

FEASIBILITY STUDY

***State Route 11 (US31A/41A) Nolensville Road
From State Route 840 to
Williamson/Davidson County Line
Williamson County***



***PREPARED BY
CLINARD ENGINEERING ASSOCIATES, LLC
FOR
THE TENNESSEE DEPARTMENT OF TRANSPORTATION
PLANNING DIVISION***

June 2005



BEGIN PROJECT

BEGIN SECTION I

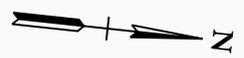
**END SECTION I
BEGIN SECTION II**

**END SECTION II
BEGIN SECTION III**

**END SECTION IV
END SECTION III
BEGIN SECTION IV**

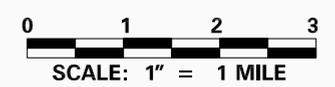
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PROJECT MAP



**SR-11(US 31A / 41A)
NOLENSVILLE ROAD**

**FROM SR-840 TO WILLIAMSON /
DAVIDSON COUNTY LINE**



**SUMMARY DATA TABLE
(SECTION I)**

<u>ITEM</u>	<u>EXISTING</u>	<u>PROPOSED</u>
Functional Class	Rural Minor Arterial	Rural Minor Arterial
System Class	STP	STP
Length (Miles)	0.5	0.5
Cross Section (Feet)	36' / 56' / Varies	72' / 92'
Present ADT (2009)	8,000	8,000
Future ADT (2029)	16,868	16,868
DHV (2029)	2,024	2,024
% Trucks	6 % (ADT) 4 % (DHV)	6 % (ADT) 4 % (DHV)
Estimated Right-of-Way Acquisition (Acres)		0.70
Estimated Right-of-Way Tracts Affected		4
Estimated Family Displacements		0
Estimated Business Displacements		0
Estimated Non-Profit Displacements		0
Estimated Right-of-Way Cost		\$50,000
Estimated Utility Cost Reimbursable		\$0
Estimated Utility Cost Non-Reimbursable		\$213,000
Estimated Construction Cost		\$757,000
Estimated Preliminary Engineering Cost		\$69,000
Total Estimated Project Cost		\$1,089,000

**SUMMARY DATA TABLE
(SECTION II)**

<u>ITEM</u>	<u>EXISTING</u>	<u>PROPOSED</u>
Functional Class	Rural Minor Arterial	Rural Minor Arterial
System Class	STP	STP
Length (Miles)	5.7	5.7
Cross Section (Feet)	24' / 32' / Varies	72'/92' 84'/104' 60'/84'/200'
Present ADT (2009)	5,150	5,150
Future ADT (2029)	12,318	12,318
DHV (2029)	1,478	1,478
% Trucks	6 % (ADT) 4 % (DHV)	6 % (ADT) 4 % (DHV)
Estimated Right-of-Way Acquisition (Acres)		77.60
Estimated Right-of-Way Tracts Affected		88
Estimated Family Displacements		9
Estimated Business Displacements		0
Estimated Non-Profit Displacements		0
Estimated Right-of-Way Cost		\$4,790,000
Estimated Utility Cost Reimbursable		\$0
Estimated Utility Cost Non-Reimbursable		\$2,394,000
Estimated Construction Cost		\$17,257,000
Estimated Preliminary Engineering Cost		\$1,569,000
Total Estimated Project Cost		\$26,010,000

**SUMMARY DATA TABLE
(SECTION III A)**

<u>ITEM</u>	<u>EXISTING</u>	<u>PROPOSED</u>
Functional Class	Rural Minor Arterial	Rural Minor Arterial
System Class	STP	STP
Length (Miles)	1.8	1.8
Cross Section (Feet)	24' / 32'-46' / Varies	72' / 92' 36' / 56'
Present ADT (2009)	11,000	11,000
Future ADT (2029)	26,360	26,360
DHV (2029)	3,163	3,163
% Trucks	6 % (ADT) 4 % (DHV)	6 % (ADT) 4 % (DHV)
Estimated Right-of-Way Acquisition (Acres)		11.20
Estimated Right-of-Way Tracts Affected		54
Estimated Family Displacements		1
Estimated Business Displacements		1
Estimated Non-Profit Displacements		0
Estimated Right-of-Way Cost		\$1,235,000
Estimated Utility Cost Reimbursable		\$0
Estimated Utility Cost Non-Reimbursable		\$936,000
Estimated Construction Cost		\$6,551,000
Estimated Preliminary Engineering Cost		\$596,000
Total Estimated Project Cost		\$9,318,000

**SUMMARY DATA TABLE
(SECTION III B)**

<u>ITEM</u>	<u>EXISTING</u>	<u>PROPOSED</u>
Functional Class	Rural Minor Arterial	Rural Minor Arterial
System Class	STP	STP
Length (Miles)	1.8	1.9
Cross Section (Feet)	24' / 32'-46' / Varies	72' / 92' 2 @ 24 / 90' / 110'
Present ADT (2009)	8,800	8,800
Future ADT (2029)	21,950	21,950
DHV (2029)	2,634	2,634
% Trucks	6 % (ADT) 4 % (DHV)	6 % (ADT) 4 % (DHV)
Estimated Right-of-Way Acquisition (Acres)		22.30
Estimated Right-of-Way Tracts Affected		38
Estimated Family Displacements		2
Estimated Business Displacements		0
Estimated Non-Profit Displacements		0
Estimated Right-of-Way Cost		\$1,525,000
Estimated Utility Cost Reimbursable		\$0
Estimated Utility Cost Non-Reimbursable		\$494,000
Estimated Construction Cost		\$9,713,000
Estimated Preliminary Engineering Cost		\$883,000
Total Estimated Project Cost		\$12,615,000

**SUMMARY DATA TABLE
(SECTION IV)**

<u>ITEM</u>	<u>EXISTING</u>	<u>PROPOSED</u>
Functional Class	Rural Minor Arterial	Rural Minor Arterial
System Class	STP	STP
Length (Miles)	2.1	2.1
Cross Section (Feet)	24' / 32' / Varies	72' / 92' 84' / 104'
Present ADT (2009)	11,400	11,400
Future ADT (2029)	28,240	28,240
DHV (2029)	3,389	3,389
% Trucks	4 % (ADT) 3 % (DHV)	4 % (ADT) 3 % (DHV)
Estimated Right-of-Way Acquisition (Acres)		9.40
Estimated Right-of-Way Tracts Affected		57
Estimated Family Displacements		2
Estimated Business Displacements		0
Estimated Non-Profit Displacements		0
Estimated Right-of-Way Cost		\$1,159,000
Estimated Utility Cost Reimbursable		\$0
Estimated Utility Cost Non-Reimbursable		\$1,197,000
Estimated Construction Cost		\$7,659,000
Estimated Preliminary Engineering Cost		\$696,000
Total Estimated Project Cost		\$10,711,000

SUMMARY DATA TABLE

<u>ITEM</u>	<u>PROPOSED</u> (Sections I, II, III A, & IV)	<u>PROPOSED</u> (Sections I, II, III B, & IV)
	Rural Minor Arterial	Rural Minor Arterial
Functional Class	Rural Minor Arterial	Rural Minor Arterial
System Class	STP	STP
Length (Miles)	10.1	10.2
Cross Section (Feet)	Varies	Varies
Present ADT (2009)	8,888	8,338
Future ADT (2029)	20,947	19,844
DHV (2029)	2,514	2,381
% Trucks	6 % (ADT) 4 % (DHV)	6 % (ADT) 4 % (DHV)
Estimated Right-of-Way Acquisition (Acres)	98.90	110.00
Estimated Right-of-Way Tracts Affected	203	187
Estimated Family Displacements	12	13
Estimated Business Displacements	1	0
Estimated Non-Profit Displacements	0	0
Estimated Right-of-Way Cost	\$7,234,000	\$7,524,000
Estimated Utility Cost Reimbursable	\$0	\$0
Estimated Utility Cost Non-Reimbursable	\$4,740,000	\$4,298,000
Estimated Construction Cost	\$32,224,000	\$35,386,000
Estimated Preliminary Engineering Cost	\$2,930,000	\$3,217,000
Total Estimated Project Cost	\$47,128,000	\$50,425,000

PURPOSE OF STUDY

The purpose of this study is to determine the need and feasibility of improving State Route 11 (US 31A/41A) Nolensville Road from the interchange of State Route 840 to near the Williamson/Davidson County line. Over the past few years, the Town of Nolensville and the study area in Williamson County, has experienced significant growth due the extension of sewer services from Metropolitan Nashville. Both residential and commercial growth is continuing to occur at a rapid pace. Due to this growth, the Town of Nolensville has requested this study to be performed to assist them in developing a plan for their present and future transportation needs. The current Metropolitan Planning Organization (MPO) Long Range Plan includes the widening of State Route 11 (Nolensville Road) from State Route 840 to the Williamson/Davidson County line to be completed in the year 2025.

The objectives of this study are to determine the need for improvement, develop a proposed plan for the project, calculate estimated costs, and identify locations of environmental concern.

DEFICIENCIES AND EXISTING CONDITIONS

Geometrics	<u> X </u>	Structures	<u> </u>
Operational	<u> X </u>	R/R Crossing	<u> </u>
Accident Rate	<u> 1.03 </u>	Statewide Average Rate	<u> 1.68 </u>

Development along the corridor varies from rural and agricultural in nature to commercial and residential. State Route 11 (Nolensville Road) carries an average of over 10,000 vehicles per day in the base year (2009) with daily traffic projected to increase to over 28,000 in the design year (2029). Residential growth in this area of the Williamson County continues, especially from the Williamson/Davidson County line south to the Town of Nolensville. As mentioned previously, the recently extended sewerage service to the Town of Nolensville in 2002, has spurred tremendous residential growth in that area with numerous additional planned unit developments currently in the review and approval process.

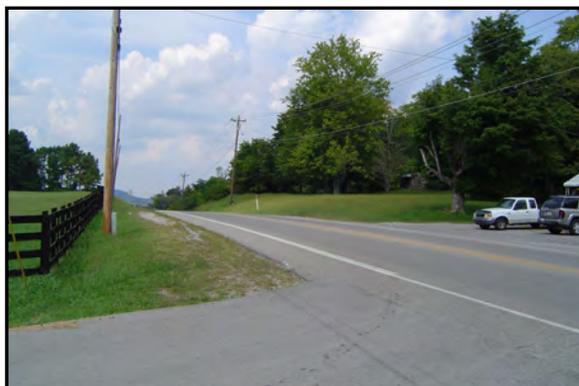
State Route 11 (Nolensville Road) in the study corridor is currently a two lane rural arterial, consisting of two (12) twelve foot travel lanes and shoulder widths varying from two to eight feet (See Photograph 1). The existing right-of-way is predominantly sixty (60) feet throughout with variances at some crossroad locations. Speed limits vary from thirty (30) miles per hour to fifty-five (55) miles per hour along the study section of State Route 11.



Photo 1: State Route 11 (Nolensville Rd) North of State Route 96

Presently, State Route 11 (Nolensville Road) will be improved near the intersection of State Route 96 as part of the overall widening project for that roadway. The State Route 96 roadway widening project is currently in the right-of-way plans development phase.

As shown in the photographs below, there are many locations in which sufficient sight distance from side roads does not exist due to poor horizontal or vertical alignment of State Route 11.



In reviewing the accident data as provided by the department, a number of accidents have occurred at the intersection of State Route 11 and State Route 96. It is anticipated that the signalization and added travel lanes, currently under design, should minimize these occurrences.

Numerous creeks and blue-line streams cross or lie within close proximity of State Route 11 within the study area. The most significant stream is Mill Creek which approaches the project corridor near Sanford Road and extends northward to the project end at the Williamson/Davidson County line. In addition to these stream crossings, several churches, cemeteries, and three (3) known National Register Historic properties are within the study corridor. The Bostick Female Academy, Bank of Nolensville building (Photograph 2), and George W. Morton House (Photograph 3) are all located directly adjacent to the existing State Route 11 (Nolensville Road) right-of-way.



Photo 2: Former Bank of Nolensville (Red brick building)



Photo 3: George W. Morton House (Right of State Route 11)

With the initial traffic data provided by the department (TDOT Mapping & Statistics) for the base and design year ADT's and design hour volumes, current development traffic volumes unaccounted for in this data were then incorporated for capacity analyses purposes.

**TABLE 1
ROADWAY CAPACITY ANALYSIS OF SR-11 (NOLENSVILLE RD)**

SEGMENT	2009	2029
Section I: From State Route 840 to State Route 96	D	E
Section II: From State Route 96 to Sanford Road	D	E
Section III: From Sanford Road to Oldham Drive	C	F
Section IV: From Oldham Drive to Burkitt Road	E	F

As shown in Table 1, based upon the existing conditions, State Route 11 (Nolensville Road) is expected to operate at a Level of Service E or worse in the design year (2029). The detailed traffic analysis is contained within the appendix of this report.

PROPOSED IMPROVEMENTS

In order to improve the safety and operation of State Route 11 (Nolensville Road), various lane configuration improvements were developed. As determined by the capacity analysis performed for the base and design year traffic, two travel lanes in both the north and southbound direction will be needed for acceptable operation. Capacity analysis was performed and is shown below in Table 2 for the additional travel lanes needed along State Route 11 (Nolensville Road).

**TABLE 2
ROADWAY CAPACITY ANALYSIS OF SR-11 (NOLENSVILLE RD)**

SEGMENT	2009	2029
Section I: From State Route 840 to State Route 96	A	B
Section II: From State Route 96 to Sanford Road	A	A
Section III: From Sanford Road to Oldham Drive	A	C
Section IV: From Oldham Drive to Burkitt Road	A	C

SECTION I

Section I begins at the interchange of State Route 840 and extends northward to the intersection of State Route 96, approximately 0.5 miles. As discussed previously, this segment of State Route 11 (Nolensville Road) will be widened to include three (3) travel lanes with signalization of the State Route 96 intersection to be incorporated into the current widening project along State Route 96 (*Project No. 94011-1246-14*).

