revised from time to time. The operator submits the residual amount collected from toll fee after deducting his operational charges and profit as per agreed terms based on the revenue sharing formula between NHA and private operators.

7.2.1 Manually Operated Toll Plazas

The toll revenue is collected manually without any on site electronic record of traffic or revenue generated. In these toll plazas, the bidding is based on net annual guaranteed revenue for NHA. The bidder offering highest net annual revenue to NHA is awarded contract for the operation and management of toll plaza. The operator pays revenue in the form of advance monthly installments.

7.2.2 Electronic Traffic and Toll Management (ETTM) Toll Plazas

The toll revenue is collected manually however each toll transaction is electronically recorded in real time. Every transaction is electronically transmitted to NHA operational Headquarter, Islamabad. In these toll plazas, the bidding is based on percentage of gross revenue for the operator as service charges. The bidder demanding lowest percentage of gross revenue as service charges is awarded the contract for operation and management of these toll plazas. The operator pays revenue in the form of monthly installments.

7.3 Performance Evaluation of Toll Plazas from Commuter Perspective

Diligence checks for NHA toll plazas are required from two perspectives namely:

- From the view point of government / NHA, it is essential to check whether the objective of the toll plaza i.e. revenue collection from the road users is being adequately served. This essentially means that the diligence check has to explore whether is getting the revenue to the true potential of a specific toll plaza and the operator is not getting the undue profit.
- From the view point of users i.e. commuters, it is essential to check whether performance of toll plaza is efficient enough so that it does not cause undue delays and queuing at toll plaza.

Performance evaluation of toll facilities requires a good understanding of their unique characteristics and constraints, and the definition of the right measures of effectiveness (MOEs) that help explain the level of service perceived by users. The traffic queue length and the time spent in the queue are the two most significant MOEs that reflect both how the system is performing and what users perceive as its level of service.

8. DATA COLLECTION AND ANALYSIS

As described in previous sections, the primary data source for the study in hand are field surveys. Traffic volume being handled by toll plazas was estimated through traffic count survey. For this purpose manual classified counts (MCC) were taken at two locations namely, Jamshoro Toll Plaza and Karachi Toll Plaza. This data is used to find out the current traffic using the route and consequently the traffic being served by each toll booth. The locations selected as the Traffic Count Stations are:

Station-1: Near Jamshoro Toll Plaza, at a petrol station on the left side of the road. Counting on this station was conducted.

Station-2: Near Karachi Toll Plaza, at a petrol station on the left side of the road. Counting on this station was conducted.

The location of both the survey stations on the project road was carefully selected so as to keep the observed counts free from internal traffic of the cities of Jamshoro and Karachi.

Traffic counts were conducted for one day each for both stations on the project road. On each station one 24- hour count was considered viable keeping in view the financial constraint and the amount of data required.

Traffic counts at Jamshoro Toll plaza were taken from midnight (00.00Hrs) to midnight (0000Hrs) for the next day and at Karachi Toll Plaza from 15:00 Hrs to 15:00Hrs of the Next day.

Two teams of traffic enumerators for Station-1 and 2 were used to complete this job. One team worked for daytime counts on station-1, while the second team did the night time counts at respective stations.

For stations 1 and 2, the traffic was classified into following categories for the purpose of estimating the Axle Loads on the pavement during the design life of the road:

- Cars and Taxis
- Wagons
- Buses and Minibuses
- 2- 6 Axle Trucks

- Tractors / Tractor Trolleys
- Others

8.1 Traffic Count Survey Results (Jamshoro Toll Plaza)

The results of traffic count survey conducted at Jamshoro Toll plaza are as shown in table at Annex-I. The hourly variation of traffic flow is elaborated through the line graph at Annex-II. This clearly indicates the morning and afternoon peak traffic and the hour of the day during which it occurs. The percentage composition of the traffic is given in table below:

Daily Vehicle Composition at M-9 (Jamshoro Toll Plaza) from Hyderabad To Karachi

Sr. No.	Vehicle Type	Nos.	%age
1	Car	5107	44.9
2	Wagon	482	4.2
3	Coaster/ Mini Bus	236	2.1
4	Bus / Coach	648	5.7
5	Pick up	499	4.4
6	Truck 2 Axle	1046	9.2
7	Truck 3 Axle	1079	9.5
8	Truck 4 Axle	1474	12.9
9	Truck 5Axle	296	2.6
10	Truck 6 Axle	373	3.3
11	Tractor with Trolley	11	0.1
12	Others	135	1.2
	Total	11386	100.0

8.2 Traffic Count Survey Results (Karachi Toll Plaza)

The results of traffic count survey conducted at Karachi Toll plaza are as shown in table at Annex-III. The hourly variation of traffic flow is elaborated through the line graph at Annex -IV. This clearly indicates the morning and afternoon peak traffic and the hour of the day during which it occurs. The percentage composition of the traffic is given in table below:

