



### Programming Division Evaluation Sheet

Name of Project:

Construction of Patagui-Dagsian Flood Control Structure, La Paz, Abra

Project ID: **P00740308LZ**

Implementing Office: Abra District Engineering Office

Appropriation: 150,000,000

Date: 10/09/2023

#### A. TYPE OF REQUEST

A.1 ☐ Change in Implementing Office/Operating Unit due to

A.1.1 ☐ Geographical Jurisdiction

A.1.2 ☐ Approval of Authority to Bid/Implement

A.2 ☒ PROJECT MODIFICATION/ADJUSTMENTS

A.2.1 ☐ Typographical Error/s

A.2.2 ☐ Change in Location (for non-existent locations only)

A.2.3 ☐ Change in Station Limits

A.2.4 ☐ Addition/Deletion of Word/s

A.2.5 ☐ Change in Project Component/s Details

A.2.5.1 ☒ Change in Targets

☐ Change in Scope of Work

from \_\_\_\_\_ to \_\_\_\_\_

A.2.5.3 ☐ Change in Component Amount

A.2.5.4 ☐ Addition of Component (incl. EXC Component)

A.2.5.5 ☐ Deletion of Component

A.2.5.6 ☐ Movement of Funds between Components

#### B. EVALUATION

B.1 ☒ ALLOWED as per the GAA Provisions

B.2 ☐ NOT ALLOWED as per the GAA Provisions

#### C. FUND SOURCE FY 2023 GAA, R.A. 11936

C.1 ☒ for issuance of SARO

C.2 ☐ released thru GAAAO

Amount: 150,000,000

#### D. IMPACT:

D.1 Condition/s:

97.79 % decrease in unit cost

50.18 % increase in unit cost

- % decrease in physical target

- % increase in physical target

D.2 ☐ Additional Project Component

D.3 ☒ Certificate of Cost Reasonableness by RD

D.4 Remarks: Change in targets with **97.79%** increase in Unit Cost. Reviewed by BOC dated September 22, 2023: reduced amount from Php150,000,000.00 to **Php147,816,687.75** and an excess amount of **Php2,183,312.25**

#### E. Approving Authority as per D.O. 13, s. 2023, Guidelines on Modification of Allotment under the GAA

E.1 ☐ Undersecretary for Operations

E.2 ☒ Secretary

Evaluated By:

ALEX S. BOTE

Director, Planning Service

Noted By:

CONSTANTE A. LANES, JR., CESO III

Assistant Secretary, Planning Service

Project ID: **P00740308LZ**

FOR SECRETARY MANUEL M. BONOAN OR

ACTION SLIP

Date: \_\_\_\_\_

REMARKS:

☒ Reviewed by Planning Service  
☐ Recommended for Approval  
☐ Remarks: \_\_\_\_\_

MARIA CATALINA E. CABRAL, CESO I, Ph.D.

Undersecretary for Planning and PPP Services



Republic of the Philippines  
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS  
**OFFICE OF THE SECRETARY**  
Bonifacio Drive, Port Area, Manila



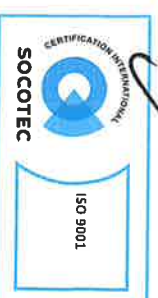
October 5, 2023

**MEMORANDUM**

**FOR :** **MANUEL M. BONOAN**  
Secretary  
This Department

This refers to the memorandum dated 8 September 2023 of **DPWH CAR Regional Director KHADAFY D. TANGGOL**, endorsing the request of District Engineer **JOSELITO T. ARAO** of **Abra District Engineering Office** for the **modification** of the project under FY 2023 GAA, to wit;

As per GAA/Original			Project Description			As Modified		
UACS No.:300219101298000 Project ID:P00740308LZ								
Sustainable Infrastructure Project Alleviating Gaps (SIPAG) - Flood Mitigation Structure protecting PublicInfrastructure/Facilities,			Sustainable Infrastructure Project Alleviating Gaps (SIPAG) - Flood Mitigation Structure protecting PublicInfrastructure/Facilities,					
Construction of Patagui-Dagsian Flood Control Structure, La Paz, Abra			Construction of Patagui-Dagsian Flood Control Structure, La Paz, Abra					
Type of Work/ Physical Target	Unit Cost	Allocation	Type of Work/ Physical Target	Unit Cost	Estimated Cost			
CW1- Construction of Flood Mitigation Structure / 1230.745l.m.	₱ 117,611.69/ l.m.	₱144,750,000.00	CW1- Construction of Flood Mitigation Structure/ 613.20 l.m.	₱ 232,620.85/ l.m.	₱142,643,103.44			
EAO	-	₱5,250,000.00	EAO	-	₱ 5,173,584.06			
			Excess:			₱2,183,312.25		
Total:		₱150,000,000.00	Total:		₱150,000,000.00			
Justification:								
<ul style="list-style-type: none"><li>The increase in unit cost which resulted to the decrease in the physical target is due to the usage of a reinforced concrete dike type of flood mitigation structure with steel sheet piles consisting of 57.77% of the project direct cost. The usage of steel sheet piles is necessary to prevent scouring and possible failure along the foundation of the proposed mitigation and ensure over-all stability of the project area.</li><li>The huge/massive rock embankment, and concrete pile cap and cut-off wall consisting of 33.28% and 4.34% of the project cost respectively, also contributed to the high unit cost of the project.</li><li>The derived unit cost is based on the approved Detailed Unit Price Analysis (DUPA) and Program of Works (POW) with reference to the evaluation made by the Bureau of Construction as per memorandum dated September 22, 2023.</li><li>See attached Cross-Section Drawing of the Project Submitted by the District Engineer, and the Certificate of Reasonableness of Cost Estimates signed by the Regional Director.</li></ul>								



Based on our evaluation, the submitted request for modification of the said project is in order; hence, approval hereof is recommended.

