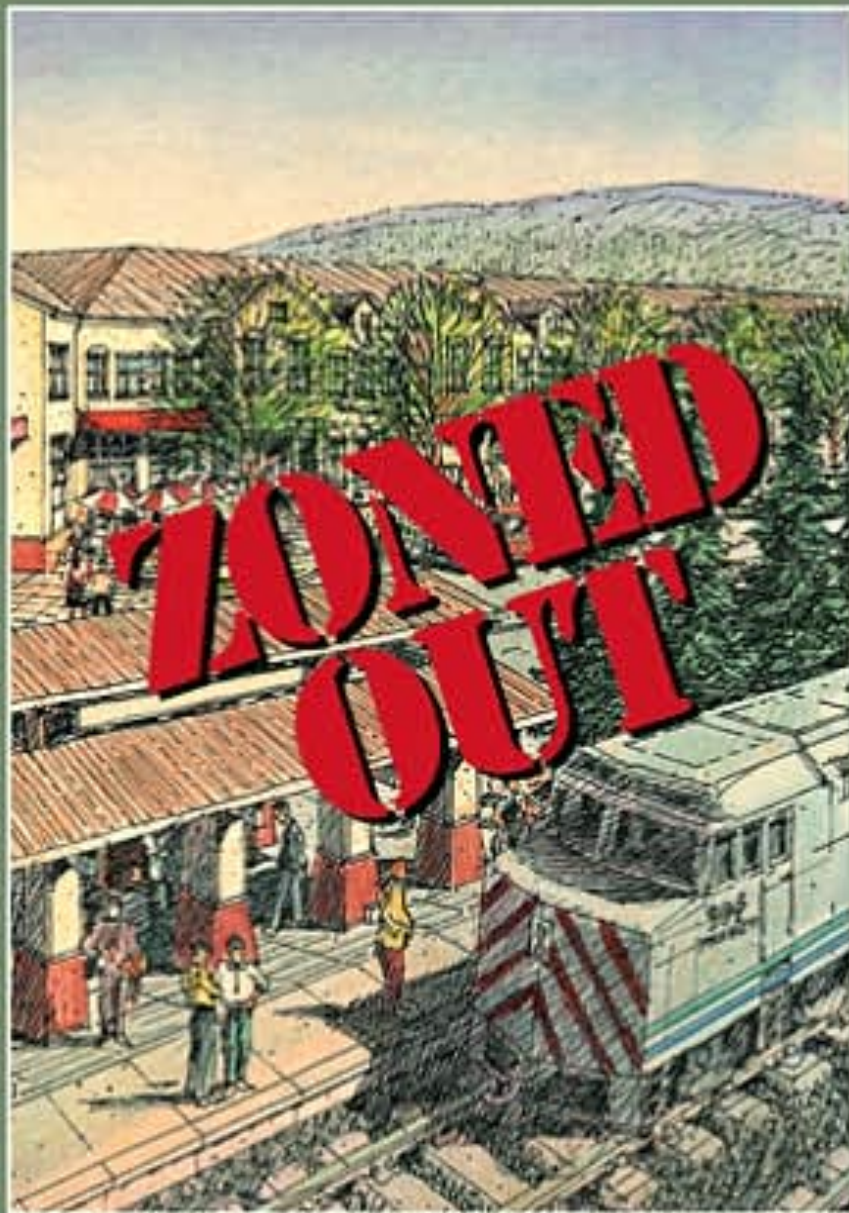


Inside the New UFC

Mark L. Gillem, PhD, AIA, AICP
Associate Professor, University of Oregon
Principal, The Urban Collaborative







Regulation, Markets, and Choices in
Transportation and Metropolitan Land-Use

JONATHAN LEVINE

UNIFIED FACILITIES CRITERIA (UFC)

