Noida Toll Bridge Company Limited[1]

Delhi has expanded rapidly beyond the natural boundary and now about 30% of the population of the city resides in the eastern side of the river, as the trend of living in the suburbs and working in South and Central Delhi has caught on. The New Okhla Industrial Development Authority (NOIDA) in the neighbouring state of Uttar Pradesh established a new integrated industrial township also called 'Noida' in close proximity to Delhi. During the 1980s and 1990s employment and disposable incomes rose significantly resulting in a large rise in the sale of automobiles, scooters and other private forms of transport. As a consequence traffic density on Delhi's roads increased substantially particularly during rush hours on all arterial routes leading into/out of South and Central Delhi. However transportation links between Noida and Delhi were inadequate.

The river Yamuna that runs North-South forms a natural barrier that restrains expansion of Delhi to the East. Noida located east of Yamuna is a township that is under development since 1976. Today it has become one of the satellite towns of Delhi. The traffic that is generated by this satellite town is substantial and the interaction with Delhi is also substantial. The traffic between the East of river Yamuna including Noida and Delhi was of the order of 3,70,000 PCUs daily in 2002 (Traffic revalidation study final report, WSA Engineers India Pvt Ltd, October 2002) and was serviced by three existing *toll free* bridges.

In order to provide better transportation services to the people of Delhi and Noida, Infrastructure Leasing and Financial Services (IL&FS), NOIDA and the Delhi Administration (DA) reached an in-principle agreement for the implementation of a fourth bridge across the Yamuna, the Delhi Noida Toll Bridge, on Build, Own, Operate & Transfer (BOOT) basis. A tripartite Memorandum of Understanding (MoU) was signed between IL&FS, NOIDA, and Delhi Administration on April 7, 1992 for establishing the new bridge and defining the scope and mutual obligation of the various partners. As a consequence of this agreement, IL&FS received a mandate from NOIDA/Delhi Administration.

Following the signing of the MoU, a Steering Committee consisting of representatives of Government of Uttar Pradesh (GoUP), Delhi Government (DG), the Ministry of Urban Affairs and Employment, Government of India, Delhi Development Authority (DDA), NOIDA and IL&FS was established for monitoring the Delhi Noida Toll Bridge and taking decisions relating to the development of the Delhi Noida Toll Bridge. Pursuant to the decision of the Steering Committee, Noida Toll Bridge Company limited (NTBCL) was incorporated on April 8, 1996. NTBCL, is a special purpose company promoted by Infrastructure Leasing & Financial Services Ltd (IL&FS) for the purpose of development, construction, operation and maintenance of a bridge across the river Yamuna connecting Delhi and Noida on a Build-Own-Operate-Transfer (BOOT) basis.

Concession Agreement

On November 12, 1997 a Concession Agreement was entered into by NOIDA, NTBCL and IL&FS. The Concession Agreement grants NTBCL the right to Build, Own, Operate and Transfer (BOOT) the Delhi Noida Toll Bridge and the other Project Facilities. The Concession period is for 30 years, or earlier, if the assured returns of 20% on the total project cost as provided and defined in the Concession Agreement is recovered. The net toll revenues, after appropriation of operation and maintenance expenses, would be utilised by NTBCL to service the secured debt by recourse to the project assets and toll revenues. However, the lenders to NTBCL would have no recourse to the assets or revenues of IL&FS, NOIDA or Delhi Administration.

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[1] Prepared by Sidharth Sinha, Indian Institute of Management, Ahmedabad, India for the sole purpose of class discussions.

The Concession Agreement was signed on November 12, 1997. Salient Features of the Concession Agreement include:

- **Recovery of Costs through Fees / Tolls:** Right of NTBCL to recover the project costs and operation and maintenance Costs through the levy of fees over the concession period.
- **Fee Review Mechanism:** The Fee Review Committee (FRC) shall be established which shall comprise one representative each of NOIDA, the concessionaire and a duly qualified person appointed by the representatives of NOIDA and Concessionaire who shall be the Chairman of the Committee. The fees shall be determined by the FRC based on the CPI for urban non-manual employees. The fees will be revised on February 1 of each year. The toll rate is first calculated based on the increase in CPI and is then rounded off to the nearest rupee for Class I and II vehicles and to the nearest 5 rupees for the remaining classes of vehicles.
- **Assured Returns**: The Concession Agreement allows NTBCL to earn an assured return of 20% net of taxes, calculated on the total capital employed in rupee terms. The capital employed, calculated by the Independent Project Engineer and Independent Auditor, includes (a) project costs (b) cost of major repairs (c) shortfall in recovery of assured returns in the preceding year. The Concession could also be extended by two years at a time beyond the 30-year stipulated period, in case the assured returns are not achieved. Further, NOIDA has the discretion of granting land development rights to support any shortfall in revenues required to earn the assured returns of 20%. Once the targeted return has been achieved, the project facilities would revert to NOIDA for a nominal value of Re.1.

Support Agreement

Since the landfall point on one side of the bridge comes under the NCT Delhi and the project scope includes the Ashram Chowk Flyover to facilitate smooth traffic flow, a "Support Agreement" was signed between the Government of Uttar Pradesh (GoUP) and the Government of NCT Delhi (DG) on January 14, 1998. The respective governments undertook to support and extend complete cooperation to NOIDA and NTBCL with respect to implementation of the project. The salient features of the Support Agreement are:

i. Leasing of the lands pertaining to the project site and adjacent areas for both, the Delhi Noida Bridge as well as the Ashram Flyover.
ii. Obtain all necessary clearances from the Municipal Corporation of Delhi and provide all support and infrastructural facilities to NTBCL.
iii. Not to allow construction of any other passage across the Yamuna which is toll free or charges lower toll than the Noida Bridge within a radius of 5 kms from the Delhi Noida Bridge site for a period of 10 years or till the Noida Bridge achieves full rated capacity, whichever is later, without the written consent of NTBCL.
iv. In the event of any breach of the Support Agreement GoUP and/or DG shall compensate NTBCL and/or NOIDA for any costs incurred by them and the Lenders pertaining to the project.
v. The validity of this Agreement is concurrent with the Concession Agreement.

