

JOSH GREEN, M.D.
GOVERNOR



DENISE ISERI-MATSUBARA
EXECUTIVE DIRECTOR

STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM
HAWAII HOUSING FINANCE AND DEVELOPMENT CORPORATION

677 QUEEN STREET, SUITE 300
HONOLULU, HAWAII 96813
FAX: (808) 587-0600

IN REPLY REFER TO:

22:DEV/171

December 22, 2022

The Honorable Tommy Waters
Chair
Honolulu City Council
City and County of Honolulu
530 S. King Street, Room 202
Honolulu, Hawaii 96813

Dear Chair Waters:

Subject: Request for Approval of Exemptions Pursuant to Section 201H-38, Hawaii Revised Statutes, for the Proposed Kahoapili Project Located at 2965 Ala Napuaa Place, Honolulu, Hawaii 96818, TMK No.: (1) 1-1-061: 003

The Hawaii Housing Finance and Development Corporation (HHFDC) respectfully requests approval of exemptions from statutes, ordinances, and rules pursuant to Section 201H-38, Hawaii Revised Statutes (HRS), for the above-referenced Kahoapili Project (Project). The Project will be either a 100% affordable (excluding manager's units) rental project or a 60% affordable and 40% market for-sale project, depending on whether or not the project succeeds in its application for HHFDC financing as a rental project.

PROJECT OVERVIEW

Kahoapili is a proposed housing project which will be either: (a) an affordable rental project; or (b) an affordable and market for-sale project, to be developed in Salt Lake at the address and TMK listed above. The Project will consist of a single 27-story tower with 190 residential units and approximately 227 parking stalls, totaling approximately 241,258 gross square feet (GSF) of floor area, on an approximately 0.49-acre vacant "infill" parcel. The units will be a mix of studio, 1-bedroom, and 2-bedroom units.

The developer is Highridge Costa Development Company, LLC, with co-developer Form Partners, LLC, through a special-purpose entity Salt Lake Housing, LP (Developer).

MISC. COM. 529

Highridge Costa has extensive experience developing affordable housing in the State of Hawaii and has worked with HHFDC on multiple projects.

The Developer intends to develop the project as a 100% affordable rental project (excluding 2 manager's units) utilizing Low-Income Housing Tax Credits (LIHTC) from HHFDC. HHFDC offers both "4%" and "9%" LIHTC. 9% LIHTC awards are limited and competitive, and HHFDC has always received more applications than it can award. 4% LIHTC itself is unlimited, but use of 4% LIHTC requires the use of the Hula Mae Multi-Family Bond Program (HMMF Bonds) which HHFDC can award subject to HHFDC's bond cap limit. Last year, HHFDC did not have enough bond cap to award HMMF Bonds (and thus 4% LIHTC) to all projects which applied for them, and the same is expected to happen again next year. As such, there is no guarantee that the Project will receive a LIHTC award from HHFDC. Because of this limit on funding availability, the Developer is also seeking approval for an alternative option to pursue the project as a 60% affordable for-sale project if they do not receive a LIHTC award, to prevent the project from dying and to preserve the opportunity to deliver affordable housing to the people of Hawaii.

If the Project is developed as a rental project, the unit mix by AMI category will be as shown in the table below.

| | | |
|--|----------|-------------------|
| Affordability Mix: If Rental: | 20 | 30% AMI and below |
| | 20 | 50% AMI and below |
| | 148 | 60% AMI and below |
| | <u>2</u> | Manager's units |
| | 190 | Total units |

If the Project is developed as a for-sale project, the unit mix by AMI category will be as shown in the table below.

| | | |
|--|-----------|---------------------------|
| Affordability Mix: If For-Sale: | 14 | 95% AMI and below |
| | 94 | 125% AMI and below |
| | <u>6</u> | 140% AMI and below |
| | 114 | Subtotal affordable units |
| | <u>76</u> | Market units |
| | 190 | Total units |

PUBLIC REVIEW

The Project was presented to the Aliamanu / Salt Lake / Foster Village / Airport Neighborhood Board No. 18 on June 9, 2022. The neighborhood board did not take any action on the Project. There was a comment about cultural consultation; the Developer has retained a cultural consultant. There was a comment about the parking ratio being too low; HHFDC notes that the Project complies with the zoning requirement and is not requesting any exemptions from parking requirements. There was a comment expressing objection to foreign investors purchasing affordable units (in the for-sale scenario); HHFDC notes that affordable for-sale units are subject to HHFDC's program requirements including the 10-year owner-occupancy requirement under Section 201H-49(a), HRS. There was a comment about the height limit; HHFDC notes that the Project will not be the tallest building in the immediate vicinity, and that exemptions from height limits are an important tool for enabling affordable housing. Senator Glenn Wakai of District 15 (in which the Project is located) expressed support for the Project at the meeting.

HHFDC published an HRS Chapter 343 exemption notice for the Project in the October 8, 2022 edition of The Environmental Notice.

PROPOSED EXEMPTIONS

On August 8, 2022, the Developer submitted a project application to HHFDC which included requests for exemptions from specific City and County of Honolulu (City) ordinances, rules, and regulations pursuant to Section 201H-38, HRS. The list of exemptions was distributed via letter to the City agencies from which the rules originated. The HHFDC Board of Directors approved the project proposal with the proposed exemptions on December 8, 2022. See the enclosed For Action, which details the exemptions. As indicated in the HHFDC Board approval, none of the exemptions affects health and safety.

HHFDC respectfully requests approval of the exemptions approved by the HHFDC Board of Directors for the Project pursuant to Section 201H-38, HRS.

SUMMARY

Enclosed, please find the following for your information and consideration:

1. For Action, approved by the HHFDC Board of Directors on December 8, 2022;
2. Plans and Outline Specifications for the Project; and

The Honorable Tommy Waters, Chair
Honolulu City Council
December 22, 2022
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3. Draft Resolution.

Thank you for your favorable consideration of this matter. Should there be any questions or comments, please contact Albert Palmer, HHFDC Project Manager, at (808) 587-0500, or Moe Mohanna, Developer's representative, at (424) 258-2906.

Sincerely,

A handwritten signature in black ink that reads "Francis Paul Keeno". The signature is written in a cursive, flowing style.

Francis Paul Keeno
Executive Assistant

Enclosures

CC: Chair, Zoning and Planning Committee, w/ enclosures

RESOLUTION

AUTHORIZING EXEMPTIONS FROM CERTAIN REQUIREMENTS RELATING TO THE KAHOAPII AFFORDABLE RENTAL OR AFFORDABLE AND MARKET RATE FOR-SALE PROJECT LOCATED AT 2965 ALA NAPUAA PLACE, HONOLULU, HAWAII 96818, TAX MAP KEY: (1) 1-1-061: 003

WHEREAS, Salt Lake Housing, LP ("Developer"), under the control of Highridge Costa Development Company, LLC with co-developer Form Partners, LLC, with the approval of the Hawaii Housing Finance and Development Corporation ("HHFDC"), proposes to develop Kahoapili, a high-rise project on a 0.49-acre site located at 2965 Ala Napuua Place in Salt Lake, Honolulu, Oahu, identified as Tax Map Key (1) 1-1-061: 003 (the "Project"); and

WHEREAS, the proposed tower will contain 190 residential units, and will be developed either as: (1) a 100 percent affordable (excluding 2 manager's units) rental project; or (2) a 60 percent affordable and 40 percent market for-sale project, depending on whether or not the Developer is successful in its application for financing and/or tax credits from HHFDC; and

WHEREAS, if the Project is developed as rental, then the residential units are proposed to be offered as follows:

- 20 units to households at 30 percent or below of the U.S. Department of Housing and Urban Development Area Median Income for Honolulu ("AMI"),
- 20 units to households at 50 percent or below the AMI,
- 148 units to households at 60 percent or below the AMI, and
- 2 units will be manager's units; and

WHEREAS, if the Project is developed as for-sale, then the residential units are proposed to be offered as follows:

- 14 units to households at 95 percent or below the AMI,
- 94 units to households at 125 percent or below the AMI,
- 6 units to households at or below 140 percent of the AMI, and
- 76 market units; and

WHEREAS, the residential units will consist of 19 studio units, 152 one-bedroom units, and 19 two-bedroom units; and

WHEREAS, the Project will also offer a parking garage accommodating approximately 227 parking stalls and long-term storage accommodations for approximately 64 bicycles; and

M-529(22)

RESOLUTION

WHEREAS, the Project will help address the critical need for affordably priced housing within urban Honolulu in convenient proximity to a range of educational facilities, employment centers, and multiple shopping, dining, and family services opportunities; and

WHEREAS, the HHFDC Board of Directors approved the Project with its proposed exemptions on December 8, 2022; and

WHEREAS, the City Council is empowered and authorized to approve the Project, which may include exemptions from statutes, ordinances, charter provisions, and rules of any governmental agency relating to planning, zoning, construction standards for subdivision, development and improvement of land, and the construction of dwelling units thereon, pursuant to Section 201H-38 of the Hawaii Revised Statutes ("HRS"); and

WHEREAS, the Council has reviewed the preliminary plans and specifications for the Project dated August 8, 2022, prepared by RMA Architects, Inc., and submitted to the Council by HHFDC on December ____, 2022; and

WHEREAS, the Project is consistent with the housing and community development goals and objectives of the City; and

WHEREAS, the granting of the exemptions is necessary for the timely and successful implementation of the Project; and

WHEREAS, the requested exemptions meet minimum requirements of health and safety; and

WHEREAS, the Project does not contravene any safety standards, tariffs, or rates/fees approved by the Public Utilities Commission; now, therefore,

BE IT RESOLVED by the City Council of the City and County of Honolulu that it approves the Project, which approval includes exemptions from certain requirements for the Project, as follows:

Application Fees and Infrastructure and Public Works Fees and Charges

1. Exemption from Revised Ordinances of Honolulu ("ROH") Section 18-6.1, to allow an exemption from payment of plan review fees, estimated at \$25,000;
2. Exemption from ROH Section 18-6.2, to allow an exemption from payment of building permit fees, estimated at \$323,800;

RESOLUTION

3. Exemption from ROH Section 18A-2.4 (previously Section 14-14.4) to allow an exemption from grading and grubbing permit fees, estimated at \$1,145;
4. Exemption from ROH Sections 43-10.1, 43-10.2, and 43-10.3 (previously Sections 14-10.1, 14-10.2, and 14-10.3), to allow exemption from wastewater system facility charges attributable to affordable units, estimated at: (a) \$879,928 if developed as a rental project, and (b) 528,420 if developed as a for-sale project;

Fire Department Plan Review Fees

5. Exemption from ROH Section 20-1.1, to allow exemption from Honolulu Fire Department Plan Review Fees, estimated at \$32,380;

Board of Water Supply ("BWS") Rules and Regulations

6. Exemption from BWS Rules and Regulations, Sections 1-102, 2-202(2), and 2-202(3), to allow exemption from BWS installation and water facilities charges attributable to affordable units, to the extent approved by BWS, estimated at: (a) \$575,618 if developed as a rental project, and (b) \$349,045 if developed as a for-sale project;

Park Dedication Ordinance Requirements

7. Exemption from ROH Chapter 22, Article 7, to allow exemption from park dedication requirements for dedication of land, totaling approximately 15,191 square feet of park space, or payment of in-lieu fees, estimated at \$2,300,000;

Land Use Ordinance ("LUO")

8. Exemption from LUO Section 21-3.80-1 and Table 21-3.3, relating to maximum density, to allow a Project Floor Area Ratio ("FAR") of up to 7.10;
9. Exemption from LUO Section 21-3.80-1 and Table 21-3.3, relating to building area, to allow a proposed building area of up to 70 percent;
10. Exemption from LUO Section 21-3.80-1 and Table 21-3.3, relating to yard setbacks, to allow a side yard setback of 5';

RESOLUTION

11. Exemption from LUO Section 21-3.80-1(c)(2), relating to height setbacks, to allow portions of the structure over 40 feet in height relief from 1 foot additional side and rear setbacks for each 10 feet of additional building height and instead have a zero height setback;
12. Exemption from LUO Section 21-3.80-1 and Table 21-3.3, and the Zoning Map Height, relating to maximum height, to allow a building height of up to 250 feet;
13. Exemption from LUO Section 21-6.40 and Table 21-6.3, relating to bicycle parking, to allow the Project to provide no less than 12 short-term parking spaces and 64 long-term spaces;

City and County of Honolulu's Affordable Housing Requirements

14. Exemption from ROH Chapter 29 (previously Chapter 38), relating to the City and County of Honolulu's affordable housing requirements, to allow the Project to be developed, marketed, and rented or sold in accordance with all HHFDC affordable housing requirements, including all provisions under Sections 201H-47, 201H-49, and 201H-50, HRS; and

BE IT FURTHER RESOLVED that as used in this Resolution:

- A. References to HHFDC include any successor agency; and
- B. References to specific statutes, ordinances, or regulations include any respective successor statutes, ordinances, or regulations; and

BE IT FURTHER RESOLVED that this resolution is void unless construction of the Project commences no later than 3 years after the effective date of this resolution, provided that if required, a 1 year extension to this period may be administratively granted by the Director of the Department of Planning and Permitting; and

BE IT FURTHER RESOLVED that the exemptions granted for this Project are not transferrable to any other real property; and

BE IT FURTHER RESOLVED that the final plans and specifications for the Project constitute the zoning, building, construction, and subdivision standards for the Project, and are approved if those plans and specifications do not substantially deviate from the preliminary plans and specifications submitted to the Council; provided that minor modifications to the design character of the building or landscaping may be

CITY COUNCIL

CITY AND COUNTY OF HONOLULU
HONOLULU, HAWAII

No. _____

RESOLUTION

approved by HHFDC if such modifications are consistent with the prevailing neighborhood character; and

BE IT FURTHER RESOLVED that no action may be prosecuted or maintained against the City and County of Honolulu, its officials, or its employees, on account of the actions taken by them in reviewing or approving the plans and specifications, or in granting the exemptions listed herein; and

BE IT FINALLY RESOLVED that copies of this resolution be transmitted to the Hawaii Housing Finance and Development Corporation, 677 Queen Street, Suite 300, Honolulu, Hawaii 96813, and Salt Lake Housing, LP, c/o Highridge Costa Development Company, LLC, 330 W. Victoria Street, Gardena, CA 90248.

INTRODUCED BY:

DATE OF INTRODUCTION:

Honolulu, Hawaii

Councilmembers



KAHOAPILI AFFORDABLE DEVELOPMENT

2965 ALA NAPUAA PLACE, HONOLULU, HAWAII 96818



FORM PARTNERS



08/02/22 A0

PROPERTY INFO:

ADDRESS: 2965 ALA NAPUAA PLACE
HONOLULU, HI 96818
TAX MAP KEY: 1-1-061:003
ZONING: A-2 MEDIUM DENSITY
APARTMENT DISTRICT

FLOOR AREA - SEC. 21-3.80-1 (TABLE 21-3.3)

PROPERTY AREA: 21,461 SQ FT
FAR: 1.53
ALLOWABLE FLOOR AREA: 32,819 SQ FT

PROPOSED FLOOR AREA:
1ST FLOOR 4,053 SQ FT
2ND FLOOR 2,147 SQ FT
3RD - 8TH FLOOR 8,508 SQ FT (1,418 EA)
9TH - 27TH FLOOR 135,508 SQ FT (7,132 EA)
ROOF 1,689 SQ FT
TOTAL: 151,905 SQ FT

PROPOSED FAR: 7.08

GROSS BUILDING AREA

1ST FLOOR 10,754 SQ FT
2ND FLOOR 13,883 SQ FT
3RD - 7TH FLOOR 64,730 SQ FT (12,946 EA)
8TH FLOOR 12,452 SQ FT
9TH - 27TH FLOOR 135,489 SQ FT (7,131 EA)
ROOF 3,950 SQ FT
TOTAL: 241,258 SQ FT

GROSS RESIDENTIAL AREA

9TH - 27TH FLOOR 6,411 SQ FT EACH
TOTAL: 121,809 SQ FT

COMMON AREA

1ST FLOOR 10,754 SQ FT
2ND FLOOR 13,883 SQ FT
3RD - 7TH FLOOR 64,730 SQ FT (12,946 EA)
8TH FLOOR 12,452 SQ FT
9TH - 27TH FLOOR 13,680 SQ FT (720 EA)
ROOF 3,950 SQ FT
TOTAL: 119,449 SQ FT

BUILDING HEIGHT - SEC. 21-3.80-1 (Table 21-3.3) & ZONING MAP HEIGHT,
SEC 21-3.80-1 (c) (2)

MAX BUILDING HEIGHT: 150'

**HEIGHT SETBACKS: 1' ADDITIONAL SETBACK FOR EACH
10' OF ADDITIONAL HEIGHT**

PROPOSED BUILDING HEIGHT: 250'

BUILDING AREA - SEC. 21-3.80-1 (TABLE 21-3.3)

PROPERTY AREA: 21,461 SQ FT
MAX BUILDING AREA: 40%
ALLOWABLE BUILDING AREA: 8,584 SQ FT

PROPOSED BUILDING AREA: 14,195 SQ FT

PROPOSED BUILDING AREA: 66%

YARD SETBACKS - SEC. 21-3.80-1 (TABLE 21-3.3)

FRONT: 10'
REAR & SIDES: 10'

PROPOSED
FRONT: 10'
REAR: 10'
SIDE: 5'

UNIT COUNTS

| 9TH - 27TH FLOOR (19 FLOORS) | | | | | |
|------------------------------|-------------------------|-----------|--------------------------------|-----------|--|
| UNIT TYPE | UNIT COUNT PER FLOOR | TOTAL | NET SALEABLE AREA PER FLOOR | TOTAL | |
| STUDIO | 1 UNIT | 19 UNITS | 310 SF | 5,890 SF | |
| 1 BEDROOM | 8 UNITS | 152 UNITS | 4,099 SF | 77,881 SF | |
| 2 BEDROOMS | 1 UNIT | 19 UNITS | 741 SF | 14,079 SF | |
| TOTAL: | 10 UNITS | 190 UNITS | 5,150 SF | 97,850 SF | |

BICYCLE PARKING - SEC. 21-6.40 (TABLE 21-6.3)

SHORT TERM

1 SPACE / 10 DWELLINGS
190 UNITS / 10
**PROPOSED: 19 STALLS REQUIRED
12 STALLS**

LONG TERM

1 SPACE / 2 DWELLINGS
190 UNITS / 2
**PROPOSED: 95 STALLS REQUIRED
64 STALLS**

PARKING COUNTS - SEC. 21-6.20

NO OFFSTREET PARKING IS REQUIRED IN THE PRIMARY URBAN CENTER
DEVELOPMENT PLAN AREA.

| | | |
|---|---------------|-------------------|
| 1ST FLOOR | 12 PKG STALLS | |
| 2ND FLOOR | 27 PKG STALLS | + 3 TANDEM STALLS |
| 3RD FLOOR | 28 PKG STALLS | + 3 TANDEM STALLS |
| 4TH FLOOR | 28 PKG STALLS | + 3 TANDEM STALLS |
| 5TH FLOOR | 28 PKG STALLS | + 3 TANDEM STALLS |
| 6TH FLOOR | 28 PKG STALLS | + 3 TANDEM STALLS |
| 7TH FLOOR | 28 PKG STALLS | + 3 TANDEM STALLS |
| 8TH FLOOR | 25 PKG STALLS | + 5 TANDEM STALLS |
| TOTAL: 204 PKG STALLS + 23 TANDEM STALLS = 227 TOTAL STALLS | | |

OFF-STREET LOADING - SEC. 21-6.110

MULTIFAMILY DWELLINGS

151-300 UNITS
PROPOSED: 2 REQ

KAHOAPILI AFFORDABLE DEVELOPMENT

CODE INFORMATION

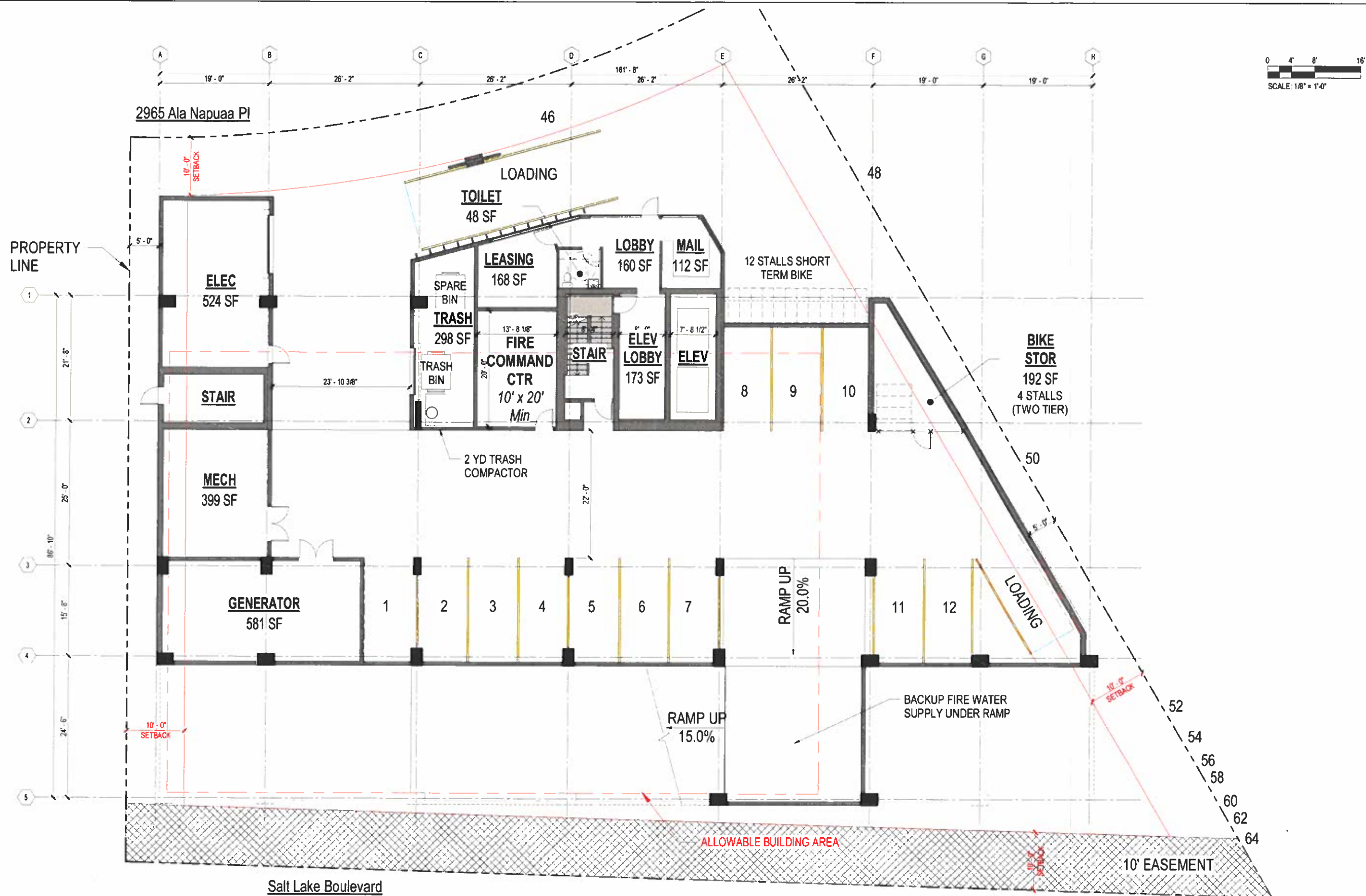


FORM



2965 ALA NAPUAA PLACE, HONOLULU, HAWAII 96818

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KAHOAPI LI AFFORDABLE DEVELOPMENT

