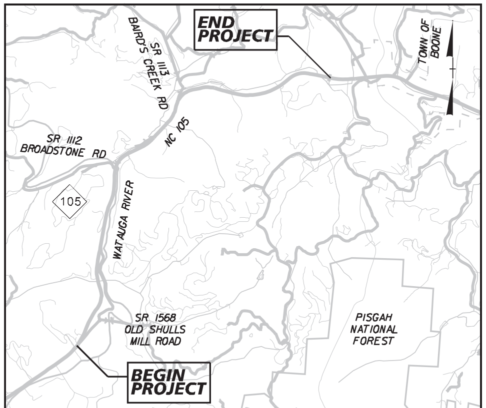
TIP PROJECT: R-2566B

CONTRACT:

SEE SHEET 1A FOR INDEX OF SHEETS (FUTURE)
SEE SHEET 1B FOR CONVENTIONAL PLAN SHEET SYMBOLS



VICINITY MAP

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

WATAUGA COUNTY

LOCATION: ***NC 105 FROM SR 1568 (OLD SHULLS MILL RD) IN WATAUGA TO SR 1107 (NC 105 BYPASS)***

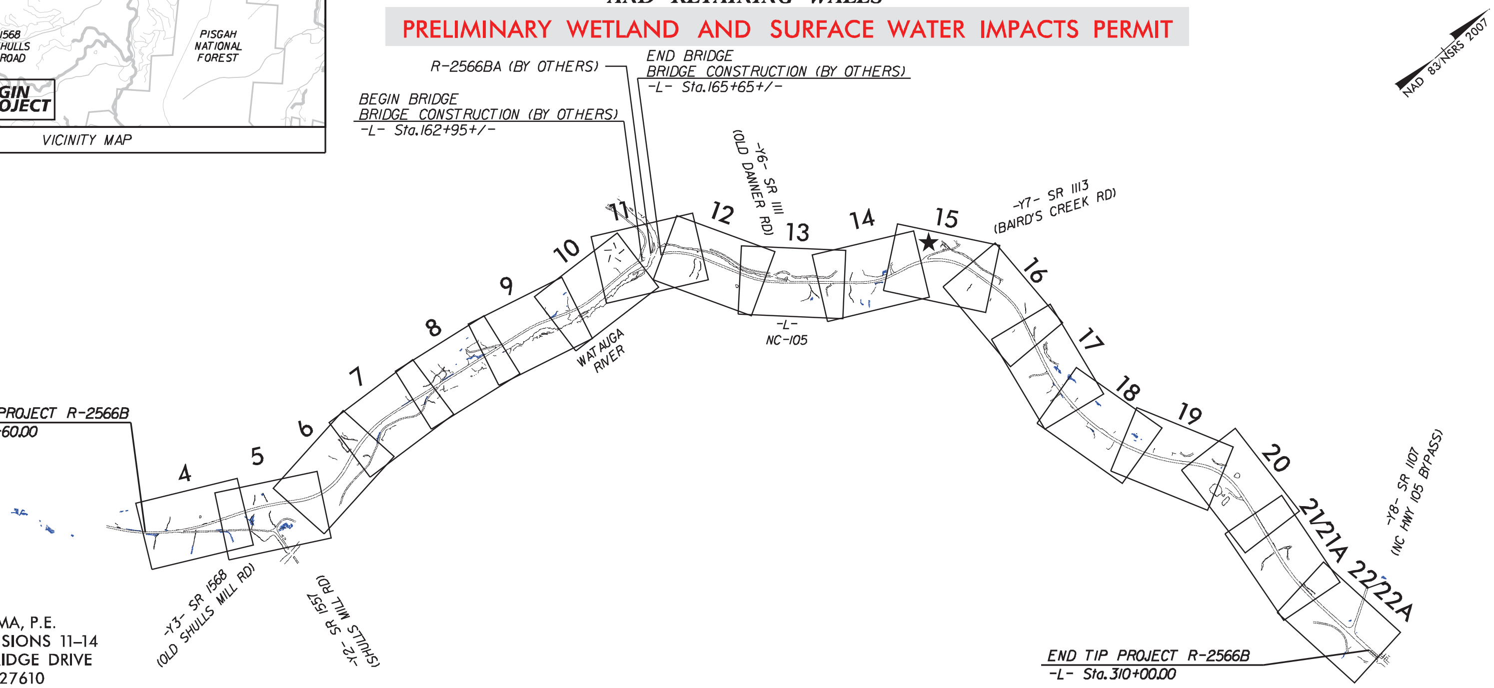
TYPE OF WORK: ***GRADING, DRAINAGE, PAVING, SIGNALS, CULVERTS, AND RETAINING WALLS***

PRELIMINARY WETLAND AND SURFACE WATER IMPACTS PERMIT

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2566B	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
37512.1.1	NHPP-0150(004)	PE	

15% PLANS - FOR REVIEW ONLY
NOT FOR UTILITY OR HYDRAULIC DESIGN

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



NCDOT CONTACT:
NATHAN ADIMA, P.E.
NCDOT – DIVISIONS 11-14
1000 BIRCH RIDGE DRIVE
RALEIGH, NC 27610

★ TRAFFIC SIGNAL
EXISTING TRAFFIC SIGNAL TO BE UPGRADED

THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES.
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD ?.

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

GRAPHIC SCALES

50 25 0 50 100
PLANS

50 25 0 50 100
PROFILE (HORIZONTAL)

10 5 0 10 20
PROFILE (VERTICAL)

DESIGN DATA

ADT 2022 = 15700 VPD
ADT 2040 = 18300 VPD
K = 9%
D = 60%
T = 6%*
V = 50 & 60 MPH

FUNCTIONAL CLASSIFICATION: RURAL ARTERIAL

* 2% TTST 4% DUAL
REGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT R-2566B = 4.032 MILES

TOTAL LENGTH TIP PROJECT R-2566B = 4.032 MILES

PLANS PREPARED FOR THE NCDOT BY:

Kimley»Horn

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
10/09/2020

LETTING DATE:
10/18/2022

TONY SPACEK, P.E.
PROJECT ENGINEER

BRANDON MURR, EIT
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

P.E.
SIGNATURE:

ROADWAY DESIGN ENGINEER

P.E.
SIGNATURE:

09/08/99

K:\CHL_PRJ\011036212 - (R-2566)\Hydraulics\PERMITS_Environmental\CADD\R-2566B_tsh.dgn

4/11/2019

-L-		
PI Sta 69+03.11	PI Sta 77+25.46	PIs Sta 82+29.57
△ = 15°12' 35.3" (LT)	△ = 15°23' 55.6" (LT)	Θs = 1°27' 13.6"
D = 2°02' 46.6"	D = 1°42' 37.2"	Ls = 170.00'
L = 743.29'	L = 900.34'	LT = 113.34'
T = 373.84'	T = 456.20'	ST = 56.67'
R = 2,800.00'	R = 3,350.00'	
SE = 5% (EXIST.)	SE = 5%	
DS = 65 MPH	DS = 70 MPH	
RO = 135'	RO = 170'	

-Y1-	
PI Sta 11+55.36	PI Sta 21+27.42
△ = 92°59' 28.6" (LT)	△ = 15°10' 18.8" (RT)
D = 57°17' 44.8"	D = 2°51' 53.2"
L = 162.30'	L = 529.60'
T = 105.36'	T = 266.36'
R = 100.00'	R = 2,000.00'
SE = 4%	SE = 3%
DS = 20 MPH	DS = 30 MPH
RO = 20'	RO = 42'

SEE SHEET 23 FOR -L- PROFILE
SEE SHEET 35 FOR -Y1- PROFILE

Kimley»Horn
200 SOUTH TRYON, SUITE 200
CHARLOTTE, N.C. 28202

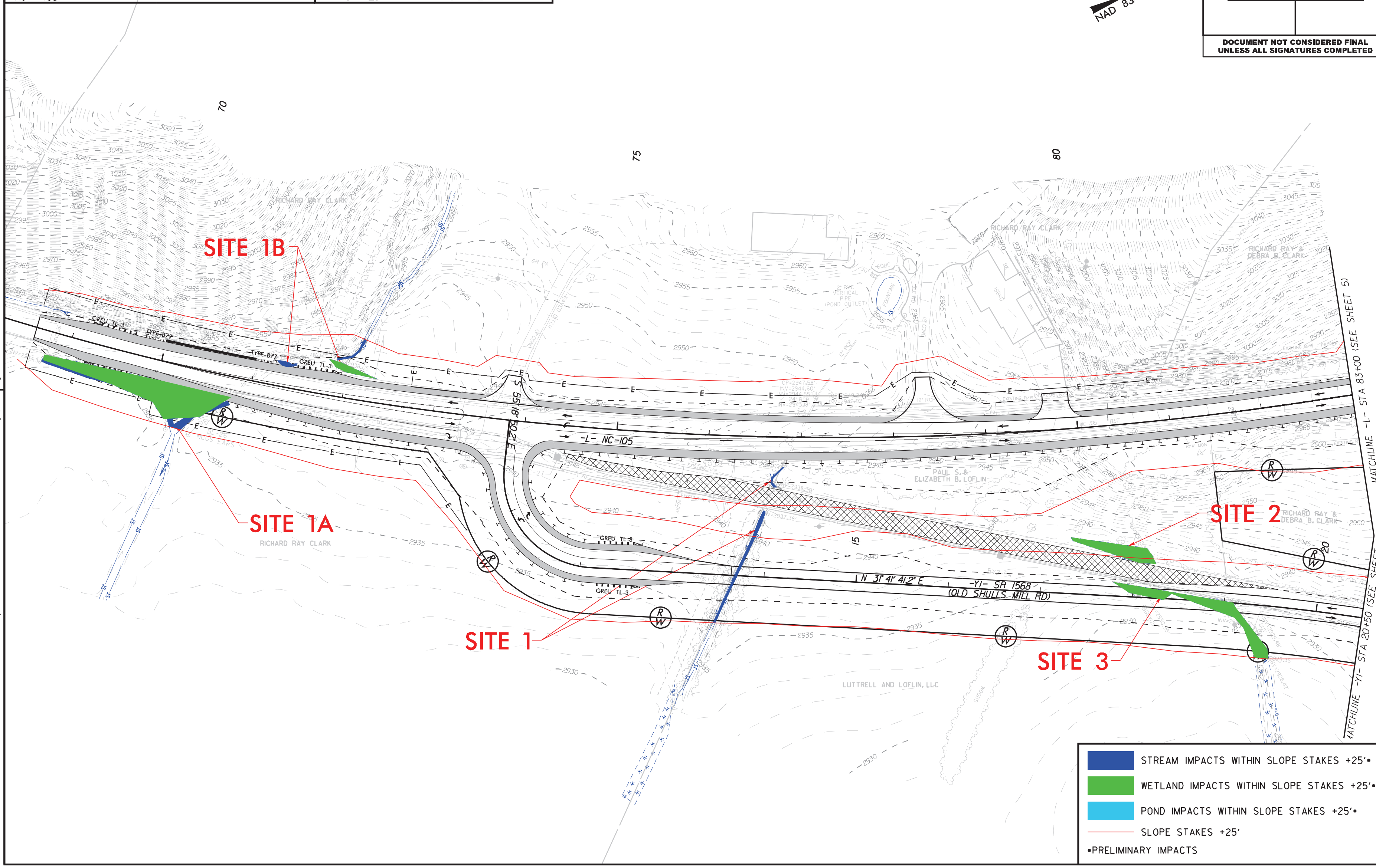
PROJECT REFERENCE NO.	SHEET NO.
R-2566B	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS

5/14/99



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4/11/2019

-L-

PIs Sta 82+29.57	PIs Sta 84+66.92	PI Sta 87+54.47	PIs Sta 90+40.15	PIs Sta 93+20.23	PI Sta 98+46.09
Θs = 1° 27′ 13.6″	Θs = 2° 39′ 51.3″	Δ = 12° 52′ 10.3″ (RT)	Θs = 2° 39′ 51.3″	Θs = 6° 05′ 39.1″	Δ = 44° 18′ 56.6″ (LT)
Ls = 170.00′	Ls = 186.00′	D = 2° 51′ 53.2″	Ls = 186.00′	Ls = 234.00′	D = 5° 12′ 31.3″
LT = 113.34′	LT = 124.01′	L = 449.23′	LT = 124.01′	LT = 156.09′	L = 850.80′
ST = 56.67′	ST = 62.01′	T = 225.56′	ST = 62.01′	ST = 78.08′	T = 447.96′
		R = 2,000.00′			R = 1,100.00′
		SE = 6%			SE = 6%
		DS = 65 MPH			DS = 55 MPH
		RO = 186′			RO = 234′

-Y1-

PI Sta 21+27.42	PI Sta 26+96.76	PI Sta 29+49.90
Δ = 15° 10′ 18.8″ (RT)	Δ = 50° 13′ 57.6″ (RT)	Δ = 0° 30′ 41.8″ (RT)
D = 2° 51′ 53.2″	D = 19° 05′ 54.9″	D = 0° 30′ 00.0″
L = 529.60′	L = 263.02′	L = 102.32′
T = 266.36′	T = 140.63′	T = 51.16′
R = 2,000.00′	R = 300.00′	R = 11,459.16′
SE = 3%	SE = 4%	SE = EXIST
DS = 30 MPH	DS = 30 MPH	DS = EXIST
RO = 42′	RO = 56′	RO = 56′

