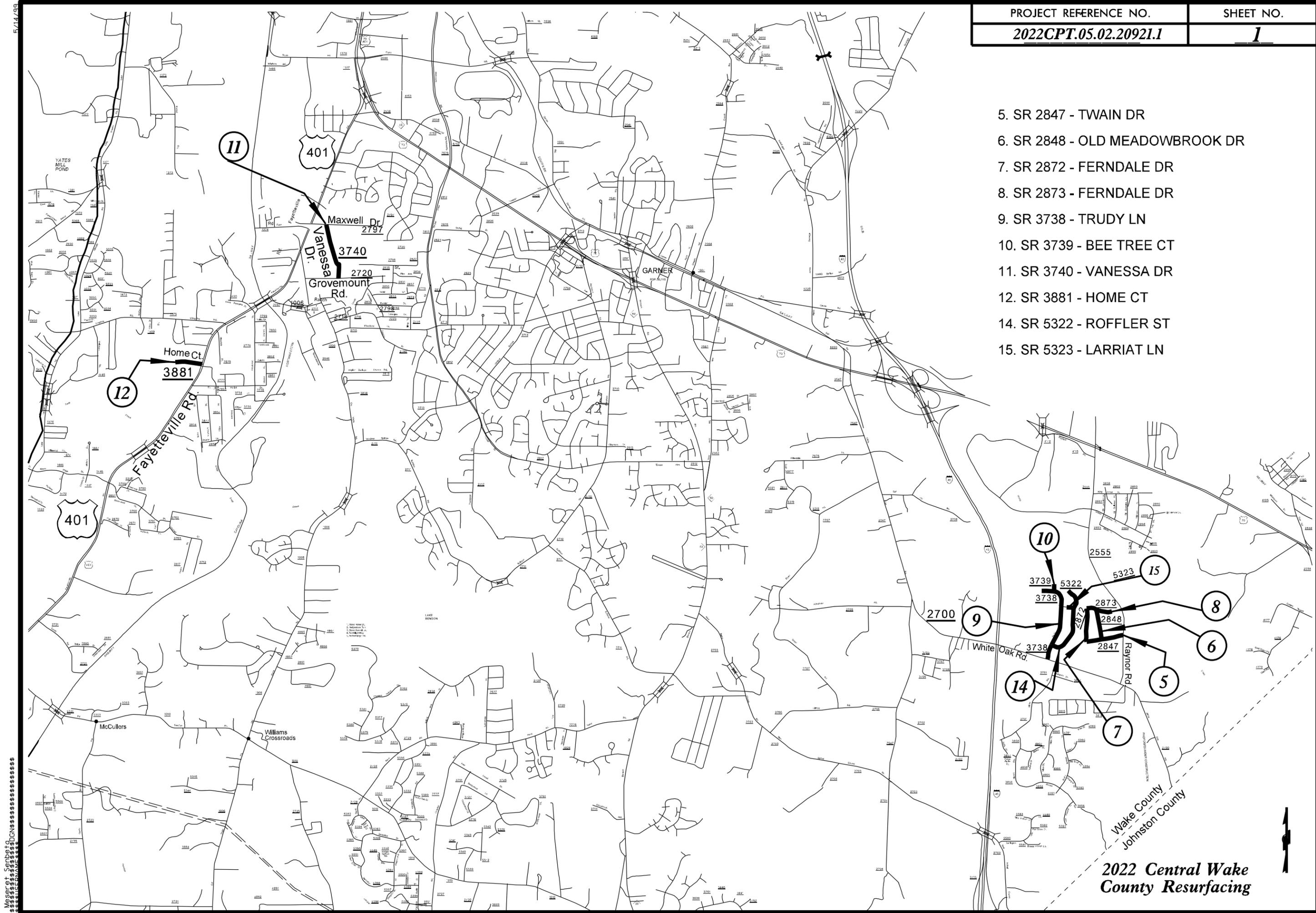
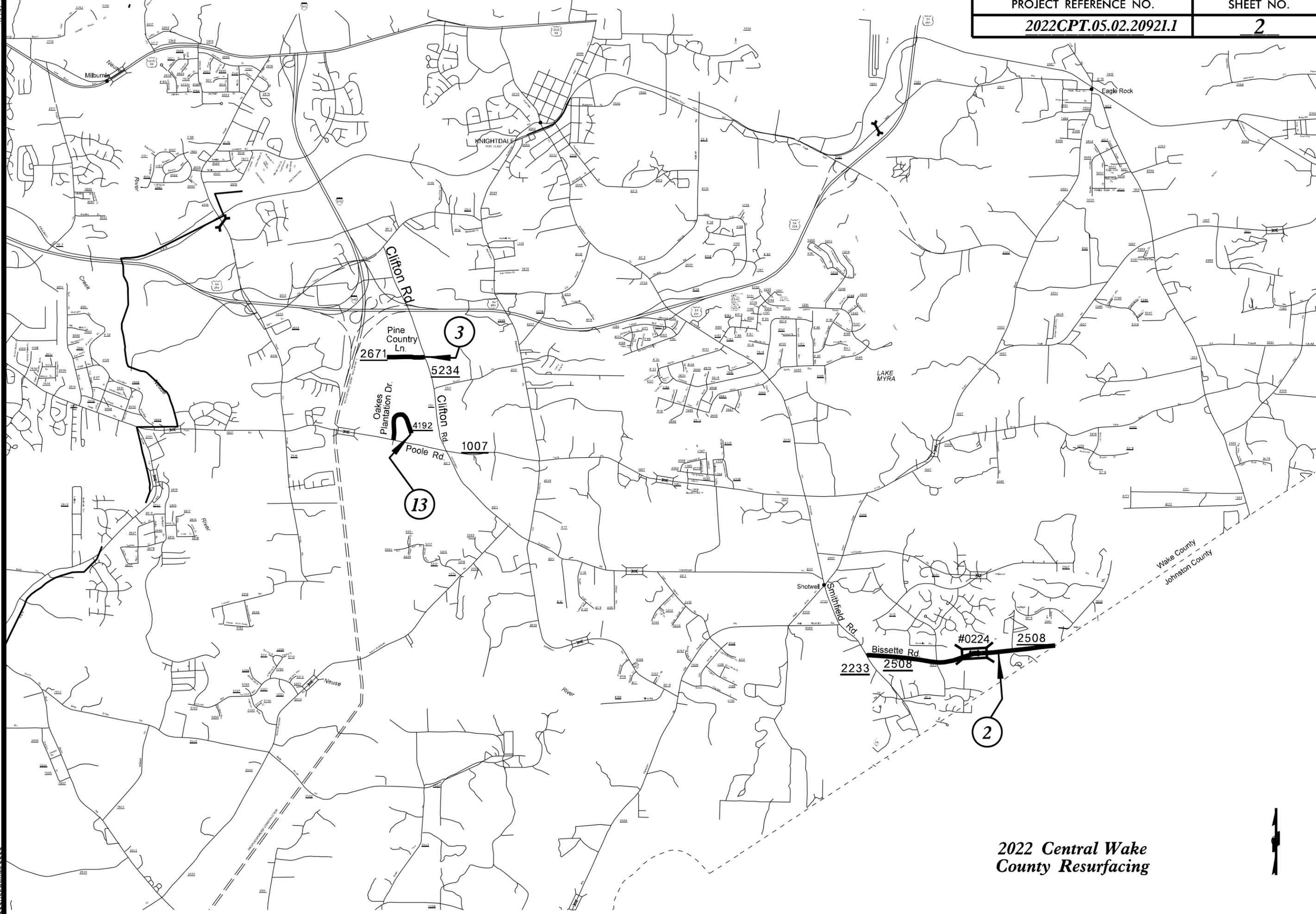


- 5. SR 2847 - TWAIN DR
- 6. SR 2848 - OLD MEADOWBROOK DR
- 7. SR 2872 - FERNDALE DR
- 8. SR 2873 - FERNDALE DR
- 9. SR 3738 - TRUDY LN
- 10. SR 3739 - BEE TREE CT
- 11. SR 3740 - VANESSA DR
- 12. SR 3881 - HOME CT
- 14. SR 5322 - ROFFLER ST
- 15. SR 5323 - LARRIAT LN



2022 Central Wake
County Resurfacing

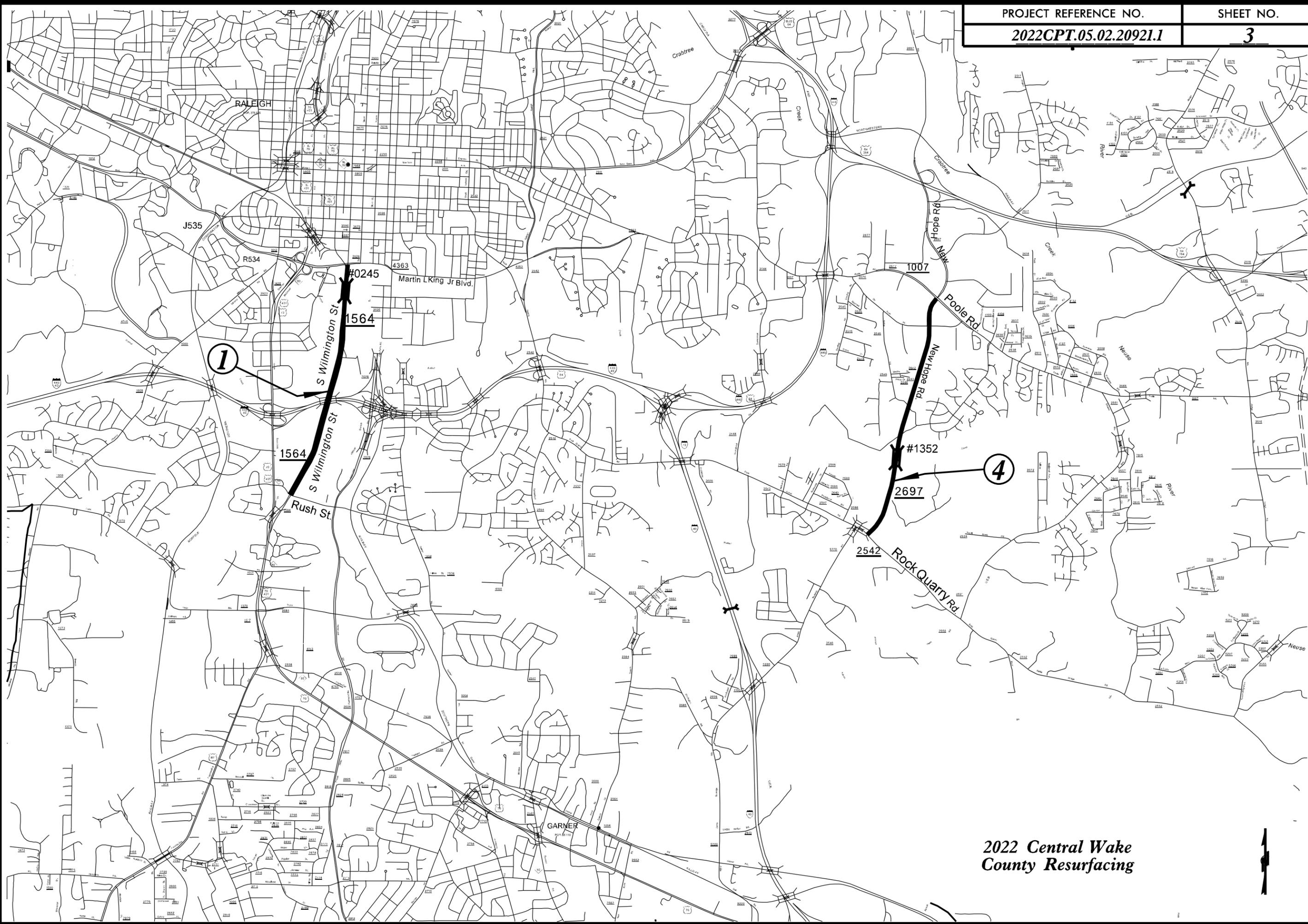
Meseret Senbeta



Maplet Software Corporation



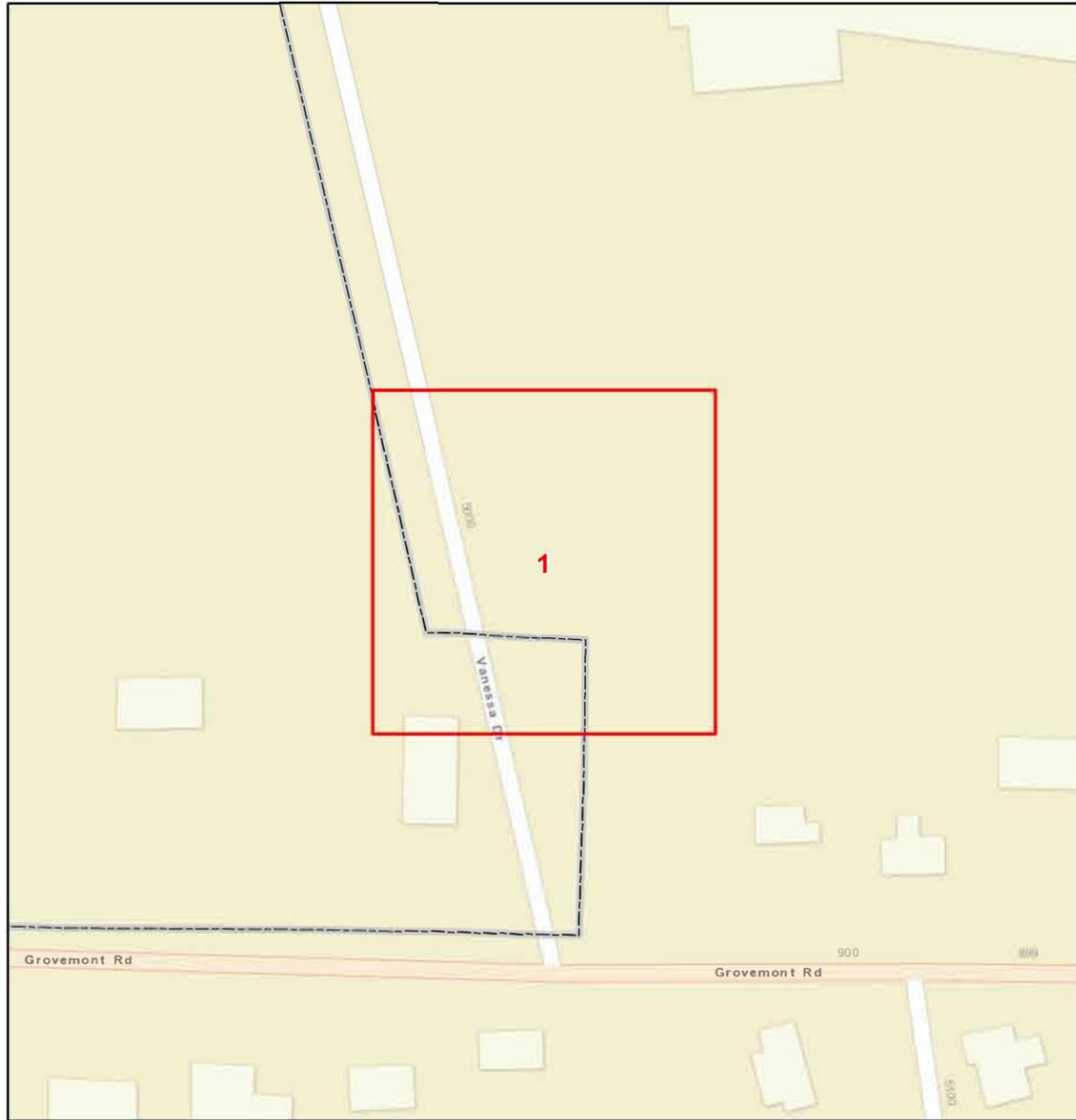
5/14/23



Meseret Sebhat
DESIGN

2022 Central Wake
County Resurfacing





Curb Ramps To Be Repaired

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

 Municipal Boundary

 NCHPO Historic Boundary (NR and LHD)

