

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

**OFFICE OF DESIGN POLICY & SUPPORT
INTERDEPARTMENTAL CORRESPONDENCE**

FILE P.I. # 0006253 **OFFICE** Design Policy & Support
CSSTP-0006-00(253)
Greene County
GDOT District 2 - Tennille **DATE** 6/2/2015
SR 44 from CR 54/Linger Longer Road to
East Greensboro Bypass
Widening and Road Improvements

FROM  for Brent Story, State Design Policy Engineer

TO SEE DISTRIBUTION

SUBJECT APPROVED CONCEPT REPORT

Attached is the approved Concept Report for the above subject project.

Attachment

DISTRIBUTION:

Glenn Bowman, Director of Engineering
Joe Carpenter, Director of P3/Program Delivery
Genetha Rice-Singleton, Assistant Director of P3/Program Delivery
Albert Shelby, State Program Delivery Engineer
Darryl VanMeter, State Innovative Delivery Engineer
Bobby Hilliard, Program Control Administrator
Cindy VanDyke, State Transportation Planning Administrator
Hiral Patel, State Environmental Administrator
Ben Rabun, State Bridge Engineer
Andrew Heath, State Traffic Engineer
Angela Robinson, Financial Management Administrator
Lisa Myers, State Project Review Engineer
Charles "Chuck" Hasty, State Materials Engineer
Lee Upkins, State Utilities Engineer
Paul Tanner, State Transportation Data Administrator
Attn: Systems & Classification Branch
Richard Cobb, Statewide Location Bureau Chief
Jimmy Smith, District Engineer
Neal O'Brien, District Preconstruction Engineer
Jamie Lindsey, District Utilities Engineer
Eric Wilkinson, Project Manager
BOARD MEMBER - 10th Congressional District

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
PROJECT CONCEPT REPORT**

Project Type: <u>Widening</u>	P.I. Number: <u>0006253</u>
GDOT District: <u>2</u>	County: <u>Greene</u>
Federal Route Number: <u>N/A</u>	State Route Number: <u>44</u>

Project Description: SR 44 widening from CR 54/ Linger Longer Road to Town Creek Blvd, just north of I-20

Submitted for approval:

<u>TranSystems</u>	1/30/15
Consultant Designer & Firm	Date
* <u>Albert V. Shelby III</u> <i>AWB</i>	<u>2-10-15</u>
State Program Delivery Engineer	Date
* <u>Eric Walker</u>	<u>02/02/15</u>
GDOT Project Manager	Date

Recommendation for approval:

* <u>Hiral Patel /KUP</u>	<u>2-19-15</u>
State Environmental Administrator	Date
* <u>Andrew Heath /KUP</u>	<u>5-15-15</u>
State Traffic Engineer	Date
* <u>Lisa Myers /KUP</u>	<u>2-23-15</u>
Project Review Engineer	Date
* <u>Yulonda Pride-Foster /KUP</u>	<u>2-23-15</u>
State Utilities Engineer	Date
<i>FOR</i> * <u>Jimmy Smith /KUP</u>	<u>3-6-15</u>
District Engineer	Date
* <u>Ben Rabun /KUP</u>	<u>5-13-15</u>
State Bridge Engineer	Date

- MPO Area: This project is consistent with the MPO adopted Regional Transportation Plan (RTP)/Long Range Transportation Plan (LRTP).
- Rural Area: This project is consistent with the goals outlined in the Statewide Transportation Plan (SWTP) and/or is included in the State Transportation Improvement Program (STIP).

* <u>Christina L. Naeff</u>	<u>3-18-15</u>
State Transportation Planning Administrator	Date

* Recommendation on file

County: Greene

PROJECT LOCATION MAP

PROJECT NUMBER CSSTP-0006-00(253)



Project: CSSTP-0006-00(253), Greene County, P.I. No. 0006253

Project Description: SR 44 from Linger Longer Road to Town Creek Blvd, just north of I-20

County: Greene

PLANNING AND BACKGROUND

Project Justification Statement:

SR 44 is an existing two-lane north-south route between Linger Longer Road and just north of I-20 in Greene County. The posted speed limit on this roadway is 45/55 MPH. Between the proposed limits; the majority of the SR 44 corridor is functionally classified as a Rural Minor Arterial. This corridor has been designated a Statewide Bicycle route, known as “March to the sea, Spur # 2.” SR 44 was originally identified in a study conducted by GDOT’s Office of Planning and was added to the Department’s Construction Work Program by the Board in 2003.

Based upon current traffic data information, approved by the Office of Planning, the 2014 Average Annual Daily Traffic (AADT), along SR 44 in the area of this project ranges up to 11,000 AADT, which represents a level-of-service “D”. Projected traffic volumes show a corresponding traffic volume range up to 36,730 AADT by the design year 2040 which represents a LOS “F”. LOS “D” and “F” are seen as unacceptable with regards to statewide LOS performance measures as referenced in the 2005-2035 Statewide Transportation Plan (SWTP). Analysis of the last three years of available crash data along this section of SR 44 revealed crash rates below the corresponding statewide average.

On the north, this project would tie into the existing roadway just beyond the northern most I-20 Ramp at Town Creek Blvd. on SR 44. To the south, the project ties into P.I. 0006252, a planned project which also proposes to widen SR 44 to four lanes between CR 54/Linger Longer Road and SR 24/US 441 in Putnam and Greene Counties. The environmental document for P.I. 0006253 includes P.I. 0006252 which together proposes to improve traffic flow on SR 44 between the cities of Eatonton and Greensboro. Logical Termini for these projects has been approved by FHWA.

Based on this information, the proposed limits accommodate the primary purpose of this project, which is to relieve congestion and improve mobility on the SR 44 corridor within Greene County.

Existing conditions: SR 44 is currently a 2 lane roadway with both rural and urban sections from Linger Longer Road to I-20. A typical diamond shape interchange exists at the I-20 crossing. There are two existing concrete bridges, one at Richland Creek and the other at I-20. Two double box culverts are located at Little and Town Creeks. There are three existing signals along the corridor at Carey Station (currently permitted) and the I-20 exit ramps.

Other projects in the area:

P.I. 0006252, SR 44, from US 441 to Linger Longer Road - Widening, Greene County

P.I. 0007528, I-20 at CR 178/Carey Station Road Interchange, Greene County

P.I. 0006944, SR 44 at CR 39/Old Eatonton Rd – Intersection Relocation, Greene County

P.I. 0006605, Greensboro Streetscape Plan – Phase III, Greene County

MPO: N/A - Project not in MPO

TIP #: if applicable

TIA Regional Commission: Middle Georgia RC

RC Project ID (if TIA project) N/A

Congressional District(s): 10

Federal Oversight: PoDI Exempt State Funded Other

Projected Traffic: AADT

Current Year (2014): 11000 Open Year (2020): 22,740

Design Year (2040): 36,730

Traffic Projections Performed by: TranSystems / Qk4

Functional Classification (Mainline): Rural Minor Arterial

Complete Streets - Bicycle, Pedestrian, and/or Transit Standard Warrants:

Warrants met: None Bicycle Pedestrian Transit

County: Greene

This corridor has been designated a Statewide Bicycle route, known as “March to the sea, Spur #2”.

Is this a 3R (Resurfacing, Restoration, & Rehabilitation) Project? No Yes

Pavement Evaluation and Recommendations

Preliminary Pavement Evaluation Summary Report Required? No Yes

Preliminary Pavement Type Selection Report Required? No Yes

Feasible Pavement Alternatives: HMA PCC HMA & PCC

[HMA = Hot Mix Asphalt; PCC = Portland Cement Concrete] Preliminary Pavement Evaluation Summary and/or Preliminary Pavement Type Selection Reports, if required, should be completed prior to submission of the Concept Report for approval. The Office of Materials and Testing would prepare either or both of these reports upon request. The pavement report(s) should be attached to the Concept Report. See Chapter 5 of the PDP for further information. Final Pavement Type Selection and pavement design approval occur during the Preliminary Design Phase.

DESIGN AND STRUCTURAL

Description of the proposed project: The project is located in Greene County, beginning just north of the intersection of SR 44 and Linger Longer Road and continues to just north of I-20, a total mainline distance of approximately 7.6 miles.

The project consists of widening SR 44 from the existing two-lane road to a four-lane road with a combination of both rural and urban sections. The urban section, which includes a 16 foot raised median, bike lanes, sidewalk and 2 – eleven foot lanes in each direction starts at the beginning of the project just north of Linger Longer Road and continues north to approximately 500 feet east of Carey Station Road. The rural section, which includes a 32 foot depressed median, both an 11 foot and 12 foot lane in each direction and a bike lane on the 6.5 foot paved shoulder will go from approximately 500 feet east of Carey Station Road to Meadow Crest Road. From Meadow Crest Road to approximately 2000 feet north of the I-20 interchange the urban section will be used. The existing three signals will be replaced; no other intersections meet warrants for a signal. A traffic engineering study will be conducted @ Carey Station Rd for traffic control along with a round a bout analysis.

It is requested that the project be split into two parts. With the size of this project along with PI 0006252 and the current state of funding, by dividing the project into two parts would allow construction to move forward as funds become available. The two segment parts, with Part A beginning at Linger Longer Road and continuing to Wrightsville Church Road. Part B will begin at Wrightsville Church Road and go to just north of I-20 to Town Creek Boulevard.

Major Structures:

Structure	Existing	Proposed
ID No. 133-5052-0	266' Long bridge over I-20, sufficiency rating 76.0	266' x 79' Concrete Widening
ID No. 133-5049	144' Long bridge over Richland Creek, 85.5 sufficiency rating	144' x 100' Concrete Widening
Box Culverts ID No. 133-0016-0	Double 8'x8' under SR 44 at Little Creek Triple 10'x9' under SR 44 at Town Creek	2 – 120'x 36' Concrete Bridge Retain

County: Greene

Mainline Design Features: SR 44 Rural Minor Arterial and Functional Classification

Feature	Existing	Standard*	Proposed
Typical Section			
- Number of Lanes	2		4
- Lane Width(s)	12'		11'/12'
- Median Width & Type	N/A		32' Depressed 16' Raised
- Outside Shoulder or Border Area Width	5' – 10' Grass		6.5' paved/3.5' grassed Rural 10'-16' Urban
- Outside Shoulder Slope	4:1 – 2:1		4:1 – 2:1
- Inside Shoulder Width	N/A		6' (2' paved)
- Sidewalks	N/A		Urban – 5'
- Auxiliary Lanes	N/A		No
- Bike Lanes	N/A		Yes
Posted Speed	55 / 45		55 / 45
Design Speed	55 / 45		55 / 45
Min Horizontal Curve Radius	1437		960 / 711
Maximum Superelevation Rate	8%		6%
Maximum Grade	6%		5% / 6%
Access Control	N/A		No
Design Vehicle	WB		WB-50 / 67
Pavement Type	Asphalt		Asphalt
<i>Additional Items as warranted</i>			

*According to current GDOT design policy if applicable

Major Interchanges/Intersections: SR 44 at I-20, Carey Station Road

Lighting required: No Yes

Off-site Detours Anticipated: No Undetermined Yes

Transportation Management Plan [TMP] Required: No Yes
 If Yes: Project classified as: Non-Significant Significant
 TMP Components Anticipated: TTC TO PI

Design Exceptions to FHWA/AASHTO controlling criteria anticipated:

FHWA/AASHTO Controlling Criteria	No	Undeter- mined	Yes	Appvl Date (if applicable)
1. Design Speed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Lane Width	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Shoulder Width	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Bridge Width	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Horizontal Alignment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

County: Greene

6. Superelevation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. Vertical Alignment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8. Grade	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9. Stopping Sight Distance	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10. Cross Slope	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
11. Vertical Clearance	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12. Lateral Offset to Obstruction	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
13. Bridge Structural Capacity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Design Variances to GDOT Standard Criteria anticipated:

GDOT Standard Criteria	Reviewing Office	No	Undeter-mined	Yes	Appvl Date (if applicable)
1. Access Control/Median Openings	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Intersection Sight Distance	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Intersection Skew Angle	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Lateral Offset to Obstruction	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Rumble Strips	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. Safety Edge	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. Median Usage	DP&S	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	16' Raised versus 20' per VE Study
8. Roundabout Illumination Levels	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9. Complete Streets	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10. ADA & PROWAG	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
11. GDOT Construction Standards	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12. GDOT Drainage Manual	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
13. GDOT Bridge & Structural Manual	Bridges	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

GDOT standards (table 6.6 from Design Policy Manual) recommend the use of a 20 ft raised median when base year ADT is greater than 18,000 & design year ADT is greater than 36,730. The project corridor has a higher ADT than the threshold required by GDOT. Therefore, a raised median is warranted. A 16-ft raised median is proposed to minimize project footprint, reduce right of way impacts, minimize overall project cost and at the same time provide much needed access control to improve operations and safety along the corridor.

VE Study anticipated: No Yes Completed – Date: 5/20/2013

UTILITY AND PROPERTY

Temporary State Route needed: No Yes Undetermined

Railroad Involvement: N/A

County: Greene

Utility Involvements: Georgia Power, Georgia Transmission Corp., Georgia Power Transmission, Tri County EMC; Communications – AT&T, Plantation Cablevision; Gas – Dixie Pipeline, City of Eatonton Gas, City of Greensboro Natural Gas; Water and Sewer– Piedmont Water Company

SUE Required: No Yes Undetermined

Public Interest Determination Policy and Procedure recommended? No Yes

Right-of-Way (ROW): Existing width: 100-300 ft. Proposed width: 140-300 ft.

Refer to Chapter 3 of GDOT's Design Policy Manual for guidance.

Required Right-of-Way anticipated: None Yes Undetermined

Easements anticipated: None Temporary Permanent Utility Other

Anticipated total number of impacted parcels: 81
 Displacements anticipated: Businesses: 2
 Residences: 4
 Other: 0
 Total Displacements: 6

Location and Design approval: Not Required Required

CONTEXT SENSITIVE SOLUTIONS

Issues of Concern: N/A

Context Sensitive Solutions Proposed: N/A

ENVIRONMENTAL & PERMITS

Anticipated Environmental Document:

GEPA: NEPA: CE EA/FONSI EIS

MS4 Permit Compliance – Is the project located in a MS4 area? No Yes

Environmental Permits/Variations/Commitments/Coordination anticipated:

Permit/ Variance/ Commitment/ Coordination Anticipated	No	Yes	Remarks
1. U.S. Coast Guard Permit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. Forest Service/Corps Land	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3. CWA Section 404 Permit	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Individual Permit
4. Tennessee Valley Authority Permit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5. Buffer Variance	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
6. Coastal Zone Management Coordination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
7. NPDES	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

County: Greene

8. FEMA	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
9. Cemetery Permit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
10. Other Permits	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
11. Other Commitments	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Other commitments will be identified on the project green sheet.
12. Other Coordination	<input type="checkbox"/>	<input type="checkbox"/>	

Is a PAR required? No Yes Completed – Date: 11/21/2014

Environmental Comments and Information:

NEPA/GEPA: EA/FONSI. Section 4(f) properties are present within the project corridor.

Ecology: Ecology Assessment of Effects Addendum approved by GDOT on August 28, 2014. Special Provision 107.23G for Altamaha Shiner and Bald Eagle. Coordination under FWCA would be required. A stream buffer variance and Section 404 Individual Permit would also be required.

History: History Assessment of Effects Report was approved on July 3, 2014. The project would have no adverse effect on Oakland Hall, Knowles House, Jesse Copelan property, Edwin Copelan Dairy Farm, Copelan Family Farmstead, Maddox Barn, Poole House, Johnson Chicken Coop and Corn Crib, Hallman-Knowles Barn, and the Colbath Dairy Barn. GDOT and FHWA intend to make a de minimis finding for the Oakland Hall, Knowles House, Jesse Copelan Property, and the Copelan Family Farmstead.

Archeology: Phase I Archeology Report was approved on December 14, 2012. The project would not impact any eligible archaeological sites within the project corridor.

Air Quality:

Is the project located in a PM 2.5 Non-attainment area? No Yes
 Is the project located in an Ozone Non-attainment area? No Yes
 Is a Carbon Monoxide hotspot analysis required? No Yes

An Air Assessment Addendum was approved on February 28, 2013.

Noise Effects: Noise Addendum approved March 12, 2013. Noise walls were found not to be feasible and/or reasonable for the project.

Public Involvement: PIOH – Held 10/16/2008, PIOH

Major stakeholders: Reynolds Plantation

CONSTRUCTION

Issues potentially affecting constructability/construction schedule: None

Early Completion Incentives recommended for consideration: No Yes

COORDINATION, ACTIVITIES, RESPONSIBILITIES, AND COSTS

Initial Concept Meeting: 10/27/2006 – see attached minutes

Concept Meeting: 4/9/2009 – see attached minutes

Other coordination to date:

County: Greene

Project Activity	Party Responsible for Performing Task(s)
Concept Development	TranSystems
Design	TranSystems
Right-of-Way Acquisition	GDOT
Utility Relocation (Construction)	Utility Companies
Utility Relocation (Pre Let)	GDOT
Letting to Contract	GDOT
Construction Supervision	GDOT
Providing Material Pits	
Providing Detours	N/A
Environmental Studies, Documents, & Permits	TranSystems , GDOT
Environmental Mitigation	GDOT
Construction Inspection & Materials Testing	GDOT

Project Cost Estimate Summary and Funding Responsibilities: *Add additional rows as necessary; Attach current cost estimates to report.*

	Breakdown of PE	ROW	Reimbursable Utility	CST*	Environmental Mitigation	Total Cost
Funded By	Q25	M240	M240	M240		
\$ Amount Part A	\$4,427,839	\$3,975,000	\$6,651,917	\$22,924,157		\$35,764,994
\$ Amount Part B		\$5,163,000	\$350,750	\$27,992,199		\$35,719,868
Date of Estimate		3/30/15	8/13/14	4/2/15		

*CST Cost includes: Construction, Engineering and Inspection, Contingencies and Liquid AC Cost Adjustment.

PE was divided evenly between Part A and Part B.

ALTERNATIVES DISCUSSION

Alternative selection: *Compare and contrast the various alternatives studied in summary and reason(s) why each alternative was or was not selected. Discussion should include no-build and preferred alternatives, and should compare various factors such as total cost, environmental and social impacts, time requirements, PE requirements, etc. as appropriate to the decision process. Please use the following format:*

Preferred Alternative: This alignment would widen SR44 in an asymmetrical fashion. The alignment would shift to the east or west of SR44 depending upon a combination of factors, primarily including existing roadway curvature and current residential and commercial properties, historical resources, and ecological resources.			
Estimated Property Impacts:	85 Acres	Estimated Total Cost:	\$71,484,862
Estimated ROW Cost:	\$8,926,000	Estimated CST Time:	36 Months
Rationale: The preferred alternative was chosen, because it met the goals in the project justification, limited environmental impacts, utility and property impacts.			

No-Build Alternative: This alternative does not meet the capacity and operational needs of the project.			
Estimated Property Impacts:	N/A	Estimated Total Cost:	N/A
Estimated ROW Cost:	N/A	Estimated CST Time:	N/A
Rationale: This alternative does not meet the stated goals for the project.			

County: Greene

Alternative 1: This alignment would widen SR44 to the opposite side of SR44 from the preferred alignment (Alternative#1). This alignment does not account for the existing roadway curvature and current residential properties.			
Estimated Property Impacts:	85 Acres	Estimated Total Cost:	\$77,500,000
Estimated ROW Cost:	\$8,900,000	Estimated CST Time:	36 Months
Rationale: This alternative was not chosen due to the greater environmental and utility impacts.			

Comments:

LIST OF ATTACHMENTS/SUPPORTING DATA *(List supporting data in attached order)*

1. Concept Layout
2. Typical sections
3. Detailed Cost Estimates:
 - a. Construction including Engineering and Inspection
 - b. Completed Liquid AC Cost Adjustment forms
 - c. Right-of-Way
 - d. Utilities
4. Crash summaries
5. Traffic diagrams
6. Capacity analysis summary *(tabular format)*
7. Summary of TE Study and/or Signal Warrant Analysis
8. S I & A Report(s) *(Bridge/Structural Inventory Report(s))*
9. Minutes of Concept meetings
10. Minutes of any meetings that shows support or objection to the concept *(e.g. PIOH, PHOH, Detour Meeting, Town Hall Meeting, etc.)*

APPROVALS

Concur: 
 Director of Engineering

Approve: 
 Chief Engineer

5.27.15
 Date

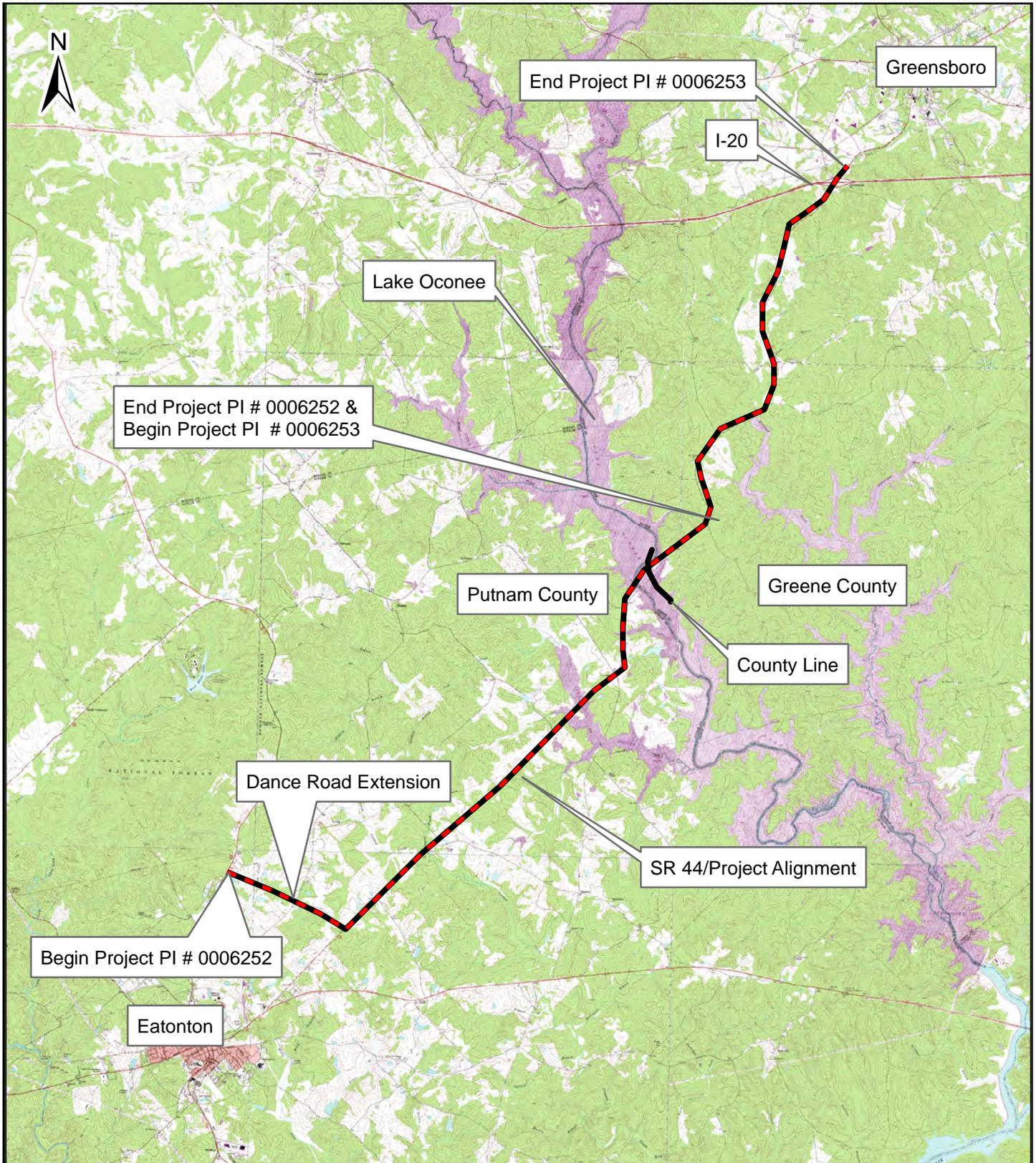
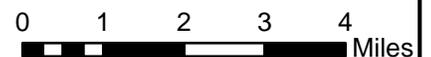
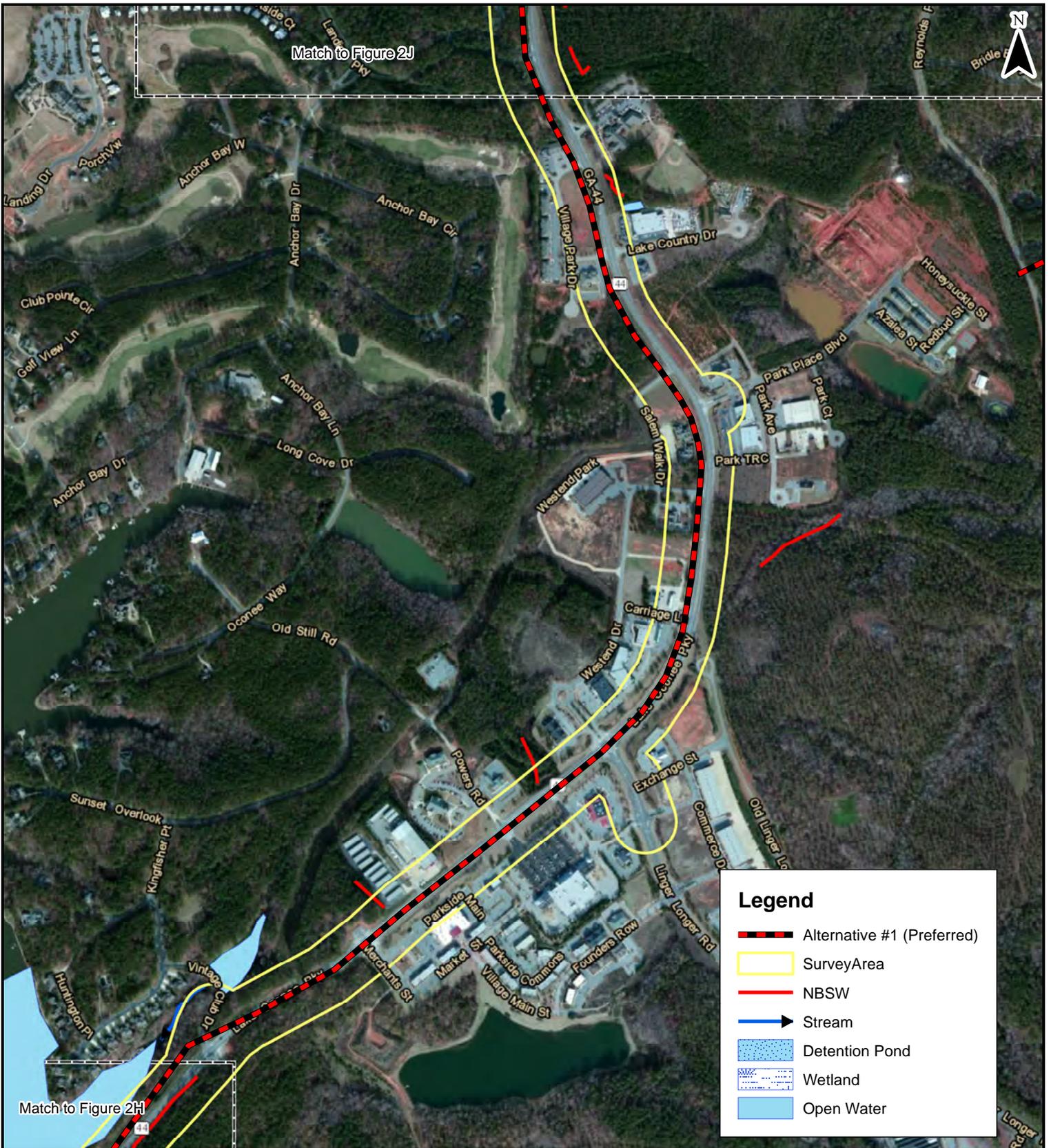


Figure 1 Project Vicinity
 State Route 44 Road Improvements
 Project No. CSSTP-0006-00(252) & CSSTP-0006-00(253)
 P.I. # 0006252 & P.I.# 0006253
 Putnam & Greene Counties

Source: Eatonton, Buckhead, Madison,
 Greensboro, Liberty, Rockville and Meda, GA USGS 7.5 Series (Topographic)





Legend

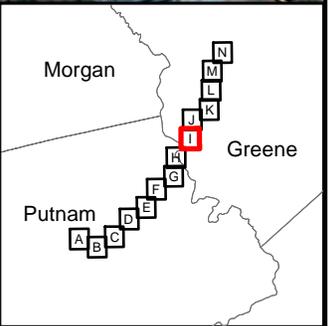
- Alternative #1 (Preferred)
- Survey Area
- NBSW
- Stream
- Detention Pond
- Wetland
- Open Water

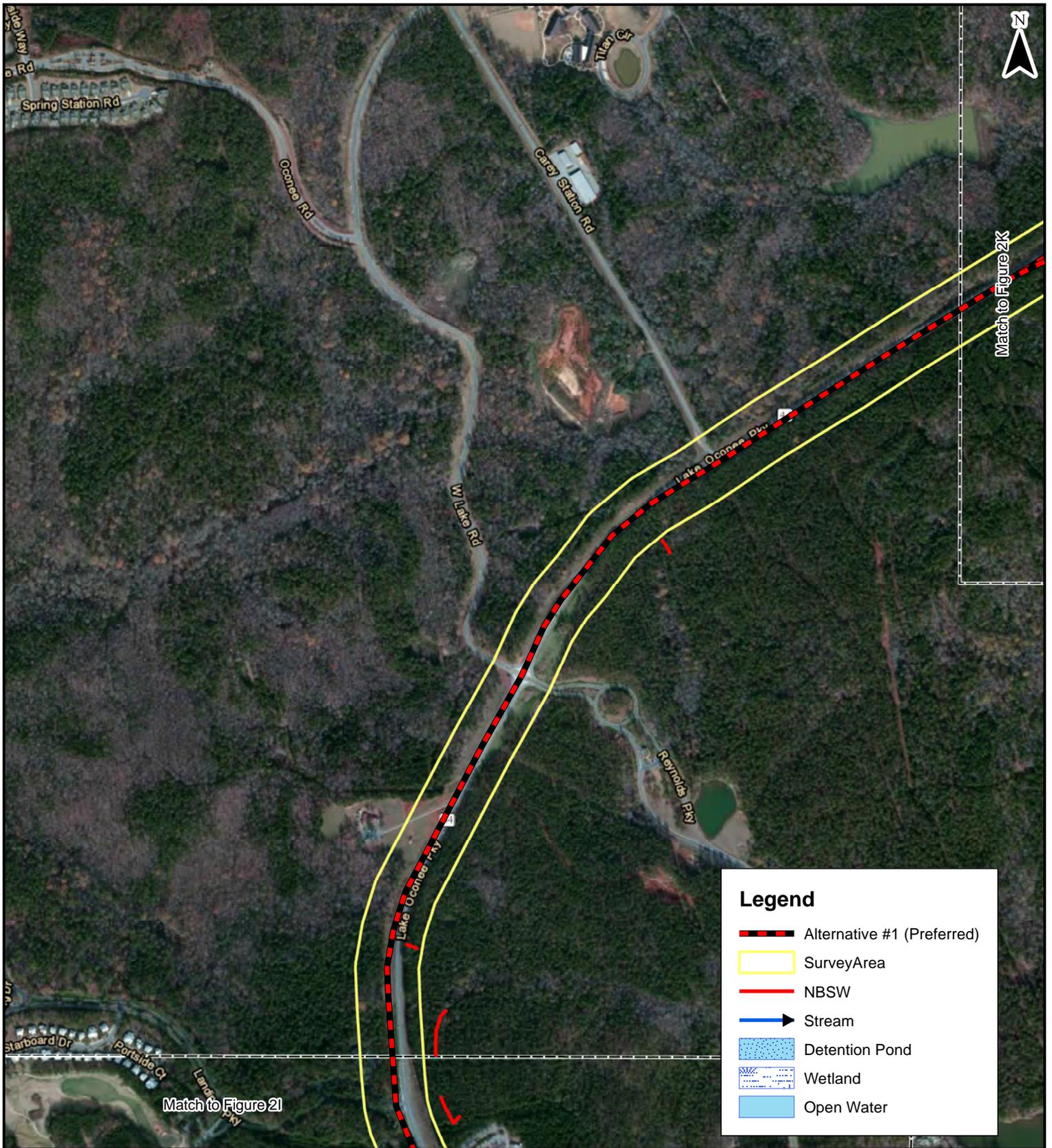


Figure 2I Alternatives Map
 State Route 44 Road Improvements
 Project No. CSSTP-0006-00(252) & CSSTP-0006-00(253)
 P.I. # 0006252 & P.I.# 0006253
 Putnam & Greene Counties

0 500 1,000
 Feet

Source: ESRI Aerial Imagery





Legend

- Alternative #1 (Preferred)
- Survey Area
- NBSW
- Stream
- Detention Pond
- Wetland
- Open Water

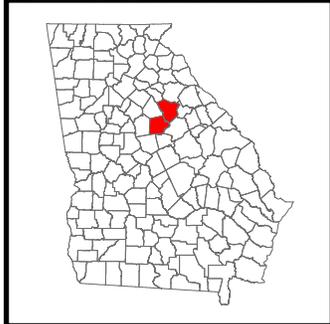
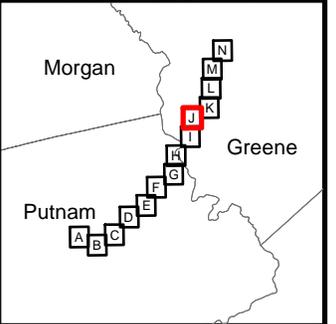
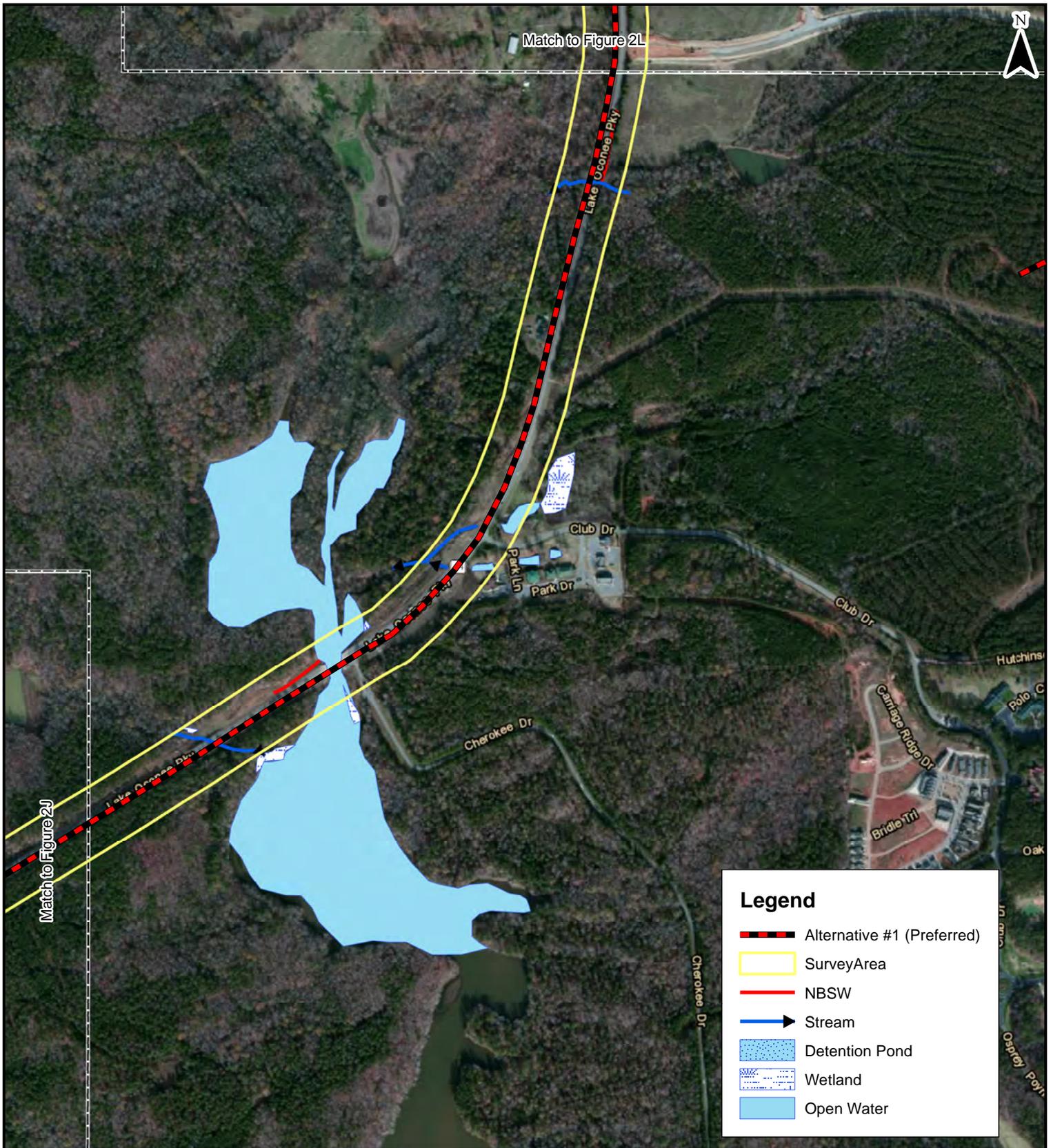


Figure 2J Alternatives Map
 State Route 44 Road Improvements
 Project No. CSSTP-0006-00(252) & CSSTP-0006-00(253)
 P.I. # 0006252 & P.I.# 0006253
 Putnam & Greene Counties

0 500 1,000
 Feet

Source: ESRI Aerial Imagery





Legend

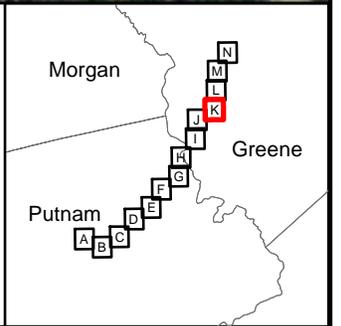
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- Survey Area
- NBSW
- Stream
- Detention Pond
- Wetland
- Open Water

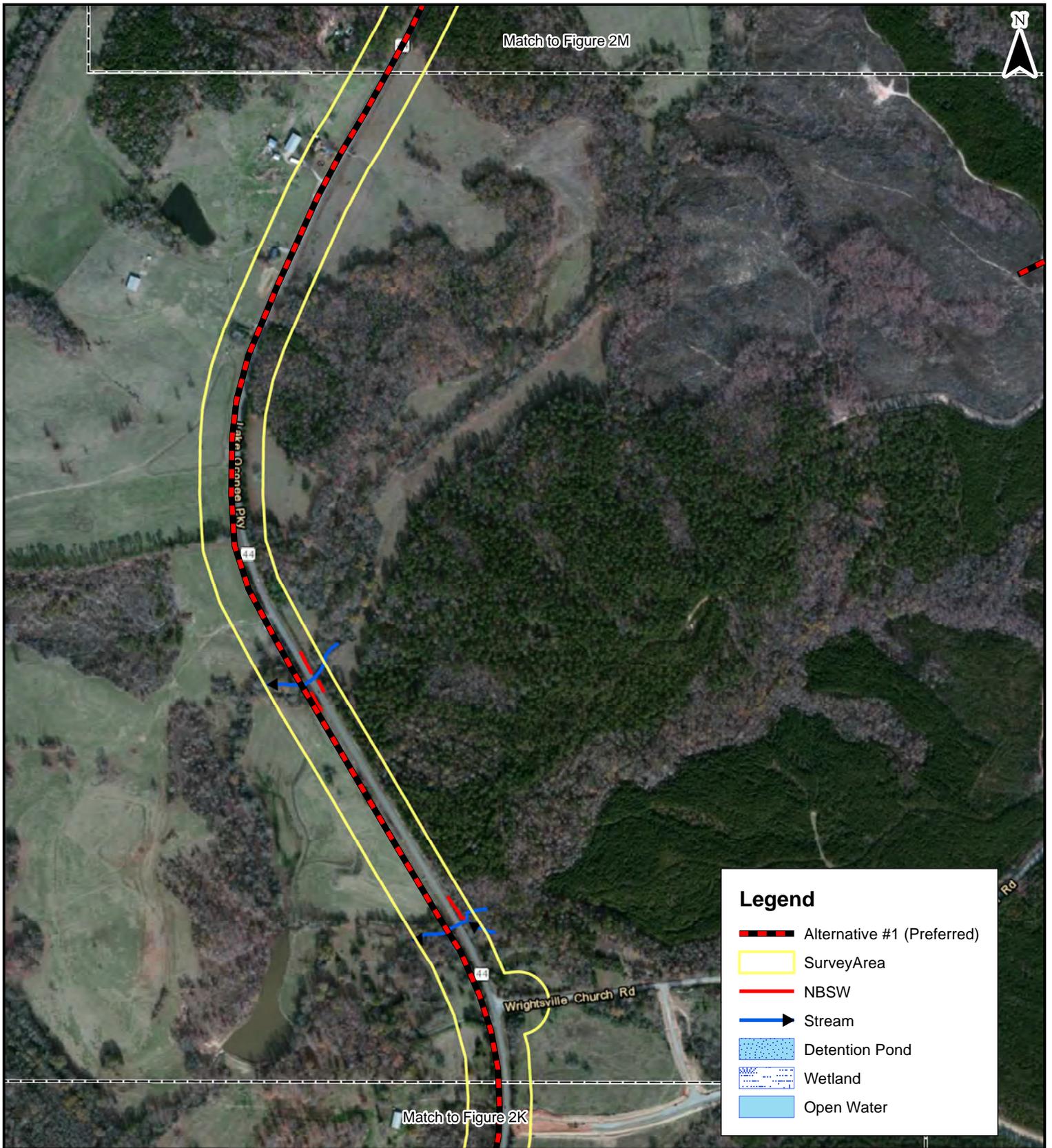


Figure 2K Alternatives Map
 State Route 44 Road Improvements
 Project No. CSSTP-0006-00(252) & CSSTP-0006-00(253)
 P.I. # 0006252 & P.I.# 0006253
 Putnam & Greene Counties

