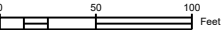
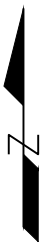
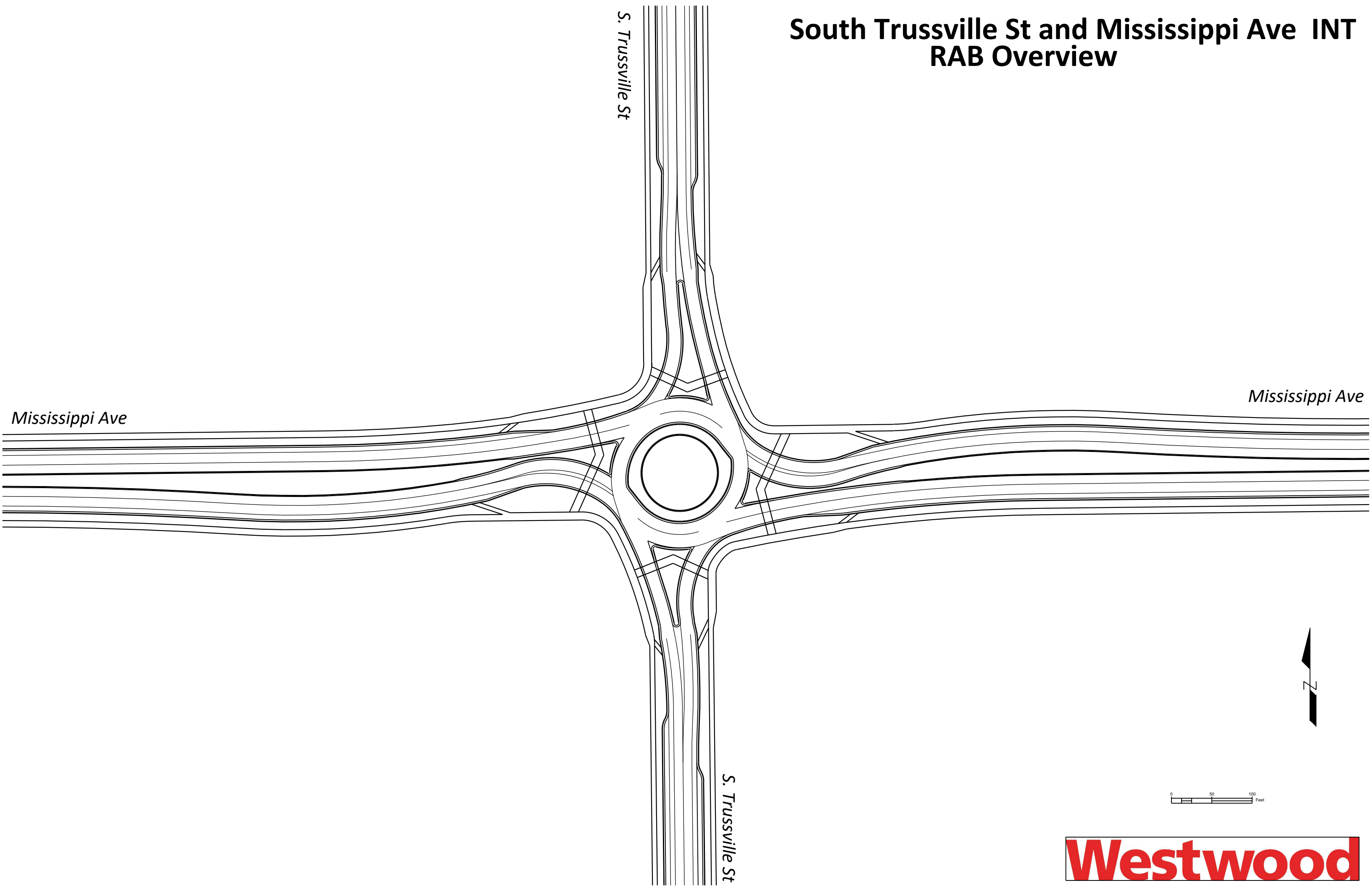


# South Trussville St and Mississippi Ave INT RAB Overview



**ROUNDAABOUT CRITICAL DESIGN PARAMETERS**

DESIGN PARAMETERS	LEG 1 SB	LEG 2 EB	LEG 3 NB	LEG 4 WB	LEG 5	LEG 6
Approach Width, FT	19.0	26.0	19.0	26.0		
Entry Width, FT	20.9	34.5	20.9	34.1		
Entry Angle, PHI $\Phi$ , DEG	20.6	34.5	20.0	34.3		
Inscribed Circle Diameter, FT	190.0	190.0	190.0	190.0		
Exit Width, FT	23.6	32.8	22.6	31.5		
Circulating Roadway Width Upstream of Entry, FT	34.0	22.0	34.0	22.0		

**FASTEST SPEED PATH**

$R_1$ , Radius/Speed, FT/MPH	190	26	195	26	187	26	194	26				
$R_2$ , Radius/Speed, FT/MPH	122	21	169	24	127	21	163	23				
$R_3$ , Radius/Speed, FT/MPH		26		29		26		28				
$R_4$ , Radius/Speed, FT/MPH	76	18	66	17	76	18	66	17				
$R_5$ , Radius/Speed, FT/MPH	108	21	120	22	106	21	115	22				
Bypass $R_5$ , Radius/Speed, FT/MPH												

**MINIMUM SIGHT PARAMETERS**

Approach Design Speed, MPH	35.0	50.0	35.0	50.0		
Horizontal Stopping Sight Distance, FT	247.8	427.2	247.8	427.2		
Circulating Intersection Sight Distance, FT/MPH	18   132	17   125	18   132	17   125		
Entering Intersection Sight Distance, FT/MPH	23.5   173	25   184	23.5   173	24.5   184		

Design Vehicle: WB-67 to stay in lane and out of the pan on approach and exit, Bus 45 (Aurora Fire Truck) to stay in lane on approach, exit and circulate without the use of the truck apron.

Truck Apron Width: 12' Back of curb to Flange of curb

OSOW Accommodations: None

Circulating Roadway Cross-Slope:

Access Control: No Access

Parking Control: The parking lanes end/begin outside of the bike slip lanes

Bicycle & Pedestrian Accommodations: Slip lanes added and sidewalk is widened to 10' wide when bikes are added.

