

GRE NOV 2017

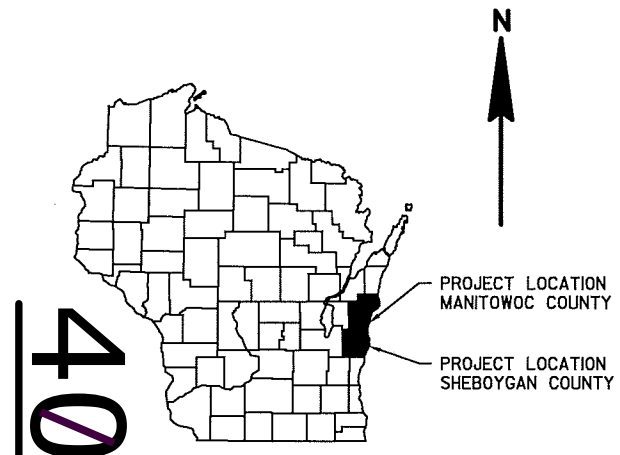
PROJECT ID: 1223-17-71

COUNTY: SHEBOYGAN

ORDER OF SHEETS

Section No. 1	Title
Section No. 2	Typical Sections and Details
Section No. 3	Estimate of Quantities
Section No. 3	Miscellaneous Quantities
Section No. 4	Right of Way Plat
Section No. 5	Plan
Section No. 6	Standard Detail Drawings
Section No. 7	Sign Plates
Section No. 8	Structure Plans
Section No. 9	Computer Earthwork Data
Section No. 9	Cross Sections

TOTAL SHEETS = 220



DESIGN DESIGNATION

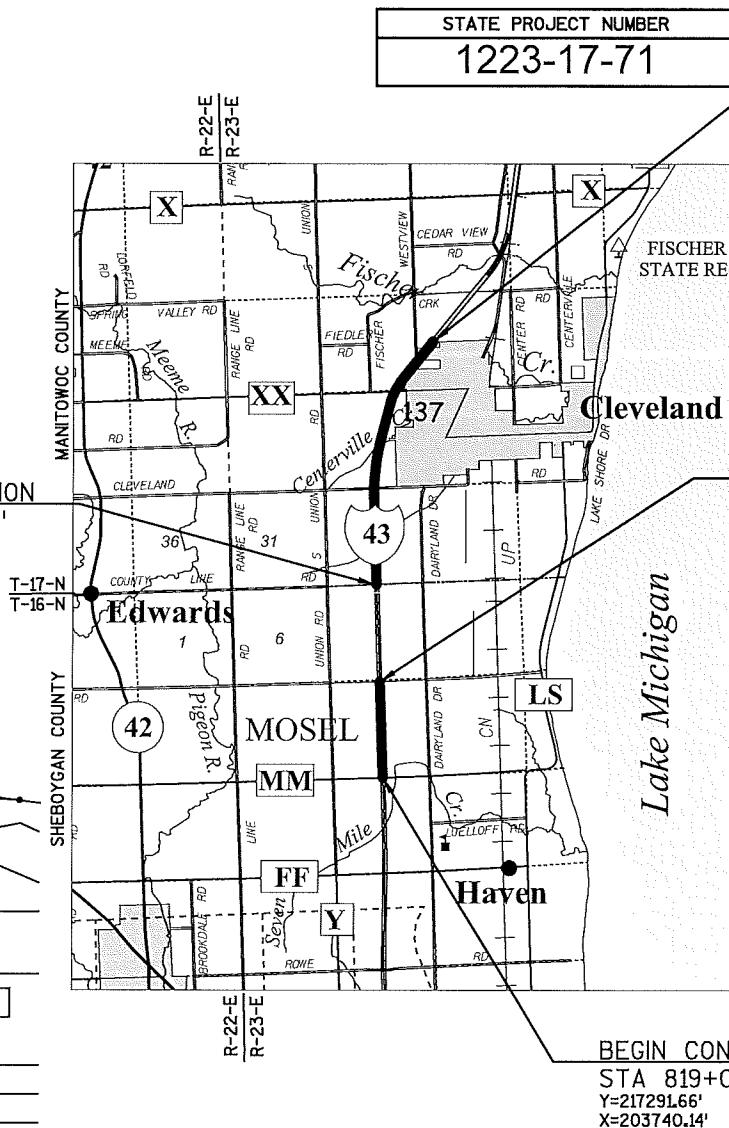
A.A.D.T.	2018	=	24,700
A.A.D.T.	2038	=	29,100
D.H.V.		=	3300
D.D.		=	58/42
T.		=	16.2%
DESIGN SPEED		=	70 MPH
ESALS		=	

CONVENTIONAL SYMBOLS

PLAN	
CORPORATE LIMITS	////
PROPERTY LINE	---
LOT LINE	---
LIMITED HIGHWAY EASEMENT	---
EXISTING RIGHT OF WAY	---
PROPOSED OR NEW R/W LINE	---
SLOPE INTERCEPT	300'P
REFERENCE LINE	---
EXISTING CULVERT	---
PROPOSED CULVERT (Box or Pipe)	---
COMBUSTIBLE FLUIDS	CAUTION
MARSH AREA	---
WOODED OR SHRUB AREA	---

PROFILE	
GRADE LINE	---
ORIGINAL GROUND	---
MARSH OR ROCK PROFILE (To be noted as such)	---
SPECIAL DITCH	---
GRADE ELEVATION	95.36
CULVERT (Profile View)	---
UTILITIES	
ELECTRIC	E
FIBER OPTIC	FO
GAS	G
SANITARY SEWER	SAN
STORM SEWER	SS
TELEPHONE	T
WATER	W
UTILITY PEDESTAL	---
POWER POLE	---
TELEPHONE POLE	---

BEGIN CONSTRUCTION
STA 924+72.85'NB'
Y=227856.29'
X=203676.27'



BEGIN CONSTRUCTION
STA 819+07.91'NB'
Y=217291.66'
X=203740.14'

LAYOUT
SCALE 0 2 MILES
TOTAL NET LENGTH OF CENTERLINE = 6.27

END PROJECT 1223-17-71
STA 1064+83.34'NB'
Y=240986.97'
X=206932.78'

END CONSTRUCTION
STA 874+92.91'NB'
Y=222876.40'
X=203696.61'
T-17-N
T-16-N

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, SHEBOYGAN COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, MANITOWOC COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

STATE PROJECT

1223-17-71

FEDERAL PROJECT

PROJECT

WISC 2017617

CONTRACT

1

STRUCTURES

B-59-34 & B-59-51

END CONSTRUCTION
STA 112+04.63'NB'
Y=151181.63'
X=206460.14'

BEGIN PROJECT 1223-17-71
STA 476+78.43'NB'
Y=138003.58'
X=204022.61'

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	NE REGION
Designer	J. MATERNOSKI
Project Manager	B. HAEN
Regional Examiner	
Regional Supervisor	C. DEGRAVE

APPROVED FOR THE DEPARTMENT

DATE: 7/31/17 *Brian Haen*
(Signature)

GENERAL NOTES

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 2012 (NAVD88).

THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN IN THE PLANS, ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE ENGINEER SHALL ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH THE EXISTING UTILITY FACILITIES. THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND ALL OTHER UTILITIES IN THE VICINITY OF THE PROJECT TO LOCATE THEIR FACILITIES AT LEAST 3 WORKING DAYS PRIOR TO BEGINNING WORK.

EXISTING DRAINAGE DITCHES AND CULVERT PIPES WILL REMAIN FUNCTIONAL DURING GRADING AND EXCAVATION OPERATIONS

PURSUANT TO CHAPTER 59 OF THE WISCONSIN STATUTES. THE CONTRACTOR SHALL CAREFULLY MAKE A SEARCH FOR EVIDENCE OF A LANDMARK IN ALL AREAS WHERE SUCH A LANDMARK MAY EXIST.

NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT APPROVAL OF THE ENGINEER

DNR AREA LIAISON

MATTHEW SCHAEVE - MANITOWOC COUNTY
DEPARTMENT OF NATURAL RESOURCES
NORTHEAST REGION
2984 SHAWANO AVE
GREEN BAY, WI 54313
(920) 366-1544
MATTHEW.SCHAEVE@WISCONSIN.GOV

JAY SCHIEFELBEIN - SHEBOYGAN COUNTY
DEPARTMENT OF NATURAL RESOURCES
NORTHEAST REGION
2984 SHAWANO AVE
GREEN BAY, WI 54313
(920) 662-5130
JEREMIAH.SCHIEFELBEIN@WISCONSIN.GOV

WISDOT CONTACTS

BRIAN HAEN
PROJECT MANAGER
NORTHEAST REGION
944 VAN DER PERREN WAY
GREEN BAY, WI 54304
(920) 366-4788
BRIAN.HAEN@DOT.WI.GOV

JORDAN MATERNOSKI
DESIGN PROJECT LEADER
NORTHEAST REGION
944 VAN DER PERREN WAY
GREEN BAY, WI 54304
(920) 492-7163
JORDAN.MATERNOSKI@DOT.WI.GOV

UTILITIES

ALLIANT ENERGY - ELECTRICITY
JASON HOGAN
4902 N BILTMORE LANE
MADISON, WI 53718
(608) 458-4871 CELL: (608) 395-7395
JASONHOGAN@ALLIANTENERGY.COM

ANR PIPELINE COMPANY - GAS/PETROLEUM
LAWRENCE HUBER
W3925 PIPELINE LN
EDEN, WI 53019
(920) 477-2235 CELL: (920) 979-0060
LAWRENCE_HUBER@TRANSCANADA.COM

AT&T WISCONSIN - COMMUNICATIONS
JOSEPH KASSAB
221 WEST WASHINGTON ST
APPLETON, WI 54911-4742
(920) 735-3206
JK572@ATT.COM

ATC MANAGEMENT, INC. - ELECTRICITY
MIKE OLSEN
801 O'KEEFE RD P.O. BOX 6113
DE PERE, WI 54115-6113
(920) 338-6582 CELL: (920) 660-2390
MOLSEN@ATCLLC.COM

FRONTIER COMMUNICATIONS - COMMUNICATIONS
ROBERT CHURCH
2222 WEST WISCONSIN ST
PORTAGE, WI 53901
(608) 742-1817 CELL: (608) 509-3668
ROBERT.CHURCH@FTR.COM

PAETEC COMMUNICATIONS, LLC - COMMUNICATIONS
NATHAN BECKER
13935 BISHOPS DR
BROOKFIELD, WI 53005
(262) 792-7938 CELL: (414) 313-9032
NATHAN.BECKER@WINDSTREAM.COM

NSIGHT TELSERVICES - COMMUNICATIONS
DOUG STAHL
7520 ENGLISH LAKE RD
MANITOWOC, WI 54220
(920) 758-3603
DOUG.STAHL@NSIGHT.COM

TDS TELECOM - COMMUNICATIONS
STEVE JAKUBIEC
10 COLLEGE AVE
APPLETON, WI 54911
(920) 882-4166 CELL: (920) 562-7221
STEVE.JAKUBIEC@TDSTELECOM.COM

TIME WARNER CABLE - COMMUNICATIONS
KURT LITTLE
3520 E DESTINATION DR
APPLETON, WI 54915
(920) 831-9227
KURT.LITTLE@TWCABLE.COM

TOWN OF MOSEL
SUE BORN
W982 COUNTY ROAD FF
SHEBOYGAN, WI 53083
(920) 565-3700
CLERKTREASURER@TOWNOFMOSEL.COM

WE ENERGIES - ELECTRICITY
LATROY BRUMFIELD
333 WEST EVERETT ST, ROOM A299
MILWAUKEE, WI 53203
(414) 221-5617 CELL: (414) 975-9053
LATROY.BRUMFIELD@WE-ENERGIES.COM

WINDSTREAM KDL, INC. - COMMUNICATIONS
NATHAN BECKER
13935 BISHOPS DR
BROOKFIELD, WI 53005
(262) 792-7938 CELL: (414) 313-9032
NATHAN.BECKER@WINDSTREAM.COM

WISCONSIN PUBLIC SERVICE CORPORATION - GAS/PETROLEUM
LORI BUTRY
700 N ADAMS ST P.O. BOX 19001
GREEN BAY, WI 54307-9001
(920) 433-1703
LABUTRY@INTEGRYSGROUP.COM



Call 811 3 Work Days Before You Dig
or Toll Free (800) 242-8511
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com



BEGIN PROJECT 1223-17-71

STA 476+73.66'NB'
STA 476+73.66'SB'

EQUATION STA AHEAD = 505+58.89'SB'
STA BACK = 505+86.55'SB'

475'SB'
475'NB'
WILSON LIMA RD.

STA AHEAD = 472+70.90'SB'
STA BACK = 472+43.24'SB'

EQUATION STA AHEAD = 30+00.00'SB'
STA BACK = 530+00.00'SB'



525'SB'
525'NB'

STA AHEAD = 30+00.00'SB'
STA BACK = 530+00.00'SB'

50'SB'
50'NB'

75'SB'
75'NB'

EQUATION STA AHEAD 74+69.82'SB'
STA AHEAD = 74+54.72'SB'

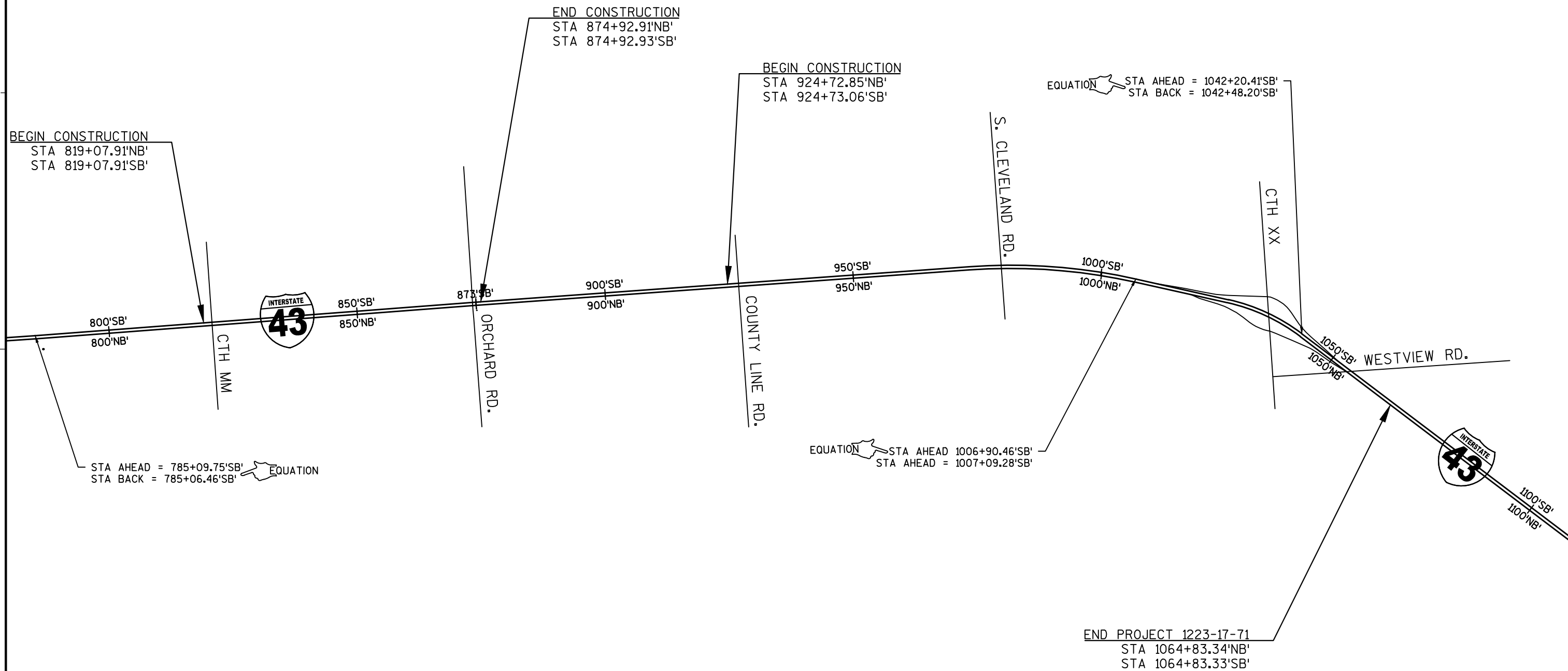
END CONSTRUCTION

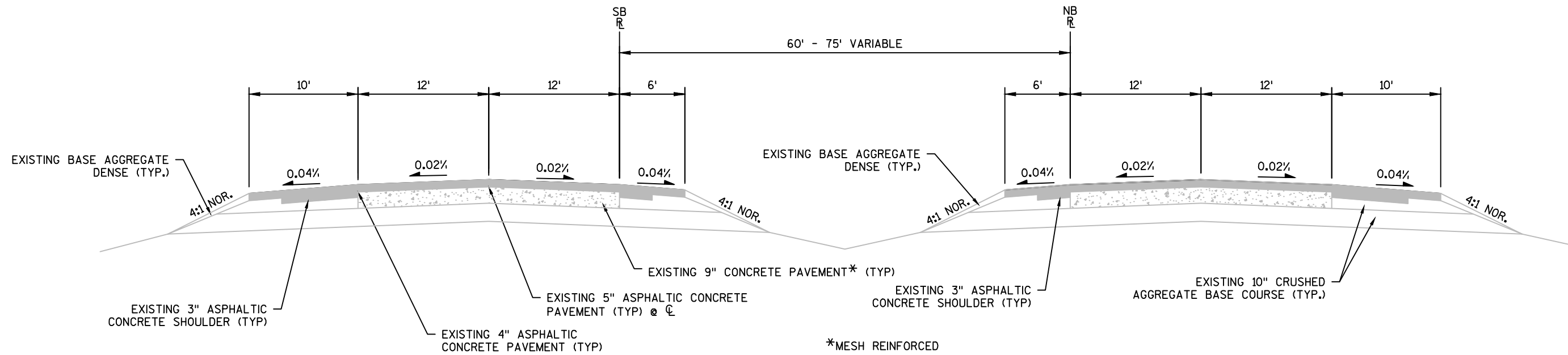
STA 112+04.63'NB'
STA 112+03.08'SB'

CTH V

S. BUSINESS DR.

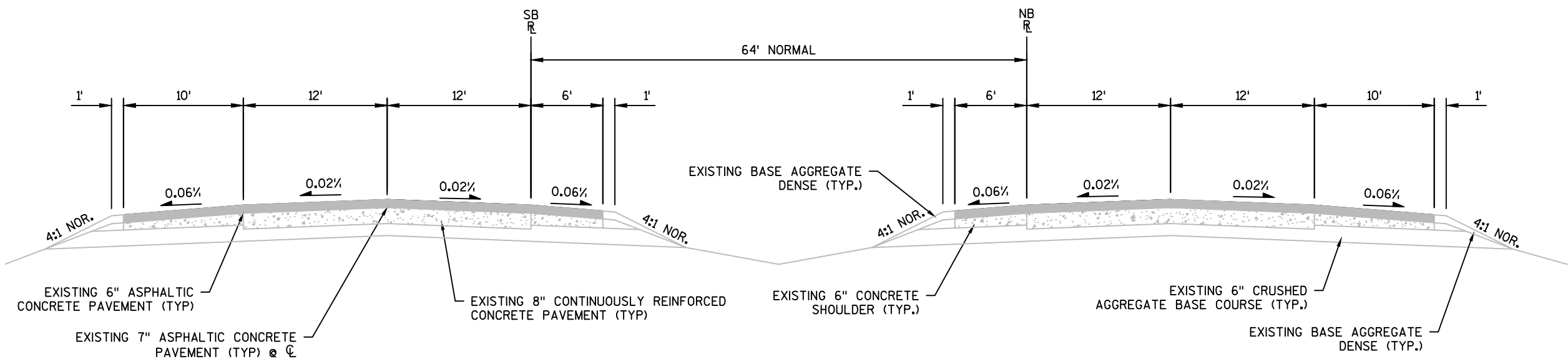
CTH V





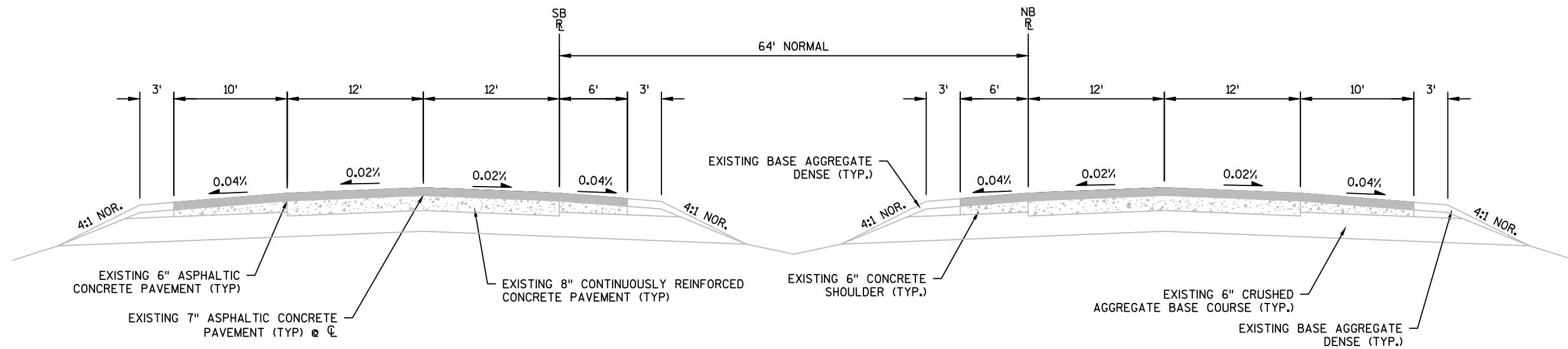
TYPICAL EXISTING CROSS SECTION FOR IH-43

STA 476+78.43'NB' - STA 530+00.00'NB'
 STA 30+00.00'NB' - STA 112+04.63'NB'
 STA 476+78.39'SB' - STA 530+00.00'SB'
 STA 30+00.00'SB' - STA 112+03.08'SB'



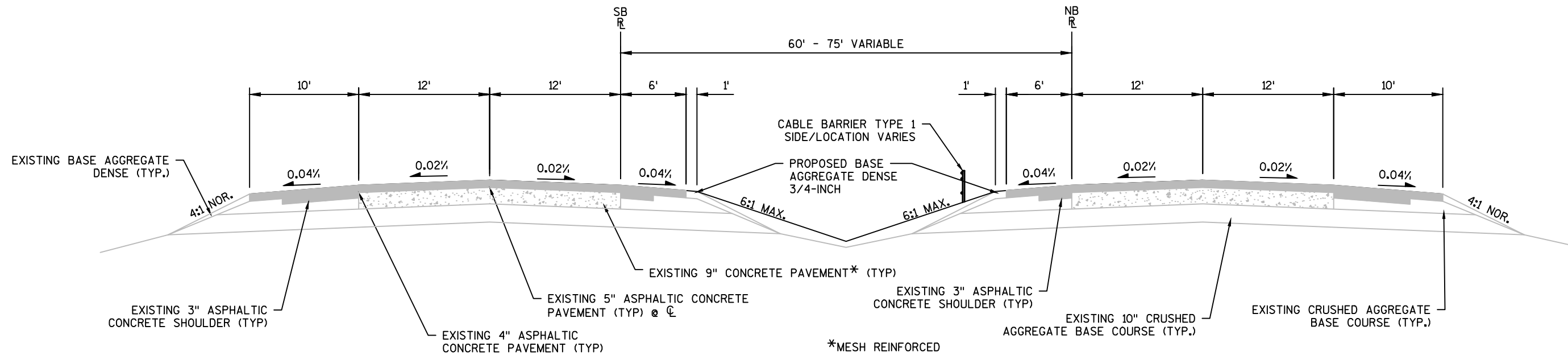
TYPICAL EXISTING CROSS SECTION FOR IH-43

STA 819+07.91'NB' - STA 874+92.91'NB'
 STA 819+07.91'SB' - STA 874+92.93'SB'



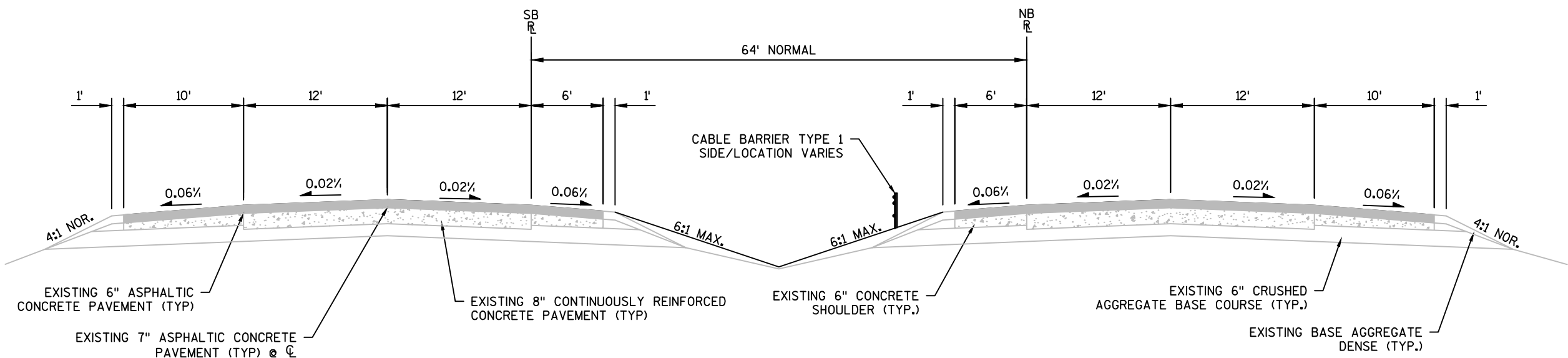
TYPICAL EXISTING CROSS SECTION FOR IH-43

STA 924+72.85'NB' - STA 1064+83.34'NB'
STA 924+72.86'SB' - STA 1064+83.33'SB'



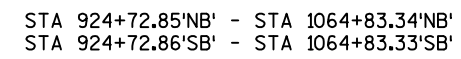
TYPICAL PROPOSED CROSS SECTION FOR IH-43

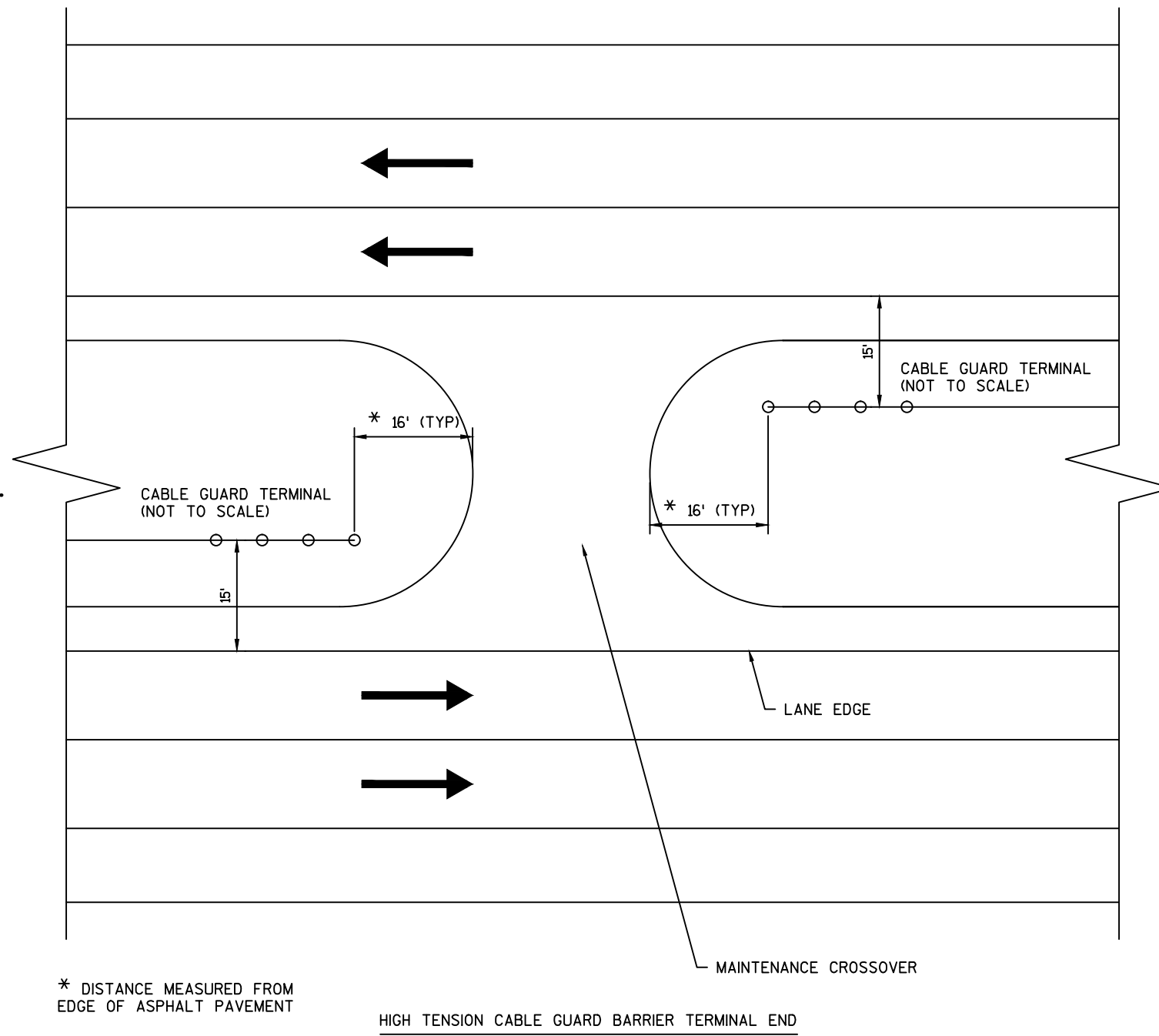
STA 476+78.43'NB' - STA 530+00.00'NB'
 STA 30+00.00'NB' - STA 112+04.63'NB'
 STA 476+78.39'SB' - STA 530+00.00'SB'
 STA 30+00.00'SB' - STA 112+03.08'SB'



TYPICAL PROPOSED CROSS SECTION FOR IH-43

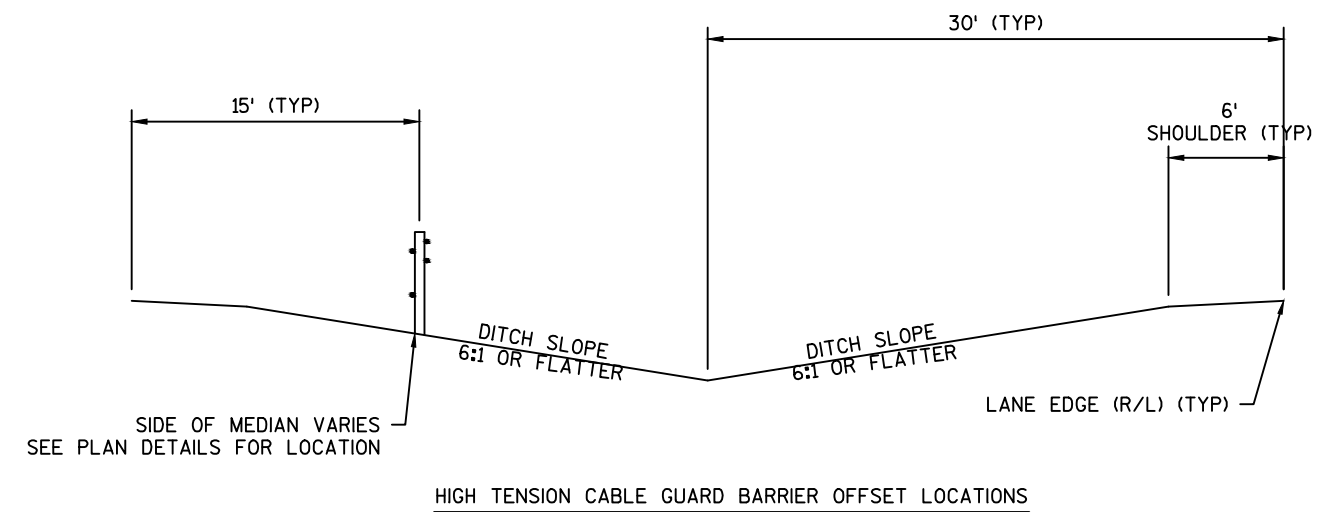
STA 819+07.91'NB' - STA 874+92.91'NB'
 STA 819+07.91'SB' - STA 874+92.93'SB'

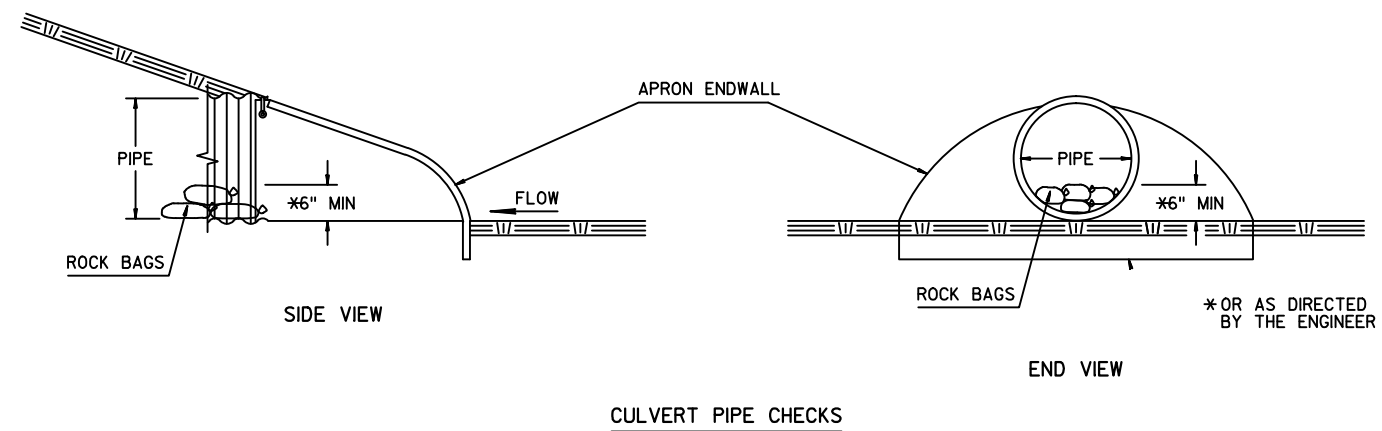




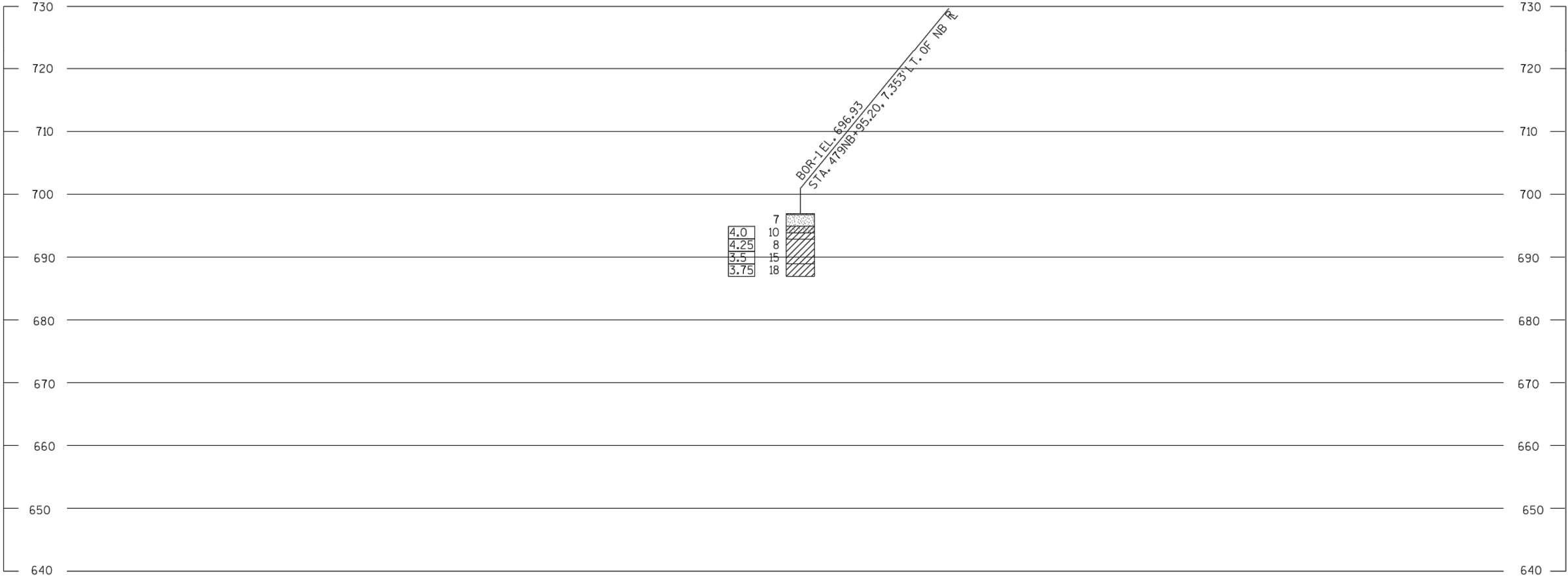
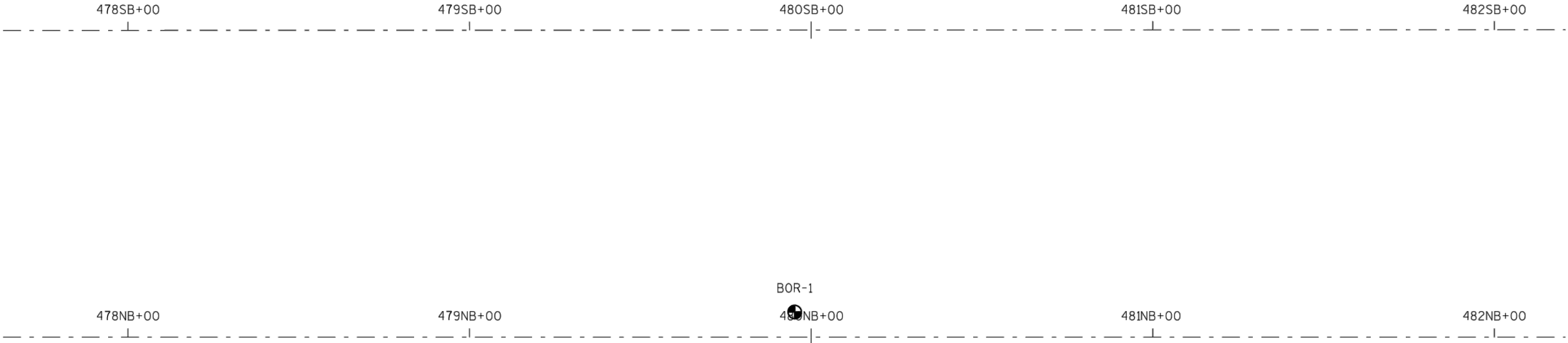
NOTES

- ① DO NOT INSTALL HIGH TENSION CABLE GUARD BARRIER ON SLOPES STEEPER THAN 6:1.





BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	11/30/2016	138320.403	204017.740
BORINGS COMPLETED BY: RVT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) SHEBOYGAN COUNTY			



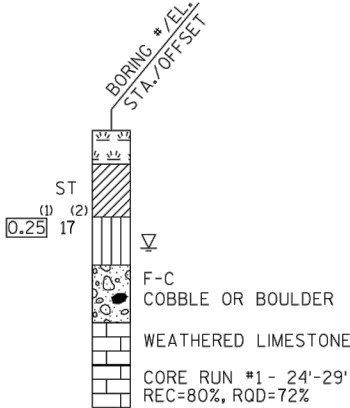
STATE PROJECT NUMBER

1223-17-00

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- AT TIME OF DRILLING
- END OF DRILLING
- AFTER DRILLING

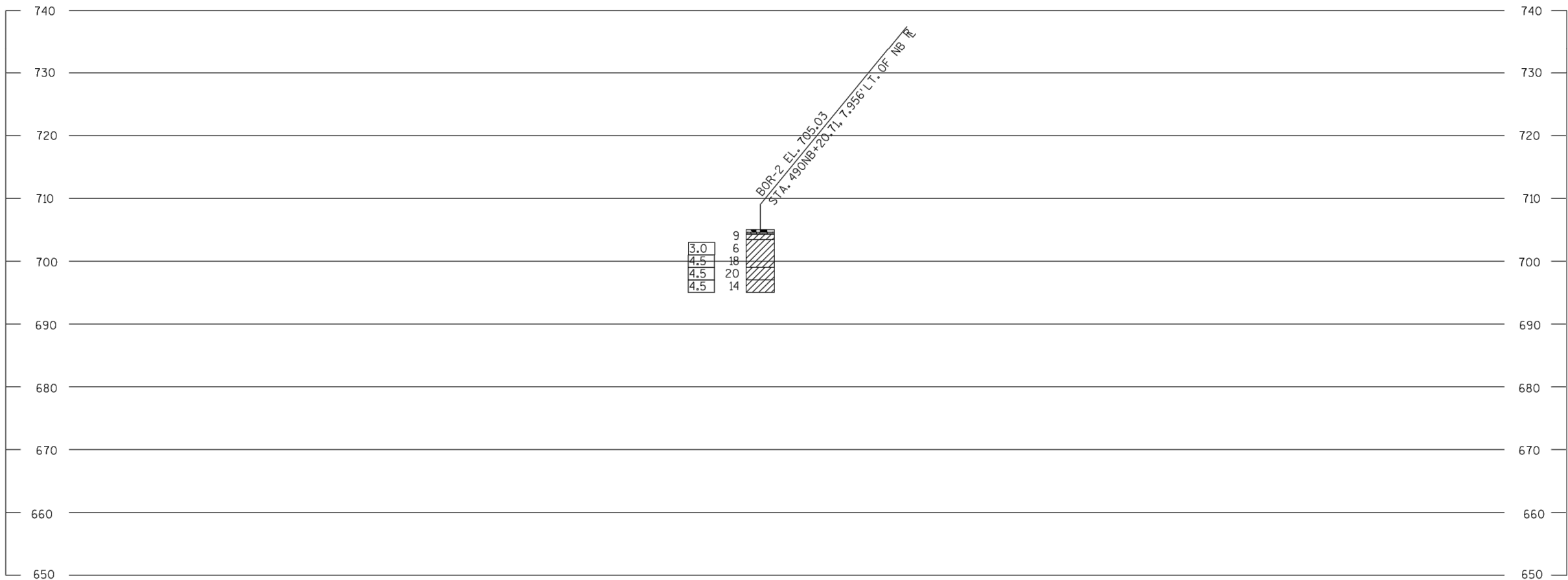
ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
2	11/30/2016	139345.095	203976.626
BORINGS COMPLETED BY: RVT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) SHEBOYGAN COUNTY			



STATE PROJECT NUMBER
1223-17-00

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROC (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS META

LEGEND OF BORING

BORING # / STA. / OFF-SET

ST (1) 0.25 (2) 17

F-C COBBLE OR BOULDER

WEATHERED LIMESTONE

CORE RUN #1 - 24'-29' REC=80%, ROD=72%

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GROUND WATER ELEVATION

▽ AT TIME OF DRILLING

▼ END OF DRILLING

▽ AFTER DRILLING

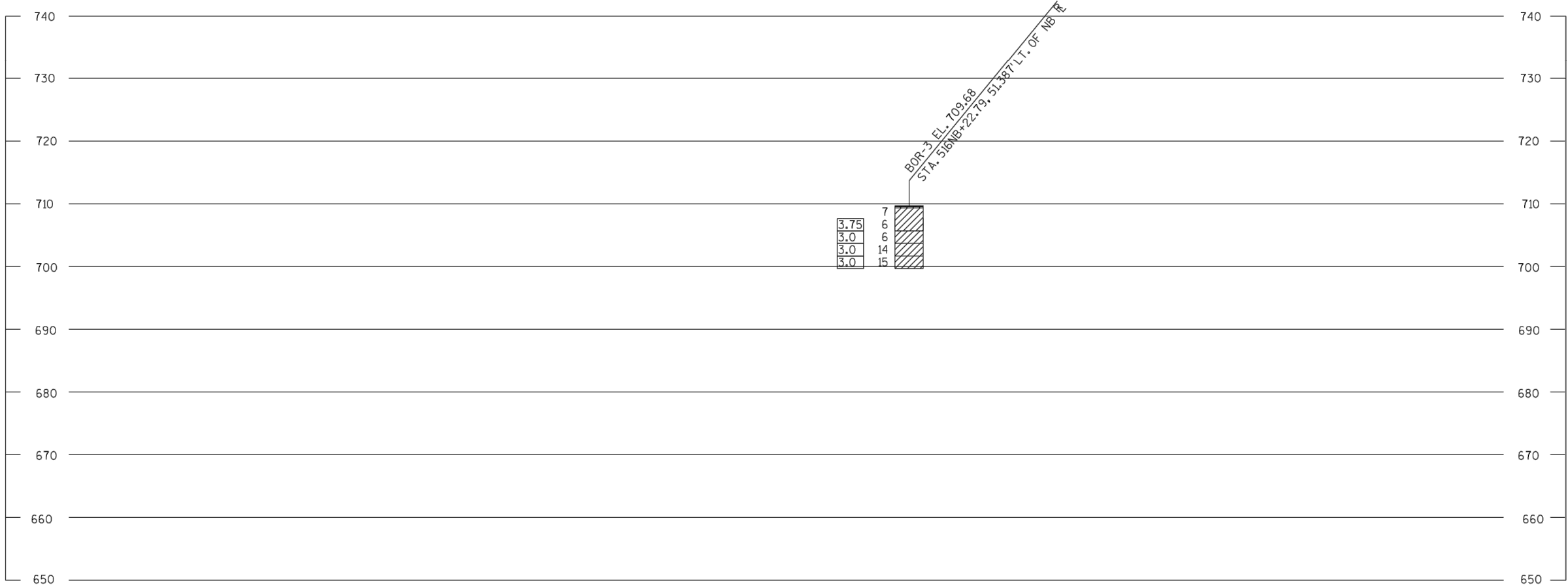
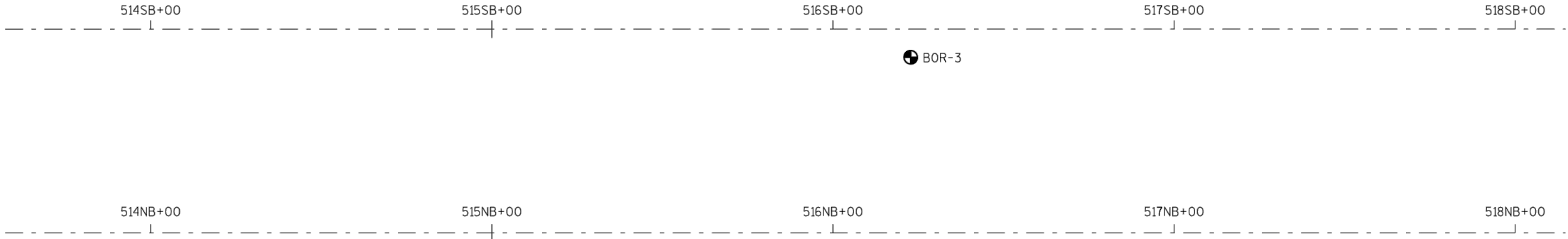
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BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
3	11/30/2016	141883.587	204480.054
BORINGS COMPLETED BY: RVT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) SHEBOYGAN COUNTY			



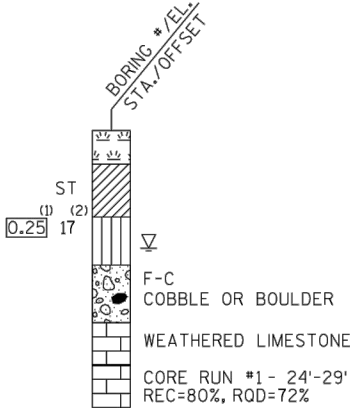
STATE PROJECT NUMBER

1223-17-00

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/META

LEGEND OF BORING



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GROUND WATER ELEVATION

- ▽ AT TIME OF DRILLING
- ▽ END OF DRILLING
- ▽ AFTER DRILLING

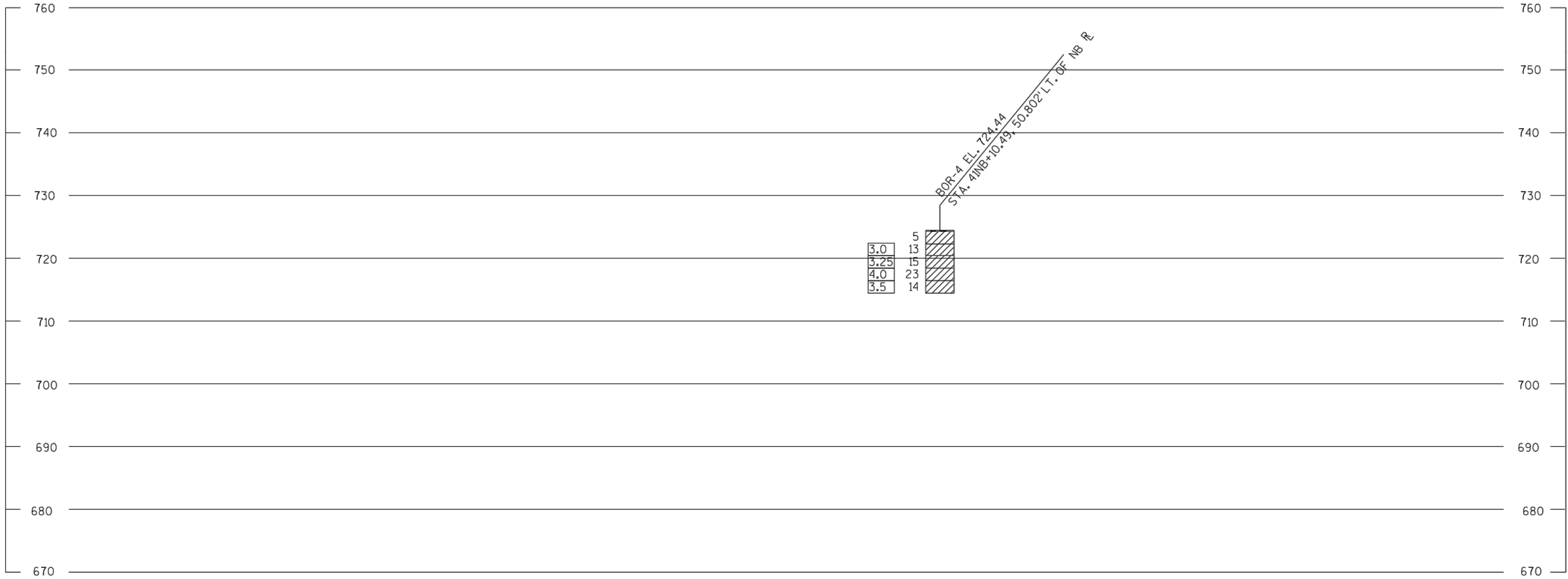
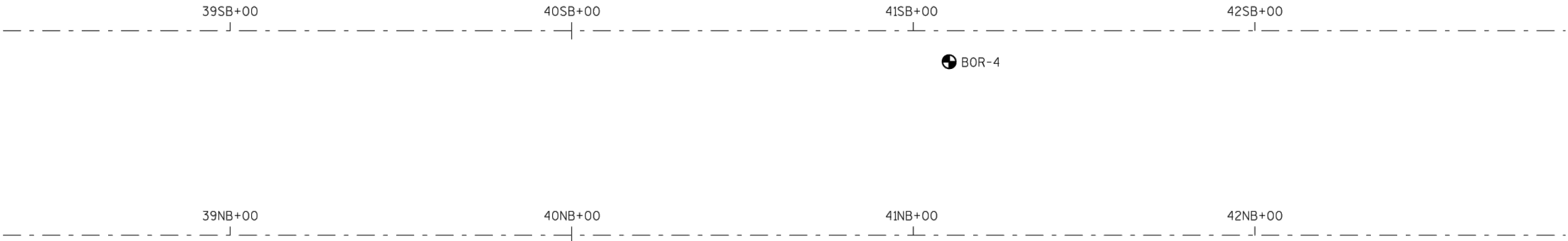
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BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
4	11/30/2016	144236.456	205287.927
BORINGS COMPLETED BY: RVT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) SHEBOYGAN COUNTY			



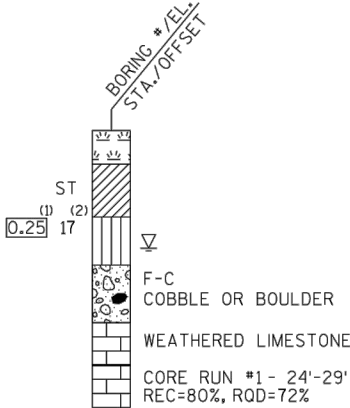
STATE PROJECT NUMBER

1223-17-00

MATERIAL SYMBOLS

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CONCRETE	FILL	GRAVEL
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GROUND WATER ELEVATION

- AT TIME OF DRILLING
- END OF DRILLING
- AFTER DRILLING

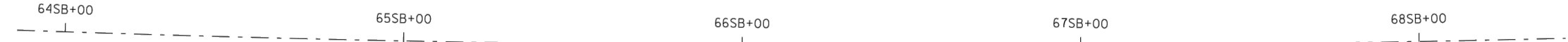
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BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
5	11/30/2016	146627.169	206069.118
BORINGS COMPLETED BY: RVT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) SHEBOYGAN COUNTY			



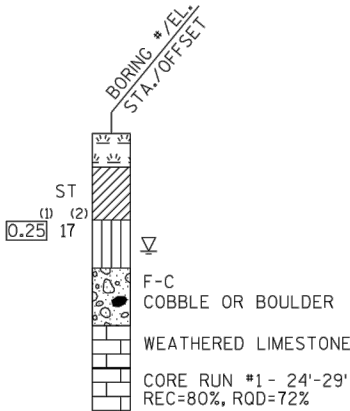
STATE PROJECT NUMBER

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MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- ▽ AT TIME OF DRILLING
- ▽ END OF DRILLING
- ▽ AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

PROJECT NO: 1223-17-71

HWY: IH 43

COUNTY: SHEBOYGAN

SOIL BORINGS FOR CABLE BARRIER

SHEET

15

E

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
6	11/30/2016	148425.275	206214.531
BORINGS COMPLETED BY: RVT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) SHEBOYGAN COUNTY			



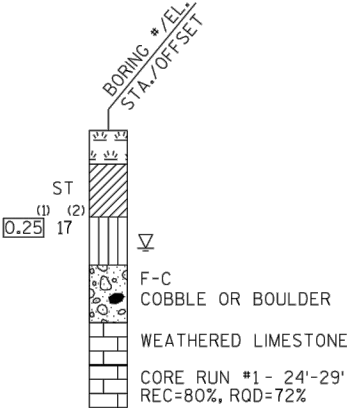
STATE PROJECT NUMBER

1223-17-00

MATERIAL SYMBOLS

	ASPHALT		TOPSOIL		PEAT
	CONCRETE		FILL		GRAVEL
	SAND		CLAY		SILT
	BOULDERS OR COBBLES		LIMESTONE		BEDROCK (UNKNOWN)
	SHALE		SANDSTONE		IGNEOUS/META

LEGEND OF BORING



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GROUND WATER ELEVATION

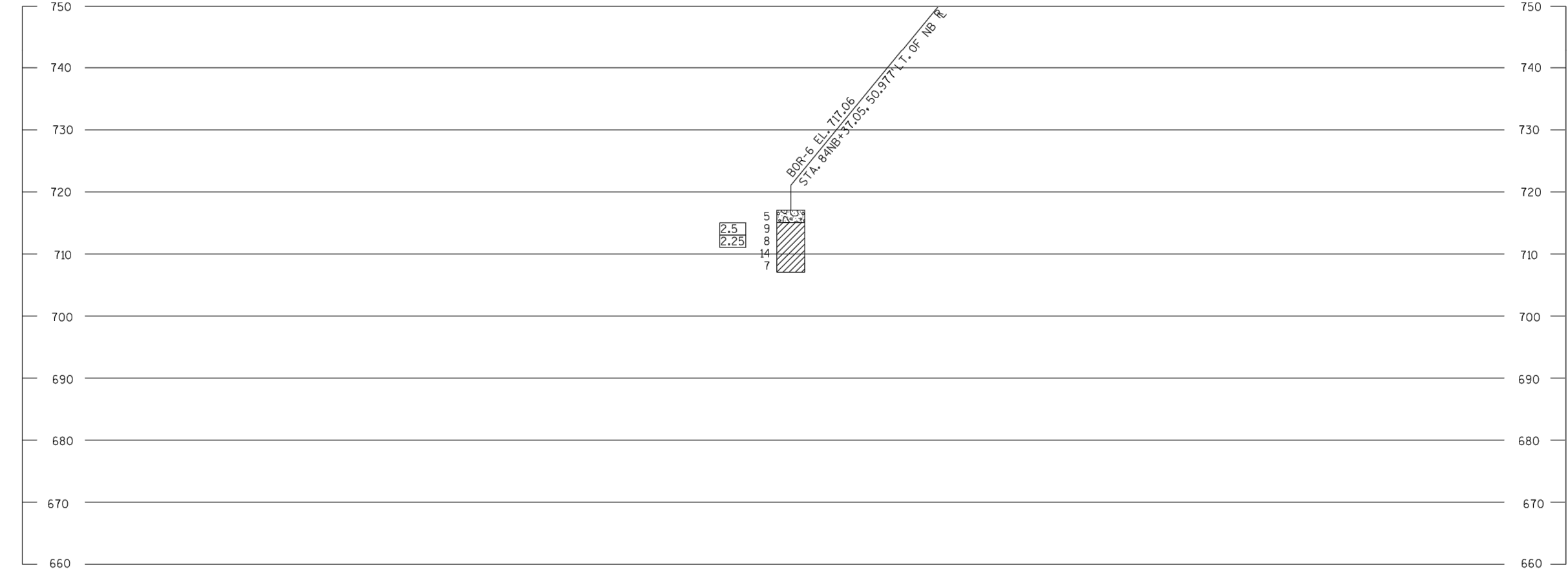
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BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
7	11/30/2016	149323.352	206329.083
BORINGS COMPLETED BY: RVT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) SHEBOYGAN COUNTY			



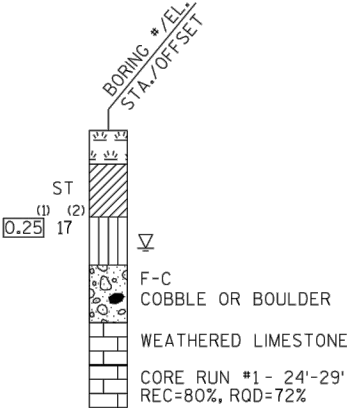
STATE PROJECT NUMBER

1223-17-00

MATERIAL SYMBOLS

	ASPHALT		TOPSOIL		PEAT
	CONCRETE		FILL		GRAVEL
	SAND		CLAY		SILT
	BOULDERS OR COBBLES		LIMESTONE		BEDROCK (UNKNOWN)
	SHALE		SANDSTONE		IGNEOUS/META

LEGEND OF BORING



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GROUND WATER ELEVATION

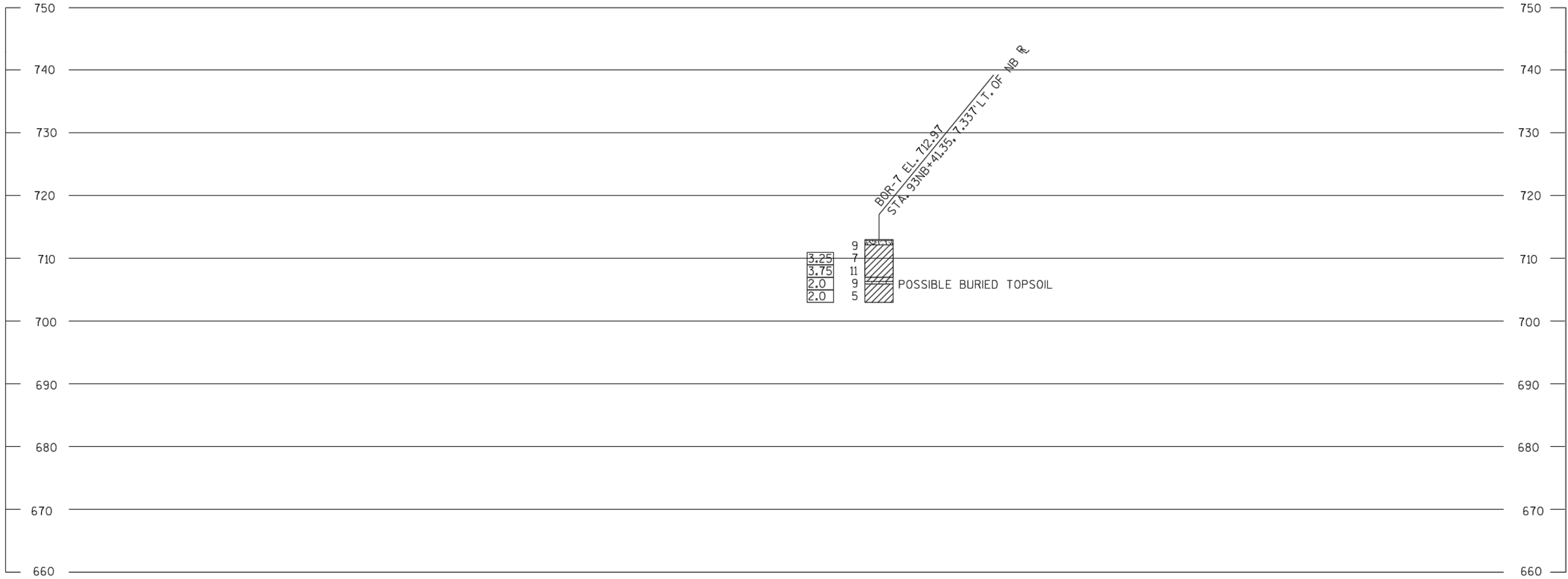
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- AFTER DRILLING

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PROJECT NO: 1223-17-71

HWY: IH 43

COUNTY: SHEBOYGAN

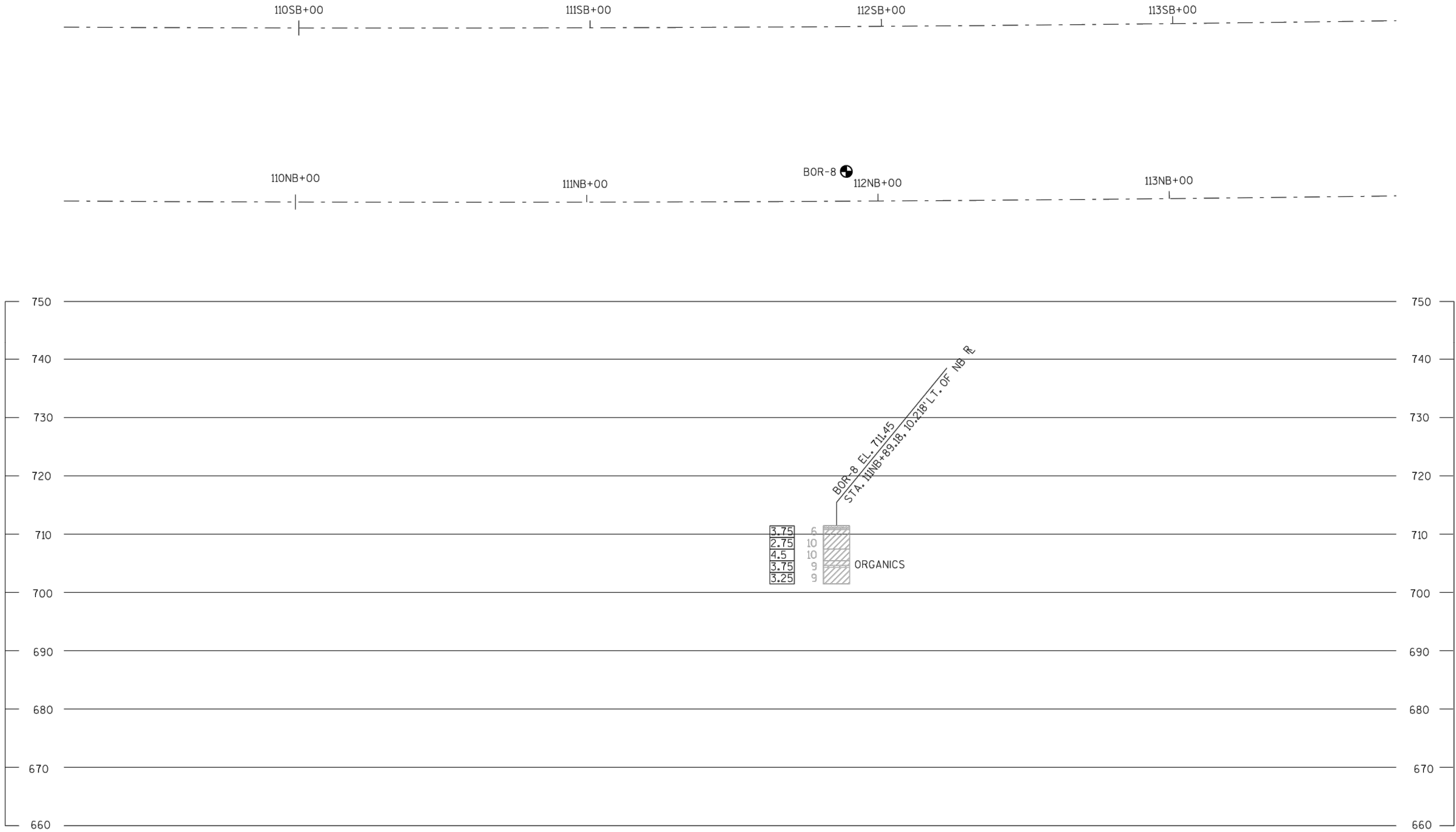
SOIL BORINGS FOR CABLE BARRIER

SHEET

17

E

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
8	11/30/2016	151165.947	206464.091
BORINGS COMPLETED BY: RVT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) SHEBOYGAN COUNTY			



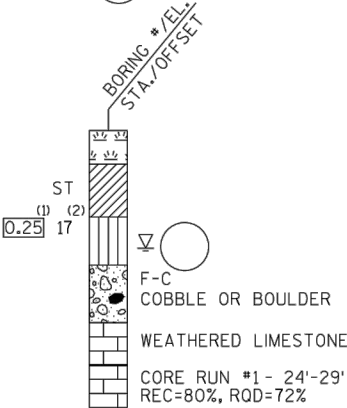
STATE PROJECT NUMBER

1223-17-00

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/META

LEGEND OF BORING



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GROUND WATER ELEVATION

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- ▽ END OF DRILLING
- ▽ AFTER DRILLING

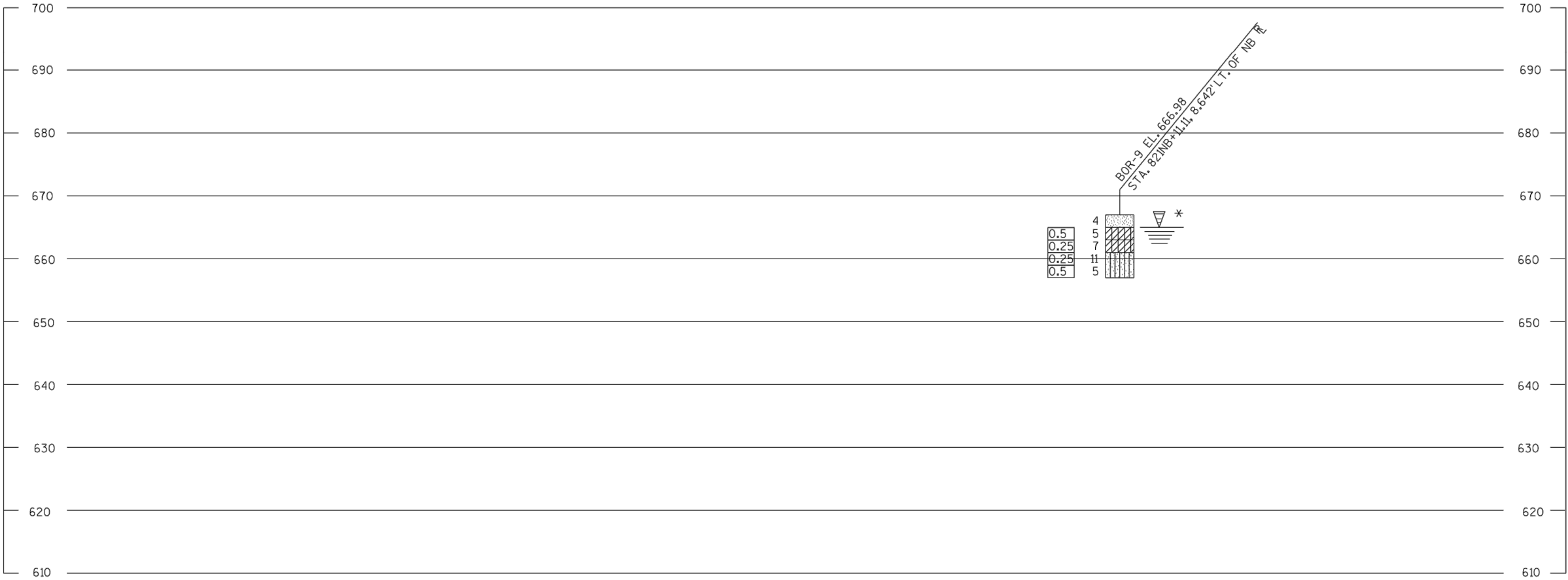
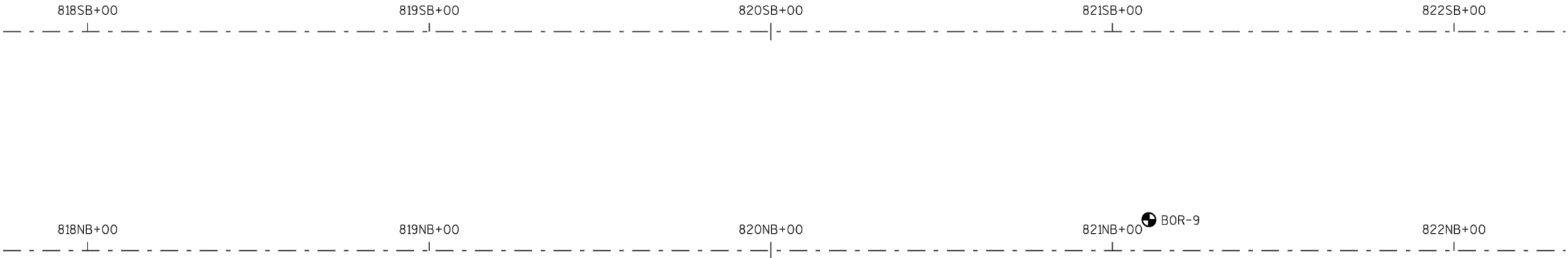
ABBREVIATIONS

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BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
9	11/30/2016	217494.760	203745.395
BORINGS COMPLETED BY: RVT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) MANITOWOC COUNTY			



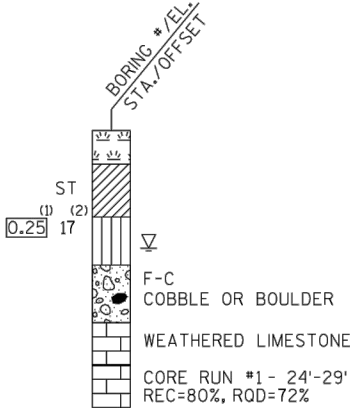
STATE PROJECT NUMBER

1223-17-00

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/META

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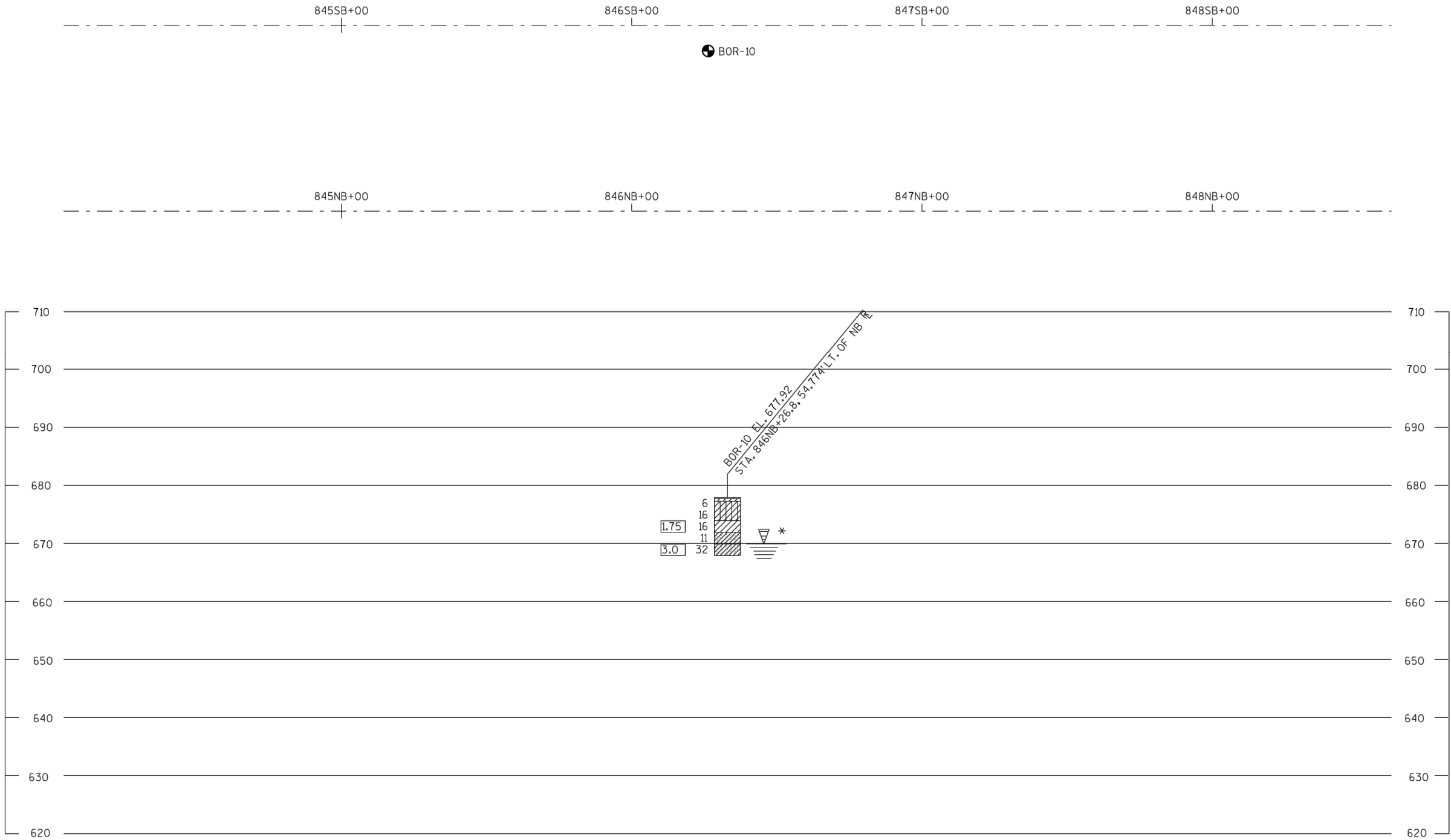
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* THE GROUND WATER ELEVATION WAS DETERMINED FROM WHERE THE SOIL SAMPLE WAS DESCRIBED AS WET.

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
10	11/30/2016	220009.997	203679.213
BORINGS COMPLETED BY: RVT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) MANITOWOC COUNTY			



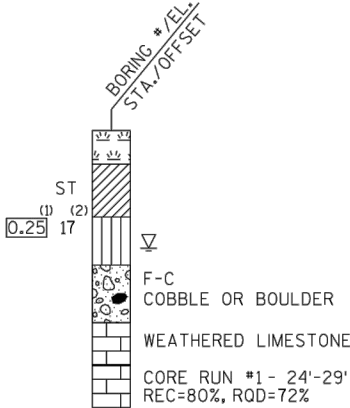
STATE PROJECT NUMBER

1223-17-00

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
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PROJECT NO: 1223-17-71

HWY: IH 43

COUNTY: SHEBOYGAN

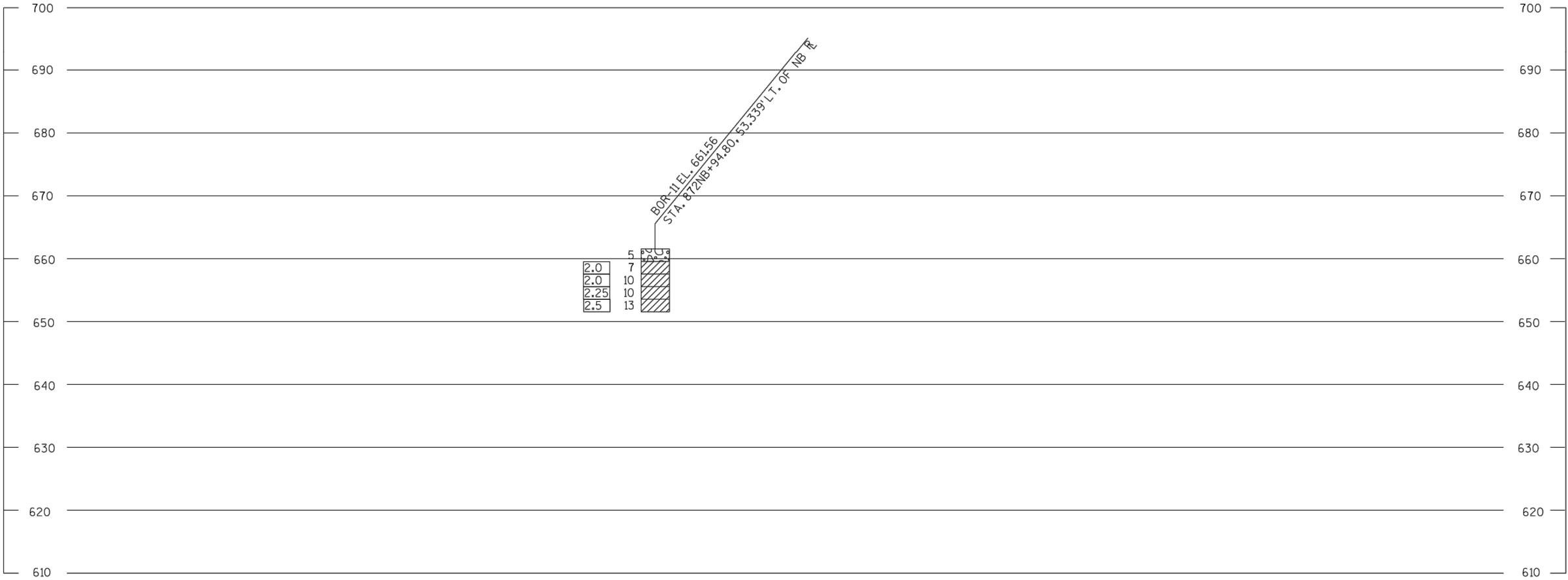
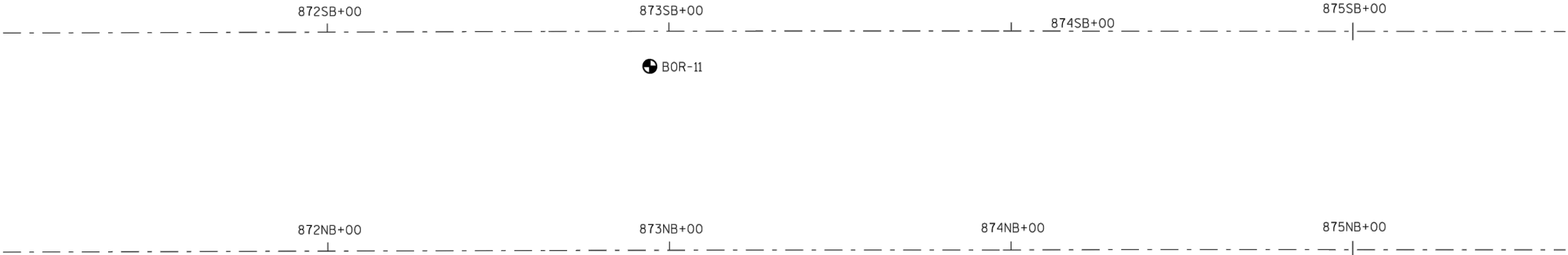
SOIL BORINGS FOR CABLE BARRIER

SHEET

20

E

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
11	11/30/2016	222677.971	203659.396
BORINGS COMPLETED BY: RVT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) MANITOWOC COUNTY			



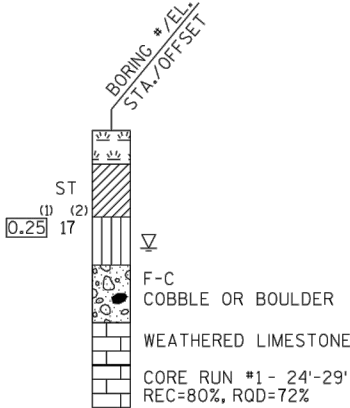
STATE PROJECT NUMBER

1223-17-00

MATERIAL SYMBOLS

	ASPHALT		TOPSOIL		PEAT
	CONCRETE		FILL		GRAVEL
	SAND		CLAY		SILT
	BOULDERS OR COBBLES		LIMESTONE		BEDROCK (UNKNOWN)
	SHALE		SANDSTONE		IGNEOUS/META

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GROUND WATER ELEVATION

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- ▽ AFTER DRILLING

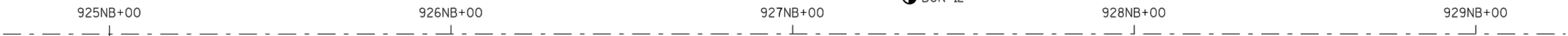
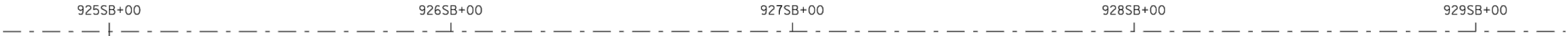
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BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
12	11/30/2016	228117.652	203679.523
BORINGS COMPLETED BY: RVT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) MANITOWOC COUNTY			



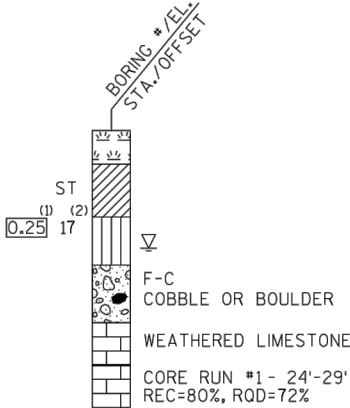
STATE PROJECT NUMBER

1223-17-00

MATERIAL SYMBOLS

	ASPHALT		TOPSOIL		PEAT
	CONCRETE		FILL		GRAVEL
	SAND		CLAY		SILT
	BOULDERS OR COBBLES		LIMESTONE		BEDROCK (UNKNOWN)
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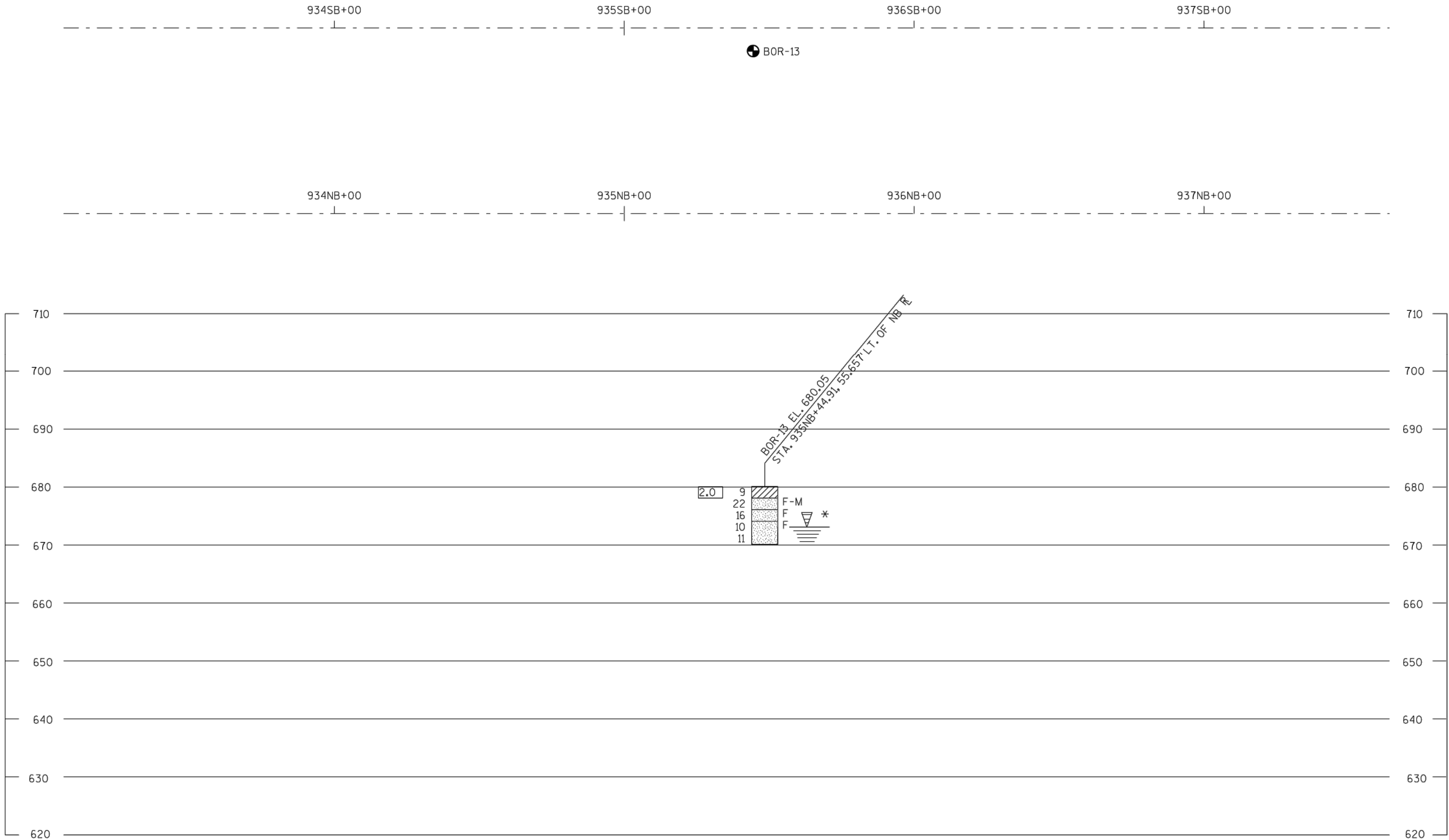
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BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
13	11/30/2016	228928.196	203631.474
BORINGS COMPLETED BY: RVT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) MANITOWOC COUNTY			



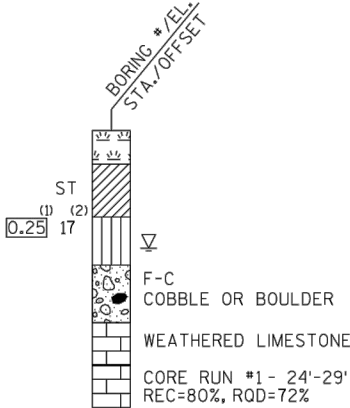
STATE PROJECT NUMBER

1223-17-00

MATERIAL SYMBOLS

	ASPHALT		TOPSOIL		PEAT
	CONCRETE		FILL		GRAVEL
	SAND		CLAY		SILT
	BOULDERS OR COBBLES		LIMESTONE		BEDROCK (UNKNOWN)
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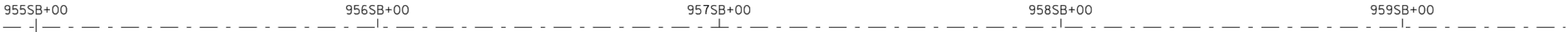
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BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
14	11/29/2016	231140.330	203670.179
BORINGS COMPLETED BY: RVT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) MANITOWOC COUNTY			



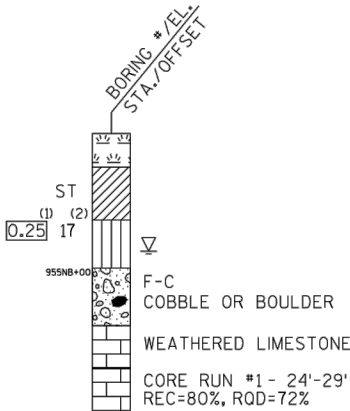
STATE PROJECT NUMBER

1223-17-00

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
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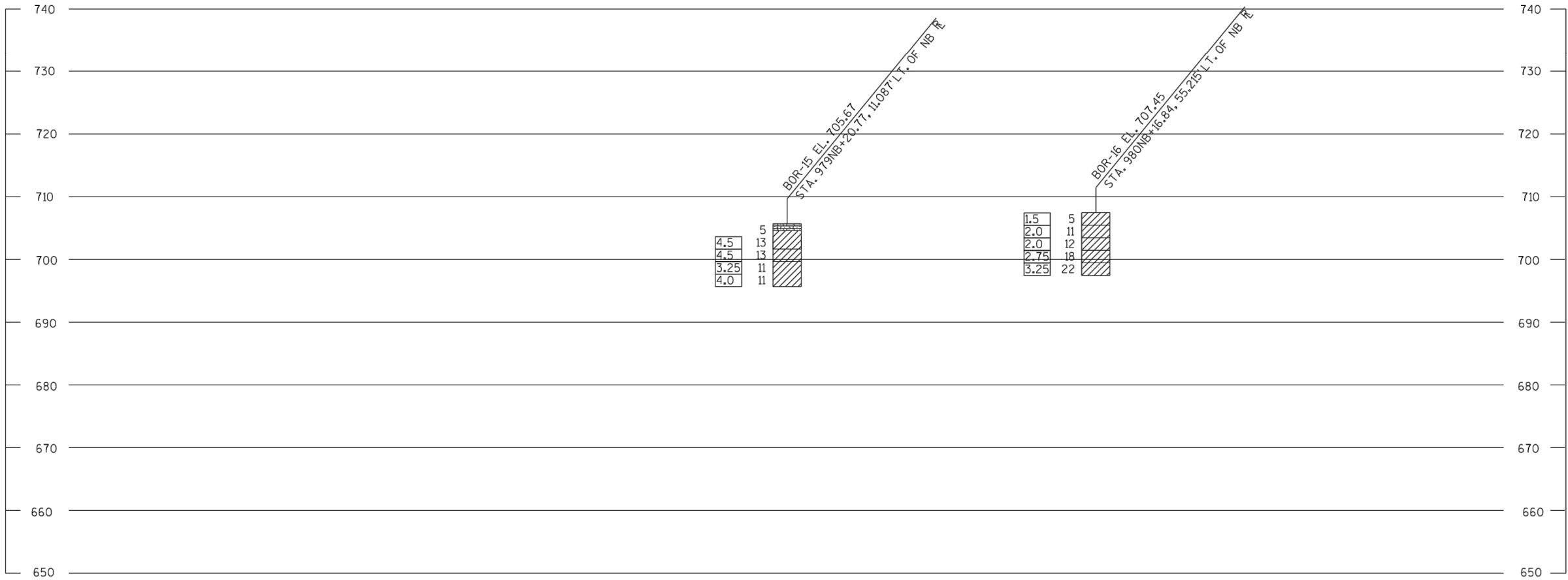
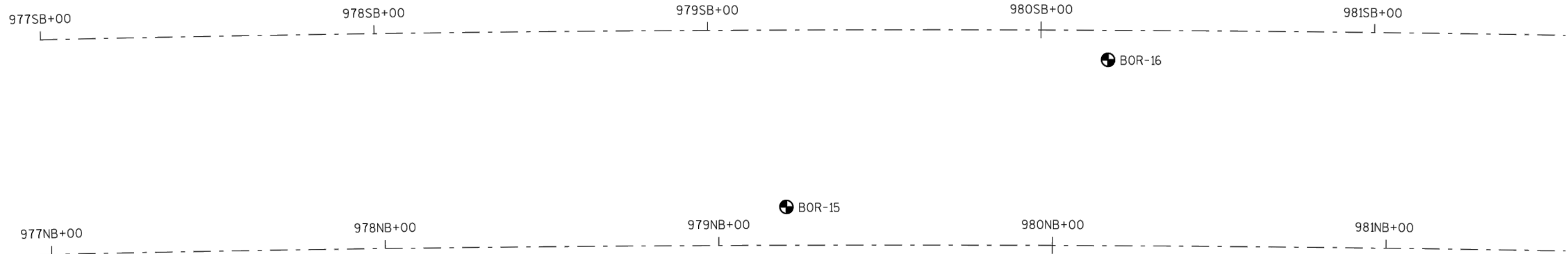
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BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
15	11/29/2016	233304.558	203673.332
16	11/29/2016	233402.997	203634.081
BORINGS COMPLETED BY: RVT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) MANITOWOC COUNTY			



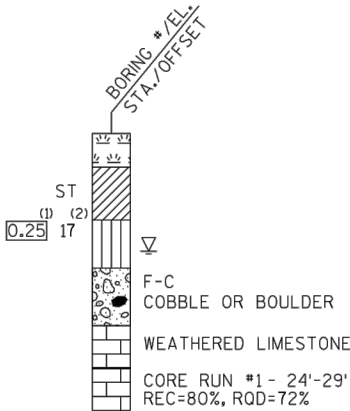
STATE PROJECT NUMBER

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MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
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BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- AT TIME OF DRILLING
- END OF DRILLING
- AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

PROJECT NO: 1223-17-71

HWY: IH 43

COUNTY: SHEBOYGAN

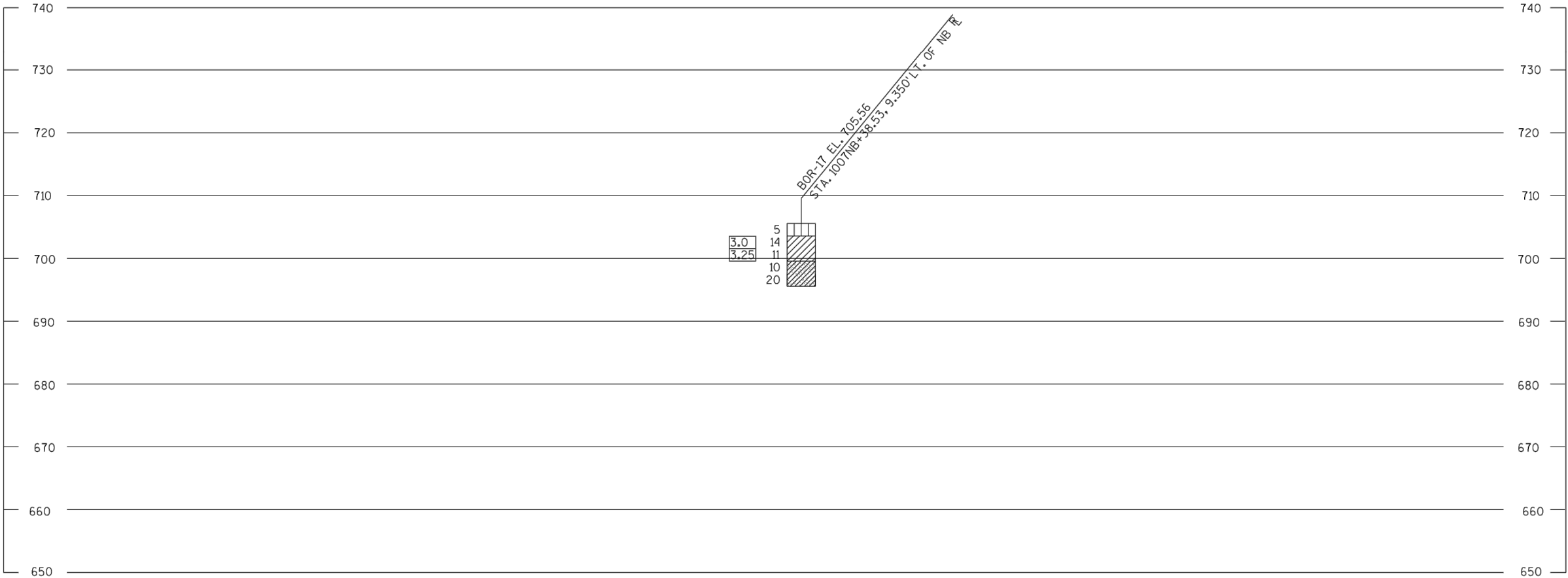
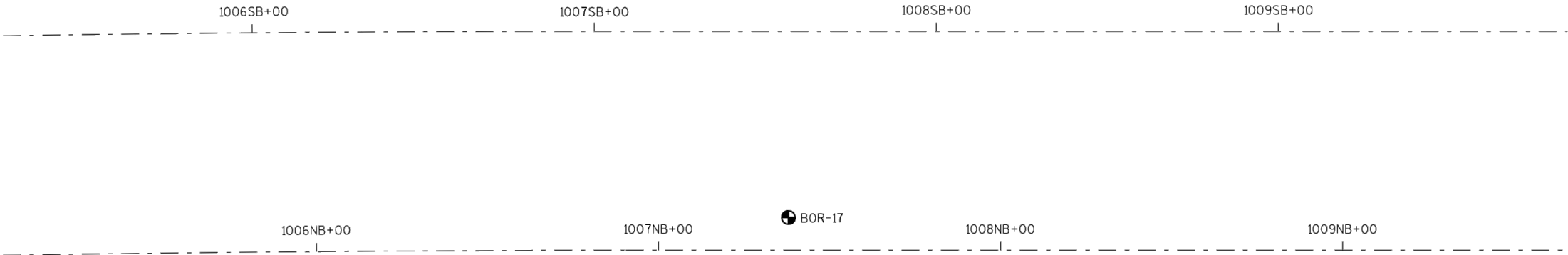
SOIL BORINGS FOR CABLE BARRIER

SHEET

25

E

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
17	11/29/2016	236077.436	204147.609
BORINGS COMPLETED BY: RVT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) MANITOWOC COUNTY			



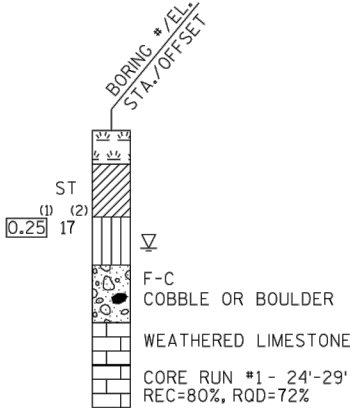
STATE PROJECT NUMBER

1223-17-00

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/META

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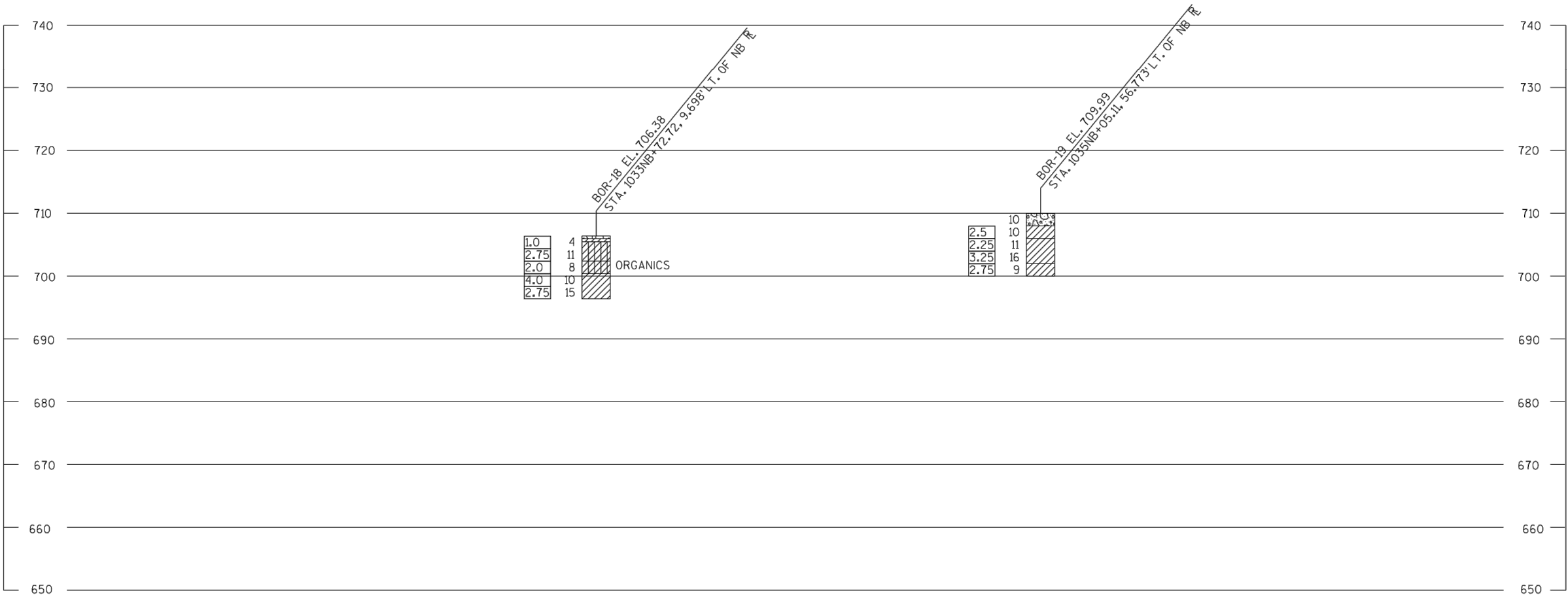
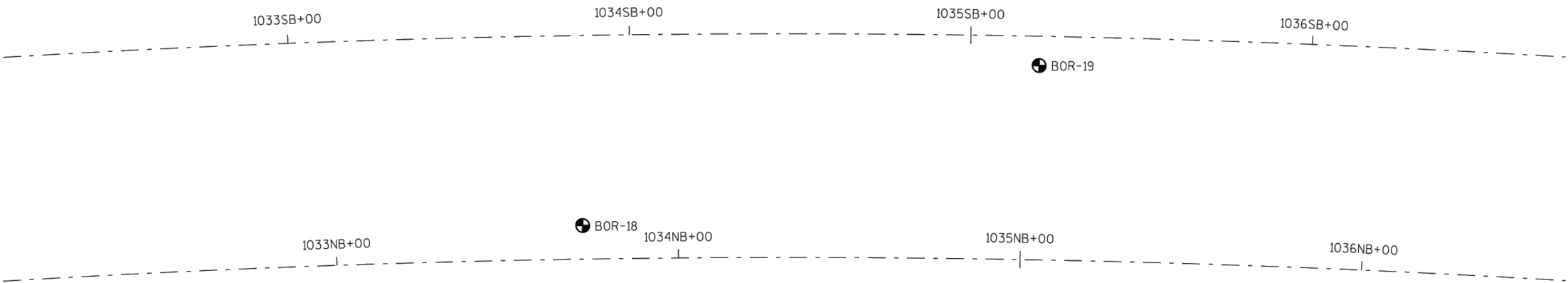
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BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
18	11/29/2016	238577.233	204970.860
19	11/29/2016	238716.743	204995.067
BORINGS COMPLETED BY: RVT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) MANITOWOC COUNTY			



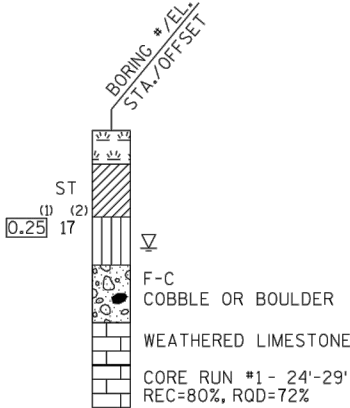
STATE PROJECT NUMBER

1223-17-00

MATERIAL SYMBOLS

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CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
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HWY: IH 43

COUNTY: SHEBOYGAN

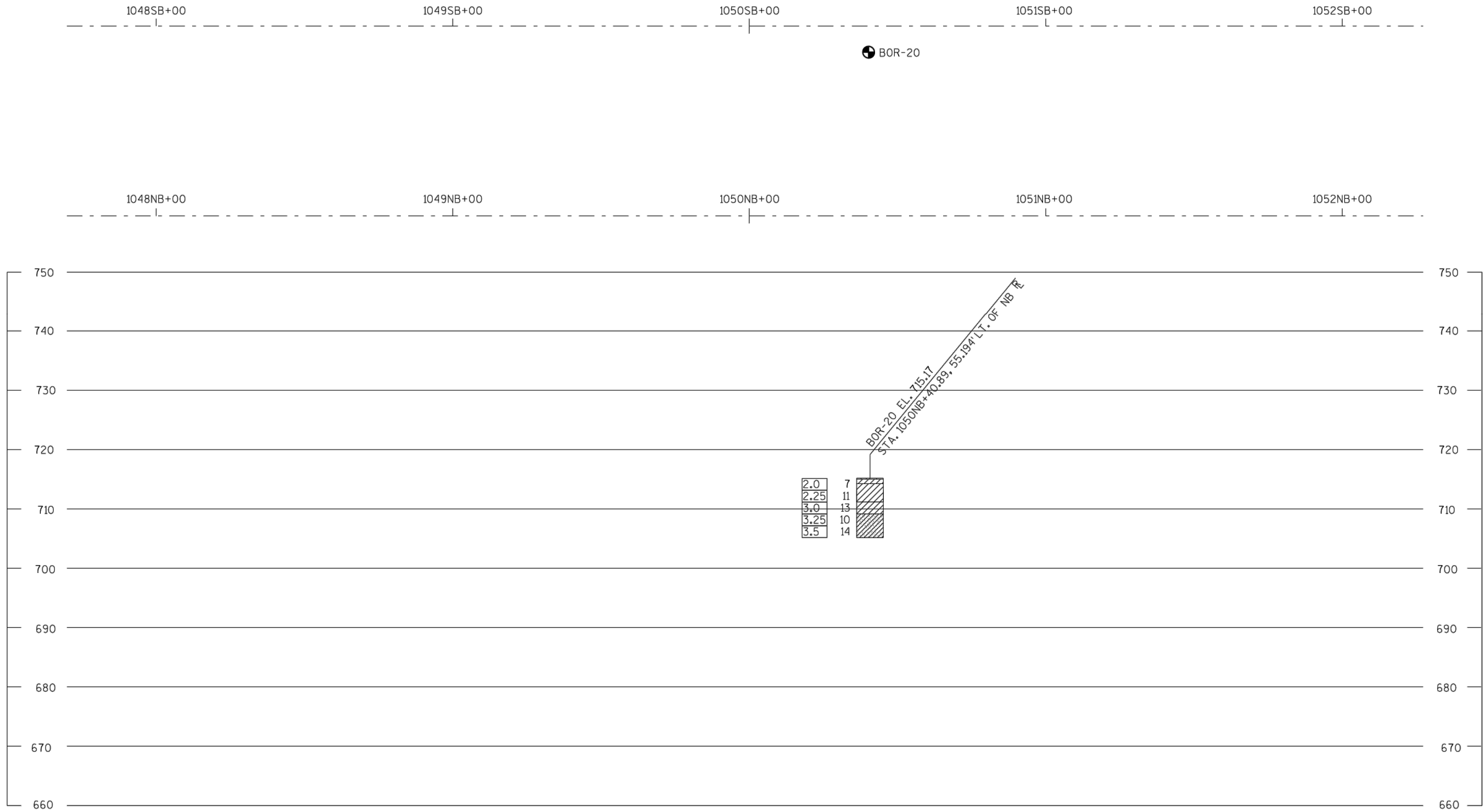
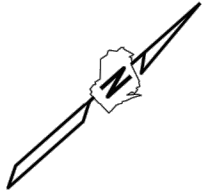
SOIL BORINGS FOR CABLE BARRIER

SHEET

27

E

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
20	11/29/2016	239924.385	205956.467
BORINGS COMPLETED BY: RVT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) MANITOWOC COUNTY			



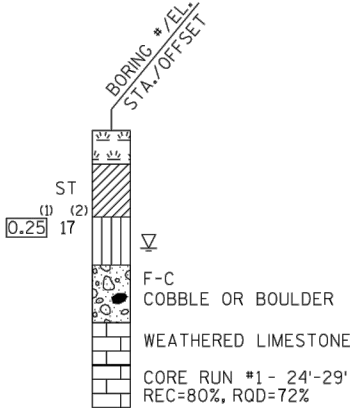
STATE PROJECT NUMBER

1223-17-00

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
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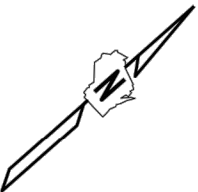
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BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
21	11/29/2016	240488.935	206508.445
BORINGS COMPLETED BY: RVT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) MANITOWOC COUNTY			



