Transit 101

Yolo Transportation District

YoloTD's Transit Service Network Structure

Local
6 routes

- $2 fare
- Hourly

Intercity
6 routes

- $2.25 or $2.50 fare
- 30 minutes or hourly

Express
4 routes

- $3.25 fare
- Hourly

Two Competing Goals of Public Transit Service

Ridership Goal

Success: Maximize ridership, minimize subsidy per rider

Strategy: Allocate frequent service to areas with transit supportive characteristics

Outcome: Fewer routes, shorter waits, longer walks to service

Coverage Goal

Success: Maximize access to transit

Strategy: Allocate service widely with lower frequency of service

Outcome: More routes, longer waits, shorter walks to service

Both goals are good. Transit operators must balance spending between the two.

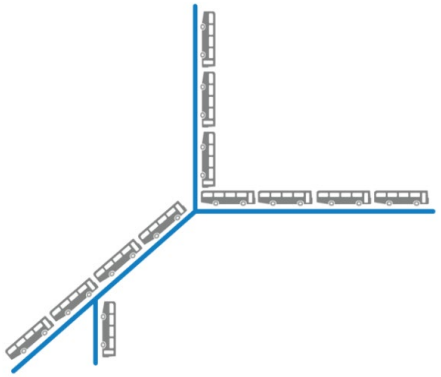
Ridership-Coverage Balance

High-Ridership Transit Goal

- ✓ FREQUENT
- ✓ ALL-DAY

+

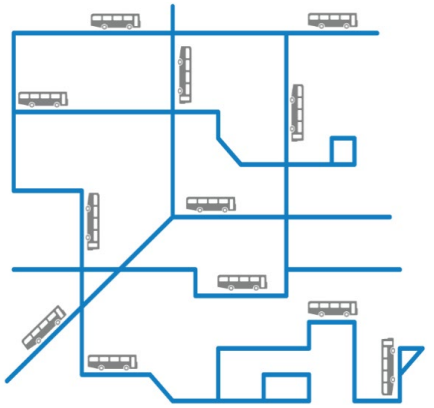
- ✓ DENSE
- ✓ WALKABLE
- ✓ LINEAR
- ✓ CLOSE



Coverage Transit Goal

SERVICE FOR NON-RIDERSHIP PURPOSES

- ✓ Geographic coverage
- ✓ Equity
- ✓ Critical community destinations



YoloTD Can't Do This Alone

Cities largely control transit outcomes:

- **Cities control factors that determine ridership**

  Density, linearity, walkability, proximity, and land use mix

- **Cities control quantity and quality of transit**

  Street design and priority policies determine transit travel speeds

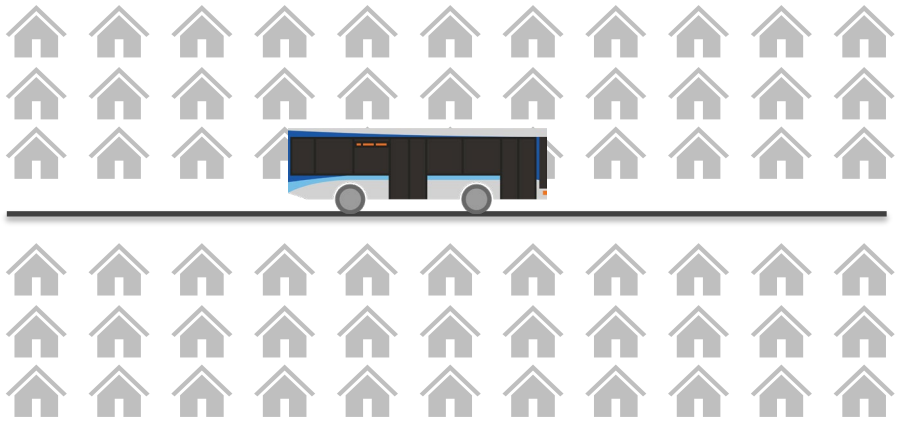
- Faster transit requires fewer vehicles per route, freeing up vehicles for new routes, more frequency, or longer hours of service

