

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



June 28, 2024

### MEMORANDUM

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KHADAFFY D. TANGGOL Regional Director

DPWH-Cordillera Administrative Region (CAR) Engineer's Hill, Baguio City

Transmitted herewith is the **<u>APPROVED</u>** request for the **modification** of hereunder stated project:

OO2: Protect Lives and Properties Against Major Floods-- Flood Management
- Construction/ Rehabilitation of Flood Mitigation Facilities within Major River
Basins and Principal Rivers - Construction of Bultot, Balawag Flood Control
along Chico River Balawag, Tabuk City, Kalinga - - - - - P100,000,000.00.

Please be reminded that all approved modifications **shall be posted in the DPWH website within five (5) days** from its approval. Failure to comply with this requirement shall be dealt with accordingly.

**REY PETER B. GILLE. D.M.** Assistant Secretary for Regional Operations in CAR, Regions I, II, IX, X, XI, XII and XIII

2.3 aap/AVS/RPBG/ERP





Undersecretary for Planning and PPP Services



Republic of the Philippines DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS

**OFFICE OF THE SECRETARY** 

Manila



May 23, 2024

#### MEMORANDUM

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

This refers to the memorandum dated 02 May 2024 of **DPWH CAR Regional Director KHADAFFY D. TANGGOL**, requesting for the **modification** of the project under FY 2024 GAA, to wit;

As per GAA/Original				As Modified	
		Project D	escription		
UACS No.: 3201 Project ID: P00					
<ul> <li>OO2: Protect Lives and Properties Against Major Floods <ul> <li>Flood Management - Construction/ Rehabilitation of</li> <li>Flood Mitigation Facilities within Major River Basins and</li> <li>Principal Rivers</li> </ul> </li> <li>Construction of Bultot, Balawag Flood Control along</li> <li>Chico River Balawag, Tabuk City, Kalinga,</li> </ul>		OO2: Protect Lives and Properties Against Major Floods – Flood Management - Construction/ Rehabilitation of Flood Mitigation Facilities within Major River Basins and Principal Rivers – Construction of Bultot, Balawag Flood Control along Chico River Balawag, Tabuk City, Kalinga			
Type of Work/ Physical Target	Unit Cost	Allocation	Type of Work/ Physical Target	Unit Cost	Estimated Cost
CW1- Construction of	₱ 120,324.19/		CW1- Construction of Flood Mitigation		
Flood Mitigation Structure / 802 Lineal Meters	Lineal Meters	₱ 96,500,000.00	Structure / <b>386</b> Lineal Meters	₱ 250,000.00 / Lineal Meters	₱ 96,500,000.00
Structure / 802 Lineal		₽ 96,500,000.00	Structure / - 386 Lineal		₱ 96,500,000.00

#### Justification:

Decrease in the Target for CW1 - Construction of Flood Mitigation Structure due to the following:

- The decrease in the target/ increase in unit cost is due to the inclusion of 7-meter long steel sheet piles as scour protection along the base of the proposed revetment. The provision of sheet piles was deemed necessary to provide the needed protection along structure's foundation and prevent the immediate scouring and collapse of the proposed revetment wall.
- Further, although the integration of Geotextile Tubes in the flood control structure increases the unit cost, it will greatly enhance the over-all stability of the entire revetment structure and will deter possible structure failure due to embankment issues.
- The derived unit cost is based on the approved Program of Work (POW) with Detailed Unit Price Analysis (DUPA).
- The unit cost has been evaluated and reviewed by the Bureau of Construction (BOC). See attached evaluation dated May 22, 2024.

Attached are the following supporting documents: Approved Program of Works (POW) with Detailed Unit Price Analysis (DUPA), Detailed Engineering Design (DED), Certificate of Availability of Funds (CAF), BP 202, Geotagged photos, Hydraulic and Hydrologic Analysis, PIA, Master Plan, Certificate of No Overlapping and GIS Map.