O&M Agreement

Intertoll Management Services BV, Netherlands, a 100% subsidiary of M/s Intertoll Holdings (Pty) Ltd., South Africa, has been appointed as the Operation and Maintenance operator on December, 21, 1998.

The O&M contract has three distinct components:

i. Fixed equipment supply including systems hardware, related software, and traffic & telecommunications systems.

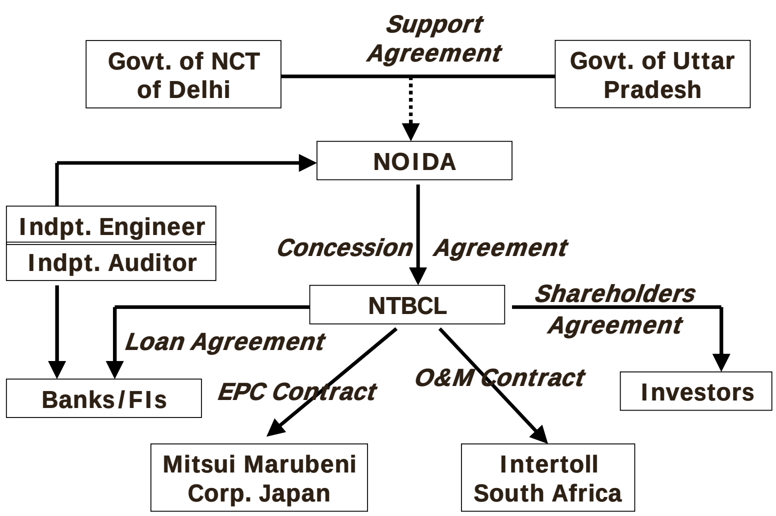
ii. Routine and Periodic maintenance including road surface overlays, replacement and maintenance of bridge equipment and
iii. Toll collection and management.

The O&M Contract provides for a fixed fee and a variable fee. The variable fee is on per transaction basis thereby serving as an incentive for Intertoll to increase the traffic through put. The contract lays down strict standards for performance and maintenance. Intertoll shall be liable to pay the liquidated damages for failure to meet performance standards. Intertoll shall be responsible for traffic regulation on the Delhi Noida Toll Bridge, and shall manage the Delhi Noida Toll Bridge (and procedures for toll collection) so as to ensure the maintenance of optimum traffic flow over the Noida Bridge.

Intertoll has also provided an undertaking for non-disposal of its equity shareholding in NTBCL during the entire term of the O&M Contract.

The diagram below shows the implementation structure of the project

Implementation Structure



Allocation of Risks and Risk Mitigation

The agreements implied the following allocation of risks

- Commercial and revenue risks - NTBCL
- Sovereign and political risks - GoUP and DG
- Time overruns - EPC contractor
- Operation & Maintenance - O&M contractor
- Financing risk - IL&FS and NTBCL
- Natural Force Majeure – Insurance

The steps taken to mitigate risks borne by NTBCL are shown in the Table below

Risk	**Mitigation**
Delay in Completion	Robust project scheduling Liquidated Damages/Incentives on contractor
Increase in costs	Detailed engineering prior to start of work Value Engineering during construction phase
Revenue Risks	Alternative sources of revenue- Development Rights Extension of concession period if assured rate of return not achieved
Technology Risks	Selection of State-of-Art Tolling Technology designed to cater for at least 8-10 years; Periodic upgradation
Interest Rate	All debt contracted are based on fixed rate of interest
Revenue Leakage	Internationally reputed toll management company Self Auditable Toll Management System with Automatic Vehicle Classification (AVC) Revenue of Operator linked to toll collection Operator to make good any loss of revenue
Regulatory Risk (Delay in toll revision)	Pre-determined formula for Revision in tolls Independent Fee Review Committee Revisions do not require approval of NOIDA/Govt.
Natural Force Majuere Risks	Insurance Policy
Political Risks	Concession Agreement provides compensation formula for various types of direct and indirect political risks NOIDA to pay lender's dues as well as cumulative equity returns in case of termination due to political risks
Competing routes	Delhi Government has undertaken not to build any toll free facility until project achieves full capacity for continuous period of 6 months
Inflation	Toll rates linked to Consumer Price Index

Financing

The total project cost of Rs. 4,082 million was financed with debt financing to the extent of approximately Rs. 2,858 million and equity financing to the extent of Rs. 1,224 million. The debt was raised at an average cost of approximately 16% per annum.

Equity	Amount (Rs Million)
IL&FS	360
NOIDA	100
Indian FI	50
Fully Convertible Debentures Issue	208
International Funds (AIG, Prudential)	400
Intertoll (O&M Operator)	106
Total Equity	**1,224**
Debt	
Deep Discount Bonds issue	500
IL&FS (World Bank L/C)	600
RTL from FIs/Banks	1,758
Total Debt	**2,858**

Project financing was arranged on a project recourse basis with minimal credit enhancement. The project debt was structured on a long term back-ended basis to meet project cash-flow profile. There was no support envisaged from budgetary allocations. The World Bank participated in the project through the IL&FS.

A Public Issue of Secured Deep Discount Bonds (DDBs) Secured Fully Convertible Debentures (FCDs) was successfully completed in October 1999. This was the first IPO by a green field infrastructure project. The DDBs were zero coupon bonds, with a face value of Rs 5,000/-, and maturity amount of Rs 45,000/- in 2015 – the effective interest rate for the entire period would come to was 18 % p.a. The DDBs were backed by a Take Out Financing facility offered by IDFC and IL&FS. As per the take-out financing arrangement, the investors had the option to sell the DDBs issued by the Company in November 1999 to IDFC (60%)/IL&FS (40%) at predetermined prices of Rs. 9500/- per bond at the end of 5th year i.e. November 2004 (@ yield of 13.7% pa) or Rs. 16500/- per bond at the end of the 9th year i.e. November 2008 (@ yield of 14.2% pa).

