

Can the lane be pushed west with drivable apron (see Iorson Ranch Fontaine Blvd. roundabout) to increase the entry angle without affecting fastest path? (Can the entry angle be bumped up to 21 degrees?)

Approximate Scale  
Scale: 1" = 60'

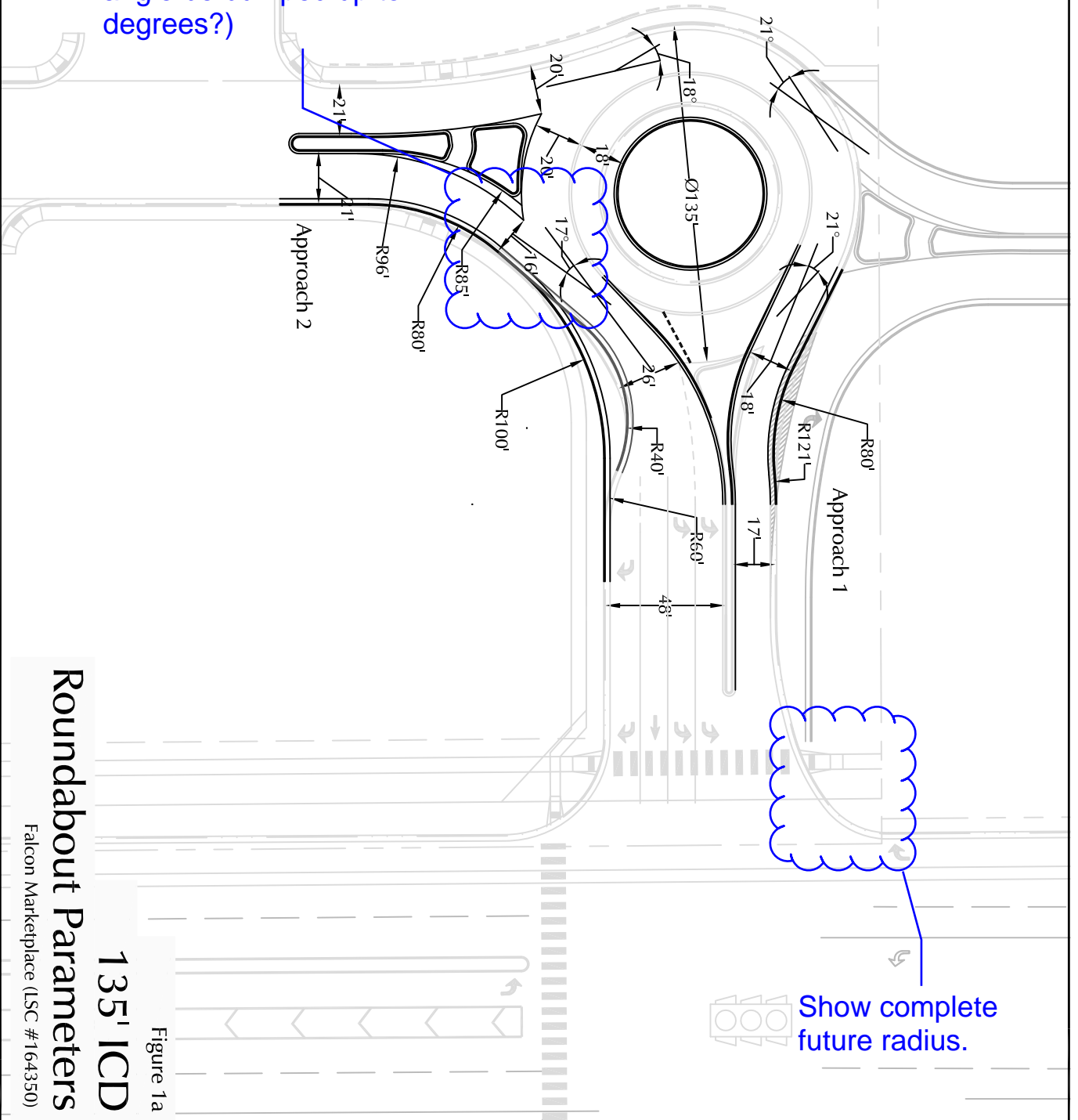


Figure 1a

135' ICD

Roundabout Parameters

Falcon Marketplace (LSC #164350)

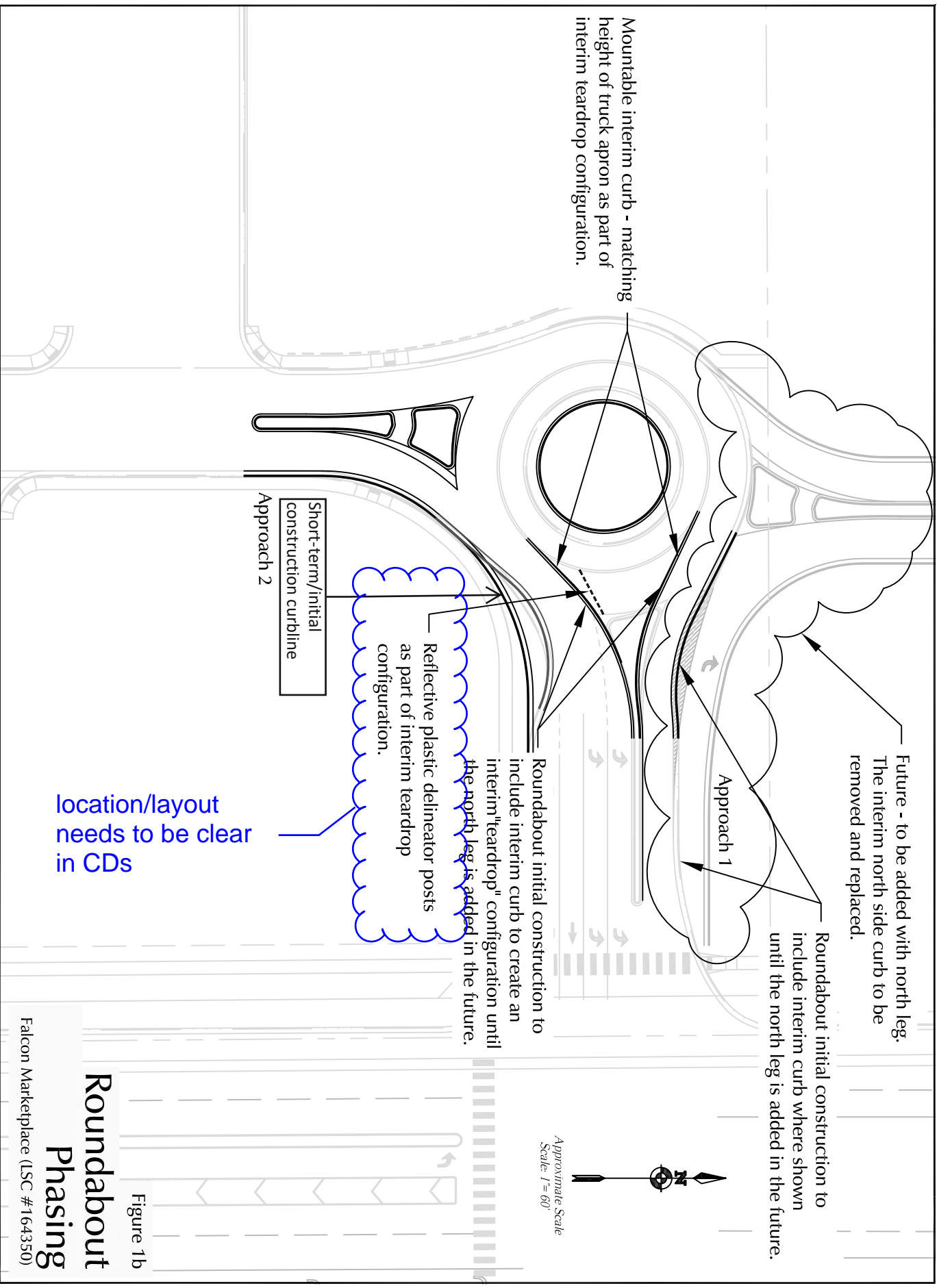


Figure 1b

# Roundabout Phasing

Falcon Marketplace (LSC #164350)

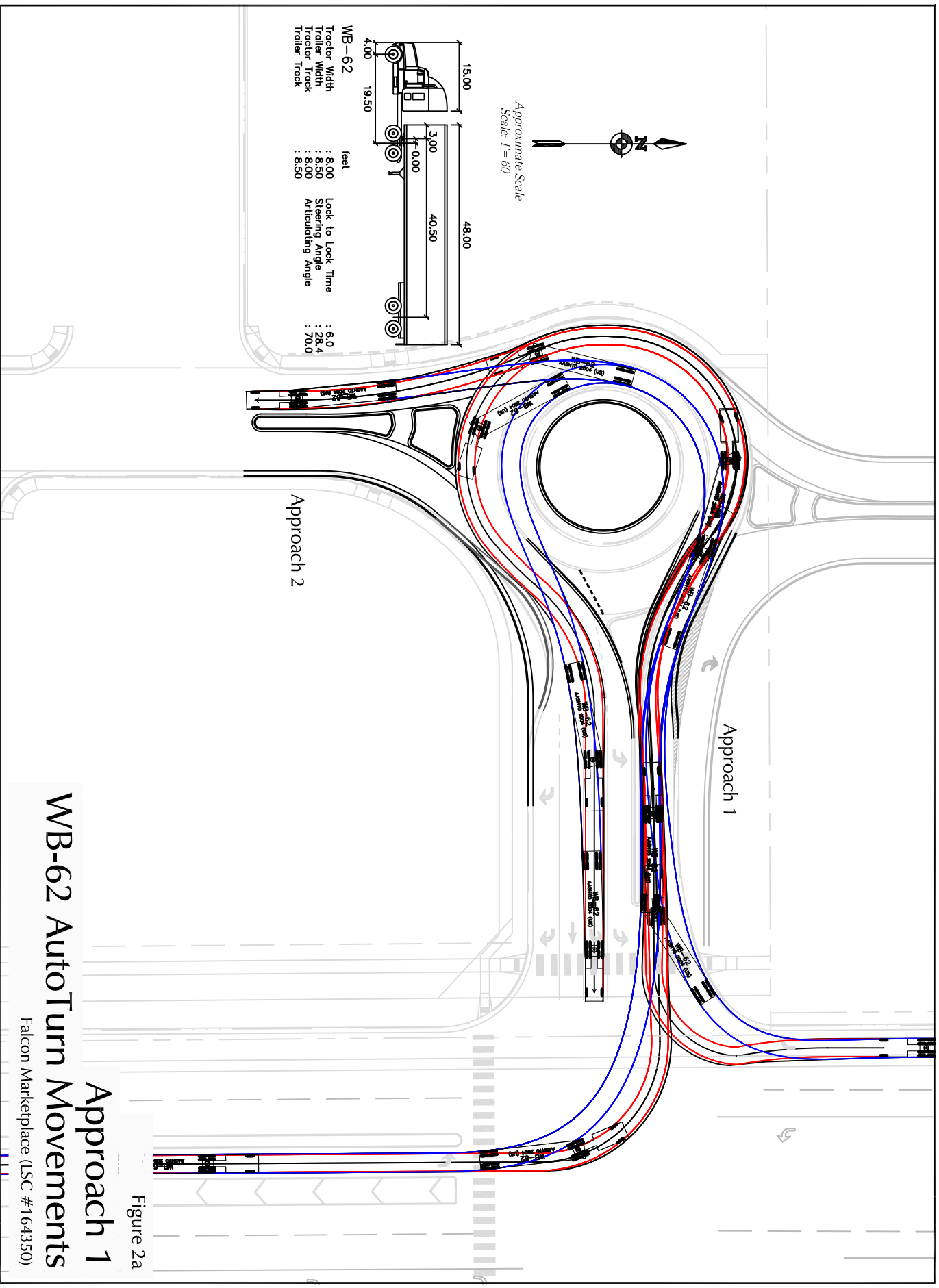


Figure 2a

# Approach 1

## WB-62 Auto Turn Movements

Falcon Marketplace (LSC #164350)