**Daily Vehicle Composition at M-9 (Karachi Toll Plaza)
from Karachi To Hyderabad**

Sr. No.	Vehicle Type	Nos.	%age
1	Car	4935	43.6
2	Wagon	512	4.5
3	Coaster/ Mini Bus	125	1.1
4	Bus / Coach	614	5.4
5	Pick up	934	8.3
6	Truck 2 Axle	1394	12.3
7	Truck 3 Axle	1314	11.6
8	Truck 4 Axle	864	7.6
9	Truck 5Axle	219	1.9
10	Truck 6 Axle	313	2.8
11	Tractor with Trolley	23	0.2
12	Others	67	0.6
	Total	11314	100

8.3 Contract Agreement-Condition / Clauses.

As per the Contract Agreement given in (RFP) for the operation and management contract of the Toll plazas on National Highways and Motorways, the scope of the project and obligation of Operation and Management Contractor (OMC) shall include the following alongwith other responsibilities on the project site;

- Routine maintenance and cleaning of the Toll Plazas
- The OMC shall ensure all non-stop operation of toll collection lanes / both for 24 hours per day. All lanes at Plazas to be manned / kept operational 24 hours a day, 7 days a week and 365 days a year & in the case of any stoppage / close, a fine of Rs. 10,000 per occurrence will be imposed.
- All employees deputed by OMC shall be in proper uniform as approved by the NHA

- Booth operators and toll collectors have a minimum education at qualification of matriculation
- All equipment and structure shall be kept in order and maintained in good clean condition
- Suitable and well organized security arrangements shall be provided at the project site and its surrounding areas for the safety of commuters
- "Fog Lights" shall be provided and put in operation for foggy weather to avoid accidents. Also standby arrangements shall be made to cope with electric failures.
- A "complaint register" shall be kept at each plaza to record user's complaint if any. Information for this register be displayed at appropriate place on toll plaza.
- All public facilities, equipment and resource shall be kept in operational condition all the time during the entire period of Contract.
- The OMC shall be liable to contractual penalty of Rs. 100,000/- (Rupees One Hundred Thousand only) upon each event of charging the commuter above the toll rates prescribed by NHA;
- The effect of frequent user passes / seasonal variations in the traffic and any other factors effecting the revenue collection shall be taken into account by the bidders while quoting their bid. During the currency of the contract, no claim in this respect shall be entertained by NHA.
- Printing of tickets to be issued to commuters upon collection of toll in accordance with instructions issued by NHA and maintenance of verifiable daily record of such tickets;
- Payment of all utilities and all other expenditure incurred in providing Services pursuant to this Agreement;
- The OMC shall deposit the fixed guaranteed amount / revenue net under this agreement latest by 5th of each month in a designated account approved by NHA. (Clause 7.1-b)

- If the fixed guaranteed monthly advance revenue is not deposited in NHA designated account by the 5th of each month or any month (due date 1st of each month with 5 days grace period), a penalty of Rs. 100,000 per day shall automatically become effective and finally if the said amount is not deposited in designated NHA account by 15th of each month, the contract shall automatically stand terminated and cash security amount deposited with NHA automatically forfeited. The cash security amount will be equal to the revenue of one month as per the bid amount of the contractor.
- OMC shall submit Toll Revenue Security a bank draft / pay order, equal to one month Guaranteed Amount due to NHA;
- OMC shall deposit one month Guaranteed Amount in advance as security deposit (Security) with NHA.

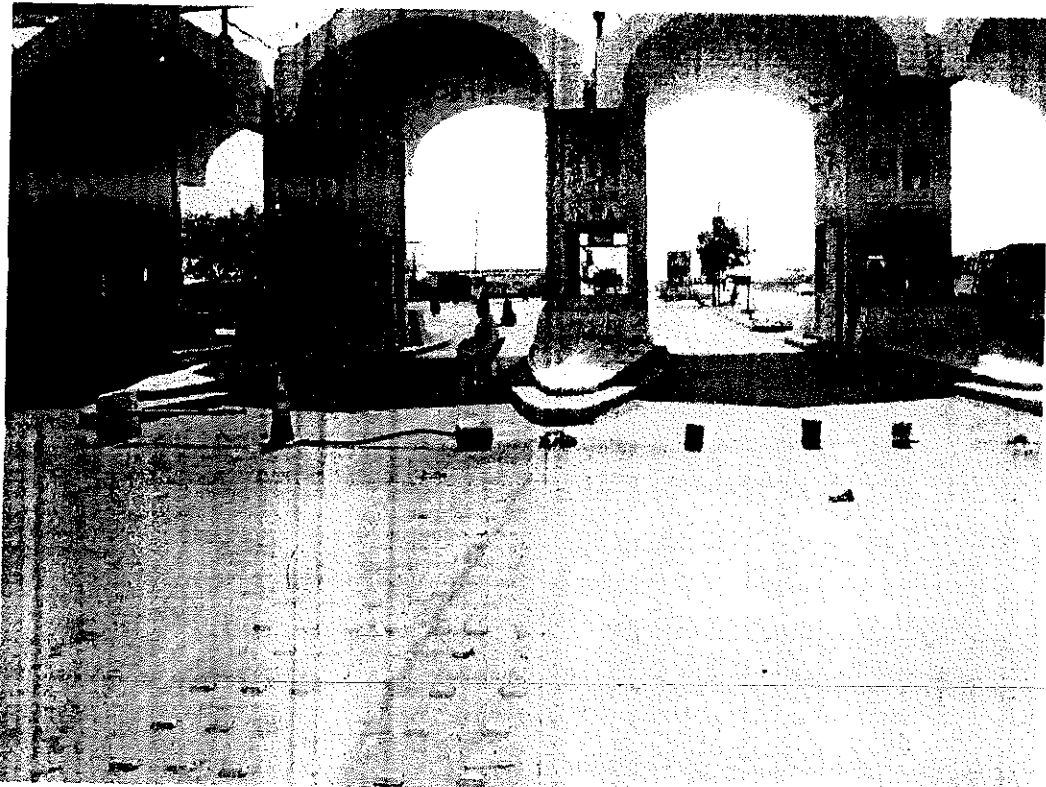
The copy of the relevant extracts from Contract Agreement is given at Annex-V.

