Workshop #3: Land Use Projections and Scenarios

April 23, 2019

Agenda > Part 1 and 2 Overview

PART 1: Setup of Land Use Scenario Examples

PART 2: Review Projected Land Use Needs

PART 3: Provide direction to RDG on how to approach the Scenario Analysis Task (Task 3 of the Work Plan)

1. What are we doing tonight?

- Identifying an approach for planning scenarios that makes sense for Ames.

- Sharing Land Use Scenario Planning demonstrations

- Identifying any items that are "off-the-table" to contemplate in a scenario? *development types, locations, community issues?*

2. What are we not doing tonight?

- Identifying properties for a specific land use.

- Picking a preferred plan.

Schedule
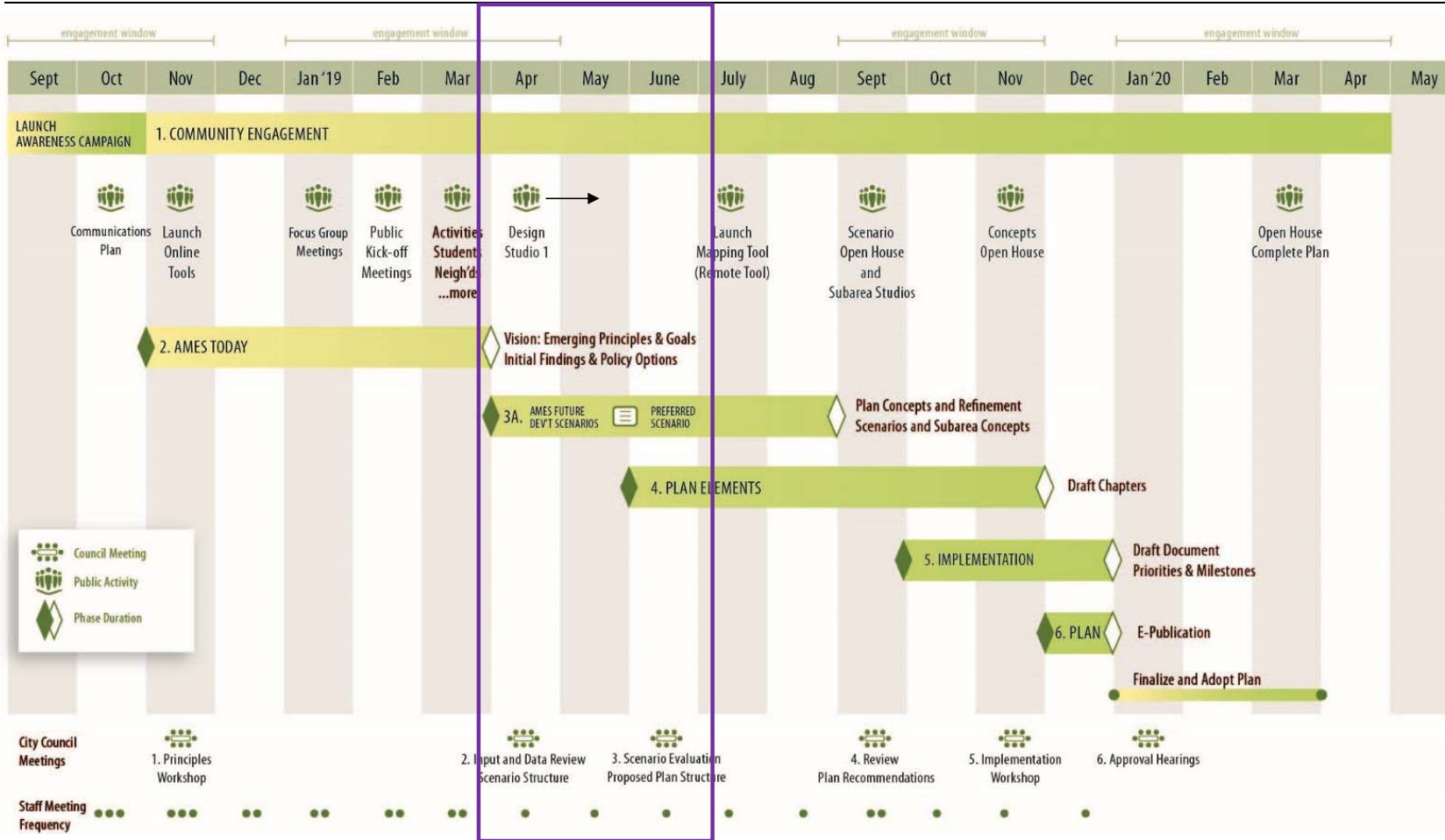
SOUND BITES

April –
Council to provide for developing scenarios. RDG to then prepare concepts.
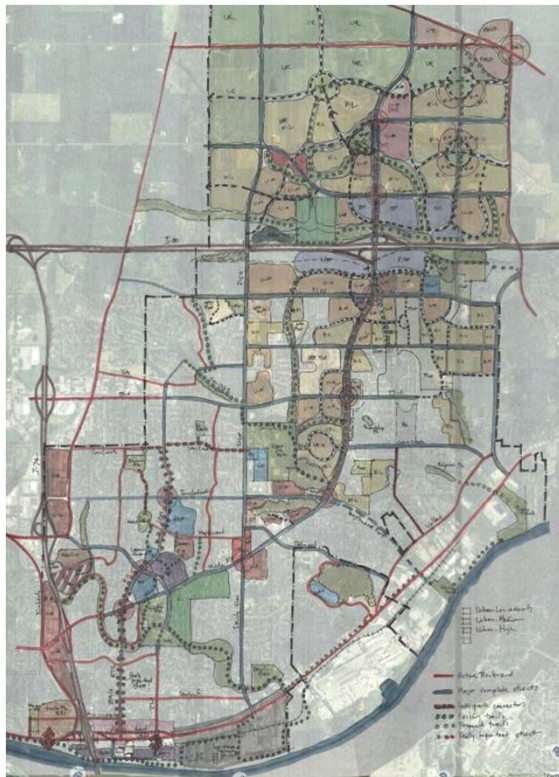
May –
Public event to contribute to emerging scenarios.