A6-00-202405-01925

UACS No.: 320102106091000 Project ID: P00824842LZ Regional Office CAR Page 2 of 2

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 in CAR, Regio

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

APPROVED/DISAPPROVED:

MANUEL M. BONOAN Secretary

2.3 aap/AVS/RPBG/ERP

Department of Public Works and Highways Office of the Secretary







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



May 22, 2024

## MEMORANDUM

- **FOR** : Undersecretary EUGENIO R. PIPO, JR. For Regional Operations in CAR, Regions I, II, IX, X, XI, XII and XIII
- SUBJECT : Request for Approval of Modification of Project under FY 2024 GAA: OO2: Protect Lives and Properties Against Major Floods – Flood Management – Construction/Rehabilitation of Flood Mitigation Facilities within Major River Basins and Principal Rivers P008248242LZ: Construction of Bultot, Balawag Flood Control along Chico River Balawag, Tabuk City, Kalinga

Forwarded herewith is the result of the evaluation for the above-mentioned request.

The total amount of **P 100,000,000.00** (inclusive of EAO) for the <u>386.00</u> lineal meter of Flood Mitigation Structure at Bultot, Balawag Flood Control along Chico River, Balawag, Tabuk City, Kalinga, may be considered reasonable as evaluated based on the items of work involved and its corresponding quantities as reflected in the approved Program of Works (POW), Detailed Engineering Plans, and other pertinent documents, duly approved by the Regional Director, DPWH-Cordillera Administrative Region (CAR).

ITEM NO.	DESCRIPTION	AMOUNT (Total Cost)		PERCENT WEIGHT (%)
Part A	Facilities for the Engineer	Ρ	216,235.47	0.22%
Part B	Other General Requirements	Ρ	1,041,236.49	1.08%
Part H	Miscellaneous Structures	Ρ	15,876.00	0.02%
Part D	Reinforced Concrete	Ρ	12,460,681.53	12.91%
Part L-A	Earthwork	Ρ	5,385,489.31	5.58%
Part L-B	Bank and Slope Protection Works	Ρ	29,137,257.22	30.19%
Part L-C	Drainage Works	Ρ	48,243,223.97	49.99%
	GRAND TOTAL	Ρ	96,500,000.00	100.00%

## SCOPE OF WORK

Pao 410/1

Request for Approval of Modification of Project under FY 2024 GAA OO2: Protect Lives and Properties Against Major Floods – Flood Management – Construction/ Rehabilitation of Flood Mitigation Facilities within Major River Basins and Principal Rivers Construction of Bultot, Balawag Flood Control along Chico River Balawag, Tabuk City, Kalinga Page 2 of 2

Cost per lineal meter of Flood =  $\underline{P 95,226,652.04}$  = **P 246,701.17 / lin. m.** Mitigation Structure 386.00 lin. m. (Excludes Parts A, B, & H)

The cost per lineal meter of **P 246,701.17** as modified is primarily attributed to the 386.00meter reinforced concrete revetment wall, 20,361.40 cubic meter embankment from excavation works, 3,521.00 meters of steel sheet piles (Hot-rolled Z-Type), and 700.00 linear meters of hydraulic geotextile tubes with geotextile woven fabric with filled height of two meters, which accounts to **98.68%** of the total project cost. Further, the unit costs for the Hot-rolled Z-Type piles and Geotextile tubes were based on the quotations provided by the implementing office. Since these are the major items of work for the flood mitigation structure project, it is considered reasonable as the unit costs of the items involved are within the prevailing cost range of the Department.

ALLAN S. BORROMEO, CESO III Director, Bureau of Construction

Indersecretary ADOR G. CANLAS, for Technical Services and Information Management Service Regional Director KHADAFFY D. TANGGOL, DPWH-CAR

6.1.1. PPL|CBC|JTS|MIP 05222024\_Modification of CAR Ref. 6.1-451-6179/6.1.1-322-02





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

Manila



May 07, 2024

## MEMORANDUM

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#### ALLAN S. BORROMEO Director, Bureau of Constru

Director, Bureau of Construction This Department



Referred herewith for evaluation, comments, and/or recommendation is the Memorandum dated March 02, 2024 of **DPWH-Cordillera Administrative Region (CAR) Director KHADAFFY D. TANGGOL** requesting for the project modification of the hereunder project covered by FY2024 Annual Infrastructure Program Based on General Appropriation Act (GAA), to wit;

