North Carolina department of transportation

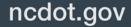
NCDOT Project Development Timeline

Rob Hanson, P.E. Eastern Project Development Section Head

October 16, 2014



- How do concurrence points fit into the overall process?
- Why is it important to reach concurrence on schedule?
- Requests for additional information or study...How does this affect NCDOT?
- What happens between concurrence points?





• OVERALL PROCESS





Long-Range Planning

ncdot.gov



Strategic Highway Corridors



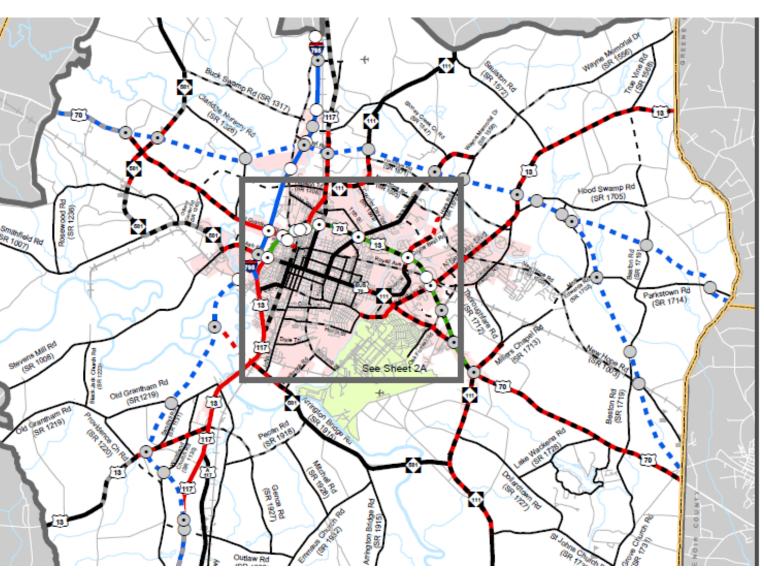


ibit 1

Strategic Transportation Corridors









Goldsboro Metropolitan Planning Organization

Comprehensive Transportation Plan Plan Date: August 13, 2009 Freeways Existing Needs Improvement Recommended Expressways Existing ... Needs Improvement Recommended Boulevards Existing Needs Improvement Recommended Other Major Thoroughfares Existing Needs Improvement Recommended Minor Thoroughfares Existing Needs Improvement Recommended Existing Interchange Proposed Interchange









Programming (funding)

- NEPA/SEPA (Planning/Environmental Document)
- Design
- Right of Way
- Construction

North Carolina

nca	OT ($a \cap v$
ncd		uuv
		9

DIVISION	2	TYPE OF WORK / ESTIMATED COST IN THOUSAND: FISCAL YEARS																			
					TOTAL PRO					STAT	e transpoi	RTATION IMPRO	VEMENT PROC	GRAM							
		ID			PROJ YEA COST CO				5 YEAR WOR	K PROGR	АМ				DEVELOPI	MENTA	L PROGRA	М			
COUNTY	ROUTE/CITY	NUMBER	LOCATION / DESCRIPTION	LENGTH	(THOU) (THO		FUNDS FY	2013 FY 2	014 FY 2	015	FY 2016	FY 2017	FY 2018	FY 201	9 FY 202	20	FY 2021	FY	2022	FY 2	023
RURAL PROJEC JONES ONSLOW	US 17	R-2514*	MULTI-LANES NORTH OF JACKSONVILLE TO NEW BERN BYPASS. WIDEN TO MULTI- LANES WITH BYPASSES OF BELGRADE, MAYSVILLE AND POLLOCKSVILLE ON NEW LOCATION.	22.1	233662 34	T T T T T T A B C D	U R MULTI-LANE SOUTH OF B NORTH OF M SOUTH OF N	SECTION NORTH ELGRADE TO NOR AYSVILLE TO SOU C 58 TO THE NEW	OF JACKSONVILL RTH OF MAYSVILL JTH OF NC 58	550 C	C 17550 C	C 14000 B	C 14000	3 C 14000							
FEDERAL BRID	GE PROJECTS SR 1301	B-4563	REPLACE BRIDGE NO. 6 OVER BIG		1494	9 N	LANNING/DESIG	N IN PROGRESS						R 13	5		+ +			1 1	
	(PINE STATE ROAD)		CHINQUAPIN CREEK.				FA								C 67	5	C 675				
JONES	SR 1130 (CDOMBS FORKS ROAD)	B-5547	REPLACE BRIDGE NO. 38 OVER LITTLE CHINQUAPIN BRANCH.		335		FA R FA	15 C	320												\pm
HAZARD ELIMI JONES	NATION PROJECTS US 17	W-5330	SOUTH OF SR 1002 (WISE FORK ROAD) NORTHWEST TO SOUTH OF SR 1367 (TRENT FARMS ROAD). IMPROVE SUPERELEVATION, OVERLAY PAUEMENT, INSTALL OUTSIDE RUMBLE STRIPES, SNOWPLOWABLE MARKERS AND INSTALL THERMOPLASTIC PAVEMENT MARKINGS.		470	470															
RURAL PROJEC	CTS NC 148 (FELIX HARVEY PARKWAY)	R-2719	US 70 TO NC 58 IN KINSTON. MULTI-LANES ON NEW LOCATION.	8.4	117267 117	267 A AJ BJ	A PAVING OF U A US 258 TO SE	258 - COMPLETE IS 70 US 258 - R 1572 (ROUSE RO JSE ROAD) TO NC	UNDER CONSTRU AD) - COMPLETE												
LENOIR WAYNE	US 70 (GOLDSBORO BYPASS)	R-2554*	WEST OF NC 581 IN WAYNE COUNTY TO EAST OF SR 1323 (PROMISE LAND ROAD) IN LENOIR COUNTY. FOUR LANE DIVIDED FREEWAY ON NEW LOCATION.	20.5	357627 255	817 N T N B B C	UNDERSTOF NC WEST OF NC A EAST OF SR B EAST OF SR WEST OF SR	7545 BA CG 7 3935 A C 23 581 TO EAST OF 5 1300 (SALEM CHU 1556 (WAYNE MEM	SR 1300 (SALEM C RCH ROAD) TO E MORIAL DRIVE) TO AD) TO EAST OF S	125 D CHURCH R AST OF SR D WEST OF SR 1323 (PF	OAD) - UNDER R 1556 (WAYNE F SR 1714 (CRE ROMISE LAND	CG 7545 BA CONSTRUCTION MEMORIAL DRIVE EK ROAD) - UNDER ROAD) - UNDER C	R CONSTRUCTION								
LENOIR	US 70 (KINSTON BYPASS)	R-2553*	FOUR LANE DIVIDED FREEWAY ON NEW LOCATION.	12.4	182853 2	293 T T T	NDER CONSTRU	CTION - SECTION	BA - GARVEE BO	ND FUNDIN	IG \$68.8 MILLIO	DN; PAYBACK FY	2008 - FY 2019; F	PLANNING/DES	IGN IN PROGRES	0	U 480 R 4900			C 42	2450







- Scheduling
- Expectation of delivery
 - National...Congress Map-21
 - State Goals



H. R. 4348

One Hundred Twelfth Congress of the United States of America

AT THE SECOND SESSION

Begun and held at the City of Washington on Tuesday, the third day of January, two thousand and twelve

An Act

To authorize funds for Federal-aid highways, highway safety programs, and tr programs, and for other purposes.

Be it enacted by the Senate and House of Representativ the United States of America in Congress assembled,

SECTION 1. SHORT TITLE: ORGANIZATION OF ACT INTO DIVIS TABLE OF CONTENTS.

(a) SHORT TITLE.—This Act may be cited as the "Moving A for Progress in the 21st Century Act" or the "MAP-21".

(b) DIVISIONS .- This Act is organized into 8 divisions as fol Division A–Federal-aid Highways and Highway S Construction Programs. (2) Division B-Public Transportation.

(3) Division C-Transportation Safety and Surface Tran tation Policy.

(4) Division D-Finance.

(5) Division E–Research and Education.
 (6) Division F–Miscellaneous.

(7) Division G-Surface Transportation Extension. (8) Division H-Budgetary Effects.

(c) TABLE OF CONTENTS.—The table of contents for this is as follows:

Sec. 1. Short title; organization of Act into divisions; table of contents.

Sec. 2. Definitions. Sec. 3. Effective date.

DIVISION A-FEDERAL-AID HIGHWAYS AND HIGHWAY SAFETY CONSTRUCTION PROGRAMS

TITLE I—FEDERAL-AID HIGHWAYS

Subtitle A-Authorizations and Programs

Sec. 1101. Authorization of appropriations.

Sec. 1102. Obligation ceiling. Sec. 1103. Definitions.

Sec. 1104. National Highway System.

- Sec. 1105. Apportionment. Sec. 1106. National highway performance program. Sec. 1107. Emergency relief.

Sec. 1108. Surface transportation program. Sec. 1109. Workforce development.

Sec 1110 Highway use tax avasion or

H.R. 4348-123

Subtitle C—Acceleration of Project Delivery

SEC. 1301. DECLARATION OF POLICY AND PROJECT DELIVERY INITIA-TIVE.

(a) IN GENERAL.—It is the policy of the United States that—

(1) it is in the national interest for the Department, State departments of transportation, transit agencies, and all other recipients of Federal transportation funds-

(A) to accelerate project delivery and reduce costs; and

(B) to ensure that the planning, design, engineering, construction, and financing of transportation projects is done in an efficient and effective manner, promoting accountability for public investments and encouraging greater private sector involvement in project financing and delivery while enhancing safety and protecting the environment;

(2) delay in the delivery of transportation projects increases project costs, harms the economy of the United States, and impedes the travel of the people of the United States and the shipment of goods for the conduct of commerce; and

(3) the Secretary shall identify and promote the deployment of innovation aimed at reducing the time and money required to deliver transportation projects while enhancing safety and protecting the environment.

(b) PROJECT DELIVERY INITIATIVE.—

(1) IN GENERAL.—To advance the policy described in sub-section (a), the Secretary shall carry out a project delivery initiative under this section.