June –
Evaluating outcomes of scenarios and providing [re]direction for refinement.
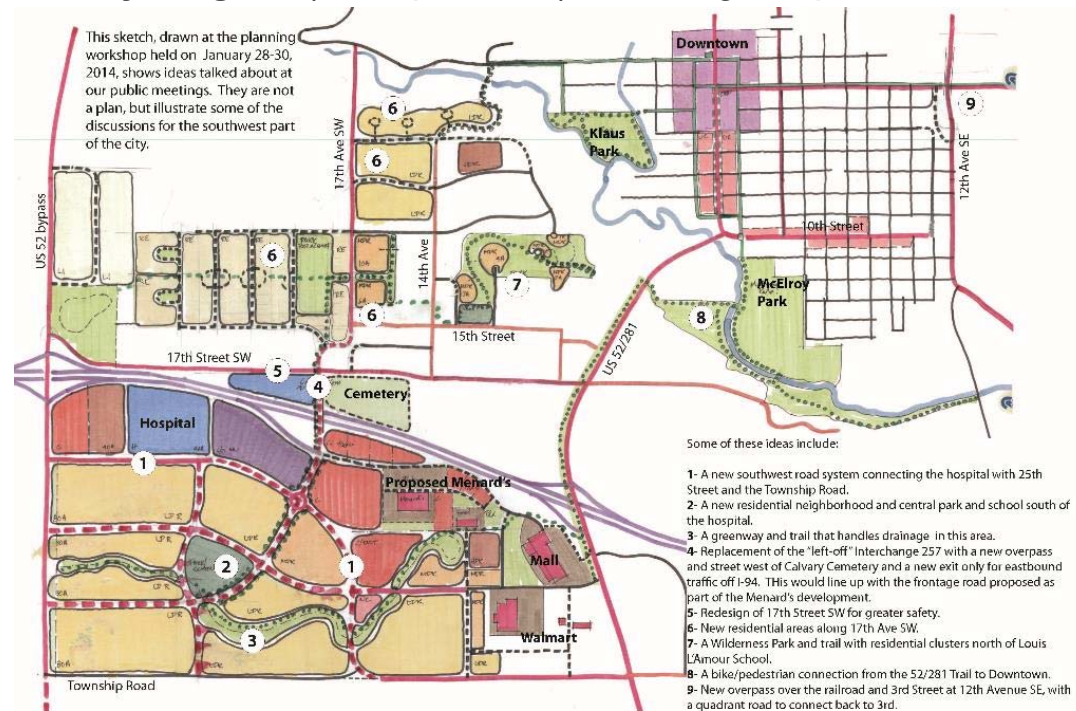
Schedule > Examples

April/May: Concepting

Developing possible future land use designs that will be evaluated in June.

June: Evaluating scenarios to <u>identify a preferred land use concept</u>.
July-August (or September): Refining the preferred concept.

This sketch, drawn at the planning workshop held on January 28-30, 2014, shows ideas talked about at our public meetings. They are not a plan, but illustrate some of the discussions for the southwest part of the city.

Downtown

Klaus Park

McElroy Park

10th Street

15th Street

17th Street SW

Cemetery

Hospital

Proposed Menard's

Mall

Walmart

Township Road

US 52 bypass

17th Ave SW

14th Ave

US 52/281

12th Ave SE

Some of these ideas include:

1- A new southwest road system connecting the hospital with 25th Street and the Township Road.
2- A new residential neighborhood and central park and school south of the hospital.
3- A greenway and trail that handles drainage in this area.
4- Replacement of the "left-off" Interchange 257 with a new overpass and street west of Calvary Cemetery and a new exit only for eastbound traffic off I-94. THis would line up with the frontage road proposed as part of the Menard's development.
5- Redesign of 17th Street SW for greater safety.
6- New residential areas along 17th Ave SW.
7- A Wilderness Park and trail with residential clusters north of Louis L'Amour School.
8- A bike/pedestrian connection from the 52/281 Trail to Downtown.
9- New overpass over the railroad and 3rd Street at 12th Avenue SE, with a quadrant road to connect back to 3rd.
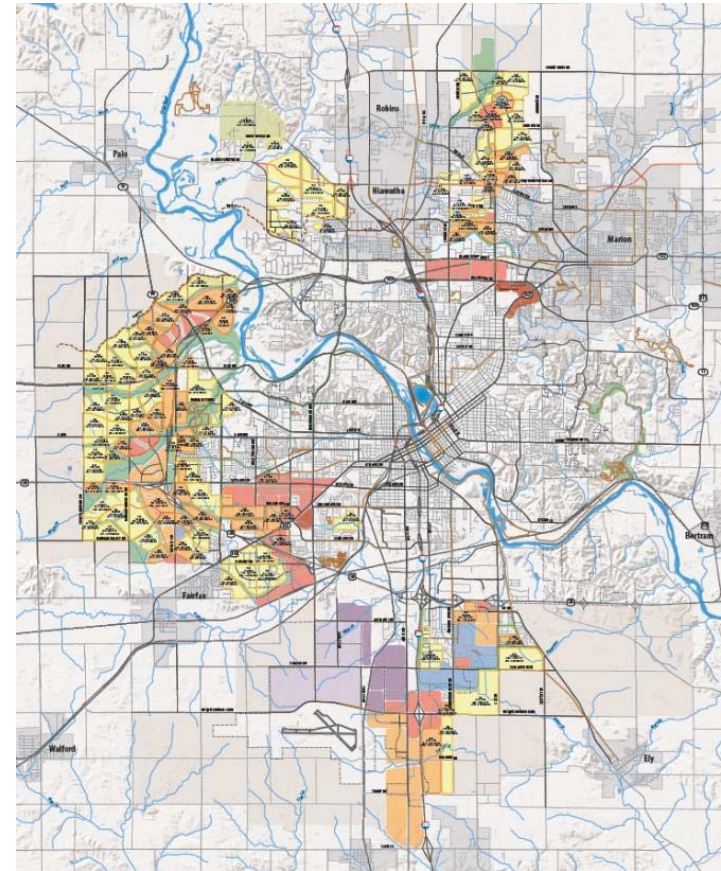
Preparing supportive narrative that identifies land use and connectivity. Initial evaluation will include possible yields for residential/commercial/industry while identifying space for conservation/parks and constraints.

August – Refine Concept to GIS

August: Refining the concept to GIS.
Sept-Dec: Refining the concept more, if desired.

April to August

POSSIBLE DIRECTION FROM CITY COUNCIL

1. **Yes, we want to look at scenarios to compare.**

   - Use example from Cedar Rapids or Oklahoma City

   - This may possibly result in a new approach to future land use policy.

2. **Yes, we want to look at scenarios focused initially on location (Staff Recommendation)**

   - We want to use a baseline concept and use best practices in land use planning for a new concept. (Brookings Example)

   - This approach may align closer to our current future land use policy.

Both approaches result in preliminary concepts that will be reviewed in June and be refined through August/September.

Land Use Planning Approaches

Land Use Scenario Demonstrations

AMES - 1997

Traditional

OKLAHOMA CITY

Trends Model
Trends+Market Model
Market+Efficiency+Revitalization

SELECTED:
Trends + Market

CEDAR RAPIDS

Business-as-usual
Urbanism
Conservation

SELECTED: New Hybrid

BROOKINGS, SD

Preferred Concept with Refinement

SELECTED: No Scenarios, just refined a preferred concept

Ames Plan 1997 > Current Approach

NEW LANDS POLICY OPTIONS.............

Delineation...

Village Residential...........................

Suburban Residential ....

Commercial Expansion Areas..........

Neighborhood Commercial.............

Convenience Commercial Nodes.....

Community Commercial Nodes ......

Regional Commercial ....

Industrial Expansion Areas..............

Planned Industrial ....

General Industrial............................

