

MEMBE	R	NO OF	BAR MARK	DIA	NO BARS	TOTAL	CUT LENGTH	SC	Α	В	С	D	E/R
		1	305A	Y12	2	2	8450	38	200	8090			
		1	305B	Y12	2	2	8150	38	200	7800			
		1	305C	Y12	2	2	7850	38	200	7505			
		1	305D	Y12	2	2	7550	38	200	7210			
		1	305E	Y12	2	2	7250	38	200	6920			
		1	305F	Y12	2	2	7000	38	200	6630			
		1	305G	Y12	2	2	6700	38	200	6335			
		1	305H	Y12	2	2	6400	38	200	6040			
		1	3051	Y12	2	2	6100	38	200	5750			
		1	305J	Y12	2	2	5800	38	200	5460			
		1	305K	Y12	2	2	5500	38	200	5165			
		1	305L	Y12	2	2	5200	38	200	4870			
		1	305M	Y12	2	2	4950	38	200	4580			
		1	306	Y12	18	18	8500	38	200	8150			
		1	307	Y12	128	128	5900	38	200	5570			
		1	308	Y12	72	72	1350	83	350	250	300	300	
	6	<u> </u>	8	10	12	16	20	2	5	32	40	Т	OTAL
R												\top	
Υ					1113	590						1	704
TOTAL					1113	590						1	704
					1				Γ				
MEMBE		NO OF	BAR MARK	DIA	NO BARS	TOTAL	CUT LENGTH	SC	Α	В	С	D	E/F
Cutt-C		2	390	Y10	71	142	2550	60	900	300			
Beam								ı	ı — —				1
Beam_		2	391	Y12	8	16	8100	37	600				\perp

