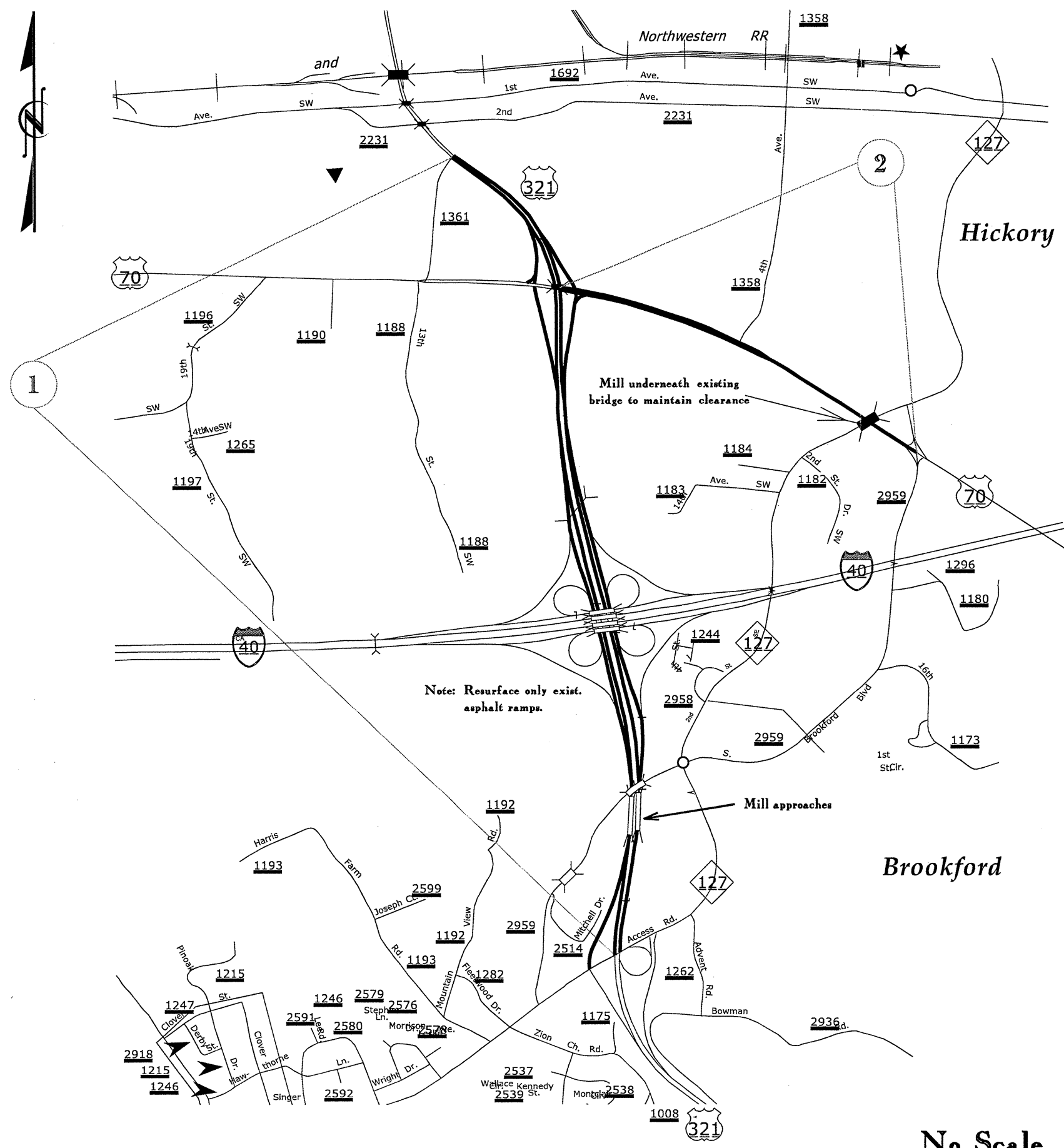
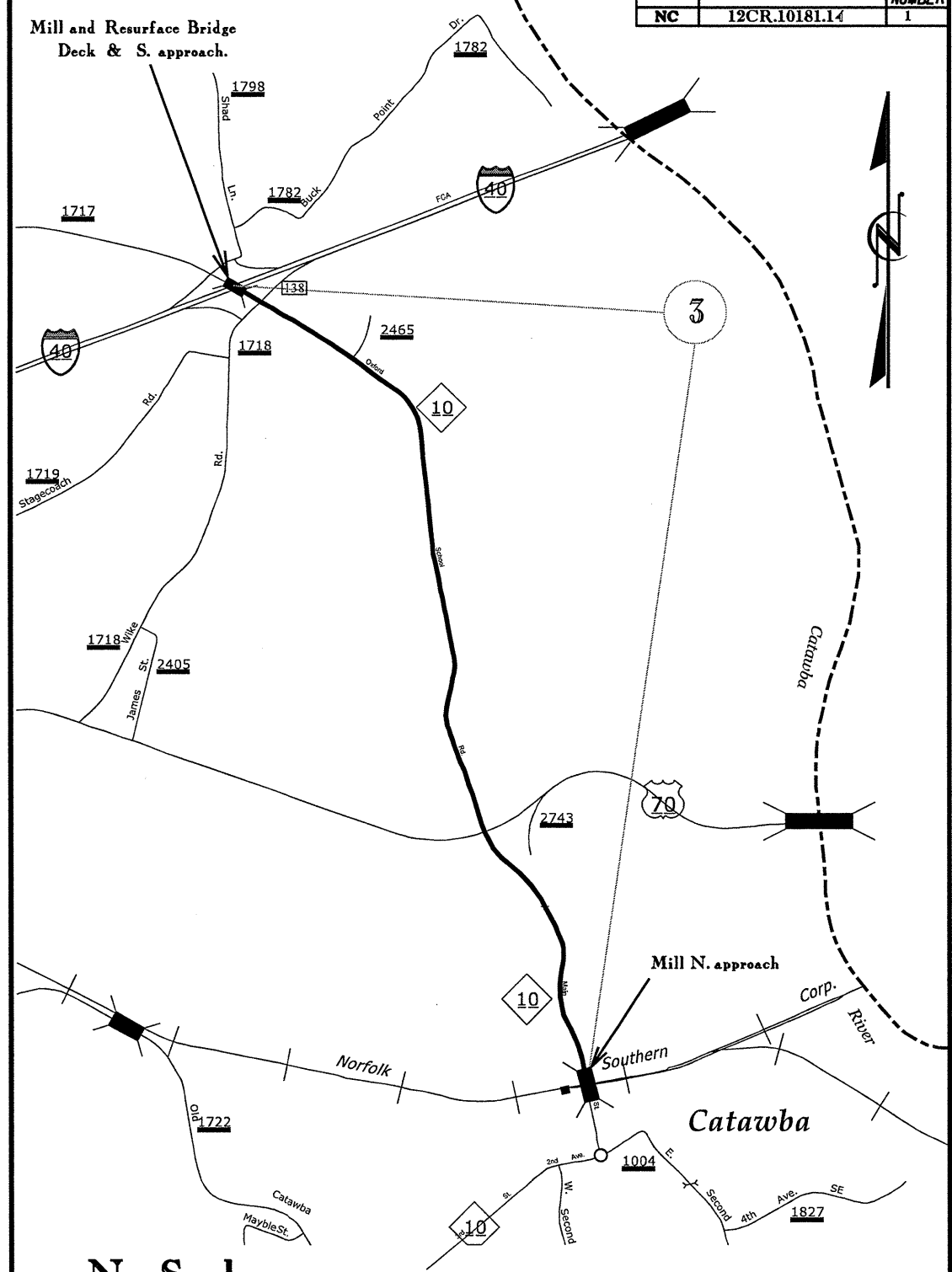


STATE	PROJECT WBS	SHEET NUMBER
NC	12CR.10181.14	1



No Scale

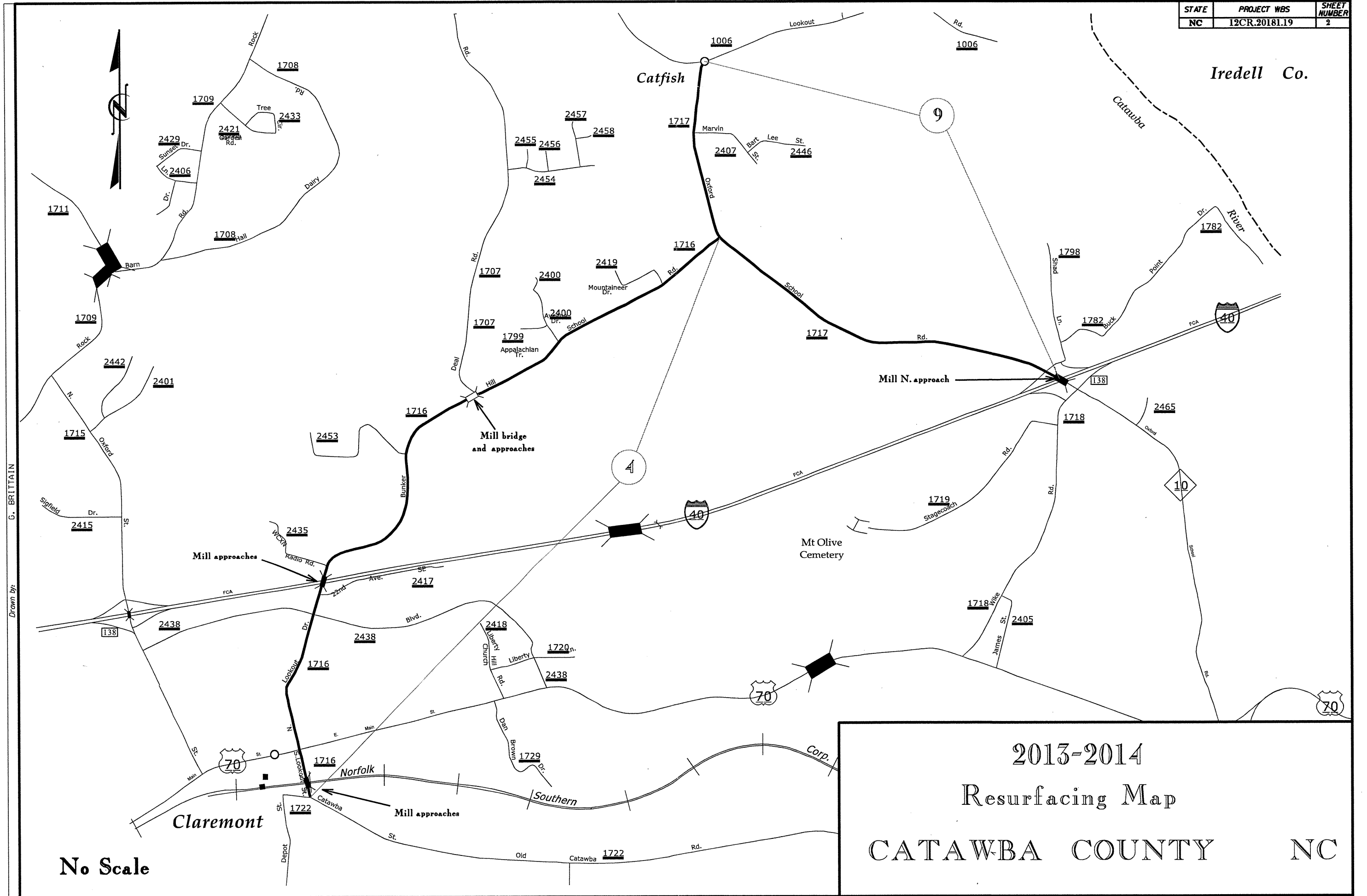


No Scale

2013-2014
Resurfacing Map
CATAWBA COUNTY NC

G. BRITAIN
Drawn by:

Iredell Co.