Performance

As against the estimated construction period of 29 months, Delhi Noida Toll Bridge was completed 4 months ahead of schedule. The Company has constructed the Noida Toll Bridge at a total cost of Rs. 408 crores with debt financing to the extent of approximately Rs. 286 crore and equity financing to the extent of Rs. 122 crore. The debt was raised in 1998 at an average cost of approximately 16% per annum. The project was commissioned on February 7, 2001.

Delhi Noida Toll Bridge started commercial operations on February 7, 200. The major components of the Delhi Noida Toll Bridge comprise of 552.5 Meters long, eight lane, short span box, continuous girder based bridge across the Yamuna river, approach ways to the bridge with cloverleaf interchange points at both ends to inter face with the existing road network, three minor bridges over existing watercourses, 28 lane toll collection plaza at the Noida end and a flyover at the Ashram crossing in South Delhi.

The Table below shows the growth of traffic.

Class-wise Traffic Performance No. of Vehicles per day

Year ended March 31	**2001***	**2002**	**2003**	**2004**	**2005**	**2006****
Cars	12,050	15,318	26,645	33,483	37,058	42,056
Two Wheelers	4,833	6,684	10,969	12,935	14,590	16,828
Commercial Vehicles	278	632	860	1128	1213	1299
Total traffic	**17,161**	**22,634**	**38,474**	**47,547**	**52,860**	**60,184**
Growth rate		**32%**	**70%**	**24%**	**11%**	**14%**
Average Revenue (Rs.)						
per vehicle	12.85	11.66	11.68	12.92	13.94	14.62
Per day	220,461	262,495	449,340	614,279	736,722	879,942
Growth rate		**19%**	**71%**	**37%**	**20%**	**19%**
* with effect from February 7, 2001 ** April 2005 to December 2005						

As can be seen in the Table above there was significant growth in the initial period, and although the growth in 2005 was lower at 11%, it is expected to increase to 17% for the financial year ending 31 March 2006 because of higher average traffic in the January- March quarter. As expected, the revenue realization has grown at a faster rate. This is partly because of toll rate increases, due to which the average revenue realized per vehicle has increased.

While the car traffic had been as per the projections, there has been a shortfall in the commercial traffic and 2-wheeler segment. The average realisation per vehicle had also been lower than projected (Rs. 16 projected vis-à-vis Rs. 12) because of initial promotional discounts being given to attract more traffic and the absence of commercial vehicles.

As can be seen from the Table above the company has incurred a loss every year so far. In fact in each year the interest and finance charges have exceeded revenues. The total losses till September 2005 is Rs.1,231 million. This implies a marginally negative net worth.

Rs. Million **Year ended March 31**	**2001**	**2002**	**2003**	**2004**	**2005**	**30.9. 2005**
Total Income	13	118	187	259	317	189
Total expenses	8	65	82	82	91	51
Operating profit	**5**	**53**	**105**	**176**	**226**	**138**
Interest/Finance charges	50	426	337	346	374	193
Depreciation	9	62	63	2	2	1
Miscellaneous expenditure written off	2	15	15	15	15	8
Net Profit before tax	**(56)**	**(450)**	**(311)**	**(186)**	**(165)**	**(63)**
Less Provision for tax/ FBT						0
Adjusted Net Profit after tax and extraordinary items	(56)	(450)	(311)	(186)	(165)	(63)

The Financial statements are given in **Exhibits 1 and 2.** **Exhibit 3** shows the share price history of NTBCL.

The company took several steps to restore profitability

Financial Restructuring

The Company approached lenders for restructuring of loans taken from Banks and Financial Institutions. The salient features of the proposal, which has received approval, are given below: -

1. Reduction of the rate of interest to be paid to the Banks and Financial Institutions. The average rate of interest has been reduced from 16% to about 8.5%
2. Issue of Zero Coupon Bonds (ZCBs) to Financial Institutions against conversion of 50% of Term Loan repayable in two instalments
3. Issue of Zero Coupon Bonds (ZCBs) for the sacrifice in the rate of interest differential to the lenders.
4. Deferred payment of interest.
5. Infusion of Equity Capital
6. Income from land development rights to repay the restructured debt as well as sacrifice made by the lenders towards reduction in interest rates
7. Effective date is April 1, 2002

The Company had filed a petition for restructuring of it's secured debt (including Deep Discount Bonds) under Section 391 of the Companies Act, 1956, in the Hon'ble High Court of judicature at Allahabad. The Court vide order dated October 24, 2005 has approved the Scheme of Arrangement.

Exercise of development rights

The Company had invoked its right on Development Income under the Concession Agreement for implementing development projects that would provide required liquidity support to the Company. The Company is in possession of land around the facility, located in Noida and Delhi, which could be used for development purposes. New Okhla Industrial Development Authority (NOIDA) has already conveyed its in-principle approval to grant development rights. The Company has set up a 100% subsidiary, DND Flyway Ltd., for the implementation of development rights and part of the surplus land on the Noida side has been transferred to the subsidiary. The Company proposes to utilise the income arising out of development rights to de-leverage the Company.

In order to increase traffic, the Company had initiated formalities for construction of a new link - the Mayur Vihar Link - to the Project. The proposed link when completed, would result in further saving in travel time and distance, inducing Mayur Vihar residents to use the DND Flyway as their preferred route to South Delhi. The initial traffic on the Mayur Vihar Link Project is expected to be approximately 10,000 vehicles per day.