GROUND FLOOR

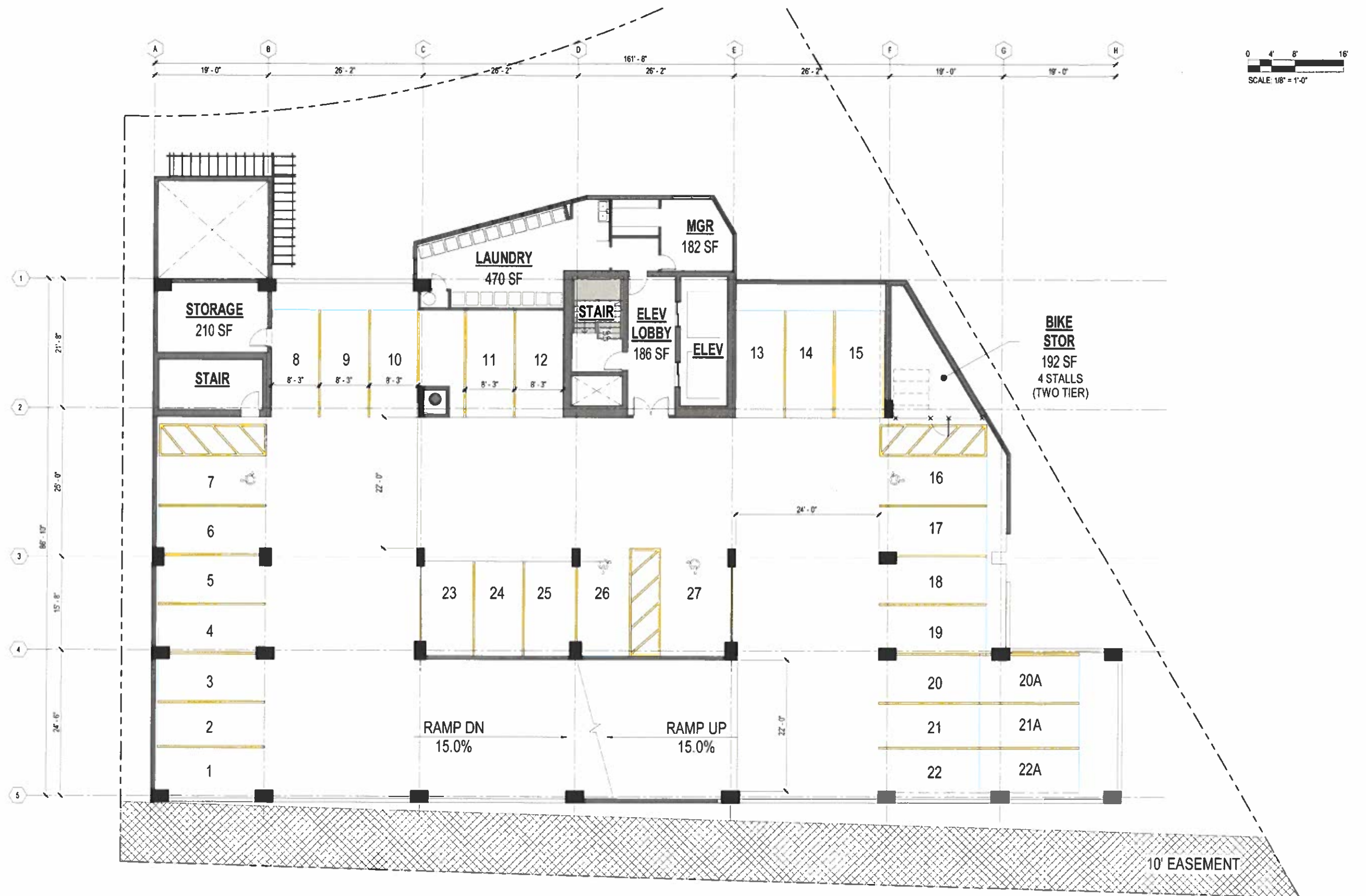
2965 ALA NAPUA A PLACE, HONOLULU, HAWAII 96818

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FORM





KAHOAPILI AFFORDABLE DEVELOPMENT

2ND FLOOR

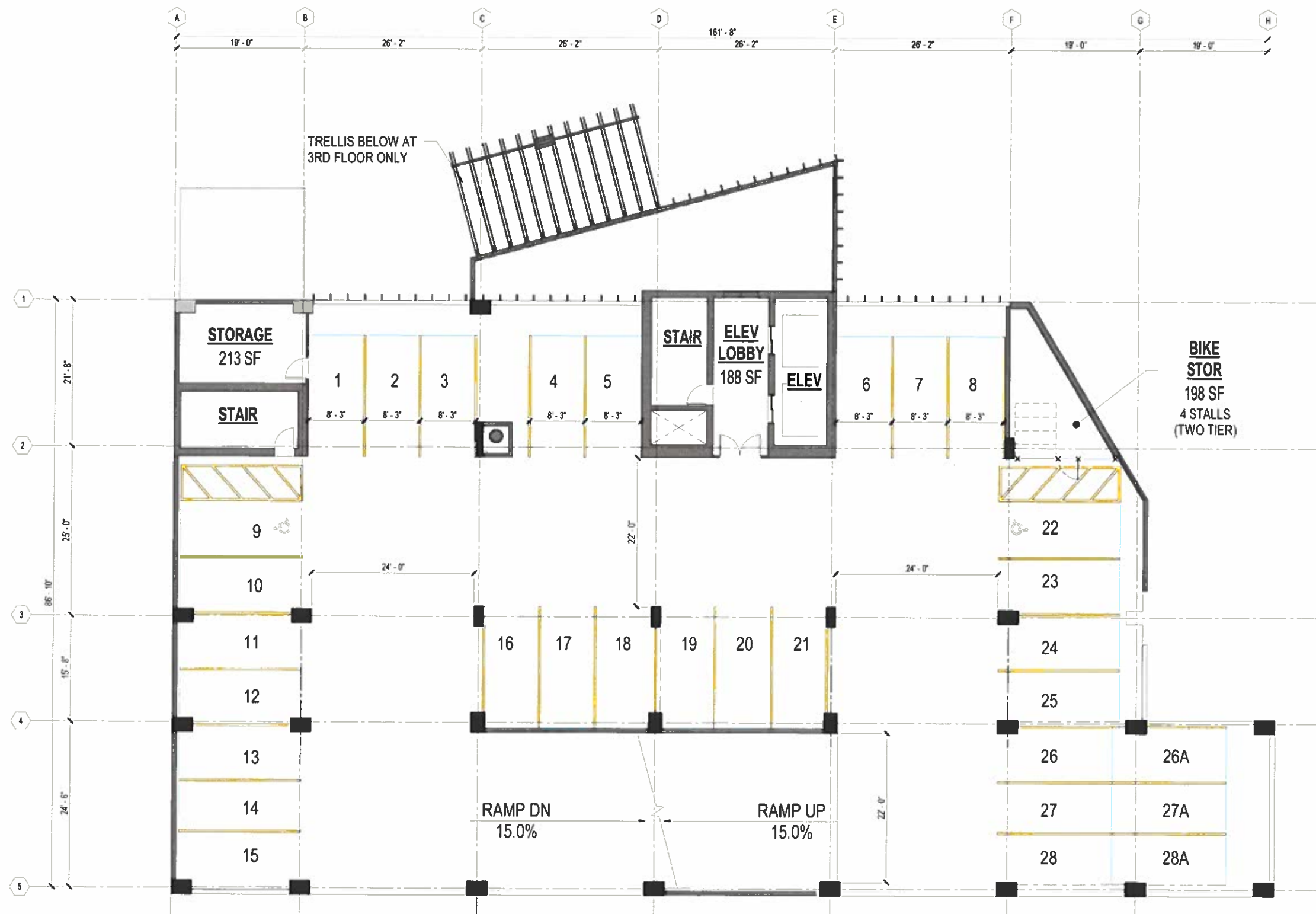
2965 ALA NAPUAA PLACE, HONOLULU, HAWAII 96818

08/02/22 A3



FORM





KAHOAPILI AFFORDABLE DEVELOPMENT

3RD FLOOR THRU 7TH FLOOR

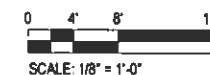


FORM



2965 ALA NAPUAA PLACE, HONOLULU, HAWAII 96818

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KAHOAPILI AFFORDABLE DEVELOPMENT

8TH FLOOR

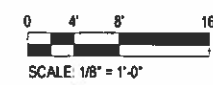
2965 ALA NAPUAA PLACE, HONOLULU, HAWAII 96818

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FORM





KAHOAPILI AFFORDABLE DEVELOPMENT

9TH THRU 27TH FLOOR

2965 ALA NAPUAA PLACE, HONOLULU, HAWAII 96818

08/02/22 A6



FORM





PROPOSED FINISHES

| | | | |
|-------------------------------------|--------------------|--------------------------|---------------|
| FLOORING | | COUNTERTOPS | |
| LIVING: | VCT PLANK FLOORING | KITCHEN: | SOLID SURFACE |
| BEDROOMS: | CARPET | VANITY: | SOLID SURFACE |
| WALLS: | | WALL AND BASE | |
| PAINTED GYPSUM BOARD W/ RUBBER BASE | | CABINETS: | |
| CEILINGS: | | PLASTIC LAMINATE (WHITE) | |
| DOORS: | | | |
| PAINTED HOLLOW CORE INTERIOR DOORS | | | |

KAHOAPILI AFFORDABLE DEVELOPMENT

ENLARGED FLOOR PLAN

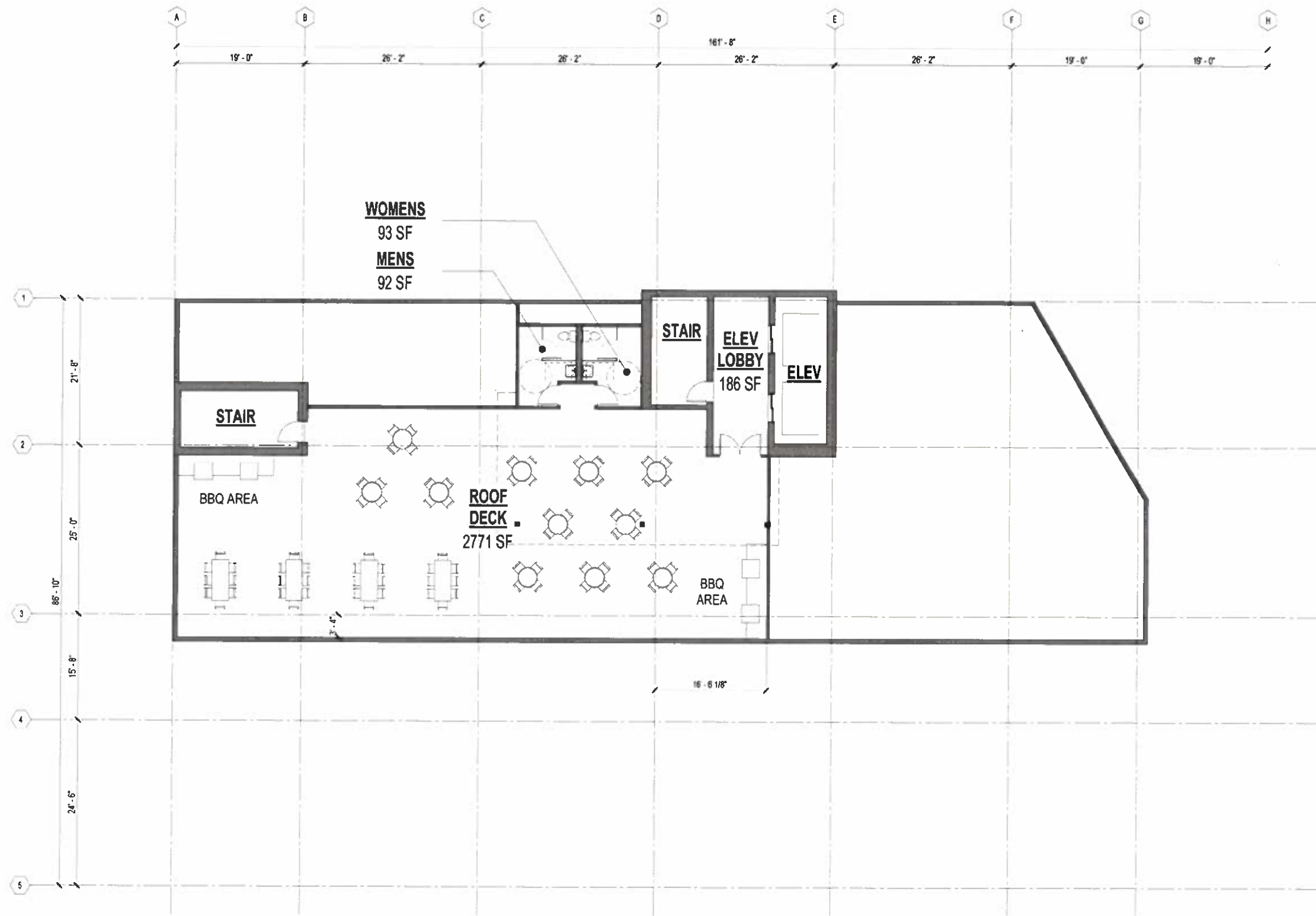


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2965 ALA NAPUAA PLACE, HONOLULU, HAWAII 96818

08/02/22 A7



KAHOAPILI AFFORDABLE DEVELOPMENT

ROOF

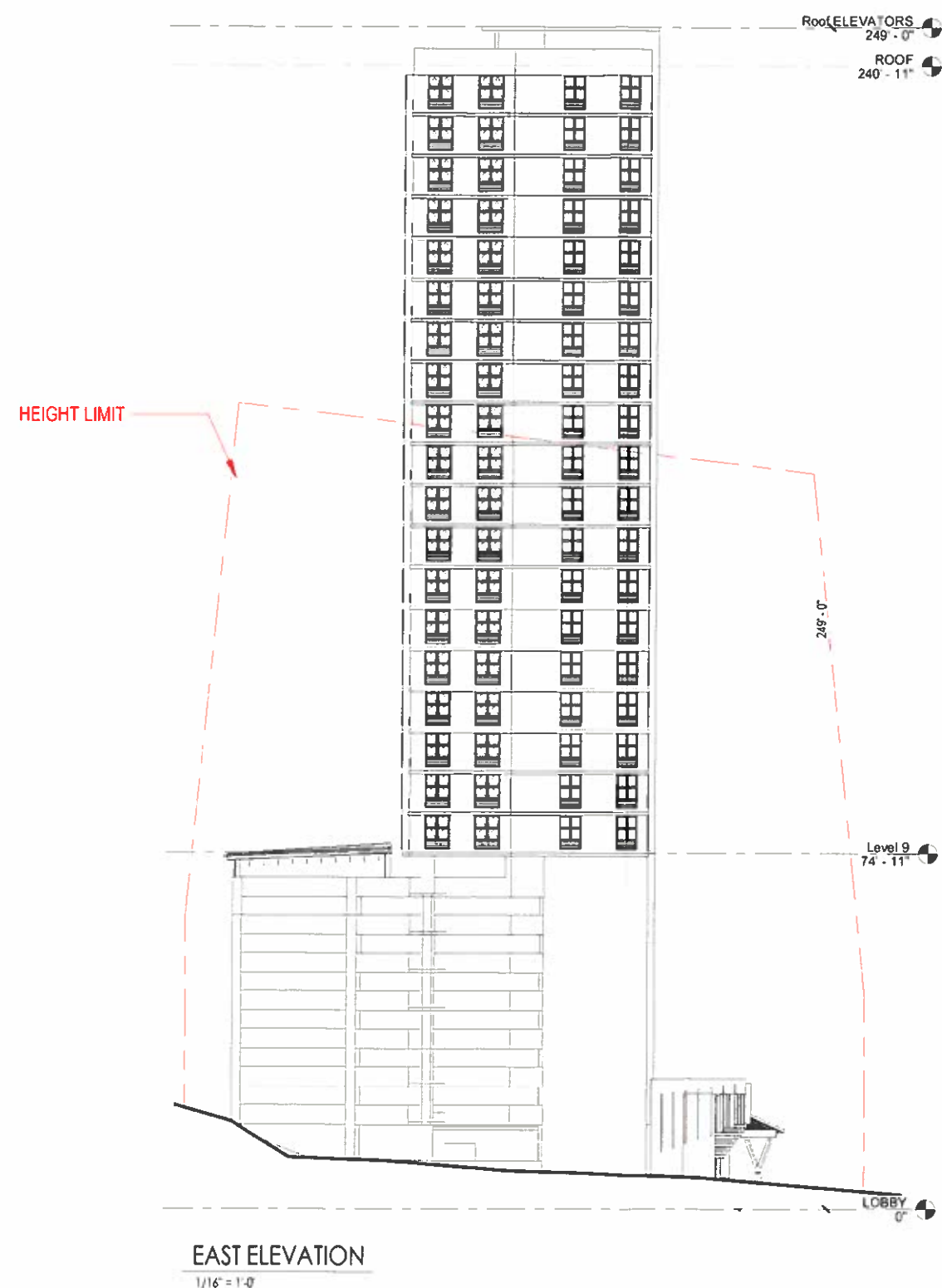
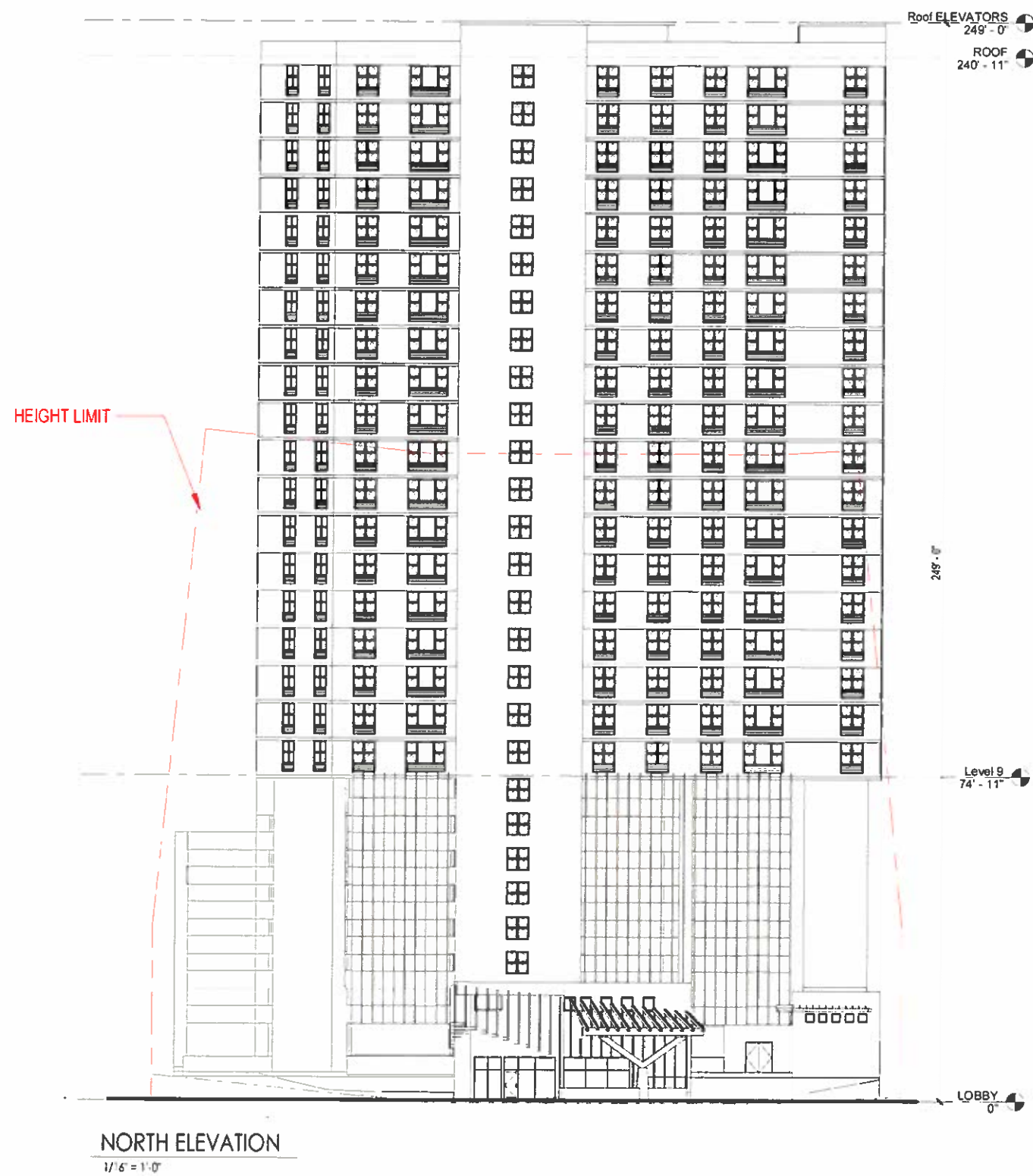
2965 ALA NAPUAA PLACE, HONOLULU, HAWAII 96818

