

2021 GRANVILLE COUNTY RESURFACING



Winding Oak Rd.

Sterl Carrington Rd.

Winfield Dr.

Country Ln.

Smithwood Dr.

Horner Siding Rd.

1.9

1517

.8

1518

1.5

1515

1423

1536

.3

2.9

1422

1515

.20

.52

1462

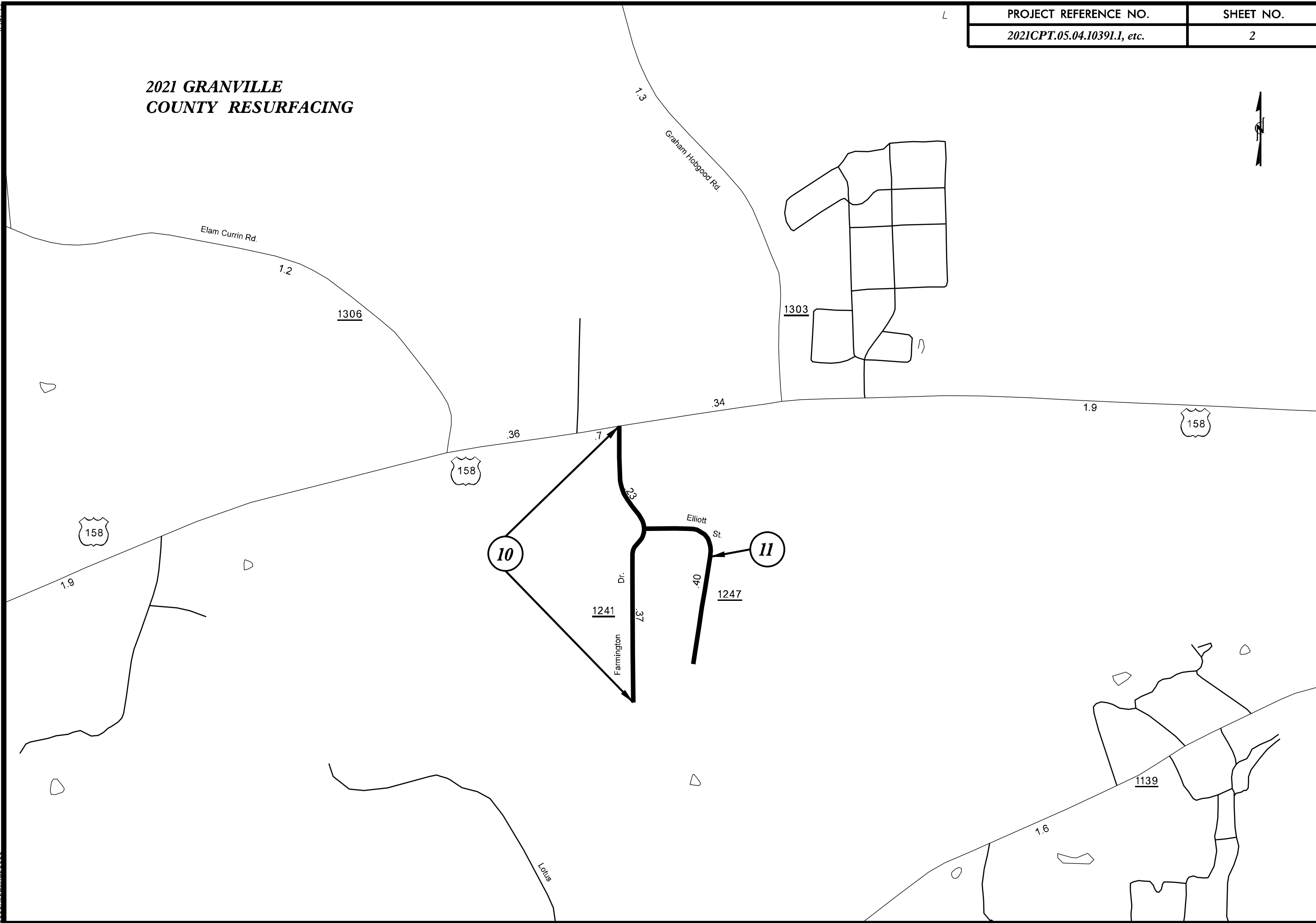
1453

5/14/99

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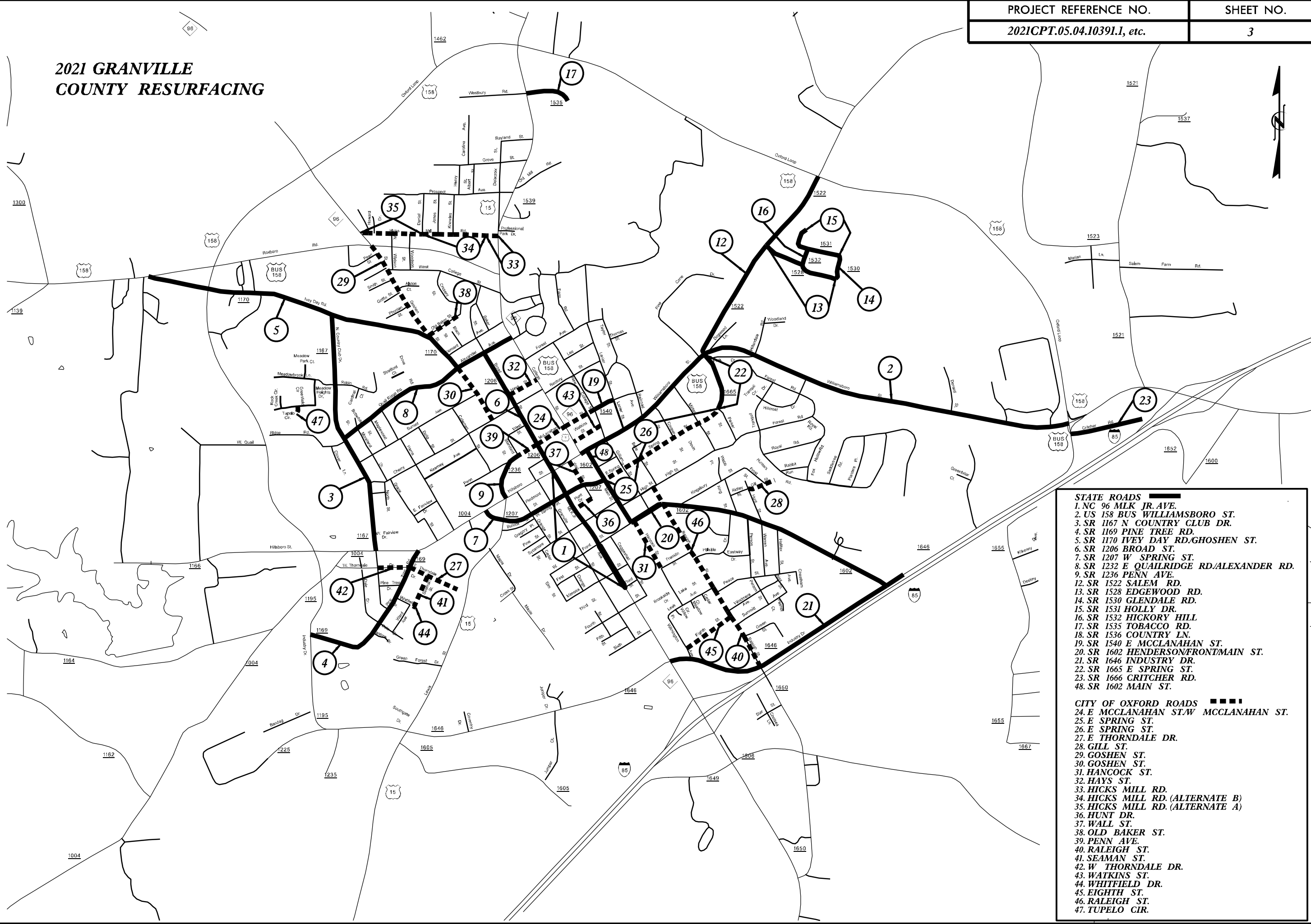


2021 GRANVILLE
COUNTY RESURFACING



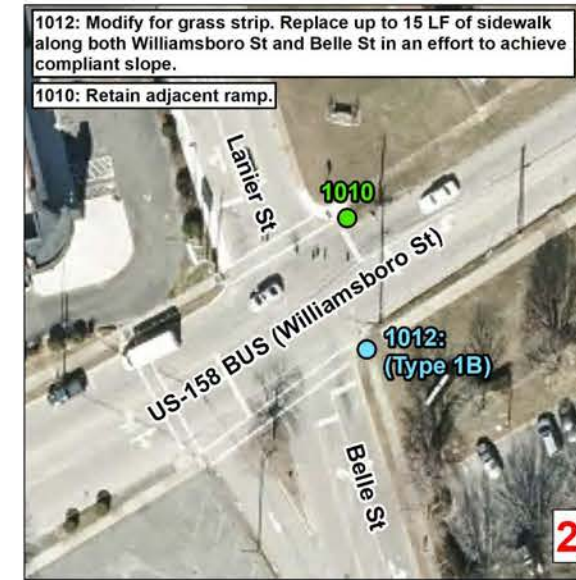
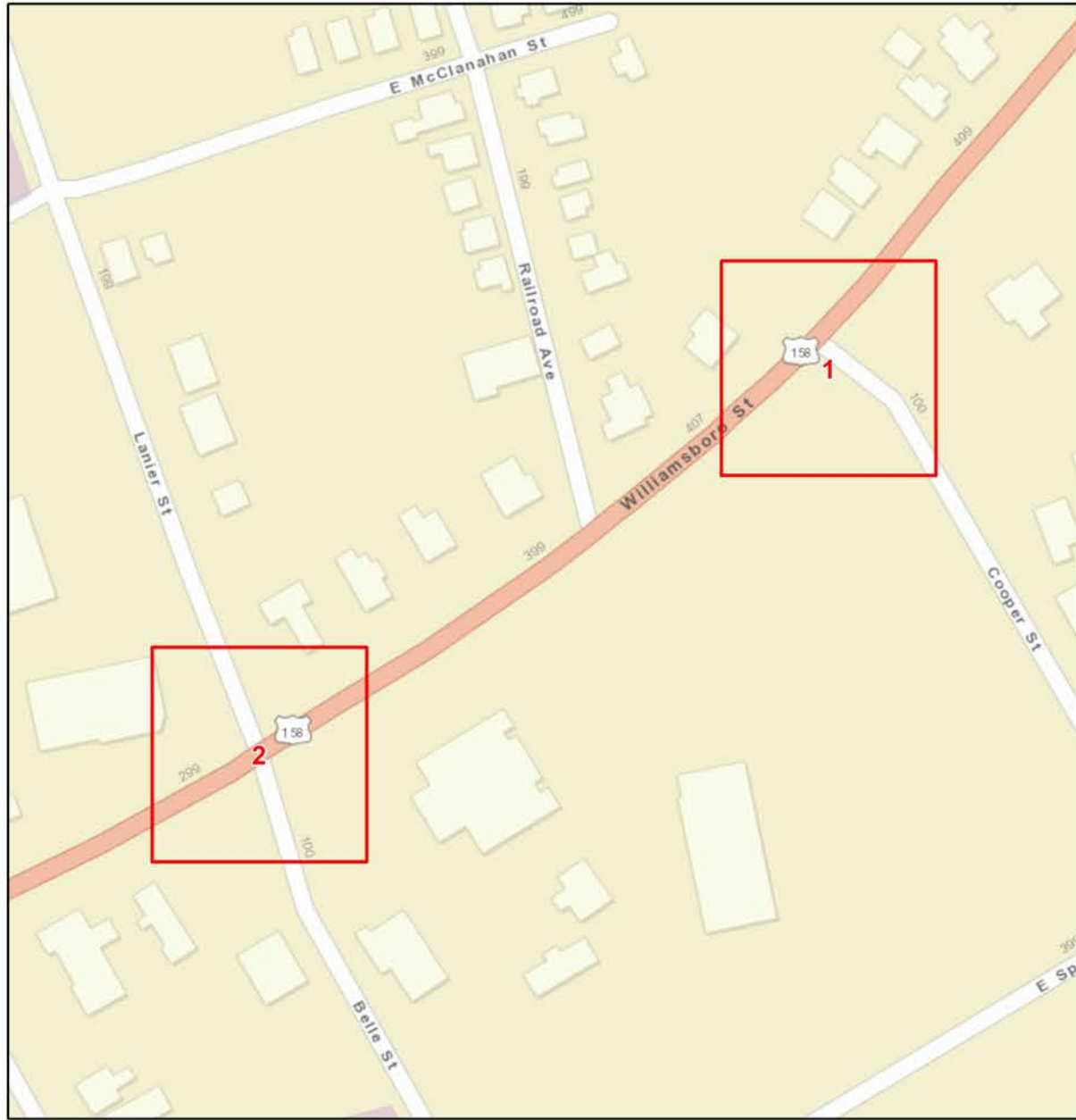
5/14/2021
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2021 GRANVILLE COUNTY RESURFACING



- STATE ROADS** ■■■■
1. NC 96 MLK JR. AVE.
 2. US 158 BUS WILLIAMSBORO ST.
 3. SR 1167 N COUNTRY CLUB DR.
 4. SR 1169 PINE TREE RD.
 5. SR 1170 IVEY DAY RD./GHOSHEN ST.
 6. SR 1206 BROAD ST.
 7. SR 1207 W SPRING ST.
 8. SR 1232 E QUAILRIDGE RD./ALEXANDER RD.
 9. SR 1236 PENN AVE.
 12. SR 1522 SALEM RD.
 13. SR 1528 EDGEWOOD RD.
 14. SR 1530 GLENDALE RD.
 15. SR 1531 HOLLY DR.
 16. SR 1532 HICKORY HILL
 17. SR 1535 TOBACCO RD.
 18. SR 1536 COUNTRY LN.
 19. SR 1540 E MCCLANAHAN ST.
 20. SR 1602 HENDERSONFRONT/MAIN ST.
 21. SR 1646 INDUSTRY DR.
 22. SR 1665 E SPRING ST.
 23. SR 1666 CRITCHER RD.
 48. SR 1602 MAIN ST.
- CITY OF OXFORD ROADS** ■■■■
24. E MCCLANAHAN ST/W MCCLANAHAN ST.
 25. E SPRING ST.
 26. E SPRING ST.
 27. E THORNDALE DR.
 28. GILL ST.
 29. GOSHEN ST.
 30. GOSHEN ST.
 31. HANCOCK ST.
 32. HAYS ST.
 33. HICKS MILL RD.
 34. HICKS MILL RD. (ALTERNATE B)
 35. HICKS MILL RD. (ALTERNATE A)
 36. HUNT DR.
 37. WALL ST.
 38. OLD BAKER ST.
 39. PENN AVE.
 40. RALEIGH ST.
 41. SEAMAN ST.
 42. W THORNDALE DR.
 43. WATKINS ST.
 44. WHITFIELD DR.
 45. EIGHTH ST.
 46. RALEIGH ST.
 47. TUPELO CIR.


5/14/20 11:58 AM
 GRANVILLE COUNTY GIS
 2021 GRANVILLE COUNTY RESURFACING



Curb Ramps To Be Repaired


- Retrofit
- Remove and Replace
- New Curb Ramp
- Remove Ramp

Municipal Boundary
 NCHPO Historic Boundary (NR and LHD)

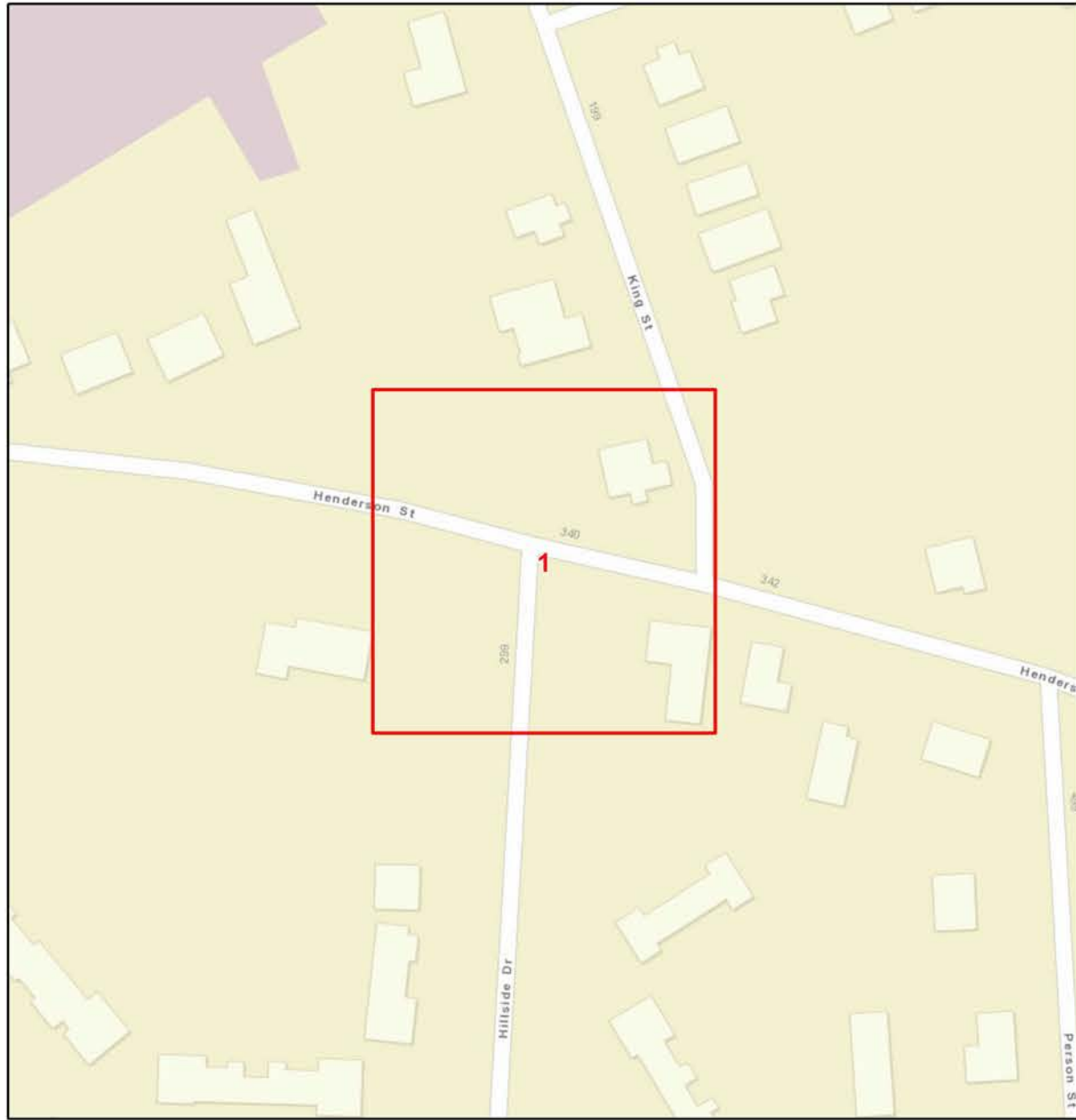


2021 Granville
WBS: 2021CPT.05.04.10391.1

US 158
From College St To Oxford Loop

 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION 5


Source: NV5 Engineers and Consultants Inc., ESRI, NC OneMap, NCDOT, NCHPO



Curb Ramps To Be Repaired


- Retrofit
- Remove and Replace
- New Curb Ramp
- Remove Ramp

Municipal Boundary
 NCHPO Historic Boundary (NR and LHD)



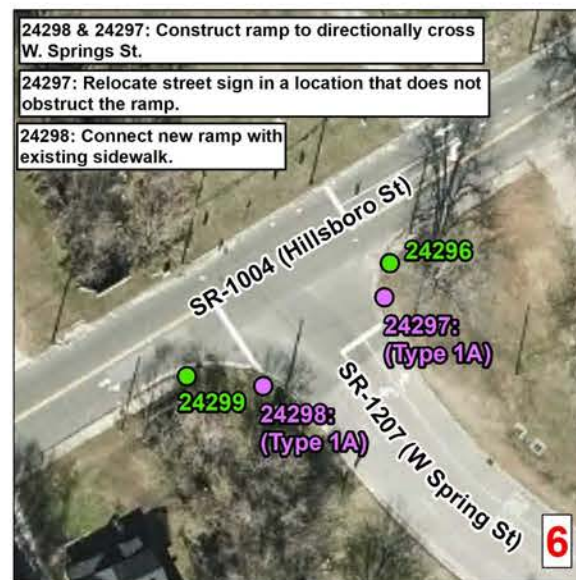
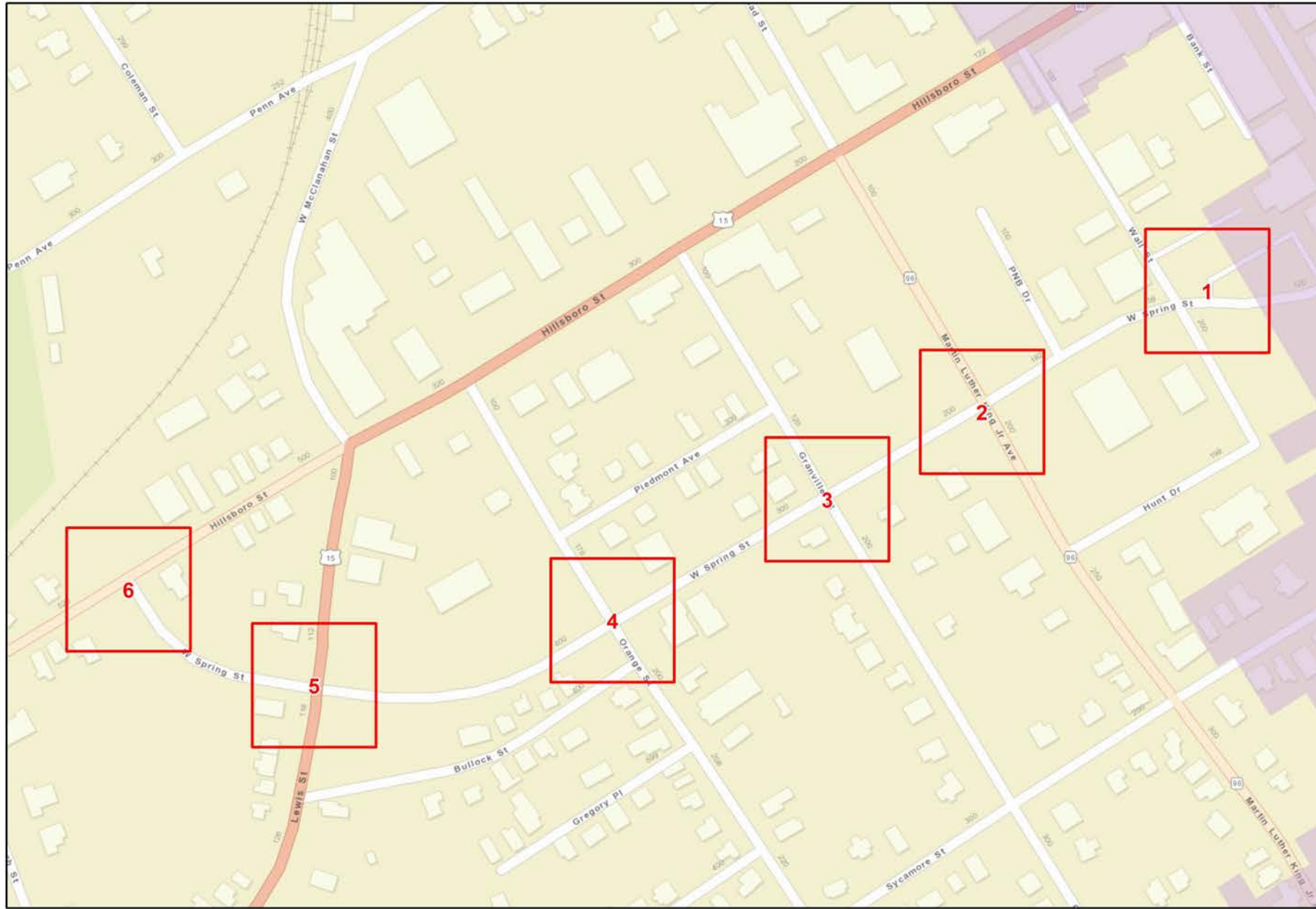
2021 Granville
WBS: 2021CPT.05.04.20391.1

Main St/E Front St/Henderson St
From SR 1646 To US 158 BUS



NORTH CAROLINA DEPARTMENT
OF TRANSPORTATION
DIVISION 5

Source: NV5 Engineers and Consultants Inc., ESRI, NC OneMap, NCDOT, NCHPO



Curb Ramps To Be Repaired

- Retrofit
- Remove and Replace
- New Curb Ramp
- Remove Ramp

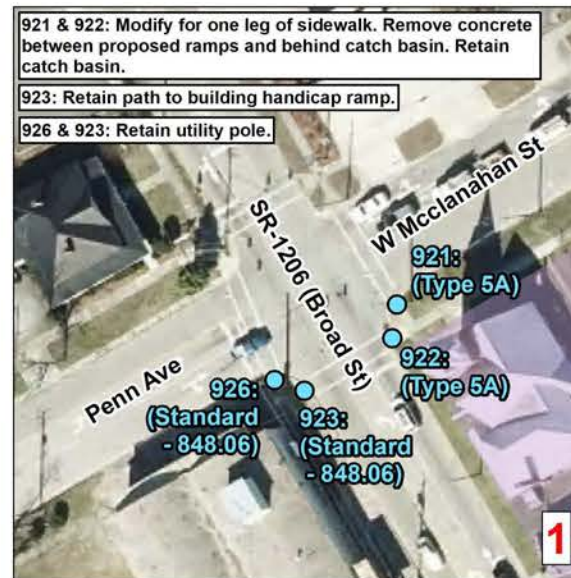
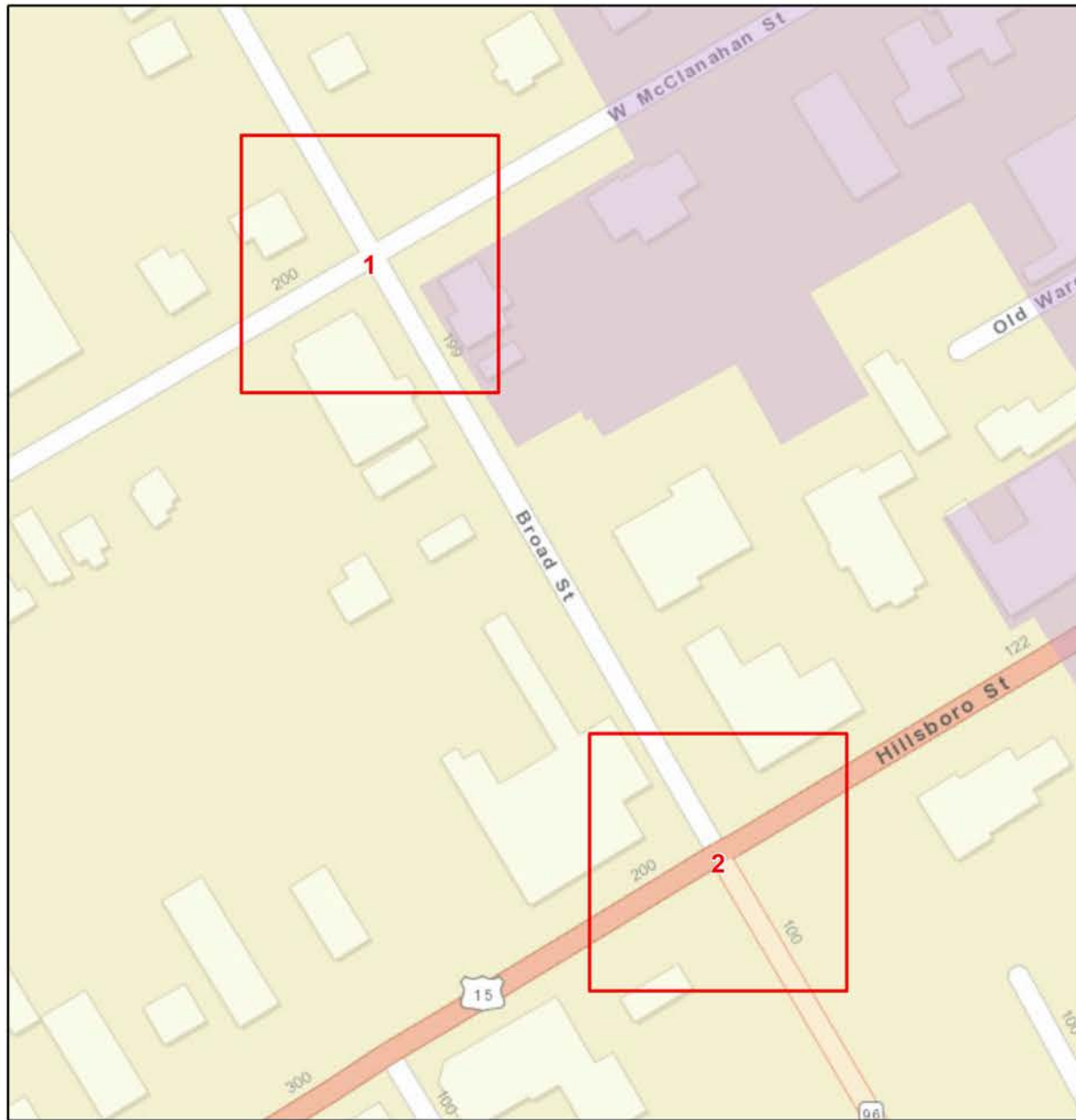
▭ Municipal Boundary
▭ NCHPO Historic Boundary (NR and LHD)

2021 Granville
WBS: 2021CPT.05.04.20391.1

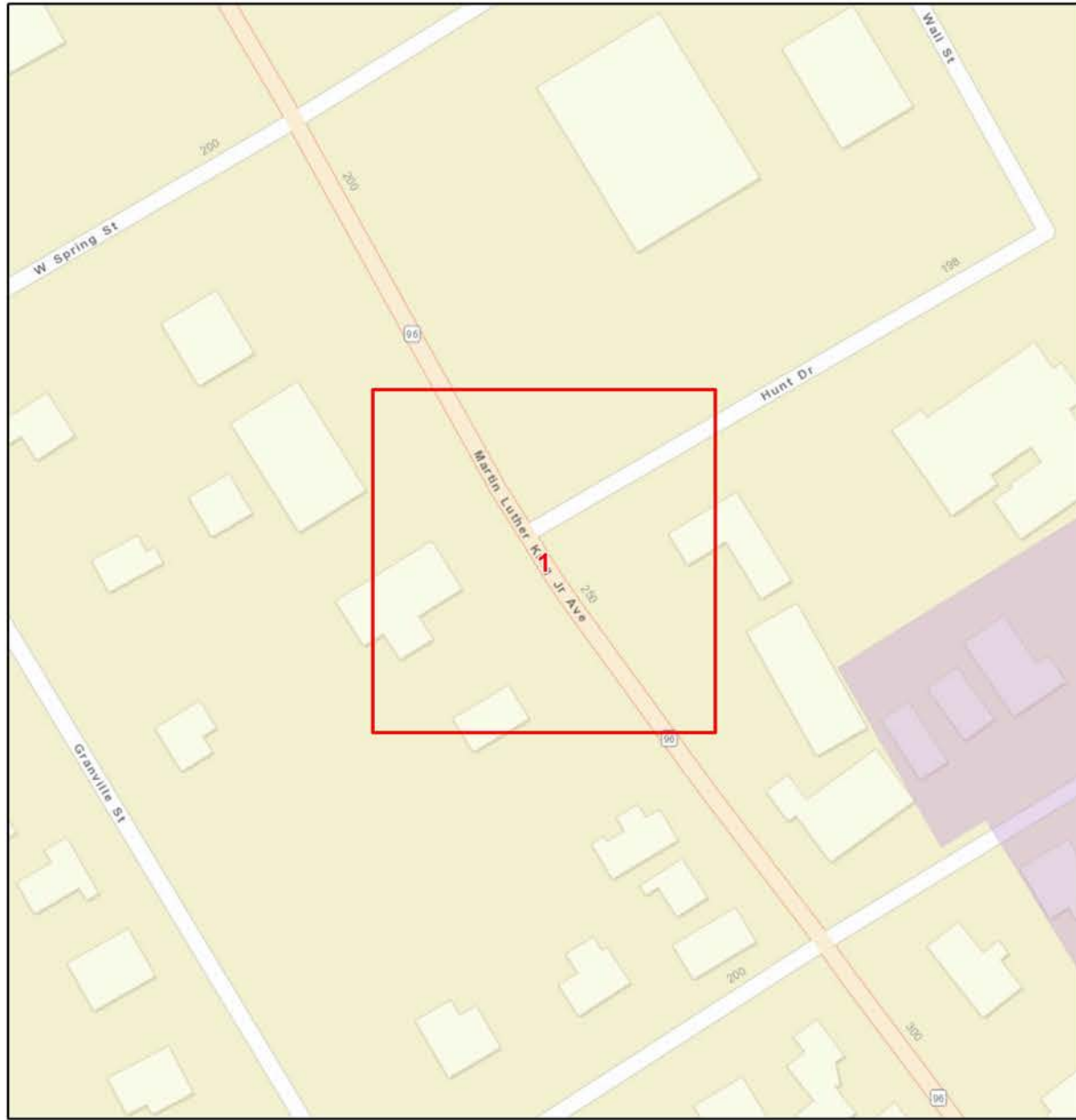
W Spring St
From SR 1602 To SR 1004

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION 5

Source: NV5 Engineers and Consultants Inc., ESRI, NC OneMap, NCDOT, NCHPO




Curb Ramps To Be Repaired		
	Retrofit	
	Remove and Replace	
	New Curb Ramp	
	Remove Ramp	
	Municipal Boundary	
	NCHPO Historic Boundary (NR and LHD)	
2021 Granville		
WBS: 2021CPT.05.04.20391.1		
Broad St		
From US 15 To SR 1232		
	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION 5	
Source: NV5 Engineers and Consultants Inc., ESRI, NC OneMap, NCDOT, NCHPO		



Curb Ramps To Be Repaired


- Retrofit
- Remove and Replace
- New Curb Ramp
- Remove Ramp

Municipal Boundary
 NCHPO Historic Boundary (NR and LHD)

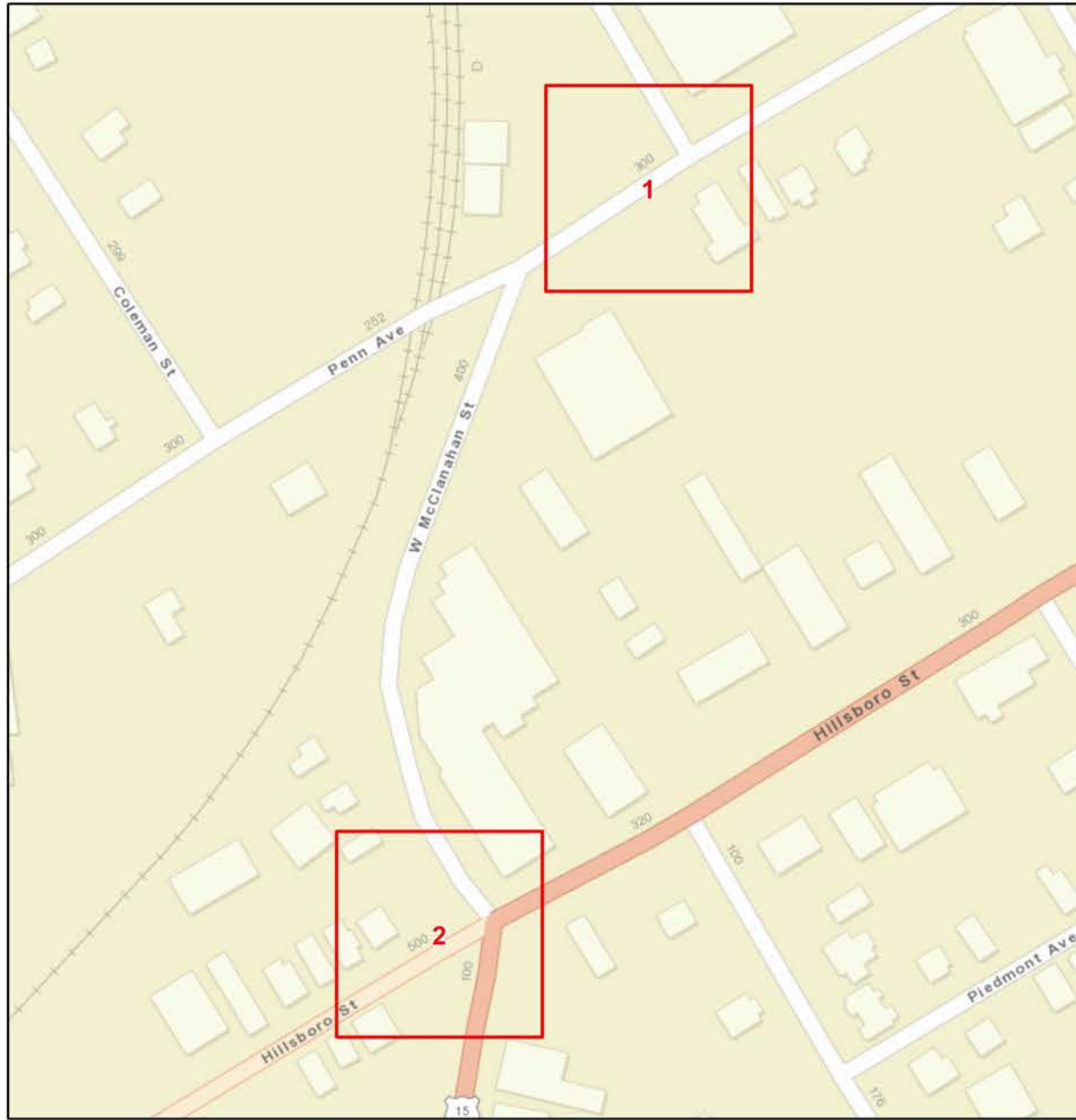


2021 Granville
WBS: 2021CPT.05.04.10391.1

NC 96
From 3rd St pvt jt To US 15

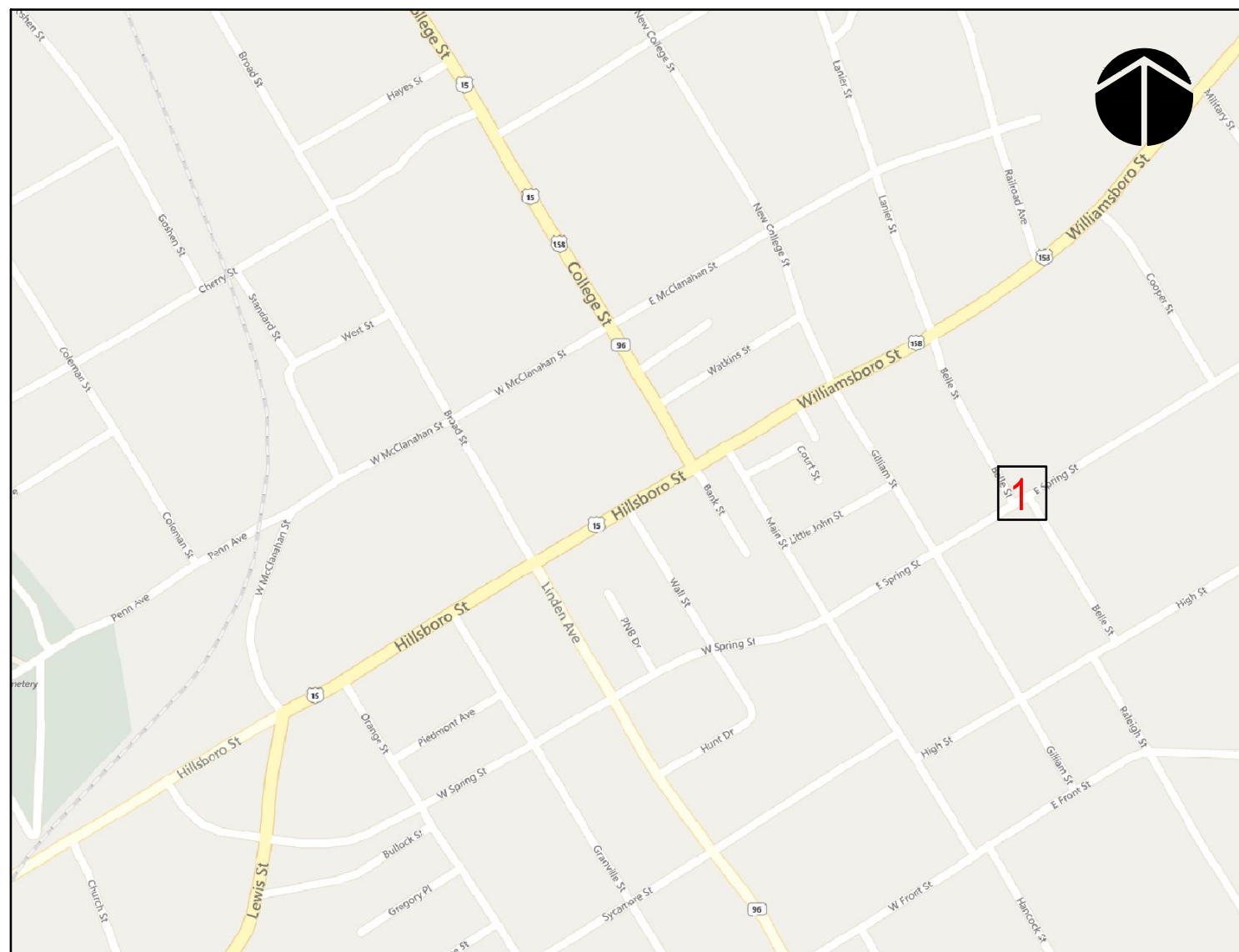

 NORTH CAROLINA DEPARTMENT
 OF TRANSPORTATION
 DIVISION 5

Source: NV5 Engineers and Consultants Inc., ESRI, NC OneMap, NCDOT, NCHPO






985: Shift opening of ramp around radius, closer to street sign to align properly with receiving ramp. Retain Street sign.

