

REVIEWER NOTES:

1. TH 12 (OLD JERUSALEM ROAD) WILL BE CLOSED DURING CONSTRUCTION. TRAFFIC WILL BE MAINTAINED ON AN OFF-SITE DETOUR. THE DETOUR AND SIGNAGE WILL BE THE RESPONSIBILITY OF THE TOWN AS THE PROJECT IS ON A TOWN HIGHWAY.
2. ANY STRUCTURAL ELEMENTS SHOWN IN THE PLANS ARE CONCEPTUAL IN NATURE AND HAVE NOT BEEN FULLY DESIGNED.
3. ATTEMPTS TO MINIMIZE IMPACTS TO EXISTING RESOURCES HAVE BEEN MADE.

STATE OF VERMONT  
AGENCY OF TRANSPORTATION



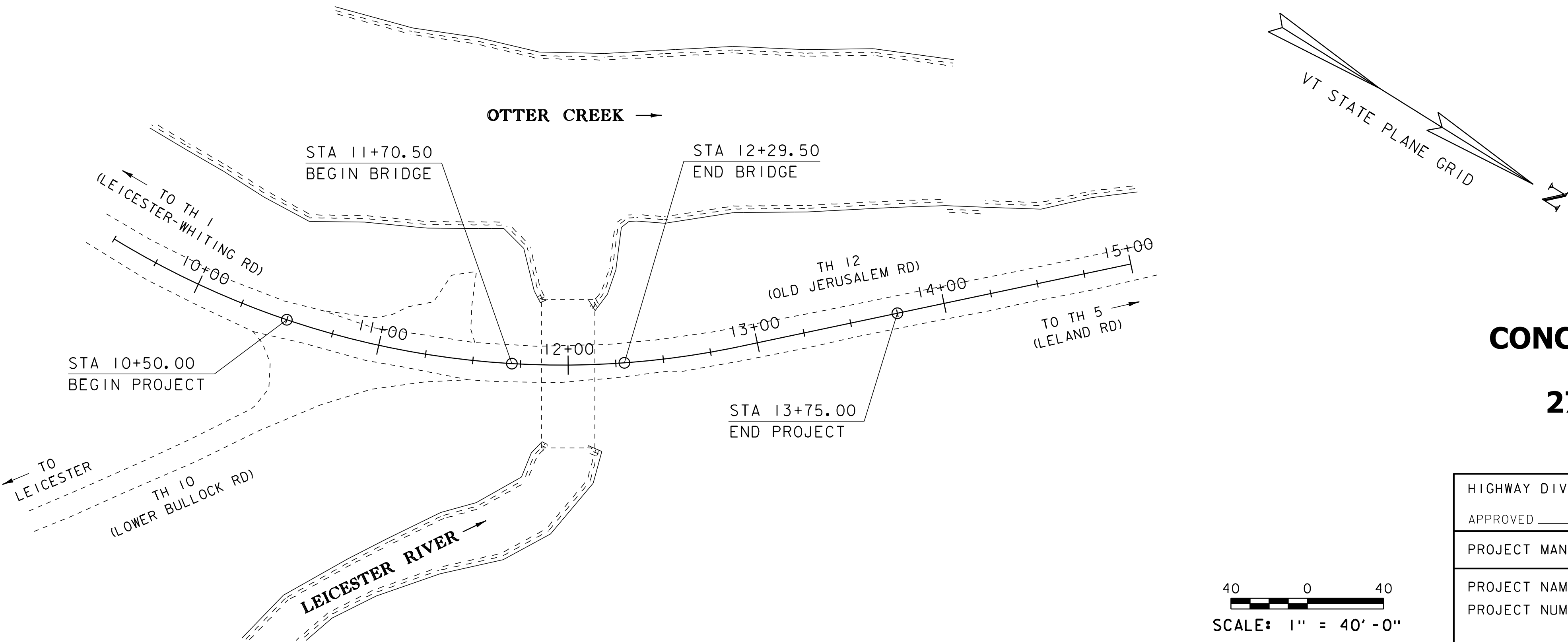
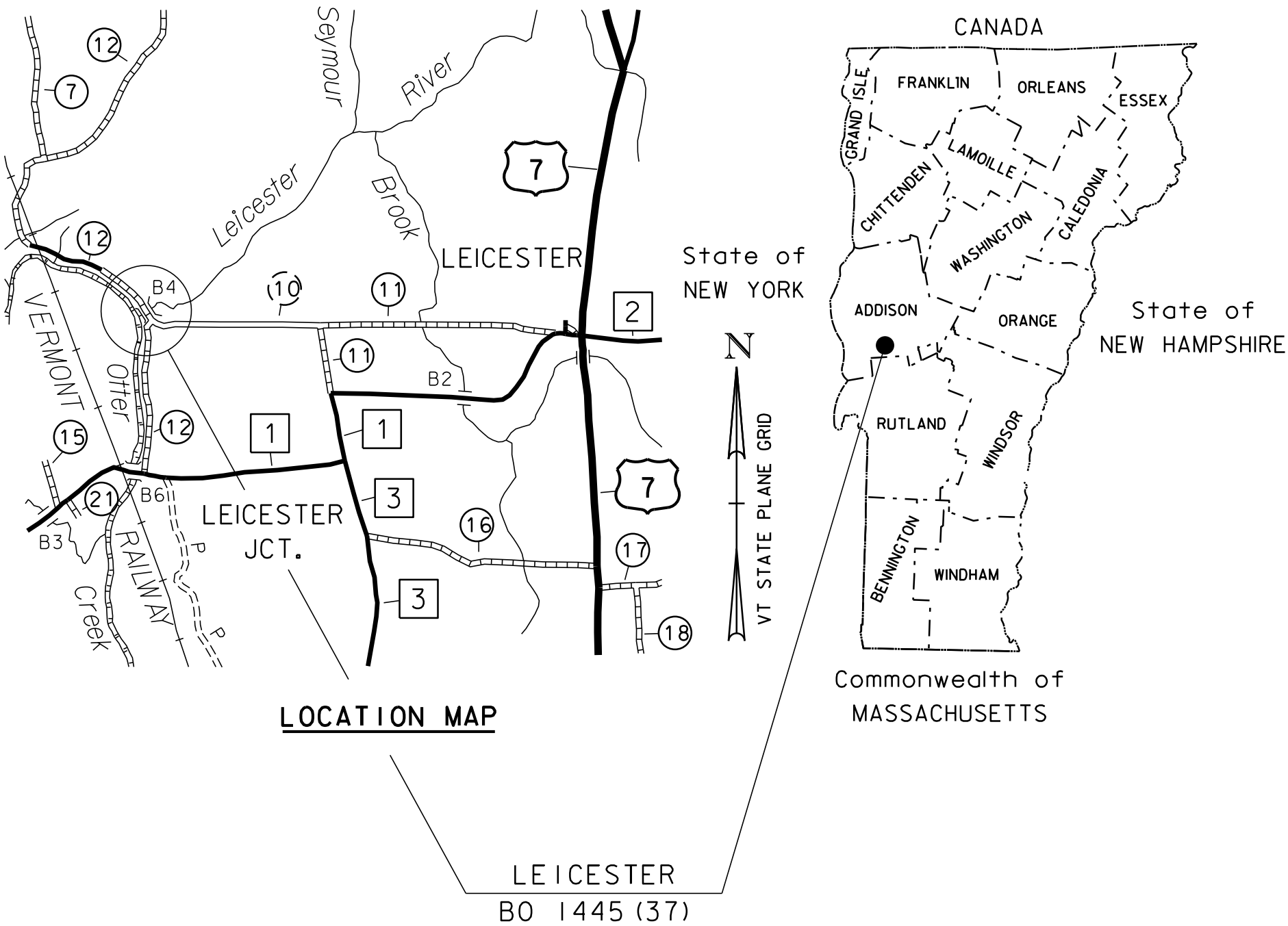
PROPOSED IMPROVEMENT  
BRIDGE PROJECT  
TOWN OF LEICESTER  
COUNTY OF ADDISON

ROUTE NO : TH 12; (CLASS 3 TOWN HIGHWAY)    BRIDGE NO : 4

PROJECT LOCATION :    ON TH 12 (OLD JERUSALEM ROAD) BEGINNING APPROXIMATELY 0.73 MILE NORTH FROM ITS INTERSECTION WITH TH 1 (LEICESTER-WHITING ROAD) AND EXTENDING NORTHWESTERLY APPROXIMATELY 0.062 MILE.

PROJECT DESCRIPTION :    REPLACEMENT OF EXISTING CULVERT WITH A BRIDGE ALONG WITH RELATED APPROACH ROADWAY AND CHANNEL WORK.

LENGTH OF STRUCTURE :    59.00 FEET  
LENGTH OF ROADWAY :    266.00 FEET  
LENGTH OF PROJECT :    325.00 FEET



CONCEPTUAL PLANS  
27-FEB-2019

CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2018, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON APRIL 13, 2018 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

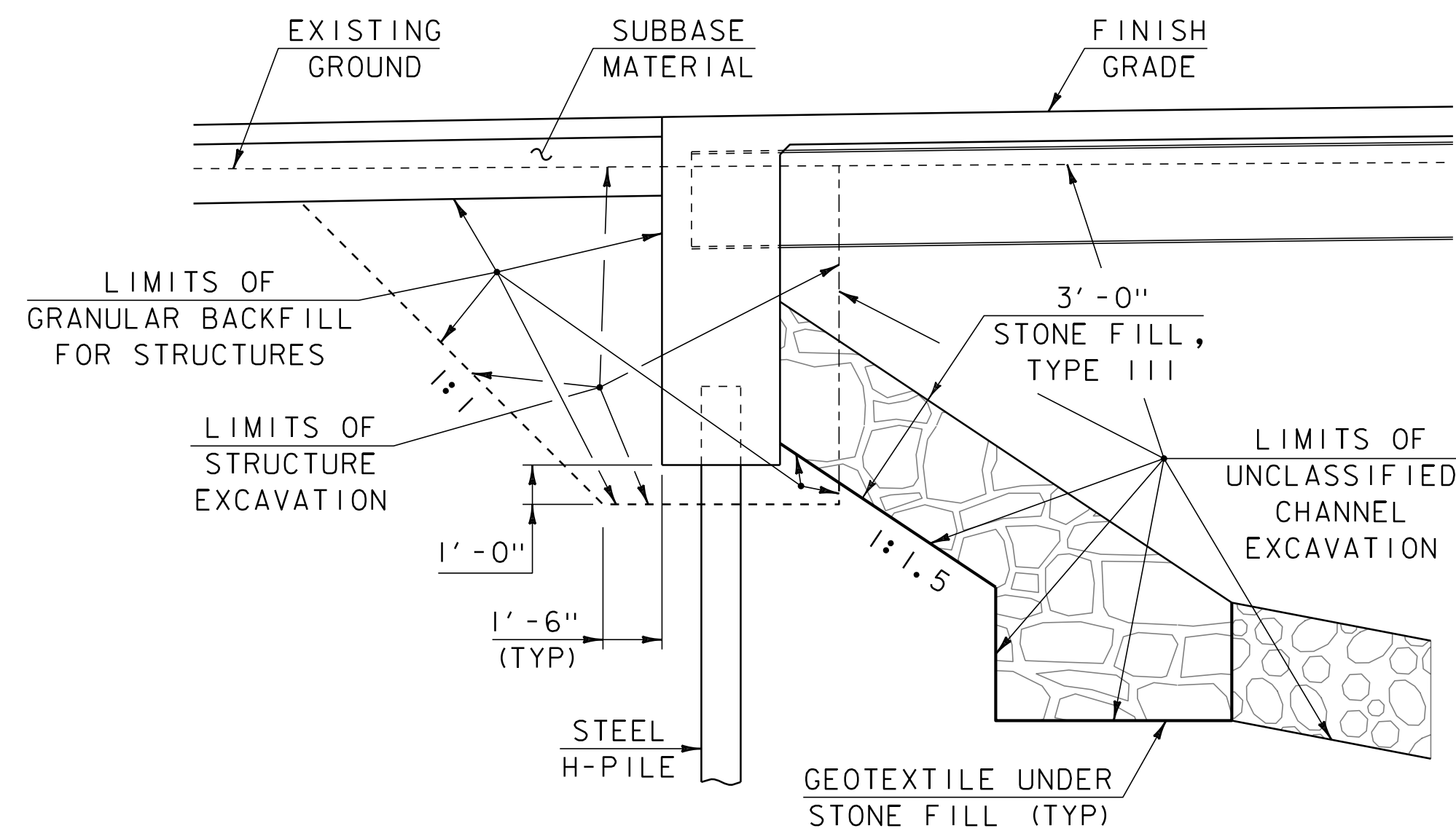
QUALITY ASSURANCE PROGRAM : LEVEL 2

SURVEYED BY :    H. MCGOWAN  
SURVEYED DATE :    11/24/2015

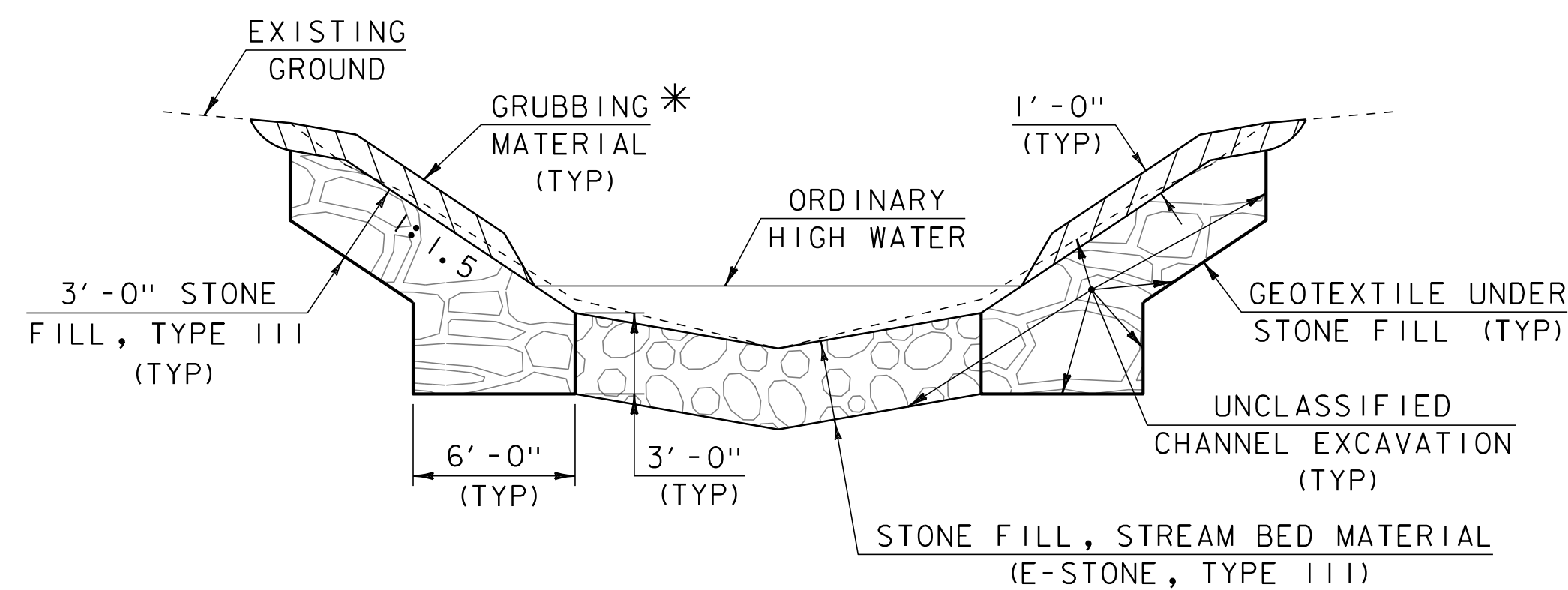
DATUM  
VERTICAL    NAVD 88  
HORIZONTAL    NAD 83 (2011)

HIGHWAY DIVISION, CHIEF ENGINEER  
APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
PROJECT MANAGER : CAROLYN CARLSON, PE  
PROJECT NAME :    LEICESTER  
PROJECT NUMBER :    BO 1445 (37)  
SHEET    1    OF    24    SHEETS



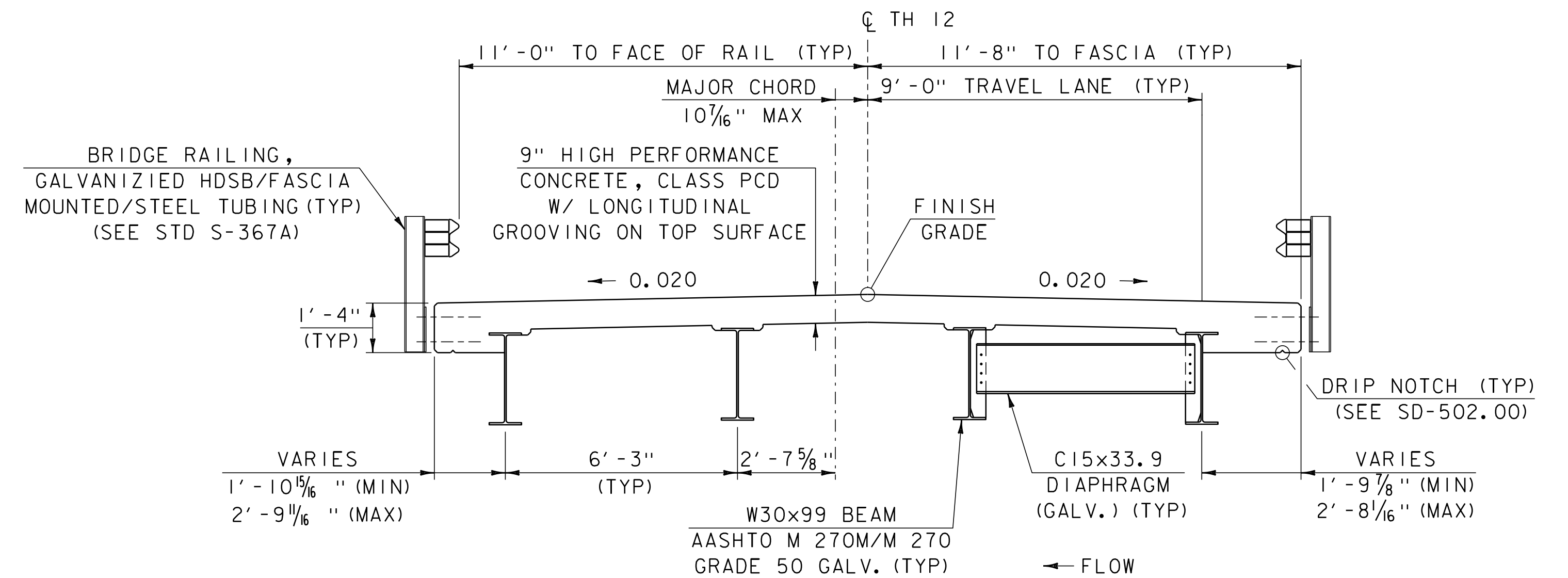


**ABUTMENT TYPICAL SECTION**  
(NOT TO SCALE)

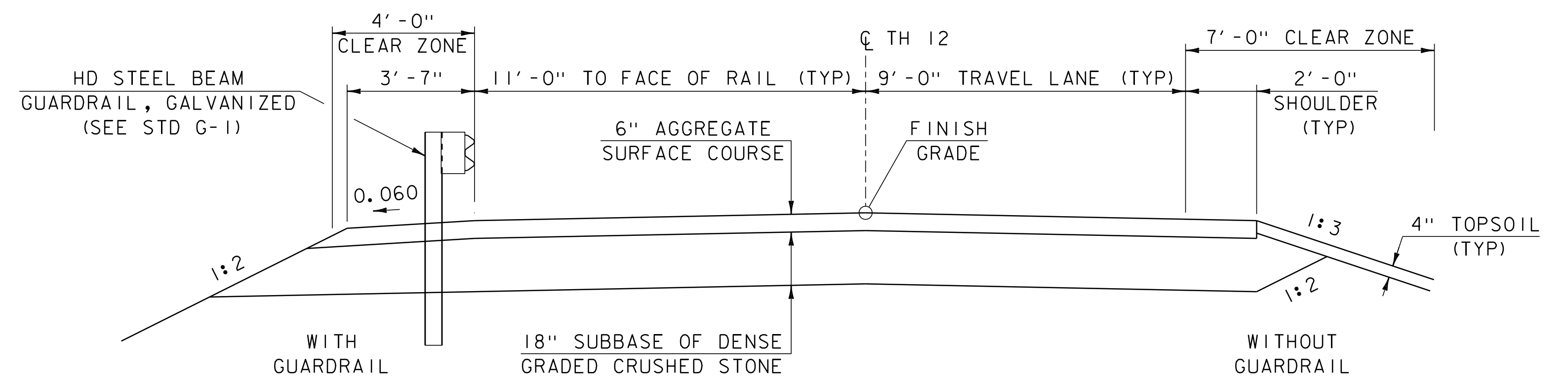


**CHANNEL TYPICAL SECTION**  
(NOT TO SCALE)

\*WHENEVER CHANNEL SLOPE INTERSECTS ROADWAY SUBBASE, GRUBBING MATERIAL SHALL BEGIN AT THE BOTTOM OF SUBBASE.



