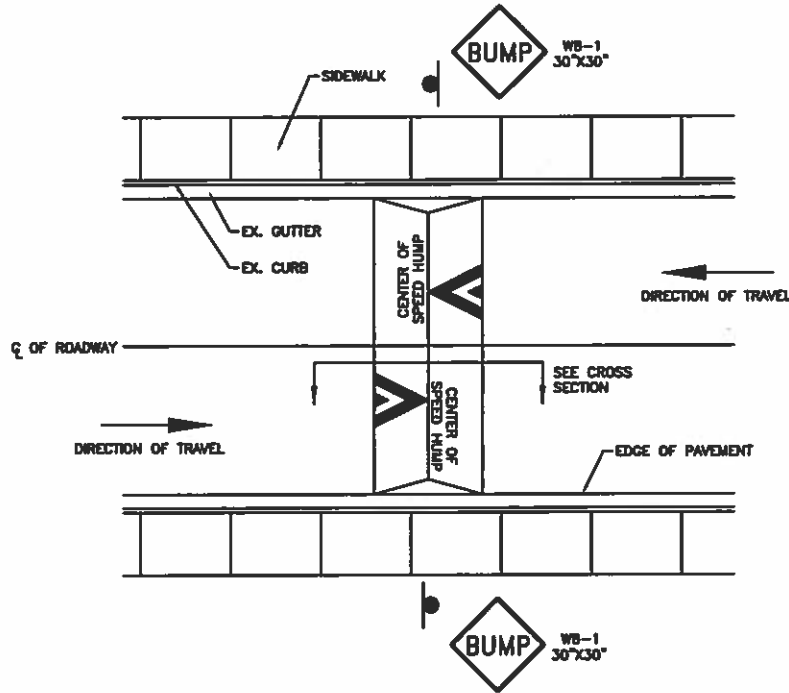
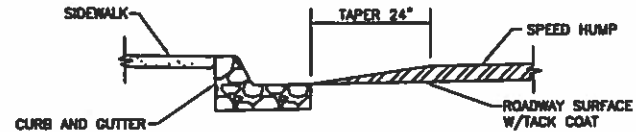


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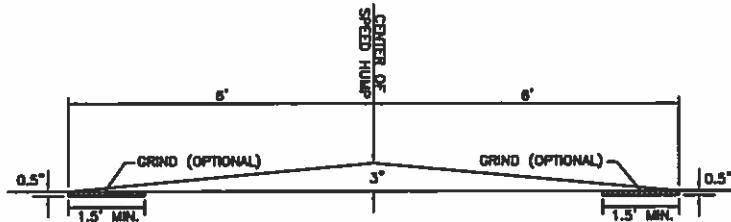
1. SPEED HUMPS SHALL NOT BE PLACED OVER MANHOLES, WATER VALVES, SURVEY MARKERS, ETC.
2. SPEED HUMPS SHALL NOT BE INSTALLED IN A LOCATION THAT INTERFERES WITH ROADWAY DRAINAGE.
3. A TACK COAT SHALL BE APPLIED TO THE ROADWAY SURFACE PRIOR TO APPLICATION OF PAVEMENT MATERIAL.
4. SPEED HUMP MARKINGS AND SIGNS SHALL BE INSTALLED BY ACHD, UNLESS OTHERWISE SPECIFIED BY THE ACHD TRAFFIC ENGINEER. MARKING INFORMATION FOR SPEED HUMPS CAN BE FOUND IN TS-1113.
5. "BUMPS AHEAD" SIGNS SHALL BE INSTALLED IN BOTH DIRECTIONS IN ADVANCE OF THE FIRST BUMP IN SERIES. SIGNS SHALL BE INSTALLED BY ACHD, UNLESS OTHERWISE SPECIFIED BY THE ACHD TRAFFIC ENGINEER.
6. IF CURB AND GUTTER IS NOT PRESENT ON THE ROADWAY, INSTALL SPEED HUMPS TO THE EDGE OF THE PAVED SURFACE. 4" DIA. CONCRETE BOLLARD INSTALLATION NEAR THE SPEED HUMP MAY BE NECESSARY WHERE THE POTENTIAL FOR SPEED HUMP AVOIDANCE EXISTS.



