UC Davis Students: Real world planning and community design experience and development of critical professional contacts.

Clients: Professional and academic expertise applied to community planning, design, and sustainability project work at affordable costs.

Professionals: Skill and knowledge building, mentoring, instructing experience.
studio 30 winter talent

**Students**
Emily F. Chen  Environmental Policies, Analysis, Planning
Brigitte Driller  Transportation
Cynthia Felix  Community & Regional Development
Joseph Marcelo  Community & Regional Development
Gregory McDaniel  Community & Regional Development
Richard Perez  Landscape Architecture & Environmental Design Department
Nick Quaglia  Environmental Policy
Harriet Saawo  Humphrey Fellow
Daniel Sheeter  Environmental Policies, Analysis, Planning
Vanessa Alyse Thompson  Landscape Architecture & Environmental Design Department
Brendan Heisler  Civil Engineer-In-Training
Kyle Shipley  ULTRANS
Laurel Torney  ULTRANS
Claraine Anne Rizalado  UC Davis Extension Land Use and Natural Resources program

**Professionals – Studio 30 Fellows**
Tim Denham  Wood Rodgers
Jeff Henderson  AECOM
Peter M Saucerman  Dreyfuss and Blackford Architects
David Shpak  City of West Sacramento

**Instructors**
Robert Sherry  Professional Instructor
Jeff Loux  UCD Extension Land Use Natural Resource
Julia Lave Johnston  UCD Extension Land Use Natural Resources
methodology

• Seminars and readings on relevant project skills: regional economic development collaboration, absorption rates, fiscal modeling and community benefits.

• Interviews with economic development agencies, cities and innovation park representatives on identified case studies.

• Interviews/meetings with land owners.

• Comparative site analysis research and design.

• Fiscal analysis with the City of Davis and community benefits comparison.
5 Questions

• What is an innovation business park & what does it look like in Davis?
• How does the city benefit from a business park?
• What land use strategies should the city use to encourage local innovation?
• What does each site have to offer?
• Where do we go from here?
What is an innovation business park?
Innovation Park Definition

A property-based venture, with the following components:

• Master-planned property and buildings designed primarily for private-public R&D facilities, high-technology and science-based companies, and support services;

• A contractual, formal, or operational relationship with one or more science-research institutions;

• A role in promoting university’s R&D through industry partnerships, assisting in the growth of new ventures, and promoting economic development; and,

• A role in aiding the transfer of technology and business skills between university and industry teams.
What does a Davis innovation center look like?

• Fall quarter: multiple case study analyses (Appendix A)

• Winter quarter: in-depth case studies on innovation parks identified by Task Force (Appendix B)
**Dispersed Innovation Strategy**

- Multiple sites with a range of sizes throughout the city.

**Scalability**

- Incubators and smaller sites to help companies start with larger sites so companies can stay in Davis as they grow.
University Partnership

- Leverage the University’s assets to nurture and attract businesses and educated employee base.

Build on Community Quality of Life

- Community appropriate economic development builds on existing quality of life in Davis and works to enhance community values.
Access to Resources

- Proximity/access to transportation, transit, downtown and other amenities such as recreation and cultural activities.

Regional Collaboration

- Identify and claim unique regional niche based on community strengths and collaborate with regional partners.
Power of Incubator

- Encourages home grown businesses; attracts new businesses; strengthens relationship between community and University; encourages scalability.

Tangible incentives

- Business incentives such as reduced fees; amenities and support programs.
- Development incentives such as permit streamlining, reduced fees.
Creative Green Design

- Social, recreational, and cultural gathering places
- Amenities and services: food, day care, banking
- Physical and cultural connection to community.
- Appeals to creative people and innovative businesses.

Branding & Marketing

- Tell a story about the unique quality of life and community values in Davis that is reflected in center design: sustainable, innovative, energy efficient, healthy, caring community.
Innovation Center Design Prototypes
Office, Research Lab Space

Studio space, wet and dry research labs, incubator space, and offices.