**REY PETER B. GILLE, D.M.**

Assistant Secretary for Regional Operations  
in CAR, Regions I, II, IX, X, XI, XII, and XIII

**RECOMMENDING APPROVAL:**

**MARIA CATALINA E. CABRAL, Ph.D., CESO I**

Undersecretary for Planning  
and Public-Private Partnership Services

**EUGENIO R. RIPO, JR.**

Undersecretary for Regional Operations  
in CAR, Regions I, II, IX, X, XI, XII, and XIII

**APPROVED / ~~DISAPPROVED~~:**

**MANUEL M. BONOAN**  
Secretary

2.3 mksa/MLS/AVSRPBG/ERP

Department of Public Works and Highways  
Office of the Secretary



WIN3E03210



Republic of the Philippines  
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS  
**OFFICE OF THE SECRETARY**  
Bonifacio Drive, Port Area, Manila



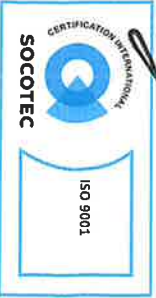
October 5, 2023

**MEMORANDUM**

**FOR :** **MANUEL M. BONOAN**  
Secretary  
This Department

This refers to the memorandum dated 8 September 2023 of **DPWH CAR Regional Director KHADAFY D. TANGGOL**, endorsing the request of District Engineer **JOSELITO T. ARAO** of **Abra District Engineering Office** for the **modification** of the project under FY 2023 GAA, to wit;

As per GAA/Original		Project Description		As Modified	
UACS No.:300219101298000 Project ID:P00740308LZ		Sustainable Infrastructure Project Alleviating Gaps (SIPAG) - Flood Mitigation Structure protecting PublicInfrastructure/Facilities,  Construction of Patagui-Dagsian Flood Control Structure, La Paz, Abra		Sustainable Infrastructure Project Alleviating Gaps (SIPAG) - Flood Mitigation Structure protecting PublicInfrastructure/Facilities,  Construction of Patagui-Dagsian Flood Control Structure, La Paz, Abra	
Type of Work/ Physical Target	Unit Cost	Allocation	Type of Work/ Physical Target	Unit Cost	Estimated Cost
CW1- Construction of Flood Mitigation Structure / 1230.745l.m.	₱ 117,611.69/ l.m.	₱144,750,000.00	CW1- Construction of Flood Mitigation Structure/ 613.20 l.m.	₱ 232,620.85/ l.m.	₱142,643,103.44
EA0	-	₱5,250,000.00	EA0	-	₱ 5,173,584.06
				Excess:	₱2,183,312.25
Total:		₱150,000,000.00	Total:		₱150,000,000.00
Justification:					
<ul style="list-style-type: none"><li>The increase in unit cost which resulted to the decrease in the physical target is due to the usage of a reinforced concrete dike type of flood mitigation structure with steel sheet piles consisting of 57.77% of the project direct cost. The usage of steel sheet piles is necessary to prevent scouring and possible failure along the foundation of the proposed mitigation and ensure over-all stability of the project area.</li><li>The huge/massive rock embankment, and concrete pile cap and cut-off wall consisting of 33.28% and 4.34% of the project cost respectively, also contributed to the high unit cost of the project.</li><li>The derived unit cost is based on the approved Detailed Unit Price Analysis (DUPA) and Program of Works (POW) with reference to the evaluation made by the Bureau of Construction as per memorandum dated September 22, 2023.</li><li>See attached Cross-Section Drawing of the Project Submitted by the District Engineer, and the Certificate of Reasonableness of Cost Estimates signed by the Regional Director.</li></ul>					





Based on our evaluation, the submitted request for modification of the said project is in order; hence, approval hereof is recommended.

  
**REY PETER B. GILLE, D.M.**

Assistant Secretary for Regional Operations  
in CAR, Regions I, II, IX, X, XI, XII, and XIII

**RECOMMENDING APPROVAL:**

  
**MARIA CATALINA E. CABRAL, Ph.D., CESO I**

Undersecretary for Planning  
and Public-Private Partnership Services

  
**EUGENIO R. PIPO, JR.**

Undersecretary for Regional Operations  
in CAR, Regions I, II, IX, X, XI, XII, and XIII

**APPROVED/DISAPPROVED:**

  
**MANUEL M. BONOAN**

Secretary

2.3 mksa/MLS/AVSRPBG/ERP

September 22, 2023

## MEMORANDUM

**FOR : Undersecretary EUGENIO R. PIPO, JR.**  
For Regional Operations in CAR, Region I, II, IX, X, XI, XII and XIII

**SUBJECT : Request for Modification of Twelve (12) Various Projects Prepared by DPWH Abra District Engineering Office with the total amount of P 1,400,000,000.00**

1. P00727254LZ – OO2: Protect Lives and Properties Against Major Floods, Construction/Rehabilitation of Flood Mitigation Facilities within Major River Basins and Principal River, Construction of Bangbangcag Flood Control, Bucay, Abra
2. P00726387LZ – OO2: Protect Lives and Properties Against Major Floods, Construction/Rehabilitation of Flood Mitigation Facilities within Major River Basins and Principal River, Construction of Flood Control Structure along Abra Major River Basin, Barangay San Jose Sur, Manabo, Abra
3. P00726385LZ – OO2: Protect Lives and Properties Against Major Floods, Construction/Rehabilitation of Flood Mitigation Facilities within Major River Basins and Principal River, Construction of Flood Control Structure along Abra Major River Basin, Barangay Palaquio, Bucay, Abra
4. P00740308LZ – Sustainable Infrastructure Project Alleviating Gaps (SIPAG) – Flood Mitigation Structure Protecting Public Infrastructure/Facilities, Construction of Pataguí-Dagsian Flood Control Structure, La Paz, Abra
5. P00726381LZ – OO2: Protect Lives and Properties Against Major Floods, Construction/Rehabilitation of Flood Mitigation Facilities within Major River Basins and Principal River, Construction of Flood Control Structure along Major Abra River Basin (Phase II), Barangay Caupasan, Danglas, Abra
6. P00740312LZ – Sustainable Infrastructure Project Alleviating Gaps (SIPAG) – Flood Mitigation Structure protecting Public Infrastructure/Facilities, Construction of Palaquio Flood Control Structure, Bucay, Abra