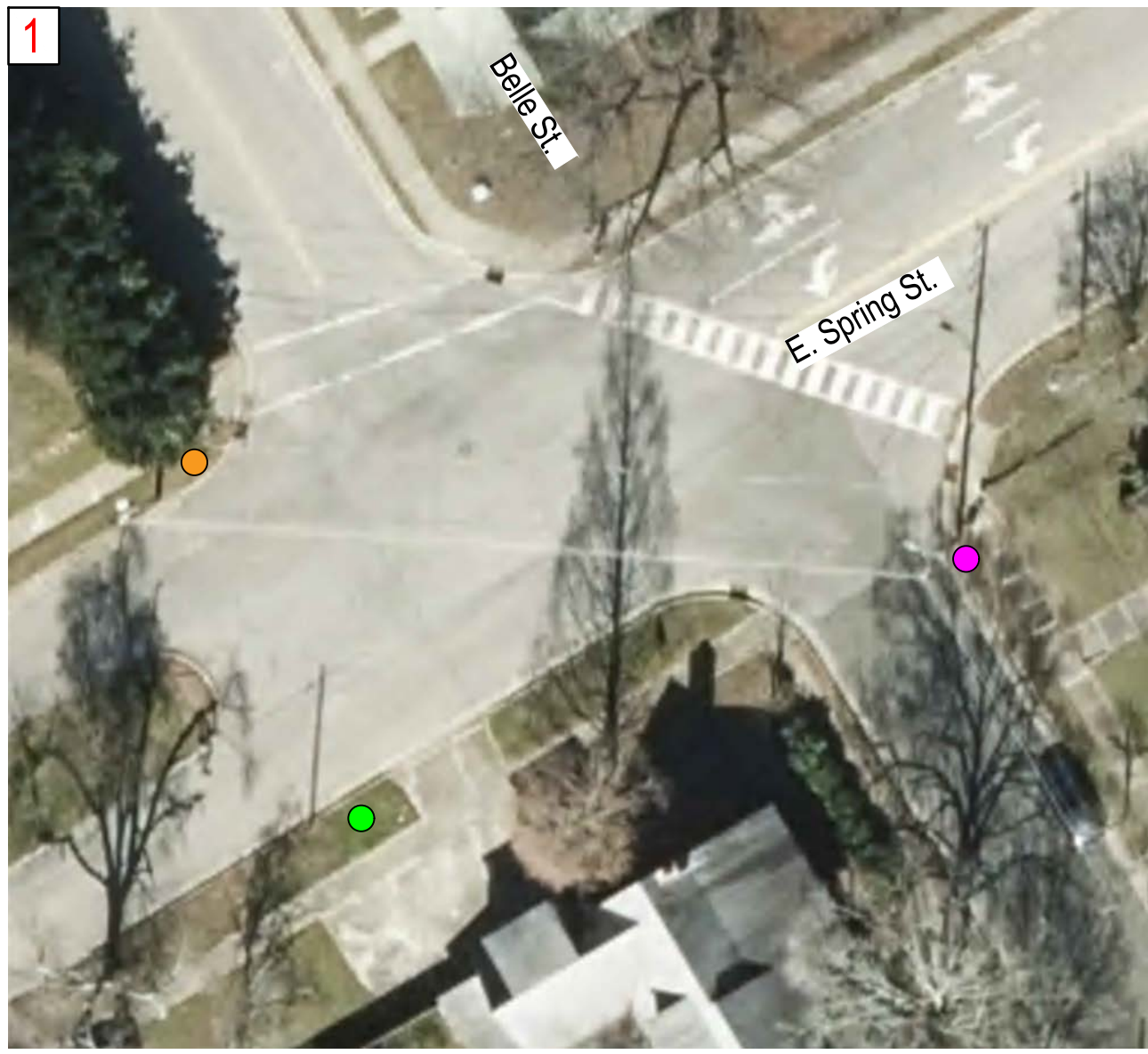
Curb Ramps To Be Repaired		
	Retrofit	
	Remove and Replace	
	New Curb Ramp	
	Remove Ramp	
	Municipal Boundary	
	NCHPO Historic Boundary (NR and LHD)	
2021 Granville		
WBS: 2021CPT.05.04.20391.1		
Penn Ave		
From US 15 To Standard St		
	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION 5	
<small>Source: NV5 Engineers and Consultants Inc., ESRI, NC OneMap, NCDOT, NCHPO</small>		



Inset	Route 1	Route 2
1	E. Spring St.	Belle St.

LEGEND

 New Curb Ramp NCDOT Type 1B with Utility Strip between B.O.C and Sidewalk	 New Curb Ramp NCDOT Type 5 Modified
 New Curb Ramp NCDOT Type 3	



Sheet No. 1	WithersRavenel Engineers Planners Surveyors 115 MackKanan Drive Cary, NC 27511 t: 919.469.3340 www.withersravenel.com				
CURB RAMP CANDIDATE SITES					
POWELL BILL STREET REPAIR NORTH CAROLINA					
No.	Revision	Date	By	Scale	N/S
			Designer	Scale	N/S
			Drawn By	01.27.21	
			Checked By	021.50346.10	

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PAVEMENT SCHEDULE

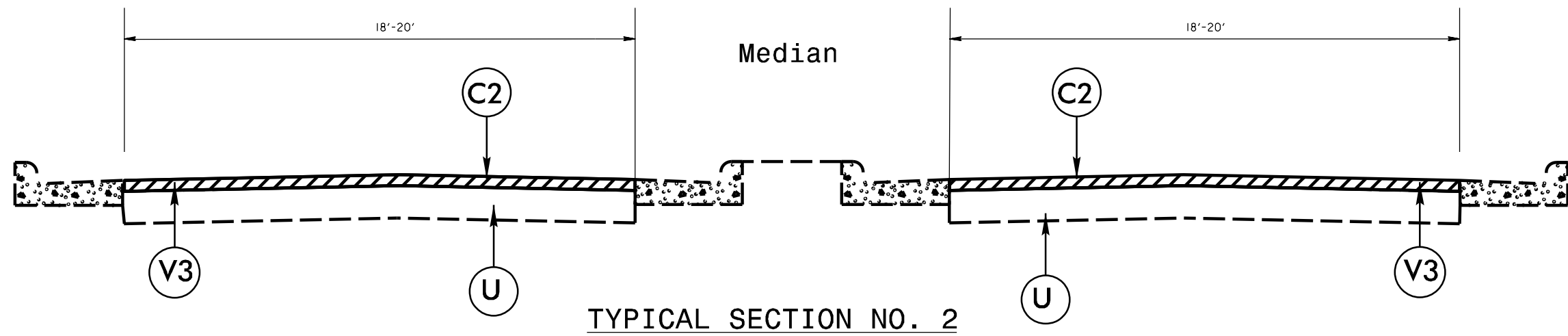
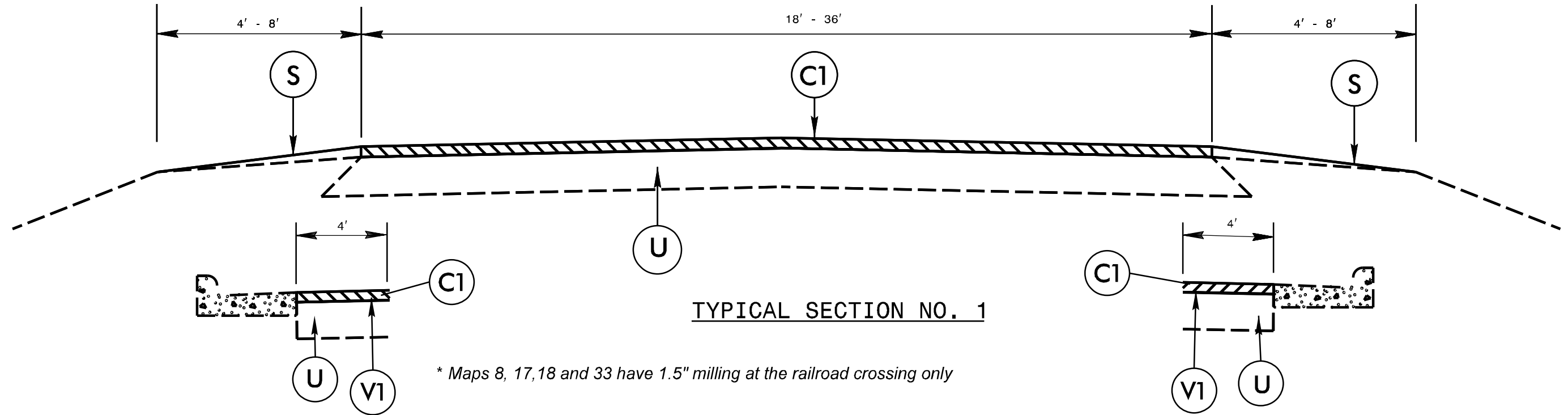
PROJECT REFERENCE NO.

SHEET NO.

2021CPT.05.04.10391.1, etc.

11

		U	EXISTING PAVEMENT
C1	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.	V1	0"-1½" MILLING
C2	3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.	V2	1½" MILLING
S	SHOULDER GRADING ASB REQUIRED (EXCEPT AT RESIDENTIAL AREAS)	V3	1½"-3" MILLING



PAVEMENT SCHEDULE

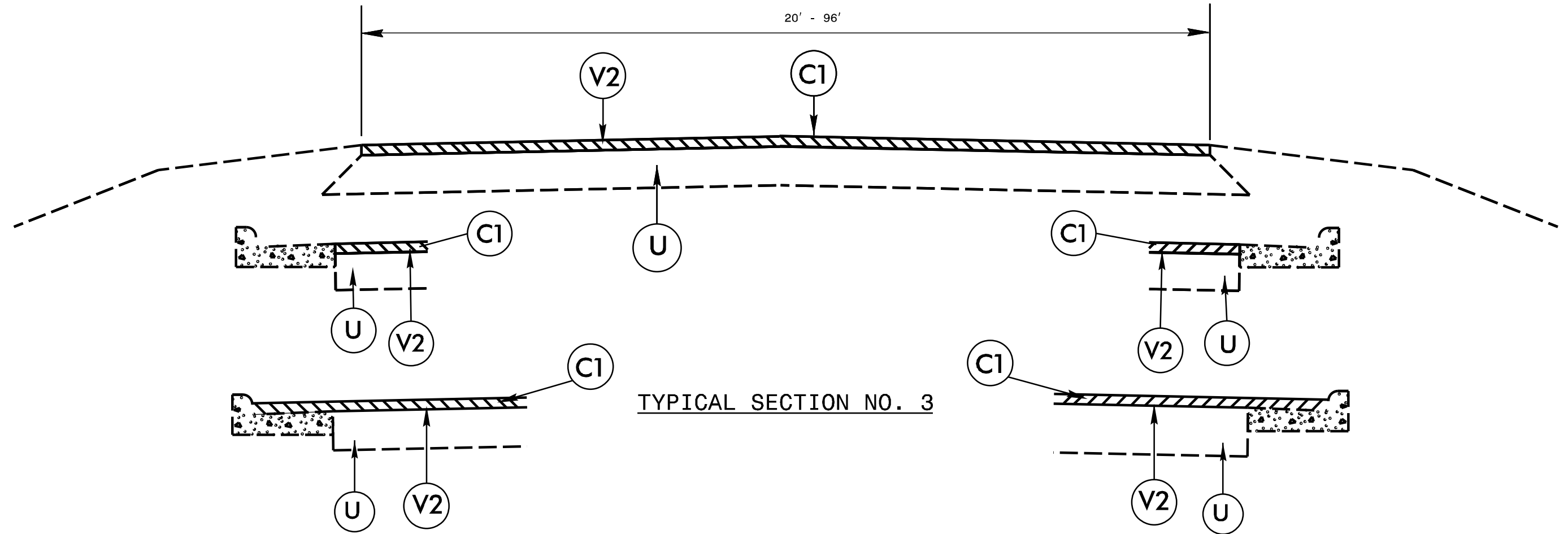
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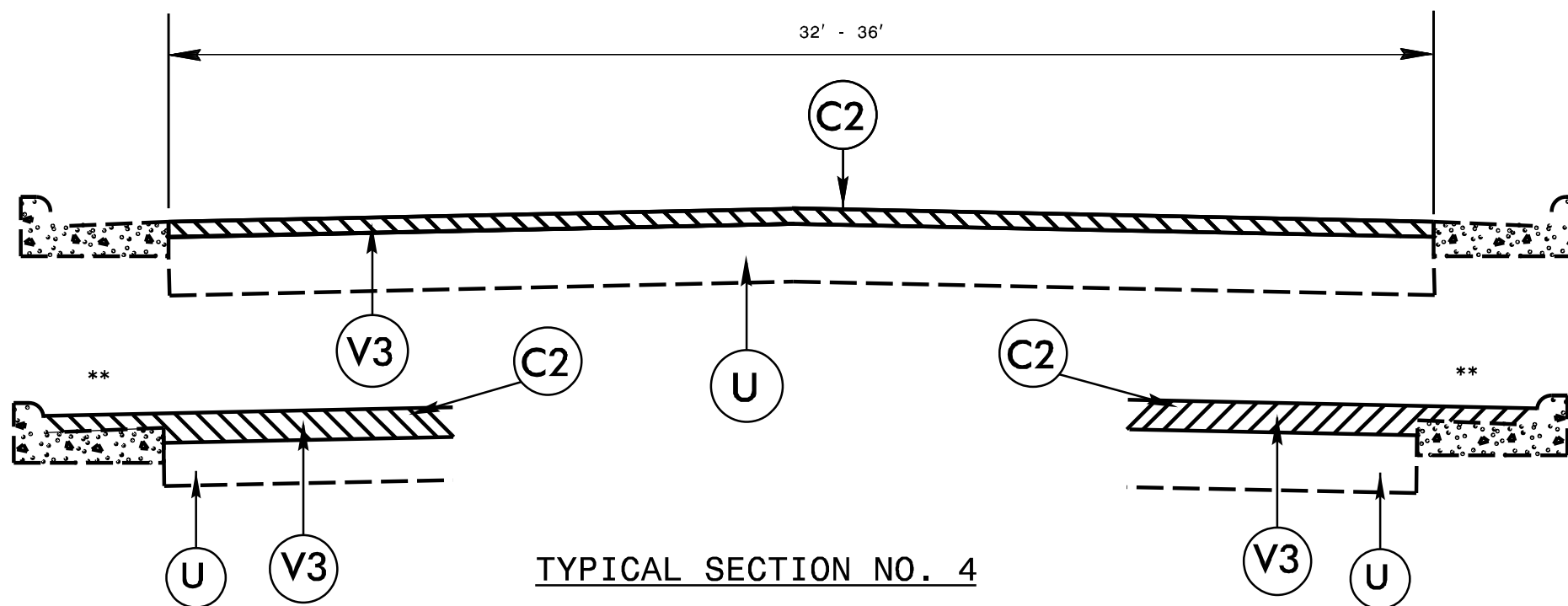
2021CPT.05.04.10391.1, etc.

12

	U	EXISTING PAVEMENT
C1	V1	0"-1½" MILLING
C2	V2	1½" MILLING
S	V3	1½"-3" MILLING



TYPICAL SECTION NO. 3



TYPICAL SECTION NO. 4

** CONTRACTOR SHALL BE RESPONSIBLE FOR MILLING 1.5" AND REPLACING EXISTING ASPHALT IN GUTTER SO THAT THE ELEVATION DOES NOT INCREASE

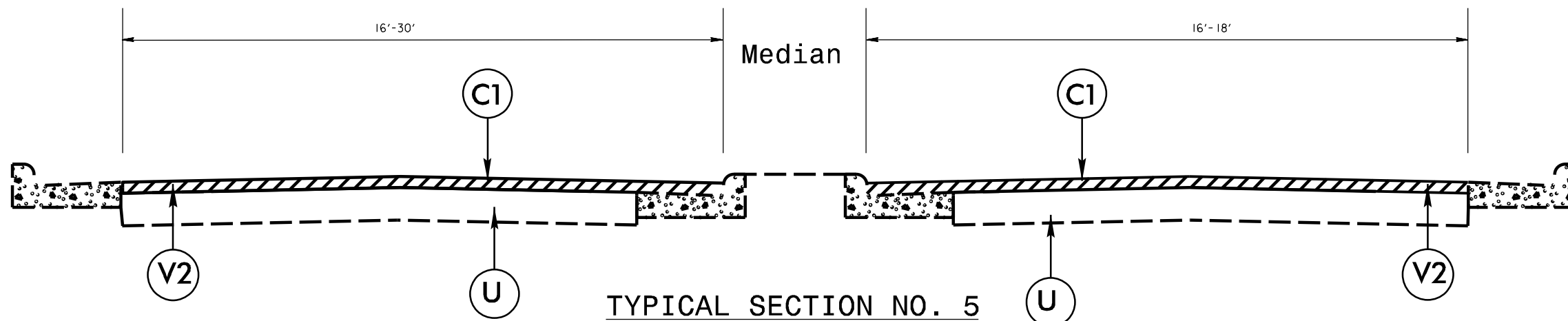
** CONTRACTOR SHALL BE RESPONSIBLE FOR MILLING 1.5" AND REPLACING EXISTING ASPHALT IN GUTTER SO THAT THE ELEVATION DOES NOT INCREASE

PAVEMENT SCHEDULE

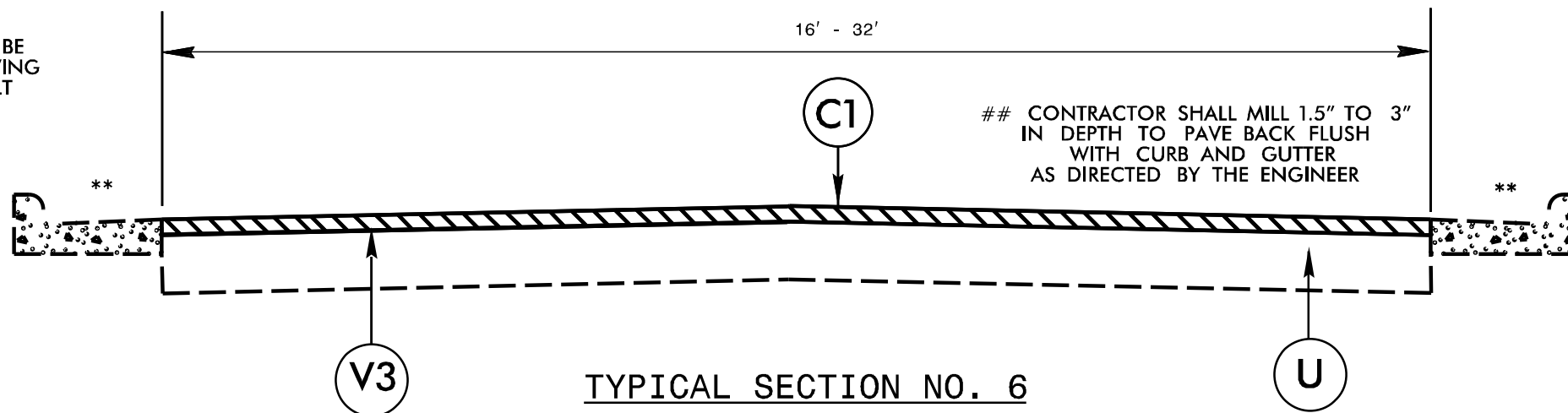
PROJECT REFERENCE NO.
2021CPT.05.04.10391.1, etc.

SHEET NO.
13

		U	EXISTING PAVEMENT
C1	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.	V1	0"-1½" MILLING
C2	3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.	V2	1½" MILLING
S	SHOULDER GRADING ASB REQUIRED (EXCEPT AT RESIDENTIAL AREAS)	V3	1½"-3" MILLING

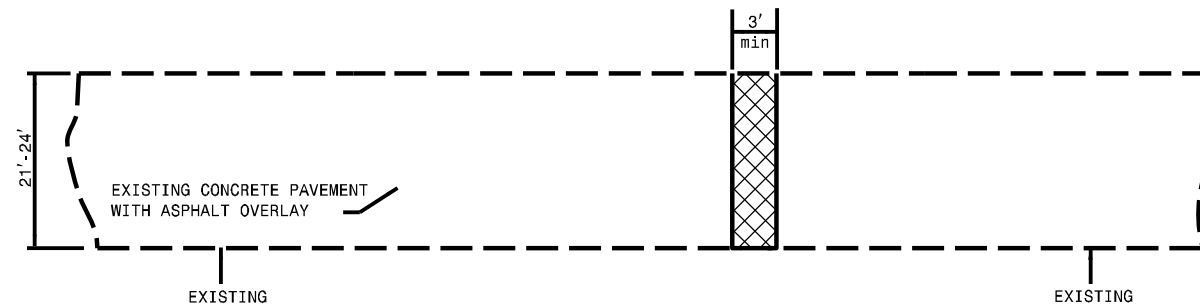


** CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ANY EXISTING ASPAHLT IN GUTTER



CONTRACTOR SHALL MILL 1.5" TO 3" IN DEPTH TO PAVE BACK FLUSH WITH CURB AND GUTTER AS DIRECTED BY THE ENGINEER

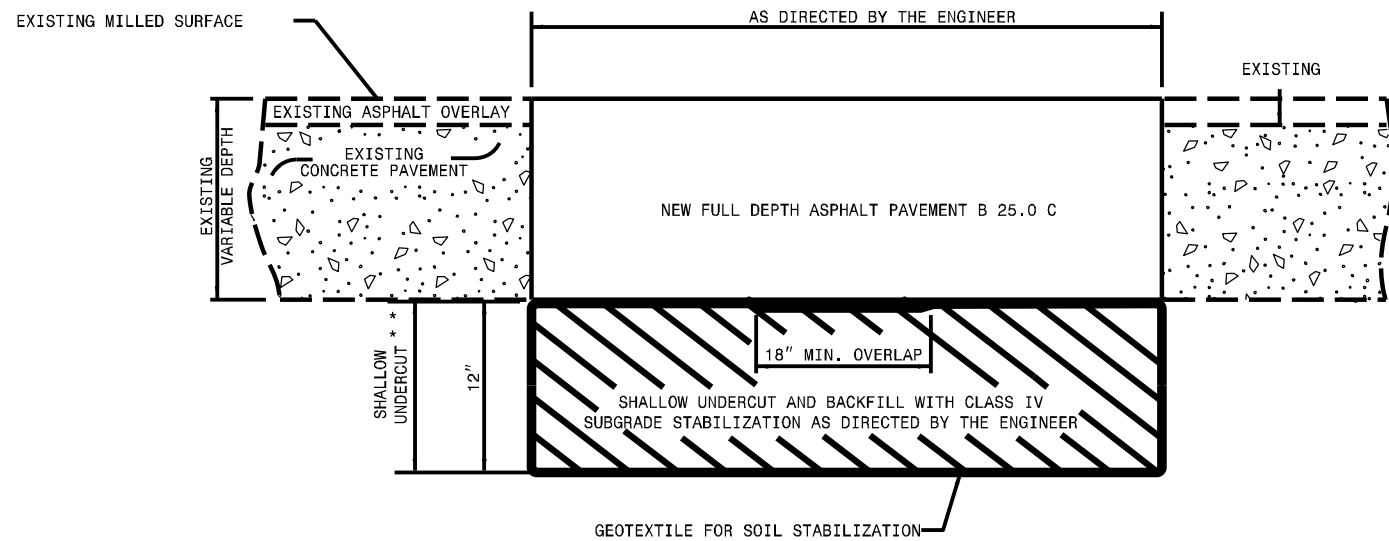
** CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ANY EXISTING ASPAHLT IN GUTTER



TOP VIEW OF EXISTING CONCRETE SLAB REPAIR
TO BE PERFORMED AFTER MILLING OPERATION, AS DIRECTED BY THE ENGINEER

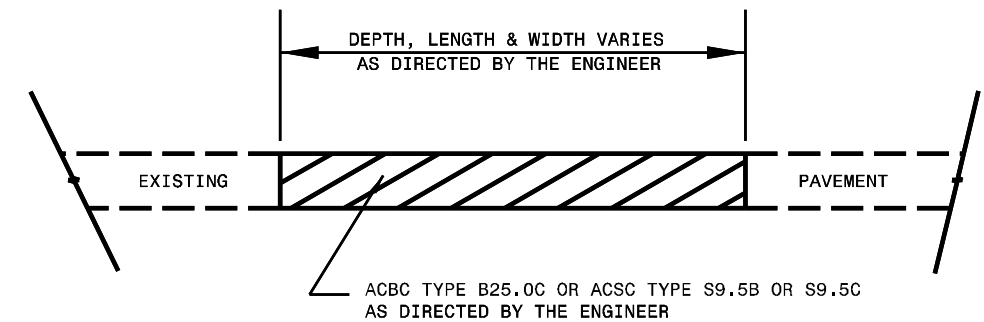
NOTES

ALL UNPAVED S.R. ROADS TO BE RESURFACED 50' FROM EDGE OF PAVEMENT OF MAIN PROJECT
ALL PAVED S.R. ROADS TO BE RESURFACED TO THE ENDS OF THE RADII, OR AS DIRECTED BY THE ENGINEER.
EDGES, PAVEMENT WIDENING, INTERSECTIONS AND BRIDGE FLARES ARE INCLUDED IN THE TABLE OF QUANTITIES.
BRIDGES TO BE RESURFACED AT LOCATIONS AND TO DEPTH AS DIRECTED BY THE ENGINEER.

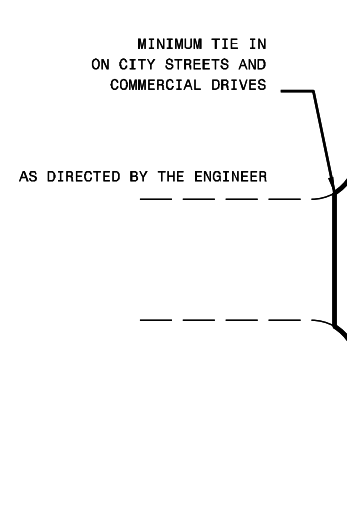
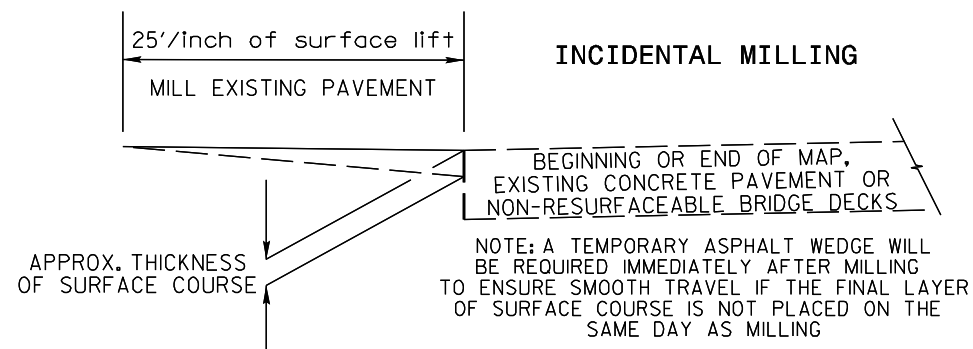


CROSS SECTION OF EXISTING CONCRETE SLAB REPAIR AFTER MILLING

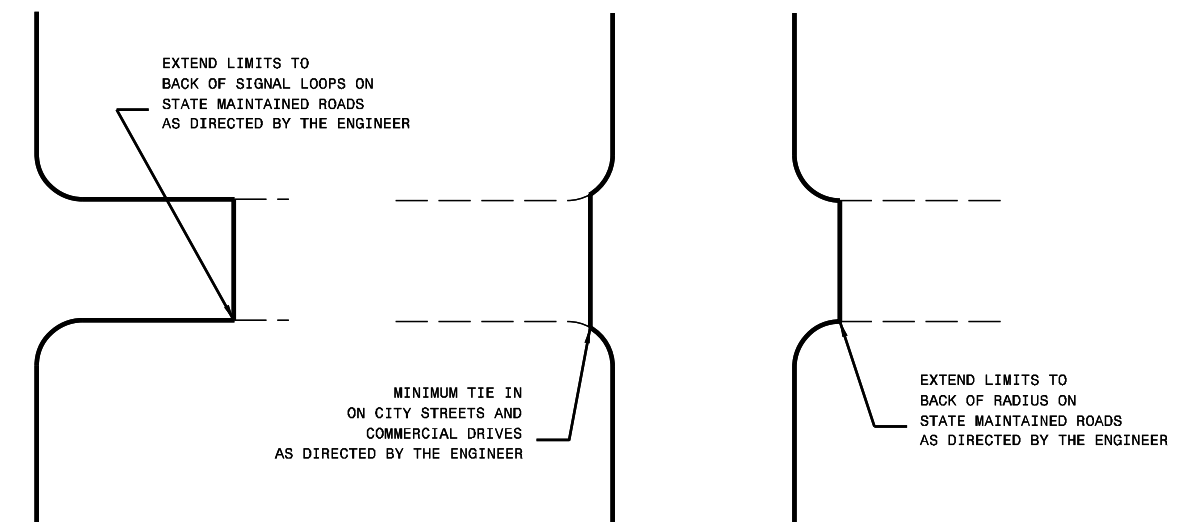
- * DIMENSIONS ARE APPROXIMATE AND SHOULD BE FIELD VERIFIED
- ** SHALLOW UNDERCUT REQUIRED IN AREAS AS DIRECTED BY THE ENGINEER



PATCHING EXISTING PAVEMENT
MILLING TO BE PERFORMED PRIOR TO PATCHING



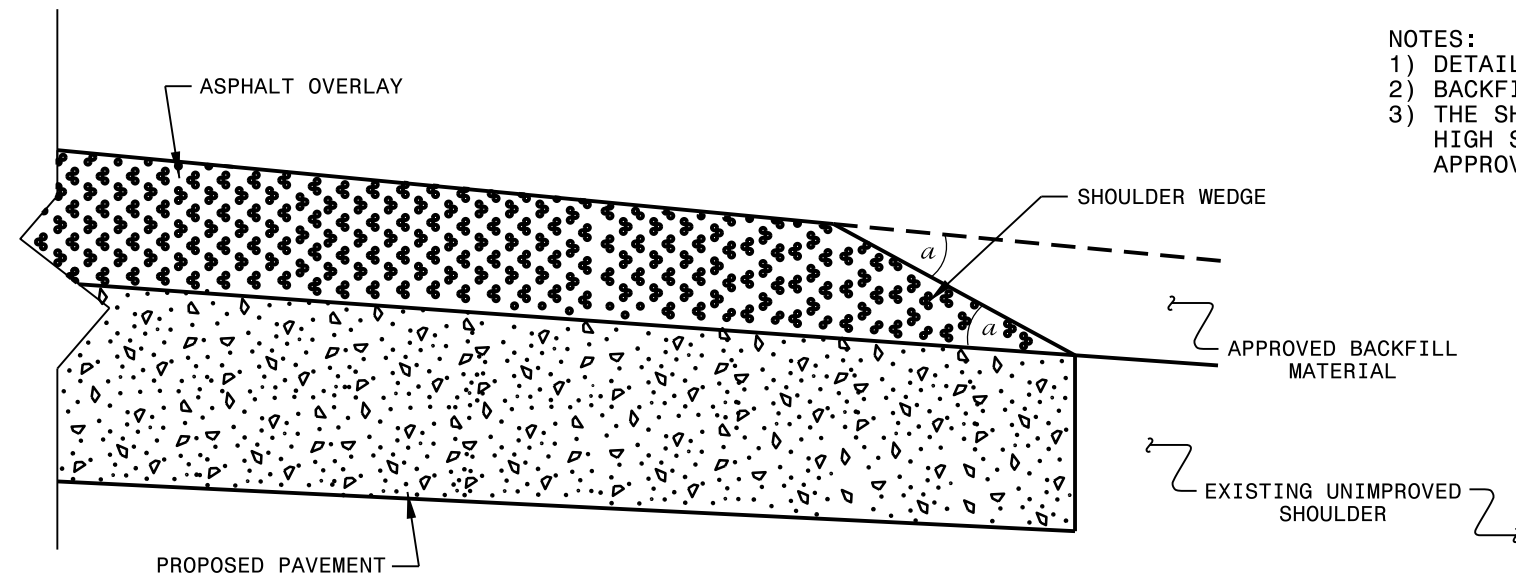
DETAIL OF PROJECT LIMITS AT SIGNALIZED Y LINES



DETAIL OF PROJECT LIMITS AT UNSIGNALIZED Y LINES

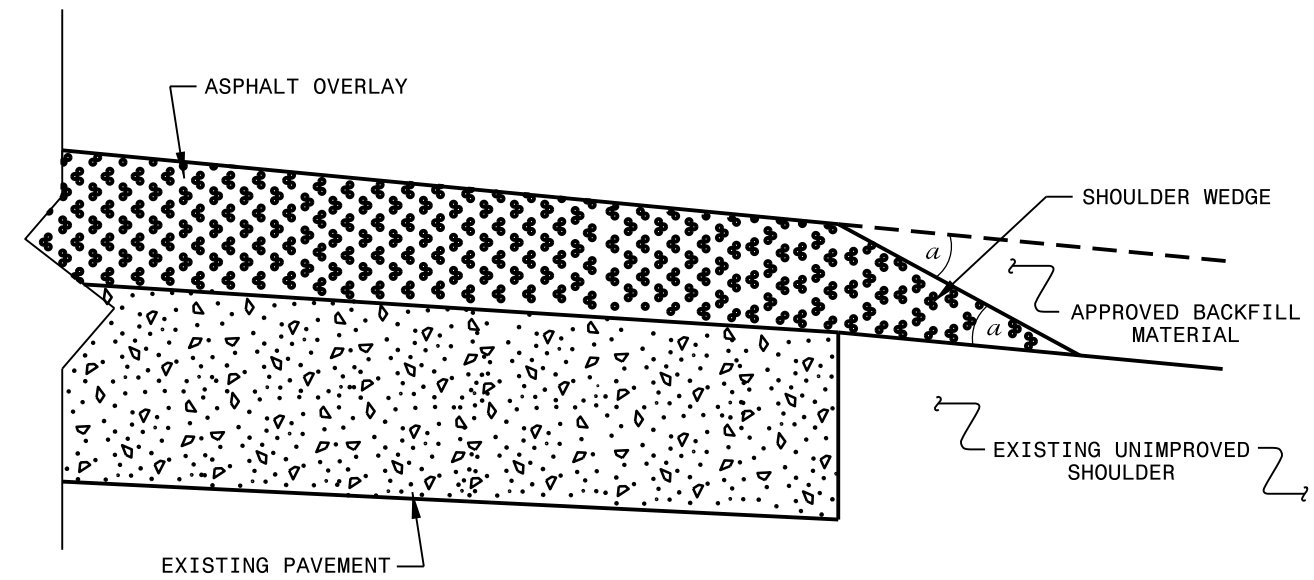
NOTES:

- 1) DETAIL DOES NOT APPLY TO OGAFB AND ULTRA-THIN BONDED WEARING COURSE.
- 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
- 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS, SIDE STREETS, HIGH SHOULDERS, AND OTHER LOCATIONS NOT FEASIBLE TO CONSTRUCT AS APPROVED BY THE ENGINEER.