FUTURE LAND USE MAP
(Inside Ames City Limits)
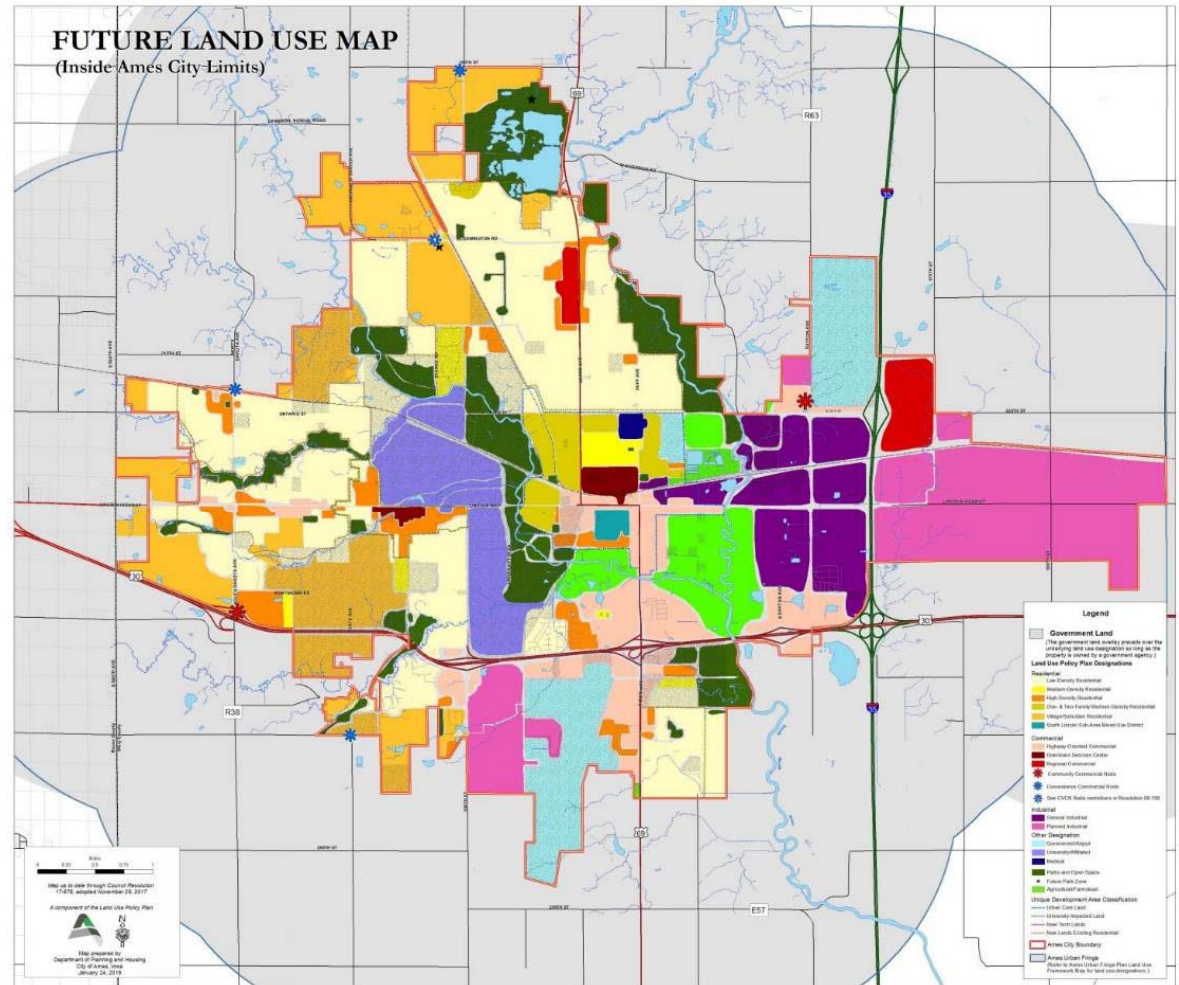
planokc
planning for a healthy future

planOKC: Land Use Scenario Approach

planOKC: Land Use Scenario – Development Patterns

DEVELOPMENT CHARACTER

UNDEVELOPED | LOW DENSITY | MEDIUM DENSITY | MIXED-USE | DOWNTOWN
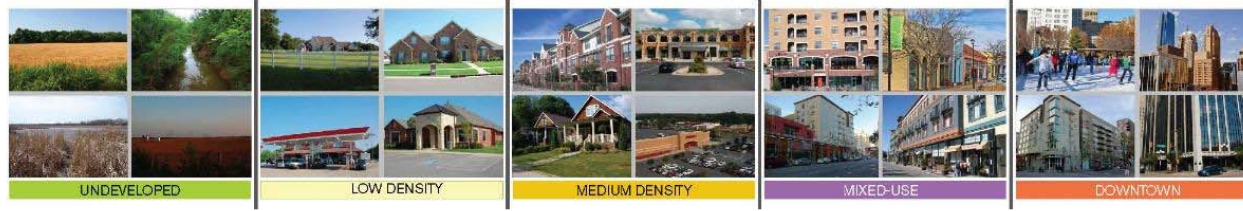
DEVELOPMENT PATTERNS

SCENARIO A
29.3% | 57.5% | 13.1% | 0.01% | 0.1%

SCENARIO B
37.8% | 47.6% | 14.1% | 0.4% | 0.1%

SCENARIO C
43.9% | 41.7% | 13.1% | 1.2% | 0.1%
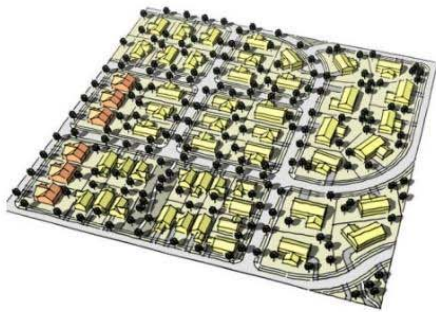
planOKC: Overview of Land Use Typology Areas (LUTAs)
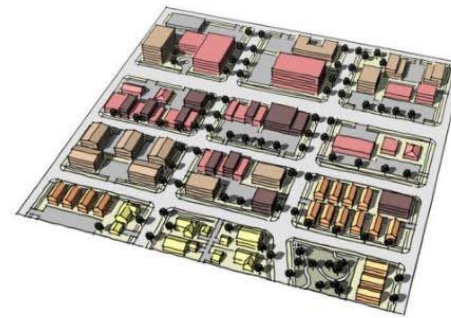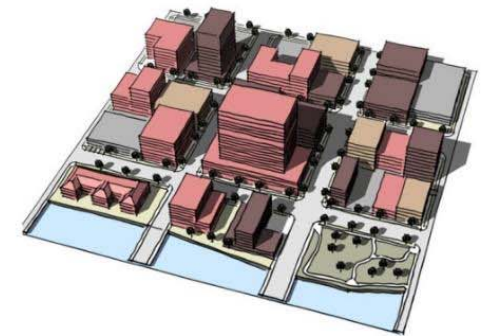
Urban Contexts
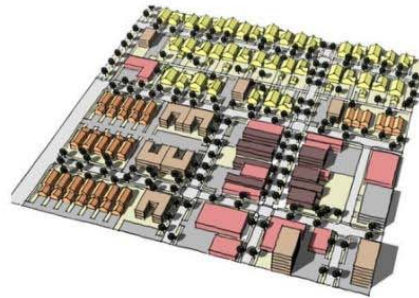
| U-LI | U-MI | U-HI | DT |

Low Intensity Mixed Uses ⟵————————————⟶ High Intensity Mixed Uses

**"MIXED USE" OR INTENSITY/IMPACT-BASED CHARACTER DISTRICTS**
Rural
Urban-Large Lot
Urban-Low
Urban-Medium
Urban-High
Downtown

planOKC: Demonstration of Land Use Typology Area (LUTA)