**SPEED HUMP - PLAN VIEW
LOCAL ROAD**



**SPEED HUMP - EDGE DETAIL
LOCAL ROAD**



**SPEED HUMP - CROSS SECTION
LOCAL ROAD**

12/27/2013

▲			
▲			
▲			
▲			
▲	12/27/13	JR	Issue existing roadway system updated
▲	12/27/13	JR	Issue existing roadway system updated



- DESIGNER -		- CHECK TITLE -	
Drawn By	Jordan Rank	Checked By	Jordan Rank
Scale	AS SHOWN	Drawn By	Jordan Rank
Date	12/27/13	Approved By	Don Goo
File	12-111A.DWG		

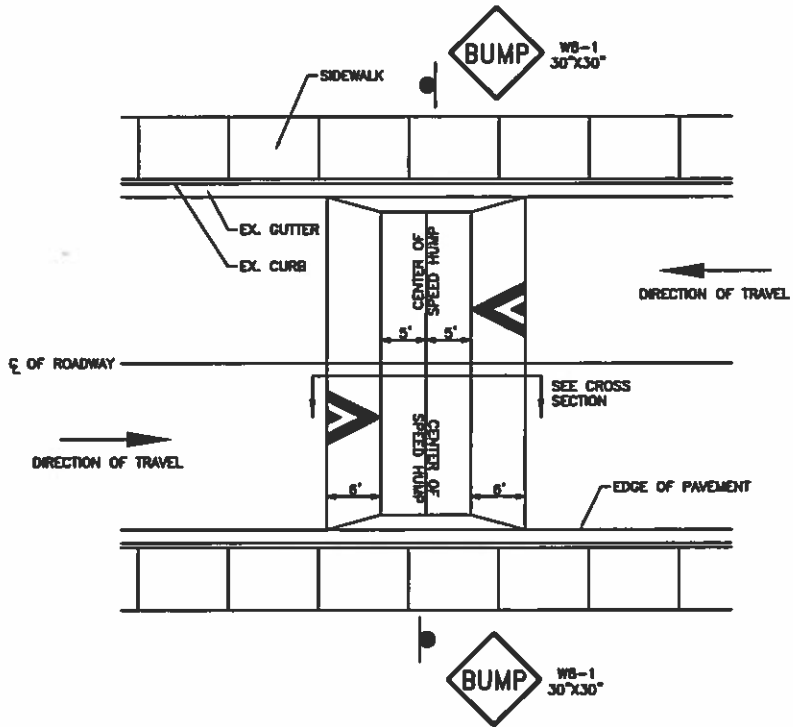
Speed Hump Details - Local Road



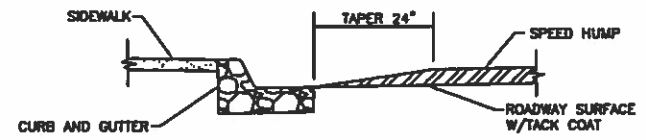
PROFESSIONAL ENGINEER
JORDAN RANK, P.E.
OKLAHOMA
No. 12742
TS-1121

NOTES:

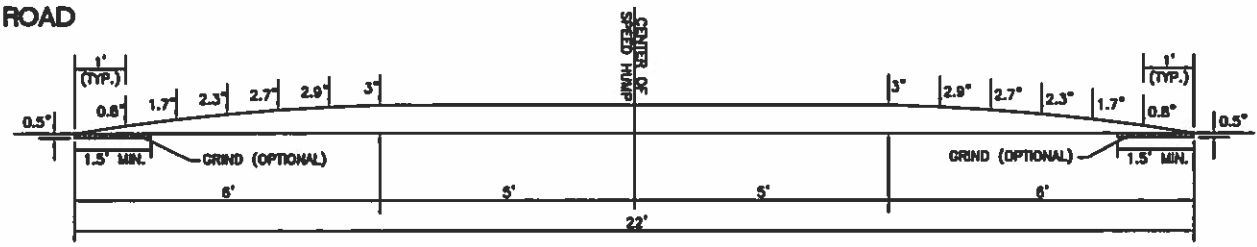
1. SPEED HUMPS SHALL NOT BE PLACED OVER MANHOLES, WATER VALVES, SURVEY MARKERS, ETC.
2. SPEED HUMPS SHALL NOT BE INSTALLED IN A LOCATION THAT INTERFERES WITH ROADWAY DRAINAGE.
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**SPEED HUMP - PLAN VIEW
COLLECTOR ROAD**