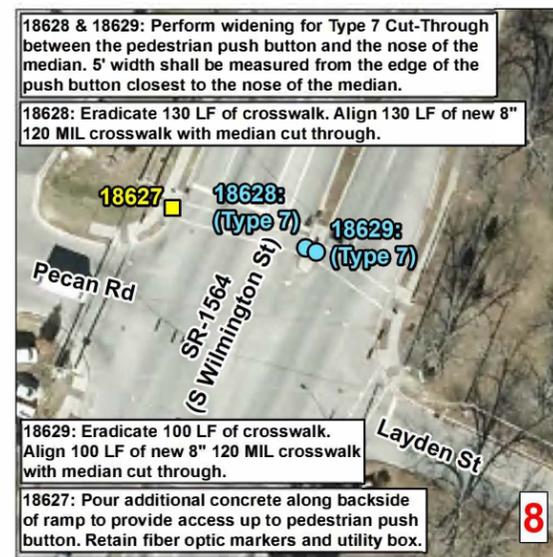
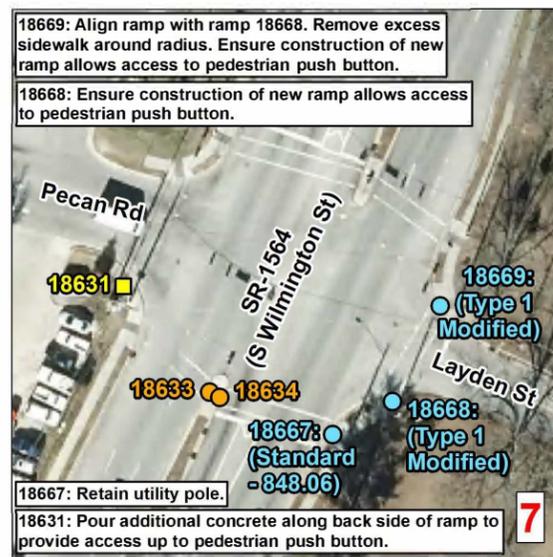
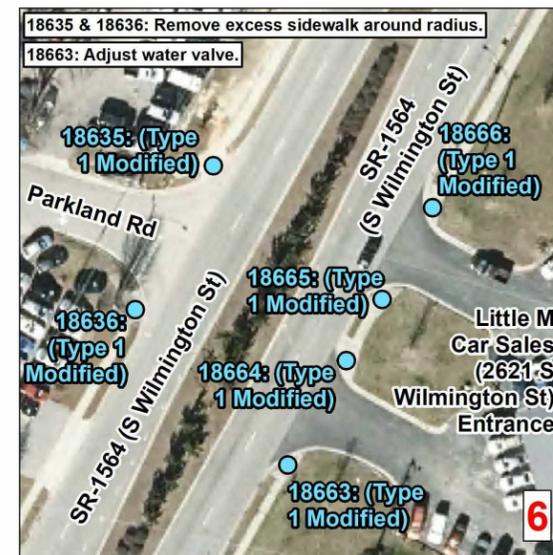
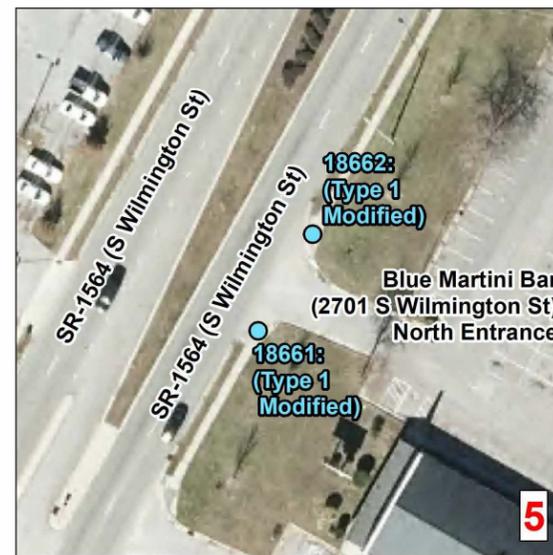
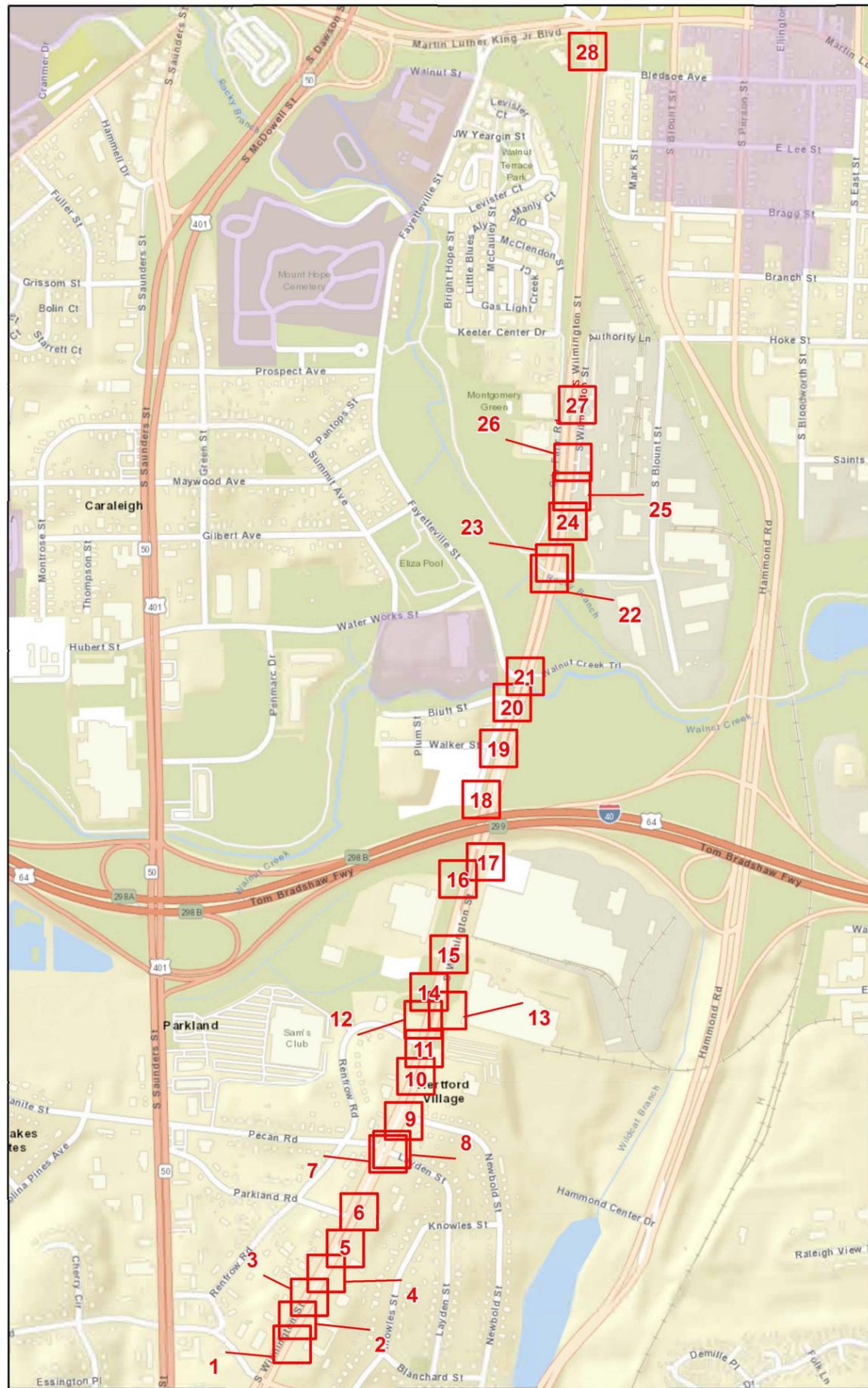


2022 Central
WBS: 2022CPT.05.02.20921.1

Vanessa Dr
From SR 2797 To SR 2720

 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
- Other

Municipal Boundary
 NCHPO Historic Boundary (NR and LHD)

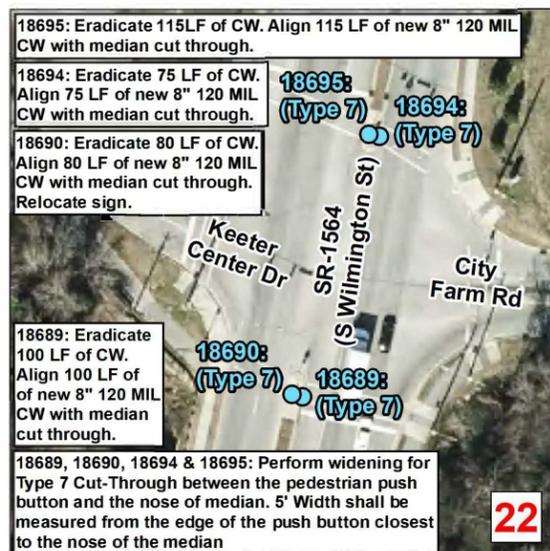
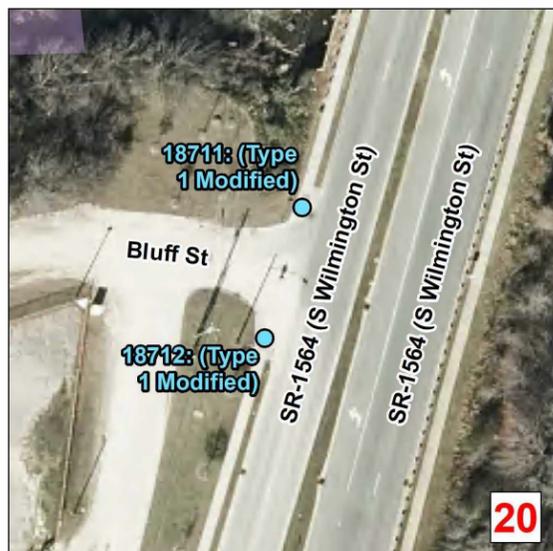
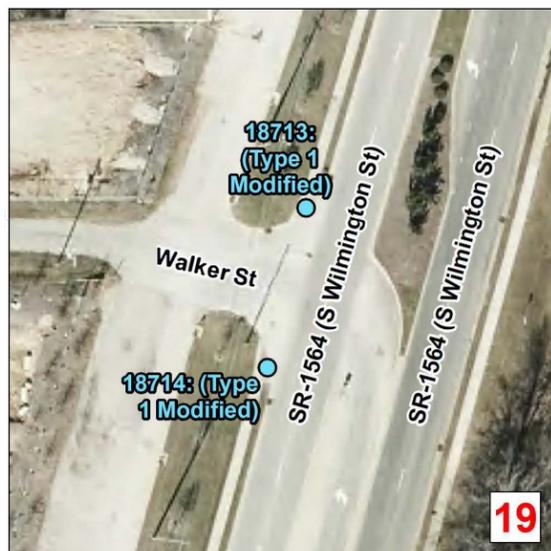
2022 Central
WBS: 2022CPT.05.02.20921.1
S Wilmington St
From SR 4363 To Rush St

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
 DIVISION 5

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

* Additional ramp improvements for this same intersection shown in tile 8.

* Additional ramp improvements for this same intersection shown in tile 7.



Curb Ramps To Be Repaired

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

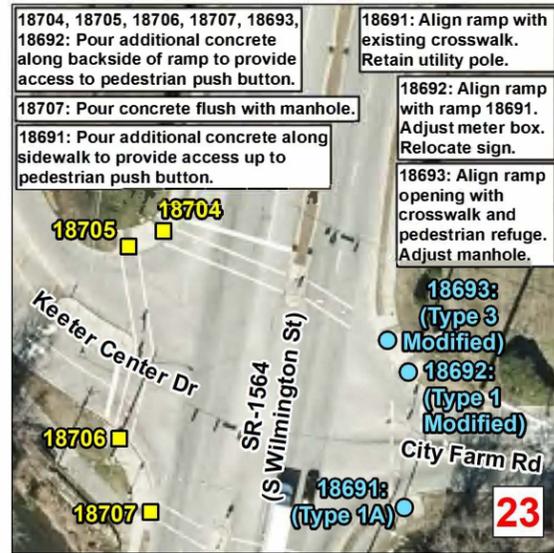
Municipal Boundary
 NCHPO Historic Boundary (NR and LHD)

2022 Central
WBS: 2022CPT.05.02.20921.1
S Wilmington St
From SR 4363 To Rush St

NORTH CAROLINA DEPARTMENT
 OF TRANSPORTATION
 DIVISION 5

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

* Additional ramp improvements for this same intersection shown in tile 23.



* Additional ramp improvements for this same intersection shown in tile 22.



Curb Ramps To Be Repaired

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

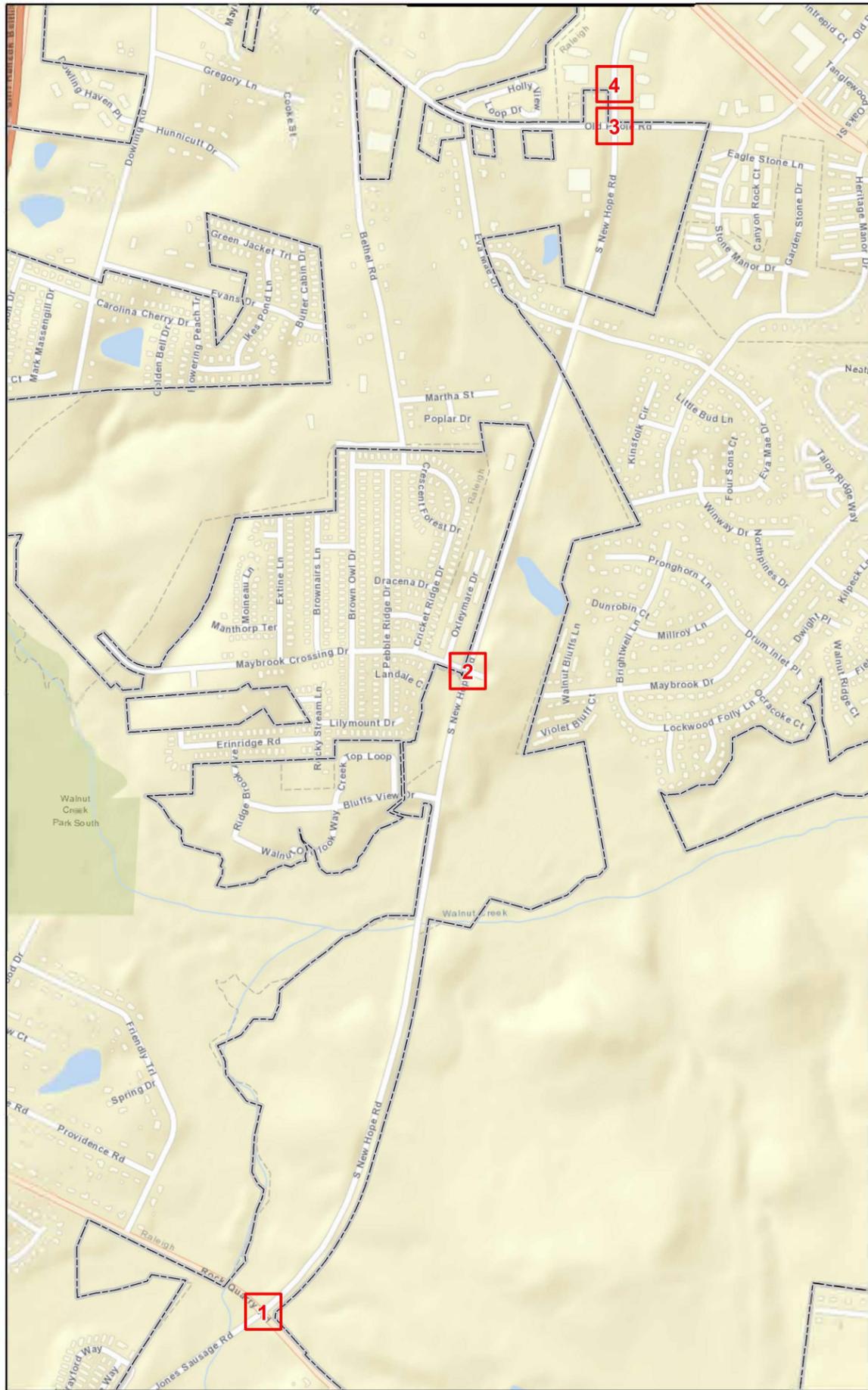
Municipal Boundary

NCHPO Historic Boundary (NR and LHD)

2022 Central
WBS: 2022CPT.05.02.20921.1
S Wilmington St
From SR 4363 To Rush St

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)

2022 Central
WBS: 2022CPT.05.02.20921.1
S New Hope Rd
From SR 1007 To SR 2542

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
 DIVISION 5

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



PAVEMENT SCHEDULE

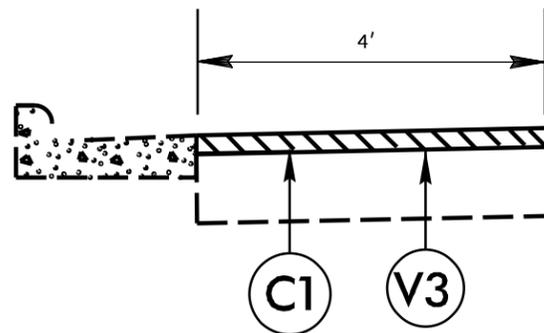
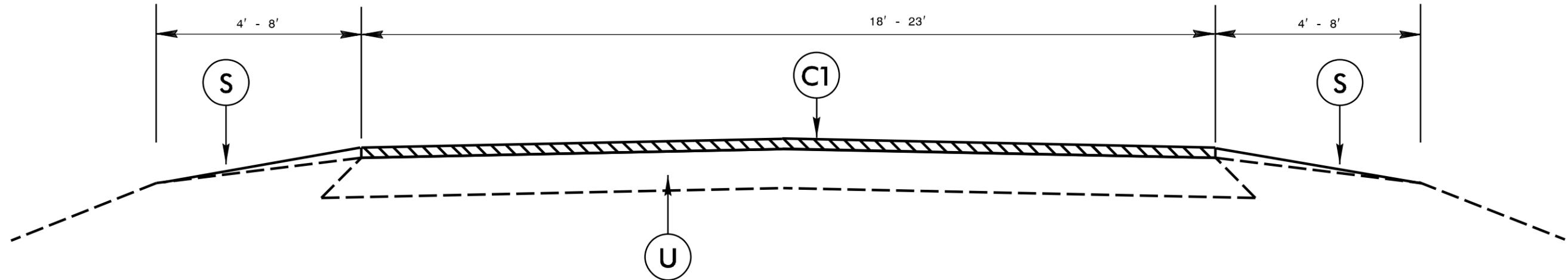
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SHEET NO.

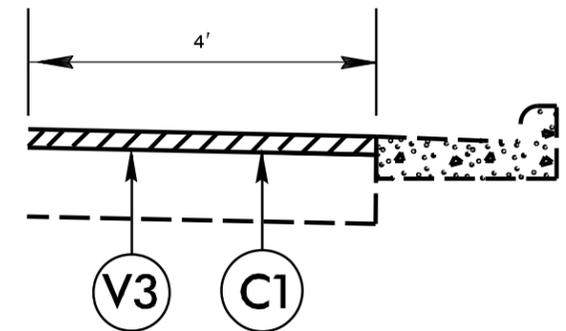
2022CPT.05.02.20921.1

9

		S	SHOULDER GRADING ASB REQUIRED (EXCEPT AT RESIDENTIAL AREAS)
C1	1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD.	U	EXISTING PAVEMENT
C2	1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.	V1	1 1/2" MILLING
C3	1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	V2	0" - 1 1/2" MILLING
		V3	0" - 1 1/4" MILLING



TYPICAL SECTION NO. 1



*0" - 1 1/4" MILLING on map # 11 only.

PAVEMENT SCHEDULE

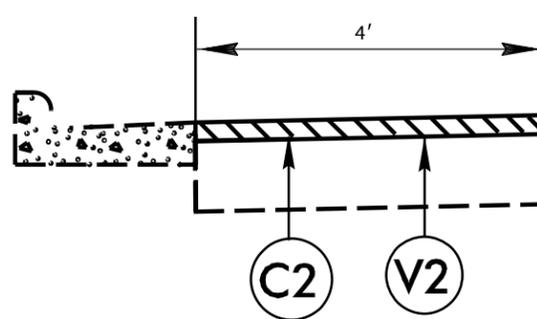
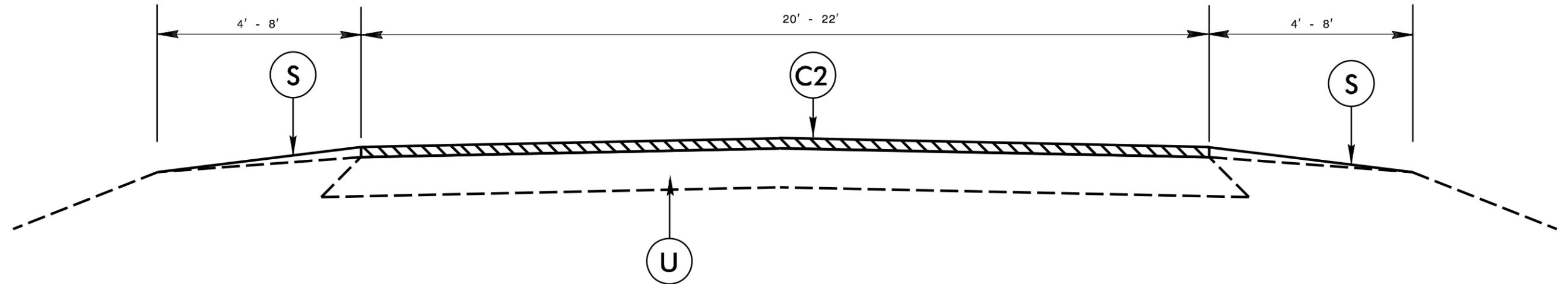
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2022CPT.05.02.20921.1

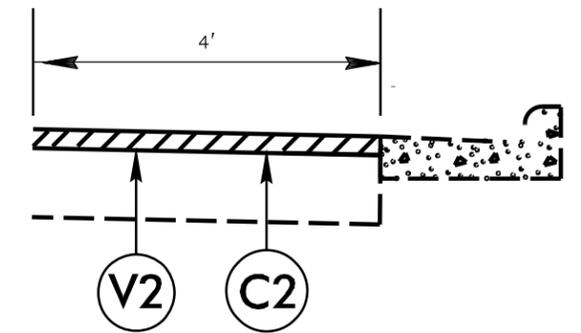
10

C1	1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD.	S	SHOULDER GRADING ASB REQUIRED (EXCEPT AT RESIDENTIAL AREAS)
C2	1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.	U	EXISTING PAVEMENT
C3	1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	V1	1 1/2" MILLING
		V2	0" - 1 1/2" MILLING
		V3	0" - 1 1/4" MILLING



*Mill 1 1/2" +/- on map 2 Bridge # 0224 as directed by the engineer to resurface and not add any additional weight on the bridge.

