Vision North Texas 2050

Planning for a Future That is Better Than “Business as Usual”

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Introduction

Personal Bio

- 20+ Yrs Exp in Civil Engineering, Planning & Consulting
- National Director, HDR’s Community Planning & Consulting Group (2009–2011)
- VNT Speaker’s Bureau Member
- Founded VERDUNITY in 2011 to Focus on North Texas Communities

Kevin Shepherd, PE, ENV-SP
Principal & Co-Founder
VERDUNITY, Inc.
The VERDUNITY Model
North Texas is a Preferred Destination

“If current trends continue, the 16-county North Texas region will have over 75% more people in 2030 than in 2000, and the population will more than double by 2050.”

– Vision North Texas 2050
Overview

- Global and National Trends
- Summary of Vision North Texas 2050 Study
- Leading Transformation at the Local Level
Global and National Trends
Population Growth and Ecological Footprint

At our current development and consumption levels, we would need the equivalent of 2.5 Earths to sustain 9 Billion people in 2050.
Global and National Trends
Deteriorating Infrastructure

2050 is being built today

<table>
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<tr>
<th>Billion 2003 global hectares</th>
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<tbody>
<tr>
<td>30</td>
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- Car (US avg: 9 years)
- Nuclear power station (US/Europa: 40 years)
- Highway (20-50 years)
- Bridge (30-75 years)
- Coal power station (50-75 years)
- Human (natl avg: 32-82 years)
- Commercial building design (50-100 years)
- Housing, railway and dam (50-150 years)

Long-term waste
Global and National Trends
Federal, State and Local Debt

Municipalities are not bringing in enough revenue to maintain service levels and infrastructure.

Source: governing.com
Balancing Growth, Quality of Life & Budgets

Integration and Collaboration are Critical

- Jurisdictional Boundaries are Irrelevant to the Environment and the Economy
- Doing Better Means Focusing on Three Scales:
  - Regions (Metro)
  - Watershed
  - Neighborhood
Center of Development Excellence

- The NCTCOG Center of Development Excellence began in 2001 to promote quality growth in North Texas that
  - Enhances the built environment,
  - Reduces vehicle miles traveled,
  - Uses water & energy resources effectively and efficiently, and
  - Helps advance environmental stewardship;
- Encourages cities, counties, school districts, other public agencies, and the private sector to incorporate the Principles of Development Excellence as they plan and create future development and redevelopment in the region.
- **Vision North Texas** began in 2005 as a Center of Development Excellence initiative to help accomplish these goals.
VNT is a private–public–academic partnership with three objectives:

- Increase **awareness** about expected growth
- Serve as a forum for **discussion** among all stakeholders about critical issues, and
- Build support for **initiatives** that might create a successful and sustainable future for North Texas.
Vision North Texas
16 County Focus Area

- 230 Member Governments, including 16 Counties, numerous cities, school districts and special districts
- Geographically, the 2nd largest metropolitan area in the nation
- Larger than 34 states, with a population of 6.6 million residents
- Larger than 9 states in land area
Vision North Texas
Questions Asked in the VNT Study

- Where are we?
- How did we get here?
- Where are we headed under ‘business as usual’?
- How can we do better?
- What does this mean to local businesses, residents and community leaders?
Regional Growth
Vision North Texas 2050

**Population**
- 5.3 million people in 2000
- 9.5 million people in 2030
- 11.7 million people in 2050

**Employment**
- 3.2 million jobs in 2000
- 5.6 million jobs in 2030
- 7.2 million jobs in 2050
Results of “Business as Usual”
Vision North Texas 2050

- We will have spent $98 BILLION on transportation improvements, but traffic congestion will still increase.

