

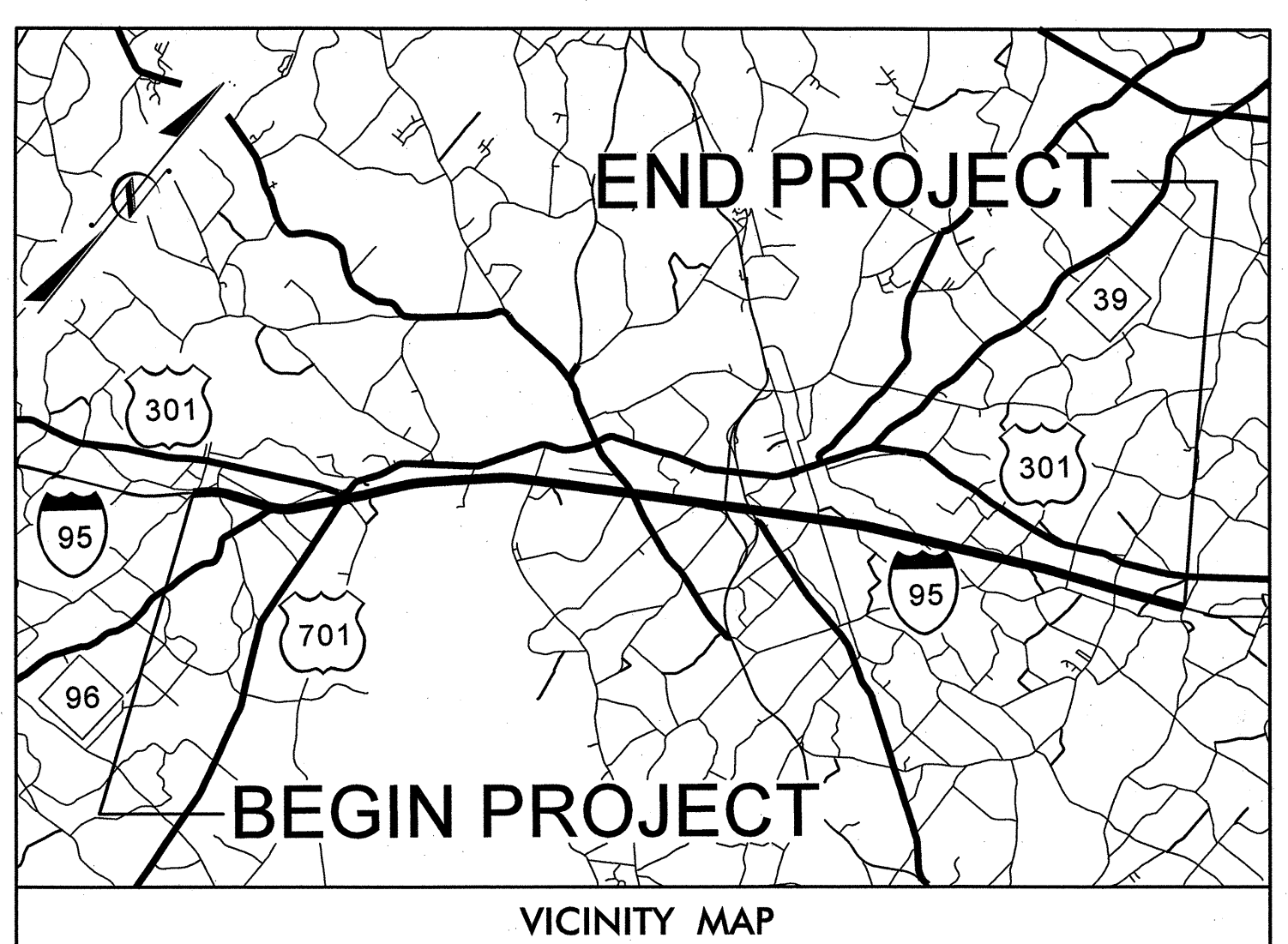
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-5020	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
41926.1.1	IMS-95-2(106)89	PE	
41926.3.1	IMD-95-2(109)89	CONST.	