**SPEED HUMP - EDGE DETAIL
COLLECTOR ROAD**



**SPEED HUMP - CROSS SECTION
COLLECTOR ROAD**

12/27/2013



DATE	BY	DESCRIPTION
02/14/08	BT	Initial activities roadway surface treatment
02/14/08	BT	Interpretation



• SIGNATURES •		• CHECK TITLE •	
Drawn By	Travis E. Bann	Checked By	Travis E. Bann
Date	07/28/11	Design By	Travis E. Bann
File	10-11883.PDW	Reviewed By	Steve Gynn

Speed Hump Details - Collector Road

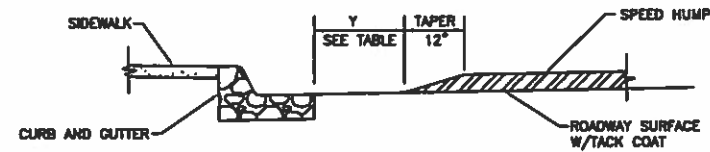
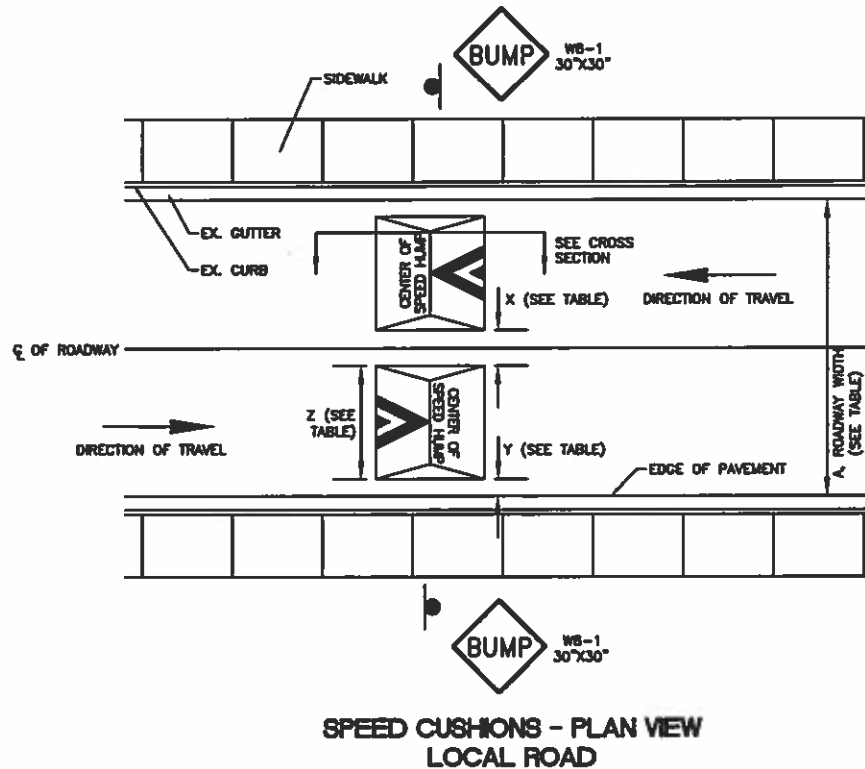
PROPOSED DRAWING NO. TS-1121

SPEED HUMP DIMENSION SCHEDULE

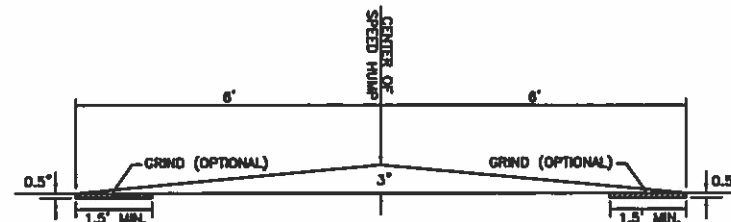
A, ROADWAY WIDTH (FT.)	Y, EDGE (FT.)	Z, HUMP (FT.)	X, CENTER GAP (FT.)	Z, HUMP (FT.)	Y, EDGE (FT.)
20'	1.5'	7'	3'	7'	1.5'
21'	2'	7'	3'	7'	2'
22'	2.5'	7'	3'	7'	2.5'
23'	3'	7'	3'	7'	3'
24'	3'	7'	4'	7'	3'

NOTES:

1. SPEED HUMPS SHALL NOT BE PLACED OVER MANHOLES, WATER VALVES, SURVEY MARKERS, ETC.
2. SPEED HUMPS SHALL NOT BE INSTALLED IN A LOCATION THAT INTERFERES WITH ROADWAY DRAINAGE.
3. A TACK COAT SHALL BE APPLIED TO THE ROADWAY SURFACE PRIOR TO APPLICATION OF PAVEMENT MATERIAL.
4. SPEED HUMP MARKINGS AND SIGNS SHALL BE INSTALLED BY ACHD, UNLESS OTHERWISE SPECIFIED BY THE ACHD TRAFFIC ENGINEER. MARKING INFORMATION FOR SPEED HUMPS CAN BE FOUND IN TS-1113.
5. "BUMPS AHEAD" SIGNS SHALL BE INSTALLED IN BOTH DIRECTIONS IN ADVANCE OF THE FIRST BUMP IN SERIES. SIGNS SHALL BE INSTALLED BY ACHD, UNLESS OTHERWISE SPECIFIED BY THE ACHD TRAFFIC ENGINEER.
6. IF CURB AND GUTTER IS NOT PRESENT OR A SIGNIFICANT DRIVABLE SHOULDER EXISTS ON THE ROADWAY, 4" DIA. CONCRETE BOLLARD INSTALLATION NEAR EACH SPEED HUMP MAY BE NECESSARY WHERE THE POTENTIAL FOR SPEED HUMP AVOIDANCE EXISTS.



SPEED CUSHIONS - EDGE DETAIL LOCAL ROAD



SPEED CUSHIONS - CROSS SECTION LOCAL ROAD

12/27/2013

NO.	DATE	BY	DESCRIPTION



Drawn By: Justin Beak	Checked By: Justin Beak
Date: 4/3/18	Design By: Justin Beak
File: ts-1121a.dwg	Approved By: Steve Owen

Speed Hump Details - Local Road, Speed Cushions
Roadway Cross Sections, 20' - 24'

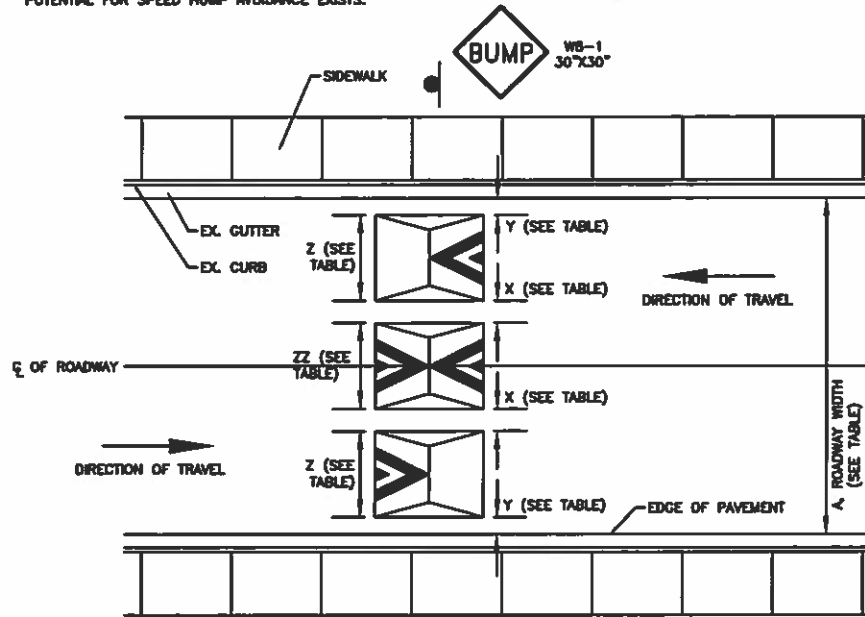


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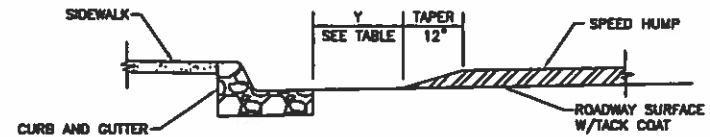
1. SPEED HUMPS SHALL NOT BE PLACED OVER MANHOLES, WATER VALVES, SURVEY MARKERS, ETC.
2. SPEED HUMPS SHALL NOT BE INSTALLED IN A LOCATION THAT INTERFERES WITH ROADWAY DRAINAGE.
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6. IF CURB AND GUTTER IS NOT PRESENT OR A SIGNIFICANT DRIVABLE SHOULDER EXISTS ON THE ROADWAY, 4" DIA. CONCRETE BOLLARD INSTALLATION NEAR EACH SPEED HUMP MAY BE NECESSARY WHERE THE POTENTIAL FOR SPEED HUMP AVOIDANCE EXISTS.