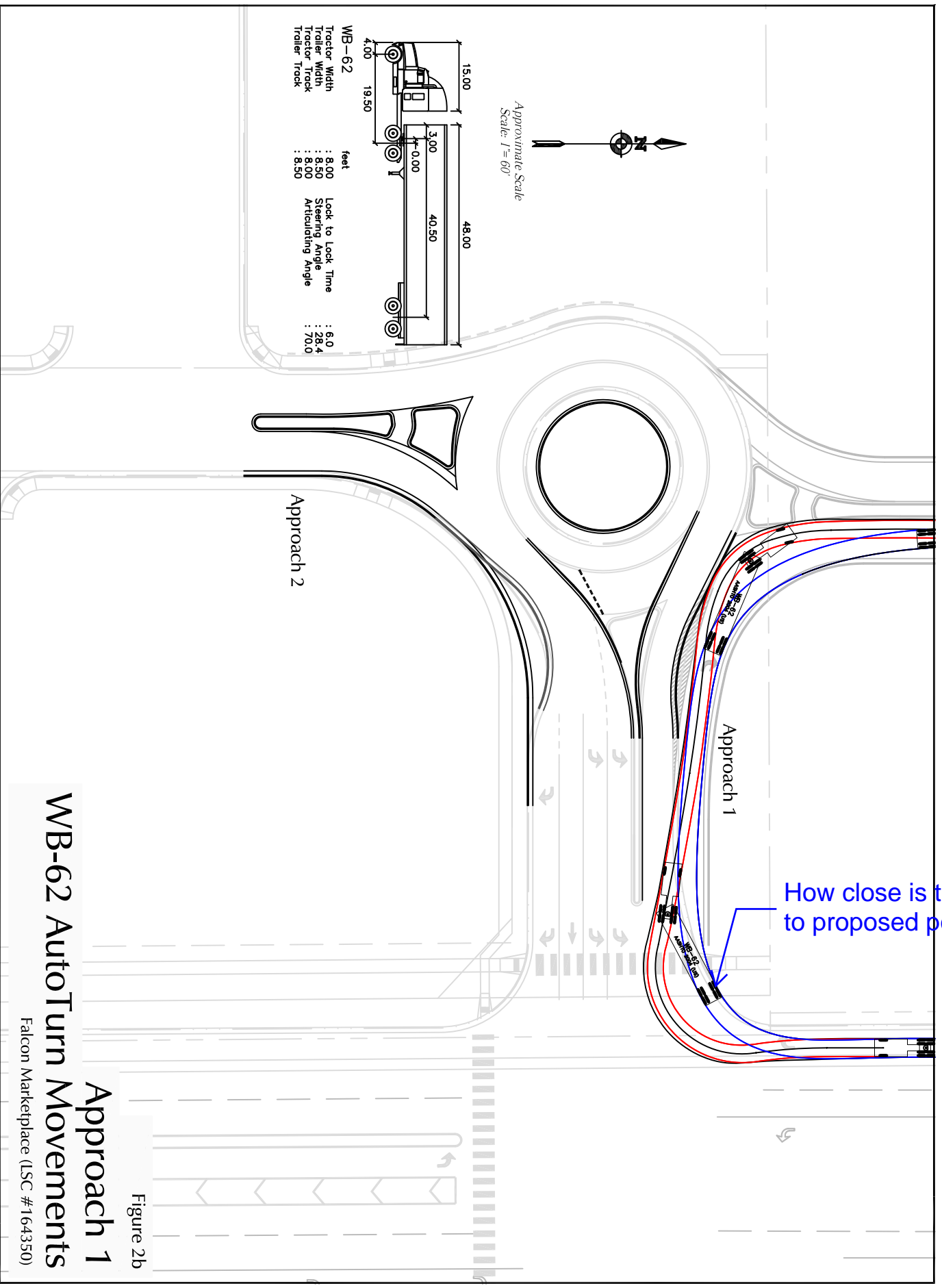


Figure 2b

## Approach 1

### WB-62 Auto Turn Movements

Falcon Marketplace (LSC #164350)

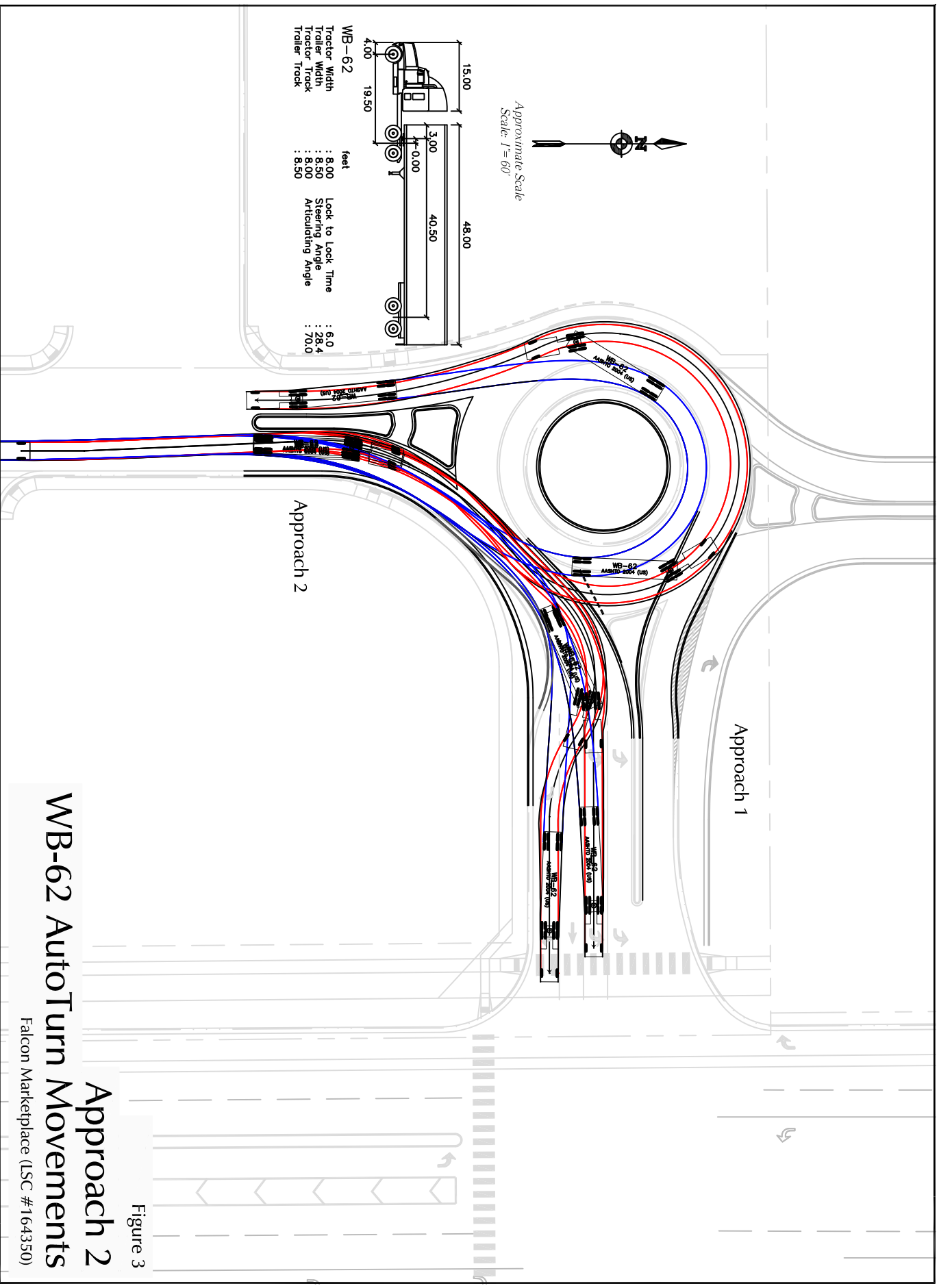
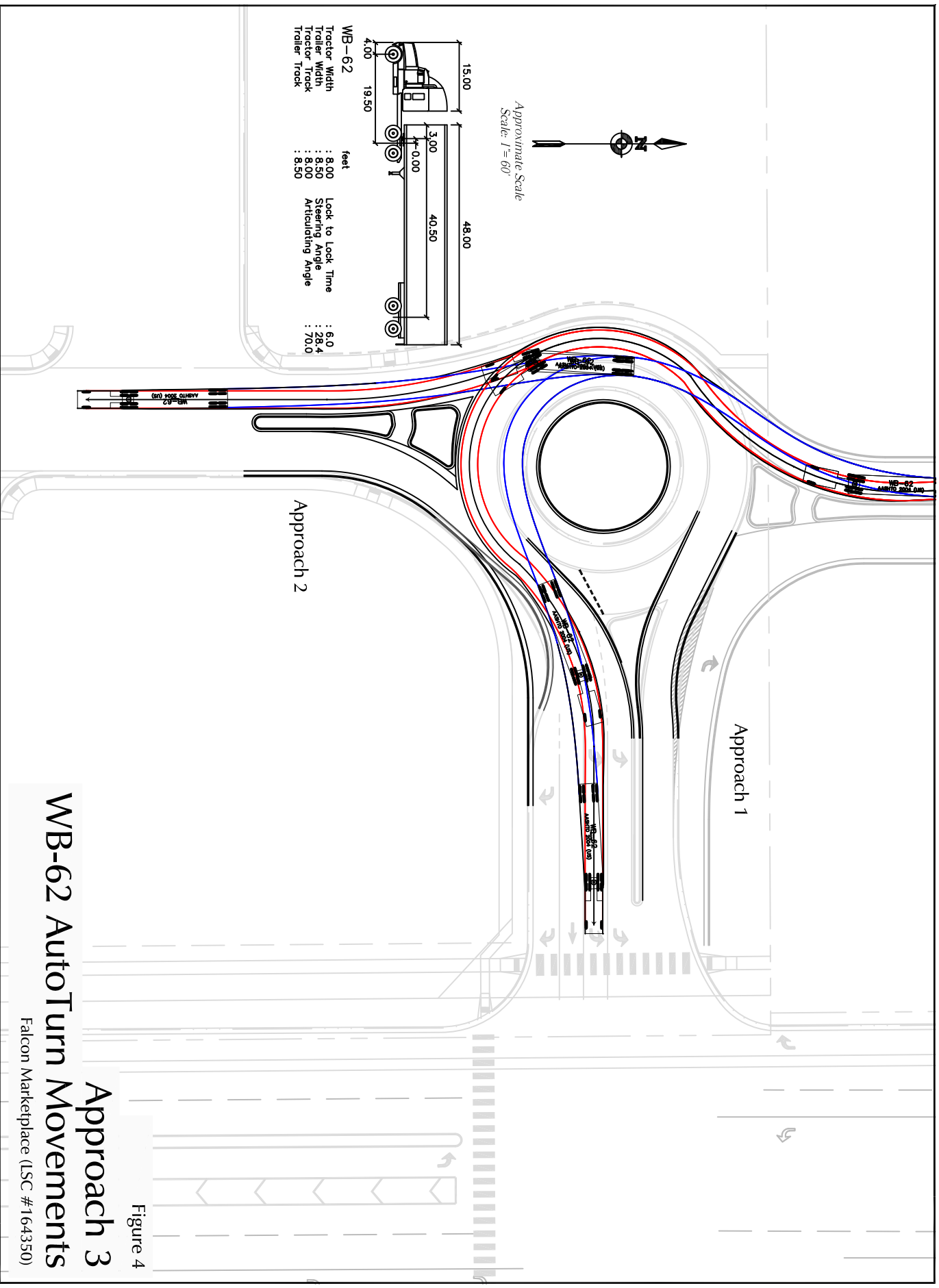


Figure 3

# Approach 2 WB-62 Auto Turn Movements

Falcon Marketplace (LSC #164350)