08/02/22 A8



FORM





KAHOAPILI AFFORDABLE DEVELOPMENT

EXTERIOR ELEVATIONS

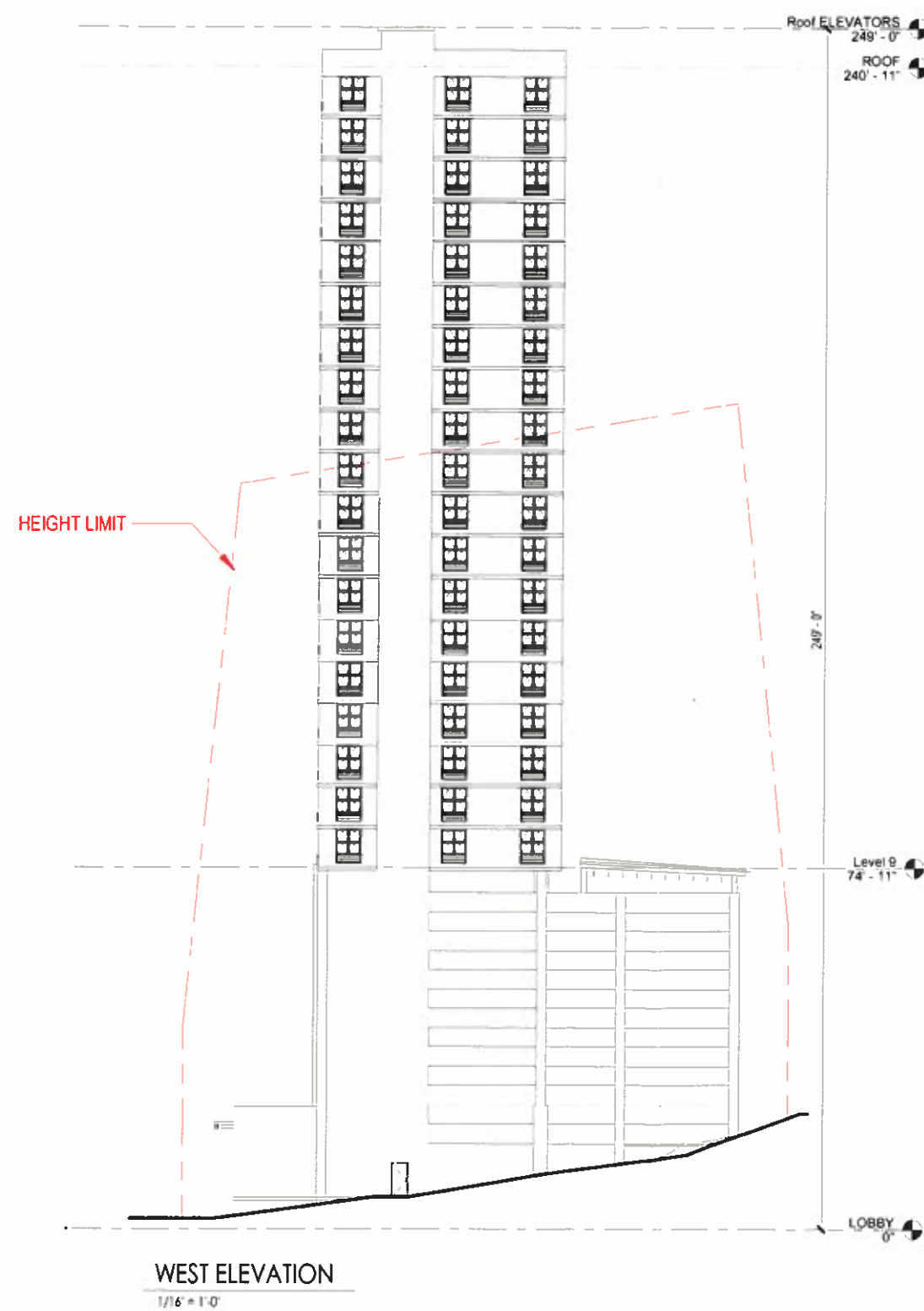
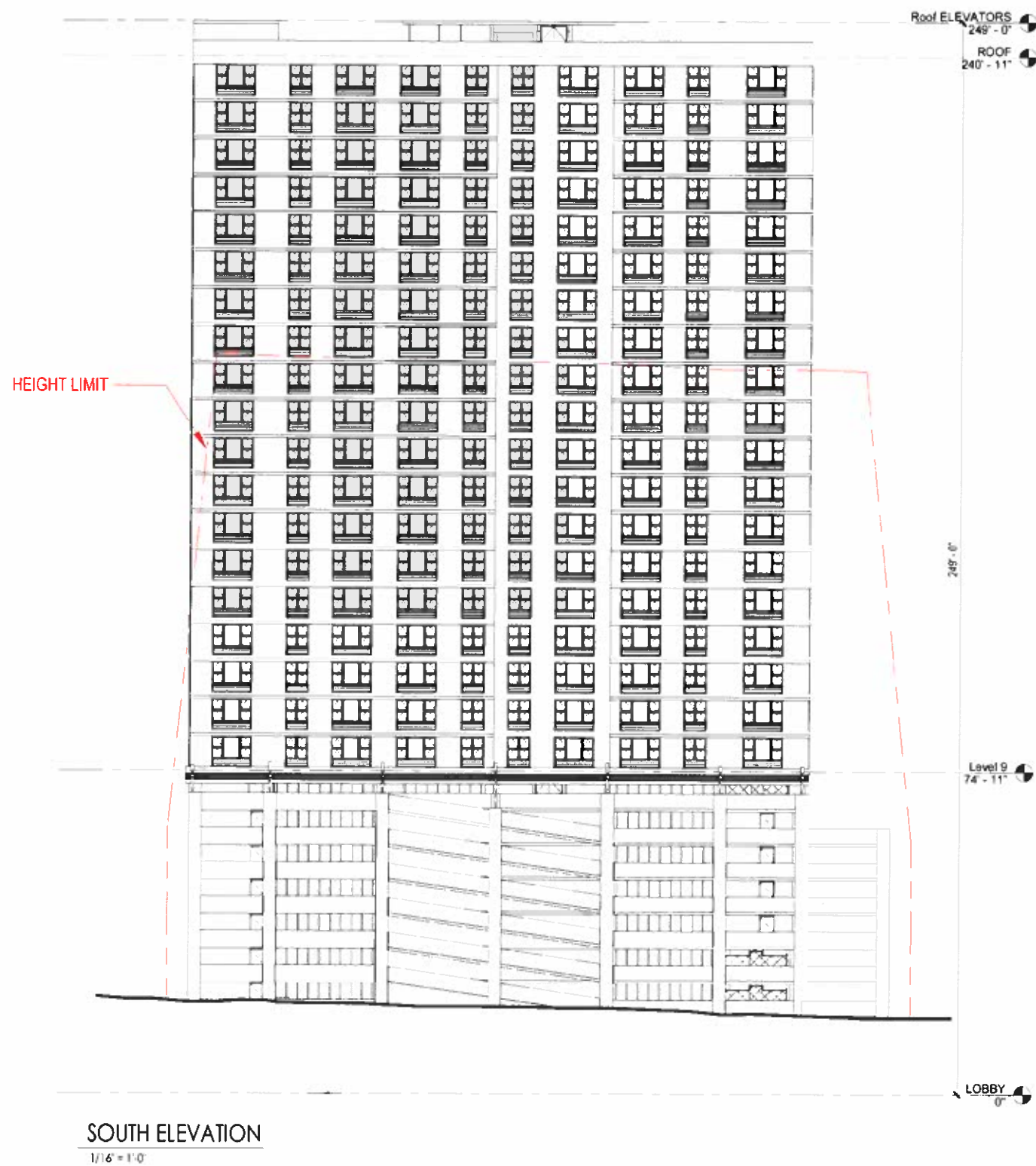
2965 ALA NAPUAA PLACE, HONOLULU, HAWAII 96818

08/02/22 A9



FORM





KAHOAPI LI AFFORDABLE DEVELOPMENT

EXTERIOR ELEVATIONS

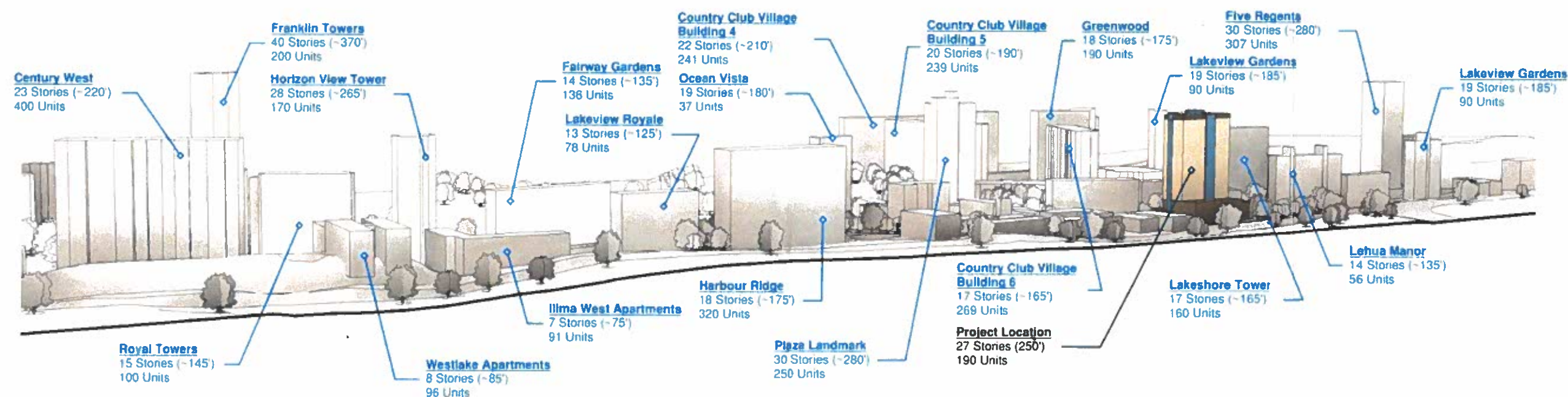
2965 ALA NAPUAA PLACE, HONOLULU, HAWAII 96818

08/02/22 A10



FORM





KAHOAPILI AFFORDABLE DEVELOPMENT

SURROUNDING BUILDING STUDY

PROPERTY LINE
(PROPERTY AREA
21,461 SF)

1
21'-8"
2
25'-0"
3
86'-10"
15'-8"
4
24'-6"
5

2965 Ala Napuaa Pl

LOADING

46

PROPOSED
BUILDING AREA
(14,195 SF)

Salt Lake Boulevard

BUILDING AREA - SEC. 21-3.80-1 (TABLE 21-3.3)

| | |
|--------------------------------|--------------|
| PROPERTY AREA: | 21,461 SQ FT |
| MAX BUILDING AREA: | 40% |
| ALLOWABLE BUILDING AREA: | 8,584 SQ FT |
| PROPOSED BUILDING AREA: | 14,195 SQ FT |
| PROPOSED BUILDING AREA: | 66% |

10'-0" SETBACK

10' EASEMENT

KAHOAPILI AFFORDABLE DEVELOPMENT

BUILDING AREA



FORM PARTIALS



2965 ALA NAPUAA PLACE, HONOLULU, HAWAII 96818

08/02/22 A12

PROJECT MANUAL

(Draft Outline 12/21/22)

Kahoapili

2965 Ala Napuaa Place
Honolulu, Hawaii 96818
TMK: (1) 1-1-061:003

Date: 12/21/22

Salt Lake Housing, LP
900 Fort Street Mall, Suite 1140
Honolulu, HI 96813

Architect
RMA Architects Inc.
1150 South King Street, 8th Floor
Honolulu, Hawaii 96814

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SECTION 008000 SUPPLEMENTARY CONDITIONS

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| | |
|----------------|-----------------------|
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|----------------|-----------------------|

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| SECTION 055020 | METAL FABRICATIONS – ALUMINUM |
| SECTION 055110 | METAL STAIRS |
| SECTION 055210 | PIPE AND TUBE RAILINGS |

DIVISION 06 – WOOD AND PLASTICS

| | |
|----------------|-----------------------------|
| SECTION 060573 | WOOD TREATMENT |
| SECTION 061000 | ROUGH CARPENTRY |
| SECTION 062023 | FINISH CARPENTRY |
| SECTION 064116 | ARCHITECTURAL CABINETS |
| SECTION 066410 | SIMULATED STONE COUNTERTOPS |

DIVISION 07 – THERMAL AND MOISTURE PROTECTION

| | | |
|---------|--------|--|
| SECTION | 071716 | WATERPROOFING |
| SECTION | 071800 | TRAFFIC COATINGS |
| SECTION | 072100 | BUILDING INSULATION |
| SECTION | 072419 | DRAINABLE EXTERIOR INSULATION AND FINISH SYSTEM (EIFS) |
| SECTION | 072500 | WEATHER BARRIERS |
| SECTION | 072600 | UNDERSLAB VAPOR BARRIER |
| SECTION | 074110 | STANDING SEAM METAL ROOF PANELS |
| SECTION | 075423 | THERMOPLASTIC POLYOLEFIN (TPO) ROOFING |
| SECTION | 076200 | SHEET METAL FLASHING AND TRIM |
| SECTION | 078413 | FIRESTOPPING |
| SECTION | 079200 | JOINT SEALERS |
| SECTION | 079500 | EXPANSION CONTROL |

DIVISION 08 – DOORS AND WINDOWS

| | | |
|---------|--------|-------------------------------|
| SECTION | 081113 | HOLLOW METAL DOORS AND FRAMES |
| SECTION | 081416 | FLUSH WOOD DOORS |
| SECTION | 083113 | ACCESS DOORS |
| SECTION | 083310 | OVERHEAD COILING DOORS |
| SECTION | 084413 | GLAZED ALUMINUM SYSTEMS |
| SECTION | 087100 | FINISH HARDWARE |
| SECTION | 088000 | EXTERIOR GLASS AND GLAZING |
| SECTION | 088300 | MIRRORS |
| SECTION | 089000 | LOUVERS AND VENTS |

DIVISION 09 – FINISHES

| | | |
|---------|--------|--|
| SECTION | 092200 | METAL SUPPORT ASSEMBLIES |
| SECTION | 092900 | GYPSUM BOARD |
| SECTION | 093013 | CERAMIC TILING |
| SECTION | 095123 | ACOUSTICAL CEILING TILE |
| SECTION | 095400 | DIRECT-APPLIED EXTERIOR FINISH SYSTEM (DEFS) |
| SECTION | 096500 | RESILIENT FLOORING BASE AND ACCESSORIES |
| SECTION | 096516 | RESILIENT SHEET FLOORING |
| SECTION | 096813 | CARPETING |
| SECTION | 099123 | PAINTS & COATINGS |

DIVISION 10 – SPECIALTIES

| | | |
|---------|--------|--------------------------------------|
| SECTION | 101400 | SIGNAGE |
| SECTION | 102800 | TOILET, BATH AND LAUNDRY ACCESSORIES |
| SECTION | 105200 | FIRE-PROTECTION SPECIALTIES |
| SECTION | 105500 | POSTAL SPECIALTIES |
| SECTION | 105782 | CLOSET DOORS |
| SECTION | 107300 | ALUMINUM TRELLIS AND CANOPY |

DIVISION 11 – EQUIPMENT

| | | |
|---------|--------|---------------------------|
| SECTION | 111200 | PARKING CONTROL EQUIPMENT |
|---------|--------|---------------------------|

SECTION 112400 WINDOW CLEANING EQUIPMENT
SECTION 113100 RESIDENTIAL APPLIANCES
SECTION 118226 WASTE COMPACTORS

DIVISION 14 – CONVEYING SYSTEMS

SECTION 142400 TRACTION ELEVATORS
SECTION 149182 TRASH CHUTES

DIVISION 22 – PLUMBING (NOT INCLUDED IN OUTLINE SPEC)

SECTION 224100 PLUMBING

DIVISION 23 – HEATING VENTILATION AND AIR CONDITIONING (NOT INCLUDED IN OUTLINE SPEC)

SECTION 210000 FIRE PROTECTION SYSTEM
SECTION 210548 VIBRATION ISOLATION
SECTION 238000 AIR CONDITIONING AND VENTILATION

DIVISION 26 – ELECTRICAL (NOT INCLUDED IN OUTLINE SPEC)

SECTION 262000 ELECTRICAL WORK
SECTION 263215 ENGINE GENERATOR

DIVISION 270000 – TELECOMMUNICATIONS (NOT INCLUDED IN OUTLINE SPEC)

SECTION 270528 PATHWAYS FOR COMMUNICATIONS SYSTEMS

DIVISION 280000 – ELECTRONIC SAFETY AND SECURITY (NOT INCLUDED IN OUTLINE SPEC)

SECTION 281300 ACCESS CONTROLS
SECTION 283111 DIGITAL, ADDRESSABLE FIRE-ALARM SYSTEM

DIVISION 31 – EARTHWORK (NOT INCLUDED IN OUTLINE SPEC)

SECTION 313116 TERMITE CONTROL
SECTION 316316 AUGER-PLACED PILES
SECTION 316329 DRILLED PIERS

DIVISION 32 – EXTERIOR IMPROVEMENTS (NOT INCLUDED IN OUTLINE SPEC)

SECTION 323113 CHAIN LINK FENCES AND GATES
SECTION 328400 PLANTING IRRIGATION
SECTION 329300 PLANTS

END OF SECTION

SECTION 033000 – CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.1 SUMMARY:

- A. Section Includes:
 - 1. Concrete formwork.
 - 2. Cast-in-place concrete for foundations, building frame members, elevated concrete slabs, shearwalls, etc.
 - 3. Concrete reinforcement.
 - 4. Joint devices associated with concrete work.
 - 5. Concrete curing.
- B. Related Sections:
 - 1. EARTHWORK Section.
 - 2. SECTION 03 35 00 - CONCRETE FLOOR FINISHES.
 - 3. SECTION 03 38 00 - POST-TENSIONED STRUCTURAL CONCRETE.

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 033500 – CONCRETE FINISHING

PART 1 - GENERAL

1.1 SUMMARY

- A. Finishes for cast-in-place concrete work
- B. Related sections: Section 033000 Cast-in-Place Concrete, 0099123 Paints and Coatings

1.2 SYSTEM DESCRIPTION

- A. Pedestrian traffic areas shall be finished to meet ASTM C 1028, coefficient of friction of 0.60 minimum, when tested under wet and dry conditions.
- B. Vehicular traffic surfaces: Finished to provide proper traction for vehicles to prevent skidding, sliding in wet and partially ponded conditions.
- C. Exposed, above grade raw concrete surfaces shall be treated with clear silane penetrating water sealer.
- D. Horizontal slabs: Provide sealer-hardener for all interior slabs exposed to view.

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 033800 – POST-TENSIONED CONCRETE

PART 1 - GENERAL

1.1 SUMMARY:

- A. Section Includes:
 - 1. Cast-in-place post-tensioned concrete framing members and slabs.
 - 2. Sheathing-covered tensioning tendons for unbonded system.
- B. Related Sections:
 - 1. SECTION 03 30 00 - CAST-IN-PLACE CONCRETE: Concrete product, mix, and testing requirements.
 - 2. SECTION 03 30 00 - CAST-IN-PLACE CONCRETE: Concrete curing.
 - 3. SECTION 03 30 00 - CAST-IN-PLACE CONCRETE: Concrete repair.
 - 4. SECTION 03 30 00 - CAST-IN-PLACE CONCRETE: Concrete reinforcement.

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 042200 – CONCRETE UNIT MASONRY

PART 1 - GENERAL

1.1 SUMMARY:

- A. Section Includes:
 - 1. Concrete Block.
 - 2. Mortar and Grout.
 - 3. Reinforcement and Anchorage.
 - 4. Lintels.
 - 5. Accessories.
- B. Related Sections:
 - 1. SECTION 079000 - JOINT PROTECTION: Backing Rod and Sealant at Control and Expansion Joints.
 - 2. SECTION 033000 - CAST-IN-PLACE CONCRETE.

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 050900 – FASTENERS & ANCHORS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes metal fasteners and anchors
- B. Related sections: Sections 054000 Cold Formed Steel Framing, 061000 Rough Carpentry, 062000 Finish Carpentry

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 051200 – STRUCTURAL STEEL FRAMING

PART 1 - GENERAL

1.1 SUMMARY:

- A. Section Includes:
 - 1. Structural steel framing members, plates, and support members.
 - 2. Base plates.
 - 3. Grouting under base plates.
- B. Related Sections:
 - 1. SECTION 03 30 00 - CAST-IN-PLACE CONCRETE.

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 054000 - COLD-FORMED METAL FRAMING

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes the following:
 - 1. Exterior non-load-bearing wall framing
- B. Related Sections: 050900 Fasteners and Anchors, 0051200 Structural Steel Framing, 092900 Gypsum Board

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 055010 - METAL FABRICATIONS – STEEL

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes:
 - 1. Steel Ladders
 - 2. Steel Railings
 - 3. Metal Gratings
 - 4. Bicycle Racks
 - 5. Bollards
- B. Related sections:
 - 1. Section 033000 Cast-in-place Concrete
 - 2. Section 052100 Structural Steel Framing
 - 3. Section 055020 Metal Fabrications – Aluminum

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 055020 - METAL FABRICATIONS – ALUMINUM

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes custom and prefabricated aluminum fabrications.
- B. Related sections:
 - 1. Section 033000 Cast-in-place Concrete
 - 2. Section 052000 Structural Steel Framing
 - 3. Section 055010 Metal Fabrications – Steel

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 055100 - METAL STAIRS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Preassembled steel stairs with concrete-filled treads.
2. Industrial-type stairs with steel floor plate treads.
3. Steel tube railings attached to metal stairs.
4. Steel tube handrails attached to walls adjacent to metal stairs.

- B. See Section 055213 Pipe and Tube Railings for pipe and tube railings not attached to metal stairs or to walls adjacent to metal stairs.

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 055213 - PIPE AND TUBE RAILINGS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Steel pipe railings.
2. Aluminum tube railings.

B. Related Sections:

1. Section 055100 Metal Stairs

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 060573 – WOOD TREATMENT

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes preservative treatment for wood products.
- B. Related Sections:
 - 1. Section 06100 Rough Carpentry
 - 2. Section 062023 Finish Carpentry

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 061000 - ROUGH CARPENTRY

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes structural lumber, non-structural lumber, and construction panels.
- B. Related sections:
 - 1. Section 050900 Fasteners & Anchors
 - 2. Section 055010 Metal fabrications – Steel
 - 3. Section 060573 Wood Treatment.

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 062023 - FINISH CARPENTRY

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes non-structural interior opaque painted standing and running trim.
- B. Related sections:
 - 1. Section 050900 Fasteners & Anchors
 - 2. Section 055010 Metal fabrications – Steel
 - 3. Section 060573 Wood Treatment.

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 064113 – ARCHITECTURAL CABINETS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Plastic-laminate faced cabinets.
2. Wood furring, blocking, shims, and hanging strips for installing architectural wood cabinets unless concealed within other construction before cabinet installation.
3. Cabinet hardware.

B. Related sections:

1. Section 061000 Rough Carpentry
2. Section 06023 Finish Carpentry
3. Section 066410 Simulated Stone Countertops

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Solid-surface-material countertops and backsplashes.

B. Related Sections:

1. Section 062023 Finish Carpentry
2. Section 064113 Architectural Cabinets

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 071716 – WATERPROOFING

PART 1 - GENERAL

1.1 SUMMARY

- A. Provide a complete composite sheet membrane waterproofing system.
- B. Work includes all applicable sealants, waterstops and waterproofing flashings needed to ensure a complete waterproof system for buried concrete and masonry components at locations indicated.
- C. Related sections: 02300 Earthwork, 03300 Cast-in-Place Concrete, 04850 Stone Assemblies, 07280 Weatherbarrier, 09300 Mortarset Tile and Stone.

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 071800 – TRAFFIC COATINGS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes vehicular ***and pedestrian*** traffic coatings.
- B. Related Sections:
 - 1. Section 033000 Cast-in-Place Concrete

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Foam-plastic board insulation.
2. Glass-fiber blanket insulation.
3. Mineral-wool blanket insulation.
4. ***Fiberglass board insulation.***
5. Vapor retarders.

B. Related Sections:

1. Section 061000 Rough Carpentry
2. Section 054000 Cold-formed Metal Framing
3. Section 075423 Thermoplastic Polyolefin (TPO) Roofing

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 072419 – DRAINABLE EXTERIOR INSULATION AND FINISH SYSTEM (EIFS)

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes water-drainage exterior insulation and finish system (EIFS) applied over weather barrier over sheathing.
- B. Related Sections:
 - 1. Section 05400 Cold-formed Metal Framing
 - 2. Section 072500 Weather Barriers
 - 3. Section 092900 Gypsum Board

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 072750 – AIR & WEATHER BARRIERS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Fluid-applied water and air barriers.

B. Related Sections:

1. Section 061000 Rough Carpentry
2. Section 072100 Building Insulation
3. Section 081113 Hollow Metal Doors & Frames
4. Section 084113 Aluminum Framed Entrances & Storefronts.

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 072600 – UNDERSLAB VAPOR BARRIER

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes plastic water vapor retarders.
- B. Related Sections:
 - 1. Section 022362 Termite Control
 - 2. Section 03300 Cast-in-Place Concrete
 - 3. Section 06100 Rough Carpentry
 - 4. Section 07210 Building Insulation.