0 500 1,000
 Feet

Source: ESRI Aerial Imagery





Legend

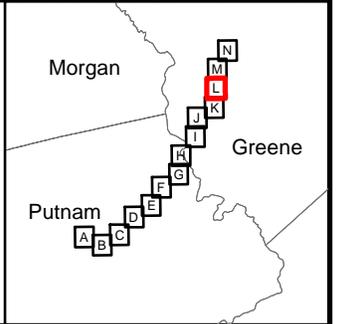
- Alternative #1 (Preferred)
- Survey Area
- NBSW
- Stream
- Detention Pond
- Wetland
- Open Water

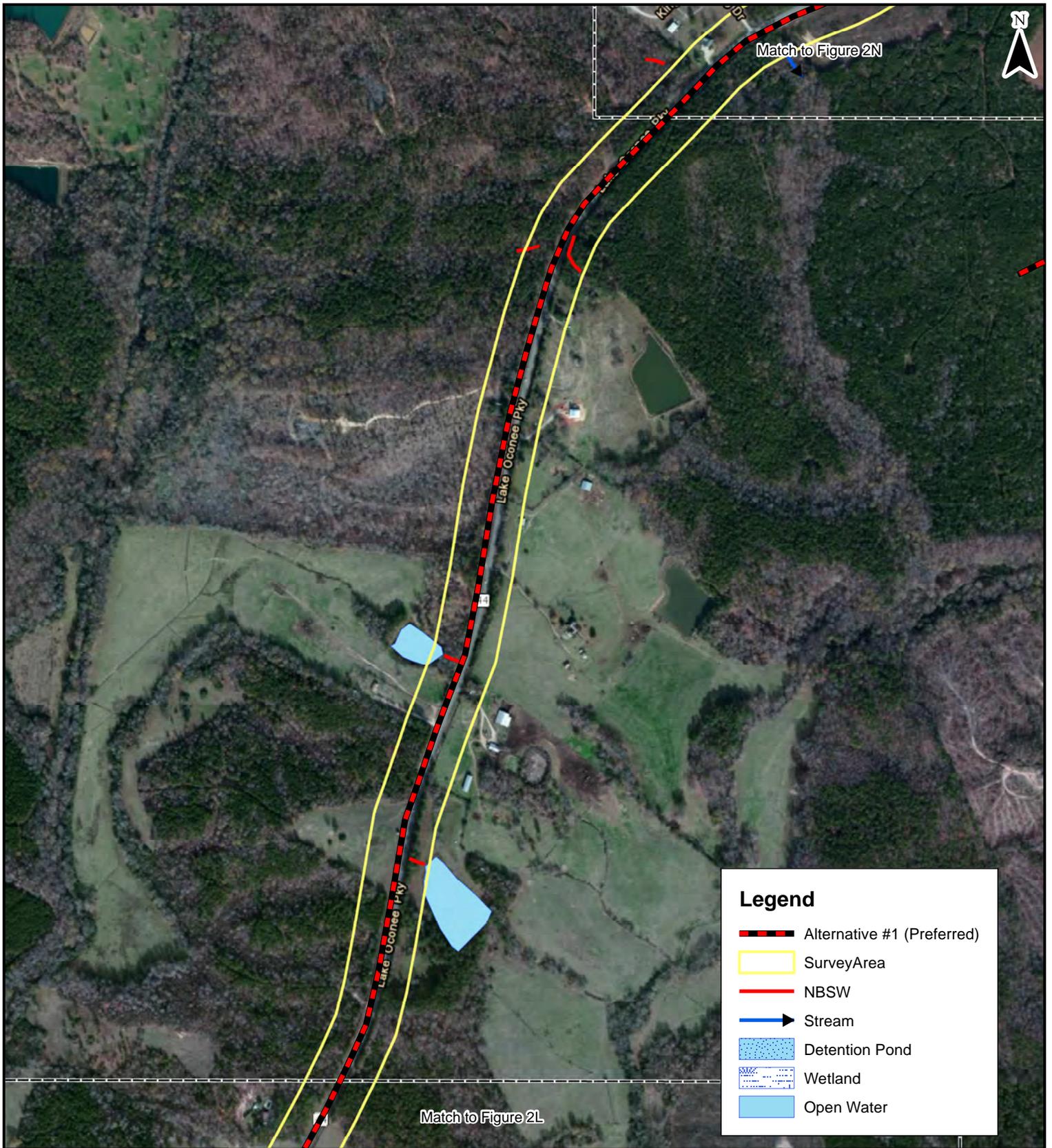


Figure 2L Alternatives Map
 State Route 44 Road Improvements
 Project No. CSSTP-0006-00(252) & CSSTP-0006-00(253)
 P.I. # 0006252 & P.I.# 0006253
 Putnam & Greene Counties

0 500 1,000
 Feet

Source: ESRI Aerial Imagery





Legend

- Alternative #1 (Preferred)
- Survey Area
- NBSW
- Stream
- Detention Pond
- Wetland
- Open Water

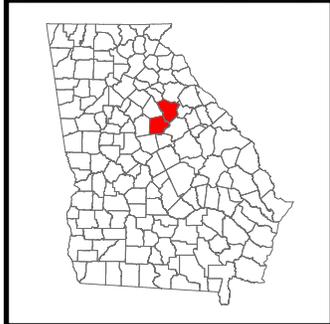
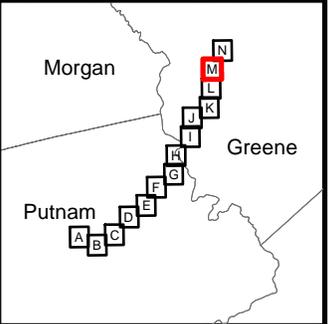


Figure 2M Alternatives Map
 State Route 44 Road Improvements
 Project No. CSSTP-0006-00(252) & CSSTP-0006-00(253)
 P.I. # 0006252 & P.I.# 0006253
 Putnam & Greene Counties

0 500 1,000
 Feet

Source: ESRI Aerial Imagery



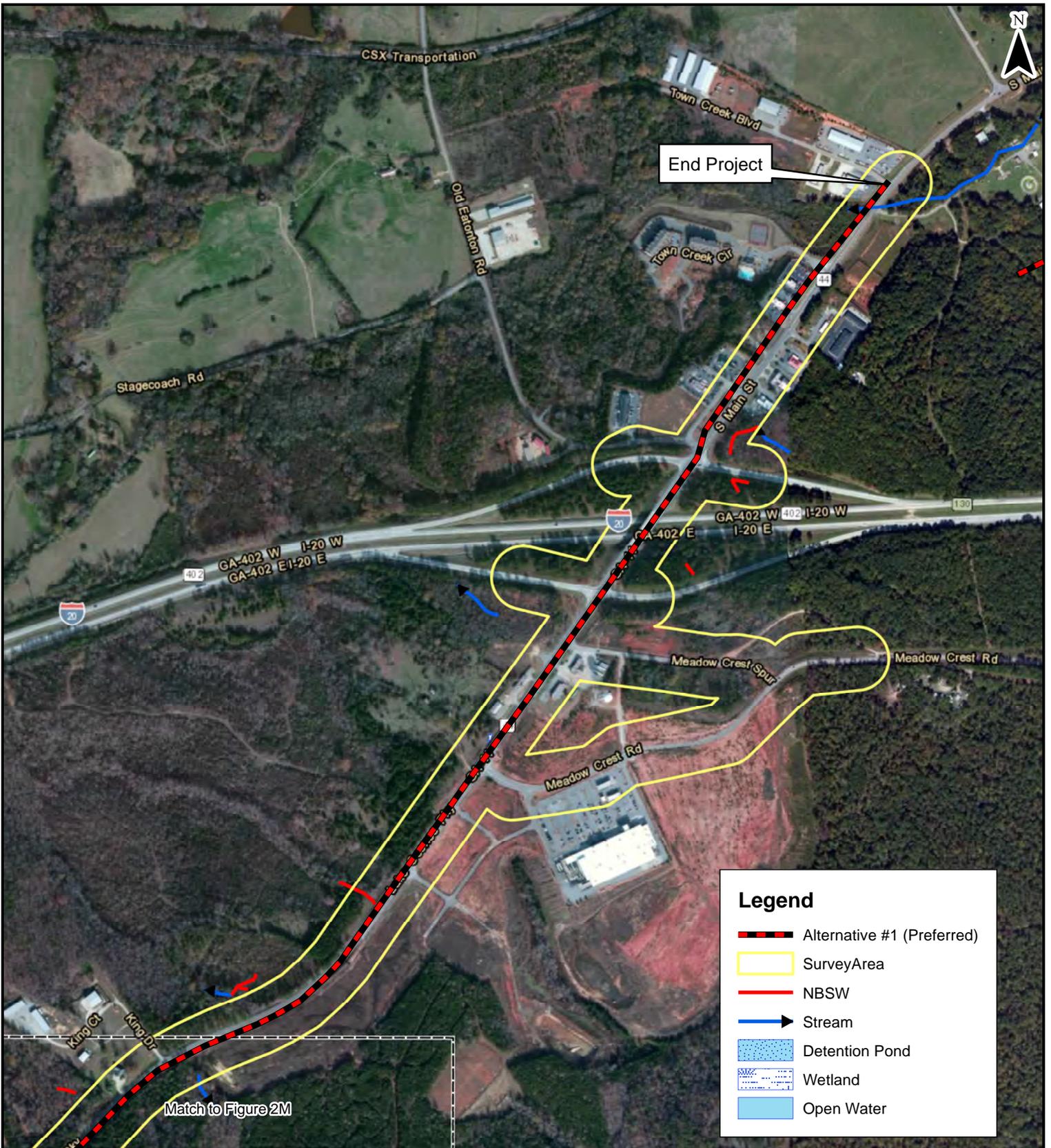
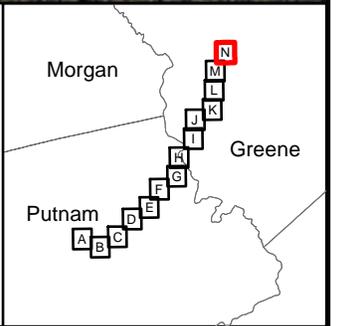
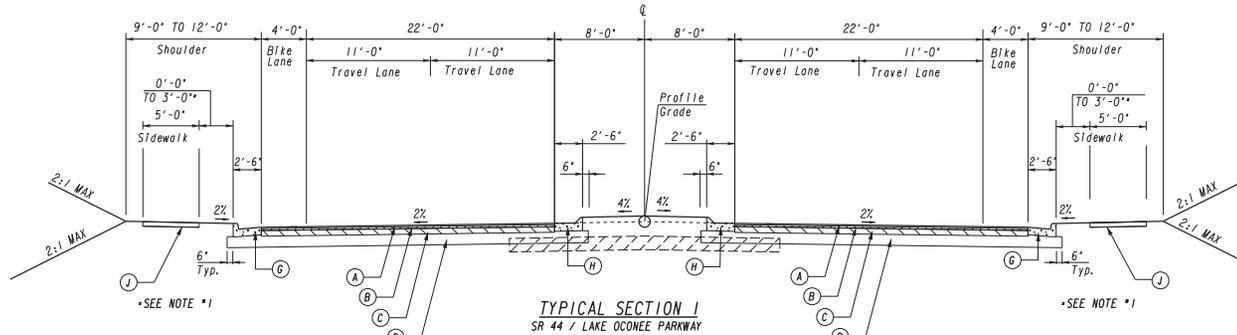


Figure 2N Alternatives Map
 State Route 44 Road Improvements
 Project No. CSSTP-0006-00(252) & CSSTP-0006-00(253)
 P.I. # 0006252 & P.I.# 0006253
 Putnam & Greene Counties

0 500 1,000
 Feet

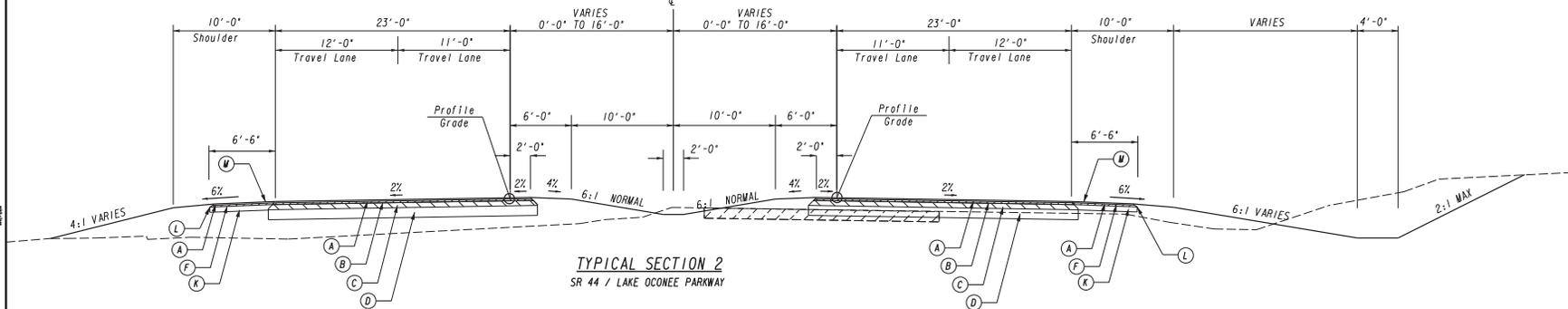
Source: ESRI Aerial Imagery





SLOPE CONTROL FILL & CUT	
SLOPE	HIGH FROM SHLD. PT.
4:1	0' - 10'
* 2:1	10'+

* - GUARDRAIL IS REQUIRED ON FILL SECTION



PAVEMENT SECTION

- (A) RECYCLED ASPH CONC 12.5 MM SUPERPAVE, GP 2 ONLY, INCL BITUM MATL & H LIME (165 LBS/SY)
- (B) RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (440 LBS/SY)
- (C) RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (660 LBS/SY)
- (D) GR AGGR BASE CRS, 12 INCH, INCL MATL
- (E) RECYCLED ASPHALTIC CONCRETE LEVELING INCL BITUM MATL & H LIME-AS REQUIRED (VARIABLE DEPTH)
- (F) RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (220 LBS/SY)

- (G) 30 INCH CONCRETE CURB & GUTTER, TYPE 2, GA STD 9032B
- (H) 30 INCH CONCRETE CURB & GUTTER, TYPE 7, GA STD 9032B
- (J) CONCRETE SIDEWALK, 4 INCH THICK
- (K) GR AGGR BASE CRS, 6 INCH, INCL MATL
- (L) PVMT EDGE TREATMENT, GDOT CONSTRUCTION DETAIL P-7
- (M) 16 INCH RUMBLE STRIPS GDOT CONSTRUCTION DETAIL S-8
- (N) WILL ASPH CONC PVMT, 1 1/2" DEPTH

NOTES:
 1) GRASS STRIP AND SHOULDER WIDTH REDUCED TO 2' AND 10' RESPECTIVELY WHEN ADJACENT TO OUTSIDE TURN LANE
 2) SEE PLANS FOR SUPERELEVATION RATES AND TRANSITIONS.
 3) SEE PLANS AND CROSS SECTIONS FOR GUARDRAIL PAVEMENT WIDTHS, SLOPES, DITCHES AND WALL

GEORGIA
DEPARTMENT
OF
TRANSPORTATION

PARSONS
3577 PARKWAY LANE, SUITE 100
NORCROSS, GA 30092

REVISION	DATE

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: PROGRAM DELIVERY

TYPICAL SECTIONS

SR 44 FROM LINGER LONGER RD TO NORTH OF I-20

PROJECT NO: CSSTP-0006-0012531
COUNTY: GREEKE

DRAWING NO:
5-01

PRELIMINARY PLANS
NOT FOR CONSTRUCTION (MARCH 2018)

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE P.I. No. 0006253

OFFICE PROGRAM
DELIVERY

PROJECT DESCRIPTION

SR WIDENING FROM LINGER LONGER ROAD TO WRIGHTSVILLE
CHURCH RD

DATE April 2, 2015

From: Albert Shelby, State Program Delivery Administrator

To: Lisa L. Myers, State Project Review Engineer

Subject: **REVISIONS TO PROGRAMMED COSTS**

PROJECT MANAGER Eric Wilkinson

MGMT LET DATE 10/15/2018

MGMT ROW DATE

PROGRAMMED COSTS (TPro W/OUT INFLATION)

LAST ESTIMATE UPDATE

CONSTRUCTION \$

DATE

RIGHT OF WAY \$

DATE

UTILITIES \$

DATE

REVISED COST ESTIMATES

CONSTRUCTION* \$ 22,924,156.83

RIGHT OF WAY \$ 3,975,000.00

UTILITIES \$ 6,651,917.00

*Cost Contains 5 % Contingency

REASONS FOR COST INCREASE AND CONTINGENCY JUSTIFICATION:

Value Engineering Recommendations implemented on the project.

CONTINGENCY SUMMARY

A. CONSTRUCTION COST ESTIMATE:	\$	19,643,926.50	Base Estimate From CES
B. ENGINEERING AND INSPECTION (E & I):	\$	982,196.33	Base Estimate (A) x 5 %
C. CONTINGENCY:	\$	1,031,306.14	Base Estimate (A) + E & I (B) x 5 % See % Table in "Risk Based Cost Estimation" Memo
D. TOTAL LIQUID AC ADJUSTMENT:	\$	1,266,727.86	Total From Liquid AC Spreadsheet
E. CONSTRUCTION TOTAL:	\$	22,924,156.83	(A + B + C + D = E)

REIMBURSABLE UTILITY COSTS

UTILITY OWNER	REIMBURSABLE COST
AT&T (DIST.)	\$ 116,887.00
GEORGIA POWER COMPANY (DIST.)	\$ 4,462,000.00
GEORGIA TRANSMISSION CORP.	\$ 1,560,000.00
PIEDMONT WATER COMPANY (WATER)	\$ 357,195.00
PIEDMONT WATER COMPANY (SEWER)	\$ 155,835.00
TOTAL	\$ 6,651,917.00

ATTACHMENTS:

Detailed Cost Estimate Printout From TRAQS Liquid AC Adjustment Spreadsheet
--

PROJ. NO. CSSTP-0006-00(253)
P.I. NO. 0006253
DATE 4/2/2015

CALL NO. 9/29/2009

INDEX (TYPE)	DATE	INDEX
REG. UNLEADED	Apr-15	\$ 2.214
DIESEL		\$ 2.788
LIQUID AC		\$ 485.00

Link to Fuel and AC Index:
<http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx>

LIQUID AC ADJUSTMENTS

PA=[((APM-APL)/APL)]xTMTxAPL

Asphalt

Price Adjustment (PA)				1245480	\$	1,245,480.00
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$	776.00		
Monthly Asphalt Cement Price month project let (APL)			\$	485.00		
Total Monthly Tonnage of asphalt cement (TMT)				4280		

ASPHALT	Tons	%AC	AC ton
Leveling	1600	5.0%	80
12.5 OGFC		5.0%	0
12.5 mm	13000	5.0%	650
9.5 mm SP		5.0%	0
25 mm SP	41000	5.0%	2050
19 mm SP	30000	5.0%	1500
	85600		4280

BITUMINOUS TACK COAT

Price Adjustment (PA)				\$	21,247.86	\$	21,247.86
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$	776.00			
Monthly Asphalt Cement Price month project let (APL)			\$	485.00			
Total Monthly Tonnage of asphalt cement (TMT)				73.01671567			

Bitum Tack

Gals	gals/ton	tons
17000	232.8234	73.0167157

BITUMINOUS TACK COAT (surface treatment)

Price Adjustment (PA)				0	\$	-
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$	776.00		
Monthly Asphalt Cement Price month project let (APL)			\$	485.00		
Total Monthly Tonnage of asphalt cement (TMT)				0		

Bitum Tack	SY	Gals/SY	Gals	gals/ton	tons
Single Surf. Trmt.		0.20	0	232.8234	0
Double Surf.Trmt.		0.44	0	232.8234	0
Triple Surf. Trmt		0.71	0	232.8234	0

TOTAL LIQUID AC ADJUSTMENT \$ 1,266,727.86

STATE HIGHWAY AGENCY

DATE : 03/26/2015

PAGE : 1

JOB ESTIMATE REPORT

JOB NUMBER : 0006253_PART A SPEC YEAR: 01
 DESCRIPTION: FROM SR 44 LINGER LONGER TO WRIGHTSVILLE CHURCH RD

ITEMS FOR JOB 0006253_PART A

LINE	ITEM	ALT	UNITS	DESCRIPTION	QUANTITY	PRICE	AMOUNT
0002	150-1000		LS	TRAFFIC CONTROL -	1.000	1000000.00	1000000.00
				CSSTP-0006-00(253)-PART A			
0003	201-1500		LS	CLEARING & GRUBBING -	1.000	2000000.00	2000000.00
				CSSTP-0006-00(253)-PART A			
0004	204-0001		CY	CHANNEL EXCAVATION	250.000	305.00	76250.00
0005	205-0001		CY	UNCLASS EXCAV	146000.000	8.00	1168000.00
0006	206-0002		CY	BORROW EXCAV, INCL MATL	51000.000	5.50	280500.00
0007	207-0203		CY	FOUND BK FILL MATL, TP II	921.000	52.00	47892.00
0008	207-2003		CY	IMPERF TRENCH BK FILL MATL TP 3	27.000	31.50	850.50
0011	310-1101		TN	GR AGGR BASE CRS, INCL MATL	95000.000	25.00	2375000.00
0012	318-3000		TN	AGGR SURF CRS	4600.000	20.00	92000.00
0013	402-1812		TN	RECYL AC LEVELING, INC BM&HL	1600.000	80.00	128000.00
0014	402-3121		TN	RECYL AC 25MM SP, GP1/2, BM&HL	41000.000	66.00	2706000.00
0015	402-3130		TN	RECYL AC 12.5MM SP, GP2, BM&HL	13000.000	85.00	1105000.00
0016	402-3190		TN	RECYL AC 19 MM SP, GP 1 OR 2 , INC BM&HL	30000.000	79.00	2370000.00
0017	413-1000		GL	BITUM TACK COAT	17000.000	4.00	68000.00
0018	432-0206		SY	MILL ASPH CONC PVMT/ 1.50" DEP	5290.000	4.00	21160.00
0019	433-1200		SY	REF CONC APPR SL/I SLOPED EDGE	747.000	142.00	106074.00
0020	436-1000		LF	ASPH CONC CURB - BEHIND GUARDRAIL	7590.000	9.00	68310.00
0021	441-0016		SY	DRIVEWAY CONCRETE, 6 IN TK	56.000	36.00	2016.00
0022	441-0018		SY	DRIVEWAY CONCRETE, 8 IN TK	230.000	43.00	9890.00
0023	441-0104		SY	CONC SIDEWALK, 4 IN	6578.000	44.00	289432.00
0024	441-0204		SY	PLAIN CONC DITCH PAVING, 4 IN	552.000	31.00	17112.00
0025	441-0302		EA	CONC SPILLWAY, TP 2	6.000	1616.00	9696.00
0030	441-0108		SY	CONC SIDEWALK, 8 IN	3066.000	39.00	119574.00
0031	441-0748		SY	CONC MEDIAN, 6 IN	9660.000	51.00	492660.00
0035	441-3999		LF	CONCRETE V GUTTER	2760.000	18.00	49680.00
0036	441-4020		SY	CONC VALLEY GUTTER, 6 IN	35.000	36.00	1260.00
0041	441-4030		SY	CONC VALLEY GUTTER, 8 IN	110.000	53.00	5830.00
0046	441-6022		LF	CONC CURB & GUTTER, 6"X30"TP2	14720.000	24.00	353280.00
0051	441-6720		LF	CONC CURB & GUTTER/ 6"X30"TP7	10120.000	25.00	253000.00
0056	446-1100		LF	PVMT REF FAB STRIPS, TP2, 18 INCH WIDTH	1104.000	6.00	6624.00
0057	456-2015		GLM	INDENT. RUMB. STRIPS - GRND-IN-PL (SKIP)	5.000	1600.00	8000.00
0065	500-3101		CY	CLASS A CONCRETE CULVERT	460.000	500.00	230000.00
0071	500-3120		LF	CLASS A CONCRETE, TYPE P3, RETAINING WAL	39.000	520.00	20280.00
0076	500-3200		CY	CL B CONC	66.000	400.00	26400.00
0086	500-9999		CY	CL B CONC, BASE OR PVMT WIDEN	20.000	175.00	3500.00
0091	511-1000		LB	BAR REINF STEEL	46920.000	1.00	46920.00
0096	515-2020		LF	GALV STEEL PIPE HDRAIL, 2", ROUD	78.000	55.00	4290.00
0101	621-4021		LF	CONCRETE SIDE BARRIER, TY 2A	149.000	335.00	49915.00

STATE HIGHWAY AGENCY

DATE : 03/26/2015

PAGE : 2

JOB ESTIMATE REPORT

0106	621-4022	LF	CONCRETE SIDE BARRIER, TY 2B	36.000	475.00	17100.00
0111	634-1200	EA	RIGHT OF WAY MARKERS	184.000	107.00	19688.00
0116	641-1100	LF	GUARDRAIL, TP T	564.000	55.00	31020.00
0121	641-1200	LF	GUARDRAIL, TP W	6596.000	19.00	125324.00
0126	641-5001	EA	GUARDRAIL ANCHORAGE, TP 1	20.000	840.00	16800.00
0131	641-5012	EA	GUARDRAIL ANCHORAGE, TP 12	19.000	1750.00	33250.00
0136	550-1180	LF	STM DR PIPE 18",H 1-10	8142.000	32.00	260544.00
0141	550-1240	LF	STM DR PIPE 24",H 1-10	1126.000	42.00	47292.00
0146	550-1300	LF	STM DR PIPE 30",H 1-10	125.000	55.00	6875.00
0156	550-1480	LF	STM DR PIPE 48",H 1-10	144.000	92.00	13248.00
0161	550-1720	LF	STM DR PIPE 72",H 1-10	163.000	275.00	44825.00
0166	550-2180	LF	SIDE DR PIPE 18",H 1-10	611.000	29.00	17719.00
0176	550-3418	EA	SAFETY END SECTION 18",SD,4:1	24.000	375.00	9000.00
0196	550-4218	EA	FLARED END SECT 18 IN, ST DR	27.000	600.00	16200.00
0201	550-4224	EA	FLARED END SECT 24 IN, ST DR	3.000	631.00	1893.00
0206	550-4230	EA	FLARED END SECT 30 IN, ST DR	3.000	725.00	2175.00
0226	668-1100	EA	CATCH BASIN, GP 1	50.000	2250.00	112500.00
0231	668-1110	LF	CATCH BASIN, GP 1, ADDL DEPTH	36.000	150.00	5400.00
0236	668-2100	EA	DROP INLET, GP 1	48.000	2000.00	96000.00
0241	668-2110	LF	DROP INLET, GP 1, ADDL DEPTH	23.000	200.00	4600.00
0246	668-2200	EA	DROP INLET, GP 2	2.000	2350.00	4700.00
0251	668-2210	LF	DROP INLET, GP 2, ADDL DEPTH	7.000	250.00	1750.00
0276	603-2024	SY	STN DUMPED RIP RAP, TP 1, 24"	740.000	45.00	33300.00
0286	603-7000	SY	PLASTIC FILTER FABRIC	740.000	4.00	2960.00
0291	643-8200	LF	BARRIER FENCE (ORANGE), 4 FT	2300.000	2.00	4600.00
0296	700-6910	AC	PERMANENT GRASSING	230.000	900.00	207000.00
0301	700-7000	TN	AGRICULTURAL LIME	276.000	100.00	27600.00
0306	700-8000	TN	FERTILIZER MIXED GRADE	62.000	550.00	34100.00
0311	700-8100	LB	FERTILIZER NITROGEN CONTENT	6900.000	6.00	41400.00
0316	710-9000	SY	PERM SOIL REINFORCING MAT	27600.000	3.50	96600.00
0321	716-2000	SY	EROSION CONTROL MATS, SLOPES	69000.000	1.00	69000.00
0326	163-0232	AC	TEMPORARY GRASSING	115.000	4500.00	517500.00
0331	163-0240	TN	MULCH	2300.000	200.00	460000.00
0336	163-0300	EA	CONSTRUCTION EXIT	11.000	1250.00	13750.00
0341	163-0503	EA	CONSTR AND REMOVE SILT CONTROL GATE,TP 3	9.000	390.00	3510.00
0346	163-0520	LF	CONSTR AND REMOVE TEMP PIPE SLOPE DRAIN	2760.000	15.00	41400.00
0351	163-0527	EA	CNST/REM RIP RAP CKDM,STN P RIPRAP/SN BG	460.000	200.00	92000.00
0356	163-0531	EA	CONSTR & REM SEDIMENT BASIN,TP 1,STA NO- 30 LOCATIONS	13.000	7450.00	96850.00
0361	163-0550	EA	CONS & REM INLET SEDIMENT TRAP	138.000	170.00	23460.00
0366	165-0030	LF	MAINT OF TEMP SILT FENCE, TP C	23000.000	1.00	23000.00
0371	165-0041	LF	MAINT OF CHECK DAMS - ALL TYPES	2300.000	5.00	11500.00
0376	165-0050	LF	MAINT OF SILT RETENTION BARRIER	138.000	6.50	897.00
0381	165-0087	EA	MAINT OF SILT CONTROL GATE, TP 3	9.000	115.00	1035.00
0386	165-0101	EA	MAINT OF CONST EXIT	11.000	500.00	5500.00
0391	165-0105	EA	MAINT OF INLET SEDIMENT TRAP	138.000	60.00	8280.00
0396	167-1000	EA	WATER QUALITY MONITORING AND SAMPLING	2.000	365.00	730.00
0401	167-1500	MO	WATER QUALITY INSPECTIONS	17.000	580.00	9860.00
0406	170-2000	LF	STAKED SILT RETENTION BARRIER	2760.000	9.00	24840.00
0411	171-0030	LF	TEMPORARY SILT FENCE, TYPE C	46000.000	3.00	138000.00

STATE HIGHWAY AGENCY

DATE : 03/26/2015
PAGE : 3

JOB ESTIMATE REPORT

0416	150-0250	LF	TRAF CTRL,SLD TS,THERM,24" WHT	414.000	4.00	1656.00
0421	636-1020	SF	HWY SGN,TP1MAT,REFL SH TP3	506.000	15.00	7590.00
0426	636-1029	SF	HWY SGN,TP2 MATL,REFL SH TP 3	736.000	16.00	11776.00
0431	636-1033	SF	HWY SIGNS, TP1MAT,REFL SH TP 9	138.000	20.00	2760.00
0436	636-1041	SF	HWY SIGNS,TP 2MAT,REFL SH TP 9	92.000	35.00	3220.00
0441	636-2070	LF	GALV STEEL POSTS, TP 7	276.000	7.00	1932.00
0446	636-2080	LF	GALV STEEL POSTS, TP 8	1840.000	9.00	16560.00
0451	653-0120	EA	THERM PVMT MARK, ARROW, TP 2	184.000	77.00	14168.00
0456	653-0130	EA	THERM PVMT MARK, ARROW, TP 3	138.000	105.00	14490.00
0461	653-0170	EA	THERM PVMT MARK, ARROW, TP 7	28.000	90.00	2520.00
0466	653-1501	LF	THERMO SOLID TRAF ST 5 IN, WHI	67298.000	1.00	67298.00
0471	653-1502	LF	THERMO SOLID TRAF ST, 5 IN YEL	37260.000	1.00	37260.00
0476	653-1704	LF	THERM SOLID TRAF STRIPE,24",WH	3358.000	7.00	23506.00
0481	653-1804	LF	THERM SOLID TRAF STRIPE, 8",WH	1656.000	5.00	8280.00
0486	653-3501	GLF	THERMO SKIP TRAF ST, 5 IN, WHI	10120.000	1.00	10120.00
0491	653-3502	GLF	THERMO SKIP TRAF ST, 5 IN, YEL	460.000	1.00	460.00
0496	653-6004	SY	THERM TRAF STRIPING, WHITE	5060.000	5.00	25300.00
0501	653-6006	SY	THERM TRAF STRIPING, YELLOW	1150.000	5.00	5750.00
0506	654-1001	EA	RAISED PVMT MARKERS TP 1	506.000	5.00	2530.00
0511	654-1003	EA	RAISED PVMT MARKERS TP 3	598.000	5.00	2990.00
0516	654-1010	EA	RAISED PVMT MARKERS TP 10	138.000	40.00	5520.00
0517	657-6085	LF	PRF PL SD PVMT MKG,8",B/Y,TPPB	460.000	6.00	2760.00
0522	657-3085	GLF	PRF PL SK PVMT MKG,8",B/W,TPPB	230.000	5.00	1150.00
0527	657-1085	LF	PRF PL SD PVT MKG,8",B/W,TP PB	460.000	6.00	2760.00
0532	615-1100	LF	DIRECTIONAL BORE PIPE - 5 IN	368.000	50.00	18400.00
0537	639-4004	EA	STRAIN POLE, TP IV	14.000	7500.00	105000.00
0542	647-1000	LS	TRAF SIGNAL INSTALLATION NO - 1 INTERSECTIONS @ \$250,000 EA	1.00	250000.00	250000.00
0547	682-6120	LF	CONDUIT, RIGID, 2 IN	368.000	15.00	5520.00
0552	682-6233	LF	CONDUIT, NONMETL, TP 3, 2 IN	736.000	5.00	3680.00
0557	540-1202	LS	REM OF PARTS OF EX BR, BR NO - BRIDGE OVER RICHLAND CREEK	1.000	100000.00	100000.00
0562	543-9000	LS	CONSTR OF BRIDGE COMPLETE - CONC. BRIDGE WIDENING - RICHLAND CREEK	1.000	400000.00	400000.00

ITEM TOTAL	19643926.50
INFLATED ITEM TOTAL	19643926.50

TOTALS FOR JOB 0006253_PART A

ESTIMATED COST:	19643926.50
CONTINGENCY PERCENT (0.0):	0.00
ESTIMATED TOTAL:	19643926.50

**GEORGIA DEPARTMENT OF TRANSPORTATION
PRELIMINARY ROW COST ESTIMATE SUMMARY**

Date: 11/11/2013 Project: CSSTP-0006-00 (253)
 Revised: 3/30/2015 County: Greene
 PI: 6253

Description: SR 44 Widening
 Project Termini: Linger Longer Road to Wrightsville Road

Existing ROW: Varies
 Required ROW: Varies
 Parcels: 39

Land and Improvements \$3,175,290.00

Proximity Damage	\$0.00
Consequential Damage	\$0.00
Cost to Cures	\$0.00
Trade Fixtures	\$25,000.00
Improvements	\$200,000.00

Valuation Services \$100,000.00

Legal Services \$251,325.00

Relocation \$93,000.00

Demolition \$26,500.00

Administrative \$328,000.00

TOTAL ESTIMATED COSTS \$3,974,115.00

TOTAL ESTIMATED COSTS (ROUNDED) \$3,975,000.00

Preparation Credits	Hours	Signature

Prepared By: D.B.C. CG#: 3/30/15
 Approved By: Jashone Alexander CG#: 286999 04/09/2015 (DATE)

NOTE: No Market Appreciation is included in this Preliminary Cost Estimate

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE CSSTP-0006-00(253) – Putnam - Greene County **OFFICE** Tennille
P.I. No. 0006253A
State Route 44 from Huntington Place in Putnam Co. **DATE** August 13, 2014
to Richland Connector in Greene Co.

FROM *JLL*
Jamie Lindsey
State Liaison Utilities Engineer

TO Albert Shelby, State Program Delivery Engineer
ATTN Eric Ryan Wilkinson, Project Manager

SUBJECT UPDATED UTILITY COST ESTIMATE

As requested by your office, we are furnishing you with a Updated Utility Cost Estimate for each utility with facilities potentially located within the project limits.

<u>FACILITY OWNER</u>	<u>NON-REIMBURSABLE</u>	<u>REIMBURSABLE</u>
AT&T (DIST.)	\$352,506.00	\$116,887.00
GEORGIA POWER COMPANY (DIST.)	\$1,245,000.00	\$4462,000.00
GEORGIA TRANSMISSION CORP.	\$120,000.00	\$1,560,000.00
PIEDMONT WATER COMPANY (WATER)	\$1,129,330.00	\$357,195.00
PIEDMONT WATER COMPANY (SEWER)	\$1,405,290.00	\$155,835.00
Totals		\$6,651,917.00

Total Non-Reimbursable Cost: \$4,252,126.00

Total Reimbursable Cost: \$6,651,917.00

Total Relocations: \$10,904,043.00

All information contained in this estimate was obtained from various facility owners, GDOT's Mean Item Summary and past estimates. Please be advised this is an estimate and may be revised when project plans are developed and prior rights research is completed.

If you have any questions, please contact Mike (David) Thomas at 478-552-4606.

JHS: JLL: MDT

Cc: Mike Bolden, State Utilities Engineer
Lee Upkins, Assistant State Utilities Engineer
Angela Robinson, Financial Management

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE P.I. No. 0006253

OFFICE PROGRAM
DELIVERY

PROJECT DESCRIPTION

SR WIDENING FROM WRIGHTSVILLE CHURCH RD TO NORTH OF
I-20

DATE April 2, 2015

From: Albert Shelby, State Program Delivery Administrator

To: Lisa L. Myers, State Project Review Engineer

Subject: **REVISIONS TO PROGRAMMED COSTS**

PROJECT MANAGER Eric Wilkinson

MGMT LET DATE 10/15/2018

MGMT ROW DATE

PROGRAMMED COSTS (TPro W/OUT INFLATION)

LAST ESTIMATE UPDATE

CONSTRUCTION \$

DATE

RIGHT OF WAY \$

DATE

UTILITIES \$

DATE

REVISED COST ESTIMATES

CONSTRUCTION* \$ 27,992,199.01

RIGHT OF WAY \$ 5,163,000.00

UTILITIES \$ 350,750.00

*Cost Contains 5 % Contingency

REASONS FOR COST INCREASE AND CONTINGENCY JUSTIFICATION:

Value Engineering Recommendations implemented on the project.