**BRIDGE TYPICAL SECTION**  
SCALE: 3/8" = 1'-0"



**TH 12 (OLD JERUSALEM RD)  
ROADWAY TYPICAL SECTION**  
SCALE: 3/8" = 1'-0"

**MATERIAL TOLERANCES**  
(IF USED ON PROJECT)

SURFACE	
- PAVEMENT (TOTAL THICKNESS)	+/- 1/4"
- AGGREGATE SURFACE COURSE	+/- 1/2"
SUBBASE	+/- 1"
SAND BORROW	+/- 1"

PROJECT NAME: LEICESTER  
PROJECT NUMBER: BO 1445(37)

FILE NAME: sl2j636+typ.dgn  
PROJECT LEADER: C. CARLSON  
DESIGNED BY: C. BURRALL  
TYPICAL SECTIONS

PLOT DATE: 27-FEB-2019  
DRAWN BY: C. BURRALL  
CHECKED BY: G. ROY  
SHEET 3 OF 24

## SYMBOL OGY LEGEND NOTE

## R. O. W. ABBREVIATIONS (CODES) & SYMBOLS

■	BNDNS	BOUND SET
▣	BNDNS	BOUND TO BE SET
⊙	IPNF	IRON PIN FOUND
●	IPNS	IRON PIN TO BE SET
⊗	CALC	EXISTING ROW POINT
○	PROW	PROPOSED ROW POINT
[LENGTH]		LENGTH CARRIED ON NEXT SHEET

POINT	CODE	DESCRIPTION
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THESE ARE COMMON VAOT SURVEY POINT SYMBOLS FOR EXISTING FEATURES, ALSO USED FOR PROPOSED FEATURES WITH HEAVIER LINEWEIGHT, IN COMBINATION WITH PROPOSED ANNOTATION.

CODE	DESCRIPTION
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PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
CC	CENTER OF CURVE
PT	POINT OF TANGENCY
PCC	POINT OF COMPOUND CURVE
PRC	POINT OF REVERSE CURVE
POB	POINT OF BEGINNING
POE	POINT OF ENDING
STA	STATION PREFIX
AH	AHEAD STATION SUFFIX
BK	BACK STATION SUFFIX
D	CURVE DEGREE OF (100FT)
R	CURVE RADIUS OF
T	CURVE TANGENT LENGTH
L	CURVE LENGTH OF
E	CURVE EXTERNAL DISTANCE
CB	CHORD BEARING

## UNDERGROUND UTILITIES












## UNDERGROUND UTILITIES

—	UGU	—	.	.	.	.	.	UTILITY (GENERIC-UNKNOWN)
—	UT	—	.	.	.	.	.	TELEPHONE
—	UE	—	.	.	.	.	.	ELECTRIC
—	UC	—	.	.	.	.	.	CABLE (TV)
—	UEC	—	.	.	.	.	.	ELECTRIC+CABLE
—	UET	—	.	.	.	.	.	ELECTRIC+TELEPHONE
—	UCT	—	.	.	.	.	.	CABLE+TELEPHONE
—	UECT	—	.	.	.	.	.	ELECTRIC+CABLE+TELEPHONE
—	G	—	.	.	.	.	.	GAS LINE
—	W	—	.	.	.	.	.	WATER LINE
—	S	—	.	.	.	.	.	SANITARY SEWER (SEPTIC)




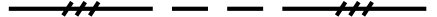







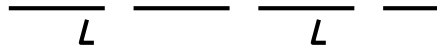
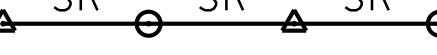



—	AGU	—	.	.	.	.	.	UTILITY (GENERIC-UNKNOWN)
—	T	—	.	.	.	.	.	TELEPHONE
—	E	—	.	.	.	.	.	ELECTRIC
—	C	—	.	.	.	.	.	CABLE (TV)
—	EC	—	.	.	.	.	.	ELECTRIC+CABLE
—	ET	—	.	.	.	.	.	ELECTRIC+TELEPHONE
—	AER E&T	—	.	.	.	.	.	ELECTRIC+TELEPHONE
—	CT	—	.	.	.	.	.	CABLE+TELEPHONE
—	ECT	—	.	.	.	.	.	ELECTRIC+CABLE+TELEPHONE
—	..	—	.	.	.	.	.	UTILITY POLE GUY WIRE

## PROJECT DESIGN & LAYOUT SYMBOLOLOGY





— -- — CZ — -- — CLEAR ZONE  
 \_\_\_\_\_ PLAN LAYOUT MATCHLINE

	TOP OF CUT SLOPE
	TOE OF FILL SLOPE
	STONE FILL
	BOTTOM OF DITCH
	CULVERT PROPOSED
	STRUCTURE SUBSURFACE
	PROJECT DEMARCATION FENCE
	BARRIER FENCE
	TREE PROTECTION ZONE (TPZ)
	STRIPING LINE REMOVAL
	SHEET PILES












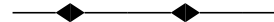

### BOUNDARY LINES

	TOWN LINE	TOWN BOUNDARY LINE
	COUNTY LINE	COUNTY BOUNDARY LINE
	STATE LINE	STATE BOUNDARY LINE
		PROPOSED STATE R.O.W. (LIMITED ACCESS)
		PROPOSED STATE R.O.W.
		STATE ROW (LIMITED ACCESS)
		STATE ROW
		TOWN ROW
		PERMANENT EASEMENT LINE (P)
		TEMPORARY EASEMENT LINE (T)
		SURVEY LINE
		PROPERTY LINE (P/L)
		SLOPE RIGHTS
	6f	6F PROPERTY BOUNDARY
	4f	4F PROPERTY BOUNDARY
	HAZ	HAZARDOUS WASTE

## EPSC MEASURES

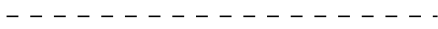



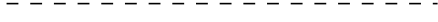
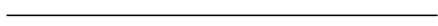








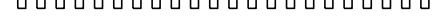
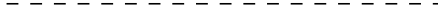



	FILTER CURTAIN
	SILT FENCE
	SILT FENCE WOVEN WIRE
	CHECK DAM
	DISTURBED AREAS REQUIRING RE-VEGETATION
	EROSION MATTING

ENVIRONMENTAL RESOURCES

	WETLAND BOUNDARY
	RIPARIAN BUFFER ZONE
	WETLAND BUFFER ZONE
	SOIL TYPE BOUNDARY
	THREATENED & ENDANGERED SPECIES
	HAZARDOUS WASTE AREA
	AGRICULTURAL LAND
	FISH & WILDLIFE HABITAT
	FLOOD PLAIN
	ORDINARY HIGH WATER (OHW)
	STORM WATER
	USDA FOREST SERVICE LANDS
	WILDLIFE HABITAT SUIT/CONN

—— <i>ARCH</i> ——	ARCHEOLOGICAL BOUNDARY
—— HISTORIC DIST ——	HISTORIC DISTRICT BOUNDARY
—— HISTORIC ——	HISTORIC AREA
(H)	HISTORIC STRUCTURE

## EXISTING FEATURES

	ROAD EDGE PAVEMENT
	ROAD EDGE GRAVEL
	DRIVEWAY EDGE
	DITCH
	FOUNDATION
	FENCE (EXISTING)
	FENCE WOOD POST
	FENCE STEEL POST
	GARDEN
	ROAD GUARDRAIL
	RAILROAD TRACKS
	CULVERT (EXISTING)
	STONE WALL
	WALL
	WOOD LINE
	BRUSH LINE
	HEDGE
	BODY OF WATER EDGE
	LEDGE EXPOSED

PROJECT NAME: LEICESTER	
PROJECT NUMBER: BO 1445 (37)	
FILE NAME: sl2j636legend.dgn	PLOT DATE: 27-FEB-2019
PROJECT LEADER: C. CARLSON	DRAWN BY: G. ROY
DESIGNED BY: C. BURRALL	CHECKED BY: C. BURRALL
CONVENTIONAL SYMBOLS-LEGEND	SHEET 4 OF 24