7. **P00739551LZ – CONVERGENCE AND SPECIAL SUPPORT PROGRAM, Special Road Fund – Motor Vehicle User's Charge (MVUC) as per R.A. 11239, Installation of Road Safety Devices Along Abra-Ilocos Norte Rd – K0427 + 023 – K0430 + 967**
8. **P00739555LZ - CONVERGENCE AND SPECIAL SUPPORT PROGRAM, Special Road Fund – Motor Vehicle User's Charge (MVUC) as per R.A. 11239, Installation of Road Safety Devices Along Abra-Kalinga Rd – K0441 + 001.8 – K0449 + 943.0**
9. **P00739552LZ - CONVERGENCE AND SPECIAL SUPPORT PROGRAM, Special Road Fund – Motor Vehicle User's Charge (MVUC) as per R.A. 11239, Installation of Road Safety Devices Along Abra-Ilocos Norte Rd – K0431 + 104 – K0432 + 050**
10. **P00739553LZ - CONVERGENCE AND SPECIAL SUPPORT PROGRAM, Special Road Fund – Motor Vehicle User's Charge (MVUC) as per R.A. 11239, Installation of Road Safety Devices Along Abra-Ilocos Norte Rd – K0432 + 058 – K0433 + 460**
11. **P00739554LZ - CONVERGENCE AND SPECIAL SUPPORT PROGRAM, Special Road Fund – Motor Vehicle User's Charge (MVUC) as per R.A. 11239, Installation of Road Safety Devices Along Abra-Kalinga Rd – K0433 + 587 – K0440 + 990**
12. **P00739550LZ - CONVERGENCE AND SPECIAL SUPPORT PROGRAM, Special Road Fund – Motor Vehicle User's Charge (MVUC) as per R.A. 11239, Installation of Road Safety Devices Along Abra-Ilocos Norte Rd – K0416 + 938 – K0426 + 392**

Forwarded herewith are the results of the review/evaluation for the six (6) projects (Project Nos. 1 to 6) out of fifteen (15) projects requested for modification which were referred to this Office per Memorandum dated August 02, 2023 (**Annex "A"**). Please be informed that the aforementioned fifteen (15) projects were returned by this Office for compliance and submission of the lacking documents, through Memorandum dated August 08, 2023 (**Annex "B"**), however, twelve (12) projects of which were resubmitted by that Implementing Office on September 08, 2023 (**Annex "C"**). Likewise, six (6) of the projects (Project Nos. 7 to 12) were withdrawn due to necessary corrections on the Detailed Unit Price Analysis (DUPAs) per Memorandum dated September 20, 2023 (**Annex "D"**) of the District Engineer, Abra District Engineering Office, CAR.

**SCOPE OF WORK OF PROJECT NO. 1:**

The amount of **P100,000,000.00** (inclusive of EAO) for the **313.20 linear meter** Bangbangcag Flood Control Structure as submitted was reduced to **P98,121,072.74** (inclusive of EAO) due to the corrections made on the quantities and unit cost of materials. Likewise, the items of work and corresponding quantities were based on the Approved Program of Works (POWs) and Detailed Engineering Design plans duly approved by the District Engineer, DPWH - Abra DEO.

ITEM NO.	DESCRIPTION	AMOUNT (Total Cost)	PERCENT Weight (%)
Part A	Facilities for the Engineer	P 157,512.60	0.17%
Part B	Other General Requirements	P 1,116,882.37	1.18%
Part F	Bridge Construction	P 3,571,046.34	3.77%
Part G-A	Drainage and Slope Protection Structures	P 41,549,624.59	43.88%
Part I-A	Earthworks	P 489,564.83	0.52%
Part I-B	Bank and Slope Protection	P 47,802,204.46	50.48%
	<b>GRAND TOTAL</b>	<b>P 94,686,835.19</b>	<b>100.00%</b>

Cost per linear meter of Flood Mitigation Structure = P 94,686,835.19 = **P 302,320.67 /lin. m.**  
313.20 lin. m.

The cost per linear meter of **P302,320.67** as modified is due to the design requirements as reflected in the duly approved plans considering all items of work from Parts A to I-B. The estimated cost per linear meter includes the use of a considerable amount of 21,971.88 cubic meter of Hand-laid Rock Embankment and 4,698.00 meters of Steel Sheet Piles, which account to 43.88% and 31.59% respectively, or an aggregate amount of **75.47%** of the total project cost. Hence, it is considered reasonable as the Unit Costs of the pay items of work involved are within the range of the prevailing cost of the Department.

**SCOPE OF WORK OF PROJECT NO. 2:**

The amount of **P150,000,000.00** (inclusive of EAO) for the **494.00 linear meter** Flood Control Structure in Barangay San Jose Sur, Manabo as submitted was reduced to **P147,088,594.16** (inclusive of EAO) due to the corrections made on the quantities and unit cost of materials. Likewise, the items of work and corresponding quantities were based on the Approved Program of Works (POWs) and Detailed Engineering Design plans duly approved by the District Engineer, DPWH - Abra DEO.



ITEM NO.	DESCRIPTION	AMOUNT (Total Cost)	PERCENT Weight (%)
Part A	Facilities for the Engineer	P 167,208.30	0.12%
Part B	Other General Requirements	P 1,486,100.39	1.05%
Part F	Bridge Construction	P 6,942,406.94	4.89%
Part G-A	Drainage and Slope Protection Structures	P 49,150,369.05	34.63%
Part I-A	Earthworks	P 849,199.31	0.60%
Part I-B	Bank and Slope Protection	P 83,345,209.36	58.72%
	<b>GRAND TOTAL</b>	P <b>141,940,493.36</b>	<b>100.00%</b>

Cost per linear meter of Flood = P 141,940,493.36 = **P 287,328.93 /lin. m.**  
Mitigation Structure 494.00 lin. m.