INSTALLATION MASTER PLANNING



APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED

Inside the New UFC

Theory

Content

Application

Inside the New UFC

Theory

- 7 Attributes of Sprawl
- 5 Costs of Sprawl
- Regulation's Role

1. Auto-Focused



2. Abundantly Paved



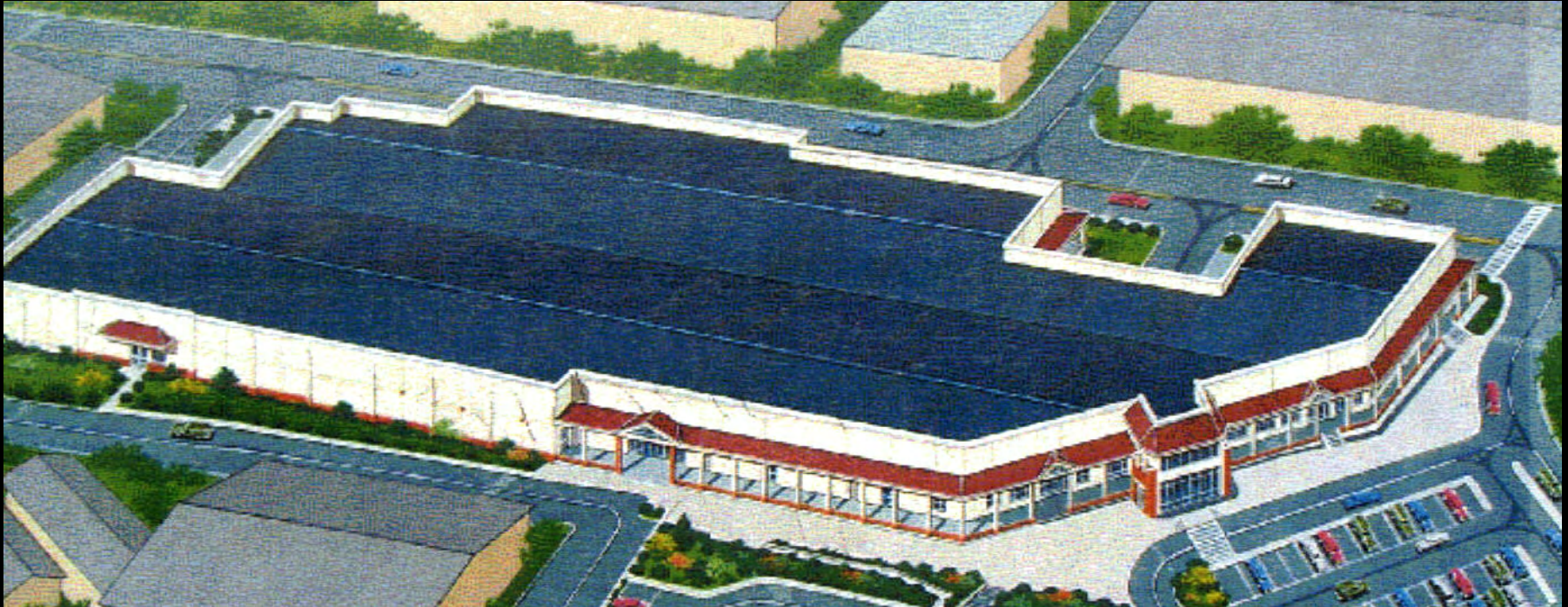
3. Widely-Spaced



4. Extensively Lawned



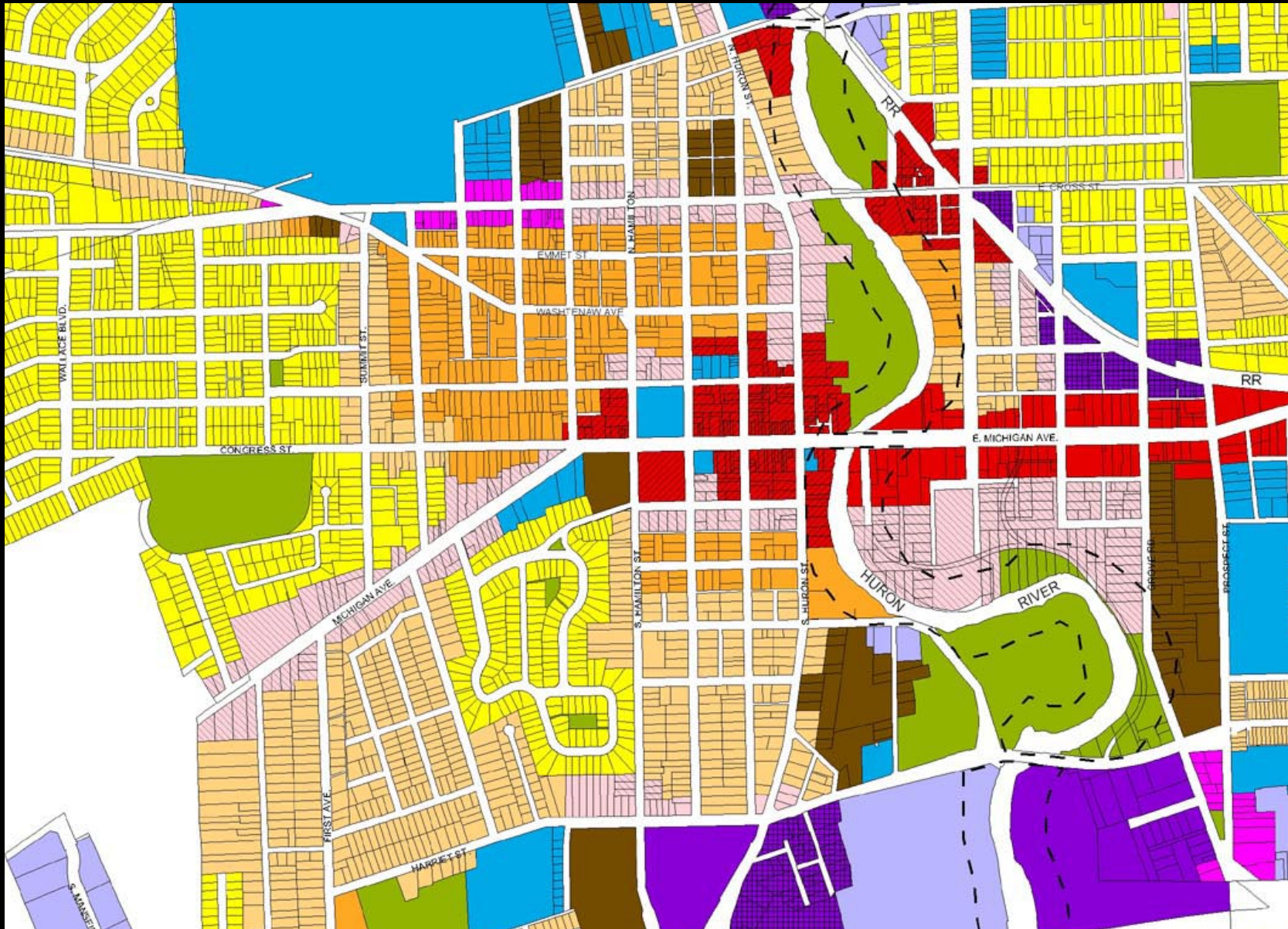
5. Increasingly Franchised



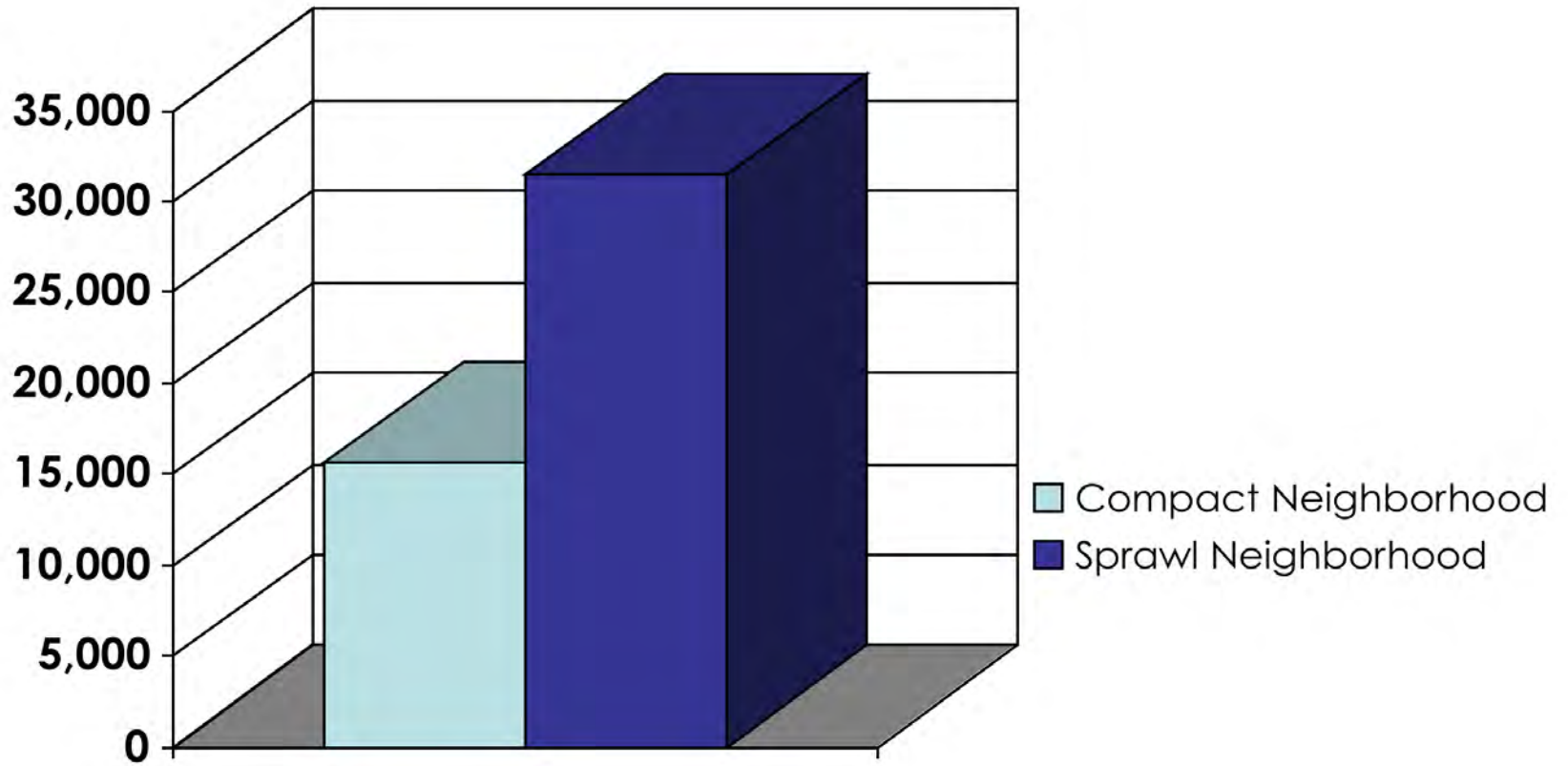
6. Haphazardly Ordered



7. Clearly Segregated



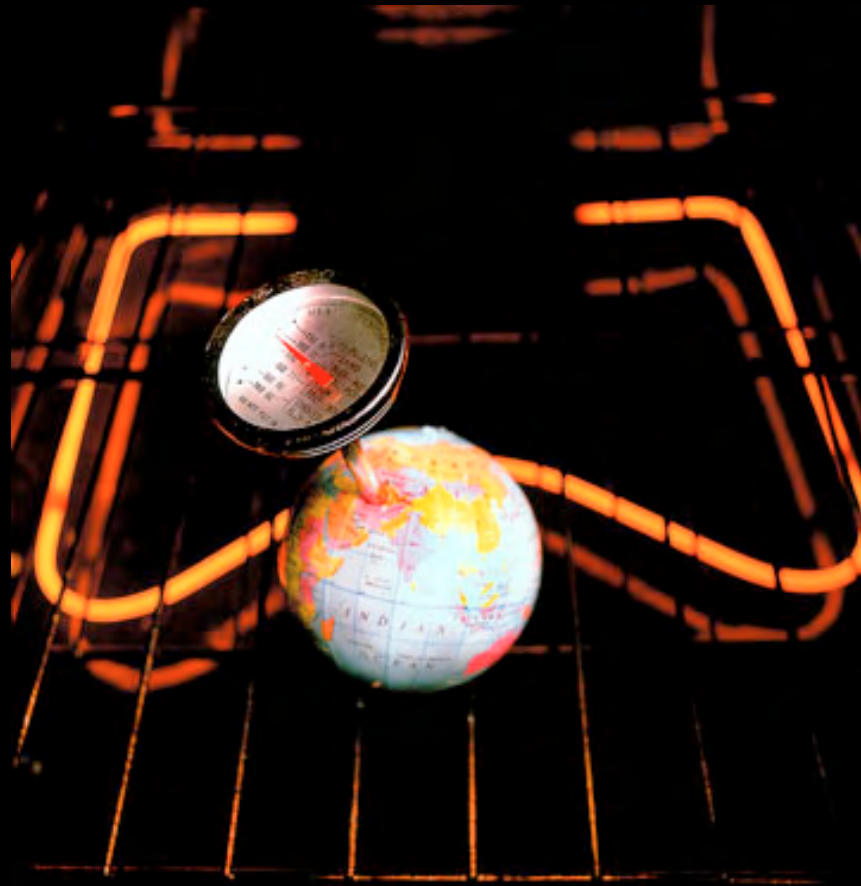
1. Transportation Impacts



2. Air Quality Impacts



3. Climate Change Impacts



4. Fiscal Impacts



5. Land Use Impacts

 area for a pedestrian

area for a car



Regulation's Role

UFC 2-000-02AN
1 March 2005

UNIFIED FACILITIES CRITERIA (UFC)

INSTALLATION MASTER PLANNING



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UFC 3-210-01A
16 January 2004

UNIFIED FACILITIES CRITERIA (UFC)

AREA PLANNING, SITE PLANNING, AND DESIGN



APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED

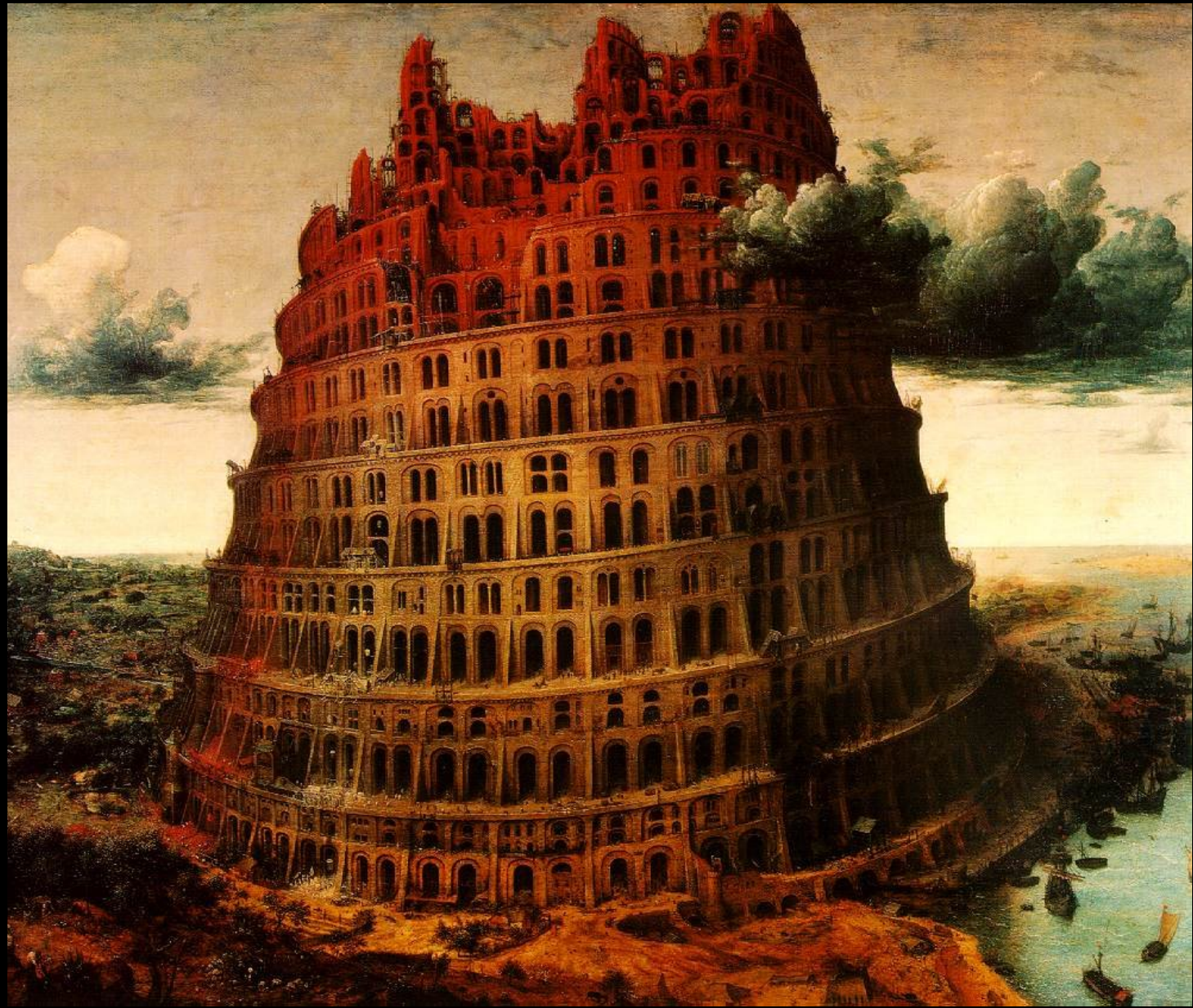
UFC 4-010-01
9 February 2012

UNIFIED FACILITIES CRITERIA (UFC)