8.4 Violation of the Contract Clauses

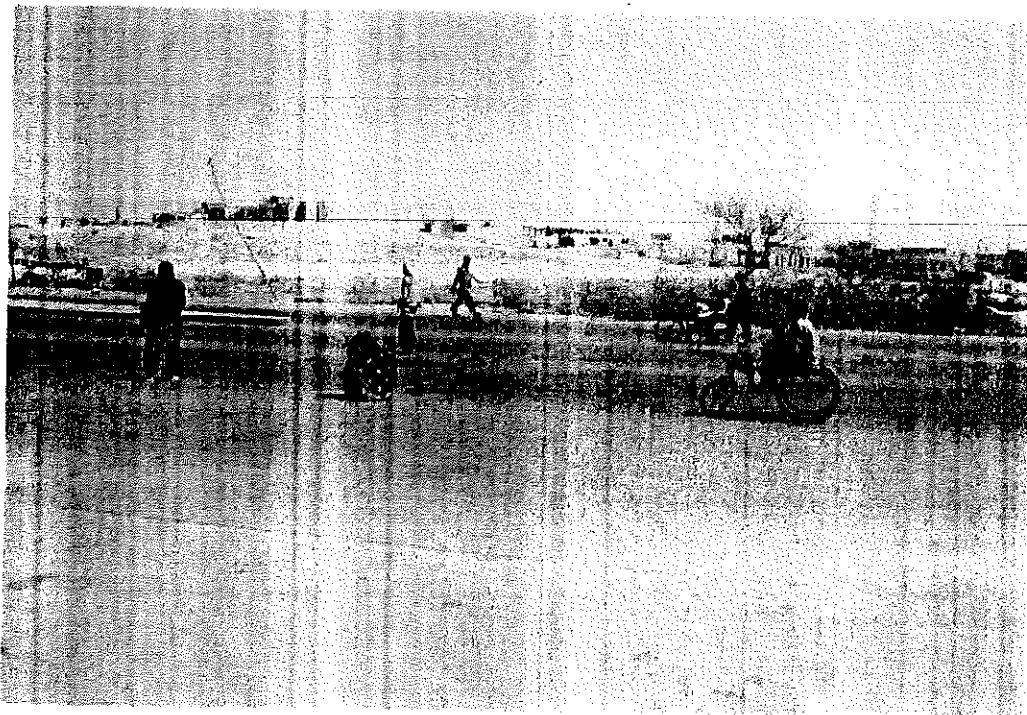
According to the information received from NHA as well as observations taken from the sites and shown in the photographs below, there is clear violation of a large number of contract agreement clauses causing a disruption of the essence of contract. The photographs given below show the violations observed at site.

Deteriorated and pathetic condition of Toll Plaza booths





Closed booths either direction



Improper arrangement of security to stop Baggers

There are serious financial irregularities as well which are highlighted as below:

- As per contract agreement, the Contractor is bound to pay fixed monthly installment by the 5th of every month in advance. Karachi toll Plaza was taken over by M/S NLC w.e.f 8th September 2012 at annual guaranteed revenue of Rs.212 Million (monthly fixed installment of Rs. 17.667 Million). By 5th August 2013, NLC is supposed to deposit Rs. 212 Million but as per record provided by NHA, they have deposited only 143.324416 Million upto 17th September, 2013.
- NLC have neither deposited Bank Guarantee(equal to one month revenue amounting Rs17.667 Million) nor toll revenue security (equal to one month revenue amounting Rs17.667 Million)
- The previous two operators from November 2010 to January, 2012 have also not deposited bank guarantee and revenue security; which is serious financial violation of the contract agreement clauses.

8.5 Secondary Information from NHA

To obtain the secondary information regarding net annual guaranteed toll revenue, the monthly payments of toll operator, and amount of bid security for Jamshoro and Karachi toll plazas the NTRC requested NHA to provide the information as per proforma which was provided by them Annex-VI

9. M - 9 Survey observations

By the interviews conducted with the users of M-9 regarding the services being provided at the toll plazas in particular and about the behavior of traffic, road condition and security of the travelers in general, the following were revealed:

9.1 Observations about Toll Plazas

- It was observed that the condition of toll plazas was quite pathetic; windows of the toll cabins were broken.
- No computerized system for ticketing was available
- Staff was not properly dressed up

- One to two lanes remained closed all the time.
- There was no lighting system on the toll plazas.
- There was no authentic way of documentation. It was observed that many vehicles passed on without giving any toll tax. As per the observation, about 15 % revenues were lost due to nonpayment of toll tax.
- There were no proper arrangements of security for the tolling staff and it was one of the reasons for nonpayment of toll tax.