While the currently designed traffic signal at the State Route 96 intersection allows for sufficient operation in the design year, roadway capacity analysis shows the need for four travel lanes and a center turn lane along Section I.

As shown in the functional plans contained in the appendix of this report, additional widening for the proposed laneage is to be towards the east of State Route 11 (Nolensville Road). With the National Register of Historic Places property (Bostick Female Academy) along the west side of State Route 11, symmetrical roadway widening could not be accomplished. While the current design plans depict a three (3) lane roadway section, it is recommended that the right-of-way necessary for the future five lanes be acquired under that project. At the time of this study, right-of-way plans development were underway.

Total estimated cost for the additional laneage and right-of-way outlined for Section I is approximately \$1,089,000. A detailed summary of all of the costs associated with this estimate is included in the appendix of this report.

SECTION II

Section II begins at the intersection of State Route 96 and ends at the intersection of Sanford Road, approximately 5.7 miles. Due to the close proximity of development along State Route 11, a five-lane curb and gutter typical section is proposed from the State Route 96 intersection north to Mullens Road. The proposed design speed through this segment of Nolensville Road around Triune is forty-five (45) miles per hour. Due to the topography, retaining walls will be necessary in areas of extreme cuts and fills to avoid impacting various residences and the Wilson Creek Primitive Baptist Church. The proposed right-of-way width required from State Route 96 to Mullens Road varies between ninety-two (92) and one hundred four (104) feet.

From Mullens Road northward to Sanford Road, State Route 11 is to contain five-travel lanes within a proposed right-of-way width of two-hundred (200) feet (See Figure 1). Much of the development surrounding Nolensville Road in this area is rural and agricultural in nature. All of the widening in Section II is to be along the existing roadway, with minor shifts to avoid sensitive locations and to improve the existing sight distance deficiencies in this section.

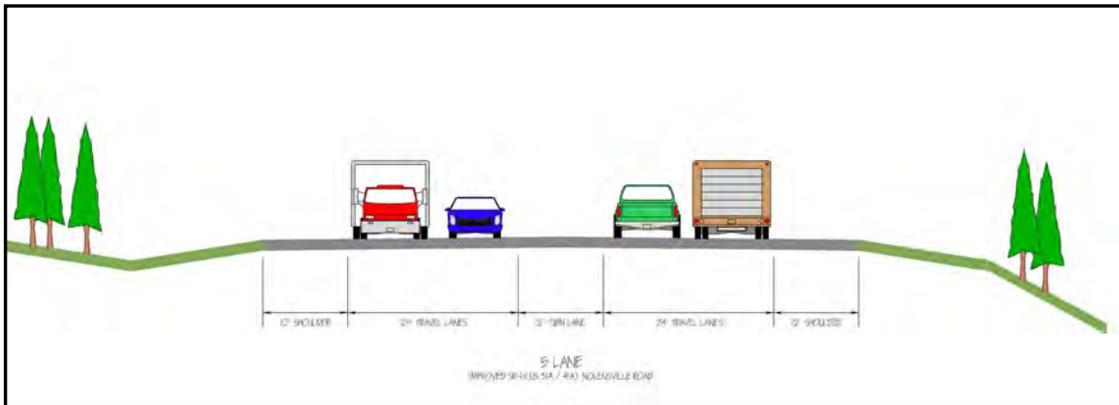


Figure 1: Proposed Five-Lane Rural Typical Section

Total estimated cost for the improvements outlined for Section II is approximately \$26,010,000. A detailed summary of all of the costs associated with this estimate is included in the appendix of this report.

SECTION III

Section III begins at the intersection of Sanford Road and extends 1.8 miles to Oldham Drive. Residential and fringe commercial development begins to become more dense as State Route 11 traverses northward to the Nolensville Historic District near Clovercroft and Rocky Fork Road. The Historic District is comprised of various antique shops, churches, and businesses within close proximity to the existing roadway. In order to provide the needed traffic lanes through this area, two alternates of improvement have been developed.

ALTERNATE A

Alternate A would provide five travel lanes from Sanford Road to 0.2 miles south of Clovercroft Road within a proposed right-of-way width of ninety-two (92) feet. Curb and gutter, sidewalks and bike lanes would be provided on both the east and west side of Nolensville Road. Within this segment, the existing bridge over Mill Creek south of the Nolensville Printing Company would require widening for the proposed roadway improvements.

At 0.2 miles south of Clovercroft Road, near the Nolensville Fire Department, a proposed “Southern Gateway” to the Historic District is proposed (See Photograph 4). With Clovercroft Road realigned south of the Nolensville Cemetery, a new intersection is proposed to be constructed. This intersection is to be designed as a roundabout. At this location, northbound traffic will continue north along existing Nolensville Road with southbound traffic traveling on new alignment approximately five hundred (500) feet west of the present location of Nolensville Road. This proposed one-way pair of roadways will include two lanes northbound and two lanes southbound. All proposed improvements along existing Nolensville Road can be accomplished within the existing right-of-way which varies from sixty (60) to sixty-six (66) feet.



Photo 4: Location of Proposed “Southern Gateway” Roundabout

The southbound lanes are to be constructed within a proposed right-of-way of fifty-six (56) feet. Curb and gutter, bike lanes and sidewalks along both the west and east of the southbound lanes are to be included. Due to the close proximity of the flood plain of the blue-line stream east of the Historic District, the alignment of the southbound one-way pair will require the acquisition of one residence and one commercial establishment (Nolensville Family Dentistry). This southbound one-way roadway also crosses the eastern portion of the Nolensville Cemetery, which at the present time is vacant, although it has been subdivided into plots. Approximately 78 plots would be acquired in

order to tie to the proposed “Southern Gateway” roundabout. In order to provide access to the Historic District and adequate traffic flow, an east/west connection between the one-way pairs is proposed. Sam Donald Road would be relocated to the south of its present location (See Photograph 5) and be aligned with the existing intersection of Rocky Fork Road (See Photograph 6). Both of these roadways will remain as two-way operation.



Photo 5: Sam Donald Road (Present Location)



Photo 6: Rocky Fork Road (View West towards Relocated Sam Donald Road)

To provide better circulation for traffic within the Historic District, it is also proposed to abandon the existing connection of Sam Donald Road at Nolensville Road and extend King Street towards the east between The Curly Willow and Williams Grocery (See Photograph 7). Access to the Nolensville Cemetery will be provided at Relocated Clovercroft Road south of the cemetery location.



Photo 7: Future King Street Extension (South of Williams Grocery)

Both one-way pairs would converge immediately south of the existing bridge along Nolensville Road over Mill Creek. This convergence would provide an area suitable for landscaping and serve as the “Northern Triangle Gateway” to the Historic District. As part of the improvements along the northbound one-way roadway, an exclusive left turn lane would provide motorists the opportunity to return southward or to the east via Sam Donald Road. From the northern gateway to Oldham Drive, Nolensville Road would contain five-travel lanes within a proposed minimum right-of-way of ninety-two (92) feet. The previously mentioned structure over Mill Creek would require widening for this five-lane section as well as the signalization of Sunset Road (See Photograph 8). At the time of this study, a new elementary school is currently under construction as well as various other residential developments along Sunset Road. The Town of Nolensville has immediate plans to signalize this intersection; however, some future modifications would be required to accommodate the proposed widening along Nolensville Road.

Total estimated cost for the improvements outlined for Section III Alternate A is approximately \$9,318,000. A detailed summary of all of the costs associated with this estimate is included in the appendix of this report.



Photo 8: View East Along Sunset Road at State Route 11

ALTERNATE B

Alternate B would provide five travel lanes from Sanford Road to 0.5 miles south of Clovercroft Road within a proposed right-of-way width of ninety-two (92) feet for a section length of 1.9 miles. Curb and gutter, sidewalks, and bike lanes would be provided on both the east and west side of Nolensville Road. Within this segment, the existing bridge over Mill Creek south of the Nolensville Printing Company would require widening for the proposed roadway improvements.

At 0.5 miles south of Clovercroft Road, a proposed “Southern Gateway” to the Historic District is proposed. This gateway would be a roundabout with motorists given the opportunity to travel northward along existing Nolensville Road or to traverse the roundabout and continue north along Relocated State Route 11. This realignment of State Route 11 would extend towards the west of the Historic District and would be comprised of four travel lanes with a raised grass median within a proposed right-of-way width of one hundred ten (110) feet (See Figure 2). Bike lanes, curb and gutter, and sidewalks would be included within the proposed typical section. Two (2) intersections would be created along Relocated State Route 11. Clovercroft Road would be a T-type intersection with signalized control provided. North of this location, Sam Donald Road would serve as the “Western Gateway” roundabout with a connection extending eastward to the Historic District. As with Alternate A, the proposed improvements would include relocating the existing intersection of Sam Donald Road and Nolensville Road to the south between The Curly Willow and Williams Grocery.

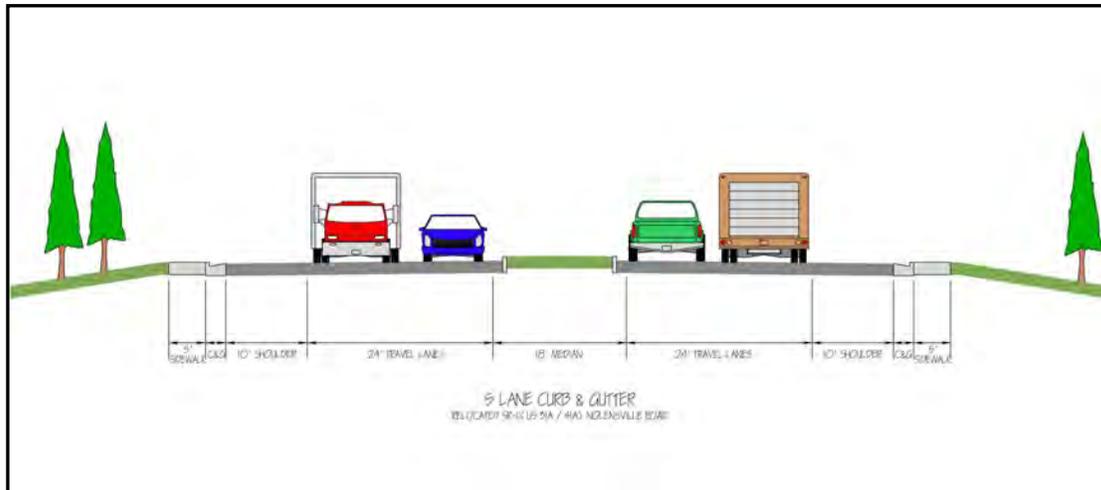


Figure 2: Proposed Five-Lane Boulevard Typical Section

Relocated State Route 11 would tie to existing Nolensville Road at the intersection of Sunset Road. This intersection would serve as the “Northern Gateway” with access provided to the Historic District.

The proposed realignment of State Route 11 towards the west approximately 1,200 feet of the present location, would require two (2) new structures over a blue-line stream as well as Mill Creek. It is also anticipated that two residential relocations would be necessary to construct the proposed improvements near the “Southern Gateway” roundabout.

Total estimated cost for the improvements outlined for Section III Alternate B is approximately \$12,615,000. A detailed summary of all of the costs associated with this estimate is included in the appendix of this report.

SECTION IV

Section IV begins at the intersection of Oldham Drive and extends 2.1 miles to the Williamson/Davidson County line near Burkitt Road.

Residential and commercial development is located along State Route 11 within this section, with most lying on the east side of the roadway (See photographs on following page). Mill Creek parallels the roadway and lies in close proximity of the proposed widening near Kidd Road. This widening will include a total of five travel lanes with shoulders and curb and gutter within proposed right-of-way widths of ninety-two (92) and one hundred four (104) feet. The one hundred four (104) foot typical section is consistent with the proposed widening of State Route 11 from the Davidson County line north to State Route 254 (Old Hickory Boulevard), as proposed in a previously approved Advanced Planning Report (See Figure 3 on following page).



Photographs: Commercial Area North of Sunset Road

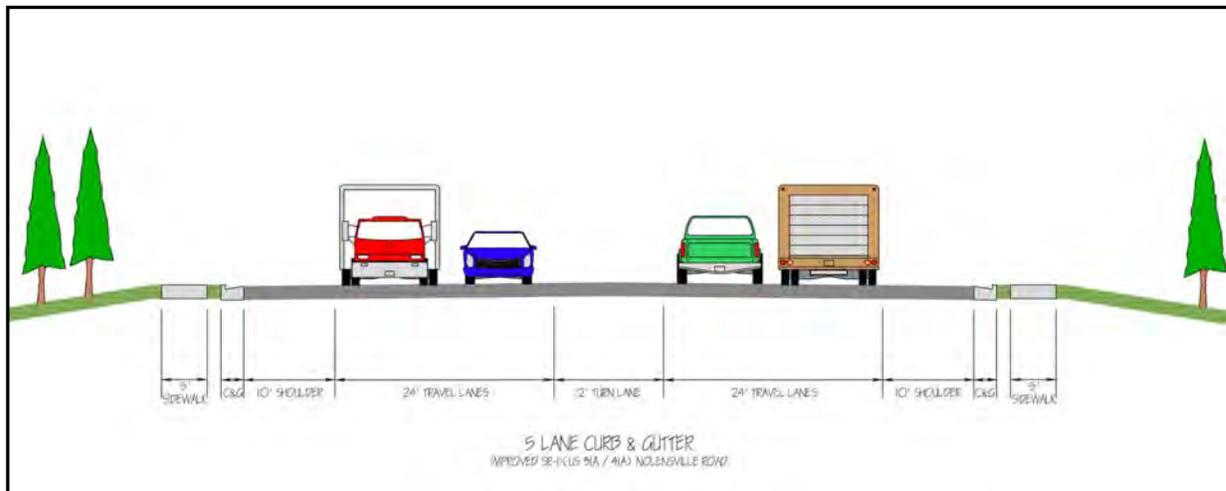


Figure 3: Section IV Five-Lane Typical Section

One (1) National Registered Historic property was discovered within Section IV directly adjacent to the roadway. The George W. Morton House (Site #184) lies along the east side of State Route 11; therefore, proposed widening would occur towards the west with no acquisition of right-of-way along this east side. All of the widening in Section IV is to occur along the existing roadway, with minor shifts such as the above, to avoid sensitive locations.