DoD MINIMUM ANTITERRORISM STANDARDS FOR BUILDINGS



APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED



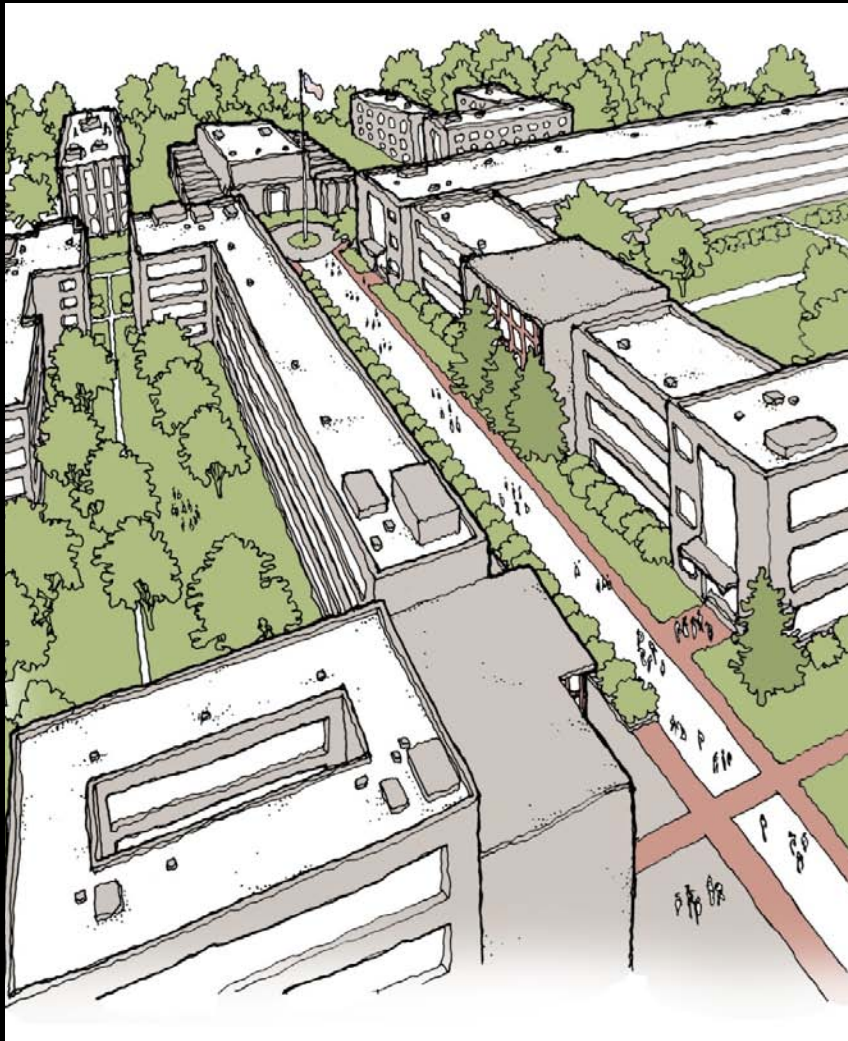
Inside the New UFC

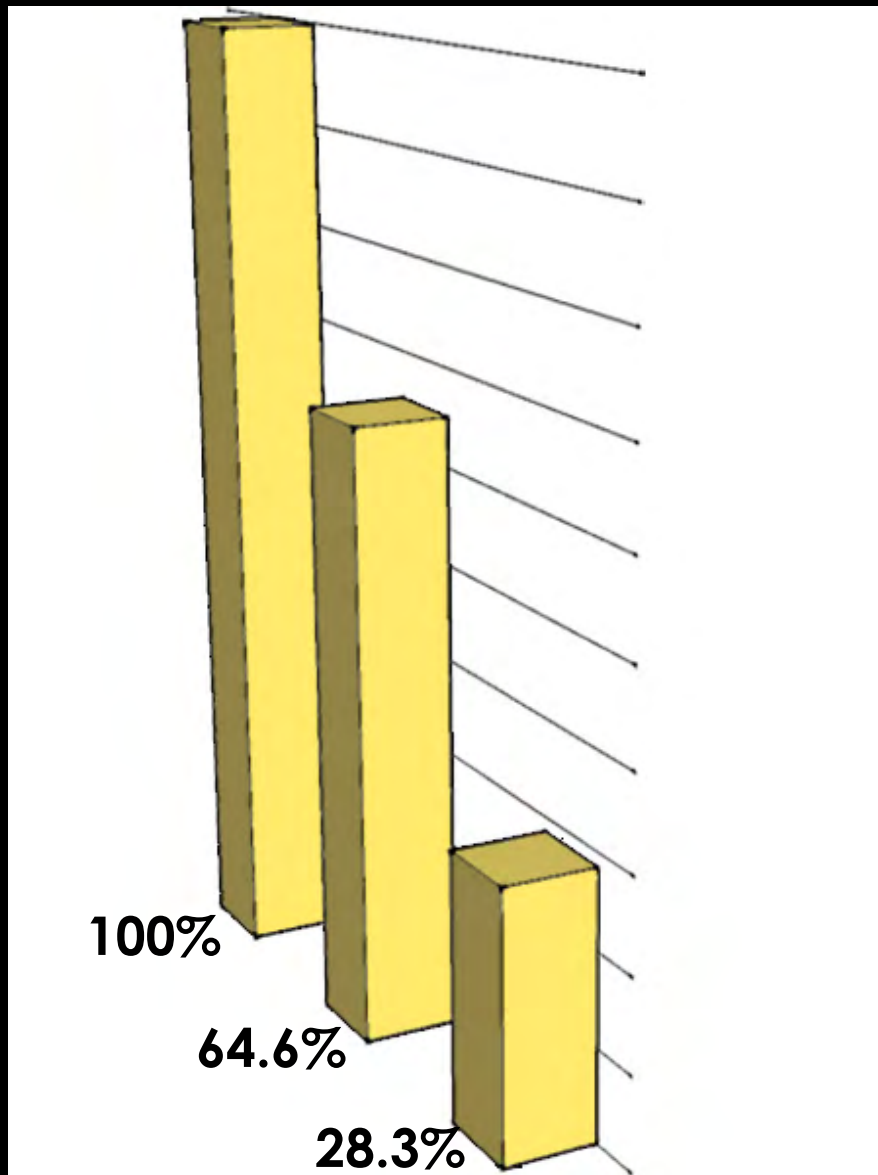
Content

- **10 Strategies**
- Consistent Process and Products
- Education and Training

1. Sustainable Planning

Compact Infill Development





Projected energy requirement for master plan
21,651,884kWh requirement

Energy requirement after sustainable planning efforts
12,538,491kWh requirement
(35.4% reduction)

Energy requirement after on-site renewable energy generation
7,993,083kWh requirement
(71.7% reduction)