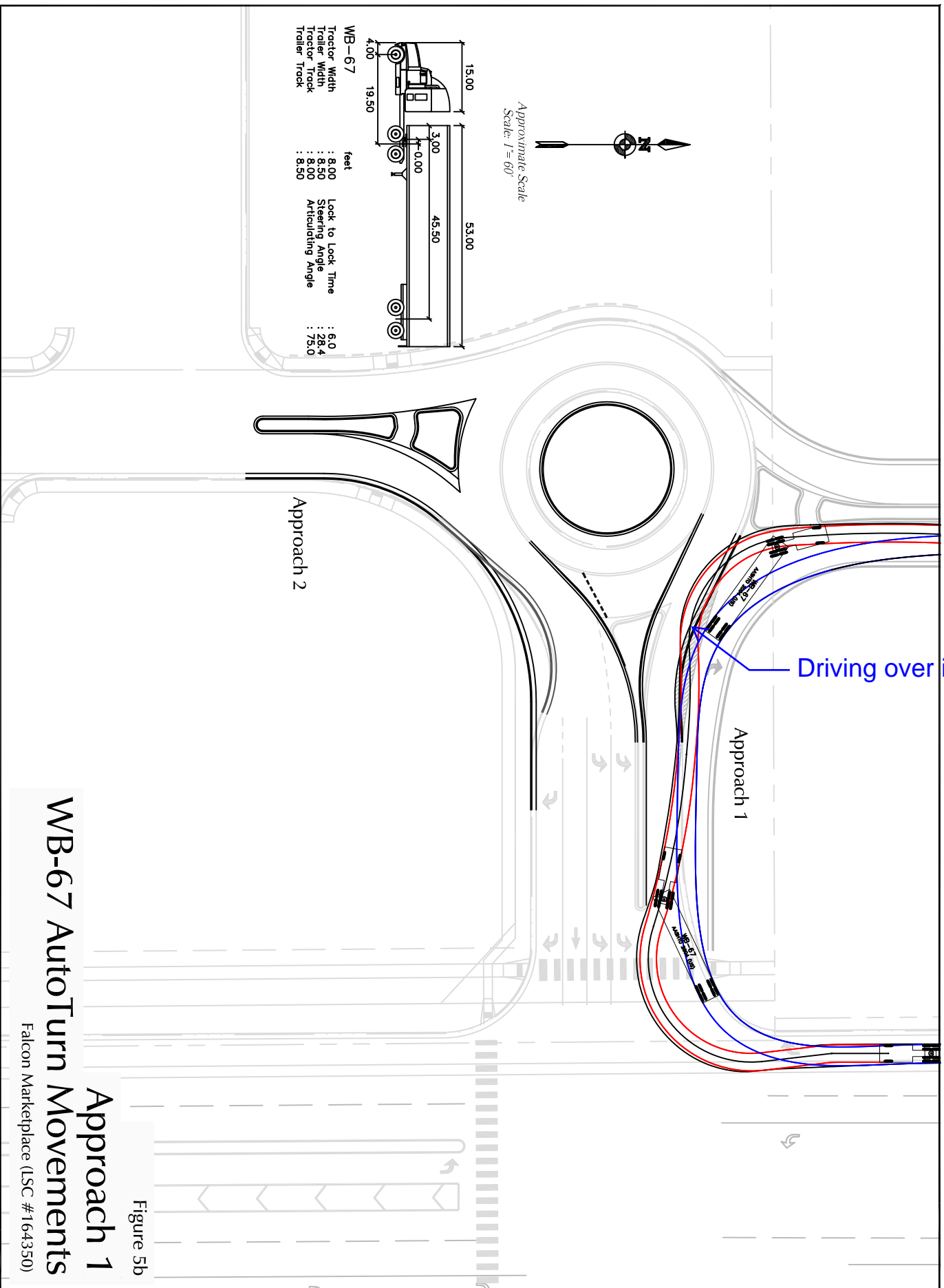


Figure 5b

## Approach 1

## WB-67 Auto Turn Movements

Falcon Marketplace (LSC #164350)





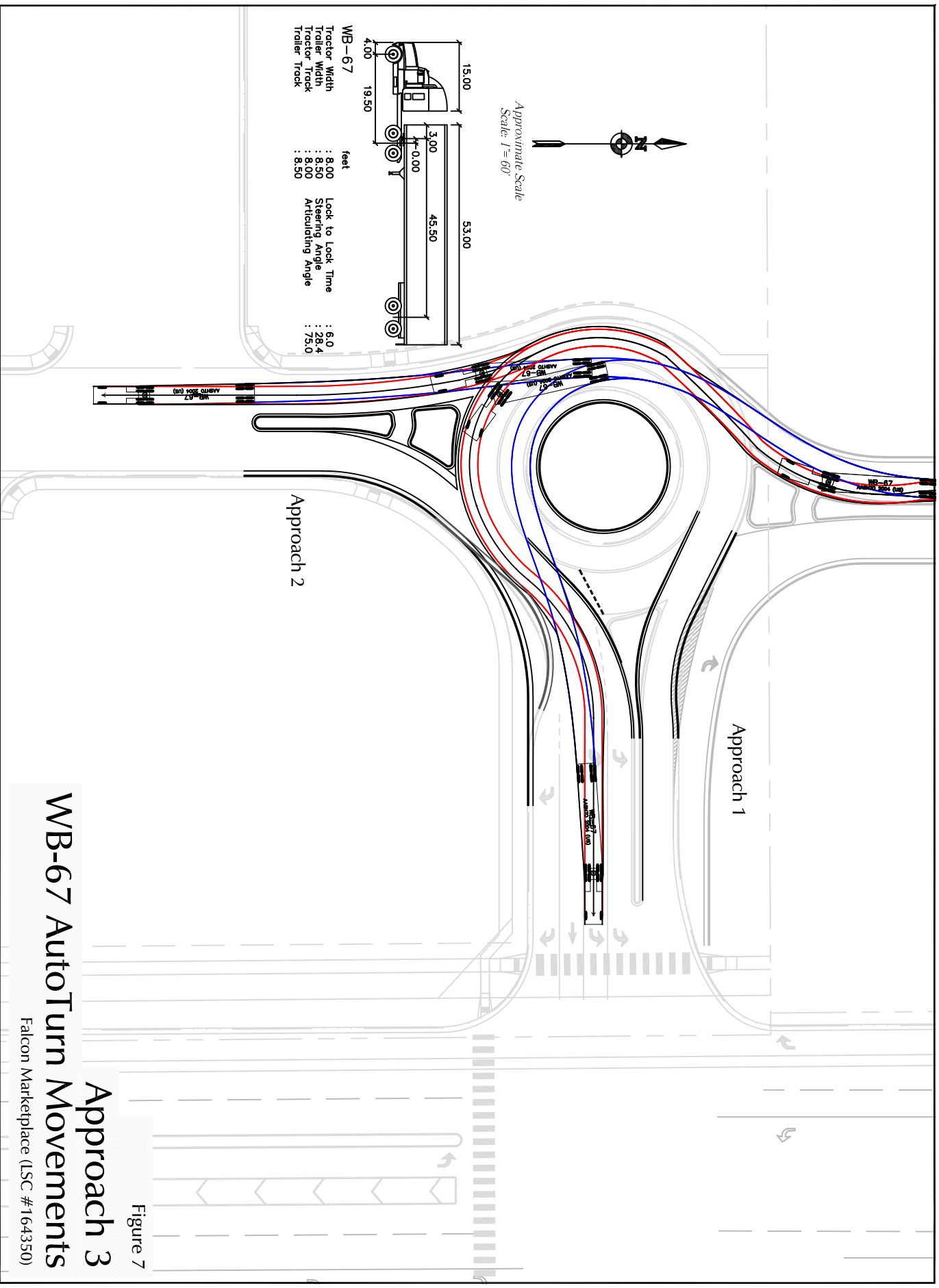


Figure 7

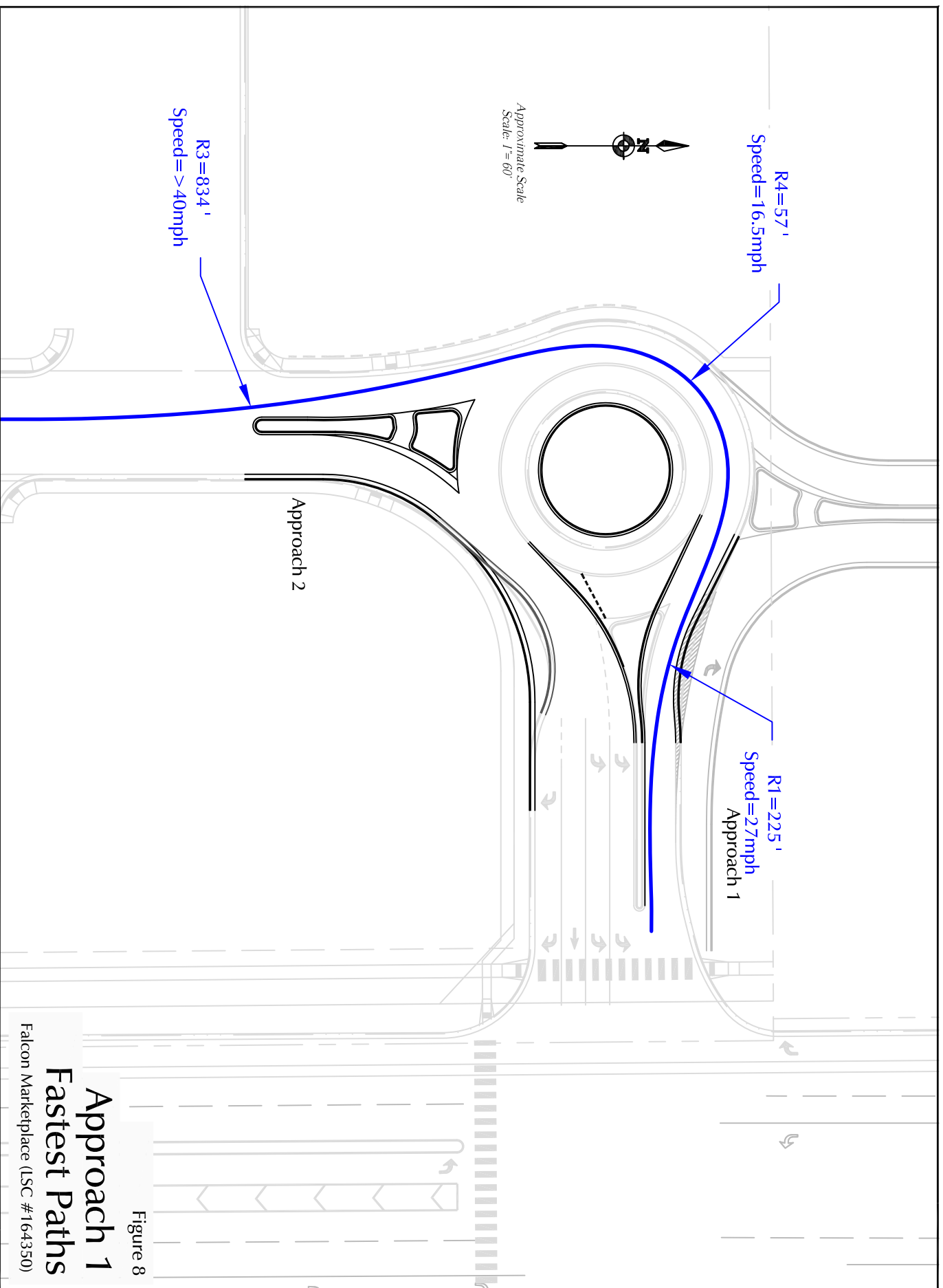


Figure 8

## Approach 1 Fastest Paths

Falcon Marketplace (LSC #164350)

