COST ESTIMATES



SUMMARY

The following pages are the individual cost estimates of the project. Below are summary tables of the individual costs as presented in the DEIS.

Estimated Construction Costs (as of April 2016)

	6-Lane Widening Alternative	8-Lane Widening Alternative	Hybrid 6/8-Lane Widening Alternative
I-4400	215,000,000	287,600,000	243,300,000
I-4700	149,800,000	196,900,000	196,900,000
Total Cost	\$364,800,000	\$484,500,000	\$440,200,000

Estimated Utility Cost (as of June 2015)

	6-Lane Widening Alternative	8-Lane Widening Alternative	Hybrid 6/8-Lane Widening Alternative
I-4400/I-4700	4,940,664	6,213,704	5,161,501
US 25 Interchange	68,096	68,096	68,096
Total Cost	\$5,008,760	\$6,281,800	\$5,229,597

Estimated Right of Way Cost (as of February 2016)

	6-Lane Widening Alternative		8-Lane Widening Alternative		Hybrid 6/8-Lane Widening Alternative	
	Type	Cost (\$)	Type	Type Cost (\$)		Cost (\$)
	R - 2	40,000	R - 13	260,000	R - 8	160,000
I-4400/	B - 0		B - 1	25,000	B - 0	
I-4700	L, I, & D	4,675,000	L, I, & D	7,265,000	L, I, & D	3,775,000
	ACQ	585,000	ACQ	1,200,000	ACQ	840,000
	TOTAL	5,300,000	TOTAL	8,750,000	TOTAL	4,775,000
	R - 10	400,000	R - 10	400,000	R - 10	400,000
110.35	B - 1	75,000	B - 1	75,000	B - 1	75,000
US 25 Interchange	L, I, & D	3,928,500	L, I, & D	4,631,500	L, I, & D	3,931,500
interchange	ACQ	125,000	ACQ	135,000	ACQ	130,000
	TOTAL	4,528,500	TOTAL	4,631,500	TOTAL	4,536,500
	R - 12	440,000	R - 23	660,000	R - 18	560,000
I-4400/	B - 1	75,000	B - 2	100,000	B - 1	75,000
I-4700 + US 25	L, I, & D	8,603,500	L, I, & D	11,896,500	L, I, & D	7,706,500
Interchange	ACQ	710,000	ACQ	1,335,000	ACQ	970,000
	TOTAL	\$9,828,500	TOTAL	\$13,381,500	TOTAL	\$9,311,500

R - Residential Relocatees

ACQ - Acquisition



B - Business Relocatees

L, I, & D - Land, Improvements, and Damages

NC-DOT Contract Standards and Development Unit Preliminary Estimate Section

April 25, 2016

FUNC

Memo To: Steve Kendall, PE

Project Design Engineer

From: Doug Lane

Preliminary Estimate Engineer

Subject: Construction Alternatives for I-4400 / 4700, in Henderson and Buncombe Counties.

<u>I-4400</u>

TIP NUMBER	LENGTH (Miles)	CONSTR.COST (6-Lanes)	CONSTR.COST (8-Lanes)	CONSTR.COST (Hybrid 6/8 Lns)
I-4400A	5.10	\$72,400,000	\$93,000,000	\$72,400,000
I-4400B	5.80	\$78,100,000	\$110,800,000	\$78,100,000
I-4400C	3.30	\$64,500,000	\$83,800,000	\$83,800,000
1-4400	14.20	\$215,000,000	\$287,600,000	\$234,300,000

cc: Kevin Moore, PE

Note: Right-of-Way, and R/W Utilities are not included.

NC-DOT Contract Standards and Development Unit Preliminary Estimate Section

April 25, 2016

FUNC

Memo To: Steve Kendall, PE

Project Design Engineer

From: Doug Lane

Preliminary Estimate Engineer

Subject: Construction Alternatives for I-4400 / 4700, in Henderson and Buncombe Counties.

<u>I-4700</u>

TIP NUMBER	LENGTH (Miles)	CONSTR.COST (6-Lanes)	CONSTR.COST (8-Lanes)	CONSTR.COST (Hybrid 8 Lns)
I-4700A	3.10	\$52,400,000	\$73,700,000	\$73,700,000
I-4700B	3.90	\$97,400,000	\$123,200,000	\$123,200,000
I-4700	7.00	\$149,800,000	\$196,900,000	\$196,900,000

cc: Kevin Moore, PE

Note: Right-of-Way, and R/W Utilities are not included.

