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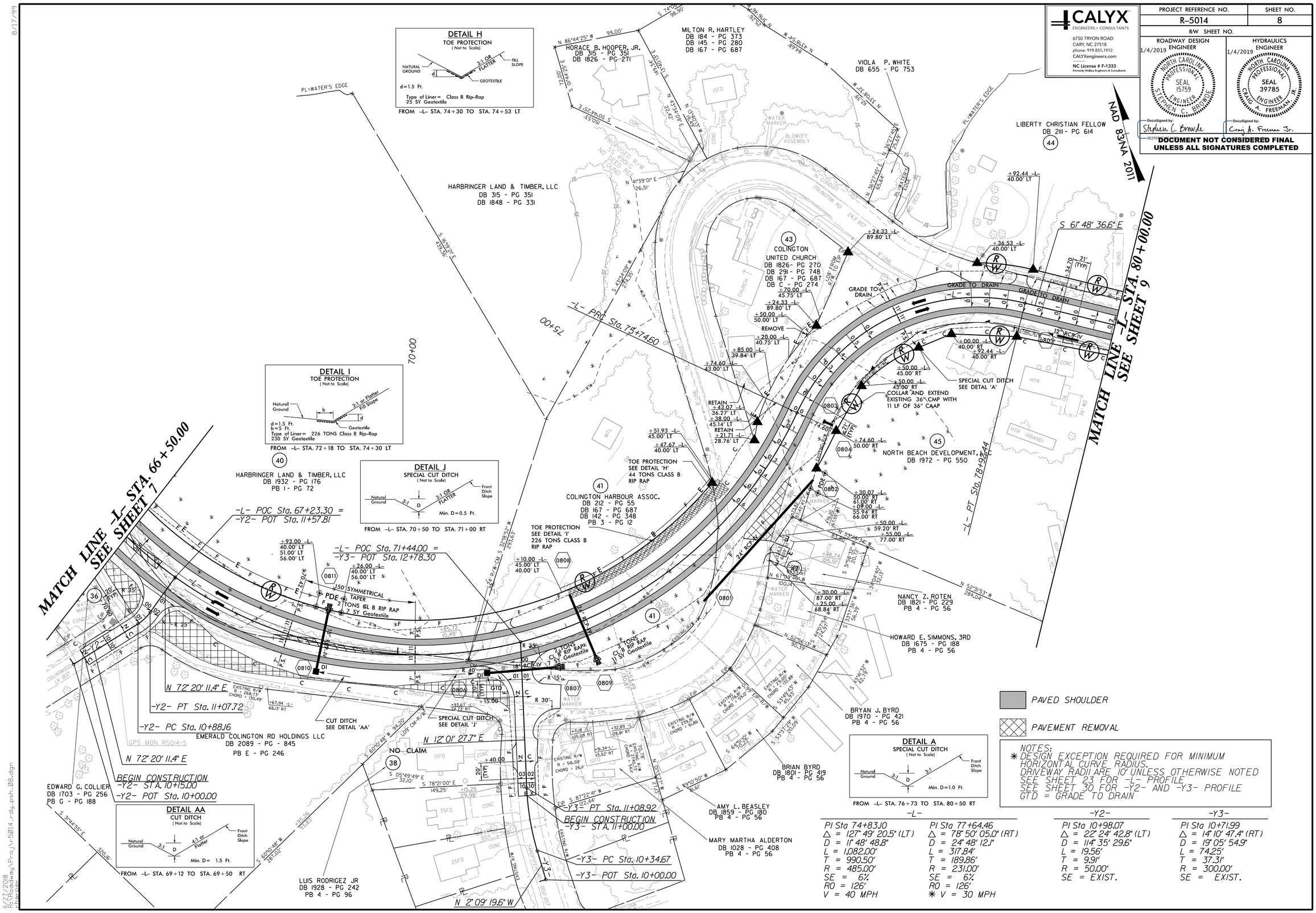

DETAIL H
TOE PROTECTION
(Not to Scale)

FROM -L- STA. 74+30 TO STA. 74+53 LT

DETAIL I
TOE PROTECTION
(Not to Scale)

FROM -L- STA. 72+18 TO STA. 74+30 LT

DETAIL J
SPECIAL CUT DITCH
(Not to Scale)

FROM -L- STA. 70+50 TO STA. 71+00 RT

DETAIL AA
CUT DITCH
(Not to Scale)

FROM -L- STA. 69+12 TO STA. 69+50 RT

DETAIL A
SPECIAL CUT DITCH
(Not to Scale)

FROM -L- STA. 76+73 TO STA. 80+50 RT

CALYX
ENGINEERS + CONSULTANTS
6750 TRYON ROAD
CARY, NC 27518
phone: 919.851.1912
CALYXengineers.com
NC License # F-1333
Formerly Mulkey Engineers & Consultants

PROJECT REFERENCE NO.	SHEET NO.
R-5014	8
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER
1/4/2019
NORTH CAROLINA PROFESSIONAL SEAL 15759 ENGINEER STEPHEN C. BROWDE
DocuSigned by: Stephen C. Browde
OE270

HYDRAULICS ENGINEER
1/4/2019
NORTH CAROLINA PROFESSIONAL SEAL 39785 ENGINEER CRAIG A. FREEMAN, JR.
DocuSigned by: Craig A. Freeman Jr.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PAVED SHOULDER

PAVEMENT REMOVAL

NOTES:
✱ DESIGN EXCEPTION REQUIRED FOR MINIMUM HORIZONTAL CURVE RADIUS.
DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED
SEE SHEET 23 FOR -L- PROFILE
SEE SHEET 30 FOR -Y2- AND -Y3- PROFILE
GTD = GRADE TO DRAIN

-L-		-Y2-	-Y3-
PI Sta 74+83.10	PI Sta 77+64.46	PI Sta 10+98.07	PI Sta 10+71.99
Δ = 127° 49' 20.5" (LT)	Δ = 78° 50' 05.0" (RT)	Δ = 22° 24' 42.8" (LT)	Δ = 14° 10' 47.4" (RT)
D = 11° 48' 48.8"	D = 24° 48' 12.1"	D = 114° 35' 29.6"	D = 19° 05' 54.9"
L = 1,082.00'	L = 317.84'	L = 19.56'	L = 74.25'
T = 990.50'	T = 189.86'	T = 9.91'	T = 37.31'
R = 485.00'	R = 231.00'	R = 50.00'	R = 300.00'
SE = 6%	SE = 6%	SE = EXIST.	SE = EXIST.
RO = 126'	RO = 126'		
V = 40 MPH	✱ V = 30 MPH		

11/27/2018
K:\Roadway\Proj\r5014_rdy_psh_08.dgn