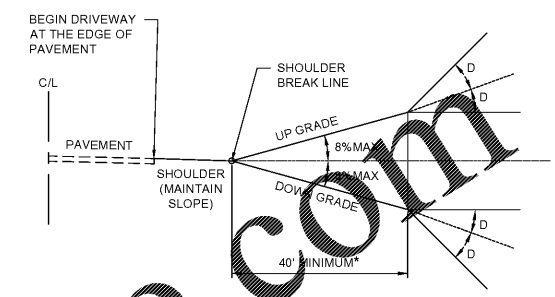


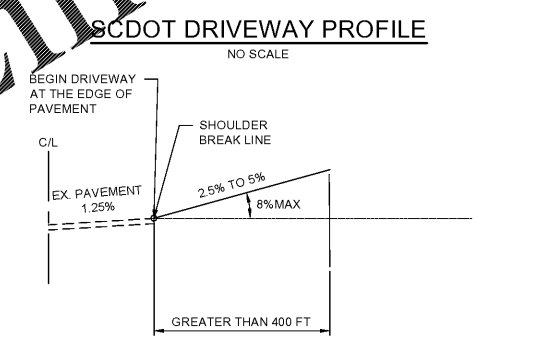
**ARMS MANUAL 3B-3 APPROACH GRADE AND SIDE SLOPE FOR LOW/MEDIUM VOLUME DRIVES**

WHERE A SHOULDER EXISTS, THE PROFILE OF THE APPROACH FROM THE EDGE OF THE PAVEMENT SHALL SLOPE AT THE SAME RATE AS THE HIGHWAY SHOULDER FOR THE FULL WIDTH OF THE SHOULDER AS SHOWN BELOW.

A DIFFERENCE IN GRADE, NOT TO EXCEED PLUS OR MINUS 8 PERCENT, SHALL BE MAINTAINED FROM THE EDGE OF THE SHOULDER FOR A MINIMUM DISTANCE OF 40 FEET. LOW VOLUME DRIVES CAN HAVE AN ADDITIONAL GRADE CHANGE AT THIS POINT NOT TO EXCEED 14 PERCENT TOTAL GRADE CHANGE FROM THE SHOULDER GRADE. ALSO, DRIVEWAYS SHALL HAVE A MAXIMUM SIDE SLOPE RATIO OF 4:1. THESE ITEMS SHOULD BE CLEARLY LABELED ON THE DRIVEWAY PROFILE IN THE ENCROACHMENT PERMIT APPLICATION.



\* MAY BE REDUCED TO 10 FEET FOR LOW VOLUME RESIDENTIAL DRIVEWAYS.  
 MAXIMUM 8 PERCENT GRADE CHANGE FOR LOW VOLUME DRIVEWAYS.  
 MAXIMUM 14 PERCENT GRADE CHANGE FOR ALL OTHER DRIVEWAYS SHOULD BE 0 PERCENT.



**W. MARTINTOWN ROAD**  
NO SCALE

STORM PIPES SCHEDULE							
UPSTREAM STRUCTURE	DOWNSTREAM STRUCTURE	PIPE DIA. (IN.)	PIPE MAT'L	PIPE LENGTH (FT.)	PIPE SLOPE (%)	INV. (UP)	INV. (DOWN)
JB-A2	OCS-A1	48	HDPE	45	0.00%	431.00	431.00
JB-A2.1	JB-A1.1	48	HDPE	45	0.00%	431.00	431.00
OCS-A1	FES A0	24	HDPE	39	0.50%	431.00	430.81
CI-A2.2	JB-A2.1	18	RCP	101	0.25%	433.75	433.50
CI-A2.3	CI-A2.2	18	HDPE	46	0.25%	433.96	433.85
YI-A2.4	CI-A2.3	18	HDPE	60	0.25%	434.21	434.06
CI-A3	JB-A2	18	RCP	72	1.00%	434.22	433.50
CI-A2.5	YI-A2.4	18	HDPE	35	0.25%	434.40	434.31
CI-A2.4.1	YI-A2.4	18	HDPE	48	0.25%	434.43	434.31
YI-A4	CI-A3	18	HDPE	37	0.50%	434.51	434.32
CI-A2.5.1	CI-A2.5	15	RCP	21	0.25%	434.55	434.50
YI-A2.6	CI-A2.5	15	HDPE	13	0.50%	434.57	434.50
GI A-3.1	CI-A3	18	RCP	55	0.50%	434.60	434.32
YI-A5	YI-A4	18	HDPE	43	0.50%	434.82	434.61
YI-A6	YI-A5	18	HDPE	29	0.50%	435.07	434.92
CI-A7	YI-A6	18	RCP	37	0.50%	435.36	435.17
YI-A8	CI-A7	18	RCP	28	0.50%	435.60	435.46
YI-A9	YI-A8	15	HDPE	32	0.50%	435.86	435.70
CI-A2.2.1	CI-A2.2	15	RCP	20	1.00%	437.20	437.00
YI-B1	EX SWT	15	HDPE	31	0.50%	438.18	438.03
OCS-B2	YI-B1	15	HDPE	43	0.50%	438.50	438.28

**GRADING AND DRAINAGE PLAN**  
C-201

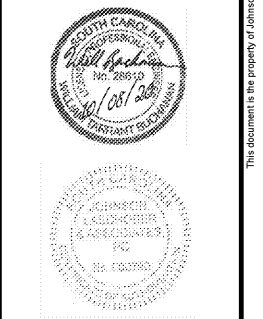
**UTILITY WARNING:**  
 The underground utilities shown have been located from field survey information and existing drawings. The engineer makes no guarantee that the underground utilities shown comprise all such utilities in the area, either in service or abandoned. The engineer further does not warrant that the underground utilities shown are in the exact location indicated although he does certify that they are located as accurately as possible from information available. The engineer has not physically located the underground utilities.

**JOHNSON, LASCHOB & ASSOCIATES, P.C.**  
 AUGUSTA, GA • MT. PLEASANT, SC  
 TEL (706) 724-5756 • TEL (843) 619-4656  
 FAX (706) 724-3935  
 WWW.THEJLAGROUP.COM

CLIENT: CITY OF NORTH AUGUSTA, SC  
 100 GEORGIA AVENUE, NORTH AUGUSTA, SC 29841

PROJECT NAME: **NORTH AUGUSTA FIRE STATION 1 RELOCATION**

PROJECT LOCATION: 311 W. MARTINTOWN ROAD, NORTH AUGUSTA, SC 29841



REV	DATE	BY	DESCRIPTION
0	10/08/20	WTB	ISSUED FOR BID

PROJECT NO. 3057.2003  
 DRAWN BY: JNR  
 CHECKED BY: WTB  
 DATE: 10/08/2020

SHEET TITLE: **GRADING AND DRAINAGE PLAN**

SCALE: 1" = 30'

DRAWING NO. **C-201** REV. 0

Stewart-Cooper-Newell Architects  
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