Designer: Ryan E Betker

Reviewer:

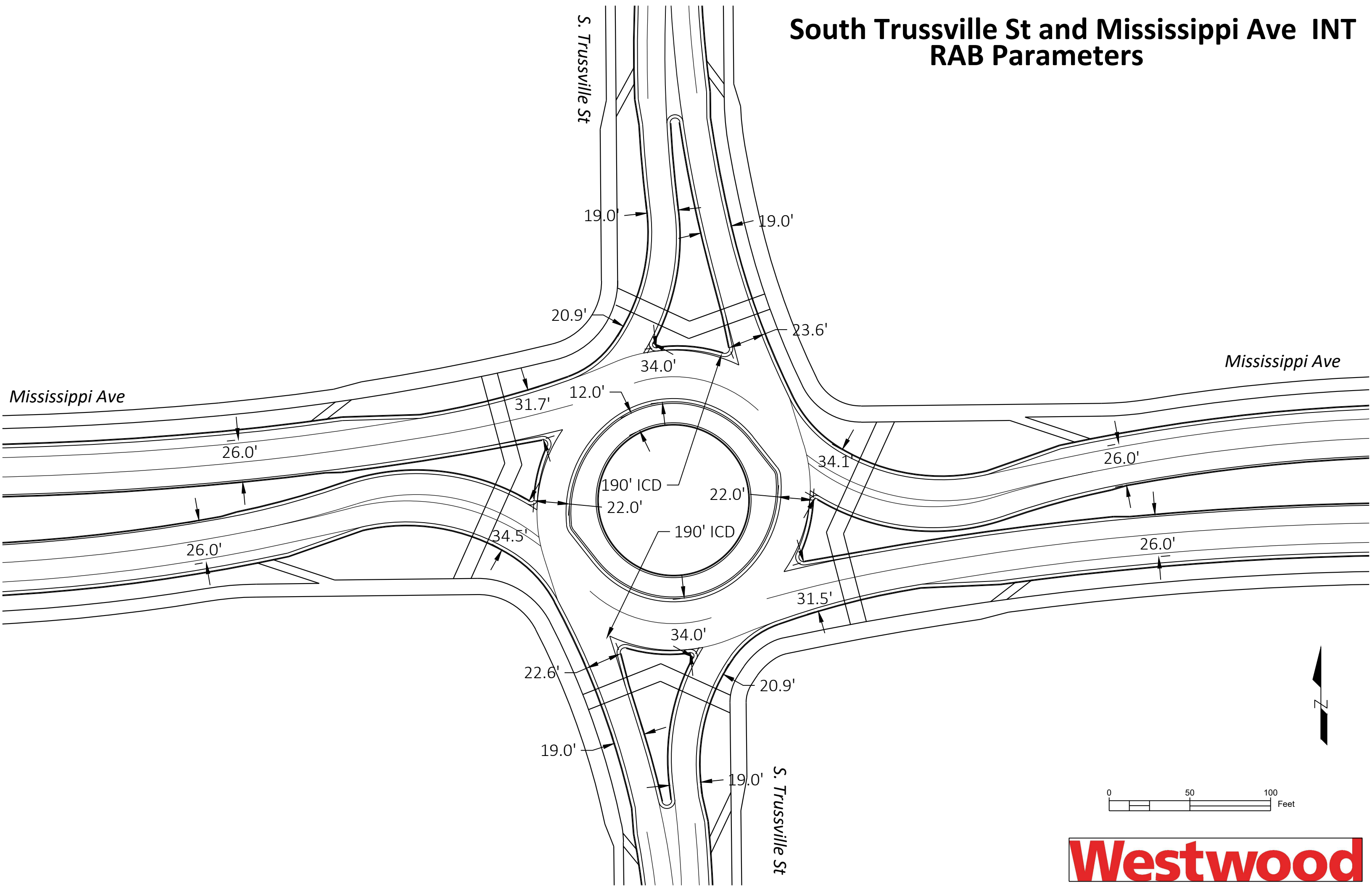
SIGNATURE: \_\_\_\_\_

DATE: 10/21/2021

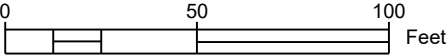
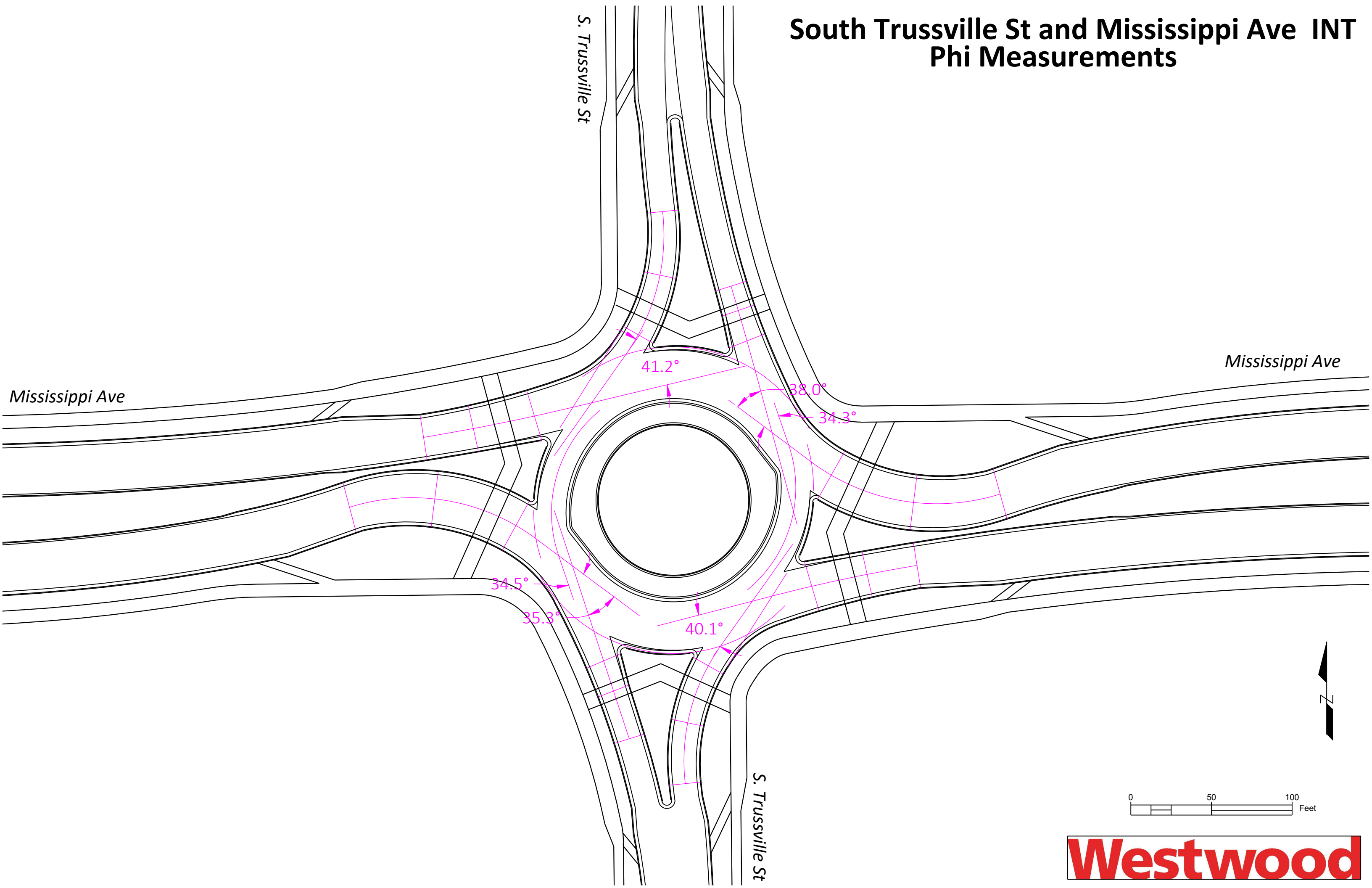
NAME:

*The reviewer's signature on this document indicates that the design has been reviewed and is in general compliance with good roundabout principals. The critical design elements have been addressed. The project design engineer in responsible charge of final plan development will stamp the plans when applicable.*

# South Trussville St and Mississippi Ave INT RAB Parameters

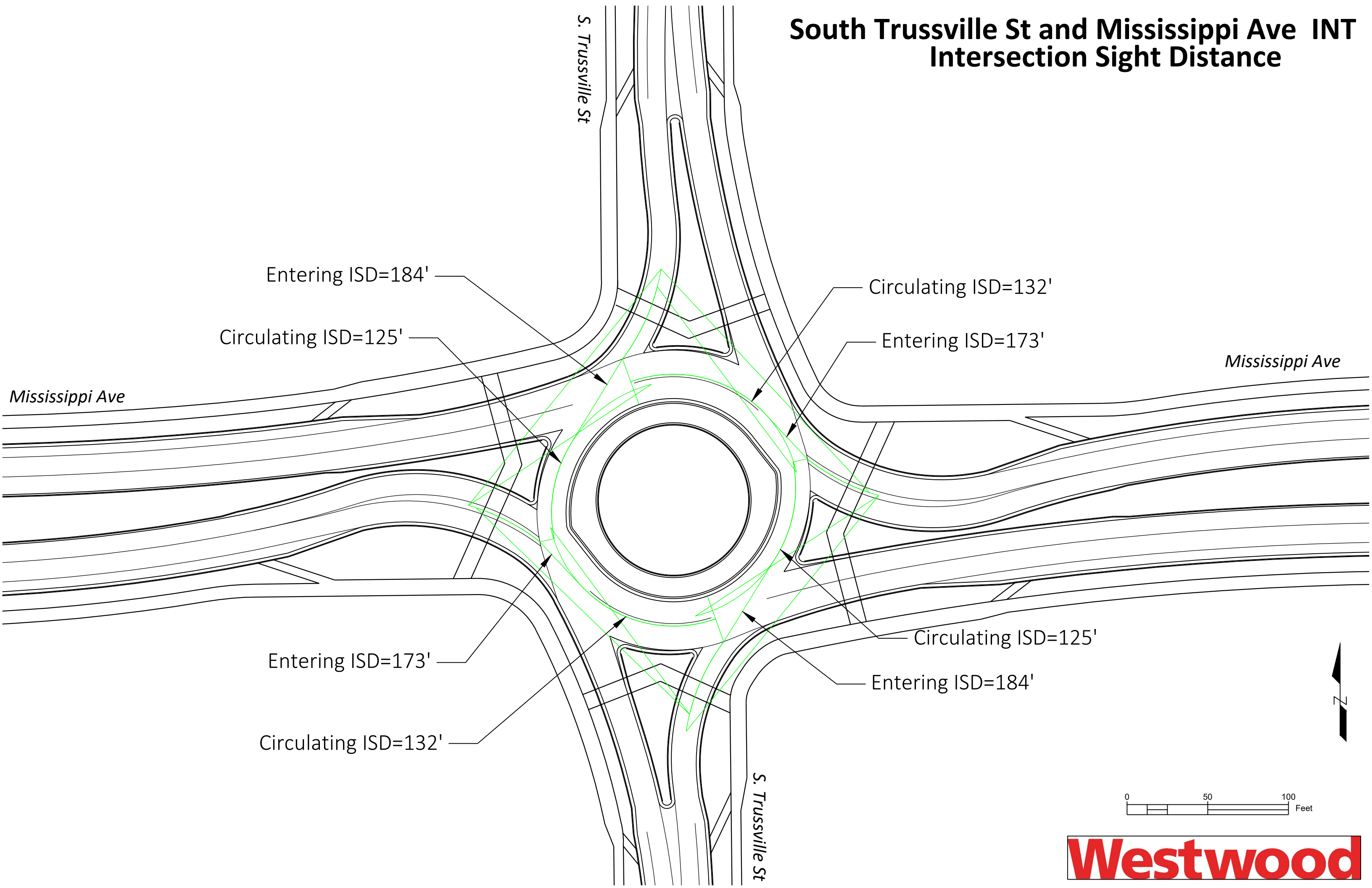


# South Trussville St and Mississippi Ave INT Phi Measurements



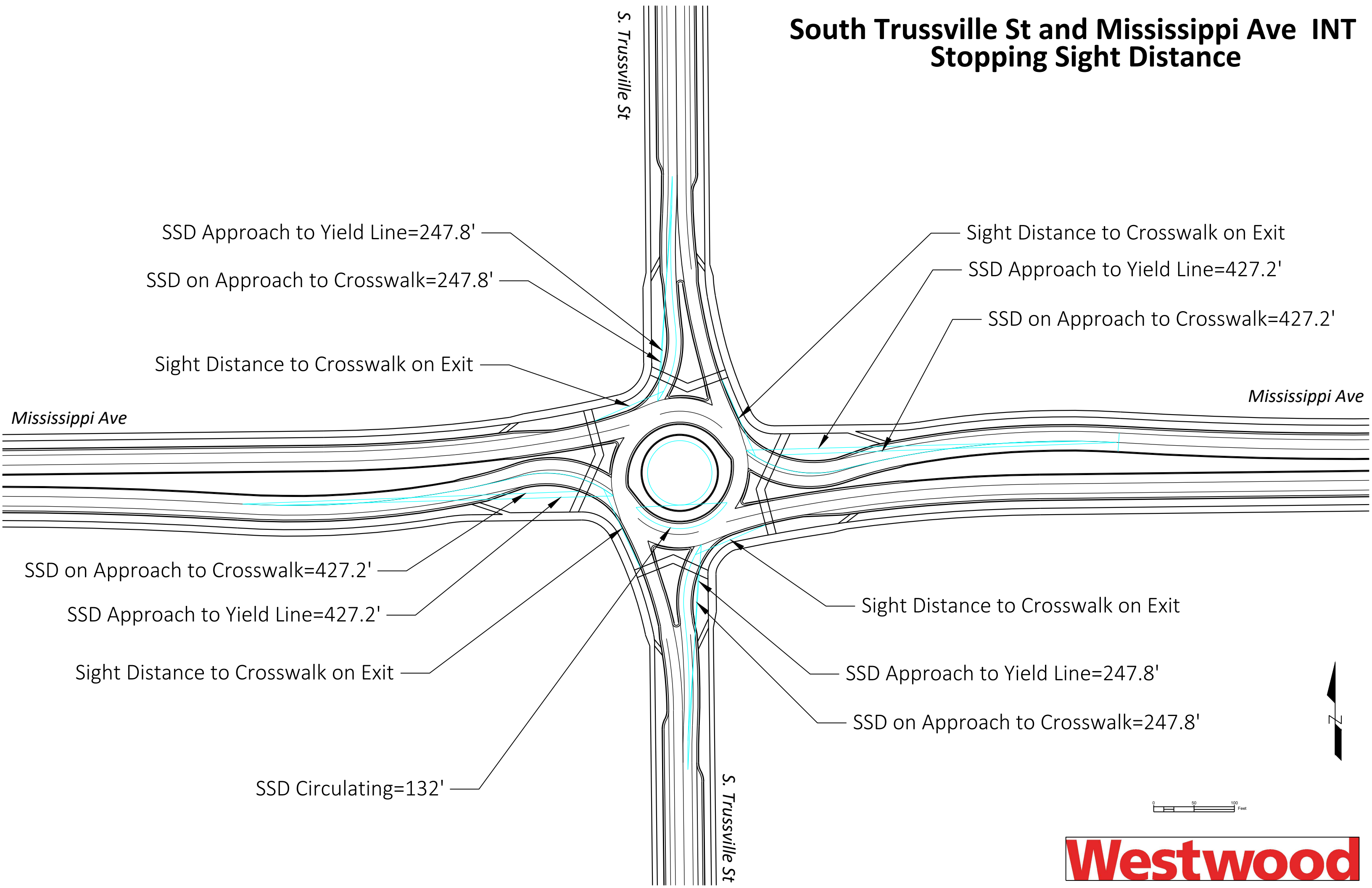


# South Trussville St and Mississippi Ave INT Intersection Sight Distance

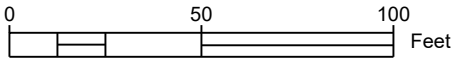
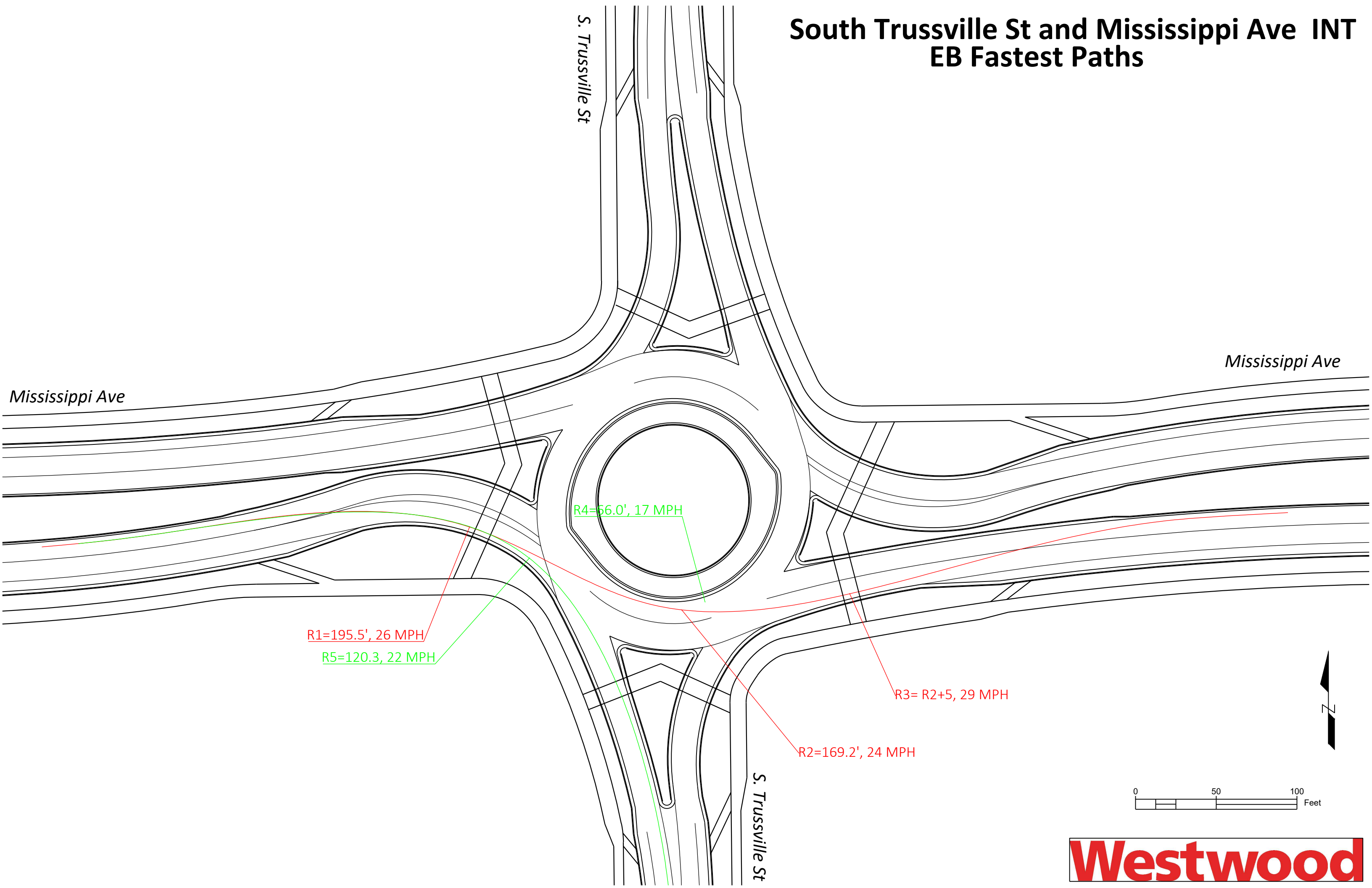