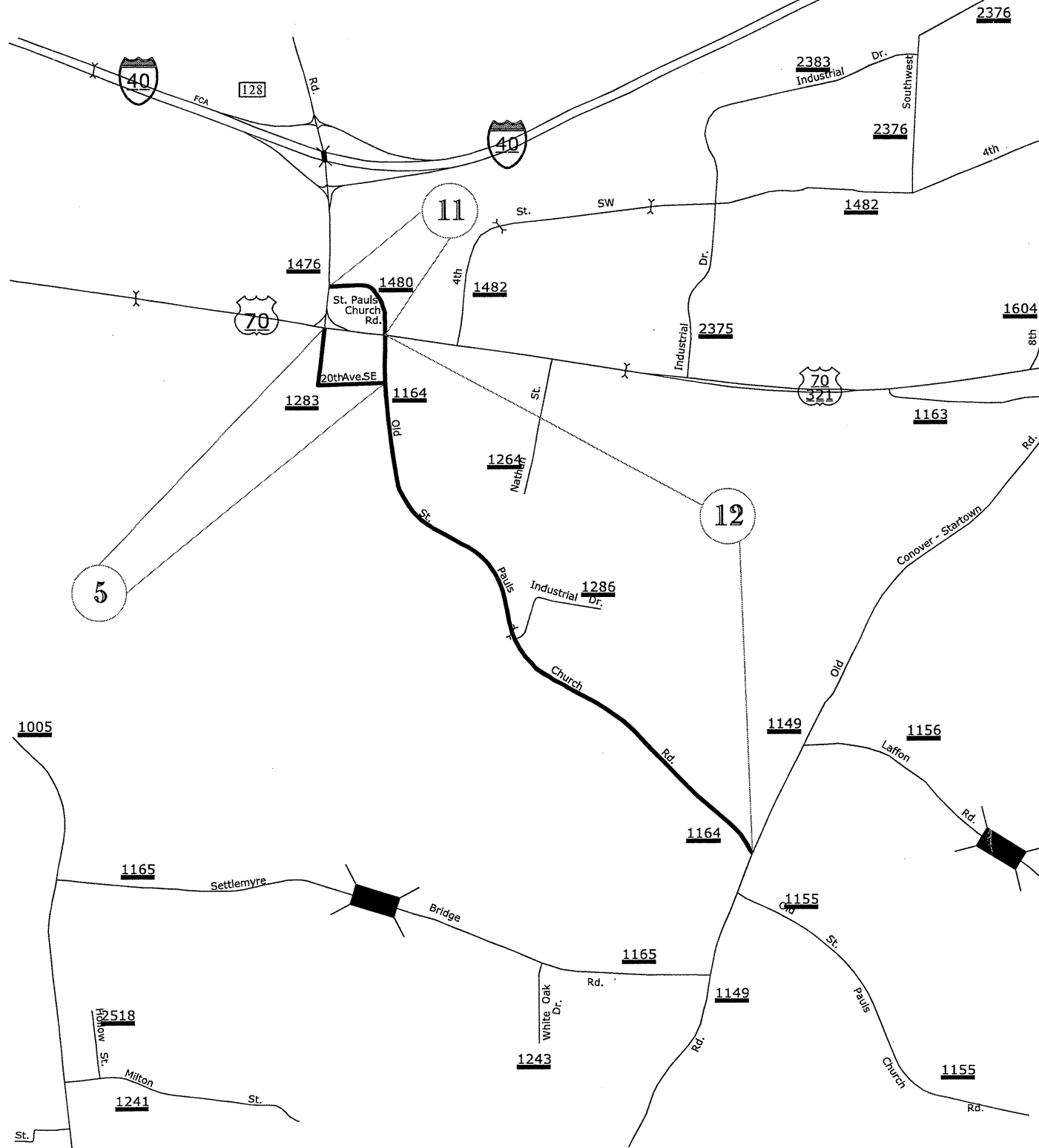


C. BRITTAIN
Drawn by:

No Scale

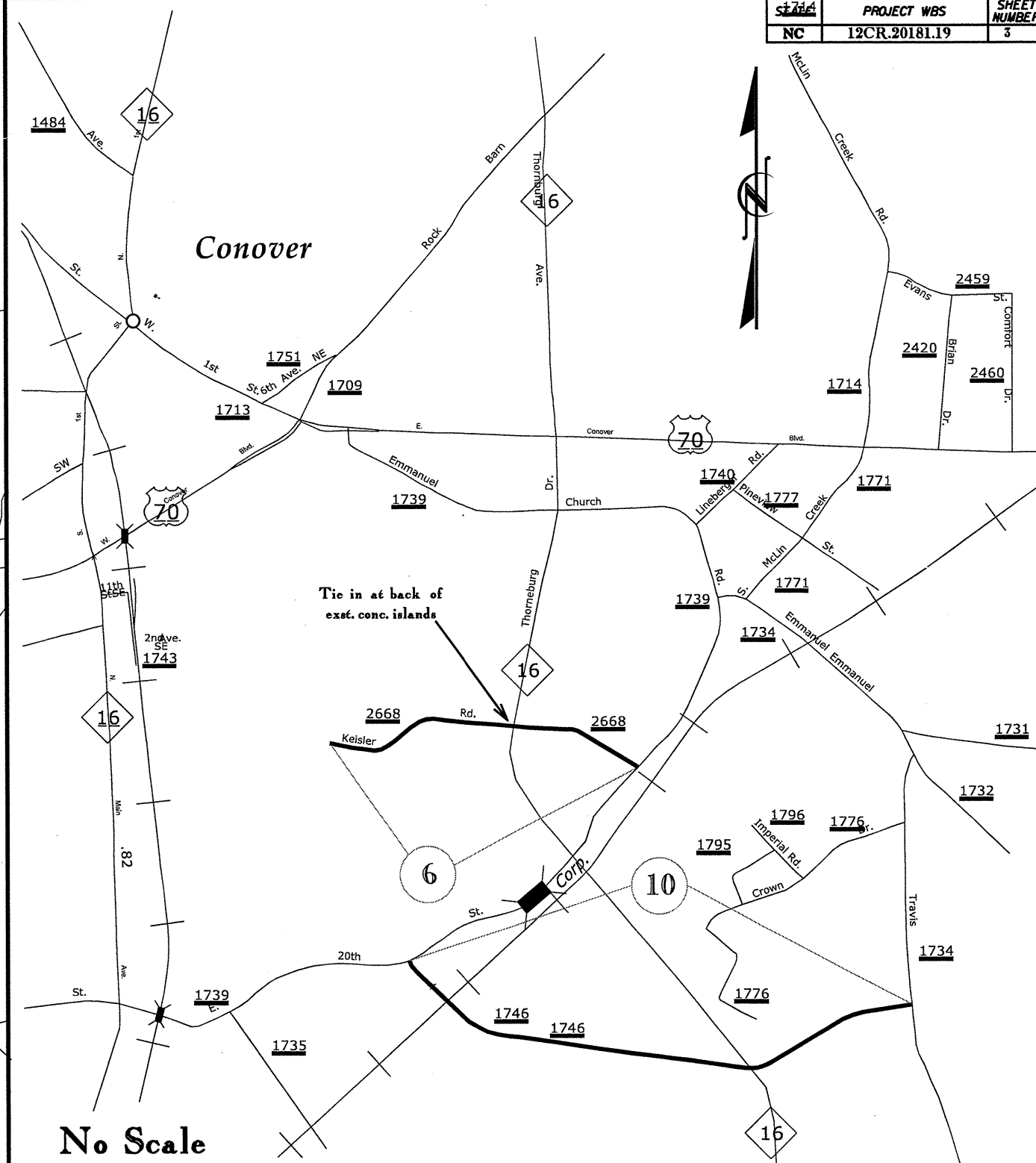
2013-2014
Resurfacing Map
CATAWBA COUNTY NC

STATE	PROJECT WBS	SHEET NUMBER
NC	12CR.20181.19	3



Newton

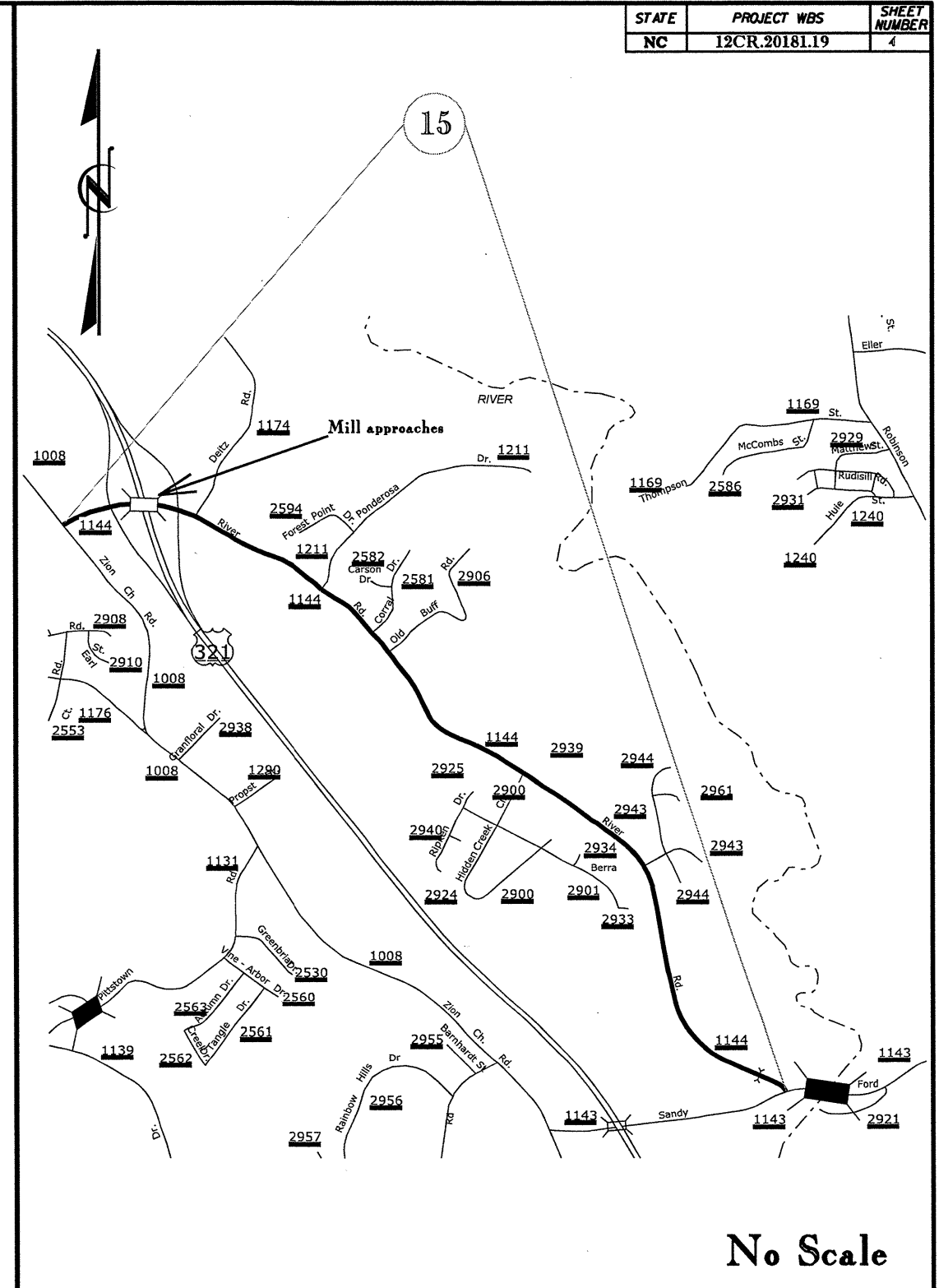
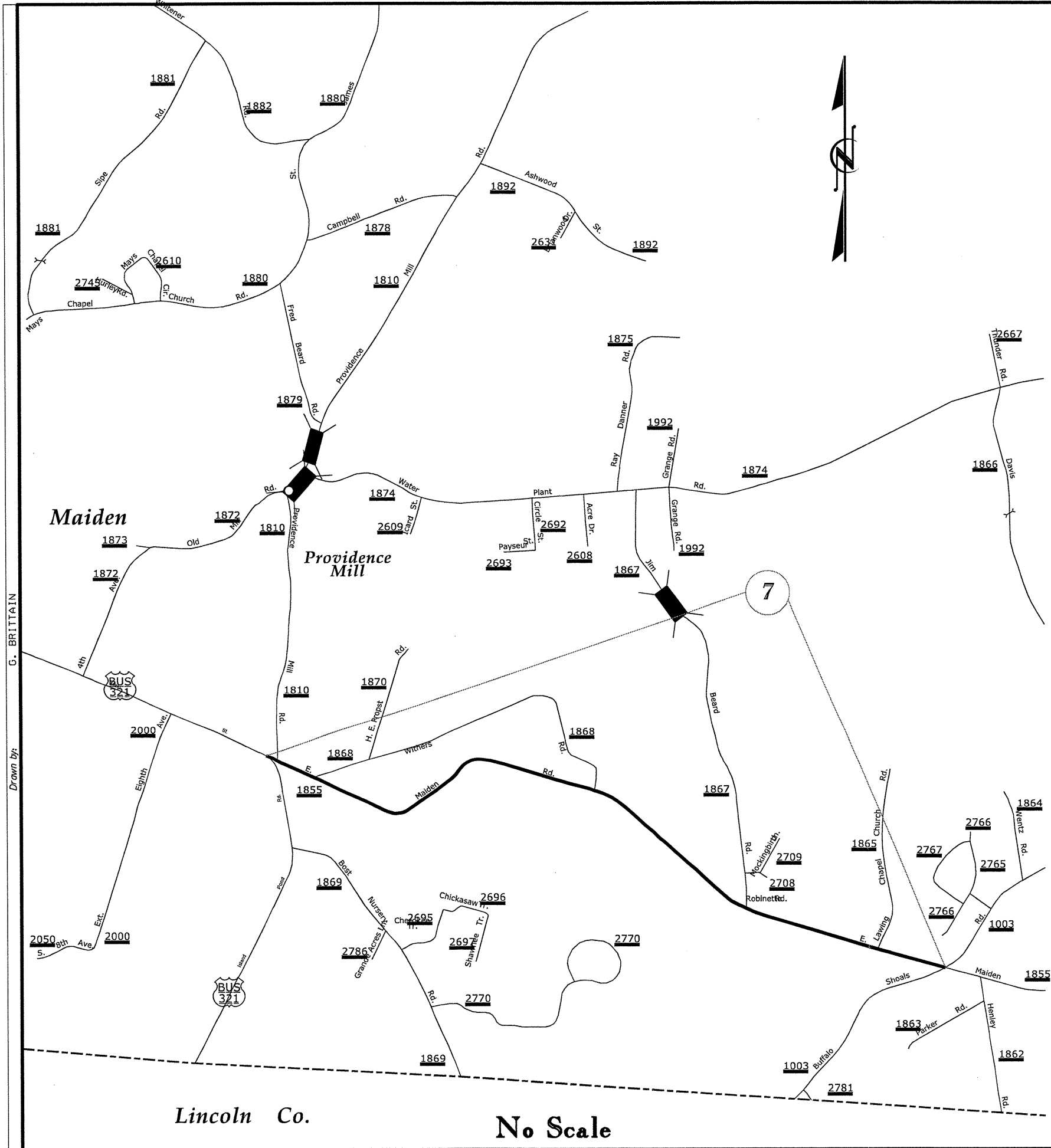
No Scale