URBAN – MEDIUM INTENSITY LAND USE TYPOLOGY AREA (UM)

UM applies to fully urbanized areas of the city, most of which were built prior to the 1960s. Developments are expected to be larger in scale and have greater intensity and mixture of uses than developments found in UL. Development within UM areas should support efficient transit usage and provide pedestrian and bicycle access to retail, services, parks, and other destinations. Priorities for the UM areas include "infill" development on vacant lots, rehabilitation of underutilized property, and development that supports revitalization of distressed neighborhoods.
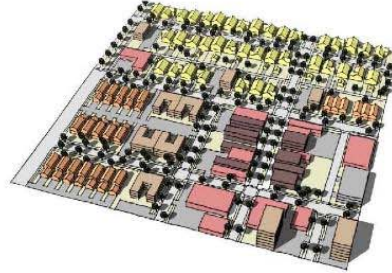
DENSITY RANGE

Target Density Range	10 – 40 du/acre
Minimum Density	7 du/acre
Non-residential Floor to Area Ratio (FAR) Range	0.40 – 1.20, typical FAR of 1.0

DEVELOPMENT POLICIES

1.0 Site Design, Building Form, and Location

1.1 SITE DESIGN

- Avoid developing within 100 year floodplains or floodways.
- Maintain historical lot and block sizes where possible and appropriate.
- Utilize Best Management Practices (BMP) for stormwater.
- Structured parking may be appropriate to achieve desired intensity levels.
- Incorporate commercial uses at street level to maintain an active, pedestrian friendly streetscape.
- Design buildings to include facades, storefront windows, and attractive signage and lighting to create pedestrian-scale visual interest.

1.2 LOCATION

- Locate large-scale commercial and office development on arterial streets.
- Mixture of density, lot size and building scale is appropriate as long as land use compatibility is achieved.

2.0 Automobile and Pedestrian Connectivity

2.1 AUTOMOBILE CONNECTIVITY

- Maintain and enhance the connectivity of the street network.
- For projects on sites 5 acres and larger that propose new public or private streets, maintain, create, and enhance an overall network that is highly connected, and avoid dead end streets and cul-de-sacs.
- Protect existing traditional street grid and reconnect it where possible.
- Keep alleys open and functional.
- Limit curb cuts on arterial streets and where possible, concentrate access for retail development at shared entrance points.
- Development fronting arterials should take access from intersecting streets where possible.
- Primary entrance points should be aligned with access points immediately across the street.

2.2 PEDESTRIAN CONNECTIVITY

- Provide sidewalk connections to nearby uses.
- Discourage widening of neighborhood streets and increasing curb radii.

URBAN – MEDIUM INTENSITY CHARACTER
Small lot single family, multifamily buildings, and urban commercial districts are representative of the UM Typology.

EnvisionCR Scenarios

STANDARD DEVELOPMENT PRACTICES

URBANISM

CONSERVATION

Legend:
- Low Density Residential
- Medium Density Residential
- Mixed Use
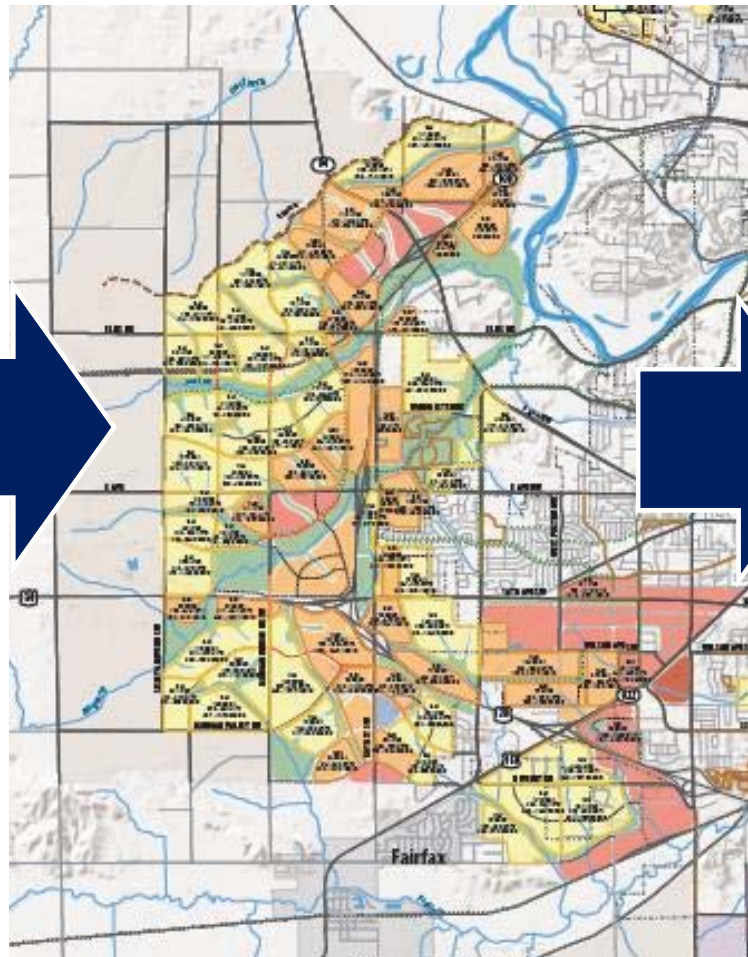- Open Green Space
- Park

Initial concepts which were then evaluated for advantages and disadvantages.

Concept Refinement > Hybrid Model

[May/April/June]

[July-August]

New hybrid concept prepared after review.
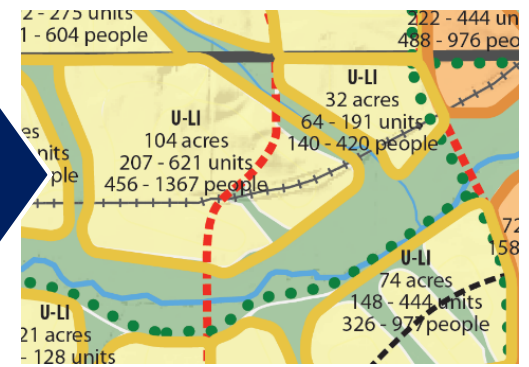
Additional refinement adopted an intensity-based land use approach
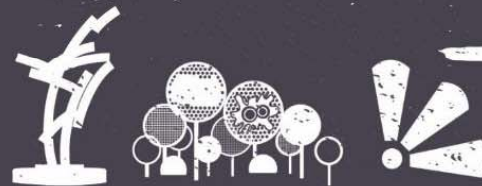
[Home of South Dakota State University]