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 075423 - THERMOPLASTIC POLYOLEFIN (TPO) ROOFING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Fully-Adhered TPO membrane roofing system.

B. Related Sections:

1. Section 072100 Building Insulation
2. Section 076200 Sheet Metal Flashing and Trim

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 076200 – SHEET METAL FLASHING AND TRIM

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes flashing and sheet metal work, stainless steel flashing and sheet metal work.
- B. Related sections:
 - 1. Section 061000 Rough Carpentry
 - 2. Section 075423 TPO Roofing
 - 3. Section 079200 Joint Sealers

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 078413 – FIRESTOPPING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes elastomeric and mastic type firestopping, acoustical firestopping, and intumescent firestopping.
- B. Related sections:
 - 1. Section 054000 Cold Formed Steel Framing
 - 2. Section 092900 Gypsum Board

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 079200 - JOINT SEALERS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes Silicone, Urethane, Latex, and Acoustical joint sealants.
- B. Related Sections:
 - 1. Section 033000 Cast-in-Place Concrete
 - 2. Section 071000 Waterproofing
 - 3. Section 071800 Traffic Coatings
 - 4. Section 072500 Weatherbarriers
 - 5. Section 076200 Sheet Metal Flashing and Trim
 - 6. Section 084113 Aluminum-Framed Entrances and Storefronts
 - 7. Section 092900 Gypsum Board
 - 8. Section 099123 Paints and Coatings.

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 079500 - EXPANSION CONTROL

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Interior expansion control systems.
 - 2. Exterior wall expansion control systems.
- B. Related Sections:
 - 1. Section 075423 TPO Roofing
 - 2. Section 076200 Sheet Metal Flashing and Trim
 - 3. Section 079200 Joint Sealants

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION 079500

SECTION 081113 – HOLLOW METAL DOORS AND FRAMES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes steel doors and frames and acoustical assemblies.
- B. Related sections:
 - 1. Section 033000 Cast-in-Place Concrete
 - 2. Section 054000 Cold Formed Steel Framing
 - 3. Section 087100 Finish Hardware
 - 4. Section 088000 Glass.

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 081416 - FLUSH WOOD DOORS **(REVISED 6-4-15)**

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Solid-core doors and matching transoms with wood-veneer faces.

B. RELATED DOCUMENTS

1. Section 081113 Hollow Metal Doors and Frames.
2. Section 087100 Finish Hardware

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 083113 - ACCESS DOORS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes wall and ceiling access doors.
- B. Related sections:
 - 1. Section 033000 Cast-in-Place Concrete
 - 2. Section 061000 Rough Carpentry
 - 3. Section 092900 Gypsum Board
 - 4. Section 093000 Mortarset Tile and Stone.

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 083323 – OVERHEAD COILING DOORS

PART 1 - GENERAL

1.1 WORK SPECIFIED IN THIS SECTION:

- A. Furnish and install all manual and electric operated overhead rolling service doors, frames, guides, brackets, hoods, bottom bars, operating mechanisms, hardware, and all items and special features necessary to complete the work as shown in the Drawings and herein specified.
- B. Related Sections:
 - 1. Section 050900 Fasteners & Anchors
 - 2. Section 079200 Joint Sealants

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 08 4413 - GLAZED ALUMINUM SYSTEMS

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Coordinate the interface of the aluminum framing systems with other trades as necessary to provide for proper function of the combined exterior wall system components.
- B. The intent of these Specifications is to provide the Owner with a single source of responsibility for the provision and installation of
 - 1. Aluminum Window Wall
 - 2. Glazed Aluminum Systems
 - a. Operable ventilators within the Glazed Aluminum System
 - b. Glazed aluminum sliding glass doors within the Glazed Aluminum System
 - c. Louvers within the Glazed Aluminum System
 - 3. Exterior Glass and Glazing
 - 4. Exterior Façade Sealants

Therefore reference will be made in this and related Sections to "Exterior Wall Contractor", which will be the entity responsible for the Work as described above and herein.

- C. Related Work
 - 1. Section 01 4500 - Façade Testing and Quality Assurance
 - 2. Section 01 8316 - Exterior Cladding Design Criteria
 - 3. Section 07 2213 - Façade Insulation and Safing
 - 4. Section 07 9213 - Exterior Façade Sealants
 - 5. Section 08 8000 - Glass and Glazing
- D. Provide all labor, materials, and equipment necessary to provide complete glazed window system and all associated trim including, but not limited to, the following:
 - 1. Design and Engineering
 - a. All necessary and required design and engineering for the complete and total design of the glazed aluminum systems.
 - b. All engineering calculations and shop drawings of each system, including anchorages.
 - c. Submissions to the Building Authority and acquisition of permit for construction.
 - 2. Systems and Anchorages
 - a. All high performance glazed aluminum systems including exterior and interior aluminum trim and other external features.
 - b. All finished aluminum copings and internal flashing/second line of defense.
 - c. All anchorage including:
 - i) Pre-set inserts in concrete slab (layout included, installed by others).
 - ii) Anchorage between glazed aluminum system and other structural support systems.
 - 3. Inset Components
 - a. Glass and glazing.
 - b. Glazed aluminum operable windows.
 - c. Glazed aluminum sliding glass doors
 - d. Aluminum louvers
 - 4. Insulation
 - a. Insulation and vapor barrier system within all spandrel and non-vision areas of the systems.
 - 5. Seals and Sealing Components
 - a. All sealants, caulking, joint fillers and gaskets in conjunction with the glazed aluminum systems for weathertight performance.
 - b. All vents, weeps, weep tubes, bellows, baffles, closures, end dams, gutters and flashings as shown or as may be required in conjunction with the system or to join systems to adjacent construction.
 - 6. Testing
 - a. All materials and labor to erect and fully test the performance mock-up as shown in the architectural documents or described herein.
 - b. Field testing of installed work.

7. Miscellaneous and Components
 - a. All necessary steel or aluminum reinforcement members.
 - b. Kickers, reinforcing, etc. as required for a complete installation.
 - c. Patching of sprayed on fire proofing at kickers, anchor, or bracing attachments.
- 1.2 PLANS AND SPECIFICATIONS
- A. Architectural Drawings
 1. Architectural drawings are diagrammatic. The architectural details shown are intended as a guide for the aesthetic and interfacing requirements of the various components of the exterior wall to and with other work.
 2. The requirements shown by the details are intended to establish basic dimensions of the module and the sight lines, jointing and profiles of members.
 3. The Exterior Wall Contractor is responsible for the design, engineering, fabrication, installation and ultimate performance of the system within these aesthetic parameters.
 4. The Drawings are not to be construed as engineering design, or adequate to meet the engineering design requirements.
 - B. The exterior wall contract on this Project shall be performance based. The Contract Documents are intended to provide architectural design intent along with a performance type specification for the design, fabrication and installation of the glazed aluminum systems.
 - C. It is recognized that the architectural design details do not cover some conditions or modifications, which may be required. Conditions not detailed shall be developed through the Exterior Wall Contractor's shop drawings to the same level of aesthetics and in compliance with performance criteria as indicated for detailed areas and as stipulated in these specifications through the submittal and approval process.
- 1.3 QUALIFICATIONS
- A. Professional Engineer: A professional engineer lawfully eligible in the State of Hawaii to design the element or component and to seal the design in accordance with state law and having a minimum of ten (10) years' experience in providing engineering services of the kind required.
 1. Prepare or supervise the preparation of data for glazed aluminum systems including drawings and comprehensive engineering analysis showing compliance of the system with the specified requirements.
 2. Engineering services are defined as those performed for installations of glazed aluminum systems that are similar to those indicated in material, design and intent.
 - B. Fabricator: An exterior wall fabrication firm with not less than ten (10) years of successful experience in the fabrication of systems similar to those indicated in material, design and intent.
 1. Provide evidence of any past or pending legal action against the firm for a period of five (5) previous years.
 - C. Installer: An exterior wall installation firm with not less than five (5) years of successful experience in the installation of systems similar to those indicated in material, design and intent.
 1. Provide evidence of any past or pending legal action against the firm for a period of five (5) previous years.
- 1.4 QUALITY ASSURANCE
- A. Comply with the requirements of Section 01 4500.
 - B. Provide a written, project specific quality assurance program including but not limited to:
 1. Inspection and inventory of received materials
 2. Fabrication
 3. Assembly
 4. Packing
 5. Shipping
 6. Installation
 - C. A single firm shall assume undivided responsibility for the overall design, engineering, fabrication and installation and total coordination of all components of the aluminum wall work.
 1. The subcontracting of any work included hereunder is specifically prohibited, except for that which may be accepted by the Architect in writing 10 days prior to award of the contract.

- D. Coordinate compatibility and design integrity to secure a weathertight and watertight seal with all systems, adjacent surfaces and related materials.
 - E. The Owner and the Architect reserve the right to visit the fabricating and manufacturing facilities of the approved Exterior Wall Contractor, any approved sub-contractor or material supplier, and the accepted testing laboratory at any time while the work is in progress.
 - F. All shop and field materials as well as workmanship shall be subject to inspection by the Owner, Architect or their representatives at all times. Such inspections do not relieve the Exterior Wall Contractor from obligations to provide the glazed aluminum system conforming to all requirements of the Contract Documents.
- 1.5 REFERENCE STANDARDS
- A. The work of this Section shall comply with the latest edition of the standards cited in Section 01 4500, *Facade Testing and Quality Assurance* and Section 01 8316, *Exterior Cladding Design Criteria*. When conflicts arise between references, the more stringent shall apply.
- 1.6 SUBMITTALS
- A. Comply with the requirements of Section 01 3300, *Submittal Procedures* and 01 8316, *Exterior Cladding Design Criteria*.
- 1.7 DESIGN REQUIREMENTS
- A. Window and Wall Design Types
 - 1. Provide a standard or custom 2½" x 5½" window system incorporating a distinct internal line of defense and an internal gutter drained to the exterior to collect and remove infiltration and/or condensation.
 - B. System Design Restrictions
 - 1. The design intent for this wall system is for no portion of the wall to depend wholly on sealant for waterproofing. All mating and combination members must be primarily sealed with gaskets. No snap together, blind seal connections are acceptable on this project.
 - 2. Fasteners utilized within the system or to retain the system on the building structure cannot be subject to direct pull out loads. In all such instances, the system must be designed to allow extrusions to interlock to prevent pull out forces being exerted on the fasteners.
 - 3. PVC, vinyl and other plastics are not an allowable material for use in this wall system except for thermal isolation or improvement.
 - 4. The glazing design for this project must be in full conformance with
 - a. GANA guidelines as identified in the GANA Glazing Manual, latest edition.
 - b. Previously cited edge pressure requirements (by FGMA) of 4-10 pounds of pressure per inch acting on any lite of glass unless stipulated differently by the glass manufacturer (in writing).
 - 5. No exterior wet seals are acceptable on this system unless identified to and approved by the Architect and Consultant.
 - C. Miscellaneous and Components
 - 1. All necessary steel or aluminum reinforcement members.
 - 2. Patching of sprayed on fire proofing at kickers, anchor, or bracing attachments.
 - 3. Protection and cleaning.
- 1.8 PRIMARY STRUCTURAL CRITERIA
- A. Refer to Section 01 8316, *Exterior Cladding Design Criteria*
- 1.9 PERFORMANCE REQUIREMENTS
- A. Refer to Section 01 8316, *Exterior Cladding Design Criteria*
- 1.10 PERFORMANCE MOCK-UPS AND TESTING
- A. Conform to the requirements of Section 01 4500, *Facade Testing and Quality Assurance*.
 - B. The Exterior Wall Contractor shall be responsible for scheduling and coordination of mock-up at an independent testing facility. This work shall include the coordination of chamber availability, shipping schedules and mock-up construction schedules directly with the laboratory.

- C. The Exterior Wall Contractor shall furnish, build, and test mock-ups as described in Section 01 4500, 1.9.
 - D. Mock-up shall accurately represent job conditions including joints, sealants, glass, glazing, anchors, insulation and finishes per mock-up drawing. Mock-up must be supervised by and installed by same workman that will do actual job.
 - E. Prepare and submit complete mock-up drawings and structural calculations stamped by a structural engineer licensed in the State of Hawaii.
 - 1. Construct mock-ups in strict accordance with approved mock-up shop drawings.
 - 2. Any deviation from or additions to details shown on drawings are subject to approval from Architect prior to incorporation.
 - 3. Do not use excessive amounts of sealant, nor other special measures or techniques, which are not representative of those to be used on the building.
 - a. At any indication that such improper methods have been used in the mock up construction or testing, the Architect shall deem the test a failure and require the Contractor to rebuild the specimen and conduct the full testing regimen again.
 - b. If undocumented seals or other improper methods are found during the tear down of the specimen, the testing laboratory shall notify the Architect. At that time, the validity of the testing shall be judged and, at the sole discretion of the Architect, re-testing may be required.
 - F. Mock-ups are subject to observation by Owner, Architect and their representatives throughout their construction and testing.
 - G. Provide minimum three week notice before beginning construction of mock-up. Provide materials and personnel for prompt continuous construction of mock-ups. Delays in mock-up construction due to lack of materials or personnel could result in the Exterior Wall Contractor being charged for fees and travel expenses of observers.
 - H. In general, performance requirements specified for test mock-ups and samples also apply to the actual building, and vice versa.
 - 1. Variations in criteria over the surface of the building, such as wind pressure, are taken into account in testing of mock-ups and samples.
 - 2. Where certain performance is required for specific test conditions of mock-ups and samples, that same performance is also required of the actual building, for natural conditions equivalent to or less severe than the test conditions.
 - I. Laboratory test report must be accompanied by "as built" mock-up drawings showing any revisions or corrective measures taken during testing. Any modifications on mock-up must be done on job unless Architect specifically approves otherwise. Mock-up must be supervised by and installed by same workman that will do actual job.
 - J. Prior to mock-up installation or fabrication, provide to sealant manufacturer samples of all relevant substrates, including finished aluminum, coated glass, gaskets, backers and any othersubstrates that will require sealant contact.
 - 1. Samples shall be labeled and identified for this project.
 - 2. Sealant manufacturer shall perform tests to verify adhesion, staining and chemical compatibility.
 - 3. Use sealants and substrates only in combinations for which favorable adhesion and compatibility results have been obtained.
 - 4. Submit for record sealant manufacturer's written test reports, and recommendations regarding cleaning and priming required to obtain acceptable adhesion.
- 1.11 FIELD TESTING
- A. Shall conform to the requirements of Section 01 4500, Façade Testing and Quality Assurance.
- 1.12 WARRANTY/GUARANTEE
- A. The materials and workmanship involved in this application shall be guaranteed under a single document, jointly and severally, to the Owner, signed by the Contractor, the Exterior Wall Contractor and the Manufacturer agreeing to repair or replace defective materials and workmanship of the aluminum wall work and damaged adjacent work during the warranty period.

1. The Exterior Wall Contractor shall guarantee to the Owner that all work is in accordance with approved shop drawings and specifications, as amended by any changes thereto authorized by the Architect and that all work is free from defects in materials and workmanship and will remain weathertight for a period as stipulated herein from the date of Substantial Completion.
 2. Exterior Wall Contractor shall agree to repair or replace defective materials and workmanship to "like new condition," including such exploratory work, as necessary to determine the cause, during the guarantee period, at no additional cost to the Owner.
 3. The warranty, the enforcement or lack of enforcement thereof, shall not deprive the Owner of other actions, rights or remedies available to him.
 4. Repairs or replacements during the warranty period required by acts of God (which exceed performance requirements), alterations, abuse of the work, vandalism, failure of the supporting structure and other causes beyond the Exterior Wall Contractor's control will be completed by the Exterior Wall Contractor and paid for by the Owner at the prevailing rates.
- B. Warranty Periods:
- | | |
|--|--------------------------|
| 1. Workmanship on Glazed Aluminum Systems | Two (2) Years |
| 2. Watertightness of Glazed Aluminum Systems | Five (5) Years |
| 3. All materials, sealant and gaskets within the Glazed Aluminum Systems | Ten (10) Years |
| 4. Aluminum finishes | Ten (10) Years |
| 5. Weatherseal and structural sealants | refer to Section 07 9213 |
| 6. Glass and glazing gasket material | refer to Section 08 8000 |
- C. Warranty Submissions
1. Refer to Section 1.6, SUBMITTALS, herein.
 2. Guarantee shall be in form approved by the Owner.
 3. Exterior Wall Contractor shall include with bid proposed copy of proposed warranty.
 4. Before substantial completion, the Exterior Wall Contractor shall submit 2 copies of written warranty, signed by both the manufacturer and Exterior Wall Contractor.
- D. Defective materials and workmanship are hereby defined to include, but not be limited to, evidence of:
1. Penetration of water into the building.
 2. Air infiltration exceeding specified limits.
 3. Structural failure of components resulting from forces within specified limits.
 4. Delamination of laminated glass.
 5. Failure of insulated glass units by any of the following:
 - a. Primary or secondary seal failure.
 - b. Desiccant, dirt or debris within the unit.
 - c. Migration of aluminum spacer into or out of the unit.
 - d. Migration of primary seal into the unit.
 6. Cracking, crazing, flaking, of coatings or opacifiers on glass.
 7. Discoloration or fading, excessive non-uniformity, pitting, cracking, peeling, or crazing or corrosion of finish.
 8. Repeated glass breakage.
 9. Secondary glass damage and/or damage due to falling components.
 10. Adhesive or cohesive failure of sealant.
 11. Crazing on surface of non-structural sealant.
 12. Non-structural sealant hardening beyond Shore A Durometer 50 or softening below 20.
 13. Failure to fulfill other specified performance requirements.
 14. Failure of operating parts to function normally.
- E. The terms used in conjunction with Finish Guarantee are defined as follows:
1. "Discoloration or fading": means a change in appearance which is perceptible and objectionable as determined by the Architect when viewed visually in comparison with the original color range standards.
 2. "Excessive non-uniformity": means non-uniform fading during the period of the guarantee to the extent that adjacent parts have a color difference greater than the original acceptable color range.
 3. "Pitting, cracking, peeling, crazing or corrosion": means there shall be no pitting, surface cracks, blistering, bubbles, or non-uniform surface texture or other type of corrosion

discernible from a distance of ten (10) feet, resulting from the elements in the atmosphere at the project site.

1.13 DELIVERY, STORAGE AND HANDLING

- A. Comply with the requirements of Section 01600.
- B. Deliver, store and handle all wall system assemblies so as to prevent damages at all times, as per manufacturer's recommendations.
- C. All materials delivered to the site shall be stored in spaces provided on each floor of the building. These spaces shall be located where the stored materials will not be exposed to wetting or damage, and shall permit easy access to the handling of the materials. Materials shall be stored neatly, properly stacked, and protected.
- D. Deliver other materials, except bulk materials, to project site in manufacturer's unopened containers with name, brand, type, grade and color fully indicated thereon. Store bulk materials as required to avoid any deleterious effects of weather, soiling or contamination.

1.14 PROJECT CONDITIONS

- A. Coordinate as required, and be totally responsible for, the full and satisfactory compatibility and performance between all sealants used under this section and those sealants used by other trades that may be in direct contact with or adjacent to sealants in this work.
- B. Take all required steps and precautions to properly isolate and prevent any degree of incompatibility between said sealants, all in strict accordance with manufacturer's specifications, recommendations and instructions.
- C. Periodically test sealants in place for adhesion, using methods recommended by sealant manufacturer. Promptly replace any sealant that does not adhere or fails to cure.
- D. Prior to commencement of work, conduct a pre-installation meeting with the Architect and their consultants, General Contractor, and any other relative representatives to review the installation of the work, materials selection, joint tolerances, storage, weather conditions under which work can be installed, cleaning of gutters, protection of work, insulation installation and the sealant techniques required.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS - SYSTEM

- A. The following glazed aluminum system manufacturers listed are "acceptable" only if manufacturer can evidence product compliance with the requirements of Contract Documents:
 - 1. Innomet International Ltd.
 - 2. Custom made glazing systems may also be acceptable upon submission to and approval by the Architect.

2.2 ANCHORAGE

- A. Provide engineered cast in anchors and location plans to the General Contractor for placement in the floor slab.
- B. Basis of design is the hot rolled, toothed anchorage by Halfen USA. Similar anchors can be acceptable upon submission and approval.
- C. Cold formed anchors are not allowed.

2.3 ALUMINUM

- A. Provide aluminum shapes and thickness as shown and as required to fulfill performance requirements.
- B. Use suitable alloy for extruding with adequate structural characteristics, and suitable for finishing as specified.
- C. Comply with ASTM B221 for extrusions and ASTM B209 for sheet and plate.
- D. Aluminum extrusions for unitized or semi-unitized designs shall be manufactured to a minimum of one-half industry tolerances for bow, warp, twist or angularity.
- E. Any recycled aluminum used in the extrusion process must be from the same manufacturer and certified to be the exact alloy in every way to the alloy being extruded. Maximum amount of recycled aluminum in any billet from a source other than the manufacturer shall be 15%.
- F. Excessive die marks in finished materials are not acceptable.

2.4 FINISHES

- A. Establish and submit for approval a quality control program to assure compliance with the specified requirements.
 - 1. The program shall include documented procedures and processes.
 - 2. Exterior Wall Contractor shall maintain complete certified inspection, testing and process records of finishing procedures. These records shall be available to the Architect upon request.
 - 3. No finishing shall be performed prior to approval of this quality control program.
 - 4. Do not ship any material that has not been inspected, tested and marked in the prescribed manner, does not fall within the prescribed color range, or has been rejected by the Architect.
 - 5. Complete certified inspections records for quality control of finishes and finish process. Records shall be maintained and made available upon request.
- B. Materials
 - 1. Exterior High Performance Organic Finish: AA-C12C42R1x (Chemical Finish: cleaned with inhibited chemicals; Chemical Finish: acid-chromate-fluoride-phosphate conversion coating; Organic Coating: as specified below). Prepare, pretreat and apply coating to exposed metal surfaces to comply with coating and resin manufacturer's written instructions.
 - a. Fluoropolymer Two-Coat System: Manufacturer's standard two-coat, thermocured system consisting of specially formulated inhibitive primer and Fluoropolymer color coat with color coat containing not less than 70% polyvinylidene fluoride resin by weight and a dry film thickness of 1.2 mil in full compliance with AAMA 2605. Silver metallic colors must be a minimum dry film thickness of 3.0 mil.
 - b. Available Products:
 - i) Akzo Nobel Coatings: Trinar (70% Kynar 500 resin) Coatings; Akzo Nobel Coatings, Inc.
 - ii) Morton International; Fluoroceram, Ultramet (70% Kynar 500 resin) Coatings; Morton International, Industrial Coatings Division.
 - iii) PPG Industries, Inc.; Duranar, Duranar XL (70% Kynar 500 resin) Coatings; PPG High Performance Coatings.
 - iv) Valspar Corporation; Fluropon, Flurothane (70% Kynar 500 resin) Coatings; Valspar.
 - c. The coating system shall be spray applied under factory conditions to pretreated base metal in a two-coat, two-bake process in strict accordance with the coating system manufacturers recommendations, and to the minimum standards of AAMA 2605-98 "Voluntary Specification, Performance Requirements, and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels".
 - d. Color shall be subject to sample submission and approval.
- C. Preparation and Application
 - 1. Surface to be finished shall be free from mechanical imperfections such as scratches, scrapes and dents. Pretreatment of the aluminum surface shall be completed in accordance with the procedures recommended by the manufacturer. Finished surface and all coatings when cured shall be visibly free from imperfections such as spots, stains and streaks.
 - 2. Apply coatings uniformly to coating manufacturer's recommended thicknesses so that there are no streaks, runs, sags, absence of coating, blisters, "orange peel" or similar imperfections.
 - 3. Cover all finished surfaces with applied protective tape which will remain on until final cleaning. Protective tape for exterior members may be removed in preparation of setting the unitized panel.
 - 4. Concealed members may be mill finish, providing that the following criteria are met. Otherwise, a minimum Class 2 (215R1, 4 mils) anodic finish or alodine conversion coat is required.
 - a. they cannot be seen through the glass
 - b. they do not contact any structural silicone
 - c. they are not continually exposed to water immersion
 - d. they are not a part of a mating member or movement joint
 - e. they are not directly exposed to a salt water environment

D. Product Acceptance

1. It is the intention of the specification that the color variation between adjacent parts of the same finish be imperceptible to the naked eye under normal daylight conditions. To this end:
 - a. Submit range samples in accordance with Section 1.6 herein.
 - b. Pieces abutting or within 6" of each other in the construction shall not vary in color by more than one-half of the range so as the variation to be imperceptible to the naked eye under normal daylight conditions.
 - c. Parts shall be carefully inspected in the shop and graded for assembly compatibility and marked for installation location.
2. Repairs:
 - a. Repair or damage to finished surface by mechanical means (other than those specified) or by painting is strictly forbidden unless the procedure is submitted and approved by Architect (including a sample area repair).
 - b. Material may be finished more than once provided that all specified requirements are satisfied. If still not acceptable, it shall be rejected.
 - c. All field repairs must be conducted in full compliance with local EPA standards and other applicable Code.

