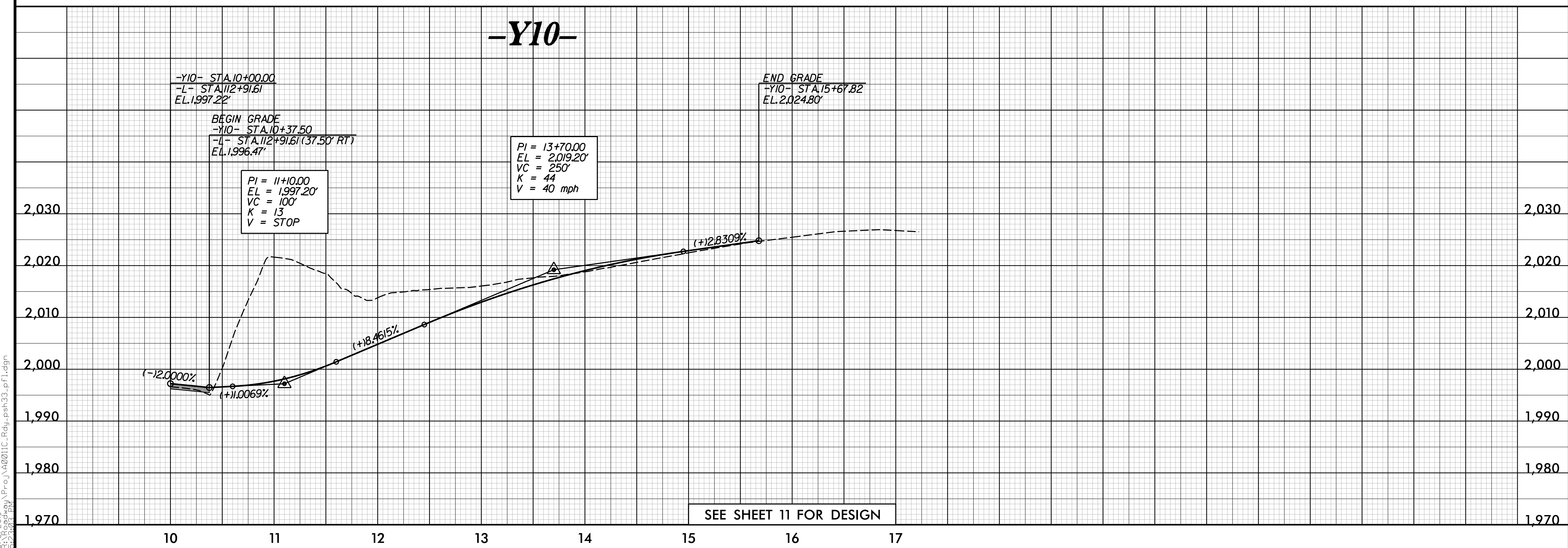
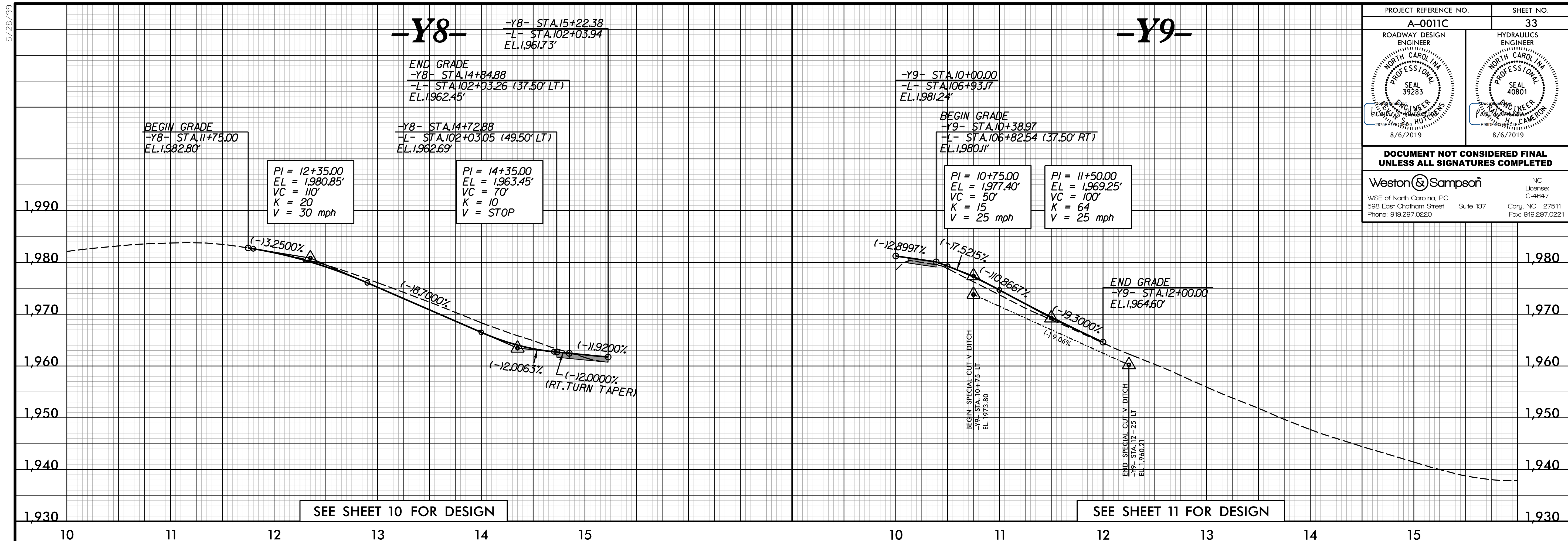


