

Venues developed by other agencies

NDMC and PWD, GNCTD developed competition/training venues at Thyagaraj, Talkatora, Shivaji, and Chhatrasal Stadia and Government Model Ludlow Castle School. In addition, three other sets of competition/ training venues were developed by Delhi University and its affiliated colleges, Jamia Millia Islamia University (JMI) and All India Tennis Association (AITA).

None of the respondents to the NIT issued by NDMC for appointment of Architect Consultant for Shivaji and Talkatora Stadia were technically eligible. Despite ample time being available for retendering, NDMC appointed Raja Aederi Consultants Pvt. Ltd., one of the ineligible respondents.

The main contractor hired for Shivaji Stadium was a foreign company, China Railway Shisiju Group Corporation (CRSGC), when it is apparent from the conditions of the NIT, that such was not the intention. Shivaji Stadium could not be completed in time for the Games and the completed hockey pitch in the stadium has an East-West orientation, as against the required North-South orientation

Simplex Project Ltd. was engaged as the main contractor for the works at Talkatora Indoor Stadium on a single bid basis. Further, our analysis revealed that justified rates for a substantial portion of items was higher than the applicable CPWD DSR rates. Thus it is difficult to conclude that the best price was determined for the work in a competitive market. The quality of construction was also found deficient by CTE, CVC.

In the case of Thyagaraj Stadium, PWD, GNCTD adopted the percentage rate tendering, which should be resorted to only when major part of the estimated cost is based on the Delhi Schedule of Rates (which was not so in this case). We found several instances of inflation of costs in the detailed estimates. We also found several instances of adoption of higher cost items for estimation/execution from among multiple options, and also numerous instances of specifying a single brand or “equivalent”, thus favouring these brands, with consequential reduced competition and increased costs. We also found multiple forms of power back up (despite power supply from two independent feeders as stipulated in the venue brief) – a solar power generator unit (at a cost of Rs. 14.10 crore) and a dual fuel gas turbine with add on Vapour Absorption Machine (VAM) (at a cost of Rs. 22.41 crore). The expenditure on the turbine and the VAM is largely infructuous, as it would be highly expensive to generate power from this unit post-Games.

Percentage rate tendering was also adopted for the Chhatrasal stadium and Government Model Ludlow Castle School. We found irregularities in the appointment of the design consultant for the Chhatrasal Stadium. At Ludlow Castle, a limited tendering approach was irregularly followed, purportedly on account of shortage of time, although subsequent delays in award of the work belayed this sense of urgency.

JMI was selected as a training venue for Rugby 7s and table tennis. We found that the Rugby 7s field, developed at a cost of Rs. 2.11 crore, was being converted back into a cricket field, which defeats, at least partly, one of the stated objectives of CWG-2010 of creation of state of the art sporting infrastructure. Further, Rs. 2.58 crore of funds was diverted for creation of sporting facilities (basket ball, lawn tennis, volley ball, hockey/football etc.) other than the facilities for which JMI was designated as a CWG-2010 training venue. While we recognise that development of university premises for providing sports facilities is desirable, the diversion of funds sanctioned for a specific purpose is irregular.

Delhi University and its affiliated colleges were designated as the competition venues for Rugby 7s and training venues for netball, boxing, rugby 7s, athletics and women's wrestling. We found that there were substantial delays in the start of work, for want of approval of the revised estimates from MYAS. Further, the legacy plan for training venues at individual colleges, covering the optimum utilisation of developed infrastructure as also arrangements for their regular maintenance and upkeep, is still pending.

The R.K. Khanna Tennis Complex, under the All India Tennis Association, was designated as the competition venue for tennis. An estimated budget of Rs. 65.65 crore was allocated by MYAS for upgradation of the seating capacity of the tennis court, conversion of grass courts with temporary seating into synthetic courts with permanent seating and setting up lighting systems of the prescribed lux levels. We found that the project management consultant was irregularly selected on nomination basis. However, we found that AITA's concept of deleting the steel portion from the original contract (on account of volatility in steel prices in 2008) and procuring it directly from SAIL had its advantages, especially clubbed with the non-inclusion of any escalation/de-escalation clause in the contract.

19.1 Introduction

NDMC and PWD, GNCTD developed competition/training venues at Thyagaraj, Talkatora, Shivaji, and Chhatrasal Stadia and Government Model Ludlow Castle School. In addition, there were three other sets of competition/ training venues:

- Delhi University (DU) and its affiliated colleges;
- Jamia Millia Islamia University (JMI); and
- All India Tennis Association (AITA)

The venue wise major works, their tendered cost and the contractors' details are given in Table 19.1.