No Scale

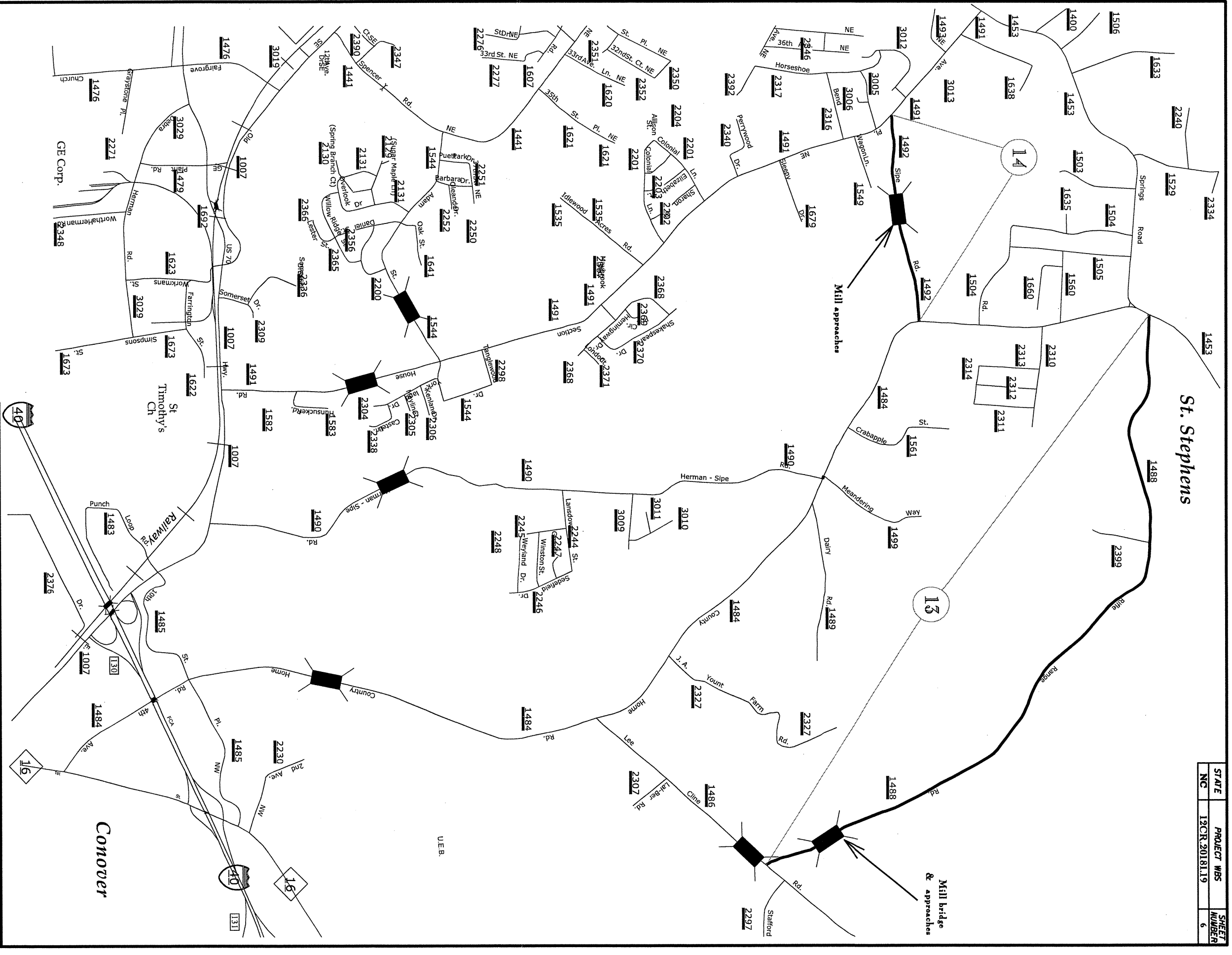
2013-2014
Resurfacing Map
CATAWBA COUNTY NC

STATE	PROJECT WBS	SHEET NUMBER
NC	12CR.2018I.19	4



2013-2014
Resurfacing Map
CATAWBA COUNTY NC

STATE	PROJECT WBS	SHEET NUMBER
NC	12CR.2018.1.9	6

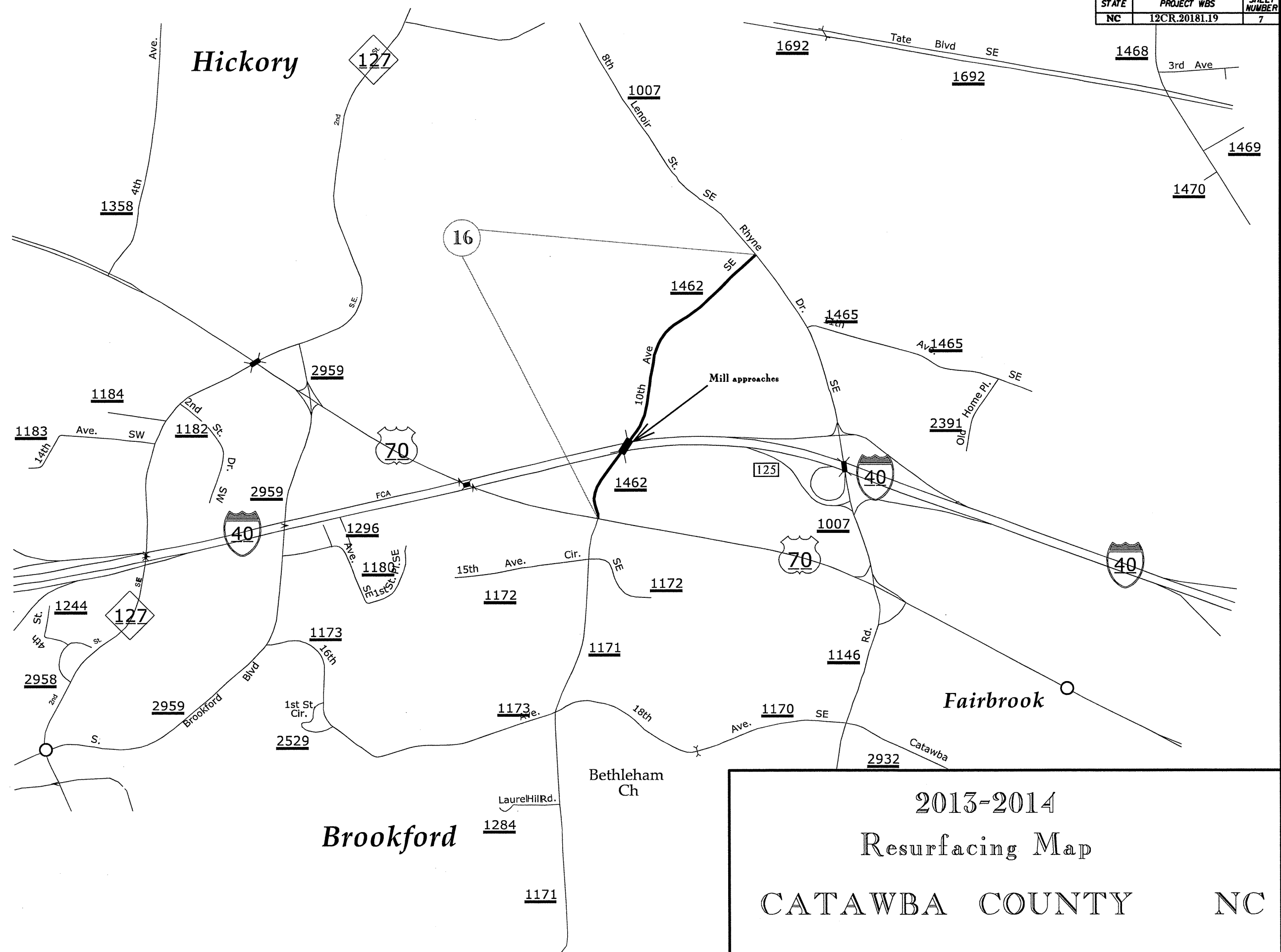


CATAWBA COUNTY NC

2013-2014
Resurfacing Map

No Scale

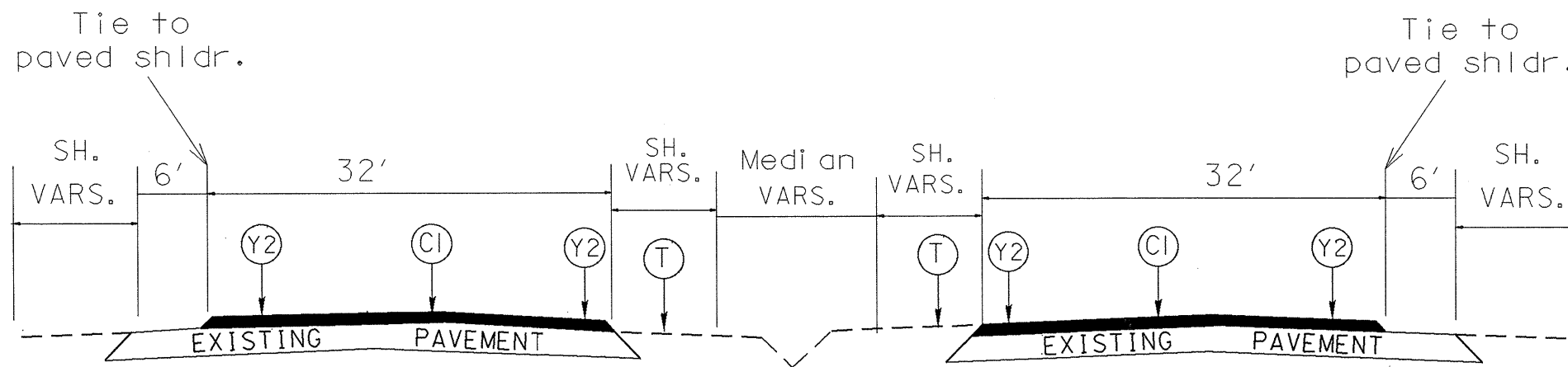
STATE	PROJECT WBS	SHEET NUMBER
NC	12CR.20181.19	7



No Scale

2013-2014
Resurfacing Map
CATAWBA COUNTY NC

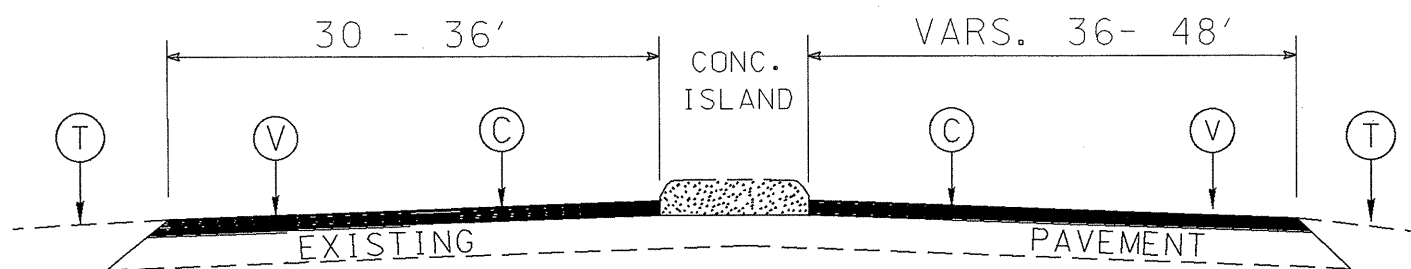
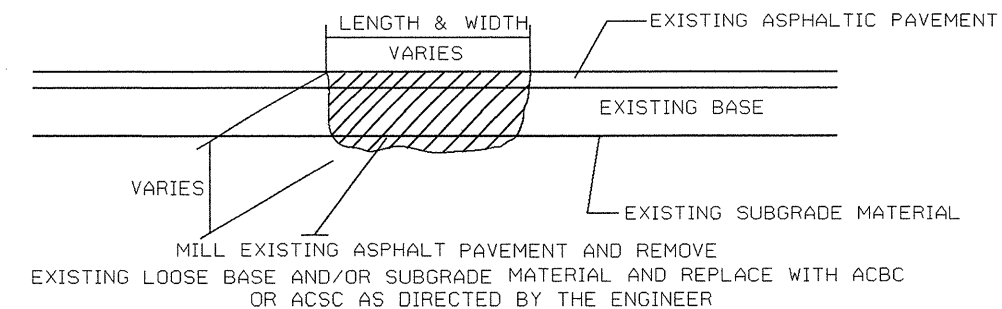
Drawn by: G. BRITAIN