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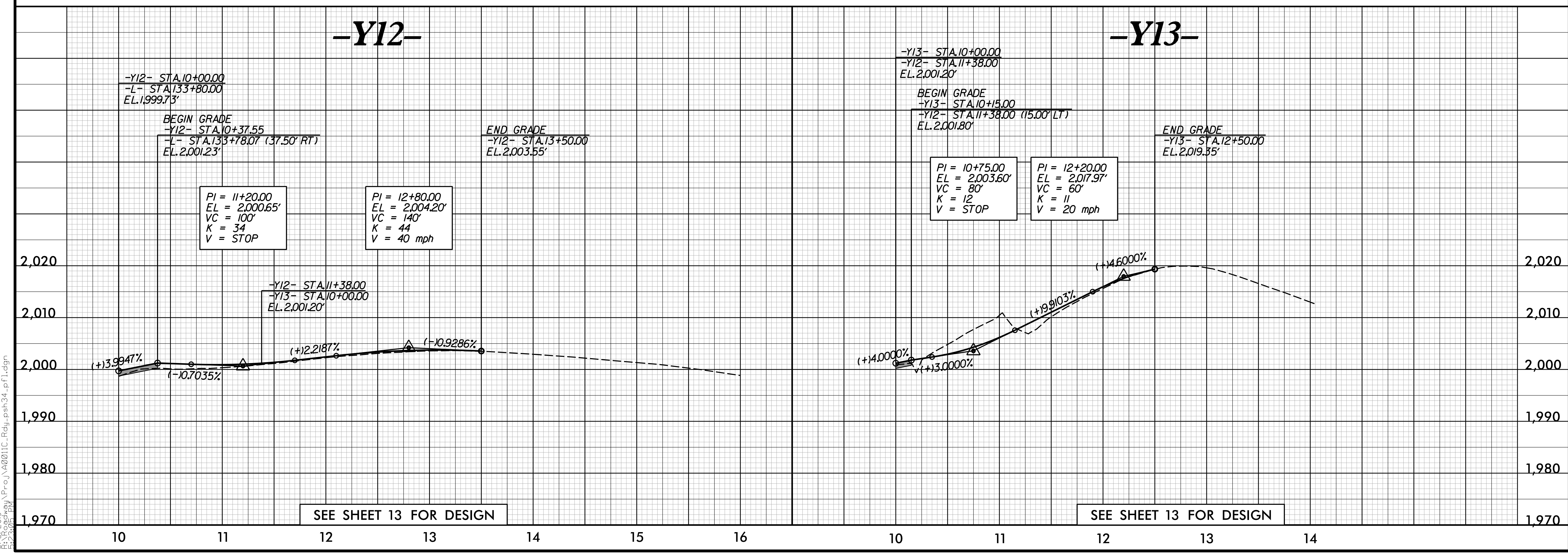
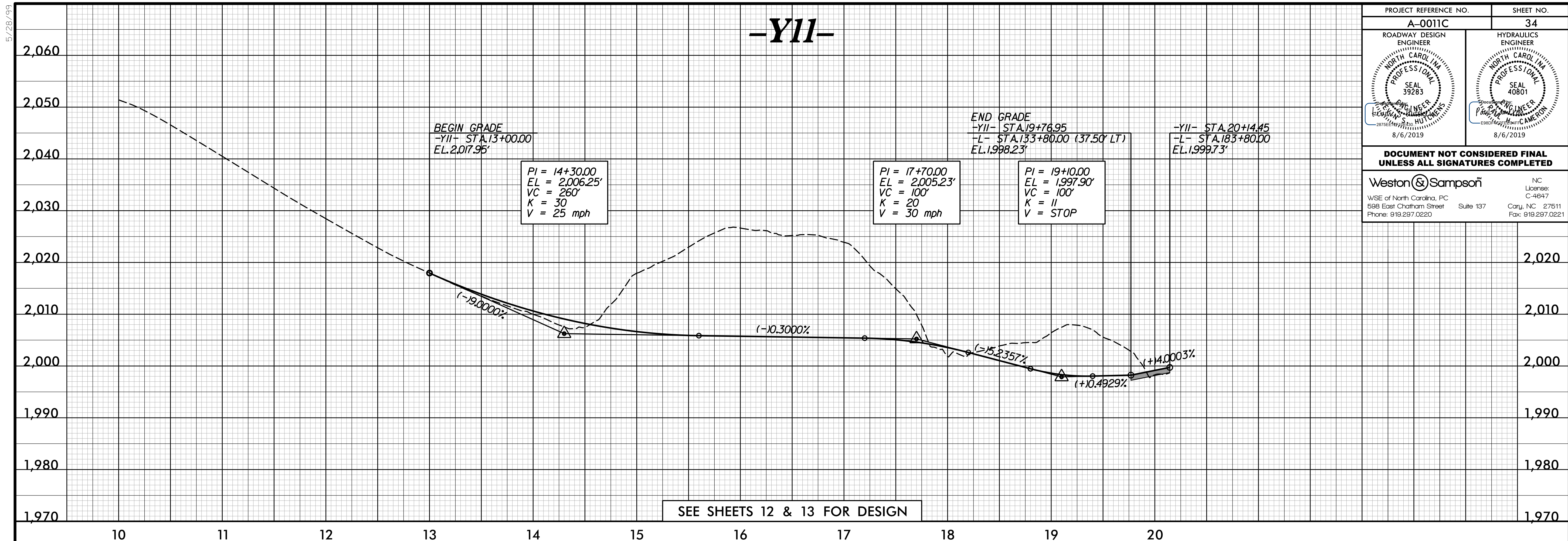
PROJECT REFERENCE NO. A-0011C	SHEET NO. 33
ROADWAY DESIGN ENGINEER NORTH CAROLINA PROFESSIONAL SEAL 39283 8/6/2019	HYDRAULICS ENGINEER NORTH CAROLINA PROFESSIONAL SEAL 40801 8/6/2019