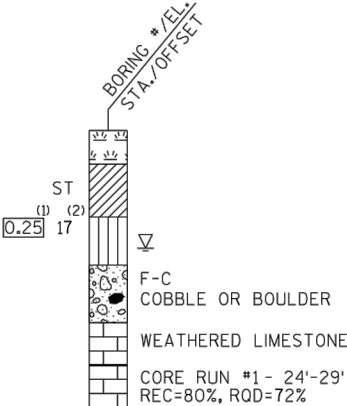
STATE PROJECT NUMBER

1223-17-00

MATERIAL SYMBOLS

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	CONCRETE		FILL		GRAVEL
	SAND		CLAY		SILT
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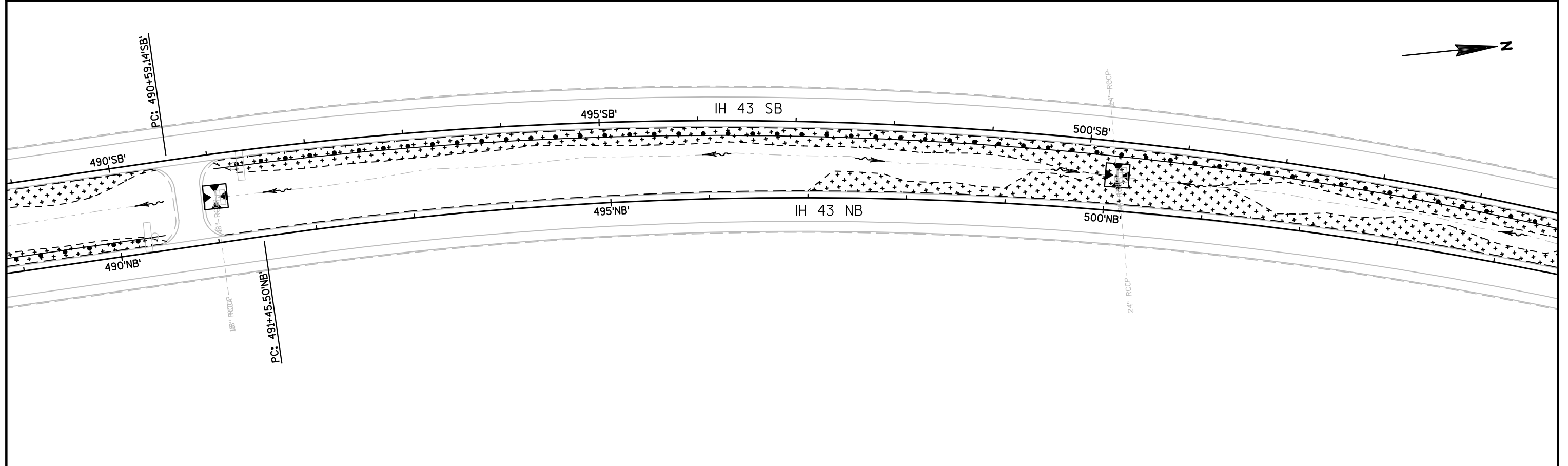
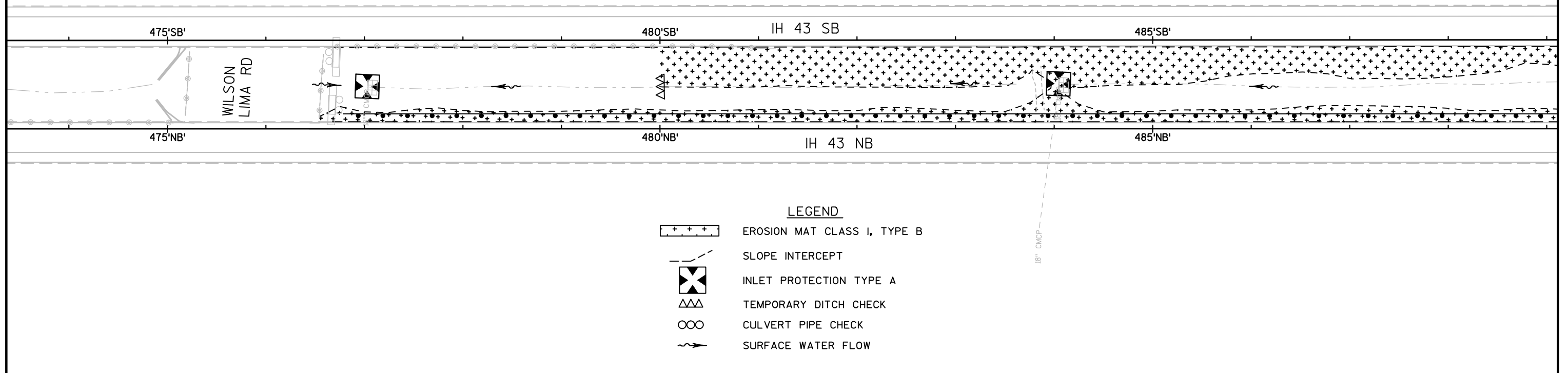
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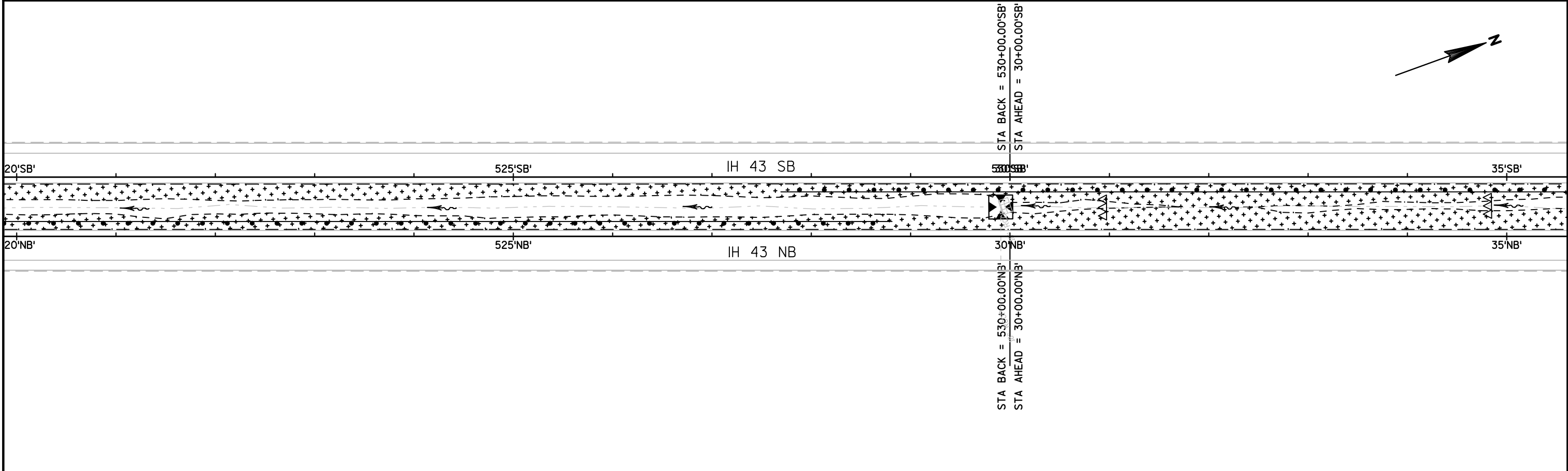
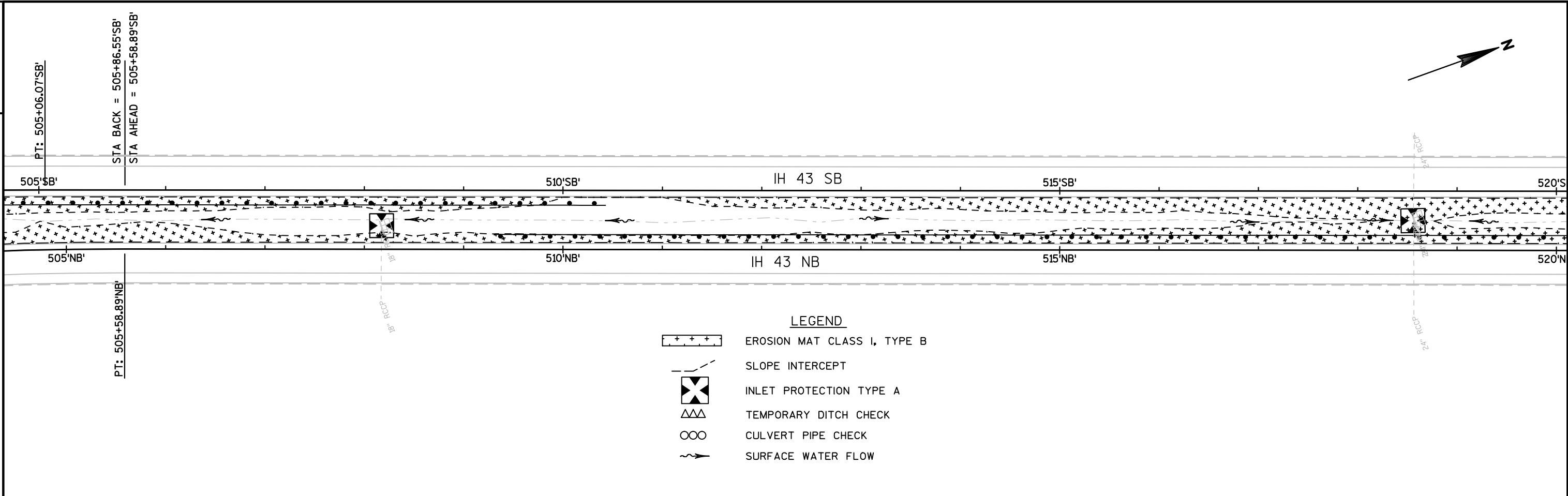
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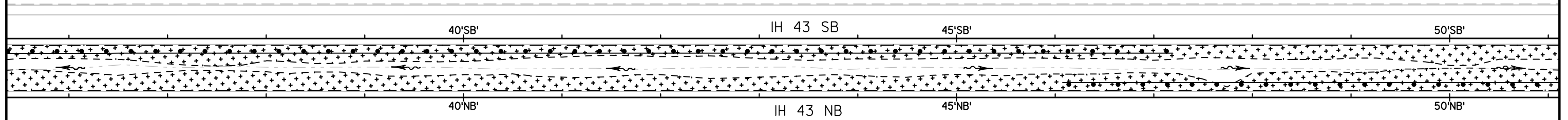
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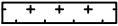


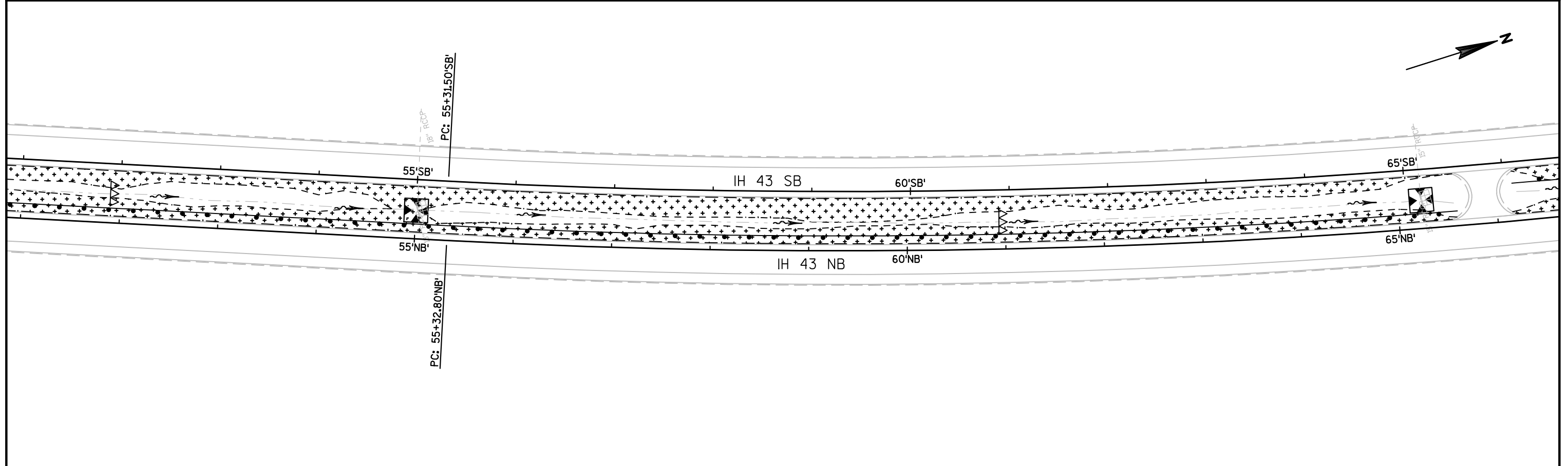


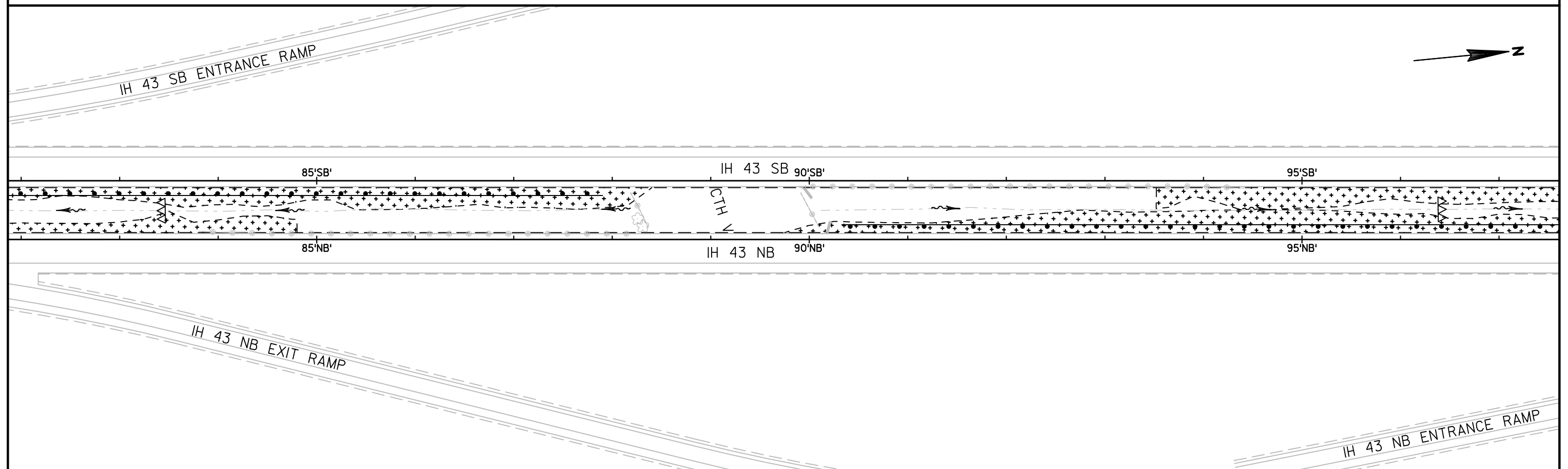
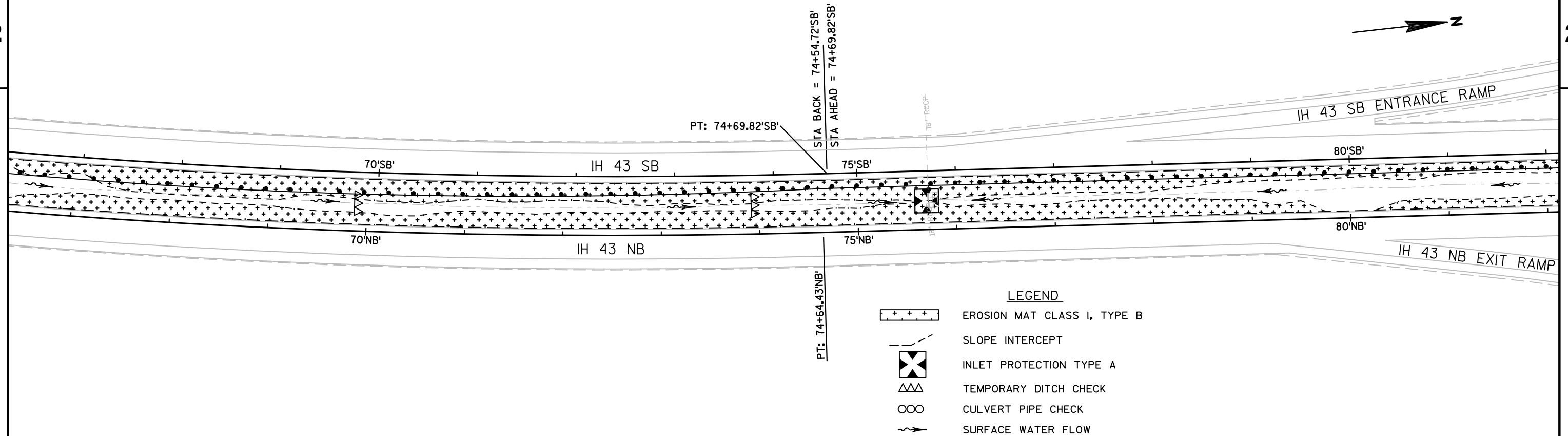


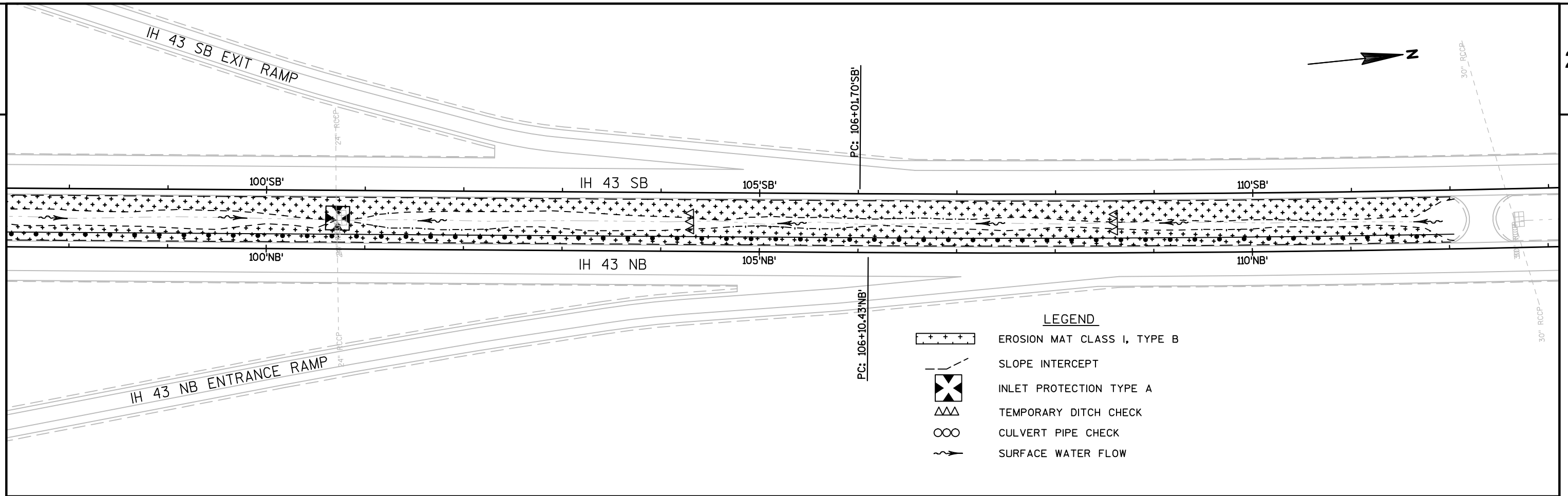


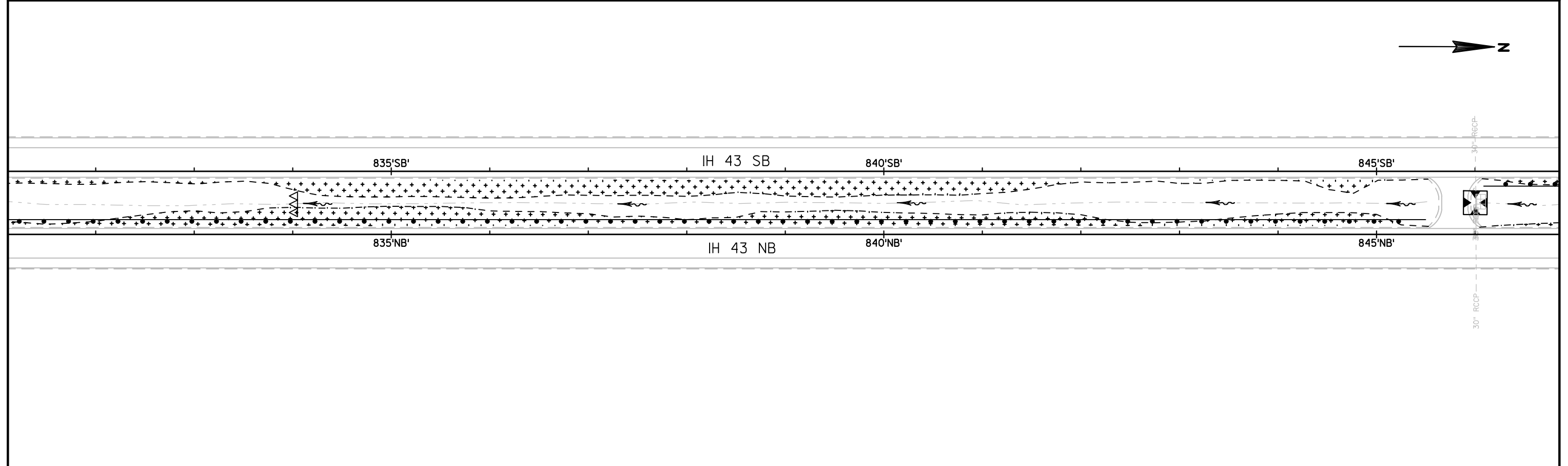
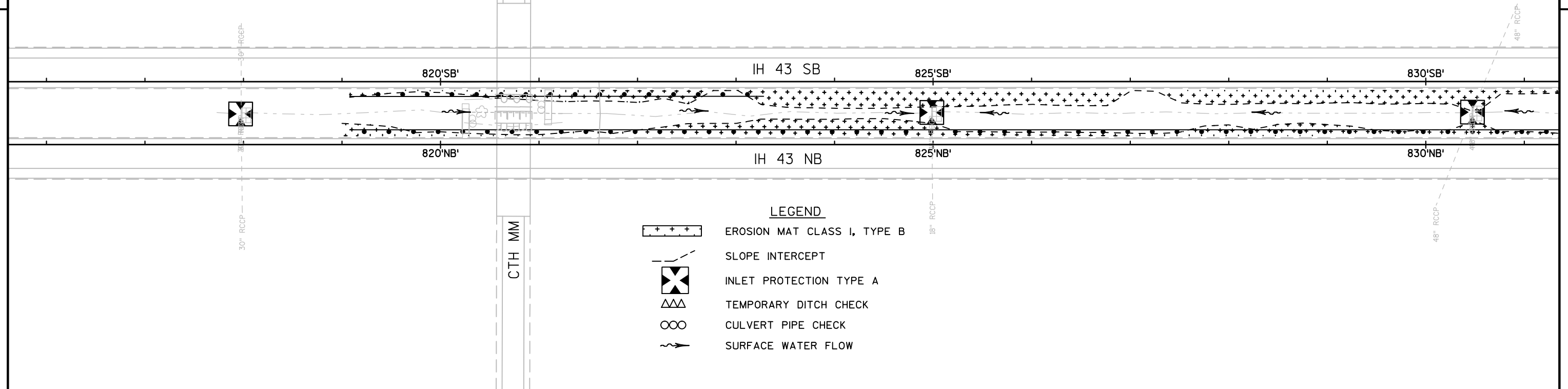
LEGEND

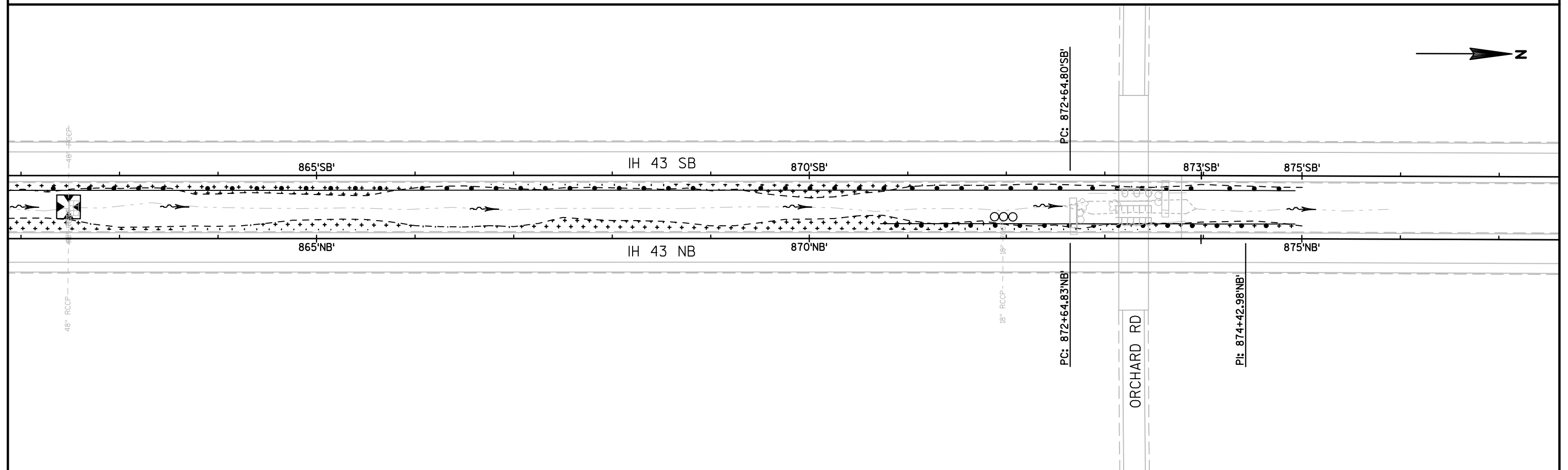
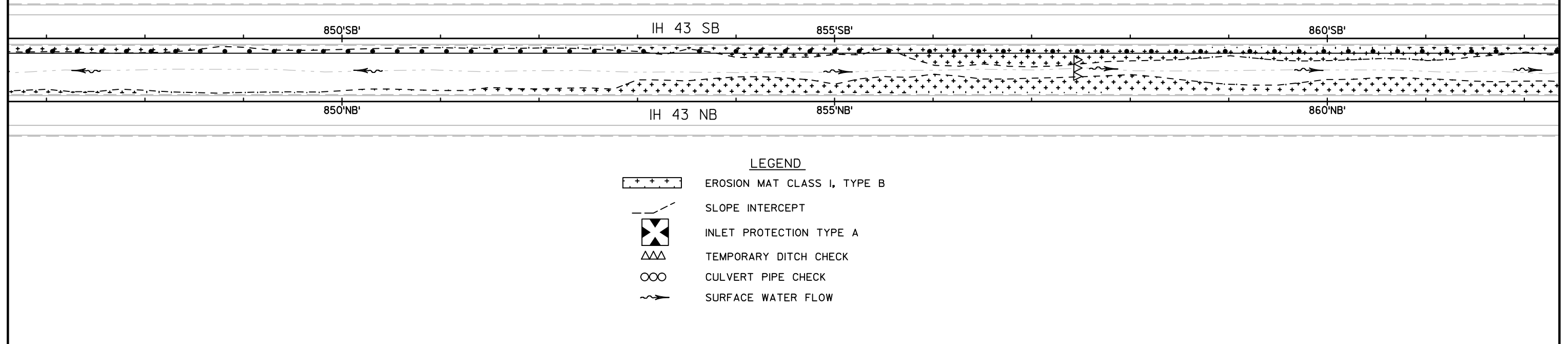
-  EROSION MAT CLASS I, TYPE B
-  SLOPE INTERCEPT
-  INLET PROTECTION TYPE A
-  TEMPORARY DITCH CHECK
-  CULVERT PIPE CHECK
-  SURFACE WATER FLOW

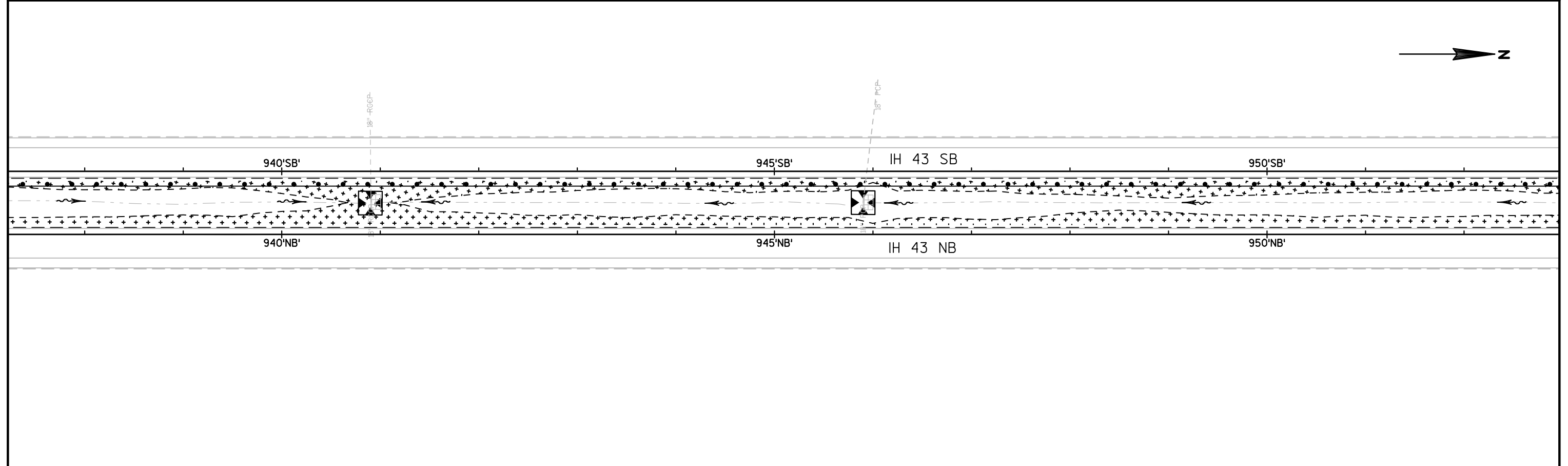
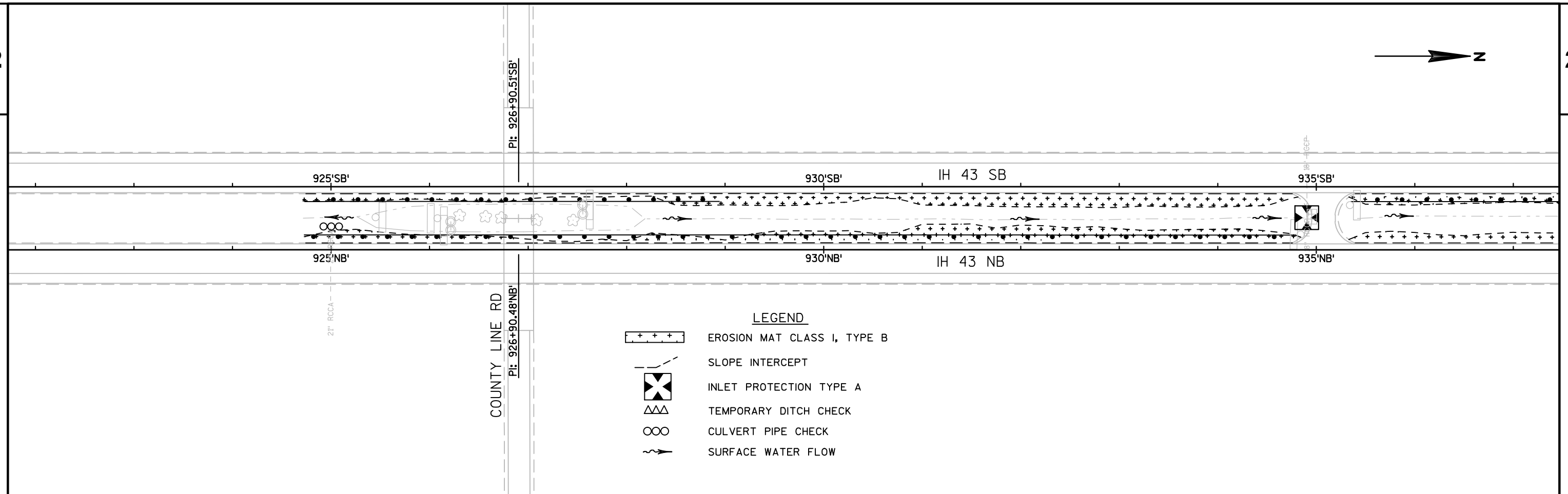


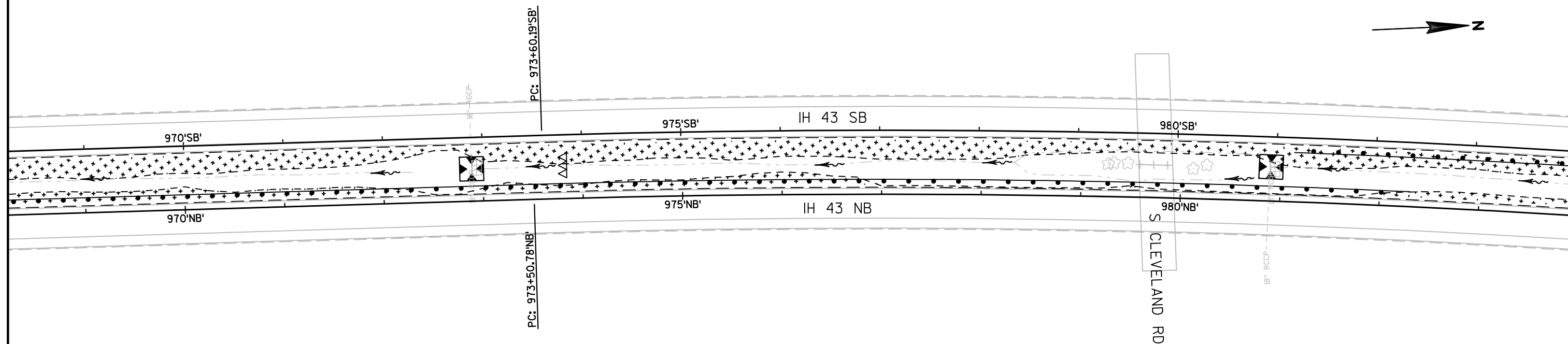
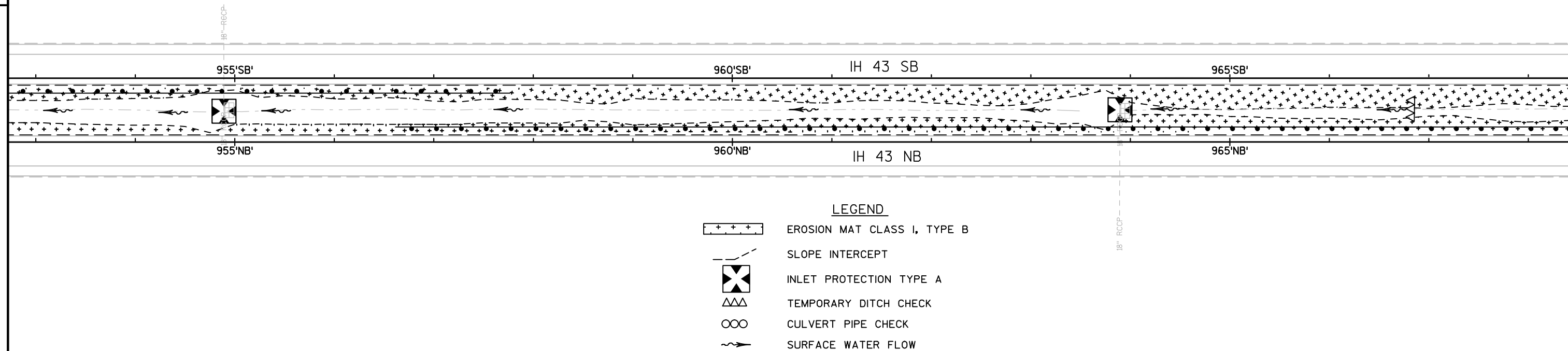


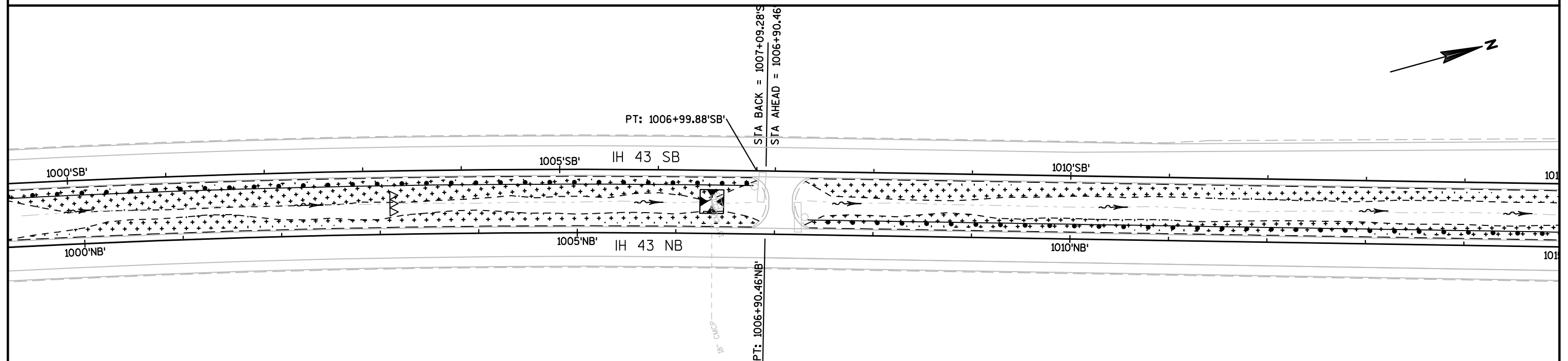
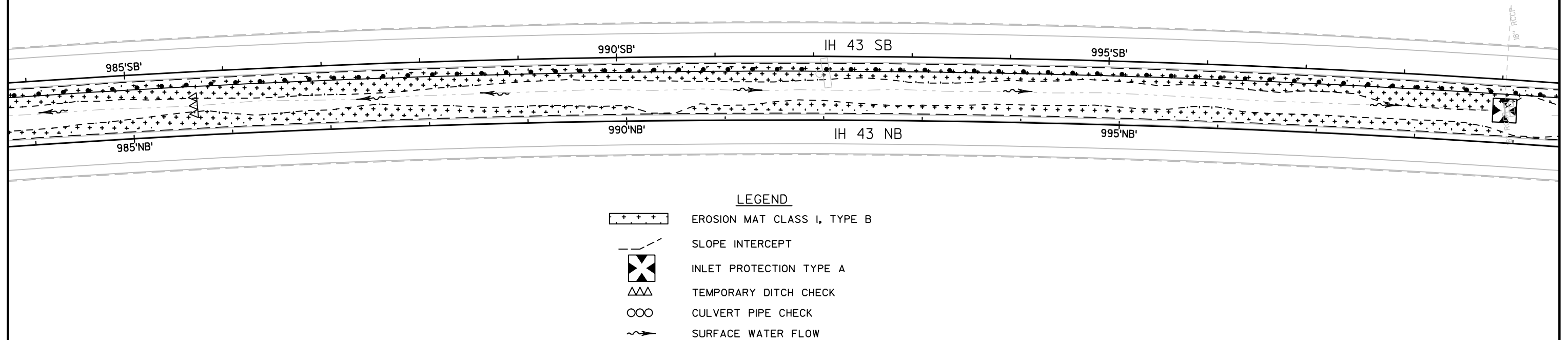


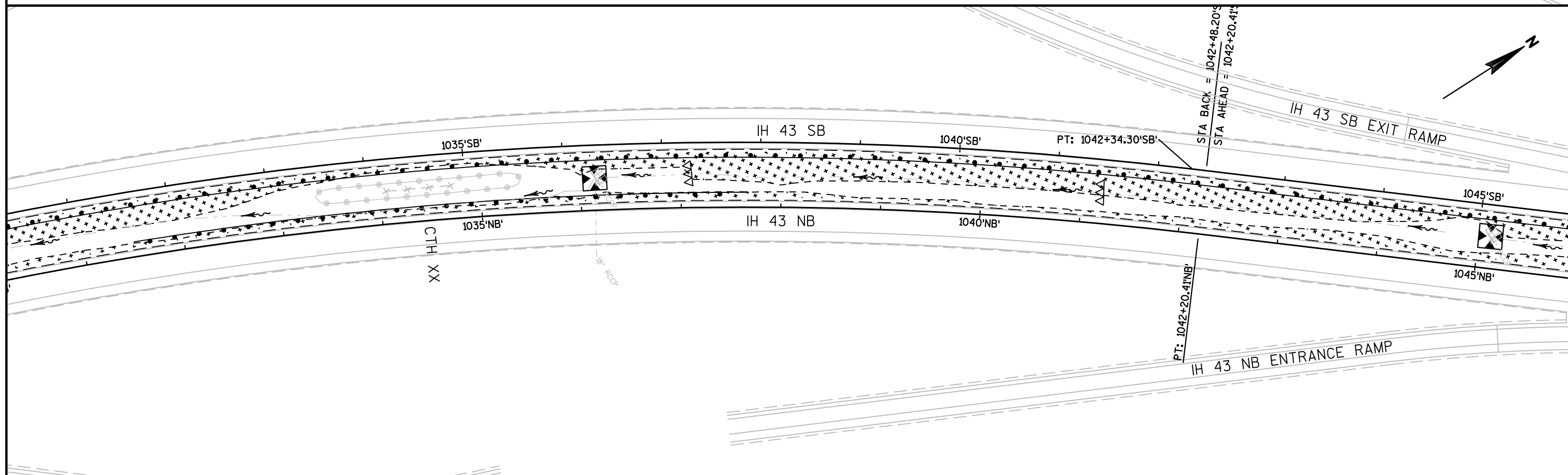
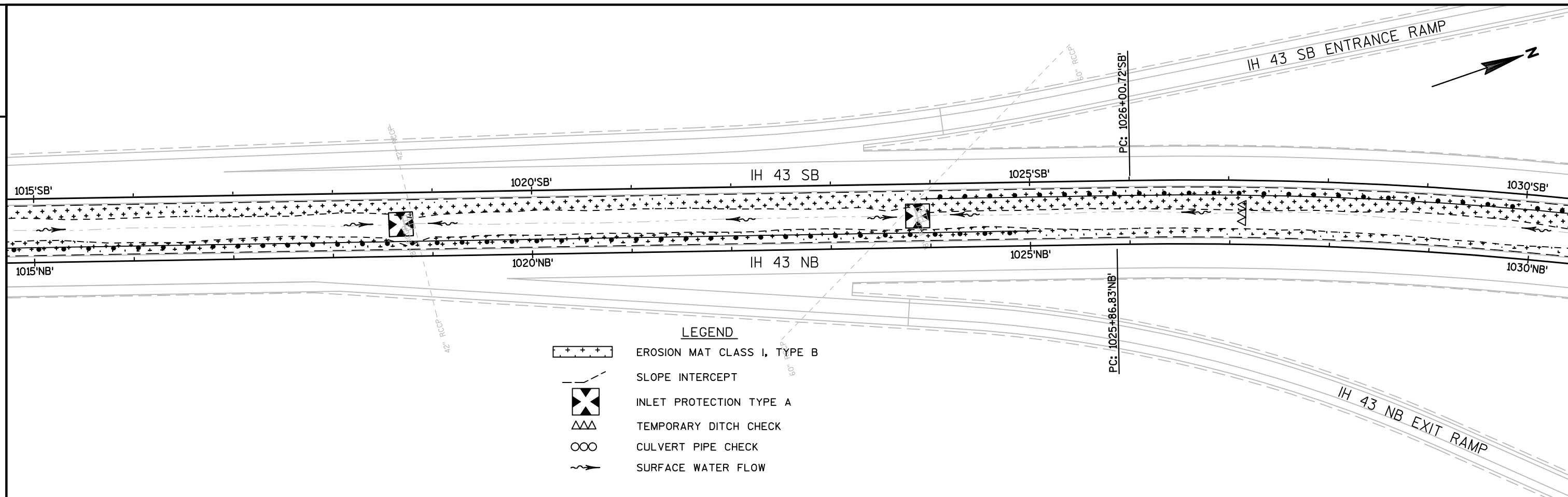


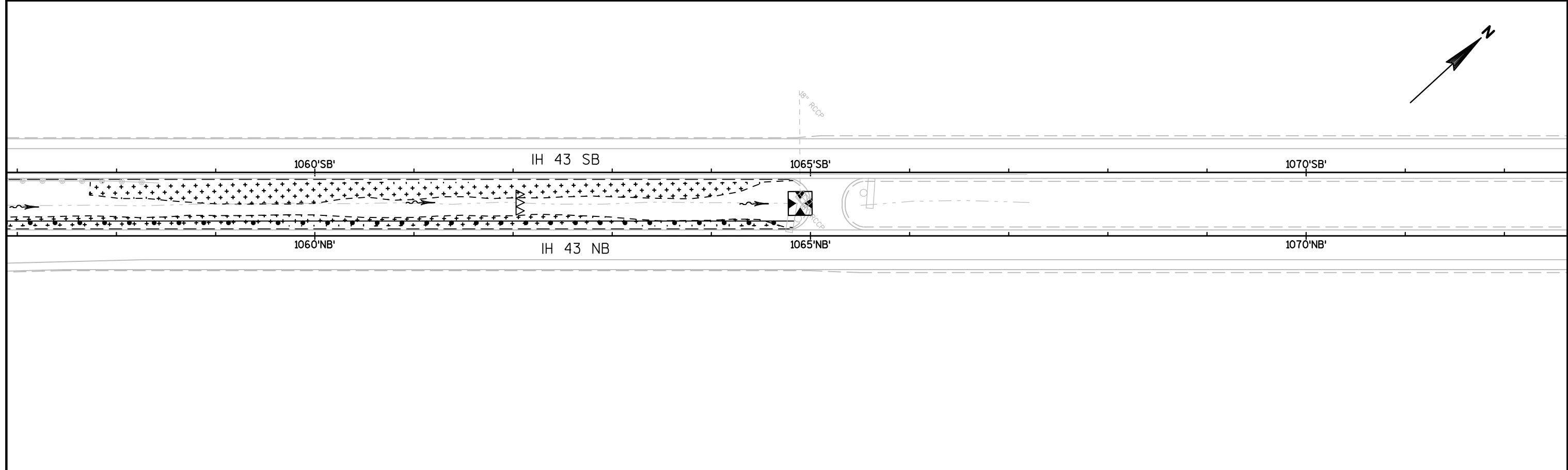
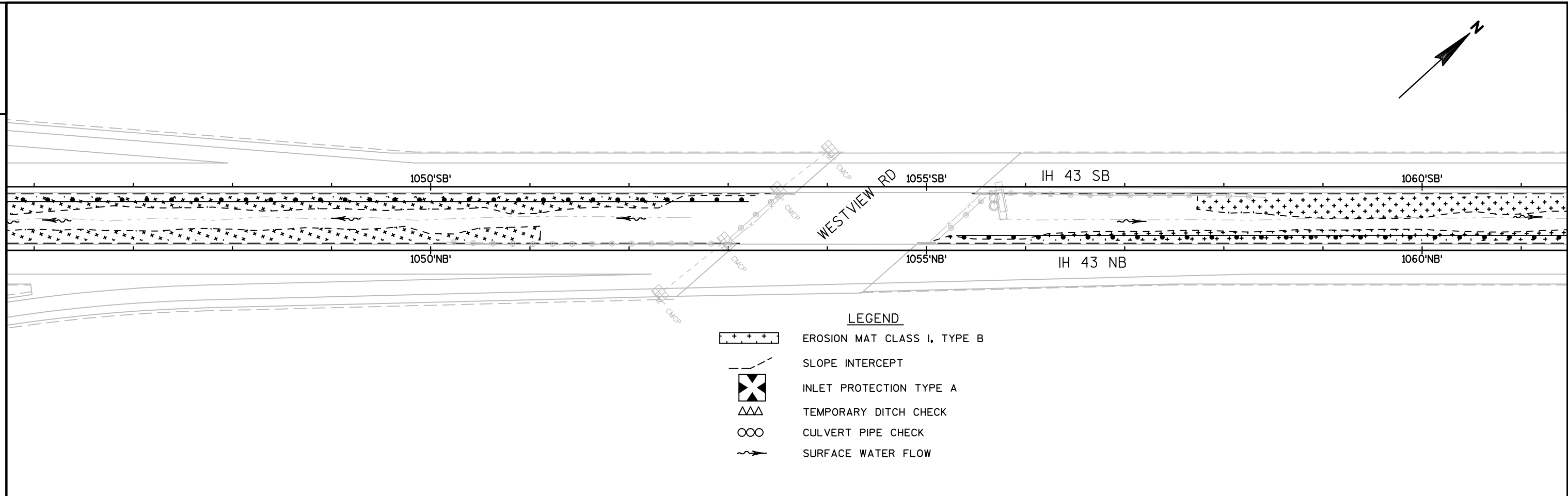




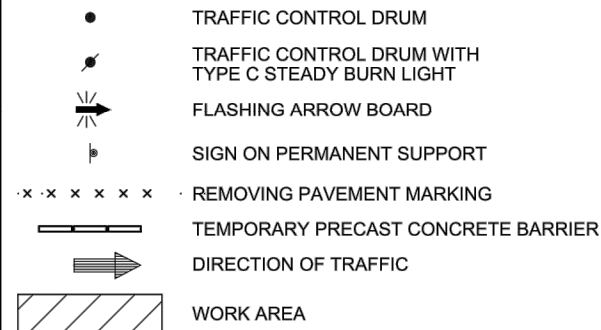








LEGEND



TRAFFIC CONTROL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, 500 FEET DESIRABLE, DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48" x 48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS, TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

REDUCED SPEED AHEAD, AND ALL SPEED LIMIT SIGNS MUST BE POST MOUNTED.

SPEED LIMIT SIGNS SHALL ALSO BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP AND AT 0.5 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.

THE LOCATION OF THE FIRST SIGN INDICATING THE 55 OR 60 MPH REGULATORY SPEED LIMIT IS REFERENCED FROM BEGINNING OF LANE CLOSURE TAPER. THE 55 OR 60 MPH REGULATORY SPEED LIMIT SIGN LOCATION MUST BE ADJUSTED WHEN CONSTRUCTION ACTIVITIES REQUIRE THE LANE CLOSURE START LOCATION TO CHANGE.

TRAFFIC CONTROL DEVICES NOT IN USE SHALL BE LAID DOWN OR REMOVED, TURNING OF DEVICES TO OBSCURE THE MESSAGE WILL NOT BE ALLOWED.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 7 CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

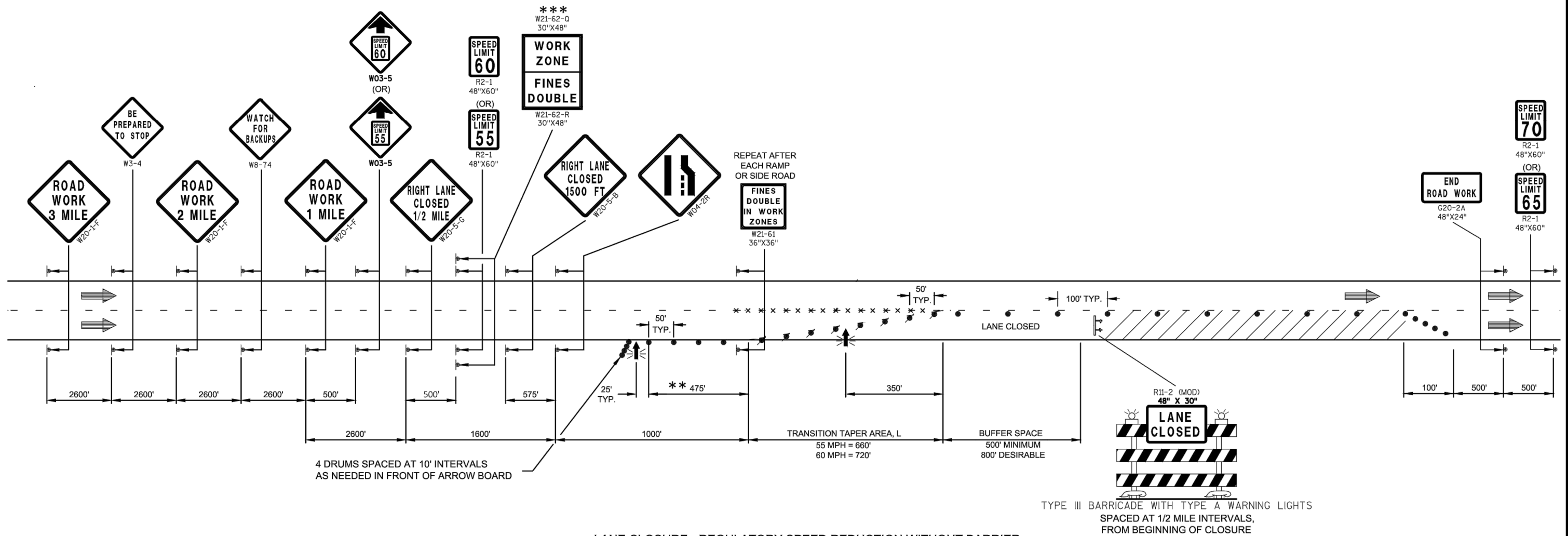
IF LANE CLOSURE IS MORE THAN 1 MILE, PLACE A TYPE III BARRICADE APPROXIMATELY EVERY ½ MILE ACROSS THE CLOSED LANE TO HELP ENFORCE THE DRUM LINE.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ½ THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

** CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM OF 1500 FEET IN FRONT OF THE DRUMS.

*** SEE REQUIREMENT FOR TEMPORARY REGULATORY SPEED REDUCTION IN THE SPECIAL PROVISIONS.

COVERING AND REMOVAL OF MATERIAL COVERING TEMPORARY REGULATORY SPEED LIMIT SIGNS AND EXISTING SPEED LIMIT SIGNS RELATED TO TEMPORARY AND/OR PERIODIC LANE CLOSURES SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.



LANE CLOSURE - REGULATORY SPEED REDUCTION WITHOUT BARRIER

Estimate Of Quantities

1223-17-71					
Line	Item	Item Description	Unit	Total	Qty
0002	213.0100	Finishing Roadway (project) 01. 1223-17-71	EACH	1.000	1.000
0004	305.0110	Base Aggregate Dense 3/4-Inch	TON	501.000	501.000
0006	509.0301	Preparation Decks Type 1	SY	12.000	12.000
0008	509.1500	Concrete Surface Repair	SF	54.000	54.000
0010	509.5100.S	Polymer Overlay	SY	859.000	859.000
0012	611.8115	Adjusting Inlet Covers	EACH	2.000	2.000
0014	613.1100.S	Cable Barrier Type 1	LF	33,426.000	33,426.000
0016	613.1200.S	Cable Barrier End Terminal Type 1	EACH	40.000	40.000
0018	619.1000	Mobilization	EACH	1.000	1.000
0020	628.1905	Mobilizations Erosion Control	EACH	6.000	6.000
0022	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0024	628.2004	Erosion Mat Class I Type B	SY	111,124.000	111,124.000
0026	628.7005	Inlet Protection Type A	EACH	30.000	30.000
0028	628.7504	Temporary Ditch Checks	LF	440.000	440.000
0030	628.7555	Culvert Pipe Checks	EACH	4.000	4.000
0032	629.0210	Fertilizer Type B	CWT	70.000	70.000
0034	630.0130	Seeding Mixture No. 30	LB	2,000.000	2,000.000
0036	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	7.000	7.000
0038	638.2102	Moving Signs Type II	EACH	7.000	7.000
0040	638.3000	Removing Small Sign Supports	EACH	7.000	7.000
0042	642.5001	Field Office Type B	EACH	1.000	1.000
0044	643.0100	Traffic Control (project) 01. 1223-17-71	EACH	1.000	1.000
0046	643.0300	Traffic Control Drums	DAY	57,016.000	57,016.000
0048	643.0420	Traffic Control Barricades Type III	DAY	1,887.000	1,887.000
0050	643.0705	Traffic Control Warning Lights Type A	DAY	3,773.000	3,773.000
0052	643.0715	Traffic Control Warning Lights Type C	DAY	3,311.000	3,311.000
0054	643.0800	Traffic Control Arrow Boards	DAY	430.000	430.000
0056	643.0900	Traffic Control Signs	DAY	9,070.000	9,070.000
0058	643.1050	Traffic Control Signs PCMS	DAY	42.000	42.000
0060	646.0106	Pavement Marking Epoxy 4-Inch	LF	444.000	444.000
0062	650.9910	Construction Staking Supplemental Control (project) 01. 1223-17-71	LS	1.000	1.000
0064	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	1,200.000	1,200.000
0066	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	600.000	600.000
0068	SPV.0035	Special 01. Concrete Masonry Deck Repair	CY	2.000	2.000
0070	SPV.0090	Special 01. Sawing Pavement Deck Preparation Areas	LF	294.000	294.000
0072	SPV.0170	Special 01. Cable Guard Median Grading and Shaping	STA	326.000	326.000

3

3

EARTHWORK SUMMARY

			EXCAVATION COMMON (1)		UNUSABLE	AVAILABLE	UNEXPANDED	EXPANDED	MASS	WASTE	REMARKS
			INCLUDED IN ITEM SPV.0170.01		PAVEMENT MATERIAL	MATERIAL					
STATION	TO	STATION	CUT (2)	EBS (3)	(4)	(5)	FILL	FILL (6)	± (7)		
			CY	CY	CY	CY	CY	CY	CY	CY	
476+78 NB	-	112+05 NB	661	0	0	661	2,552	3,394	-2,733	0	NB/SB MEDIAN SLOPES
819+08 NB	-	874+93 NB	2	0	0	2	692	920	-918	0	NB/SB MEDIAN SLOPES
924+73 NB	-	1064+83 NB	98	0	0	98	4,068	5,410	-5,312	0	NB/SB MEDIAN SLOPES
TOTAL			761	0	0	761	7312	9724	-8963	0	

- (1) EXCAVATION COMMON IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. INCLUDED IN ITEM SPV.0170.01
- (2) UNUSABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
- (3) EBS EXCAVATION TO BE BACKFILLED WITH CUT MATERIAL
- (4) UNUSABLE PAVEMENT MATERIAL
- (5) AVAILABLE MATERIAL = CUT - UNUSABLE PAVEMENT MATERIAL
- (6) EXPANDED FILL * EXPANDED FILL FACTOR. EXPANDED FILL FACTOR = 1.33
- (7) MASS ORDINATE = (AVAILABLE MATERIAL) - (EXPANDED FILL). PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL. MINUS INDICATES A SHORTAGE OF MATERIAL.

FINISHING ROADWAY PROJECT

213.0100	
FINISHING ROADWAY	
PROJECT	
LOCATION	EACH
1223-17-71	1
TOTAL	1

ADJUSTING IINLET COVERS

611.8115		
ADJUSTING		
INLET		
COVERS		
STATION	LOCATION	EACH
484+05 NB	LT	1
940+91 NB	LT	1
TOTAL		2

BASE AGGREGATE

305.0110					
BASE					
AGGREGATE					
DENSE					
3/4-INCH					
STATION	TO	STATION	LOCATION	TON	REMARKS
476+78 NB	-	112+05 NB	LT	501	NB/SB MEDIAN SHOULDERS
TOTAL				501	

ALL ITEMS ON THIS SHEET ARE IN CATEGORY 0010 UNLESS OTHERWISE NOTED

CABLE BARRIER

		613.1100.S		613.1200.S	
		*CABLE BARRIER TYPE 1		CABLE BARRIER END TERMINAL TYPE 1	
STATION	TO	STATION	LOCATION	LF	EACH
NORTHBOUND					
478+00 NB	-	490+47 NB	LT	1,166	2
509+31 NB	-	528+8 NB	LT	1,871	2
46+08 NB	-	65+60 NB	LT	1,870	2
91+00 NB	-	112+05 NB	LT	2,024	2
819+08 NB	-	845+50 NB	LT	2,562	2
870+72 NB	-	874+93 NB	LT	341	2
924+73 NB	-	934+79 NB	LT	926	2
956+62 NB	-	982+31 NB	LT	2,490	2
1007+34 NB	-	1025+06 NB	LT	1,692	2
1031+50 NB	-	1037+67 NB	LT	540	2
1056+00 NB	-	1064+83 NB	LT	803	2
NORTHBOUND TOTAL				16,285	22
SOUTHBOUND					
491+05 SB	-	510+43 SB	RT	1,880	2
527+69 SB	-	47+19 SB	RT	1,870	2
66+09 SB	-	87+00 SB	RT	1,999	2
819+08 SB	-	823+28 SB	RT	540	2
846+09 SB	-	874+93 SB	RT	2,804	2
924+73 SB	-	928+94 SB	RT	541	2
935+35 SB	-	957+77 SB	RT	2,161	2
981+18 SB	-	1006+97 SB	RT	2,496	2
1023+91 SB	-	1053+00 SB	RT	2,850	2
SOUTHBOUND TOTAL				17,141	18
PROJECT TOTAL				33,426	40

*MEASUREMENT FOR CABLE BARRIER SHALL NOT INCLUDE THE LENGTH OF THE END TERMINAL. ASSUMED CABLE BARRIER END TERMINAL LENGTH IS 40 FT, LENGTH MAY VARY DEPENDING ON MANUFACTURER.

ALL ITEMS ON THIS SHEET ARE IN CATEGORY 0010 UNLESS OTHERWISE NOTED

EROSION CONTROL

		628.7005		628.7504		628.7555	
		INLET PROTECTION TYPE A EACH		TEMPORARY DITCH CHECKS LF		CULVERT PIPE CHECKS EACH	
STATION	LOCATION						
477+03 NB	LT	1	--	--			
480+00 NB	LT	--	20	--			
484+05 NB	LT	1	--	--			
484+90 NB	LT	--	20	--			
491+04 NB	LT	1	--	--			
500+12 NB	LT	1	--	--			
508+18 NB	LT	1	--	--			
518+57 NB	LT	1	--	--			
529+91 NB	LT	1	--	--			
30+96 NB	LT	--	20	--			
34+96 NB	LT	--	20	--			
52+00 NB	LT	--	20	--			
55+02 NB	LT	1	--	--			
60+97 NB	LT	--	20	--			
65+24 NB	LT	1	--	--			
69+94 NB	LT	--	20	--			
73+94 NB	LT	--	20	--			
75+72 NB	LT	1	--	--			
83+44 NB	LT	--	20	--			
96+41 NB	LT	--	20	--			
100+71 NB	LT	1	--	--			
104+40 NB	LT	--	20	--			
108+40 NB	LT	--	20	--			
817+98 NB	LT	1	--	--			
824+99 NB	LT	1	--	--			
830+48 NB	LT	1	--	--			
834+02 NB	LT	--	20	--			
TOTAL		14	260	0			

		628.7005		628.7504		628.7555	
		INLET PROTECTION TYPE A EACH		TEMPORARY DITCH CHECKS LF		CULVERT PIPE CHECKS EACH	
STATION	LOCATION						
846+02 NB	LT	1	--	--			
857+44 NB	LT	--	20	--			
862+49 NB	LT	1	--	--			
871+96 NB	LT	--	--	--	2		
924+99 NB	LT	--	--	--	2		
934+91 NB	LT	1	--	--	--		
940+91 NB	LT	1	--	--	--		
945+90 NB	LT	1	--	--	--		
954+89 NB	LT	1	--	--	--		
963+90 NB	LT	1	--	--	--		
966+87 NB	LT	--	20	--	--		
972+90 NB	LT	1	--	--	--		
973+82 NB	LT	--	20	--	--		
980+90 NB	LT	1	--	--	--		
985+61 NB	LT	--	20	--	--		
998+90 NB	LT	1	--	--	--		
1003+09 NB	LT	--	20	--	--		
1006+36 NB	LT	1	--	--	--		
1018+71 NB	LT	1	--	--	--		
1023+87 NB	LT	1	--	--	--		
1027+12 NB	LT	--	20	--	--		
1036+15 NB	LT	1	--	--	--		
1037+31 NB	LT	--	20	--	--		
1041+31 NB	LT	--	20	--	--		
1045+11 NB	LT	1	--	--	--		
1062+05 NB	LT	--	20	--	--		
1064+90 NB	LT	1	--	--	--		
TOTAL		16	180	4			
PROJECT TOTAL		30	440	4			

EROSTION CONTROL

				628.1905	628.1910	628.2004	629.0210	630.0130	SPV.0170.01		
				MOBILIZATIONS	MOBILIZATIONS	EROSION			CABLE GUARD		
				EROSION	EMERGENCY	MAT			MEDIAN		
				CONTROL	EROSION	CLASS 1	FERTILIZER	SEEDING	GRADING AND		
					CONTROL	TYPE B	TYPE B	MIXTURE	SHAPING		
				EACH	EACH	SY	CWT	NO. 30			
STATION	TO	STATION	LOCATION					LB	STA	REMARKS	
477+53 NB	-	490+47 NB	LT	2	1	5,734	3.6	103	13	NB/SB MEDIAN	
491+05 NB	-	65+59 NB	LT	--	--	24,650	15.5	444	75	NB/SB MEDIAN	
66+16 NB	-	88+50 NB	LT	--	--	7,229	4.6	130	23	NB/SB MEDIAN	
90+75 NB	-	112+07 NB	LT	--	--	7,655	4.8	138	22	NB/SB MEDIAN	
819+00 NB	-	845+38 NB	LT	2	1	5,920	3.7	107	27	NB/SB MEDIAN	
846+23 NB	-	875+00 NB	LT	--	--	4,639	2.9	84	29	NB/SB MEDIAN	
924+72 NB	-	934+84 NB	LT	2	1	1,599	1.0	29	10	NB/SB MEDIAN	
935+32 NB	-	1006+86 NB	LT	--	--	18,024	11.4	324	72	NB/SB MEDIAN	
1007+30 NB	-	1052+52 NB	LT	--	--	11,325	7.1	204	45	NB/SB MEDIAN	
1055+05 NB	-	1064+70 NB	LT	--	--	2,124	1.3	38	10	NB/SB MEDIAN	
UNDISTRIBUTED				--	--	22,225	14.0	400	--		
TOTAL				6	3	111,124	70	2,000	326		

MOVING SIGNS

		634.0616	638.2102	638.3000		
		POSTS	MOVING	REMOVING		
		WOOD 4X6-	SIGNS TYPE II	SMALL SIGN		
		INCH X 16-FT		SUPPORTS		
STATION	LOCATION	EACH	EACH	EACH		
490+36 NB	LT	1	1	1		
491+25 NB	LT	1	1	1		
65+49 NB	LT	1	1	1		
111+94 NB	LT	1	1	1		
845+41 NB	LT	1	1	1		
846+19 NB	LT	1	1	1		
992+00 NB	LT	1	1	1		
TOTAL		7	7	7		

ALL ITEMS ON THIS SHEET ARE IN CATEGORY 0010 UNLESS OTHERWISE NOTED

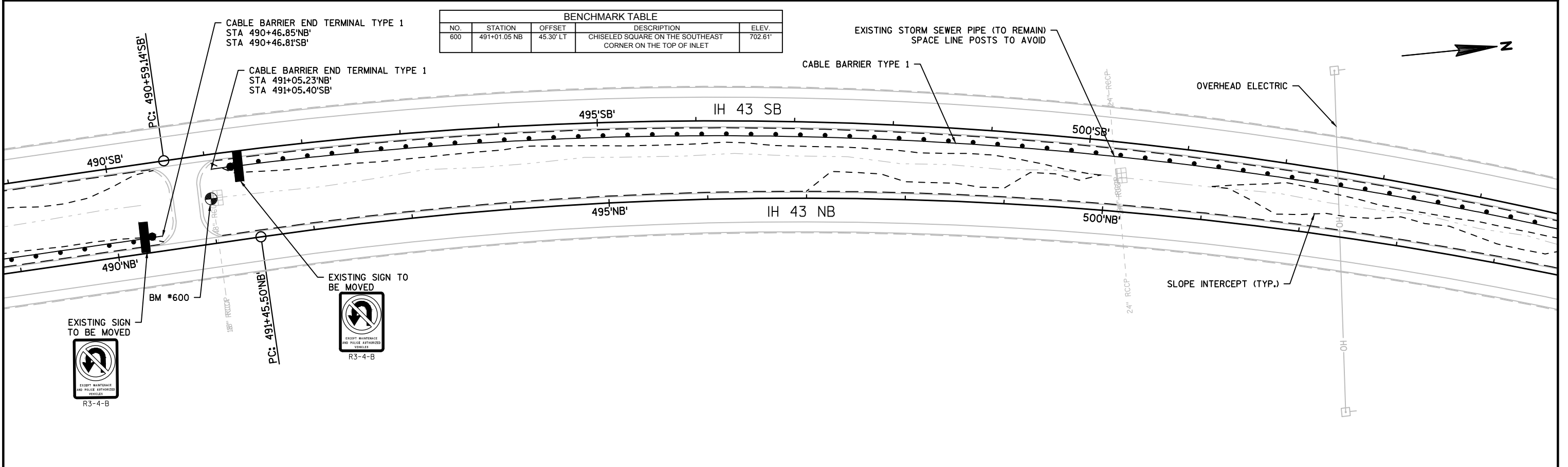
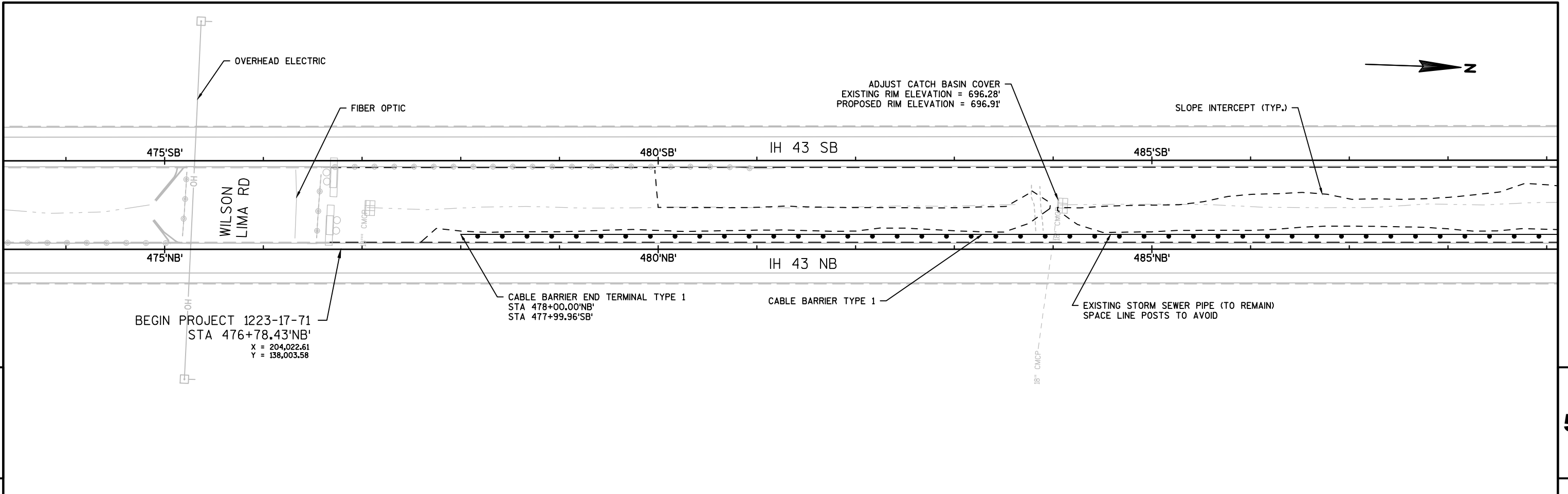
TRAFFIC CONTROL

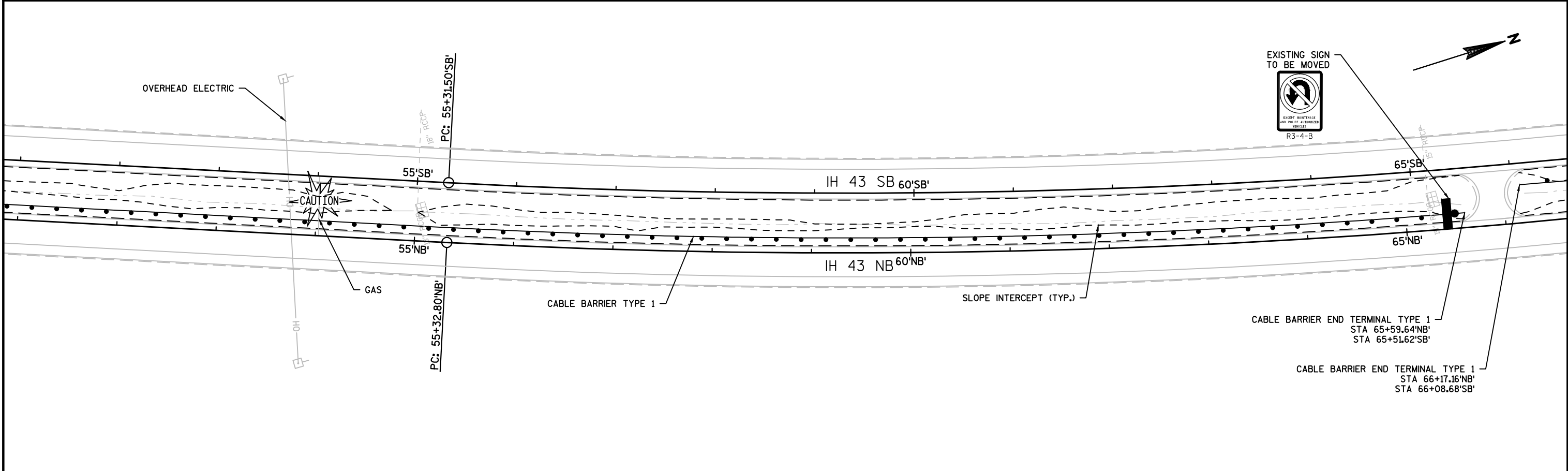
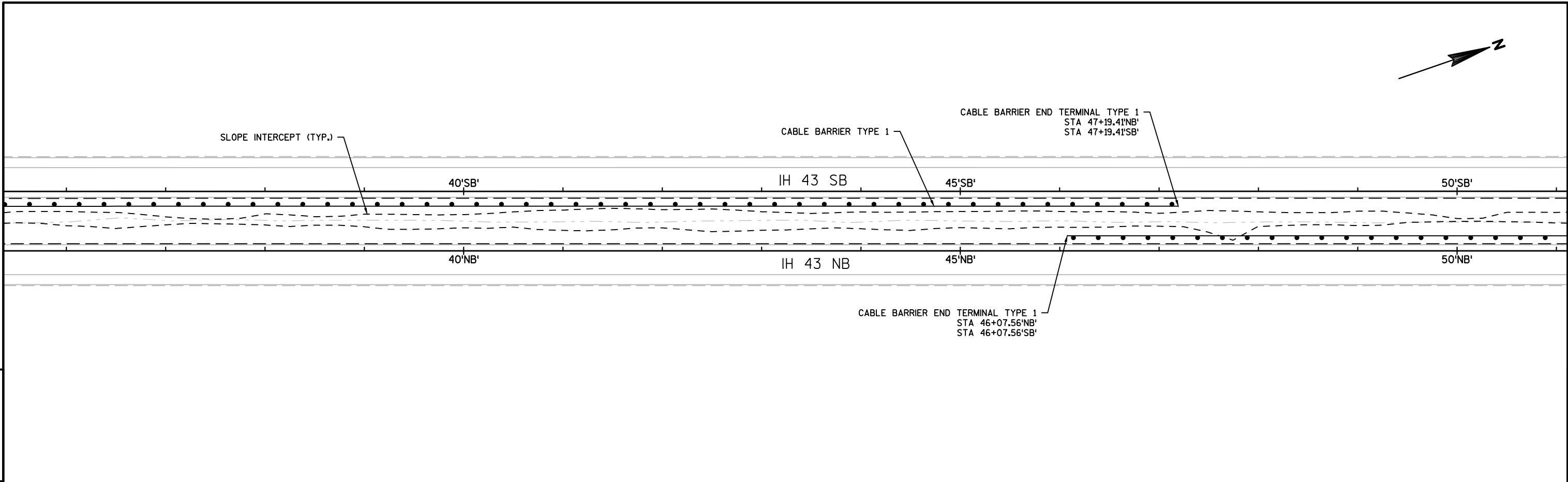
				643.0100	643.0300			643.0420		643.0705		643.0715		643.0800		643.0900		643.1050		
				TRAFFIC CONTROL	TRAFFIC CONTROL	TRAFFIC CONTROL			TRAFFIC CONTROL		TRAFFIC CONTROL		TRAFFIC CONTROL		TRAFFIC CONTROL		TRAFFIC CONTROL			
				DURATION	PROJECT	DRUMS	BARRICADES			WARNING LIGHTS		WARNING LIGHTS		ARROW		SIGNS		TRAFFIC CONTROL SIGNS PCMS		
STATION	TO	STATION	LOCATION	DAYS	EACH	EACH	DAY	EACH	DAY	EACH	DAY	EACH	DAY	EACH	DAYS	EACH	DAYS	EACH	DAYS	REMARKS
NORTHBOUND																				
305+00 NB	-	123+00 NB	IH 43 NB	40	-	175	7,000	5	200	10	400	14	560	2	80	36	1,440	1	7	ADVANCE WARNING
648+00 NB	-	1076+00 NB	IH 43 NB	60	-	286	17,160	10	600	20	1,200	14	840	2	120	41	2,460	1	7	ADVANCE WARNING
STRUCTURE B-59-34			IH 43 NB	10	-	48	480	1	10	2	20	14	140	2	20	36	360	1	7	ADVANCE WARNING
NORTHBOUND TOTAL					-	24,160		800		1,600		1,400		200		4,260		21		
SOUTHBOUND																				
465+00 SB	-	283+00 SB	IH 43 SB	47	-	175	8,225	5	235	10	470	14	658	2	94	36	1,692	1	7	ADVANCE WARNING
808+00 SB	-	1235+00 SB	IH 43 SB	68	-	286	19,448	10	680	20	1,360	14	952	2	136	41	2,788	1	7	ADVANCE WARNING
STRUCTURE B-59-51			IH 43 SB	10	-	48	480	1	10	2	20	14	140	2	20	33	330	1	7	ADVANCE WARNING
SOUTHBOUND TOTAL					-	27,673		915		1,830		1,610		230		4,810		21		
UNDISTRIBUTED					-	5,183		172		343		301		--		--		--		
PROJECT TOTAL					1	57,016		1,887		3,773		3,311		430		9,070		42		

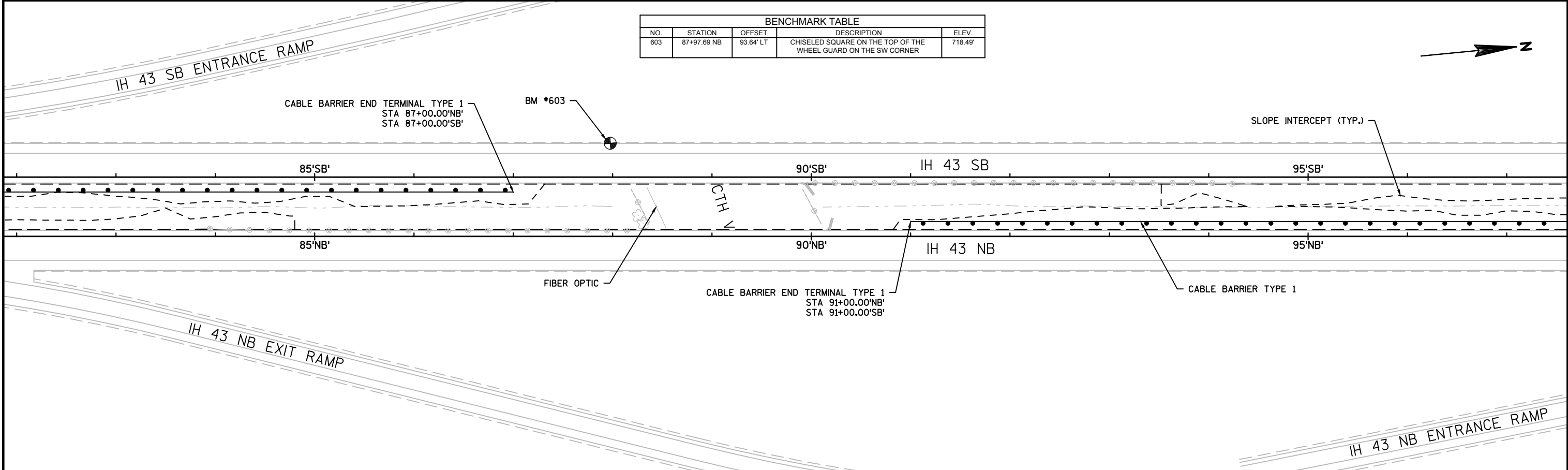
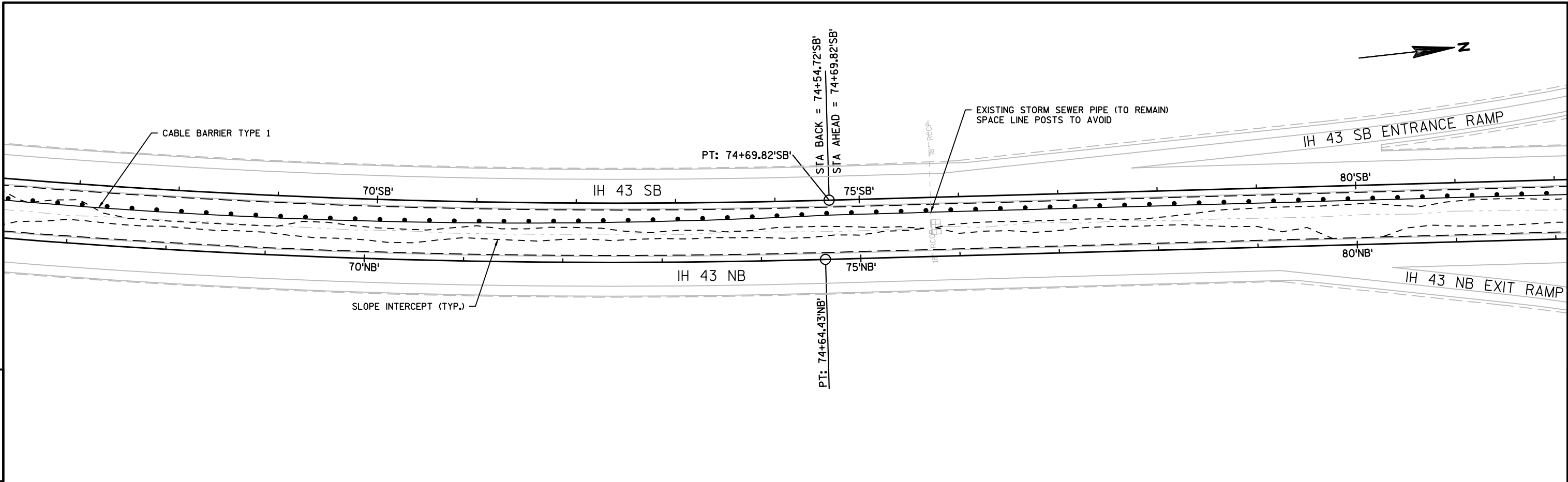
PAVEMENT MARKING

646.0106 PAVEMENT MARKING EPOXY 4-INCH			
CATEGORY	LOCATION	LF	REMARKS
0020	STRUCTURE B-59-34	98	SOLID YELLOW
0020	STRUCTURE B-59-34	98	SOLID WHITE
0020	STRUCTURE B-59-34	25	DASHED WHITE
0030	STRUCTURE B-59-51	99	SOLID YELLOW
0030	STRUCTURE B-59-51	99	SOLID WHITE
0030	STRUCTURE B-59-51	25	DASHED WHITE
TOTAL		444	

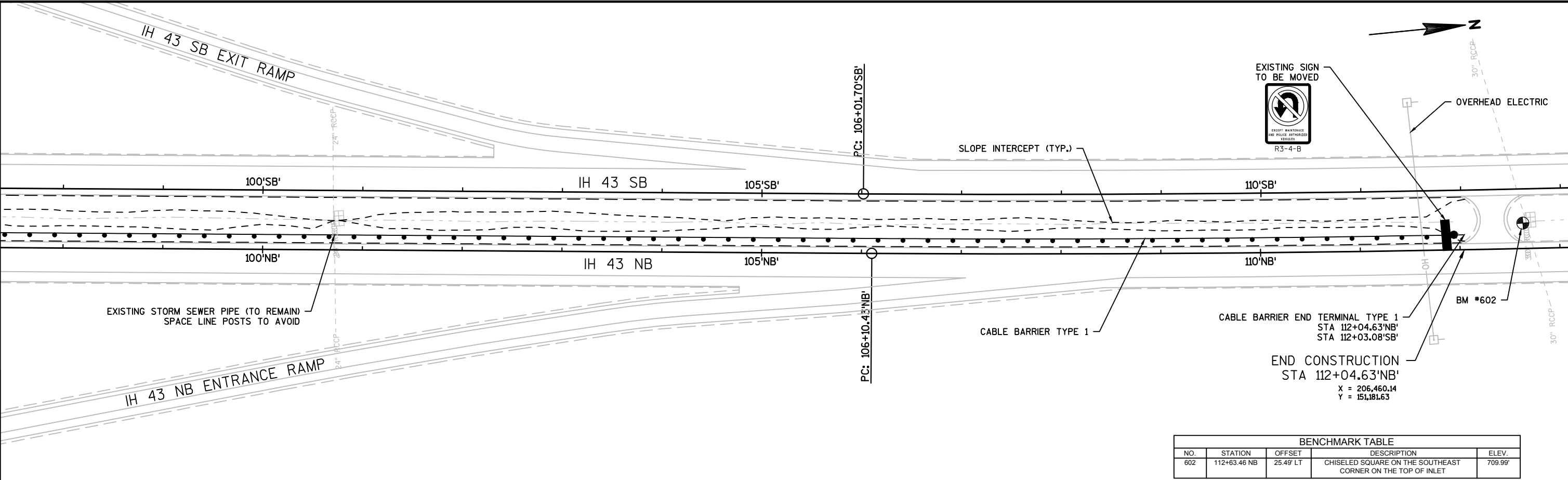
ALL ITEMS ON THIS SHEET ARE IN CATEGORY 0010 UNLESS OTHERWISE NOTED

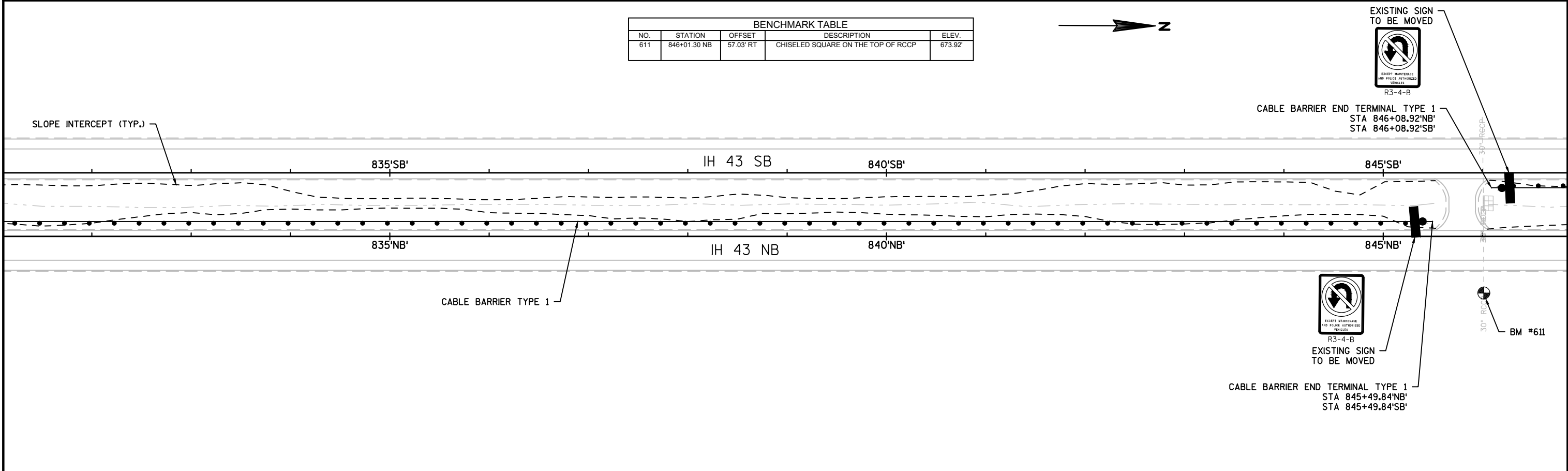
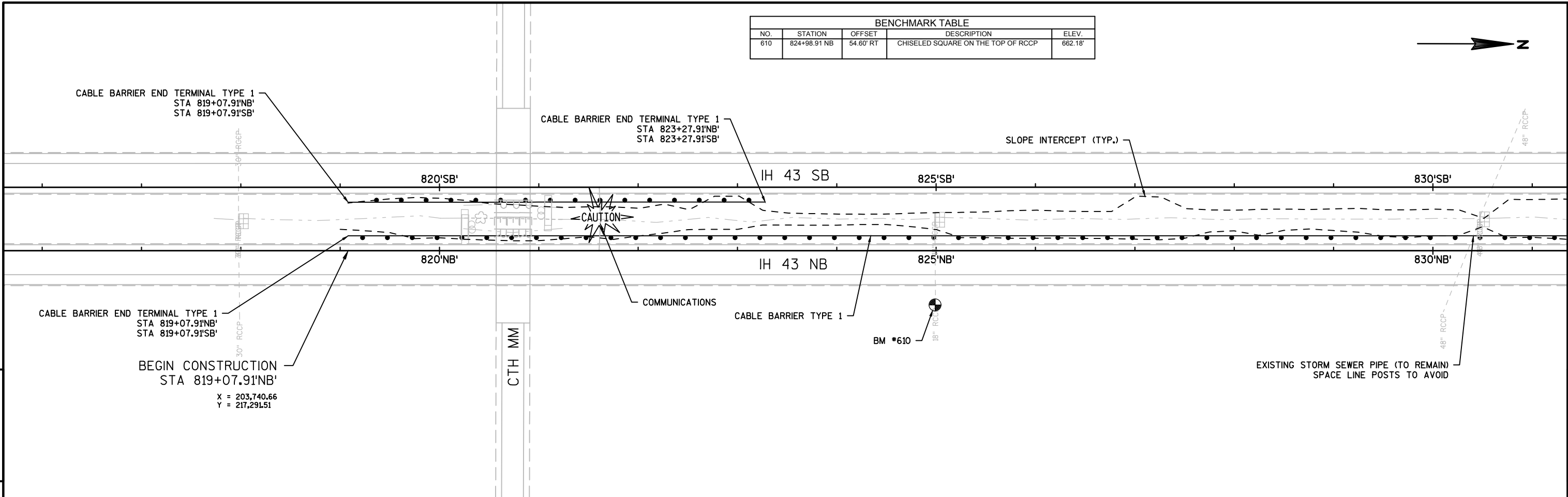






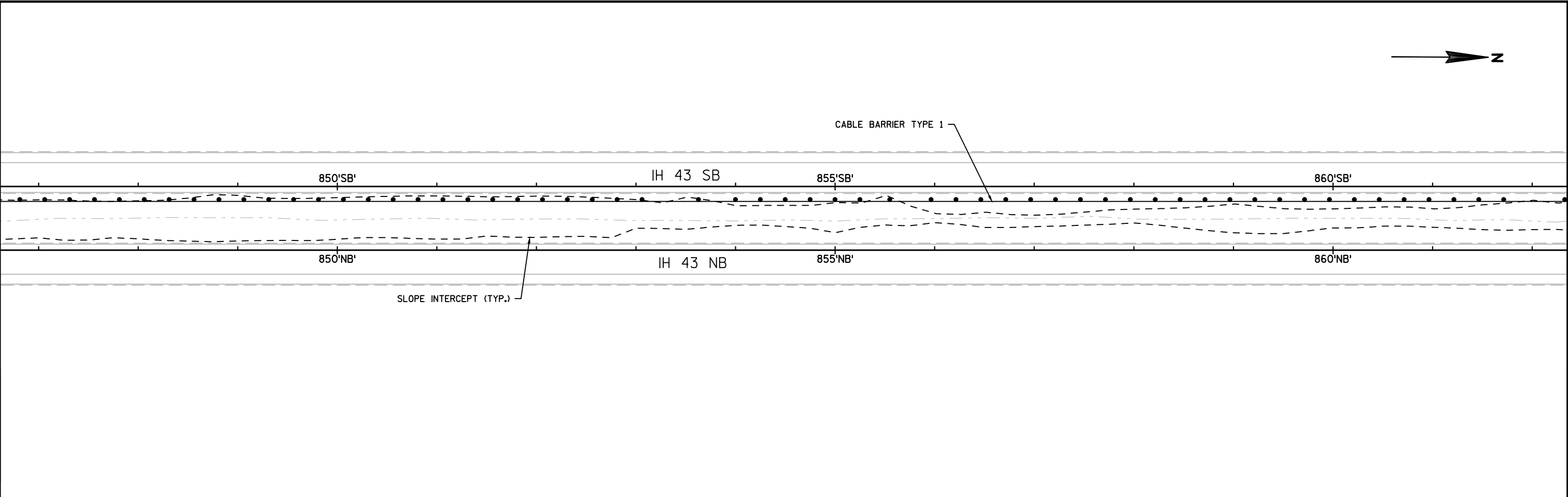
BENCHMARK TABLE				
NO.	STATION	OFFSET	DESCRIPTION	ELEV.
603	87+97.69 NB	93.64' LT	CHISELED SQUARE ON THE TOP OF THE WHEEL GUARD ON THE SW CORNER	718.49'



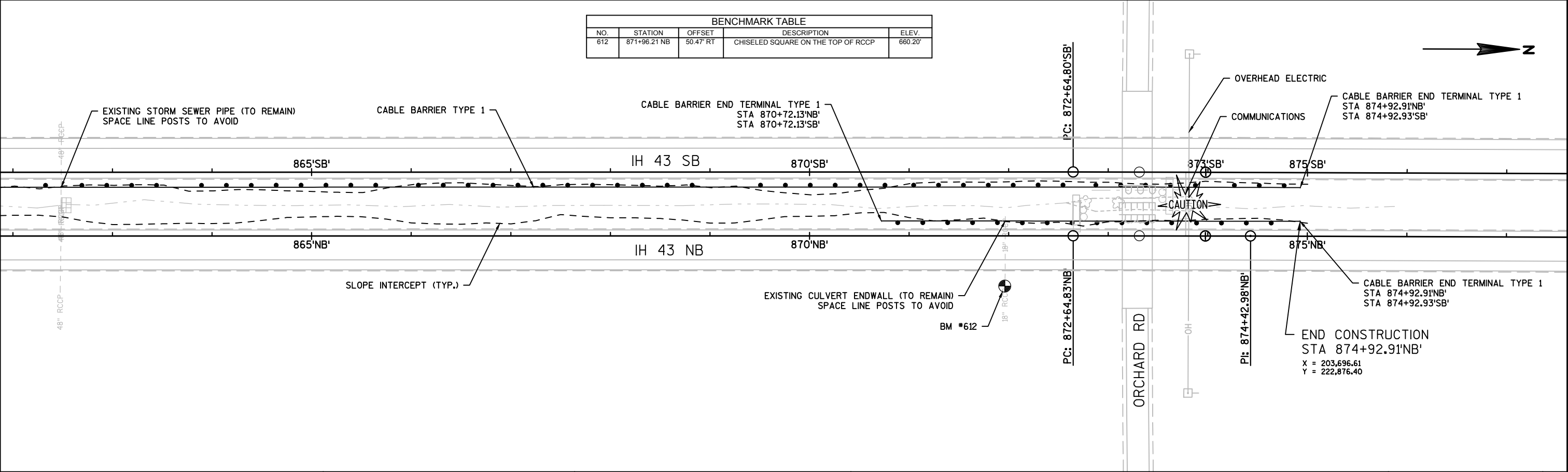


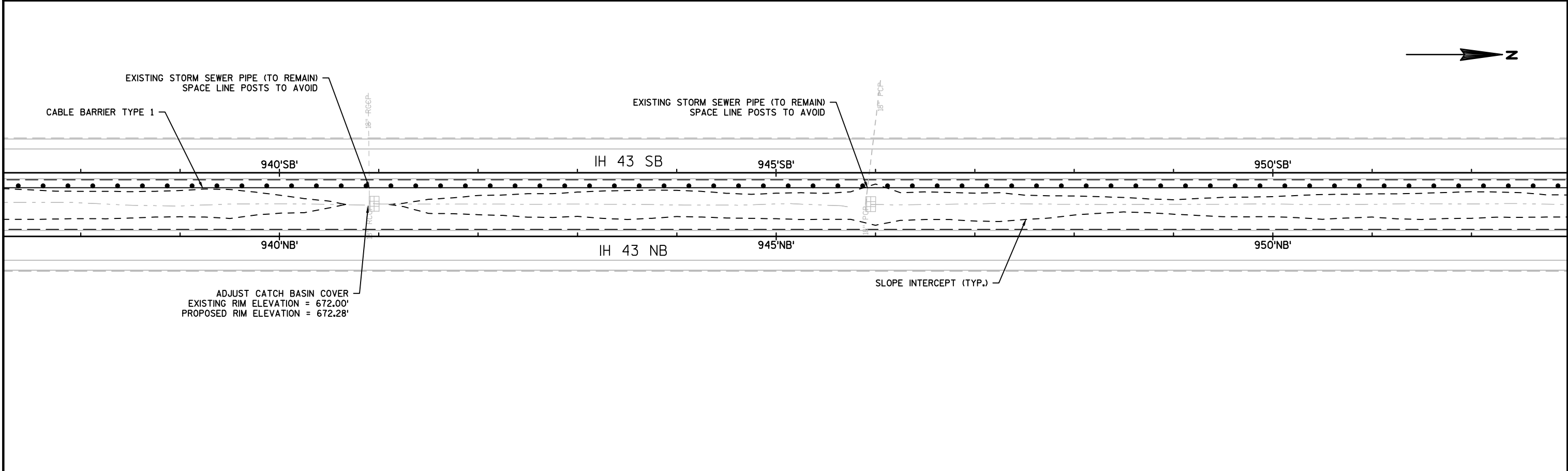
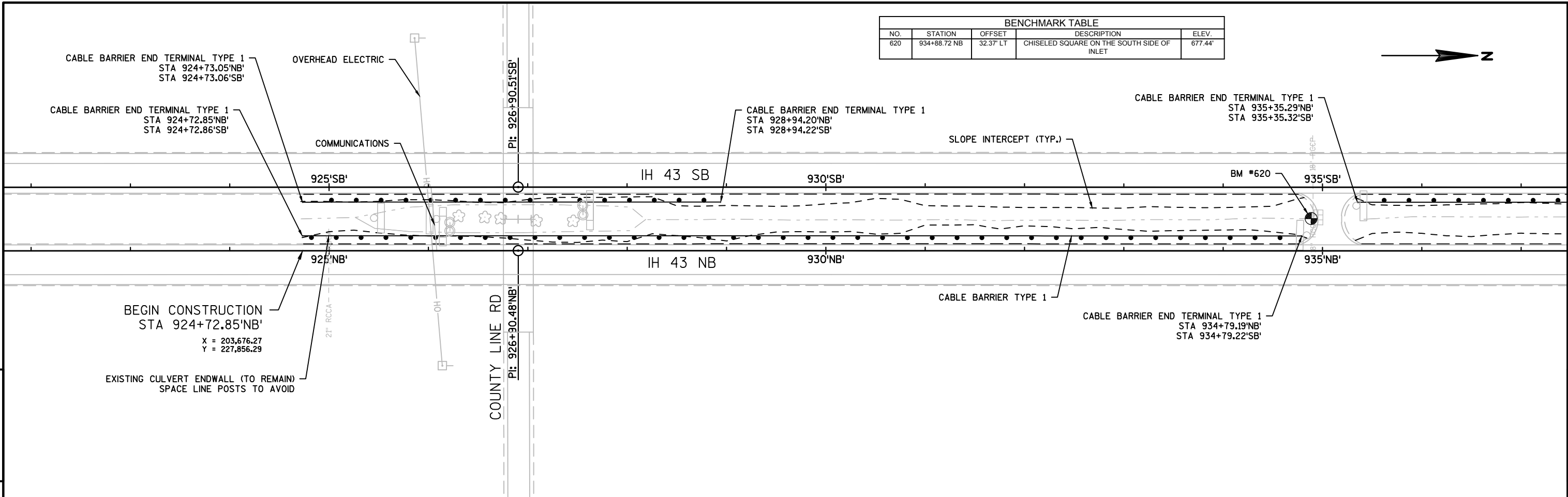
5

5



BENCHMARK TABLE				
NO.	STATION	OFFSET	DESCRIPTION	ELEV.
612	871+96.21 NB	50.47' RT	CHISELED SQUARE ON THE TOP OF RCCP	660.20'



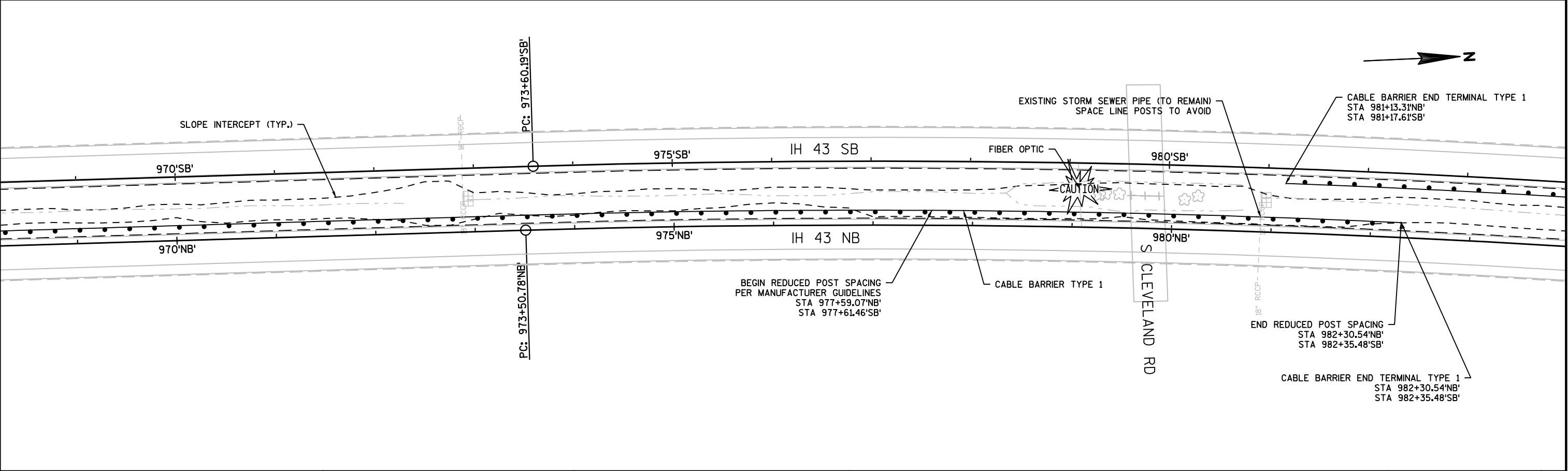
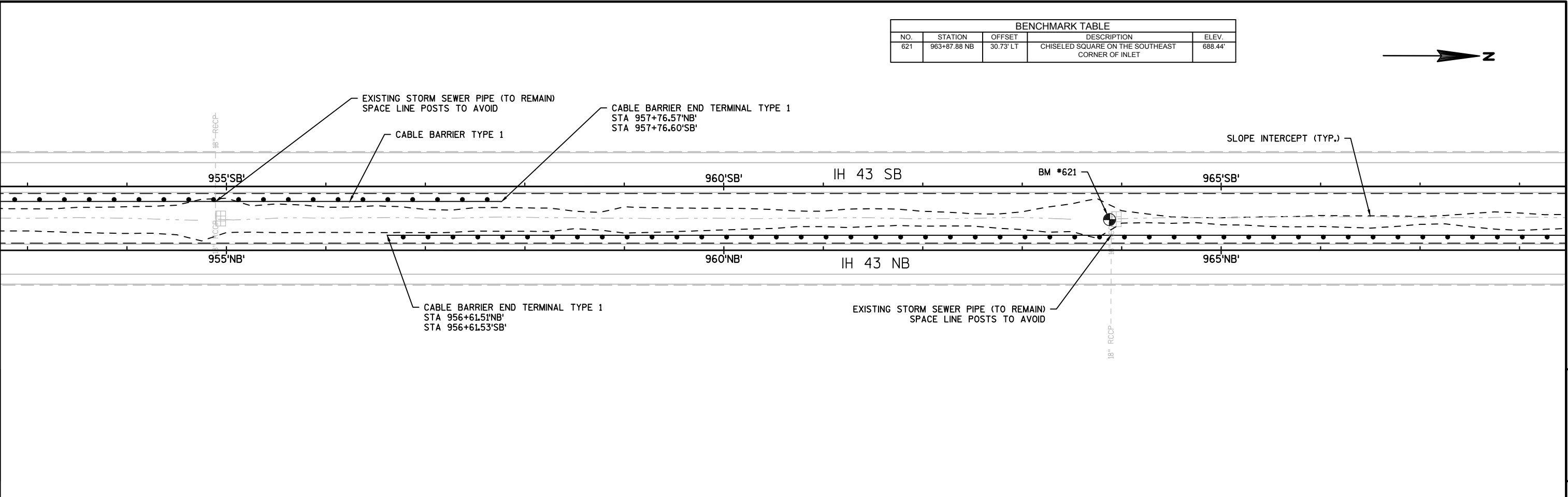


BENCHMARK TABLE				
NO.	STATION	OFFSET	DESCRIPTION	ELEV.
621	963+87.88 NB	30.73' LT	CHISELED SQUARE ON THE SOUTHEAST CORNER OF INLET	688.44'

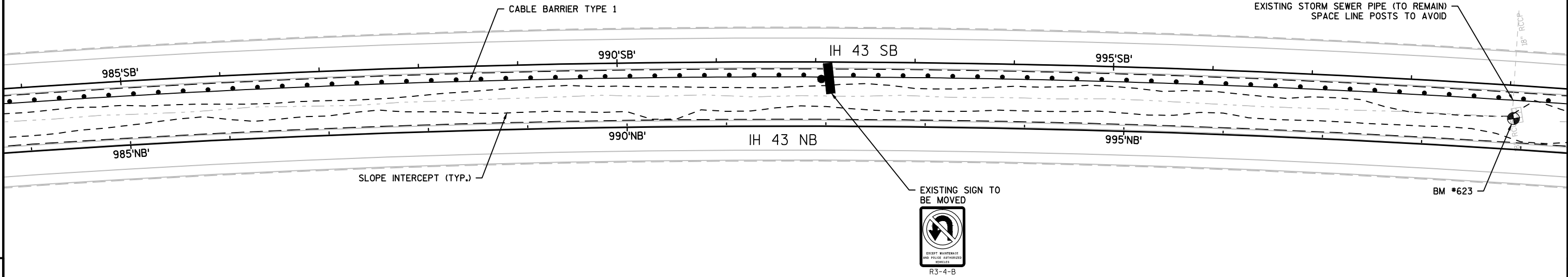


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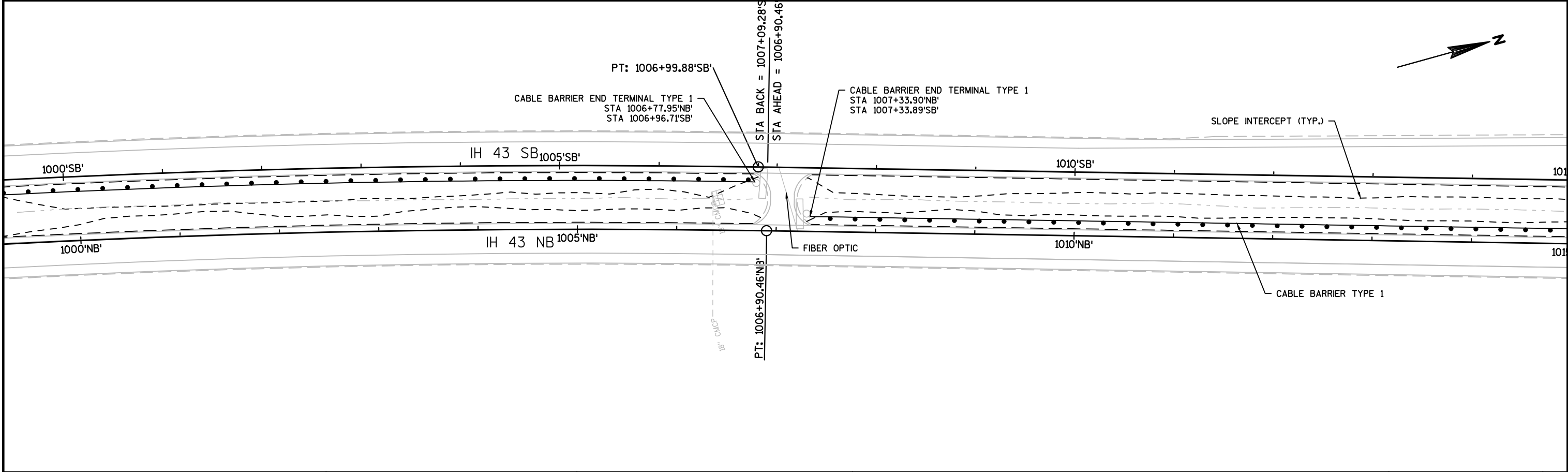