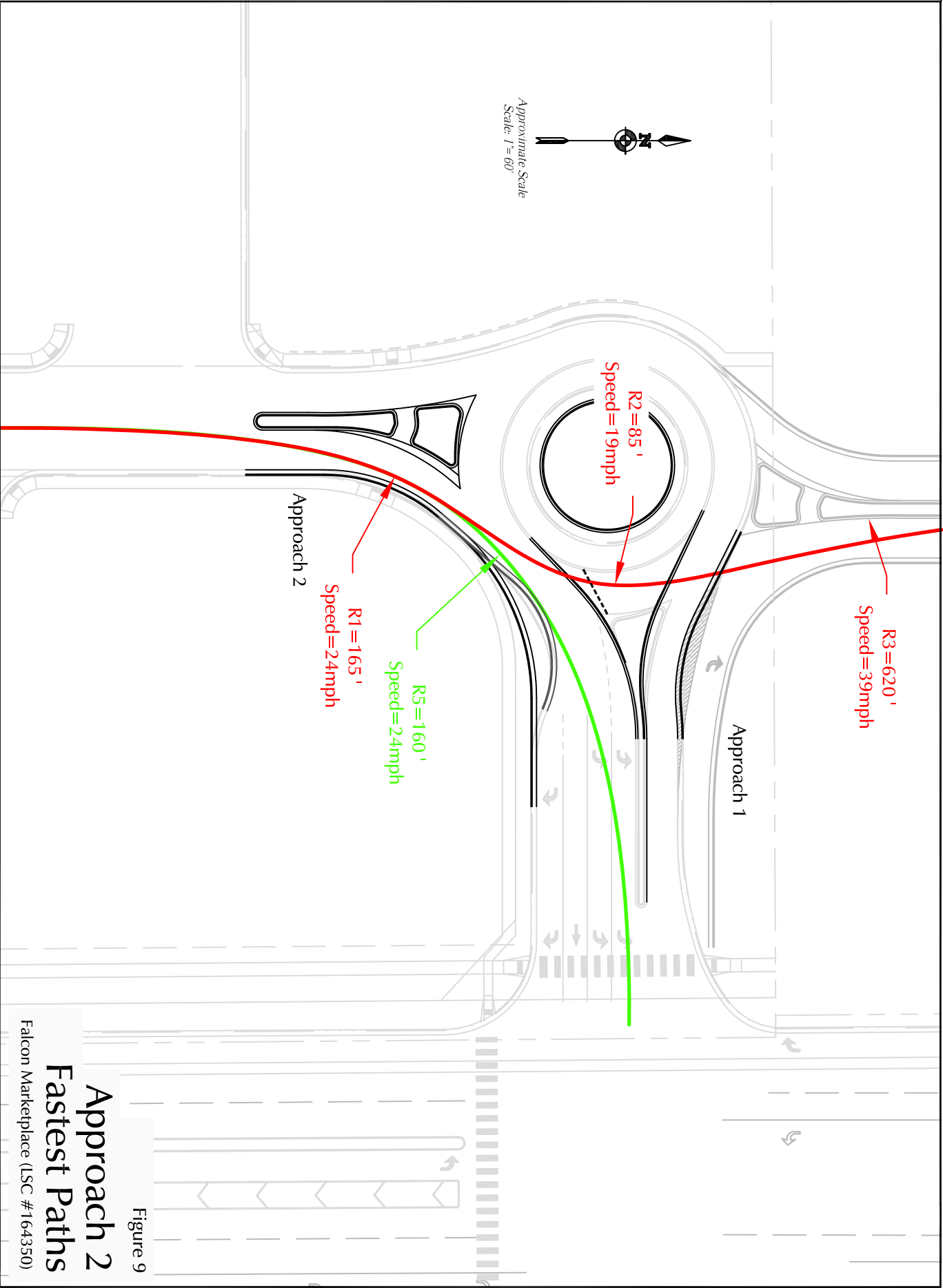
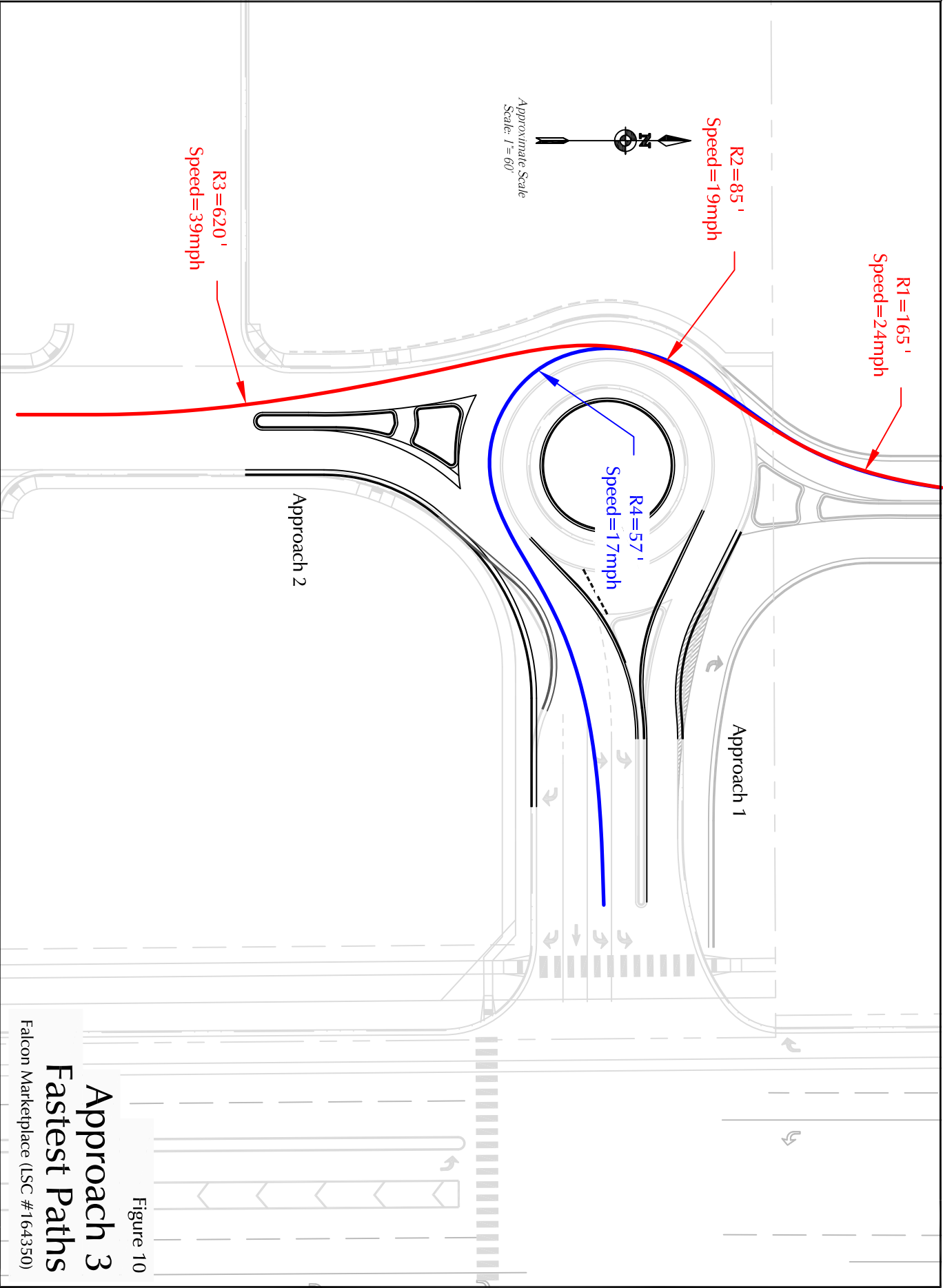


Figure 9

# Approach 2 Fastest Paths

Falcon Marketplace (LSC #164350)



**Northeast Roundabout  
Falcon Marketplace  
Preliminary  
Eastonville/Falcon Market Place  
El Paso County**

## ROUNABOUT CRITICAL DESIGN PARAMETERS

DESIGN PARAMETERS	LEG 1	LEG 2	LEG 3	LEG 4	LEG 5	LEG 6
Approach Width, FT	17.0	21.0	21.0			
Entry Width, FT	18.0	16.0	16.0			
Entry Angle, PHI $\Phi$ , DEG	21.0	17.0	21.0			
Inscribed Circle Diameter, FT	135.0	135.0	135.0			
Exit Width, FT	26.0	20.0	20.0			
Circulating Roadway Width Upstream of Entry, FT	20.0	20.0	20.0			

### FASTEST SPEED PATH

$R_1$ , Radius/Speed, FT/MPH	225	27	165	24	165	24				
$R_2$ , Radius/Speed, FT/MPH			85	19	85	19				
$R_3$ , Radius/Speed, FT/MPH	834	46	620	39	620	39				
$R_4$ , Radius/Speed, FT/MPH	57	17			57	17				
$R_5$ , Radius/Speed, FT/MPH			160	24						
Bypass $R_5$ , Radius/Speed, FT/MPH										

### MINIMUM SIGHT PARAMETERS

Approach Design Speed, MPH						
Horizontal Stopping Sight Distance, FT						
Circulating Intersection Sight Distance, FT/MPH						
Entering Intersection Sight Distance, FT/MPH						

Design Vehicle: WB-62

Truck Apron Width: 12

OSOW Accommodations:

Circulating Roadway Cross-Slope:

Access Control:

Parking Control:

Bicycle & Pedestrian Accommodations:

Designer:

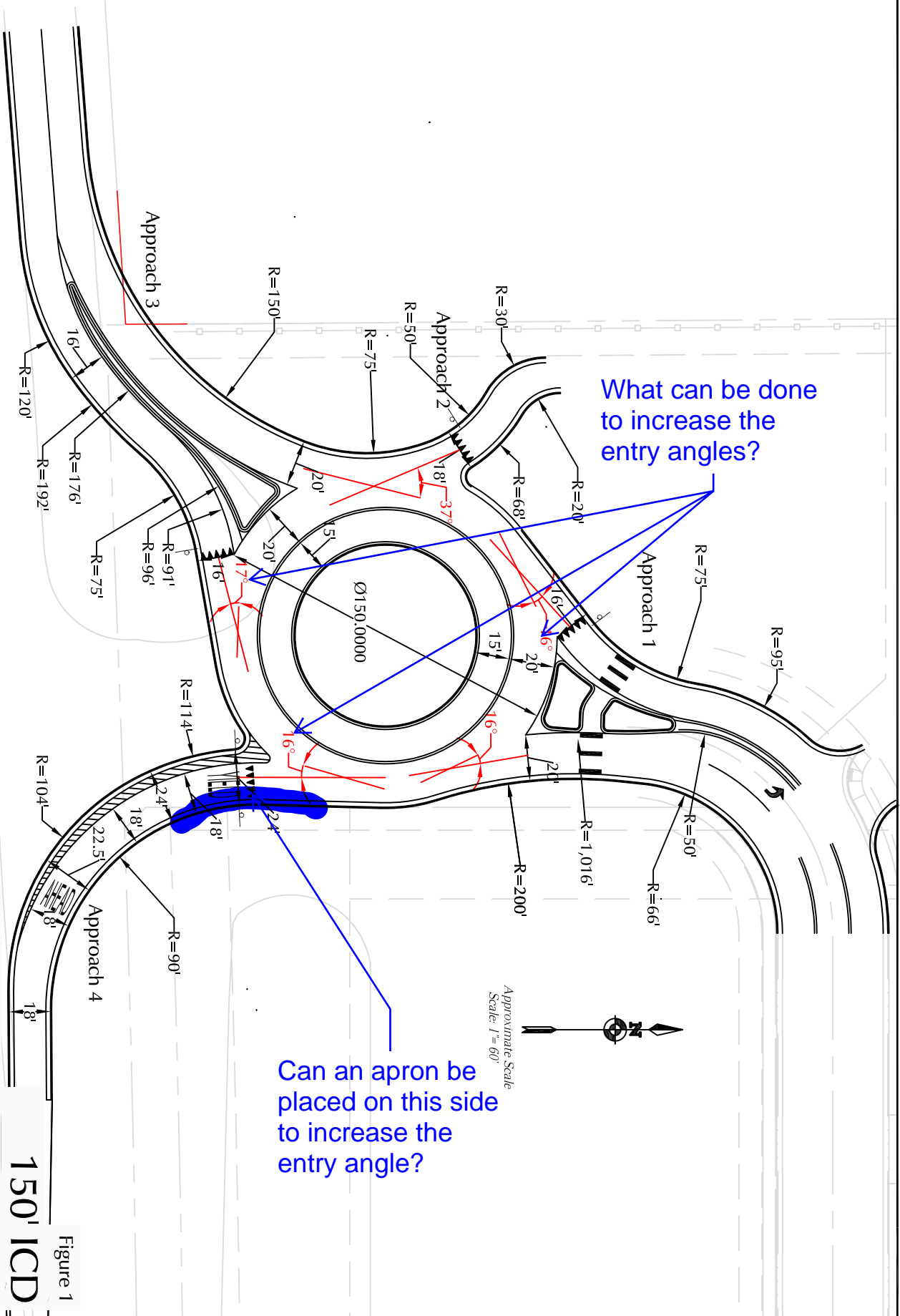
Reviewer:

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

DATE:

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.*



What can be done to increase the entry angles?

