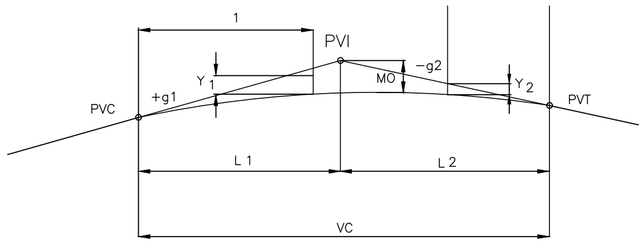


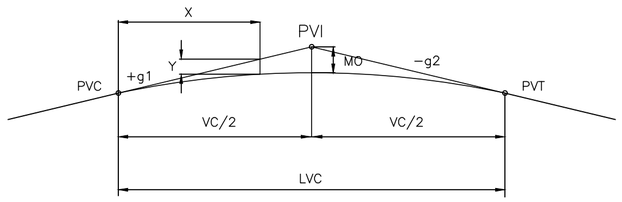
FORMULA :

$$MO = \frac{L_1 L_2 (g1-g2)}{2VC}$$

$$Y_1 = \frac{MO(X_1)^2}{L_1^2}$$

$$Y_2 = \frac{MO(X_2)^2}{L_2^2}$$

A2 / D-3 UNSYMMETRICAL NOT TO SCALE



FORMULA :

$$MO = \frac{VC(g1 - g2)}{800}$$

$$Y = \frac{(g1-g2)X^2}{LVC}$$

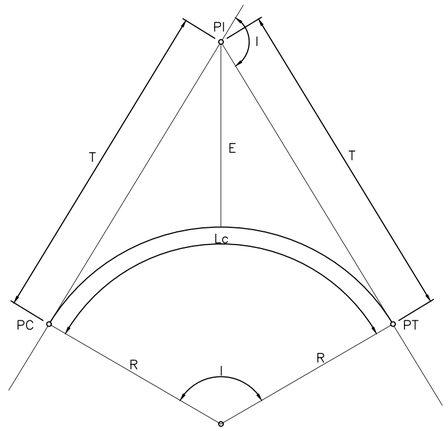
A1 / D-3 SYMMETRICAL NOT TO SCALE

LEGEND :

PVI	POINT OF VERTICAL INTERSECTION
VC	LENGTH OF VERTICAL CURVE
PVT	POINT OF VERTICAL TANGENT
PVC	POINT OF VERTICAL CURVE
g1 , g2	GRADIENT IN PERCENT
MO	MIDDLE ORDINATE
X,X1,X2	DISTANCE FROM PVC/PVT OR TO ANY POINT ON CURVE
Y,Y1,Y2	VERTICAL OFFSET WITH RESPECT TO DISTANCE X

NOTE :

NO VERTICAL CURVE IS REQUIRED IF THE ALGEBRAIC DIFFERENCE IS LESS THAN 0.5%



FORMULA :

$$T = R \tan \frac{I}{2}$$

$$Lc = \frac{\pi}{180} IR$$

$$E = T \tan \frac{I}{4}$$

STA. PC = STA. PI−T

STA. PT = STA. PC + LC

LEGEND :

PI	POINT OF INTERSECTION
I	INTERSECTION ANGLE
T	LENGTH OF TANGENT
R	RADIUS OF CURVE
Lc	LENGTH OF CIRCULAR CURVE
E	EXTERNAL DISTANCE
PC	POINT OF CURVATURE
PT	POINT OF TANGENCY

NOTE :

NO HORIZONTAL CURVE IS REQUIRED WHEN INTERSECTION ANGLE (I) IS LESS THAN 1°

B / D-3 HORIZONTAL SIMPLE CURVE (CIRCULAR) NOT TO SCALE

DESIGN CONTROLS FOR CREST AND SAG VERTICAL CURVES

DESIGN SPEED, (km/h)	STOPPING SIGHT DISTANCE (m) d	RATE OF VERTICAL CURVATURE, K *			
		CREST		SAG	
		COMPUTED	DESIGN	COMPUTED	DESIGN
30	35(30)	1.9(2.1)	2(3)	5.1(3.5)	6(4)
40	50(45)	3.8(4.6)	4(5)	8.5(6.6)	9(7)
50	65	6.4	7	12.2	13
60	85	11.0	11	17.3	18
70	105	16.8	17	22.6	23
80	130	25.7	26	29.4	30
90	160	38.9	39	37.6	38

NOTE: * – RATE OF VERTICAL CURVATURE, IS THE LENGTH OF CURVE (m) PER PERCENT ALGERAIC DIFFERENCE OF INTERSECTING GRADES (A). K = L/A

(NO.) – DERIVED FROM DPWH GUIDELINE FORMULA PAGE 722.

- CREST $K=d^2/437$
- SAG $k=d^2/(150+3.50\ d)$

AND WILL BE ADOPTED IN MOUNTAINOUS AREAS WHERE RELAXATION OF THE ABOVE VALUES ARE NECESSARY TO SUIT EXISTING FIELD CONDITION.

A / D-3 VERTICAL PARABOLIC CURVE NOT TO SCALE

REPUBLIC OF THE PHILIPPINES
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REGIONAL OFFICE No. IV-A
BATANGAS 2ND DISTRICT ENGINEERING OFFICE
KUMINTANG ILAYA, BATANGAS CITY

PROJECT NAME AND LOCATION:
CONCRETING OF BRGY. CALO FMR, BRGY. CALO LOBO, BATANGAS
LOBO, BATANGAS

SHEET CONTENT:
GEOMETRIC DESIGN STANDARD HORIZONTAL AND VERTICAL

DRAFTED:
DESIREE M. ESCAREZ
ENGINEER II
PREPARED:
JUNEIL RAY M. CHAVEZ
ENGINEER II

REVIEWED :
BRYAN EDWARD R. ANDAL
ENGINEER II
DATE:

SUBMITTED :
GEMMA L. OLAN
CHIEF, PLANNING AND DESIGN SECTION
DATE:

RECOMMENDED:
ARIEL V. ARMEDILLA
ASSISTANT DISTRICT ENGINEER
DATE:

APPROVED:
SONIA D. PAGLICAUAN
DISTRICT ENGINEER
DATE:

SET NO. R 6 | 17

SHEET NO. 13 / 24

CURVE ELEMENTS

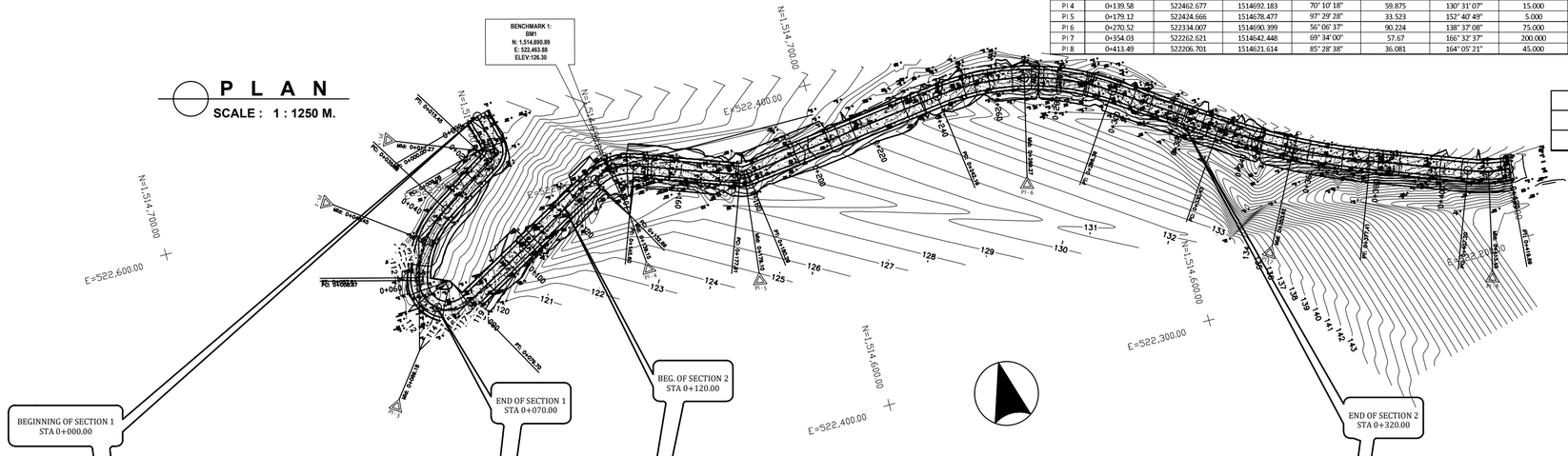
PI NO.	STATION	COORDINATES		AZIMUTH	DISTANCE	Included Angle	RADIUS	EXTERNAL TANGENT	EXTERNAL SECANT	CHORD LENGTH	CHORD DIRECTION	STATION OF PC	STATION OF PT	Lc(m)	D
		EASTING	NORTHING				(m)	(m)	(m)	(m)					
POT				15° 12' 48"											
PI 1	0+012.78	522494.892	1514703.968	302° 08' 53"	12.783	106° 56' 04"	5.000	3.704	1.223	5.953	S21° 19' 09"E	0+009.08	0+015.45	6.376	229° 10' 60"
PI 2	0+047.02	522524.756	1514685.199	345° 33' 15"	31.568	136° 35' 37"	30.000	11.940	2.289	22.188	S36° 08' 56"E	0+035.08	0+057.81	22.727	38° 11' 50"
PI 3	0+079.83	522533.227	1514652.317	119° 28' 11"	22.015	46° 05' 04"	9.000	21.159	13.994	16.564	S52° 30' 43"W	0+058.67	0+079.70	21.035	127° 19' 26"
PI 4	0+139.58	522462.677	1514692.183	70° 10' 18"	59.875	130° 31' 07"	15.000	6.883	1.504	12.512	N85° 10' 46"W	0+132.69	0+145.60	12.906	76° 23' 40"
PI 5	0+179.12	522424.666	1514678.477	97° 29' 28"	33.523	152° 40' 49"	5.000	1.215	0.146	2.362	S83° 49' 53"W	0+177.91	0+180.29	2.384	229° 10' 60"
PI 6	0+270.52	522334.007	1514690.399	56° 06' 37"	90.224	138° 37' 08"	75.000	28.326	5.171	52.998	S76° 48' 03"W	0+242.19	0+296.36	54.168	15° 16' 44"
PI 7	0+354.03	522262.621	1514642.448	69° 34' 00"	57.67	166° 32' 37"	200.000	23.594	1.387	46.864	S62° 50' 18"W	0+330.43	0+377.41	46.971	05° 43' 46"
PI 8	0+413.49	522206.701	1514621.614	85° 28' 38"	36.081	164° 05' 21"	45.000	6.289	0.437	12.456	S77° 31' 19"W	0+407.20m	0+419.69	12.496	25° 27' 53"