2.5 OPERABLE VENTILATORS

- A. Provide zero sight-line, top hinged, project out (awning style) operable ventilators to be designed as an integral component of the Glazed Aluminum System.
- B. Framing and components of the vent sash shall be in conformance with the requirements of this section as well as all requirements of Section 01 8316.
- C. Except to the extent more stringent requirements are specified (including compliance with performance requirements specified herein), as a minimum, provide windows complying with requirements of ANSI/AAMA/NWDA 101 / I.S.2/NAFS-02 designation AP-AW65.
- D. Provide subframes with anchors for window units where shown, of profile and dimensions indicated but not less than 0.0625" thick extruded aluminum. Miter or cope corners and weld and dress smooth with concealed mechanical joint fasteners. Finish to match Glazed Aluminum System.
- E. Preglaze windows at the factory. Comply with requirements of ANSI/AAMA 309.9 and glazing requirements of Section 08 8000.
- F. Operating hardware:
 1. Provide hardware of sufficient strength to perform the function for which it is intended and complying with the requirements for specified window designation.
 2. Hinges: 4-bar stainless steel friction hinges with adjustable friction slide shoe (2 per vent) and adjustable limit device.
 3. Lock: Concealed multi-point locking apparatus such as Alu-slim by Ferco or approved equal.

2.6 ALUMINUM SLIDING GLASS DOORS

- A. Construction
 1. General
 - a. Provide sliding glass doors in strict compliance with state and local building codes and ordinances and conforming with applicable wind load factors relative to framing, glass and glazing as well as all requirements of Section 01 8316.
 - b. Except as otherwise indicated, requirements for sliding glass door terminology and standards of performance and fabrication workmanship are those specified and recommended in AAMA/WDMA/CSA 101 / I.S.2/A440 for workmanship and applicable general recommendations as published by AAMA and AA.
 2. Material
 - a. Aluminum extrusions: ASTM B221, 6063-T5 alloy and temper
 - b. Weatherstripping:
 - i) Compression Type: Provide compressible weather stripping designed for resilient sealing under bumper or wiper action and completely concealed when sliding glass door is closed.
 - a) Closed cell elastomeric, preformed gaskets complying with ASTM C509.
 - b) Dense elastomeric gaskets complying with ASTM C864.

- c) Manufacturer's standard system and materials complying with AAMA/WDMA/CSA 101/I.S.2/A440.
 - ii) Sliding Type: Provide woven pile weather stripping of wool, polypropylene or nylon pile and resin impregnated backing fabric complying with AAMA 701.
 - 3. Performance
 - a. Conform to the requirements of Section 01 8316.
 - 4. Hardware
 - a. Provide manufacturer's standard hardware, fabricated from stainless steel or approved metal compatible with aluminum complying with AAMA 907 and designed to smoothly operate, tightly close and securely lock sliding aluminum framed sliding glass doors. Do not use aluminum in frictional contact with other metals. Where exposed, provide per hardware schedule.
 - b. Provide movable panels with adjustable height roller assemblies complying with AAMA906 and consisting of self-lubricating, dual tandem stainless steel ball bearing rollers; two roller assemblies per panel.
 - c. Provide extruded aluminum threshold and track of thickness, dimensions and profile indicated; designed to comply with performance requirements indicated and drained to the exterior; with manufacturer's standard finish.
 - d. Provide manufacturer's standard extruded aluminum pull grips.
- 2.7 ALUMINUM SLAB EDGE COVER
- A. General
 - 1. Use suitable alloy with adequate structural characteristics, and suitable for finishing as specified. Comply with ASTM B221 for extrusions and ASTM B209 for sheet and plate.
 - 2. Continuously weld and grind smooth in returns and where backing flanges are required for sealant application.
 - 3. Formed sheet members shall be minimum .125" thickness. Extrusions shall be minimum 0.10". Composite panels may also be acceptable upon substitution request and approval.
 - B. Design:
 - 1. Slab edge covers shall become an integral part of the window wall system with physical attachment and seal to both window wall head and sill. Whenever possible, design cover with upstand leg on top to flash into the window wall sill.
 - 2. Slope the top of the slab edge cover per architectural direction.
 - 3. Joints in the slab edge cover shall be fully sealed and aesthetically spliced with matching metal splices when called for.
 - 4. Terminations of the slab edge cover shall be formed with welded, upstand end dams seamlessly tied to adjacent waterproofing system. At projecting balcony terminations, provide internal membrane flashing and external seal with the cavity between drained to the exterior.
 - C. Slab edge covers shall meet the following manufacturing criteria:
 - 1. Bow: 0.2% of width/length, 0.250" maximum.
 - 2. Width or length: + 0.032" to 48", + 0.064" to 144".
 - 3. Camber: 0.032" maximum.
- 2.8 GLASS AND GLAZING
- A. Shall be in conformance with Section 08 80 00, Exterior Glass and Glazing.
- 2.9 GASKETS/WEATHERSTRIPPING
- A. For gaskets associated with glazing, shall be in conformance with Section 08 8000, Exterior Glass and Glazing.
 - B. All gaskets, weatherstripping or spacers for system components and extrusions shall be extruded black neoprene or an approved grade of EPDM with a hardness of 40 +/-5 Durometer Shore A and conform to ASTM C509 and have a continuous mechanical engagement to framing members.
 - C. Dense gaskets and weatherstripping shall be extruded black neoprene or an approved grade of EPDM conforming to ASTM C-864 with a hardness of 75 +/- 5 Durometer Shore A for hollow profiles and 60 +/- 5 for solid profiles.

- D. Any gaskets or formed members that contact silicone seals or silicone secondary seals of insulating units shall be of compatible silicone composition.

2.10 FASTENERS

A. General

1. The work shall be designed to conceal all fasteners.
 - a. If exposed fasteners are necessitated, these may only be used if approved by the Architect in locations approved by the Architect. Finish exposed fasteners to match adjacent aluminum.
2. Any fasteners in wet areas of the wall shall be series 300, non-magnetic stainless steel. Wet areas include but are not limited to:
 - a. Locations with exposure to outside air.
 - b. Glazing pockets.
 - c. Internal cavities that act as gutters or that can contain water resulting from leakage or condensation.
3. Unexposed fasteners in dry areas shall be cadmium and colored chromate plated and shall meet Federal Specification QQ-P-416E, Type II, Class #1. (.0005 inches thick plating).
 - a. All non-stainless fasteners being used in a structural application must meet the minimum requirements of SAE J429 Grade 5.
 - b. Grade 8.0 or higher fasteners or high strength bolts that are zinc plated shall not be used.
4. Mill certificates and test reports for all structural grade bolts shall be submitted to the Architect for his approval prior to installation of those bolts on the job.
5. Self drilling fasteners shall be Dril-Flex as manufactured by Elco Industries, Inc. or Buildex. No substitutions accepted.
 - a. Self-drilling fasteners used in wet areas shall include Elco's Stal-Guard finish.
6. Nuts used at expansion or moving connections shall be designed to provide a positive means of preventing disengagement. Staking of bolts, use of lock washers, or threads being deformed is not acceptable.
7. Matched bolts, nuts, washers shall be used at all friction connections.
8. The use of pop rivets is specifically limited to the splicing or attachment of two pieces of light gauge metal. For the purpose of this specification, light gauge is defined as a thickness of 0.050" or less.

B. Design

1. Tension shall be taken as the sum of direct tension plus tension due to prying.
2. Penetrations of a shim stack with total thickness "t" by a fastener with nominal diameter "d" shall require reductions in allowable tension and shear forces. Minimum reduction shall be zero percent for t=d, varying linearly to 100 percent for t=2d. Such reduction shall be in addition to any other reductions which may be applicable. An acceptable alternative method is to assume that the shims provide no resistance to fastener bending, compute fastener bending stress with cross sectional properties based on root diameter, add bending stress to tension stress and evaluate tension/shear interaction.
3. Unless otherwise specified, combined tension and shear shall be evaluated according to an interaction formula in which each term equals the square of actual force divided by the square of allowable force. Sum of terms shall not exceed 1.0.

2.11 SEALANT MATERIALS

- A. Shall be in conformance with Section 07 9213, *Exterior Façade Sealants*.
- B. All perimeter and internal sealants and backers are to be defined on shop drawings and are subject to Architect's approval.
- C. All sealants must be tested for adhesion, compatibility and staining, with the written results submitted and approved, prior to their acceptance on this project.
- D. Sealant use shall be in agreement with submitted written sealant manufacturer recommendations.
- E. All exterior sealants shall be silicone and meet applicable Federal Specification. Provide colors as selected by the Architect from any of the manufacturer's standard or custom colors.
- F. All internal sealants that contact the perimeter sealants must be compatible with, and adhere to, the perimeter sealant. All internal sealants used to seal glass pockets, end dams and gutters shall be

silicone installed per manufacturers recommendation. Splice details shall be designed using silicone or a combination of silicone and a non-curing, non-hardening, non-skimming butyl. Splice joint to be designed to separate the different sealants. Splice details to be designed to accommodate the anticipated movement of the joint.

- G. Backer rod materials shall be closed cell non-gassing polyethylene foam such as "Cceva Rod" or skinned reticulated closed cell non-gassing extruded polyolefin foam rod such as "SOF-Rod" as recommended by the Sealant Manufacturer.

2.12 MISCELLANEOUS MATERIALS

- A. Provide aluminum and/or steel brackets, clips, shims and reinforcements as required.
- B. All end dams must be aluminum and have a minimum thickness of 0.125".
- C. Provide stainless steel sleeve spacers and/or suitable bearing pads, as required, to insure free movement between surfaces where expansion and deflection movements are intended. Provide "Eel Slip" or "Nylatron" washers or pads of sizes and thickness (minimum $\frac{1}{16}$ inch except $\frac{1}{8}$ inch for Eel Slip) recommended by the manufacturer to permanently prevent "freeze up" of joints. Provide high impact polystyrene shim pads for static shims.
- D. Flashing required within the system or between the system and adjacent construction shall be aluminum or stainless steel of acceptable design and color. In unexposed areas, formed and cured silicone sheet flashing may also be used.
- E. Provide PVC coated open cell reticulated urethane foam baffles at all weep holes or vent tubes. Size, length and porosity to meet water and air infiltration design requirements. All baffles shall be mechanically restrained and compressed 30% - 50% in their final position.

PART 3 - EXECUTION

3.1 GENERAL

- A. All parts of the wall shall be of the materials, design, sizes and thicknesses shown or called for on the drawings and/or specified herein. Methods of fabrication and assembly, however, unless otherwise specifically stated, shall be at the discretion of the manufacturer subject to acceptance by the Architect.
- B. Fabrication
 - 1. Fabricate components of the system at factory, ready for field installation.
 - 2. Make all cutouts for penetrations at the factory, whenever possible.
 - 3. Fabricate components and assemble units to comply with fire and/or performance requirements specified.
- C. Fit and Finish
 - 1. Changes of plane, parallel or transverse to longitudinal axis shall be accomplished as detailed on the drawings in the factory wherever practical and with a minimum of field fabrication.
 - 2. All fitting and assembly work shall be completed in the shop.
 - 3. Accurately fit and firmly secure all exposed metal joints with metal to metal hairline contact.
 - 4. Conceal all joint sealant except as noted in the Drawings.
 - 5. All gutter and head receptor end dams shall be designed to be fully concealed in the final construction.
 - 6. All miter and 90° joints are to be made in a factory environment.
 - 7. Jointing lines shall be as shown in the Drawings.
- D. Fastening:
 - 1. All fastenings into or through aluminum shall be 18-8, non-magnetic stainless steel and installed at approved spacings. Fasteners shall not penetrate gutters or drainage systems.
 - 2. All fastening jointing and splicing of members shall be concealed. Exposed fasteners can occur where expressly permitted by the Architect. Where exposed in finished surfaces, fastener heads shall be Phillips flathead countersunk type, finished to match adjacent surfaces.
- E. Welding
 - 1. All welding shall be in accord with pertinent recommendations of the American Welding Society and shall be done with electrodes and/or by methods recommended by the suppliers of the metals being welded. Type, size and spacings of welds shall be as shown on approved shop drawings and structural calculations.

2. Welds behind finished surfaces shall be completed as to minimize distortion and/or discoloration on the finished side. Weld splatter and welding oxides on finished surfaces shall be removed by descaling and/or grinding. Telegraphing of welds through a finished surface shall not be acceptable.
 3. Welds of gutters and end dams shall not constitute a water seal. All welds in areas intended to retain and channel water shall be completely sealed with approved sealants.
- F. Galvanic Action and Protection of Metals
1. Protection against galvanic action shall be provided wherever dissimilar metals are in contact, except in the case of aluminum in contact with galvanized steel, zinc or relatively small areas of stainless steel or nickel silver (white bronze). This protection shall be provided by painting the dissimilar metal surfaces with a heavy coat of zinc chromate primer or by application of an appropriate sealant or tape or other approved galvanic isolator.
 2. Aluminum that is to be in contact with cured concrete, mortar or plaster shall have the contact surfaces protected. This shall be accomplished by the use of a heavy coat of bituminous paint applied to the aluminum, or other permanent separator on concealed contact surfaces of the aluminum before assembly or installation.
 3. Items of carbon steel, unless galvanized or scheduled for other finish, shall be thoroughly cleaned of all loose scale, filings, dirt and other foreign matter and shall be painted with zinc chromate primer, complying with Specification FS TT-P-645 and SSPC- SP12.01. Surface preparation shall meet the minimum requirements of SSPC-SP6.
- 3.2 SHOP ASSEMBLY
- A. To the fullest extent practicable, fabrication and assembly shall be executed under factory conditions. Components or parts that are not required to be shop assembled shall be shop fitted and marked before disassembly to ensure proper assembly later at the building site.
 - B. Materials, components and systems incorporated in the work shall be in compliance with the standards and procedures of the appropriate manufacturers.
 - C. Reasonable timed visits shall be arranged by the Owner's and Architect's representatives.
 - D. Any site assemblies shall be approved by the Architect.
- 3.3 SHOP GLAZING
- A. Prior to glazing, it is recommended that all glass shall be placed onto a light box where coating and imperfections shall be reviewed. Any unacceptable glass, per the standards specified herein, shall not be installed in the frames but shall be destroyed and removed from the premises.
 - B. Square and retain all frames to receive glass until glazing is complete and silicone has snapped. Verify that perimeter clearances are sufficient to prevent "point loading" and that surfaces are clean, dry, and ready to receive glazing materials. Verify that frame corners are weather tight and that sills are drained to outdoors. Remove all protective coatings from framing surfaces.
 - C. Watertight and airtight installation of each piece of glass is required. Each installation must withstand failure of any kind including loss or breakage of glass, failure of sealants or gaskets to remain watertight and airtight, deterioration of glazing materials and other defects in the work.
 - D. Protect glass from edge damage at all times during handling, installation and operation of the building. Glass breakage during the guarantee period will be considered a form of faulty material or workmanship unless known to result from vandalism or other causes not related to materials and workmanship.
 - E. Where applicable, comply with GANA Glazing Manual Guidelines. Provide a minimum nominal glass bite of ½" (13mm). Where joint movement will result in variable glass bite, increase nominal bite as required and provide ¼" (6mm) minimum edge clearance, or greater clearance where lateral building movement is taken by the glazing seals
 - F. Thoroughly clean glazing pocket before setting glass. Solvents shall be compatible with finished aluminum, glass and glazing materials.
 - G. Place setting blocks at quarter points and side blocks, when required, in the upper half of each jamb or in a location approved by glass fabricator. Side blocks, setting blocks and chairs shall be positively retained in position.
 - H. Remove and replace stops and apply sealants as required for a complete glass installation. Details of installation shall permit replacement of glass after the construction period.

- I. Install wet seals, heel beads, toe beads, interior wet seals and structural silicone seals as required for the performance of the system.
- J. Remove and replace glass lites which are broken, chipped, stained or otherwise damaged including coating defects or which, in the opinion of the Architect, do not conform to the Specification requirements. Where directed, remove and replace lites which do not match adjoining work. Provide new matching lites, install as specified and seal joints to eliminate evidence of replacement.

3.4 STRUCTURAL SILICONE QUALITY CONTROL

- A. Comply with the requirements of Section 01 45 00, Façade Testing and Quality Assurance.
- B. Exterior Wall Contractor must submit all procedures for sealing, bonding and testing of the structural silicone to the Architect for review. All glass in the structural silicone curtain wall system shall be structurally bonded to metal framing with two component structural silicone. This operation must be performed in the off-site factory with rigidly supervised conditions and methods.
- C. All methods must be strictly in accordance with the sealant manufacturer's recommendations but not less than what is identified in Section 01 4500.
- D. Structural bond of silicone to glass and metal must be inspected on a 100% basis.
- E. Working stress of silicone and the silicone bond must be limited to 20psi.

3.5 EXAMINATION

- A. All work shall be performed by skilled workmen, especially trained and experienced in this type of work. If the Exterior Wall Contractor chooses to sub-contract the installation of work, the proposed sub-contractors qualifications shall be approved by the Architect and General Contractor.
- B. Bench marks for elevation and building line offset marks for alignment shall be established on each floor level by the General Contractor, who shall be responsible for their accuracy. Should any error be found in their location, the Exterior Wall Contractor shall so notify the General Contractor in writing, and installation work shall not proceed in the affected area until the errors have been corrected.
- C. After lines and grades have been established, and before beginning installation in any area, the Exterior Wall Contractor shall examine all parts of the structure on which the wall is to be placed in that area. Should any conditions be found which, in his opinion will prevent the proper execution of his work, he shall report such condition in writing to the Architect and the General Contractor. Installation work shall not proceed in that area until such conditions are corrected or adjusted to the satisfaction of the Architect and the Exterior Wall Contractor. Commencement of work shall constitute acceptance of surrounding conditions.

3.6 INSTALLATION/ERECTION

- A. Embeds shall be designed and furnished by the Exterior Wall Contractor for placement, in surrounding conditions per layout and placement drawings furnished by the Exterior Wall Contractor. Design to be based upon a concrete slab strength as specified in other sections.
- B. Install exterior wall components plumb, level, accurately aligned and accurately located in reference to column lines and floor levels. Adjust work to conform to the following tolerances (maximum variations).
 - 1. The wall system shall be designed to accommodate above tolerances. Provided irregularities do not exceed them, and clearances shown on approved shop drawings are maintained, all parts of the metal window wall, when completed, shall be within the following tolerances:
 - a. Maximum offset from true alignment between two identical members abutting ends to end in line: 1/32 inch.
 - b. Maximum variation from plane or location shown on approved shop drawings: 1/8 inch per 12 foot length or 1/2" in any total length.
- C. Anchorage of the wall to the structure shall be by approved methods in strict accordance with accepted shop and/or erection drawings. Supporting brackets shall be so designed as to provide three-dimensional adjustment and accurate location. Once wall is properly positioned, welding or other positive mechanical means shall rigidly fix all connections so designated on accepted shop drawings.
- D. Expansion anchorage shall be so designed to provide for thermal and building movements. Anchorage design shall provide for unrestricted movement. Molybdenum-disulfide filled nylon ("Nylatron") slip pads or washers shall be used at all thermal or dynamic anchors.

- E. All exposed work shall be carefully matched to produce continuity of line and design with all joints, unless otherwise shown or specified being accurately fitted and rigidly secured. Exposed edges shall be finished to match face of the work.
 - F. Sealing materials specified shall be used in strict accordance with the manufacturer's printed instructions, and shall be applied only by mechanics especially trained or experienced in their use. Before applying sealant, all mortar, dirt, dust, moisture and other foreign matter shall be completely removed from surfaces it will contact. Adjoining surfaces shall be masked when required to maintain a clean and neat appearance. Sealing compounds shall be tooled to fill the joint and provide a smooth finished surface.
- 3.7 POSTPONEMENT OF COMPLETE ENCLOSURE
- A. If so directed by the General Contractor, installation of the exterior wall shall be postponed in specific locations so as to facilitate moving material into and out of the building during construction.
- 3.8 PROTECTION AND CLEANING
- A. The Exterior Wall Contractor shall remove from the installed work all mastic smears or other unsightly marks caused by his workmen. The Exterior Wall Contractor shall advise the General Contractor of proper and adequate protection and cleaning procedures during remainder of construction period so that system will be without damage and deterioration at time of acceptance.
- 3.9 ACCEPTANCE
- A. Installed materials which are damaged, or which in the opinion of the Architect do not conform to the specification requirements, shall be removed and replaced with acceptable material at no additional cost to the Owner.
 - B. Demonstrate proper cleaning methods and materials to Owner's maintenance personnel.
 - C. Provide "As built" shop drawings and maintenance manuals per requirements of the project documents.

END OF SECTION 08 4413

SECTION 087100 - FINISH HARDWARE

PART 1 - GENERAL

1.01 SUMMARY

- A. Provide all finishing hardware required for all doors and cabinet work, complete as specified.
- B. It is the intent of this Specification to cover in general the class and character of all finish hardware required.
- C. This section has been made for the convenience of the Contractor and covers in general the necessary hardware for doors, etc., all doors shown on the Drawings and not covered by the general characterization shall be fitted with appropriate hardware of the same standards as the hardware described throughout these specifications. Contractor shall furnish hardware schedule as specified.
- D. Related Work Described Elsewhere:
 - 1. Door silencers are provided under Section 081113– HOLLOW-METAL DOORS AND FRAMES.
 - 2. Provide cylinders for doors provided under Section 084113 – ALUMINUM FRAMED ENTRANCES & STOREFRONTS
 - 3. Coordinate the work with other directly affected sections involving manufacturer or fabrication of internal reinforcement for door hardware.