1-3 stories

FAR: 0.3-1.0

Employee Density per SF: 250
Innovation Hub-Centers

Research and Development/Flex Space where innovation occurs

1-3 stories

FAR: 0.3 – 0.5

Employee Density per SF: 250
Mixed Service Business

Cafes/restaurants, day care centers, copy/shipping services etc. that support the larger businesses in the area.

1-2 restaurants

FAR: 0.3 – 1.0

Employee Density per SF: 200
Recreational Opportunities

Indoor/Outdoor recreation space such as gymnasium, ball courts, climbing wall, swimming pool, and walking paths
Public Space

Plazas, courtyards, bike trails, playgrounds where people can go to interact and relax.
Transit and Transportation

Bike paths and parking, a bus stop or drop-off facility for commuters or visitors to get to the site.

1-3 stories
Hotel/Small Conference Center

A short-term place for visitors to stay for business or vacation

1-3 stories

FAR: 0.35

Employee Density per SF: 400
Light Industrial

Light Industrial and warehouse space for small scale manufacture and other lower intensity uses

FAR: 0.25-0.4

Employee Density per SF: 250-400
How does the city benefit from a business park?

• Fiscal Benefits
  – Revenues, fees, taxes & business economic multipliers
  – Creating jobs for Davis
  – Reducing commutes and greenhouse gas emissions

• Community Benefits
  – Addresses possible demographic shift in community.
  – Maintains and leverages community investment in family infrastructure.
  – Nurtures strong civic values: community giving and participation by individuals and companies.
  – Supports commitment to environmental quality by potentially reducing GHG/meeting CAP goals and providing regional/national model for Ag and green tech.
  – Strengthens marketability of city and University
  – Expands opportunities for community members to work in town.
What land use strategy should the city use to encourage local innovation?
Existing Land within City Limits

Map of Baseline properties
Limitations to Existing Land

- Incubator space limited
- Large “scale-up” space lacking

- Four alternative sites could attract different market segments and a mix of companies
- Larger sites allow business development and retention
Absorption Rate Estimation

• Historical Absorption for Davis is low
• Innovation parks in Boulder, CO and Champaign-Urbana, IL experienced absorption of about 50,000 SF/yr
• Sacramento regional industrial and office absorption is 1.8M SF/yr
• Estimated that Davis can capture 5% to 10% of regional absorption, or about 90k-150k SF/yr through aggressive site development and marketing
• Based on these data, Studio 30 estimates approximately 100k SF/yr as a reasonable future absorption for Davis
• “Cyclical” or “Stair-stepping” nature of absorption
How much land does Davis need?

• Existing sites are small and scattered
• Historic absorption for Davis is low
• Sacramento Region has strong absorption
• Davis’ share of the region’s absorption could be increased
• Scalable group of sites (range from incubator-sized to large business operation) necessary to increase the range of absorbable companies
• Adjacent lands are good candidates for a successful innovation park setup
# Innovation Center

## Site Comparison Matrix

### Location & Access

<table>
<thead>
<tr>
<th>Environmental &amp; Site Constraints, Opportunities</th>
<th>Infrastructure (Shovel Readiness)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freeway access</td>
<td>Street Improvements</td>
</tr>
<tr>
<td>Freeway Visibility</td>
<td>Water</td>
</tr>
<tr>
<td>Arterial Visibility</td>
<td>Sewerage</td>
</tr>
<tr>
<td>Distance to Transit Stops</td>
<td>Electricity</td>
</tr>
<tr>
<td>Walking Access</td>
<td>Gas</td>
</tr>
<tr>
<td>Biking Access</td>
<td>Drainage facilities</td>
</tr>
<tr>
<td>Access to Shopping centers</td>
<td>Flood protection</td>
</tr>
<tr>
<td>Public transit</td>
<td>Broadband</td>
</tr>
<tr>
<td>Within City Limits</td>
<td>COMPOSITE SCORE</td>
</tr>
</tbody>
</table>

### Environmental & Site Constraints and Opportunities

<table>
<thead>
<tr>
<th>Environmental and Site Constraints and Opportunities</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conservation</td>
<td></td>
</tr>
<tr>
<td>Vegetation</td>
<td></td>
</tr>
<tr>
<td>Contaminants</td>
<td></td>
</tr>
<tr>
<td>Agricultural land</td>
<td></td>
</tr>
<tr>
<td>Noise</td>
<td></td>
</tr>
<tr>
<td>Aesthetics</td>
<td></td>
</tr>
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</table>