Table of Existing Benchmarks

BM	NORTHING	EASTING	ELEVATION	REMARKS
1	1,514,690.89	522,463.88	126.3	BM1

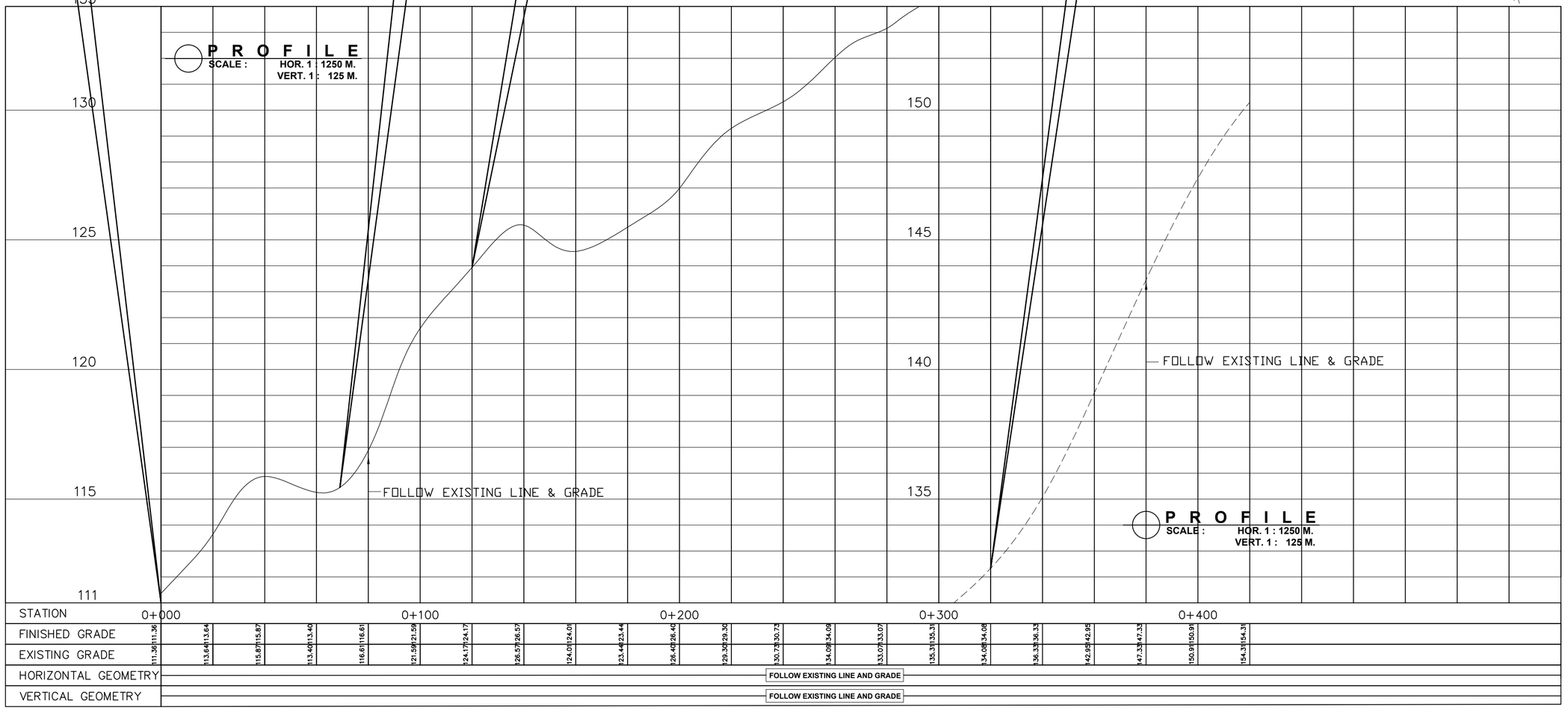
PLAN

SCALE : 1 : 1250 M.



PROFILE

SCALE : HOR. 1 : 1250 M.
VERT. 1 : 125 M.



PROFILE

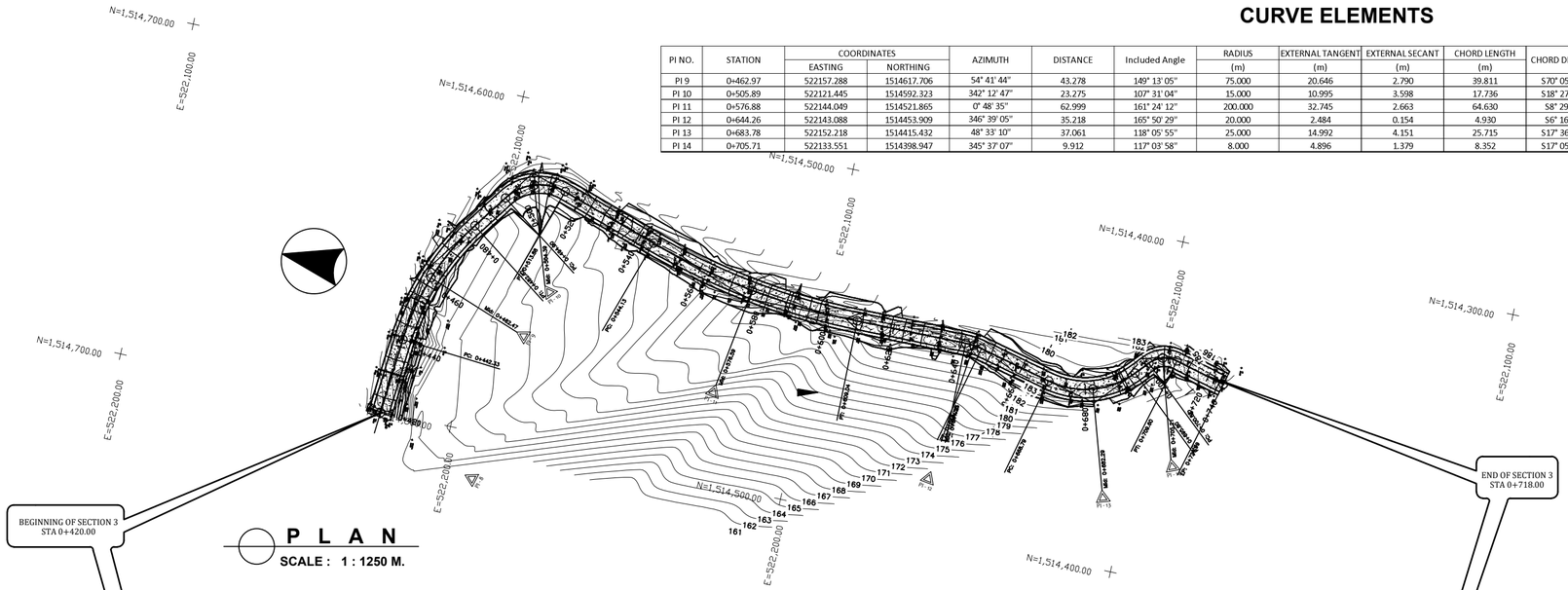
SCALE : HOR. 1 : 1250 M.
VERT. 1 : 125 M.

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
REGIONAL OFFICE No. IV-A
BATANGAS 2ND DISTRICT
ENGINEERING OFFICE
KUMINTANG ILAYA, BATANGAS CITY

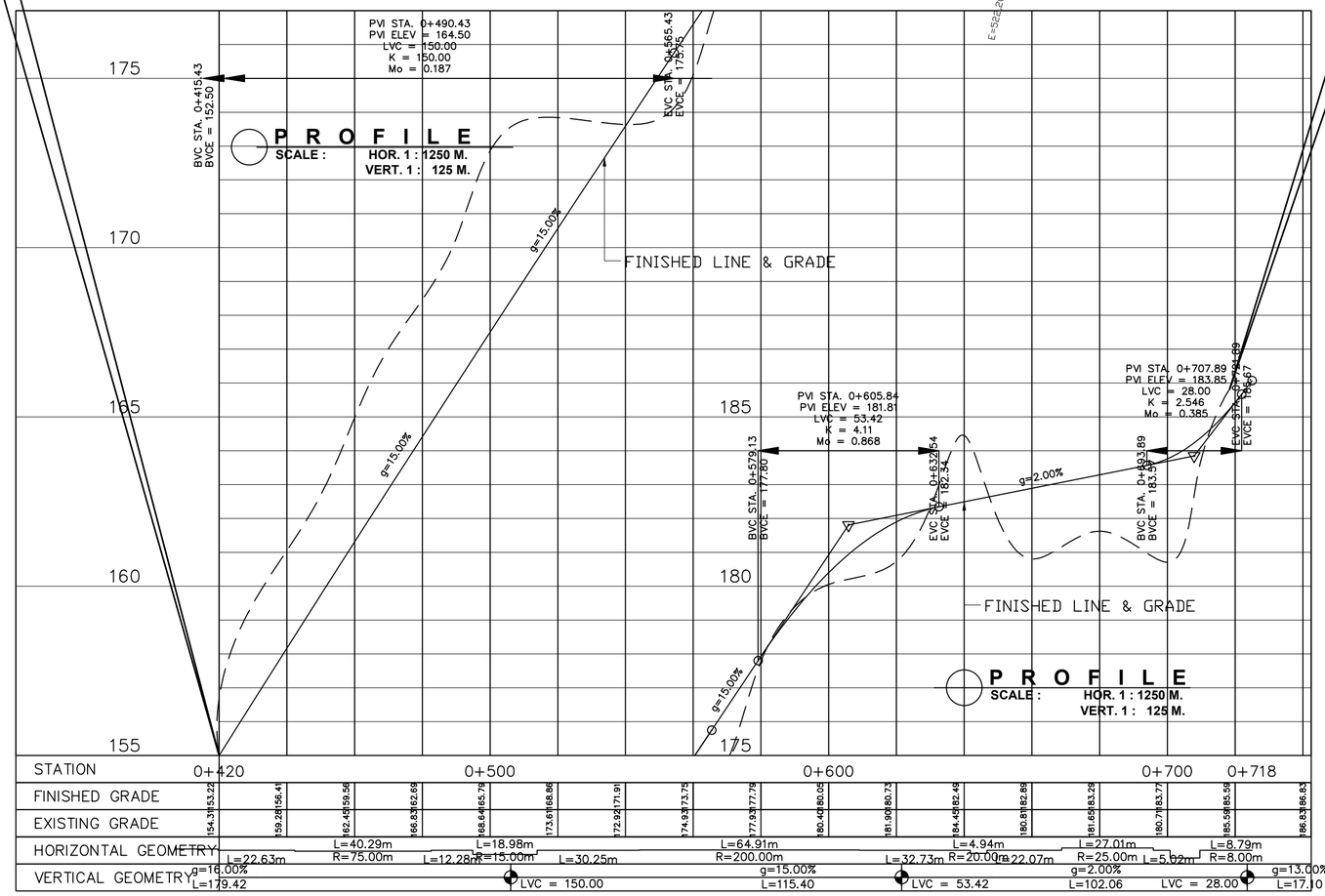
PROJECT NAME AND LOCATION:	SHEET CONTENT:	DRAFTED:	REVIEWED :	SUBMITTED :	RECOMMENDED:	APPROVED:	SET NO.	SHEET NO.
CONCRETING OF BRGY. CALO FMR, BRGY. CALO LOBO, BATANGAS **LOBO, BATANGAS**	PLAN AND PROFILE STA. 0+000 - STA 0+420	**DESIREE M. ESCAREZ** ENGINEER II PREPARED: **JUNEIL RAY M. CHAVEZ** ENGINEER II	**BRYAN EDWARD R. ANDAL** ENGINEER II DATE:	**GEMMA L. OLAN** CHIEF, PLANNING AND DESIGN SECTION DATE:	**ARIEL V. ARMEDILLA** ASSISTANT DISTRICT ENGINEER DATE:	**SONIA D. PAGLICAUAN** DISTRICT ENGINEER DATE:	R 7 | 17	14 24

CURVE ELEMENTS

PI NO.	STATION	COORDINATES		AZIMUTH	DISTANCE	Included Angle	RADIUS	EXTERNAL TANGENT	EXTERNAL SECANT	CHORD LENGTH	CHORD DIRECTION	STATION OF PC	STATION OF PT	Lc(m)	D
		EASTING	NORTHING				(m)	(m)	(m)	(m)					
PI 9	0+462.97	522157.288	1514617.706	54° 41' 44"	43.278	149° 13' 05"	75.000	20.646	2.790	39.811	S70° 05' 11"W	0+442.33m	0+482.62	40.293	15° 16' 44"
PI 10	0+505.89	522121.445	1514592.323	342° 12' 47"	23.275	107° 31' 04"	15.000	10.995	3.598	17.736	S18° 27' 15"W	0+494.90m	0+513.88	18.976	76° 23' 40"
PI 11	0+576.88	522144.049	1514521.865	0° 48' 35"	62.999	161° 24' 12"	200.000	32.745	2.663	64.630	S8° 29' 19"E	0+544.13	0+609.04	64.915	05° 43' 46"
PI 12	0+644.26	522143.088	1514453.909	346° 39' 05"	35.218	165° 50' 29"	20.000	2.484	0.154	4.930	S6° 16' 10"E	0+641.78	0+646.72	4.942	57° 17' 45"
PI 13	0+683.78	522152.218	1514415.432	48° 33' 10"	37.061	118° 05' 55"	25.000	14.992	4.151	25.715	S17° 36' 07"W	0+668.79	0+695.80	27.01	45° 50' 12"
PI 14	0+705.71	522133.551	1514398.947	345° 37' 07"	9.912	117° 03' 58"	8.000	4.896	1.379	8.352	S17° 05' 09"W	0+700.82	0+709.60	8.787	143° 14' 22"