Table 19.1 — Works at other Venues

(In Rs. Crore)

Work	Consulstant	Estimate Cost	Tendered Cost	Contractor
Talkatora Indoor Stadium				
Construction of new sports facility Block with basement parking	M/s Raja Aederi Consultants Pvt. Ltd	28.18	52.98	M/s Simplex Projects Limited
Addition and alteration of existing stadium		10.60	19.19	M/s Simplex Projects Limited
Shivaji Outdoor Stadium				
Construction of two hockey pitches, stadium, new sports facility block with two level basement parking	M/s Raja Aederi Consultants Pvt. Ltd	80.85	160.27	M/s China Railway Shisiju Group Corporation
Thyagaraj Stadium				
Package 1	Peddle Thorp Arch. Melbourne in JV with Kapoor Associates	95.33	103.96	JMC Projects (I) Ltd
Package 2		89.01	108.80	JMC Projects (I) Ltd
Chhatrasal Stadium	Benjamin Benjamin & Vats	50.68	60.26	Era Infra Engg. Ltd.
Ludlow Castle	A.G. Krishna Menon	8.50	11.25	Arora Construction Co.(P) Ltd.
Delhi University (including affiliated colleges)	Engineers India Ltd.	235.59	251.82	Nagarjuna Construction Co. Ltd.
JMI University	RITES Ltd.	42.57	31.92	RITES Ltd.
All India Tennis Association	SG Lakhanpal and Associates	3.23	3.23	Skyline Engineering Contracts

19.2 Venues developed by New Delhi Municipal Corporation (NDMC)

19.2.1 Selection of Raja Aederi Consultants Pvt. Ltd as Architect consultant

In April 2006, two separate NITs were issued for appointment of Architect Consultant for improvement/upgradation of Talkatora Indoor Stadium (TIS) and Shivaji Stadium, with the key eligibility parameter of experience in providing services for sports venues of prescribed contracted value¹. Three bids² were received and the tenders opened on 23 May 2006. Based on technical bids, only two applicants were found eligible and the contract was awarded to Raja Aederi Consultants Pvt. Ltd., being the L1 bidder, for which LOI was issued on 3 July 2006 and contract signed in October 2006.

We found that none of the three bidders were technically eligible. While Arkittkurel Grids, was rejected for non submission of requisite documents, the technical bids submitted by Kothari & Associates and Raja Aederi Consultants (Pvt.) Ltd, were also deficient. Kothari & Associates submitted merely a list of completed works without any certificates. Raja Aederi Consultants Pvt. Ltd 's technical bid was also ineligible on the following points

- It had submitted the bid on the basis of an unregistered MoU (written on an ordinary paper) with Sterling Engineering Consultancy Services Pvt.

¹ Three completed similar works not less than Rs.15 crore or two similar works not less than Rs. 20 crore or one similar work not less Rs. 25 crore in the last 5 years

² Arkittkurel Grids, Kothari & Associates and Raja Aederi Consultants (Pvt.) Ltd.

Ltd. dated 18 May 2006, signed five days before the opening of the bid i.e. 23 May 2006. Interestingly, the original last date of submission of bids was 16 and 17 May 2006, which was extended on the request of the potential bidders;

- Raja Aederi Consultants (Pvt.) Ltd., as such, had no independent experience in providing architectural services for sports venues of the prescribed contracted value; and
- Sterling Engineering Consultancy Services Pvt. Ltd. provided an undated experience certificate issued by another architect Shashi Prabhu & Associates, instead of the client, stating that the former had rendered Structural and Design Engineering services for an indoor stadium project of National Sports Club of India.

Clearly, none of the applicants were technically eligible. Considering that the tender had been called in May 2006 when venue briefs were still to be received³, there was still scope for retendering and seeking an agency suitable for executing the services required, rather than choosing from a pool of ineligible bidders.

Further, the scope of work was increased from improvement/upgradation of the stadium to designing for major new construction at the stadium with an additional fee @ 3 percent of estimated cost or actual cost whichever is less with a maximum of Rs. 4.25 crore (in addition to Rs. one crore already awarded for the work relating to renovation and upgradation).

³ Venue brief was received for Talkatora Indoor Stadium in November 2006 and that of Shivaji Stadium in May 2007.

19.2.2 Shivaji Stadium

19.2.2.1 Selection of China Railway Shisiju Group Corporation (CRSGC) as contractor for Shivaji Stadium

In February 2008, NIT for the composite contract for improvement/upgradation works at Shivaji Stadium was issued. Six agencies⁴ submitted their bids and after opening the technical bids on 24 March 2008, all were technically qualified. On 10 April 2008, the financial bids were opened and CRSGC was declared the L1 bidder and the LOI issued on 19 May 2008.

