

ACHD
Transportation-Land Use Integration Plan

ACHD Transportation-Land Use Integration Plan (TLIP)

ACHD Policy Maker Meeting
August 2, 2006

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ACHD Policy Maker Update - Agenda

- History & Overview
- Goals & Objectives of the Study
- Street Functional Classification
- Context
- Street Typology
- Design Applications
- Work Plan & Schedule

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History & Overview

Slide # 3

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History & Overview

- ✓ Communities-In-Motion
- ✓ Blueprint for Good Growth

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CONSULTANT TEAM

Andy Mortensen
Project Manager
Transportation Policy Planner

Technical Component

- Travel Demand Modeling (1240)
 - Daney Stefanak, PE
 - Brent Turley, PE
- Needs Analysis & Streets Plan
 - Andy Mortensen
 - Brent Turley, PE

Policy Component

- Functional Classification & Street Typology (1240)
 - Dale Surant - Facilitation
 - City Rules AICP
 - Andy Mortensen
 - Dan O'Connell, PE
- Livable Street Design (1240)
 - Walter Aulait, PE - Facilitation
 - Paul Moore, PE
 - Dan O'Connell, PE
- Blueprint for Good Growth Coordination (1240)
 - Michael Lauer, AICP

Community Involvement / Support & Coordination

- Mike Pepper

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Goals & Objectives

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Study Goals

- Create Better Street Designs
- Accommodate All Users
- Assure a Match Between Transportation and Land Use
- Reduce Conflict and Acrimony

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Functional Classification

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- What is Functional Classification?
- Why is it needed?

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Reframing Key Transportation Conventions Hierarchy & Functional Class

The diagram shows a network of roads on a black background. A thick, multi-lane road at the bottom is labeled 'Interstate' with a red and blue shield icon. Other roads are labeled with yellow arrows: 'Principal Arterial' (a major road), 'Local' (a residential street), 'Collector' (a road connecting local streets to arterials), and 'Minor Arterial' (a road serving a neighborhood).

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Reframing Key Transportation Conventions

"The Standard Process"

Define Roadway Type
Hierarchy & Functional Class

then

Establish Design Controls
Design Traffic (How Many Cars)
Design Speed (How Fast Can They Go)

then

Fit Design Elements
Roadway Design Standards

- Geometric (Sight Distance / Stopping Distance)
- Dimensions
- Design Elements – Trees / Parking / Transit Stops
- AASHTO Design Guidelines
- State and Local Design Standards
- Design Variances and Exceptions

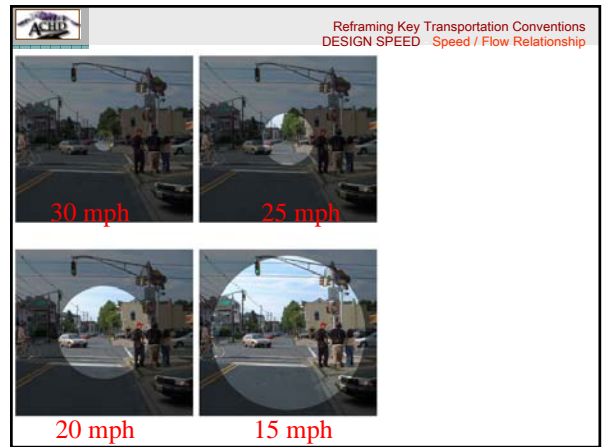
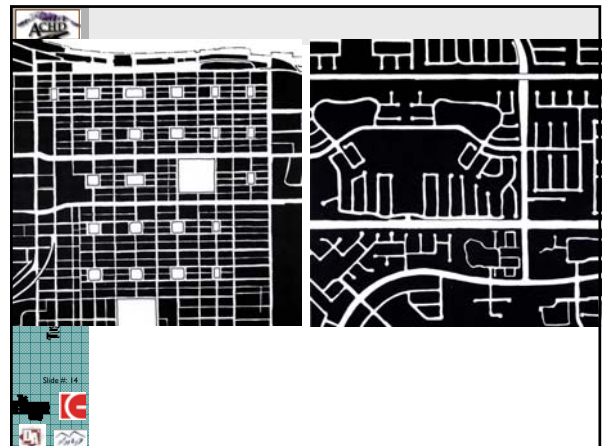
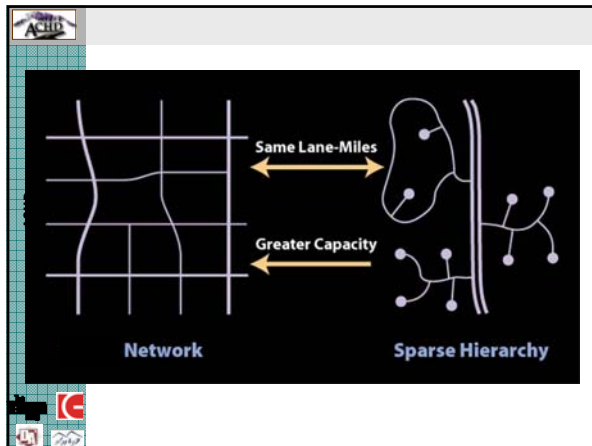
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Reframing Key Transportation Conventions Hierarchy & Functional Class

These Effectively Describe the **VEHICULAR** Function of the Street

This diagram is identical to the one on slide 10, showing a street network with labels for Principal Arterial, Local, Collector, Minor Arterial, and Interstate.