The cost per linear meter of **P287,328.93** as modified is due to the design requirements as reflected in the duly approved plans considering all items of work from Parts A to I-B. The estimated cost per linear meter includes the use of a considerable amount of 49,868.32 cubic meter of Hand-laid Rock Embankment and 7,410.00 meters of Steel Sheet Piles, which account to 34.63% and 33.61% respectively, or an aggregate amount of **68.24%** of the total project cost. Hence, it is considered reasonable as the Unit Costs of the pay items of work involved are within the range of the prevailing cost of the Department.

**SCOPE OF WORK OF PROJECT NO. 3**

The amount equivalent to **P150,000,000.00** (inclusive of EAO) for the **460.00 linear meter** of flood control as submitted were reduced to **P148,023,062.20** (inclusive of EAO) due to the corrections in the price of reinforcing steel for item 404 and gravel for item 405 & 1712(2). Likewise, the items of works and corresponding quantities were based in the submitted Programs of Works (POW) and Detailed Engineering Design plans duly approved by the District Engineer, DPWH Abra DEO.

ITEM NO.	DESCRIPTION	AMOUNT (Total Cost)	PERCENT Weight (%)
Part A	Facilities for the Engineer	P 167,208.30	0.12%
Part B	Other General Requirements	P 1,528,743.47	1.07%
Part I-A	Earthworks	P 1,129,594.88	0.79%
Part I-B	Bank and Slope Protection Works	P 71,183,439.97	49.83%

Part F	Bridge Construction	P	5,252,094.89	3.68%
Part G-A	Bank and Slope Protection	P	63,581,173.51	44.51%
	<b>GRAND TOTAL</b>	P	<b>142,842,255.02</b>	<b>100.00%</b>

Cost per linear meter of Flood =  $\frac{P\ 142,842,255.02}{460.00\ \text{lin. m.}}$  = **P 310,526.64 /lin. m.**  
Mitigation Structure

The estimated cost of **P310,526.64 per** linear meter for the Construction of Flood Control Structure Along Major Abra River Basin, Barangay Palaquio, Bucay, Abra is due to the design requirements as reflected in the approved design plans and DUPA wherein the scope of works involves the provisions of concrete slope protection and steel sheet piles, L = 6.0m at 60.0 kg/m, which accounts to **98.81%** of the total project cost.

**SCOPE OF WORK OF PROJECT NO. 4:**

The amount equivalent to **P150,000,000.00** (inclusive of EAO) for **613.20 linear meter** of protection dike as submitted were reduced to **P147,816,687.50** (inclusive of EAO) due to the corrections in the price of reinforcing steel for item 404 and gravel for item 405 & 1712(2). Likewise, the items of works and corresponding quantities were based in the submitted Programs of Works (POW) and Detailed Engineering Design plans duly approved by the District Engineer, DPWH Abra DEO.

ITEM NO.	DESCRIPTION	AMOUNT (Total Cost)	PERCENT Weight (%)
Part A	Facilities for the Engineer	P 167,208.30	0.12%
Part B	Other General Requirements	P 1,474,913.04	1.03%
Part I-A	Earthworks	P 1,137,137.21	0.80%
Part I-B	Bank and Slope Protection Works	P 84,257,346.84	59.07%
Part F	Bridge Construction	P 6,413,898.05	4.50%
Part G-A	Bank and Slope Protection	P 49,192,599.99	34.49%
	<b>GRAND TOTAL</b>	P <b>142,643,103.44</b>	<b>100.00%</b>

Cost per linear meter of Flood =  $\frac{P\ 142,643,103.44}{613.20\ \text{lin. m.}}$  = **P 232,620.85 /lin. m.**  
Mitigation Structure

The estimated cost of **P232,620.85** per linear meter for the Construction of Pataguí-Dagsian Flood Control Structure, La Paz, Abra is due to the design requirements as reflected in the approved design plans and DUPA wherein the scope of works involves the provisions of concrete slope protection and steel sheet piles, L = 6.0m at 60.0 kg/m, which accounts to **98.85%** of the total project cost.

SCOPE OF WORK OF PROJECT NO. 5:

The amount equivalent to **P150,000,000.00** (inclusive of EAO) for **939.20 linear meter** of floodway as submitted were reduced to **P147,338,088.15** (inclusive of EAO) due to the corrections in the price of reinforcing steel for item 404 and gravel for item 405 & 1712(2). Likewise, the items of works and corresponding quantities were based in the submitted Programs of Works (POW) and Detailed Engineering Design plans duly approved by the District Engineer, DPWH Abra DEO.

ITEM NO.	DESCRIPTION	AMOUNT (Total Cost)	PERCENT Weight (%)
Part A	Facilities for the Engineer	P 167,208.30	0.12%
Part B	Other General Requirements	P 662,626.72	0.47%
Part I-A	Earthworks	P 2,504,288.08	1.76%
Part I-B	Bank and Slope Protection Works	P 115,541,235.31	81.26%
Part F	Bridge Construction	P 8,438,891.71	5.94%
Part G-A	Bank and Slope Protection	P 14,867,004.95	10.46%
	<b>GRAND TOTAL</b>	<b>P 142,181,255.07</b>	<b>100.00%</b>

Cost per linear meter of Flood = P 142,181,255.07 = **P 151,385.49 /lin. m.**  
Mitigation Structure 939.20 lin. m.