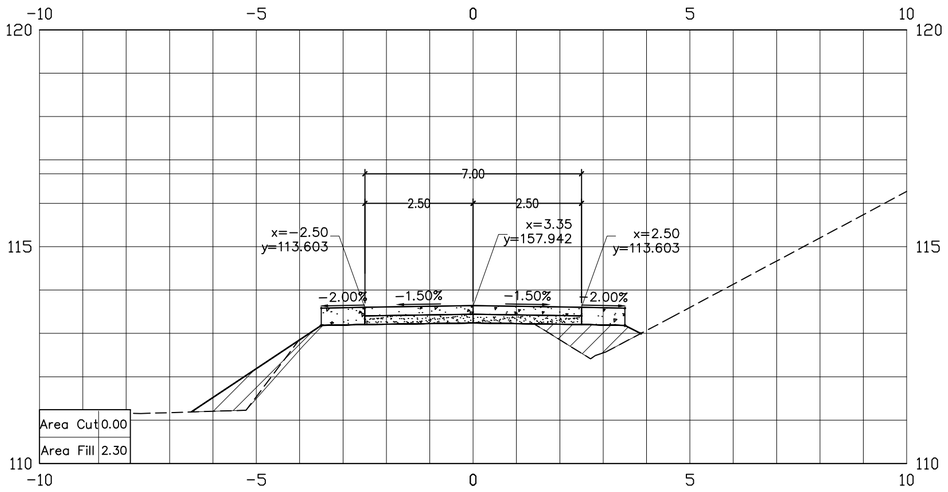
P L A N
SCALE : 1 : 1250 M.



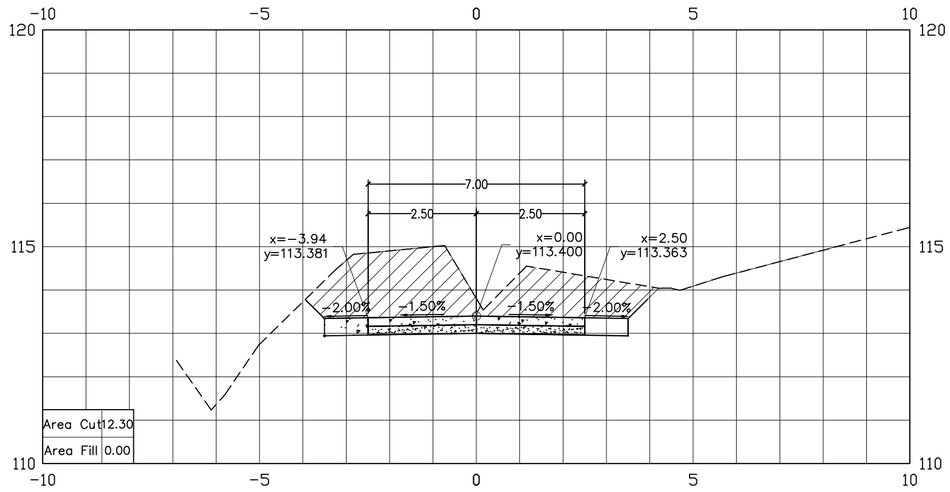
P R O F I L E
SCALE : HOR. 1 : 1250 M.
VERT. 1 : 125 M.

STATION	0+420		0+500		0+600		0+700	0+718
FINISHED GRADE	154.31 153.22	159.28 156.41	162.45 159.56	166.83 162.69	168.64 165.79	173.61 168.86	172.92 171.91	174.93 173.75
EXISTING GRADE	177.93 177.79	180.40 180.05	181.90 180.73	184.45 182.49	180.81 182.85	181.65 183.29	180.71 183.77	185.59 185.59
HORIZONTAL GEOMETRY	L=22.63m R=75.00m	L=40.29m L=12.28m	L=18.98m R=15.00m	L=30.25m	L=64.91m R=200.00m	L=32.73m	L=4.94m R=20.00m	L=22.07m
VERTICAL GEOMETRY	g=16.00% L=179.42	LVC = 150.00	g=15.00% L=115.40	LVC = 53.42	g=2.00% L=102.06	LVC = 28.00	g=13.00% L=17.10	

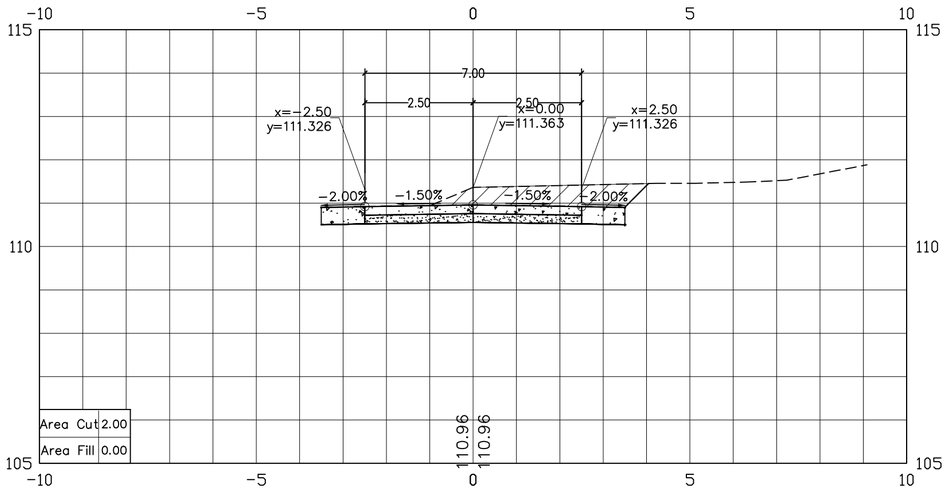
REPUBLIC OF THE PHILIPPINES **DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS** REGIONAL OFFICE No. IV-A BATANGAS 2ND DISTRICT ENGINEERING OFFICE KUMINTANG ILAYA, BATANGAS CITY	PROJECT NAME AND LOCATION: **CONCRETING OF BRGY. CALO FMR, BRGY. CALO LOBO, BATANGAS** **LOBO, BATANGAS**	SHEET CONTENT: PLAN AND PROFILE STA. 0+420 - STA. 0+718	DRAFTED: **DESIREE M. ESCAREZ** ENGINEER II PREPARED: **JUNEIL RAY M. CHAVEZ** ENGINEER II	REVIEWED : **BRYAN EDWARD R. ANDAL** ENGINEER II DATE:	SUBMITTED : **GEMMA L. OLAN** CHIEF, PLANNING AND DESIGN SECTION DATE:	RECOMMENDED: **ARIEL V. ARMEDILLA** ASSISTANT DISTRICT ENGINEER DATE:	APPROVED: **SONIA D. PAGLICAUAN** DISTRICT ENGINEER DATE:	SET NO. R 8 | 17	SHEET NO. 15 24



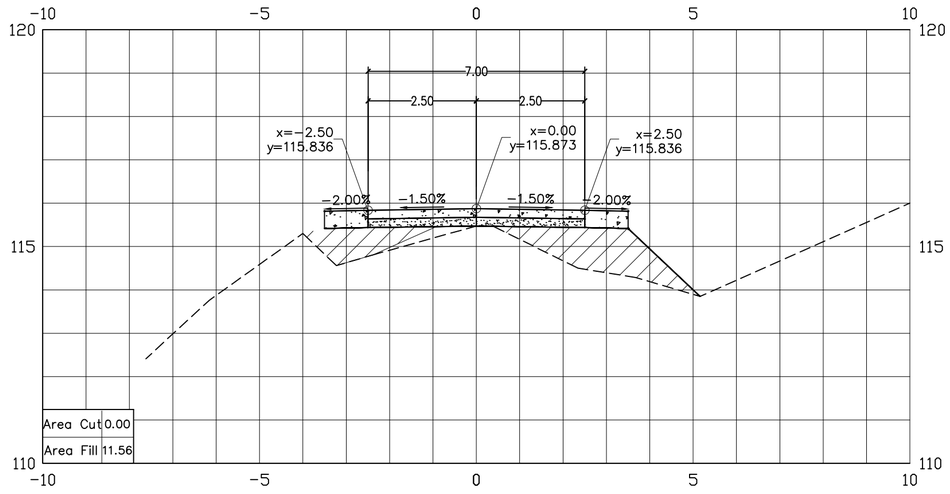
STA. 0+020.00



STA. 0+060.00



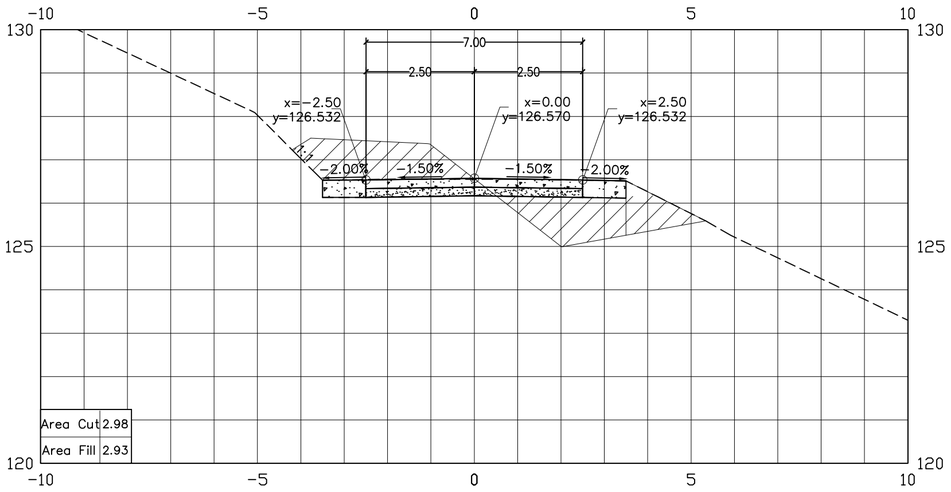
STA. 0+000.00



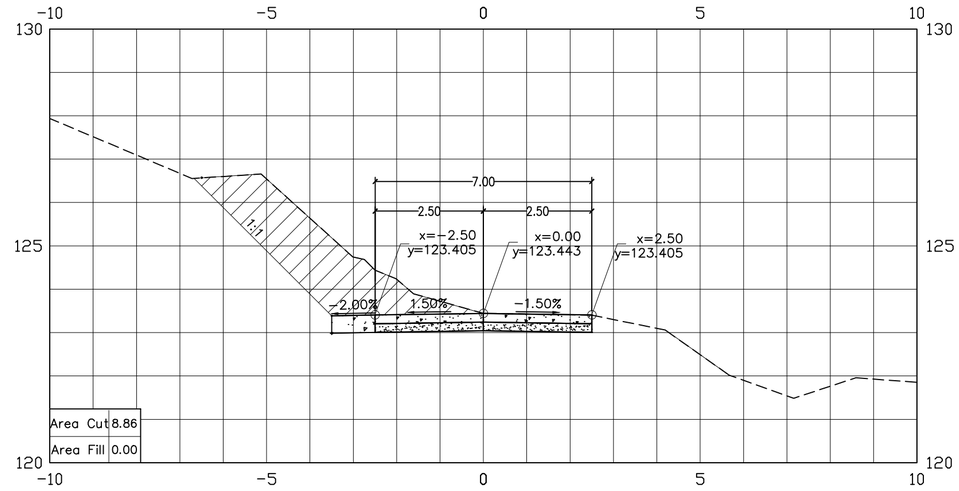
STA. 0+040.00

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
REGIONAL OFFICE No. IV-A
BATANGAS 2ND DISTRICT
ENGINEERING OFFICE
KUMINTANG ILAYA, BATANGAS CITY