SPEED HUMP DIMENSION SCHEDULE

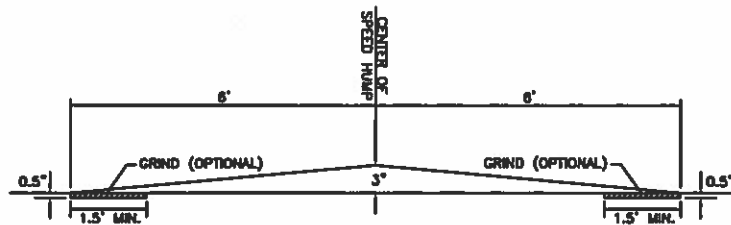
A, ROADWAY WIDTH (FT.)	Y, EDGE (FT.)	Z, HUMP (FT.)	X, GAP (FT.)	ZZ, HUMP (FT.)	X, GAP (FT.)	Z, HUMP (FT.)	Y, EDGE (FT.)
25'	1.5'	6'	2'	6'	2'	6'	1.5'
26'	2'	6'	2'	6'	2'	6'	2'
27'	2.5'	6'	2'	6'	2'	6'	2.5'
28'	3'	6'	2'	6'	2'	6'	3'
29'	2.5'	7'	2'	6'	2'	7'	2.5'
30'	2.5'	7'	2'	7'	2'	7'	2.5'
31'	3'	7'	2'	7'	2'	7'	3'
32'	3'	7'	2'	8'	2'	7'	3'
33'	3'	7.5'	2'	8'	2'	7.5'	3'
34'	3'	7.5'	2.5'	8'	2.5'	7.5'	3'
35'	3'	8'	2.5'	8'	2.5'	8'	3'
36'	3.5'	8'	2.5'	8'	2.5'	8'	3.5'
37'	4'	8'	2.5'	8'	2.5'	8'	4'
38'	4'	8'	3'	8'	3'	8'	4'
39'	4'	8'	3'	9'	3'	8'	4'
40'	4'	8'	3'	10'	3'	8'	4'



SPEED CUSHIONS - PLAN VIEW LOCAL ROAD



SPEED CUSHIONS - EDGE DETAIL LOCAL ROAD



SPEED CUSHIONS - CROSS SECTION LOCAL ROAD

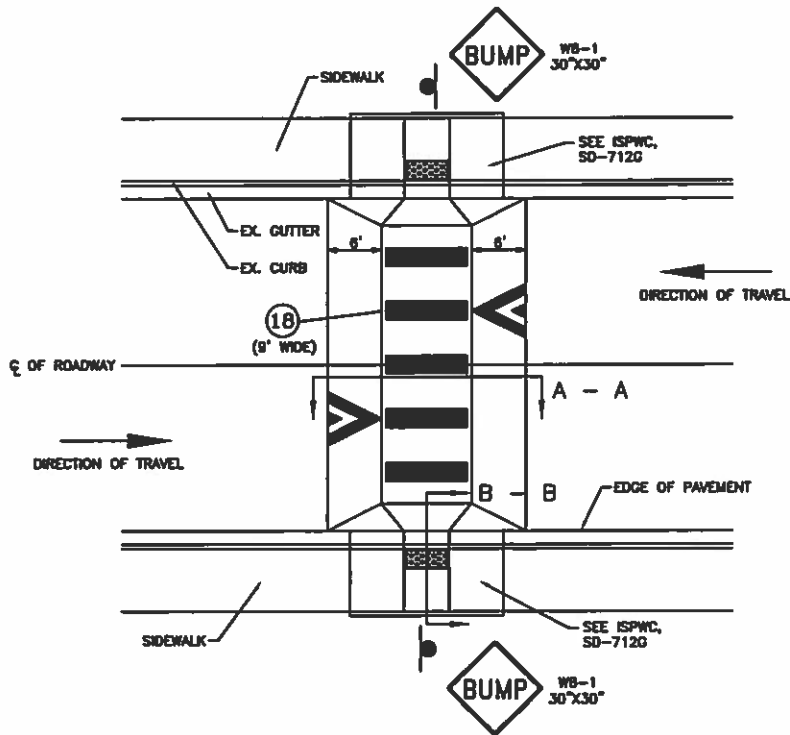


SIGNATURES		DESIGN TITLE	
Drawn By	Andrew Smith	Speed Hump Details - Local Road, Speed Cushions	
Checkd By	Andrew Smith	Roadway Cross Sections, 25' - 40'	
Date	4/18/13		
File	10-1126A390		
Approved By	Steve Gynn		