CONTINGENCY SUMMARY

A. CONSTRUCTION COST ESTIMATE:	\$	24,036,790.50	Base Estimate From CES
B. ENGINEERING AND INSPECTION (E & I):	\$	1,201,839.53	Base Estimate (A) x 5 %
C. CONTINGENCY:	\$	1,261,931.50	Base Estimate (A) + E & I (B) x 5 % See % Table in "Risk Based Cost Estimation" Memo
D. TOTAL LIQUID AC ADJUSTMENT:	\$	1,491,637.49	Total From Liquid AC Spreadsheet
E. CONSTRUCTION TOTAL:	\$	27,992,199.01	(A + B + C + D = E)

REIMBURSABLE UTILITY COSTS

UTILITY OWNER	REIMBURSABLE COST
CITY OF GREENSBORO (SEWER)	\$ 750.00
RAYLE E.M.C.	\$ 120,000.00
TOTAL	\$ 120,750.00

ATTACHMENTS:

Detailed Cost Estimate Printout From TRAQS Liquid AC Adjustment Spreadsheet
--

PROJ. NO. CSSTP-0006-00(253)
P.I. NO. 0006253
DATE 4/2/2015

CALL NO. 9/29/2009

INDEX (TYPE)	DATE	INDEX
REG. UNLEADED	Apr-15	\$ 2.214
DIESEL		\$ 2.788
LIQUID AC		\$ 485.00

Link to Fuel and AC Index:
<http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx>

LIQUID AC ADJUSTMENTS

PA=[((APM-APL)/APL)]xTMTxAPL

Asphalt

Price Adjustment (PA)				1466640	\$	1,466,640.00
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$	776.00		
Monthly Asphalt Cement Price month project let (APL)			\$	485.00		
Total Monthly Tonnage of asphalt cement (TMT)				5040		

ASPHALT	Tons	%AC	AC ton
Leveling	1800	5.0%	90
12.5 OGFC		5.0%	0
12.5 mm	16000	5.0%	800
9.5 mm SP		5.0%	0
25 mm SP	47000	5.0%	2350
19 mm SP	36000	5.0%	1800
	100800		5040

BITUMINOUS TACK COAT

Price Adjustment (PA)				\$	24,997.49	\$	24,997.49
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$	776.00			
Monthly Asphalt Cement Price month project let (APL)			\$	485.00			
Total Monthly Tonnage of asphalt cement (TMT)				85.90201844			

Bitum Tack

Gals	gals/ton	tons
20000	232.8234	85.9020184

BITUMINOUS TACK COAT (surface treatment)

Price Adjustment (PA)					\$	0	\$	-
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$	776.00				
Monthly Asphalt Cement Price month project let (APL)			\$	485.00				
Total Monthly Tonnage of asphalt cement (TMT)				0				

Bitum Tack

	SY	Gals/SY	Gals	gals/ton	tons
Single Surf. Trmt.		0.20	0	232.8234	0
Double Surf.Trmt.		0.44	0	232.8234	0
Triple Surf. Trmt		0.71	0	232.8234	0

TOTAL LIQUID AC ADJUSTMENT \$ **1,491,637.49**

STATE HIGHWAY AGENCY

DATE : 03/26/2015
PAGE : 1

JOB ESTIMATE REPORT

JOB NUMBER : 0006253_PART B SPEC YEAR: 01
DESCRIPTION: FROM WRIGHTSVILLE CHURCH RD TO NORTH OF I-20

ITEMS FOR JOB 0006253_PART B

LINE	ITEM	ALT	UNITS	DESCRIPTION	QUANTITY	PRICE	AMOUNT
0001	004-0012		EA	EXTRA WORK - RESTORATION OF LAKE, STA. 1092+50 LT	1.000	75000.00	75000.00
0002	150-1000		LS	TRAFFIC CONTROL - CSSTP-0006-00(253)	1.000	1000000.00	1000000.00
0003	201-1500		LS	CLEARING & GRUBBING - CSSTP-0006-00(253)	1.000	2000000.00	2000000.00
0004	204-0001		CY	CHANNEL EXCAVATION	250.000	305.00	76250.00
0005	205-0001		CY	UNCLASS EXCAV	172000.000	8.00	1376000.00
0006	206-0002		CY	BORROW EXCAV, INCL MATL	59000.000	5.50	324500.00
0007	207-0203		CY	FOUND BKFILL MATL, TP II	1081.000	52.00	56212.00
0008	207-2003		CY	IMPERF TRENCH BKFILL MATL TP 3	33.000	31.50	1039.50
0011	310-1101		TN	GR AGGR BASE CRS, INCL MATL	112000.000	25.00	2800000.00
0012	318-3000		TN	AGGR SURF CRS	5400.000	20.00	108000.00
0013	402-1812		TN	RECYL AC LEVELING, INC BM&HL	1800.000	80.00	144000.00
0014	402-3121		TN	RECYL AC 25MM SP, GP1/2, BM&HL	47000.000	66.00	3102000.00
0015	402-3130		TN	RECYL AC 12.5MM SP, GP2, BM&HL	16000.000	85.00	1360000.00
0016	402-3190		TN	RECYL AC 19 MM SP, GP 1 OR 2 , INC BM&HL	36000.000	79.00	2844000.00
0017	413-1000		GL	BITUM TACK COAT	20000.000	4.00	80000.00
0018	432-0206		SY	MILL ASPH CONC PVMT/ 1.50" DEP	6210.000	4.00	24840.00
0019	433-1200		SY	REF CONC APPR SL/I SLOPED EDGE	878.000	142.00	124676.00
0020	436-1000		LF	ASPH CONC CURB - BEHIND GUARDRAIL	8910.000	9.00	80190.00
0021	441-0016		SY	DRIVEWAY CONCRETE, 6 IN TK	64.000	36.00	2304.00
0022	441-0018		SY	DRIVEWAY CONCRETE, 8 IN TK	270.000	43.00	11610.00
0023	441-0104		SY	CONC SIDEWALK, 4 IN	7722.000	44.00	339768.00
0024	441-0204		SY	PLAIN CONC DITCH PAVING, 4 IN	648.000	31.00	20088.00
0025	441-0302		EA	CONC SPILLWAY, TP 2	8.000	1616.00	12928.00
0030	441-0108		SY	CONC SIDEWALK, 8 IN	3493.000	39.00	136227.00
0031	441-0748		SY	CONC MEDIAN, 6 IN	11340.000	51.00	578340.00
0035	441-3999		LF	CONCRETE V GUTTER	3240.000	18.00	58320.00
0036	441-4020		SY	CONC VALLEY GUTTER, 6 IN	41.000	36.00	1476.00
0041	441-4030		SY	CONC VALLEY GUTTER, 8 IN	130.000	23.00	2990.00
0046	441-6022		LF	CONC CURB & GUTTER, 6"X30"TP2	17280.000	24.00	414720.00
0051	441-6720		LF	CONC CURB & GUTTER/ 6"X30"TP7	11880.000	25.00	297000.00
0056	446-1100		LF	PVMT REF FAB STRIPS, TP2, 18 INCH WIDTH	1296.000	6.00	7776.00
0057	456-2015		GLM	INDENT. RUMB. STRIPS - GRND-IN-PL (SKIP)	6.000	1600.00	9600.00
0065	500-3101		CY	CLASS A CONCRETE CULVERT	540.000	500.00	270000.00
0071	500-3120		LF	CLASS A CONCRETE, TYPE P3, RETAINING WAL	46.000	520.00	23920.00
0076	500-3200		CY	CL B CONC	78.000	400.00	31200.00
0081	500-3800		CY	CL A CONC, INCL REINF STEEL	49.000	850.00	41650.00
0086	500-9999		CY	CL B CONC, BASE OR PVMT WIDEN	24.000	175.00	4200.00
0091	511-1000		LB	BAR REINF STEEL	55080.000	1.00	55080.00

STATE HIGHWAY AGENCY

DATE : 03/26/2015

PAGE : 2

JOB ESTIMATE REPORT

0096	515-2020	LF	GALV STEEL PIPE HDRAIL,2",ROUD	92.000	55.00	5060.00
0101	621-4021	LF	CONCRETE SIDE BARRIER, TY 2A	175.000	335.00	58625.00
0106	621-4022	LF	CONCRETE SIDE BARRIER, TY 2B	42.000	475.00	19950.00
0111	634-1200	EA	RIGHT OF WAY MARKERS	217.000	107.00	23219.00
0116	641-1100	LF	GUARDRAIL, TP T	659.000	55.00	36245.00
0121	641-1200	LF	GUARDRAIL, TP W	7744.000	19.00	147136.00
0126	641-5001	EA	GUARDRAIL ANCHORAGE, TP 1	24.000	840.00	20160.00
0131	641-5012	EA	GUARDRAIL ANCHORAGE, TP 12	24.000	1750.00	42000.00
0136	550-1180	LF	STM DR PIPE 18",H 1-10	9558.000	32.00	305856.00
0141	550-1240	LF	STM DR PIPE 24",H 1-10	1322.000	42.00	55524.00
0146	550-1300	LF	STM DR PIPE 30",H 1-10	148.000	55.00	8140.00
0156	550-1480	LF	STM DR PIPE 48",H 1-10	170.000	92.00	15640.00
0161	550-1720	LF	STM DR PIPE 72",H 1-10	193.000	275.00	53075.00
0166	550-2180	LF	SIDE DR PIPE 18",H 1-10	718.000	29.00	20822.00
0176	550-3418	EA	SAFETY END SECTION 18",SD,4:1	28.000	375.00	10500.00
0196	550-4218	EA	FLARED END SECT 18 IN, ST DR	31.000	600.00	18600.00
0201	550-4224	EA	FLARED END SECT 24 IN, ST DR	3.000	631.00	1893.00
0206	550-4230	EA	FLARED END SECT 30 IN, ST DR	4.000	725.00	2900.00
0226	668-1100	EA	CATCH BASIN, GP 1	59.000	2250.00	132750.00
0231	668-1110	LF	CATCH BASIN, GP 1, ADDL DEPTH	44.000	175.00	7700.00
0236	668-2100	EA	DROP INLET, GP 1	56.000	2000.00	112000.00
0241	668-2110	LF	DROP INLET, GP 1, ADDL DEPTH	27.000	200.00	5400.00
0246	668-2200	EA	DROP INLET, GP 2	2.000	2350.00	4700.00
0251	668-2210	LF	DROP INLET, GP 2, ADDL DEPTH	8.000	250.00	2000.00
0276	603-2024	SY	STN DUMPED RIP RAP, TP 1, 24"	867.000	45.00	39015.00
0286	603-7000	SY	PLASTIC FILTER FABRIC	867.000	4.00	3468.00
0291	643-8200	LF	BARRIER FENCE (ORANGE), 4 FT	2700.000	2.00	5400.00
0296	700-6910	AC	PERMANENT GRASSING	270.000	900.00	243000.00
0301	700-7000	TN	AGRICULTURAL LIME	324.000	100.00	32400.00
0306	700-8000	TN	FERTILIZER MIXED GRADE	73.000	550.00	40150.00
0311	700-8100	LB	FERTILIZER NITROGEN CONTENT	8100.000	6.00	48600.00
0316	710-9000	SY	PERM SOIL REINFORCING MAT	32400.000	3.50	113400.00
0321	716-2000	SY	EROSION CONTROL MATS, SLOPES	81000.000	1.00	81000.00
0326	163-0232	AC	TEMPORARY GRASSING	135.000	450.00	60750.00
0331	163-0240	TN	MULCH	2700.000	200.00	540000.00
0336	163-0300	EA	CONSTRUCTION EXIT	13.000	1250.00	16250.00
0341	163-0503	EA	CONSTR AND REMOVE SILT CONTROL GATE,TP 3	11.000	390.00	4290.00
0346	163-0520	LF	CONSTR AND REMOVE TEMP PIPE SLOPE DRAIN	3240.000	15.00	48600.00
0351	163-0527	EA	CNST/REM RIP RAP CKDM,STN P RIPRAP/SN BG	540.000	250.00	135000.00
0356	163-0531	EA	CONSTR & REM SEDIMENT BASIN,TP 1,STA NO- 30 LOCATIONS	17.000	7450.00	126650.00
0361	163-0550	EA	CONS & REM INLET SEDIMENT TRAP	162.000	170.00	27540.00
0366	165-0030	LF	MAINT OF TEMP SILT FENCE, TP C	27000.000	1.00	27000.00
0371	165-0041	LF	MAINT OF CHECK DAMS - ALL TYPES	2700.000	5.00	13500.00
0376	165-0050	LF	MAINT OF SILT RETENTION BARRIER	162.000	6.50	1053.00
0381	165-0087	EA	MAINT OF SILT CONTROL GATE, TP 3	11.000	475.00	5225.00
0386	165-0101	EA	MAINT OF CONST EXIT	13.000	500.00	6500.00
0391	165-0105	EA	MAINT OF INLET SEDIMENT TRAP	162.000	60.00	9720.00
0396	167-1000	EA	WATER QUALITY MONITORING AND SAMPLING	2.000	365.00	730.00
0401	167-1500	MO	WATER QUALITY INSPECTIONS	19.000	840.00	15960.00

STATE HIGHWAY AGENCY

DATE : 03/26/2015
PAGE : 3

JOB ESTIMATE REPORT

0406	170-2000	LF	STAKED SILT RETENTION BARRIER	3240.000	9.00	29160.00
0411	171-0030	LF	TEMPORARY SILT FENCE, TYPE C	54000.000	3.00	162000.00
0416	150-0250	LF	TRAF CTRL,SLD TS,THERM,24" WHT	900.000	4.00	3600.00
0421	636-1020	SF	HWY SGN,TP1MAT,REFL SH TP3	1100.000	15.00	16500.00
0426	636-1029	SF	HWY SGN,TP2 MATL,REFL SH TP 3	1600.000	16.00	25600.00
0431	636-1033	SF	HWY SIGNS, TP1MAT,REFL SH TP 9	300.000	20.00	6000.00
0436	636-1041	SF	HWY SIGNS,TP 2MAT,REFL SH TP 9	200.000	35.00	7000.00
0441	636-2070	LF	GALV STEEL POSTS, TP 7	600.000	7.00	4200.00
0446	636-2080	LF	GALV STEEL POSTS, TP 8	4000.000	9.00	36000.00
0451	653-0120	EA	THERM PVMT MARK, ARROW, TP 2	400.000	77.00	30800.00
0456	653-0130	EA	THERM PVMT MARK, ARROW, TP 3	300.000	105.00	31500.00
0461	653-0170	EA	THERM PVMT MARK, ARROW, TP 7	60.000	90.00	5400.00
0466	653-1501	LF	THERMO SOLID TRAF ST 5 IN, WHI	110000.000	1.00	110000.00
0471	653-1502	LF	THERMO SOLID TRAF ST, 5 IN YEL	30000.000	1.00	30000.00
0476	653-1704	LF	THERM SOLID TRAF STRIPE,24",WH	600.000	7.00	4200.00
0481	653-1804	LF	THERM SOLID TRAF STRIPE, 8",WH	1100.000	5.00	5500.00
0486	653-3501	GLF	THERMO SKIP TRAF ST, 5 IN, WHI	22000.000	1.00	22000.00
0491	653-3502	GLF	THERMO SKIP TRAF ST, 5 IN, YEL	1000.000	1.00	1000.00
0496	653-6004	SY	THERM TRAF STRIPING, WHITE	11000.000	5.00	55000.00
0501	653-6006	SY	THERM TRAF STRIPING, YELLOW	2500.000	5.00	12500.00
0506	654-1001	EA	RAISED PVMT MARKERS TP 1	1100.000	5.00	5500.00
0511	654-1003	EA	RAISED PVMT MARKERS TP 3	1300.000	5.00	6500.00
0516	654-1010	EA	RAISED PVMT MARKERS TP 10	300.000	40.00	12000.00
0517	657-6085	LF	PRF PL SD PVMT MKG,8",B/Y,TPPB	540.000	6.00	3240.00
0522	657-3085	GLF	PRF PL SK PVMT MKG,8",B/W,TPPB	270.000	5.00	1350.00
0527	657-1085	LF	PRF PL SD PVT MKG,8",B/W,TP PB	540.000	6.00	3240.00
0540	615-1100	LF	DIRECTIONAL BORE PIPE - 5 IN	800.000	120.00	96000.00
0541	639-4004	EA	STRAIN POLE, TP IV	32.000	7500.00	240000.00
0546	647-1000	LS	TRAF SIGNAL INSTALLATION NO - 2 INTERSECTIONS @ \$250,000 EA	1.000	500000.00	500000.00
0551	682-6120	LF	CONDUIT, RIGID, 2 IN	800.000	15.00	12000.00
0556	682-6233	LF	CONDUIT, NONMETL, TP 3, 2 IN	1600.000	5.00	8000.00
0566	540-1202	LS	REM OF PARTS OF EX BR, BR NO - BRIDGE OVER I-20	1.000	200000.00	200000.00
0576	543-9000	LS	CONSTR OF BRIDGE COMPLETE - CONC. BRIDGE WIDENING - I-20	1.000	700000.00	700000.00
0581	543-9000	LS	CONSTR OF BRIDGE COMPLETE - NEW CONC. BRIDGE - LITTLE CREEK	1.000	1000000.00	1000000.00

ITEM TOTAL	24036790.50
INFLATED ITEM TOTAL	24036790.50

TOTALS FOR JOB 0006253_PART B

ESTIMATED COST:	24036790.50
CONTINGENCY PERCENT (0.0):	0.00
ESTIMATED TOTAL:	24036790.50

**GEORGIA DEPARTMENT OF TRANSPORTATION
PRELIMINARY ROW COST ESTIMATE SUMMARY**

Date: 11/11/2013
Revised: 3/30/2015

Project: CSSTP-0006-00 (253)
County: Greene
PI: 6253

Description: SR 44 Widening
Project Termini: Wrightsville Road to I-20

Existing ROW: Varies
Required ROW: Varies

Parcels: 50

Land and Improvements \$3,908,865.00

Proximity Damage	\$0.00
Consequential Damage	\$0.00
Cost to Cures	\$0.00
Trade Fixtures	\$50,000.00
Improvements	\$600,000.00

Valuation Services \$165,625.00

Legal Services \$333,750.00

Relocation \$225,000.00

Demolition \$106,500.00

Administrative \$422,500.00

TOTAL ESTIMATED COSTS \$5,162,240.00

TOTAL ESTIMATED COSTS (ROUNDED) \$5,163,000.00

Preparation Credits	Hours	Signature

Prepared By:

D.A.B.

CG#:

3/30/15

Approved By:

Deshone Alexander

CG#: 286999

04/09/2015

(DATE)

NOTE: No Market Appreciation is included in this Preliminary Cost Estimate

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE CSSTP-0006-00(253) - Greene County **OFFICE** Tennille
 P.I. No. 0006253B
 State Route 44 from Richland Connector to **DATE** August 13, 2014
 Town Creek
FROM 
 Jamie Lindsey
 State Liaison Utilities Engineer
TO Albert Shelby, State Program Delivery Engineer
ATTN Eric Ryan Wilkinson, Project Manager
SUBJECT UPDATED UTILITY COST ESTIMATE

As requested by your office, we are furnishing you with a Updated Utility Cost Estimate for each utility with facilities potentially located within the project limits.

<u>FACILITY OWNER</u>	<u>NON-REIMBURSABLE</u>	<u>REIMBURSABLE</u>
AT&T (DIST.)	\$1,138,655.00	\$0.00
CHARTER COMMUNICATIONS	\$14,656.00	\$0.00
CITY OF GREENSBORO (GAS)	\$97,065.00	\$0.00
CITY OF GREENSBORO (WATER)	\$595,141.00	\$0.00
CITY OF GREENSBORO (SEWER)	\$412,470.00	\$750.00
GEORGIA POWER COMPANY (DIST.)	\$1,980,000.00	\$230,000.00
PLANTATION CABLE	\$338,310.00	\$0.00
PROGRESSIVE COMMUNICATIONS	\$336,781.00	\$0.00
RAYLE E.M.C.	\$307,100.00	\$120,000.00
TRI COUNTY NATURAL (GAS)	\$132,570.00	\$0.00
Totals	\$5,352,748.00	\$350,750.00

Total Non-Reimbursable Cost: \$5,352,748.00
Total Reimbursable Cost: \$350,750.00
Total Relocations: \$5,703,498.00

The history of vehicle crashes along the roadway corridor can identify operational inefficiencies, congested locations, or non-standard roadway conditions that contribute to crashes. A three-year history of crashes along the SR 44 project corridor is shown in Table 3, Crash History of SR 44 from SR 16 to I-20; the corresponding statewide rates for Rural Minor Arterials are included. This table provides the number of crashes, the number of injuries, and the number of fatalities (with respective crash, injury, and fatality rates) per year between 2011 and 2013. The fatality rate exceeded the statewide average in 2012; all other crash, injury and fatality rates are less than the associated statewide rate. Table 4, Crash Categories provides a breakdown of the types of crashes in each year. The two most prevalent crash types are “not a collision with a vehicle” and “rear end”. An increase in the rate of crashes would be expected on the already congested roadway when traffic volumes increase as projected. The resulting congestion would likely increase stop and go-traffic with rear-end collisions.

Table 3: Crash History – SR 44 from SR 16 to I-20

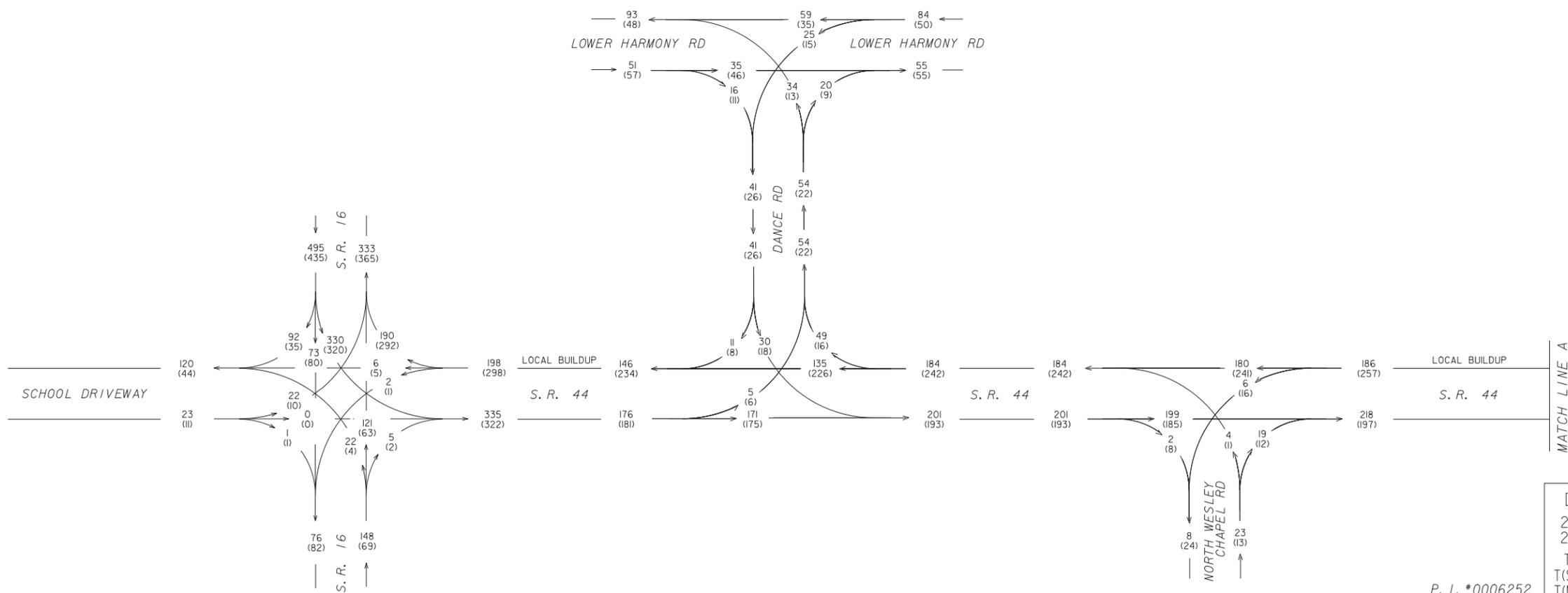
Year	Total Crashes	Crash Rate*	Statewide Crash Rate**	Total Injuries	Injury Rate	Statewide Injury Rate	Total Fatalities	Fatality Rate	Statewide Fatality Rate
2011	87	115	195	38	50	61	0	0.00	2.38
2012	78	104	197	30	40	66	2	2.66	2.48
2013	79	105	215	35	47	61	0	0.00	1.99

* All crash, injury, and fatality rates are per 100 million vehicle miles.

** Statewide averages corresponding to rural minor arterial.

Table 4: Crash Categories

Type of Crash	2011	2012	2013	Total	Percentage of All Crashes
Angle	17	12	14	43	17.6%
Head-On	2	3	3	8	3.3%
Not a Collision with a Vehicle	35	37	31	103	42.2%
Rear End	28	25	30	83	34.0%
Side Swipe	5	1	1	7	2.9%
Sub-Total	87	78	79	244	100%



DESIGN TRAFFIC
 2014 AM DHV = 000
 2014 PM DHV = (000)
 T = 6% [AM], 7% [PM]
 T(SU) = 4% [AM], 5% [PM]
 T(MU) = 2% [AM], 2% [PM]

P. I. *0006252

DESIGNED BY SKB	TRANSYSTEMS NO. A317067310
DRAWN BY SKB	DATE 1/16/12
CHECKED BY DBH	SCALE N.T.S.

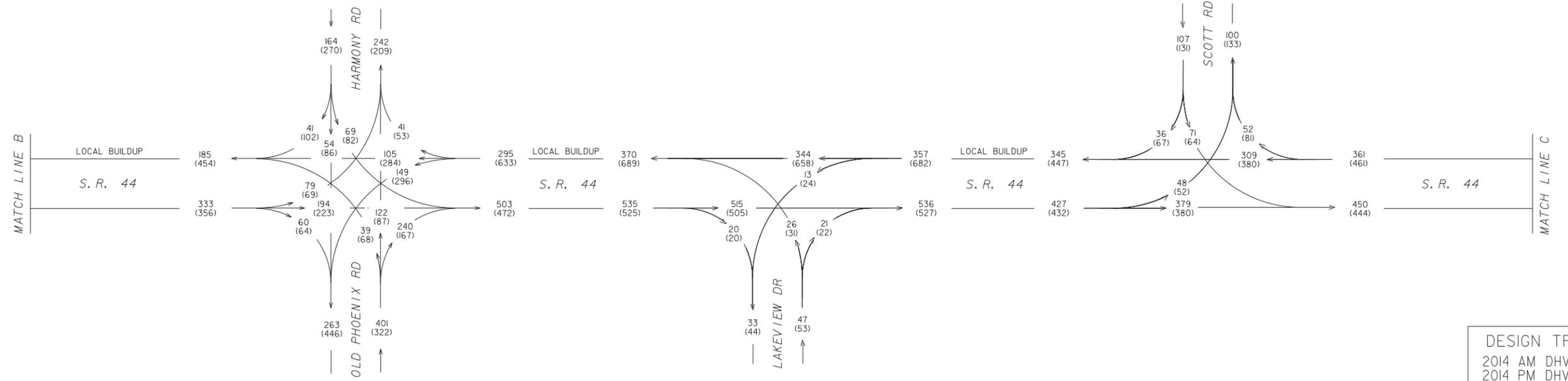
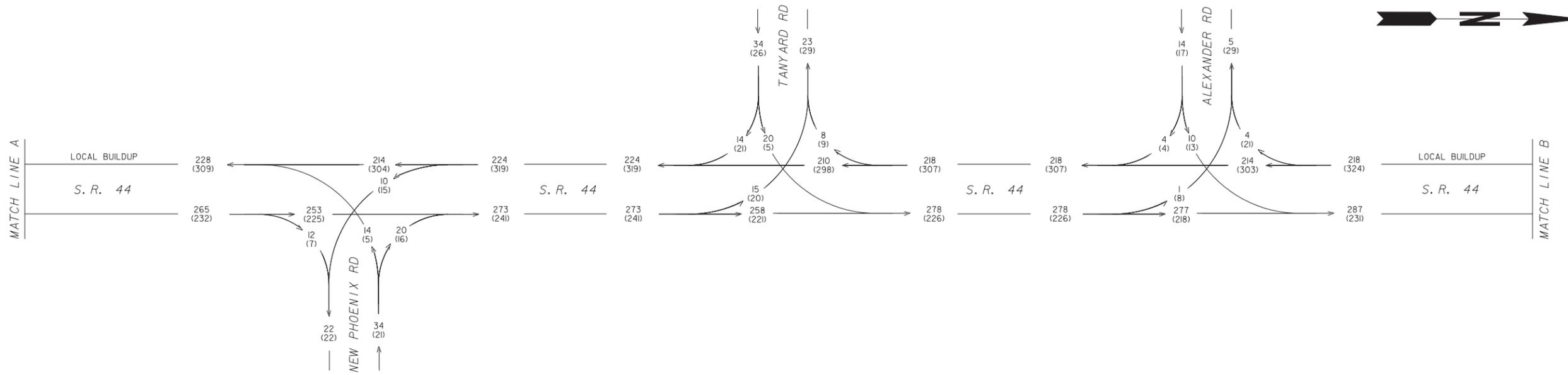


1780 Corporate Drive
 Suite 400
 Norcross, Georgia 30093
 Tel 770.931.8005
 Fax 770.931.8555
 www.transystems.com

REVISION DATES

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE: CONSULTANT DESIGN
 TRAFFIC DIAGRAM
 S. R. 44 (EXISTING CONDITIONS)
 PUTNAM COUNTY
 2014 AM/PM DHV

DRAWING No.
10-01



DESIGN TRAFFIC
 2014 AM DHV = 000
 2014 PM DHV = (000)
 T = 6% [AM], 7% [PM]
 T(SU) = 4% [AM], 5% [PM]
 T(MU) = 2% [AM], 2% [PM]

P. I. *0006252

DESIGNED BY SKB	TRANSYSTEMS NO. A317067310
DRAWN BY SKB	DATE 1/16/12
CHECKED BY DBH	SCALE N.T.S.

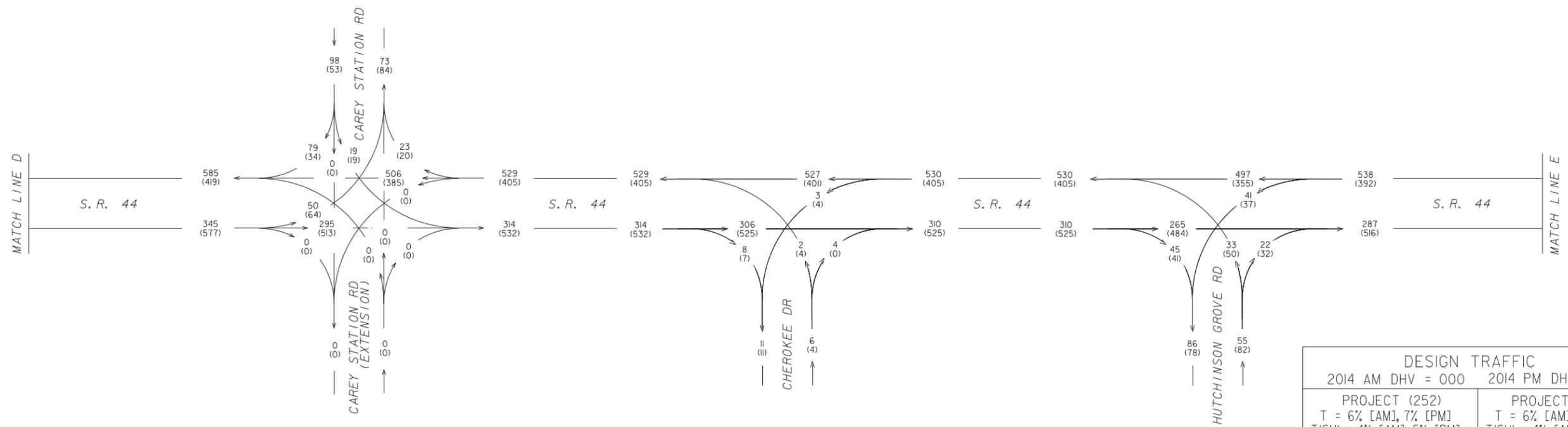
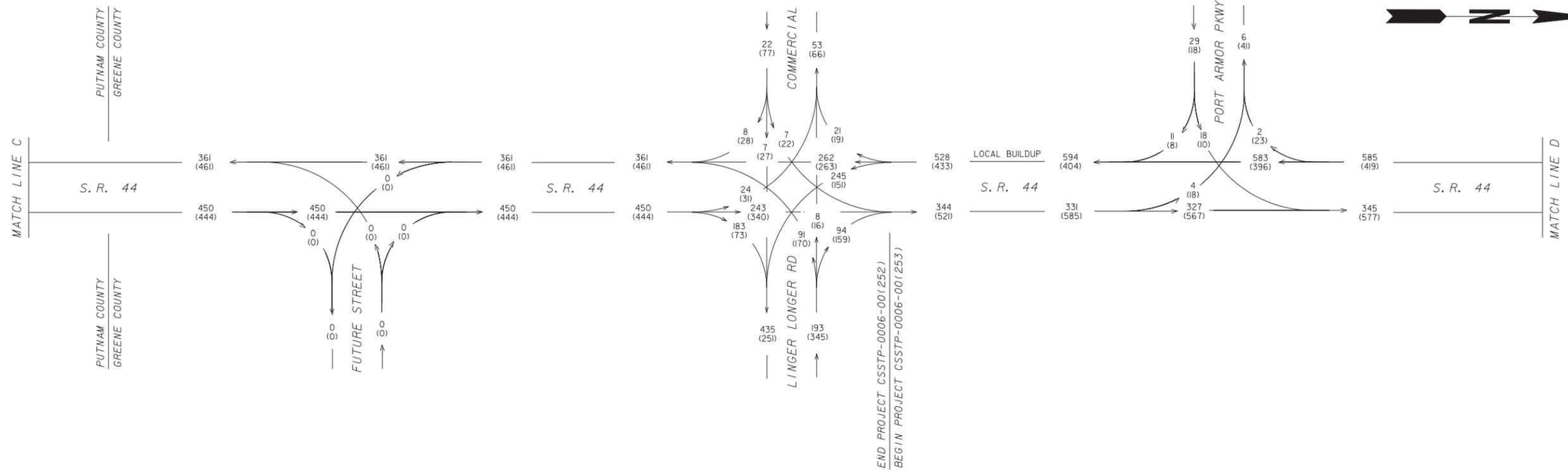


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REVISION DATES	

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE: CONSULTANT DESIGN
 TRAFFIC DIAGRAM
 S. R. 44 (EXISTING CONDITIONS)
 PUTNAM COUNTY
 2014 AM/PM DHV

DRAWING No.
10-02



DESIGN TRAFFIC	
2014 AM DHV = 000	2014 PM DHV = (000)
PROJECT (252)	PROJECT (253)
T = 6% [AM], 7% [PM]	T = 6% [AM], 5% [PM]
T(SU) = 4% [AM], 5% [PM]	T(SU) = 4% [AM], 3% [PM]
T(MU) = 2% [AM], 2% [PM]	T(MU) = 2% [AM], 2% [PM]

P. I. *0006252 AND P. I. *0006253

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DRAWN BY SKB	DATE 1/16/12
CHECKED BY DBH	SCALE N.T.S.

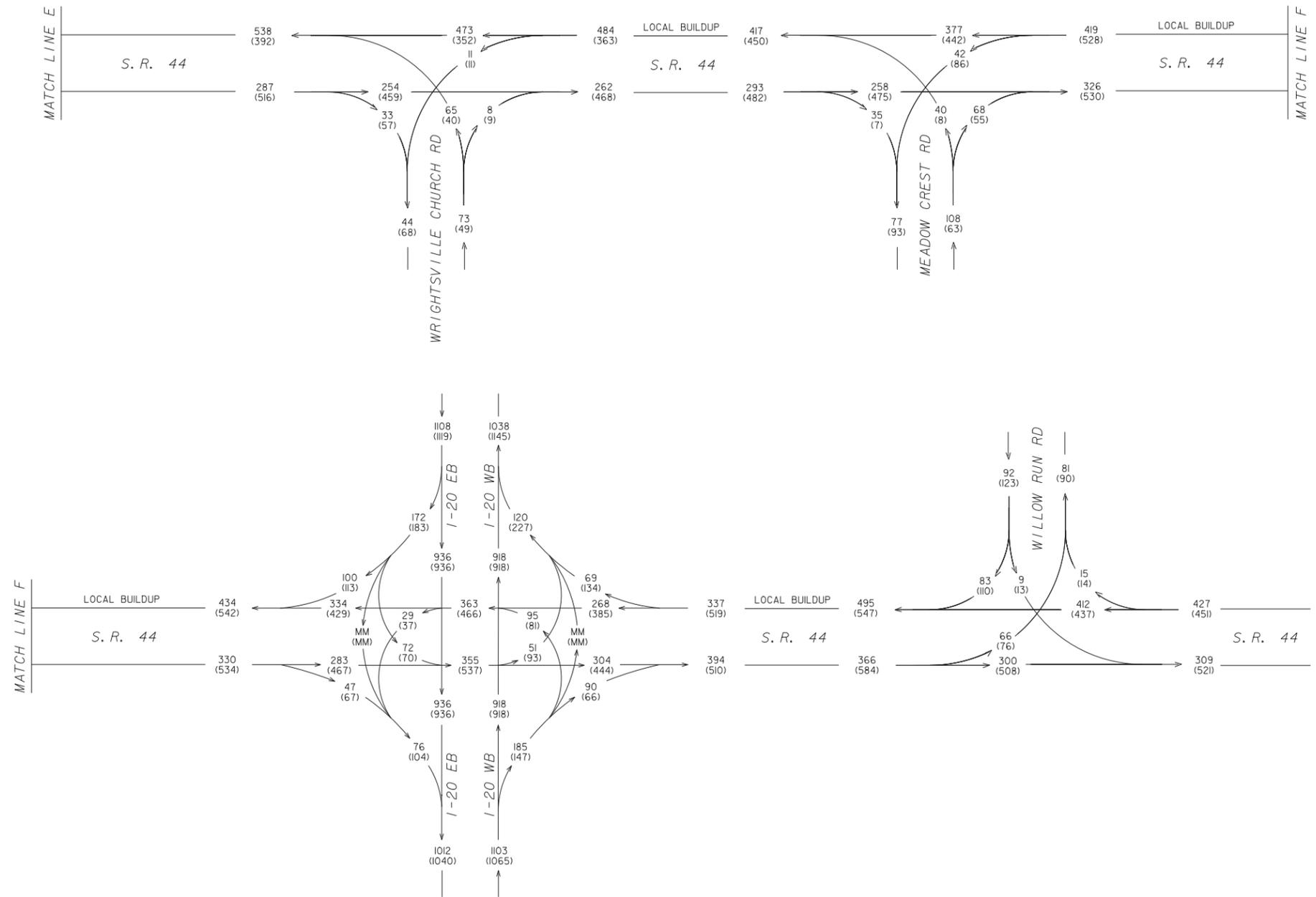


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REVISION DATES

STATE OF GEORGIA
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 TRAFFIC DIAGRAM
 S. R. 44 (EXISTING CONDITIONS)
 GREENE AND PUTNAM COUNTIES
 2014 AM/PM DHV

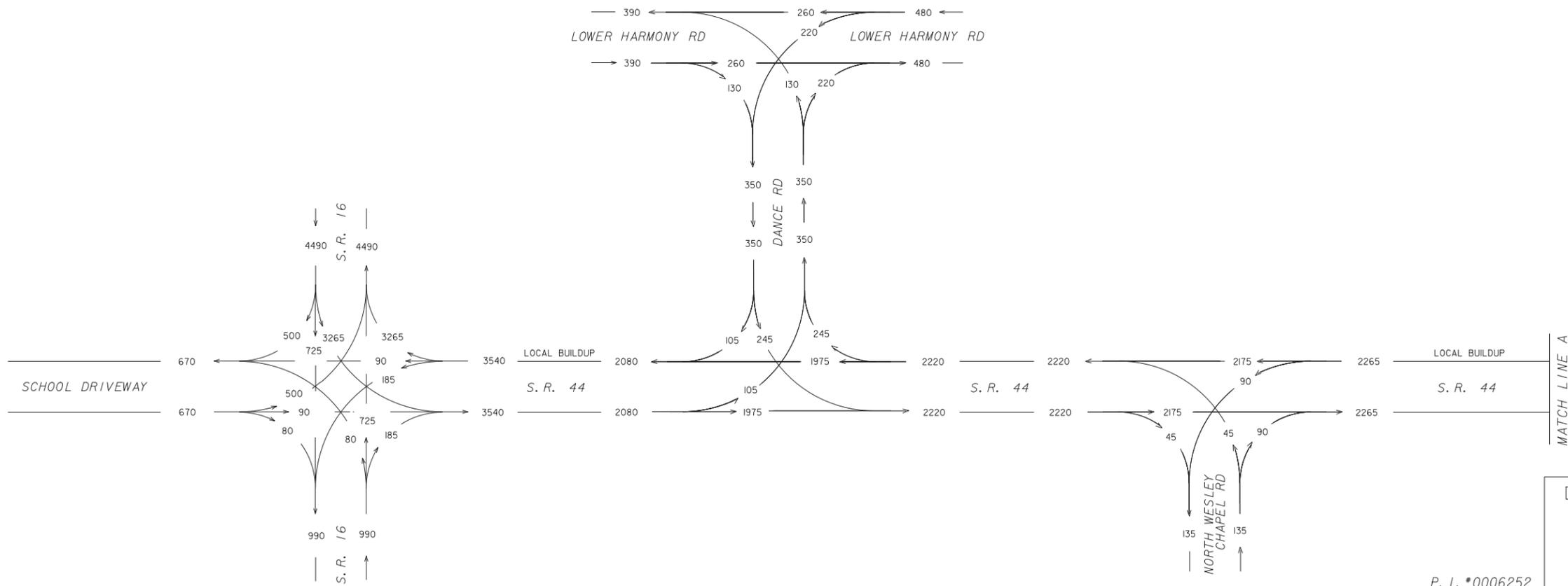
DRAWING No. 10-03



DESIGN TRAFFIC
 2014 AM DHV = 000
 2014 PM DHV = (000)
 T = 6% [AM], 5% [PM]
 T(SU) = 4% [AM], 3% [PM]
 T(MU) = 2% [AM], 2% [PM]

P. I. *0006253

DESIGNED BY SKB DRAWN BY SKB CHECKED BY DBH	TRANSYSTEMS NO. A317067310	 1780 Corporate Drive Suite 400 Norcross, Georgia 30093 Tel 770.931.8005 Fax 770.931.8555 www.transystems.com	REVISION DATES		STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION OFFICE: CONSULTANT DESIGN TRAFFIC DIAGRAM S. R. 44 (EXISTING CONDITIONS) GREENE COUNTY 2014 AM/PM DHV	DRAWING No. 10-04
	DATE 1/16/12					
	SCALE N.T.S.					