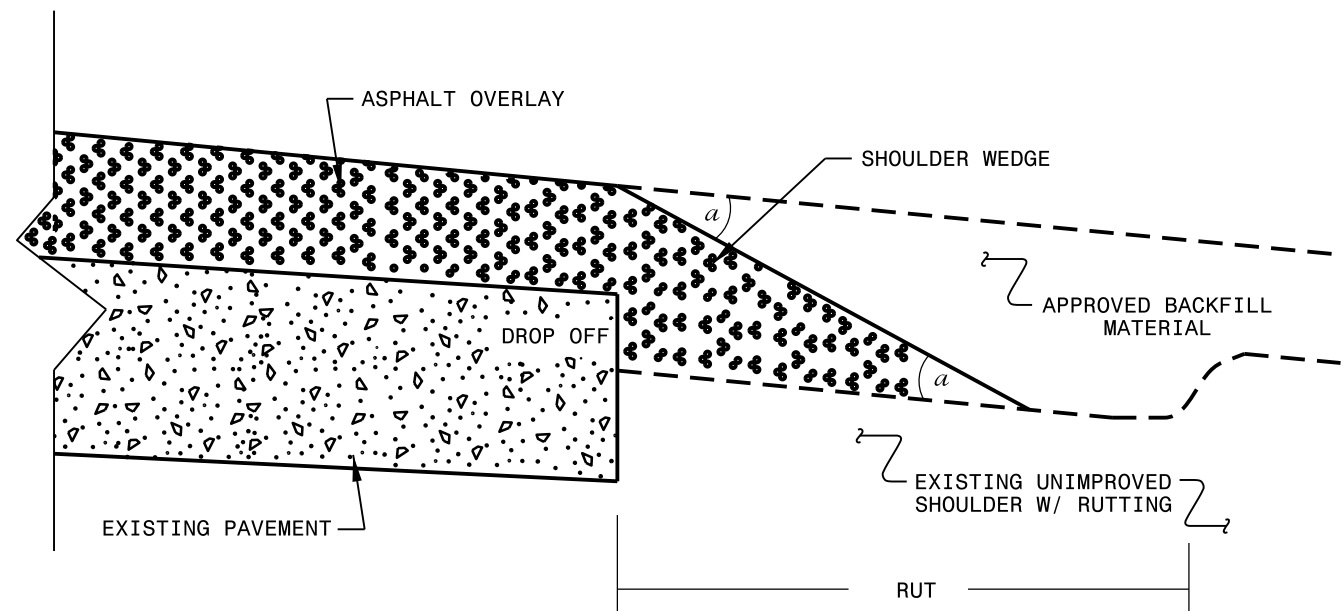
SHOULDER WEDGE DETAIL

(Resurfacing Projects w/ Widening or with Existing Paved Shoulder having no dropoffs)



SHOULDER WEDGE DETAIL

(Resurfacing Projects w/ NO Widening)



SHOULDER WEDGE DETAIL

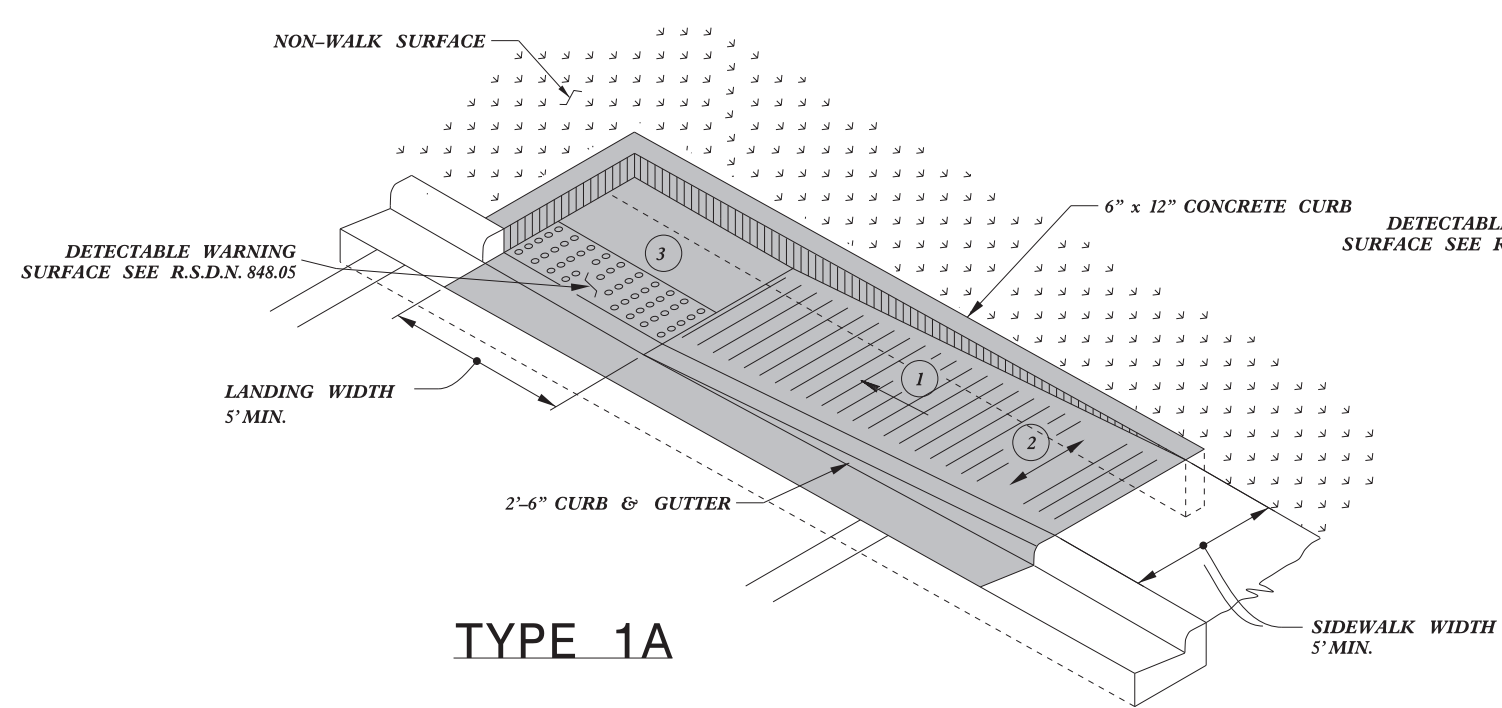
(Resurfacing Adjacent to Rutted Shoulder)

- SHOULDER WEDGE ANGLE = 30°

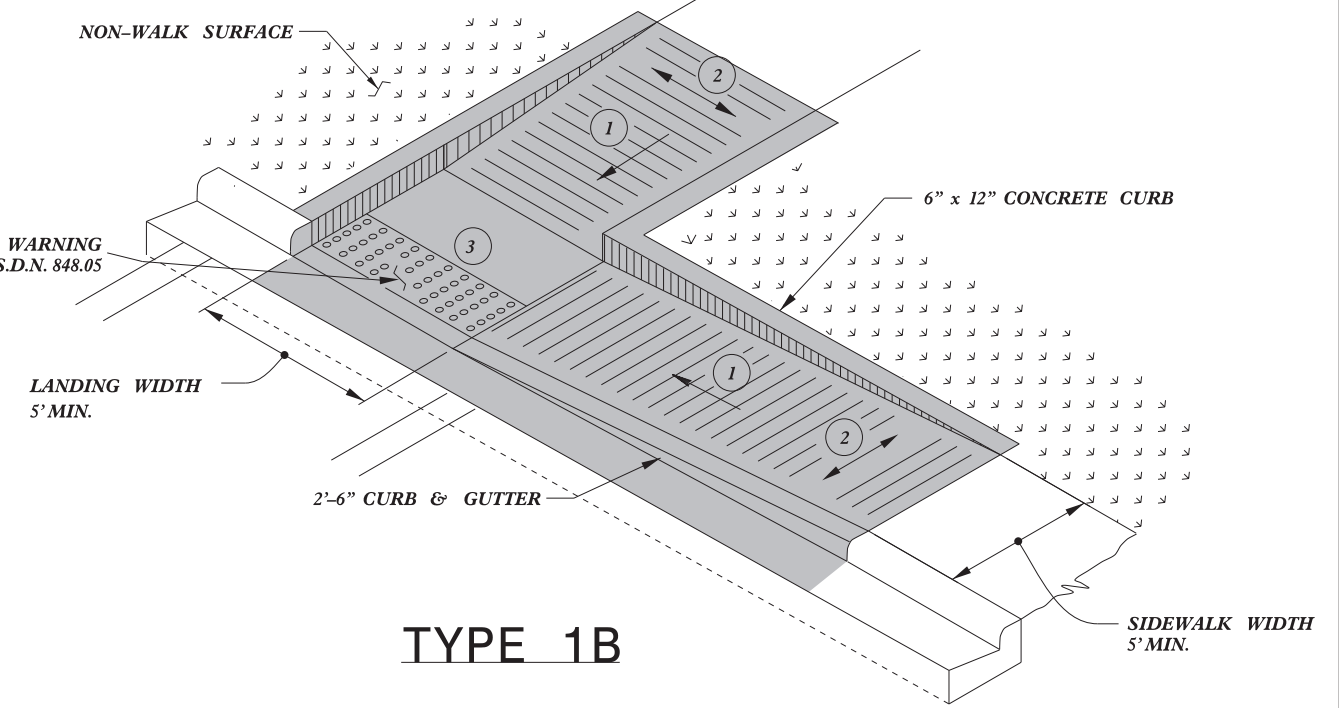
CONTRACT STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

SHOULDER WEDGE DETAILS

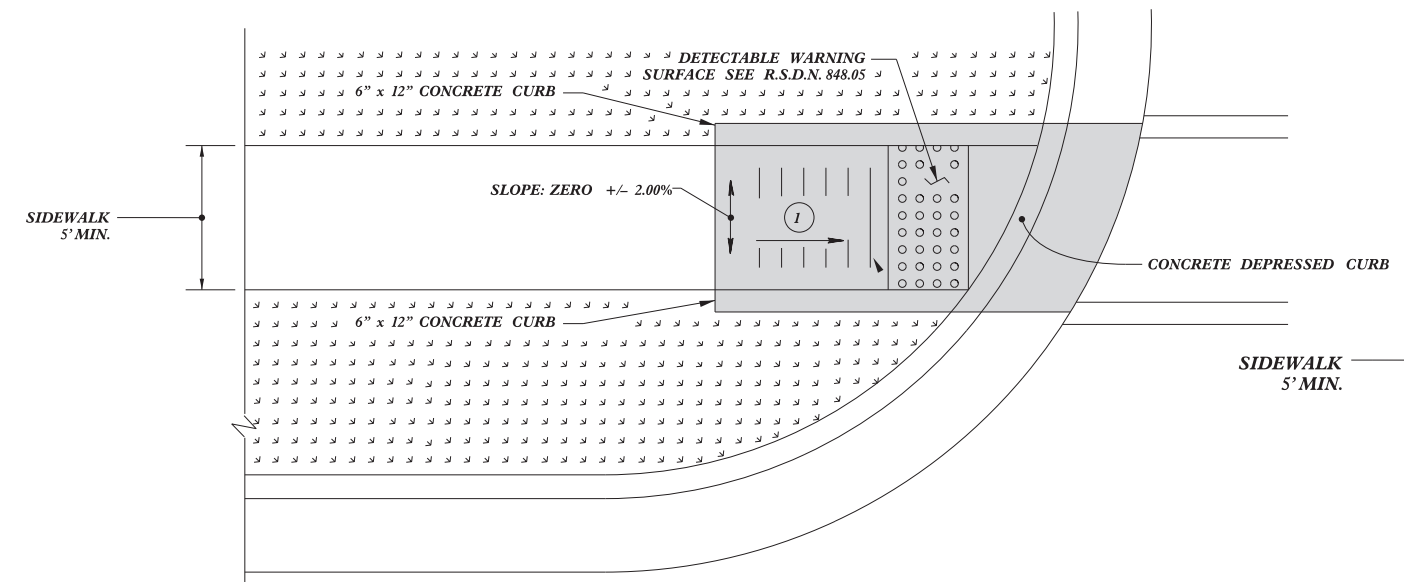
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 MODIFIED BY: DATE: 2/2/16
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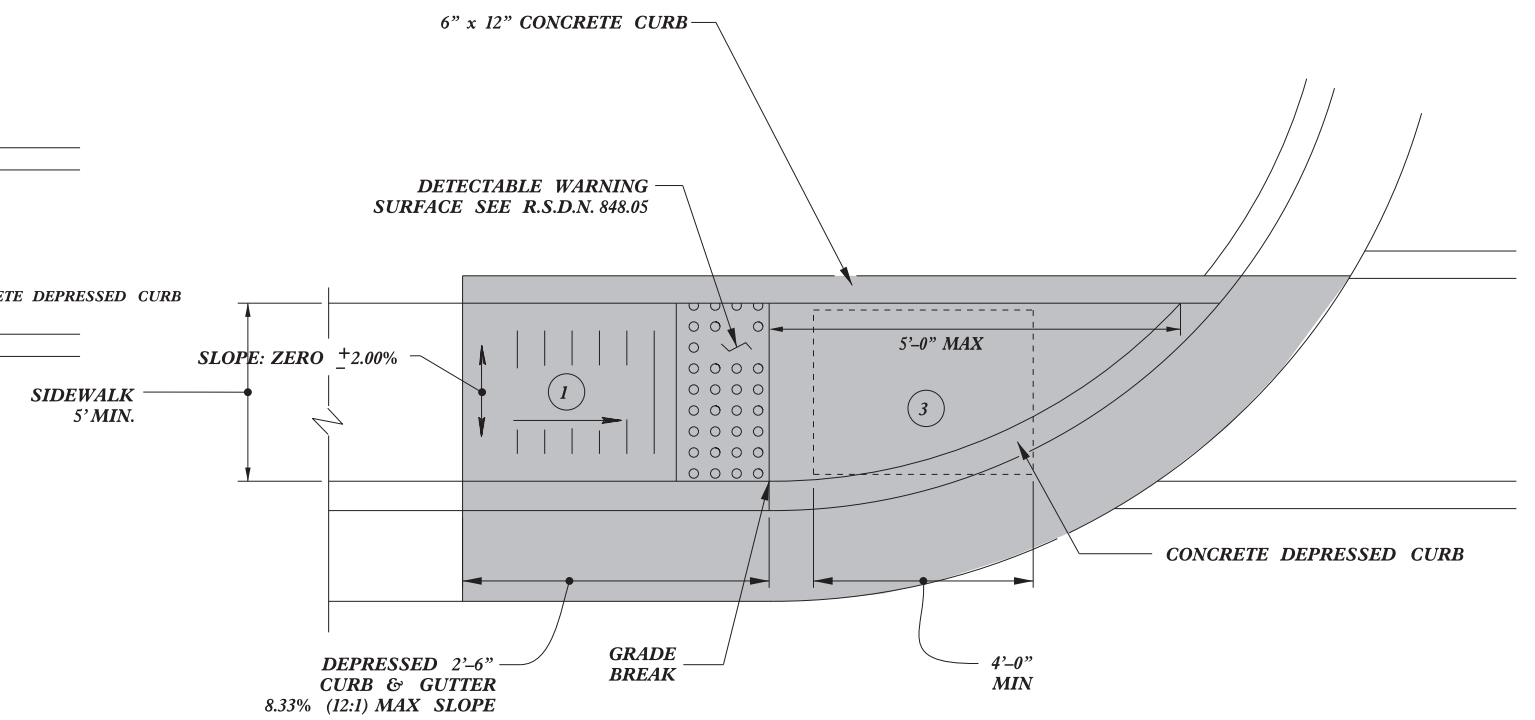
TYPE 1A



TYPE 1B



TYPE 1 Modified



TYPE 1

- 1 8.33% (12:1) MAX RAMP SLOPE
- 2 CROSS SLOPE: 2.00%
- 3 CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.

PAY LIMITS FOR 1 CURB RAMP

REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES

1/8/2020

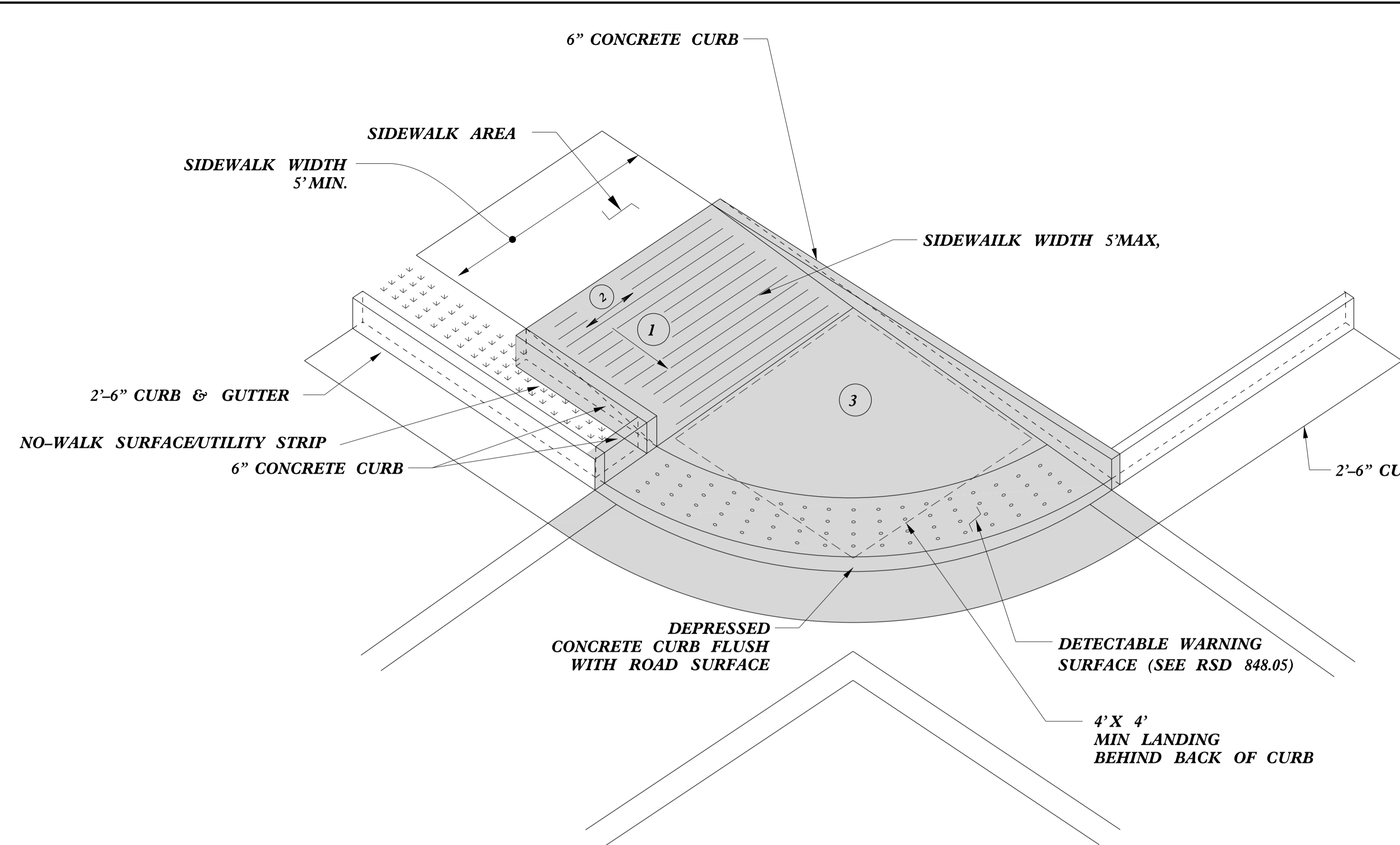


Designed by:
J.S. Howerton

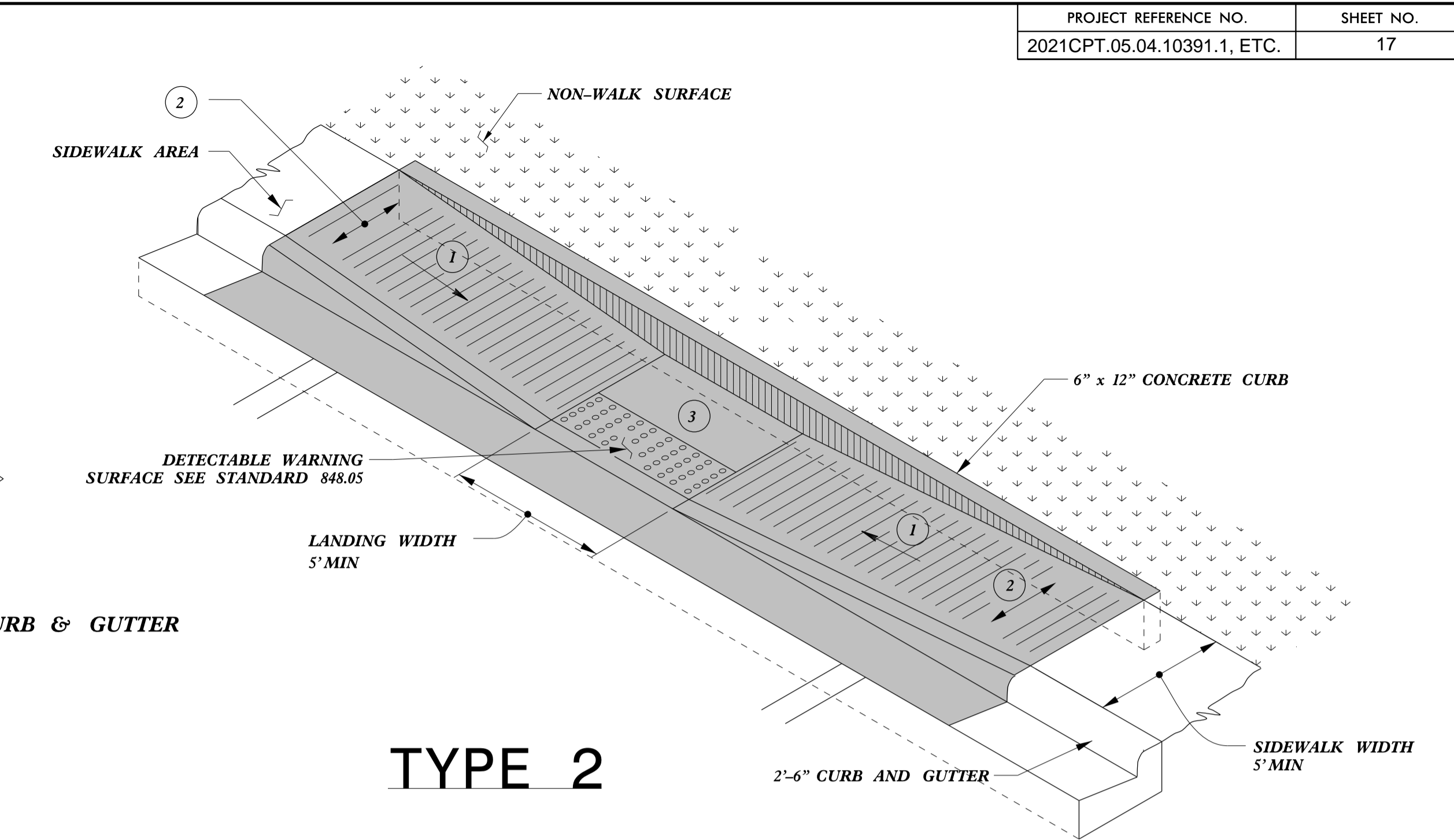
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

CONTRACT STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-6950	FAX 919-250-4119
CURB RAMPS	
Directional Ramps	
ORIGINAL BY: J.S. HOWERTON	DATE: 7/7/11
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC: sids/2012CurbRamp/CurbRampDetails.dgn	

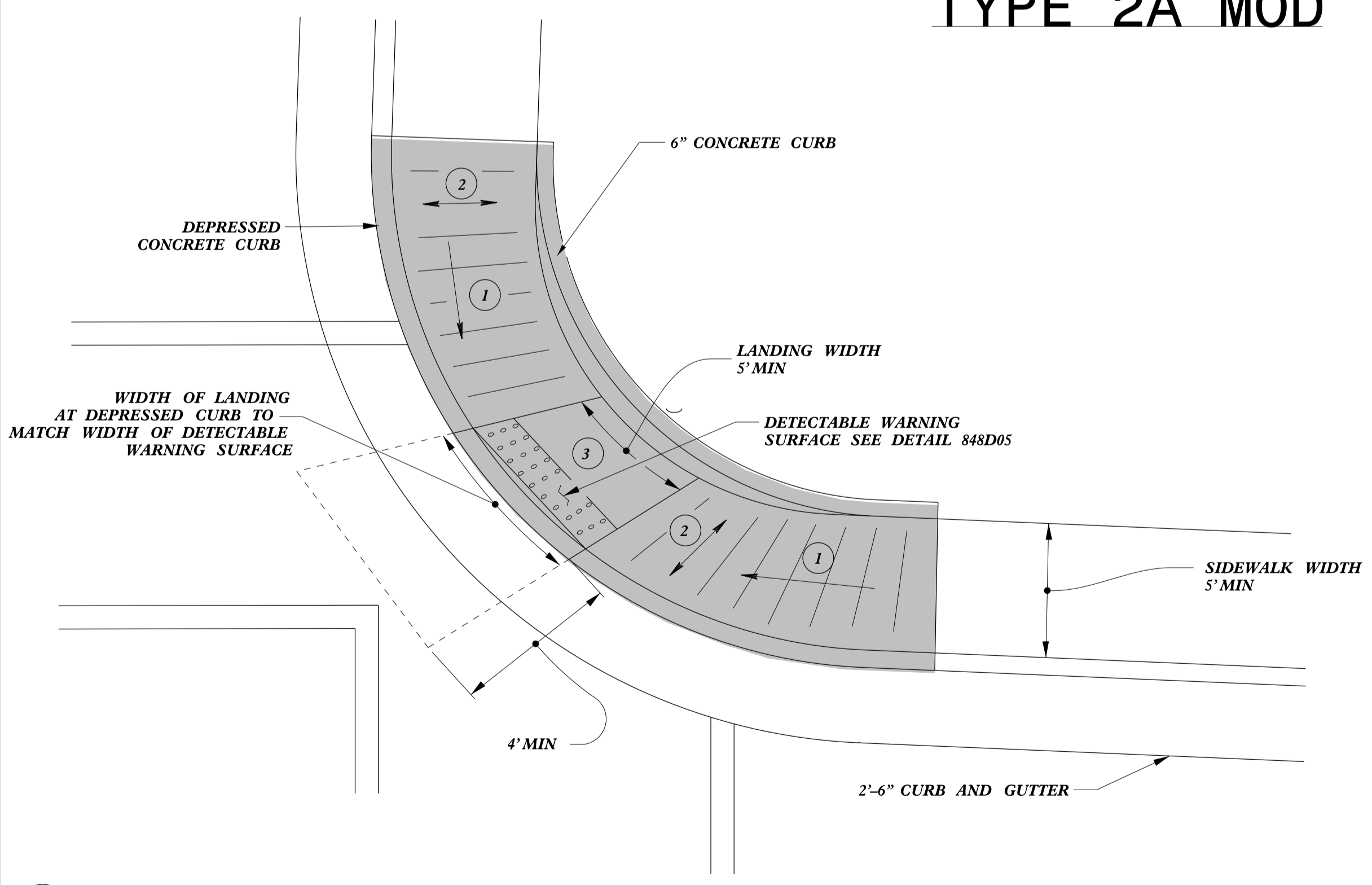
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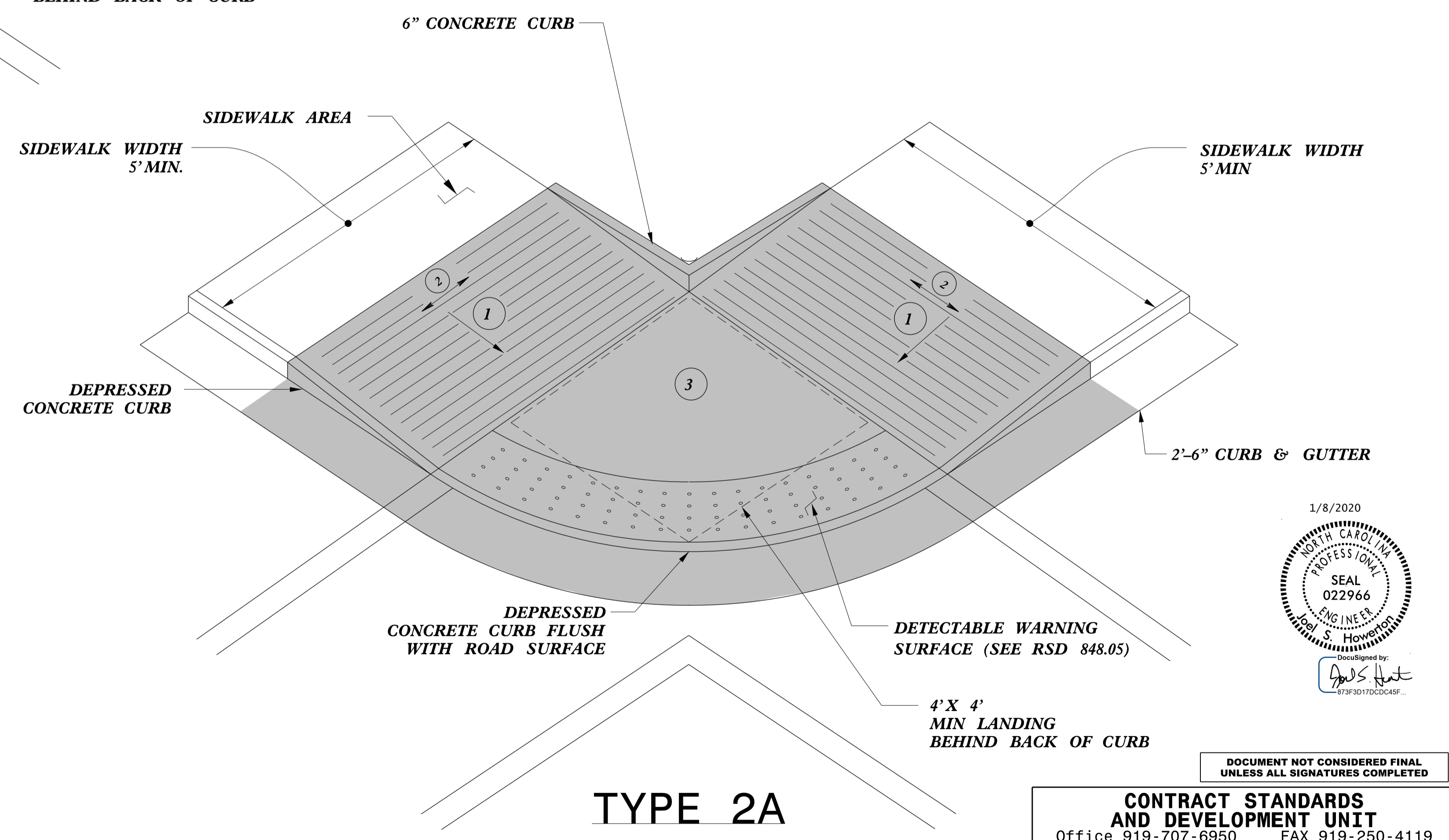
TYPE 2A MOD



TYPE 2



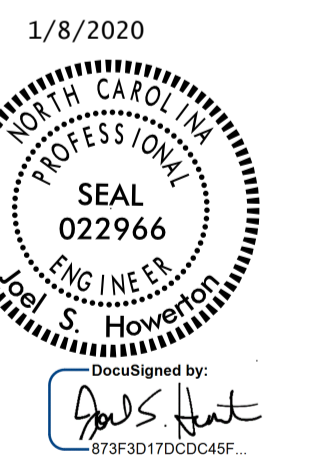
TYPE 2B



TYPE 2A

- 1 8.33% (12:1) MAX RAMP SLOPE
- 2 CROSS SLOPE: 2.00%
- 3 CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.

PAY LIMITS FOR 1 CURB RAMP



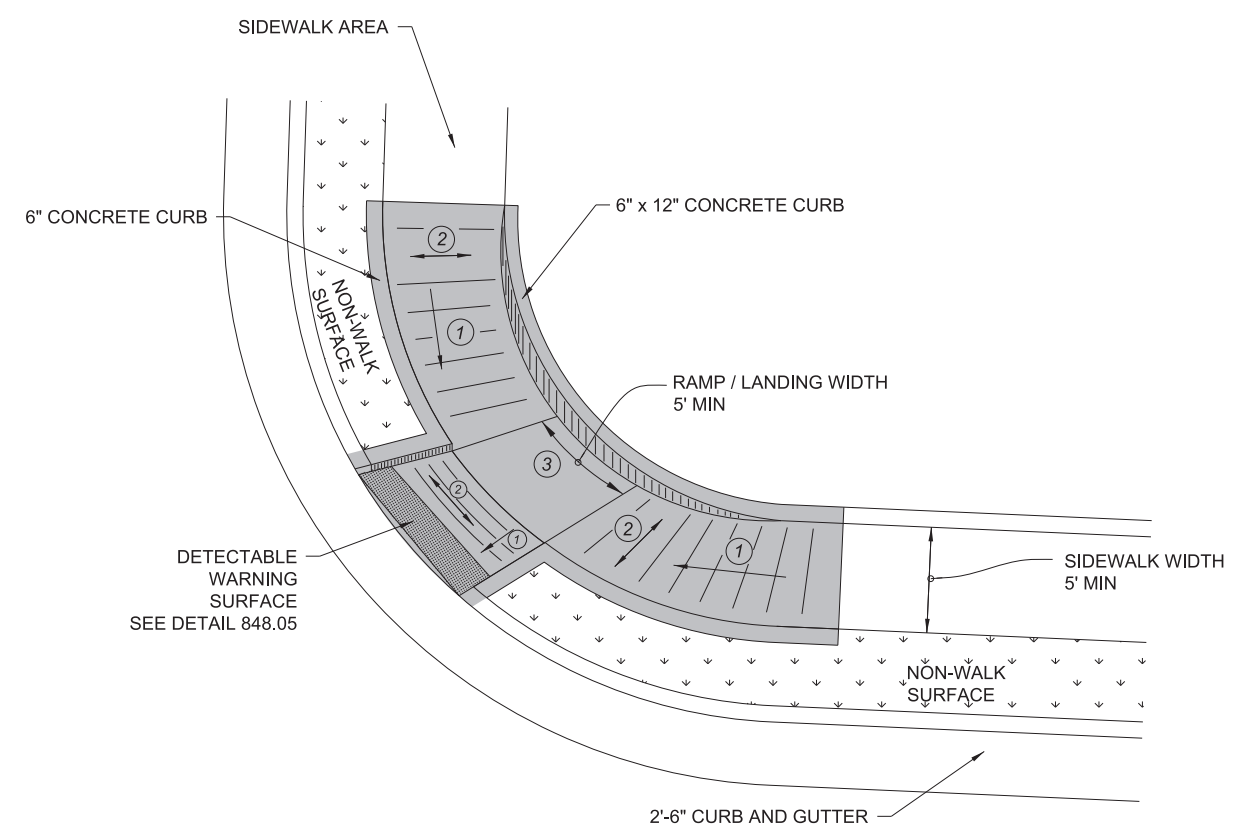
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

CONTRACT STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-6950	FAX 919-250-4119
CURB RAMPS	
ORIGINAL BY: J.S. HOWERTON	DATE: 7/7/11
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC. :stds\2012CurbRamp\CurbRampDetails.dgn	

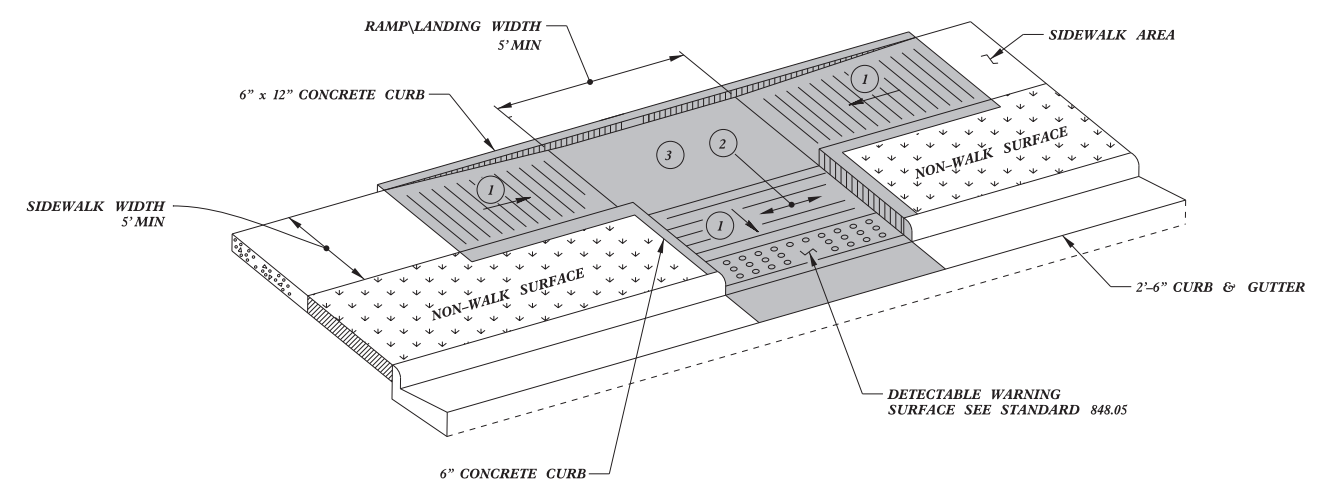
5/14/99

PAY LIMITS FOR 1 CURB RAMP

ETC.



**TYPE 3 MODIFIED
INSTALLATION IN A RADIUS**



TYPE 3

- 1 8.33% (12:1) MAX RAMP SLOPE
- 2 CROSS SLOPE: 2.00%
- 3 CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.

1/8/2020



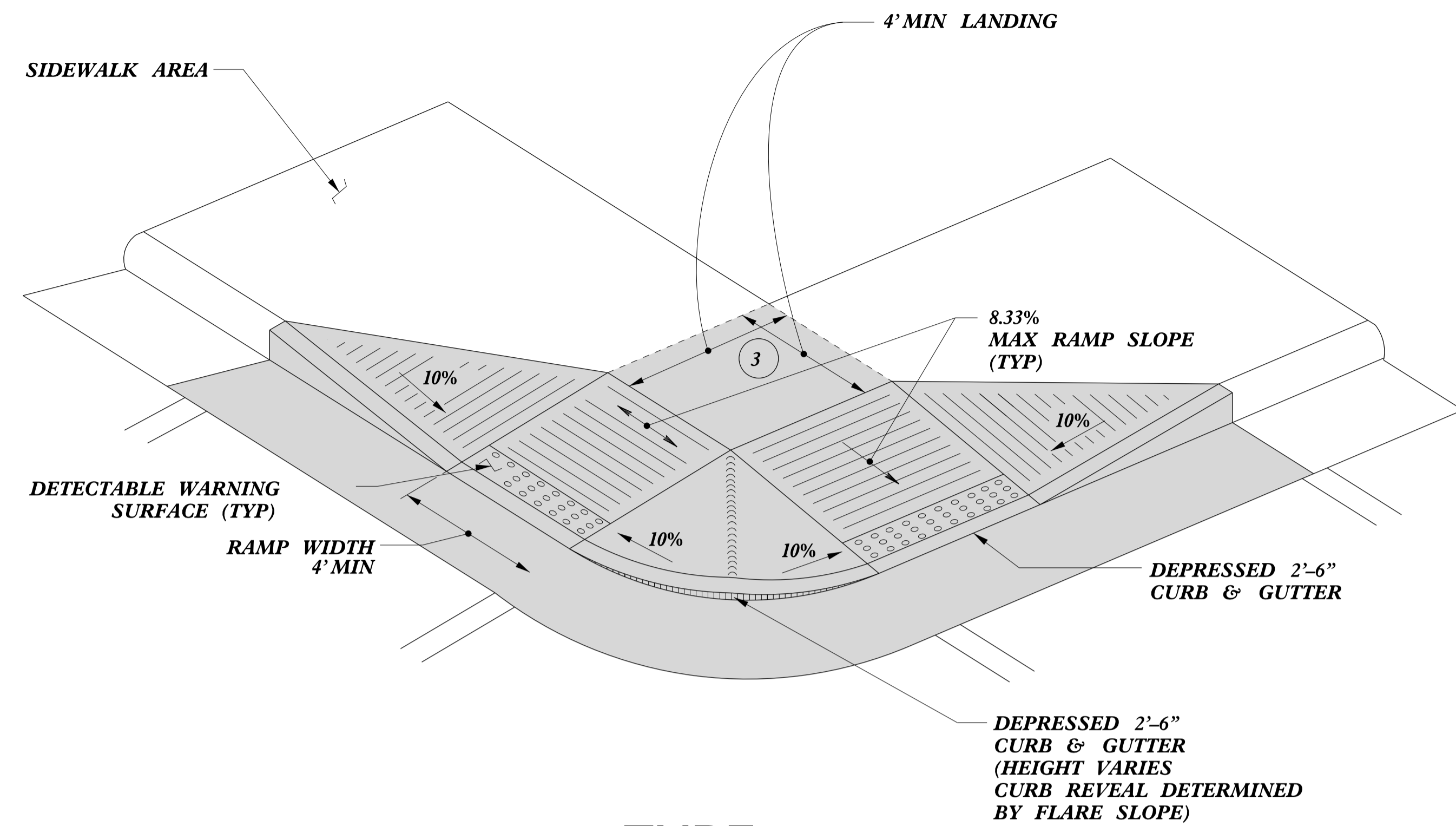
Designed by:
J.S. Howerton
873F3D17DCDC45F...