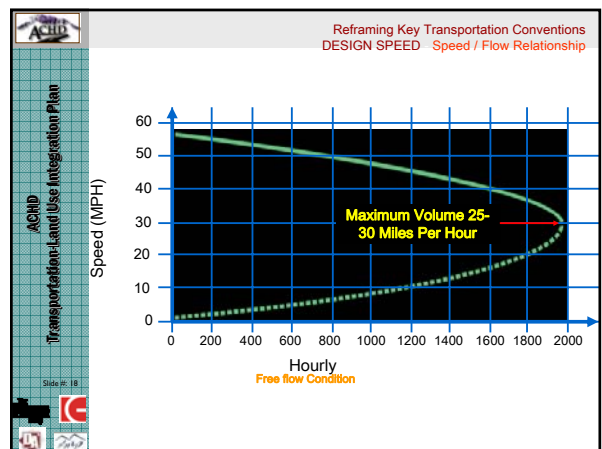


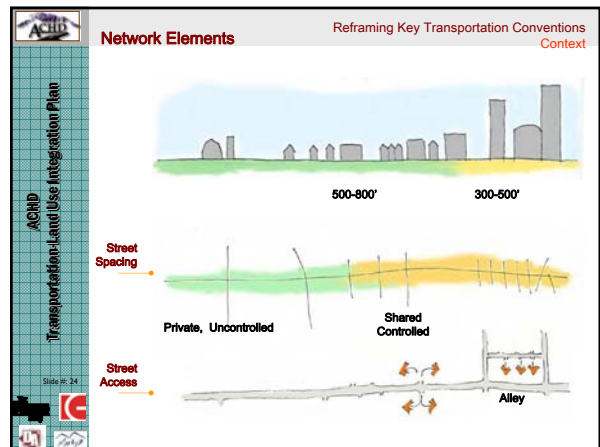
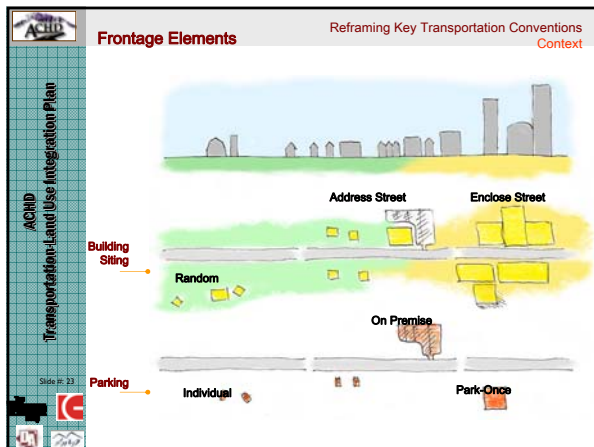
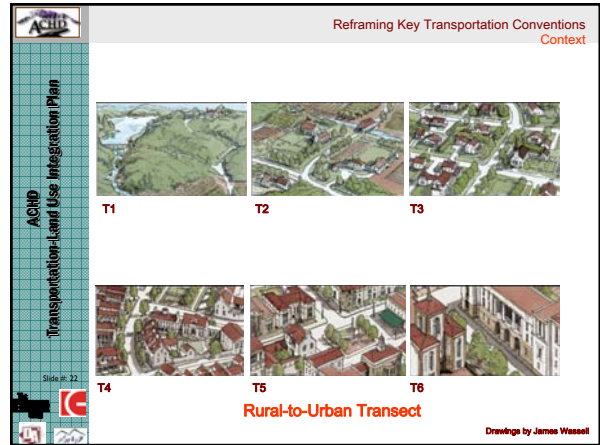
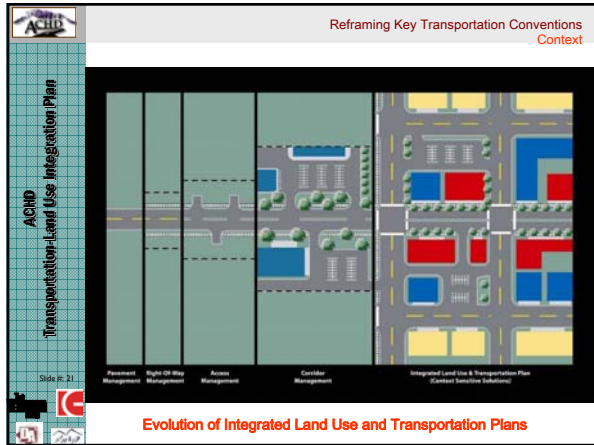
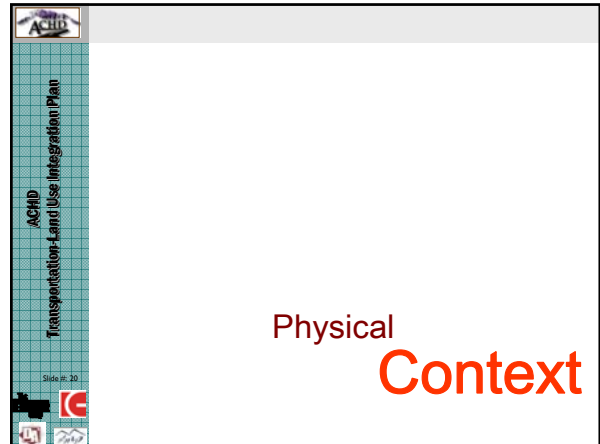
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Reframing Key Transportation Conventions
DESIGN SPEED - Roadway Safety