BENCHMARK TABLE				
NO.	STATION	OFFSET	DESCRIPTION	ELEV.
623	998+90.85 NB	30.97' LT	CHISELED SQUARE ON THE SOUTHEAST CORNER OF INLET	706.14'

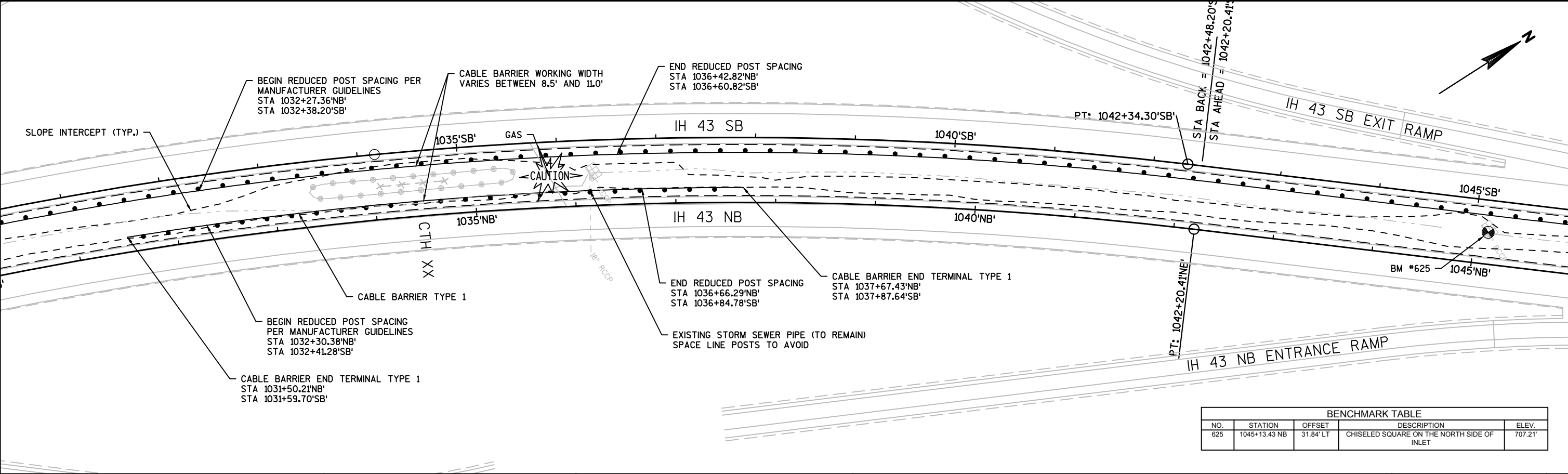
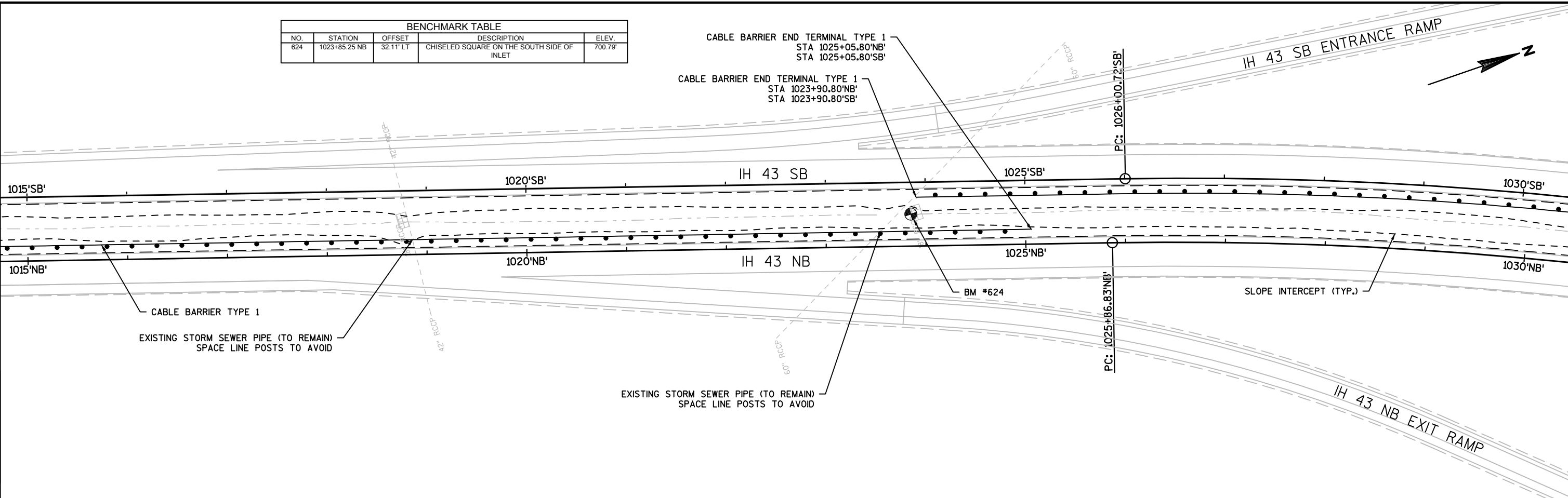


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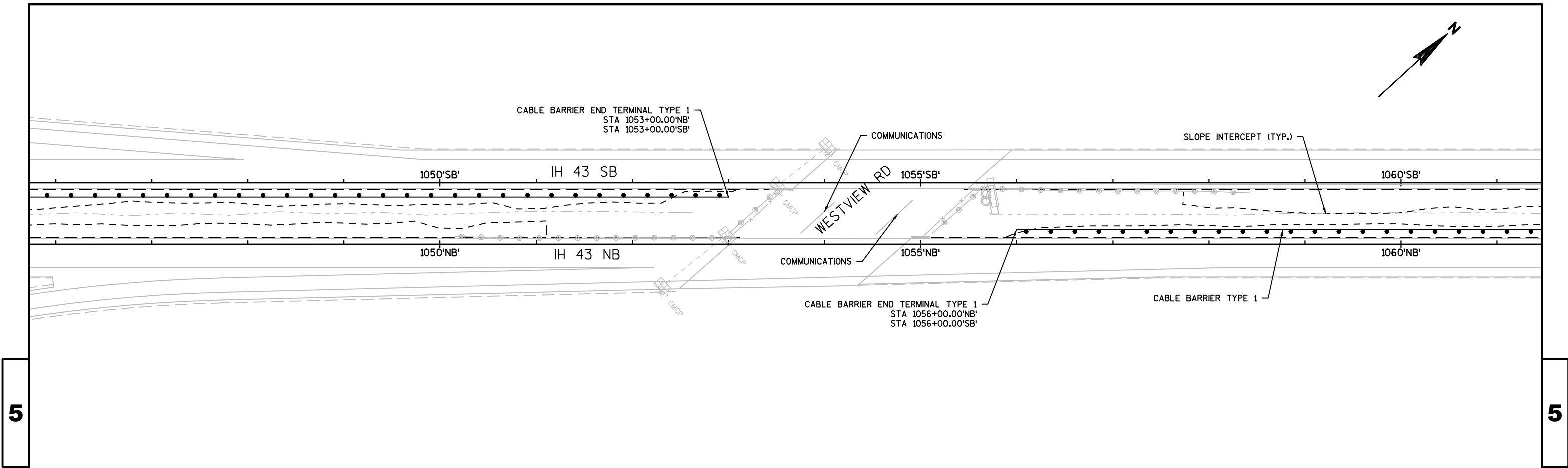
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BENCHMARK TABLE				
NO.	STATION	OFFSET	DESCRIPTION	ELEV.
624	1023+85.25 NB	32.11' LT	CHISELED SQUARE ON THE SOUTH SIDE OF INLET	700.79'



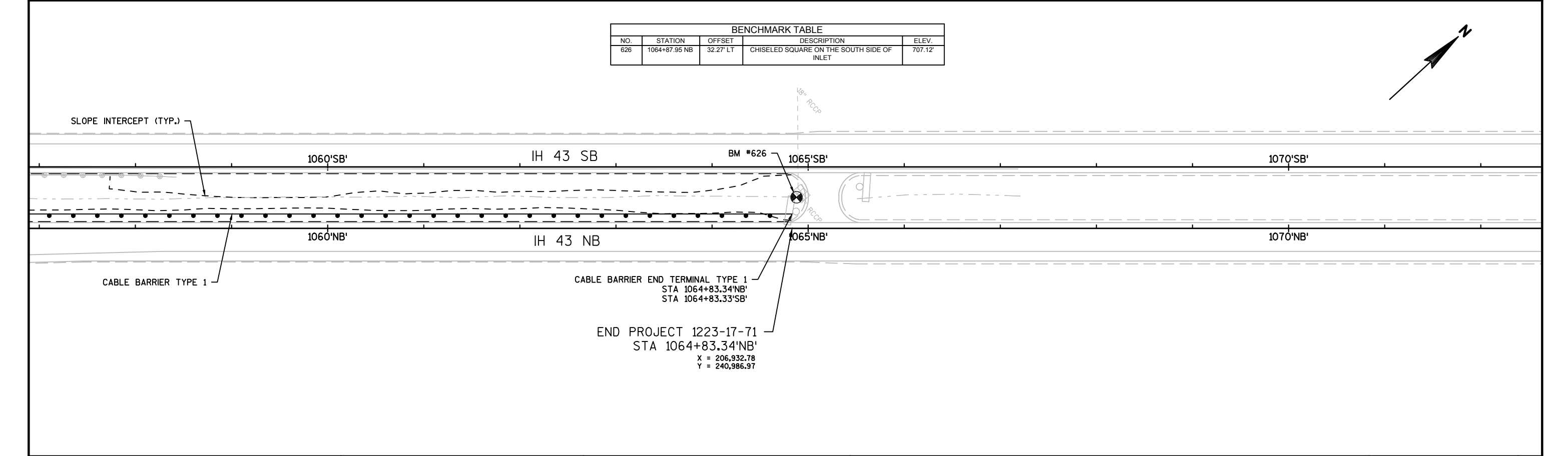
BENCHMARK TABLE				
NO.	STATION	OFFSET	DESCRIPTION	ELEV.
625	1045+13.43 NB	31.84' LT	CHISELED SQUARE ON THE NORTH SIDE OF INLET	707.21'



5

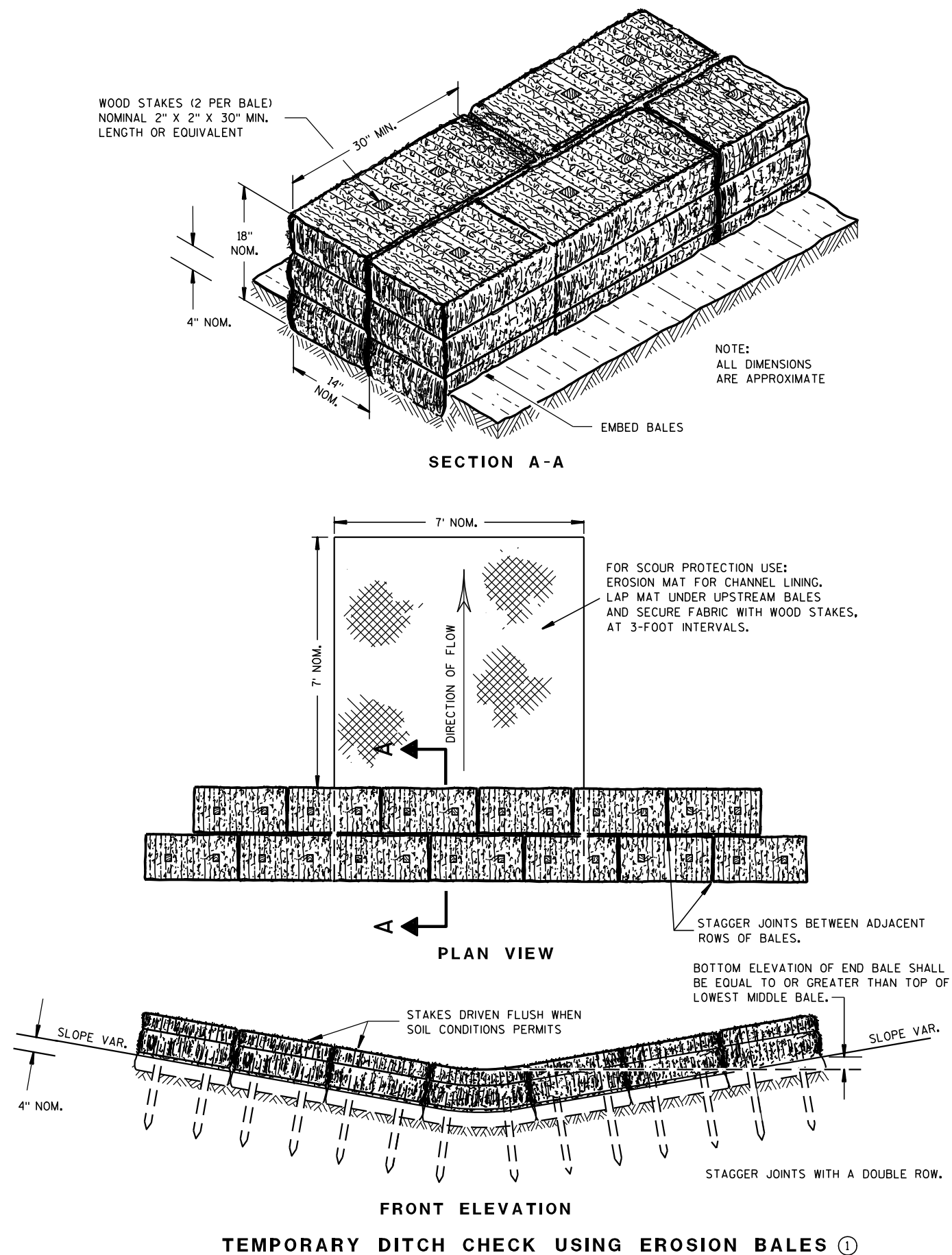
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BENCHMARK TABLE				
NO.	STATION	OFFSET	DESCRIPTION	ELEV.
626	1064+87.95 NB	32.27' LT	CHISELED SQUARE ON THE SOUTH SIDE OF INLET	707.12'



Standard Detail Drawing List

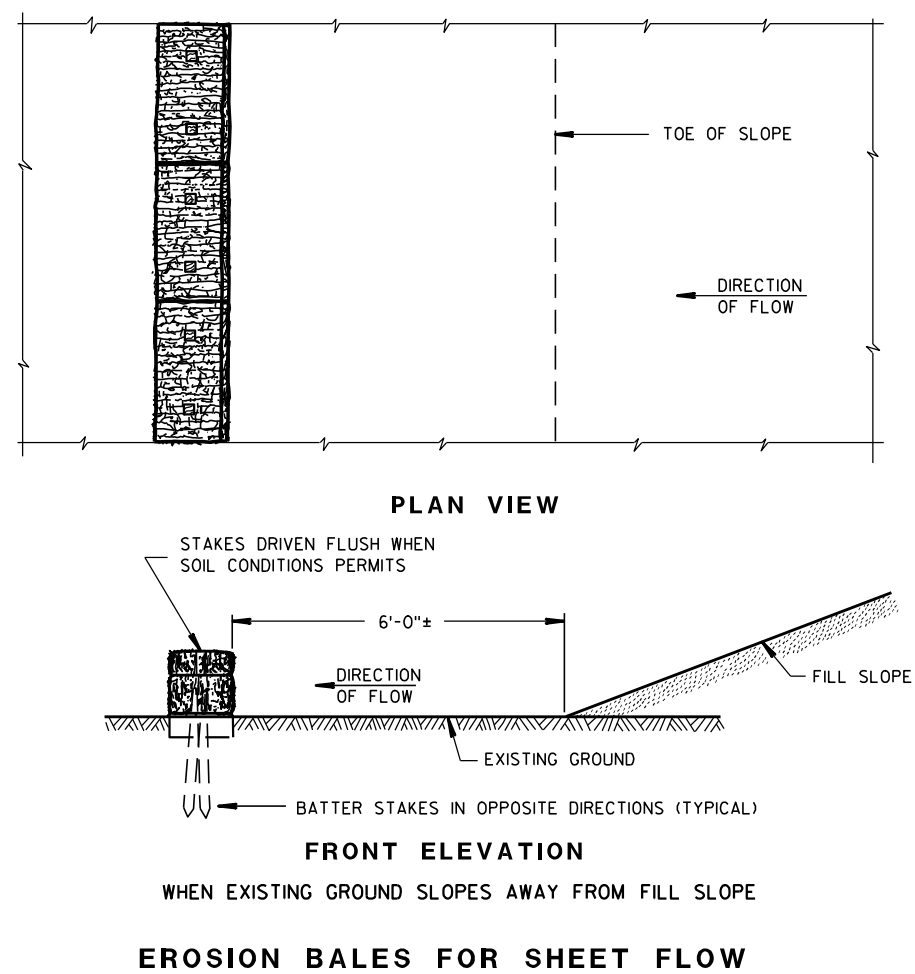
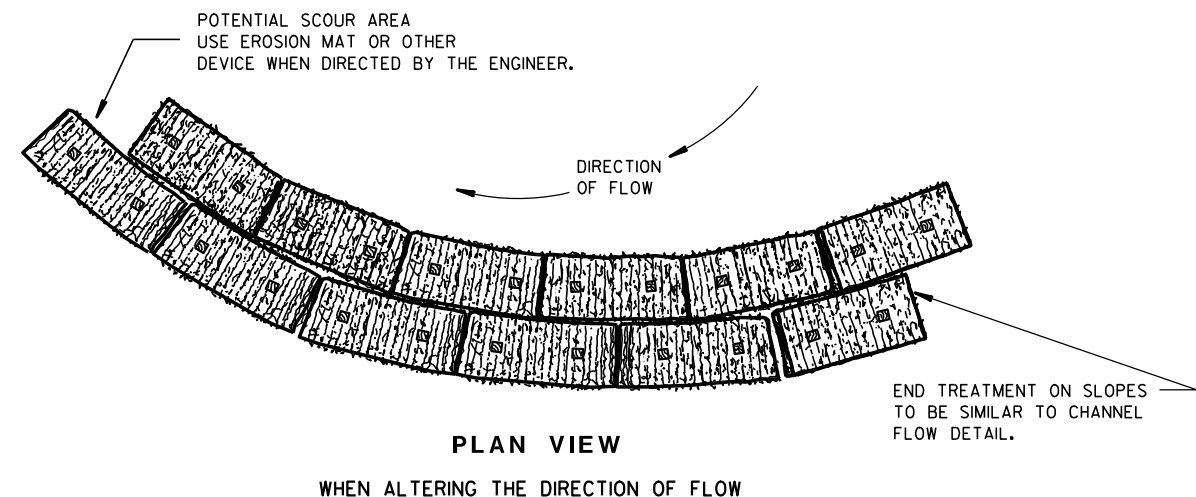
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E10-02	INLET PROTECTION TYPE A, B, C AND D
14B52-01A	CABLE BARRIER TYPE 1 LAYOUT
14B52-01B	CABLE BARRIER TYPE 1 LAYOUT
15C08-17A	LONGITUDINAL MARKING (MAINLINE)
15D15-02	TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE
15D27-03	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D38-01A	TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS
15D38-01B	ATTACHMENT OF SIGNS TO POSTS



GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

- ① TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS

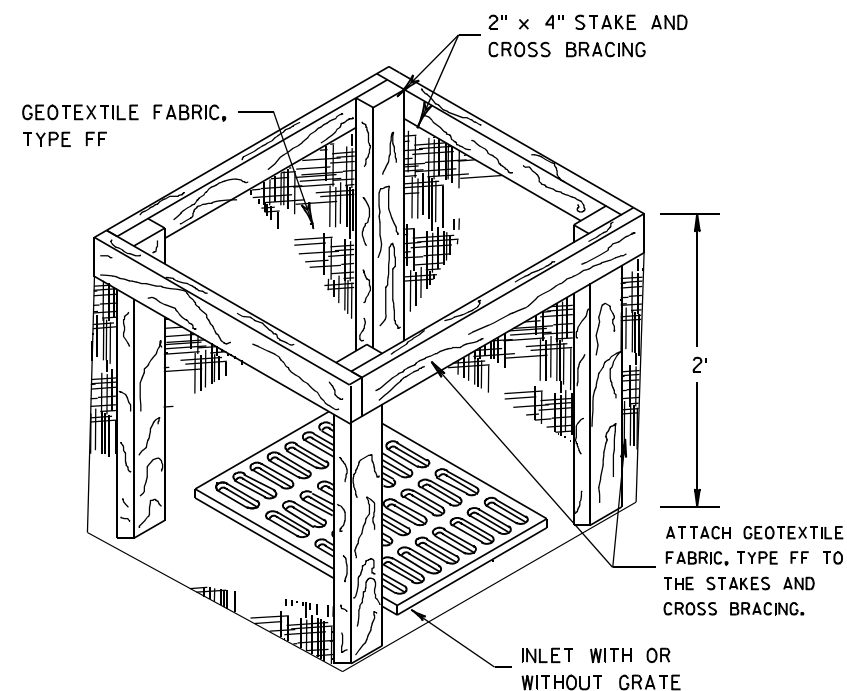
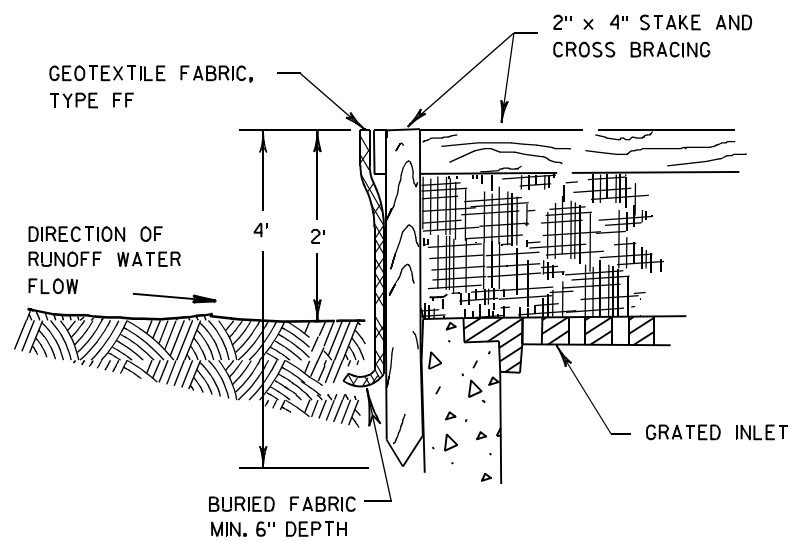
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02
DATE/S/ Beth Connolly
CHIEF ROADWAY DEVELOPER

ENGINEER

FHWA



INLET PROTECTION, TYPE A

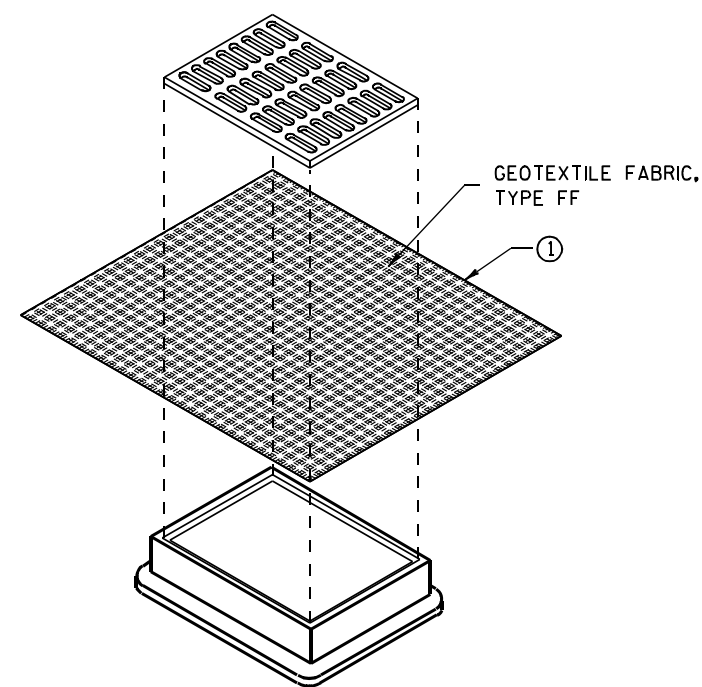
GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

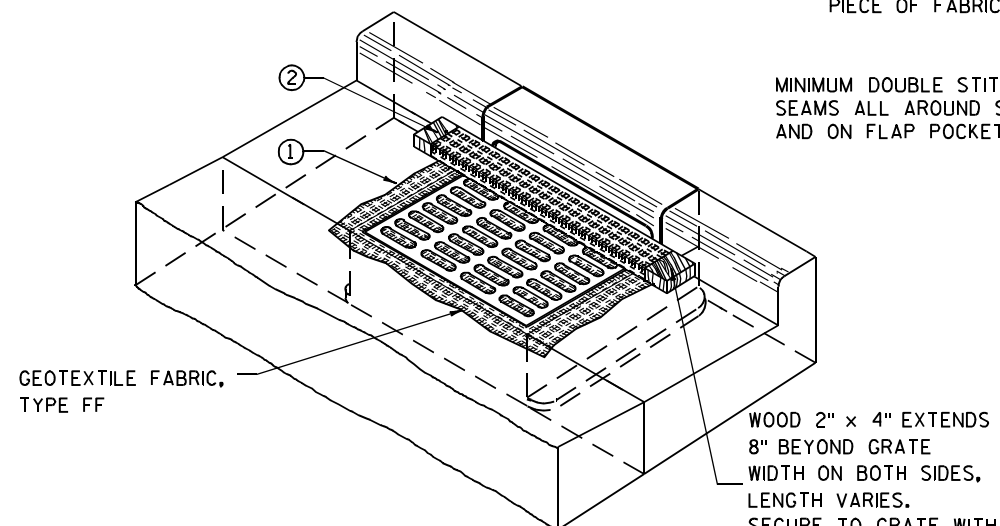
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- ① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
- ② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
- ③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.



**INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)**

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

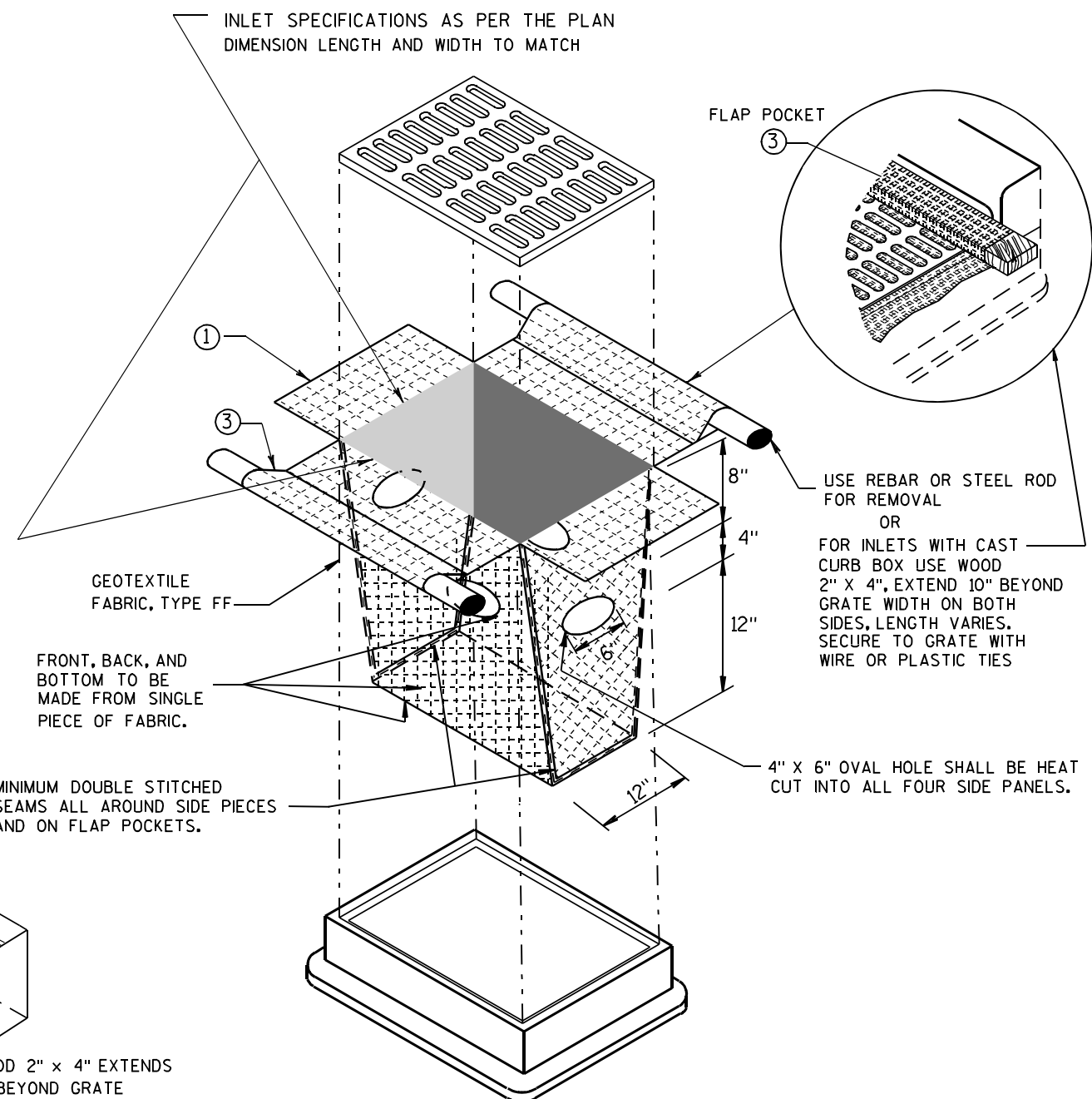
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.



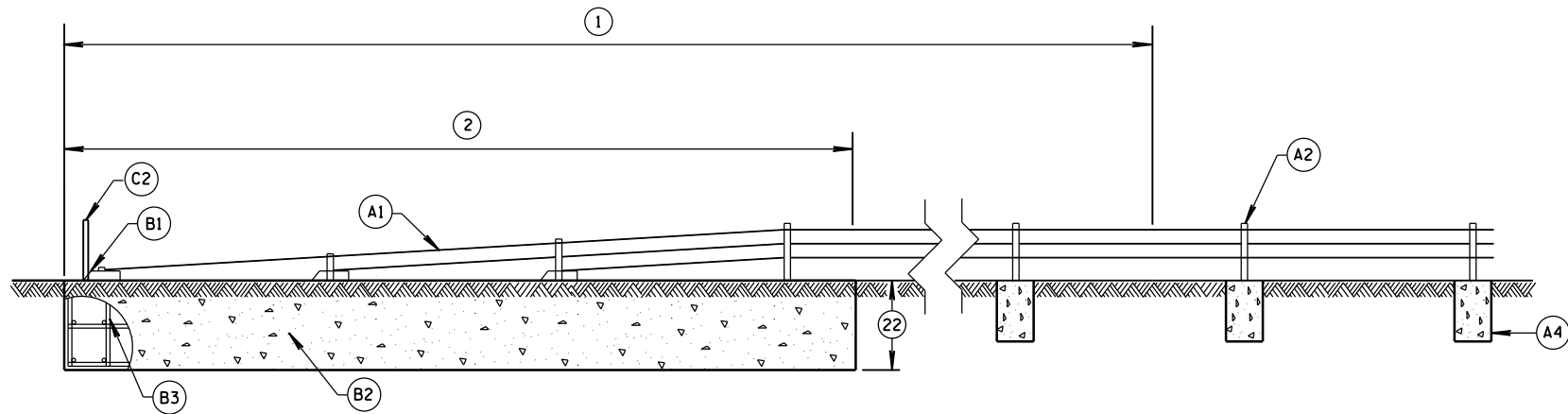
INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX AS PER NOTE ②)

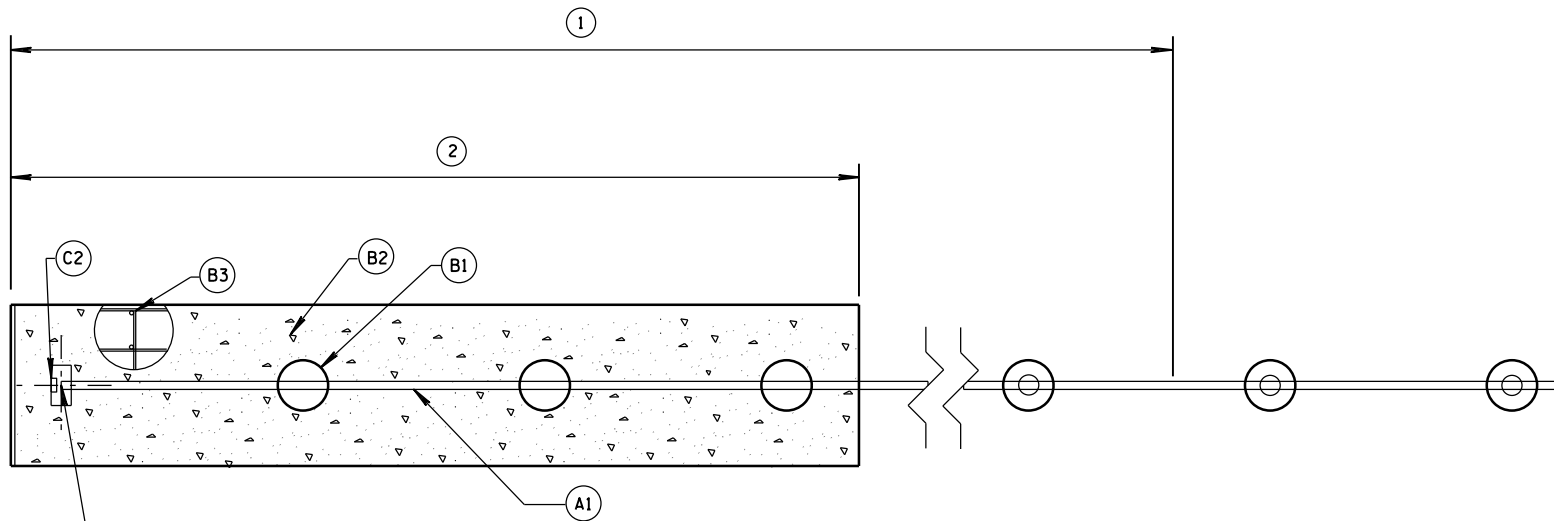
**INLET PROTECTION
TYPE A, B, C, AND D**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02 /S/ Beth Connolly
DATE 62
FHWA CHIEF ROADWAY DEVELOPMENT ENGINEER

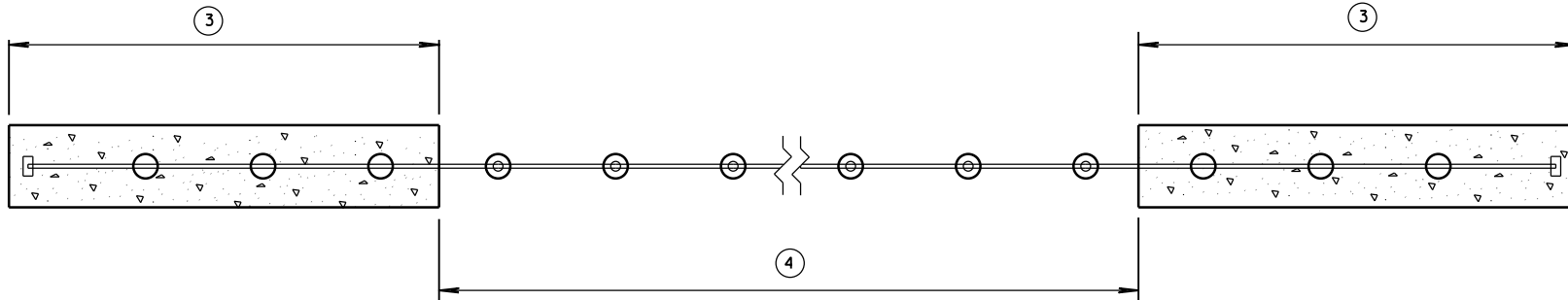


PROFILE VIEW



PLAN VIEW

TRANSITION FROM CABLE BARRIER
TERMINAL TO CABLE BARRIER LINE POSTS



TYPICAL PLAN VIEW

GENERAL NOTES

- DRAWINGS ARE GENERAL IN NATURE. SEE MANUFACTURER'S INFORMATION FOR MORE DETAIL.
- PROVIDE 2 INCH CLEAR COVER FROM OUTER EDGE OF CONCRETE FOOTINGS TO REINFORCEMENT.
- INSTALL LINE POST PLUMB. LINE POSTS ARE TO BE EASILY REMOVED BY HAND AND HOLD CABLES AT THE PROPER ELEVATION.
- PROVIDE CABLE BARRIER SYSTEM FROM APPROVED PRODUCT LIST.
- PROVIDE A SYSTEM TO HAVE THE WORKING WIDTH INDICTED IN PLAN.
- PROVIDE DOCUMENTATION HOW POST SPACING, RADIUS OF CURVE AND ANCHOR SPACING INFLUENCES WORKING WIDTH TO CONSTRUCTION STAFF.
- PROVIDE A WISCONSIN PROFESSIONAL ENGINEERS STAMPED ANALYSIS THAT THE LINE POST AND CABLE BARRIER END TERMINAL FOOTINGS ARE DESIGNED FOR THE SOIL CONDITIONS PRESENT. THE WISCONSIN P.E. STAMP ANALYSIS IS TO INCLUDE, BUT IS NOT LIMITED TO: DESIGN IMPACT LOADS, FOUNDATION DESIGN METHODOLOGY USED, FACTORS OF SAFETY, SOIL TYPE, SOIL CONDITIONS, AND TEMPERATURE RANGES.
- DESIGN LINE POST FOOTINGS SO THAT LINE POST FOOTING MOVE LESS THAN 1 INCH WHEN LINE POST IS IMPACTED BY A TL-3 SMALL CAR.

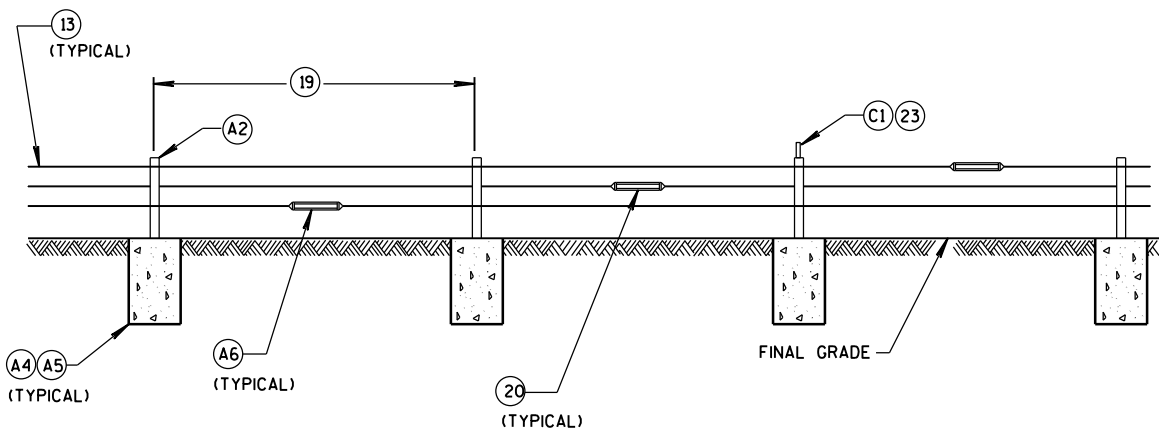
BILL OF MATERIALS

PART NUMBER	QTY.	DESCRIPTION	MATERIALS SPECIFICATIONS
A1	3 OR 4	3/4" 3x7 PRESTRESSED GALVANIZED STEEL WIRE ROPE	ASTM A741 MIN. BREAKING STRENGTH 39,000 LBS.
			AASHTO M30 TYPE 1 CLASS A (GALVANIZATION).
A2	1 PER LINE POST	GALVANIZED REMOVABLE STEEL LINE POST	MINIMUM WIRE ROPE MODULUS OF ELASTICITY OF 19,000 PSI ACCORDING TO ISO 12067-202 WIRE ROPE MODULUS OF ELASTICITY "INITIAL" (AS MANUFACTURED), WITH NO BEDDING OR PRESTRECHING OF THE ROPE PERMITTED DURING TESTING.
			SEE MANUFACTURER'S INFORMATION ON DIMENSIONS AND MATERIAL REQUIREMENTS.
A3	1 PER LINE POST	GALVANIZED METAL SLEEVE	ASTM A123 (GALVANIZATION).
			SEE MANUFACTURER'S INFORMATION ON DIMENSIONS AND MATERIAL REQUIREMENTS.
A4	VARIES	CONCRETE FOR LINE POST FOOTING	A, A-FA, A-T, OR A-IP OF STANDARD SPECIFICATION 501.2 OR AS MANUFACTURER SPECIFIES.
			STANDARD SPECIFICATION 716 OMP FOR CLASS II ANCILLARY CONCRETE.
A5	VARIES	EPOXY COATED STEEL REINFORCEMENT	SEE MANUFACTURER'S INFORMATION ON DIMENSIONS.
			STANDARD SPECIFICATION 505.
A6	VARIES	TURNBUCKLES AND OTHER CABLE CONNECTING HARDWARE	SEE MANUFACTURER'S INFORMATION ON DIMENSIONS.
			MINIMUM BREAKING STRENGTH OF TURNBUCKLES AND CONNECTION HARDWARE IS EQUAL TO CABLE.
B1	VARIES	CABLE CONNECTION TO CABLE BARRIER END TERMINAL	TURNBUCKLES AND OTHER CABLE CONNECTION HARDWARE IS FIELD SWAGED PER MANUFACTURER'S RECOMMENDATIONS AND DETAILS.
			SEE MANUFACTURER'S INFORMATION ON DIMENSIONS AND MATERIAL REQUIREMENTS.
B2	VARIES	CONCRETE FOR CABLE BARRIER END TERMINAL	A, A-FA, A-T, OR A-IP OF STANDARD SPECIFICATION 501.2.
			STANDARD SPECIFICATION 716 OMP FOR CLASS II ANCILLARY CONCRETE.
B3	VARIES	EPOXY COATED STEEL REINFORCEMENT	SEE MANUFACTURER'S INFORMATION ON DIMENSIONS.
			STANDARD SPECIFICATION 505.
C1	VARIES	LINE POST DELINEATOR	REFLECTIVE SHEETING TYPE SH.
			SEE APPROVE PRODUCT LIST YELLOW.
C2	VARIES	CABLE BARRIER END TERMINAL DELINEATOR	REFLECTIVE SHEETING TYPE SH.
			SEE APPROVE PRODUCT LIST OBJECT MARKER TYPE 3 PATTERN.

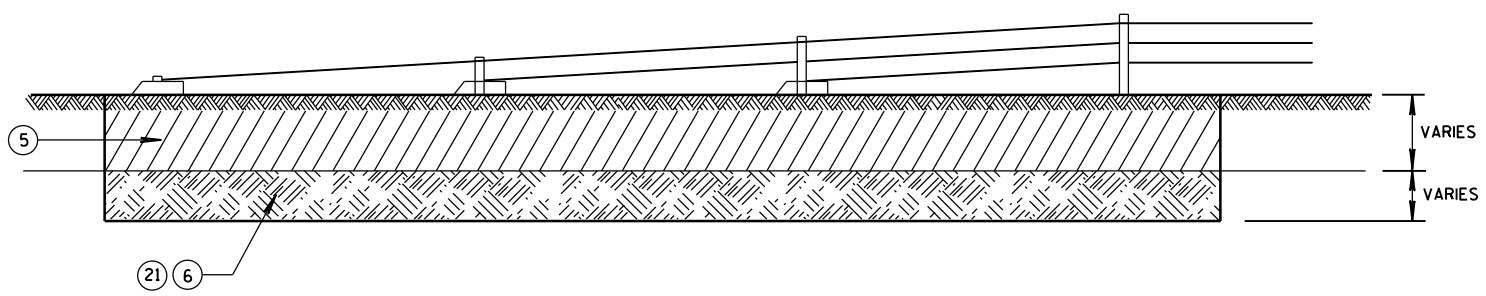
- 1 LOCATION OF LENGTH OF NEED POINT FOR CABLE BARRIER END TERMINAL VARIES. (SEE MANUFACTURER'S INFORMATION)
- 2 PAY LIMIT FOR CABLE BARRIER END TERMINAL. LENGTH OF CABLE BARRIER END TERMINAL VARIES. (SEE MANUFACTURER'S INFORMATION)
- 3 CABLE BARRIER END TERMINAL
- 4 CABLE BARRIER AND LINE POSTS

CABLE BARRIER TYPE 1
LAYOUT

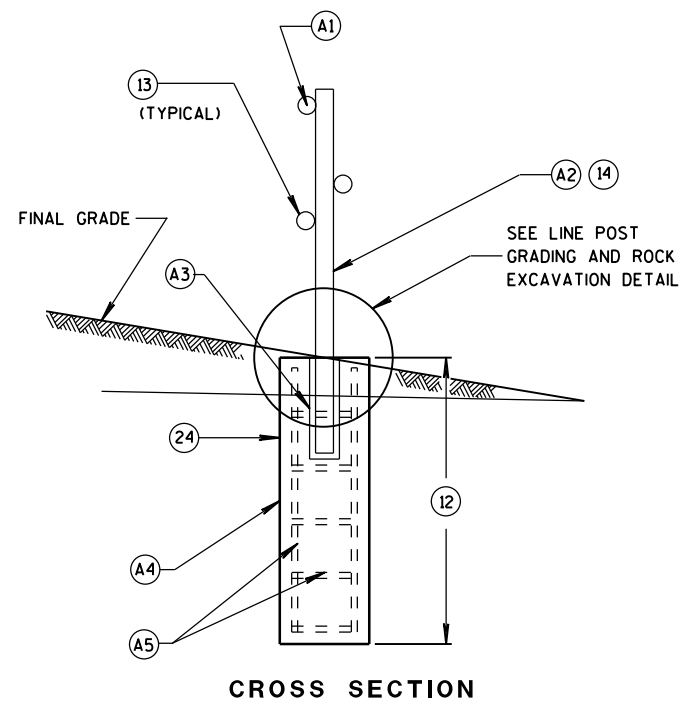
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



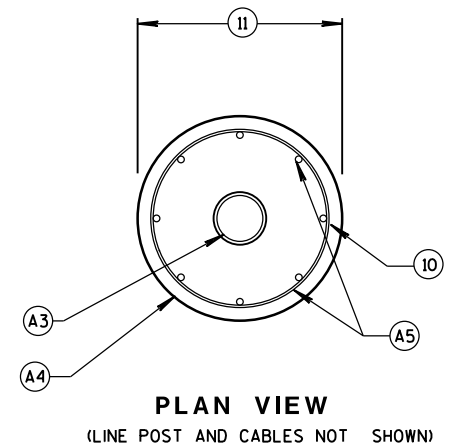
**PROFILE VIEW
LINE POST INSTALLATION**



**CABLE BARRIER END
TERMINAL ROCK EXCAVATION DETAIL**



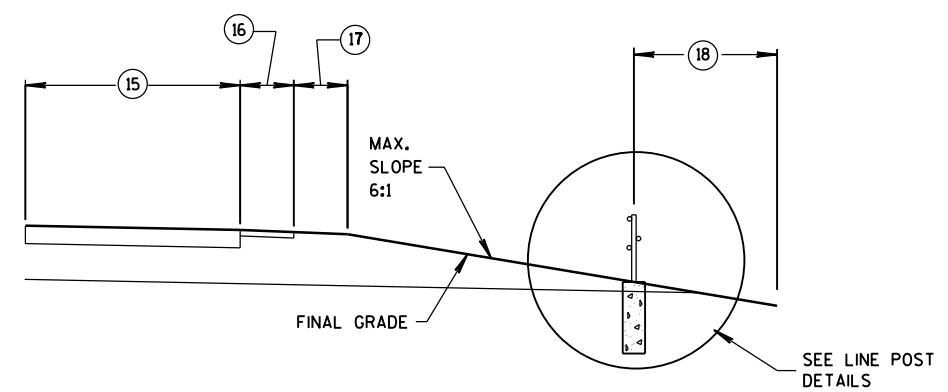
CROSS SECTION



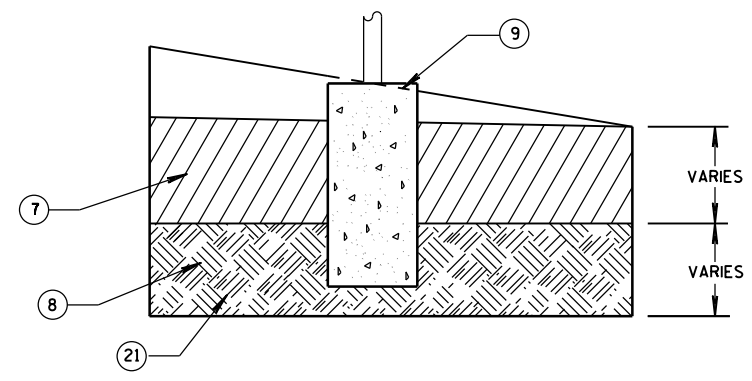
**PLAN VIEW
(LINE POST AND CABLES NOT SHOWN)**

LINE POST DETAILS

- (5) SOIL TO BE EXCAVATED FOR CABLE BARRIER END TERMINAL (VARIES).
- (6) ROCK TO BE EXCAVATED FOR CABLE BARRIER END TERMINAL (VARIES).
- (7) SOIL TO BE EXCAVATED FOR LINE POST (VARIES).
- (8) ROCK TO BE EXCAVATED FOR LINE POST (VARIES).
- (9) EXCAVATE AND GRADE LINE FOR LINE POST FOOTINGS. INSTALL LINE POST FOOTING TO MINIMIZE 4 INCH TALL OBJECT ON 5 FOOT CHORD.
- (10) 2 INCHES OF CLEAR COVER FROM EDGE OF CONCRETE TO REINFORCEMENT.
- (11) DIAMETER OF LINE POST FOOTING VARIES. SEE MANUFACTURER'S INFORMATION.
- (12) MINIMUM DEPTH OF LINE POST FOOTING IS 48 INCHES IN SOIL. DEEPER FOOTINGS PER MANUFACTURER'S RECOMMENDATION ARE ACCEPTABLE.
- (13) NUMBER AND LOCATION OF CABLES VARY. SEE MANUFACTURER'S INFORMATION.
- (14) LINE POST DIMENSIONS AND CONNECTION HARDWARE VARY. SEE MANUFACTURER'S INFORMATION.
- (15) LANE OF ROADWAY (VARIES). SEE PLAN FOR MORE INFORMATION.
- (16) PAVED SHOULDER (VARIES). SEE PLAN FOR MORE INFORMATION.
- (17) GRAVEL SHOULDER (VARIES). SEE PLAN FOR MORE INFORMATION.
- (18) CABLE BARRIER OFFSET FROM CENTERLINE OF MEDIAN DITCH (8 FOOT MINIMUM). SEE PLAN FOR MORE INFORMATION.
- (19) MAXIMUM POST SPACING IS 15 FEET.
- (20) STAGGER TURNBUCKLES (TYPICAL).
- (21) SEE MANUFACTURER'S DESIGN WHEN ROCK IS ENCOUNTERED.
- (22) IN SOIL MINIMUM DEPTH OF CABLE BARRIER END TERMINAL FOOTING IS 60 INCHES. DEEPER FOOTINGS PER MANUFACTURER'S RECOMMENATION ARE ACCEPTABLE.
- (23) LINE POST DELINEATOR SPACING IS 100 FEET.
- (24) LINE POST FOOTINGS ARE REQUIRED TO HAVE LESS THAN 1 INCH OF MOVEMENT WHEN LINE POST IS IMPACTED BY A NCHRP 350 SMALL CAR UNDER TL-3 TEST CONDITIONS.

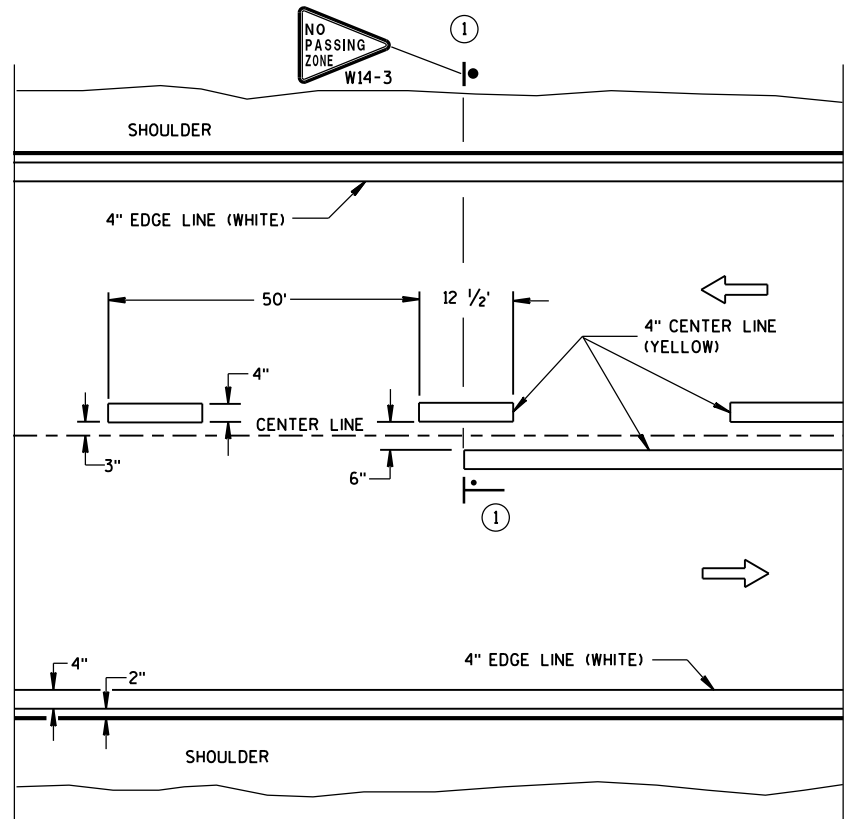


CABLE BARRIER OFFSET FROM DITCH LINE

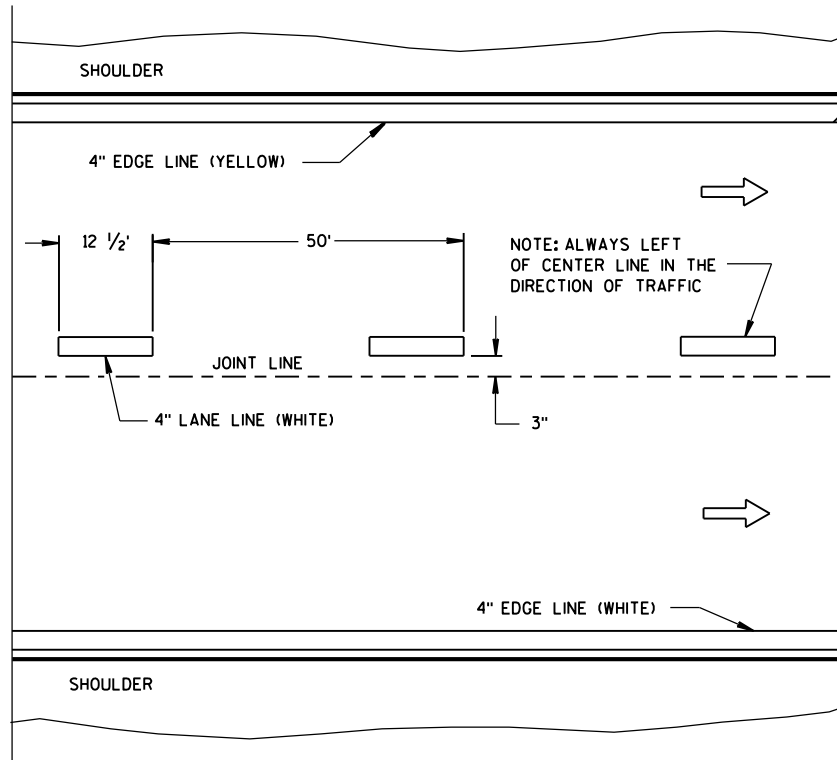


**LINE POST GRADING
AND ROCK EXCAVATION DETAIL**

CABLE BARRIER TYPE 1 LAYOUT			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
APPROVED June, 2015 DATE	/S/ Jerry H. Zogg ROADWAY STANDARDS ENGINEER	64	ENT
FHWA			

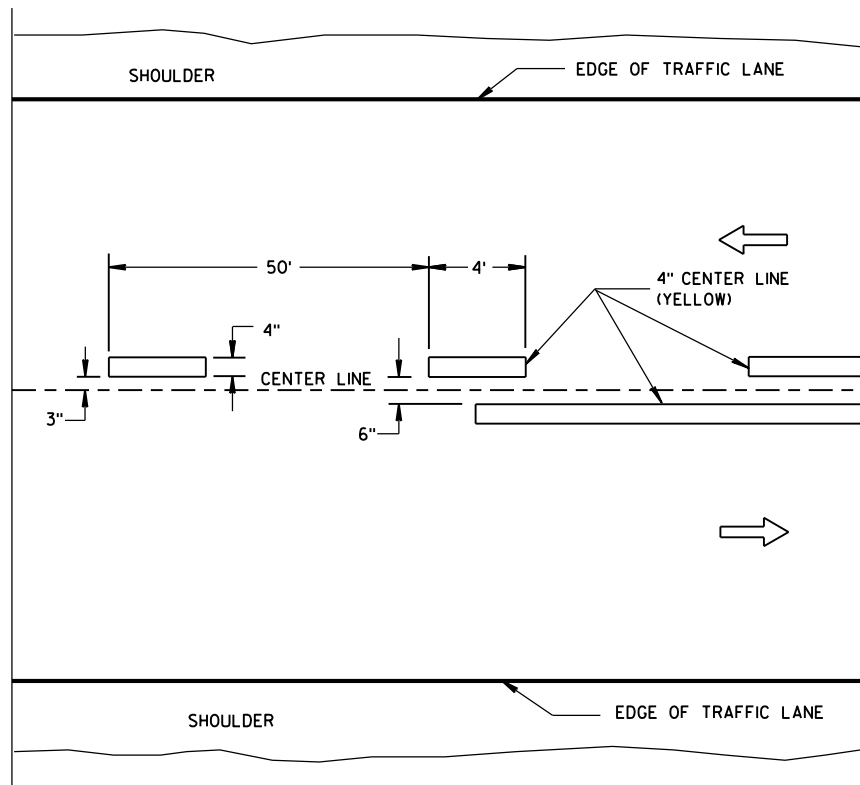


TWO WAY TRAFFIC

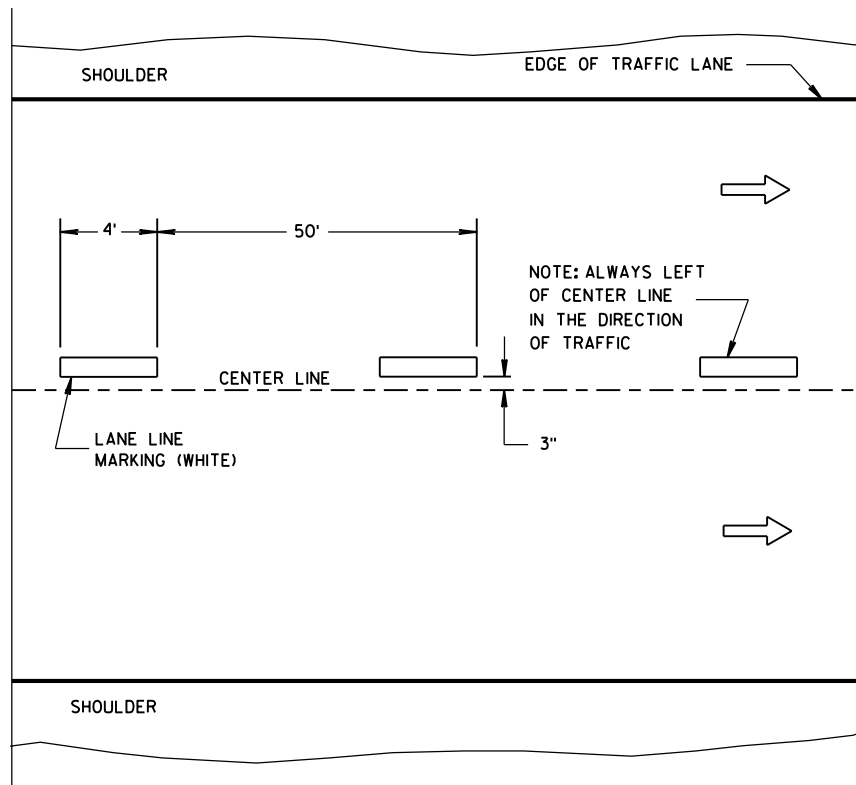


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

① NO PASSING ZONE W14-3 SIGN SHALL BE LOCATED WITHIN 50 FEET OF THE "T" MARKING.

NOTE

ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL

LEGEND

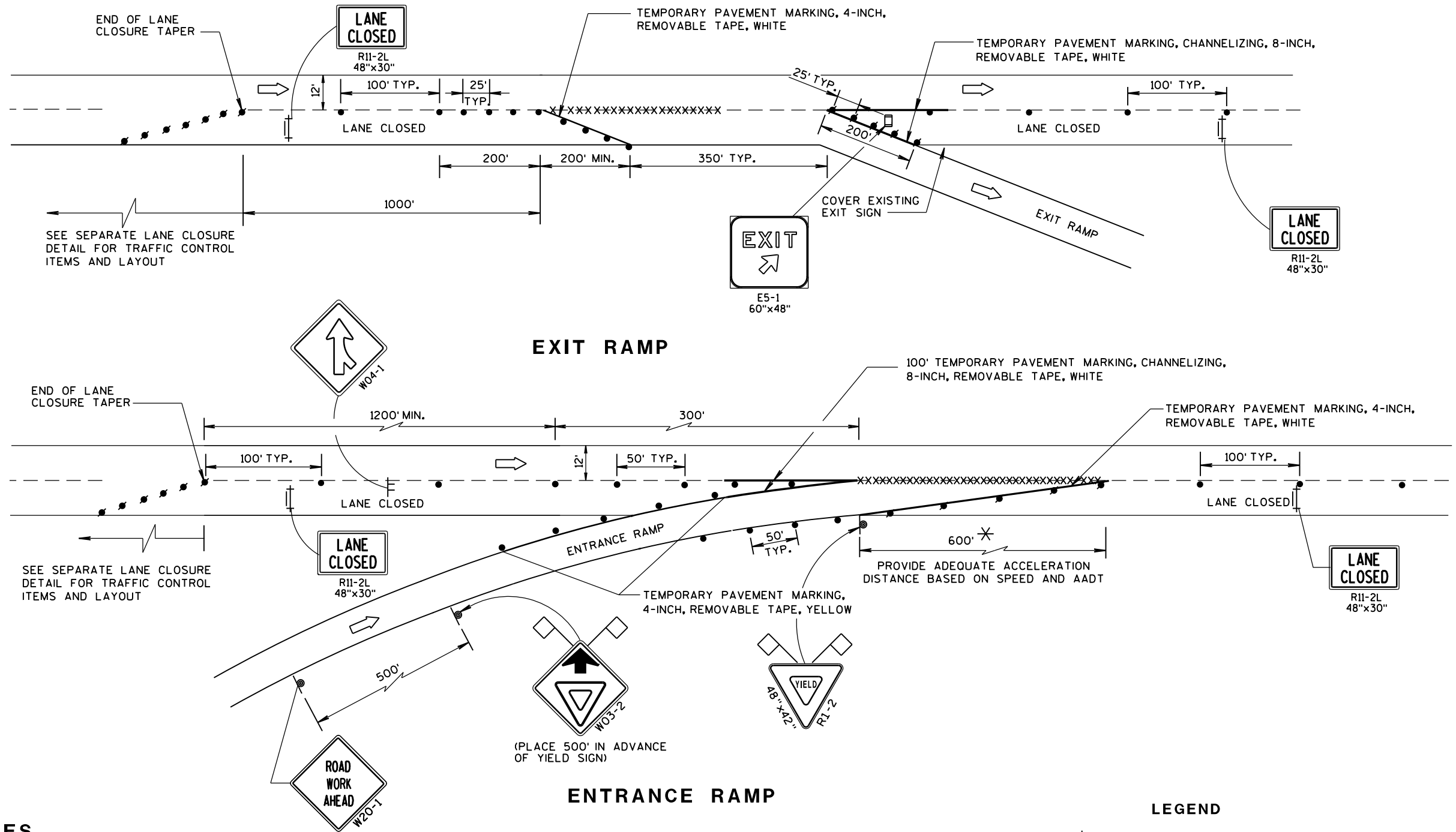
—●— "T" MARKING

● POST MOUNTED SIGN

LONGITUDINAL MARKING
(MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE Sept., 2016 /S/ Matthew R. Rauch
STATE SIGNING AND MAP 65 ENGINEER
FHWA



GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

YIELD SIGN AND WARNING SIGNS ON ENTRANCE RAMP ARE ALSO APPROPRIATE FOR CLOSURE OF THE MAINLINE LEFT LANE. OMIT THE YIELD SIGN IF MORE THAN ONE LANE REMAINS OPEN ON THE MAINLINE AND THE RAMP TAPER IS AT LEAST AS LONG AS THE NORMAL ENTRANCE RAMP TAPER AT THE SITE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 7 OR MORE CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

* LENGTH OF OPENING MAY BE REDUCED TO 150 FEET DURING STAGING OF WORK IN IMMEDIATE AREA OF RAMP TAPER.

LEGEND	
	SIGN ON PERMANENT SUPPORT
	SIGN ON TEMPORARY SUPPORT
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
	REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
	TYPE III BARRICADE WITH ATTACHED SIGN
	FLAGS, 16" x 16" MIN., (ORANGE)
	DIRECTION OF TRAFFIC

TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED Sept. 2015 DATE	/S/ Peter Amokobe Atepe STATEWIDE WORK ZONE SAFETY ENGINEER
FHWA	

LEGEND

- TRAFFIC CONTROL DRUM
- ⦿ SIGN ON PERMANENT SUPPORT
- ➡ DIRECTION OF TRAFFIC
- ⚡➡ FLASHING ARROW BOARD
- ▨ WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

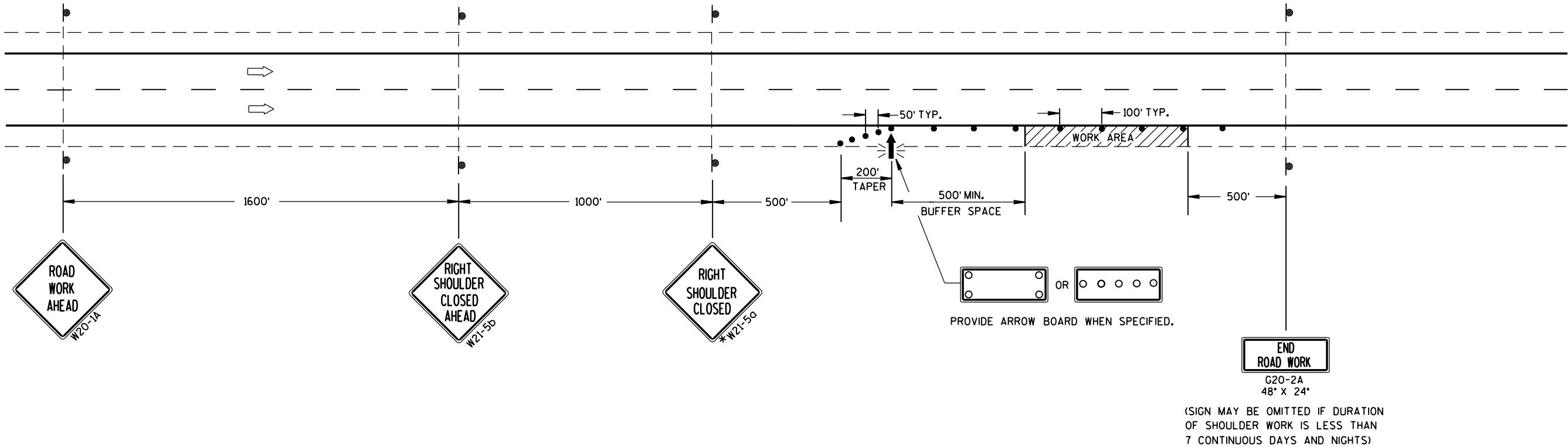
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

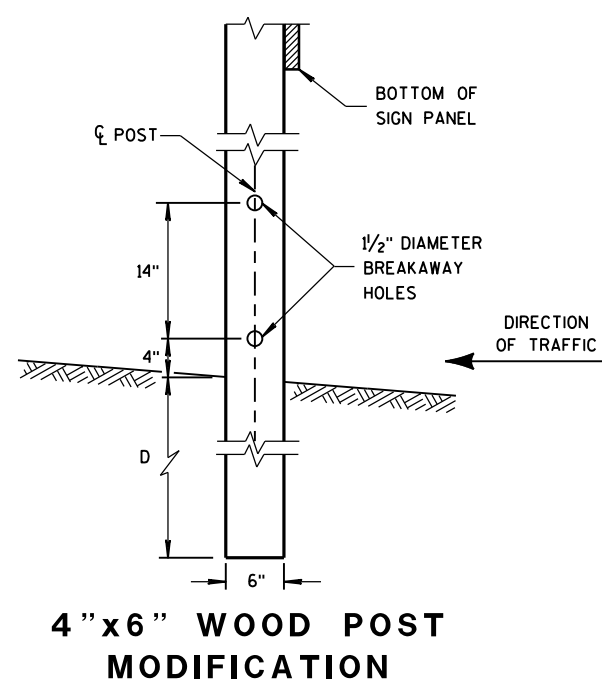
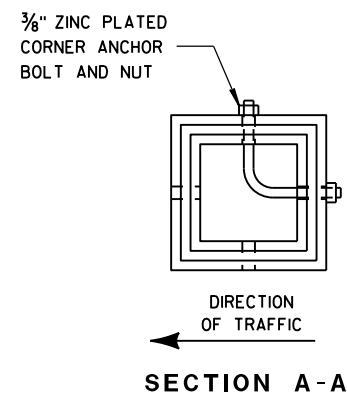
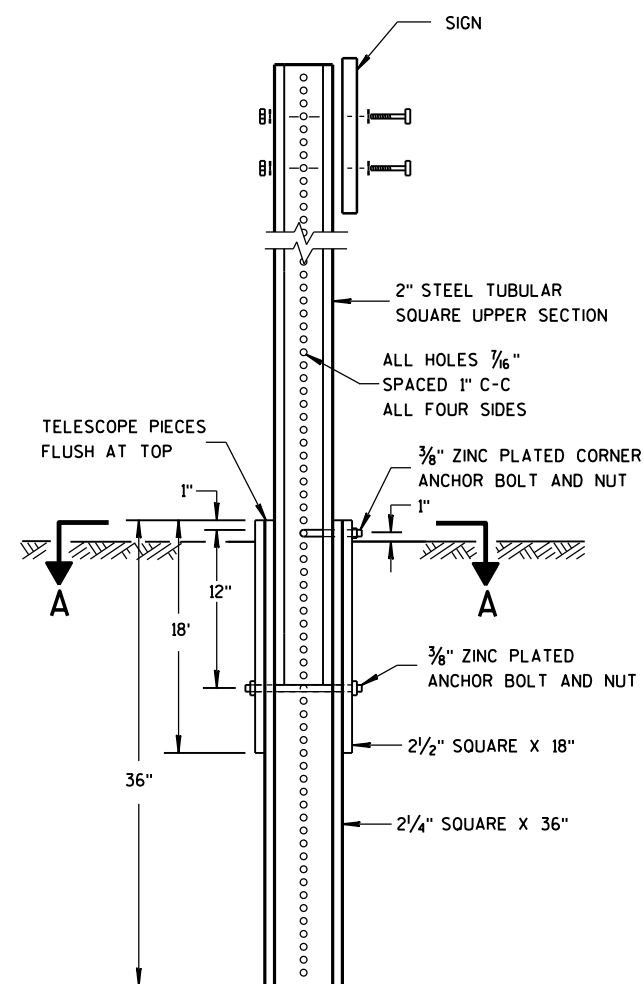
CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.

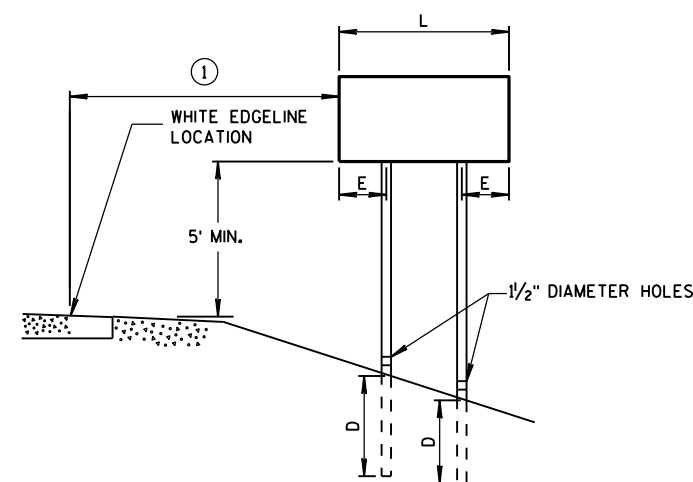
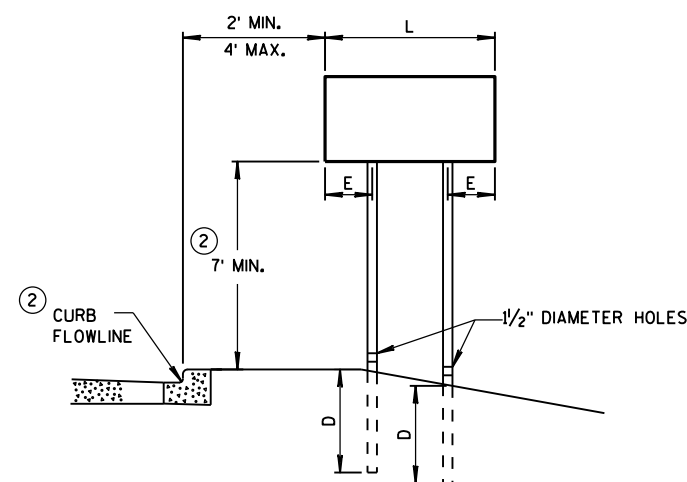


TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
APPROVED			
June 2016	/S/ Peter Amakobe Atepe		
DATE	STATEWIDE WORK ZONE	67	IC
FHWA	SAFETY ENGINEER		



- ## GENERAL NOTES

- ① 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.
- ② THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.
- ③ FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



TUBULAR STEEL POSTS	
AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).

SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

URBAN AREA RURAL AREA POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

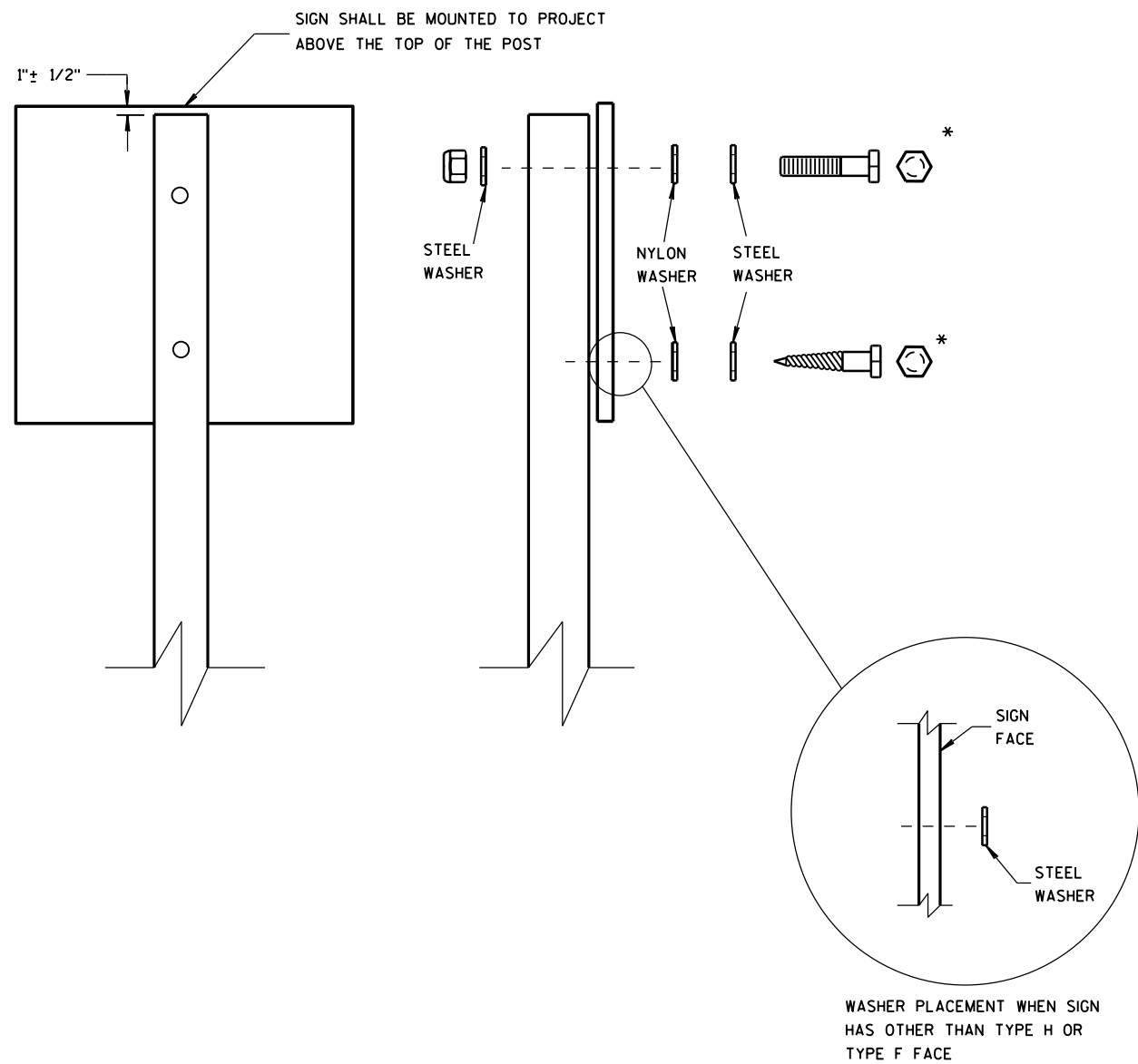
WOOD POST EMBEDMENT DEPTH	
AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION⁶⁸



NUTS, BOLTS AND LAGS USED FOR MOUNTING SIGNS SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

- A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3
- B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

THREADS ON BOLTS AND NUTS SHALL BE MANUFACTURED WITH SUFFICIENT ALLOWANCE FOR THE CADMIUM PLATE OR GALVANIZED COATING TO PERMIT THE NUTS TO RUN FREELY ON THE BOLTS.

- WOOD POSTS (4" x 4" or 4" x 6")
- LAG SCREWS - 3/8" X 3"
 - MACHINE BOLTS - 5/16" X 6-1/2" OR 7" LENGTH W/ NUTS

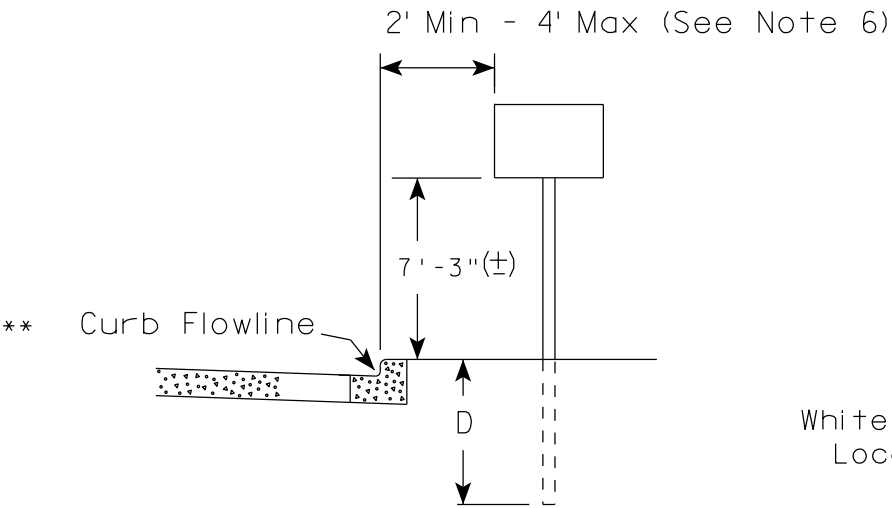
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - 3/8" X 3-1/4" LENGTH W/ NUTS
 - RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

- WASHERS (ALL POSTS) -
- 1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
 - 1-1/4" O.D. X 3/8" I.D. X .080 NYLON FOR ALL TYPE H SIGNS

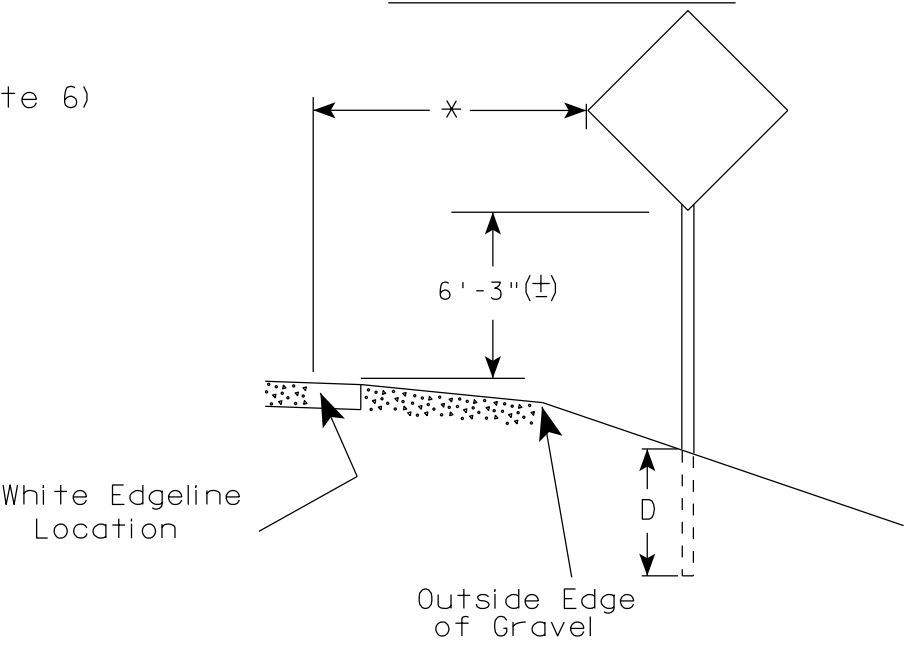
* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

ATTACHMENT OF SIGNS TO POSTS		
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION		
APPROVED Feb. 2015	/S/ Travis Feltes	
DATE	STATE TRAFFIC ENGINE 69	SIGN
FHWA		

URBAN AREA

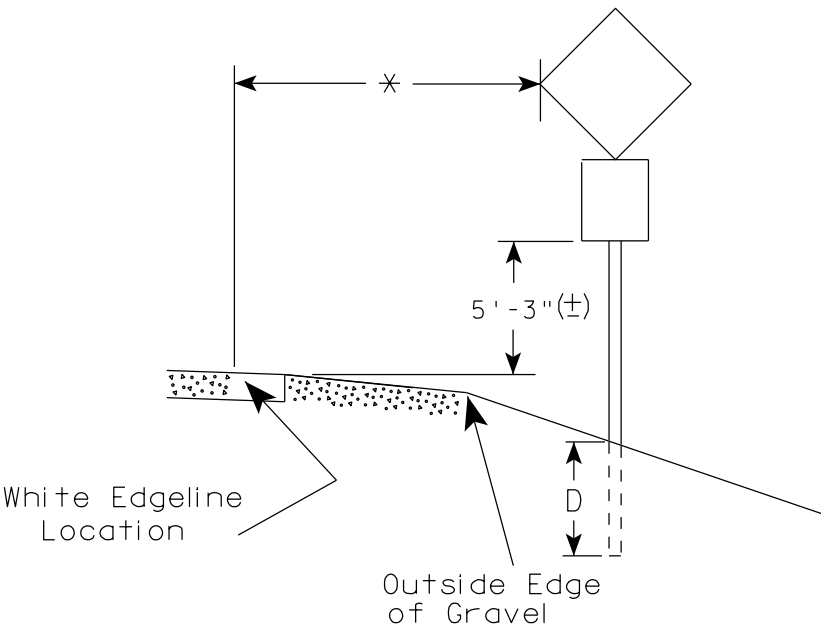
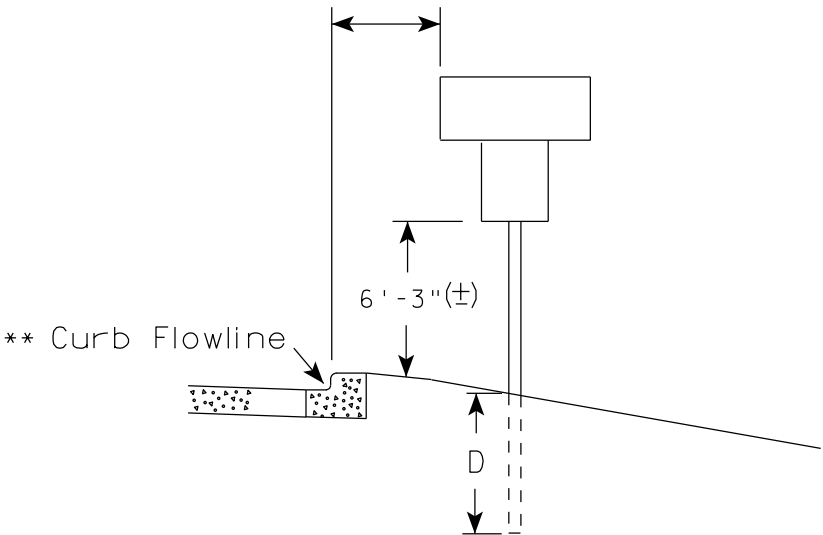


RURAL AREA (See Note 2)



- GENERAL NOTES
1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
 2. If signs are mounted on barrier wall, see A4-10 sign plate.
 3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
 4. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
 5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
 6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
 7. The (±) tolerance for mounting height is 3 inches.
 8. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.
 9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

2' Min - 4' Max (See Note 6)



POST EMBEDMENT DEPTH

Area of Sign Installation (Sq.Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

* * The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

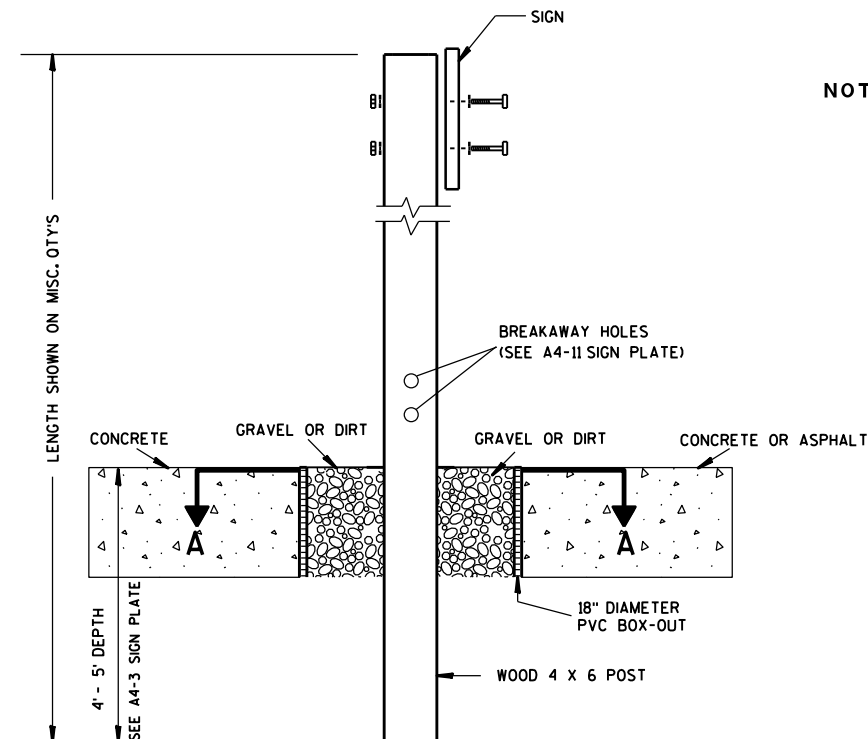
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

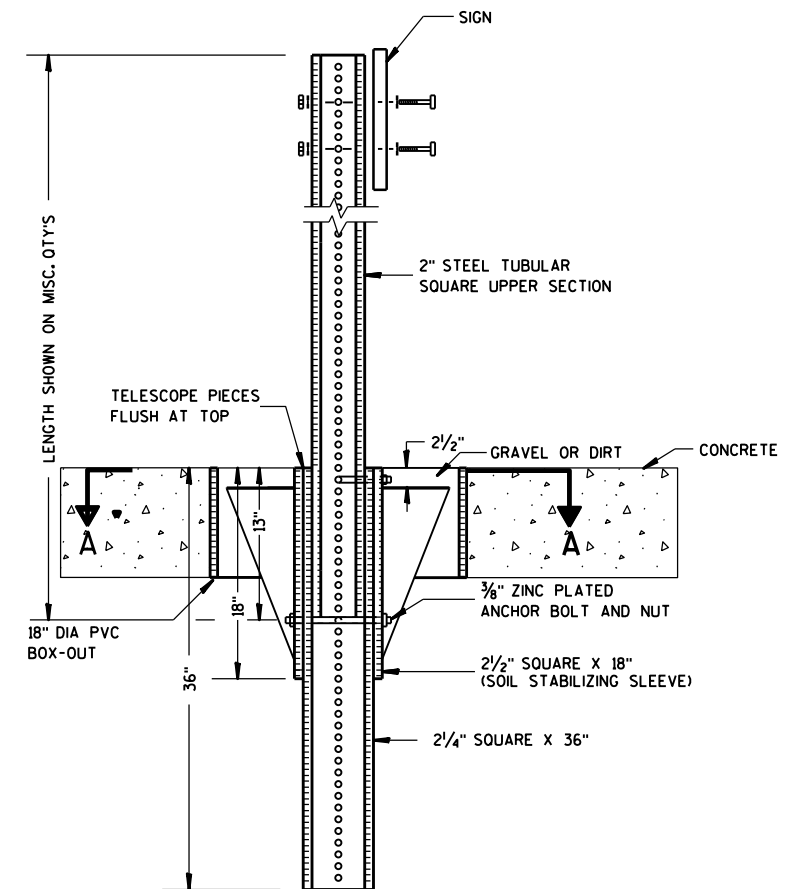
DATE 7/23/15 PLATE NO. A4-3.20
70



ELEVATION VIEW

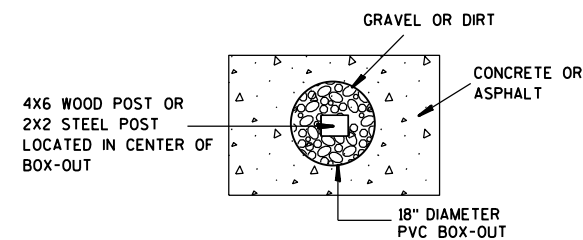
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- NOTES: 1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST
BOX-OUTS
A4-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/27/14 PLAT 71 A4-3B.1

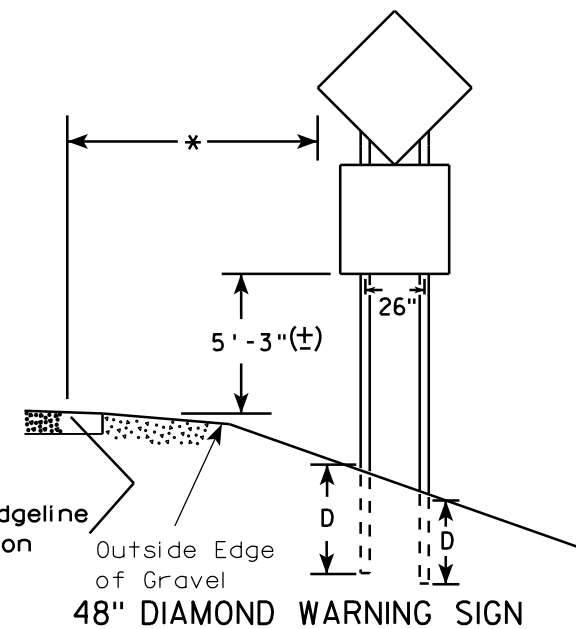
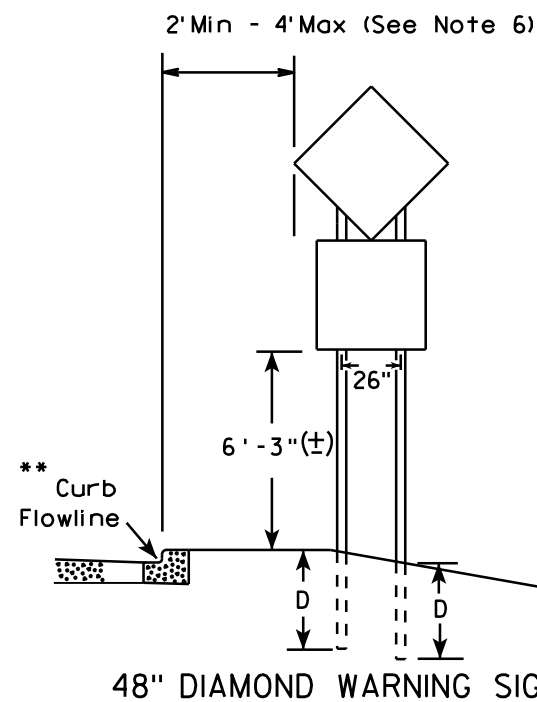
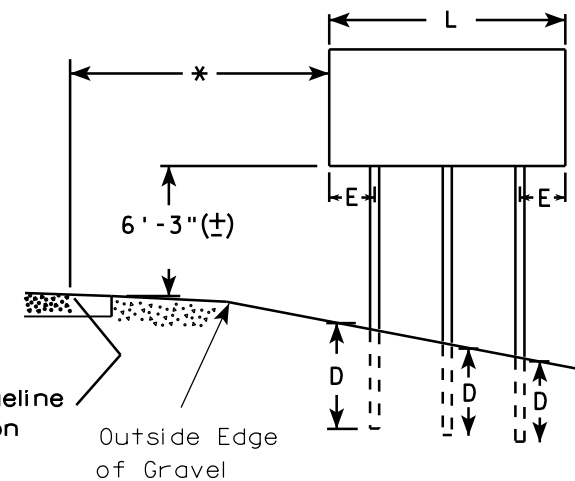
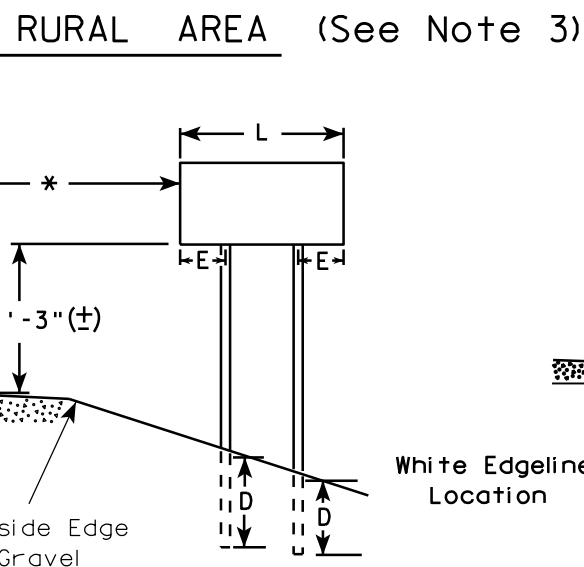
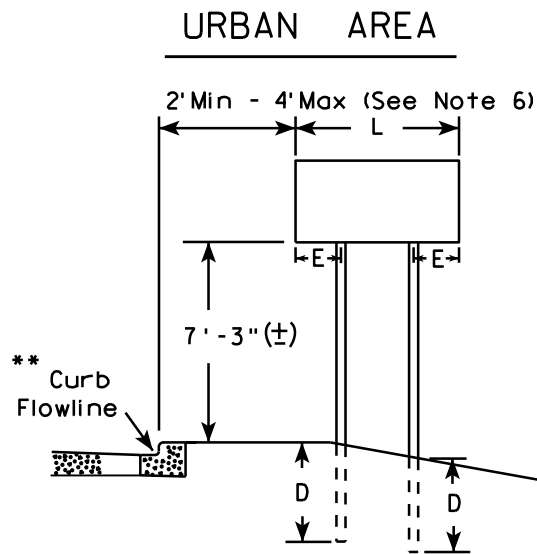
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



- GENERAL NOTES**
- For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
 - See tables below for required number of posts.
 - For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
 - The (±) tolerance for mounting height is 3 inches.
 - Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
 - Offset distance shall be consistent with existing signs or consistent throughout length of project.
 - Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
 - The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 120"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	12"

POST EMBEDMENT DEPTH

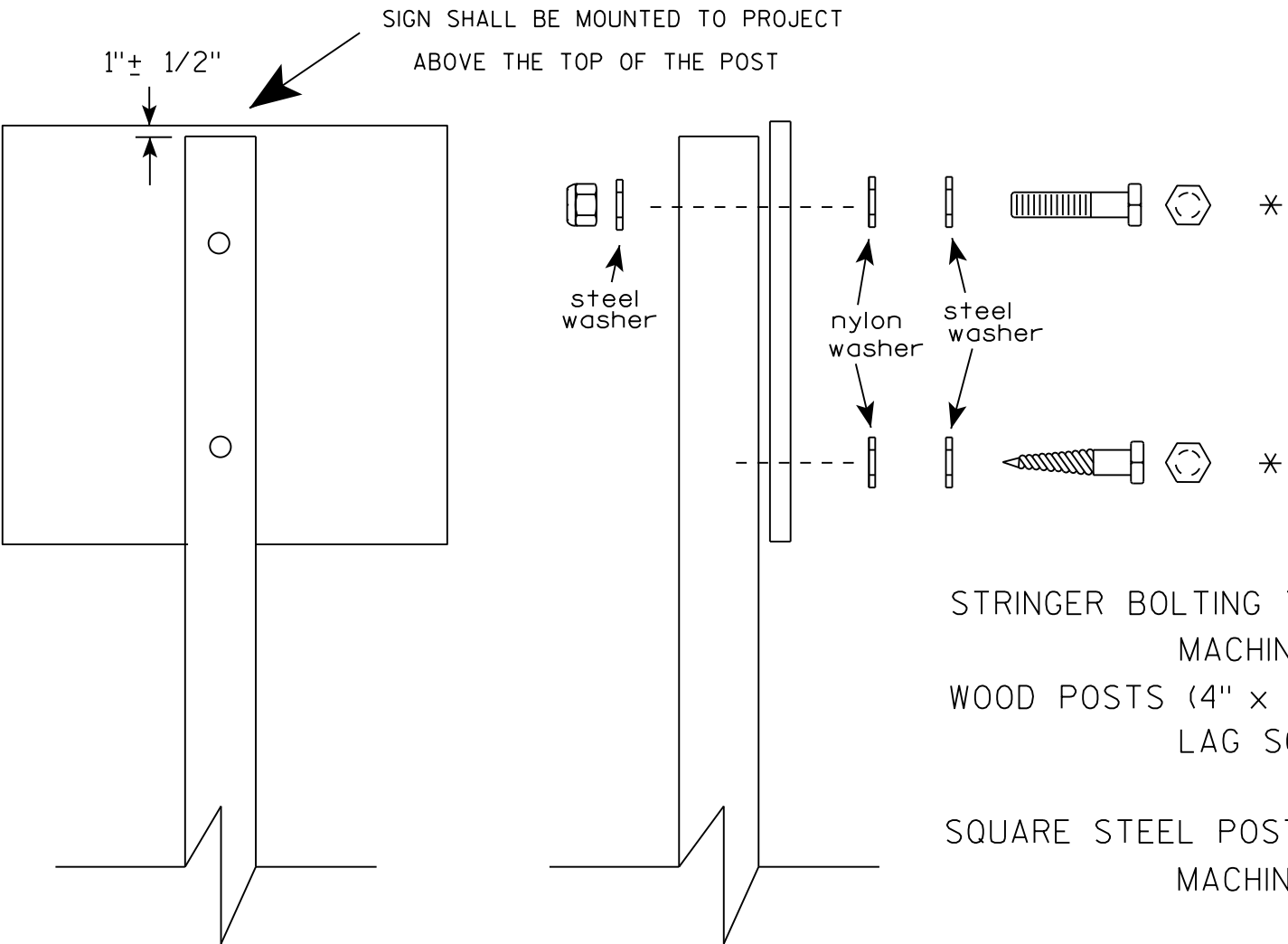
Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 7/23/15 PLATE NO. 14



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

- a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
- b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 4" or 4" x 6")
- LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
 - 3/8" X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
 - 3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
- RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
- O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH
- WASHERS (ALL POSTS) -
- 1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
 - 1-1/4" O.D. X 3/8" I.D. X .080 NYLON

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

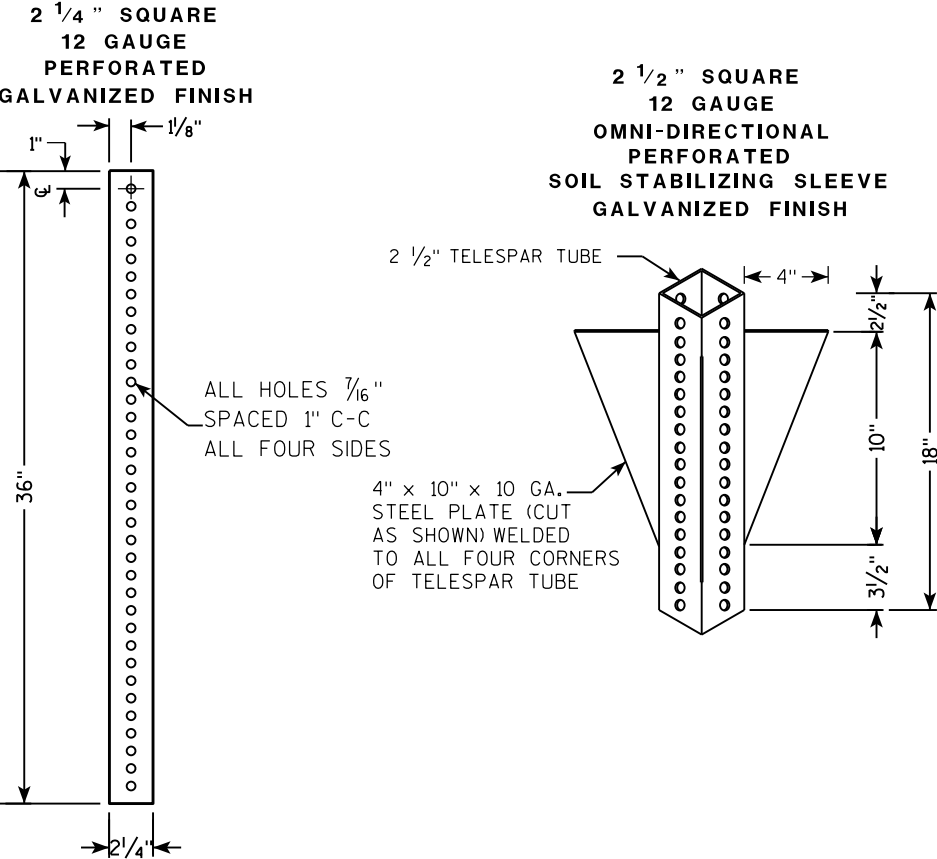
ATTACHMENT OF SIGNS
TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

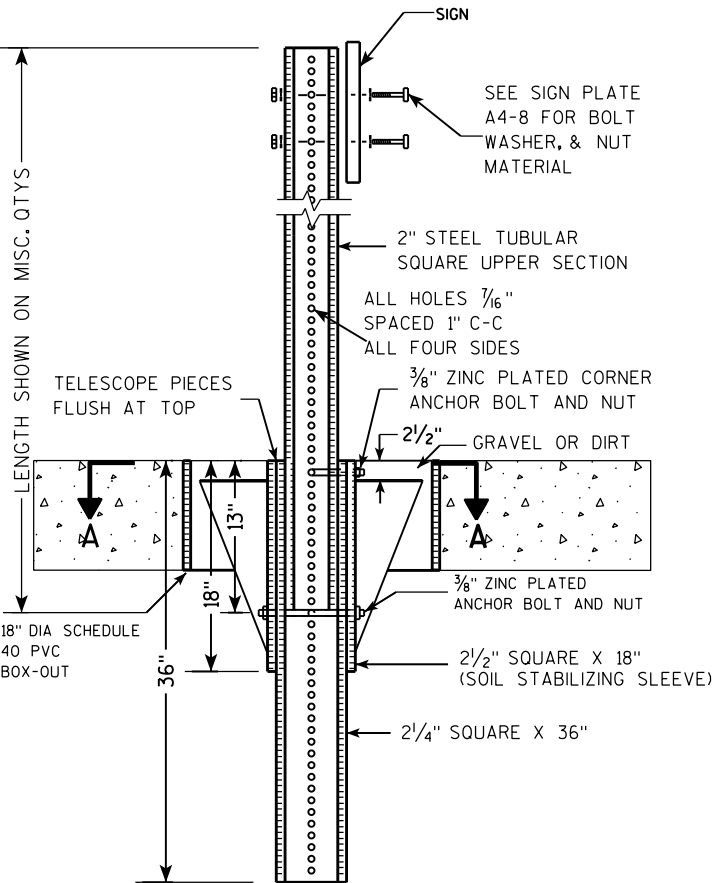
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 8/11/16 PLATE NO. A4-8.8
73

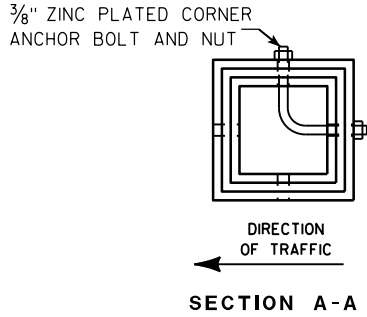
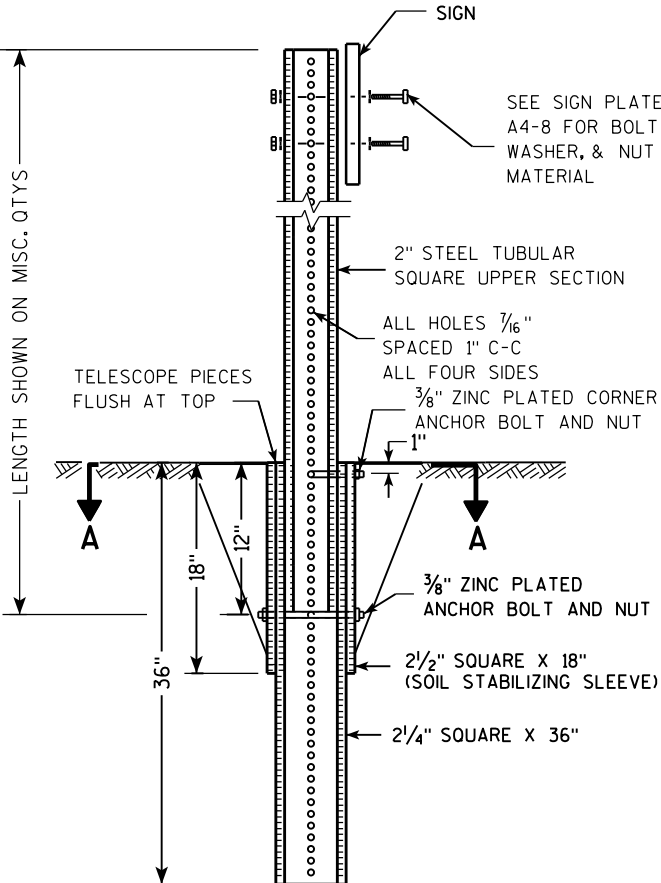
TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM



DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)



Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

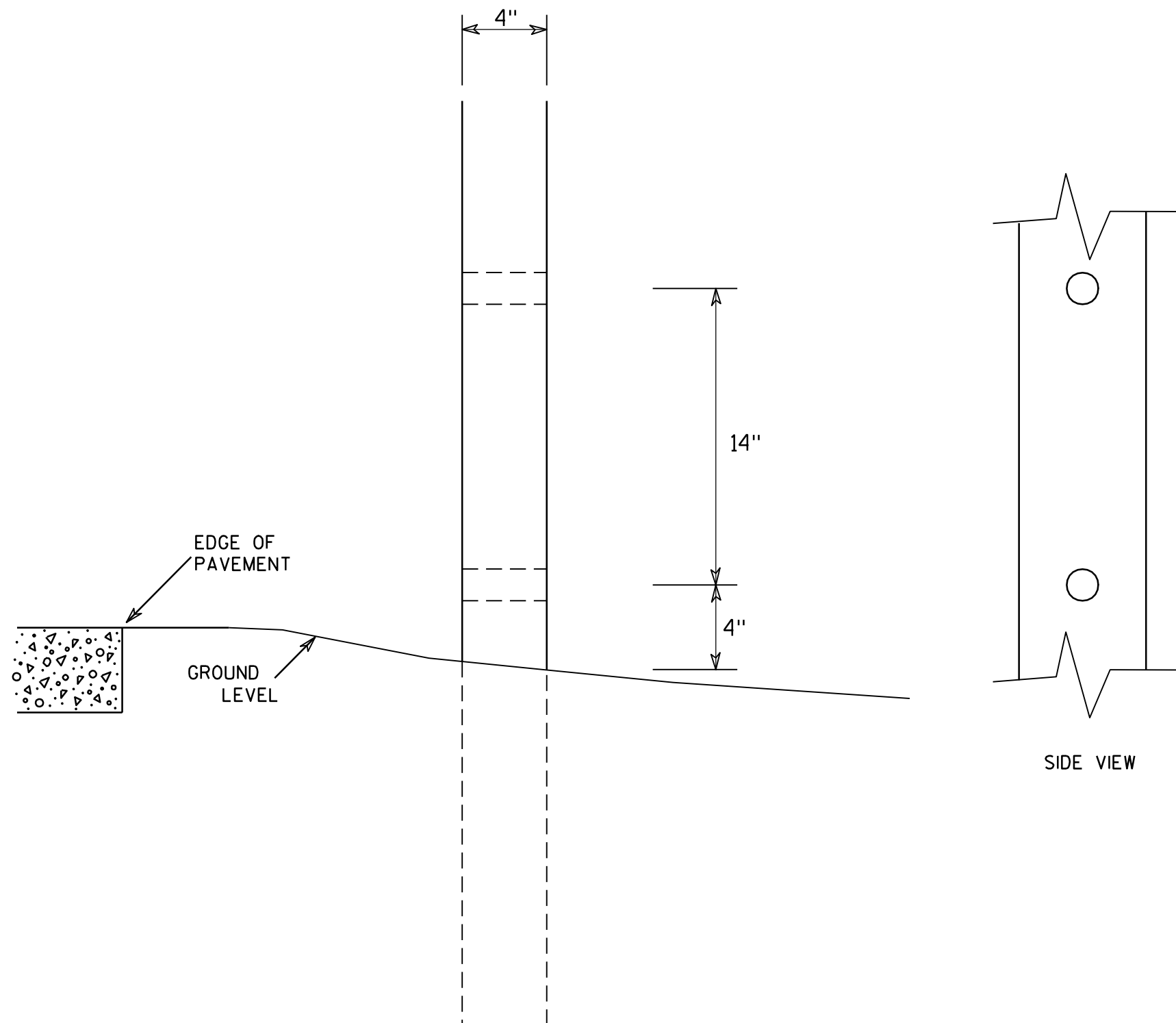
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/05/15 PLAT 74 14-9.9

7



GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

PROJECT NO:

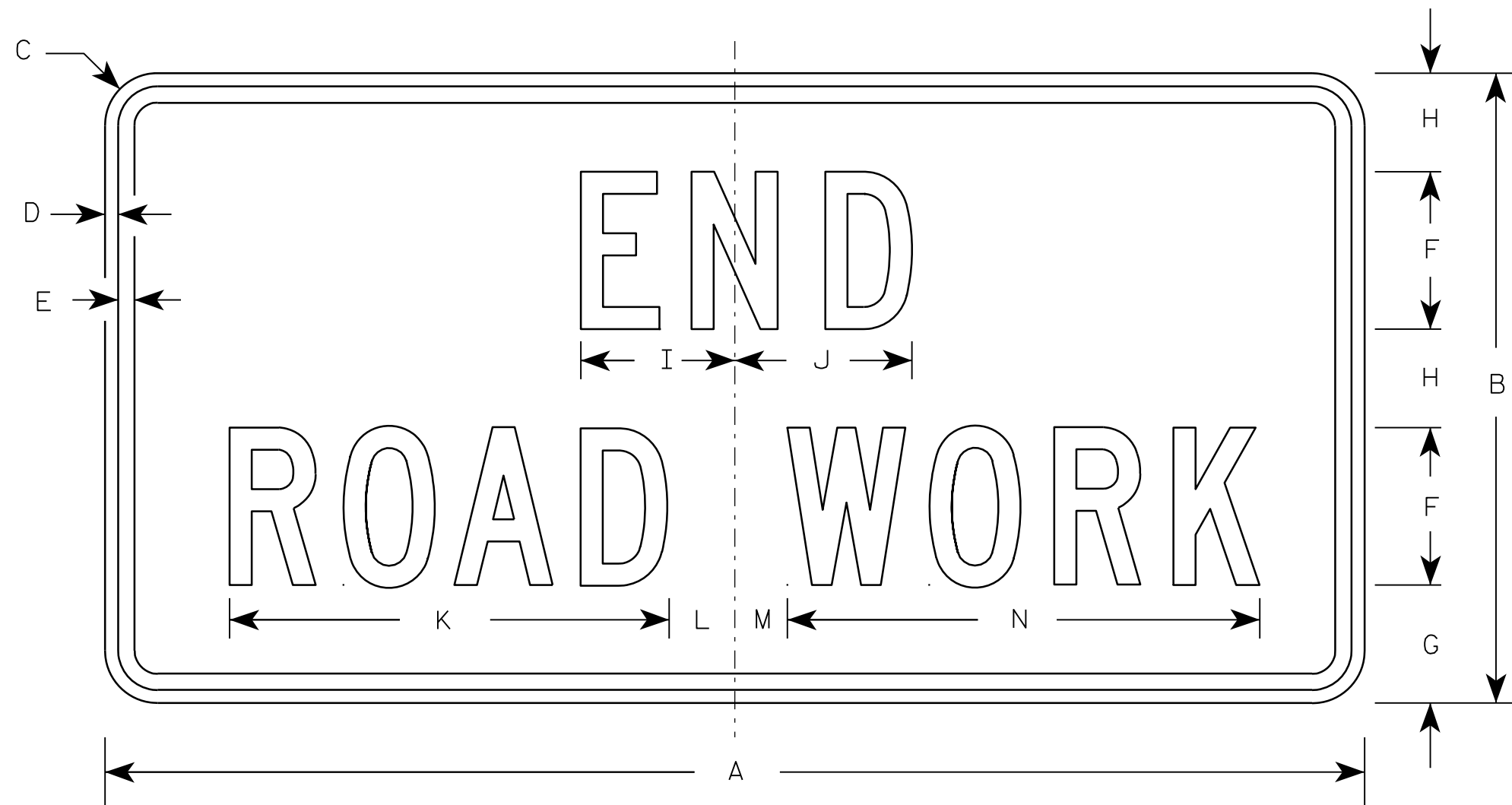
HWY:

COUNTY:

SHEET NO: 75

E

7



G20-2A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

Metric equivalent
for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

STANDARD SIGN

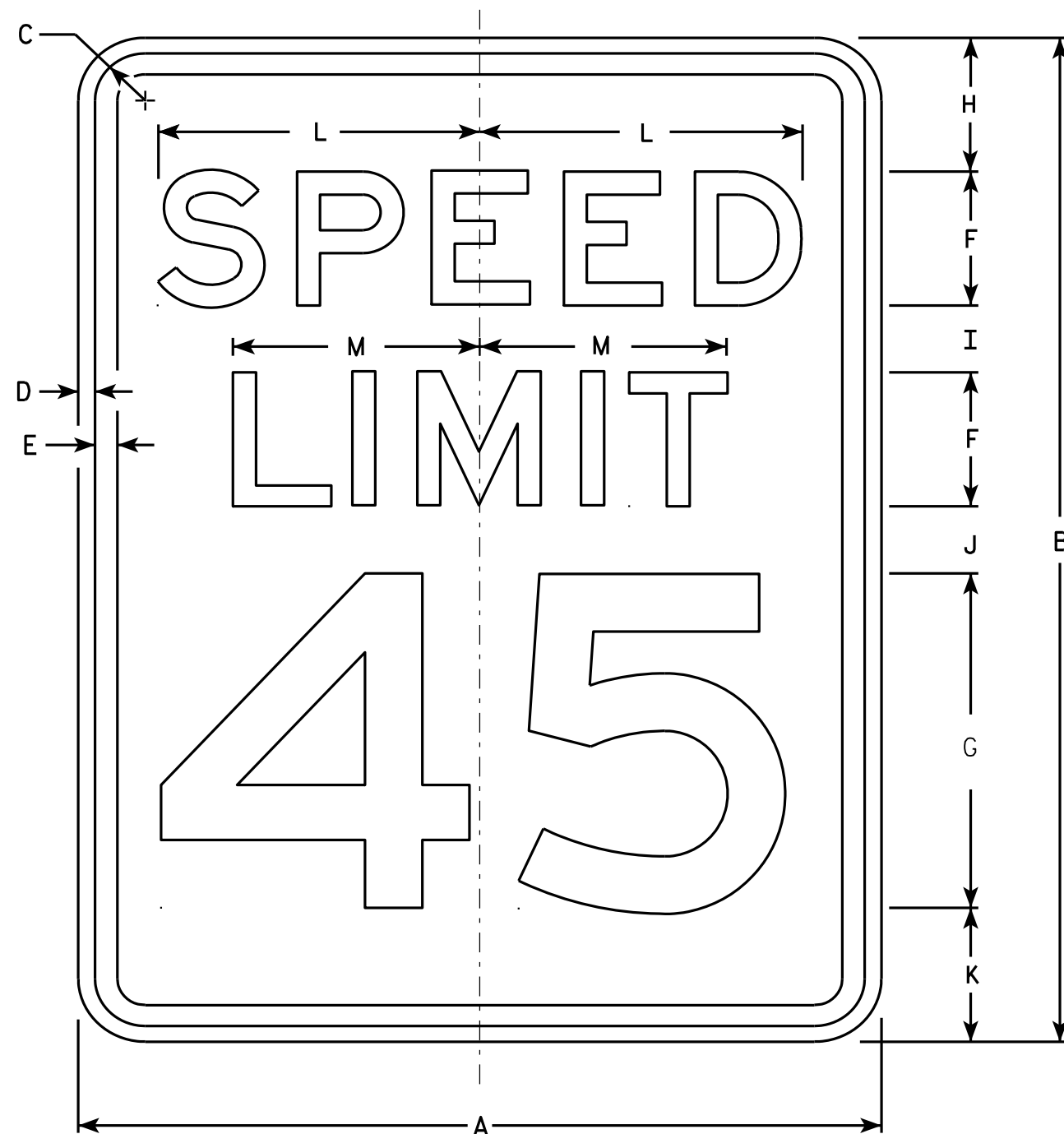
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

7



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

R2-1

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

STANDARD SIGN R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

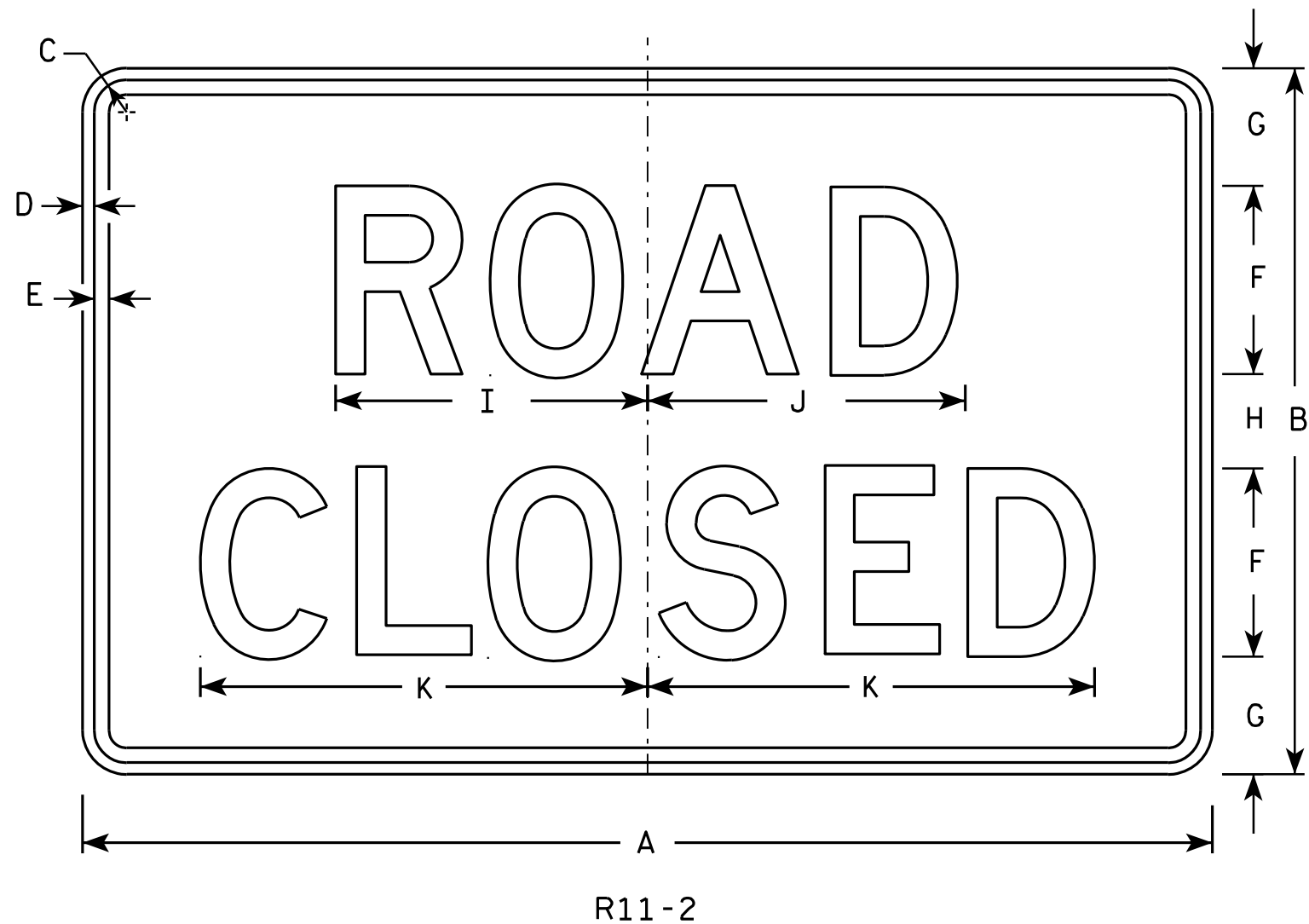
PROJECT NO:

HWY:

COUNTY:

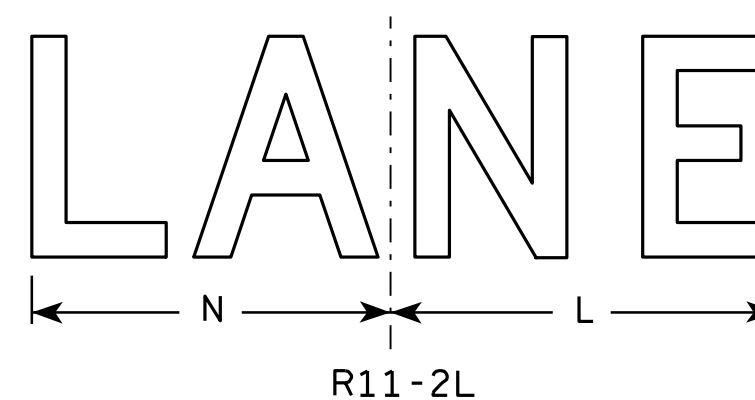
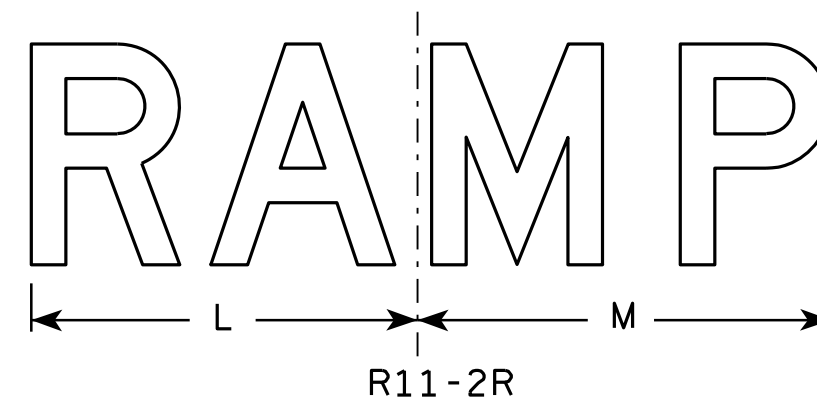
SHEET NO: 77

E



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the message as required.

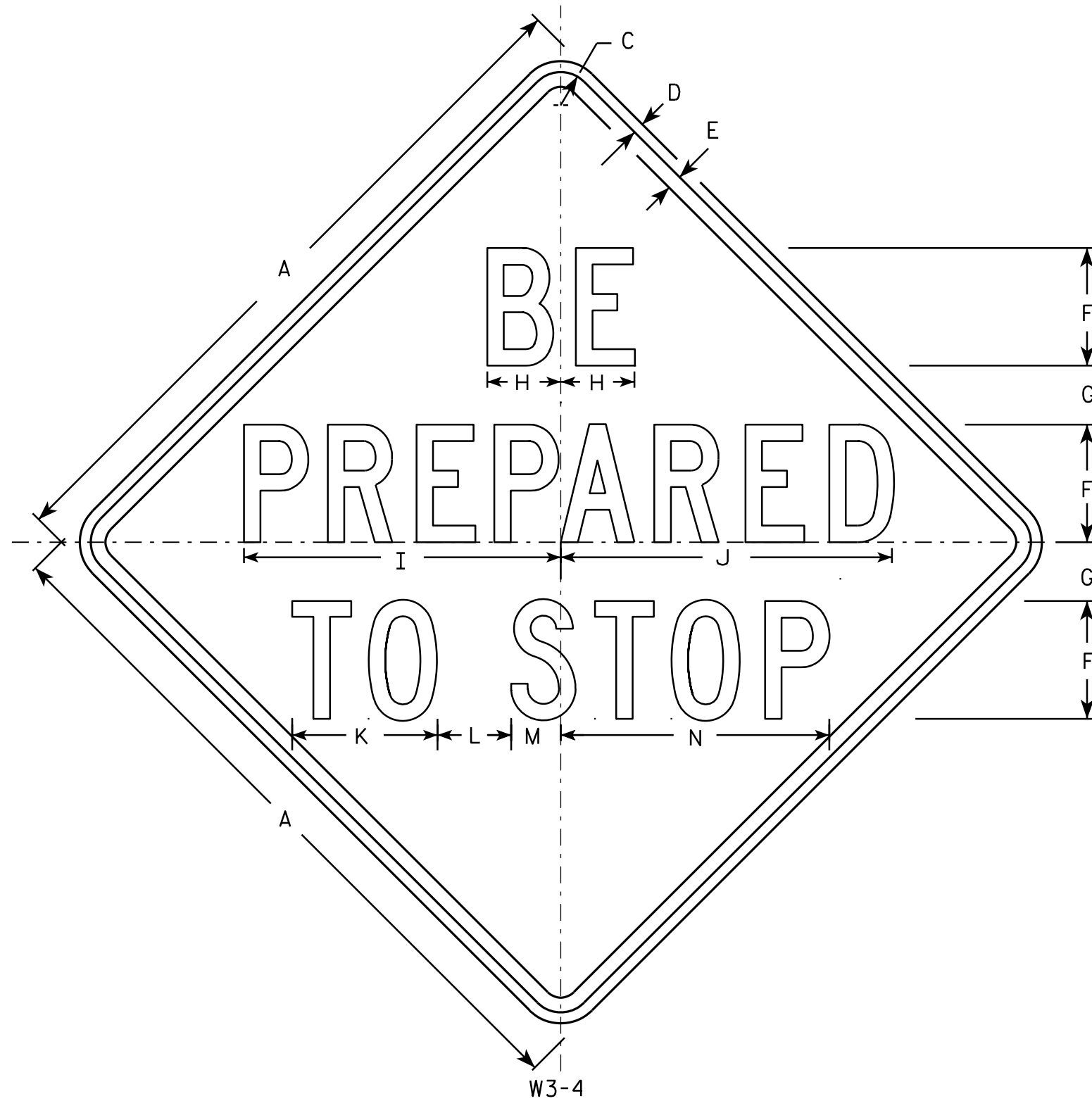


SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0
2M	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0
3	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0
4	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0
5	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0

STANDARD SIGN R11-2

WISCONSIN DEPT OF TRANSPORTATION
 APPROVED *Matthew R. Rauch*
 for State Traffic Engineer
 DATE 4/1/11 PLATE NO. R11-2.10

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: 78 **E**



NOTES

- 1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - Yellow
Message - Black
- 3. Message Series - C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 1/8	3/8	1/2	5	2 1/8	3 1/8	13 1/4	14 1/8	6 1/8	3 3/8	2	11 1/2													6.25
2S	36		1 3/8	1/2	5/8	6	2 1/2	3 3/4	15 7/8	16 7/8	7 3/8	4	2 3/8	13 3/4													9.0
2M	36		1 3/8	1/2	5/8	6	2 1/2	3 3/4	15 7/8	16 7/8	7 3/8	4	2 3/8	13 3/4													9.0
3	36		1 3/8	1/2	5/8	6	2 1/2	3 3/4	15 7/8	16 7/8	7 3/8	4	2 3/8	13 3/4													9.0
4	48		2 1/4	3/4	1	8	4	5	21 1/2	22 1/2	9 7/8	5	3 3/8	18 1/4													16.0
5	48		2 1/4	3/4	1	8	4	5	21 1/2	22 1/2	9 7/8	5	3 3/8	18 1/4													16.0

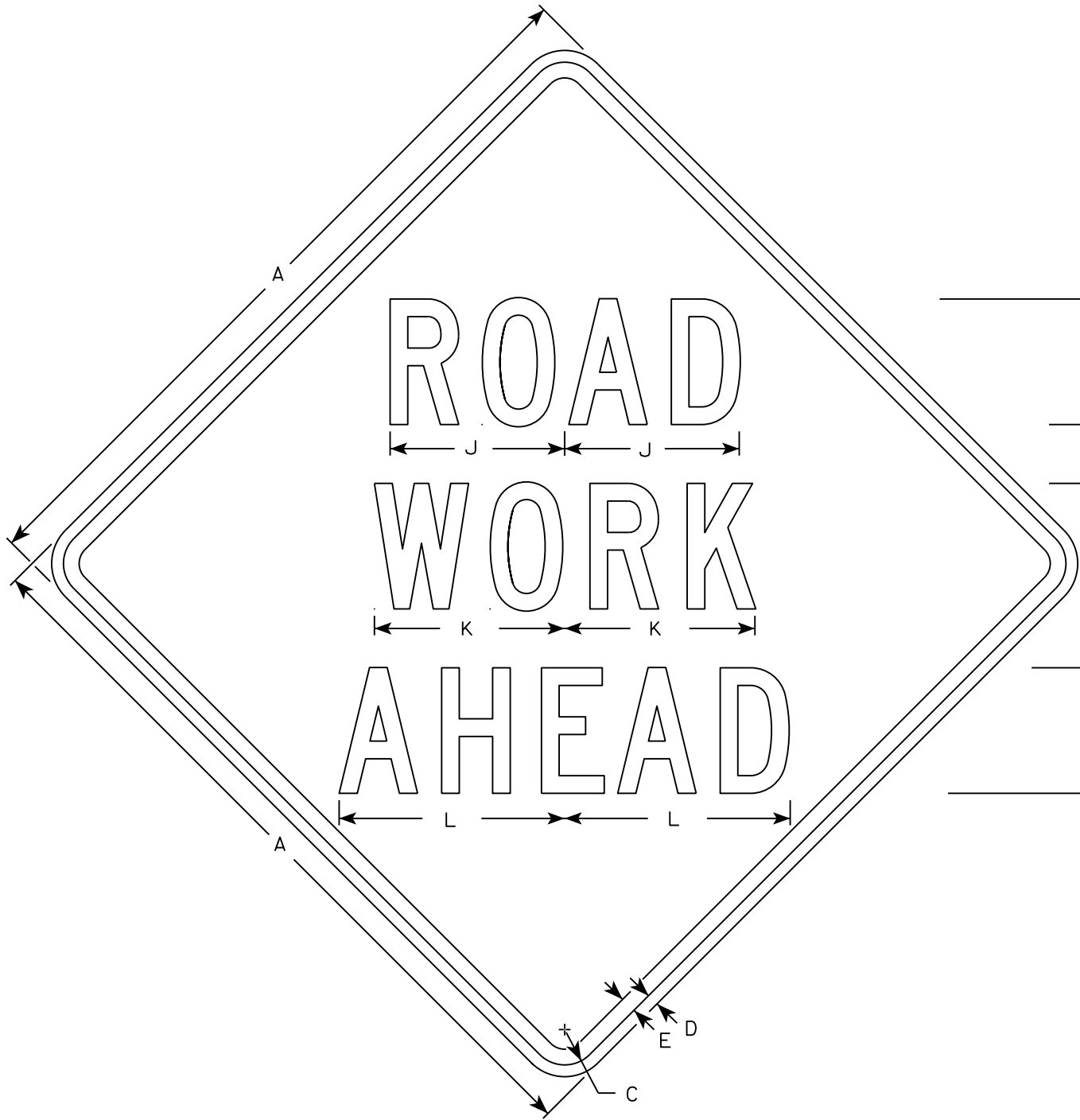
PROJECT NO:	HWY:	COUNTY:	SHEET NO: 79	E
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STANDARD SIGN
W3-4

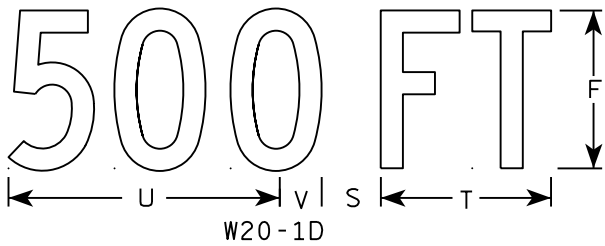
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

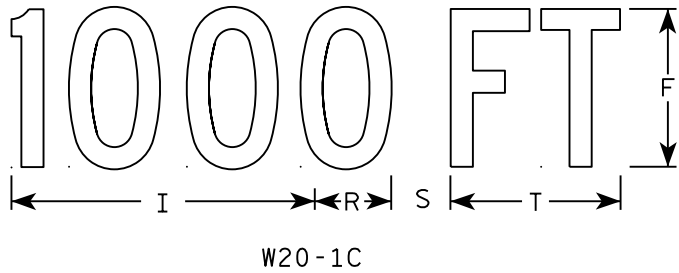
DATE 3/21/11 PLATE NO. W3-4.4



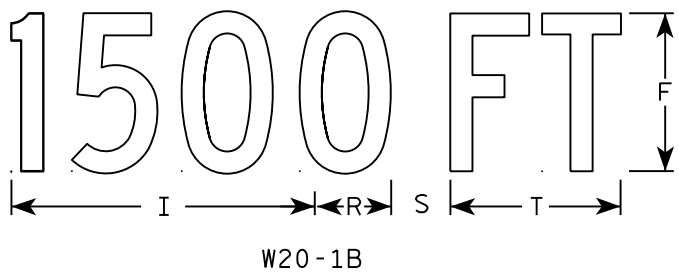
W20-1A



W20-1D



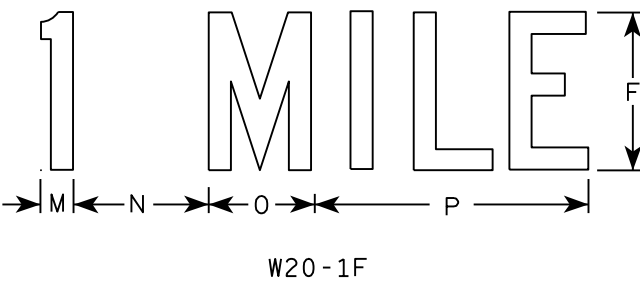
W20-1C



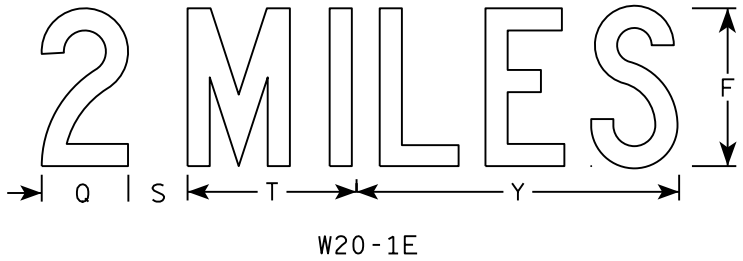
W20-1B



W20-1G



W20-1F



W20-1E

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
 - Background - Orange
 - Message - Black
- 3. Message Series - C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 3/8	1/2	5/8	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9		2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN

W20-1A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*

for State Traffic Engineer

DATE 5/07/15 PLATE NO. W20-1.10

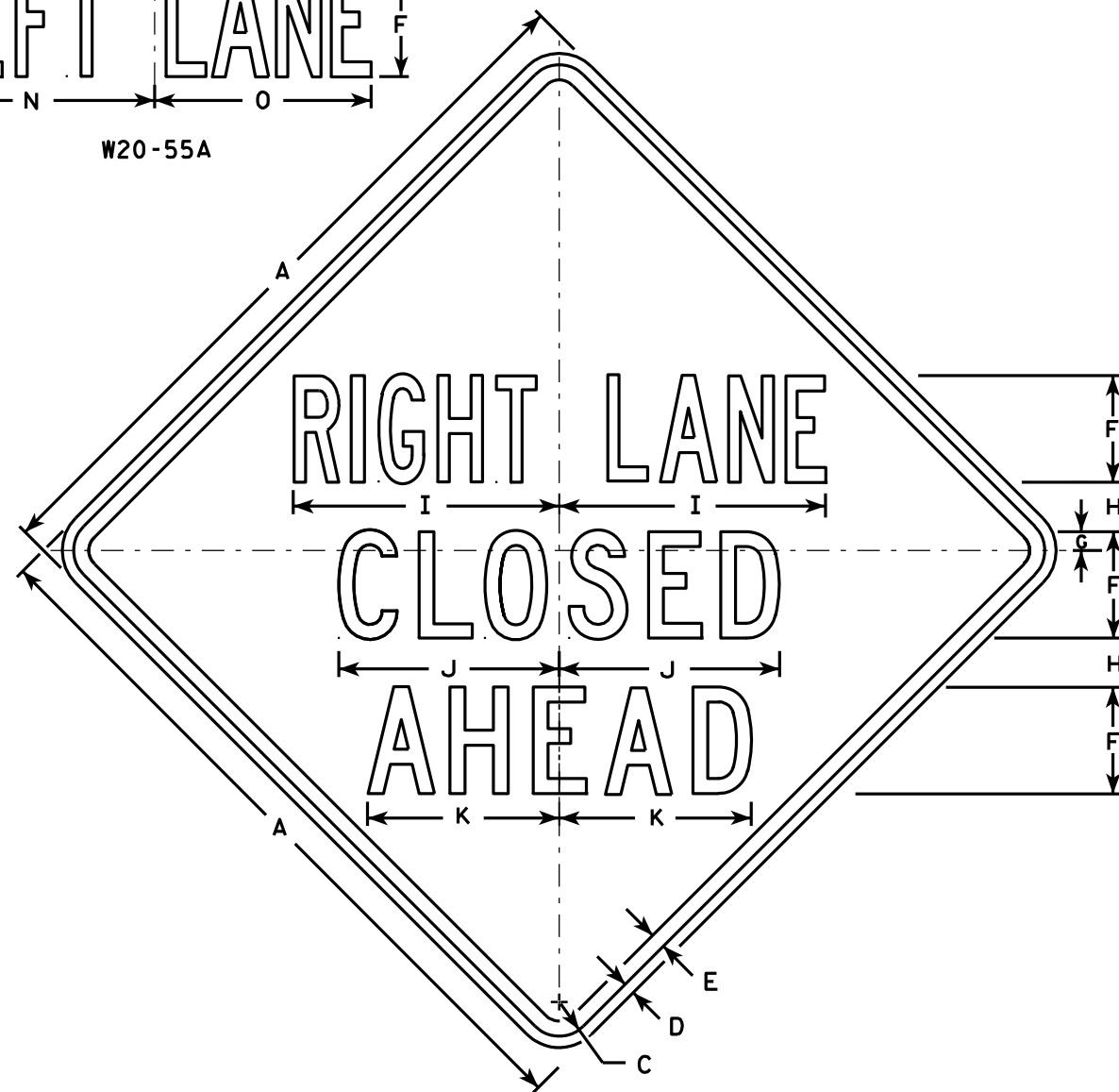
80

CENTER LANE

W20-56A

LEFT LANE

W20-55A



W20-5A

500 FT

W20-5D

1000 FT

W20-5C

1500 FT

W20-5B

1/2 MILE

W20-5G

1 MILE

W20-5F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. "-----LANE" is Series B.
All other copy is Series C.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	6	1 5/8	5/8	3/4	5	7/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 7/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

PROJECT NO:

HWY:

COUNTY:

STANDARD SIGN
W20-5A, B, C, D, F & G

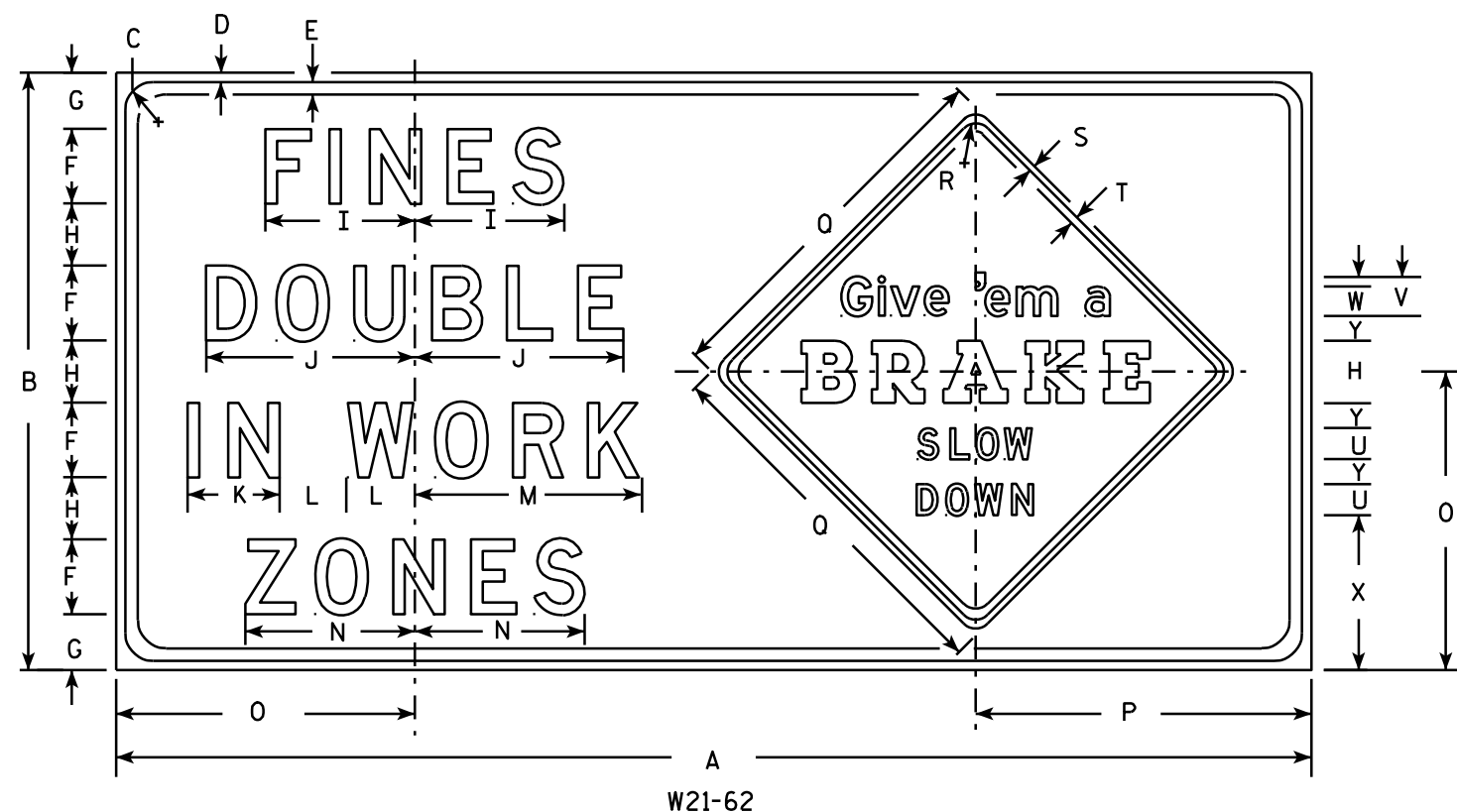
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

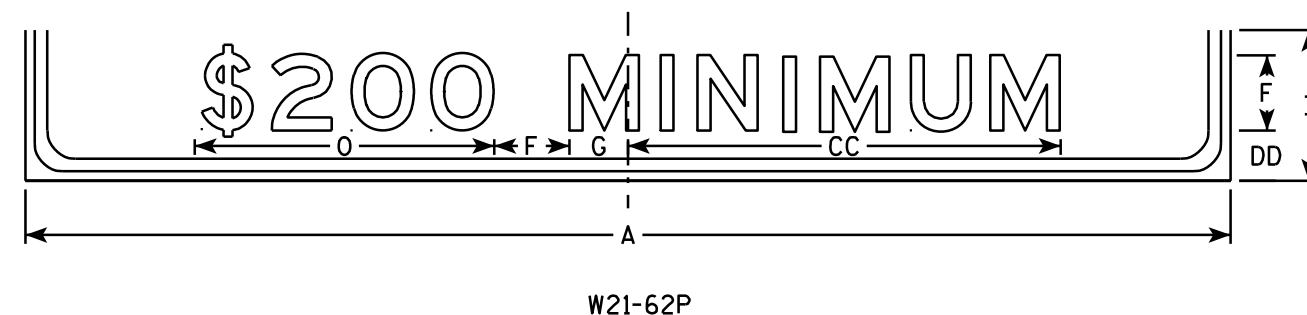
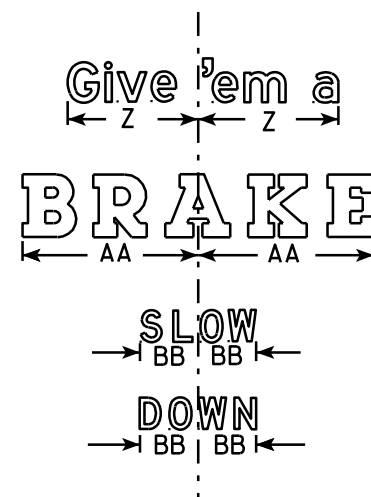
DATE 3/18/11 PLATE NO. W20-5.11

SHEET NO: 81

E



- NOTES**
- Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
 - Color:
Background - White - (See Note 5)
Message - Black
 - Message Series -
Fines Double Message - All lines are Series D
Give 'em a Brake -
Line one is Series E, line two is a Special Graphic Series and lines three and four are Series D.
 - The base material shall be plywood. Corners may be square or rounded, but borders shall be rounded as shown. The base material for Give 'em a Brake sign can be a separate sheet of aluminum with the corners and borders rounded as shown. This separate panel shall then be attached to the plywood with aluminum or stainless steel sheet metal screws.
 - Background for the Give 'em a Brake sign shall be Type F reflective orange.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	BB	CC	DD	Area sq. ft.
1																															
2S																															
2M																															
3	96	48	2 1/4	3/4	1	6	4 1/2	5	12	16 3/4	7 3/8	5 1/2	18 1/4	13 5/8	24	27	30	1 3/8	1/2	5/8	2 1/2	3 1/8	2 3/8	12 1/2	2	10 3/4	14	4 5/8	34 1/2	4	32.0
4																															
5																															

STANDARD SIGN
W21-62

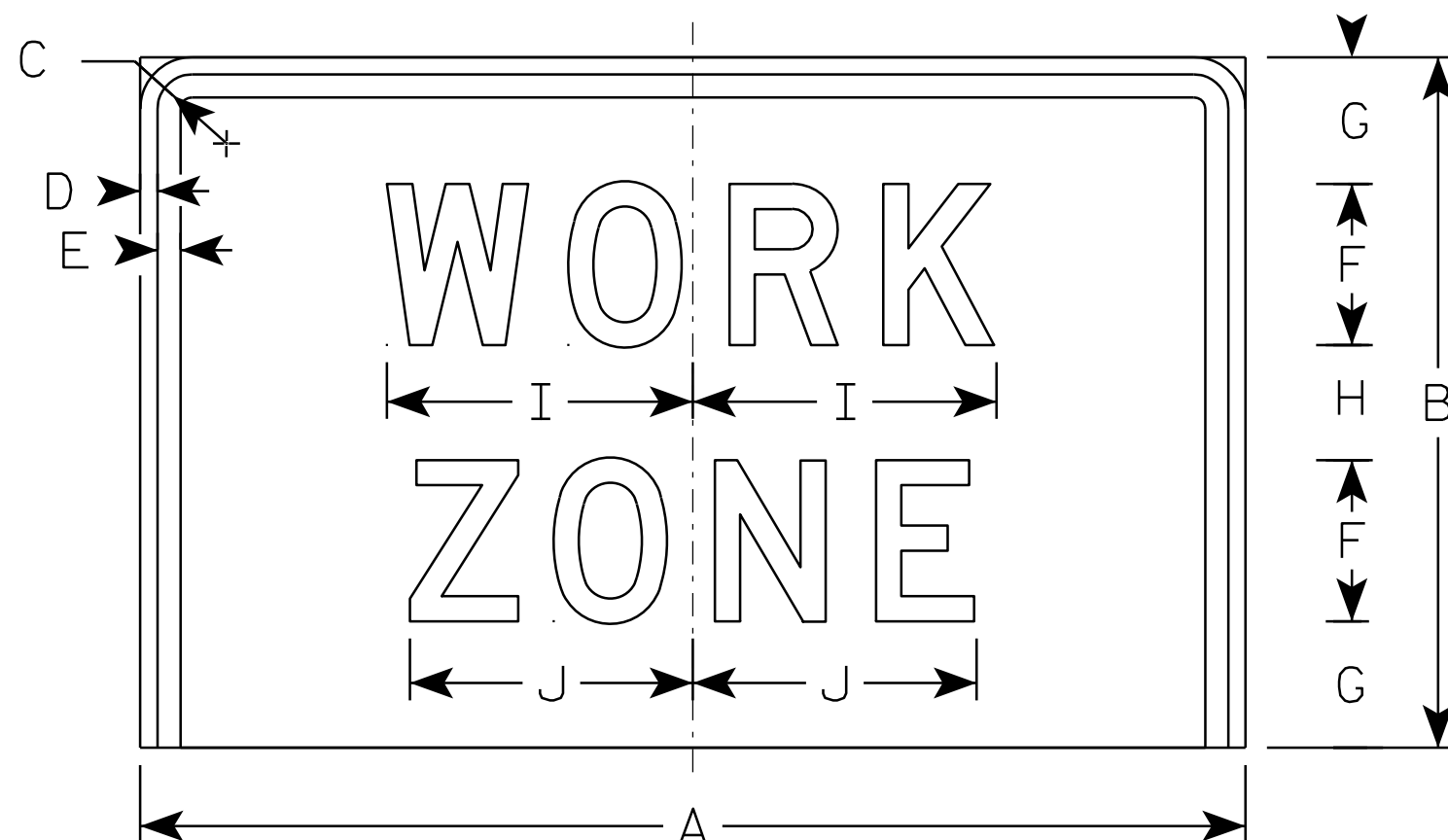
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/21/11 PLATE NO. W21-62.5

NOTES

1. Sign is Type II - Type F - reference
WIS DOT Standard Specification for HIGHWAY
and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - D



W21-620

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	2 1/4	3/4	1	7	5 1/2	5	13 1/4	12 1/4																	10.0
2M	48	30	2 1/4	3/4	1	7	5 1/2	5	13 1/4	12 1/4																	10.0
3																											
4																											
5																											

STANDARD SIGN
W21-620

WISCONSIN DEPT OF TRANSPORTATION

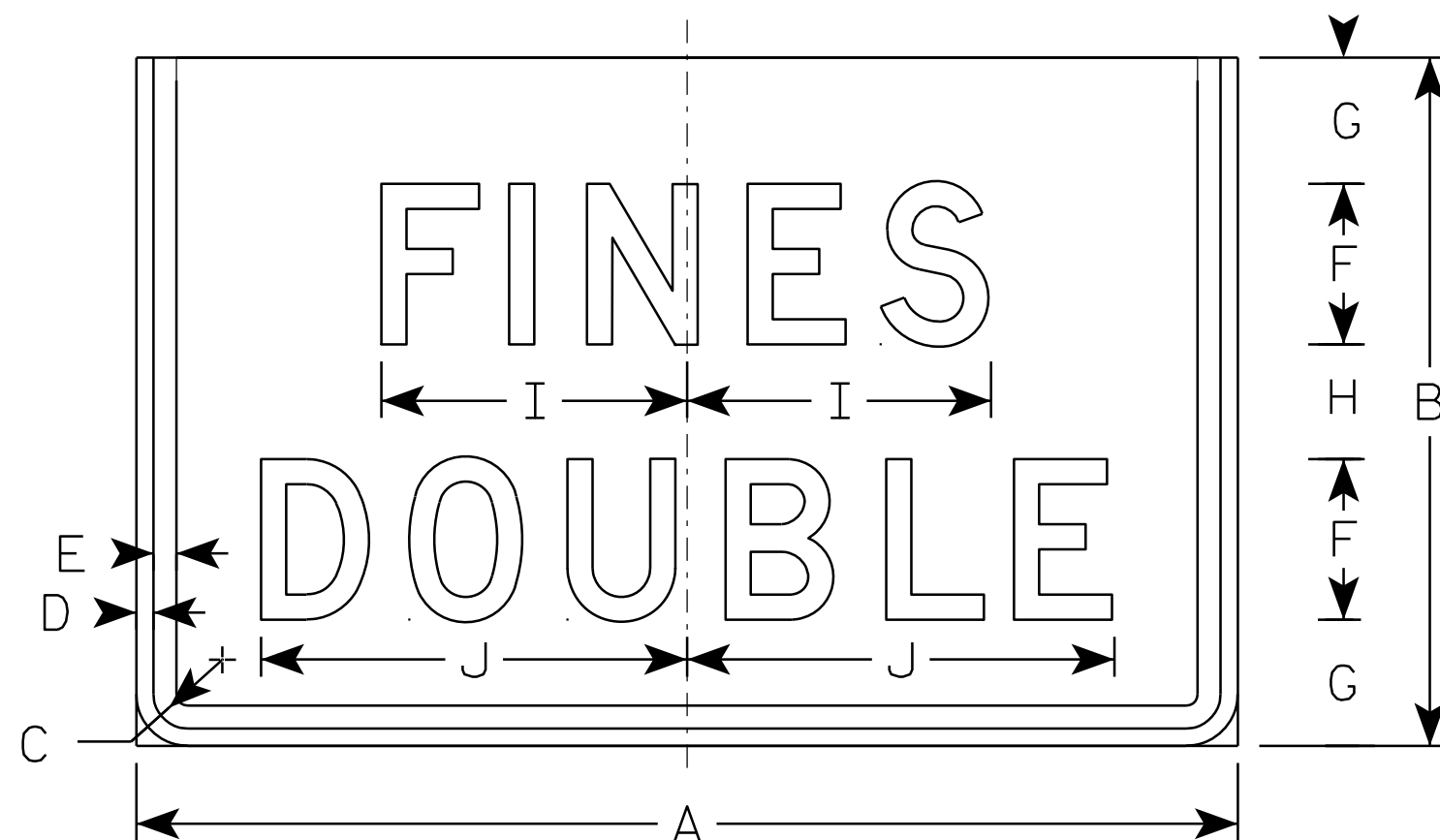
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/21/11 PLATE NO. W21-620.2

PROJECT NO: HWY: COUNTY: SHEET NO: 83 E

NOTES

1. Sign is Type II - Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - D



W21-62R

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	2 1/4	3/4	1	7	5 1/2	5	13 1/4	18 5/8																	10.0
2M	48	30	2 1/4	3/4	1	7	5 1/2	5	13 1/4	18 5/8																	10.0
3																											
4																											
5																											

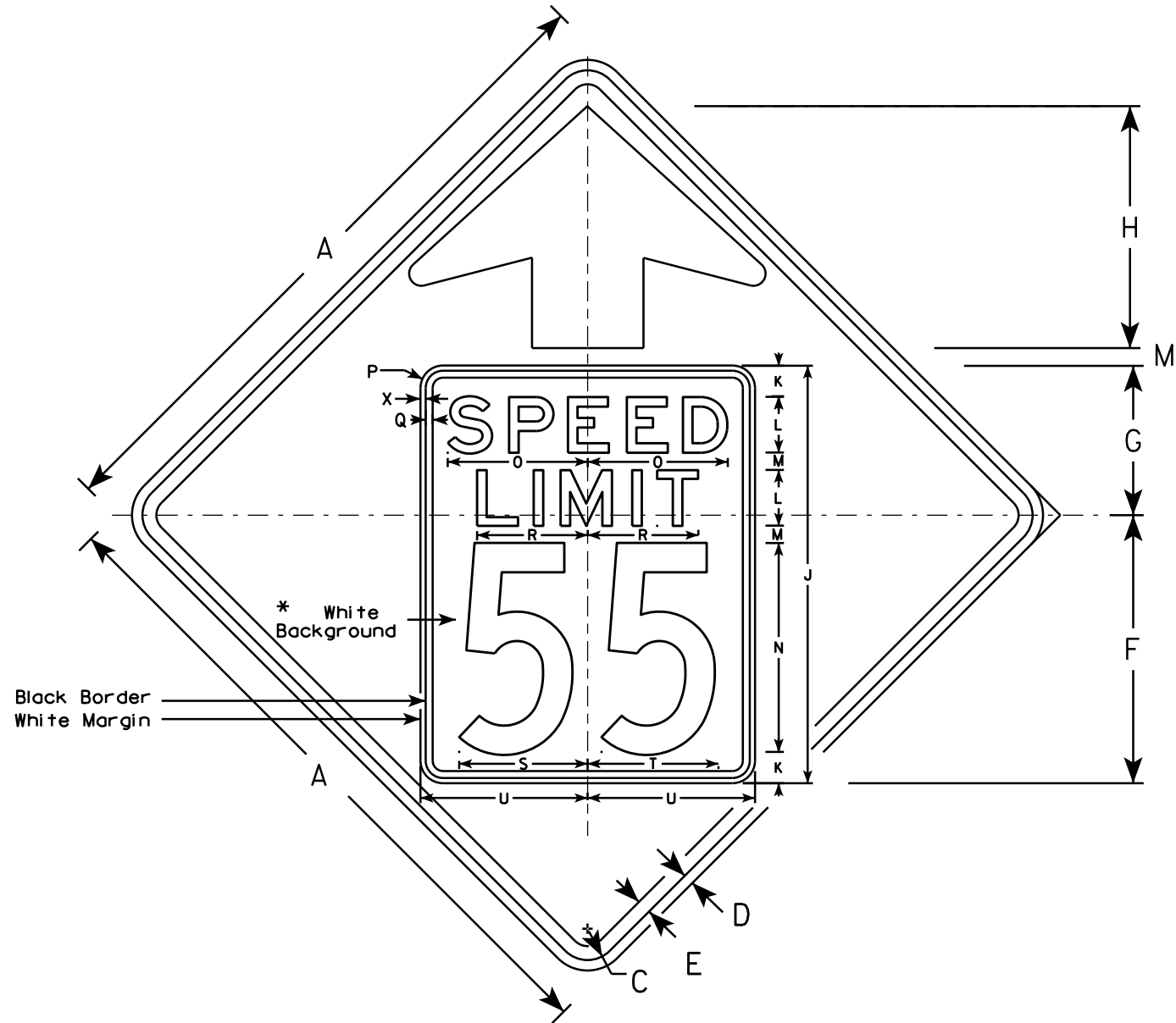
STANDARD SIGN
W21-62R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/21/11 PLATE NO. W21-62R.2

PROJECT NO: HWY: COUNTY: SHEET NO: 84 E

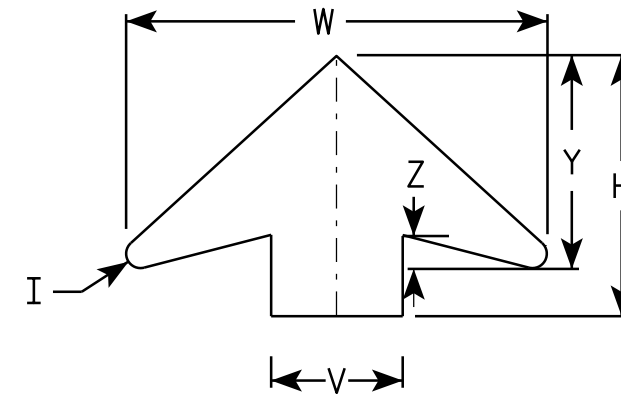


W03-5

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color: *
Background - ORANGE*
Message - BLACK
3. Message Series - C for numbers Series E for wording
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

*Speed Limit Sign shall have a White Background



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
2S	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
2M	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
3	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
4	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
5	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0

PROJECT NO:

STANDARD SIGN
W03-5

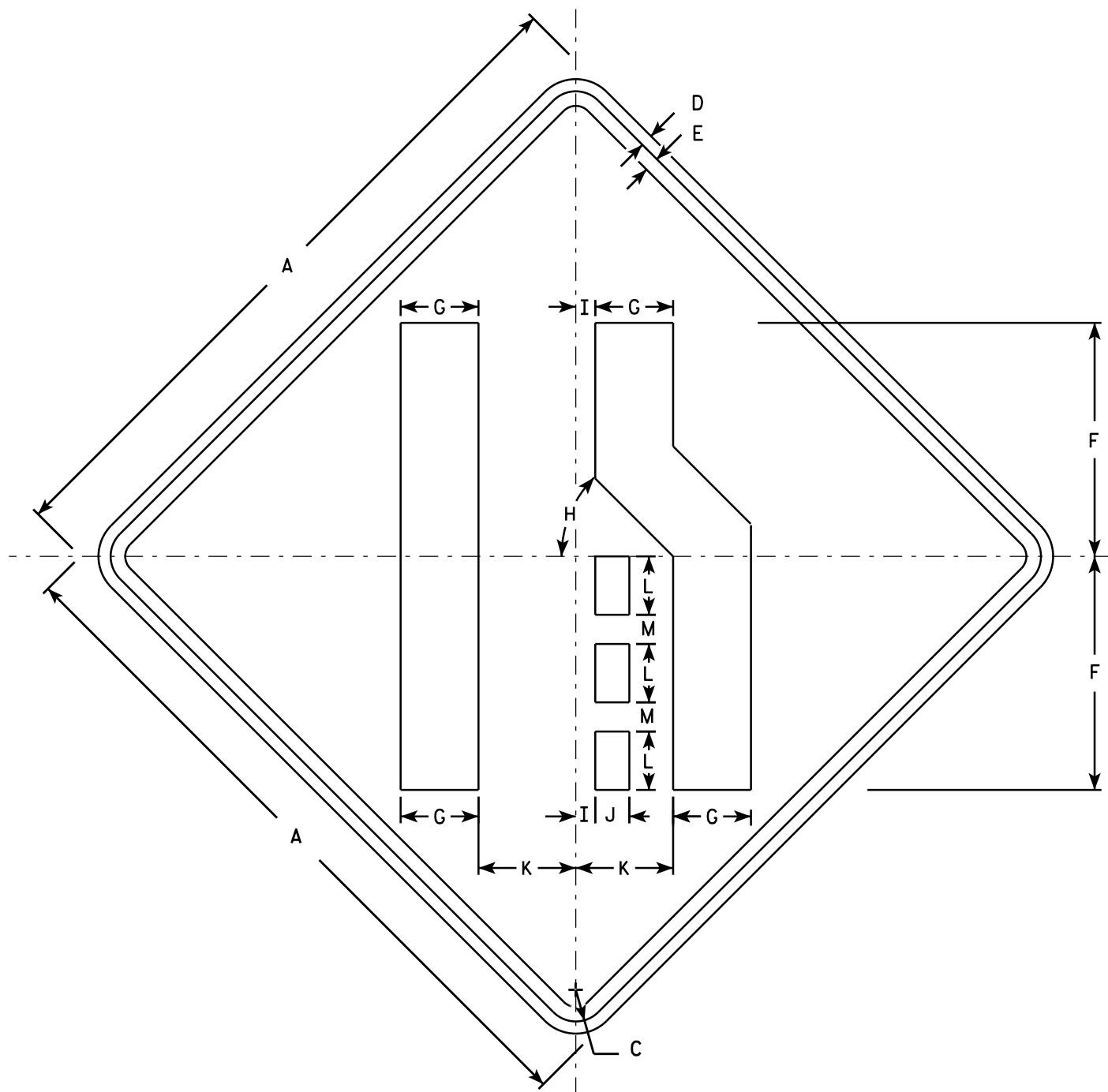
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/20/13 PLATE 85 W03-5.1

SHEET NO:

E



W04-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W04-2L is the same as W04-2R except the symbol is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
2M	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
3	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN

W04-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
For State Traffic Engineer

DATE 11/20/13

PLATE 86

104-2.1

SHEET NO:

E

SCALE = 6

8

8

DESIGN DATA

LIVE LOAD:
INVENTORY RATING: HS-17
OPERATIONAL RATING: HS-29
MAXIMUM STANDARD PERMIT VEHICLE LOAD: 140 KIPS

MATERIAL PROPERTIES:
CONCRETE MASONRY DECK PATCHING: $f'c = 4,000$ P.S.I.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.
DECK SURFACE PREPARATION IS INCLUDED IN THE BID ITEM "POLYMER OVERLAY".
AREAS OF "PREPARATIONS DECKS TYPE 1" SHALL BE DEFINED BY A SAW CUT.
PREPARATION DECKS TYPE 1 REPAIR AREAS ARE BASED ON THE PLANS AND AS DETERMINED BY THE ENGINEER. DECK PREPARATION REPAIRS SHALL BE FILLED WITH "CONCRETE MASONRY DECK PATCHING"



TRAFFIC VOLUME

IH 43 SB
A.D.T. = 29,100 (2028)
R.D.S. = 70 M.P.H.
CTH EE
A.D.T. = 8,300 (2025)
R.D.S. = 40 M.P.H.

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
509.0301	PREPARATION DECKS TYPE 1	SY	5
☆ 509.1500	CONCRETE SURFACE REPAIR	SF	18
509.5100.S	POLYMER OVERLAY	SY	433
SPV.0035	CONCRETE MASONRY DECK REPAIR	CY	1
SPV.0090	SAWING PAVEMENT DECK PREPARATION AREAS	LF	142

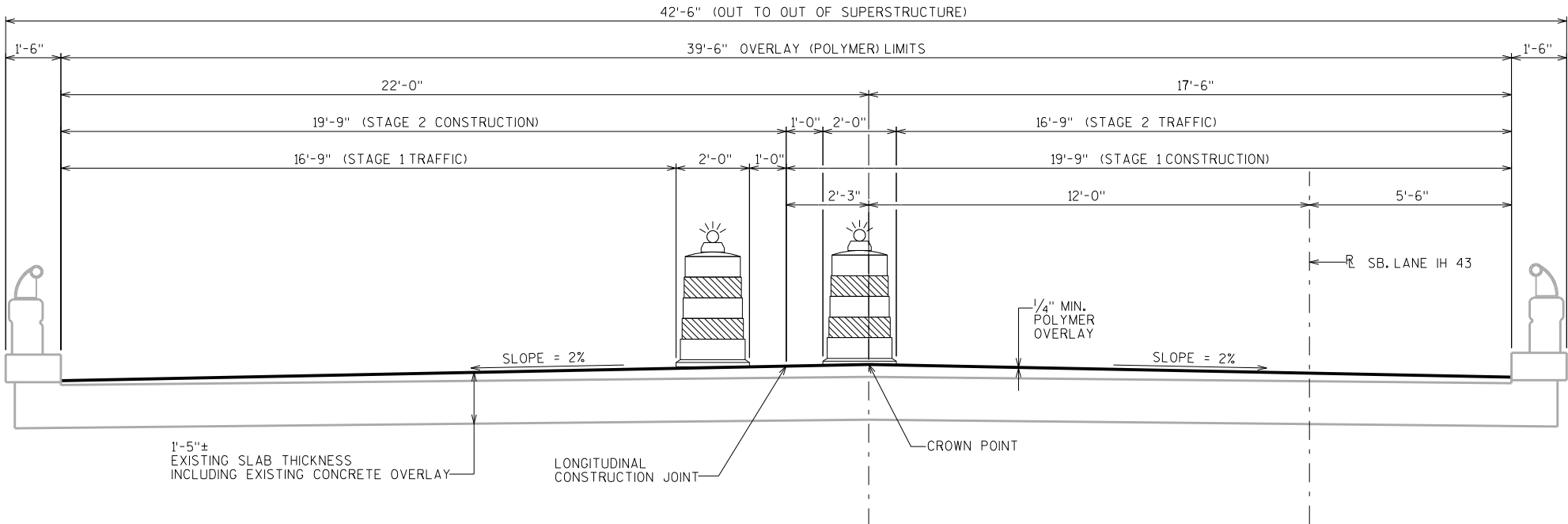
☆ REPAIR WORK SHALL BE DONE AT UNDERSIDE OF BRIDGE SLAB AS DIRECTED BY FIELD ENGINEER.

STRUCTURES DESIGN CONTACTS:
AARON BONK (608) 261-0261

NO.	DATE	REVISION	BY
 Plans Prepared By WISDOT BUREAU OF STRUCTURES ACCEPTED <i>William C. Dierker</i> 7/25/17 CHIEF STRUCTURES DESIGN ENGINEER DATE			
STRUCTURE B-59-51			
IH 43 SOUTHBOUND LANES OVER CTH EE			
COUNTY	SHEBOYGAN	TOWN	WILSON
DESIGN SPEC.	REHABILITATION	N/A	
DESIGNED BY	DESIGN RATINGS	DESIGN CK'D.	DRAWN AMB BY JPH PLANS CK'D. AMB
POLYMER OVERLAY			SHEET 1 OF 1
			88

LIST OF DRAWINGS

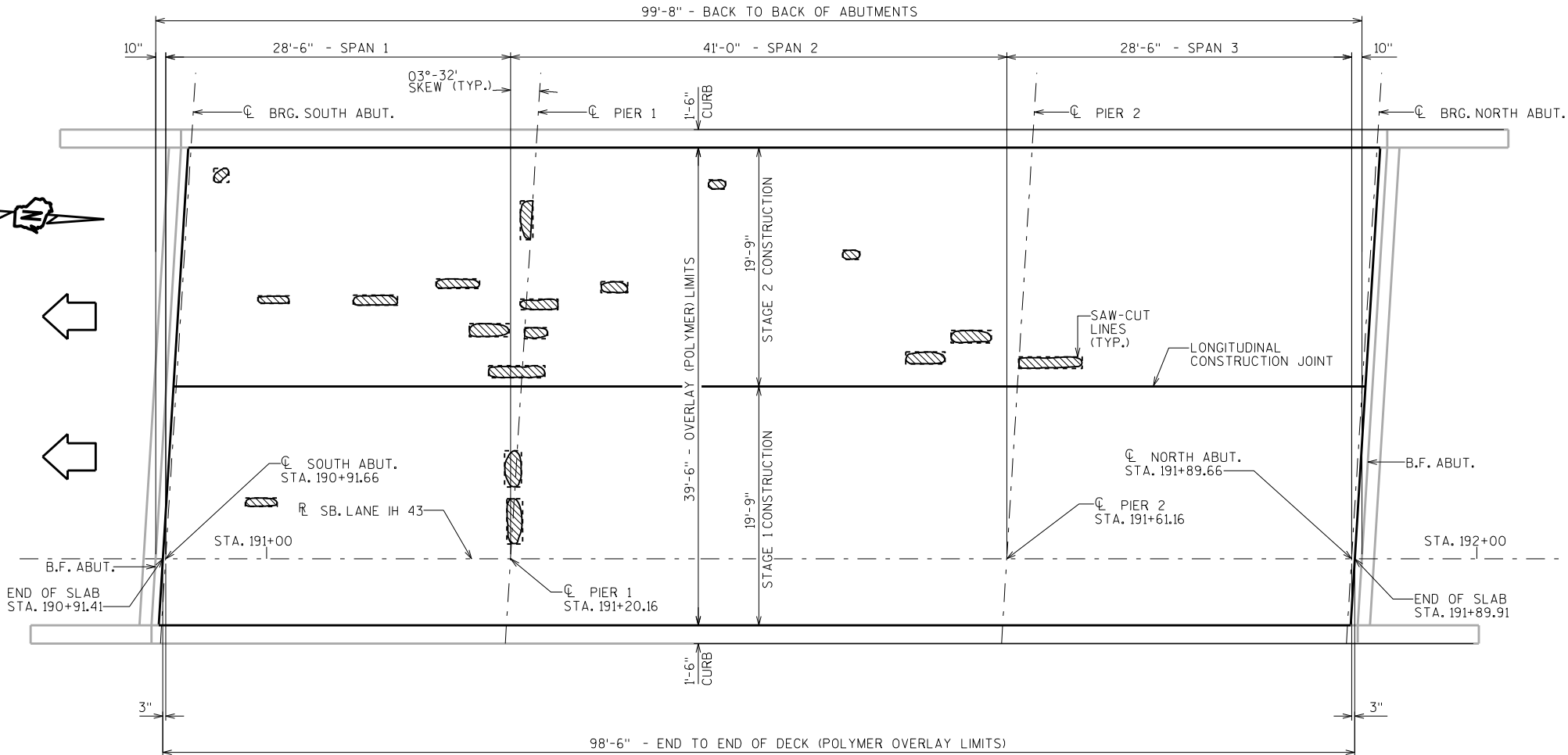
1. POLYMER OVERLAY



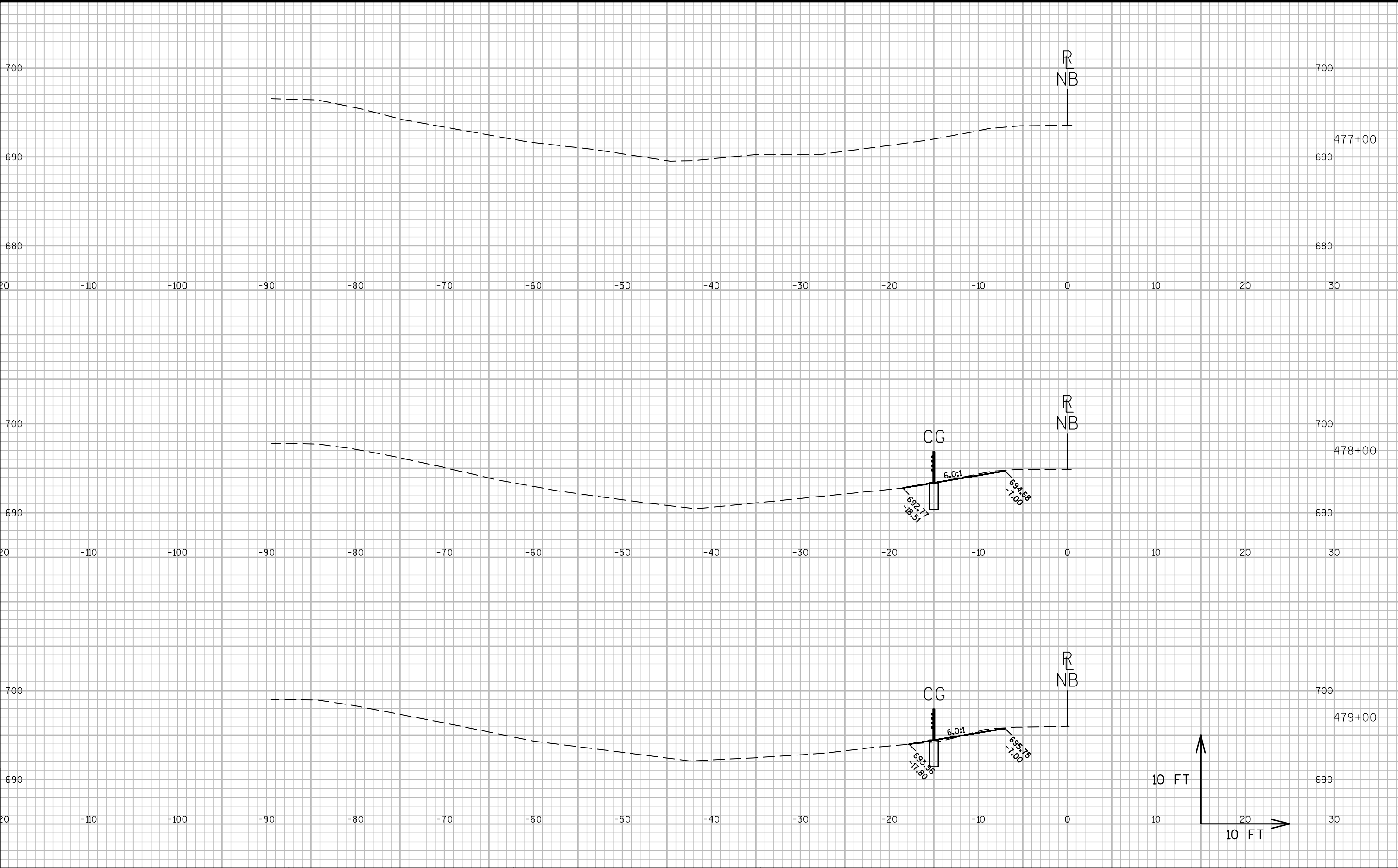
CROSS SECTION THRU BRIDGE LOOKING NORTH

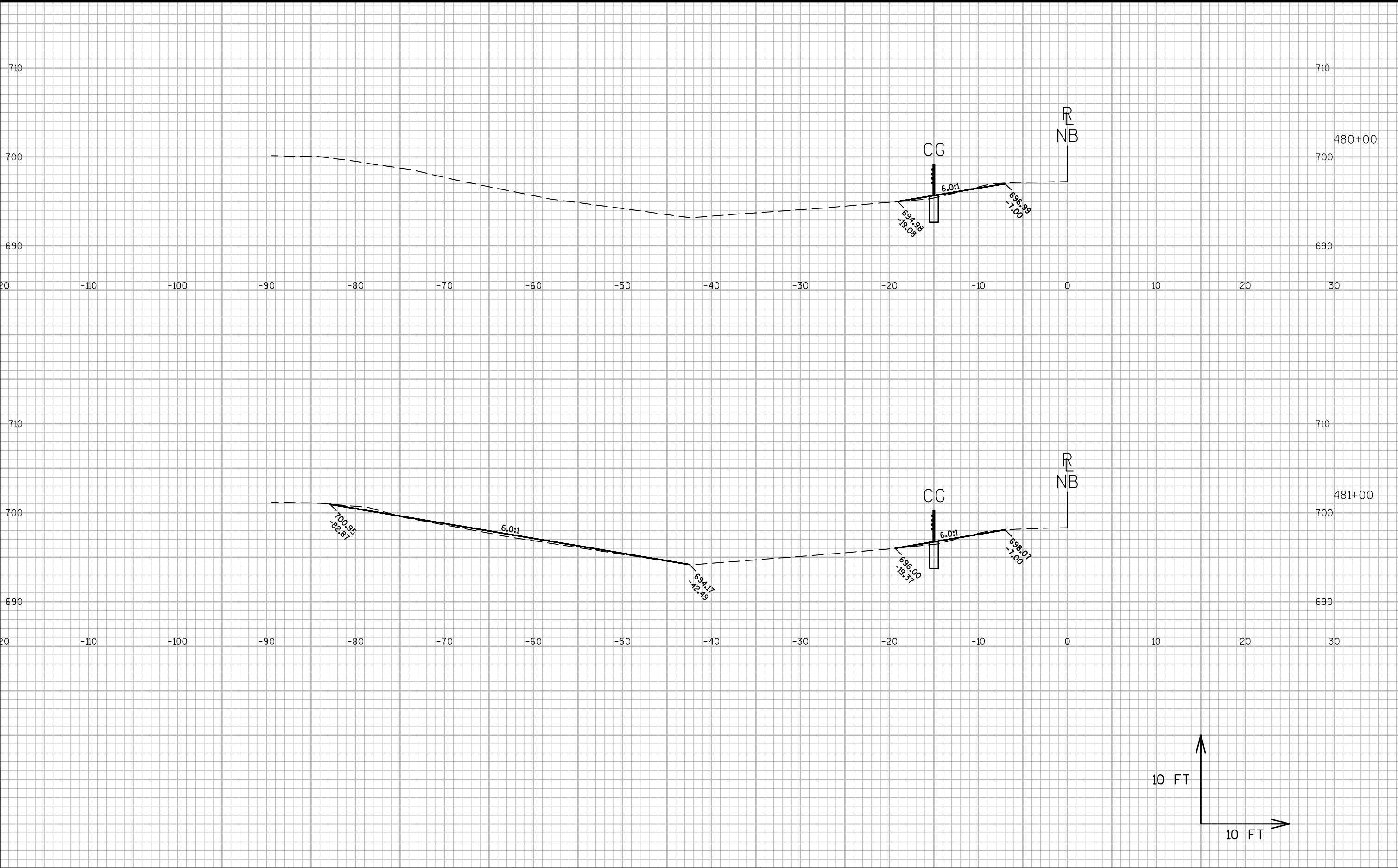
SURVEY TYPE: INFRARED
SURVEY COMPLETED DATE: 5/06/16

- DELAMINATION AREAS
- ESTIMATED DECK PREPARATION TYPE 1 AREAS



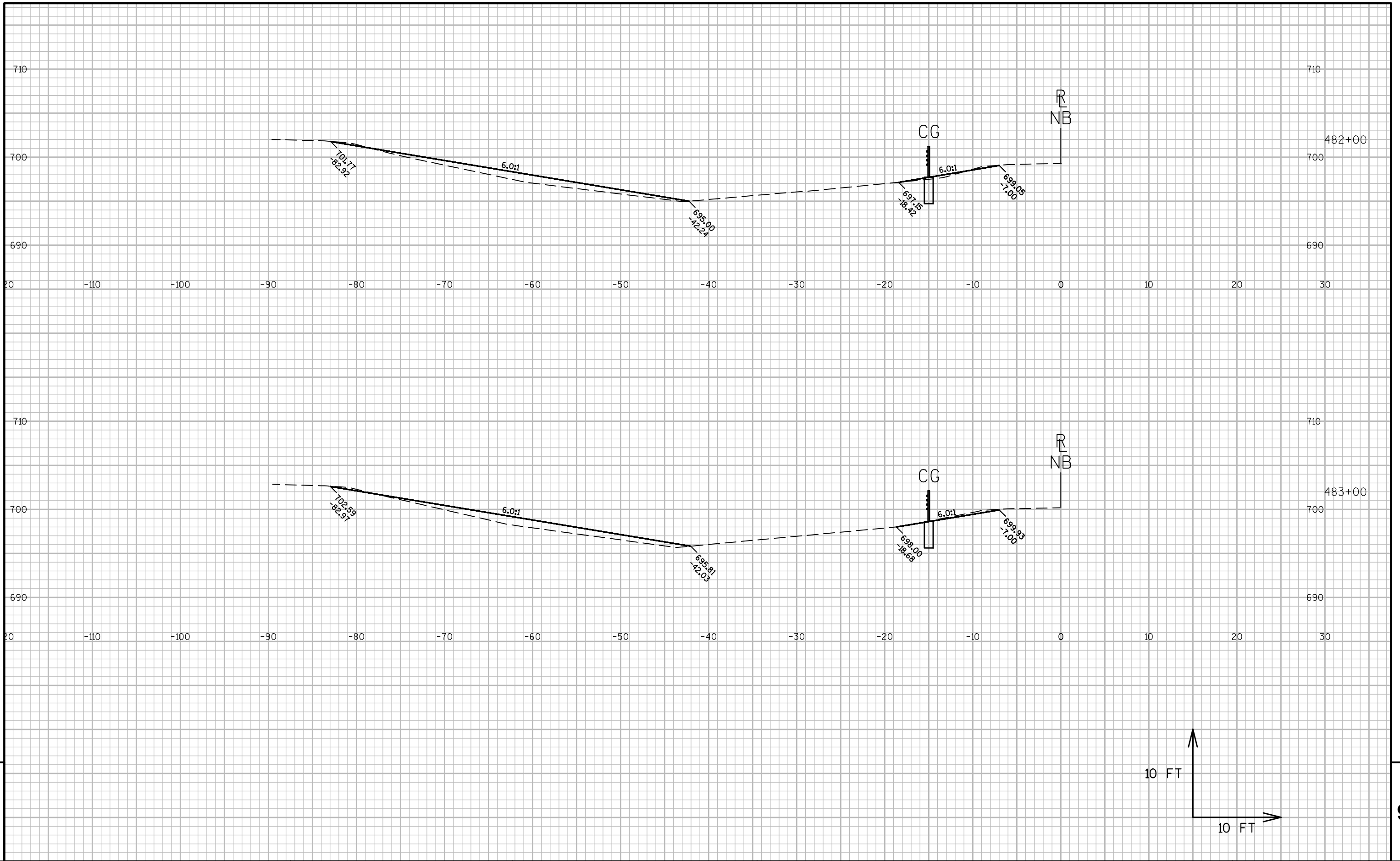
PLAN

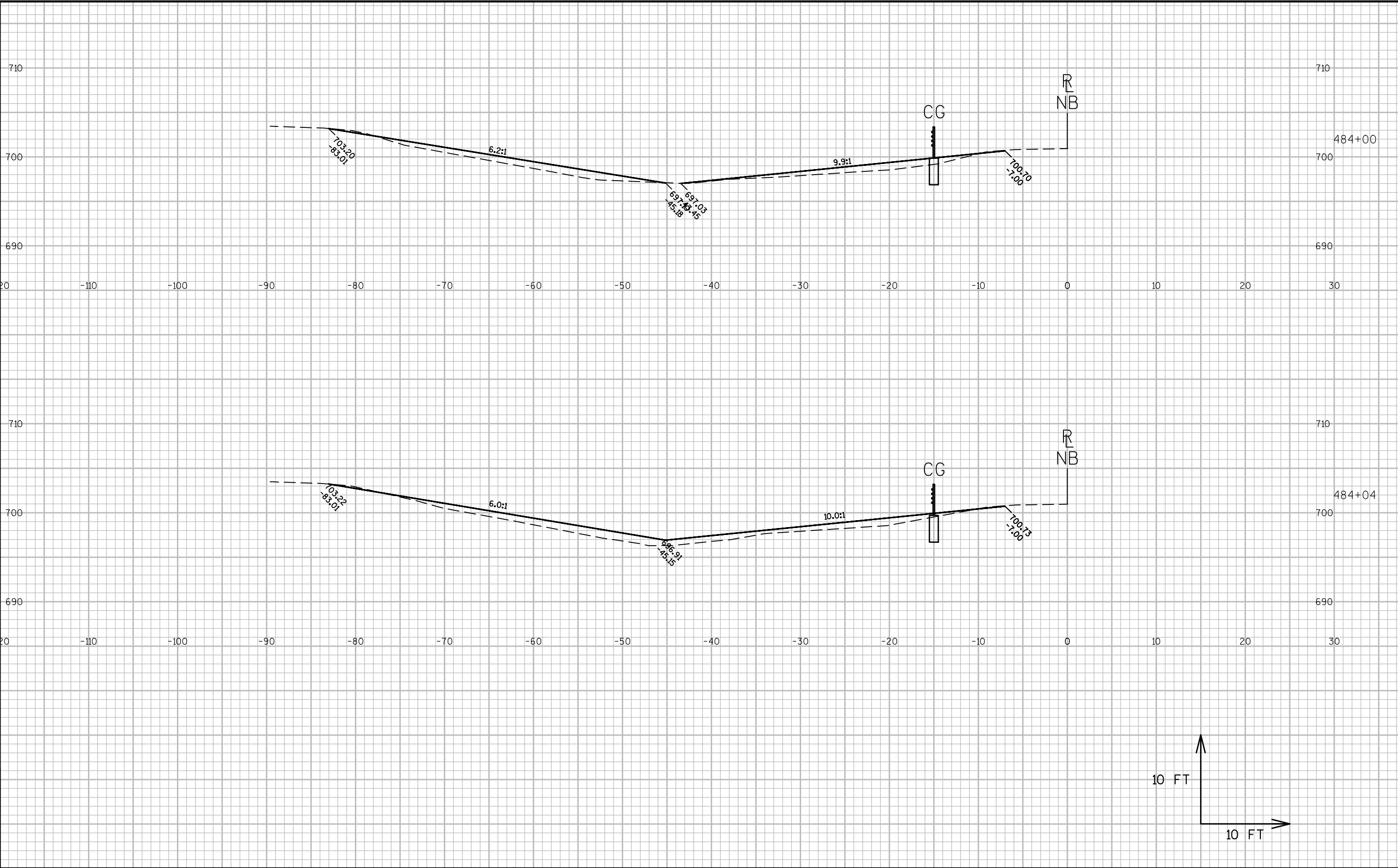




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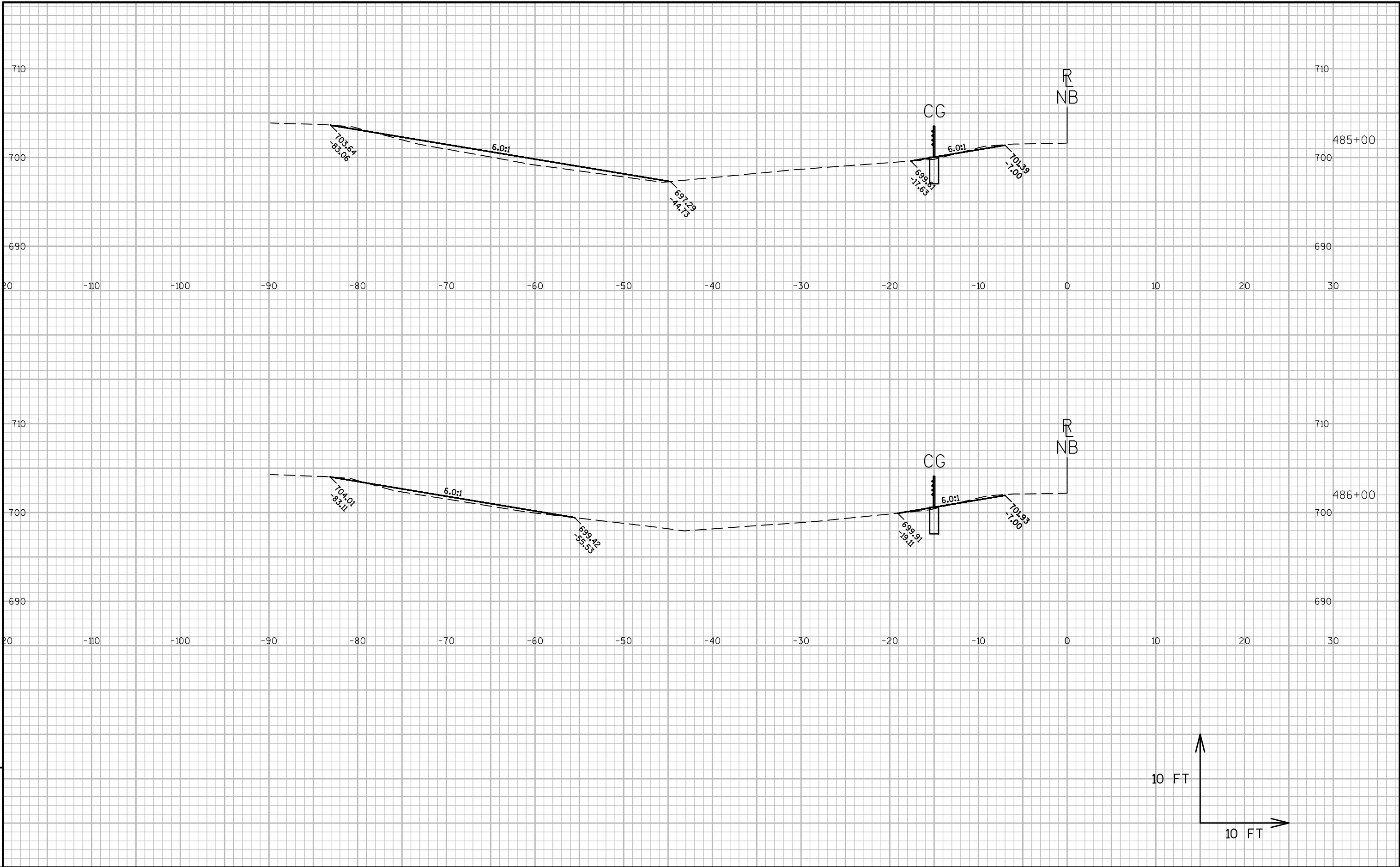
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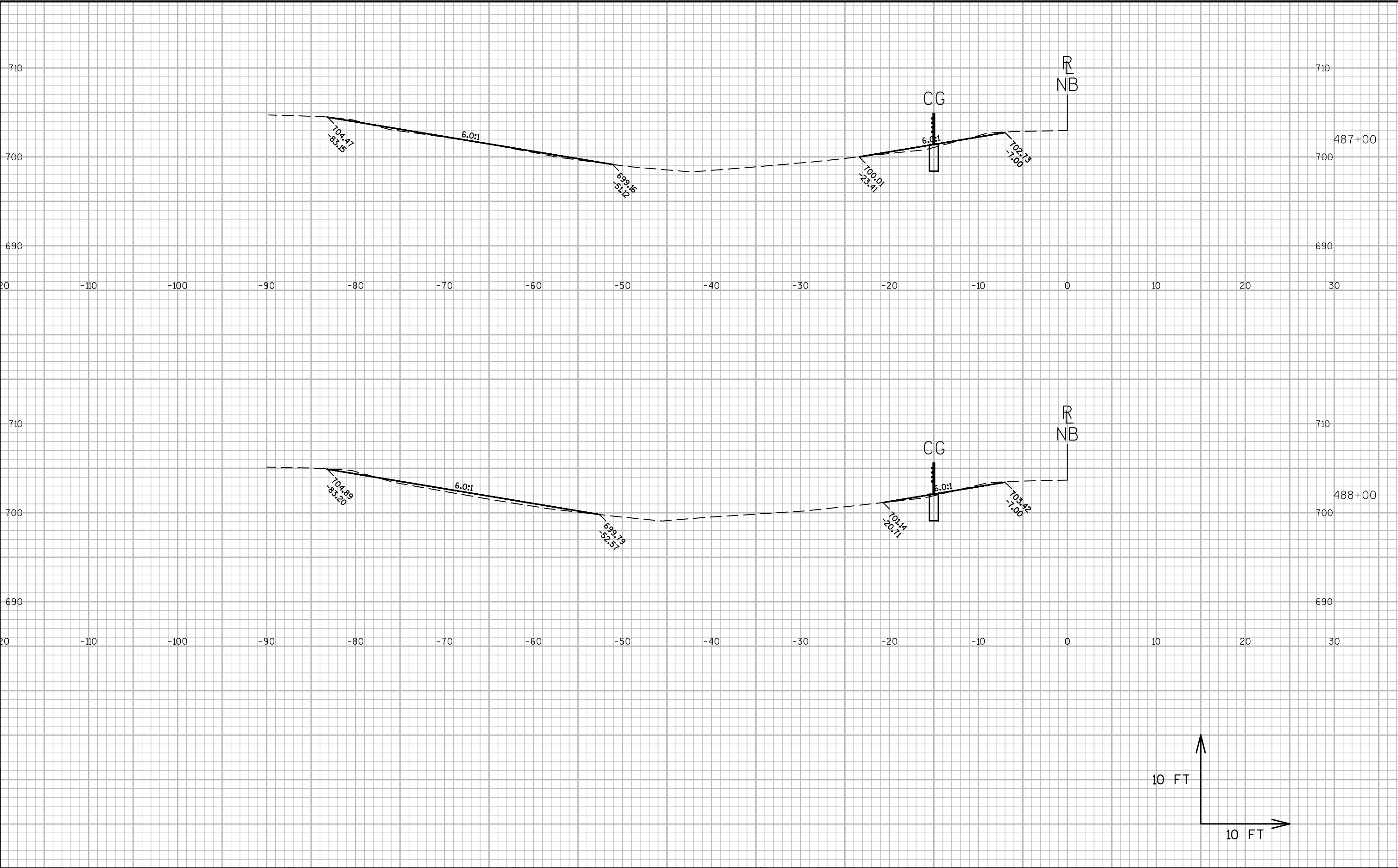
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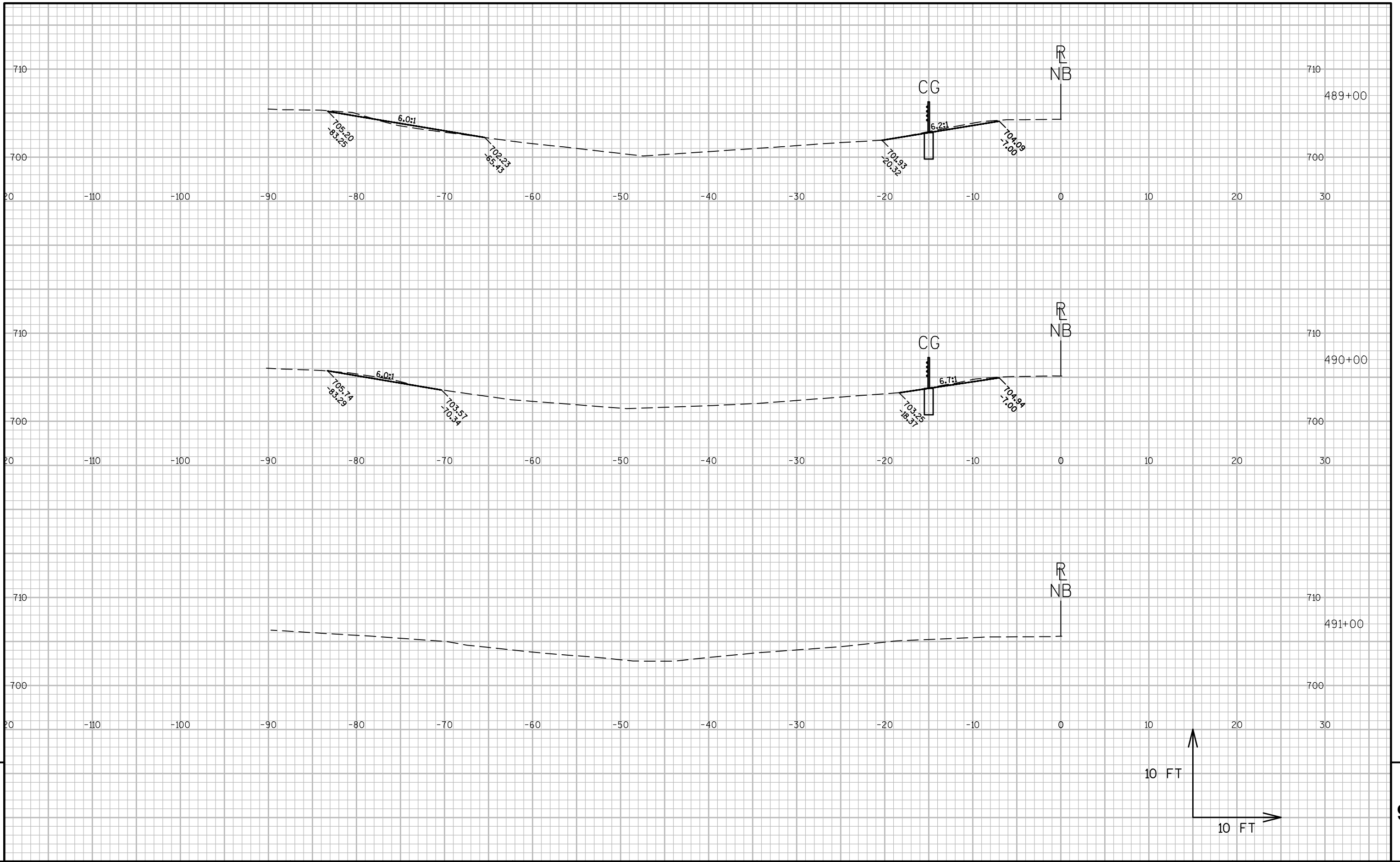
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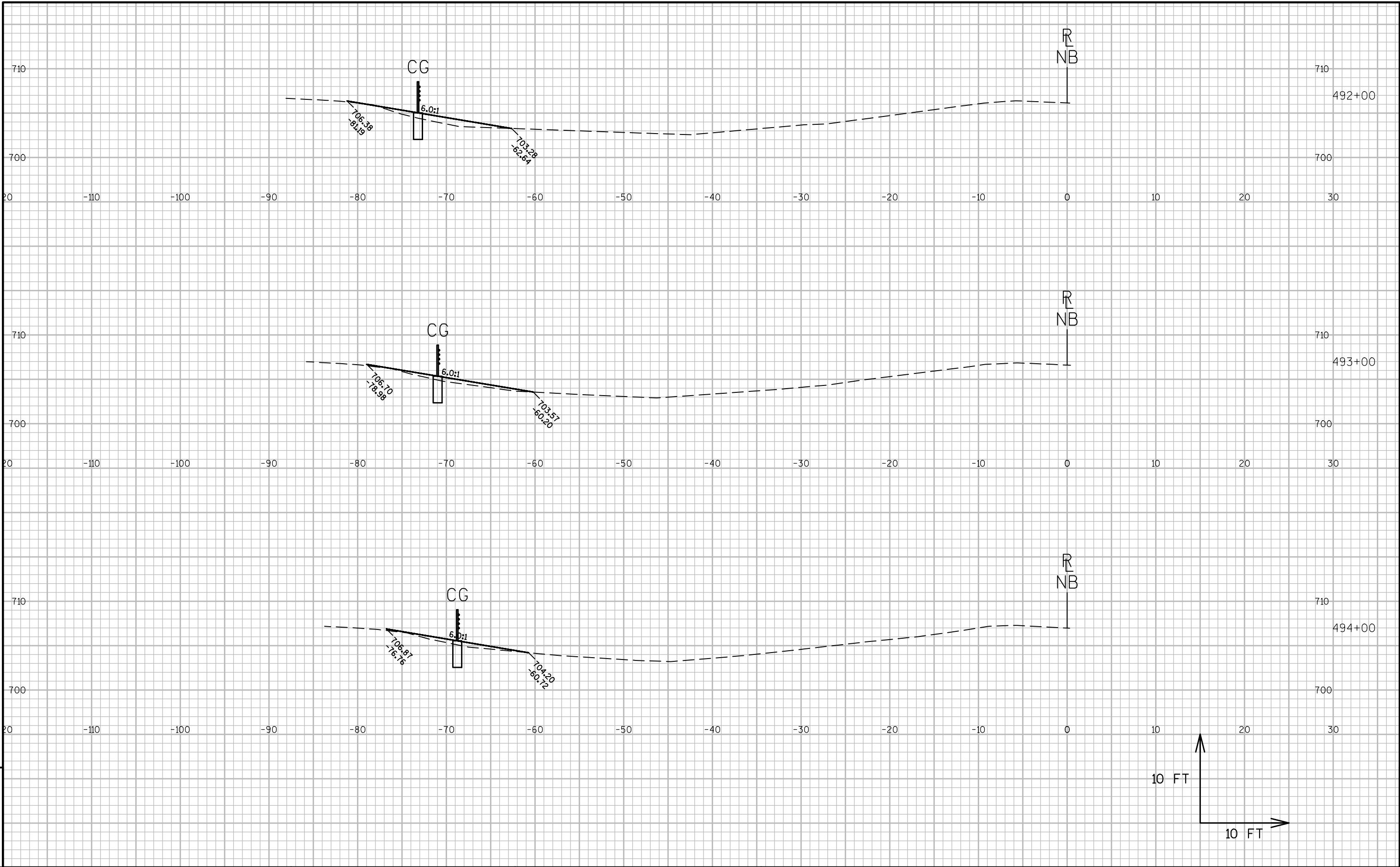
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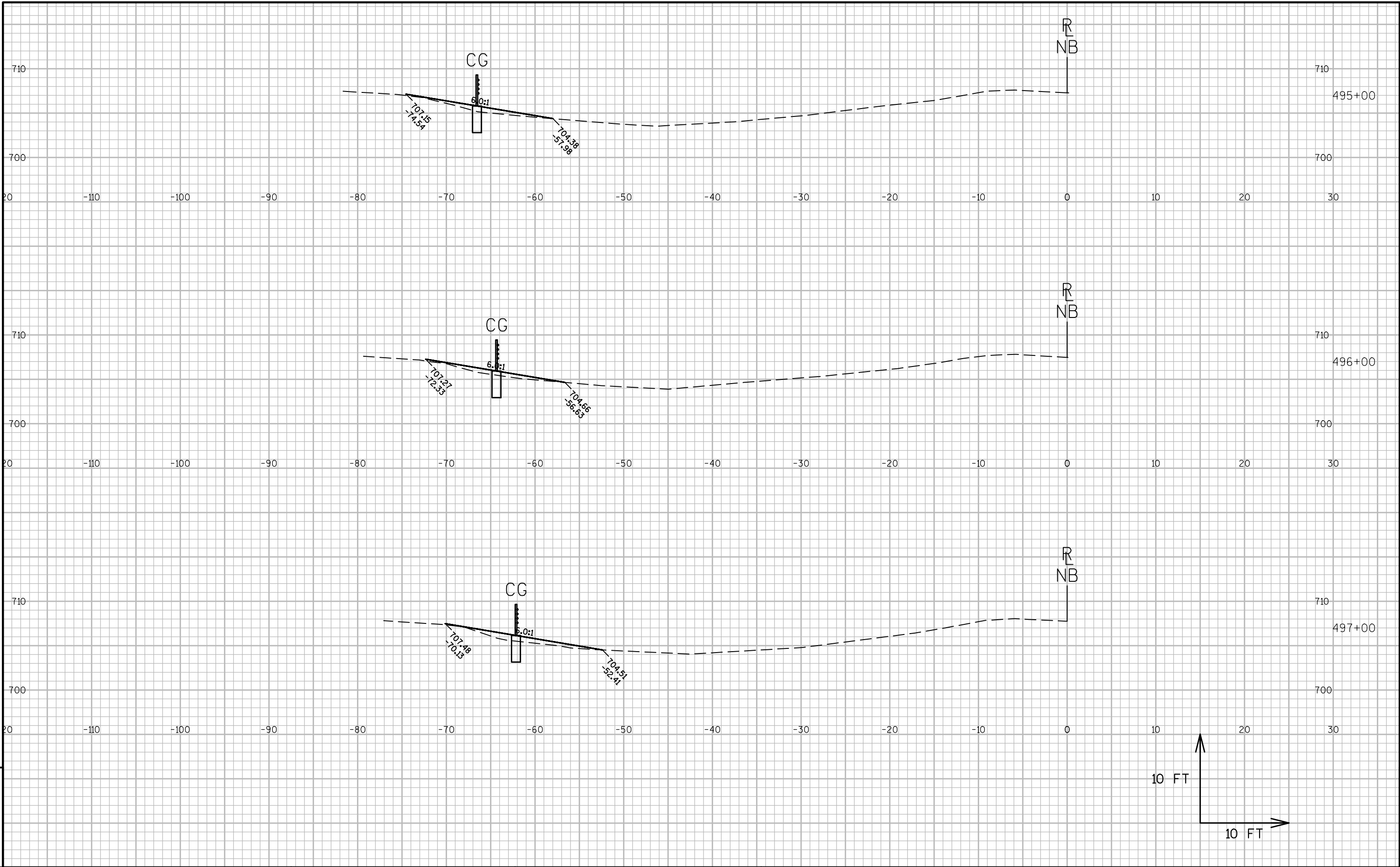


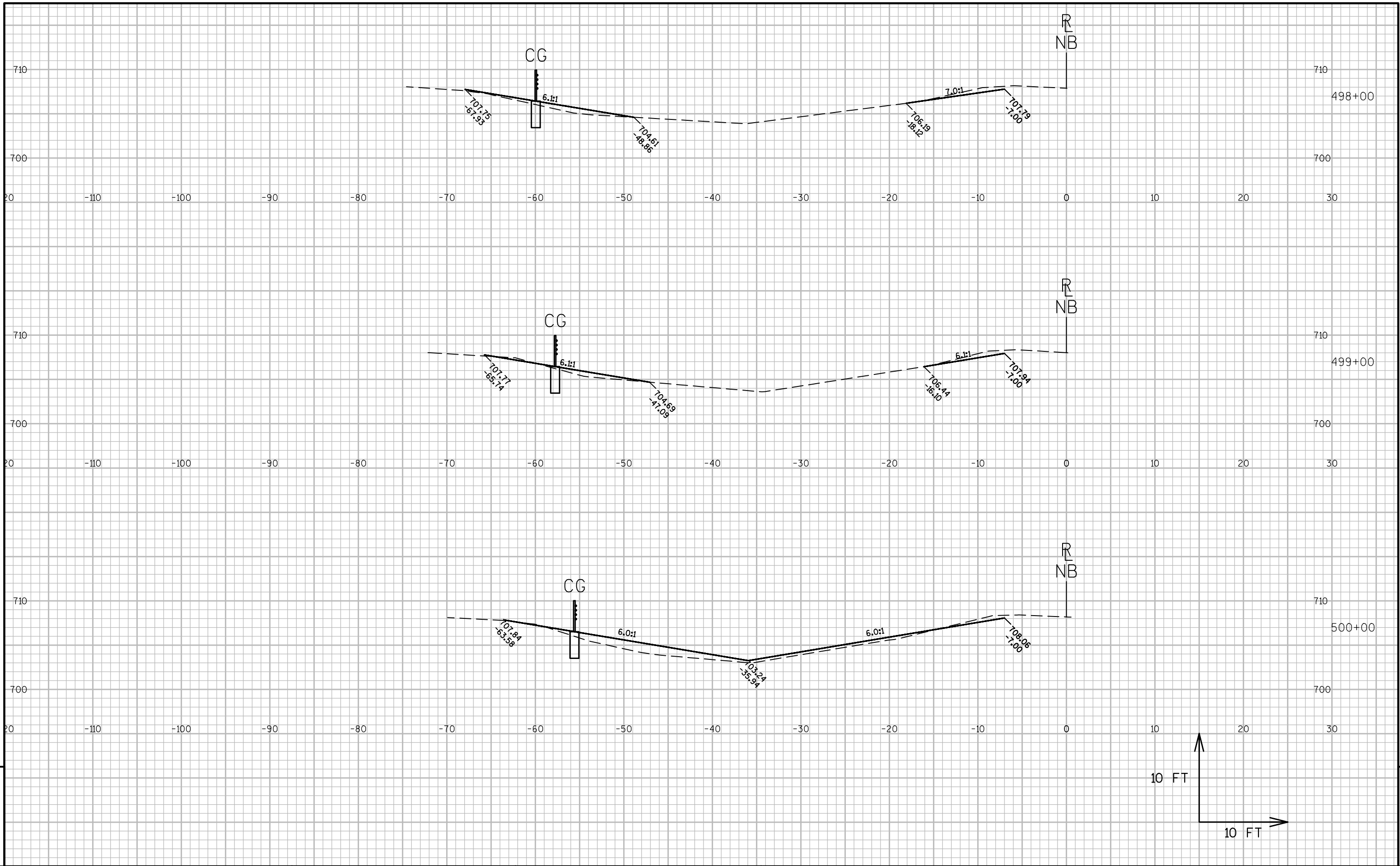
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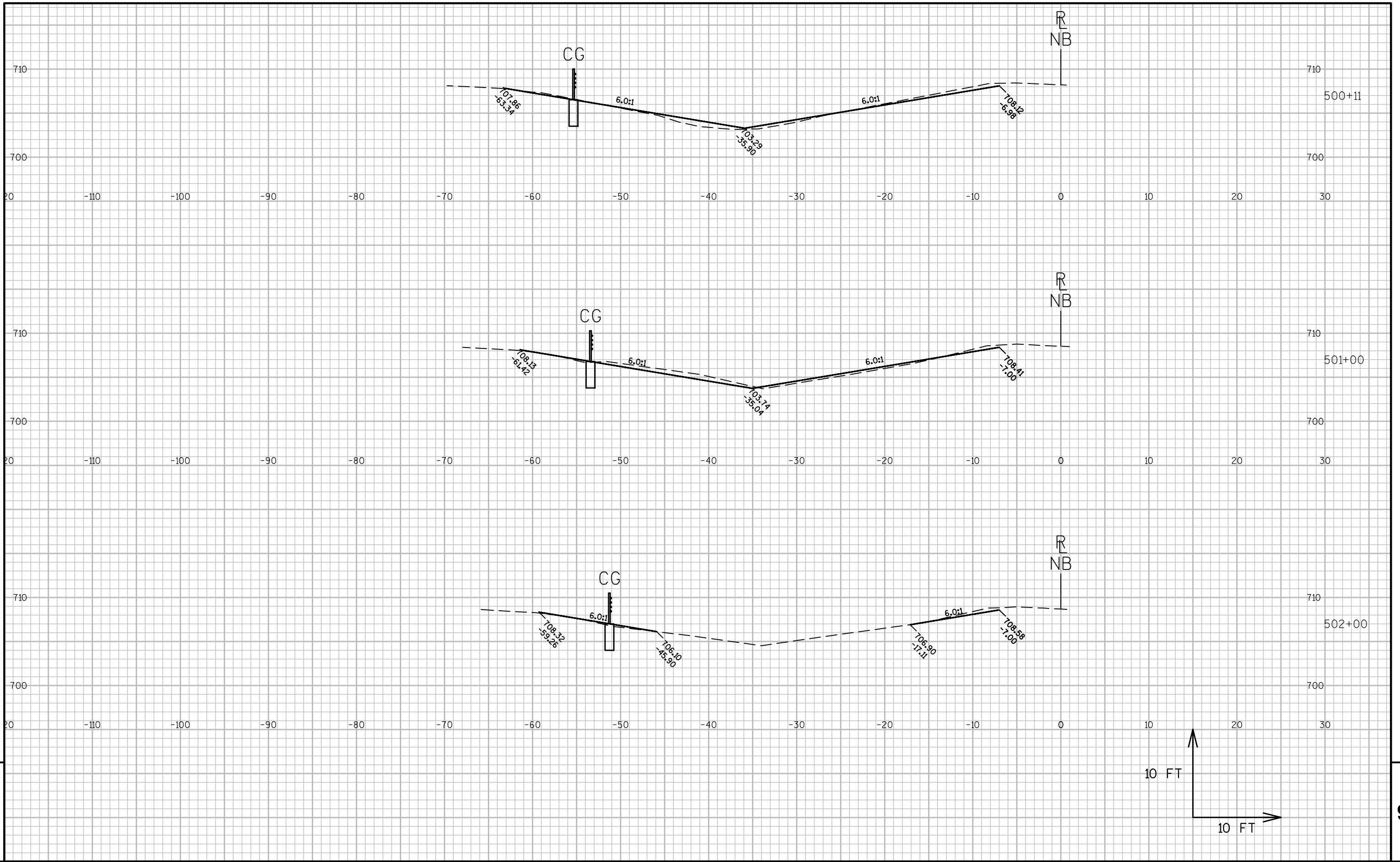
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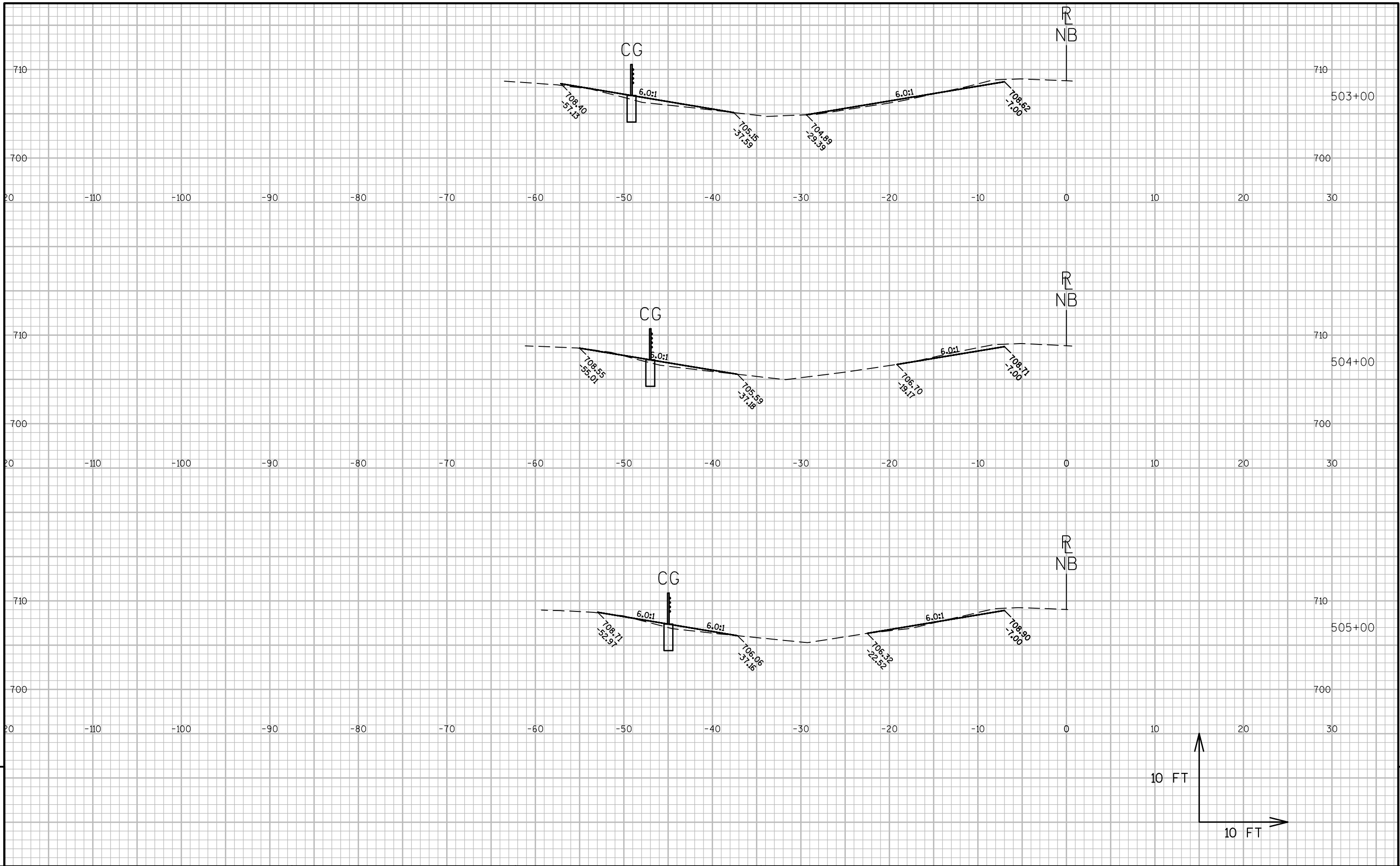