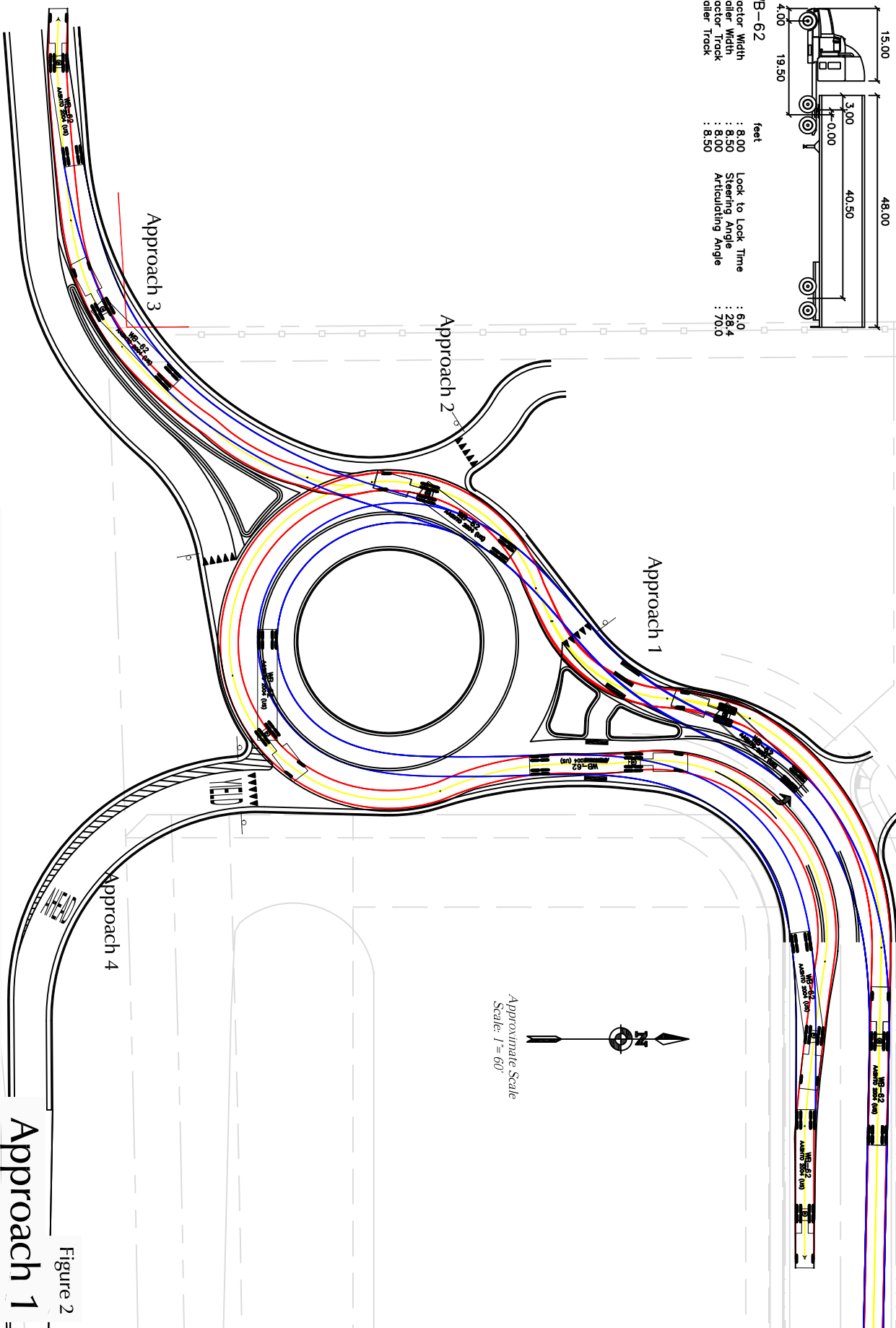
Can an apron be placed on this side to increase the entry angle?

Approximate Scale  
Scale: 1" = 60'

# Roundabout Parameters

150' ICD

Figure 1



## Approach 1

Falcon Marketplace (LSC #164350)



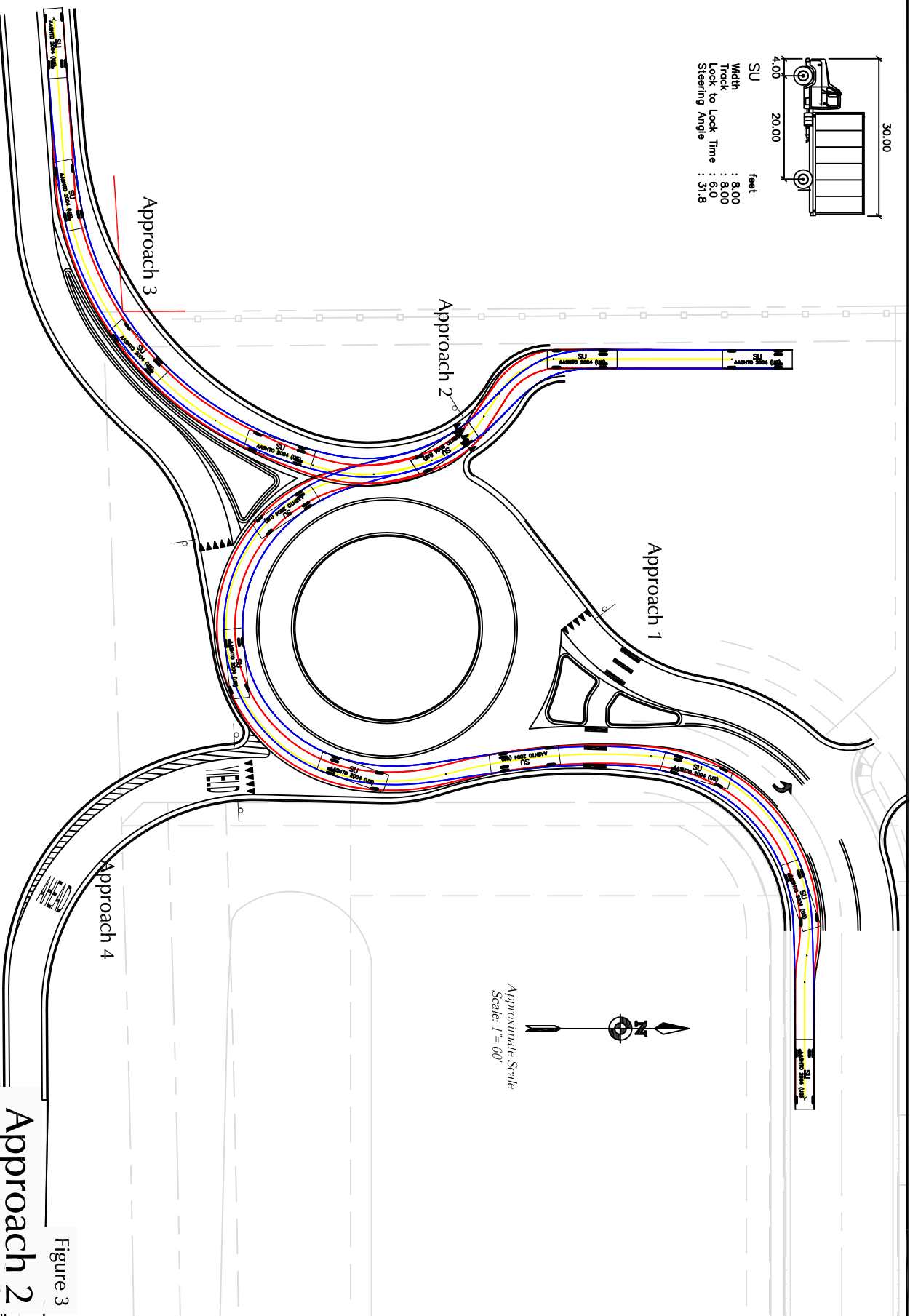
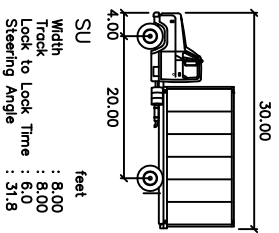
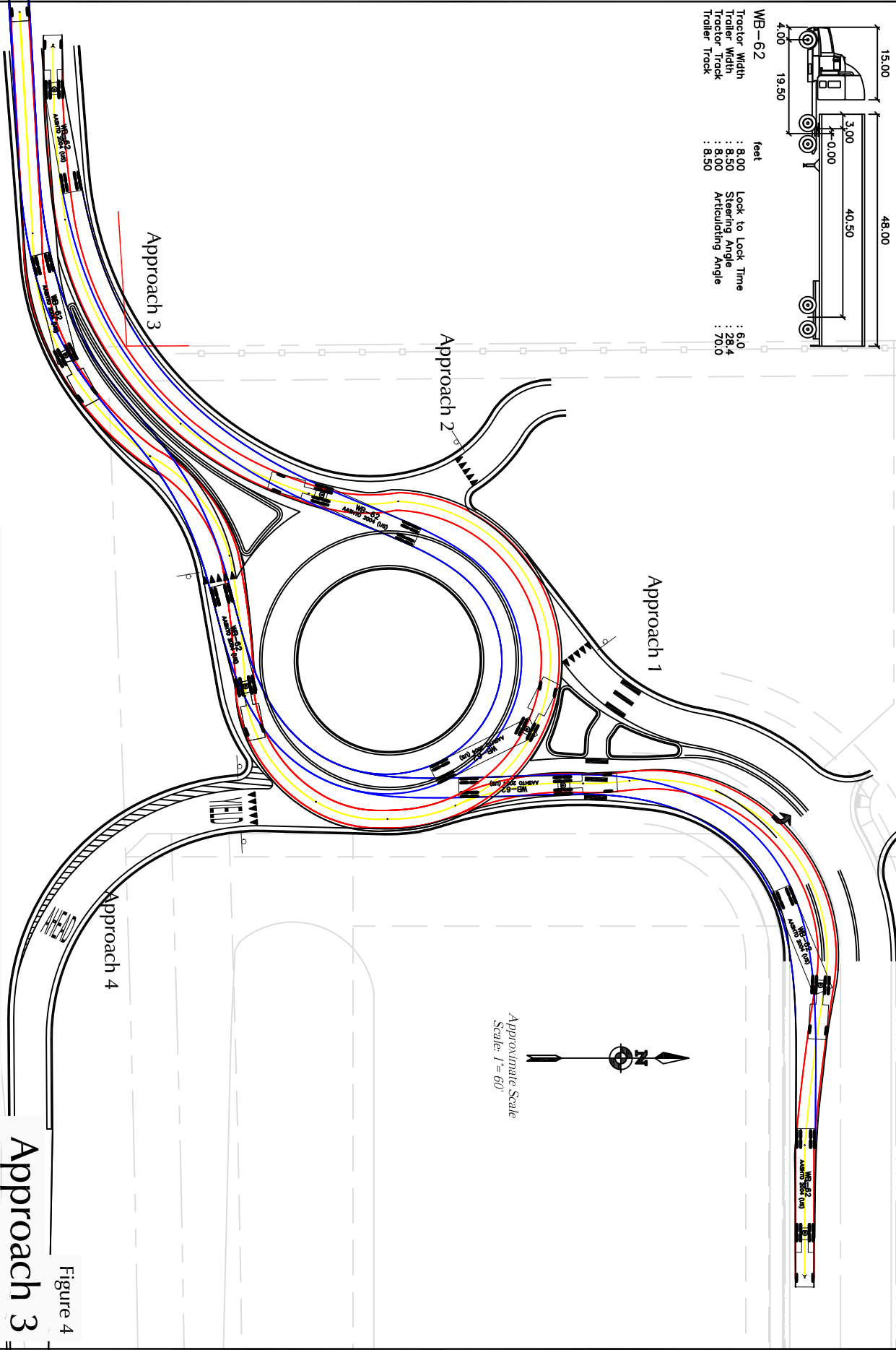