Amendment to the Operations & Maintenance Fee Structure

Noida Toll Bridge Co. Ltd executed, on December 21, 1998, an Operations & Maintenance (O&M) Agreement with Intertoll Management Services BV and Intertoll India Consultants Private Limited for the Delhi Noida Bridge Project. The O&M Agreement envisaged a variable O&M fee of 11% of the toll revenue for the first 10 years i.e. up to FY 2011 and thereafter, a variable fee of Rs 0.725 per vehicle and a fixed fee of Rs 2.656 million per month linked to the Consumer Price Index (CPI). This would entail a substantial increase in O&M fee from FY 2012 onwards.

The O&M expenses of the Company have grown at an annualized rate of 34% over the last 4 years and, based on the present fee structure, they were projected to grow at more then 20% p.a. in the future.

With a view to contain the O&M expenses, NTBCL has executed a conditional Agreement with Intertoll Management Services BV and Intertoll India Consultants Private Limited on February 8, 2006. The Agreement stipulates an O&M fee of Rs 2.125 million per month. In addition, the Company will reimburse to Intertoll certain direct O&M costs. The fee has been derived from the existing O&M cost structure and has been linked to the CPI. The effective date of the restructured O&M Agreement is January 1, 2006. There has been no dilution in the performance requirements which will be as stipulated in the original O&M Agreement.

Based on current estimates of traffic, the revised O&M fee structure will result in annual savings in O&M expenses of Rs. 11 million in FY 2007 and the savings will increase gradually to Rs. 72 million per annum by FY 2012. Since O&M expenses constitute a major component of the total costs of the Company; any savings in the same will have a positive impact on the profitability of the Company.

New traffic forecasts and valuation

At the Meeting of the Board of Directors of the Company held on December 30, 2005 the Directors approved an issue of Global Depository Receipts of upto US$ 45 million plus a Green Shoe option for the Mayur Vihar Link Road project. The Company has recently obtained an independent traffic forecast validation and revenue forecasts through M/s Halcrow Consulting India Ltd. (HCIL) for the purpose of GDR issue. HCIL was also required to prepare the discounted cash flow analyses based on the traffic and O&M expense projections.

HCIL estimated the following growth rates in traffic without the additional Link.

Year	**2007 to 2009**	**2010**	**2011 to 2012**	**2013**	**2014**	**2015**	**2016 to 2018**	**2019 to 2021**
Forecast growth rate %	15%	12%	10%	8%	6%	5%	4%	2%

Exhibit 4 gives the complete traffic forecast

The HCIL forecast were based on the following considerations:

- There is significant additional growth taking place on the eastern side of Yamuna as compared to the earlier forecast. For example, the population growth expected is three times that forecasted in the previous study. Traffic is expected to grow more initially because of the recent developments that have either already taken place or are in the planning/execution stage.
- Secondly, the fuel prices have increased rapidly in the past two years. The price of petrol has increased by almost 14% annually for the past two years, and that of diesel by almost 20% annually for the past two years. Two years ago, the operating cost for a typical car was Rs 3/km. A person who saved 5 km by using the DND Flyway would think twice before using it, given the toll of Rs 15 at that time. However, as the operating cost has increased to Rs 5/km, there is a net savings of Rs 8 per trip, as the toll has only increased to Rs 17. This has resulted in additional motorists shifting to DND Flyway. The same logic also applies for two-wheelers and other vehicle types, where the operating costs have increased rapidly because of the increase in the fuel cost.

There are some factors which can have a significant impact on travel patterns and proportion of travel on different modes. Some of them are listed below:

- Noida and Greater Noida currently lack good public transport facilities. In the future, this scenario is possibly going to change with the advent of Metro rail and other improvements. Although the proposed alignment of Metro rail is for Noida via Mayur Vihar to Central Delhi whereas the potential commuters of DND Flyway travel from Noida / Mayur Vihar to South Delhi, there is likely to be a change in pattern in commuting and consequently it may effect traffic on the DND Flyway.
- Many offices in Delhi are in the process of relocating to Noida and Greater Noida. It will nullify the need of residents of Noida and Greater Noida to travel to Delhi for work purposes but at the same time people who reside in Delhi will be traveling to Noida and Greater Noida for work.
- The Commonwealth Games are planned to be held in India in 2010. The Games village and other important facilities are currently being planned on the eastern side of Yamuna. It is likely that in these facilities will in turn result in additional developments in the vicinity, thus increasing the attractiveness of the area and the possibility of more trips across the river Yamuna. The existing major stadiums located west of Yamuna will continue to be used for the Games, and this will also result in significant traffic across Yamuna.
- All other bridges across Yamuna are maintained and operated by the government (Public Works Department in most cases) and there is no toll levied. Typically there is a paucity of resources to perform the maintenance activities which results in disrepair of these facilities. Also, funds are not easily available for capacity enhancement, and all these bridges are currently operating at capacity during the peak periods. As the DND Flyway has residual capacity available, it is possible that traffic from the other bridges will shift to DND Flyway, thus resulting in a more rapid growth in the next few years.

The roadway capacity of 222,000 vehicles is adequate for the expected traffic. The toll plaza capacity is about 25% higher than this, and thus none of these components are expected to constrain the traffic flow or its growth.

Toll collection

There are three different methods of toll collection – manual, semi-automatic and fully automatic.

- Manual Toll Collection
- Electronic Toll Collection – Silver Lane: The Company offers discounted tariff to regular users through pre-paid contactless smart cards.
- Electronic Toll Collection – Gold Lane: This is also a pre-paid facility class II vehicles (for cars and jeeps) where an electronic tag /On-Board-Unit (OBU) is installed on the windscreen of the vehicle and the OBU interacts with the toll management system through radio frequency for debit of the applicable amount of toll into the pre-paid account for every passage. The user is not required to stop and the vehicle can cross the toll plaza through the Gold Lane at a speed of around 30 kmph. Under the Gold Lane also, per trip rate is currently discounted for the commuters. An initial fee of Rs. 2,000 is charged towards the cot of OBU.