TOTAL

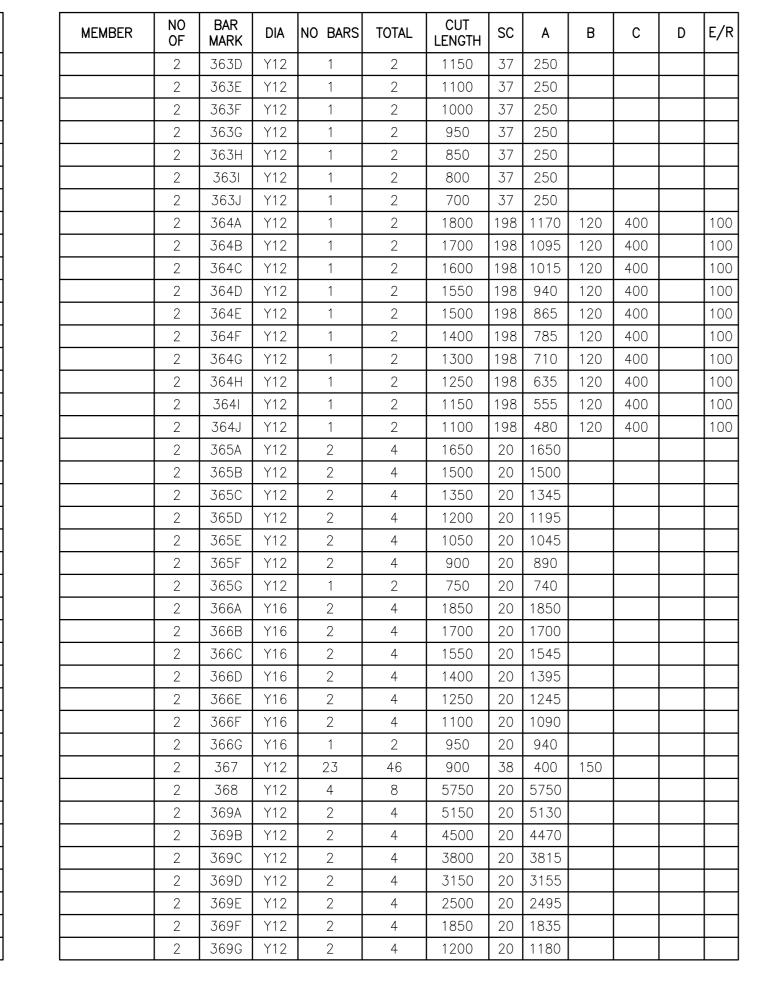
	1	305H	Y12	2	2	6400	38	200	6040			
	_ '											
	1	3051	Y12	2	2	6100	38	200	5750			
	1	305J	Y12	2	2	5800	38	200	5460			
	1	305K	Y12	2	2	5500	38	200	5165			
	1	305L	Y12	2	2	5200	38	200	4870			
	1	305M	Y12	2	2	4950	38	200	4580			
	1	306	Y12	18	18	8500	38	200	8150			
	1	307	Y12	128	128	5900	38	200	5570			
	1	308	Y12	72	72	1350	83	350	250	300	300	
		•	•									
6	5	8	10	12	16	20	2	5	32	40	T	OTAL
				1113	590						1	704
				1113	590						1	704
	NO	BAR				CUT				_		- /s
	NO OF	BAR MARK	DIA	NO BARS	TOTAL	CUT LENGTH	SC	A	В	С	D	E/R
Off			DIA Y10	NO BARS	TOTAL	CUT LENGTH 2550	SC	A 900	B 300	С	D	E/R
ER Off AS	OF	MARK				LENGTH				С	D	E/R
Off	OF 2	MARK 390	Y10	71	142	LENGTH 2550	60	900		С	D	E/R
Off AS	OF 2 2	390 391	Y10 Y12	71 8	142 16	2550 8100	60 37	900		С	D	E/R
Off AS	OF 2 2 2	390 391 392	Y10 Y12 Y12	71 8 20	142 16 40	2550 8100 7750	60 37 37	900 600 250		С	D	E/R
Off AS	2 2 2 2	390 391 392 393	Y10 Y12 Y12 Y12	71 8 20 14	142 16 40 28	2550 8100 7750 7200	60 37 37 20	900 600 250 7200	300	С	D	E/R
Off	OF 2 2 2 2 2	390 391 392 393 345	Y10 Y12 Y12 Y12 Y10	71 8 20 14 56	142 16 40 28 112	2550 8100 7750 7200 2550	60 37 37 20 60	900 600 250 7200 900	300	C	D	E/R
Off AS	2 2 2 2 2 2	390 391 392 393 345 346	Y10 Y12 Y12 Y12 Y10 Y25	71 8 20 14 56 8	142 16 40 28 112 16	2550 8100 7750 7200 2550 7300	60 37 37 20 60 37	900 600 250 7200 900 600	300	C	D	E/R
Off AS	OF 2 2 2 2 2 2 2	390 391 392 393 345 346 347	Y10 Y12 Y12 Y12 Y10 Y25 Y25	71 8 20 14 56 8 4	142 16 40 28 112 16 8	2550 8100 7750 7200 2550 7300 5000	60 37 37 20 60 37 20	900 600 250 7200 900 600 5000	300	C	D	E/R
Off AS Off ulvert	OF 2 2 2 2 2 2 2 2 2 2 2	MARK 390 391 392 393 345 346 347 348 349	Y10 Y12 Y12 Y12 Y10 Y25 Y25 Y12 Y12	71 8 20 14 56 8 4 20	142 16 40 28 112 16 8 40 20	2550 8100 7750 7200 2550 7300 5000 6650 4500	60 37 37 20 60 37 20 37 20	900 600 250 7200 900 600 5000 250 4500	300			
Off AS	OF 2 2 2 2 2 2 2 2 2 2 2	390 391 392 393 345 346 347 348	Y10 Y12 Y12 Y12 Y10 Y25 Y25 Y12	71 8 20 14 56 8 4 20	142 16 40 28 112 16 8 40	2550 8100 7750 7200 2550 7300 5000 6650	60 37 37 20 60 37 20 37 20	900 600 250 7200 900 600 5000 250	300	C 40		E/R
Off AS Off ulvert	OF 2 2 2 2 2 2 2 2 2 2 2	MARK 390 391 392 393 345 346 347 348 349	Y10 Y12 Y12 Y12 Y10 Y25 Y25 Y12 Y12	71 8 20 14 56 8 4 20 10	142 16 40 28 112 16 8 40 20	2550 8100 7750 7200 2550 7300 5000 6650 4500	60 37 20 60 37 20 37 20 37 20	900 600 250 7200 900 600 5000 250 4500	300		T	OTAL
Off AS Off ulvert	OF 2 2 2 2 2 2 2 2 2 2 2	MARK 390 391 392 393 345 346 347 348 349	Y10 Y12 Y12 Y12 Y10 Y25 Y25 Y12 Y12	71 8 20 14 56 8 4 20	142 16 40 28 112 16 8 40 20	2550 8100 7750 7200 2550 7300 5000 6650 4500	60 37 20 60 37 20 37 20 20 60 60	900 600 250 7200 900 600 5000 250 4500	300		T(