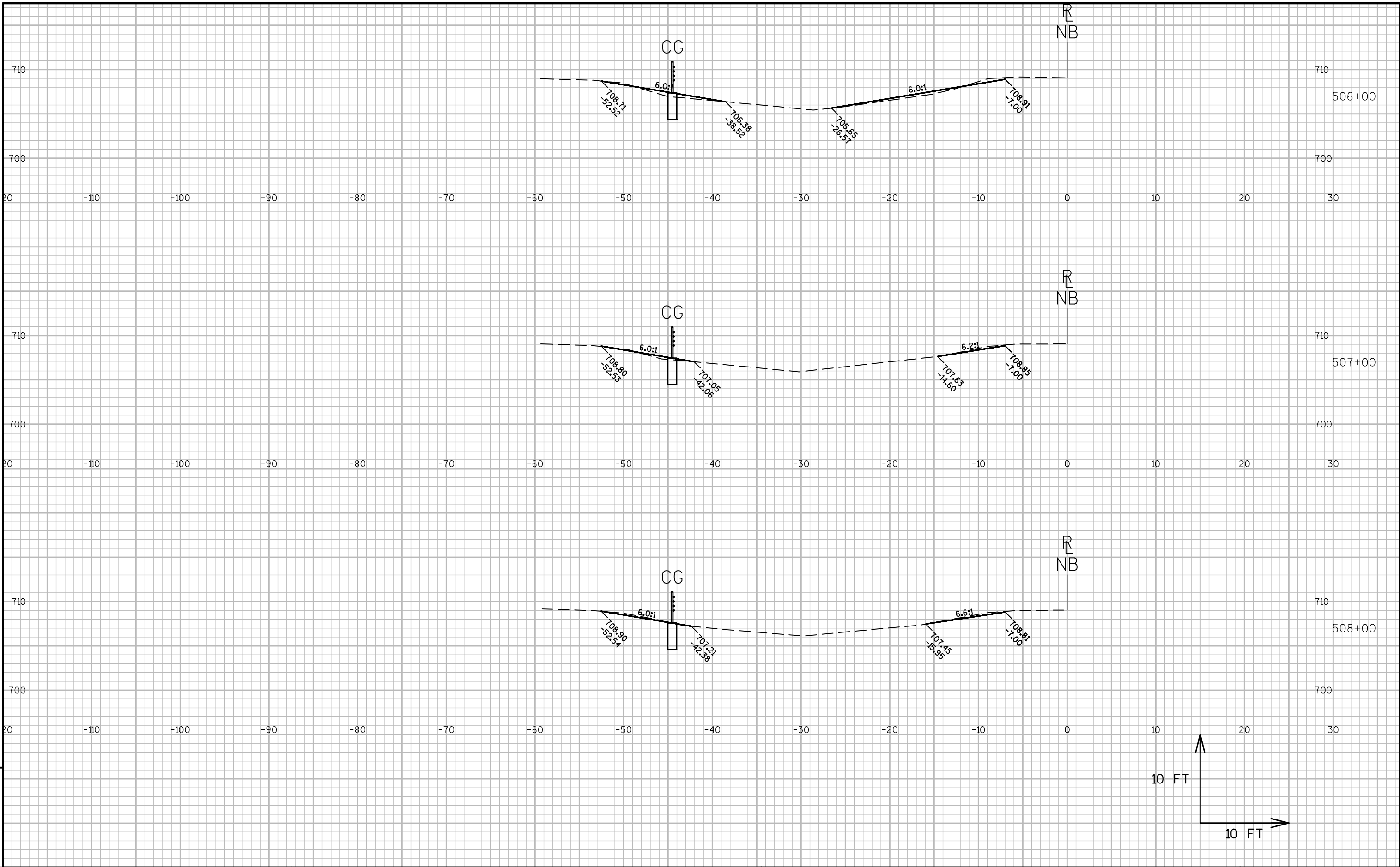


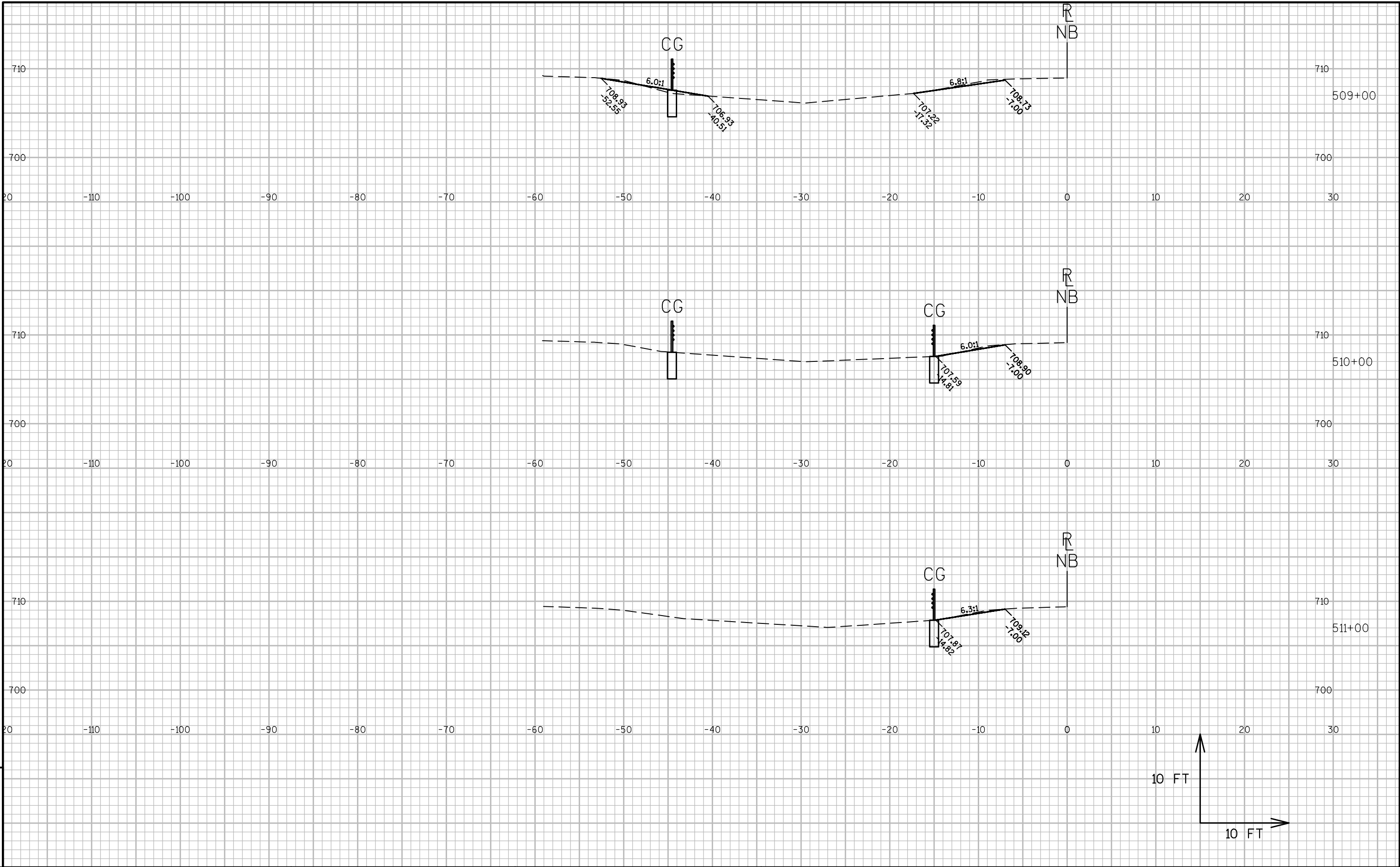


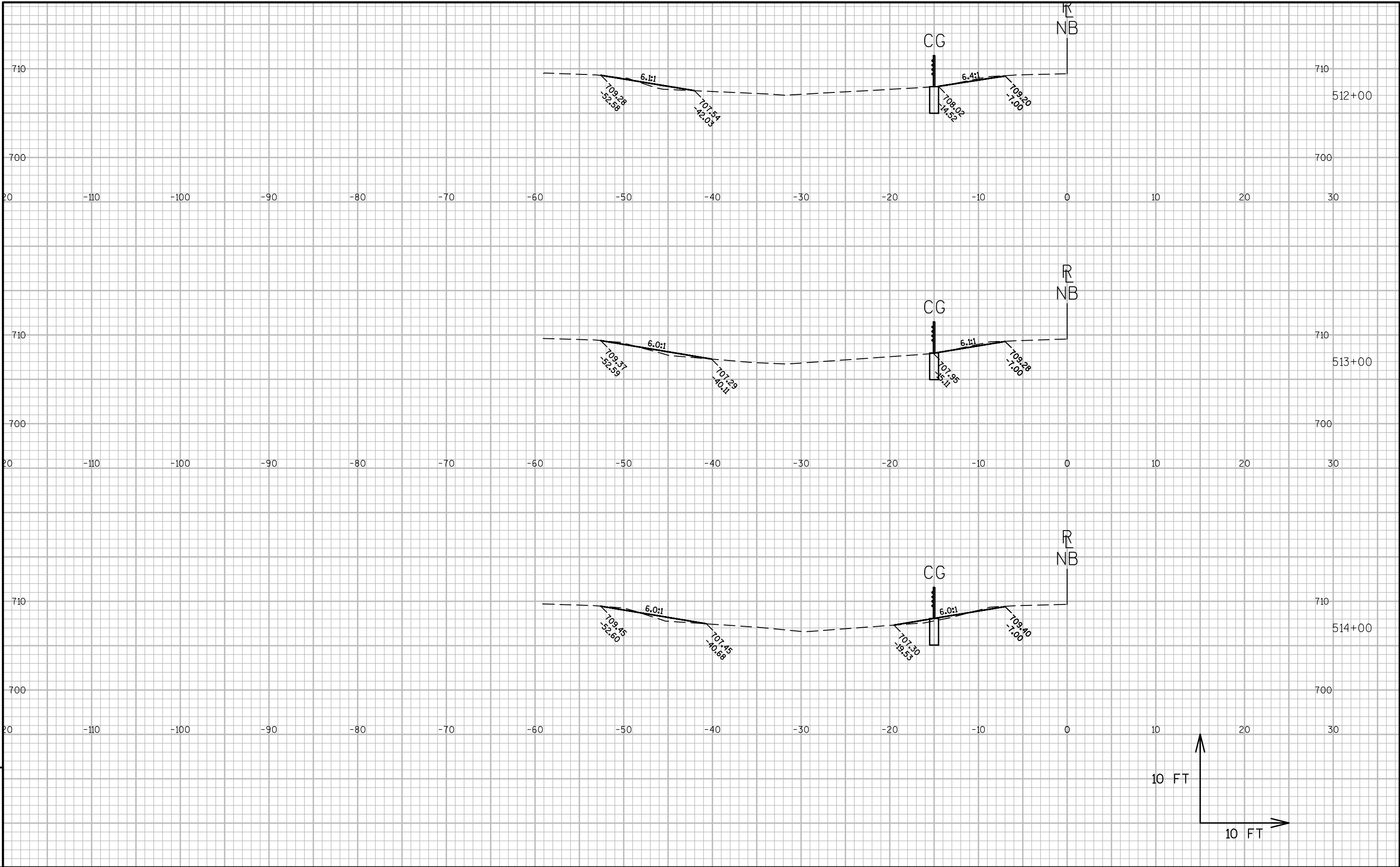


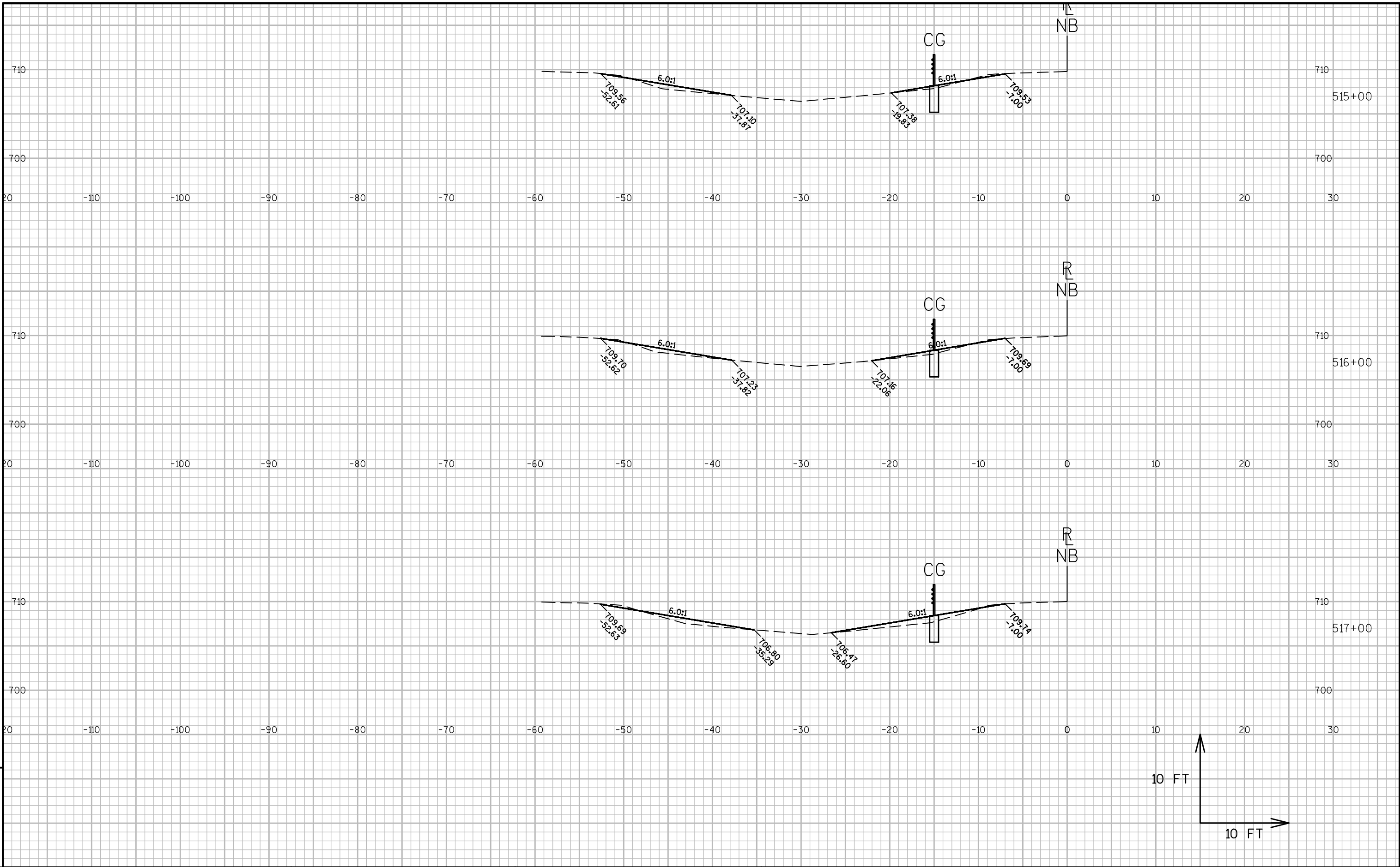


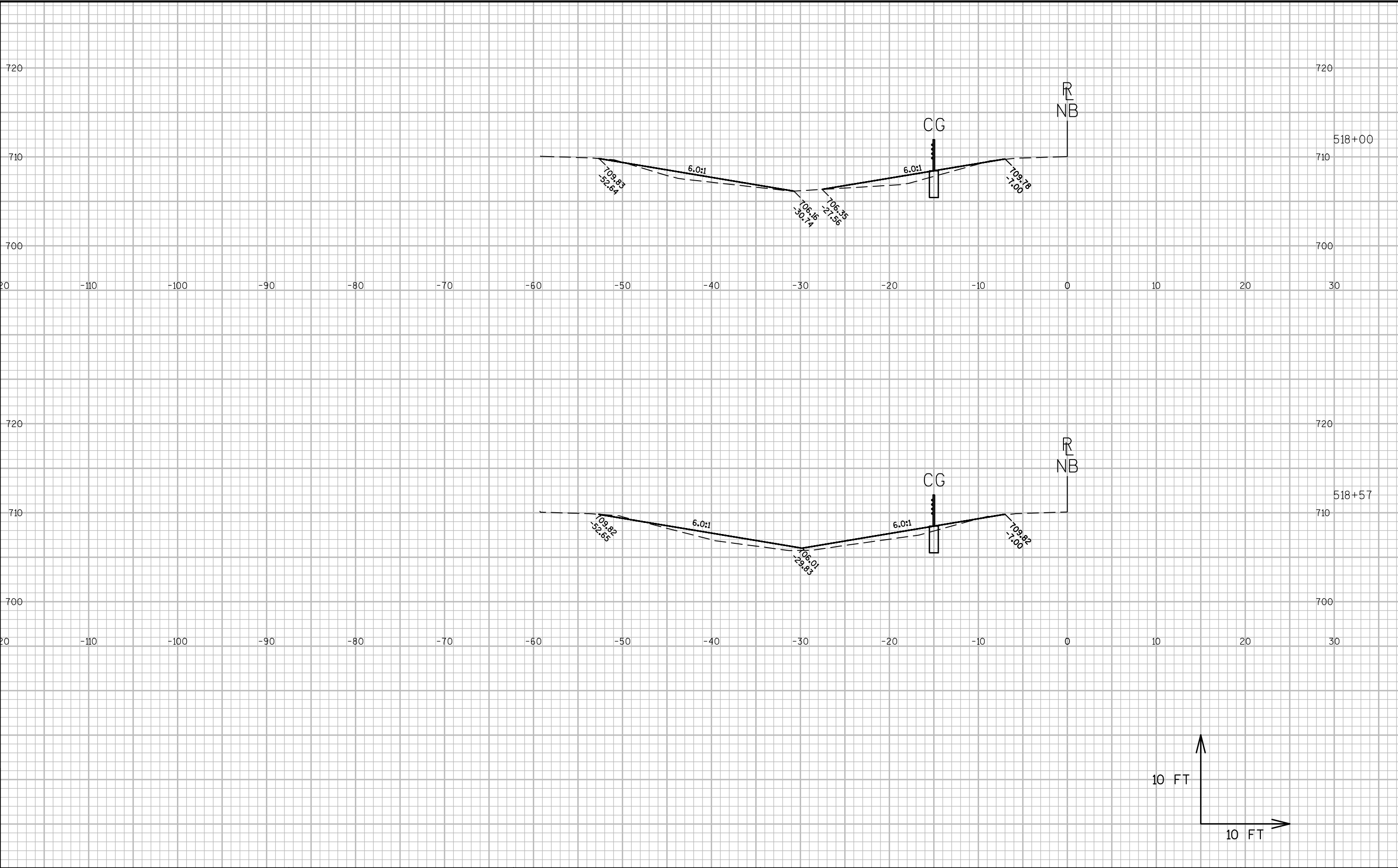






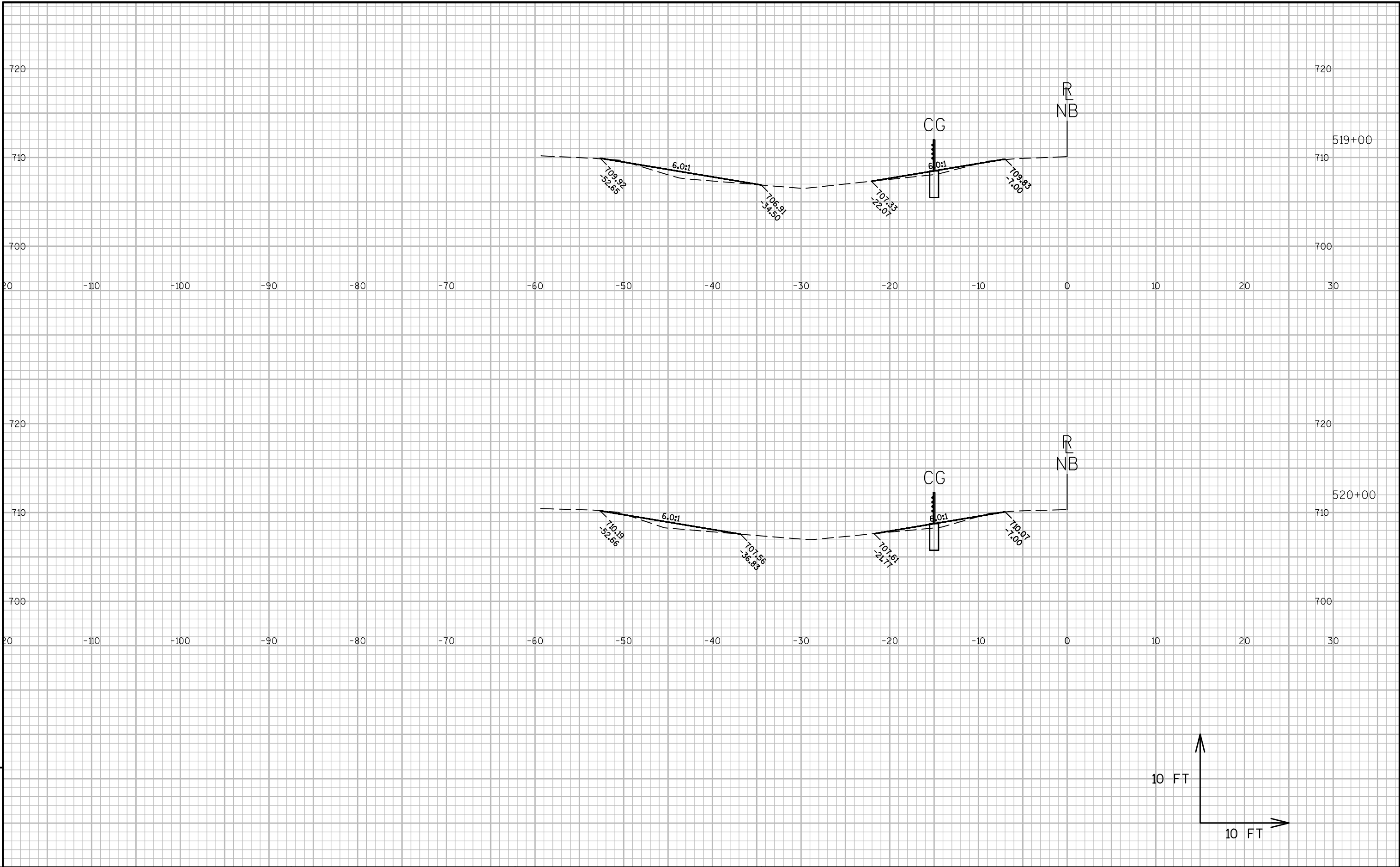


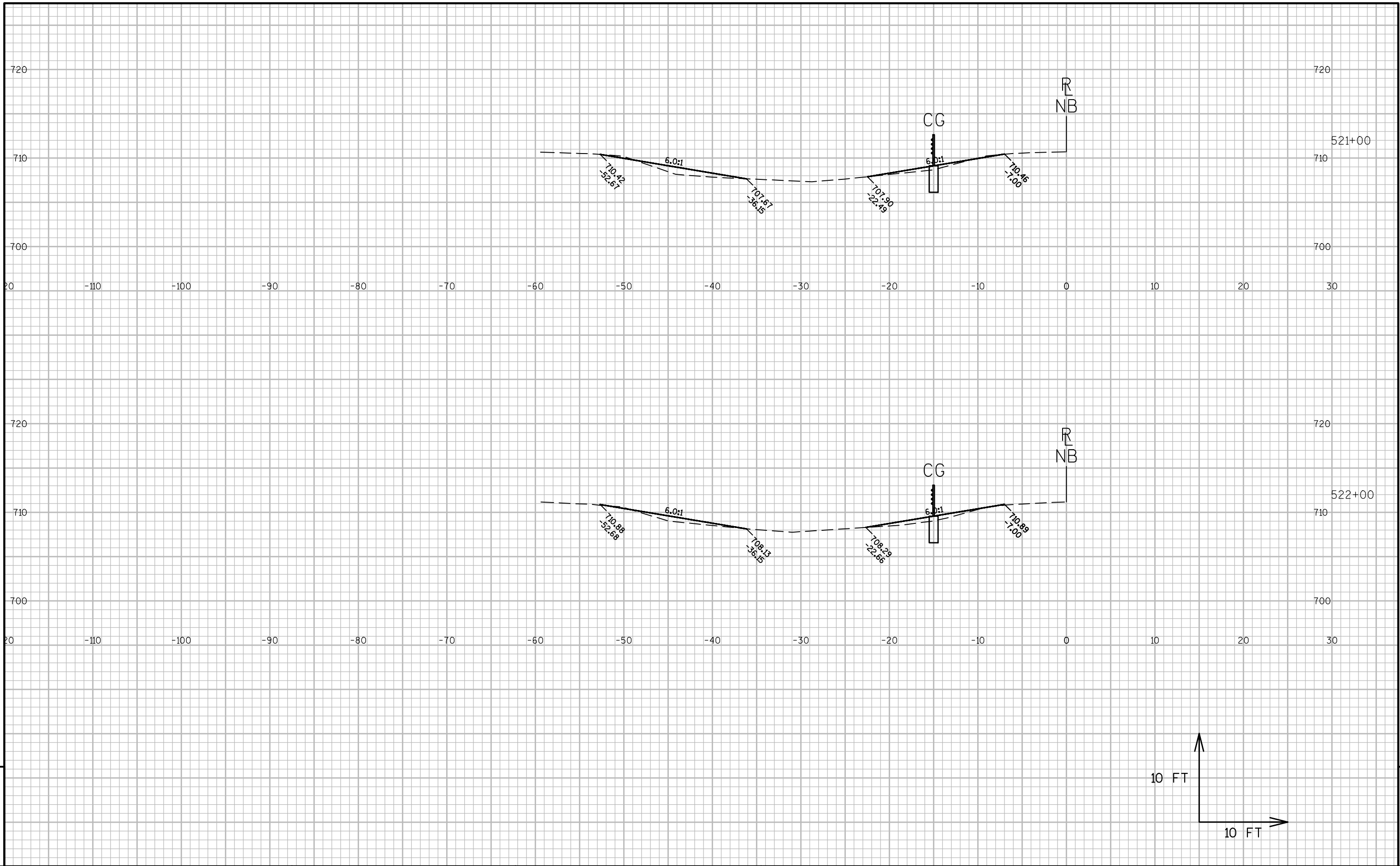


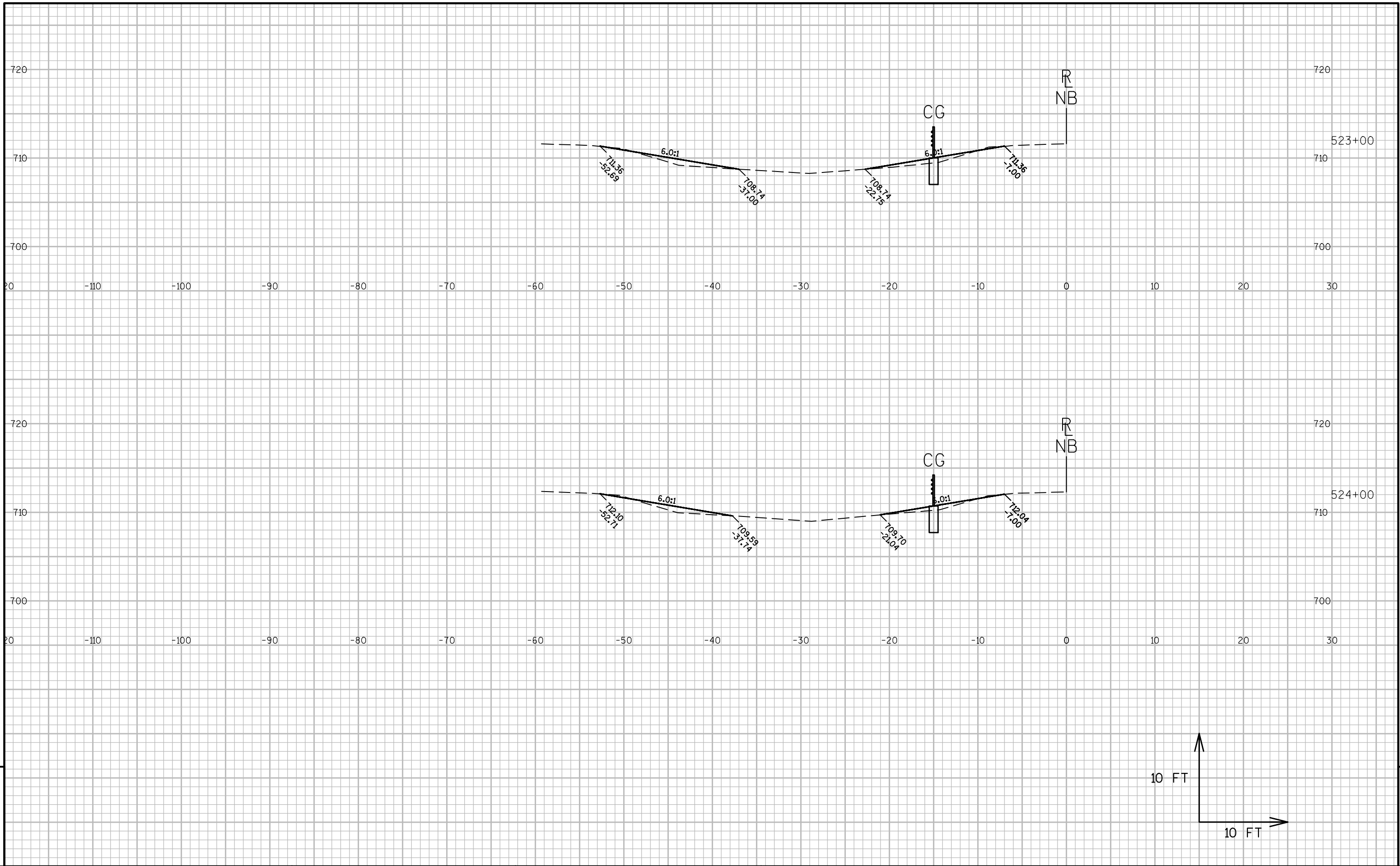


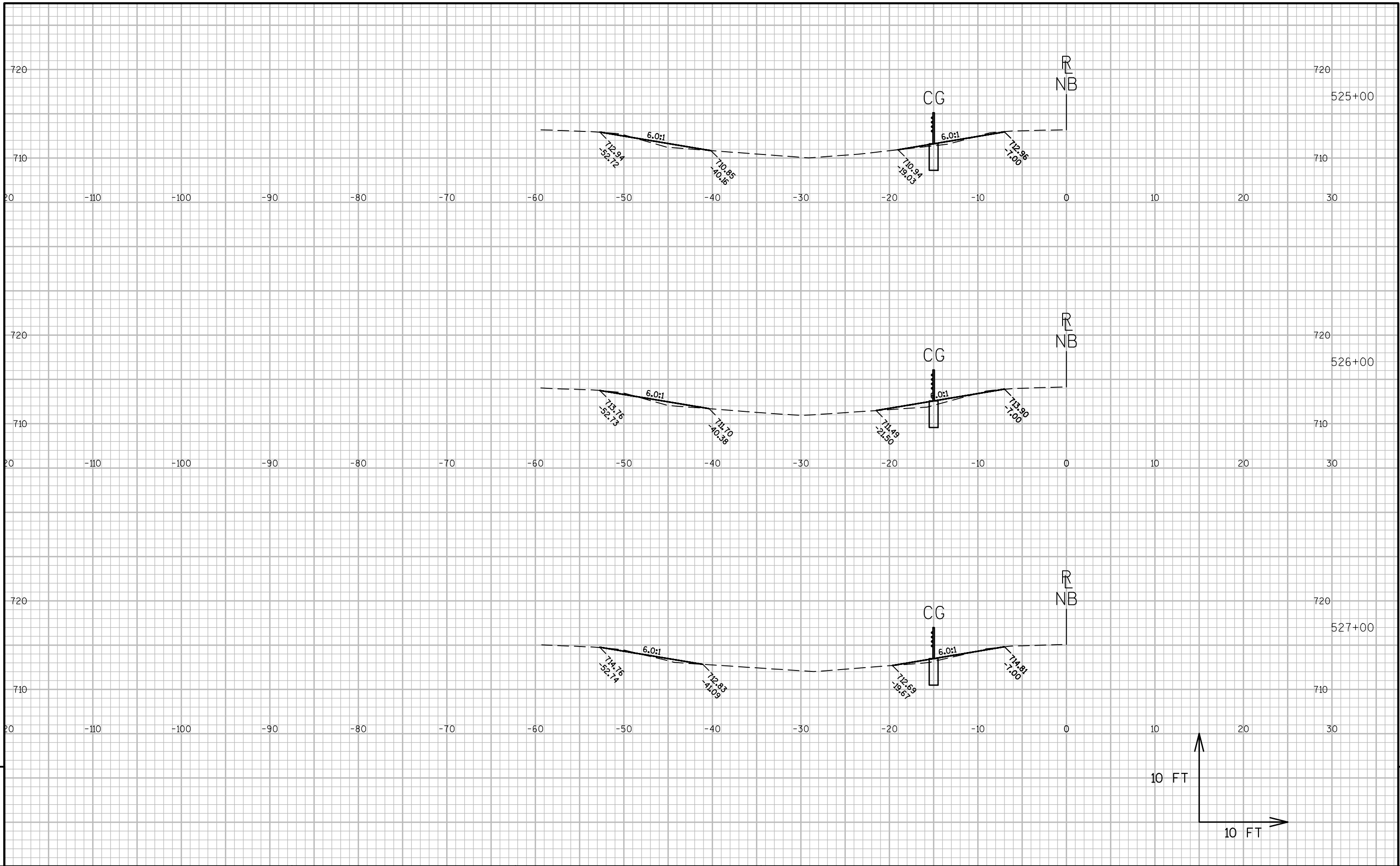
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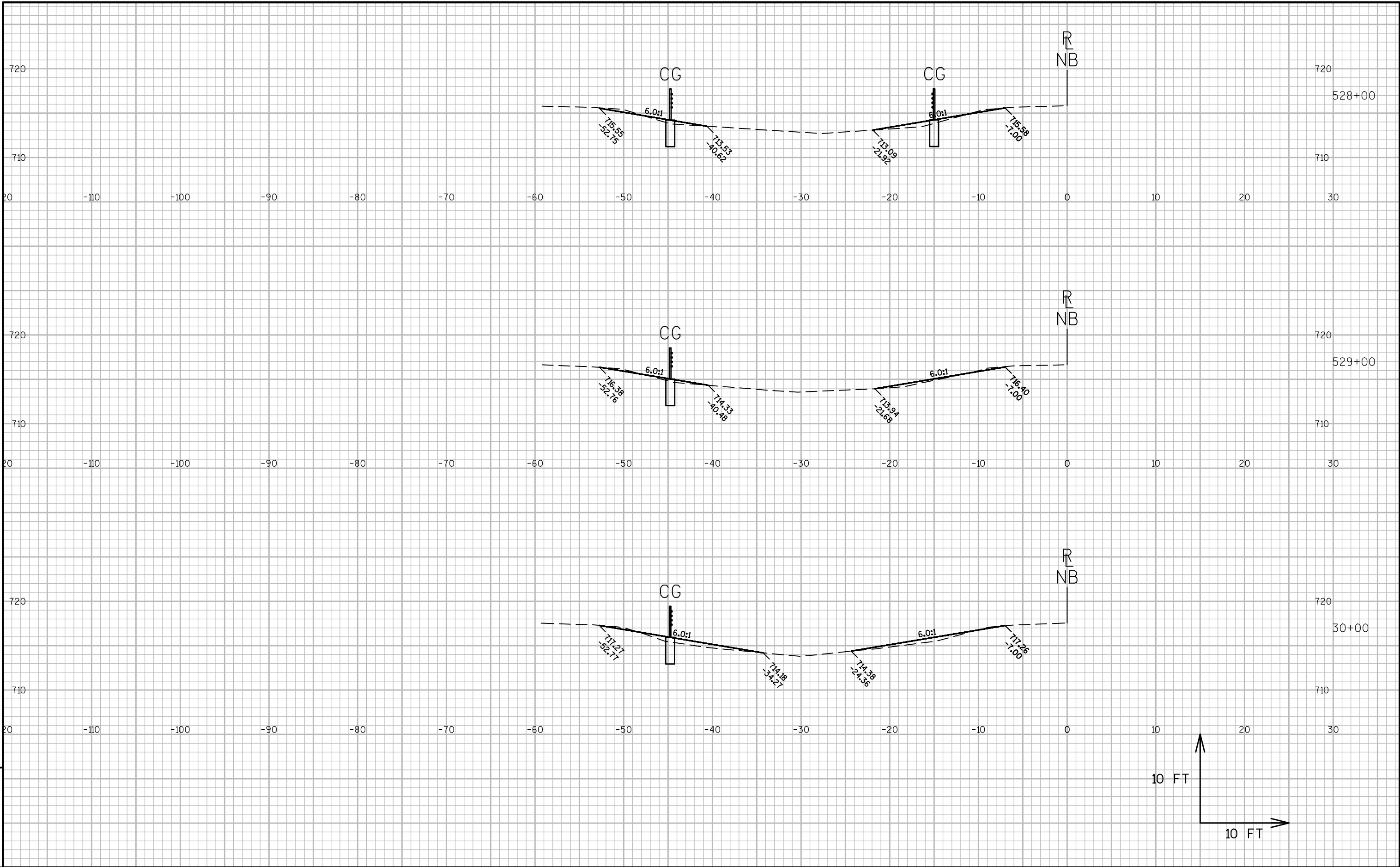
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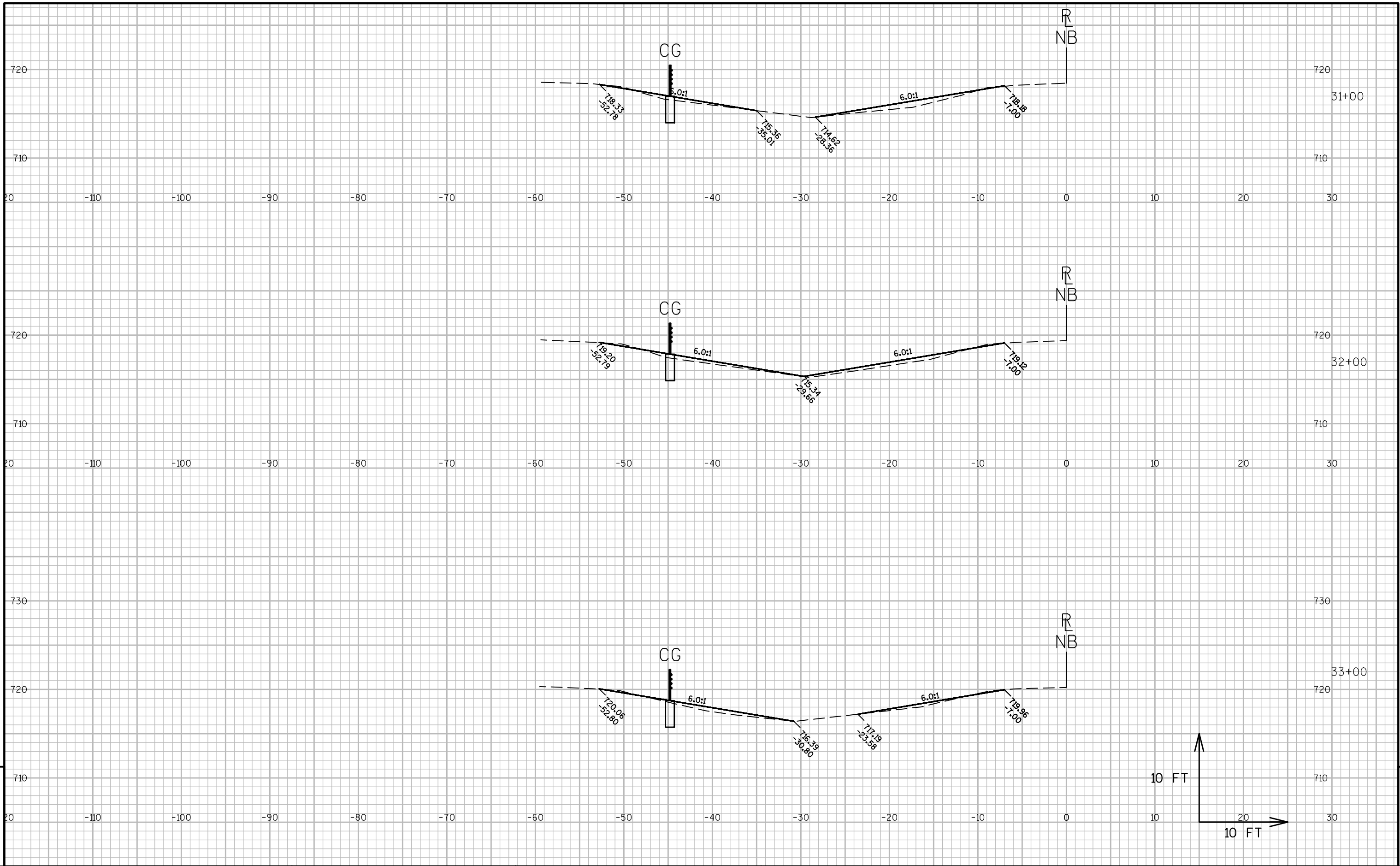


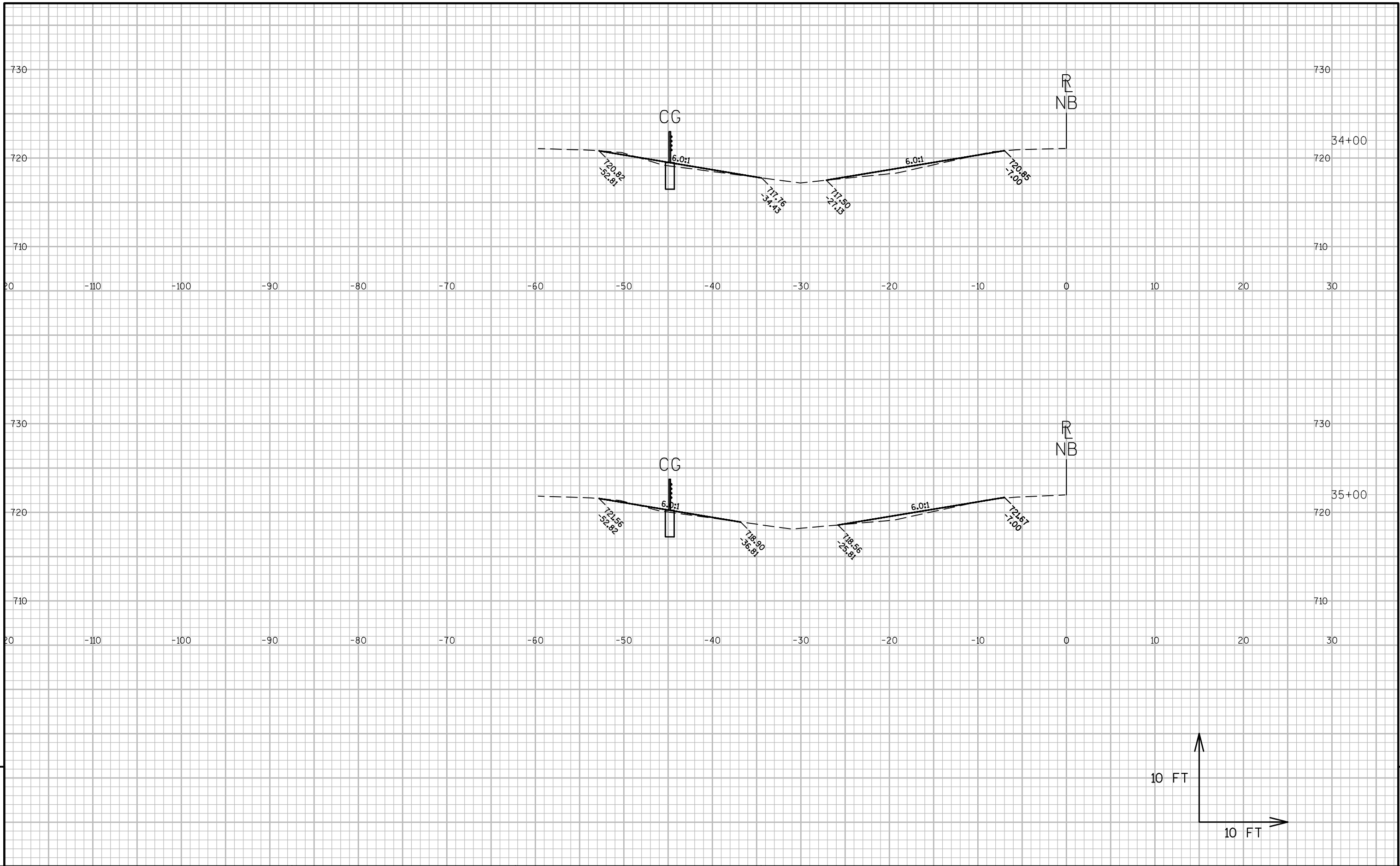






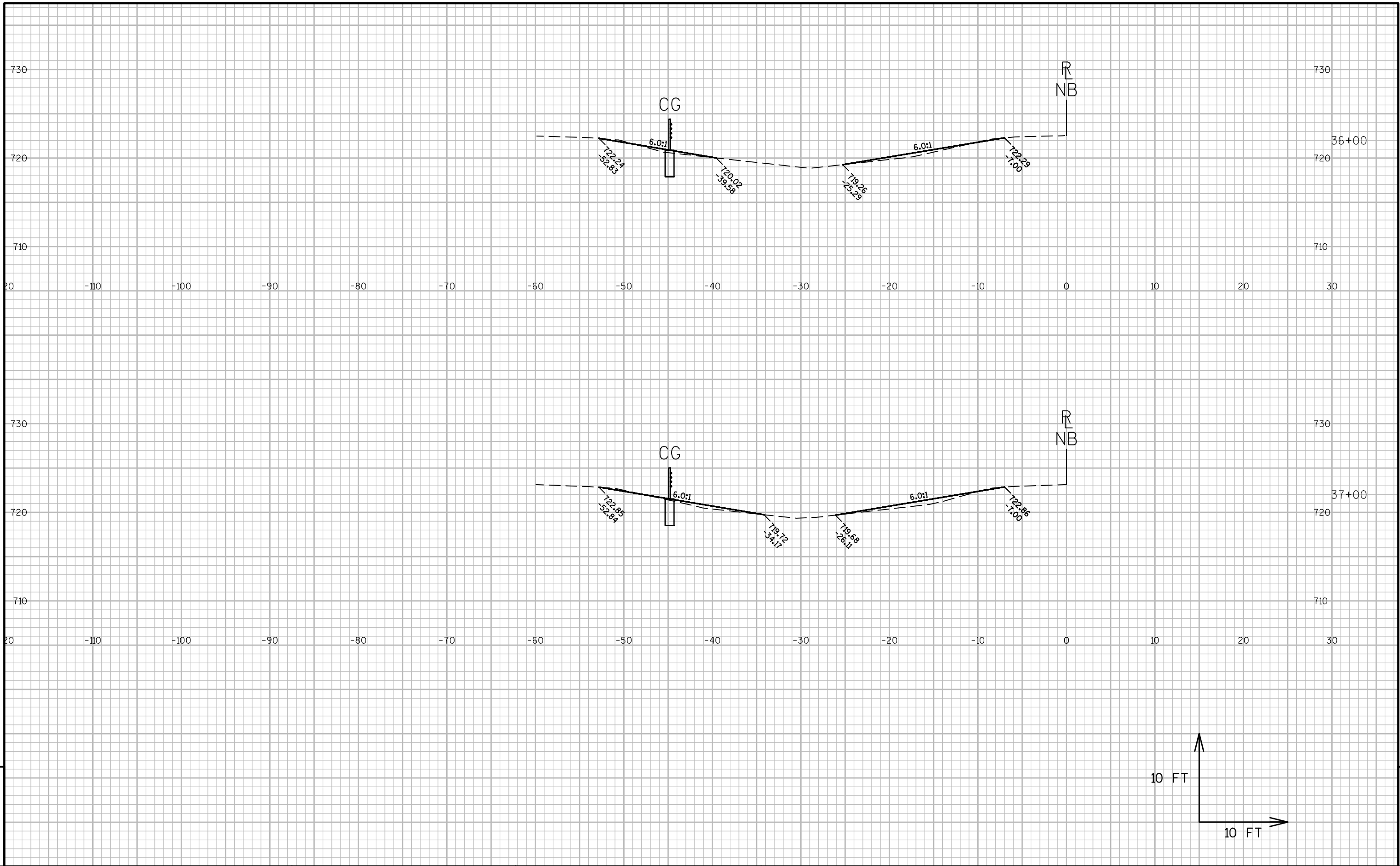


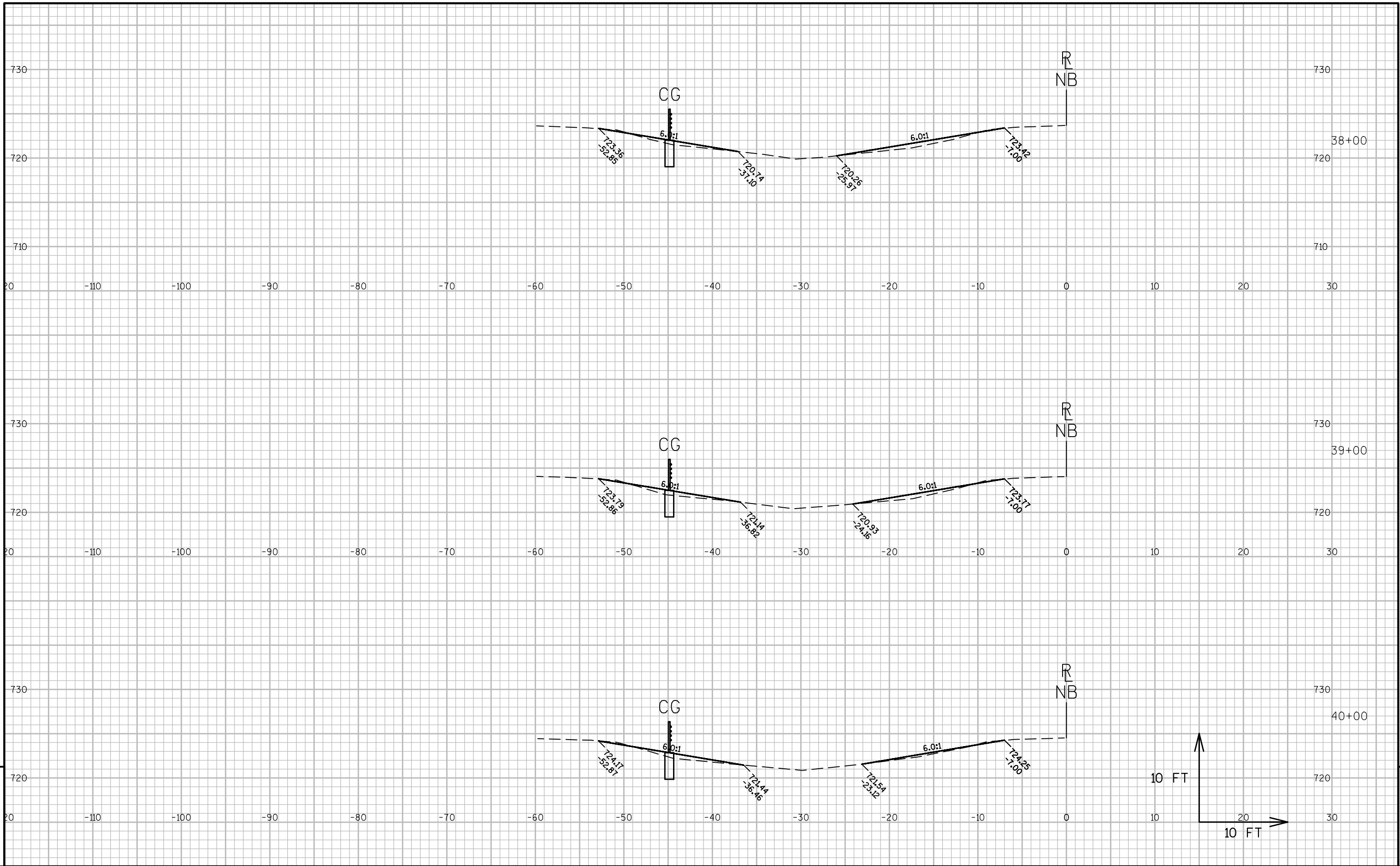


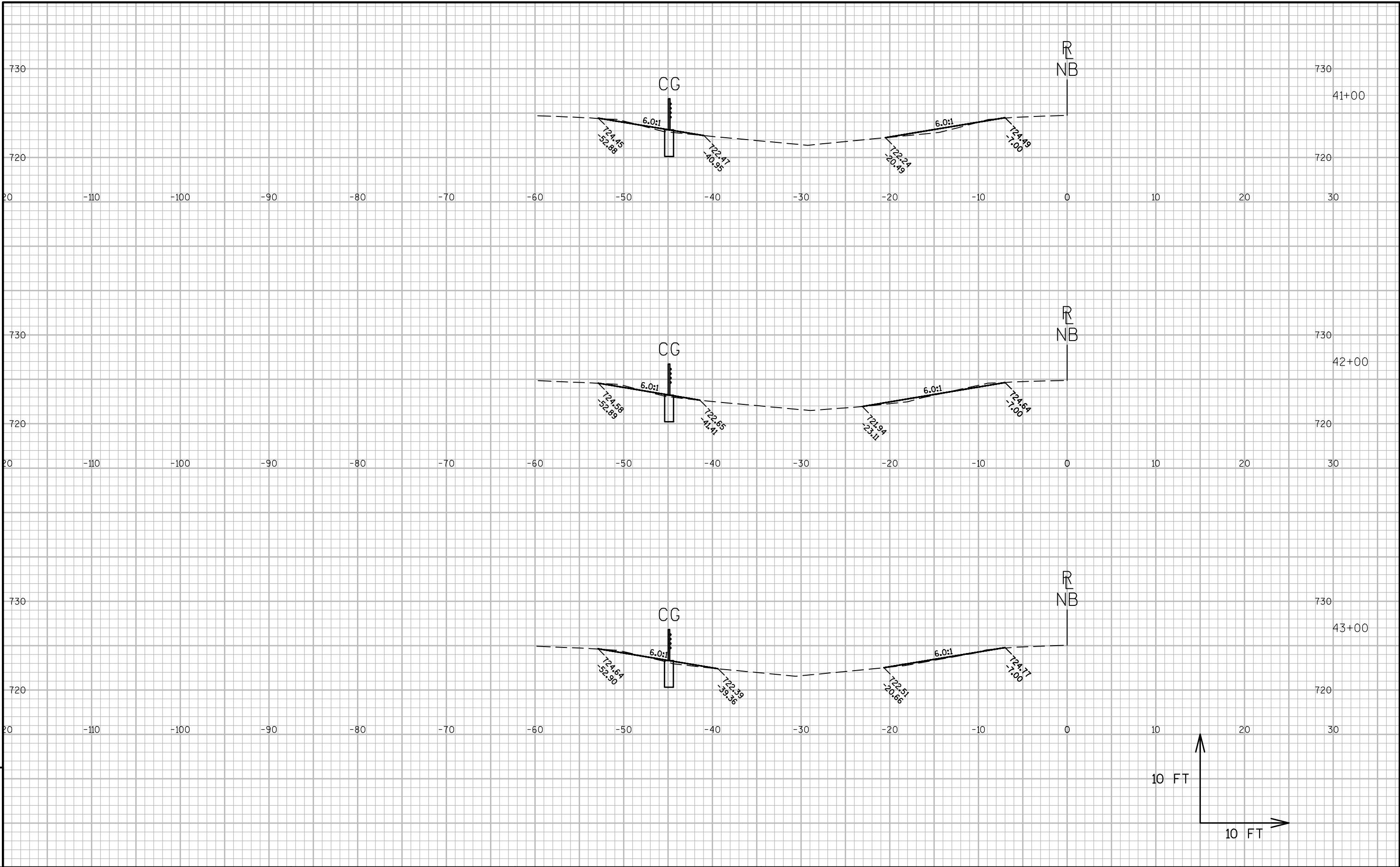


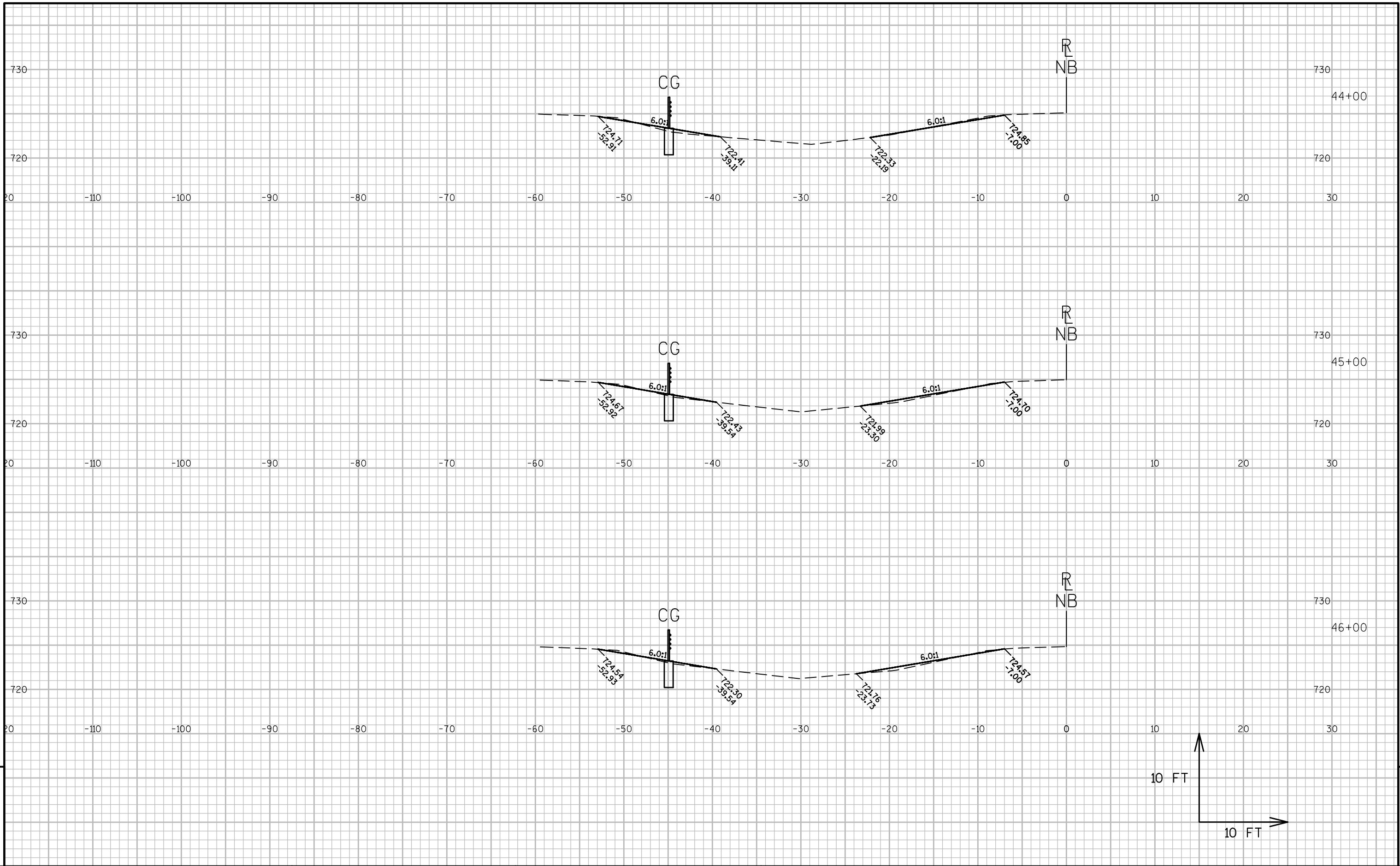
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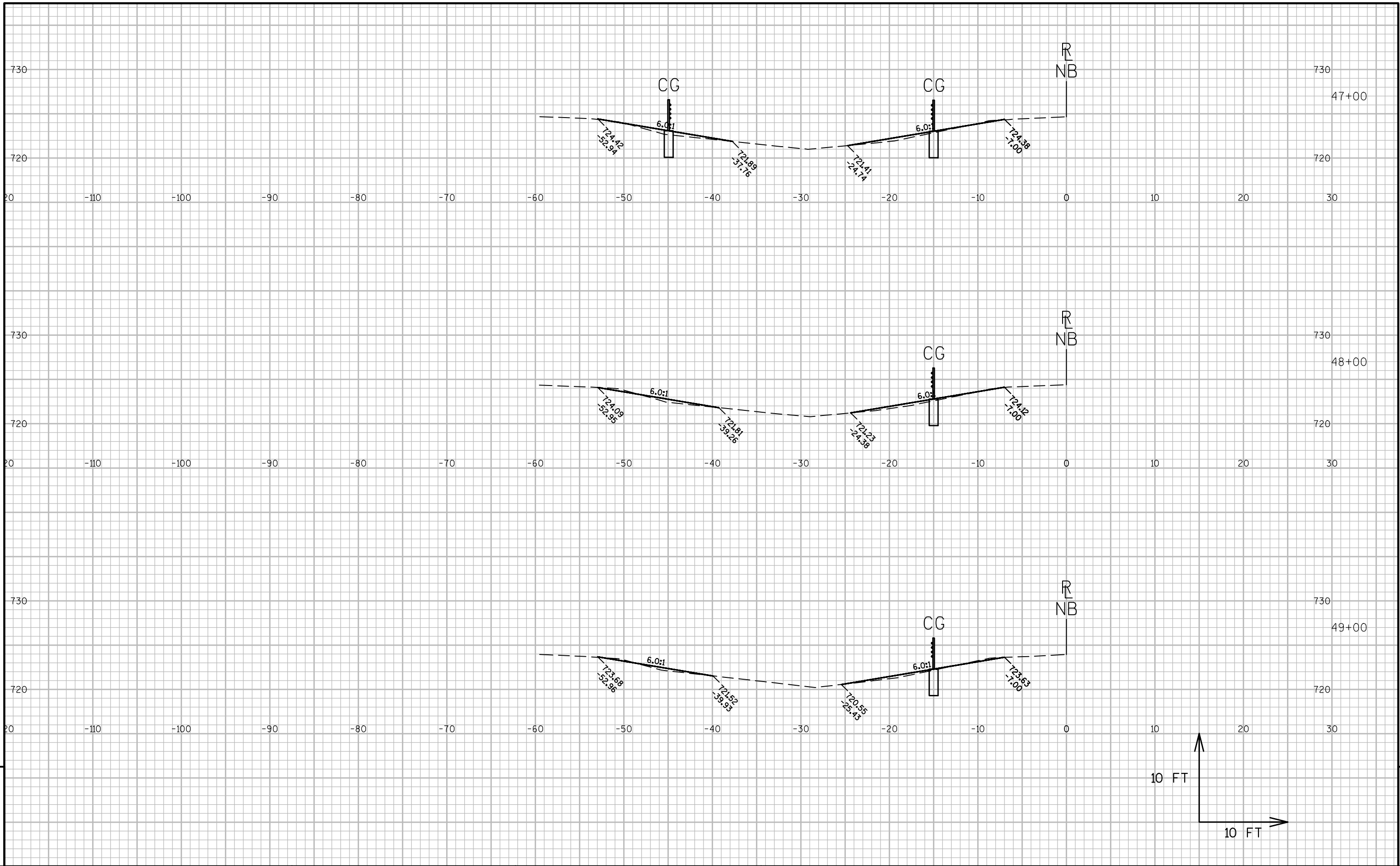


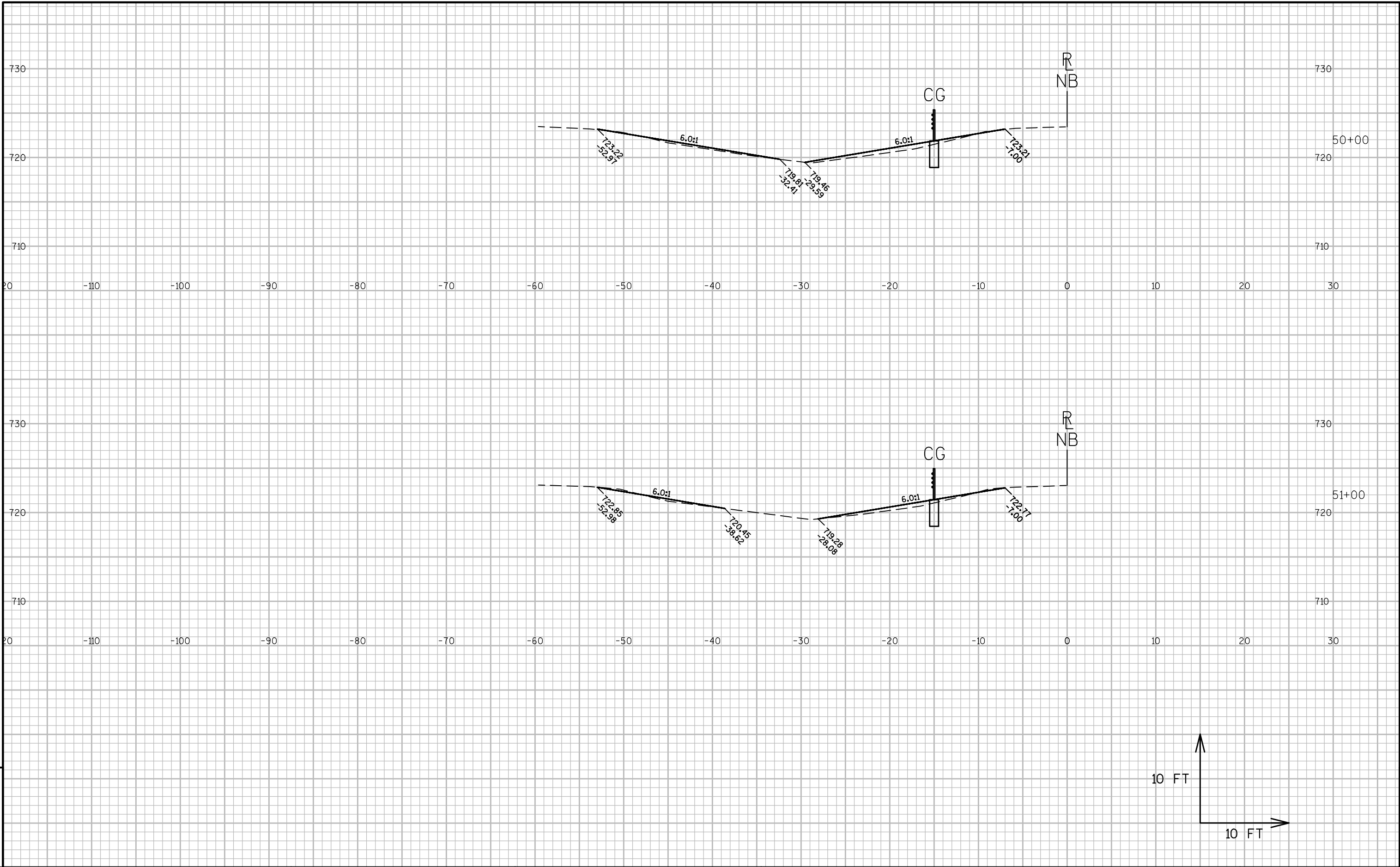


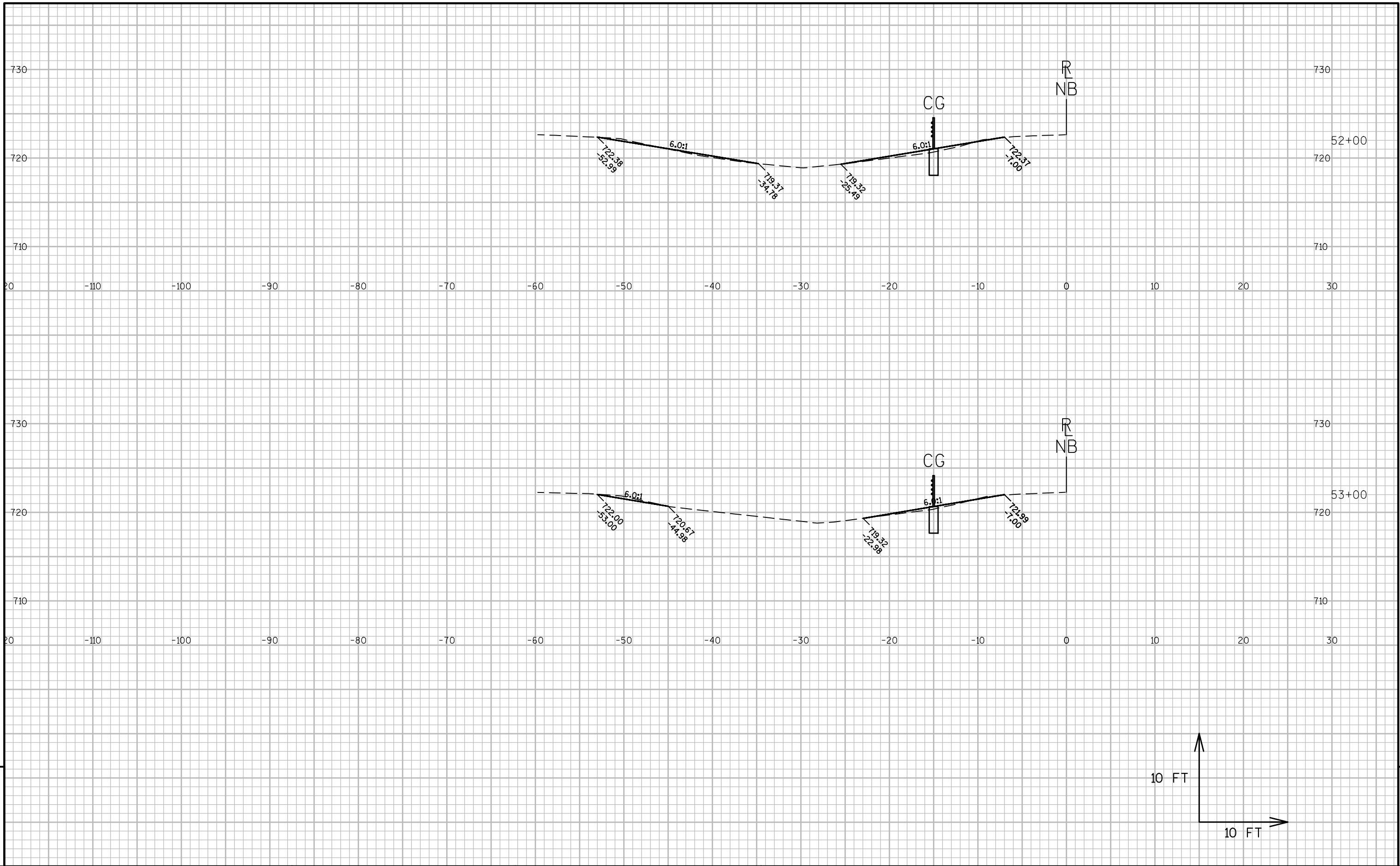


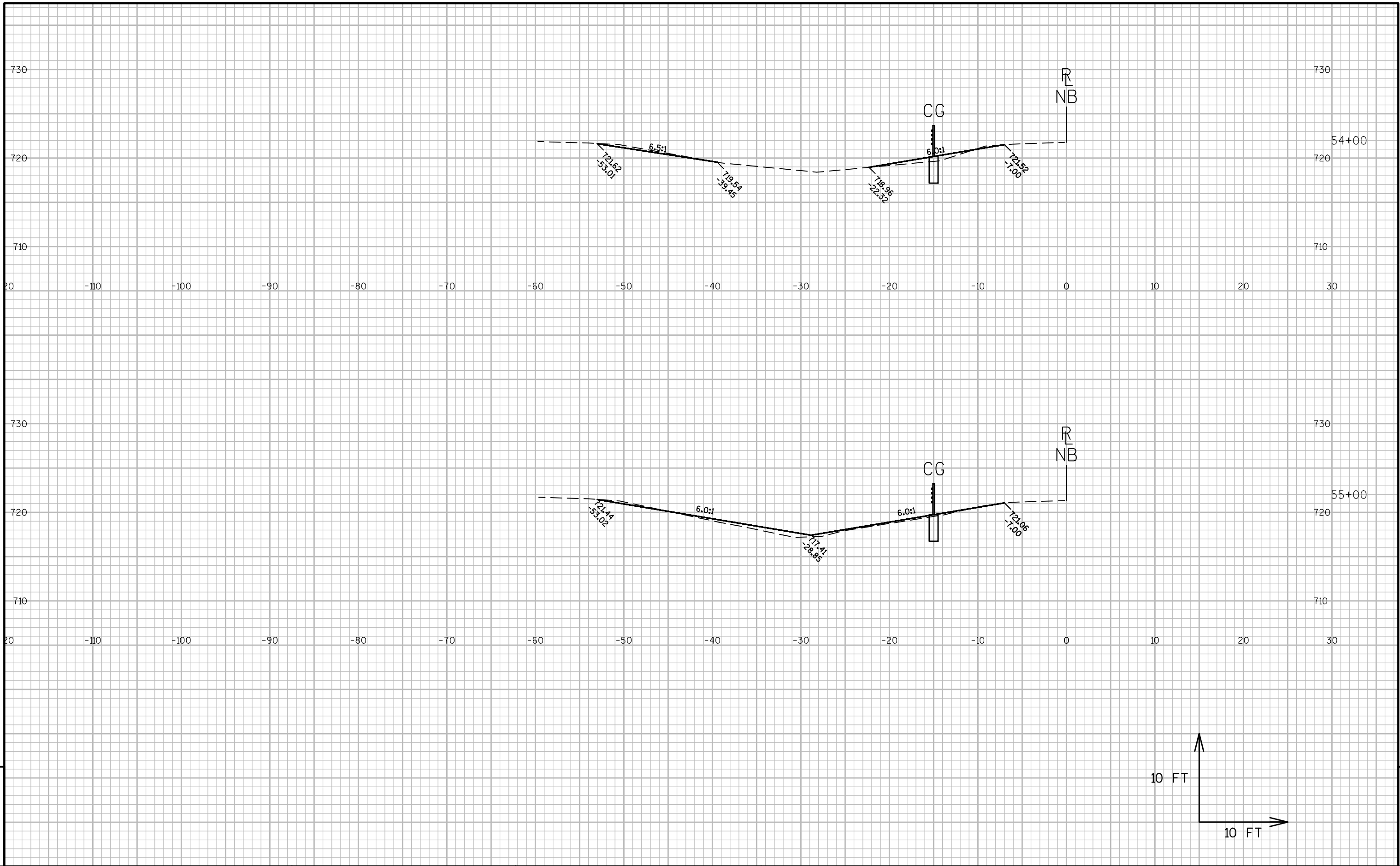
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9



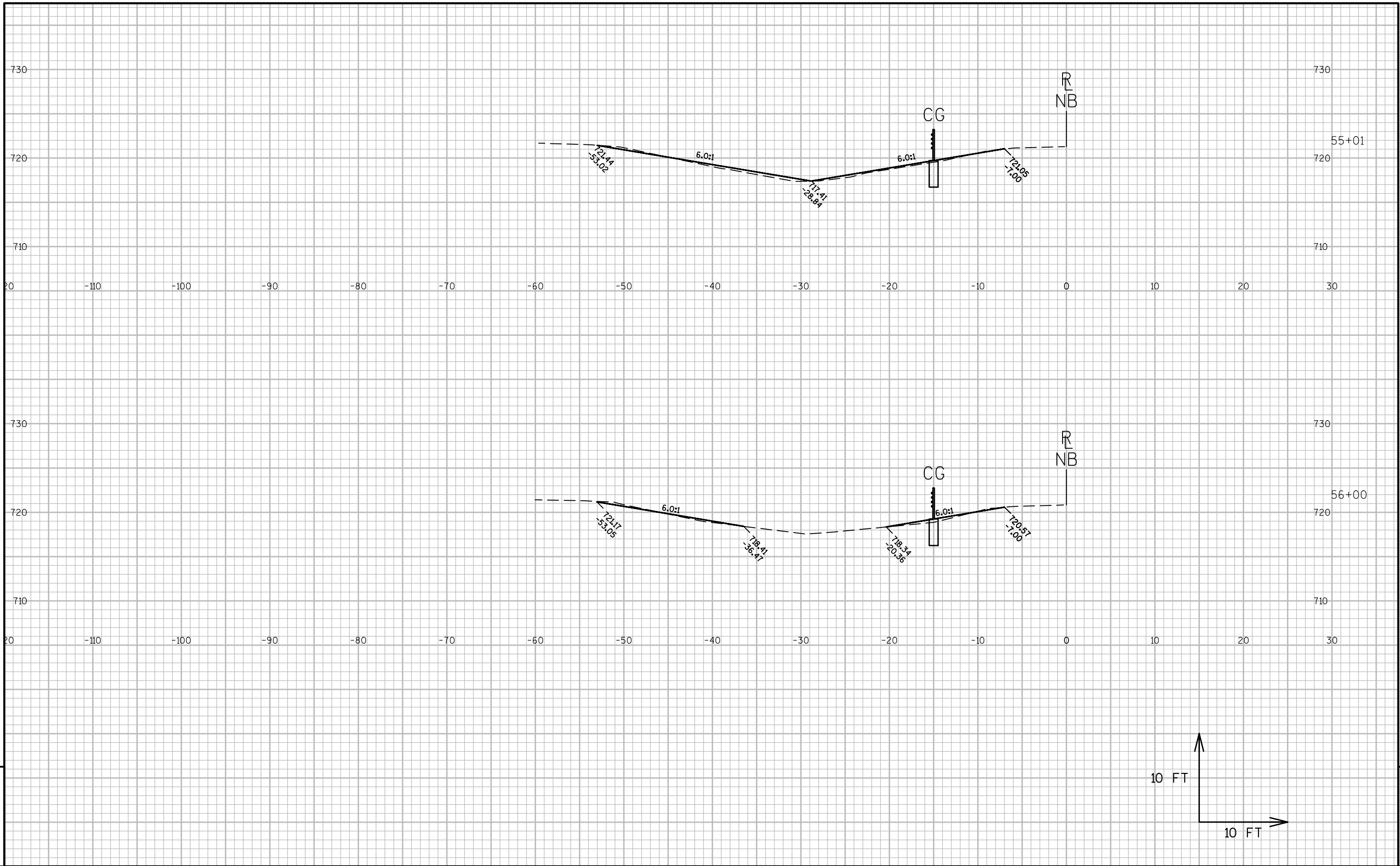


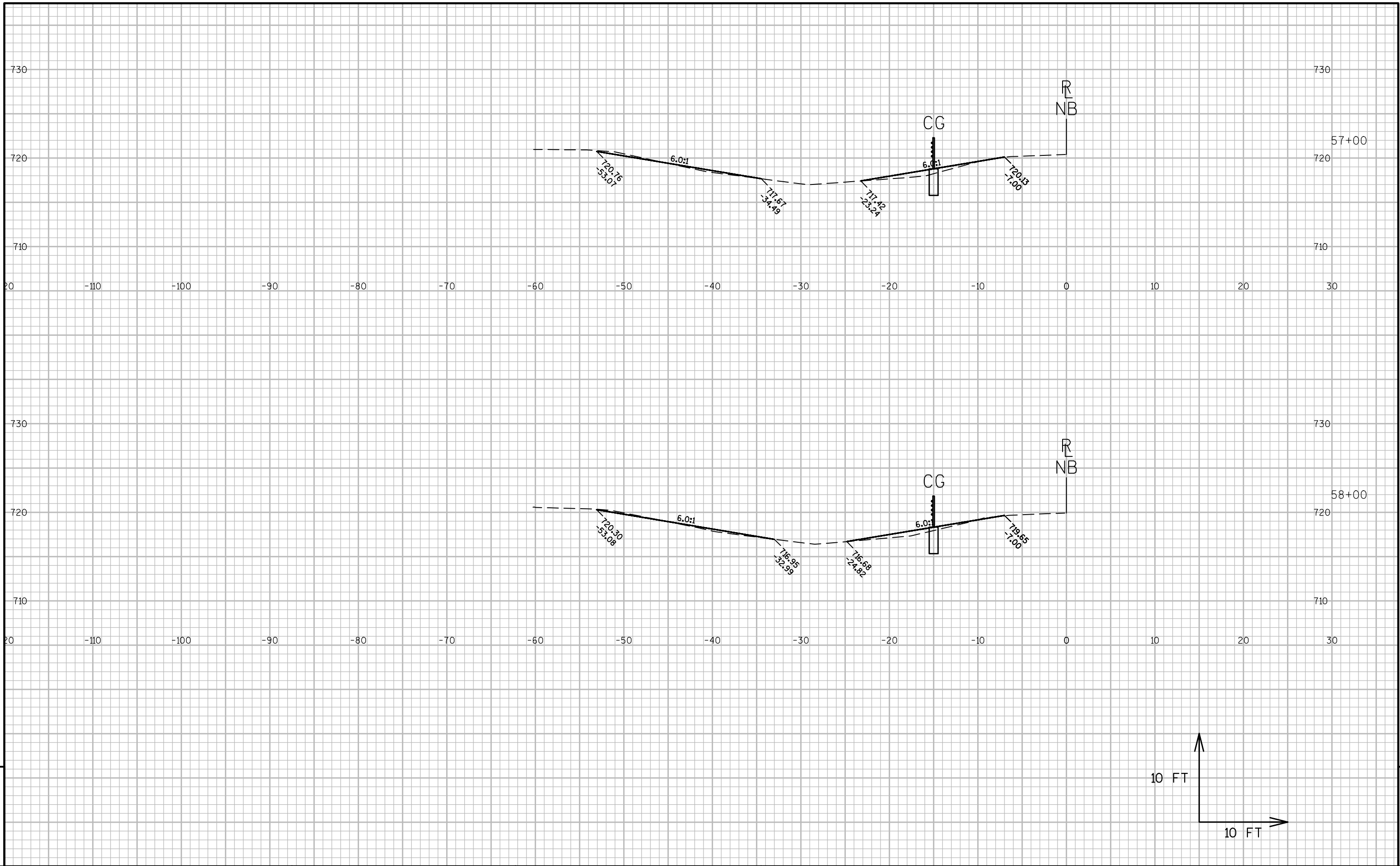


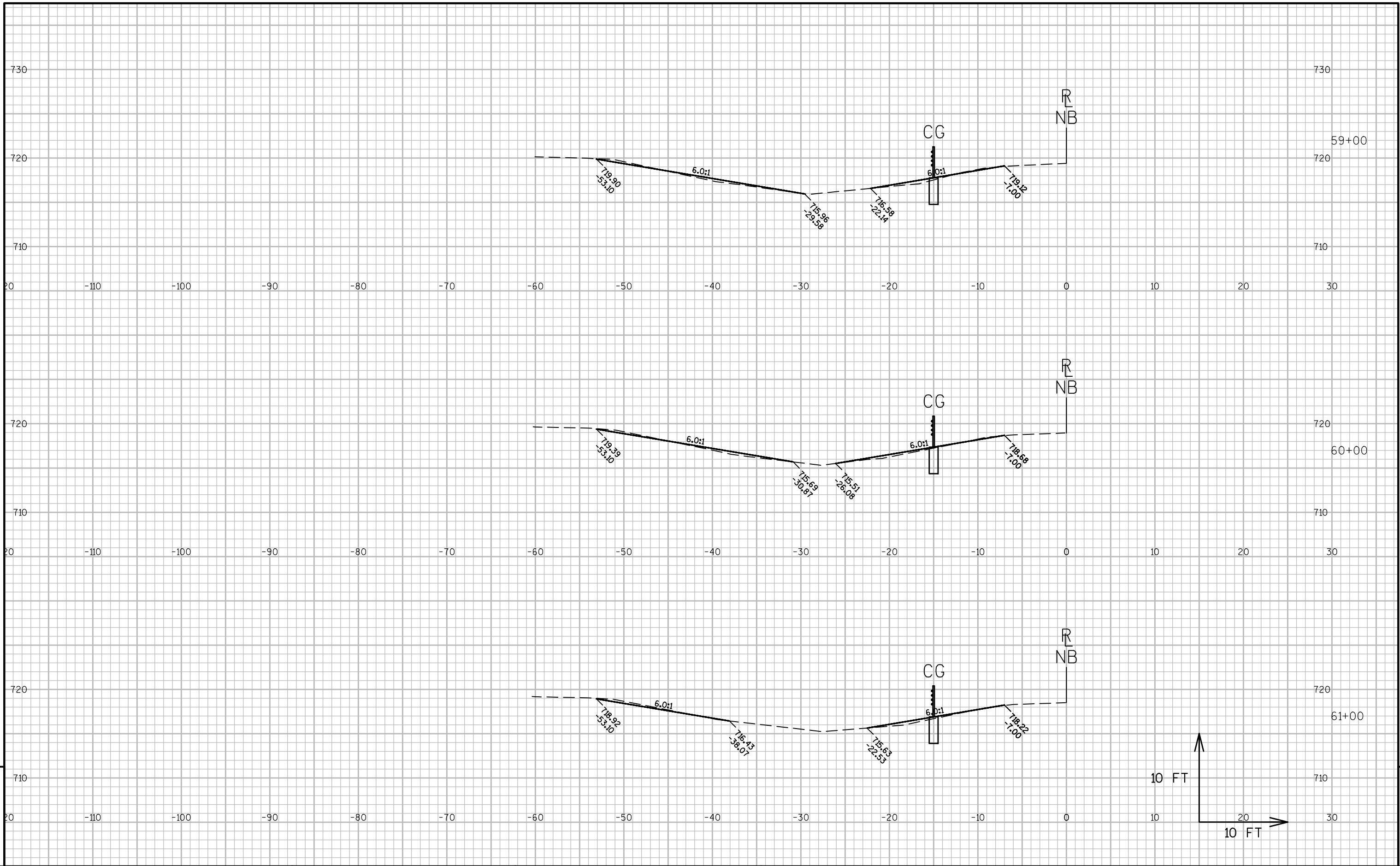


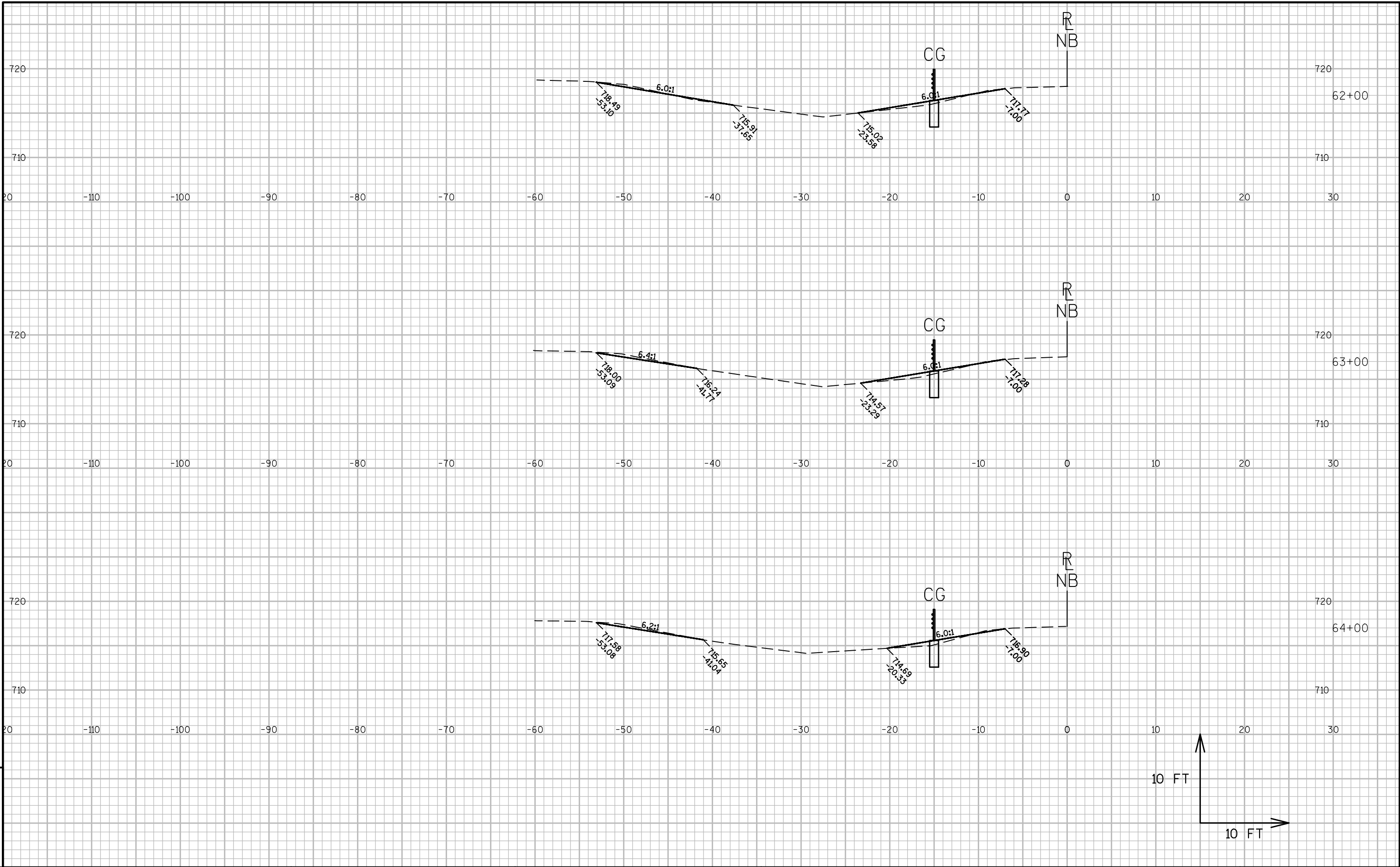
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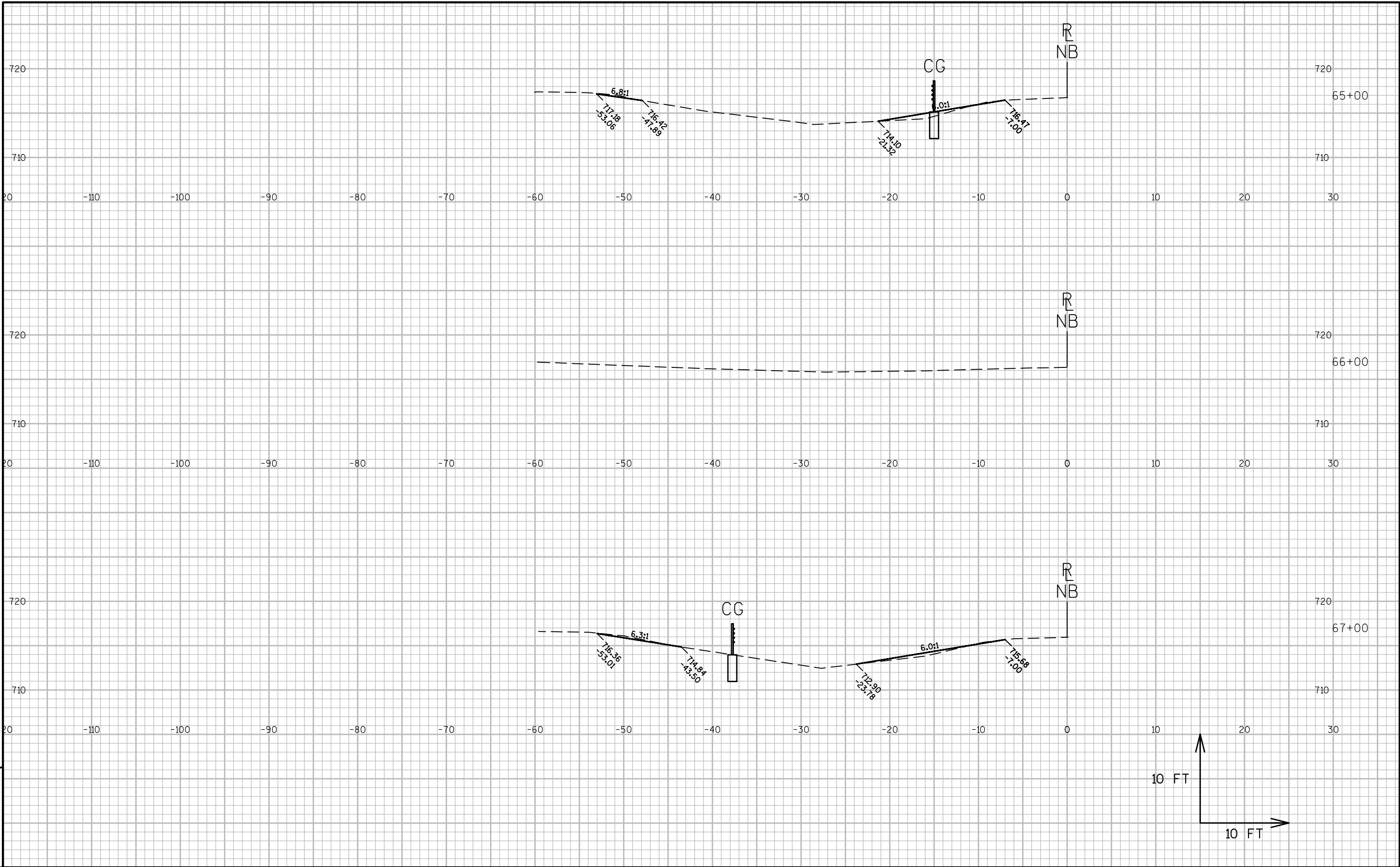
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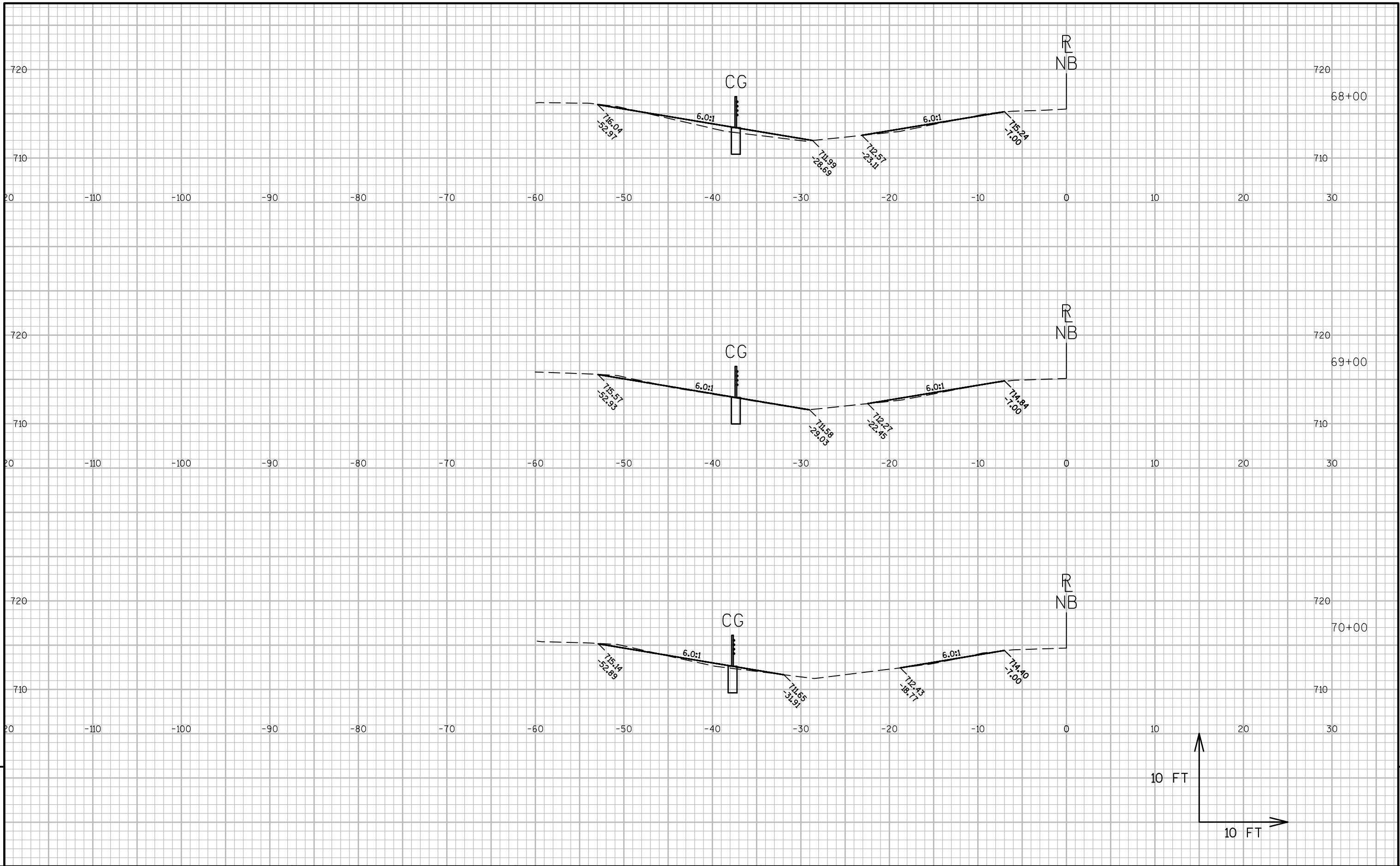


