Hawaii Interagency Council for Transit-Oriented Development

Iwilei-Kapalama Permitted Interaction Group [June 2018] Summary Report and Recommendations

March 12, 2019

(as amended & adopted April 9, 2019)

This written report supplements the presentation of activities and findings from the Iwilei-Kapalama Permitted Interaction Group to the Hawaii Interagency Council for Transit-Oriented Development (TOD Council) at its March 12, 2019 meeting. Slides from the presentation can be found in *Attachment A*.

I. Permitted Interaction Group Purpose and Members

The Iwilei-Kapalama (I-K) Permitted Interaction Group (PIG) is one of three PIGs formed by the TOD Council on June 12, 2018, to address TOD implementation issues on State lands in the three TOD priority areas along the Honolulu rail corridor—East Kapolei, Halawa-Stadium, and Iwilei-Kapalama. The PIG was established to provide a forum for input, discussion, and deliberation on infrastructure conditions, improvements required, and financing issues being studied under the State TOD Planning and Implementation Project (State TOD Project), managed by the Office of Planning (OP). (*Refer to Attachment B for more information about the project.*)

TOD Council members selected to serve on the PIG include State landowning agencies in the area, State and county support agencies, and stakeholder group representatives (see sidebar). Additional representatives from PIG member agencies or organizations were invited to participate in the PIG activities, including stakeholders with major landholdings in the area, to ensure that the resulting infrastructure plan represented the cumulative public improvements required to accommodate planned TOD growth in the area over the 30- to 40-year development period. PIG members, designees, and representatives that participated in the PIG activities are listed in *Attachment C*.

Leo Asuncion and Rodney Funakoshi/OP and Craig Hirai/HHFDC served as co-chairs for the PIG. The PIG was staffed by Rodney Funakoshi and Ruby Edwards, assisted by PBR Hawaii, the prime consultant for the State TOD Project.

TOD Council PIG Members

(1) Office of Planning Director
(2) Hawaii Housing Finance and Development Corporation (HHFDC) Executive Director
(3) Department of Accounting & General Services (DAGS) Comptroller
(4) Hawaii Public Housing Authority (HPHA) Executive Director
(5) Department of Hawaiian Home Lands Director (DHHL) Director/ Chairperson of the Hawaiian Homes Commission
(6) University of Hawaii (UH) President
(7) Department of Education (DOE) Superintendent
(8) Department of Transportation (DOT) Director
(9) Hawaii Community Development Authority (HCDA) Executive Director
(10) City and County of Honolulu (City) Mayor
(11) Business Community Representative
(12) Developer Representative

II. Tasks Assigned and Activities in Performance of Tasks

The I-K PIG was specifically charged with assisting in the following tasks for Phase I of the State TOD Implementation Project:

(1) Develop a preferred master land use plan for State TOD projects in the Iwilei-Kapalama TOD priority area to identify infrastructure requirements;
(2) Identify infrastructure deficiencies and requirements for the preferred plan;
(3) Identify potential CIP budget requests for TOD Council recommendation to the 2019 Legislature, as needed; and
(4) Identify a public outreach strategy for State TOD implementation, and refine evaluative criteria and develop performance metrics for project implementation.

Since the focus of the State TOD Project is on the infrastructure investments that will be needed to accommodate State TOD project development in the TOD priority areas, the outreach strategy, evaluative criteria, and performance metrics tasks will be tackled later when additional time and resources can be devoted to them.

Context for State TOD Project and PIG Effort. The PIG activities for the State TOD Project aim to flesh out how individual State TOD projects will be developed in the context of the City's Neighborhood TOD Plan/s (TOD Plan) for this TOD priority area. The City TOD Plans lay the groundwork for the character and intensity of TOD within their TOD Plan areas, based on land use and capacity analyses and community input as to how these communities may evolve over time. The State TOD Project is intended to determine what State infrastructure investments will be needed as State TOD projects build out as part of this community vision.

Phase I of the State TOD Project involves: (1) the compilation of information on State TOD projects in the area, existing infrastructure system conditions, and known infrastructure challenges; and (2) the development of a preferred land use scenario based on agency plans for State lands in the TOD priority area. The preferred land use scenario developed with the PIG will be used in Phase II to determine infrastructure requirements needed to realize State TOD potential in the area, and to inform the development of potential infrastructure financing strategies.

Phase I PIG tasks and activities completed are summarized below.

A. PIG Meeting 1, July 12, 2018—Project kick-off and review of project and plan information compiled to date

The initial PIG meeting was held in July 2018 to orient PIG members to the State TOD Project. PBR Hawaii staff briefed the PIG on information compiled to date for the project from the City TOD Plans, existing studies, and agency project plans. The PIG was asked to identify information gaps and needs for master plan charrettes scheduled for September 2018, as well as concerns and opportunities related to infrastructure and financing for the area that needed to be examined in the study. PIG members were asked to provide any project plans and information to the consultant team to compile for the master plan design workshops (charrettes) and the land use model that would be developed to determine regional or local infrastructure needs.

B. PIG Meeting 2, September 20, 2018—Land use workshop/charrette for TOD priority area

The second PIG meeting was a master plan/land use design charrette that was designed to explore existing project plans in relation to the proposed land use pattern, densities, and character of TOD envisioned in the City TOD Plans. Within this context, charrette participants discussed proposed land use plans and options with consideration of: existing conditions; proposed land uses and density of individual TOD projects; opportunities to align or coordinate development efforts; public realm and access improvements needed; and the implications of proposed project plans and land uses for public infrastructure systems and infrastructure delivery. PIG members were presented examples of urban design features that could be considered in the development of land use scenarios, as well as sustainable infrastructure design and delivery approaches that could be considered in the development of an infrastructure implementation and financing strategy in Phase II of the project. PIG groups generated different broad land use schemas for the area that were used to formulate alternative land use scenarios, which will be the basis for determining infrastructure requirements.

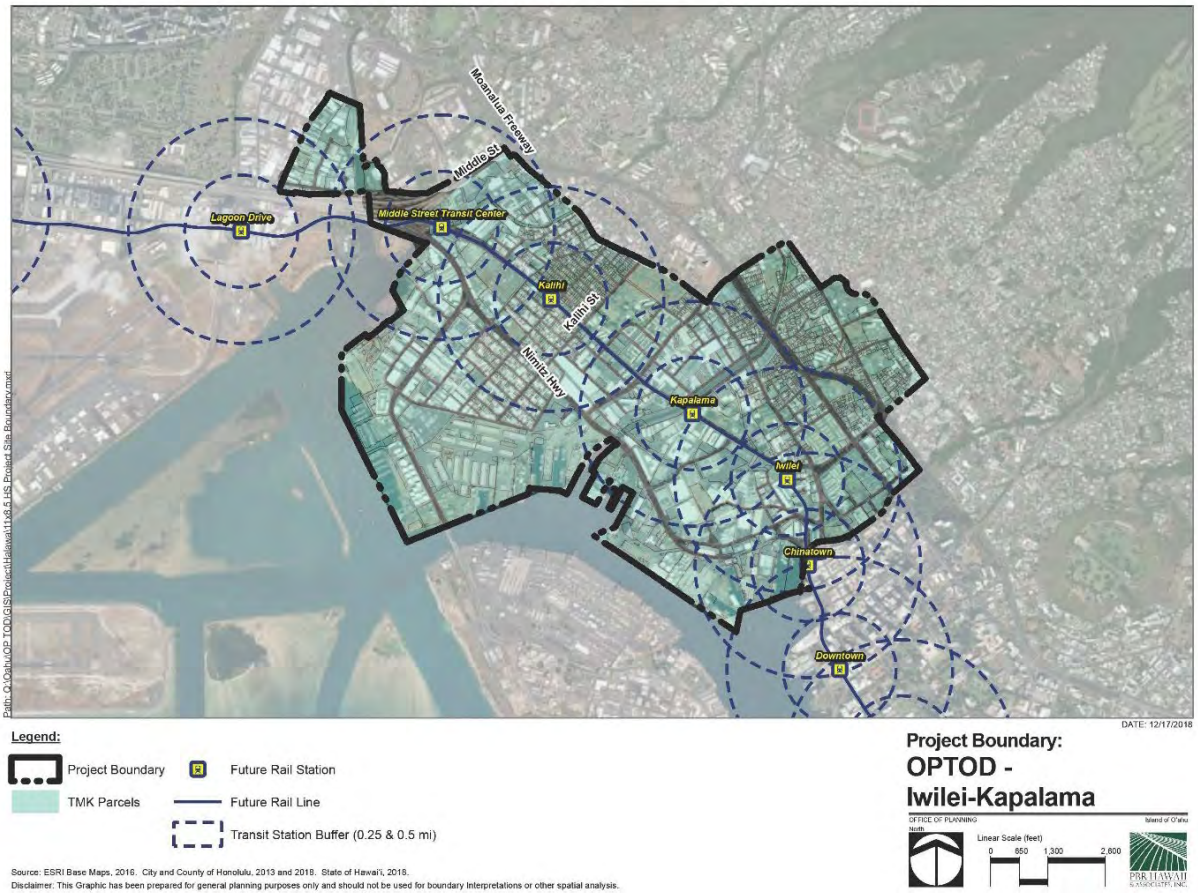
PIG agencies were tasked with providing the consultant team with as much information as possible on their current project plans. The alternative land use scenarios developed from information gathered and the charrette discussions were to be reviewed by the PIG to select a preferred land use scenario for the infrastructure assessment to be conducted in Phase II.

Materials from the charrettes are provided in *Attachment D*; charrette outcomes are summarized in the Oahu PIGs report presentation.

C. PIG Meeting 3, February 26, 2019—Review/selection of preferred land use scenario for infrastructure needs assessment

The third PIG meeting was convened to review the parameters developed for the land use scenarios for the TOD priority area, review maps of existing infrastructure conditions for the area, and to identify a preferred land use scenario for Phase II infrastructure assessment and financing strategy development. The first task for the PIG was affirming a proposed boundary for the priority area that encompassed State sites planned for TOD. The second task was to get agreement on the preferred land use scenario for potential buildout of the priority area, including existing plans for State facilities and State TOD projects in the priority area.

Project Area Boundary: Iwilei-Kapalama TOD Priority Area



The boundary for the Iwilei-Kapalama TOD priority area was selected in line with the City's adopted Kalihi and Downtown Neighborhood TOD Plans (both 2017). This area was extended to include other identified State TOD projects within the region, including DHHL's Moanalua Kai parcels, which lie within the City's Airport Area TOD Plan. The Iwilei-Kapalama TOD priority area includes State TOD projects in proximity to the following planned rail stations: Iwilei, Kapalama, Kalihi, Middle Street Transit Center, Chinatown, and Lagoon Drive.

Planned Development. The City's Kalihi Neighborhood TOD Plan is founded on principles that seek to increase community livability and safety, maintain and enhance its diversity, increase the quality of public spaces and connections to the waterfront, and improve mobility within the community. The Kalihi TOD Plan envisions revitalized districts around key State assets—Honolulu Community College and the current site of the Oahu Community Correctional Center (OCCC). The Downtown Neighborhood TOD Plan seeks a vibrant, mixed-use downtown served by an integrated, convenient transportation network, with expanded housing opportunities, more green space, and an enhanced orientation to the waterfront.

Proposed or planned development incorporated in the adopted City TOD Plans provide the baseline for potential buildout for the area. This baseline is being augmented with

additional information on State and other large development projects identified by the PIG that would contribute to realization of these TOD Plans, which need to be accounted for in assessing infrastructure needs for the area, including:

- **University of Hawaii Honolulu Community College (HCC) campus/facility improvements,** pursuant to HCC's Long-Range Development Plan
- **HPHA public housing project redevelopment:** Mayor Wright Homes, Kamehameha Homes, Kaahumanu Homes, Kalanihuia, and School Street Administrative Office redevelopment
- **DHHL projects at Kapalama Canal and Moanalua Kai parcels**
- **Department of Public Safety's (PSD) Oahu Community Correctional Center (OCCC) site**, either for mixed-use development or redevelopment of the facility onsite
- **DAGS / HHFDC joint development of Liliha Civic Center**
- **Kamehameha Schools Kapalama properties**, master planning for future redevelopment underway
- DOT Harbors Parcels, makai of Nimitz, are currently being reviewed as part of the DOT Harbors Master Plan underway

▶Infrastructure Maps: Existing Conditions (Attachment E)

PIG members were updated on information compiled on existing facilities and conditions and known plans for various infrastructure systems in the TOD priority area, as seen in the maps in *Attachment E*. These form the basis for determining where system expansion or redevelopment will be required to support planned TOD in the area.

Land Use Scenarios Considered

- **Land Use Scenario: Existing City TOD Plan/s and Current Conceptual Plans**

  This scenario represents planned development consistent with the City TOD Plans for State-owned parcels and participating major landowners. The scenario uses the City's adopted Kalihi and Downtown Neighborhood TOD Plans' land use designations and development intensity for estimating parcel buildout—as modified by PIG landowner input regarding current facility and project plans. Based on preliminary land use estimates of current agency and major landowner plans, the potential buildout of residential units in 30-40 years could be in the range of 12,000 units, with as much as one million square feet of commercial, office, institutional, and other light industrial space being developed over that period. These estimates are subject to change as the land use numbers are finetuned for the preferred land use scenario.

  Impact of climate change and sea level rise on scenario. Preliminary information from an ongoing City study of Iwilei-Kapalama resilience and adaptation to climate change and sea level rise was presented to better understand how drainage in in the area could impact the improvements needed to road and other infrastructure

systems to support buildout of the area. Parcels below King Street and Dillingham Boulevard are already experiencing stormwater flooding; in addition, the DHHL Moanalua Kai project area currently experiences occasional tidal ponding. The PIG discussed a plausible adaptation strategy that focused TOD along and mauka of Dillingham Boulevard.

The City is examining the potential impacts of sea level rise in the area—particularly those areas makai of Dillingham Boulevard and east of Kapalama Canal, which the City is referring to as Lower Iwilei. The City is using 3.2 feet of SLR as a planning benchmark, but is considering use of 6-foot SLR for critical infrastructure, such as sewer facilities and utilities, in the area. The consultant team will investigate adaptation pathways and appropriate measures that should be considered for infrastructure improvements and development in the area over time.

III. Results / Outcomes for Consideration: Preferred Land Use Scenario

The PIG supported the defined boundary and use of the **Existing City TOD Plan/s and Conceptual Plans Land Use Scenario** for the Phase II infrastructure assessment work. The PIG also supported further refinement of the scenario by the consultant team, as needed, to verify project plan information with individual agencies. This scenario represents the most plausible land use pattern and density for State TOD projects in the area and provides a reasonable baseline for identifying infrastructure needs and costs for State TOD buildout over time. The preferred land use scenario will be finalized by the consultant team in the coming month.

A preliminary map of the preferred land use scenario is provided on the following page. Assumptions for assessment of infrastructure needs for the preferred land use scenario include:

- A baseline assessment of TOD-related infrastructure based on land use designations in the City's TOD Plans will be developed—with order of magnitude costs for infrastructure improvements needed to accommodate SLR to be estimated for the area along and mauka of Dillingham Boulevard;
- Additional school capacity need equivalent to two three-acre DOE school sites; and
- OCCC will be relocated to Halawa and the property will be redeveloped for TOD.

IV. Recommendations

The Iwilei-Kapalama PIG co-chairs recommend the following for TOD Council action:

(1) At the TOD Council's April 9, 2019 meeting, re-form the Iwilei-Kapalama Permitted Interaction Group, constituted of the same members, to perform the tasks listed below and report back to the TOD Council at a date to be determined.

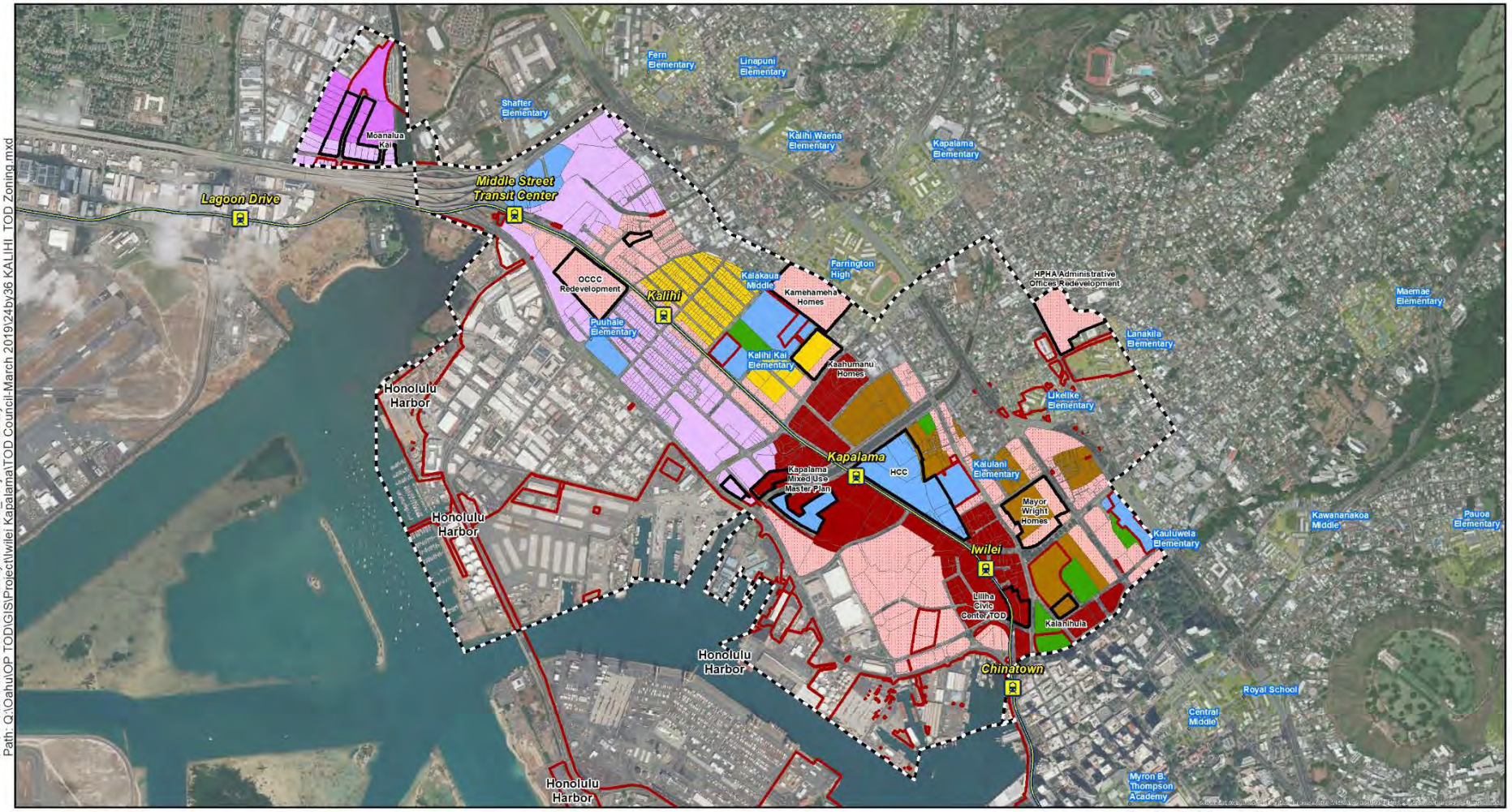
a. Provide input to Phase II of the State TOD Implementation Plan (Oahu) Project for the Iwilei-Kapalama TOD priority area and assist in:

1. Identifying infrastructure costs, financing options, and phasing for infrastructure improvements required for the preferred TOD land use scenario for the Iwilei-Kapalama area;

2. Developing a preferred infrastructure implementation plan, phasing, and financing strategy for the TOD priority areas; and
3. Developing recommendations for TOD-related CIP or other budget requests to [~~implement infrastructure implementation~~] fund infrastructure improvements required for the TOD priority areas, including CIP and budget requests for TOD Council recommendation to the 2020 Legislature, as needed;

b. Identify near-term infrastructure and State TOD project implementation issues to be addressed by the PIG or other entities, develop and implement strategies to address these near-term issues as needed, and ensure that actions taken are integrated with options being considered and recommendations being developed in Phase II of the State TOD Project; and

c. Develop recommendations, as needed, for a public outreach strategy for State TOD implementation in the priority area.



PDF - Q:\Oahu\OP TOD\PDF\24by36 KALIHI_Project Boundary
Path: Q:\Oahu\OP TOD\GIS\Project\Iwilei Kapalama\TOD Council-March 2019\24by36 KALIHI_TOD Zoning.mxd

LEGEND

- Project Boundary
- State Parcels
- State TOD Projects

Anticipated Land Uses

- Industrial
- Residential
- High Density Residential
- Mixed-Use Industrial
- Public Park
- Public/Quasi Public
- Urban Mixed-Use High
- Urban Mixed-Use Medium

Source: City and County of Honolulu, 2013, 2017. ESRI Base Maps, 2016.
Disclaimer: This Graphic has been prepared for general planning purposes only and should not be used for boundary Interpretations or other spatial analysis.

DATE: 4/1/2019

Iwilei-Kapalama - Anticipated Land Uses

State TOD Planning & Implementation Project, Oahu

OFFICE OF PLANNING — ISLAND OF O'AHU

North

Linear Scale (feet)

0 700 1,400 2,800

PBR HAWAII & ASSOCIATES, INC.