PART 2 - PRODUCTS

2.01 SCHEDULED HARDWARE

PART 3 - EXECUTION

END OF SECTION

SECTION 08 8000 - EXTERIOR GLASS AND GLAZING

PART 1 - GENERAL

1.1 SUMMARY

- A. The Contractor shall provide all Glass indicated on drawings or specified herein, including all labor, materials, equipment, and services necessary to complete the Glass and glazing, including, but not limited to, the following:
 - 1. Glass and glazing for performance mock up.
 - 2. Glazing of the Aluminum Entrances and Storefronts.
 - 3. Glazing of the Window Wall.
 - 4. Glazing of the Operable Vent Windows.
- B. Related Work Specified Elsewhere
 - 1. Section 08 4413 - Glazed Aluminum Systems

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 088300 – MIRRORS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes the following types of silvered flat glass mirrors:
 - 1. Annealed monolithic glass mirrors.
 - 2. Film-backed Laminated glass mirrors qualifying as safety glazing.
- B. Related Sections:
 - 1. Section 079200 Joint Sealants

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 089000 – LOUVERS & VENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes aluminum wall louvers.
- B. Related sections:
 - 1. Section 033000 Cast-in-Place Concrete

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 092200 – METAL SUPPORT ASSEMBLIES

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes non-loadbearing steel framing (8 psf max. loading), suspended metal ceiling support systems.
- B. Related sections:
 - 1. Section 033000 Cast-in-Place Concrete
 - 2. Section 054000 Cold Formed Steel Framing
 - 3. Section 092900 Gypsum Board

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 092900 - GYPSUM BOARD

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes gypsum board assemblies.
- B. Related sections:
 - 1. Section 033000 Cast-in-Place Concrete
 - 2. Section 054000 Cold Formed Steel Framing

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 093013 - CERAMIC TILING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Porcelain tile.
 - 2. Stone thresholds.
 - 3. Tile backing panels.
 - 4. Waterproof membranes.
- B. Related Sections:
 - 1. Section 033000 Cast-In-Place Concrete
 - 2. Section 092900 Gypsum Board

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 095123 - ACOUSTICAL TILE CEILINGS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Acoustical tiles for common area interior ceilings.
2. Fully concealed, direct-hung, suspension systems.

B. Related Sections:

1. Section 054000 Cold-Formed Metal Framing

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 095400 – DIRECT-APPLIED EXTERIOR FINISH SYSTEM (DEFS)

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Materials and installation of textured wall finish system for exterior concrete and concrete masonry unit wall surfaces.
- B. Related Sections:
 - 1. Section 03300 Cast-In-Place Concrete
 - 2. Section 042200 Concrete Unit Masonry
 - 3. Section 079200 Joint Sealants

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 096500 - RESILIENT FLOORING-BASE AND ACCESSORIES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Luxury vinyl tile Plank Flooring
 - 2. Sheet vinyl Flooring
 - 3. Resilient base and accessory trim
- B. Related Sections:
 - 1. Section 033000 Cast-in-Place Concrete
 - 2. Section 096813 Tile Carpeting

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 096516 - RESILIENT SHEET FLOORING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Rubber sheet flooring.

B. Related Sections:

1. Section 033000 Cast-In-Place Concrete
2. Section 096500 Resilient Flooring Base and Accessories

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 096813 - CARPETING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Modular carpet tile, adhesives, and accessories.
2. Broadloom Carpeting, pad, and accessories.

B. Related Sections:

1. Section 033000 Cast-In-Place Concrete
2. Section 096500 Resilient Flooring Base and Accessories

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 099123 – PAINTS & COATINGS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes interior and exterior painting.
- B. Related sections: All sections with substrates requiring painting per painting schedule.

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 101400 – SIGNAGE

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes the following:
 - 1. Panel signs as required by code

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 102800 - TOILET, BATH, AND LAUNDRY ACCESSORIES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Public-use washroom accessories.
2. Under-lavatory guards.
3. Custodial accessories.

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 104400 - FIRE-PROTECTION SPECIALTIES

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes portable fire extinguishers and cabinets.
- B. Related sections:
 - 1. Section 054000 Cold Formed Steel Framing
 - 2. Section 092900 Gypsum Board

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 105500 - POSTAL SPECIALTIES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. USPS-approved horizontal mail receptacles.
2. Vertical mail receptacles.
3. USPS-approved cluster box units (CBUs).
4. USPS-approved parcel lockers.
5. USPS-approved collection boxes.
6. Accessories:
 - a. Directory for mail receptacles.
 - b. Key keeper.
 - c. Key cabinet.
 - d. Mail-sorting collection unit.
 - e. Letter drops.

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 105782 – CLOSET DOORS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes sliding mirrored doors and bi-fold doors for living unit closets.
- B. RELATED WORK
 - 1. Section 060573 Rough Carpentry
 - 2. Section 099123 Paints & Coatings

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 107300 – ALUMINUM TRELLIS AND CANOPY

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Pre-engineered, pre-finished aluminum trellis and canopy.

B. Related Sections:

1. Section 055023 "Metal Fabrications – Aluminum".
2. Section 033000 Cast-in-place Concrete

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 111200 – PARKING CONTROL EQUIPMENT

PART 1 - GENERAL

1.1 SUMMARY

A. General:

1. Furnish and install the Parking Access and Revenue Control System (PARCS) equipment as specified herein and noted on the architectural drawings.

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 112400 – WINDOW CLEANING EQUIPMENT

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: This Section specifies design, supply and installation of window cleaning systems and suspended maintenance equipment.
- B. Related Sections include the following:
 - 1. Section 033000 Cast-in-place Concrete
 - 2. Section 051200 Structural Steel Framing
 - 3. Section 076200 Metal Flashing & Trim
 - 4. Section 075423 Thermoplastic Polyolefin Roofing
 - 5. Section 084113 Aluminum-framed Entrances & Storefront

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 113100 - RESIDENTIAL APPLIANCES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Cooking appliances.
2. Kitchen exhaust ventilation.
3. Refrigeration appliances.
4. Cleaning appliances.

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 118226 - WASTE COMPACTORS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes building trash compactors and waste containers.
- B. Related Sections:
 - 1. Section 149182 Trash Chutes

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 142000 TRACTION ELEVATORS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes: Machine room electric traction passenger elevators as shown and specified. Elevator work includes:
 - 1. Geared/gearless electric traction passenger elevators.
 - 2. Elevator car enclosures, hoistway entrances and signal equipment.
 - 3. Operation and control systems.
 - 4. Accessibility provisions for physically disabled persons.
 - 5. Equipment, machines, controls, systems and devices as required for safely operating the specified elevators at their rated speed and capacity.
 - 6. Materials and accessories as required to complete the elevator installation.
- B. Related Sections:
 - 1. Division 3 Concrete: Installing inserts, sleeves and anchors in concrete.
 - 2. Division 4 Masonry: Installing inserts, sleeves and anchors in masonry.
 - 3. Division 5 Metals:
 - a. Providing hoist beams, pit ladders, steel framing, auxiliary support steel and divider beams for supporting guide-rail brackets.
 - b. Providing steel angle sill supports and grouting hoistway entrance sills and frames.
 - 4. Division 9 Finishes: Providing elevator car finish flooring and field painting unfinished and shop primed ferrous materials.
 - 5. Division 22 Plumbing:
 - a. Sump pit
 - 6. Division 23 Heating, Ventilation and Air Conditioning:
 - a. Heating and ventilating hoistways and machine rooms.
 - 7. Division 26 Sections:
 - a. Providing electrical service to elevators, including fused disconnect switches.
 - b. Emergency power supply, transfer switch and auxiliary contacts.
 - c. Heat and smoke sensing devices.
 - d. Convenience outlets and illumination in machine room, hoistway and pit.

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

SECTION 149182 – TRASH CHUTES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes building waste chutes and access doors.
- B. Related Sections:
 - 1. Section 118226 Waste Compactors

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION

FOR ACTION

I. REQUEST

Authorize an Application for Exemptions from Statutes, Ordinances, and Rules Pursuant to Section 201H-38, Hawaii Revised Statutes and Approve: (1) the Certification of Salt Lake Housing, LP, or Other Successor Entity Approved by the Executive Director, as an Eligible Developer Pursuant to Section 15-307-24, Hawaii Administrative Rules; (2) The Project Proposal; and (3) Execution of Development Documents for Approved Exemptions for the Kahoapili Rental or For-Sale Project Located in Honolulu, Oahu, TMK No.: (1) 1-1-061: 003

II. FACTS

| | |
|--|--|
| Project Name: | Kahoapili |
| Applicant Name: | Salt Lake Housing, LP |
| TMK and Location: | (1) 1-1-061: 003 2965 Ala Napuaa Place, Honolulu, HI 96818 |
| HHFDC Involvement: | 201H Exemptions |
| Landownership: | Salt Lake Housing, LP |
| Type: | New construction; affordable rental or affordable and market for-sale |
| Target Population: | Family |
| Length of Affordability: | If rental: 61 years If for-sale: 10 years |
| No. of Units: | 190 |
| Unit Type Mix: | 19 Studios 310 GSF 152 1-Bed/1-Bath 443-585 GSF <u>19</u> 2-Bed/1-Bath 758 GSF 190 Total units |
| Affordability Mix: If Rental: | 20 30% AMI and below 20 50% AMI and below 148 60% AMI and below <u>2</u> Manager's units 190 Total units |
| Affordability Mix: If For-Sale: | 14 95% AMI and below 94 125% AMI and below <u>6</u> 140% AMI and below 114 Subtotal affordable units <u>76</u> Market units 190 Total units |
| Development Concept: | Affordable rental or affordable and market for-sale residential development in one 27-story tower. |
| Parking: | 227 parking stalls |
| Est. Completion: | Q3 2026 |

| | |
|--------------------------------|--|
| Amenities and Services: | Rooftop recreational deck with BBQs, outdoor furniture, shade structures, and restrooms. Central laundry facility if developed as a rental; washer and dryer in each unit if developed as for-sale. Photovoltaic system on the top level of the parking structure. |
| Developer: | Highridge Costa Development Company, LLC |
| Developer Contact: | Moe Mohanna 330 W. Victoria Street, Gardena, CA 90248 (424) 258-2906 |
| Application Preparer: | Tom Schnell PBR Hawaii & Associates, Inc. 1001 Bishop Street, Suite 650, Honolulu, HI 96813 (808) 521-5631 |

- A. The Kahoapili project (Project) is a proposed affordable rental or affordable and market for-sale residential project to be constructed on a 0.49-acre site located on Ala Napuaa Place in Salt Lake, Oahu (**Exhibits A & B**). The proposed Project will consist of one 27-story building with 190 residential dwelling units and approximately 227 parking spaces (**Exhibit C & D**). The Project will contain a total of about 241,258 gross square feet (GSF) of floor area, including 121,809 GSF of residential space, 86,745 GSF of structured parking, and 32,704 GSF of common/circulation space.

III. DISCUSSION

- A. On August 8, 2022, Salt Lake Housing, LP (Applicant) submitted a request to Hawaii Housing Finance and Development Corporation (HHFDC) for approvals from certain exemptions from statutes, ordinances, and rules for the Project pursuant to Section 201H-38, HRS (Application).
- B. The Applicant is a single asset real estate holding company specifically established to develop, own, and operate the Project. The Applicant’s Managing General Partner is the Developer, its Administrative General Partner is Form Partners, LLC, and its Limited Partner and Tax Credit Investor is Victoria Capital, LLC. If the Project does not receive Low-Income Housing Tax Credits (LIHTC), then the Limited Partner may be changed or removed.
- C. Highridge Costa is focused on designing, developing, and financing low- to moderate-income apartments for families and seniors. The company was formed in 1994 and has been involved in the development of over 30,000 affordable housing units in some 300 communities throughout the U.S. and Puerto Rico. Each community was developed using LIHTC. The company has extensive experience not only with federal Section 42 LIHTC, but also tax-exempt mortgage-backed revenue bonds and various other state and local housing finance programs and grants supporting affordable housing. Its Hawaii projects include Hale Moena in Kapolei, Oahu, a mixed-use community comprising 297 residential units targeted toward families and seniors and 9,700 square feet of retail space.

Form Partners specializes in the development, investment, and operations of commercial real estate in Hawaii and is dedicated to delivering the highest level of excellence in all aspects of its business. Form Partners and its related entities have successfully developed over 400 resort, urban residential, and commercial condominiums in the state of Hawaii, with total development costs of more than \$200 million. Form Partners has also entitled property allowing for an additional

\$850 million of development costs in the State of Hawaii. A more detailed description of the Developer’s experience is attached as **Exhibit E**.

- D. The land for the Project is owned by the Applicant in fee simple.
- E. The Project is designed so that it may be developed either as:
 - 1. A 100% affordable rental apartment project, with all available rental units targeted at households earning no more than 60% of the Area Median Income (AMI) and two manager’s units; or
 - 2. An affordable for-sale condominium project with at least 114 units, or 60% of units, serving households earning up to 140% of the AMI, and the balance of the units sold at market prices.

The determination of whether the Project will be developed as rental apartment or for-sale will be made after the 201H resolution is adopted. Once the 201H resolution is adopted the Applicant will submit an application to HHFDC for LIHTC financing. If the Project does not receive a LIHTC award in the year submitted, then the Applicant may choose to either: (a) reapply to HHFDC for LIHTC financing the following calendar year; or (b) develop the Project as for-sale and apply for a portion of the project’s financing from the Dwelling Unit Revolving Fund (DURF). Approval of this For Action does not obligate HHFDC to provide any financing award.

- F. The proposed Budget (Use of Funds) for the Rental scenario is as follows:

| Budget Item | Amount | Per GSF | Per Unit | Total Cost % |
|---|----------------------|-----------------|------------------|---------------|
| Acquisition | \$ 3,850,000 | \$ 15.96 | \$ 20,263 | 4.2% |
| Construction – Sitework | 3,500,000 | 14.51 | 18,421 | 3.8% |
| Construction – Vertical | 58,271,399 | 241.53 | 306,692 | 63.5% |
| Construction – OH, P, & GR ¹ | 7,895,027 | 32.72 | 41,553 | 8.6% |
| Interim & Soft Costs | 11,253,444 | 46.64 | 59,229 | 12.3% |
| Financing & Syndication | 735,000 | 3.05 | 3,868 | 0.8% |
| Developer Fee & Overhead | 6,400,000 | 26.53 | 33,684 | 7.0% |
| Project Reserves | 643,832 | 2.67 | 3,389 | 0.7% |
| Contingency | 5,095,912 | 21.12 | 26,821 | 5.6% |
| Total Budget | \$ 97,644,614 | \$404.73 | \$513,919 | 100.0% |

Actual GSF = 241,258 including structured parking.

- G. The proposed Financing Structure (Source of Funds) for the Rental scenario is as follows:

| Source | Interim | Permanent |
|-------------------|----------------------|----------------------|
| Sponsor Equity | \$ - | \$ - |
| HMMF Bonds | 53,735,441 | 18,604,844 |
| Tax Credit Equity | 14,053,772 | 55,201,983 |
| RHRF Loan | 23,808,539 | 29,248 |
| Deferred Costs | 6,046,862 | 23,808,539 |
| Total | \$ 97,644,614 | \$ 97,644,614 |

¹ Contractor overhead, profit, & general requirements

H. The proposed Budget (Use of Funds) for the For-Sale scenario is as follows:

| Budget Item | Amount | Per GSF | Per Unit | Total Cost % |
|---|----------------------|-----------------|------------------|---------------|
| Acquisition | \$ 3,850,000 | \$ 15.96 | \$ 20,263 | 4.2% |
| Construction – Sitework | 3,500,000 | 14.51 | 18,421 | 3.8% |
| Construction – Vertical | 58,271,399 | 241.53 | 306,692 | 63.5% |
| Construction – OH, P, & GR ² | 7,895,027 | 32.72 | 41,553 | 8.6% |
| Interim & Soft Costs | 10,459,946 | 43.36 | 55,052 | 11.4% |
| Financing & Syndication | 365,000 | 1.51 | 1,921 | 0.4% |
| Developer Fee & Overhead | 2,378,750 | 9.86 | 12,520 | 2.6% |
| Project Reserves | - | - | - | 0.0% |
| Contingency | 5,095,912 | 21.12 | 26,821 | 5.6% |
| Total Budget | \$ 91,816,034 | \$380.57 | \$483,242 | 100.0% |

Actual GSF = 241,258 including structured parking.

I. The proposed Financing Structure (Source of Funds) for the For-Sale scenario is as follows:

| Source | Interim | Permanent |
|---------------------|----------------------|-----------------------|
| Sponsor Equity | \$ 12,073,892 | \$ 0 |
| DURF Loan | 15,675,336 | 0 |
| Buyer Deposits | 4,386,596 | 0 |
| Construction Loan | 59,680,210 | 0 |
| Gross Sales Revenue | - | 104,005,485 |
| Total | \$ 91,816,034 | \$ 104,005,485 |

If the Project is pursued as for-sale, the Applicant intends to apply for an interim DURF loan from HHFDC in approximately the amount indicated above. Approval of this For Action does not obligate HHFDC to make any such loan.

J. The estimated schedule for the Project is as follows:

| | |
|-----------------------------------|----------|
| Board Approval of 201H Exemptions | Dec 2022 |
| SHPD Approval | Jun 2023 |
| Building Permit | Jul 2024 |
| Construction Financing Closing | Sep 2024 |
| Occupancy Permit Date | Sep 2026 |
| Placed in Service Date | Sep 2026 |
| 100% Occupancy | Jun 2027 |
| 95% Stabilized Occupancy | Jun 2027 |

The primary contingencies to timely completion are entitlement and financing risk. Should the project fail to receive its 201H approval from Honolulu County Council before the 2023 HHFDC financing round, the Project may need to wait until the 2024 financing round to apply for an award of tax credits, Hula Mae Multi-Family (HMMF) bonds, and/or Rental Housing Revolving Fund (RHRF). While the development team believes the Project's joint application for financing to HHFDC will be competitive, there is a chance the Project does not receive a financing award in 2023. In the event the project is not awarded in 2023, the project may be delayed until the 2024 funding round. Due to the current interest rate environment, the Developer has placed considerable and reasonable cushion

² Contractor overhead, profit, & general requirements

in its underwriting to mitigate interest rate risk. Since proposed rents are substantially below market rents, the Developer considers market risk to be negligible.

K. Sustainability features include:

1. A photovoltaic solar system on the top level of the parking structure to reduce common area energy costs.
2. Energy Star certified appliances throughout the building.
3. Low-flow plumbing fixtures to conserve water.
4. Large operable windows to maximize natural daylight and lessen reliance on air conditioning. Operable windows and occupied spaces within the units will be designed per ASHRAE natural ventilation requirements to assure proper interior air flow and outside air dilution.

L. Proposed members of the Developer's team include:

1. Applicant – Salt Lake Housing, LP
2. Developer – Highridge Costa Development Company, LLC
3. Co-Developer – Form Partners, LLC
4. Consultant – PBR HAWAII & Associates, Inc.
5. Architect – RMA Architects Inc.
6. General Contractor – TBD
7. Property Manager – TBD

M. The Project site is currently vacant with no existing uses.

1. A Phase 1 Environmental Site Assessment dated July 6, 2022, did not find any Recognized Environmental Conditions and did not recommend any further investigation.

N. By letter dated August 1, 2022, the Developer's Consultant requested that HHFDC provide a determination that the Project is exempt from the preparation of an Environmental Assessment pursuant to Chapter 11-200.1, Hawaii Administrative Rules (HAR). An exemption noticed was published in the October 8, 2022 edition of The Environmental Notice.

O. By letter dated June 30, 2022, the City and County of Honolulu's (City's) Department of Planning and Permitting confirmed that the Application was ineligible for processing by the City.

P. By letter dated October 21, 2022, HHFDC accepted the Application for processing pursuant to Section 201H-38, Hawaii Revised Statutes (HRS), and requested that the Applicant forward its exemption request to the agencies listed on the attached **Exhibit F** for review and comment. On October 21, 2022, the Developer sent the Project materials to the review agencies which were given four weeks to provide comments.

Q. On June 9, 2022, the Developer presented the Project to the Aliamanu – Salt Lake – Foster Village – Airport Neighborhood Board No. 18.

R. This For Action seeks the HHFDC Board of Directors' approval of the exemptions from statutes, ordinances, and rules pursuant to Section 201H-38, HRS, for the Project. The exemptions requested are listed in **Exhibit G**. A summary of agency comments received is listed in **Exhibit H**. Some of the comments are discussed below:

1. The Hawaii Department of Transportation, Airports Division (HDOT-A) noted that the Project's location requires submission of Federal Aviation Administration (FAA) Form 7460-1 Notice of Proposed Construction or Alteration pursuant to the Code of Federal Regulations, Title 14, Part 77.9.
 2. The Hawaii Department of Education (DOE) noted that schools serving the project are expected to be operating below capacity except for Moanalua High School which is currently operating above capacity and will continue to operate over capacity during the next five years.
 3. The Honolulu Department of Planning and Permitting (DPP) commented that the applicant should explain, in detail, the need to an exemption from the storm drainage connection license fee. In response, the Applicant has deleted that request from their list of requested exemptions. DPP also provided multiple comments relating to traffic which are listed in Exhibit H and which the Applicant will comply with.
 4. The Honolulu Department of Facilities Management (DFM) identified a storm drain easement on the parcel near Salt Lake Boulevard and recommends at least five feet setback from it. The Applicant has acknowledged the setback, which has a diagonal orientation, and will provide a five foot setback to the east, but with the setback narrowing to the west.
 5. The Honolulu Board of Water Supply (BWS) commented that the water system is currently adequate, but that final decision of water availability will be made at the time of permit submission. New developments are required to implement water conservation measures, which the Applicant will do. Waiver of Water System Facilities Charges and new meter costs for affordable units may be limited to 500 units per year and will be evaluated when the building permit is submitted.
 6. The Honolulu Department of Parks and Recreation (DPR) submitted a comment letter which was received after the deadline. If the Project will be developed as 100% affordable rentals, DPR concurs with the Project's request for an exemption from the Park Dedication Ordinance requirements. If the Project is developed as a 60% affordable for-sale project, DPR believes the Developer should make an effort to expand the Project's recreational spaces beyond what is currently envisioned or commit to improving parks in the Project's vicinity. The Project's surrounding parks are heavily used and additional park space and amenities are warranted.
- S. If the Project is pursued as for-sale, the affordable units shall be subject to HHFDC's Shared Appreciation Equity Program and 10-year Buyback Restrictions. If the Project is pursued as Rental, affordable rental units shall be subject to HHFDC restrictions for affordability, including the requirement that such rental units shall remain affordable for at least 30 years from the certificate of occupancy of the final affordable rental unit in the Project. Land use restrictions as required by HHFDC shall be placed on the fee simple interest in the Project to ensure that the units remain affordable for the required affordability period (Restrictions). The Developer has indicated that they intend to submit for General Excise Tax (GET) exemption for the eligible portions of the Project. Should the Restrictions be prematurely terminated for any reason prior to the end of the affordability period and should HHFDC approve any GET exemptions for development of the Project, HHFDC reserves the right to recapture from the

Developer and/or the Project a prorated portion of any exemptions from GET approved by HHFDC for the development of the Project.