-Y2-

PI Sta 13+16.56
Δ = 79° 21′ 39.3″ (RT)
D = 36° 57′ 54.1″
L = 214.69′
T = 128.59′
R = 155.00′
SE = EXIST
DS = EXIST
RO = 52

Kimley»Horn ©2018
200 SOUTH TRYON, SUITE 200
CHARLOTTE, N.C. 28202

50′ 0′ 100′
GRAPHIC SCALE

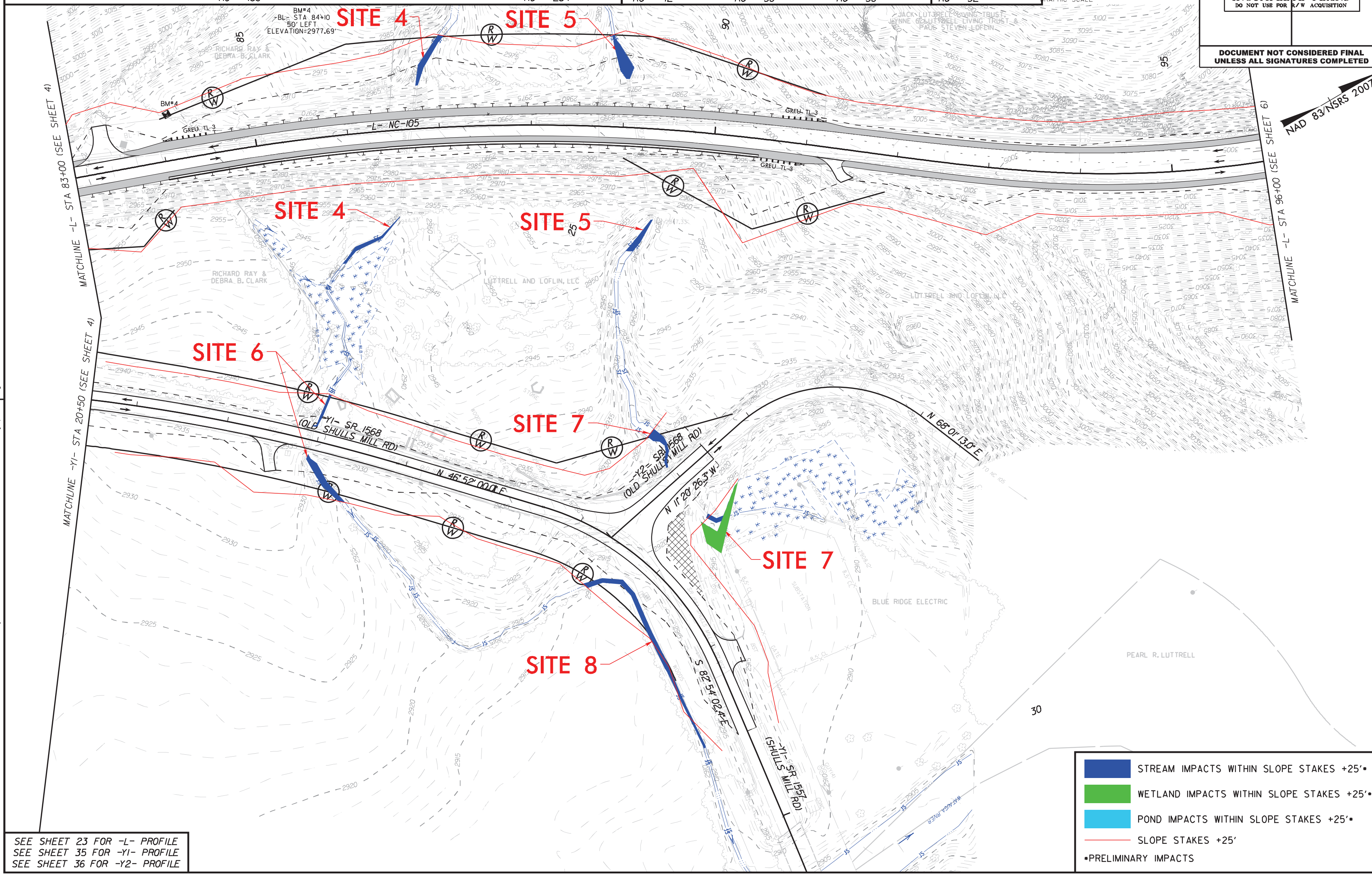
PROJECT REFERENCE NO.	SHEET NO.
R-2566B	5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS

5/14/99



STREAM IMPACTS WITHIN SLOPE STAKES +25′*
WETLAND IMPACTS WITHIN SLOPE STAKES +25′*
POND IMPACTS WITHIN SLOPE STAKES +25′*
SLOPE STAKES +25′
*PRELIMINARY IMPACTS

SEE SHEET 23 FOR -L- PROFILE
SEE SHEET 35 FOR -Y1- PROFILE
SEE SHEET 36 FOR -Y2- PROFILE

K:\CHL_PR\011036212 - (R-2566\Hydraulics\PERMITS_Environmental\CADD\R-2566B_rdy_psh_05.dgn

4/11/2019

-L-			
PI Sta 98+46.09	PIs Sta 103+27.02	PIs Sta 106+42.97	PI Sta 110+79.92
△ = 44° 18′ 56.6″ (LT)	Θs = 6° 05′ 39.1″	Θs = 3° 39′ 25.8″	△ = 21° 30′ 12.6″ (RT)
D = 5° 12′ 31.3″	Ls = 234.00′	Ls = 240.00′	D = 3° 02′ 51.5″
L = 850.80′	LT = 156.09′	LT = 160.03′	L = 705.58′
T = 447.96′	ST = 78.08′	ST = 80.03′	T = 356.99′
R = 1,100.00′			R = 1,880.00′
SE = 6%			SE = 6%
DS = 55			DS = 65
RO = 234′			RO = 240′

SEE SHEET 24 FOR -L- PROFILE

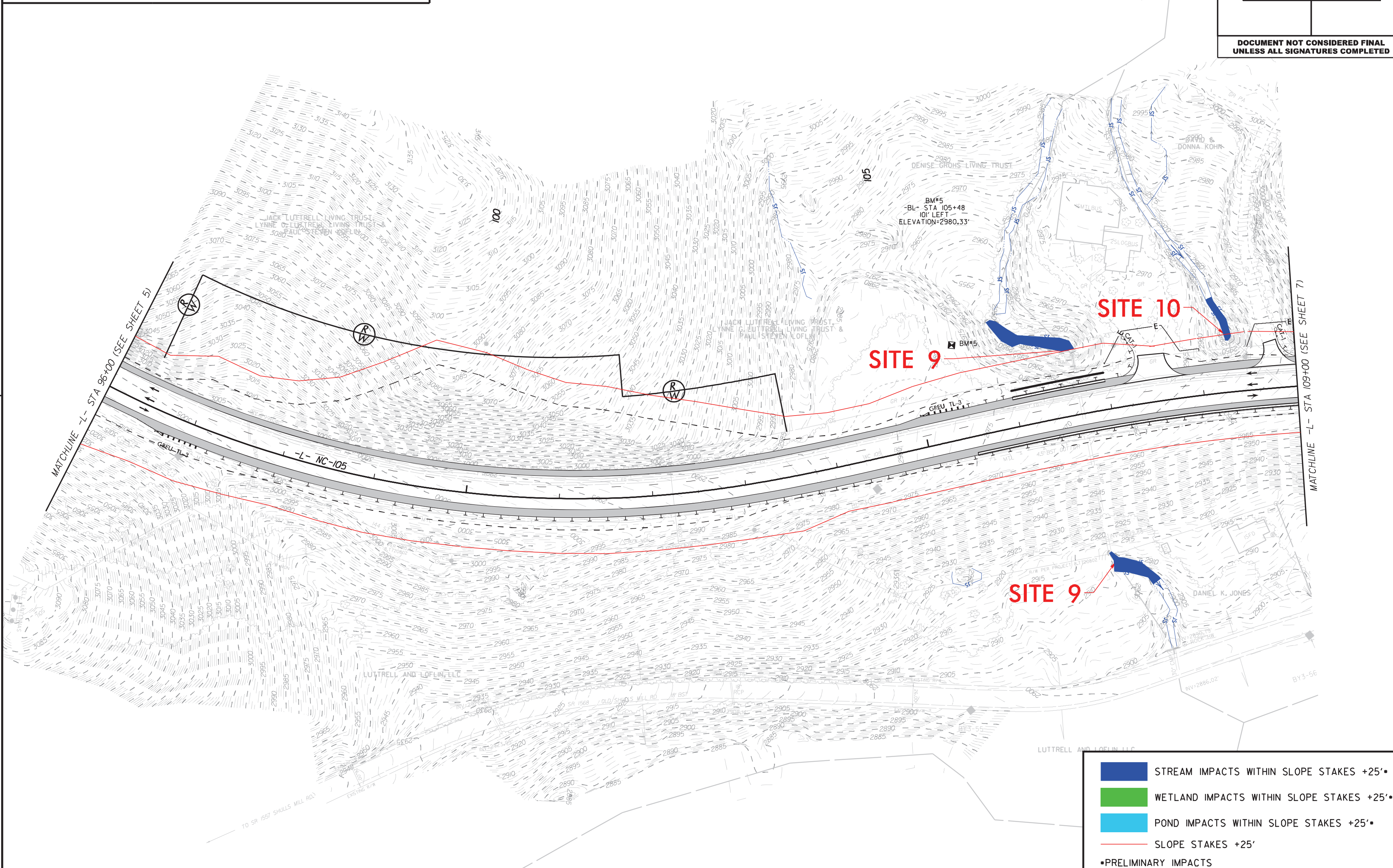
Kimley»Horn
200 SOUTH TRYON, SUITE 200
CHARLOTTE, N.C. 28202

PROJECT REFERENCE NO.	SHEET NO.
R-2566B	6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS



	STREAM IMPACTS WITHIN SLOPE STAKES +25′*
	WETLAND IMPACTS WITHIN SLOPE STAKES +25′*
	POND IMPACTS WITHIN SLOPE STAKES +25′*
	SLOPE STAKES +25′

*PRELIMINARY IMPACTS

5/14/99
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4/11/2019

-L-

PI Sta 110+79.92	PIs Sta 115+08.54
Δ = 21° 30' 12.6" (RT)	Θs = 3° 39' 25.8"
D = 3° 02' 51.5"	Ls = 240.00'
L = 705.58'	LT = 160.03'
T = 356.99'	ST = 80.03'
R = 1,880.00'	
SE = 6%	
DS = 65	
RO = 240'	

SEE SHEET 24 FOR -L- PROFILE

50' 0' 100'
GRAPHIC SCALE

Kimley»Horn
200 SOUTH TRYON, SUITE 200
CHARLOTTE, N.C. 28202

PROJECT REFERENCE NO.	SHEET NO.
R-2566B	7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