CONTROL POINTS

HVCTRL #99  
"LIECESTER AZ MK"  
NORTH = 494001.6367  
EAST = 1475151.3443  
ELEV. = 474.6300

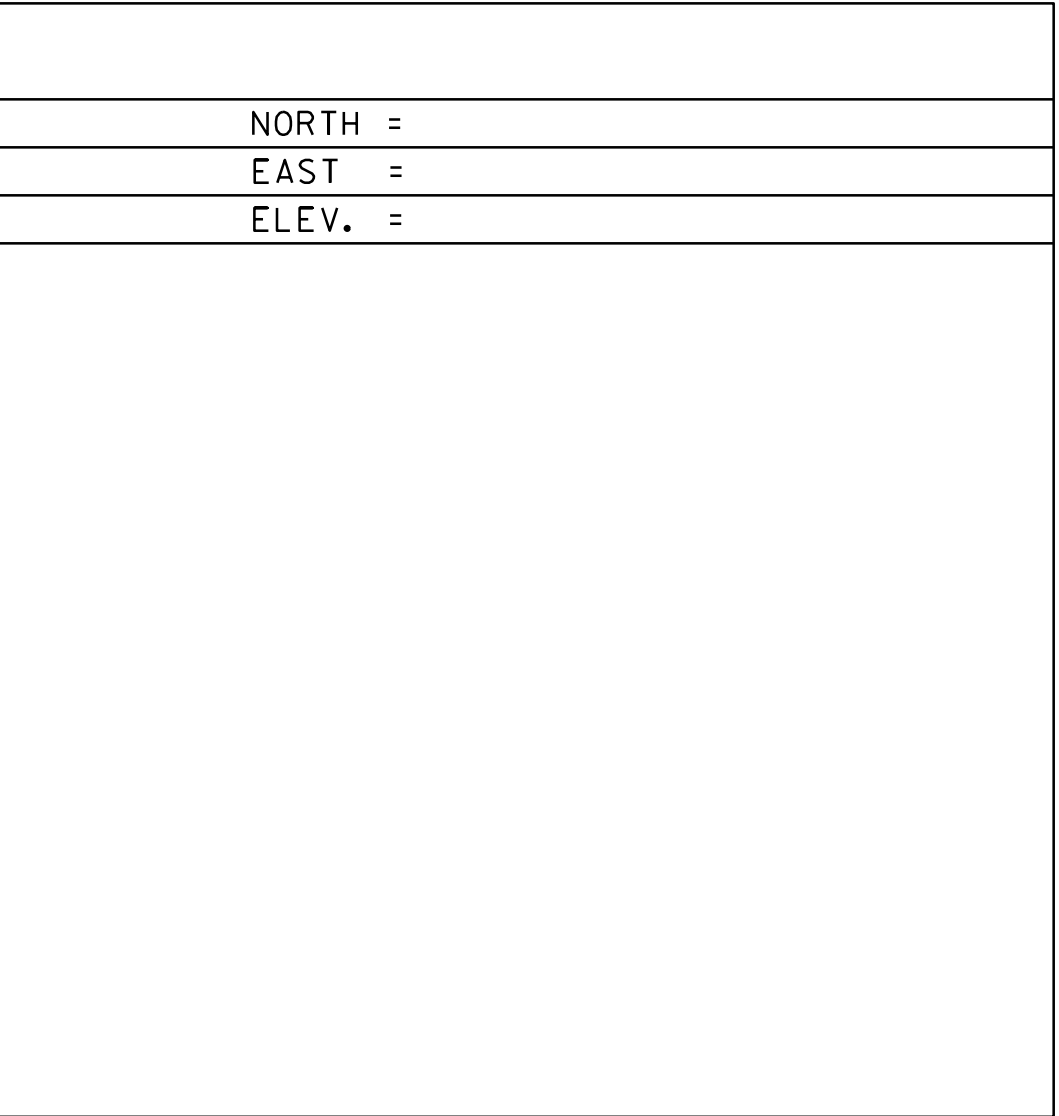
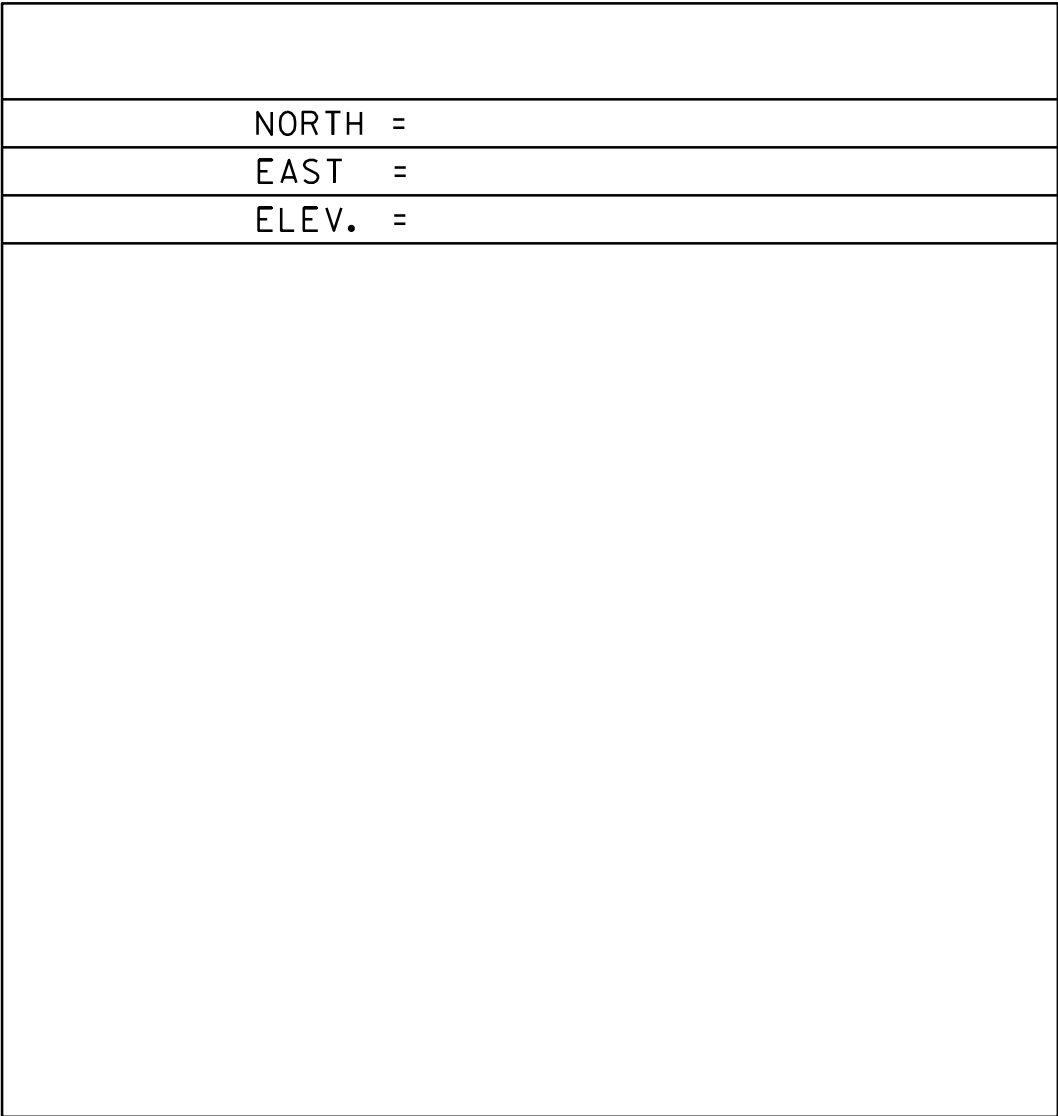
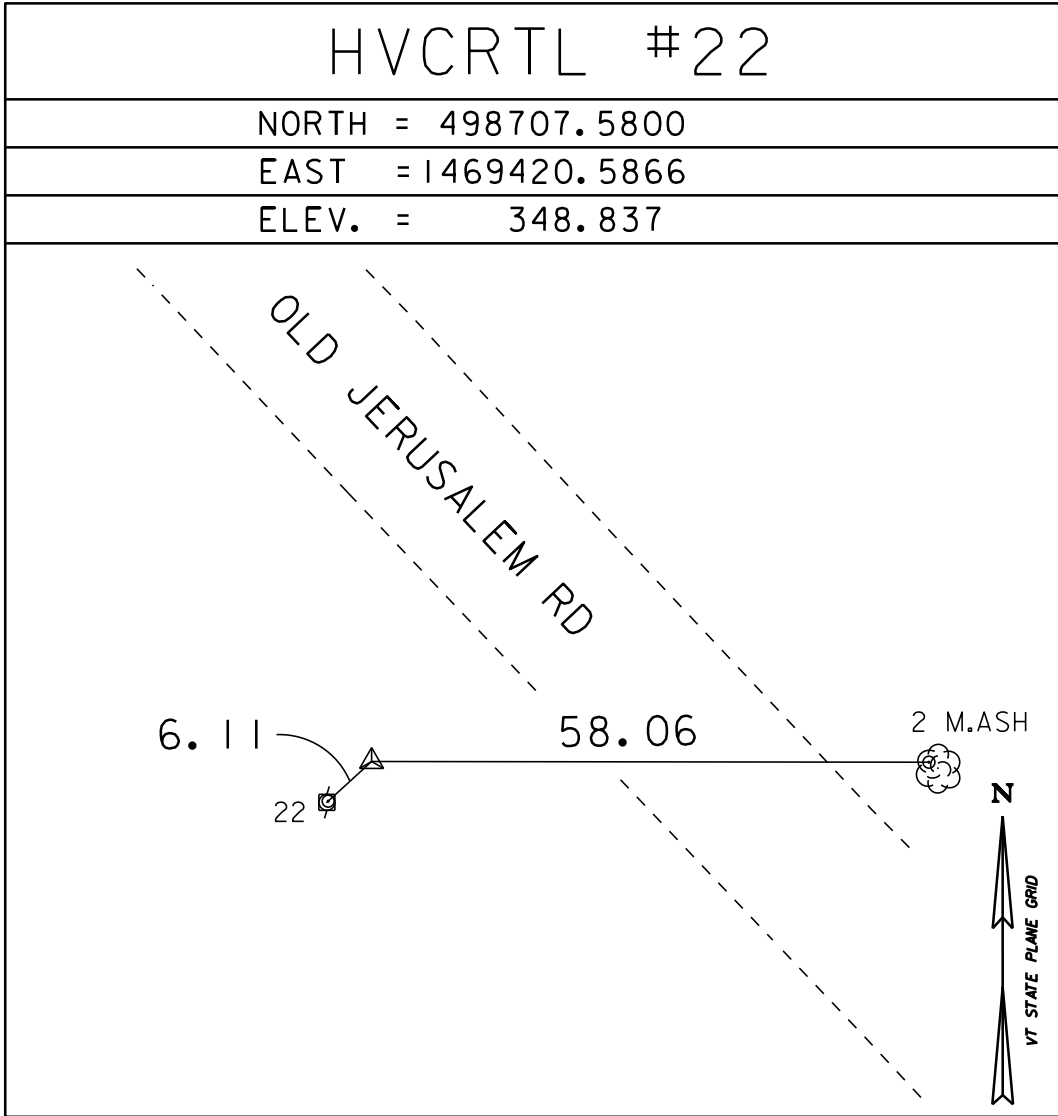
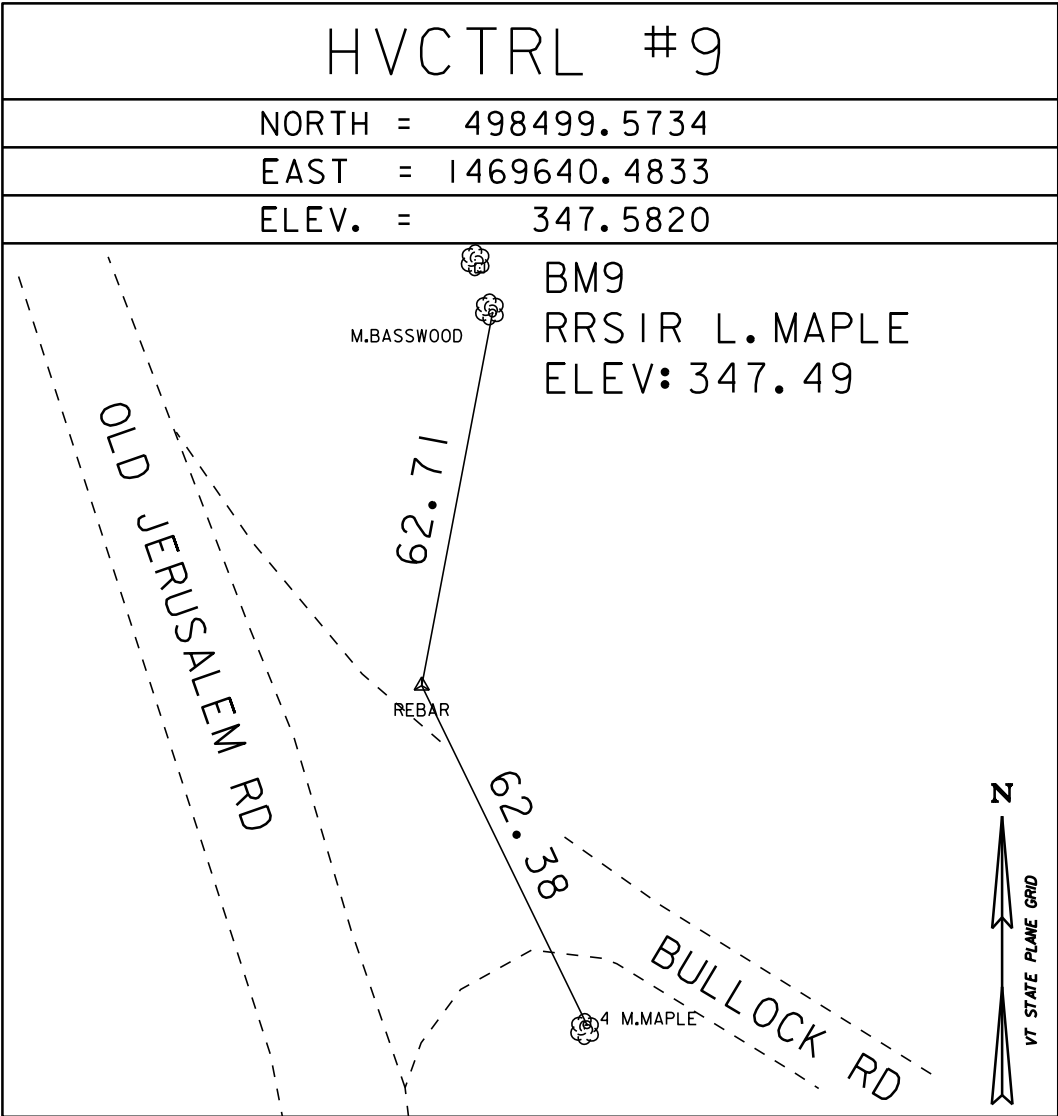
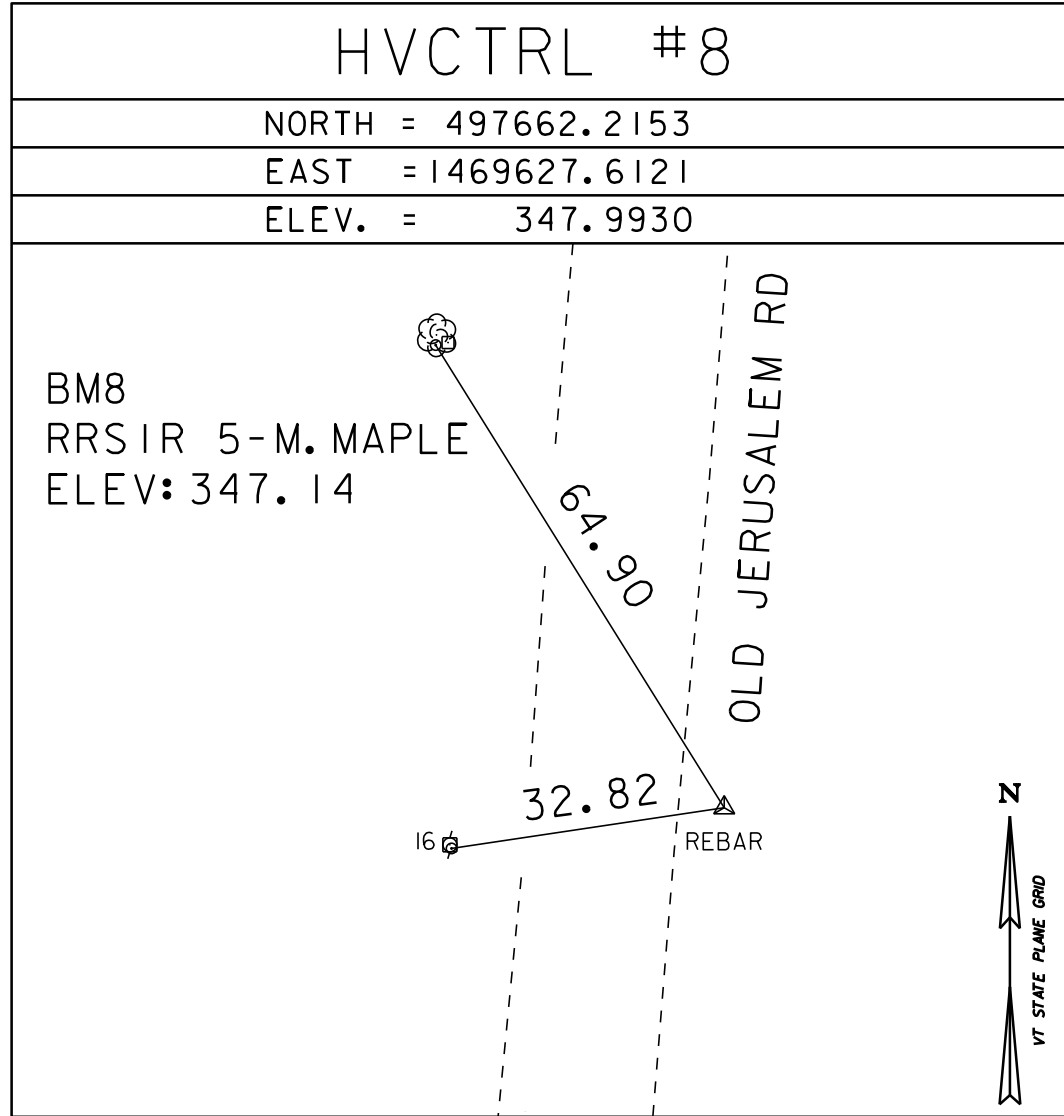
TO REACH FROM THE MAIN CROSSROADS IN THE VILLAGE OF LEICESTER (INTERSECTION OF U.S. ROUTE 7, THE LEICESTER-WHITING ROAD, AND FERN LAKE ROAD) AT THE LEICESTER MEETING HOUSE AND CENTRAL SCHOOL GO WEST ALONG THE LEICESTER-WHITING ROAD FOR 1.25 MI (2.01 KM) TO A T-INTERSECTION. TURN LEFT AND GO SOUTH ALONG THE MAIN TRAVELED ROAD FOR 0.3 MI (0.5 KM) TO A T-ROAD RIGHT. CONTINUE STRAIGHT AHEAD (SOUTH) ALONG ARNOLD DISTRICT ROAD FOR 0.2 MI (0.3 KM) TO TELEPHONE POLE NO. 174 AND AZIMUTH MARK ON THE LEFT. IT IS 0.2 MI (0.3 KM) NORTH ALONG ARNOLD DISTRICT ROAD FROM NGS STATION LIECESTER. STATION MARK IS SET IN THE TOP OF A 9 FT (2.7 M) X 6 FT (1.8 M) BOULDER WHICH PROJECTS 4 FT (1.2 M) ABOVE GROUND SURFACE. IT IS 135 FT (41.1 M) EAST OF THE CENTERLINE OF ARNOLD DISTRICT ROAD, 198 FT (60.4 M) SOUTHEAST OF TELEPHONE POLE NO. 174, 165 FT (50.3 M) NORTHEAST OF THE TELEPHONE POLE NO. 173, 195 FT (59.4 M) SOUTH SOUTHEAST OF TRANSMISSION POLE NO. 50, 118 FT (36.0 M) EAST OF A FIBERGLASS WITNESS POST IN A WIRE FENCELINE

HVCTRL #98  
"DALE"  
NORTH = 495384.1241  
EAST = 1474747.4409  
ELEV. = 459.7760

TO REACH FROM THE INTERSECTION OF US ROUTE 7 AND VT ROUTE 73 WEST AT THE NORTH END OF BRANDON VILLAGE, GO NORTH ALONG US ROUTE 7 FOR 4.7 MI (7.6 KM) TO THE INTERSECTION OF THE WHITING-LEICESTER ROAD LEFT AND FERN LAKE ROAD RIGHT, IN LEICESTER. TURN LEFT AND GO WEST ALONG THE LEICESTER-WHITING FOR 1.25 MI (2.01 KM) TO THE INTERSECTION OF MEMOE ROAD RIGHT. CONTINUE AHEAD ON THE LEICESTER-WHITING ROAD FOR 0.2 MI (0.3 KM) TO THE SITE OF THE MARK ON THE LEFT IN A PASTURE. IT IS ABOUT 100 M (328.1 FT) NORTH OF THE INTERSECTION OF SWINGTON HILL ROAD. THE MARK IS SET IN THE TOP OF A 1.3 M (4.3 FT) X 0.9 M (3.0 FT) BOULDER WHICH PROJECTS ABOUT 0.5 M (1.6 FT) ABOVE GROUND SURFACE. IT IS 35.7 M (117.1 FT) EAST OF AND ABOUT LEVEL WITH THE CENTERLINE OF THE LEICESTER-WHITING ROAD, 45.1 M (148.0 FT) SOUTH OF A WIRE FENCE CORNER, 16.2 M (53.1 FT) SOUTH SOUTHEAST OF A 30 CM JUNIPER, 34.3 M (112.5 FT) NORTHEAST OF A FIVE-TRUNKED MAPLE WITH TRIANGULAR BLAZE, AND 29.0 EAST OF A FIBERGLASS WITNESS POST IN A NORTH-SOUTH WIRE FENCELINE. NOTE, MARK IS INTERVISIBLE WITH LEICESTER AZ MK.