MEMBER	NO OF	BAR MARK	DIA	NO BARS	TOTAL	CUT LENGTH	SC	Α	В	С	D	E/R
Deck — Bottom	1	330A	Y20	2	2	4600	38	200	4280			
DULLUH	1	330B	Y20	2	2	4300	38	200	3990			
	1	330C	Y20	2	2	4000	38	200	3695			
	1	330D	Y20	2	2	3700	38	200	3400			
	1	330E	Y20	2	2	3400	38	200	3110			
	1	330F	Y20	2	2	3150	38	200	2820			
	1	330G	Y20	2	2	2850	38	200	2525			
	1	330H	Y20	2	2	2550	38	200	2230			
	1	3301	Y20	2	2	2250	38	200	1940			
	1	330J	Y20	2	2	1950	38	200	1650			
	1	330K	Y20	2	2	1650	38	200	1355			
	1	330L	Y20	2	2	1350	38	200	1060			
	1	330M	Y20	2	2	1100	38	200	770			
	1	331A	Y20	2	2	8400	38	200	8090			
	1	331B	Y20	2	2	8100	38	200	7800			
	1	331C	Y20	2	2	7800	38	200	7505			
	1	331D	Y20	2	2	7500	38	200	7210			
	1	331E	Y20	2	2	7250	38	200	6920			
	1	331F	Y20	2	2	6950	38	200	6630			
	1	331G	Y20	2	2	6650	38	200	6335			
	1	331H	Y20	2	2	6350	38	200	6040			
	1	3311	Y20	2	2	6050	38	200	5750			
	1	331J	Y20	2	2	5750	38	200	5460			
	1	331K	Y20	2	2	5500	38	200	5165			
	1	331L	Y20	2	2	5200	38	200	4870			
	1	331M	Y20	2	2	4900	38	200	4580			
	1	332	Y20	18	18	8450	38	200	8150			
	1	333	Y16	63	63	5900	38	200	5570			
	1	334	Y25	28	28	6450	37	200				
	1	335	Y25	14	14	6700	20	6700				
	1	342	Y12	72	72	1250	83	350	200	300	300	
	1	342	Y12	126	126	2500	99E	120	50	90	1100	120
Deck - Top	1	336A	Y16	2	2	4100	37	200				
	1	336B	Y16	2	2	3800	37	200				
	1	336C	Y16	2	2	3500	37	200				
	1	336D	Y16	2	2	3200	37	200				
	1	336E	Y16	2	2	2950	37	200				
	1	336F	Y16	2	2	2650	37	200				
	1	336G	Y16	2	2	2350	37	200				
	1	336H	Y16	2	2	2050	37	200				