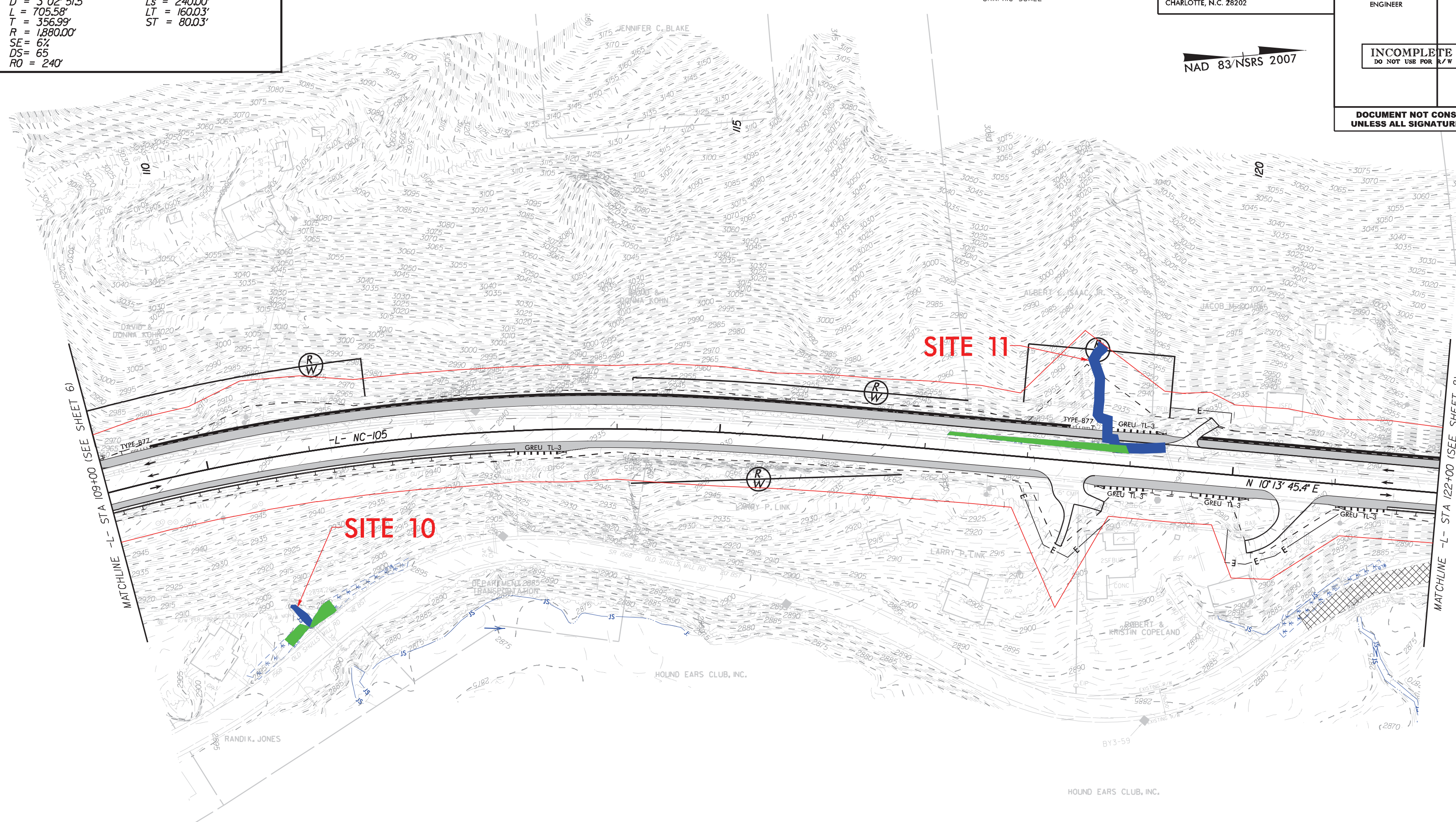
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NSRS 2007

REVISIONS

5/14/99



	STREAM IMPACTS WITHIN SLOPE STAKES +25'*
	WETLAND IMPACTS WITHIN SLOPE STAKES +25'*
	POND IMPACTS WITHIN SLOPE STAKES +25'*
	SLOPE STAKES +25'

*PRELIMINARY IMPACTS

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4/11/2019

SEE SHEET 25 FOR -L- PROFILE

PROJECT REFERENCE NO.	SHEET NO.
R-2566B	8

R/W SHEET NO.

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

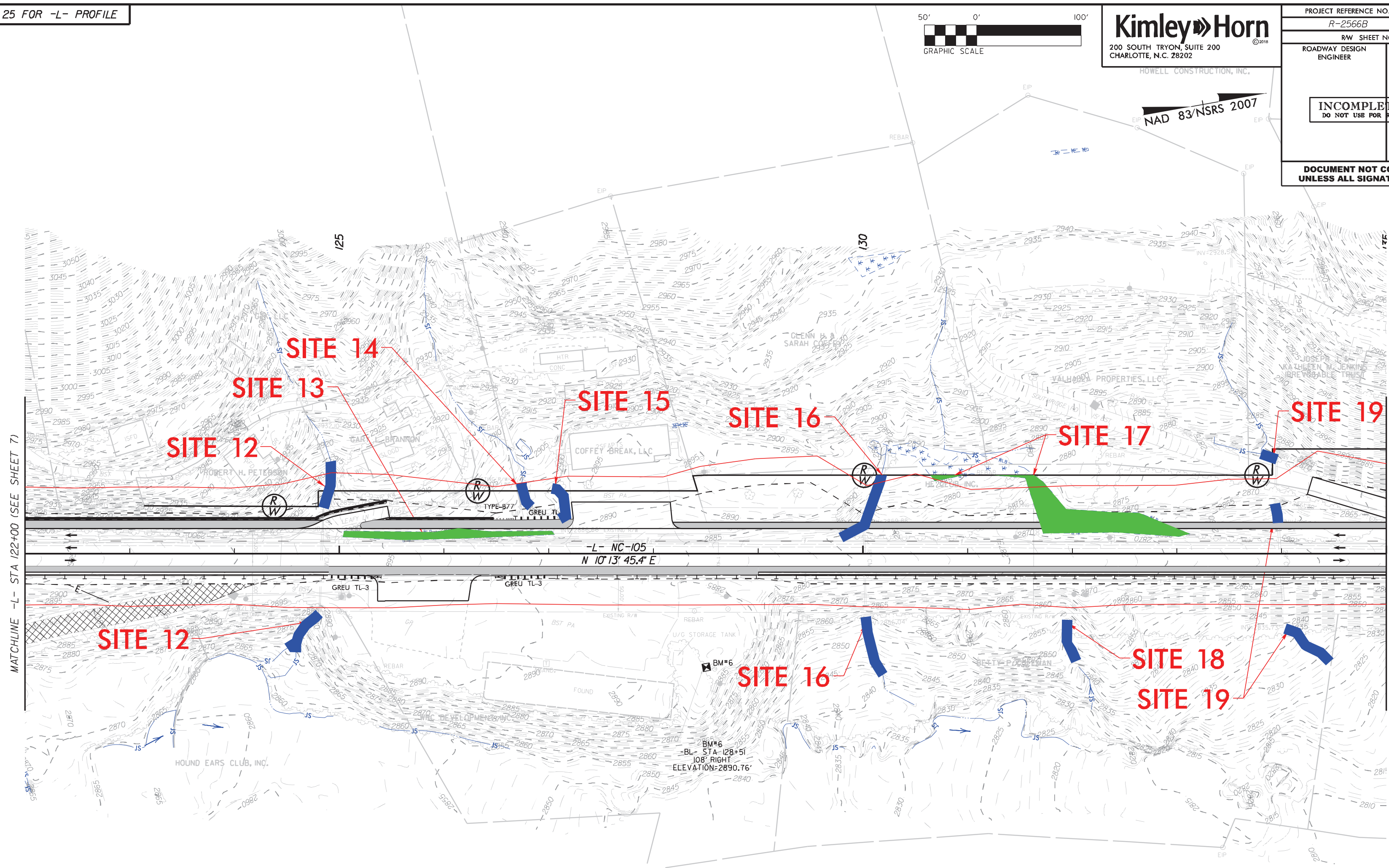
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Kimley»Horn
200 SOUTH TRYON, SUITE 200
CHARLOTTE, N.C. 28202

50' 0' 100'
GRAPHIC SCALE

NAD 83/NSRS 2007



REVISIONS

STREAM IMPACTS WITHIN SLOPE STAKES +25'*
WETLAND IMPACTS WITHIN SLOPE STAKES +25'*
POND IMPACTS WITHIN SLOPE STAKES +25'*
SLOPE STAKES +25'
*PRELIMINARY IMPACTS

5/14/99

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4/11/2019

-L-

PIs Sta 140+52.37	PI Sta 141+90.52	PIs Sta 143+28.71	PIs Sta 148+10.22	PI Sta 150+76.47
θs = 3° 49' 11.0"	△ = 3° 42' 12.1" (RT)	θs = 3° 49' 11.0"	θs = 4° 17' 49.9"	△ = 13° 16' 58.0" (LT)
Ls = 240.00'	D = 3° 10' 59.2"	Ls = 240.00'	Ls = 240.00'	D = 3° 34' 51.6"
LT = 160.04'	L = 116.34'	LT = 160.04'	LT = 160.05'	L = 370.93'
ST = 80.03'	T = 58.19'	ST = 80.03'	ST = 80.04'	T = 186.30'
	R = 1,800.00'			R = 1,600.00'
	SE = 6%			SE = 6%
	DS = 65			DS = 60
	RO = 240'			RO = 240'

SEE SHEET 25 FOR -L- PROFILE

50' 0' 100'
GRAPHIC SCALE

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200 SOUTH TRYON, SUITE 200
CHARLOTTE, N.C. 28202

PROJECT REFERENCE NO.	SHEET NO.
R-2566B	9
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

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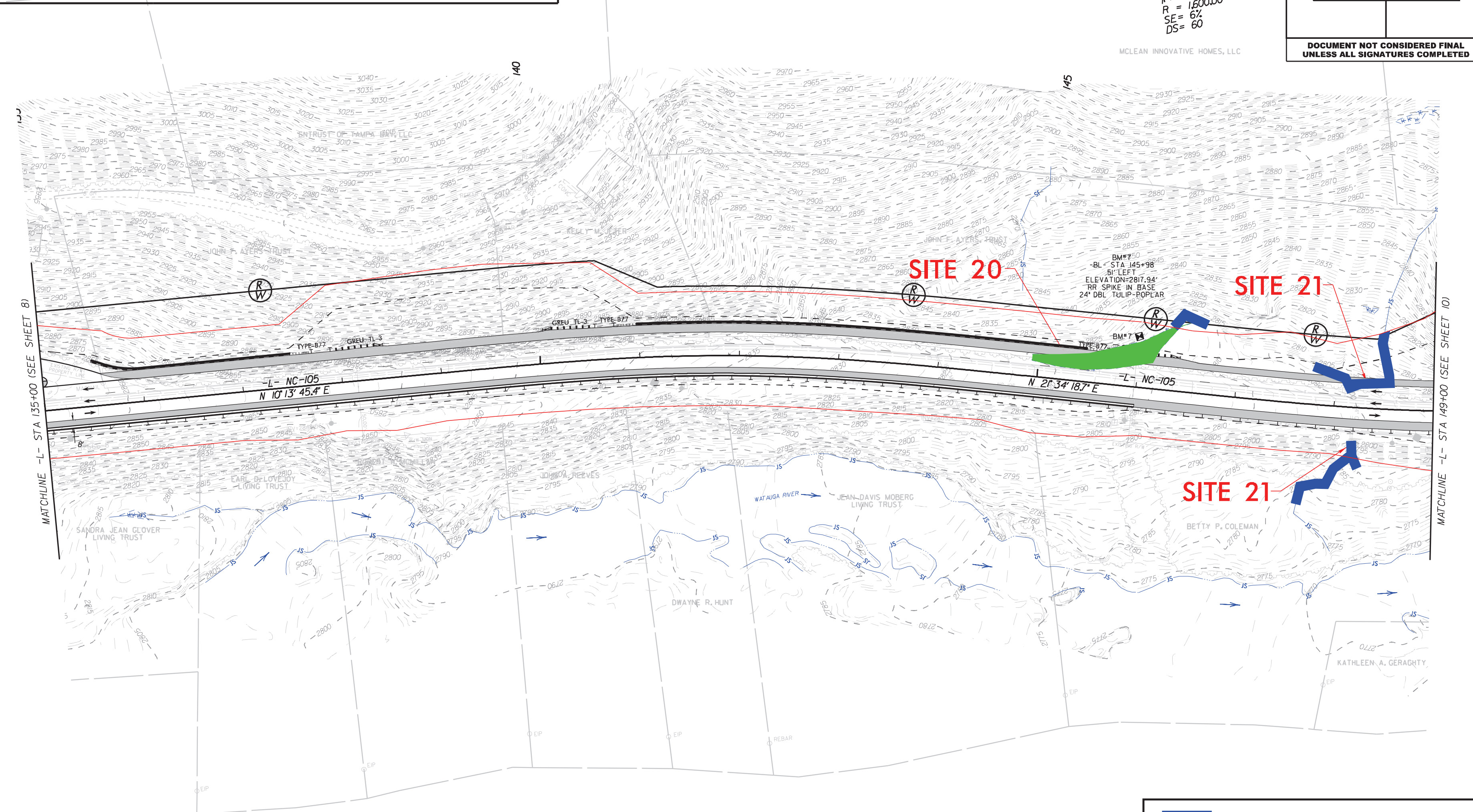
REVISIONS

5/14/99



(blue)	STREAM IMPACTS WITHIN SLOPE STAKES +25'*
(green)	WETLAND IMPACTS WITHIN SLOPE STAKES +25'*
(cyan)	POND IMPACTS WITHIN SLOPE STAKES +25'*
(red line)	SLOPE STAKES +25'

*PRELIMINARY IMPACTS

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4/11/2019

5/14/99

REVISIONS

-L-			
PI Sta 150+76.47	PIs Sta 153+41.14	PIs Sta 158+39.08	PI Sta 165+98.50
$\triangle$ = 13° 16' 58.0" (LT)	θs = 4° 17' 49.9"	θs = 6° 52' 31.8"	$\triangle$ = 51° 31' 45.6" (RT)
D = 3° 34' 51.6"	Ls = 240.00'	Ls = 324.00'	D = 4° 14' 38.9"
L = 370.93'	LT = 160.05'	LT = 216.16'	L = 1,214.13'
T = 186.30'	ST = 80.04'	ST = 108.15'	T = 651.59'
R = 1,600.00'			R = 1,350.00'
SE = 6%			SE = 6%
DS = 60			DS = 60
RO = 240'			RO = 324'

SEE SHEET 26 FOR -L- PROFILE

NOTE:
THE PROPOSED ROW SHOWN BETWEEN STA. 158+59.82 TO STA. 171+63.75 IS ANTICIPATED TO BE ACQUIRED AS A PART OF THE R-2566BA PROJECT.