Figure 3

# Approach 2 SU Auto Turn Movements

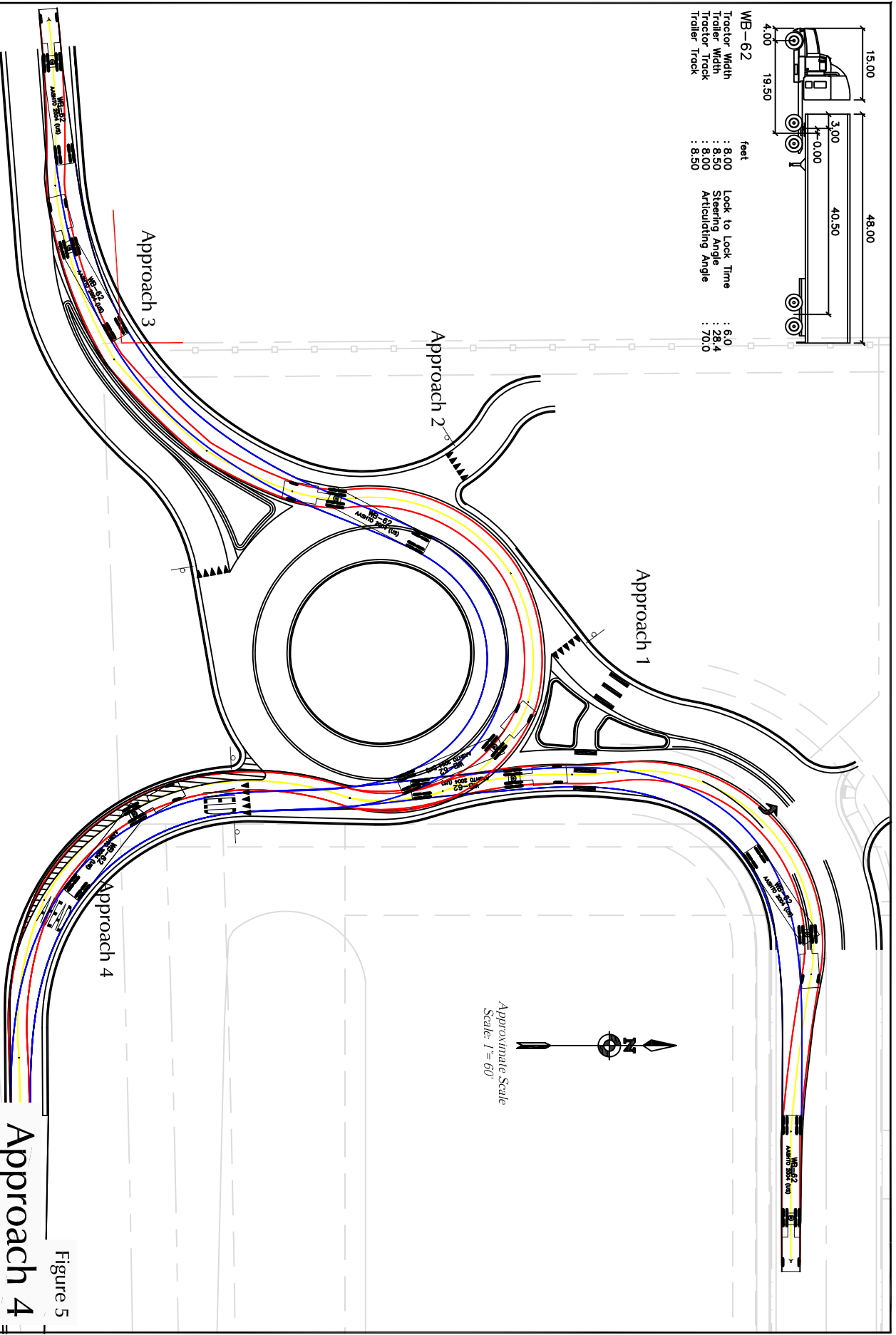
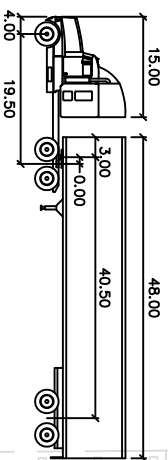
Falcon Marketplace (LSC #164350)



# Approach 3

## Falcon Marketplace (LSC #164350)

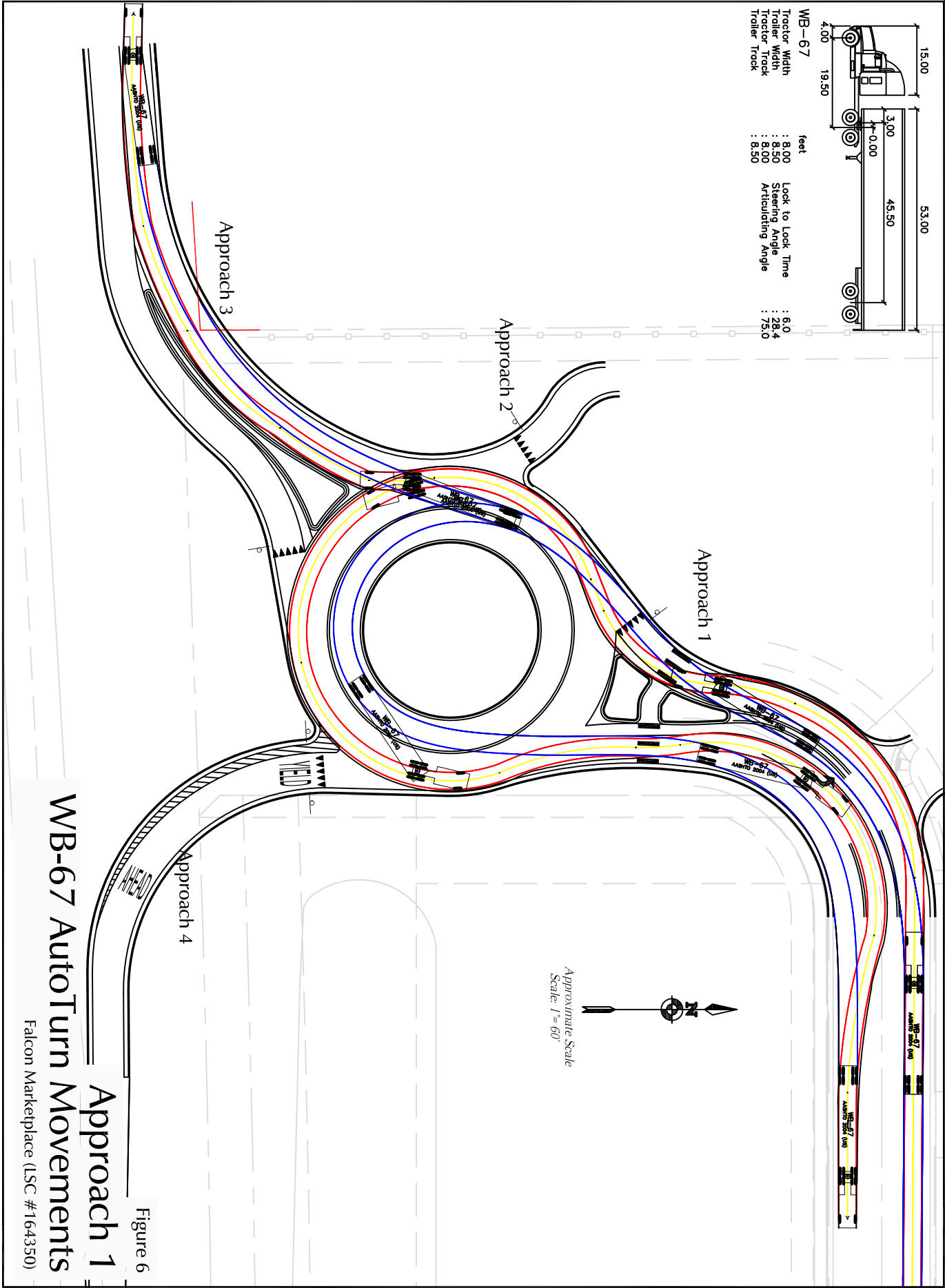
WB-62		feet	
Tractor Width	: 8.00	Lock to Lock Time	: 6.0
Trailer Width	: 8.50	Steering Angle	: 28.4
Tractor Track	: 8.00	Articulating Angle	: 70.0
Trailer Track	: 8.50		



# WB-62 (Design Vehicle) Auto Turn Movements

Falcon Marketplace (LSC #164350)

Figure 5



**WB-67 Auto Turn Movements**

**Approach 1**

Falcon Marketplace (LSC #164350)

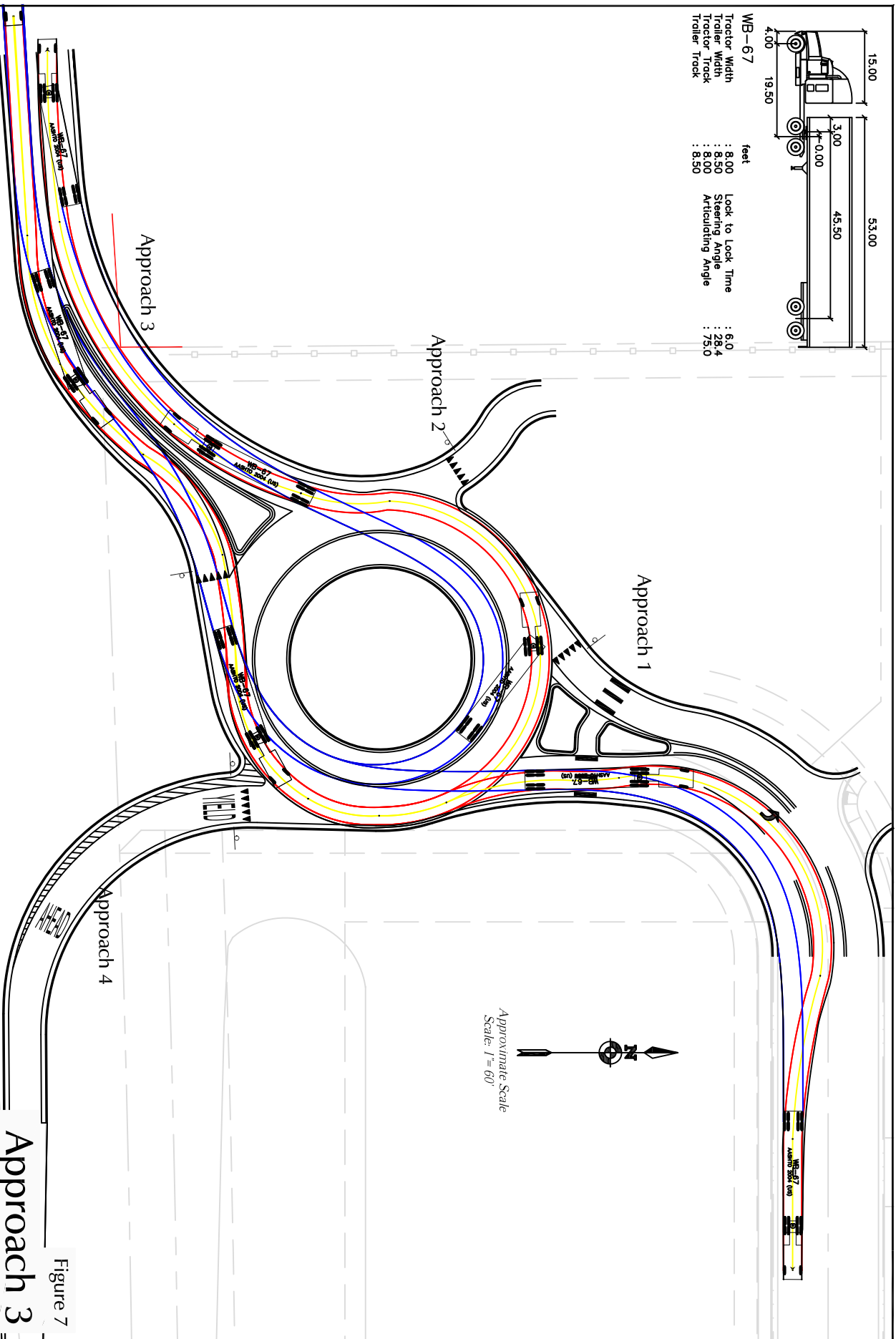
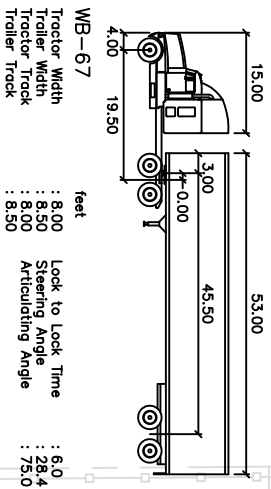