0 50 100 Feet

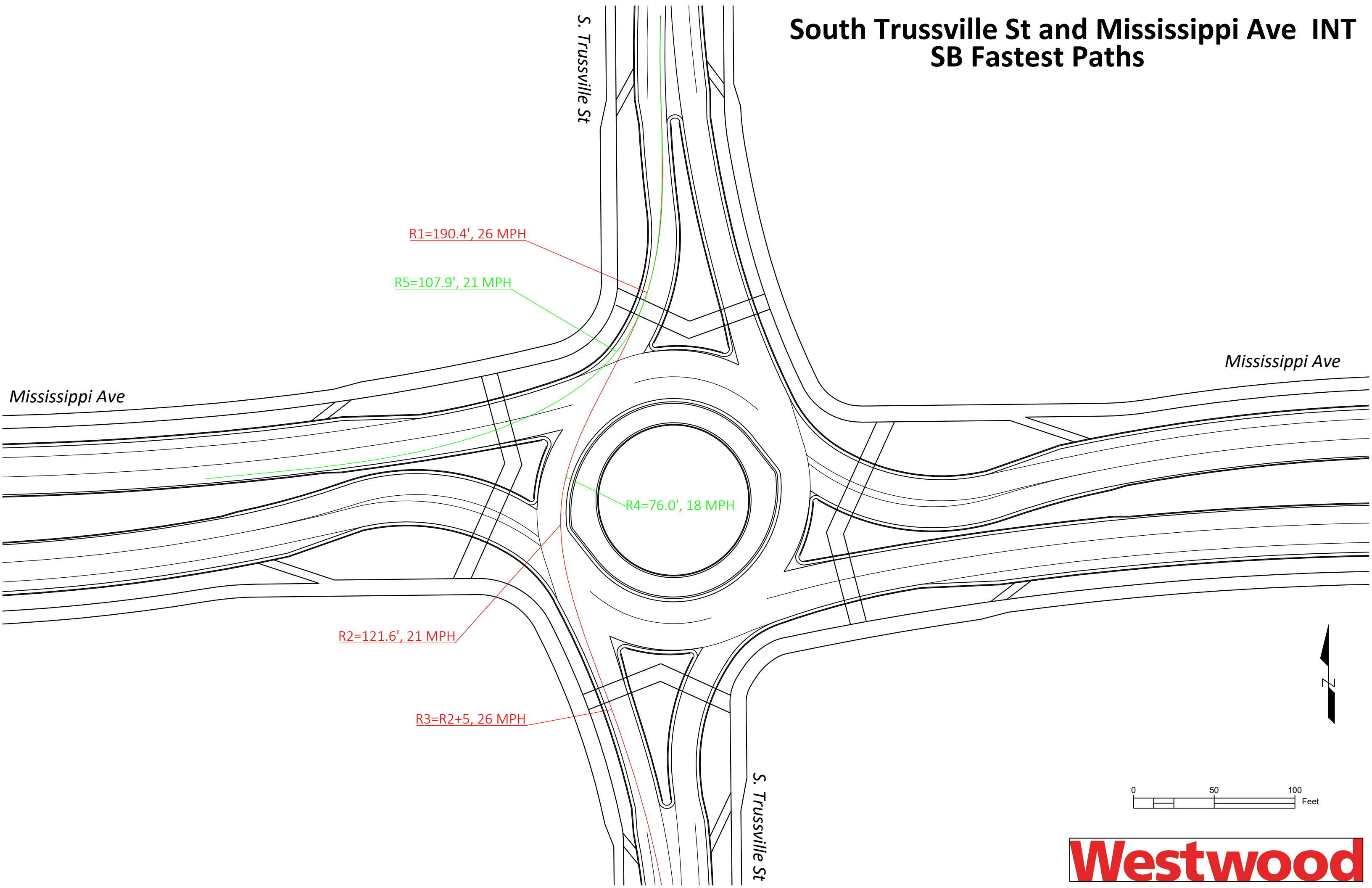
# South Trussville St and Mississippi Ave INT Stopping Sight Distance



# South Trussville St and Mississippi Ave INT EB Fastest Paths

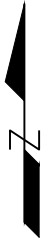
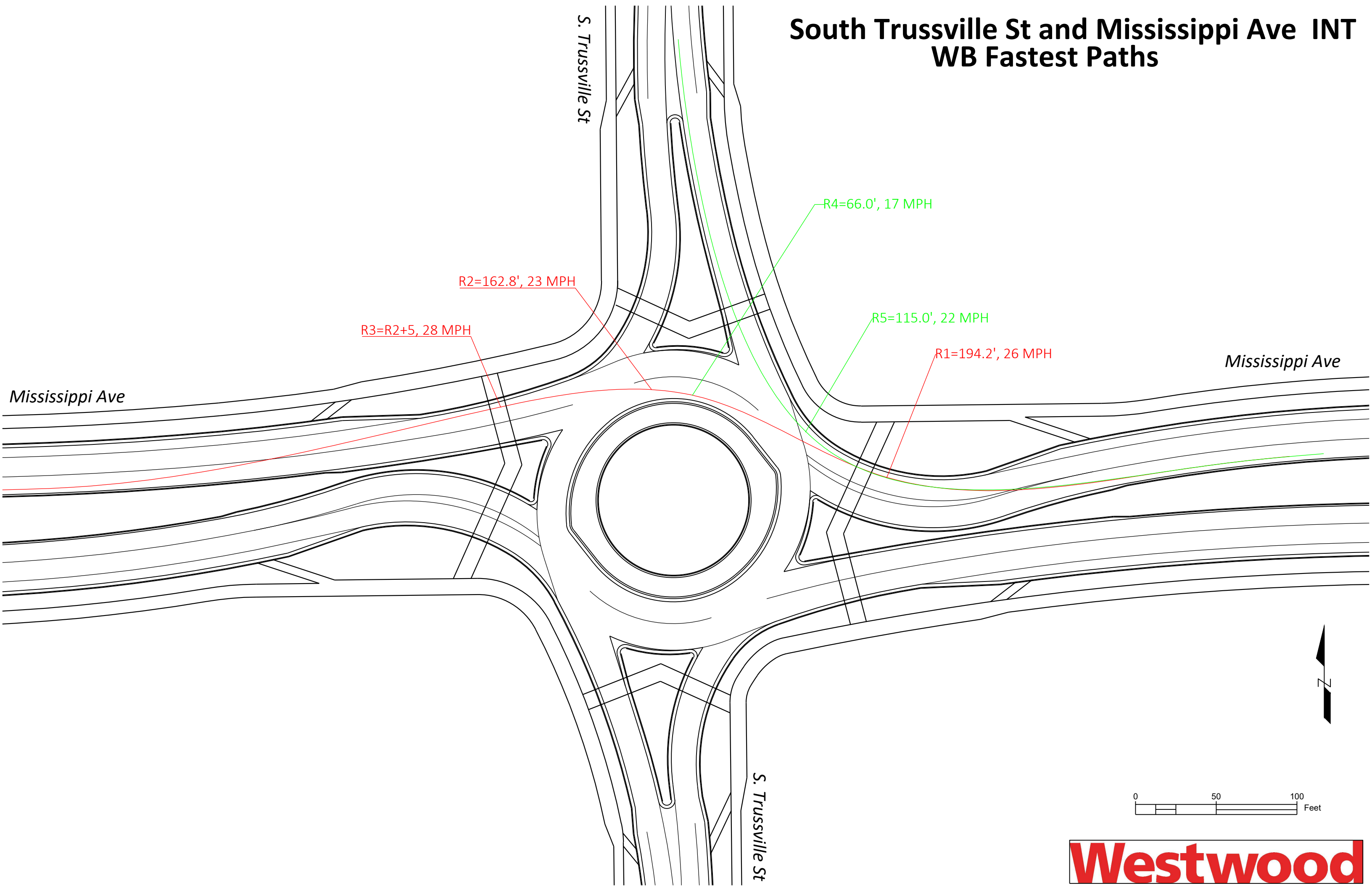


