



Republic of the Philippines
Tourism Infrastructure & Enterprise Zone Authority

MEMORANDUM

For : The Assistant Chief Operating Officer
Assets Management Sector

From : The Assistant Chief Operating Officer
Architectural and Engineering Services Sector

Subject : **BALACAD MASTERPLAN**

Date : 22 September 2021

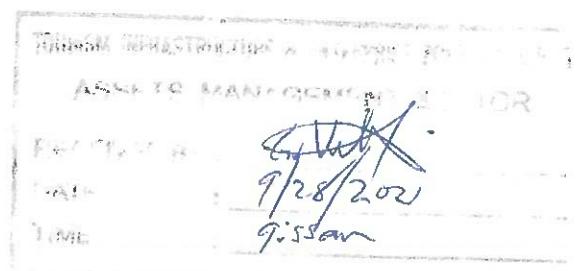
to: Reyna/Beig

Aug 29/29

We are forwarding the Project Evaluation Report for the aforementioned subject for your reference.

Thank you.


NESTOR M. DOMALANTA





Republic of the Philippines
Tourism Infrastructure & Enterprise Zone Authority

PROJECT EVALUATION REPORT

Project : **BALACAD INTEGRATED TOURISM COMPLEX MASTER PLAN**

Location : Balacad, Ilocos Norte

Date : August 31, 2021

Item No.	Particulars	Findings	Recommendations / Actions to be Taken
1 BUDGETARY ESTIMATES			
1.1	Access Road (page 123)		
		- Budgetary is in linear meter but width of the road is not stated in the budgetary costing	- Review budgetary costing and refer to the DPWH standards regarding the average cost of new road construction. https://www.dpwh.gov.ph/dpwh/2019%20DPWH%20ATLAS/Tables%20&%20Graphs%20(Roads)/Road%20Data%202016/ATLAS%202016/Table%201.4.htm
1.2	Water Supply System (page 123)		
	Reinforced Concrete Pipe	- Pipe used for the water supply is RC Pipe	RC Pipe is not used for water supply piping system. Use appropriate materials for water supply
	Excavation & Embankment	- Not clear if the equipment cost already part of the unit cost.	Provide clarification if equipments are considered in the unit cost.
1.3	Drainage System (page 123)		
	Excavation & Embankment	- Not clear if the equipment cost already part of the unit cost.	Provide clarification if equipments are considered in the unit cost.
1.4	Sewerage System (page 123)		
	Reinforced Concrete Pipe	- Pipe used for the sewerage system is RC Pipes	RC Pipe is not used for sewerage piping system. Use appropriate materials for water supply
	Sewerage Treatment Plant	- No STP provided in the budgetary	STP is highly recommended for the development of project this size and to comply environmental laws.
	Excavation & Embankment	- Not clear if the equipment cost already part of the unit cost.	Provide clarification if equipments are considered in the unit cost.
1.5	Landscape (page 124)		
	Ground Covers Street Amenities	- Details under this Item of work is not properly disclosed	- Elaborate the scope under these items for a more accurate budgetary estimate.
	Drainage	Budgetary costing per unit is in sq.m. There is already a separate Drainage system item (3.1.1.3)	Drainage system cost can be estimated in linear meter units. Clarify unit costing. This item may be included in item 3.1.1.3
	Perimeter Lighting	- Budgetary costing per unit is too low if the lighting is lamp post type	- Clarify the specification of the perimeter lighting in order to have a more accurate costing
	Irrigation	- No detail of irrigation type mentioned.	Clarify/provide type or method of irrigation system to be used.