We found that though the intent was not to engage a foreign company directly (not even through a JV), CRSGC, a foreign company, with no existing established base in India was engaged. Its bid should have been rejected at the technical evaluation stage itself. The reasons for the same are listed below:

- No global tender was issued; the NIT was only published in national news papers, loaded on NDMC website and circulated to a panel of 18 Indian contractors;
- The primary eligibility condition was experience of execution of construction of new multi-storied block of Central Government or State Government departments/ Municipal Boards / Autonomous Bodies / PSUs, indicating an Indian context. CRSGC produced similar experience of working in China instead of India; and

- CRSGC did not produce requisite registration certificates from competent authorities for local taxation and registered place of business in India. These were produced only post opening of the financial bid; and
- Generally, when foreign participation is envisaged, formation of JV with a local company or creation of a separate legal entity in India is insisted upon to ensure compliance with local law, familiarity with local conditions and facilitate settlement of legal disputes, if any. No such provisions were made in this NIT.

Clearly, the intent was not to hire a foreign company and it should have been declared ineligible in the first instance. Further, its inability to deliver in Indian conditions and its reliance on Simplex Project Ltd., a sub-contractor for material and labour, finally reflected in the project not being completed in time for the Games. However, we do not know the exact extent of sub-contracting of the composite work by CRSGC to Simplex Project Ltd.



Barricading in the names of main/sub-contractor at worksite

⁴ China Railway Shisiju Group Corporation; Ahulwalia Contracts (India) Ltd., JMC Projects (India) Ltd., Nagarjuna Construction Co. Ltd., YMC Buildmore Pvt. Ltd. and Unity Infraproject Ltd.

19.2.2.2 Avoidable expenditure on specialized items of Electrical works

Items such as air conditioning plant, lift, transformers, diesel generating sets, security system, firefighting equipments, etc. were included in a composite tender in the case of Shivaji Stadium, unlike the practice adopted in Talkatora Stadium.

Though a composite tender for Shivaji stadium and separate tenders for Talkatora Stadium were invited around the same time, rates for the latter were 11 to 45 per cent below that of the composite work of Shivaji stadium. Had a separate tendering approach been followed, estimated saving of Rs. 2.23 crore could have been achieved.

NDMC's reply that composite tender was floated in compliance with CPWD Manual⁵; ensure co-ordination among various agencies and in view of time constraint, is not acceptable since at Talkatora Indoor Stadium, the work was for more than Rs. 10 crore but a composite tender was not floated and the stadium was ready in time for CWG-2010 unlike Shivaji Stadium.

19.2.2.3 Avoidable extra cost on procurement/installation of DG sets

Despite the power requirement of the stadium being catered from two independent sources of power supply, two DG sets of 1000 KVA each accounting for 62 per cent of the load requirement of 3240 KVA were procured for Rs.2.19 crore. The Venue Brief did not prescribe backup DG sets to cater to the Games critical load for a training venue.

⁵ Para 15.3 of CPWD Manual 2007 prescribes composite tender for works costing more than Rs. 10 crore.

19.2.2.4 Orientation of pitch not as per International Hockey Federation norms

As per the Venue Brief submitted by EKS, two hockey pitches (main & warmup) complying with International Hockey Federation specifications, were to be provided for CWG hockey training, and pitches should have a North–South alignment (+/- 15 degrees).

The stadium had provision of two hockey pitches, but only one could be completed before the games and has a East-West orientation as against north-south orientation required, primarily due to space constraint. Clearly, there was disconnect between the venue brief, the conceptual plan and drawings on the ground. The final usability of this stadium for top level hockey events is open to doubt

Similarly, in MDC Hockey Stadium as well, the warm up pitch does not have the required north-south orientation and is primarily East-West, belaying claims of adherence with international sporting standards.

19.2.2.5 Non-completion of the training stadium in time for CWG-2010

The venue brief for the stadium was received in May 2007, the architect was engaged in October 2006 and the composite contract for the work was awarded in May 2008, with the scheduled completion as of November 2009. Of the major works only one hockey pitch could be prepared. The other pitch, two level basement parking, multi-storeyed facilities building and the stadium still remain incomplete.

We found that despite very close monitoring by the Empowered Committee of GNCTD, headed by the Chief Secretary, and repeated assurances by Chairman, NDMC, the facility could not be made available for CWG-2010. The main reason was the inability of NDMC to provide hindrance free site till March 2009 due to litigation with existing occupants of the restaurants and kiosks within the stadium complex. Despite, the decision to upgrade the stadium in July 2005, it is inexplicable why NDMC waited till the last minute to ensure vacation and availability of a hindrance free site.

The contractor as well failed to deliver within the scheduled time of 18 months i.e. by September 2010 even after handing over of the clear site in March 2009.

Responsibility for failure to deliver the venue in time needs to be fixed.