When the facility first started operating, significant discounts were given for the vehicles using the electronic toll collection, to encourage its usage. However, these discounts have been steadily decreased and now vary from only 5 to 22% for different classes. The discounts are expected to be phased out by 2011

Basic Assumptions and Inputs of the Cash Flow Analysis (CFA)

The basic assumptions of the models are as follows:

Revenue

- The total revenue of the project comes from toll collection, advertisement and interest earned from investments. This report only includes the revenues earned from toll collection.
- As per the Concession Agreement the toll rates are revised annually on the basis of change in consumer price index (CPI) for urban non manual employees published by RBI. The CPI has increased from 156 in 1991 to 477 in November, 2005 indicating a compounded annual growth rate of 7.7%. However, for the purpose of cash flow analysis a conservative escalation rate of 6% per annum has been assumed. This has been applied to the applicable toll rates effective February 1, 2006. The toll forecast is given in **Exhibit 5.**
- The construction schedule for the Mayur Vihar is being considered for 9 months, such that this facility is operational from 1 January 2007. The revenue during 2008 after completion of Mayur Vihar link is expected to be Rs. 555.86 million.
- The traffic growth rate has been taken as presented earlier in the report. The growth rate for specific modes has been estimated separately for different periods.
- The traffic has been separately estimated for electronic and regular users.
- Interest on cash surpluses and advertisement income / expenses relating thereto have not been considered since the same is not part of the terms of reference.

The Revenue forecast is given in **Exhibit 6.**

Expenses

- As per the latest agreement the annual expense for the existing facilities is Rs 34 million. These expenses shall be escalated based on Consumer Price Index for urban non-manual employees. In the Cash Flow analysis the escalation rate for operation and maintenance expenses has been considered 2% higher than the CPI inflation rate i.e. @ 8% per year for the operation period.
- The O & M cost for Mayur Vihar link road has been estimated Rs 5.1 million from 2008 onwards and escalated on the basis of Consumer Price Index for urban non-manual employees.
- the pavement condition is also good, and therefore no overlay is anticipated to be needed for the next two years. It is expected that in the year 9, a periodic overlay would have to be carried out and thereafter repeated every five years. At year 2006 prices, the cost of the overlay will be Rs 58.75 million, which includes the cost of supervision for this activity. The periodic overlay expenses has been escalated at the assumed rate of CPI inflation i.e. 6%.
- establishment and other O & M expenses of the Company have been projected using the estimated costs for 2006 provided by the Company as the base with an annual escalation of 2% above the inflation rate i.e. 8% per annum.
- There will be additional expenses related to the toll plaza. Technology upgradation and regular system upgradation is expected to cost Rs 10 million per year.

Taxes:

- Income tax as 30 % of base rate, surcharge of 10 %, education cess of 2 %, effective rate of 33.66 %, minimum alternate tax of 7.65%. The project being in the infrastructure sector covered under section 80 IA of the Income Tax Act is eligible for a tax holiday for a continuous block of 10 years to be opted by the company within the first 20 years. Since the company is carrying forward significant amount of business loss and unabsorbed depreciation, there will be no tax payable till FY 2010. The Company is assumed to avail of the tax holiday during the period FY 2011 to 2020 (years 11^{th} to 20^{th}

from start of operations) and only MAT will be payable during this period. Tax at normal tax rate has been provided in FY 2021.

- The rate of depreciation for tax computations has been assumed @ 10% per annum on written down value basis with a salvage value of 5%.

Capital Expenditure and Phasing

The additional cost for Mayur Vihar link road shall be Rs. 300 million which will be fully spent in 2007.

Discount rate used for the DCF analyses is the cost of capital of the company :

- The cost of equity for the company has been determined using the capital asset pricing model. The prevailing yield on the 10 year G-Sec has been taken as Risk-free rate which works out to 7.2% (Source : The Economic Times, New Delhi January 24, 2006). The Market return is determined by averaging the annualised growth rate in NSE Nifty and BSE Sensex over last 10 years which works out to 10.75%. The beta (β) for the Company is 0.91. Thus cost of equity works out to approximately 10.5%.
- Assuming a debt equity ratio of 1:1 and cost of debt @ 8.5% pa. for similar projects, the weighted average Cost of Capital is calculated as 9.5%.

Terminal Multiplier:

The net cash flow (post tax) for the year 2021 has been assumed for estimating terminal value of the project. Assuming a conservative growth rate of 4% in toll rates and a 1% rate of growth in traffic, the terminal multiplier works out to 22.4 times.

Exhibit 7gives the discounted cash flows from the project.

Present Value of the future cash flows of the Company has been estimated as

	Rs. Million
Discount Factor	9.5%
NPV of net cashflows till 2021	7,450
Rate of growth in toll rates	4.0%
Rate of Growth in traffic	1.0%
Multiplier	22.4
Terminal Value	37,146
PV of Terminal Value	10,426
Value of Project	17,875

The figures in **Exhibit 7** are slightly different due to different assumptions compared to the original analysis.