- Loss of over 900,000 ac of agricultural land and natural habitat

- Amount of impervious cover will double
  - Increased storm runoff and severity of flooding
  - Higher average temperatures (heat island effect)
Results of “Business as Usual”
Vision North Texas 2050

- Water and energy infrastructure cannot meet the projected demands
  - Negative impact on water quality & supply
  - Increased blackouts and higher energy costs (~21% increase)

- Increased risk of obesity & health problems
  - Indirect impact on healthcare costs and availability

- Housing and employment choices may not match demand
  - Changing age, ethnicity and income demographics
  - New technologies for work & communication
  - Economic options for businesses & employees
“Business As Usual” is Not Sustainable
Vision North Texas 2050

Key Finding From the Study:

If we continue developing as we have in the region, there will not be sufficient infrastructure, natural resources, housing or employment options to meet the needs of the residents and businesses.
Drivers for Change
Congestion and Air Quality

NCTCOG’s Mobility 2035 Plan

**Prioritization of Improvements**

- Infrastructure Maintenance
  - Maintain & Operate Existing Facilities

- Management and Operations
  - Improve Efficiency & Remove Trips from System

- Growth, Development and Land-Use Strategies
  - More Efficient Land Use & Transportation Balance

**Strategic Infrastructure Investment**

- Rail and Bus
  - Induce Switch to Transit

- HOV/Managed Lanes
  - Increase Auto Occupancy

- Freeways/Tollways and Arterials
  - Additional Vehicle Capacity

*Mobility 2035 was built around the idea of first maximizing the existing transportation system then strategically investing in infrastructure. Throughout the planning process, consideration is given to social, environmental and quality-of-life factors.*
Drivers for Change

Water Supply
Drivers for Change

Water Quality
The North Texas Region has come together to develop a vision for North Texas. After five years of cooperative effort between private and public agencies, a report entitled “Vision North Texas – Understanding Our Options for Growth – North Texas 2050”, was produced.
A Vision for North Texas
Developing a Future That is Better Than “Business As Usual”

North Texas is recognized worldwide as a region that sustains its economic success and vitality because it contains many distinctive and highly desirable communities, supports innovative people and businesses and nurtures its varied natural assets.

• It contains diverse neighborhoods, mixed use centers and communities that appeal to people of all income levels and at all stages of their lives.

• It is a preferred location for the employees and businesses that comprise the broad-based and innovative local economy.

• It offers residents and businesses access to resources and opportunities that lead to their long-term success.

• It protects, manages and enhances critical natural areas and uses energy and natural resources responsibly.

• It supports resilient and effective responses to change through collaboration and cooperation within the region.
1. Development Diversity – Meet the needs of changing markets by providing a mix of development options and land use types in communities throughout the region.

2. Efficient Growth – Promote reinvestment and redevelopment in areas with existing infrastructure, ensure that new infrastructure supports orderly and sustainable growth, and provide coordinated regional systems of natural and built infrastructure.

3. Pedestrian Design – Create and connect pedestrian- and bicyclist-oriented neighborhoods, centers and places throughout the region.

4. Housing Choice – Sustain and facilitate a range of housing opportunities and choices that meet the needs of residents of all economic levels and at all stages of life.

5. Activity Centers – Create mixed use developments that are centers of neighborhoods and community activities and serve as hubs of non-automobile transportation systems.

6. Environmental Stewardship – Protect, retain or enhance the region’s important natural assets (including its air, water, land and forests) and integrate these natural features and systems into the character of the region’s communities and the experiences of its residents.
12 Guiding Principles

Vision North Texas 2050

7. Quality Places  – Strengthen the identities of the region’s diverse communities through preservation of significant historic structures and natural assets, creation of new landmarks and gathering spaces, use of compatible architectural and landscape design, and support for the activities and institutions that make each community unique.

8. Efficient Mobility Options  – Invest in transportation systems, facilities and operations that provide multi-modal choices for the efficient and sustainable movement of people, goods, and services.

9. Resource Efficiency  – Design buildings, sites, communities and regional systems to use water, energy, and renewable resources responsibly, effectively and efficiently, and to retain non-renewable resources for the use of future generations.