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

JOHNSTON COUNTY

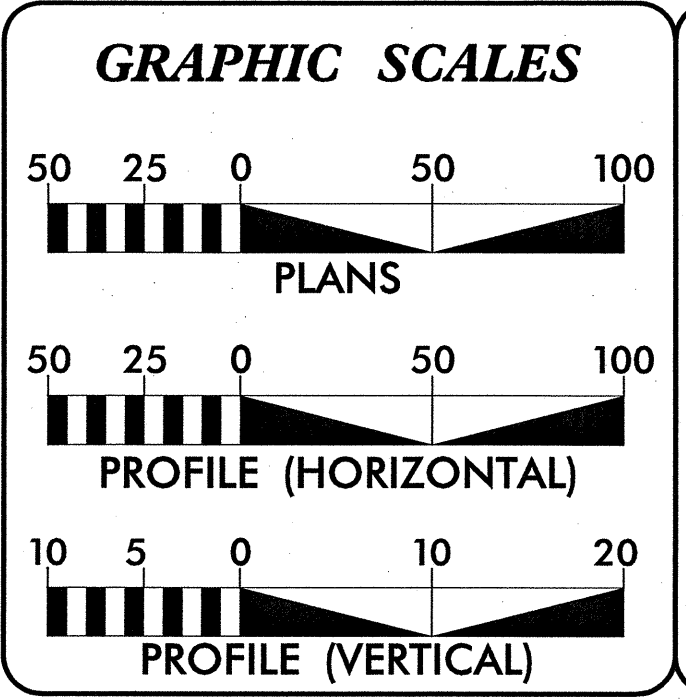
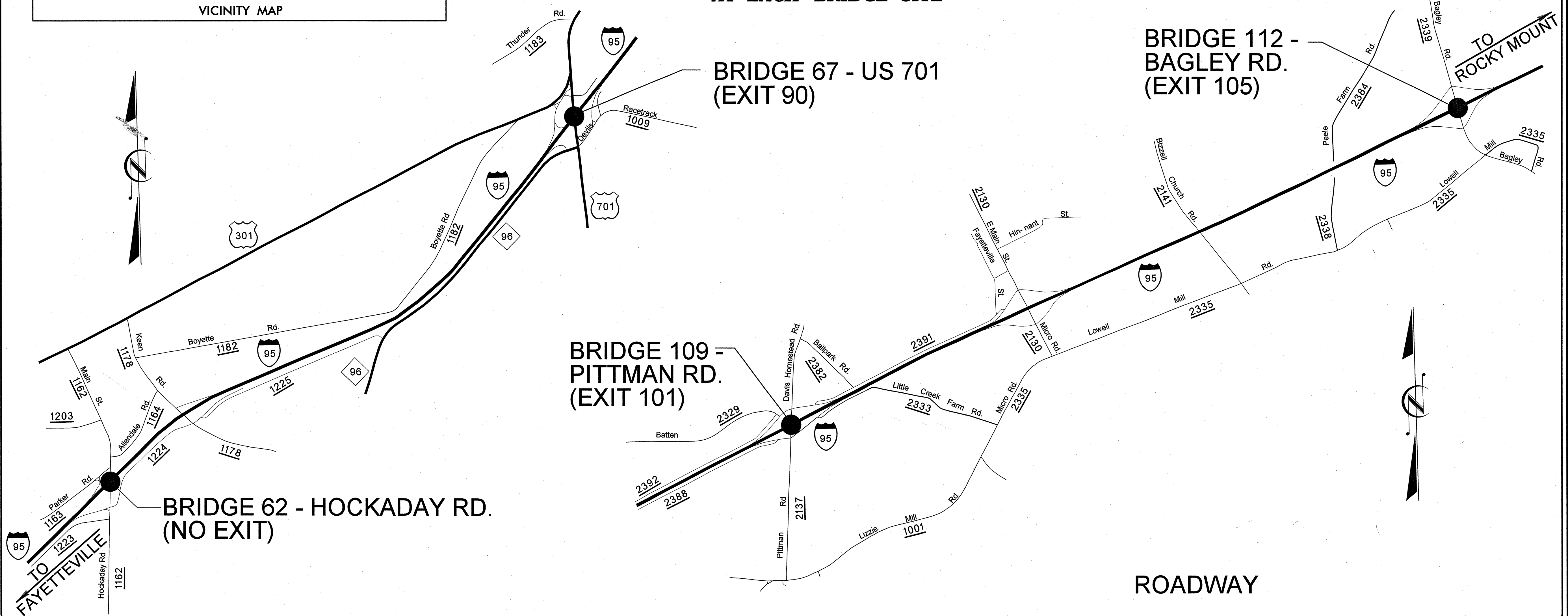
LOCATION: BRIDGES #62, #67, #109, AND #112
LOCATED ALONG I-95

TYPE OF WORK: BRIDGE JACKING, GRADING, PAVING
DRAINAGE, MILLING AND GUARDRAIL
AT EACH BRIDGE SITE



TIP PROJECT: B-5020

CONTRACT: C202018



Professional Engineer Seal for Kenneth W. Smith, License No. 11320, dated 06/24/2008.

PROJECT LENGTH

LENGTH OF ROADWAY TIP PROJECT B-5020
LENGTH OF STRUCTURE TIP PROJECT B-5020
TOTAL LENGTH OF TIP PROJECT B-5020

Prepared In the Office of:
Stantec
Stantec Consulting Inc.
Suite 300, 801 Jones Franklin Road
Raleigh, NC U.S.A. 27606
Tel. 919.851.6866 Fax. 919.851.7024
www.stantec.com

2006 STANDARD SPECIFICATIONS

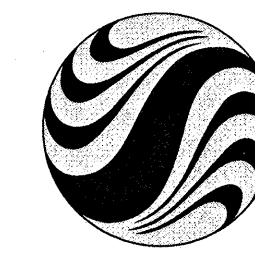
RIGHT OF WAY DATE: NA

LETTING DATE: SEPTEMBER 16, 2008

KENNETH W. SMITH
PROJECT ENGINEER

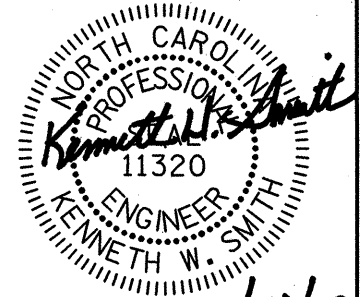
JASON GADDY
PROJECT DESIGN ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA



Stantec

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PROJECT REFERENCE NO.	SHEET NO.
B-5020	1-A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	
 <i>Kenneth W. Smith</i> 06/22/08	

SHEET NUMBER	SHEET
1	TITLE SHEET
1-A	INDEX OF SHEETS, GENERAL NOTES, AND LIST OF STANDARD DRAWINGS
1-B	CONVENTIONAL SYMBOLS
2	PAVEMENT SCHEDULE, TYPICAL SECTIONS, AND WEDGING DETAILS
3	SUMMARY OF QUANTITIES
3A	SUMMARY OF EARTHWORK, DRAINAGE AND PAVEMENT REMOVAL
3B	SUMMARY OF GUARDRAIL
4 THRU 7	PLAN AND PROFILE SHEET
TCP-1 THRU TCP-12	TRAFFIC CONTROL PLANS
SDI	SPECIAL SIGNING
EC-1 THRU EC-7	EROSION CONTROL PLANS
X-1 THRU X-26	CROSS SECTIONS
S-1 THRU S-39	STRUCTURE PLANS

GENERAL NOTES: 2006 SPECIFICATIONS
EFFECTIVE: 07-18-06
REVISED: 07-18-06

GRADE LINE:
GRADING AND SURFACING:
THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. GRADE LINES MAY BE ADJUSTED AT THEIR BEGINNING AND ENDING AND AT STRUCTURES AS DIRECTED BY THE ENGINEER IN ORDER TO SECURE A PROPER TIE-IN.

CLEARING:
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II.

UNDERDRAINS:
UNDERDRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 815.03 AT LOCATIONS DIRECTED BY THE ENGINEER.

GUARDRAIL:
THE GUARDRAIL LOCATIONS SHOWN ON THE PLANS MAY BE ADJUSTED DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHOULD CONSULT WITH THE ENGINEER PRIOR TO ORDERING GUARDRAIL MATERIAL.