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1.6	Parking/Open Area (page 124)		
	Cost per Square meter	- As compared to our previous projects with parking area, the cost for this item per square meter is too low	- Review the budgetary costing for this item
	Excavation & Embankment	- Not clear if the equipment cost already part of the unit cost.	Provide clarification if equipments are considered in the unit cost.
1.7	Museum (page 124-125)		
	Cost per Square meter	- Based on our previous projects involving vertical structures, the cost per square meter is too low considering that this area will use high-end/standard finishing.	- Review the budgetary costing for this item
1.8	Hotel (page 125-127)		
	Cost per Square meter	- For a hotel structure being recommended to be a five-star hotel with a complex design and which will consider a high-end/high standard finishing , the cost per square meter is too low.	- Review the budgetary costing for this item
1.9	Retail/Mix Used Area (page 127-129)		
	Cost per Square meter	- Based on our previous projects involving vertical structures, the cost per square meter is too low	- Review the budgetary costing for this item
1.10	School (page 129-130)		
	Cost per Square meter	- Based on our previous projects involving vertical structures, the cost per square meter is too low	- Review the budgetary costing for this item
1.11	Restaurant (130)		
	Cost per Square meter	- Based on our previous projects involving vertical structures, the cost per square meter is only enough for structures with simple design and finishes	- Review the budgetary costing for this item
1.12	Estimated Investment Cost / Suppor Infrastructure Cost (143 & 145)		
		- Not clear if this item need be both included in the Estimated Investment Cost & Suppor Infrastructure Cost	- Clarify if it is necessary to include this item on both the Estimated Invesment Cost and Support Infrastructure Cost

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2	DESIGN STANDARDS AND GUIDELINES (page 132)		
	General Planning and Design	- The planning and design standard for the proposed buildings to comply, only mentioned the: 1. NBCP, 2. Fire Code of the Philippines, 3. Accessibility Law	- Include all applicable codes, law and standards to be use for the planning and design of the proposed structures (e.g. electrical code, mechanical codes, etc)

Remarks:

- 1 Perimeter fencing for the complex is recommended for security purposes
- 2 Included in the masterplan is a conceptual plan of lighthouse but there is no budgetary estimate
- 3 Main electrical system for the complex which is an important component is not included
- 4 Clarify if budgetary costings already include mark-ups based on DPWH guidelines. Computations only mention materials and labor.
- 5 Provision of Material Recovery Facility to address the problem of solid waste disposal and enhance the environmental sustainability of the project site is necessary. A Central Material Recovery Facility is proposed but no budgetary cost included. CMRF is to be located opposite the Plaza del Norte Convention Area and will allow efficient access from the national road. May consider the following ideal siting criteria for MRF (Reference: ADB MRF Tool Kit):
 - 5.1 MRFs need to be located close to existing roads, but traffic resulting from the movement of waste collection trucks should be considered. These facilities must be near or within urban areas that generate the inputs to be processed for recyclables.
Evaluation: consider the a). study on traffic movement since location is just beside the national road; b). LGU and other concerned agencies rules, guidelines and permits requirements in the design, location and construction; c). although the proposed location of the MRF is along the national road which makes it accessible and just across the convention center and hotel, it will not only become an eyesore in the area but a health hazard as well due to the foul odor that could come from the operation of the facility.
 - 5.2. A minimum buffer zone of 100 meters is to be used for sensitive receptors such as schools, hospitals, parks, and residential areas. If the area is zoned, MRFs are preferably located in an industrial zone or close to a sanitary landfill to facilitate efficient movement of waste from various generators and disposal of residual or biodegradable materials.
Evaluation: the proposed location is very close to the existing convention area/hotel, will the owner of the structure being one of the stakeholders allow MRF location?
 - 5.3 MRFs should be sited in flat or gently sloping, stable areas to reduce excavation cost and avoid problems of slope stability. Flood-prone areas should be avoided.
Evaluation: though site is in flat area, design to consider proper drainage system

Evaluated by:


RENE LENARD M. BUENAVENTURA
 Sr. Project Planning and Development Officer


IVAN JAY LEDESMA
 Sanitary Engineer

Reviewed by:


ENGR. AMELITA S. CAGANDA
 Manager, PERD

Noted:


ENGR. NESTOR M. DOMALANTA
 ACOO, AAES