TYPICAL SECTION NO. 1

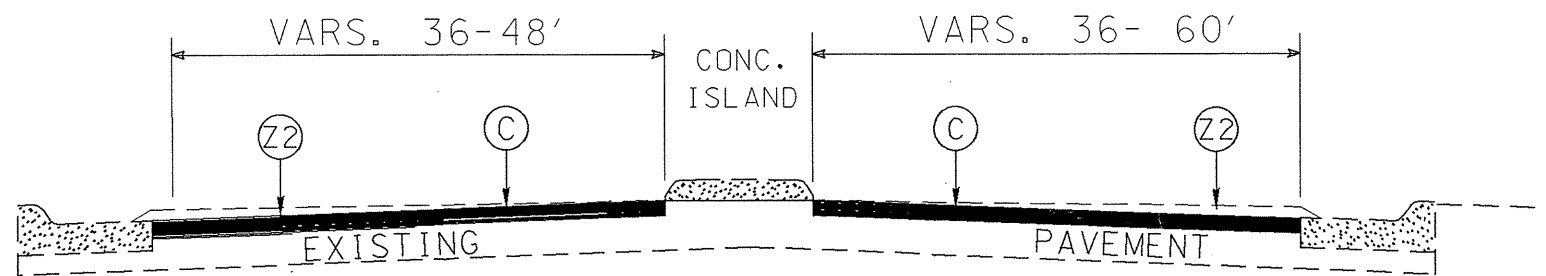
MAP # 1 - (entire map)

DETAIL A
PATCHING EXISTING PAVEMENT



TYPICAL SECTION NO. 2

MAP # 2 - 0+00 TO 1+75
23+00 TO 28+00



TYPICAL SECTION NO. 3

MAP # 2 - 1+75 TO 9+25

PAVEMENT SCHEDULE	
C	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
T	AGGREGATE SHOULDER BORROW (SHOULDER RECONSTRUCTION)
V	MILL ASPHALT PVMT. APPROX. 1.5" DEPTH
Z1	MILL ASPHALT PVMT. APPROX. 3.0" DEPTH
Z2	MILL ASPHALT PVMT. APPROX. 1.5" TO 3.0" DEPTH
F	ASPHALT SURFACE TREATMENT (AST) MATCOAT #6M
Y1	Incidental Milling
Y2	Milled Rumble Strip

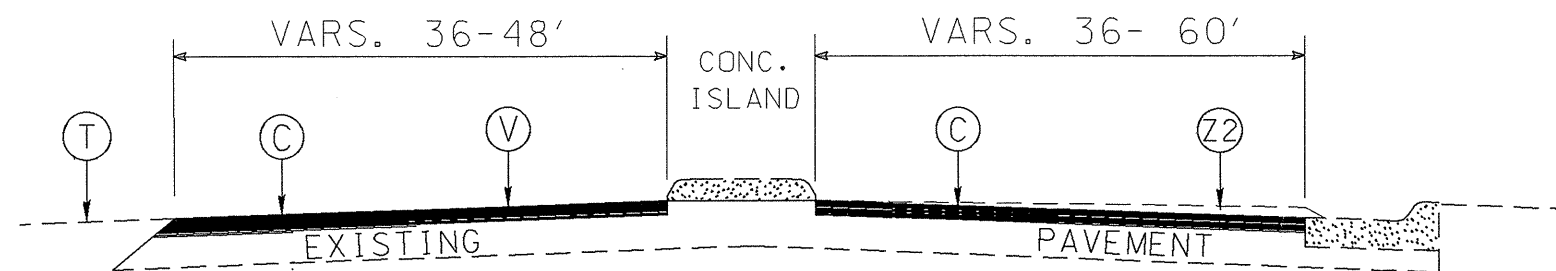
General Notes:

1. Pavement edge slopes are 1:1 unless specified otherwise.
2. Mill bridge approaches 100' to provide a smooth transition or as directed by the Engineer.

2013-2014
Resurfacing Program
Typical Sections
Catawba County NC

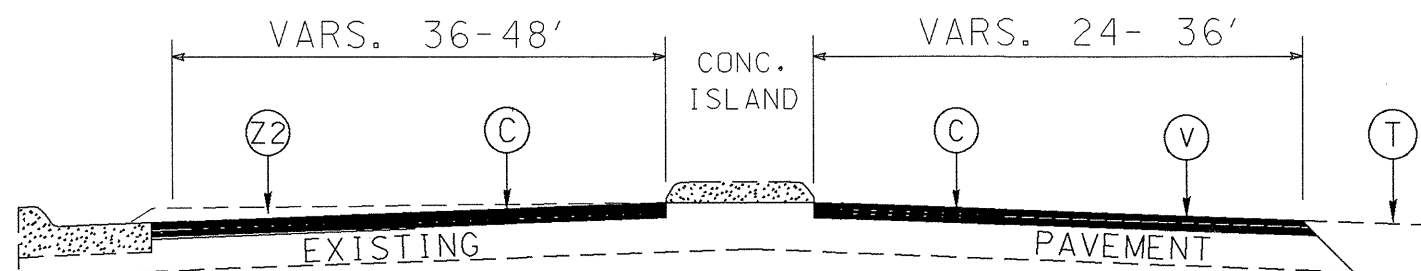
Checked By:

Drawn By: G. Brittain



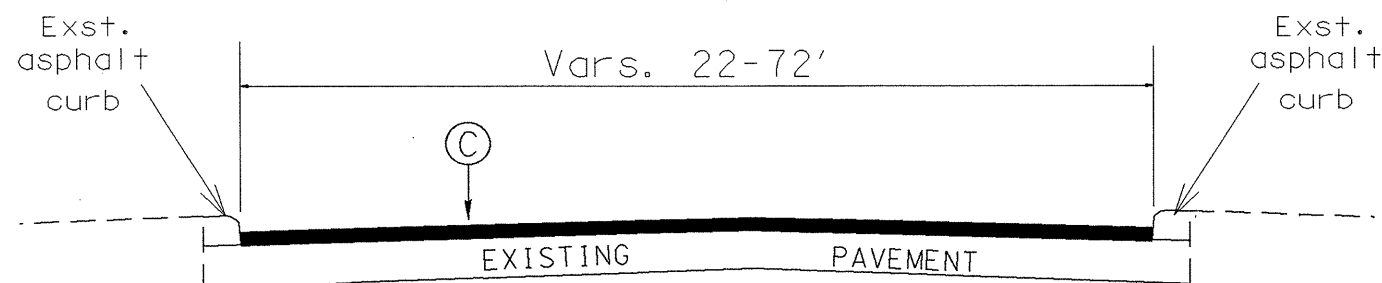
TYPICAL SECTION NO. 4

MAP # 2 - 9+25 TO 23+00



TYPICAL SECTION NO. 5

MAP # 2 - 28+00 TO 36+50

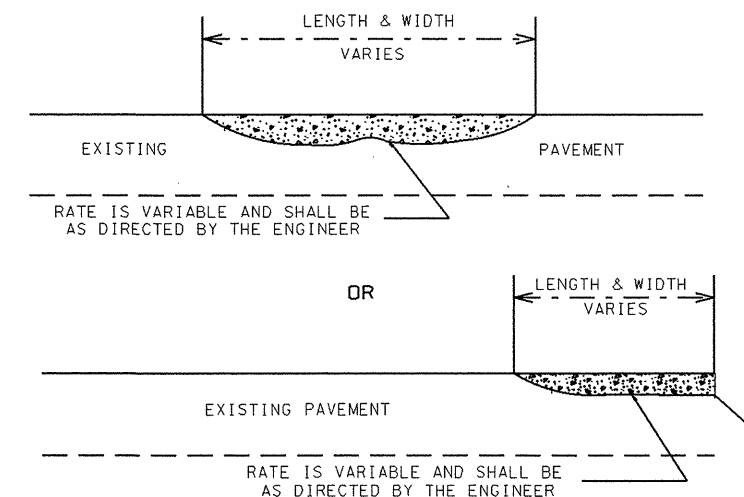


TYPICAL SECTION NO. 6

MAP # 2 - 36+50 to 50+00
MAP # 4 - 2+50 to 10+50

DETAIL B

ASPHALT CONCRETE SURFACE COURSE
TYPE S9.5B (LEVELING COURSE)

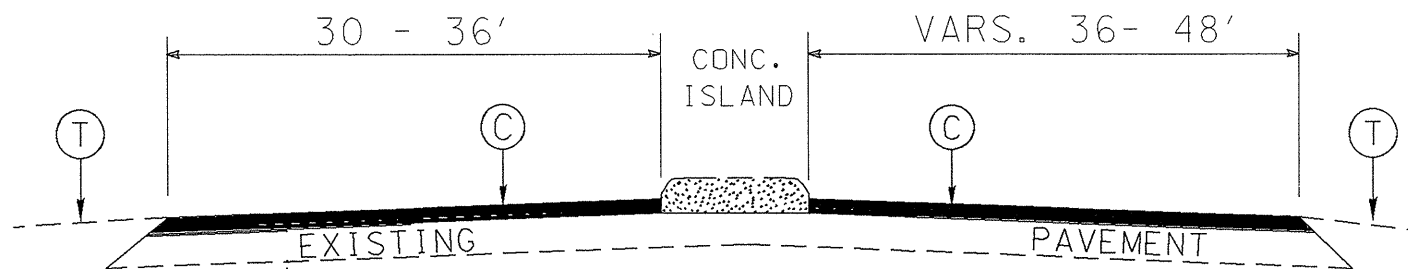


PAVEMENT SCHEDULE

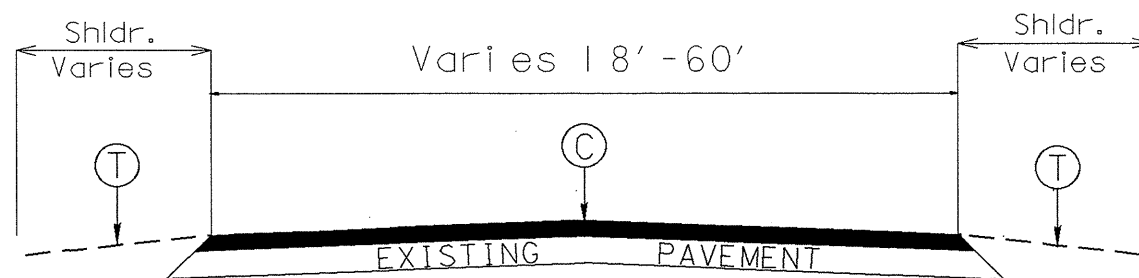
C	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
T	AGGREGATE SHOULDER BORROW (SHOULDER RECONSTRUCTION)
V	MILL ASPHALT PVMT. APPROX. 1.5" DEPTH
Z1	MILL ASPHALT PVMT. APPROX. 3.0" DEPTH
Z2	MILL ASPHALT PVMT. APPROX. 1.5" TO 3.0" DEPTH
F	ASPHALT SURFACE TREATMENT (AST) MATCOAT #6M
Y1	Incidental Milling

2013-2014
Resurfacing Program
Typical Sections
Catawba County NC

Checked By: _____
Drawn By: G. Brittain

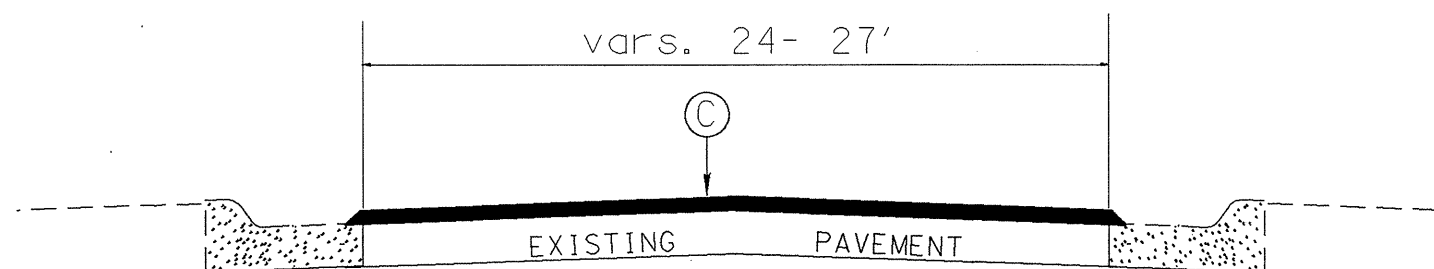


TYPICAL SECTION NO. 7
MAP # 2 - 53+00 TO 60+00



TYPICAL SECTION NO. 8

- MAP # 2 - 50+00 to 53+00
- MAP # 3 - 22+50 to 126+00
- MAP # 6 - (entire map)
- MAP # 7 - (entire map)
- MAP # 8 - (entire map)
- MAP # 10 - (entire map)
- MAP # 11 - (entire map)
- MAP # 12 - (entire map)
- MAP # 14 - (entire map)
- MAP # 15 - (entire map)

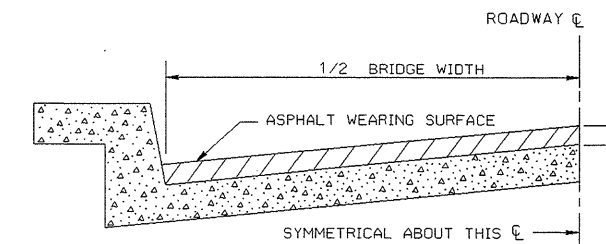


TYPICAL SECTION NO. 9

- MAP # 3 - 0+00 to 22+50
- MAP # 4 - 0+00 to 2+50
- MAP # 16 - 0+00 to 4+00

DETAIL C

BRIDGE HALF TYPICAL SECTION



FOR BRIDGES WITH FLOOR DRAINS, CARE SHALL BE EXERCISED IN PLACING THE WEARING SURFACE AROUND FLOOR DRAINS SO AS NOT TO HINDER EFFECTIVE DRAINAGE. ALL DRAINS SHALL BE LEFT OPEN.