UTILITY ESTIMATE WORKSHEET

TIP No: I-4400/I-4700 WBS Element No: 36030.1.2

State Project No:

Fed. Project No: NHF-26-1(62)23 County: Buncombe/Henderson

Description: I-26 Improvements from US 25 in Henderson County to I-40 in Buncombe County

Field Inspection - Evidence of Utilities

Gas: Yes Electric: Yes Telephone: Yes CATV: Yes Water: Yes Sewer: Yes Drainage: Yes Other: No

Anticipated Relocation

Gas: Yes Electric: Yes Telephone: Yes CATV: Yes Water: Yes Sewer: Yes Drainage: Yes Other: No

Summary: I-4400/I-4700 6 Lane Alternative

Requesting Party: Mr. Undrea Major/PDEA

Relocation Totals		Construction Total		Alternate Totals	
Power Poles:	\$3,190,902.00	Power Poles:		Relocation Total	\$3,818,306.00
Power Items:		Power Items:		Construction Total	\$1,122,358.00
Telephone Poles	\$83,504.00	Telephone Poles		Alternate Total	\$4,940,664.00
Telephone Items		Telephone Items			
Gas Line: Gas Items:	\$543,900.00	Gas Line: Gas Items:			
Water Line:		Water Line:	\$647,900.00		
Water Items:		Water Items:	\$136,058.00		
Sewer Line:		Sewer Line:	\$232,000.00		
Sewer Items:		Sewer Items:	\$106,400.00		
Misc.Items:		Misc.Items:			

Summary: I-4400/I-4700 Hybrid Alternative

Requesting Party: Mr. Undrea Major/PDEA

Estimate Date: June 12, 2015

Relocation Totals		Construction Total		Alternate Totals	
Power Poles:	\$3,336,825.00	Power Poles:		Relocation Total	\$4,050,477.00
Power Items:		Power Items:		Construction Total	\$1,111,024.00
Telephone Poles	\$103,152.00	Telephone Poles		Alternate Total	\$5,161,501.00
Telephone Items		Telephone Items			
Gas Line:	\$610,500.00	Gas Line:			
Gas Items:		Gas Items:			
Water Line:		Water Line:	\$582,950.00		
Water Items:		Water Items:	\$153,706.00		
Sewer Line:		Sewer Line:	\$255,200.00		
Sewer Items:		Sewer Items:	\$119,168.00		
Misc.Items:		Misc.Items:			

Summary: I-4400/I-4700 8 Lane Alternative

Requesting Party: Mr. Undrea Major/PDEA

Relocation Totals		Construction Total		Alternate Totals	
Power Poles:	\$4,058,966.00	Power Poles:		Relocation Total	\$4,856,952.00
Power Items:		Power Items:		Construction Total	\$1,356,752.00
Telephone Poles	\$137,536.00	Telephone Poles		Alternate Total	\$6,213,704.00
Telephone Items		Telephone Items			
Gas Line:	\$660,450.00	Gas Line:			
Gas Items:		Gas Items:			
Water Line:		Water Line:	\$783,400.00		
Water Items:		Water Items:	\$167,272.00		
Sewer Line:		Sewer Line:	\$278,400.00		
Sewer Items:		Sewer Items:	\$127,680.00		
Misc.Items:		Misc.Items:			

Summary: US 25 Interchange ALT 1
Requesting Party: Mr. Undrea Major/PDEA

Estimate Date: June 12, 2015

Relocation Totals		Construction Total		Alternate Totals	
Power Poles:	\$68,096.00	Power Poles:		Relocation Total	\$68,096.00
Power Items:		Power Items:		Construction Total	\$0.00
Telephone Poles		Telephone Poles		Alternate Total	\$68,096.00
Telephone Items		Telephone Items			
Gas Line:		Gas Line:			
Gas Items:		Gas Items:			
Water Line:		Water Line:			
Water Items:		Water Items:			
Sewer Line:		Sewer Line:	\$0.00		
Sewer Items:		Sewer Items:	\$0.00		
Misc.Items:		Misc.Items:			

