

FOR INDEX OF SHEETS SEE SHEET 1B

THIS PROJECT WAS DEVELOPED UTILIZING THE DEPARTMENT'S ENGINEERING
DESIGN PACKAGE (GEOPAK).
GEOPAK Computer Identification No. 94089

DESIGNED BY:



COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE OF PROPOSED
STATE HIGHWAY

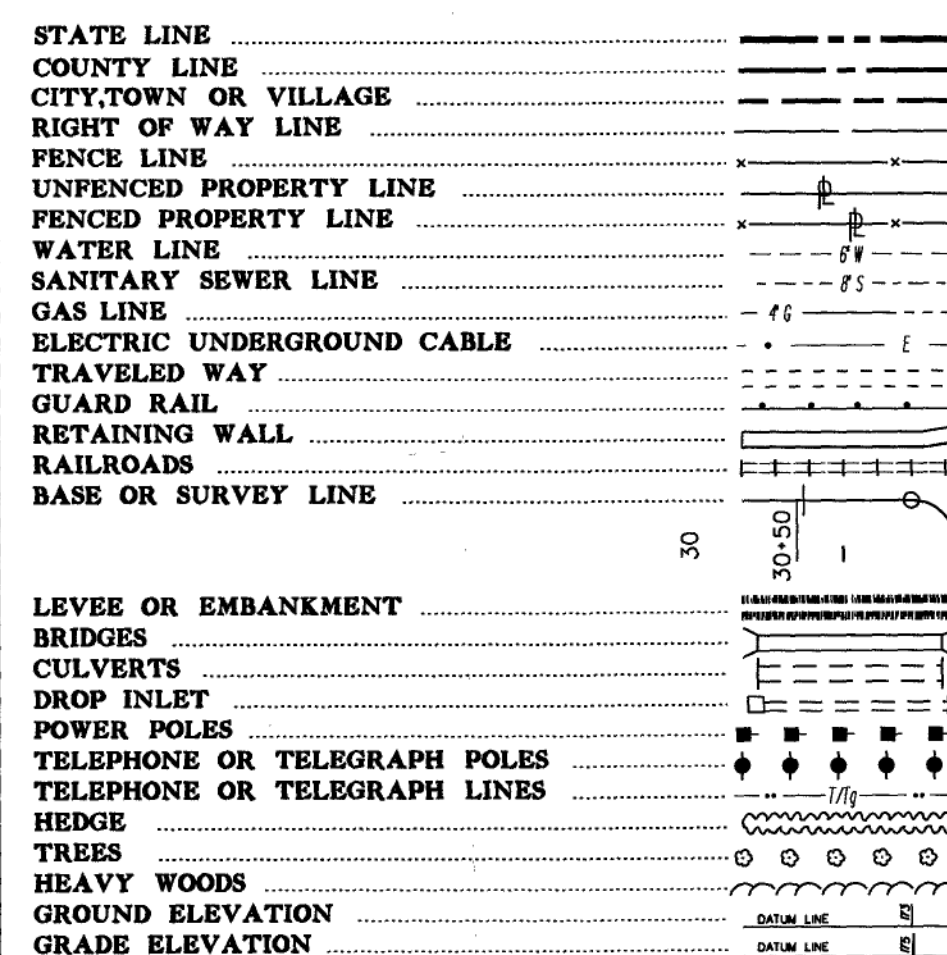
DESIGN-BUILD PROJECT
CONSTRUCTION SUBMITTAL No. 8

CITY OF ROANOKE

I-581/ELM AVE INTERCHANGE IMPROVEMENTS
FROM: Exit Ramps Accessing Elm Avenue

TO: 0.016 Mi. W. Williamson Rd to 0.045 Mi. E of 4th St, S.E. on Elm Ave.

CONVENTIONAL SIGNS



THE COMPLETE ELECTRONIC PDF VERSION OF THE PLAN ASSEMBLY
AS AWARDED, HAS BEEN SEALED AND SIGNED USING DIGITAL
SIGNATURES AND THE OFFICIAL PLAN ASSEMBLY IN ELECTRONIC
FORMAT IS STORED IN THE VDOT CENTRAL OFFICE PLAN LIBRARY.
INCLUDING ALL SUBSEQUENT REVISIONS, WILL BE THE OFFICIAL
CONSTRUCTION PLANS. FOR INFORMATION RELATIVE TO ELECTRONIC
FILES AND LAYERED PLANS, SEE THE GENERAL NOTES.

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION
AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED
NECESSARY BY THE DEPARTMENT.

THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE
DEPARTMENT'S 2007 ROAD AND BRIDGE SPECIFICATIONS, 2008 ROAD
AND BRIDGE STANDARDS, 2009 MUTCD, 2011 VIRGINIA SUPPLEMENT TO
THE MUTCD, 2011 VIRGINIA WORK AREA PROTECTION MANUAL AND AS
AMENDED BY CONTRACT PROVISIONS AND THE COMPLETE ELECTRONIC
PDF VERSION OF THE PLAN ASSEMBLY.