Attachment A.
Presentation to TOD Council: Oahu PIGs Report, March 12, 2019

STATE TOD PLANNING & IMPLEMENTATION FOR THE ISLAND OF O'AHU

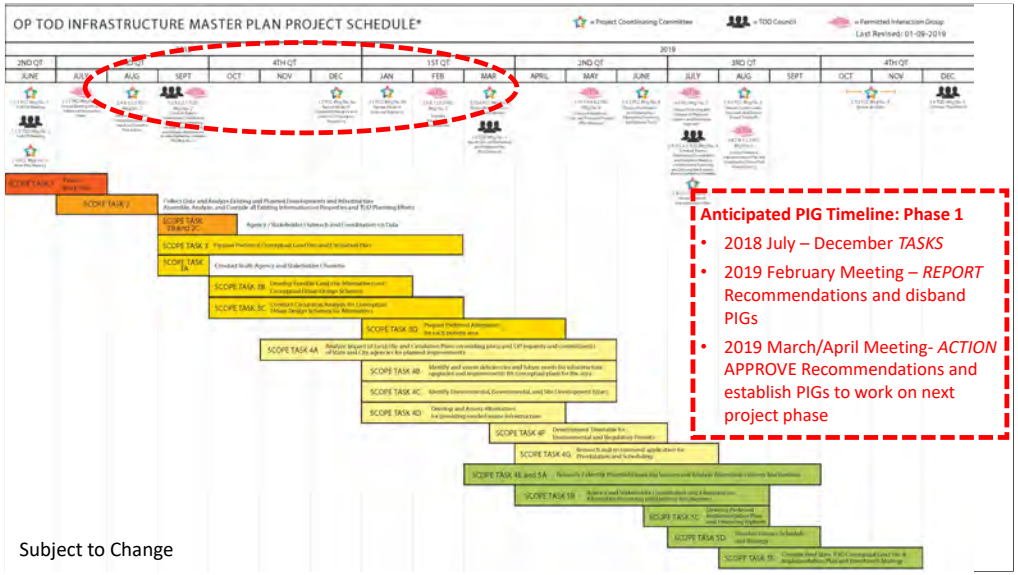
TOD COUNCIL REPORT BACK
Tuesday, March 12, 2019
HCDA Community Room

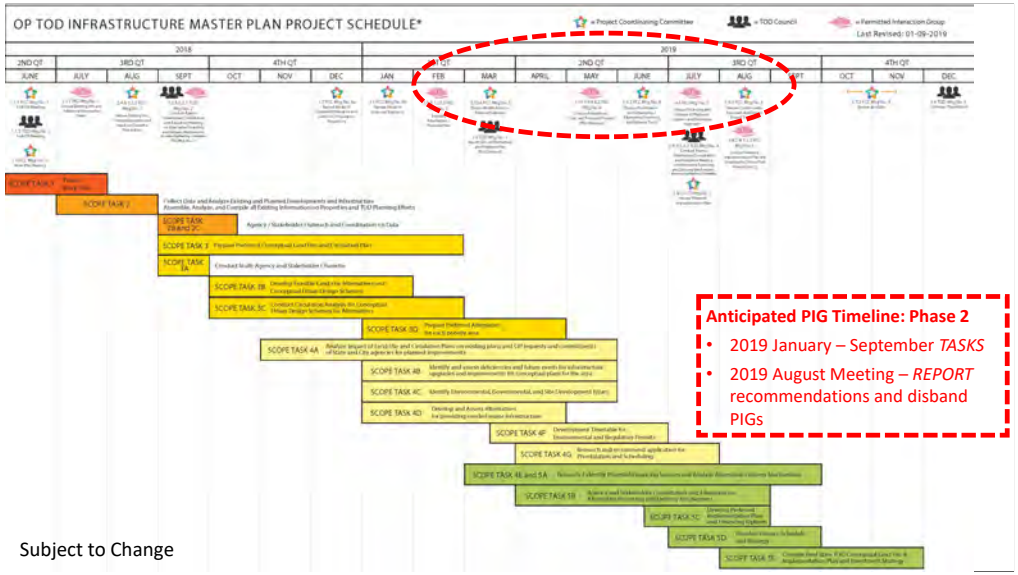
OFFICE OF PLANNING
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT, & TOURISM

PBR HAWAII & ASSOCIATES INC | DTA DAVID TAUSSIG & ASSOCIATES | CALLISONRTKL | R. M. TOWILL CORPORATION | ARUP

Project Purpose

- Coordinate approach between all stakeholders
- Coordinate regional infrastructure investments
- Identify source(s) of financing and best practices for TOD Implementation
- Consider incentives for landowner participation
- Identify sustainable development practices





Phase 1: Process

- Compile existing planning documents
- Finance overview and presentation of information gathered
- Confirm landowner plans and incorporate any updates available
- Charrette
  - Review, refine, and enhance plans
  - Presentations on Urban Design and Sustainability
- Determine preferred conceptual land use scenario to inform infrastructure needs and cost estimates

Phase 1: Meetings Held to Date

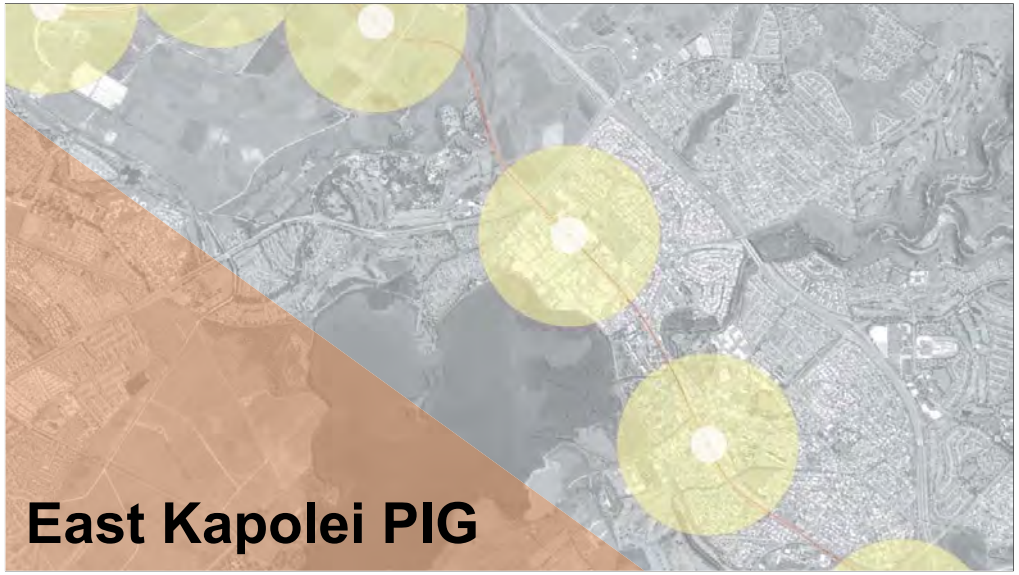
Group	Date(s)	Topics Covered
Project Coordinating Committee (PCC)	• June 1 • June 22 • August 16 • September 21 • November 2 • December 4 and January 23	• Kick-off meeting • Work Plan • Charrette Preparation • Charrette Summary • Project Boundary • Land Use Scenario Review – PIG 3
Permitted Interaction Groups (PIGs)	• July 12 – 20 • July 30 • September 20 & 21 • **February 26**	• Info Compiled to Date • Farrington Widening • Charrettes • **Preferred Conceptual Land Use Scenario**

Conceptual Land Use Scenarios

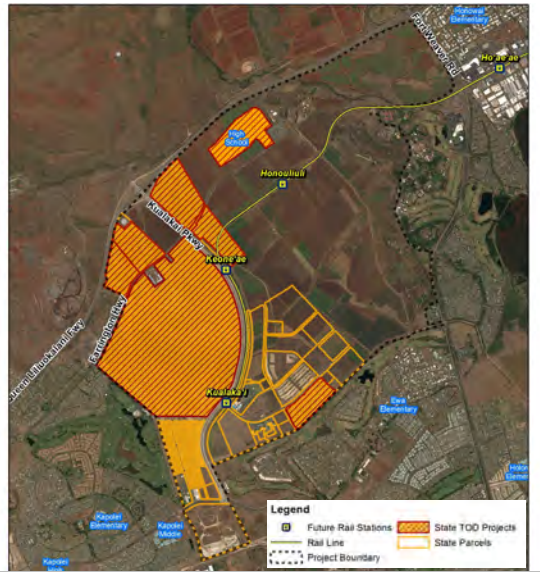
Conceptual Land Use Scenarios: Background Information

- City and County Neighborhood TOD Plans
- Plans and Studies shared by the State, City, and private entities
- Stakeholder input from the:
  - September Charrette
  - Homework and follow-up

Reminder: The project is focused on infrastructure needs and financing. The discussions in this meeting are based on conceptual land use scenarios to identify density and infrastructure needs. We are looking at density, phasing, and impacts of urban design features to inform the needs and costs.



PROJECT AREA BOUNDARY: EAST KAPOLEI STATE LANDS



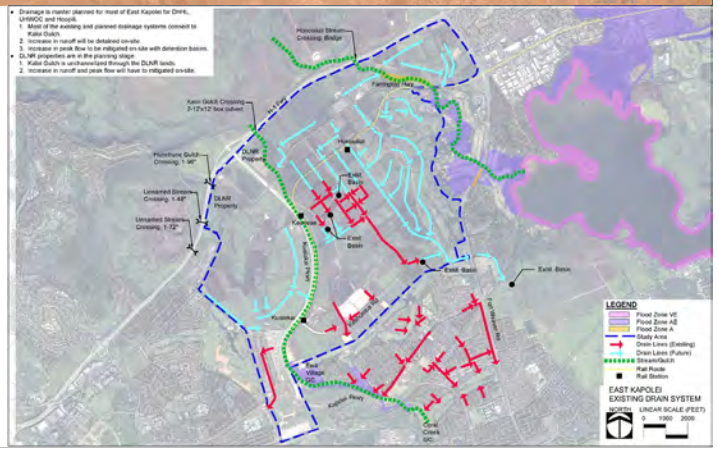
Charrette Input: East Kapolei

Charrette Input: East Kapolei Summary

Frequency	Major Categories	Examples of Comments
17	Infrastructure	Access, no grade separation
12	Connectivity	Distribute traffic, complete streets, ped/bike crossings
10	Development/Planning	Don't turn backs on Kualakai
8	Community Atmosphere	Opportunities to reduce sound so no sound walls
5	Environment	Bridge/Incorporate Gulches – green corridors, cooling interpretive
3	Rail Stations	Commercial Hubs
Tied at 2	Residential	Mixed Use Town/Gown Hub
	Ownership	Common vision for key development zone
	Economy	Create a commercial hub/center of action

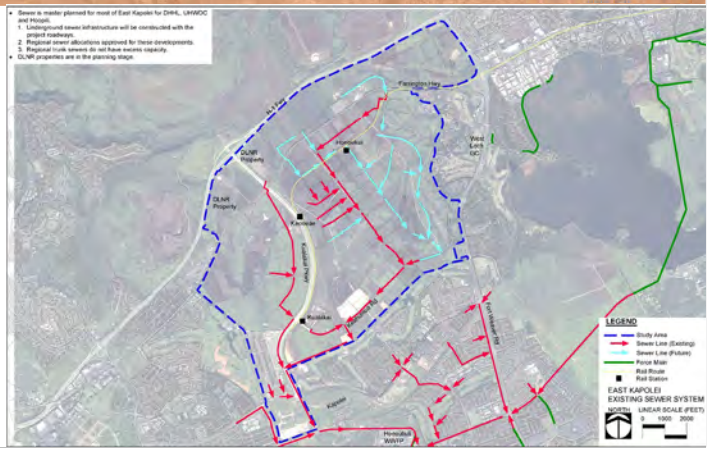
Infrastructure: East Kapolei Drainage

- Master Planned for most of East Kapolei
  - Most of the existing and planned drainage systems connect to Kaloi Gulch
  - Increase in runoff will be detained on-site
  - Increase in peak flow to be mitigated on site with detention basins
- DLNR properties are in the planning stage
  - Kaloi Gulch unchannelized through the DLNR lands
  - Increase in runoff and peak flow will have to be mitigated on-site



Infrastructure: East Kapolei Sewer

- Master Planned for most of East Kapolei
  - Underground sewer infrastructure will be constructed with the project roadways
  - Regional sewer allocation approved for DHHL, UHWO, and Hoopili
  - Regional trunk sewers do not have excess capacity
- DLNR properties are in the planning stage

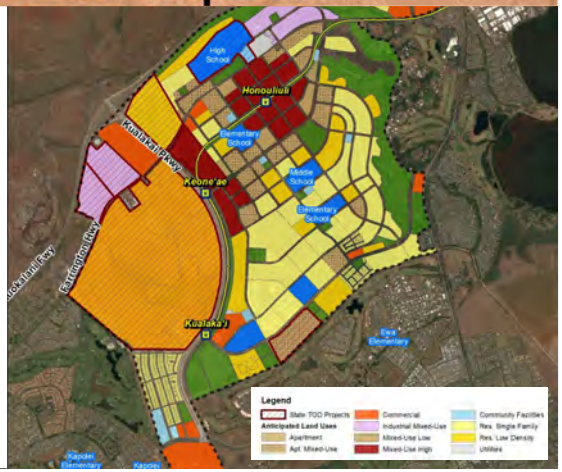


Infrastructure: East Kapolei Water

- Master Planned for most of East Kapolei
  - Underground water infrastructure will be constructed with the project roadways
  - Water reservoirs and booster pump stations will be constructed as development progresses
  - Regional sewer allocation approved for DHHL, UHWO, and Hoopili
  - Water sources are adequate for more new developments but the Ewa Shaft is the next water source required to meet the needs of the Ewa Development Plan
- DLNR properties are in the planning stage

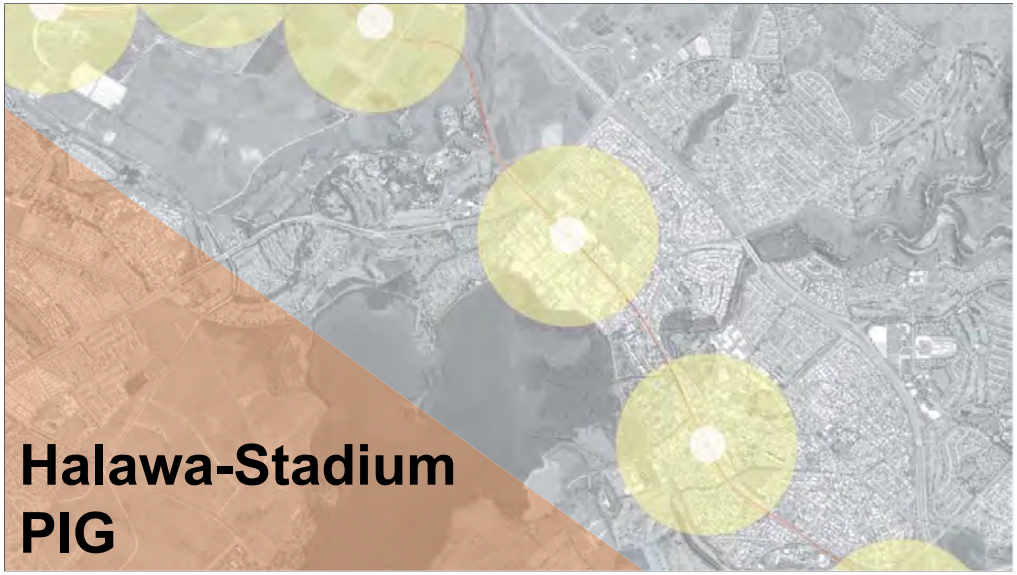
Preferred Land Use Scenario PIG Recommendations: East Kapolei

- ✓ Proceed with current conceptual land use scenarios for each of the various landowners
- ✓ Do not incorporate additional intersections along Kualakai
- ✓ Improve currently planned connections/intersections



Preferred Land Use Scenario Refinement: East Kapolei

- ✓ Update estimated development, conceptual land uses, and estimated phasing for landowners
- ✓ Further coordination with City on TOD Neighborhood Plan



Halawa-Stadium PIG

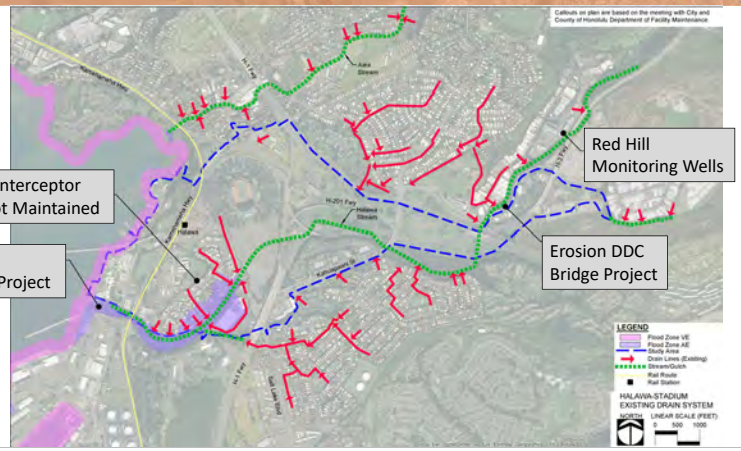
Project Area Boundary: Halawa-Stadium State Lands

Charrette Input: Halawa-Stadium

Charrette Input: Halawa-Stadium Summary

Frequency	Major Categories	Examples of Comments
42	Development/Planning	Dense Core Avoid Bifurcation of Housing types
36	Connectivity	Get across major thoroughfares Bus loops, Trails, multimodal
30	Infrastructure	Central utility systems Schools
14	Community Atmosphere	Community Plaza Adequate Green Space
Tied at 8	Environment	Connect to water
	Residential	Service Local Population
7	Ownership	Work with Federal Landowners
6	Economy	Differentiate Products

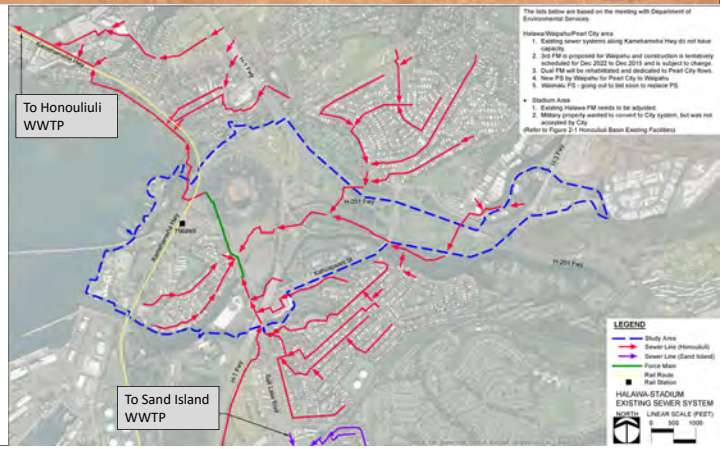
Infrastructure: Halawa-Stadium Drainage



Infrastructure: Halawa-Stadium Sewer

Halawa / Waipahu / Pearl City

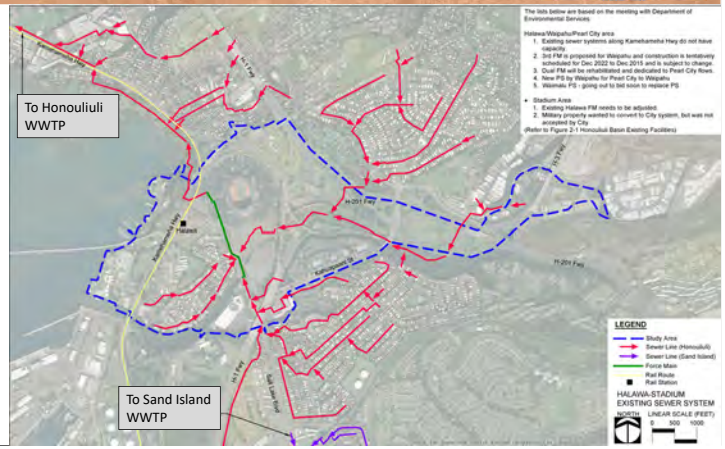
- Existing systems along Kam Hwy do not have capacity
- 3rd FM is proposed for Waipahu; construction tent. scheduled for Dec. 2022 (subject to change)
- Dual FM will be rehabilitated and dedicated to Pearl City flows
- New PS by Waipahu for Pearl City to Waipahu
- Waimalu PS going out to bid soon



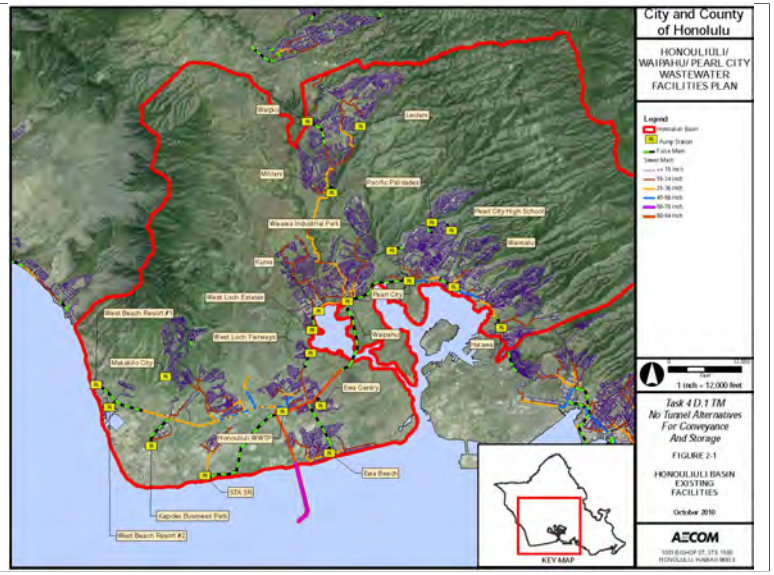
Infrastructure: Halawa-Stadium Sewer (cont.)