Summary: US 25 Interchange ALT. 2
Requesting Party: Mr. Undrea Major/PDEA

Relocation Totals		Construction Total	Alternate Totals	
Power Poles:	\$68,096.00	Power Poles:	Relocation Total	\$68,096.00
Power Items:		Power Items:	Construction Total	\$0.00
Telephone Poles		Telephone Poles	Alternate Total	\$68,096.00
Telephone Items		Telephone Items		
Gas Line:		Gas Line:		
Gas Items:		Gas Items:		
Water Line:		Water Line:		
Water Items:		Water Items:		
Sewer Line:		Sewer Line:		
Sewer Items:		Sewer Items:		
Misc.Items:		Misc.Items:		

Summary: US 25 Interchange ALT. 3
Requesting Party: Mr. Undrea Major/PDEA

Estimate Date: June 12, 2015

Relocation Totals		Construction Total	Alternate Totals	
Power Poles:	\$68,096.00	Power Poles:	Relocation Total	\$68,096.00
Power Items:		Power Items:	Construction Total	\$0.00
Telephone Poles		Telephone Poles	Alternate Total	\$68,096.00
Telephone Items		Telephone Items		
Gas Line:		Gas Line:		
Gas Items:		Gas Items:		
Water Line:		Water Line:		
Water Items:		Water Items:		
Sewer Line:		Sewer Line:		
Sewer Items:		Sewer Items:		
Misc.Items:		Misc.Items:		

Summary: US 25 Interchange ALT. 4
Requesting Party: Mr. Undrea Major/PDEA

Relocation Totals		Construction Total	Alternate Totals		
Power Poles:	\$68,096.00	Power Poles:	Relocation Total	\$68,096.00	
Power Items:		Power Items:	Construction Total	\$0.00	
Telephone Poles		Telephone Poles	Alternate Total \$68,09		
Telephone Items		Telephone Items			
Gas Line:		Gas Line:			
Gas Items:		Gas Items:			
Water Line:		Water Line:			
Water Items:		Water Items:			
Sewer Line:		Sewer Line:			
Sewer Items:		Sewer Items:			
Misc.Items:		Misc.Items:			

REQUEST FOR R/W COST ESTIMATE / RELOCATION EIS

COST E	STIMATE REQUEST RELOCATION EIS REPORT
	DATE RECEIVED: DATE ASSIGNED: DATE DUE:
	NEW REQUEST: UPDATE REQUEST: REVISION REQUEST:
TIP	DESCRIPTION: Improvement of I-26 fro US 25 in Henderson Co. to I-40
NUMBER	
<u>I-4400/</u>	
<u>I-4700</u>	
WBS ELEM	ENT: 34232.1.1 COUNTY: Buncombe / Henderson DIV: 13 APPRAISAL OFFICE: 5
REQUESTO	R: <u>Undrea Major</u> DEPT: <u>PDEA</u>
BASED ON	PAST PROJECT HISTORICAL DATA, THE LAND AND DAMAGE FIGURES HAVE BEEN ADJUSTED
TO INCLUDE	E CONDEMNATION AND ADMINISTRATIVE INCREASES THAT OCCUR DURING SETTLEMENT OF
ALL PARCEL	S.

APPRAISER: J. Wynne / D. Page COMPLETION DATE: 06/03/2015 TRANSMITTED: 06/16/15

	6-Lane Alt		8-Lane Alt		Hybrid Alt	
TYPE OF ACCESS:			NONE: LIMITED: PARTIAL: FULL:		NONE: LIMITED: PARTIAL: FULL:	
ESTIMATED NO. OF PARCELS:		78		160	112	
RESIDENTIAL RELOCATEES:	2 \$40,000		13	\$260,000	8	\$160,000
BUSINESS RELOCATEES:	1	\$25,000	1	\$25,000	-	\$-
GRAVES:	-	\$-	-	\$ -	-	\$-
CHURCH / NON – PROFIT:	-	\$-	-	\$-	-	\$ -
FARMS:	-	\$-	-	\$ -	-	\$-
MISC:	-	\$-	-	\$ -	-	\$-
SIGNS:	-	\$-	-	\$-	-	\$-
LAND, IMPROVEMENTS, AND DAMAGES:	\$9,675,000		\$7,265,000		\$3,775,000	
ACQUISTION:	\$585,000		\$1,200,000		\$840,000	
TOTAL ESTIMATED R/W COST:	\$:	10,325,000	\$8,750,000		\$4,775,000	

THE ESTIMATED NUMBER OF ABOVE RELOCATEES INCLUDES THOSE PARCELS WHERE THE PROPOSED ACQUISITION AREAS INVOLVE RELOCATION OF LIVABLE OR BUSINESS UNITS ONLY.