Total estimated cost for the improvements outlined for Section IV is approximately \$10,711,000. A detailed summary of all of the costs associated with this estimate is included in the appendix of this report.

ENVIRONMENTAL CONSIDERATIONS

Formal environmental studies have not been conducted for the route as part of this study, although the recommendations outlined previously have been made to avoid the locations as recommended by the departments Historic Preservation Section based upon a preliminary review of the study corridor. Upon completion of this study and at the appropriate time, formal environmental studies will be undertaken by the department (TDOT).

INTELLIGENT TRANSPORTATION SYSTEMS (ITS)

There are no recommendations at this time to incorporate any ITS measures with this improvement project.

DISPOSITION OF EXISTING ROUTE

All proposed improvements for Sections I, II, IIIA, and IV developed for State Route 11 (Nolensville Road) are recommended to be along the existing route with no portions of the roadway to be abandoned. Section IIIB proposes to relocate a portion of State Route 11 near the Historic District. These improvements would recommend existing Nolensville Road remain to provide critical local access.

PUBLIC INVOLVMENT AND LOCAL PARTICIPATION

Throughout the development of this study, elected city officials, the MPO, Williamson County, Town of Nolensville (including the Mayor and Board of Alderman), and local residents have participated in the early planning process in both project meetings as well as the Public Meeting held on October 26, 2004. Significant support for the overall goal of providing improved transportation infrastructure for this growing area exists and full cooperation has been provided during this study.

In particular interest to the Town of Nolensville, is the preservation of the Towns Historic District. For Section III, both Alternates A and B have been developed to blend with the Town's character and as proposed would allow for future enhancement projects to be incorporated. Enhancement projects which would include various types of streetscape improvements or bicycle and pedestrian greenways were specifically outlined as of interest to the Town of Nolensville and its residents. On the following page a rendering of a view along State Route 11 (Nolensville Road) in the Historic District as it exists today and how a future streetscape improvement might appear is shown. This rendering was developed and utilized for the Public Meeting held during the study development.



Existing State Route 11 (Nolensville Road) in Historic District



*Rendering of State Route 11 (Nolensville Road) in Historic District
With Streetscape Improvements*

FIELD INVESTIGATION

Numerous field investigations of the project corridor were made throughout the study process. A concept review meeting was held with the following individuals on September 30, 2004:

Ed Cole	TDOT Chief Engineer of Planning & Environment
Charles Knapper	Mayor of Nolensville
Tommy Dugger	Vice-Mayor of Nolensville
Rich Woodruff	Nolensville Town Engineer
Gary Webber	TDOT Planning Division
Bill Hart	TDOT Planning Division
Brandon Darks	TDOT Planning Division
Charles Graves	TDOT Functional Design
Julie Lamb	TDOT Environmental Division
Derrick Tibbs	TDOT Community Relations
Phil Clinard, P.E.	Clinard Engineering Associates, LLC
Tom Clinard, P.E.	Clinard Engineering Associates, LLC

Nolensville Board of Mayor & Alderman & Local Citizens

James Clark III	Gail Phillips
Betty Friedlander	Dana Ausbrooks
David Ausbrooks	Joe Curtsinger
Larry Felts	Frank Wilson
Ted Behar	Larry Gardner
Bob Haines	

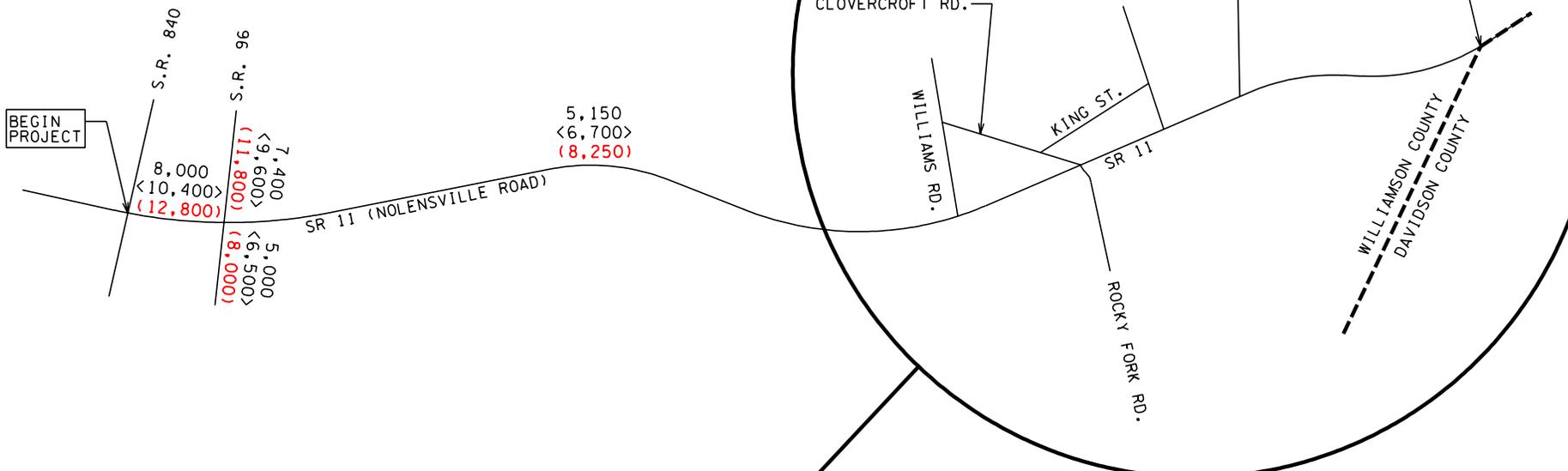
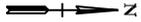
The Public Meeting for the project was held on October 26, 2004 at the Nolensville Elementary School with the following project team and TDOT representatives present:

Ed Cole	TDOT Chief Engineer of Planning & Environment
Dennis Cook	TDOT Assistant Chief Engineer of Planning & Environment
Jeanne Stevens	TDOT Planning Division
Charles Graves	TDOT Functional Design
Dudley Daniels	TDOT Functional Design
Gary Webber	TDOT Planning Division
Houston Greer	TDOT Right-of-Way Office
Bob Allen	TDOT Environmental Division
Sylvia Odum	TDOT Title VI Program
Julie Oaks	TDOT Community Relations
David Thompson	TDOT Environmental Division
Tom Clinard, P.E.	Clinard Engineering Associates, LLC
Phil Clinard, P.E.	Clinard Engineering Associates, LLC

CHECK LIST OF DETERMINANTS FOR LOCATION STUDY

If any of the following facilities or ESE categories are located within the project area or corridor, place an "x" in the blank opposite the item. Where more than one alternate is to be considered, place its letter designation in the blank.

1. Agricultural land usage	X
2. Airport (existing or proposed)	
3. Commercial area, shopping center	X
4. Floodplains	X
5. Forested land	X
6. Historical, cultural, or natural landmark	X
7. Industrial park, factory	
8. Institutional usages	
a. School or other educational institution	X
b. Church or other religious institution	X
c. Hospital or other medical facility	
d. Public building, e.g., fire station	X
e. Defense installation	
9. Recreation usages	
a. Park or recreational area	X
b. Game preserve or wildlife area	
10. Residential establishment	X
11. Urban area, town, city, or community	X
(Nolensville, TN, Population 1,618)	
12. Waterway, lake, pond, river, stream, spring	X
(Permit required: Coast Guard	
Section 404	X
TVA Section 26a review	
NPDES	X
Aquatic Resource Alteration	X
13. Other	
14. Location coordinated with local officials	X
15. Railroad crossings	
16. Hazardous materials site	



BEGIN PROJECT

S.R. 840

S.R. 96

8,000
<10,400>
(12,800)

>7,400
<9,600>
(11,800)
>5,000
<9,500>
(8,000)

SR 11 (NOLENSVILLE ROAD)

5,150
<6,700>
(8,250)

CLOVERCROFT RD.

WILLIAMS RD.

KING ST.

SAM DONALD RD.

SUNSET RD.

SR 11
ROCKY FORK RD.

END PROJECT

WILLIAMSON COUNTY
DAVIDSON COUNTY

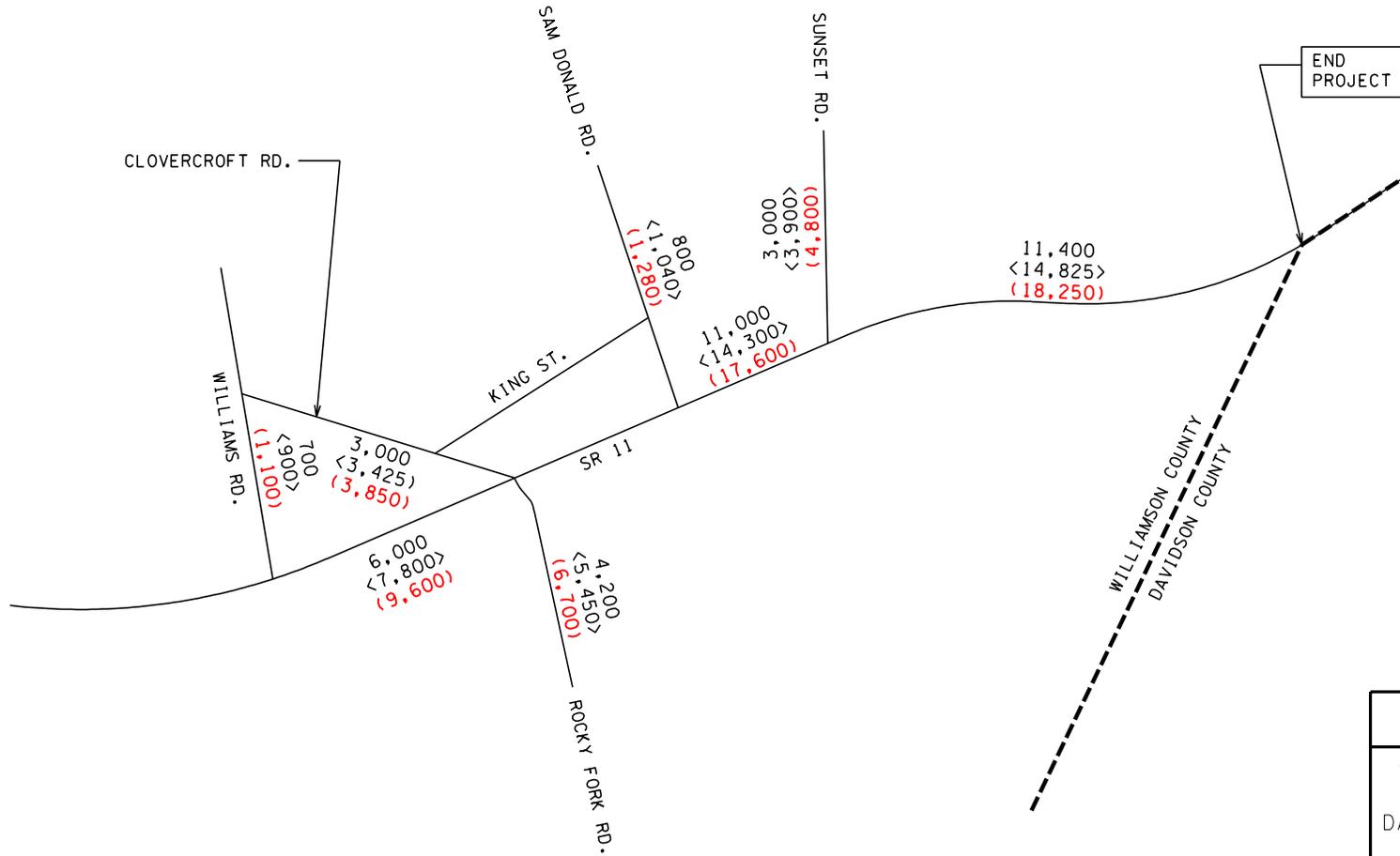
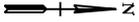
SEE NEXT SHEET

ADT (EXISTING)*

SR 11 (US 31A/41A)
FROM SR 840 TO
DAVIDSON COUNTY LINE
WILLIAMSON COUNTY

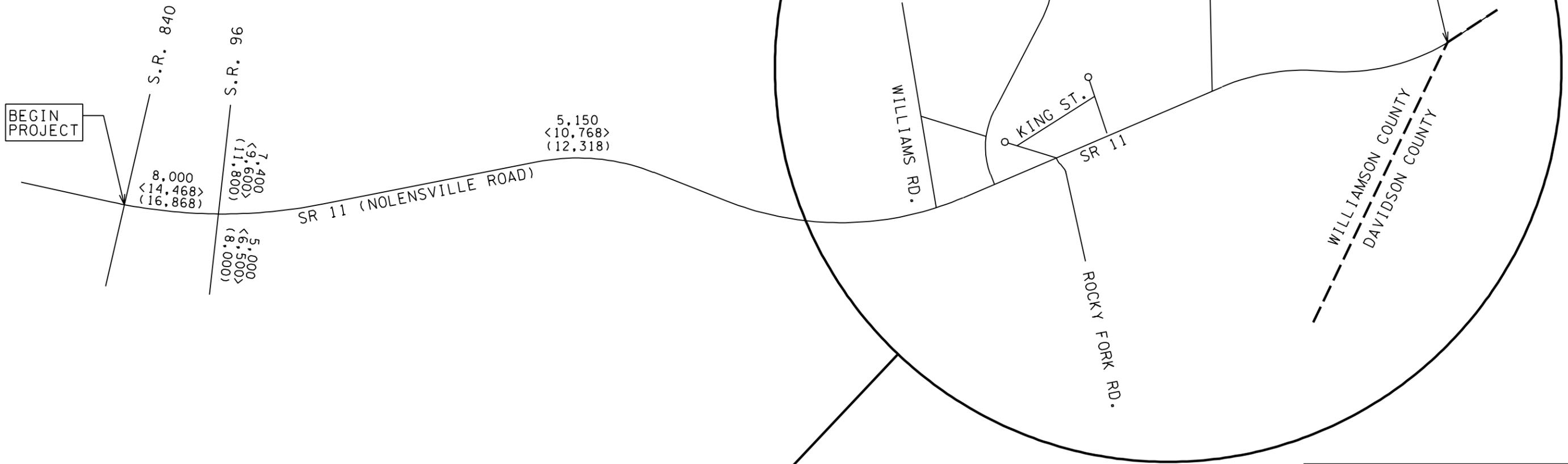
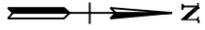
2009 ADT - 000
2019 ADT - <000>
2029 ADT - (000)
N.T.S.