<u>SPEED</u>	<u>p (killing pedestrian)</u>
15 mph	3.5 %
31 mph	37.0 %
44 mph	83.0 %

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50 mph

35 mph

45 mph

35 mph School Zone

40 mph

25 mph School Zone

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Reframing Key Transportation Conventions
Context

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TRANSITION FROM RURAL TO URBAN

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Reframing Key Transportation Conventions
Context

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TRANSITION FROM RURAL TO URBAN

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Reframing Key Transportation Conventions
Context

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TRANSITION FROM RURAL TO URBAN

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Context

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TRANSITION FROM RURAL TO URBAN


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Context

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TRANSITION FROM RURAL TO URBAN

Reframing Key Transportation Conventions
Context




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TRANSITION FROM RURAL TO URBAN

Reframing Key Transportation Conventions
Context

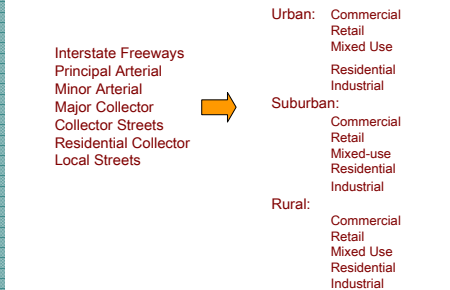


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TRANSITION FROM RURAL TO URBAN

Reframing Key Transportation Conventions
Context



Interstate Freeways
Principal Arterial
Minor Arterial
Major Collector
Collector Streets
Residential Collector
Local Streets

Urban: Commercial
Retail
Mixed Use
Residential
Industrial

Suburban: Commercial
Retail
Mixed-use
Residential
Industrial


Rural: Commercial
Retail
Mixed Use
Residential
Industrial

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Typology

Reframing Key Transportation Conventions
Hierarchy & Functional Class



Legend

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Functional Classification

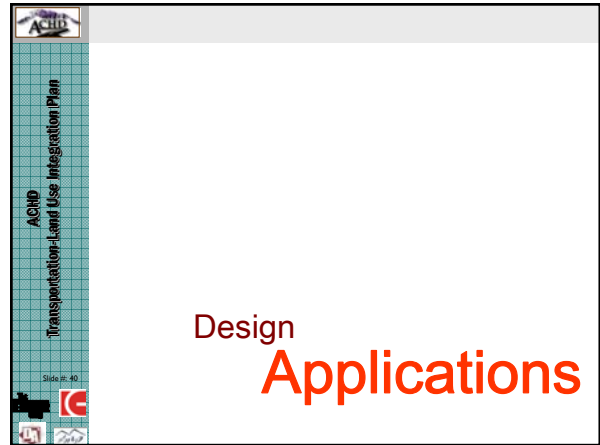
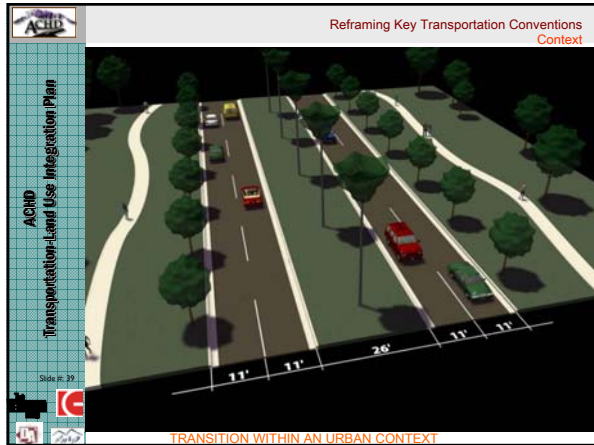
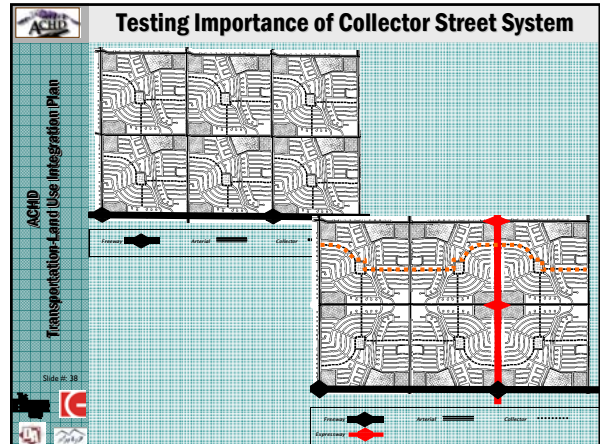
Reframing Key Transportation Conventions
Context