*0" - 1 1/2" MILLING on map # 12 only



TYPICAL SECTION NO. 2

PAVEMENT SCHEDULE

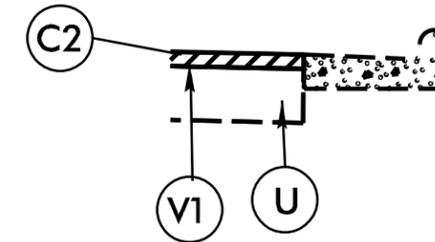
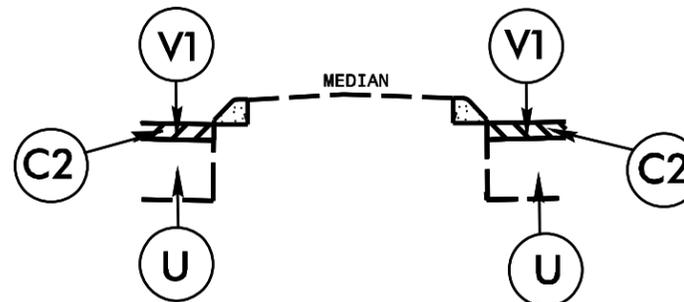
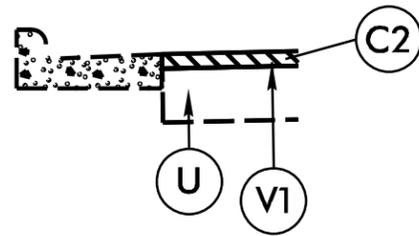
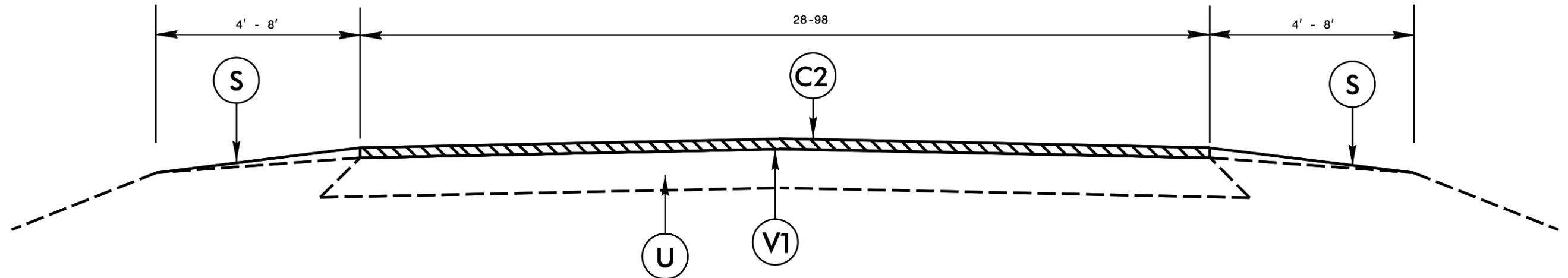
PROJECT REFERENCE NO.

SHEET NO.

2022CPT.05.02.20921.1

11

C1	1¼" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD.	S	SHOULDER GRADING ASB REQUIRED (EXCEPT AT RESIDENTIAL AREAS)
C2	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.	U	EXISTING PAVEMENT
C3	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	V1	1½" MILLING
		V2	0" - 1 ½" MILLING
		V3	0" - 1 ¼" MILLING



TYPICAL SECTION NO. 3

PAVEMENT SCHEDULE

S SHOULDER GRADING
ASB REQUIRED (EXCEPT AT RESIDENTIAL AREAS)

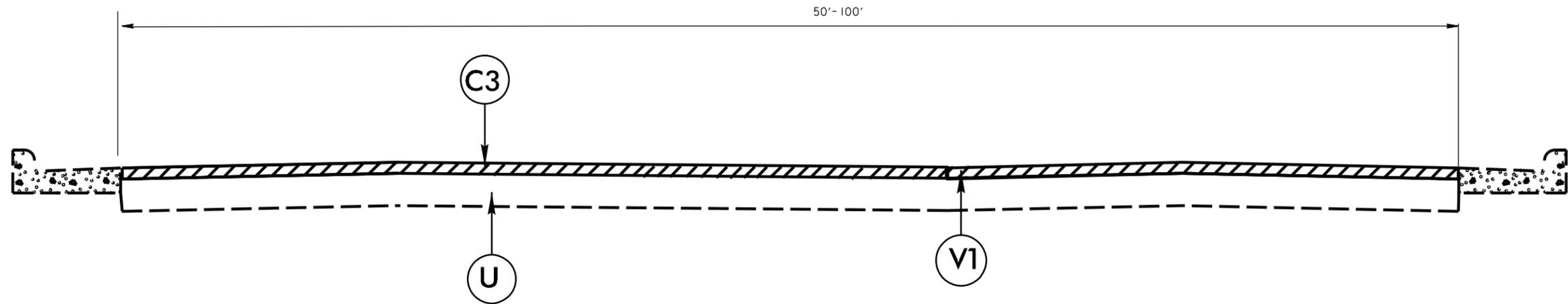
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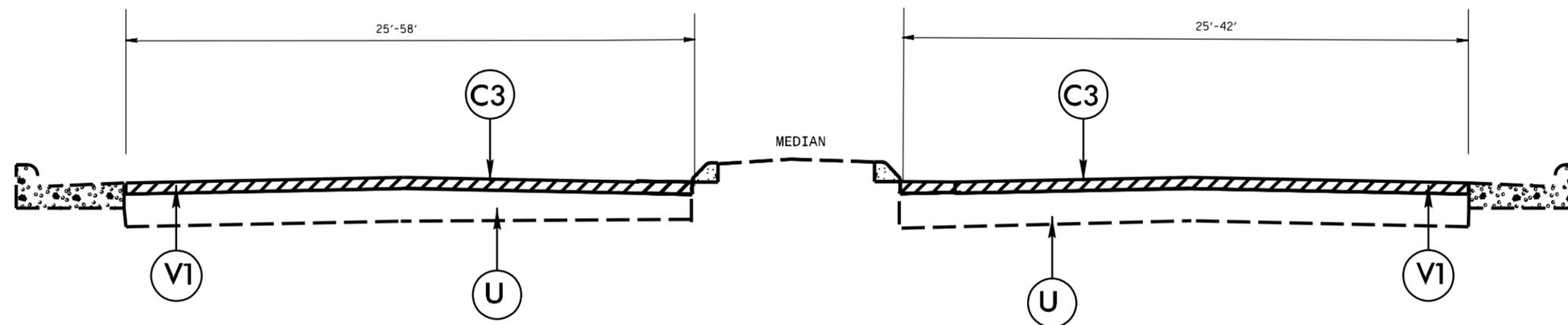
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12

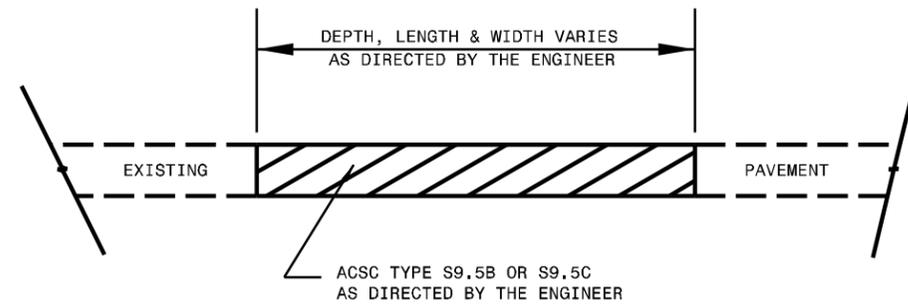
C1	1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD.	U	EXISTING PAVEMENT
C2	1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.	V1	1 1/2" MILLING
C3	1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	V2	0" - 1 1/2" MILLING
		V3	0" - 1 1/4" MILLING



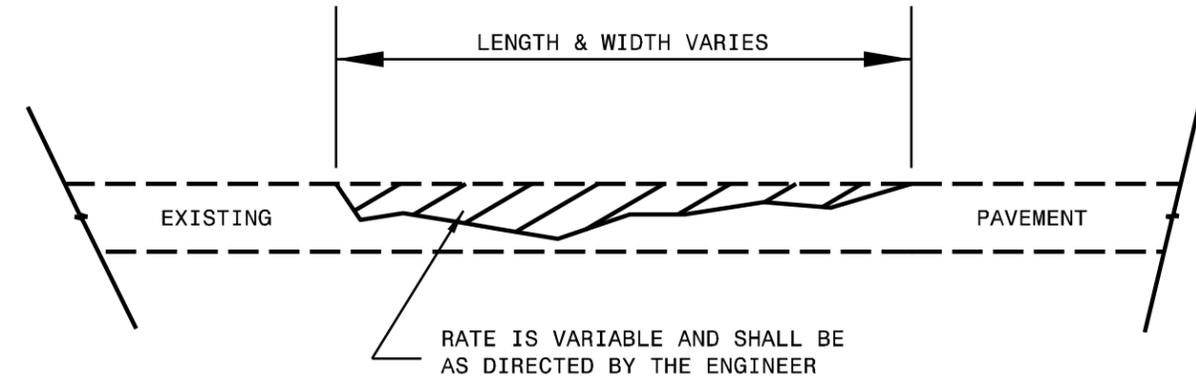
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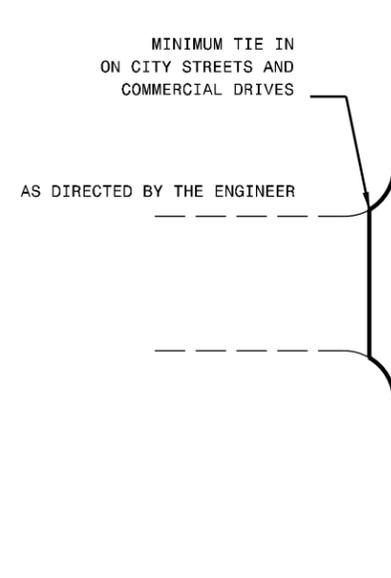
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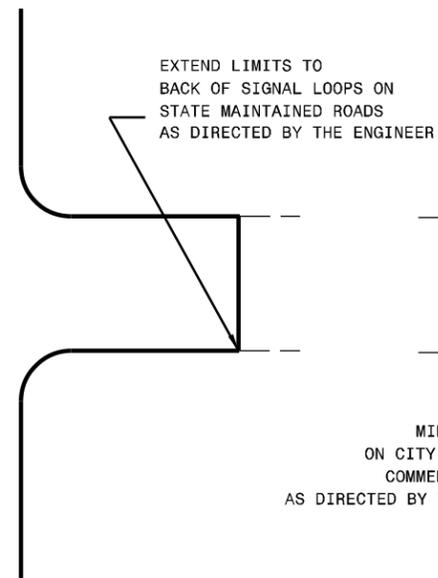
PATCHING EXISTING PAVEMENT
MILLING TO BE PERFORMED PRIOR TO PATCHING



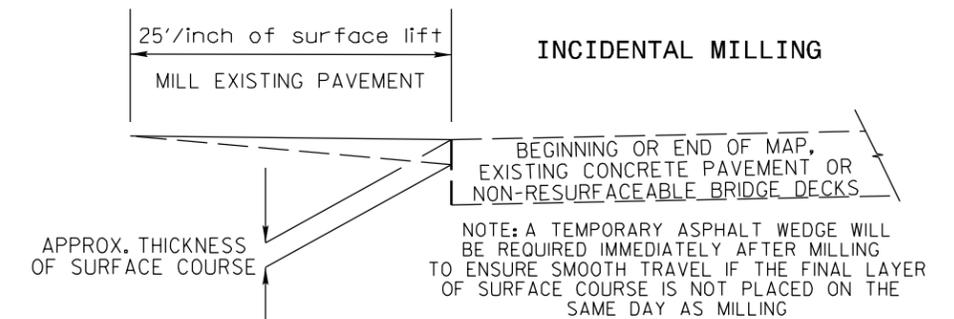
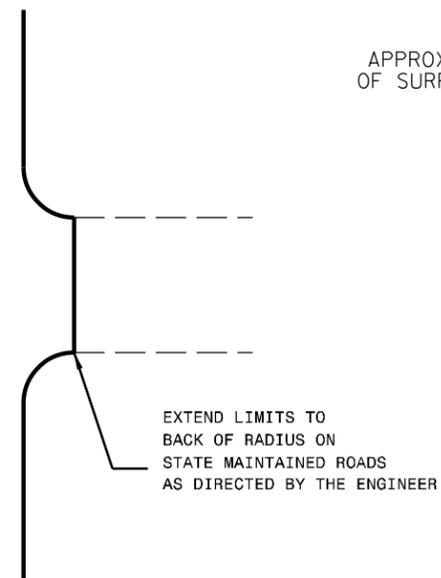
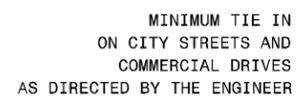
**ASPHALT CONCRETE SURFACE COURSE
(LEVELING COURSE)**