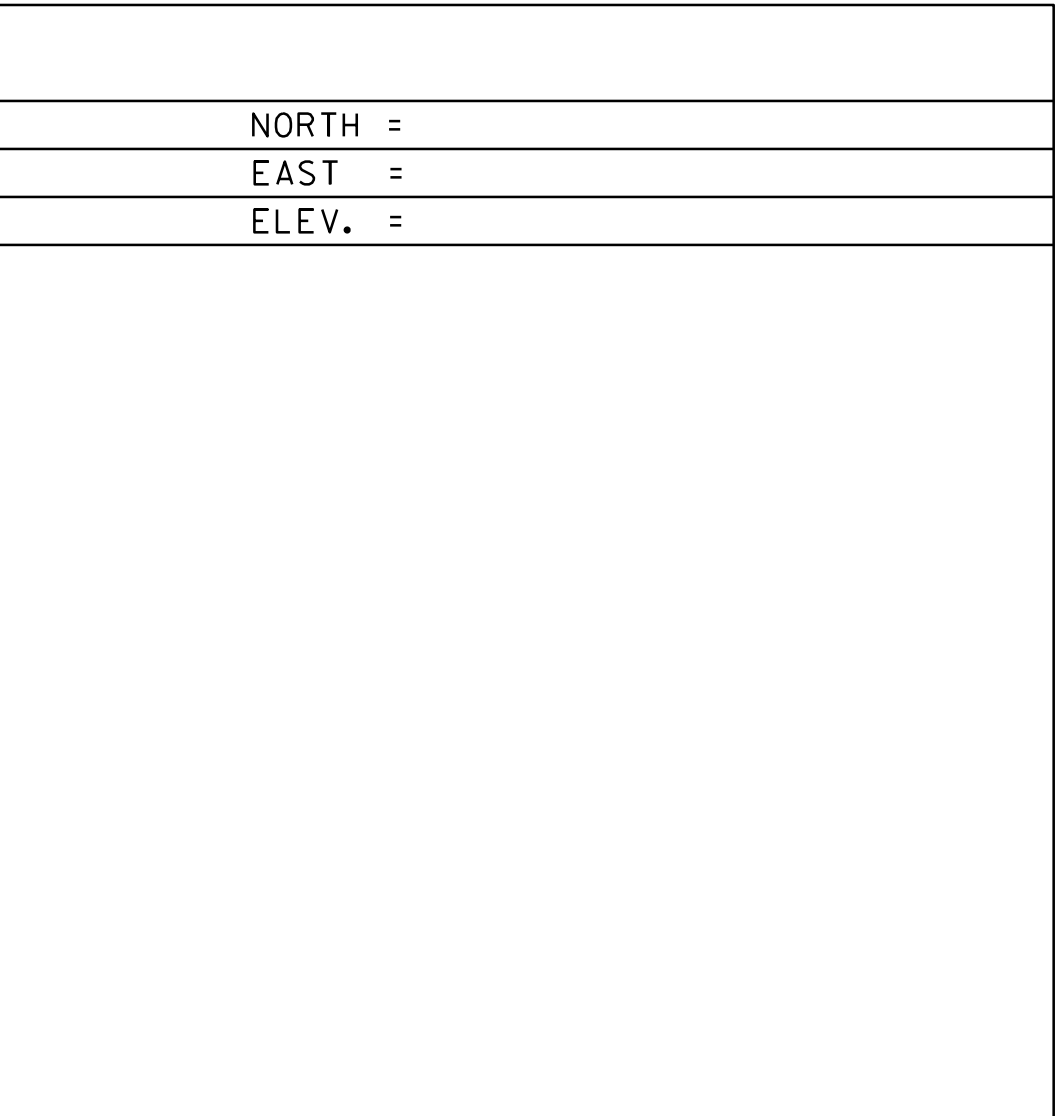
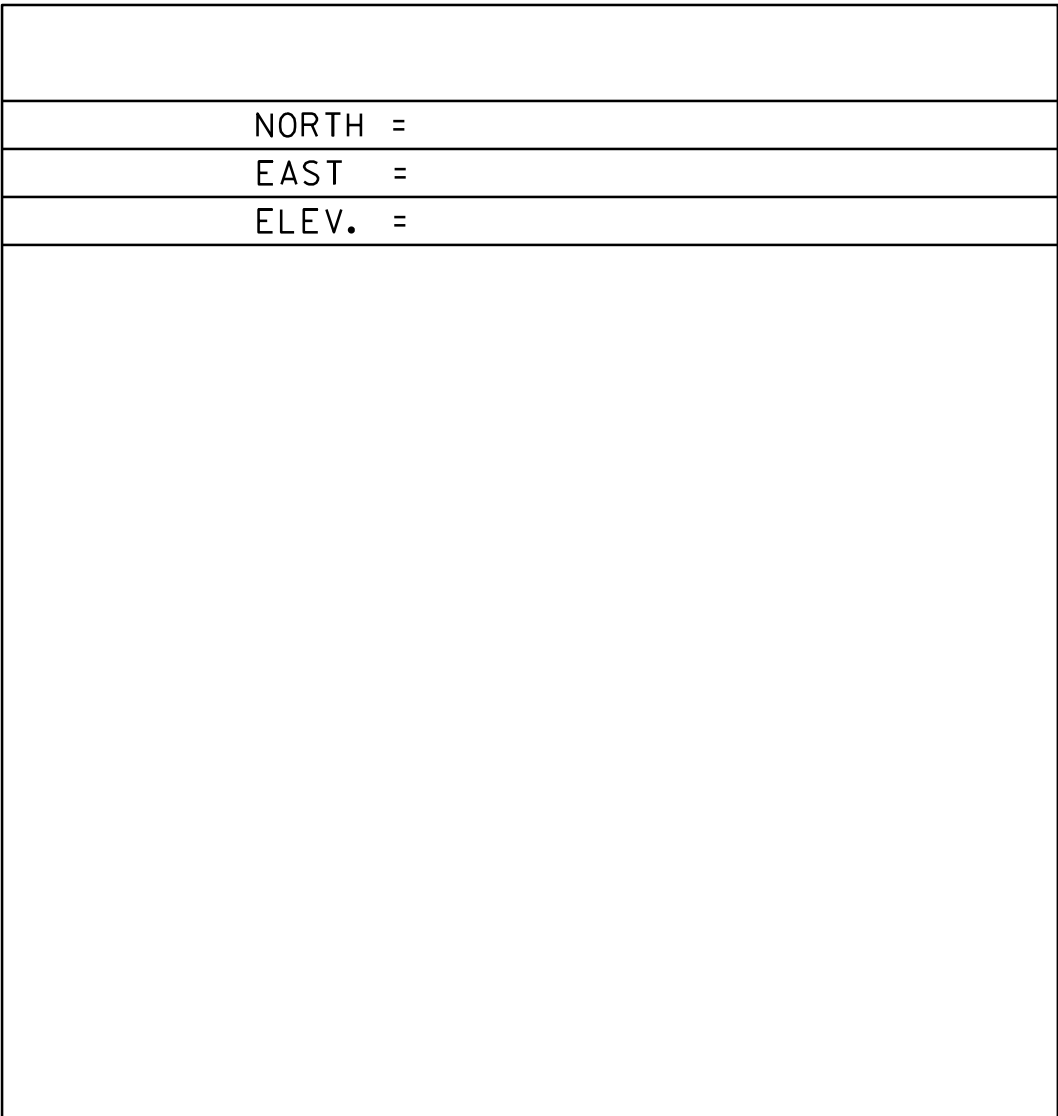
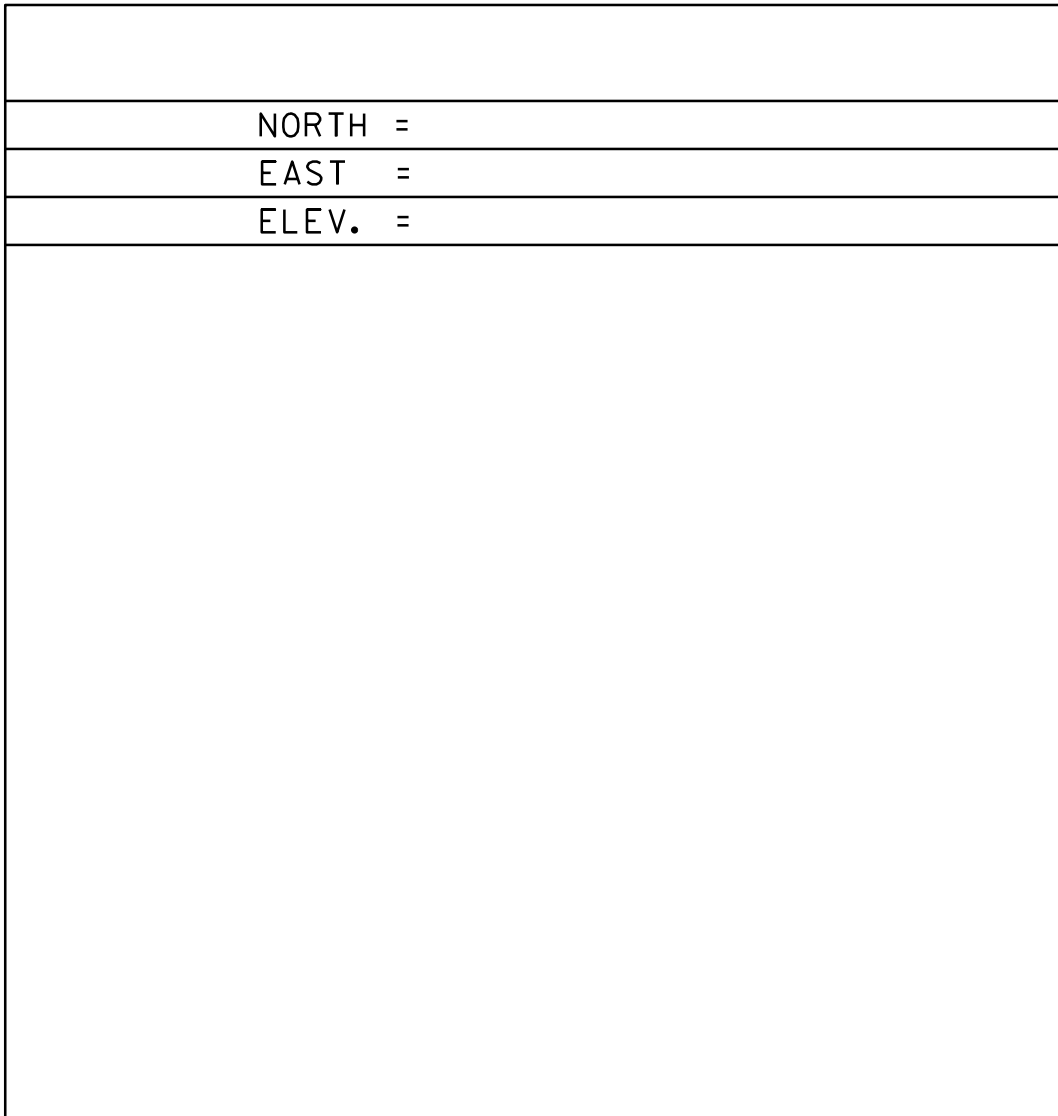
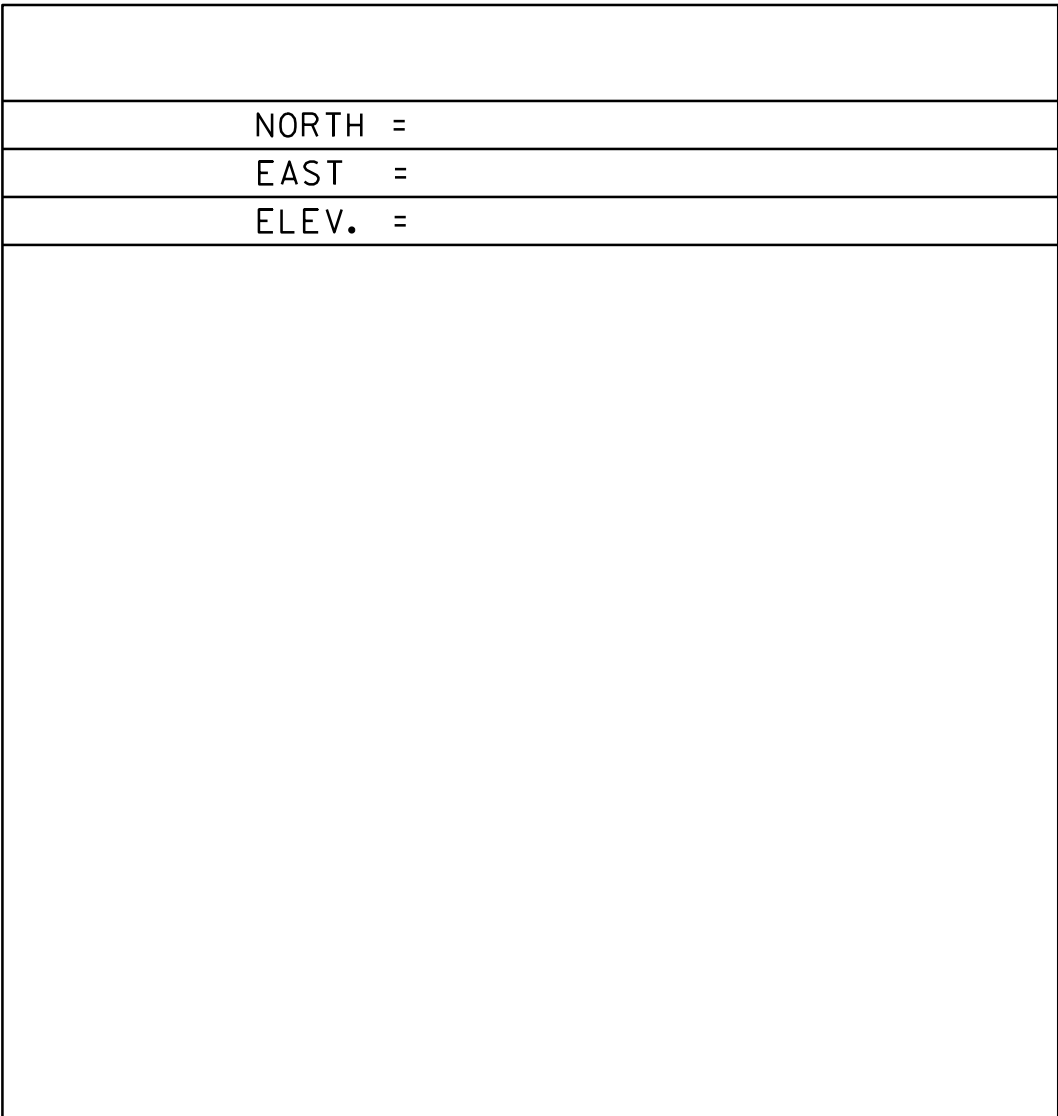
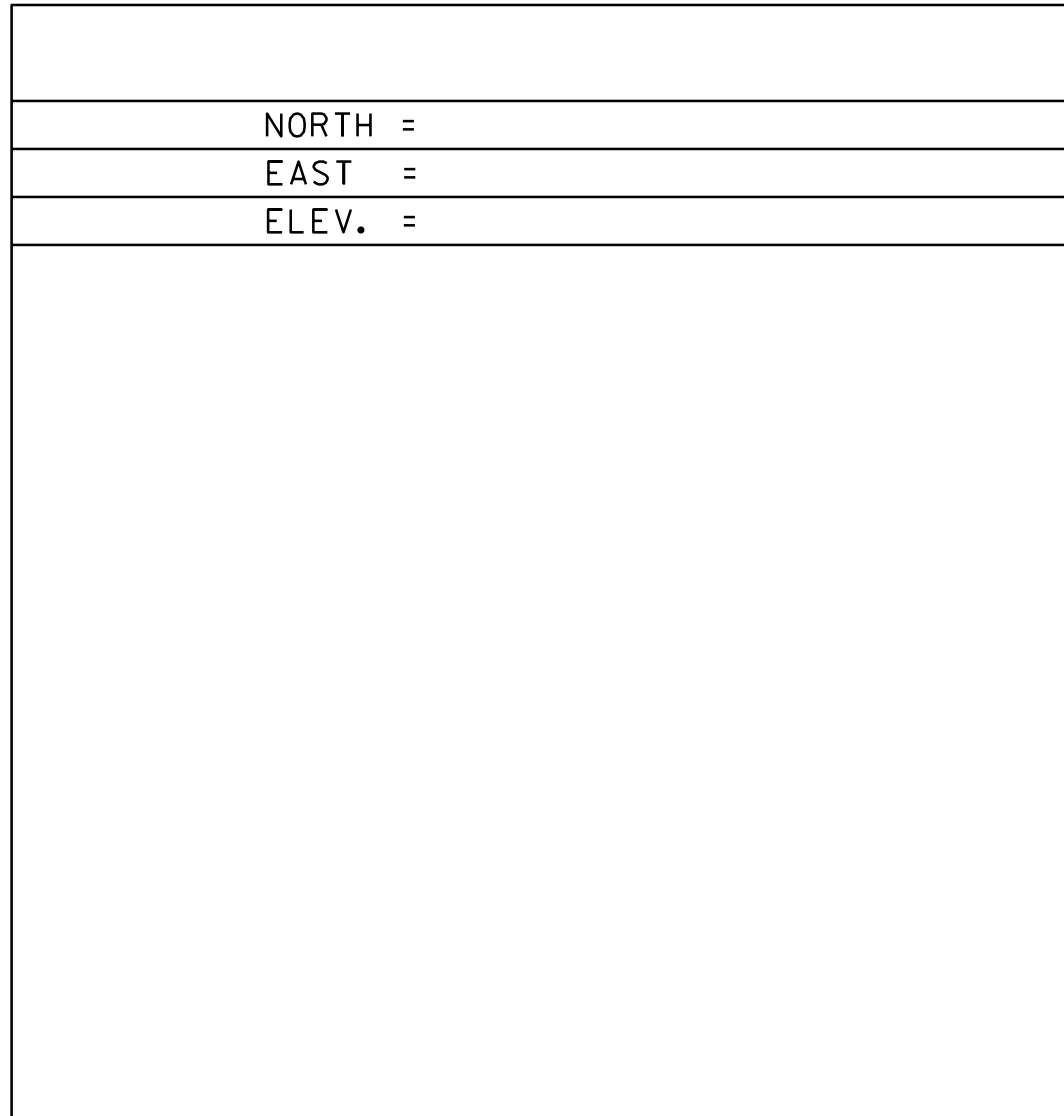
\*CONTROL RECOVERED BY G.HITCHCOCK 11/02/2015

TRAVERSE TIES



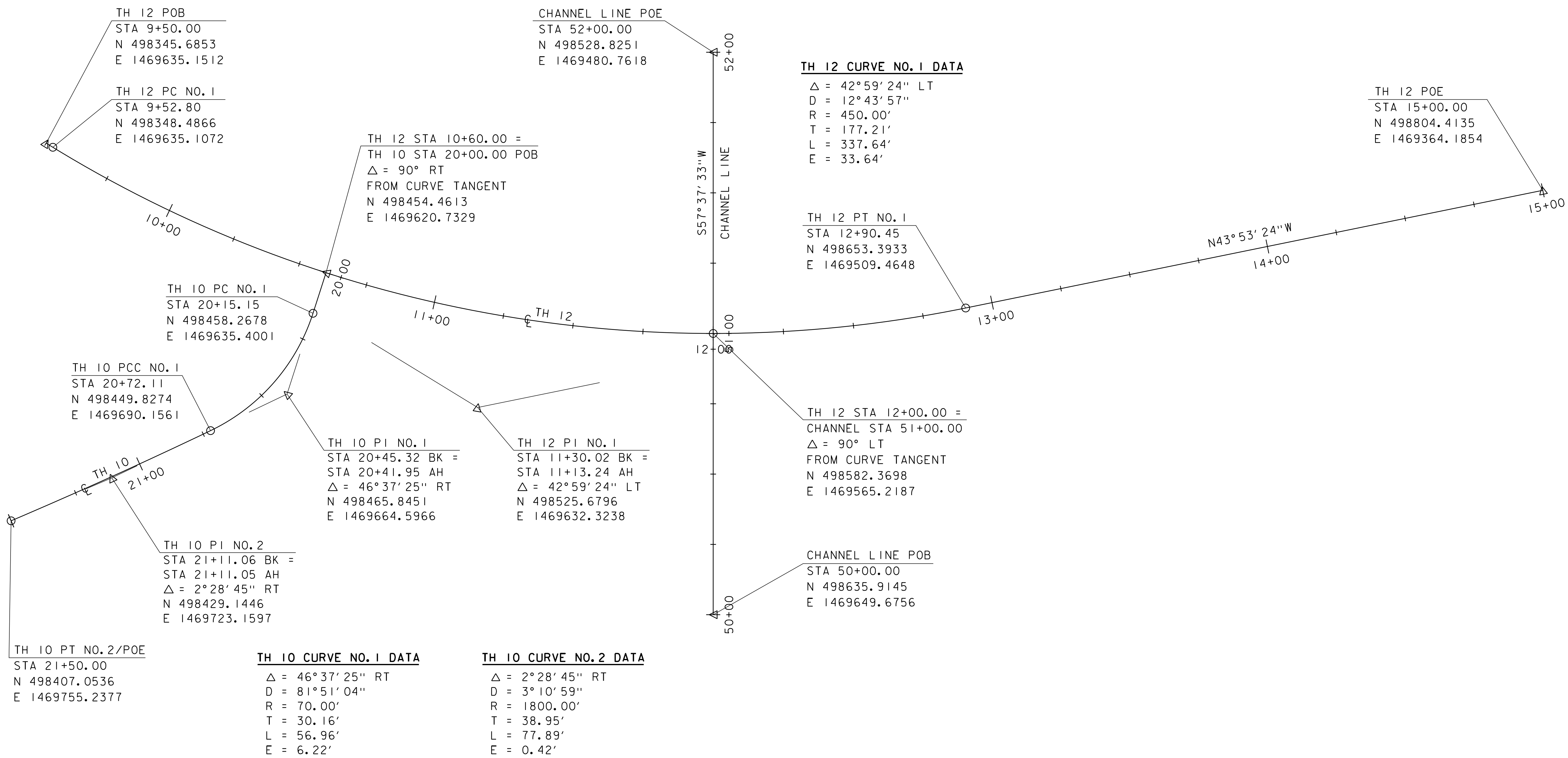
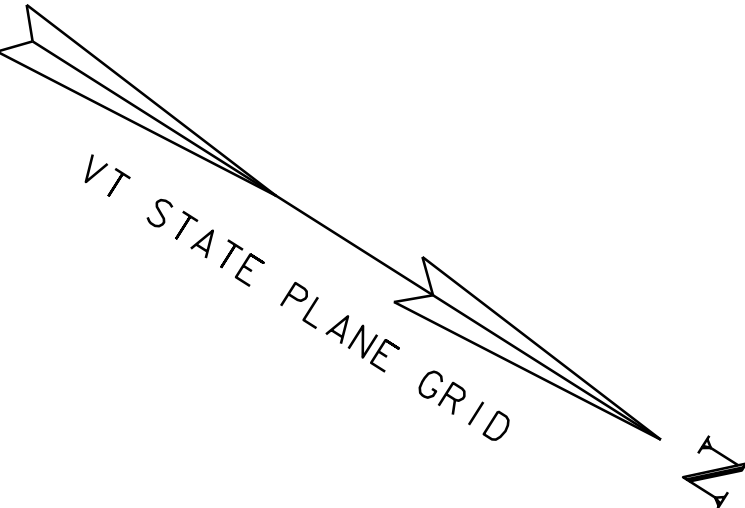
\*TRAVERSE COMPLETED BY H.MCGOWAN PC. / T.CATTANEO 11/23/2015