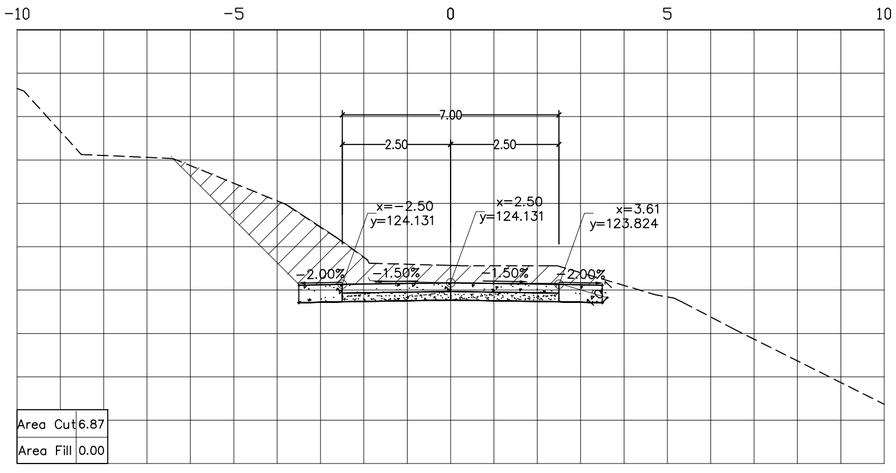
PROJECT NAME AND LOCATION:	SHEET CONTENT:	DRAFTED:	REVIEWED :	SUBMITTED :	RECOMMENDED:	APPROVED:	SET NO.	SHEET NO.
CONCRETING OF BRGY. CALO FMR, BRGY. CALO LOBO, BATANGAS **LOBO, BATANGAS**	CROSS SECTION (STA 0+000 - STA 0+060) SECTION 1	**DESIREE M. ESCAREZ** ENGINEER II PREPARED: **JUNEIL RAY M. CHAVEZ** ENGINEER II	**BRYAN EDWARD R. ANDAL** ENGINEER II DATE:	**GEMMA L. OLAN** CHIEF, PLANNING AND DESIGN SECTION DATE:	**ARIEL V. ARMEDILLA** ASSISTANT DISTRICT ENGINEER DATE:	**SONIA D. PAGLICAUAN** DISTRICT ENGINEER DATE:	R 9 | 17	16 24



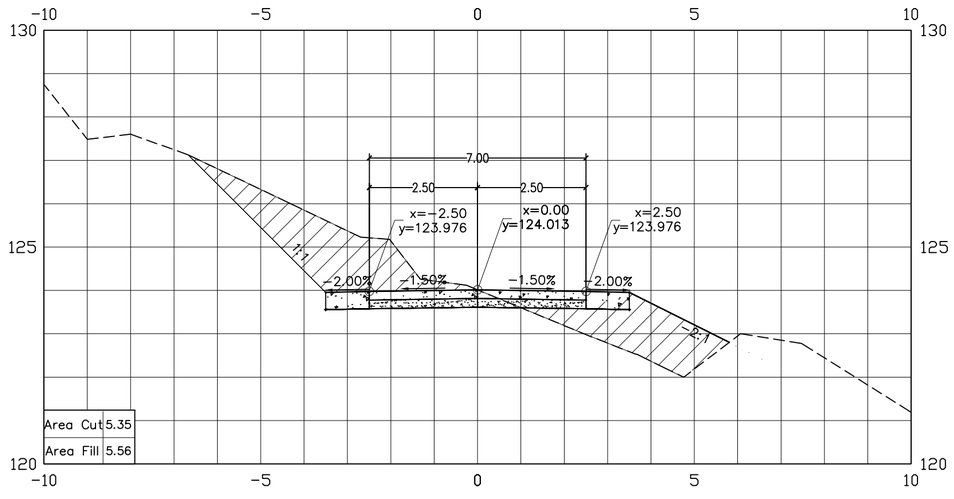
STA. 0+140.00



STA. 0+180.00



STA. 0+120.00



STA. 0+160.00

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
REGIONAL OFFICE No. IV-A
BATANGAS 2ND DISTRICT
ENGINEERING OFFICE
KUMINTANG ILAYA, BATANGAS CITY

PROJECT NAME AND LOCATION:
CONCRETING OF BRGY. CALO FMR, BRGY. CALO LOBO, BATANGAS
LOBO, BATANGAS

SHEET CONTENT:
CROSS SECTION
(STA 0+120 - STA 0+180)
SECTION 2

DRAFTED:
DESIREE M. ESCAREZ
ENGINEER II

PREPARED:
JUNEIL RAY M. CHAVEZ
ENGINEER II

REVIEWED :
BRYAN EDWARD R. ANDAL
ENGINEER II
DATE:

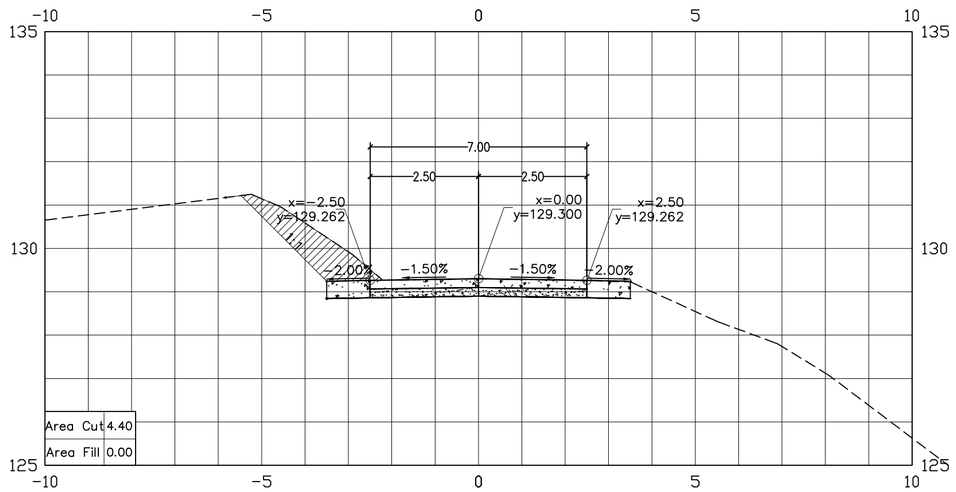
SUBMITTED :
GEMMA L. OLAN
CHIEF, PLANNING AND DESIGN SECTION
DATE:

RECOMMENDED:
ARIEL V. ARMEDILLA
ASSISTANT DISTRICT ENGINEER
DATE:

APPROVED:
SONIA D. PAGLICAUAN
DISTRICT ENGINEER
DATE:

SET NO.
R
10 | 17

SHEET NO.
17
24



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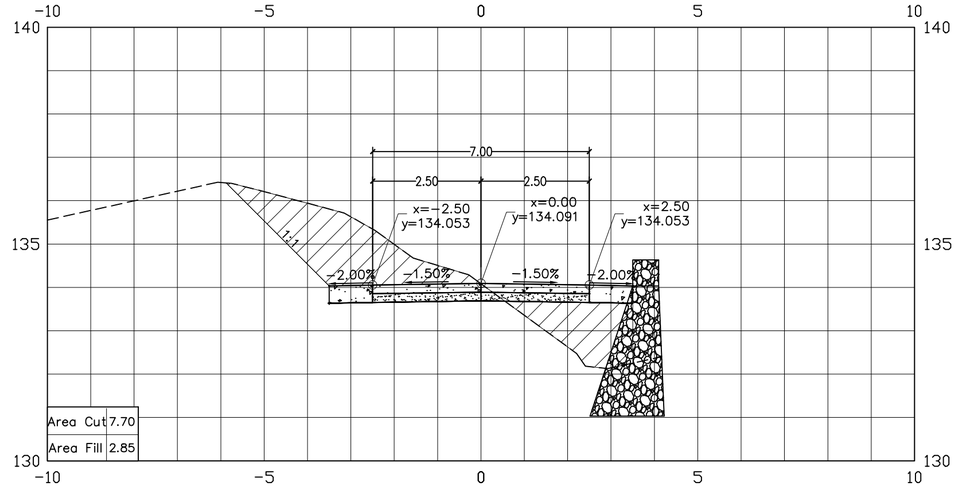
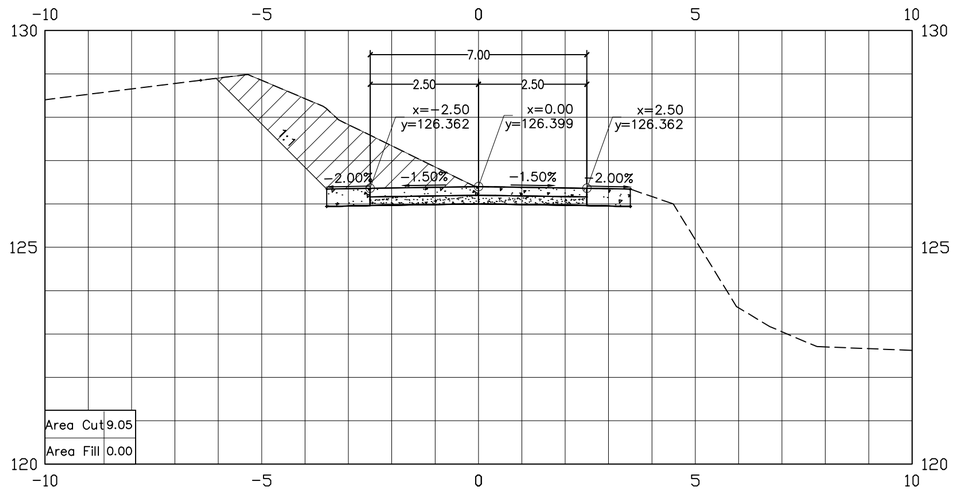
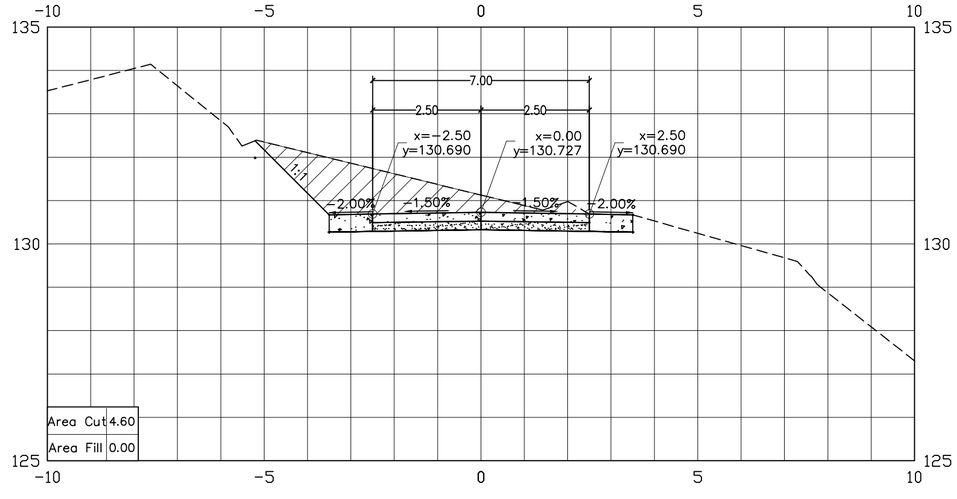