* BASE TRAFFIC VOLUMES AS PROVIDED BY TDOT
(WITHOUT BENT CREEK OR WAGGONER PROPERTY DEVELOPMENTS)



END PROJECT

ADT (EXISTING)*	
SR 11 (US 31A/41A) FROM SR 840 TO DAVIDSON COUNTY LINE WILLIAMSON COUNTY	
2009 ADT -	000
2019 ADT -	<000>
2029 ADT -	(000)
N. T. S.	

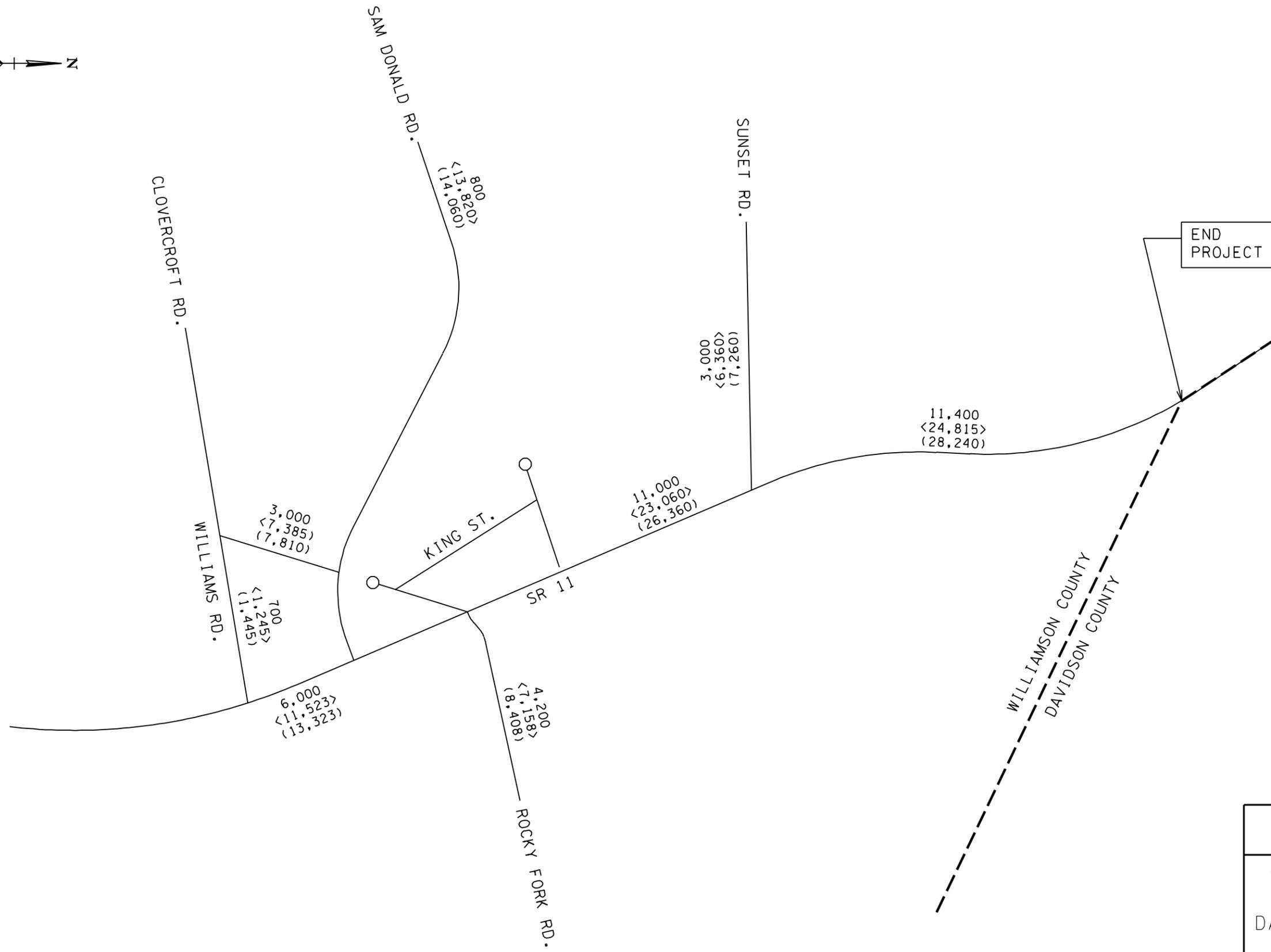
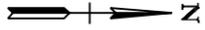


SEE NEXT SHEET

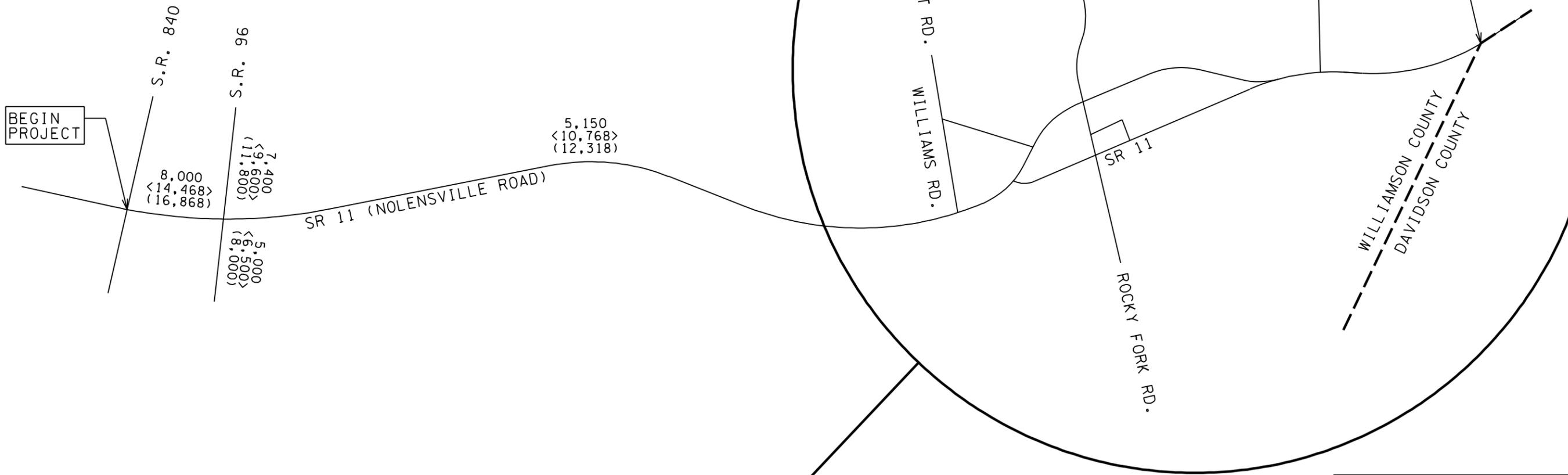
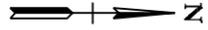
ADT (EXISTING)

SR 11 (US 31A/41A)
FROM SR 840 TO
DAVIDSON COUNTY LINE
WILLIAMSON COUNTY

2009 ADT - 000
2019 ADT - <000>
2029 ADT - (000)
N.T.S.



ADT (EXISTING)	
SR 11 (US 31A/41A) FROM SR 840 TO DAVIDSON COUNTY LINE WILLIAMSON COUNTY	
2009 ADT -	000
2019 ADT -	<000>
2029 ADT -	(000)
N.T.S.	

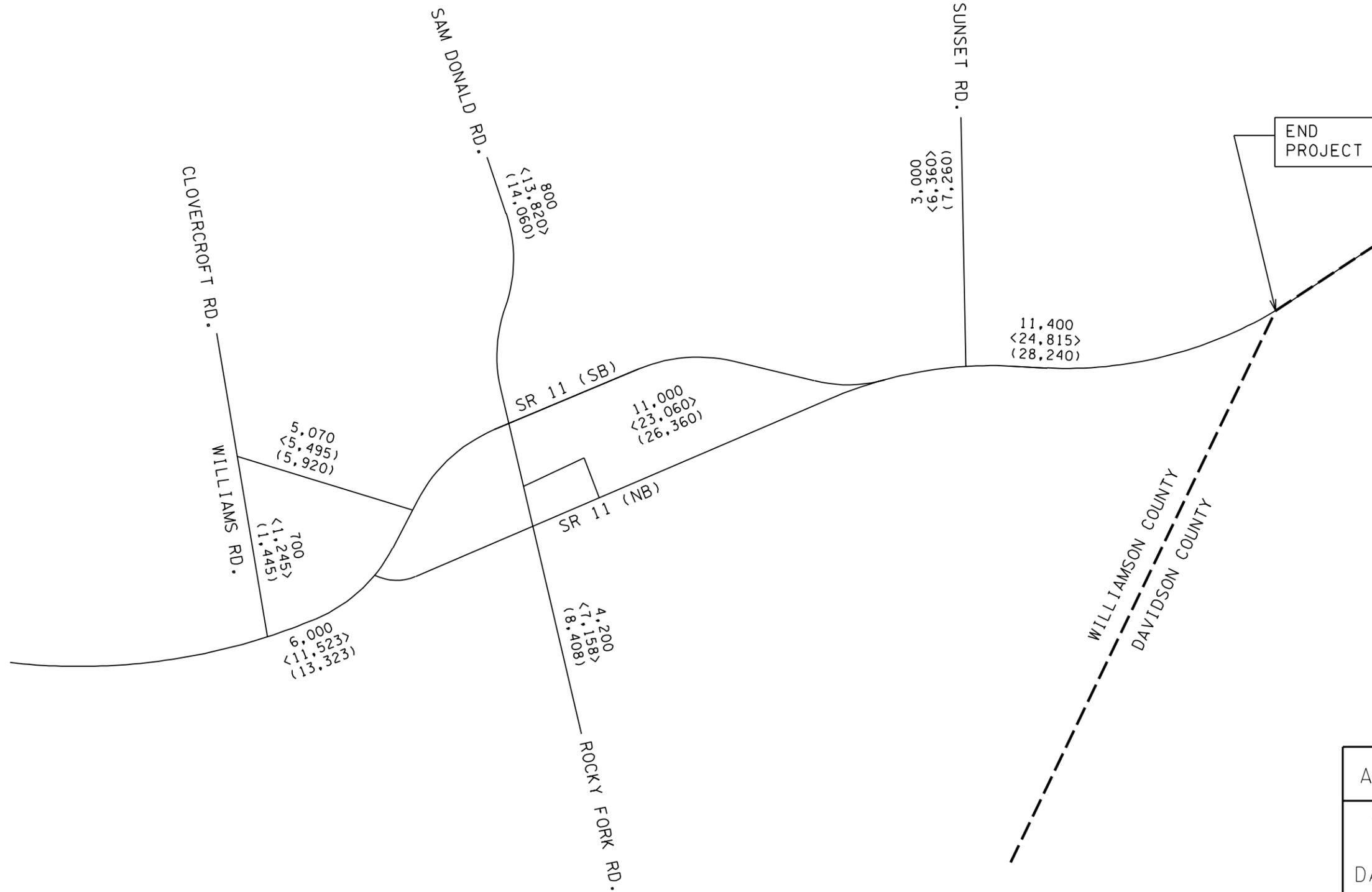
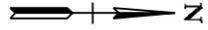


SEE NEXT SHEET

ADT (PROP. ALTERNATE A)