ALIGNMENT TIES

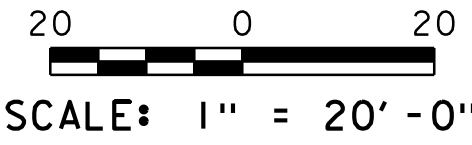


DATUM	
VERTICAL	NAVD 88
HORIZONTAL	NAD 83 (2011)
ADJUSTMENT	COMPAS

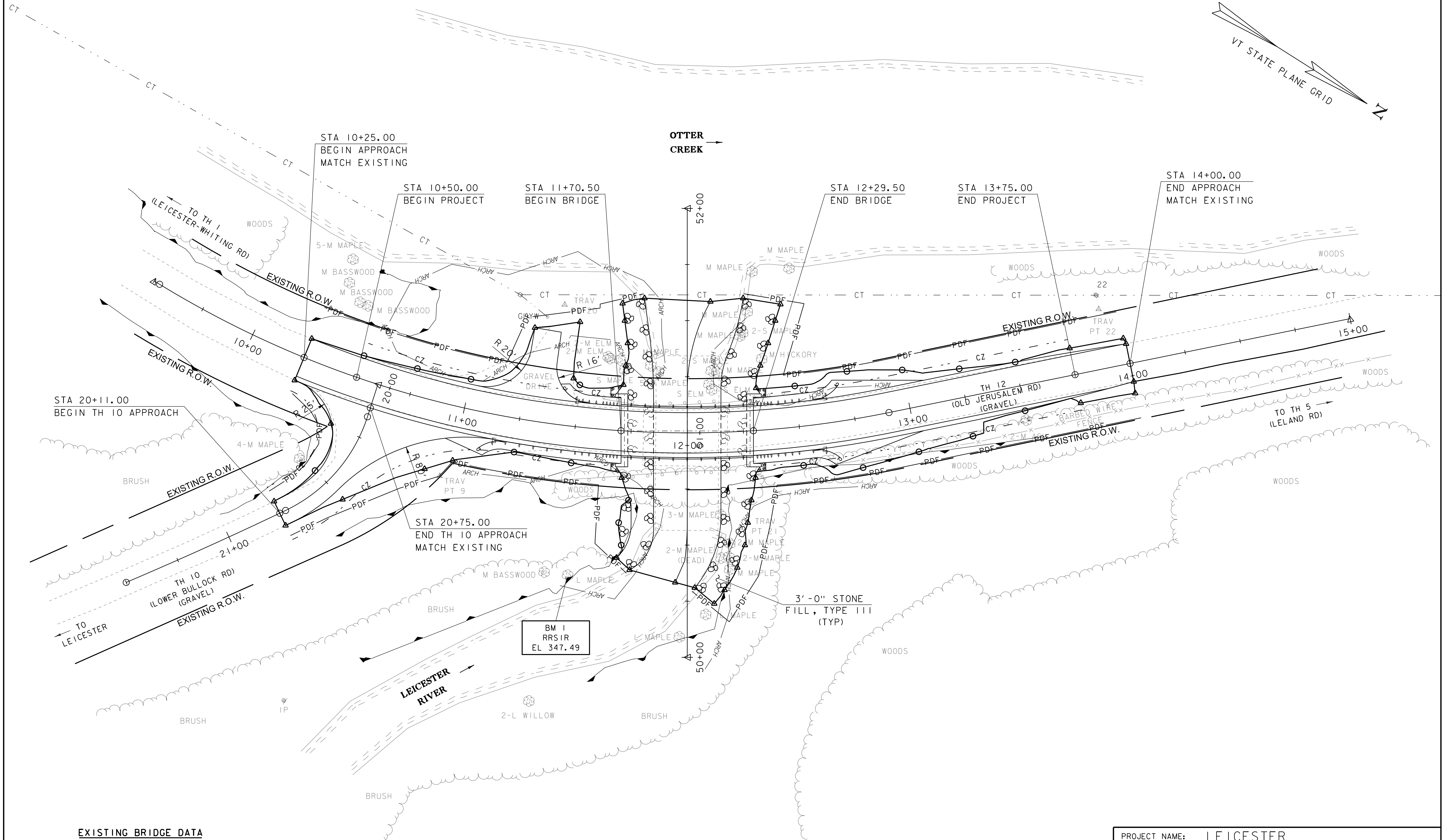
PROJECT NAME:	LEICESTER
PROJECT NUMBER:	BO 1445 (37)
FILE NAME:	sl2j636+1e.dgn
PROJECT LEADER:	C. CARLSON
DESIGNED BY:	C. BURRALL
TIES	
PLOT DATE:	27-FEB-2019
DRAWN BY:	H. MCGOWAN
CHECKED BY:	G. HITCHCOCK
SHEET 5	OF 24



DATUM	
VERTICAL	NAVD 88
HORIZONTAL	NAD 83 (2011)
ADJUSTMENT	Compass



PROJECT NAME:	LEICESTER	PLOT DATE:	27-FEB-2019
PROJECT NUMBER:	BO 1445 (37)	DRAWN BY:	G. ROY
FILE NAME:	sl2j636align.dgn	CHECKED BY:	C. BURRALL
PROJECT LEADER:	C. CARLSON	SHEET	6 OF 24
DESIGNED BY:	C. BURRALL		
ALIGNMENT			



**EXISTING BRIDGE DATA**

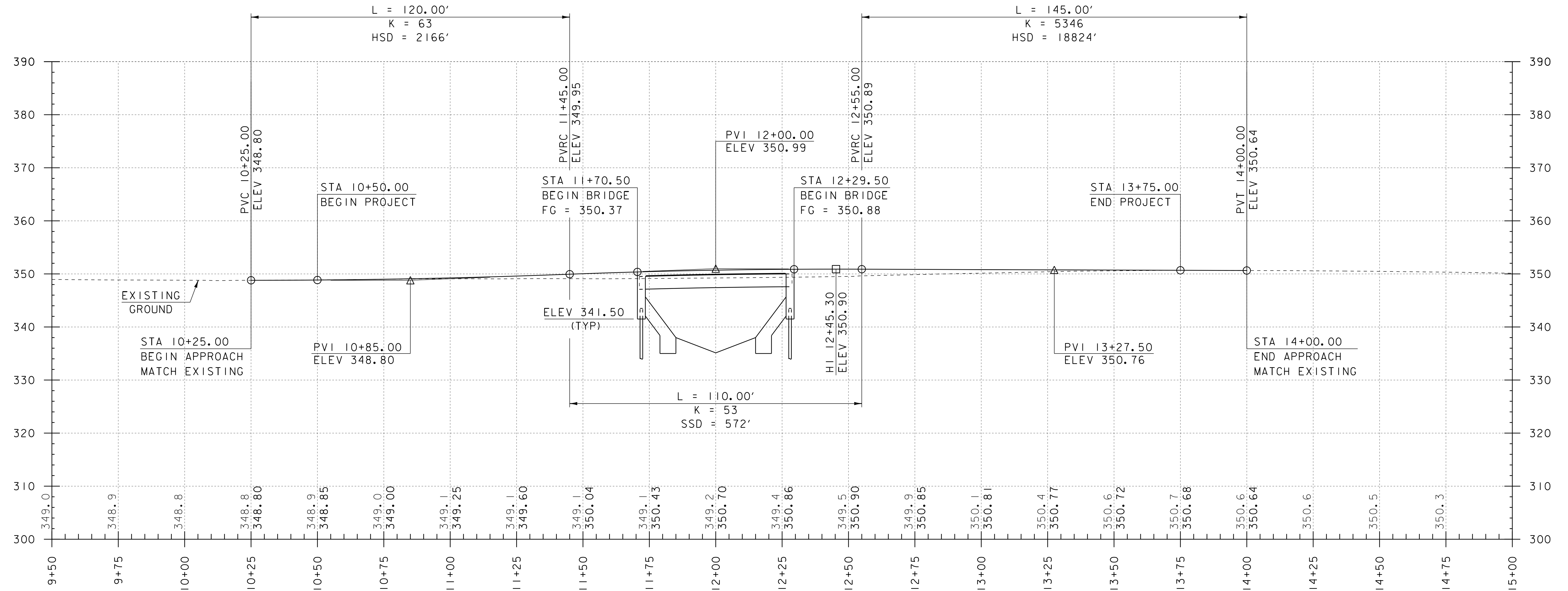
28'-0" SPAN X 9'-7 1/2" RISE CGMPA  
78'-0" LENGTH  
W/ 38'-0" X 26'-0" CONCRETE SLAB  
BURIED OVER CULVERT

20 0 20  
SCALE: 1" = 20'-0"

PROJECT NAME: LEICESTER  
PROJECT NUMBER: BO 1445 (37)

FILE NAME: sl2j636bdr.dgn  
PROJECT LEADER: C. CARLSON  
DESIGNED BY: C. BURRALL  
LAYOUT

PLOT DATE: 27-FEB-2019  
DRAWN BY: G. ROY  
CHECKED BY: C. BURRALL  
SHEET 7 OF 24



## PROFILE ALONG TH 12

HORIZONTAL SCALE: 1" = 20'-0"  
VERTICAL SCALE: 1" = 10'-0"

### NOTE:

ELEVATIONS SHOWN TO THE NEAREST TENTH ARE  
EXISTING GROUND ALONG PROPOSED CENTERLINE.

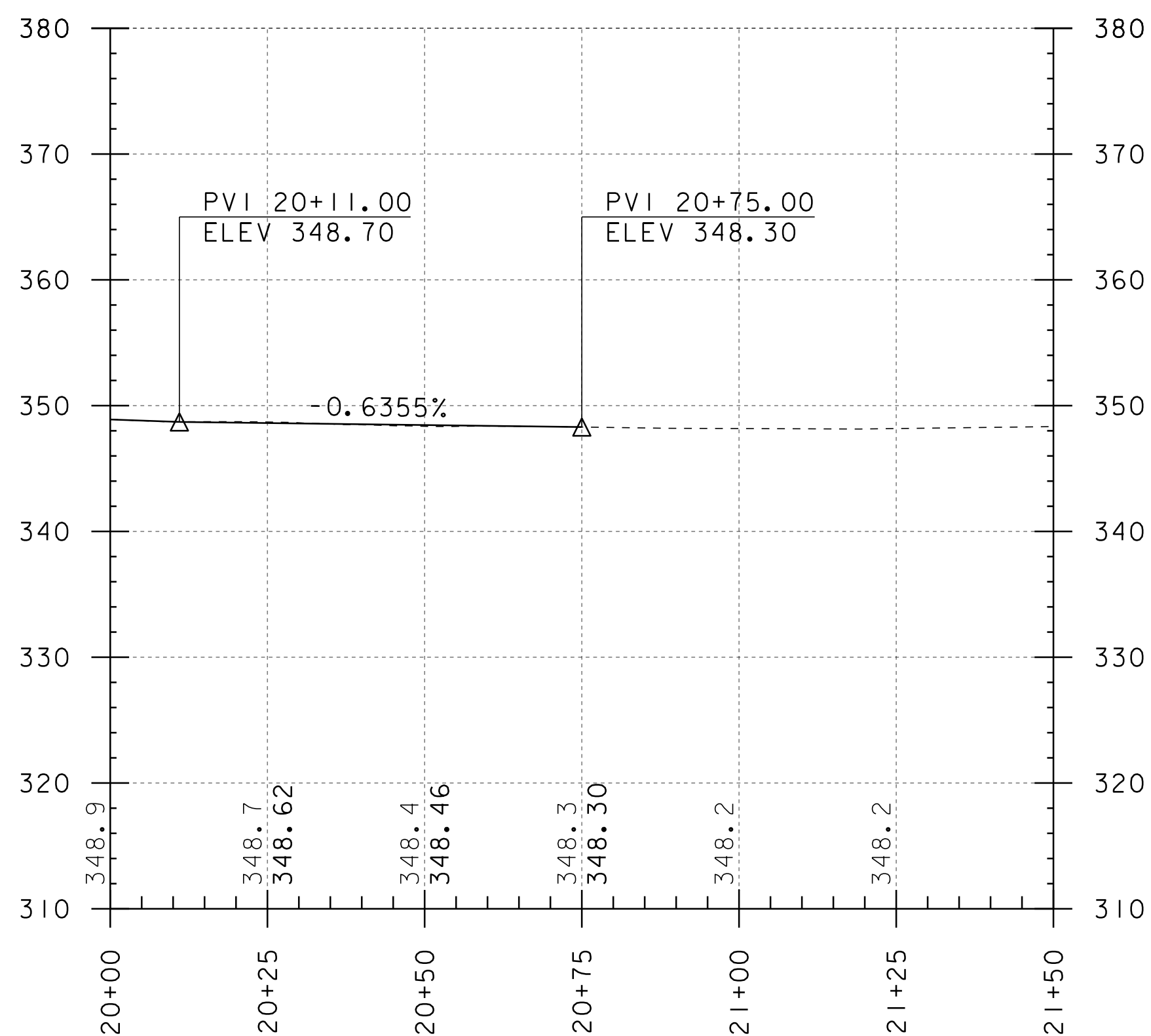
ELEVATIONS SHOWN TO THE NEAREST HUNDREDTH ARE  
FINISH GRADES ALONG PROPOSED CENTERLINE.

PROJECT NAME: LEICESTER  
PROJECT NUMBER: BO 1445 (37)

FILE NAME: sl2j636pro.dgn  
PROJECT LEADER: C. CARLSON  
DESIGNED BY: C. BURRALL  
TH 12 PROFILE

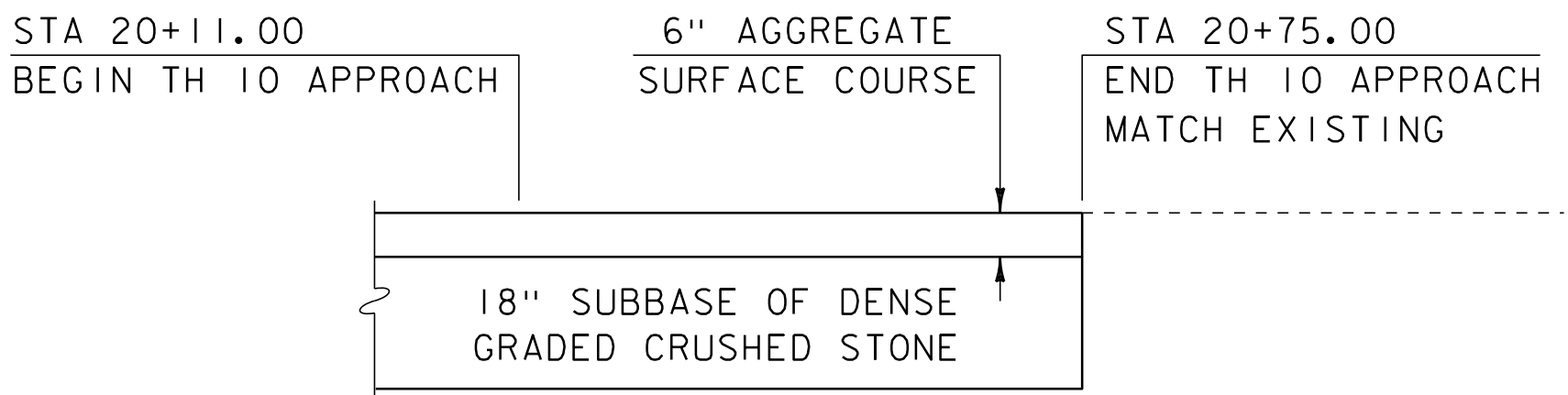
PLOT DATE: 27-FEB-2019  
DRAWN BY: G. ROY  
CHECKED BY: C. BURRALL  
SHEET 8 OF 24





PROFILE ALONG TH 10

HORIZONTAL SCALE: 1" = 20'-0"  
VERTICAL SCALE: 1" = 10'-0"



TH 10 MATERIAL TRANSITION

HORIZONTAL SCALE: 1" = 20'-0"  
VERTICAL SCALE: 1" = 2'-0"

NOTE:

ELEVATIONS SHOWN TO THE NEAREST TENTH ARE  
EXISTING GROUND ALONG PROPOSED CENTERLINE.

ELEVATIONS SHOWN TO THE NEAREST HUNDREDTH ARE  
FINISH GRADES ALONG PROPOSED CENTERLINE.

PROJECT NAME: LEICESTER  
PROJECT NUMBER: BO 1445 (37)

FILE NAME: sl2j636pro.dgn	PLOT DATE: 27-FEB-2019
PROJECT LEADER: C. CARLSON	DRAWN BY: G. ROY
DESIGNED BY: C. BURRALL	CHECKED BY: C. BURRALL
TH 10 PROFILE AND MATERIAL TRANSITION	SHEET 9 OF 24

SOIL CLASSIFICATION

AASHTO	
A1	Gravel and Sand
A3	Fine Sand
A2	Silty or Clayey Gravel and Sand
A4	Silty Soil - Low Compressibility
A5	Silty Soil - Highly Compressible
A6	Clayey Soil - Low Compressibility
A7	Clayey Soil - Highly Compressible

ROCK QUALITY DESIGNATION

R.O.D. (%)	ROCK DESCRIPTION
<25	Very Poor
25 to 50	Poor
51 to 75	Fair
76 to 90	Good
>90	Excellent

SHEAR STRENGTH

UNDRAINED SHEAR STRENGTH IN P.S.F.	CONSISTENCY
<250	Very Soft
250-500	Soft
500-1000	Med. Stiff
1000-2000	Stiff
2000-4000	Very Stiff
>4000	Hard

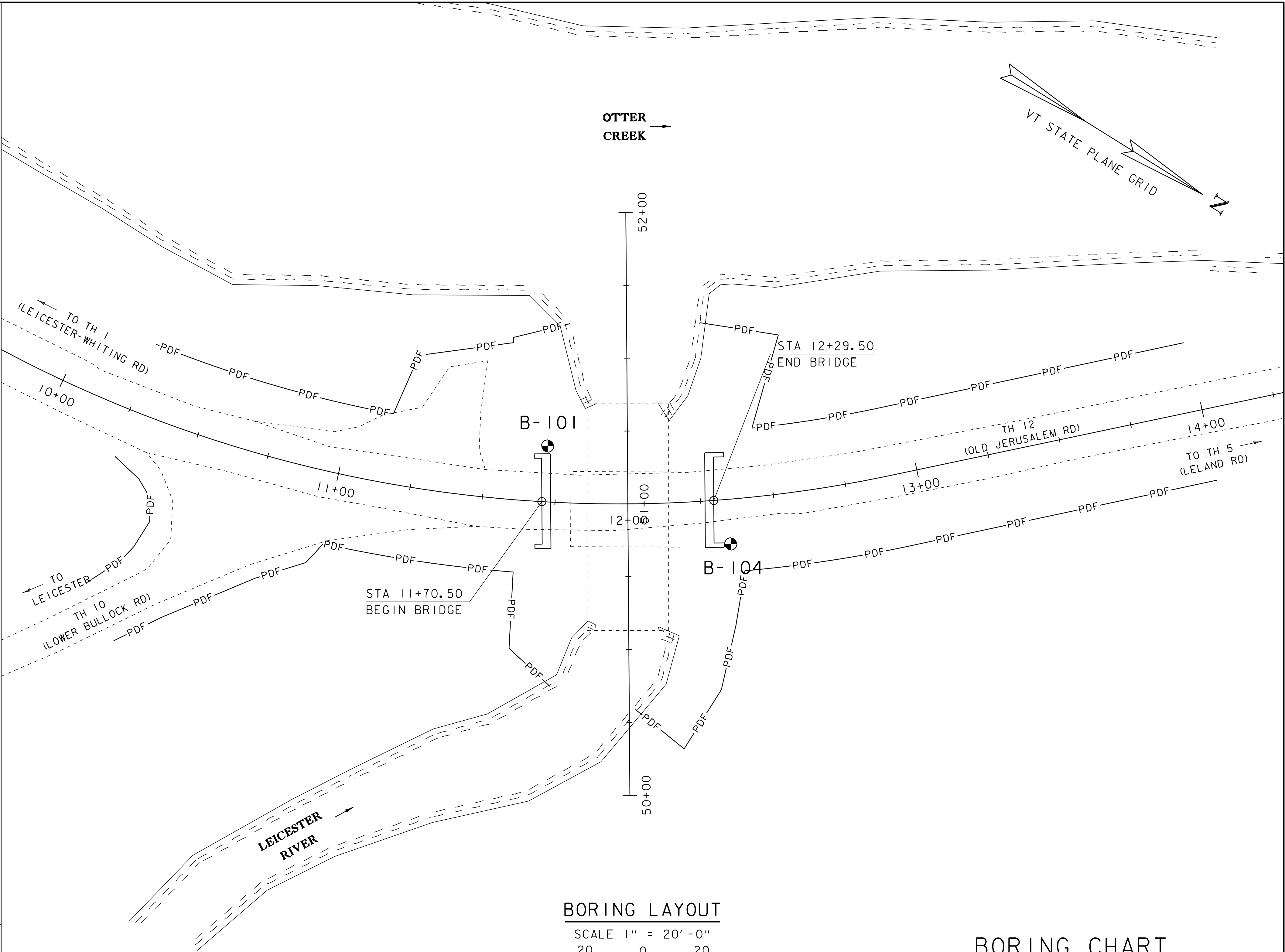
CORRELATION GUIDE OF "N" TO DENSITY/CONSISTENCY