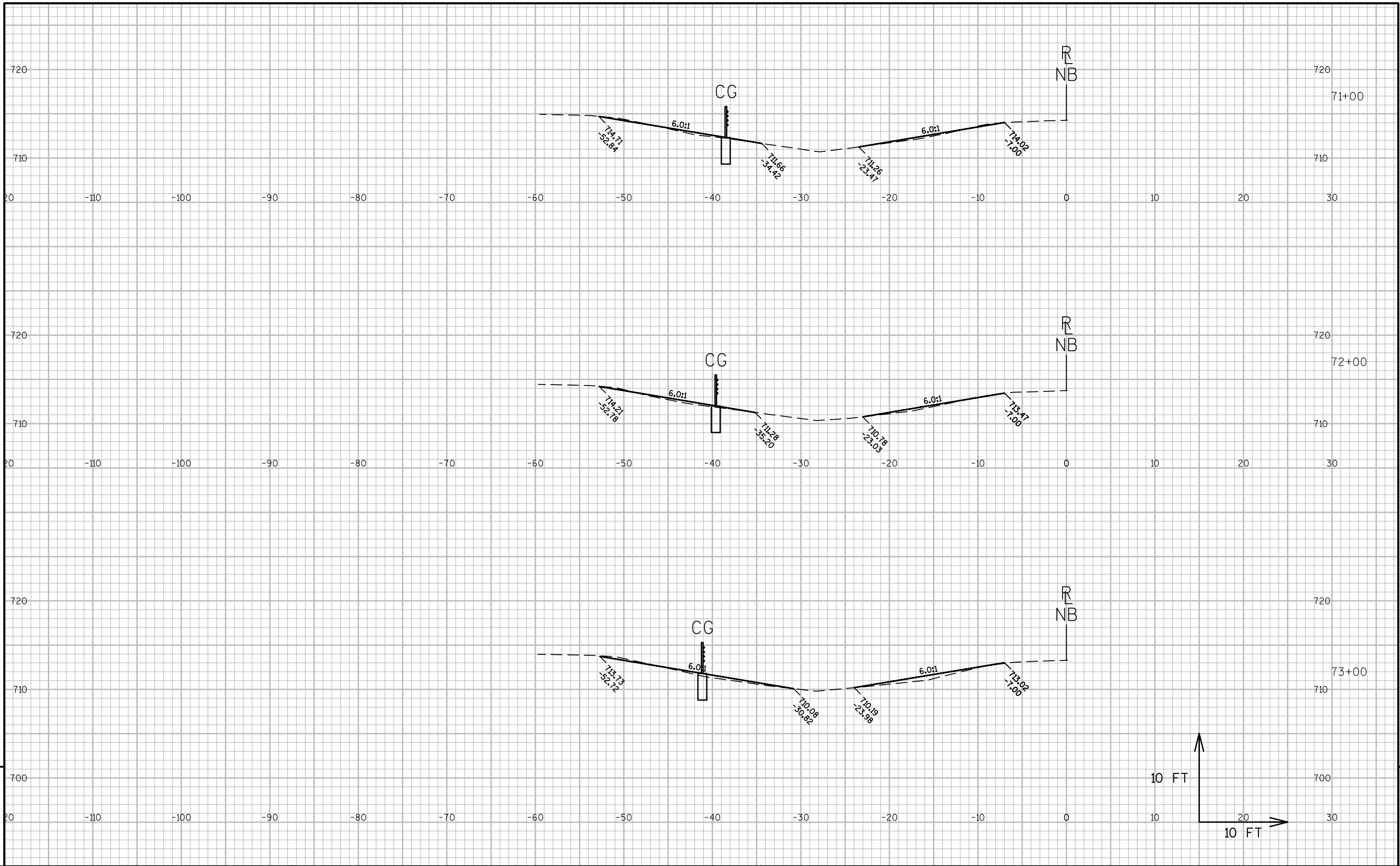


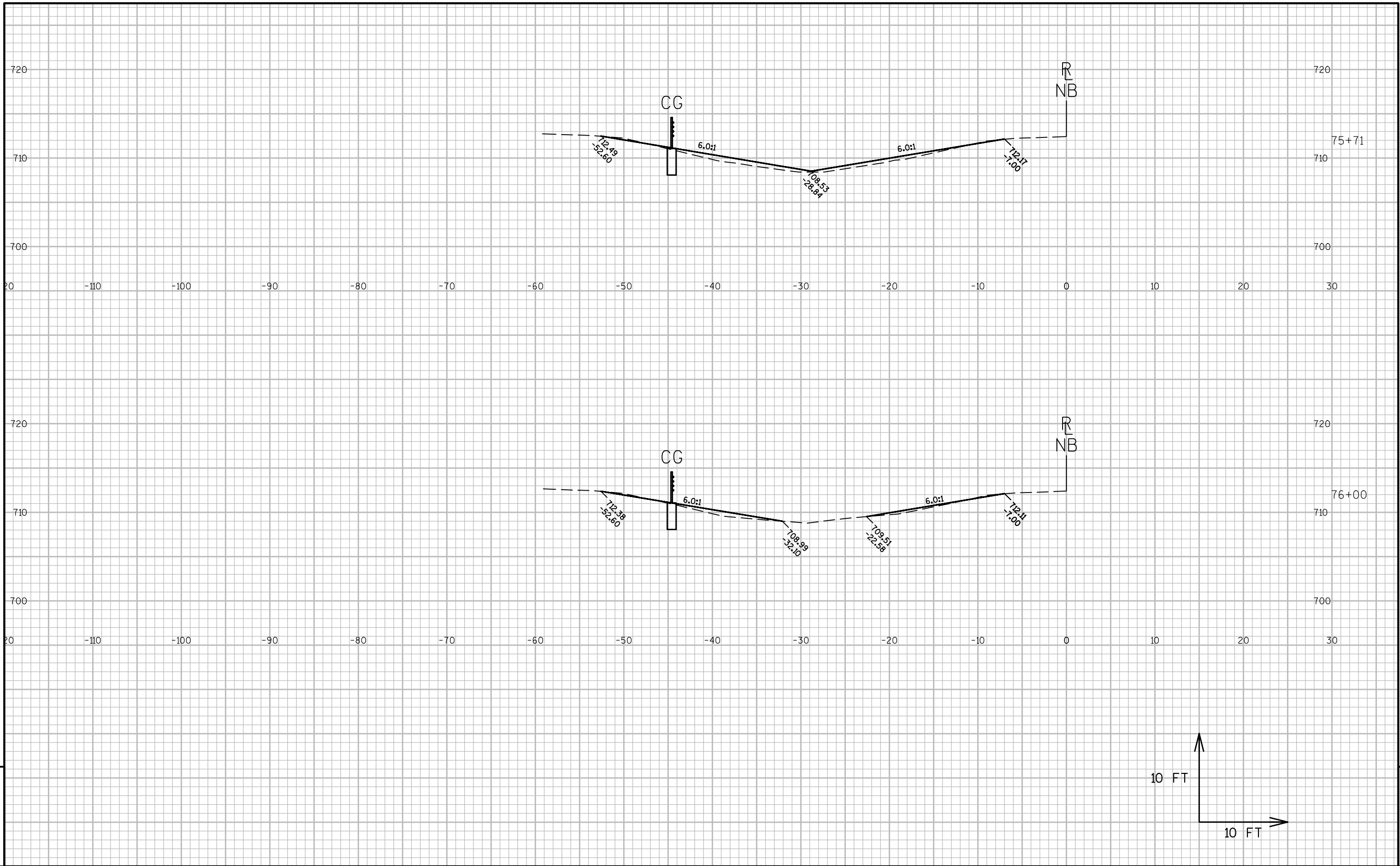


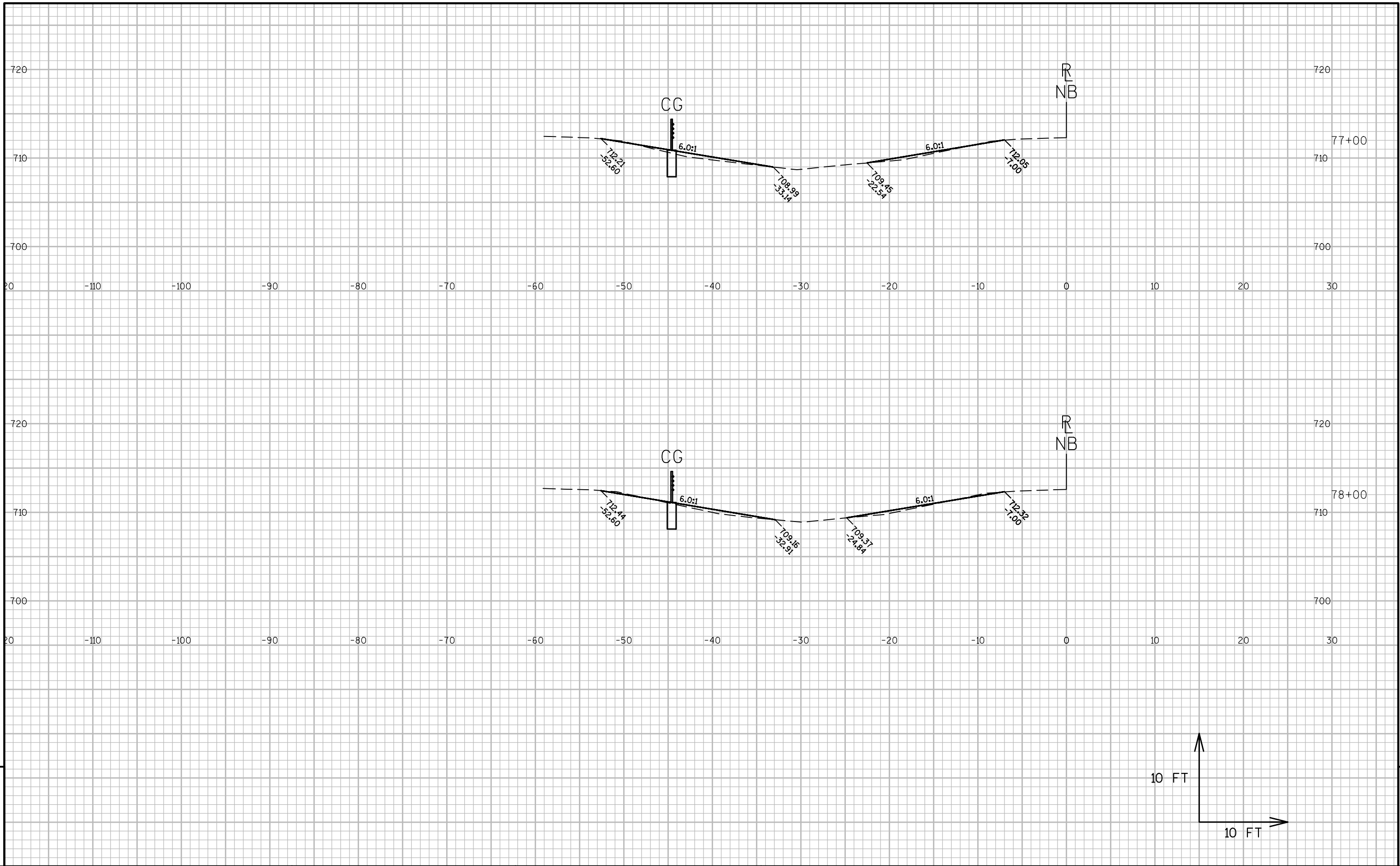


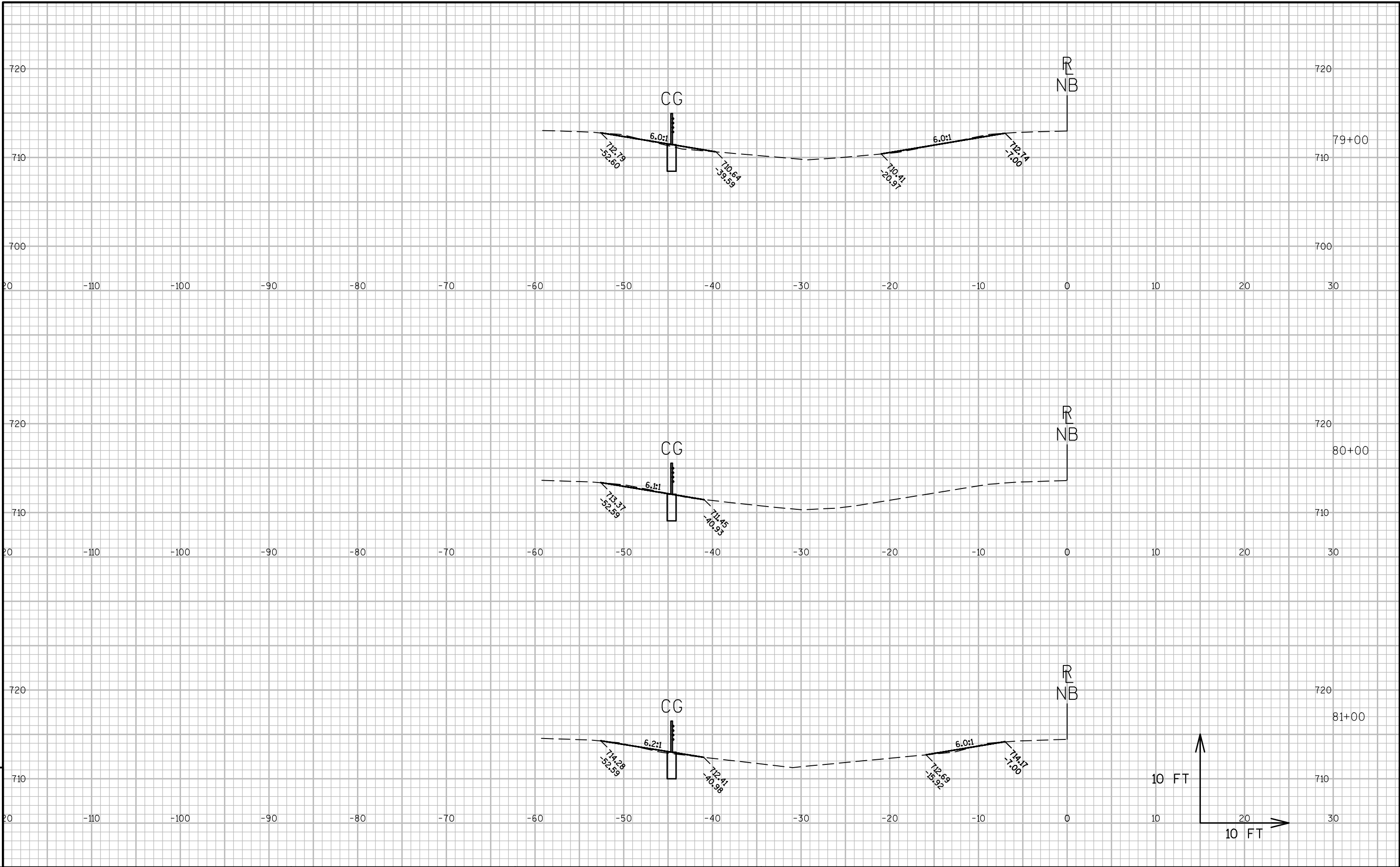


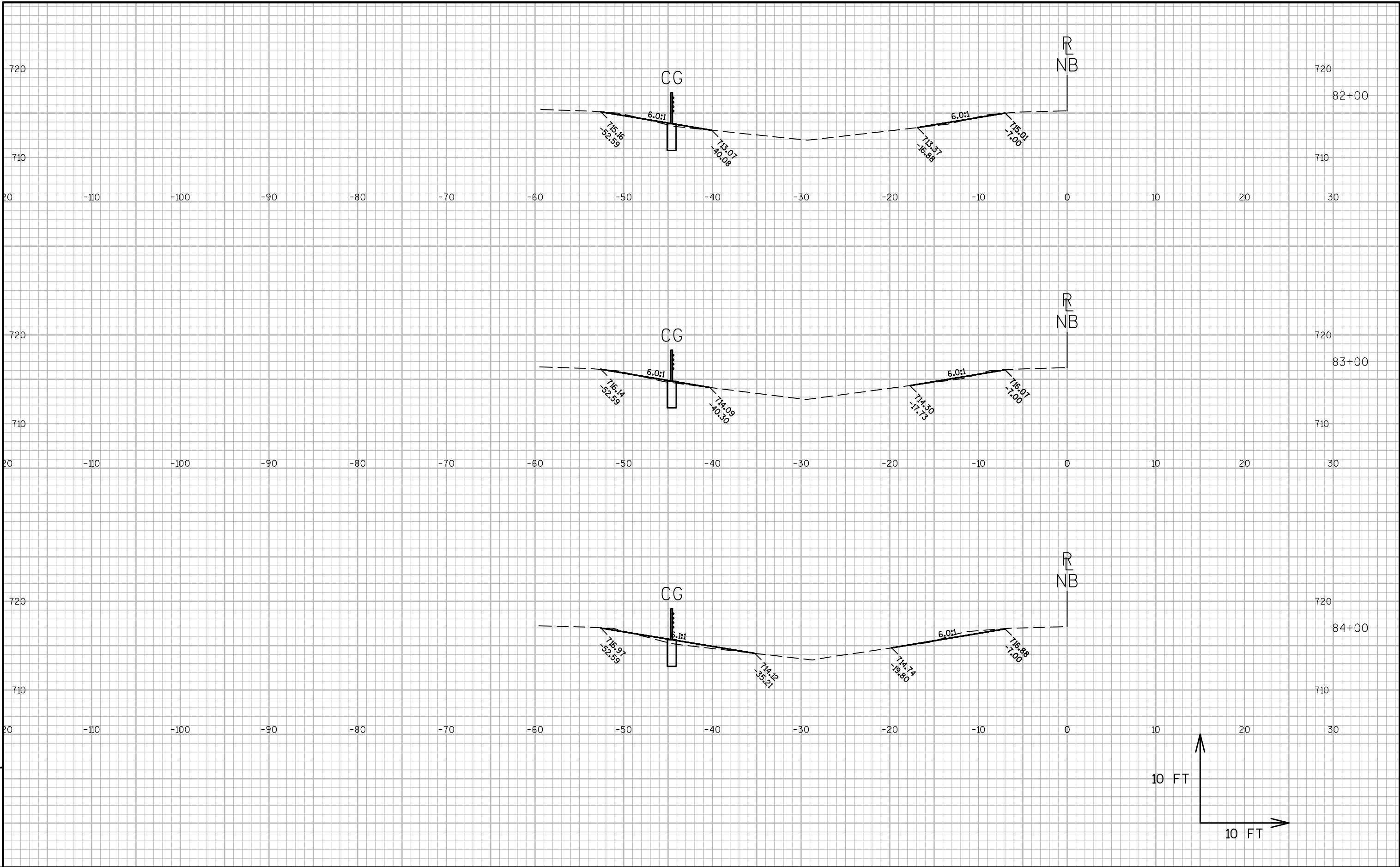


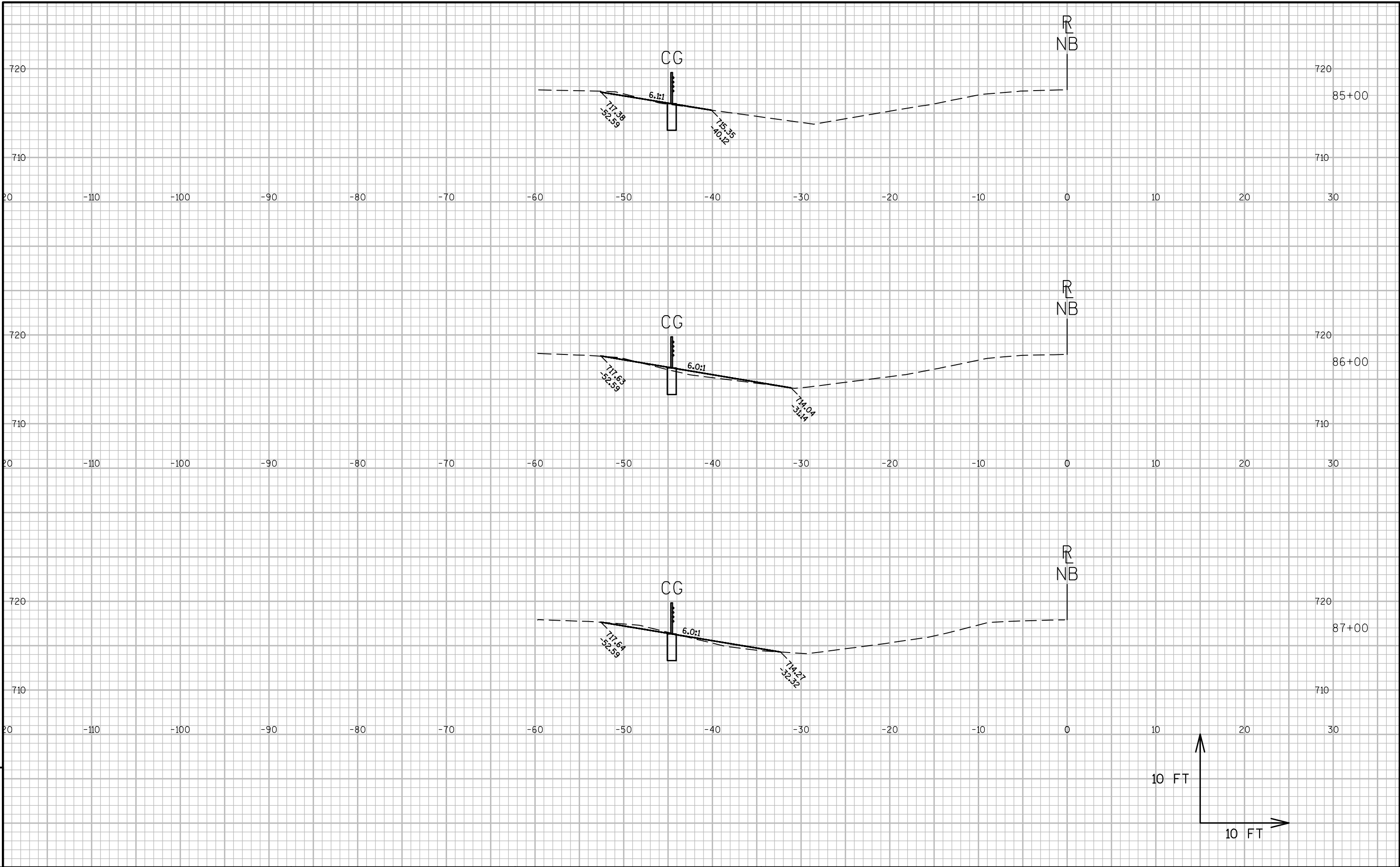


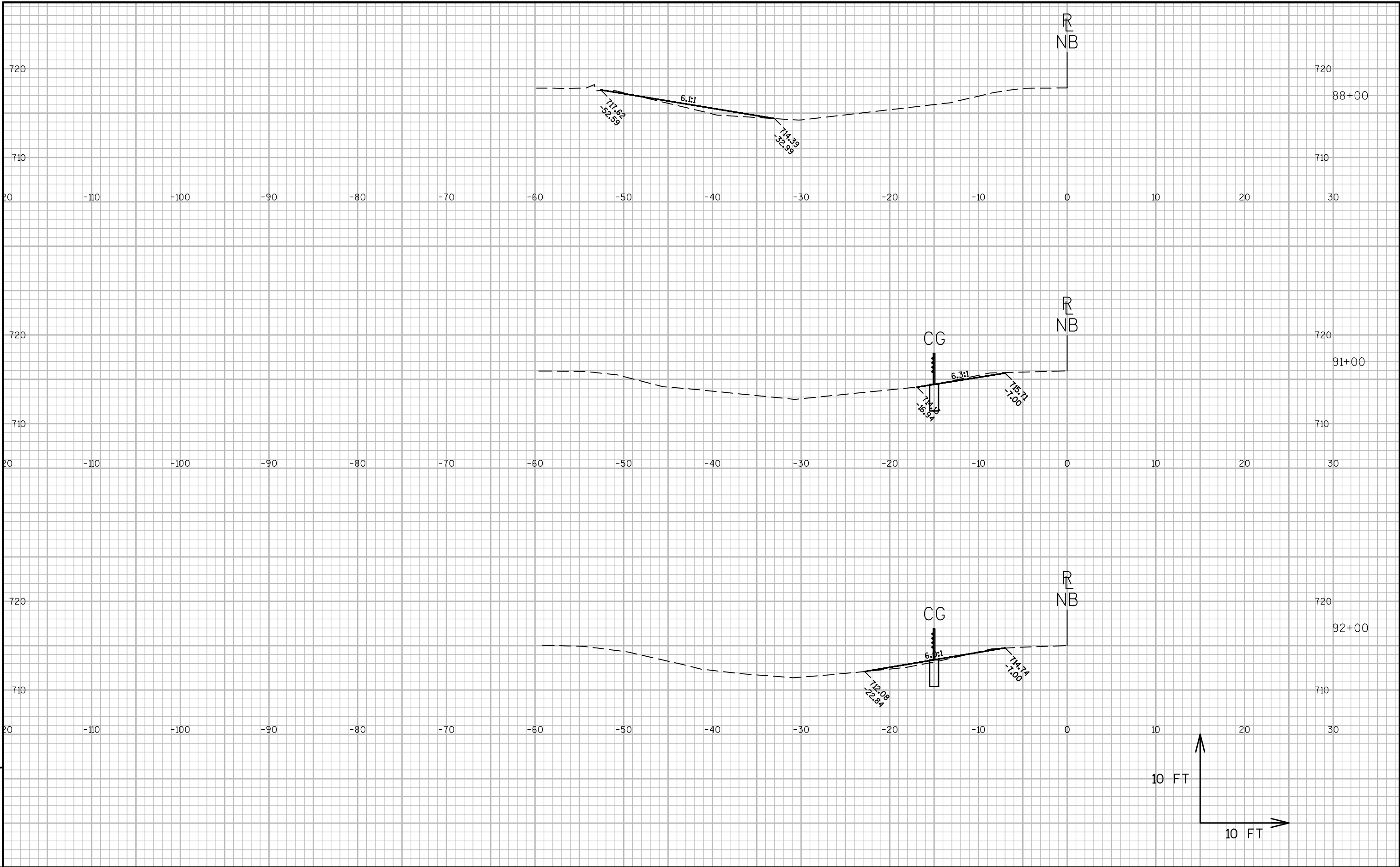


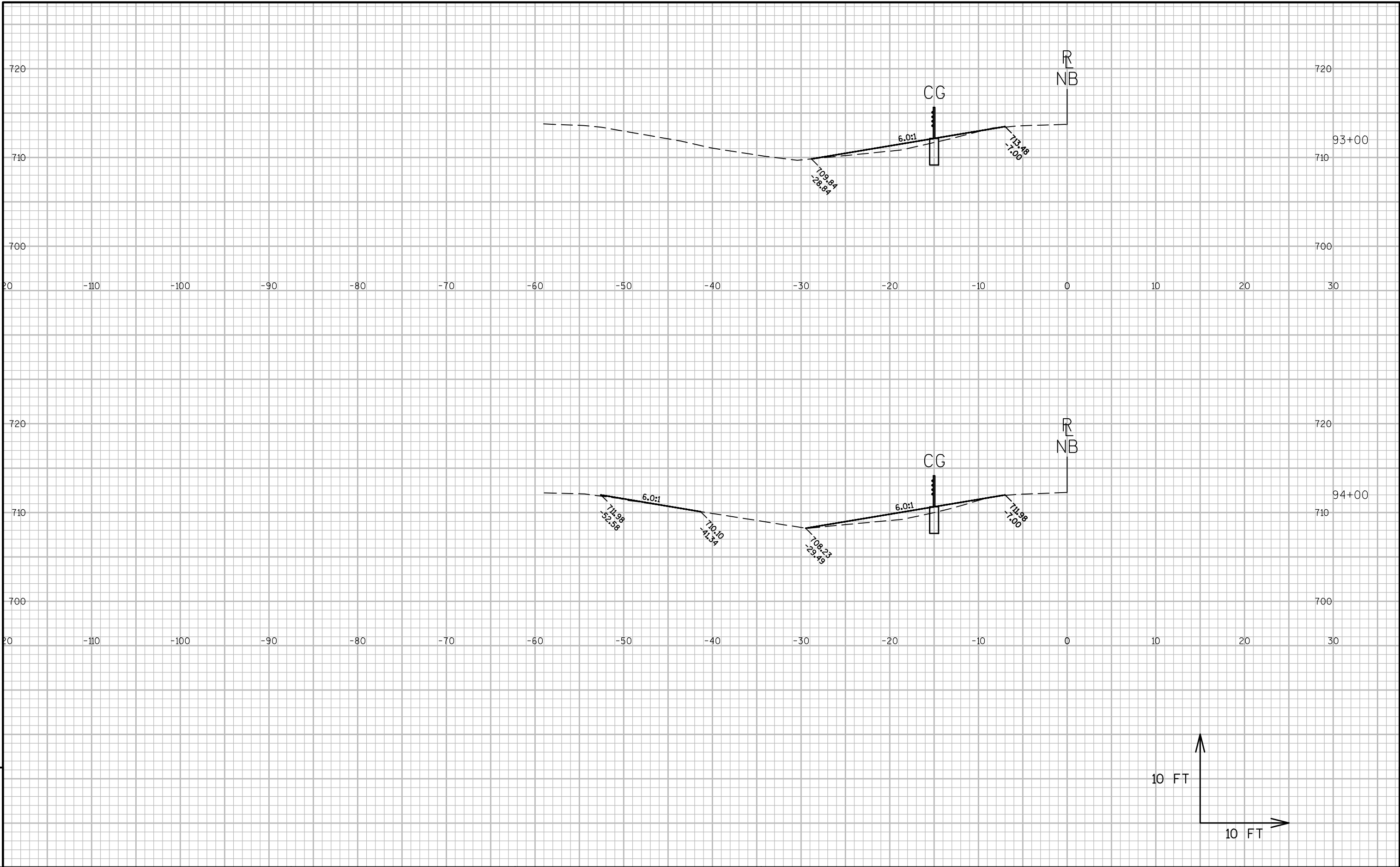






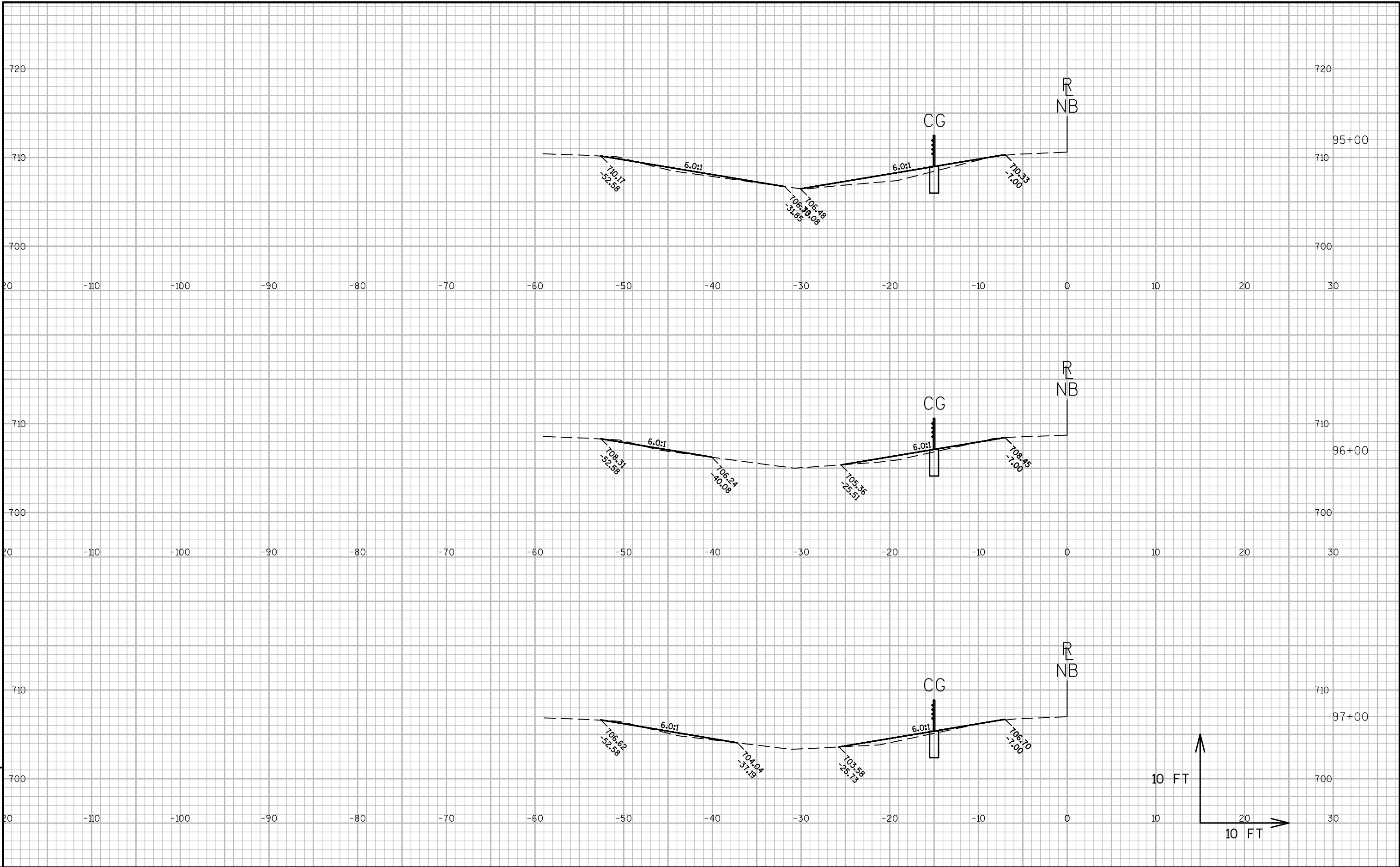


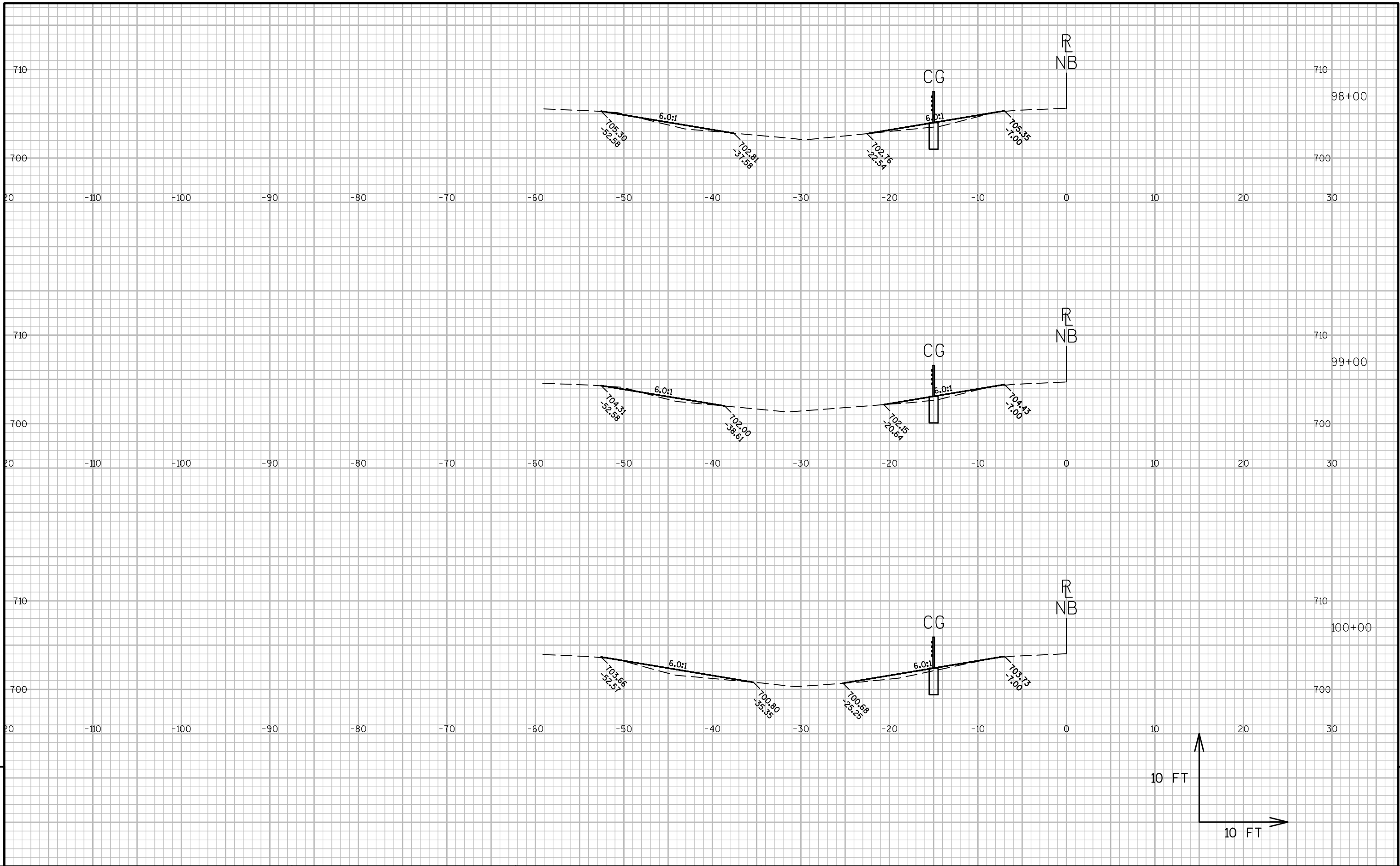


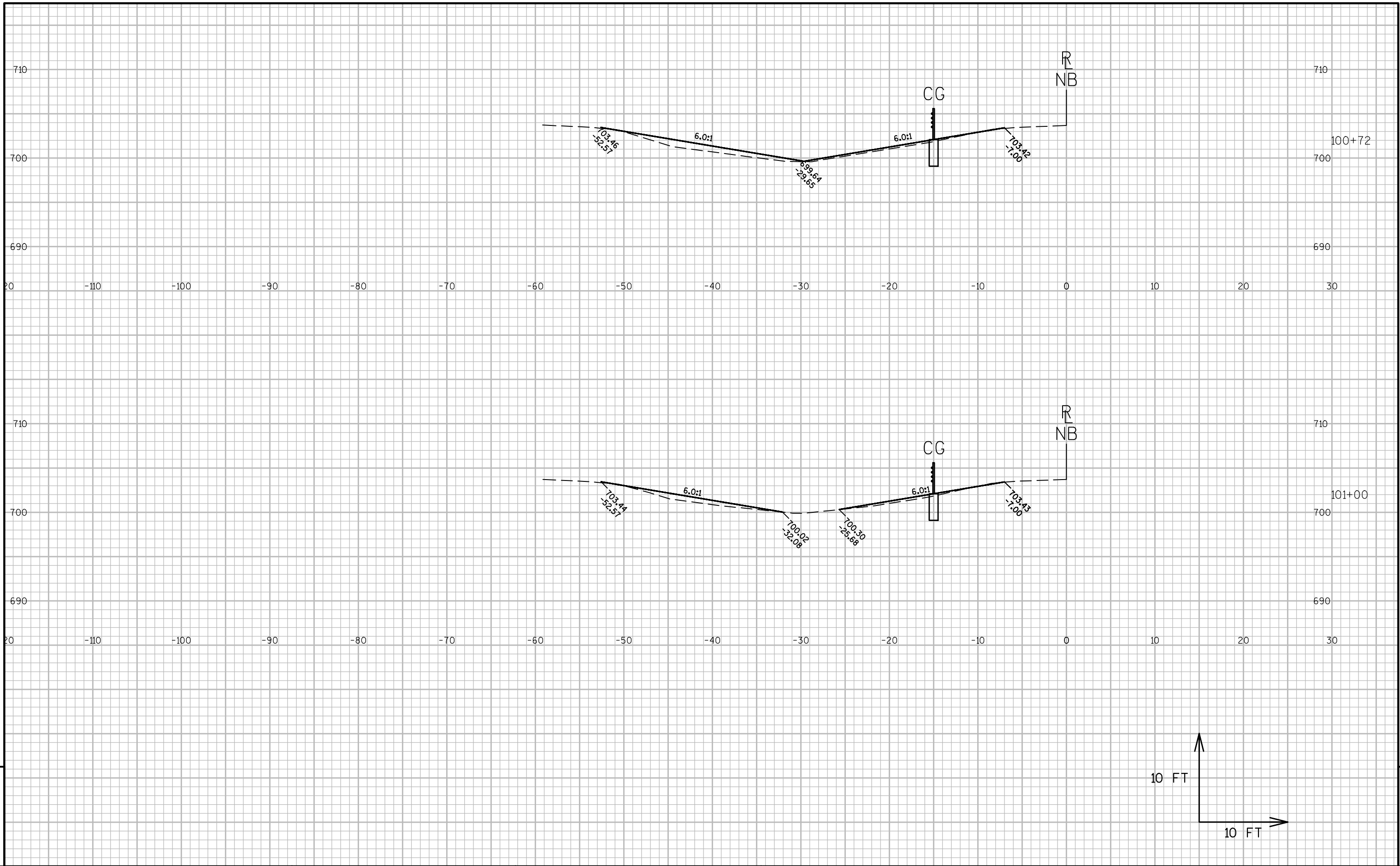


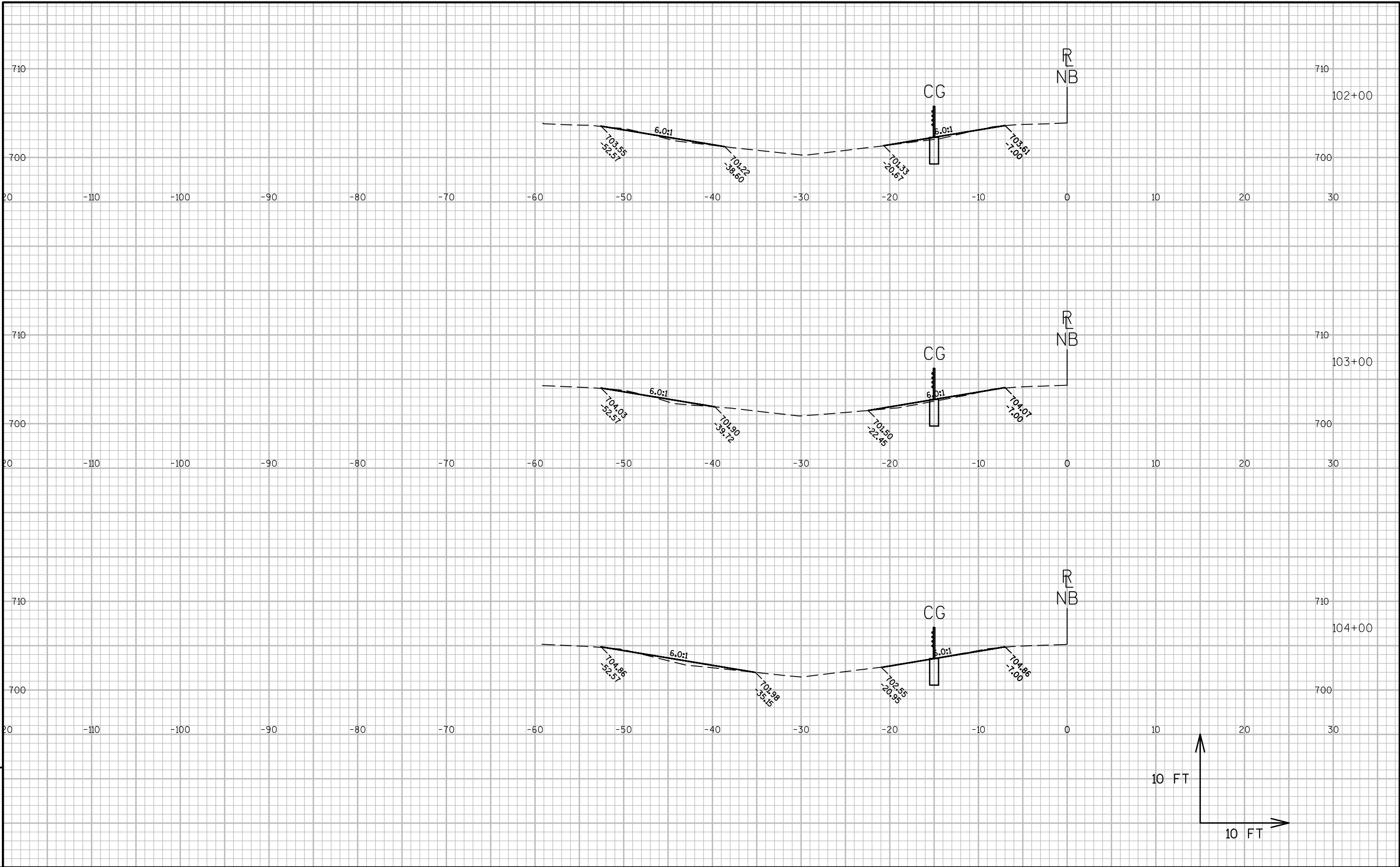
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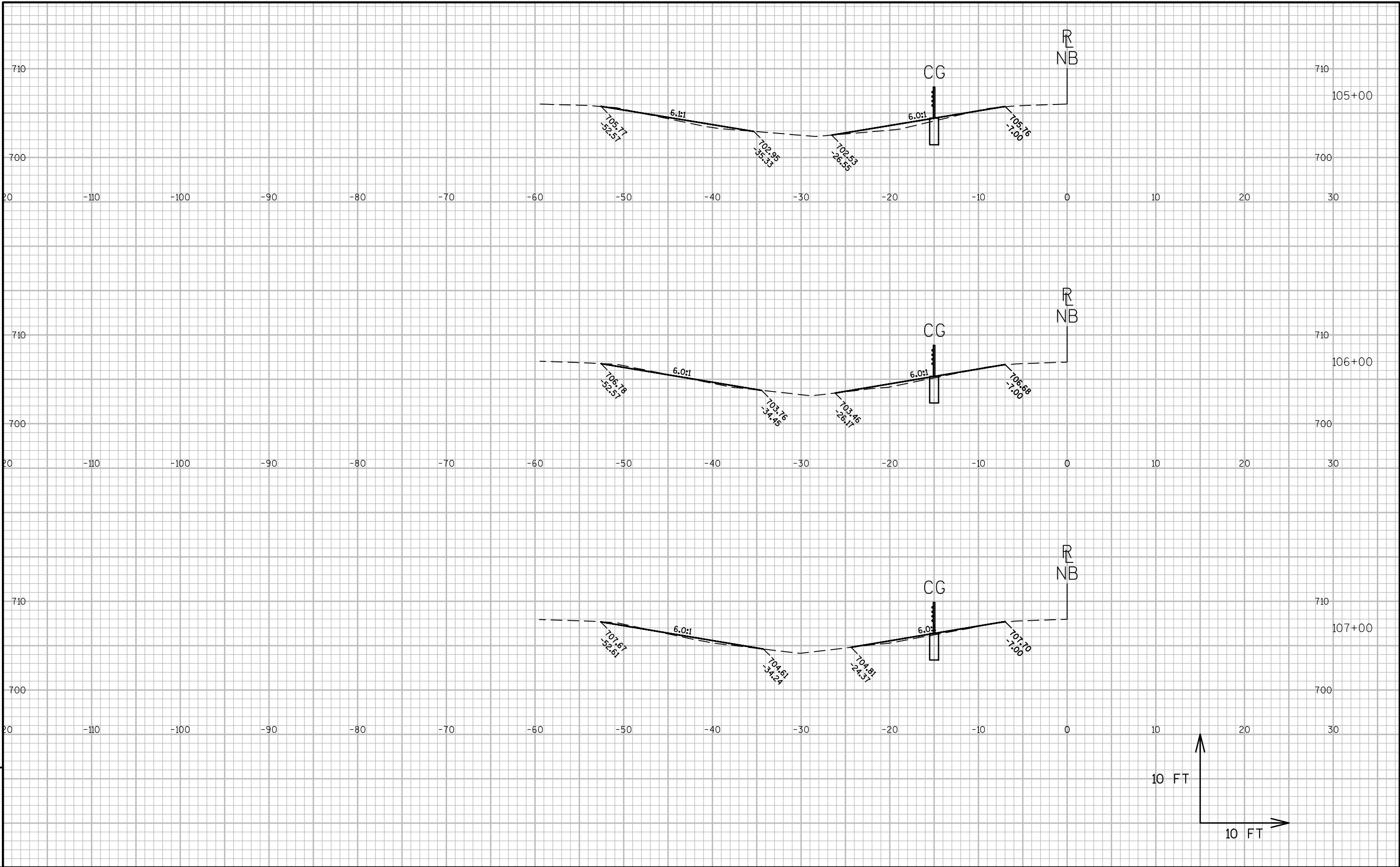
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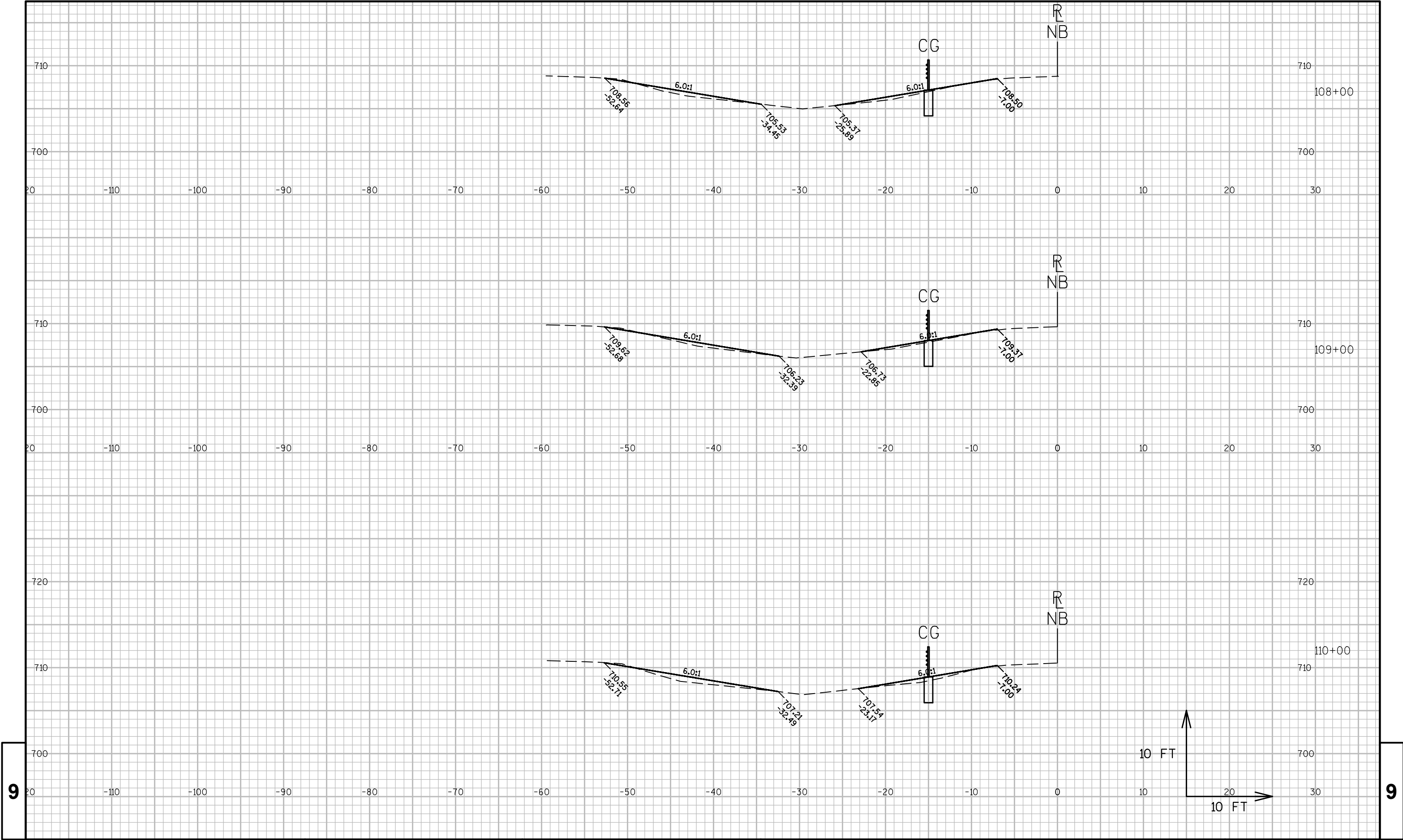


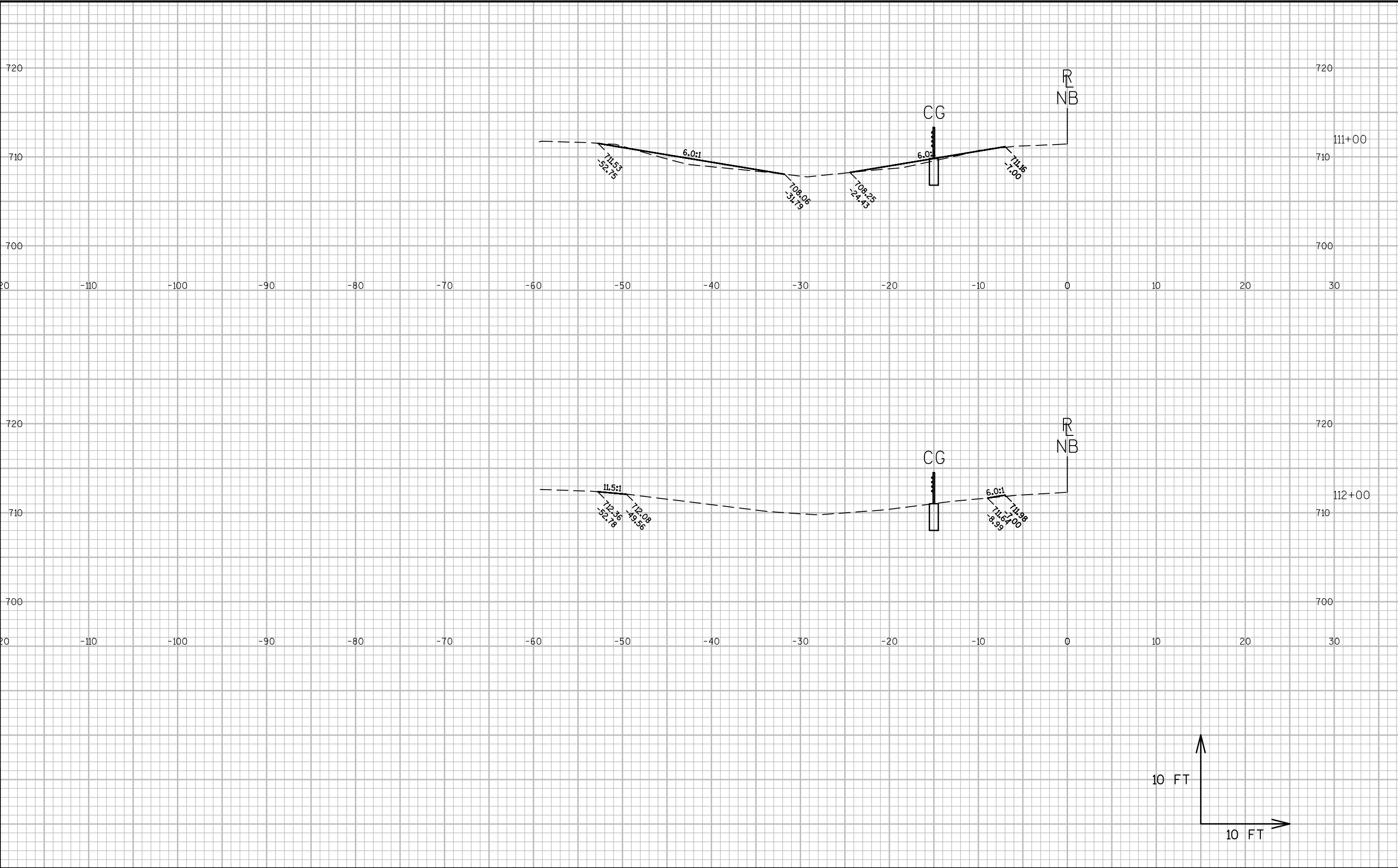






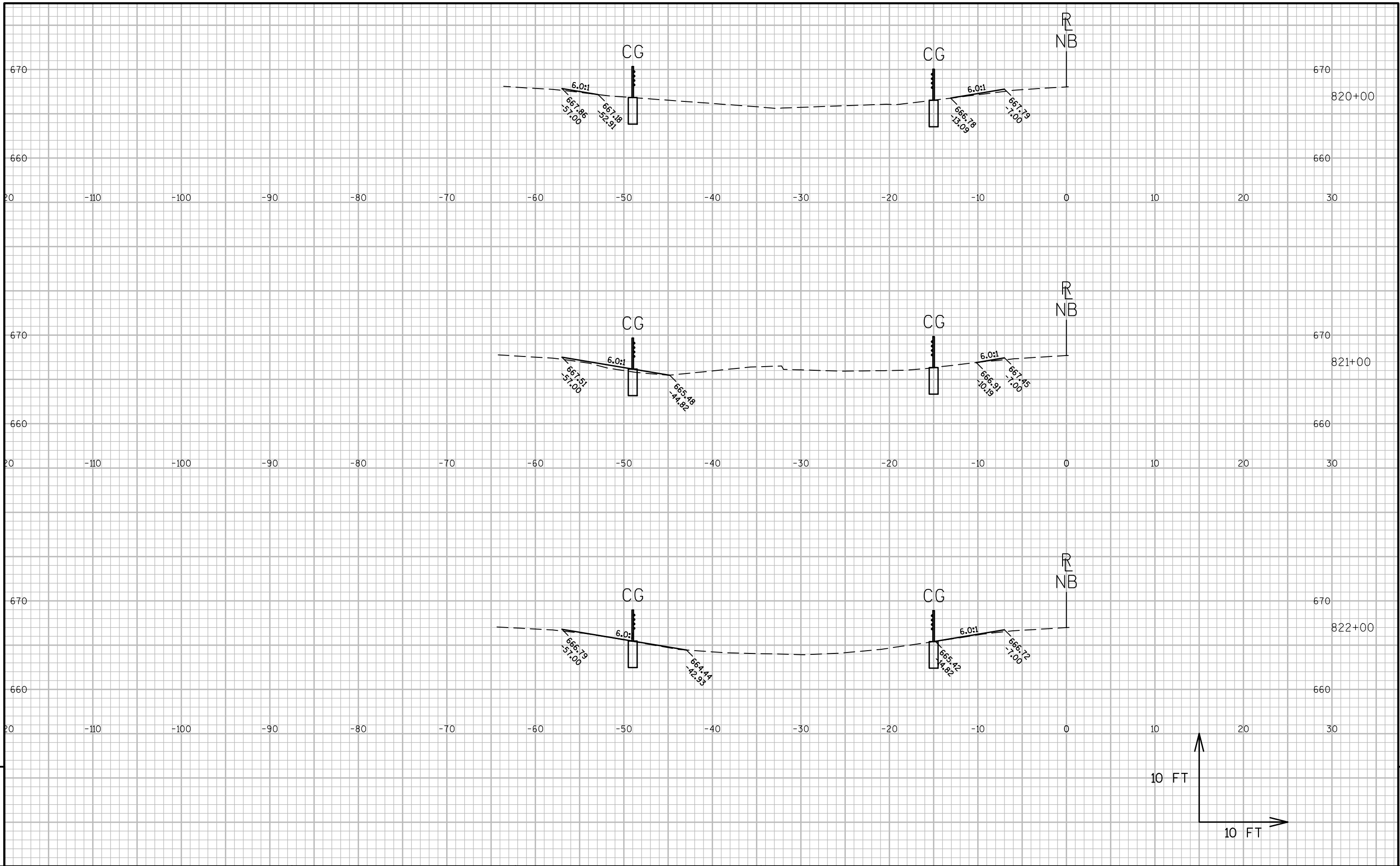


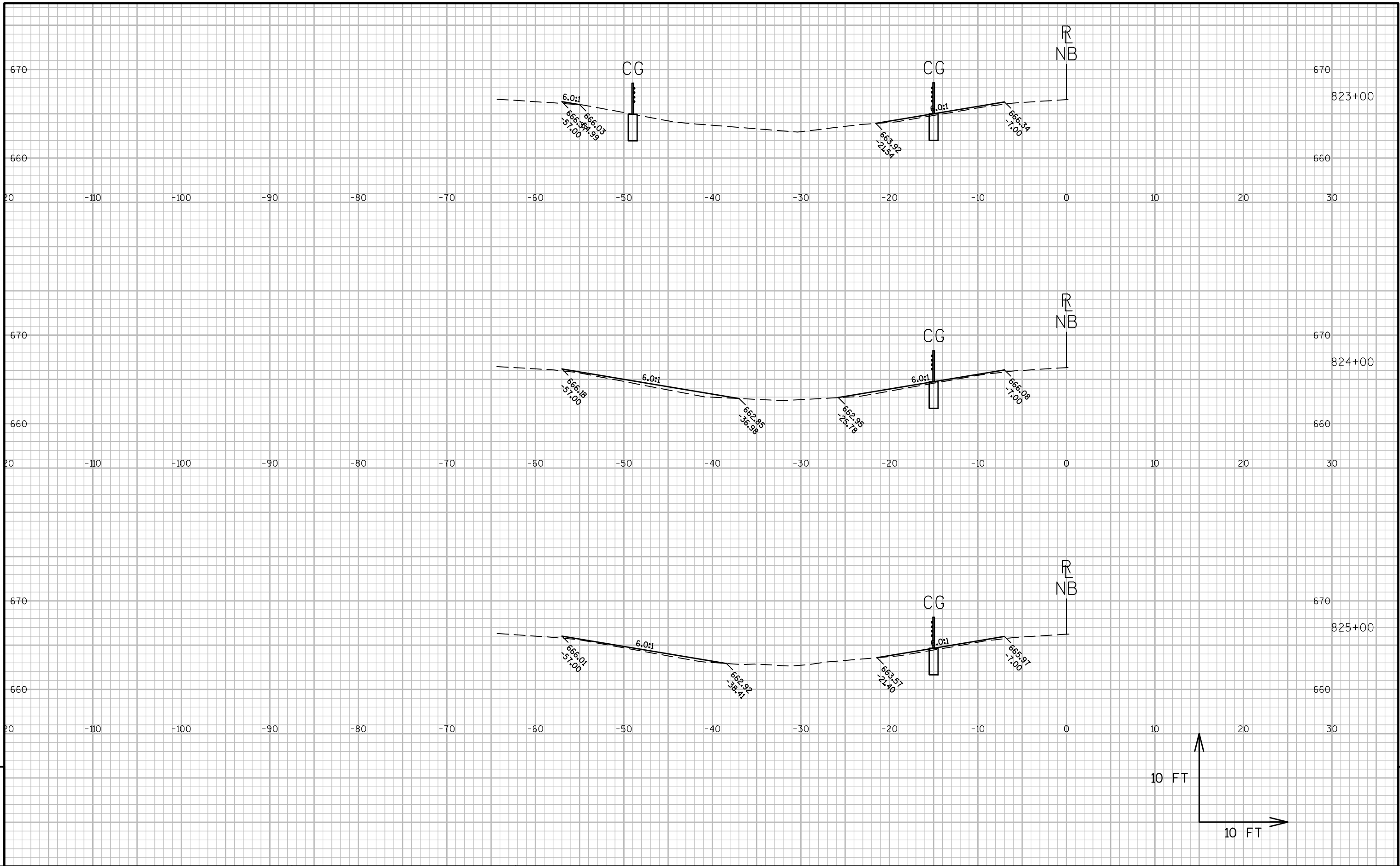


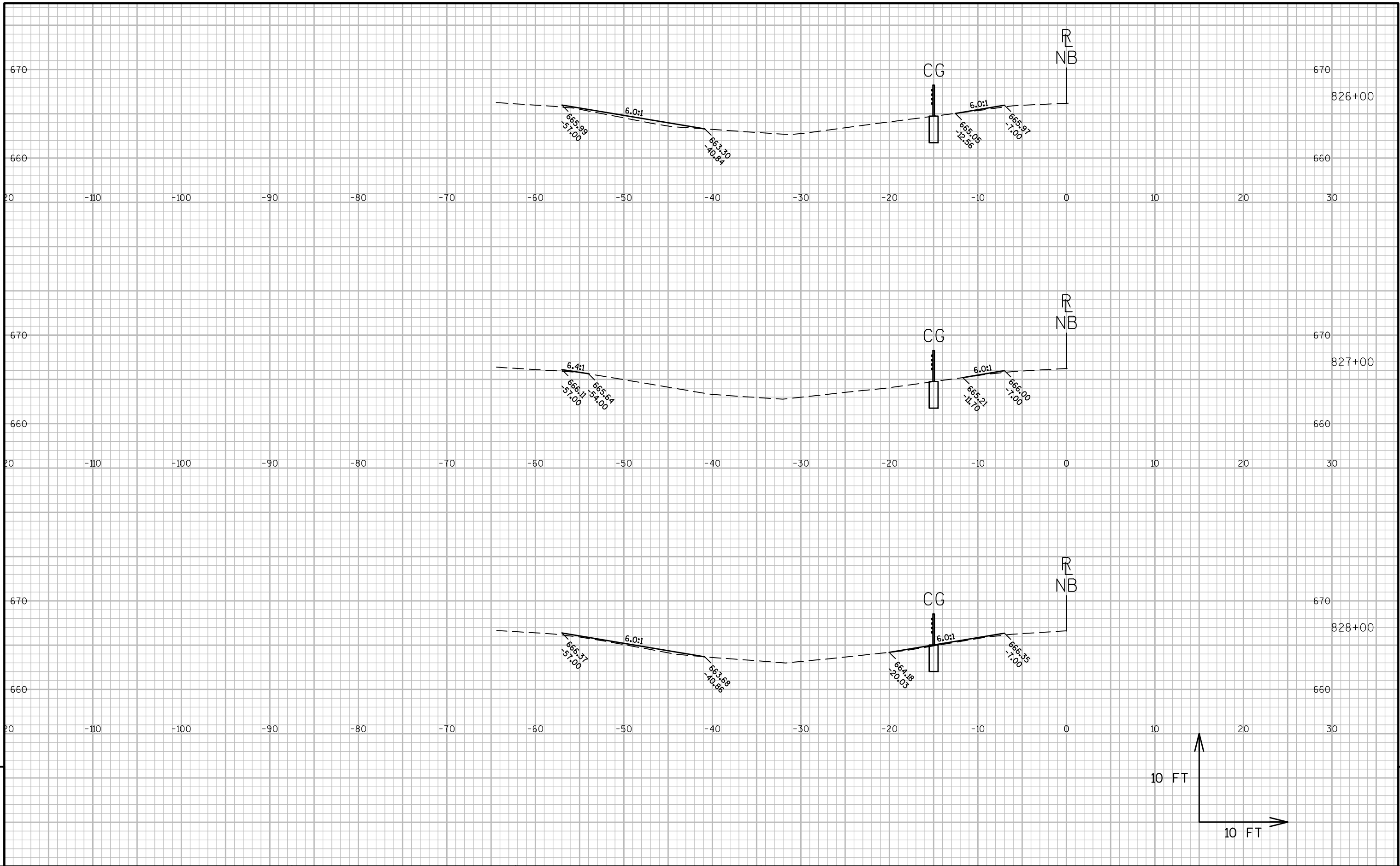


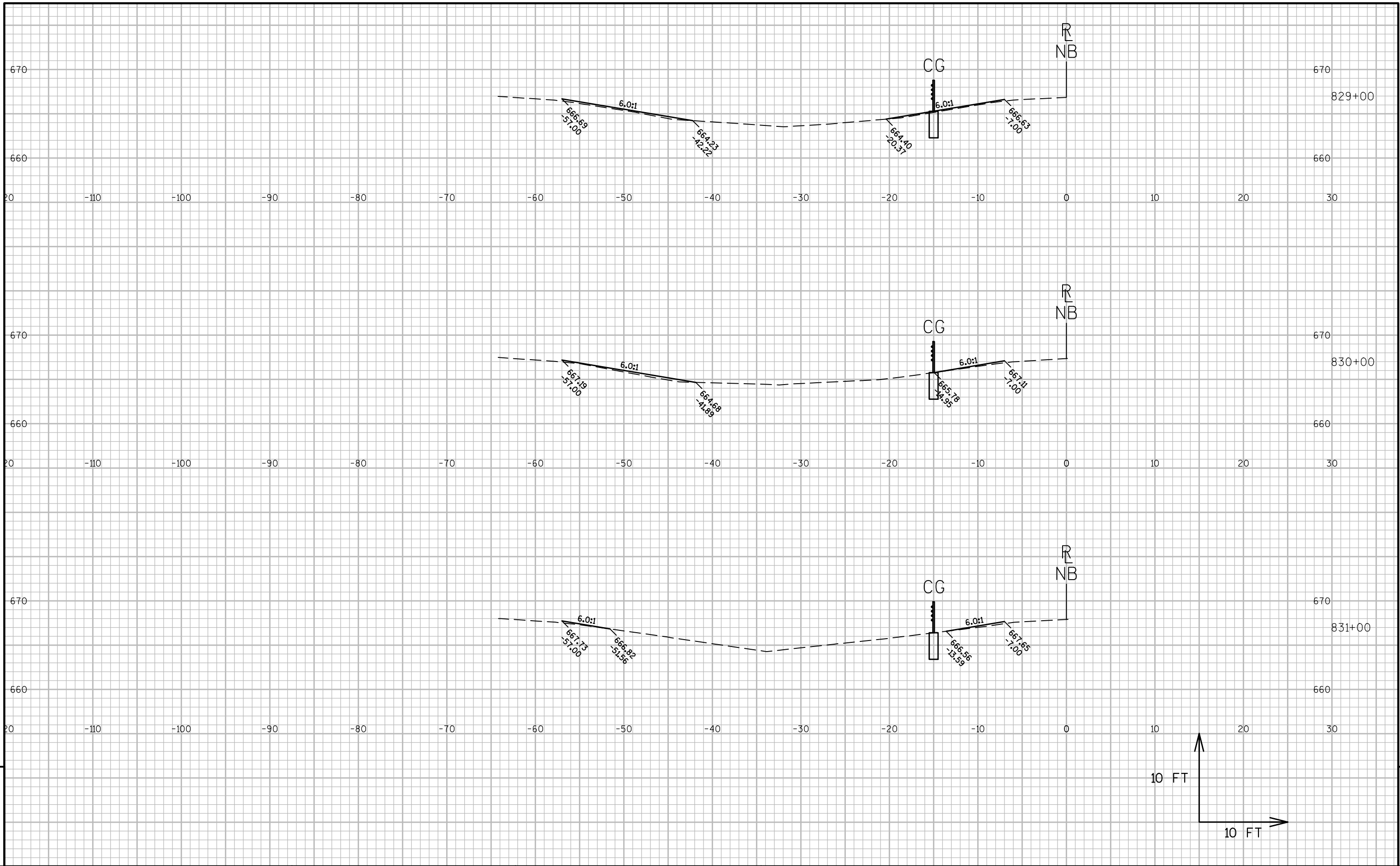
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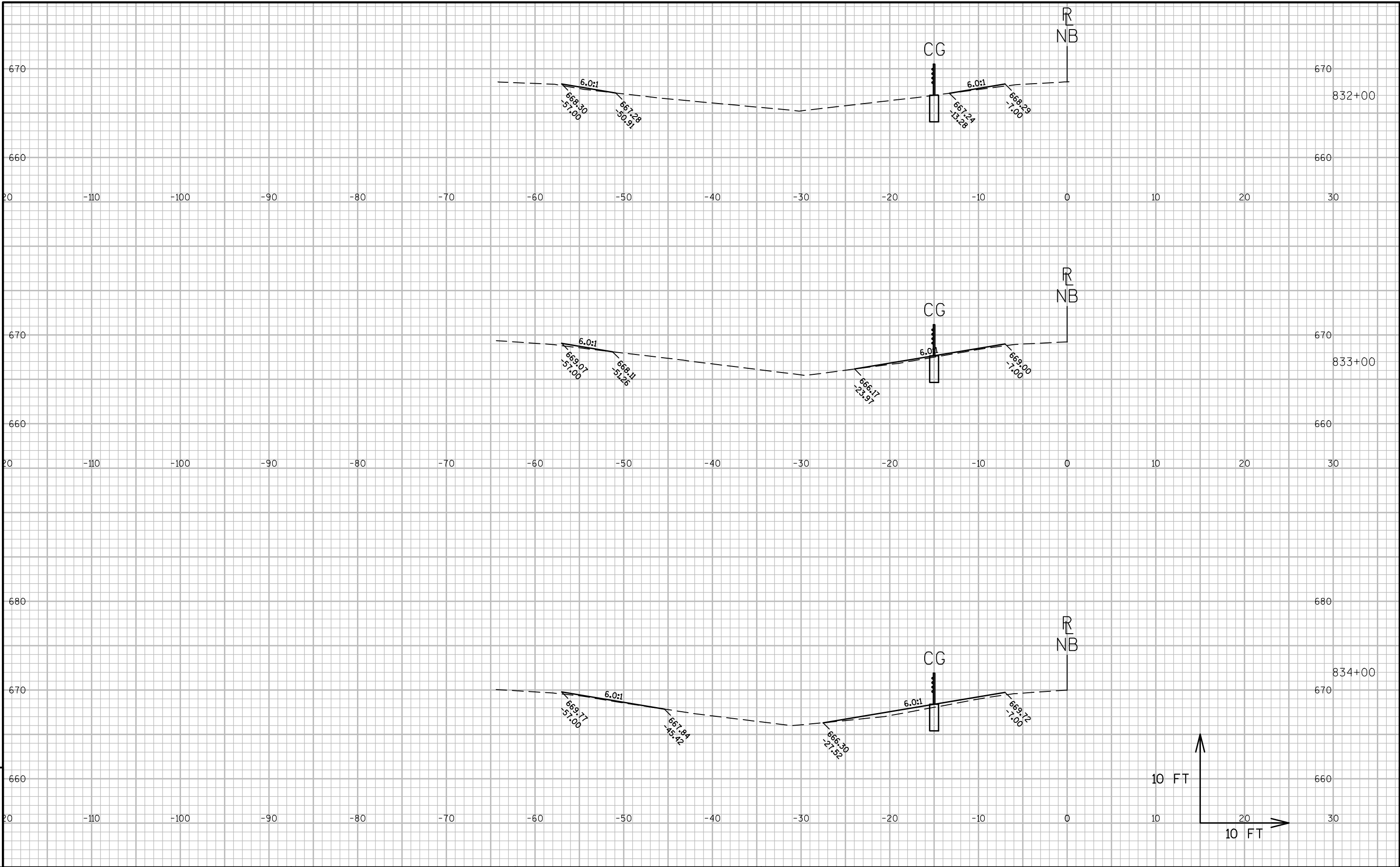
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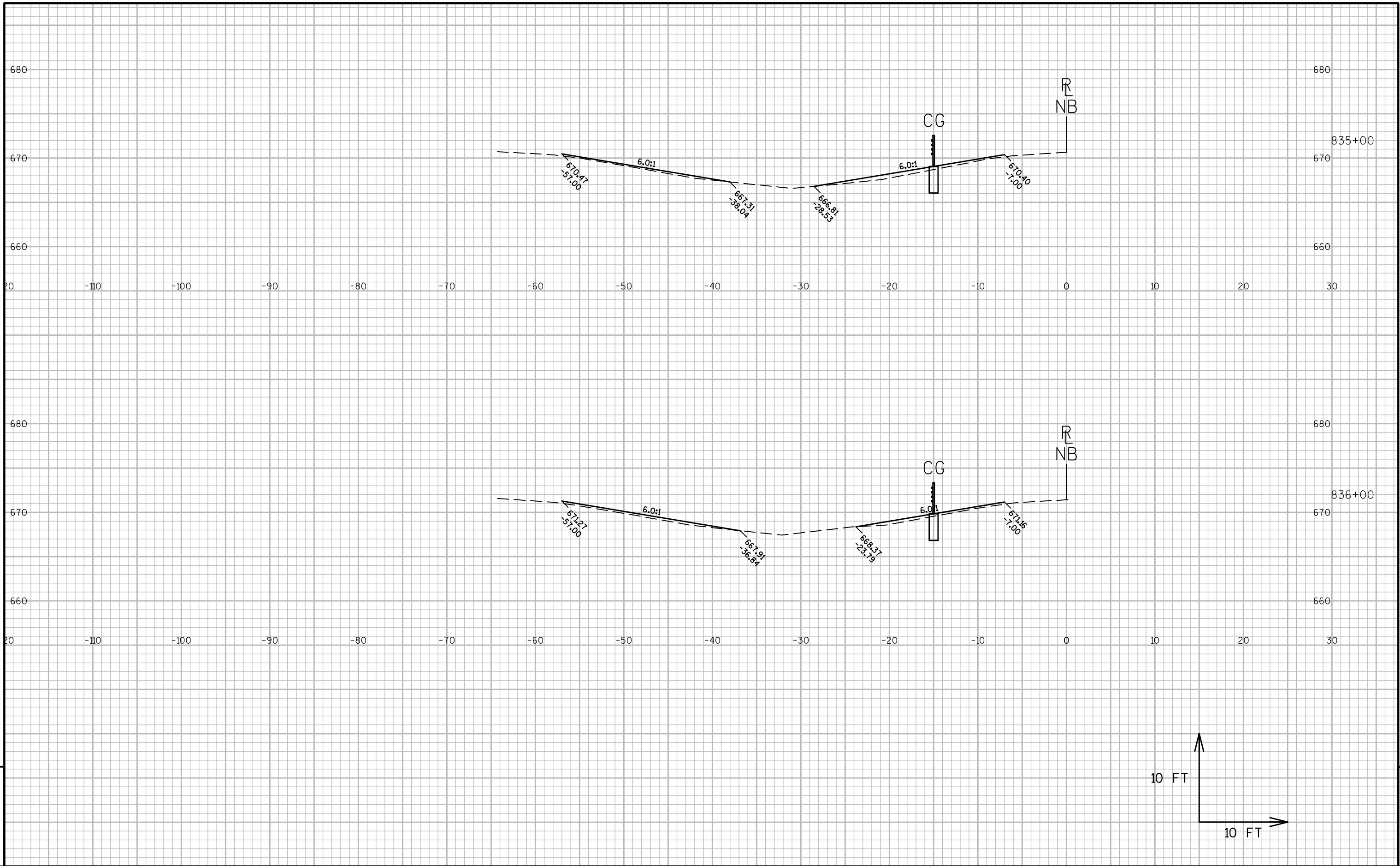






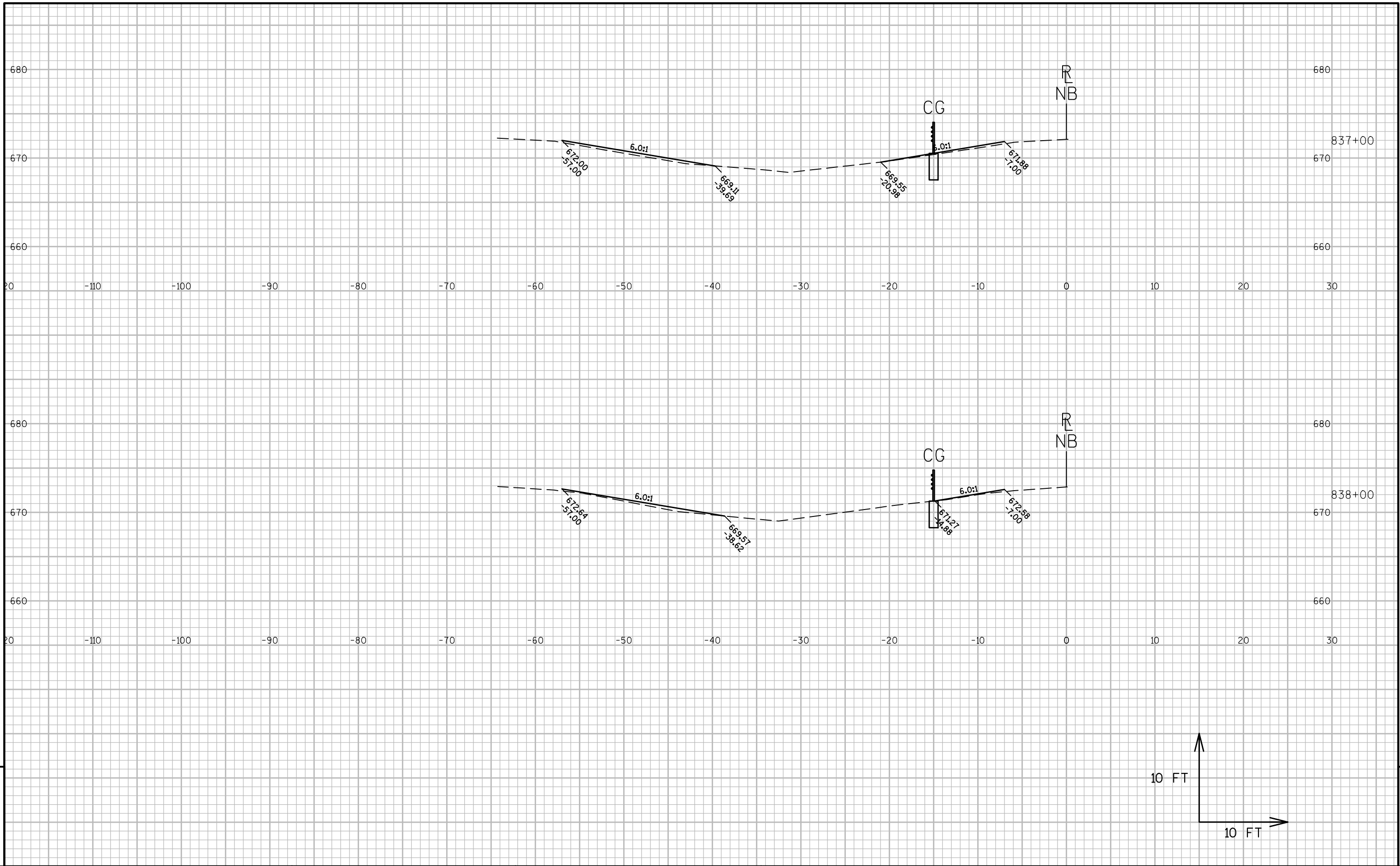


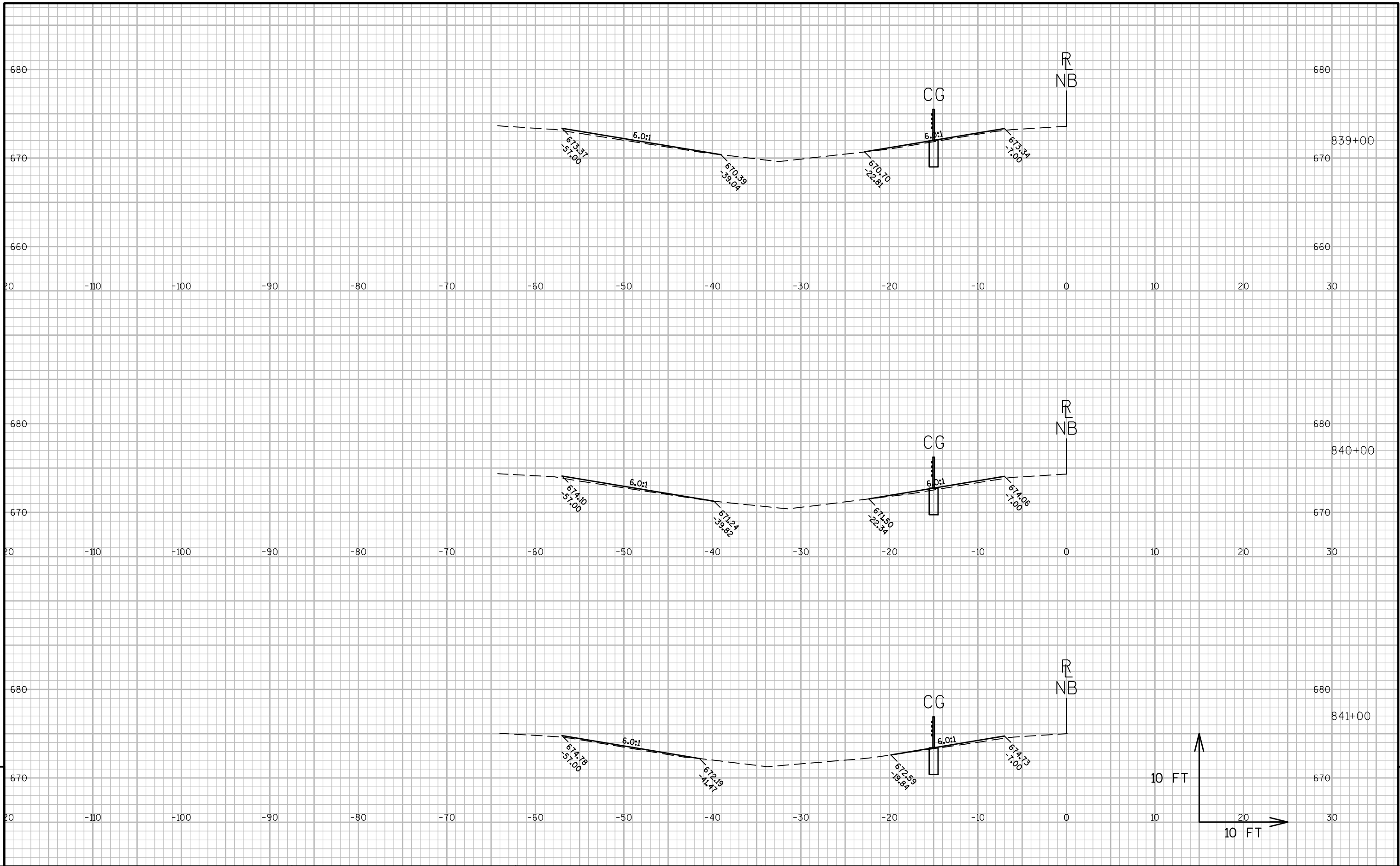


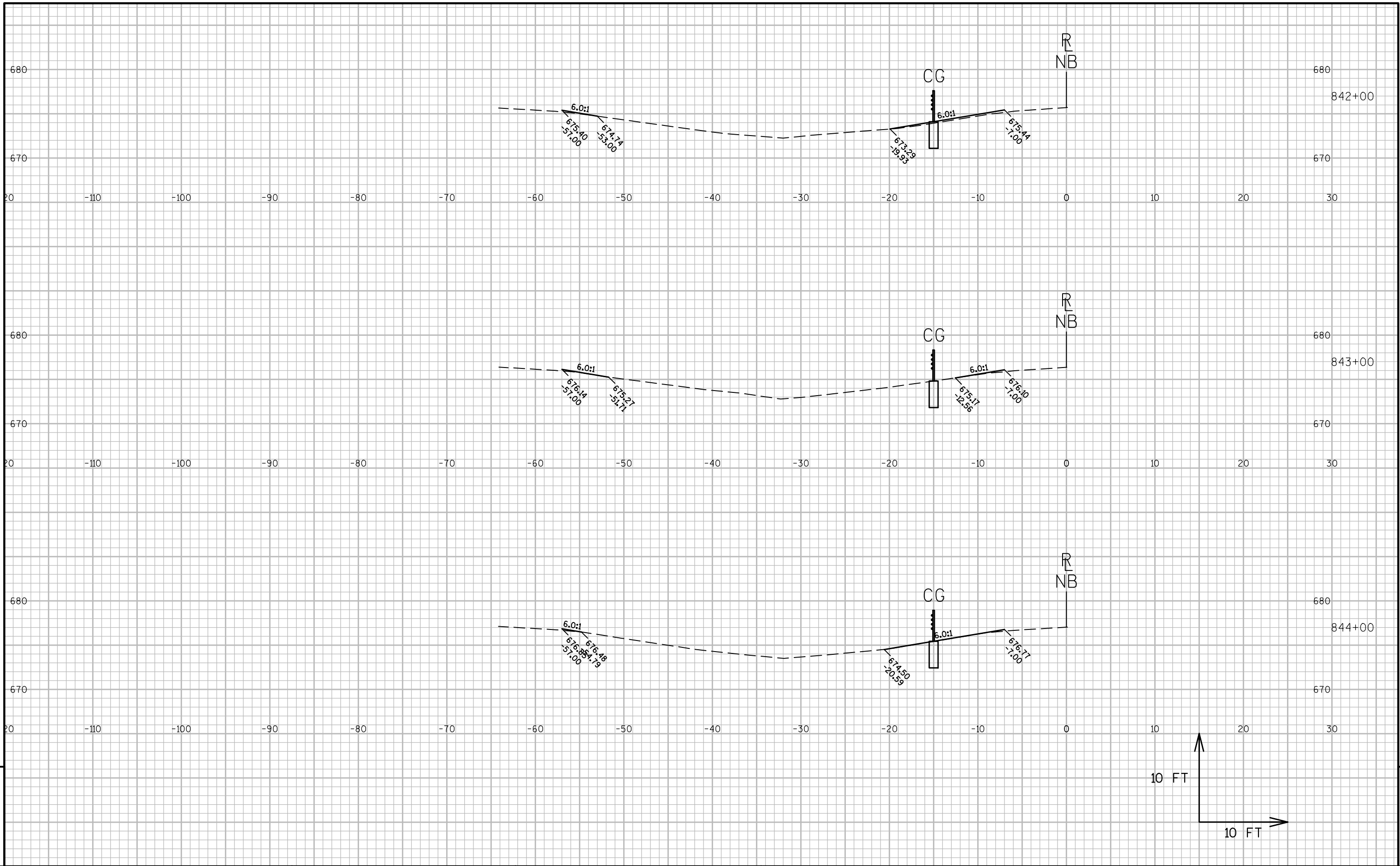


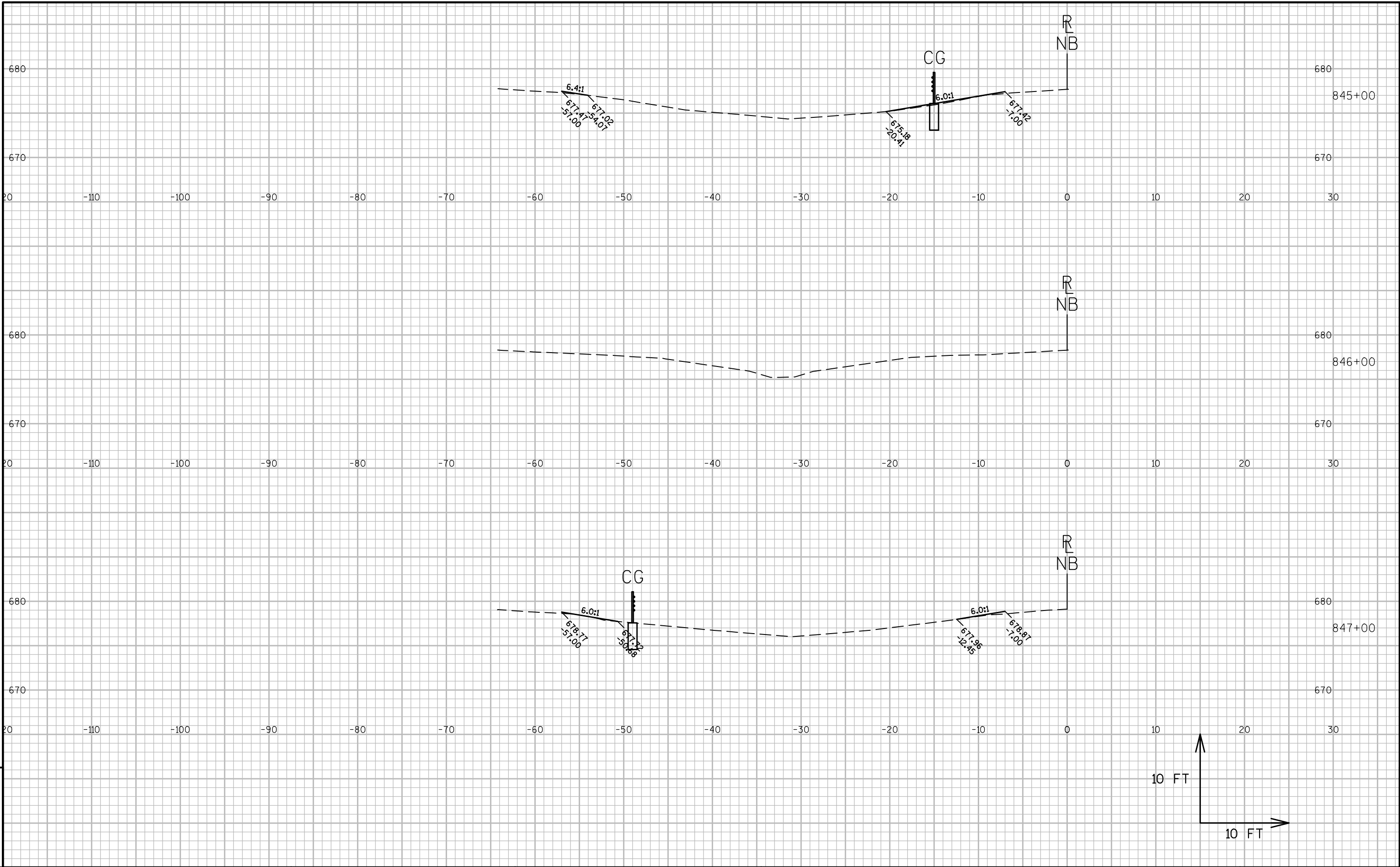
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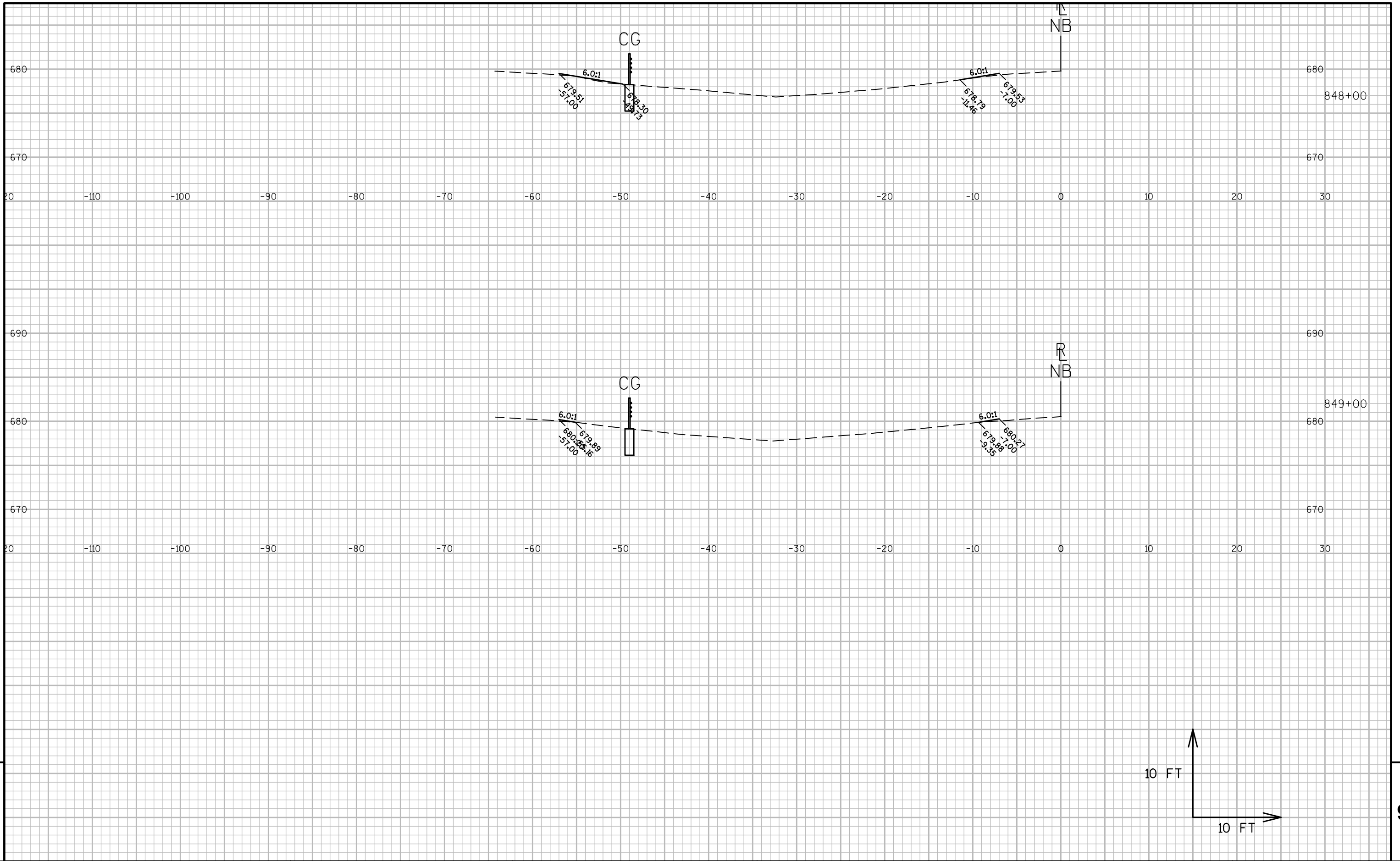
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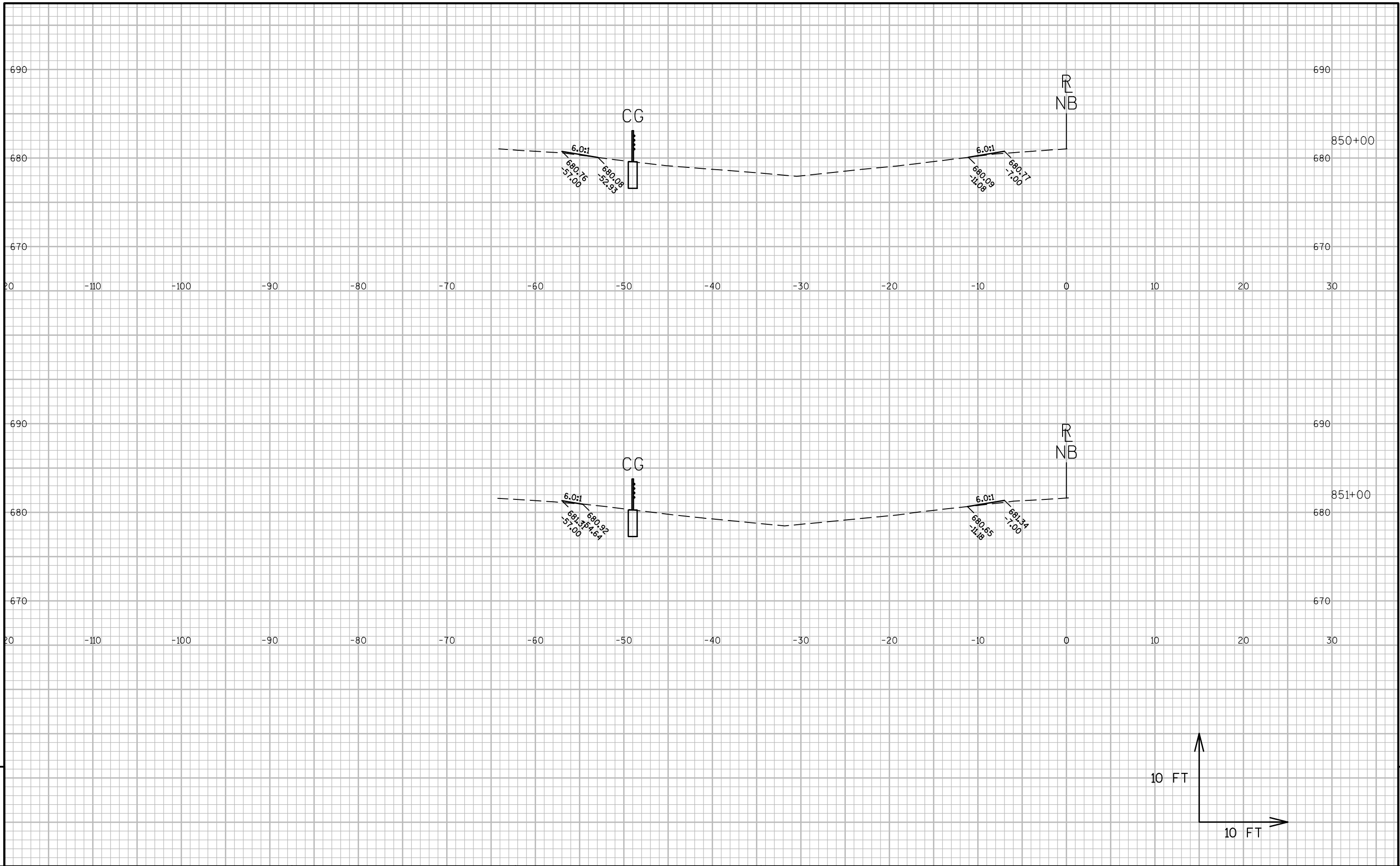


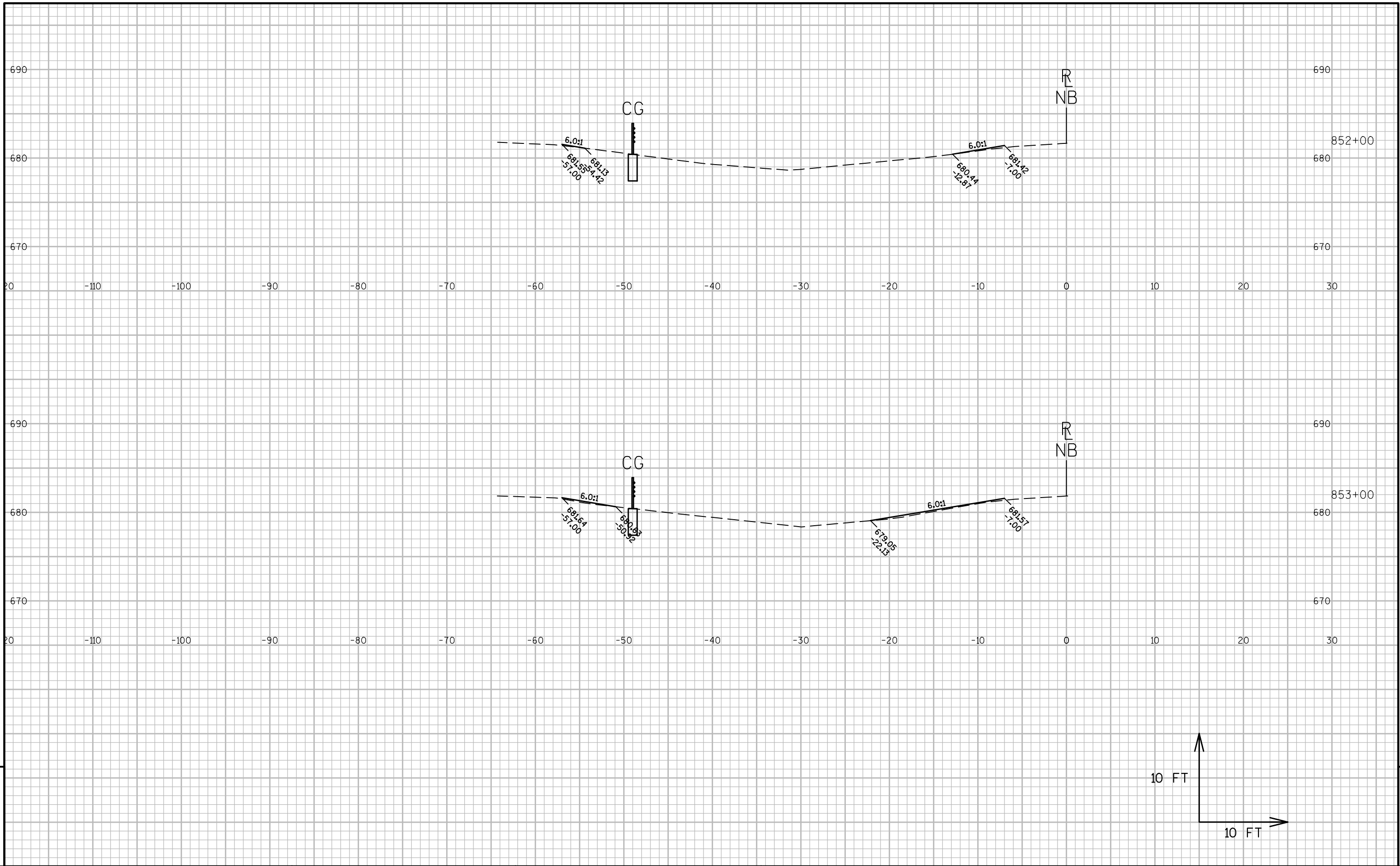






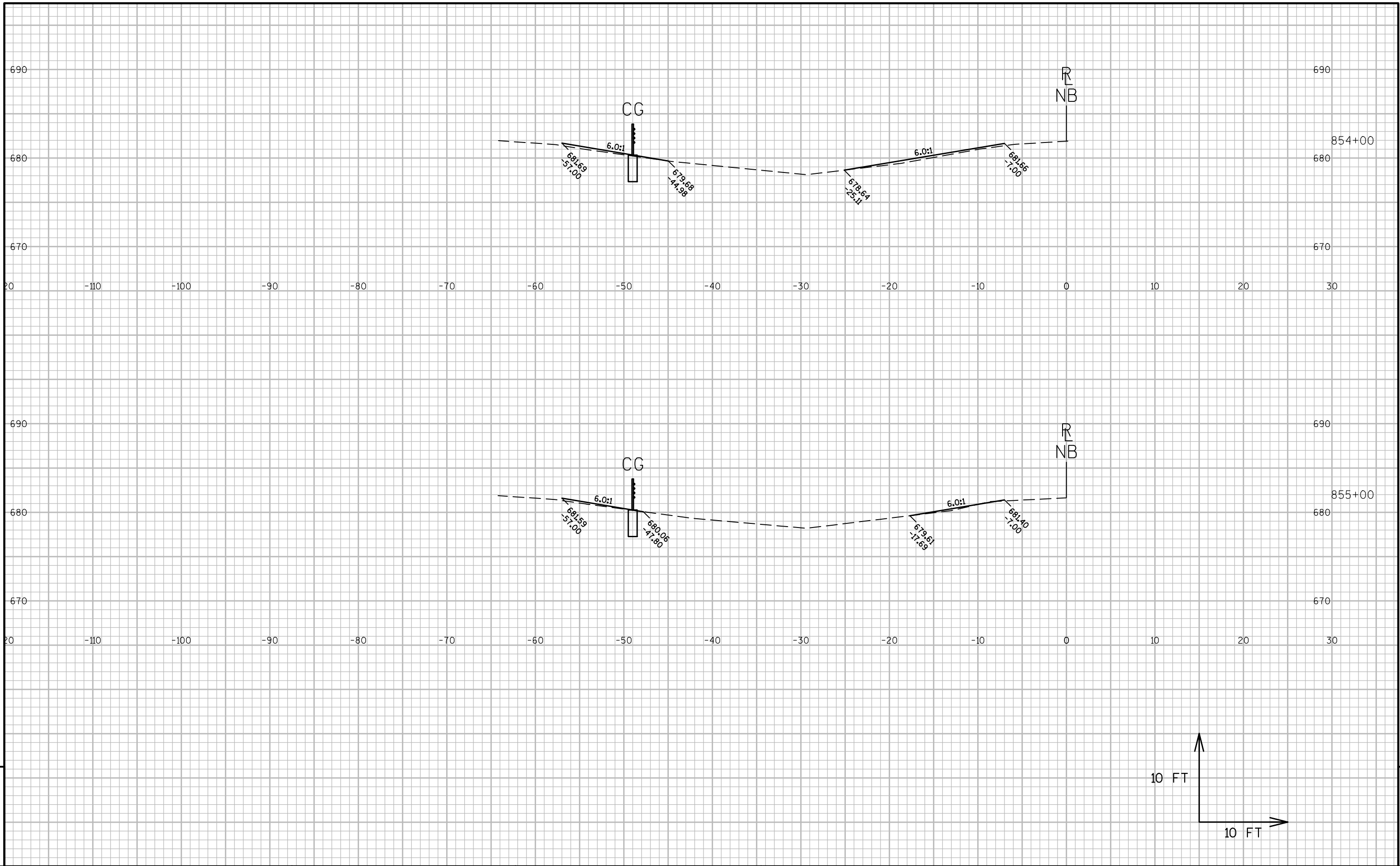


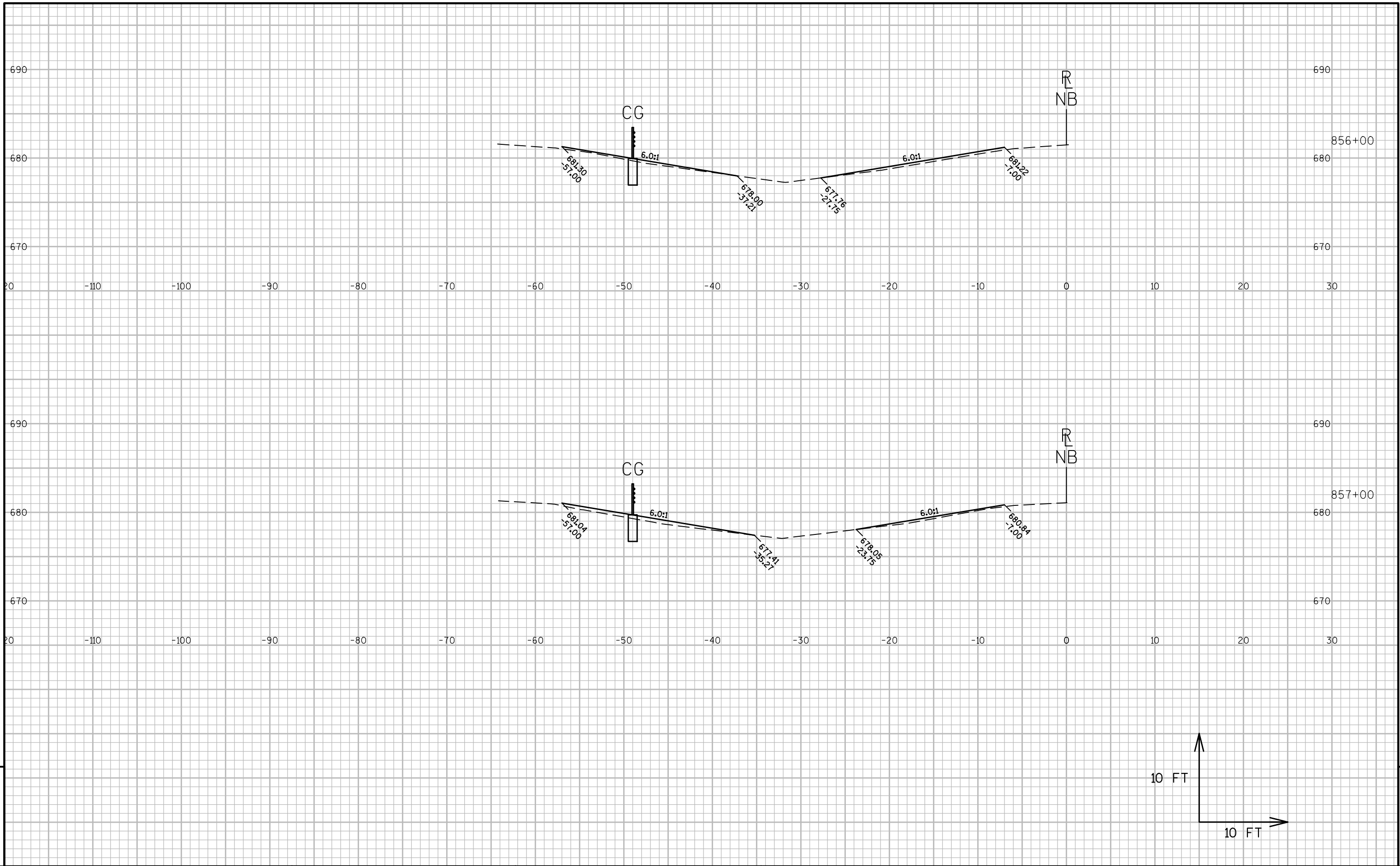


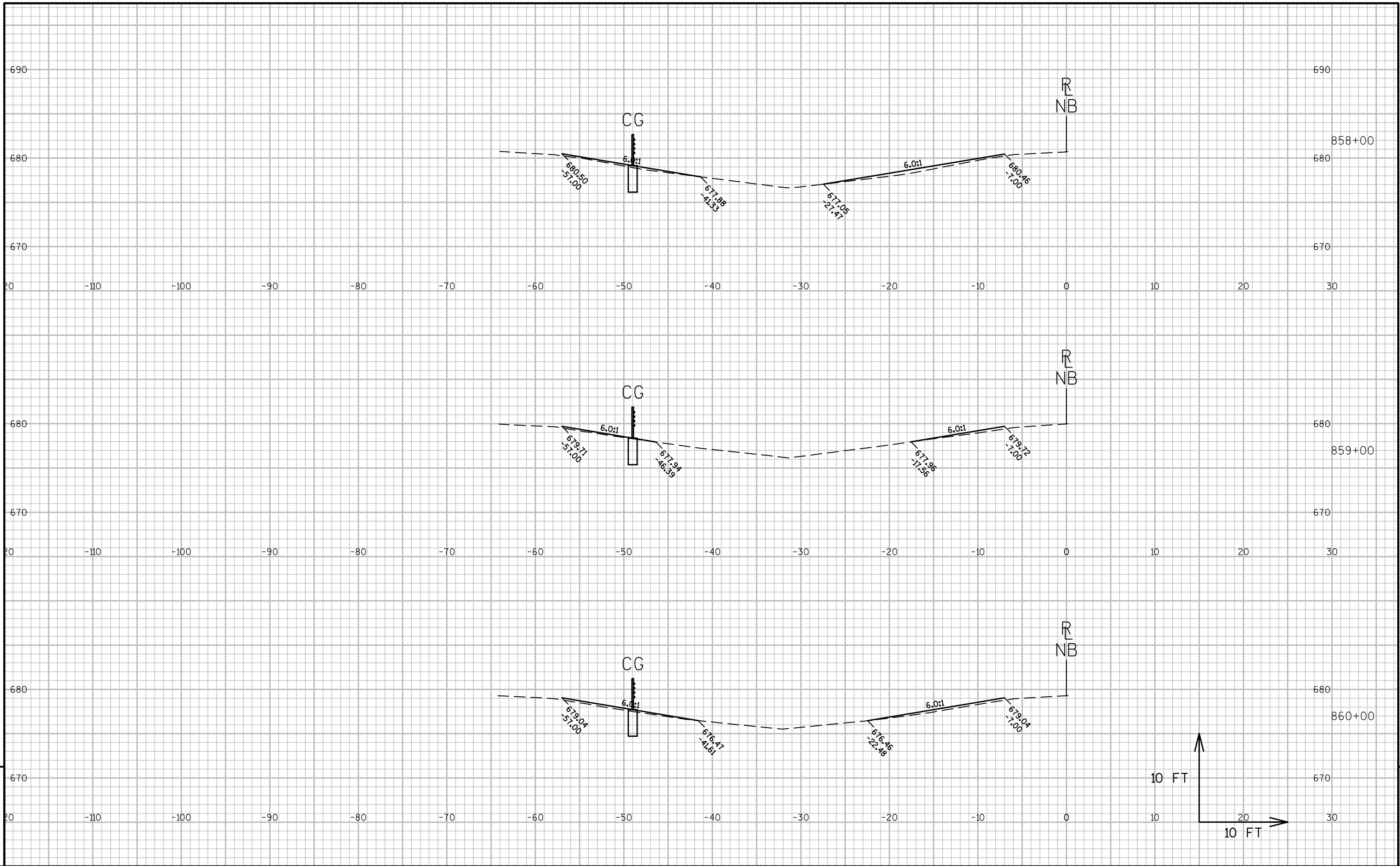


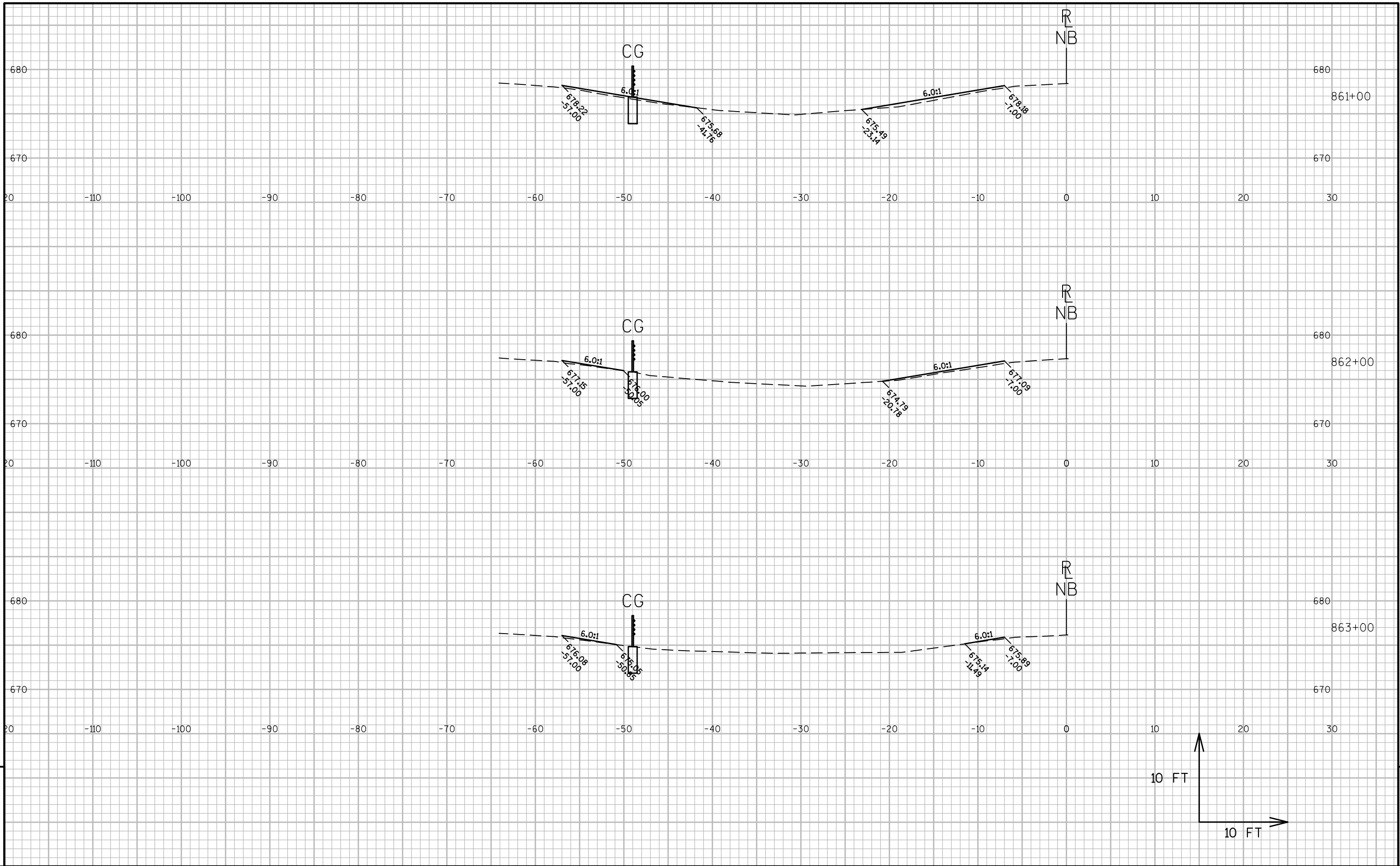
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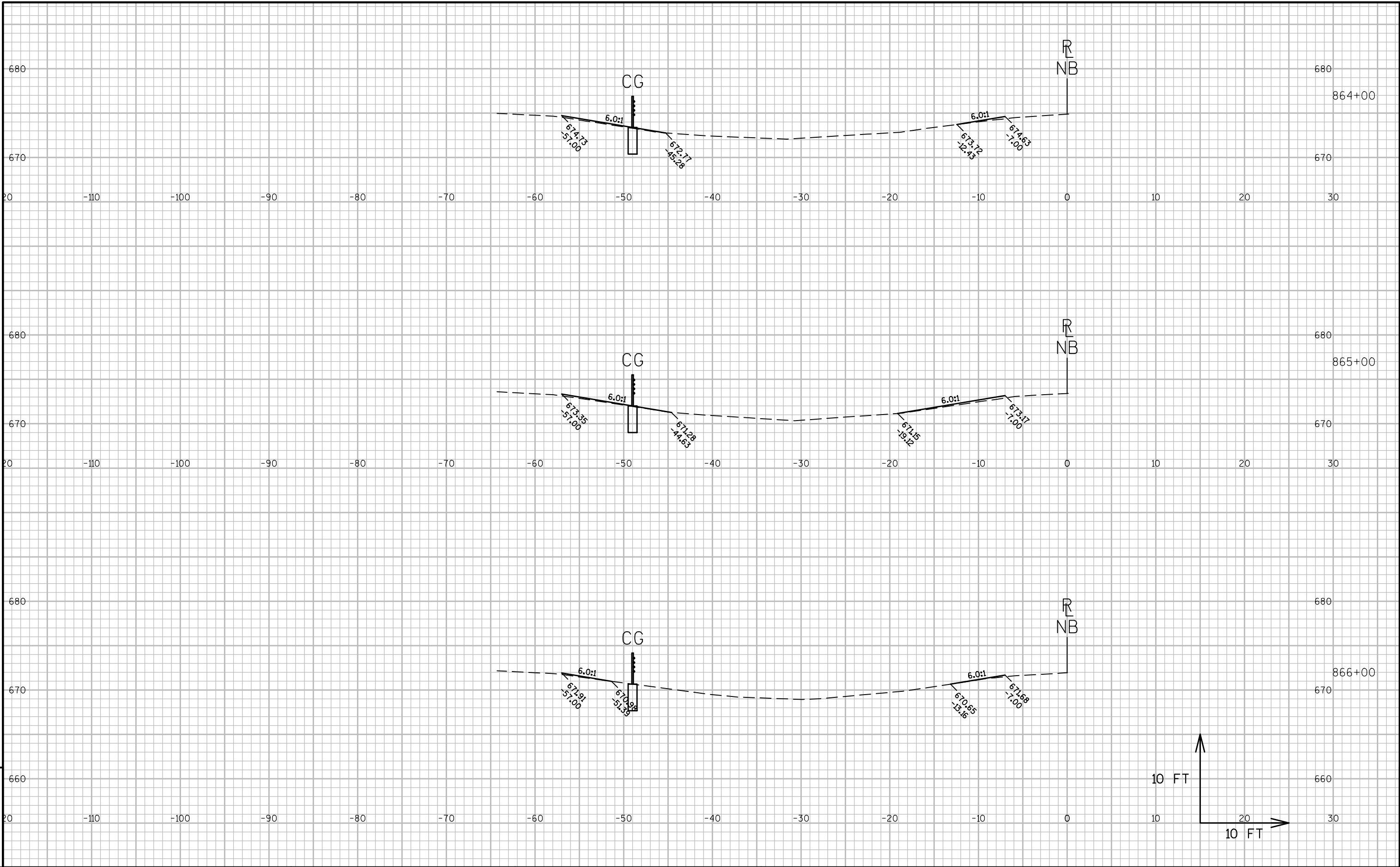
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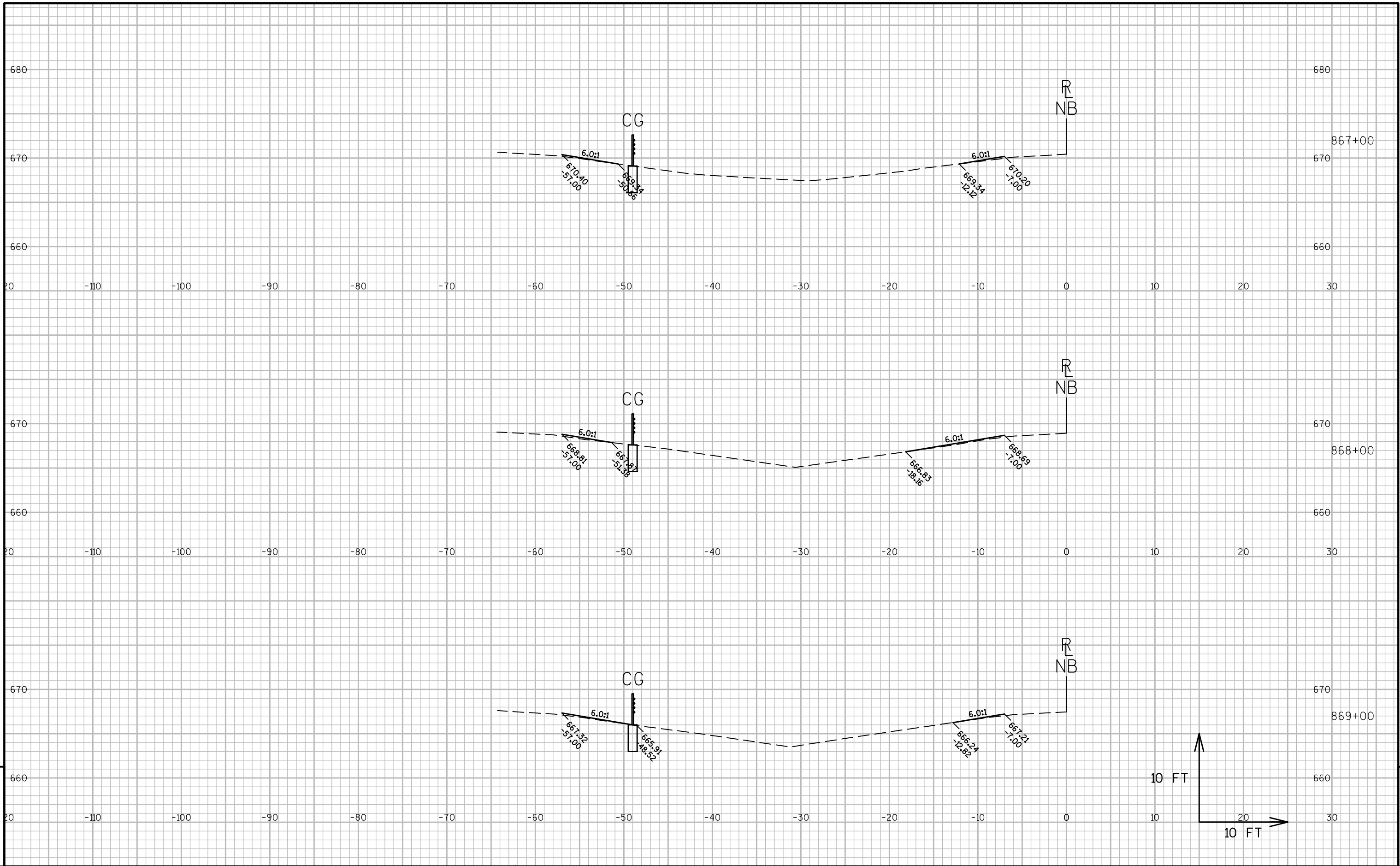