SR 11 (US 31A/41A)
FROM SR 840 TO
DAVIDSON COUNTY LINE
WILLIAMSON COUNTY

2009 ADT - 000
2019 ADT - <000>
2029 ADT - (000)
N.T.S.

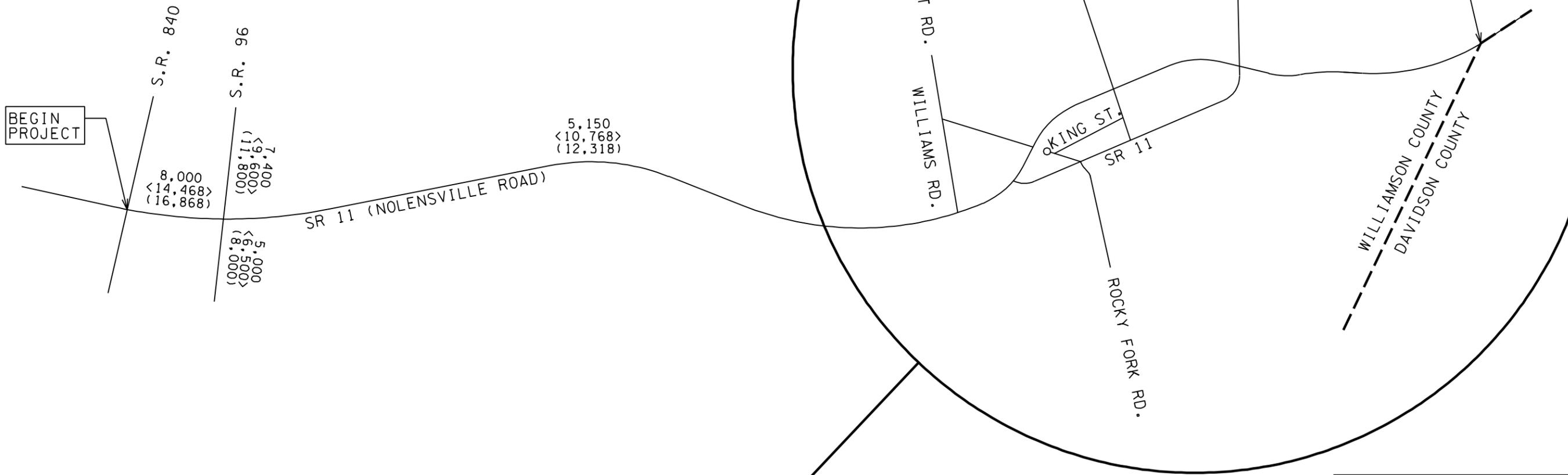
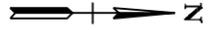


END PROJECT

ADT (PROP. ALTERNATE A)

SR 11 (US 31A/41A)
FROM SR 840 TO
DAVIDSON COUNTY LINE
WILLIAMSON COUNTY

2009 ADT - 000
2019 ADT - <000>
2029 ADT - (000)
N.T.S.



8,000
<14,468>
(16,868)

7,400
<9,600>
(11,800)

5,000
<6,500>
(8,000)

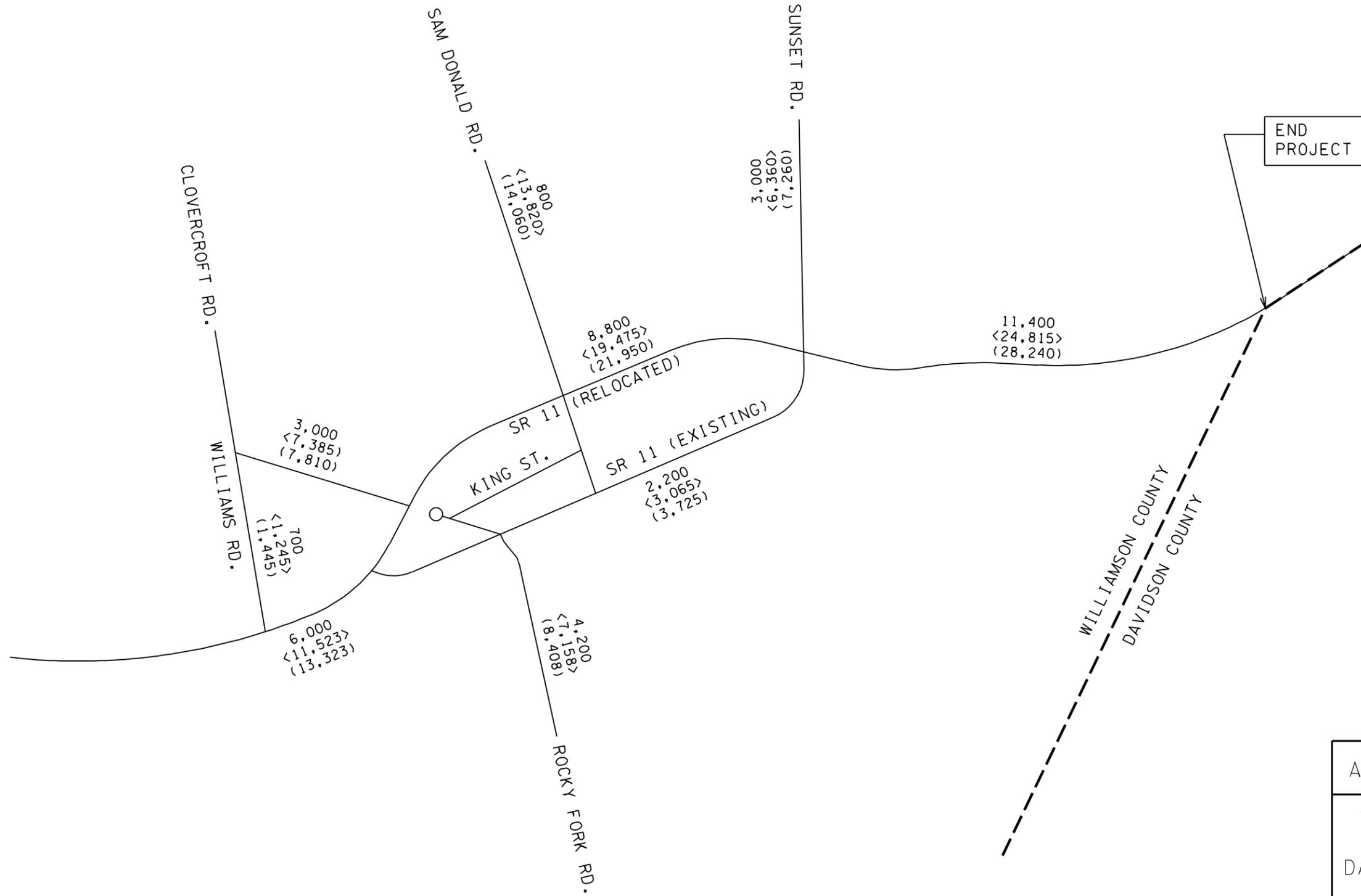
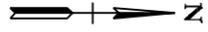
5,150
<10,768>
(12,318)

SEE NEXT SHEET

ADT (PROP. ALTERNATE B)

SR 11 (US 31A/41A)
FROM SR 840 TO
DAVIDSON COUNTY LINE
WILLIAMSON COUNTY

2009 ADT - 000
2019 ADT - <000>
2029 ADT - (000)
N.T.S.



ADT (PROP. ALTERNATE B)

SR 11 (US 31A/41A)
FROM SR 840 TO
DAVIDSON COUNTY LINE
WILLIAMSON COUNTY

2009 ADT - 000
2019 ADT - <000>
2029 ADT - (000)
N.T.S.

TDOT DESIGN CRITERIA FOR LOCATION AND DESIGN PHASE

ROUTE: S.R. 11 (Nolensville Rd.) ALTERNATE: _____ SECTION: I
 REGION: III COUNTY: Williamson PROJECT NO.: _____
 LOCATION FROM: State Route 840
 TO: State Route 96

PRESENT ADT (2009)	8,000
FUTURE ADT (2029)	16,868
PERCENT TRUCKS	6 % (ADT) 4 % (DHV)
DHV (2029)	2,024
FUNCTIONAL CLASSIFICATION	Rural Minor Arterial
MINIMUM DESIGN SPEED	45 MPH
ACCESS CONTROL	N/A
MAXIMUM CURVE	7°51' (0.04 Max S.E.)
MAXIMUM GRADE	6%
MINIMUM STOPPING SIGHT DISTANCE	360'
SURFACE WIDTH	60'
NUMBER OF LANES	4
USABLE SHOULDER WIDTH	2 @ 4' with 2' C&G
MEDIAN WIDTH	12' Center Turn Lane
MINIMUM RIGHT OF WAY	92'
SIGNALIZATION	Yes *

REMARKS: * Intersection of State Route 96 and State Route 11 to be constructed under Project Number 94011-1246-14.

TDOT DESIGN CRITERIA FOR LOCATION AND DESIGN PHASE

ROUTE: S.R. 11 (Nolensville Rd.) ALTERNATE: _____ SECTION: II
 REGION: III COUNTY: Williamson PROJECT NO.: _____
 LOCATION FROM: State Route 96
 TO: Mullens Road

PRESENT ADT (2009)	5,150
FUTURE ADT (2029)	12,318
PERCENT TRUCKS	6 % (ADT) 4 % (DHV)
DHV (2029)	1,478
FUNCTIONAL CLASSIFICATION	Rural Minor Arterial
MINIMUM DESIGN SPEED	45 MPH
ACCESS CONTROL	N/A
MAXIMUM CURVE	7°51' (0.04 Max S.E.)
MAXIMUM GRADE	6%
MINIMUM STOPPING SIGHT DISTANCE	360'
SURFACE WIDTH	60'
NUMBER OF LANES	4
USABLE SHOULDER WIDTH	2 @ 4'-10' with 2' C&G
MEDIAN WIDTH	12' Center Turn Lane
MINIMUM RIGHT OF WAY	Varies from 92' - 104'
SIGNALIZATION	N/A

REMARKS: _____

TDOT DESIGN CRITERIA FOR LOCATION AND DESIGN PHASE

ROUTE: S.R. 11 (Nolensville Rd.) ALTERNATE: _____ SECTION: II
 REGION: III COUNTY: Williamson PROJECT NO.: _____
 LOCATION FROM: Mullens Road
 TO: Sanford Road

PRESENT ADT (2009)	5,150
FUTURE ADT (2029)	12,318
PERCENT TRUCKS	6 % (ADT) 4 % (DHV)
DHV (2029)	1,478
FUNCTIONAL CLASSIFICATION	Rural Minor Arterial
MINIMUM DESIGN SPEED	45 MPH
ACCESS CONTROL	N/A
MAXIMUM CURVE	7°51' (0.04 Max S.E.)
MAXIMUM GRADE	6%
MINIMUM STOPPING SIGHT DISTANCE	360'
SURFACE WIDTH	60'
NUMBER OF LANES	4
USABLE SHOULDER WIDTH	2 @ 12' (10' stab.)
MEDIAN WIDTH	12' Center Turn Lane
MINIMUM RIGHT OF WAY	200'
SIGNALIZATION	NA

REMARKS: _____

TDOT DESIGN CRITERIA FOR LOCATION AND DESIGN PHASE

ROUTE: S.R. 11 (Nolensville Rd.) ALTERNATE: A SECTION: III
 REGION: III COUNTY: Williamson PROJECT NO.: _____
 LOCATION FROM: Sanford Road
 TO: Oldham Drive

PRESENT ADT (2009)	11,000
FUTURE ADT (2029)	26,360
PERCENT TRUCKS	6 % (ADT) 4 % (DHV)
DHV (2029)	3,163
FUNCTIONAL CLASSIFICATION	Rural Minor Arterial
MINIMUM DESIGN SPEED	45 MPH
ACCESS CONTROL	N/A
MAXIMUM CURVE	7°51' (0.04 Max S.E.)
MAXIMUM GRADE	6%
MINIMUM STOPPING SIGHT DISTANCE	360'
SURFACE WIDTH	48' - 60'
NUMBER OF LANES	4
USABLE SHOULDER WIDTH	2 @ 4' with 2' C&G
MEDIAN WIDTH	Varies from 0' - 12'
MINIMUM RIGHT OF WAY	Varies from 56' - 92'
SIGNALIZATION	Yes *

REMARKS: * Intersection of State Route 11 and Sunset Road.