THE PROPOSED WEARING SURFACE SHALL VARY IN THICKNESS AS NECESSARY TO PROVIDE A SMOOTH RIDING SURFACE. A THICKNESS OF NOT LESS THAN 5/8" SHALL BE PROVIDED. THE MAXIMUM THICKNESS SHALL PREFERABLY BE 1-1/2" UNLESS IT IS IMPRACTICAL TO PROVIDE A SMOOTH RIDING SURFACE OTHERWISE.

NOTES

ALL UNPAVED S.R. ROADS TO BE SURFACED 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.
 SHOULDERS AND DITCHES ARE TO BE CONSTRUCTED BY OTHERS UNLESS OTHERWISE NOTED.
 BRIDGES TO BE RESURFACED AT LOCATIONS AND TO DEPTH AS DIRECTED BY THE ENGINEER.

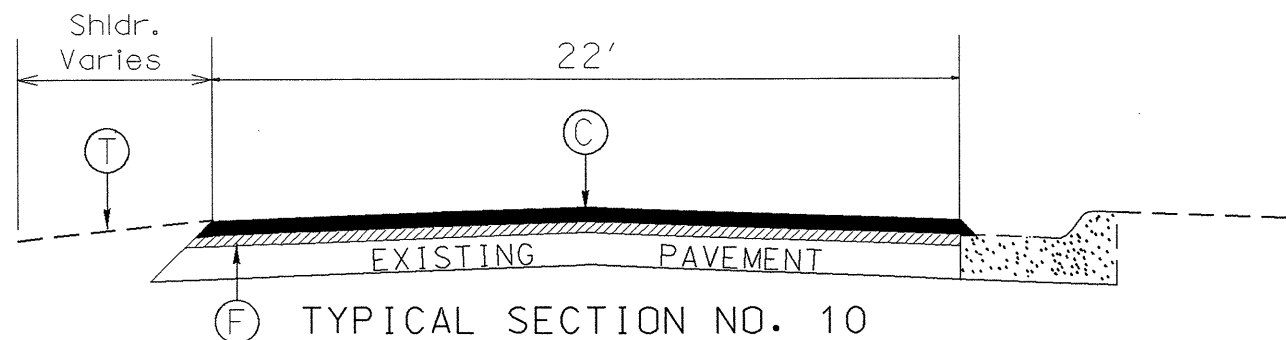
PAVEMENT SCHEDULE

C	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
T	AGGREGATE SHOULDER BORROW (SHOULDER RECONSTRUCTION)
V	MILL ASPHALT PVMT. APPROX. 1.5" DEPTH
Z1	MILL ASPHALT PVMT. APPROX. 3.0" DEPTH
Z2	MILL ASPHALT PVMT. APPROX. 1.5" TO 3.0" DEPTH
F	ASPHALT SURFACE TREATMENT (AST) MATCOAT #6M
Y1	Incidental Milling

2013-2014
Resurfacing Program
Typical Sections
Catawba County NC

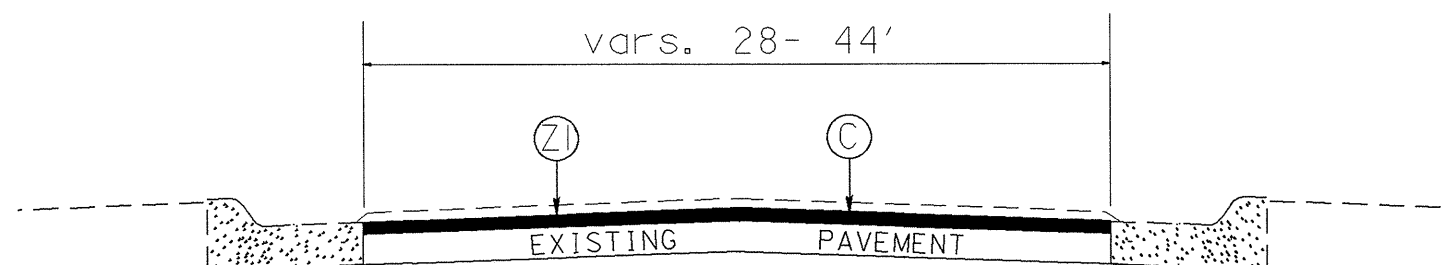
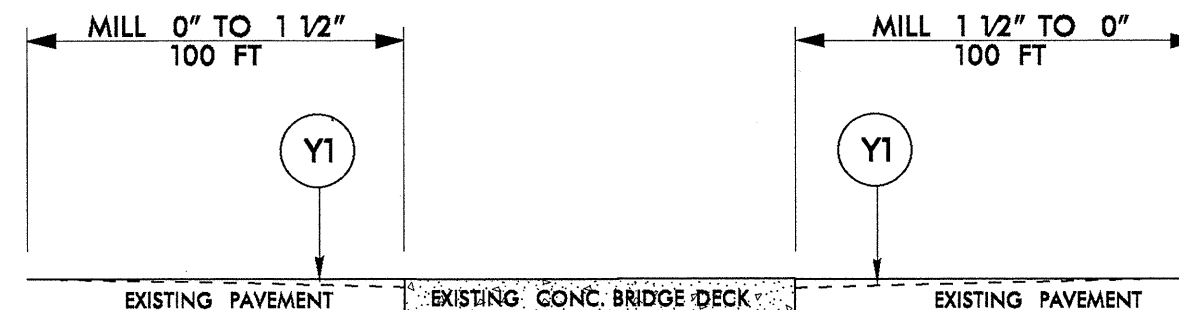
Checked by:

Drawn by: G. Brittain



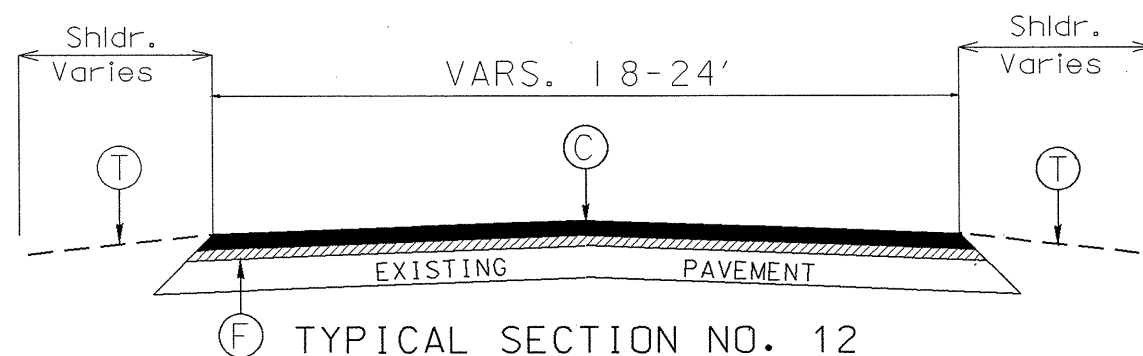
TYPICAL SECTION NO. 10
MAP # 4 - 20+50 TO 28+50

**DETAIL D
MILLING BRIDGE APPROACHES**



TYPICAL SECTION NO. 11

MAP # 5 - (entire map)



TYPICAL SECTION NO. 12

MAP # 4 - 12+50 TO 20+50
28+50 TO 165+00

MAP # 9 - (entire map)
MAP # 16 - 4+00 TO 42+50
MAP # 17 - (entire map)

PAVEMENT SCHEDULE	
C	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
T	AGGREGATE SHOULDER BORROW (SHOULDER RECONSTRUCTION)
V	MILL ASPHALT PVMT. APPROX. 1.5" DEPTH
Z1	MILL ASPHALT PVMT. APPROX. 3.0" DEPTH
Z2	MILL ASPHALT PVMT. APPROX. 1.5" TO 3.0" DEPTH
F	ASPHALT SURFACE TREATMENT (AST) MATCOAT #6M
Y1	Incidental Milling

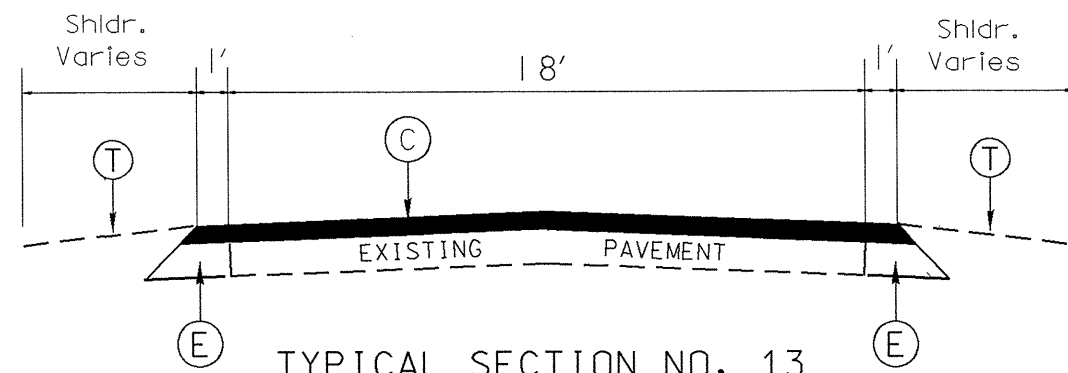
2012 ROADWAY ENGLISH STANDARD DRAWINGS

The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch - N. C. Department of Transportation - Raleigh, N. C., Dated January, 2012 are applicable to this project and by reference hereby are considered a part of these plans:

STD.NO.	TITLE
DIVISION 6 - ASPHALT BASES AND PAVEMENTS	
665.01	Asphalt Shoulders - Milled Rumble Strips
DIVISION 8 - INCIDENTALS	
848.05	Curb Ramp - Proposed Curb & Gutter
848.06	Curb Ramp - Existing Curb & Gutter

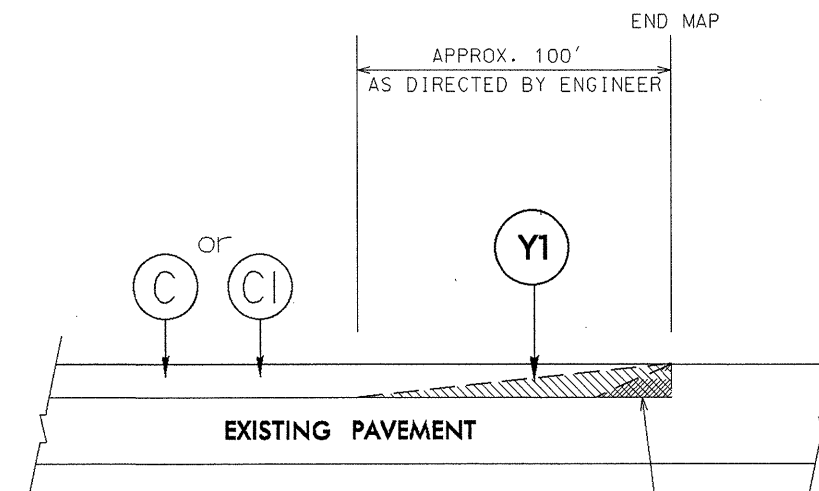
2013-2014
Resurfacing Program
Typical Sections
Catawba County NC

Checked By: _____
Drawn By: G. Brittain

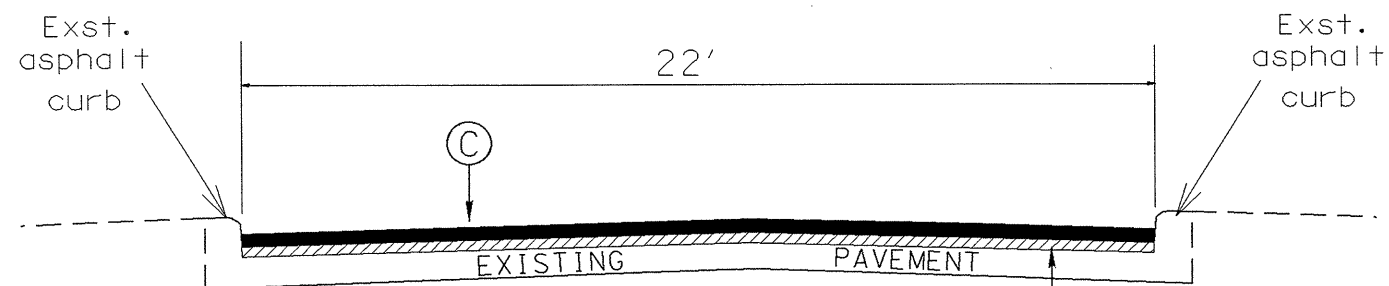


TYPICAL SECTION NO. 13

MAP # 13 - (entire map)

