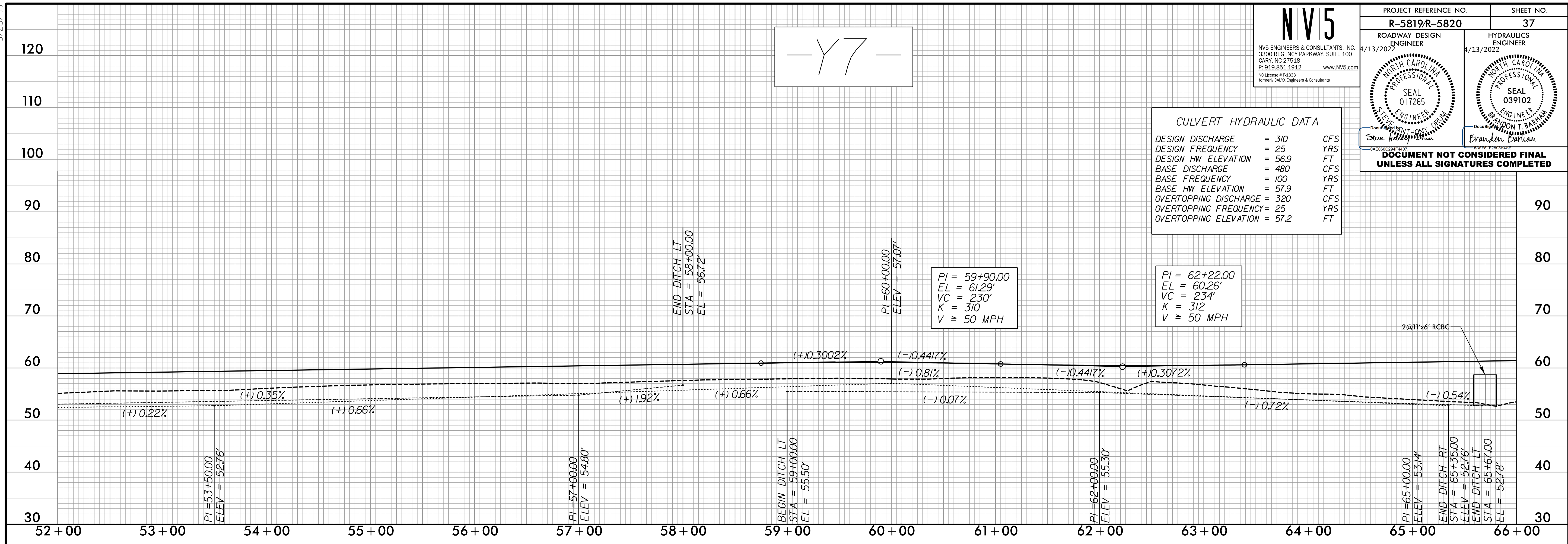


5/28/22

NIV5
 NIV5 ENGINEERS & CONSULTANTS, INC.
 3300 REGENCY PARKWAY, SUITE 100
 CARY, NC 27518
 P: 919.853.1912 www.NIV5.com
 NC License # F-1333
 formerly CALYX Engineers & Consultants

PROJECT REFERENCE NO. R-5819/R-5820	SHEET NO. 37
ROADWAY DESIGN ENGINEER 4/13/2022	HYDRAULICS ENGINEER 4/13/2022
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