The estimated cost of **P151,385.49** per linear meter for the Construction of Flood Control Structure Along Major Abra River basin (Phase II), Barangay Caupasan, Danglas, Abra is due to the design requirements as reflected in the approved design plans and DUPA wherein the scope of works involves the provisions of concrete slope protection and steel sheet piles, L = 6.0m at 60.0 kg/m, which accounts to **99.42%** of the total project cost.

SCOPE OF WORK FOR PROJECT NO. 6:

The amount of **P100,000,000.00** (inclusive of EAO) for the **295.20 linear meters** Palaquio Flood Control Structure, as submitted, was reduced to **P98,525,851.98** (inclusive of EAO) due to corrections made on the pay item quantities, quantity of materials components, and materials unit prices. Likewise, the items of work and corresponding quantities were based on the proposed Program of Works (POW) and Detailed Engineering Design Plan duly approved by the District Engineer, DPWH Abra District Engineering Office.

ITEM NO.	DESCRIPTION	AMOUNT (Total Cost)	PERCENT Weight (%)
Part A	Facilities for the Engineer	P 157,512.60	0.17%
Part B	Other General Requirements	P 1,008,118.59	1.06%

Part F	Bridge Construction	P	4,352,846.72	4.58%
Part G-A	Drainage and Slope Protection Structures	P	43,559,247.87	45.81%
Part I-A	Earthworks	P	458,286.00	0.48%
Part I-B	Bank and Slope Protection	P	45,541,319.44	47.90%
	<b>GRAND TOTAL</b>	P	<b>95,077,331.23</b>	<b>100.00%</b>

Cost per linear meter of Flood Mitigation Structure =  $\frac{P\ 95,077,331.23}{295.20 \text{ lin. m.}}$  = **P 322,077.68 /lin. m.**

The estimated cost of **P322,077.68** per linear meter is due to the design requirements as reflected in the approved design considering all items of work from Part A to I-B. The said unit cost per linear meter includes the provision of three (3) major scope of works of the project construction such as large volume of hand laid rock embankment (23,034.59 cubic meters), concrete slope protection (1,845 cubic meters) and provision of steel sheet piles (4,428 linear meters) which accounts to 45.81%, 18.02%, and 29.88% respectively or an aggregate total of **93.71%** of the total project cost. Hence, it is considered reasonable as the Unit Costs of the items of work involved are within the range of the prevailing cost of the Department.

Please be informed that the resulting cost for Project Nos. 1 to 6 were based on the submitted canvassed prices from three (3) suppliers of Steel Sheet Piles (Type II) and Reinforcing Steel Bar Grade 40, as provided and certified by the District Engineer, Abra District Engineering Office – CAR. (**Annex "E"**).

For the Undersecretary's information.

**ALBAN S. BORROMEO, CESO III**  
Director, Bureau of Construction

cc: Undersecretary ADOR G. CANLAS, for Technical Services and Information Management Service (TMS)  
Regional Director KHADAFY D. TANGGOL, DPWH Cordillera Administrative Region (CAR)  
District Engineer JOSELITO T. ARAO, DPWH-Abra District Engineering Office

OIC – Asst. Dir. MIP  
JTS  
CBC  
ATA  
RTO  
PPL  
MVG  
JML

6.1.1 MVG/JML/PPL/RTO/ATA/CBC/JTS/MIP  
09222023\_Modification Abra 12 Proj (Evaluated)  
BOC Ref. No.: 6.1-188-9299  
PCD Ref. No.: 6.1.1-348-02



Republic of the Philippines  
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS  
CENTRAL OFFICE  
Manila



BAHAG ANG PULUPUNAS

DPWH CDO OFFICE  
X-103  
2023-08-08  
2023-08-08  
bmo

August 8, 2023

MEMORANDUM

TO : District Engineer JOSELITO T. ARAO  
DPWH Abra District Engineering Office  
Bangued, Abra

SUBJECT : Request for Modification of Fifteen (15) Various Projects  
Prepared by DPWH Abra District Engineering Office with the  
total amount of P1,700,000,000.00

Returned herewith are the fifteen (15) project modification requests which were referred to this Office for review/evaluation by Undersecretary Eugenio R. Pipo, Jr. through a memorandum dated August 2, 2023 (Annex "A"), to wit:

PROJECT TITLE		AMOUNT
1.	P007272541Z - Construction of Flood Control Structure along Abra Major River Basin, Paga, Malabaga, La Paz, Abra	P 100,000,000.00
2.	P007272531Z - Construction/Rehabilitation of Flood Mitigation Facilities within Major River Basins and Principal River, Construction of Bangbangcag Flood Control	P 100,000,000.00
3.	P007263871Z - Construction/Rehabilitation of Flood Mitigation Facilities within Major River Basins and Principal River, Construction of Flood Control Structure along Abra Major River Basin	P 150,000,000.00
4.	P007263851Z - Construction of Flood Control Structure along Abra Major River Basin, Barangay Palaquiao, Bucay Abra	P 150,000,000.00
5.	P007403081Z - Sustainable Infrastructure Project Alleviating Gaps (SIPAG) - Flood Mitigation Structure protecting Public Infrastructure/Facilities, Construction of Patagui-Dagslan Flood Control Structure, La Paz, Abra	P 150,000,000.00
6.	P007263811Z - OOI: Protect Lives and Properties Against Major Floods, Construction/Rehabilitation of Flood Mitigation Facilities within Major River Basins and Principal River, Construction of Flood Control Structure along Abra Major River Basin (Phase II), Barangay Caupasan, Danglas, Abra	P 150,000,000.00