TDOT DESIGN CRITERIA FOR LOCATION AND DESIGN PHASE

ROUTE: S.R. 11 (Nolensville Rd.) ALTERNATE: B SECTION: III
 REGION: III COUNTY: Williamson PROJECT NO.: _____
 LOCATION FROM: Sanford Road
 TO: Oldham Drive

PRESENT ADT (2009)	8,800
FUTURE ADT (2029)	21,950
PERCENT TRUCKS	6 % (ADT) 4 % (DHV)
DHV (2029)	2,634
FUNCTIONAL CLASSIFICATION	Rural Minor Arterial
MINIMUM DESIGN SPEED	45 MPH
ACCESS CONTROL	N/A
MAXIMUM CURVE	7°51' (0.04 Max S.E.)
MAXIMUM GRADE	6%
MINIMUM STOPPING SIGHT DISTANCE	360'
SURFACE WIDTH	Varies from 60' - 66'
NUMBER OF LANES	4
USABLE SHOULDER WIDTH	2 @ 4'-10' with 2' C&G
MEDIAN WIDTH	Varies from 12' - 18'
MINIMUM RIGHT OF WAY	Varies from 92' - 110'
SIGNALIZATION	Yes *

REMARKS: * Intersection of relocated State Route 11 and Clovercroft Road

TDOT DESIGN CRITERIA FOR LOCATION AND DESIGN PHASE

ROUTE: S.R. 11 (Nolensville Rd.) ALTERNATE: _____ SECTION: IV
 REGION: III COUNTY: Williamson PROJECT NO.: _____
 LOCATION FROM: Oldham Drive
 TO: Burkitt Road

PRESENT ADT (2009)	11,400
FUTURE ADT (2029)	28,240
PERCENT TRUCKS	4 % (ADT) 3 % (DHV)
DHV (2029)	3,389
FUNCTIONAL CLASSIFICATION	Rural Minor Arterial
MINIMUM DESIGN SPEED	45 MPH
ACCESS CONTROL	N/A
MAXIMUM CURVE	7°51' (0.04 Max S.E.)
MAXIMUM GRADE	6%
MINIMUM STOPPING SIGHT DISTANCE	360'
SURFACE WIDTH	60'
NUMBER OF LANES	4
USABLE SHOULDER WIDTH	2 @ 4' - 10' with C&G
MEDIAN WIDTH	12' Center Turn Lane
MINIMUM RIGHT OF WAY	Varies from 92' - 104'
SIGNALIZATION	

REMARKS: _____

COST DATA SHEET

PROJECT: State Route 11 (Nolensville Road)
 LOCATION: Williamson County
 LENGTH: 0.5 Miles
 CROSS SECTION:

RIGHT-OF-WAY

Land, Improvements & Damages	(# Acres	0.70)	\$30,000
Incidentals	(# Tracts	4)	\$20,000
Relocation Payments	(Residences	0)	\$0
	(Businesses	0)	\$0
	(Non-Profits	0)	\$0
Total Right-Of-Way Cost			\$50,000

UTILITY RELOCATION

Reimbursable	\$0
Non-Reimbursable	\$213,000
Total Utility Adjustment Cost	
	\$213,000

CONSTRUCTION

Clear and Grubbing	\$3,000
Earthwork	\$80,000
Pavement Removal	\$32,000
Drainage (Erosion Control = \$50,000)	\$150,000
Structures (Preserv'n/Demol'n = \$0)	\$0
Railroad Crossing	\$0
Paving	\$213,000
Retaining Walls	\$0
Maintenance of Traffic	\$50,000
Topsoil	\$0
Seeding	\$0
Sodding	\$34,000
Signing	\$10,000
Signalization	\$30,000
Fence	\$0
Rock Walls	\$0
Guardrail	\$0
Rip-rap or Slope Protection	\$1,000
Other Construction Items (8.5%)	\$51,000
Mobilization	\$34,000
10% Engineering and Contigencies	\$69,000
Total Construction Cost	
	\$757,000
Preliminary Engineering (10% of Constr.)	
	\$69,000

TOTAL ESTIMATED COST (SECTION I) \$1,089,000

COST DATA SHEET

PROJECT: State Route 11 (Nolensville Road)
 LOCATION: Williamson County
 LENGTH: 5.7 Miles
 CROSS SECTION:

RIGHT-OF-WAY

Land, Improvements & Damages	(# Acres	77.60)	\$4,260,000
Incidentals	(# Tracts	88)	\$440,000
Relocation Payments	(Residences	9)	\$90,000
	(Businesses	0)	\$0
	(Non-Profits	0)	
Total Right-Of-Way Cost			\$4,790,000

UTILITY RELOCATION

Reimbursable	\$0
Non-Reimbursable	\$2,394,000
Total Utility Adjustment Cost	
	\$2,394,000

CONSTRUCTION

Clear and Grubbing	\$163,000
Earthwork	\$2,870,000
Pavement Removal	\$336,000
Drainage (Erosion Control =	\$570,000)
Structures (Preserv'n/Demol'n =	\$204,000)
Railroad Crossing	\$0
Paving	\$6,378,000
Retaining Walls	\$200,000
Maintenance of Traffic	\$250,000
Topsoil	\$53,000
Seeding	\$23,000
Sodding	\$172,000
Signing	\$40,000
Signalization	\$60,000
Fence	\$0
Rock Walls	\$0
Guardrail	\$57,000
Rip-rap or Slope Protection	\$9,000
Other Construction Items (8.5%)	\$1,020,000
Mobilization	\$632,000
10% Engineering and Contingencies	\$1,569,000
Total Construction Cost	
	\$17,257,000
Preliminary Engineering (10% of Constr.)	
	\$1,569,000

TOTAL ESTIMATED COST (SECTION II) \$26,010,000

COST DATA SHEET

PROJECT: State Route 11 (Nolensville Road)
 LOCATION: Williamson County
 LENGTH: 1.8 Miles
 CROSS SECTION:

RIGHT-OF-WAY

Land, Improvements & Damages	(# Acres	11.20)	\$930,000
Incidentals	(# Tracts	54)	\$270,000
Relocation Payments	(Residences	1)	\$10,000
	(Businesses	1)	\$25,000
	(Non-Profits	0)	
Total Right-Of-Way Cost			\$1,235,000

UTILITY RELOCATION

Reimbursable	\$0
Non-Reimbursable	\$936,000
Total Utility Adjustment Cost	
	\$936,000

CONSTRUCTION

Clear and Grubbing	\$45,000
Earthwork	\$690,000
Pavement Removal	\$85,000
Drainage (Erosion Control =	\$230,000)
Structures (Preserv'n/Demol'n =	\$0)
Railroad Crossing	\$0
Paving	\$1,841,000
Retaining Walls	\$0
Maintenance of Traffic	\$150,000
Topsoil	\$0
Seeding	\$0
Sodding	\$336,000
Signing	\$20,000
Signalization	\$30,000
Fence	\$0
Rock Walls	\$0
Guardrail	\$19,000
Rip-rap or Slope Protection	\$3,000
Other Construction Items (8.5%)	\$371,000
Mobilization	\$279,000
10% Engineering and Contingencies	\$596,000
Total Construction Cost	
	\$6,551,000
Preliminary Engineering (10% of Constr.)	
	\$596,000

TOTAL ESTIMATED COST (SECTION III A) \$9,318,000

COST DATA SHEET

PROJECT: State Route 11 (Nolensville Road)
 LOCATION: Williamson County
 LENGTH: 1.9 Miles
 CROSS SECTION:

RIGHT-OF-WAY

Land, Improvements & Damages	(# Acres	22.30)	\$1,315,000
Incidentals	(# Tracts	38)	\$190,000
Relocation Payments	(Residences	2)	\$20,000
	(Businesses	0)	\$0
	(Non-Profits	0)	
Total Right-Of-Way Cost			\$1,525,000

UTILITY RELOCATION

Reimbursable	\$0
Non-Reimbursable	\$494,000
Total Utility Adjustment Cost	
	\$494,000

CONSTRUCTION

Clear and Grubbing	\$62,000
Earthwork	\$1,270,000
Pavement Removal	\$54,000
Drainage (Erosion Control = \$190,000)	\$950,000
Structures (Preserv'n/Demol'n = \$0)	\$2,856,000
Railroad Crossing	\$0
Paving	\$2,285,000
Retaining Walls	\$0
Maintenance of Traffic	\$100,000
Topsoil	\$0
Seeding	\$0
Sodding	\$266,000
Signing	\$20,000
Signalization	\$135,000
Fence	\$0
Rock Walls	\$0
Guardrail	\$22,000
Rip-rap or Slope Protection	\$3,000
Other Construction Items (8.5%)	\$439,000
Mobilization	\$368,000
10% Engineering and Contingencies	\$883,000
Total Construction Cost	
	\$9,713,000
Preliminary Engineering (10% of Constr.)	
	\$883,000

TOTAL ESTIMATED COST (SECTION III B) \$12,615,000

COST DATA SHEET

PROJECT: State Route 11 (Nolensville Road)
 LOCATION: Williamson County
 LENGTH: 2.1 Miles
 CROSS SECTION:

RIGHT-OF-WAY

Land, Improvements & Damages	(# Acres	9.40)	\$854,000
Incidentals	(# Tracts	57)	\$285,000
Relocation Payments	(Residences	2)	\$20,000
	(Businesses	0)	\$0
	(Non-Profits	0)	
Total Right-Of-Way Cost			\$1,159,000

UTILITY RELOCATION

Reimbursable	\$0
Non-Reimbursable	\$1,197,000
Total Utility Adjustment Cost	
	\$1,197,000

CONSTRUCTION

Clear and Grubbing	\$39,000
Earthwork	\$940,000
Pavement Removal	\$133,000
Drainage (Erosion Control =	\$210,000)
Structures (Preserv'n/Demol'n =	\$42,000)
Railroad Crossing	\$0
Paving	\$2,992,000
Retaining Walls	\$0
Maintenance of Traffic	\$200,000
Topsoil	\$0
Seeding	\$0
Sodding	\$297,000
Signing	\$100,000
Signalization	\$0
Fence	\$0
Rock Walls	\$0
Guardrail	\$31,000
Rip-rap or Slope Protection	\$3,000
Other Construction Items (8.5%)	\$492,000
Mobilization	\$313,000
10% Engineering and Contingencies	\$696,000
Total Construction Cost	
	\$7,659,000
Preliminary Engineering (10% of Constr.)	
	\$696,000

TOTAL ESTIMATED COST (SECTION IV) \$10,711,000

Index Of Sheets

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2-2C	TYPICAL SECTIONS
3-28	LAYOUT SHEETS

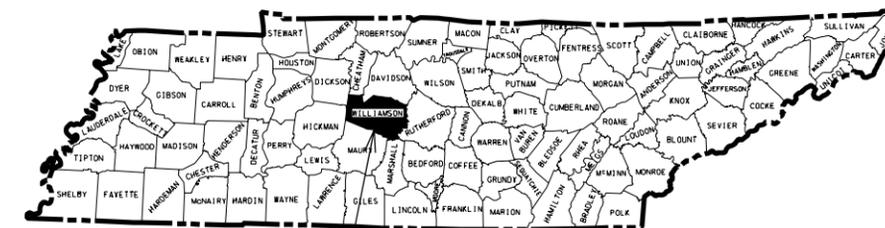
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING

TENN.	YEAR	SHEET NO.
	2004	1
FED. AID PROJ. NO.		
STATE PROJ. NO.		

WILLIAMSON COUNTY

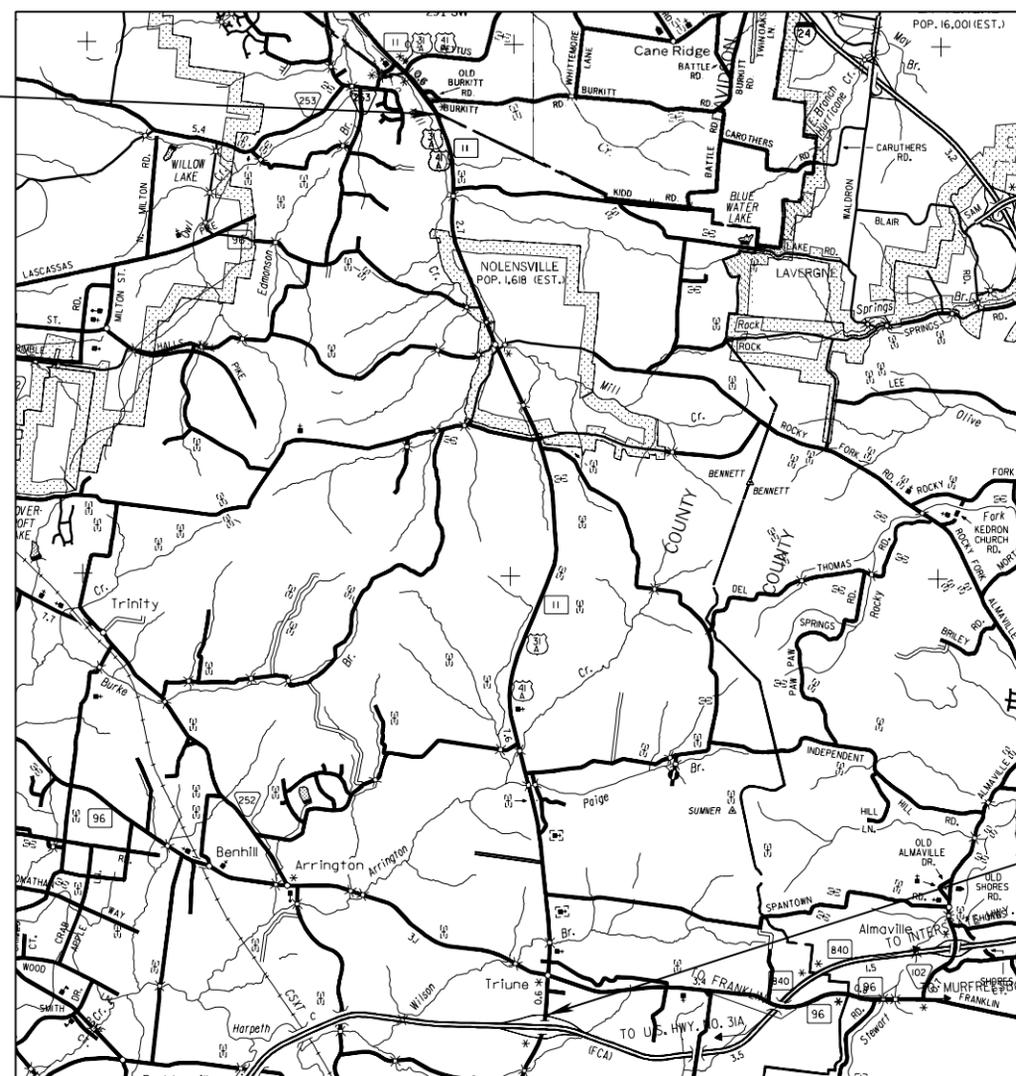
STATE ROUTE 11 (NOLENSVILLE ROAD)
FROM STATE ROUTE 840 TO WILLIAMSON/DAVIDSON COUNTY LINE

STATE HIGHWAY NO. 11 F.A.H.S. NO. 31A/41A



PROJECT LOCATION

END PROJECT



BEGIN PROJECT

SPECIAL NOTES

PROPOSALS MAY BE REJECTED BY THE COMMISSIONER IF ANY OF THE UNIT PRICES CONTAINED THEREIN ARE OBVIOUSLY UNBALANCED, EITHER EXCESSIVE OR BELOW THE REASONABLE COST ANALYSIS VALUE.

