

Draft
TERMS OF REFERENCE

Selection of consulting Service
for
Conduct Detailed Assessment of the Educational and Physical
Infrastructure of the Proposed Model School, and Prepare
School-Specific Multi-Year Coasted Master Plan

.....SCHOOL

Issued on: 21st January 2018



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Terms of Reference

Background

The Government of Nepal has developed School Sector Development Plan (SSDP) for the seven-year period starting from 2016 to 2023 (BS 2073–2080) in line with Nepal's vision to graduate from the status of a least developed country by the year 2022 and to reach at the status of the middle income country's level by 2030. SSDP prioritizes educational reform and developmental needs of the country in the current context. Thus, in broad terms, SSDP focuses on the reform and development of the education sector in line with the new constitutional mandate.

The SSDP was developed through an inclusive and participatory approach based on an analysis of the education sector and has put greater emphasis on improving the quality of education in order to consolidate the gains made in access and equity till now. Hence to achieve this objective of improving the quality of education under SSDP, Model school scheme has been envisaged to provide corresponding accessibility of education in community schools, introduce new innovative technology and modern techniques for better teaching-learning, improve the overall educational and physical environment of the school, and improve the overall management of the school in order to ensure that the school becomes the first choice of parents for providing good quality education.

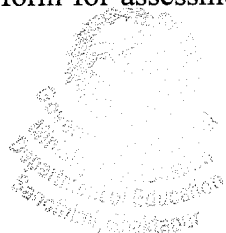
Objective of the Assignment

The overall objective of the assignment is to conduct a comprehensive assessment of Proposed Model school that comprises assessment of Educational, infrastructural and governance aspects in order to prepare a comprehensive multi-year costed Master plan that includes baseline of the existing status of Educational and physical aspects of the schools, and the detailed plan for introduction and implementation of the Educational, physical and governance related interventions as described in the Model School Guidelines 2074, including the Detailed Architectural Master plan and Engineering Design as required in the school after the assessment. For such purpose, the eligible firm is required to have the right balance of education experts and engineers/architects.

Scope of the assignment

To meet the objectives of the assignment, the following are the scopes of work.

- a. To visit the Selected School for identifying the status of the school and fill the survey form for assessment of School, which includes assessment of the educational



and governance related aspects of the schools and assessment of the school's physical infrastructure as per the approved Model School Guidelines, 2017.

- b. To take the detail technical information of Model School from School Management Committee, Head Teacher (HT) and teachers, representatives from local units, District Education Office, Engineers, and Sub Engineers.
- c. To collect necessary data, information and documents for assessment of Model School by using the assessment forms provided by the DOE.
- d. To identify the required infrastructures and facilities of school (which includes both educational and physical infrastructure) according to the criteria set out in the Model School Guidelines 2074.
- e. To identify the appropriate information regarding the existing infrastructure. To conduct destructive and non destructive test if required or the information collected from School Management Committee.
- f. To prepare architectural, Engineering design, Master plan, quantity, cost estimate, rate analysis, bidding documents, soil test of the designed infrastructure based on the prepared detail design drawing and district rates of the respective schools.
- g. To transfer the knowledge about the design drawing, Master plan, so on to the DEO engineers, sub engineers of local government and school management committee/Local government as possible

Expected outcome

The firm is expected to prepare a school specific multi-year costed Master plan .The Head teacher of the School will arrange for the consultation with the school management committee, teachers, local government representatives, and other stake holders ,include information on the following aspects in the format/template provided by the Department of Education:

Site Investigation Report

This report shall be prepared and submitted after the site-investigation of the school. The report shall elaborate the findings from site investigation including but not limited to the followings:

- Brief description of the work.
- Geographic location of the site with index plan

- Topology of the site (description of the site with site plan)
- Climatic Data, location on seismic and wind map.
- Geological details (from secondary data review)
- Information regarding ground water.
- Visual observation of soil from test-pit or others if necessary and its classification
- Topographic map of the area with existing infrastructure.
- Intervention to existing structures
- Gap Analysis results
- Proposed facilities/structures in the school and their suitable location.
- Other items

