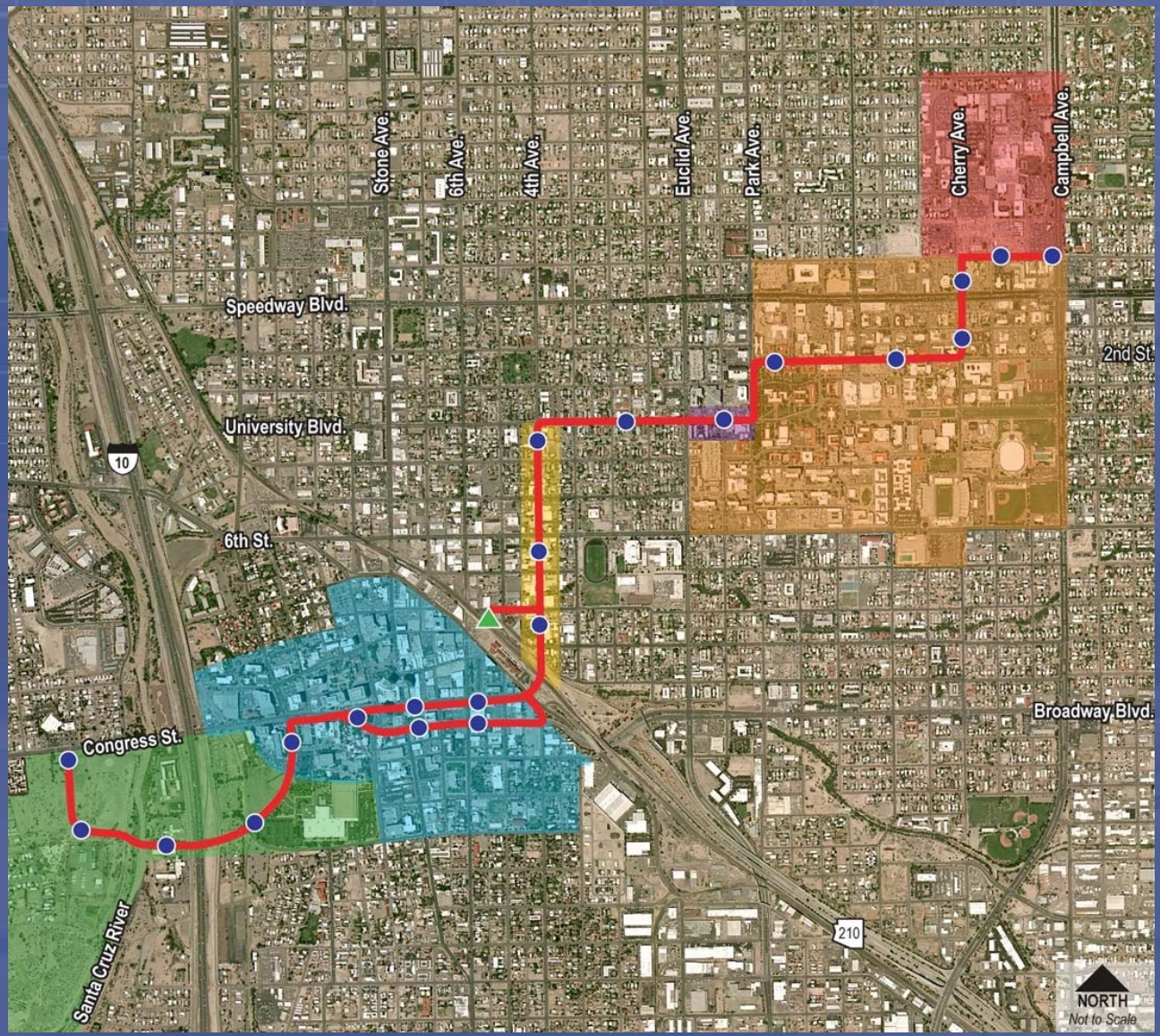
City of Tucson
Major Transit Investment Study

Community Liaison Group (CLG)
November 1, 2007

Modern Streetcar
Locally Preferred Alternative (LPA)