Stadium Area

- Existing FM needs to be adjusted
- Military property wanted to convert City system, but was not accepted by City

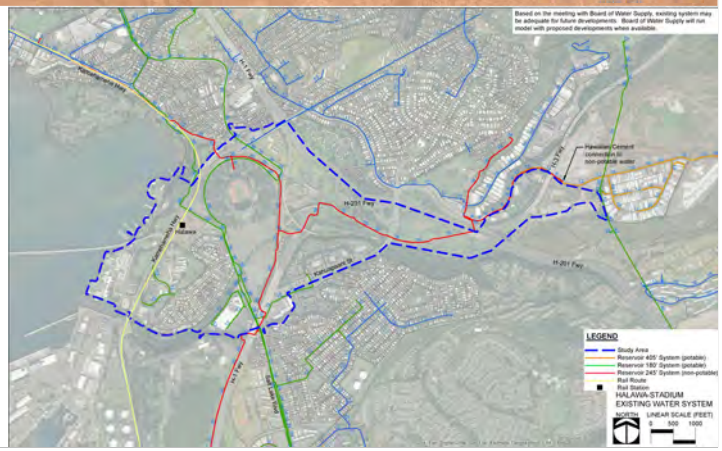


INFRASTRUCTURE: HALAWA-STADIUM WASTEWATER



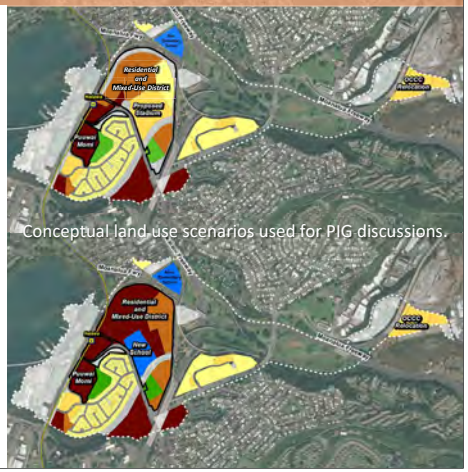
Infrastructure: Halawa-Stadium Water

- Existing system may be adequate for future developments
- BWS will model with proposed developments when development information is available



Preferred Land Use Scenario PIG Recommendations: Halawa-Stadium

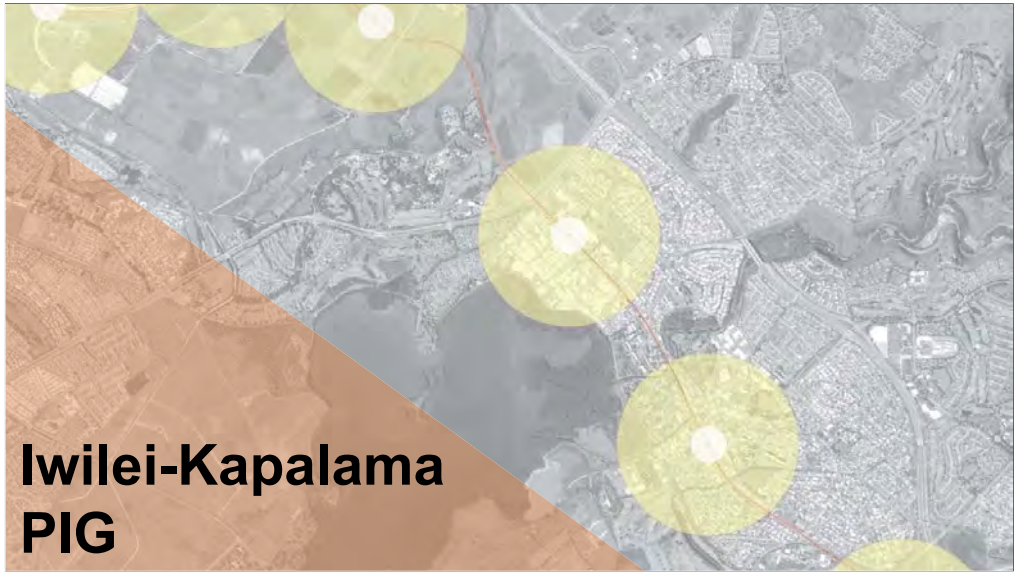
- ✓ Stadium redevelopment on site with additional ancillary mixed-use development
- ✓ Pu‘uwai Momi at maxed out density
- ✓ At least one new DOE School
- ✓ Assume OCCC Relocates to Halawa



Conceptual land use scenarios used for PIG discussions.

Preferred Land Use Scenario Refinement: Halawa-Stadium

- ✓ Update estimated development, conceptual land uses, and estimated phasing for landowners
- ✓ Combine concepts from TOD Neighborhood Plan
- ✓ Connectivity with region
- ✓ What can currently be accommodated, timing for additional facilities
- ✓ Vertical School vs current BOE standards
- ✓ Pearl Harbor Security



Iwilei-Kapalama PIG

Project Area Boundary: Iwilei-Kapalama State Lands

Charrette Input: Iwilei-Kapalama

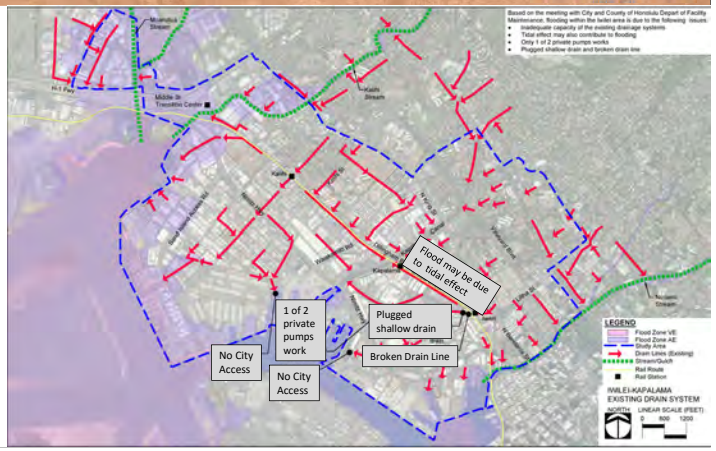
Charrette Input: Iwilei-Kapalama Summary

Frequency	Major Categories	Examples of Comments
53	Development/Planning	Sea level rise strategy applied Green spaces
30	Infrastructure	Control sea level rise Challenge to finance district
24	Connectivity	Hierarchy of streets Improve connections
14	Community Atmosphere	Focal point for community Programmatic connection
10	Economy	Fishing and Artisan villages
8	Residential	Mixed use with housing above other uses
7	Environment	Bioswales; Green corridors for flood retention
3	Ownership	District wide collaboration
2	Natural Hazards	Sea level rise underutilized
1	Rail Station	Retail / amenities at transit stations

Infrastructure: Iwilei-Kapalama Drainage

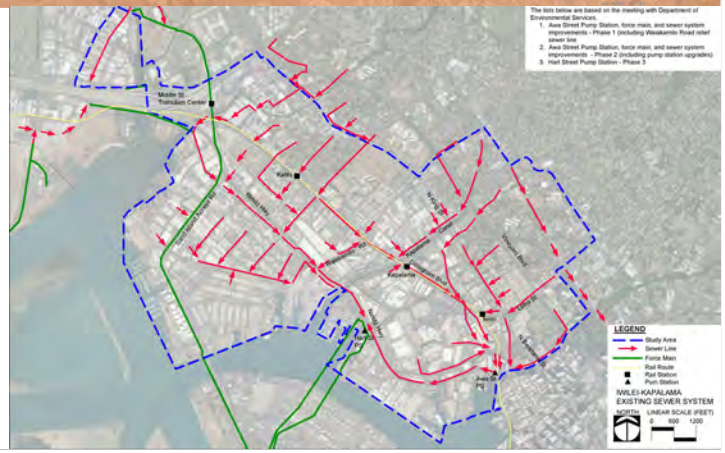
Flooding in the Iwilei area is due to the following issues:

- Inadequate capacity of the existing drainage system
- Tidal effect may also contribute to flooding
- Only 1 of 2 private pumps works
- Plugged shallow drain and broken drain line



Infrastructure: Iwilei-Kapalama Sewer

- Awa Street Pump Station, force main, and sewer system improvements
  - Phase 1 (including Waiakamilo Road relief sewer line)
  - Phase 2 (including pump station upgrades)
- Hart Street Pump Station, Phase 3

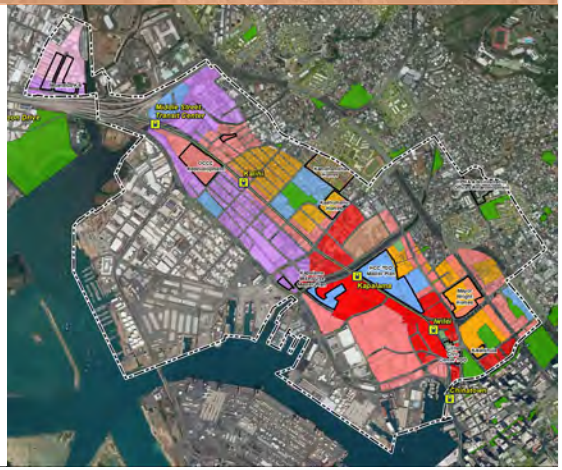


Infrastructure: Iwilei-Kapalama Water

- Existing system capacity may be adequate for future developments
- Frequent main breaks due to its age and condition
- BWS will model with proposed developments when development information is available

Preferred Land Use Scenario PIG Recommendations: Iwilei-Kapalama

- ✓ Baseline = TOD identified zoning without Sea Level Rise
- ✓ Order of magnitude costs for the region, assuming TOD Zoning is not applied to the portion impacted by SLR
- ✓ Two 3-acre DOE sites
- ✓ Assume OCCC Relocates to Halawa and the property is rezoned for TOD



Preferred Land Use Scenario Refinement: Iwilei-Kapalama

- ✓ Update estimated development, conceptual land uses, and estimated phasing for landowners
- ✓ Lifecycles of horizontal infrastructure versus buildings
- ✓ Consequences of not providing infrastructure for areas impacted by SLR
- ✓ How do you prioritize?

Next Steps

NEXT STEPS / SCHEDULE

Next Steps:

- •Land Use Scenario Refinement for Phase 2

Schedule for Phase 2:

- •May 2019, Discuss Preferred Land Use Scenario, Cost, and Timing of Projects (PIGs Regrouped)
- •July 2019, Discuss Financing and delivery of Preferred Land Use Scenario and Determine Approach
- •August 2019, Discuss Preferred Implementation Plan and Schedule for Critical Path Analysis

For requests for materials and project or PIG-related questions, please contact dbedt.op.lud@hawaii.gov or Rodney Funakoshi at: rodney.y.funakoshi@hawaii.gov

If you have additional comments, thoughts, or materials to share, please e-mail Nathalie Razo at: nrazo@pbrhawaii.com

Thank you, any questions?

Attachment B.

State TOD Planning and Implementation Project

Sponsor: Office of Planning, State of Hawai'i

June 12, 2018

East Kapolei | Aloha Stadium / Hālawa | Iwilei-Kapālama

Project Description

The project will produce a State Transit Oriented Development (TOD) Plan for project implementation and investments on State lands along the Honolulu Rail Transit Project corridor, particularly for projects that are beyond the scope and resources of any individual State agency to provide. In building off work that has already been done, development of the plan will require extensive coordination and collaboration with State and City agencies, as well as other stakeholders in each priority area.

The process will focus on conceptual area / site planning, infrastructure assessment, and access improvements analysis to determine shared investments, funding, and timeframes for critical infrastructure and other improvements necessary to enable development of State TOD projects. The plan will also serve as a critical tool for the State to assist and track actions needed to facilitate shared infrastructure investments and individual State agency project development along the rail corridor.

Such investments include, for example, wastewater system improvements in the Iwilei-Kapālama area that currently constrain TOD development potential for agencies such as HHFDC, DAGS, UH Honolulu Community College, as well as future phases of HPHA's Mayor Wright Homes redevelopment. While each of the priority areas are likely to have different infrastructure needs and timelines, the project as a whole will identify opportunities for collaboration on infrastructure investments and an overall strategy for infrastructure delivery that will benefit TOD project implementation on State lands and in surrounding neighborhoods.

Project Timeframe

June 2018–December 2019

Phase 1: Jun 2018–Dec 2018	Development of conceptual land use plan for State lands & identification of infrastructure requirements
Phase 2: Jan 2019–Dec 2019	Identification of infrastructure costs/financing & development of an infrastructure implementation plan, phasing & financing strategy

Project Consultant Team

PBR Hawaii (Prime)	Master planning, project management, and stakeholder outreach and engagement
RM Towill	Civil engineering
David Taussig & Associates	Development financing and alternative delivery methods
Fehr & Peers	Transportation engineering and multi-modal system planning
Callison RTKL	TOD master planning and urban design
Ron Ho & Associates	Electrical engineering and communications
ARUP	Green infrastructure and sustainable systems design

Attachment C.
Permitted Interaction Group Meeting Attendees

David DePonte, Department of Accounting & General Services
Christine Kinimaka, Department of Accounting & General Services
Mark Ritchie, Department of Business, Economic Development & Tourism
Deepak Neupane, Hawaii Community Development Authority
Carson Schultz, Hawaii Community Development Authority
Craig Hirai, Hawaii Housing Finance & Development Corporation
Robbie Melton, DBEDT, Hawaii Technology Development Corporation
Leo Asuncion, Office of Planning
Ruby Edwards, Office of Planning
Rodney Funakoshi, Office of Planning
Robyn Loudermilk, Department of Education, Office of School Facilities & Support Services
Kenneth Masden, Department of Education, Office of School Facilities & Support Services
Heidi Meeker, Department of Education, Office of School Facilities & Support Services
Darrell Ing, Department of Hawaiian Home Lands
Allen Yanos, Department of Hawaiian Home Lands
Barbara Arashiro, Hawaii Public Housing Authority
Kevin Auger, Hawaii Public Housing Authority
Sarah Beamer, Hawaii Public Housing Authority
Benjamin Park, Hawaii Public Housing Authority
Lynette Kawaoka, Department of Transportation, Airports
David Rodriguez, Department of Transportation
Herman Tuiolosega, Department of Transportation, Airports
Dean Watase, Department of Transportation, Harbors
Robert Miyasaki, Department of Transportation, Statewide Transportation Planning Office
Erika Lacro, University of Hawaii, Honolulu Community College
Carleton Ching, University of Hawaii
Noelle Cole, City and County of Honolulu, Department of Planning & Permitting
Renee Espiau, City and County of Honolulu, Department of Planning & Permitting
Harrison Rue, City and County of Honolulu, Department of Planning & Permitting
Kathy Sokugawa, City and County of Honolulu, Department of Planning & Permitting
Jorge Felix, City and County of Honolulu, Honolulu Authority for Rapid Transportation
Masatomo Murata, City and County of Honolulu, Honolulu Authority for Rapid Transportation
Ember Shinn, City and County of Honolulu, Honolulu Authority for Rapid Transportation
Ryan Tam, City and County of Honolulu, Honolulu Authority for Rapid Transportation
Benjamin Trevino, City and County of Honolulu, Honolulu Authority for Rapid Transportation
William Brizee, Architects Hawaii Ltd.
Lester Ng, Architects Hawaii Ltd.
Stacy Armstrong, R.M. Towill Corporation
Jillian Okamoto, Catholic Charities Hawaii
Cyd Miyashiro, American Savings Bank
Thomas Lee, Hunt Companies, Inc.
Hilarie Alomar, Kamehameha Schools
Catherine Camp, Kamehameha Schools, Commercial Real Estate Division

Attachment D.
September 2018 Charrette Materials

Hawaii Interagency Council for Transit Oriented Development

Iwilei - Kapalama Permitted Interaction Group Workshop / Charrette

Thursday, September 20, 2018
Aloha Stadium, Hospitality Room
12:30 p.m. – 4:00 p.m.

TOD Council Permitted Interaction Groups

Purpose

- "more in-depth and targeted discussions of regional and project implementation issues among directly affected agencies needed to advance project development"

8 Permitted Interaction Groups

East Kapolei	Kauai	Neighbor Islands
Halawa-Stadium	Maui	
Iwilei-Kapalama	West Hawaii	
	East Hawaii	

TOD Council Permitted Interaction Groups: Addressing Challenges and Needs for State TOD

Challenges/needs identified by TOD Council

- Need for unified, coordinated approach that melds State, County, private sector & community interests and provides strategic direction on investments & project specific coordination
- Coordination/sharing of regional infrastructure investments
- Committed source(s) of funding
- Incorporating best practices for TOD & financing
- Incentives for TOD to allow private & smaller land owner participation
- Incorporating sustainable development practices to address climate change
- Ensuring equitable development & providing affordable housing

PIGs: means to address challenges/needs in particular region

STATE TOD PLANNING & IMPLEMENTATION FOR THE ISLAND OF O'AHU

Iwilei - Kapalama Permitted Interaction Group –Workshop / Charrette
Thursday, September 20, 2018
Aloha Stadium, Hospitality Room
12:30 p.m. – 4:00 p.m.

OFFICE OF PLANNING
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT, & TOURISM

PBR HAWAII & ASSOCIATES, INC. | DTA DAVID TAUSSIG & ASSOCIATES | CALLISONRTKL | R. M. TOWILL CORPORATION | ARUP

Agenda

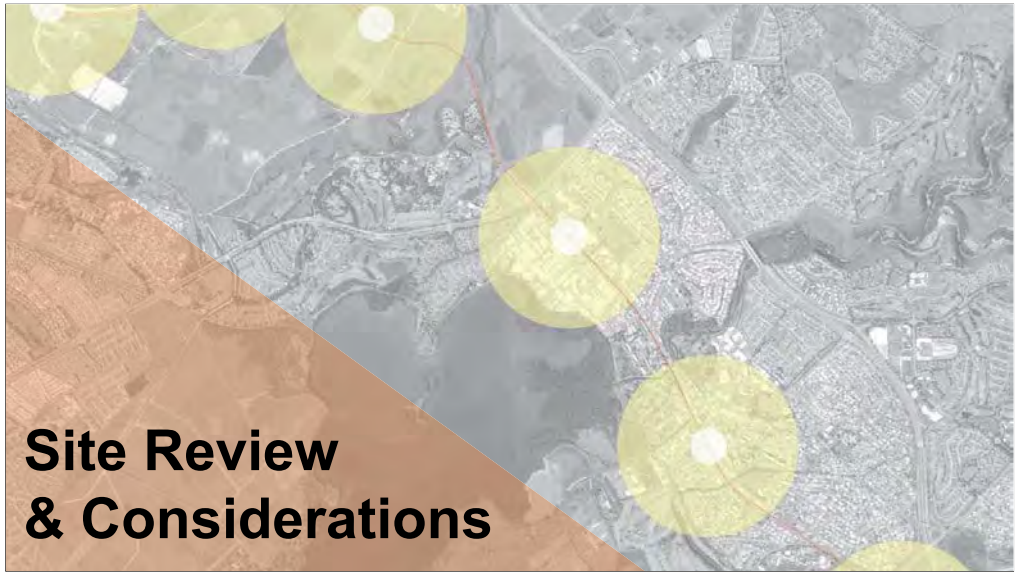
1. Introductions
2. Meeting Agenda, Objectives, and Ground Rules
3. Site Review and Considerations
4. Urban Design
5. Exercise 1: Teams Review Regional Plan
6. Infrastructure and Environmental Considerations
7. Exercise 2: Teams Enhance Design Concepts
8. Teams Report Back
9. Finance Considerations
10. Wrap-Up / Questions / Next steps

Objectives

- Consider regional synergies and conflicts and how they relate to the City's Neighborhood TOD Plans
- Advance regional plans acknowledging infrastructure
- Introduce potential financing tools relevant to projects and/or landowners

Ground Rules

1. Work together
2. Look at the long term
3. Be honest about self interests
4. Be open to "showing your cards"
5. We're here to brainstorm
6. Idea is to get good ideas on the table