Brookings – Best Practices Approach
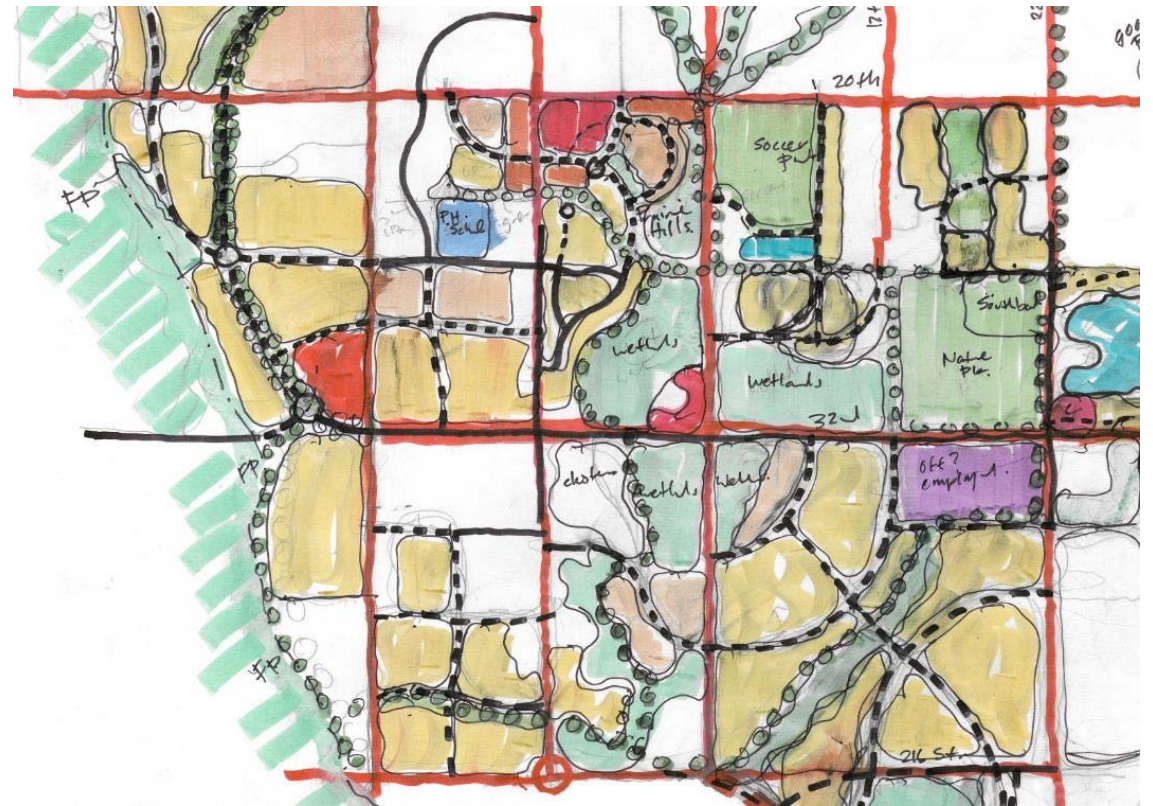
Brookings > Future Land Use Plan

Brookings Plan > Use and Density

SINGLE FAMILY DETACHED

8 units
2.7 units / acre
75' lots
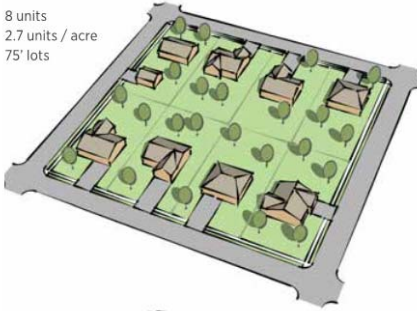
12 units
4.0 units / acre
50' lots
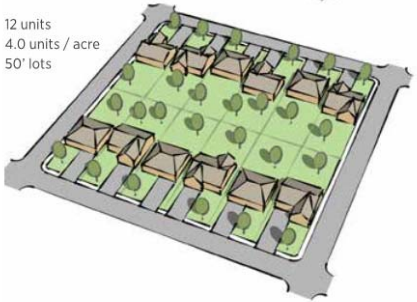
16 units
5.4 units / acre
40' lots
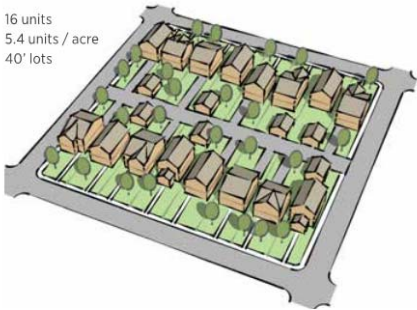
SINGLE FAMILY ATTACHED

12 units
4.0 units / acre
50' lots
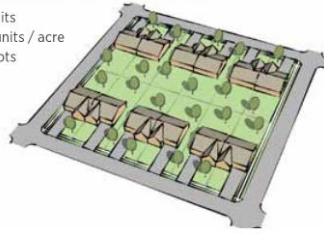
16 units
5.4 units / acre
40' lots
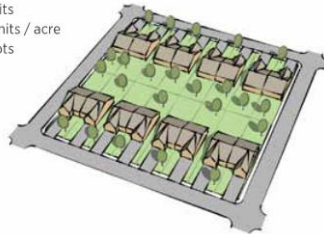
18 units
6.0 units / acre
-35' lots
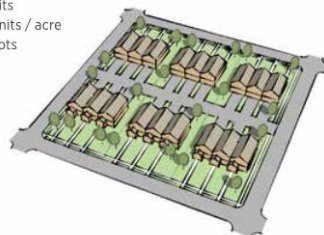
20 units
6.7 units / acre
30' lots
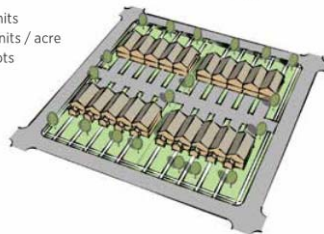
MULTI-FAMILY

22 units
7.4 units / acre

32 units
10.7 units / acre

96 units
32.2 units / acre

64 units residential
1,000 square feet / ea.
21.5 units / acre
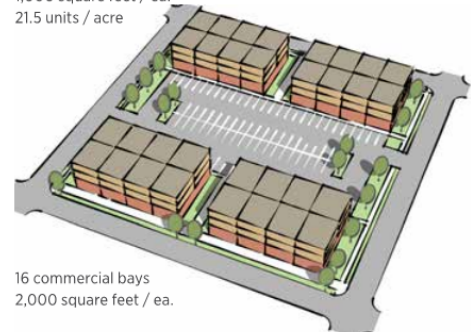
16 commercial bays
2,000 square feet / ea.