1. Sustainable Planning

Transit Oriented Development



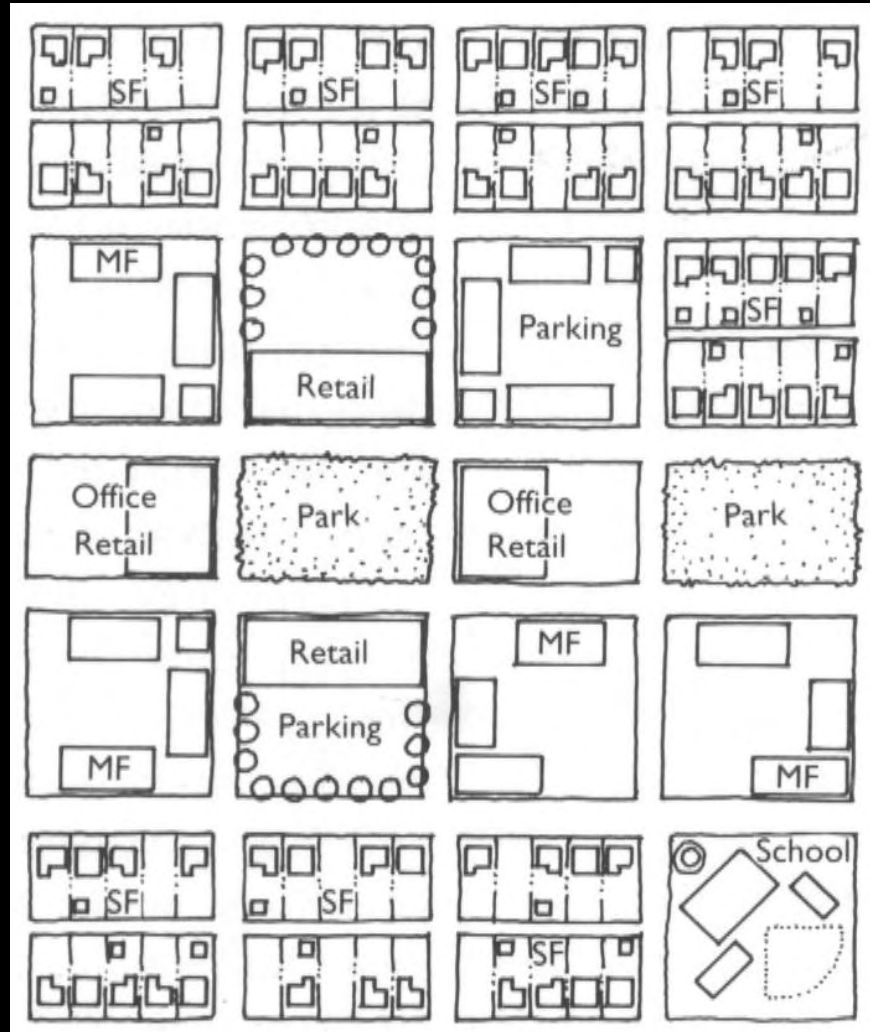
1. Sustainable Planning

Horizontal and Vertical Mixed-Use



1. Sustainable Planning

Connected Street Networks



1. Sustainable Planning

Low Impact Development



1. Sustainable Planning

Multi-Story Construction



1. Sustainable Planning

Narrow Wings



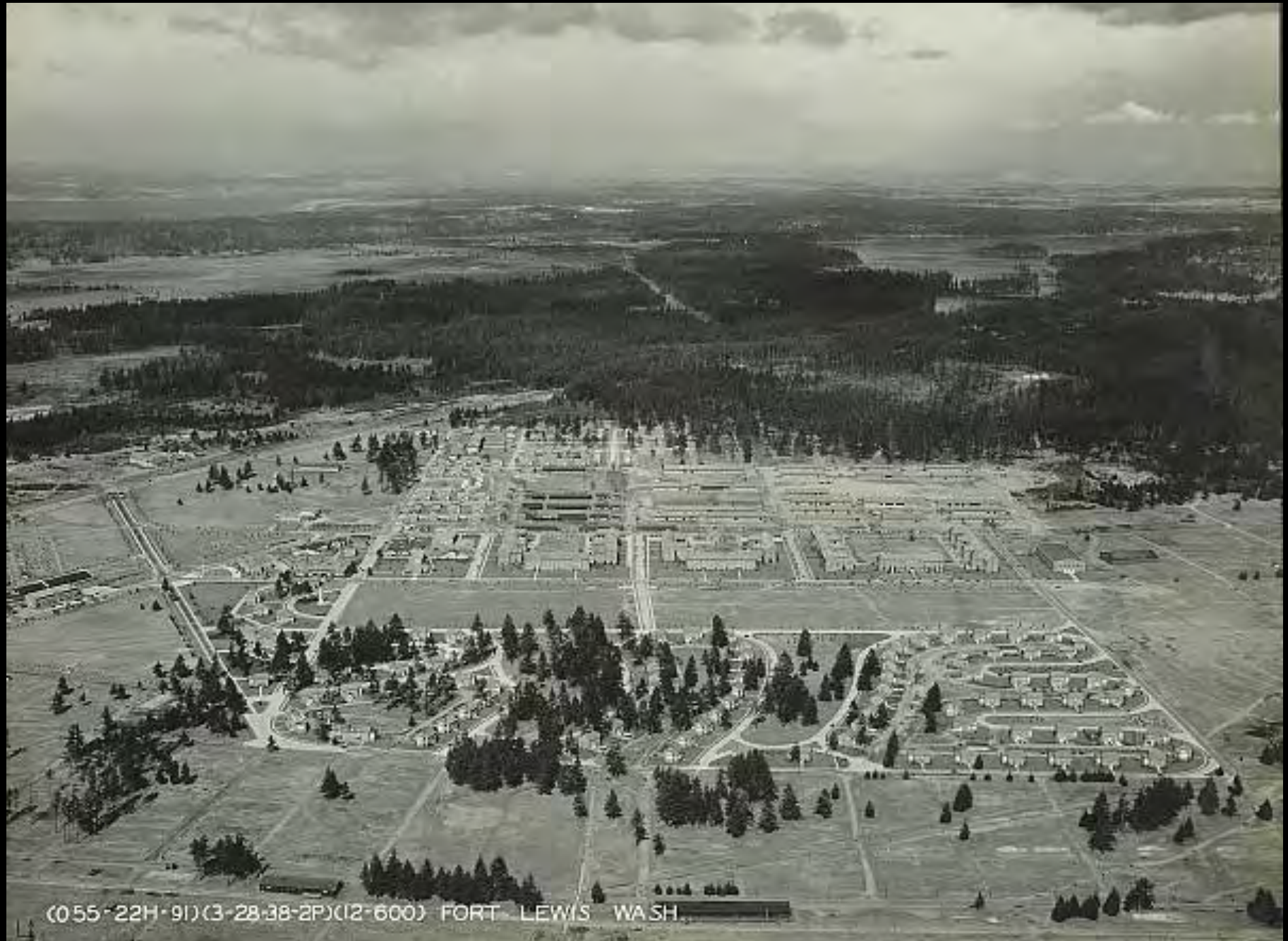
	Green Admin	Typical Admin
Morphology	Narrow Wings	Wide Wings
Windows	Operable	Fixed
Daylighting	Extensive	Minimal
HVAC	Passive with support	Active
Results	10.57 kWh/sf ⁽³⁾	20.07 kWh/sf (1996) ⁽¹⁾ 18.6 kWh/sf (2008) LEED Silver Median ⁽²⁾

(1) Estimates of Energy Consumption by Building Type and End Use at U.S. Army Installations by Lawrence Berkeley National Laboratory, 1996.

(2) Energy Performance of LEED® for New Construction Buildings, 2008. (<http://www.usgbc.org/ShowFile.aspx?DocumentID=3930>)

(3) Based on data from Netherlands International Bank redevelopment project

2. Resource Preservation Natural, Historical, Cultural



3. Defensible Planning



4. Healthy Community Planning



5. Area Development Planning



6. Form-Based Planning



6. Form-Based Planning



Fort Lewis Historic Downtown ADP Town Center Housing

Master Plan Vision

In support of the mission, our Soldiers, and Families, we will create a sustainable community of walkable neighborhoods with identifiable town centers connected by great streets.

Legend

- Ground level flats with townhomes above
- Rowhouse
- Enclosed parking spaces
- Rowhouse or Mixed-use commercial space
- Green space

Residential Units

- 142 Rowhouses
- 59 Townhomes above flats
- 35 Ground level flats
- 256 Total**

Commercial Space

- 31,900 GSF
- 3 buildings fronting Pendleton Boulevard
- 6 buildings fronting park blocks

Rowhouse Parking

- Required:** 324
- 2 spaces per unit
- Provided:** 324
- tandem tuck-under garages

Townhome and Flat Parking

- Required:** 188
- 2 spaces per unit
- Provided:** 188
- 84 spaces in embedded garages
- 104 spaces in detached garages

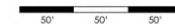
Guests and Commercial Parking

- Required:** 256
- 128 guest spaces at 0.5 spaces per unit
- 128 commercial spaces at 4 spaces per 1,000 GSF
- Provided:** 256 spaces on-street

Lodging Parking

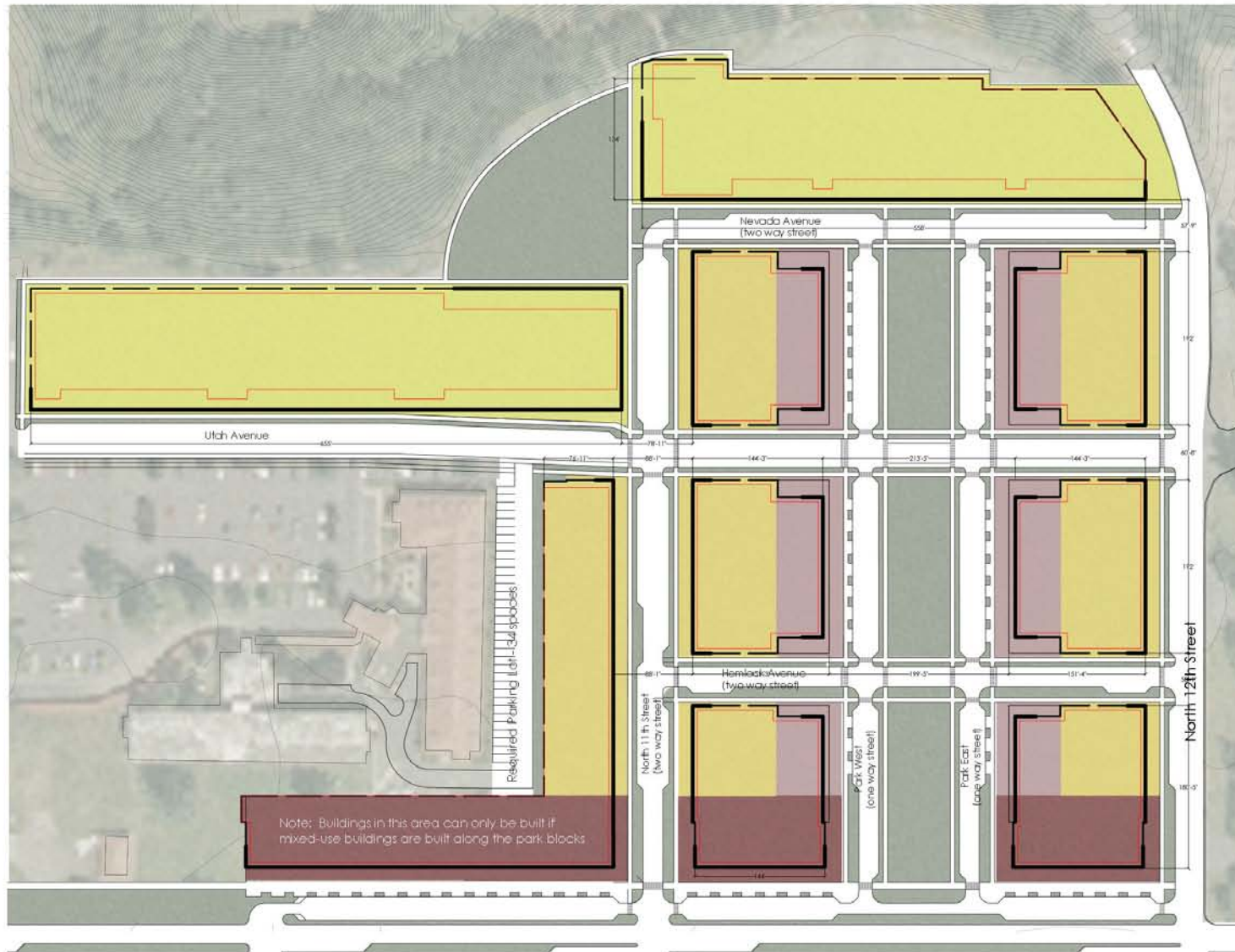
- Provided:** 49 spaces
- 15 on-street
- 34 in parking lot

Note: All dimensions are approximate and should be field verified



Illustrative Plan
May 25, 2008
The Urban Collaborative, LLC

6. Form-Based Planning



Fort Lewis Historic Downtown ADP Town Center Housing

Master Plan Vision

In support of the mission, our Soldiers, and families, we will create a sustainable community of walkable neighborhoods with identifiable town centers connected by great streets.