19.2.3 Talkatora Indoor Stadium (TIS)

19.2.3.1 Engagement of Simplex Projects Ltd as the main contractor

There were two major civil works to be undertaken at TIS. The tendering process for each is summarised below

Table 19.2 – Tendering process for award of works

Work	Tendering Process	Time line
Sport Facility Block	NIT issued;	August 2007
	Tender opened	September 2007
	Work Awarded	December 2007
Addition and Alterations	1st Call Tender opened rejected due to high rate	November 2007 December 2007 January 2008
	2nd Call Tender opened	January 2008 February 2008
	Work Awarded	April 2008



Talkatora Indoor Stadium - Boxing

We found that though the tender was advertised in the newspaper, NDMC website and circulated among the panel of contractors, in both contracts only one bidder, Simplex Projects Ltd. responded. While NDMC chose to retender the contract for additions/alterations, it decided to accept the single bid for the construction of the sports facility block. It is pertinent to note here that the period of execution of the contract was 18 months (sports facility block) and 12 months (addition/alteration work), and, therefore, there was scope for rebidding. Further, on analysis of justified rates of items constituting 44 percent of the justified cost, we found that these were 16 per cent higher than CPWD DSR rates applicable. Under the circumstances, it was desirable to re-bid and test the market once again.

In the absence of competitive bidding and difference in the justified costs and those worked out in audit on a test check basis, it is difficult to conclude that the best price was determined for the work in a competitive market.

19.2.3.2 Quality assurance for Talkatora Indoor Stadium and Shivaji Stadium

In November 2008, NDMC engaged SGS India Pvt. Ltd. as the Third Party Inspection/Quality Assurance (TPIQA) agency for ongoing construction/ up gradation works at Shivaji Stadium and Talkatora Indoor Stadium for a lumpsum fee of Rs. 1.06 crore. The following deficiencies in the quality of works and TPIQA services were noted

- TPIQA was engaged in November 2008, six months after the work had commenced in Talkatora Indoor Stadium

with 30 percent overall achievement of work which was unsupervised by the TPIQA;

- Though the TPIQA was required to conduct quality tests of input material, it only reviewed the testing facilities of the contractors and NDMC and the reports submitted by them. It did not review the test registers maintained by NDMC;
- NDMC also did not take effective action on the suggestions put forth by TPIQA in its periodical reports; and
- CTE, CVC also found several deficiencies in the quality of work executed. Both the cube test and core test of Talkatora Indoor Stadium failed; cement consumption was also reported as low in Talkatora Indoor Stadium. NDMC had sent clarifications regarding method of checking of cement quantity, but CTE had not given its final view as yet.

Overall, it can be seen that the quality of construction works, particularly in Talkatora Indoor Stadium, was compromised despite the engagement of SGS India Pvt. Ltd. as TPIQA. Strangely, NDMC gave an “excellent grading for technical proficiency” to SGS India Pvt. Ltd., even before the completion of work.

19.2.3.3 Extra expenditure on substituted chairs

The contracted rate for 3000 chairs was Rs. 2190 per chair, which was a part of the composite contract. These were substituted with tip up chairs. Till date, a payment of Rs. 1.53 crore has been made to the contractor for 2704 chairs @ Rs. 5000 and 446 chairs @ Rs. 4000 each. The cost of similar tip up

chairs in Siri Fort Stadium was Rs. 2081, resulting in extra expenditure of Rs.0.82 crore in TIS, which the department assured it would recover.

19.2.3.4 Irregular framing of rate analysis for deviated/substituted/extra items

While determining the market rate for the purpose of regulating the claim of the contractor (Simplex Projects Ltd) for deviated/substituted/ extra items, 10 percent over the cost of the material and labour was to be allowed to cover contractor's overhead and profit as per the contract.

In 21 of the 85 cases of claims of deviated/substituted/ extra items reviewed by us, we found the contractor's overheads and profit was taken as 15 percent instead of 10 percent applicable. Details are given in Annexe 19.1.This resulted in overpayment to the contractor of Rs.1.17 crore and corresponding extra liability of Rs.0.86 crore to NDMC.

In addition we found that in the claim for the substituted item of fixing structural glazed curtain wall system/space frame glazing system, while calculating the market

rate of the tendered item, the justification rate that was determined three years ago was adopted, instead of adjusting it to the current price index or obtaining fresh rates from the market. This resulted in an undue benefit to the contractor of Rs. 0.60 crore, based on tendered rates adjusted with price index.

19.2.3.5 Avoidable expenditure on ready mix lean concrete for filling in pit of column

As an engineering practice, column pits are filled with earth excavated on site, which was also envisaged in the contract. Instead, in the instant case, the contractor was permitted to fill it with a much more expensive option of ready mix lean concrete resulting in avoidable extra cost of Rs. 1.39 crore. In addition, Rs. 0.16 crore were also paid to remove the excavated earth from site.

In its reply, NDMC stated that no space was available at the construction site to store the excavated earth. The picture below indicates the space available at the construction site.



Picture of the construction site at Talkatora Indoor stadium indicating space available for construction activity.



Thyagaraj Stadium

19.3 Venues constructed by PWD, GNCTD

19.3.1 Construction/ Upgradation of Thyagaraj Stadium

19.3.1.1 Overview

Construction/ upgradation of Thyagaraj Stadium involved:

- Construction of a multipurpose air-conditioned indoor stadium with a seating capacity of 5000, which could be used for various sports;
- Two warm up courts and one competition court for net ball; and
- Synthetic track of 400m x 8 lane for athletics (training venue).