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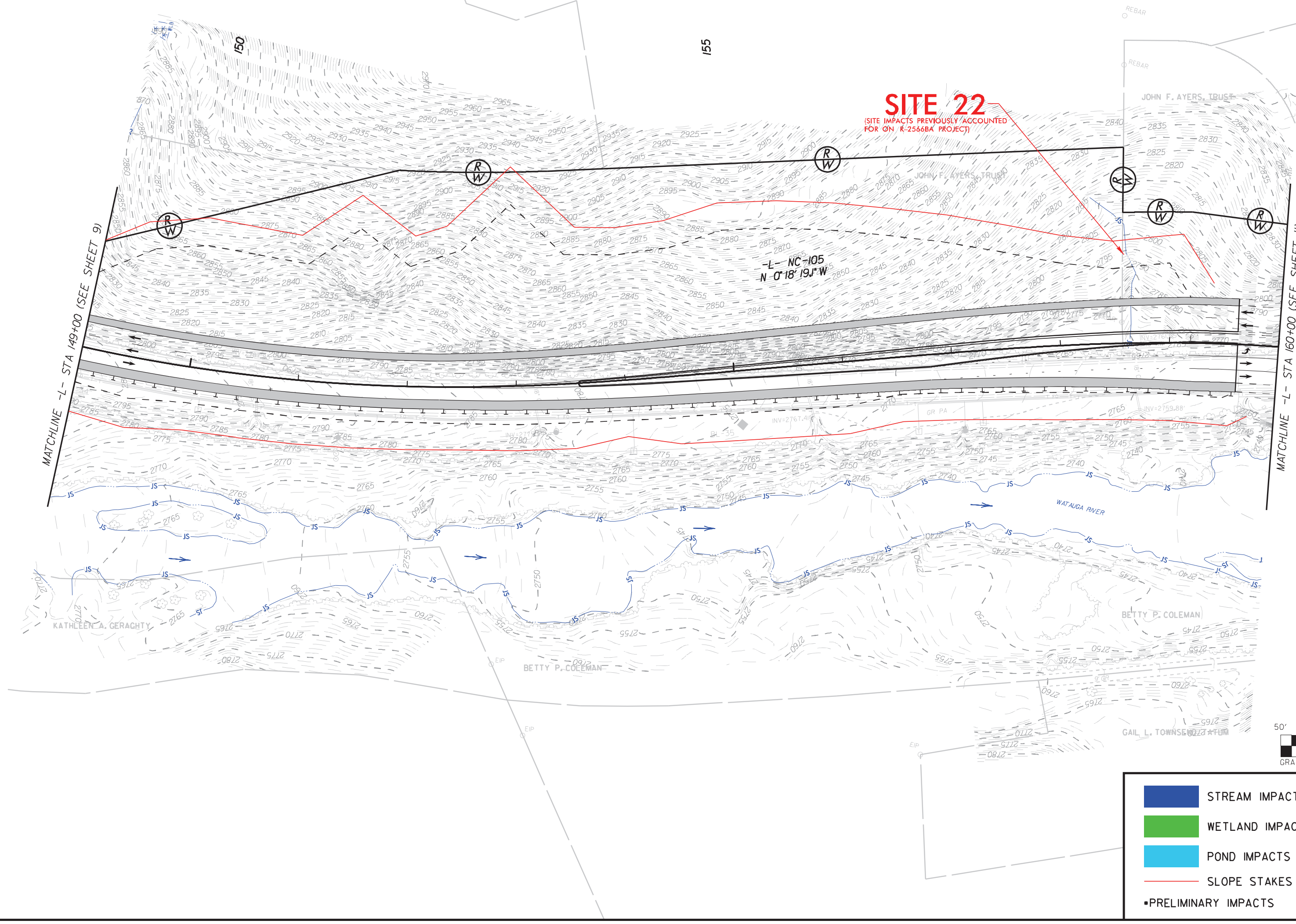
200 SOUTH TRYON, SUITE 200
CHARLOTTE, N.C. 28202

PROJECT REFERENCE NO.	SHEET NO.
R-2566B	10
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NSRS 2007



50' 0' 100'
GRAPHIC SCALE

STREAM IMPACTS WITHIN SLOPE STAKES +25'*
WETLAND IMPACTS WITHIN SLOPE STAKES +25'*
POND IMPACTS WITHIN SLOPE STAKES +25'*
SLOPE STAKES +25'
*PRELIMINARY IMPACTS

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4/11/2019

-L-

PI Sta 165+98.50
Δ = 51° 31' 45.6" (RT)
D = 4° 14' 38.9"
L = 1,214.13'
T = 651.59'
R = 1,350.00'
SE = 6%
DS = 60
RO = 324'

SEE SHEET 26 FOR -L- PROFILE

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200 SOUTH TRYON, SUITE 200
CHARLOTTE, N.C. 28202

PROJECT REFERENCE NO.	SHEET NO.
R-2566B	11

R/W SHEET NO.

ROADWAY DESIGN ENGINEER

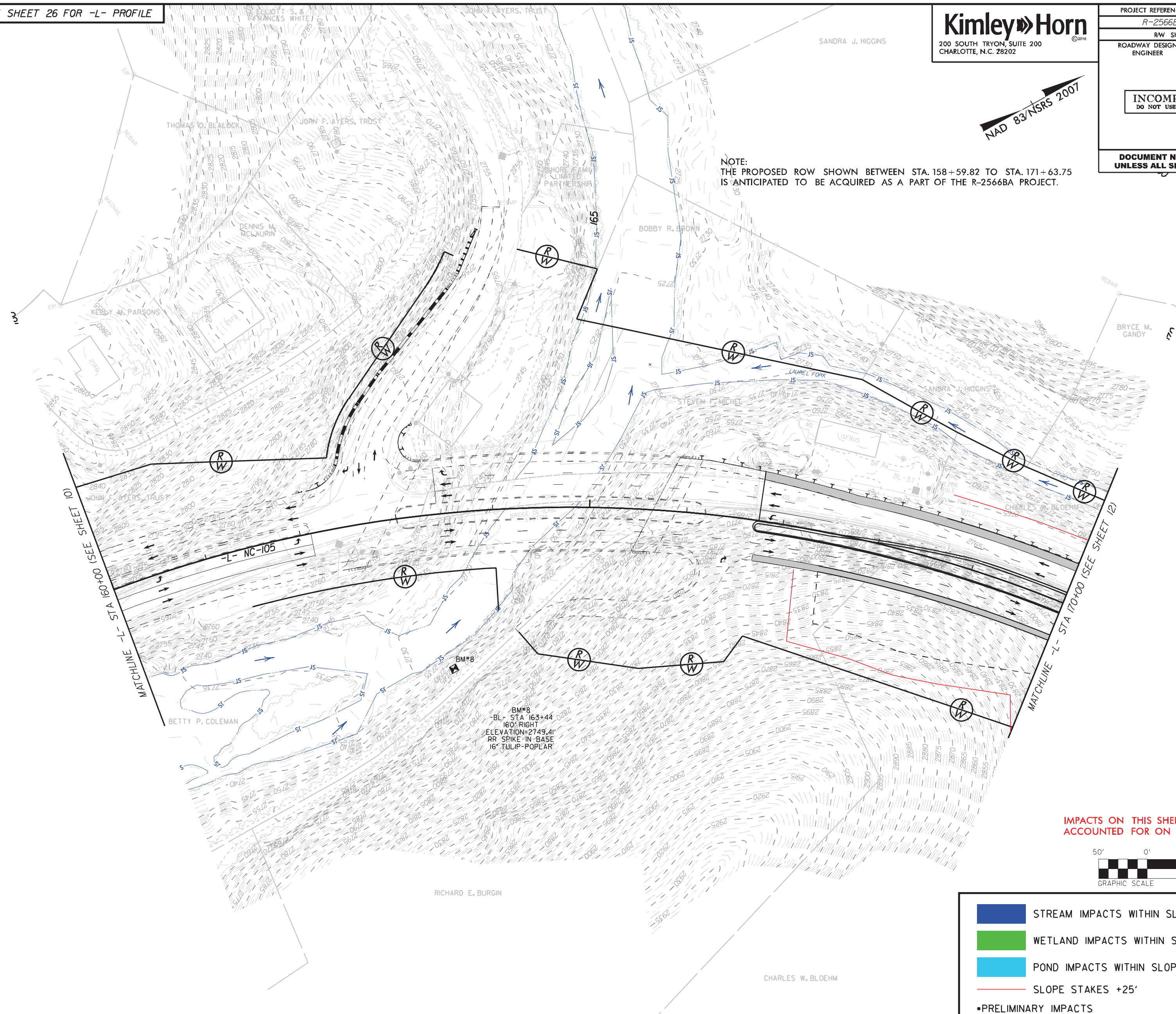
HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS

NOTE:
THE PROPOSED ROW SHOWN BETWEEN STA. 158+59.82 TO STA. 171+63.75 IS ANTICIPATED TO BE ACQUIRED AS A PART OF THE R-2566BA PROJECT.



IMPACTS ON THIS SHEET PREVIOUSLY ACCOUNTED FOR ON R-2566BA PROJECT.

50' 0' 100'
GRAPHIC SCALE

STREAM IMPACTS WITHIN SLOPE STAKES +25'*
WETLAND IMPACTS WITHIN SLOPE STAKES +25'*
POND IMPACTS WITHIN SLOPE STAKES +25'*
SLOPE STAKES +25'
*PRELIMINARY IMPACTS

5/14/99
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4/11/2019

-L-			
PI Sta 165+98.50	PIs Sta 172+69.20	PIs Sta 180+43.89	PI Sta 182+60.47
△ = 51° 31' 45.6" (RT)	Θs = 6° 52' 31.8"	Θs = 6° 37' 47.8"	△ = 8° 52' 54.5" (LT)
D = 4° 14' 38.9"	Ls = 324.00'	Ls = 324.00'	D = 4° 05' 33.2"
L = 1,214.13'	LT = 216.16'	LT = 216.15'	L = 217.02'
T = 651.59'	ST = 108.15'	ST = 108.14'	T = 108.73'
R = 1,350.00'			R = 1,400.00'
SE = 6%			SE = 6%
DS = 60			DS = 60
RO = 324'			RO = 324'

SEE SHEET 27 FOR -L- PROFILE

NOTE:
THE PROPOSED ROW SHOWN BETWEEN STA. 158+59.82 TO STA. 171+63.75 IS ANTICIPATED TO BE ACQUIRED AS A PART OF THE R-2566BA PROJECT.

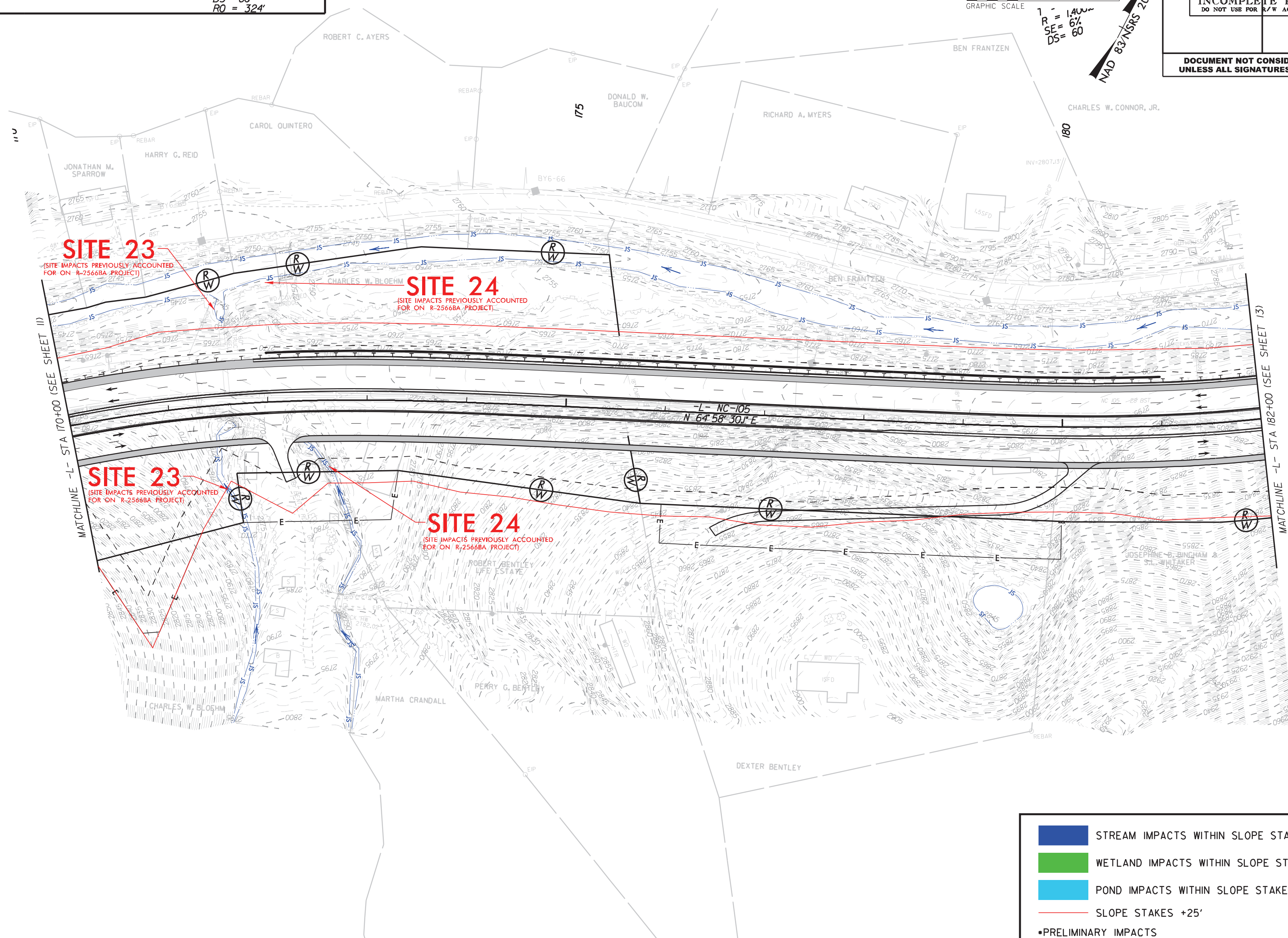
Kimley»Horn
200 SOUTH TRYON, SUITE 200
CHARLOTTE, N.C. 28202