Detailed Architectural and Structural Drawings with Design Report

The consultant shall perform detailed design and prepare detailed drawing showing all necessary details required for accurate construction and shall follow the requirements of the Nepal National Building Code. It shall include at least the followings:

a) Intervention Report for Existing Structure:

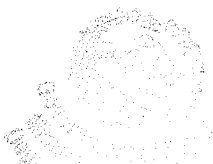
- Site assessment forms
- Justification of the proposed intervention
- Structural design report of the Intervention
- Detailed architectural and structural drawings

b) Design of Additional building structures

- Justification of the requirement (referring to gap-analysis)
- Structural design report
- Detailed architectural and structural drawings.

c) Design of Additional other facilities (e.g. sports ground, etc.)

- Justification of the requirement (referring to gap-analysis)
- Structural design report for civil works. (wherever applicable)



- Detailed architectural and structural drawings for civil works.

Detailed Assessment of Educational and Governance related aspects of the schools with Report

The School prepared the survey form for assessment of Model School, which includes assessment of the educational and governance related aspects of the schools detailed showing all necessary details required for accurate. The consultancy firm should provide technical advice to the as per required.

The consultant shall develop a structural model for the purpose of analysis of the structure, using any of the international standard finite element software. Real and accidental tensional effects should be considered for all structures. Structural system proposed by the consultant shall be able to resist effectively the gravity as well as lateral loading induced by both earthquake and wind. Consultant is free to choose any international building codes however; the minimum criteria of NBCs including NBC105 and shall strictly be incorporated.

The consultant shall perform detailed structural design and prepare working drawings showing all necessary details required for construction and shall follow the requirements for the ductile detailing. The detailing shall comply with the requirements of IS13920 or any other relevant ductile detailing code with special precautions to construction practices in Nepal. The consultant shall submit soft copy of analytical model and both hard copy and soft copy of structural design and detailing.

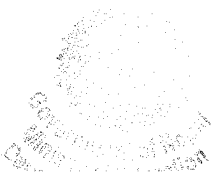
Specifications, Bill of Quantity & Cost Estimates

The consultant shall prepare a specifications for all the designed works to be carried out, the bill of quantities for each items of work and their cost-estimates based on most recent approved district rates. Consultant shall submit these document in both soft and hard copy.

Format of report

The consultant is expected to prepare and submit the final report prepared in English. The draft final report should be submitted for comments. Comments should be obtained on the draft plan from the client for its finalization. The consultant is expected to submit two set of reports in the text and one digital copy in digital format.

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Draft Report

The Draft report should contain topography map of schools with 0.5m interval contour and location of existing Infrastructures in the School area with boundaries line. Geological report with site condition of the School area with verification of soil strata by digging of at least 3 trenches of 1.5 m depth within the school Premises. Photographs and Minutes as available. GAP analysis report. Complete site specific Master Plan and Architectural and Engineering Design with Structural analysis (As per NBC), Detailing, cost estimate, BOQ and report Preparation of individual schools with all components. Design of the entire task as per scope of the work will be carried out to meet the objectives of the TOR in available time with the desired quality of two hard copy report should be submitted to the school within 5 weeks from the date of agreement.

The Final Report

This report should be submitted within 7 weeks from the date of agreement to the school. All the comments provided in the draft report should be incorporated in the final report Two(2) hard copy and one(1) digital copy of the final report should be submitted in the stipulated time. After the receiving the report School should compile Education plan also and submit 1 copy to Department of Education .