A	s per GAA/Orig	inal		As Modified	
		Project D	escription		
UACS No.: 3201 Project ID: P008					
OO2: Protect Lives and Properties Against Major Floods – Flood Management - Construction/ Rehabilitation of Flood Mitigation Facilities within Major River Basins and Principal Rivers Construction of Bultot, Balawag Flood Control along Chico River Balawag, Tabuk City, Kalinga		OO2: Protect Lives and Properties Against Major Floods – Flood Management - Construction/ Rehabilitation of Flood Mitigation Facilities within Major River Basins and Principal Rivers Construction of Bultot, Balawag Flood Control along Chico River Balawag, Tabuk City, Kalinga			
Type of Work/ Physical Target	Unit Cost	Allocation	Type of Work/ Physical Target	Unit Cost	Estimated Cost
CW1- Construction of Flood Mitigation Structure / 802 Lineal Meters	₱ 120,324.19/ Lineal Meters	₱ 96,500,000.00	CW1- Construction of Flood Mitigation Structure / <b>374</b> Lineal Meters	₱ 258,021.39 / Lineal Meters	₱ 96,500,000.00
EAO	-	₱ 3,500,000.00	EAO	_	₱ 3,500,000.00
	Total:	₽100,000,000.00		Total:	₽100,000,000.00

Attached for reference are the pertinent documents to support the request.

EUGENIO R. PIPO Undersecretary for Regional Operations

in CAR, Regions I, II, IX, X, XI, XII and XIII

2.3 aap/AVS/RPBG/ERP

A6 ·(O-202405 - 1456 ⊕ Website: https://www.dpwh.gov.ph ⊗ Tel. No(s).: 5304-3000 / (02) 165-02





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



May 02, 2024

## MEMORANDUM

- FOR : MANUEL M. BONOAN Secretary
- THRU : EUGENIO R. PIPO, JR. Undersecretary for Regional Operations CAR, Regions I, II, IX, X, XI, XII and XIII
- SUBJECT : Request for Modification of the Project: OO2: Protect Lives and Properties Against Major Floods - Flood Management Program -Construction/ Rehabilitation of Flood Mitigation Facilities within Major River Basins and Principal Rivers - Construction of Bultot, Balawag Flood Control along Chico River Balawag, Tabuk City, Kalinga

We are respectfully submitting the modification of the above project in the amount of **One Hundred Million Pesos (Php 100,000,000.00)** as indicated below:

	FROM	то
Project ID	P00824842LZ	
Project Title	Construction of Bultot, Balawag Flood Control along Chico River Balawag, Tabuk City, Kalinga	Construction of Bultot, Balawag Flood Control along Chico River Balawag, Tabuk City, Kalinga
Physical Target	802 Lineal meters	386 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.

KHADAFFY D. TANGGOL Regional Director

CAR.1 MGB/EFD/JWC/ABM



# **Modification Request Form**

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		A. (	GENERAL			
1. REGION Cordillera Adminis	trative Region	<b>2. DEO</b> Lower Kalinga Dist	rict Engineering Offic		SA LONE DISTRICT	
В	. ORIGINAL PROJE	СТ	C. PR	OPOSED REVIS	ED PROJECT	
4. UACS (Unified According 1000) 320102106091000	ount Code Structure as de	efined in GAA)		**************************************		
<b>5. Project Id</b> P00824842LZ						
6. Project Category	/					
OO2: Protect Lives	and Properties Agai	nst Major Floods				
7. Sub-Program (P	/A/P)					
Construction/ Reha	abilitation of Flood N	Aitigation Facilities w	ithin Major River Basi	ins and Principal	Rivers	
8. Operating Unit			18. Operating Unit	Change subject to D	BM approval)	
Central Office			Central Office			
9. Type of Work (E	nter Details for all Compo	onents below)	<b>19. Type of Work</b> (Enter Details for all Components below)			
Component ID	Type of Work		Component ID	Type of Wor	k	
CW1	Construction of Structure	Flood Mitigation	CW1	Constructior Structure	of Flood Mitigation	
10. PROJECT DESC	RIPTION (as recorded in	n GAA)	20. PROJECT DESCR	IPTION (of the revi	sed project)	
Construction of Bu River Balawag, Tab	ltot, Balawag Flood ( uk City, Kalinga	Control along Chico	Construction of Bult Balawag, Tabuk City	-	d Control along Chico River	
<b>11. ALLOTMENT (P'000)</b> (as recorded in GAA) 100,000		<b>21. REVISED ESTIMA</b> (P'000) (Equal to, or lo allotment) 100,000	wer than GAA	22. CAF (To be obtained from inancial Management office) ☑YES		
12. PHYSICAL TAR	GET (Enter Details for all	Components below)	23. PHYSICAL TARG	ET (Enter Details for	all Components below)	
Component ID	Target	Target Unit	Component ID	Target	Target Unit	
CW1	802	Lineal Meters (Im)	CW1	386	Lineal Meters (Im)	
13. UNIT COST (Ent	er Details for all Compon	ents below)	24. UNIT COST (Enter	r Details for all Comp	onents below)	
Component ID	Component Cost (P'000)	Target Unit Cost (P'000/Target Unit)	Component ID	Component (P'000)	Cost Target Unit Cost (P'000/Target Unit)	
CW1	96,500.000	120.32419	CW1	96,500.000	250.000	