Legend

- Ground Level Flats with Townhomes above
- Rowhouse
- Rowhouse or Mixed-Use Commercial
- Mixed-Use Commercial
- Green space
- Required Build-to Line (RBL)
- Building Boundary (maximum)
- Parking Boundary (maximum)
- Rowhouse RBL (in Mixed-Use zone)

Ground Level Flats with Townhomes above

- Buildings shall be a minimum of 3 stories, maximum of 4 stories
- Buildings shall not be more than 60' in depth
- Maximum 12 residential units per building
- Front facades must occupy 50% of the RBL, with an additional 25% within +/- 3' of the RBL, unless otherwise dictated by AITFP regulations
- RBL shall be 16' from street curb unless shown otherwise
- Ground level entries shall be no more than 50' apart
- Designated alleys shall be the sole means of vehicular access to the site
- One way alleys shall have a 11' (minimum) cartway
- Two way alleys shall have a 22' (minimum) cartway
- There is no required setback from alleys

Rowhouses

- Buildings shall be a minimum of 3 stories, maximum of 4 stories
- Buildings shall not be more than 60' in depth
- Maximum 12 residential units per building
- Front facades must occupy 50% of the RBL, with an additional 25% within +/- 3' of the RBL, unless otherwise dictated by AITFP regulations
- RBL shall be 26' from street curb unless shown otherwise
- Parking shall not be within 5' of the RBL
- Designated alleys shall be the sole means of vehicular access to the site
- Alleys shall have a 22' (minimum) cartway
- No required setback from alleys

Mixed-Use Commercial/Housing (above)

- Buildings shall be a minimum of 3 stories, maximum of 4 stories
- Buildings shall not be more than 60' in depth
- Maximum 12 residential units per building
- Front facades must occupy 50% of the RBL, with an additional 25% within +/- 3' of the RBL, unless otherwise dictated by AITFP regulations
- RBL shall be 22' (minimum) from street curb
- Designated alleys shall be the sole means of vehicular access to the site
- Alleys shall have a 22' (minimum) cartway
- No required setback from alleys

Sidewalks

- Sidewalks shall be 5' (minimum) in width
- Sidewalks shall encompass all housing blocks
- Sidewalks shall be separated from street curb by a 5' (minimum) planting strip
- Planting strip shall encompass all housing blocks
- Sidewalks along Pendleton Boulevard shall be 16' in width (dimension includes 8' planter strip or tree grate adjacent to mixed-use building)

Street trees

- Trees shall be planted 25' on center
- Trees shall be planted in a planter strip throughout Town

Streets and street parking

- Contractor plans must conform to street layout as shown. Any variation must be approved by Public Works
- All parallel spaces shall be 7' wide, 20' long

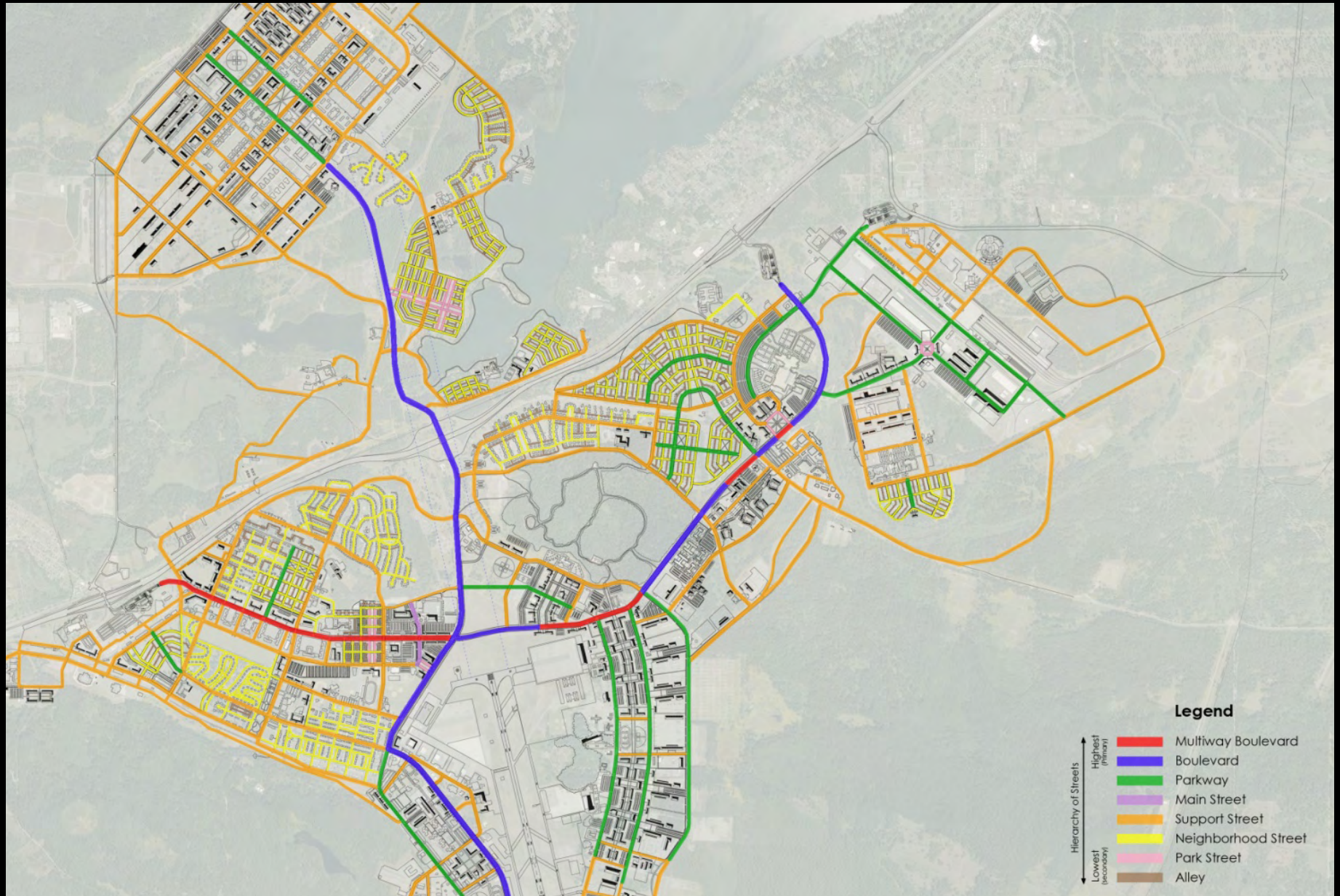
Note: All dimensions are approximate and shall be field verified



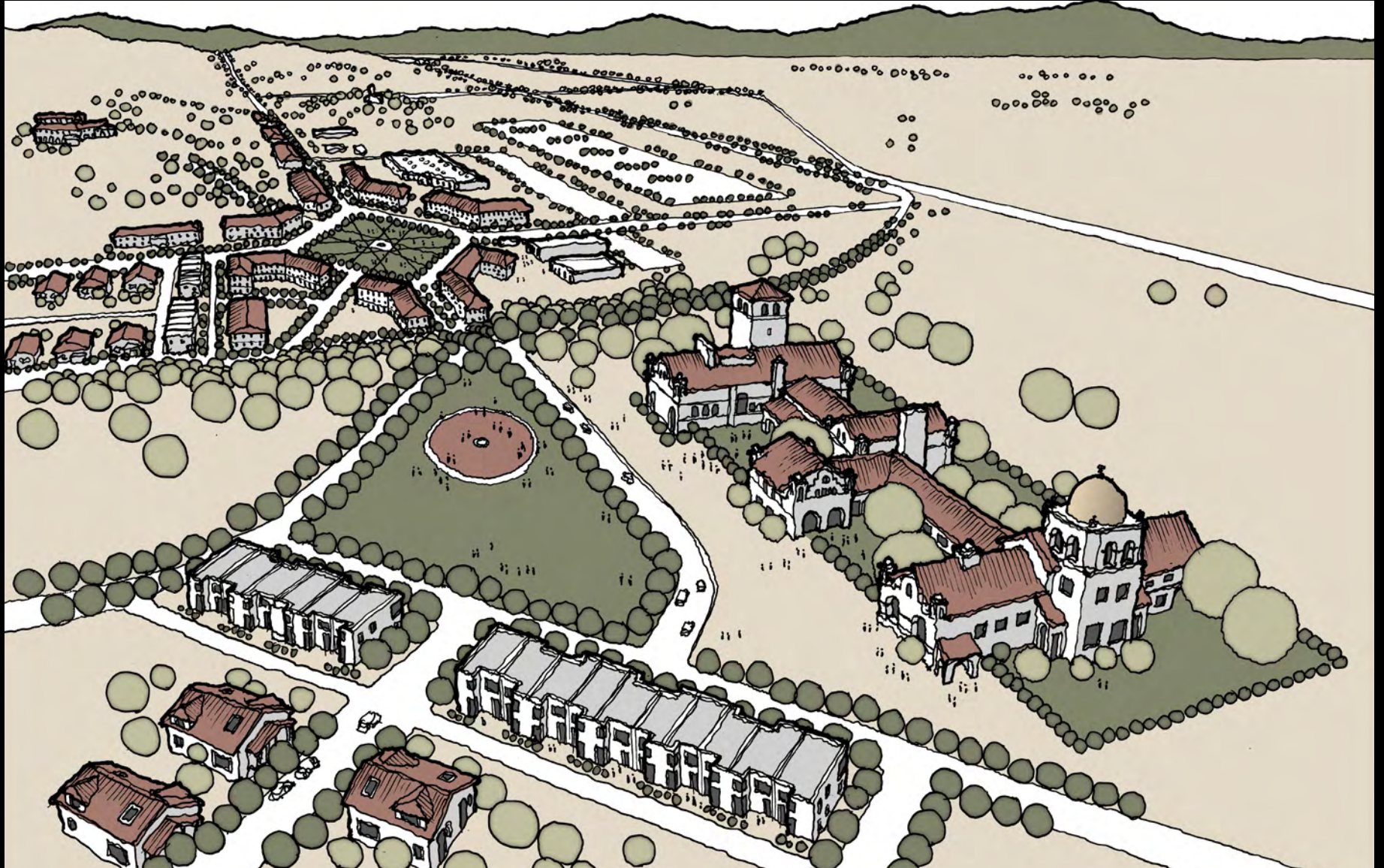
VMT Reduction: 11.4 million miles per year
CO2 Reduction: 12.9 million pounds per year
Per Family Savings: \$1,500 per year
Housing Expansion: Over 2000 new on-base homes