PROJECT REFERENCE NO.	SHEET NO.
R-2566B	12
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS



STREAM IMPACTS WITHIN SLOPE STAKES +25'*
WETLAND IMPACTS WITHIN SLOPE STAKES +25'*
POND IMPACTS WITHIN SLOPE STAKES +25'*
SLOPE STAKES +25'
*PRELIMINARY IMPACTS

5/14/99
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4/11/2019

-L-		-Y3-		
PI Sta 182+60.47	PIs Sta 184+76.90	PI Sta 10+71.40	PI Sta 11+47.94	PI Sta 12+23.00
Δ = 8° 52' 54.5" (LT)	Θs = 6° 37' 47.8"	Δ = 60° 06' 59.4" (LT)	Δ = 9° 19' 55.6" (RT)	Δ = 17° 59' 12.5" (RT)
D = 4° 05' 33.2"	Ls = 324.00'	D = 133° 14' 45.6"	D = 8° 18' 13.5"	D = 47° 44' 47.3"
L = 217.02'	LT = 216.15'	L = 45.12'	L = 112.38'	L = 37.67'
T = 108.73'	ST = 108.14'	T = 24.88'	T = 56.32'	T = 18.99'
R = 1,400.00'		R = 43.00'	R = 690.00'	R = 120.00'
SE = 6%		SE = 3%	SE = EXIST	SE = EXIST
DS = 60		DS = 15	DS = 15	DS = EXIST
RO = 324'		RO = 39'	RO = 39'	RO = EXIST

SEE SHEET 27 FOR -L- PROFILE
SEE SHEET 36 FOR -Y3- PROFILE

GRAPHIC SCALE 50' 0' 100'

Kimley»Horn ©2016
200 SOUTH TRYON, SUITE 200
CHARLOTTE, N.C. 28202

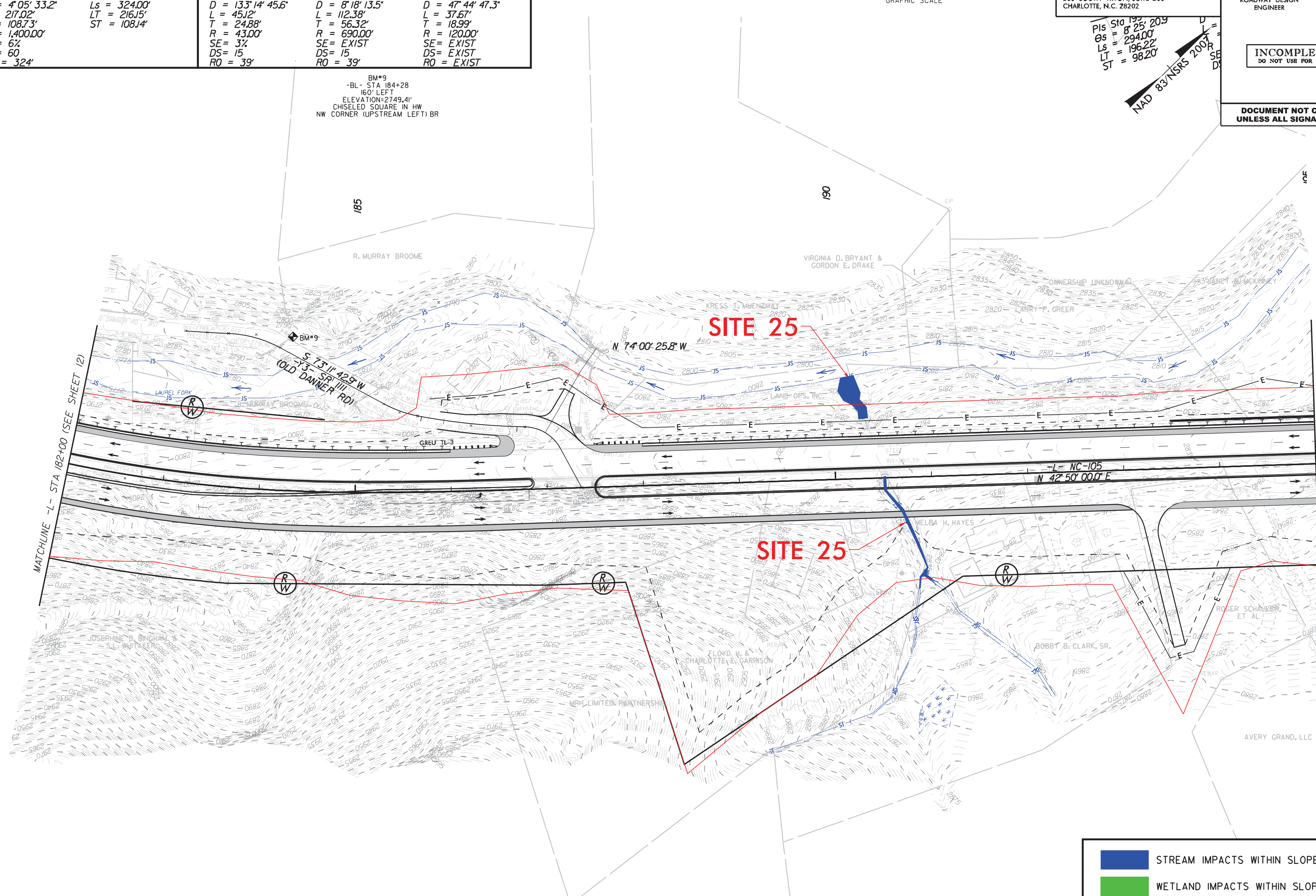
PROJECT REFERENCE NO.	SHEET NO.
R-2566B	13
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS

5/14/99



STREAM IMPACTS WITHIN SLOPE STAKES +25'*
WETLAND IMPACTS WITHIN SLOPE STAKES +25'*
POND IMPACTS WITHIN SLOPE STAKES +25'*
SLOPE STAKES +25'
*PRELIMINARY IMPACTS

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4/11/2019

-L-			
PIs Sta 199+67.34	PI Sta 201+77.10	PIs Sta 203+86.36	PIs Sta 207+78.43
Θs = 8° 25′ 20.9″	Δ = 12° 46′ 44.4″ (LT)	Θs = 8° 25′ 20.9″	Θs = 9° 21′ 29.9″
Ls = 294.00′	D = 5° 43′ 46.5″	Ls = 294.00′	Ls = 294.00′
LT = 196.22′	L = 223.04′	LT = 196.22′	LT = 196.27′
ST = 98.20′	T = 111.98′	ST = 98.20′	ST = 98.25′
	R = 1,000.00′		
	SE = 6%		
	DS = 50		
	RO = 294′		

SEE SHEET 28 FOR -L- PROFILE

50′ 0′ 100′
GRAPHIC SCALE

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200 SOUTH TRYON, SUITE 200
CHARLOTTE, N.C. 28202
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PROJECT REFERENCE NO.	SHEET NO.
R-2566B	14
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
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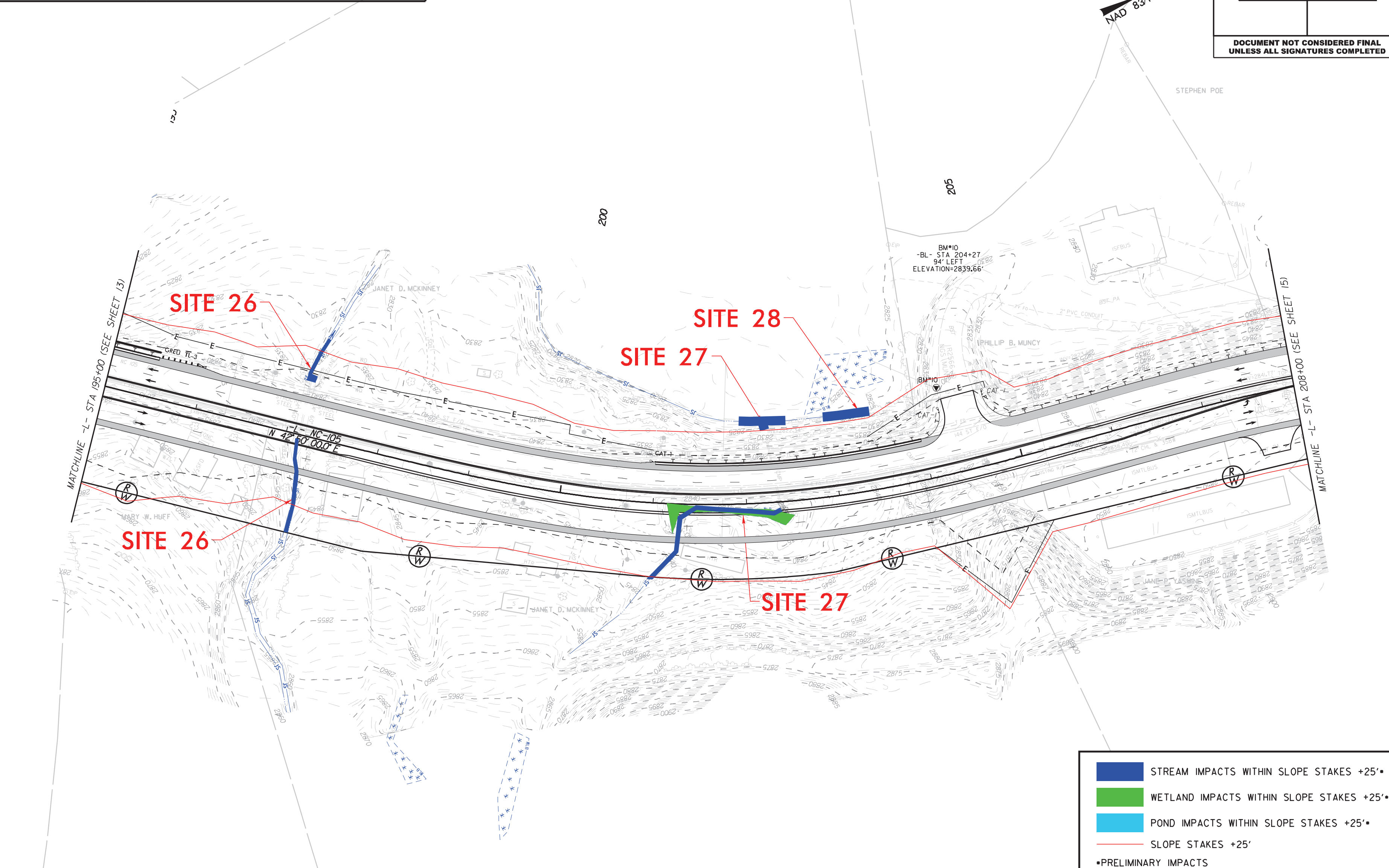
REVISIONS

5/14/99



STREAM IMPACTS WITHIN SLOPE STAKES +25′*
WETLAND IMPACTS WITHIN SLOPE STAKES +25′*
POND IMPACTS WITHIN SLOPE STAKES +25′*
SLOPE STAKES +25′
*PRELIMINARY IMPACTS

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4/11/2019

-L-		
PIs Sta 207+78.43	PI Sta 212+59.36	PIs Sta 216+98.97
Θs = 9° 21' 29.9"	Δ = 46° 07' 37.8" (RT)	Θs = 9° 21' 29.9"
Ls = 294.00'	D = 6° 21' 58.3"	Ls = 294.00'
LT = 196.27'	L = 724.56'	LT = 196.27'
ST = 98.25'	T = 383.21'	ST = 98.25'
	R = 900.00'	
	SE = 6%	
	DS = 50	
	RO = 294'	