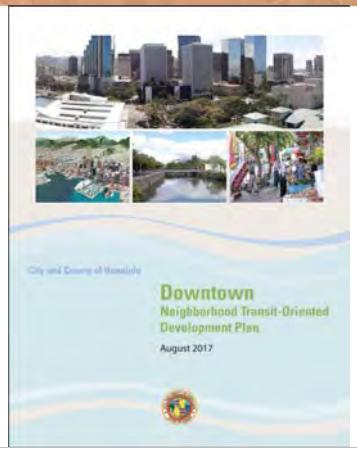


Site Review & Considerations

Project

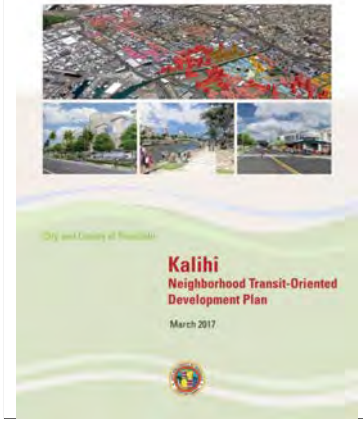
TOD STATION ANALYSIS: IWILEI-KAPALAMA

Downtown Neighborhood TOD Plan Vision:



"Downtown Honolulu will continue to be the region's premier employment center with a substantial residential population and easy access to stores and everyday amenities. An accessible and activated waterfront with promenades and community uses, a vibrant, historic Chinatown, and a ***new high-intensity mixed-use Iwilei district as an extension of Downtown*** *will create a new image for Downtown Honolulu. "*

Kalihi Neighborhood TOD Plan Vision:



"Kalihi will be a livable urban community with a balance of employment, residential, and recreational uses that enjoy high quality transit access and reflect the area's central location and rich cultural heritage. Neighborhoods will be pedestrian- and transit-friendly, where children walk to school, parents shop for basic goods near their homes, and community members enjoy access to good jobs, good food, safe streets, and quality open spaces, housing, and services. …

Kalihi Neighborhood TOD Plan Vision:

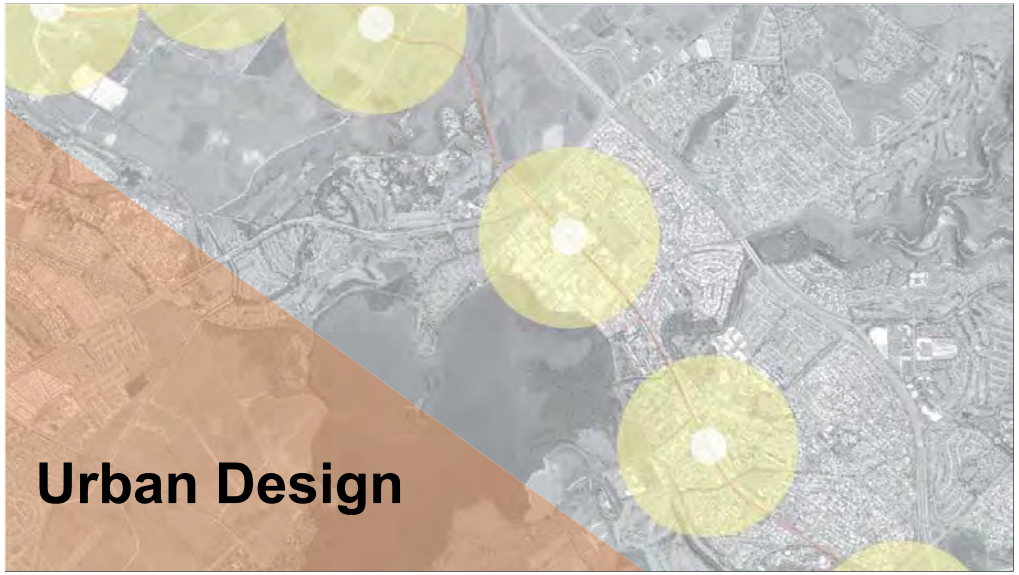
…Revitalized districts in strategic locations, particularly around Kapalama station, will capitalize on the presence of Honolulu Community College, the area's proximity to Downtown, and its natural resources. The community's ethnic, income, age, and small business diversity is maintained and enhanced through a variety of housing, commercial, education, and economic opportunities. The corridor's assemblage of varied districts—Kapalama, Kalihi, and Middle Street—will retain unique identities as they develop and evolve."

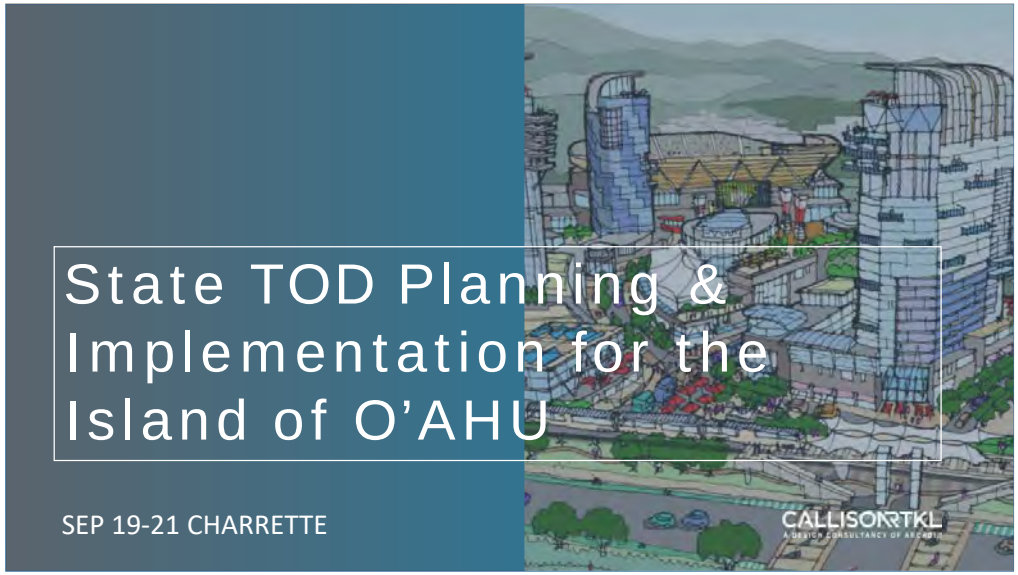
WHAT WE'VE HEARD TO DATE

- Infrastructure generally
- Drainage – Flooding and Sea Level Rise
- Electrical / Telecom
- Sewer
- Connectivity
- Development
- Financing

GROUP INPUT

Anything we've missed?



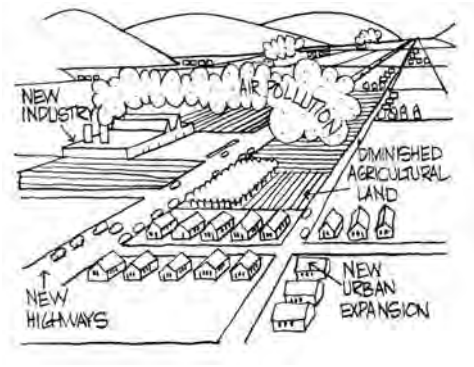


SMART GROWTH + TRANSIT ORIENTED DEVELOPMENT

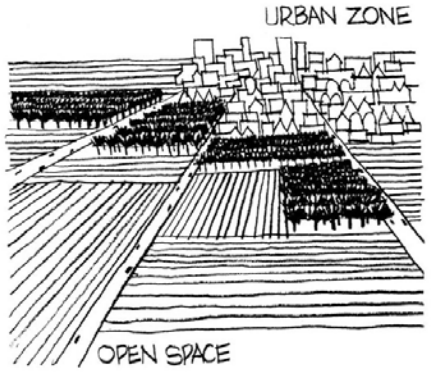
CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

AVOIDING SPRAWL

SPRAWL



COMPACT URBAN DEVELOPMENT



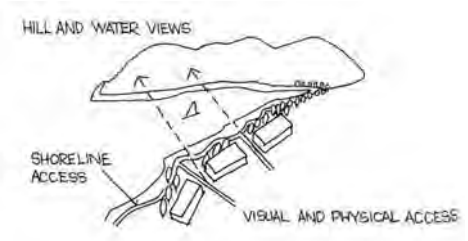
CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

Source: John Lund Kriken. City Building – Nine Planning Principles for the Twenty-first Century.

CONNECTION TO NATURE

PRESERVE NATURAL BEAUTY, OPEN SPACE, AND CRITICAL ENVIRONMENTAL AREAS

IMPROVED ACCESS / INCREASE APPRECIATION

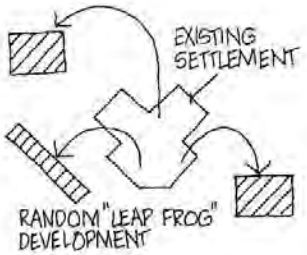


CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

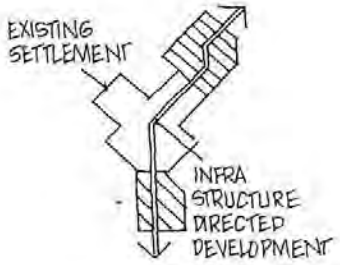
Source: John Lund Kriken. City Building – Nine Planning Principles for the Twenty-first Century.

DEVELOPMENT LINKED TO INFRASTRUCTURE INVESTMENT

"LEAP FROG" DEVELOPMENT



DIRECT DEVELOPMENT TOWARDS EXISTING COMMUNITIES

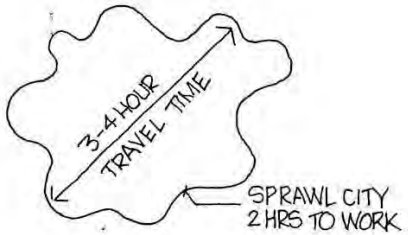


CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

Source: John Lund Kriken. City Building – Nine Planning Principles for the Twenty-first Century.

LESS TIME COMMUTING

LONGER TRAVEL TIME



LINK BETWEEN JOB AND HOME

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

Source: John Lund Kriken. City Building – Nine Planning Principles for the Twenty-first Century.

INCREASED COLLEGIALITY

CONCENTRATED DESINATIONS + SERVICE

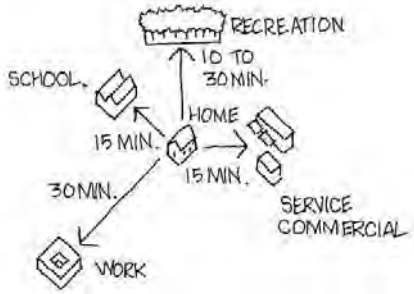
SCATTERED DISTNATIONS WITH LOWER EFFICIENCY OF SERIVCE

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

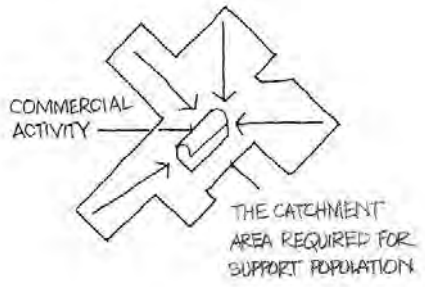
Source: John Lund Kriken. City Building – Nine Planning Principles for the Twenty-first Century.

MORE CONVENIENCE

ADJACENT AMENITIES + SERVICES



CRITICAL MASS OF LOCAL POPULATION

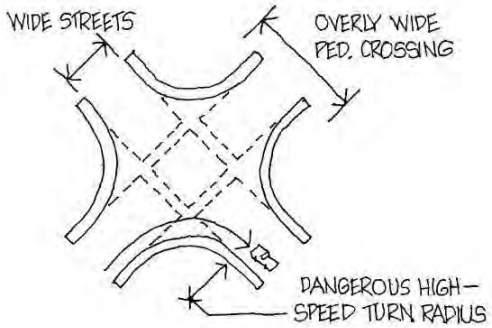


CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

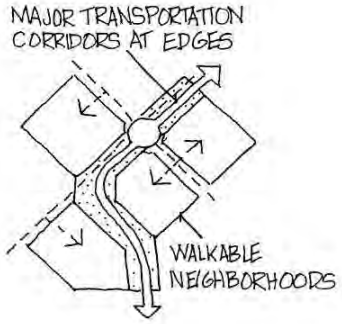
Source: John Lund Kriken. City Building – Nine Planning Principles for the Twenty-first Century.

FOCUS ON PEDESTRIAN

CAR DOMINANT



WALKABLE NEIGHBORHOOD



CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

Source: John Lund Kriken. City Building – Nine Planning Principles for the Twenty-first Century.

COMPACT BLOCK STRUCTURE

SMALL BLOCKS WITH DIVERSITY AND HIGHER EFFICIENCY

GIANT BLOCK WITH LOWER EFFICIENCY

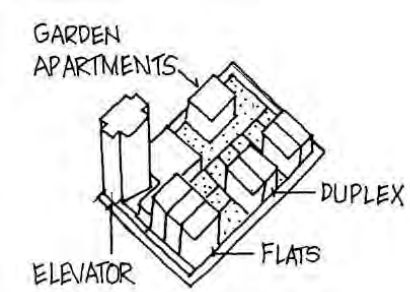
CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

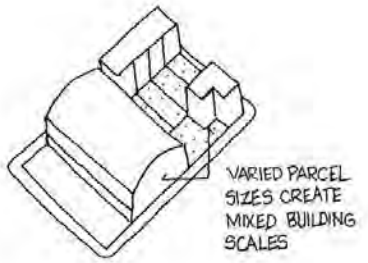
Source: John Lund Kriken. City Building – Nine Planning Principles for the Twenty-first Century.

DIVERSITY OF LAND USE AND HOUSING

MIXE OF HOUSING TYPES

VARIOUS PARCEL SIZES AND BUILDING SCALES



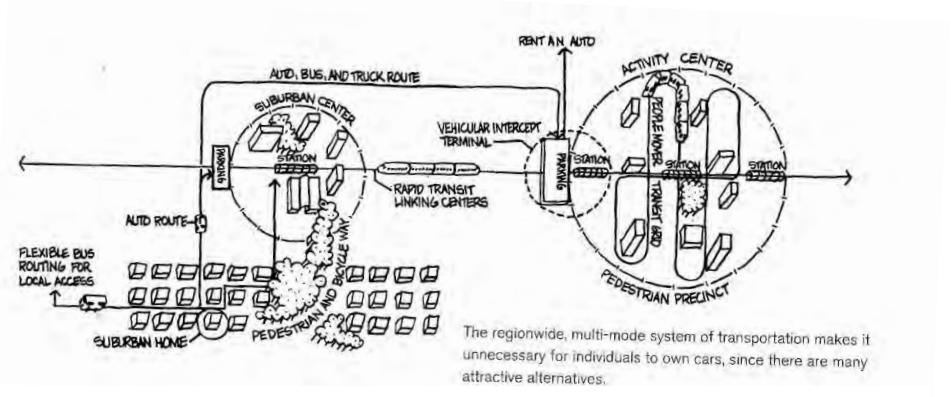


CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

Source: John Lund Kriken. City Building – Nine Planning Principles for the Twenty-first Century.

COORDINATE DEVELOPMENT WITH INFRASTRUCTURE

REGIONAL DEVELOPMENT DIRECTED TO TRANSIT CORRIDORS



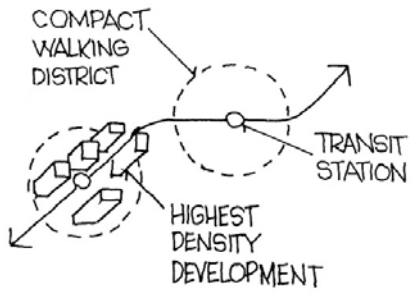
CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

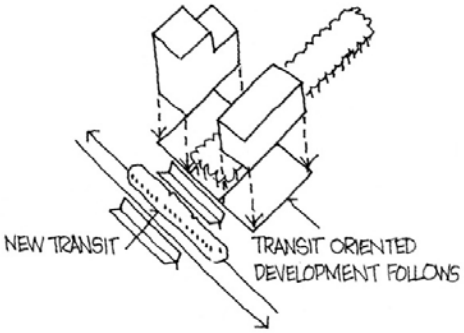
Source: John Lund Kriken. City Building – Nine Planning Principles for the Twenty-first Century.

HIGHEST DENSITY AT STATIONS

HIGH DENSITY WITHIN WALKING DISTANCE OF STATION

HIGHEST DENSITY AT STATION AREA



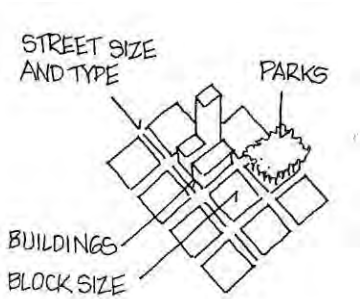


CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

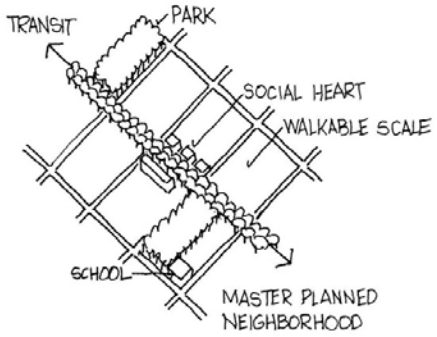
Source: John Lund Kriken. City Building – Nine Planning Principles for the Twenty-first Century.

NEIGHBORHOOD CONNECTED TO THE REGION

APPEALING NEIGHBORHOOD SCALE



ACCESSIBLE AMENITIES+SERVICES

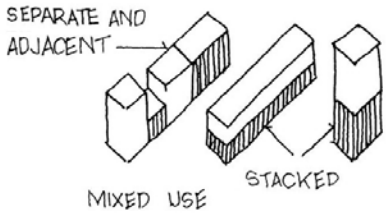


CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

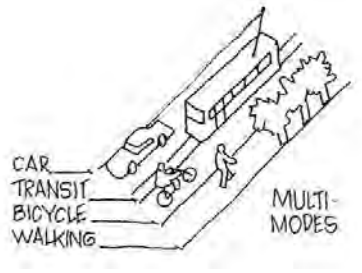
Source: John Lund Kriken. City Building – Nine Planning Principles for the Twenty-first Century.

INCREASED CHOICE IN MOBILITY AND LAND USE

ADJACENT AND VERTICALLY INTEGRATED MIXED USES



MULTIPLE TRANSPORTATION CHOICES

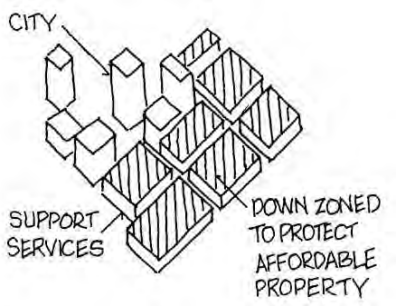


CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

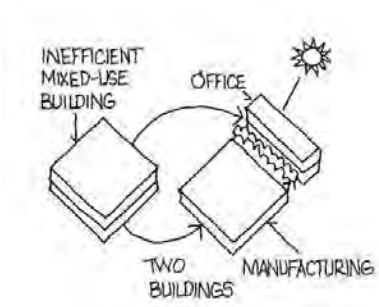
Source: John Lund Kriken. City Building – Nine Planning Principles for the Twenty-first Century.

ADAPTIVE STRATEGIES

AFFORDABILITY



ADAPTABILITY

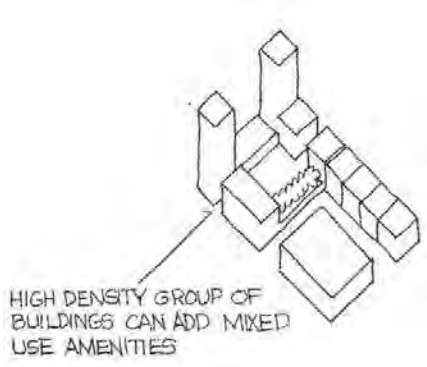


CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

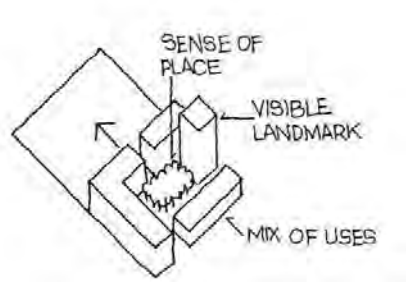
Source: John Lund Kriken. City Building – Nine Planning Principles for the Twenty-first Century.

CLUSTERED DEVELOPMENT

COMPACT BUILDING DESIGN



A STRONG SENSE OF PLACE

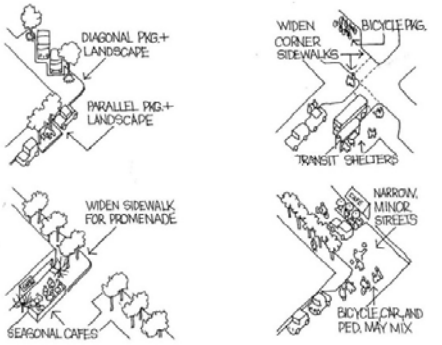


CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

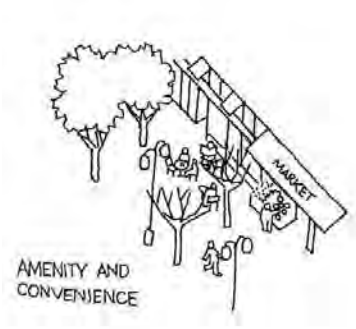
Source: John Lund Kriken. City Building – Nine Planning Principles for the Twenty-first Century.

APPEALING STREETSCAPE AND INTIMATE SPACES

STREETS FOR PEOPLE



PROVIDE 'ASSETS' OF LIVABILITY



Source: John Lund Kriken. City Building – Nine Planning Principles for the Twenty-first Century.