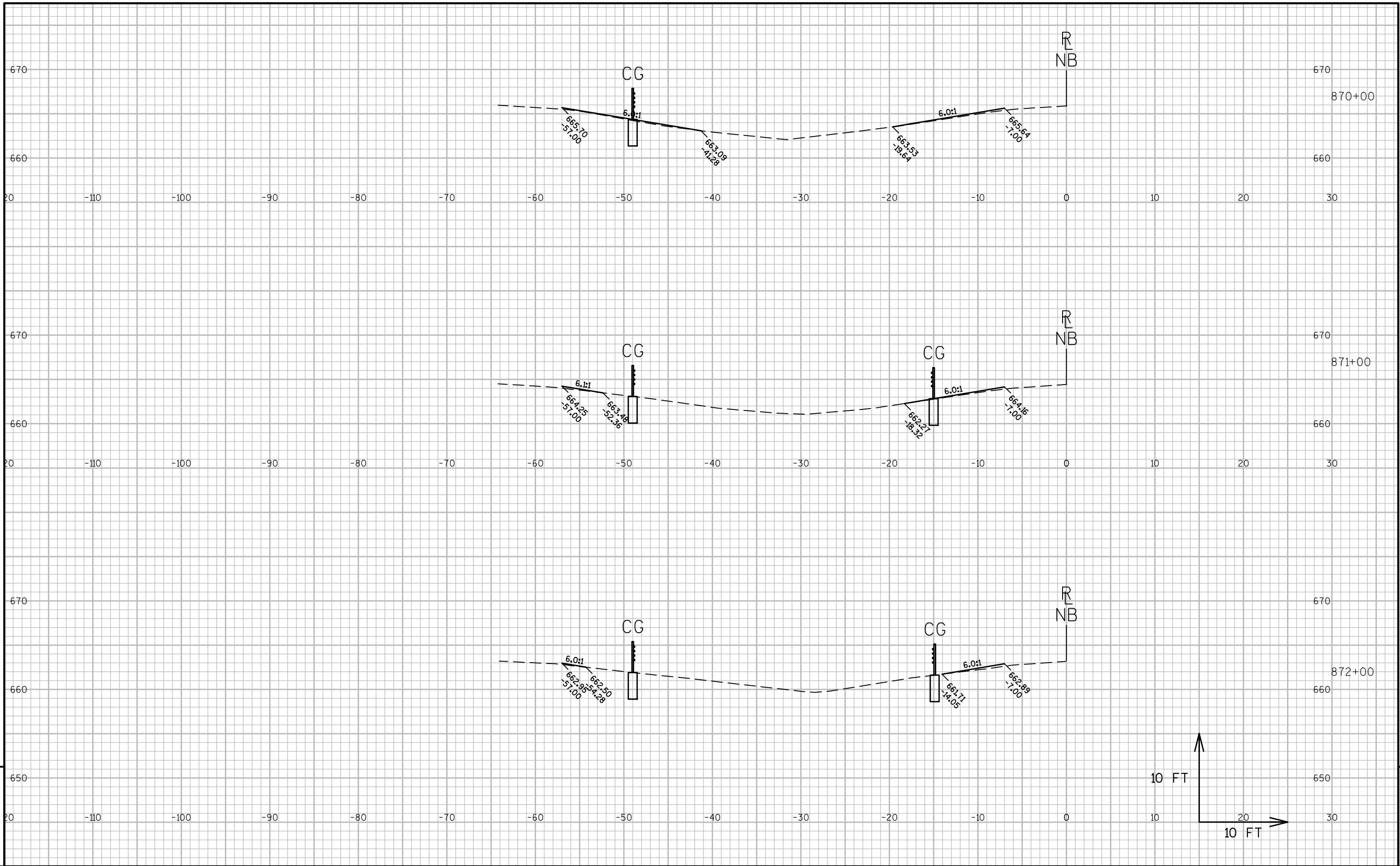


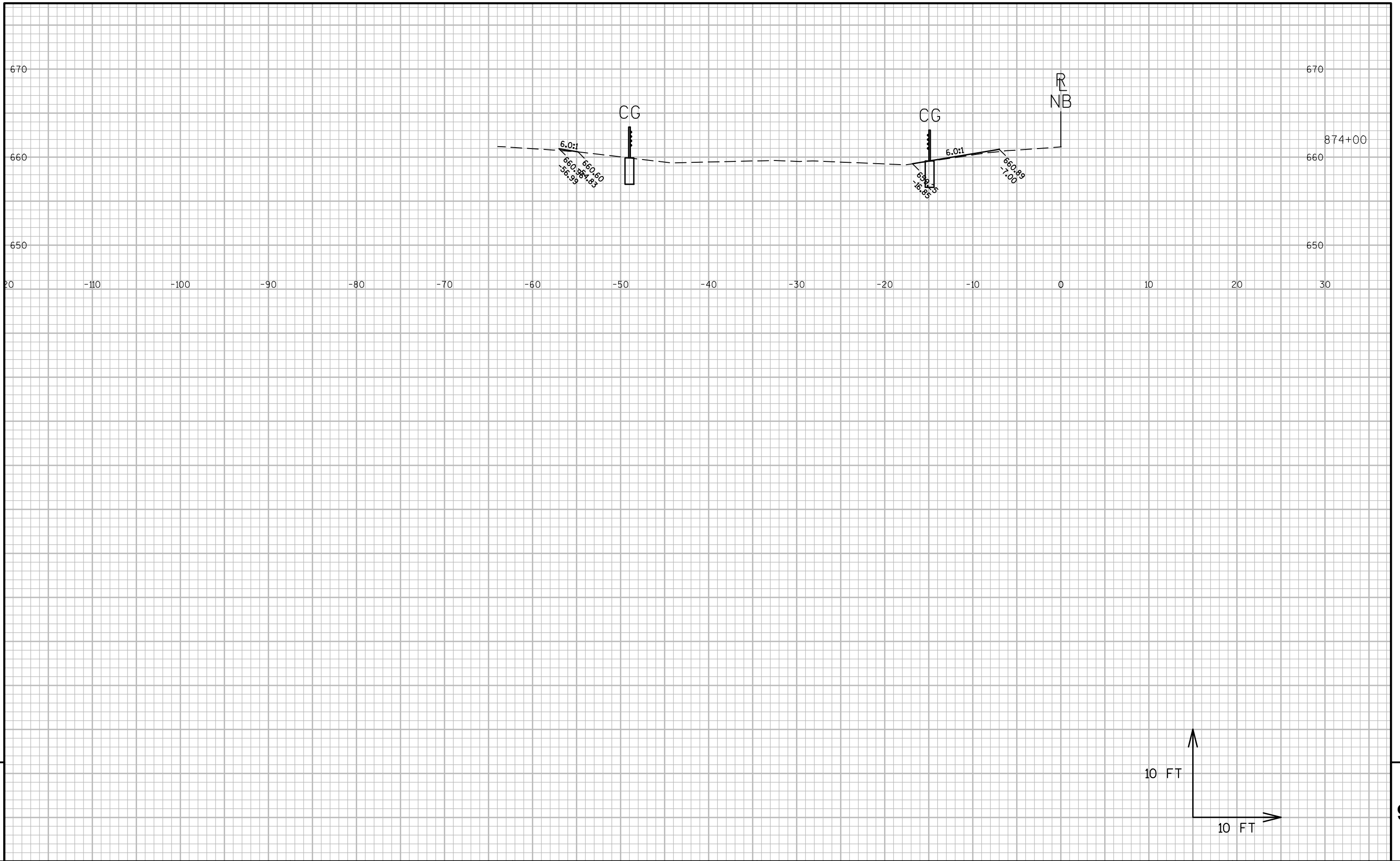






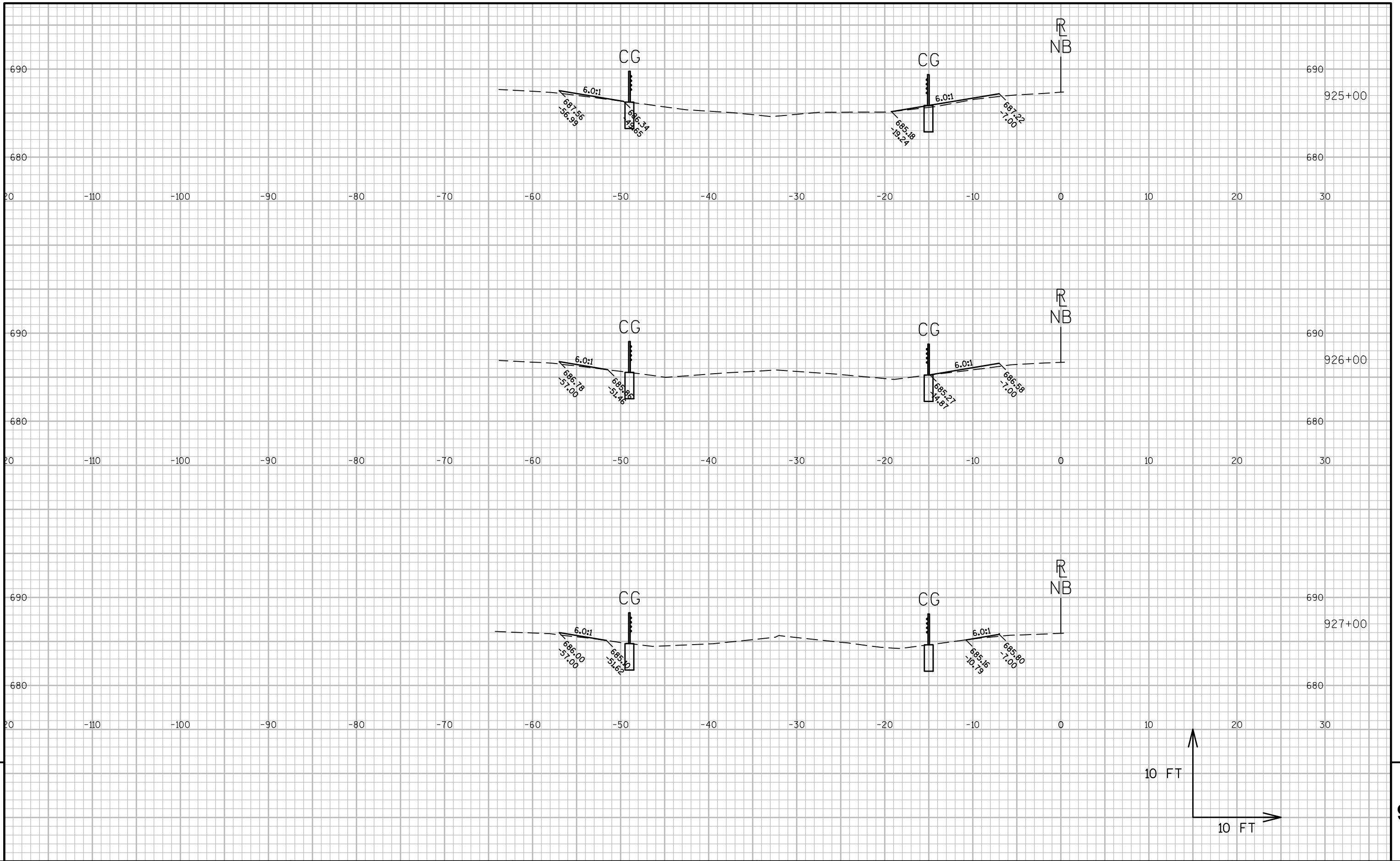


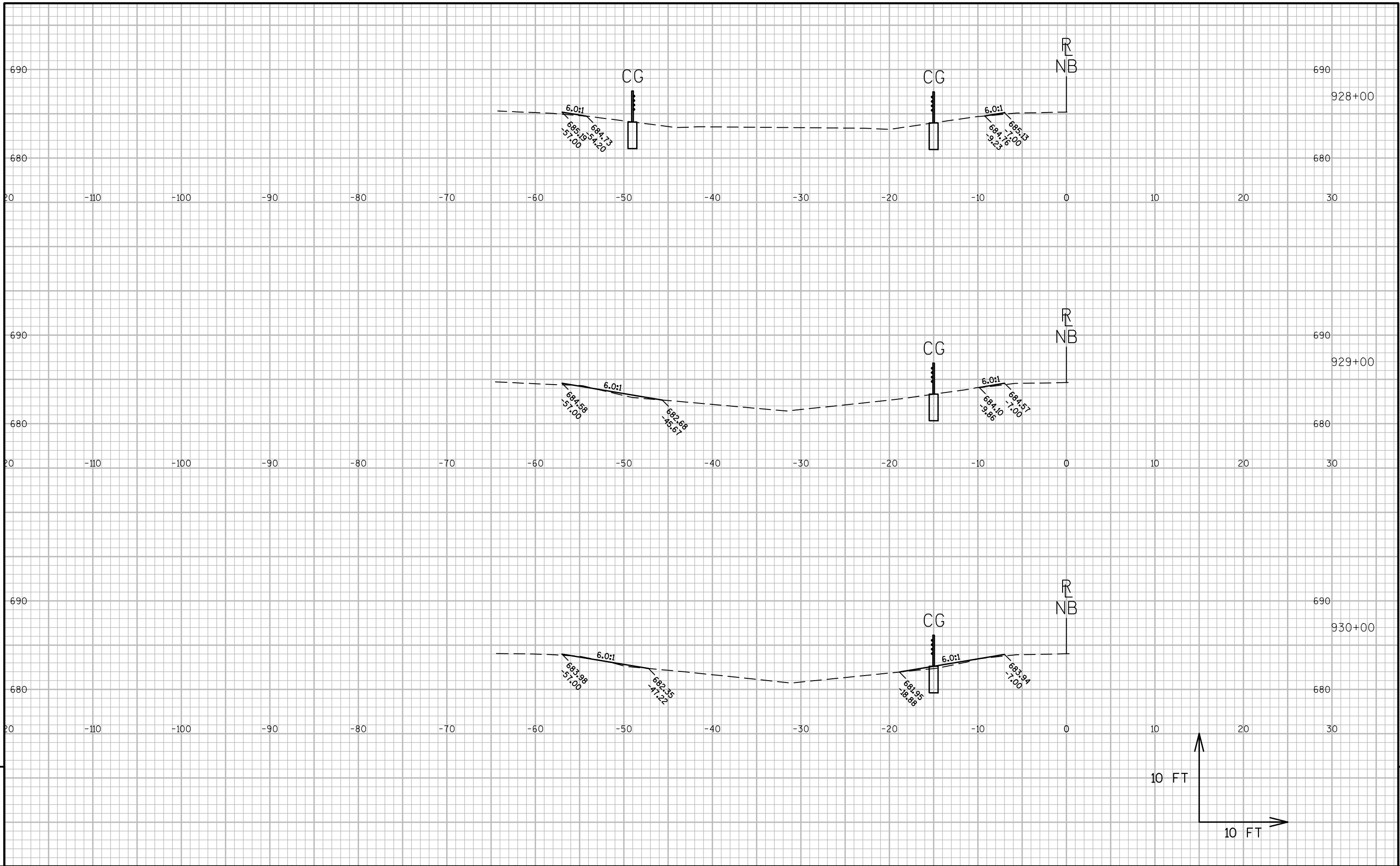


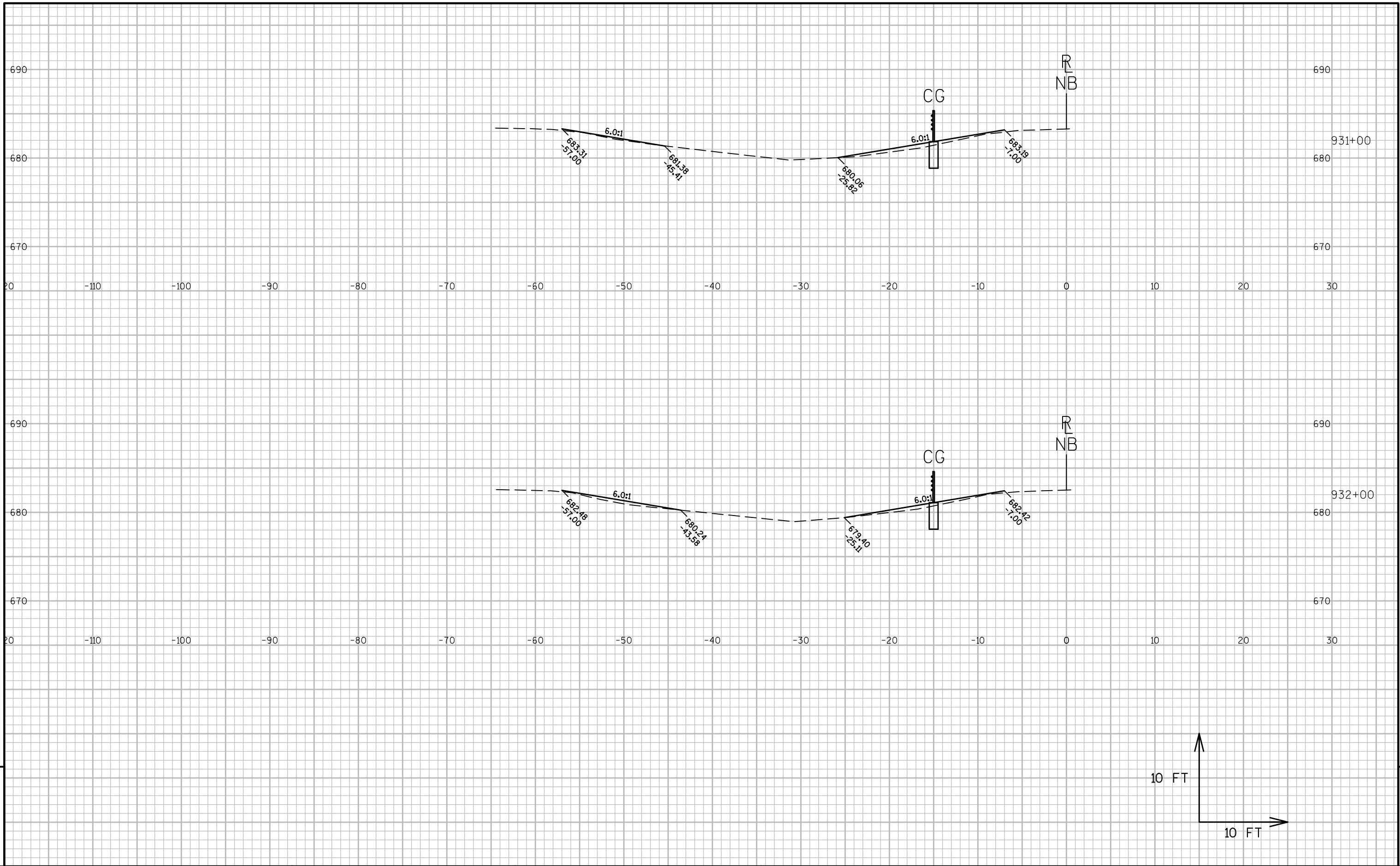


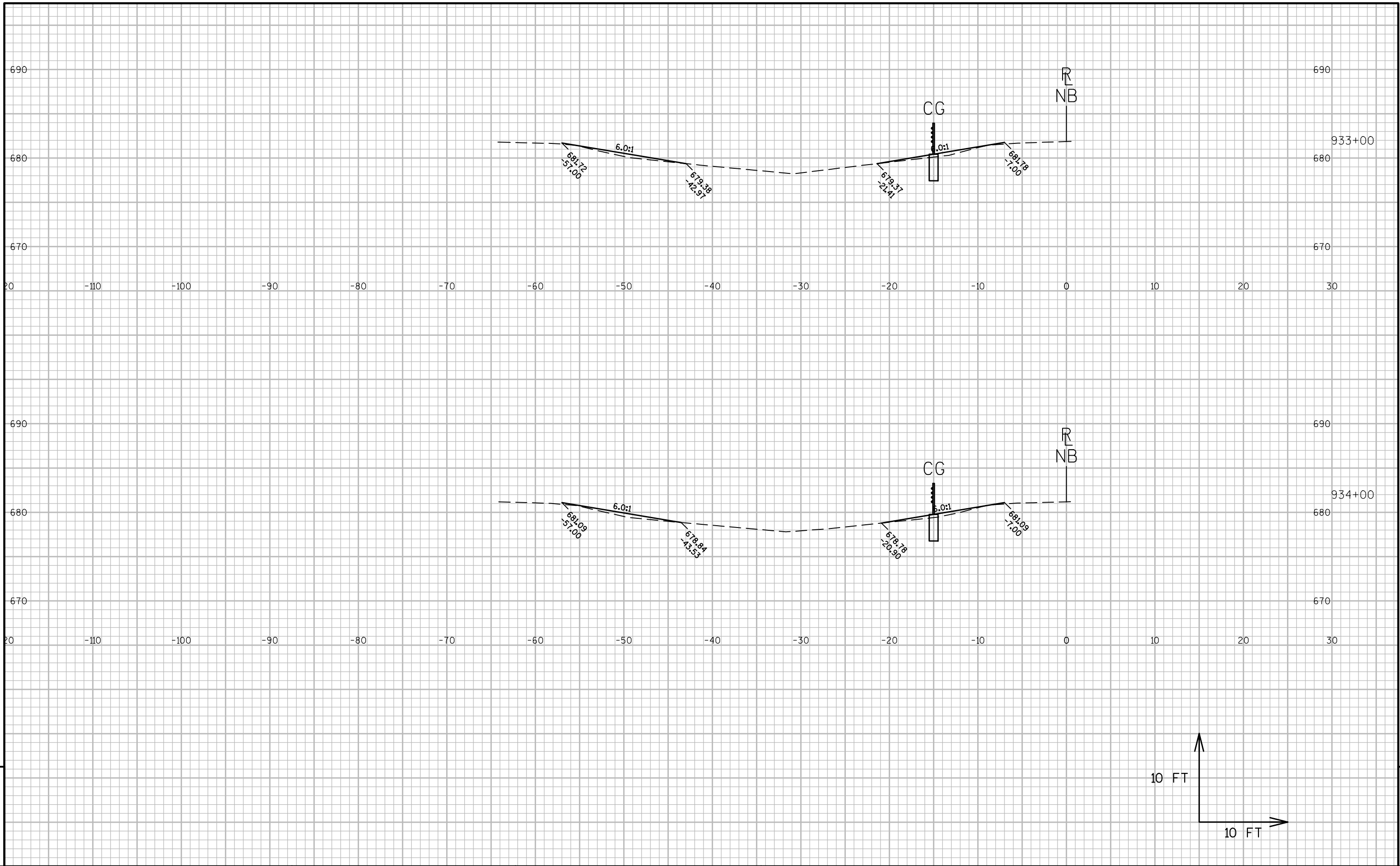
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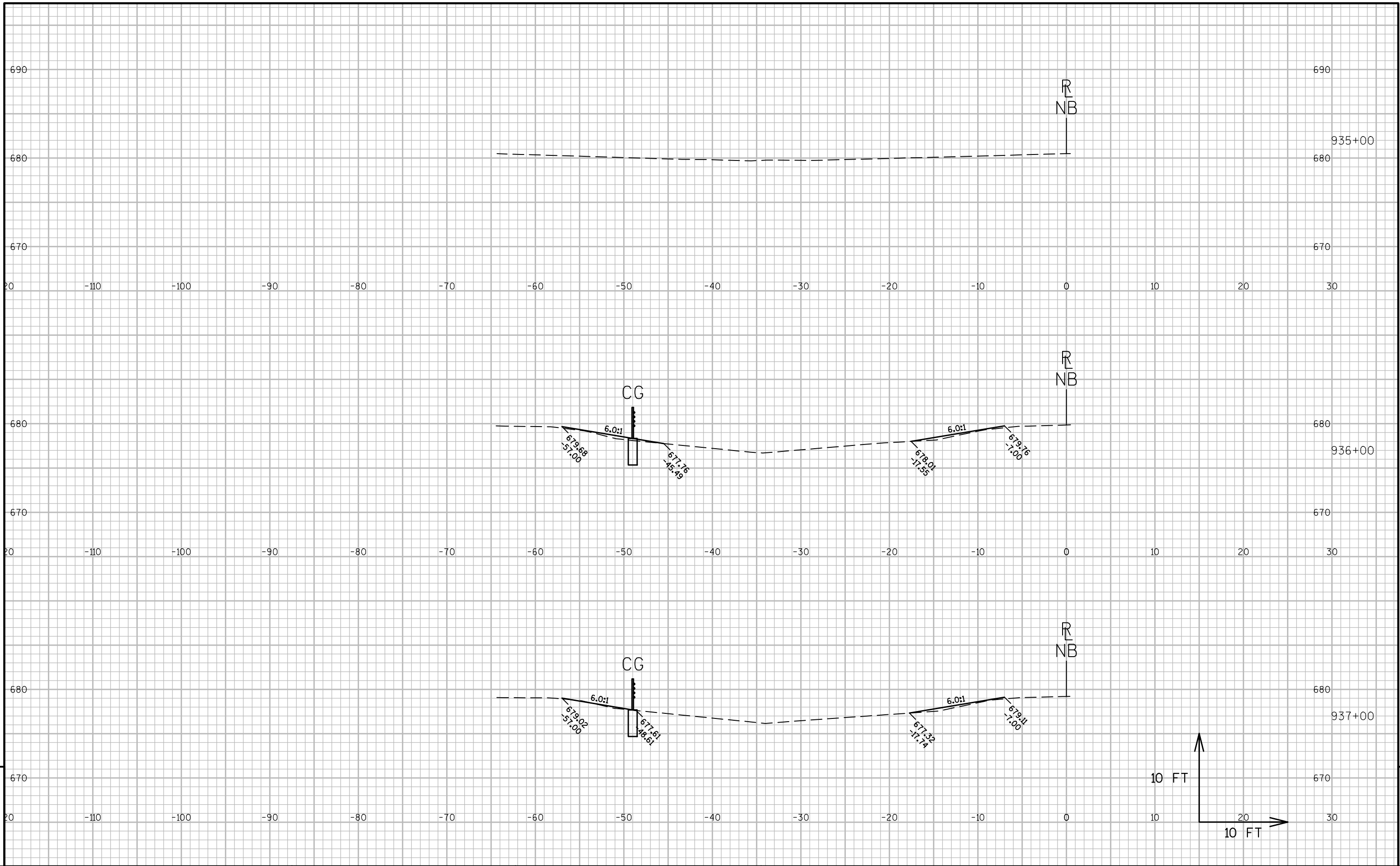
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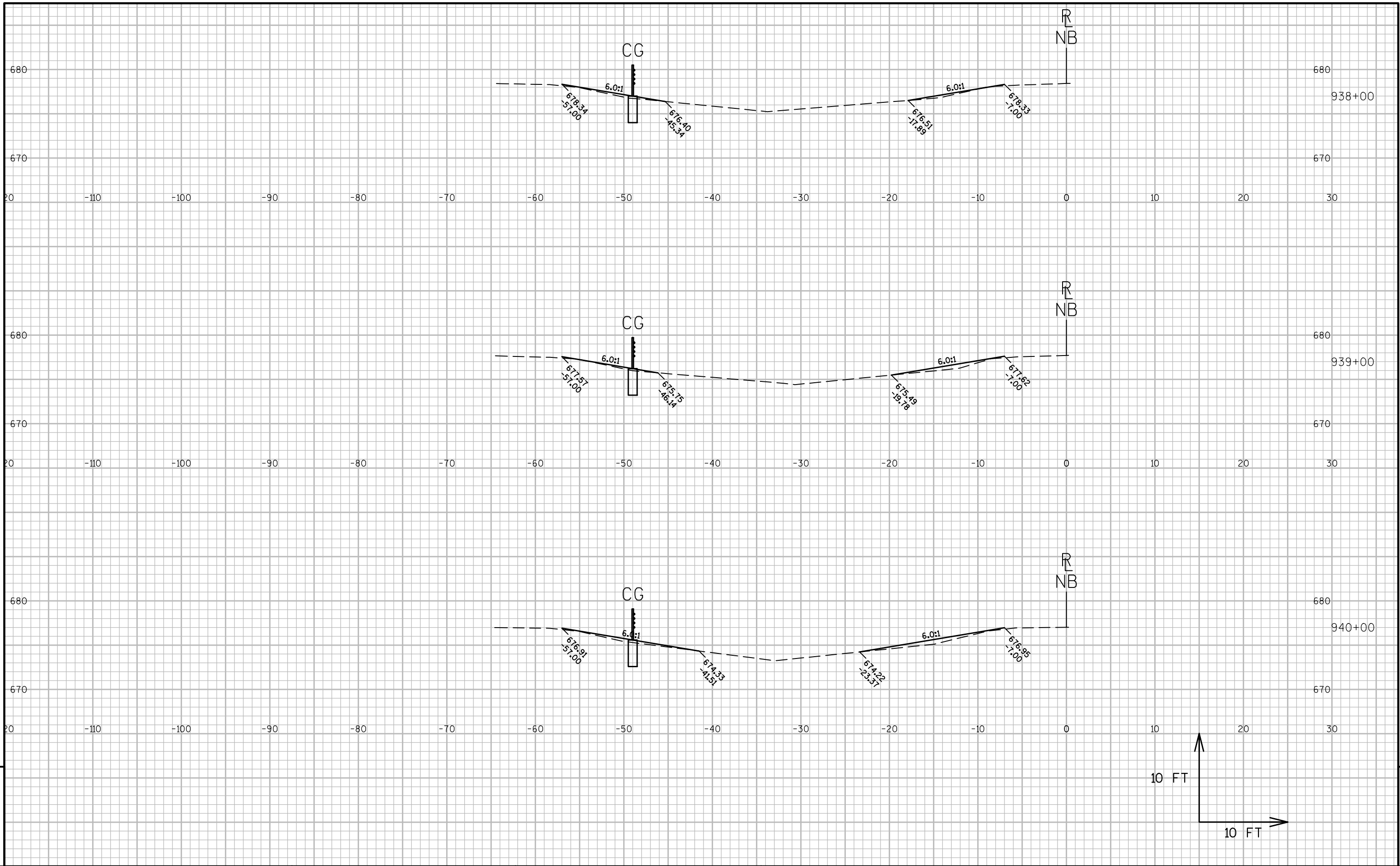