### Ownership

<table>
<thead>
<tr>
<th>Ownership</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Owners</td>
<td></td>
</tr>
<tr>
<td>Ownership of adjacent properties</td>
<td></td>
</tr>
<tr>
<td>Owner Interest</td>
<td></td>
</tr>
<tr>
<td>Owner characteristics (developer, investor, business owner, etc)</td>
<td></td>
</tr>
<tr>
<td>Owner activity on site</td>
<td></td>
</tr>
</tbody>
</table>

### Planning Constraints & Opportunities

<table>
<thead>
<tr>
<th>Planning Site Constraints and Opportunities</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Plan</td>
<td></td>
</tr>
<tr>
<td>Zoning</td>
<td></td>
</tr>
<tr>
<td>Land Use Plan</td>
<td></td>
</tr>
<tr>
<td>Measure 8</td>
<td></td>
</tr>
<tr>
<td>Williamson Act</td>
<td></td>
</tr>
<tr>
<td>Synergy with surrounding uses</td>
<td></td>
</tr>
</tbody>
</table>

### Institutional and Regulatory Constraints, Opportunities

<table>
<thead>
<tr>
<th>Institutional and Political Constraints and Opportunities</th>
<th>Score</th>
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</thead>
<tbody>
<tr>
<td>Historical context</td>
<td></td>
</tr>
<tr>
<td>Zoning</td>
<td></td>
</tr>
<tr>
<td>Conflict over zoning</td>
<td></td>
</tr>
<tr>
<td>History of requests for General Plan changes, Zoning entitlements</td>
<td></td>
</tr>
<tr>
<td>Potential for economic development</td>
<td></td>
</tr>
<tr>
<td>Aid from City of Davis</td>
<td></td>
</tr>
</tbody>
</table>

**COMPOSITE SCORE**
# Gateway

## Gateway (Nishi) Site

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Allocated Acres</th>
<th>Density FAR or DU/AC</th>
<th>Potential Yield</th>
<th>Building Type</th>
<th>Employees per SF (Pkg. Ratio)</th>
<th>Potential Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ag Mitigation/Open Space</td>
<td>12.0</td>
<td>0.60</td>
<td>444,312</td>
<td>at south tip, balance off-site</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Office/R&amp;D/Labs</td>
<td>17.0</td>
<td>0.60</td>
<td>444,312</td>
<td>2-4 story buildings</td>
<td>275</td>
<td>1,616</td>
</tr>
<tr>
<td>HDR</td>
<td>10.0</td>
<td>35</td>
<td>350</td>
<td>3-4 story apartments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Restaurant/Café</td>
<td>0.5</td>
<td>0.20</td>
<td>4,356</td>
<td>ground floor</td>
<td>200</td>
<td>22</td>
</tr>
<tr>
<td>Support Comm (Kinkos, FedEx, etc.)</td>
<td>0.5</td>
<td>0.20</td>
<td>4,356</td>
<td>ground floor</td>
<td>400</td>
<td>11</td>
</tr>
<tr>
<td>Roads</td>
<td>4.0</td>
<td></td>
<td></td>
<td>(surface parking or 1 level deck)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>44.0</strong></td>
<td></td>
<td><strong>448,668</strong></td>
<td></td>
<td></td>
<td><strong>1,648</strong></td>
</tr>
</tbody>
</table>
Gateway Innovation Hub

Pros
- Very close to downtown, transit hub, campus and Mondavi complex
- High potential to meet climate action plan objectives
- Environmental amenities can enhance design
- No neighbor issues
- Limited growth concerns
- Land owner & University interest in developing

Cons
- Subject to Measure R; loss of Ag land, unclear mitigation strategy
- Site access is complex - impeded by railroad tracks, creek channel, Richards Blvd intersection
- Scaled for incubator, university related, modest size opportunities
- Mixed use opportunity so only 17 acres available
UC Davis Studio 30

