



FEDERAL FUNCTIONAL CLASSIFICATION UPDATE

S-D MPO POLICY COMMITTEE

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Introduction

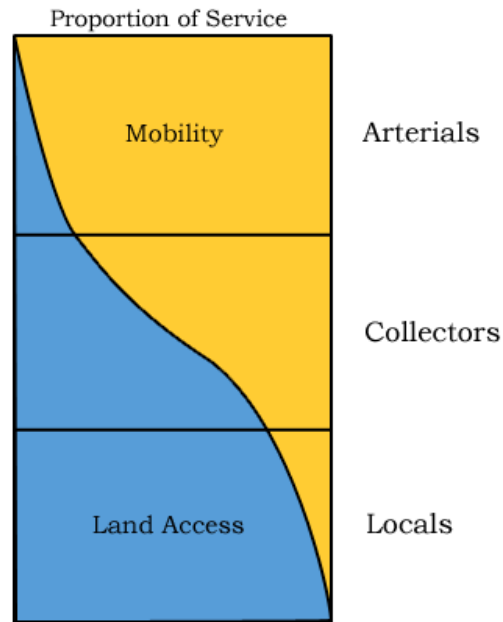
- Terminology

- Federal Functional Classification – AKA “Functional Classification” or “FC”. (Used in Highway Performance Monitoring System reporting)
- Functional Classification categorizes roadways by their **relative** purpose, typically comparing importance of mobility to property access

FUNCTIONAL CLASSIFICATION FACTORS

Seven Federal Classifications

Relationship of Functionally Classified Systems in Serving Traffic Mobility and Land Access



- Interstate
- Other Freeway & Expressway
- Principal Arterial
- Minor Arterial
- Major Collector
- Minor Collector
- Local

IMPORTANCE OF FC – HPMS

HPMS: data aggregated by federal functional classification

- Utilized to Generate Reports :Biennial Condition and Performance Report, Highway Statistics, etc.
- Air Quality Analysis
- Design Standards
- Transportation Modeling Applications
- Applications in calculating roadway capacity
- MOST IMPORTANT: Federal – aid Highway Program Funding levels

Introduction

- Area types (continued)
 - **Small Urban Areas** – Populations of 5,000 to 49,999 (Census definition is 2,500 to 49,999)
 - **Urban area** – Population of 50,000 or greater (Includes both urbanized and small urban)
 - **Rural Areas** – Incorporated or unincorporated areas with less than 5,000 population

“Draft” Federal Guidance

- Important note – proposed Federal guidelines revisions on functional classification are defined as “**Draft**”
- No longer have urban/rural designations
 - No “urban” or “rural” prefixes anymore
 - HPMS database will continue to designate urban and rural area types with codes

IMPORTANCE OF FC - FUNDING

- FC needed for federal funding
 - Proposed roads programmed within next 4 years
- Rural/Minor Collectors and Locals not eligible for most federal funding categories
 - Exceptions (e.g., some bridges)
 - A Guide to Federal-aid Programs and Projects
- NHS funding apportionment
- Allocation formulas


A background map of Fort Worth, Texas, showing a grid of streets, major highways (Interstates 75, 30, 40, 55, 67, 820), and the Trinity River. The text is overlaid on this map.