EFF. 07-18-06
REV. 01-02-07

2006 ROADWAY ENGLISH STANDARD DRAWINGS

The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch - N. C. Department of Transportation - Raleigh, N. C., Dated July 18, 2006 are applicable to this project and by reference hereby are considered a part of these plans:

STD.NO.	TITLE
DIVISION 2 - EARTHWORK	
200.02	Method of Clearing - Method II
DIVISION 4 - MAJOR STRUCTURES	
422.10	Reinforced Bridge Approach Fills
DIVISION 8 - INCIDENTALS	
840.29	Frames and Narrow Slot Flat Grates
840.35	Traffic Bearing Grated Drop Inlet - for Cast Iron Double Frame and Grates
862.01	Guardrail Placement
862.02	Guardrail Installation
862.03	Structure Anchor Units
862.04	Anchoring End of Guardrail - B-77 and B-83 Anchor Units
876.02	Guide for Rip Rap at Pipe Outlets

Note: Not to Scale

*S.U.E. = Subsurface Utility Engineering

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

BOUNDARIES AND PROPERTY:

State Line	_____
County Line	_____
Township Line	_____
City Line	_____
Reservation Line	_____
Property Line	_____
Existing Iron Pin	○ EIP
Property Corner	_____
Property Monument	□ ECM
Parcel/Sequence Number	⑫③
Existing Fence Line	—x—x—x—
Proposed Woven Wire Fence	○
Proposed Chain Link Fence	□
Proposed Barbed Wire Fence	◇
Existing Wetland Boundary	--- WLB ---
Proposed Wetland Boundary	--- WLB ---
Existing High Quality Wetland Boundary	--- HQ WLB ---
Existing Endangered Animal Boundary	--- EAB ---
Existing Endangered Plant Boundary	--- EPB ---

BUILDINGS AND OTHER CULTURE:

Gas Pump Vent or U/G Tank Cap	○
Sign	○ S
Well	○ W
Small Mine	⊗
Foundation	□
Area Outline	□
Cemetery	□ †
Building	□
School	□
Church	□
Dam	_____

HYDROLOGY:

Stream or Body of Water	_____
Hydro, Pool or Reservoir	_____
River Basin Buffer	--- RBB ---
Flow Arrow	←
Disappearing Stream	_____
Spring	○
Swamp Marsh	_____
Proposed Lateral, Tail, Head Ditch	_____
False Sump	_____

RAILROADS:

Standard Gauge	_____
RR Signal Milepost	○ MILEPOST 35
Switch	□ SWITCH
RR Abandoned	_____
RR Dismantled	_____

RIGHT OF WAY:

Baseline Control Point	◆
Existing Right of Way Marker	△
Existing Right of Way Line	_____
Proposed Right of Way Line	_____
Proposed Right of Way Line with Iron Pin and Cap Marker	_____
Proposed Right of Way Line with Concrete or Granite Marker	_____
Existing Control of Access	○
Proposed Control of Access	○
Existing Easement Line	— E —
Proposed Temporary Construction Easement	— E —
Proposed Temporary Drainage Easement	— TDE —
Proposed Permanent Drainage Easement	— PDE —
Proposed Permanent Utility Easement	— PUE —

ROADS AND RELATED FEATURES:

Existing Edge of Pavement	_____
Existing Curb	_____
Proposed Slope Stakes Cut	— C —
Proposed Slope Stakes Fill	— F —
Proposed Wheel Chair Ramp	WCR
Curb Cut for Future Wheel Chair Ramp	CCFR
Existing Metal Guardrail	_____
Proposed Guardrail	_____
Existing Cable Guiderail	_____
Proposed Cable Guiderail	_____
Equality Symbol	⊙
Pavement Removal	_____

VEGETATION:

Single Tree	○
Single Shrub	○
Hedge	_____
Woods Line	_____
Orchard	_____
Vineyard	_____

EXISTING STRUCTURES:

MAJOR:	
Bridge, Tunnel or Box Culvert	CONC
Bridge Wing Wall, Head Wall and End Wall	CONC WW
MINOR:	
Head and End Wall	CONC HW
Pipe Culvert	_____
Footbridge	_____
Drainage Box: Catch Basin, DI or JB	CB
Paved Ditch Gutter	_____
Storm Sewer Manhole	⊙
Storm Sewer	_____

UTILITIES:

POWER:	
Existing Power Pole	●
Proposed Power Pole	○
Existing Joint Use Pole	●
Proposed Joint Use Pole	○
Power Manhole	⊙
Power Line Tower	⊗
Power Transformer	⊗
U/G Power Cable Hand Hole	⊙
H-Frame Pole	●
Recorded U/G Power Line	— P —
Designated U/G Power Line (S.U.E.*)	--- P ---

TELEPHONE:

Existing Telephone Pole	●
Proposed Telephone Pole	○
Telephone Manhole	⊙
Telephone Booth	□
Telephone Pedestal	□
Telephone Cell Tower	⊙
U/G Telephone Cable Hand Hole	⊙
Recorded U/G Telephone Cable	— T —
Designated U/G Telephone Cable (S.U.E.*)	--- T ---
Recorded U/G Telephone Conduit	— TC —
Designated U/G Telephone Conduit (S.U.E.*)	--- TC ---
Recorded U/G Fiber Optics Cable	— T FO —
Designated U/G Fiber Optics Cable (S.U.E.*)	--- T FO ---

WATER:

Water Manhole	⊙
Water Meter	○
Water Valve	⊗
Water Hydrant	⊙
Recorded U/G Water Line	— W —
Designated U/G Water Line (S.U.E.*)	--- W ---
Above Ground Water Line	— A/G Water —

TV:

TV Satellite Dish	⊙
TV Pedestal	□
TV Tower	⊗
U/G TV Cable Hand Hole	⊙
Recorded U/G TV Cable	— TV —
Designated U/G TV Cable (S.U.E.*)	--- TV ---
Recorded U/G Fiber Optic Cable	— TV FO —
Designated U/G Fiber Optic Cable (S.U.E.*)	--- TV FO ---

GAS:

Gas Valve	◇
Gas Meter	⊙
Recorded U/G Gas Line	— G —
Designated U/G Gas Line (S.U.E.*)	--- G ---
Above Ground Gas Line	— A/G Gas —