STA. 0+260.00

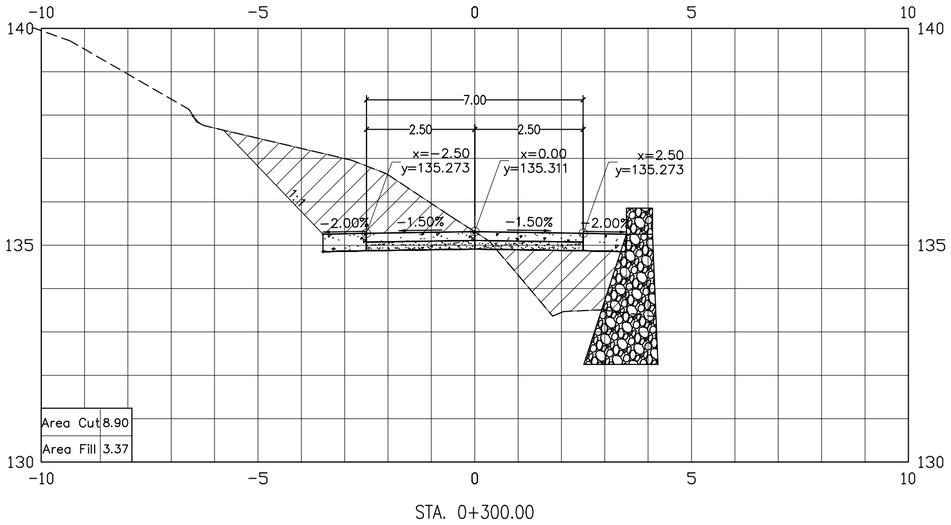


STA. 0+200.00

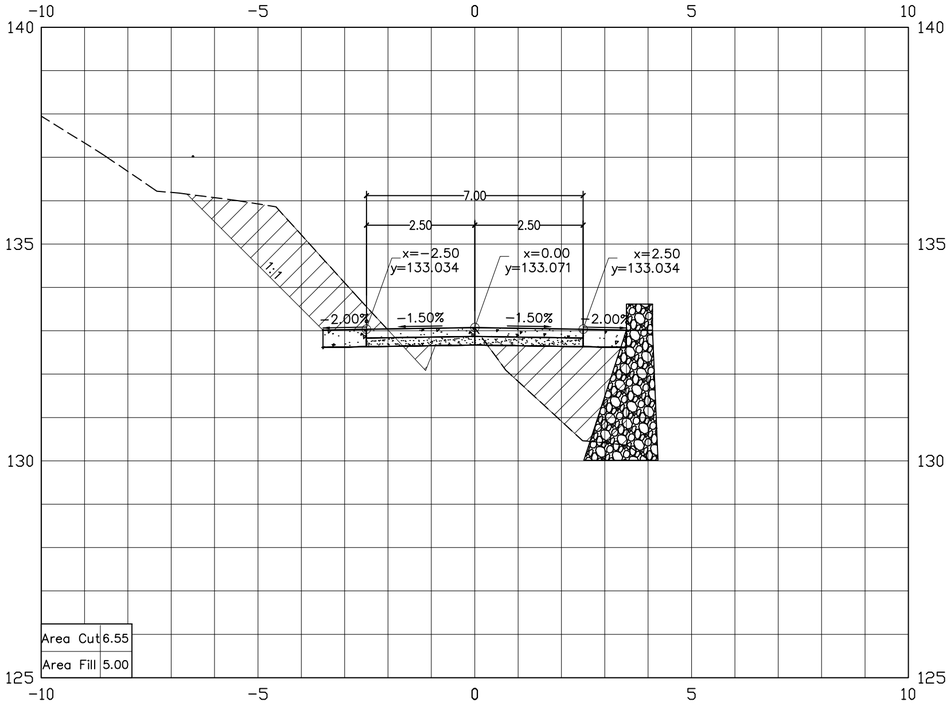


STA. 0+240.00

REPUBLIC OF THE PHILIPPINES **DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS** REGIONAL OFFICE No. IV-A BATANGAS 2ND DISTRICT ENGINEERING OFFICE KUMINTANG ILAYA, BATANGAS CITY	PROJECT NAME AND LOCATION: **CONCRETING OF BRGY. CALO FMR, BRGY. CALO LOBO, BATANGAS** **LOBO, BATANGAS**	SHEET CONTENT: CROSS SECTION (STA 0+200 - STA 0+260) SECTION 2	DRAFTED: **DESIREE M. ESCAREZ** ENGINEER II PREPARED: **JUNEIL RAY M. CHAVEZ** ENGINEER II	REVIEWED : **BRYAN EDWARD R. ANDAL** ENGINEER II DATE:	SUBMITTED : **GEMMA L. OLAN** CHIEF, PLANNING AND DESIGN SECTION DATE:	RECOMMENDED: **ARIEL V. ARMEDILLA** ASSISTANT DISTRICT ENGINEER DATE:	APPROVED: **SONIA D. PAGLICAUAN** DISTRICT ENGINEER DATE:	SET NO. R 11 | 17	SHEET NO. 18 24



STA. 0+300.00



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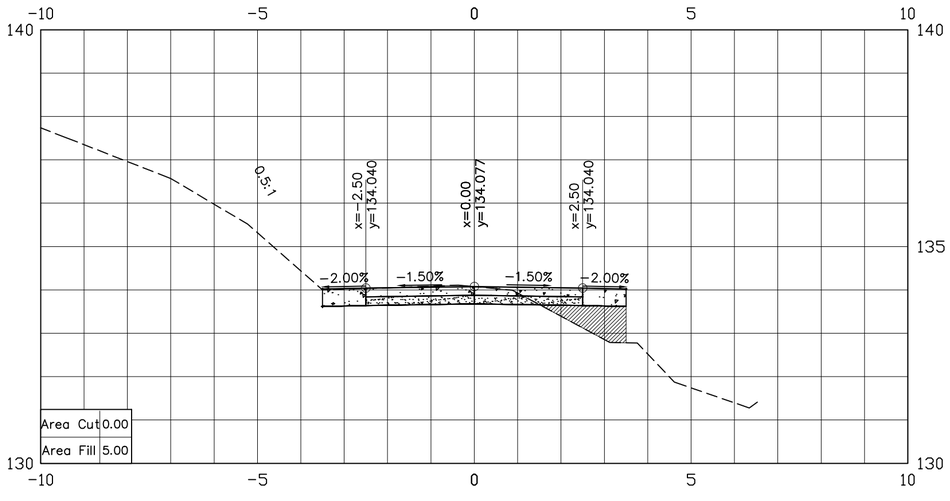

STA. 0+320.00

REPUBLIC OF THE PHILIPPINES
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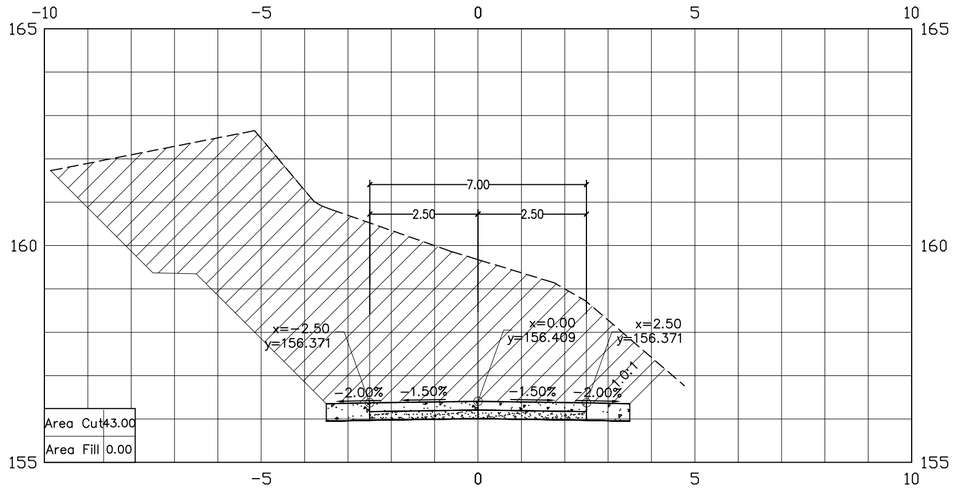
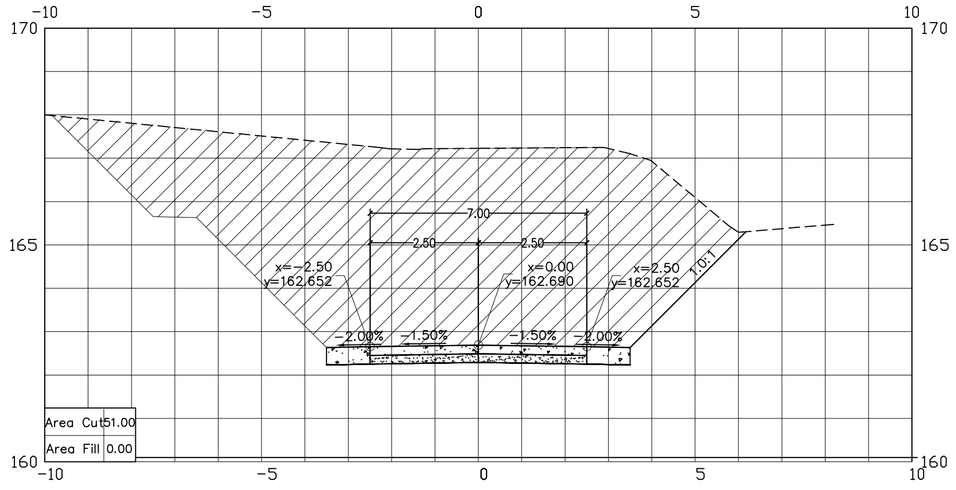
REGIONAL OFFICE No. IV-A
BATANGAS 2ND DISTRICT
ENGINEERING OFFICE
KUMINTANG ILAYA, BATANGAS CITY

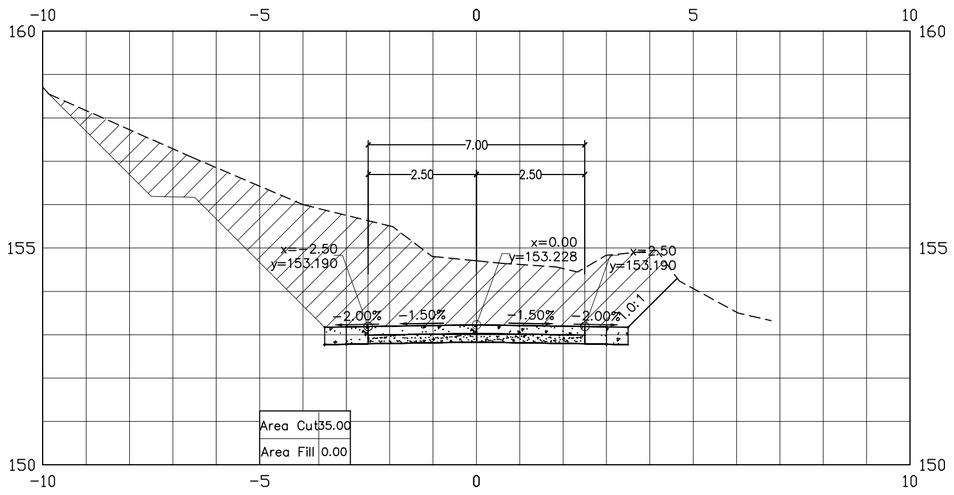
PROJECT NAME AND LOCATION:	SHEET CONTENT:	DRAFTED:	REVIEWED :	SUBMITTED :	RECOMMENDED:	APPROVED:	SET NO.	SHEET NO.
CONCRETING OF BRGY. CALO FMR, BRGY. CALO LOBO, BATANGAS **LOBO, BATANGAS**	CROSS SECTION (STA 0+280 - STA 0+320) SECTION 2	**DESIREE M. ESCAREZ** ENGINEER II PREPARED: **JUNEIL RAY M. CHAVEZ** ENGINEER II	**BRYAN EDWARD R. ANDAL** ENGINEER II DATE:	**GEMMA L. OLAN** CHIEF, PLANNING AND DESIGN SECTION DATE:	**ARIEL V. ARMEDILLA** ASSISTANT DISTRICT ENGINEER DATE:	**SONIA D. PAGLICAUAN** DISTRICT ENGINEER DATE:	R 12 | 17	19 24



