



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

JUL 25 2013

DEPARTMENT ORDER) **SUBJECT: Amendment to D.O. 44,**
NO. 71) **Series of 2012 Re:**
Series of 2013 *07-20-13*) **Shortened Standardized**
) **Construction Duration of**
) **DPWH Flood Control**
) **Projects.**

To further ensure timely and efficient completion of DPWH flood control projects, shortened standardized construction durations of Flood Control Projects depending on cost are hereby prescribed (Annex 'A'). These durations shall be the maximum allowable for the corresponding types of flood control projects/works. However, shorter durations shall be adopted whenever possible. In case a duration longer than the duration prescribed herein is to be used, the head of the implementing office shall seek prior approval from the Secretary.

Attached as Annex "B" is the derivation of the standard project duration which will be made as reference in the calculation of the project duration when the cost falls between the values prescribed in Annex "A".

This Order shall take effect immediately.


ROGELIO L. SINGSON
Secretary

Department of Public Works and Highways
Office of the Secretary



WIN3W01613

REVISED STANDARD DURATION OF DPWH FLOOD CONTROL AND DRAINAGE PROJECTS

Department Order No. 7/
Series of 2013

ANNEX A

Project Category / Level of Improvement		Project Duration by Project Cost (Calendar Days)				
		5 Million	20 Million	50 Million	100 Million	150 Million
A. Flood Control And Drainage						
a.	Dikes					
	1 Earthdikes	28	85	155	199	234
	2 Gabion Spur Dike , Type I	70	134	163	203	247
	3 Boulder Spur Dike, Type II	116	142	174	237	279
b.	Revetment/Riverwalls					
	1 Grouted Riprap resting on Concrete with Steel Sheet Pile Foundation	42	140	171	243	258
	2 Reinforced Concrete, Type I	63	121	147	184	223
	3 Rubble Concrete, Type I	62	119	145	180	219
	4 Gravity Wall , Type I	88	139	170	211	257
c.	Drainage and Slope Protection					
	1 Grouted Riprap	84	162	199		
	2 Stone Masonry	59	112	136		
	3 RCPC Drainage with Manhole/Catch Basin	79	152	187		

Note:

1. To calculate the project duration when the cost falls between the values in the above table, the following formula shall be used.

$$\text{Calendar Days} = \left[\left(\frac{\text{given reference amount} - \text{reference amount}}{\text{reference amount} - \text{estimated amount}} \right) \times \text{estimated amount} + \text{duration of mob./demob. on the given reference amount} \right]$$

2. Assumptions:

- Duration includes Mobilization/Demobilization: Up to P5 Million - 10 c.d.; Above P5 Million up to P50 Million - 15 c.d.; Above P50 Million up to P150 Million - 25 c.d. & Above P150 Million - 30 c.d.;
- Duration excludes Sundays, Holidays and Pre-determined Unworkable Days.
- No standard duration was established for projects costing more than P150 Million. Computation shall be based on the PERT/CPM schedule, considering the use of optimum additional resources.

DERIVATION OF STANDARD PROJECT DURATION

Department Order No. 7/
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ANNEX B

A. Flood Control and Drainage

a. Dikes

1. Earthdikes

Length (meter)	100.00	115.75	462.75	1,156.75	2,313.50	3,470.25
Reference/Given Amount	4,322,526.00	5,000,000.00	20,000,000.00	50,000,000.00	100,000,000.00	150,000,000.00
(Calendar Days)						
Reference duration/Proportionate to the given amount	15.00	17.50	69.50	174.00	347.50	521.00
Duration Reduction Factor		1.00	1.00	0.80	0.50	0.40
Total estimated duration including Mob./Demob. & Factored duration due to additional set of crew of manpower & equipment		27.50	84.50	154.25	198.75	233.50
		Say 28 c.d.	Say 85 c.d.	Say 155 c.d.	Say 199 c.d.	Say 234 c.d.

2. Gabions Spur Dike, Type I

Length (meter)	30.00	85.25	341.00	852.25	1,704.50	2,556.75
Reference/Given Amount	1,760,213.96	5,000,000.00	20,000,000.00	50,000,000.00	100,000,000.00	150,000,000.00
(Calendar Days)						
Reference duration/Proportionate to the given amount	26.00	74.00	295.50	739.00	1,477.50	2,216.00
Duration Reduction Factor		0.80	0.40	0.20	0.12	0.10
Total estimated duration including Mob./Demob. & Factored duration due to additional set of crew of manpower & equipment		69.25	133.25	163.00	202.50	246.75
		Say 70 c.d.	Say 134 c.d.	Say 163 c.d.	Say 203 c.d.	Say 247 c.d.

3. Boulder Spur Dike, Type II

Length (meter)	30.00	75.50	302.00	754.50	1,509.00	2,263.50
Reference/Given Amount	1,986,091.70	5,000,000.00	20,000,000.00	50,000,000.00	100,000,000.00	150,000,000.00
(Calendar Days)						
Reference duration/Proportionate to the given amount	52.50	132.50	528.50	1,320.50	2,641.00	3,961.50
Duration Reduction Factor		0.80	0.24	0.12	0.08	0.064
Total estimated duration including Mob./Demob. & Factored duration due to additional set of crew of manpower & equipment		116.00	142.00	173.50	236.50	278.75
		Say 116 c.d.	Say 142 c.d.	Say 174 c.d.	Say 237 c.d.	Say 279 c.d.