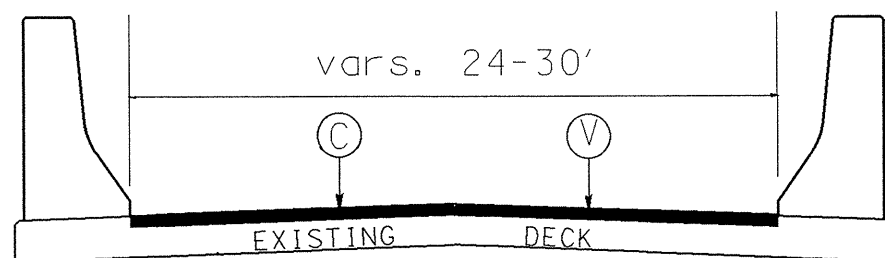


DETAIL E
TIE-IN MILLING DETAIL



TYPICAL SECTION NO. 14

MAP # 4 - 10+50 to 12+50



BRIDGE SECTION


MAP # 3 - Brdg. 179 Mill Brdg. & Approaches
 MAP # 4 - Brdg. 002 Mill Brdg. & Approaches
 MAP # 13 - Brdg. 018 Mill Brdg. & Approaches
 MAP # 14 - Brdg. 024 Mill Brdg. & Approaches

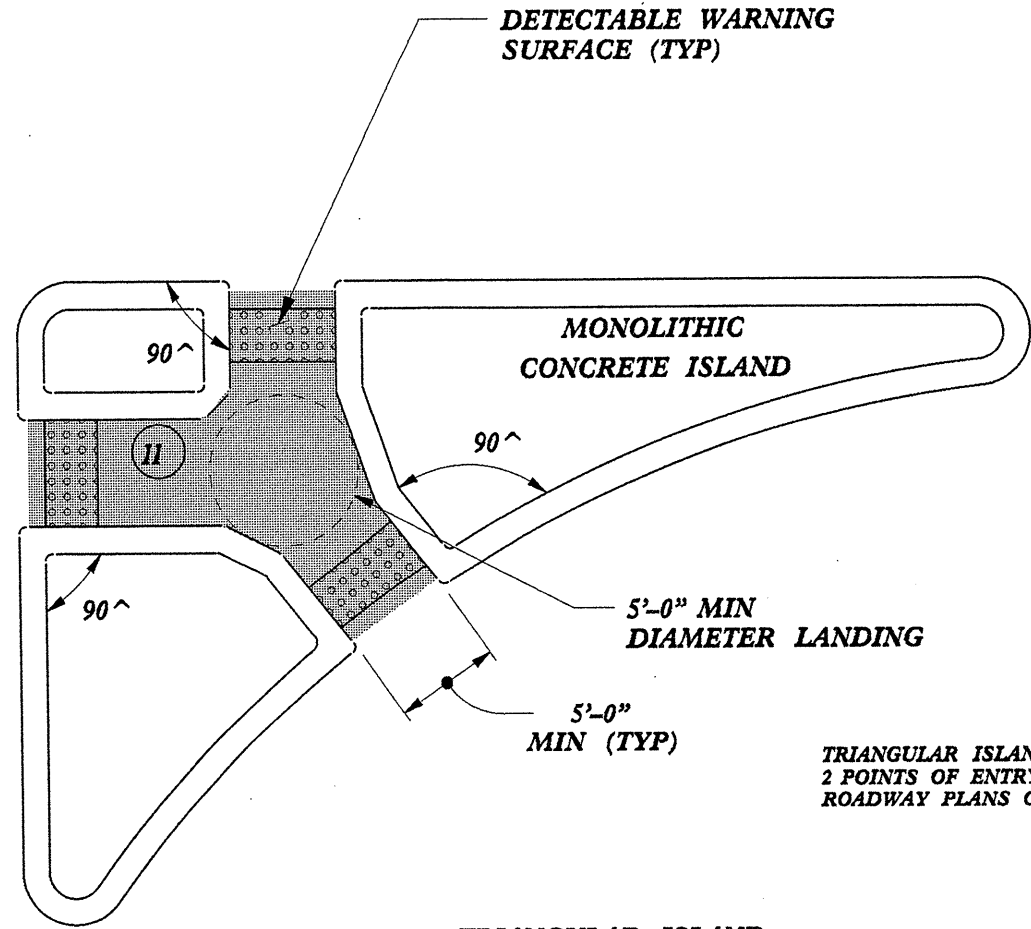
PAVEMENT SCHEDULE	
C	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
E	PROP. APPROX. 8" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 896 LBS. PER SQ. YD.
T	AGGREGATE SHOULDER BORROW (SHOULDER RECONSTRUCTION)
V	MILL ASPHALT PVMT. APPROX. 1.5" DEPTH
Z1	MILL ASPHALT PVMT. APPROX. 3.0" DEPTH
Z2	MILL ASPHALT PVMT. APPROX. 1.5" TO 3.0" DEPTH
F	ASPHALT SURFACE TREATMENT (AST) MATCOAT #6M
Y1	Incidental Milling

2013-2014
 Resurfacing Program
 Typical Sections
 Catawba County NC

Checked by:

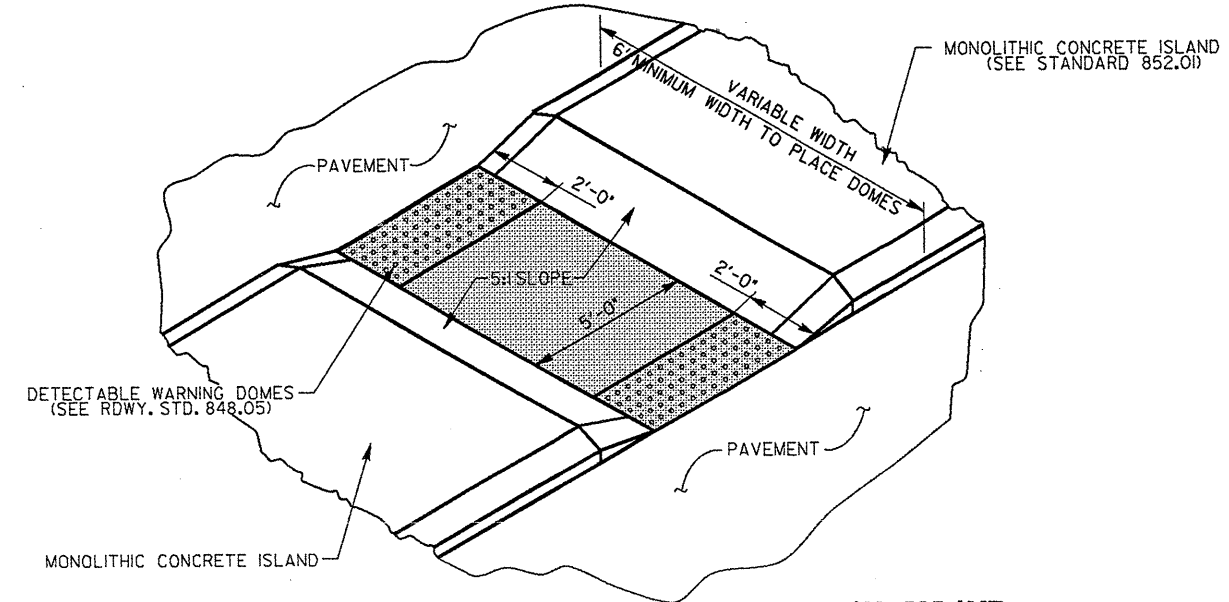
Drawn by: C. Brittain

 PAY LIMITS FOR 1 CURB RAMP

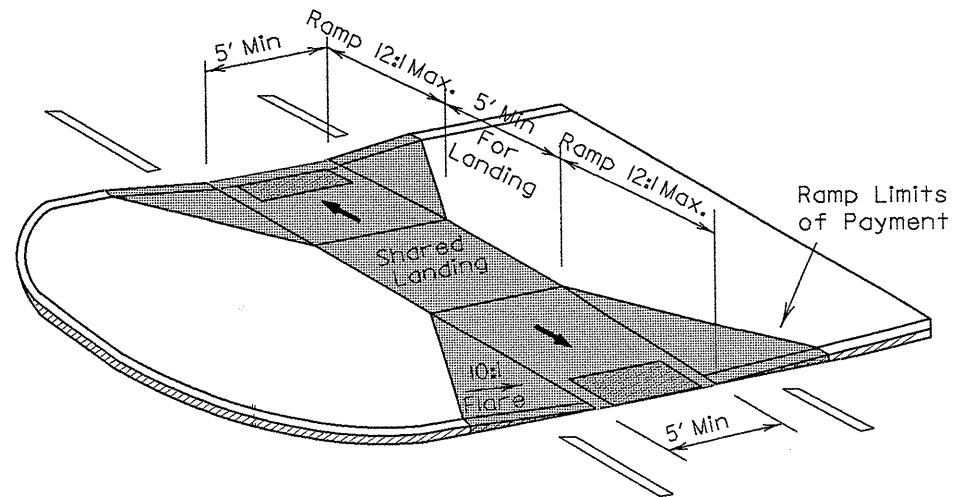


TRIANGULAR ISLANDS MAY BE CONSTRUCTED WITH ONLY 2 POINTS OF ENTRY AND EXIT AS SHOWN IN THE ROADWAY PLANS OR AS DIRECTED BY THE ENGINEER.

TRIANGULAR ISLAND WITH CUT THROUGH



MEDIAN ISLAND WITH CUT THROUGH

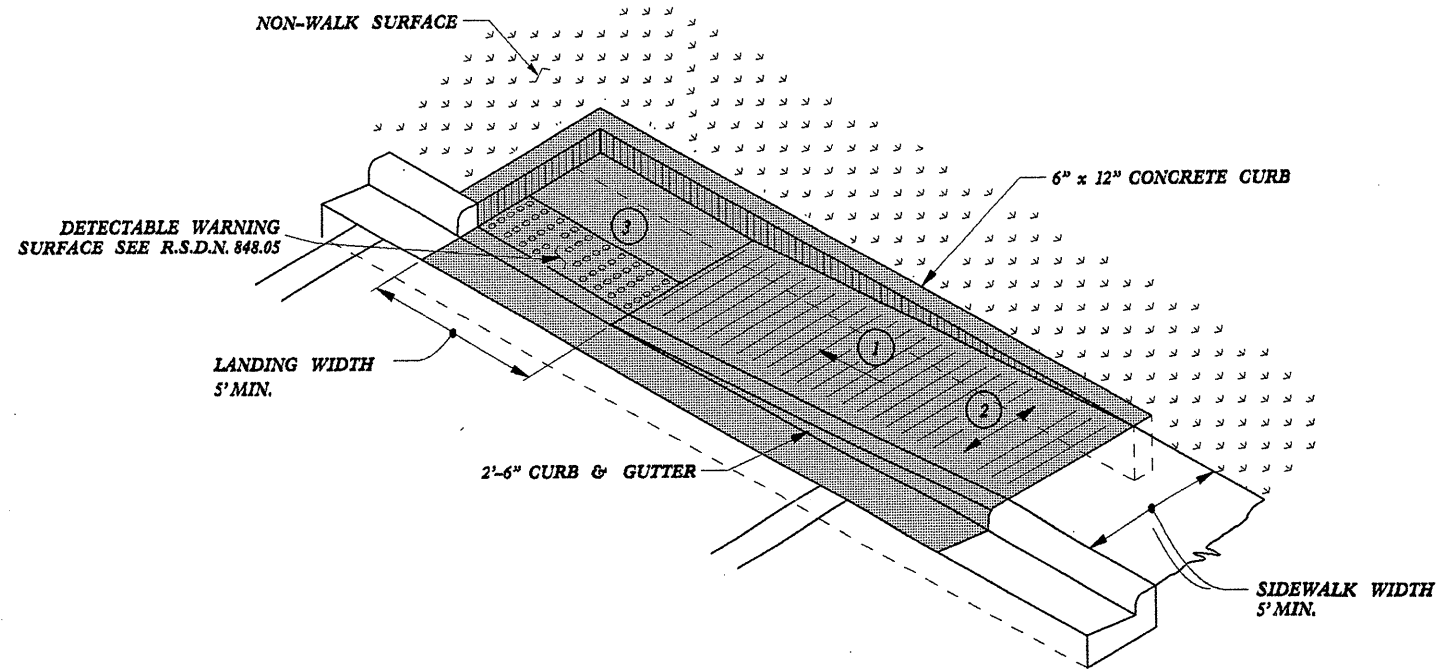



MEDIAN ISLAND CURB RAMPS

CONTRACT STANDARDS AND DEVELOPMENT UNIT	
Office 818-707-6850	FAX 818-250-4119
CURB RAMPS	
Median or Turn Lane Islands	
ORIGINAL BY: J.S. HOWERTON	DATE: 7/7/11
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC: stds/2012CurbRamp/CurbRampDetails.dwg	

