

Project Development from Concept to Ribbon Cutting

(or How Do I Get This Road Fixed?)

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In the Beginning

The Elected Official

- Dad gum it, I'm sick of sitting in traffic at this light and I'm going to get it fixed!
- Where's my cell phone? I'm calling my TCC rep!!!

The Planner

- Well first you need to examine your land development pattern and desired level of community mobility resulting in a regional comprehensive plan which produces a forecasted future development pattern necessitating a particular long range transportation plan and then do a full comparison of options while projecting future development patterns under different scenarios which can then be tested against additional options while engaging in a full financial analysis which produces a financially constrained list of projects that can then be tested against statewide air quality plans for compliance with.....

Next

Elected

- Say what?
- I just want to fix this problem, tell me how!

Planner

- No, really, there is a federally prescribed process that all project development must go through to ensure equitable treatment and a fair expenditure of public funds.
- Depending on the project's complexity, the process can take several years and then you can seek funding.

continued

Elected

- Oh come on now, I don't have years.
- Have any of you people ever actually driven on a project you planned?

Planner

- Actually yes, but I've been here a really long time.
- Seriously, there are different options.

Reality

- There will never be enough money.
- NC's SPOT prioritization process for 2015-20, 1100 highway projects estimated at \$45 B chasing \$9 B worth of expected revenues.
- MUMPO's 2035 Long Range Transportation Plan: 310 desired projects. Estimated ability to fund 64 projects, 2 with tolls, 20 with local funds, 6 with a privatized concept (Augustalee)

Reality Part 2

- What does success look like?
- Prioritize to that goal, both locally and regionally.
- Consider your funding options, they dictate your process:
 - 1) Conventional TIP funding (federal/state)
 - 2) Direct Apportionment (DA funding – federal)
 - 3) NCDOT small pots (state system only)
 - 4) Purely local funding (municipal)
 - 5) Partnerships (public/private or public/public)

Options Selection Chart

Option	Project Cost	Decision-makers	Federal or NC Process	Local Responsibility	Roadway System
Conventional TIP	\$ 2 M +	NC, MUMPO, FHWA	Usually Federal	Low, usually consultation only	State
Direct Apportionment	\$ 1-5 M	MUMPO, NC, FHWA	Federal	Medium-high, all pre-construction, 20 % cost share	Federal-aid
Partnerships	Depends	Depends	Depends	Medium to high	depends
NCDOT small funding	Typically < \$350 K	NCDOT	NC	Low to medium, may inc. r/w	State
Local	Depends	Local/LGC, MUMPO if regional	No	High	any

Conventional TIP Process

(approvals)

- Comprehensive Transportation Plan (MPO, NCDOT)
- Long Range Transportation Plan (MPO, US DOT)
- Air Quality Conformity (MPO, US DOT)
- NC 10 Year Program & Resource Plan (NCDOT)
- NC TIP (NCDOT, MPO)
- Air Quality Conformity (MPO, US DOT- first 4 years)
- NC 5 Year Work Program (NCDOT)
- Environmental Document (NCDOT, FHWA)
- Design (NCDOT)
- Permits (natural resources agencies)
- Right of Way (NCDOT)
- Utilities (NCDOT)
- Bid, Award (lowest qualified bidder,) Construct (NCDOT)

Direct Allocation Process

- Must be in a conforming LRTP & TIP
- Same as conventional TIP except can only be used on a federal-aid eligible project
 - Federal aid system
 - Some safety projects
 - Railroad crossings
- Possible requirement for local sponsor to lead project, produce environmental document, acquire r/w, bid and supervise construction
- Probable 20% local match

NCDOT Small Pots

- May be solely NCDOT responsibility without other approvals
- If local participation needed, requires a municipal agreement
- Environmental document, if required, is likely to be a categorical exclusion
- May require local contribution to r/w costs