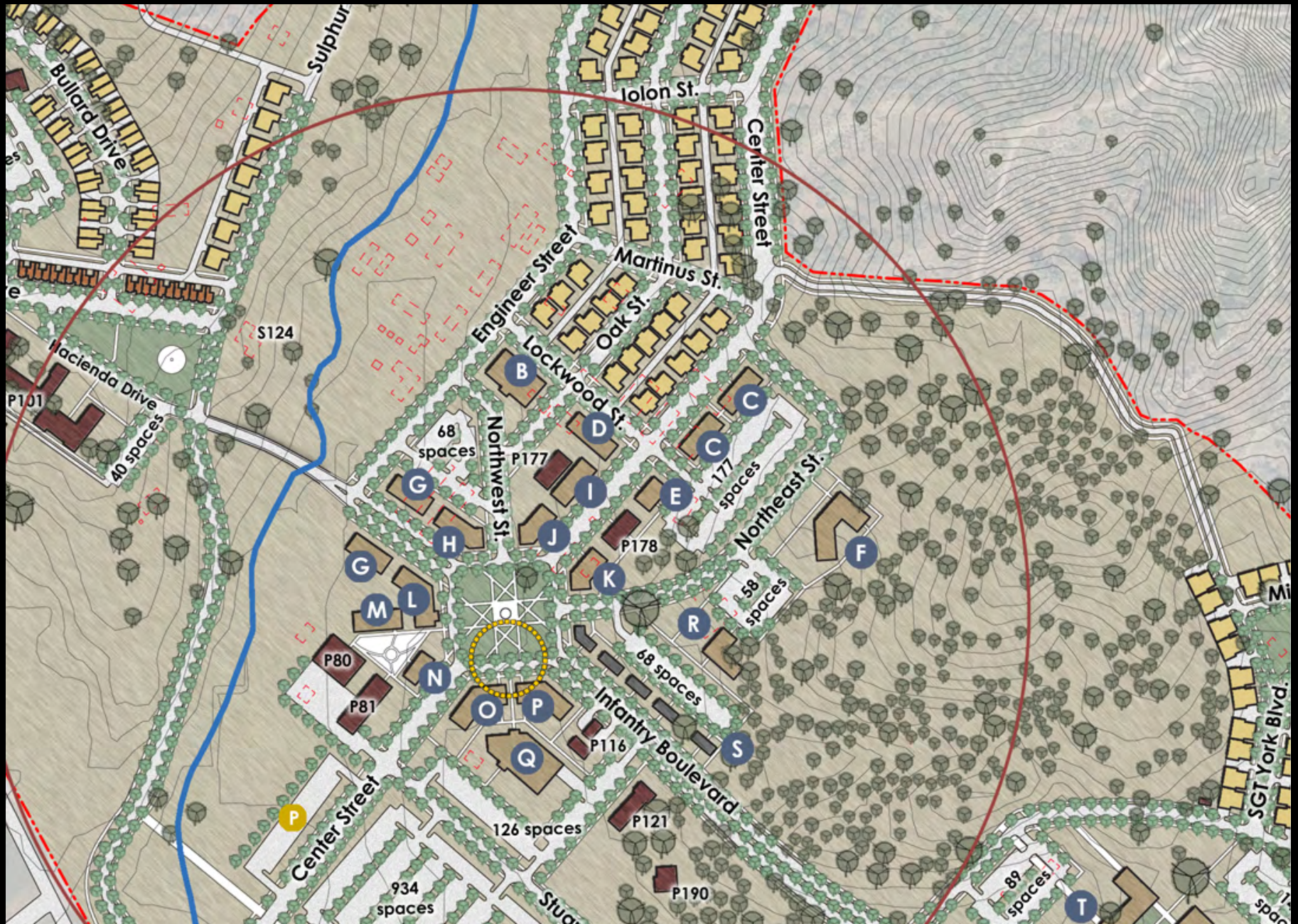
7. Network Planning



8. Capacity Planning



8. Capacity Planning



9. Facility Standardization



Company Operations Facility, Fort Lewis, FY05



Company Operations Facility, Fort Lewis, FY07

10. Plan-Based Programming

ADP Project Number	Project	WR #	Facility	Category
1	Road repaved and parking lot extended to boundaries of area to provide capacity for displaced ship forces parking (350 stalls added to existing 400 stalls). Sidewalks added for pedestrian safety. Historic gantry crane foundations incorporated into design. (Ref CLR)	NEW		MISSION
2	New entry to dry dock from the south to serve pedestrians from relocated parking.	NEW		MISSION
3	Fence lines adjusted to provide shipyard with more space.	NEW		MISSION
4	Keel blocks and shipyard/BAE conex boxes consolidated with BAE service VEH parking at C&P yard.	NEW		MISSION
5	BAE laydown area coordinated with Repave Annex C	541235		MISSION
6	BAE funded renovations for B370 and/or B326 as required for storage facility	NEW	B370/B326	MISSION
7	Repave Seabee Way replace yellow barricades with sidewalk to provide pedestrian safety. Reduce Seabee Way to two lanes.	541360		SAFETY
8	Make Cushing St. one way to allow for safe passage of vehicles and pedestrians. Add sidewalk.	NEW		SAFETY
9	Repave parking lot H. project to incorporate street trees. Possible site for PV's (REF. BMP/IAP)	541065		APPEARANCE/ENERGY
10	Repave Central Ave. extend street trees. Add sidewalks to project (REF. BMP)	541359		SAFETY/APPEARANCE
11	Repave Annex C parking lot. Possible site for PV's.	541235		APPEARANCE/ENERGY
12	Repave Port Royal St. Add sidewalks to project (REF BMP)	541361		SAFETY
13	Relocate function in B367. possibility to relocate to Ft. Kam housing.	NEW	B367	MISSION
14	Establish Ford Island Way as a boulevard to create the appropriate procession to historic shoreline ara. Currently coordinating with privatized housing to determine feasibility (REF. BMP/IAP)	NEW		MISSION/SAFETY/APPEARANCE
15	Relocate DJC2. demo 1660. Develop low impact development parking lot (approx. 300 stalls) to serve ship forces. Shipyard and new park. Creates buffer to residential area. Possible site for PV's (REF. RIP/IAP)	NEW	1660	MISSION/APPEARANCE
16	DLA Maritime Tank area reduced by half.	NEW		MISSION/SAFETY
17	MWR car lots. New facilities planned here per facility modernization plan 2008. To be used for FEAD construction laydown.	NEW		MISSION
18	Resurface Hospital Way. Create one way road to serve as exit from Shipyard area.	541345		SAFETY/APPEARANCE
19	Consider extending South Ave paving project to end.	541179		APPEARANCE



BEFORE



AFTER



Inside the New UFC

Content

- 10 Strategies
- **Consistent Process and Products**
- Education and Training

Process and Products

Develop the Vision Plan

Prepare Planning Standards

Create the Installation Development Plan

Area Development Plans

Network Plans

Identify the Development Program

Publish a Summary Document

Inside the New UFC

Content

- 10 Strategies
- Consistent Process and Products
- **Education and Training**

THE DEPARTMENT OF DEFENSE **MASTER PLANNING** INSTITUTE CATALOG

SPONSORED IN PART BY THE U.S. ARMY CORPS OF ENGINEERS
PROPOONENT-SPONSORED ENGINEER CORPS TRAINING (PROSPECT) PROGRAM



www.dodmpi.org

Inside the New UFC

Applications

FORT HOOD

CLEAR CREEK/DARNALL AREA DEVELOPMENT PLAN



Illustrative Plan



Fort Hood Clear Creek/Darnall ADP Illustrative Plan



The Great Place with accessible campuses,
walkable small towns, and modern infrastructure.

The Urban Collaborative, LLC

A	Exchange: 262,367sf
B	AAFES Expansion: 31,360sf per floor (2-4 floors)
C	Mixed-Use Retail/Administration: 50,900sf per floor (3-4 floors)
D	Library: 82,800sf per floor (3-4 floors)
E	Commissary/Housing Above: 161,100sf per floor (3-4 floors)
F	Mixed-Use Retail/Administration: 26,500sf per floor (3-4 floors)
G	Mixed-Use Retail/Administration: 53,620sf per floor (2-4 floors)
H	Sports Area/Complex: 268,100sf per floor (1-3 floors)
I	Theater: 31,700sf per floor (2-4 floors)
J	Department of Public Works: 65,100sf per floor (2-3 floors)
K	Mixed-Use Retail/Administration: 82,560sf per floor (2-3 floors)
L	Garrison/Unit Administration: 12,800sf per floor (2-3 floors)
M	Medical Center: 947,000sf