FUNCTIONAL CLASSIFICATION SYSTEMS

Federal FC

Modeling FC

City Thoroughfare Plans



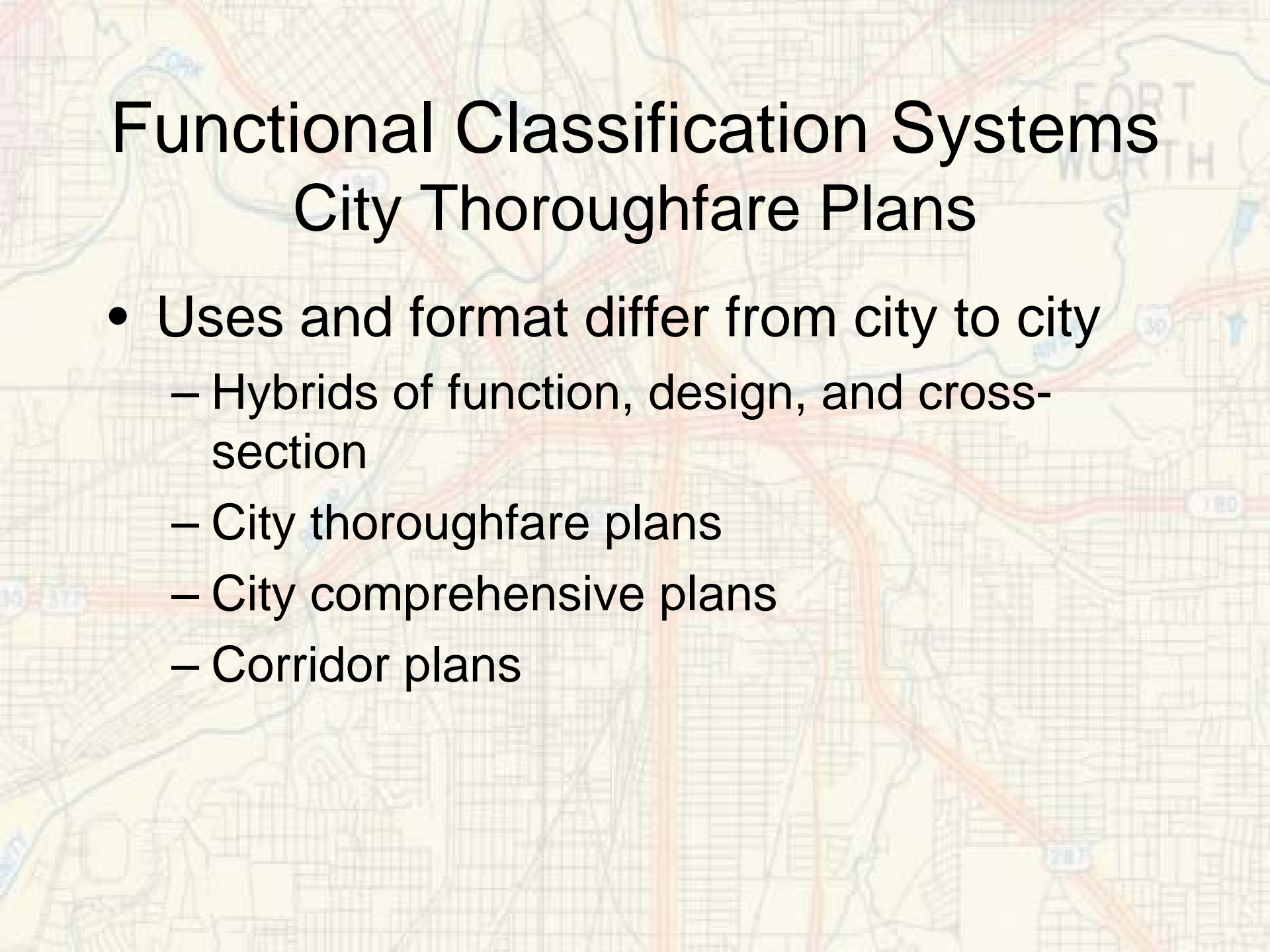
Functional Classification Systems

- All roads in the state have Federal FC
- Roads in MPOs also have modeling FC
- Most roads in cities have some type of thoroughfare plan FC

Functional Classification Systems

FEDERAL FC vs. MODELING FC

- Similarities
 - Operational function
 - Similar factors used to determine proper classification
 - Category names are very similar, but not identical
 - Every road will have two functional classifications



Functional Classification Systems

City Thoroughfare Plans

- Uses and format differ from city to city
 - Hybrids of function, design, and cross-section
 - City thoroughfare plans
 - City comprehensive plans
 - Corridor plans

FUNCTIONAL CLASSIFICATION CATEGORIES

- Seven FC categories (think of a river)
 1. Interstate
 2. Other Freeways and Expressways
 3. Principal Arterial
 4. Minor Arterial
 5. Major Collector
 6. Minor Collector
 7. Local