Land Use Projections

Ames > Existing Conditions

Examples of issues affecting
land development -
- Steep Slopes
- Prime Farmland
- Flood Zones/Waterways
- Institutional Land
…more
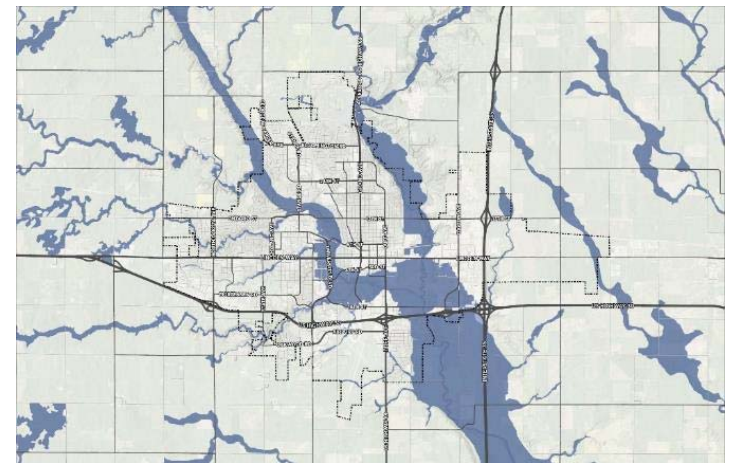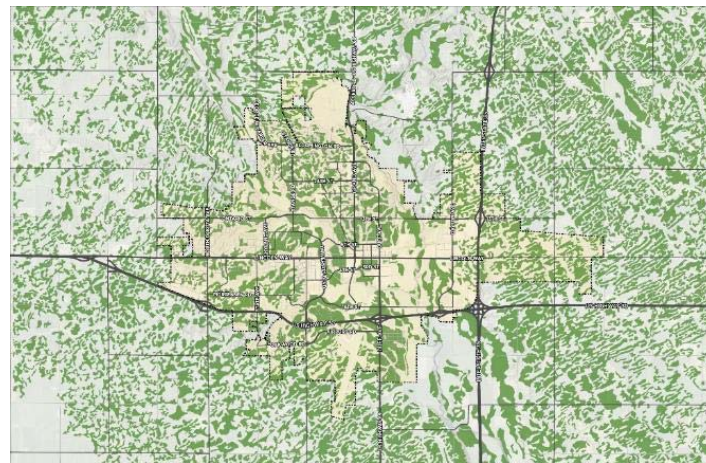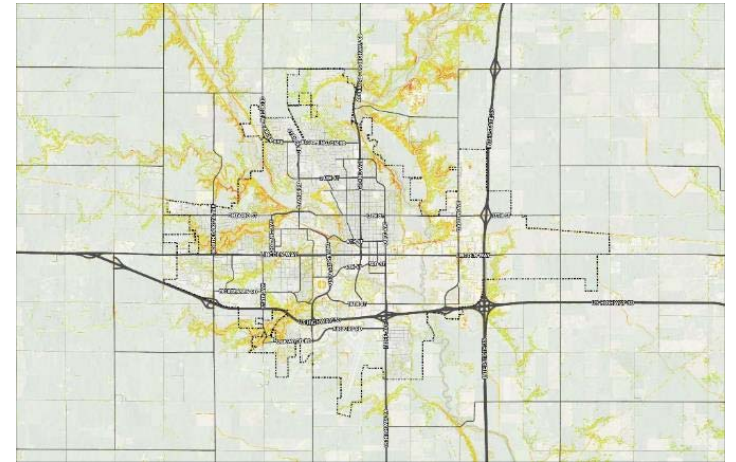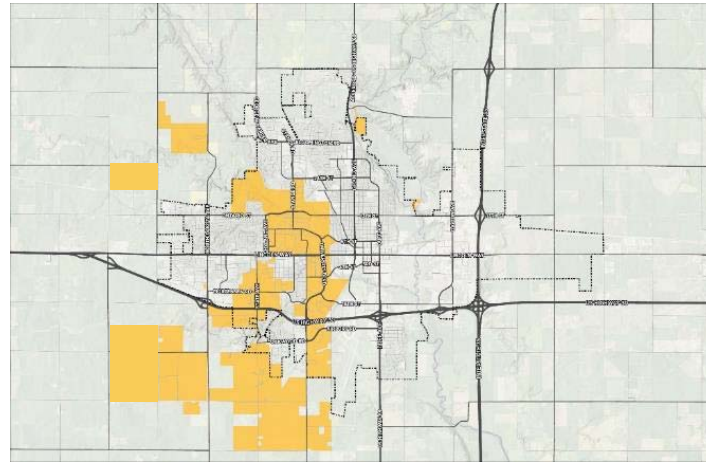
Ames > Current Land Use
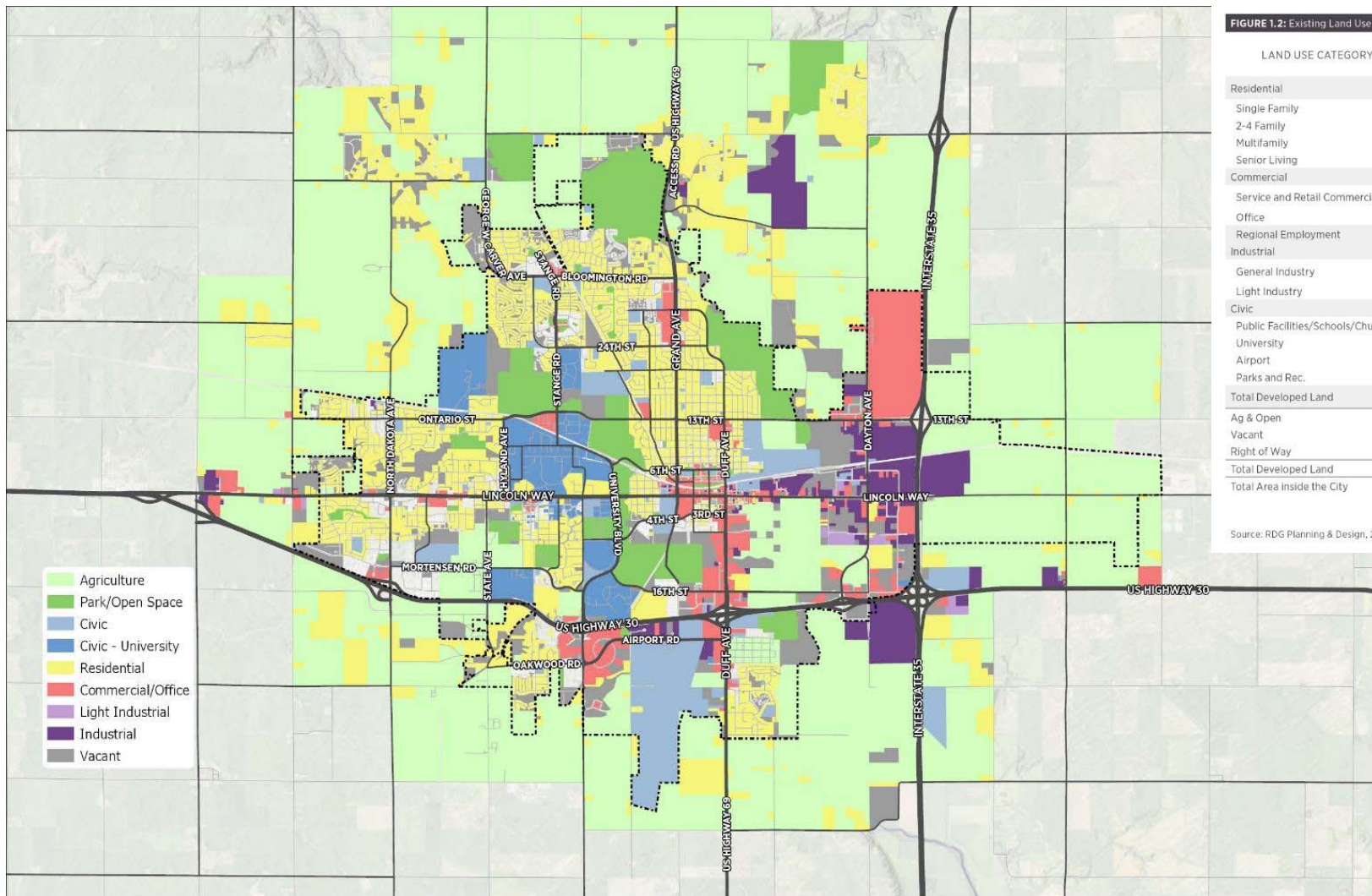
FIGURE 1.2: Existing Land Use, 2017