Fast, Frequent, Reliable, Safe
Transit Service

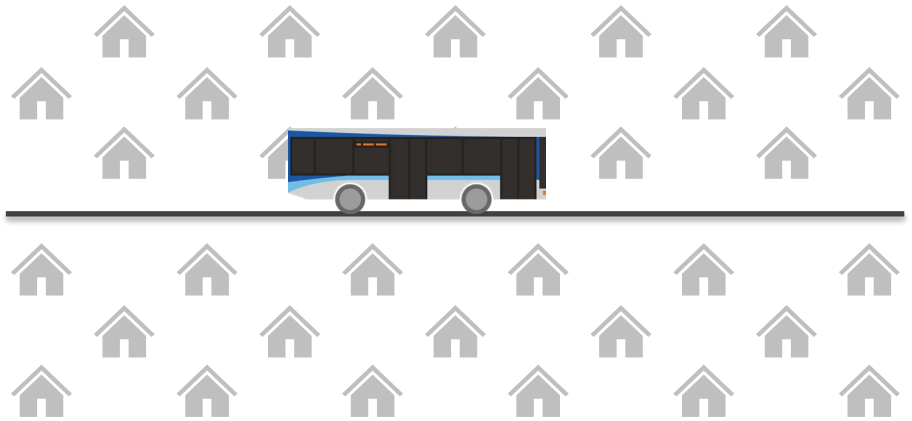
If Ridership is the Goal: The Ridership Recipe

Density: How many people near transit?

Higher Ridership



Lower Ridership



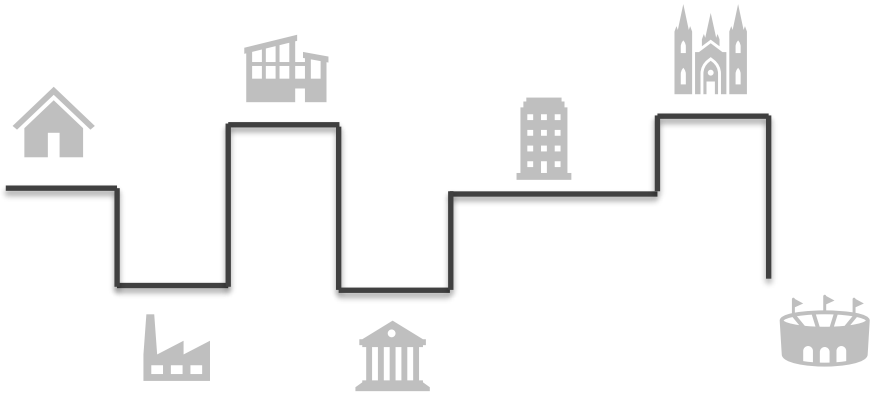
If Ridership is the Goal: The Ridership Recipe

Linearity: How direct of a connection can be made?

Higher Ridership

Closer/aligned destinations means direct travel paths and shorter trip durations.

Lower Ridership



Dispersed destinations require circuitous travel paths and longer trip durations.

If Ridership is the Goal: The Ridership Recipe

Proximity: How close are origins and destinations?

Higher Ridership

Lower Ridership

Shorter trips are better than long trips.

If Ridership is the Goal: The Ridership Recipe

Mixed Land Uses: Is there bi-directional all-day demand?

Higher Ridership

Mixed land uses attract all kinds of trips all day long on weekdays and weekends.

Lower Ridership

Homogenous land uses serve fewer kinds of trips, at fewer days/times, and create unidirectional demand that results in empty buses in one direction.

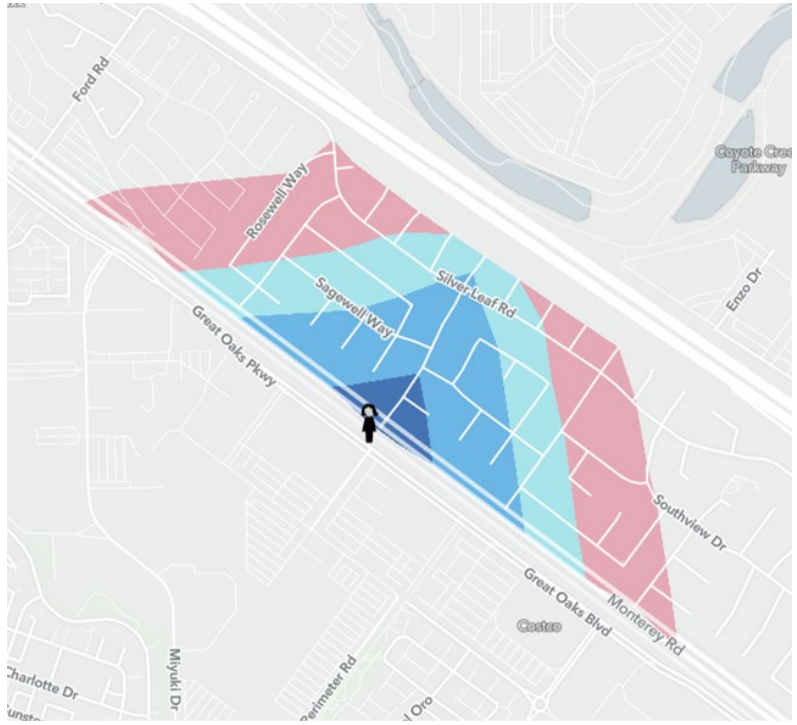
If Ridership is the Goal: The Ridership Recipe

Walkability: How accessible is the transit stop?