19.3.1.2 Planning and Award

Peddle Thorp Melbourne (Australia), in joint venture with Kapoor & Associates, was appointed as the design consultant at a cost of Rs. 5.98 crore in December 2006. The preliminary estimated cost of the stadium of Rs. 297.45 crore was approved by the GNCTD Cabinet in September 2007, and detailed estimates for 23 works were approved by PWD, GNCTD for Rs. 250.86 crore from September 2007 to January 2010. Work amounting to Rs. 304.07 crore had been executed on the 23 works against which, payment of Rs. 281.60 crore had been made to the contractors till October 2010.

The main works for structures under packages I and II were awarded to JMC Projects (India) Ltd. at costs of Rs. 103.96 crore and Rs. 108.80 crore. The work of

package-I was completed in April 2009 at a total expenditure of Rs. 112.09 crore while under package-II, an amount of Rs. 96.87 crore had been paid till date.

19.3.1.3 Overpayments to the contractor (JMC Project)

We found:

- Inadmissible payment of Rs. 3.03 crore separately for plates, nuts and bolts in steel work (trusses), in addition to payment for actual length of pipe, which already included costs of plates, nuts and bolts;
- Avoidable payment of Rs. 2.51 crore for plates, nuts and bolts in other item of steel works (purlins) due to not specifying the mode of measurement for payment, as was done in case of steel work for trusses; and non adoption of uniform mode of measurement and payment; and
- Non-deduction of Rs. 0.33 crore on account of reduction in customs duty on

steel in the 2007-08 budget; the Department indicated the amount recoverable was only Rs. 0.29 crore.

19.3.1.4 Inflation of costs in detailed estimates

The CPWD Manual provides that percentage rate tenders should be resorted to only when the major part of the estimated cost put to tender is based on the Delhi Schedule of Rate (DSR), irrespective of the value of the tenders. However, PWD, GNCTD adopted a percentage rate tender, although more than 80 per cent of the cost for the two packages were for non-DSR items. Since the bidder is asked to quote a single percentage rate and does not have an option of quoting different percentages for different items, any error leading to an increase in the estimated cost of an item cannot be easily factored into consideration by the bidder. Consequently, an inflated cost estimate provides a higher baseline for potential bidders. We found the following instances of inflation of costs in the detailed estimates:

Table 19.3 – Instances of inflation of costs in the detailed estimates

(In Rs. Crore)

Item	Escalation in Cost Estimate
Adoption of incorrect exchange rate (Rs. 43/ US\$ instead of Rs. 40.28/ US\$) in computing cost of imported structural steel	1.41
Adoption of higher wastage rate of 10 per cent (instead of 5 per cent) for fabrication and commissioning of trusses	2.14
Inflated estimation for Kalzip roofing @ Rs. 5627.77/ sq.m. The contractor engaged another agency to execute the item @ Rs. 4393/ sqm. Even after including CPOH ⁶ of 10 per cent, the actual market price would be only Rs. 4832.30/ sqm.	0.87

⁶ Contractor's Profit and Overheads

19.3.1.5 Higher cost item for detailed estimates/ execution

We found the following instances of adoption of higher cost items for detailed

estimates and execution from among the options provided by the consultant in the preliminary estimates (which included lower cost items):

Table 19.4 – Instances of adoption of higher cost items

(In Rs. Crore)

Item	Escalation in Cost Estimate
Use of costlier acoustic false ceiling (Sonapanel brand) costing Rs. 4208.30 / sqm against the alternative costing Rs. 1650/ sqm	1.85
Use of more expensive nylon, fire retardant carpet (of “Milliken” make), rated as moderate duty, costing Rs. 5464.30/ sqm against the estimated cost of Rs. 1539.70/ sqm for heavy duty usage	0.70
Use of costlier toilet partitions (Merino Titan Series Cubical boxes) costing Rs. 19,556/ sqm against the estimated cost of particle board partitions of Rs. 792.60/ sqm and laminated glass partitions costing Rs. 18,300/ sqm.	1.00
Installation of composite panels of paper towel dispenser, hand dryer and waste paper bins (D-Line make) in toilets @ Rs. 2.42 lakh	0.37

19.3.1.6 Specifying a richer/ higher specification

We found that costlier acoustic wall panelling (using perforated ACP) was executed even outside the Field of Play (FOP) over the corridor and external concourse, instead of applying plaster and plastic paint (as done in the VIP area); this resulted in extra cost of Rs. 1.24 crore.