(2) PURPOSES.—The purposes of the project delivery initiative shall be-

(A) to develop and advance the use of best practices to accelerate project delivery and reduce costs across all modes of transportation and expedite the deployment of technology and innovation;

	_			
	GOAL		EXECUTIVE PERFORMANCE MEASURE	SFY13 Target
		4.1	Percentage of work program STIP projects on schedule	85% or greater
			 Percentage of centrally managed STIP projects on schedule 	
			 Percentage of division managed STIP projects on schedule 	
			c. Percentage of municipal and locally managed STIP projects on schedule	
		4.2	Percentage of division-managed non-STIP projects on schedule	85% or greater
		4.3	Percentage of construction projects completed on schedule	85% or greater
604	Make our	4.4	Total budget overrun for completed construction projects	5% or less
GO/ Make trans netw GO/	organization a place that works well	4.5	Percentage of NCDOT's total budget expended on external goods, materials and services	80.0% or greater

Make our transportation network move people	2.1 Average statewide accident clearance time 2.2 Travel time index for surveyed interstates	1.04 or less
transportation	2.2 Travel time index for surveyed interstates	101 or less
network move people	2.3 Percentage of planned ferry runs completed as scheduled	95.0% or greater
network move people	2.4 Percentage of passenger trains arriving on schedule	80.0% or greater
and goods more	2.5 Percentage change in public transit ridership	+5% or greater
efficiently	2.6 Percentage change in Port Authority cargo movements (container and breakbulk cargo)	+5% or greater
GOAL	EXECUTIVE PERFORMANCE MEASURE	SFY13 Target
	3.1 Percentage of bridges rated in good condition	65.0% or greater
Make our	3.2 Percentage of pavement miles rated in good condition*	70.0% or greater
infrastructure last	3.3 Average highway feature condition scores (excluding pavement and bridges)*	84 or greater
longer	3.4 Average rest area condition scores	90 or greater
GOAL	EXECUTIVE PERFORMANCE MEASURE	SFV13 Target
UUNL	4.1 Percentage of work program STIP projects on schedule	85% or greater
	 Percentage of work program STIP projects on schedule a. Percentage of centrally managed STIP projects on schedule 	0.5% or greater
	 Percentage of division managed STIP projects on schedule 	
	c. Percentage of municipal and locally managed STIP projects on schedule	050
	4.2 Percentage of division-managed non-STIP projects on schedule	85% or greater
	4.3 Percentage of construction projects completed on schedule	85% or greater
Make our	4.4 Total budget overrun for completed construction projects	5% or less
organization a place that works well	4.5 Percentage of NCDOT's total budget expended on external goods, materials and services	80.0% or greater
	4.6 Percentage of the overall budget for administrative costs	7.6% or less
	4.7 Percentage of the total program budget paid to minority- and women-owned businesses	10.7% or greater
	4.8 Average customer wait-time at DMV facilities that track transactions	24 min. or less
	4.9 Average statewide environmental compliance score on construction and maintenance projects	7.5 or greater
	4.10 Percentage of surveyed customers satisfied with transportation services in North Carolina*	75% or greater
GOAL	EXECUTIVE PERFORMANCE MEASURE	SFY13 Target
Make our organization a great	5.1 Percentage of employees retained after three years	90% or greater
	5.2 Employee safety index	6.16 or less

Annual Funding Balance

+/-10% Variance Test

Year	20	2016		2017)18	20	19	20	20	Total
Statewide											→ Test
Regional											→ Test
Division											→ Test
Annual Budgets	Te	est	Те	st	Те	est	Test		Те	st	Test

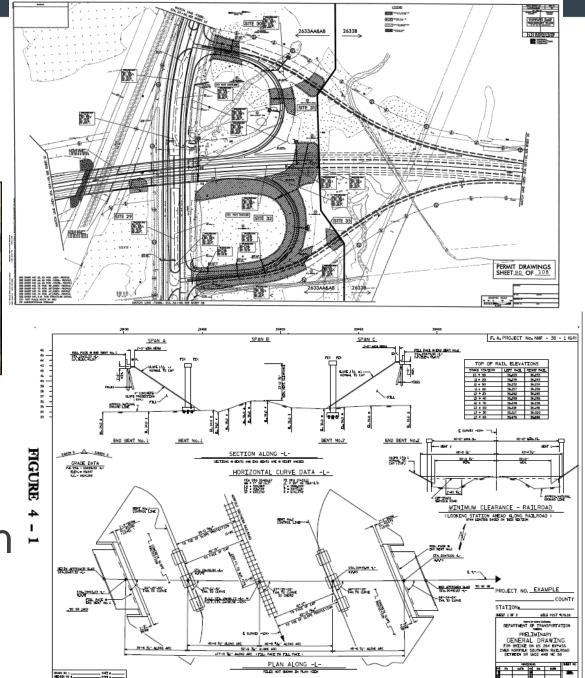




Design



ncdot.gov





Design ¹





□Right of Way





Right of Way Acquisitions

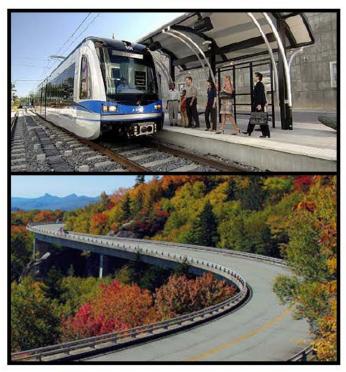








The Real Estate Acquisition Process Brochure













ncdot.gov







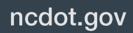
How do concurrence points fit in the process?



NEPA/SEPA (Planning/Environmental Document)