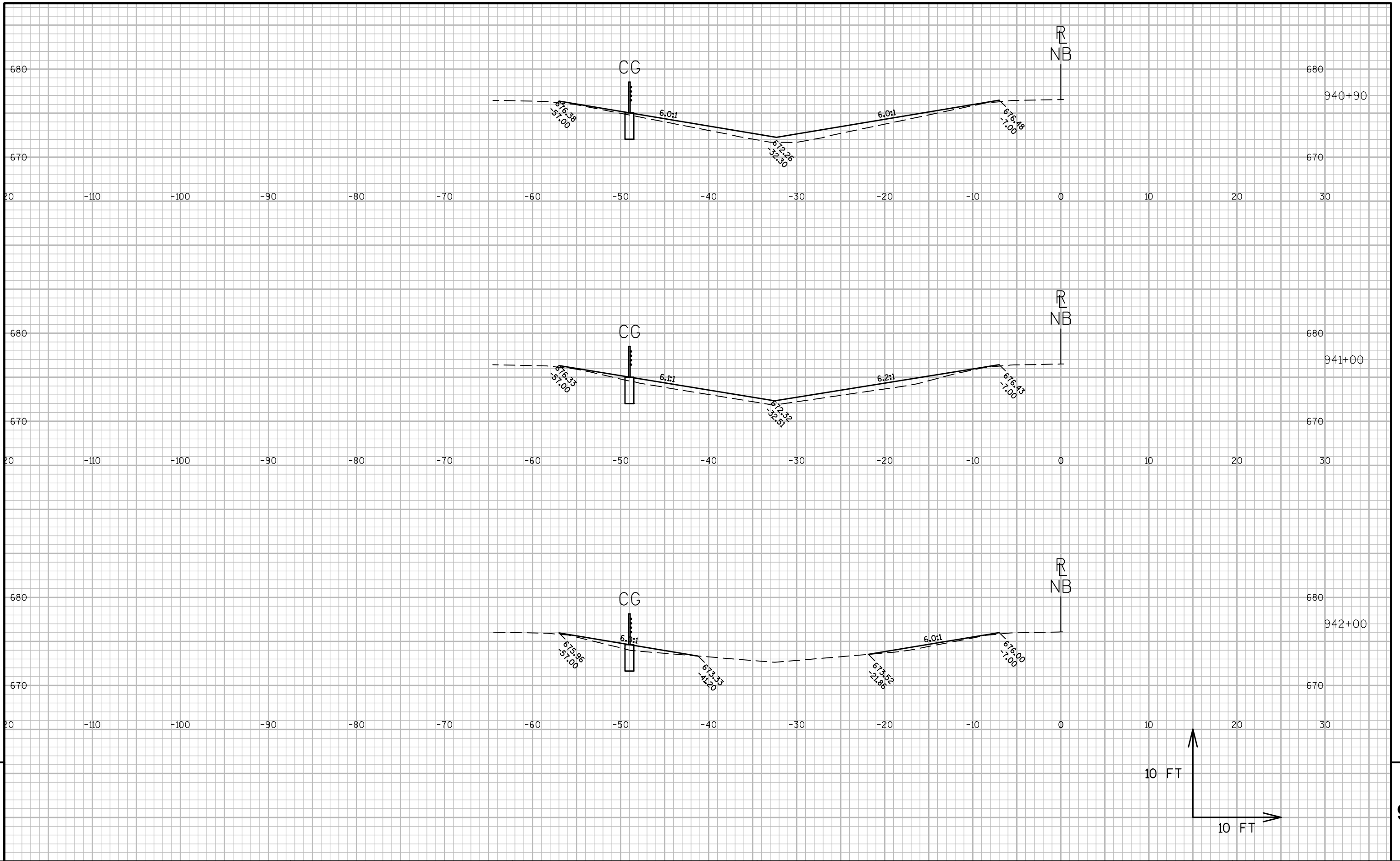


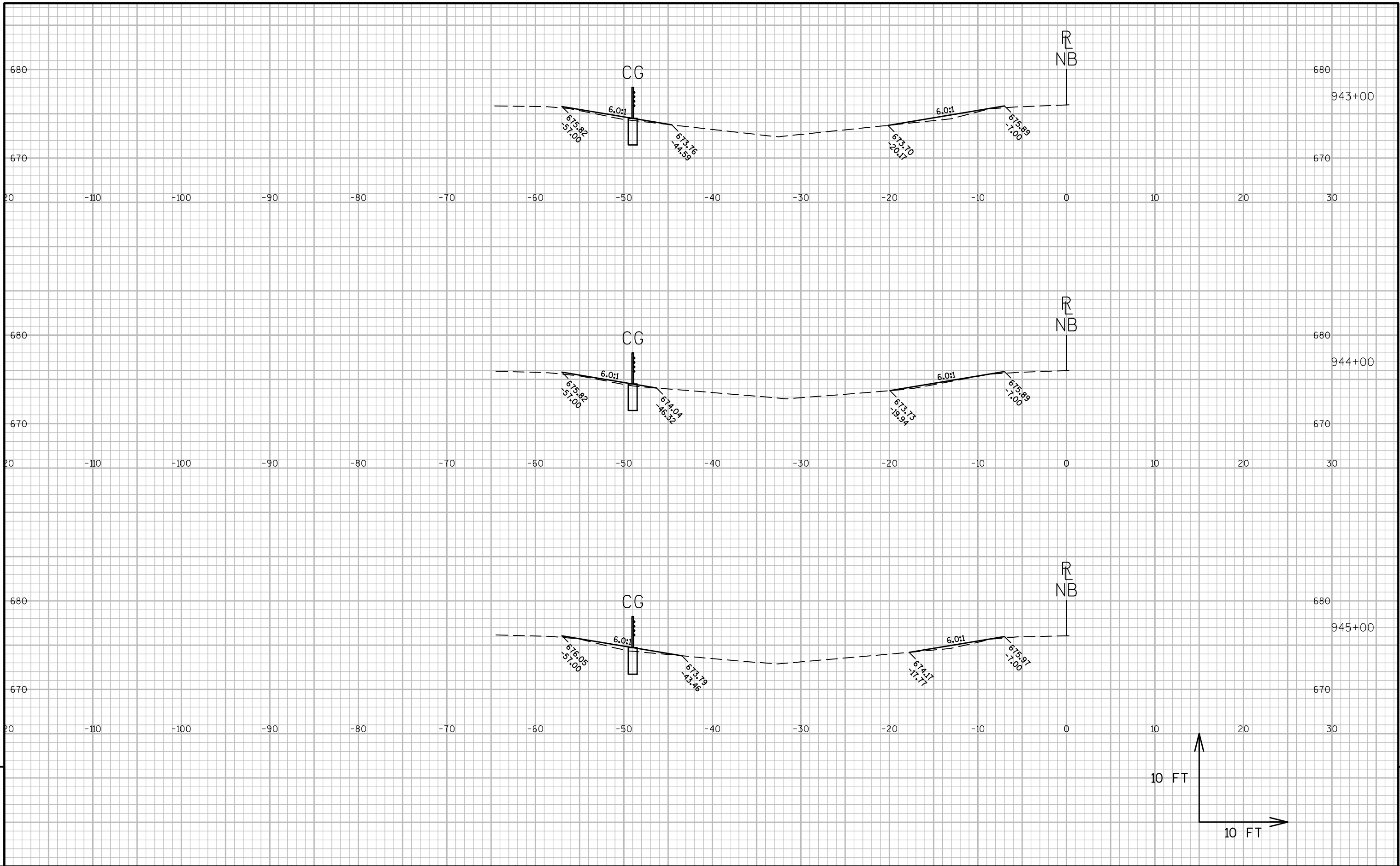


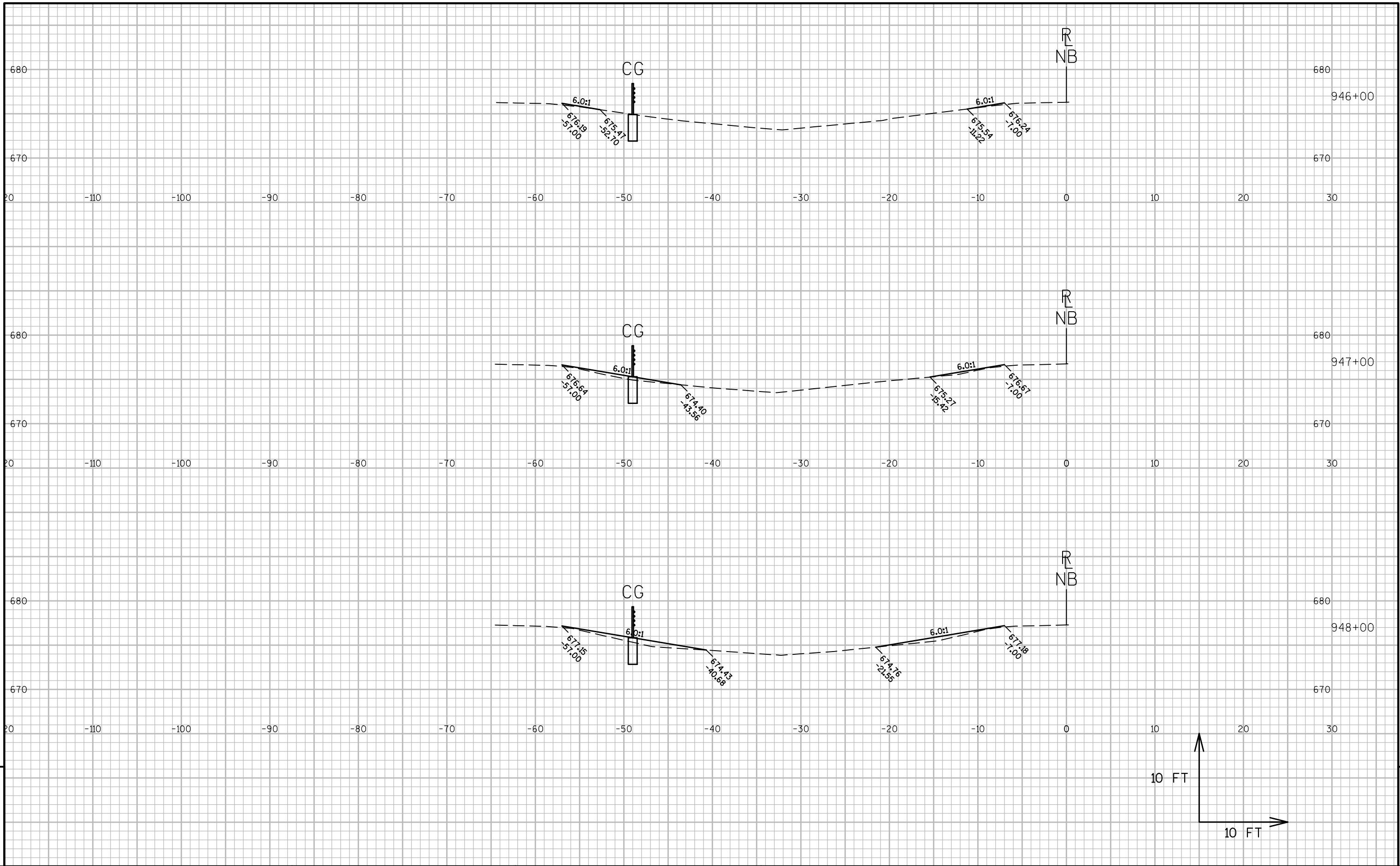


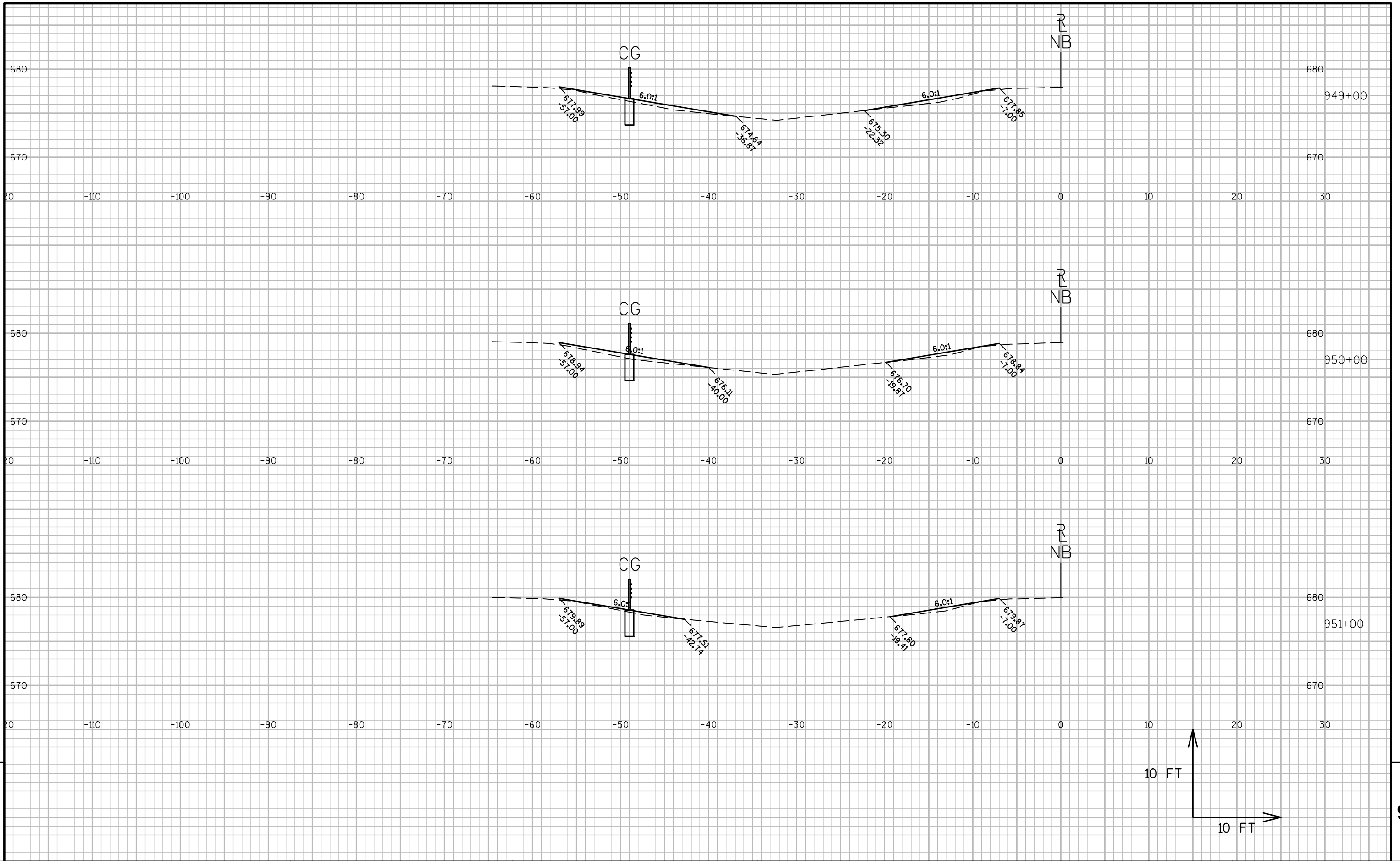


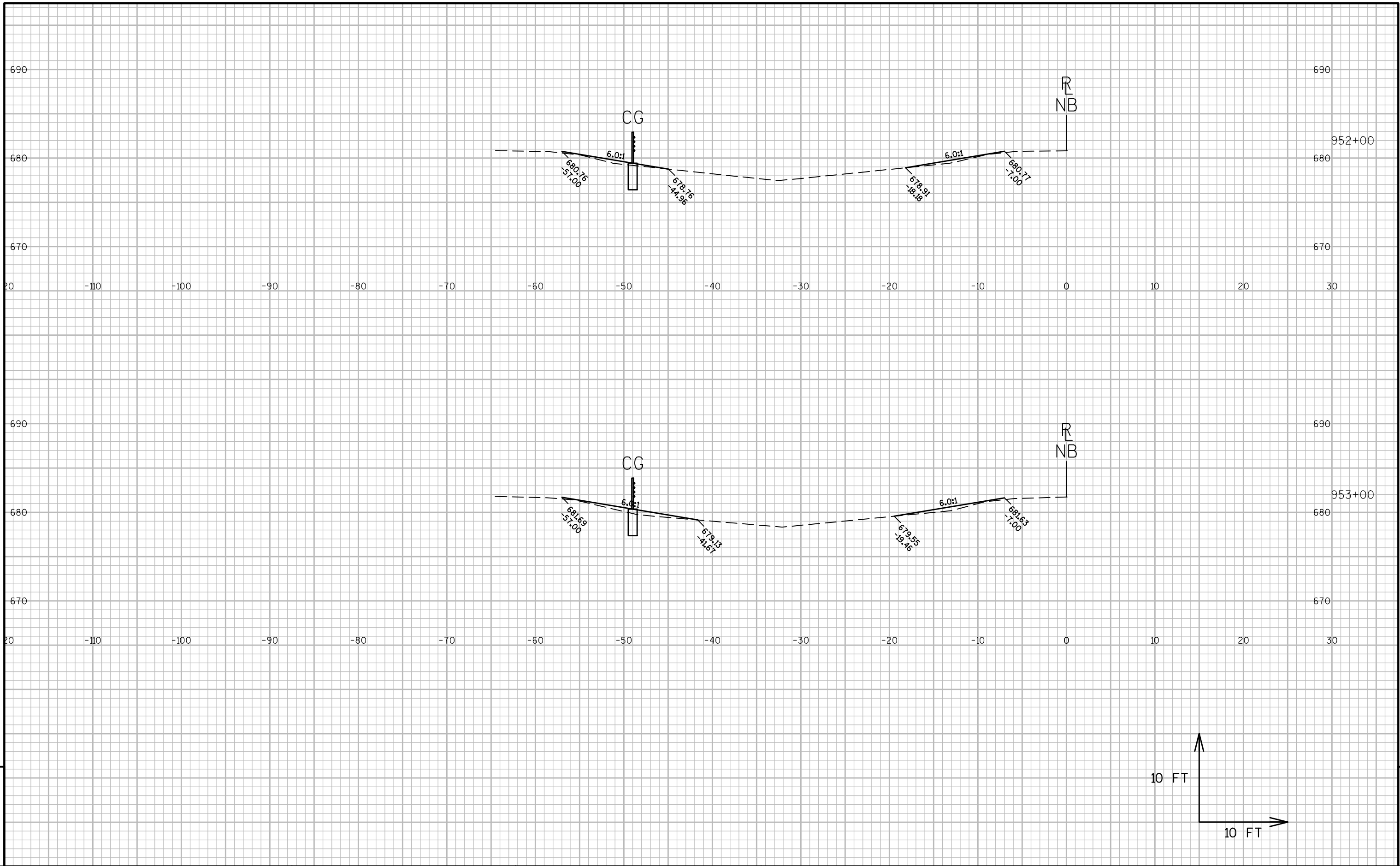


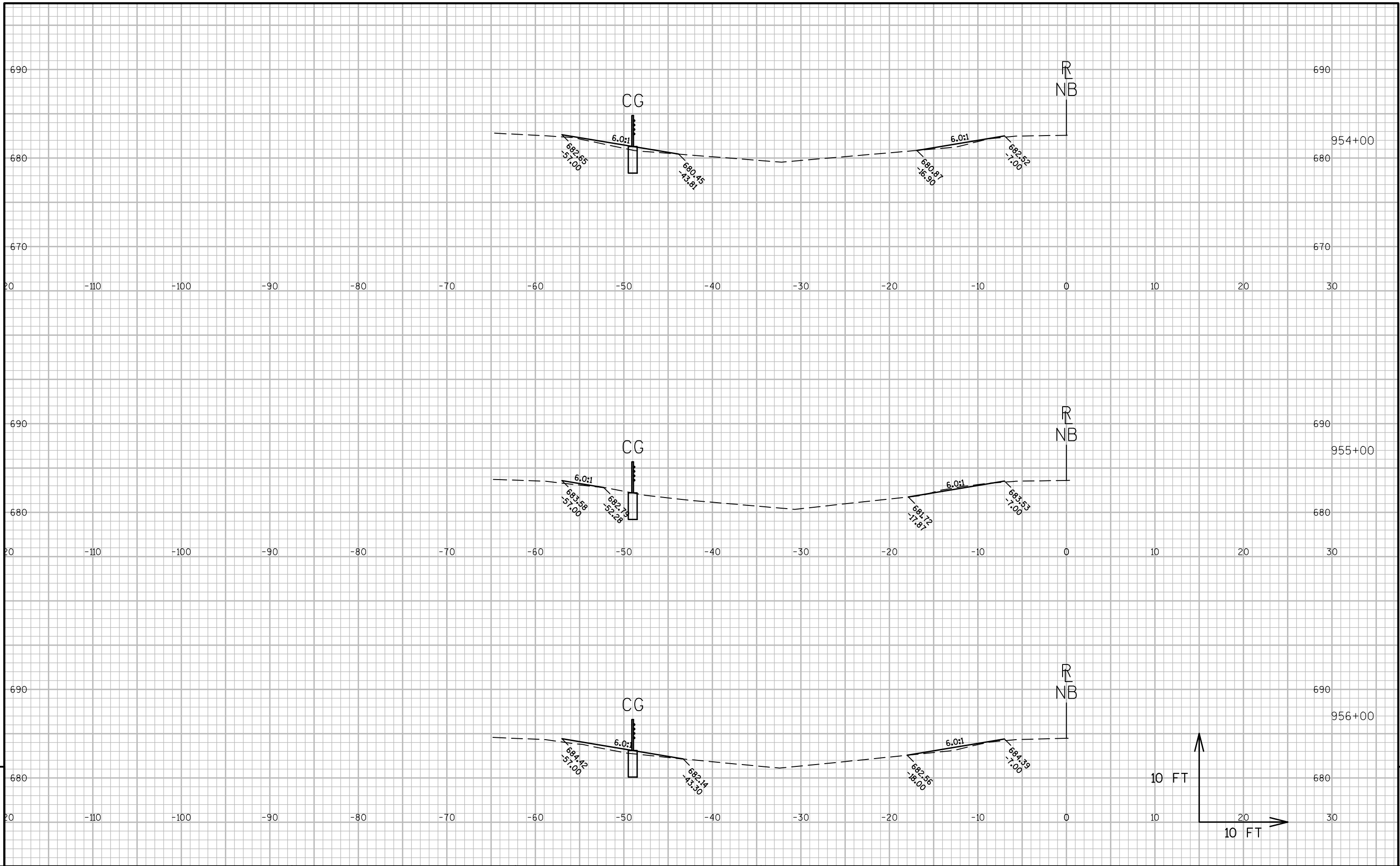


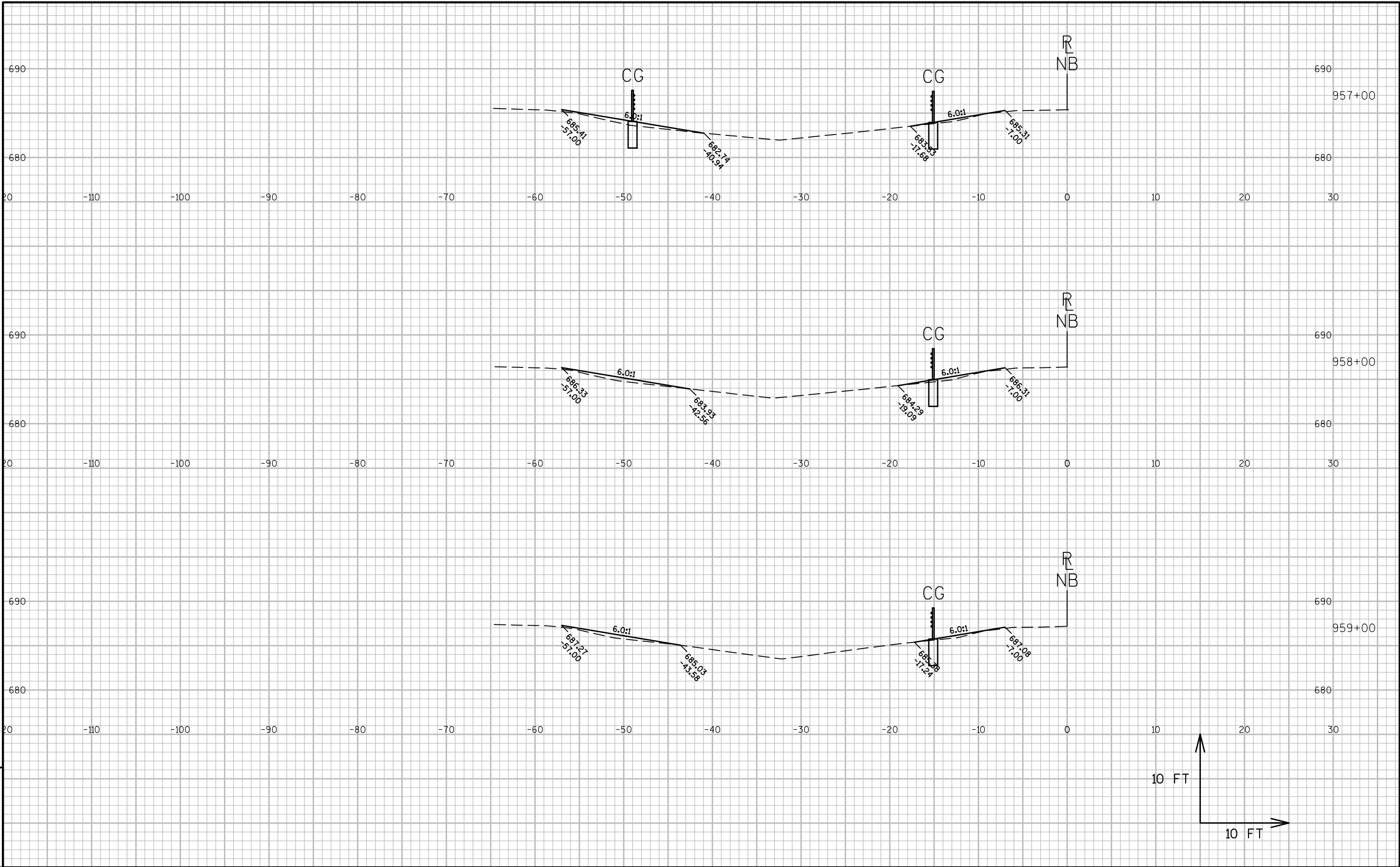


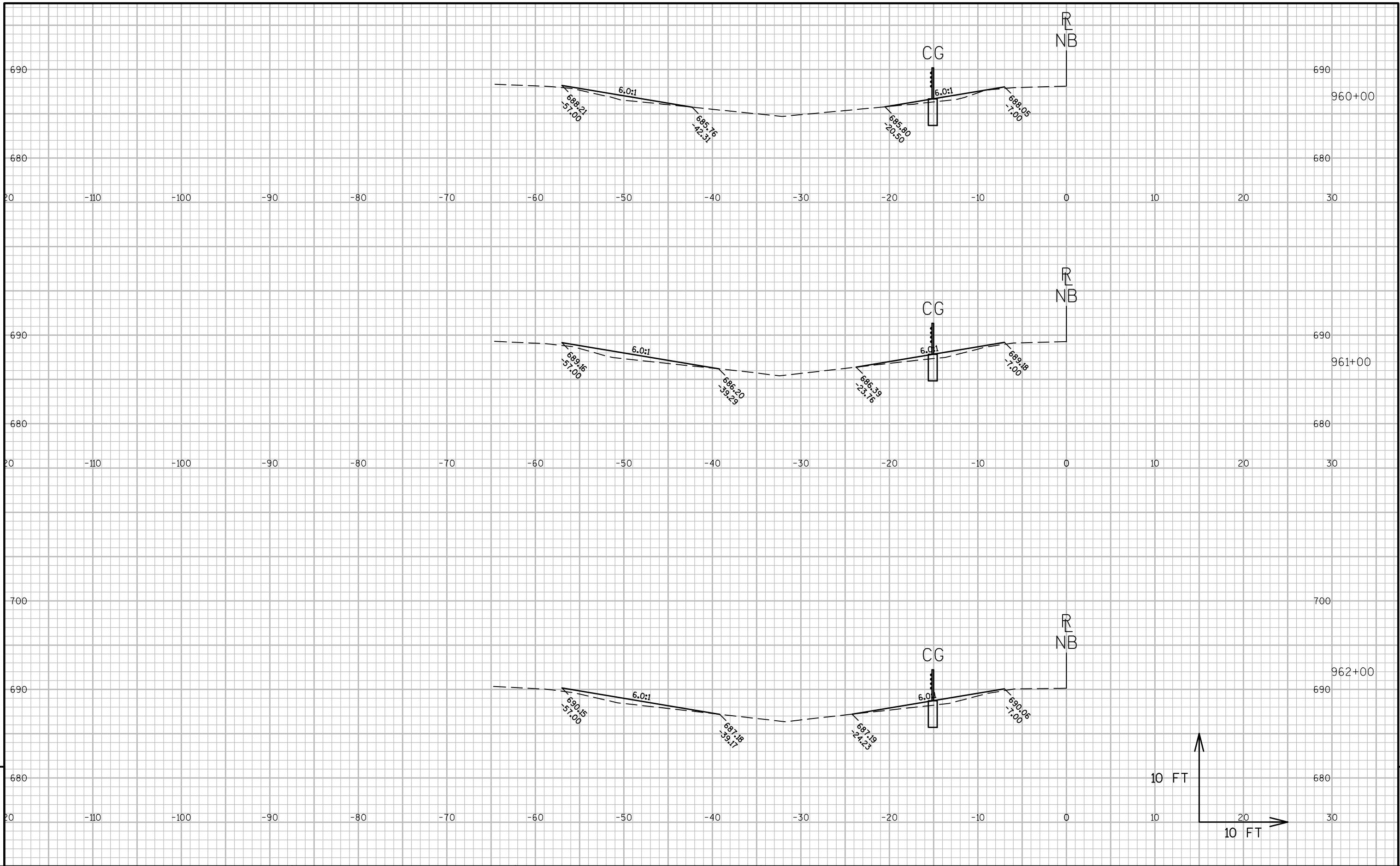


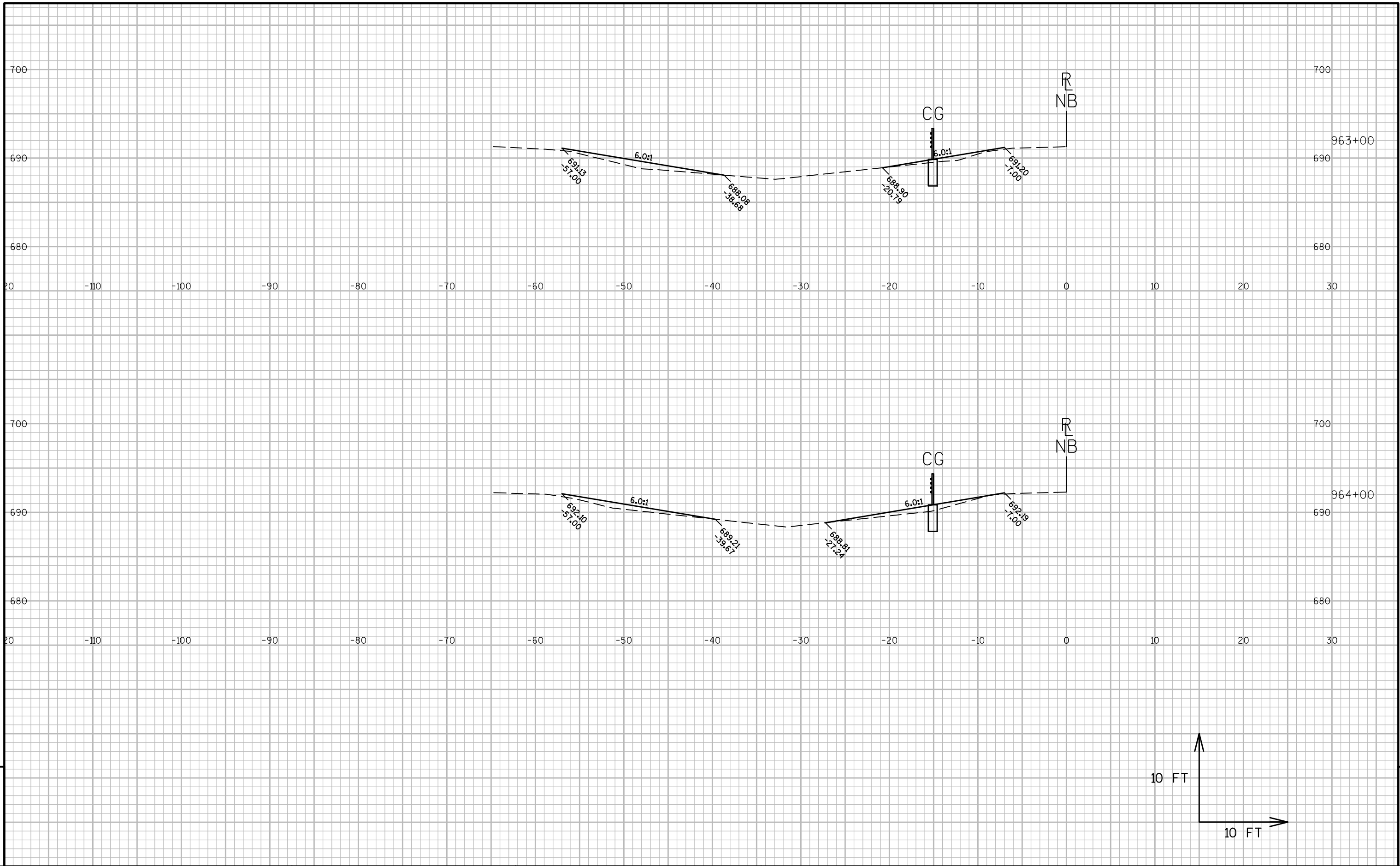


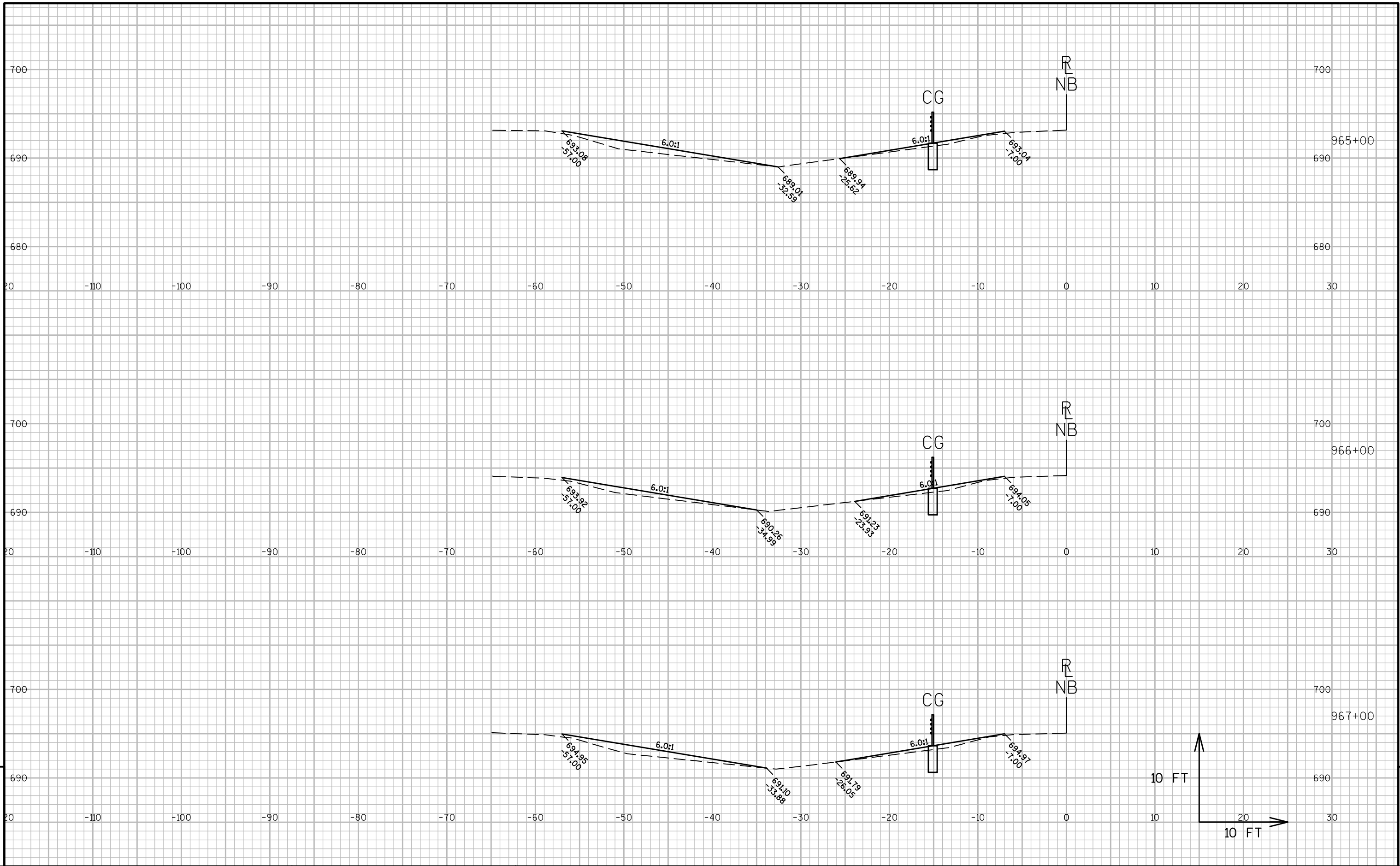


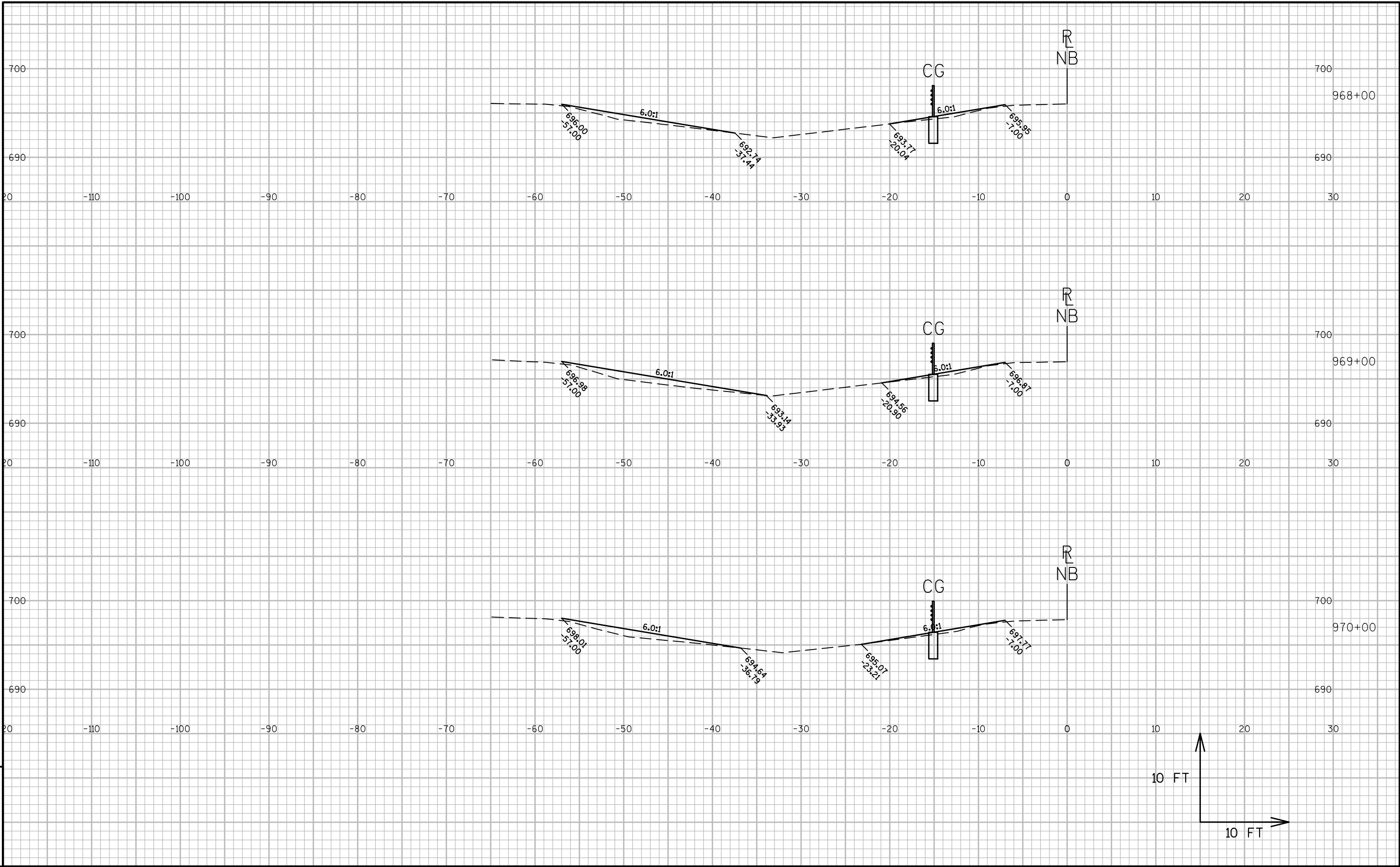


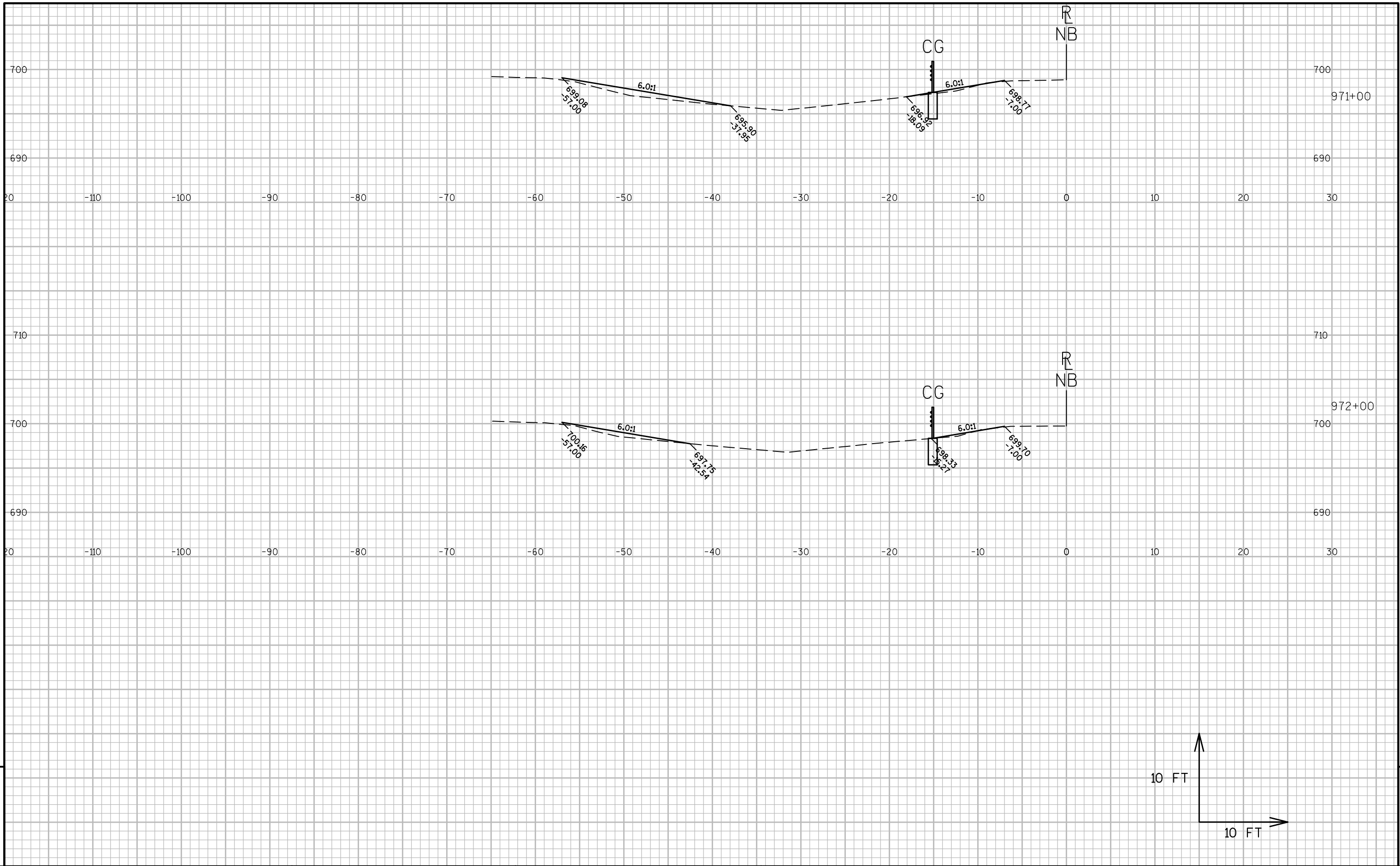


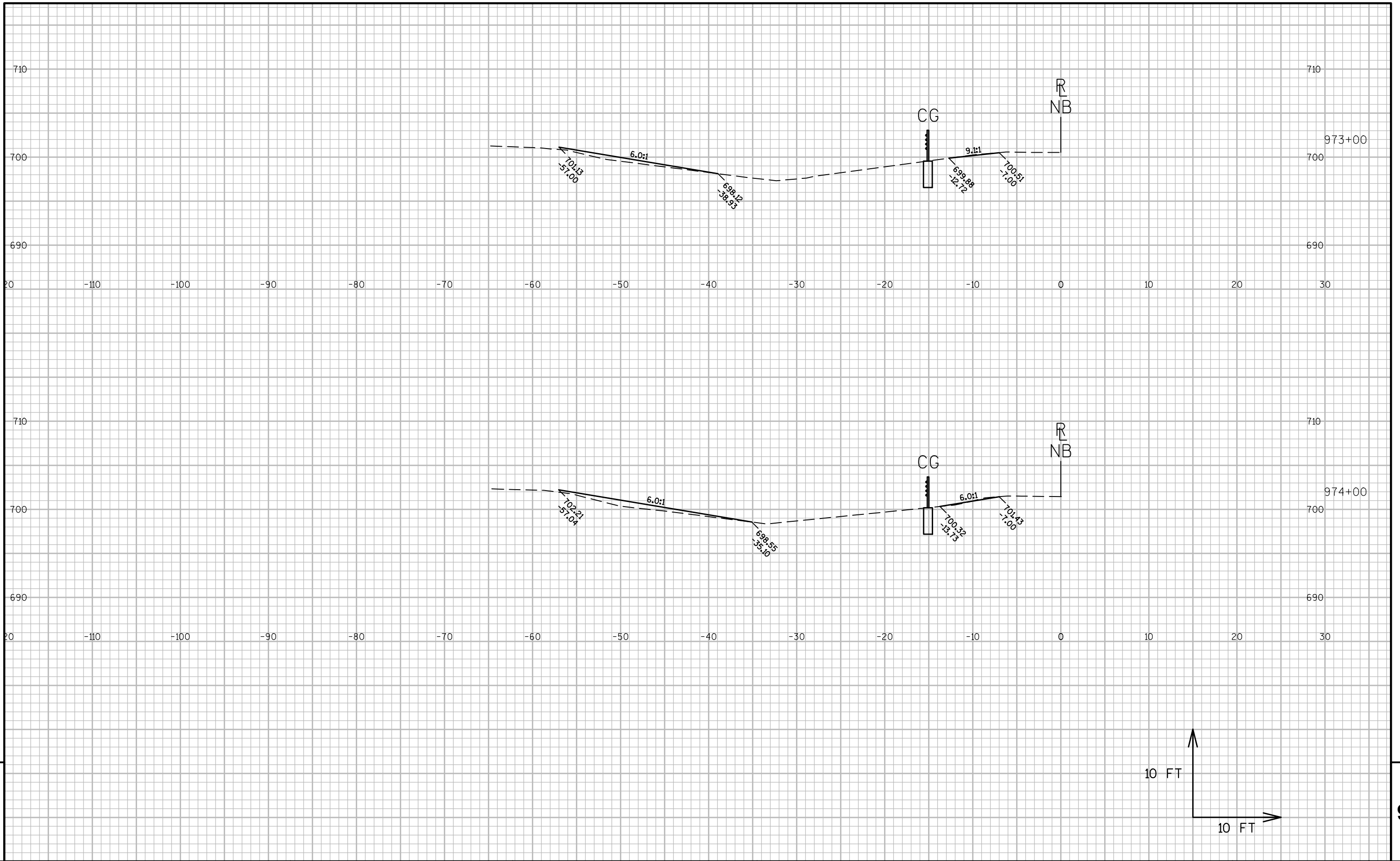


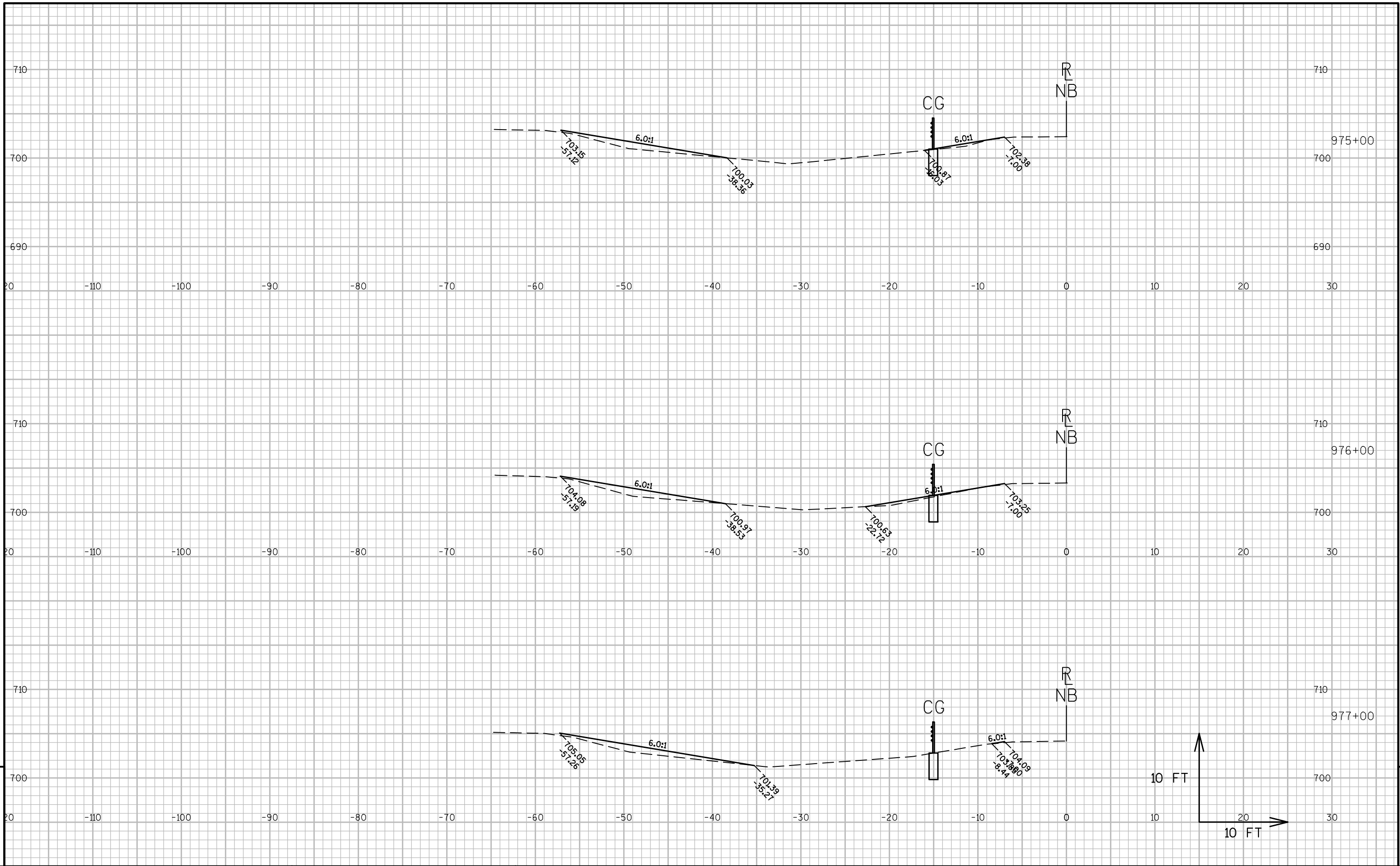


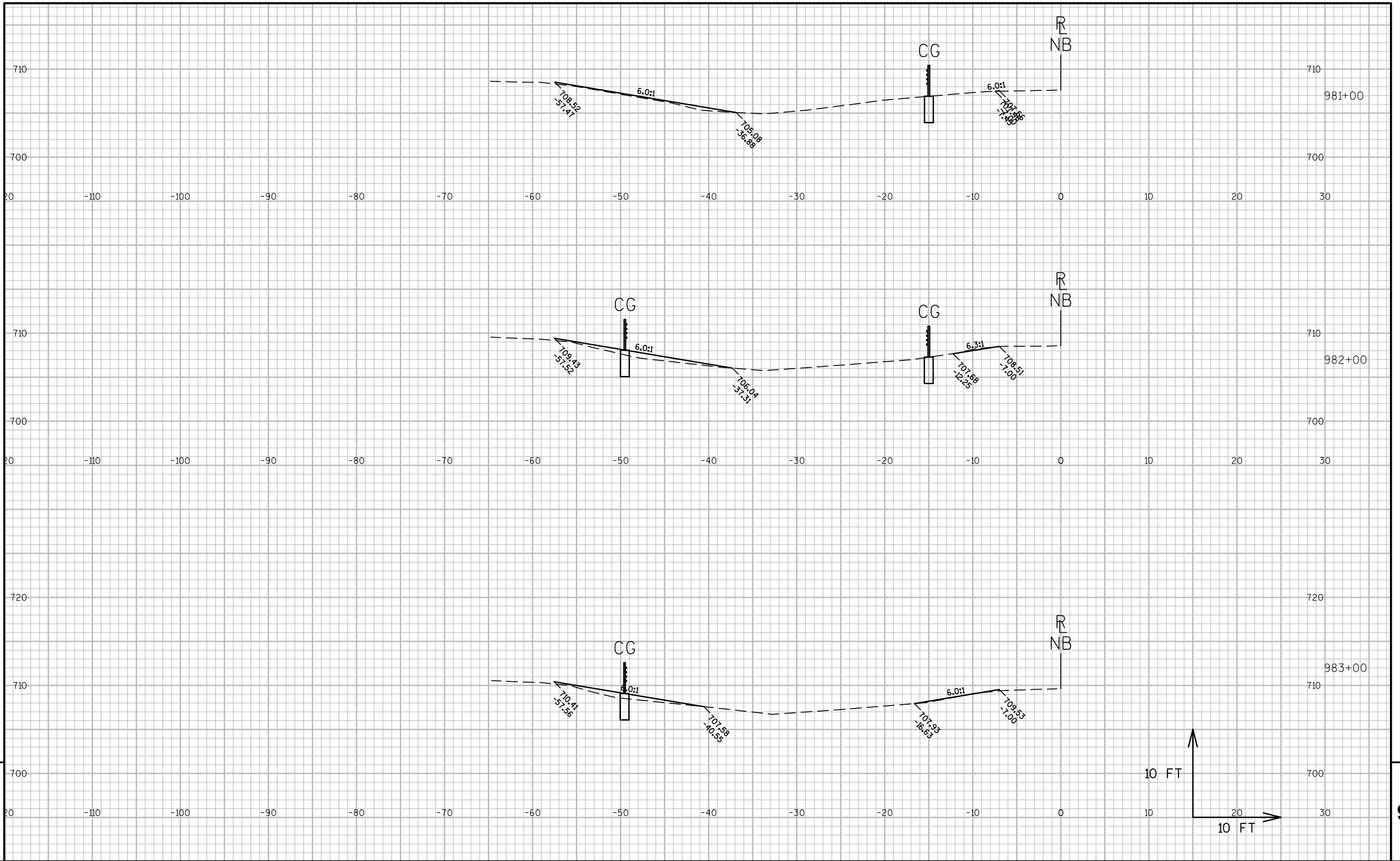


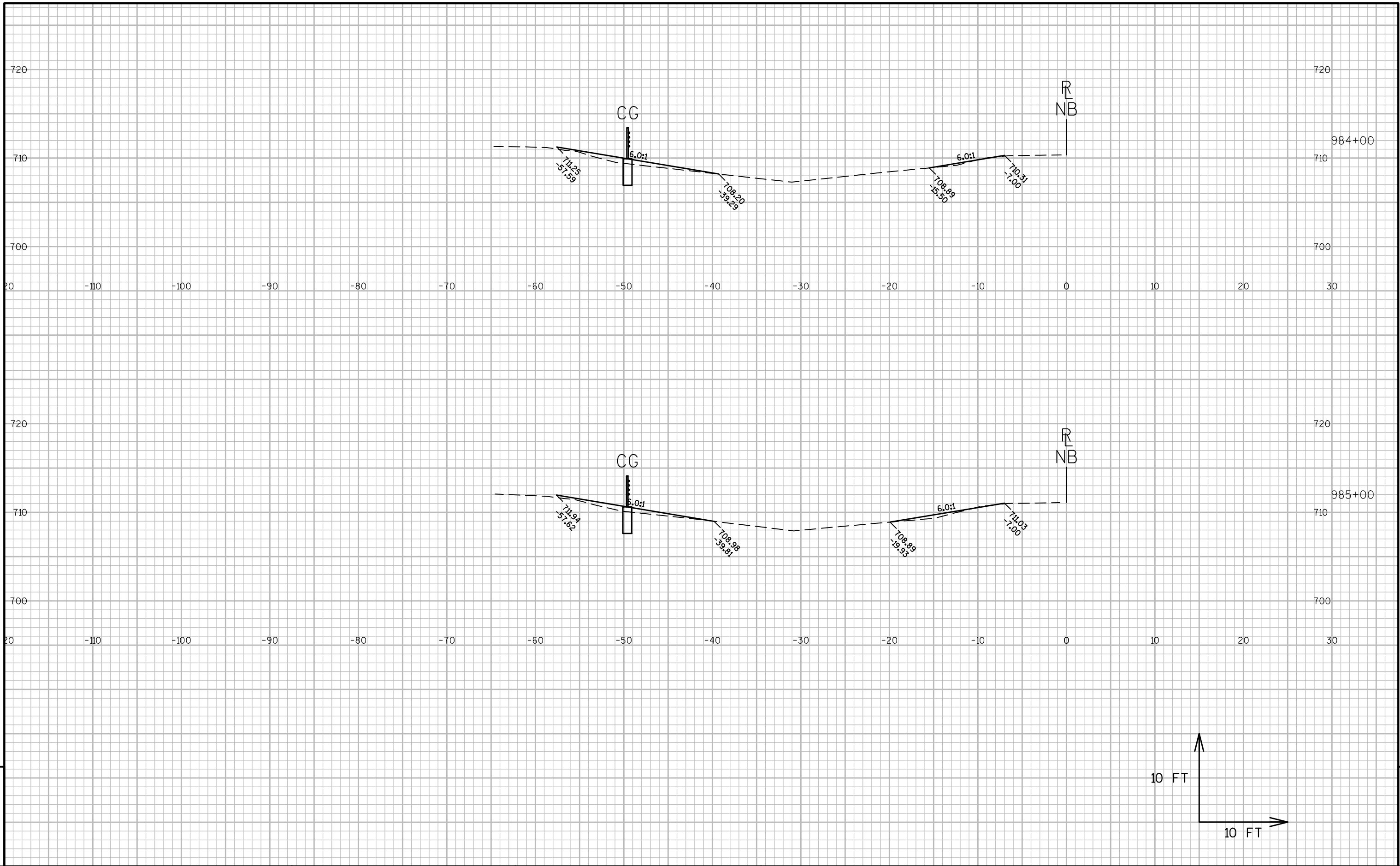


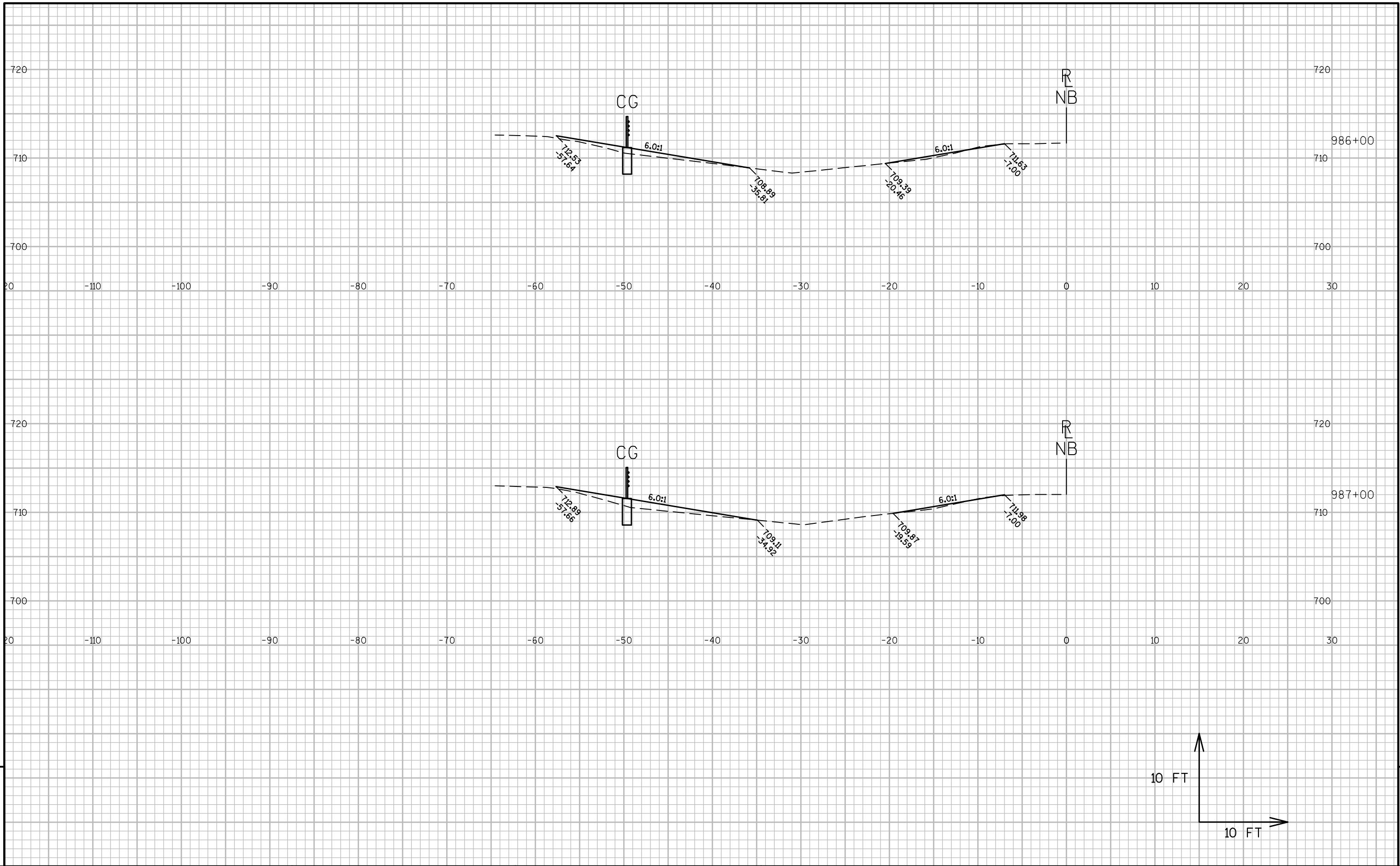


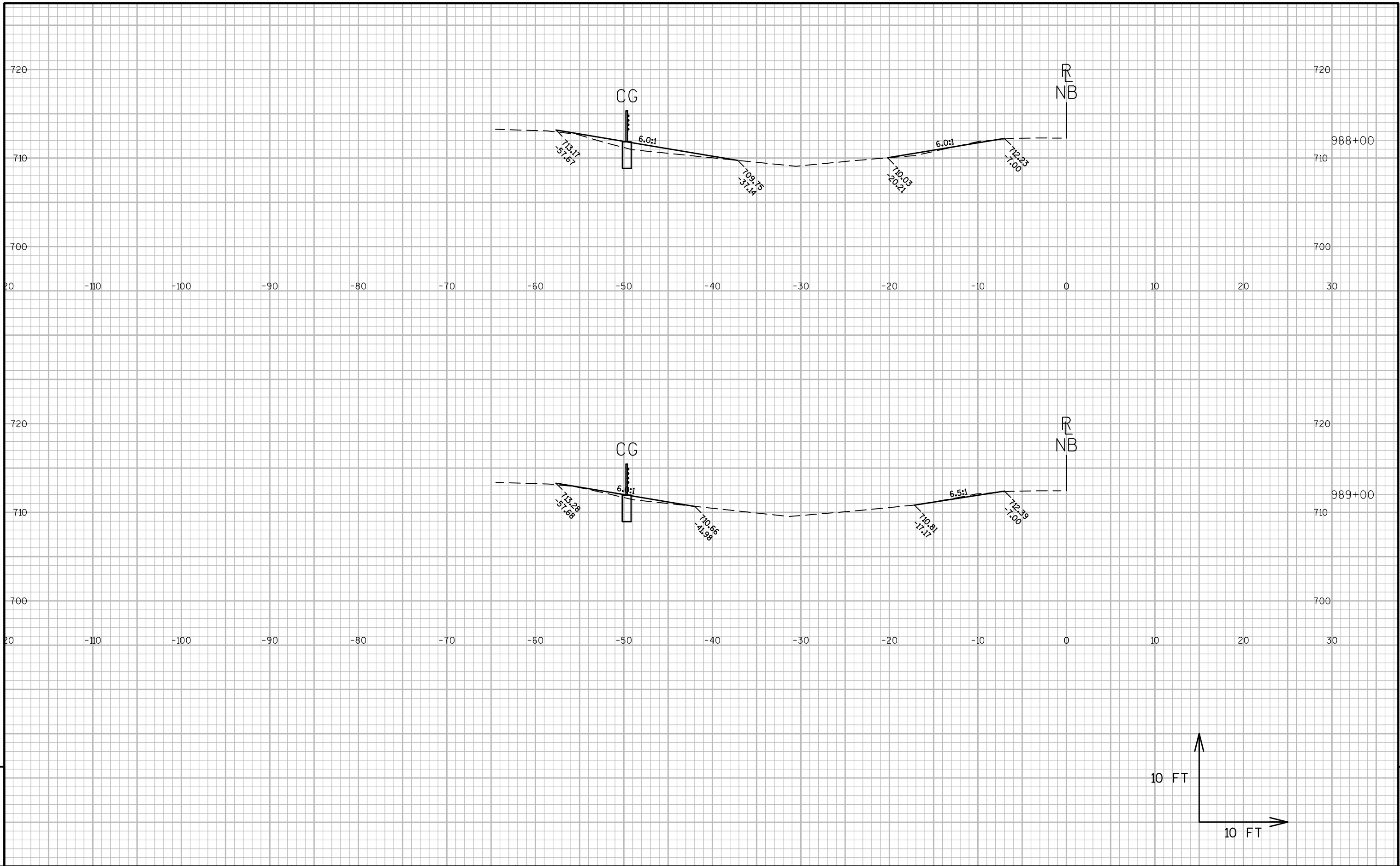






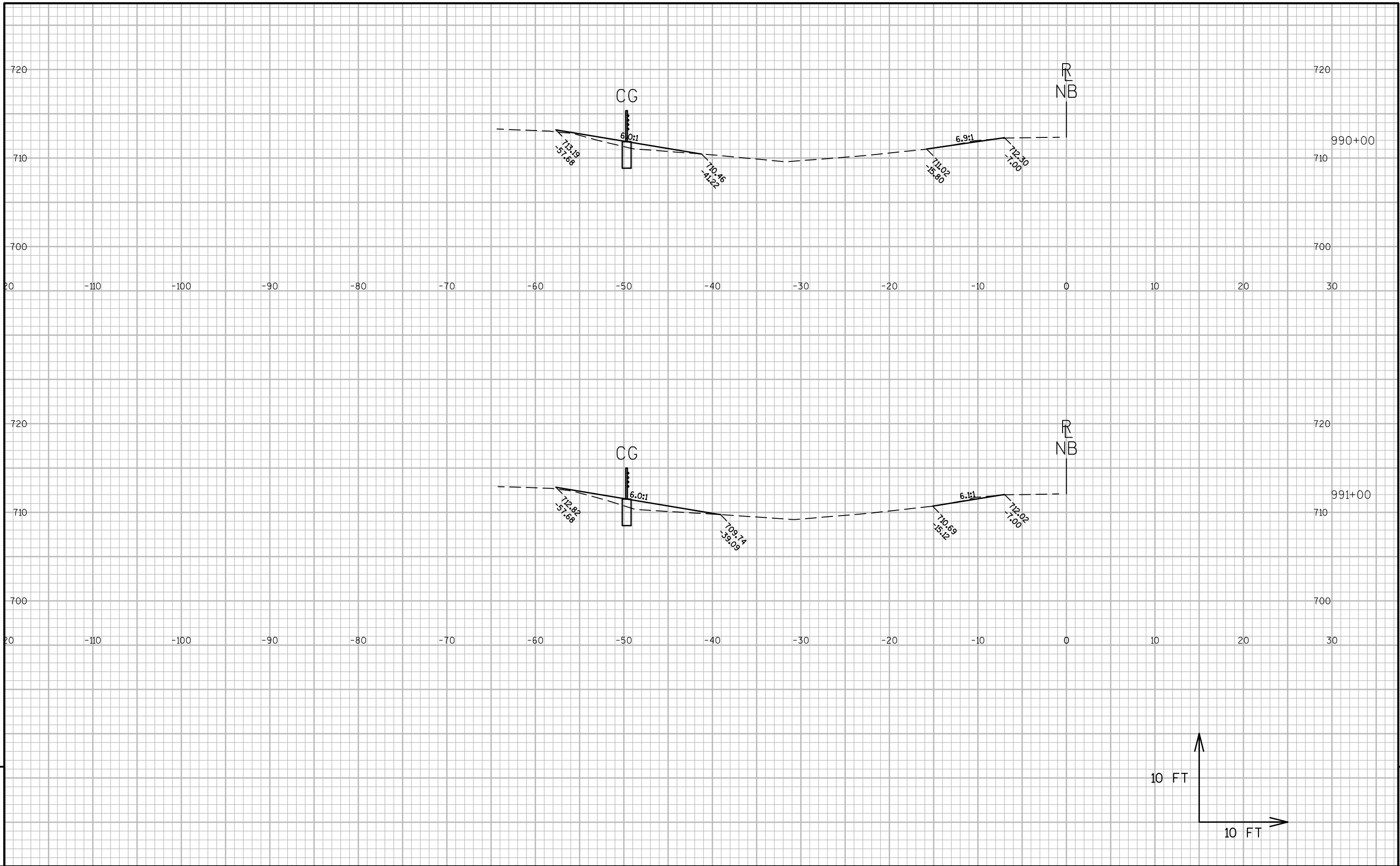


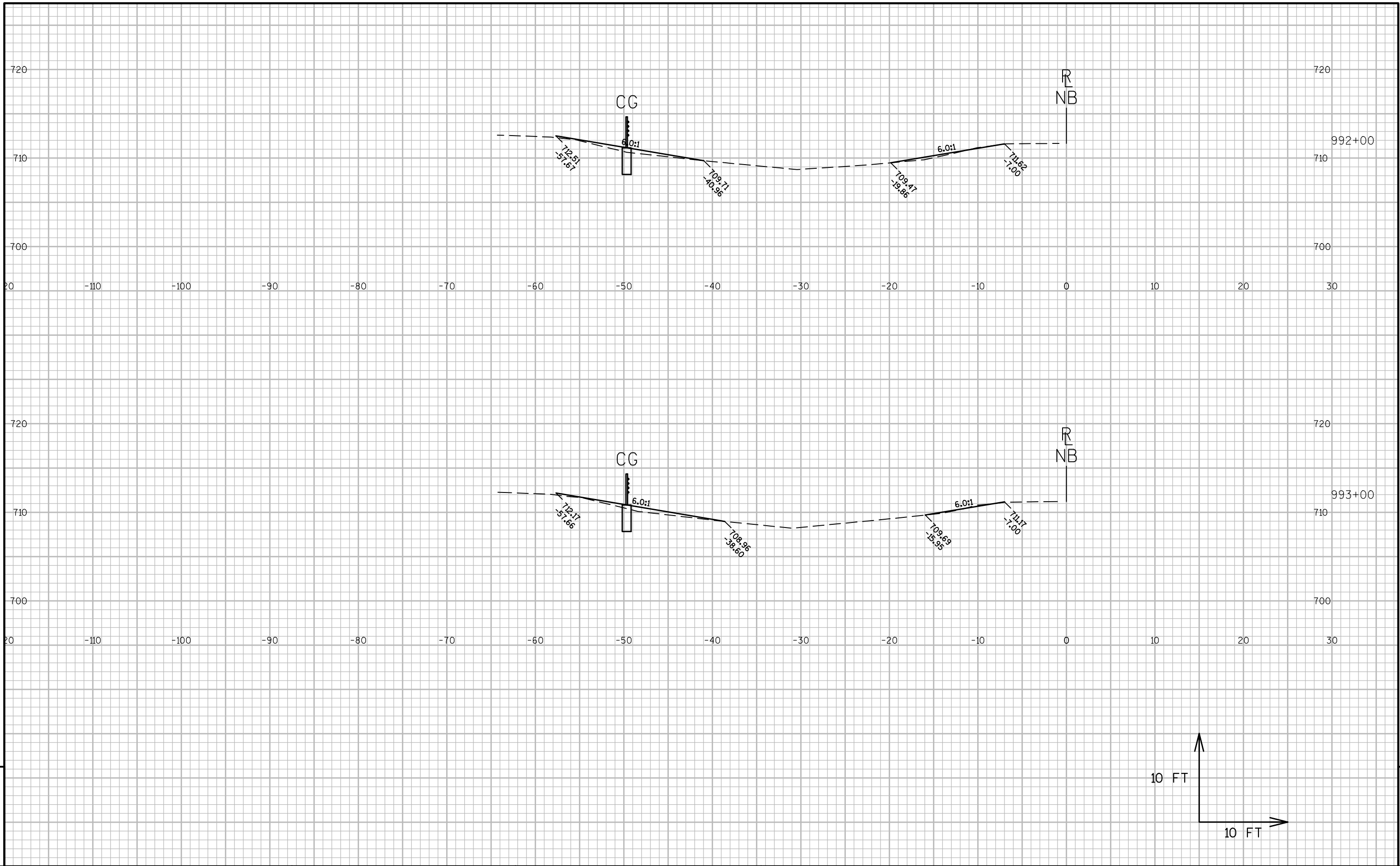


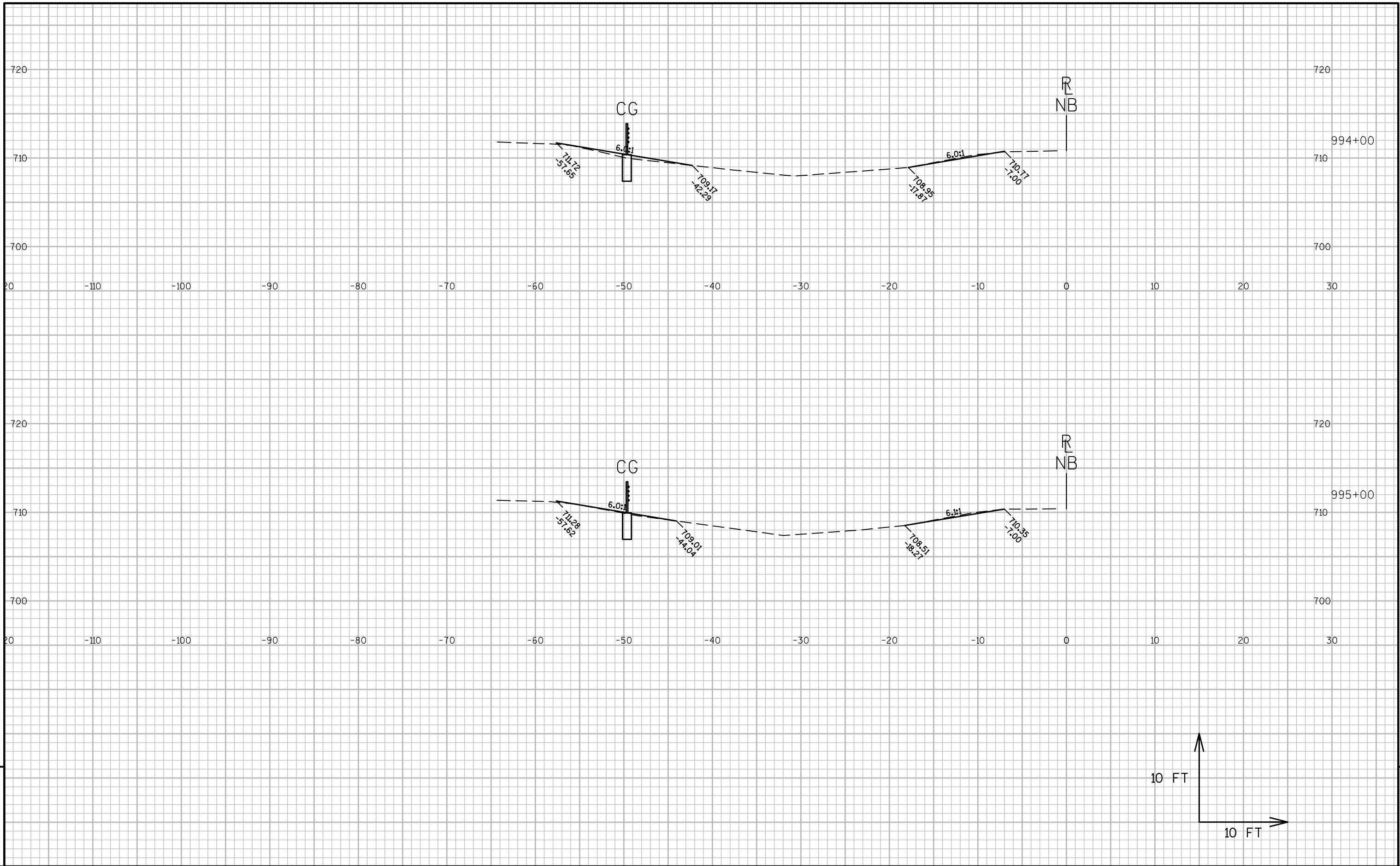


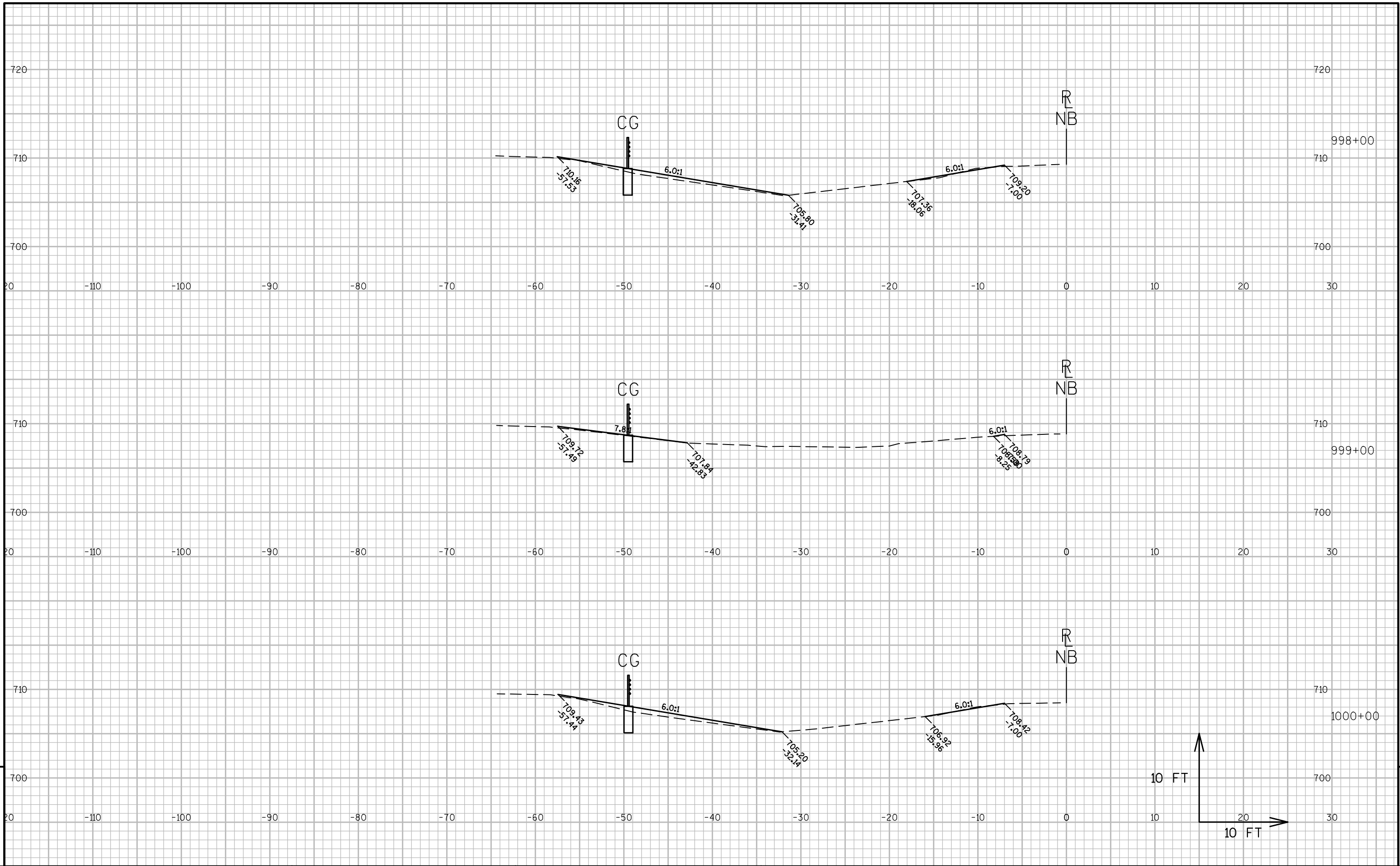
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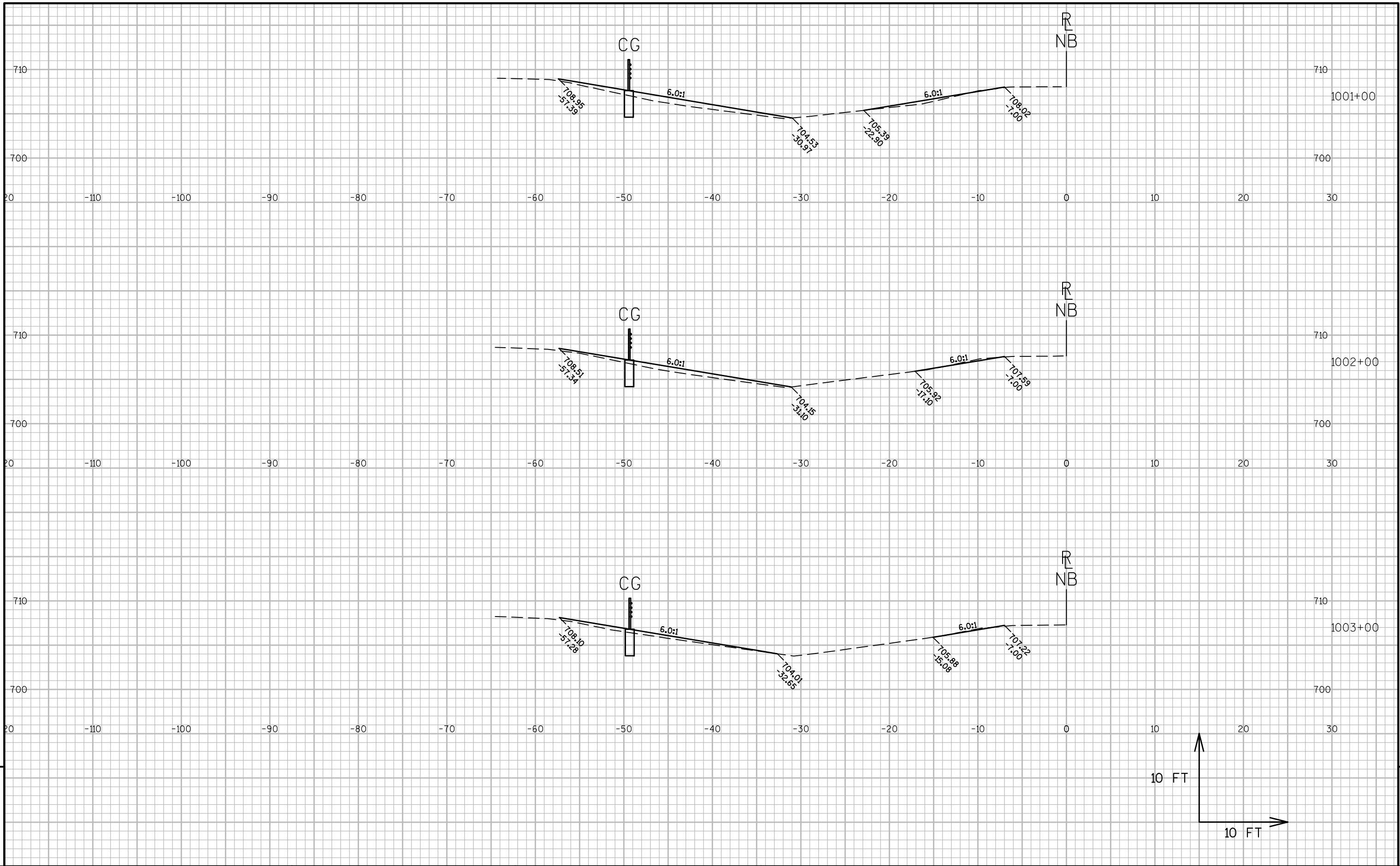
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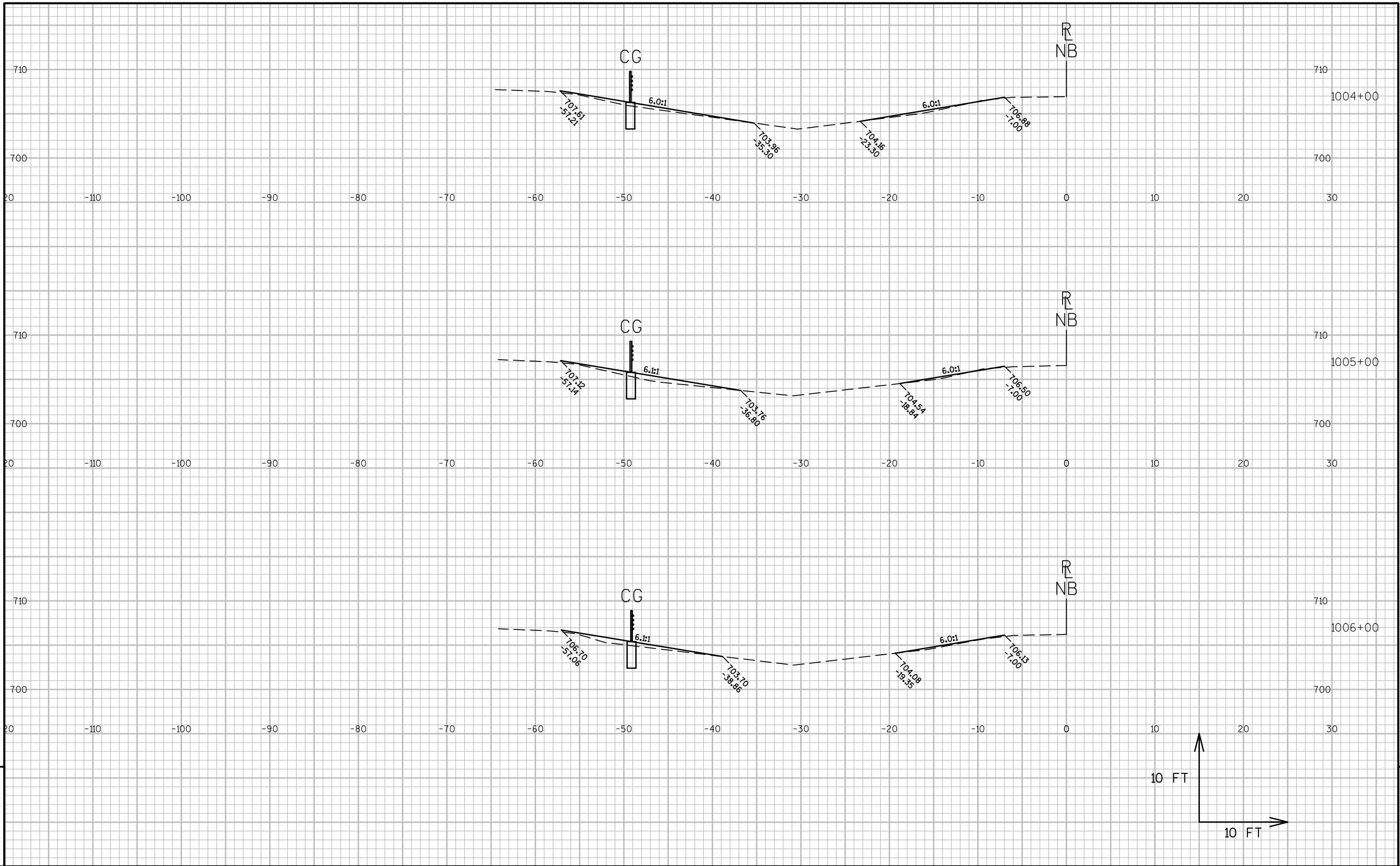


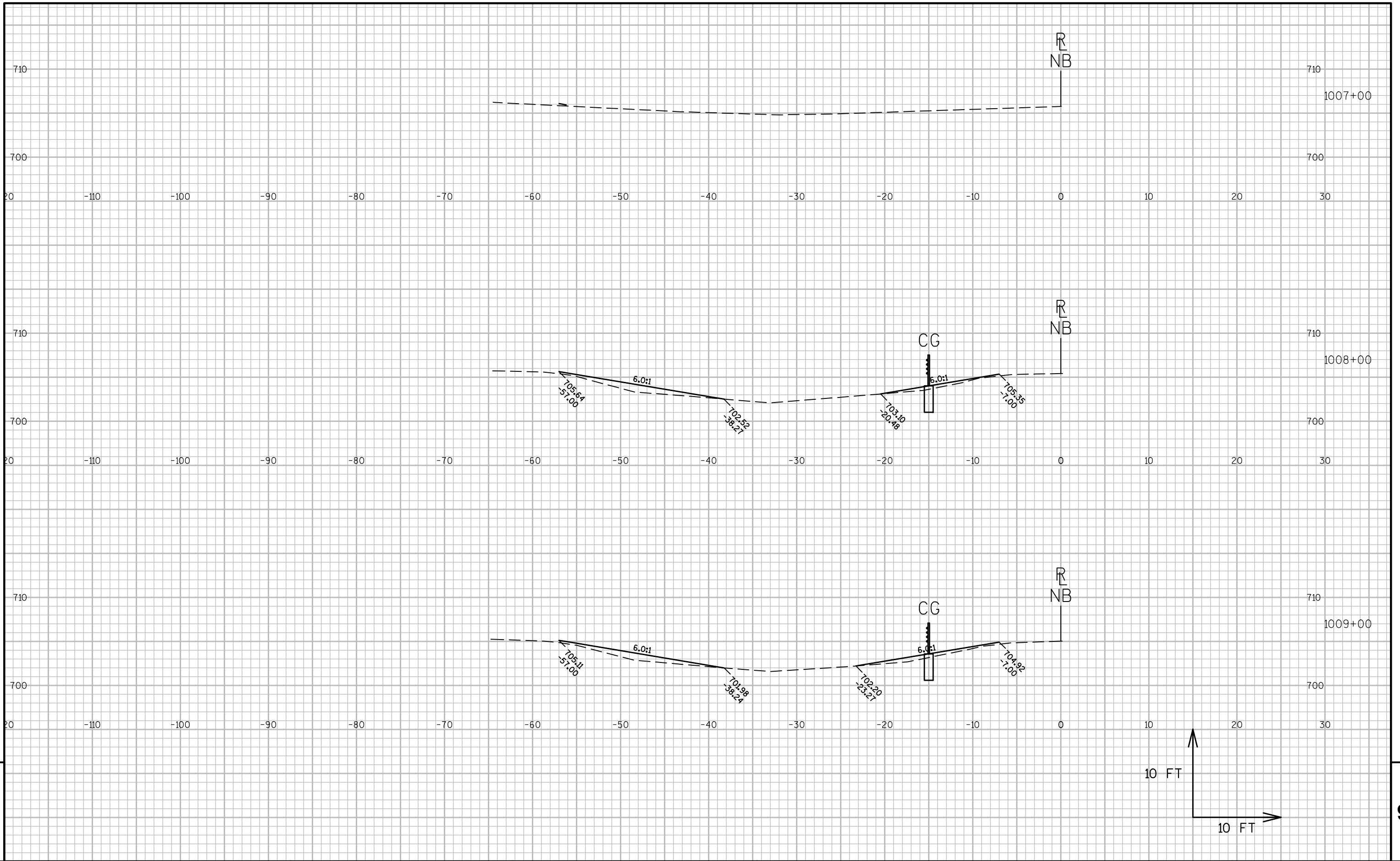


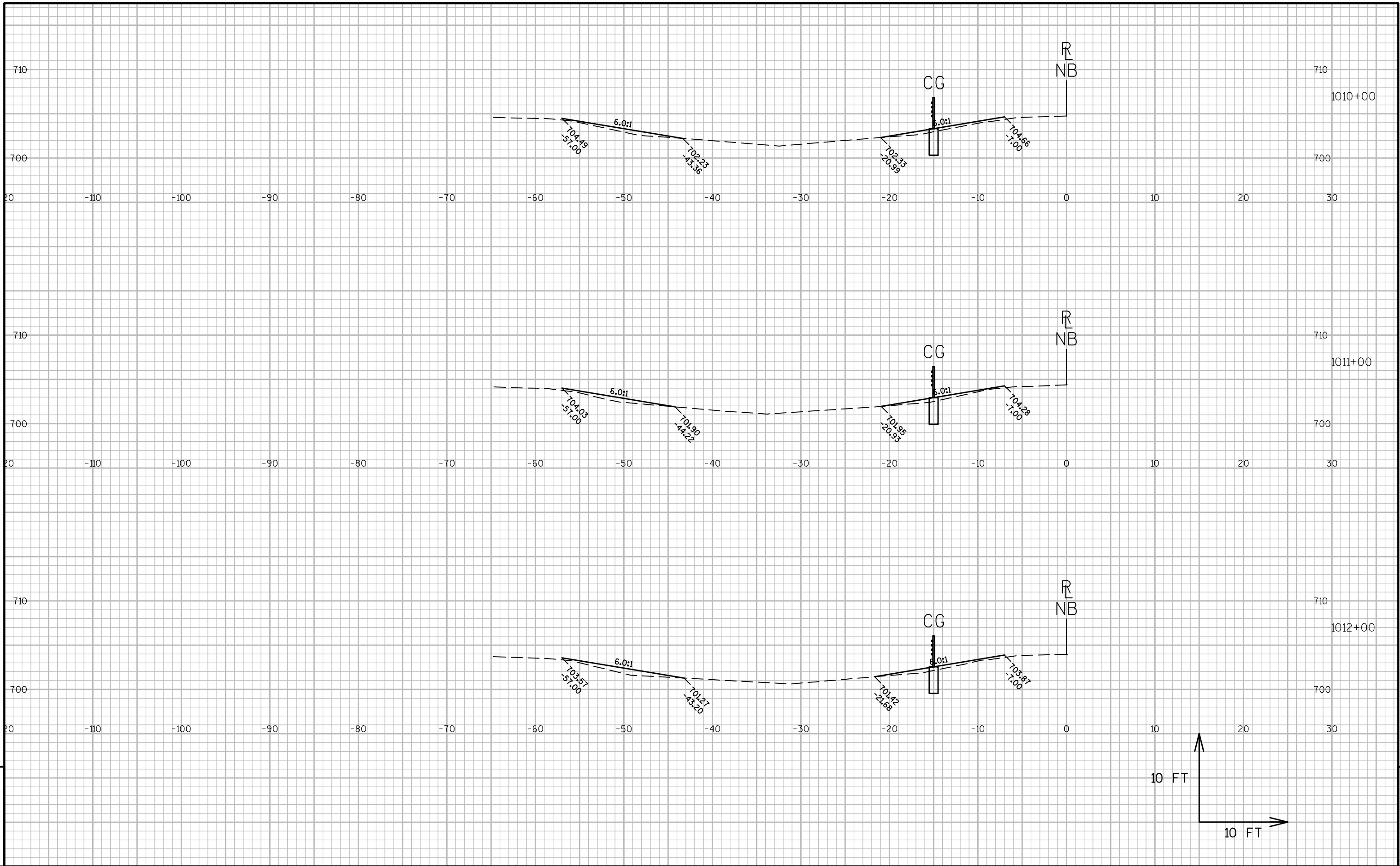


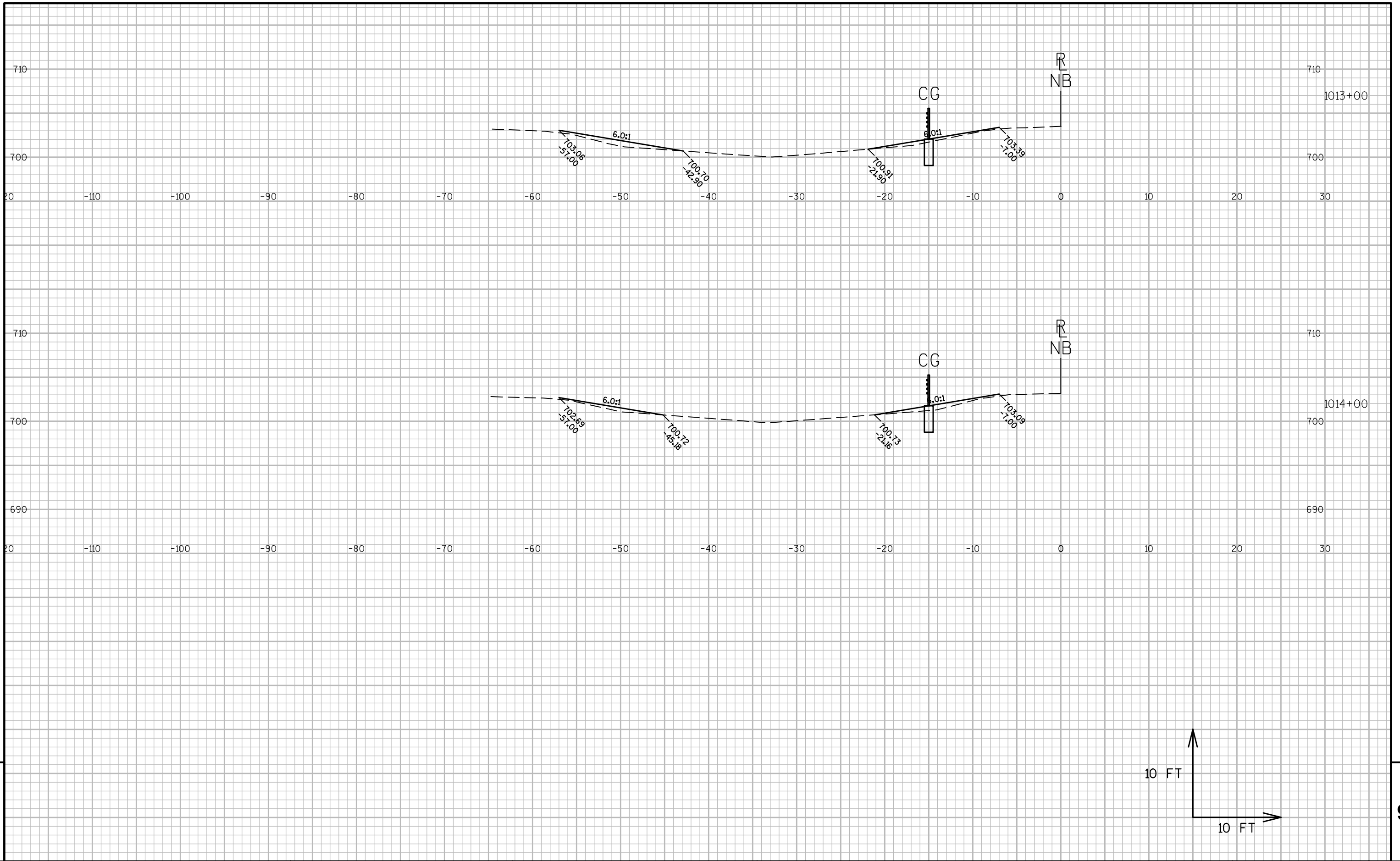


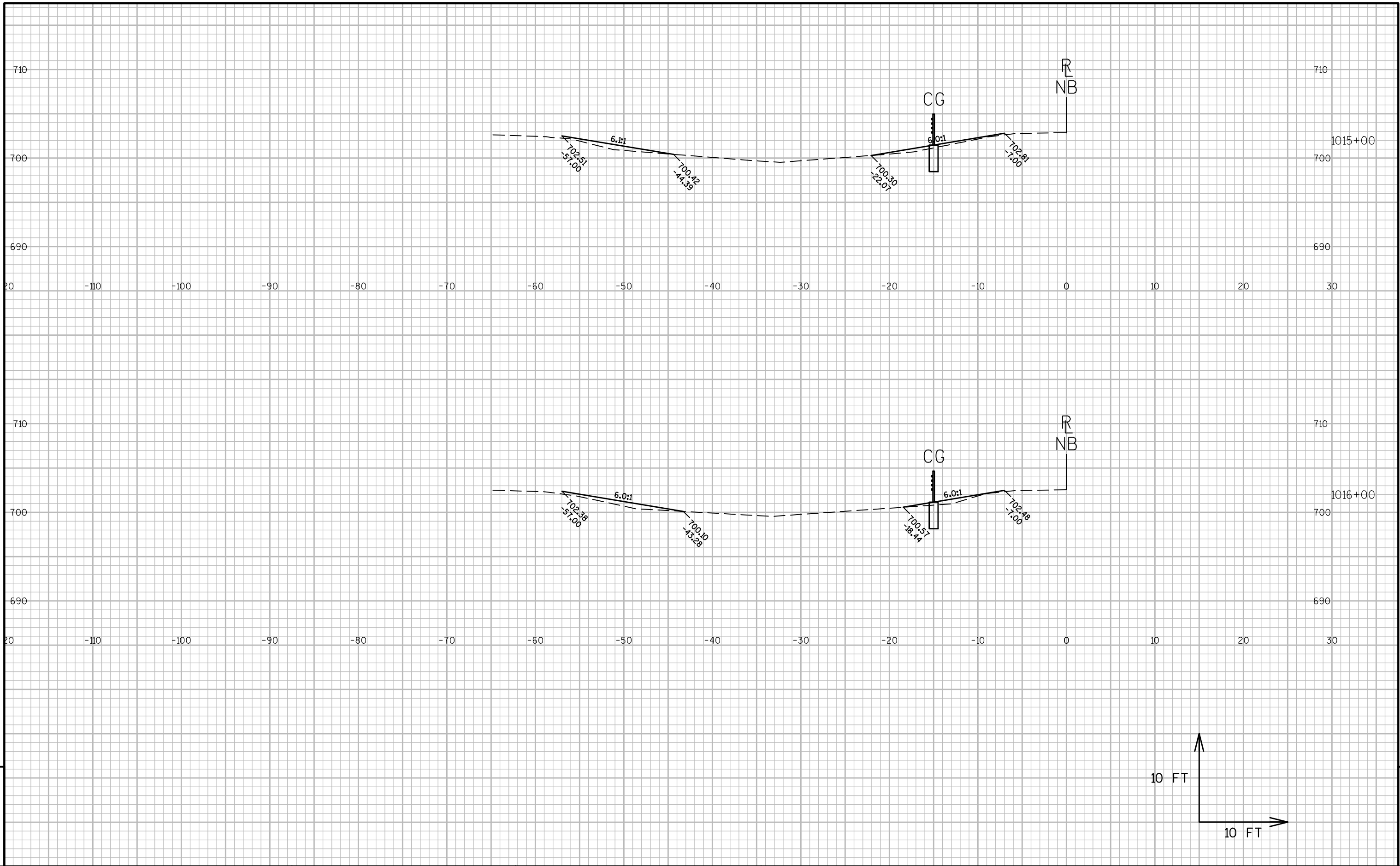


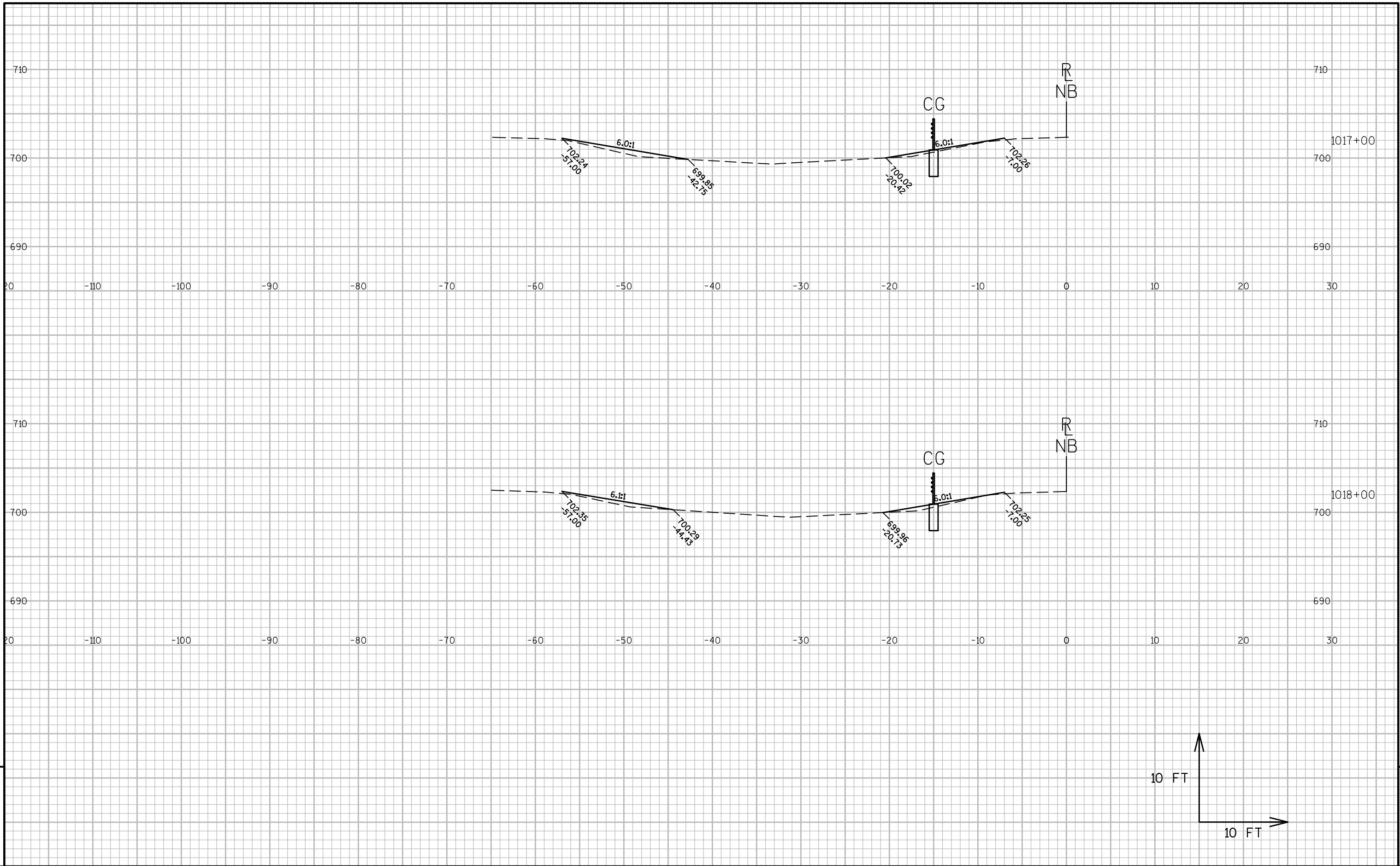






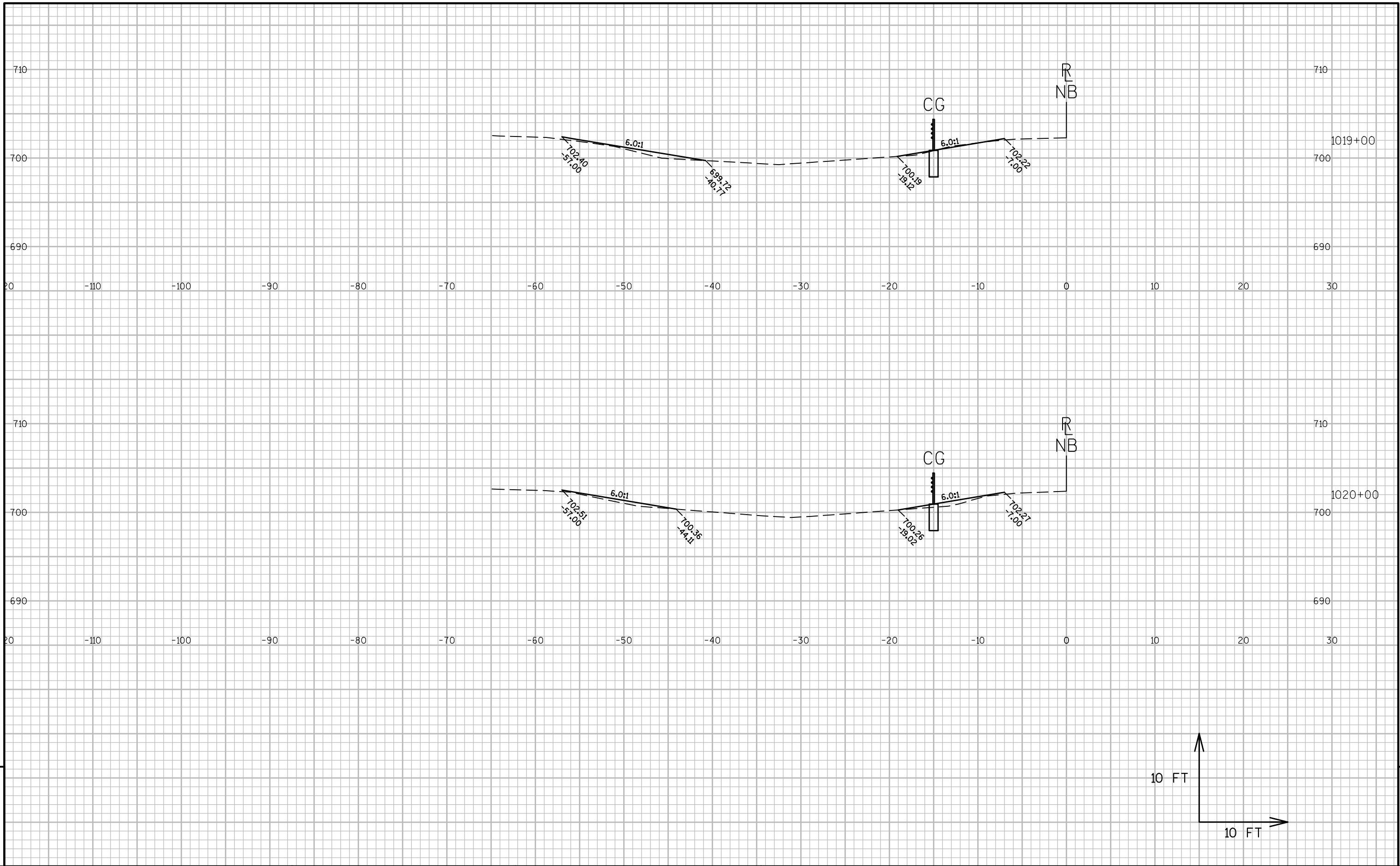


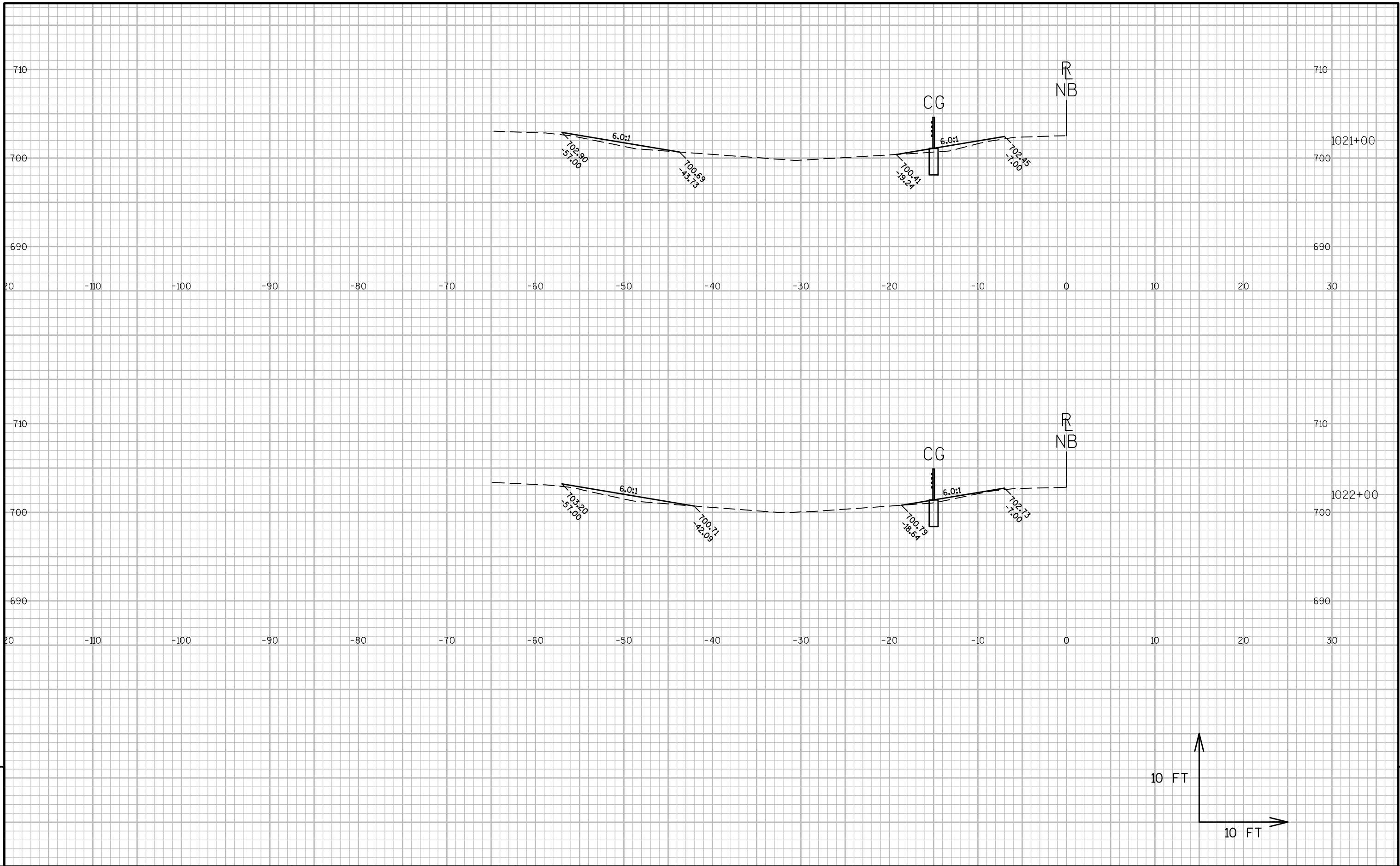


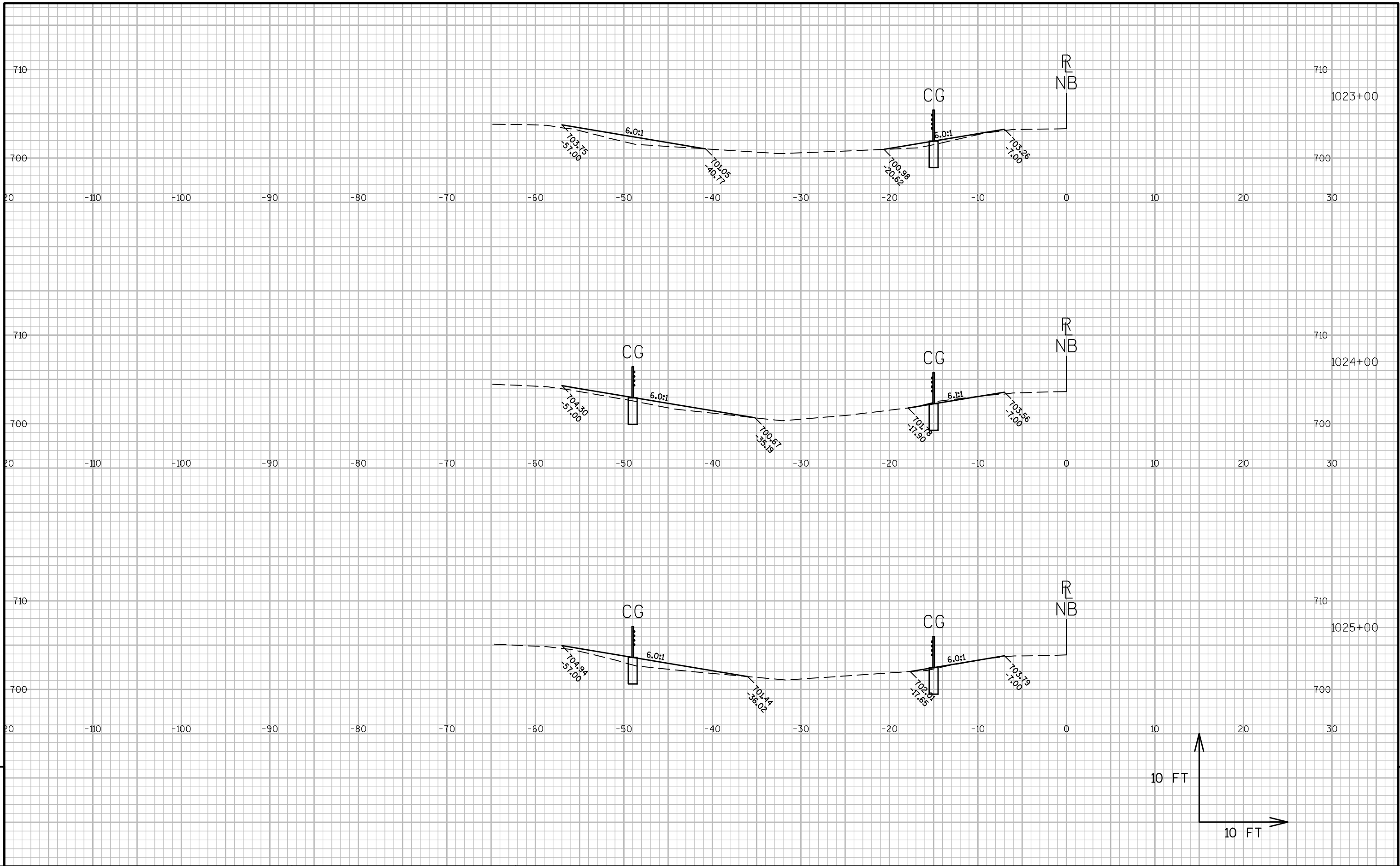


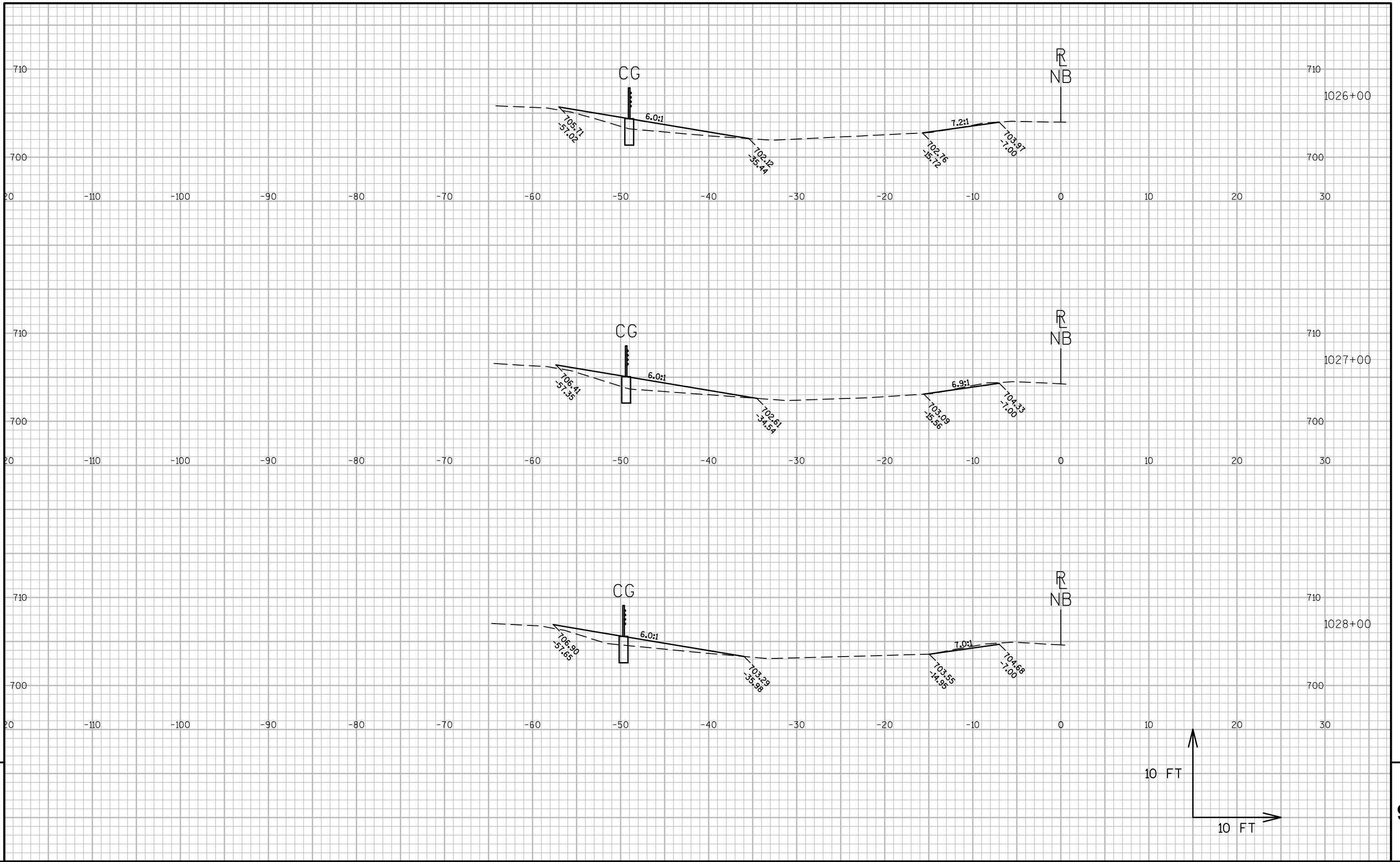
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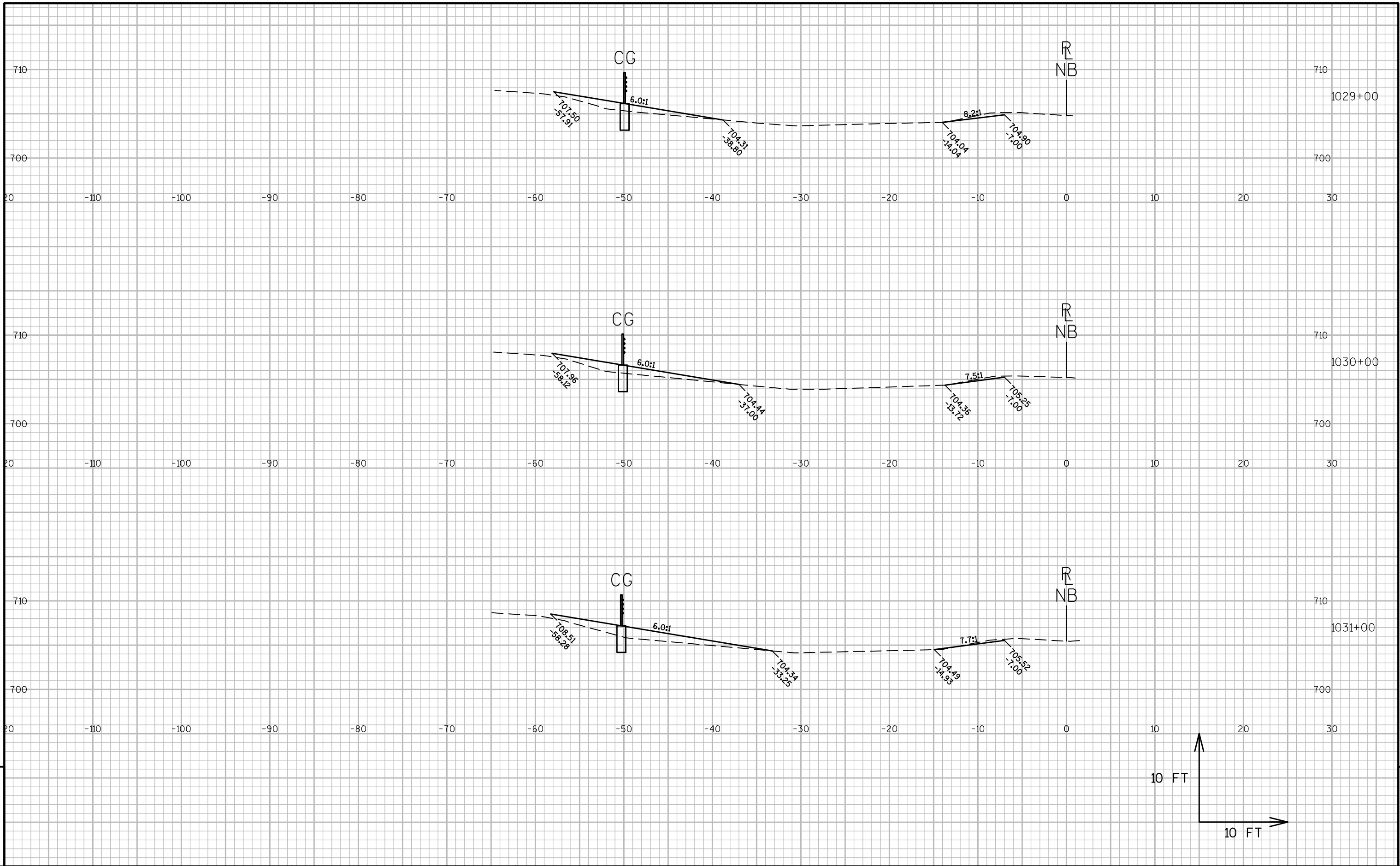
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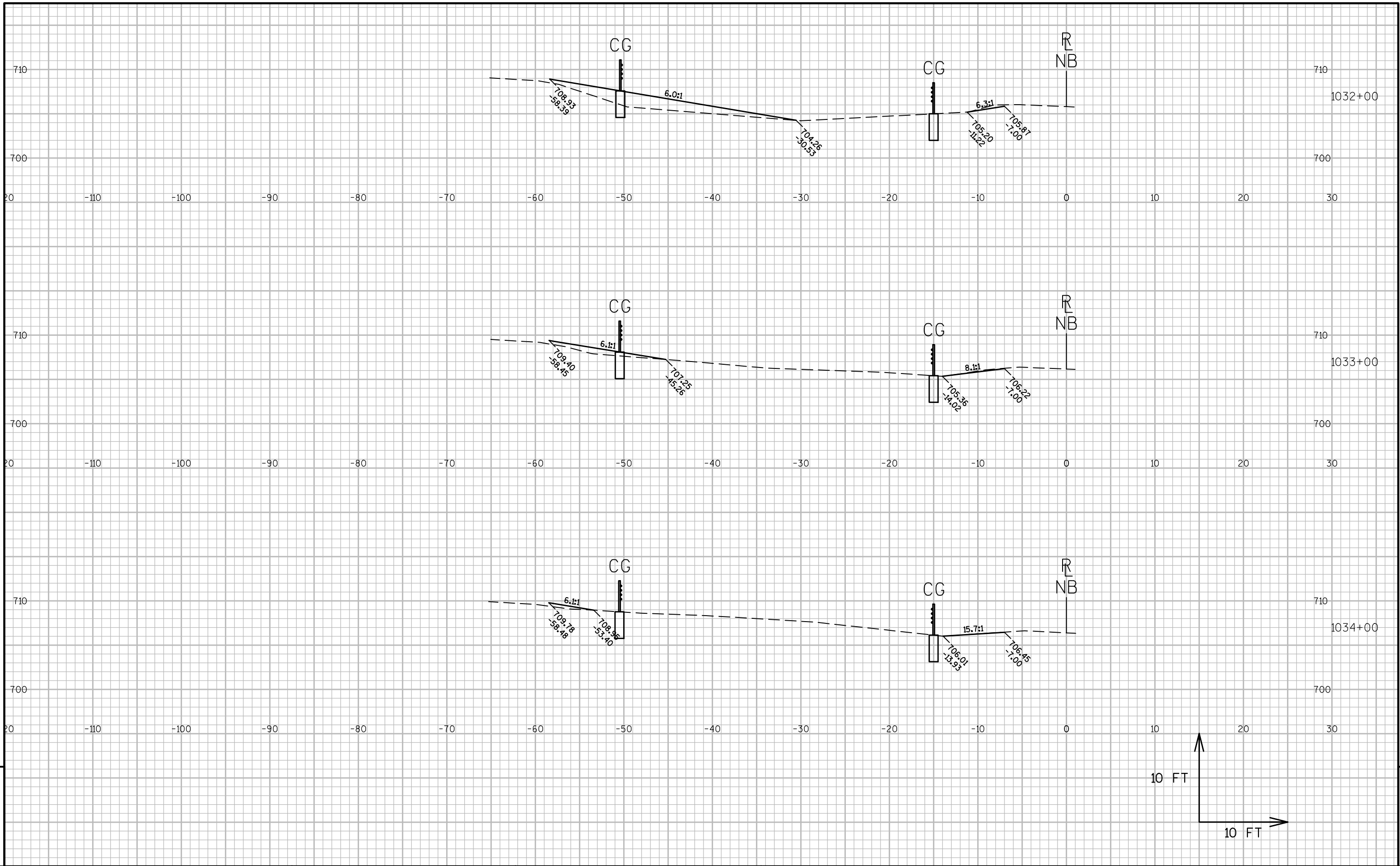


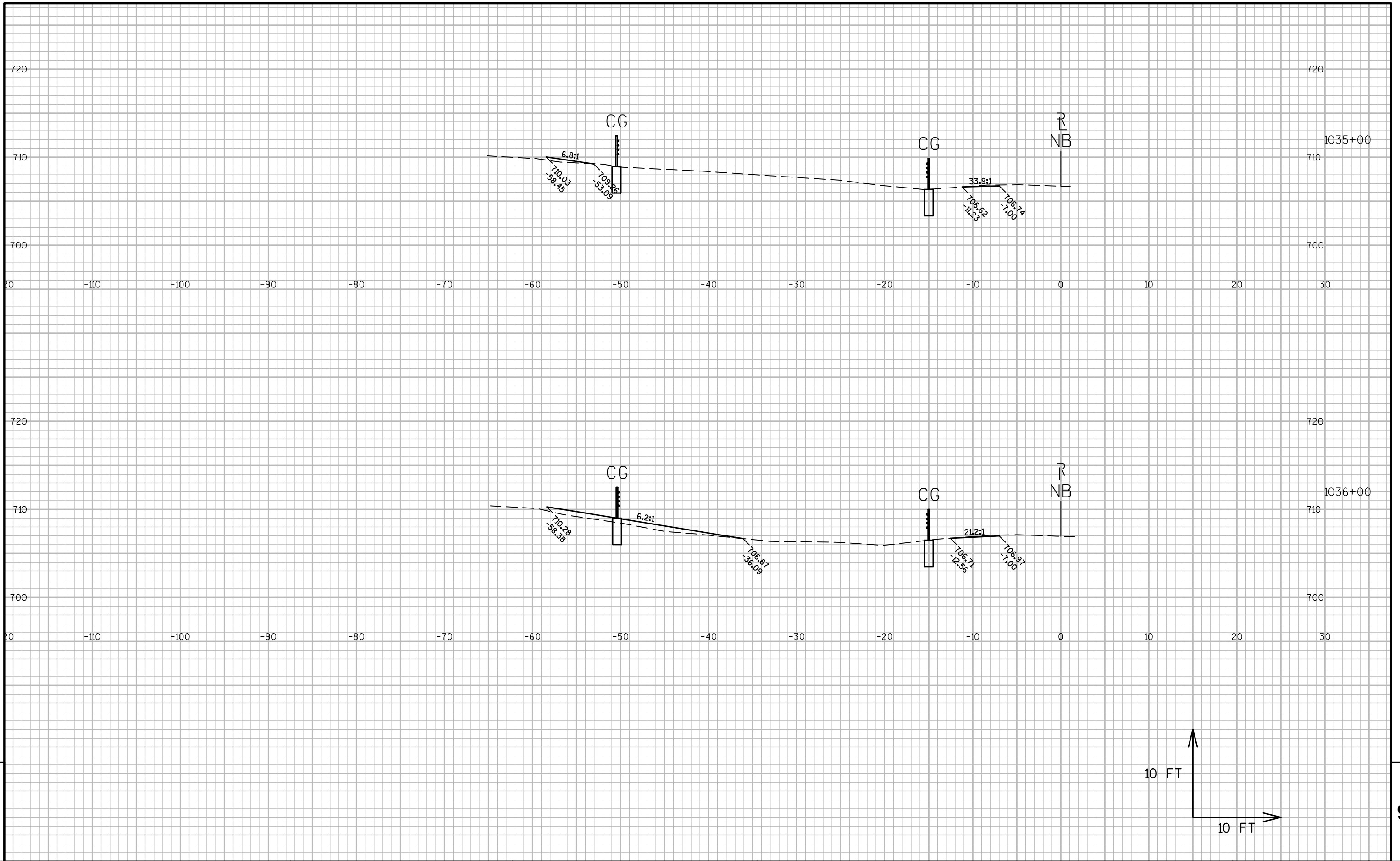


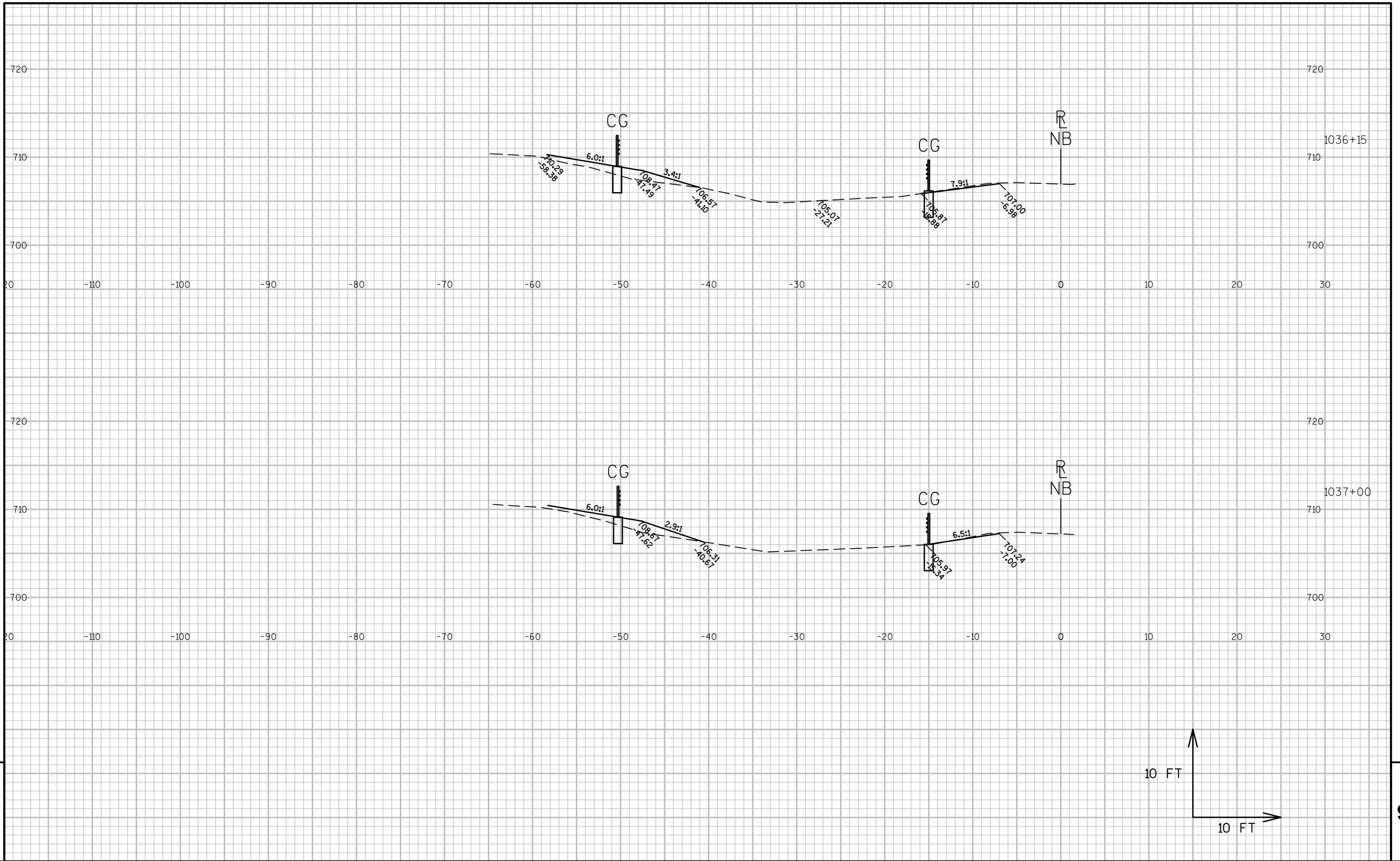


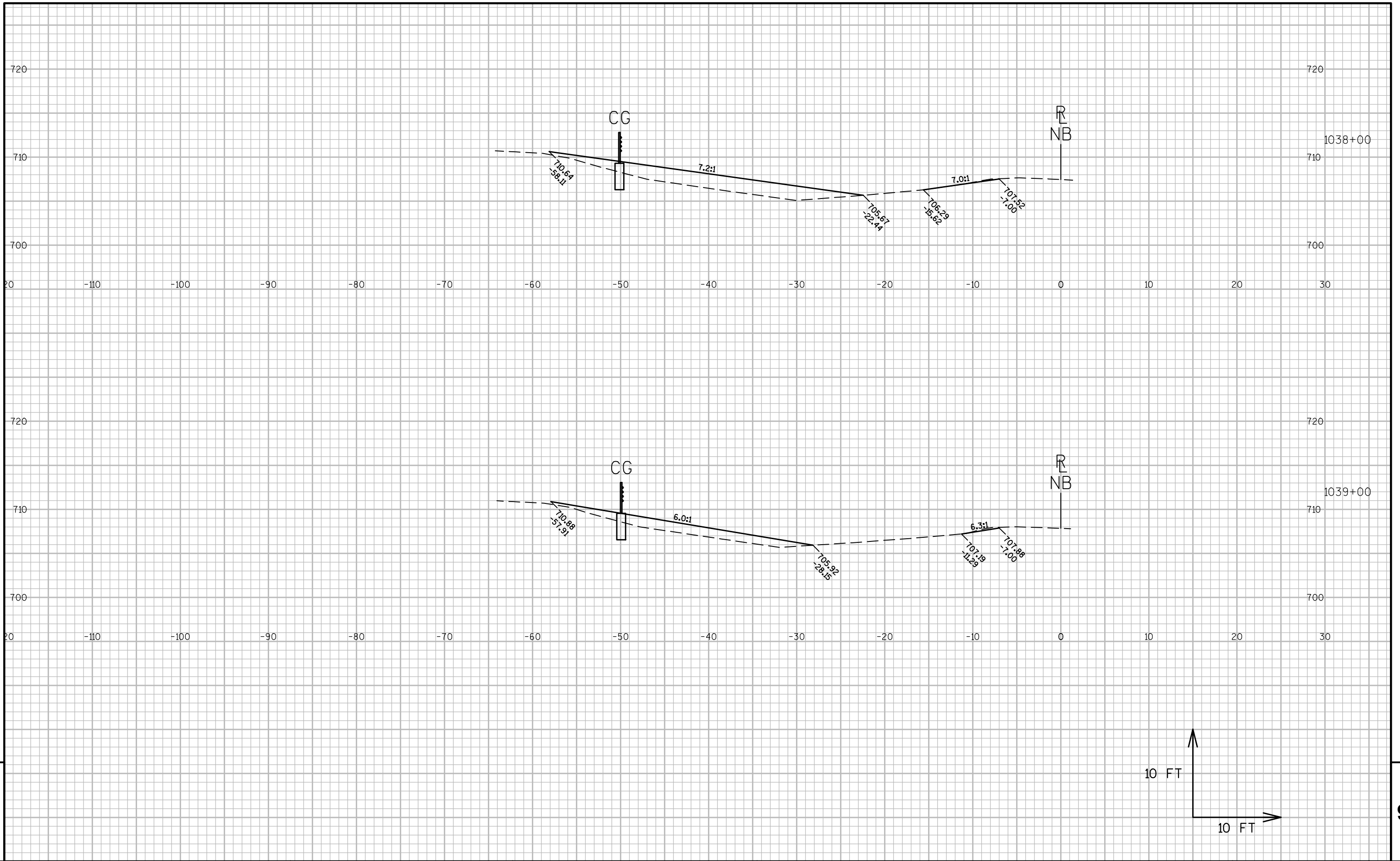


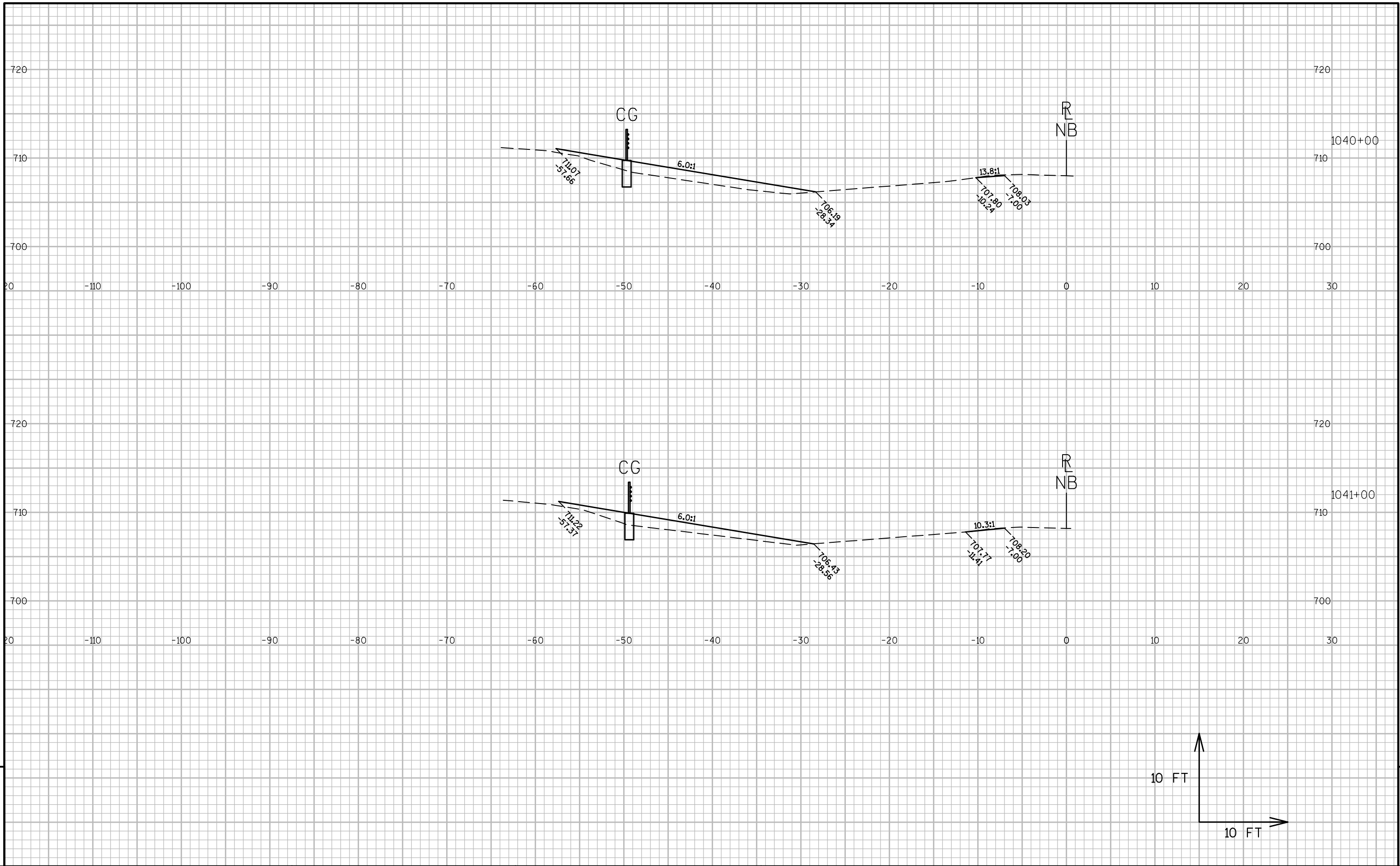


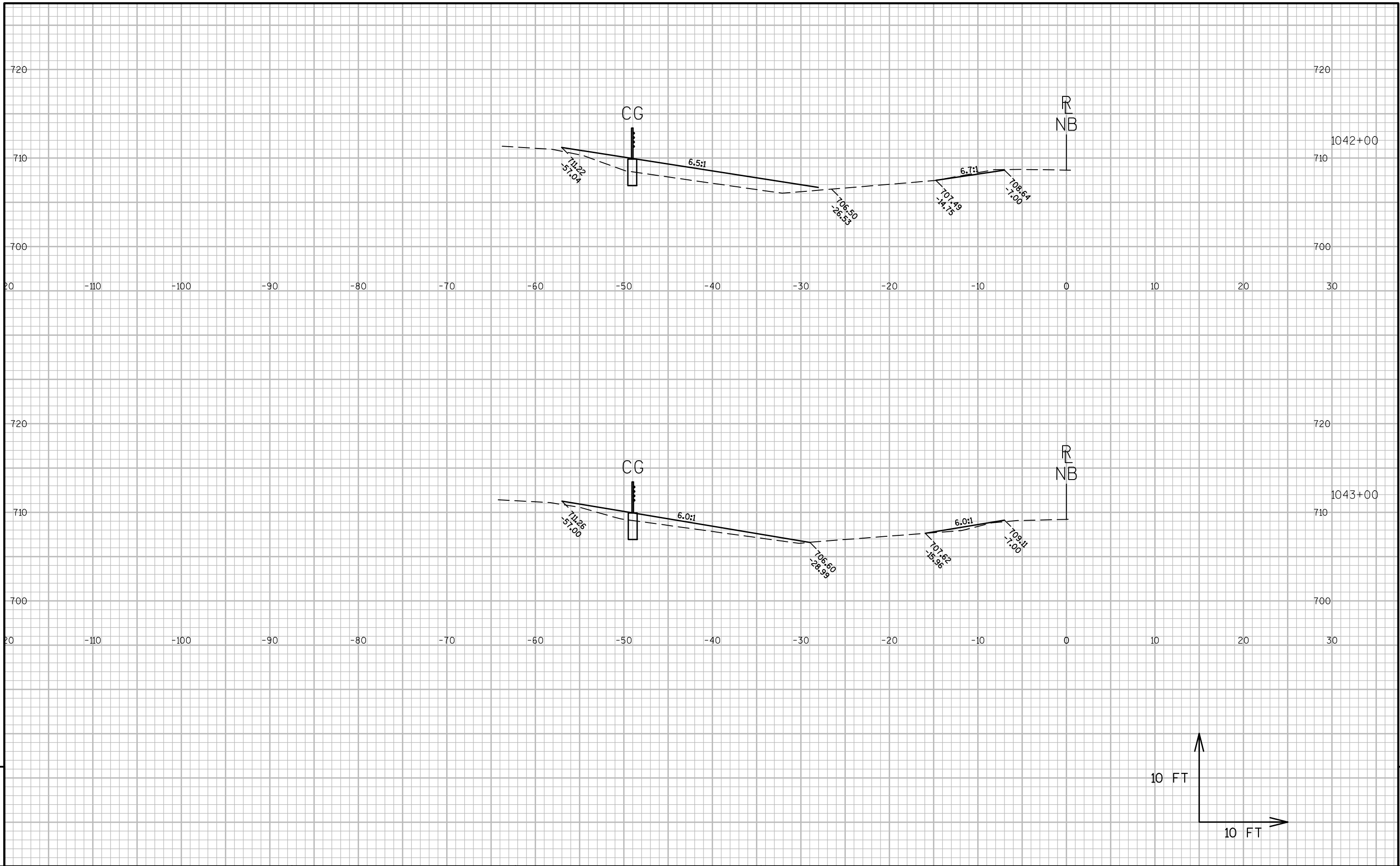






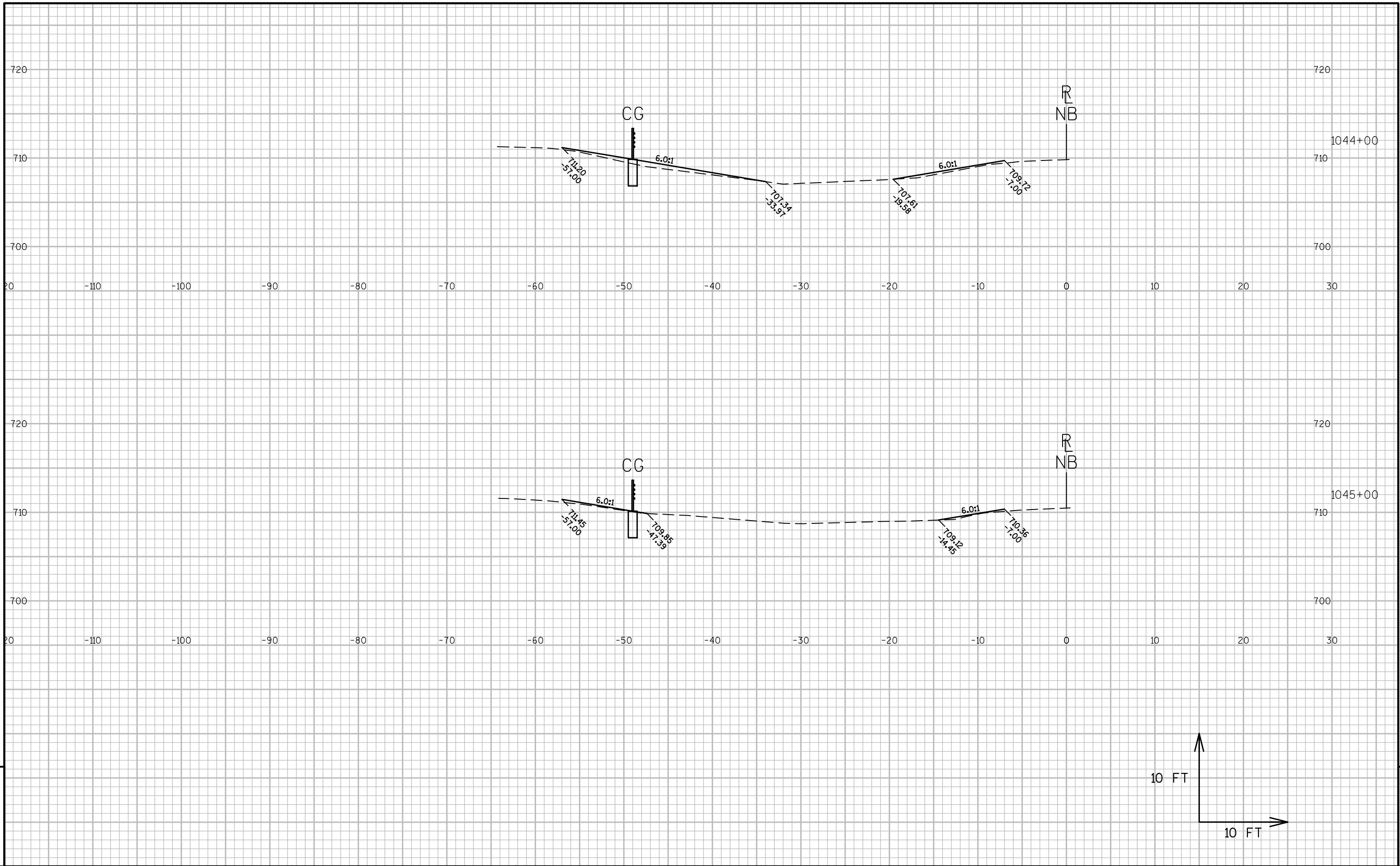


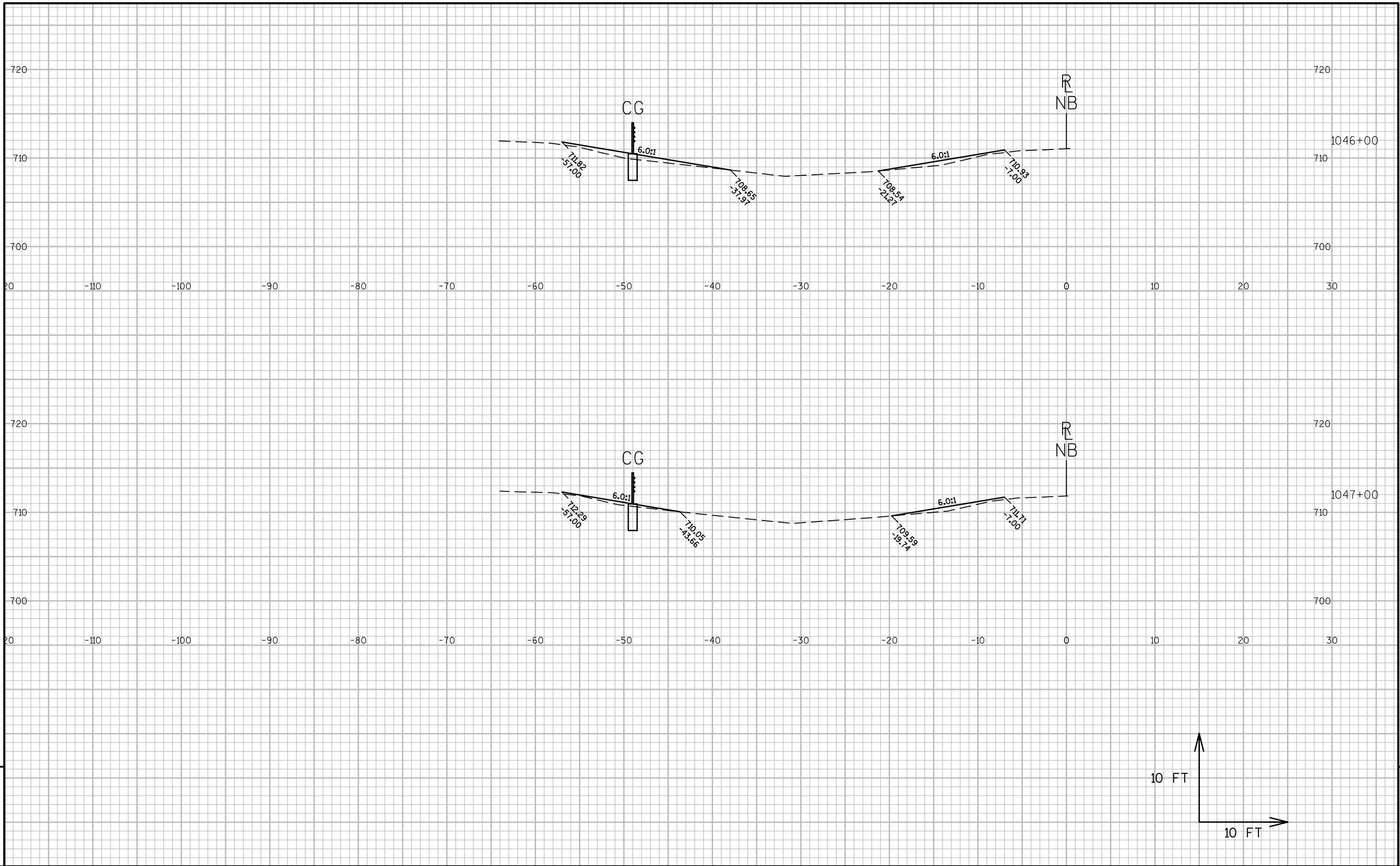


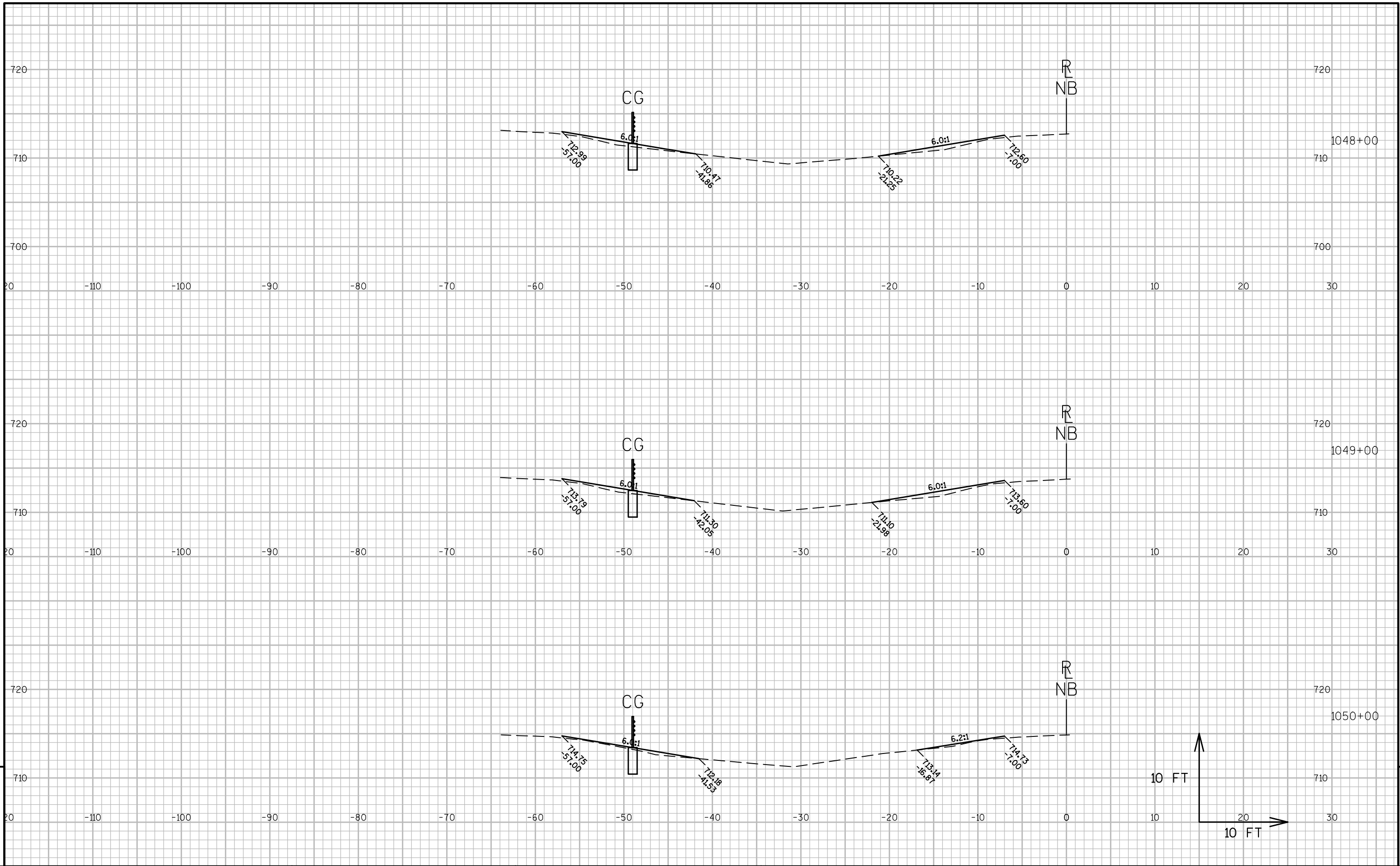


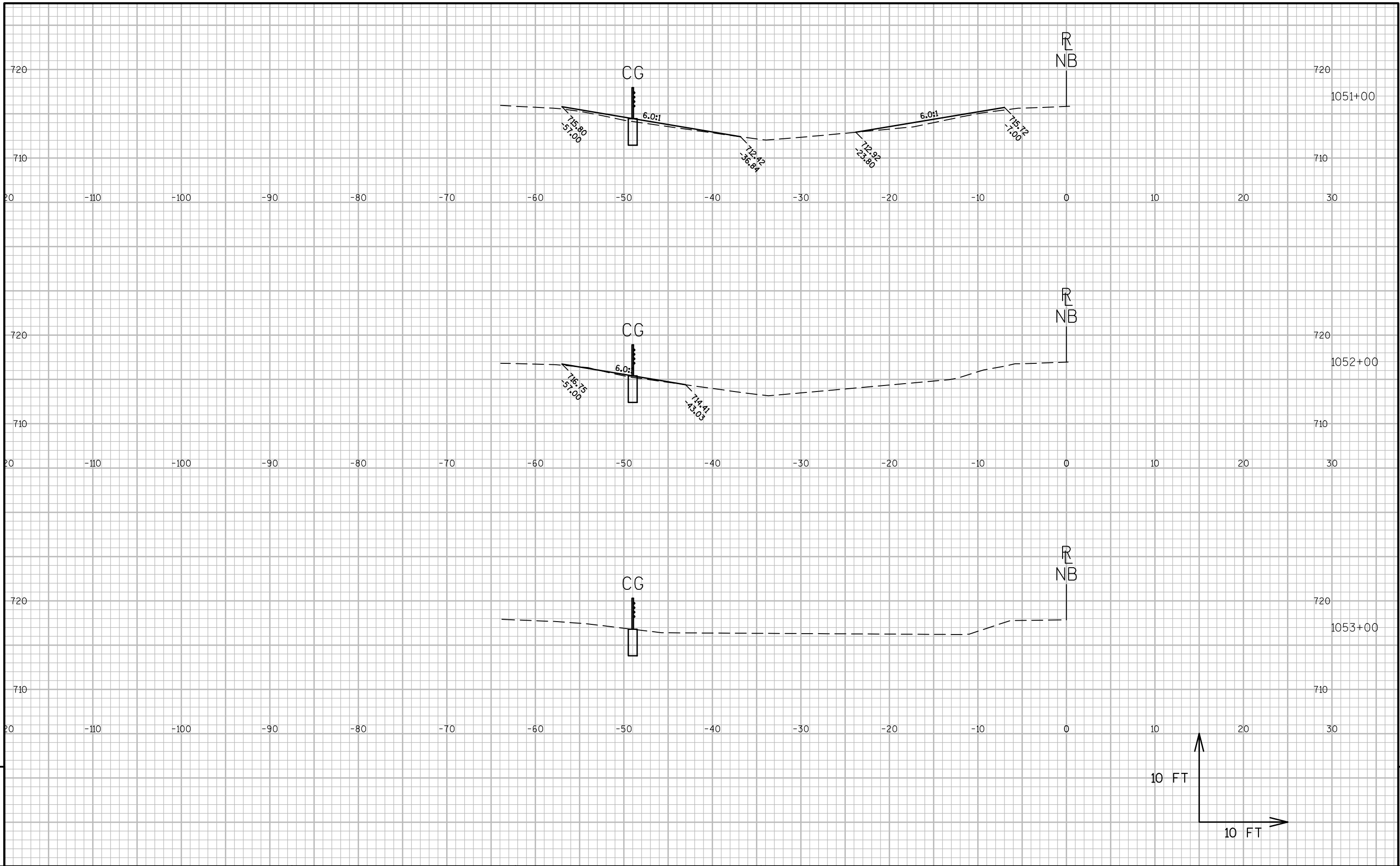
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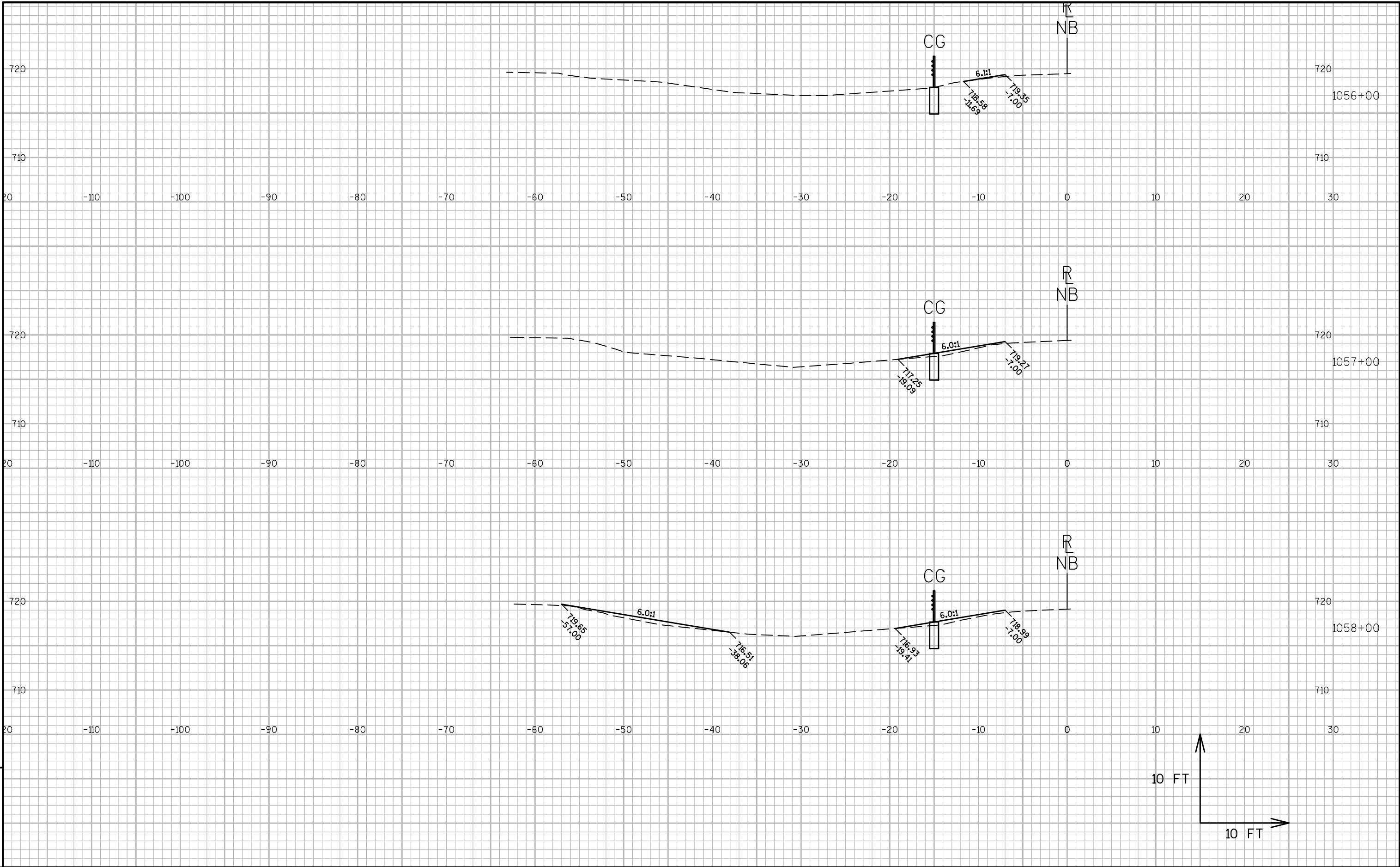
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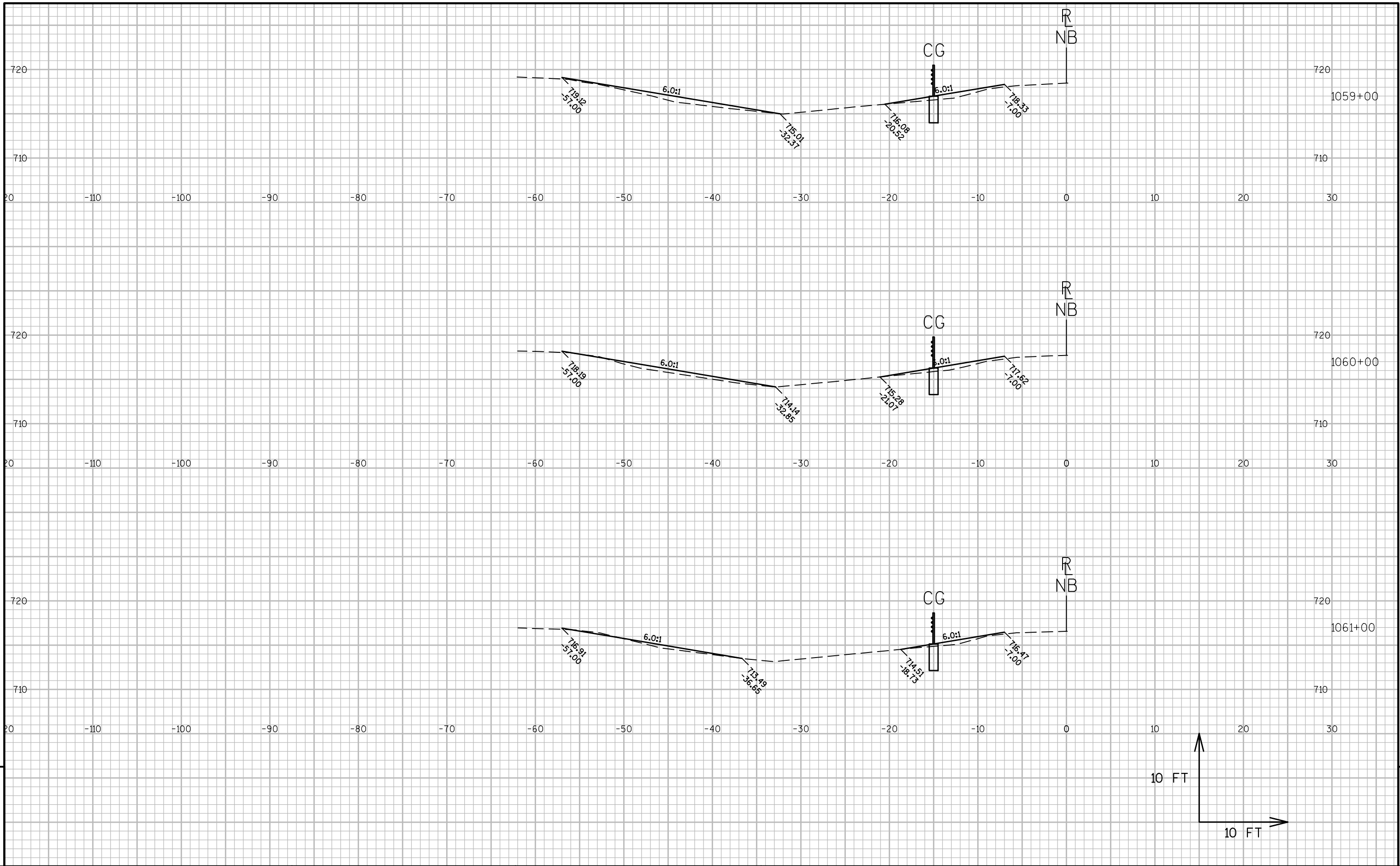


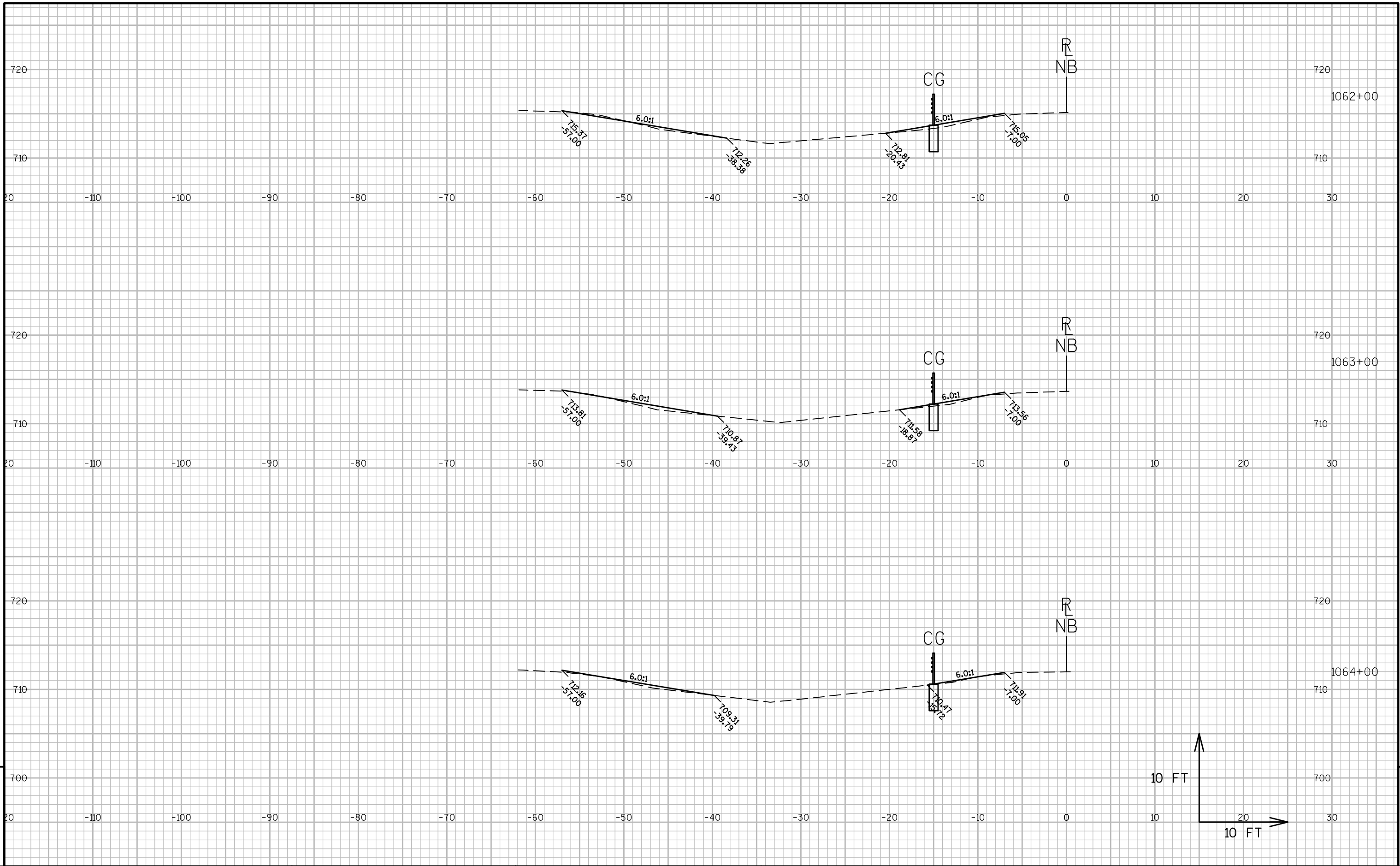


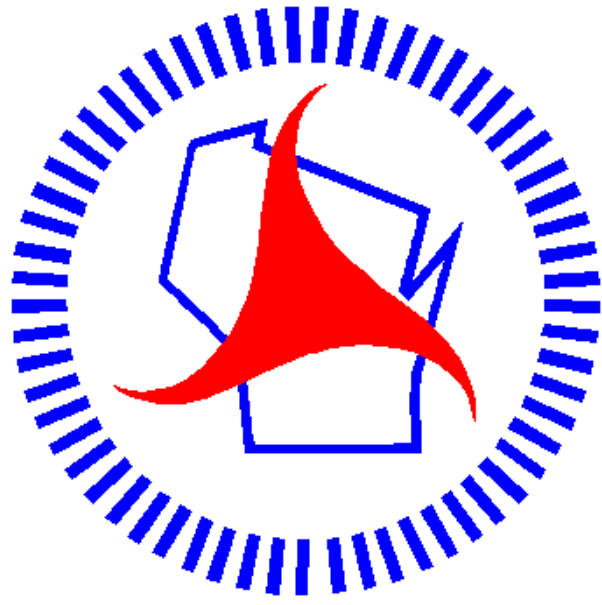












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