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TRANSITION WITHIN AN URBAN CONTEXT



Reframing Key Transportation Conventions

"A More Complete Process"

Determine Functional Classification

Hierarchy & Functional Class
and
Context

then

Establish Design Controls

Design Traffic

- The Role of the Regional Model
- Understanding the Travel Patterns - Trip Types
- Consider All System Users
- Defining the Context - Network and Mode Choice
- Role of Micro-Simulation
- Interpreting the Results - Capacity & Travel Time

Design Speed

- Target Speed To Context
- Minimums vs. Maximums
- Freight Routes
- Roadway Safety For All Users
- Speed / Flow Relationship
- Speed & Roadway Geometrics

then

Fit Design Elements

Roadway Design Standards

- Geometric (Sight Distance / Stopping Distance)
- Dimensions
- Design Elements - Trees / Parking / Transit Stops
- AASHTO Design Guidelines
- State and Local Design Standards
- Design Variances and Exceptions

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Reframing Key Transportation Conventions
DESIGN ELEMENTS Dimensions

CORRIDOR TYPE: COLLECTOR STREET

Design Speed: 30-35 mph

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Design Element	Minimum	Maximum	Notes
Right-of-Way	40'	60'	
Travel Lane	11'	12'	
Shoulder	4'	6'	
Median	4'	6'	
Planting Strip	4'	6'	
Utility	4'	6'	
Stormwater	4'	6'	
Other	4'	6'	

Reframing Key Transportation Conventions
DESIGN ELEMENTS Dimensions

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CORRIDOR TYPE: COLLECTOR STREET

LAND USE CONTEXT: RURAL AGRICULTURAL/INDUSTRIAL

Development: Rural, Agricultural, Industrial

Typical Land Use: Large lots, open fields, barns, etc.

DESIGN ELEMENTS

DESIGN DIMENSIONS

Element	Minimum	Maximum
Right-of-Way	60' - 80'	100' - 120'
Travel Lane	30' - 36'	40' - 48'
Shoulder	6' - 8'	10' - 12'
Median	4' - 6'	8' - 10'
Street Light Spacing	120' - 150'	180' - 240'
Street Light Spacing	120' - 150'	180' - 240'
Street Light Spacing	120' - 150'	180' - 240'

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SCHEDULE

Project Tasks	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	April	May	Jun	July	Aug	Sept	Oct
Develop Street Functional Classification Policy & Map	[Timeline bar]																
Develop Livable Street Standards	[Timeline bar]																
Refine COMPASS Model and Train ACHD Staff	[Timeline bar]																
Conduct Long-Term Needs Analysis	[Timeline bar]																
Develop Major Streets Plan	[Timeline bar]																
Local Adoption & Implementation	[Timeline bar]																
ACHD Adoption & Implementation	[Timeline bar]																
Develop & Coordinate the Community Involvement Program	[Timeline bar]																

Key: WORKSHOPS & MEETINGS

- Public Meeting: 2
- Stakeholder Workshops: 4
- Community Workshops: 10
- Public Meetings: 14

Intermediate Work Products (Milestones)

1. Draft Livable Streets Design Guide & Functional Classification Policy & Map
2. COMPASS Model Refinement & ACHD Staff Training
3. Long-Range Vision & Non-Adopted Street Needs & Cost: LOS Policy
4. Final Livable Streets Design Guide & Functional Classification Policy & Map
5. ACHD Major Streets & Funding Plan, Neighborhood Traffic Management Plan & Handbook, Corridor Preservation Plan

COMPASS Model Refinement

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New Collector St Connections

Refined AZs (purple dashed lines)

Original AZs (orange dashed lines)

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