per 16013



7.	<b>P00740312LZ</b> - Sustainable Infrastructure Project Alleviating Gaps (SIPAG) – Flood Mitigation Structure protecting Public Infrastructure/facilities, Construction of Palaquio Flood Control Structure, Bucay, Abra	P	100,000,000.00
8.	<b>P00726858LZ</b> – OO2: Protect Lives and Properties Against Major Floods, Construction/Rehabilitation of Flood Mitigation Facilities within Major River Basins and Principal River, Construction of Bul Flood Control, La Paz, Abra	P	100,000,000.00
9.	<b>P00726861LZ</b> – OO2: Protect Lives and Properties Against Major Floods, Construction/Rehabilitation of Flood Mitigation Facilities within Major River Basins and Principal River, Construction of Malabaga Flood Control, La Paz, Abra	P	100,000,000.00
10.	<b>P00739551LZ</b> – CONVERGENCE AND SPECIAL ,SUPPORT PROGRAM, Special Road Fund – Motor Vehicle User's Charge (MVUC) as per R.A. 11239, Installation of Road Safety Devices Along Abra-Ilocos Norte Rd – K0427 + 000 – K0431 + 100	P	100,000,000.00
11.	<b>P00739555LZ</b> - CONVERGENCE AND SPECIAL ,SUPPORT PROGRAM, Special Road Fund – Motor Vehicle User's Charge (MVUC) as per R.A. 11239, Installation of Road Safety Devices Along Abra-Ilocos Norte Rd – K0432 + 600 – K0450 + 000	P	100,000,000.00
12.	<b>P00739552LZ</b> - CONVERGENCE AND SPECIAL ,SUPPORT PROGRAM, Special Road Fund – Motor Vehicle User's Charge (MVUC) as per R.A. 11239, Installation of Road Safety Devices Along Abra-Ilocos Norte Rd – K0431 + 100 – K0432 + 000	P	100,000,000.00
13.	<b>P00739553LZ</b> - CONVERGENCE AND SPECIAL ,SUPPORT PROGRAM, Special Road Fund – Motor Vehicle User's Charge (MVUC) as per R.A. 11239, Installation of Road Safety Devices Along Abra-Ilocos Norte Rd – K0432 + 000 – K0433 + 650	P	100,000,000.00
14.	<b>P00739554LZ</b> - CONVERGENCE AND SPECIAL ,SUPPORT PROGRAM, Special Road Fund – Motor Vehicle User's Charge (MVUC) as per R.A. 11239, Installation of Road Safety Devices Along Abra-Kalinga Rd – K0425 + 500 – K0432 + 600	P	100,000,000.00
15.	<b>P00739550LZ</b> - CONVERGENCE AND SPECIAL ,SUPPORT PROGRAM, Special Road Fund – Motor Vehicle User's Charge (MVUC) as per R.A. 11239, Installation of Road Safety Devices Along Abra-Ilocos Norte Rd – K0416 + 400 – K0426 + 500	P	100,000,000.00
<b>GRAND TOTAL AMOUNT</b>			<b>P 1,700,000,000.00</b>

In order to facilitate the review/evaluation of the said request, please comply with the noted comments and submit the following lacking documents, to wit:

1. The station limits in the section details sheets for Dike A and B were inconsistent with the station limits indicated in the cross section sheets for project no. 7;
2. The quantities for cut and fill in the cross section sheets does not coincide with the values used in the computation of quantities sheet for project no. 7;
3. The programmed quantities of Steel Sheet Pile in project no. 7 were found inconsistent with the station limits indicated in the approved plans, please rectify;
4. Incorporate in Pay Item No. 1712 (2), Concrete Slope Protection, the necessary reinforcing steel bars, weep holes (PVC), filter cloth, and granular filter instead of a separate Pay Item No. 517 (1)b, Drain Pipe for project nos. 1 to 9;
5. Rectify the quantity computation of reinforcing steel bars and steel sheet piles, i.e., ensure that the correct unit weights as indicated in the approved plan were used in the calculations for project nos. 1 to 9;
6. The quantity in pay items A.1.1 (6), A.1.1 (15) and A.1.2 (6) in Itemized Breakdown of Program of Works (POW), were found inconsistent with the Summary of Quantities reflected in the Detailed Engineering Design Plans for project nos. 10 to 12;
7. The pay item for Solar LED Streetlight must be in accordance with the Department Order (D.O.) No. 26, Series of 2023, *Revised DPWH Standard Specification for Item 624 – Roadway Lighting*. The concrete footing and reinforcing steel bars will be measured and paid for as provided under item 405 and 404 respectively, as stipulated in the aforementioned D.O. for project nos. 10 & 15;
8. The provided canvassed prices/quotations for the materials were inconsistent with the utilized prices used in the program in pay items for Solar LED Streetlights for project no. 10 & 15 and Double Roller Safety Barrier System for project nos. 10 to 15;
9. Provide calculation/derivation for the unit quantity of materials in pay item for Double Roller Safety Barrier System for project nos. 10 to 15;
10. Three (3) canvassed prices from various suppliers as supporting documents for the unit cost used for reinforcing steel bars, steel sheet piles, cement, boulders, aggregates, etc., and are to be supported with Certification signed by the head of the Implementing Office;
11. Provide computations for utilized dry operated rental rates as per D.O. 63, Series of 2022 with supporting canvasses/price reference for fuel and lubricant;
12. Include the calculation/derivation and necessary justifications for construction duration adopted in all projects in accordance with the existing D.O.;

13. Duly signed updated Hauling Cost Analysis reflecting the material sources, terrain and road condition and station limits to determine the reasonableness of the unit cost of materials for each pay item involved, if there's any; and

14. Provide electronic file copy (compact disc) of the Approved Budget for the Contract following the standard format per D.O. 163, Series of 2015, also known as the *Standard Forms of Program of Works (POW)*, *Approved Budget for the Contract (DUPA)*, and *Detailed Unit Price Analysis (DUPA)*.

For the District Engineer's information and appropriate action.