- Unanimous approval by City of Tucson Mayor and Council on April 4, 2007
- Local funding approved as part of the RTA vote on May 16, 2006
- Alignment operates from University of Arizona to Downtown Tucson


Stone Ave.
6th Ave.
4th Ave.
Euclid Ave.
Park Ave.
Cherry Ave.
Campbell Ave.
Speedway Blvd.
University Blvd.
6th St.
2nd St.
10
Congress St.
Broadway Blvd.
Santa Cruz River
210
NORTH
Not to Scale

Project Details

- Alignment length: 3.9 miles
- 19 stations
- MSF located south of 8th St
- 7 modern streetcars, including 1 spare
- Peak/off-peak headways: 10/20 minutes

Ridership

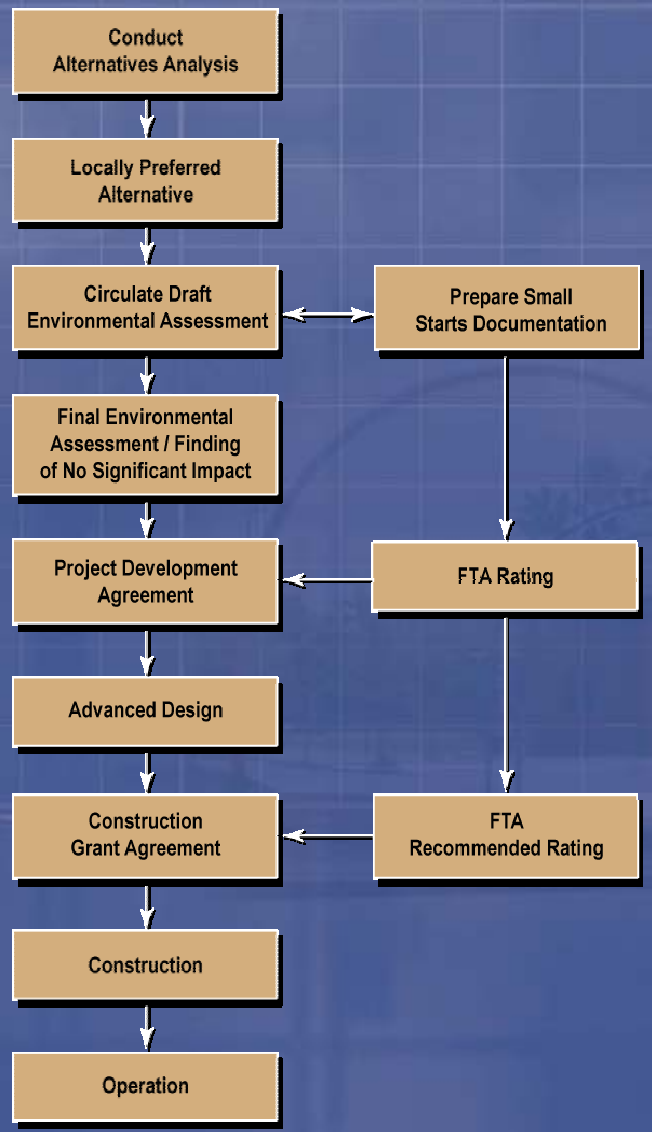
- 2010 ridership estimate: 3,250 per weekday
- 2020 ridership estimate: 4,217 per weekday
- Alternative land use scenario being developed for PAG model
- Revised travel demand forecast in December

Project Funding

- Capital costs: $144 million (YOE)
  - Some capital costs absorbed by other projects (e.g., 4th Ave underpass)
- RTA funding: $88 million
  - $72 million is for capital cost
  - $16 million is for operating cost starting in FY 2012
- Small Starts funding
  - Applying for 50% federal share of the project's capital cost

Project Development Process

- Alternatives Analysis
- Locally Preferred Alternative
- Circulate Draft EA
- Small Starts Documentation
- Final EA / FONSI
- Project Development Approval
- Advanced Design
- Construction Grant Agreement
- Construction
- Operation



Environmental Assessment (EA)