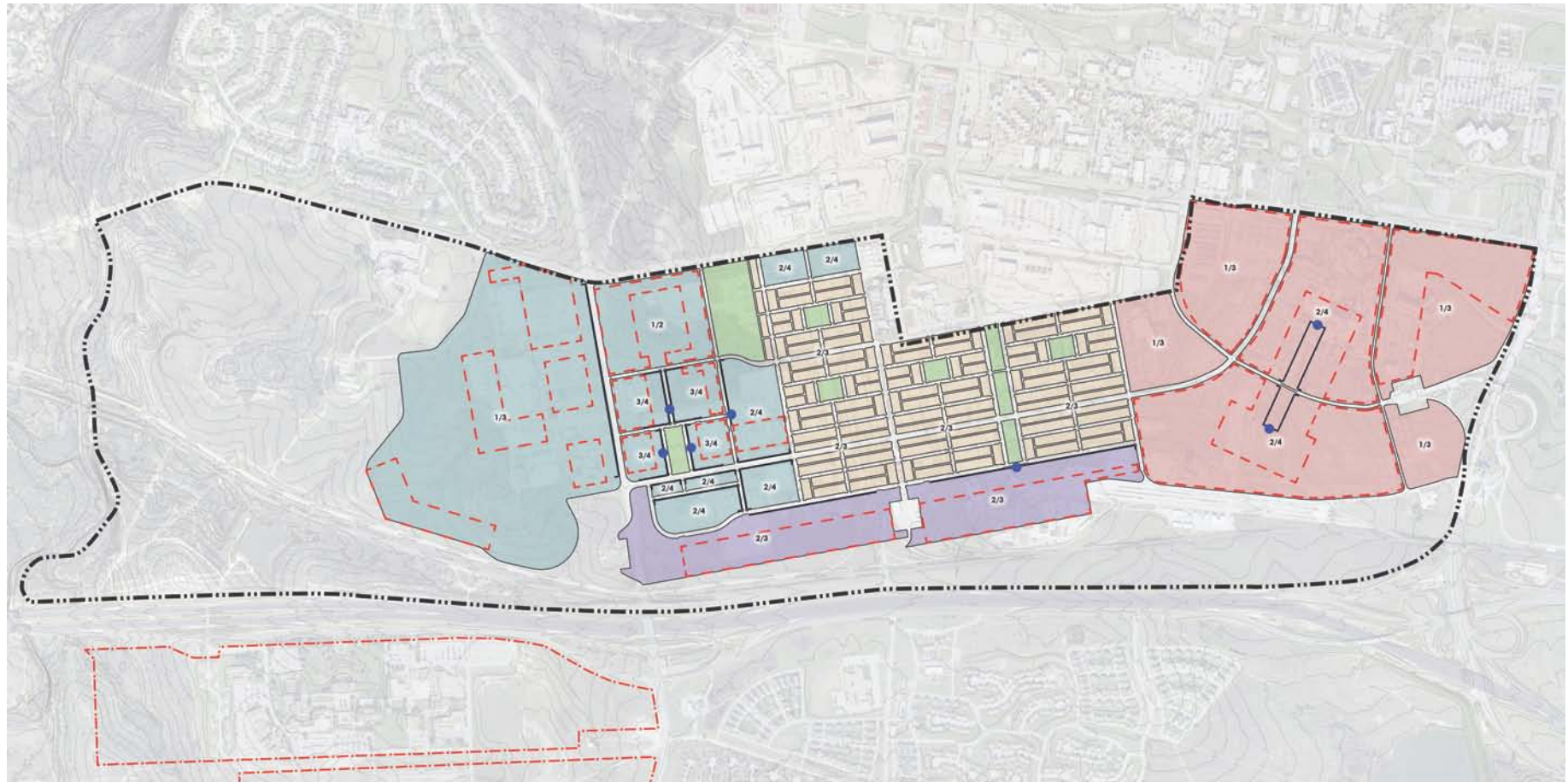
N	Multi-Level Parking Structure: 94,900sf per floor (2-4 floors)
O	Medical Complex: 170,010sf per floor (2-4 floors)
P	Multi-Use Administration: 52,970sf per floor (2-4 floors)
Q	Public Transit Stop

Car Park Space:	5,823 spaces
On-Street Parking:	3,228 spaces
Total Parking:	9,051 spaces
Total New Building Area (min):	3,827,127sf
Total New Building Area (max):	7,131,394sf
New Detached Housing:	486 parcels
New Barracks/Apartments:	519 parcels

New Facilities	Existing Trees
Existing Facilities	Street Trees
Detached Housing	Stormwater
Attached Housing	Topography
Bus Route	Railroad
	ADP Boundary
	Installation Boundary



Regulating Plan



Fort Hood Clear Creek/Darnall ADP Regulating Plan



The Great Place with accessible campuses,
walkable small towns, and modern infrastructure.

The Urban Collaborative, LLC

Notes:

1. Refer to the **Street Standards** for detailed street in formation.
2. Refer to the **Building Standards** for detailed building information.
3. Recreation area shall be used solely for programmed recreation activities (ex. tennis courts, basketball courts, softball fields, etc).
4. Unregulated areas shall be permanently designated as open space.
5. Numerical designation in each buildable area refers to minimum and maximum allowable number of floors.

Commercial Standard	Light Blue	●	Required Entry Location
Campus Standard	Light Red	1/3	Minimum/Maximum Building Heights
Housing Standard	Yellow	---	ADP Boundary
Industrial Standard	Purple	---	ADP Boundary
Parks and Open Space	Green	---	ADP Boundary
Buildable Area	---	---	ADP Boundary
Required Build-To Line (BTL)	---	---	ADP Boundary
Parking Zone	---	---	ADP Boundary
Required Entry Zone	---	---	ADP Boundary