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PROJECT REFERENCE NO. A-0011C	SHEET NO. 34
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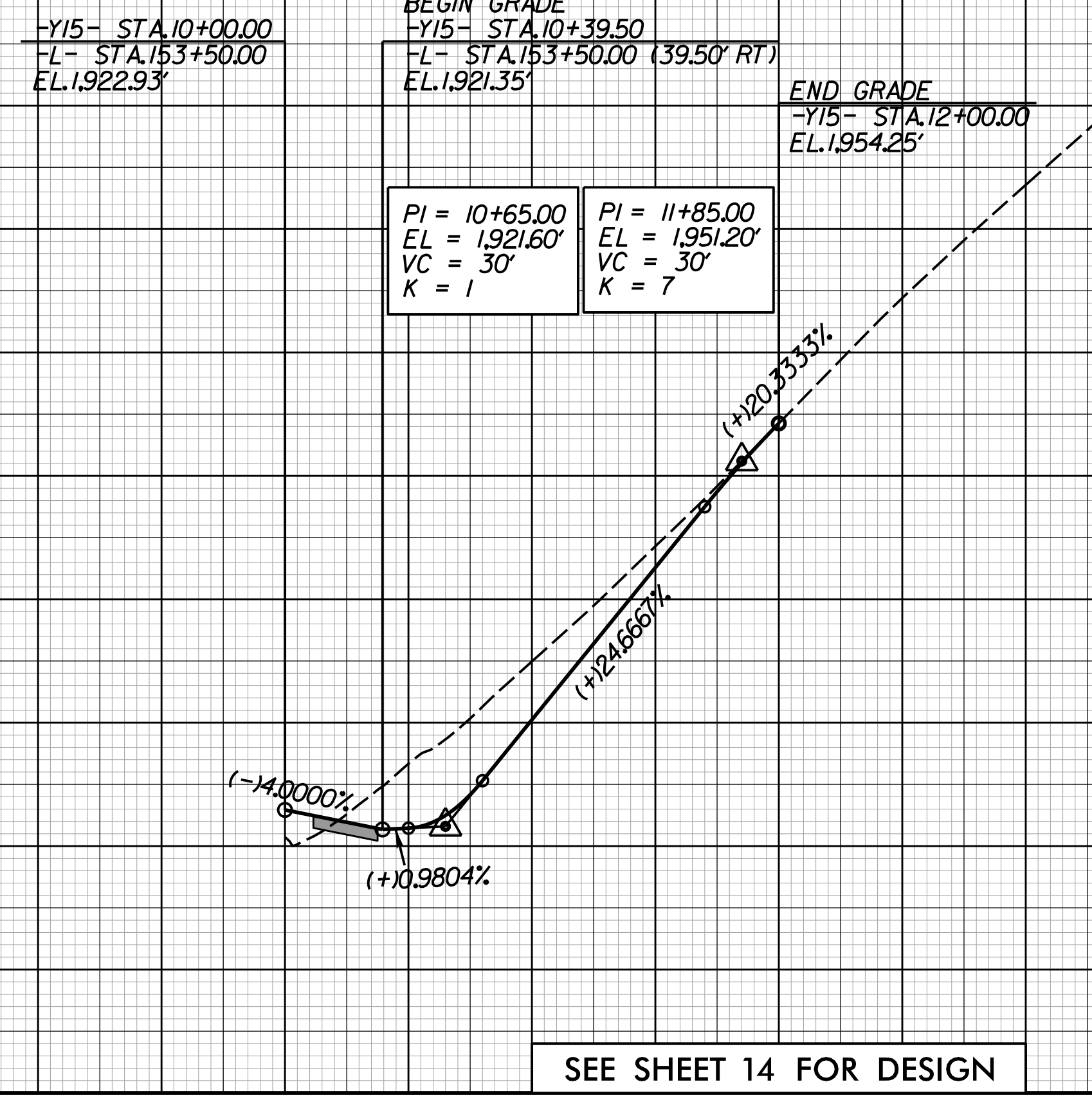
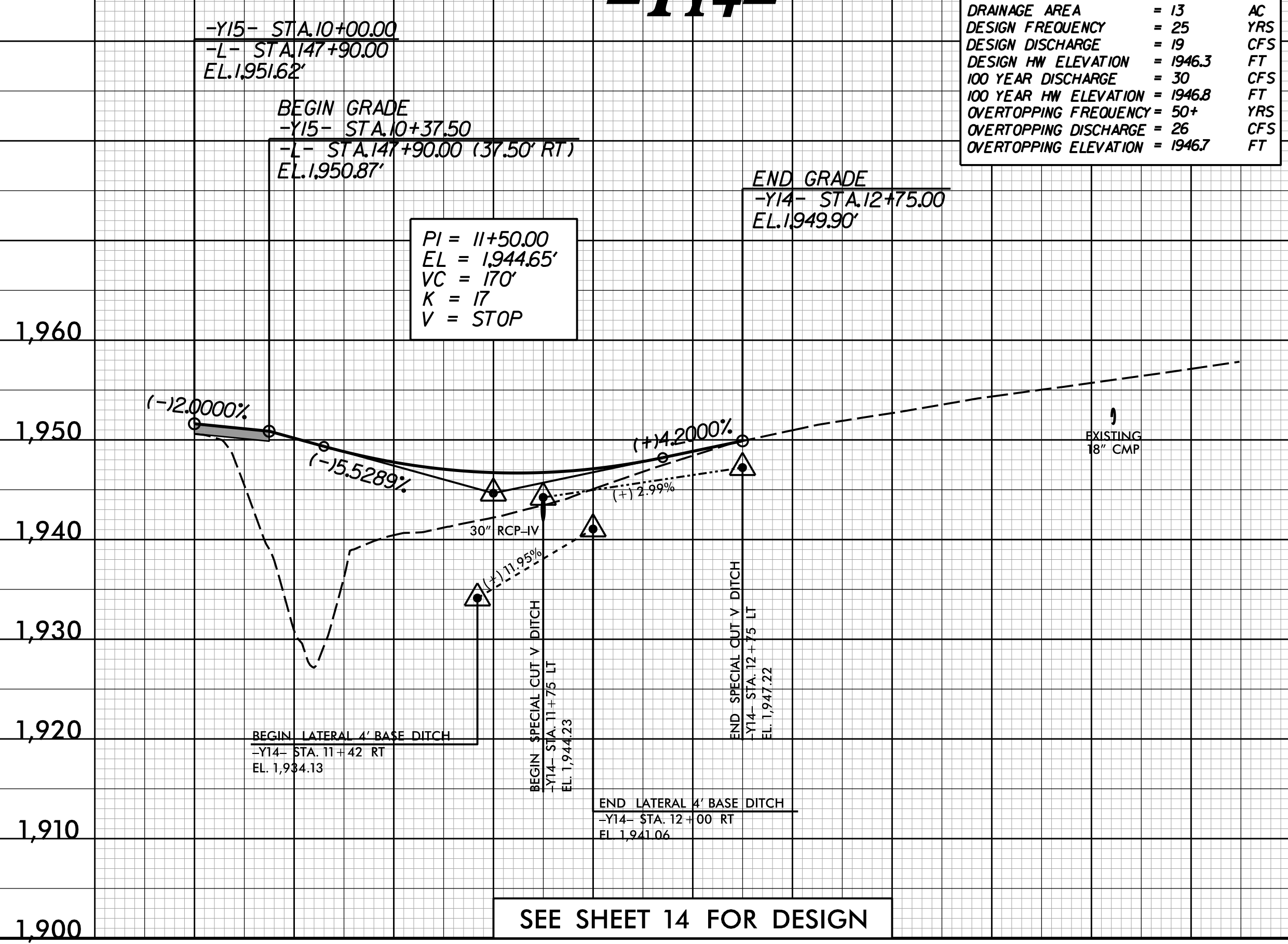
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-Y14-