- Schedule and Process
  - Administrative Draft EA submitted to FTA on Sept 28
  - FTA comments due by mid Nov
  - Draft EA will be released for 30 day circulation period
  - Final EA will be submitted to FTA following 30 day circulation period
  - Finding of No Significant Impact (FONSI) will be issued by FTA (usually 30-60 days after submittal of Final EA)

Environmental Assessment (EA)

- Summary of Environmental Impact Categories
  - Air Quality
  - Noise and Vibration / Electromagnetic Interference
  - Traffic
  - Visual and Aesthetic Qualities
  - Historic Properties

Environmental Assessment (EA)

- Air Quality
  - Federal and state ambient air quality standards are applicable to Pima County
    - Carbon Monoxide (CO) Attainment Area with Maintenance Plan
  - Federal Transportation Conformity Rule requires a regional and project-level hot-spot analysis
    - Regional Analysis: Included in the PAG regional conformity analysis
    - Hot-Spot Analysis: Screened for CO and less than 50% of the standard
  - Recommendations and findings:
    - Modern streetcar will not cause any new violation or increase the severity of any existing violation

Environmental Assessment (EA)

- Noise and Vibration
  - Analysis based on FTA Guidance Manual
  - Identified 9 locations where there is potential for impact
    - Most of these locations exceed the moderate impact threshold by less than 1 decibel (usually considered an insignificant amount)
  - Recommendations and findings:
    - Use well designed flange bearing frogs for the loop on 5th Ave and the crossover on University Blvd near 4th Ave
    - Use a resilient layer under the track to reduce vibration levels to below the impact threshold should the detailed vibration analysis during final design show that mitigation is needed

Environmental Assessment (EA)

- Electromagnetic Interference (EMI)
  - UA research facilities have equipment sensitive to EMI
    - Potential impact to nano technology and biomedical researchers
    - Materials Science and Engineering Department electron microscopy equipment located in the Harshbarger Building adjacent to 2nd St
  - Recommendations and findings:
    - Electron microscopy equipment in Harshbarger Building will be relocated to the Marley Building
    - Letter of agreement between City of Tucson and UA
    - Total cost for moving and replacement of instruments and renovation of laboratory is $277,000

Environmental Assessment (EA)

- Traffic
  - Only the downtown Tucson roadway network studied in detail
    - Background data taken from the Kittelson Synchro Traffic Model
  - Analysis of roadway and intersection operations using the Trafficware Synchro/SimTraffic simulation analysis package
    - Intersections analyzed for PM peak hour for 2010 No-Build and Build
    - 90% of intersections function at Level of Service (LOS) “C” or better with intersection delay less than 35 seconds, while 10% function at LOS “D” with intersection delay between 35 - 55 seconds
  - Recommendations and findings:
    - Modern streetcar will not impact traffic, as all the roadway conditions and traffic control remain the same with 6 modern streetcar trips per hour

Environmental Assessment (EA)

- Visual and Aesthetic Qualities
  - Corridor divided into 10 visual units
    - Represent a set of land use, vegetation, urban form, scale, and material characteristics
  - Introduces tracks, an overhead electrical contact system with poles, and stations into the existing roadway cross-section
  - Recommendations and findings:
    - Changes to the visual and aesthetic qualities of the corridor will be minor and transportation infrastructure is already a part of the visual landscape
    - Modern streetcar project is compatible with the visual character of the surrounding area

Environmental Assessment (EA)

- Historic Properties
  - Section 106 consultation and Area of Potential Effect (APE)
  - Cultural Resources Assessment submitted to SHPO
    - Inventories registered historic properties, districts, known archaeological sites, and buildings of historic age that have not been surveyed for eligibility
  - Recommendations and Findings
    - Potential for impact to historic structures, districts, or buildings is limited
    - Adaptive use of existing transportation corridors and will not disturb or alter any of the defining characteristics of the historic districts
  - Memorandum of Agreement (MOA)
    - FTA, City of Tucson, and SHPO shall enter into a MOA to continue the Section 106 consultation process during final design and construction


DOWNTOWN / TCC