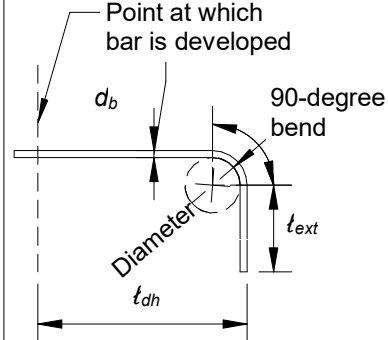
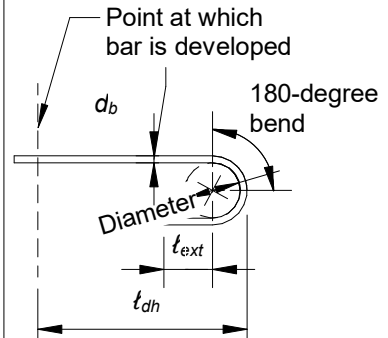


STANDARD HOOK FOR DEVELOPMENT TABLE				
Type of standard hook	Bar size	Minimum inside bend diameter, in.	Straight extension <sup>[1]</sup> $\ell_{ext}$ , in.	Type of standard hook
90-degree hook	No. 3 through No. 8	$6d_b$	$12d_b$	
	No. 9 through No. 11	$8d_b$		
	No. 14 and No. 18	$10d_b$		
180-degree hook	No. 3 through No. 8	$6d_b$	Greater of $4d_b$ and 2.5 in.	
	No. 9 through No. 11	$8d_b$		
	No. 14 and No. 18	$10d_b$		

<sup>[1]</sup>A STANDARD HOOK FOR DEFORMED BARS IN TENSION INCLUDES THE SPECIFIC INSIDE BEND DIAMETER AND STRAIGHT EXTENSION LENGTH. IT SHALL BE PERMITTED TO USE A LONGER STRAIGHT EXTENSION AT THE END OF A HOOK. A LONGER EXTENSION SHALL NOT BE CONSIDERED TO INCREASE THE ANCHORAGE CAPACITY OF THE HOOK.

REINFORCEMENT SPLICE AND DEVELOPMENT LENGTH (INCHES) TABLE (FOR 4000 PSI CONCRETE) (IN)											
CATEGORY			#3	#4	#5	#6	#7	#8	#9	#10	#11
1	L.d	TOP	18	25	31	37	54	62	69	77	85
		BOT	14	19	24	28	42	47	53	59	65
	L.st	SPLICE	24	32	40	48	70	80	90	100	110
2	L.d	TOP	28	37	46	55	81	92	104	116	127
		BOT	21	28	36	43	62	71	80	89	98
	L.st	SPLICE	36	48	60	72	105	120	135	150	165
	L.dh	HOOK	7	11	15	19	24	30	36	42	48
NOTES:											
A. DEVELOPMENT AND SPLICE LENGTHS SHOWN IN TABLE ARE CALCULATED IN ACCORDANCE WITH ACI 318-19											
B. TOP BARS ARE DEFINED AS HORIZONTAL REINFORCEMENT SO PLACED THAT MORE THAN 12 INCHES OF FRESH CONCRETE IS CAST BELOW THE BAR.											
C. $d_b$ STANDS FOR NOMINAL BAR DIAMETER.											
L.d STANDS FOR DEVELOPMENT LENGTH											
L.st STANDS FOR SPLICE LENGTH											
L.dh STANDS FOR DEVELOPMENT LENGTH OF BAR WITH STANDARD HOOK											
D. CATEGORIES DEFINITIONS:											
CATEGORY 1: CLEAR SPACING OF BARS OR WIRES BEING DEVELOPED OR LAP SPLICED NOT LESS THAN $d_b$ , CLEAR COVER AT LEAST $d_b$ , AND STIRRUPS OR TIES THROUGHOUT Ld NOT LESS THAN THE CODE MIN OR CLEAR SPACING OF BARS OR WIRES BEING DEVELOPED OR LAP SPLICED AT LEAST 2 $d_b$ AND CLEAR COVER AT LEAST $d_b$ .											
CATEGORY 2: ALL OTHERS											

MIN. INSIDE BEND DIAMETERS AND STANDARD HOOK GEOMETRY FOR STIRRUPS, TIES AND HOOPS TABLE				
Type of standard hook	Bar size	Minimum inside bend diameter, in.	Straight extension <sup>[1]</sup> $\ell_{ext}$ , in.	Type of standard hook
90-degree hook	No. 3 through No. 8	$6d_b$	$12d_b$	
	No. 9 through No. 11	$8d_b$		
	No. 14 and No. 18	$10d_b$		
135-degree hook	No. 3 through No. 5	$4d_b$	Greater of $6d_b$ and 3 in.	
	No. 6 through No. 8	$6d_b$		
180-degree hook	No. 3 through No. 5	$6d_b$	Greater of $4d_b$ and 2.5 in.	
	No. 6 through No. 8	$8d_b$		
<sup>[1]</sup> A STANDARD HOOK FOR STIRRUPS, TIES, AND HOOPS INCLUDES THE SPECIFIC INSIDE BEND DIAMETER AND STRAIGHT EXTENSION LENGTH. IT SHALL BE PERMITTED TO USE A LONGER STRAIGHT EXTENSION AT THE END OF A HOOK. A LONGER EXTENSION SHALL NOT BE CONSIDERED TO INCREASE THE ANCHORAGE CAPACITY OF THE HOOK.				

ANSI D (34"x22")

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GRAPHIC SCALE

Digitally signed by Kristopher P  
Pagan-Cruz  
Date: 2026.02.17 10:28:55-05'00'

PROJECT ENGINEER

Designed By	JAVIER QUIROS	County	HYDE COUNTY		
Entered By	VICTOR PADILLA	Division	FERRY DIVISION		
Project Engineer	KRISTOPHER PAGAN	Plan Date	01/14/26		
Project Manager	ALLISON THORBURN				
Rev.	Date	Drawn	Description	Ch'kd	App'd

NCDOT PASSENGER FERRY  
DOCK REPLACEMENT -  
OCRACOKE ISLAND

G-003 MARINE GENERAL NOTES  
(2 OF 2)