Municipal Project

- Does not need to be in LRTP unless regionally significant
- If on NC system, requires NCDOT approvals (design, construction quality)
- Natural resource agency permits may be needed
- Subject to Local Government Commission scrutiny
- Falls under NC purchasing laws
- Should use state/federal r/w purchasing process

Municipal Projects, examples

- City of Charlotte has authorized over \$1 Billion in road bonds since 1985
- Over \$320 Million spent on NC system roads (i.e. NC 51, Matthews to Pineville)
- Matthews: Fullwood Lane (\$800 K, 1992)
- Cornelius: Catawba Ave. East (\$ 3 M)
- Huntersville: NC 73 (\$4 M partnership,) several intersections

Partnerships public/public

- Often with NCDOT
 - usually supplementing a project led by NCDOT
- NC 73 (US 21 to NC 115)
 - MUMPO DA contribution
 - Private developer funds
 - MUMPO & NCDOT ARRA funds
 - Town bond funds
- Verhoeff Drive Extension
 - County helped with land costs
 - Huntersville led, Davidson & Cornelius repay
 - US Economic Development Administration
 - NCDOT small pots funds

Partnerships public/private

- Rea Road Extension
 - Developer of Piper Glen built road, NC built interchange
 - Extension south of I-485 included donated r/w and some construction
- Sam Furr Rd/I-77 interchange
 - Developer contributed r/w, funded environmental document
- Charlottetowne Avenue
- Bryton (NC 115, Hambright Rd Ext, railroad relocation)
 - County COPS, developer to repay, adequate collateral
 - Developer leading project

Implementation Steps

So we made it to the T.I.P.

Now What?

**Letting Date is not the
beginning Point!!!!**

**Depending upon the project
scope, there could be seven to
ten years of work ahead!**

Project Development

- Identify Project Concept and Purpose & Need
- Planning and Environmental Document
- Design
- Right of Way and Utilities
- Obtain environmental permits
- Contract Let and Construction
- Maintenance

NEPA

- National Environmental Policy Act
- Signed into law by President Richard Nixon on January 1, 1970, NEPA set forth a bold new vision for America. Acknowledging the decades of environmental neglect that had significantly degraded the nation's landscape and damaged the human environment, the law was established to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans.