**DETAIL OF PROJECT LIMITS AT
SIGNALIZED Y LINES**

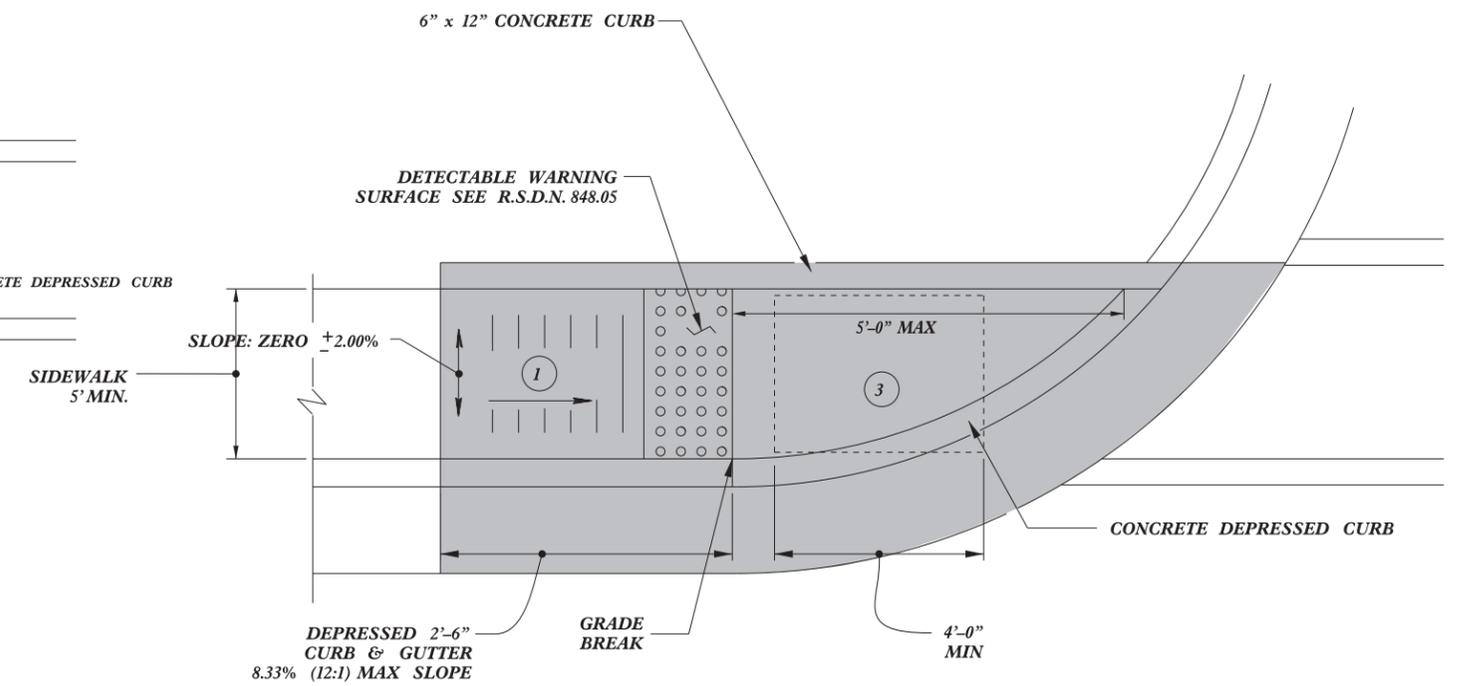
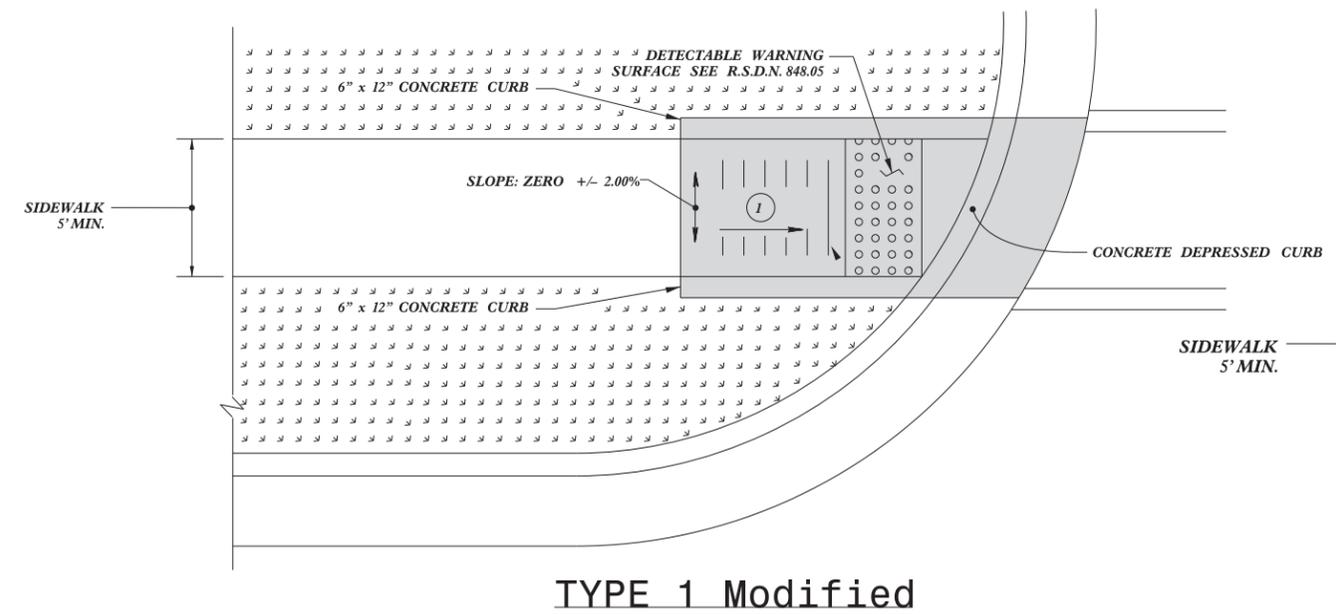
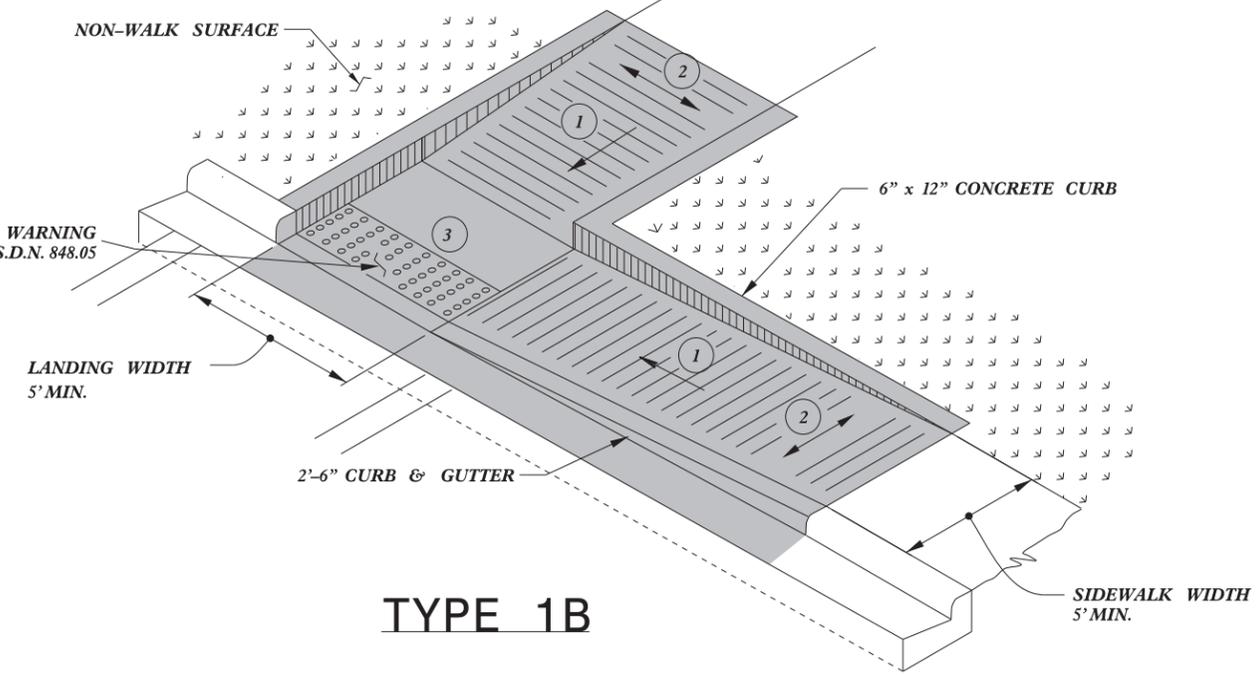
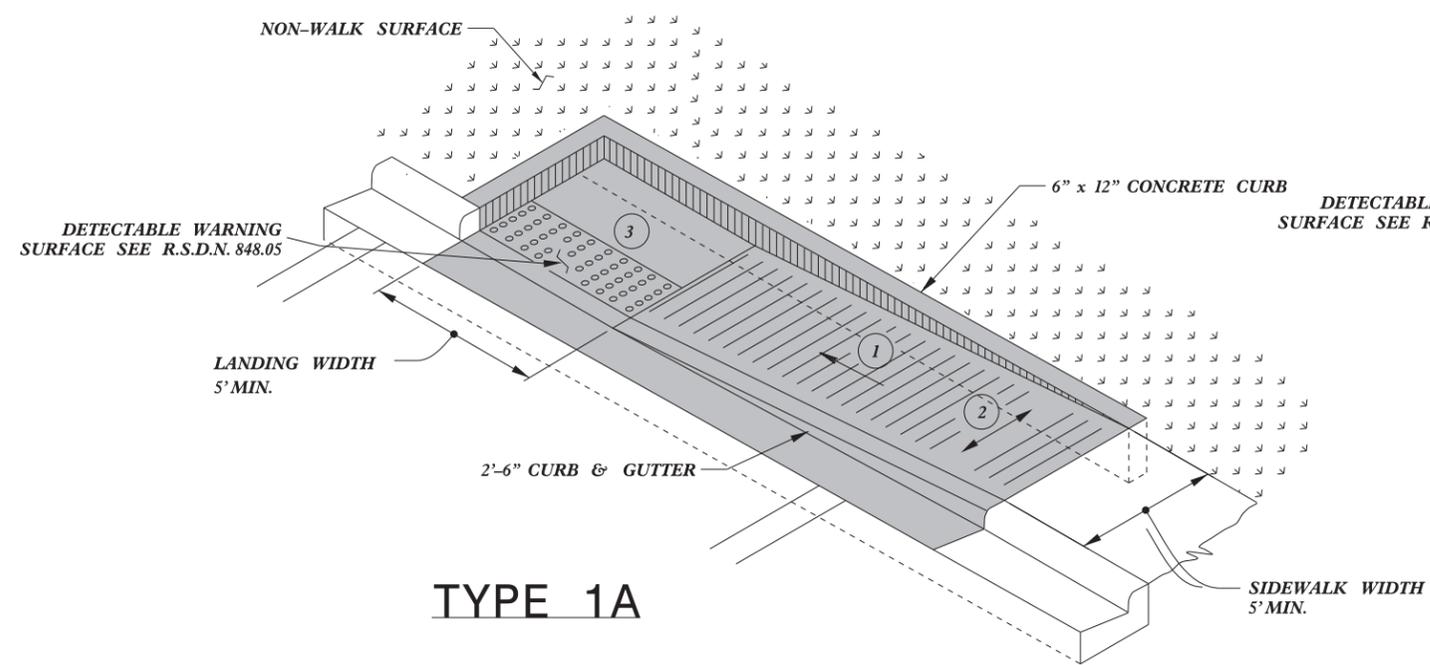


**DETAIL OF PROJECT LIMITS AT
UNSIGNALIZED Y LINES**



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 RADIUS, 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.



- 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
 Signed by: *J.S. Howerton*



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

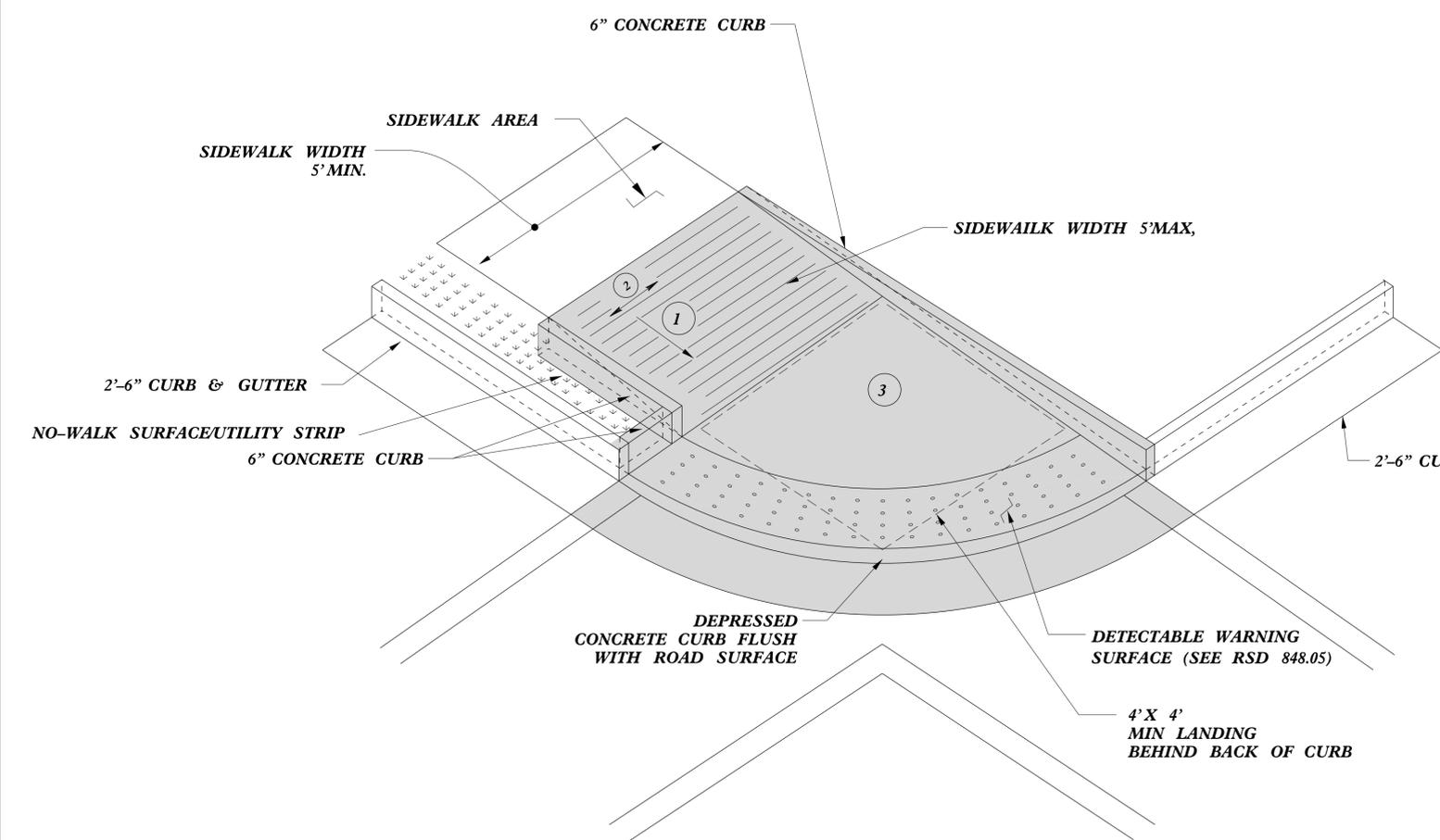
CONTRACT STANDARDS AND DEVELOPMENT UNIT
 Office 919-707-6950 FAX 919-250-4119

CURB RAMPS
 Directional Ramps

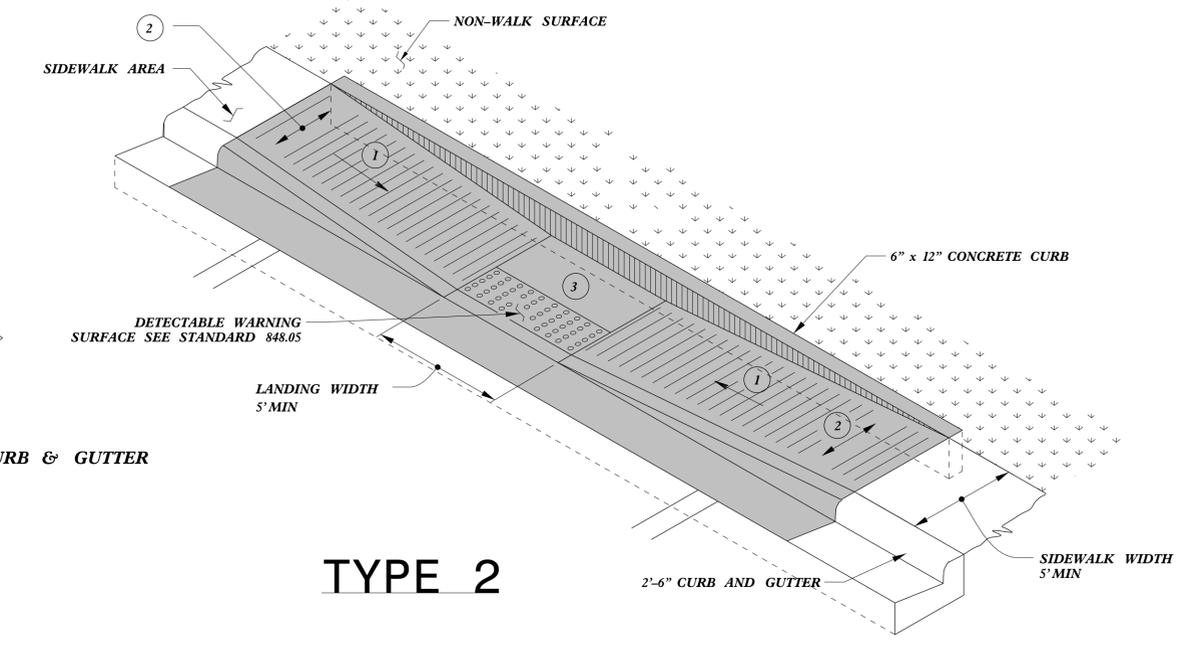
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5/14/99
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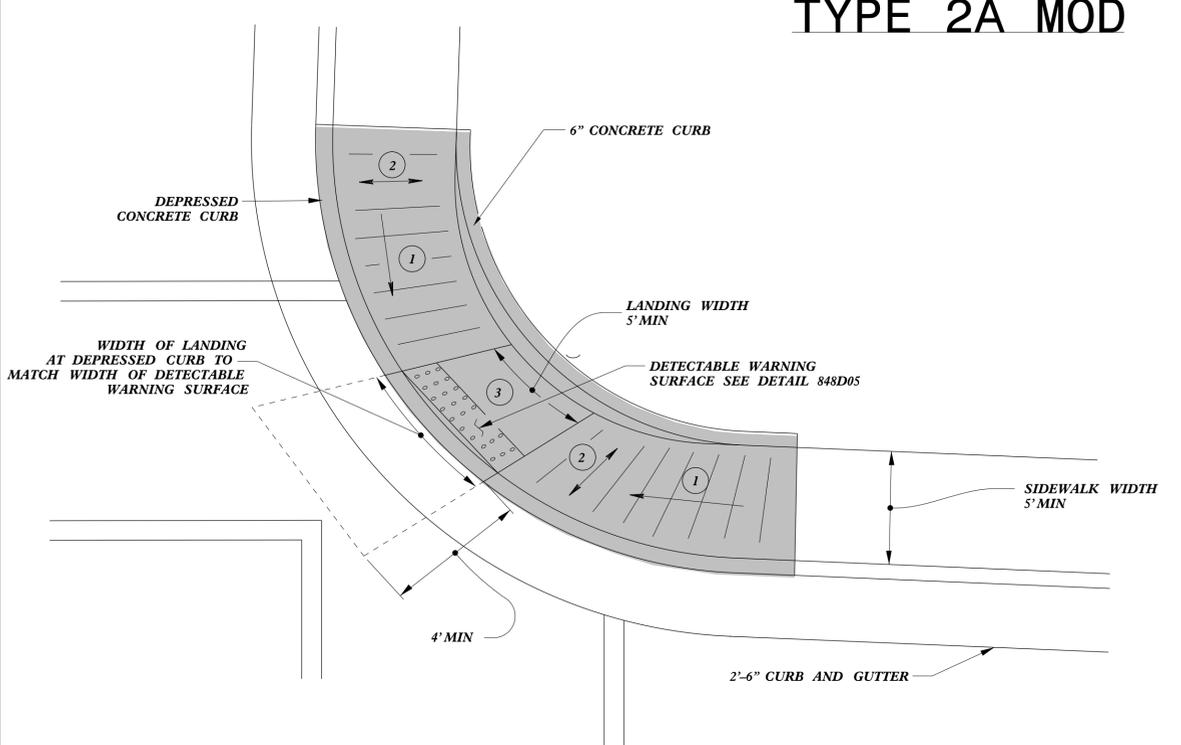
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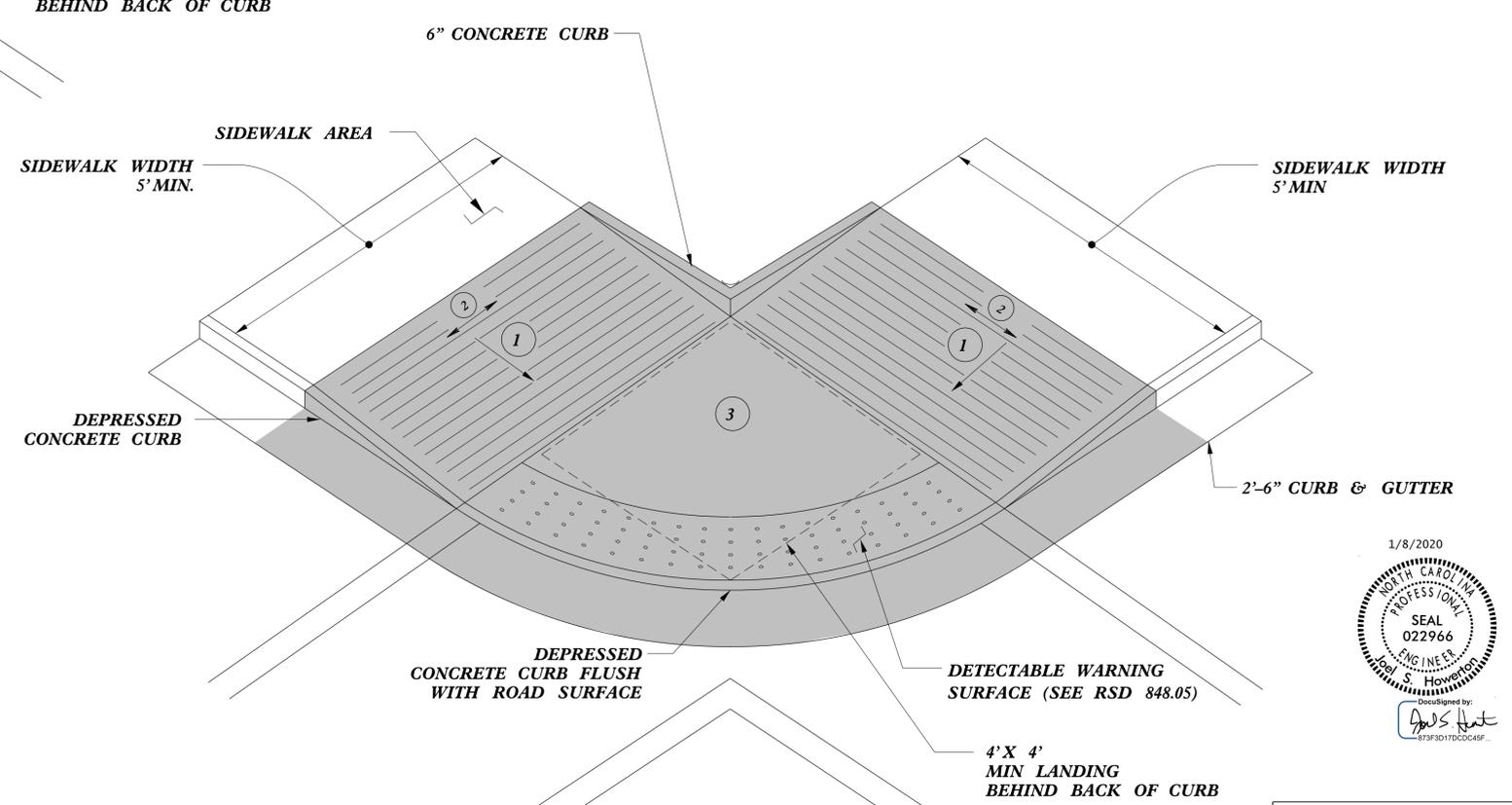
TYPE 2A MOD