THIS PROJECT TO BE CONSTRUCTED UNDER THE STANDARD SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION DATED MARCH 1, 1995 AND ADDITIONAL SPECIFICATIONS AND SPECIAL PROVISIONS CONTAINED IN THE PLANS AND IN THE PROPOSAL CONTRACT

TDOT ROAD SP. SV. 2 _____

DESIGNER CLINARD ENGINEERING ASSOCIATES, LLC

TRAFFIC DATA	
ADT (2009)	7,780
ADT (2029)	16,528
DHV (2029)	1,653
D	60 - 40
T (ADT)	5 %
T (DHV)	3 %
V	45 MPH

APPROVED: _____
DIRECTOR, DESIGN DIVISION

DATE: _____

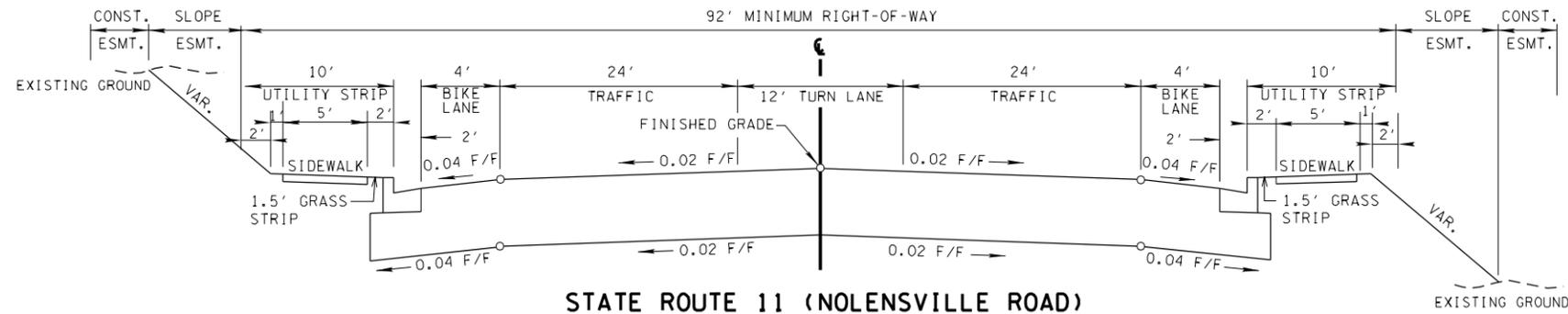
APPROVED: _____
COMMISSIONER

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

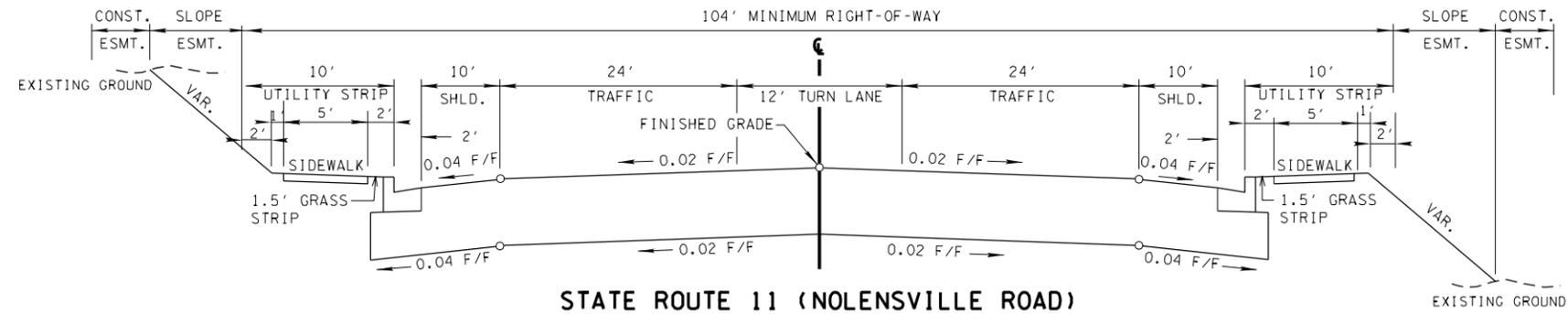
APPROVED: _____
DIVISION ADMINISTRATOR DATE

\$\$\$\$SYTIME\$\$\$\$
\$\$\$\$DGN\$PEC\$\$\$\$

TYPE	YEAR	PROJECT NO.	SHEET NO.
	2004		2C



**STATE ROUTE 11 (NOLENSVILLE ROAD)
 SECTION IV**
 (BASED ON STD. DWG. RD01-TS-6)
 FROM OLDHAM DRIVE TO BRITAIN ROAD



**STATE ROUTE 11 (NOLENSVILLE ROAD)
 SECTION IV**
 (BASED ON STD. DWG. RD01-TS-6)
 FROM BRITAIN ROAD TO BURKITT ROAD

\$\$\$\$SYTIME\$\$\$\$
 \$\$\$DIGSPEC\$\$\$\$

TYPE	YEAR	PROJECT NO.	SHEET NO.
	2004		3



\$\$\$\$SYTIME\$\$\$\$
 \$\$\$DIGSPEC\$\$\$

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

**STATE ROUTE 11
 (NOLENSVILLE ROAD)**

FROM STATE ROUTE 840 TO
 WILLIAMSON/DAVIDSON COUNTY LINE

WILLIAMSON COUNTY, TENNESSEE

SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
	2004		4



\$\$\$\$SYTIME\$\$\$\$
 \$\$\$DIGNSPEC\$\$\$

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

**STATE ROUTE 11
 (NOLENSVILLE ROAD)**

FROM STATE ROUTE 840 TO
 WILLIAMSON/DAVIDSON COUNTY LINE

WILLIAMSON COUNTY, TENNESSEE

SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
	2004		5



\$\$\$\$SYTIME\$\$\$\$
 \$\$\$DIGSPEC\$\$\$

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 STATE ROUTE 11
 (NOLENSVILLE ROAD)
 FROM STATE ROUTE 840 TO
 WILLIAMSON/DAVIDSON COUNTY LINE
 WILLIAMSON COUNTY, TENNESSEE
 SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
	2004		6



\$\$\$\$SYTIME\$\$\$\$
 \$\$\$DIGSPEC\$\$\$

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 STATE ROUTE 11
 (NOLENSVILLE ROAD)
 FROM STATE ROUTE 840 TO
 WILLIAMSON/DAVIDSON COUNTY LINE
 WILLIAMSON COUNTY, TENNESSEE
 SCALE: 1" = 100'

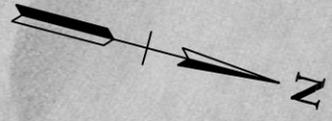
TYPE	YEAR	PROJECT NO.	SHEET NO.
	2004		7



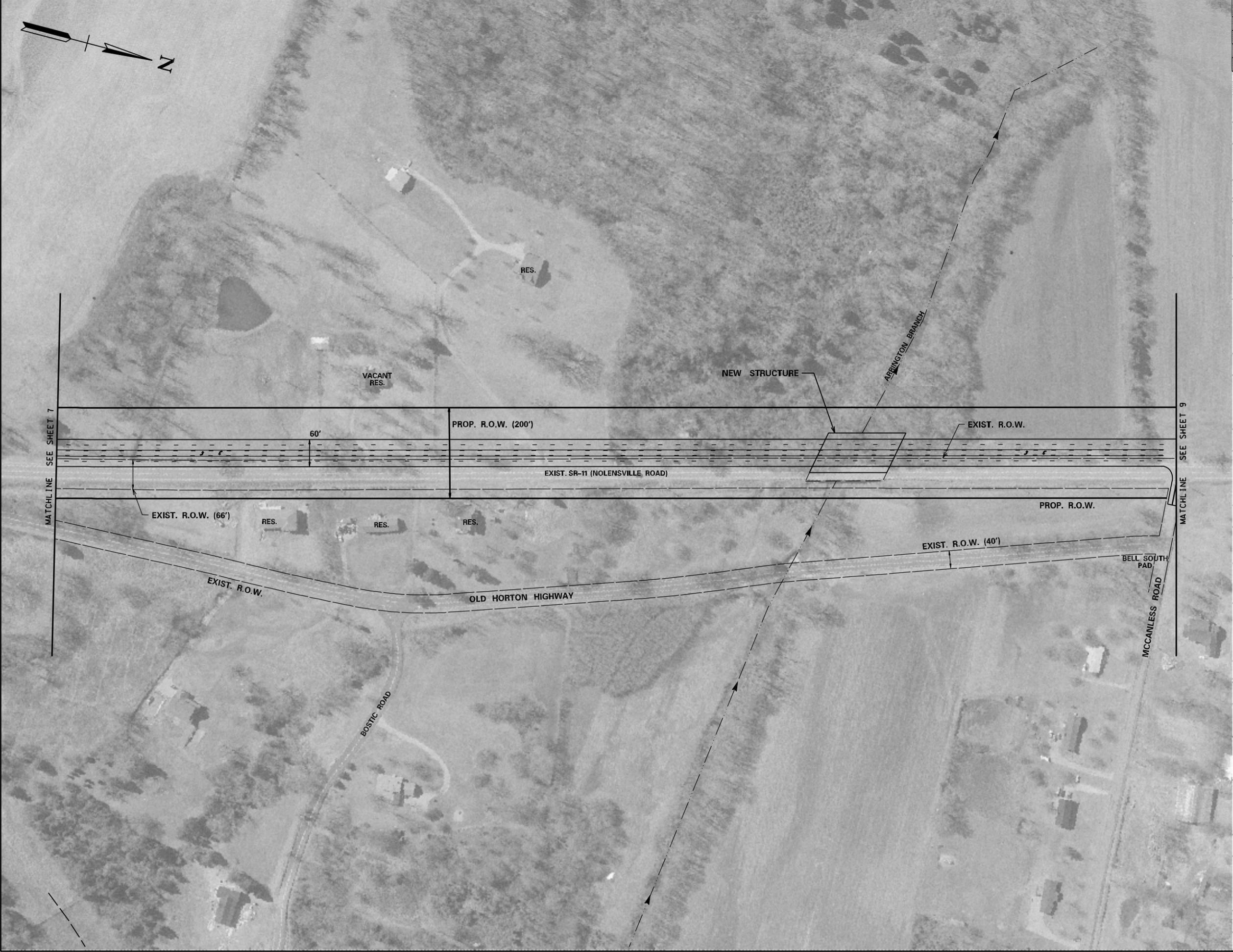
\$\$\$\$SYTIME\$\$\$\$
 \$\$\$DIGSPEC\$\$\$

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 STATE ROUTE 11
 (NOLENSVILLE ROAD)
 FROM STATE ROUTE 840 TO
 WILLIAMSON/DAVIDSON COUNTY LINE
 WILLIAMSON COUNTY, TENNESSEE
 SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
	2004		8



\$\$\$\$SYTIME\$\$\$\$
 \$\$\$DGN\$PEC\$\$\$\$



STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 STATE ROUTE 11
 (NOLENSVILLE ROAD)
 FROM STATE ROUTE 840 TO
 WILLIAMSON/DAVIDSON COUNTY LINE
 WILLIAMSON COUNTY, TENNESSEE
 SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
	2004		9



\$\$\$\$SYTIME\$\$\$\$
 \$\$\$DGN\$PEC\$\$\$\$

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

STATE ROUTE 11
 (NOLENSVILLE ROAD)

FROM STATE ROUTE 840 TO
 WILLIAMSON/DAVIDSON COUNTY LINE

WILLIAMSON COUNTY, TENNESSEE

SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
	2004		10



\$\$\$\$SYTIME\$\$\$\$
 \$\$\$DINGSPEC\$\$\$\$

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

STATE ROUTE 11
 (NOLENSVILLE ROAD)

FROM STATE ROUTE 840 TO
 WILLIAMSON/DAVIDSON COUNTY LINE

WILLIAMSON COUNTY, TENNESSEE

SCALE: 1" = 100'

TENNESSEE D.O.T.
 DESIGN DIVISION
 FILE NO.

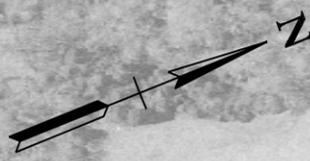
TYPE	YEAR	PROJECT NO.	SHEET NO.
	2004		11



\$\$\$\$SYTIME\$\$\$\$
 \$\$\$DIGSPEC\$\$\$\$

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 STATE ROUTE 11
 (NOLENSVILLE ROAD)
 FROM STATE ROUTE 840 TO
 WILLIAMSON/DAVIDSON COUNTY LINE
 WILLIAMSON COUNTY, TENNESSEE
 SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
	2004		13



\$\$\$\$SYTIME\$\$\$\$
 \$\$\$DGN\$PEC\$\$\$\$



STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

STATE ROUTE 11
 (NOLENSVILLE ROAD)

FROM STATE ROUTE 840 TO
 WILLIAMSON/DAVIDSON COUNTY LINE

WILLIAMSON COUNTY, TENNESSEE

SCALE: 1" = 100'

TENNESSEE D.O.T.
 DESIGN DIVISION
 FILE NO.