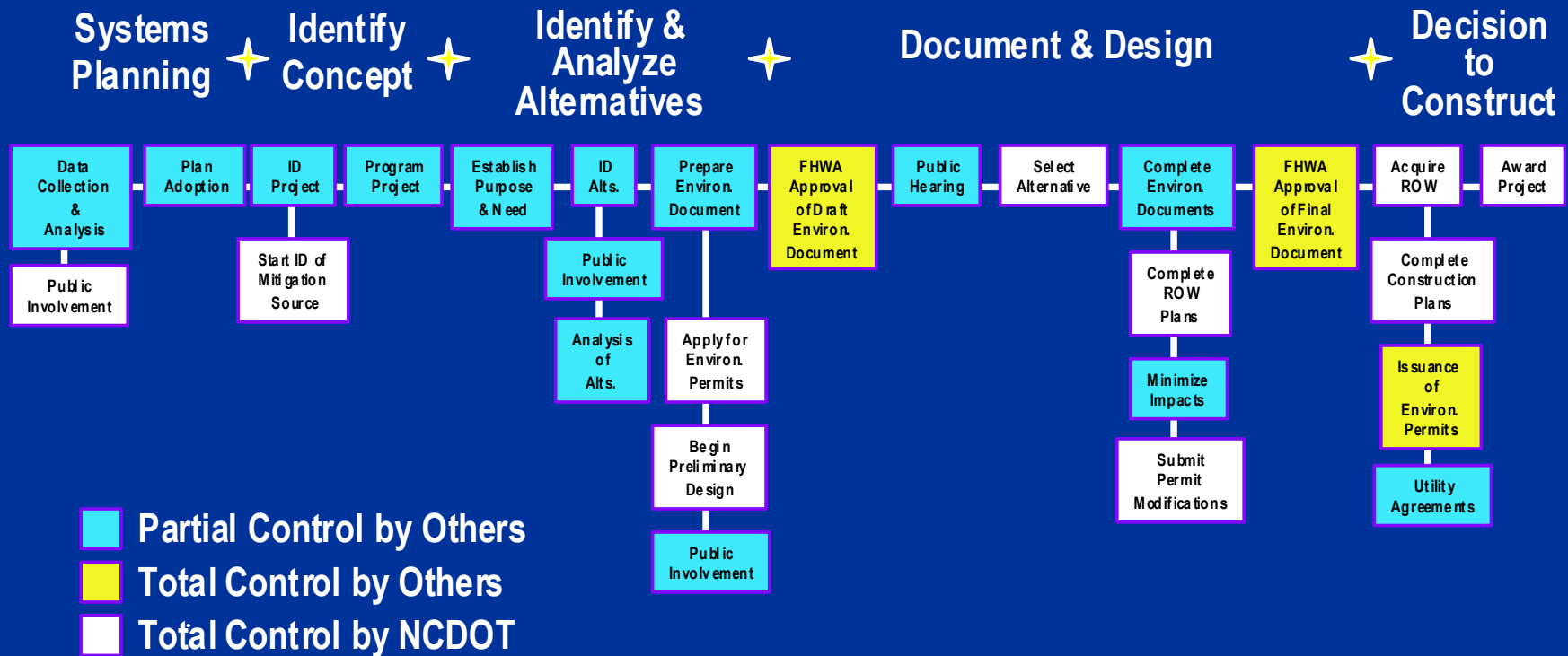
NEPA

- This process results in a final Document outlining the proposed scope, selected alternative, associated cost, impacts, etc.
- 3 Types of NEPA Documents (type of document depends upon impacts)
 - Categorical Exclusion
 - Environmental Assessment/FONSI
 - Environmental Impact Statement/Final EIS/ROD

NEPA

- NEPA Process involves close coordination with environmental resource agencies, public, local officials, MPO, RPO, etc. to ensure project involves least impacts as possible to human and natural environment
- MERGER Coordination process is often used on the larger projects to help ensure recommended alternative can be permitted

Pre-Construction Transportation Decision-Making Process



Goal: To ensure a transportation improvement meets need in the least environmentally damaging practical way

NCDOT Highway Design

- Provides designs and design support information for all highway elements including:
 - Roadways
 - Bridges
 - Culverts
 - Retaining Walls
 - Drainage Systems
 - Lighting
 - Route Surveys
 - Utility Relocation & Coordination

NCDOT Highway Design

- Design Work begins at early within project development to support the NEPA process
- Right of way plan preparation begins after an alternative has been selected
- On large, new location projects it can take three years to develop the right of way plans (this also includes location and survey work and obtaining base plan sheets.)

NCDOT Right of Way

- NEPA documents have to be complete before right of way acquisition begins
- Right of way acquisition date is critical in the TIP since the NEPA documentation has to be completed before the right of way acquisition begins
- Normally, right of way acquisition takes about two years on large projects
- Right of Way has to be secured before NCDOT can let a project contract

NCDOT Contract Let and Construction

- Planning and design complete, right of way acquired and environmental permits are obtained
- Funding has to be secured and appropriated by FHWA.
- Projects bids typically opened on 3rd Tuesday of each month. Division Projects can be opened any time.
- Low bids are reviewed and a determination of contract award is made

NCDOT Construction/Maintenance

- Construction begins and will take any where from 3 months on a Division Let project to 3 to 4 years on large T.I.P. project like I-485.
- At final acceptance point NCDOT will accept project and assume life time maintenance of same.

Project Development Process

- Lot of work, coordination, collaboration, and communication involved in the process
- It can take many years from entry in the TIP until the project is ready for use by the traveling public
- NCDOT is constantly striving to improve its delivery process , streamline the process, and improve its predictability

You're Done!