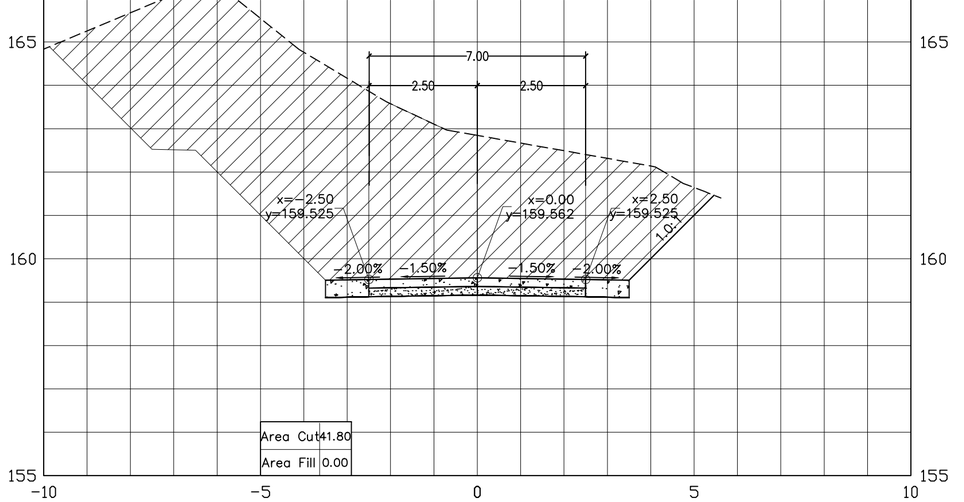
STA. 0+440.00



STA. 0+480.00



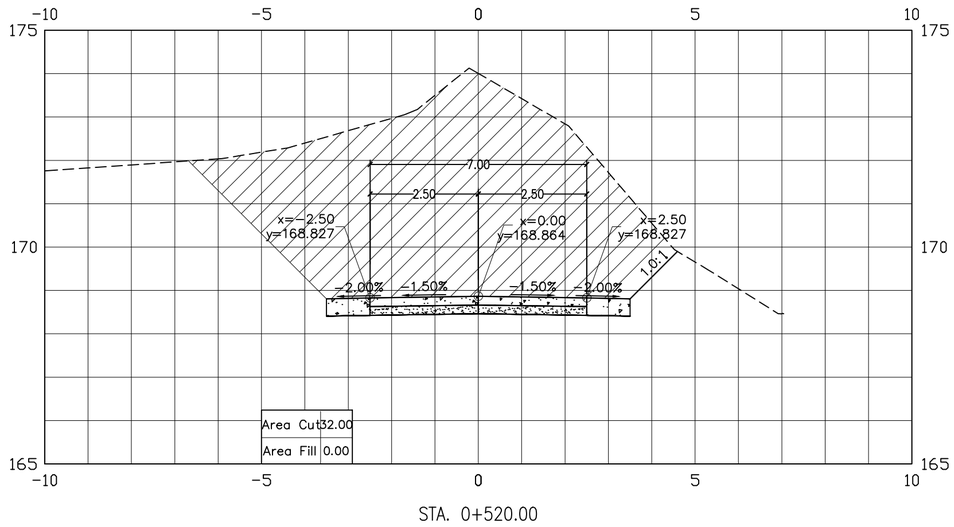
STA. 0+420.00



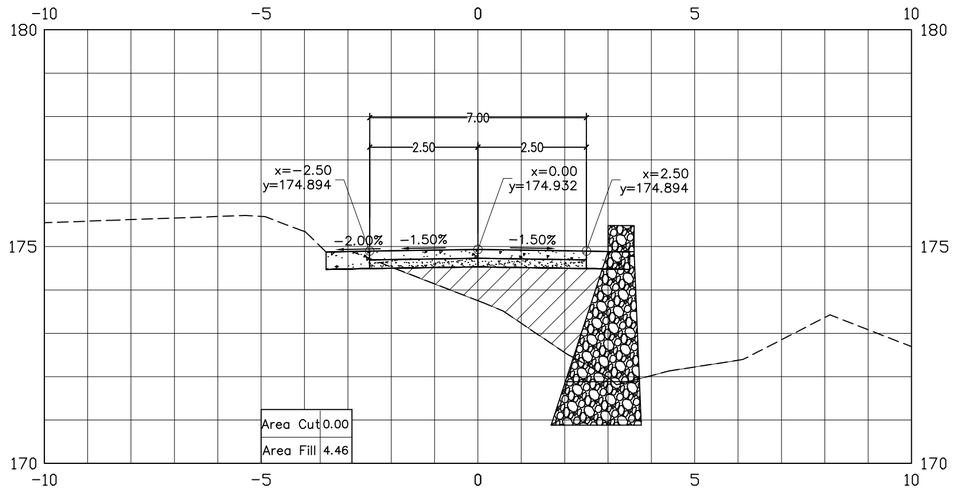
STA. 0+460.00

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
REGIONAL OFFICE No. IV-A
BATANGAS 2ND DISTRICT
ENGINEERING OFFICE
KUMINTANG ILAYA, BATANGAS CITY

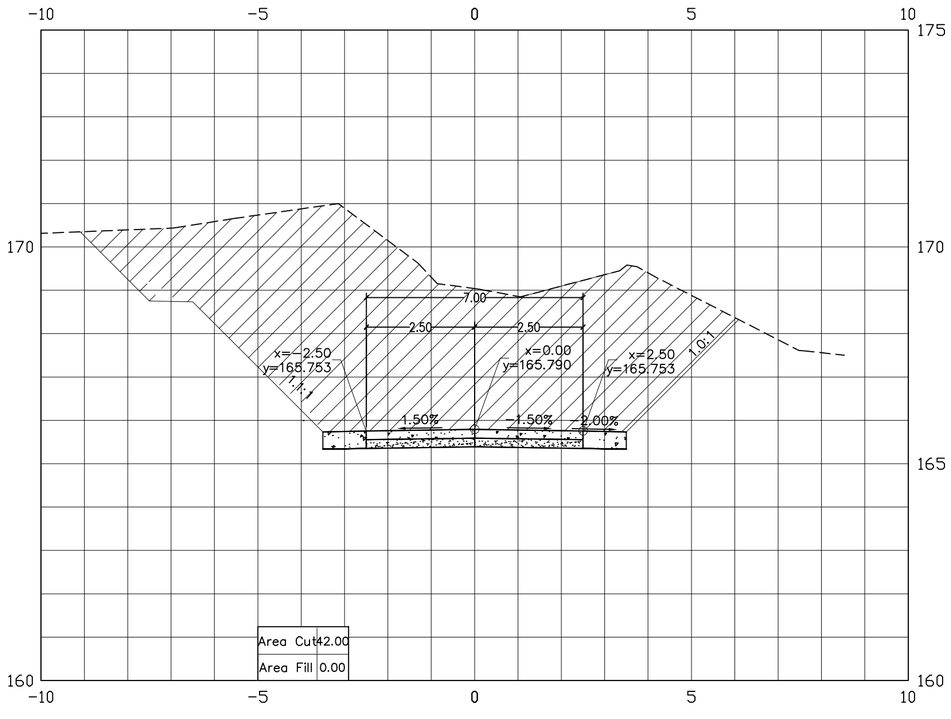
PROJECT NAME AND LOCATION:	SHEET CONTENT:	DRAFTED:	REVIEWED :	SUBMITTED :	RECOMMENDED:	APPROVED:	SET NO.	SHEET NO.
CONCRETING OF BRGY. CALO FMR, BRGY. CALO LOBO, BATANGAS **LOBO, BATANGAS**	CROSS SECTION (STA 0+420 - STA 0+480) SECTION 3	**DESIREE M. ESCAREZ** ENGINEER II PREPARED: **JUNEIL RAY M. CHAVEZ** ENGINEER II	**BRYAN EDWARD R. ANDAL** ENGINEER II DATE:	**GEMMA L. OLAN** CHIEF, PLANNING AND DESIGN SECTION DATE:	**ARIEL V. ARMEDILLA** ASSISTANT DISTRICT ENGINEER DATE:	**SONIA D. PAGLICAUAN** DISTRICT ENGINEER DATE:	R 13 | 17	20 24