Exhibit 1

Noida Toll Bridge Company Limited

Statement of Adjusted Assets and Liabilities

Rs. Million						
Year ended March 31	**2001**	**2002**	**2003**	**2004**	**2005**	9 months **2005-06**
Fixed Assets						
Gross block	3,741	3,799	3,802	3,799	3,831	3,837
Less: Depreciation	9	71	134	133	136	136
Net Block	3,732	3,728	3,669	3,666	3,695	3,700
Capital work in progress	76	5	7	13	8	9
	3,808	**3,733**	**3,676**	**3,679**	**3,703**	**3,710**
Investments	102	7	100	124	37	61
Current assets, loans and advances						0
Inventories		3	2	0	1	1
Debtors		1	3	1,037	1,041	1,043
Cash & bank balances	30	18	2	10	1	1
Loans and advances	42	38	31	22	12	20
	72	**60**	**39**	**1,069**	**1,055**	**1,065**
Total Assets	**3,981**	**3,800**	**3,814**	**4,872**	**4,796**	**4,835**
Liabilities & Provisions						
Secured loans	2,491	3,168	3,314	3,520	3,585	3,679
Unsecured loans						
Current liabilities	600	175	135	128	136	132
Provisions	3	4	1	1	1	2
	3,094	**3,347**	**3,450**	**3,649**	**3,723**	**3,813**
Adjusted Networth	887	452	364	1,223	1,073	1,022
Represented by						
Share Capital (Equity paid up capital)	1,016	1,016	1,224	1,224	1,224	1,229
Reserves & surplus	(56)	(506)	(816)	27	(138)	(201)
Less: miscellaneous	74	58	43	28	13	5
expenditure not written off						
Adjusted Networth	887	452	364	1,223	1,073	1,022

Number of shares issued

Exhibit 2

Noida Toll Bridge Company Limited

Statement of Adjusted Profits and Losses

Year ended March 31 Rs. million	2001	2002	2003	2004	2005	9 months 2005-06
Income						
Income from Operations	12	104	180	245	306	187
Other income	1	14	8	13	11	2
Total Income	13	118	187	259	317	189
Expenditure						
Fees paid to operation & maintenance contractor	1	11	18	25	30	17
Consumption of cards & OBUs	0	2	3	2	1	1
Staff costs	2	13	15	16	23	16
Other administrative expenses	5	35	41	32	34	16
Selling & distribution expenses	0	4	6	8	3	0
Operating profit	**5**	**53**	**105**	**176**	**226**	**138**
Interest/Finance charges	50	426	337	346	374	193
Depreciation	9	62	63	2	2	1
Miscellaneous expenditure written off	2	15	15	15	15	8
Net Profit before tax	**(56)**	**(450)**	**(311)**	**(186)**	**(165)**	**(63)**
Less Provision for tax/ FBT						0
Adjusted Net Profit after tax and extraordinary items	**(56)**	**(450)**	**(311)**	**(186)**	**(165)**	**(63)**
Balance brought forward from previous year		(56)	(506)	(816)		(138)
Transfer to General Reserve				1,003	27	
Balance carried to Balance sheet	(56)	(506)	(816)		(138)	(201)