-Y15-

PIPE HYDRAULIC DATA
-Y14- Sta. 11+75

DRAINAGE AREA	= 13	AC
DESIGN FREQUENCY	= 25	YRS
DESIGN DISCHARGE	= 19	CFS
DESIGN HW ELEVATION	= 1946.3	FT
100 YEAR DISCHARGE	= 30	CFS
100 YEAR HW ELEVATION	= 1946.8	FT
OVERTOPPING FREQUENCY	= 50+	YRS
OVERTOPPING DISCHARGE	= 26	CFS
OVERTOPPING ELEVATION	= 1946.7	FT

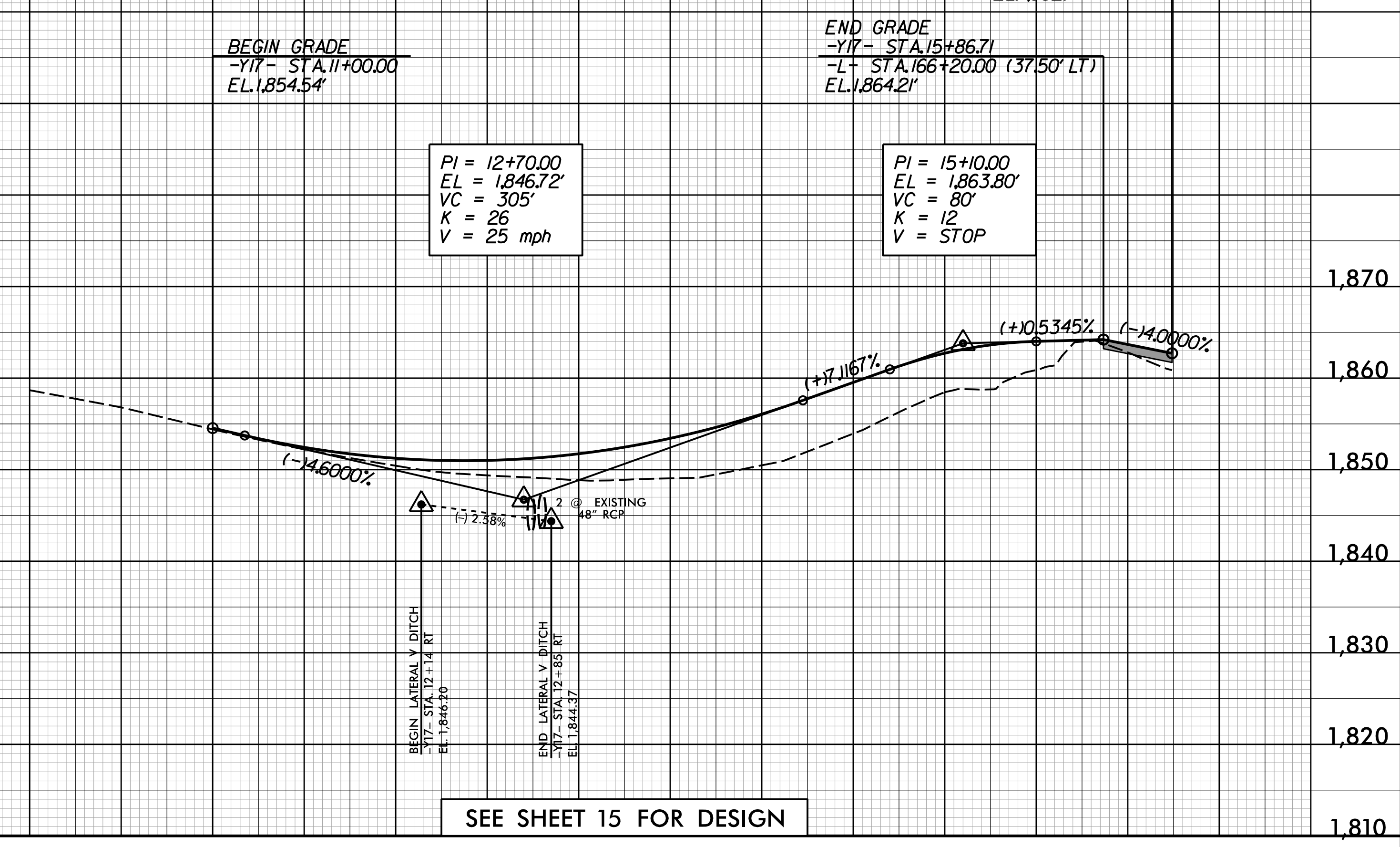
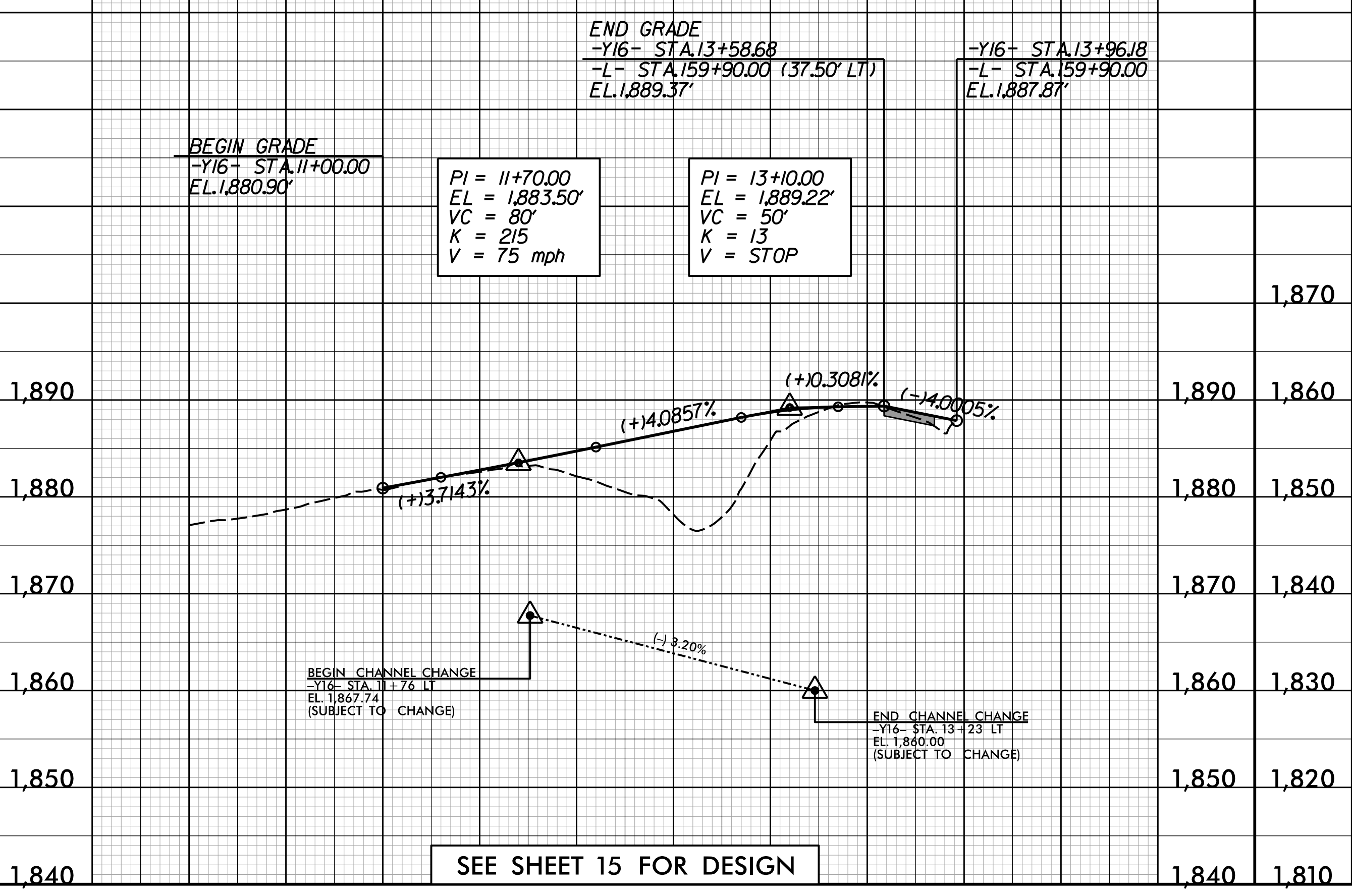


SEE SHEET 14 FOR DESIGN

SEE SHEET 14 FOR DESIGN

-Y16-

-Y17-



SEE SHEET 15 FOR DESIGN

SEE SHEET 15 FOR DESIGN

PROJECT REFERENCE NO.	A-0011C	SHEET NO.	35
ROADWAY DESIGN ENGINEER	SEAL 39283	HYDRAULICS ENGINEER	SEAL 40801
NORTH CAROLINA PROFESSIONAL ENGINEER		NORTH CAROLINA PROFESSIONAL ENGINEER	
8/6/2019		8/6/2019	
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WSE of North Carolina, PC		Cary, NC 27511	
588 East Chatham Street		Suite 137	
Phone: 919.297.0220		Fax: 919.297.0221	

PROJECT REFERENCE NO. A-0011C	SHEET NO. 36
ROADWAY DESIGN ENGINEER NORTH CAROLINA PROFESSIONAL SEAL 39283 8/6/2019	HYDRAULICS ENGINEER NORTH CAROLINA PROFESSIONAL SEAL 40801 8/6/2019
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-Y18-