- T. The Developer has provided a letter from Aon Risk Management Services, Inc, of Hawaii dated September 22, 2022, stating that Liberty Mutual Insurance Company (Liberty Mutual) and Zurich American Insurance Company (Zurich American) will entertain issuing Performance and Labor and Material Payment Bonds in the amount of 100% of the contract sum. Issuance of said bonds will be subject to the sureties' usual underwriting criteria prior to construction.

Liberty Mutual and Zurich American maintain an excellent relationship with general contractor Hawaiian Dredging Construction Company, Inc. (Hawaiian Dredging) and have every confidence in Hawaiian Dredging's ability to successfully complete any project they elect to undertake. Further, Hawaiian Dredging currently enjoys a bonding program in excess of \$600 million for single projects and in excess of \$2 billion aggregate.

- U. A market overview assessment dated July 2022 (revised October 2022) was provided. The assessment did not estimate the absorption period but concluded that between 18,300 and 24,300 new residential units would be required in Honolulu by 2030 and that the Project would contribute towards alleviating this need and would contribute to the State's goal of developing 22,500 new affordable rental units by December 31, 2026, as expressed in Act 127, Session Laws of Hawaii 2016.

- V. Under Section 201H-38 HRS, Housing development: exemption from statutes, ordinances, charter provisions, and rules, HHFDC may develop on behalf of the State or with an eligible developer, or may assist under a government assistance program in the development of, housing projects that shall be exempt from all statutes, ordinances, charter provisions, and rules of any government agency relating to planning, zoning, construction standards for subdivisions, development and improvement of land, and the construction of dwelling units thereon; provided that:

1. The corporation finds the housing project is consistent with the purpose and intent of this chapter, and meets minimum requirements of health and safety;
2. The development of the proposed housing project does not contravene any safety standards, tariffs, or rates and fees approved by the public utilities commission for public utilities or of the various boards of water supply authorized under chapter 54;
3. The legislative body of the county in which the housing project is to be situated shall have approved the project with or without modifications:
 - a. The legislative body shall approve, approve with modification, or disapprove the project by resolution within forty-five days after the corporation has submitted the preliminary plans and specifications for the project to the legislative body. If on the forty-sixth day a project is not disapproved, it shall be deemed approved by the legislative body;
 - b. No action shall be prosecuted or maintained against any county, its officials, or employees on account of actions taken by them in reviewing, approving, modifying, or disapproving the plans and specifications; and

- c. The final plans and specifications for the project shall be deemed approved by the legislative body if the final plans and specifications do not substantially deviate from the preliminary plans and specifications. The final plans and specifications for the project shall constitute the zoning, building, construction, and subdivision standards for that project.
4. The land use commission shall approve, approve with modification, or disapprove a boundary change within forty-five days after the corporation has submitted a petition to the commission as provided in section 205-4, HRS. If, on the forty-sixth day, the petition is not disapproved, it shall be deemed approved by the commission.

For the purposes of this section, "government assistance program" means a housing program qualified by the corporation and administered or operated by the corporation or the United States or any of their political subdivisions, agencies, or instrumentalities, corporate or otherwise.

W. Section 15-307-24(b), HAR, provides that the HHFDC Board may certify that the applicant is an eligible developer for the purposes of development of housing projects approved by the corporation under Chapter 201H, HRS, if the Board finds that the applicant:

1. Has demonstrated compliance with all laws, ordinances, rules, and other governmental requirements that the applicant is required to meet;
2. Has the necessary experience;
3. Has adequate and sufficient financial resources and support and has secured or has demonstrated the ability to secure a performance or payment bond, or other surety to develop housing projects of the size and type which the applicant proposes to develop; and
4. Has met all other requirements that the corporation determines to be appropriate and reasonable.

X. HHFDC finds the following:

1. That the Project primarily includes housing units affordable to households with incomes at or below 140% of the area median family income;
2. That the Applicant, or other newly formed, sole purpose entity or affiliate of Applicant, is an Eligible Developer pursuant to Section 15-307-24, HAR; and
3. That the proposal and Application for exemptions from statutes, ordinances, and rules meets minimum proposal requirements pursuant to Section 15-307-26, HAR;
4. That the Project and proposed exemptions are consistent with the purpose and intent of Chapter 201H, HRS, and meets minimum requirements of health and safety; and
5. That the exemptions recommended for approval do not contravene any safety standards, tariffs, or rates and fees approved by the public utilities

commission for public utilities or the various boards of water supply authorized under Chapter 54, HRS.

IV. RECOMMENDATION

That the HHFDC Board of Directors approve the following:

- A. Applicant, or other successor entity approved by the Executive Director, as an Eligible Developer pursuant to Section 15-307-24, HAR;
- B. Development of the Project with the proposed exemptions from statutes, ordinances, and rules as recommended for approval herein, pursuant to Section 201H-38, HRS;
- C. Development of the Project either as rental or for-sale as described in this For Action;
- D. Execution of any Development Agreement and Restrictions for such exemptions as required by the Executive Director;
- E. Authorize the Executive Director to take all actions necessary to effectuate the purposes of this For Action;

Subject to the following:

- F. Approval with or without modification by the Honolulu City Council pursuant to Section 201H-38, HRS;
- G. Exemptions from BWS' Rules and Regulations are subject to the approval of BWS;
- H. Execution of a Development Agreement and Restrictions within six (6) months from the date of this approval, unless otherwise extended at the sole discretion of the Executive Director. The Development Agreement will include deadlines for commencement and completion of construction;
- I. Approval as to form of the applicable development documents and Restrictions by the Department of the Attorney General and execution by the Executive Director;
- J. The Project shall not be sold, transferred, or otherwise used to satisfy the reserved housing or affordable housing requirement for any other project at any other location;
- K. Compliance with all applicable laws, rules, regulations, and such other terms and conditions as may be required by the Executive Director.

Attachments: Exhibit A – Location Map
Exhibit B – TMK Map
Exhibit C – 3-D Renderings
Exhibit D – Selected Preliminary Drawings
Exhibit E – Developer’s Experience
Exhibit F – List of Review Agencies
Exhibit G – List of Requested Exemptions
Exhibit H – Summary of Agency Comments

Prepared by: Albert Palmer, Housing Development Specialist

Reviewed by: Randy Chu, Development Section Chief

Dean Minakami, Development Branch Chief

AP

RC

pr.

Approved by The Board of Directors at its meeting
on December 8, 2022

Development Branch

Please take necessary action.



EXECUTIVE DIRECTOR

LOCATION MAP

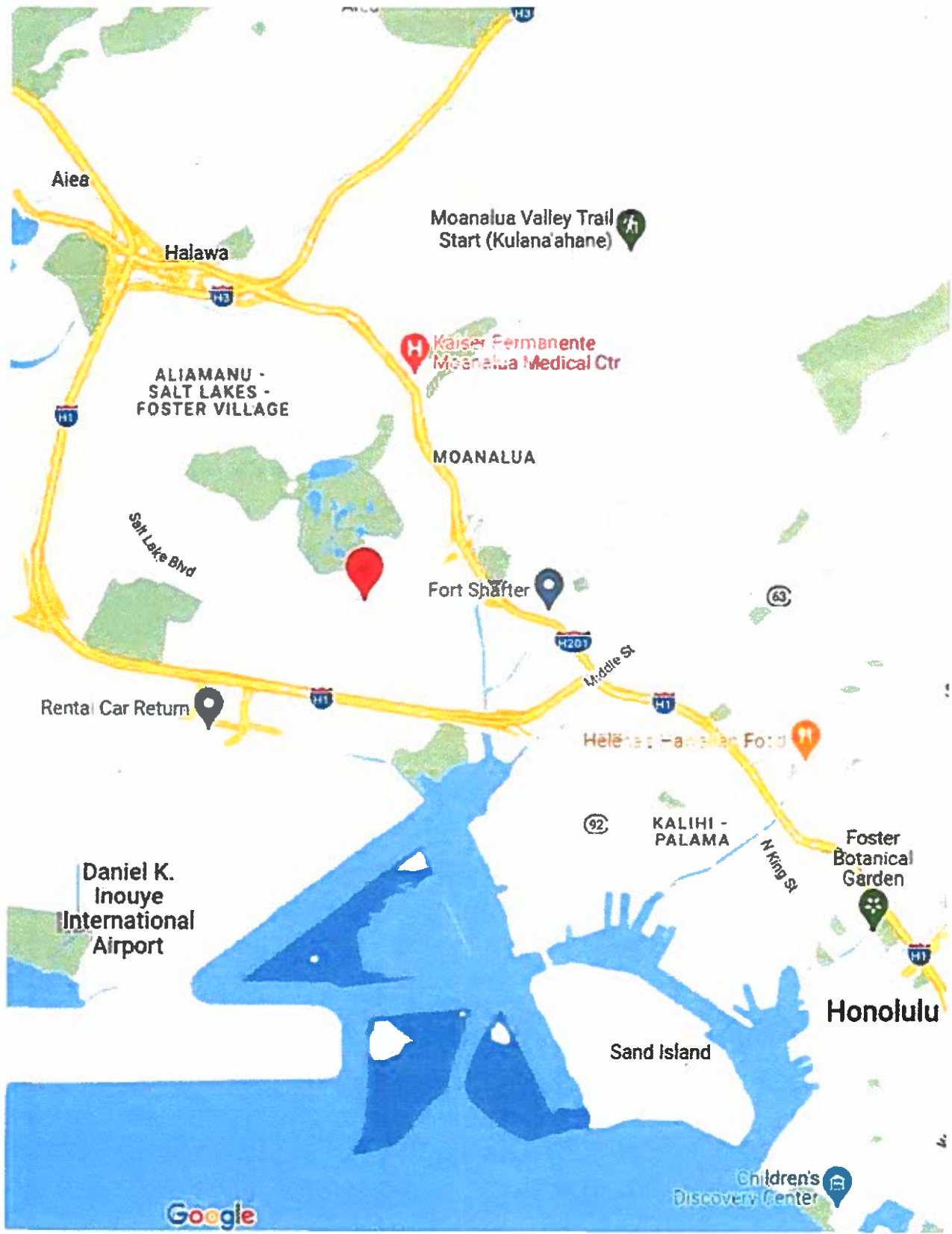
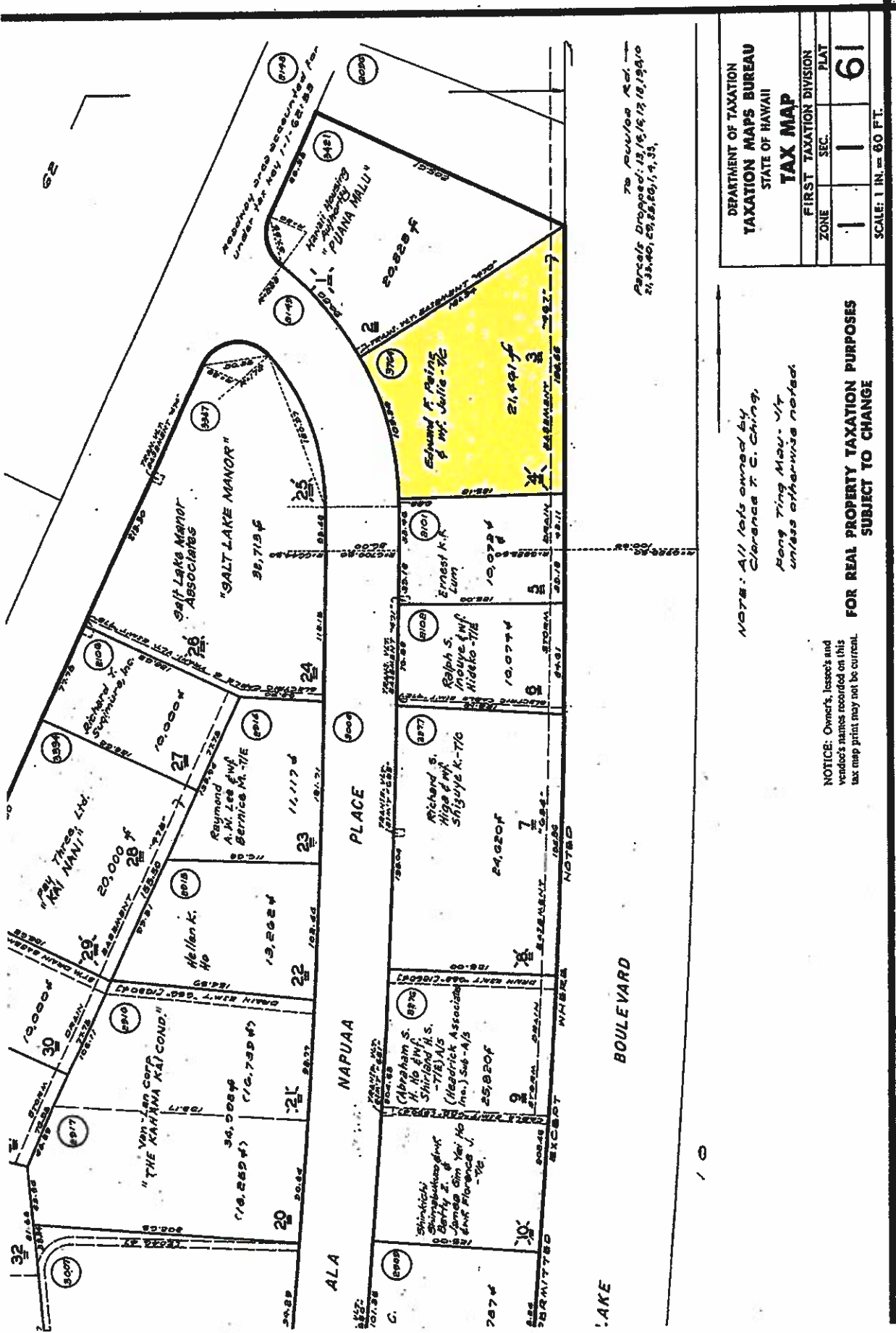


EXHIBIT A

TMK MAP



| | | | |
|-------------------------|------|------|--|
| DEPARTMENT OF TAXATION | | | |
| TAXATION MAPS BUREAU | | | |
| STATE OF HAWAII | | | |
| TAX MAP | | | |
| FIRST TAXATION DIVISION | | | |
| ZONE | SEC. | PLAT | |
| 1 | 1 | 61 | |
| SCALE: 1 IN. = 60 FT. | | | |

NOTE: All lots owned by
Clarence T. C. Chang,
Hong Ting Mau - 1/4
unless otherwise noted.

FOR REAL PROPERTY TAXATION PURPOSES
SUBJECT TO CHANGE

NOTICE: Owner's, lessee's and
vendor's names recorded on this
tax map print may not be current.

EXHIBIT B

3-D RENDERING



EXHIBIT C

SELECTED PRELIMINARY DRAWINGS
FIRST FLOOR PLAN

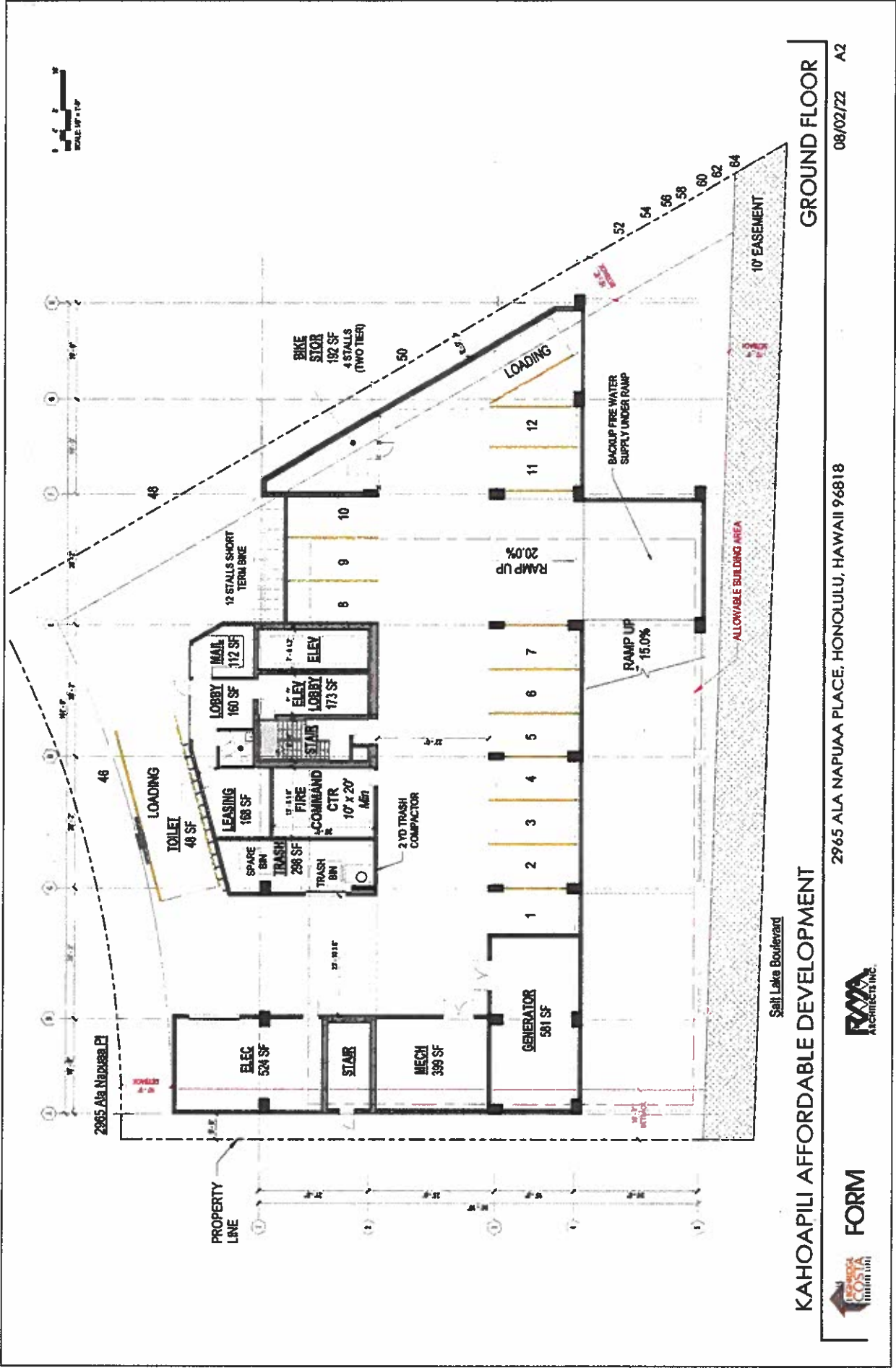


EXHIBIT D

SELECTED PRELIMINARY DRAWINGS
TYPICAL PARKING GARAGE FLOOR PLAN

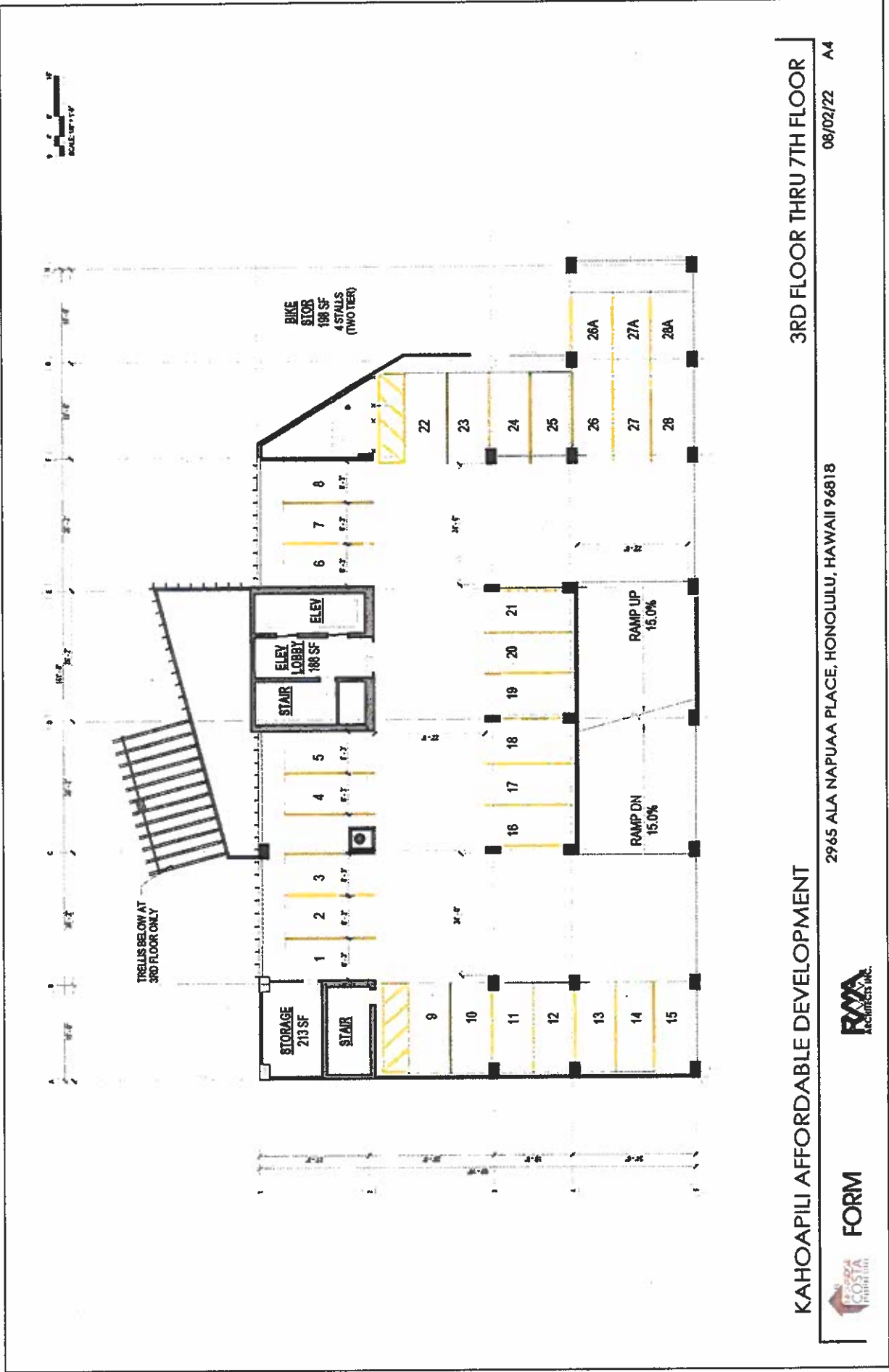


EXHIBIT D

KAHOA PILI AFFORDABLE DEVELOPMENT

9TH THRU 27TH FLOOR

08/02/22 A6

2965 ALA NAPUAA PLACE, HONOLULU, HAWAII 96818

FORM

PROFESSIONAL ARCHITECT

ARCHITECTS INC.