МЕМВЕ	R	NO OF	BAR MARK	DIA	NO BARS	TOTAL	CUT LENGTH	SC	Α	В	С	D	E/R
		1	3361	Y16	2	2	1750	37	200				
		1	336J	Y16	2	2	1450	37	200				
		1	336K	Y16	2	2	1200	37	200				
		1	336L	Y16	2	2	900	37	200				
		1	336M	Y16	2	2	600	37	200				
		1	337A	Y16	2	2	7900	37	200				
		1	337B	Y16	2	2	7600	37	200				
		1	337C	Y16	2	2	7300	37	200				
		1	337D	Y16	2	2	7050	37	200				
		1	337E	Y16	2	2	6750	37	200				
		1	337F	Y16	2	2	6450	37	200				
		1	337G	Y16	2	2	6150	37	200				
		1	337H	Y16	2	2	5850	37	200				
		1	3371	Y16	2	2	5550	37	200				
		1	337J	Y16	2	2	5300	37	200				
		1	337K	Y16	2	2	5000	37	200				
		1	337L	Y16	2	2	4700	37	200				
		1	337M	Y16	2	2	4400	37	200				
		1	338	Y16	18	18	8500	38	200	8150			
		1	339	Y16	63	63	5900	38	200	5570			
		1	340	Y16	24	24	3750	37	200				
		1	341	Y25	24	24	6700	20	6700				
	6		8	10	12	16	20	2	5	32	40	Т	OTAL
R													
Y					360	1906	983	16	77			4	1925
TOTAL					360	1906	983	16	77			4	1925
MEMBE	R	NO OF	BAR MARK	DIA	NO BARS	TOTAL	CUT LENGTH	SC	A	В	С	D	E/R
Outer W	/all	2	309	Y16	29	58	2650	51	1500				150
		2	310	Y12	29	58	1400	37	250				
		2	312	Y12	29	58	2150	37	250				
		2	313	Y16	29	58	3350	51	1500				150
		2	314	Y12	30	60	6050	38	250	5590			
		2	325	Y10	16	32	550	38	150	300			
	6		8	10	12	16	20	2	5	32	40	T	OTAL
R		$\overline{}$					1		_			+	
				11	505	549		t				1	065
Y													

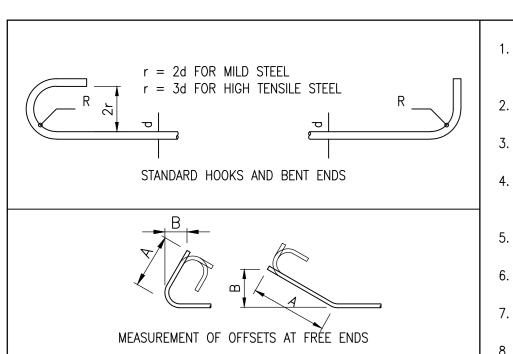
MEMBER	NO OF	BAR MARK	DIA	NO BARS	TOTAL	CUT LENGTH	SC	A	В	С	D	E/I
Debris Wall	2	311	Y16	58	116	1450	37	350				
	2	315	Y16	58	116	2200	37	350				
	2	316	Y12	28	56	6050	38	250	5590			
	2	317	Y12	22	44	1900	60	200	700			
	2	318	Y12	8	16	4250	20	4250				
	2	319	Y12	30	60	1100	37	200				
	2	320A	Y12	2	4	950	37	200				
	2	320B	Y12	2	4	900	37	200				
	2	320C	Y12	2	4	800	37	200				
	2	320D	Y12	2	4	700	37	200				
	2	321A	Y12	4	8	1600	20	1570				
	2	321B	Y12	4	8	1400	20	1405				
	2	321C	Y12	4	8	1250	20	1240				
	2	321D	Y12	4	8	1100	20	1075				
	2	321E	Y12	4	8	900	20	905				
	2	321F	Y12	4	8	750	20	740				
	2	321G	Y12	4	8	600	20	575				
	2	321H	Y12	2	4	400	20	410				
	2	322	Y12	19	38	950	38	400	200			
	2	323	Y12	4	8	4550	20	4550				
	2	324A	Y12	2	4	3900	20	3870				
	2	324B	Y12	2	4	3100	20	3115				
	2	324C	Y12	2	4	2350	20	2360				
	2	324D	Y12	2	4	1600	20	1605				
	2	324E	Y12	2	4	850	20	850				
	1	326	Y10	16	16	450	38	150	200			
	2	389	Y12	2	4	4800	20	4800				
						1				ı		
	6	8	10	12	16	20	2	5	32	40	<u> </u>	OTAL
R				005	000	1						7 -
Y			4	685	668	-	-				_	357
TOTAL			4	685	668						11	357