DERIVATION OF STANDARD PROJECT DURATION

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ANNEX B

b. Revetment/Riverwalls

1. Grouted Riprap resting on Concrete w/ Steel Sheet Pile foundation

Length (meter)	100.00	102.25	408.25	1,020.50	2,040.75	3,061.00
Reference/Given Amount	4,900,721.18	5,000,000.00	20,000,000.00	50,000,000.00	100,000,000.00	150,000,000.00
(Calendar Days)						
Reference duration/Proportionate to the given amount	38.00	39.00	155.50	388.00	775.50	1,163.50
Duration Reduction Factor		0.80	0.80	0.40	0.28	0.20
Total estimated duration including Mob./Demob. & Factored duration due to additional set of crew of manpower & equipment		41.25	139.50	170.25	242.25	257.75
		Say 42 c.d.	Say 140 c.d.	Say 171 c.d.	Say 243 c.d.	Say 258 c.d.

2. Reinforced Concrete, Type I

Length (meter)	100.00	299.50	1,198.00	2,994.50	5,989.00	8,983.50
Reference/Given Amount	1,689,753.77	5,000,000.00	20,000,000.00	50,000,000.00	100,000,000.00	150,000,000.00
(Calendar Days)						
Reference duration/Proportionate to the given amount	22.00	66.00	264.00	659.00	1,318.00	1,976.50
Duration Reduction Factor		0.80	0.40	0.20	0.12	0.10
Total estimated duration including Mob./Demob. & Factored duration due to additional set of crew of manpower & equipment		63.00	120.75	147.00	183.25	222.75
		Say 63 c.d.	Say 121 c.d.	Say 147 c.d.	Say 184 c.d.	Say 223 c.d.

3. Rubble Concrete, Type I

Length (meter)	100.00	184.50	738.00	1,845.00	3,689.75	5,534.75
Reference/Given Amount	2,710,244.87	5,000,000.00	20,000,000.00	50,000,000.00	100,000,000.00	150,000,000.00
(Calendar Days)						
Reference duration/Proportionate to the given amount	35.00	65.00	258.50	646.00	1,291.50	1,937.50
Duration Reduction Factor		0.80	0.40	0.20	0.12	0.10
Total estimated duration including Mob./Demob. & Factored duration due to additional set of crew of manpower & equipment		62.00	118.50	144.25	180.00	218.75
		Say 62 c.d.	Say 119 c.d.	Say 145 c.d.	Say 180 c.d.	Say 219 c.d.

4. Gravity Wall, Type I

Length (meter)	100.00	144.00	575.50	1,438.50	2,876.75	4,315.00
Reference/Given Amount	3,476,258.35	5,000,000.00	20,000,000.00	50,000,000.00	100,000,000.00	150,000,000.00
(Calendar Days)						
Reference duration/Proportionate to the given amount	67.00	96.50	385.50	964.00	1,927.50	2,891.50
Duration Reduction Factor		0.80	0.32	0.16	0.096	0.08
Total estimated duration including Mob./Demob. & Factored duration due to additional set of crew of manpower & equipment		87.25	138.50	169.25	210.25	256.50
		Say 88 c.d.	Say 139 c.d.	Say 170 c.d.	Say 211 c.d.	Say 257 c.d.

DERIVATION OF STANDARD PROJECT DURATION

ANNEX B

c. Drainage and Slope Protection

1. Grouted Riprap

Length (meter)	100.00	915.75	3,662.75	9,156.50
Reference/Given Amount	546,068.04	5,000,000.00	20,000,000.00	50,000,000.00
(Calendar Days)	16.00	147.00	586.50	1,465.50
Reference duration/Proportionate to the given amount				
Duration Reduction Factor		0.50	0.25	0.125
Total estimated duration including Mob./Demob. & Factored duration due to additional set of crew of manpower & equipment		83.50	161.75	198.25
		Say 84 c.d.	Say 162 c.d.	Say 199 c.d.

2. Stone Masonry

Length (meter)	100.00	282.75	1,130.75	2,826.50
Reference/Given Amount	1,769,002.74	5,000,000.00	20,000,000.00	50,000,000.00
(Calendar Days)	34.00	96.50	384.50	961.00
Reference duration/Proportionate to the given amount				
Duration Reduction Factor		0.50	0.25	0.125
Total estimated duration including Mob./Demob. & Factored duration due to additional set of crew of manpower & equipment		58.25	111.25	135.25
		Say 59 c.d.	Say 112 c.d.	Say 136 c.d.

3. RCPC Drainage w/ Manhole/Catch Basin

Length (meter)	100.00	570.50	2,282.00	5,704.50
Reference/Given Amount	876,503.49	5,000,000.00	20,000,000.00	50,000,000.00
(Calendar Days)	24.00	137.00	548.00	1,369.50
Reference duration/Proportionate to the given amount				
Duration Reduction Factor		0.50	0.25	0.125
Total estimated duration including Mob./Demob. & Factored duration due to additional set of crew of manpower & equipment		78.50	152.00	186.25
		Say 79 c.d.	Say 152 c.d.	Say 187 c.d.