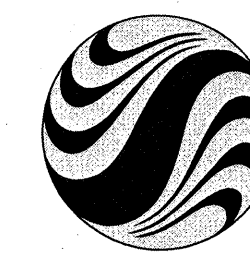
SANITARY SEWER:

Sanitary Sewer Manhole	⊙
Sanitary Sewer Cleanout	⊙
U/G Sanitary Sewer Line	— SS —
Above Ground Sanitary Sewer	— A/G Sanitary Sewer —
Recorded SS Forced Main Line	— FSS —
Designated SS Forced Main Line (S.U.E.*)	--- FSS ---

MISCELLANEOUS:

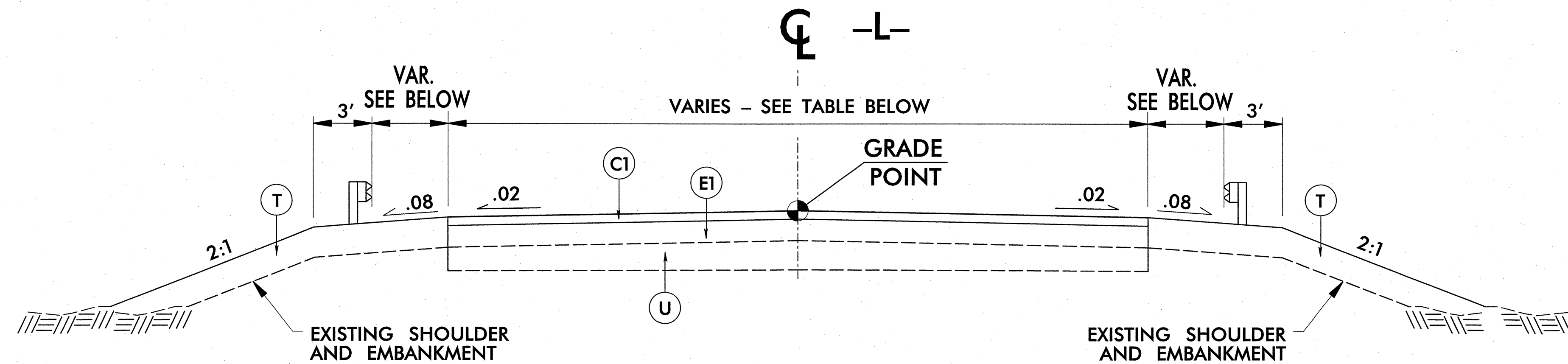
Utility Pole	●
Utility Pole with Base	□
Utility Located Object	○
Utility Traffic Signal Box	⊙
Utility Unknown U/G Line	— UTL —
U/G Tank; Water, Gas, Oil	□
A/G Tank; Water, Gas, Oil	□
U/G Test Hole (S.U.E.*)	⊙
Abandoned According to Utility Records	AATUR
End of Information	E.O.I.

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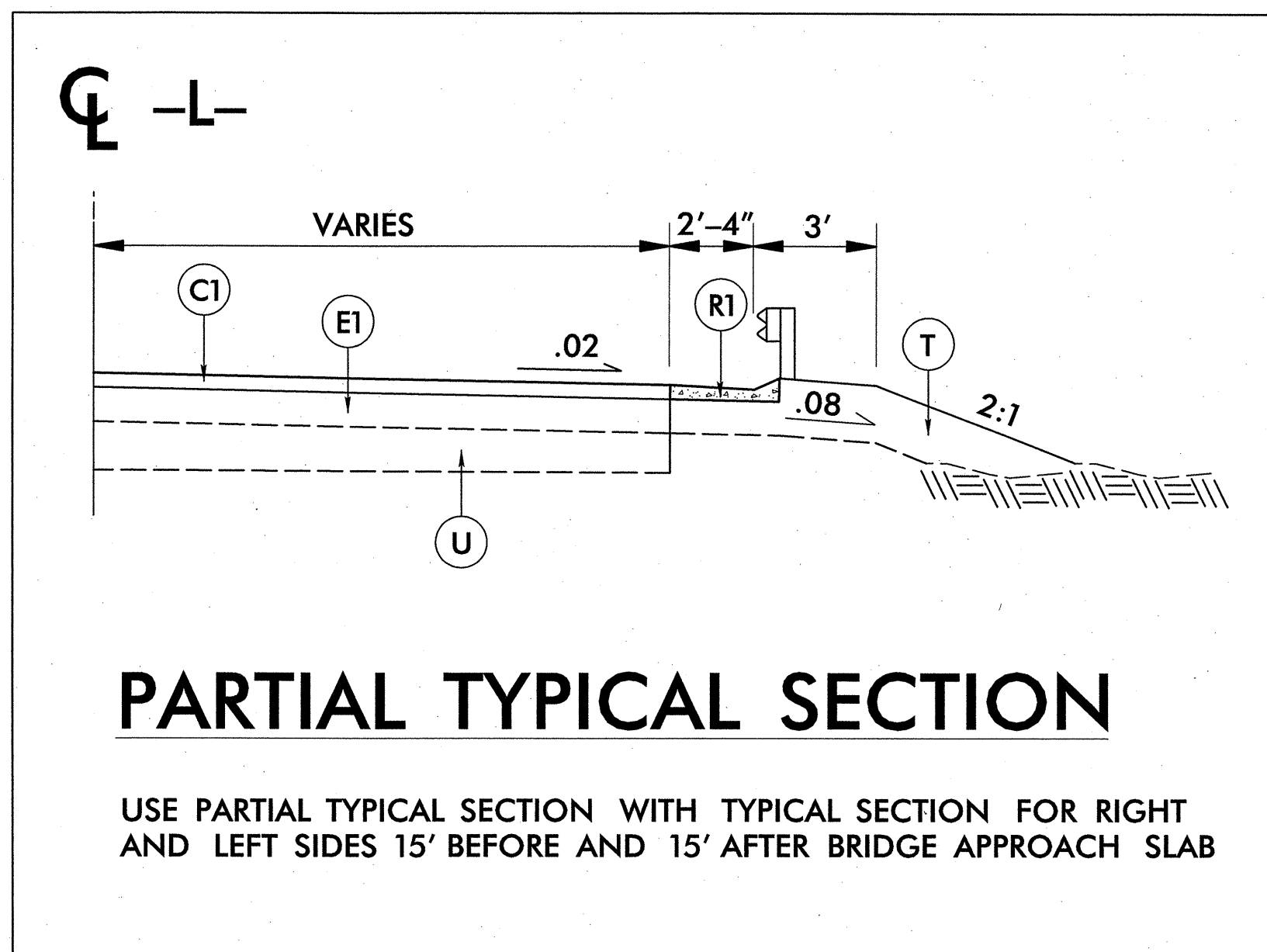
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 Suite 300, 801 Jones Franklin Road
 Raleigh, NC
 27606
 Tel. 919.851.6866
 Fax. 919.851.7024
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PROJECT REFERENCE NO.	SHEET NO.
B-5020	2
ROADWAY DESIGN ENGINEER	
06/24/2008	