Conceptual Rendering – Town Square



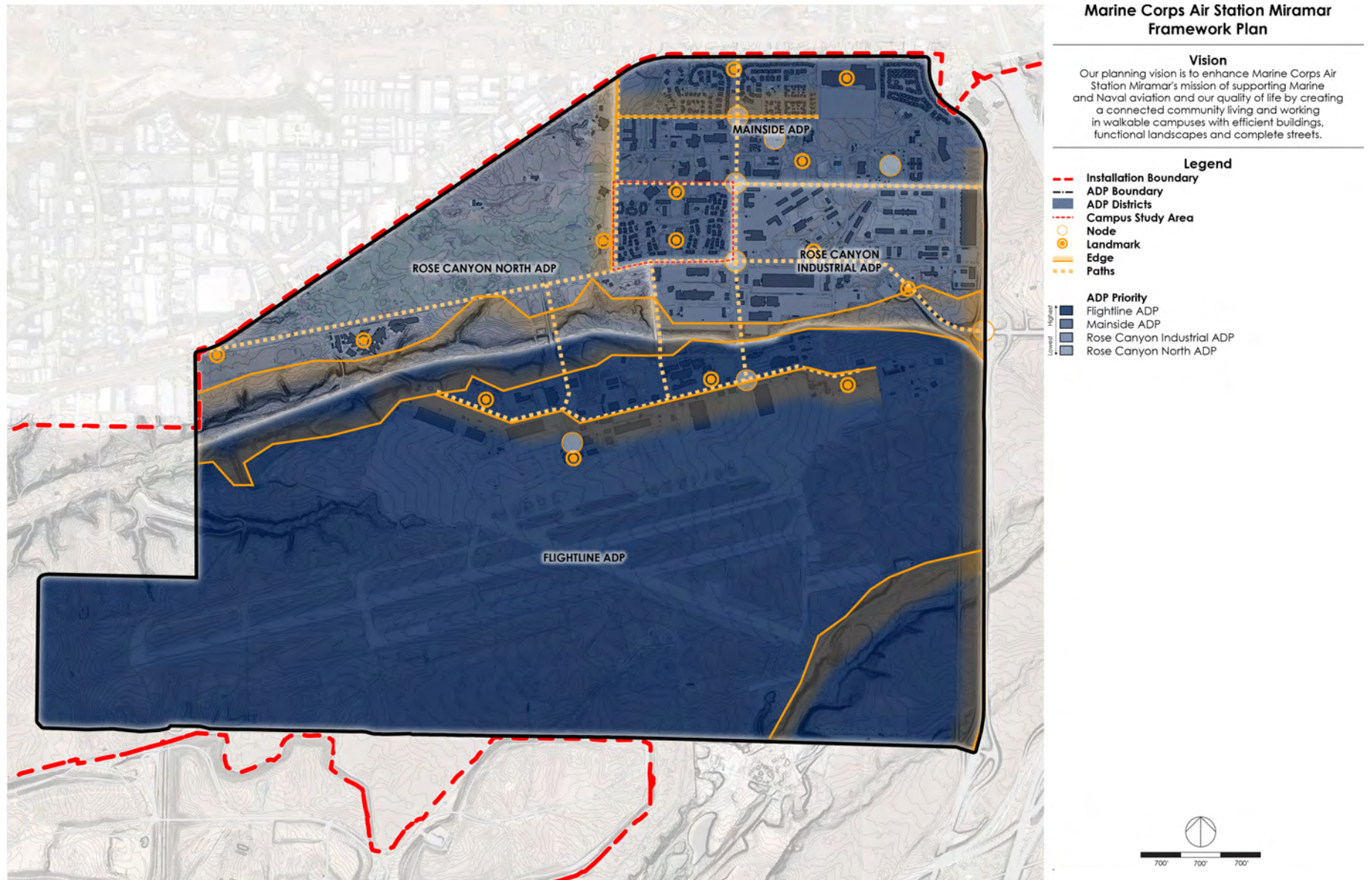
DRAFT

MARINE CORPS AIR STATION MIRAMAR

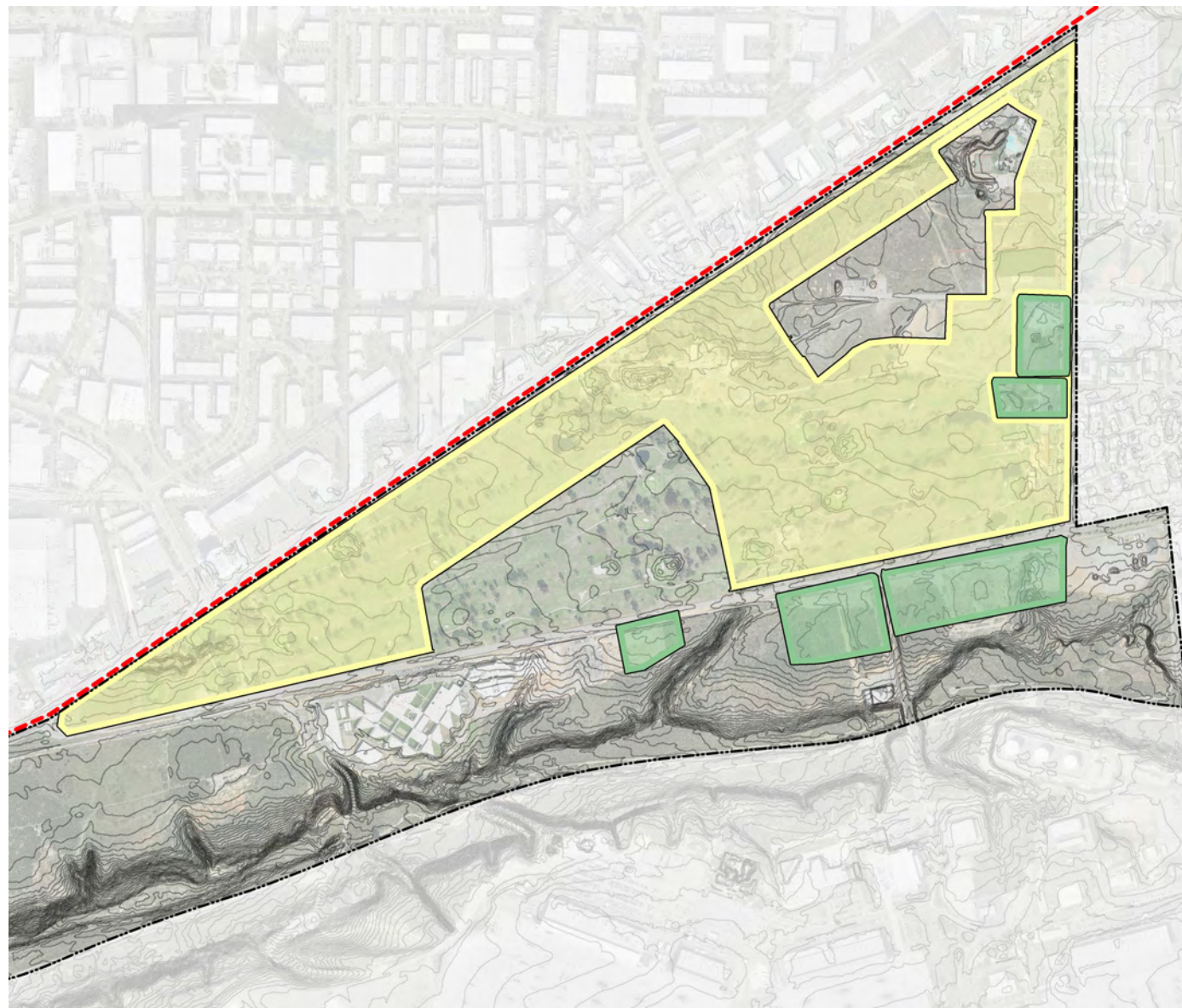
VISION PLAN



Framework Plan



Developable Area Plan



Legend

- Installation Boundary
- ADP Boundary
- Shoreline
- Buildable Area
- Developable Area

The developable area is comprised of zones that are ready to be developed after minor mitigation. When added to the previously established buildable areas, this stage represents a moderately conservative approach to future development.

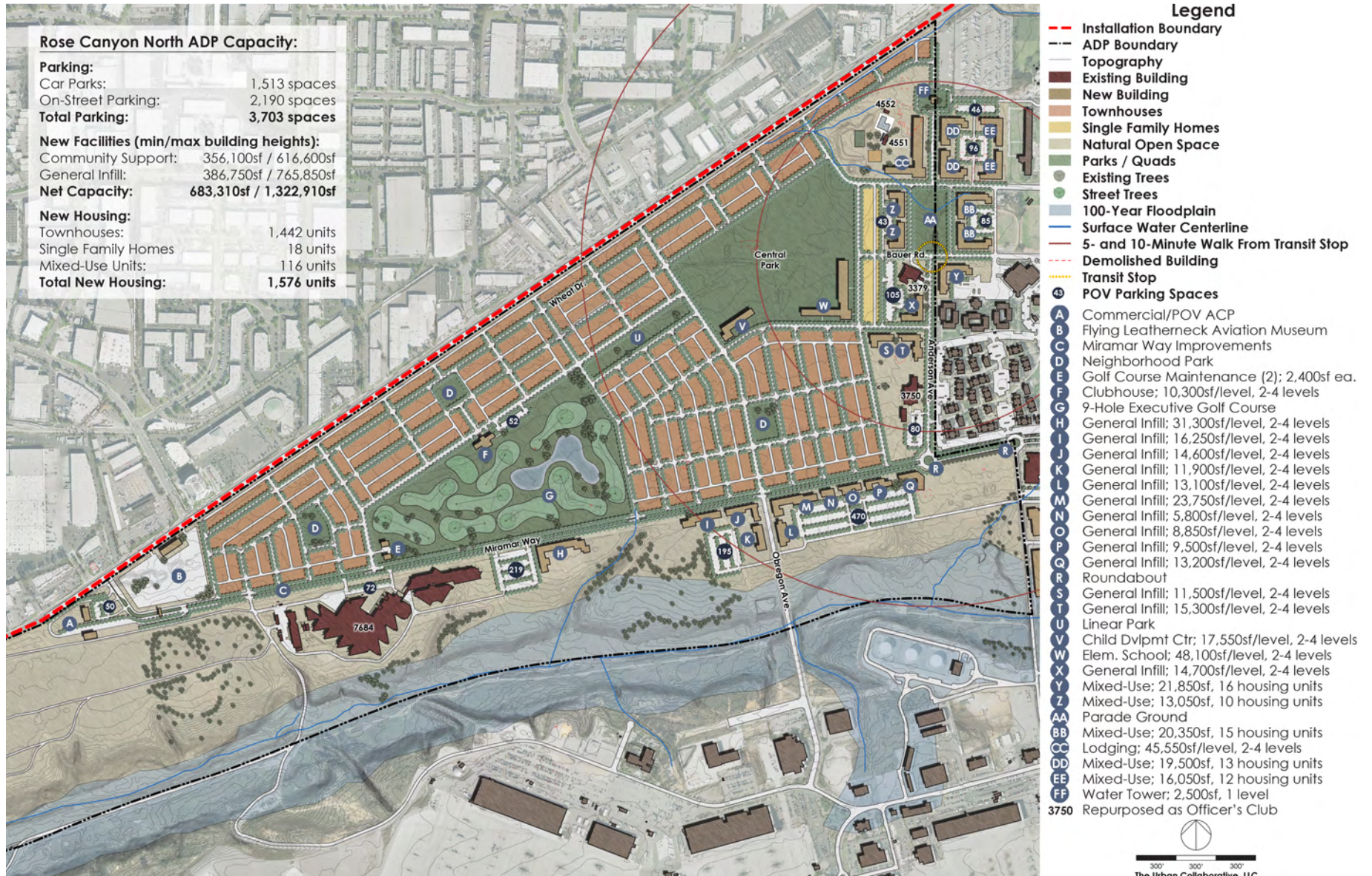
Total Developable Area Acreage:
Developable Acreage: 182.39 acres
ADP Acreage: 478.47 acres
Percentage of Total Area: 38.12%

Combined Total Acreage:
Buildable/Developable Acreage: 212.12 acres
ADP Acreage: 478.47 acres
Percentage of Total Area: 44.33%



The Urban Collaborative, LLC

Illustrative Plan



DRAFT

BASE

JOINT BASE PEARL HARBOR-HICKAM

SOUTHSIDE AREA DEVELOPMENT PLAN TRAINING PRACTICUM REPORT



HARBOR-



Medical Group

223 Retail Food

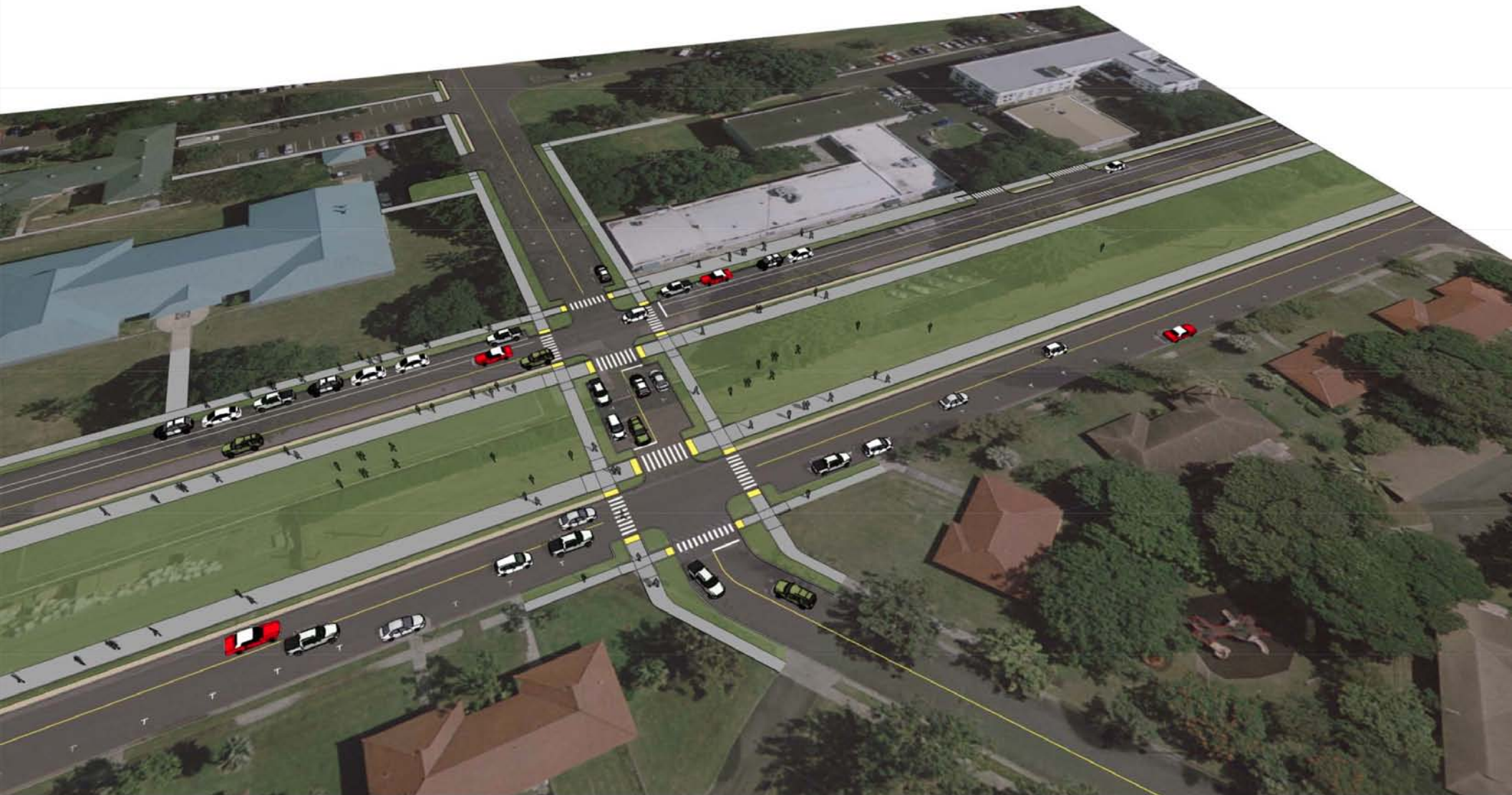
222

221 Puller Hall

South Ave

Porter Ave

Fourteenth St.



Aerial – Proposed with trees

Joint Base Connection, April 2012