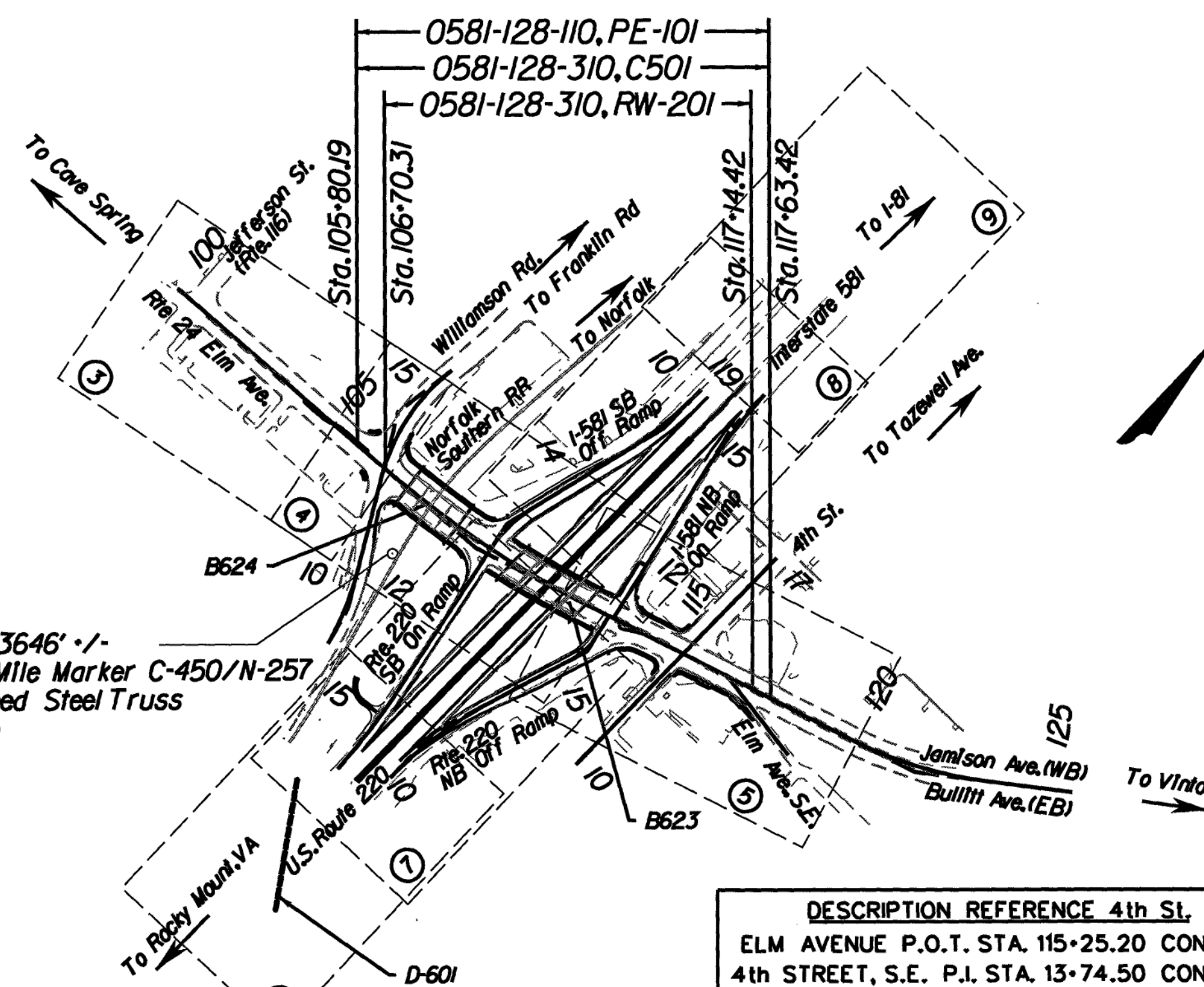
ALL CURVES ARE TO BE SUPERELEVATED, TRANSITIONED AND
WIDENED IN ACCORDANCE WITH STANDARD TC-5.04 ULS, EXCEPT
WHERE OTHERWISE NOTED.

THE ORIGINAL APPROVED TITLE SHEET, INCLUDING ORIGINAL
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THE LAW.

PORTIONS OF THESE PLANS CONTAIN CRITICAL INFRASTRUCTURE
INFORMATION/SENSITIVE SECURITY INFORMATION (CII/SSI). UNAUTHORIZED
RELEASE OR REPRODUCTION OF THESE DOCUMENTS MAY RESULT IN
CIVIL PENALTY OR OTHER ACTION.