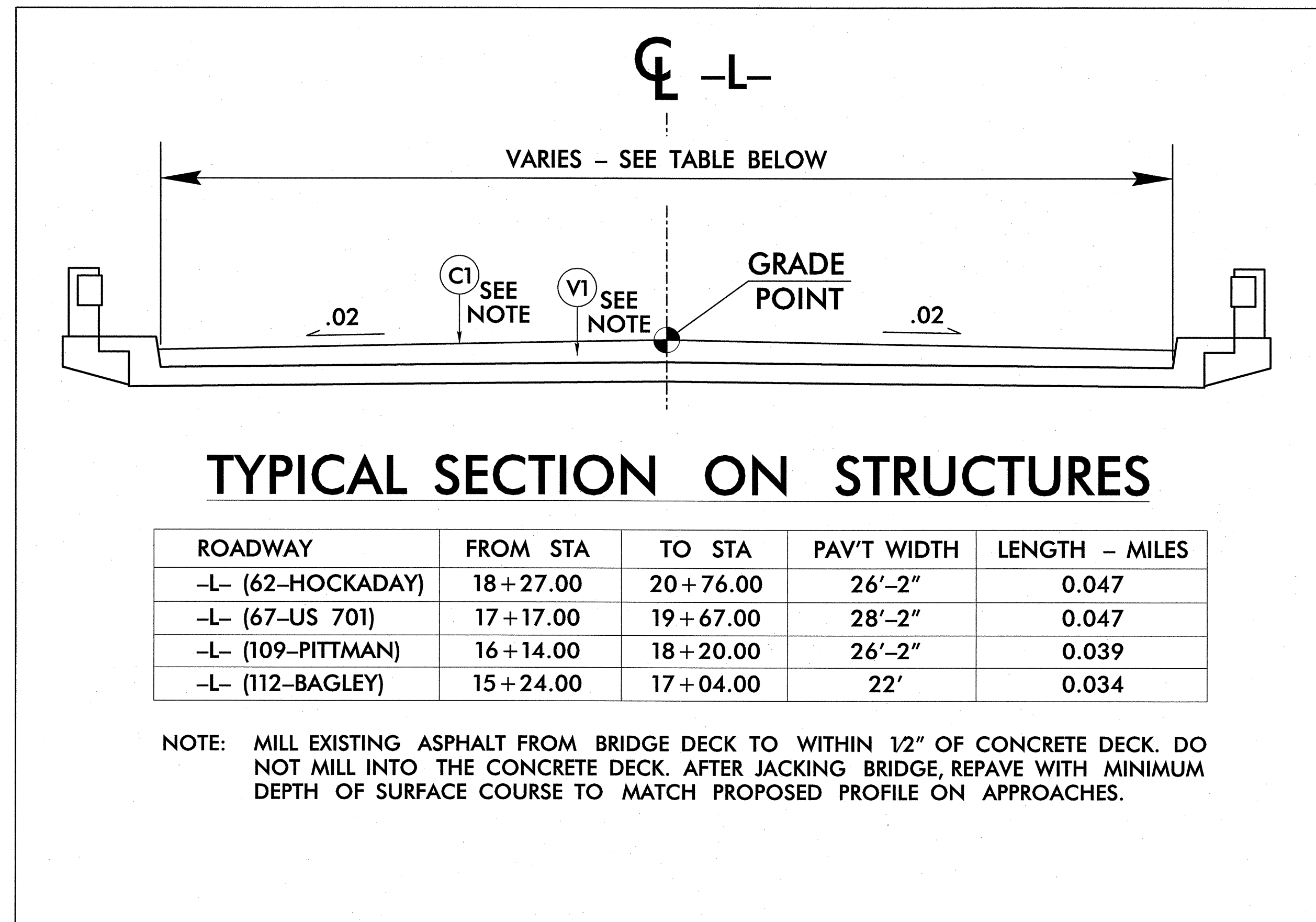
TYPICAL SECTION ON ROADWAYS

ROADWAY	FROM STA	TO STA	PAV'T WIDTH	SHL'D	LENGH - MILES
-L- (62-HOCKADAY)	15+00.00	18+27.00 (BEG. BRIDGE)	19'-0"	VAR. 2'-4" TO 15'-5"	0.062
-L- (62-HOCKADAY)	20+76.00 (END BRIDGE)	24+35.00	19'-0"	VAR. 2'-4" TO 15'-5"	0.068
-L- (67-US 701)	14+50.00	17+17.00 (BEG. BRIDGE)	26'-6"	VAR. 2'-4" TO 24'	0.051
-L- (67-US 701)	19+67.00 (END BRIDGE)	22+50.00	26'-6"	VAR. 2'-4" TO 24'	0.054
-L- (109-PITTMAN)	13+00.00	16+14.00 (BEG. BRIDGE)	20'	VAR. 2'-4" TO 15"	0.060
-L- (109-PITTMAN)	18+20.00 (END BRIDGE)	22+00.00	20'	VAR. 2'-4" TO 15"	0.072
-L- (112-BAGLEY)	12+00.00	15+24.00 (BEG. BRIDGE)	22'	VAR. 2'-4" TO 13"	0.061
-L- (112-BAGLEY)	17+04.00 (END BRIDGE)	20+00.00	22'	VAR. 2'-4" TO 13"	0.056
					TOTAL 0.484