Figure 7

# WB-67 Auto Turn Movements

Falcon Marketplace (LSC #164350)

WB-67		feet	
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		

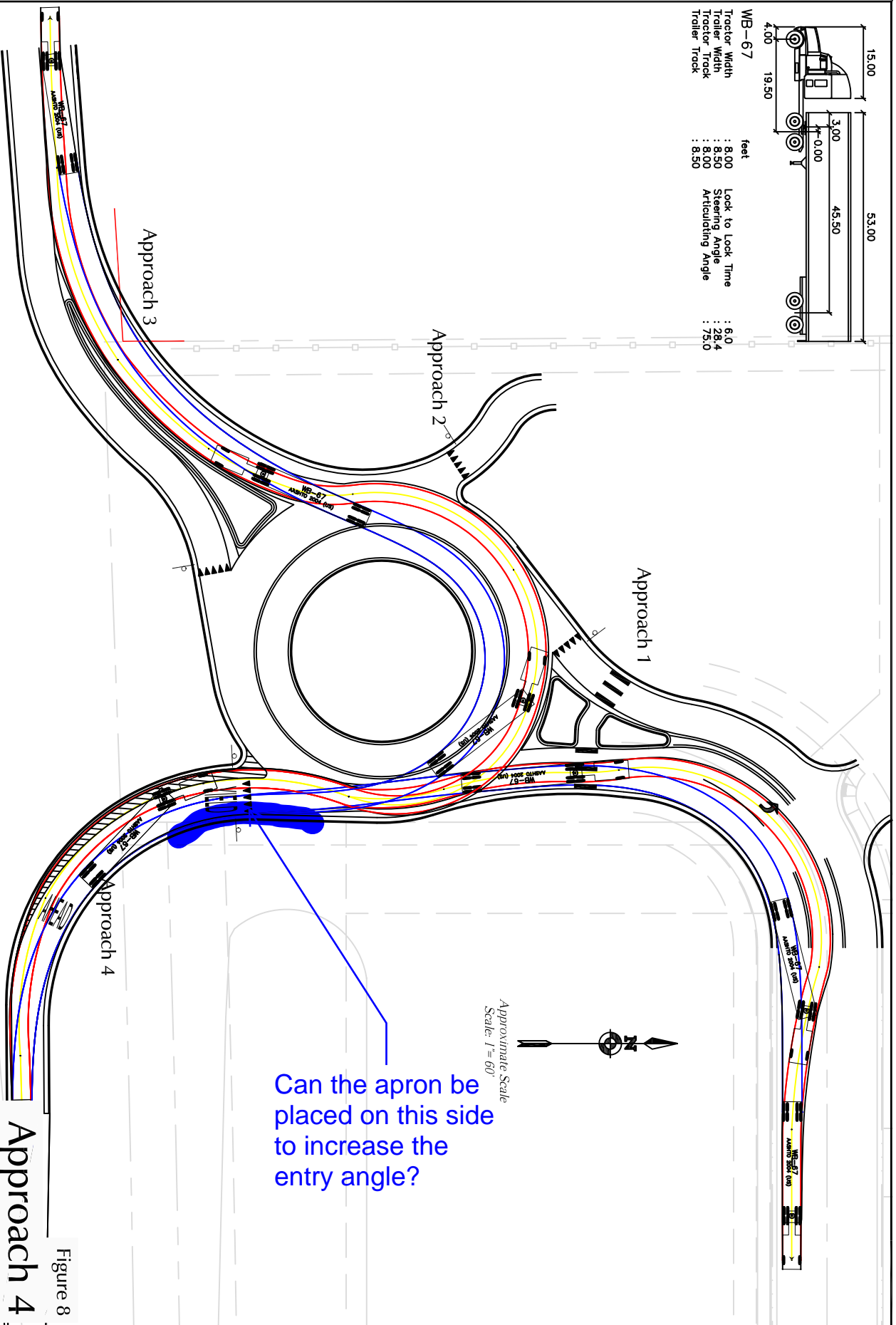
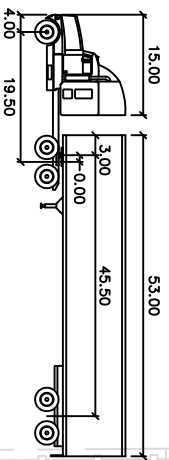


Figure 8

## Approach 4

## WB-67 Auto Turn Movements

Falcon Marketplace (LSC #164350)

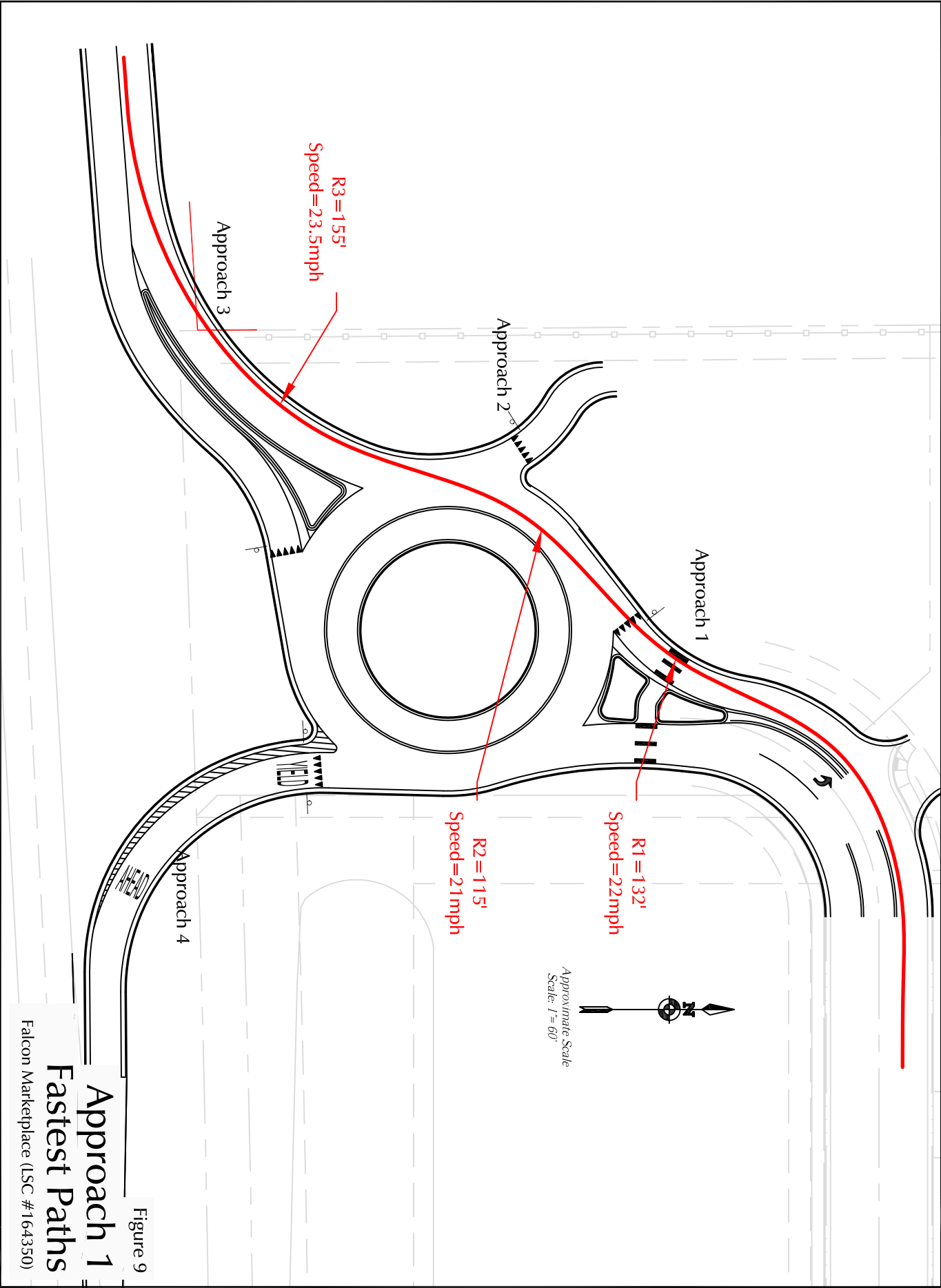


Figure 9

# Approach 1 Fastest Paths

Falcon Marketplace (LSC #164350)