Land Use Concepts

- Office/Bio-Health-Ag: 17 acres
- High Density Res.: 6 acres
- Support Commercial: 1 acre
- Restaurant/Cafe: 1 acre
- Open Space/Park: 3 acres

*Roads: 5 acres
## 5th Street Hub Site

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Allocated Acres</th>
<th>Density FAR or</th>
<th>Potential Yield</th>
<th>Building Type</th>
<th>Employees per SF (Pkg. Ratio)</th>
<th>Potential Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Park/Plaza Space</td>
<td>3.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Office/R&amp;D Start-ups</td>
<td>17.0</td>
<td>0.80</td>
<td>592,416 SF</td>
<td>3-4 story urban office</td>
<td>225</td>
<td>2,633</td>
</tr>
<tr>
<td>High Density Residential</td>
<td>6.0</td>
<td>35</td>
<td>210 DU</td>
<td>3-4 story apartments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Restaurant/Café</td>
<td>1.0</td>
<td>0.25</td>
<td>10,890 SF</td>
<td>ground floor</td>
<td>200</td>
<td>54</td>
</tr>
<tr>
<td>Support Comm. (Kinkos, FedEx, etc.)</td>
<td>1.0</td>
<td>0.25</td>
<td>10,890 SF</td>
<td>ground floor</td>
<td>200</td>
<td>54</td>
</tr>
<tr>
<td>Roads</td>
<td>5.0</td>
<td></td>
<td>(3,650 LF x 61)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>33.0</strong></td>
<td></td>
<td><strong>603,306 SF</strong></td>
<td></td>
<td></td>
<td><strong>2,742</strong></td>
</tr>
</tbody>
</table>
5th Street Midtown Innovation Hub

Pros
- Proximity to University, & downtown
- Street and transportation connectivity (Bike, Ped, Unitrans)
- Infrastructure/utilities in place
- Infill site
- Low greenhouse gas emissions
- Zoned industrial
- No Measure R vote needed

Cons
- Lack of land owner(s) Interest
- Multiple Parcels
- Overall Site Size (less than 20 acres available)
- Could have neighbor concerns
### West Davis Site - Alternative B (70 acres On-site Ag. Mitigation)

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Allocated Acres</th>
<th>Density FAR or DU/AC</th>
<th>Potential Yield</th>
<th>Building Type</th>
<th>Employees per SF (Pkg. Ratio)</th>
<th>Potential Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ag Mitigation</td>
<td>70.0</td>
<td></td>
<td></td>
<td>(pay fee for balance off-site)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ag Buffer</td>
<td>15.4</td>
<td></td>
<td></td>
<td>(assume open space)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Open Space/Park</td>
<td>2.0</td>
<td></td>
<td></td>
<td>(central green space)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Office/Bio-Health-Ag.</td>
<td>53.0</td>
<td>0.40</td>
<td>923,472</td>
<td>1-3 story office</td>
<td>250</td>
<td>3,694</td>
</tr>
<tr>
<td>R&amp;D/Flex Space/Ag-Bio-Health</td>
<td>53.0</td>
<td>0.40</td>
<td>923,472</td>
<td>1-2 story flex bldg.</td>
<td>350</td>
<td>2,638</td>
</tr>
<tr>
<td>Lodging</td>
<td>4.0</td>
<td>0.35</td>
<td>60,984</td>
<td>120 rm hotel</td>
<td>800</td>
<td>76</td>
</tr>
<tr>
<td>Support Comm. (Kinkos, Drug, etc.)</td>
<td>2.0</td>
<td>0.25</td>
<td>21,780</td>
<td>ground or stand alone</td>
<td>500</td>
<td>44</td>
</tr>
<tr>
<td>Restaurant/Café</td>
<td>1.0</td>
<td>0.20</td>
<td>8,712</td>
<td>2 restaurants</td>
<td>200</td>
<td>44</td>
</tr>
<tr>
<td>Roads</td>
<td>6.6</td>
<td></td>
<td></td>
<td>(4,700 LF x 61’ ROW)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>207.0</strong></td>
<td><strong>1,938,420</strong></td>
<td>SF</td>
<td></td>
<td></td>
<td><strong>6,496</strong></td>
</tr>
</tbody>
</table>
West Davis Innovation Center