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



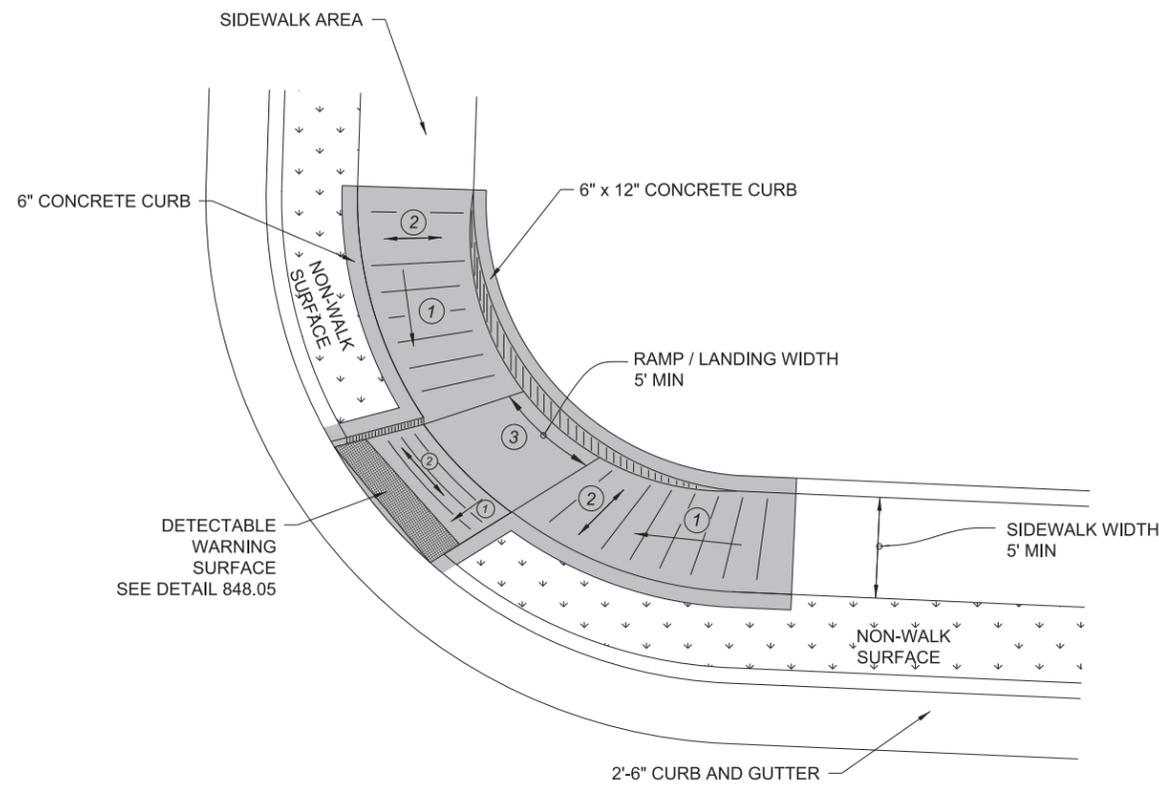
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CONTRACT STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

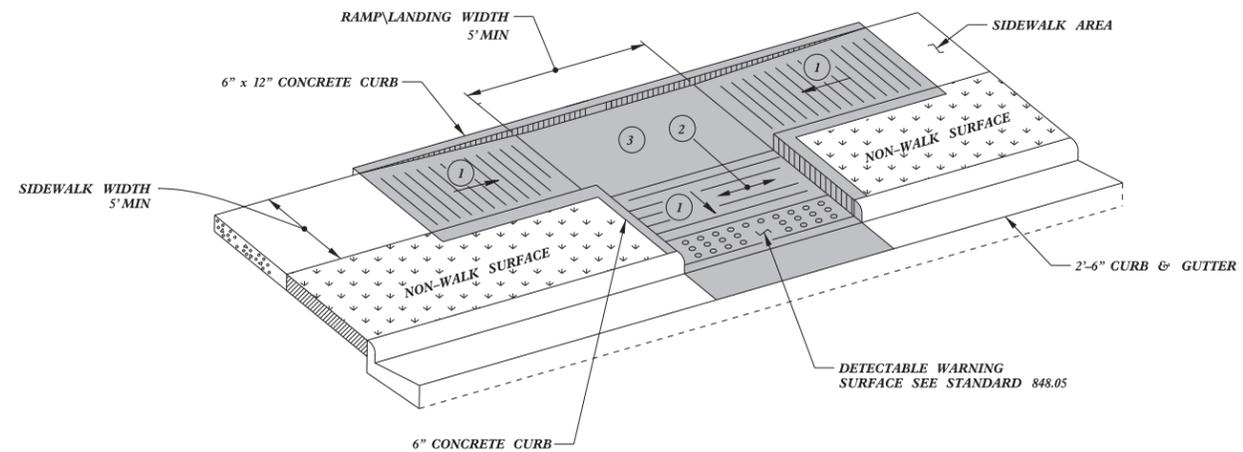
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 MODIFIED BY: DATE:
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PAY LIMITS FOR 1 CURB RAMP



**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

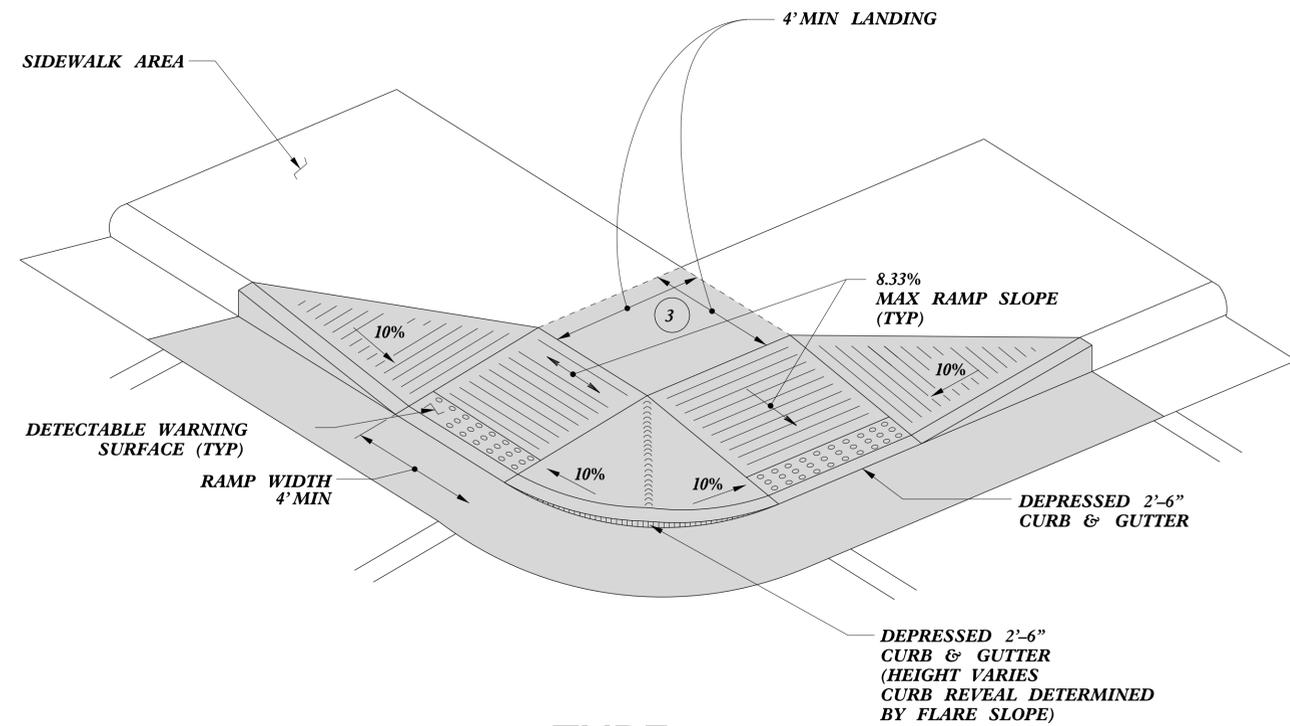
CONTRACT STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

CURB RAMPS

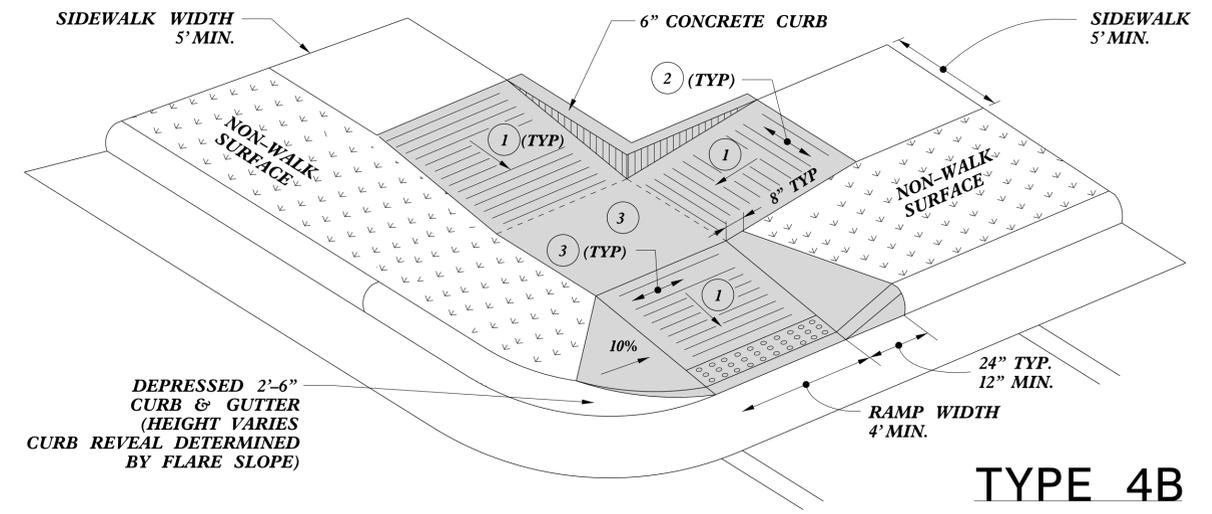
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5/14/99
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TIME: 11:00 AM
DATE: 11/14/2019
USER: J.S. HOWERTON
FILE: sids/2012CurbRamp/CurbRampDetails.dgn

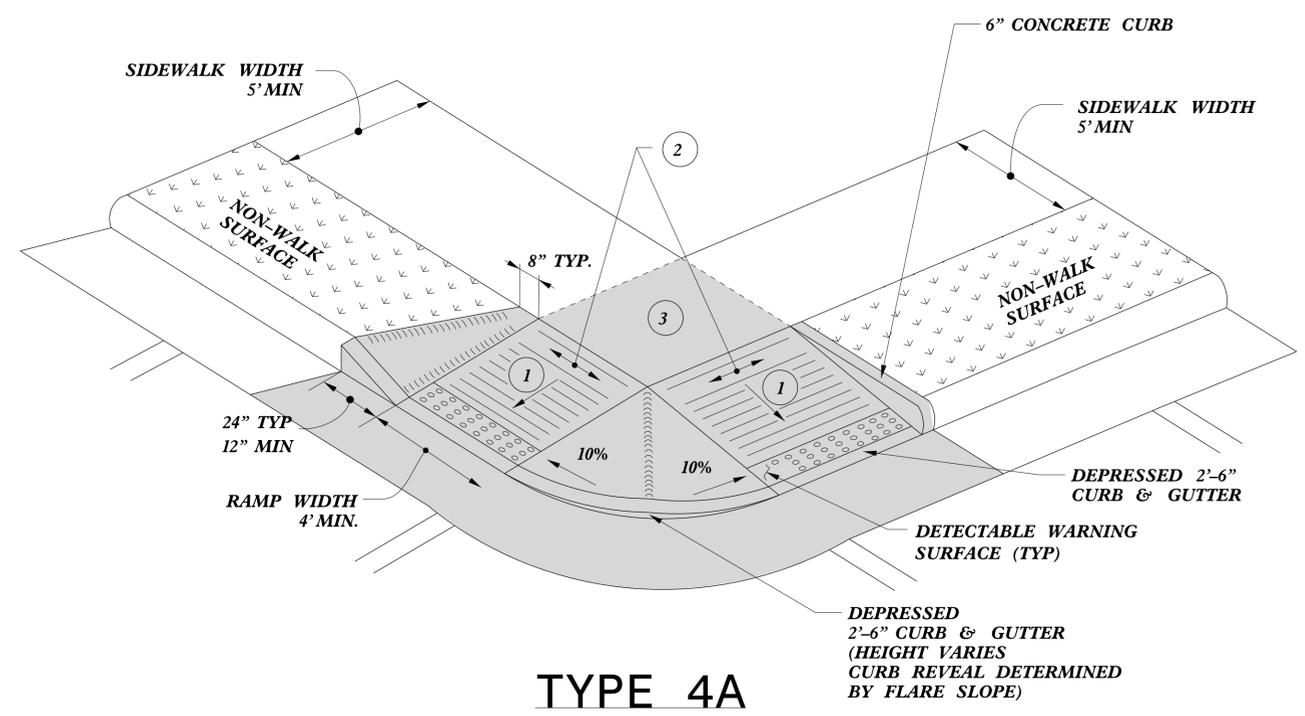
PAY LIMITS FOR 1 OR 2 CURB RAMPS
(CALCULATE BASED ON NUMBER OF SETS
OF TRUNCATED DOMES)