DESIGN TRAFFIC
 2014 AADT = 000
 24-HOUR T = 17%
 24-HOUR T(SU) = 10%
 24-HOUR T(MU) = 7%

P. I. *0006252

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DRAWN BY SKB	DATE 1/16/12
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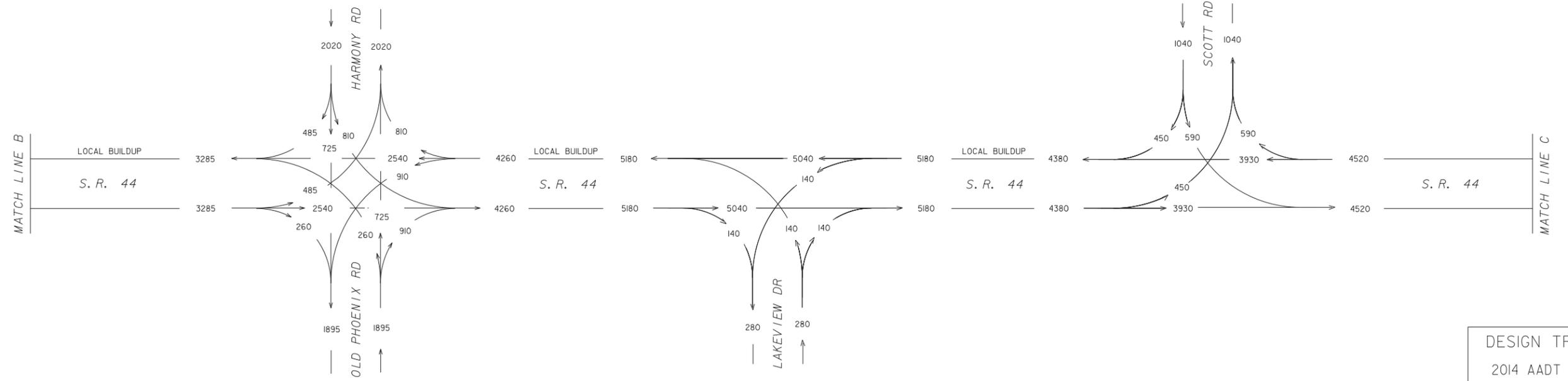
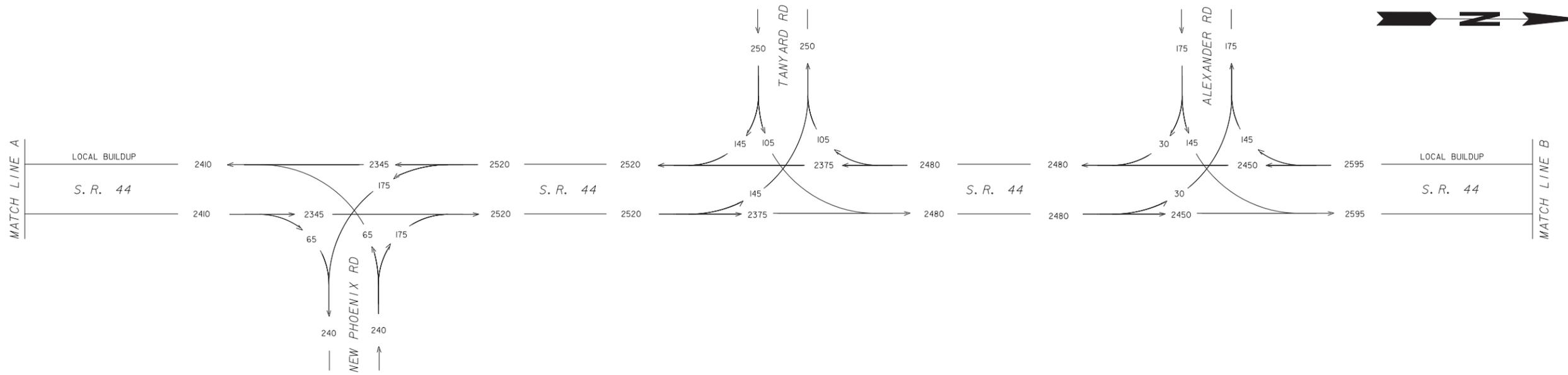


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 TRAFFIC DIAGRAM
 S. R. 44 (EXISTING CONDITIONS)
 PUTNAM COUNTY
 2014 AADT

DRAWING No.
10-05



DESIGN TRAFFIC
 2014 AADT = 000
 24-HOUR T = 17%
 24-HOUR T(SU) = 10%
 24-HOUR T(MU) = 7%

P. I. *0006252

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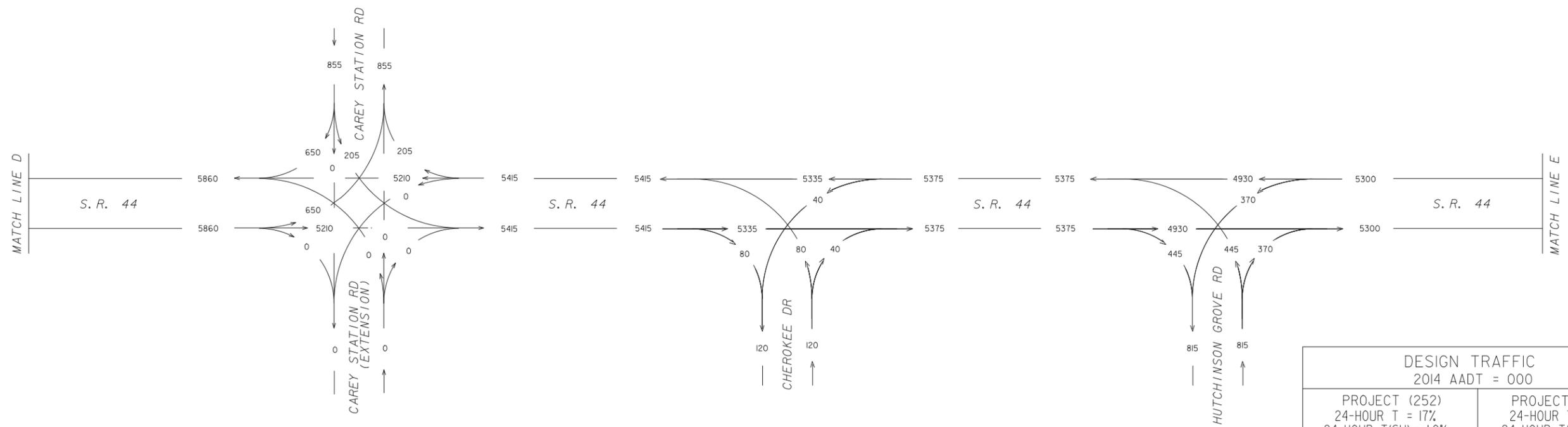
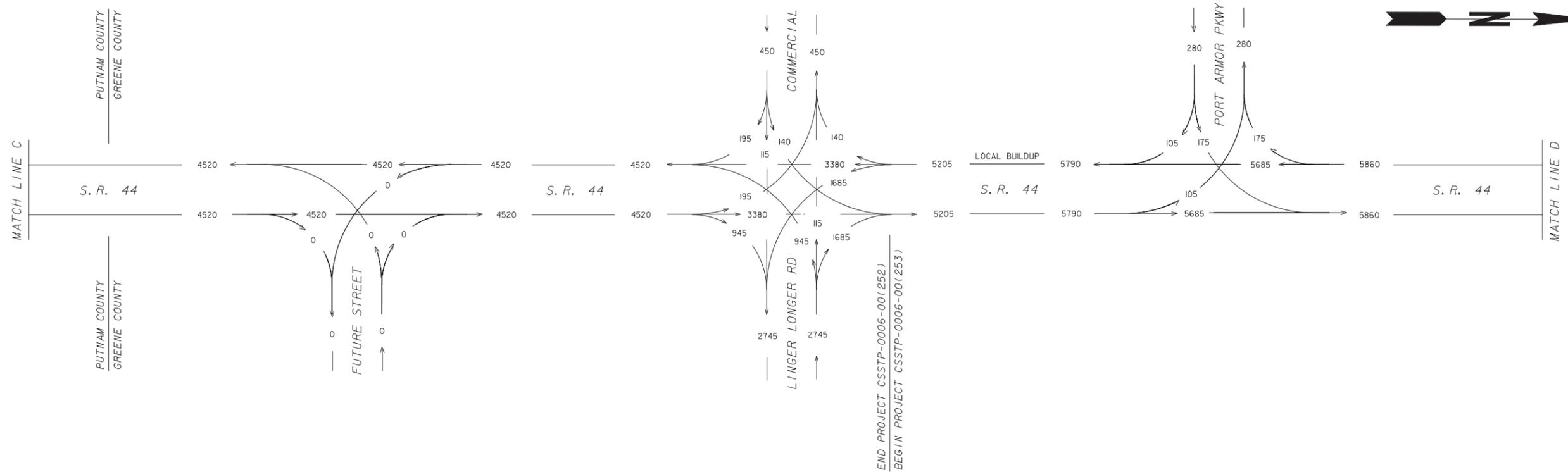


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 TRAFFIC DIAGRAM
 S. R. 44 (EXISTING CONDITIONS)
 PUTNAM COUNTY
 2014 AADT

DRAWING No.
10-06



DESIGN TRAFFIC 2014 AADT = 000	
PROJECT (252) 24-HOUR T = 17% 24-HOUR T(SU) = 10% 24-HOUR T(MU) = 7%	PROJECT (253) 24-HOUR T = 13% 24-HOUR T(SU) = 7% 24-HOUR T(MU) = 6%

P. I. *0006252 AND P. I. *0006253

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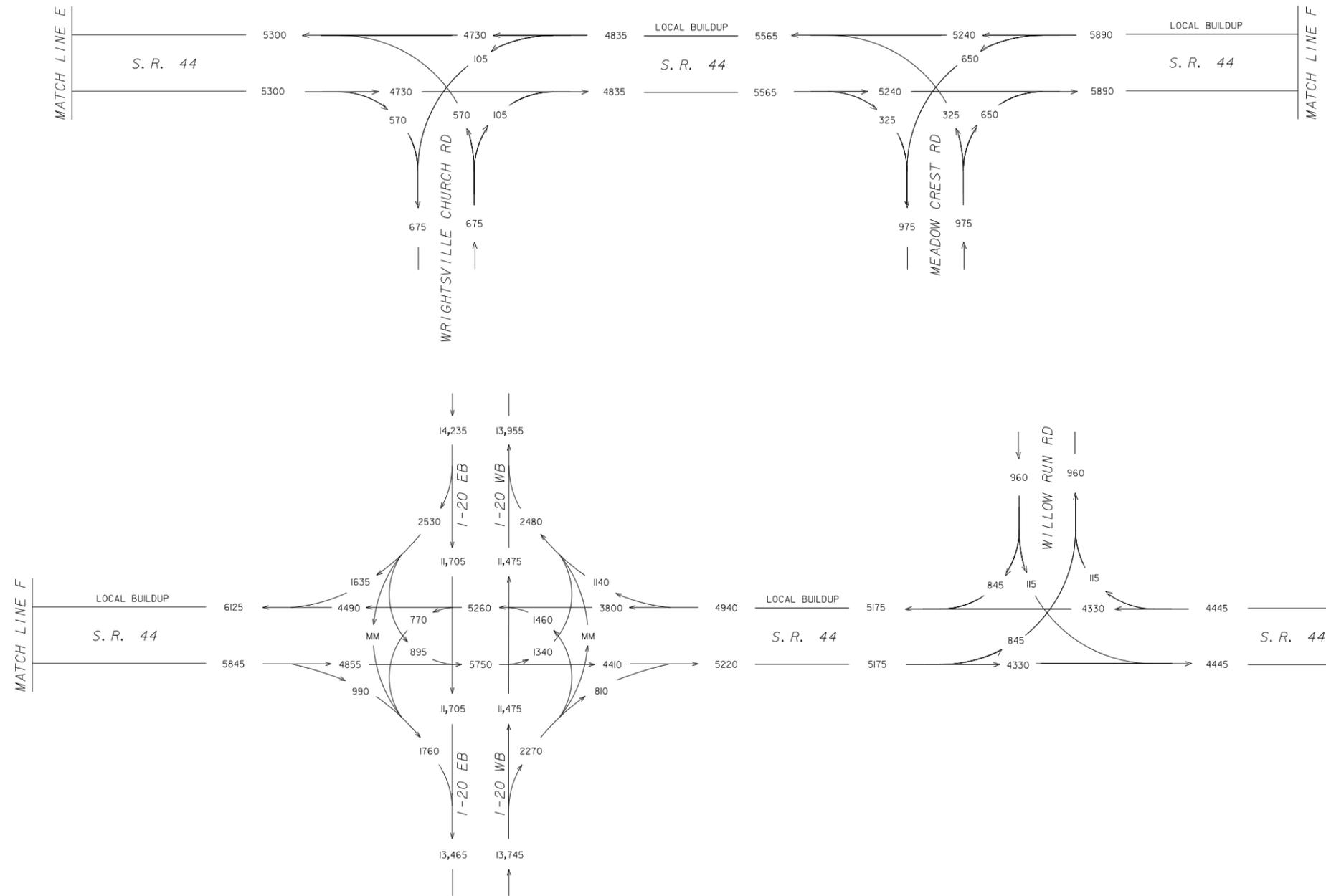


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TRAFFIC DIAGRAM
S. R. 44 (EXISTING CONDITIONS)
GREENE AND PUTNAM COUNTIES
2014 AADT

DRAWING No.
10-07



DESIGN TRAFFIC
 2014 AADT = 000
 24-HOUR T = 13%
 24-HOUR T(SU) = 7%
 24-HOUR T(MU) = 6%

P. I. *0006253

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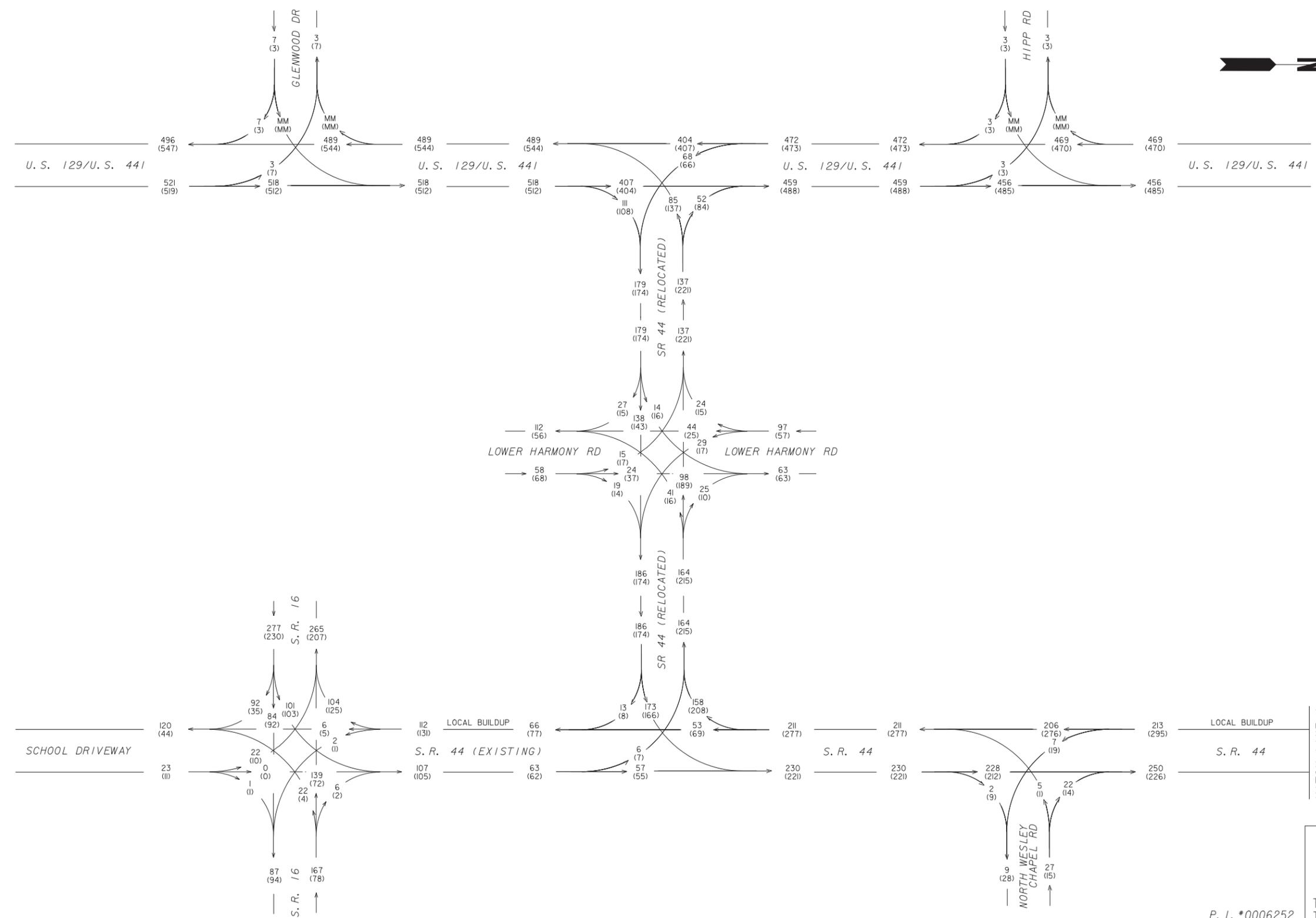


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 TRAFFIC DIAGRAM
 S. R. 44 (EXISTING CONDITIONS)
 GREENE COUNTY
 2014 AADT

DRAWING No.
10-08



P. I. *0006252

DESIGN TRAFFIC
 2020 AM DHV = 000
 2020 PM DHV = (000)
 T = 6% [AM], 7% [PM]
 T(SU) = 4% [AM], 5% [PM]
 T(MU) = 2% [AM], 2% [PM]

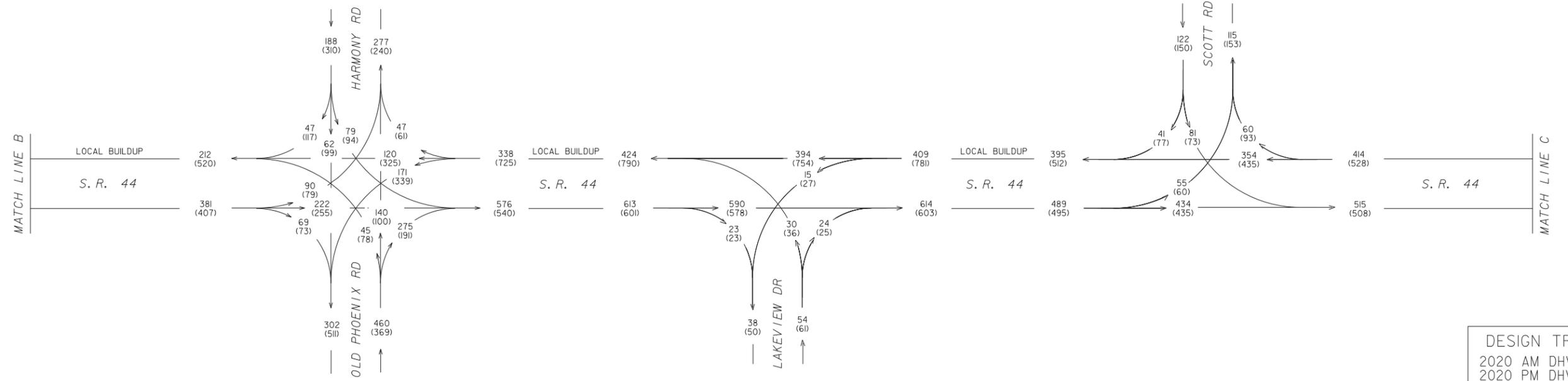
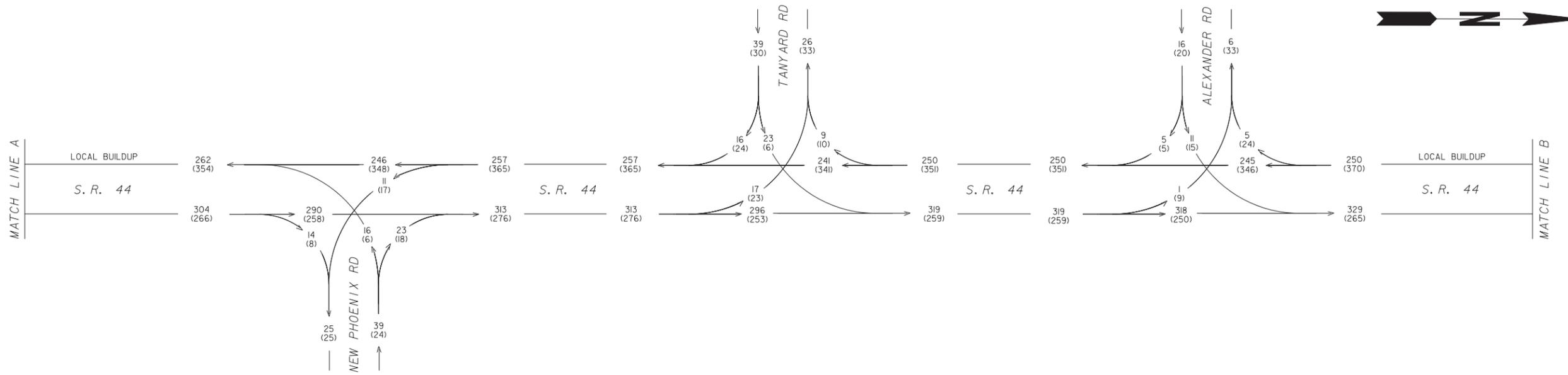
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 S. R. 44 (PROPOSED CONDITIONS)
 PUTNAM COUNTY
 2020 AM/PM DHV
 NO-BUILD

DRAWING No.
10-09



DESIGN TRAFFIC
 2020 AM DHV = 000
 2020 PM DHV = (000)
 T = 6% [AM], 7% [PM]
 T(SU) = 4% [AM], 5% [PM]
 T(MU) = 2% [AM], 2% [PM]

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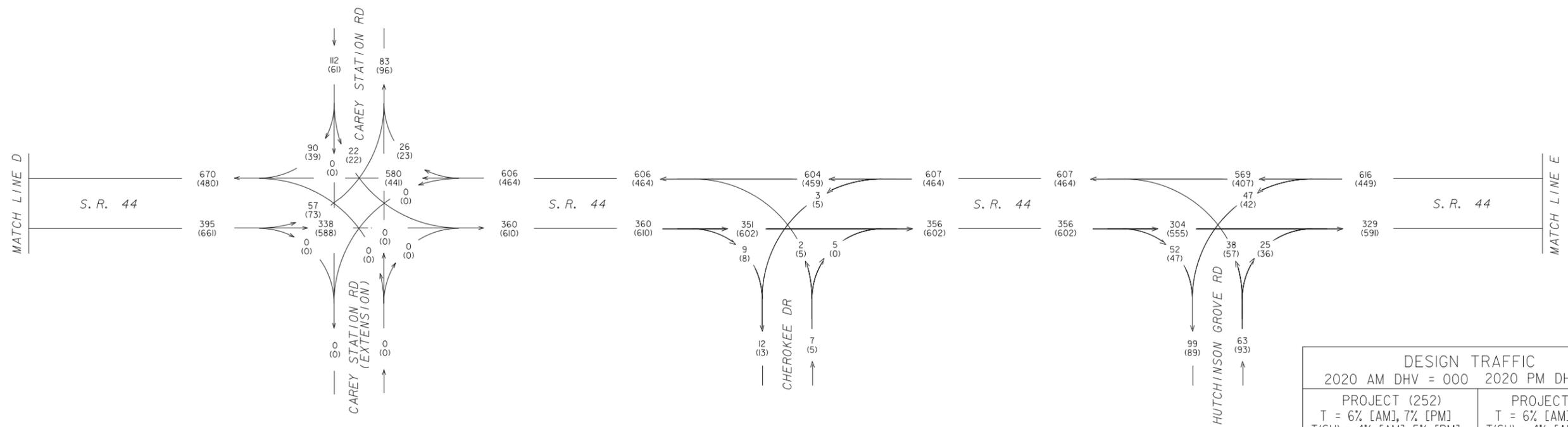
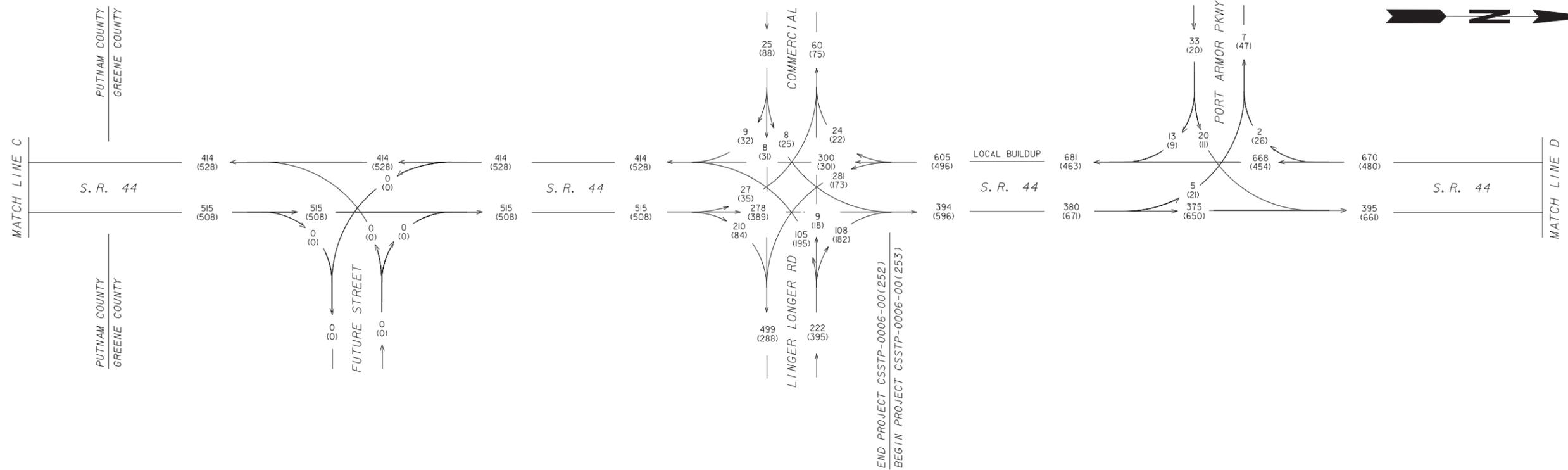


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 S. R. 44 (PROPOSED CONDITIONS)
 PUTNAM COUNTY
 2020 AM/PM DHV
 NO-BUILD

DRAWING No.
10-10



DESIGN TRAFFIC	
2020 AM DHV = 000	2020 PM DHV = (000)
PROJECT (252) T = 6% [AM], 7% [PM] T(SU) = 4% [AM], 5% [PM] T(MU) = 2% [AM], 2% [PM]	PROJECT (253) T = 6% [AM], 5% [PM] T(SU) = 4% [AM], 3% [PM] T(MU) = 2% [AM], 2% [PM]

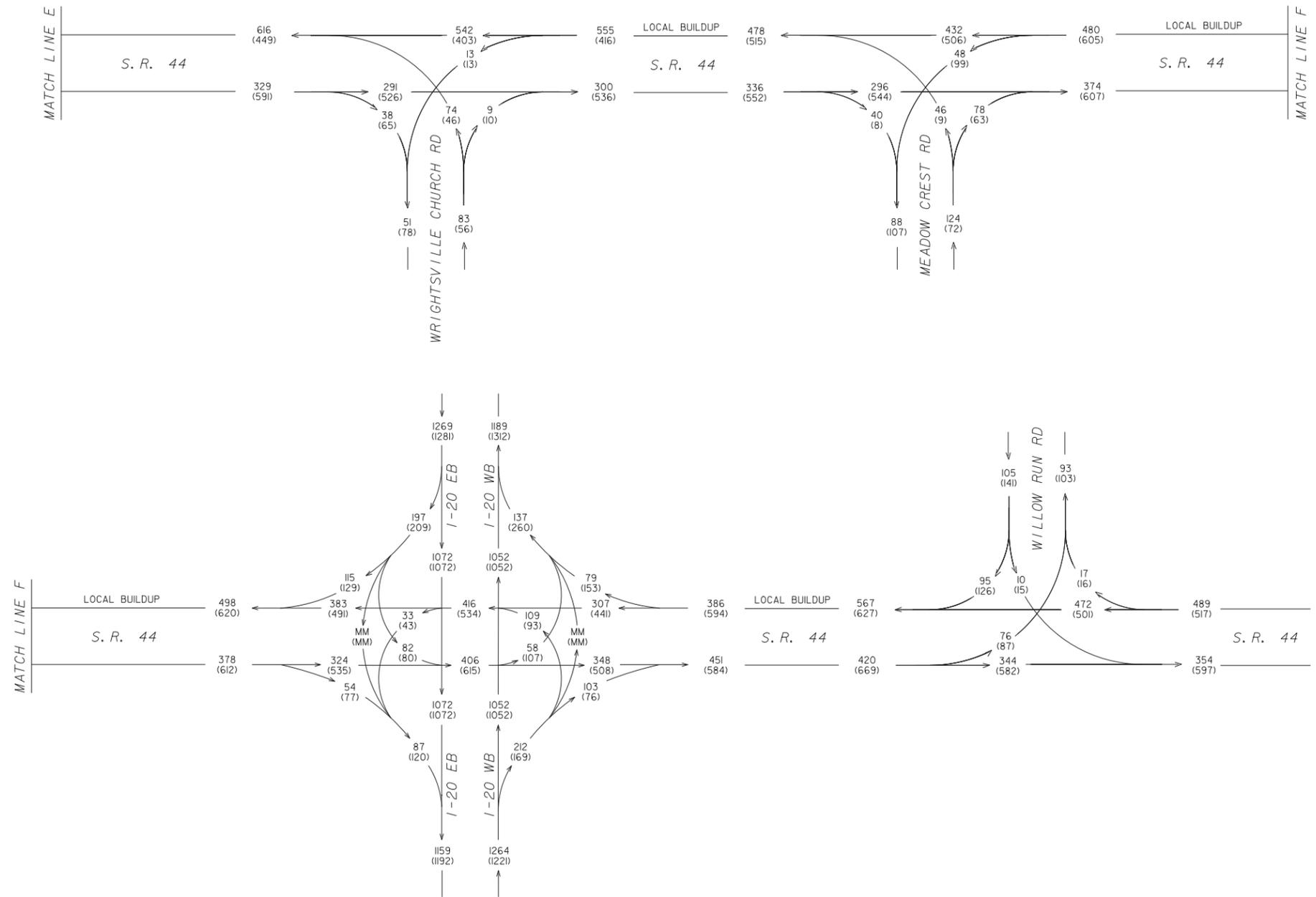
P. I. *0006252 AND P. I. *0006253

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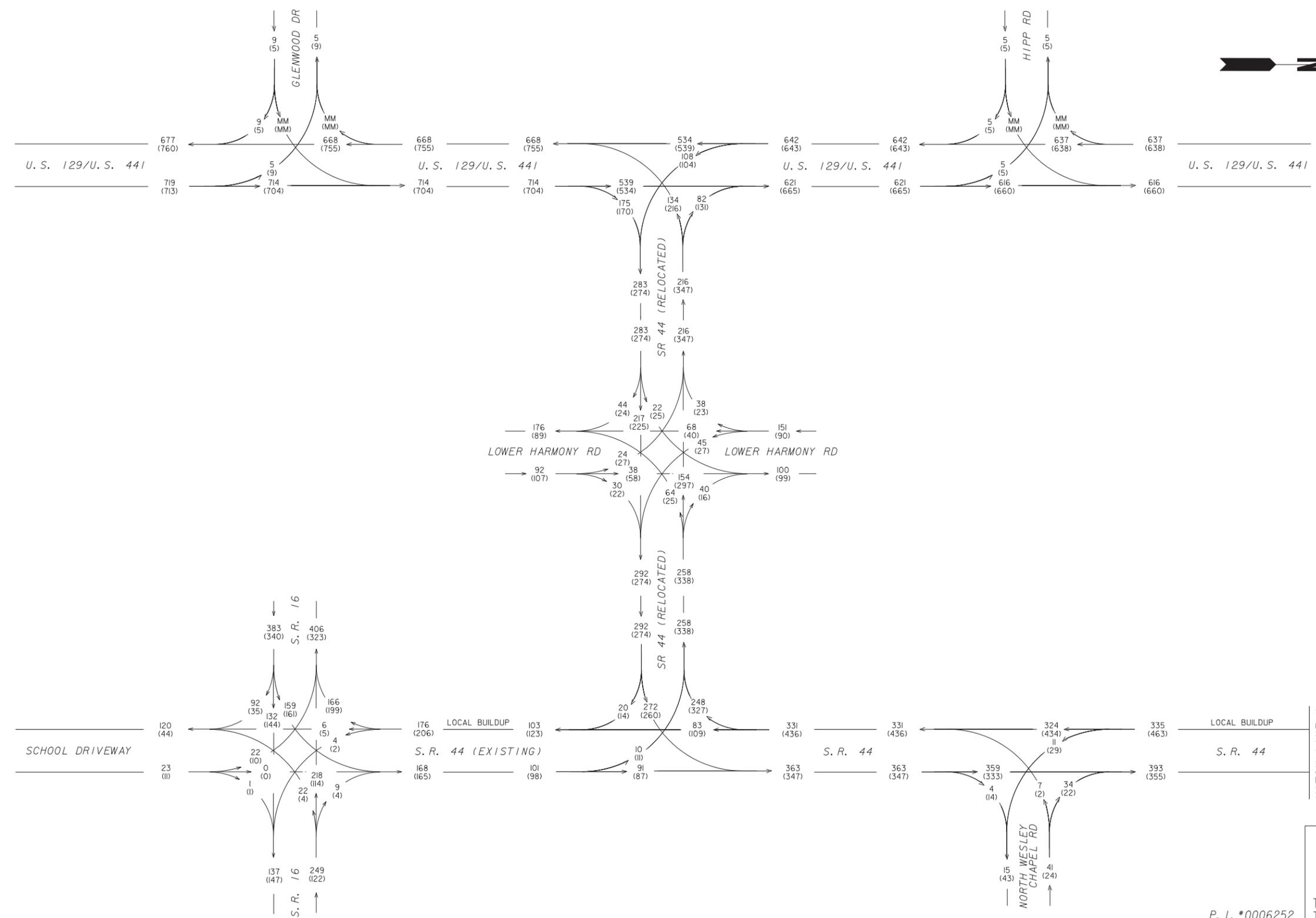
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 DEPARTMENT OF TRANSPORTATION
 OFFICE: CONSULTANT DESIGN
 TRAFFIC DIAGRAM
 S. R. 44 (PROPOSED CONDITIONS)
 GREENE AND PUTNAM COUNTIES
 2020 AM/PM DHV
 NO-BUILD



DESIGN TRAFFIC
 2020 AM DHV = 000
 2020 PM DHV = (000)
 T = 6% [AM], 5% [PM]
 T(SU) = 4% [AM], 3% [PM]
 T(MU) = 2% [AM], 2% [PM]

P. I. *0006253

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	DATE 3/12/12						
	SCALE N.T.S.						



DESIGN TRAFFIC
2040 AM DHV = 000
2040 PM DHV = (000)
T = 6% [AM], 7% [PM]
T(SU) = 4% [AM], 5% [PM]
T(MU) = 2% [AM], 2% [PM]

P. I. *0006252

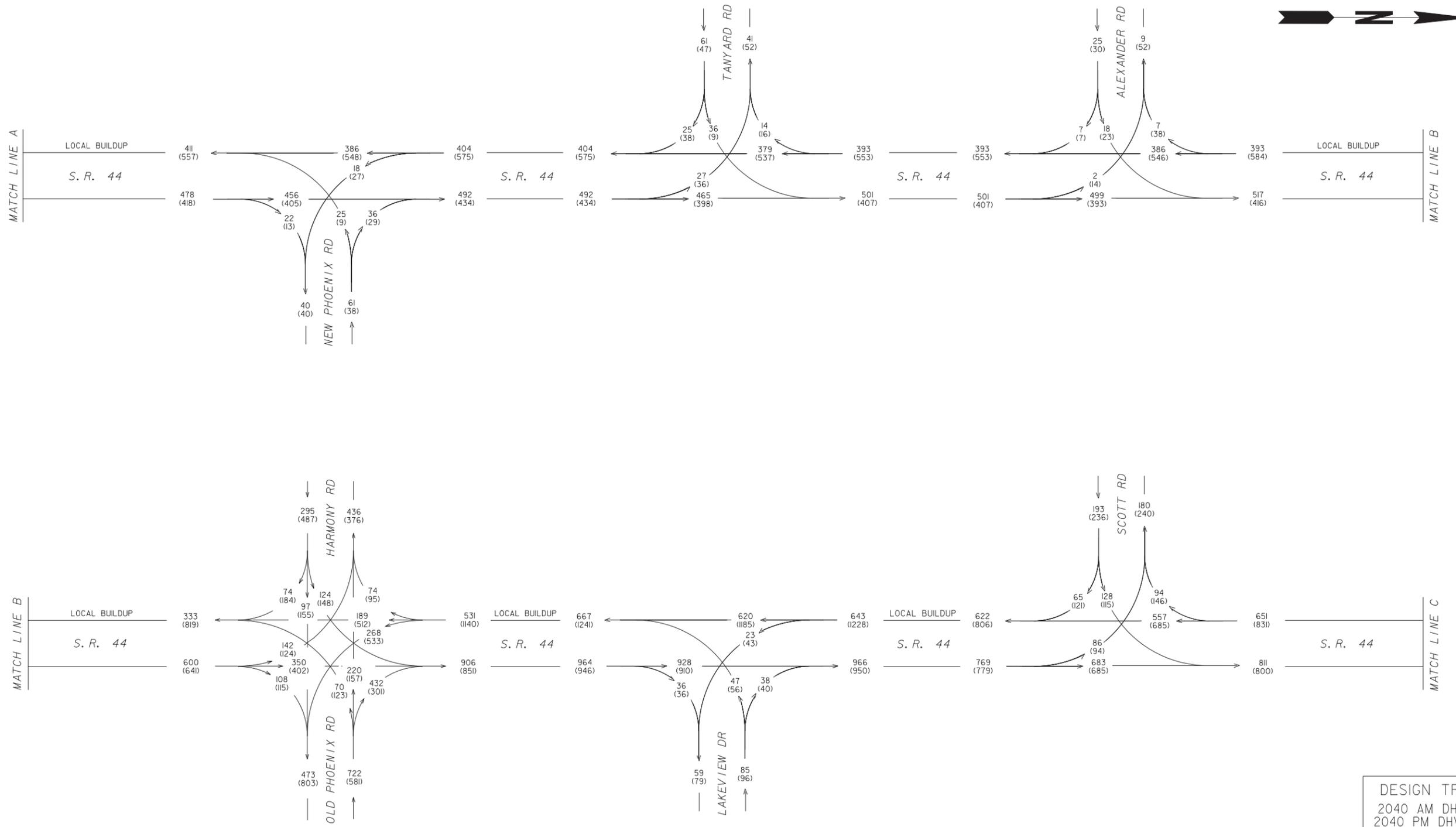
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REVISION DATES

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S. R. 44 (PROPOSED CONDITIONS)
PUTNAM COUNTY
2040 AM/PM DHV
NO-BUILD

DRAWING No.
10-13



DESIGN TRAFFIC
 2040 AM DHV = 000
 2040 PM DHV = (000)
 T = 6% [AM], 7% [PM]
 T(SU) = 4% [AM], 5% [PM]
 T(MU) = 2% [AM], 2% [PM]

P. I. *0006252

DESIGNED BY FY	TRANSYSTEMS NO. A317067310
DRAWN BY SKB	DATE 3/12/12
CHECKED BY DBH	SCALE N.T.S.