DENSITY (GRANULAR SOILS)		CONSISTENCY (COHESIVE SOILS)	
N	DESCRIPTIVE TERM	N	DESCRIPTIVE TERM
<5	Very Loose	<2	Very Soft
5-10	Loose	2-4	Soft
11-24	Med. Dense	5-8	Med. Stiff
25-50	Dense	9-15	Stiff
>50	Very Dense	16-30	Very Stiff
		31-60	Hard
		>60	Very Hard

COMMONLY USED SYMBOLS

▼	Water Elevation
⊙	Standard Penetration Boring
⊕	Auger Boring
⊖	Rod Sounding
S	Sample
N	Standard Penetration Test Blow Count Per Foot For: 2" O.D. Sampler 1 3/8" I.D. Sampler Hammer Weight Of 140 Lbs. Hammer Fall Of 30"
VS	Field Vane Shear Test
US	Undisturbed Soil Sample
B	Blast
DC	Diamond Core
MD	Mud Drill
WA	Wash Ahead
HSA	Hollow Stem Auger
AX	Core Size 1 1/8"
BX	Core Size 1 5/8"
NX	Core Size 2 1/8"
M	Double Tube Core Barrel Used
LL	Liquid Limit
PL	Plastic Limit
PI	Plasticity Index
NP	Non Plastic
w	Moisture Content (Dry Wgt. Basis)
D	Dry
M	Moist
MTW	Moist To Wet
W	Wet
Sat	Saturated
Bo	Boulder
Gr	Gravel
Sa	Sand
Si	Silt
Cl	Clay
HP	Hardpan
Le	Ledge
NLTD	No Ledge To Depth
CNPF	Can Not Penetrate Further
TLOB	Top of Ledge Or Boulder
NR	No Recovery
Rec.	Recovery
%Rec.	Percent Recovery
RQD	Rock Quality Designation
CBR	California Bearing Ratio
<	Less Than
>	Greater Than
R	Refusal (N > 100)
VTSPG	NAD83 - See Note 7

COLOR			
blk	Black	pnk	Pink
bl	Blue	pu	Purple
brn	Brown	rd	Red
dk	Dark	tn	Tan
gr'y	Gray	wh	White
gn	Green	yel	Yellow
lt	Light	mltc	Multicolored
or	Orange		



BORING LAYOUT

SCALE 1" = 20'-0"  
20 0 20

BORING CHART

HOLE NO.	STATION	OFFSET	GROUND ELEVATION	ELEV. TLOB
B-101	11+71.31	19.7' LT	347.7	289.0
B-104	12+34.16	14.7' RT	348.5	284.7

PROJECT NAME: LEICESTER  
PROJECT NUMBER: BO 1445(37)

FILE NAME: sl2j636bor.dgn  
PROJECT LEADER: C. CARLSON  
DESIGNED BY: C. BURRALL  
BORING INFORMATION SHEET

PLOT DATE: 27-FEB-2019  
DRAWN BY: G. ROY  
CHECKED BY: C. BURRALL  
SHEET 10 OF 24

GENERAL NOTES

- The subsurface explorations shown herein were made between 2/2/2017 and 2/14/2017 by the Agency.
- Soil and rock classifications, properties and descriptions are based on engineering interpretation from available subsurface information by the Agency and may not necessarily reflect actual variations in subsurface conditions that may be encountered between individual boring or sample locations.
- Observed water levels and/or conditions indicated are as recorded at the time of exploration and may vary according to the prevailing rainfall, methods of exploration and other factors.
- Engineering judgment was exercised in preparing the subsurface information presented herein. Analysis and interpretation of subsurface data was performed and interpreted for Agency design and estimating purposes. Presentation of the information in the Contract is intended to provide the Contractor access to the same data available to the Agency. The subsurface information is presented in good faith and is not intended as a substitute for personal investigation, independent interpretation, independent analysis or judgment by the Contractor.
- Pictorial structure details shown on the boring plan layout or soils profile are for illustrative purposes only and may not accurately portray final contract details.
- Terminology used on boring logs to describe the hardness, degree of weathering, and spacing of fractures, joints and other discontinuities in the bedrock is defined in the AASHTO Manual on Subsurface Investigations, 1988.
- Northing and Easting coordinates are shown in Vermont State Plane Grid North American Datum 1983 in meters and survey feet.

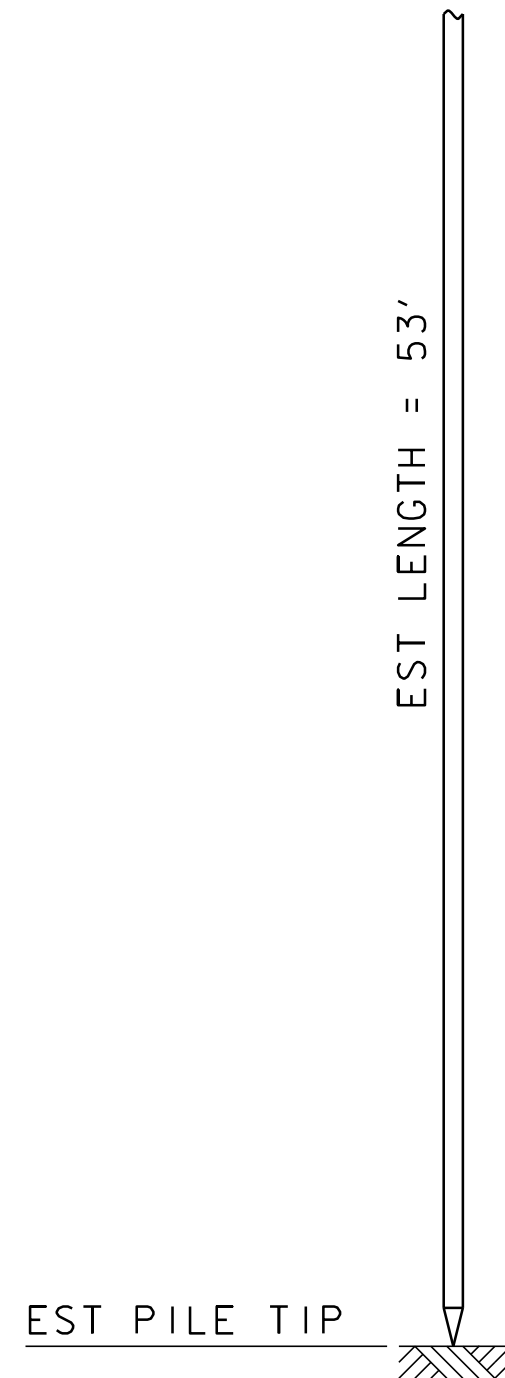
DEFINITIONS (AASHTO)

**BEDROCK (LEDGE)** - Rock in its native location of indefinite thickness.  
**BOULDER** - A rock fragment with an average dimension > 12 inches.  
**COBBLE** - Rock fragments with an average dimension between 3 and 12 inches.  
**GRAVEL** - Rounded particles of rock < 3" and > 0.075" (#10 sieve).  
**SAND** - Particles of rock < 0.075" (#10 sieve) and > 0.0025" (#200 sieve).  
**SILT** - Soil < 0.0025" (#200 sieve), non or slightly plastic and exhibits no strength when air-dried.  
**CLAY** - Fine grained soil, exhibits plasticity when moist and considerable strength when air-dried.

**VARVED** - Alternate layers of silt and clay.  
**HARDPAN** - Extremely dense soil, cemented layer, not softened when wet.  
**MUCK** - Soft organic soil (containing > 10% organic material).  
**MOISTURE CONTENT** - Weight of water divided by dry weight of soil.  
**FLOWING SAND** - Granular soil so saturated (loose) that it flows into drill casing during extraction of wash rod.  
**STRIKE** - Angle from magnetic north to line of intersection of bed with a horizontal plane.  
**DIP** - Inclination of bed with a horizontal plane.

ABUT		BTM
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ELEV		341.50

BORING LOG 2 LEICESTER BO1445(37).GPJ VERMONT AOT.GDT 3/8/17



EST PILE TIP

BORING LOG 2 | FICESTER BQ1445(37) GP.1 VERMONT AOT GDT 3/8/17

PROJECT NAME: LEICESTER	
PROJECT NUMBER: BO 1445 (37)	
FILE NAME: sl2j636bor.dgn	PLOT DATE: 27-FEB-2019
PROJECT LEADER: C. CARLSON	DRAWN BY: G. ROY
DESIGNED BY: C. BURRALL	CHECKED BY: C. BURRALL
BORING LOGS (1)	SHEET 11 OF 24

ABUT	2	BTM
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ELEV	341.50	

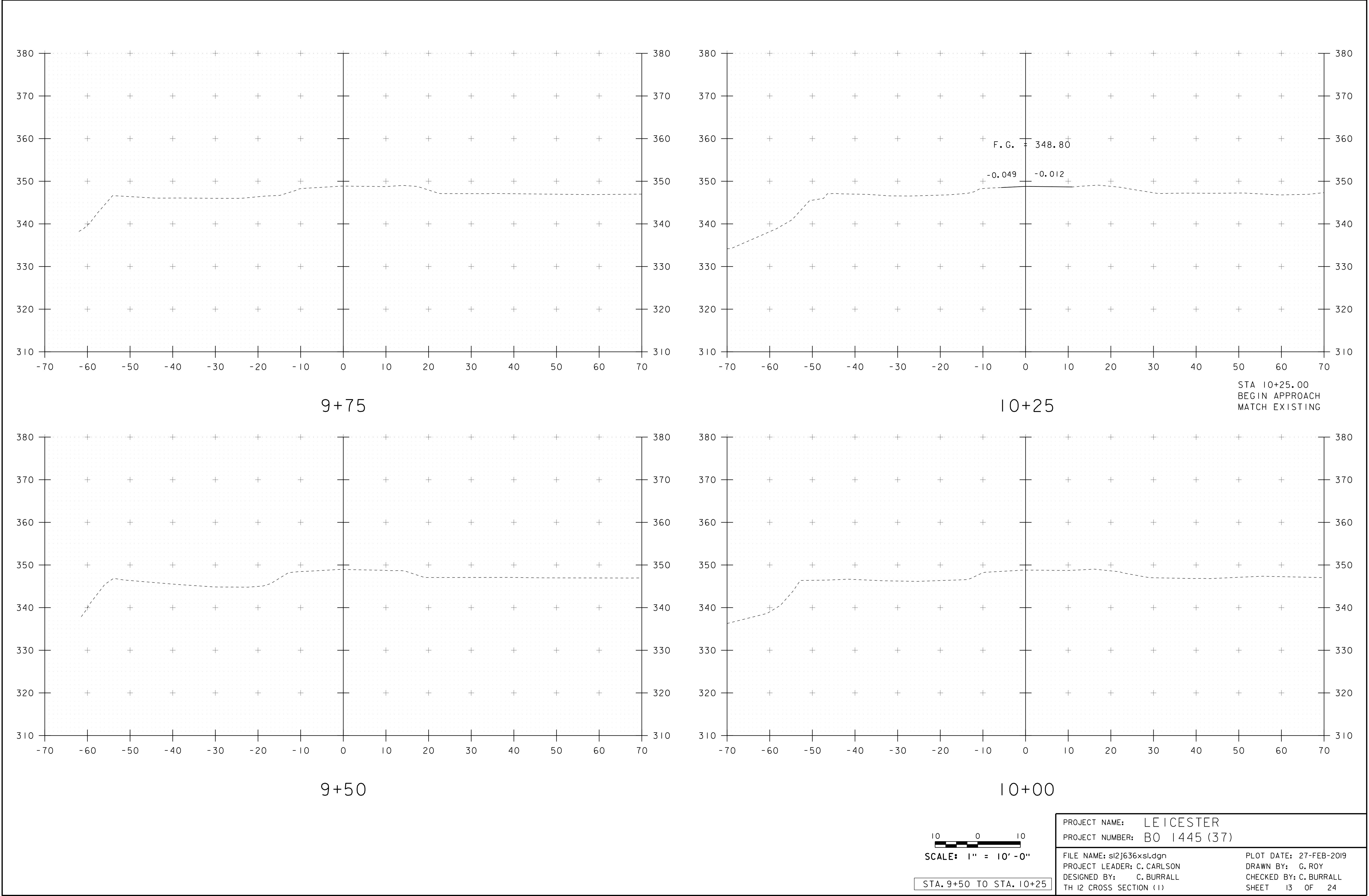
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EST LENGTH = 57'

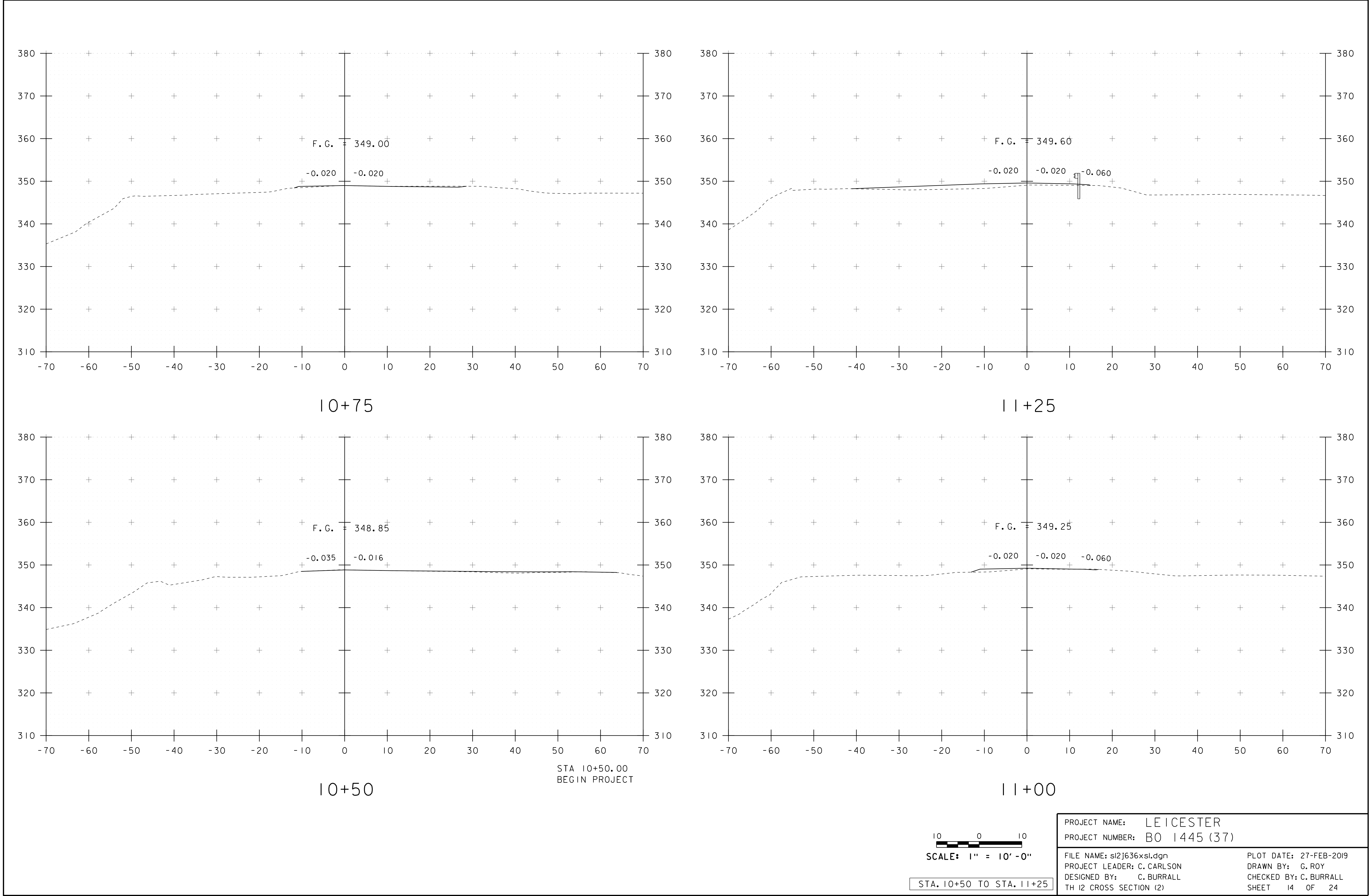
EST PILE TIP

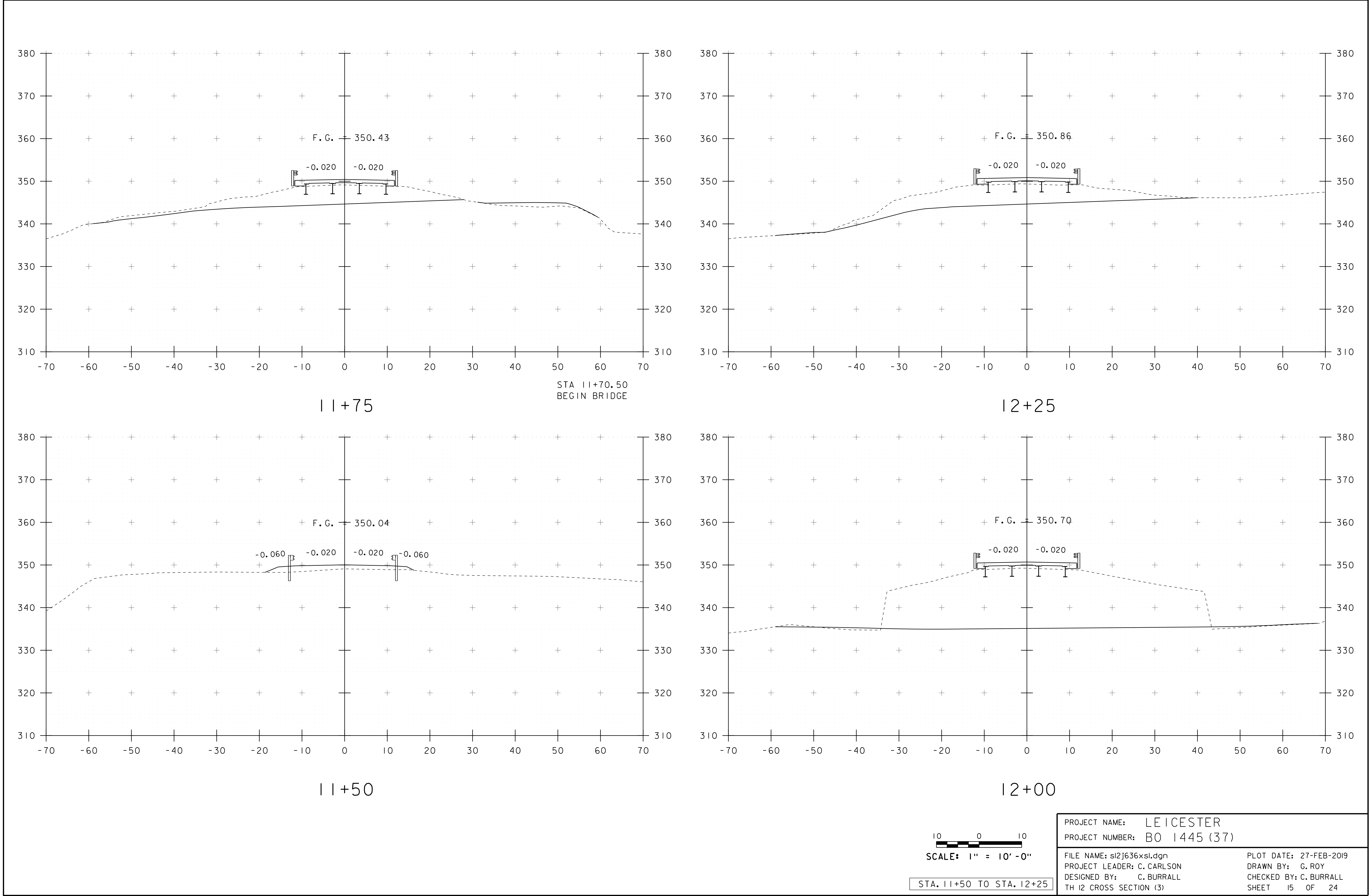
BOOKING LOG &amp; LEVEE ERIK DU1443(3) J.G.F.J VERMONTI AUT.501 3/3/17