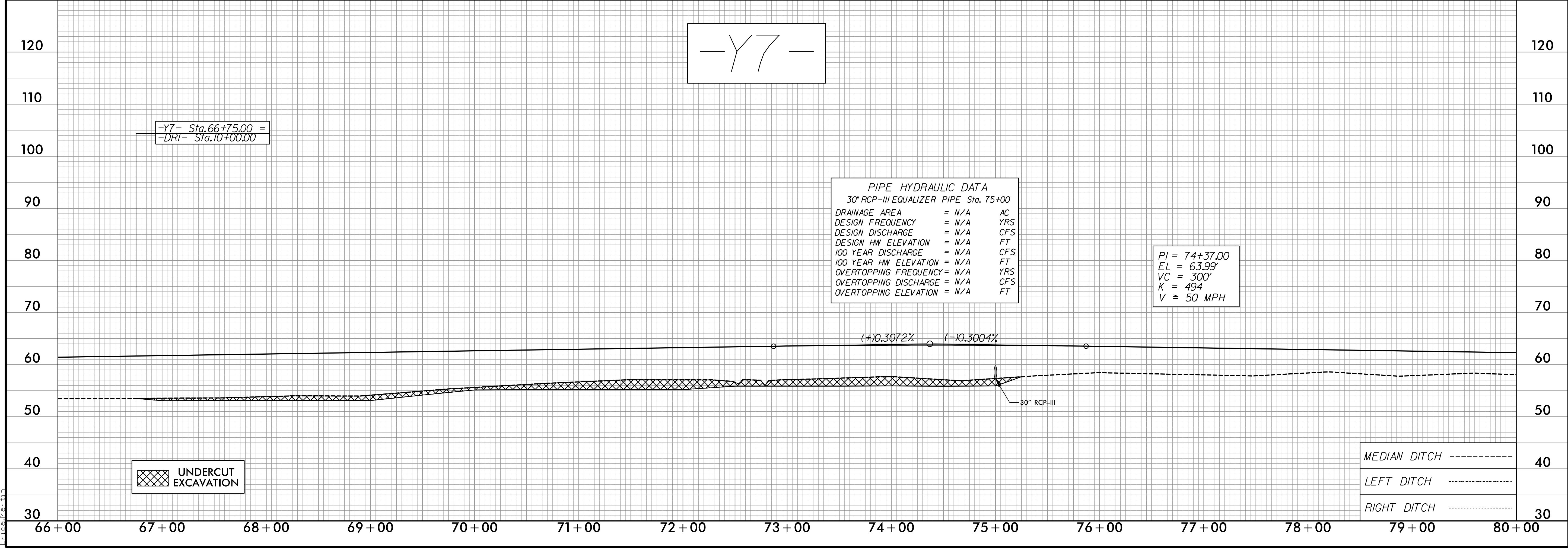


CULVERT HYDRAULIC DATA

DESIGN DISCHARGE	= 310	CFS
DESIGN FREQUENCY	= 25	YRS
DESIGN HW ELEVATION	= 56.9	FT
BASE DISCHARGE	= 480	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 57.9	FT
OVERTOPPING DISCHARGE	= 320	CFS
OVERTOPPING FREQUENCY	= 25	YRS
OVERTOPPING ELEVATION	= 57.2	FT

PI = 59+90.00
 EL = 61.29'
 VC = 230'
 K = 310
 V = 50 MPH

PI = 62+22.00
 EL = 60.26'
 VC = 234'
 K = 312
 V = 50 MPH



PIPE HYDRAULIC DATA
 30" RCP-III EQUALIZER PIPE Sta. 75+00

DRAINAGE AREA	= N/A	AC
DESIGN FREQUENCY	= N/A	YRS
DESIGN DISCHARGE	= N/A	CFS
DESIGN HW ELEVATION	= N/A	FT
100 YEAR DISCHARGE	= N/A	CFS
100 YEAR HW ELEVATION	= N/A	FT
OVERTOPPING FREQUENCY	= N/A	YRS
OVERTOPPING DISCHARGE	= N/A	CFS
OVERTOPPING ELEVATION	= N/A	FT

PI = 74+37.00
 EL = 63.99'
 VC = 300'
 K = 494
 V = 50 MPH

UNDERCUT EXCAVATION

MEDIAN DITCH -----
 LEFT DITCH
 RIGHT DITCH - . - . - .

3/18/2022
 R:\Projects\5819\5820\RDY_PFL_37.dgn
 E:\C:\Users\pcoj\OneDrive\Documents\Projects\5819\5820\RDY_PFL_37.dgn