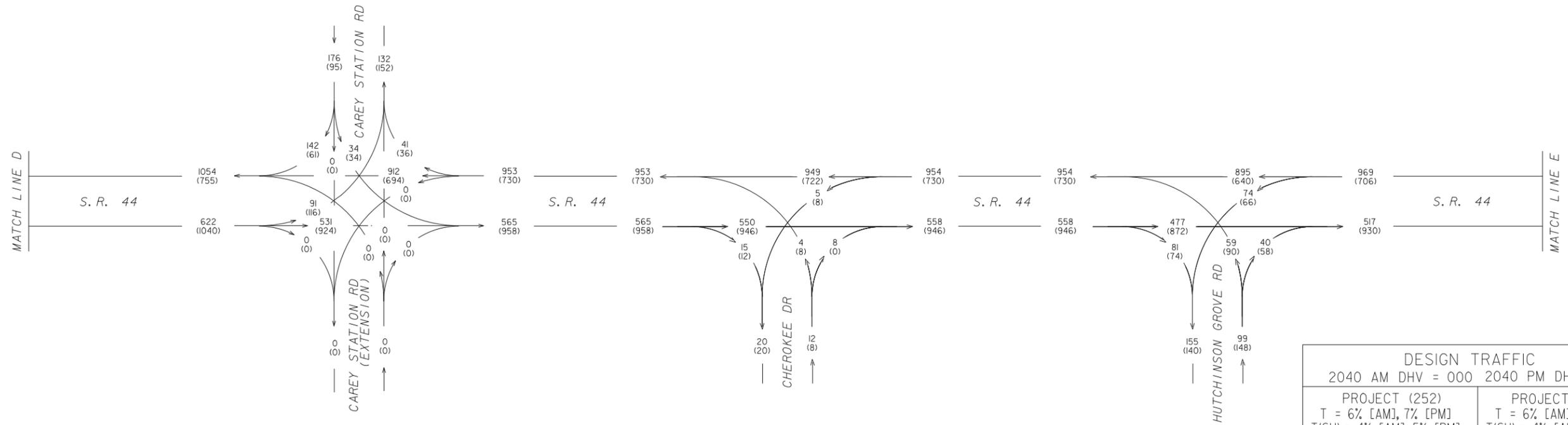
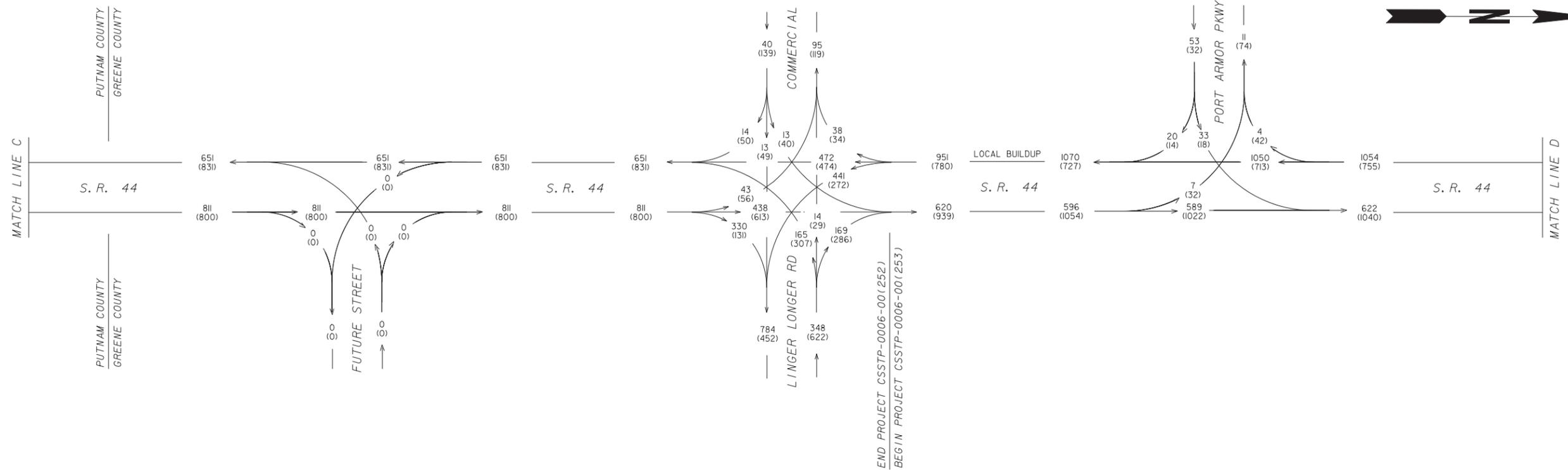


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 TRAFFIC DIAGRAM
 S. R. 44 (PROPOSED CONDITIONS)
 PUTNAM COUNTY
 2040 AM/PM DHV
 NO-BUILD

DRAWING No.
10-14



DESIGN TRAFFIC	
2040 AM DHV = 000 2040 PM DHV = (000)	
PROJECT (252)	PROJECT (253)
T = 6% [AM], 7% [PM]	T = 6% [AM], 5% [PM]
T(SU) = 4% [AM], 5% [PM]	T(SU) = 4% [AM], 3% [PM]
T(MU) = 2% [AM], 2% [PM]	T(MU) = 2% [AM], 2% [PM]

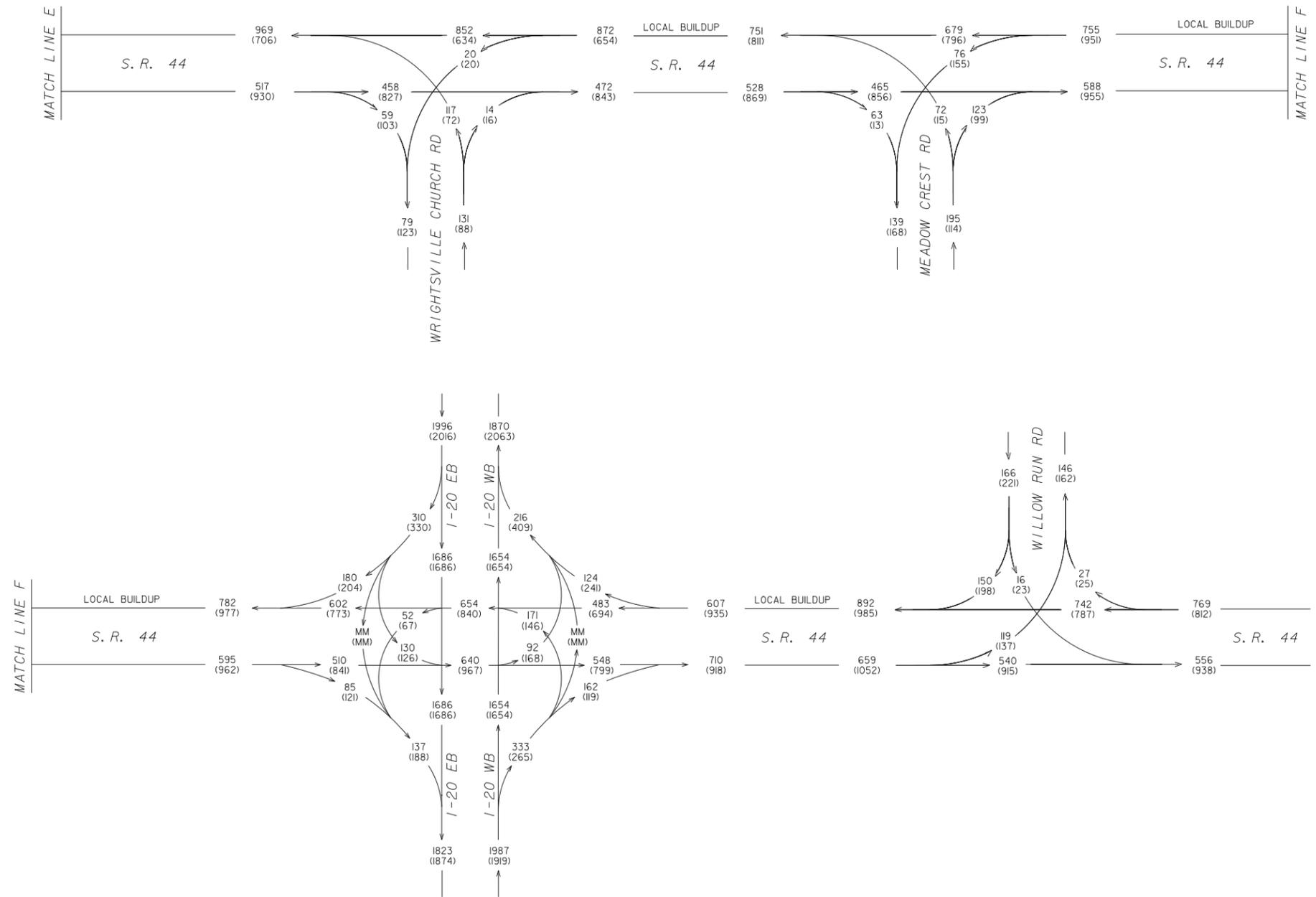
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REVISION DATES

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 TRAFFIC DIAGRAM
 S. R. 44 (PROPOSED CONDITIONS)
 GREENE AND PUTNAM COUNTIES
 2040 AM/PM DHV
 NO-BUILD

DRAWING No.
10-15

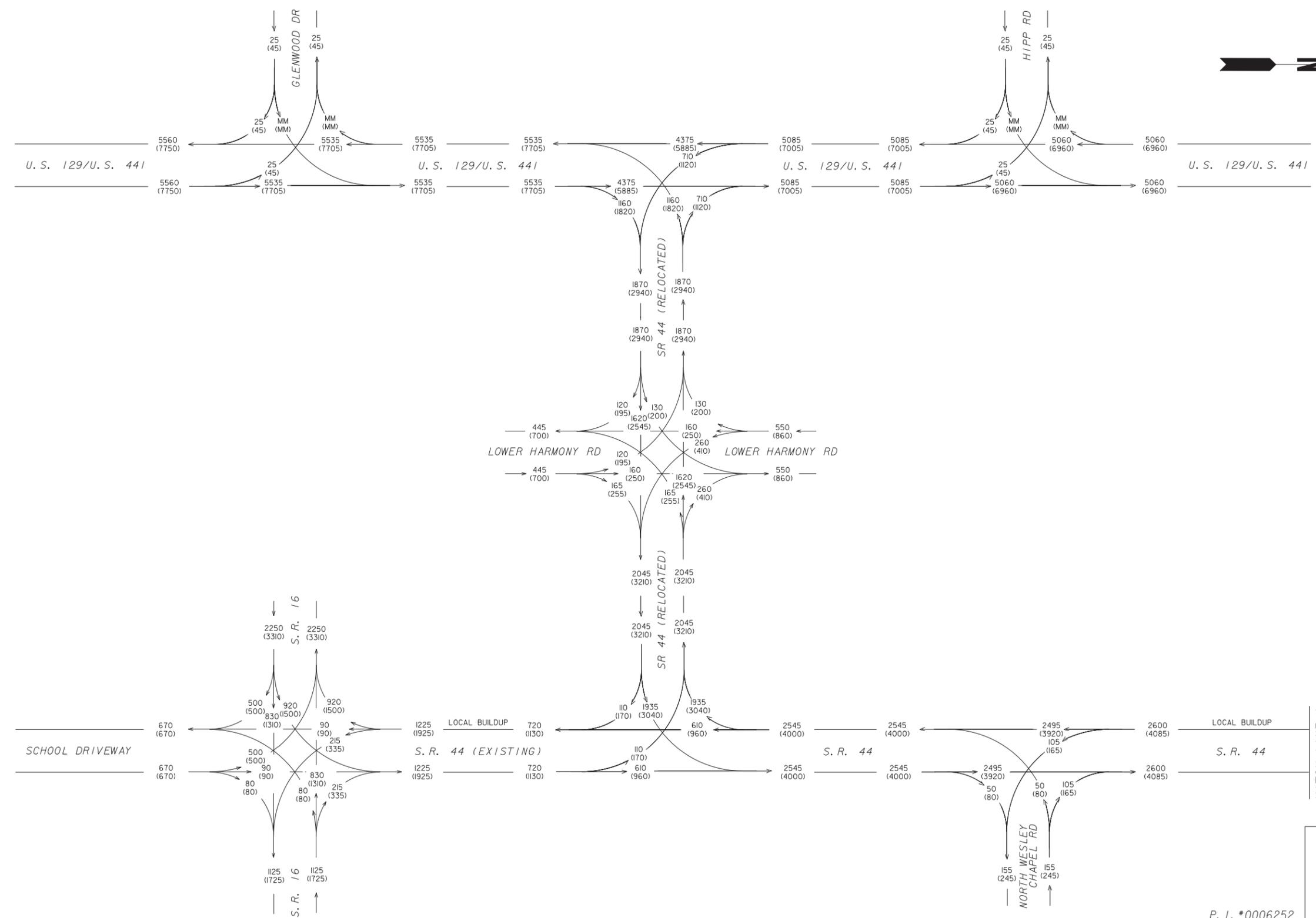


DESIGN TRAFFIC
 2040 AM DHV = 000
 2040 PM DHV = (000)
 T = 6% [AM], 5% [PM]
 T(SU) = 4% [AM], 3% [PM]
 T(MU) = 2% [AM], 2% [PM]

P. I. *0006253

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CHECKED BY DBH	SCALE N.T.S.			TRAFFIC DIAGRAM S. R. 44 (PROPOSED CONDITIONS) GREENE COUNTY 2040 AM/PM DHV NO-BUILD

DRAWING No.
10-16



DESIGN TRAFFIC
 2020 AADT = 000
 2040 AADT = (000)
 24-HOUR T = 17%
 24-HOUR T(SU) = 10%
 24-HOUR T(MU) = 7%

P. I. *0006252

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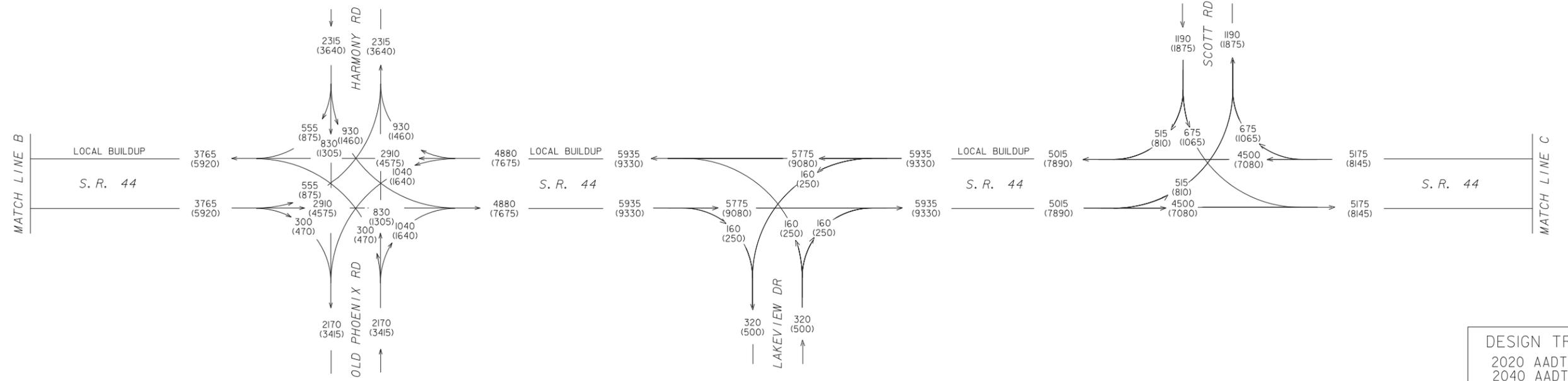
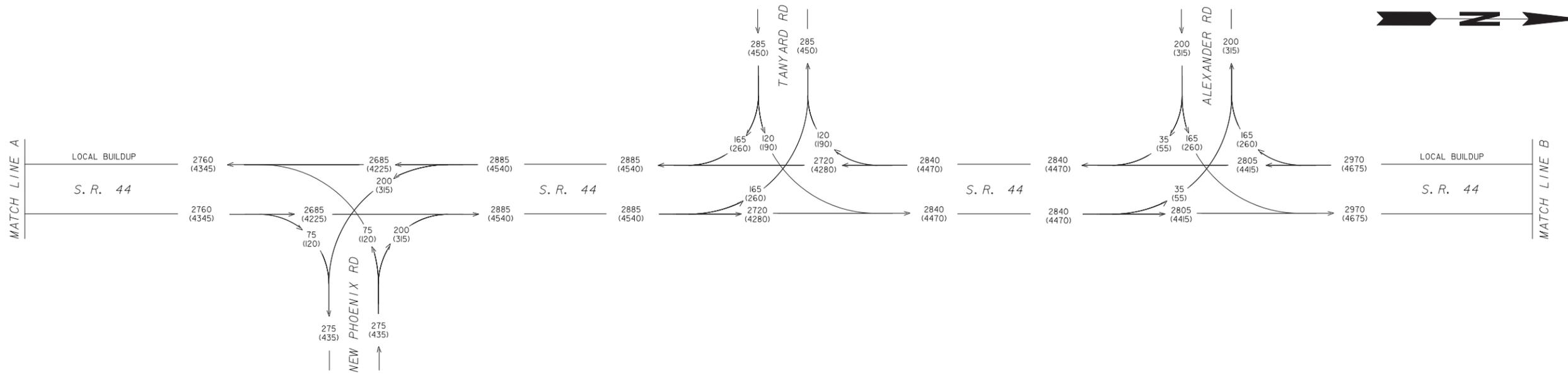


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REVISION DATES

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 DEPARTMENT OF TRANSPORTATION
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 TRAFFIC DIAGRAM
 S. R. 44 (PROPOSED CONDITIONS)
 PUTNAM COUNTY
 2020/ 2040 AADT
 NO-BUILD

DRAWING No.
10-17



DESIGN TRAFFIC
 2020 AADT = 000
 2040 AADT = (000)
 24-HOUR T = 17%
 24-HOUR T(SU) = 10%
 24-HOUR T(MU) = 7%

P. I. *0006252

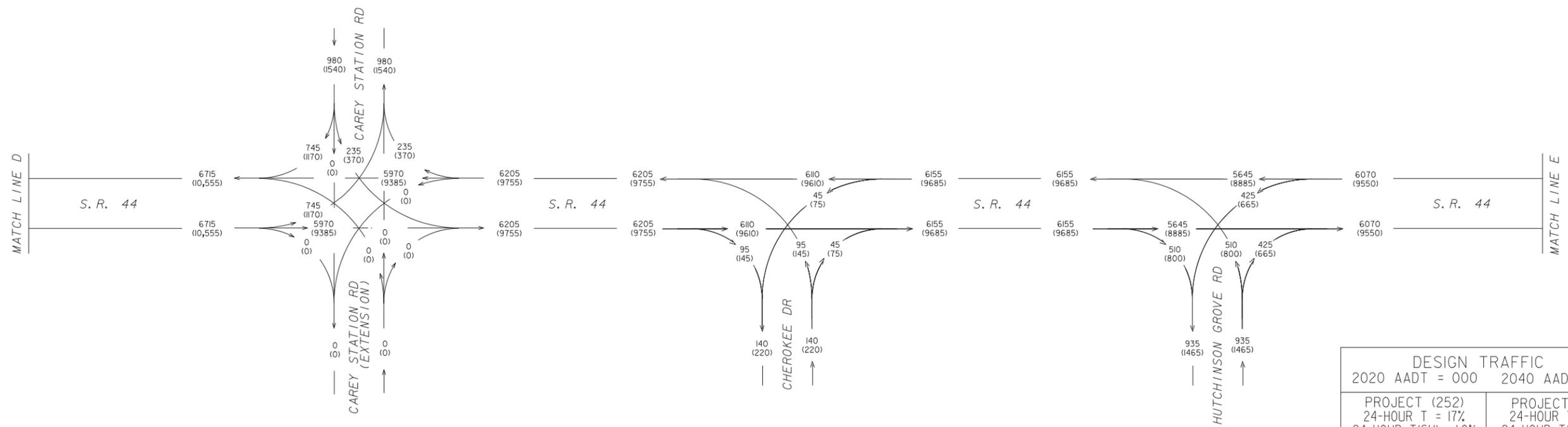
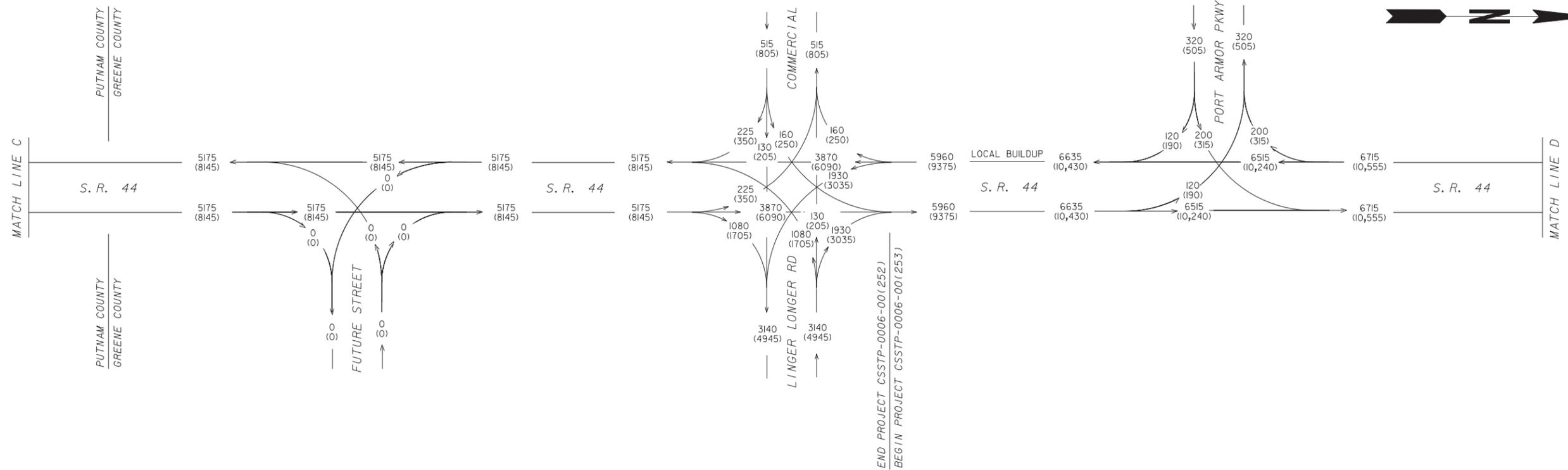
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 S. R. 44 (PROPOSED CONDITIONS)
 PUTNAM COUNTY
 2020/ 2040 AADT
 NO-BUILD

DRAWING No.
10-18



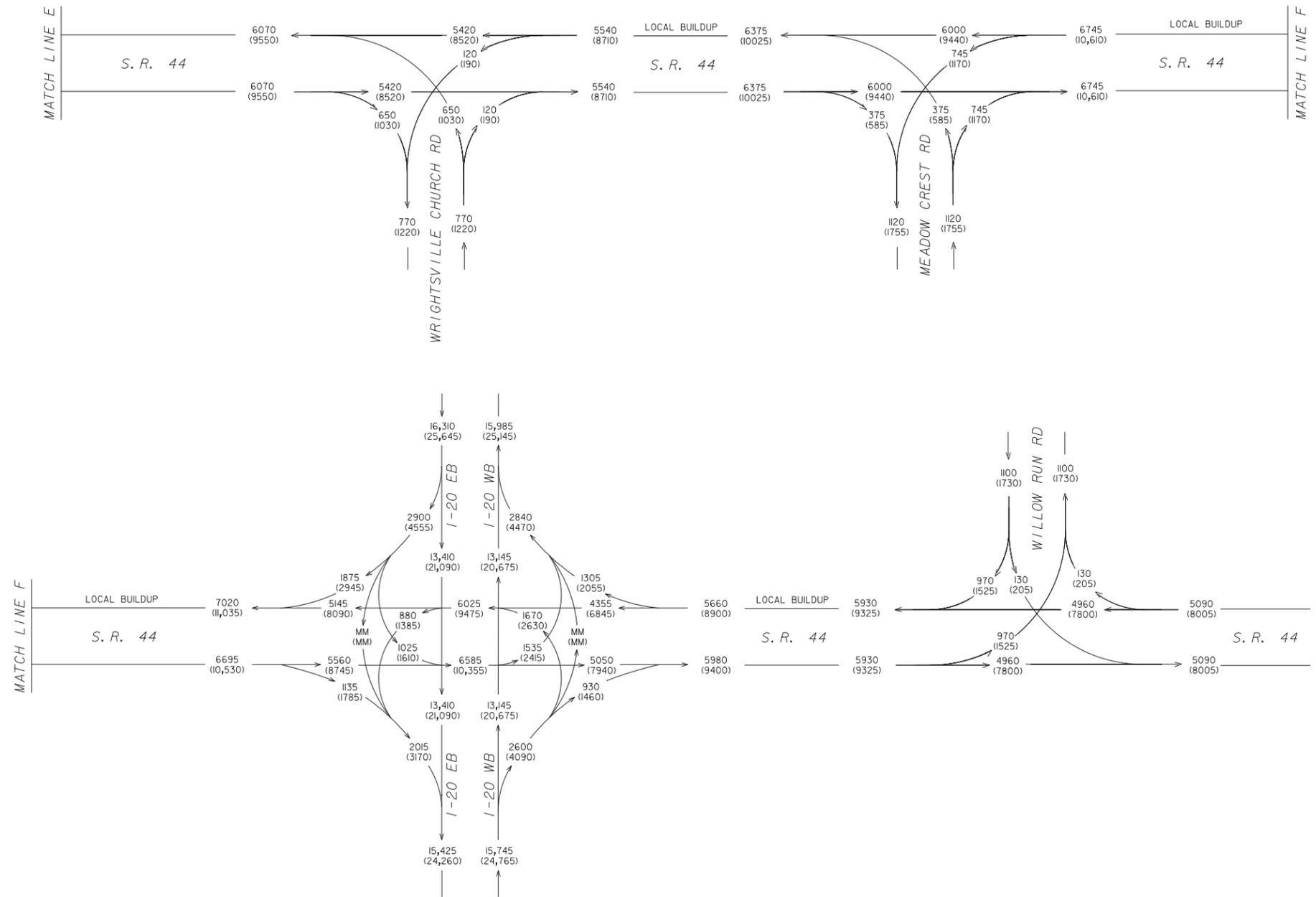
DESIGN TRAFFIC	
2020 AADT = 000	2040 AADT = (000)
PROJECT (252) 24-HOUR T = 17% 24-HOUR T(SU) = 10% 24-HOUR T(MU) = 7%	PROJECT (253) 24-HOUR T = 13% 24-HOUR T(SU) = 7% 24-HOUR T(MU) = 6%

P. I. *0006252 AND P. I. *0006253

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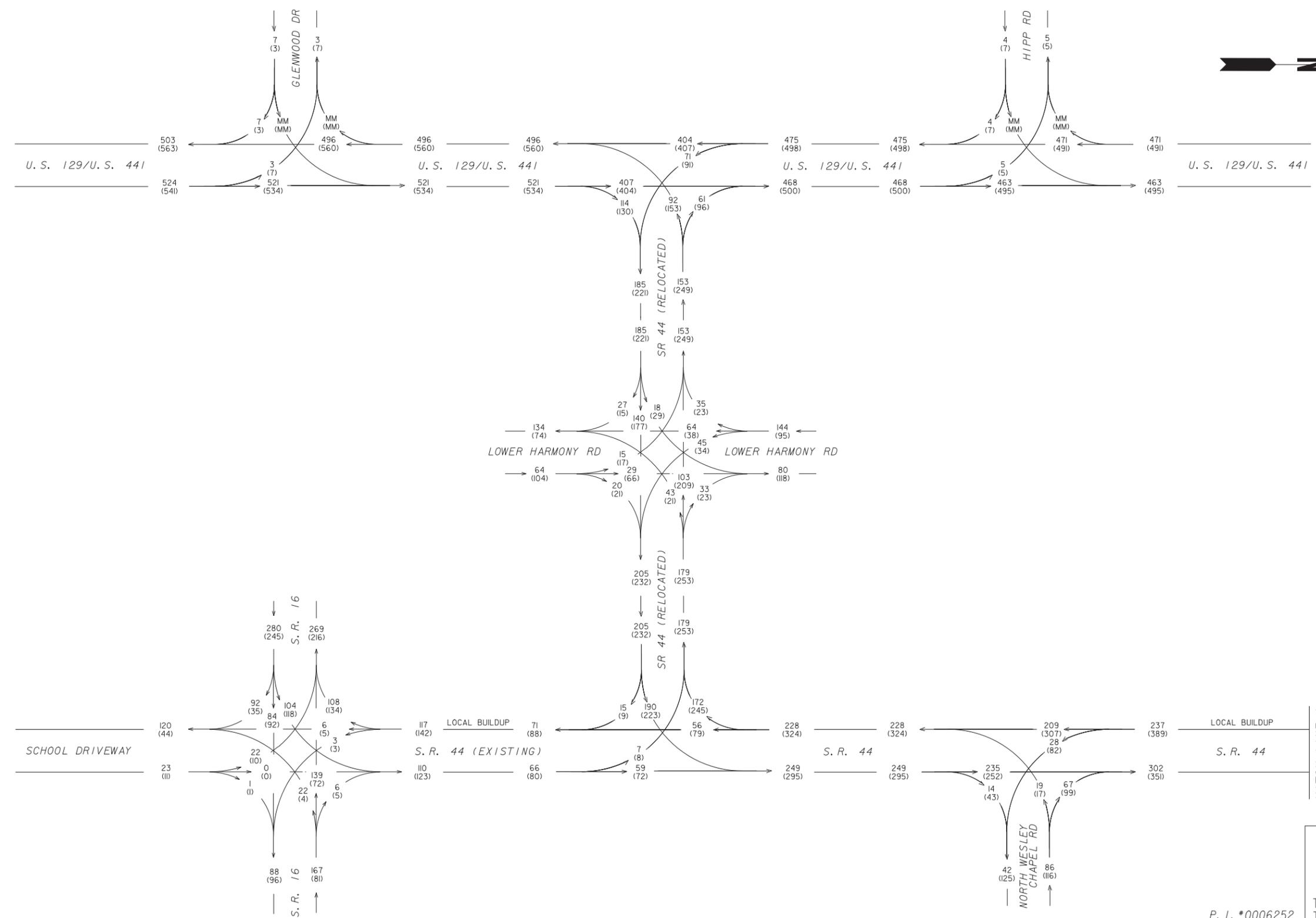
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OFFICE: CONSULTANT DESIGN
TRAFFIC DIAGRAM
S. R. 44 (PROPOSED CONDITIONS)
GREENE AND PUTNAM COUNTIES
2020 / 2040 AADT
NO-BUILD



DESIGN TRAFFIC
 2020 AADT = 000
 2040 AADT = (000)
 24-HOUR T = 13%
 24-HOUR T(SU) = 7%
 24-HOUR T(MU) = 6%

P. I. *0006253

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	DRAWN BY SKB		DATE 3/12/12				
	CHECKED BY DBH		SCALE N.T.S.				



DESIGN TRAFFIC
 2020 AM DHV = 000
 2020 PM DHV = (000)
 T = 6% [AM], 7% [PM]
 T(SU) = 4% [AM], 5% [PM]
 T(MU) = 2% [AM], 2% [PM]

P. I. *0006252

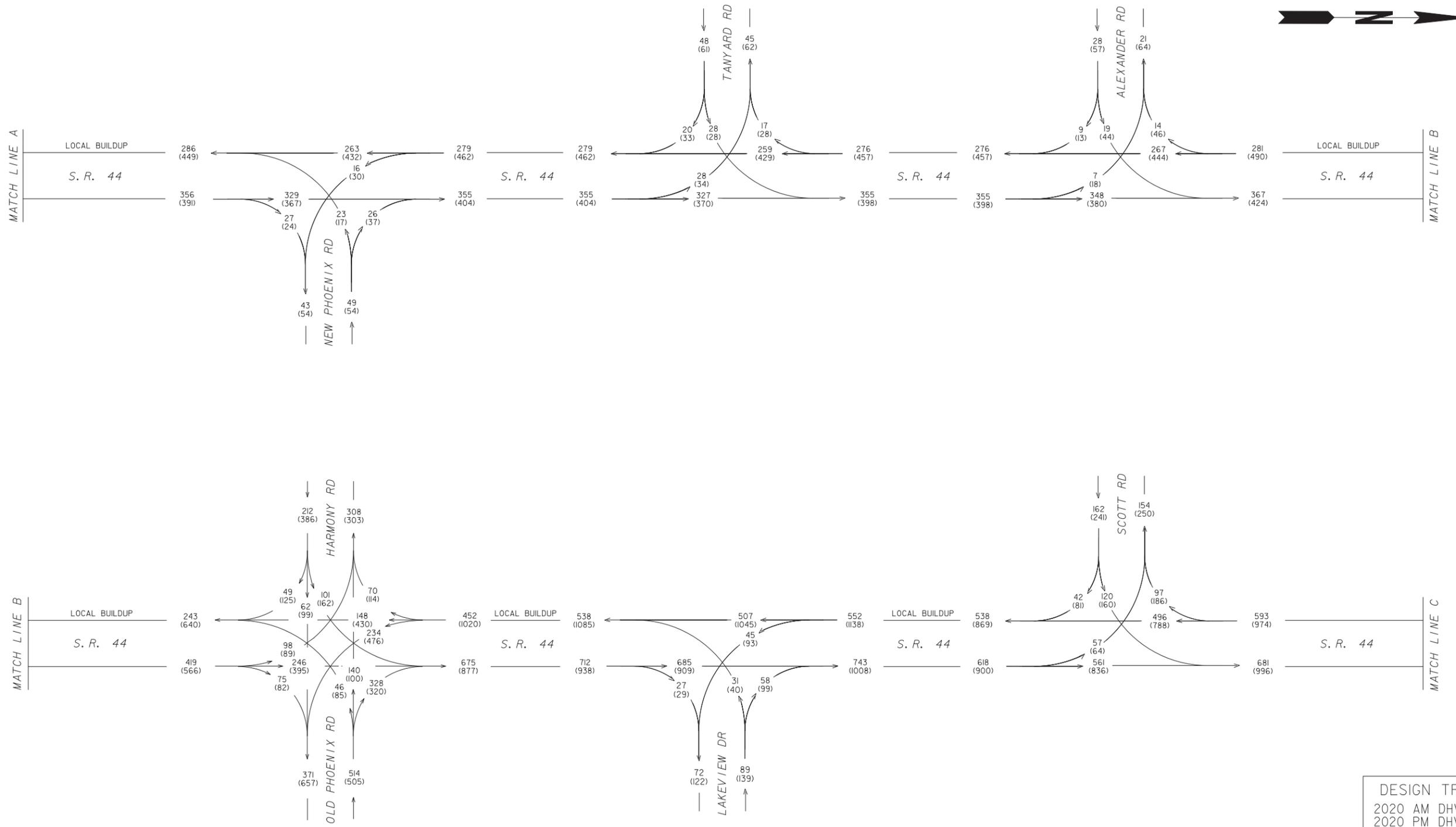
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REVISION DATES

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 TRAFFIC DIAGRAM
 S. R. 44 (PROPOSED CONDITIONS)
 PUTNAM COUNTY
 2020 AM/PM DHV
 BUILD

DRAWING No.
10-21



DESIGN TRAFFIC
 2020 AM DHV = 000
 2020 PM DHV = (000)
 T = 6% [AM], 7% [PM]
 T(SU) = 4% [AM], 5% [PM]
 T(MU) = 2% [AM], 2% [PM]

P. I. *0006252

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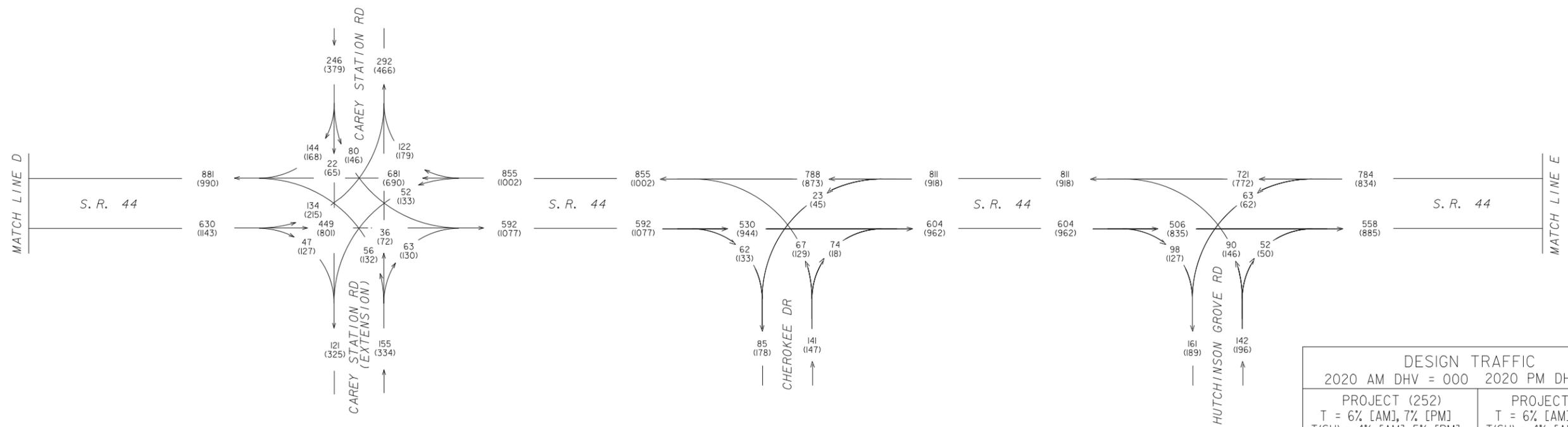
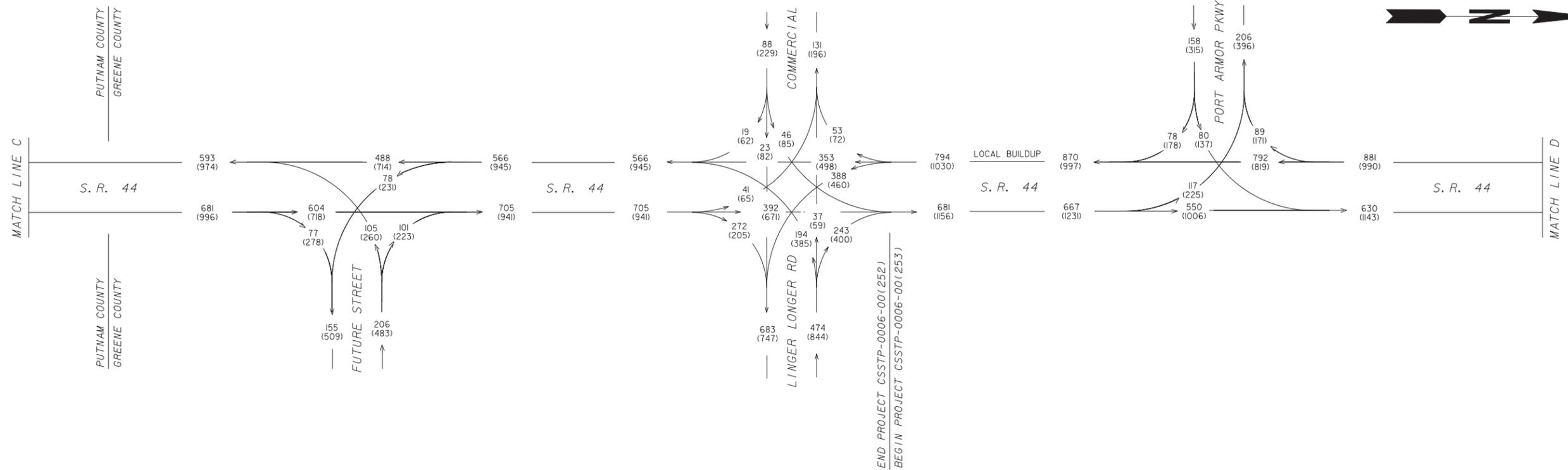


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 S. R. 44 (PROPOSED CONDITIONS)
 PUTNAM COUNTY
 2020 AM/PM DHV
 BUILD

DRAWING No.
10-22



DESIGN TRAFFIC	
2020 AM DHV = 000	2020 PM DHV = (000)
PROJECT (252)	PROJECT (253)
T = 6% [AM], 7% [PM]	T = 6% [AM], 5% [PM]
T(SU) = 4% [AM], 5% [PM]	T(SU) = 4% [AM], 3% [PM]
T(MU) = 2% [AM], 2% [PM]	T(MU) = 2% [AM], 2% [PM]