IWILEI-KAPALAMA

AREA CHARACTERS

- Urbanized area
- Future extension of dense Downtown
- Industrial use dominant
- Mature neighborhoods and amenities nearby
- Natural resources – creeks, shoreline, mountains, etc.
- Close to H1 freeway access
- Near Honolulu Int'l Airport
- Sea level rise risks

TOD PRINCIPLES

- ✓ Density and diversity
- ✓ Adaptivity
- ✓ Complimentary uses
- ✓ Working district
- ✓ Streets for people
- ✓ Urban Resiliency

1 DENSITY & DIVERSITY

- Extension of Downtown
- Compact, dense mixed-use development
- Multiple housing types
- Complimentary amenities and services

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

Bay Street Emeryville

SAN FRANCISCO, CA

A Thriving 24/7 Urban Mixed-use Project Infill on a Vacant Industrial Brown Field.

SITE AREA CONTEXT

KEY FINDINGS / LESSONS LEARNED

LOCATION: Within 0.25-0.5 mile radii of Emeryville Train Station

SITE SIZE: 15.4 ac

CAPACITY BY USES: Total 1.6 M sf

- **Retail & Restaurants: 500,000 sf** (75 retail and dining establishments)
- **Residential:** 95 for-sale townhomes, 284 rental apartments
- **Entertainment:** a sixteen-screen movie theater (+3300 seats)
- **Hotel:** 230 room hotel
- **Parking:** 2,000 + spaces (Parking Garages + Surface Lots)

AVG. FAR: ~2.4

LESSONS LEARNED:

- Infill TOD project on a brown field
- A thriving urban living environment, 24/7 active
- Residential complex sits atop a 3-story retail village
- Integrate "main street retail" component with active streetlife

MIXED USE AND MIXED SITE

NEARBY USES:
Retail,
Warehouse/Industrial,
Office, Open Space, etc.

ACCOMMODATES BOTH AUTO FOCUSED SHOPPING AS WELL AS TRANSIT FOCUSED RESIDENTIAL

HOUSING FOR THE AFFLUENT COMMUTER

- Residential complex sits atop of 3-level retail component + parking podium
- Heavily-landscaped amenity roof


LOW AERIAL VIEW


RETAIL APARTMENT


FOR SALE CONDOS

HIGH DENSITY SUBURBAN COOL

- **Northern Parcels:**
- "Main Street" retail feature - consistent retail frontage
- 3 story specialized retail/flagship stores & dining establishments
- **Southern Parcels:**
- 24/ 7 Entertainment Destination: Shopping Mall + Movie Theater
- Outdoor room for events and relaxing


MUSICAL EVENTS


SHOPPING MALL + MOVIE THEATER

SPECIALIZED RETAILERS / RESTAURANTS


FARMERS MARKET

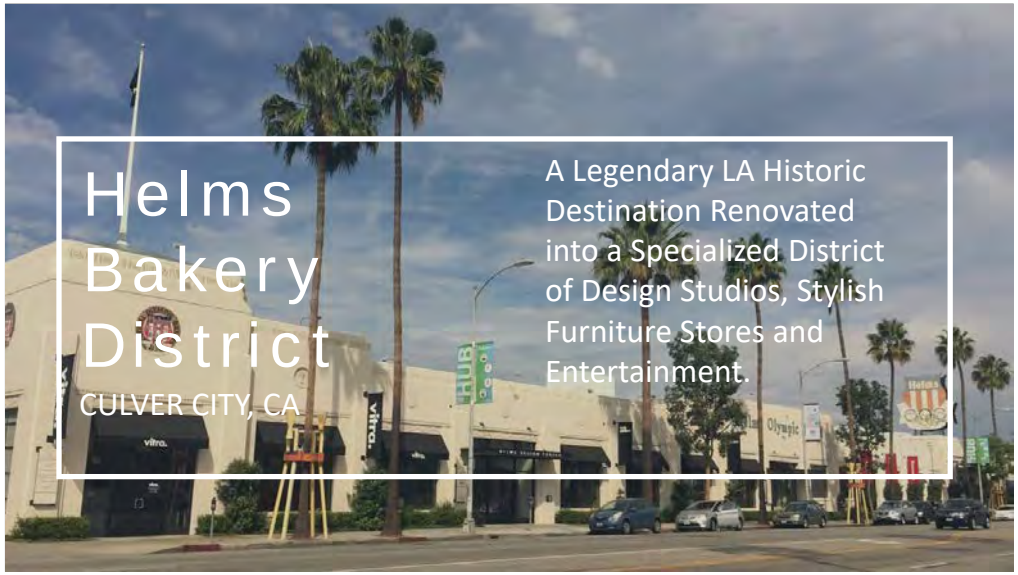
EVENTS THAT APPEAL TO THE TARGET MARKET


PEDESTRIAN PASSAGE


BAY STREET STREETSCAPE


OUTDOOR EVENT


SHOPPING MALL OUTDOOR ROOM



SITE AREA CONTEXT

KEY FINDINGS / LESSONS LEARNED

LOCATION: Within 0.25 mile radii of *Expo Line Culver City Station*

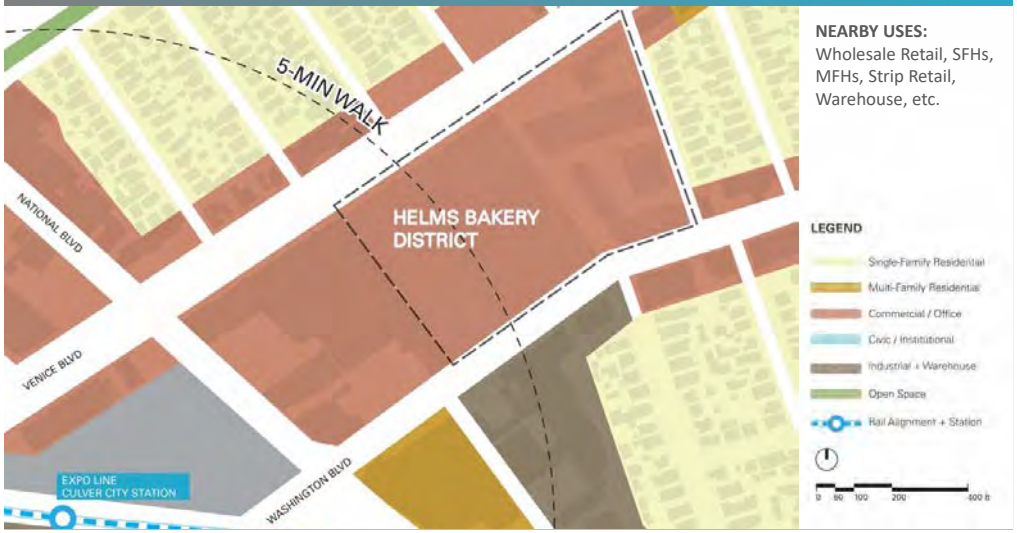
SITE SIZE: 9.8 AC

CAPACITY BY USE:
- Retail: 340,000 sf
- Restaurants: 25,000 sf
- Creative Office: 35,000 sf
- Other: 35,000 sf

AVG FAR: ~ 1.0

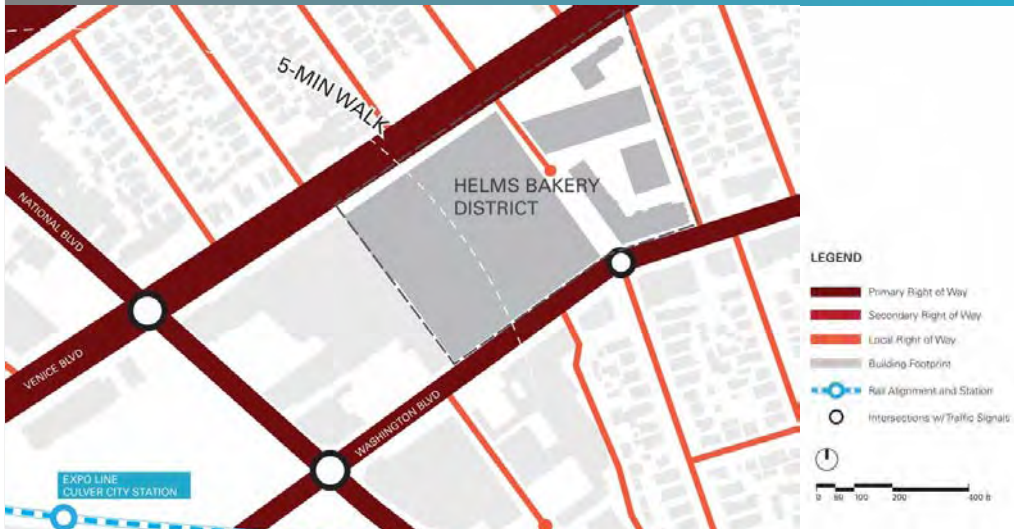
LESSONS LEARNED:
- Renovation & adaptive reuse of historic industrial plants
- A destination of stylish furnishings and design center
- Internal event spaces
- Pedestrian walk with unique site character and historic identity

HOME FURNISHINGS AND FOOD

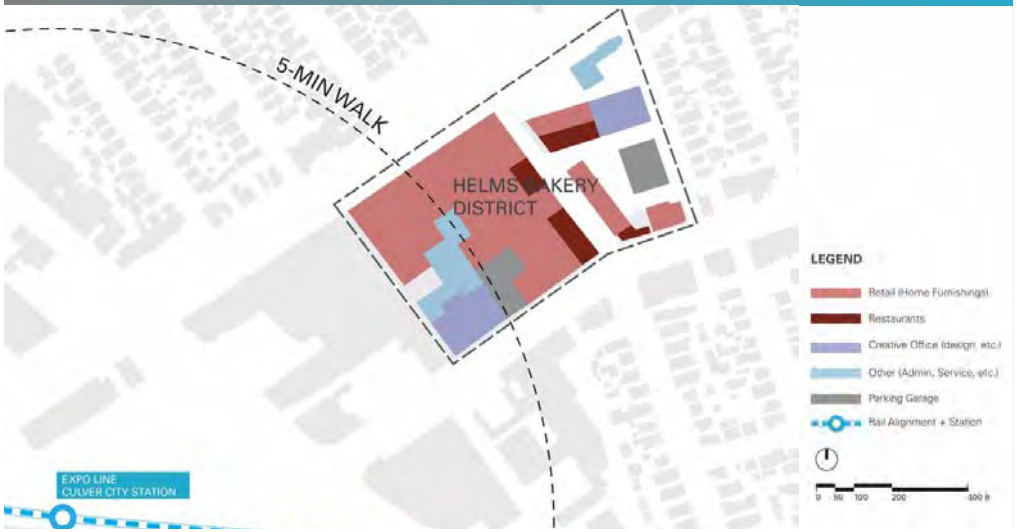


NEARBY USES:
Wholesale Retail, SFHs, MFHs, Strip Retail, Warehouse, etc.

BIG BLOCKS, PEDESTRIAN ACCESS TO TRANSIT



MIX OF MULTI-TENANCY + SINGLE TENANCY



HARD, GRITTY, BUT COOL


INTERNAL PEDESTRIAN PASSAGE


MAJOR VEHICULAR ENTRANCE

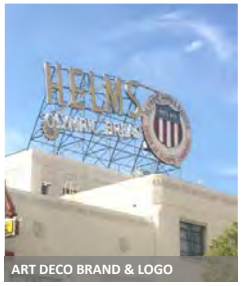

SIDEWALK


EXTERIOR STREETSCAPE


INTERAL VEHICULAR STREETSCAPE

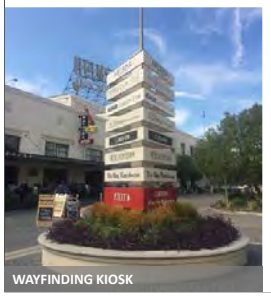
ART WALK THAT IS AWARE OF ITS PAST

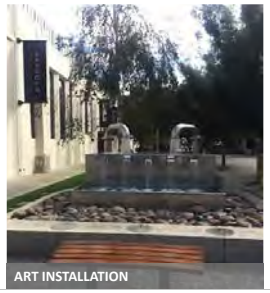

CULTURE WALL

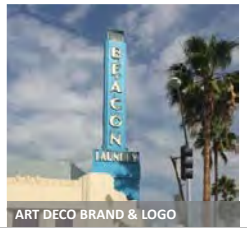


ART DECO BRAND & LOGO


ART WALL


WAYFINDING KIOSK


ART INSTALLATION

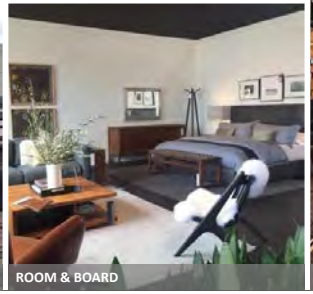


ART DECO BRAND & LOGO

GREAT EXAMPLE OF ADAPTIVE REUSE

- Typology: Retail (Large Format)
- Dimension: 30,000 sf. ~ 70,000 sf.
- Height: 1 story

H.D. BUTTER CUP



ROOM & BOARD


SCANDINAVIAN DESIGN

THEMATIC TENANTS AROUND HOME FURNISHINGS

- Typology: Retail (Small-scale)
- Dimension: 3,000 sf. ~ 8,000 sf. / unit
- Height: 1 story

KOHLER SIGNATURE


HARBOR OUTDOOR

THE RUG WAREHOUSE& MORE

EVENT PROGRAMMING THAT SUPPORTS THE THEME

- Typology: Creative Office
- Dimension: 3,000 sf. ~ 4,000 sf. / unit
- Height: 1 story

HELMS DESIGN CENTER


DESIGN SHOW AT LIGHT SPACE STUDIO


THE ARCHITECTURE & DESIGN FILM FESTIVAL


DESIGN REVIEW & LECTURE

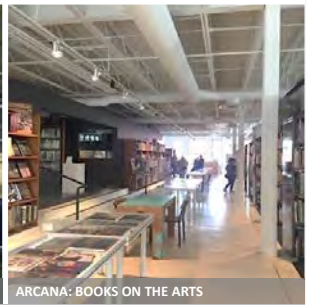
FOOD AND BEVERAGE, SUPPORT USES THAT FIT THE BRAND

- Typology: Retail (Small-scale, F+B)
- Dimension: 3,000 sf ~ 6,000 sf.
- Height: 1 story


FATHER'S OFFICE


LA DIJONAISE CAFE


HELMS BAKERY


ARCANA: BOOKS ON THE ARTS

PARK ONCE, DEPENDING ON YOUR SITUATION


PARKING GARAGE: 1 LEVEL (WAREHOUSE RENOVATION, ~28,000 SF)


PARKING STRUCTURE: 5 LEVELS (GFL: ~15,000 SF)

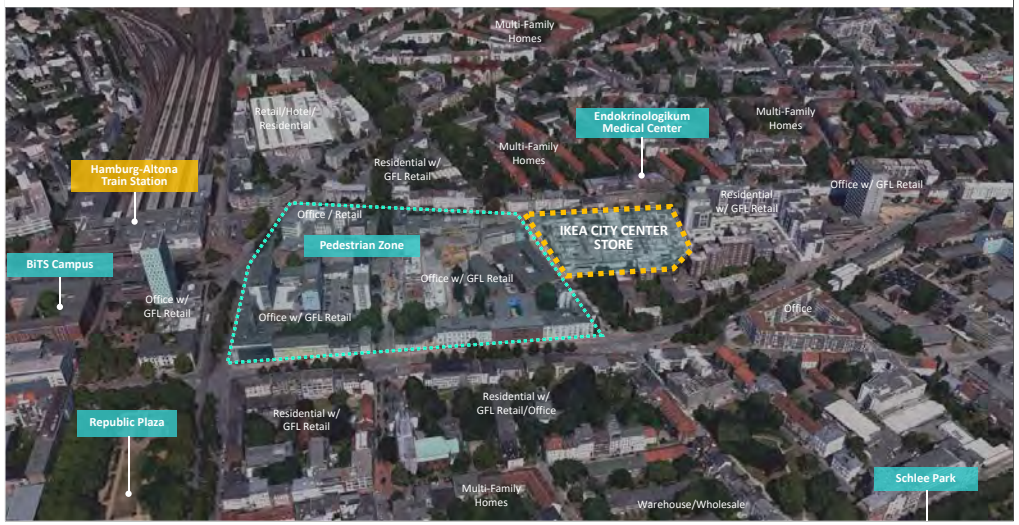

SURFACE PARKING LOT

IKEA CityCenter Store

ALTONA, HAMBURG, GERMANY

A Compact- Size Home Furnishings Store Redeveloped on the Site of a Former Run-down Department Store in a Historic Town Center

SITE AREA CONTEXT



KEY FINDINGS / LESSONS LEARNED

LOCATION: Within 0.25 mile radii of Hamburg-Altona Train Station (services 6 commuter rail lines), w/ numerous bus stops in vicinity

SITE SIZE: ~145,000 sf

CAPACITY:

- **GFA:** 480,000 sf, including: ~ 200,000 sf of sales area (20% smaller than a normal IKEA)
- **8** levels.,4 parking decks on top for 730 spaces

AVG. FAR: ~3.3

LESSONS LEARNED

- Redevelopment on the site of a former run-down department store (Frappant Building)
- Includes the full range of products but on a different layout
- Gentrification, bring $100 million & 250 jobs

REPURPOSE EXITING BIG BOX COMMERCIAL

NEARBY USES:
MFHs, Retail, Office w/ GFL Retail, Hotel, Parks, Warehouse, Railway Station, etc.

BIKE DELIVERY SERVICE , PARKING ON TOP OF RETAIL

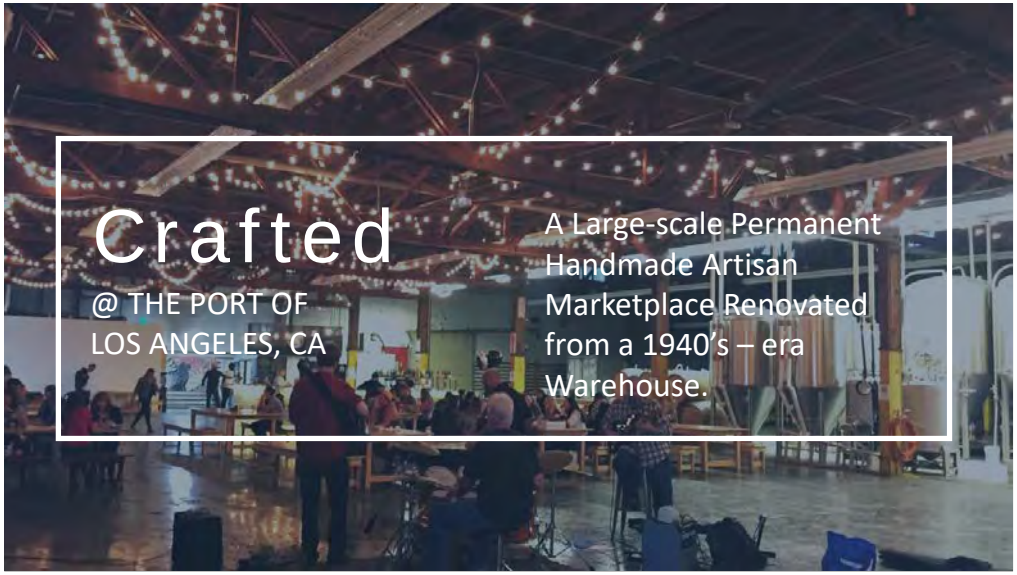
EMPHASIS ON BIKES, PEDS (YES EVEN THOUGH IT'S A BIG BOX)

- Pedestrian and bicycle-oriented
- Bus and train service nearby
- Colorful paving pattern

BUS STOP NEARBY

BICYCLE PARKING

PEDESTRIAN ZONE



SITE AREA CONTEXT

KEY FINDINGS / LESSONS LEARNED

LOCATION: Within 0.25 mile radii of San Pedro Red Car Trolley Station

SITE SIZE: 7.9 ac

CAPACITY: 16.400 sf

AVG. FAR: ~0.5

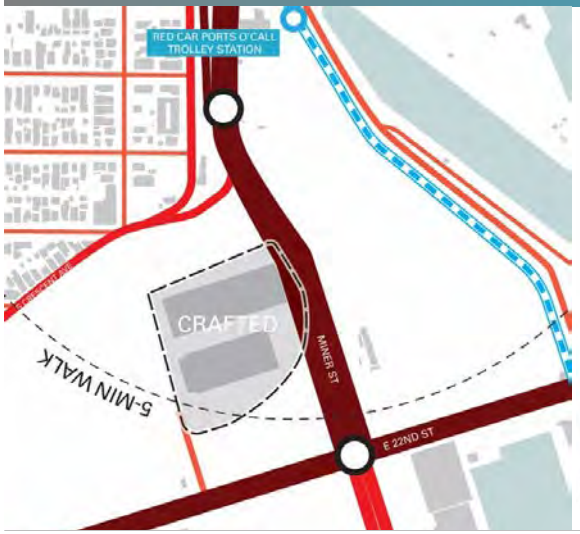
LESSONS LEARNED

- Adaptive reuse of 1940's-era warehouse
- Close to seashore activities, such as fish market and boating club
- Close to trolley station, bringing in tourists
- Flexible, open plan plate for various scale of rental spaces, accommodating over 100 individual artists. Crafters, and food makers
- Internal pedestrian paseo for events and landscape, pervious paving

QUITE ISOLATED

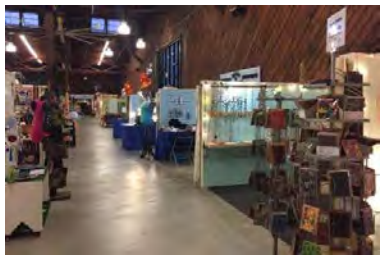
NEARBY USES:
Open Space, Surface Parking Lots, Retail/Restaurants, SFHs, etc.