MEMBER	NO OF	BAR MARK	DIA	NO BARS	TOTAL	CUT LENGTH	sc	A	В	С	D	E/R
Wingwall 1 & 4	2	350A	Y16	2	4	1450	38	150	1210			
	2	350B	Y16	2	4	1350	38	150	1135			
	2	350C	Y16	2	4	1300	38	150	1065			
	2	350D	Y16	2	4	1200	38	150	990			
	2	350E	Y16	2	4	1150	38	150	915			
	2	351A	Y16	2	4	1050	38	150	840			
	2	351B	Y16	2	4	1000	38	150	765			
	2	351C	Y16	2	4	900	38	150	690			
	2	351D	Y16	2	4	850	38	150	615			
	2	351E	Y16	2	4	750	38	150	540			
	2	352A	Y16	1	2	1250	38	150	1030			
	2	352B	Y16	1	2	1050	38	150	820			
	2	352C	Y16	1	2	850	38	150	610			
	2	352D	Y16	1	2	650	38	150	400			
	2	353	Y16	2	4	800	38	150	550			
	2	354A	Y12	2	4	1450	38	150	1210			
	2	354B	Y12	2	4	1400	38	150	1135			
	2	354C	Y12	2	4	1300	38	150	1065			
	2	354D	Y12	2	4	1250	38	150	990			
	2	354E	Y12	2	4	1150	38	150	915			
	2	355A	Y12	2	4	1100	38	150	840			
	2	355B	Y12	2	4	1000	38	150	765			
	2	355C	Y12	2	4	950	38	150	690			
	2	355D	Y12	2	4	850	38	150	615			
	2	355E	Y12	2	4	800	38	150	540			
	2	356A	Y12	1	2	1300	38	150	1030			
	2	356B	Y12	1	2	1050	38	150	820			
	2	356C	Y12	1	2	850	38	150	610			
	2	356D	Y12	1	2	650	38	150	400			
	2	357	Y12	6	12	4500	20	4500				
	2	358A	Y12	2	4	1950	20	1940				
	2	358B	Y12	2	4	1700	20	1685				
	2	358C	Y12	2	4	1450	20	1430				
	2	359	Y12	4	8	5000	20	5000				
	2	360	Y12	2	4	6400	20	6400				
	2	361	Y12	13	26	1350	37	250				
	2	362	Y16	13	26	1700	198	1100	100	300		150
	2	363A	Y12	1	2	1400	37	250				
	2	363B	Y12	1	2	1300	37	250				
	2	363C	Y12	1	2	1250	37	250				T



MEMBER	R NO OF	BAR MARK	DIA	NO BARS	TOTAL	CUT LENGTH	SC	А	В	С	D	E/R	MEMBER	NO OF	BAR MARK	DIA	NO BARS
	2	369H	Y12	2	4	550	20	520					Wingwall 2 &	2	370A	Y16	2
	2	387	Y12	2	4	5850	20	5840						2	370B	Y16	2
		•	•			•		•						2	370C	Y16	2
	6	8	10	12	16	20	2	25	32	40	T	OTAL		2	370D	Y16	2
R														2	370E	Y16	2
Y				454	215							669		2	370F	Y16	2
TOTAL				454	215							669		2	370G	Y16	2
														2	370H	Y16	1
														2	371A	Y12	2
														2	371B	Y12	2
														2	371C	Y12	2
														2	371D	Y12	2
														2	371E	Y12	2
														2	371F	Y12	2
														2	371G	Y12	2
														2	371H	Y12	1
														2	372	Y16	2
														2	373	Y16	2
														2	374	Y12	6
														2	375A	Y12	2
														2	375B	Y12	2
														2	375C	Y12	2
														2	376	Y12	4
														2	377	Y12	2
														2	378	Y12	8
														2	379	Y16	8
														2	380A	Y12	1
														2	380B	Y12	1
														2	380C	Y12	1
														2	380D	Y12	1
														2	380E	Y12	1
														2	380F	Y12	I = 1