9.2 Observations about Behavior of Traffic

- The traffic behavior was below standard. There was minimum use of indicators and aggressive driving was rampant.

10. Estimated Gross and Net Revenue

The gross and net revenues have been estimated on the basis of twenty four hour classified traffic count survey. NTRC has developed traffic factors with the help of which a 24 hours traffic count can be expanded to give annual traffic with a good degree of precision.

NTRC has been estimating the reserve price of various Toll Plazas on National Highway Network for NHA. On the basis of estimation and the resulting bidding, it has been observed that the operation and management expenses of the operator alongwith his profit range from 10 to 15 percent of gross revenue from Toll Plazas.

Based on the above stated assumptions / factors, the gross and net revenues from Toll Plazas have been estimated which are given at Annex-VII.

11. Conclusions

The following serious financial irregularities are observed after the award of contract of Toll plazas which seems to be violation of some clauses of the contract agreement:

- The revenues have not been deposited according to agreement.
- Moreover it seems that authorities have waived of huge amounts of bank guarantee and performance security without any apparent justification and in violation of contract agreement. This is not only a financial irregularity but also provides an easy escape route to the contractor to flee as and when he wishes.

- Mismanagement and lack of monitoring of Toll Plazas was obvious during the site visit of Karachi and Jamshoro Toll plazas.
- It was also found out that no computerized system for ticketing was placed there.
- Generally the staff was not properly dressed up.
- From their way of talking, it was apparent that they were not meeting the minimum qualification requirements of contract agreement (matriculation).
- One to two lanes were found closed most of the time during twenty four hours.
- The infrastructure was observed in a very pathetic condition. During conducting user perception survey, the most prominent response from the road users was the sense of high insecurity and accident prone journey on M-9 especially after the sun set.
- The commuters were found badly suffering because of the present arrangement for Toll operations. They feel insecure, overcharged, and unsafe and exploited at the hands of Toll operators (contractors).
- The maintenance of public infrastructure is being badly ignored which is resulting the loss / wastage of billions of rupees from public exchequer.
- The Toll facility used by the commuters by no means satisfies their requirements. The road is in worst condition at Toll plaza sites having axle breaking part holes on the one hand and vehicle tilting dilapidated road shoulders.
- Open steel bars in concert / columns of the toll booth structure. The Toll booths presented a shabby looking ruined structure with removed plaster from various parts and broken masonry work.

All these facts are the clear and gross violation of articles of Contract Agreement by the contractors.

12. Recommendations

In the light of results surveys and data provided by the NHA for the study, the following recommendations are being made;

- There is a need to enforce financial regularity and contract clauses should be adhered to
- Effective oversight and revenue generation estimation at Toll Plazas by a third party on regular basis across Pakistan will enhance the revenue generation by about 25%. However, for the exact calculation, there is a need of a comprehensive study in the light of this pilot project.

- To ensure the effective operations of the toll plazas on National Highways and Motorways, the services of NTRC experts may be utilized by NHA to conduct a comprehensive study "**Monitoring and Evaluation of Toll Plazas Operations**" so that the reasons of existing administrative and guaranteed revenue generation problems / issues lying with the operations of Toll plazas may be explored and concrete and sustainable solutions may be provided to NHA. This comprehensive study would help in giving up to the mark operational mechanism to facilitate the road users, securing high guaranteed revenue generation for NHA and hence would help in saving the enormous loss of public exchequer.

24 hours Classified Traffic Count Survey at M-9 (Karachi Toll Plaza) from Karachi To Hyderabad

Location : Karachi Toll Plaza (M-9)