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

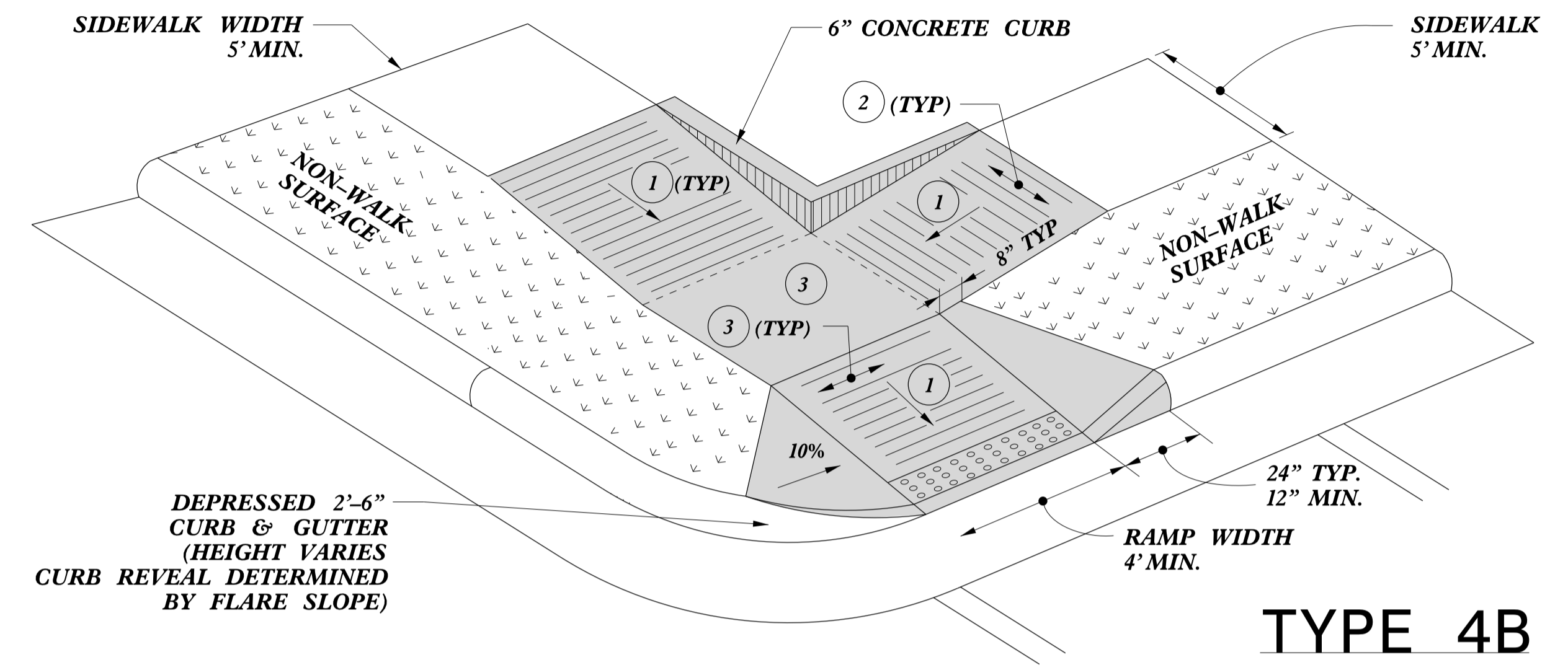
CONTRACT STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-6950	FAX 919-250-4119
CURB RAMPS	
ORIGINAL BY: J.S. HOWERTON	DATE: 7/7/11
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC. sids/2012CurbRamp/CurbRampDetails.dgn	

5/14/99
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J.S. HOWERTON
1/8/2020

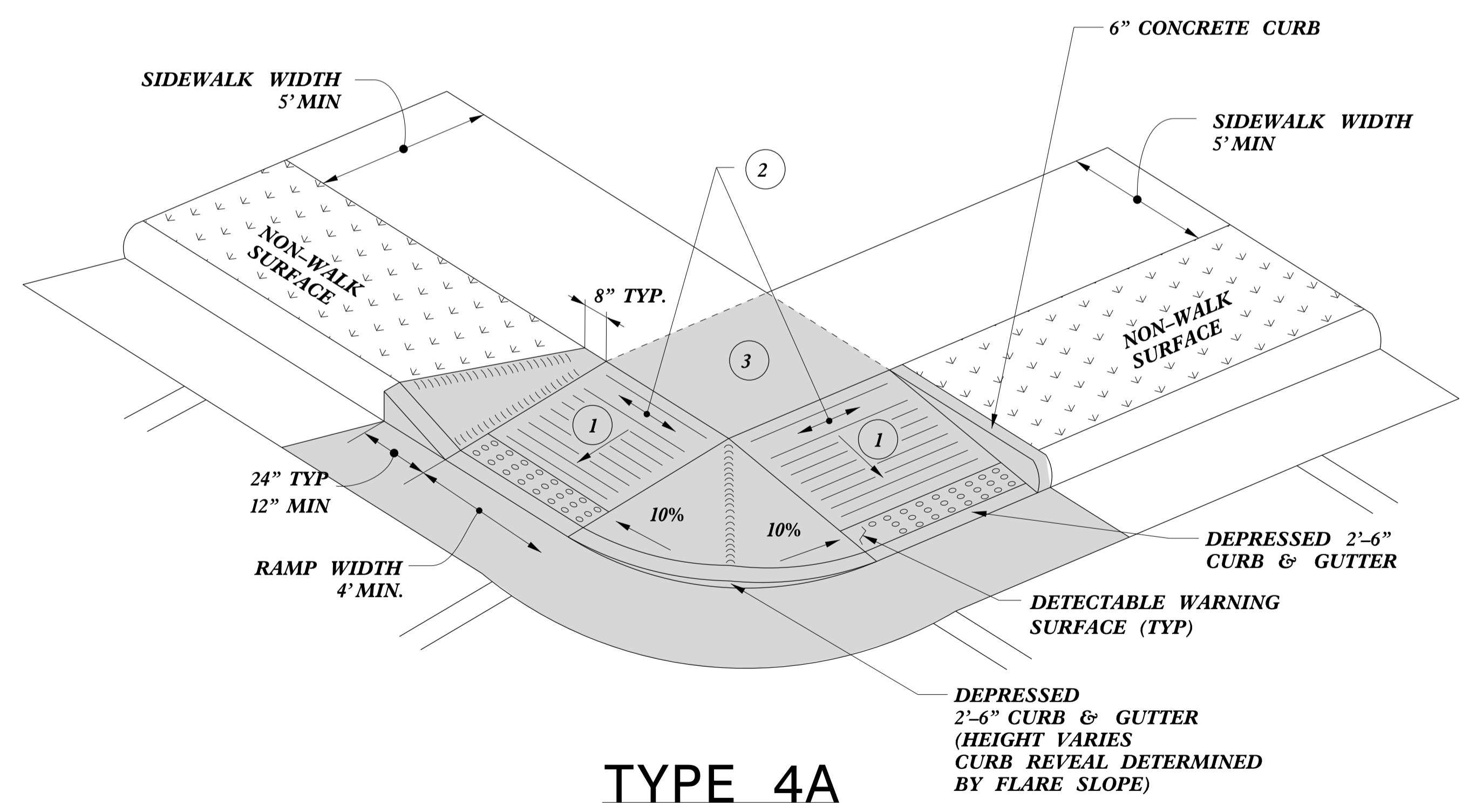
PAY LIMITS FOR 1 OR 2 CURB RAMPS
(CALCULATE BASED ON NUMBER OF SETS
OF TRUNCATED DOMES)
ETC.



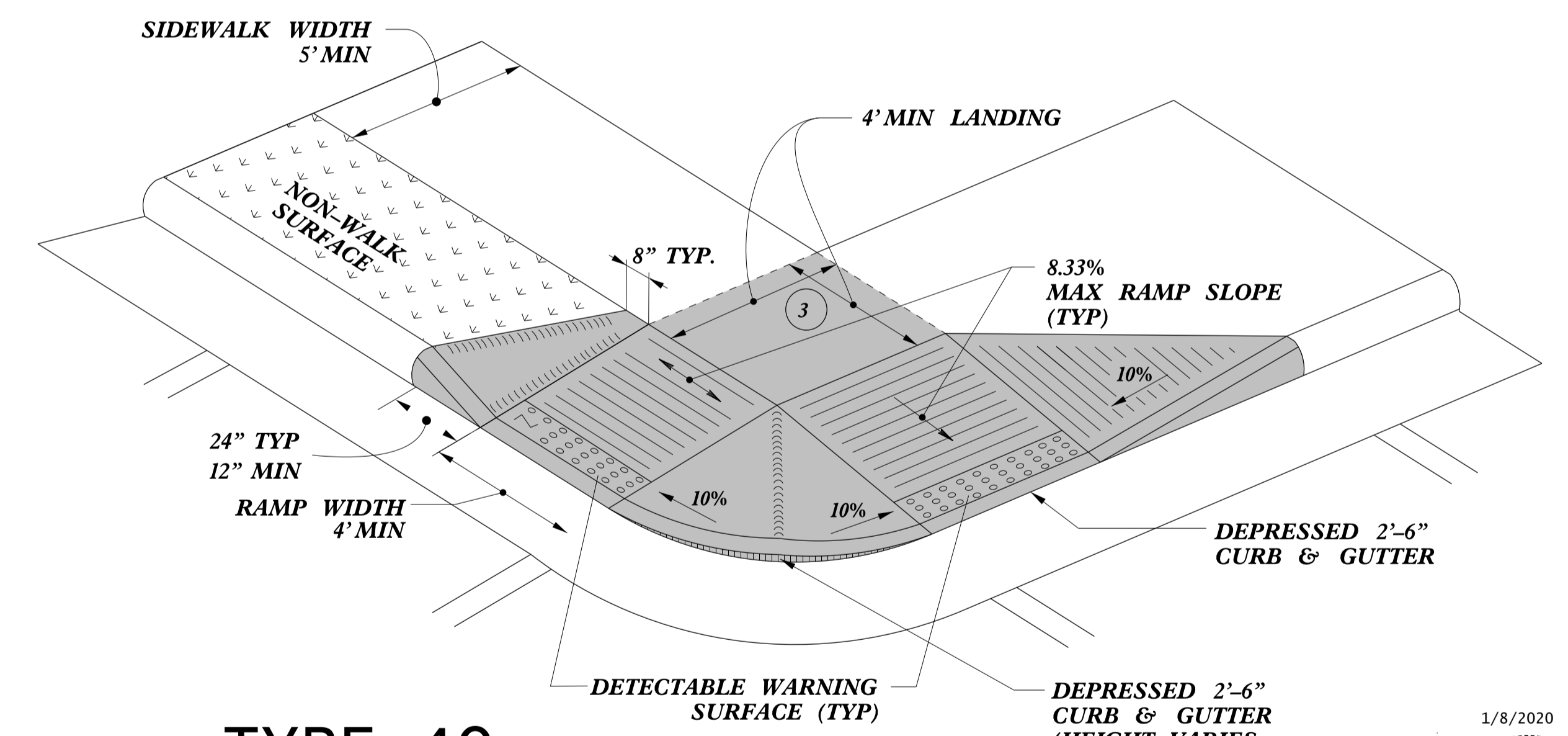
TYPE 4



TYPE 4B

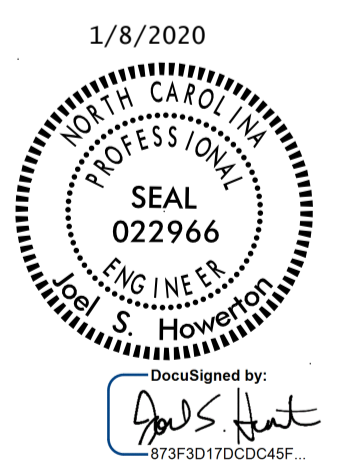


TYPE 4A



TYPE 4C

- 1 8.33% (12:1) MAX RAMP SLOPE
- 2 CROSS SLOPE: 2.00%
- 3 CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.



CONTRACT STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

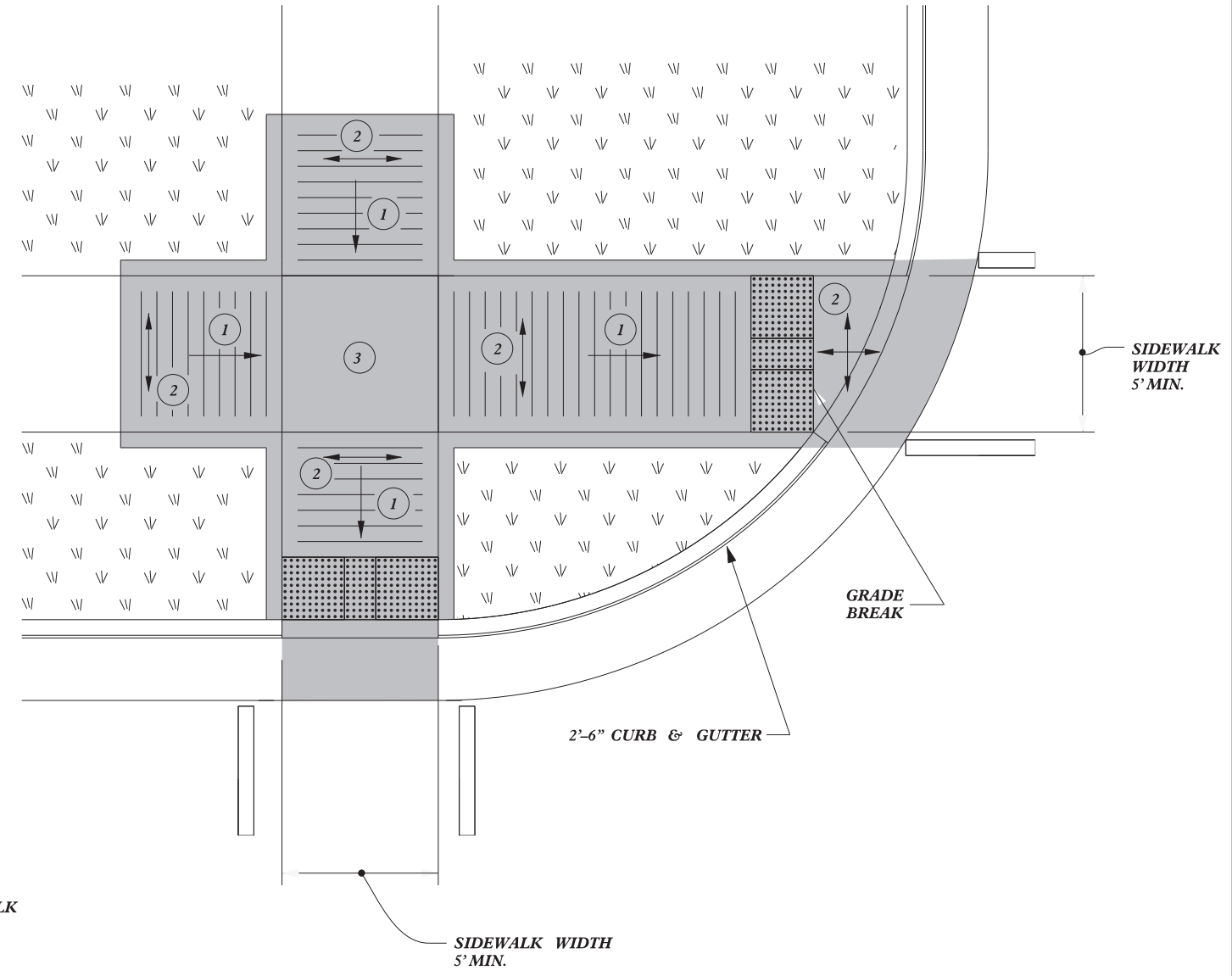
CURB RAMPS

ORIGINAL BY: J.S. HOWERTON DATE: 7/7/11
 MODIFIED BY: DATE:
 CHECKED BY: DATE:
 FILE SPEC: stds\2012CurbRamp\CurbRampDetails.dgn

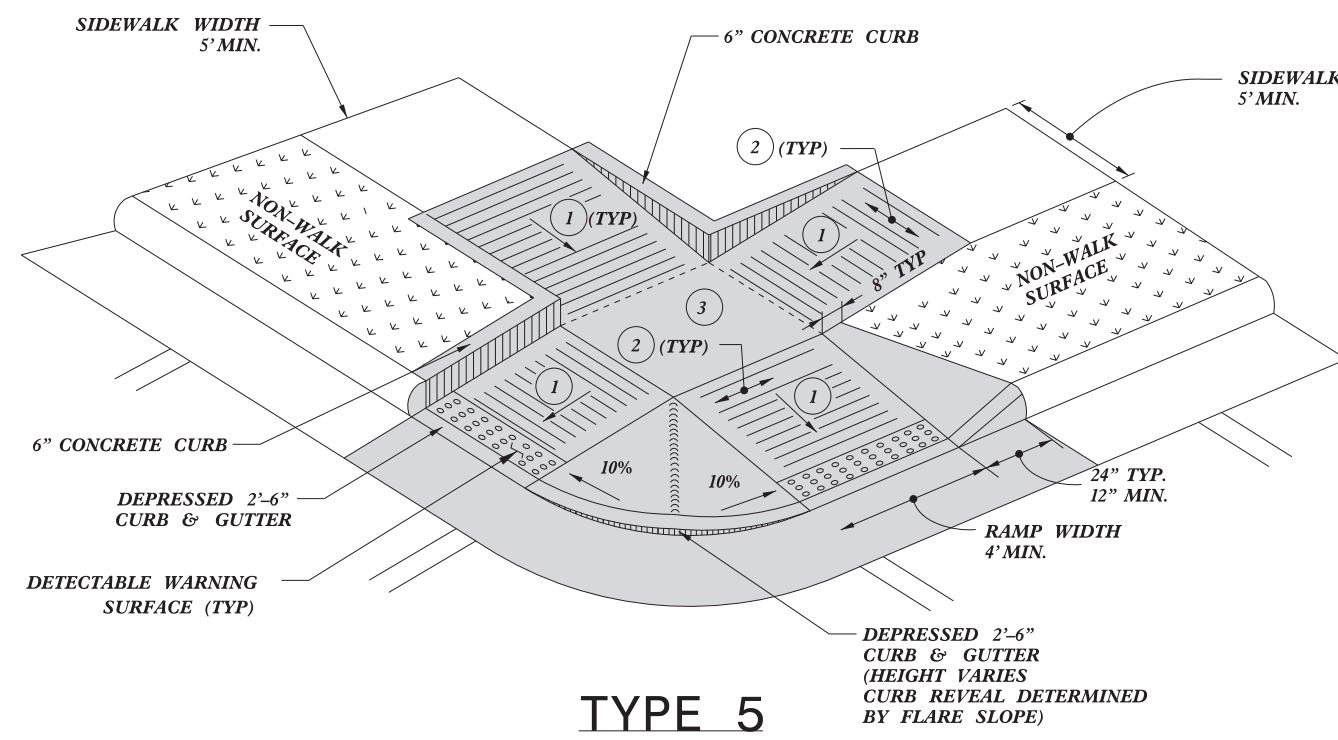
REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES

5/14/99
 TIME
 CURB
 USER
 NAME

**PAY LIMITS FOR 1 OR 2 CURB RAMPS
(CALCULATE BASED ON NUMBER OF SETS
OF TRUNCATED DOMES)**



TYPE 5A



TYPE 5

- 1 8.33% (12:1) MAX RAMP SLOPE
- 2 CROSS SLOPE: 2.00%
- 3 CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.

REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES

1/8/2020

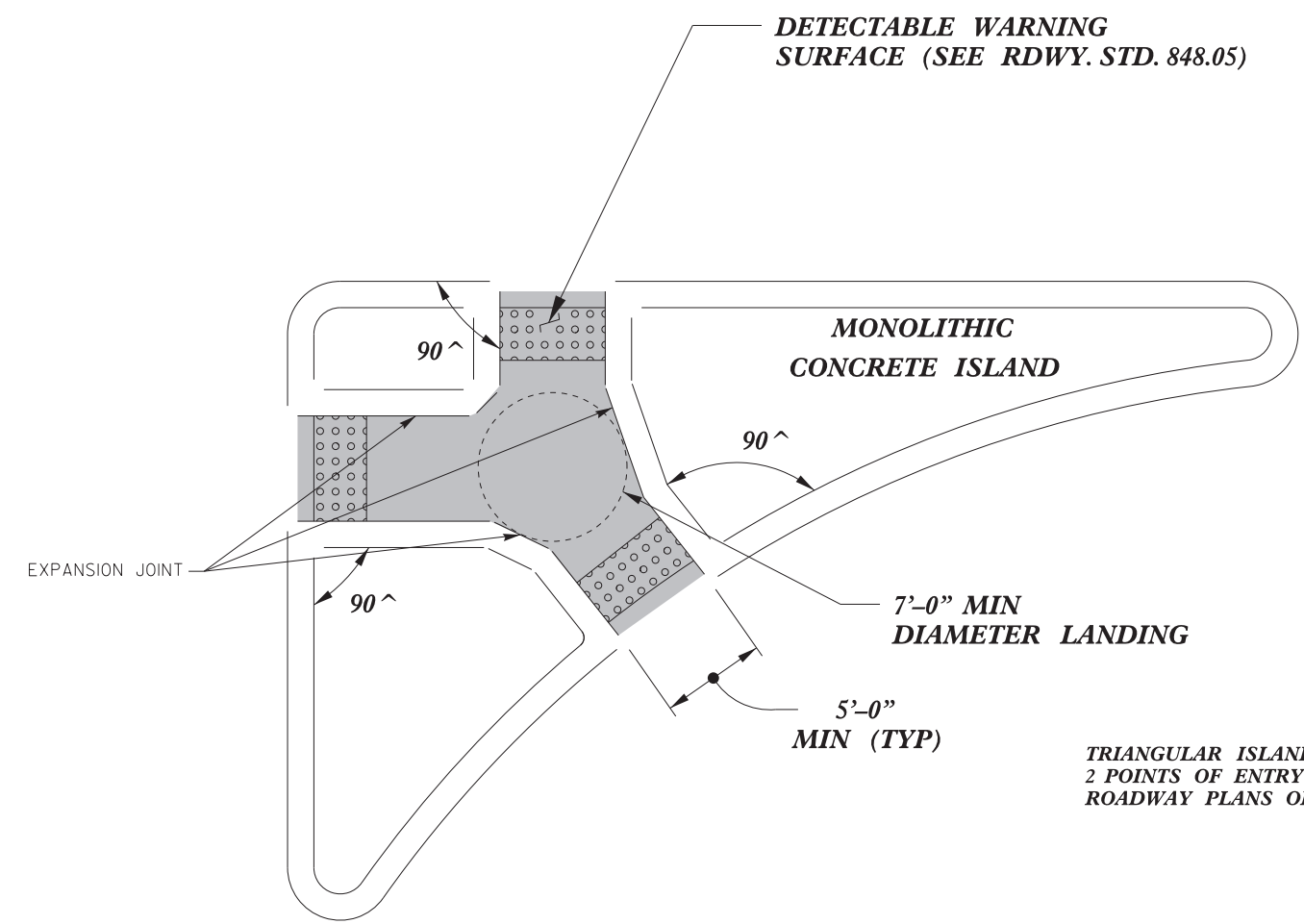


Signed by:
J.S. Howerton
873F3D17DCDC45F...

CONTRACT STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-6950	FAX 919-250-4119
CURB RAMPS	
ORIGINAL BY: J.S. HOWERTON	DATE: 7/7/11
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC: sids/2012CurbRamp/CurbRampDetails.dgn	

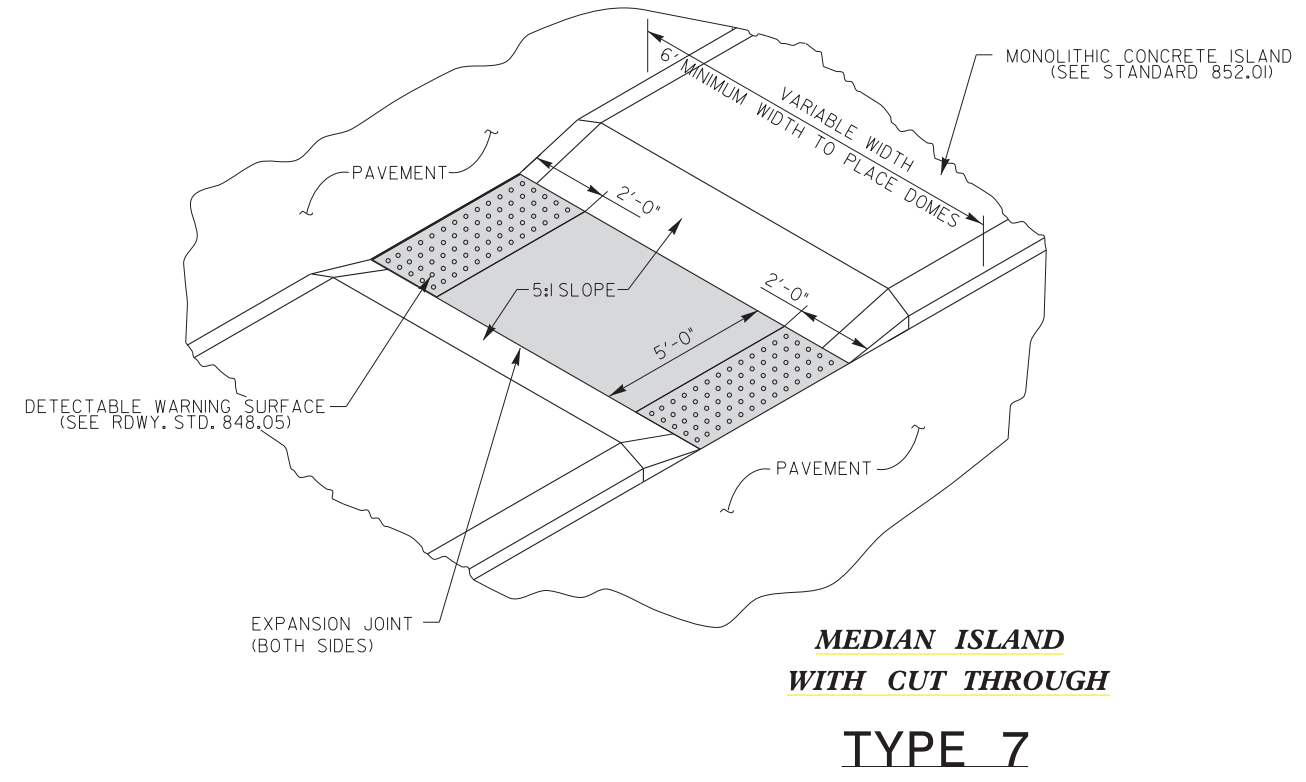
5/14/99
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\$\$\$\$\$CON\$\$\$\$\$
\$\$\$\$\$SERNAME\$\$\$\$\$

PAY LIMITS FOR 2 OR 3 CURB RAMPS
(CALCULATE BASED ON NUMBER OF
SETS OF TRUNCATED DOMES)
ETC.

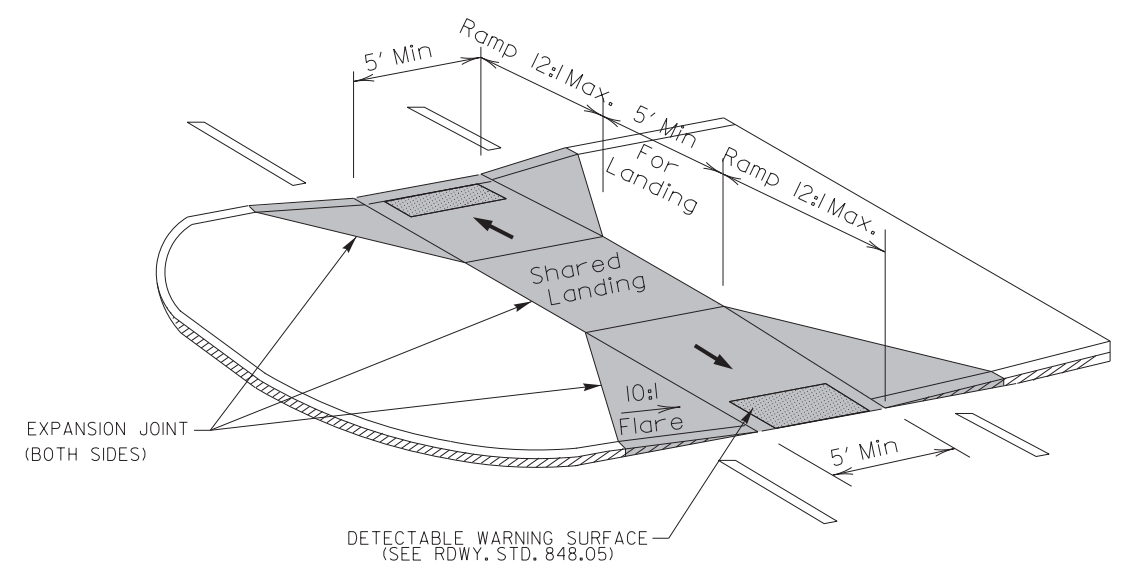


TRIANGULAR ISLANDS MAY BE CONSTRUCTED WITH ONLY
2 POINTS OF ENTRY AND EXIT AS SHOWN IN THE
ROADWAY PLANS OR AS DIRECTED BY THE ENGINEER.

**TRIANGULAR ISLAND
WITH CUT THROUGH
TYPE 6**



**MEDIAN ISLAND
WITH CUT THROUGH
TYPE 7**



**MEDIAN ISLAND
CURB RAMPS
TYPE 8
1/8/2020**

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

CONTRACT STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-6950	FAX 919-250-4119
CURB RAMPS	
Median or Turn Lane Islands	
ORIGINAL BY: J.S. HOWERTON	DATE: 7/7/11
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC. sids/2012CurbRamp/CurbRampDetails.dgn	

SEAL
022966
ENGINEER
J. S. Howerton
Reviewed by:
J. S. Howerton
873F3D17DCDC45F...

5/14/99
\$\$\$\$\$SYTIME\$\$\$\$\$
\$\$\$\$\$CON\$\$\$\$\$
\$\$\$\$\$USERNAME\$\$\$\$\$

SUMMARY OF QUANTITIES

Project Number:	2021 Granville
WBS Number:	2021CPT.05.04.10391.1 2021CPT.05.04.20391.1
County:	Granville

Project Number	County	Municipality	Resurfacing Route	254900000-E	259100000-E	284500000-N	411610000-N	260000000-N	261300000-N	260500000-N	275900000-N
				2'-6" Concrete Curb & Gutter LF	4" Concrete Sidewalk SY	Adjustment of Meter Boxes or Valve Boxes EA	Relocate Sign Type E EA	Retrofit Existing Curb Ramps EA	Remove and Replace Curb Ramps EA	Concrete Curb Ramps EA	Remove Curb Ramps EA
2021 Granville	Granville	Oxford	US 158 Bus From College St To Oxford Loop	9	20	0	0	1	1	0	1
2021 Granville	Granville	Oxford	Main St/E Front St/Henderson St From SR 1646 To US 158 BUS	0	0	0	0	1	0	0	0
2021 Granville	Granville	Oxford	W Spring St From SR 1602 To SR 1004	70	62	1	1	0	13	4	4
2021 Granville	Granville	Oxford	Broad St From US 15 To SR 1232	0	0	0	0	0	5	0	0
2021 Granville	Granville	Oxford	NC 96 From 3rd St pvt jt To US 15	0	0	0	0	0	1	0	0
2021 Granville	Granville	Oxford	Penn Ave From US 15 To Standard St	15	6	0	0	0	2	2	1
GRAND TOTAL				94	88	1	1	2	22	6	6

SUMMARY OF QUANTITIES - US 158 BUS FROM COLLEGE ST TO OXFORD LOOP

Municipality:	Oxford
Project Number:	2021 Granville
WBS Number:	2021CPT.05.04.10391.1
County:	Granville

Ramp ID	Inset Map Number	Route 1	Route 2	2549000000-E	2591000000-E	2845000000-N	4116100000-N	2600000000-N	2613000000-N	2605000000-N	2759000000-N	Improvement Type
				2'-6" Concrete Curb & Gutter LF	4" Concrete Sidewalk SY	Adjustment of Meter Boxes or Valve Boxes EA	Relocate Sign Type E EA	Retrofit Existing Curb Ramps EA	Remove and Replace Curb Ramps EA	Concrete Curb Ramps EA	Remove Curb Ramps EA	
1004	1	US-158-BUS (Williamsboro St)	Cooper St					1				RetrofitWarnings
1010	2	US-158-BUS (Williamsboro St)	Lanier St	9							1	Remove Ramp
1012	2	US-158-BUS (Williamsboro St)	Belle St		20				1			Type1B
Sub-Total for US 158 Bus From College St To Oxford Loop				9	20	0	0	1	1	0	1	

SUMMARY OF QUANTITIES - MAIN ST/E FRONT ST/HENDERSON ST FROM SR 1646 TO US 158 BUS

Municipality:	Oxford
Project Number:	2021 Granville
WBS Number:	2021CPT.05.04.20391.1
County:	Granville

Ramp ID	Inset Map Number	Route 1	Route 2	2549000000-E	2591000000-E	2845000000-N	4116100000-N	2600000000-N	2613000000-N	2605000000-N	2759000000-N	Improvement Type
				2'-6" Concrete Curb & Gutter LF	4" Concrete Sidewalk SY	Adjustment of Meter Boxes or Valve Boxes EA	Relocate Sign Type E EA	Retrofit Existing Curb Ramps EA	Remove and Replace Curb Ramps EA	Concrete Curb Ramps EA	Remove Curb Ramps EA	
1270	1	SR-1602 (Henderson St)	Hillside Dr					1				RetrofitWarnings
Sub-Total for Main St/E Front St/Henderson St From SR 1646 To US 158 BUS				0	0	0	0	1	0	0	0	

SUMMARY OF QUANTITIES - W SPRING ST FROM SR 1602 TO SR 1004

Municipality:	Oxford
Project Number:	2021 Granville
WBS Number:	2021CPT.05.04.20391.1
County:	Granville

Ramp ID	Inset Map Number	Route 1	Route 2	2549000000-E	2591000000-E	2845000000-N	4116100000-N	2600000000-N	2613000000-N	2605000000-N	2759000000-N	Improvement Type
				2'-6" Concrete Curb & Gutter LF	4" Concrete Sidewalk SY	Adjustment of Meter Boxes or Valve Boxes EA	Relocate Sign Type E EA	Retrofit Existing Curb Ramps EA	Remove and Replace Curb Ramps EA	Concrete Curb Ramps EA	Remove Curb Ramps EA	
24286	1	SR-1207 (W Spring St)	144 Main St (USPS Office) West Back Entrance		9					1		Type1Modified
24287	1	SR-1207 (W Spring St)	144 Main St (USPS Office) Back Entrance							1		Type1Modified
1316	2	SR-1207 (W Spring St)	NC-96 (Linden Ave)						1			Type3Modified
1318	2	SR-1207 (W Spring St)	NC-96 (Linden Ave)			1			1			Type3Modified
1320	2	SR-1207 (W Spring St)	NC-96 (Linden Ave)						1			Type1A
930	3	SR-1207 (W Spring St)	Granville St						1			Type3Modified
932	3	SR-1207 (W Spring St)	Granville St						1			Type2B
937	3	SR-1207 (W Spring St)	Granville St						1			Type3Modified
939	3	SR-1207 (W Spring St)	Granville St						1			Type3Modified
942	4	SR-1207 (W Spring St)	Orange St	15	9						1	Remove Ramp
944	4	SR-1207 (W Spring St)	Orange St	13	7						1	Remove Ramp
941	4	SR-1207 (W Spring St)	Orange St						1			Type2B
945	4	SR-1207 (W Spring St)	Orange St						1			Type2B
948	4	SR-1207 (W Spring St)	Orange St						1			Type2B
24340	4	SR-1207 (W Spring St)	Orange St						1			Type2B
954	5	SR-1207 (W Spring St)	US-15 (Lewis St)	5	3				1			Type2B
956	5	SR-1207 (W Spring St)	US-15 (Lewis St)	5	3				1			Type2B
24296	6	SR-1207 (W Spring St)	SR-1004 (Hillsboro St)	17	10						1	Remove Ramp
24297	6	SR-1207 (W Spring St)	SR-1004 (Hillsboro St)				1			1		Type1A
24298	6	SR-1207 (W Spring St)	SR-1004 (Hillsboro St)		12					1		Type1A
24299	6	SR-1207 (W Spring St)	SR-1004 (Hillsboro St)	15	9						1	Remove Ramp
Sub-Total for W Spring St From SR 1602 To SR 1004				70	62	1	1	0	13	4	4	

SUMMARY OF QUANTITIES - BROAD ST FROM US 15 TO SR 1232

Municipality:	Oxford
Project Number:	2021 Granville
WBS Number:	2021CPT.05.04.20391.1
County:	Granville

Ramp ID	Inset Map Number	Route 1	Route 2	2549000000-E	2591000000-E	2845000000-N	4116100000-N	2600000000-N	2613000000-N	2605000000-N	2759000000-N	Improvement Type
				2'-6" Concrete Curb & Gutter LF	4" Concrete Sidewalk SY	Adjustment of Meter Boxes or Valve Boxes EA	Relocate Sign Type E EA	Retrofit Existing Curb Ramps EA	Remove and Replace Curb Ramps EA	Concrete Curb Ramps EA	Remove Curb Ramps EA	
921	1	SR-1206 (Broad St)	W Mcclanahan St						1			Type5A
922	1	SR-1206 (Broad St)	W Mcclanahan St						1			Type5A
923	1	SR-1206 (Broad St)	Penn Ave						1			Standard - 848.06
926	1	SR-1206 (Broad St)	Penn Ave						1			Standard - 848.06
933	2	US-15 (Hillsboro St)	SR-1206 (Broad St)						1			Type2AModified
Sub-Total for Broad St From US 15 To SR 1232				0	0	0	0	0	5	0	0	