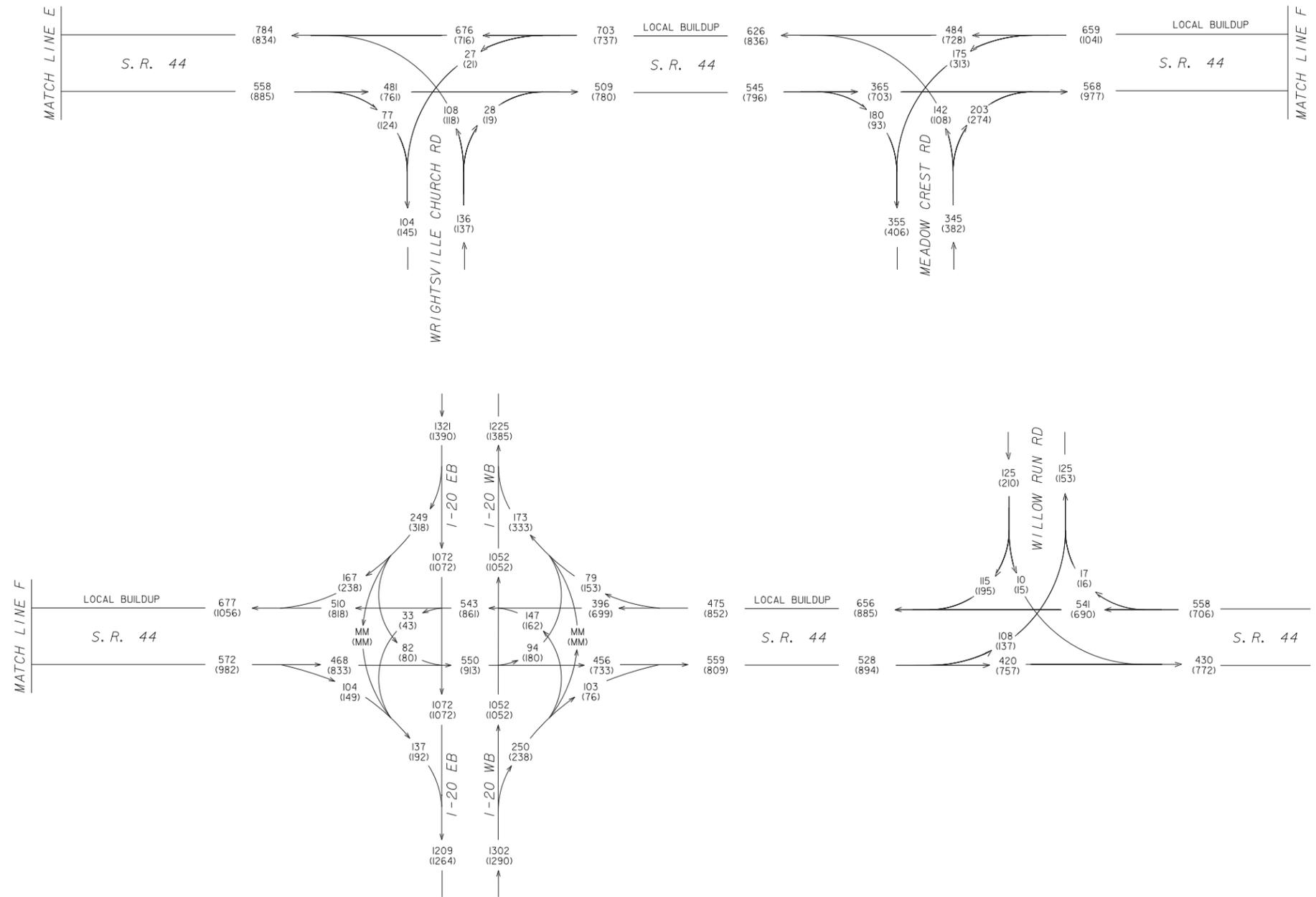
P. I. *0006252 AND P. I. *0006253

DESIGNED BY FY	TRANSYSTEMS NO. A317067310
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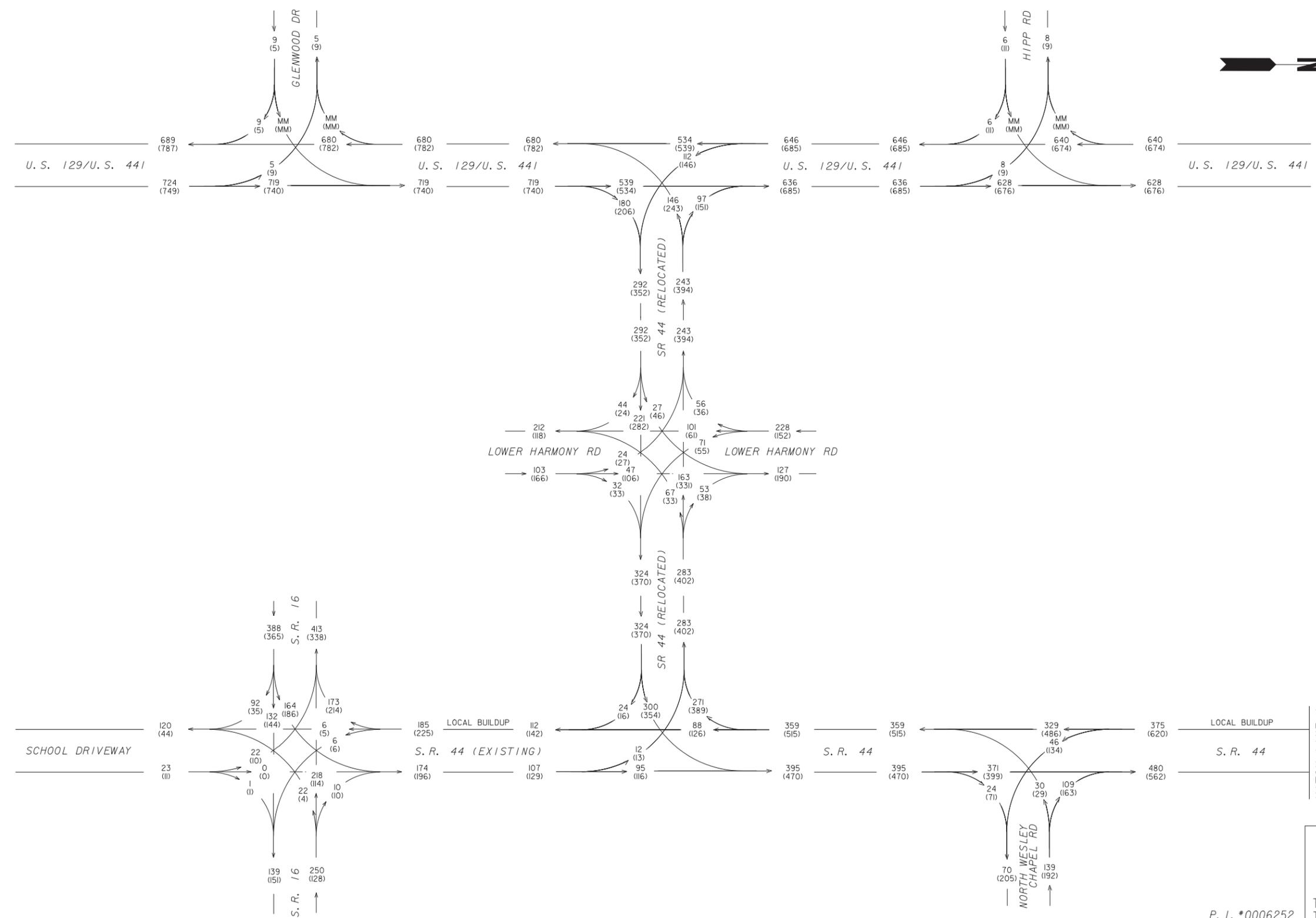
STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE: CONSULTANT DESIGN
 TRAFFIC DIAGRAM
 S. R. 44 (PROPOSED CONDITIONS)
 PUTNAM COUNTY
 2020 AM/PM DHV
 BUILD



DESIGN TRAFFIC
 2020 AM DHV = 000
 2020 PM DHV = (000)
 T = 6% [AM], 5% [PM]
 T(SU) = 4% [AM], 3% [PM]
 T(MU) = 2% [AM], 2% [PM]

P. I. *0006253

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				DRAWING No. 10-24



DESIGN TRAFFIC
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2040 PM DHV = (000)
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T(SU) = 4% [AM], 5% [PM]
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P. I. *0006252

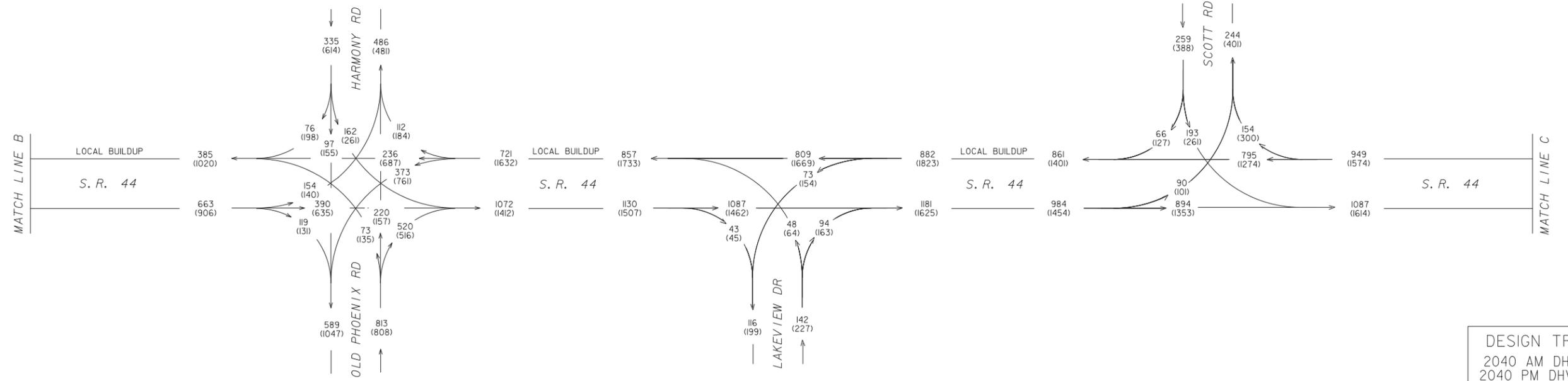
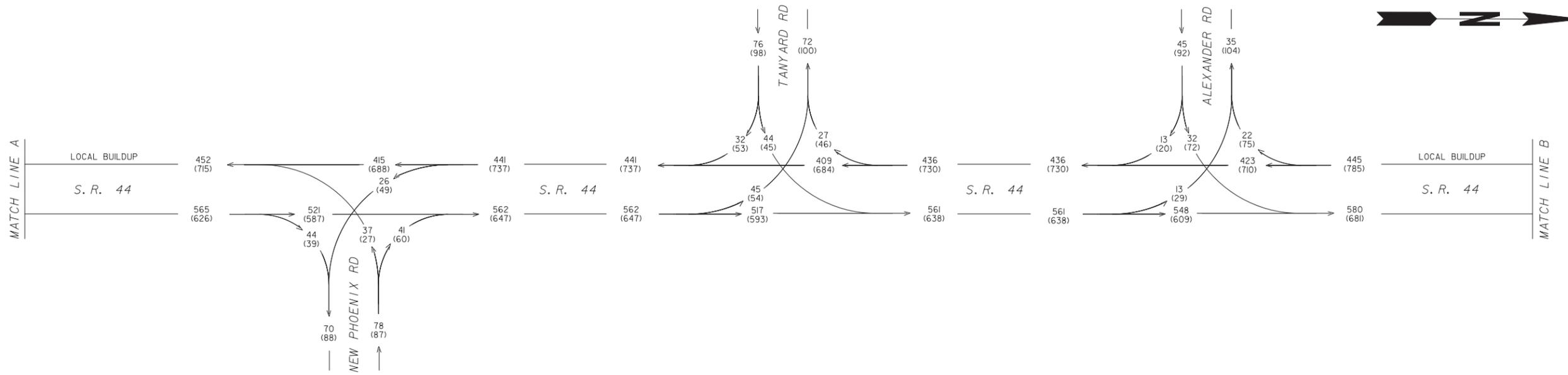
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TRAFFIC DIAGRAM
S. R. 44 (PROPOSED CONDITIONS)
PUTNAM COUNTY
2040 AM/PM DHV
BUILD

DRAWING No.
10-25



DESIGN TRAFFIC
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 2040 PM DHV = (000)
 T = 6% [AM], 7% [PM]
 T(SU) = 4% [AM], 5% [PM]
 T(MU) = 2% [AM], 2% [PM]

P. I. *0006252

DESIGNED BY FY	TRANSYSTEMS NO. A317067310
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CHECKED BY DBH	SCALE N.T.S.

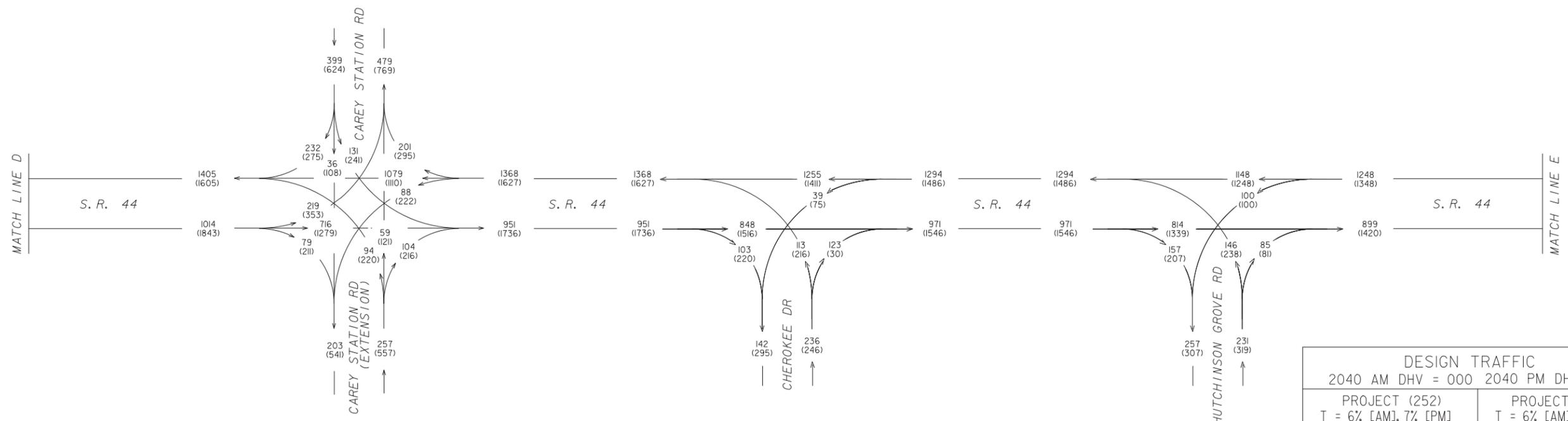
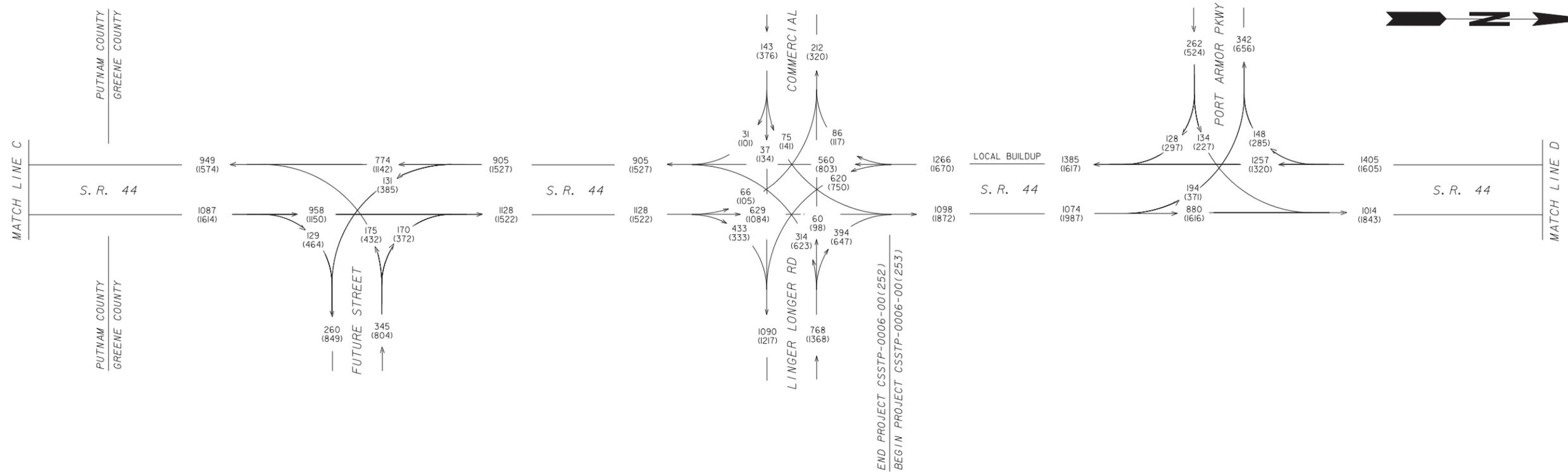


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 S. R. 44 (PROPOSED CONDITIONS)
 PUTNAM COUNTY
 2040 AM/PM DHV
 BUILD

DRAWING No.
10-26



DESIGN TRAFFIC	
2040 AM DHV = 000	2040 PM DHV = (000)
PROJECT (252)	PROJECT (253)
T = 6% [AM], 7% [PM]	T = 6% [AM], 5% [PM]
T(SU) = 4% [AM], 5% [PM]	T(SU) = 4% [AM], 3% [PM]
T(MU) = 2% [AM], 2% [PM]	T(MU) = 2% [AM], 2% [PM]

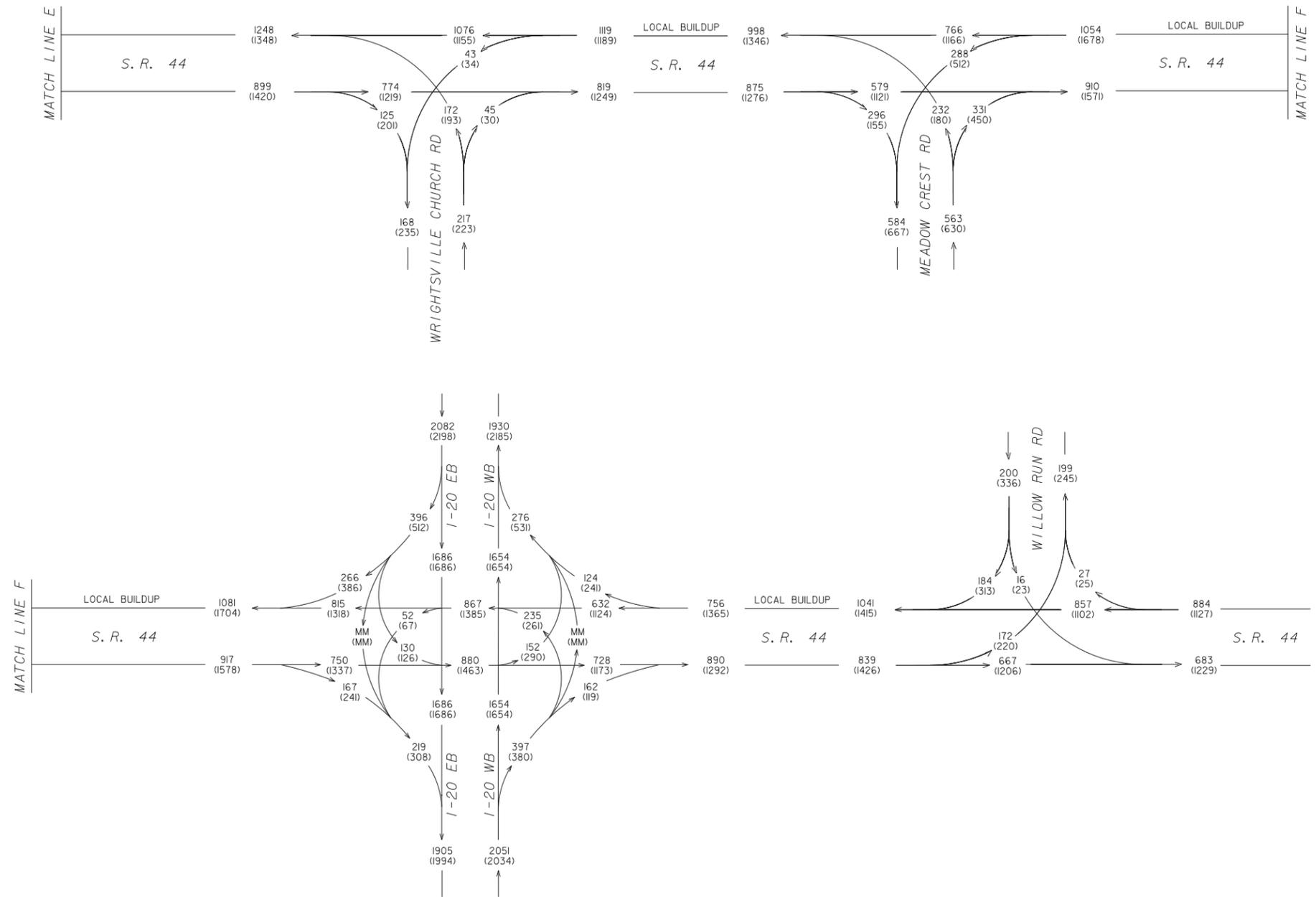
P. I. *0006252 AND P. I. *0006253

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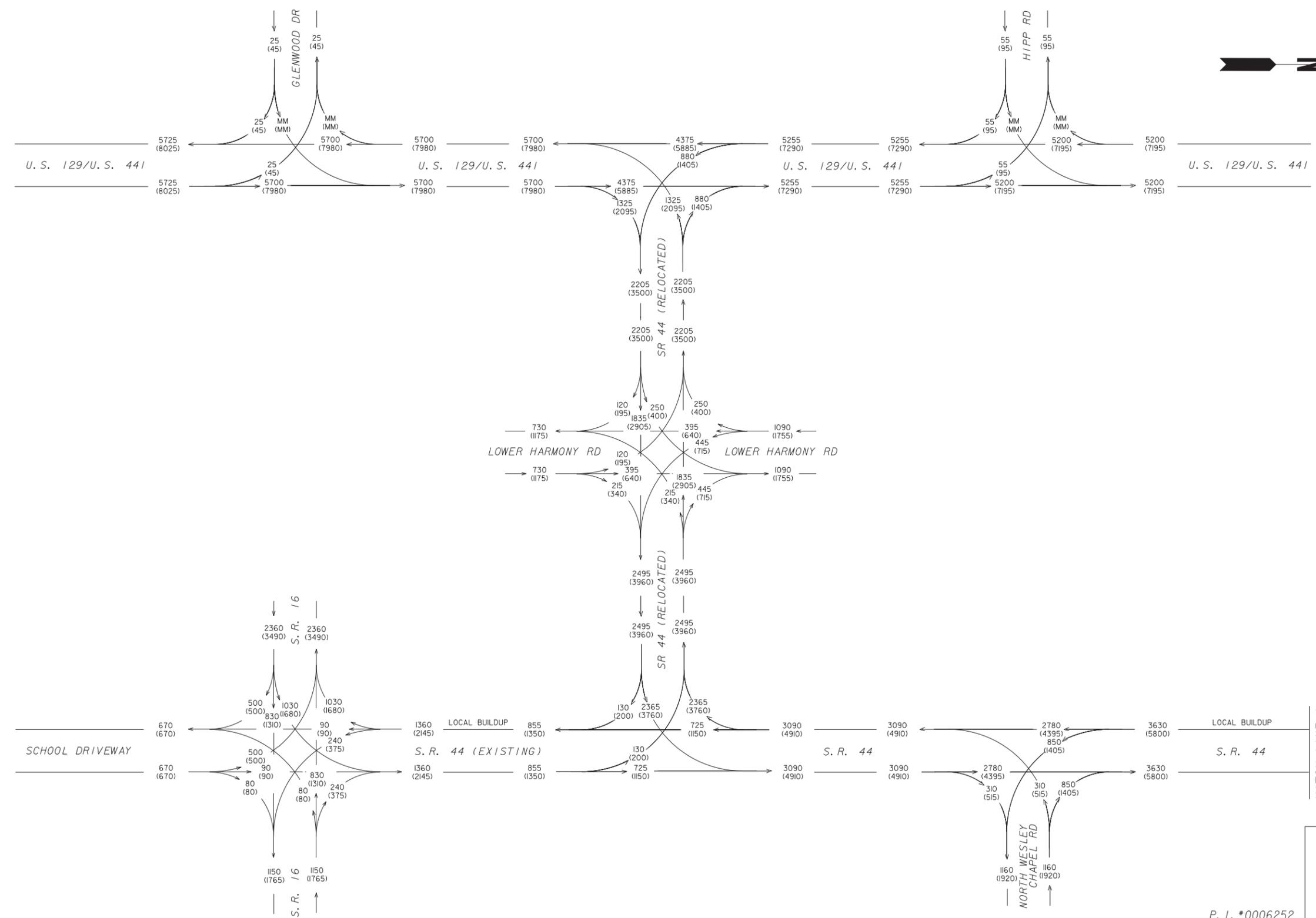
STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE: CONSULTANT DESIGN
 TRAFFIC DIAGRAM
 S. R. 44 (PROPOSED CONDITIONS)
 GREENE AND PUTNAM COUNTIES
 2040 AM/PM DHV
 BUILD



DESIGN TRAFFIC
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 2040 PM DHV = (000)
 T = 6% [AM], 5% [PM]
 T(SU) = 4% [AM], 3% [PM]
 T(MU) = 2% [AM], 2% [PM]

P. I. *0006253

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	DATE 3/12/12					
	SCALE N.T.S.					



DESIGN TRAFFIC
 2020 AADT = 000
 2040 AADT = (000)
 24-HOUR T = 17%
 24-HOUR T(SU) = 10%
 24-HOUR T(MU) = 7%

P. I. *0006252

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DRAWN BY SKB	DATE 3/12/12
CHECKED BY DBH	SCALE N.T.S.

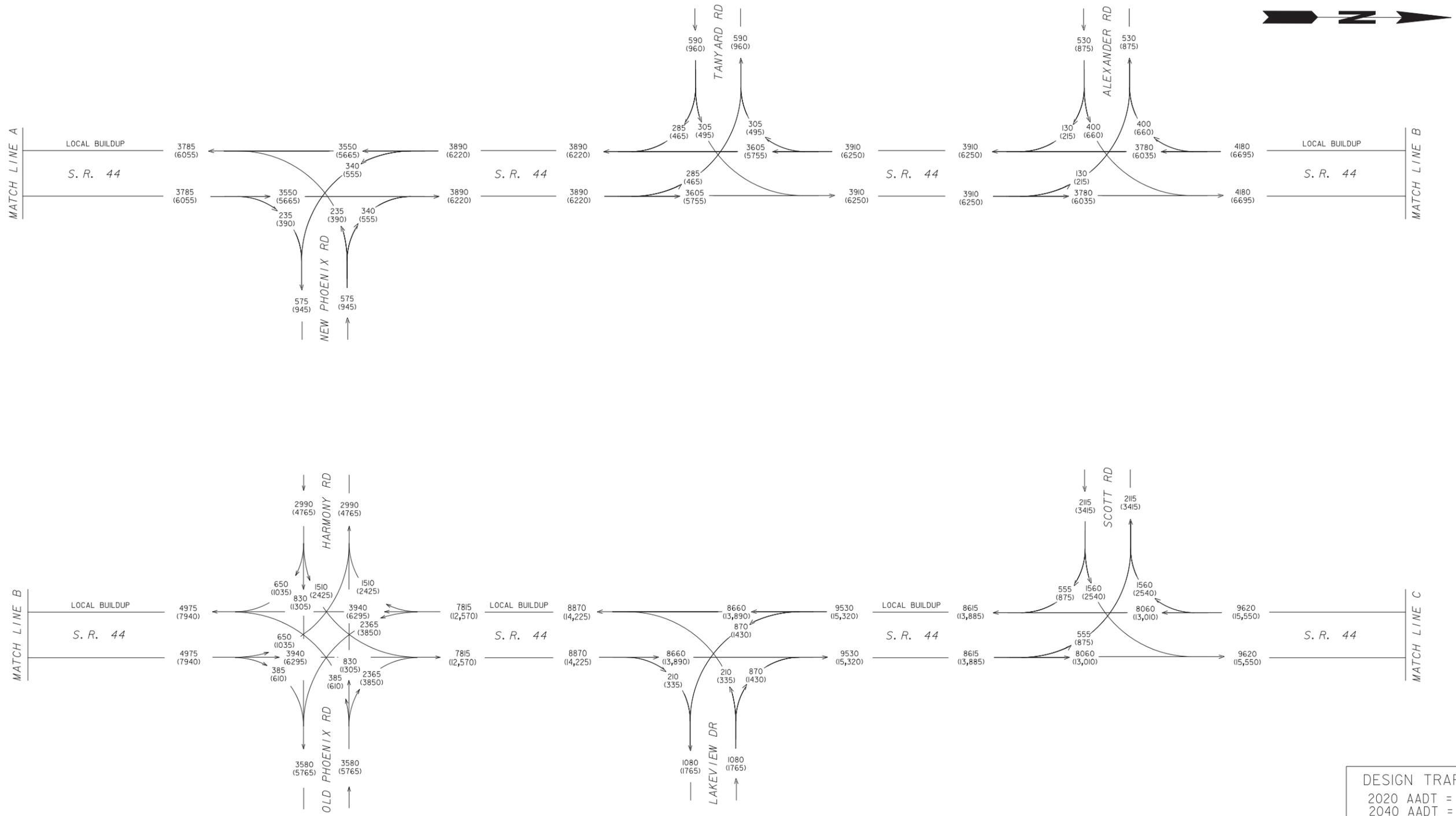


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 S. R. 44 (PROPOSED CONDITIONS)
 PUTNAM COUNTY
 2020/ 2040 AADT
 BUILD

DRAWING No.
10-29



DESIGN TRAFFIC
 2020 AADT = 000
 2040 AADT = (000)
 24-HOUR T = 17%
 24-HOUR T(SU) = 10%
 24-HOUR T(MU) = 7%

P. I. *0006252

DESIGNED BY FY	TRANSYSTEMS NO. A317067310
DRAWN BY SKB	DATE 3/12/12
CHECKED BY DBH	SCALE N.T.S.

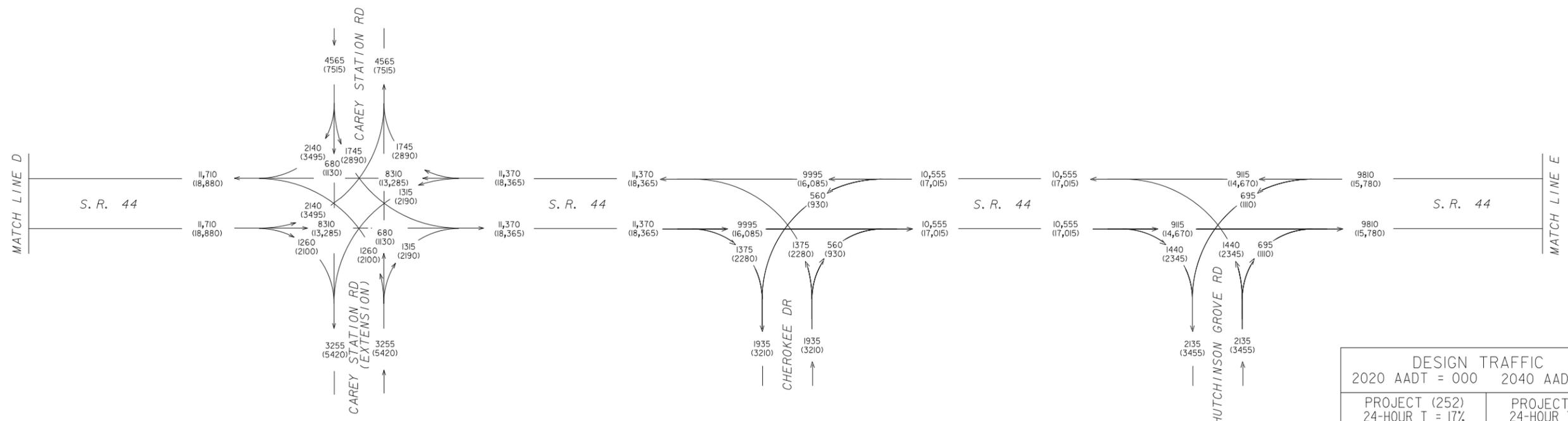
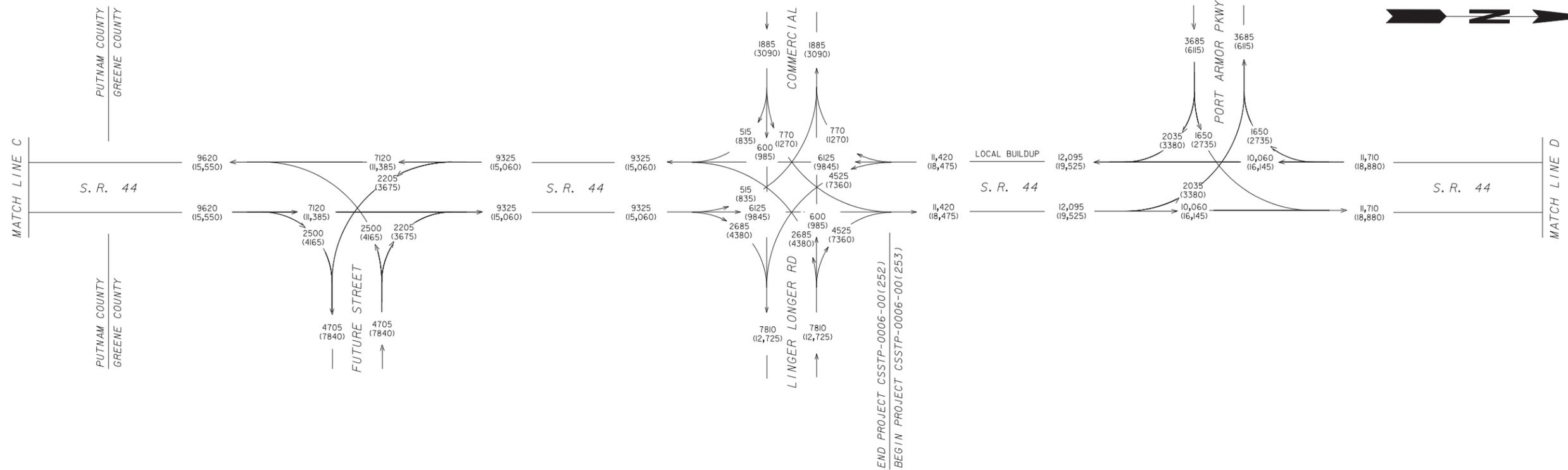


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 TRAFFIC DIAGRAM
 S. R. 44 (PROPOSED CONDITIONS)
 PUTNAM COUNTY
 2020/ 2040 AADT
 BUILD

DRAWING No.
10-30



DESIGN TRAFFIC	
2020 AADT = 000	2040 AADT = (000)
PROJECT (252) 24-HOUR T = 17% 24-HOUR T(SU) = 10% 24-HOUR T(MU) = 7%	PROJECT (253) 24-HOUR T = 13% 24-HOUR T(SU) = 7% 24-HOUR T(MU) = 6%

P. I. *0006252 AND P. I. *0006253

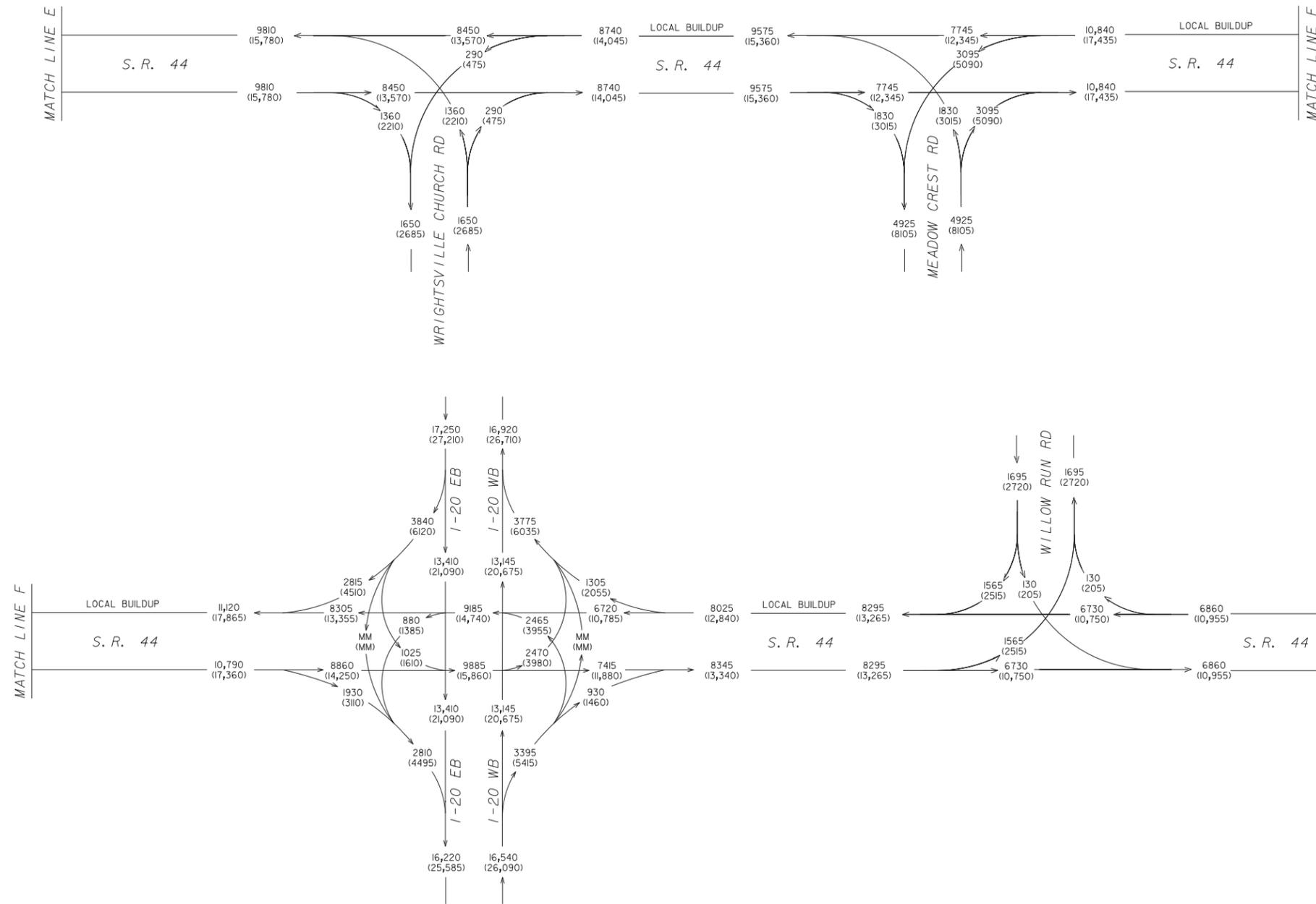
DESIGNED BY FY	TRANSYSTEMS NO. A317067310
DRAWN BY SKB	DATE 3/12/12
CHECKED BY DBH	SCALE N.T.S.

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REVISION DATES

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE: CONSULTANT DESIGN
 TRAFFIC DIAGRAM
 S. R. 44 (PROPOSED CONDITIONS)
 GREENE AND PUTNAM COUNTIES
 2020/ 2040 AADT
 BUILD

DRAWING No.
10-31



DESIGN TRAFFIC
 2020 AADT = 000
 2040 AADT = (000)
 24-HOUR T = 13%
 24-HOUR T(SU) = 7%
 24-HOUR T(MU) = 6%

P. I. *0006253

DESIGNED BY FY	TRANSYSTEMS NO. A317067310	 1780 Corporate Drive Suite 400 Norcross, Georgia 30093 Tel 770.931.8005 Fax 770.931.8555 www.transystems.com	REVISION DATES		STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION OFFICE: CONSULTANT DESIGN TRAFFIC DIAGRAM S. R. 44 (PROPOSED CONDITIONS) GREENE COUNTY 2020/ 2040 AADT BUILD	DRAWING No. 10-32	
	DRAWN BY SKB		DATE 3/12/12				
	CHECKED BY DBH		SCALE N.T.S.				

Department of Transportation State of Georgia

INTERDEPARTMENT CORRESPONDENCE

FILE CSSTP-0006-00(252), (253) **OFFICE** Planning
Greene & Putnam Counties
P.I. # 0006252 & 0006253

DATE March 23, 2012

FROM Cindy VanDyke, State Transportation Planning Administrator

TO Bobby K. Hilliard, P.E., State Program Delivery Engineer
Attention: George Brewer

SUBJECT **Reviewed** Updated Design Traffic for SR 44 FM WEST US 441 BYPASS
TO CR 54/LINGER LONGER RD & SR 44 FM CR 54/LINGER LONGER
ROAD TO EAST GREENSBORO BYPASS.

We have reviewed the consultant's design traffic for the above project.

The traffic is approved based on the information furnished. If you have any questions concerning this information please contact Abby Ebodaghe at (404) 631-1923.