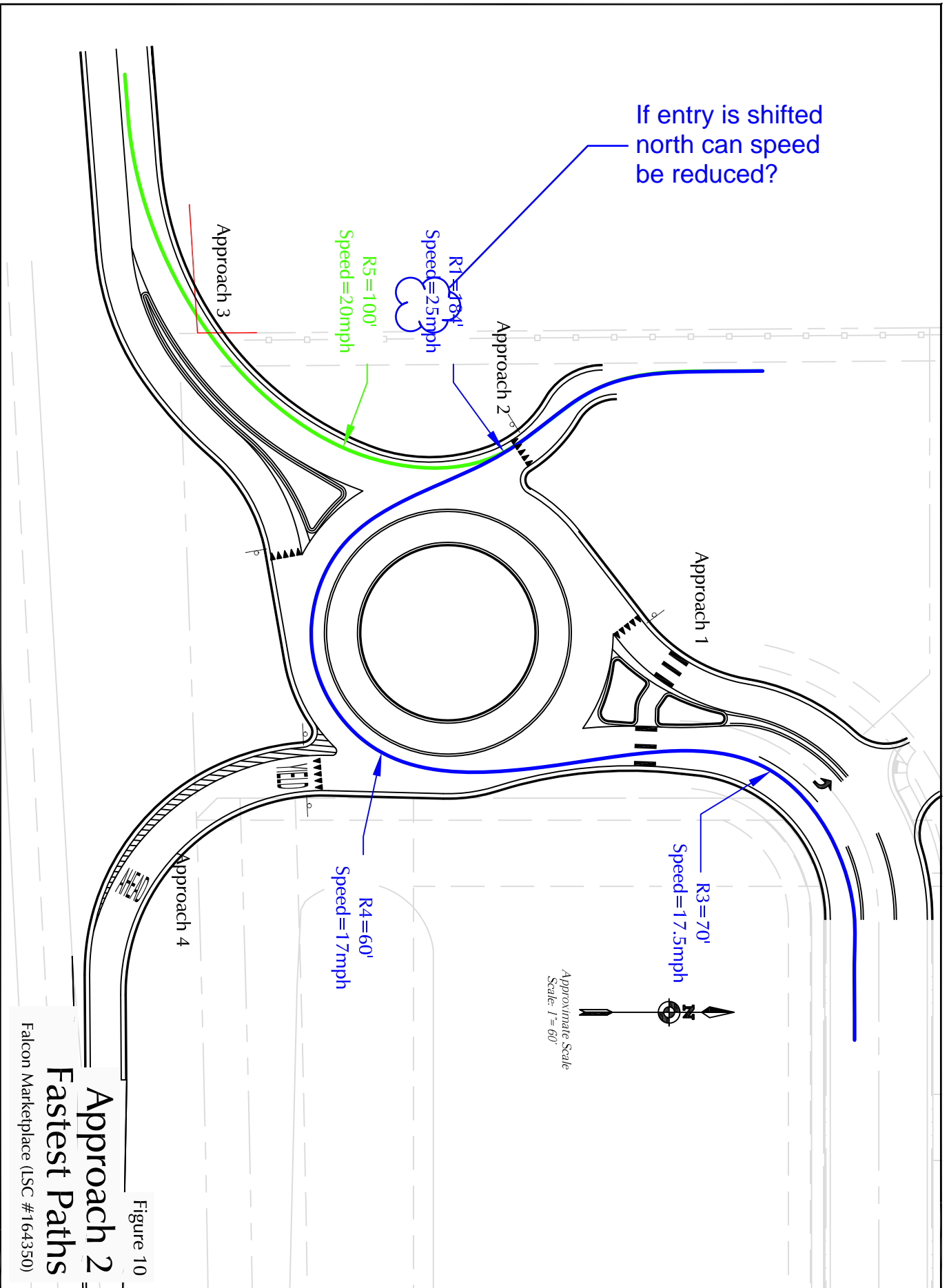
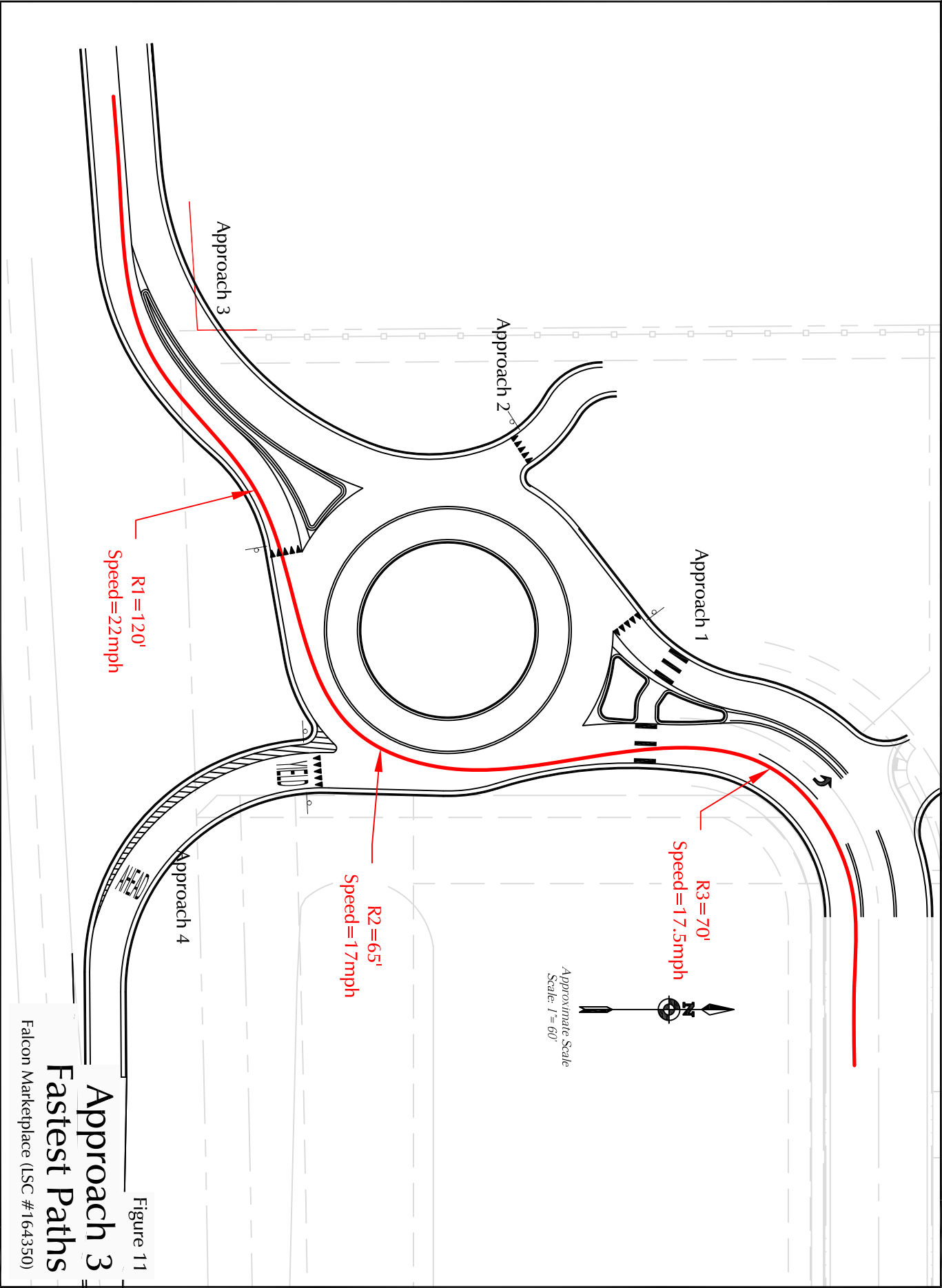


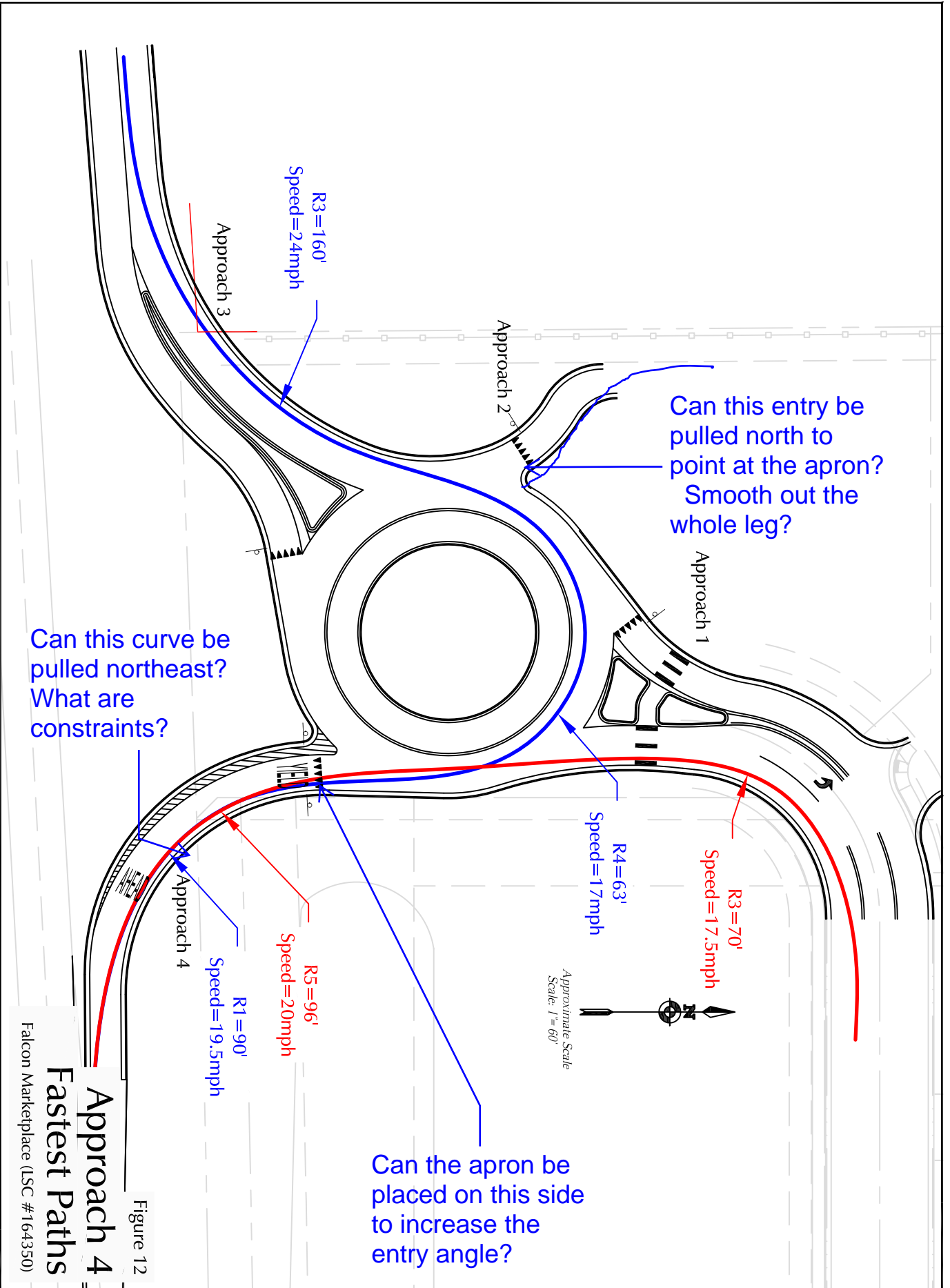
Figure 10

## Approach 2 Fastest Paths

Falcon Marketplace (LSC #164350)







**Southwest Roundabout  
Falcon Marketplace  
Preliminary  
Woodmen North Frontage Road/Woodmen Right-in  
El Paso County**

## ROUNDAABOUT CRITICAL DESIGN PARAMETERS

DESIGN PARAMETERS	LEG 1	LEG 2	LEG 3	LEG 4	LEG 5	LEG 6
Approach Width, FT	16.0	18.0	16.0	18.0		
Entry Width, FT	16.0	18.0	16.0	18.0		
Entry Angle, PHI $\Phi$ , DEG	16.0	18.5	17.0	16.0		
Inscribed Circle Diameter, FT	150.0	150.0	150.0	150.0		
Exit Width, FT	20.0		20.0			
Circulating Roadway Width Upstream of Entry, FT	20.0	20.0	20.0	20.0		

### FASTEST SPEED PATH

$R_1$ , Radius/Speed, FT/MPH	132	22	184	25	120	22	90	20		
$R_2$ , Radius/Speed, FT/MPH	115	21			65	17				
$R_3$ , Radius/Speed, FT/MPH	155	24	70	18	70	18	70	18		
$R_4$ , Radius/Speed, FT/MPH			60	17			63	17		
$R_5$ , Radius/Speed, FT/MPH			100	20			96	20		
Bypass $R_5$ , Radius/Speed, FT/MPH										

### MINIMUM SIGHT PARAMETERS

Approach Design Speed, MPH						
Horizontal Stopping Sight Distance, FT						
Circulating Intersection Sight Distance, FT/MPH						
Entering Intersection Sight Distance, FT/MPH						

Design Vehicle: WB-62

Truck Apron Width: 15

OSOW Accommodations:

Circulating Roadway Cross-Slope:

Access Control:

Parking Control:

Bicycle & Pedestrian Accommodations: East/West Bicycle & All Pedestrian on Approach 1

Designer:

Reviewer:

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

DATE:

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.*