Exhibit 3

Noida Toll Bridge Company Limited

Share Price History

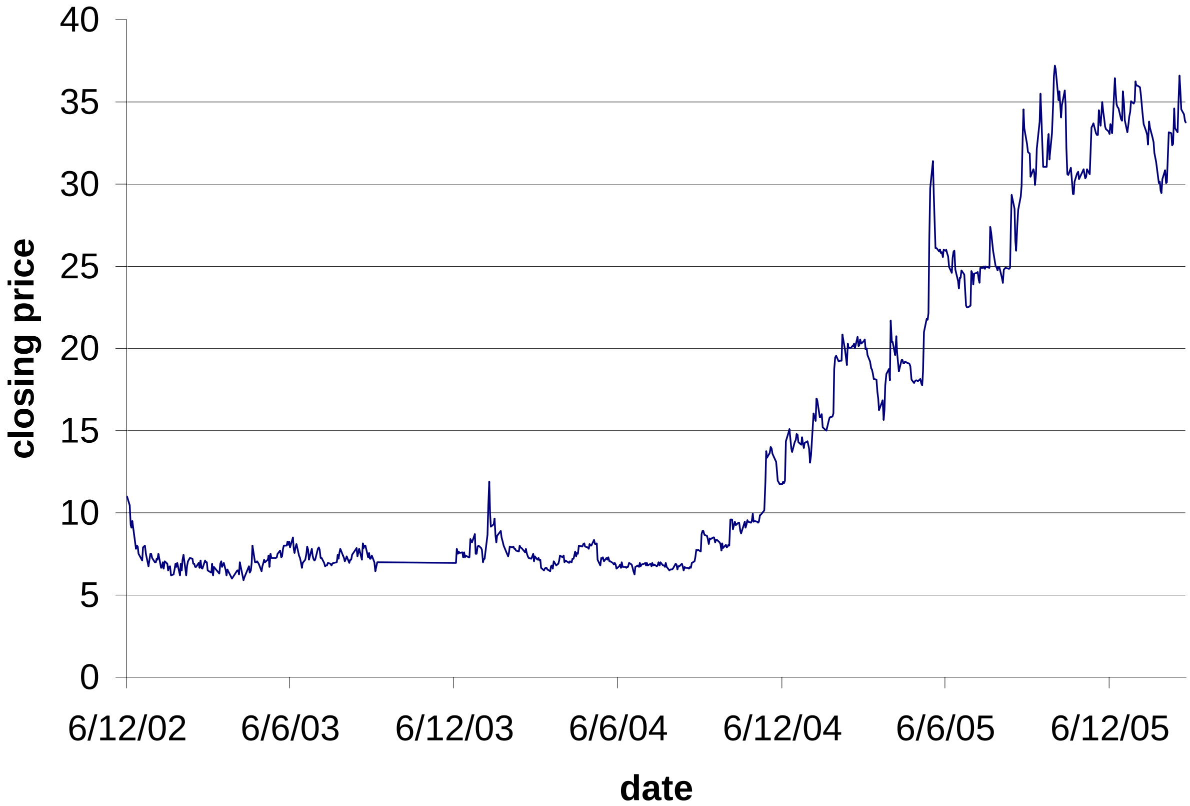


Exhibit 4
Noida Toll Bridge Company Limited
Traffic Projections

Year Ending 31st March	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Existing Delhi Noida Toll Bridge																
Growth rate	**15.8%**	**15.0%**	**15.0%**	**15.0%**	**12.0%**	**10.0%**	**10.0%**	**8.0%**	**6.0%**	**5.0%**	**4.0%**	**4.0%**	**4.0%**	**3.0%**	**3.0%**	**3.0%**
Two wheelers	17,097	19,662	22,611	26,002	29,123	32,035	35,238	38,058	40,341	42,358	44,052	45,814	47,647	49,076	50,549	52,065
Car/Autos	42,776	49,192	56,571	65,057	72,864	80,150	88,165	95,218	100,931	105,978	110,217	114,626	119,211	122,787	126,471	130,265
LCVs	277	319	366	421	472	519	571	617	654	686	714	742	772	795	819	844
Truck/Buses	836	961	1,106	1,271	1,424	1,566	1,723	1,861	1,973	2,071	2,154	2,240	2,330	2,400	2,472	2,546
Heavy Vehicles with 3 axles	98	113	130	149	167	184	202	218	231	243	253	263	273	281	290	298
All Heavy Vehicles > 4 Axles	110	127	145	167	187	206	227	245	260	273	283	295	307	316	325	335
Total	**61,194**	**70,373**	**80,929**	**93,068**	**104,237**	**114,660**	**126,126**	**136,216**	**144,389**	**151,609**	**157,673**	**163,980**	**170,539**	**175,656**	**180,925**	**186,353**
Additional Traffic due to Mayur Vihar Link																
Growth rate		**3.9%**	**3.9%**	**3.9%**	**3.9%**	**3.9%**	**1.5%**	**1.5%**	**1.5%**	**1.5%**	**1.5%**	**1.5%**	**1.5%**	**1.5%**	**1.5%**	**1.5%**
Two wheelers		3,494	3,630	3,772	3,919	4,072	4,133	4,195	4,258	4,322	4,386	4,452	4,519	4,587	4,656	4,725
Car/Autos		6,597	6,854	7,122	7,399	7,688	7,803	7,920	8,039	8,160	8,282	8,406	8,532	8,660	8,790	8,922
LCVs		77	80	83	86	90	91	92	94	95	97	98	100	101	103	104
Truck/Buses		232	241	250	260	270	274	279	283	287	291	296	300	305	309	314
Heavy Vehicles with 3 axles		27	28	29	30	31	32	32	33	33	34	34	35	35	36	37
All Heavy Vehicles > 4 Axles		31	32	33	35	36	37	37	38	38	39	40	40	41	41	42
Total		**10,458**	**10,866**	**11,290**	**11,730**	**12,187**	**12,370**	**12,556**	**12,744**	**12,935**	**13,129**	**13,326**	**13,526**	**13,729**	**13,935**	**14,144**
Total Traffic																
Two wheelers	17,097	23,156	26,241	29,774	33,042	36,107	39,371	42,252	44,599	46,680	48,439	50,267	52,166	53,663	55,204	56,791
Car/Autos	42,776	55,789	63,426	72,179	80,263	87,838	95,968	103,139	108,971	114,138	118,499	123,032	127,743	131,448	135,261	139,187
LCVs	277	396	446	504	558	609	662	709	747	782	810	840	872	896	922	948
Truck/Buses	836	1,193	1,347	1,522	1,684	1,837	1,997	2,139	2,255	2,358	2,445	2,536	2,630	2,704	2,781	2,860
Heavy Vehicles with 3 axles	98	140	158	178	197	215	234	251	264	276	286	297	308	317	326	335
All Heavy Vehicles > 4 Axles	110	158	178	201	222	242	263	282	297	311	322	334	347	356	367	377
Total	61,194	80,831	91,795	104,358	115,967	126,848	138,497	148,772	157,134	164,544	170,803	177,306	184,066	189,385	194,860	200,497
Growth rate		**32.1%**	**13.6%**	**13.7%**	**11.1%**	**9.4%**	**9.2%**	**7.4%**	**5.6%**	**4.7%**	**3.8%**	**3.8%**	**3.8%**	**2.9%**	**2.9%**	**2.9%**

Exhibit 5
Noida Toll Bridge Company Limited

Forecast of Toll User Charges on DND Flyway (Rs/Trip)

Year Ending 31st March	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Annual Increase of User Charges	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%
Maximum Permissible Toll																
Two wheelers	8.8	8.8	9.4	9.9	10.5	11.1	11.8	12.5	13.3	14.1	14.9	15.8	16.8	17.8	18.8	20.0
Car/Autos	17.7	17.7	18.7	19.8	21.0	22.3	23.6	25.1	26.6	28.1	29.8	31.6	33.5	35.5	37.7	39.9
LCVs	35.3	35.3	37.4	39.7	42.1	44.6	47.3	50.1	53.1	56.3	59.7	63.3	67.1	71.1	75.3	79.9
Truck/Buses	44.2	44.2	46.8	49.6	52.6	55.7	59.1	62.6	66.4	70.4	74.6	79.1	83.8	88.8	94.2	99.8
Heavy Vehicles with 3 axles	61.8	61.8	65.5	69.5	73.6	78.1	82.7	87.7	93.0	98.5	104.5	110.7	117.4	124.4	131.9	139.8
All Heavy Vehicles > 4 Axles	79.5	79.5	84.3	89.3	94.7	100.4	106.4	112.8	119.5	126.7	134.3	142.4	150.9	159.9	169.5	179.7
Toll Rounded Off																
Two wheelers	9	9	9	10	11	11	12	13	13	14	15	16	17	18	19	20
Car/Autos	18	18	19	20	21	22	24	25	27	28	30	32	34	36	38	40
LCVs	35	35	35	40	40	45	45	50	55	55	60	65	65	70	75	80
Truck/Buses	45	45	45	50	55	55	60	65	65	70	75	80	85	90	95	100
Heavy Vehicles with 3 axles	60	60	65	70	75	80	85	90	95	100	105	110	115	125	130	140
All Heavy Vehicles > 4 Axles	80	80	85	90	95	100	105	115	120	125	135	140	150	160	170	180
ETC- Silver/Gold																
Two wheelers	7	8	8	9	10	11	12	13	13	14	15	16	17	18	19	20
Car/Autos	17	17	18	19	20	22	24	25	27	28	30	32	34	36	38	40
LCVs	30	30	30	35	35	45	45	50	55	55	60	65	65	70	75	80
Truck/Buses	45	45	45	45	50	55	60	65	65	70	75	80	85	90	95	100
Heavy Vehicles with 3 axles	55	55	60	65	70	80	85	90	95	100	105	110	115	125	130	140
All Heavy Vehicles > 4 Axles	65	65	70	75	80	100	105	115	120	125	135	140	150	160	170	180