							-	- Chaine of	Section 1 Section 75.4		ALC DO BOT DA		-	-	-		83666	2020202020222	2222222222					
Description	Danada	(B)BSAR	(8)65491	and the														++		_		I		billing (see too)
SMO (STARS Refue da) DO NOT D PLARETES (Ken Louise)	3,837,0 041		01./01/3007	01/01/308	-				and (it also	NUMBER OF STREET						-		Fanding Longer (FE, 1880)	-					
Rubblick (Karl Landson) Kaping 17 Aucting Arganetal (1961) Enquark Sight (Koste (1961)) Enquark Sight (Solid) Enquark Sight (Solid)	0.1104	1/2/004	MALOOP			(197 Aundra Sprawe) (197 Aundra Sprawe) (199 and 198 (199 (199										_	1	in the section of the						
H Ausday Approval (MA)		11/10/201	11/10/300	11/10/363		QPE handing layer and	-			1	1					1			acr.e	_				
Report Splid Inte (1908) Report Splid Inte (1987)	-	12/10/202	13/13/300 0	12/10/302	\rightarrow	Offengens Dates Color		<u> </u>			<u> </u>	+				<u>├</u>	4 L	-	in the local sector (F.G.	•				
Same Spin Hand (1966)		H/H/82	1011/102	N/N/N2			Contra Spin Name (1)			1	1					1		Obsig hits Sectors	No. 5740	\neg				
Sendre Septer (HORT)			00/01/362	N/N/38		I	Canal or Salar Date (70)	P		1						1		Quarter Public Party	1999					
Data Columna Magin Sani Columbia (1910) Siman Alingaha Maning (2014) Hani Alingaha (2014) Magan Columbia (2014) Magan Columbia (2014) Magan Columbia (2014) Magan Columbia (2014) Sananada (2014) Sananad	11704		04/10/08 04/10/08			I		1		1						1		9142 Marca 1	and the set					
Internal Dagaby Mariley (2011)		14/10/302	1012300	11/10/362			Obtanal langing 1									<u> </u>	1				alating the lastly	+		
Text of Barly Later (\$16.)		11/10/302	11/12/302	u/w/w a		I	1 mar - 1 may 1 may	306		1						1			ganera para	1				
Repart COURS (COURS)	 	12/10/202	12/12/2010 12/12/2010			I		a concentration of		1						1			0		The second s			
Covered y Can. Laport (CO)			1011/102				44	Can Sport (CDI)											ملدونة ومكافرة		1.00 mm			
Enging Having Ed.(SH_NT)		11/11/202	00,01/3638	K/16/363			~	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1									1	1 1	1		1			
Friend Is may be Manuferer (A.T)	-	04/16/202	04/06/3630 0 04/06/3630 0	H/H/30		I	1 1	Start Lands Same (Sec.)	°	1	1					1		1 1	-	11	Citizen (Citizen)			
Frails Armani & Capacity (Selia)	8.1904		0404,0408			I			and & Capacity (1-64)	1	1					1			9-70	-				
Res, Salid Traffic Personal (SEE, 7757)			11/10/369				(they bear take	and the last								L			\$		al haday (1976)			
Tells Nervani & Capaly (1964) Ray, Sellel Tells Nervani (1964) (1967) Sellel Tells Nervani conplete (1979) Ray, Sellel Cap. Antyle (1974) (1974) Sellel Capacity Recipit (1974)		14/10/202	14/13/368	8/10/368		I		01-00-1-00 - 0-0-0 01-0-1-00-0-0-0 01-00-0-0-0-0-0-0-	(100)	1	1					1		1 1		-	t ne balagi titi palipinipiti Corp. j talapat jiti pinakang pinakang	* *		
Initial Capacity Analysis (ICAP)		41/16/300	10101/2020	8/16/362		I		()		1	1					1		1 1			-	4		
	8.1 10.1	10,0,004	MALCHON			I			· · · · · · · · · · · · · · · · · · ·	1	1					1			<u>`</u>		designing top	100		
Nath Realing (14) [71 Realing(CFUR)			04/04/303 0 05/06/303 0		\rightarrow			0148 Tuesy (70)	and the local division of the local division			-				├ ──					Concession of the local division of the loca	time (MA)		
			10111/2020			I				1	1					1		1 1		1	-	F		
Maraka (avalynai (funkce)	0.1104	40.20	M/NORM			I	1			+	1					1		1 1		П	distant provide	for handle (Kir, MC)		
Net Contracting Contract			14/13/2020 14/13/2020			I	•	OT MARK THE SEAR		1	1					1	\square			\square		Office Incode line Inco	10.000	
Nel 00 Excercipities (NRO)		11/10/300	100000	11/10/308	\rightarrow			Qnu 00 1	nine litters (MIRC)	1		—				<u> </u>	1 1	I T		1				
Another of Dadge Schedule (754)		10/16/300	10101/303	0/16/362		I		\$****	Trade Roberts (FOR)	1	1					1					a subscriptions	and inclusion		
Alexanian Contiguent (Fan Iane) Ing Chi Ali Fan (100, 2017 M. Fri dagi Faleman Fi (Fi, 10007, 1) Fri dagi Faleman Fi (Fi, 10007, 1) Fri dagi Faleman Fi (Fi) Mari Faleman (Fi), Fi (Fi) Mili Faleman (Fi), Fi (Fi) Filir Faleman (Fi), Fi (Fi) Filir Faleman (Fi), Fi (Fi)			01/11/308 01/11/308			I				1	1					1		1 1			industry County	-		
			101230					-									\vdash	↓		-	Qfm Pearant	and the second sec		_
Auto Maning			9/10/08														1				Queries & Co.	Contraction (Additional and		
Nath Hundley (M) Resident Hanadam (adda 1771)	A.4.1604	8/8/80	14/16/308 B	a/6/30		I		Oran Hanny (H) OC OF Longer Series AL (P) Of Longer Se	Same and (m)		1					1		1 1			Que Par	TROPPITE DRY		
Manufice Toronto Restry (AIM)			10/14/308			I				ang (ABF) Ang (ABF) Ang (ABF)	1					1		1 1				100		
Index i & Consider Main (202_2020)			12/19/200						Quant 2 Car								\mapsto	+		-	Quality in Quality in	and (in the second s		
Manufas Tenelig Kulég (A18) Indexi & Gundales Mater(02,0038) 271 Marileg (0726) Ensamena Naki 2 (073) 271 Mar(02,007)		84/86/200	1411/200	H/H/38		I			2 C		1					1					Quarter .	ing the property states		
015 An(05_AF)		64/66/2010	05/05/368	6/6/260		I			1 14	H (01, MT)	1					1		1 1			diverse la	A DECIMAL OF A DEC		
PERSONAL PROPERTY (IN CONTRACT OF		1/16/200	10/10/200	#/%/ % #		I			쉰	Name and an of the subort	-pa					1		1 1			Q	(All parts (SA)		
Addanat Sala Cale Ban Res. Ped. Robe Report (1970) PREMITE	11.000	0/12/308 0/10/180	ANUME IN	100.000	\rightarrow					Laing (2704) ar man Anti 2 (270) 5 Ar (271, 2017) 6 Agel Salanda #2 (17, 2000) 7 Annal Tala Calandan 9 And Tala Calandan 9 And Talah Sayari (1912, 1912)	-					—	┢╺┼╸	+ +		-	1	Contractor Intents (CMF) (01/Without Completes (MC)	-	
Ray, Peak Pyther Raymers (187), PREPETIS Raymont Peak Namelyng (17707) Raele manaening Tayner Raymon (1873) Faelle Parenaeni It Caynar Ry (1948an)		11/16/2010	10111/2020	#/N/368		I			្រារ							1		1 1				IN THE OCT OF THE TO		
fet a racial ignition at (61)		41/16/200	0010/308	#/N/38		I				Personal Syst Report (13)	•					1		1 1			1	6		A second s
Tarih Armani & Leparky (Spine) Ray, Spinish Tarih Armani (SA), (TSAP)	ALMON	10,12,020	10/10/100			I			1 1	Spatie Traffic Pressed (1972)	1					1		1 1				And principal and an initial		
Ray, Spelato Cap. Analysis (SALL, HOAP)		11/04/200	10/14/388	1/14/38	\rightarrow				- T	Office, Update Cap. 1 Office Update Turks Per		+				<u> </u>	⊢+	++		—	+	Quality Percel	Angulation (200)	and the same
Ray, Sprinter Cap. Analysis (1994, 1974) Sprinted Tradit Annual Cong. (179147) Sprinted Capacity Analysis Cong. (17947)			11/14/3808			I				Organization Pro	Comp. (17747)		.			1		1 1			1	dan te	State Income (177)	m
Second Capacity Academ Camp. (ICAP)	0.000	0.000	04/34/385			I					(Canada Sanada Sanad		'			1		1 1			Ar we pad	THE TR		
Indexes Weilands & Docume (101, 1077)			1211/200								A Streem (24, 1977)							1 1			1 1 1	Of which the		
Hadrahad Completion (W2002)		11/10/2016	10,04/305	1/10/38							Andrea Desperate (paper)						\vdash	<u> </u>		-	╘╪╪		a name (Tong	nine latin
Radiant Resources Task, Expect (0270) Historick & Secure (Lasthation)	1.1 HOR	0/0/08	MONOR I			I					Salari Sanara Tah. Su				L	1		1 1				allowed in states (Sint)	ו ו	-
fort of Malanda & Downers (1978)		10/10/201	10112/2011	1/10/348		I						-				1		1 1			11			Inditional Para Territo
		8(2)381	OLAN, DARK							<u> </u>		Seale for Horse	-			<u> </u>	1 1	1 1			11		1 1	Annual Paralis Personality (CAC) Annual Personal Colours (CAC)
Sandan Tradi Kagabag (FTSF) Indi Sadap Ke (PQ, SET) Indisatang Sadap Scientific (FOC) Ing Hat Andréas Ministra (SET, SET) Sagant An & Talan (SET, A&F)		12/10/201	00/03/3850 0 13/16/3850 0	10/10/308 12/16/308		I				1 9	One to					1	\vdash	<u> </u>		-		-		
Productionary Design Technology (1958)		12/16/2018	12/10/2010	G(N/36		I				1 1		y Damp Materia	(100)			1		1 1					Killy Index. Parels	ng (al-)ang nation (al-)ang
tes, Hit. Andres (Marin (Mill, NAI)			12/16/2010 0 12/16/2010 0			I				1 1	1 m	Address Prices (1	NRC_NWS			1		1 1			L 1		Carry age	and Print (27) (2007)
Repair (and the (Art)	6.0 MOR		GOADIN .	6216/38	\rightarrow						-		-			 	1 1	1 1						
industry Touring (AICA, ICAN) IPS AB Fra(IRCIVAL)		14/10/200	10112/2020	H/M/380		I			•	and a local grant of the local division of t		11				1	\vdash			_		and Colored States	-0.	
Boahred(Boffes) Committy Ingent Amon. (CA)		14/10/200	14/19/308 1 13/19/308 1	a/w/w		I				Que a ha joon (Canada ha	4. m	11				1		1 1				(Courses hit)	000	
faint farry & Rp. (KIIT)	 	12/20/200	10/38/388	6/26/26		I				0.000	(C.4)	11				1		1 1				diam'n a start	di fanian	
Their Delandation	43304	090,810	Chickey and										h-1				1	1 1				-	a initia di Spinero	-
Filmin Seizerstaden An (pudly Andyla (A2) Fudly Rodent adyla (FA1)		045/07/880	01/02/200	0/0/00		I				1 1	~					1						Q****	Contraction of Sectors	9
Nation & Antidentians (Maria (MAR)		84/10/280	04(14/380) 04(14/380)	1/10/260		I				1 1			n Chuis (NR)			1		1 1						
Design & Const Stream Meetings (2754)	41.004	01/01/01/0	U/NU0IRD									<u> </u>		Randing (2764)			1	1 1				Quer ain	dan metalakan dan da	nalis A (Sa), sa da pala
Seige A. Corol Superi Hassing (2014) Nubeleony Hydro Experi (2016) Erlige Langib Anti Hassing (2014) Shia Kas(1273), 870			00/00/300									1	(diam's 2 diame	(Real party)
Dia fai (Dia Alto		11/11/200	00/00/303 0 11/01/303 0	1/11/10		I				1 1		0	05A M 05A 87			1							Others Int. Barrier	Annual State Latery
(FGA Reeding (CPGAR)		11/11/380	10/10/303	11/11/360		I				1 1		*	054.000	•		1		1 1				and the spin fact makes \$10,91,92		(Paralised) presi
Conservation Polini LA (1976) Reg. Composition. Arch. Starting (1876), (241)		14/16/1880	11/91/380 1 11/91/380 1	11/11/2010	\rightarrow					+ +		1 *	Consumption Partie 20 Tang, Campionton, Art	(2734) 1. Sumay (1812, 234)	H	—	1	1 1				And Address of the Ad	and (s) An anna a' Santan Bart	1000
Section 7 Canadaction		N/R/201				I				1 1		<u> </u>			н	1							feranat Salaria Insuite International Con-	ny (nizy (Bir) Bir) Vaning pa (Bir), (C.A.) Ani Yaha (Bayani Ang (C.A.) Ani Yahang (Baya (Jara) Inata (Jana) (Baya (D.))
latin 7 Caracitation (UECO)		64/66/3850	04/91/380	4/14/360		I				1		Q 4 -0-7 Care				1	ΙT	I T					054 III. 4p	Velage(RA_UTAN)
Call Contracting Constants	41904	10,000	0/04/04/08	1.00		I				1	1	🗖		and Salar		1		1 1					<u></u>	ind basis Programs
CFLord Instances (1884) and FEL Ageneral (1983)			1010/300		\rightarrow					1	1	 °	OC A ST. La	mana (1999)		1	1	1 1						insise Desired Plane (ICP)
Control Control France May Property .	3.1 HOR	080,8198	01000			I				1	1					1	\vdash	L						and Paralacianian (TVI)
Contine Nath Handing See Hig (CPREM) Nath Handin & Henry Sockator		67/10/180 0/10/18		0/16/360		I				1	1	Queen a	-			1		1 1					1 1	Sala balog Ress (SALUST, A.S.) Ng Sange Kitas, Salat (SALUST, A.S.) Ng Kitabastan (SSALUST, SAL) 10 ha Salat (SSAL
Natik Houring & Hourin Application State Jonals Soc (1827, 18447)			04/04/3800										00m 0	1 See (1877, 19897)				1					1 3	Specific and the second se
Ragar Parel Lyphonics (NPA)		100/388	10113/300	1/10/26									0				1 1	1 1						Distantine (10%)
Regio Peroti Igoliatio (HK) Contro Indije NAA Kately (CHV) Marakis Barconsellate (TK) Pali Kately Badag (HK) Di Ravica, (AR, AR) Di Ravica, (AR, AR) Di Ravica, (AR) Di Ravica		17/16/2808	67/95/2600 0 52/52/2600	0/M/MB		I				1	1		1			1	\vdash	+		-		L		State (L. Agent Healage (C. Al) State (L. Agent Healage (C. Al) Alling Castan Heal (CD) Alling Colour Heal (CD) Andrey (Colour Heal (CD)) Colour (C) (Colour (CO))
Part Kardy Holley (MIK)		14/10/2858	100103/3000	10/00/08		I				1	1			the star and an		1		1 1					1 3	Alling in Chara Pine (127)
0% MA(ON_MP)		12/16/2808	12112/000	6/6/36										000 100 100 100 100 100 100 100 100 100			1	1 1					3	Analogy Plane in Cast & Prop (1912)
Of Kalley (Offic)		12/16/200	13/91/300 0 13/91/300 0	11/11/2010										don name in	2			1 1					1	and a Cardination
Reg. Composition. Arch. Harrow (2011). CAU.			12/10/200			I				1	1			Company Company	na have par car	1	\vdash	+ +		-				Charles Called Annual Called
Comprehensive And analogy Tarray	611408	0/8/088	N/N/DIPH			I				1	1			<u> </u>	0 1/270 Inth. Survey (1852, CAR)	1		1 1						Date (2015 March) (2016) Date (2016 June) (1915) Date (2016 June) (1915) Date (2016 June) (1916) Date (2016 June) (1916) (2016 June) (2016) (1917) (2016 Certification (1917) Date (2016 Decimation (1917) Date (2016 Decimation (1917)) Date (2016 Decimation (1917))
Comprehension lock, Europy (*_440000) Tanian 101 MCA Califord Tananana MCA (53_MCA)			NUMBER OF		\rightarrow									2	Constraint tools from (C) Constraint tools from (C) Constraint tools from (C) Constraint (C) C) Constraint (C) C) C) C) C) C) C) C) C) C)		1	1 1					4	Chiefe H. Davies, Parell (187)
Caller of Descent and Milds (CB_10014)			LUGLOUM			I				1	1			7			1	1 1						Chiefe Sparse Suffering States (Street or
Nativersia Searai	74908	0/00/08	N/LOOM		I	I				1	1					+	\vdash	+ +		+			- 1	Of the local division of the local divisiono
Nati Instrumenta Docense Mitalgai Indoces (N. (H. (H. 1807), J) Nati 72 Ageneral (NL) 294 Northy (2944)		12/10/201	CONTRACTOR OF	10/10/388		I				1	1			07 144	100,000,0	1		1 1						distry Contraction (12)
(74) Reading ((74))		HATH/BOA	14/11/301	H/H/HR	\rightarrow					-					GOM Rules (Date)	<u> </u>	1							Of a Catholics (I/WCIIF)
Conserve Notifi (2NE) Roden Ruditi (2017,403) Disatifi (2NA_87) Rodef (2NA_87)		04/16/20M	04/01/304 0	8/16/388		I				1	1				Course has a p	•		1 I				1	I	
Bankaria Realital (INIT_PEU)		10/10/201	100103/3000	8/8/20		I				1	1				down	- N								
Terrar (Children			04/95/36H			I				1	1				200 0 (04, 07)	1000	1							
												-												