LAND USE CATEGORY	ACRES	% OF DEVELOPED LAND	ACRES PER 100 PEOPLE
Residential	7,321	41.2%	6.15
Single Family	3204.71	80.2%	4.93
2-4 Family	140.80	3.5%	0.22
Multifamily	636.81	15.9%	0.98
Senior Living	15.20	0.4%	0.02
Commercial	851.91	8.7%	1.31
Service and Retail Commercial	576.19	5.9%	0.89
Office	275.72	2.8%	0.42
Regional Employment	500	5.2%	0.77
Industrial			
General Industry	687.48	7.1%	1.06
Light Industry	46.75	0.5%	0.07
Civic	4111.06	42.4%	6.32
Public Facilities/Schools/Churches	644.37	6.7%	1.00
University	1056.23	10.9%	1.62
Airport	649.82	6.7%	1.00
Parks and Rec.	1760.64	18.2	2.71
Total Developed Land			
Ag & Open	3527.18		5.43
Vacant	1784.79		2.75
Right of Way	2204.59		3.39
Total Developed Land	9,694.71	54.8%	14.9
Total Area inside the City	17,706.08		

Source: RDG Planning & Design, 2019

Legend:
- Agriculture
- Park/Open Space
- Civic
- Civic - University
- Residential
- Commercial/Office
- Light Industrial
- Industrial
- Vacant

Population Projection

FIGURE 1.3: Projected Population, 2015-2035						
	2017	2020	2025	2030	2035	2040
PROJECTED PERMANENT POPULATION						
1.0% Annual Growth Rate	37,470	38,606	40,575	42,645	44,820	47,106
1.5% Annual Growth Rate	37,470	39,182	42,210	45,472	48,987	52,772
2.0% Annual Growth Rate	37,470	39,764	43,902	48,472	53,517	59,087
PROJECTED POPULATION PLUS STUDENTS						
1.0% Annual Growth Rate	65,005	65,606	67,575	69,645	71,820	74,106
1.5% Annual Growth Rate	65,005	66,182	69,210	72,472	75,987	79,772
2.0% Annual Growth Rate	65,005	66,764	70,902	75,472	80,517	86,087

Source: US Census Bureau; ISU; RDG Planning & Design, 2019

Land Use Projection Summary

Land Use Type	Low Density Scenario	Medium Density Scenario	High Density Scenario
Residential	1,645 acres	1,275 acres	1,079 acres
Gross Residential Density	3.87	5.00	6.34
Commercial (Retail + Office)	194 acres	150 acres	127 acres

- This is informational order of magnitude of calculated land needs
- Calculations are based on 1.5% population growth rate.
- **Results show land needs with different assumptions on housing types, regardless of location.**
- Variance in scenarios considers the split in density and typical housing types

Residential > Low Density Summary

FIGURE 1.2: Projected Residential Land Needs - Low Density Scenario

2017-2030	% OF DEMAND	UNITS	GROSS DENSITY (DU/A)	LAND NEEDS
Low Density	70%	2,066	3.0	689
Medium Density	10%	295	8.0	37
High Density	20%	590	16.0	30
Total	100%	2,952		755
2030-2040				
Low Density	70%	2,395	3.0	798
Medium Density	10%	342	8.0	57
High Density	20%	684	16.0	34
Total	100%	3,421		889
Total 2017-2040		6,373		1,645

Source: RDG Planning & Design, 2019

Housing type assumptions:
Low-Density: Conventional SF detached
Medium-Density: Small lot SF detached, single-family attached, townhomes
High-Density: Multi-family, 3-story typical

Residential > Medium Density Summary

FIGURE 1.2: Projected Residential Land Needs - Medium Density Scenario

2017-2030	% OF DEMAND	UNITS	GROSS DENSITY (DU/A)	LAND NEEDS
Low Density	45%	1,328	3	443
Medium Density	30%	885	8	111
High Density	25%	738	20	37
Total	100%	2,952		590
2030-2040				
Low Density	45%	1,539	3	513
Medium Density	30%	1,026	8	128
High Density	25%	855	20	43
Total	100%	3,421		684
Total 2017-2035		6,373		1,275

Source: RDG Planning & Design, 2019

Housing type assumptions:
Low-Density: Conventional SF detached
Medium-Density: Small lot SF detached, single-family attached, townhomes, small multi-family
High-Density: Multi-family, typical 3- and 4-story buildings

Residential > High Density Summary

FIGURE 1.2: Projected Residential Land Needs - High Density Scenario

2017-2030	% OF DEMAND	UNITS	GROSS DENSITY (DU/A)	LAND NEEDS
Low Density	30%	885	3	295
Medium Density	35%	1033	8	129
High Density	35%	1033	25	41
Total	100%	2,952		466
2030-2040				
Low Density	30%	1,026	3	342
Medium Density	35%	1,197	8	150
High Density	35%	1,197	25	48
Total	100%	3,421		540
Total 2017-2035		6,373		1,005

Source: RDG Planning & Design, 2019

Housing type assumptions:
Low-Density: Conventional SF detached
Medium-Density: Small lot SF detached, single-family attached, townhomes, small multi-family
High-Density: Multi-family, typical 4-story buildings

Commercial Intensity Summary

FIGURE 1.2: Projected Commercial Land Needs - Trend Scenario

POPULATION PROPORTION METHOD	2017	2030	2040	LAND USE EFFICIENCY FACTOR	NEW LAND NEED
Projected Population	65,005	72,472	79,772		
Comm Use/100 res.	1.31	1.31	1.31		
Projected Low-Density Commercial Use (A)	852	950	1045	.1.00	194
Projected Medium-Density Commercial Use (A)	852			0.78	150
Projected High-Density Commercial Use (A)	0.21	0.21	0.21	0.66	127

Source: RDG Planning & Design, 2019

Ames > Relative Comparison of Land Use Needs Options

Low Density Option-

Total Residential 1645 Acres

Medium Density Option-

Total Residential 1275 Acres

High Density Option-

Total Residential 1079 Acres

Commercial 194 Acres

Legend:
- Agriculture
- Park/Open Space
- Civic
- Civic - University
- Residential
- Commercial/Office
- Light Industrial
- Industrial
- Vacant