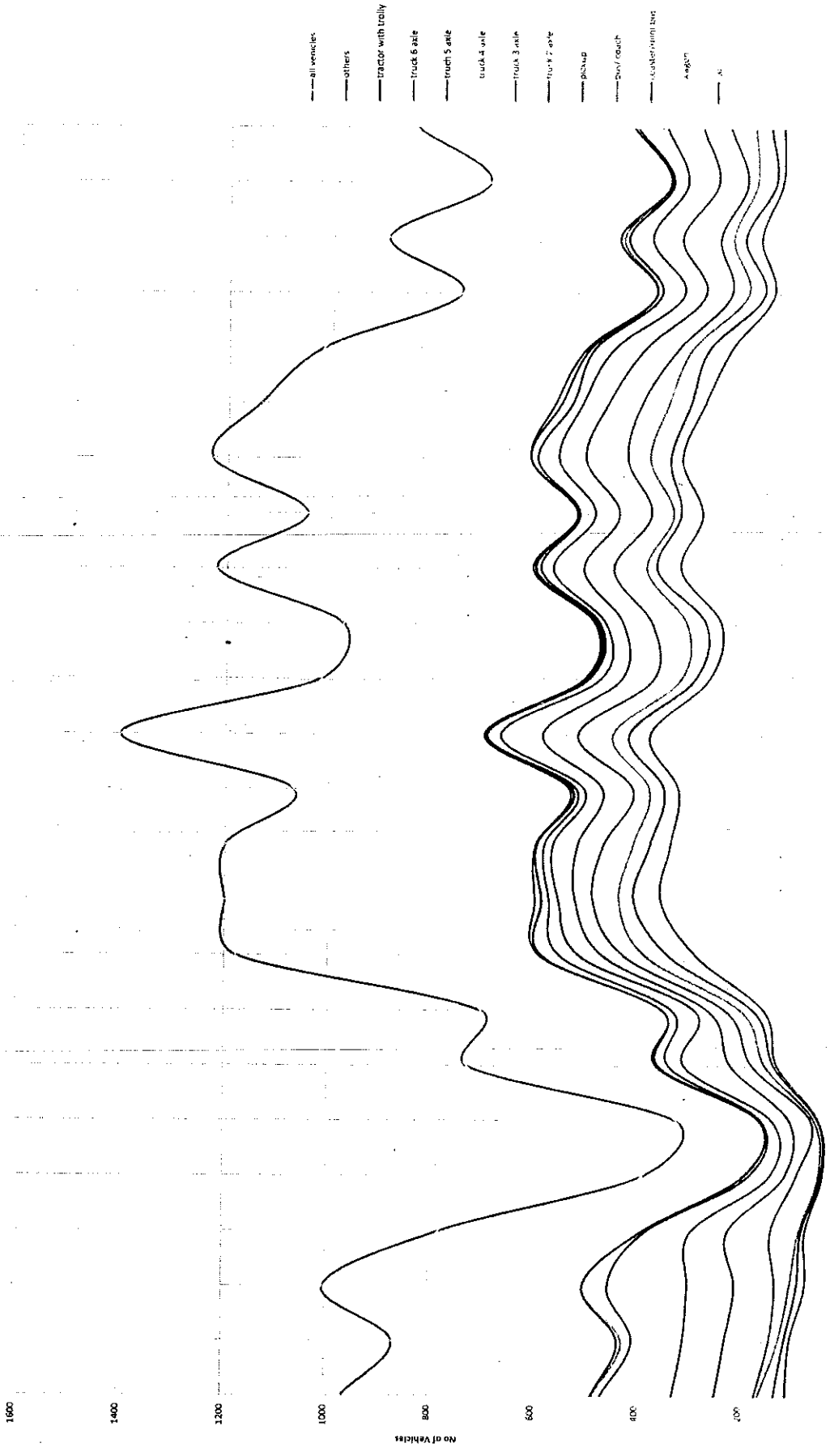
Date : 03.04.2013

Day : Wednesday

Hours	Vehicle Categories											Tractor with Trolley	Others	Total
	Car	Wagon	Coaster/ Mini Bus	Bus / Coach	Pick up	Truck 2 Axle	Truck 3 Axle	Truck 4 Axle	Truck 5Axle	Truck 6 Axle				
0000-0100	109	12	11	31	7	77	82	113	24	17	1	0	484	
0100-0200	101	9	2	12	18	86	81	84	14	20	8	0	435	
0200-0300	72	13	3	14	29	79	91	100	53	48	0	0	502	
0300-0400	72	8	0	5	55	84	71	75	12	8	0	0	390	
0400-0500	39	3	0	5	43	23	30	32	9	9	2	0	195	
0500-0600	45	1	1	7	7	42	34	17	5	3	0	0	162	
0600-0700	128	5	2	17	25	42	91	23	7	19	0	5	364	
0700-0800	154	13	8	24	30	34	26	38	6	18	0	0	351	
0800-900	288	37	16	45	41	40	45	27	11	35	0	4	589	
0900-1000	358	46	6	28	50	34	32	12	6	14	1	13	600	
1000-1100	340	37	3	32	56	50	47	11	6	14	1	2	599	
1100-1200	325	23	5	28	31	58	35	12	3	7	1	6	534	
1200-1300	381	34	6	31	67	68	81	24	2	3	0	3	700	
1300-1400	267	21	7	27	53	61	40	17	6	5	0	4	508	
1400-1500	244	28	2	37	67	55	33	9	2	5	0	5	487	
1500-1600	324	35	11	20	63	57	59	20	4	9	1	6	609	
1600-1700	283	23	19	14	43	61	46	24	6	4	0	0	523	
1700-1800	323	19	4	39	43	80	52	29	12	14	0	0	615	
1800-1900	280	26	2	42	52	64	49	17	3	21	0	12	568	
1900-2000	228	35	9	33	27	64	59	26	11	9	0	7	508	
2000-2100	145	20	0	32	33	50	42	35	8	10	0	0	375	
2100-2200	171	31	1	23	26	74	58	43	2	9	8	0	446	
2200-2300	130	10	4	37	19	57	60	24	3	5	0	0	349	
2300-0000	128	23	3	31	49	54	70	52	4	7	0	0	421	
Total	4935	512	125	614	934	1394	1314	864	219	313	23	67	11314	