									P	reject	11597	D	E021	NC	211					
_					here				2	Toject:	41582	R	-3021	NC	211	2016		2017		
s p	rojeo	tt: 41582 R-5021 NC 211	(F)ElSchFi	(F)EIS		2 3	4 2 SelOci N D 2 Pe M Apim	3	4 3 od N D 3	1 2 3	4 1 2 0 dN D Ja Pa M Ae M	3 3u 2u Au 5e	4 1 2 Od N D Ja Pa M ApM 2	3	2015 4 1 2 5 Dc N D Je N M Ap M Ju Ju Auße	4 1 2 3	4 Au Bel Od N	1 2017	3	*
	110	Analyze Capacity with Prop. Improvements	10/06/2009	12/04/20		e Capacity with Prop.														
	110	Alternative Preliminary Design	02/15/2011	02/15/20		********		ternative Preil	minary D	tsign										
	110	Determine Effects to Historic Properties	02/15/2011	02/15/20			OCetern	ine Effects to i	H stori c Pr	operties										
	110	Natural Resources Technical Report	03/26/2009	04/01/20	Technical	Report														
	110	Section 7 Consultation Process	11/16/2010	01/12/20	<u> </u>				ines i sti	e Process										
	110	Conduct Analysis for Alternative Designs	02/15/2011	02/15/20				Analysis for A		Designs										
	110	Design & Const Impact Meeting (CP2A)	03/01/2010	03/01/20	h		Design & Const Impact													
	110	GEU Evaluation of Alternatives	11/16/2010	02/15/20					Evaluation	of Alternatives										
	110	Re-evaluate Design & Const Impact (CP2A)	11/15/2010	11/15/20			Dife evoluate Desi	en & Const In	pect (DP2	43										
	110	Prepare & Approve Environmental Document	11/08/2010	01/31/20		*****				pare & Approve Environm	ental Docume									
	110	Distribute Environmental Document	02/01/2011	02/28/20			Cletrib.	ute Environme		ument										
	110	Prepare Hearing Maps	11/15/2010	12/01/20	· ·	*******			aring Ma	P\$										
	110	Prepare & Submit 404 Merger Application	02/01/2011	03/31/20						ger Application										
	110	Conduct Design Public Hearing	04/01/2011	05/31/20					at besign	Public Hearing	Man									
	110	Conduct Post Public Hearing Meeting Conduct LEDPA Meeting (CP3)	06/01/2011 07/05/2011	07/29/20	H					onduct Post Public Hearly anduct LEDPA Meeting (CP										
									He-e		ľ									
	110	Re-evaluate Alternatives (CP3)	10/01/2011	10/01/20				ļ		rehensive Archaeology Su	L									#
	110	Comprehensive Archaeology Survey	10/01/2011	10/01/20				I	٦Į _	ct Further Studies										
	110	Conduct Further Studies	10/01/2011	10/01/20						Cultural Resources										
	110	MDA for Cultural Resources	11/01/2011	11/01/20	\square	_			OMDA1											
	110	Conduct Minimization Meeting (CP4A)	10/03/2011	12/30/20						Conduct Minimization										
	110	Re-evaluate Alignment & Slope (CP4A)	01/01/2012	01/01/20																
	110	Prepare & Approve FONS1/SFONS1	08/01/2011	01/31/20						Trepare & Approve PO				ר ו						-
	110	Distribute Approved FONS1/SFONS1	02/01/2012	02/29/20						Cistribute Approved	TONSI/SFONSI]					
	41	R-5021 Prel. Plans (Widening)	06/08/2010						- 1							-5021 Prel. Plans (Widen ing)			
	110	Final Survey/Base Map Plan Sheets	12/14/2009	11/24/20			- FINETBURYERS	е мар мал з	neets											
	110	Prepare Preliminary Pilains	04/02/2012	11/30/20								Trepar	e Preliminary Plans							
	110	Utility Analysis & Preliminary Routing	10/02/2012	02/01/20								_			dility Analysis & Prelimina	y Routing				
	110	Prepare 30% Hydraulic Plans	10/02/2012	12/31/20					+			h re	pare 30% Hydraulic Pia	rs						
	110	Develop Final Pavement Diesign	10/02/2012	10/08/20							 			c Final Pave	ment Design					
	110	Traffic Staging Concept	10/02/2012	11/30/20											franc Staging Concept					
	110	Hydraulic Design Review Meeting (CP48)	12/03/2012	03/01/20				*					*Hydraulic Design Revie	ew Meeting	(048)					
	110	Develop Roadway Foundation Design	10/02/2012	04/01/20											evelop Roadwa	Foundation Design				
	110	Continue Hydraulic Dieslign	12/03/2012	07/02/20									tontinue k	Hydraulic D	si gn					
	110	Haz Mat Right of Way Recommendations	03/17/2014	03/17/20												Haz Mat Right of Way Recomm	endations			
	110	Prepare Preliminary Structure Design	04/04/2013	08/02/20									repar	e Prelimina	yStucture Design					
	110	Final Design Field Inspection (FDF1)	03/18/2014	10/17/20									1		Final Design Field Inspection (F	DFI)				
	110	Final PUES/Parcel data	03/18/2014	06/17/20									1	Final PUE	S Parcel da ta					
	110	Develop Structure Foundation Design	08/05/2013	11/01/20										Tele op 1	oucure Foundation Design					
	110	Obtain R/W Authorization	06/19/2014	08/18/20										- 00	In RIW Authorization					
	41	R-5021 Final Plans (Widening)	06/28/2012	2 06/ 28/										-		R-5	121 Final Pi	ans (Widening)	Ŧ
-	-	Contracting (Moching)	50/10/101	30/20/															-	



- Concurrence Point #1: Purpose and Need
- Concurrence Point #2: Alternatives to be studied
- Concurrence Point #2A: Bridging decisions
- Concurrence Point #3: Least Environmentally Damaging Practicable Alternative (LEDPA)
- Concurrence Point #4: Avoidance and Minimization

4A: Alignment

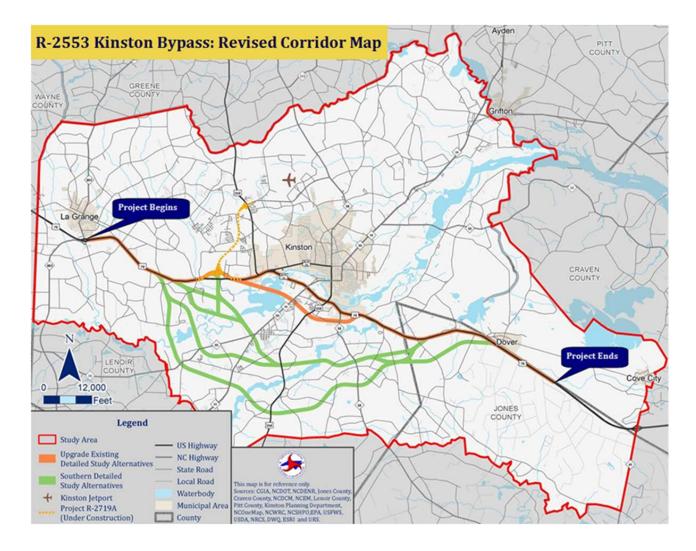
4B: 30% Hydraulic Design

4C: Permit Drawing





<u>New Location</u> CP 3 = R/W delivery (surveys can begin)





ncdot.gov

<u>New Location</u> CP 3 = R/W delivery (surveys can begin)