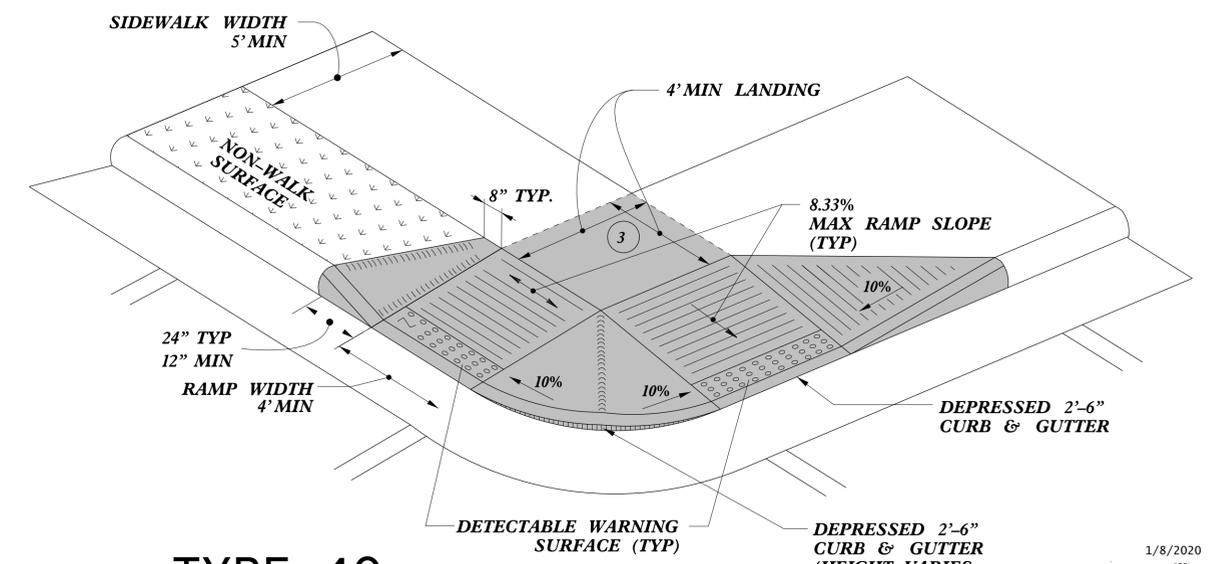
TYPE 4



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

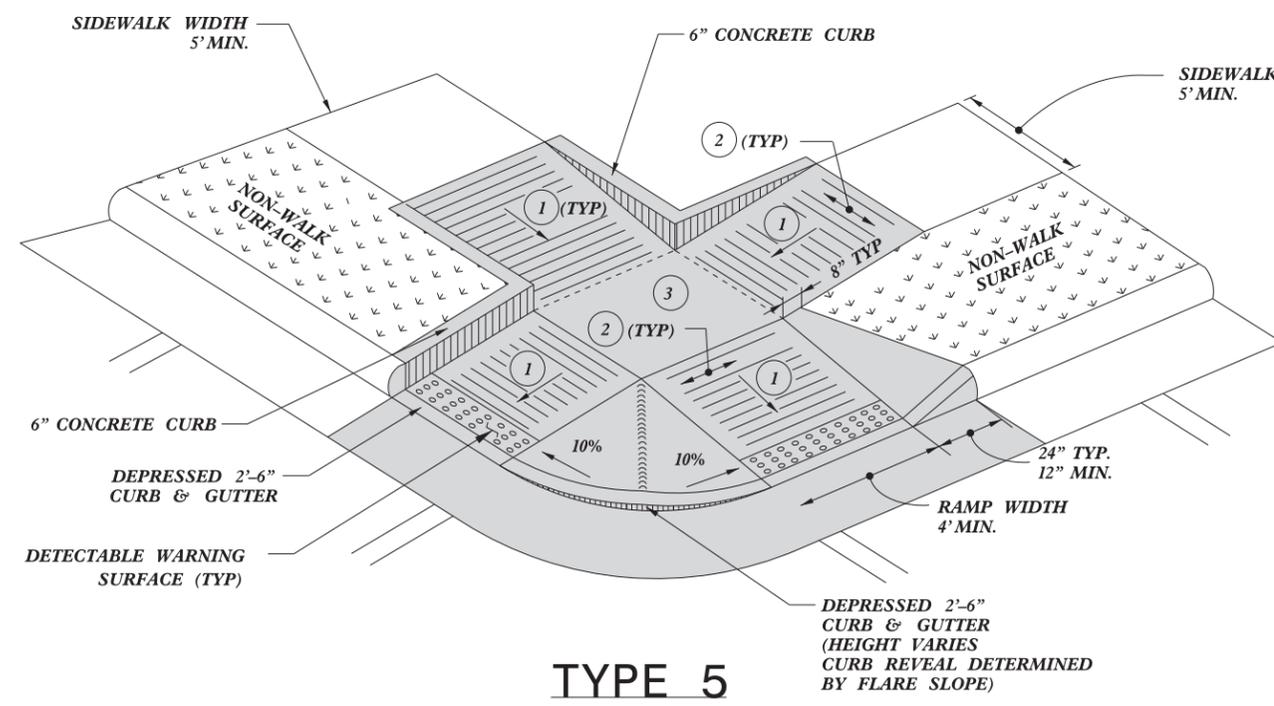
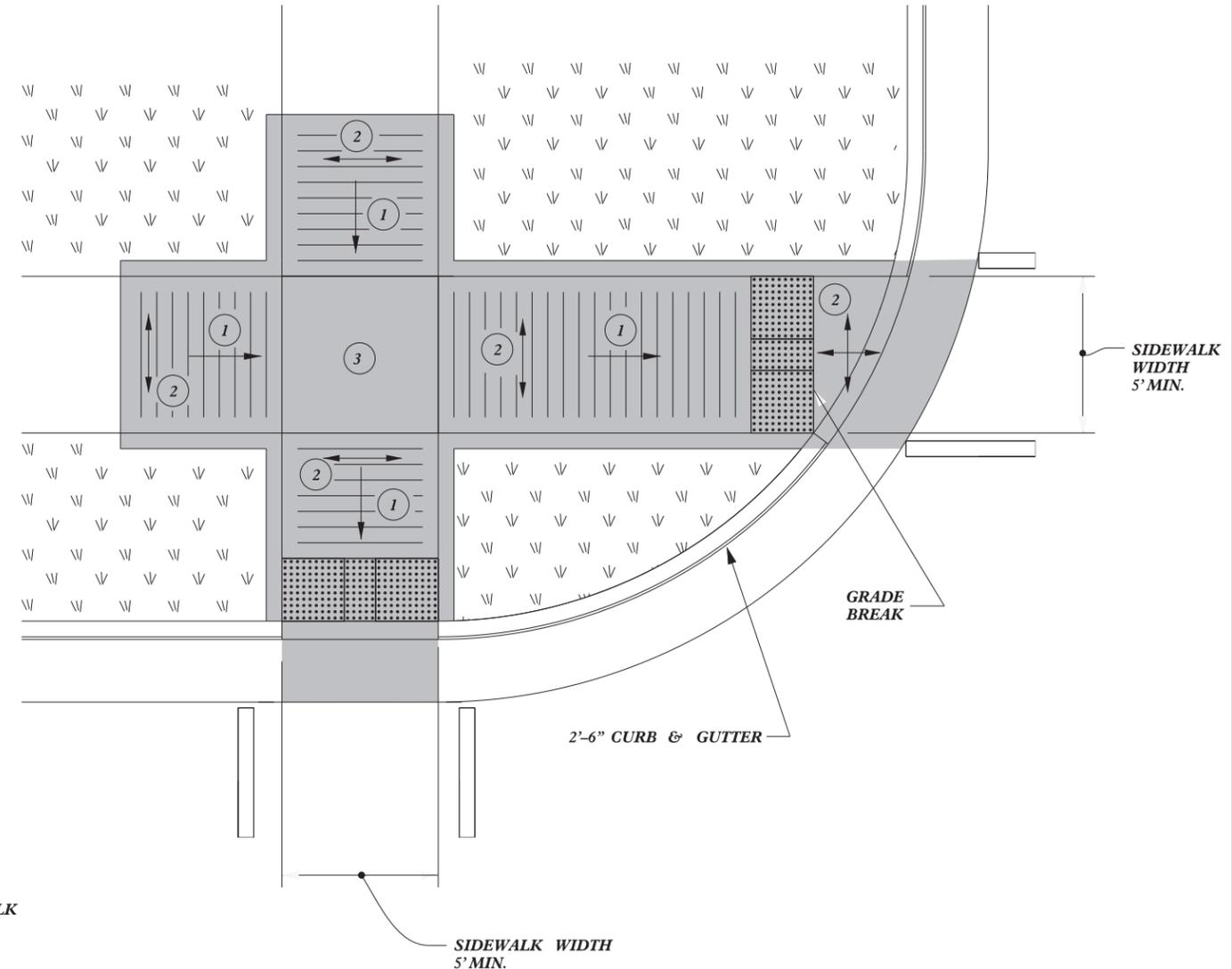
CURB RAMPS

ORIGINAL BY: J.S. HOWERTON DATE: 7/7/11
 MODIFIED BY: DATE:
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REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES

5/14/99
 C:\P\2012\2012CurbRamp\CurbRampDetails.dgn
 USER: J.S. HOWERTON
 TIME: 10:00 AM

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



TYPE 5A

- 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



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

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

CURB RAMPS

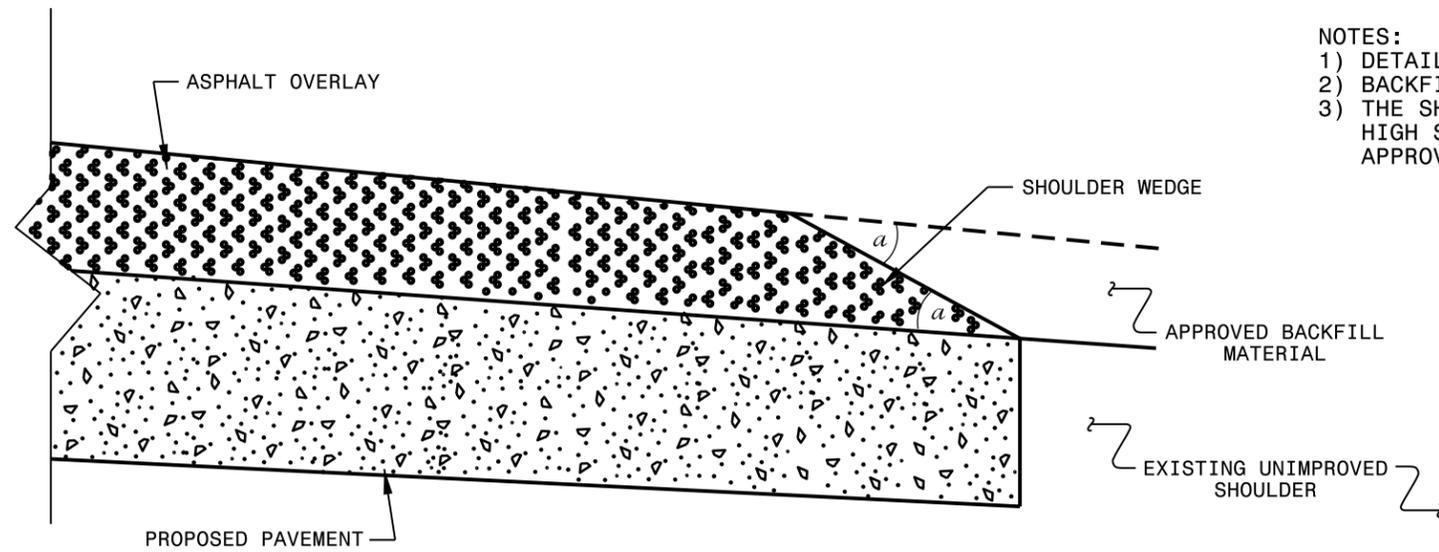
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MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC: sids/2012CurbRamp/CurbRampDetails.dgn

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

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

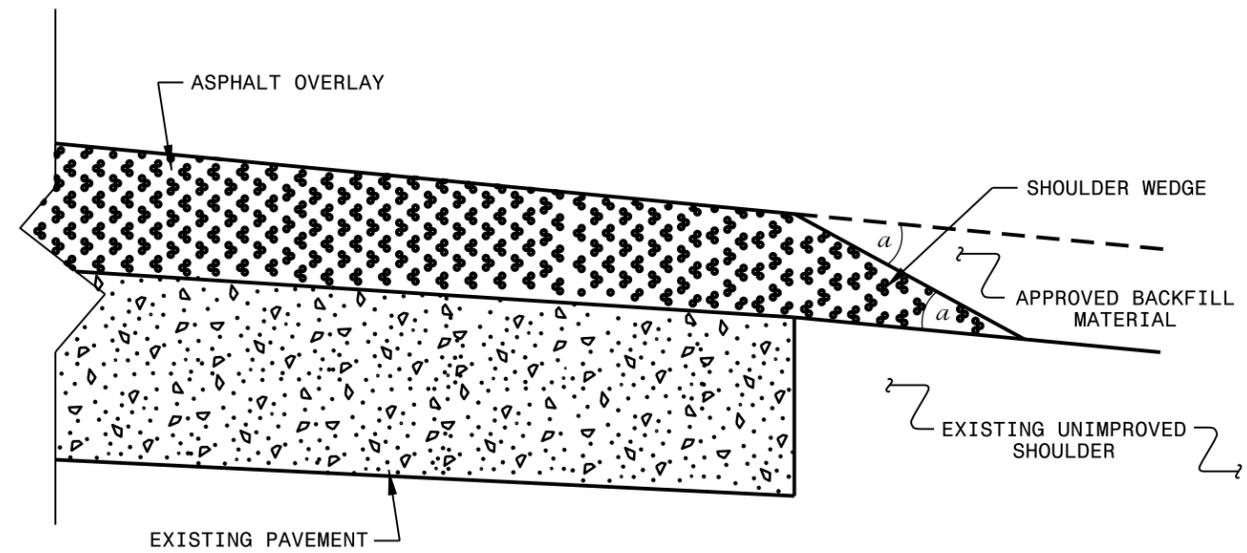
NOTES:

- 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.



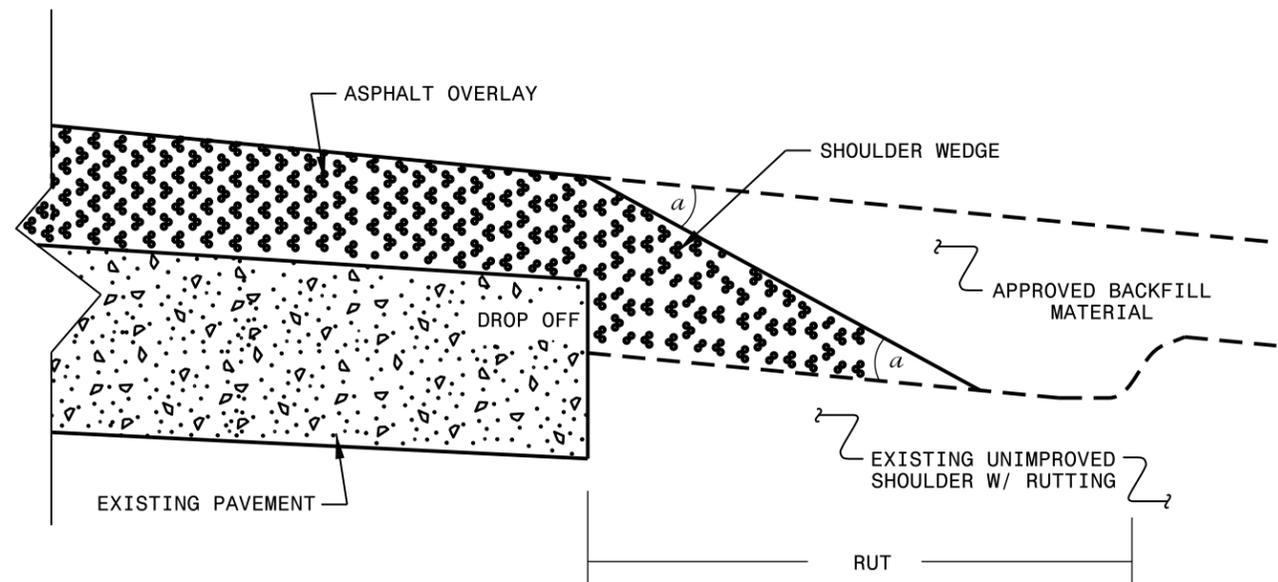
SHOULDER WEDGE DETAIL

(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		
ORIGINAL BY: T.SPELL	DATE: 7-19-11	
MODIFIED BY:	DATE: 2/2/16	
CHECKED BY:	DATE:	
FILE SPEC.: szusr/details/stand/shoulderwedgedetail.dgn		

SUMMARY OF QUANTITIES - VANESSA DR FROM SR 2797 TO SR 2720

Municipality:	Outside Municipality
Project Number:	2022 Central
WBS Number:	2022CPT.05.02.20921.1
County:	Wake

Ramp ID	Inset Map Number	Route 1	Route 2	2549000000-E	2591000000-E	2830000000-N	2845000000-N	4116100000-N	4695000000-E	4860000000-E	2600000000-N	2613000000-N	2759000000-E	Improvement Type
				2'-6" Concrete Curb & Gutter LF	4" Concrete Sidewalk SY	Adjustment of Manholes EA	Adjustment of Meter Boxes or Valve Boxes EA	Relocate Sign Type E EA	8" X 90 MIL White Thermo LF	8" Line Removal LF	Retrofit Existing Curb Ramps EA	Remove and Replace Curb Ramps EA	Remove Curb Ramps EA	
6456	1	SR-3740 (Vanessa Dr)	Smith IB Magnet Elementary School (Vanessa Dr Back Entrance)									1		Type1Modified
Sub-Total for Vanessa Dr From SR 2797 To SR 2720				0	0	0	0	0	0	0	0	1	0	

SUMMARY OF QUANTITIES - S WILMINGTON ST FROM SR 4363 TO RUSH ST

Municipality:	Raleigh
Project Number:	2022 Central
WBS Number:	2022CPT.05.02.20921.1
County:	Wake

Ramp ID	Inset Map Number	Route 1	Route 2	254900000-E	259100000-E	283000000-N	284500000-N	411610000-N	469500000-E	486000000-E	260000000-N	261300000-N	2759000000-E	Improvement Type
				2'-6" Concrete Curb & Gutter LF	4" Concrete Sidewalk SY	Adjustment of Manholes EA	Adjustment of Meter Boxes or Valve Boxes EA	Relocate Sign Type E EA	8" X 90 MIL White Thermo LF	8" Line Removal LF	Retrofit Existing Curb Ramps EA	Remove and Replace Curb Ramps EA	Remove Curb Ramps EA	
18651	1	SR-1564 (S Wilmington St)	Budget Inn Hotel (2729 S Wilmington St) South Entrance										1	Type1Modified
18652	1	SR-1564 (S Wilmington St)	Budget Inn Hotel (2729 S Wilmington St) South Entrance										1	Type1Modified
18642	2	SR-1564 (S Wilmington St)	Building Entrance (2732 S Wilmington St)										1	Type1Modified
18653	2	SR-1564 (S Wilmington St)	Budget Inn Hotel (2729 S Wilmington St) North Entrance										1	Type1Modified
18641	2	SR-1564 (S Wilmington St)	Building Entrance (2732 S Wilmington St)										1	Type1Modified
18654	2	SR-1564 (S Wilmington St)	Budget Inn Hotel (2729 S Wilmington St) North Entrance										1	Type1Modified
18639	3	SR-1564 (S Wilmington St)	Holiday Light Store (2720 S Wilmington St) Entrance										1	Type1Modified
18640	3	SR-1564 (S Wilmington St)	Holiday Light Store (2720 S Wilmington St) Entrance										1	Type1Modified
18655	3	SR-1564 (S Wilmington St)	Vacant Building (2725 S Wilmington St) South Entrance										1	Type1Modified
18656	3	SR-1564 (S Wilmington St)	Vacant Building (2725 S Wilmington St) South Entrance										1	Type1Modified
18637	4	SR-1564 (S Wilmington St)	Country Lodge Motel (2716 S Wilmington St) Entrance										1	Type1Modified
18638	4	SR-1564 (S Wilmington St)	Country Lodge Motel (2716 S Wilmington St) Entrance										1	Type1Modified
18657	4	SR-1564 (S Wilmington St)	Vacant Building (2725 S Wilmington St) North Entrance										1	Type1Modified
18658	4	SR-1564 (S Wilmington St)	Vacant Building (2725 S Wilmington St) North Entrance										1	Type1Modified
18659	4	SR-1564 (S Wilmington St)	Blue Martini Bar (2701 S Wilmington St) South Entrance										1	Type1Modified
18660	4	SR-1564 (S Wilmington St)	Blue Martini Bar (2701 S Wilmington St) South Entrance										1	Type1Modified
18661	5	SR-1564 (S Wilmington St)	Blue Martini Bar (2701 S Wilmington St) North Entrance										1	Type1Modified
18662	5	SR-1564 (S Wilmington St)	Blue Martini Bar (2701 S Wilmington St) North Entrance										1	Type1Modified
18663	6	SR-1564 (S Wilmington St)	Little M Car Sales (2621 S Wilmington St) Entrance				1						1	Type1Modified
18664	6	SR-1564 (S Wilmington St)	Little M Car Sales (2621 S Wilmington St) Entrance										1	Type1Modified
18665	6	SR-1564 (S Wilmington St)	Little M Car Sales (2621 S Wilmington St) Entrance										1	Type1Modified
18635	6	SR-1564 (S Wilmington St)	Parkland Rd										1	Type1Modified
18636	6	SR-1564 (S Wilmington St)	Parkland Rd										1	Type1Modified
18666	6	SR-1564 (S Wilmington St)	Little M Car Sales (2621 S Wilmington St) Entrance										1	Type1Modified
18668	7	SR-1564 (S Wilmington St)	Layden St										1	Type1Modified
18633	7	SR-1564 (S Wilmington St)	Pecan Rd								1			RetrofitWarnings
18634	7	SR-1564 (S Wilmington St)	Layden St								1			RetrofitWarnings
18669	7	SR-1564 (S Wilmington St)	Layden St									1		Type1Modified
18667	7	SR-1564 (S Wilmington St)	Layden St									1		Standard - 848.06
18629	8	SR-1564 (S Wilmington St)	Layden St						100	100		1		Type7
18628	8	SR-1564 (S Wilmington St)	Pecan Rd						130	130		1		Type7
18631	8	SR-1564 (S Wilmington St)	Pecan Rd		5									-
18627	8	SR-1564 (S Wilmington St)	Pecan Rd		5									-
18671	9	SR-1564 (S Wilmington St)	Newbold St									1		Type1Modified
18672	9	SR-1564 (S Wilmington St)	Newbold St									1		Type1Modified
18673	10	SR-1564 (S Wilmington St)	Haywood Funeral home (2415 S Wilmington St) Entrance									1		Type1Modified
18674	10	SR-1564 (S Wilmington St)	Haywood Funeral home (2415 S Wilmington St) Entrance									1		Type1Modified
18729	10	SR-1564 (S Wilmington St)	Alfa Auto Sales (2500 S Wilmington St) Entrance									1		Type1Modified
18730	10	SR-1564 (S Wilmington St)	Alfa Auto Sales (2500 S Wilmington St) Entrance									1		Type1Modified
18675	11	SR-1564 (S Wilmington St)	Life Storage (2401 S Wilmington) Entrance									1		Type1Modified
18676	11	SR-1564 (S Wilmington St)	Life Storage (2401 S Wilmington) Entrance									1		Type1Modified
18727	11	SR-1564 (S Wilmington St)	Renfrow Rd									1		Type1Modified
18728	11	SR-1564 (S Wilmington St)	Renfrow Rd									1		Type1Modified
18725	12	SR-1564 (S Wilmington St)	RDU Gold Buyers (2430 S Wilmington St) Entrance									1		Type1Modified
18726	12	SR-1564 (S Wilmington St)	RDU Gold Buyers (2430 S Wilmington St) Entrance									1		Type1Modified
18677	13	SR-1564 (S Wilmington St)	Evergreen Packaging (2215 S Wilmington St) South Entrance									1		Type1Modified
18678	13	SR-1564 (S Wilmington St)	Evergreen Packaging (2215 S Wilmington St) South Entrance									1		Type1Modified
18723	14	SR-1564 (S Wilmington St)	HC Auto and Body (2408 Renfrow Rd) S Wilmington North Entrance									1		Type1Modified
18724	14	SR-1564 (S Wilmington St)	HC Auto and Body (2408 Renfrow Rd) S Wilmington North Entrance									1		Type1Modified
18679	15	SR-1564 (S Wilmington St)	Evergreen Packaging (2215 S Wilmington St) North Entrance									1		Type1Modified
18680	15	SR-1564 (S Wilmington St)	Evergreen Packaging (2215 S Wilmington St) North Entrance									1		Type1Modified
18721	15	SR-1564 (S Wilmington St)	Vernon Malone Academy (2200 S Wilmington St) South Entrance									1		Type1Modified
Sub-Total				0	10	0	1	0	230	230	2	48	0	