24 hours Classified Traffic Count at M-9 (Karachi Toll Plaza) from Karachi To Hyderabad

Annex-II



Time Interval	All vehicles	others	tractor with trolley	truck 6 axle	truck 5 axle	truck 4 axle	truck 3 axle	truck 2 axle	BUS/MP	bus/coach	tanker/tram/brig
00:00-01:00	1000	100	0	100	50	50	50	50	50	50	50
01:00-02:00	1000	100	0	100	50	50	50	50	50	50	50
02:00-03:00	1000	100	0	100	50	50	50	50	50	50	50
03:00-04:00	1000	100	0	100	50	50	50	50	50	50	50
04:00-05:00	1000	100	0	100	50	50	50	50	50	50	50
05:00-06:00	1000	100	0	100	50	50	50	50	50	50	50
06:00-07:00	1400	150	0	1000	100	100	100	100	100	100	100
07:00-08:00	1400	150	0	1000	100	100	100	100	100	100	100
08:00-09:00	1000	100	0	100	50	50	50	50	50	50	50
09:00-10:00	1000	100	0	100	50	50	50	50	50	50	50
10:00-11:00	1000	100	0	100	50	50	50	50	50	50	50
11:00-12:00	1000	100	0	100	50	50	50	50	50	50	50
12:00-13:00	1000	100	0	100	50	50	50	50	50	50	50
13:00-14:00	1000	100	0	100	50	50	50	50	50	50	50
14:00-15:00	1000	100	0	100	50	50	50	50	50	50	50
15:00-16:00	1000	100	0	100	50	50	50	50	50	50	50
16:00-17:00	1000	100	0	100	50	50	50	50	50	50	50
17:00-18:00	1000	100	0	100	50	50	50	50	50	50	50
18:00-19:00	1000	100	0	100	50	50	50	50	50	50	50
19:00-20:00	1000	100	0	100	50	50	50	50	50	50	50
20:00-21:00	1000	100	0	100	50	50	50	50	50	50	50
21:00-22:00	1000	100	0	100	50	50	50	50	50	50	50
22:00-23:00	1000	100	0	100	50	50	50	50	50	50	50
23:00-00:00	1000	100	0	100	50	50	50	50	50	50	50

Annex-III

24 hours Classified Traffic Count Survey at M-9 (Jamshoro Toll Plaza) from Hyderabad To Karachi

Location : Jamshoro Toll Plaza (M-9)