CLV/AFE



TranSystems

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S.R. 44 Traffic Projections Technical Memorandum

PROJECT: S.R. 44, P.I. 0006252 & 0006253, Putnam and Greene Counties

SUBJECT: Traffic Projection Revision

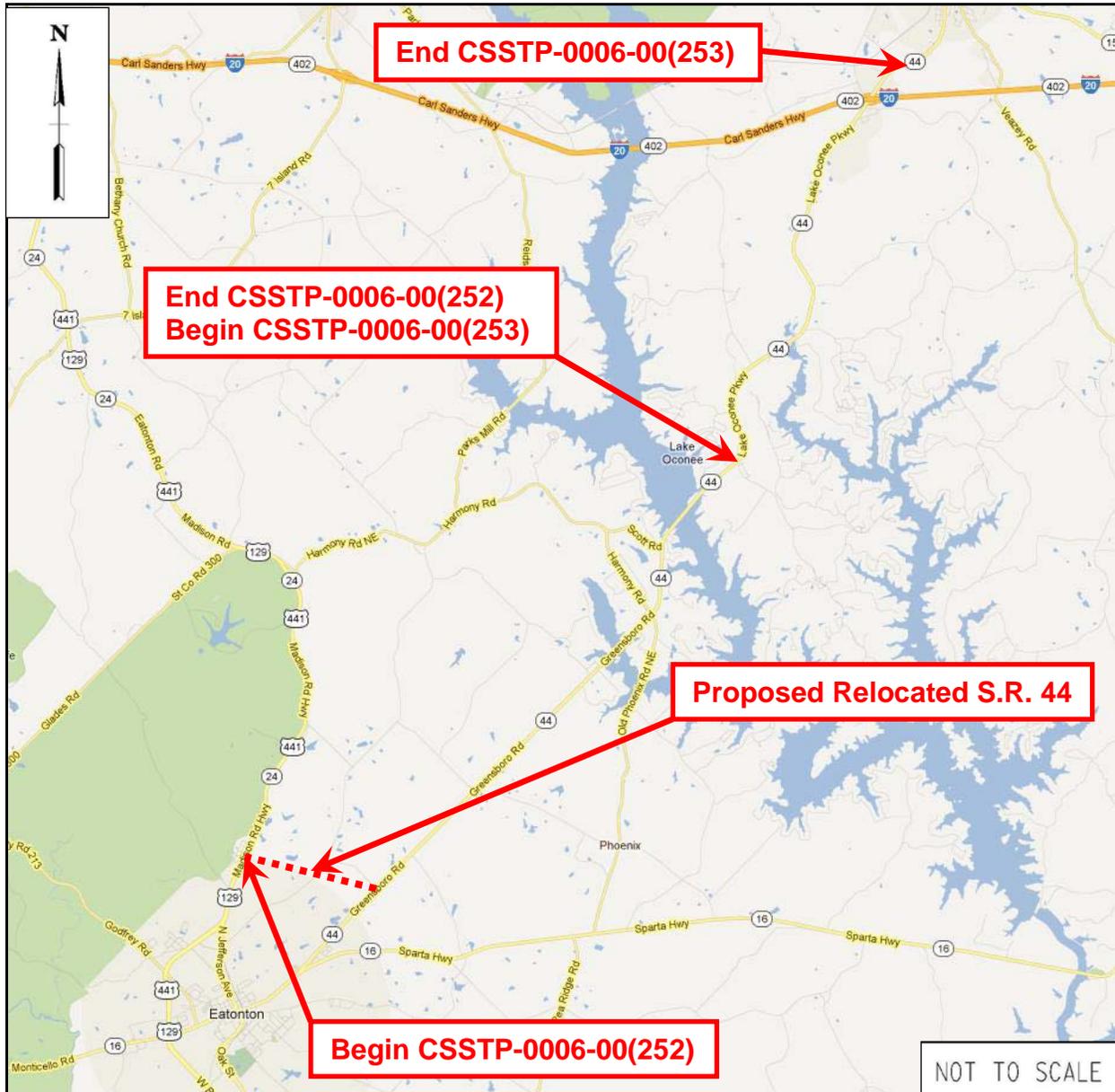
DATE: December 12, 2011

Project Background

This project consists of providing corridor improvements along S.R. 44 between Eatonton and I-20, an approximate distance of 22 miles. This corridor is divided into two separate projects, CSSTP-0006-00(252) which is the southern half and CSSTP-0006-00(253) which is the northern half. TranSystems (formerly Long Engineering) is the prime consultant for this project. Qk4 was previously hired by Long Engineering in 2006 to prepare the traffic projections along the S.R. 44 corridor. These traffic projections were developed in 2007, based on then-existing traffic counts and development plans that were in-place at that time. On February 21, 2008, the Georgia Department of Transportation (GDOT) approved these traffic projections for the S.R. 44 project corridor. The project study area limits are shown in *Figure 1*.

Subsequently, at a meeting with GDOT and Federal Highway Administration (FHWA) staff in November 2009, the traffic counts, traffic projections and traffic analyses were reviewed to determine if I-20 was an appropriate northern terminus for the S.R. 44 project corridor or if a more logical terminus would be to continue the improvements to the City of Greensboro or the proposed Greensboro Bypass. At the same meeting, a similar discussion was held regarding the southern terminus and it was determined that the southern alignment of S.R. 44 should be relocated to the west along the Dance Road alignment and terminating at U.S. 129/U.S. 441 just north of Eatonton instead of the previous alignment that followed the existing S.R. 44 alignment and terminated at S.R. 16 in Eatonton.

Figure 1 – S.R. 44 Project Location Map



To assist the GDOT/FHWA discussion, new traffic counts were collected in January 2010 to determine if, due to economic conditions, traffic volumes had changed significantly since the original traffic counts taken in 2006. 24-hour directional counts were recorded at eight separate locations along S.R. 44. In addition, AM and PM peak period turning movement counts were collected at four intersections along S.R. 44 (Harmony Road/Old Phoenix Road,



Linger Longer Road, and at both I-20 eastbound and westbound ramp intersections). These traffic counts are contained in **Appendix A. Table 1** compares the original 2006 traffic counts with the updated 2010 traffic counts taken at approximately the same location. For the intersections, the overall entering traffic volume of the AM and PM peak hours (2-hours total) were combined together to create a single volume total for each year counted.

Table 1 – S.R. 44 Traffic Count Comparison Summary

S.R. 44 Location	Type	2006	2010	% Change
North of Dance Road	24-Hour	6,798	4,651	- 46%
South of Loch Way	24-Hour	6,030	4,634	- 30%
South of Linger Longer Road	24-Hour	15,156	10,724	- 41%
South of Cherokee Drive	24-Hour	11,746	9,383	- 25%
North of Wrightsville Church Road	24-Hour	9,465	8,785	- 8%
South of Willow Run Road	24-Hour	8,662	10,093	+ 16%
SR 44 at Harmony Road	AM & PM Peak Periods	5,536	4,334	- 28%
SR 44 at Linger Longer Road	AM & PM Peak Periods	5,055	3,917	- 29%
SR 44 at I-20 EB ramps	AM & PM Peak Periods	3,605	3,259	- 11%
SR 44 at I-20 WB ramps	AM & PM Peak Periods	3,475	3,308	- 5%

As shown in **Table 1**, each of the traffic count locations had a reduction in traffic volume between the two counting periods with the exception of one location that showed an increase. It appears that the farther south along the S.R. 44 corridor, the greater the decrease in traffic. Some of the traffic decrease may be caused by seasonal factors since the 2006 counts were recorded during the fall season and the 2010 counts were recorded during the winter season. However, the vast majority of the decrease is most likely attributed to the change in economic conditions.

In addition to these traffic counts, officials at the City of Greensboro, Greene County, and Putnam County were interviewed to obtain updated information on current and proposed development activity along the S.R. 44 corridor, particularly information related to Developments of Regional Impact (DRI's) that were included in the original traffic projections developed in 2006. These initial traffic volume projections for S.R. 44 included numerous proposed developments along the S.R. 44 corridor. At the time the initial traffic forecasts were made, the entire project area



was in the midst of a land development boom. All of the planned developments assumed substantial future commercial and residential growth, with most concentrated in the Reynolds Plantation area. Based on the discussions with the city and county officials, it was determined that many of the developments proposed in 2006 have either been abandoned, are in foreclosure or have been significantly scaled down from the original proposed development. As a result, the amount of construction occurring along the S.R. 44 corridor has been reduced significantly, based on the number of building permits issued. According to statistics published, building permits for 2008 and 2009 were approximately 50% of 2007 levels. A follow-up visit was also made to the project area in order to determine the current status of the developments. Consistent with the reduction in existing traffic, it was found that most of the planned developments have been scaled back or placed on hold. *Table 2* lists the 2010 development status used in the original traffic projections.

Table 2 – 2010 Development Status along SR 44 Corridor

Development	Status
Georgia Pacific / Hardin Tracts (DRI #598)	This site is now known as The Creek Club at Reynolds Plantation. This site opened in June 2007. Lots within the development are available for purchase and construction.
Hidden Hills at Harbor Club (DRI #666)	This site is partially constructed but now under bankruptcy.
Carey Station Road Tract (DRI #696)	Development at this site is suspended, although an extension to this DRI has been filed.
The Coves at Lake Oconee (DRI #730)	This site is now the planned Richland Course by Pete Dye, part of Reynolds Plantation. This project is under bankruptcy and construction is suspended.
The Preserve at Oconee (DRI #777)	Development at this site is suspended.
Port Armor North / Carey Station Tracts / Simmons Tracts (DRI #1100)	This site is being developed in sections. The Del Webb at Lake Oconee section is under construction. Other portions of this site are now part of Reynolds Plantation and are in the early phases.
Lake Oconee Village (DRI #1230)	Some commercial parcels within this development, part of Reynolds Plantation, have opened. The remainder of this site, part of a continuing care facility, has not yet commenced construction.
Oconee Towne Center (DRI #1421)	Phase 1 of this development (Home Depot) was completed in November 2006.



In addition to those listed in *Table 2*, there are other developments that will affect traffic patterns and volumes along the S.R. 44 corridor, including the following:

- Lake Oconee Academy – A Charter School established in 2007 and currently meeting at Lakeside Church on SR 44. The first phase of a permanent campus is being constructed at SR 44 @ Carey Station Road, which opened in 2010. Current enrollment is 185 students in grades K-6, with future plans to extend enrollment through 12th grade.
- Minnie G. Boswell Memorial Hospital – Hospital is currently located in Greensboro. Planned replacement will be located on a 15-acre campus on Meadow Crest Road, north of the SR 44 interchange with I-20.

In summary, the result of these findings determined that the original traffic projections are unrealistic and need to be significantly lowered for the opening year 2016 and the design year 2036 since the original projections were developed during a period of high growth and included trip generation from developments that have been scaled back, postponed, or abandoned for an unknown period of time.

Roadway Classification

In Greene County, S.R. 44 is classified as a FC-06 Rural Minor Arterial along the entire study corridor. However, in Putnam County, the S.R. 44 study corridor contains two classifications. From S.R. 16 to Dance Road, the classification is FC-16 Urban Minor Arterial and from Dance Road to the Greene County line, the roadway classification is FC-06 Rural Minor Arterial.

Historical Growth Rate Analyses

Historical traffic volumes were obtained from six traffic count stations along the S.R. 44 corridor. All of these traffic count stations are maintained by the Georgia Department of Transportation (GDOT) State Traffic and Report Statistics (STARS) program. A summary of the historical growth rates per year for traffic volumes at these six traffic count stations is shown in *Table 3*.



Table 3 – Historical Growth Rate Summary

GASTARS Count Station	County	Traffic Volume (AADT)		Historical Growth Rates per Year		
		2005	2010	2005-2010	Average By County	Overall Average
121	Greene	9,890	10,410	1.03%	2.29% (Greene)	0.22%
123	Greene	8,180	9,670	3.40%		
125	Greene	9,170	10,350	2.45%		
143	Putnam	5,720	4,440	-5.20%	-2.88% (Putnam)	
145	Putnam	5,100	4,960	-0.56%		
146*	Putnam	-	10,360	-		

*The first traffic count recorded at CS 146 was in 2010 and is not used in the growth rate analysis.

From **Table 3**, the three traffic count stations in Greene County reported an increase in traffic volumes between 2005 and 2010 with the overall average growth rate being 2.29% annually. However, the two traffic count stations in Putnam County (excluding CS 146) reported a decrease in traffic volumes between 2005 and 2010 with the overall average being -2.88% annually. This traffic volume reduction along the Putnam County section of S.R. 44 is not expected to continue in the future years. Even though the overall average along the S.R. 44 study corridor was determined to be 0.22% annually, the growth rate for traffic projections should be closer to the historical traffic observed along the Greene County section of S.R. 44. As a result, a 2.29% annual growth rate was utilized within the project study area to forecast traffic volumes for this project.

2010 Base Year Traffic Volumes

The development of the 2010 base year traffic volumes for S.R. 44 were derived from first determining the 2006 turning percentages along the S.R. 44 corridor. Using these turning percentages, the 2010 Annual Average Daily Traffic (AADT) volumes from the GASTARS traffic counts including the I-20 ramp traffic counts and the traffic counts that were collected in 2010 were used along the S.R. 44 corridor. It should be noted that these 2010 traffic counts were converted to AADT volumes by using monthly, daily, and axle variation factors. In order to maintain the 2010 AADT volumes within reason along the S.R. 44 corridor, a step up/down in AADT's were periodically utilized between some intersections that are noted on the traffic diagrams as "Local Buildup". A summary of the AADT comparison is shown in **Table 4**.



Table 4 – 2010 AADT Comparison Summary

S.R. 44 Location	2010 AADT Volumes			
	GASTARS Traffic Count Stations		Traffic Counts	2010 AADT (Traffic Diagrams)
	2005	2010		
North of Dance Road	5,720	4,440	4,328	5,800
North of New Phoenix Road	5,100	4,960	-	5,240
South of Loch Way	-	-	4,312	5,160
North of Lakeview Drive	-	10,360	9,713	10,360
South of Linger Longer Road	-	-	9,980	9,700
North of Linger Longer Road	9,890	10,410	-	11,300
South of Cherokee Drive	-	-	8,732	11,180
North of Wrightsville Church Road	8,180	9,670	8,175	10,020
North of I-20	9,170	10,350	9,393	10,380
I-20 EB Off-Ramp (#R201)	-	2,267	-	2,680
I-20 EB On-Ramp (#R202)	-	1,923	-	1,980
I-20 WB Off-Ramp (#R801)	-	1,817	-	1,980
I-20 WB On-Ramp (#R802)	-	2,600	-	2,680

From **Table 4**, the 2010 traffic volumes in Putnam County were developed closer to the 2005 traffic volumes and the traffic volumes in Greene County were developed closer to the 2010 traffic volumes. Since the relocation of S.R. 44 was being proposed in Putnam County near Dance Road terminating at U.S. 129/U.S. 441, these traffic volumes were developed through interpolation from traffic volume diagrams that had been previously approved by GDOT (Project Nos. EDS-441(45) & EDS-441(44), P.I. Nos. 222580 & 222570, Putnam & Morgan Counties). A copy of these U.S. 129/U.S. 441 traffic diagrams is contained in **Appendix B**.

Peak Period Analyses

Peak period analyses (i.e. K-Factor analyses) were conducted along the S.R. 44 corridor to determine if the 2010 AM and PM peak periods included reasonable K-Factors, which are typically around 10% for roadways similar to S.R. 44. **Table 5** shows a summary of the 2010 peak hour analyses for the S.R. 44 corridor.



Table 5 – 2010 Peak Period Analyses Summary

S.R. 44 Roadway Section	County	AM "K-Factor"		PM "K-Factor"	
		Average	Overall	Average	Overall
From S.R. 16 to New Phoenix Road	Putnam	8.46%	8.27%	9.70%	9.76%
From New Phoenix Road to Old Phoenix Road/Harmony Road	Putnam	9.56%		11.12%	
From Old Phoenix Road/Harmony Road to Linger Longer Road	Putnam/ Greene	8.91%		11.06%	
From Linger Longer Road to Cherokee Drive	Greene	7.96%		8.67%	
From Cherokee Drive to Meadow Crest Road	Greene	7.54%		8.56%	
From Meadow Crest Road to Willow Run Road	Greene	7.05%		9.75%	

As shown in Table 5, the K-Factors for both the AM and PM are around 10% with the K-Factors being higher in Putnam County as compared to Greene County. This would be expected since the AADT volumes in Putnam County are lower than those in Greene County.

Truck Percentages

Truck percentages along the S.R. 44 corridor were obtained from the GASTARS traffic count stations. The truck percentage split for both single unit (SU) and multi-unit (MU) trucks were obtained from the previously prepared traffic volume diagrams. A summary of the truck percentages for each project is shown in *Table 6*.

Table 6 – Truck Percentage Summary

Project	CSSTP-0006-00(252)		CSSTP-0006-00(253)	
	AM Peak Period	PM Peak Period	AM Peak Period	PM Peak Period
Total	6%	7%	6%	5%
SU	4%	5%	4%	3%
MU	2%	2%	2%	2%
Description	AADT*		AADT*	
Total	17% (15% to 17%)		13% (12% to 13%)	
SU	10%		7%	
MU	7%		6%	

*The total truck percentage range from the GASTARS Traffic Count Stations is shown in parentheses.



S.R. 44 Corridor from Eatonton to I-20, Greene and Putnam Counties
Traffic Volume Projections Technical Memorandum
December 12, 2011
Page 9 of 9

Horizon Years

The horizon years for these projects were determined to be 2016 (opening year) and 2036 (design year). For the development of the 2016 and 2036 N-Build traffic volumes, the 2010 traffic volumes were projected at a growth rate of 2.29% annually to the desired year without any additional development trips. For the development of the 2016 and 2036 Build traffic volumes, new development trips generated by projected developments were added to the No-Build condition. An assumption was made for the Build condition that 60% of the proposed developments would be in place by 2016 and that 100% of the proposed developments would be in place by 2036. In other words, 60% of the new development trips were added to the 2016 No-Build traffic volumes and 100% of the new development trips were added to the 2036 No-Build traffic volumes (i.e. Full Build-out).

Traffic Volume Diagrams

Traffic volume diagrams were prepared for the S.R. 44 corridor for the base year (2010) and the future horizon years (2016 and 2036). These traffic volume diagrams include the AM Design Hour Volumes (DHV), the PM DHV, and the AADT. The following are the traffic volume diagrams by drawing sheet number:

- 2010 Traffic Volumes (Sheet Numbers 10-01 to 10-08)
- 2016/2036 No-Build Traffic Volumes (Sheet Numbers 10-09 to 10-20)
- 2016/2036 Build Traffic Volumes (Sheet Numbers 10-21 to 10-32)

The traffic volume diagrams prepared for this project are contained in **Appendix C** of this traffic memorandum.

Project CSSTP-0006-00(253)
Summary of Traffic Engineering Report for SR 44 @ Club Drive
Full Report Submitted to GDOT on 11/16/12
Prepared by Jeffrey W. Dyer, PE PTOE – Qk4

Location

This intersection is located in Greene County. The intersection is located 4.3 miles south of the interchange with Interstate 20 and 1.1 miles north of the intersection with Carey Station Road. It is a three-legged intersection with Club Drive approaching from the east and the missing approach being to the west. The intersection is currently unsignalized with side street stop controlled.

Description of the intersection

- SR 44 currently has one through lane in each direction with an exclusive left-turn lane southbound and an exclusive right-turn lane northbound. There is no median currently provided along SR 44. The intersection is located within a sag vertical curve along SR 44. There is adequate sight distance along SR 44 on both sides of the intersection. The intersection is located within a long horizontal curve on SR 44 with a radius of 2630'. Project CSSTP-0006-00(253) will widen SR 44 into a four-lane divided facility, with a southbound left-turn lane and northbound right-turn lane also provided as part of the project.
- Club Drive is a two-lane facility that begins at SR 44 and continues east and south as the main access road to the Harbor Club residential development. Approximately 0.6 miles from this intersection is the intersection with Hutchinson Grove Road, which continues east to its terminus at Walkers Church Road, an approximate distance of 4.5 miles. Club Drive serves as the primary entrance to the Harbor Club residential complex. East of Club Drive, Hutchinson Grove Road is an unpaved roadway. The approach profile is currently level with a 1.7% downgrade approaching the intersection. No changes are proposed to this profile except raise the approach profile approximately 2' in order to tie into the proposed edge of pavement of SR 44. No improvements to the Club Drive approach lane configuration are proposed as part of CSSTP-0006-00(253).

Accident History

Crash data was collected between 2007 and 2012 from Georgia DOT. For the immediate vicinity of this intersection, no crashes were identified that have occurred within this time period.

Signal Warrant Analysis

Signal warrant analyses were performed at this intersection, assuming three different scenarios. The first scenario assumes existing (2012) approach volumes and existing lane configurations. The second scenario assumes project opening year (2016) volume projections and proposed approach lane configurations. The third scenario assumed project design year (2036) volume projections and proposed approach lane configurations. Warrants checked for each scenario is as defined in the *Manual of Uniform Traffic Control Devices, 2009 Edition (MUTCD)*. The following table summarizes the Signal Warrants for each scenario analyzed. The results from the table show that Warrants 1 through 3 will be satisfied by the opening year of 2016, assuming projected traffic volumes.

**Signal Warrant Analysis Summary
Intersection of SR 44 at Club Drive**

Warrant	Description	2012 Existing Yr Analysis Results	2016 Opening Yr Analysis Results	2036 Design Yr Analysis Results
1	Eight-Hour Vehicular Volume	Not Satisfied	Satisfied	Satisfied
2	Four-Hour Vehicular Volume	Not Satisfied	Satisfied	Satisfied
3	Peak Hour	Not Satisfied	Satisfied	Satisfied
4	Pedestrian Volume	Not Applicable	Not Applicable	Not Applicable
5	School Crossing	Not Applicable	Not Applicable	Not Applicable
6	Coordinated Signal System	Not Applicable	Not Applicable	Not Applicable
7	Crash Experience	Not Satisfied	*	*
8	Roadway Network	Not Applicable	Not Applicable	Not Applicable
9	Intersection Near A Grade Crossing	Not Applicable	Not Applicable	Not Applicable

*Probable “Not Satisfied” due to accident history and proposed intersection improvements.

Level of Service Analysis

Level of service analysis has been performed assuming the signalization of this intersection. The *Highway Capacity Manual* signalized methodology was used for the analysis. The following table summarizes the results.

**SR 44 @ Club Drive - Level of Service Summary
Signalized - Proposed Lane Configuration**

Scenario	Time Period	Average Delay (sec/veh)	Level of Service
2016	a.m. peak	9.0	A
2016	p.m. peak	10.2	B
2036	a.m. peak	10.4	B
2036	p.m. peak	16.7	B

The level of service analysis reveals this intersection would operate with level of service “B” or better for both time periods and both the opening and design years. Level of service “B” implies the intersection would operate with minimal delays for all key movements with little or no queuing observed.

Recommendations:

It is recommended that a signal permit be issued for the installation of a traffic signal at the intersection of SR 44 @ Club Drive as part of project CSSTP-0006-00(253).

Project CSSTP-0006-00(253)
Summary of Traffic Engineering Report for SR 44 @ Carey Station Road
Full Report Submitted to GDOT on 11/16/12
Prepared by Jeffrey W. Dyer, PE PTOE – Qk4

Location

This intersection is located in Greene County. The intersection is located 5.3 miles south of the interchange with Interstate 20 and 1.8 miles north of the intersection with Linger Road. It is currently a three-legged intersection with Carey Station Road approaching from the northwest and the missing approach being to the southeast. The intersection is currently unsignalized with side-street stop control. There is a long-range proposal to extend Carey Station Road southeast of the intersection, ultimately making this a 4-legged intersection. The approved design traffic assumes the ultimate extension of Carey Station Road. However, there are no near-term plans to extend this roadway between now and the completion of project CSSTP-0006-00(253). For that reason the signal layout will assume this as a three-legged intersection.

Description of the intersection

- SR 44 currently has one through lane in each direction with no exclusive turn lanes provided on either approach. There is no median currently provided along SR 44. The intersection is located along a long vertical tangent on SR 44 with a grade of less than 0.5%. The slight downgrade is in the northeasterly direction. There is adequate sight distance along SR 44 on both sides of the intersection. The SR 44 northeast approach is on a horizontal tangent. On the southwest approach, there is a long horizontal curve with a 2800' radius that ends just before the center of the existing intersection. Project CSSTP-0006-00(253) will widen SR 44 into a four-lane divided facility, with a northbound left-turn lane and southbound right-turn lane also provided as part of the project.

- Carey Station Road is a two-lane facility that begins at SR 44 and continues north across I-20 and then along Lake Oconee to its terminus at SR 12/ US 278, an approximate distance of 8 miles. Carey Station Road is a two-lane undivided facility for its entire length. There are no exclusive turn lanes provided at this intersection along the Carey Station Road approach. The existing approach profile is a sag vertical curve with good sight distance. The project will not fundamentally change the profile, but will tie in to the proposed profile of SR 44, which is approximately 2' higher than the existing elevation. No improvements to the Carey Station approach lane configuration are proposed as part of CSSTP-0006-00(253). The future extension of Carey Station Road is not proposed to be constructed as part of this project.

Accident History

Crash data was collected between 2007 and 2012 from Georgia DOT. A total of 21 accidents were reported for this intersection and its vicinity. It appears that only two of the 21 total accidents at the intersection might have been prevented by signalization. The single largest category of crash at this intersection (9) is with an animal, usually a deer.

Signal Warrant Analysis

Signal warrant analyses were performed at this intersection, assuming three different scenarios. The first scenario assumes existing (2012) approach volumes and existing lane configurations. The second scenario assumes project opening year (2016) volume projections and proposed approach lane configurations. The third scenario assumed the project design year (2036) volume projections and

proposed approach lane configurations. Warrants checked for each scenario is as defined in the *Manual of Uniform Traffic Control Devices, 2009 Edition (MUTCD)*. The following table summarizes the Signal Warrants for each scenario analyzed. The results from the table show that Warrants 1 through 3 will be satisfied by the opening year of 2016, assuming projected traffic volumes.

**Signal Warrant Analysis Summary
Intersection of SR 44 at Carey Station Road**

Warrant	Description	2012 Existing Yr Analysis Results	2016 Opening Yr Analysis Results	2036 Design Yr Analysis Results
1	Eight-Hour Vehicular Volume	Not Satisfied	Satisfied	Satisfied
2	Four-Hour Vehicular Volume	Not Satisfied	Satisfied	Satisfied
3	Peak Hour	Not Satisfied	Satisfied	Satisfied
4	Pedestrian Volume	Not Applicable	Not Applicable	Not Applicable
5	School Crossing	Not Applicable	Not Applicable	Not Applicable
6	Coordinated Signal System	Not Applicable	Not Applicable	Not Applicable
7	Crash Experience	Not Satisfied	*	*
8	Roadway Network	Not Applicable	Not Applicable	Not Applicable
9	Intersection Near A Grade Crossing	Not Applicable	Not Applicable	Not Applicable

*Probable “Not Satisfied” due to accident history and proposed intersection improvements.

Level of Service Analysis

Level of service analysis has been performed assuming the signalization of this intersection. The *Highway Capacity Manual* signalized methodology was used for the analysis. The following table summarizes the results.

**SR 44 @ Carey Station Road - Level of Service Summary
Signalized - Proposed Lane Configuration**

Scenario	Time Period	Average Delay (sec/veh)	Level of Service
2016 – 3 legs	a.m. peak	11.2	B
2016 – 3 legs	p.m. peak	15.0	B
2036 – 3 legs	a.m. peak	19.0	B
2036 – 3 legs	p.m. peak	52.0	D
2016 – 4 legs	a.m. peak	15.1	B
2016 – 4 legs	p.m. peak	23.5	C
2036 – 4 legs	a.m. peak	38.2	D
2036 – 4 legs	p.m. peak	59.2	E

Although project CSSTP-0006-00(253) only proposes to retain the existing 3-legs at this intersection, a potential 4-legged intersection is also evaluated, since the approved traffic for this project assumes the extension of Carey Station Road. Although the lane configuration has not been determined, it is assumed for the purpose of this analysis that exclusive left-turn and right-turn lanes would be provided for all intersection approaches, and a single through lane provided in each direction along Carey Station Road.

Results of the level of service analysis shows a 4-legged intersection operating at level of service “D” or better, except for the p.m. peak hour in the design year (2036). For that scenario, the overall intersection would operate at level of service “E”. Further refinements to a four-legged intersection design, once the Carey Station Road extension is actually designed, could further improve the level of service.

Recommendations:

It is recommended that a signal permit be issued for the installation of a traffic signal at the intersection of SR 74 @ Carey Station Road as part of project CSSTP-0006-00(253).

Project CSSTP-0006-00(253)
Summary of Traffic Engineering Report for SR 44 @ Club Drive
Full Report Not Yet Submitted
Prepared by Jeffrey W. Dyer, PE PTOE – Qk4

Location

This intersection is located in Greene County. The intersection is located 1900 feet south of the interchange with Interstate 20 and 3.2 miles north of the intersection with Wrightsville Church Road. It is a three-legged intersection with Meadow Crest Road approaching from the east and the missing approach being to the west. The intersection is currently unsignalized with side street stop controlled.

Description of the intersection

- SR 44 currently has one through lane in each direction and northbound right-turn lane and a southbound left-turn lane. There is no median currently provided along SR 44. The intersection is located near the bottom of a sag vertical curve along SR 44, with adequate sight distance in both directions. The surrounding land use in the vicinity is mostly commercial, with a free-standing Home Depot store located along Meadow Crest Road approximately 400' east of the intersection and a Chevron gas station/convenience store located approximately 800' north of the intersection along SR 44. The only driveway located along SR 44 in the immediate vicinity of the intersection is located 300' south of the main intersection and serves as a side entrance to the Home Depot and an access road to currently undeveloped commercial property. This entrance is right-in-right-out only, with a short raised median provided along SR 44 to prohibit left-turns.

Project CSSTP-0006-00(253) will widen SR 44 to a four-lane divided facility, with a 32' depressed median provided south of the intersection and a 20' raised median north of the intersection. This intersection will include a median break and provide a single northbound right-turn lane and a southbound left-turn lane for traffic turning onto Meadow Crest Road. The raised median will block left-turn access to the existing commercial driveway south of the intersection.

- Meadow Crest Road is a two-lane facility that begins at SR 44 and continues east to Walkers Church Road. In recent years the Meadow Crest Road approach was relocated 900' south of its original location in order to serve the new Home Depot as well as to locate the intersection further away from the I-20 interchange. The existing approach to SR 44 includes exclusive left-turn and right-turn lanes that extend to the nearest driveway to the Home Depot, which is located 350' east of the intersection. There is a single lane that leaves the intersection eastbound that quickly adds a right-turn lane for the Home Depot commercial driveway. The profile of Meadow Crest Road is relatively level with excellent sight distance.

Accident History

Crash data was collected between 2007 and 2012 from Georgia DOT. A total of 14 accidents were reported for this intersection and its vicinity. Each of these crashes was reviewed and analyzed as to the cause and type of accident. It appears that only two of the 14 total accidents at the intersection might have been prevented by signalization. Signal Warrant #7 is related to crash experience. This warrant is not satisfied in any of the calendar years where data was collected.

Signal Warrant Analysis

Signal warrant analyses were performed at this intersection, assuming three different scenarios. The first scenario assumes existing (2012) approach volumes and existing lane configurations. The second scenario assumes project opening year (2016) volume projections and proposed approach lane configurations. The third scenario assumed project design year (2036) volume projections and proposed approach lane configurations. Warrants checked for each scenario is as defined in the *Manual of Uniform Traffic Control Devices, 2009 Edition (MUTCD)*. The following table summarizes the Signal Warrants for each scenario analyzed. The results from the table show that Warrants 1 through 3 will be satisfied by the opening year of 2016, assuming projected traffic volumes.

**Signal Warrant Analysis Summary
Intersection of SR 44 at Meadow Crest Road**

Warrant	Description	2012 Existing Yr Analysis Results	2016 Opening Yr Analysis Results	2036 Design Yr Analysis Results
1	Eight-Hour Vehicular Volume	Not Satisfied	Satisfied	Satisfied
2	Four-Hour Vehicular Volume	Not Satisfied	Satisfied	Satisfied
3	Peak Hour	Not Satisfied	Satisfied	Satisfied
4	Pedestrian Volume	Not Applicable	Not Applicable	Not Applicable
5	School Crossing	Not Applicable	Not Applicable	Not Applicable
6	Coordinated Signal System	Not Applicable	Not Applicable	Not Applicable
7	Crash Experience	Not Satisfied	*	*
8	Roadway Network	Not Applicable	Not Applicable	Not Applicable
9	Intersection Near A Grade Crossing	Not Applicable	Not Applicable	Not Applicable

*Probable "Not Satisfied" due to accident history and proposed intersection improvements.

Level of Service Analysis

Level of service analysis has been performed assuming the signalization of this intersection. The *Highway Capacity Manual* signalized methodology was used for the analysis.

**SR 44 @ Meadow Crest Road - Level of Service Summary
Signalized - Proposed Lane Configuration**

Scenario	Time Period	Average Delay (sec/veh)	Level of Service
2016	a.m. peak	13.4	B
2016	p.m. peak	13.9	B
2036	a.m. peak	16.7	B
2036	p.m. peak	71.0	E

The level of service analysis reveals this intersection would operate no worse than an overall level of service B in 2016 for both peak hours and for the AM peak hour in 2016. It would operate at E in 2036 in the PM peak hour, primarily due to the high southbound left-turn movement that is projected for that year.

Recommendations:

It is recommended that a signal permit be issued for the installation of a traffic signal at the intersection of SR 44 @ Meadow Crest Road as part of project CSSTP-0006-00(253).

Project CSSTP-0006-00(253)
Summary of Traffic Engineering Report for SR 44 @ Port Armor Parkway
Full Report Submitted to GDOT on 11/16/12
Prepared by Jeffrey W. Dyer, PE PTOE – Qk4

Location

This intersection is located in Greene County. The intersection is located 6.3 miles south of the interchange with Interstate 20 and 1 mile north of the intersection with Linger Longer Road. It is a three-legged intersection with Port Armor Parkway approaching from the west and the missing approach being to the east. The intersection is currently unsignalized with side-street stop controlled.

Description of the intersection

- SR 44 currently has one through lane in each direction with a two-way left-turn lane that serves as a left-turn lane northbound. There is no median currently provided along SR 44. The intersection is located within a long crest vertical curve along SR 44. Despite the crest curve, sight distance exceeds intersection sight distance criteria (660') in both directions. The intersection is located at the south end of a horizontal curve on SR 44 with a radius of 2000'. Project CSSTP-0006-00(253) will widen SR 44 into a four-lane divided facility, with a northbound left-turn lane and southbound right-turn lane also provided as part of the project.
- Port Armor Parkway is a two-lane divided facility with variable median that begins at SR 44 and continues west into "The Landing", a large residential/golf course development located on the shores of Lake Oconee. The total length of the roadway is approximately 1 mile. Port Armor Parkway Road serves as one of two entrances to this large development and is the primary outlet for traffic using I-20, since it serves as the northern entrance. The approach profile currently has a short crest vertical curve immediately west of the intersection with a downgrade approaching the intersection. No changes are proposed to this profile except to tie into the proposed edge of pavement of widened SR 44. No improvements to the Port Armor Parkway approach lane configuration are proposed as part of CSSTP-0006-00(253).

Accident History

Crash data was collected between 2007 and 2012 from Georgia DOT. For the immediate vicinity of this intersection, no crashes were identified that have occurred within this time period.

Signal Warrant Analysis

Signal warrant analyses were performed at this intersection, assuming three different scenarios. The first scenario assumes existing (2012) approach volumes and existing lane configurations. The second scenario assumes project opening year (2016) volume projections and proposed approach lane configurations. The third scenario assumed project design year (2036) volume projections and proposed approach lane configurations. Warrants checked for each scenario is as defined in the *Manual of Uniform Traffic Control Devices, 2009 Edition (MUTCD)*. The following table summarizes the Signal Warrants for each scenario analyzed. The results from the table show that Warrants 1 through 3 will be satisfied by the opening year of 2016, assuming projected traffic volumes.

**Signal Warrant Analysis Summary
Intersection of SR 44 at Port Armor Parkway**

Warrant	Description	2012 Existing Yr Analysis Results	2016 Opening Yr Analysis Results	2036 Design Yr Analysis Results
1	Eight-Hour Vehicular Volume	Not Satisfied	Satisfied	Satisfied
2	Four-Hour Vehicular Volume	Not Satisfied	Satisfied	Satisfied
3	Peak Hour	Not Satisfied	Satisfied	Satisfied
4	Pedestrian Volume	Not Applicable	Not Applicable	Not Applicable
5	School Crossing	Not Applicable	Not Applicable	Not Applicable
6	Coordinated Signal System	Not Applicable	Not Applicable	Not Applicable
7	Crash Experience	Not Satisfied	*	*
8	Roadway Network	Not Applicable	Not Applicable	Not Applicable
9	Intersection Near A Grade Crossing	Not Applicable	Not Applicable	Not Applicable

*Probable “Not Satisfied” due to accident history and proposed intersection improvements.

Level of Service Analysis

Level of service analysis has been performed assuming the signalization of this intersection. The *Highway Capacity Manual* signalized methodology was used for the analysis. The following table summarizes the results.

**SR 44 @ Port Armor Parkway - Level of Service Summary
Signalized - Proposed Lane Configuration**

Scenario	Time Period	Average Delay (sec/veh)	Level of Service
2016	a.m. peak	7.6	A
2016	p.m. peak	11.0	B
2036	a.m. peak	10.0	B
2036	p.m. peak	47.0	D

The level of service analysis reveals this intersection would operate with level of service “B” or better for both time periods in 2016, and “B” and “D” respectively for the a.m. and p.m. peak hours in the design year of 2036. Level of service “B” implies the intersection would operate with minimal delays for all key movements with little or no queuing observed. Level of service “D” implies that limited queuing and delay would be present on some of the approaches.

Recommendations:

It is recommended that a signal permit be issued for the installation of a traffic signal at the intersection of SR 74 @ Port Armor Parkway as part of project CSSTP-0006-00(253).