19.3.1.7 Procurement of Items by specifying a single Brand

We found that 31 items valuing Rs 24.28 crore (Annexe 19.2) were included in the detailed estimates by specifying either a single brand by name, or stating the requirement as brand “X” or equivalent. These items were included as per the recommendations of the consultant and rate of these items decided/ analysed on the basis of single quotations. No justification was recorded for specifying the brand. Some examples of rates of single brand used for preparation of estimates are as under:-

Table 19.5 — Examples of rates of single brand used for preparation of estimates

S.No.	Name of Item	Brand of Item	Rate of procurement (rs. per unit)
1.	Hall wall hung WC. pan, seat with cover,	Roca	21,067
2.	Concealed cistern	Geberit	8,254
3.	Duo fix mounting element	Geberit	6,213
4.	Single urinal basin with PVC 6 lts. auto flushing cistern	Roca	34,524
5.	Wash basin including Sensotronic sensor faucet	Roca, Duravit, Jaquar	27,540
6.	Paper towel dispenser , Hand dryer, Waste paper bin	D-line	2,41,813
7.	Blower/ hand dryer	GEM or equivalent	24,356
8.	Paper towel dispenser	D-line or equivalent	33,835
9.	Paper waste bin	D-line or equivalent	30,445

Further, payment of Rs. 18.22 crore was made on execution of 23 items of the same brand as specified in the BOQ and three items worth Rs. 3.50 crore were executed as equivalent brands. Five items specified with the brand name were not executed. Clearly, specific brands were favoured, resulting in reduced competition with consequential increases in project cost.

19.3.1.8 Multiple forms of power back-up

The venue brief for Thyagaraj stadium stipulated power supply from two independent feeders and power backup for critical supplies. Instead, PWD went in for two additional power generation units, purportedly on account of their green and environment friendly nature:

- A roof top solar power generating unit of 1 MW peak capacity was installed at a cost of Rs. 14.10 crore. Although excess power supplied by this solar unit would

receive Generation Based Incentive under the Jawaharlal Nehru National Solar Mission, resulting in a tariff of Rs. 17.91/ unit, Rs. 12.41/ unit represented an incentive given by the GoI;

- A 2.5 MW dual-fuel gas turbine was awarded at a cost of Rs.19.58 crore and an add-on Vapour Absorption Machine at a cost of Rs. 2.83 crore; in addition, not only were these works awarded on single tender basis to Turbomach India Pvt. Ltd., the expenditure on this turbine and VAM is largely infructuous as it would be highly expensive to generate power from this unit post-Games.

19.3.2 Construction of Chhatrasal Stadium

19.3.2.1 Overview

Chhatrasal stadium was to be upgraded as a training venue for athletics. The estimated cost of Rs. 83.00 crore was approved by the GNCTD Cabinet in August 2008, and detailed estimates of Rs. 55.87 crore were

approved by PWD in December 2008. Benjamin, Benjamin and Vats were appointed in March 2008 as the design consultant at a cost of Rs. 1.33 crore. The main work for the structure was awarded to Era Infra Engineering in January 2009 for Rs. 60.26 crore. Payment of Rs.48.78 crore had been made up to October 2010 to the contractor.



Chhatrasal Stadium

19.3.2.2 Appointment of consultant

We found irregularities in the appointment of Benjamin, Benjamin and Vats as the design consultant:

- The condition of relevant experience vis-a-vis sports venues in the NIT was removed at the Press Notice stage;
- Different weightages for criteria for technical evaluation were used for the Chhatrasal Stadium (as compared to the Thyagaraj Stadium) giving less weightage to experience of key personnel; if the

weightages had been adopted as for Thyagaraj Stadium, Benjamin, Benjamin and Vats would not have been technically qualified.

19.3.2.3 Use of percentage rate tender

As in the case of Thyagaraj Stadium, PWD used the percentage rate tender, even though 40 per cent of the tendered cost were for non-DSR items (which should have deterred resorting to percentage rate tendering).

19.3.3 Construction of Training Venue at Ludlow Castle

Government Model Ludlow Castle School No. 2 was selected as a training venue for wrestling. AG Krishna Menon was appointed as the design consultant at a cost of Rs. 0.60 crore in December 2007. Estimated cost of Rs. 20.33 crore was approved by the GNCTD Cabinet in November 2008, and detailed estimates of Rs. 9.34 crore approved by PWD in December 2008. The work was awarded to Arora Construction Company Private Ltd. at Rs. 11.25 crore.

In our Study Report of July 2009, we had highlighted the fact that GNCTD awarded design consultancy in December 2007 wrongly for Government Model Ludlow Castle School No. 1 (instead of School No. 2). This was rectified only in June 2008.

We found that for award of design consultancy, EOI was not followed and limited tenders were irregularly called, purportedly on account of shortage of time. However, although the consultant appointment committee had approved the proposal for appointment in August 2007, the work was awarded to AG Krishna Menon only in December 2007, belying the purported sense of urgency.