SUMMARY OF QUANTITIES - NC 96 FROM 3RD ST PVT JT TO US 15

Municipality:	Oxford
Project Number:	2021 Granville
WBS Number:	2021CPT.05.04.10391.1
County:	Granville

Ramp ID	Inset Map Number	Route 1	Route 2	2549000000-E	2591000000-E	2845000000-N	4116100000-N	2600000000-N	2613000000-N	2605000000-N	2759000000-N	Improvement Type
				2'-6" Concrete Curb & Gutter LF	4" Concrete Sidewalk SY	Adjustment of Meter Boxes or Valve Boxes EA	Relocate Sign Type E EA	Retrofit Existing Curb Ramps EA	Remove and Replace Curb Ramps EA	Concrete Curb Ramps EA	Remove Curb Ramps EA	
925	1	NC-96 (Linden Ave)	Hunt Dr						1			Type1
Sub-Total for NC 96 From 3rd St pvt jt To US 15				0	0	0	0	0	1	0	0	

SUMMARY OF QUANTITIES - PENN AVE FROM US 15 TO STANDARD ST

Municipality:	Oxford
Project Number:	2021 Granville
WBS Number:	2021CPT.05.04.20391.1
County:	Granville

Ramp ID	Inset Map Number	Route 1	Route 2	2549000000-E	2591000000-E	2845000000-N	4116100000-N	2600000000-N	2613000000-N	2605000000-N	2759000000-N	Improvement Type
				2'-6" Concrete Curb & Gutter LF	4" Concrete Sidewalk SY	Adjustment of Meter Boxes or Valve Boxes EA	Relocate Sign Type E EA	Retrofit Existing Curb Ramps EA	Remove and Replace Curb Ramps EA	Concrete Curb Ramps EA	Remove Curb Ramps EA	
24302	1	SR-1236 (Penn Ave)	Standard St							1		Type1Modified
24304	1	SR-1236 (Penn Ave)	Standard St							1		Type1Modified
24305	1	SR-1236 (Penn Ave)	SR-1236 (Penn Ave)	15	6						1	Remove Ramp
984	2	SR-1004 (Hillsboro St)	SR-1236 (Penn Ave)						1			Type2
985	2	SR-1004 (Hillsboro St)	SR-1236 (Penn Ave)						1			Type1A
Sub-Total for Penn Ave From US 15 To Standard St				15	6	0	0	0	2	2	1	

PROJECT NO.	SHEET NO.	TOTAL NO.
2021CPT.05.04.10391.1, etc.	29	

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH	WIDTH	0106000000-E	0156000000-E	0163000000-E	0170000000-E	0196000000-E	0264000000-E	1099500000-E	1099700000-E	1220000000-E	1260000000-E	1297000000-E	1308000000-E			
											BORROW EXCAVATION	REMOVAL OF EXISTING ASPHALT PAVEMENT	REMOVAL OF EXISTING CONCRETE PAVEMENT	REMOVAL OF EXISTING CONCRETE PAVEMENT SLABS	GEOTEXTILE FOR SOIL STABILIZATION	SHOULDER GRADING	SHALLOW UNDERCUT	CLASS IV SUBGRADE STABILIZATION	INCIDENTAL STONE BASE	AGGREGATE SHOULDER BORROW	1 1/2" MILLING	1.5" TO 3" MILLING	0" TO 1.5" MILLING		
								MI	FT	CY	SY	SY	SY	SY	SMI	CY	TON	TONS	TON	SY	SY	SY			
2021 CPT.	Gran	1	NC 96 - MLK JR AVE	3RD ST PVT JOINT TO US 15 - HILLSBORO ST	2,4	2	NO	NO	0.58	36-40													13,067		
		2	US 158 BUS - WILLIAMSBORO ST	US 15 - COLLEGE ST TO OXFORD LOOP	3	2	NO	NO	2.22	24-96				500	250.00		84	173	87			42,656			
		TOTAL FOR PROJ NO. 2021CPT.05.04.10391.1								2.8					500	250.00		84	173	87			42,656	13,067	
2021CPT.05.04.20391.1	Granville	3	SR 1167 - N. COUNTRY CLUB DR	SR 1170 - IVEY DAY RD TO SR 1004 - HILLSBORO ST	1	2	NO	NO	0.99	22	99					1.98			50						
		4	SR 1169 - PINE TREE RD	SR 1195 - INDUSTRY DR TO SR 1004 - HILLSBORO ST	1	2	NO	NO	0.68	20	39						1.36			34	53				
		5	SR 1170 - IVEY DAY RD/GOSHEN ST	US 158 - ROXBORO RD TO SR 1232 - QUAIL RIDGE RD	1	2	NO	NO	1.37	22-36	93						2.74			69	81				
		6	SR 1206 - BROAD ST	US 15 - HILLSBORO ST TO SR 1232 - ALEXANDER AVE	3	2	NO	NO	0.56	40													13,143		
		7	SR 1207 - W. SPRING ST	SR 1602 - MAIN ST TO SR 1004 - HILLSBORO ST	3	2	NO	NO	0.55	45-60													16,233		
		8	SR 1232 - E. QUALRIDGE RD/ALEXANDER RD	SR 1167 - N. COUNTRY CLUB DR TO US 15	1	2	NO	NO	0.82	20	82							1.64			41		500		
		9	SR 1236 - PENN AVE	US 15 TO STANDARD ST	3	2	NO	NO	0.21	48											1		5,914		
		10	SR 1241 - FARMINGTON DR	US 158 TO CUL-DE-SAC	1	2	NO	NO	0.6	20	60						1.20				30				
		11	SR 1247 - ELLIOTT ST	SR 1241 - FARMINGTON DR. TO CUL-DE-SAC	1	2	NO	NO	0.41	20	41						0.81				20				
		12	SR 1522 - SALEM RD	US 158 BUS TO US 158 BYP	1	2	NO	NO	0.88	20	46						1.76				44	78			
		13	SR 1528 - EDGEWOOD RD	SR 1522 - SALEM RD TO SR 1530 - GLENDALE RD	1	2	NO	NO	0.33	20	33						0.65				16				
		14	SR 1530 - GLENDALE RD	SR 1528 - EDGEWOOD RD TO SR 1531 - HOLLY DR	1	2	NO	NO	0.1	20	10						0.20				5				
		15	SR 1531 - HOLLY DR	SR 1530 - GLENDALE RD TO CUL-DE-SAC	1	2	NO	NO	0.25	20	25						0.51				13				
		16	SR 1532 - HICKORY HILL	SR 1531 - HOLLY DR TO SR 1528 - EDGEWOOD RD	1	2	NO	NO	0.07	20	7						0.15				4				
		17	SR 1535 - TOBACCO RD	US 15 TO DEAD END	1	2	NO	NO	0.19	20							0.38				9	35	500		
		18	SR 1536 - COUNTRY LN	US 15 TO END MAINT	1	2	NO	NO	0.33	20	33						0.66				17		500		
		19	SR 1540 - E. MCCLANAHAN ST	NEW COLLEGE ST TO LANIER ST	3	2	NO	NO	0.09	46													2,429		
		20	SR 1602 - HENDERSON/FRONT/MAIN ST	SR 1646 - INDUSTRY DR TO US 158 BUS	3	2	NO	NO	1.5	20												35		25,447	
		21	SR 1646 - INDUSTRY DR	NC 96 TO PVT CHANGE	3	2	NO	YES	1.08	26												50		19,125	
		22	SR 1665 - E. SPRING ST	US 158 TO PARKER ST	3	2	NO	NO	0.25	44													6,453		
		23	SR 1666 - CRITCHER RD	INDUSTRY DR TO DEAD END	1	2	NO	NO	0.31	20	31						0.62				30				
		TOTAL FOR PROJ NO. 2021CPT.05.04.20391.1								11.57		599					14.66				468	247	90,244		
		2021CPT.05.04.30391.1	Granville	24	E. MCCLANAHAN ST/W. MCCLANAHAN ST	BROAD ST TO NEW COLLEGE ST	6	2	NO	NO	0.28	40												6,571	
25	E. SPRING ST			MAIN ST TO BELLE ST	5	2	NO	NO	0.16	36												3,379			
26	E. SPRING ST			BELLE ST TO PARKER ST	1	2	NO	NO	0.39	44														915	
27	E. THORNDALE DR			PINE TREE RD TO DEAD END	1	2	NO	NO	0.12	32														554	
28	GILL ST			WEST OF HUNT ST INTERSECTION TO END MAINT	3	2	NO	NO	0.109	26													1,068		
29	GOSHEN ST			IVEY DAY RD TO ROXBORO RD	1	2	NO	NO	0.44	25	3						0.06			2				2,045	
30	GOSHEN ST			E. QUAIL RIDGE DR TO CHERRY ST	6	2	NO	NO	0.26	27	1						0.01			2			4,118		
31	HANCOCK ST			FRONT ST TO S OF FRANKLIN ST INTERSECTION	6	2	NO	NO	0.22	16														2,453	
32	HAYS ST			BROAD ST TO COLLEGE ST	6	2	NO	NO	0.13	19														1,449	
33	HICKS MILL RD			COLLEGE ST TO 25' WEST OF RAIL ROAD TRACKS	1	2	NO	NO	0.051	33													360	238	
34	HICKS MILL RD (ALTERNATE B)			DANIEL ST TO 25' WEST OF RR	1	2	NO	NO	0.273	24															
35	HICKS MILL RD (ALTERNATE A)			NC 96 TO DANIEL ST	1	2	NO	NO	0.251	24															1,178
36	HUNT DR			MLK, JR. AVE TO WALL ST	6	2	NO	NO	0.08	37														1,737	
37	WALL ST			E SPRING ST TO HILLSBORO ST	3	2	NO	NO	0.104	24													1,464		
38	OLD BAKER ST			GOSHEN ST TO CRESCENT DR	1	2	NO	NO	0.16	25															751
39	PENN AVE			STANDARD ST TO BROAD ST	3	2	NO	NO	0.1	40													2,347		
40	RALEIGH ST			8TH ST TO E. INDUSTRY DR	1	2	NO	NO	0.24	21	24						0.48				12				
41	SEAMAN ST			E. THORNDALE DR TO WHITFIELD DR	1	2	NO	NO	0.14	33															649
42	W. THORNDALE DR			S COUNTRY CLUB DR TO PINE TREE RD	3	2	NO	NO	0.13	32													2,441		
43	WATKINS ST			COLLEGE ST TO NEW COLLEGE ST	3	2	NO	NO	0.13	20													1,525		
44	WHITFIELD DR			W OF WARD AVE INTERSECTION TO DEAD END	1	2	NO	NO	0.032	32															47
45	8TH ST			WILMINGTON AVE TO RALEIGH ST	2	2	NO	NO	0.223	20															
46	RALEIGH ST			HIGH ST TO EIGHTH ST	2	2	NO	NO	0.62	21															
47	TUPELO CIR			MEADOW HEIGHTS TO CUL-DE-SAC	1	2	NO	NO	0.03	18	3						0.06				2				
48	SR 1602 - MAIN ST	US 158 - WILLIAMSBORO ST TO LITTLE JOHN ST	2	2	NO	NO	0.08	74				195	30												
TOTAL FOR PROJ NO. 2021CPT.05.04.30391.1								4.753		31	195	30			0.61				18		12,584	16,328	6,377		
GRAND TOTAL								19.123		630	195	30	500	250.00	15.27	84	173	573	247	145,484	29,395	6,377			

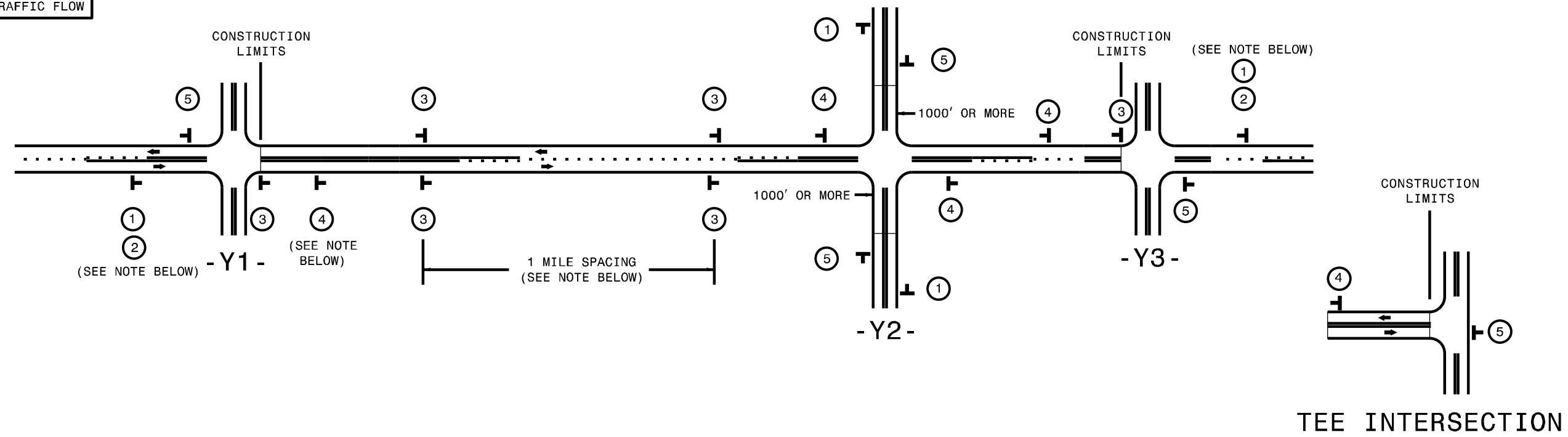
PROJECT NO.	SHEET NO.	TOTAL NO.
2021CPT.05.04.10391.1, etc.	33	

THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LENGTH	WIDTH	482000000-E			835000000-E			4845000000-N					4890000000-E		4895000000-N
									8" YELLOW PAINT	8" WHITE PAINT	24" WHITE PAINT	PAINT STR & RT ARROW	PAINT RT ARROW	PAINT STR ARROW	PAINT LT ARROW	PAINT STR & LT ARROW	24" X 90 M WHITE THERMO	16" X 90 M WHITE THERMO	NON-CAST IRON SNOWPLOW ABLE MARKER			
									EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA
2021 CPT.	Granville	1	NC 96 - MLK JR AVE	3RD ST PVT JOINT TO US 15 - HILLSBORO ST	2,4	2	0.58	36-40											90		40	
		2	US 158 BUS - WILLIAMSBORO ST	US 15 - COLLEGE ST TO OXFORD LOOP	3	2	2.22	24-96	124	700	522	5	11	9	12	2			1,044		230	
TOTAL FOR PROJ NO. 2021CPT.05.04.10391.1							2.8		124	700	522	5	11	9	12	2		1,134		270		
									824			39										
2021CPT.05.04.20391.1	Granville	3	SR 1167 - N. COUNTRY CLUB DR	SR 1170 - IVEY DAY RD TO SR 1004 - HILLSBORO ST	1	2	0.99	22														
		4	SR 1169 - PINE TREE RD	SR 1195 - INDUSTRY DR TO SR 1004 - HILLSBORO ST	1	2	0.68	20														
		5	SR 1170 - IVEY DAY RD/GOSHEN ST	US 158 - ROXBORO RD TO SR 1232 - QUAIL RIDGE RD	1	2	1.37	22-36												110		
		6	SR 1206 - BROAD ST	US 15 - HILLSBORO ST TO SR 1232 - ALEXANDER AVE	3	2	0.56	40												240		
		7	SR 1207 - W. SPRING ST	SR 1602 - MAIN ST TO SR 1004 - HILLSBORO ST	3	2	0.55	45-60												494		
		8	1232 - E. QUALRIDGE RD/ALEXANDER	SR 1167 - N. COUNTRY CLUB DR TO US 15	1	2	0.82	20												70	100	
		9	SR 1236 - PENN AVE	US 15 TO STANDARD ST	3	2	0.21	48												19		
		10	SR 1241 - FARMINGTON DR	US 158 TO CUL-DE-SAC	1	2	0.6	20														
		11	SR 1247 - ELLIOTT ST	SR 1241 - FARMINGTON DR. TO CUL-DE-SAC	1	2	0.41	20														
		12	SR 1522 - SALEM RD	US 158 BUS TO US 158 BYP	1	2	0.88	20												28		
		13	SR 1528 - EDGEWOOD RD	SR 1522 - SALEM RD TO SR 1530 - GLENDALE RD	1	2	0.33	20														
		14	SR 1530 - GLENDALE RD	SR 1528 - EDGEWOOD RD TO SR 1531 - HOLLY DR	1	2	0.1	20														
		15	SR 1531 - HOLLY DR	SR 1530 - GLENDALE RD TO CUL-DE-SAC	1	2	0.25	20														
		16	SR 1532 - HICKORY HILL	SR 1531 - HOLLY DR TO SR 1528 - EDGEWOOD RD	1	2	0.07	20														
		17	SR 1535 - TOBACCO RD	US 15 TO DEAD END	1	2	0.19	20													37	
		18	SR 1536 - COUNTRY LN	US 15 TO END MAINT	1	2	0.33	20													36	
		19	SR 1540 - E. MCCLANAHAN ST	NEW COLLEGE ST TO LANIER ST	3	2	0.09	46													25	
		20	SR 1602 - HENDERSON/FRONT/MAIN ST	SR 1646 - INDUSTRY DR TO US 158 BUS	3	2	1.5	20													1,015	
		21	SR 1646 - INDUSTRY DR	NC 96 TO PVT CHANGE	3	2	1.08	26													160	
		22	SR 1665 - E. SPRING ST	US 158 TO PARKER ST	3	2	0.25	44													56	
		23	SR 1666 - CRITCHER RD	INDUSTRY DR TO DEAD END	1	2	0.31	20														
		TOTAL FOR PROJ NO. 2021CPT.05.04.20391.1							11.57											2,290	100	
		2021CPT.05.04.30391.1	Granville	24	MCCLANAHAN ST/W. MCCLANAHAN ST	BROAD ST TO NEW COLLEGE ST	6	2	0.28	40											92	
25	E. SPRING ST			MAIN ST TO BELLE ST	5	2	0.16	36												150		
26	E. SPRING ST			BELLE ST TO PARKER ST	1	2	0.39	44												240		
27	E. THORNDALE DR			PINE TREE RD TO DEAD END	1	2	0.12	32														
28	GILL ST			WEST OF HUNT ST INTERSECTION TO END MAINT	3	2	0.109	26														
29	GOSHEN ST			IVEY DAY RD TO ROXBORO RD	1	2	0.44	25												28		
30	GOSHEN ST			E. QUAIL RIDGE DR TO CHERRY ST	6	2	0.26	27														
31	HANCOCK ST			FRONT ST TO S OF FRANKLIN ST INTERSECTION	6	2	0.22	16													36	
32	HAYS ST			BROAD ST TO COLLEGE ST	6	2	0.13	19														
33	HICKS MILL RD			COLLEGE ST TO 25' WEST OF RAIL ROAD TRACKS	1	2	0.051	33												64	50	
34	HICKS MILL RD (ALTERNATE B)			DANIEL ST TO 25' WEST OF RR	1	2	0.273	24												64	50	
35	HICKS MILL RD (ALTERNATE A)			NC 96 TO DANIEL ST	1	2	0.251	24												26		
36	HUNT DR			MLK, JR. AVE TO WALL ST	6	2	0.08	37														
37	WALL ST			E SPRING ST TO HILLSBORO ST	3	2	0.104	24												10		
38	OLD BAKER ST			GOSHEN ST TO CRESCENT DR	1	2	0.16	25														
39	PENN AVE			STANDARD ST TO BROAD ST	3	2	0.1	40														
40	RALEIGH ST			8TH ST TO E. INDUSTRY DR	1	2	0.24	21														
41	SEAMAN ST			E. THORNDALE DR TO WHITFIELD DR	1	2	0.14	33														
42	W. THORNDALE DR			S COUNTRY CLUB DR TO PINE TREE RD	3	2	0.13	32														
43	WATKINS ST			COLLEGE ST TO NEW COLLEGE ST	3	2	0.13	20														
44	WHITFIELD DR			W OF WARD AVE INTERSECTION TO DEAD END	1	2	0.032	32														
45	8TH ST			WILMINGTON AVE TO RALEIGH ST		2	0.223	20													104	
46	RALEIGH ST			HIGH ST TO EIGHTH ST		2	0.62	21													147	
47	TUPELO CIR			MEADOW HEIGHTS TO CUL-DE-SAC	1	2	0.03	18														
48	SR 1602 - MAIN ST	US 158 - WILLIAMSBORO ST TO LITTLE JOHN ST		2	0.08	74																
TOTAL FOR PROJ NO. 2021CPT.05.04.30391.1							4.753											961	100			
GRAND TOTAL									19.123			124	700	522	5	11	9	12	2	4,385	200	270
									824			39										







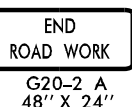
SIGNING FOR RESURFACING PROJECTS

LEGEND
 STATIONARY SIGN
 DIRECTION OF TRAFFIC FLOW



MAINLINE (-L-) SIGNING

-Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	 	PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE. #2 SIGN ONLY USED WHEN CONSTRUCTION LIMITS ARE 2 OR MORE MILES IN LENGTH. ROUND UP TO NEXT WHOLE NUMBER. (NO FRACTIONAL OR DECIMAL NUMBERS)	NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS: 1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE 2) SUBDIVISION ROADS 3) DEAD END ROADS WHEN PAVING/CONSTRUCTION ACTIVITIES PROCEED ACROSS AN UNSIGNED -Y- LINE, PORTABLE ADVANCE WARNING SIGNS SHALL BE USED ALONG THE -Y- LINE AS SHOWN BELOW. REMOVE UPON COMPLETION OF WORK.  <small>W20-1 48" X 48"</small> PLACED 500' IN ADVANCE OF FLAGGER.  <small>W20-7 A 48" X 48"</small> PLACED 250' IN ADVANCE OF FLAGGER.
		- PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACE 1 MILE APART THEREAFTER. - AT TEE INTERSECTIONS INSTALL INITIALLY 1/2 MILE FROM INTERSECTION AND SPACE 1 MILE APART THEREAFTER.	
		- THESE ARE FOR -Y- LINES THAT ARE "THROUGH" ROADWAYS. - DEAD END AND SUBDIVISION ROADS ARE NOT "THROUGH" ROADWAYS. - INSTALL 500' +/- FROM EACH -Y- LINE APPROACH AS SHOWN ABOVE. - FOR MULTIPLE -Y- LINES THAT ARE SEPARATED BY 0.25 MILES OR LESS, TREAT AS A SINGLE UNIT AND INSTALL WITHIN 500' OF EACH APPROACH. - A MAXIMUM OF 2 SIGN SETS PER MILE. DO NOT INSTALL WHEN -Y- LINES ARE WITHIN 0.5 MILES FROM "END ROAD WORK" SIGN. - FOR TEE INTERSECTIONS, INSTALL WITHIN 500' +/- OF THE INTERSECTION ALONG -L- LINE.	
		PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS OR AS SHOWN WHEN WORK ENDS AT A 3-WAY TEE INTERSECTION.	

THE ABOVE SIGNS ARE ALL THAT ARE REQUIRED FOR A CONTRACTOR TO BEGIN A RESURFACING CONTRACT. ANY ADDITIONAL SIGNS REQUESTED BY NCDOT DIVISIONS SHALL BE INSTALLED WITHIN 7 BUSINESS DAYS OF THE START OF CONTRACT WORK.

MAPS LESS THAN 2 MILES

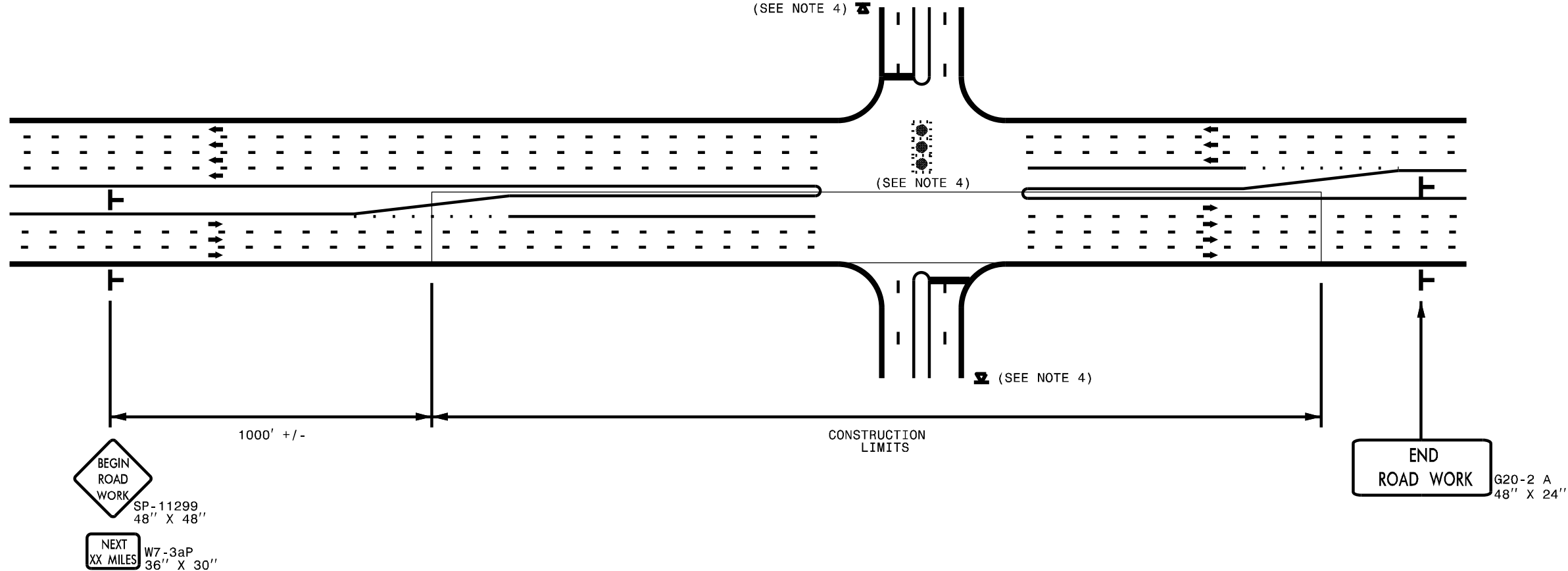
FOR RESURFACING MAPS WITH CONSTRUCTION LIMITS LESS THAN 2 MILES IN LENGTH, NO STATIONARY SIGNS ARE REQUIRED. USE PORTABLE "ROAD UNDER CONSTRUCTION" OR "ROAD WORK AHEAD" SIGNS IN LIEU OF STATIONARY ADVANCE WARNINGS SIGNS.



ADVANCE WARNING SIGNS FOR RURAL AND SUBURBAN 2-LANE ROADWAY RESURFACING

\$\$\$\$\$SYTIME\$\$\$\$\$
 \$\$\$DCON\$\$\$\$\$
 \$\$\$USERNAME\$\$\$\$\$

URBAN / SUBURBAN WORKZONES



NOTES:

- 1) 48" x 48" SIZED SIGNS (SP- 11299) MAY BE REDUCED TO 36" X 36" ON ROADWAYS WITH SPEED LIMITS OF 40 MPH OR LESS.
- 2) MOUNT SIGNS THAT ARE LARGER THAN 10 SQUARE FEET IN AREA ON TWO OR MORE WOOD OR U-CHANNEL SUPPORTS. PERFORATED SQUARE TUBING SUPPORT SYSTEMS MAY SUPPORT LARGER AREAS ON A SINGLE SUPPORT. FOLLOW MANUFACTURER'S RECOMMENDATIONS. THESE SYSTEMS SHALL BE NCHRP 350 COMPLIANT AND NCDOT APPROVED.
- 3) ADVANCE WARNING SIGNS NOT REQUIRED ON NON-SIGNALIZED SIDE STREETS.
- 4) MAY USE LAW ENFORCEMENT TO CONTROL TRAFFIC AT SIGNALIZED INTERSECTIONS AS DIRECTED BY THE ENGINEER. PROVIDE PORTABLE "ROAD WORK AHEAD" (W20-1) SIGNS 500' IN ADVANCE ALONG BOTH APPROACHES FROM THE SIDE STREETS WHEN PAVING PROCEEDS THROUGH THE INTERSECTION.
- 5) LATERAL CLEARANCE AT ALL SIGN LOCATIONS SHALL BE 2' AS MEASURED FROM THE EDGE OF PAVEMENT OR THE FACE OF THE CURB. WHEN UNABLE TO OBTAIN THE LATERAL CLEARANCE WITHIN THE MEDIAN AREA USE SHOULDER MOUNTS ONLY.
- 6) SIGN MOUNT LOCATIONS SHALL NOT BLOCK SIDEWALKS OR DRIVEWAYS.
- 7) IF STATIONARY GENERAL WARNING SIGNS ARE USED, THEY WILL BE PAID FOR PER SECTION 104 OF THE NCDOT STANDARD SPECIFICATIONS AS EXTRA WORK.
- 8) IF MILLED AREAS ARE NOT PAVED BACK BY THE END OF THE WORK DAY, PORTABLE SIGNS SHALL BE USED TO WARN DRIVERS OF THE PRESENT CONDITIONS. THESE ARE TO INCLUDE, BUT NOT LIMITED TO "ROUGH ROAD" W8-8, "UNEVEN LANES" W8-11, "GROOVED PAVEMENT" W8-15 w/MOTORCYCLE PLAQUE MOUNTED BELOW. THESE ARE TO BE DOUBLE INDICATED ON MULTI-LANE ROADWAYS WITH SPEED LIMITS 45 MPH AND GREATER WHERE LATERAL CLEARANCE CAN BE OBTAINED WITHIN THE MEDIAN AREAS. THESE PORTABLE SIGNS ARE INCIDENTAL TO THE OTHER ITEMS OF WORK INCLUDED IN THE TEMPORARY TRAFFIC CONTROL (LUMP SUM) PAY ITEM.

LEGEND	
T	STATIONARY SIGN
➔	DIRECTION OF TRAFFIC FLOW



**RESURFACING ADVANCE
WARNING SIGNS FOR
URBAN / SUBURBAN
FACILITIES**


\$\$\$SYTIME\$\$\$\$\$
 \$\$\$DCON\$\$\$\$\$
 \$\$\$USERNAME\$\$\$\$\$

2/26/2021 10:15:15 AM User:dpbety

CONTRACT: XXXXXXXX T.I.P.: X-XXXXX

**STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING AND SIGN PLAN
GRANVILLE COUNTY
CITY OF OXFORD**

TIP NO. X-XXXXX	SHEET NO. PMP - 1
APPROVED: _____	
DATE: _____	
	
<small>DocuSigned by: Frances Gallagher</small> <small>2/26/2021</small>	
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INDEX

SHEET NO.	DESCRIPTION
PMP-1	PAVEMENT MARKING PLAN TITLE AND SCHEDULE SHEET
PMP-2-8	PAVEMENT MARKING DETAIL
SIGN-1	SIGN INSTALLATION DETAIL

GENERAL NOTES

- THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT, EXCEPT WHEN OTHERWISE NOTED IN THE PLAN, OR DIRECTED BY THE ENGINEER.
- A) INSTALL PAVEMENT MARKINGS AND PAVEMENT MARKERS ON THE FINAL SURFACE AS FOLLOWS:
- | ROAD NAME | MARKING | MARKER |
|----------------|---------------|--------|
| ALEXANDER AVE. | THERMOPLASTIC | |
| SPRING ST. | THERMOPLASTIC | |
| RALEIGH ST. | THERMOPLASTIC | |
| EIGHTH ST. | THERMOPLASTIC | |
- B) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- C) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS.
- D) PASSING ZONES WILL BE DETERMINED IN THE FIELD AND MUST BE APPROVED BY THE ENGINEER.
- E) STOP BAR LOCATION AT NON-SIGNALIZED INTERSECTIONS MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER.
- F) UNLESS OTHERWISE SPECIFIED, HEATED-IN-PLACE THERMOPLASTIC MAY BE USED IN LIEU OF EXTRUDED THERMOPLASTIC FOR STOP BARS, SYMBOLS, CHARACTERS AND DIAGONALS. IF HEATED-IN-PLACE IS USED, IT SHALL BE PAID FOR USING THE EXTRUDED THERMOPLASTIC PAY ITEM.
- G) ALL BICYCLE LANE SYMBOLS SHALL BE HEATED-IN-PLACE THERMOPLASTIC. SYMBOLS SHALL BE PAID FOR USING THE HEATED-IN-PLACE PAY ITEM.

**PAVEMENT MARKING
SCHEDULE**

<p><u>THERMOPLASTIC (4", 90 MILS)</u></p> <p>T1 - WHITE EDGELINE T2 - WHITE SOLID LANE LINE T3 - 10 FT. WHITE SKIP T4 - 3 FT.-9 FT./SP WHITE MINISKIP T5 - 2 FT.-6 FT./SP WHITE MINISKIP T10- YELLOW EDGELINE T13- YELLOW DOUBLE CENTER T200-WHITE DIAGONAL, BICYCLE BUFFER</p> <p><u>THERMOPLASTIC (8", 90 MILS)</u></p> <p>T46- WHITE CROSSWALK LINE</p> <p><u>THERMOPLASTIC (12", 90 MILS)</u> T50 - WHITE GORELINE</p> <p><u>THERMOPLASTIC (16", 90 MIL)</u></p> <p>T60- WHITE LINE, RR X</p> <p><u>THERMOPLASTIC (24", 90MIL)</u></p> <p>T61- WHITE STOPBAR T62- WHITE CROSSWALK LINE</p>	<p><u>THERMOPLASTIC PAVEMENT MARKING SYMBOLS AND CHARACTERS (90 MILS)</u></p> <p>T70- LEFT TURN ARROW T71- RIGHT TURN ARROW T72- STRAIGHT ARROW T73- COMBO LEFT/STRAIGHT ARROW T74- COMBO RIGHT/STRAIGHT ARROW T90- BICYCLE SYMBOL (HEATED-IN-PLACE) T91- BICYCLE STRAIGHT ARROW (HEATED-IN-PLACE) T94- SHARROW (HEATED-IN-PLACE) T100- ALPHANUMERIC CHARACTER</p>
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ROADWAY STANDARD DRAWING

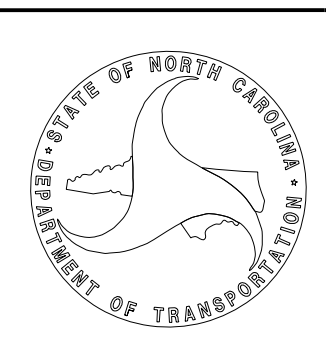
THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2018 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
904.50	SIGNING - MOUNTING OF TYPE 'D', 'E', AND 'F' SIGNS ON 'U' CHANNEL POST
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTILANE ROADWAYS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.06	PAVEMENT MARKINGS - LANE DROPS
1205.07	PAVEMENT MARKINGS - PEDESTRIAN CROSSWALKS
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205.11	PAVEMENT MARKINGS - RAILROAD CROSSINGS
1205.13	PAVEMENT MARKINGS - LANE REDUCTIONS

This project has not been surveyed. Topography digitized from Orthoimagery (NCONEMAP Latest Imagery). Proposed Markings and signs shall be field located by Engineer in accordance with MUTCD and NCDOT Standards.
https://services.nconemap.gov/secure/services/Imagery/Orthoimagery_Latest/ImageServer/WMSserver

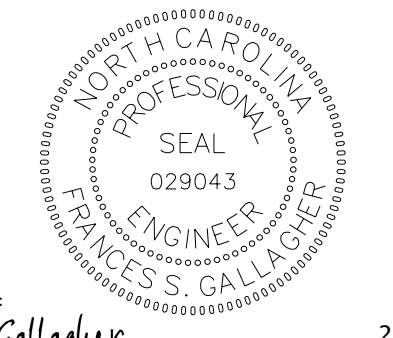
PLAN SUBMITTED TO: DIVISION 5

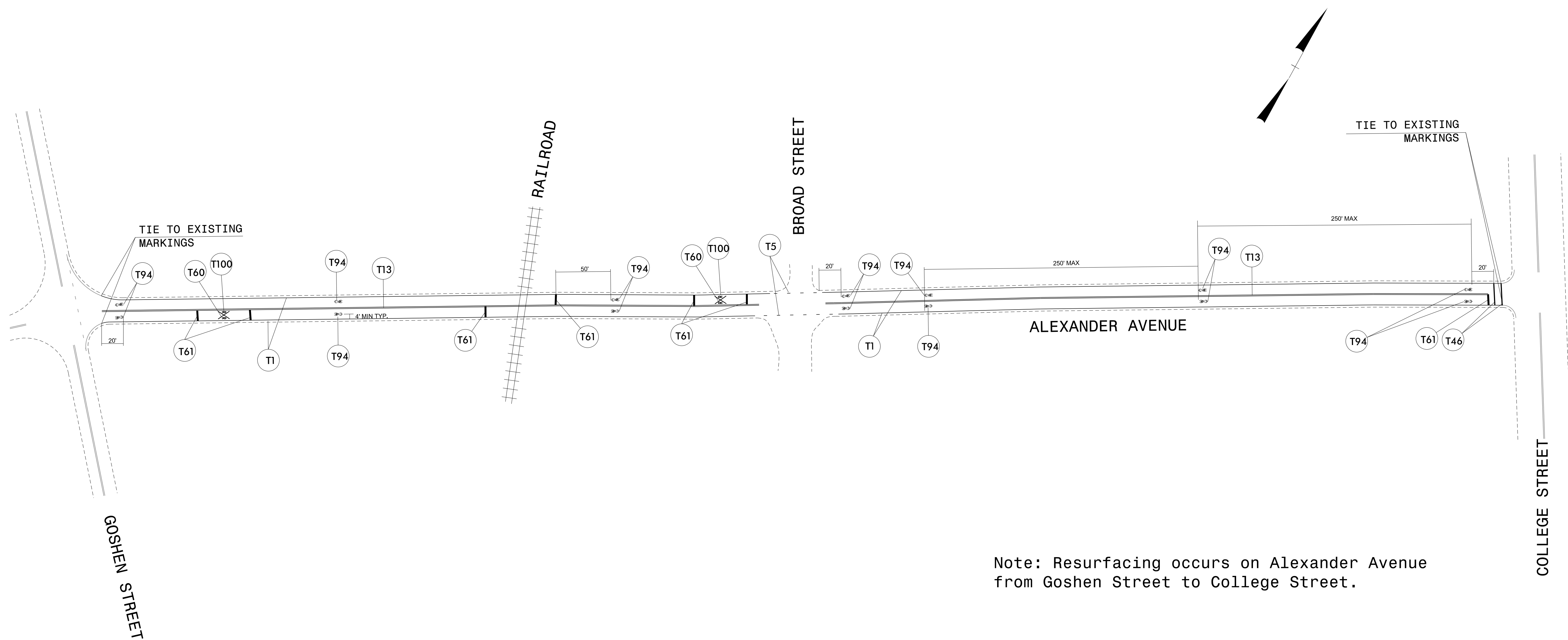
name and title



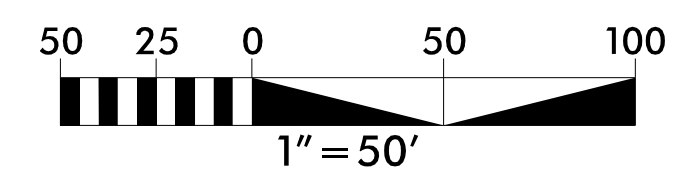
PLAN PREPARED BY: WITHERSRAVENEL

FRANCES GALLAGHER, PE PROJECT ENGINEER
TONYA BROWN PROJECT DESIGNER

TIP NO.	SHEET NO.
	PMP - 2
APPROVED: _____	
DATE: _____	
SEAL	
	
<small>DocuSigned by:</small> <i>Frances Gallagher</i> 2/26/2021	
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Note: Resurfacing occurs on Alexander Avenue from Goshen Street to College Street.