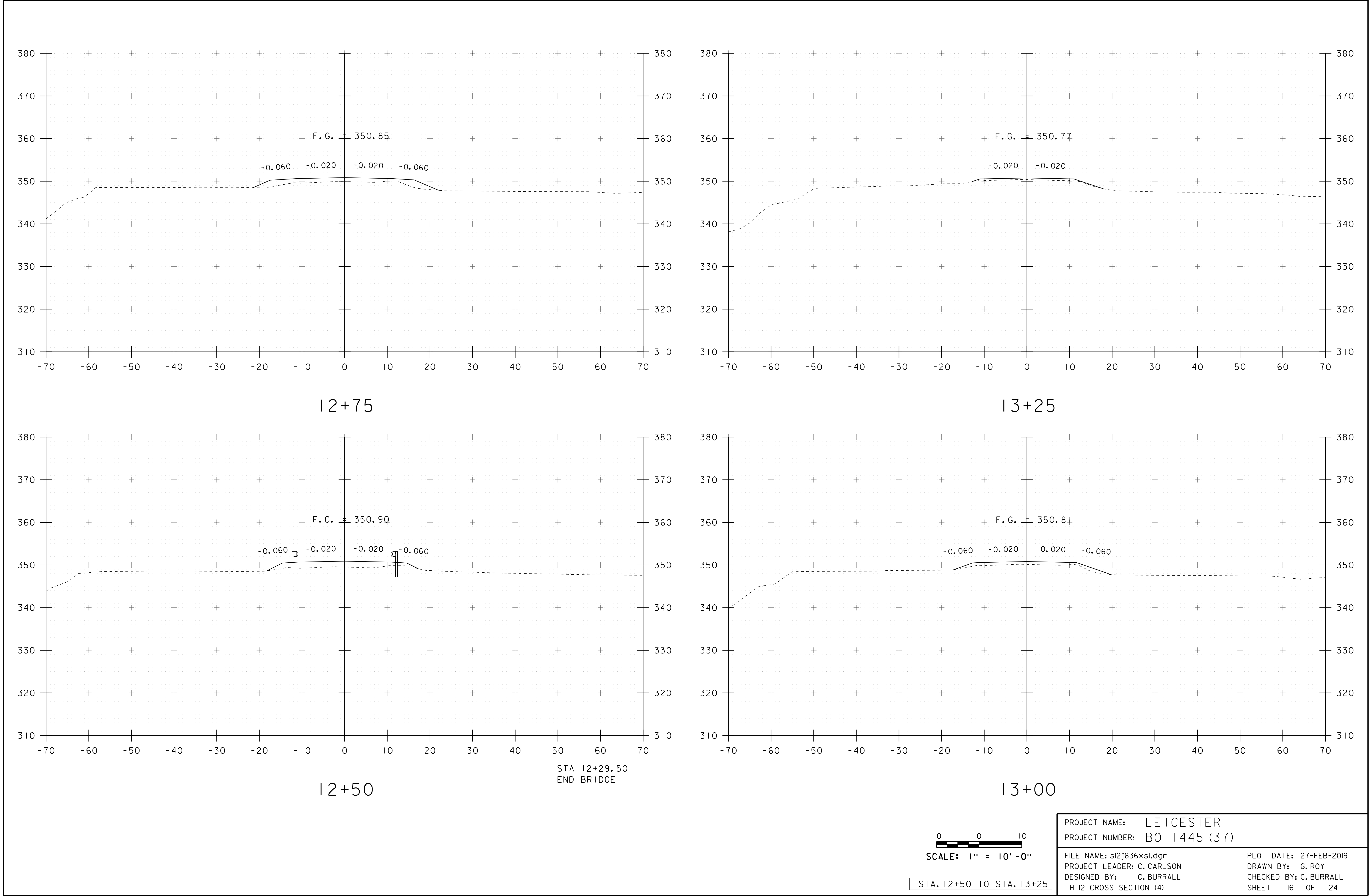
PROJECT NAME: LEICESTER	
PROJECT NUMBER: BO 1445 (37)	
FILE NAME: si2j636bor.dgn	PLOT DATE: 27-FEB-2019
PROJECT LEADER: C. CARLSON	DRAWN BY: G. ROY
DESIGNED BY: C. BURRALL	CHECKED BY: C. BURRALL
BORING LOGS (2)	SHEET 12 OF 24

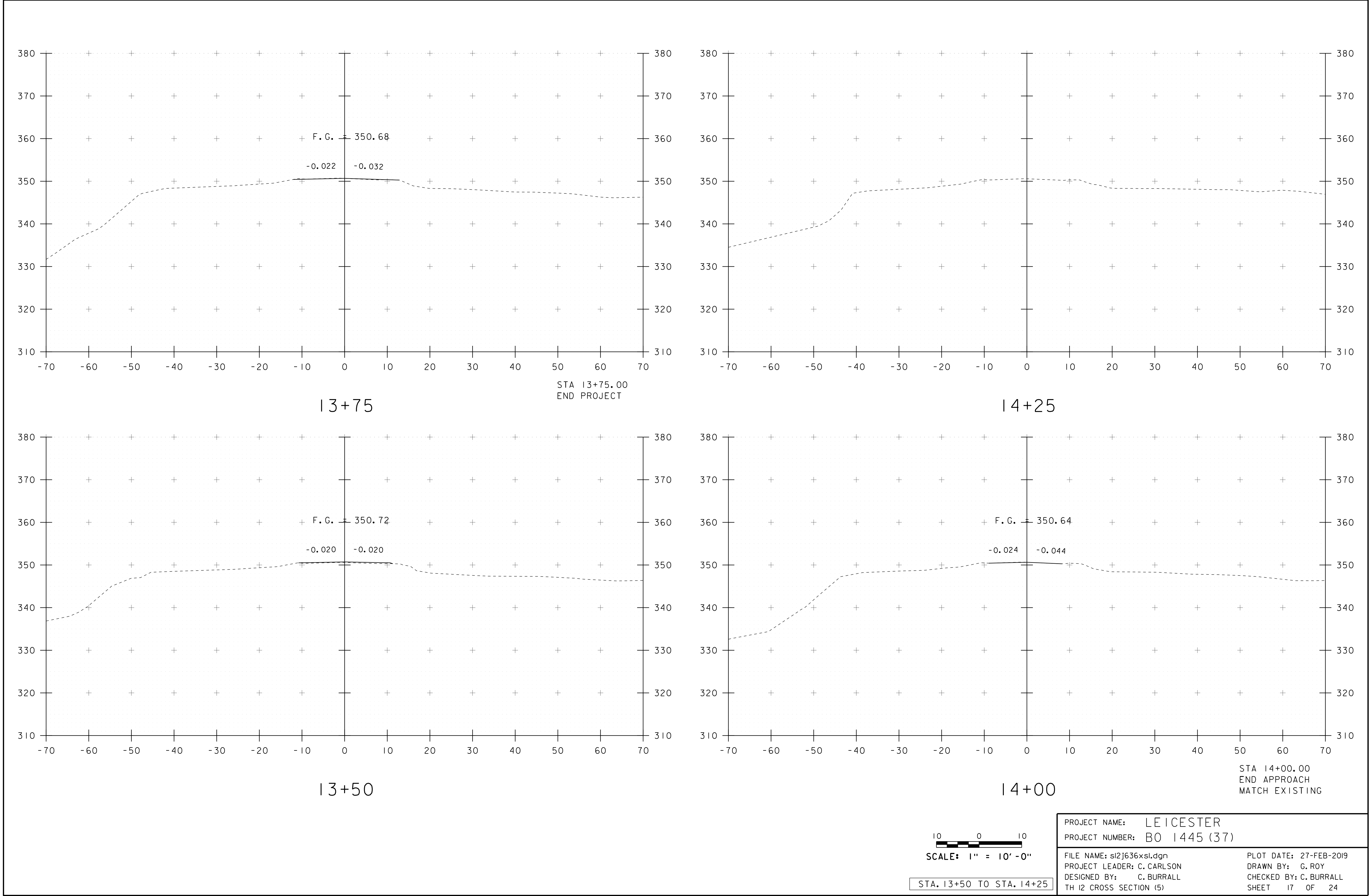


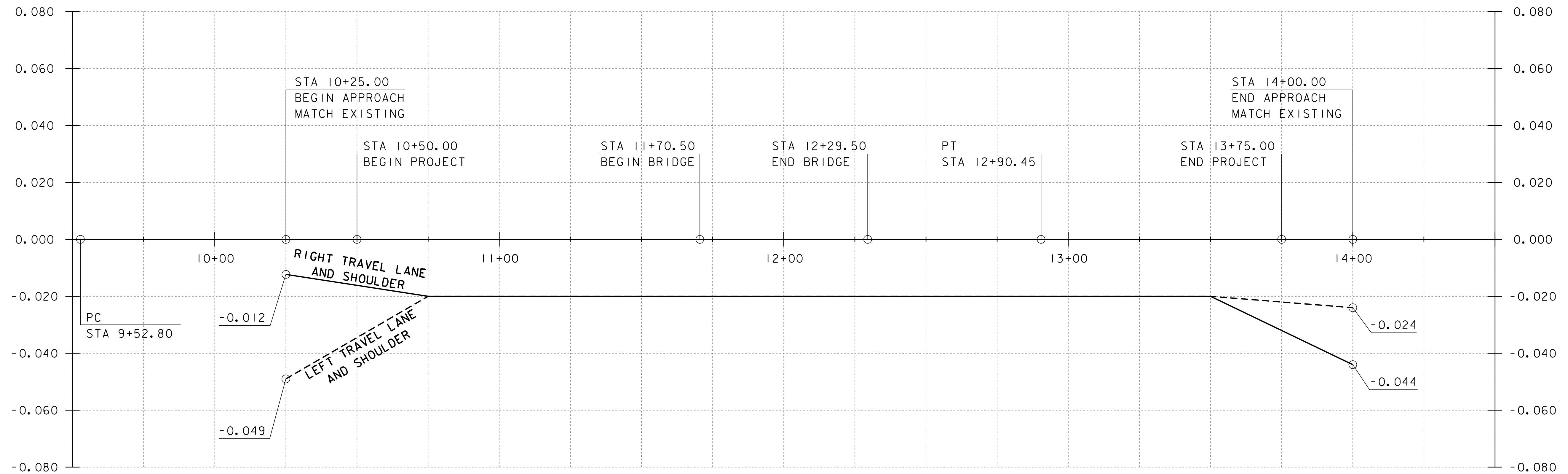






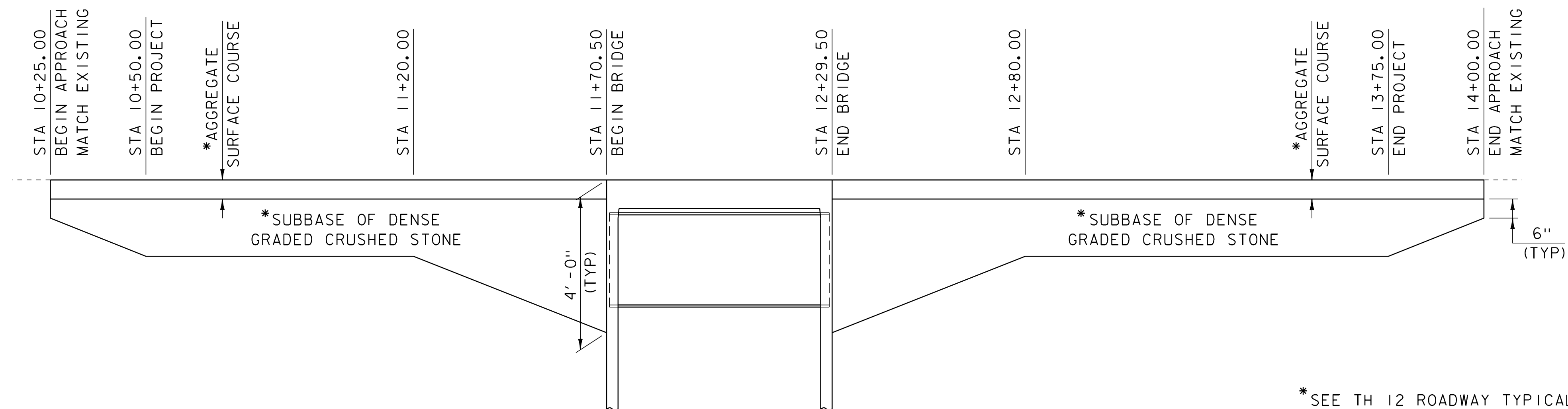






### TH 12 BANKING DIAGRAM

HORIZONTAL SCALE: 1" = 20' -0"  
VERTICAL SCALE: 1" = 0.020' /'



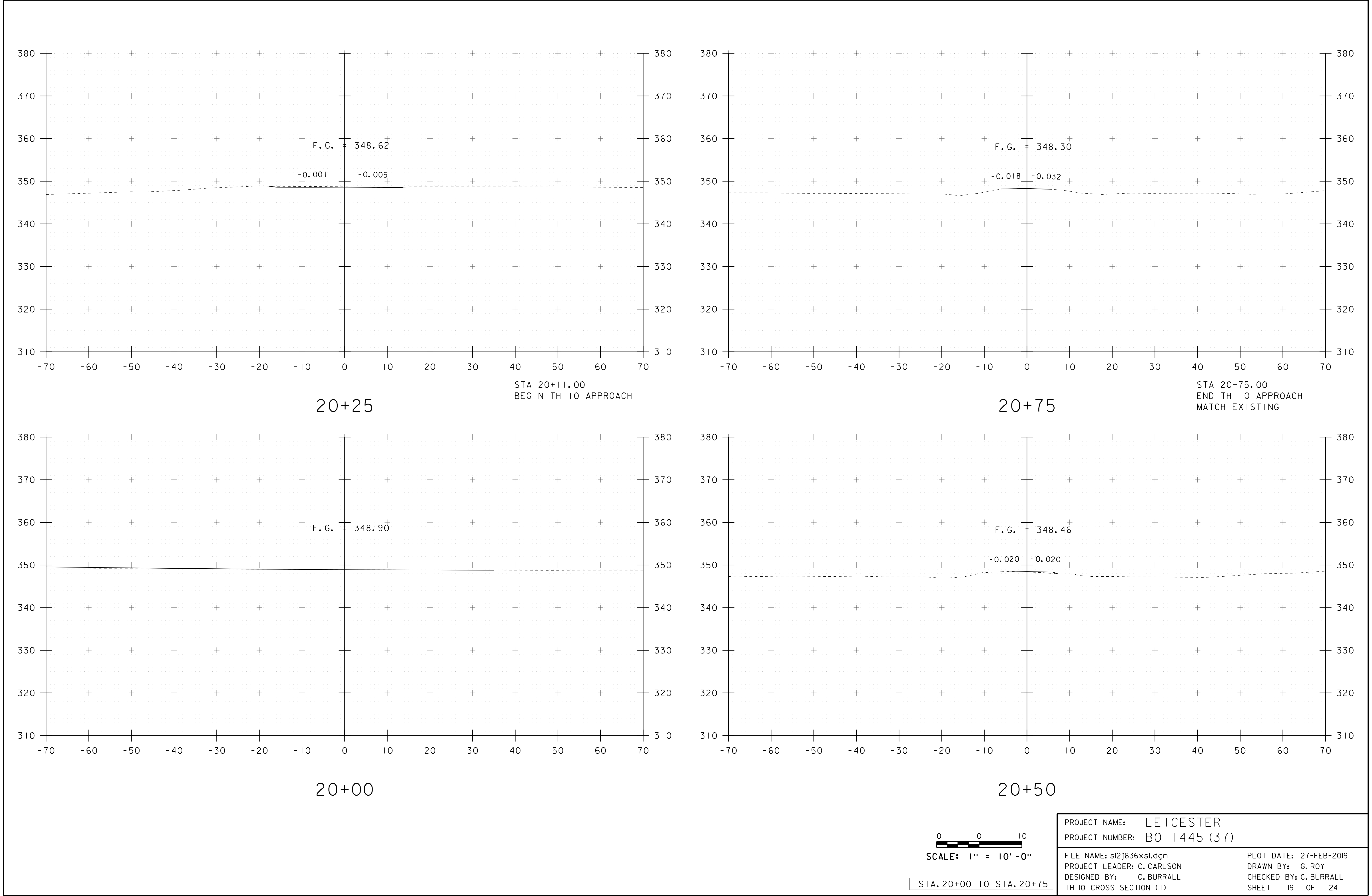
\*SEE TH 12 ROADWAY TYPICAL SECTION  
FOR AGGREGATE SURFACE COURSE AND  
SUBBASE MATERIAL DESIGN INFORMATION.