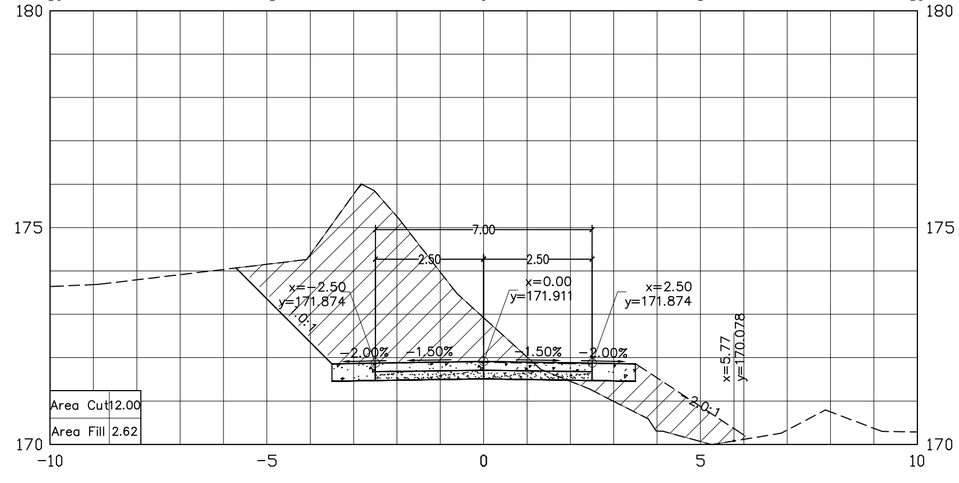
STA. 0+520.00



STA. 0+560.00

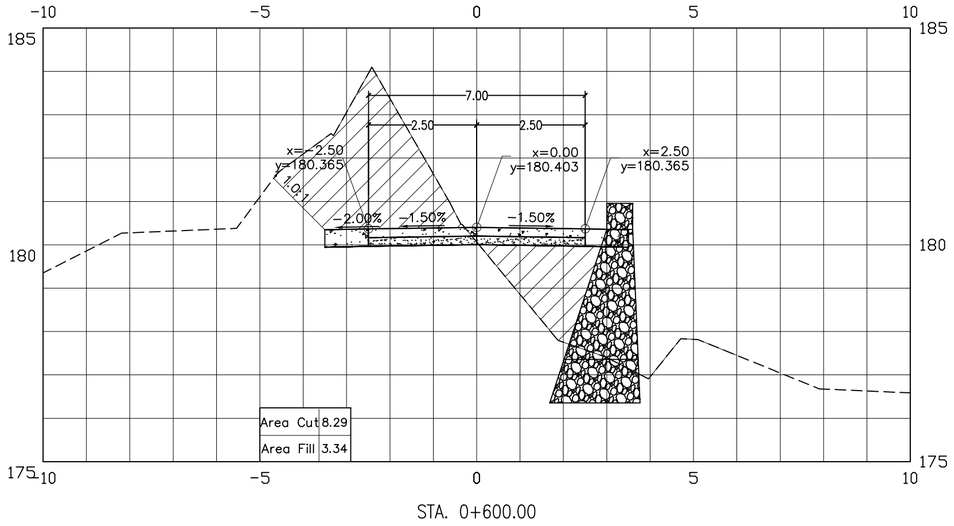


STA. 0+500.00

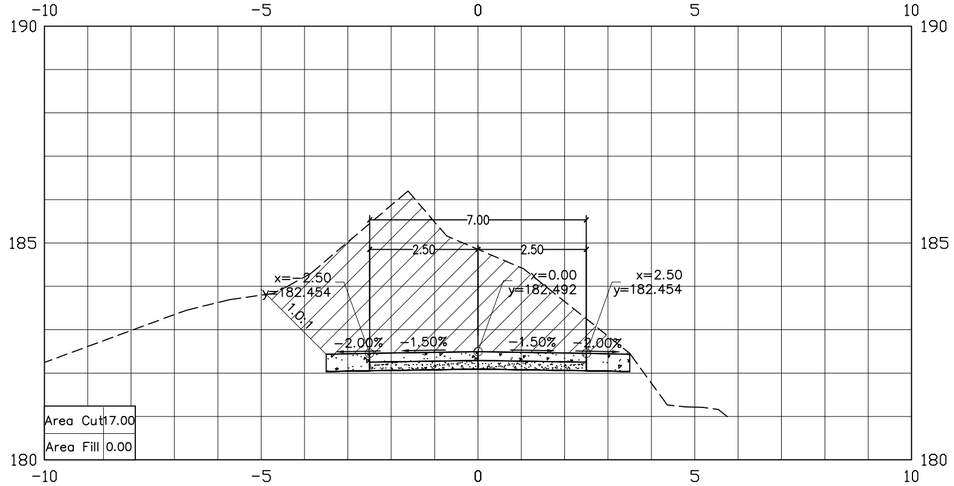


STA. 0+540.00

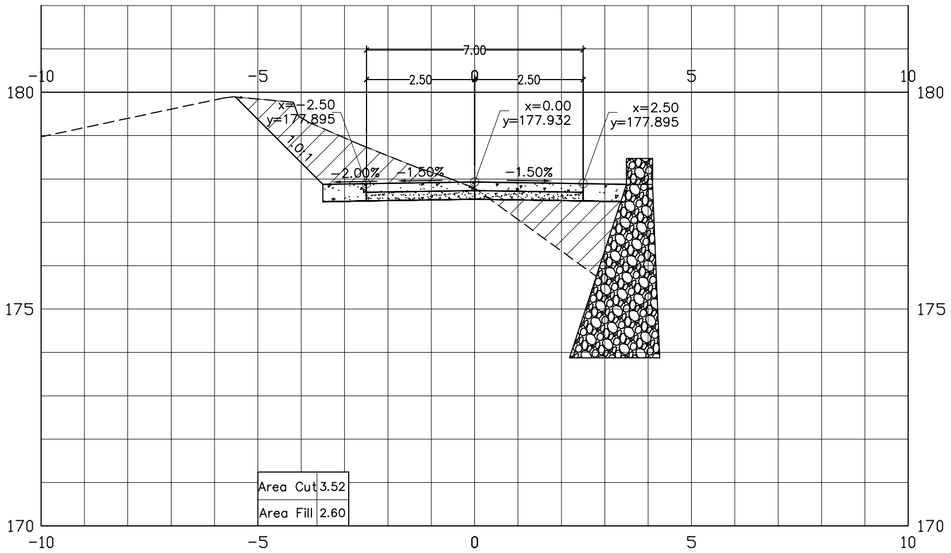
REPUBLIC OF THE PHILIPPINES **DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS** REGIONAL OFFICE No. IV-A BATANGAS 2ND DISTRICT ENGINEERING OFFICE KUMINTANG ILAYA, BATANGAS CITY	PROJECT NAME AND LOCATION: **CONCRETING OF BRGY. CALO FMR, BRGY. CALO LOBO, BATANGAS** **LOBO, BATANGAS**	SHEET CONTENT: CROSS SECTION (STA 0+500 - STA 0+560) SECTION 3	DRAFTED: **DESIREE M. ESCAREZ** ENGINEER II PREPARED: **JUNEIL RAY M. CHAVEZ** ENGINEER II	REVIEWED : **BRYAN EDWARD R. ANDAL** ENGINEER II DATE:	SUBMITTED : **GEMMA L. OLAN** CHIEF, PLANNING AND DESIGN SECTION DATE:	RECOMMENDED: **ARIEL V. ARMEDILLA** ASSISTANT DISTRICT ENGINEER DATE:	APPROVED: **SONIA D. PAGLICAUAN** DISTRICT ENGINEER DATE:	SET NO. R 14 17	SHEET NO. 21 24



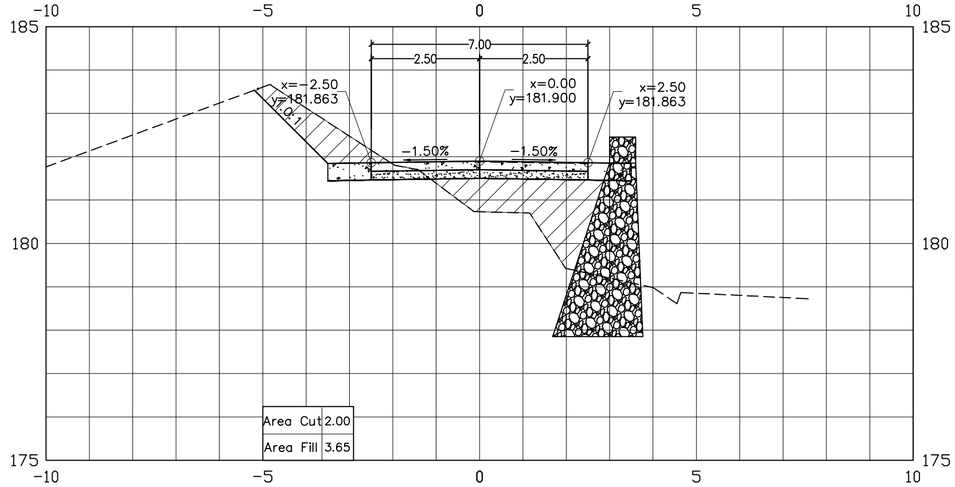
STA. 0+600.00



STA. 0+640.00



STA. 0+580.00



STA. 0+620.00

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
REGIONAL OFFICE No. IV-A
BATANGAS 2ND DISTRICT
ENGINEERING OFFICE
KUMINTANG ILAYA, BATANGAS CITY

PROJECT NAME AND LOCATION:
CONCRETING OF BRGY. CALO FMR, BRGY. CALO LOBO, BATANGAS
LOBO, BATANGAS

SHEET CONTENT:
CROSS SECTION
(STA 0+580 - STA 0+640)
SECTION 3

DRAFTED:
DESIREE M. ESCAREZ
ENGINEER II

PREPARED:
JUNEIL RAY M. CHAVEZ
ENGINEER II

REVIEWED :
BRYAN EDWARD R. ANDAL
ENGINEER II
DATE:

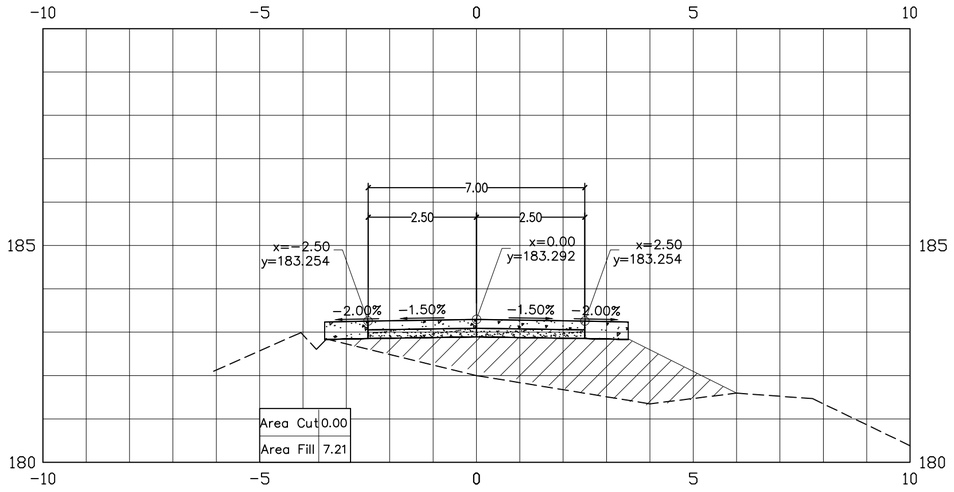
SUBMITTED :
GEMMA L. OLAN
CHIEF, PLANNING AND DESIGN SECTION
DATE:

RECOMMENDED:
ARIEL V. ARMEDILLA
ASSISTANT DISTRICT ENGINEER
DATE:

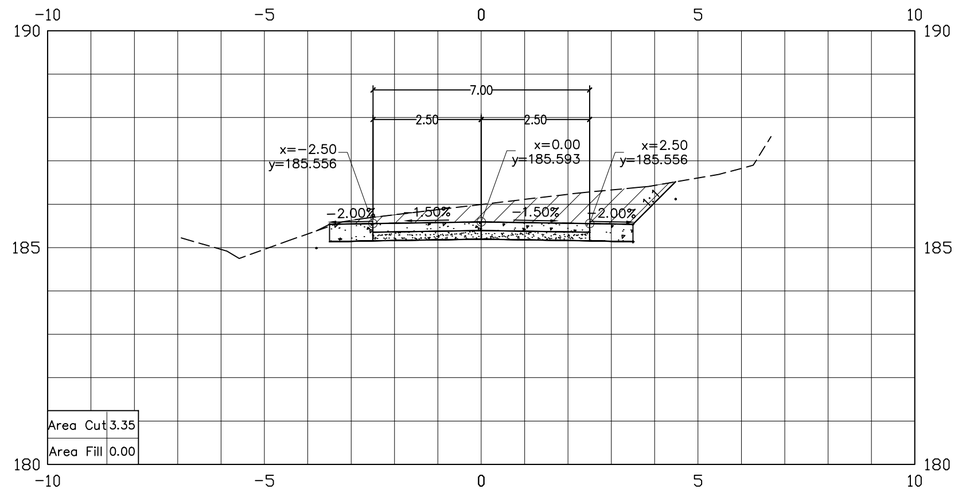
APPROVED:
SONIA D. PAGLICAUAN
DISTRICT ENGINEER
DATE:

SET NO. R 15 17

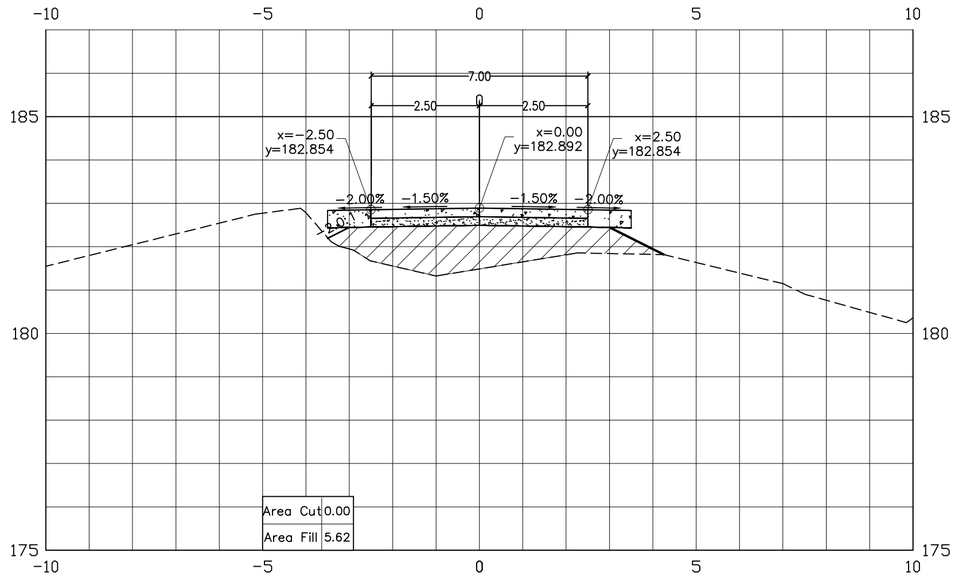
SHEET NO. 22 / 24



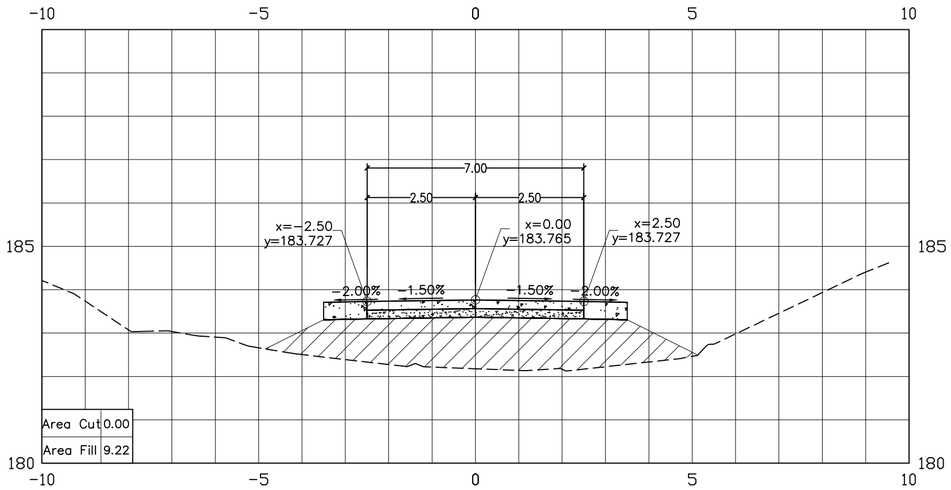
STA. 0+680.00



STA. 0+718.00



STA. 0+660.00



STA. 0+700.00

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
REGIONAL OFFICE No. IV-A
BATANGAS 2ND DISTRICT
ENGINEERING OFFICE
KUMINTANG ILAYA, BATANGAS CITY