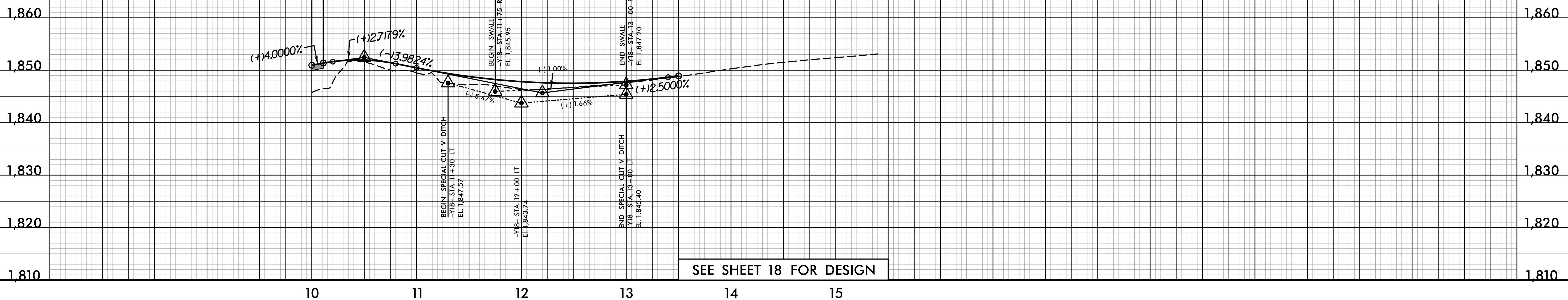
-Y18- STA.10+00.00
-Y19- STA.16+19.26
EL.1,850.95

BEGIN GRADE
-Y18- STA.10+11.00
-Y19- STA.16+19.26 (11.00' LT)
EL.1,851.39'

END GRADE
-Y18- STA.13+50.00
EL.1,848.93'

PI = 10+50.00
EL = 1,852.45'
VC = 60'
K = 9
V = STOP

PI = 12+20.00
EL = 1,845.68'
VC = 240'
K = 37
V = 30 mph



SEE SHEET 18 FOR DESIGN

-Y19-

BEGIN GRADE
-Y19- STA.13+25.00
EL.1,846.15'

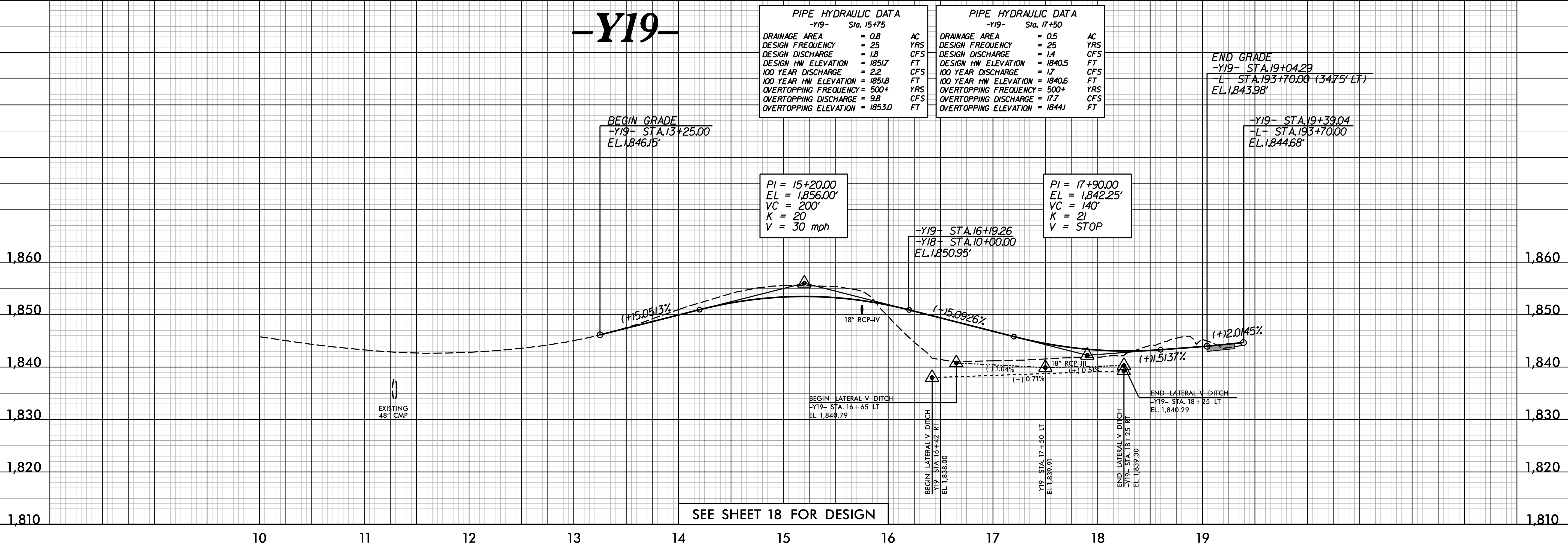
PIPE HYDRAULIC DATA		-Y19- Sta. 15+75	AC
DRAINAGE AREA	=	0.8	AC
DESIGN FREQUENCY	=	25	YRS
DESIGN DISCHARGE	=	1.8	CFS
DESIGN HW ELEVATION	=	1851.7	FT
100 YEAR DISCHARGE	=	2.2	CFS
100 YEAR HW ELEVATION	=	1851.8	FT
OVERTOPPING FREQUENCY	=	500+	YRS
OVERTOPPING DISCHARGE	=	9.8	CFS
OVERTOPPING ELEVATION	=	1853.0	FT

PIPE HYDRAULIC DATA		-Y19- Sta. 17+50	AC
DRAINAGE AREA	=	0.5	AC
DESIGN FREQUENCY	=	25	YRS
DESIGN DISCHARGE	=	1.4	CFS
DESIGN HW ELEVATION	=	1840.5	FT
100 YEAR DISCHARGE	=	1.7	CFS
100 YEAR HW ELEVATION	=	1840.6	FT
OVERTOPPING FREQUENCY	=	500+	YRS
OVERTOPPING DISCHARGE	=	17.7	CFS
OVERTOPPING ELEVATION	=	1844.1	FT