SUMMARY OF QUANTITIES - S WILMINGTON ST FROM SR 4363 TO RUSH ST

Municipality:	Raleigh
Project Number:	2022 Central
WBS Number:	2022CPT.05.02.20921.1
County:	Wake

Ramp ID	Inset Map Number	Route 1	Route 2	2549000000-E	2591000000-E	2830000000-N	2845000000-N	4116100000-N	4695000000-E	4860000000-E	2600000000-N	2613000000-N	27590000000-E	Improvement Type
				2'-6" Concrete Curb & Gutter LF	4" Concrete Sidewalk SY	Adjustment of Manholes EA	Adjustment of Meter Boxes or Valve Boxes EA	Relocate Sign Type E EA	8" X 90 MIL White Thermo LF	8" Line Removal LF	Retrofit Existing Curb Ramps EA	Remove and Replace Curb Ramps EA	Remove Curb Ramps EA	
18722	15	SR-1564 (S Wilmington St)	Vernon Malone Academy (2200 S Wilmington St) South Entrance									1		Type1B
18718	16	SR-1564 (S Wilmington St)	Vernon Malone Academy (2200 S Wilmington St) North Entrance								1			RetrofitWarnings
18719	16	SR-1564 (S Wilmington St)	Vernon Malone Academy (2200 S Wilmington St) North Entrance								1			RetrofitWarnings
18720	16	SR-1564 (S Wilmington St)	Vernon Malone Academy (2200 S Wilmington St) North Entrance								1			RetrofitWarnings
18717	16	SR-1564 (S Wilmington St)	Vernon Malone Academy (2200 S Wilmington St) North Entrance									1		Type1Modified
18681	17	SR-1564 (S Wilmington St)	Superior Distribution (2201 S Wilmington St) Entrance									1		Type1Modified
18682	17	SR-1564 (S Wilmington St)	Superior Distribution (2201 S Wilmington St) Entrance									1		Type1Modified
18683	17	SR-1564 (S Wilmington St)	Superior Distribution (2201 S Wilmington St) Entrance									1		Type1Modified
18684	17	SR-1564 (S Wilmington St)	Superior Distribution (2201 S Wilmington St) Entrance									1		Type1Modified
18715	18	SR-1564 (S Wilmington St)	Raleigh Concrete (1928 S Wilmington St) Entrance									1		Type1Modified
18716	18	SR-1564 (S Wilmington St)	Raleigh Concrete (1928 S Wilmington St) Entrance									1		Type1Modified
18713	19	SR-1564 (S Wilmington St)	Walker St									1		Type1Modified
18714	19	SR-1564 (S Wilmington St)	Walker St									1		Type1Modified
18711	20	SR-1564 (S Wilmington St)	Bluff St									1		Type1Modified
18712	20	SR-1564 (S Wilmington St)	Bluff St									1		Type1Modified
18708	21	SR-1564 (S Wilmington St)	Fayetteville St					1				1		Type1Modified
18686	21	SR-1564 (S Wilmington St)	Fayetteville St								1			RetrofitWarnings
18687	21	SR-1564 (S Wilmington St)	Fayetteville St								1			RetrofitWarnings
18689	22	SR-1564 (S Wilmington St)	City Farm Rd						100	100		1		Type7
18690	22	SR-1564 (S Wilmington St)	Keeter Center Dr					1	80	80		1		Type7
18694	22	SR-1564 (S Wilmington St)	City Farm Rd						75	75		1		Type7
18695	22	SR-1564 (S Wilmington St)	Keeter Center Dr						115	115		1		Type7
18691	23	SR-1564 (S Wilmington St)	City Farm Rd		3							1		Type1A
18692	23	SR-1564 (S Wilmington St)	City Farm Rd		4		1	1				1		Type1Modified
18693	23	SR-1564 (S Wilmington St)	City Farm Rd		3		1					1		Type3Modified
18704	23	SR-1564 (S Wilmington St)	Keeter Center Dr		4									-
18705	23	SR-1564 (S Wilmington St)	Keeter Center Dr		4									-
18706	23	SR-1564 (S Wilmington St)	Keeter Center Dr		5									-
18707	23	SR-1564 (S Wilmington St)	Keeter Center Dr		3									-
18696	24	SR-1564 (S Wilmington St)	City of Raleigh Traffic Engineering Field Services Building									1		Type1Modified
18697	24	SR-1564 (S Wilmington St)	City of Raleigh Traffic Engineering Field Services Building									1		Type1Modified
18698	25	SR-1564 (S Wilmington St)	Garage (1425 S Wilmington St) Entrance									1		Type1Modified
18699	25	SR-1564 (S Wilmington St)	Garage (1425 S Wilmington St) Entrance									1		Type1Modified
18700	26	SR-1564 (S Wilmington St)	Garage (1429 S Wilmington St) Entrance									1		Type1Modified
18702	27	SR-1564 (S Wilmington St)	Kings Motel (1403 S Wilmington St) Entrance									1		Type1Modified
18703	27	SR-1564 (S Wilmington St)	Kings Motel (1403 S Wilmington St) Entrance									1		Type1Modified
18731	28	SR-1564 (S Wilmington St)	Raleigh Business & Technology Center (900 S Wilmington) Entrance									1		Type1Modified
18732	28	SR-1564 (S Wilmington St)	Raleigh Business & Technology Center (900 S Wilmington) Entrance									1		Type1Modified
Sub-Total				0	26	1	1	3	370	370	5	29	0	
Sub-Total for S Wilmington St From SR 4363 To Rush St				0	36	1	2	3	600	600	7	77	0	

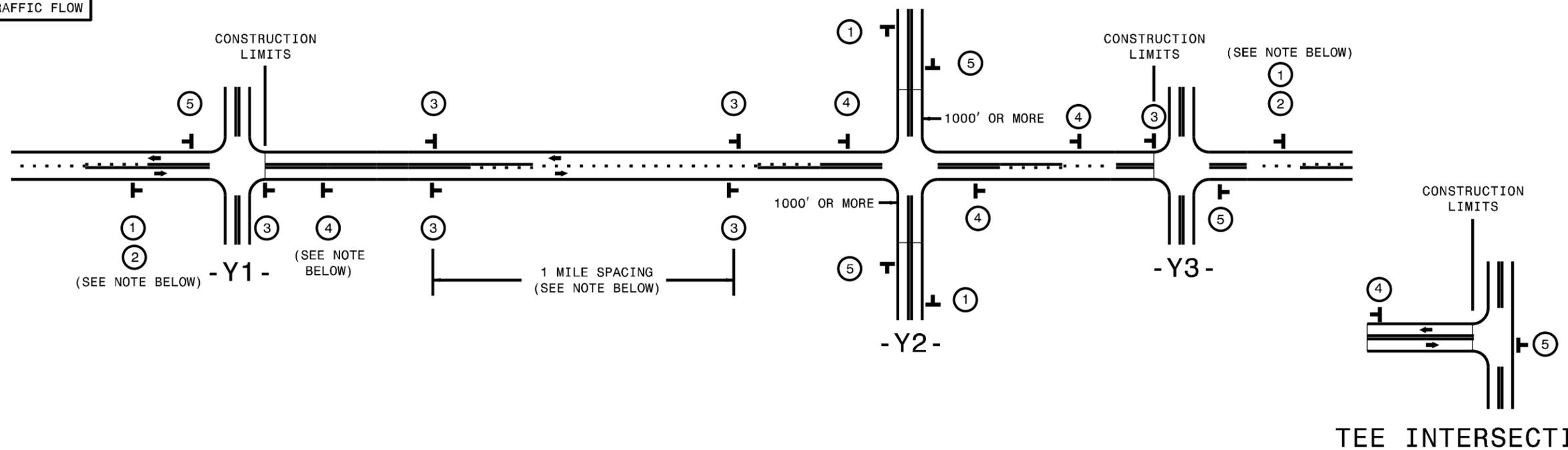
SUMMARY OF QUANTITIES - S NEW HOPE RD FROM SR 1007 TO SR 2542

Municipality:	Outside Municipality Raleigh
Project Number:	2022 Central
WBS Number:	2022CPT.05.02.20921.1
County:	Wake

Ramp ID	Inset Map Number	Route 1	Route 2	2549000000-E	2591000000-E	2830000000-N	2845000000-N	4116100000-N	4695000000-E	4860000000-E	2600000000-N	2613000000-N	2759000000-E	Improvement Type
				2'-6" Concrete Curb & Gutter LF	4" Concrete Sidewalk SY	Adjustment of Manholes EA	Adjustment of Meter Boxes or Valve Boxes EA	Relocate Sign Type E EA	8" X 90 MIL White Thermo LF	8" Line Removal LF	Retrofit Existing Curb Ramps EA	Remove and Replace Curb Ramps EA	Remove Curb Ramps EA	
10166	1	SR-2542 (Rock Quarry Rd)	Jones Sausage Rd									1		Type3Modified
10167	1	SR-2542 (Rock Quarry Rd)	Jones Sausage Rd	15	9								1	Remove Ramp
13202	2	SR-2697 (S New Hope Rd)	Maybrook Crossing Dr									1		Type1A
13203	2	SR-2697 (S New Hope Rd)	Maybrook Crossing Dr	17									1	Remove Ramp
13204	2	SR-2697 (S New Hope Rd)	Maybrook Crossing Dr	17									1	Remove Ramp
13205	2	SR-2697 (S New Hope Rd)	Maybrook Crossing Dr									1		Type1Modified
13155	3	SR-2697 (S New Hope Rd)	SR-5233 (Old Poole Rd)									1		Standard - 848.06
13156	3	SR-2697 (S New Hope Rd)	SR-5233 (Old Poole Rd)	15	9								1	Remove Ramp
13157	3	SR-2697 (S New Hope Rd)	SR-5233 (Old Poole Rd)	15	9								1	Remove Ramp
13426	4	SR-2697 (S New Hope Rd)	Office Park (825 S New Hope Rd) Entrance									1		Type1Modified
13427	4	SR-2697 (S New Hope Rd)	Office Park (825 S New Hope Rd) Entrance									1		Type1Modified
13430	4	SR-2697 (S New Hope Rd)	Custom Door & Gate (830 S New Hope Rd) Entrance									1		Type1B
13431	4	SR-2697 (S New Hope Rd)	Custom Door & Gate (830 S New Hope Rd) Entrance									1		Type1Modified
Sub-Total for S New Hope Rd From SR 1007 To SR 2542				79	27	0	0	0	0	0	0	8	5	

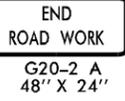
SIGNING FOR RESURFACING PROJECTS

LEGEND
 STATIONARY SIGN
 DIRECTION OF TRAFFIC FLOW



MAINLINE (-L-) SIGNING

-Y- LINE SIGNING

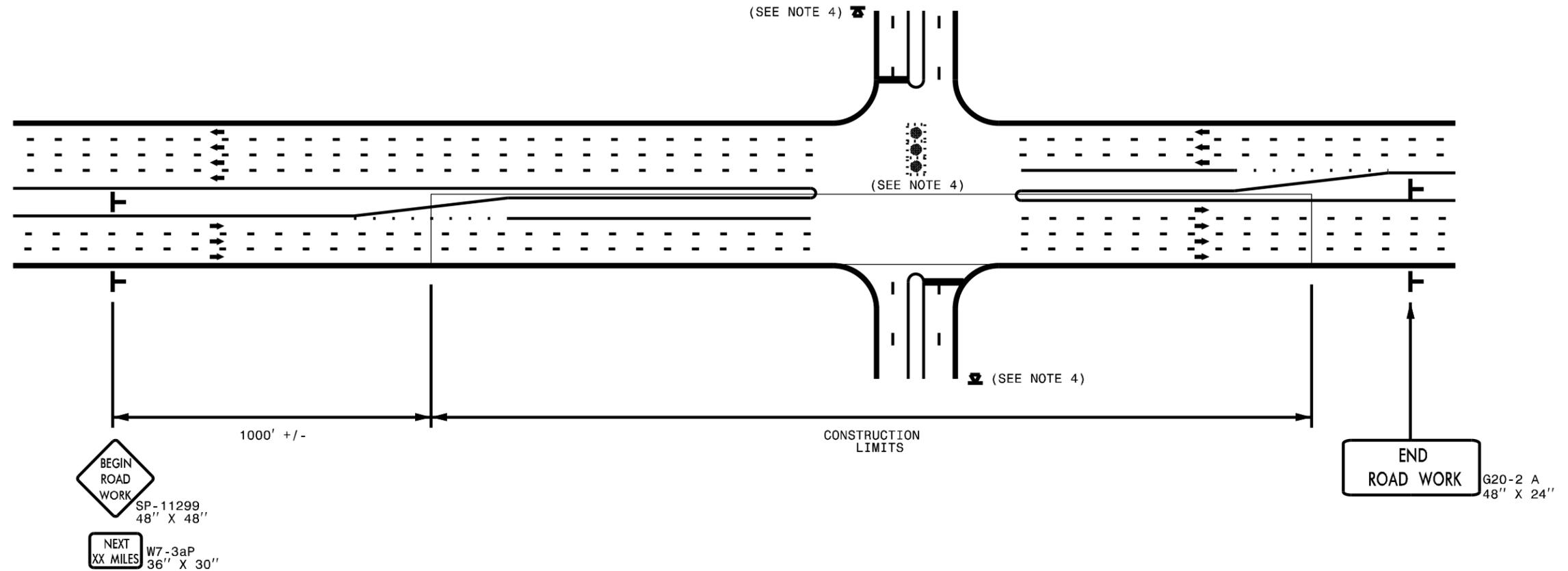
SIGNING NOTES AND PLACEMENT PER DIRECTION	 	<p>PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.</p> <p>#2 SIGN ONLY USED WHEN CONSTRUCTION LIMITS ARE 2 OR MORE MILES IN LENGTH. ROUND UP TO NEXT WHOLE NUMBER. (NO FRACTIONAL OR DECIMAL NUMBERS)</p>	<p>NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:</p> <ol style="list-style-type: none"> 1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE 2) SUBDIVISION ROADS 3) DEAD END ROADS <p>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.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <small>W20-1 48" X 48"</small> PLACED 500' IN ADVANCE OF FLAGGER. </div> <div style="text-align: center;">  <small>W20-7 A 48" X 48"</small> PLACED 250' IN ADVANCE OF FLAGGER. </div> </div>
		<p>- PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACE 1 MILE APART THEREAFTER.</p> <p>- AT TEE INTERSECTIONS INSTALL INITIALLY 1/2 MILE FROM INTERSECTION AND SPACE 1 MILE APART THEREAFTER.</p>	
		<p>- THESE ARE FOR -Y- LINES THAT ARE "THROUGH" ROADWAYS.</p> <p>- DEAD END AND SUBDIVISION ROADS ARE NOT "THROUGH" ROADWAYS.</p> <p>- INSTALL 500' +/- FROM EACH -Y- LINE APPROACH AS SHOWN ABOVE.</p> <p>- 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.</p> <p>- A MAXIMUM OF 2 SIGN SETS PER MILE. DO NOT INSTALL WHEN -Y- LINES ARE WITHIN 0.5 MILES FROM "END ROAD WORK" SIGN.</p> <p>- FOR TEE INTERSECTIONS, INSTALL WITHIN 500' +/- OF THE INTERSECTION ALONG -L- LINE.</p>	
		<p>PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS OR AS SHOWN WHEN WORK ENDS AT A 3-WAY TEE INTERSECTION.</p>	
	<p>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.</p>		
<p>MAPS LESS THAN 2 MILES</p>	<p>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.</p>		



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

- STATIONARY SIGN
- DIRECTION OF TRAFFIC FLOW



RESURFACING ADVANCE
WARNING SIGNS FOR
URBAN / SUBURBAN
FACILITIES

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

**DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA**

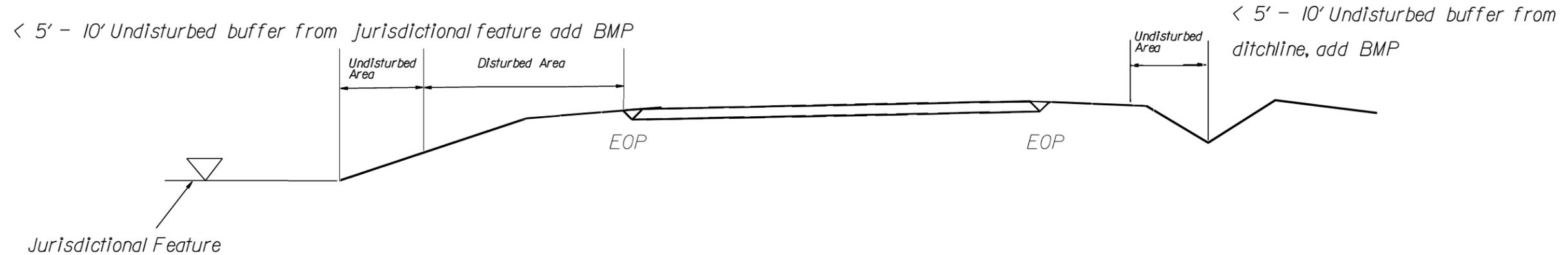
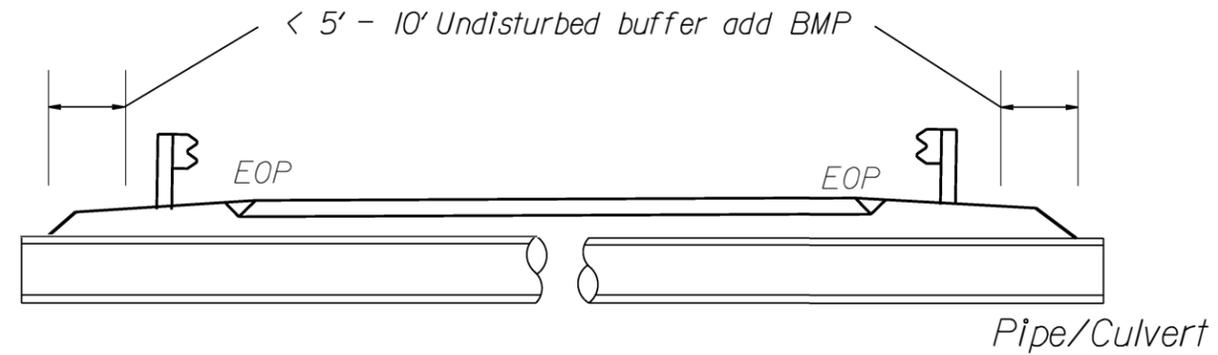
SOIL STABILIZATION TIMEFRAMES

<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.