<u>New Location</u> CP 3 = R/W delivery (surveys can begin) CP 1 CP 2 CP 2A

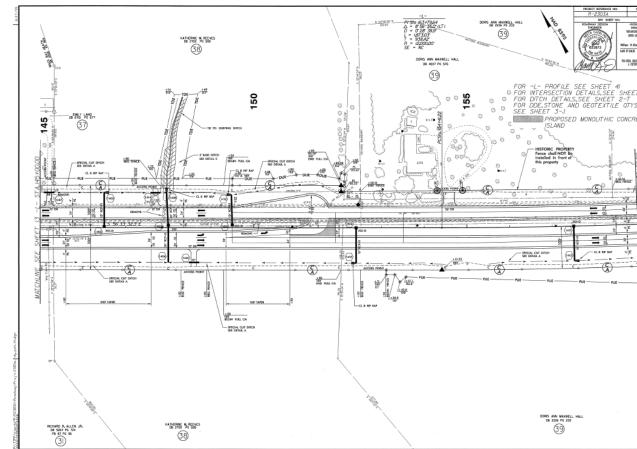
North Carolina

ncdot.gov

New Location

CP 3 = R/W delivery (surveys can begin) CP 1 CP 2 CP 2A

Widening & New Location CP 4A & 4B = R/W delivery





New Location CP 3 = R/W delivery (surveys can begin) CP 1 CP 2 CP 2A

Widening & New Location CP 4A = R/W delivery





New Location

CP 3 = R/W delivery (surveys can begin) CP 1 CP 2 CP 2A

Widening & New Location CP 4A = R/W delivery CP 1 CP 2 CP 2A CP 3



ncdot.gov

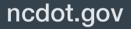
New Location

CP 3 = R/W delivery (surveys can begin) CP 1 CP 2 CP 2A

Widening & New Location CP 4A = R/W delivery CP 1 CP 2 CP 2A CP 3

<u>Widening & New Location</u> Final Document = R/W delivery

	· · ·							
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION								
		DEPARTM	IENT OF	TRANSPORTA				
	PAT MCCRORY GOVERNOR					VY J. TATA retary		
			Octob	er 7, 2014				
	MEMORANDUM							
	TO:	FILE						
	RE:	WBS No. 45450.1 F. A. Project BRZ Bridge No. 17 on 3 Town of Southern	-0154(3) South Dogy	wood Trail over Snov	Goose Canal,			
	SUBJECT: LOCATION AND DESIGN APPROVAL							
	The project calls for replacing the bridge with a bridge on the existing location. The proposed bridge typical will provide for two 11 froot travel lanes, a 2-foot 11-inch offset on the west side and a 5-foot 8.5-inch offset (5-foot multi-use bicycle and pedertian path) on the cast side. The approaches consist of 11-foot travel lanes with a 2-foot shoulder on the west side and a 5-foot full-deput paved shoulder (multi-use path) on the east side. During construction, traffic will be maintained off-sile using local roads. There are no anticipated design exceptions. The Programmatic Categorical Exclusion (PCE) was approved on September 11, 2013. Newsletters were mailed to property owners and a public meeting was held in June 2013.							
	The project is approved. All branches and/or units are authorized to complete the necessary preliminary engineering and environmental requirements for letting the project to contract. Right of way acquisition may begin upon authorization by Project Management.							
		Barbour, PE Preconstruction	ur	<u>10-13-20</u> Date	<i>4</i>			
	DMB: ojf							
	S. P. C	acy, PE		J. D. Jennings, PE C. K. Haire, PE R. P. Hanson, PE				
N C 1	AALING ADDRESS: IC DEPARTMENT OF TRANS INSECTOR OF PRECONSTRU- 538 Mail, SERVICE CENTER RALIGH, NC 27699-1536	CTION R	FAX: 91	919-707-2540 9-733-9428 WENCDOT.GOV	TRANSPORT 1 SOUTH WILM	LOCATION: ATTON BULONO INSTON STREET RALEICH, NC		



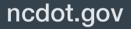


New Location

CP 3 = R/W delivery (surveys can begin) CP 1 CP 2 CP 2A

Widening & New Location CP 4A = R/W delivery CP 1 CP 2 CP 2A CP 3

Widening & New Location Final Document = R/W delivery CP 1 CP 2 CP 2A CP 3





New Location

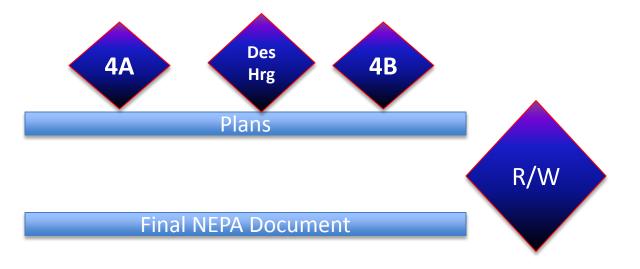
CP 3 = R/W delivery (surveys can begin) CP 1 CP 2 CP 2A

Widening & New Location CP 4A = R/W delivery CP 1 CP 2 CP 2A CP 3

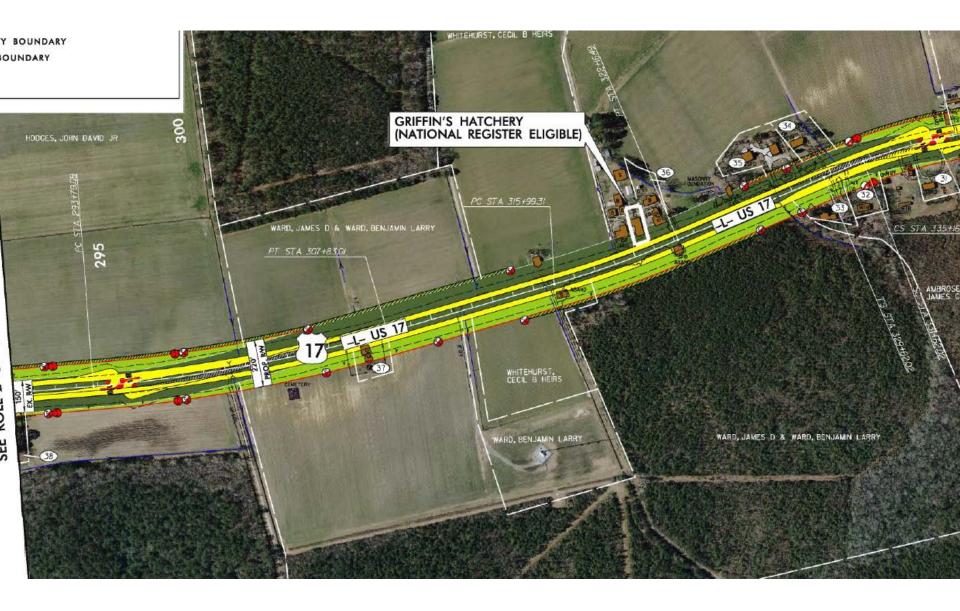
Widening & New Location Final Document = R/W delivery CP 1 CP 2 CP 2A CP 3



ncdot.gov







North Carolina

Widening & New Location Permit = Letting delivery

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

 Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

 Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

a. You fail to comply with the terms and conditions of this permit.

 b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).

c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result m a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 3265. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General condition 1 establishes a time limit for the completion of the activity authorized by this permit, Unless there are curcumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and coaditions of this permit.

E. T. Kupt for Gragery J. Theype AD Feb 28 2011 (PERSPITTEESFORTH CAROLINA DEFARTMENT OF TRANSPORTATION (DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

CDISTRICT ENGINEER, JEFFERSON M. RYSCAVAGE, COLONEL <u>3 - 1 - 11</u> (DATE)

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferre sign and date below.

(TRANSFEREE)

(DATE)



Widening & New Location

Permit = Letting delivery

CP 1 CP 2 CP 2A CP 3 CP 4A CP 4B CP 4C





• Requests for additional information or study....How does this affect NCDOT?

• What happens between concurrence points?



Merger Process Guide

Learn about this process and how it helps project development.

	Featured Downloads
Introduction to the Merger Process Process Information Roles & Response	
Section 404 NEPA Merger Process Information	PDEA Merger Meeting Map 2014-10-07 11:15:49
AFETEA-LU Revisions to Merger Process	Merger Meeting Packets
lemorandum of Understanding	2014-10-06 16:46:03
creening Process	Morger Process Persures
Process I - Projects on New Location	Merger Process Resources
Process I Map	Common acronyms used in the Merger
rocess II - Widening	process.
Process II Map	Terms and definitions used in the Merger process.
rocess III - Bridge Replacements	Merger Process Laws
rocess III Map	Legal information related to the Merger Process.
lerger Project Team Meeting Information	
IOAA and DMF Counties	Agenda Archives

PDEA should coordinate with the Roadway Design Unit, Utilities Section, Traffic Engineering (Congestion Management), the Division, and FHWA to determine design options that meet the purpose of the project. Design options can include typical section options (number of lanes, curb and gutter, shoulder, median section, or 5 lane, etc.) and hydraulic structure requirements (bridge or culvert and length of bridge). 13. Concurrence Point 2 – Design Options for Detailed Study

The intent of the Concurrence Point 2 meeting is to obtain consensus from the Project Team on which design options will be fully evaluated as alternatives, including the "no build" alternative, in the Environmental Assessment. Any public comment on the range of alternatives to be considered would be shared with the Project Team at this time. The alternatives selected must meet the Purpose and Need of the project, with the exception of the "no build" alternative. If possible, the Concurrence Point 2 meeting will be held at the same time as the Concurrence Point 1 meeting. Design options to consider include typical sections, hydraulic structures, potential utility impacts, and widening scenarios.