# South Trussville St and Mississippi Ave INT SB Fastest Paths

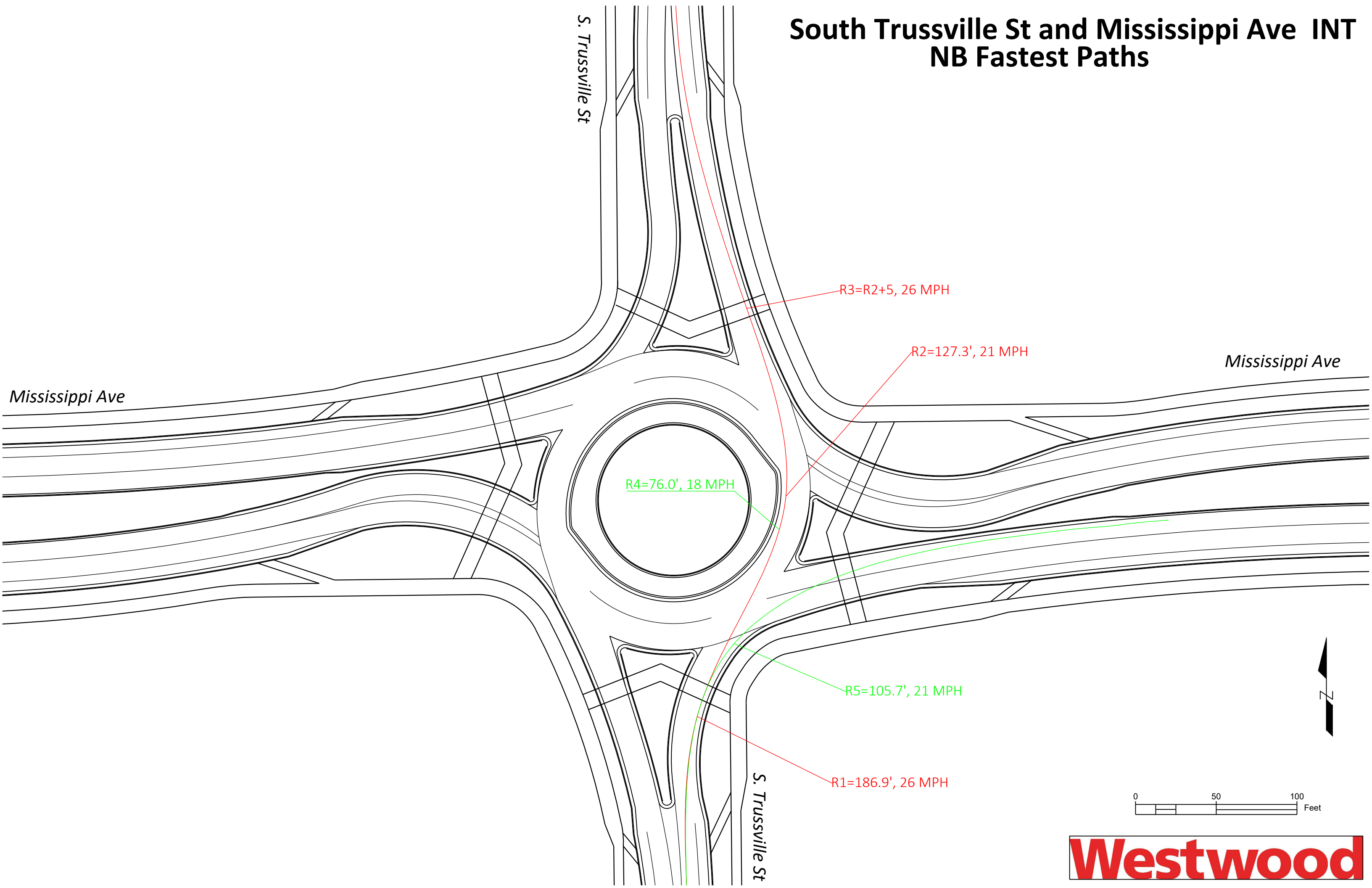




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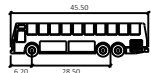