Facilities in the Model Schools

In general, there are four facets for developing a school as a model school. A school has to be academically rich with modern pedagogy, school have adequate infrastructure, should be disaster resilient and environmentally sustainable and have good governance and management system. Physical facilities shall be included in the design of the model schools as far as practicable:

- a. Boys Hostel (up to 100 students), As Per required
- b. Girls Hostel (up to 100 students), As Per required
- c. Administrative Block (For principals and teachers),
- d. Library (including e-library),
- e. Laboratory (Science, computer and arts),

- f. Health facilities and treatment room,
- g. Counseling room,
- h. Vocational room,
- i. Toilets with changing room and Wash Facility
- j. Canteen/kitchen,
- k. Auditorium hall,
- l. Classrooms with modern pedagogy,
- m. Drinking water,
- n. Compound and fences,
- o. Playground,
- p. Solar backup (If needed otherwise only backup.)
- q. Garden.
- r. School museum room.

The consultancy should recognized by the discussion for school team how many buildings needed to be new constructed, which buildings to be retrofitted and costed it, how many buildings are major and minor maintenance required and its cost, Number and Cost of buildings, equipment and others facilities for upgrading ,and keeping on it .

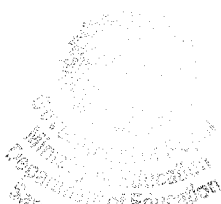
School must try to use the existing infrastructure as much possible .

The components should be designed as per the recommendations from the Gap analysis.

Design Considerations

Generally, infrastructures and facilities depend on specific need and location of the school, certain minimum criteria shall be fulfilled. All schools, including model schools shall follow the minimum criteria set by documents “School Design Guidelines” developed by DOE on 2016. The structural design shall at least satisfy the requirements of “School Structural Design Criteria” developed by DOE on 2016 or relevant Nepal Building Codes. In addition to that, the following sections elaborate on the recommended specifications of each facility on the Model Schools. The spaces in a model have to be gender friendly and should cater differently able students.

3/1/18



If School decided to proposed Hostel . The design of hostel shall consider the following requirements.

- The number of accommodation of Hostel shall be determined based on the students and catchment geography (feeder schools, students renting on the vicinity, etc.).
- Girls and Boys hostel shall be separate,
- A study room shall be separate in Hostel.
- Room for Warden/care-taker shall be provided,
- One store room (Clothes/Blankets) is recommended,
- Kitchen and Dining facility,
- First-aid, sewing, and other accessories,
- Proper waste supply and sanitary system, and
- Toilets, Bathrooms and laundry shall be available.

The design of other facilities shall be justified on the basis of number of students, space available, terrain, geographical requirements and other related parameters of the school.

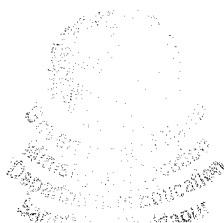
The firm should be able to involved following Human Resources.

Human Resource Setup

Key Staffs

1	Team leader	1
2	Structural Engineer	1
3	Electrical Engineer	1
4	Sanitary Engineer	1
5	Environmental Engineer	1
6	Geotechnical Engineer	1
7	Architects	1
8	Civil Engineer	1
9	Educationalists	1
10	Sociologists	1
11	Geologists	1

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Qualification of the Team leader's:-

1.0 Team leader

Master's degree in Urban Planning/ Civil Engineering, Architecture or equivalent and minimum 3 years of experience in relevant field.

Structural Engineer

Qualifying Criteria Master Degree in Structural Engineering with 2 years work experience.

Others Bachelors Degree in Engineering with minimum 2 years experience in the relevant field.

TIME SCHEDULE

The consultancy service shall be completed within the 45 days from the date of signing of the agreement. The following Work Schedule shall be taken as guidelines for the study.

Work/Activity Schedule:

The total estimated time to complete the entire job is 45 days .

Deliverables:

The consultant shall submit following report in two stages.

Draft Report: The Consultant should submit two hard copies of Draft Report for each work. All the draft reports shall be submitted within 5 Weeks from the date of agreement.

Final Report: The Consultant should submit Two Hard copies of Final Report along with one soft copy within 7 Weeks from the date of agreement