-Y4-			
PI Sta 10+64.41	PI Sta 11+57.44	PI Sta 12+92.36	PI Sta 14+43.76
Δ = 63° 03' 17.2" (RT)	Δ = 10° 08' 30.7" (RT)	Δ = 3° 02' 38.0" (RT)	Δ = 4° 45' 11.9" (RT)
D = 54° 34' 02.7"	D = 12° 08' 19.9"	D = 1° 37' 56.5"	D = 28° 38' 52.4"
L = 115.55'	L = 83.55'	L = 186.47'	L = 16.59'
T = 64.41'	T = 41.88'	T = 93.26'	T = 8.30'
R = 105.00'	R = 472.00'	R = 3,510.01'	R = 200.00'
SE = 4%	SE = 4%	SE = 4%	SE = EXIST
DS = 30	DS = 30	DS = 30	DS = EXIST
RO = 52'	RO = 52'	RO = 52'	RO = EXIST

SEE SHEET 28 FOR -L- PROFILE
SEE SHEET 37 FOR -Y4- PROFILE

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PROJECT REFERENCE NO.	SHEET NO.
R-2566B	15
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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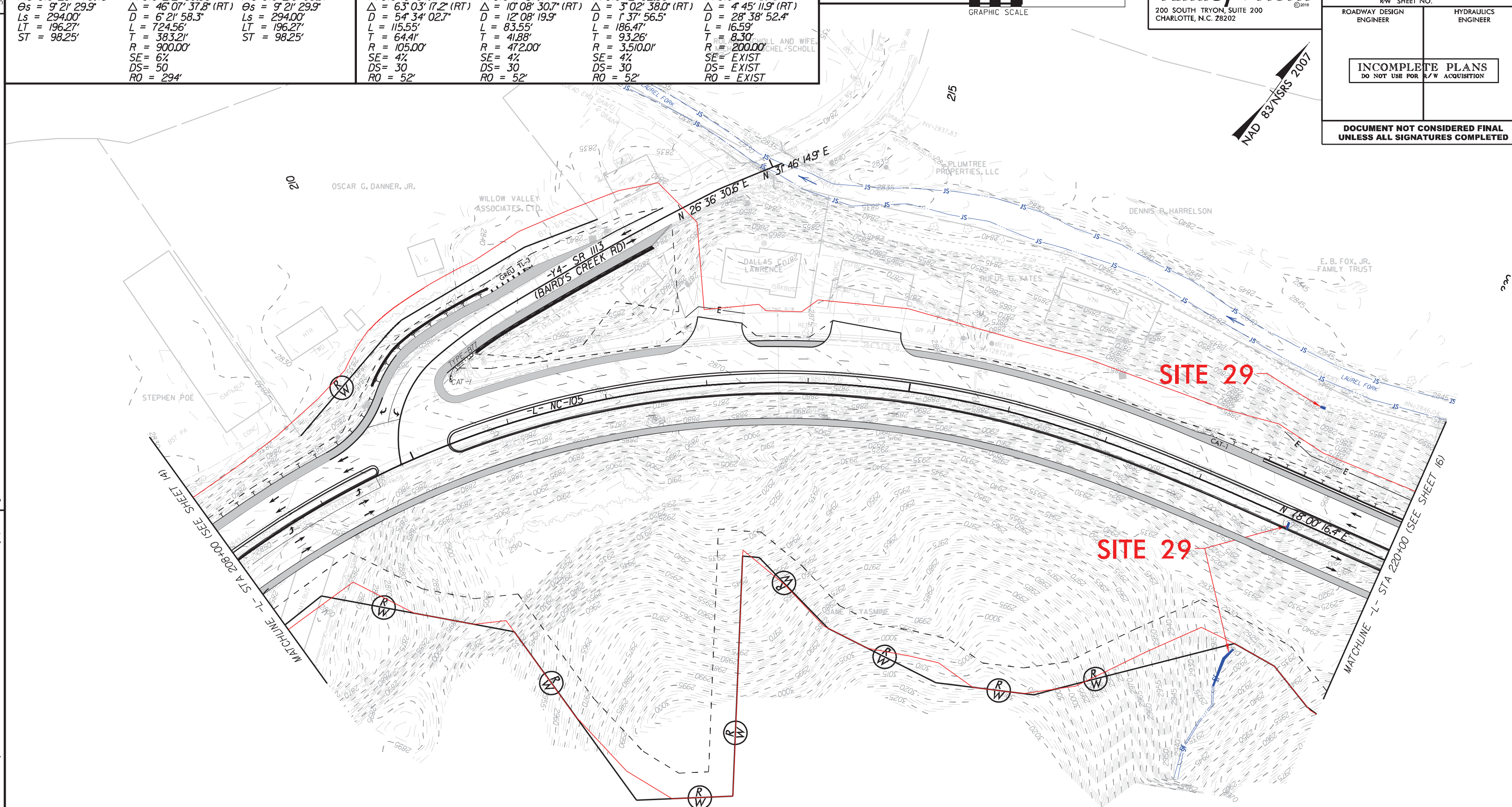

STREAM IMPACTS WITHIN SLOPE STAKES +25'*
WETLAND IMPACTS WITHIN SLOPE STAKES +25'*
POND IMPACTS WITHIN SLOPE STAKES +25'*
SLOPE STAKES +25'
*PRELIMINARY IMPACTS

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PROJECT REFERENCE NO.	SHEET NO.
R-2566B	16
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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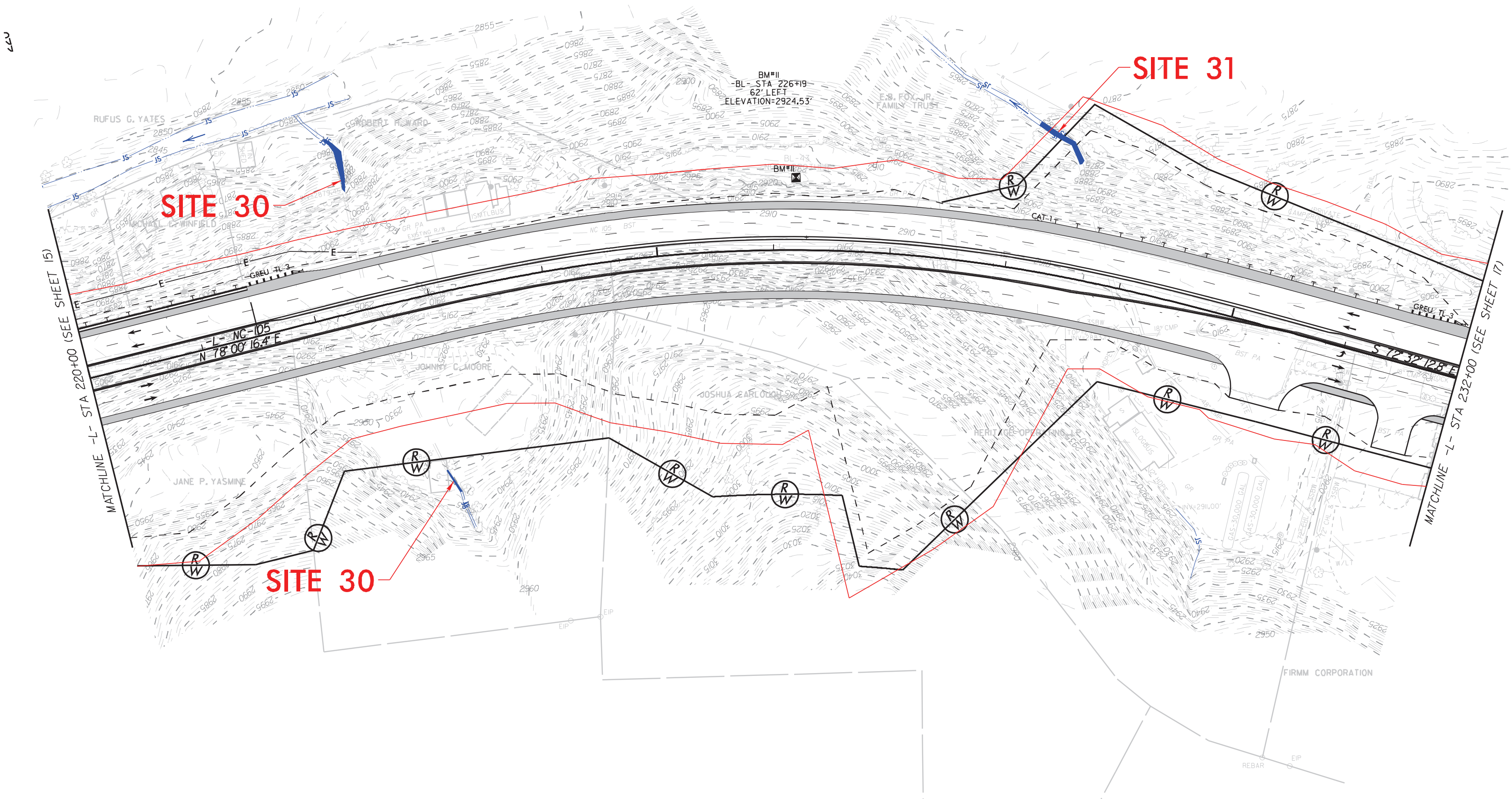
-L-

PIs Sta 223+68.86	PI Sta 226+29.18	PIs Sta 228+87.83
Θs = 7° 01' 07.4"	Δ = 15° 25' 16.0" (RT)	Θs = 7° 01' 07.4"
Ls = 294.00'	D = 4° 46' 28.7"	Ls = 294.00'
LT = 196.15'	L = 322.98'	LT = 196.15'
ST = 98.14'	T = 162.47'	ST = 98.14'
	R = 1,200.00'	
	SE = 6%	
	DS = 55	
	RO = 294'	

SEE SHEET 29 FOR -L- PROFILE



(blue)	STREAM IMPACTS WITHIN SLOPE STAKES +25'*
(green)	WETLAND IMPACTS WITHIN SLOPE STAKES +25'*
(light blue)	POND IMPACTS WITHIN SLOPE STAKES +25'*
(red line)	SLOPE STAKES +25'

*PRELIMINARY IMPACTS

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PROJECT REFERENCE NO.	SHEET NO.
R-2566B	17

R/W SHEET NO.

ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER

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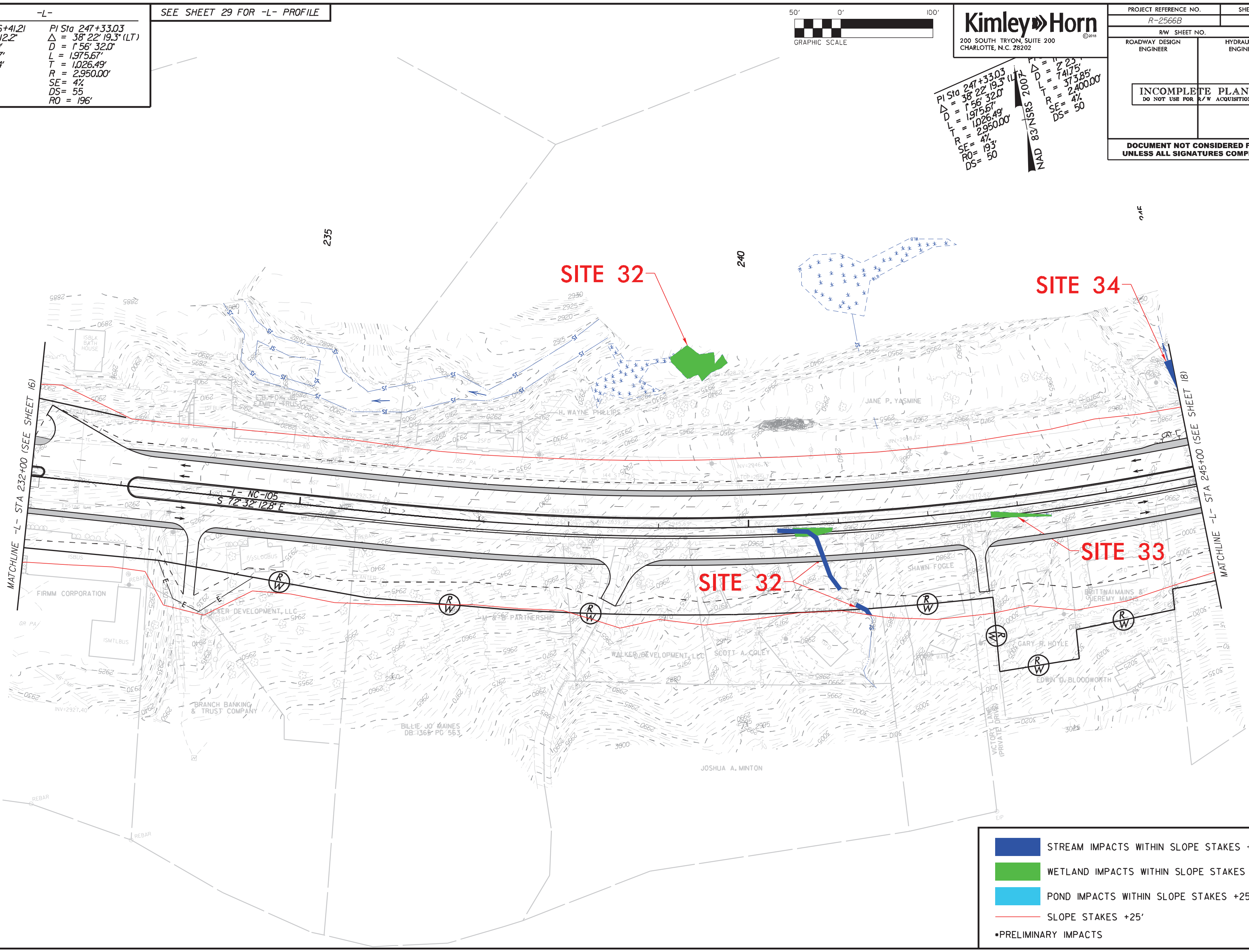
-L-