12/27/2013



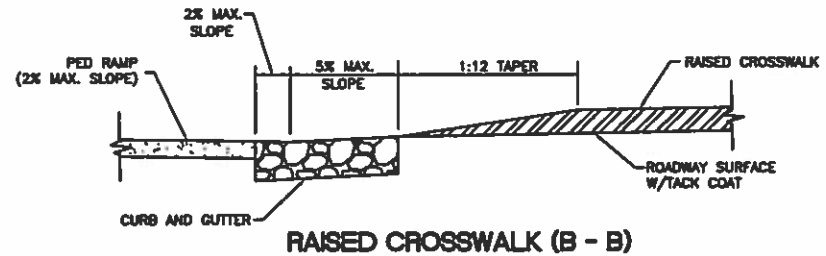
TS-1121



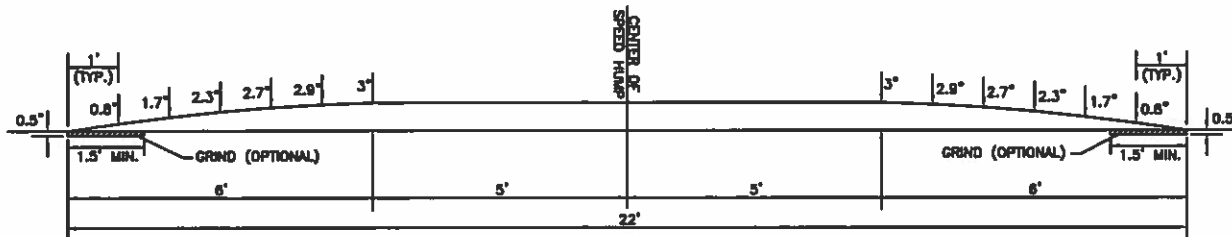
**SPEED HUMP - PLAN VIEW
COLLECTOR ROAD**

NOTES:

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6. ALL PEDESTRIAN RAMPS SHALL CONFORM TO THE MOST RECENT VERSION OF THE ISPCW.



RAISED CROSSWALK (B - B)



RAISED CROSSWALK (A - A)

12/27/2013

NO.	DATE	BY	REVISION



DESIGNER		CHECKER	
Drawn By: Andrew Bink	Checked By: Andrew Bink	Drawn By: Andrew Bink	Checked By: Andrew Bink
Date: 11/21/13	Date: 11/21/13	Date: 11/21/13	Date: 11/21/13
File: 10-1120-000	Approved By: Tom Oym		