Typical Section: The typical section components (number of lanes, lane width, and shoulder treatment) should address the facility deficiencies as stated in the Purpose and Need of the project. At the Concurrence Point 2 meeting, NCDOT will present the typical section which best addresses the Purpose and Need of the project. NCDOT should present information supporting the typical section recommendation such as capacity analyses, AASHTO design standards, bicycle and pedestrian needs, local government recommendations, utility accommodations, development and environmental constraints, and traffic flow/access concerns.

After viewing the proposed typical section and supporting information, the team will decide if additional typical section alternatives need to be studied and compared at Concurrence Point 2A. Widening Scenarios: At the Concurrence Point 2 meeting, team members should provide guidance to NCDOT to aid in preparing a widening scenario which would minimize impacts to the human and natural environment. The team should also decide if alternative widening scenarios should be developed due to environmental conflicts existing on both sides of the road. Based on information received at this meeting, NCDOT will develop the designs for the widening alternatives identified by the team to present at the Concurrence Point 2A meeting for review and possible further refinement.

Hydraulic Structures: Based on available information, any potential need for special bridging accommodations should be discussed at Concurrence Point 2. The final bridging decisions will be made at Concurrence Point 2A. If there is a discrepancy concerning the type of hydraulic structure to carry forward at the Concurrence Point 2 meeting, NCDOT will prepare alternatives to be reviewed at Concurrence Point 2A.

Information which should be presented at the Concurrence Point 2 meeting includes: the environmental features map, environmental input obtained from the Offices of Human and Natural Environment (requested in Step 6), local government comments, public comments, traffic flow/access concerns, safety concerns, and preliminary mapping. Delineated wetlands and streams will be included on the environmental features map.

× bv

ncdot.gov



Concurrence Point 1 Purpose and Need

- Capacity
- Safety
- Economic Development
- Truck Traffic
- Strategic Corridors
- Hurricane Evac.

Includes Study Area



Concurrence Point 1 Purpose and Need

- Capacity
 - Traffic projections
- Safety
 - 3-year accident analysis, review of statistical data
- Economic Development
 - Local government and industry data
- Truck Traffic
 - Traffic projections
 - Local government data
- Strategic Corridors
 - Basis for designation
 - Comprehensive Transportation Plan
- Hurricane Evac.
 - Hurricane evacuation model
- Mobility/Travel Time
 - Delay, queue lengths

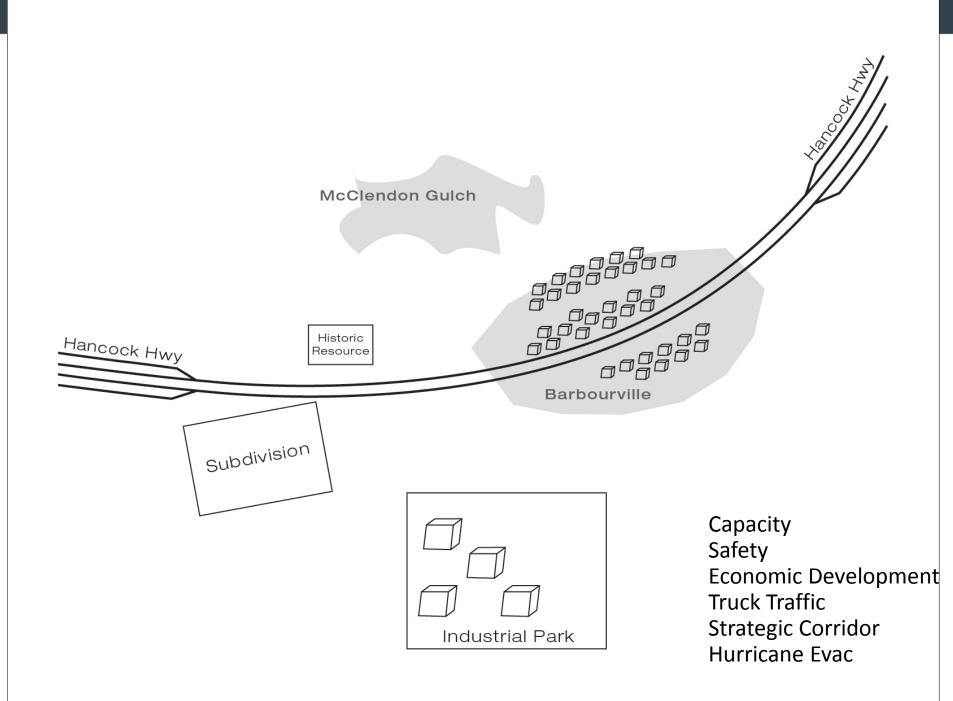




Concurrence Point 1 Purpose and Need

Other prep:

- Aerial base map with proposed study area
- Internal Scoping/External Scoping
- For EIS Public involvement







Concurrence Point 2



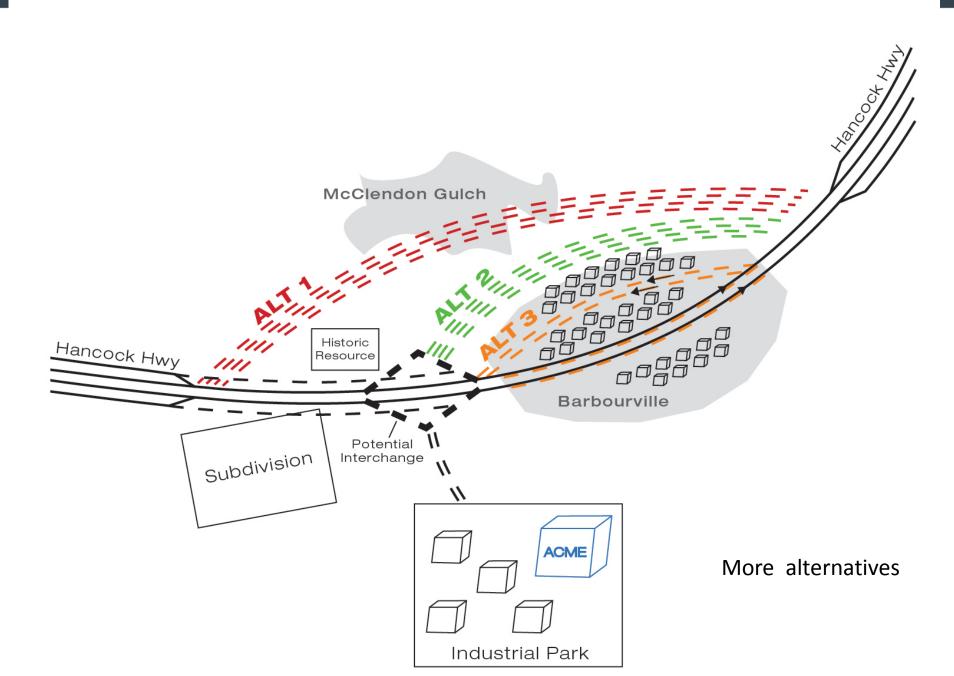
Concurrence Point 2 - Preparation

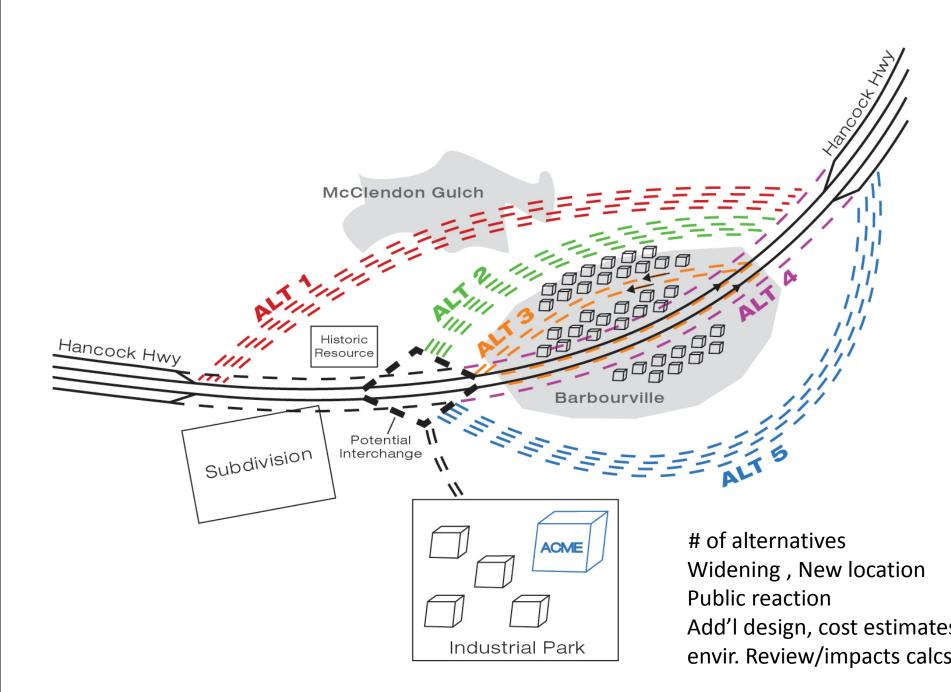
New Location

- GIS level environmental data
- Review of modal options
- Functional alignments/costs computer modeling
- Public Involvement