No. No.	_											
No. No.		·		Г		1	1	ı	Γ	Γ		
Total Tota		BAR MARK	DIA	NO BARS	TOTAL	LENGTH	SC	Α	В	С	D	E/R
The color of the	l	370A	Y16	2	4	750	38	150	510			
700	L	370B	Y16	2	4	850	38	150	615			
No. 100 110		370C	Y16	2	4	950	38	150	725			
Topic Topi		370D	Y16	2	4	1050	38	150	830			
The color The		370E	Y16	2	4	1150	38	150	940			
		370F	Y16	2	4	1300	38	150	1045			
TIA Y12 2		370G	Y16	2	4	1400	38	150	1155			
The The		370H	Y16	1	2	1500	38	150	1260			
The color of the		371A	Y12	2	4	750	38	150	510			
710 712 2		371B	Y12	2	4	850	38	150	615			
Title Titl		371C	Y12	2	4	1000	38	150	725			
Temporary Temp		371D	Y12	2	4	1100	38	150	830			
Tight Tigh		371E	Y12	2	4	1200	38	150	940			
		371F	Y12	2	4	1300	38	150	1045			
		371G	Y12	2	4	1400	38	150	1155			
73		371H	Y12	1	2	1500	38	150	1260			
		372	Y16	2	4	1250	38	150	1000			
758 Y12 2 4 1000 20 1010		373	Y16	2	4	950	38	150	700			
75B Y12 2		374	Y12	6	12	3500	20	3500				
Total Tota		375A	Y12	2	4	1000	20	1010				
176		375B	Y12	2	4	1100	20	1065				
177 Y12 2 4 4100 20 4100		375C	Y12	2	4	1150	20	1120				
178 Y12 8		376	Y12	4	8	3800	20	3800				
10		377	Y12	2	4	4100	20	4100				
80A Y12 1 2 1500 37 250 80B Y12 1 2 1400 37 250 80C Y12 1 2 1300 37 250 80D Y12 1 2 1200 37 250 80E Y12 1 2 1100 37 250 80F Y12 1 2 1000 37 250 80G Y12 1 2 1000 37 250 80G Y12 1 2 900 37 250		378	Y12	8	16	1350	37	250				
SOB Y12 1 2 1400 37 250		379	Y16	8	16	1900	198	1100	100	500		150
BOC Y12 1 2 1300 37 250 BOD Y12 1 2 1200 37 250 BOE Y12 1 2 1100 37 250 BOF Y12 1 2 1000 37 250 BOG Y12 1 2 900 37 250 TOTAL TOTAL 37 264 150		380A	Y12	1	2	1500	37	250				
80D Y12 1 2 1200 37 250 R 6 8 10 12 16 20 80E Y12 1 2 1100 37 250 R Y 37 264 150 80G Y12 1 2 900 37 250 TOTAL 37 264 150)	380B	Y12	1	2	1400	37	250				
ROE Y12 1 2 1100 37 250 BOF Y12 1 2 1000 37 250 BOG Y12 1 2 900 37 250 TOTAL 37 264 150		380C	Y12	1	2	1300	37	250				
80F Y12 1 2 1000 37 250 80G Y12 1 2 900 37 250 TOTAL 37 264 150		380D	Y12	1	2	1200	37	250				1
80G Y12 1 2 900 37 250 TOTAL 37 264 150		380E	Y12	1	2	1100	37	250				1
		380F	Y12	1	2	1000	37	250				
BOH Y12 1 2 750 37 250		380G	Y12	1	2	900	37	250				1
		380H	Y12	1	2	750	37	250				1