Exhibit 6
Noida Toll Bridge Company Limited

Detailed Annual Revenue Forecasts (Rs in millions)

Ending 31st March	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
Revenue Projections for Existing Delhi Noida Toll Bridge																
Two wheelers	54	63	73	93	115	129	154	181	191	216	241	268	296	322	351	380
Car/Autos	276	317	386	467	550	644	772	869	995	1,083	1,207	1,339	1,479	1,613	1,754	1,902
LCVs	3	4	5	6	7	9	9	11	13	14	16	18	18	20	22	25
Truck/Buses	14	16	18	23	28	31	38	44	47	53	59	65	72	79	86	93
Heavy Vehicles with 3 axles	2	2	3	4	5	5	6	7	8	9	10	11	11	13	14	15
All Heavy Vehicles > 4 Axles	3	4	5	5	6	8	9	10	11	12	14	15	17	18	20	22
Total	**352**	**406**	**489**	**599**	**711**	**825**	**989**	**1,122**	**1,265**	**1,388**	**1,546**	**1,715**	**1,894**	**2,066**	**2,247**	**2,437**
Mayur Vihar Link																
Two wheelers		3	12	14	15	16	18	20	20	22	24	26	28	30	32	34
Car/Autos		10	47	51	56	62	68	72	79	83	91	98	106	114	122	130
LCVs		0	1	1	1	1	1	2	2	2	2	2	2	3	3	3
Truck/Buses		1	4	5	5	5	6	7	7	7	8	9	9	10	11	11
Heavy Vehicles with 3 axles		0	1	1	1	1	1	1	1	1	1	1	1	2	2	2
All Heavy Vehicles > 4 Axles		0	1	1	1	1	1	2	2	2	2	2	2	2	3	3
Total		**15**	**65**	**72**	**80**	**87**	**96**	**103**	**111**	**118**	**128**	**139**	**149**	**161**	**172**	**184**
Total revenue	**352**	**421**	**554**	**671**	**791**	**912**	**1,085**	**1,225**	**1,376**	**1,505**	**1,674**	**1,854**	**2,043**	**2,227**	**2,419**	**2,621**

Exhibit 7
Noida Toll Bridge Company Limited
Discounted Cash Flow Analysis (Rs in Million)

Year ending March 31,	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Toll Revenue																
Existing revenue	352	406	489	599	711	825	989	1,122	1,265	1,388	1,546	1,715	1,894	2,066	2,247	2,437
Mayur Vihar Revenue	0	15	65	72	80	87	96	103	111	118	128	139	149	161	172	184
Total	**352**	**421**	**554**	**671**	**791**	**912**	**1,085**	**1,225**	**1,376**	**1,505**	**1,674**	**1,854**	**2,043**	**2,227**	**2,419**	**2,621**
Operating Expenses																
Establishment Costs	67	72	78	84	91	98	106	115	124	134	145	156	169	182	197	213
O&M Fee-DND Flyway	38	36	38	40	43	45	48	51	54	57	61	64	68	72	77	81
Other expenses			10	11	11	12	13	13	14	15	16	17	18	19	20	21
Mayur Vihar Link Exp		1	5	5	6	6	6	7	7	8	8	9	9	10	10	11
Total O&M Cost	**105**	**109**	**131**	**140**	**151**	**161**	**173**	**186**	**199**	**214**	**230**	**246**	**264**	**283**	**304**	**326**
Income Tax/MAT	0	0	4	18	26	37	50	60	70	71	84	98	122	136	150	719
OPERATING SURPLUS	**247**	**312**	**418**	**512**	**613**	**714**	**862**	**980**	**1,107**	**1,220**	**1,361**	**1,509**	**1,657**	**1,808**	**1,965**	**1,576**
CAPITAL AND PERIODIC EXPENDITURE																
Overlay Expenses (w/off)				51					69					92		
New Links		300														
Total	**0**	**300**	**0**	**51**	**0**	**0**	**0**	**0**	**69**	**0**	**0**	**0**	**0**	**92**	**0**	**0**
NET CASH FLOW		**12**	**418**	**461**	**613**	**714**	**862**	**980**	**1,038**	**1,220**	**1,361**	**1,509**	**1,657**	**1,716**	**1,965**	**1,576**
Discount Factor	9.5%	0.91	0.83	0.76	0.70	0.64	0.58	0.53	0.48	0.44	0.40	0.37	0.34	0.31	0.28	0.26
Present Value		11	349	351	427	453	500	519	502	539	549	556	558	527	552	404
Cumulative		11	360	711	1,138	1,591	2,091	2,610	3,113	3,652	4,201	4,757	5,315	5,842	6,394	6,798
NPV (as of Jan 2007) till 2021	**6,798**															
Terminal Value Multiplier																
Rate of growth in toll rates	4.00%		Terminal Value			36,776										
Rate of Growth in traffic	1.00%		PV of Terminal Value			9,426										
Rate of Growth in income	5.00%		**Value of Project**			**16,224**										
Multiplier	22.4															