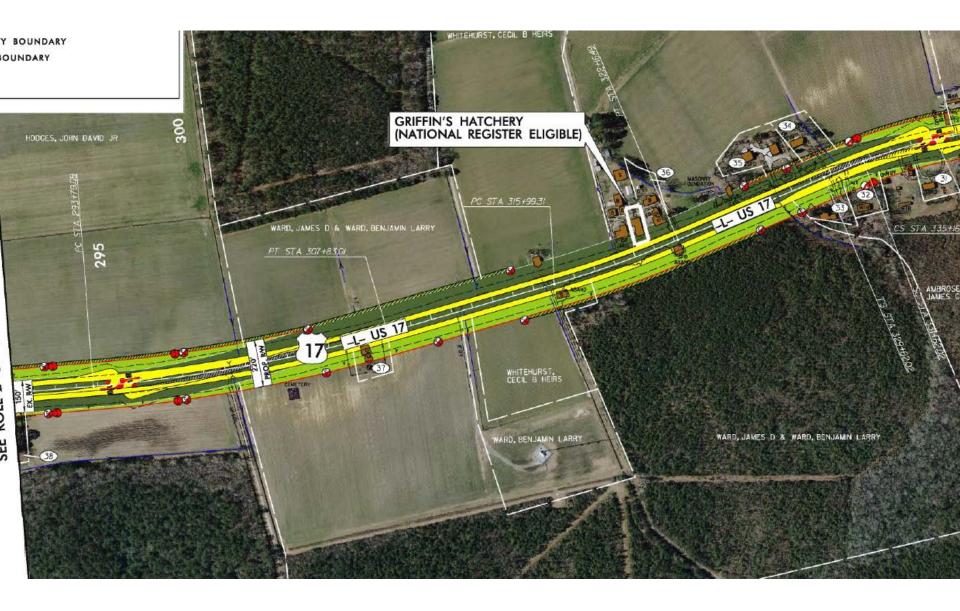
<u>Widening</u>

- Environmental field info
- Prelim. Design
- Capacity analysis
- Public Involvement









North Carolina

ncdot.gov























Concurrence Point 2A: Bridging Decisions



Concurrence Point 2A: Prep

Prelim. design completed

Wetlands delineated

Hydraulic analysis completed for structures

Cost estimates

Historic eligibility determined

Protected species reviews conducted

Community impact assessment completed

Eliminate certain alternates?

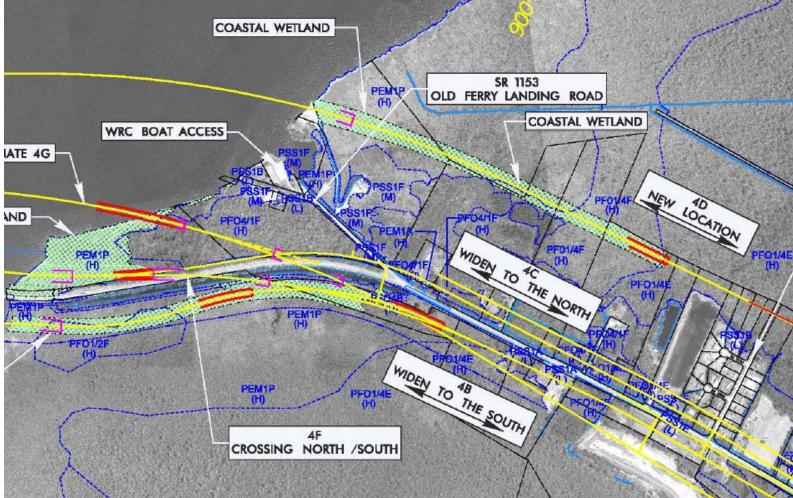
New Location

- Build condition traffic projections/capacity analysis
 <u>Meeting planning</u>
- Field meeting, possible office meeting to follow





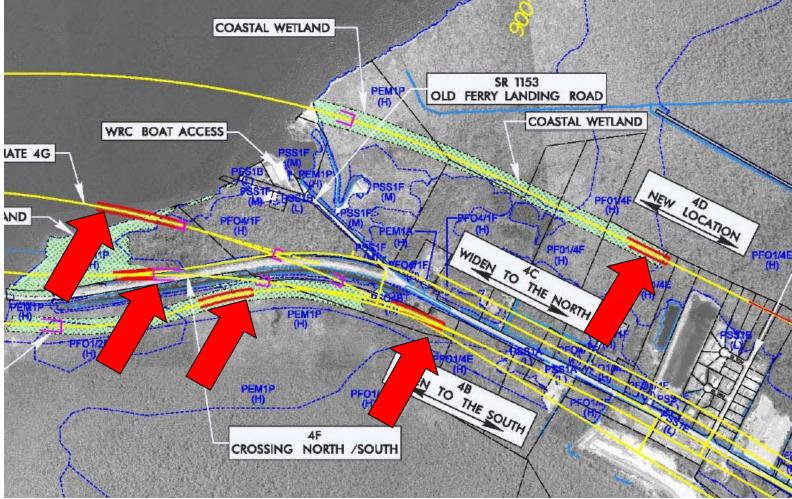
Concurrence Point 2A: Bridging Decisions