END GRADE
-Y19- STA.19+04.29
-L- STA.193+70.00 (3475' LT)
EL.1,843.98'

PI = 15+20.00
EL = 1,856.00'
VC = 200'
K = 20
V = 30 mph

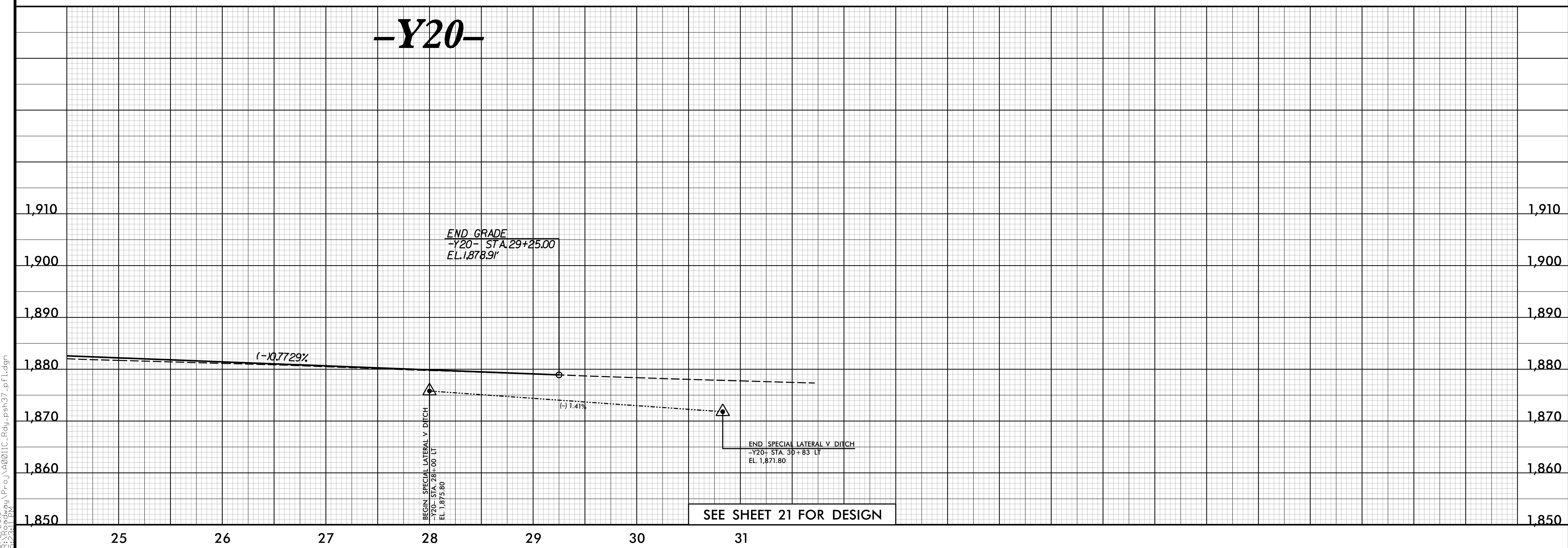
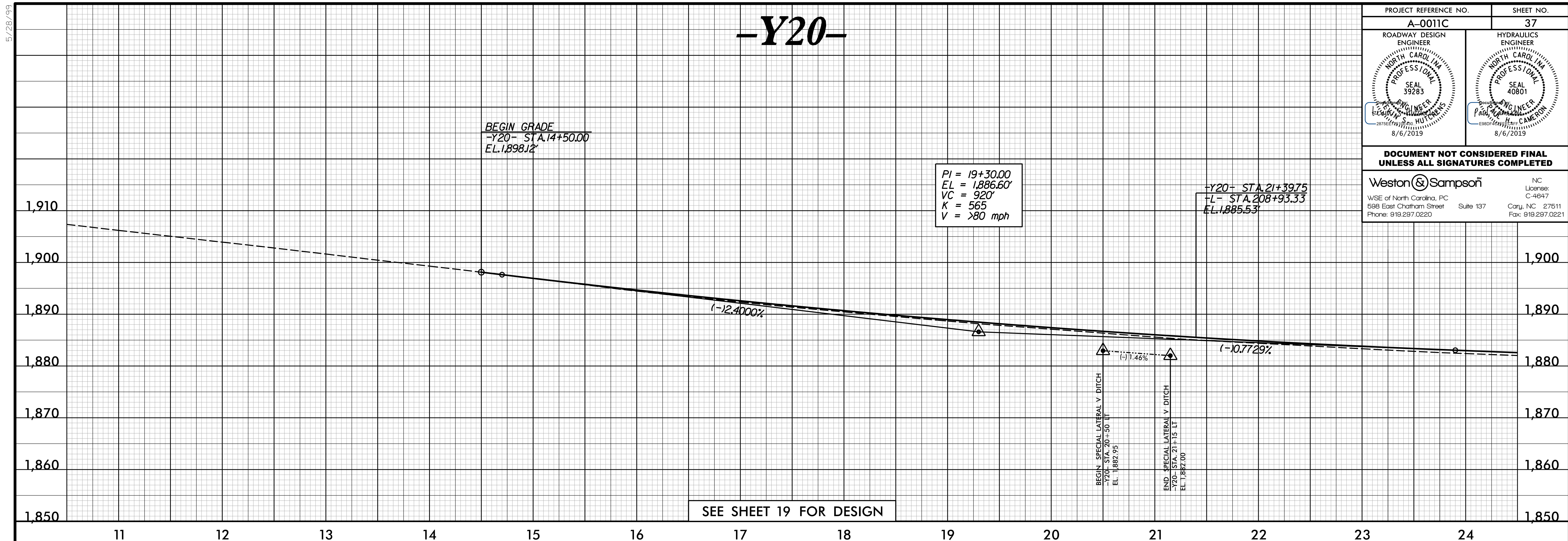
PI = 17+90.00
EL = 1,842.25'
VC = 140'
K = 21
V = STOP