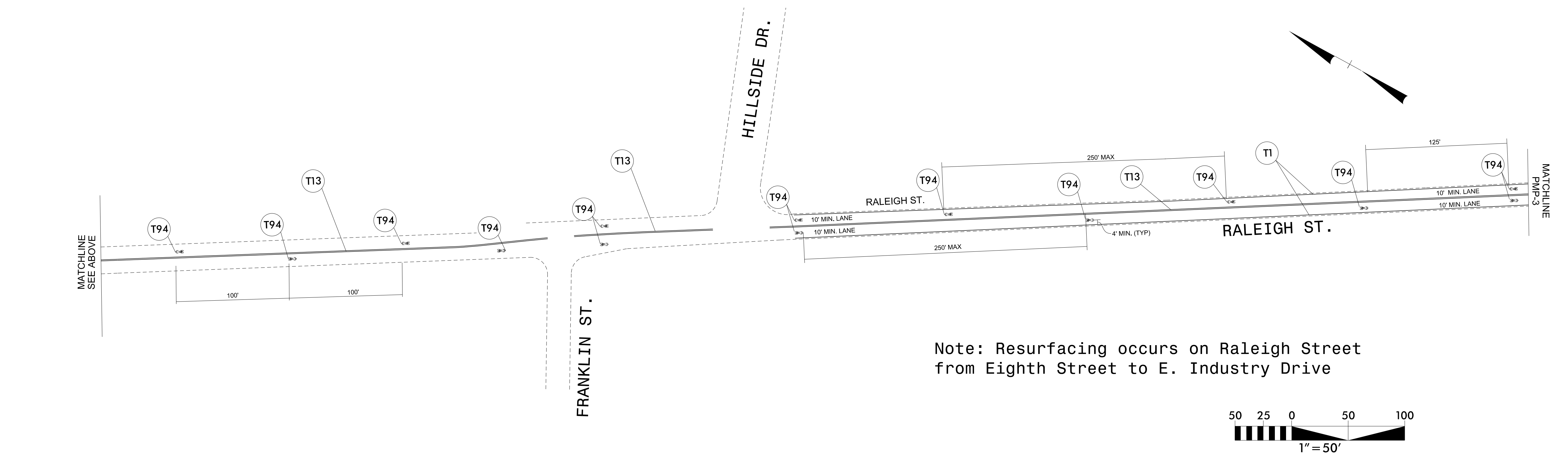
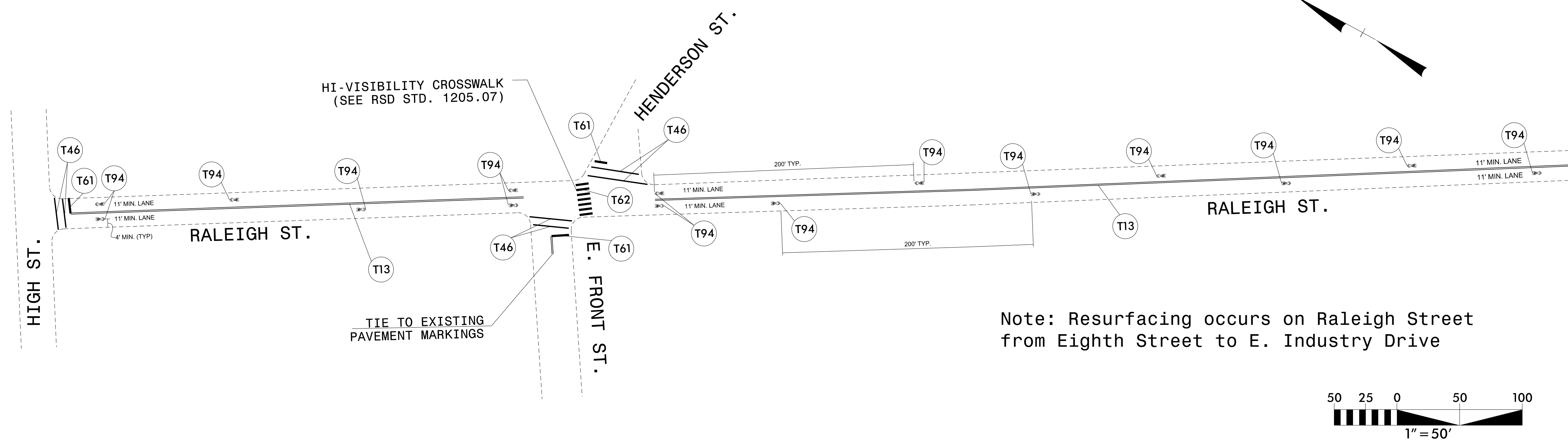


WithersRavenel
 Engineers | Planners | Surveyors
 424 Gallimore Dairy Road, Suite C | Greensboro, NC 27409
 | t: 336.605.3009 | license #: C-0832 | www.withersravenel.com

PAVEMENT MARKING DETAIL 1

2/26/2021
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TIP NO.	SHEET NO.
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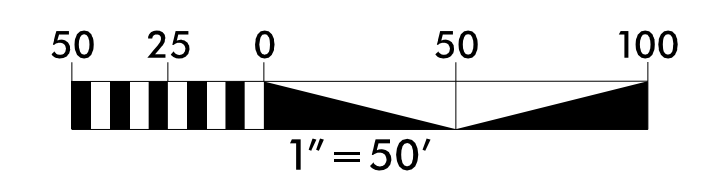
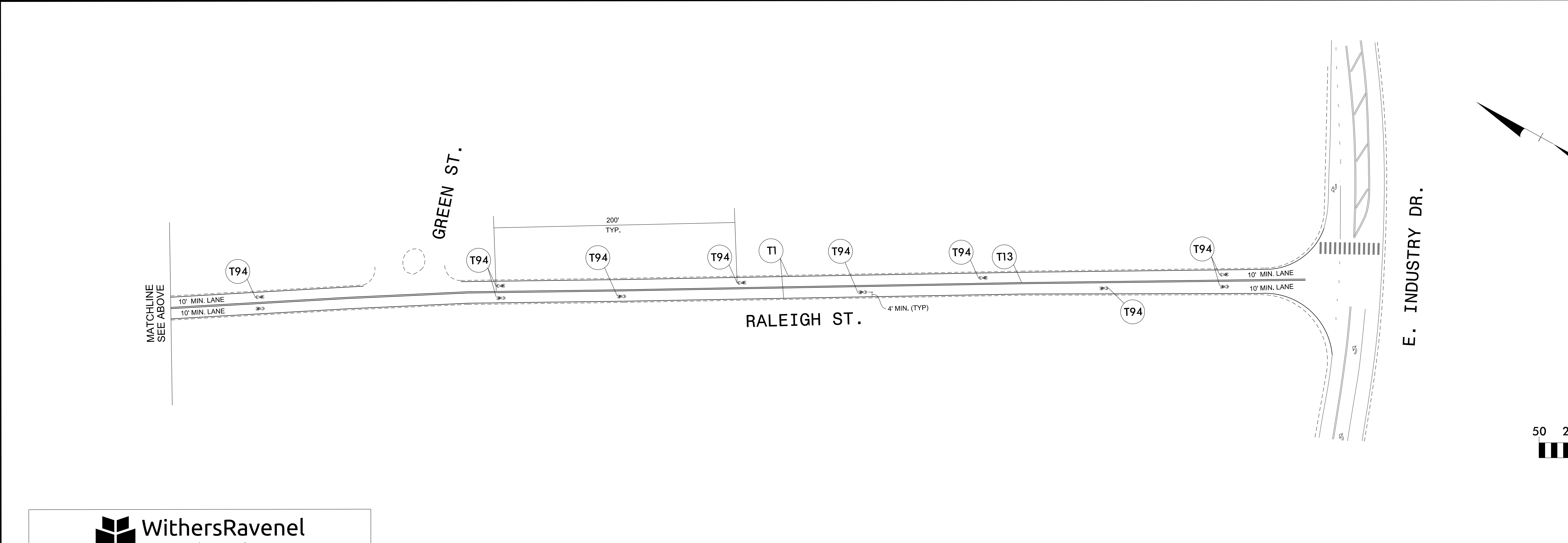
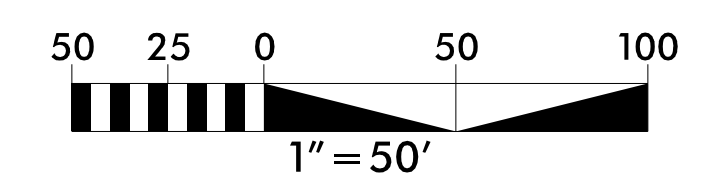
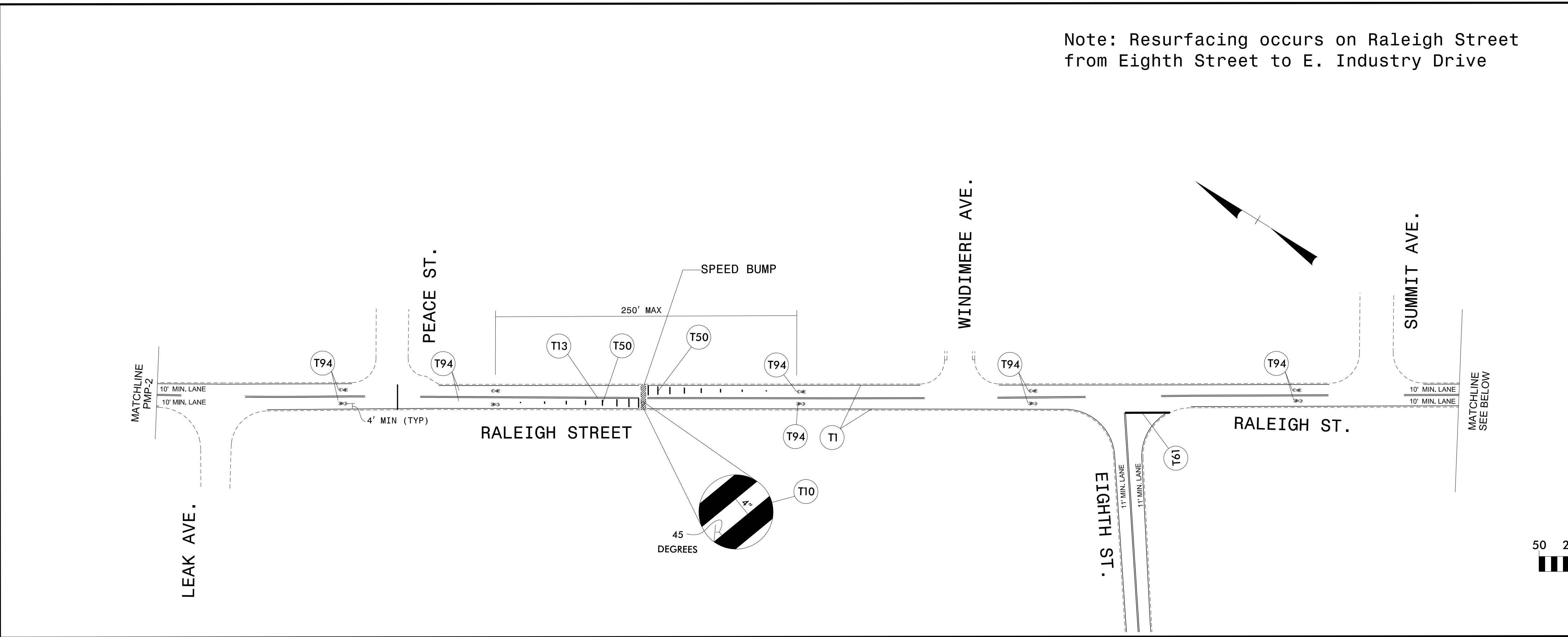
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PAVEMENT MARKING DETAIL 2

2/26/2021
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TIP NO.	SHEET NO.
	PMP - 4
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DATE: _____	
SEAL	
	
DocuSigned by: <i>Frances Gallagher</i> 2/26/2021	
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Note: Resurfacing occurs on Raleigh Street from Eighth Street to E. Industry Drive




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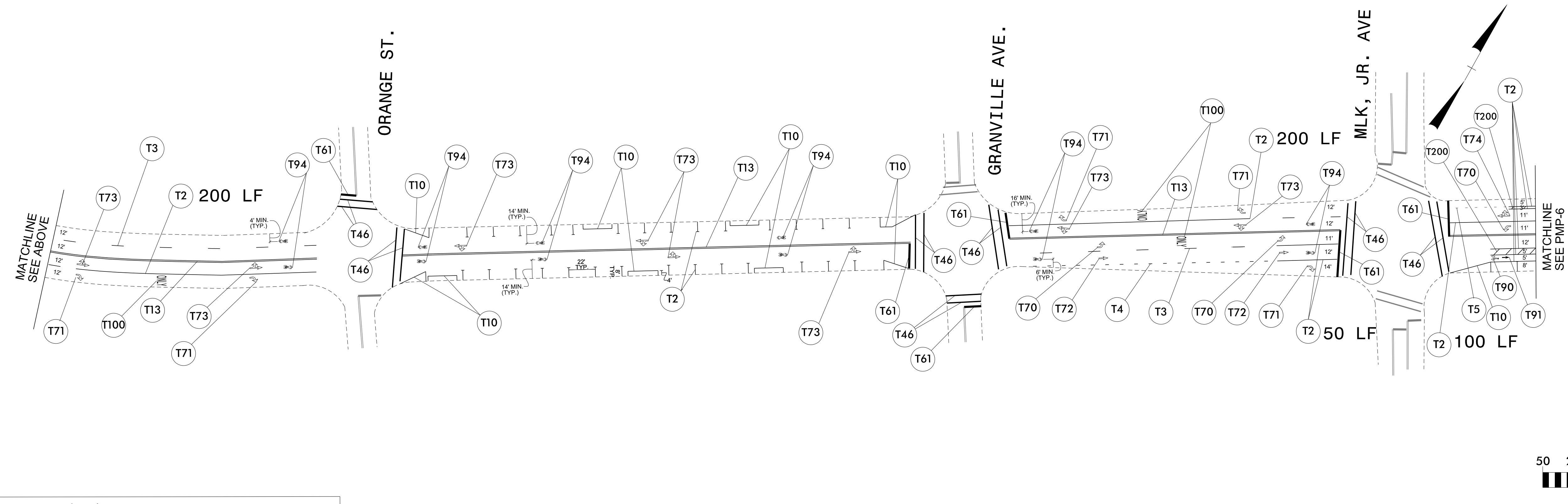
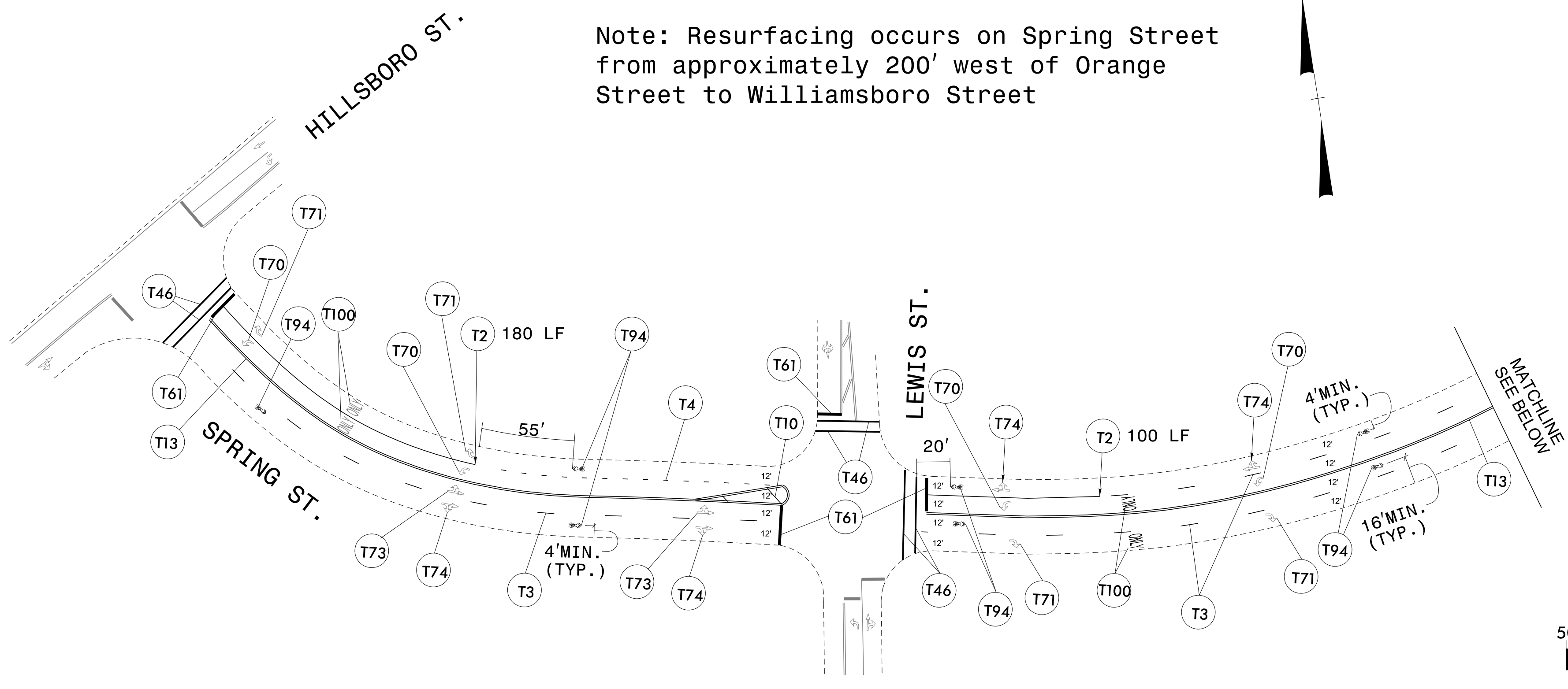
Note: Resurfacing occurs on Raleigh Street from Eighth Street to E. Industry Drive

PAVEMENT MARKING DETAIL 3

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	PMP - 5
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DATE: _____	
SEAL	
	
DocuSigned by: <i>Frances Gallagher</i>	2/26/2021
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

Note: Resurfacing occurs on Spring Street from approximately 200' west of Orange Street to Williamsboro Street



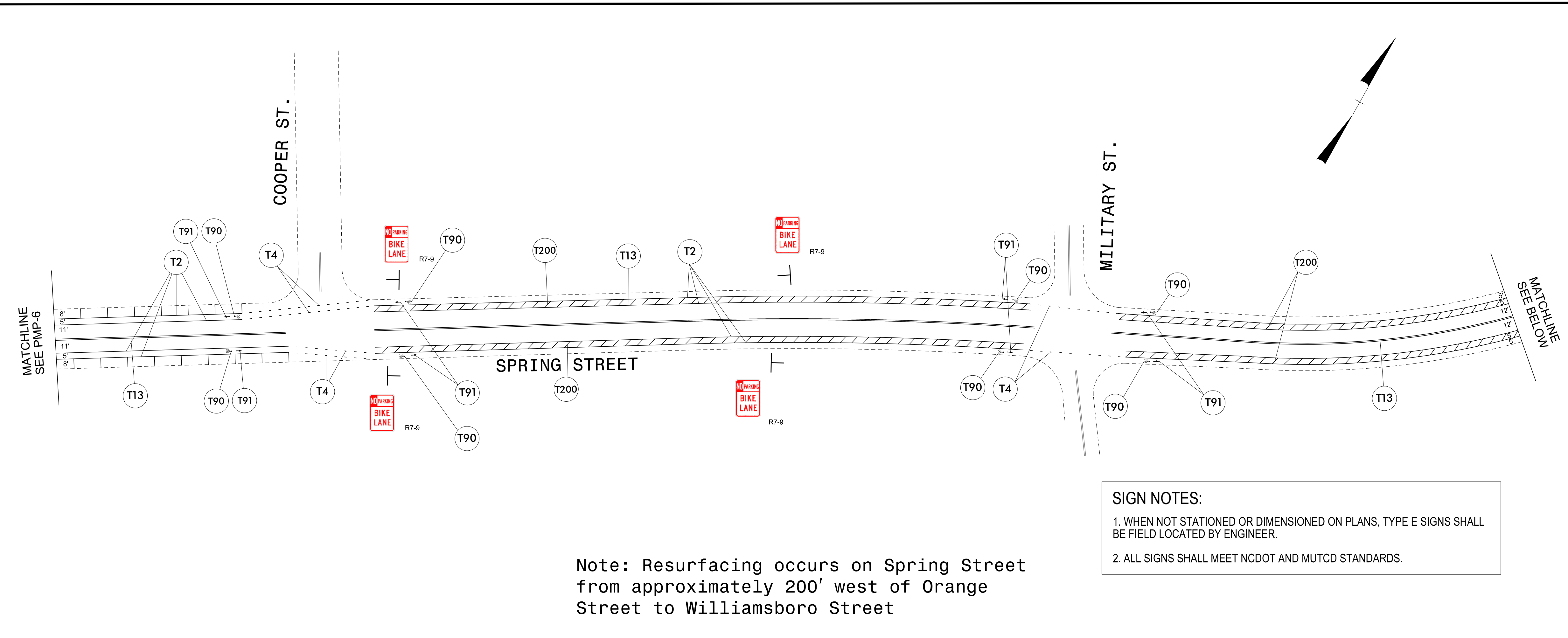
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Note: Resurfacing occurs on Spring Street from approximately 200' west of Orange Street to Williamsboro Street

PAVEMENT MARKING DETAIL 4

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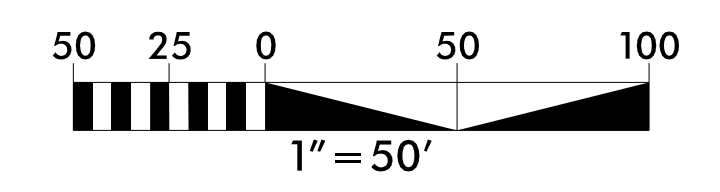
TIP NO.	SHEET NO.
	PMP - 7
APPROVED: _____	
DATE: _____	
SEAL	
<small>DocuSigned by:</small> Frances Gallagher 2/26/2021 DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



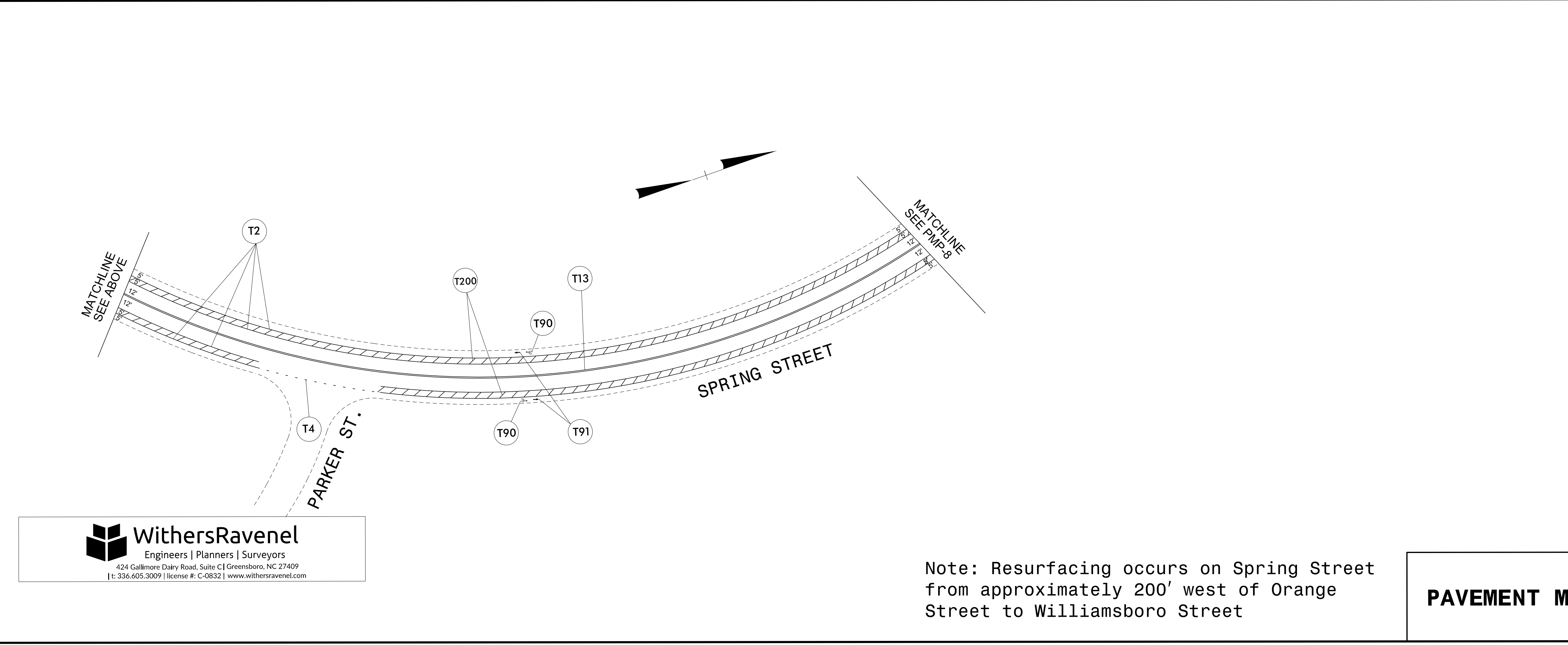
Note: Resurfacing occurs on Spring Street from approximately 200' west of Orange Street to Williamsboro Street

SIGN NOTES:

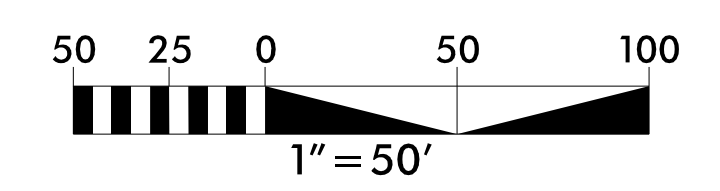
1. WHEN NOT STATIONED OR DIMENSIONED ON PLANS, TYPE E SIGNS SHALL BE FIELD LOCATED BY ENGINEER.
2. ALL SIGNS SHALL MEET NCDOT AND MUTCD STANDARDS.



2/26/2021 11:15:03 AM K:\15-0340\150346\11-2017 PowellBill Construction Phase Svcs\CAD\Pavement Marking Plan\PMP_DTL_4-7.dgn User:rdptry




Note: Resurfacing occurs on Spring Street from approximately 200' west of Orange Street to Williamsboro Street

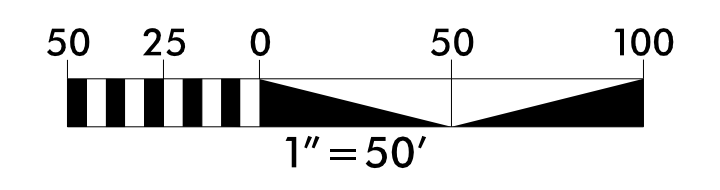
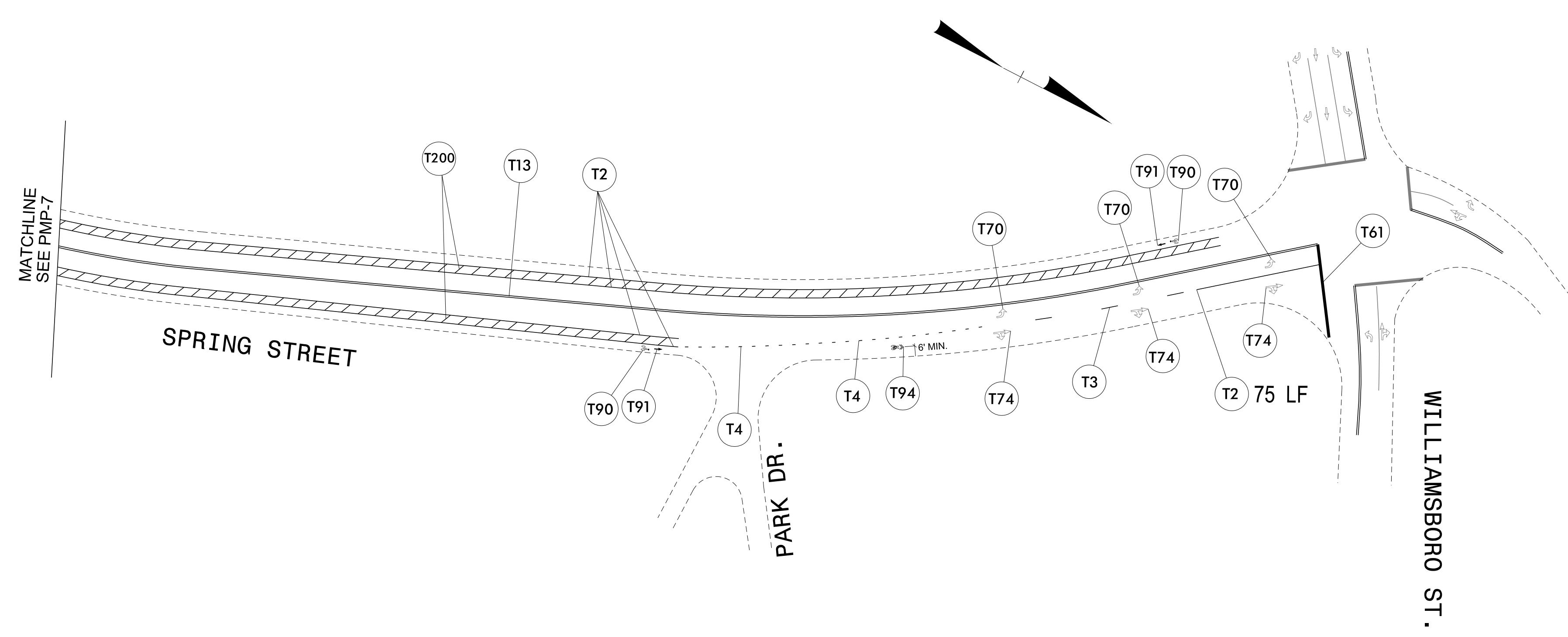


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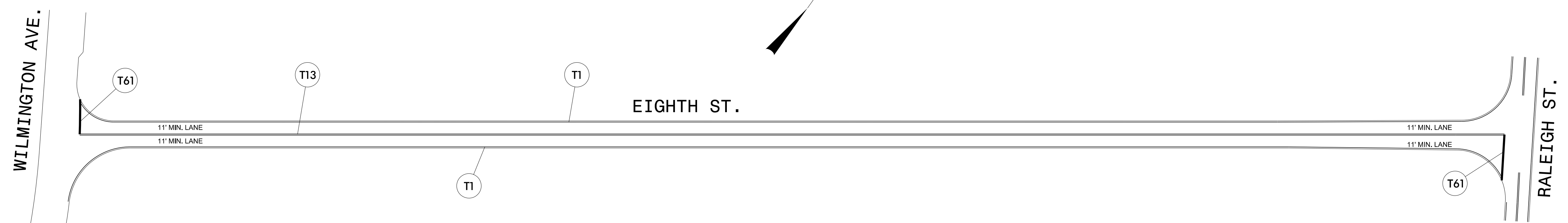
PAVEMENT MARKING DETAIL 6

TIP NO.	SHEET NO.
	PMP-8
APPROVED: _____	
DATE: _____	
SEAL	
	
<small>DocuSigned by:</small> <i>Frances Gallagher</i> 2/26/2021	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

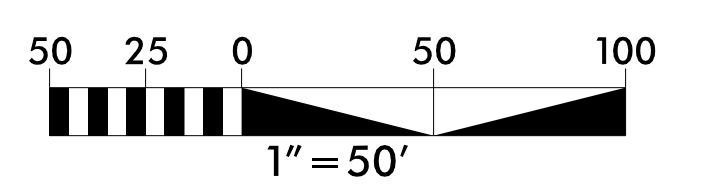
Note: Resurfacing occurs on Spring Street from approximately 200' west of Orange Street to Williamsboro Street.



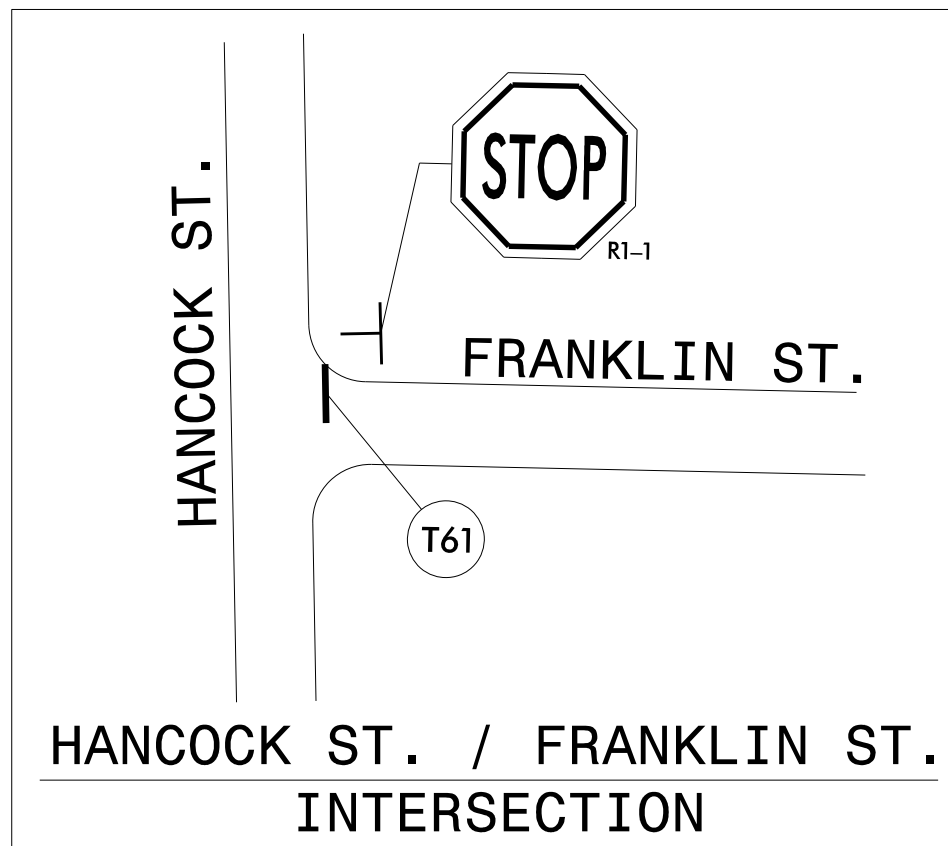
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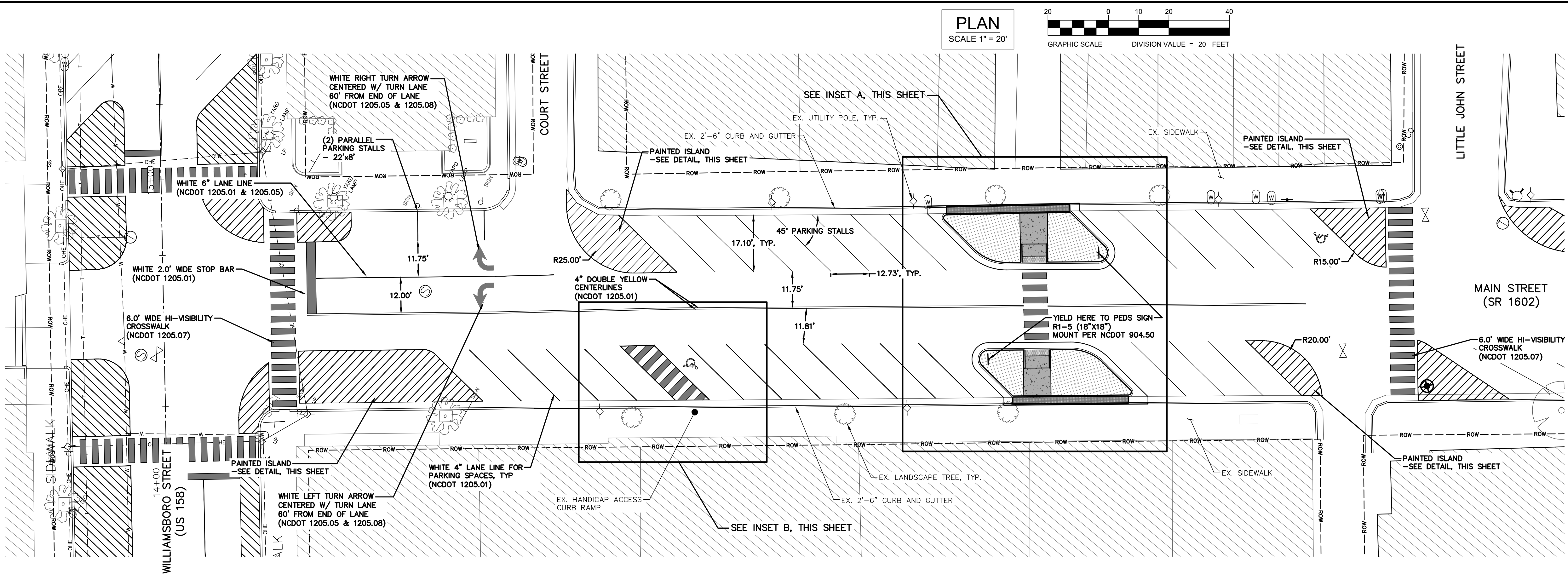
Note: No resurfacing occurs on Eighth Street.