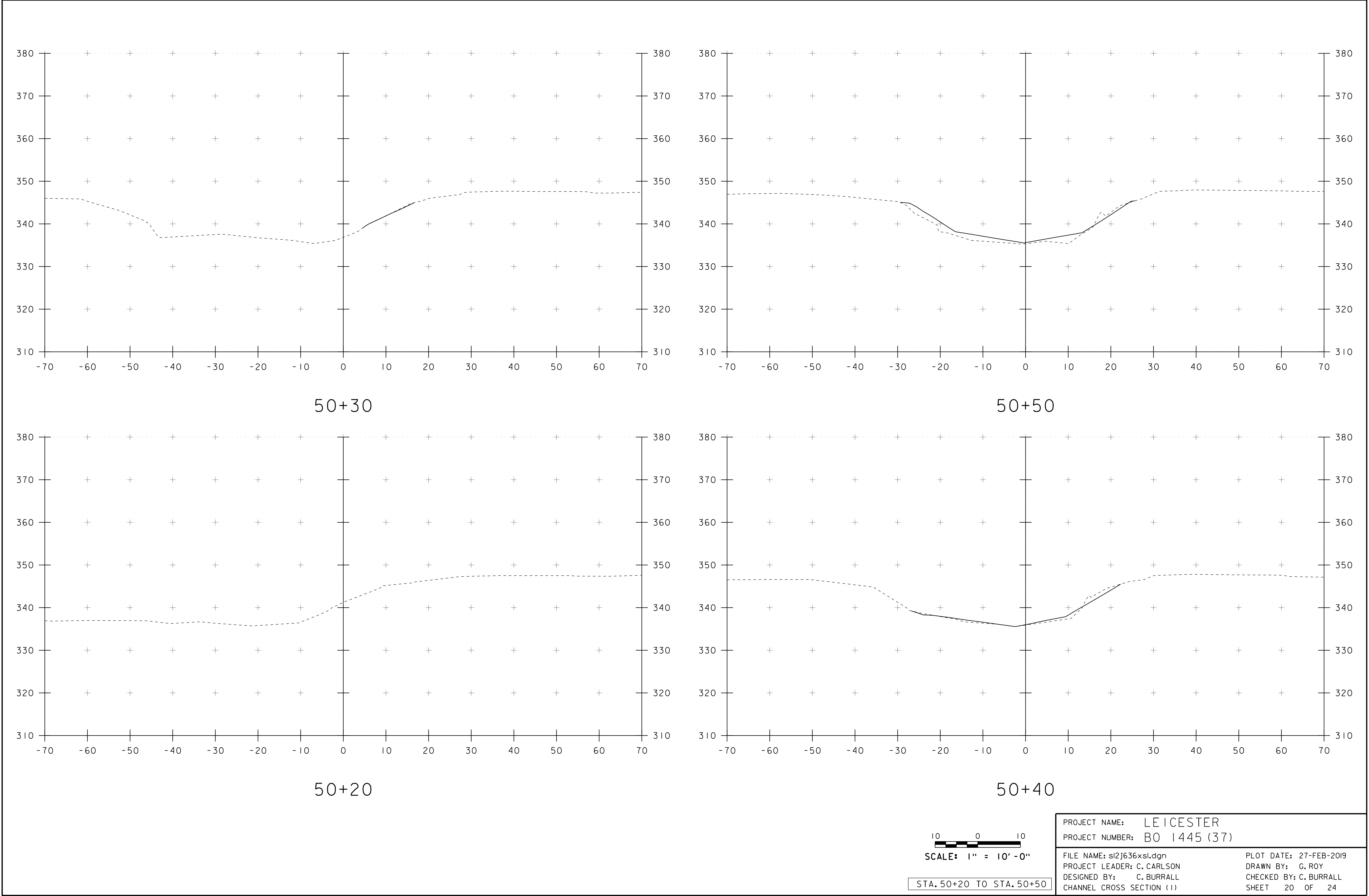
### TH 12 MATERIAL TRANSITION

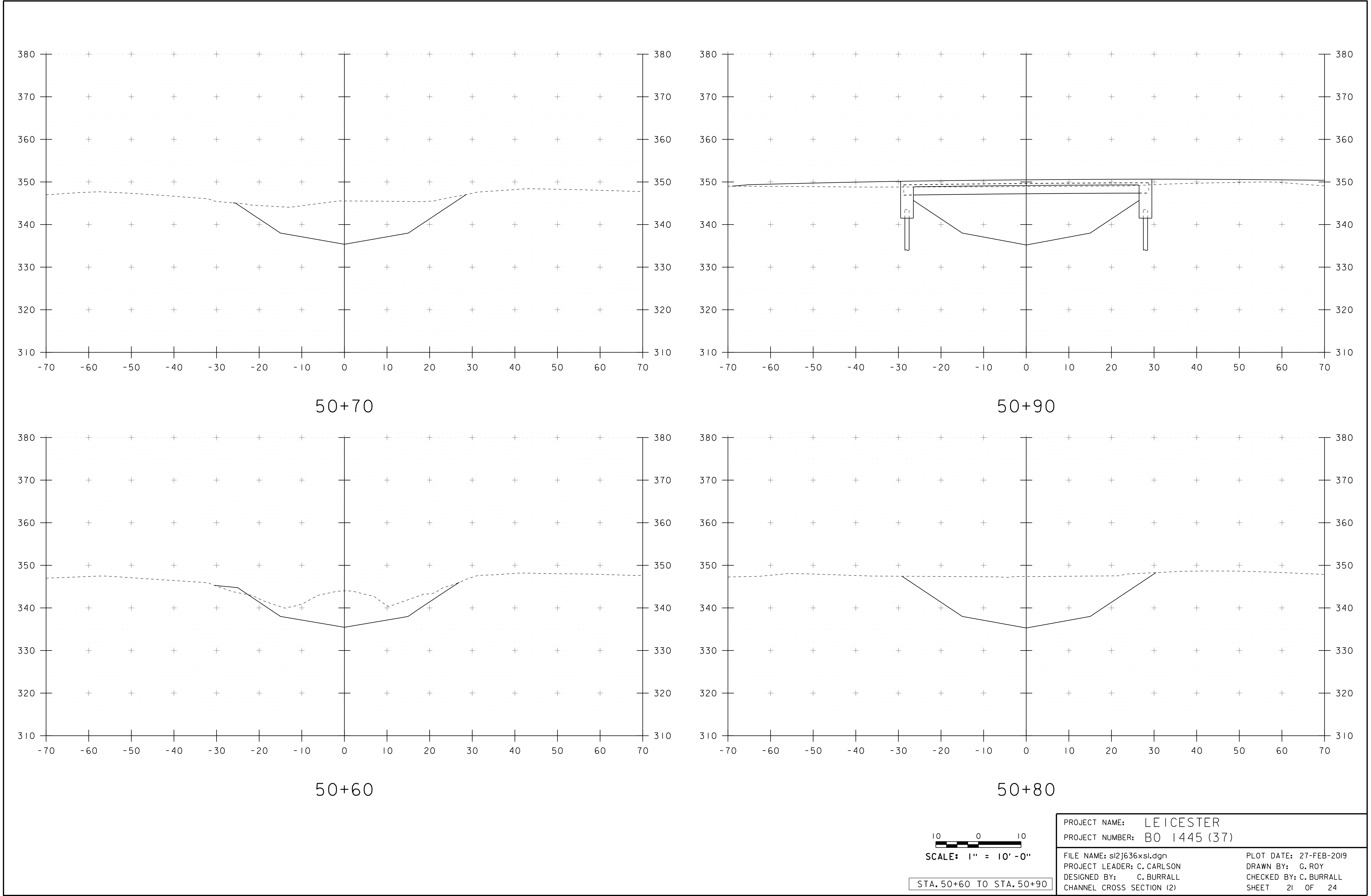
HORIZONTAL SCALE: 1" = 20' -0"  
VERTICAL SCALE: 1" = 2' -0"

PROJECT NAME: LEICESTER	
PROJECT NUMBER: BO 1445 (37)	
FILE NAME: sl2j636pro.dgn	PLOT DATE: 27-FEB-2019
PROJECT LEADER: C. CARLSON	DRAWN BY: G. ROY
DESIGNED BY: C. BURRALL	CHECKED BY: C. BURRALL
TH 12 BANKING AND MATERIAL TRANSITION	SHEET 18 OF 24





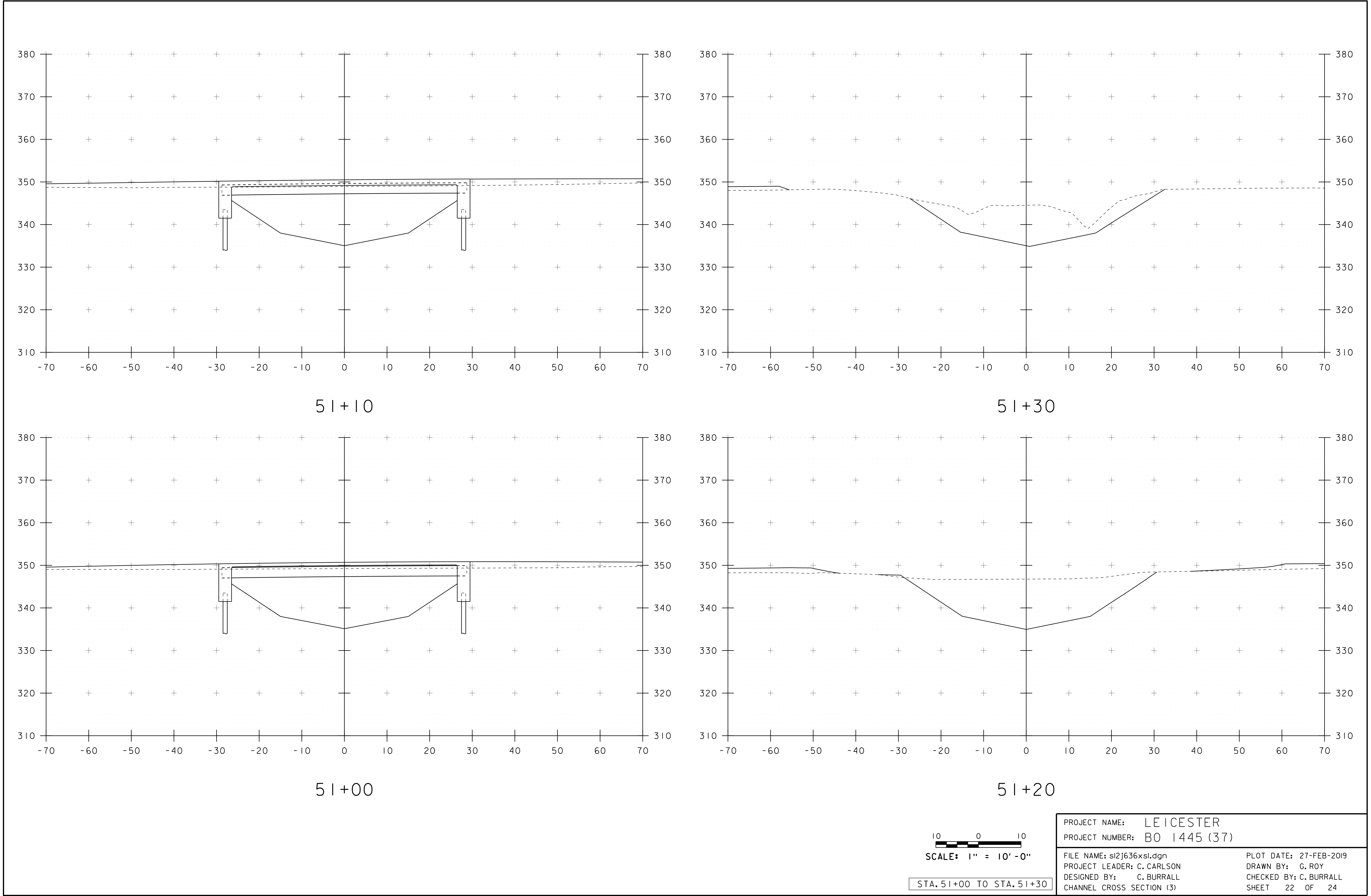


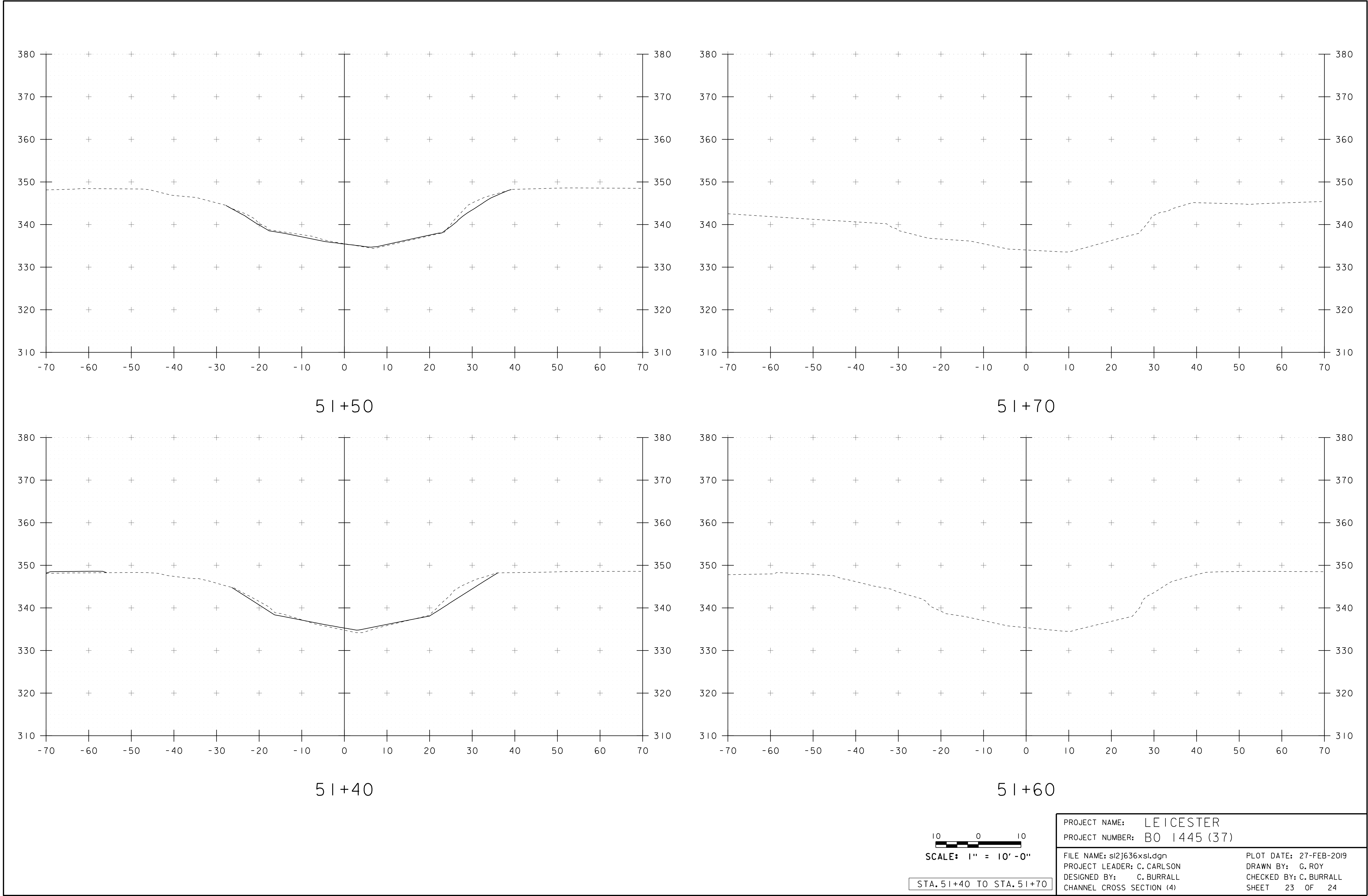


10 0 10  
SCALE: 1" = 10' - 0"

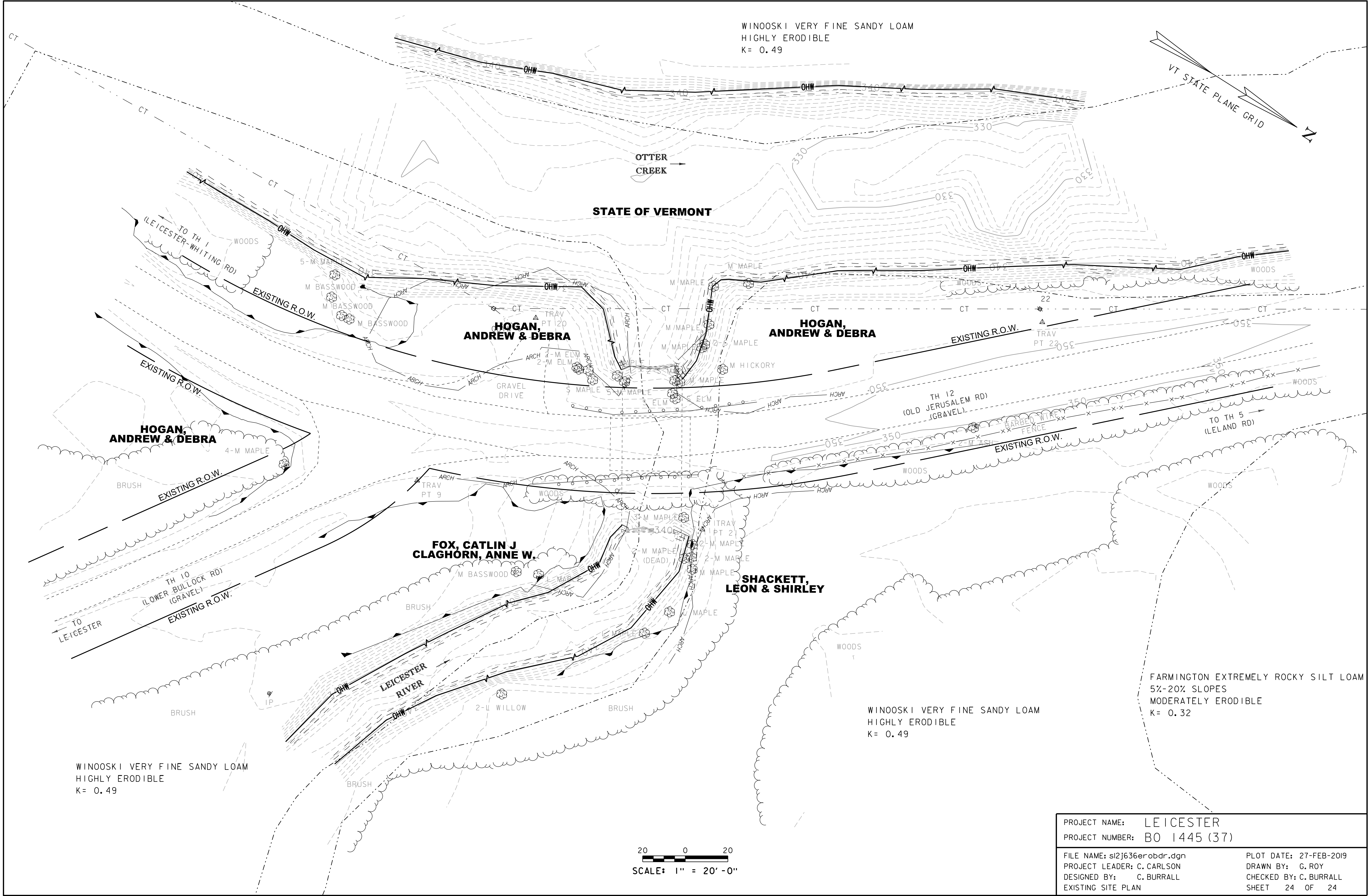
STA. 50+60 TO STA. 50+90

PROJECT NAME: LEICESTER	
PROJECT NUMBER: BO 1445 (37)	
FILE NAME: sl2j636xsl.dgn	PLOT DATE: 27-FEB-2019
PROJECT LEADER: C. CARLSON	DRAWN BY: G. ROY
DESIGNED BY: C. BURRALL	CHECKED BY: C. BURRALL
CHANNEL CROSS SECTION (2)	SHEET 21 OF 24









PROJECT NAME: LEICESTER	
PROJECT NUMBER: BO 1445 (37)	
FILE NAME: sl2j636erobdr.dgn	PLOT DATE: 27-FEB-2019
PROJECT LEADER: C. CARLSON	DRAWN BY: G. ROY
DESIGNED BY: C. BURRALL	CHECKED BY: C. BURRALL
EXISTING SITE PLAN	SHEET 24 OF 24