PROJECT NAME AND LOCATION:	SHEET CONTENT:	DRAFTED:	REVIEWED :	SUBMITTED :	RECOMMENDED:	APPROVED:	SET NO.	SHEET NO.
CONCRETING OF BRGY. CALO FMR, BRGY. CALO LOBO, BATANGAS **LOBO, BATANGAS**	CROSS SECTION (STA 0+660 - STA 0+718) SECTION 3	**DESIREE M. ESCAREZ** ENGINEER II PREPARED: **JUNEIL RAY M. CHAVEZ** ENGINEER II	**BRYAN EDWARD R. ANDAL** ENGINEER II DATE:	**GEMMA L. OLAN** CHIEF, PLANNING AND DESIGN SECTION DATE:	**ARIEL V. ARMEDILLA** ASSISTANT DISTRICT ENGINEER DATE:	**SONIA D. PAGLICAUAN** DISTRICT ENGINEER DATE:	R 16 | 17	23 24

Surplus Common Excavation

STATION	STATION	LENGTH	AREA	AVE. AREA	VOLUME	REMARKS
STA 0+000.00	STA 0+020.00	20.00	2.00			
STA 0+020.00	STA 0+040.00	20.00	0.00	1.00	20.00	
STA 0+040.00	STA 0+060.00	20.00	0.00	0.00	0.00	
STA 0+060.00	STA 0+080.00	20.00	12.30	6.15	123.00	
STA 0+080.00	STA 0+100.00	*20.00*	*0.00*	*6.15*	*123.00*	*Existing Road*
STA 0+100.00	STA 0+120.00	*20.00*	*0.00*	*0.00*	*0.00*	*Existing Road*
STA 0+120.00	STA 0+140.00	*20.00*	*6.87*	*3.44*	*68.70*	
STA 0+140.00	STA 0+160.00	20.00	2.98	4.93	98.50	
STA 0+160.00	STA 0+180.00	20.00	5.35	4.17	83.30	
STA 0+180.00	STA 0+200.00	20.00	12.00	8.68	173.50	
STA 0+200.00	STA 0+220.00	20.00	9.05	10.53	210.50	
STA 0+220.00	STA 0+240.00	20.00	4.40	6.73	134.50	
STA 0+240.00	STA 0+260.00	20.00	4.60	4.50	90.00	
STA 0+260.00	STA 0+280.00	20.00	7.70	6.15	123.00	
STA 0+280.00	STA 0+300.00	20.00	6.55	7.13	142.50	
STA 0+300.00	STA 0+320.00	20.00	8.90	7.73	154.50	
STA 0+320.00	STA 0+340.00	*20.00*	*0.00*	*4.45*	*89.00*	*Existing Road*
STA 0+340.00	STA 0+360.00	*20.00*	*0.00*	*0.00*	*0.00*	*Existing Road*
STA 0+360.00	STA 0+380.00	*20.00*	*0.00*	*0.00*	*0.00*	*Existing Road*
STA 0+380.00	STA 0+400.00	*20.00*	*0.00*	*0.00*	*0.00*	*Existing Road*
STA 0+400.00	STA 0+420.00	*20.00*	*0.00*	*0.00*	*0.00*	*Existing Road*
STA 0+420.00	STA 0+440.00	20.00	35.00	17.50	350.00	
STA 0+440.00	STA 0+460.00	20.00	43.00	39.00	780.00	
STA 0+460.00	STA 0+480.00	20.00	41.80	42.40	848.00	
STA 0+480.00	STA 0+500.00	20.00	51.00	46.40	928.00	
STA 0+500.00	STA 0+520.00	20.00	42.00	46.50	930.00	
STA 0+520.00	STA 0+540.00	20.00	32.00	37.00	740.00	
STA 0+540.00	STA 0+560.00	20.00	12.00	22.00	440.00	
STA 0+560.00	STA 0+580.00	20.00	0.00	6.00	120.00	
STA 0+580.00	STA 0+600.00	20.00	3.52	1.76	35.20	
STA 0+600.00	STA 0+620.00	20.00	8.20	5.86	117.20	
STA 0+620.00	STA 0+640.00	20.00	2.00	5.10	102.00	
STA 0+640.00	STA 0+660.00	20.00	17.00	9.50	190.00	
STA 0+660.00	STA 0+680.00	20.00	0.00	8.50	170.00	
STA 0+680.00	STA 0+700.00	20.00	0.00	0.00	0.00	
STA 0+700.00	STA 0+718.00	18.00	0.00	0.00	0.00	

Embankment from Roadway/Structure Excavation, Common Soil

STATION	STATION	LENGTH	AREA	AVE. AREA	VOLUME	REMARKS
STA 0+000.00	STA 0+020.00	20.00	0.00			
STA 0+020.00	STA 0+040.00	20.00	2.30	1.15	23.00	
STA 0+040.00	STA 0+060.00	20.00	11.56	6.93	138.60	
STA 0+060.00	STA 0+080.00	20.00	0.00	5.78	115.60	
STA 0+080.00	STA 0+100.00	*20.00*	*0.00*	*0.00*	*0.00*	*Existing Road*
STA 0+100.00	STA 0+120.00	*20.00*	*0.00*	*0.00*	*0.00*	*Existing Road*
STA 0+120.00	STA 0+140.00	*20.00*	*0.00*	*0.00*	*0.00*	
STA 0+140.00	STA 0+160.00	20.00	2.93	1.47	29.30	
STA 0+160.00	STA 0+180.00	20.00	5.56	4.25	84.90	
STA 0+180.00	STA 0+200.00	20.00	0.00	2.78	55.60	
STA 0+200.00	STA 0+220.00	20.00	0.00	0.00	0.00	
STA 0+220.00	STA 0+240.00	20.00	0.00	0.00	0.00	
STA 0+240.00	STA 0+260.00	20.00	0.00	0.00	0.00	
STA 0+260.00	STA 0+280.00	20.00	2.85	1.43	28.50	
STA 0+280.00	STA 0+300.00	20.00	5.00	3.93	78.50	
STA 0+300.00	STA 0+320.00	20.00	3.37	4.19	83.70	
STA 0+320.00	STA 0+340.00	*20.00*	*5.00*	*4.19*	*83.70*	*Existing Road*
STA 0+340.00	STA 0+360.00	*20.00*	*0.00*	*2.50*	*50.00*	*Existing Road*
STA 0+360.00	STA 0+380.00	*20.00*	*0.00*	*0.00*	*0.00*	*Existing Road*
STA 0+380.00	STA 0+400.00	*20.00*	*0.00*	*0.00*	*0.00*	*Existing Road*
STA 0+400.00	STA 0+420.00	*20.00*	*0.00*	*0.00*	*0.00*	*Existing Road*
STA 0+420.00	STA 0+440.00	20.00	0.00	0.00	0.00	
STA 0+440.00	STA 0+460.00	20.00	0.00	0.00	0.00	
STA 0+460.00	STA 0+480.00	20.00	0.00	0.00	0.00	
STA 0+480.00	STA 0+500.00	20.00	0.00	0.00	0.00	
STA 0+500.00	STA 0+520.00	20.00	0.00	0.00	0.00	
STA 0+520.00	STA 0+540.00	20.00	0.00	0.00	0.00	
STA 0+540.00	STA 0+560.00	20.00	2.62	1.31	26.20	
STA 0+560.00	STA 0+580.00	20.00	4.46	3.54	70.80	
STA 0+580.00	STA 0+600.00	20.00	2.60	3.53	70.60	
STA 0+600.00	STA 0+620.00	20.00	3.34	2.97	59.40	
STA 0+620.00	STA 0+640.00	20.00	3.65	3.50	69.90	
STA 0+640.00	STA 0+660.00	20.00	0.00	1.83	36.50	
STA 0+660.00	STA 0+680.00	20.00	5.62	2.81	56.20	
STA 0+680.00	STA 0+700.00	20.00	7.21	6.42	128.30	
STA 0+700.00	STA 0+718.00	18.00	9.22	8.22	147.87	
				Volume Fill=	*1,438.00*	*cu.m.*

Aggregate Subbase Course (Two-lane Roadway)

Station	*Length*	*width*	*thickness*	*volume*
Sta. 0+000 - Sta 0+070	*70*	*5.00*	*0.20*	*70.00*
Sta. 0+120 - Sta 0+320	*200*	*5.00*	*0.20*	*200.00*
Sta. 0+420 - Sta 0+718	*298*	*5.00*	*0.20*	*298.00*
			Total	***568.00***

Portland Cement Concrete Pavement (Unreinforced), 0.20 m thick, 14 days

Station	*Length*	*Width*	*Area*
Sta. 0+000 - Sta 0+070	*70*	*5.00*	*350.00*
Sta. 0+120 - Sta 0+320	*200*	*5.00*	*1,000.00*
Sta. 0+420 - Sta 0+718	*298*	*5.00*	*1,490.00*
		Total	***2,840.00***

Aggregate Subbase Course (Shoulder)

Station	*Length*	*width*	*thickness*	*volume*	*Remarks*
Sta. 0+000 - Sta 0+070	*70*	*2.00*	*0.40*	*56.00*	*Both sides*
Sta. 0+120 - Sta 0+320	*200*	*2.00*	*0.40*	*160.00*	*Both sides*
Sta. 0+420 - Sta 0+718	*298*	*2.00*	*0.40*	*238.40*	*Both sides*
			Total	***454.40***	

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
REGIONAL OFFICE No. IV-A
BATANGAS 2ND DISTRICT
ENGINEERING OFFICE
KUMINTANG ILAYA, BATANGAS CITY

PROJECT NAME AND LOCATION:
CONCRETING OF BRGY. CALO FMR, BRGY. CALO LOBO, BATANGAS
LOBO, BATANGAS

SHEET CONTENT:
SCHEDULE OF QUANTITIES

DRAFTED:
DESIREE M. ESCAREZ
ENGINEER II
PREPARED:
JUNEIL RAY M. CHAVEZ
ENGINEER II

REVIEWED :
BRYAN EDWARD R. ANDAL
ENGINEER II
DATE:

SUBMITTED :
GEMMA L. OLAN
CHIEF, PLANNING AND DESIGN SECTION
DATE:

RECOMMENDED:
ARIEL V. ARMEDILLA
ASSISTANT DISTRICT ENGINEER
DATE:

APPROVED:
SONIA D. PAGLICAUAN
DISTRICT ENGINEER
DATE:

SET NO. R 17 | 17

SHEET NO. 24 | 24