Higher Ridership

Street grid maximizes access

Lower Ridership



Train tracks, creeks, and freeways prevent access

Designing for High-Ridership Service

Service Levels 

"How much service?"

- ❑ Service hours
- ❑ Vehicles
- ❑ Operators

→

- ✓ Frequency
- ✓ Span (start/end times)
- ✓ Passenger load

Designing for High-Ridership Service

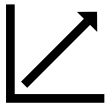
Route Design

"Where should the service go?"

Routes should be:

- ✓ Simple & consistent
- ✓ Symmetrical
- ✓ On a direct path
- ✓ Minimize deviations
- ✓ Along arterials (Rapid & Frequent Routes)
- ✓ Fast (give transit vehicles priority)
- ✓ Coordinated (timed transfers, aligned frequencies)
- ✓ Space stops appropriately

Designing for High-Ridership Service

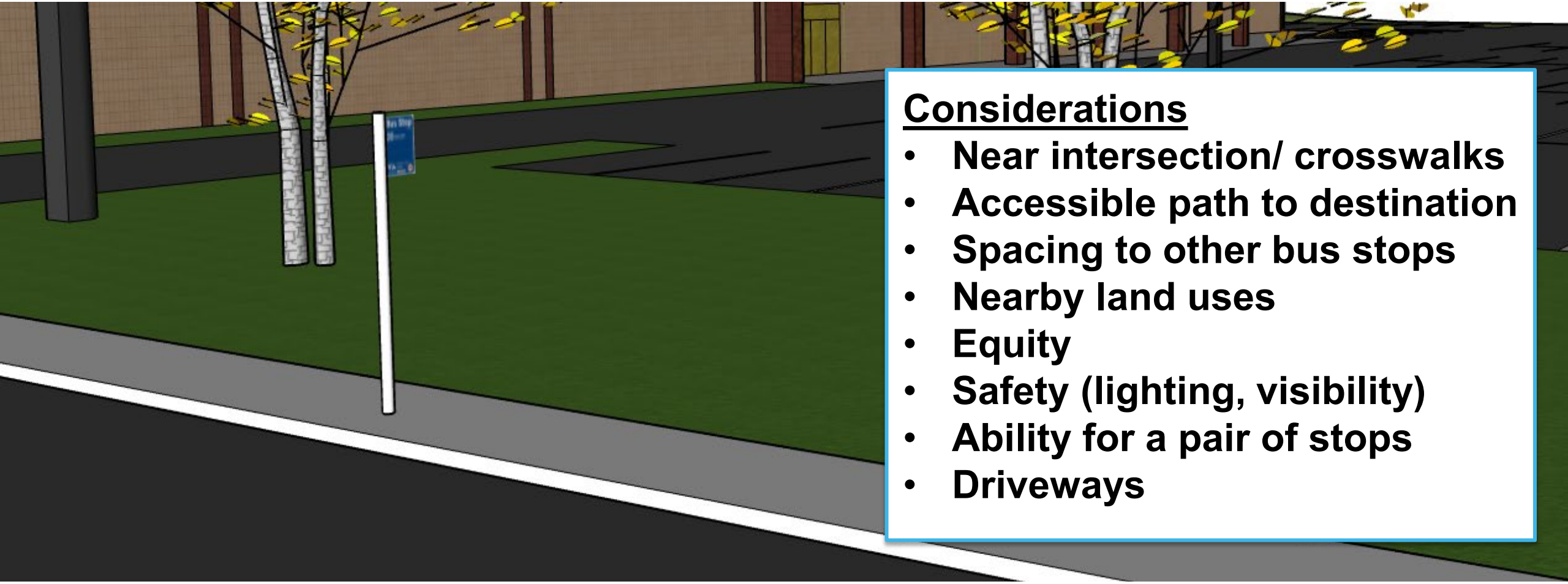
Service Productivity 

"How efficient/effective is the service?"