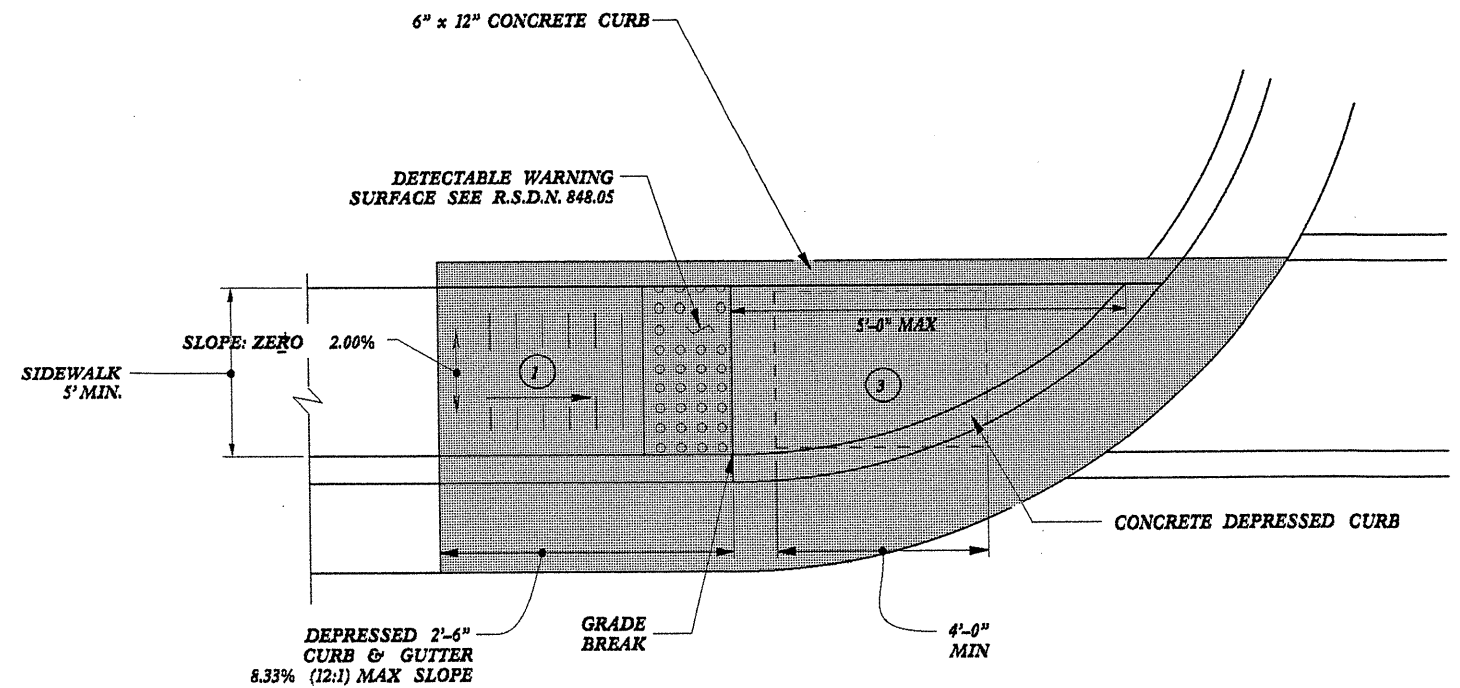
5/14/99

 CONTRACT STANDARD
 C.R. 10181.19, EY



 PAY LIMITS FOR CURB RAMP

TYPE 1A



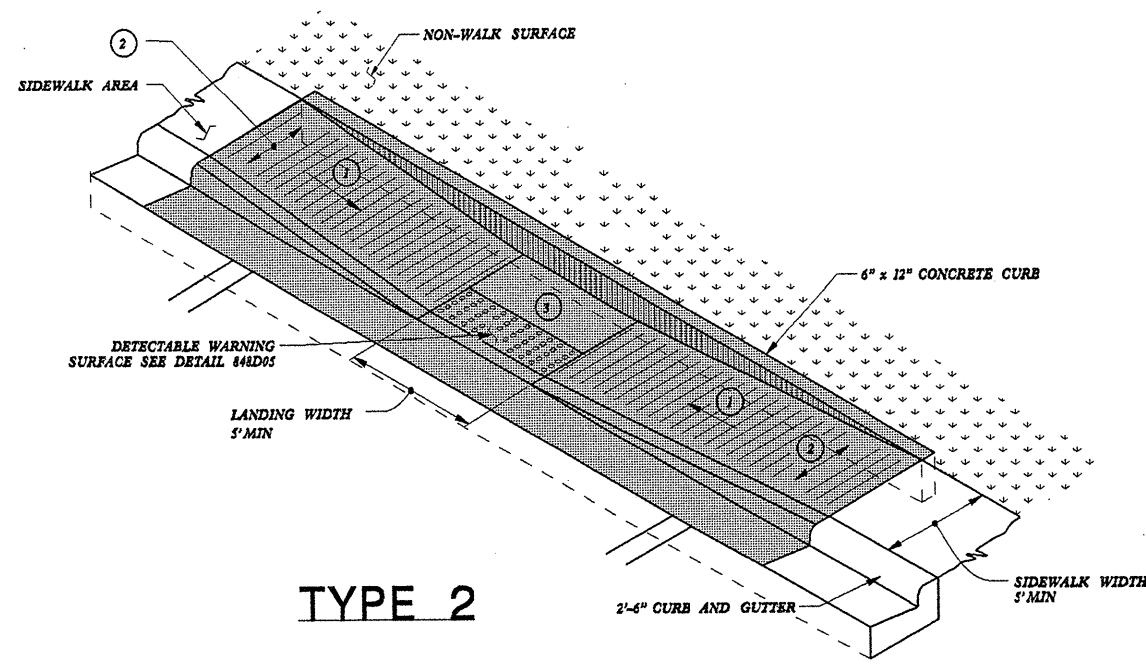
TYPE 1

- 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.

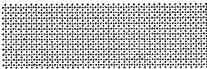
REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES

CONTRACT STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-6950	FAX 919-260-4118
CURB RAMPS	
Directional Ramps	
ORIGINAL BY: J.S. HOWERTON	DATE: 7/7/11
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC. rids/2012CurbRamp/CurbRampDetails.dgn	

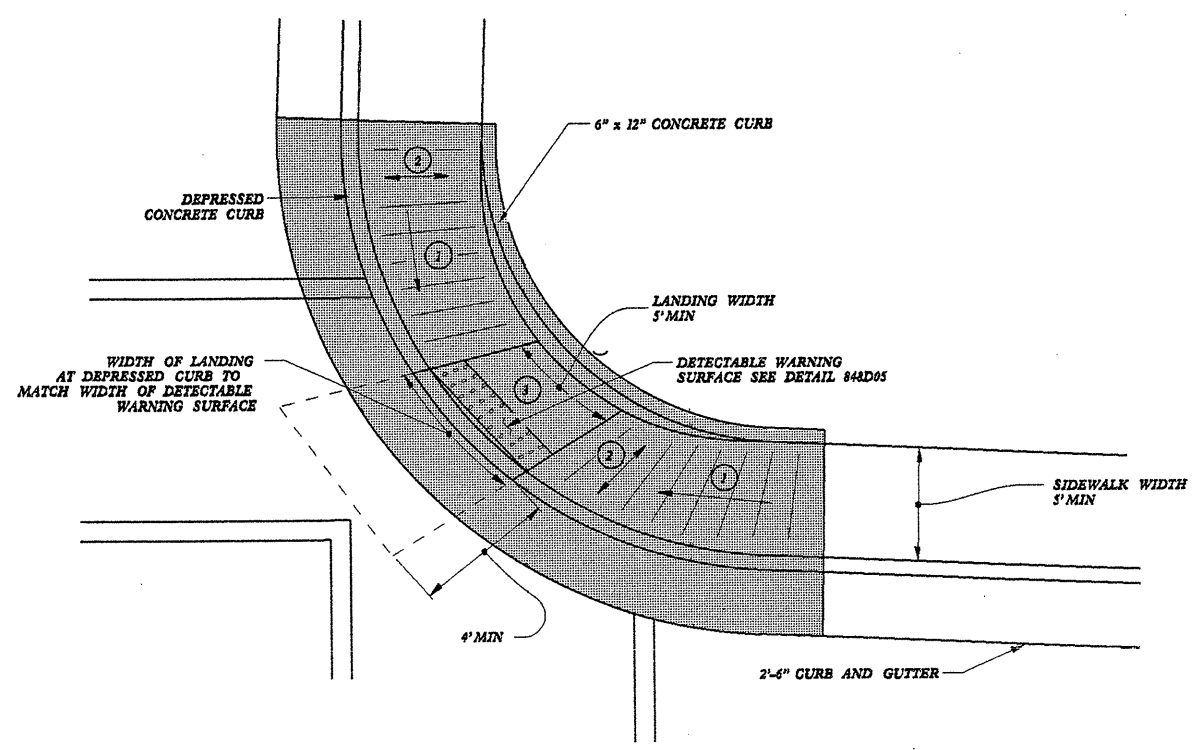
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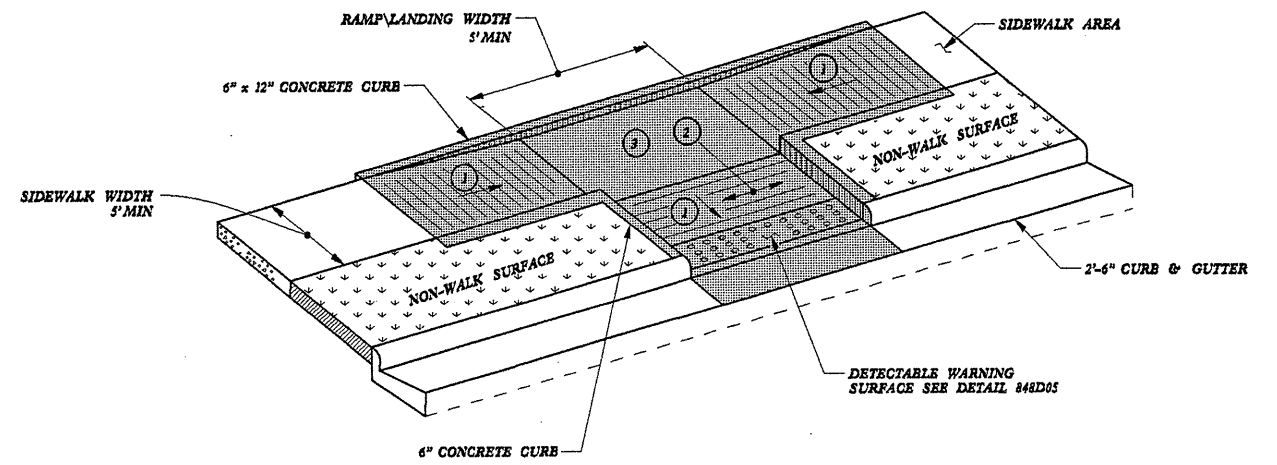
TYPE 2

 PAY LIMITS FOR CURB RAMP

- 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.