**ALLAN S. BORROMEO**  
Director, Bureau of Construction

cc : Underscretary ADOR G. CANLAS, for Information Management and Technical Services  
Underscretary EUGENIO R. PIPO, JR., for Regional Operations in CAR, Region I, II, IX, X, XI, XII and XIII  
Regional Director KHADAFY D. TANGGOL, DPWH Cordillera Administrative Region (CAR)

6.1.1 JML/MVG/ECS/PPL/ATA/CBC/JTS/MIP  
08082023\_Modification Abra 15 Proj (Returned)  
BOC Ref. No.: 6.1-188-9299  
PCD Ref. No.: 6.1.1-348-02



Republic of the Philippines  
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS  
**CORDILLERA ADMINISTRATIVE REGION**  
Engineer's Hill, Baguio City



September 8, 2023

**MEMORANDUM**

**FOR : MANUEL M. BONOAN**  
Secretary

**THRU : EUGENIO R. PIPO, JR.**  
Undersecretary for Regional Operations in  
CAR, Regions I, II, IX, X, XI, XII and XIII

**SUBJECT : Request for the Modification of the Project: CONVERGENCE AND SPECIAL SUPPORT PROGRAM - Sustainable Infrastructure Projects Alleviating Gaps (SIPAG) - SIPAG - Flood Mitigation Structures protecting Public Infrastructures/Facilities - Construction of Patagui-Dagsian Flood Control Structure, La Paz, Abra**

We are respectfully forwarding the Memorandum dated September 7, 2023 from District Engineer JOSELITO T. ARAO, Abra District Engineering Office, of the above project in the amount of **One Hundred Fifty Million Pesos (Php 147,816,687.50)** as indicated below:

	As per GAA/Original	As Modified
Project ID	P007403081Z	
UACS	300219101298000	
Physical Target	1,230.745 Lineal meters	613.400 Lineal meters

The supporting documents based on D.O. No. 23, series of 2023 are attached for your ready reference.

For the consideration of the Secretary.

  
**KHADAFEY D. TANGGOL**  
Regional Director

CAR.1 TPIL/EFD/JWC/ABM



Republic of the Philippines  
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS  
**DISTRICT ENGINEERING OFFICE**  
**ABRA**  
CORDILLERA ADMINISTRATIVE REGION  
Bangued, Abra



September 7, 2023

**MEMORANDUM**

**FOR : KHADAFY D. TANGGOL**  
Regional Director

**THRU : ANGELITA B. MABITAZAN**  
Chief, Planning and Design Division

**SUBJECT : Request for the Modification of the Project: CONVERGENCE AND SPECIAL SUPPORT PROGRAM - Sustainable Infrastructure Projects Alleviating Gaps (SIPAG) - Flood Mitigation Structures protecting Public Infrastructures/Facilities, Construction of Patagu-i-Dagsian Flood Control Structure, La Paz, Abra**

We are respectfully submitting for review and evaluation the above-mentioned subject for Modification, amounting to **One Hundred Fifty Million Pesos (Php 147,816,687.50)** as indicated below:

<b>FROM</b>	<b>TO</b>
Project Title: Construction of Patagu-i-Dagsian Flood Control Structure, La Paz, Abra	Project Title: Construction of Patagu-i-Dagsian Flood Control Structure, La Paz, Abra
Physical Target: CW1 – <b>1230.745</b> Lineal meters	Physical Target: CW1 – <b>613.40</b> Lineal meters

The supporting documents based on D.O. No. 23, series of 2023 are attached for your ready reference.

**JOSELITO T. ARAO**  
District Engineer

CAR.8.1 MJD/CLAR/JTA



# CHECKLIST

## PROJECT MODIFICATION

Implementing Office : Abra District Engineering Office  
Project Name/Location : CONVERGENCE AND SPECIAL SUPPORT PROGRAM - Sustainable Infrastructure Projects Alleviating Gaps (SIPAG) - Flood Mitigation Structures protecting Public Infrastructures/Facilities , Construction of Patagui-Dogisan Flood Control Structure, La Paz, Abra

Project ID : P007403081Z UACS Code : 300219101298000  
Project Allocation : Php 150,000,000.00

- ☒ 1. Modification Request Form  
☒ 2. AIP  
☒ 3. Certificate of Availability of Funds  
☒ 4. Supporting Data & Analysis

- ☒ a. Road Condition (RBA Latest Official Database )  
☒ b. Traffic Volume Capacity Ratio (for Widening Projects )  
☒ c. Bridge Condition (BMS Latest Official Database )  
☐ d. Hydraulic & Hydrologic Analysis (for New/Replacement Bridges and Flood Control Projects )  
☒ e. RSM Forms (for Road Slips )  
☒ f. Project Impact Analysis (for Flood Control Projects )  
☒ g. Master Plan (for Flood Control Projects )

☒ 5. BP 202

### 6. Geotagged Photos

- ☒ a. Hard Copy  
☒ b. Electronic Copy  
☒ c. Plotted in the GIS Map

### 7. Certificate of No Overlapping

- ☒ a. District Engineer  
☒ b. Construction and Maintenance Division Chiefs

### 8. ROW Clearance

- ☒ a. District Engineer  
☒ b. LGU

### 9. Environmental Clearances

- ☒ a. Not Within a "No Build Zone" (MGB)  
☒ b. Tree Cutting Permit (if Applicable-EMB)  
☒ c. CNC/ECC/EIA (EMB)

☒ 10. Social Clearance (not within a Declared Heritage/Cultural Site-NCCA)

☒ 11. Certificate of Reasonableness (for Projects with Changes in Unit Cost)

### 12. Project Details

- ☒ a. POW  
☒ b. DUPA  
c. Plans

- ☒ 1. Coverage  
☒ 2. Summary of Quantities  
☒ 3. Cross Section Showing Changes (if Applicable )

- ☒ d. Materials Source Map

☒ 13. Certificate of Local Government Unit

Checked by:

  
ERLANO A. F. DOLIENITE  
Engineer III  
Chief, Planning Section

## Modification Request Form

### A. GENERAL

1. REGION	2. DEO	3. LEGISLATIVE DISTRICT
Cordillera Administrative Region	Abra District Engineering Office	Abra Lone District
B. ORIGINAL PROJECT		C. PROPOSED REVISED PROJECT