Concurrence Point 2A: Bridging Decisions









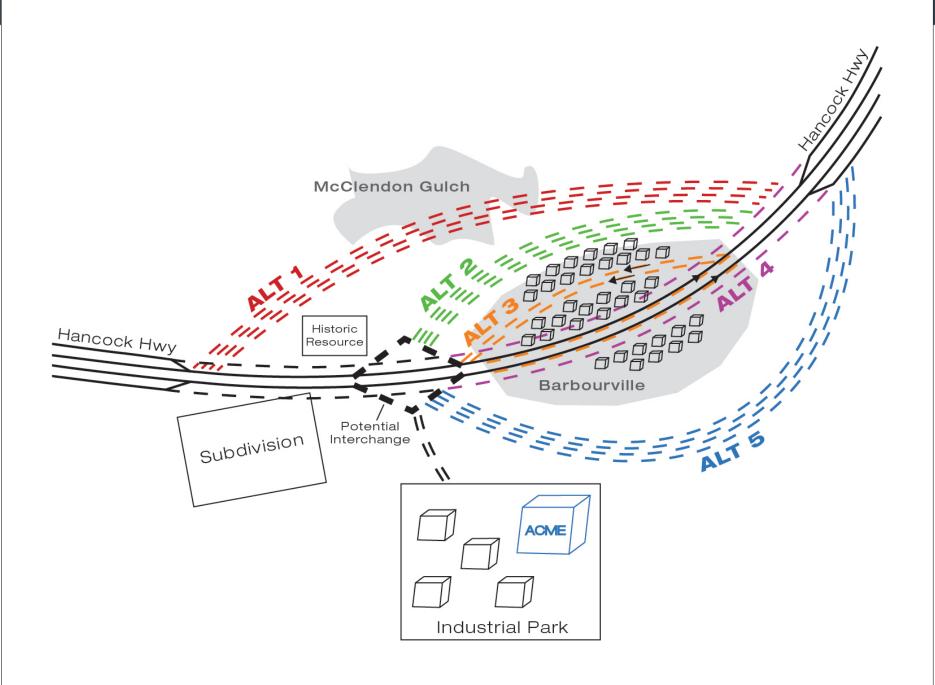


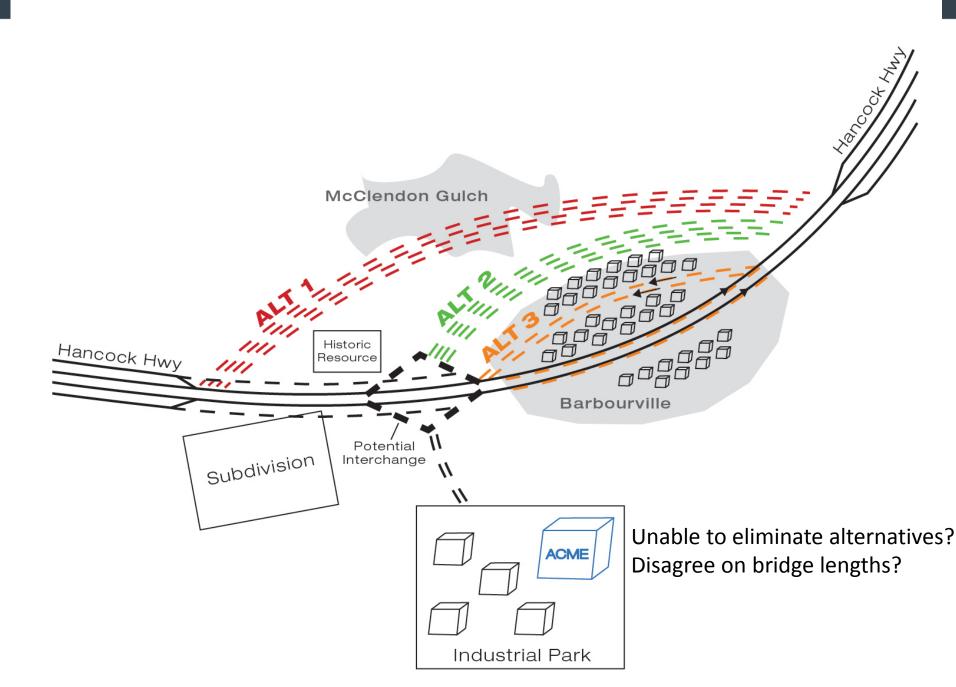














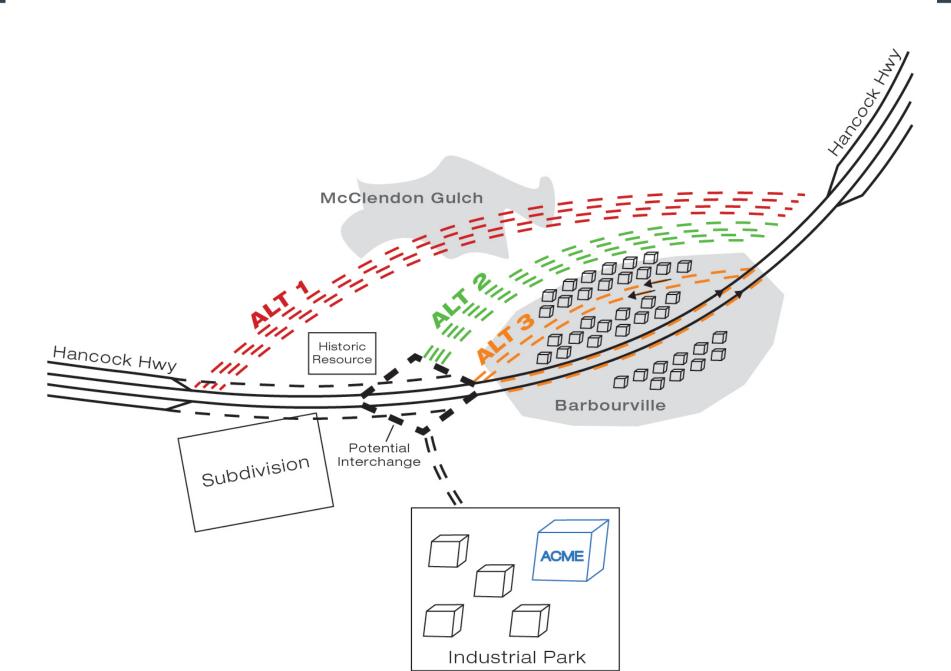


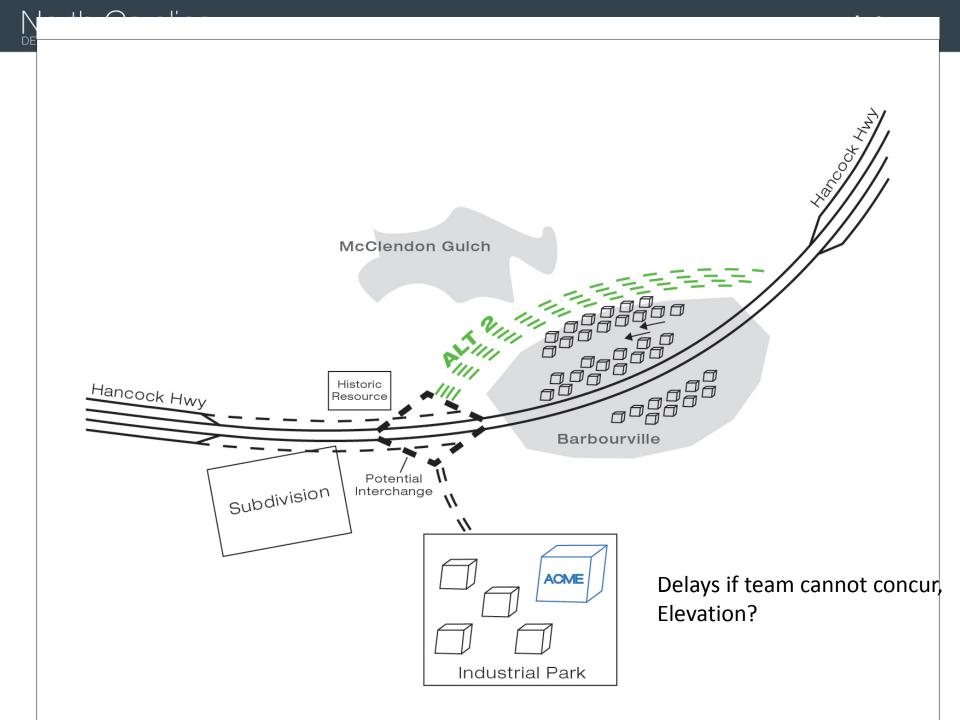
Concurrence Point 3:

North Carolina

Concurrence Point 3: Prep.

- Finalize prelim. designs & environmental impacts
- NEPA document preparation, review, distribution
- Public Hearing prep, conduct, comment period
- Post Hearing meeting/review of public comments
- Review of agency comments on DEIS/EA, etc.









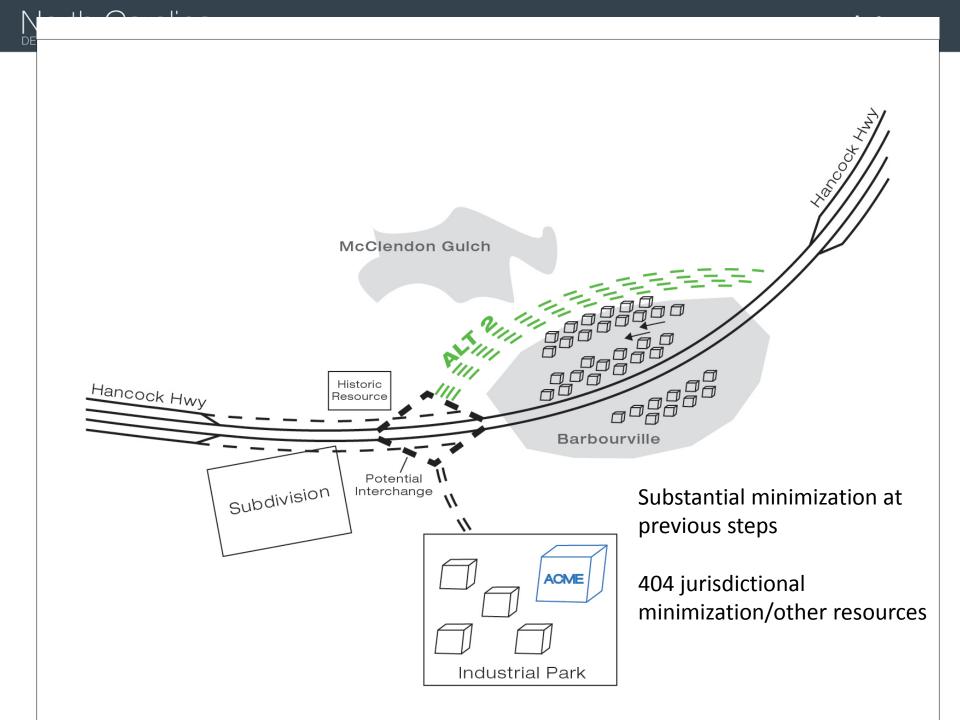
Concurrence Point 4A:



Concurrence Point 4A: Prep.

orth Carolina

- Review selected alignment for further minimization
- Revise environmental data based on comments from agencies at CP 3 and from DEIS/EA comments



ncdot.gov



Section 404/NEPA Interagency Agreement

Concurrence Point No. 4a Avoidance and Minimization

Project Title and Project Numbers:

Proposed SR 1409 (Military Cutoff Road) Extension, New Hanover County, TIP No. U-4751, State Project No. 40191.1.2, Corps Action ID 2007 1386

LEDPA/Recommended Alternative:

Military Cutoff Road Extension Alternative M1

Avoidance and Minimization:

Military Cutoff Road Extension Alternative M1 minimizes impacts to resources. However, it is not feasible for the proposed project to completely avoid impacts to the Waters of the US and still meet the purpose and need of the project. The following avoidance and minimization efforts have been incorporated into the proposed project:

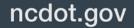
Section 404 Avoidance and Minimization Measures

- 3:1 slopes are proposed in wetland areas and adjacent to streams.
- Loops and ramps in the Military Cutoff Road Extension interchange at Market Street were tightened, reducing wetland impacts by 0.89 acre [BWD -0.19 acre, ZWY -0.04 acre, PD-04 -0.66 acre]. Impacts to BDITCH1 were reduced by 1,911 square feet.
- A retaining wall was added on the west side of the proposed roadway south of Putnam Drive to avoid impacts to wetland PD-01 (-0.07 acre).
- Military Cutoff Road Extension north of Torchwood Boulevard was realigned in the vicinity of the Cape Fear Public Utility Authority's Nano Water Treatment Plant. Wetland impacts were reduced by 0.78 acre [BWI] and stream impacts were reduced by 677 feet [BSO -560 feet and BSP -117 feet].
- The U-turn bulb adjacent to wetland CWA just north of the Cape Fear Public Utility Authority
 property will be shifted southward out of Wetland CWA, reducing wetland impacts by 0.10 acre.
- The design was revised at the Military Cutoff Road Extension interchange with the US 17 Wilmington Bypass. The ramp in Quadrant D was pulled in, reducing wetland impacts by 1.16 acres [CWF -1.10 acres, DWC -0.06 acre]. Impacts to the Plantation Road Site were reduced by 0.02 acre and impacts to the Corbett Tract Residual Strip were reduced by 0.07 acre.

Additional Avoidance and Minimization

Wells

 The original design of proposed Military Cutoff Road Extension Alternative M1 would have relocated two water supply wells operated by the Cape Fear Public Utility Authority (CFPUA).



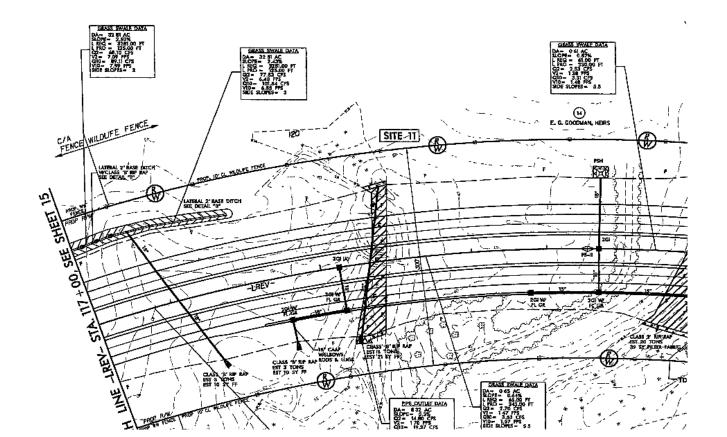


Concurrence Point 4B & 4C

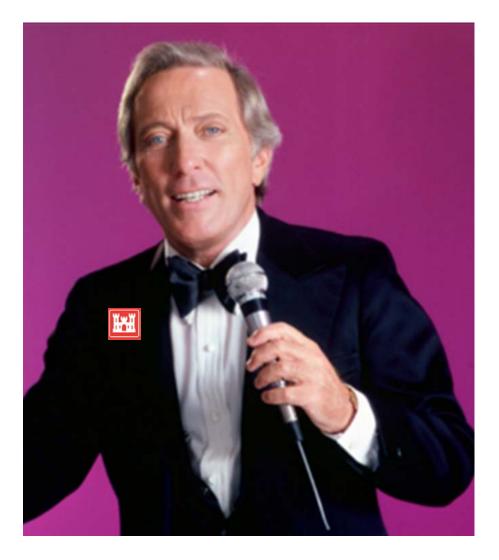




Concurrence Point 4B & 4C









Rob Hanson, P.E. (919) 707-6024 rhanson@ncdot.gov



• https://connect.ncdot.gov/resources/Environmental/Pages/Merger.aspx