DESCRIPTION REFERENCE WILLIAMSON RD.
ELM AVENUE P.O.T. STA. 106+66.04 CONSTR. @
WILLIAMSON RD. P.O.T. STA. 12+75.08 CONSTR. @

Approximately 3646' +/-
North To RR Mile Marker C-450/N-257
From Abandoned Steel Truss
Code Line Pole



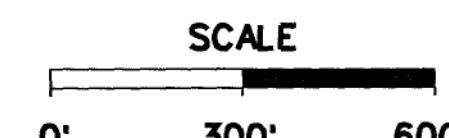
DESCRIPTION REFERENCE 4th St.
ELM AVENUE P.O.T. STA. 115+25.20 CONSTR. @
4th STREET, S.E. P.I. STA. 13+74.50 CONSTR. @

APPROVED DESIGN EXCEPTIONS	
DESIGN EXCEPTIONS	REASON FOR EXCEPTION
Vertical Clearance Railroad Bridge	The proposed vertical clearance matches existing 22'-5" clearance which is less than the minimum standard 23'-0"
Sight Distance: Sag Curves 220 North Off-Ramp I-581 South Off-Ramp	Widening ramps to provide additional storage. Off-Ramps match existing grades and vertical curves which have less than 35mph design speeds.
Shoulder Width I-581 Inside/Median Shoulder	Proposed center pier requires a wider median barrier, thereby reducing the paved shoulder width from 4' to 3'.
Collision Force Design and Crash Walls B624	Widened existing multi-column substructures will not withstand collision force design. Insufficient horizontal clearance to install a protective barrier.
BR270 Bridge Railing Height during staged construction B623	Temporary condition due to staged construction, the proposed sidewalk will be omitted temporarily to permit traffic to use the full width of the Phase I Widening on the B623 bridge structure.
Superelevation 220 North Off-Ramp I-581 South Off-Ramp	Widening ramps to provide additional storage. Ramps match existing grades and vertical curves which have less than 35mph design speed.

City of Roanoke Population 97,032 (2010 Census)

Project Length is based on Rte. 24 Elm Avenue construction centerline.

STATE PROJECT NO.	SECTION	FEDERAL AID PROJECT NO.	TYPE CODE	UPC NO.	EQUALITIES		LENGTH INCLUDING BRIDGE(S)		LENGTH EXCLUDING BRIDGE(S)		BRIDGE PLAN NO.	TYPE PROJECT	DESCRIPTION
					FEET	MILES	FEET	MILES	FEET	MILES			
0581-128-110	PE-101	NH-581-5(036)	PENG	80518	NONE	1183.23	0.224	830.46	0.157			PRELIM ENGR	0.016 Mi. W. Williamson Rd to 0.045 Mi. E of 4th St, S.E. on Elm Avenue
0581-128-310	RW-201	ARRA-FS09(164)	ROWA	94089	NONE	1044.11	0.198	691.34	0.131			RIGHT OF WAY	Williamson Rd to 0.036 Mi. E of 4th St, S.E. on Elm Avenue
	C-501	ARRA-FS09(164)	I000	94089	NONE	1183.23	0.224	830.46	0.157			CONSTR.	0.016 Mi. W. Williamson Rd to 0.045 Mi. E of 4th St, S.E. on Elm Avenue
	B623	ARRA-FS09(164)	X231	94089	NONE	204.83	0.038			185-24C	BRIDGE	Bridge carrying Rte. 24 (Elm Avenue) over I-581/U.S. Route 220	
	B624	ARRA-FS09(164)	X181	94089	NONE	153.83	0.029			175-23A	BRIDGE	Bridge carrying Rte. 24 (Elm Avenue) over Norfolk Southern Railway	
	D-601	ARRA-FS09(164)	X0.8	94089	NONE	328.00	0.062				Pipe Culvert	84" Storm Sewer Pipe Crossing under I-581/U.S. Route 220	



REVISED

As-Builts 09/09/2015
Contractor's As-Builts
Contractor: American Infrastructure AI
Developer: VDOT

RECOMMENDED FOR APPROVAL FOR CONSTRUCTION	
DATE	(DESIGN-BUILD FIRM) DESIGN MANAGER
DATE	(DESIGN-BUILD FIRM) PROJECT MANAGER
DATE	VDOT PROJECT MANAGER
DATE	VDOT DISTRICT CONSTRUCTION ENGINEER OR VDOT PPTA PROGRAM MANAGER

APPROVED FOR CONSTRUCTION	
DATE	CHIEF ENGINEER

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PROJECT
0581-128-310
SHEET NO.
1

PROJECT MANAGER Robert A. Phlegor, P.E. (540) 378-5083
SURVEYED BY Neil Martin, L.S. (540) 552-5592 & David L. Jones, L.S. (NXL) (804) 664-4600
DESIGN SUPERVISED BY Darrell Fischer, P.E. (804) 612-0665
DESIGNED BY Brandon C. Stock, P.E. (804) 612-0665

5/17/2013

APPROVED 01/2014

VDOT Elm Ave Int.