PARTIAL TYPICAL SECTION

USE PARTIAL TYPICAL SECTION WITH TYPICAL SECTION FOR RIGHT AND LEFT SIDES 15' BEFORE AND 15' AFTER BRIDGE APPROACH SLAB



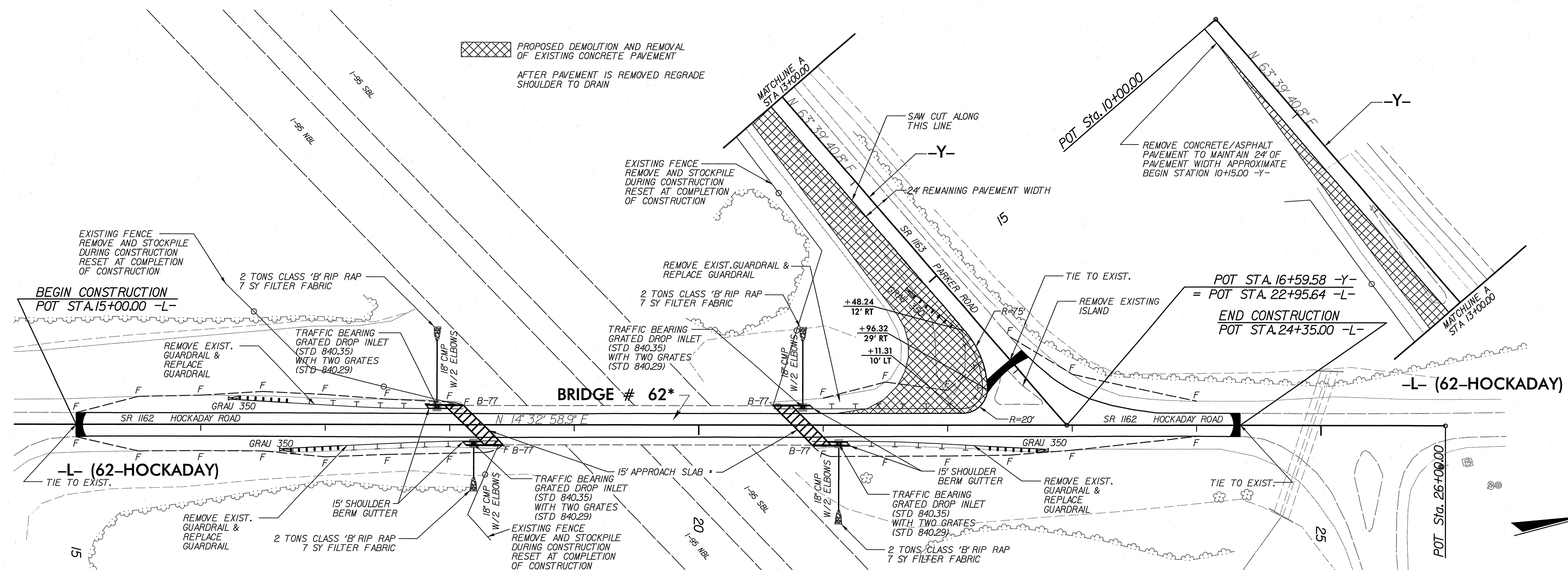
TYPICAL SECTION ON STRUCTURES

ROADWAY	FROM STA	TO STA	PAV'T WIDTH	LENGTH - MILES
-L- (62-HOCKADAY)	18+27.00	20+76.00	26'-2"	0.047
-L- (67-US 701)	17+17.00	19+67.00	28'-2"	0.047
-L- (109-PITTMAN)	16+14.00	18+20.00	26'-2"	0.039
-L- (112-BAGLEY)	15+24.00	17+04.00	22'	0.034

NOTE: MILL EXISTING ASPHALT FROM BRIDGE DECK TO WITHIN 1/2" OF CONCRETE DECK. DO NOT MILL INTO THE CONCRETE DECK. AFTER JACKING BRIDGE, REPAVE WITH MINIMUM DEPTH OF SURFACE COURSE TO MATCH PROPOSED PROFILE ON APPROACHES.

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
E1	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 3" IN DEPTH OR GREATER THAN 5.5" IN DEPTH.
R1	SHOULDER BERM GUTTER
T	EARTH MATERIAL
U	EXISTING PAVEMENT
V1	MILLING BITUMINOUS PAVEMENT (VARIABLE DEPTHS)

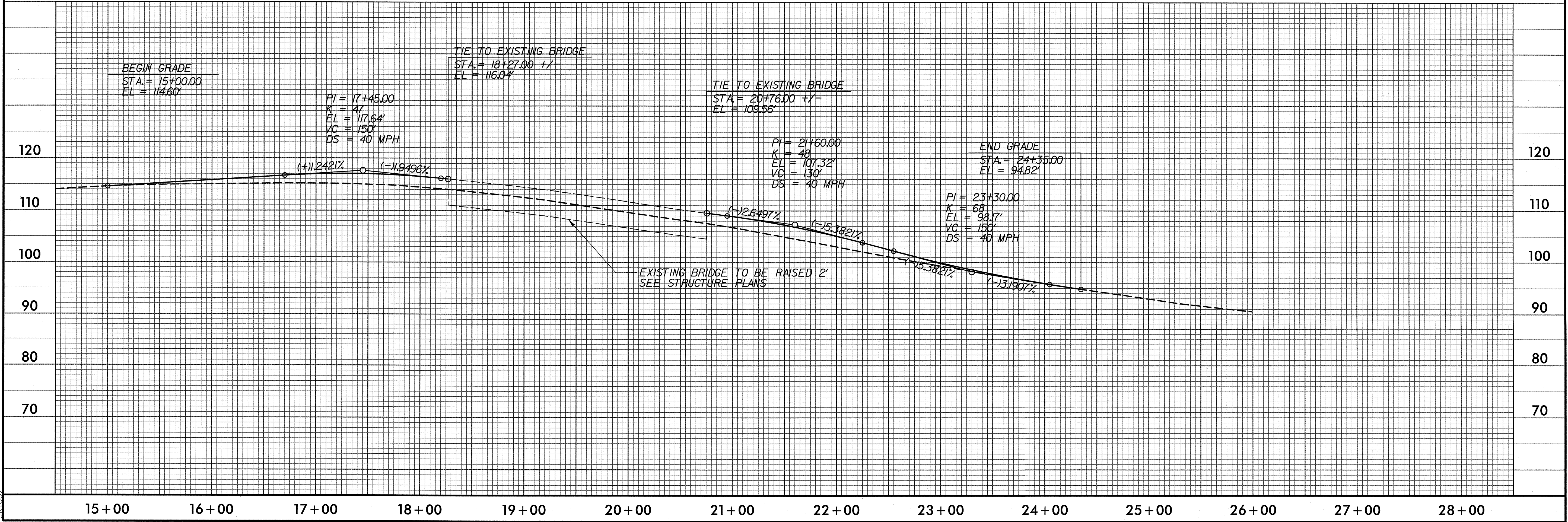
NOTE:
 ALL PAVEMENT STRUCTURE SLOPES ARE 1:1 UNLESS OTHERWISE SPECIFIED.