'H' OR 'B' SUFFIX TO STANDARD SHAPE CODE

- NOTES I. BEND TO 2d RADIUS FOR MILD STEEL BARS AND 3d RADIUS OR 7,5d IF SHAPE CODE IS FOLLOWED BY SUFFIX 'S' FOR HIGH TENSILE STEEL BARS UNLESS LARGER RADII ARE INDICATED FOR THE PARTICULAR SHAPE CODE. . STEEL TO COMPLY WITH SANS 920. MILD STEEL BARS SHALL BE PLAIN AND
- HIGH TENSILE STEEL BARS DEFORMED. . MILD STEEL BARS ARE IDENTIFIED BY A CAPITAL 'R' AND HIGH TENSILE STEEL BARS BY A CAPITAL 'Y' PREFIXED TO THE DIAMETER IN mm. . BENDING DIMENSIONS SHALL BE IN ACCORDANCE WITH SANS 282-2011, EXCEPT AS SHOWN OTHERWISE ON THIS SHEET. WELDING OF BARS IS INDICATED
- BY 'W' AND LAPPING BY 'LAPPED'. 5. ALL BARS SHALL BE BENT COLD. WELDING SHALL NOT BE PERMITTED FOR
- HIGH TENSILE STEEL BARS. 6. WELDING OF MILD STEEL BARS SHALL BE IN ACCORDANCE WITH SANS 10044:2004 AND BS 1856 OR BS 693.
- 7. ALL DIMENSIONS GIVEN ON SHAPE CODES ARE EXTERNAL EXCEPT FOR OFFSETS OF FREE ENDS (SEE SKETCH ABOVE). 8. THE CUTTING LENGTH TOLERANCE IS TAKEN UP IN THE BRACKETED DIMENSIONS
- OR IN HOOKS OR BENT ENDS WHERE PRESENT. 9. SUFFIX 'H' OR 'B' TO A STANDARD SHAPE CODE INDICATES THE ADDITION OF TWO HOOKS OR BENT ENDS TO THE FREE ENDS OF THE STANDARD SHAPE. THEY ARE BENT IN THE SAME DIRECTION AS THE ADJACENT BEND OR CURVE. THE

DIMENSIONS IN BRACKETS ARE GIVEN IN THIS CASE.

			SHAPE CO	DES 20 - 86		
(A)	39	45 B O	52 A C	60 B	73 <u>C</u> <	83 M
36	41 (C) A	48 A	53 A C (E) C	62 (C)	74 × B	85 B C (D)
37 < (B)	42 C C	49 C (C)	54 A B	65 R A	75 E C C	86
38 V D D D	43 A (E) C	51 R (B)	55 A (E) C	72 B	81 m A	C C B B

B (0)	C E	(C)	
) ပ			
B B			

SHAPE CODES 187 - 198

198 B

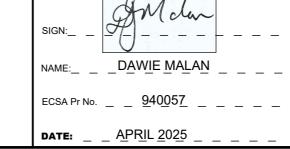
NO.	DATE	ADDITIONS, AMENDMENTS AND REVISIONS	PROVINCIAL CHIEF ENG.	CONSULT. ENG.	DESIGNED BY:	DETAILED BY:
VB	04/2025	FOR TENDER	M PETERSEN	D. MALAN	A. HEARNE	B OLIVIER
					A. HEARNE	BOLIVIER
					CHECKED BY:	CHECKED BY:
					CHECKED B1.	CHECKED B1.
					D. MALAN	A. HEARNE
					D. IVIALAIN	A. HEARNE



www.hatch.com

163 Uys Krige Drive

Plattekloof, 7500





	ACCEPTANCE	Γ
	IS APPROVAL IS FOR PROCEDURAL AND ADMINISTRATIVE REVIEW PURPOSES	l
	ONLY AND DOES NOT ATTRACT LEGAL	l
	LIABILITY OF ANY KIND FROM WHATSOEVER OR HOWEVER ARISING	l
		l
		ŀ
	PROVINCIAL ROADS ENGINEER	l
D/	ATE:	l

2 | 381F | Y12 | 1 | 2 | 1350 | 198 | 750 | 120 | 400 |

CAUSEWAY No 12515 on DR1791 at Km 1.59 over BITOU RIVER NEAR STOFPAD		SCALE SHEETS OF	ORIGINAL PAPER SIZE
	CONTRACT NO. C1157.02	WCG STRUCTURE PLAN C12515/06	
BENDING SCHEDULES	CONSULTANTS DWG NO. H361596-00000-238-272-1791-0003	WCG INDEX NO. A99/136	VER VB