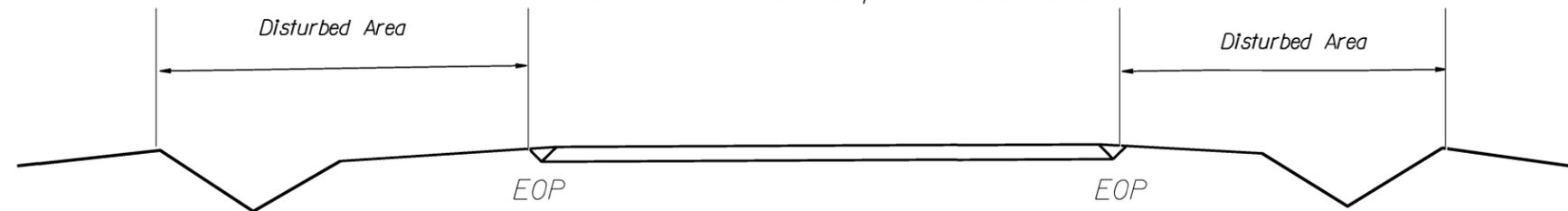
NOTES: Less than 5' - 10' undisturbed buffer from ROW, ditchline, water feature, or drainage inlet, add BMP.

BMP Options: Wattle, Silt Fence or Hardened Aggregate.

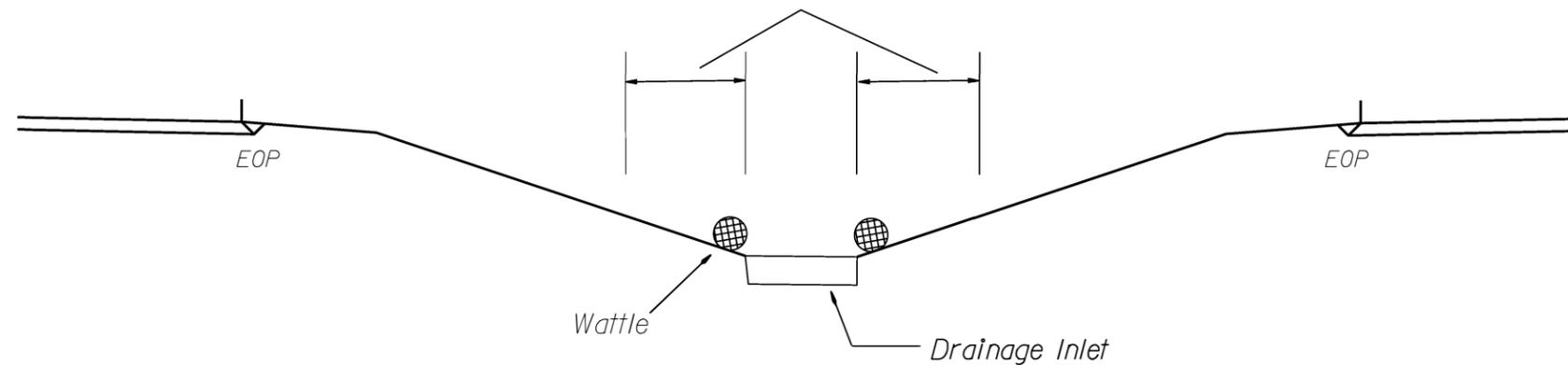
EROSION CONTROL DETAIL



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

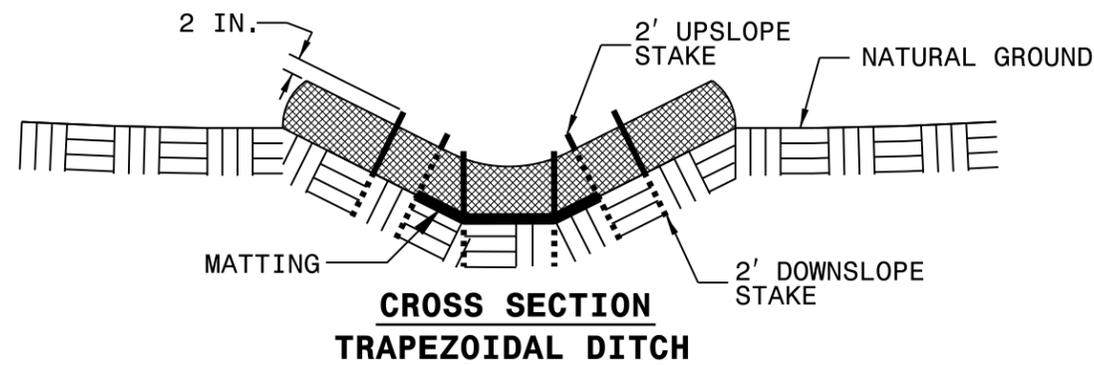
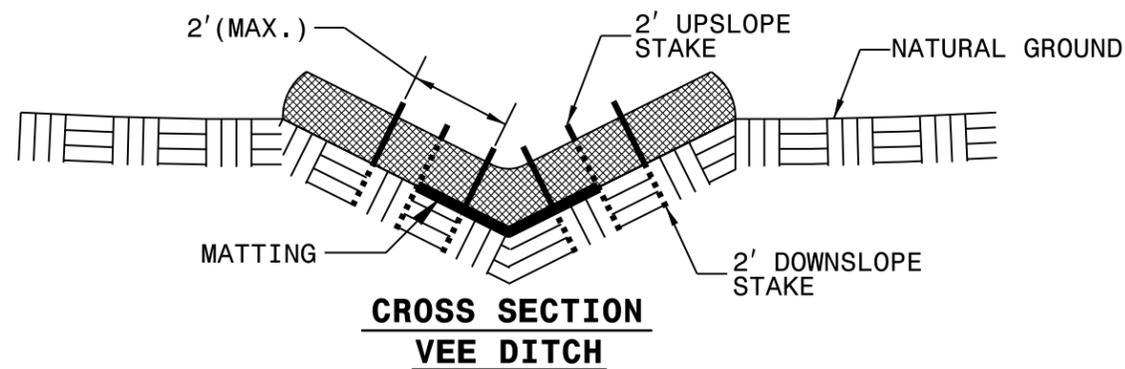
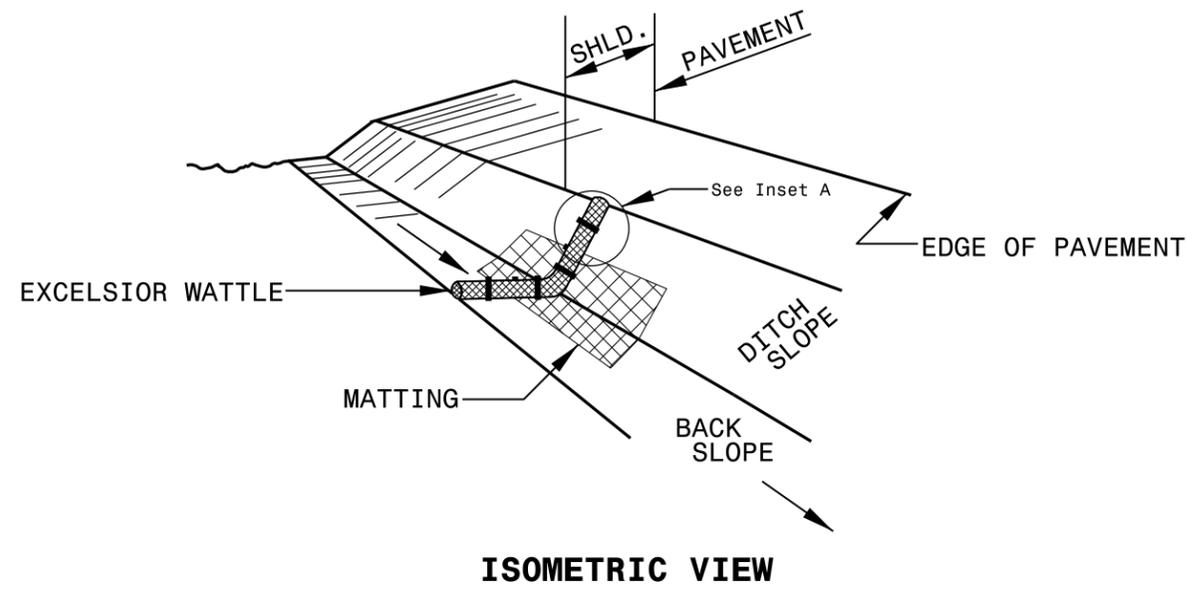


< 5' - 10' Undisturbed buffer from inlet, add wattle



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.

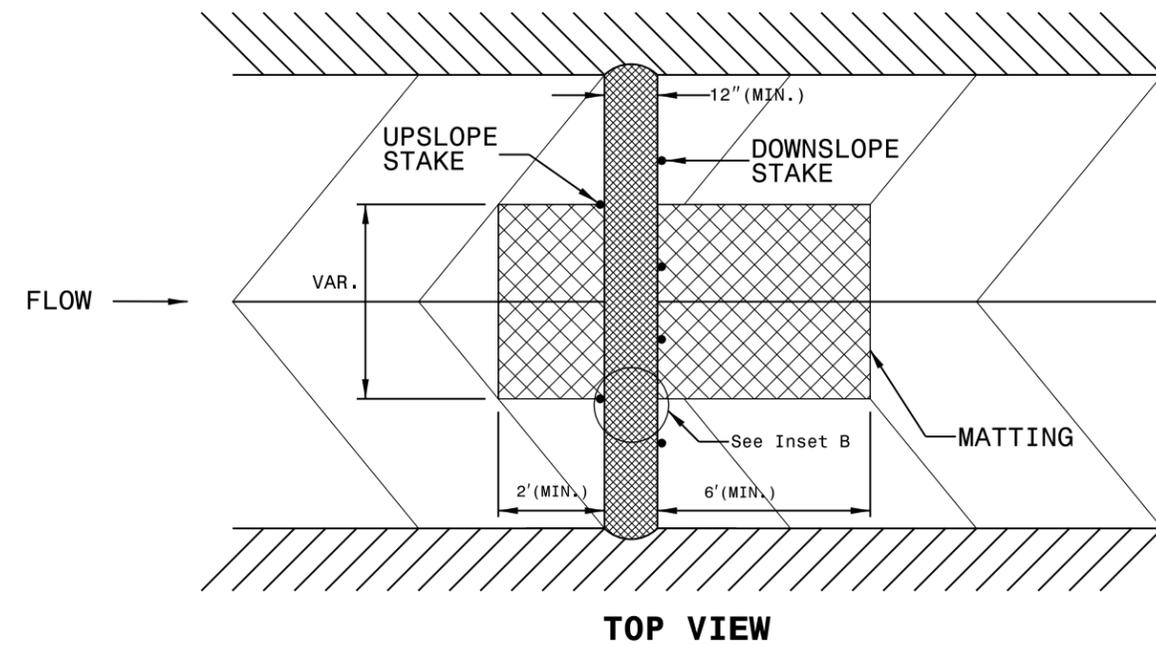
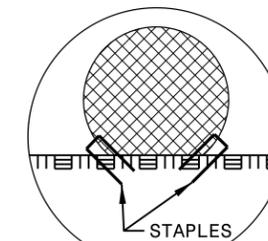
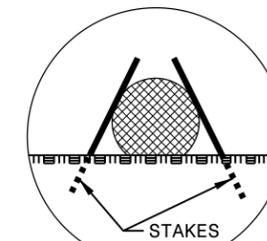
ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

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

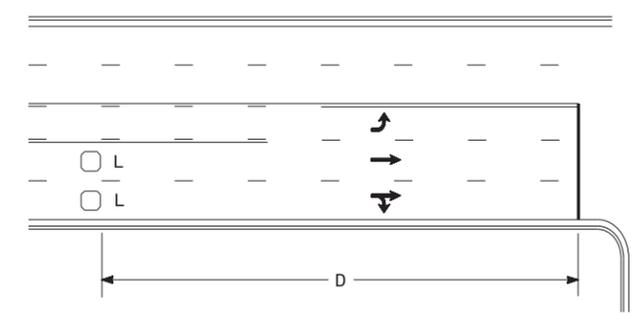
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

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.



High Speed Detection (≥40 mph)

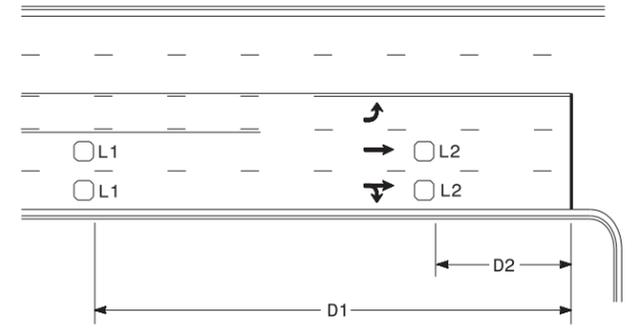


Speed Limit mph	D ft
40	250
45	300
50	355
55	420

L = 6ft X 6ft
Wired separately

Volume Density Operation

OR



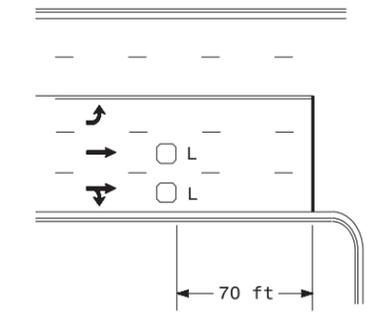
Speed Limit mph	D1 ft	D2 ft
40	250	80
45	300	90
50	355	100
55	420	110

L1 = 6ft X 6ft
Wired in series

L2 = 6ft X 6ft
Wired in series

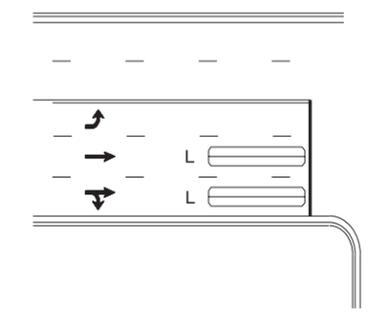
"Stretch" Operation

Low Speed Detection (≤35 mph)



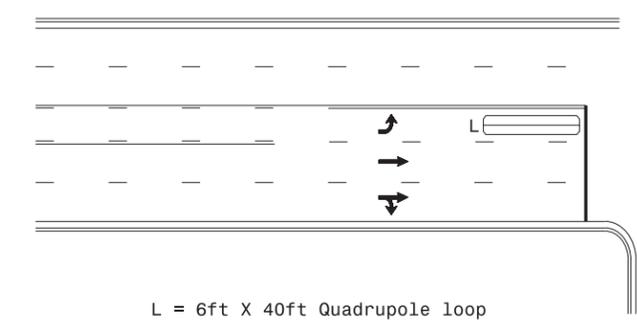
L = 6ft X 6ft
Wired in series

OR



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

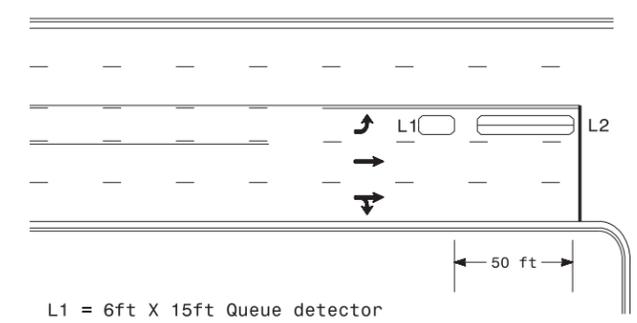
Left Turn Lane Detection



L = 6ft X 40ft Quadrupole loop

Presence Loop Detection

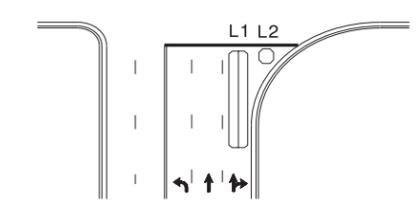
OR



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

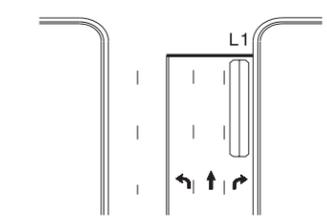
Queue Loop Detection

Right Turn Lane Detection

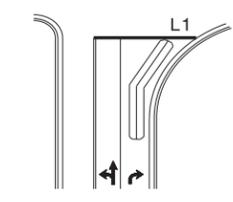


L1 = 6ft X 40ft Quadrupole loop
L2 = 6ft X 6ft [Minimum] Presence loop
Wired separately

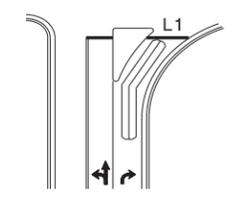
Shared Lane/
Wide Radius Turn



Standard Turn

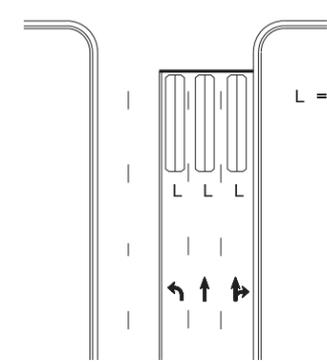


Wide Radius Turn



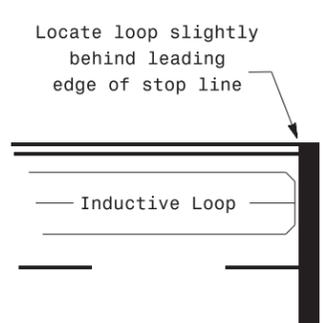
Channelized Turn

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

750 N. Greenfield Pkwy, Garner, NC 27529

Prepared In the Offices of:

Typical Signal Loop Locations	
PLAN DATE: September 2020	REVIEWED BY: JPG
PREPARED BY: PLA	REVIEWED BY:
SCALE: N/A	REVISIONS: INIT. DATE
<p>9/8/2020</p> <p>SIG. INVENTORY NO.</p>	