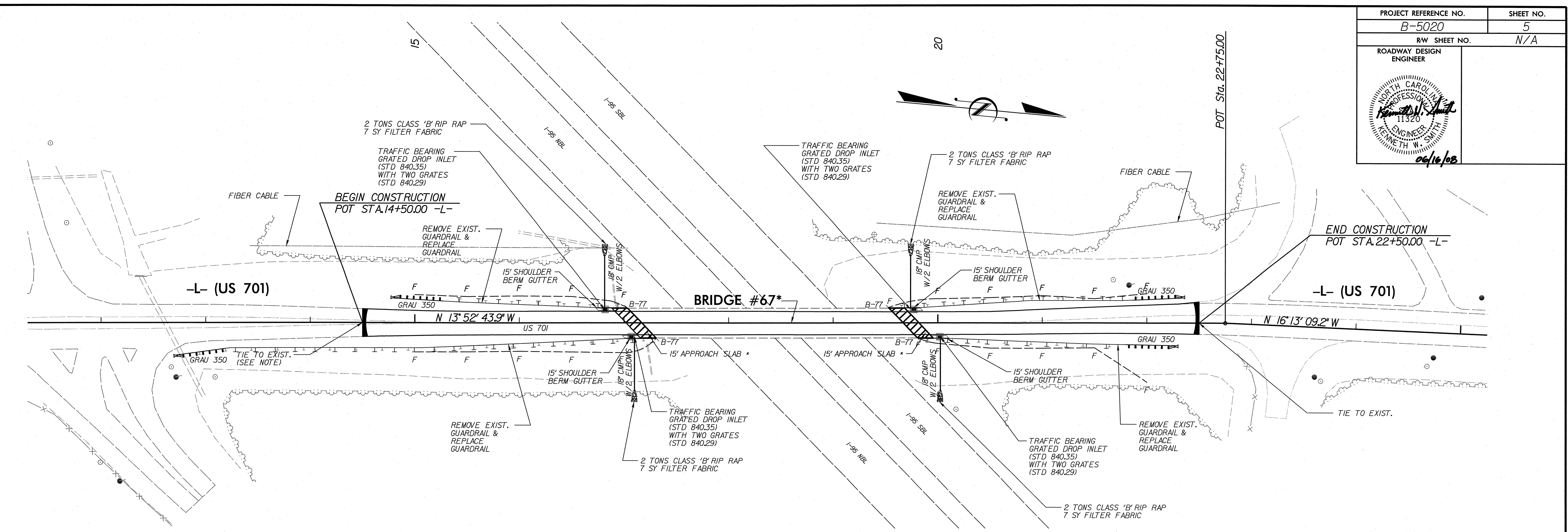
FOR -L- (62-HOCKADAY) CROSS SECTIONS, SEE SHEETS X-1 TO X-6