PROJECT TITLE:
Raised Crosswalk Details



PROFESSIONAL ENGINEER
TS-1121

**TRAFFIC CALMING
MINIMUM STREET LENGTH
ELIGIBILITY**

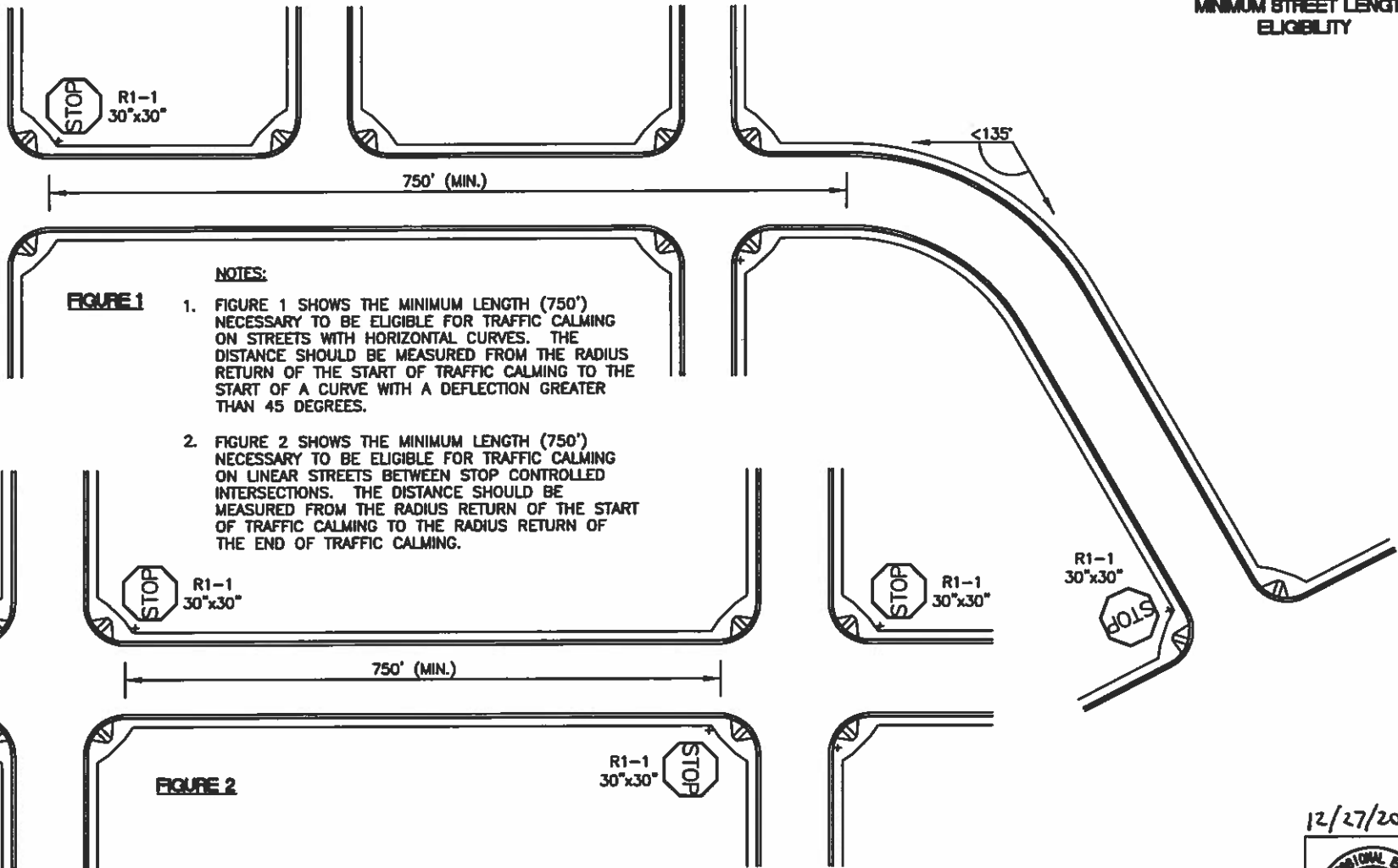


FIGURE 1

NOTES:

1. FIGURE 1 SHOWS THE MINIMUM LENGTH (750') NECESSARY TO BE ELIGIBLE FOR TRAFFIC CALMING ON STREETS WITH HORIZONTAL CURVES. THE DISTANCE SHOULD BE MEASURED FROM THE RADIUS RETURN OF THE START OF TRAFFIC CALMING TO THE START OF A CURVE WITH A DEFLECTION GREATER THAN 45 DEGREES.
2. FIGURE 2 SHOWS THE MINIMUM LENGTH (750') NECESSARY TO BE ELIGIBLE FOR TRAFFIC CALMING ON LINEAR STREETS BETWEEN STOP CONTROLLED INTERSECTIONS. THE DISTANCE SHOULD BE MEASURED FROM THE RADIUS RETURN OF THE START OF TRAFFIC CALMING TO THE RADIUS RETURN OF THE END OF TRAFFIC CALMING.

FIGURE 2

12/27/2013



NO.	DATE	BY	DESCRIPTION



Scale: NTS	Drawn By: Joshua Sall
Date: 12/27/13	Checked By: Joshua Sall
File: 13-0104.DWG	Approved By: Steve Owen

• DIBRATUDES •	• BEST TITLE •
TRAFFIC CALMING	TRAFFIC CALMING
MIN. STREET LENGTH	MIN. STREET LENGTH

• STANDARD ENGINEERING CO. •
TS-1121