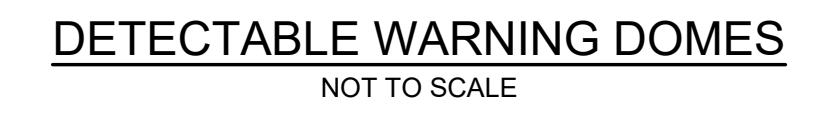
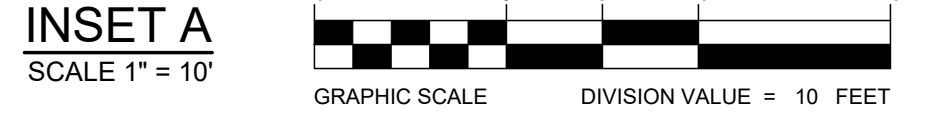
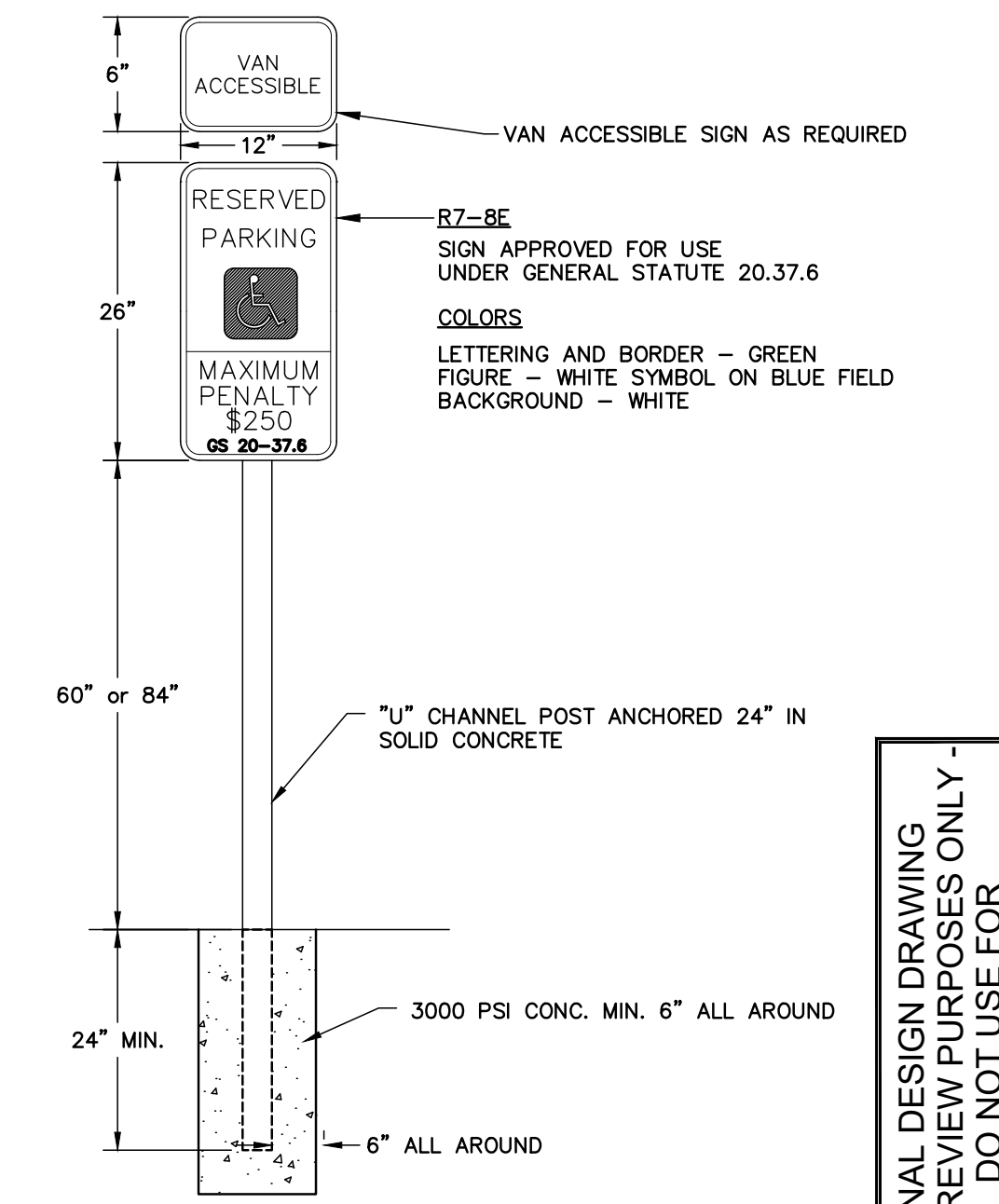
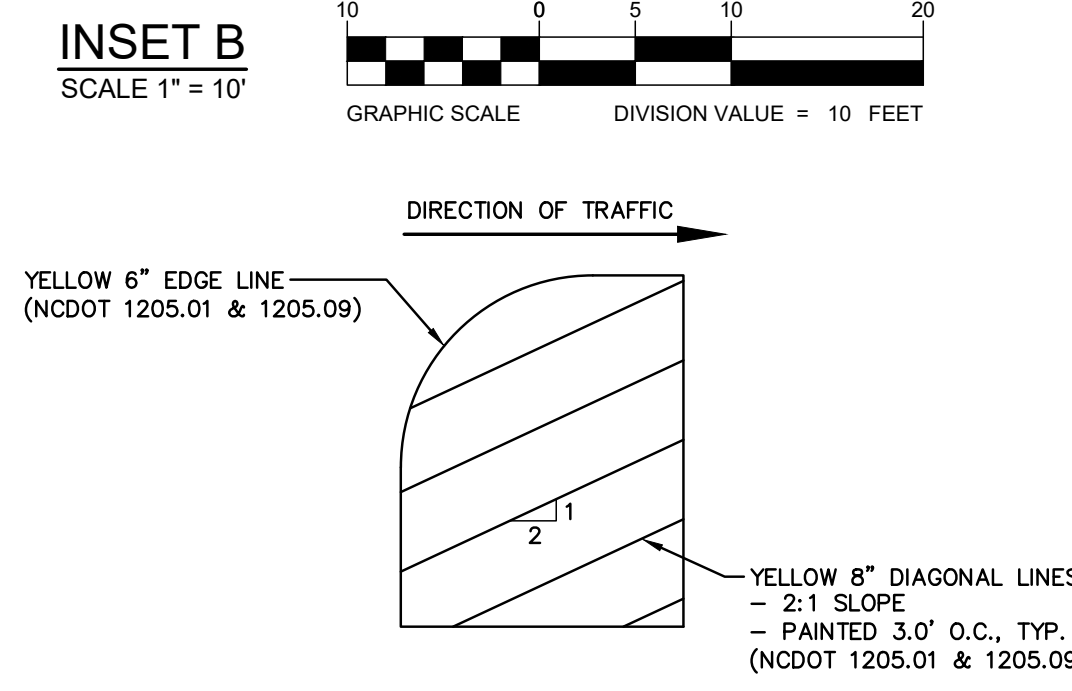
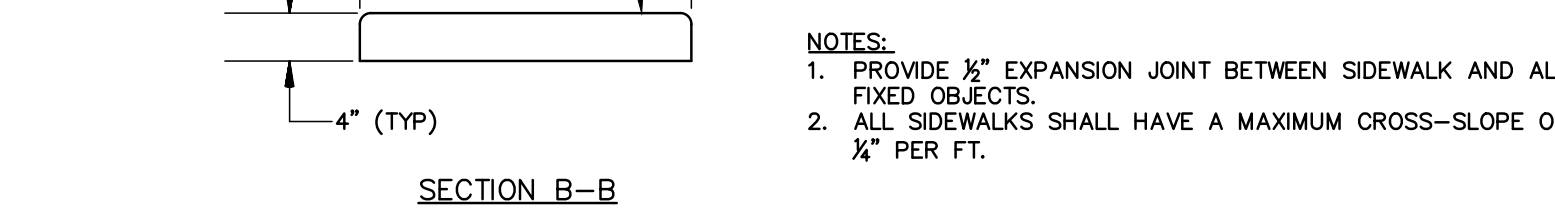
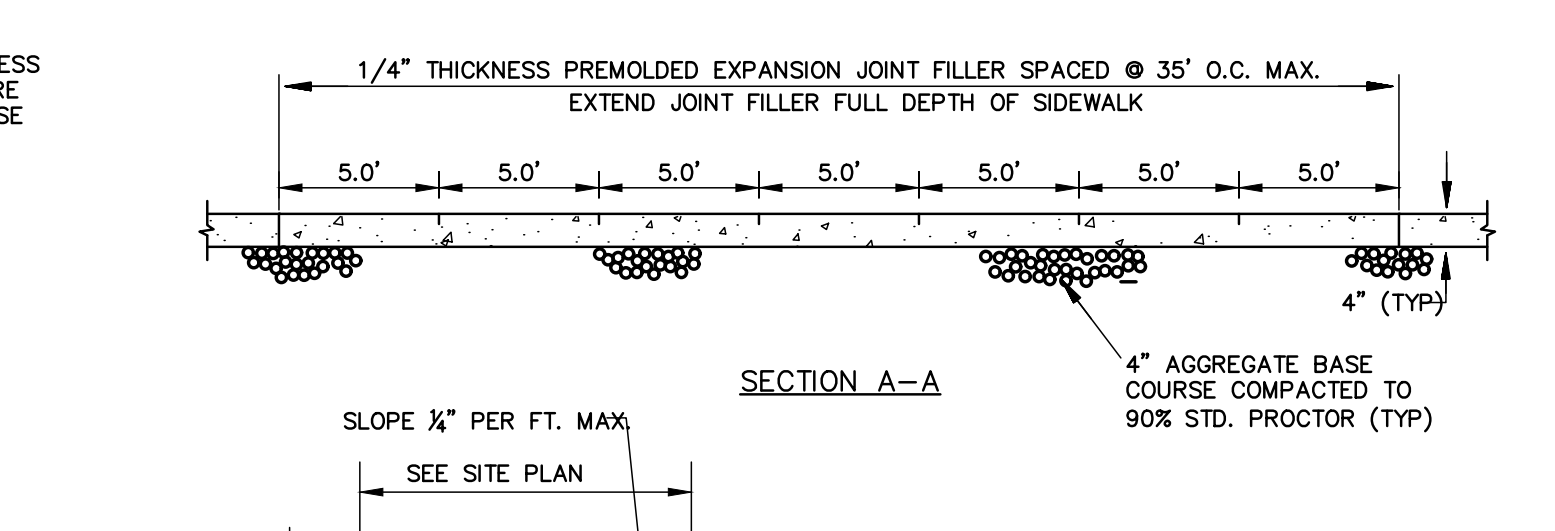
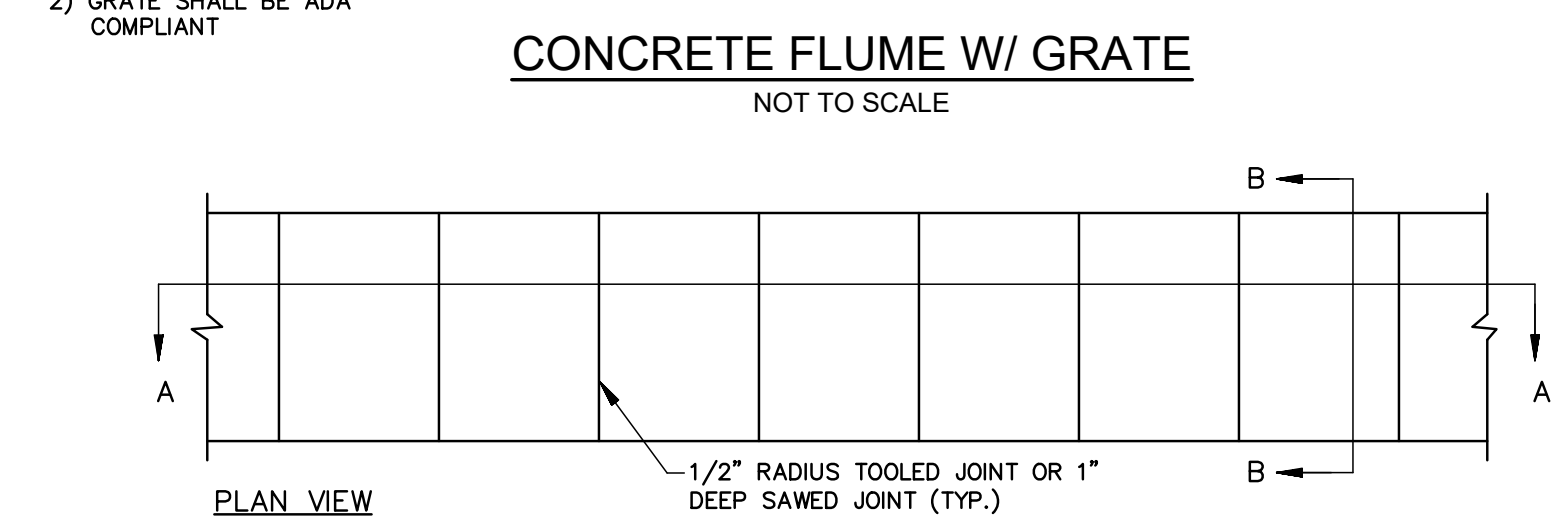
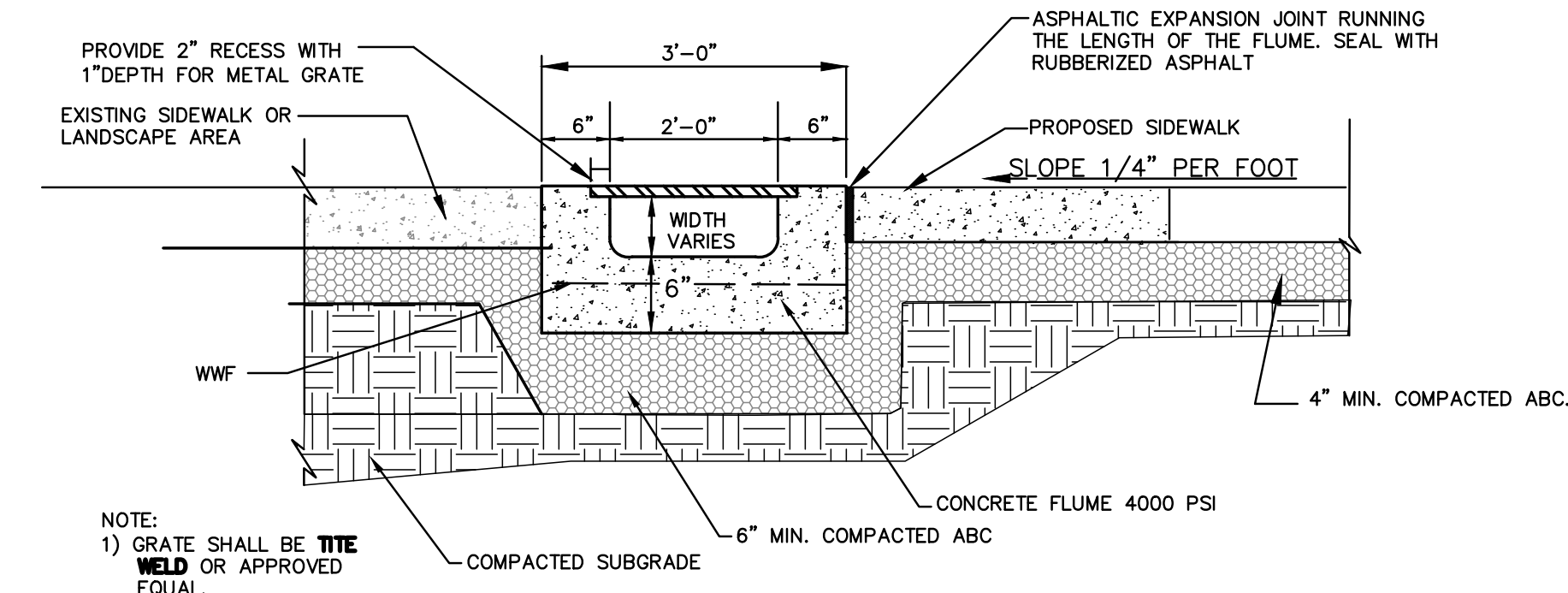
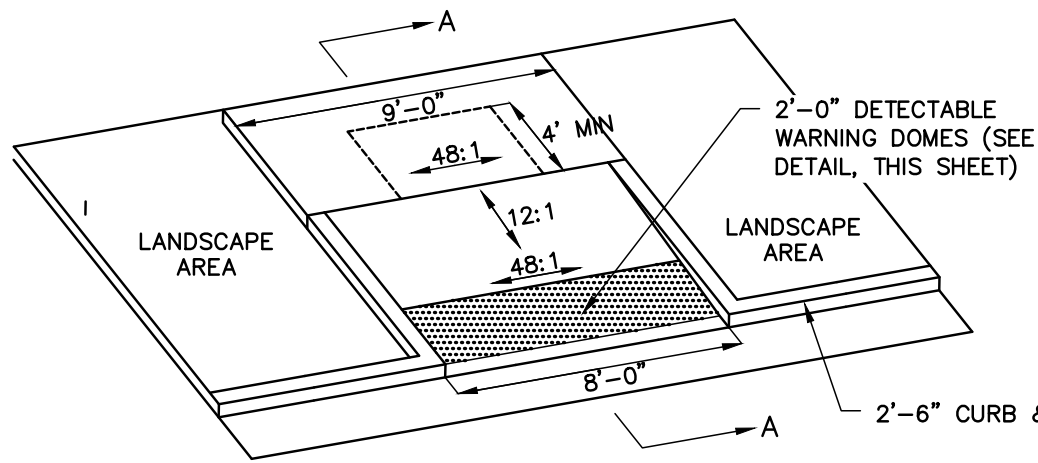
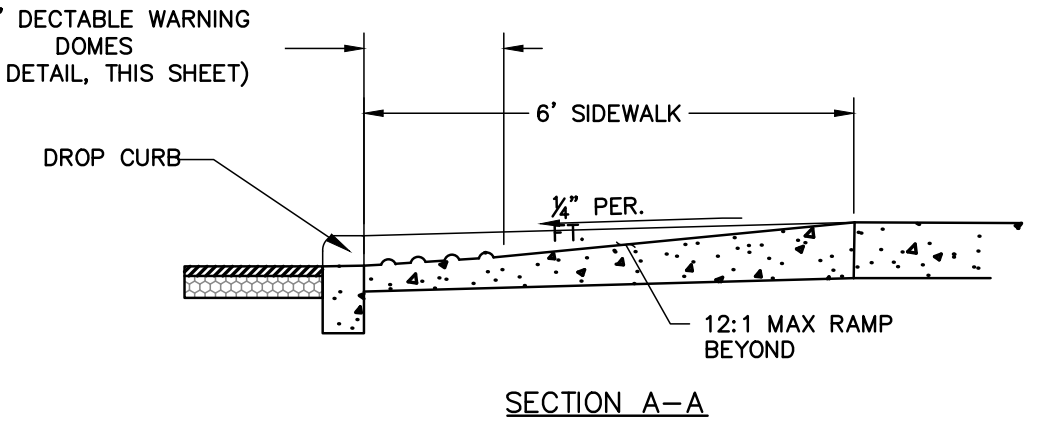
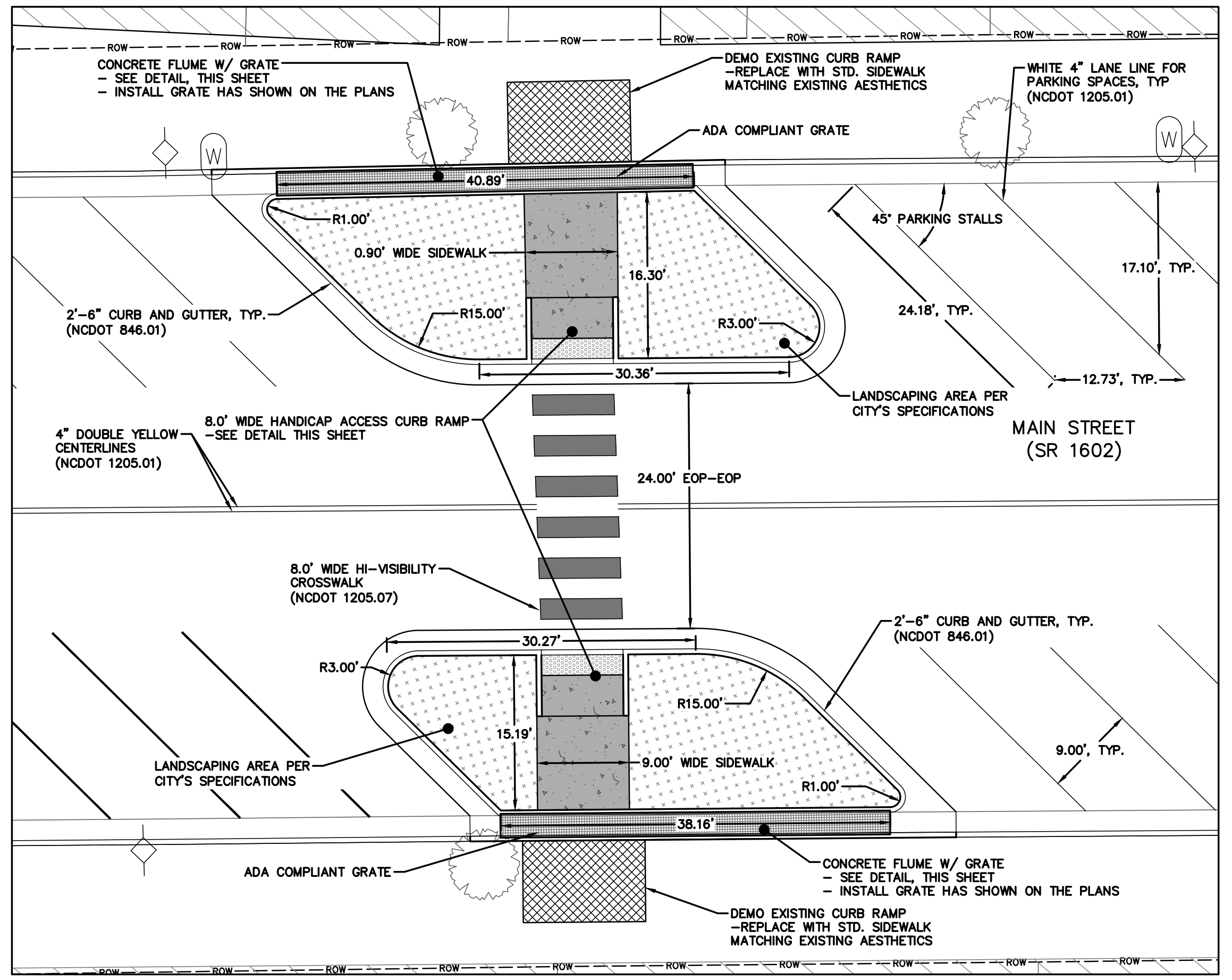
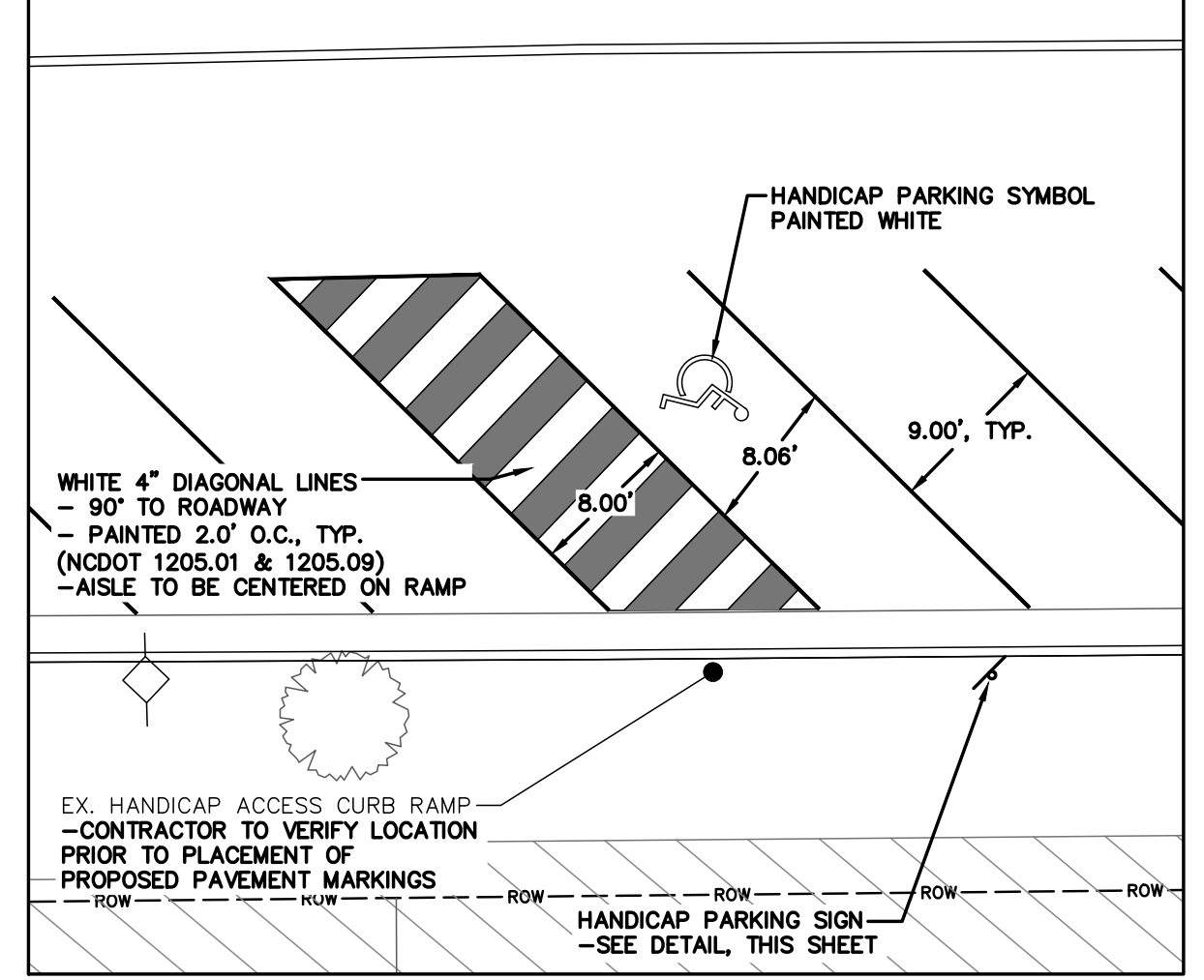
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PAVEMENT MARKING DETAIL 7



- GENERAL LAYOUT NOTES**
1. ALL DIMENSIONS INDICATED ON THE LAYOUT ARE BACK OF CURB, UNLESS NOTED OTHERWISE.
 2. REFER TO NCDOT'S 2018 ROADWAY STANDARD DRAWINGS.
 3. FOR ALL LANDSCAPE AREAS, REMOVE PAVEMENT AND RELATED MATERIALS TO A MINIMUM OF 2' OR BELOW EXISTING IMPERVIOUS MATERIALS (WHICHEVER IS GREATER) AND REPLACE WITH SUITABLE PLANTING SOIL.



- NOTES:**
1. DETECTABLE WARNING DOMES SHALL COVER 2'-0" LENGTH AND FULL WIDTH OF THE RAMP FLOOR AS SHOWN ON THE DETAILS.
 2. DETECTABLE WARNING DOMES SECTION SHALL CONTRAST VISIBLY WITH ADJOINING SURFACE, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT SEQUENCE COVERING THE ENTIRE RAMP.

- NOTES:**
1. PROVIDE 1/2" EXPANSION JOINT BETWEEN SIDEWALK AND ALL FIXED OBJECTS.
 2. ALL SIDEWALKS SHALL HAVE A MAXIMUM CROSS-SLOPE OF 1/4" PER FT.

P:\2020\01\01-0XF-ORD-OC-MAN STREET PEDESTRIAN IMPROVEMENTS\DRWG\01-LAYOUT\PLANDWG\01-01-2021 9:23 AM SPENCER MEEKINS

5400 Trinity Road
Suite 107
Raleigh, NC 27607
919.378.9111
NC Firm License # C-0459
mcgillassociates.com

NO.	DATE	BY	DESCRIPTION
1	2-11-21	BJR	REVISED PER NCDOT COMMENTS

MAIN STREET
PEDESTRIAN IMPROVEMENTS
CITY OF OXFORD
GRANVILLE COUNTY, NORTH CAROLINA

AS NOTED	
OFFICE MANAGER B. ROARK	DESIGNER S. MEEKINS
PROJECT MANAGER B. ROARK	REVIEWER B. ROARK

LAYOUT PLAN	
DATE OCTOBER 19, 2020	PROJECT # 20.01931
FUNDING # N/A	

SHEET
C-001

FINAL DESIGN DRAWING
- FOR REVIEW PURPOSES ONLY -
DO NOT USE FOR
CONSTRUCTION

**DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA**

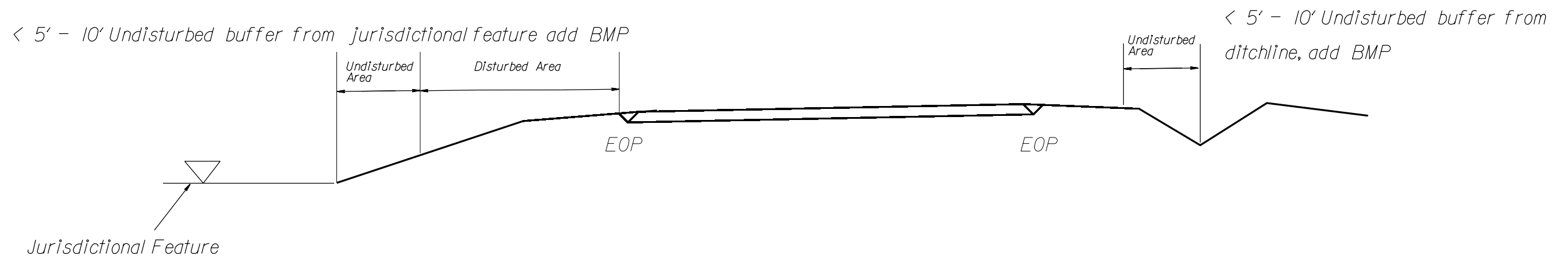
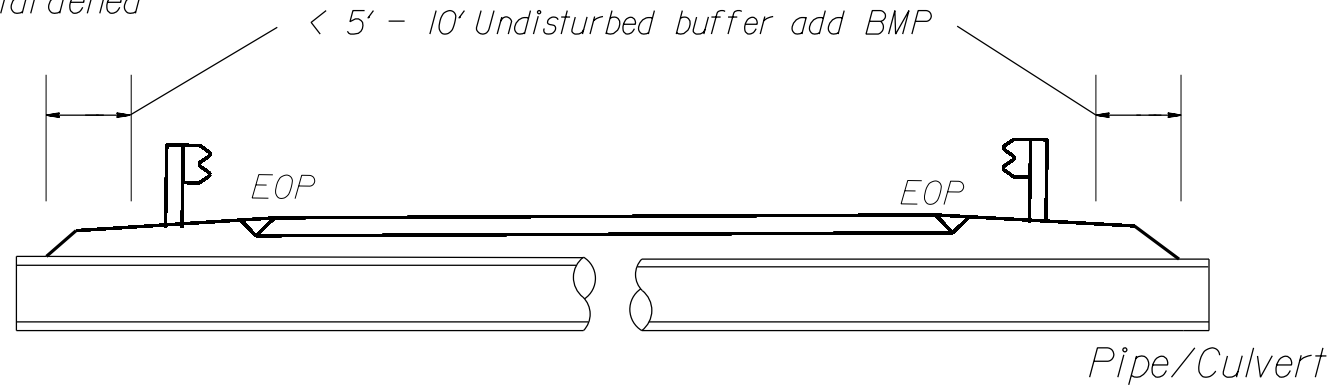
SOIL STABILIZATION TIMEFRAMES

<i>SITE DESCRIPTION</i>	<i>STABILIZATION TIME</i>	<i>TIMEFRAME EXCEPTIONS</i>
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HOW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HOW ZONES.

NOTES: Less than 5' - 10' undisturbed buffer from ROW, ditchline, water feature, or drainage inlet, add BMP.

BMP Options: Wattle, Silt Fence or Hardened Aggregate.

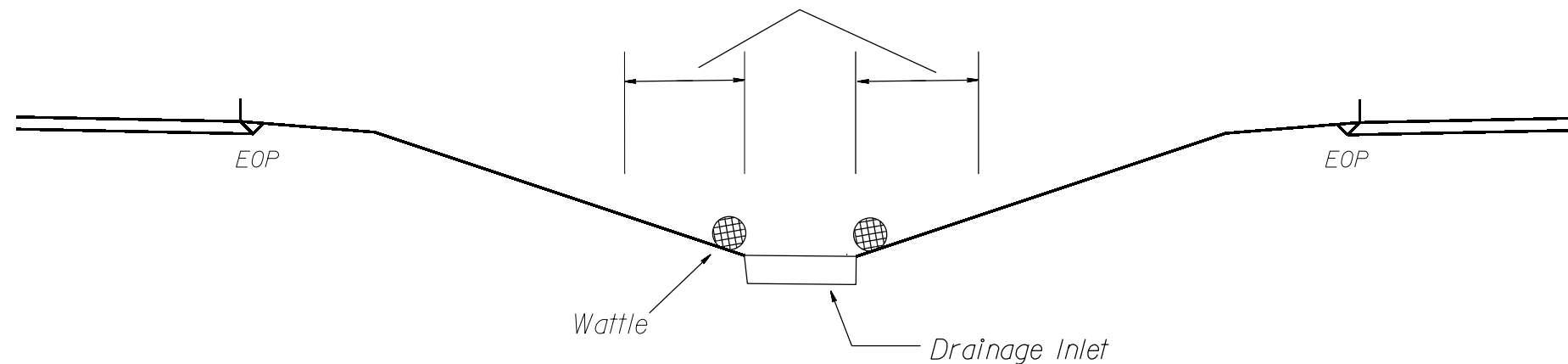
EROSION CONTROL DETAIL



Use BMP's if shoulders and/or frontslopes and/or ditchline and/or backslopes are disturbed

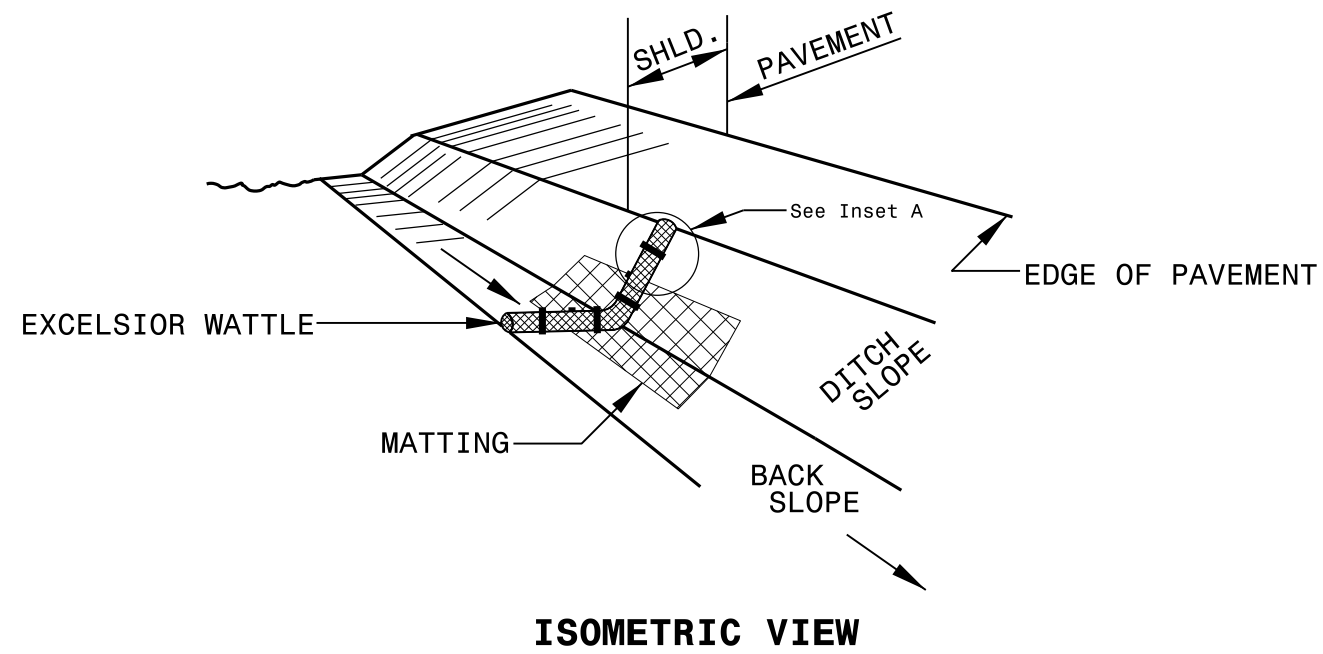


< 5' - 10' Undisturbed buffer from inlet, add wattle



NOT TO SCALE

WATTLE DETAIL



NOTES:

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

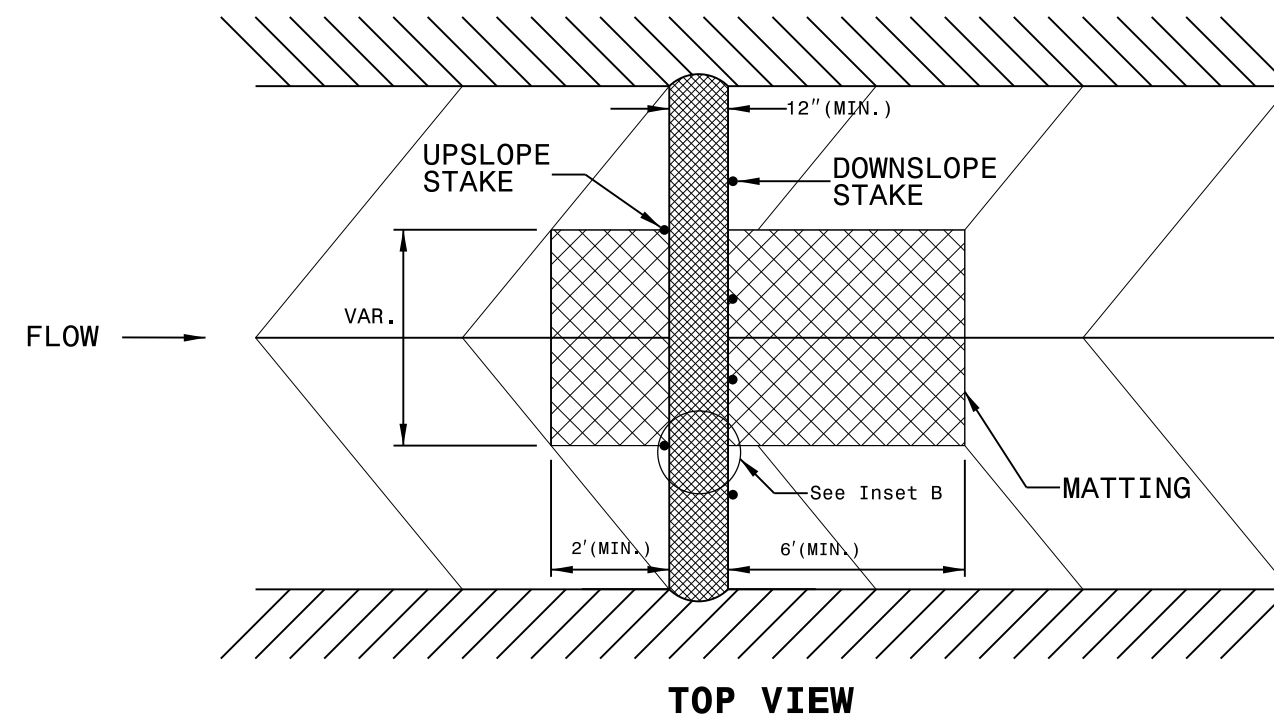
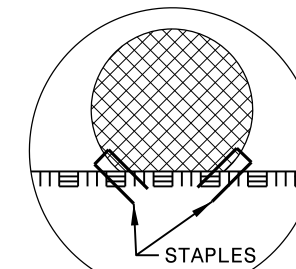
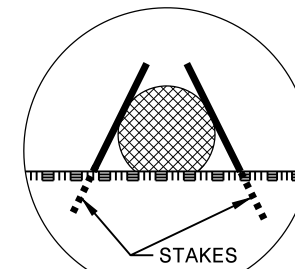
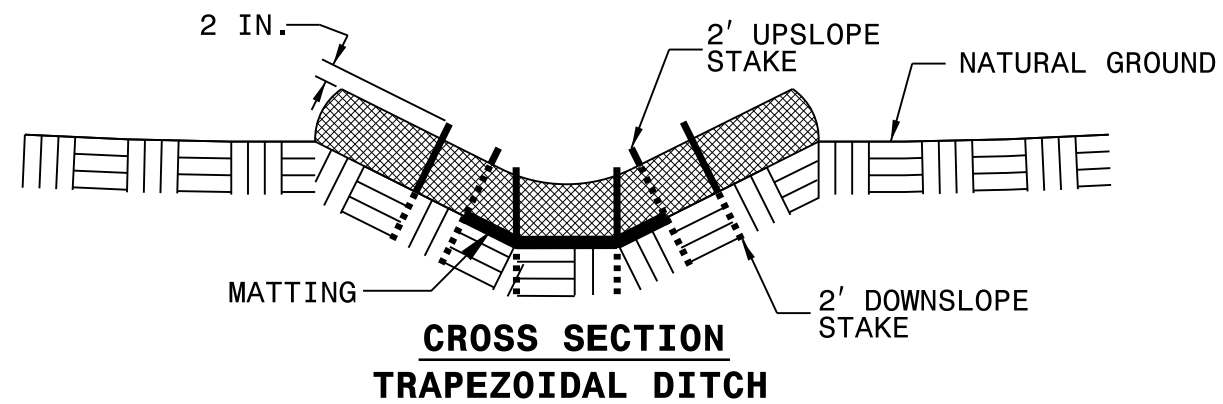
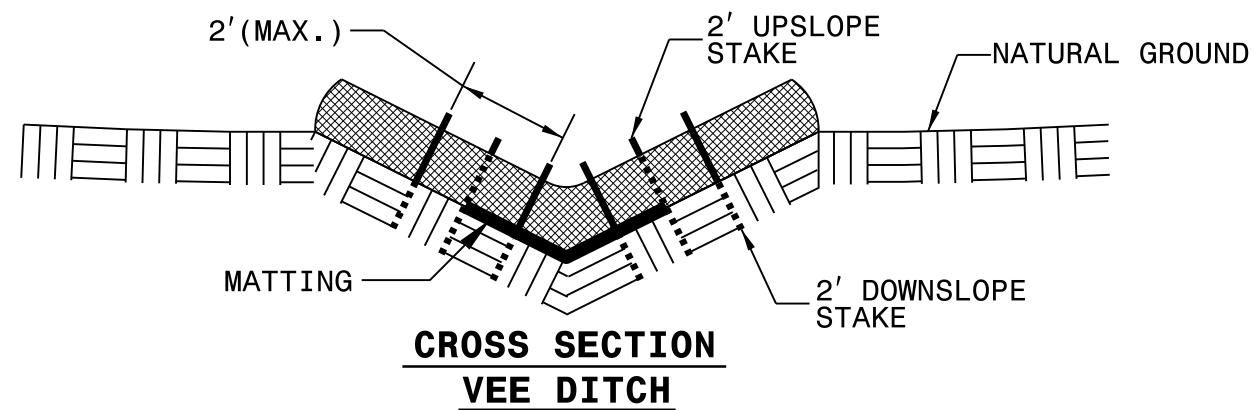
ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

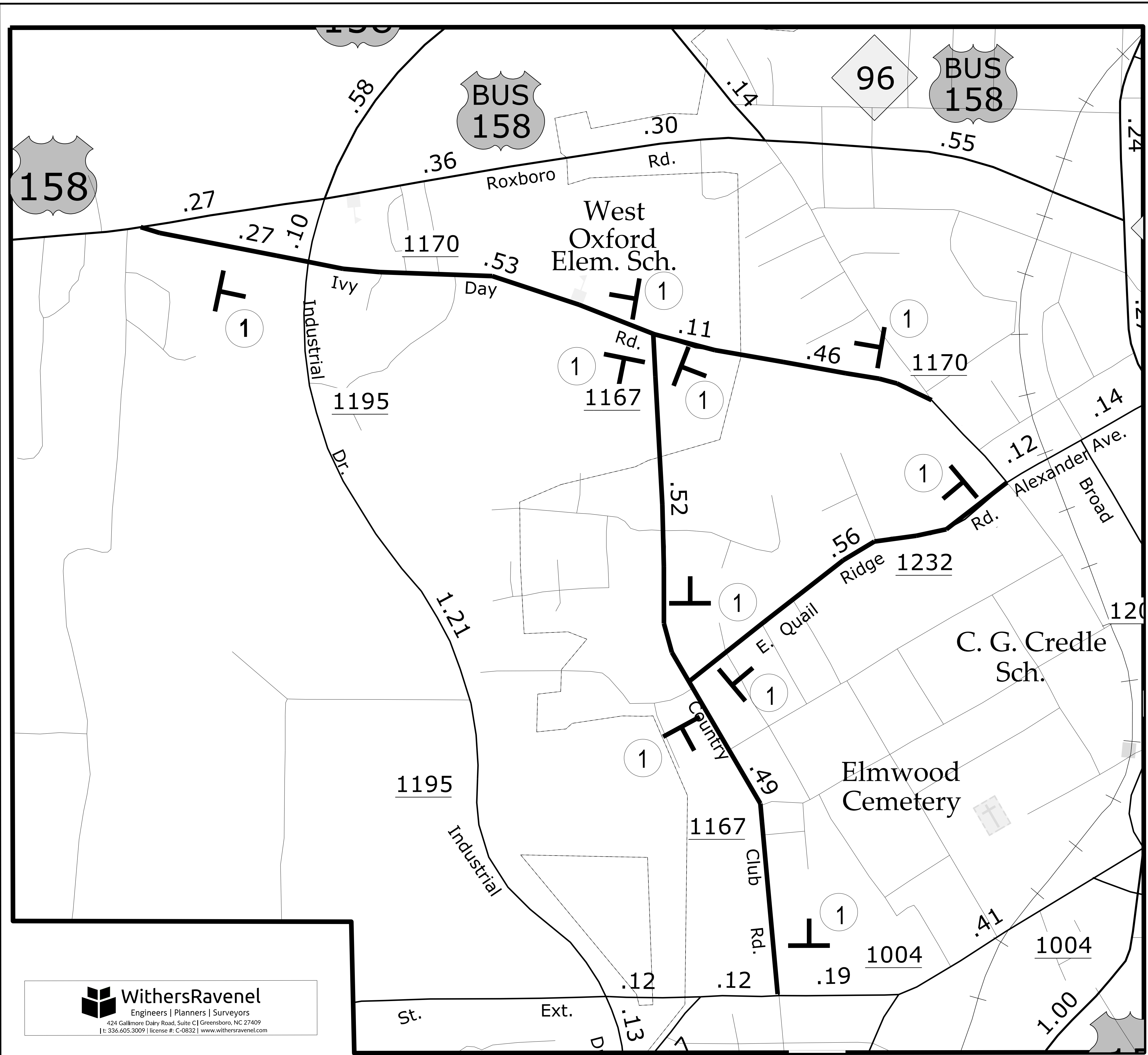
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.



TIP NO.	SHEET NO.
	SIGN-1
APPROVED: _____	
DATE: _____	
SEAL	
<small>DocuSigned by: Frances Gallagher</small>	
<small>2/26/2021</small>	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



QTY REQUIRED - 10 EA.

1

NOTE: SIGNS SHALL BE PLACED NO MORE THAN 50' BEYOND ALIGNMENT CHANGE.

SIGN NOTES:

1. WHEN NOT STATIONED OR DIMENSIONED ON PLANS, TYPE E SIGNS SHALL BE FIELD LOCATED BY ENGINEER.
2. ALL SIGNS SHALL MEET NCDOT AND MUTCD STANDARDS.

WithersRavenel
Engineers | Planners | Surveyors
424 Gallimore Dairy Road, Suite C | Greensboro, NC 27409
| t: 336.605.3009 | license #: C-0832 | www.withersravenel.com

**SIGN INSTALLATION
DETAIL**

10/14/2020
 K:\15-0340\150346-11-2017 PowellBill Construction Phase Svcs\CAD\Pavement Marking Plan\MP DTL_8.dgn
 User: tbrrown



DocuSigned by
Frances Gallagher
6A2C901AFB9C42C...
2/26/2021



LEGEND

New Stop Sign

Existing Stop Sign

Thermoplastic Stop Bar

Sheet No.
SIGN-2

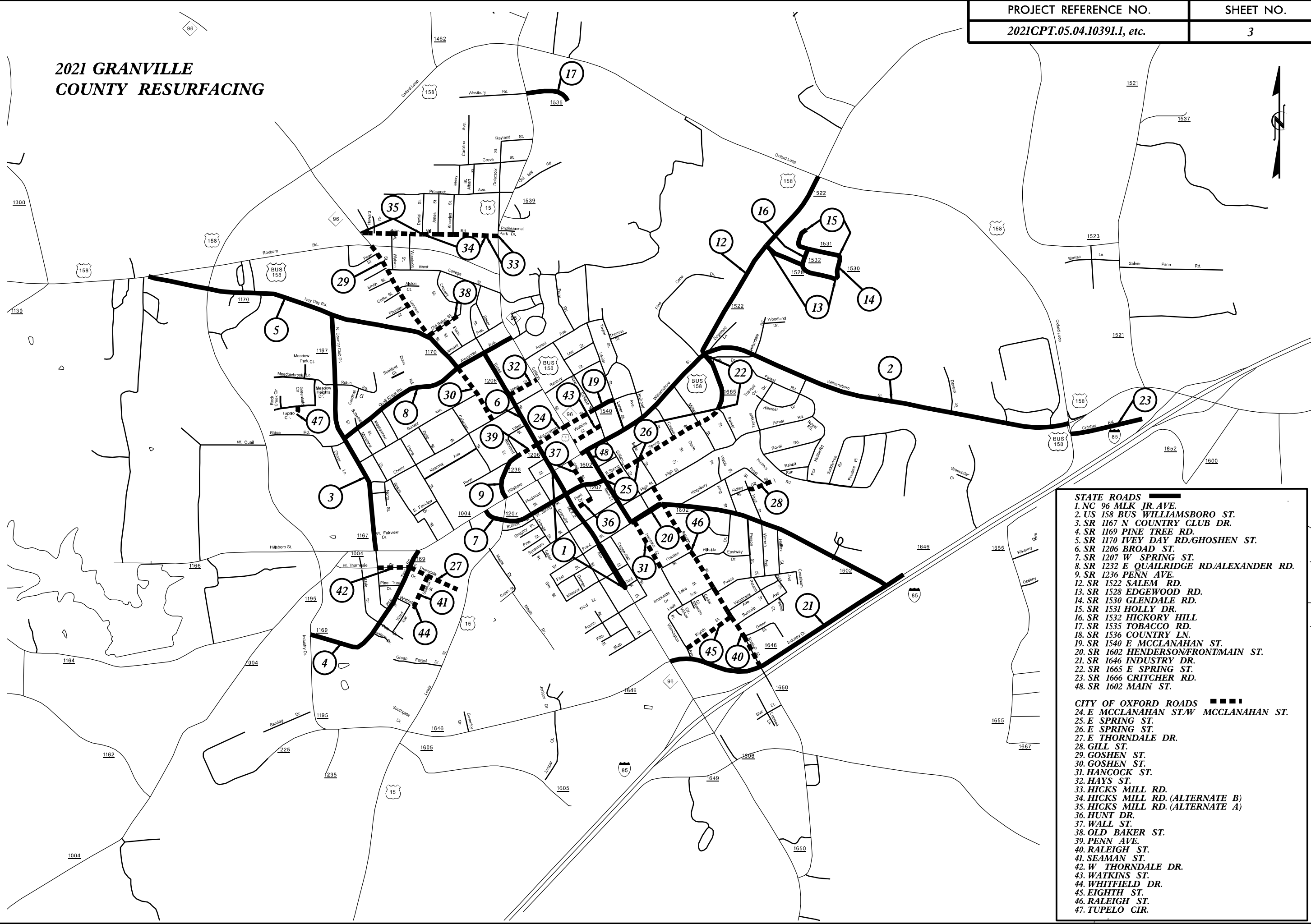
WithersRavenel
Engineers | Planners | Surveyors
115 MacKean Drive | Cary, NC 27511
t: 919.469.3340 | license #: C-0832 | www.withersravenel.com

HANCOCK/FRANKLIN
3-WAY STOP DETAILS

POWELL BILL STREET REPAIR
NORTH CAROLINA
OXFORD

No.	Revision	Date	By	Designer	Scale	NTS
				JI		
				Drawn By	Date	11.02.18
				Checked By	Job No.	102150346-10

2021 GRANVILLE COUNTY RESURFACING



- STATE ROADS** ■■■■
1. NC 96 MLK JR. AVE.
 2. US 158 BUS WILLIAMSBORO ST.
 3. SR 1167 N COUNTRY CLUB DR.
 4. SR 1169 PINE TREE RD.
 5. SR 1170 IVEY DAY RD./GHOSHEN ST.
 6. SR 1206 BROAD ST.
 7. SR 1207 W SPRING ST.
 8. SR 1232 E QUAILRIDGE RD./ALEXANDER RD.
 9. SR 1236 PENN AVE.
 12. SR 1522 SALEM RD.
 13. SR 1528 EDGEWOOD RD.
 14. SR 1530 GLENDALE RD.
 15. SR 1531 HOLLY DR.
 16. SR 1532 HICKORY HILL
 17. SR 1535 TOBACCO RD.
 18. SR 1536 COUNTRY LN.
 19. SR 1540 E MCCLANAHAN ST.
 20. SR 1602 HENDERSONFRONT/MAIN ST.
 21. SR 1646 INDUSTRY DR.
 22. SR 1665 E SPRING ST.
 23. SR 1666 CRITCHER RD.
 48. SR 1602 MAIN ST.
- CITY OF OXFORD ROADS** ■■■■
24. E MCCLANAHAN ST/W MCCLANAHAN ST.
 25. E SPRING ST.
 26. E SPRING ST.
 27. E THORNDALE DR.
 28. GILL ST.
 29. GOSHEN ST.
 30. GOSHEN ST.
 31. HANCOCK ST.
 32. HAYS ST.
 33. HICKS MILL RD.
 34. HICKS MILL RD. (ALTERNATE B)
 35. HICKS MILL RD. (ALTERNATE A)
 36. HUNT DR.
 37. WALL ST.
 38. OLD BAKER ST.
 39. PENN AVE.
 40. RALEIGH ST.
 41. SEAMAN ST.
 42. W THORNDALE DR.
 43. WATKINS ST.
 44. WHITFIELD DR.
 45. EIGHTH ST.
 46. RALEIGH ST.
 47. TUPELO CIR.

5/14/2021
 GRANVILLE COUNTY
 2021 GRANVILLE COUNTY RESURFACING
 SHEET NO. 3
 PROJECT REFERENCE NO. 2021CPT.05.04.10391.1, etc.

PROJECT NO.	SHEET NO.	TOTAL NO.
2021CPT.05.04.10391.1, etc.	29	

SUMMARY OF QUANTITIES

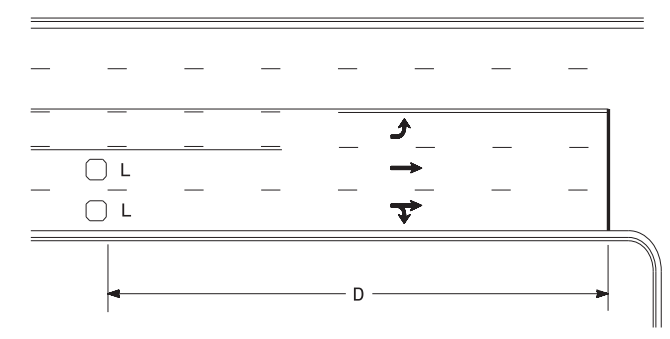
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH	WIDTH	0106000000-E	0156000000-E	0163000000-E	0170000000-E	0196000000-E	0264000000-E	1099500000-E	1099700000-E	1220000000-E	1260000000-E	1297000000-E	1308000000-E				
											BORROW EXCAVATION	REMOVAL OF EXISTING ASPHALT PAVEMENT	REMOVAL OF EXISTING CONCRETE PAVEMENT	REMOVAL OF EXISTING CONCRETE PAVEMENT SLABS	GEOTEXTILE FOR SOIL STABILIZATION	SHOULDER GRADING	SHALLOW UNDERCUT	CLASS IV SUBGRADE STABILIZATION	INCIDENTAL STONE BASE	AGGREGATE SHOULDER BORROW	1 1/2" MILLING	1.5" TO 3" MILLING	0" TO 1.5" MILLING			
											MI	FT	CY	SY	SY	SY	SY	SMI	CY	TON	TONS	TON	SY	SY	SY	
2021 CPT.	Gran	1	NC 96 - MLK JR AVE	3RD ST PVT JOINT TO US 15 - HILLSBORO ST	2,4	2	NO	NO	0.58	36-40													13,067			
		2	US 158 BUS - WILLIAMSBORO ST	US 15 - COLLEGE ST TO OXFORD LOOP	3	2	NO	NO	2.22	24-96				500	250.00		84	173	87			42,656				
		TOTAL FOR PROJ NO. 2021CPT.05.04.10391.1								2.8					500	250.00		84	173	87			42,656	13,067		
2021CPT.05.04.20391.1	Granville	3	SR 1167 - N. COUNTRY CLUB DR	SR 1170 - IVEY DAY RD TO SR 1004 - HILLSBORO ST	1	2	NO	NO	0.99	22	99					1.98				50						
		4	SR 1169 - PINE TREE RD	SR 1195 - INDUSTRY DR TO SR 1004 - HILLSBORO ST	1	2	NO	NO	0.68	20	39						1.36				34	53				
		5	SR 1170 - IVEY DAY RD/GOSHEN ST	US 158 - ROXBORO RD TO SR 1232 - QUAIL RIDGE RD	1	2	NO	NO	1.37	22-36	93						2.74				69	81				
		6	SR 1206 - BROAD ST	US 15 - HILLSBORO ST TO SR 1232 - ALEXANDER AVE	3	2	NO	NO	0.56	40														13,143		
		7	SR 1207 - W. SPRING ST	SR 1602 - MAIN ST TO SR 1004 - HILLSBORO ST	3	2	NO	NO	0.55	45-60														16,233		
		8	SR 1232 - E. QUALRIDGE RD/ALEXANDER RD	SR 1167 - N. COUNTRY CLUB DR TO US 15	1	2	NO	NO	0.82	20	82							1.64				41		500		
		9	SR 1236 - PENN AVE	US 15 TO STANDARD ST	3	2	NO	NO	0.21	48												1		5,914		
		10	SR 1241 - FARMINGTON DR	US 158 TO CUL-DE-SAC	1	2	NO	NO	0.6	20	60							1.20				30				
		11	SR 1247 - ELLIOTT ST	SR 1241 - FARMINGTON DR. TO CUL-DE-SAC	1	2	NO	NO	0.41	20	41							0.81				20				
		12	SR 1522 - SALEM RD	US 158 BUS TO US 158 BYP	1	2	NO	NO	0.88	20	46							1.76				44	78			
		13	SR 1528 - EDGEWOOD RD	SR 1522 - SALEM RD TO SR 1530 - GLENDALE RD	1	2	NO	NO	0.33	20	33							0.65				16				
		14	SR 1530 - GLENDALE RD	SR 1528 - EDGEWOOD RD TO SR 1531 - HOLLY DR	1	2	NO	NO	0.1	20	10							0.20				5				
		15	SR 1531 - HOLLY DR	SR 1530 - GLENDALE RD TO CUL-DE-SAC	1	2	NO	NO	0.25	20	25							0.51				13				
		16	SR 1532 - HICKORY HILL	SR 1531 - HOLLY DR TO SR 1528 - EDGEWOOD RD	1	2	NO	NO	0.07	20	7							0.15				4				
		17	SR 1535 - TOBACCO RD	US 15 TO DEAD END	1	2	NO	NO	0.19	20								0.38				9	35	500		
		18	SR 1536 - COUNTRY LN	US 15 TO END MAINT	1	2	NO	NO	0.33	20	33							0.66				17		500		
		19	SR 1540 - E. MCCLANAHAN ST	NEW COLLEGE ST TO LANIER ST	3	2	NO	NO	0.09	46														2,429		
		20	SR 1602 - HENDERSON/FRONT/MAIN ST	SR 1646 - INDUSTRY DR TO US 158 BUS	3	2	NO	NO	1.5	20												35		25,447		
		21	SR 1646 - INDUSTRY DR	NC 96 TO PVT CHANGE	3	2	NO	YES	1.08	26												50		19,125		
		22	SR 1665 - E. SPRING ST	US 158 TO PARKER ST	3	2	NO	NO	0.25	44														6,453		
		23	SR 1666 - CRITCHER RD	INDUSTRY DR TO DEAD END	1	2	NO	NO	0.31	20	31							0.62				30				
		TOTAL FOR PROJ NO. 2021CPT.05.04.20391.1								11.57		599						14.66				468	247	90,244		
		2021CPT.05.04.30391.1	Granville	24	E. MCCLANAHAN ST/W. MCCLANAHAN ST	BROAD ST TO NEW COLLEGE ST	6	2	NO	NO	0.28	40													6,571	
25	E. SPRING ST			MAIN ST TO BELLE ST	5	2	NO	NO	0.16	36													3,379			
26	E. SPRING ST			BELLE ST TO PARKER ST	1	2	NO	NO	0.39	44															915	
27	E. THORNDALE DR			PINE TREE RD TO DEAD END	1	2	NO	NO	0.12	32															554	
28	GILL ST			WEST OF HUNT ST INTERSECTION TO END MAINT	3	2	NO	NO	0.109	26														1,068		
29	GOSHEN ST			IVEY DAY RD TO ROXBORO RD	1	2	NO	NO	0.44	25	3						0.06				2				2,045	
30	GOSHEN ST			E. QUAIL RIDGE DR TO CHERRY ST	6	2	NO	NO	0.26	27	1						0.01				2			4,118		
31	HANCOCK ST			FRONT ST TO S OF FRANKLIN ST INTERSECTION	6	2	NO	NO	0.22	16															2,453	
32	HAYS ST			BROAD ST TO COLLEGE ST	6	2	NO	NO	0.13	19															1,449	
33	HICKS MILL RD			COLLEGE ST TO 25' WEST OF RAIL ROAD TRACKS	1	2	NO	NO	0.051	33														360	238	
34	HICKS MILL RD (ALTERNATE B)			DANIEL ST TO 25' WEST OF RR	1	2	NO	NO	0.273	24																
35	HICKS MILL RD (ALTERNATE A)			NC 96 TO DANIEL ST	1	2	NO	NO	0.251	24																1,178
36	HUNT DR			MLK, JR. AVE TO WALL ST	6	2	NO	NO	0.08	37																1,737
37	WALL ST			E SPRING ST TO HILLSBORO ST	3	2	NO	NO	0.104	24														1,464		
38	OLD BAKER ST			GOSHEN ST TO CRESCENT DR	1	2	NO	NO	0.16	25																751
39	PENN AVE			STANDARD ST TO BROAD ST	3	2	NO	NO	0.1	40														2,347		
40	RALEIGH ST			8TH ST TO E. INDUSTRY DR	1	2	NO	NO	0.24	21	24						0.48					12				
41	SEAMAN ST			E. THORNDALE DR TO WHITFIELD DR	1	2	NO	NO	0.14	33																649
42	W. THORNDALE DR			S COUNTRY CLUB DR TO PINE TREE RD	3	2	NO	NO	0.13	32														2,441		
43	WATKINS ST			COLLEGE ST TO NEW COLLEGE ST	3	2	NO	NO	0.13	20														1,525		
44	WHITFIELD DR			W OF WARD AVE INTERSECTION TO DEAD END	1	2	NO	NO	0.032	32																47
45	8TH ST			WILMINGTON AVE TO RALEIGH ST	2	2	NO	NO	0.223	20																
46	RALEIGH ST			HIGH ST TO EIGHTH ST	2	2	NO	NO	0.62	21																
47	TUPELO CIR			MEADOW HEIGHTS TO CUL-DE-SAC	1	2	NO	NO	0.03	18	3						0.06					2				
48	SR 1602 - MAIN ST	US 158 - WILLIAMSBORO ST TO LITTLE JOHN ST	2	2	NO	NO	0.08	74			195	30														
TOTAL FOR PROJ NO. 2021CPT.05.04.30391.1								4.753		31	195	30			0.61				18		12,584	16,328	6,377			
GRAND TOTAL								19.123		630	195	30	500	250.00	15.27	84	173	573	247	145,484	29,395	6,377				

PROJECT NO.	SHEET NO.	TOTAL NO.
2021CPT.05.04.10391.1, etc.	33	

THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LENGTH	WIDTH	482000000-E			835000000-E			4845000000-N					4890000000-E		4895000000-N
									8" YELLOW PAINT	8" WHITE PAINT	24" WHITE PAINT	PAINT STR & RT ARROW	PAINT RT ARROW	PAINT STR ARROW	PAINT LT ARROW	PAINT STR & LT ARROW	24" X 90 M WHITE THERMO	16" X 90 M WHITE THERMO	NON-CAST IRON SNOWPLOW ABLE MARKER			
									EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	
2021 CPT.	Granville	1	NC 96 - MLK JR AVE	3RD ST PVT JOINT TO US 15 - HILLSBORO ST	2,4	2	0.58	36-40											90		40	
		2	US 158 BUS - WILLIAMSBORO ST	US 15 - COLLEGE ST TO OXFORD LOOP	3	2	2.22	24-96	124	700	522	5	11	9	12	2			1,044		230	
TOTAL FOR PROJ NO. 2021CPT.05.04.10391.1								2.8			124	700	522	5	11	9	12	2	1,134		270	
									824			39										
2021CPT.05.04.20391.1	Granville	3	SR 1167 - N. COUNTRY CLUB DR	SR 1170 - IVEY DAY RD TO SR 1004 - HILLSBORO ST	1	2	0.99	22														
		4	SR 1169 - PINE TREE RD	SR 1195 - INDUSTRY DR TO SR 1004 - HILLSBORO ST	1	2	0.68	20														
		5	SR 1170 - IVEY DAY RD/GOSHEN ST	US 158 - ROXBORO RD TO SR 1232 - QUAIL RIDGE RD	1	2	1.37	22-36												110		
		6	SR 1206 - BROAD ST	US 15 - HILLSBORO ST TO SR 1232 - ALEXANDER AVE	3	2	0.56	40												240		
		7	SR 1207 - W. SPRING ST	SR 1602 - MAIN ST TO SR 1004 - HILLSBORO ST	3	2	0.55	45-60												494		
		8	1232 - E. QUALRIDGE RD/ALEXANDER	SR 1167 - N. COUNTRY CLUB DR TO US 15	1	2	0.82	20												70	100	
		9	SR 1236 - PENN AVE	US 15 TO STANDARD ST	3	2	0.21	48												19		
		10	SR 1241 - FARMINGTON DR	US 158 TO CUL-DE-SAC	1	2	0.6	20														
		11	SR 1247 - ELLIOTT ST	SR 1241 - FARMINGTON DR. TO CUL-DE-SAC	1	2	0.41	20														
		12	SR 1522 - SALEM RD	US 158 BUS TO US 158 BYP	1	2	0.88	20												28		
		13	SR 1528 - EDGEWOOD RD	SR 1522 - SALEM RD TO SR 1530 - GLENDALE RD	1	2	0.33	20														
		14	SR 1530 - GLENDALE RD	SR 1528 - EDGEWOOD RD TO SR 1531 - HOLLY DR	1	2	0.1	20														
		15	SR 1531 - HOLLY DR	SR 1530 - GLENDALE RD TO CUL-DE-SAC	1	2	0.25	20														
		16	SR 1532 - HICKORY HILL	SR 1531 - HOLLY DR TO SR 1528 - EDGEWOOD RD	1	2	0.07	20														
		17	SR 1535 - TOBACCO RD	US 15 TO DEAD END	1	2	0.19	20													37	
		18	SR 1536 - COUNTRY LN	US 15 TO END MAINT	1	2	0.33	20													36	
		19	SR 1540 - E. MCCLANAHAN ST	NEW COLLEGE ST TO LANIER ST	3	2	0.09	46													25	
		20	SR 1602 - HENDERSON/FRONT/MAIN ST	SR 1646 - INDUSTRY DR TO US 158 BUS	3	2	1.5	20													1,015	
		21	SR 1646 - INDUSTRY DR	NC 96 TO PVT CHANGE	3	2	1.08	26													160	
		22	SR 1665 - E. SPRING ST	US 158 TO PARKER ST	3	2	0.25	44													56	
		23	SR 1666 - CRITCHER RD	INDUSTRY DR TO DEAD END	1	2	0.31	20														
		TOTAL FOR PROJ NO. 2021CPT.05.04.20391.1								11.57										2,290	100	
		2021CPT.05.04.30391.1	Granville	24	MCCLANAHAN ST/W. MCCLANAHAN ST	BROAD ST TO NEW COLLEGE ST	6	2	0.28	40											92	
25	E. SPRING ST			MAIN ST TO BELLE ST	5	2	0.16	36												150		
26	E. SPRING ST			BELLE ST TO PARKER ST	1	2	0.39	44												240		
27	E. THORNDALE DR			PINE TREE RD TO DEAD END	1	2	0.12	32														
28	GILL ST			WEST OF HUNT ST INTERSECTION TO END MAINT	3	2	0.109	26														
29	GOSHEN ST			IVEY DAY RD TO ROXBORO RD	1	2	0.44	25												28		
30	GOSHEN ST			E. QUAIL RIDGE DR TO CHERRY ST	6	2	0.26	27														
31	HANCOCK ST			FRONT ST TO S OF FRANKLIN ST INTERSECTION	6	2	0.22	16													36	
32	HAYS ST			BROAD ST TO COLLEGE ST	6	2	0.13	19														
33	HICKS MILL RD			COLLEGE ST TO 25' WEST OF RAIL ROAD TRACKS	1	2	0.051	33												64	50	
34	HICKS MILL RD (ALTERNATE B)			DANIEL ST TO 25' WEST OF RR	1	2	0.273	24												64	50	
35	HICKS MILL RD (ALTERNATE A)			NC 96 TO DANIEL ST	1	2	0.251	24												26		
36	HUNT DR			MLK, JR. AVE TO WALL ST	6	2	0.08	37														
37	WALL ST			E SPRING ST TO HILLSBORO ST	3	2	0.104	24												10		
38	OLD BAKER ST			GOSHEN ST TO CRESCENT DR	1	2	0.16	25														
39	PENN AVE			STANDARD ST TO BROAD ST	3	2	0.1	40														
40	RALEIGH ST			8TH ST TO E. INDUSTRY DR	1	2	0.24	21														
41	SEAMAN ST			E. THORNDALE DR TO WHITFIELD DR	1	2	0.14	33														
42	W. THORNDALE DR			S COUNTRY CLUB DR TO PINE TREE RD	3	2	0.13	32														
43	WATKINS ST			COLLEGE ST TO NEW COLLEGE ST	3	2	0.13	20														
44	WHITFIELD DR			W OF WARD AVE INTERSECTION TO DEAD END	1	2	0.032	32														
45	8TH ST			WILMINGTON AVE TO RALEIGH ST		2	0.223	20													104	
46	RALEIGH ST			HIGH ST TO EIGHTH ST		2	0.62	21													147	
47	TUPELO CIR			MEADOW HEIGHTS TO CUL-DE-SAC	1	2	0.03	18														
48	SR 1602 - MAIN ST	US 158 - WILLIAMSBORO ST TO LITTLE JOHN ST		2	0.08	74																
TOTAL FOR PROJ NO. 2021CPT.05.04.30391.1								4.753										961	100			
GRAND TOTAL								19.123			124	700	522	5	11	9	12	2	4,385	200	270	
									824			39										

High Speed Detection (≥40 mph)

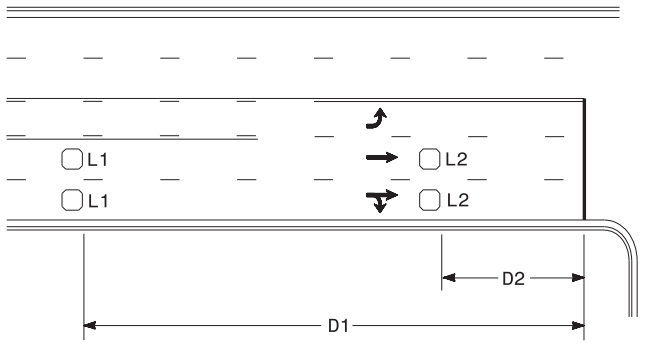


Speed Limit mph	D ft
40	250
45	300
50	355
55	420

L = 6ft X 6ft
Wired separately

Volume Density Operation

OR



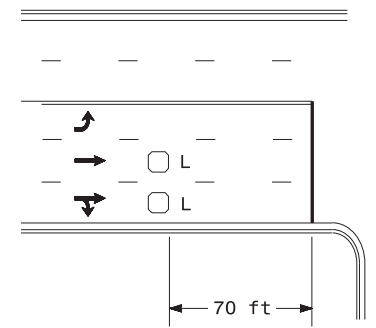
Speed Limit mph	D1 ft	D2 ft
40	250	80
45	300	90
50	355	100
55	420	110

L1 = 6ft X 6ft
Wired in series

L2 = 6ft X 6ft
Wired in series

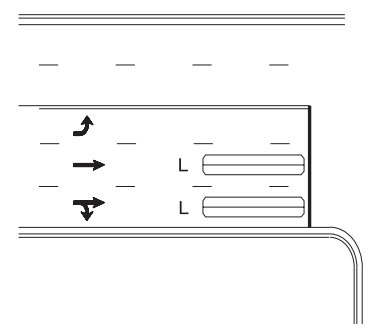
"Stretch" Operation

Low Speed Detection (≤35 mph)



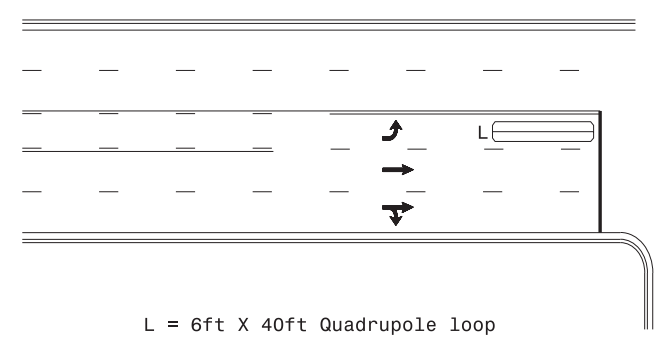
L = 6ft X 6ft
Wired in series

OR



L = 6ft X 40ft
Quadrupole loop, wired separately

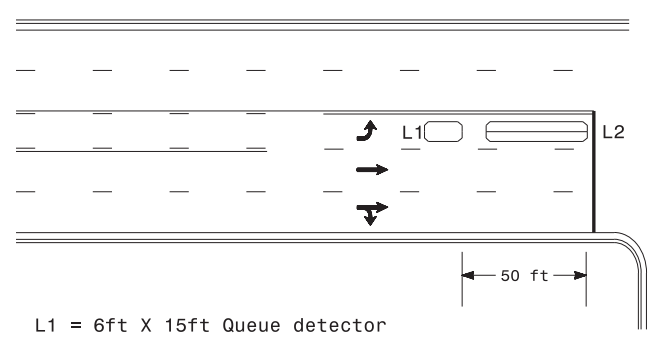
Left Turn Lane Detection



L = 6ft X 40ft Quadrupole loop

Presence Loop Detection

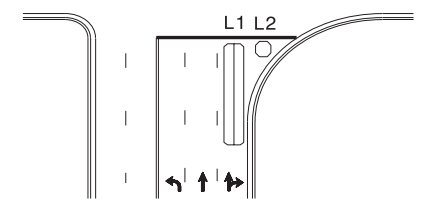
OR



L1 = 6ft X 15ft Queue detector
L2 = 6ft X 40ft Quadrupole loop

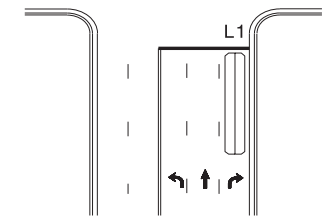
Queue Loop Detection

Right Turn Lane Detection

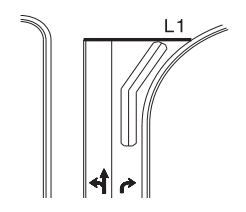


L1 = 6ft X 40ft Quadrupole loop
L2 = 6ft X 6ft [Minimum] Presence loop
Wired separately

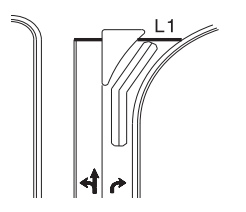
Shared Lane/
Wide Radius Turn



Standard Turn

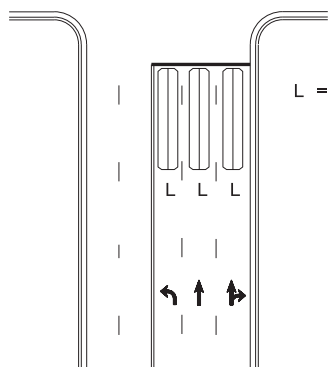


Wide Radius Turn



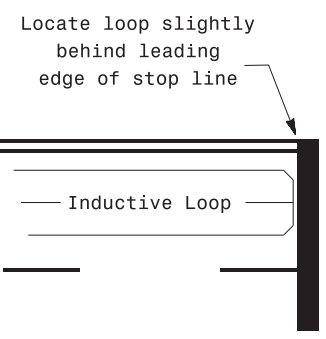
Channelized Turn

Side Street Detection



L = 6ft X 40ft
Quadrupole loop
Wired to separate
detectors/channels

Presence Loop Placement at Stop Lines



Locate loop slightly
behind leading
edge of stop line

Note:
Loop may be located in advance
of stop line under any of the
following conditions:
1) stop line is greater than 15'
from edge of intersecting
roadway
2) loop detects a permissive or
protected/permissive left turn
3) for an exclusive right turn
lane

Recommended Number of Turns

Single 6' X 6' loop
(when wired separately):

Length of Lead-in ft	Number of Turns
< 250	3
250-375	4
375-525	5
> 525	6

Quadrupole loops: Use 2-4-2 turns

6' X 15' Loops:
Lead-in < 150', use 2 turns
Lead-in > 150', use 3 turns

Typical Signal Loop Locations

Prepared in the Offices of:		PLAN DATE: September 2020		REVIEWED BY: JPG	
		PREPARED BY: PLA	REVIEWED BY:		DATE:
		SCALE: N/A	REVISIONS:	INIT.	DATE

9/8/2020
DATE

SIG. INVENTORY NO.