As in the case of other stadia, PWD resorted to percentage rate tendering for the main work, despite the fact that more than 35 per cent of the tendered cost was for non-DSR items. Further, the tendered amount of Rs. 11.25 crore was 32 per cent above the estimated cost of Rs. 8.50 crore. For this purpose, a justified cost of Rs. 10.50 crore was arrived at. We found undue inflation of the justified cost by Rs. 0.96 crore on account of miscellaneous charges (already included in CPOH) and higher justification rate of structural steel (compared to the same items for Chhatrasal stadium).



Training venue at Ludlow Castle School

19.4 Venues developed by Jamia Milia Islamia University (JMI)

19.4.1 Introduction

In June 2006, JMI was selected as one of the training venue for Rugby 7s and table tennis, and Rs. 42.57 crore were released by MYAS.

19.4.2 Reconversion of Rugby 7s field into cricket field

The Rugby 7s field was prepared by replacing the grass of the existing cricket field at JMI with Bermuda grass princess 77. Till August 2010, Rs. 2.11 crore had been paid for it.



Restoration work of cricket field in Rugby 7s training venue

As JMI does not provide sports facility or training in Rugby for their students, immediately after the Games, JMI requested (November 2010) RITES to start the work of development of cricket nets including cricket pitch alongwith the main cricket wickets, replacing the Rugby 7s field.

Reconversion of the Rugby 7s field into cricket field defeats, at least partly, one of the stated objectives of CWG-2010 of creation of state-of-the-art sporting infrastructure.

19.4.3 Deviation from the Approved Scope of Work

As per the EFC memo, JMI was to develop

- training venue for table tennis;
- training venue for Rugby 7s and
- necessary infrastructure for these venues.

However, in addition to these works, execution of twelve sub- works was undertaken by JMIU, which included providing and laying all season turf for basketball court, lawn tennis court and jogging track, renovation of volleyball court, hockey/ football field and providing furniture and furnishing items⁷. Funds to the tune of Rs. 2.58 crore were diverted to meet the expenses of these works, as indicated in the table given below.

⁷ The item of loose furniture and cafeteria furniture was deleted by the Ministry. Nevertheless, this item of work was executed by JMI.

(Rs. in crore)

S.No.	Name of Work	Upto date Expenditure	Total tendered expenditure
1.	Lawn tennis court and basketball court	0.47	0.62
2.	Jogging track	0.27	0.35
3.	Hockey/ football field & volleyball court including horticulture work	0.25	0.49
4.	Providing furniture and furnishing items	Bill has not been raised by the firm	1.12
		Total	2.58



Lawn tennis court



Hockey / Football Field



Basketball court



Volley ball court

Development of university premises for providing sports facilities is, no doubt desirable. However, in this case, the expenditure on these additional sports

facilities was incurred out of expenditure sanctioned for certain specific sports facilities to be used during CWG-2010, which is irregular.

19.4.4 Execution of Sub-standard Work

Our physical inspection of the table tennis hall revealed that the acoustic panels on one portion of the wall had completely come out, exposing the unfinished wall beneath it. The finish of fitting of other acoustic panels too was bad. The synthetic sports surface carpeting of wooden floor was uneven and bumpy at a few places.



Lawn tennis court

19.5 Venues developed by Delhi University



Netball & Boxing Training Venue

19.5.1 Introduction

The DU-CWG 2010 project of Delhi University involved:

- development of the main competition venue for Rugby 7s;
- Netball & boxing training venue at DU main venue;
- training venues for Rugby 7s (at seven colleges⁸) and for women's wrestling indoor hall at SRCC;

⁸ Daulat Ram, Khalsa, Ramjas, Kirorimal, St. Stephens, SRCC and Hindu.

- athletic track at DU polo ground; and
- other associated infrastructure works.

19.5.2 Delay of start of work of training venues

The work of training venues viz. athletics track, Rugby field with facility blocks in colleges and indoor wrestling, to be started in August 2008, was held up and started after January 2009 for want of approval of revised estimates by MoYAS. This resulted in delay in completion of work. We found that there was a delay of:

- five months in start of construction work of Ramjas College, Stephan College, Kirori Mal College, SRCC Wrestling Hall and Athletic Polo Ground;
- four months to eight months in completion of all training venues; and
- five months in handing over of training venues to OC/DU.

19.5.3 Work started without the approval of DUAC and MCD

- DUAC had not given final approval till completion of the CWG; and
- MCD had neither accepted the application nor given approval for construction of facility blocks in training venues.

19.5.4 Non utilization of rugby, athletic and wrestling training venues

The training venues for rugby (Ramjas and SRCC), indoor women wrestling training venue (SRCC), and athletic training venue (Polo Ground), constructed at an approximate cost of Rs.59.32 crore, were not used by the participants for training purpose. These venues were reportedly



SRCC - Boundary Wall

dropped by the OC, as Delhi Police had not given security clearance for these venues.

Our visit to SRCC training venues revealed the following position:



SRCC - Play Ground



SRCC Road towards Main entrance

Considering the condition of surroundings of these venues, especially the entry areas for both SRCC and Polo Ground, it is evident that there was a definite lapse and lack of foresight in selecting these venues for developing training facilities for the Games.