PIs Sta 236+41.21	PI Sta 247+33.03
θs = 1° 54' 12.2"	Δ = 38° 22' 19.3" (LT)
Ls = 196.00'	D = 1° 56' 32.0"
LT = 130.67'	L = 1,975.67'
ST = 65.34'	T = 1,026.49'
	R = 2,950.00'
	SE = 4%
	DS = 55
	RO = 196'

SEE SHEET 29 FOR -L- PROFILE

REVISIONS



STREAM IMPACTS WITHIN SLOPE STAKES +25'*
WETLAND IMPACTS WITHIN SLOPE STAKES +25'*
POND IMPACTS WITHIN SLOPE STAKES +25'*
SLOPE STAKES +25'
*PRELIMINARY IMPACTS

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-L-	
PI Sta 247+33.03	PI Sta 260+56.06
Δ = 38° 22′ 19.3″ (LT)	Δ = 17° 42′ 28.3″ (LT)
D = 1° 56′ 32.0″	D = 2° 23′ 14.4″
L = 1,975.67′	L = 741.75′
T = 1,026.49′	T = 373.85′
R = 2,950.00′	R = 2,400.00′
SE = 4%	SE = 4%
DS = 55	DS = 50
RO = 196′	RO = 196′

SEE SHEET 30 FOR -L- PROFILE

GRAPHIC SCALE 50′ 0′ 100′

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PROJECT REFERENCE NO.	SHEET NO.
R-2566B	18
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
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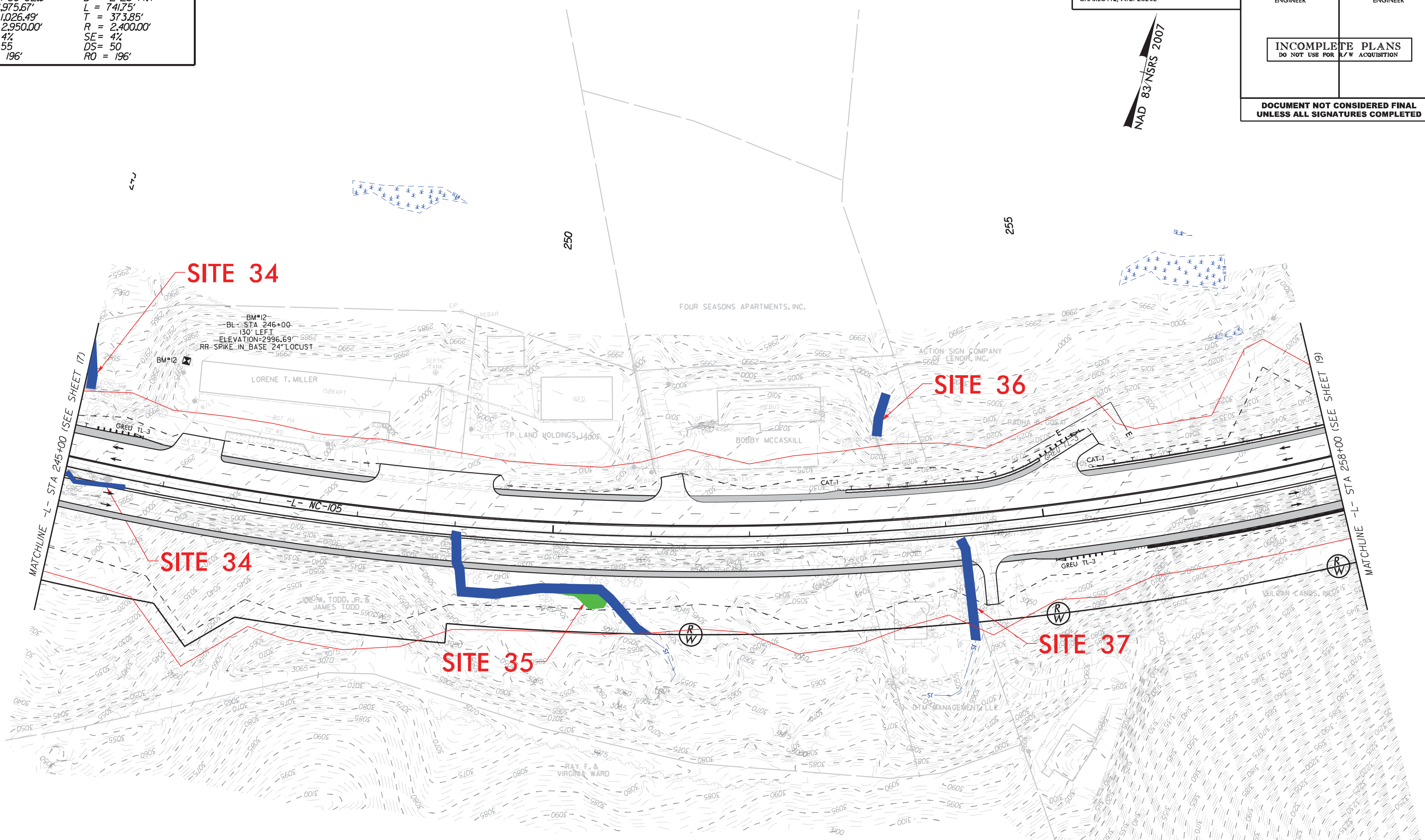

STREAM IMPACTS WITHIN SLOPE STAKES +25′*
WETLAND IMPACTS WITHIN SLOPE STAKES +25′*
POND IMPACTS WITHIN SLOPE STAKES +25′*
SLOPE STAKES +25′
*PRELIMINARY IMPACTS

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PROJECT REFERENCE NO.	SHEET NO.
R-2566B	19

R/W SHEET NO.

ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER

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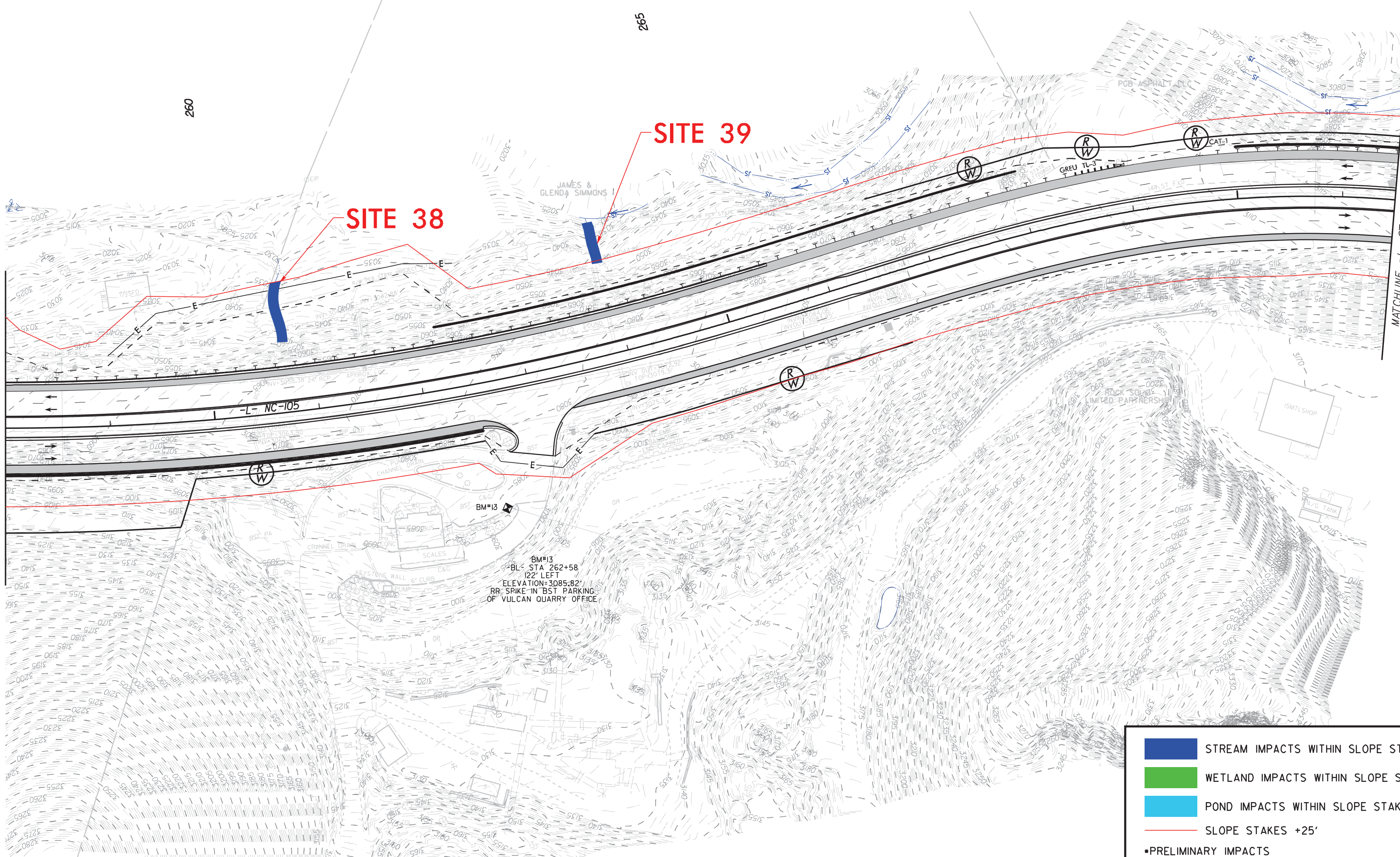
SEE SHEET 31 FOR -L- PROFILE

-L-

PI Sta 260+56.06	PIs Sta 264+89.30	PIs Sta 268+16.18	PI Sta 272+63.32
△ = 17° 42′ 28.3″ (LT)	θs = 2° 20′ 22.5″	θs = 8° 25′ 20.9″	△ = 38° 30′ 53.3″ (RT)
D = 2° 23′ 14.4″	Ls = 196.00′	Ls = 294.00′	D = 5° 43′ 46.5″
L = 741.75′	LT = 130.68′	LT = 196.22′	L = 672.21′
T = 373.85′	ST = 65.34′	ST = 98.20′	T = 349.36′
R = 2,400.00′			R = 1,000.00′
SE = 4%			SE = 6%
DS = 50			DS = 50
RO = 196′			RO = 294′



STREAM IMPACTS WITHIN SLOPE STAKES +25′*
WETLAND IMPACTS WITHIN SLOPE STAKES +25′*
POND IMPACTS WITHIN SLOPE STAKES +25′*
SLOPE STAKES +25′
*PRELIMINARY IMPACTS

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-L-

PI Sta 272+63.32
Δ = 38° 30' 53.3" (RT)
D = 5° 43' 46.5"
L = 672.21'
T = 349.36'
R = 1,000.00'
SE = 6%
DS = 50
RO = 294'

PIs Sta 276+84.37
Θs = 8° 25' 20.9"
Ls = 294.00'
LT = 196.22'
ST = 98.20'

SEE SHEET 32 FOR -L- PROFILE

50' 0' 100'
GRAPHIC SCALE

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CHARLOTTE, N.C. 28202

PROJECT REFERENCE NO.	SHEET NO.
R-2566B	20

R/W SHEET NO.