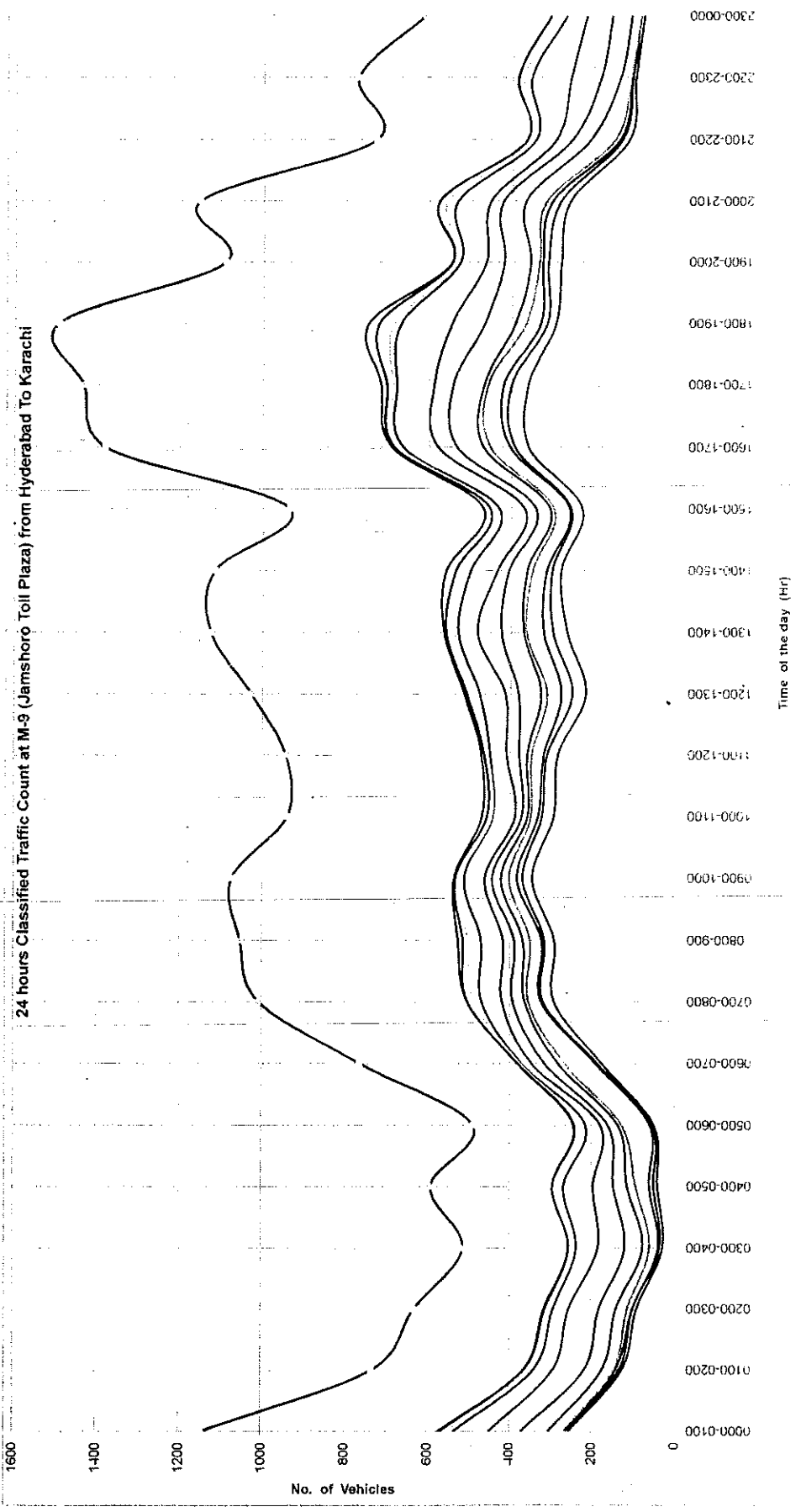
Date : 01.04.2013

Day : Monday

Hours	total													Total
	Car	Wagon	Coaster/ Mini Bus	Bus / Coach	Pick up	Truck 2 Axle	Truck 3 Axle	Truck 4 Axle	Truck 5Axle	Truck 6 Axle	Tractor with Trolley	Others		
0000-0100	255	8	1	6	35	67	78	86	11	23	0	3	573	
0100-0200	125	7	9	5	28	43	77	47	9	15	0	2	367	
0200-0300	90	9	1	12	28	41	74	38	9	11	0	3	316	
0300-0400	28	7	4	21	16	43	65	53	9	10	0	1	257	
0400-0500	41	9	11	32	21	33	49	72	14	14	0	0	296	
0500-0600	50	4	6	67	10	24	18	36	17	11	0	2	245	
0600-0700	176	11	5	74	17	32	32	25	3	6	1	0	382	
0700-0800	293	26	5	31	9	29	26	50	19	16	0	0	504	
0800-900	293	23	7	29	17	21	27	54	33	11	0	12	527	
0900-1000	346	24	14	18	20	22	18	50	10	12	1	2	537	
1000-1100	295	28	10	17	9	14	16	55	2	12	0	12	470	
1100-1200	285	26	8	29	12	19	30	41	6	9	0	7	472	
1200-1300	217	33	27	34	15	55	32	63	7	24	4	3	514	
1300-1400	263	35	22	42	7	54	59	46	8	22	1	4	563	
1400-1500	278	22	13	34	14	44	28	65	7	29	1	23	558	
1500-1600	227	27	4	38	10	34	28	61	11	12	0	16	468	
1600-1700	359	33	12	48	17	64	46	84	8	13	1	6	691	
1700-1800	360	41	19	38	10	75	46	90	9	15	1	13	717	
1800-1900	293	21	16	36	26	75	79	123	18	34	1	25	747	
1900-2000	280	32	13	8	22	64	45	62	9	11	0	0	546	
2000-2100	258	23	21	14	51	54	31	80	25	20	0	0	577	
2100-2200	115	17	6	12	59	45	40	49	11	11	0	0	365	
2200-2300	100	7	2	3	25	47	73	95	19	14	0	1	387	
2300-0000	80	9	0	0	21	47	62	48	22	18	0	0	307	
Total	5107	482	236	648	499	1046	1079	1474	296	373	11	135	11386	

24 hours Classified Traffic Count at M-9 (Jamshoro Toll Plaza) from Hyderabad To Karachi

Annex-IV



requisite expertise is not available in any Pakistani firm. In case of Joint Venture, the proposal should state clearly partners will be "Jointly and Severally" responsible for performance under the Contract and Lead partner will be "solely" responsible for all dealings with the Employer on behalf of the Joint Venture jointly and severely responsible of undivided responsibility of lead partner. His "Special Power of Attorney" on this account is to be enclosed. The lead contractor, in case of a joint venture, shall be local.

iii. No alternatives to key professional staff be proposed, and only one curriculum vita (CV) be submitted for each position.

iv. Study reports must be in the English Language. Working knowledge of the national language by the firm's personnel is essential. The knowledge of the regional language where the assignment is located will be considered additional qualification.

3.4. The Operations and Management Contractor's comments, if any, on the data, services and facilities to be provided by the Client and indicated in the TOR shall be included in the technical proposal forms.

4. Provision to be Kept in view

4.1 Income Tax Ordinance 2001 vide Sub-clause 236 (a) provides that any person making sale through public auction of any property or goods confiscated or attached either belonging to or not belonging to government, local government, any authority etc. shall collect advance tax computed on the basis of sale price of such property and at the specified rate given in first Schedule i.e. 5% of the sale price, from the person to whom such property or goods are being sold. The term sale of property has been explained to include the award of any lease to any person, including a lease to the right to collect tolls, fees and other levies by whatever name called. Tax shall be the responsibility of the OMC. This tax shall be over and above the base line fixed guaranteed revenue and the bidder must cater for the subject tax while preparing financial bid.