TYPE	YEAR	PROJECT NO.	SHEET NO.
	2004		14

\$\$\$\$SYTIME\$\$\$\$
 \$\$\$DIGSPEC\$\$\$



STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

**STATE ROUTE 11
 (NOLENSVILLE ROAD)**

FROM STATE ROUTE 840 TO
 WILLIAMSON/DAVIDSON COUNTY LINE

WILLIAMSON COUNTY, TENNESSEE

SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
	2004		15



STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

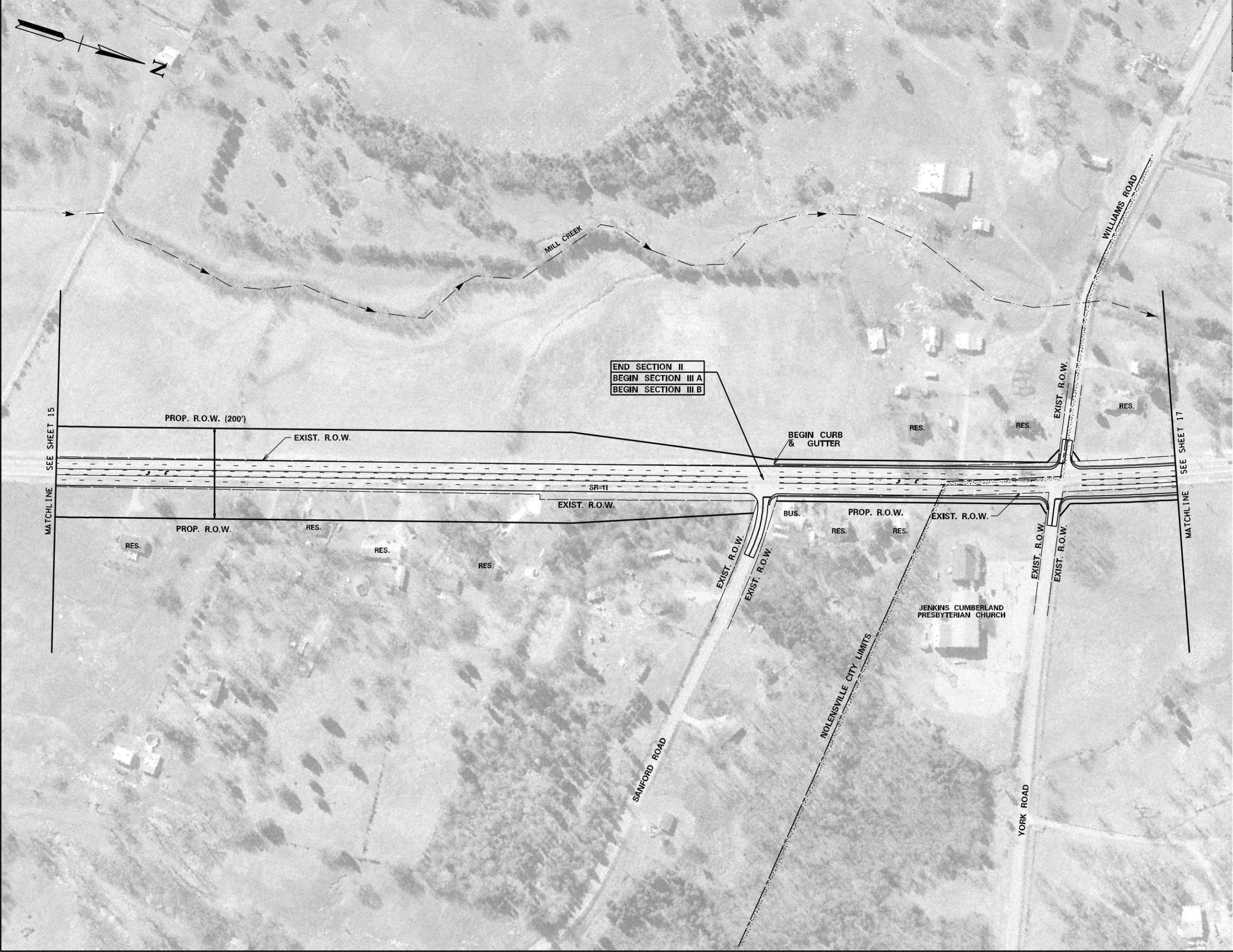
STATE ROUTE 11
 (NOLENSVILLE ROAD)

FROM STATE ROUTE 840 TO
 WILLIAMSON/DAVIDSON COUNTY LINE

WILLIAMSON COUNTY, TENNESSEE

SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
	2004		16



\$\$\$\$SYTIME\$\$\$\$
 \$\$\$DIGSPEC\$\$\$

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 STATE ROUTE 11
 (NOLENSVILLE ROAD)
 FROM STATE ROUTE 840 TO
 WILLIAMSON/DAVIDSON COUNTY LINE
 WILLIAMSON COUNTY, TENNESSEE
 SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
	2004		17



\$\$\$\$SYTIME\$\$\$\$
 \$\$\$DIGNSPEC\$\$\$

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 STATE ROUTE 11
 (NOLENSVILLE ROAD)
 FROM STATE ROUTE 840 TO
 WILLIAMSON/DAVIDSON COUNTY LINE
 WILLIAMSON COUNTY, TENNESSEE
 SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
	2004		18



 \$\$\$\$\$\$SYTIME\$\$\$\$\$\$
 \$\$\$\$\$\$DGN\$SPEC\$\$\$\$\$\$

ALTERNATE A

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION

STATE ROUTE 11
 (NOLENSVILLE ROAD)

FROM STATE ROUTE 840 TO
 WILLIAMSON/DAVIDSON COUNTY LINE

WILLIAMSON COUNTY, TENNESSEE

SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
	2004		19



AREA TO BE SCARIFIED, TOPSOILED, AND SEED

ALTERNATE A
 STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
STATE ROUTE 11
 (NOLENSVILLE ROAD)
 FROM STATE ROUTE 840 TO
 WILLIAMSON/DAVIDSON COUNTY LINE
 WILLIAMSON COUNTY, TENNESSEE
 SCALE: 1" = 100'

SYTIME
 DESIGN

MATCHLINE SEE SHEET 18

MATCHLINE SEE SHEET 20

TENNESSEE D.O.T.
 DESIGN DIVISION
 FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
	2004		20



SYTIME
 DESIGN

ALTERNATE A
 STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 STATE ROUTE 11
 (NOLENSVILLE ROAD)
 FROM STATE ROUTE 840 TO
 WILLIAMSON/DAVIDSON COUNTY LINE
 WILLIAMSON COUNTY, TENNESSEE
 SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
	2004		21



MATCHLINE SEE SHEET 22

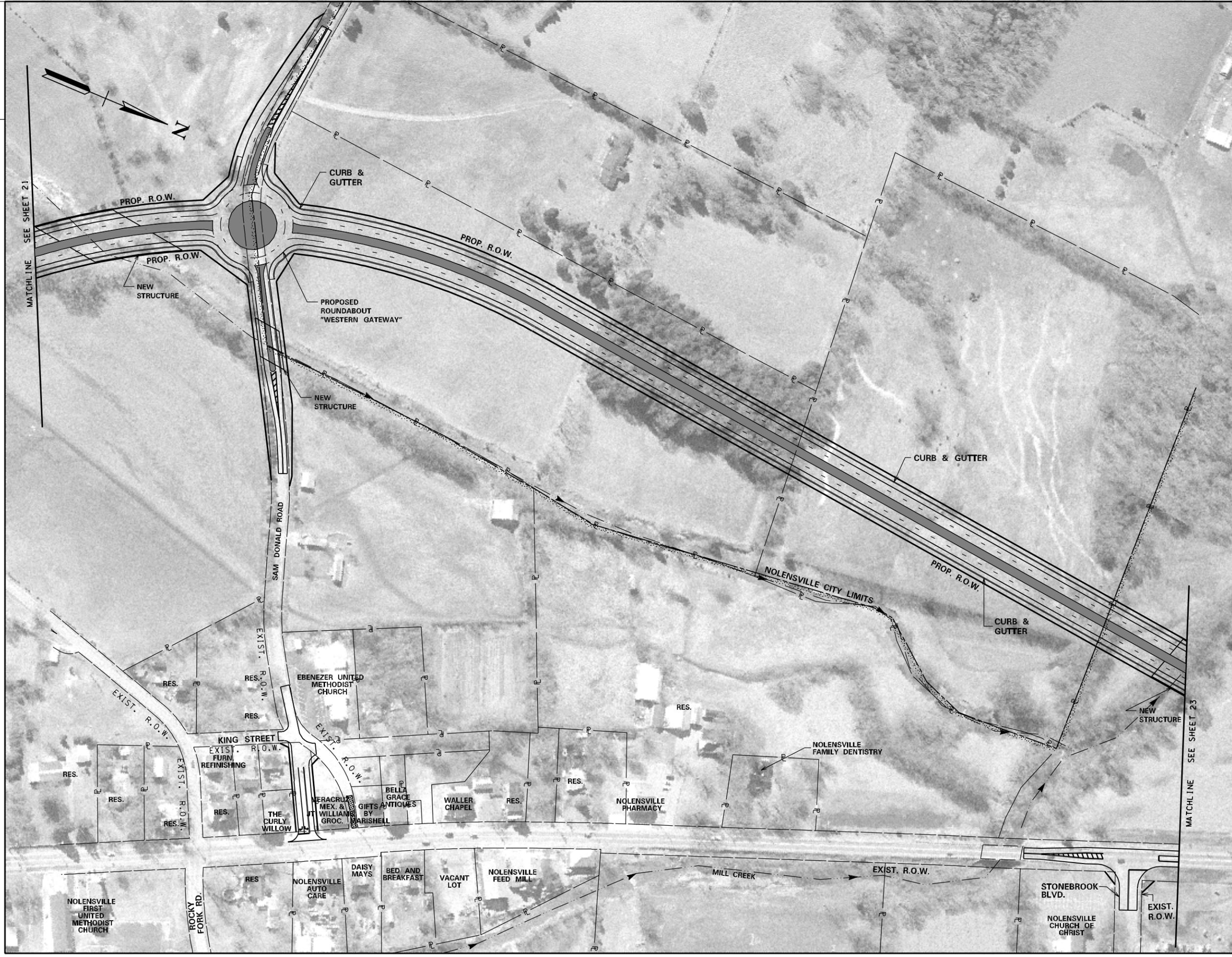
MATCHLINE SEE SHEET 17

AREA TO BE SCARIFIED, TOPSOILED, AND SEED

ALTERNATE B
 STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 STATE ROUTE 11
 (NOLENSVILLE ROAD)
 FROM STATE ROUTE 840 TO
 WILLIAMSON/DAVIDSON COUNTY LINE
 WILLIAMSON COUNTY, TENNESSEE
 SCALE: 1" = 100'

\$\$\$\$SYTIME\$\$\$\$
 \$\$\$DIGNSPEC\$\$\$\$

TYPE	YEAR	PROJECT NO.	SHEET NO.
	2004		22



AREA TO BE SCARIFIED, TOPSOILED, AND SEEDDED

ALTERNATE B
 STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 STATE ROUTE 11
 (NOLENSVILLE ROAD)
 FROM STATE ROUTE 840 TO
 WILLIAMSON/DAVIDSON COUNTY LINE
 WILLIAMSON COUNTY, TENNESSEE
 SCALE: 1" = 100'

\$\$\$\$SYTIME\$\$\$\$
 \$\$\$DIGNSPEC\$\$\$

TENNESSEE D.O.T.
 DESIGN DIVISION
 FILE NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
	2004		23



\$\$\$\$SYTIME\$\$\$\$
 \$\$\$DIGNSPEC\$\$\$\$

AREA TO BE SCARIFIED,
 TOPSOILED, AND SEEDED

ALTERNATE B
 STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 STATE ROUTE 11
 (NOLENSVILLE ROAD)
 FROM STATE ROUTE 840 TO
 WILLIAMSON/DAVIDSON COUNTY LINE
 WILLIAMSON COUNTY, TENNESSEE
 SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
	2004		24



SYTIME
 DIGSPEC

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 STATE ROUTE 11
 (NOLENSVILLE ROAD)
 FROM STATE ROUTE 840 TO
 WILLIAMSON/DAVIDSON COUNTY LINE
 WILLIAMSON COUNTY, TENNESSEE
 SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
	2004		25



\$\$\$\$SYTIME\$\$\$\$
 \$\$\$DGN\$PEC\$\$\$\$

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 STATE ROUTE 11
 (NOLENSVILLE ROAD)
 FROM STATE ROUTE 840 TO
 WILLIAMSON/DAVIDSON COUNTY LINE
 WILLIAMSON COUNTY, TENNESSEE
 SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
	2004		26



\$\$\$\$SYTIME\$\$\$\$
 \$\$\$DIGNSPEC\$\$\$\$

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 STATE ROUTE 11
 (NOLENSVILLE ROAD)
 FROM STATE ROUTE 840 TO
 WILLIAMSON/DAVIDSON COUNTY LINE
 WILLIAMSON COUNTY, TENNESSEE
 SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
	2004		27



\$\$\$\$SYTIME\$\$\$\$
 \$\$\$DIGSPEC\$\$\$

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 STATE ROUTE 11
 (NOLENSVILLE ROAD)
 FROM STATE ROUTE 840 TO
 WILLIAMSON/DAVIDSON COUNTY LINE
 WILLIAMSON COUNTY, TENNESSEE
 SCALE: 1" = 100'

TYPE	YEAR	PROJECT NO.	SHEET NO.
	2004		28



\$\$\$\$SYTIME\$\$\$\$
 \$\$\$DIGSPEC\$\$\$

 AREA TO BE SCARIFIED, TOPSOILED, AND SEEDED

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 STATE ROUTE 11
 (NOLENSVILLE ROAD)
 FROM STATE ROUTE 840 TO
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 WILLIAMSON COUNTY, TENNESSEE
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