THERE ARE NO FIGURES FOR UTILITY INVOLVEMENT ON THIS ESTIMATE / RELOCATION EIS REPORT AND NO PUE'S, AUE'S NOR DUE'S UNLESS DEPICTED ON PLANS FURNISHED.

NOTES: This is a revision of an estimate previously submitted 02/03/2015.

Kat Bukowy

From: Page, Daniel C <dcpage@ncdot.gov>
Sent: Monday, December 07, 2015 2:00 PM

To: Kat Bukowy

Subject: RE: STIP I-4400/I-4700 RW Estimate Question

Kat,

The additional cost for the six lane alternative is primarily in the acquisition of the Courtyard Hotel improvements (\$5,000,000). The other difference would be if there are changes in land area acquisition (\$50,000) in the vicinity of the hotel. Hopefully this answers your question....please contact me if you require further information.

Daniel

Daniel C. Page NC Certified General Appraiser A7265

NCDOT Appraisal Review Area 5 Appraisal Office Asheville, North Carolina 828-274-8449

We only do well the things we like doing......





From: Kat Bukowy [mailto:kbukowy@HNTB.com]
Sent: Monday, December 07, 2015 12:14 PM

To: Wynne, James R; Page, Daniel C **Cc:** White, Sarah D; Jennifer Harris

Subject: STIP I-4400/I-4700 RW Estimate Question

Good afternoon,

Upon further refinement of the design for I-4400/I-4700, we have determined that the Courtyard hotel (356-360 Rockwood Rd, Arden) can be avoided in the 6-lane widening of I-26. Can you please tell me the right of way cost that was added to the 6-lane alternative and not included in the 8-lane alternative? Please see the attached June 2015 Cost Estimate for reference.

This is a separate request from the pending US 25 interchange area relocation and right of way cost estimate request. Please let me or Jennifer Harris (cc'd) know if you have any questions.

Regards,

Kat Bukowy

Kat Bukowy, AICP

HNTB North Carolina, P.C.

343 E. Six Forks Road, Suite 200, Raleigh, NC 27609 | www.hntb.com

100+ YEARS OF INFRASTRUCTURE SOLUTIONS

This e-mail and any files transmitted with it are confidential and are intended solely for the use of the individual or entity to whom they are addressed. If you are NOT the intended recipient and receive this communication, please delete this message and any attachments. Thank you.

Email correspondence to and from this sender is subject to the N.C. Public Records Law and may be disclosed to third parties.

REQUEST FOR R/W COST ESTIMATE / RELOCATION EIS							
COST E	STIMATE REQ	UEST 🖂 RELO	CATION EIS REPORT 🖂				
NEW I	REQUEST:	UPDATE REQUEST: Update to Estimate	REVISION REQUEST: Revision to 06/03/15 Estimate Revision No.: 3rd				
DATE	RECEIVED: <u>11/16/15</u>	DATE ASSIGNED: <u>11/16/15</u>	# of Alternates Requested: <u>3</u>				
	DATE D	UE: <u>12/11/15 Extension: (</u>	01/29/16				
TIP	DESCRIPTION: 1-26 W	idening					
NUMBER							
<u> 1-4400/</u>	Revised request to Jun	e estimate. An addition based on nev	v impacts beyond the original impacts				
<u>I-4700</u>	estimated in June.						
WBS ELEME	:NT: <u>34232.1.1</u> COUNTY	: <u>Henderson/Buncombe</u> DIV: <u>14,13</u>	APPRAISAL OFFICE: <u>5</u>				
REQUESTOR	R: <u>John Williams</u> DEPT: PI	<u>DEA</u>					
TYPE OF PLA	ANS PROVIDED:						
BASED ON	PAST PROJECT HISTOR	ICAL DATA, THE LAND AND DAMA	GE FIGURES HAVE BEEN ADJUSTED				
TO INCLUDE CONDEMNATION AND ADMINISTRATIVE INCREASES THAT OCCUR DURING SETTLEMENT OF							
ALL PARCELS	S.						
APPRAISER: <u>I</u>	D. Page COMPLETED: 0:	1/29/16 # of Alternates Completo	ed: <u>3</u>				