NOTE: CORRUGATED METAL PIPE (CMP) AND ELBOWS SHALL BE BITUMINOUS COATED

* SEE STRUCTURE PLANS FOR APPROACH SLABS AND BRIDGE JACKING DETAILS



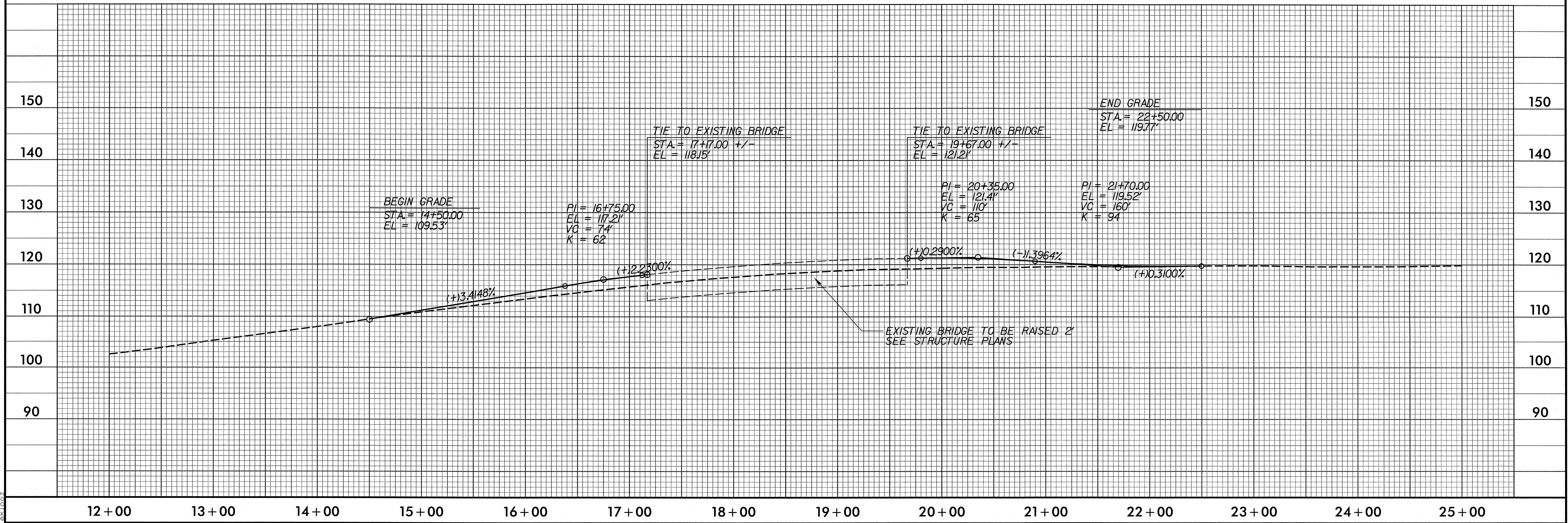
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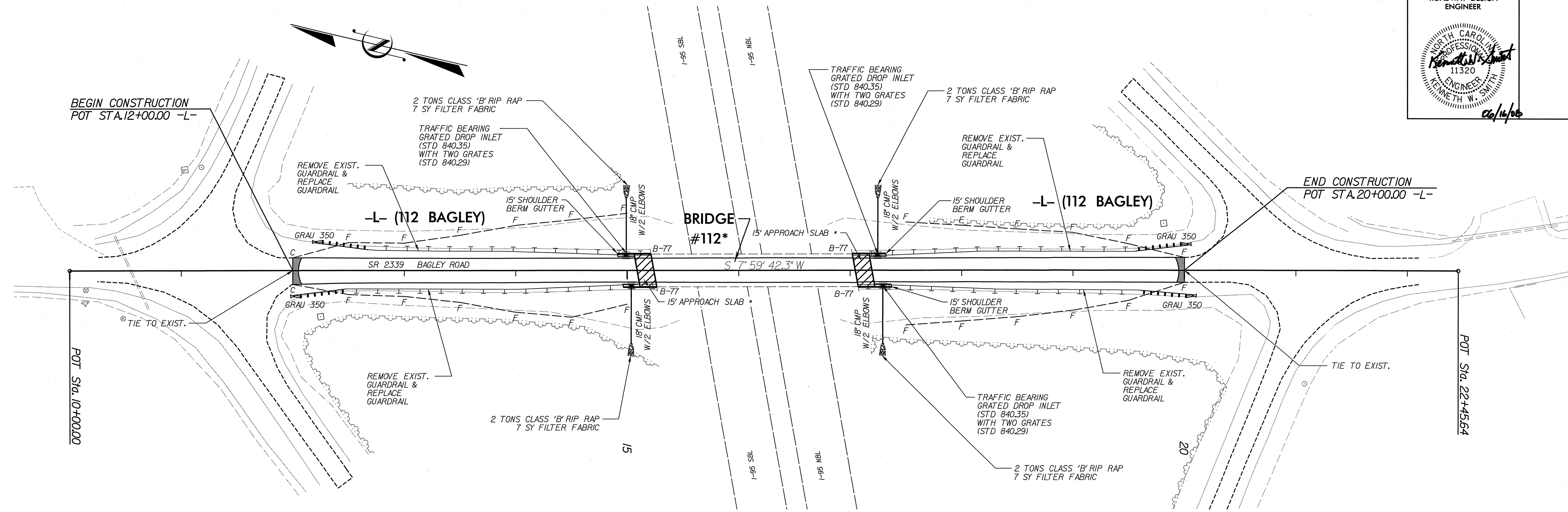
FOR -L- (67-US 701) CROSS SECTIONS, SEE SHEETS X-7 TO X-13

NOTE: CORRUGATED METAL PIPE (CMP) AND ELBOWS SHALL BE BITUMINOUS COATED

* SEE STRUCTURE PLANS FOR APPROACH SLABS AND BRIDGE JACKING DETAILS



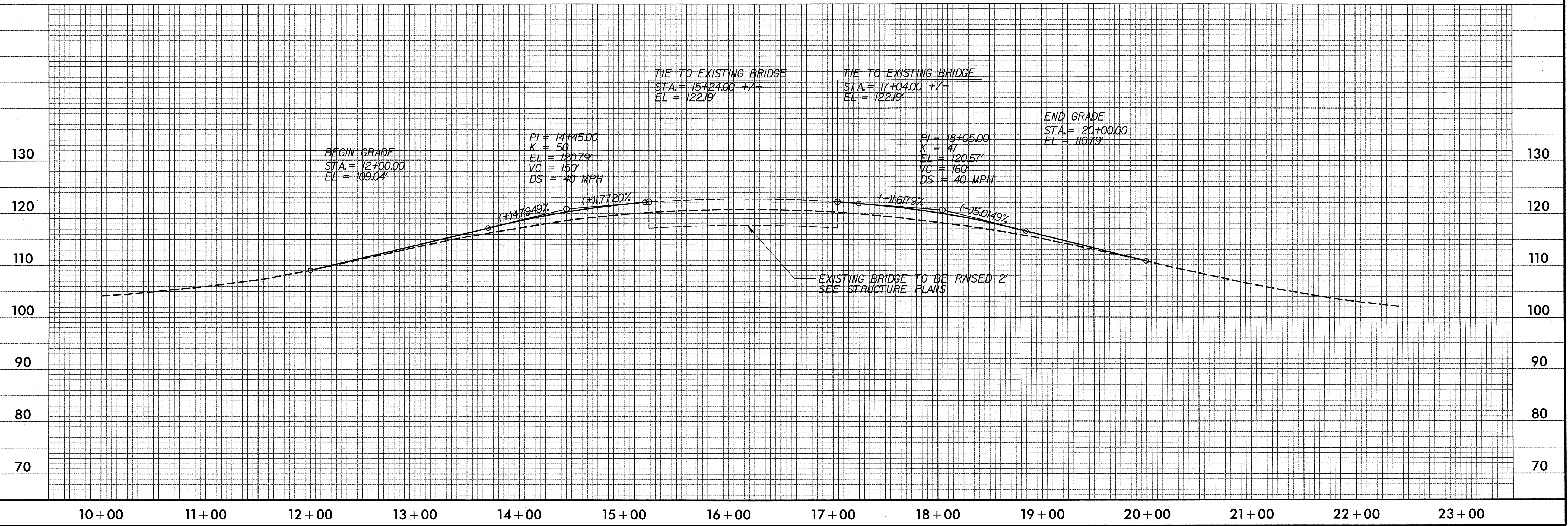
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FOR -L- (112-BAGLEY) CROSS SECTIONS, SEE SHEETS X-20 TO X-26

NOTE: CORRUGATED METAL PIPE (CMP) AND ELBOWS SHALL BE BITUMINOUS COATED

* SEE STRUCTURE PLANS FOR APPROACH SLABS AND BRIDGE JACKING DETAILS



8/17/99

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