AUTO ORIENTED



FOCUS ON LOCAL ARTISANS AND FOOD PURVEYORS

- Crafts space
- Indoor seating area/gathering space



HIGHLY SUCCESSFUL WITH LOCAL EVENTS: WEDDINGS, ETC.

- Larger space for event and festivals
- Handmade brewery shop
- Indoor live concert

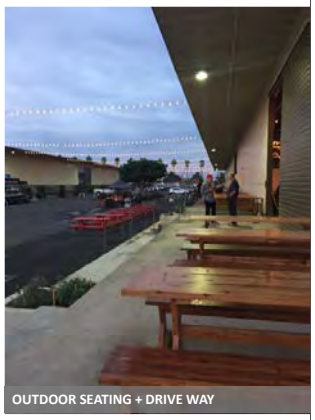

HANDMADE BREWERY


EVENT SPACE

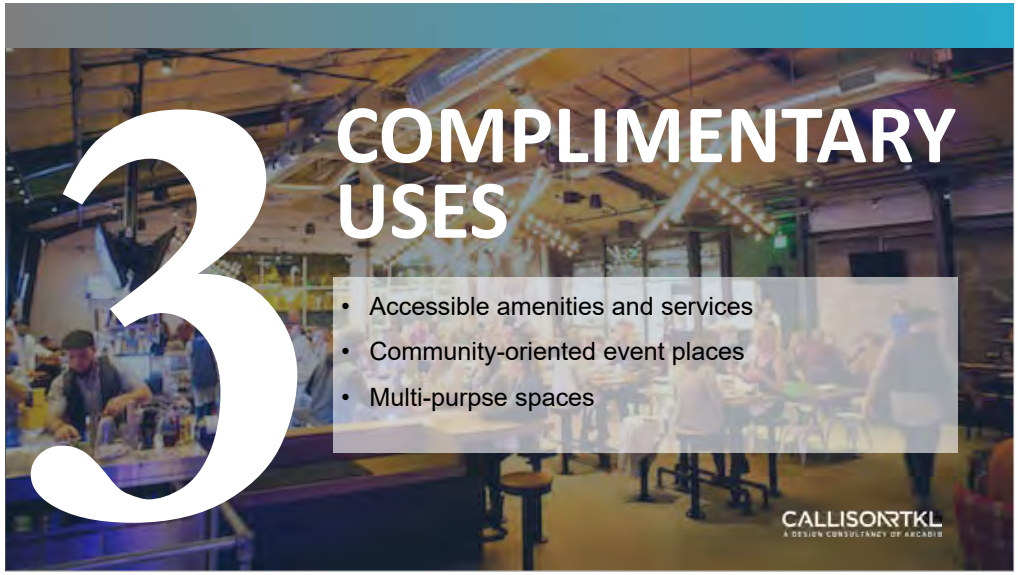

EVENT SPACE

INDUSTRIAL COOL


MAJOR ENTRANCE


OUTDOOR SEATING + DRIVE WAY


EXTERIOR STREET



SITE AREA CONTEXT

KEY FINDINGS / LESSONS LEARNED

LOCATION: Within 0.25 mile radii of *Expo Line Culver City Station*

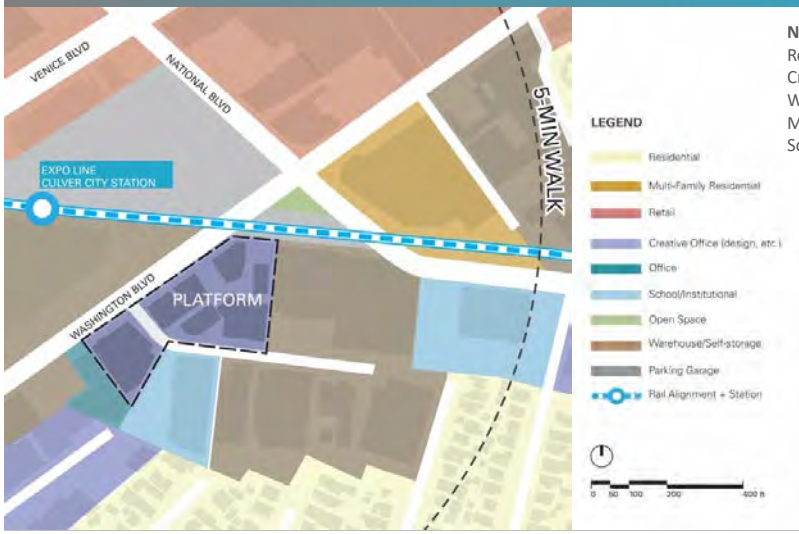
SITE SIZE: 2.0 AC

CAPACITY BY USE:
- Retail and Restaurant: 50,000 sf
- Creative Office: 80,000 sf

AVG. FAR: ~1.5

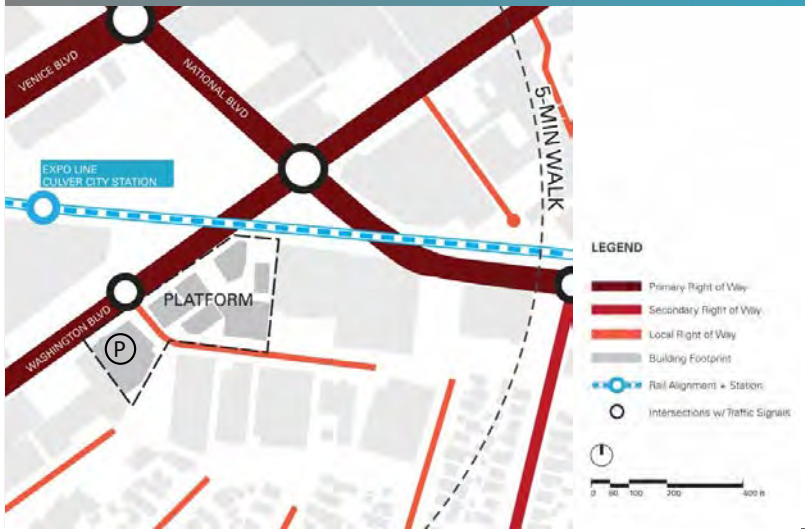
LESSONS LEARNED
- TOD infill development on a former compact urban car lot
- Lifestyle destination: various lifestyle stores, art venues, boutique, and high end restaurants
- Appealing pedestrian street + outdoor room
- Terrace w/ outdoor seating and rooftop gathering space
- Parking garage with active uses at the street level

A CREATIVE WORK ENVIRONMENT NEAR TRANSIT



NEARBY USES:
Retail, Public Parking, Creative office, Warehouse/light Manufacturing, School/institutional, etc.

TRANSIT FOCUS, PARKING ADJACENT



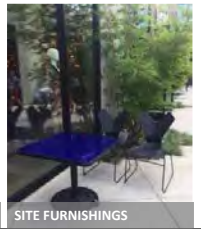
A BRANDED ENVIRONMENT AROUND CREATIVE WORK, HEALTH / WELLNESS


PEDESTRIAN PASSAGE


PEDESTRIAN PASSAGE


COURTYARD W/ COMFORTABLE SEATING

WAYFINDING

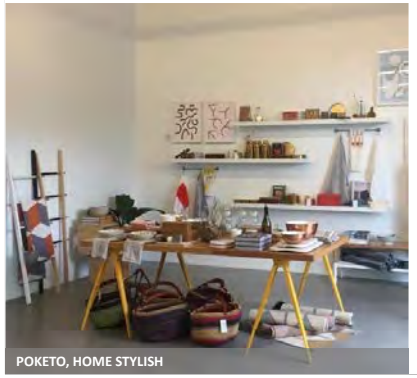

SITE FURNISHINGS


TERRACE W/ OUTDOOR SEATING

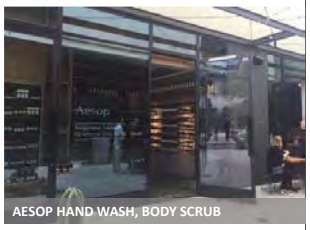

TEMPORARY EVENT SPACE

LIFESTYLE ALL DAY LONG!

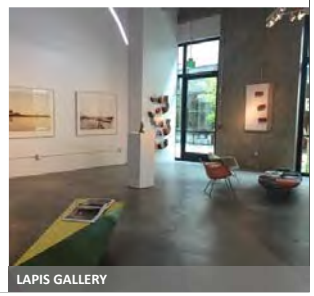
- Typology: Retail (Small-scale)
- Dimension: 3,000 sf. – 8,000 sf.
- Height: 1 story


POKETO, HOME STYLISH


FLORA ART


AESOP HAND WASH, BODY SCRUB


SOUL CYCLE GYM


LAPIS GALLERY

50% POP UPS

- Typology: Retail (Small-scale)
- Dimension: 5000 sf- 6,000 sf
- Height: 1 story @ GFL

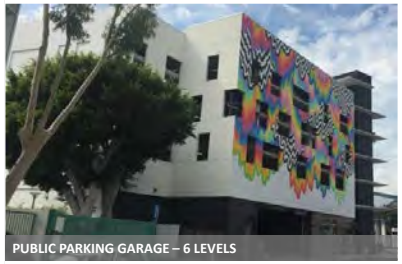
ETHNIC CRAFTS

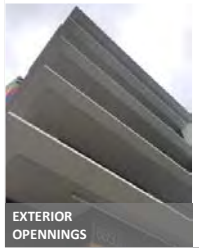
- Typology: Retail (Small-scale)
- Dimension: 3,000 sf. – 5,000 sf.
- Height: 1 story

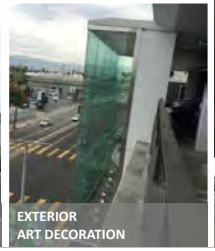
FOCUS ON ENTREPRENEURS

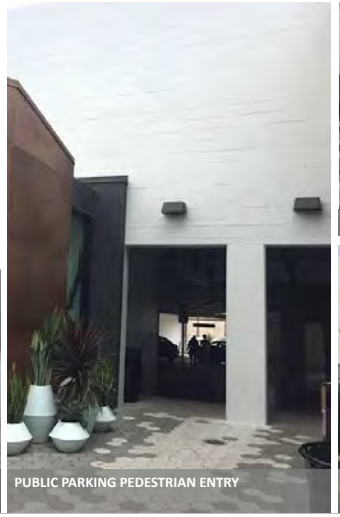
- Typology: Creative Office
- Dimension: ~2,000 sf. / unit
- Height: 3 stories

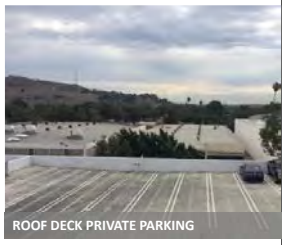
ADJACENT PARKING THAT ANTICIPATES AUTONOMOUS/ELECTRIC VEHICLES

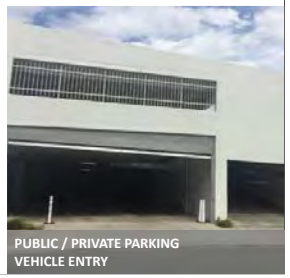

PUBLIC PARKING GARAGE – 6 LEVELS


EXTERIOR OPENNINGS


EXTERIOR ART DECORATION


PUBLIC PARKING PEDESTRIAN ENTRY


ROOF DECK PRIVATE PARKING


PUBLIC / PRIVATE PARKING VEHICLE ENTRY

The Yard @ Farmer Arts

TEMPE, AZ

Multi-tenant lifestyle destination converted from old industrial plant.

LIFESTYLE DESTINATION CLOSE TO TRANSIT AND CAMPUS

KEY FINDINGS / LESSONS LEARNED

LOCATION: Within ¼- ½ mile radii of *Valley Metro Mill Ave/3rd St Station*

SITE SIZE: 1.4 AC

TOTAL GSF: 38,000 SF

AVG. FAR: ~1.5

LESSONS LEARNED

- Adaptive reuse of historic industrial building
- Mix of restaurant, bar, game area, multipurpose event hall, live music venue, and fitness studio
- Serves nearby campus students and office professionals
- Trigger local district revitalization
- Transit access

4 WORKING DISTRICT

- Create employment hub
- Link jobs with homes and amenities
- Attract new industries and business

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

Hayden Tract

CULVER CITY, CA

A Former Industrial Tract Transformed into A Home to Media and Advertising Companies.

SITE AREA CONTEXT

KEY FINDINGS / LESSONS LEARNED

LOCATION: Within 0.5 mile radii of *Expo Line Culver City Station and La Cienega / Jefferson Station*

SITE SIZE: 85.6 AC

CAPACITY BY USE: Total 1.5M sf

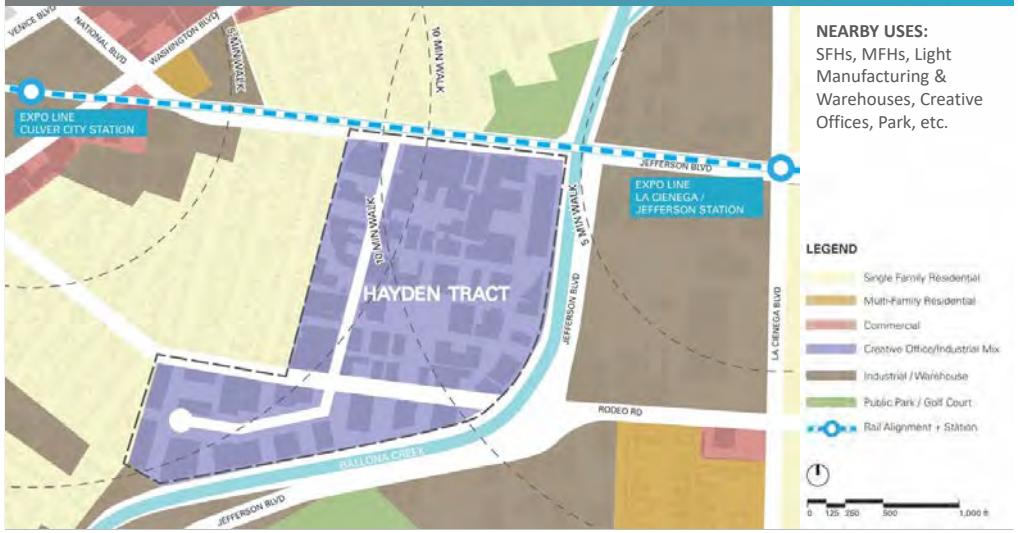
- Retail & Trade: 420,000 sf
- Creative Office: 900,000 sf
- Institutional: 100,000 sf
- Light Industrial Manufacturing: 54,000 sf
- Warehouse: 22,000 sf

AVG FAR: ~ 0.5

LESSONS LEARNED:

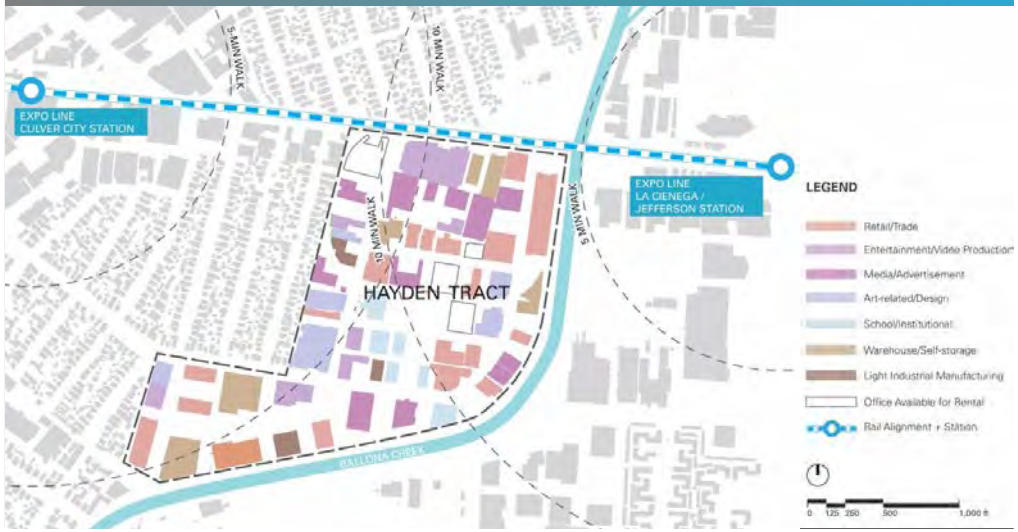
- Infill development on brown field
- Adaptive reuse and remodel of former industrial warehouses
- Creative company tenants
- Featured building design to create landmark
- Auto-dominant, less streetscape treatment
- Lack of daily service amenities and open space

A CREATIVE HUB (IN BETWEEN HOUSING AND INDUSTRIAL)



LARGE BLOCK, CAR DOMINANT STREETS

IN NEED OF SERVICES



COOL ARCHITECTURE

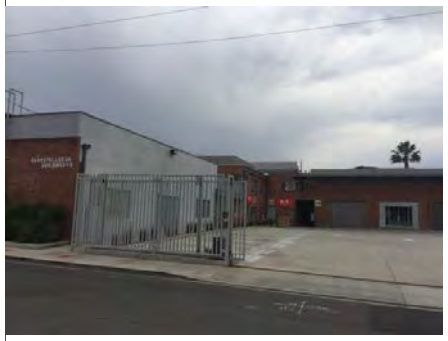
- Typology: Office Flex
- Dimension: 30,000 sf -70,000 sf (GFL)
- Height: 1 story ~ 3 story

SPACES FOR DESIGN AND LEARNING

- Typology: School/Institutional
- Dimension: 30,000 sf (GFL)
- Height: 1 story ~ 2 story

LIGHT INDUSTRY AND WAREHOUSE

- Typology: Warehouse/Manufacturing
- Dimension: 15,000 sf. ~ 30,000 sf.(GFL)
- Height: 3 - 4 story



COOLNESS FACTOR

SHARED BY ALL MODES

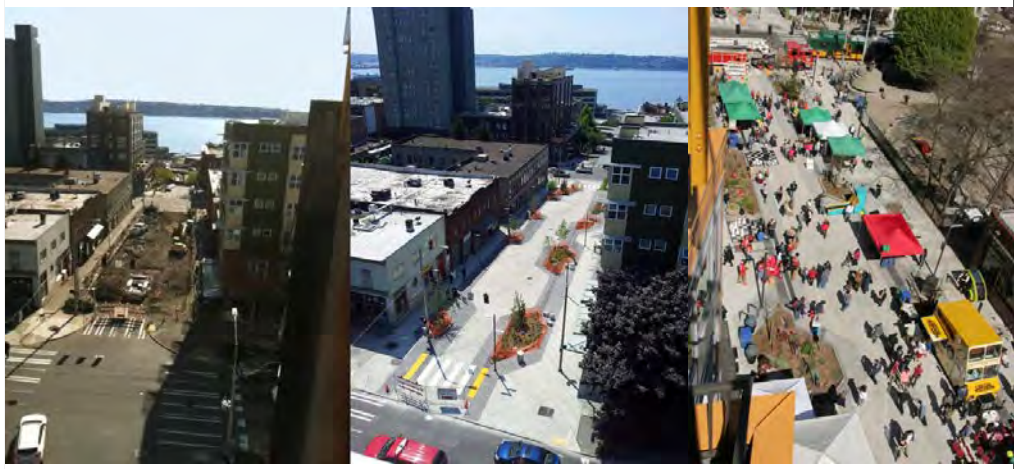
LOCATION: Bell street from 1ST – 5th Ave

PROJECT SIZE: **56,000 square-foot**

LESSONS LEARNED:

- A raised, shared street space
- A single travel lane for pedestrians, buses, bicyclists, and autos
- Improved landscaping, better lighting, and more open space
- Strong city/community collaboration
- Programming and community events
- Promote the growth of Belltown as a compact, mixed-use, multi-modal neighborhood

A STREET PARK



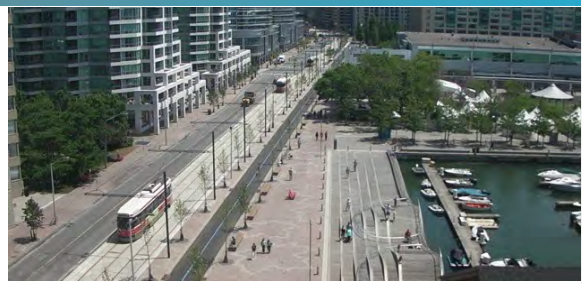
ROAD DIET AND LOW IMPACT DESIGN

PROJECT SIZE: 1.1 MI

LESSONS LEARNED:

- Creation of multi-use trail that connects to multiple neighborhoods, beaches, commercial & office space
- Dedicated streetcar right of way with prioritized signals and shelters
- Road diet implemented by reducing four traffic lanes to two lanes
- Enhanced public realm improvements including benches, street trees, and pedestrian promenade
- Use of green infrastructure to reduce flooding, including bioswales and rain gardens
- create space for community events, farmers markets, and concerts
- increase commercial activity due to heightened pedestrian traffic and transit accessibility

A LINEAR PARK CONNECTS TO THE WATERFRONT



6 URBAN RESILIENCY

- Sea level rise issue
- Flood control
- Habitat restoration
- Waterfront activation

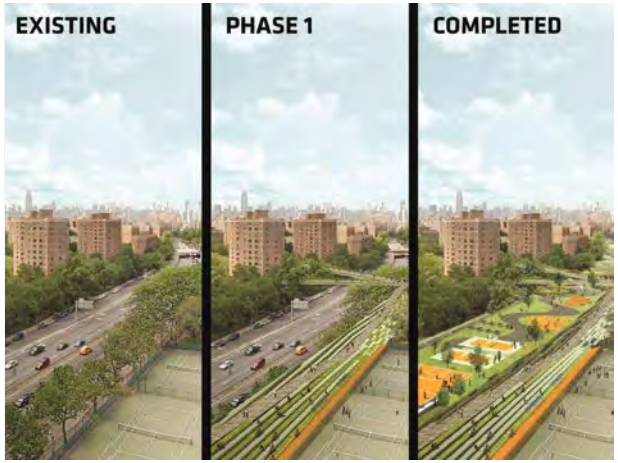
CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

Dryline

NEW YORK

A coastal protection barrier in the form of a huge city park starts construction in 2017.