640 Acres

North Expansion

West Expansion

East Expansion

South Expansion

South Expansion
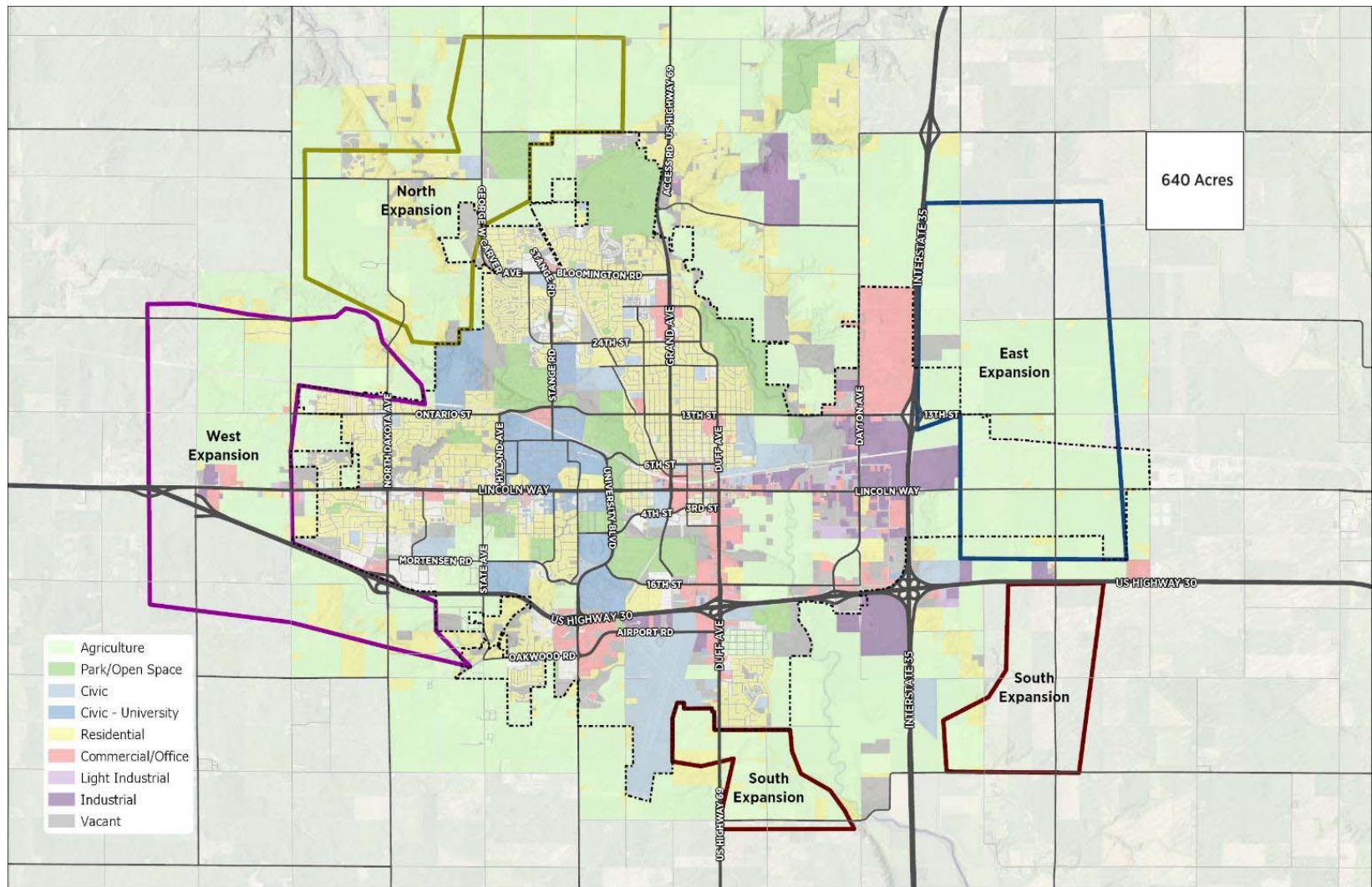
Constructing Scenarios

Interaction between Vision and Scenarios

Overall Community Input
Issues/Assumptions/Values

- Livability/Quality of Place
- Unity/Connectedness
- Sustainable/Minimal Footprint
- Balanced Transportation
- Inclusive/Affordable
- Public Space and Interaction
- Urban Quality
- Economically Vitality
- High Image/Reputation
- Neighborhoods

These are present but can be hard to articulate beyond generalities

Scenarios

- Help to articulate a vision by illustrating alternatives
- Key variables for Ames: **Infill/"Greenfield" Geography/Density**
- Evaluation Criteria
1. Capital and service cost
2. Community quality
3. Economic factors
4. Connectedness
5. Feasibility/land availability
6. Env. features
7. Others TBD

Illustrates and quantifies physical and economic implications of alternatives.
Must be approached without prejudice: don't fall in love with a solution too soon!

Preferred Scenario/Plan Elements

- **Statement of service needs and benefits for each scenario relative to evaluation criteria**

- **Public review and comment**

- **Specific community vision providing a policy foundation to support other plan elements**

Brings Community Input, Vision, Goals together with land use assumptions….

LEADS TO DRAFT PLAN

Possible Scenario Constructs

Scenario	Geography	Comments
Option 1- Infill Redevelopment	• Infill capacity evaluation • Identify planned areas for change in the city • Incorporate completion of already started greenfield subdivision areas	• Likely does not accommodate all projected growth • Will assume higher density redevelopment
Options 2- Comparative Land Use* *(Within Option 2 Council would provide direction on variables to consider)*	• Remaining greenfield incremental growth with small infrastructure needs • Consider variable land use mixes to define future needs • Second step consider location to meet additional needs	• Defines policy issues first, before considering other areas • Focus on development of readily serviceable areas adjacent to City • Consider multiple buildout options for same areas
Option 3- Location Directed	• Evaluate four general areas for growth to serve 15,000 • Identifies the major service needs in multiple areas • Assumes a hybrid land use planning approach initially	• Defines service issues first, before land use policies • Known major infrastructure constraints in multiple areas • Consider larger service population in total than 1.5% growth
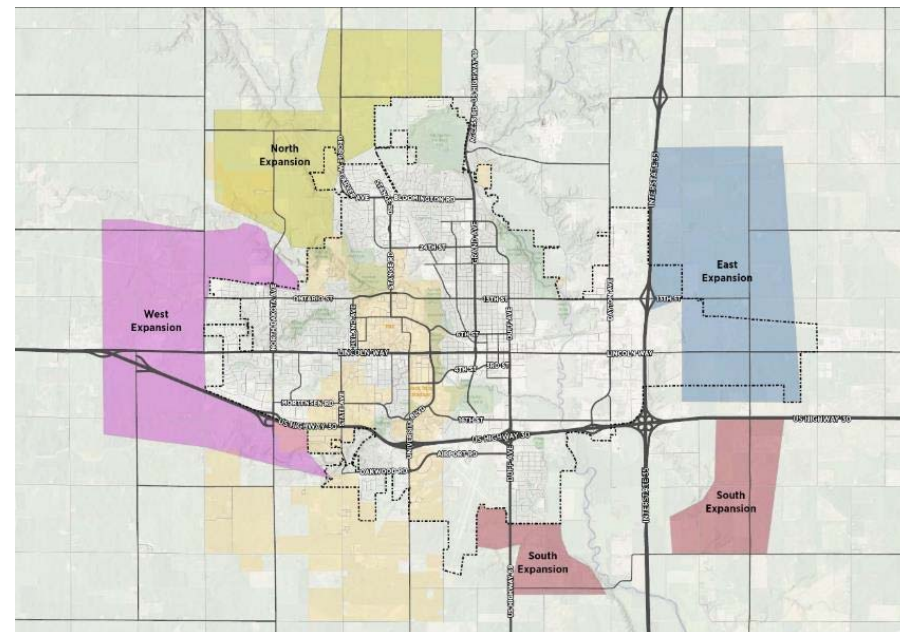
Growth Area Possibilities (generally defined)