TYPE 2A

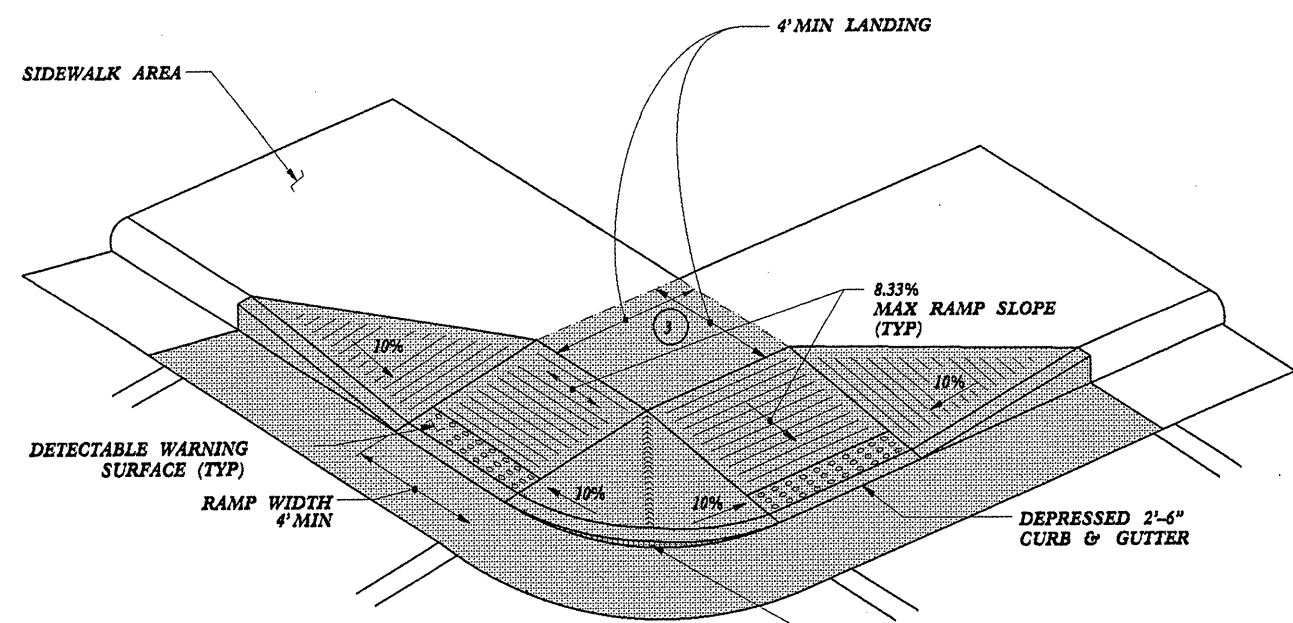


TYPE 3

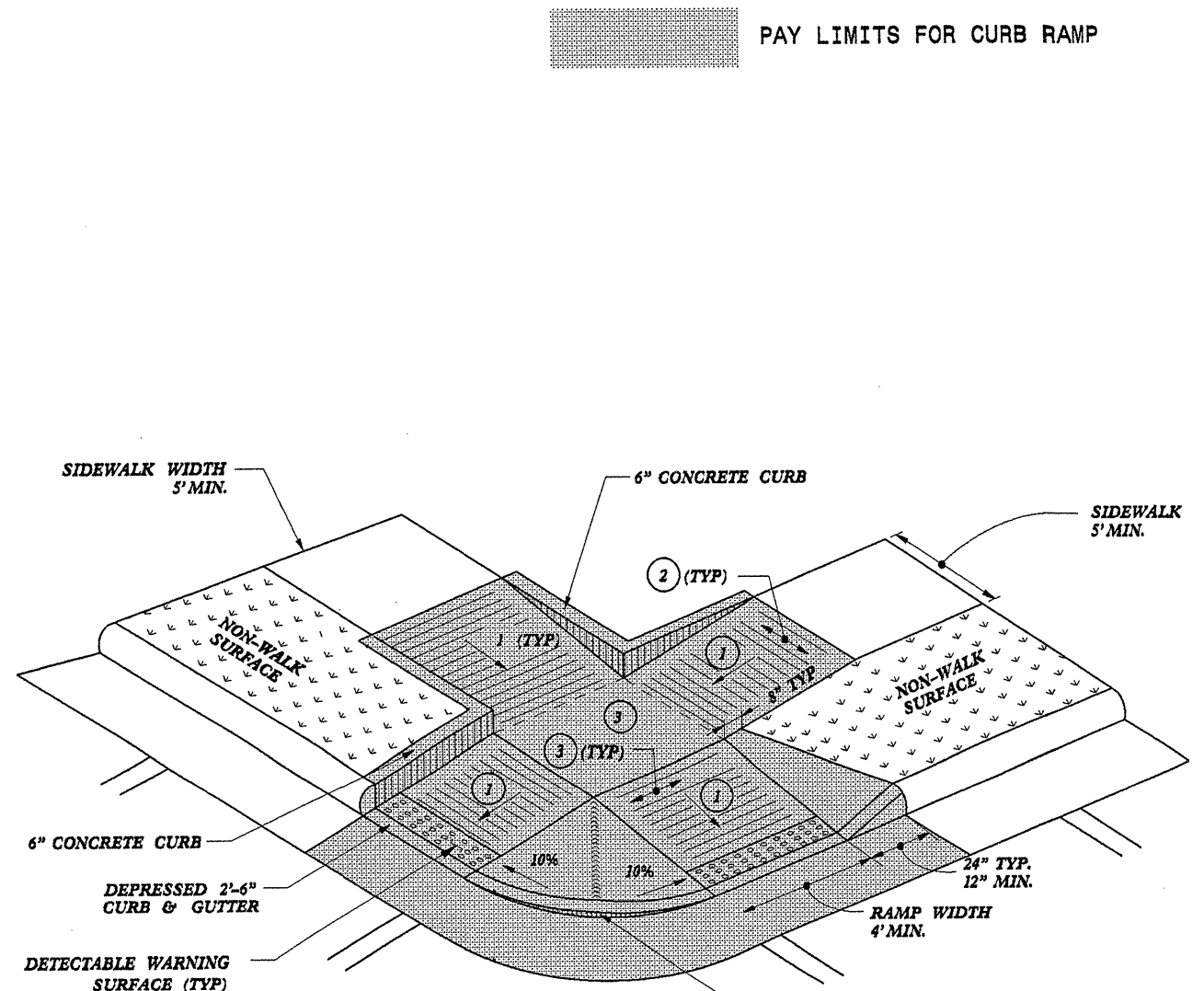
CONTRACT STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-8950	FAX 919-250-4119
CURB RAMPS	
Parallel Ramps	
ORIGINAL BY: J.S. HOWERTON	DATE: 7/7/11
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
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REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES

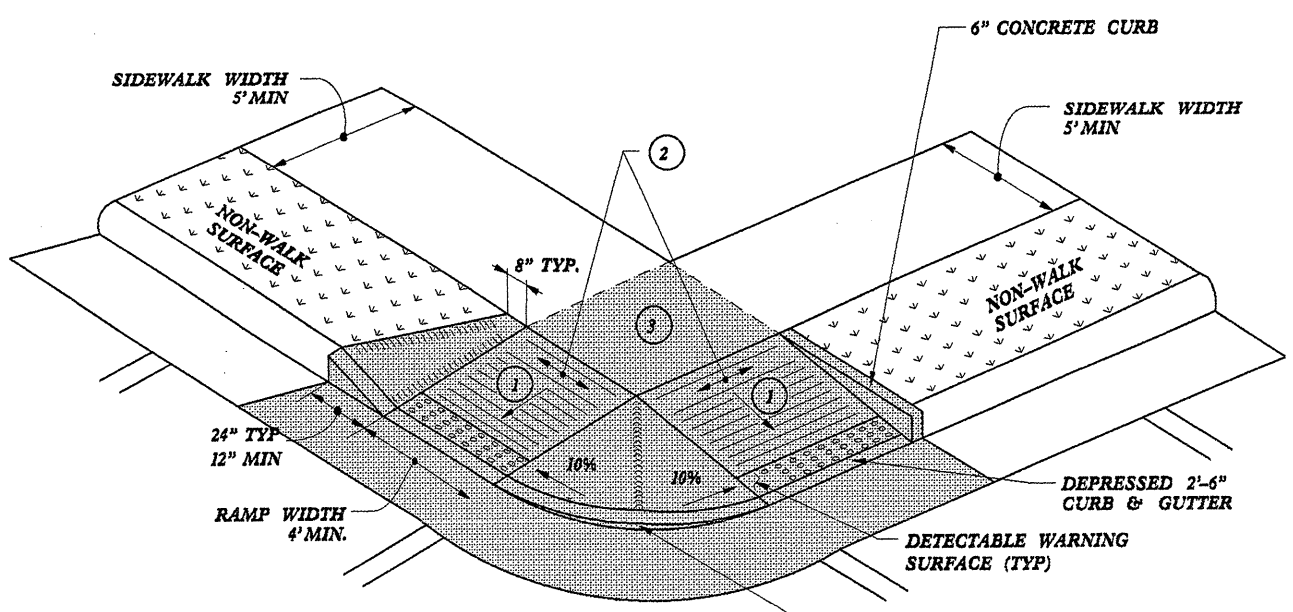
5/14/99
 23-MAR-2012 10:07 AM
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 jhowerton



TYPE 4



TYPE 5



TYPE 4A

- 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 CURB RAMP

CONTRACT STANDARDS AND DEVELOPMENT UNIT
 Office 818-707-6950 FAX 818-250-4119

CURB RAMPS
 Shared Landing

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

22-MAR-2012 15:08 S:\Contracts\Projects\Standard Drawings\2012 Standard Drawings\2012 Curb Ramp Special Details\Curb Ramp Details.dgn J.Howerton AT USD237501

PROJECT NO.	SHEET NO.	TOTAL NO.
12CR.10181.14	17	18
12CR.20181.19		

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH MI	WIDTH FT	AGGREGATE SHOULDER BORROW TON	INCIDENTAL STONE BASE TONS	SHOULDER RECONSTRUCTION SMI	1 1/2" MILLING SY	3" MILLING SY	1.5" TO 3" MILLING SY	INCIDENTAL MILLING SY	BASE COURSE, B25.0B TONS	SURFACE COURSE, S9.5C TONS	SURFACE COURSE, S9.5B TONS	LEVELING COURSE, S9.5C TONS	LEVELING COURSE, S9.5B TONS	ASPHALT BINDER FOR PLANT MIX TONS	PATCHING EXISTING PAVEMENT TONS	AST MAT COAT #6M SY	MILLED RUMBLE STRIPS LF	CONCRETE CURB RAMP EA.	RETROFIT EXST. CURB RAMP EA.	MANHOLE ADJUSTMENT EA	METER OR VALVE BOX ADJUSTMENT EA	DROP INLET ADJUSTMENT EA		
12cr.10181.14	Catawba	1	US321 (NB&SB LANES & ASPHALT RAMP)	FROM NC127 OVERPASS TO 13TH ST SW	1	NO	NO	2.55	64	625	100	12.00				2,200		16,008		1,200		1,022	3,000		54,000							
12cr.10181.14	Catawba	2	US 70	FROM US 321 OVERPASS TO SR 2959 (CENTER ST.)	2,3,4,5 6,7,8	NO	NO	1.14	vars. 60-102	75	40	1.25	13,600		18,250	2,500			4,753		500	318	1,000				7	5	1			
12cr.10181.14	Catawba	3	NC 10	FROM I40 BRIDGE TO RR BRDG. IN TOWN OF CATAWBA	8,9	NO	NO	2.39	24	250	100	4.78				2,450			3,298		330	219	500									
TOTAL FOR PROJ NO. 12cr.10181.14								6.08		950	240	18.03	13,600			18,250	7,150		16,008	8,051	1,200	830	1,559	4,500		54,000		7	5	1		
12cr.20181.19	Catawba	4	SR 1716 (LOOKOUT),BUNKERHILL SCH RD)	FROM SR 1722 TO SR 1717	6,9,10,12,14	NO	NO	3.13	vars. 18-27	218	100	5.63				2,250			3,448		250	223	500	37,500		3	5	10	4			
12cr.20181.19	Catawba	5	SR 1283 (FAIRGROVE CH RD EXT)	FROM US 70 TO SR 1164	11	NO		0.28	vars. 28-44		20			6,000					585		40	38	100				2	3				
12cr.20181.19	Catawba	6	SR 2668 (KEISLER RD SE)	FROM SR 1739 TO END MAINT.	8	NO		0.67	24	75	20	1.34				500			892		90	59	325				3	3				
12cr.20181.19	Catawba	7	SR 1855 (E. MAIDEN RD)	FROM US 321B TO SR 1003	8	NO	NO	2.50	20	189	100	5.00				450			2,727		250	180	500									
12cr.20181.19	Catawba	8	SR 1727 (BOGGS RD)	FROM NC 10 TO SR 1722 (EXCEPTING NEW PORTION AT BRIDGE)	8	NO	NO	1.90	20	180	50	3.80				450			1,979		250	135	500									
12cr.20181.19	Catawba	9	SR 1717 (OXFORD SCH.RD.)	FROM N. APPROACH I-40 BRDG. TO SR 1006	12	NO	NO	2.20	22	225	80	4.40				750			2,683		250	177	250	32,500								
12cr.20181.19	Catawba	10	SR 1746 (BURRIS RD)	FROM SR 1734 TO SR 1739	8	NO	NO	1.35	20	140	40	2.70				450			1,445		150	96	400									
12cr.20181.19	Catawba	11	SR 1480 (ST. PAUL CH. RD.)	FROM US 70 TO SR 1476	8	NO	NO	0.22	25	25	10	0.44				500			300		100	24	150						3			
12cr.20181.19	Catawba	12	SR 1164 (ST PAUL CH. RD.)	FROM SR 1149 TO US 70	8	NO	NO	1.66	24	170	60	3.32				500			2,084		250	141	400				1	3				
12cr.20181.19	Catawba	13	SR 1488 (RIFLE RANGE RD)	FROM SR 1486 TO SR 1453	13	NO	NO	2.87	20	250	150	5.74				900	2,262		3,188		600	330	500									
12cr.20181.19	Catawba	14	SR 1492 (SIPE RD)	FROM SR 1491 TO SR 1484	8	NO	NO	0.78	21	80	20	1.56				950			893		125	62	200									
12cr.20181.19	Catawba	15	SR 1144 (RIVER RD.)	FROM SR 1143 TO SR 1008	8	NO	NO	2.62	20	260	80	5.24				1,050			3,098		300	205	800									
12cr.20181.19	Catawba	16	SR 1462 (10TH AVE)	FROM US70 TO SR 1007	9,12	NO	NO	0.82	vars. 22-24	80	20	1.54				1,050			990		150	74	300	9,500			4	1				
12cr.20181.19	Catawba	17	SR 1196 (13TH AVE SW/19TH ST. SW)	FROM US 70 TO SR 1124	12	NO	NO	1.25	22	125	25	2.50				450			1,499		100	96	300	17,500			9	3				
TOTAL FOR PROJECT 12CR.20181.19								22.25		2,017	775	43.21			6,000		10,250	2,262		25,811		2,905	1,840	5,225	97,000		3	5	29	20		
GRAND TOTAL								28.33		2,967	1,015	61.24			13,600	6,000	18,250	17,400	2,262	16,008	33,862	1,200	3,735	3,399	9,725	97,000	54,000	3	5	36	25	1