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

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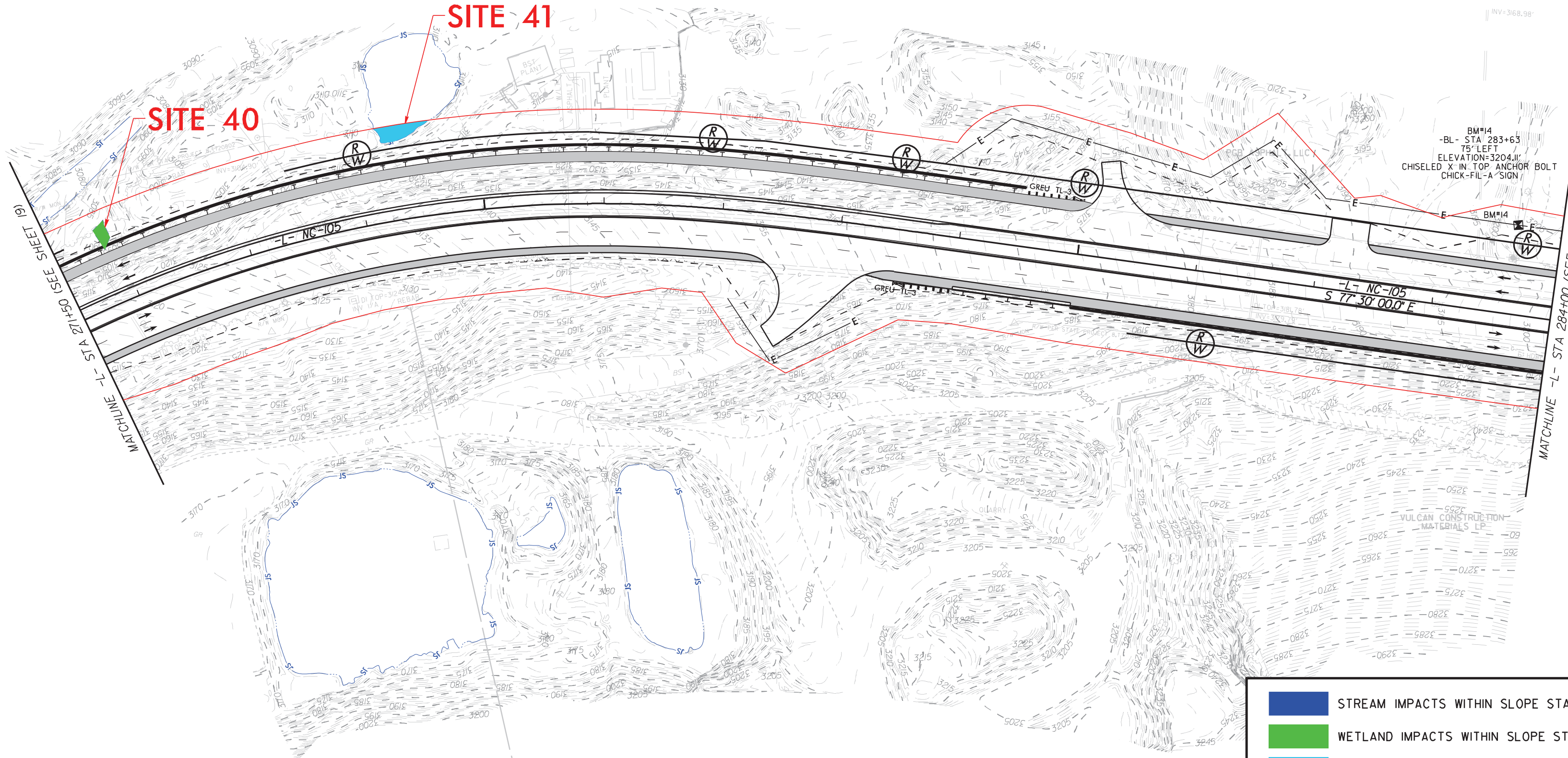

STREAM IMPACTS WITHIN SLOPE STAKES +25'*

WETLAND IMPACTS WITHIN SLOPE STAKES +25'*

POND IMPACTS WITHIN SLOPE STAKES +25'*

SLOPE STAKES +25'

*PRELIMINARY IMPACTS

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4/11/2019

5/14/99

REVISIONS

-L-

PIs Sta 289+92.17	PI Sta 293+19.90	PIs Sta 296+45.39
Θs = 2° 26' 28.7"	Δ = 13° 01' 02.7" (LT)	Θs = 2° 26' 28.7"
Ls = 196.00'	D = 2° 29' 28.0"	Ls = 196.00'
LT = 130.68'	L = 522.55'	LT = 130.68'
ST = 65.34'	T = 262.41'	ST = 65.34'
	R = 2,300.00'	
	SE = 4%	
	DS = 50	
	RO = 196'	

SEE SHEET 33 FOR -L- PROFILE

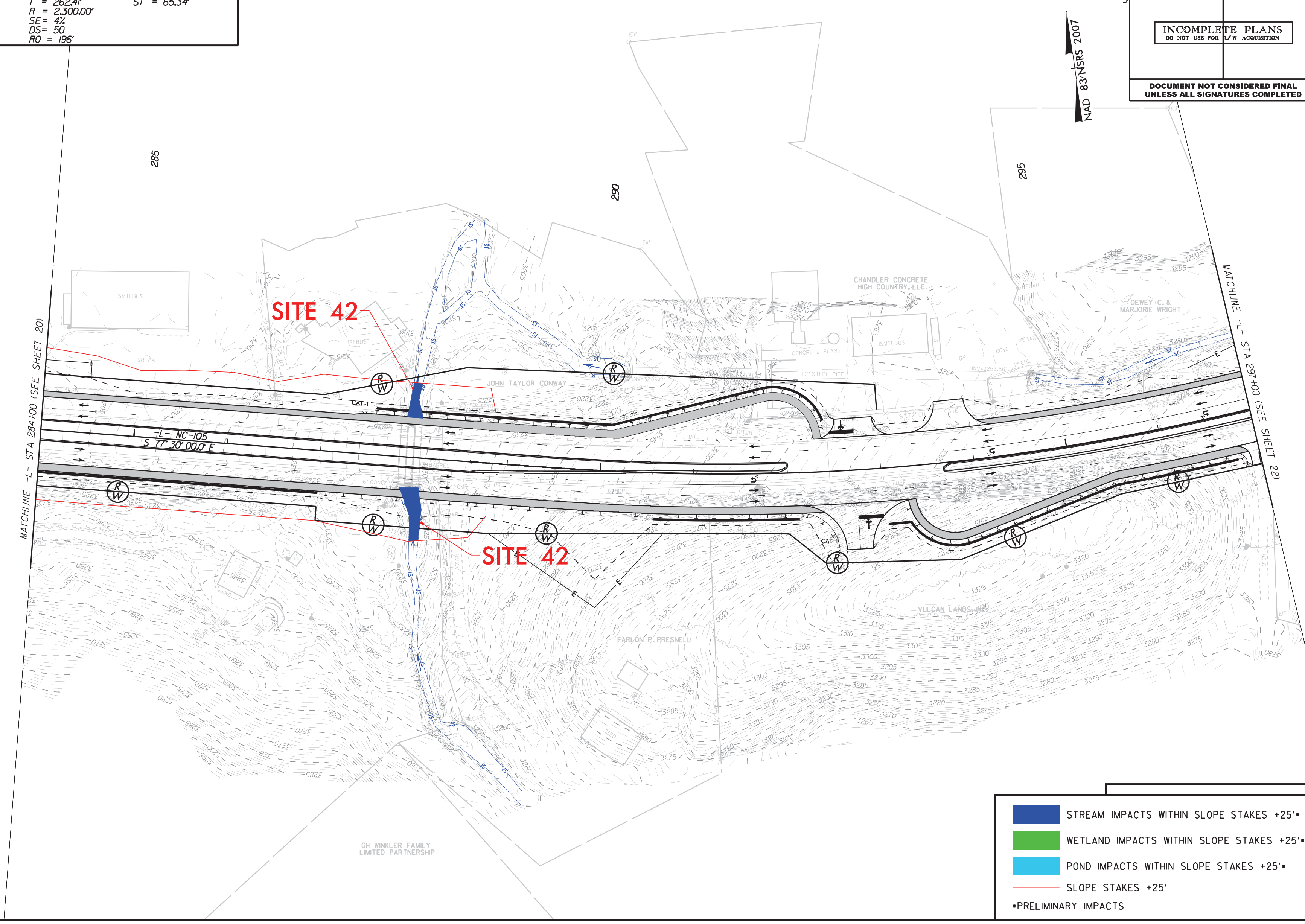
50' 0' 100'
GRAPHIC SCALE

Kimley»Horn
200 SOUTH TRYON, SUITE 200
CHARLOTTE, N.C. 28202

PROJECT REFERENCE NO.	SHEET NO.
R-2566B	21
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



STREAM IMPACTS WITHIN SLOPE STAKES +25'*
WETLAND IMPACTS WITHIN SLOPE STAKES +25'*
POND IMPACTS WITHIN SLOPE STAKES +25'*
SLOPE STAKES +25'
*PRELIMINARY IMPACTS

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4/11/2019

R-2566B Prelimary Permit Impact Summary Table					
Plan Sheet Number	Station (To/From)	Site Identifier	Wetland Impacts Within Slope Stakes +25' (Acres)	Stream Impacts Within Slope Stakes +25' (Linear Feet)	Pond Impacts Within Slope Stakes +25' (Acres)
4	68+74/70+81 -L- RT	1A	0.09		
4	68+74/70+81 -L- RT	1A		235	
4	71+87/72+15 -L- LT	1B	< 0.01		
4	71+27/71+51 -L- LT	1B		25	
4	71+78/72+36 -L- LT	1B		40	
4	13+48 RT/13+97 LT -Y1-	1		134	
4	76+68/76+83 -L- RT	1		29	
4	17+78/19+54 -Y1- RT	2	0.02		
4	17+78 LT/19+54 RT -Y1-	3	0.04		
5	86+77/87+09 -L- LT	4		62	
5	85+79/86+50 -L- RT	4		81	
5	88+84/89+09 -L- LT	5		51	
5	89+09/89+39 -L- RT	5		43	
5	17+97/18+08 -Y1- LT	6		38	
5	17+99/18+48 -Y1- RT	6		57	
5	10+95/11+16 -Y2- LT	7		47	
5	10+74/11+43 -Y2- RT	7	0.02	28	
5	26+37/28+99 -Y1- RT	8		241	
6	105+88/106+72 -L- LT	9		101	
6	106+69/107+23 -L- RT	9		62	
6	108+13/108+34 -L- LT	10		50	
7	110+43/111+03 -L- RT	10	0.01	27	
7	117+20/118+98 -L- LT	11	0.02		
7	118+51/119+34 -L- LT	11		132	
8	124+80/124+97 -L- LT	12		46	
8	124+48/124+85 -L- RT	12		47	
8	125+03/127+06 -L- LT	13	0.03		
8	126+68/126+87 -L- LT	14		26	
8	127+02/127+22 -L- LT	15		40	
8	129+76/130+23 -L- LT	16		76	
8	129+98/130+23 -L- RT	16		59	
8	130+64/130+97 -L- LT	17	< 0.01		
8	131+23/133+13 -L- LT	17	0.08		
8	131+90/132+08 -L- RT	18		42	
8	133+78/133+97 -L- LT	19		16	
8	133+88/134+02 -L- LT	19		19	
8	134+01/134+49 -L- RT	19		55	
9	144+93/146+67 -L- LT	20	0.06	42	
9	147+75/148+53 -L- LT	21		130	
9	147+65/148+31 -L- RT	21		112	
10	158+28/158+76 -L- LT	22	Impacts Previously Accounted for on R-2566BA Project		
12	171+33/171+72 -L- LT	23	Impacts Previously Accounted for on R-2566BA Project		
12	171+39/171+66 -L- RT	23	Impacts Previously Accounted for on R-2566BA Project		
12	171+84/172+10 -L- LT	24	Impacts Previously Accounted for on R-2566BA Project		
12	172+30/172+63 -L- RT	24	Impacts Previously Accounted for on R-2566BA Project		
13	190+05/190+36 -L- LT	25		72	
13	190+49/190+99 -L- RT	25		145	
14	197+08/197+23 -L- LT	26		50	
14	197+11/197+27 -L- RT	26		102	
14	200+98/202+38 -L- RT	27		190	
14	201+14/202+51 -L- RT	27	0.03		
14	201+94/202+50 -L- LT	27		58	
14	202+93/203+47 -L- LT	28		50	
15	218+97/219+00 -L- RT	29		9	
15	218+80/218+86 -L- LT	29		3	
15	218+93/218+99 -L- LT	29		42	
16	222+43/222+55 -L- LT	30		51	
16	222+81/222+91 -L- RT	30		22	
16	228+09/228+50 -L- LT	31		52	
17	239+13/239+81 -L- LT	32	0.03		
17	240+31/241+00 -L- RT	32		110	
17	240+48/240+94 -L- RT	32	< 0.01		
17	241+12/241+31 -L- RT	32		20	
17	242+69/243+37 -L- RT	33	< 0.01		
17/18	244+91/245+12 -L- LT	34		50	
18	244+99/245+63 -L- RT	34		65	
18	248+96/251+04 -L- RT	35		268	
18	249+79/250+59 -L- RT	35	0.02		
18	253+30/253+54 -L- LT	36		45	
18	254+09/254+25 -L- RT	37		105	
19	260+62/260+78 -L- LT	38		59	
19	263+85/263+97 -L- LT	39		40	
20	271+85/271+97 -L- LT	40	< 0.01		
20	274+19/274+63 -L- LT	41			< 0.01
21	287+86/288+13 -L- RT	42		60	
21	287+89/288+09 -L- LT	42		38	
Additional (*)			0.10	200	
TOTAL			**0.57**	**4099**	**0.01**

* = Additional stream impacts included to account for potential new outfall locations into Watauga River and Laurel Fork.
Additional wetland impacts included to account for minor potential impacts throughout the corridor beyond the 25' offset from slope stakes.