URBAN FLOOD PROTECTION



PROJECT SIZE: 5.5 MI

- from Montgomery Street at the East Side Coastal Resiliency (ESCR) project south around the Battery and extending up to include Battery Park City

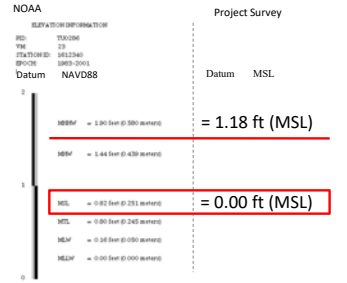
LESSONS LEARNED:

- Urban flood protection
- Raised cycle path
- Protective park along waterfront
- Extended waterfront
- Public access
- Received USD 176 million in funding as part of the USD 1 billion National Disaster Resilience Competition (NDRC) run by HUD

Exercise 1: Review Regional Plans

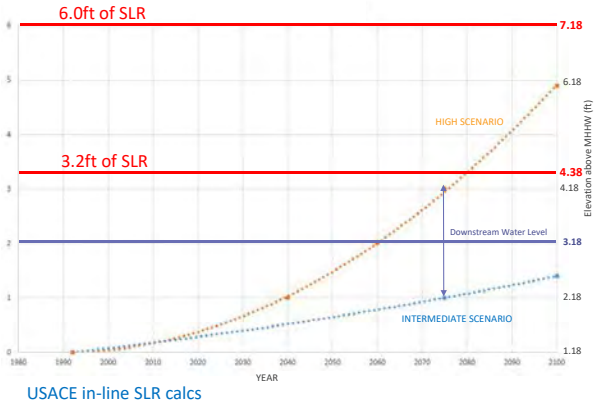
Infrastructure & Environmental Considerations

Defining the Makai Water Level



Hawaii Sea Level Rise Vulnerability and Adaptation Report (HCCC)

- 3.2' SLR-XA (2050) for areas expected to experience chronic flooding
- 6' of SLR-XA (2100) for critical infrastructure / long lifespans / low risk tolerance



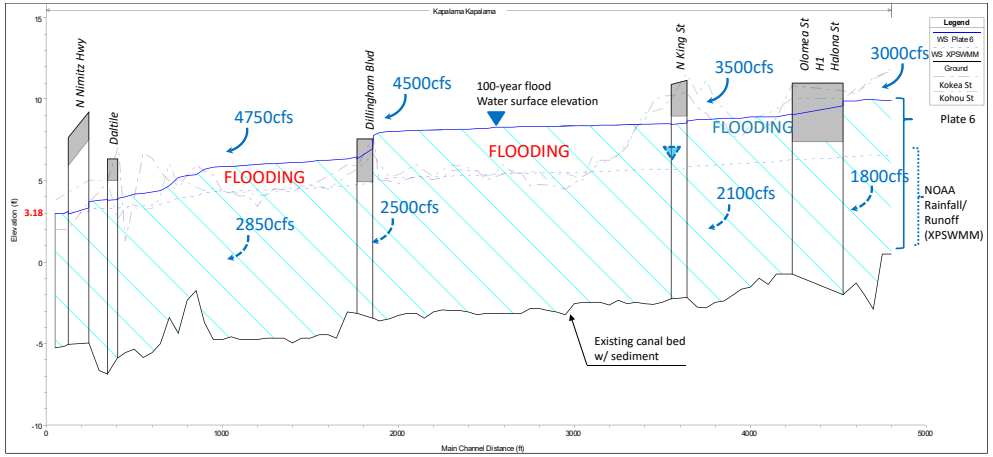
USACE in-line SLR calcs

ARUP

6-ft Sea Level Rise
(assumes no storm flow in Kapalama Canal

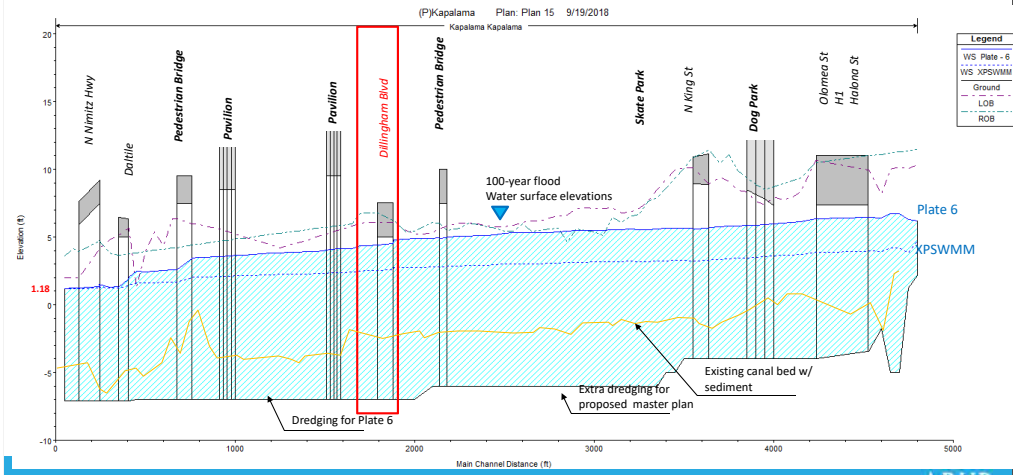
ARUP

HYDRAULIC MODEL (HEC-RAS) SCENARIO 1 - Existing Conditions



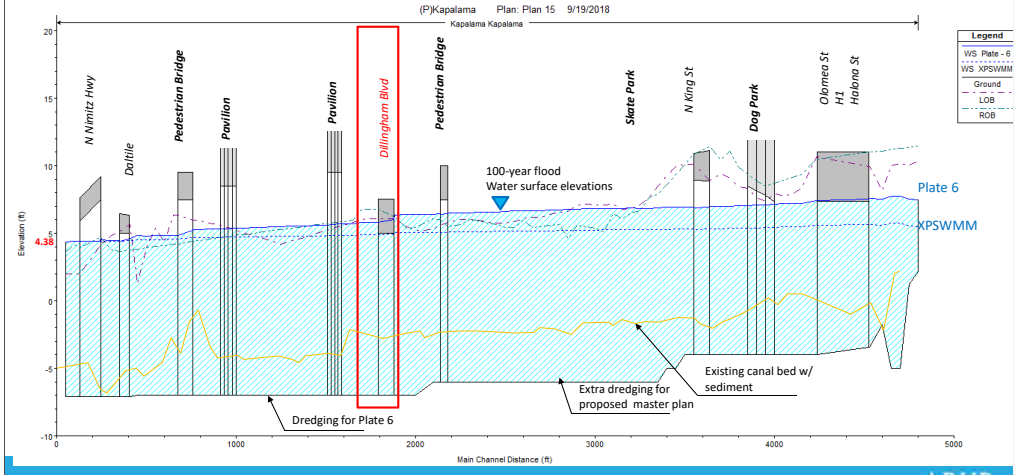
ARUP

HYDRAULIC MODEL (HEC-RAS) SCENARIO 6(i) - 2018 HHWL



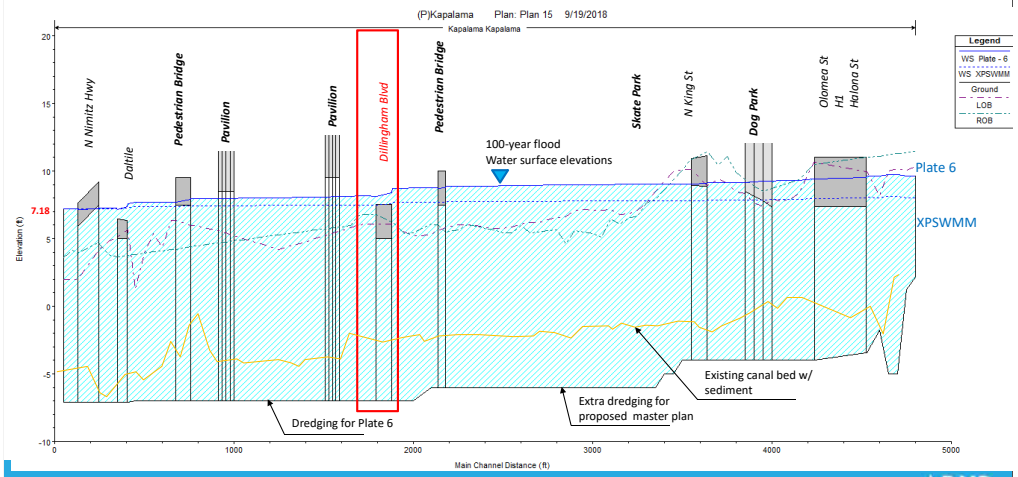
ARUP

HYDRAULIC MODEL (HEC-RAS) SCENARIO 6(ii) - 3.2SLR–XA



ARUP

HYDRAULIC MODEL (HEC-RAS) SCENARIO 6(iii) - 6SLR–XA



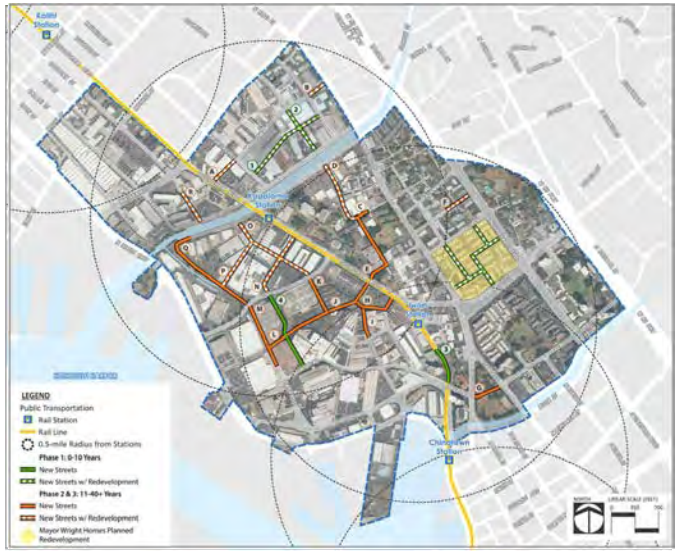
ARUP

Area Overview
IWILEI-KAPALAMA

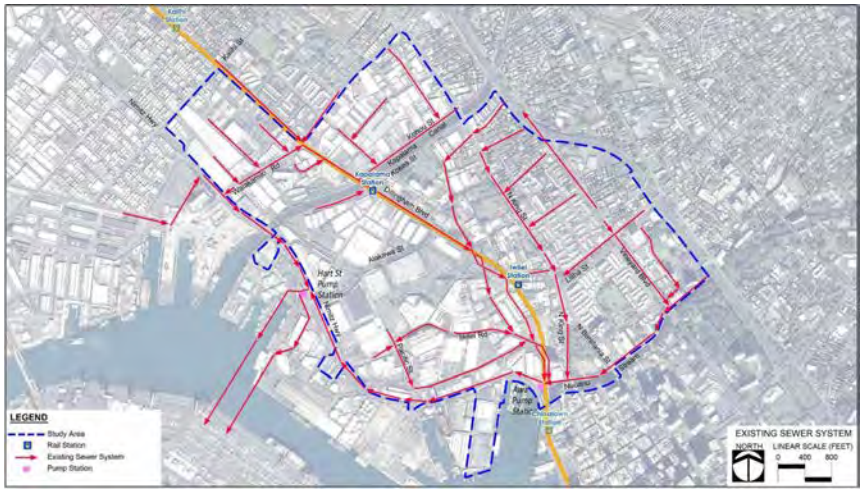
Infrastructure and Regional Needs

- New public roadways including subsurface utilities
- Complete streets improvements
- Water system upgrades for fire flow protection
- Awa Street Pump Station, force main, and sewer system
- Upsizing sewer collection pipes
- Storm water drainage system improvements
- Climate change adaptation strategies

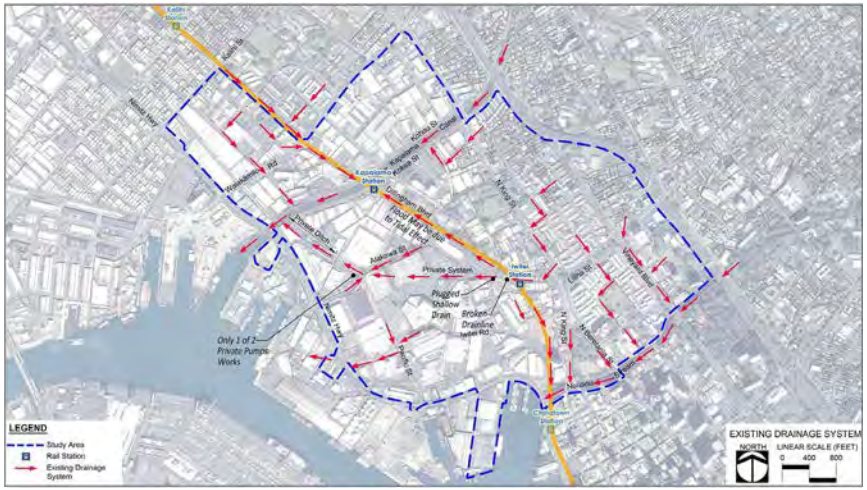
Proposed Street Network Phasing



Existing Sewer System



Existing Drainage Area



Proposed 25-kV Underground Distribution Circuits

ARUP

Hawaii becomes first state to pass laws supporting Paris Climate Accord (June 2017)

*"climate change… is the **overriding challenge of the 21st century** [and] ...poses immediate and long-term threats to the State's economy, sustainability, security, and way of life.*

*…The State shall expand strategies… to **reduce greenhouse gas emissions** statewide through the reduction of energy use, adoption of renewable energy, and control of air pollution **among all agencies, departments,** industries, and sectors, including transportation."*

Gov. Ige signed SB 559 (Act 032), June 2017

ARUP

Recognize a problem

Choose to act to remedy or avoid the problem

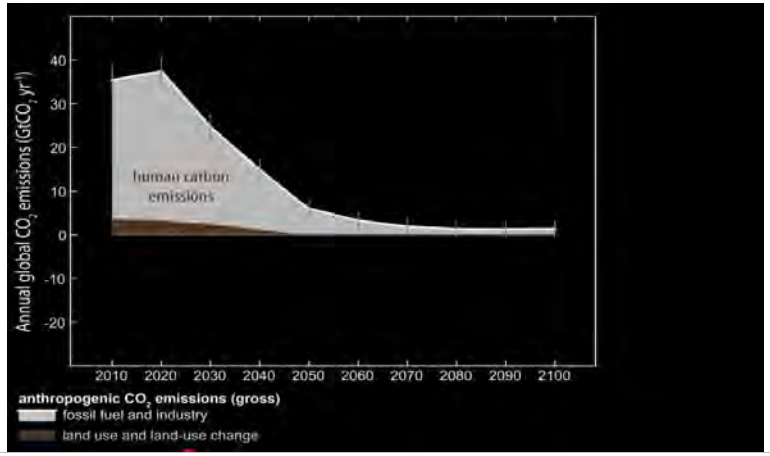
Act effectively

Adapted from Collapse – *How Societies Choose to Fail or Succeed, Jared Diamond*

ARUP

A 66% chance *if we act effectively*

Science 2017, Stockholm Resilience Center, Johan Rockstrom



ARUP

Optimism at the 2018 Global Climate Summit

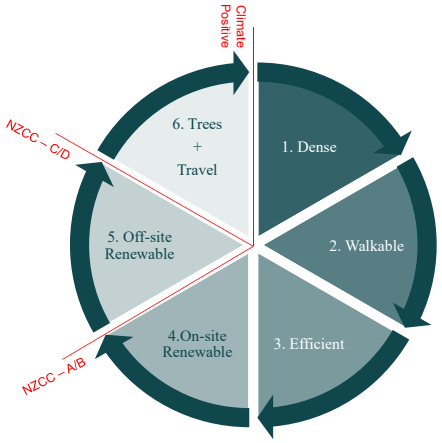
- The mayors of 19 cities presiding over 130 million city-dwellers including Copenhagen, Johannesburg and Tokyo, made a net-zero carbon pledge for all new buildings by 2030.
- 400 investor members, representing $32 trillion in assets, committed "to accelerate and scale up" climate action to support the Paris Agreement.
- $15 million in pro-bono legal services by 2020 toward climate-related causes, as nine law firms formed the new Lawyers for a Sustainable Economy Initiative.
- The Under2 Coalition now represents 1.3 billion souls and 43 percent of the planet's economy.
- The We Are Still In campaign now counts 3,540 corporate signatories pledging to uphold the Paris Agreement.

ARUP

Affordable, Resilient, and Healthy

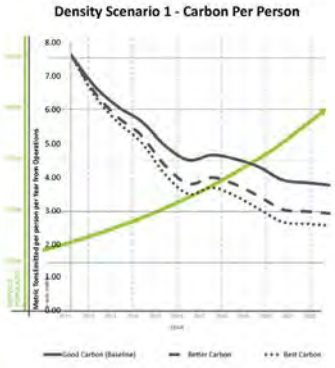
Climate Positive Communities

Effective Action – Climate Positive Community



ARUP

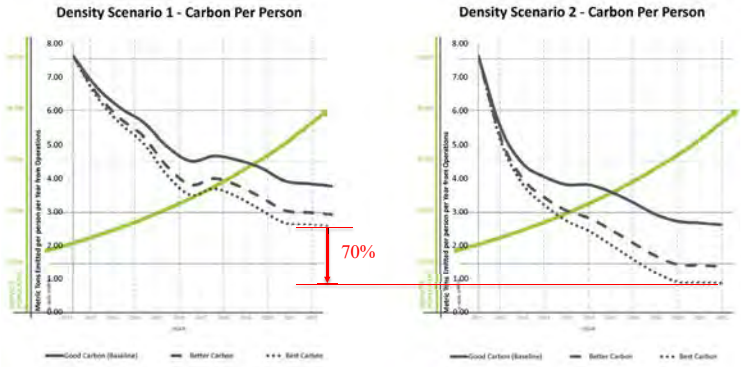
Density Enables Deep Improvements



Density
(FAR of 1x)

ARUP

Density Enables Deep Improvements

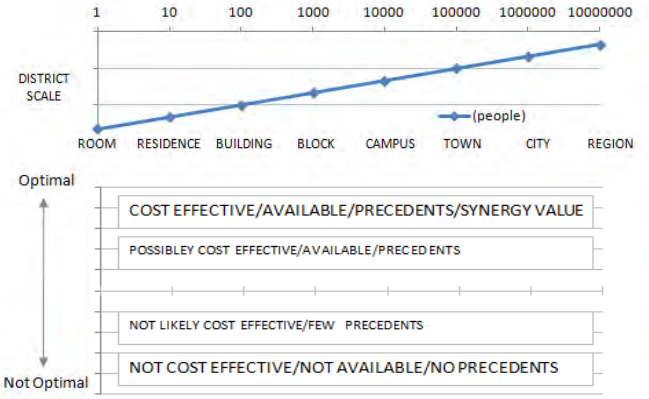


Density
(FAR of 1x)

2x Density
(FAR of 2x)