PROCESS FOR UPDATING FC

- Remember - FC refers to the **RELATIVE** functions a roadway serves
- Use basic logic
- Compare Roadway in question with roadways in the same area

PROCESS FOR UPDATING FC

- **RECOMMENDED:** Review and update entire functionally classified network
 - Urban fringe
 - New development
 - Changes in land use
 - Changes in travel patterns
 - Road improvements

PROCESS FOR UPDATING FC

- Typically, FC increases
 - As surrounding development and traffic volumes increase
 - Road improvements can result in FC increases

PROCESS FOR UPDATING FC

1. Identify Traffic Generators
2. Rank Traffic Generators (ability to generate trips)
3. Determine Appropriate FC to Connect Traffic Generators (work from top-down...Principal Arterials to Locals)

PROCESS FOR UPDATING FC

Special Circumstances

- Classify one-way streets individually
 - Analyze one-way pairs
 - Each street will have its own FC, though they will likely be identical

PROCESS FOR UPDATING FC

Special Circumstances

- Classify frontage roads independently of controlled-access facility which they abut
 - Generally classified as collector
 - Example – Interstate main lanes will be “Interstate” and frontage roads will be something else, typically collectors

PROCESS OF UPDATING FC

While an updates typically are undertaken after every decennial census, MPOs and TxDOT can update functional classification on any road as soon as it is determined that a change needs to be made.

Percentage of Classification Mileage (Post 2000 Census)

CATEGORY	% OF VMT	% OF MILAGE	SDMPO %*
Principal Arterial	40 – 65	5 – 10	8.24%
Minor Arterial	15 – 25	5 – 20	12.03%
Collector	5 – 10	5 – 10	16.77%
Local	10 – 30	65 – 80	61.6%

*Current functional classification/December 1, 2004

- If actual percentages exceed range by 10 percentage points, justification is needed.
- Example: Actual Urban Minor Arterial
 - 20% - No justification needed
 - 21% - Must justify

Proposed Modification of Percentage of Classification Mileage

CATEGORY	% OF VMT	% OF MILEAGE	SDMPO %*	DRAFT UPDATE**
Principal Arterial	40 – 65	5 – 10	8.24%	6.37%
Minor Arterial	15 – 25	5 – 20	12.03%	12.71%
Collector	5 – 10	5 – 10	16.77%	17.89%
Local	10 – 30	65 – 80	61.6%	63.03%

*Current functional classification/December 1, 2004

** Draft update on January 22, 2013

Local Consultation Process

- MPOs - Approval from:
 - Technical Committee
 - Policy Committee
 - Forwarded to TxDOT and FHWA for approval

Boundary Smoothing

- The Urbanized Area Boundary (UZA) follows Decennial Census
- Typically Census Defined Urbanized Area has very jagged boundaries

Why Smooth the UZA?

- Roads need to enter and exit the UZA once
 - Does not affect Functional Classification
 - Urban land uses need to be included
 - Associated roads should be included
- Provides a more clear definition of the UZA

What are the Issues?

- Start with the 2010 Census-Designated Urbanized Area Boundary
 - Must be completely included
- Continuity of roadway area type
- Census Block Groups
 - Need to be intact (with some allowable exceptions)



More Issues

- **Unpopulated Fringe Development**
 - Just no land grabs!
- **Existing Boundaries**
 - Physical and political
- **2000 Adjusted UAB**
 - Typically OK to use as a minimum

Census – Designated UAB

- Good for Population Density Information
- Not So Good for Transportation/Modelling Needs
- Must be Included in Adjusted Boundary

Area Type Continuity

- UAB is where HPMS distinction will be made
- Database Needs
- Traffic Modeling Needs