Bridge Inventory Data Listing



Parameters: Bridge Serial Num

Structure ID:133-5049-0

Greene

SUFF. RATING: 85.50

Location & Geography

Structure ID: 133-5049-0
 200 Bridge Information: 06
 *6A Feature Int: RICHLAND CREEK
 *6B Critical Bridge:
 *7A Route No Carried: SR00044
 *7B Facility Carried: SR 44
 9 Location: 6.6 MI SW OF GREENSBORO
 2 Dot District: 4841200000 - D2 District Two Tennille
 207 Year Photo: 2012
 *91 Inspection Frequency: 24 Date: 05/02/2014
 92A Fract Crit Insp Freq: 0 Date: 02/01/1901
 92B Underwater Insp Freq: 60 Date: 04/25/2013
 92C Other Spc. Insp Freq: 00 Date: 02/01/1901
 * 4 Place Code: 00000
 *5 Inventory Route(O/U): 1
 Type: 3 - State
 Designation: 1- Mainline
 Number: 00044
 Direction: 0. Not applicable
 *16 Latitude: 33.0000- 29.2734 HMMS Prefix:SR
 *17 Longitude: 83.0000- 29.2734 HMMS Suffix:00
 MP: 4.15
 98 Border Bridge: % Shared:00
 99 ID Number: 0000000000000000
 *100 STRAHNET: 0- The Feature is not a STRAHNET route.
 12 Base Highway Network: 1
 13A LRS Inventory Route: 1331004400
 13B Sub Inventory Route: 0.00
 *101 Parallel Structure: N. No parallel structure exists
 *102 Direction of Traffic: 2- Two Way
 *264 Road Inventory Mile Post: 004.08
 *208 Inspection Area: Area 02 Initials: VTT
 Engineer's Initials: kms
 * Location ID No: 133-00044D-004.15E

*104 Highway System: 0- Bridge does not carry a route on the NHS.
 *26 Functional Classification: 6- Rural - Minor Arterial
 *204 Federal Route Type: F - Primary. No: 00691
 105 Federal Lands Highway: 0. Not applicable
 *110 Truck Route: 0
 206 School Bus Route: 1
 217 Benchmark Elevation: 0000.00
 218 Datum: 2- Mean Sea Level
 *19 Bypass Length: 16
 *20 Toll: 3- On a Free Road or Non-Highway
 *21 Maintenance: 01-State Highway Agency.
 *22 Owner: 01-State Highway Agency.
 *31 Design Load: 6- HS 20 + Mod (2-24,000# Axles @ 4ft Ctrs., when they govern)
 37 Historical Significance: 5- Not eligible for the National Register of Historic Places
 205 Congressional District: 10 - TEN
 27 Year Constructed: 2002
 106 Year Reconstructed: 0
 33 Bridge Median: 0-None
 34 Skew: 30
 35 Structure Flared: No
 38 Navigation Control: 0- Navigation is not controlled by an Agency
 213 Special Steel Design: 0- Not applicable or other
 267 Type of Paint: 0- Not Applicable.
 *42 Type of Service On: 1-Highway
 Type of Service Under: 5-Waterway
 214 Movable Bridge: 0
 203 Type Bridge: A- Spread - O. Concrete O. Concrete- O. Concrete
 259 Pile Encasement 3
 *43 Structure Type Main: 5-Prestressed Concrete 2-Stringer/Multi-Beam or Girder
 45 No.Spans Main: 2
 44 Structure Type Appr: 0- Other 0- Other
 46 No Spans Appr: 0
 226 Bridge Curve Horz 0 Vert: 0.00
 111 Pier Protection N - Navigation Control item coded 0, or Feature not a waterway
 107 Deck Structure Type:
 108 Wearing Structure Type:
 Membrane Type:
 Deck Protection:

Signs & Attachments

225 Expansion Joint Type: 02- Open or sealed concrete joint (silicone sealant)
 242 Deck Drains: 1- Open Scuppers.
 243 Parapet Location: 0- None present.
 Height: 0.00
 Width: 0.00
 238 Curb Height: 0
 Curb Material: 0- None.
 239 Handrail 9- Concrete New 9- Concrete
 *240 Median Barrier Rail: 0- None. New Inspec
 241 Bridge Median Height: 0
 * Bridge Median Width: 0
 230 Guardrail Loc. Dir. Rear: 6- Both sides, approach and continuous.
 Fwd: 6- Both sides, approach and continuous.
 Oppo. Dir. Rear: 0- None.
 Oppo. Fwd: 0- None.
 244 Approach Slab 3- Forward and Rear.
 224 Retaining Wall: 0- None.
 233 Posted Speed Limit: 55
 236 Warning Sign: 0.00
 234 Delineator: 1.00
 235 Hazard Boards: 0
 237 Utilities Gas: 00- Not Applicable
 Water: 22- Bottom Right.
 Electric: 00- Not Applicable
 Telephone: 00- Not Applicable
 Sewer: 22- Bottom Right.
 247 Lighting Street: 0
 Navigation: 0
 Aerial: 0- Not
 *248 County Continuity No.: 00

Bridge Inventory Data Listing



Parameters: Bridge Serial Num

Structure ID:133-5049-0

Programming Data			Measurements:					
201 Project No:	BHF-069-1 (14)		*29 ADT	8500 Year:2012		65 Inventory Rating Method:	1-Load Factor (LF)	
202 Plans Available:	2- Plans at District Office.		109 %Trucks:	1		63 Operating Rating Method:	1-Load Factor (LF)	
249 Prop Proj No:	CSSTP-0006-00(253)		* 28 Lanes On:	3 Under:0		66 Inventory Type:	2 - HS loading. Rating: 37	
250 Approval Status:	0000		210 No. Tracks On:	00 Under:00		64 Operating Type:	2 - HS loading. Rating: 61	
251 PI Number:	0006253		* 48 Max. Span Length	72		231 Calculated Loads:		
252 Contract Date:	02/01/1901		* 49 Structure Length:	144		H-Modified:	21 0	
260 Seismic No:	00000		51 Br. Rwdy. Width	68.90		HS-Modified:	27 0	
75 Type Work:	0- Not Applicable	0- Initial Inventory	52 Deck Width:	72.20		Type 3:	25 0	
94 Bridge Imp. Cost:	\$716		* 47 Tot. Horiz. Cl:	69		Type 3s2:	40 0	
95 Roadway Imp. Cost:	\$72		50 Curb / Sidewalk Width	0.00 / 0.00		Timber:	31 0	
96 Total Imp Cost:	\$1074		32 Approach Rdwy. Width	25		Piggyback:	40 0	
76 Imp Length:	0		*229 Shoulder Width:			261 H Inventory Rating:	36	
97 Imp Year:	2013		Rear Lt:	5.00 Type:8 - Rt:5		262 H Operating Rating	64	
114 Fureur ADT:	12750	Year:2032	Fwd. Lt:	6.00 Type:8 - Grass Rt:6		67 Structural Evaluation:		
Hydraulic Data			Pavement Width:			58 Deck Condition:	7 - Good Condition	
215 Waterway Data:			Rear:	24.50 Type: 2- Asphalt.		59 Superstructure Condition:	8 - Very Good Condition	
High Water Elev:	0133.2	Year:0000	Rear:	50.30 Type: 2- Asphalt.		* 227 Collision Damage:		
Flood Elev:	0000.0	Freq:00	Intersaction Rear:	0 Fwd: 1		60A Substructure Condition:	7 - Good Condition	
Avg Streambed Elev:	0000.0		36 Safety Features Br. Rail:	1- Meets current standards		60B Scour Condition:	7 - Good Condition	
Drainage Area:	00000		Transition:	1- Meets current standards		60C Underwater Condition	7 - Good Condition	
Area of Opening:	000000		App. G. Rail:	1- Meets current standards		71 Waterway Adequacy:	8-Equal to present desirable criteria.	
113 Scour Critical	8. Foundation stable for conditions; scour above footing		App. Rail End:	1- Meets current standards		61 Channel Protection Cond.:	8	
216 Water Depth:	10.6	Br.Height:10.8	53 Minimum Cl. Over:	99'99"		68 Deck Geometry:		
222 Slope Protection:	1		Under:	N- Feature not a highway or railroad. 0.00'0.00"		69 UnderClr. Horz/Vert:		
221 Spur Dikes Rear	0	Fwd:0	*228 Minimum Vertical Cl			72 Appr. Alignment:	8-No reduction of vehicle operating speed required.	
219 Fender System	0- None.		Act. Odm Dir.:	99 ' 99"		62 Culvert:	N - Not Applicable	
220 Dolphin:			Oppo. Dir:	99' 99"		Posting Data		
223 Culvert Cover:	000		Posted Odm. Dir:	00' 00"		70 Bridge Posting Required	5. Equal to or above legal loads	
Type:	0- Not Applicable		Oppo. Dir:	00'00 "		41 Struct Open, Posted, CL:	A. Open, no restriction	
No. Barrels:	0		55 Lateral Undercl. Rt:	N- Feature not a highway or railroad. 0.00		* 103 Temporary Structure:	0	
Width:	0.00	Height:0	56 Lateral Undercl. Lt:	0.00		232 Posted Loads		
Length:	0	Apron:0	*10 Max Min Vert Cl:	99' 99" Dir:0		H-Modified:	00	
*265 U/W Insp. Area	2	Diver:RMO	39 Nav Vert Cl:	000 Horiz:0		HS-Modified:	00	
*Location ID No:	133-00044D-004.15E		116 Nav Vert Cl Closed:	000		Type 3:	00	
			245 Deck Thickness Main	8.00		Type 3s2:	00	
			Deck Thick Approach:	0.00		Timber:	00	
			246 Overlay Thickness:	0.00		Piggyback	00	
			212 Year Last Painted:	Sup:0000 Sub:0000		253 Notification Date:	02/01/1901	
						258 Fed Notify Date:	02/01/1901	

Bridge Inventory Data Listing



Parameters: Bridge Serial Num

Structure ID:133-5052-0

Greene

SUFF. RATING: 76.00

Location & Geography

Structure ID: 133-5052-0
 200 Bridge Information: 06
 *6A Feature Int: I-20
 *6B Critical Bridge:
 *7A Route No Carried: SR00044
 *7B Facility Carried: SR 44
 9 Location: 2.5 MI S OF GREENESBORO
 2 Dot District: 4841200000 - D2 District Two Tennille
 207 Year Photo: 2012
 *91 Inspection Frequency: 24 Date: 05/27/2014
 92A Fract Crit Insp Freq: 0 Date: 02/01/1901
 92B Underwater Insp Freq: 00 Date: 02/01/1901
 92C Other Spc. Insp Freq: 00 Date: 02/01/1901
 * 4 Place Code: 00000
 *5 Inventory Route(O/U): 1
 Type: 3 - State
 Designation: 1- Mainline
 Number: 00044
 Direction: 0. Not applicable
 *16 Latitude: 33.0000- 32.7468 HMMS Prefix:0
 *17 Longitude: 83.0000- 32.7468 HMMS Suffix:0
 MP: 0.00
 98 Border Bridge: % Shared:00
 99 ID Number: 0000000000000000
 *100 STRAHNET: 1- The Feature is on an Interstate STRAHNET route
 12 Base Highway Network:
 13A LRS Inventory Route: 1331004400
 13B Sub Inventory Route: 0.00
 *101 Parallel Structure: N. No parallel structure exists
 *102 Direction of Traffic: 2- Two Way
 *264 Road Inventory Mile Post: 008.64
 *208 Inspection Area: Area 02 Initials: VTT
 Engineer's Initials: eep
 * Location ID No: 133-00044D-008.64E

*104 Highway System: 1- Bridge does carry a route on the NHS.
 *26 Functional Classification: 6- Rural - Minor Arterial
 *204 Federal Route Type: F - Primary. No: 00691
 105 Federal Lands Highway: 0. Not applicable
 *110 Truck Route: 0
 206 School Bus Route: 1
 217 Benchmark Elevation: 00000.0
 218 Datum: 0- Not Applicable
 *19 Bypass Length: 18
 *20 Toll: 3- On a Free Road or Non-Highway
 *21 Maintenance: 01-State Highway Agency.
 *22 Owner: 01-State Highway Agency.
 *31 Design Load: 6- HS 20 + Mod (2-24,000# Axles @ 4ft Ctrs., when they govern)
 37 Historical Significance: 5- Not eligible for the National Register of Historic Places
 205 Congressional District: 10 - TEN
 27 Year Constructed: 2003
 106 Year Reconstructed: 0
 33 Bridge Median :
 34 Skew: 39
 35 Structure Flared: No
 38 Navigation Control: N- Bridge is not over water
 213 Special Steel Design: 0- Not applicable or other
 267 Type of Paint: 0- Not Applicable.
 *42 Type of Service On: 1-Highway
 Type of Service Under: 1-Highway (with or without pedestrians)
 214 Movable Bridge: 0
 203 Type Bridge: 0 - Multip - O. Concrete O. Concrete- O. Concrete
 259 Pile Encasement 3
 *43 Structure Type Main: 5-Prestressed Concrete 2-Stringer/Multi-Beam or Girder
 45 No.Spans Main: 2
 44 Structure Type Appr: 0- Other 0- Other
 46 No Spans Appr: 0 Vert: 0.00
 226 Bridge Curve Horz
 111 Pier Protection N - Navigation Control item coded 0, or Feature not a waterway
 107 Deck Structure Type:
 108 Wearing Structure Type:
 Membrane Type:
 Deck Protection:

Signs & Attachments

225 Expansion Joint Type: 02- Open or sealed concrete joint (silicone sealant).
 242 Deck Drains: 0- None.
 243 Parapet Location: 0- None present.
 Height: 0.00
 Width: 0.00
 238 Curb Height: 0
 Curb Material: 0- None.
 239 Handrail 9- Concrete New 9- Concrete
 *240 Median Barrier Rail: Jarsav Type Barrier New Jarsav
 0- None.
 241 Bridge Median Height: 0
 * Bridge Median Width: 0
 230 Guardrail Loc. Dir. Rear: 6- Both sides, approach and continuous.
 FwrD: 6- Both sides, approach and continuous.
 Oppo. Dir. Rear: 0- None.
 Oppo. FwrD: 0- None.
 244 Approach Slab 3- Forward and Rear.
 224 Retaining Wall: 7- Reinforced
 233 Posted Speed Limit: 55
 236 Warning Sign: 0.00
 234 Delineator: 0.00
 235 Hazard Boards: 0
 237 Utilities Gas: 00- Not Applicable
 Water: 22- Bottom Right.
 Electric: 24- Bottom Left and Right.
 Telephone: 21- Bottom Left.
 Sewer: 21- Bottom Left.
 247 Lighting Street: 0
 Navigation: 0
 Aerial: 0- Not
 *248 County Continuity No.: 00



Processed Date:1/29/2015

Bridge Inventory Data Listing

Parameters: Bridge Serial Num

Structure ID:133-5052-0

Programming Data		Measurements:		65 Inventory Rating Method:	1-Load Factor (LF)
201 Project No:	IM-0000-00 (472)	*29 ADT	10350 Year:2011	63 Operating Rating Method:	1-Load Factor (LF)
202 Plans Available:	2- Plans at District Office.	109 %Trucks:	9	66 Inventory Type:	2 - HS loading. Rating: 36
249 Prop Proj No:	CSSTP-0006-00(253)	* 28 Lanes On:	3 Under:4	64 Operating Type:	2 - HS loading. Rating: 60
250 Approval Status:	0000	210 No. Tracks On:	00 Under:00	231 Calculated Loads:	
251 PI Number:	0006253	* 48 Max. Span Length	133	H-Modified:	21 0
252 Contract Date:	02/01/1901	* 49 Structure Length:	266	HS-Modified:	30 0
260 Seismic No:	00000	51 Br. Rwdy. Width	66.40	Type 3:	33 0
75 Type Work:	0- Not Applicable 0- Initial Inventory	52 Deck Width:	70.40	Type 3s2:	40 0
94 Bridge Imp. Cost:	\$1,323	* 47 Tot. Horiz. Cl:	66	Timber:	37 0
95 Roadway Imp. Cost:	\$132	50 Curb / Sidewalk Width	0.00 / 0.00	Piggyback:	40 0
96 Total Imp Cost:	\$1984	32 Approach Rdwy. Width	77	261 H Inventory Rating:	22
76 Imp Length:	0	*229 Shoulder Width:		262 H Operating Rating	72
97 Imp Year:	2013	Rear Lt:	27.00 Type:2 - Rt:14	67 Structural Evaluation:	
114 Fureur ADT:	15525 Year:2031	Fwd. Lt:	27.00 Type:3 - Rt:14	58 Deck Condition:	7 - Good Condition
Hydraulic Data		Pavement Width:		59 Superstructure Condition:	8 - Very Good Condition
215 Waterway Data:		Rear:	36.00 Type: 2- Asphalt.	* 227 Collision Damage:	
High Water Elev:	0000.0 Year:0000		36.00 Type: 2- Asphalt.	60A Substructure Condition:	7 - Good Condition
Flood Elev:	0000.0 Freq:00	Intersaction Rear: 1 Fwd: 1		60B Scour Condition:	N - Not Applicable
Avg Streambed Elev:	0000.0	36 Safety Features Br. Rail: 1- Meets current standards		60C Underwater Condition	N - Not Applicable
Drainage Area:	00000	Transition:	1- Meets current standards	71 Waterway Adequacy:	Not Applicable.
Area of Opening:	000000	App. G. Rail:	1- Meets current standards	61 Channel Protection Cond.:	10
113 Scour Critical	N. Bridge not over waterway.	App. Rail End:	1- Meets current standards	68 Deck Geometry:	
216 Water Depth:	00.0 Br.Height:00.0	53 Minimum Cl. Over:	99'99"	69 UnderClr. Horz/Vert:	
222 Slope Protection:	0	Under: H- Highway beneath structure.	18.00'11.00"	72 Appr. Alignment:	8-No reduction of vehicle operating speed required.
221 Spur Dikes Rear	0 Fwd:0	*228 Minimum Vertical Cl		62 Culvert:	N - Not Applicable
219 Fender System	0- None.	Act. Odm Dir.:	99 ' 99"	Posting Data	
220 Dolphin:		Oppo. Dir:	99' 99"	70 Bridge Posting Required	5. Equal to or above legal loads
223 Culvert Cover:	000	Posted Odm. Dir:	00' 00"	41 Struct Open, Posted, CL:	A. Open, no restriction
Type:	0- Not Applicable	Oppo. Dir:	00'00 "	* 103 Temporary Structure:	0
No. Barrels:	0	55 Lateral Undercl. Rt:	H- Highway beneath structure. 42.20	232 Posted Loads	
Width:	0.00 Height:0	56 Lateral Undercl. Lt:	29.80	H-Modified:	00
Length:	0 Apron:0	*10 Max Min Vert Cl:	99' 99" Dir:0	HS-Modified:	00
*265 U/W Insp. Area	0 Diver:ZZZ	39 Nav Vert Cl:	000 Horiz:0	Type 3:	00
*Location ID No:	133-00044D-008.64E	116 Nav Vert Cl Closed:	000	Type 3s2:	00
		245 Deck Thickness Main	7.30	Timber:	00
		Deck Thick Approach:	0.00	Piggyback	00
		246 Overlay Thickness:	0.00	253 Notification Date:	02/01/1901
		212 Year Last Painted:	Sup:0000 Sub:0000	258 Fed Notify Date:	02/01/1901

Bridge Inventory Data Listing



Parameters: Bridge Serial Num

Structure ID:133-0016-0

Greene

SUFF. RATING: 77.60

Location & Geography

Structure ID: 133-0016-0
 200 Bridge Information: 07
 *6A Feature Int: TOWN CREEK
 *6B Critical Bridge:
 *7A Route No Carried: SR00044
 *7B Facility Carried: SR 44
 9 Location: SOUTH GREENSBORO
 2 Dot District: 4841200000 - D2 District Two Tennille
 207 Year Photo: 2012
 *91 Inspection Frequency: 24 Date: 05/12/2014
 92A Fract Crit Insp Freq: 0 Date: 02/01/1901
 92B Underwater Insp Freq: 00 Date: 02/01/1901
 92C Other Spc. Insp Freq: 00 Date: 02/01/1901
 * 4 Place Code: 00000
 *5 Inventory Route(O/U): 1
 Type: 3 - State
 Designation: 1- Mainline
 Number: 00044
 Direction: 0. Not applicable
 *16 Latitude: 33.0000- 33.0882 HMMS Prefix:SR
 *17 Longitude: 83.0000- 12.0372 HMMS Suffix:00
 MP: 9.31
 98 Border Bridge: % Shared:00
 99 ID Number: 0000000000000000
 *100 STRAHNET: 0- The Feature is not a STRAHNET route.
 12 Base Highway Network: 1
 13A LRS Inventory Route: 1331004400
 13B Sub Inventory Route: 0.00
 *101 Parallel Structure: N. No parallel structure exists
 *102 Direction of Traffic: 2- Two Way
 *264 Road Inventory Mile Post: 009.15
 *208 Inspection Area: Area 02 Initials: VTT
 Engineer's Initials: eep
 * Location ID No: 133-00044D-009.31E

*104 Highway System: 0- Inventory Route is not on the NHS
 *26 Functional Classification: 6- Rural - Minor Arterial
 *204 Federal Route Type: F - Primary. No: 00691
 105 Federal Lands Highway: 0. Not applicable
 *110 Truck Route: 0
 206 School Bus Route: 1
 217 Benchmark Elevation: 0000.00
 218 Datum: 0- Not Applicable
 *19 Bypass Length: 18
 *20 Toll: 3- On a Free Road or Non-Highway
 *21 Maintenance: 01-State Highway Agency.
 *22 Owner: 01-State Highway Agency.
 *31 Design Load: 2- H 15
 37 Historical Significance: 5- Not eligible for the National Register of Historic Places
 205 Congressional District: 10 - TEN
 27 Year Constructed: 1961
 106 Year Reconstructed: 0
 33 Bridge Median: 0-None
 34 Skew: 45
 35 Structure Flared: No
 38 Navigation Control: 0- Navigation is not controlled by an Agency
 213 Special Steel Design: 0- Not applicable or other
 267 Type of Paint: 0- Not Applicable.
 *42 Type of Service On: 1-Highway
 Type of Service Under: 5-Waterway
 214 Movable Bridge: 0
 203 Type Bridge: Q - Reinf - - -
 259 Pile Encasement 3
 *43 Structure Type Main: 1-Concrete 19- Culvert
 45 No.Spans Main: 3
 44 Structure Type Appr: 0- Other 0- Other
 46 No Spans Appr: 0
 226 Bridge Curve Horz 0 Vert: 0.00
 111 Pier Protection N - Navigation Control item coded 0, or Feature not a waterway
 107 Deck Structure Type: N - None
 108 Wearing Structure Type: N. Not applicable
 Membrane Type: N. Not applicable
 Deck Protection: N. Not applicable

Signs & Attachments

225 Expansion Joint Type: 00- No expansion joint.
 242 Deck Drains: 0- None.
 243 Parapet Location: 0- None present.
 Height: 0.00
 Width: 0.00
 238 Curb Height: 0
 Curb Material: 0- None.
 239 Handrail 0- None. 0- None.
 *240 Median Barrier Rail: 0- None.
 241 Bridge Median Height: 0
 * Bridge Median Width: 0
 230 Guardrail Loc. Dir. Rear: 0- None.
 Fwr: 0- None.
 Oppo. Dir. Rear: 0- None.
 Oppo. Fwr: 0- None.
 244 Approach Slab 0- None.
 224 Retaining Wall: 0- None.
 233 Posted Speed Limit: 50
 236 Warning Sign: 0.00
 234 Delineator: 1.00
 235 Hazard Boards: 0
 237 Utilities Gas: 00- Not Applicable
 Water: 00- Not Applicable
 Electric: 00- Not Applicable
 Telephone: 00- Not Applicable
 Sewer: 00- Not Applicable
 247 Lighting Street: 0
 Navigation: 0
 Aerial: 0- Not
 *248 County Continuity No.: 00



Processed Date:5/4/2015

Bridge Inventory Data Listing

Parameters: Bridge Serial Num

Structure ID:133-0016-0

Programming Data			Measurements:					
201 Project No:	S-0783 (3)		*29 ADT	10350	Year:2011	65 Inventory Rating Method:	0-Field Eval and Documented Eng Judgement	
202 Plans Available:	0- No Plans Available.		109 %Trucks:	9		63 Operating Rating Method:	0-Field Eval and Documented Eng Judgement	
249 Prop Proj No:	CSSTP-0006-00(253)		* 28 Lanes On:	2	Under:0	66 Inventory Type:	2 - HS loading. Rating: 27	
250 Approval Status:	0000		210 No. Tracks On:	00	Under:00	64 Operating Type:	2 - HS loading. Rating: 46	
251 PI Number:	0006253		* 48 Max. Span Length	14		231 Calculated Loads:		
252 Contract Date:	02/01/1901		* 49 Structure Length:	45		H-Modified:	00	0
260 Seismic No:	00000		51 Br. Rwdy. Width	0.00		HS-Modified:	00	0
75 Type Work:	0- Not Applicable	0- Initial Inventory	52 Deck Width:	0.00		Type 3:	00	0
94 Bridge Imp. Cost:	\$176		* 47 Tot. Horiz. Cl:	41		Type 3s2:	00	0
95 Roadway Imp. Cost:	\$18		50 Curb / Sidewalk Width	0.00	/ 0.00	Timber:	00	0
96 Total Imp Cost:	\$264		32 Approach Rdwy. Width		29	Piggyback:	00	0
76 Imp Length:	0		*229 Shoulder Width:			261 H Inventory Rating:	15	
97 Imp Year:	2013		Rear Lt:	2.00	Type:2 - Rt:2	262 H Operating Rating	25	
114 Fureur ADT:	15525	Year:2031	Fwd. Lt:	3.00	Type:1 - Rt:3	67 Structural Evaluation:	6	
Hydraulic Data			Pavement Width:			58 Deck Condition:	N - Not Applicable	
215 Waterway Data:			Rear:	42.50	Type: 2- Asphalt.	59 Superstructure Condition:	N - Not Applicable	
High Water Elev:	0000.0	Year:1900		22.90	Type: 2- Asphalt.	* 227 Collision Damage:		
Flood Elev:	0000.0	Freq:00	Intersaction Rear:	1	Fwd: 1	60A Substructure Condition:	N - Not Applicable	
Avg Streambed Elev:	0000.0		36 Safety Features Br. Rail:	N- Not applicable		60B Scour Condition:	8 - Very Good Condition	
Drainage Area:	00000		Transition:	N- Not applicable		60C Underwater Condition	N - Not Applicable	
Area of Opening:	000270		App. G. Rail:	N- Not applicable		71 Waterway Adequacy:	8-Equal to present desirable criteria.	
113 Scour Critical	8. Foundation stable for conditions; scour above footing		App. Rail End:	N- Not applicable		61 Channel Protection Cond.:	6	
216 Water Depth:	01.0	Br.Height:08.0	53 Minimum Cl. Over:	99'99"		68 Deck Geometry:	N	
222 Slope Protection:	0		Under:	N- Feature not a highway or railroad. 0.00'0.00"		69 UnderClr. Horz/Vert:	N	
221 Spur Dikes Rear	0	Fwd:0	*228 Minimum Vertical Cl			72 Appr. Alignment:	8-No reduction of vehicle operating speed required.	
219 Fender System	0- None.		Act. Odm Dir.:	99 ' 99"		62 Culvert:	6 - Satisfactory Condition	
220 Dolphin:			Oppo. Dir:	99' 99"		Posting Data		
223 Culvert Cover:	5		Posted Odm. Dir:	00' 00"		70 Bridge Posting Required	5. Equal to or above legal loads	
Type:	1- Concrete.		Oppo. Dir:	00'00 "		41 Struct Open, Posted, CL:	A. Open, no restriction	
No. Barrels:	3		55 Lateral Undercl. Rt:	N- Feature not a highway or railroad. 0.00		* 103 Temporary Structure:	0	
Width:	10.00	Height:9	56 Lateral Undercl. Lt:	0.00		232 Posted Loads		
Length:	94	Apron:0	*10 Max Min Vert Cl:	99' 99" Dir:0		H-Modified:	00	
*265 U/W Insp. Area	0	Diver:ZZZ	39 Nav Vert Cl:	000 Horiz:0		HS-Modified:	00	
*Location ID No:	133-00044D-009.31E		116 Nav Vert Cl Closed:	000		Type 3:	00	
			245 Deck Thickness Main	0.00		Type 3s2:	00	
			Deck Thick Approach:	0.00		Timber:	00	
			246 Overlay Thickness:	0.00		Piggyback	00	
			212 Year Last Painted:	Sup:0000 Sub:0000		253 Notification Date:	02/01/1901	
						258 Fed Notify Date:	02/01/1901	

CONCEPT TEAM MEETING

APRIL 09, 2009

CSSTP-0006-00 (252) & (253), P.I. NO. 0006252 & 0006253

**Widening of SR 44, from US 441 in Putnam Co.
to the East Greensboro Bypass in Greene County**

MEETING ATTENDEES

Name	Agency	Phone	e-mail
Robert Delos Santos	Parsons	678-969-2483	Robert.dlsantos@parsons.com
Shawn Reese	Parsons	678-966-2457	shawn.reese@parsons.com
Rick Filer	Edwards-Pitman	770-333-9484	rfiler@edwards-pitman.com
David Adair	Edwards-Pitman	770-333-9484	dadair@edwards-pitman.com
Helen Carnes	Putnam Co. BOC	706-485-5826	hcarnes@putnamcountyga.us
Jeff Dyer	QK4	404-417-3024	jdyer@qk4.com
Lori Kennedy	KEA Group	679-904-8591	lkennedy@keagroup.com
David Jackson	Long Eng.	770-931-8005	djackson@longeng.com
David Henry	Long Eng.	770-931-8005	dhenry@longeng.com
Sean Bush	GDOT	478-552-4641	sbush@dot.ga.gov
Bryan Gibbs	GDOT	706-343-5836	bgibbs@dot.ga.gov
Todd Price	GDOT	478-552-4621	tprice@dot.ga.gov
Rusty Merritt	GDOT	478-552-4603	rmerritt@dot.ga.gov
Freddie Law	Wilbur Smith	404-226-5321	flaw@wilbursmith.com
Tom Thompson	Putnam Co.	706-476-0225	tompamthom@att.net
Billy Webster	Putnam Co.	706-485-5826	Billy_Webster@windstream.net
Byron Lombard	Greene Co.	706-453-7716	blombard@greencountyga.gov
Kraig A. Collins	GDOT	478-445-5130	krcollins@dot.ga.gov
George Brewer	GDOT	478-552-4629	gbrewer@dot.ga.gov

Long Engineering began the meeting with an overview of each project discussing the typical sections, environmental issues, proposed structures and utility impacts.

General Comments

- Historical property boundaries and the location of Georgia Power Transmission poles in most cases were the main deciders for which direction the widening of SR 44 occurs.

- Coordination with Georgia Power has occurred for the new bridge fill along Lake Oconee. Georgia Power did not have any issues with the proposed structures or fills into Lake Oconee.
- LEI is currently field surveying the project, which will contain the new construction items that have occurred since the original aerial photography was flown.

Project CSSTP-0006-00(252), P.I. No. 0006252

- Gatewood Road has been renamed to Copelan Farm Road.
- A new traffic signal and westbound approach has been added at Merchant Drive.
- Putnam County prefers the alternate alignment of SR 44 turning west along the Dance Road corridor and intersecting with SR 441 to the previous alternate of SR 44 starting at SR 16 in Eatonton and continuing north.

Project CSSTP-0006-00(253), P.I. No. 0006253

- Green County requested studying to see if a median opening is feasible at Cherokee Drive to accommodate emergency services for the approximately 80 homes in that development. The current concept has right turn in & out only.
- Green County requested driveway access at the Willow Run Road median opening for emergency services. The drive may need to be relocated to the north to match the Willow Run approach.
- P.C. Simonton is currently designing a cross county connector for Green County that intersects SR 44 south of Wrightsville Church Road. LEI will coordinate with Green County during the preliminary plans phase to accommodate this planned roadway.
- Reynolds Plantation requested consideration of a grade-separated intersection at the Carey Station Road – SR 44 intersection due to high traffic projections based on future development plans near the intersection.
- GDOT District Traffic Operations questioned the single left turn lane from Harmony Road northbound to SR 44. Traffic projections for that movement could warrant dual left turn lanes. The traffic subconsultant Qk4, will review the traffic analysis for that intersection and make a recommendation.

Meeting Summary Recorded By,

LONG ENGINEERING INC.



David B. Henry, P.E.

Transportation Department Manager

CC: Meeting Attendees

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE: P.I. Nos. 0006252 and 0006253

OFFICE: Environment/Location

DATE: December 2, 2008

FROM: Glenn Bowman, P.E., State Environmental/Location Engineer

TO: Distribution Below

SUBJECT: CSSTP-0006-00(252) and CSSTP-0006-00(253), Greene and Putnam Counties - Summary of Comments Received During the Public Comment Period

COMMENT TOTALS:

A total of 171 people attended the Public Information Open House held for the subject projects on October 16, 2008 at Lakeside Church, 5800 Oconee Parkway, Greensboro, GA 30642. From those attending, 44 comment cards and 7 verbal comments were received at the meeting. An additional 27 comments were received during the comment period following the Public Information Open House. Because several people utilized a variety of means to submit comments (comment forms, verbal statements, letters, phone calls, email, and/or internet), each person was counted as one response regardless of how many times they commented. Therefore, there were a total of 77 individual comments. The comments received are summarized as follows:

<u>Number Opposed</u>	<u>Number Support</u>	<u>Uncommitted</u>	<u>Conditional</u>
4	32	6	35

MAJOR CONCERNS:

- 1) Concerns about loss of useable land for businesses along SR 44.
- 2) Concerns about the limited access for business along SR 44 due to lack of median breaks or misplacement of median breaks.
- 3) Concerns about safety issues involving u-turns.
- 4) Support the project to improve safety along the corridor.
- 5) Requests for median breaks at intersections in conjunction with traffic signals where none are currently shown.
- 6) Concerns about increased traffic or traffic congestion caused by this project.

Summary of Comments

P.I. Nos. 0006252 and 0006253

CSSTP-0006-00(252) and CSSTP-0006-00(253), Greene and Putnam Counties

Page 2

- 7) Concerns and desires regarding alternative alignments for the proposed southern terminus at US 441 or SR 16.
- 8) Concerns about increased noise levels and requests for noise abatement measures.
- 9) Support for the project and desire for GDOT to complete this project.

OFFICIALS IN ATTENDANCE:

Helen Carnes, Putnam County Board of Commissioners
 Bob Landau, Putnam County Board of Commissioners
 Dan Elmore, City Administrator, City of Eatonton
 Mickey Channel, Georgia State Representative
 Phil Mellor, Greene County Development Authority
 Gerald Torbert, Greene County Board of Commissioners
 Teresa Churchwell, Council Member, City of Maxeys.

DISPOSITION OF COMMENTS: The following represents a breakdown of a review of comments by the offices to which they pertain:

RESPONSIBLE OFFICE	COMMENT#	NATURE OF COMMENT
Design	3, 7, 11, 12, 14, 55, 76	Concerns about loss of useable land for businesses or residences along SR 44.
	1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 12, 13, 14, 47, 48, 49, 50, 53, 54, 57, 61, 67, 68, 70, 72, 74, 76	Concerns about the limited access for business along SR 44 due to lack of median breaks or misplacement of median breaks.
	3, 8, 11, 12, 49, 54, 57, 61, 71, 72	Concerns about safety issues involving u-turns.
	16, 41, 44, 73	Support the project to improve safety along the corridor.
	2, 9, 10, 11, 12, 26, 36, 45, 46, 56, 57, 59, 60, 61, 62, 63, 64, 65, 66, 68, 69, 71	Requests for median breaks at intersections in conjunction with traffic signals where none are currently shown.
	17, 18, 34, 58, 69	Concerns about increased traffic or traffic congestion caused by this project.

Summary of Comments

P.I. Nos. 0006252 and 0006253

CSSTP-0006-00(252) and CSSTP-0006-00(253), Greene and Putnam Counties

Page 3

	2, 15, 29, 56, 59, 75, 77	Concerns and desires regarding alternative alignments for the proposed southern terminus at US 441 or SR 16.
	6, 19, 20, 21, 28, 30, 32, 35, 40, 41, 42, 43, 44	Support for the project and desire for GDOT to complete this project.
Traffic Operations	1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 12, 13, 14, 47, 48, 49, 50, 53, 54, 57, 61, 67, 68	Concerns about the limited access for business along SR 44 due to lack of median breaks or misplacement of median breaks.
	2, 9, 10, 11, 12, 26, 36, 45, 46, 56, 57, 59, 60, 61, 62, 63, 64, 65, 66, 68	Requests for median breaks at intersections in conjunction with traffic signals where none are currently shown.
	17, 18, 34, 58	Concerns about increased traffic caused by this project.
Traffic Safety	3, 8, 11, 12, 49, 54, 57, 61	Concerns about safety issues involving u-turns.
	16, 41, 44, 42	Support the project to improve safety along the corridor.
Environment and Location	55	Concerns about increased noise levels and requests for noise abatement measures.

PROPOSED RESPONSES TO COMMENTS:

NATURE OF COMMENT	PROPOSED RESPONSE
Concerns about loss of useable land for businesses along SR 44.	<i>Unfortunately, property acquisitions and displacements are unavoidable during some projects. After Right-of-Way plans have been approved for a particular project, representatives from the Department would begin contacting property owners to complete an appraisal inspection and discuss the acquisition of the property that would need to be acquired for the proposed project. In the event that a property is acquired either in total or in part, a certified appraiser from the Department's appraiser pre-qualification list would make a fair market value appraisal of the area to be acquired. The appraisal would be based on current sales of similar</i>

Summary of Comments

P.I. Nos. 0006252 and 0006253

CSSTP-0006-00(252) and CSSTP-0006-00(253), Greene and Putnam Counties

Page 4

	<p><i>comparable properties and would include the value of the underlying land, and any improvements to be acquired. In the event that the entire property is not acquired, damages to the remainder, if applicable, would be assessed in the appraisal. Also, in the event that relocations is required due to the purchase of right-of-way from a property, the Department would assist residents in finding comparable, decent, safe and sanitary replacement housing. Sixty (60) days notice is given to relocate from the date title passes to the Department. Relocation benefits are also available, to be determined at the time of the acquisition.</i></p>
<p>Concerns about the limited access for business along SR 44 due to lack of median breaks or misplacement of median breaks.</p>	<p><i>Engineering studies have shown that it is safer to provide medians which separate opposing lanes of traffic in lieu of center turn lanes. Locations of median openings indicated on the project concept were selected based upon providing adequate access to the many residential and business properties located along the corridor, while maintaining a reasonable distance between median openings. These locations are conceptual only. Final median openings would be determined during the detailed design phase of the project. U-turns would be available at most median openings to provide access for those residents and businesses not directly served by a median opening.</i></p>
<p>Concerns about safety issues involving u-turns.</p>	<p><i>Currently SR 44 has no median within the project limits; therefore, driveways to residences and businesses may be entered or exited from either direction which requires traffic entering or exiting SR 44 to traverse opposing travel lanes. Although the proposed project includes median openings located at many intersections, traffic movements at driveways and side streets located between the median openings would be limited to right in and right out only. Access to these areas would be provided via u-turns at median openings and/or intersections. These u-turns are considered safer than crossing opposing travel lanes since motorists are turning from a dedicated turn lane and confronting traffic generally coming from one direction.</i></p>
<p>Support the project to improve safety along the corridor.</p>	<p><i>Driver safety would be addressed by the construction of a median (depressed grass or raised), minimizing the number of median openings, and the addition of lanes to accommodate the combination of truck and automobile traffic. Upon completion of the proposed construction, drivers would slow down, stop, and turn at only a limited number of pre-determined intersections. 1. The structured turning movements provide for safer entry and exit from the roadway into adjoining businesses and residences. 2. The restriction of left hand turning movements to designated, appropriately spaced median openings allows safer vehicle access to and from the roadway and adjacent properties. Research studies</i></p>

Summary of Comments

P.I. Nos. 0006252 and 0006253

CSSTP-0006-00(252) and CSSTP-0006-00(253), Greene and Putnam Counties

Page 5

	<p><i>published by the US Department of Transportation, Federal Highway Administration (FHWA) using Highway Safety Information System (HSIS) data indicate that divided highways have a reduced number of crashes compared with non-divided highways.</i></p>
<p>Requests for median breaks at intersections in conjunction with traffic signals where none are currently shown.</p>	<p><i>Traffic control devices such as traffic signals are proposed based on the guidelines set forth by the American Association of State Highway Transportation Officials (AASHTO) and the Federal Highway Administration (FHWA). Per these guidelines, the appropriate traffic control device is determined based on existing traffic volumes, pedestrian volumes, accident experience, and roadway type. A preliminary traffic analysis has been conducted for this project corridor and preliminary traffic control devices have been proposed based on the results of the analysis and the guidelines set forth by AASHTO and FHWA.</i></p>
<p>Concerns about increased traffic or traffic congestion caused by this project.</p>	<p><i>Traffic volumes are anticipated to increase substantially along the SR 44 corridor over the next 20 years. Traffic analysis has shown that the Level of Service (LOS) for SR 44 is predicted to be F by 2016 assuming no roadway improvements. A LOS F describes a roadway facility in which capacity cannot service the demand, i.e. traffic flow is congested and has broken down. The proposed project would increase capacity and improve roadway operations through creation of a four-lane divided highway with dedicated turn lanes at appropriately spaced median openings, and improved roadway geometry.</i></p>
<p>Concerns and desires regarding alternative alignments for the proposed southern terminus at US 441 or SR 16.</p>	<p><i>This project began with an exhaustive search for all available options for improving SR 44. Existing roadways, potential locations for new alignments, and other planned projects were all considered. Initial concept alignments were developed based on aerial photography and GIS information, and several site visits were made to visually inspect all areas from public right-of-way. Initial concepts are evaluated with regards to the project's need and purpose, logical termini, roadway geometry, side street tie-ins, capacity needs, safety, environmental impacts, land use, impacts to properties, and access management.</i></p> <p><i>All conceptual alternatives, including a no-build alternative must be evaluated through the Environmental Assessment (EA) process. This process helps determine which alternative best meets the project need and purpose and also to what extent each alternative may adversely impact the social, economic, and environmental resources in the project area. Each of the alternatives impacts are evaluated and balanced until a preferred alternative is determined. The preferred alternative will be presented at a future open house meeting and then refined and evaluated further to minimize impacts and identify potential mitigation efforts where impacts cannot</i></p>

Summary of Comments

P.I. Nos. 0006252 and 0006253

CSSTP-0006-00(252) and CSSTP-0006-00(253), Greene and Putnam Counties

Page 6

	<p><i>feasibly be avoided.</i></p>
<p>Concerns about increased noise levels and requests for noise abatement measures.</p>	<p><i>Noise considerations are part of the planning, location, and design of all Federal-aid transportation projects. The following represents GDOT's written statewide noise policy and procedures in compliance with 23CFR772, the Federal Highway Administration guidelines for highway traffic-generated noise.</i></p> <p><i>Two methods are used for identifying a noise impact. The first method involves a comparison of predicted noise levels with the Federal Highway Administration's (FHWA) noise abatement criteria. An exterior 67 decibels [dBA] criterion has been established for schools, libraries, residences, churches, playgrounds and recreational areas and a 72 dBA criterion has been established for commercial activities. Any predicted noise level that approaches (within one decibel) or exceeds these levels is considered a noise impact. The second method involves a comparison of predicted traffic noise levels with existing noise levels. A predicted noise level increase of 10 dBA or more over the existing noise level is considered a noise impact when associated with an existing noise level of 60 dBA or higher.</i></p> <p><i>Noise barriers can only be constructed where reasonable and feasible. The Georgia Department of Transportation (GDOT) does not consider it reasonable to construct barriers at locations where site characteristics would require a wall height greater than 30 feet or prevent obtaining at least a 5 dBA reduction at impacted sites.</i></p> <p><i>GDOT's written statewide noise policy uses a maximum cost of \$50,000 per impacted household while requiring at least a 5 dBA reduction in noise levels to determine if the construction of a noise barrier is reasonable and feasible. The current material cost used by GDOT is \$15 per square foot of noise wall needed. A noise barrier is considered reasonable according to the following formula:</i></p> $\text{Reasonable Cost} = (\# \text{ of impacted sites having a 5 dBA reduction} \times \$50,000) +$ $(\# \text{ of additional benefited sites having a 5 dBA reduction} \times \$25,000) \geq \text{Estimated Cost of Barrier}$ <p><i>Where the barrier cost is more than the Reasonable Cost calculated above, a noise barrier is not considered cost effective. Property owners may be offered the option to provide the balance of the cost of abatement, through local governments or other sources, where it exceeds the Reasonable Cost.</i></p>

Summary of Comments

P.I. Nos. 0006252 and 0006253

CSSTP-0006-00(252) and CSSTP-0006-00(253), Greene and Putnam Counties

Page 7

	<i>Noise studies for the proposed project will be completed as part of the environmental analysis once the preferred alternative is selected by the Department to determine whether noise barriers would be reasonable and feasible along the project alignment.</i>
Support for the project and desire for GDOT to complete this project.	<i>The Department thanks you for your support.</i>

Please review the comments and e-mail responses to Jim Kitchings by January 6, 2008.

Attached is a complete transcript of the comments received during the comment period and a copy of the public information open house handouts.

If you have any questions about the comments, please either e-mail or call Sean Bush at sbush@dot.ga.gov / (478) 522-4246 or Jim Kitchings at jkitchings@dot.ga.gov / (478) 553-2283.

GSB/jk/bh

Attachment

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