4.2 In case of ETTM toll plazas, OMC shall be required to deposit the gross daily collection in NHA Account. If the OMC defaults in deposit of gross amount of daily/monthly collected revenue as per his bid, it shall constitute an event of default and which shall result termination of his O&M contract, along with forfeiture of his toll revenue security/bank guarantee without legal recourse. Deposit of daily or monthly gross collection in NHA Account (at site) by OMC shall be conveyed by NHA depending upon the availability of bank branch and site location. In this respect, the decision of Member (Finance) shall be binding on OMC.

4.3 All lanes at Plazas to be manned/kept operational 24 hours a day, 7 days a week and 365 days a year & in the case of any stoppage/close a fine of Rs.10,000 per occurrence will be imposed.

4.4 "Fog Lights" shall be provided and put in operation for foggy weather to avoid accidents. Also standby arrangements shall be made to cope with electric failures.

4.5 A "complaint register" shall be kept at each plaza to record user's complaint if any. Information for this register be displayed at appropriate place on toll plaza.

6 All public facilities, equipment and resources shall be kept in operational condition all the time during the entire period of Contract.

Operations and Management Contractor shall Develop, Implement and Maintain Auditable Record i.e. Category wise Traffic data, Cash collection and Deposit Record, Monthly Bank Statements, Shift wise Issued Ticket Record, etc. The NHA or its designated representative shall have access to all operational and maintenance documentation/record any time.

8 The tickets should have well-defined colours for each vehicle type with progressive serial numbers, a unique generated random number (9 + digit numeric / alpha numeric) on which the name of Toll plaza may also be explicitly printed along with a counterfoil, preferably through the security printing arrangement. The counterfoils may be retained for a proper record of issued tickets and for diligence checks.

4.9 Under the NHA Executive Board policy decision, to facilitate the frequent road users i.e. Various government / semi government / private sector organizations / private transporters and individuals, who daily/frequently traverse through a specific toll plaza on national highway network a monthly passes under foolproof mechanism, can be issued. Monthly advance payment is to be made by the road user to plaza operator. Issuance of passes will be the responsibility of plaza operator.

4.10 The OMC shall be liable to contractual penalty of Rs.100,000/- (Rupees One Hundred Thousand Only) upon each event of charging the commuter above the toll rates prescribed by NHA; provided that, no such fine shall be affixed by NHA without providing the OMC an opportunity to be heard.

4.11 If the first and second highest eligible and evaluated bidders declined NHA acceptance, NHA shall sent their reference to Pakistan Engineering Council (PEC) for blacklisting. Further, they shall not be eligible to participate in all types of future O&M contracts of NHA.

4.12 The effect of frequent user passes /seasonal variations in the traffic and any other factors effecting the revenue collection shall be taken into account by the bidders while quoting their bid. During the currency of the contract, no claim in this respect shall be entertained by NHA.

4.13 No extension of time shall be granted for the acceptance of NHA's offer, deposit of advance installment and submission of required toll revenue security/bank guarantee and performance bond. If the highest bidder does not respond with in the time period mentioned in the letter of acceptance, offer shall be made to next highest bidder along with forfeiture of earnest money of first highest bidder. The same shall be applicable for the second highest bidder also.

5. Earnest Money (Bid Security)

5.1 The proposal (each) shall be accompanied by an earnest money (Bid security) equivalent to 2% of the total bid amount of one year in shape of Bank Draft/ Pay Order. The validity of earnest money will be 180 days from the date of submission of proposal. The earnest money shall be denominated in the currency of the Bid i.e. Pakistani Rupee. Any amount of earnest money which is lying in NHA regarding the previous bidding processes shall not be considered for this bidding.

Annex-VI

PERFORMA FOR INFORMATION REGARDING O&M CONTRACTORS

S.No.	Name of Toll Plazas	Last 3 O&M Contractors Name	Contract Commencement Date	Annual Quoted Bid Price (Rs.)	Amount Monthly Guaranteed Revenue to NHA (Rs.)	Amount Deposited by Contractor So Far Since Take Over (Rs.)	Amount of Bank Guarantee (Rs.)	Amount of Toll Revenue Security (Rs.)
1	Jamshoro	M/S H.K. ENTERPRISES	8-May-11	437,199,996	36,433,333	548,928,884	-	36,433,333
		M/S S.D. ENTERPRISES	1-Jul-12	494,500,000	41,208,333	494,500,000	-	41,208,333
		M/S ABDUL QAYUM MAZAR	1-Jul-13	510,200,786	42,516,732	85,116,000	42,516,732	-
2	Karachi	M/S RANO KHAN JASKANI	1-Nov-10	212,727,777	17,727,315	248,182,411	-	17,727,316
		M/S NKB OPERATORS	1-Jan-12	230,000,004	19,166,667	57,500,000	-	-
		M/S NLC	8-Sep-12	212,000,000	17,666,667	143,324,416	-	-