## **Modification Request Form**

<ul><li><b>14. PROJECT WORK LOCATION</b> (Must be defined in strict accordance with DO 65 Series 2014)</li><li>Bultot, Balawag Flood Control</li></ul>		25. PROJECT WORK LOCATION (Must be defined in strict accordance with DO 65 Series 2014. Also complete "ANNEX A" for National Road projects under OO-1 and MVUC) Bultot, Balawag Flood Control					
Start X	121.36837	End X	121.35710	Start X	121.36837	End X	121.35710
Start Y	17.39577	End Y	17.39744	Start Y	17.39577	End Y	17.39744
15. ROAD CLASSIFICATION (if applicable) N/A		26. ROAD CLASSIFICATION (if applicable) N/A					
<b>16. IMPLEMENTING OFFICE</b> (Record the Implementing Office of the original project) Cordillera Administrative Region		<b>27. IMPLEMENTING OFFICE</b> (Record the Implementing Office of the proposed revised project) Cordillera Administrative Region					
17. PROJECT IMPLEMENTATION PLAN (PIP)Planned Start DatePlanned End Date05/06/202403/31/2025		28. PROJECT IMPLEMENTATIOn Planned Start Date 05/06/2024		Planned Er	Planned End Date 03/31/2025		
				29. OVERLAP?		30. UNDER ⊠ NO	WARRANTY?
			D. ATTACHMEN	ITS & JUST	TIFICATIONS		
31. PROJE	CT IMPACT ANALY	SIS ATTACH	IED? (For Flood Contro	l Projects)			
	🖂 YES	□ N/	A				
Decrease	he needed protectic revetment wall. Further, although th greatly enhance the embankment issues. The derived unit cost fhe unit cost has bee May 22, 2024. are the following su	V1 - Constru target/ incr base of the on along str e integratic over-all sta t is based o en evaluate	uction of Flood Mitig ease in unit cost is of e proposed revetme fucture's foundation on of Geotextile Tub ability of the entire r in the approved Prog od and reviewed by ocuments: Approved	gation Stru due to the pro- ent. The pro- n and preve bes in the fl revetment : gram of Wa the Bureau d Program	cture due to the finclusion of 7-met ovision of sheet pil ont the immediate ood control struct structure and will ork (POW) with Da of Construction (i of Works (POW) v	er long steel shi les was deemea scouring and c ture increases th deter possible s etailed Unit Pric BOC). See attac with Detailed Un	I necessary to provide ollapse of the proposed he unit cost, it will structure failure due to ce Analysis (DUPA). hed evaluation dated
and Hydro	ologic Analysis, PIA,	Master Pla	n, Certificate of No	Overlappir	ng and GIS Map.		

#### 33. PHOTOS SUBMITTED

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□NO ⊠YES

#### 34. A MAP OF THE PROPOSED PROJECT WORK LOCATION SUBMITTED

□NO ⊠YES

Modification	Request	Form
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Modificatio	n Reque	st Form
35. PR	EPARED BY:	
Name: ERLIDONF. DOLIENTE Office: Planning and Design Division	Position: Date:	Chief, Planning Section
۷ 36. REVIEWED BY DISTRICT OFFICE (If Required)		38. REVIEWED BY REGIONAL OFFICE
Name: Position:	Name: Position:	ANGELITA B. MABITAZAN Chief, Planning and Design Division
Date:	Date:	
37. RECOMMENDED BY DISTRICT OFFICE (If Required)	39	9. RECOMMENDED BY REGIONAL OFFICE
		1 AI
Name:	Name:	KHADAFEYD. TANGGOL
Position:	Position:	Regional Director
Date:	Date:	

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## **Modification Request Form**

UACS (Unified Account Code Structure as defined in GAA)

#### 320102106091000

#### Project Id

P00824842LZ



\*Please refer to the Request Evaluation Form (DPWH-QMSP-03-02 Rev 01) for the complete details of evaluation