What is Transportation Demand Management (TDM)?

Transportation Demand Management is:

The art of influencing travel behavior for the purpose of reducing the demand for single occupant vehicle use
TDM Plan – Keys to Success

- Comprehensive
- Supportive of University vision and policies
- Tailored for different land uses and user groups
- Coupled with parking management
- Encourages investment in & use of alternative modes
- Reinforced by physical design elements
- Periodically monitored and modified

Diagram:
- TDM Plan
  - Transit
  - Bicycle / Pedestrian
  - Traffic/Parking
  - Context-Sensitive Design
  - Commute Options
Transit

**Goals**

*Provide commute options*
- Regional transit service
- Remote parking

*Reduce automobile traffic*
- Circulation within Grounds and City
- Remote parking connection

**Strategies**

- Routing and coverage
- Frequency
- Reliability
- Connections
- Traveler information
- Vehicle comfort
- Branding/Identity
- Amenities
- Pricing
Pedestrian

**Goals**

*Grounds and City circulation*
- Intra-grounds travel
- Dining & shopping
- Parking access

*Short-distance commutes*
- Residences within walking distance (0 to 1 mi)

*Reduce shuttle needs*
- Encourage walking over riding

**Strategies**

- Network continuity
- Directness
- Street crossings
- Safety and security
- Wayfinding
- Mix and proximity of uses
- Amenities and facilities

![Diagram showing integration of different transportation modes](image)
Bicycle

Goals

**Grounds and City circulation**
- Intra-grounds travel
- Dining & shopping
- Parking access

**Medium-distance commutes**
- Residences within biking distance
  (0 to 5+ mi)

**Reduce shuttle needs**
- Encourage biking over riding

Strategies

- Dedicated facilities
- Network continuity
- Wayfinding
- Directness
- Driver training
- Topography
- Storage
- Support facilities
Parking

Goals

Meet Needs
- Adequate supply
- Reasonable convenience
- Fair pricing

Minimize Physical Impacts
- Green space
- Aesthetics
- Development area
- Continuity

Efficient Use

Strategies

- Sizing
- Location
- Pricing/allocation policy
- Design
- Operations/management
Traffic Management and Design

**Goals**

*Safety for all users*

*Reinforce other policies through physical design*

*Efficient circulation*

*Appropriate aesthetics*

**Strategies**

- Complete Streets
- Context-Sensitive Design
- Traffic Calming
- Transit Priority
Commute Options

**Goals**

*Encourage use of alternatives to driving alone*

*Encourage locating where alternatives are available*

*Provide fair and consistent policies*

**Strategies**

- Parking pricing/cash out
- Transit incentives
- Car sharing
- Housing incentives
- Ride matching
- Preferential parking
- Remote parking
- LEV/ZEV
- Partnerships
- Marketing
Transit

Strengths

• UTS works well around Grounds
• Trolley to downtown
• Availability during inclement weather

Weaknesses

• Congestion affects reliability
• CTS headways too long
• CTS schedule limits employee flexibility
• No service to Fontaine Research Park
• Little route identification at stops
• UTS buses often overcrowded
• Bus shelters/amenities need improvements
Pedestrian

**Strengths**
- Central Grounds walkable
- Access to HS is easy
- Crosswalks well marked
- Weather
- University culture supports walking

**Weaknesses**
- People use UTS bus system instead of walking
- Wayfinding
- Lack of/narrow sidewalks
- Pedestrian and traffic conflicts
- Intersections difficult to cross
- Difficulty of reaching North Grounds and Fontaine Research Park
- Conflicts with service vehicles
- Topography
Bicycle

**Strengths**
- Short distance to downtown
- New bicycle storage facilities
- Bicycle user groups established to improve conditions

**Weaknesses**
- Bicycle lanes not continuous
- Lack of street lighting
- Need additional bicycle storage
- UTS buses reduce need to bicycle
- Challenging topography
- Many employees live too far to bicycle commute
Parking

**Strengths**
- Parking costs are fair
- Vanpool opportunities
- Free parking for Health System patients and visitors
- Parking is plentiful at North Grounds and Fontaine Research Park
- Flexible parking is useful

**Weaknesses**
- Sense of entitlement to close, convenient parking
- Cost to add new parking
- Parking regulations not enforced
- Congestion around facilities
- New parking encourages more drivers
- Convenience of parking supply
- Event parking
Traffic

**Strengths**
- University roads are generally safe
- Drivers respect pedestrian crossings during the day
- Pedestrian crossings slows traffic flow

**Weaknesses**
- Congestion on roadways around the University
- Event traffic congestion
- Signals and timing need improvement
- Students exhibit poor driving behavior
- Growth outside the University
Commute Options

**Strengths**
- JAUNT rideshare
- Some housing developments provide shuttles
- Health System provides shuttles to parking

**Weaknesses**
- The University should try to influence commuting behavior
- Lack of awareness of options
- Variable work schedules
- No alternatives for people living west of the University
- Carpooling difficult for parents with children in daycare
Existing Conditions
Pedestrian

- University of Virginia Property
- Pedestrian Zones
- Significant Barriers
- Moderate Barriers
- Pedestrian Hot Spots
- Linkages
UVa Bicycle Map and Guide
Use this map to find bicycle friendly routes and bicycle racks around Grounds. Painted bicycle lanes are noted with red lines alongside the blue recommended routes. The green routes highlight roads and paths that provide a quieter alternative, but note that some of these routes are shared with pedestrians. The orange caution zones identify congested intersections and road segments, use extra care in these areas. University regulations require that you walk your bike in the green disjointed areas.
Parking
Traffic

Legend

- University of Virginia Property
- TMC: Turning Movement Count (Peak Hour Count)
- ATR: Automated Traffic Recorder (Daily Count)
- 2006: TMC, ATR
- 2005: TMC, ATR
- 2004: TMC, ATR
- 2003: TMC, ATR
- 2002: TMC, ATR
Context-Sensitive Design
Commute Options

- Transit
- Rideshare
- Bicycle/walking
- Teleworking
- Park and ride
- Occasional parking permits
Next Steps

• Assess commuting patterns
• Study TDM Strategies of similar university settings
• Evaluate the University’s physical plans for future development
• Evaluate potential TDM programs
• Develop recommendations
• Integrate TDM plan into Grounds Plan
TDM at Peer Universities

- TDM coordinators assist commuters
- Stress ecological benefits
- Provide financial incentives
- Parking is expensive
- Coordinate with local and regional transit
- Provide amenities for bicycling
- Market TDM at campus events and websites
- Offer rewards
Potential TDM Strategies

**Programs**
- Hire TDM coordinator
- Market existing programs
- Expand rideshare
- Add preferential parking for carpools
- Work with local and regional authorities to expand bus service
- Integrate transportation into sustainability initiatives
- Establish Car Sharing program

**Physical Improvements**
- Close McCormick Road to non-authorized vehicles
- Improve Emmet/Ivy intersection
- Extend Stadium Road to provide UTS connection to Fontaine
- Improve bicycle and pedestrian amenities throughout Grounds
- Enhance intercept parking as Grounds parking is reduced
- Improve Wayfinding
- Provide real-time bus information
- Set up kiosk to provide commuting option information