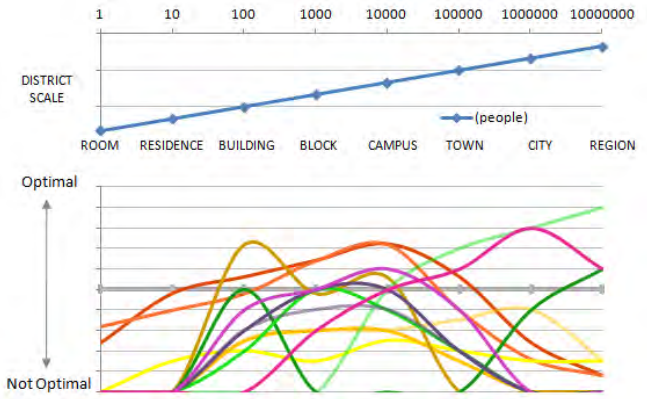
ARUP

Optimal Scales



ARUP

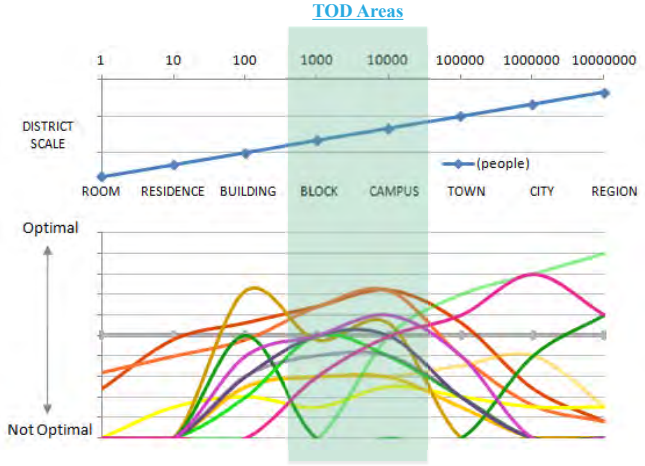
Optimal Scales



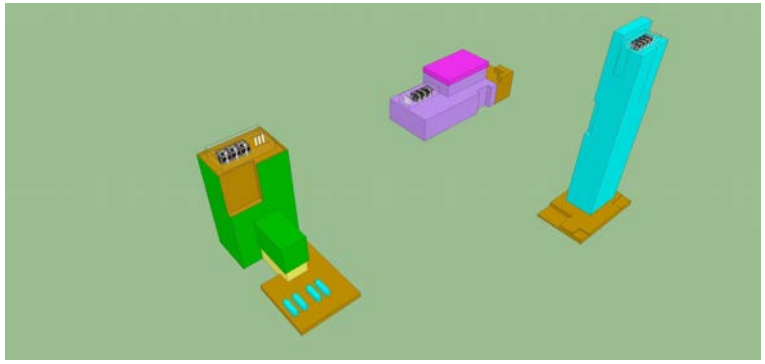
ARUP

Optimal Scales

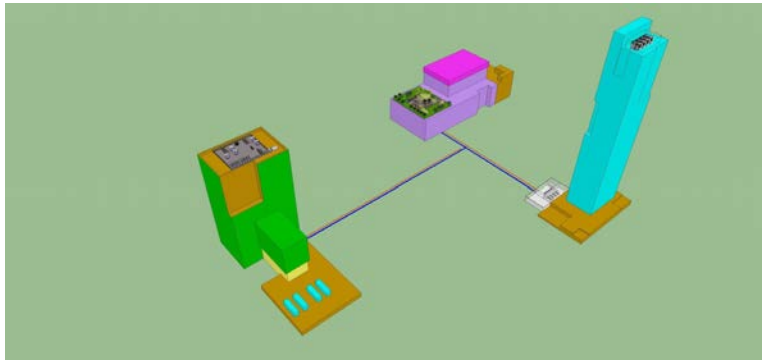
TOD Areas



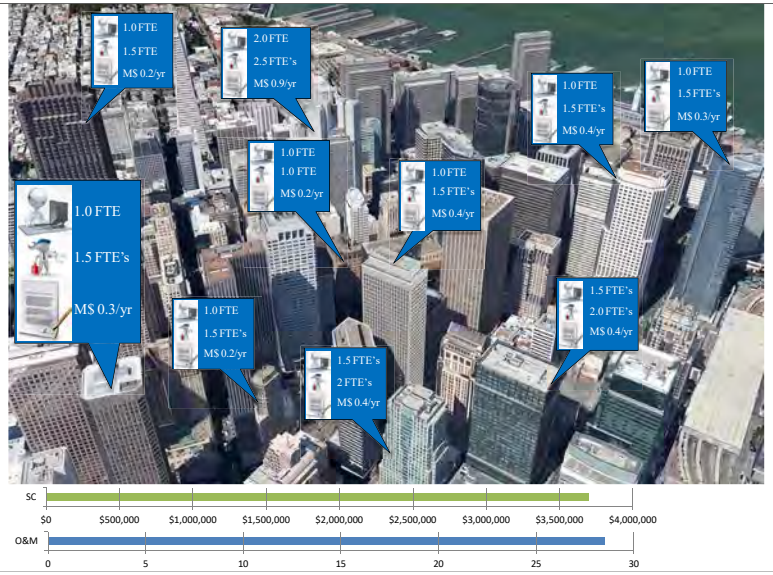
ARUP



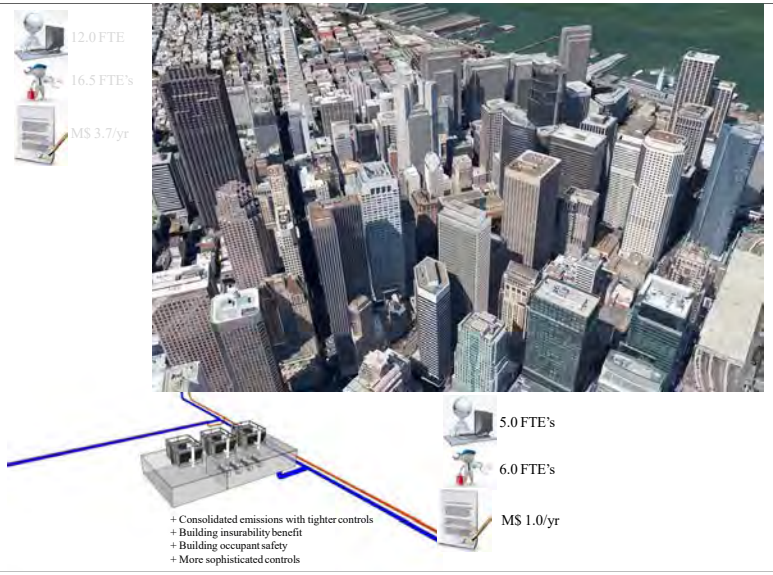
ARUP



ARUP

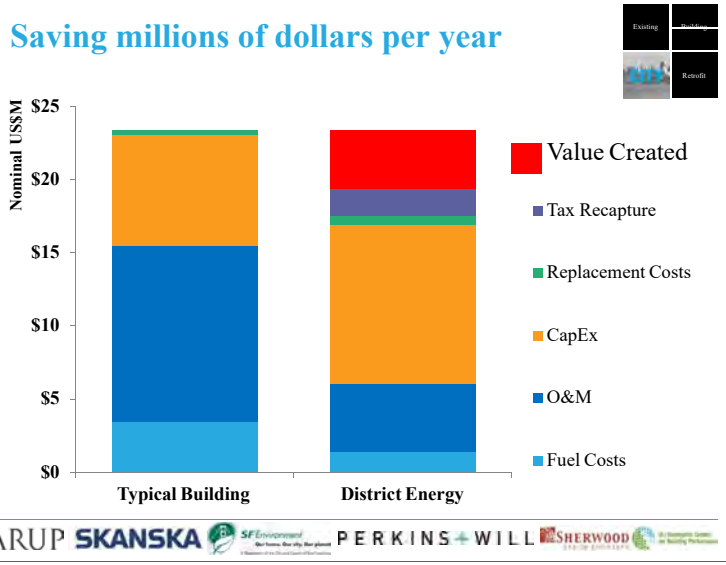


ARUP



ARUP

Saving millions of dollars per year



ARUP SKANSKA PERKINS+WILL SHERWOOD

ARUP

Establish, Expand, Optimize, Maximize

ARUP

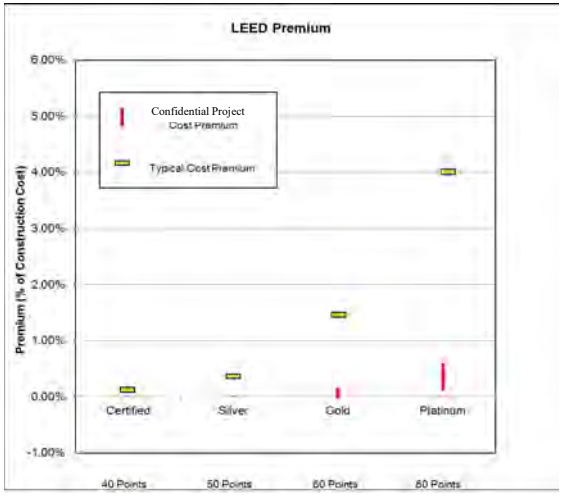
The Default Condition is…

- **Safe** since others did it (think protection in groups)
- **Easy** since we've done it before (think existing tools)
- **Known** since we can see it (think existing data)
- **Inexpensive** since anything better or new should always cost more (think marketing)
- **Hard to change** (think existing city streets)
- **Politically nonconfrontational** (think NIMBY'ism)
- **Appropriate** since it reflects our culture (think the sexy automobile)
- **Financeable** since the financial system knows how to pay for it (think loan underwriting)

ARUP

ARUP

Building Performance Standards

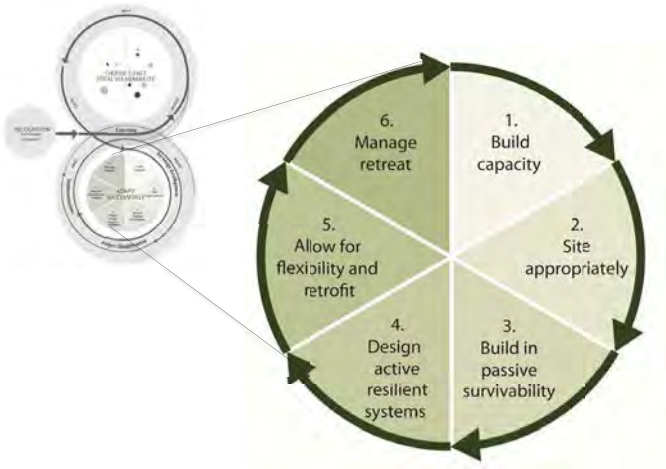


ARUP

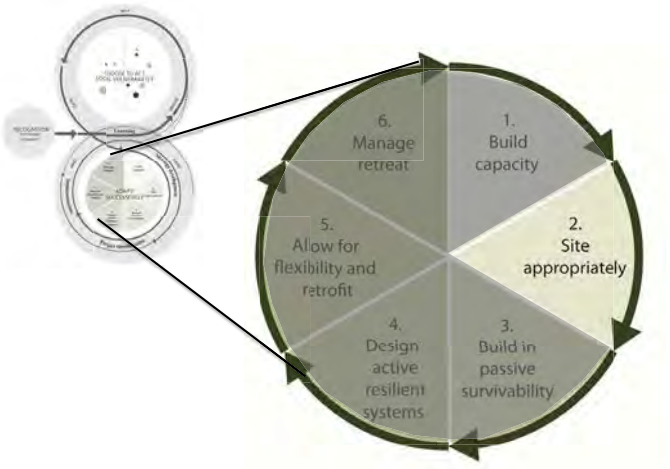
Adaptation

Resistance & Resilience

Act Successfully: Comprehensive + Time Based

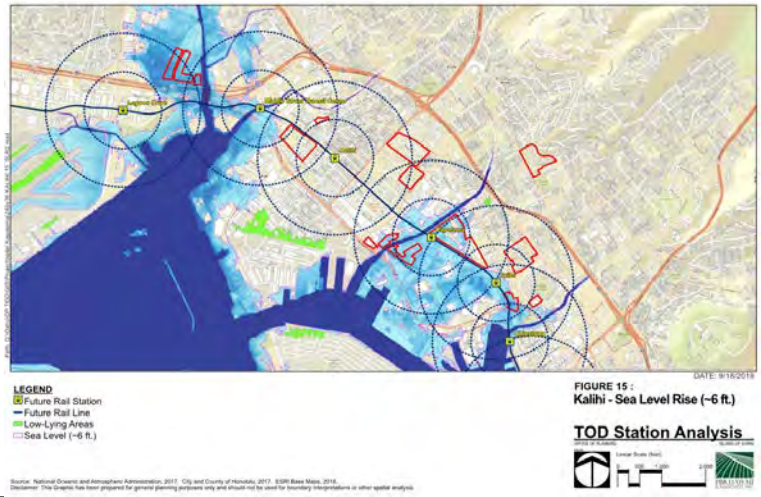


ARUP



ARUP

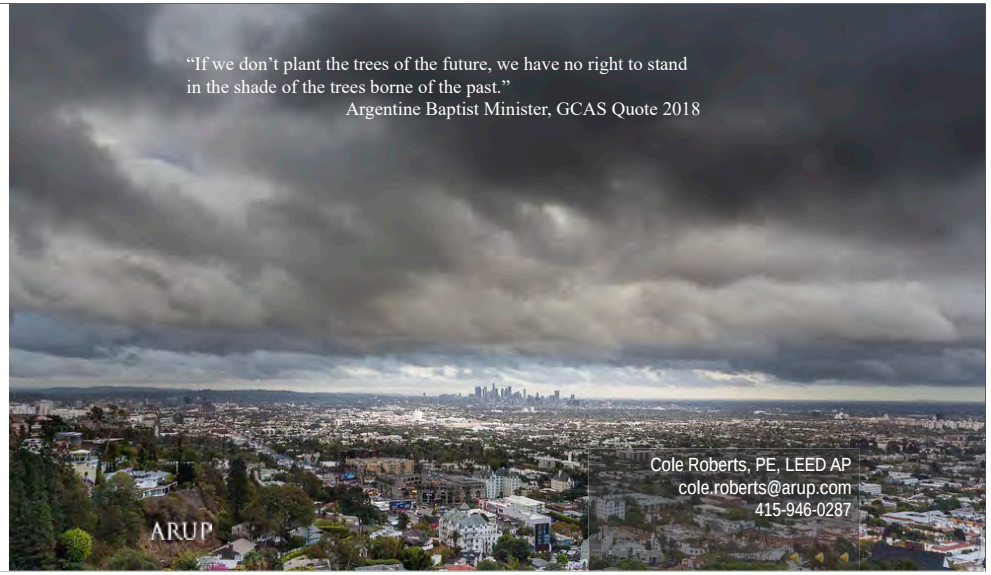
Site Appropriately – Priority Dev. Areas



ARUP

De-site – Cheonggyecheon Stream

ARUP



Exercise 2: Enhance Design Concepts

Report Back

What about Finance?

NEXT STEPS / SCHEDULE

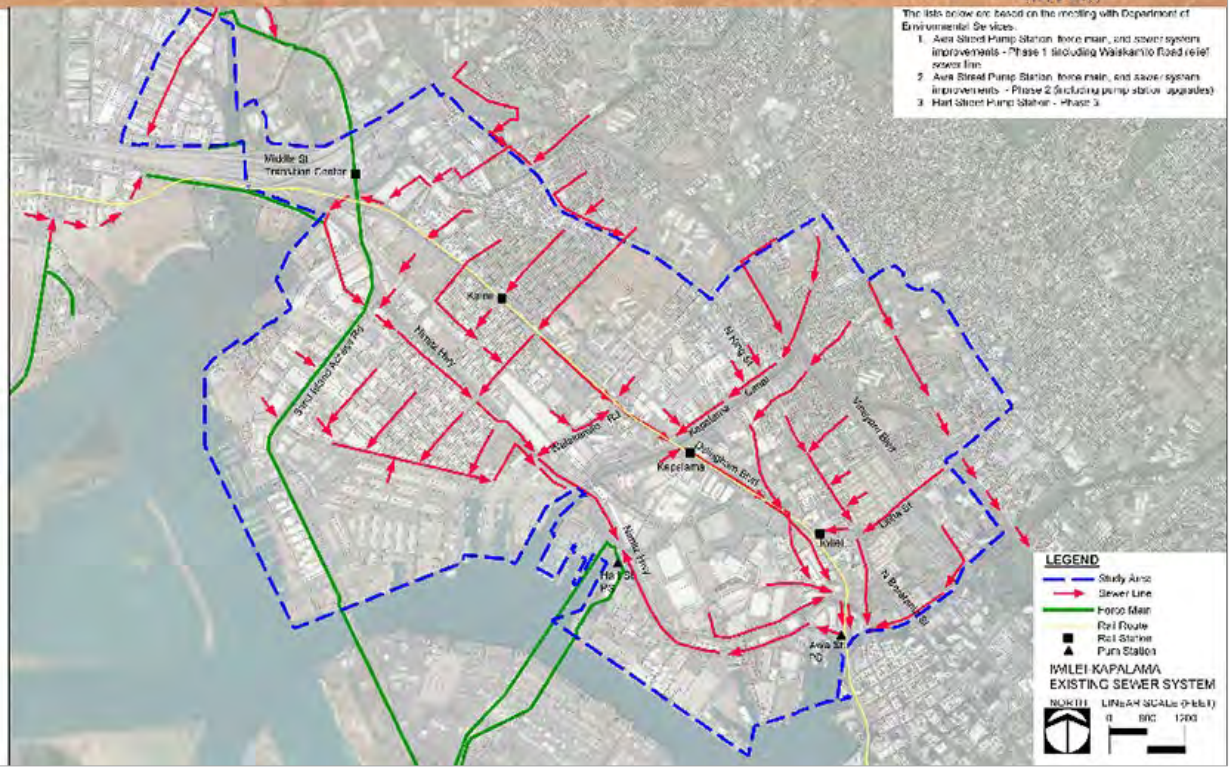
- "Homework"
- Compilation of alternatives
- We'll keep in touch!

Attachment E.
Key Infrastructure Conditions in Iwilei-Kapalama TOD Priority Area

Infrastructure: Sewer

R. M. Towill Corporation

- Awa Street Pump Station, force main, and sewer system improvements
  - Phase 1 (including Waiakamilo Road relief sewer line)
  - Phase 2 (including pump station upgrades)
- Hart Street Pump Station, Phase 3

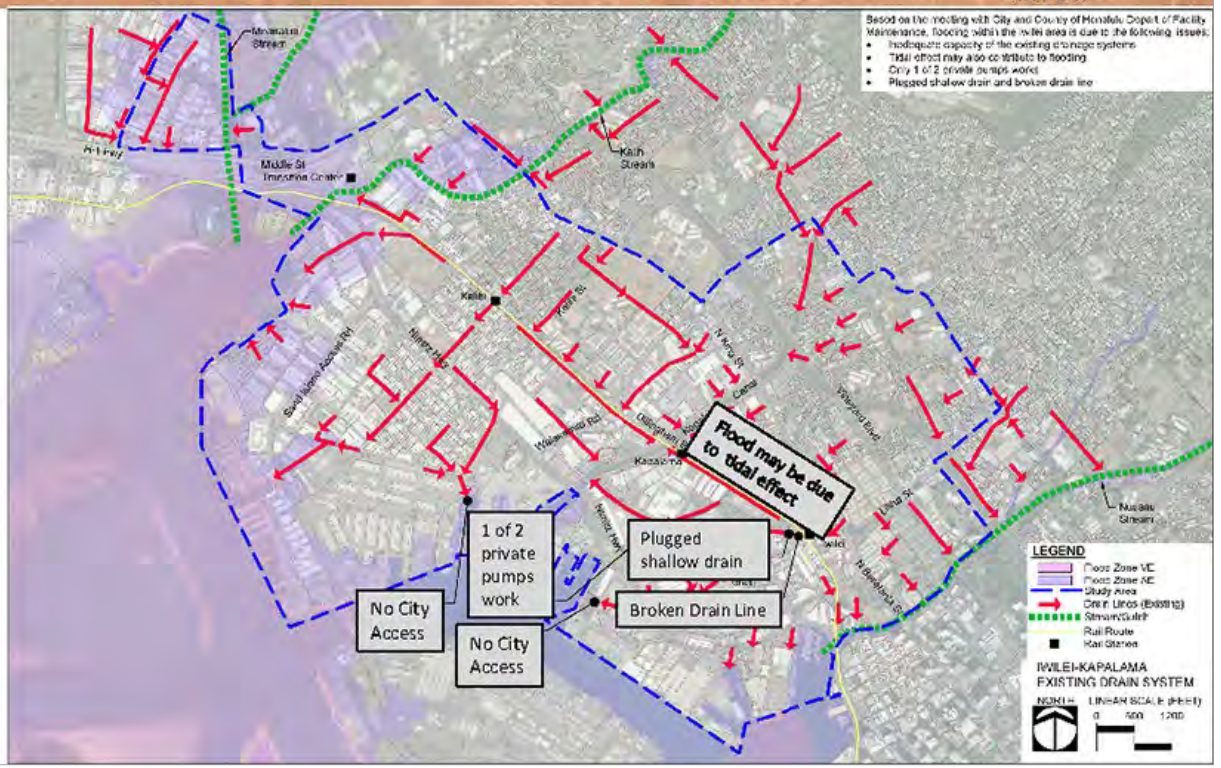


Infrastructure: Drainage

R. M. TOWILL CORPORATION

Flooding in the Iwilei area is due to the following issues:

- Inadequate capacity of the existing drainage system
- Tidal effect may also contribute to flooding
- Only 1 of 2 private pumps works
- Plugged shallow drain and broken drain line



Infrastructure: Iwilei-Kapalama Water

R. M. TOWILL CORPORATION

- Existing system capacity may be adequate for future developments
- Frequent main breaks due to its age and condition
- BWS will model with proposed developments when development information is available