# South Trussville St and Mississippi Ave INT NB Fastest Paths



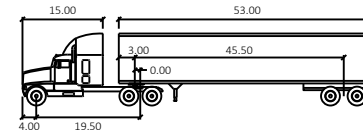


## South Trussville St and Mississippi Ave INT EB Trucks

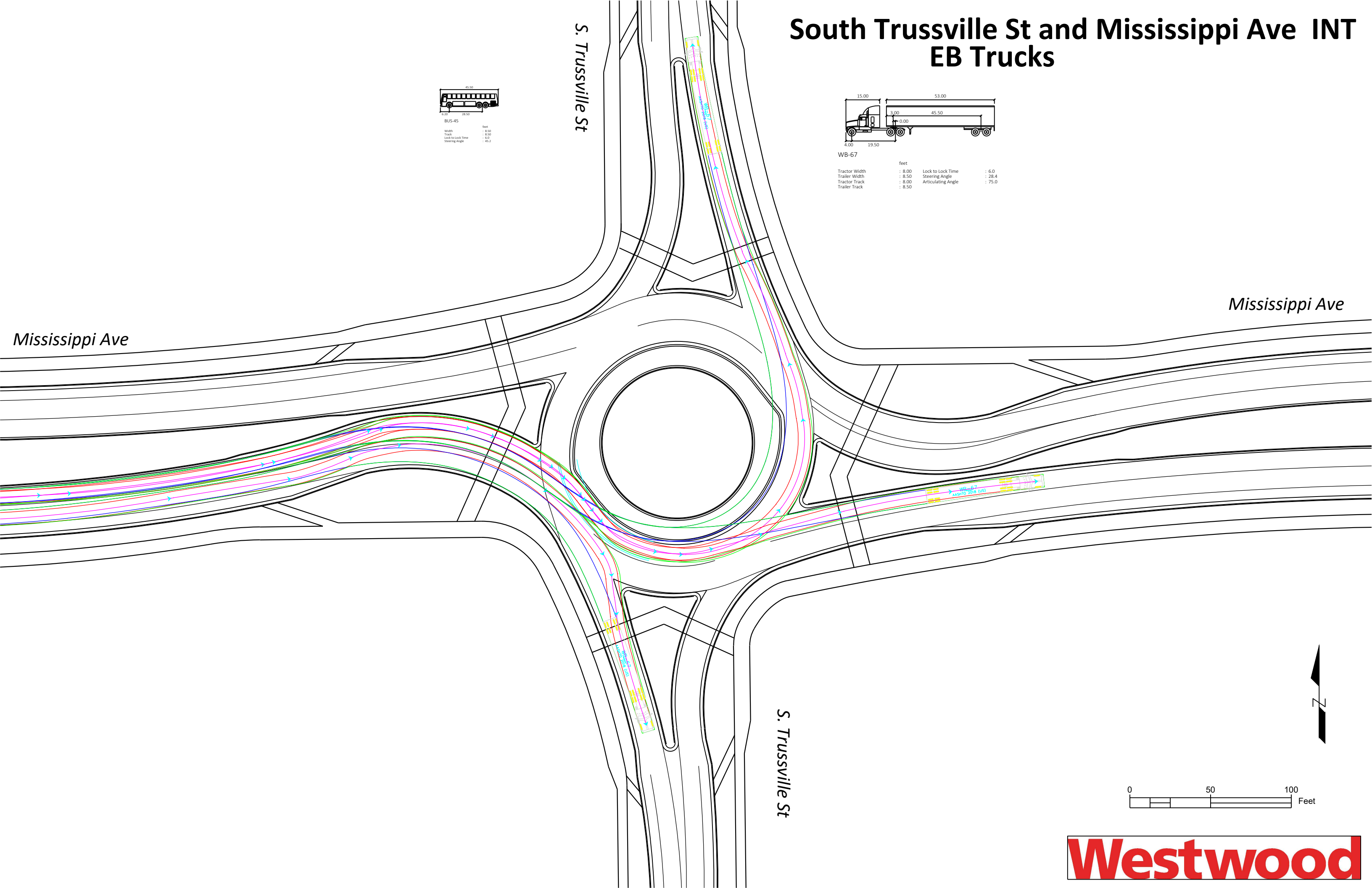


Width

Track	: 8.50
Lock to Lock Time	: 6.0
Steering Angle	: 45.2



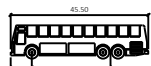
Tractor Width	: 8.00	Lock to Lock Time	: 6.0
Trailer Width	: 8.50	Steering Angle	: 28.4
Tractor Track	: 8.00	Articulating Angle	: 75.0
Trailer Track	: 8.50		



A number line representing distance in feet. The line has tick marks at 0, 50, and 100. The word "Feet" is written at the right end of the line. There are two horizontal bars: one from 0 to 25 and another from 50 to 100.

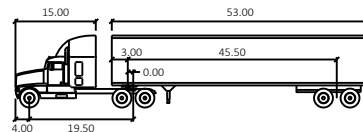
# Westwood

# South Trussville St and Mississippi Ave INT SB Trucks



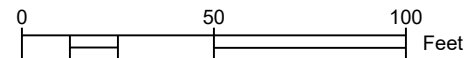
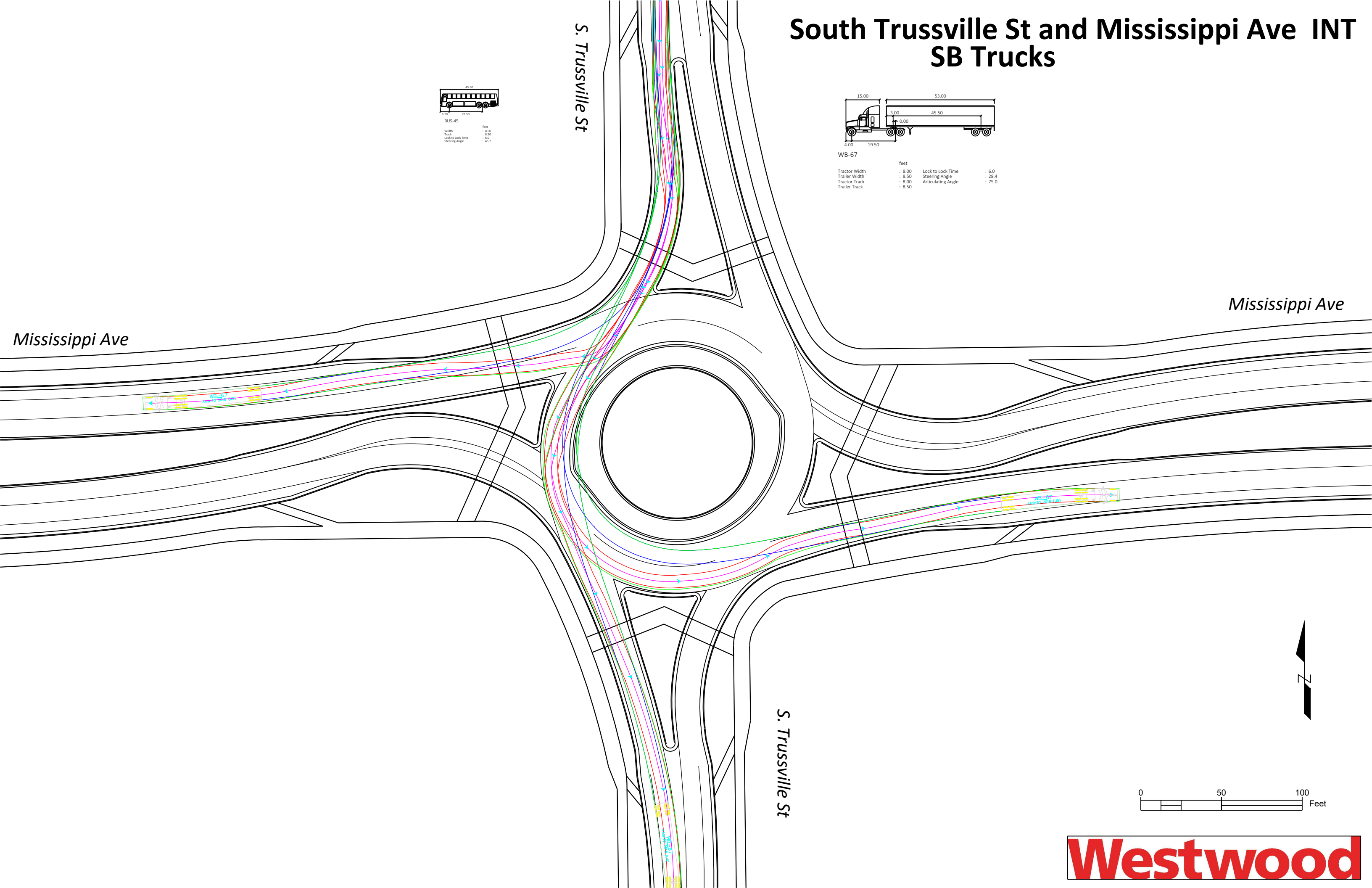
BUS-45