4. UACS (Unified Account Code Structure as defined in GAA)  
300219101298000

5. Project Id  
P00740308LZ

6. Project Category  
Convergence and Special Support Program

7. Sub-Program (P/A/P)  
Sustainable Infrastructure Projects Alleviating Gaps (SIPAG) - Flood Mitigation Structures protecting Public Infrastructures/Facilities

8. Operating Unit  
Central Office

9. Type of Work (Enter Details for all Components below)

Component ID	Type of Work	19. Type of Work (Enter Details for all Components below)
CW1	Construction of Flood Mitigation Structure	CW1 Construction of Flood Mitigation Structure
EA0	Choose an item.	EA0 Choose an item.
Click here to enter text.	Choose an item.	Click here to enter text. Choose an item.
Click here to enter text.	Choose an item.	Click here to enter text. Choose an item.

10. PROJECT DESCRIPTION (as recorded in GAA)  
Construction of Patagui-Dagsian Flood Control Structure, La Paz, Abra

11. ALLOTMENT (P'000) (as recorded in GAA)  
150000

21. REVISED ESTIMATED COST (P'000) (Equal to, or lower than GAA allotment)  
150000

22. CAF (To be obtained from Financial Management office)  
☐ YES

12. PHYSICAL TARGET (Enter Details for all Components below)

Component ID	Target	Target Unit	Component ID	Target	Target Unit
CW1	1230.745	Lineal Meters (lm)	CW1	613.20	Lineal Meters (lm)
EA0	Click here to enter text.	Choose an item.	EA0	Click here to enter text.	Choose an item.
Click here to enter text.	Click here to enter text.	Choose an item.	Click here to enter text.	Click here to enter text.	Choose an item.

13. UNIT COST (Enter Details for all Components below)

Component ID	Component Cost (P'000)	Target Unit Cost (P'000/Target Unit)
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CW1	144750	117.61169
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EA0	5250	
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Click here to enter text.	Click here to enter text.	Click here to enter text.
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## Modification Request Form

Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.
Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.

**14. PROJECT WORK LOCATION** (Must be defined in strict accordance with DO 65 Series 2014)  
Click here to enter text.

**25. PROJECT WORK LOCATION** (Must be defined in strict accordance with DO 65 Series 2014. Also complete "ANNEX A" for National Road projects under 00-1)  
Click here to enter text.

<b>Start X</b>	120.677	<b>End X</b>	120.671	<b>Start X</b>	120.677	<b>End X</b>	120.671
<b>Start Y</b>	17.6618	<b>End Y</b>	17.6605	<b>Start Y</b>	17.6618	<b>End Y</b>	17.6605

**15. ROAD CLASSIFICATION** (if applicable)  
Choose an item.

**26. ROAD CLASSIFICATION** (if applicable)  
Choose an item.

**16. IMPLEMENTING OFFICE** (Record the Implementing Office of the original project)  
Abra District Engineering Office

**27. IMPLEMENTING OFFICE** (Record the Implementing Office of the proposed revised project)  
Abra District Engineering Office

<b>17. PROJECT IMPLEMENTATION PLAN (PIP)</b>		<b>28. PROJECT IMPLEMENTATION PLAN (PIP)</b>	
<b>Planned Start Date</b>	<b>Planned End Date</b>	<b>Planned Start Date</b>	<b>Planned End Date</b>
October 2, 2023	July 23, 2024	October 2, 2023	July 23, 2024

<b>29. OVERLAP?</b>	<b>30. UNDER WARRANTY?</b>
<input checked="" type="checkbox"/> NO <input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO <input type="checkbox"/> YES

### D. ATTACHMENTS & JUSTIFICATIONS

**31. PROJECT IMPACT ANALYSIS ATTACHED?** (For Flood Control Projects)  
☒ NO ☐ YES ☐ N/A

**32. TECHNICAL JUSTIFICATION** (Explain in detail in Bullet point format; minimum of 2 points)

- The increase in unit cost which resulted to the decrease in the physical target is due to the usage of a reinforced concrete dike type of flood mitigation structure with steel sheet piles consisting of 57.77% of the project direct cost. The steel sheet piles are necessary to prevent scouring and possible failure along the foundation of the proposed mitigation and ensure over-all stability of the project area.
- Also, the huge/massive rock embankment consisting of 33.28% of the project cost contributed to the high unit cost of the project.
- The derived unit cost is based on the approved Detailed Unit Price Analysis (DUPA) and Program of Works (POW) with reference to the evaluation made by the Bureau of Construction as per memorandum dated September 22, 2023.
- See attached Cross-Section Drawing of the Project Submitted by the District Engineer, and the Certificate of Reasonableness of Cost Estimates signed by the Regional Director.

**33. PHOTOS SUBMITTED**  
☐ NO ☒ YES

**34. A MAP OF THE PROPOSED PROJECT WORK LOCATION SUBMITTED**  
☐ NO ☒ YES

Modification Request Form

35. PREPARED BY:			
Name: MELGIE S. D. JAVIER		Position: ENGINEER II	
Office: Abra District Engineering Office		Date: Click here to enter a date.	
36. REVIEWED BY DISTRICT OFFICE (if Required)		38. REVIEWED BY REGIONAL OFFICE	
Name: CHONA LUISA A. RAMOS		Name: ANGELITA MABITAZAN	
Position: Chief, Planning and Design Section		Position: Chief, Planning and Design Division	
Date:		Date:	
37. RECOMMENDED BY DISTRICT OFFICE (if Required)		39. RECOMMENDED BY REGIONAL OFFICE	
Name: JOSELYN A. RAO		Name: KIMBERLY D. TANGCOL	
Position: District Engineer		Position: Regional Director	
Date:		Date:	