	6-Lane w/loops		8-Lane w/loops		6/8 Lane Hybrid w/loops	
TYPE OF ACCESS:	NONE PART		NONE: PARTIAL:	LIMITED: FULL:	NONE PARTI	
ESTIMATED NO. OF PARCELS:	25		27		26	
RESIDENTIAL RELOCATEES:	10	\$400,000	10	\$400,000	10	\$400,000
BUSINESS RELOCATEES:	1	\$75,000	1	\$75,000	1	\$75,000
GRAVES:	•	\$ -	-	\$-	•	\$-
CHURCH / NON – PROFIT: <u>-</u>	•	\$ -	-	\$-	•	\$-
MISC: <u>-</u>	•	\$ -	-	\$-	•	\$-
SIGNS:	•	\$-	-	\$-	-	\$-
LAND, IMPROVEMENTS, AND DAMAGES:	,	3,928,500	\$4,021,500		\$3,931,500	
ACQUISTION:	\$125,000		\$135,000		\$130,000	
TOTAL ESTIMATED R/W COST:	\$4,528,500		\$4,631,500		\$4,536,500	

THE	ESTIMATED	NUMBER C	F ABOVE	RELOCATEES	INCLUDES	THOSE	PARCELS	WHERE	THE
PRO	POSED ACQL	JISITION ARI	EAS INVOL	VE RELOCATIO	N OF LIVAB	LE OR B	USINESS U	NITS ONL	_Y.

ALO:		
	TES:	
	ILJ.	

REQUEST FOR R/W COST ESTIMATE / RELOCATION EIS

COST E	STIMATE REQUEST RELOCATION EIS REPORT
	DATE RECEIVED: DATE ASSIGNED: DATE DUE:
	NEW REQUEST: ☐ UPDATE REQUEST: ☐ REVISION REQUEST: ☐
TIP	DESCRIPTION: Improvement of I-26 fro US 25 in Henderson Co. to I-40
NUMBER	
<u>I-4400/</u>	
<u>I-4700</u>	
WBS ELEMI	ENT: 34232.1.1 COUNTY: Buncombe / Henderson DIV: 13 APPRAISAL OFFICE: 5
REQUESTO	R: <u>Undrea Major</u> DEPT: <u>PDEA</u>
BASED ON	PAST PROJECT HISTORICAL DATA, THE LAND AND DAMAGE FIGURES HAVE BEEN ADJUSTED
TO INCLUDI	E CONDEMNATION AND ADMINISTRATIVE INCREASES THAT OCCUR DURING SETTLEMENT OF
ALL PARCEL	S.

APPRAISER: J. Wynne / D. Page COMPLETION DATE: 06/03/2015 TRANSMITTED: 06/16/15*

^{*}See email from D. Page on 12/7/15

	6-Lane Alt		8-Lane Alt		Hybrid Alt	
TYPE OF ACCESS:	NONE: PARTIAL	LIMITED:	NONE: LIMITED: PARTIAL: FULL:		NONE: LIMITED: PARTIAL: FULL:	
ESTIMATED NO. OF PARCELS:		78		160	112	
RESIDENTIAL RELOCATEES:	2	2 \$40,000		\$260,000	8	\$160,000
BUSINESS RELOCATEES:	•	\$ -	1	\$25,000	-	\$-
GRAVES:	-	\$-	-	\$ -	-	\$-
CHURCH / NON – PROFIT:	-	\$-	-	\$ -	-	\$-
FARMS:	-	\$-	-	\$ -	-	\$-
MISC:	-	\$-	-	\$-	-	\$-
SIGNS:	-	\$-	-	\$ -	-	\$-
LAND, IMPROVEMENTS, AND DAMAGES:	\$4,675,000		\$7,265,000		\$3,775,000	
ACQUISTION:	\$585,000		\$1,200,000		\$840,000	
TOTAL ESTIMATED R/W COST:	\$	5,300,000	\$8,750,000		\$4,775,000	

THE ESTIMATED NUMBER OF ABOVE RELOCATEES INCLUDES THOSE PARCELS WHERE THE PROPOSED ACQUISITION AREAS INVOLVE RELOCATION OF LIVABLE OR BUSINESS UNITS ONLY.

THERE ARE NO FIGURES FOR UTILITY INVOLVEMENT ON THIS ESTIMATE / RELOCATION EIS REPORT AND NO PUE'S, AUE'S NOR DUE'S UNLESS DEPICTED ON PLANS FURNISHED.

NOTES: This is a revision of an estimate previously submitted 02/03/2015.