Pros
- Freeway access
- Large acreage for scalability
- Potential to partner with Hospital/medical offices or Energy Innovation Hub at West Village
- Retail and other services nearby
- Land owner interest

Cons
- Measure R required
- Possible difficulty with Ag mitigation
- Further from UCD and Downtown Davis
- Possible neighborhood concerns
- Could be considered growth inducing
- Potential for other site uses like senior housing (+ and-)
## East Davis Site

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Allocated Acres</th>
<th>Density FAR or DU/AC</th>
<th>Potential Yield</th>
<th>Building Type</th>
<th>Employees per SF (Pkg. Ratio)</th>
<th>Potential Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ag Mitigation</td>
<td></td>
<td></td>
<td></td>
<td>(pay fee for off-site)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ag Buffer</td>
<td>21.0</td>
<td></td>
<td></td>
<td>(assume open space)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Open Space/Det. Basin/Park</td>
<td>14.0</td>
<td></td>
<td></td>
<td>(basin + green space)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Office/Ag-Food-Tech</td>
<td>65.0</td>
<td>0.40</td>
<td>1,132,560 SF</td>
<td>1-3 story office</td>
<td>250</td>
<td>4,530</td>
</tr>
<tr>
<td>R&amp;D/Flex Space/Ag-Food-Tech</td>
<td>65.0</td>
<td>0.40</td>
<td>1,132,560 SF</td>
<td>1-2 story flex bldg.</td>
<td>350</td>
<td>3,236</td>
</tr>
<tr>
<td>Lodging</td>
<td>5.0</td>
<td>0.35</td>
<td>76,230 SF</td>
<td>160 rm hotel</td>
<td>800</td>
<td>95</td>
</tr>
<tr>
<td>Support Comm. (Kinkos, FedEx, etc.)</td>
<td>2.0</td>
<td>0.25</td>
<td>21,780 SF</td>
<td>ground or stand alone</td>
<td>500</td>
<td>44</td>
</tr>
<tr>
<td>Restaurant/Café</td>
<td>2.0</td>
<td>0.20</td>
<td>17,424 SF</td>
<td>4 restaurants</td>
<td>200</td>
<td>87</td>
</tr>
<tr>
<td>Roads</td>
<td>11.0</td>
<td></td>
<td></td>
<td>(7,000 LF x 61'+ ROW)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL**                            | **185.0**        | **2,380,554 SF**     |                 | **7,992**                    |                              |                |
East Davis Innovation Center

Pros
- 140+ acres for large scale companies
- Ample land for space-intensive innovations (rain water harvesting, solar panels, etc.)
- Good freeway access/visibility
- Close to Sacramento and West Sacramento
- Surrounding Ag properties owned by city; clear mitigation strategy
- No surrounding land use conflicts
- Land owner interest

Cons
- Measure R required; loss of Ag land,
- Further from University and downtown
Major Site Comparison

Findings

• Dispersed Strategy: combining University connected incubator with large acreage for scalability makes sense.

• Pursue the Gateway site in partnership with University

• Consider possibility of both East and West sites for scalability as part of a long term economic development strategy for city.
Next Steps

• Work closely with the University’s economic development staff counterparts to coordinate strategies.

• Begin community outreach activities related to the benefits and opportunities for a University-related innovation center in Davis and its role in a multi-faceted economic development strategy for the City.

• Maintain communication with key community stakeholders such as property owners, developers and advocacy groups.
Next Steps

• Form regional partnerships that recognize the contributions of the City in any regional economic development plans and strategies.

• Continue to work with the land owner and development team for the Gateway site, as well as the University, to pursue a close in, incubator/hub and mixed-use innovation district directly linked to UC Davis.

• Continue to work with the land owner and development teams for the East site and West site as important large edge “job generators,” paying particular attention to innovative design ideas and the potential community costs and benefits.
Questions?

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(530) 757-8577

Julia Lave Johnston
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(530) 757-8987