10. Educational Opportunity  – Provide opportunities for all North Texans to have access to the schools, people and technology they need for success in learning throughout their lives.

11. Healthy Communities  – Identify and support functional, sustainable infrastructure and institutions that offer North Texans access to affordable, nutritious foods, opportunities for physical activity, and access to wellness and primary care services.

12. Implementation  – Achieve the region’s vision by adoption of compatible comprehensive plans and ordinances for cities and consistent investment plans for regional systems; involve citizens and stakeholders in all aspects of these planning processes.
Policy Areas and Centers

*Vision North Texas 2050*

- Natural Areas
- Rural Areas
- Separate Community Areas
- Outer Tier Areas
- Inner Tier Areas
- Employment Centers
- Mixed Use Centers
Mixed-Use “Centers” in North Texas
Healthy Communities Study

1. Health Outcomes – Today’s Health (Green)
   - Length of Life
   - Quality of Life

2. Health Factors – Tomorrow’s Health (Blue)
   - Health Behaviors
   - Clinical Care
   - Social and Economic Factors
   - Physical Environment

3. Programs & Policies (Orange)
   - Educate & Inform
   - Gradually Increase Factors Over Time
## County Health Rankings & Roadmaps

**Healthy Communities Study**

Rankings are out of 221 counties in Texas

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<th>County</th>
<th>Outcomes</th>
<th>Factors</th>
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Leading Transformation at the Local Level

#1: Maximize Infrastructure Investments

- Identify infrastructure obligations and when they’re due
- Repurpose and redevelop around existing infrastructure first
- Invest based on life cycle costs and fiscal productivity
- Coordinate investment across systems
- Use green infrastructure assets
- Use limited capital funds to create your desired community
Leading Transformation at the Local Level

#2: Create Places of Lasting Value

- Revisit the traditional development pattern of incremental growth over time
- Distinctive character
- Diverse choices for all people at all life stages
- Adaptable to meet changing needs
- Closer-in locations reduce vehicle miles traveled
- The ‘greenest’ building may be one that already exists
Leading Transformation at the Local Level

#3: Strengthen Local Economy Through Economic Gardening

- Invest in building environments, services and systems that work even when business models change
- Identify, connect and support local entrepreneurs and startup businesses
- Support telecommuting work environment
Leading Transformation at the Local Level

#4: Invest in Open Spaces and Trails

- Open space adds long-term value to adjacent real estate
- Natural areas provide infrastructure benefits but with much lower operating and maintenance costs
- Trail systems play an important role in the health of residents
- Nearby access to nature helps children learn
Leading Transformation at the Local Level

#5: Coordinate and Collaborate to Leverage Resources & Expertise

- Solutions are multi--
  - Disciplinary
  - Jurisdictional
  - Sectoral
  - Generational
- Coordination, collaboration, support are essential
- Work with surrounding communities, all sectors (Public, Private & Non-Profit)
- Use **VNT2050** to guide positions on regional issues
Available Resources

Vision North Texas 2050 Gamebook and Website

- Detailed Demographic Information and Trends
- Policy Area Recommendations
- Action Plan Recommendations
- Best Practices
- Model Ordinances and Templates
- Benchmarks and Indicators
- Technical Assistance Through NCTCOG
Closing Thoughts

*Future Development Will Be Very Different from the Past*

- The path we're on is not fiscally nor environmentally sustainable
- Demographics are changing
- Maximize return on existing and future infrastructure investments
- Balance urban/built environment with natural systems
- 20 minute walk >>> 20 minute drive
- Build fiscally strong communities from the inside out
The VERDUNITY Model

$+ - $ ($ + - $) - 

Siloed Projects

Environmental Impacts

Fiscal Productivity

Integrated Systems

$+ - $ ($ + - $) - 

Incremental & Demonstrative Projects

Significant & Large Scale Projects

VERDUNITY

A better future by design
Vision North Texas 2050

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