Some metrics include:

- Average daily riders (weekdays vs. weekends)
- Boardings per hour
- Operating cost per boarding
- Activity by stop (boardings + alightings)

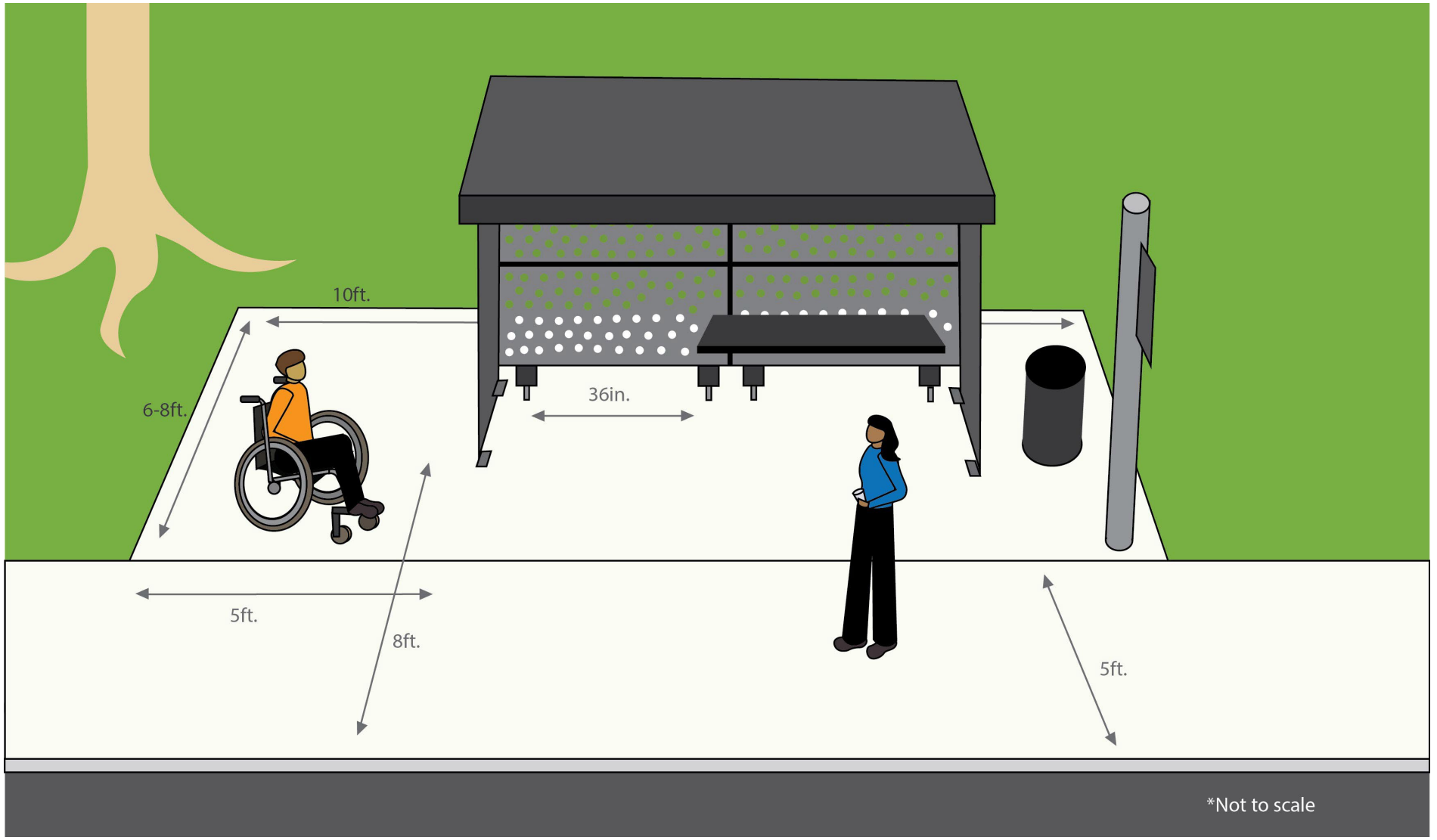
Role of Bus Stops in Service Planning



Considerations

- Near intersection/ crosswalks
- Accessible path to destination
- Spacing to other bus stops
- Nearby land uses
- Equity
- Safety (lighting, visibility)
- Ability for a pair of stops
- Driveways

Elements of an ADA-Compliant Bus Stop



Some Final Thoughts and Reminders

- YoloTD prefers 11-foot lanes
- YoloTD does not have a stated ridership vs coverage goal
- Consider bikeway/bus interactions especially at bus stops – bus boarding islands are crucial when separated bikeways are installed
  - Except at time points
- Land uses can change over time, but change can be slow – talk to us early and often!
- Chicken and the egg problem: If transit tries to follow development, you'll never be able to get the transit you want
- Developers can help fund transit improvements
- Cities control factors that determine ridership: Density, linearity, walkability, proximity, and land use mix
- Cities control quantity and quality of transit: Street design and priority policies determine transit travel speeds

Short-Range Transit Plan

- SRTP is the ongoing Yolobus network redesign
- Most transit agencies undergo major redesigns every 5-15 years
- Schedule for the Board:
  - Spring 2025: Existing conditions report (including rider survey results) and goals/objectives/performance measures
  - Summer 2025: Draft recommendations
  - End of year 2025: Final recommendations

Questions?

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