Width	: 8.50
Track	: 8.50
Lock to Lock Time	: 6.0
Steering Angle	: 45.2

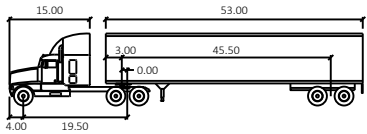
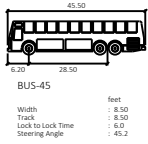


WB-67

Tractor Width	: 8.00	Lock to Lock Time	: 6.0
Trailer Width	: 8.50	Steering Angle	: 28.4
Tractor Track	: 8.00	Articulating Angle	: 75.0
Trailer Track	: 8.50		



# South Trussville St and Mississippi Ave INT WB Trucks



WB-67

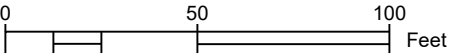
Tractor Width	: 8.00	Lock to Lock Time	: 6.0
Trailer Width	: 8.50	Steering Angle	: 28.4
Tractor Track	: 8.00	Articulating Angle	: 75.8
Trailer Track	: 8.50		

*S. Trussville St*

*Mississippi Ave*

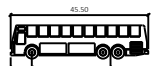
*Mississippi Ave*

*S. Trussville St*



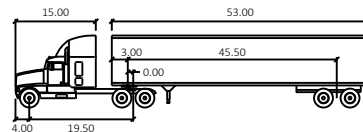
# Westwood

# South Trussville St and Mississippi Ave INT NB Trucks



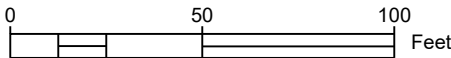
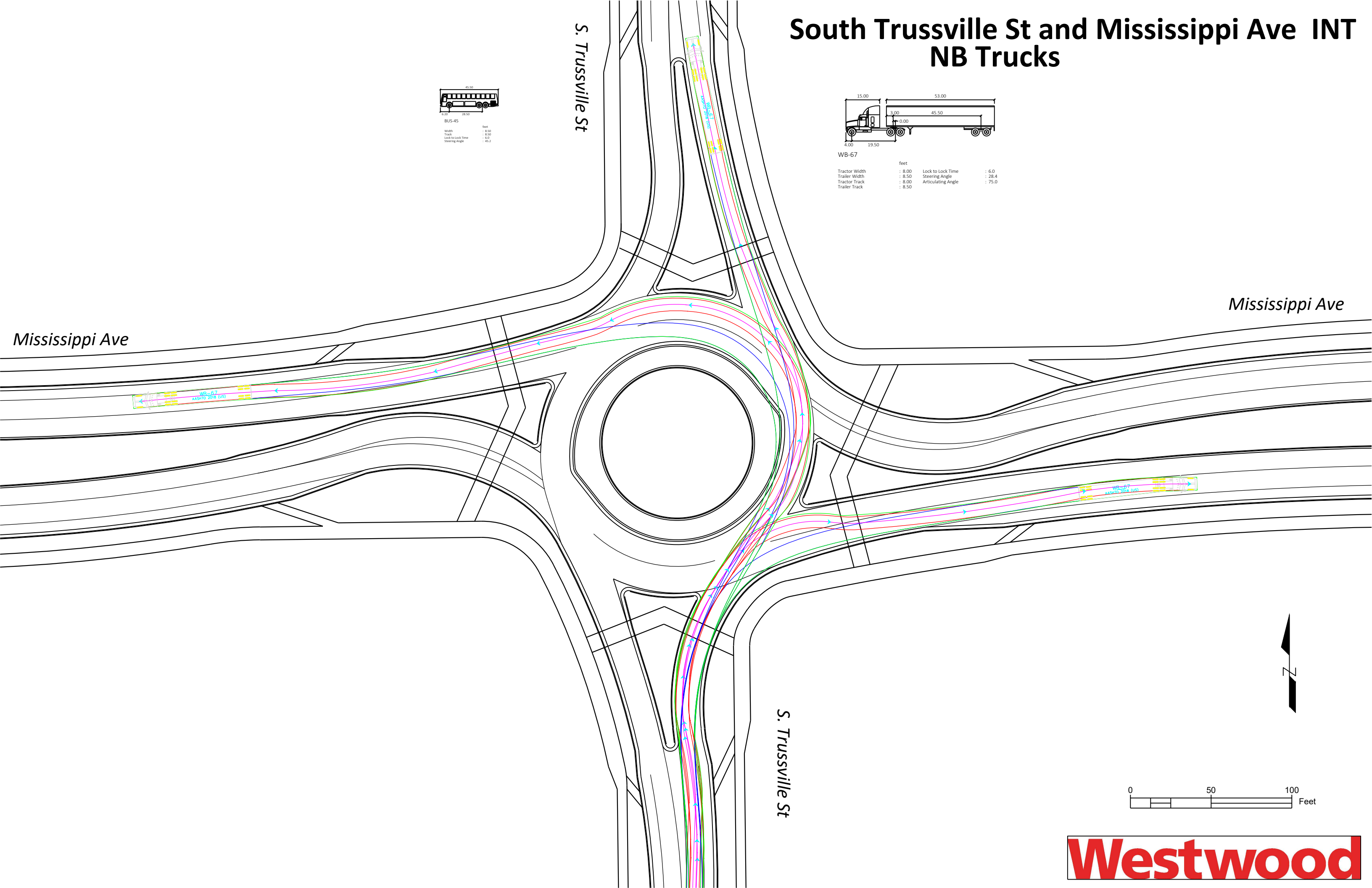
BUS-45

Width	: 8.50
Track	: 8.50
Lock to Lock Time	: 6.0
Steering Angle	: 45.2



WB-67

Tractor Width	: 8.00	Lock to Lock Time	: 6.0
Trailer Width	: 8.50	Steering Angle	: 28.4
Tractor Track	: 8.00	Articulating Angle	: 75.0
Trailer Track	: 8.50		





# South Trussville St and Mississippi Ave INT U-Turn Fire Truck