19.6 Venue development by All India Tennis Association (AITA)



Centre court after renovation

19.6.1 Introduction

In October 2009, an estimated budget of Rs. 65.65 crore was allocated by MYAS for the renovation and construction of R.K. Khanna stadium for Tennis to All India Tennis Association (AITA). It covered the following works:

- Revising specifications of the centre court with increased seating capacity of 5000 from the existing 4000;
- Conversion of grass court with temporary seating into synthetic court with permanent seating for 1000 spectators;
- Creation of six match courts and six practice courts, with similar surface as the centre court, and seating capacity for 1000 spectators from existing 16

synthetic courts, grass court and four mini tennis courts;

- Setting up lighting system of the prescribed lux levels for HDTV coverage (2200 lux in the centre court); and Upgradation of support facilities.

19.6.2 Selection of Project Management Consultant (PMC)

In September 2007, AITA appointed S.G Lakhapal and associates as the consultant for preparing estimates and supervision of works at 4.93 per cent of the project cost without inviting any bids.

AITA indicated that SG Lakhapal was chosen because of its long association with AITA in the past. The selection of the consultant on nomination basis, was irregular.

19.6.3 Selection of Civil, Plumbing and electrical contractors

In February 2008, out of six bidders⁹, three bidders¹⁰ qualified technically - out of which the bid of only Globe Civil Projects was unconditional. Instead of limiting itself to the only unconditional bidder, on 18 June 2008, AITA signed an agreement with Skyline Engg Contracts for Rs.15.17 crore. On 20 June 2008, a supplementary agreement was signed, whereby TMT steel was to be supplied by AITA, thereby reducing the contract value by Rs.2.12 crore and the negotiated contract amount was Rs.13.06 crore

There was an increase of Rs.3.54 crore in costs, and Rs. 2.88 crore was paid to contractor on account of lifts, UPVC windows and revision in the cost of façade.

In our opinion, instead of signing a supplementary agreement with contractor whereby TMT steel was to be supplied by AITA, it would have been desirable that this aspect had been thought of before inviting bids, which would have increased competition.

It was noted that the prices of steel were volatile during 2008, and the concept of deleting the steel portion from the original contract and AITA procuring it directly from SAIL had its advantages, especially clubbed with the non introduction of any escalation/de-escalation clause in the contract. According to AITA, direct procurement of steel led to cost savings of Rs. 0.83 crore.

⁹ NPCC, Dewan Chand, Chawla Techno Contructions, Globe Civil projects, Skyline Engg contracts, Jamil Ahmad and sons

¹⁰ Chawla techno constructions, Globe Civil Projects Pvt Ltd, Skyline Engg contracts (I) Pvt Ltd

19.6.4 Appointment of contractors for stadium chairs

In October 2009, out of three bidders¹¹, only two bidders were technically qualified and Indo Office Solutions¹² was technically rejected. Camatic Pty quoted Rs.4.28 crore for supplying stadium chairs, while Audience gave a financial bid of Rs.5.55 crore. AITA constituted a committee to visit Audience in Wiltshire, England to assess the capability of the company to supply and install chairs.

In January 2010, Camatic was awarded the work for Rs.3.44 crore, out of which Rs. 3.21 crore has been paid to contractor and Rs. 0.23 crore retained by AITA for defect liability period.

Camatic Pty did not submit EMD with their financial bids however AITA appointed them for supplying chairs. AITA indicated that Camatic had been supplying chairs for Wimbeldon, and was a reputed manufacturer. It was also stated that there were numerous valid grounds for rejecting Indo Office solutions. As regards Audience, a Committee of AITA which had gone to England, had questioned its ability to supply the chairs in time for the test event. Given the time available for the test event, AITA had little option but to award the contract to Camatic. However, the contract itself was awarded only in January 2010, whereas the technical and financial bids were opened in October 2009. Delay in analyzing and awarding the contract had the potential for adversely affecting the holding of the test event.

¹¹ Indo Office Solutions Pvt Ltd, Audience Systems Ltd and Camatic Pty Ltd.

¹² Indo Office Solutions, though technically rejected by AITA, was a significant player in supply of overlays managed by the OC



Quantum chairs installed in all courts

19.6.5 Conduct of Test Events and Tournaments

As per the International Tennis Federation (ITF) report, test events (Asian Junior Tennis Championships) before CWG-2010 were conducted successfully, between 24-30 May 2010, in the Stadium. ITF praised the competition venue for its Centre court, show court 1, VIP and media lounges,

lighting, sports equipments etc. and concluded that the test event for the CWG-2010 provided valuable practice for all the functional areas in operation at the event. It allowed the venue to operate in event conditions. After CWG 2010, five tournaments have been conducted at the stadium, demonstrating that it has use for legacy purposes.