SEE SHEET 18 FOR DESIGN

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PROJECT REFERENCE NO. A-0011C	SHEET NO. 37
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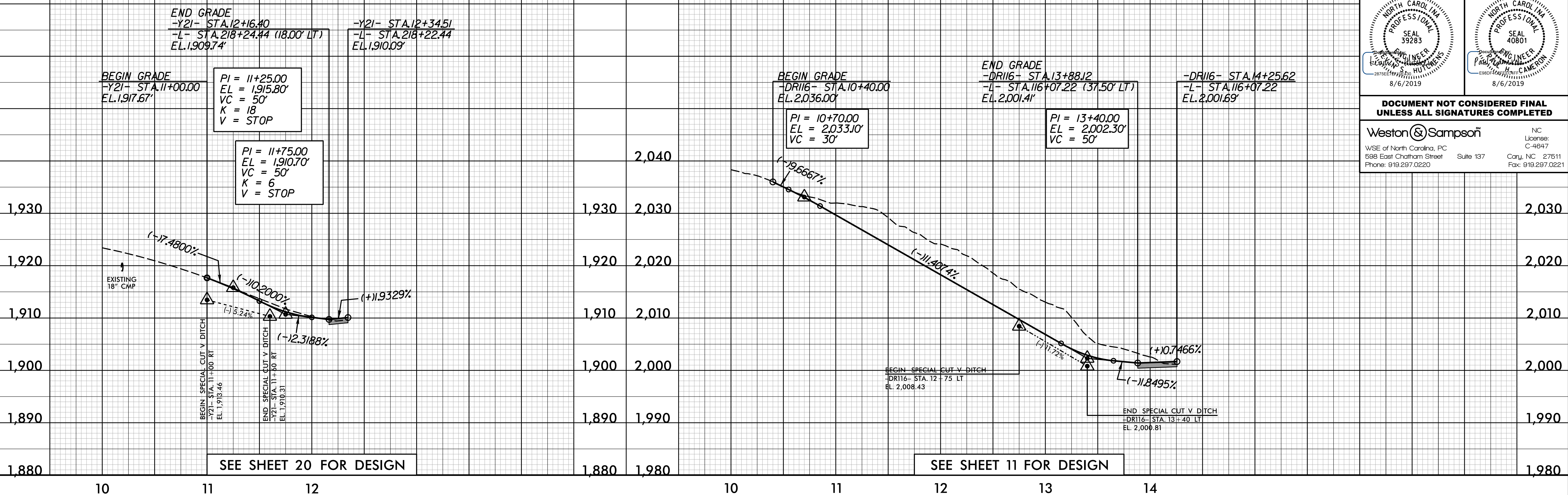
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PROJECT REFERENCE NO. A-0011C	SHEET NO. 38
ROADWAY DESIGN ENGINEER NORTH CAROLINA PROFESSIONAL SEAL 39283 8/6/2019	HYDRAULICS ENGINEER NORTH CAROLINA PROFESSIONAL SEAL 40801 8/6/2019
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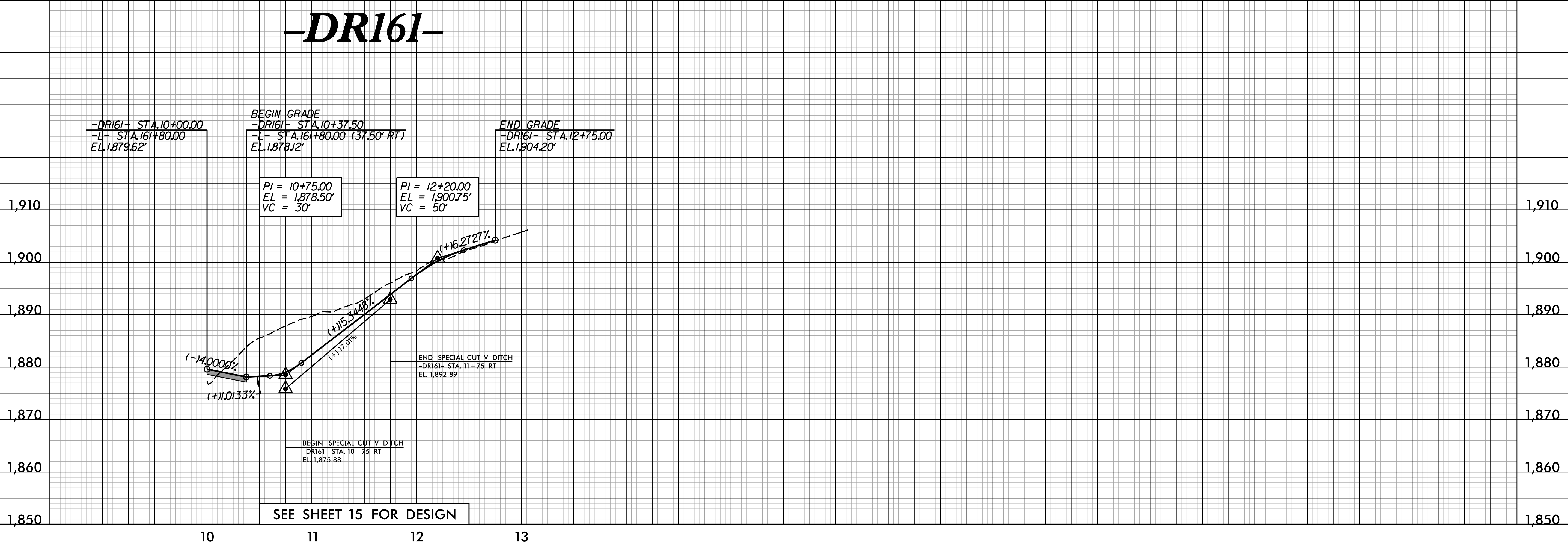
5/28/19

-Y21-

-DR116-



-DR161-



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