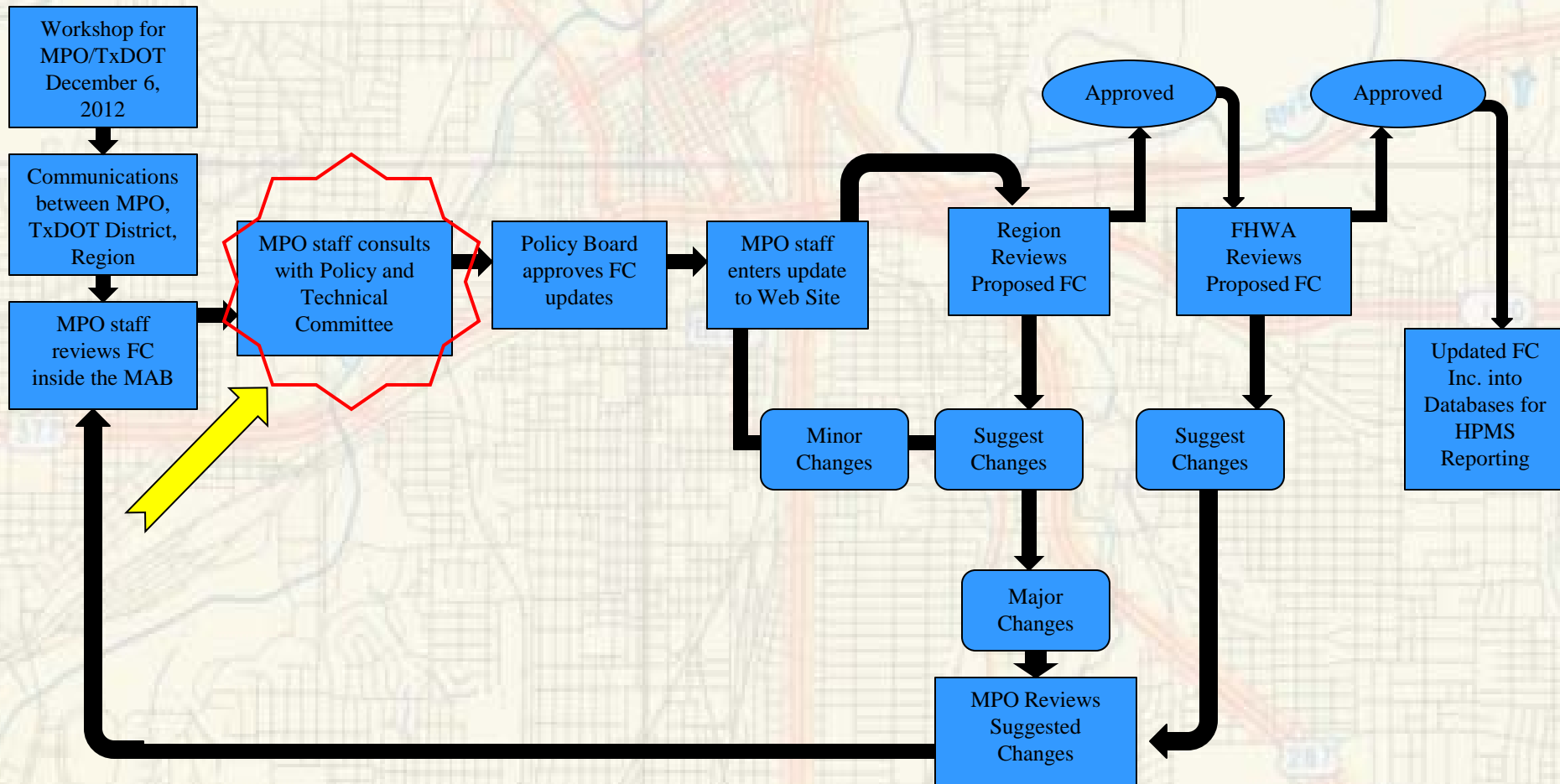
Keeping Census Block Groups Intact

- Data
 - Broken Census Block Groups mean making demographic data assumptions
- Important for Traffic Models
- Exceptions OK When Data Assumptions are Non-Existent or Minimal

Existing Boundaries

- Physical
 - Water, topographic
- Political
 - City, county, state, national
- Use Logic

Urbanized Area Review and Approval Process





Update done in Coordination with TxDOT and FHWA

- Proposed changes will be reviewed with TxDOT
- Final approval via FHWA
- Deadline March 6, 2013



QUESTIONS?