20' 0" 10' 0" 0' 0"

SCALE: 1/8" = 1'-0"

STAIR

ELEV. LOBBY 186 SF

STUDIO 310 SF

BED ROOM 443 SF

BED ROOM 487 SF

BED ROOM 750 SF

BED ROOM 516 SF

BED ROOM 537 SF

BED ROOM 585 SF

BED ROOM 546 SF

BED ROOM 540 SF

BED ROOM 449 SF

PARKING BELOW

EXHIBIT D

SELECTED PRELIMINARY DRAWINGS
ROOF PLAN

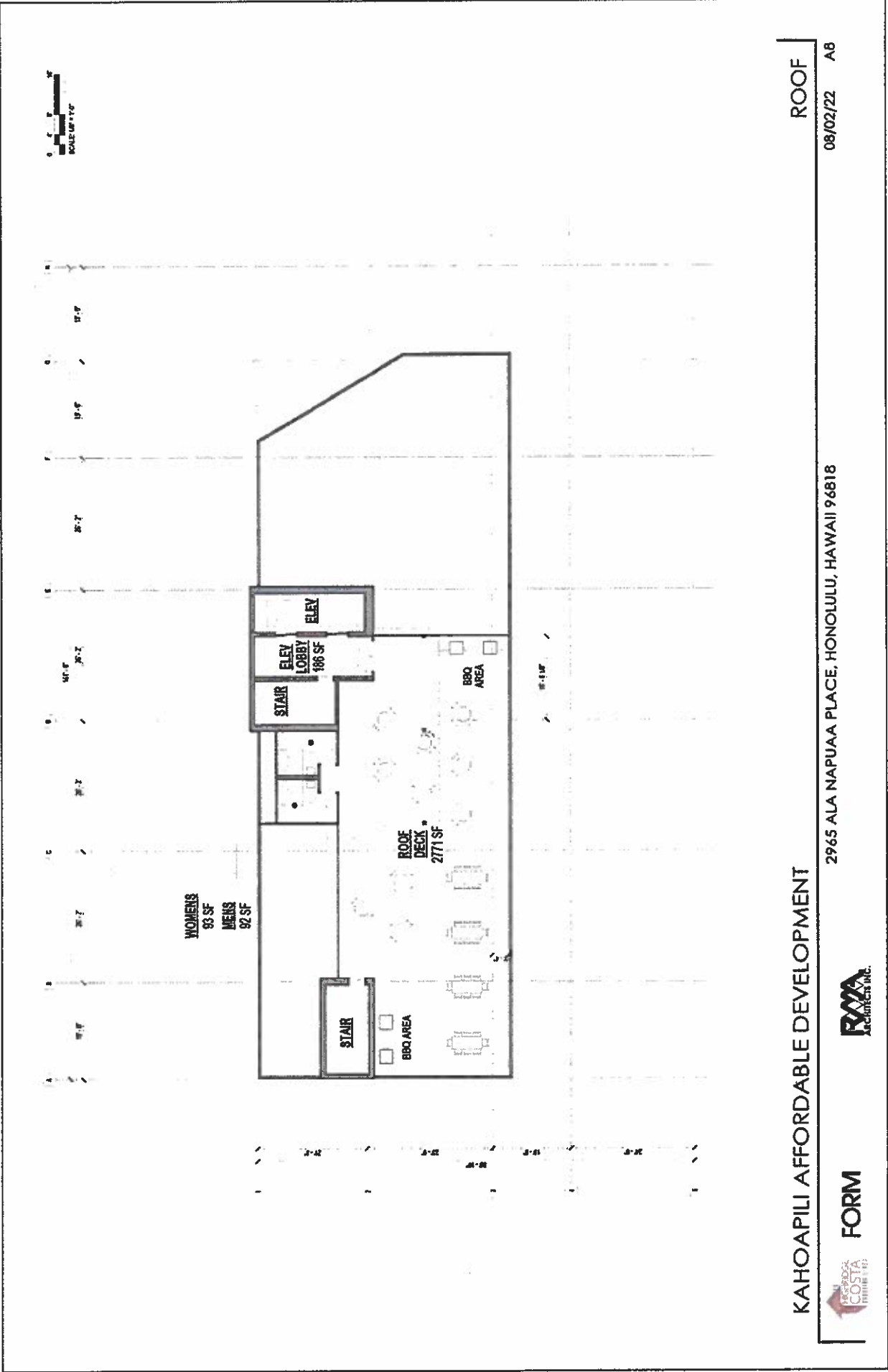
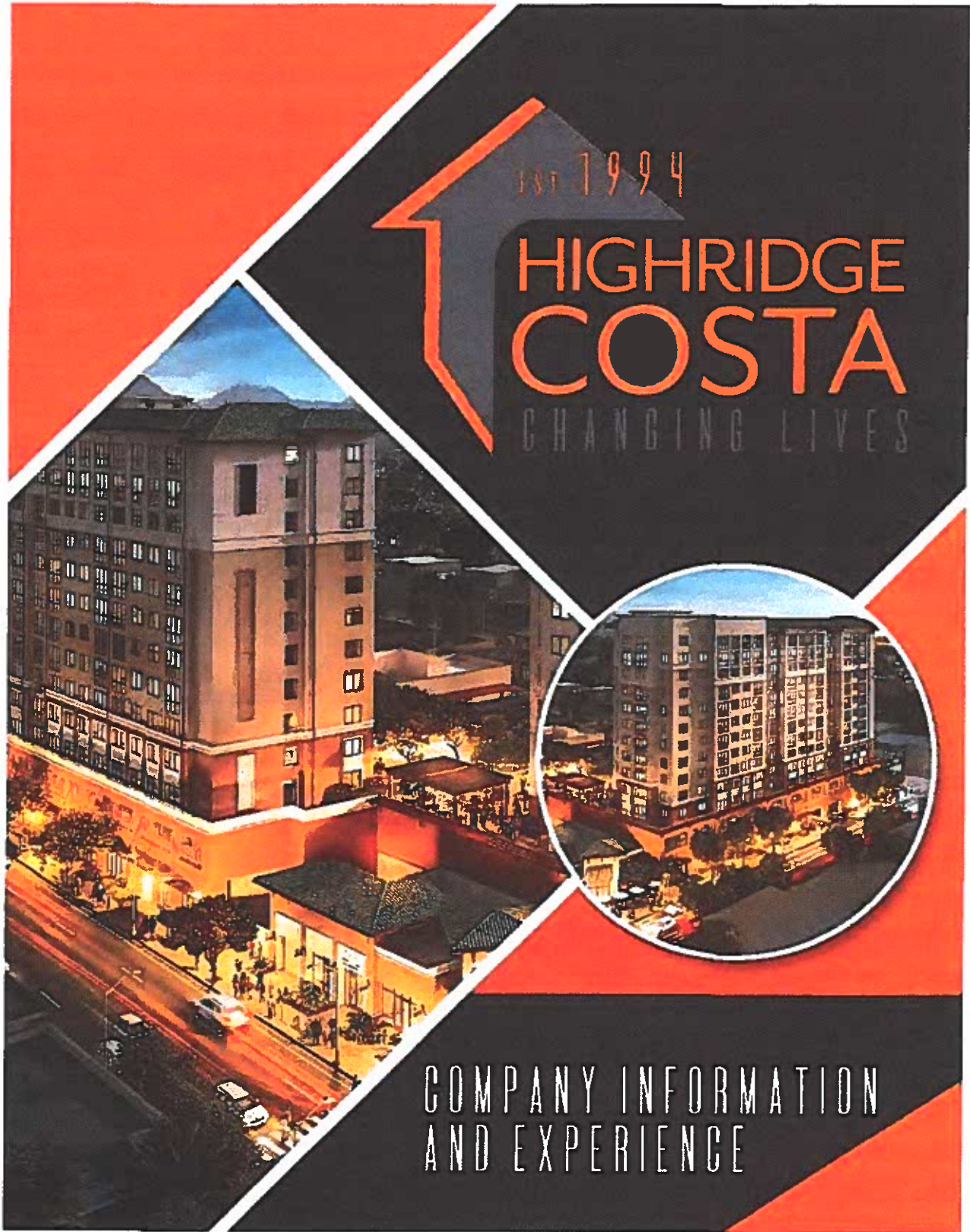


EXHIBIT D

DEVELOPER'S EXPERIENCE



DEVELOPMENT EXPERIENCE

Highridge Costa is among America's leading developers, financiers, owners and operators of affordable workforce and senior apartment communities. Created in 1994, Highridge Costa is a joint venture between Michael Costa, and the principals of Highridge Partners, Inc., a diversified privately held investment company with assets totaling \$7 billion. With a focus on



the design, development and financing of affordable family and senior apartments, the organization has extensive expertise in the utilization of federal Section 42 Low Income Housing Tax Credits (both 4% and 9%), Tax Exempt Mortgage-Backed Revenue Bonds, HUD, and Fannie Mae affordable housing grants as well as a variety of state and local housing programs. Highridge Costa strives to deliver an attractive product that complements and enhances the surrounding community.

With over 30,000 units across 300 apartment communities developed and invested in, Highridge Costa brings tremendous development experience to the table and has formed strong relationships with institutional lenders and public-sector agencies alike. With an emphasis on continuity, the organization has retained its key leadership staff since inception and has a proven record of managing projects from early design through completion and beyond.

The firm brings unparalleled financial strength to the table, along with a depth of construction experience and an understanding of all aspects of the development process few other builders can match. The company's success in the rental housing industry is due in large part to its recognition of the fact that no two developments or communities are exactly alike and that an emphasis on flexibility, resourcefulness, and transparency is the best way to ensure that all stakeholders needs are met.

In addition to its extensive experience in the development, acquisition, and entitlement of real estate, Highridge Costa has its own construction department that oversees all properties under construction. The construction department interfaces with its General Contractors on a regular basis and conducts monthly site visits to its construction sites. Once a project is completed, Highridge Costa utilizes its best-in-class asset management department to ensure the long term financial viability, maintenance, and quality of each community. As both multifamily and senior housing specialists, Highridge Costa has built a solid reputation for creativity as well as results.





HALEMOENA

A completed two-phase senior and family community located in Kapolei, HI. Phase I is comprised of 154 units and Phase II is comprised of 143 units.



KOKIA

A 224 unit senior community located in Honolulu, HI. Kokia is currently under construction.



LILOA HALE

A 117 unit senior community located in Kihei, HI. Liloa Hale is expected to close in Q2 2023.



KEAWALAU

A three-phase 537-unit family and senior community located in Waipahu, HI. Phase I is expected to close in Q2 2024, and phase II and phase III are expected to close in Q2 2025.



HALE MAHAOLU KE KAHUA

A 120-unit family community located in Waiehu, HI. Hale Mahaolu Ke Kahua is expected to close in Q1 2024.

FORM PARTNERS

900 FORT STREET MALL, SUITE 1140 HONOLULU, HI 96813 808-940-0007

WWW.FORMPARTNERS.COM

COMPANY

Form Partners specializes in the development, investment, and operation of commercial real estate in Hawaii. Form Partners is dedicated to delivering the highest level of excellence in all aspects of our business and is committed to creating value and delivering superior financial returns for our partners, investors, and clients.

FORMATION & HISTORY

Form Partners is the evolution of the U.S. Pacific Group of Companies (USPG). Founded in Honolulu, Hawaii in 1989 USPG is a Honolulu-based group of commercial real estate investment, development, and construction companies established by experienced developers and seasoned contractors who are empirically confident and adept at executing in major investment and development arenas.

SERVICES

Form Partners provides the following RE services.

- Entitlements
- Acquisition
- Operations
- Repositioning
- Development
- Redevelopment

EXPERIENCE

Collectively, Form Partners & USPG's principals and partners have over 100 years of investment, development, and construction experience. Our principals and partners have successfully developed more than 1,000 acres of real estate, including over 2,000 resort and urban residential units, built over \$2 billion as general contractors. Since their inception, Form Partners and USPG have earned a reputation for being companies with great vision, integrity, and professionalism.

EXECUTION

Form Partners ability to overcome challenges, identify solutions, entitle, and execute complex transactions while understanding local market nuances is the foundation of our competitive advantage. Form Partners experience, nimble operating structure and strong long-term relationships with strategic partners, financial institutions, and third-party consultants enable us to transform visionary ideas into reality.



THE ILIKAI HOTEL & LUXURY SUITES / 2012-2016

Development Manager
1777 Ala Moana Blvd.

The Ilikai, a mixed-use hotel, condo, and commercial project. As the development Manager, Form Partners devised and executed the redevelopment plan to convert hotel units into residential condo units (condo-tel). From an entitlement perspective this project required a Waikiki Special Design District Permit as well as an SMA permit. In addition, the project required approvals from an existing condo association including a super majority vote of all owners (1,009) in the association approving our redevelopment plan. The redevelopment work (approximately \$34 million) included adding kitchens and totally renovating all units (176) and common areas on the four upper floor hotel/units (Floors 22-25) as well as converting the existing second floor commercial and meeting rooms into 41 new condo-tel units (217 total units). Additional improvements included adding a new pool/recreation deck to the roof of a 1st floor commercial condo unit adjacent to the new 2nd floor residential units, as well as the redevelopment of all the lobby commercial and back of house areas which included the creation of 50 new parking stalls (required for the 2nd floor conversion). Average sales price PSF for the condo-tel units was more than \$1,200 psf. Total sales were over \$145 million, excluding the front desk, commercial units, back of house facilities and parking areas.

SELECT PROJECT



THE COVE WAIKIKI / 2010-2014

Developer & Development Manager
1800 Kaio'o Drive

Waikiki Palms Limited Partnership (WPLP), an affiliate of Form Partners LLC, purchased 1.6 acres of prime Waikiki land within walking distance to the Beach, Ala Moana Shopping Center, Ala Moana Beach Park, and the Ala Wai Yacht Harbor in the spring of 2005. WPLP thereafter vacated and demolished the property's 12 dilapidated, sub-standard buildings. As Development Manager, U.S. Pacific Development (Form Partners), designed, entitled, and permitted The Cove Waikiki, a 117-unit three building, mid-rise condominium project. Sales began in December of 2011 and construction was completed in April of 2014. Total project sales exceeded \$55 million. USPD (FP) secured all entitlements for The Cove Waikiki including coordinating and finalizing the Waikiki Special Design District (WSDD) permit which required an environmental assessment study (EAS).

SELECT PROJECT

FORM PARTNERS

900 FORT STREET MALL, SUITE 1140 HONOLULU, HI 96813 808-940-0007

WWW.FORMPARTNERS.COM



THE VANGUARD LOFTS / 2005 - 2011

Developer & Development Manager
720 Kapiolani Blvd.

Cooke Clayton LLC, an affiliate of Form Partners LLC, purchased the former National Cash Register (NCR) building at 720 Kapiolani Boulevard, near the CBD of Honolulu at the heart of the Kapiolani Corridor. The former 37,000 square foot office building was renovated, converted, and expanded into a 61,000 square foot Mixed-Use Project consisting of approximately 14,000 square feet of ground floor retail and 36 urban residential loft condominiums. The Vanguard Lofts was the first loft conversion project in Honolulu. U.S. Pacific Development (USPD), an affiliated company of Form Partners, handled all aspects of the redevelopment including environmental remediation (asbestos), design, permitting (State/City & County), financing, construction, marketing, and sales. The project was completed in the 4th quarter of 2011 and total project sales exceeded \$35 million. U.S. Pacific Development worked closely with the Hawaii Community Development Authority (HCDA) State Agency on all zoning/use permits and was able to secure several zoning modifications including variances on height, yard setbacks and concessions for a non-conforming structure. In addition, USPD was able to convince the HCDA board to approve a "modern/non-typical" architectural look for a residential building in the Kakaako district.

SELECT PROJECT

LIST OF REVIEW AGENCIES

Federal Government

- Federal Aviation Administration

State of Hawaii

- Department of Transportation, Airports Division and Highways Division *
- Superintendent, Department of Education *
- Department of Health

City & County of Honolulu

- Honolulu Fire Department *
- Honolulu Police Department *
- Honolulu Department of Planning and Permitting *
- Honolulu Department of Parks & Recreation **
- Honolulu Department of Environmental Services
- Honolulu Department of Community Services *
- Honolulu Department of Design and Construction *
- Honolulu Department of Facility Maintenance *
- Honolulu Department of Transportation Services
- Honolulu Office of Housing
- Honolulu Department of Land Management
- Honolulu Board of Water Supply *

Elected Officials

- Area Senator – Glenn Wakai
- Area Representative – Linda Ichiyama
- Area Councilmember – Radiant Cordero

* = Received Comments

** = Received Late Comments

LIST OF REQUESTED EXEMPTIONS

Kahoapili Affordable Housing Requested Exemptions

Application Fees and Infrastructure and Public Works Fees and Charges

Purpose: Exemptions from application fees and infrastructure and public works fees and charges are requested to provide affordable homes to households within the target AMI ranges and make the Kahoapili Affordable Housing Project financially viable.

1. Exemption from Revised Ordinances of Honolulu (ROH) Section 18-6.1 to allow an exemption from payment of plan review fees, estimated at \$25,000.
2. Exemption from ROH Section 18-6.2 to allow an exemption from payment of building permit fees, estimated at \$323,800.
3. Exemption from ROH Section 14-14.4 to allow an exemption from grading and grubbing permit fees, estimated at \$1,145.
4. Exemption from ROH Sections 14-10.1, 14-10.2, and 14-10.3 to allow an exemption from payment of wastewater system facility charges, estimated at: a) \$879,928 if developed as a rental project; and b) \$528,420 if developed as a for-sale project.

The exemption amounts for wastewater system facility charges are different for a rental project and a for-sale project because Section 14-10.6, ROH provides for a reduction of wastewater system facility charges for "low-income" housing projects. Since the amount of "low-income" housing (as defined in Section 14-10.6, ROH) is different if the project developed as a rental project or a for-sale project, the exemption amounts are different.

5. Intentionally deleted.

Fire Department Fire Plans Review Fee

Purpose: An exemption from the from Honolulu Fire Department Fire Plans Review Fee is requested to provide affordable homes to households within the target AMI ranges and make the Kahoapili Affordable Housing Project financially viable.

6. Exemption from ROH Section 20-1.1 to allow an exemption from Honolulu Fire Department Fire Plans Review Fee, estimated at \$32,380.

Board of Water Supply (BWS) Rules and Regulations

Purpose: Exemptions from the from the BWS Rules and Regulations to exempt payment of water system facility charges, installation charges, and the water system facilities charge are requested to provide affordable homes to households within the target AMI ranges and make the Kahoapili Affordable Housing Project financially viable.

7. Exemptions from Sections 1-102, 2-202(2), and 2-202(3) of the BWS Rules and Regulations to exempt payment of water system facility charges, installation charges, and the water system facilities charge attributable to the affordable dwelling units, estimated at: a) \$575,618 if developed as a rental project; and b) \$349,045 if developed as a for-sale project.

The exemption amounts for a rental project and a for-sale project are different because the BWS Rules and Regulations allow for waivers for a portion of the water system facilities charge for qualified affordable units. Since the amount of

affordable housing units is different if the project developed as a rental project or a for-sale project, the exemption amounts are different.

Park Dedication Ordinance Requirements

Purpose: An exemption from park dedication requirements is requested to provide affordable homes to households within the target AML ranges and make the Kahoapili Affordable Housing Project financially viable. While the project will not contribute land or fees for public parks, the project includes a rooftop recreation area for building residents and there are several parks within the area including Salt Lake District Park.

8. Exemption from ROH Chapter 22, Article 7, to allow an exemption from park dedication requirements, totaling approximately 15,191 square feet of park space, or payment of an equivalent in-lieu fee, estimated at \$2,300,000.

Land Use Ordinance ("LUO")

Purpose: Exemptions from the Land Use Ordinance (LUO) sections pertaining to certain development standards for the Apartment District (A-2) zoning (Exemptions 9 to 13) are requested to provide more affordable housing units within the project than would otherwise be possible if exemptions were not granted. The exemptions also make the project financially viable by reducing construction costs due to economics of scale.

An exemption to the LUO section pertaining to bicycle parking (Exemption 14) is requested reduce the required amount of bicycle parking (while still providing an adequate amount) to minimize parking structure size and cost, balanced with the ability to provide adequate vehicular parking.

9. Exemption from LUO Section 21-3.80-1 and Table 21-3.3, relating to maximum density, to allow a Project floor area ratio ("FAR") of up to 7.10 (instead of a FAR of 1.1).
10. Exemption from LUO Section 21-3.80-1 and Table 21-3.3, relating to building area, to allow a proposed building area of up to 70% instead of 40%.
11. Exemption from LUO Section 21-3.80-1 and Table 21-3.3, relating to yard setbacks, to allow a side yard setback of 5' instead of 10'.
12. Exemption from LUO Section 21-3.80-1(c)(2), relating to height setbacks, to allow portions of the structure over 40' in height relief from 1' additional side and rear setbacks for each 10' of additional building height and instead have a zero-height setback.
13. Exemption from LUO Section 21-3.80-1 and Table 21-3.3, and the Zoning Map Height, relating to maximum height, to allow a building height of up to 250' instead of 150'.
14. Exemption from LUO Section 21-6.40 and Table 21-6.3, relating to bicycle parking, to allow the Project to provide fewer than the required parking spaces. Instead of 19 short-term spaces the Applicant proposes to provide 12 short-term parking spaces; instead of 95 long-term spaces the Applicant proposes to provide 64 long-term spaces.

City and County of Honolulu's Affordable Housing Requirements

Purpose: An exemption from the City and County of Honolulu's affordable housing requirements is requested to provide affordable homes in accordance the Hawaii

Housing Finance & Development Corporation's (HHFDC) affordable housing requirements. The Project is designed so that it may be developed either as:

- 1) A 100% affordable rental apartment project, with all available rental units targeted at households earning no more than 60% of the Area Median Income (AMI) and two manager's units; or
 - 2) An affordable for-sale condominium project with at least 114 units, or 60% of units, serving households earning up to 140% of the AMI, and the balance of the units sold at market prices.
15. Exemption from ROH Chapter 38, relating the City and County of Honolulu's affordable housing requirements, to allow the Project to be developed, marketed, and rented or sold in accordance all HHFDC affordable housing requirements, including all provisions under Sections 201H-47, 201H-49, and 201H-50, HRS.

SUMMARY OF AGENCY COMMENTS

HAWAII DEPARTMENT OF TRANSPORTATION, AIRPORTS DIVISION AND HIGHWAYS DIVISION (HDOT)

Response letter dated November 17, 2022

Airports Division (HDOT-A)

- The proposed project is approximately 0.76 miles from the airport boundary of Daniel K. Inouye International Airport (HNL). All projects within 5 miles from Hawaii State airports are advised to read the Technical Assistance Memorandum (TAM) for guidance with development and activities that may require further review and permits. The TAM can be viewed at this link: http://files.hawaii.gov/dbedt/op/docs/TAM-FAA-DOT-Airports_08-01-2016.pdf.
- The proposed project is approximately 5,304 feet from the end of Runway 22R at HNL. Federal Aviation Administration (FAA) regulation requires the submittal of FAA Form 7460-1 Notice of Proposed Construction or Alteration pursuant to the Code of Federal Regulations, Title 14, Part 77.9, if the construction or alteration is within 20,000 feet of a public use or military airport which exceeds a 100:1 surface from any point on the runway of each airport with its longest runway more than 3,200 feet. Construction equipment and staging area heights, including heights of temporary construction cranes, shall be included in the submittal. The form and criteria for submittal can be found at the following website: <https://oeaaa.faa.gov/oeaaa/external/portal.jsp>.
- Due to the proximity to HNL, the applicant, and future residents and/or tenants should be aware of potential single event noise from aircraft operations. There is also a potential for fumes, smoke, vibrations, odors, etc., resulting from occasional aircraft flight operations over or near the project. These incidences may increase or decrease over time and are dependent on airport operations.
- If a solar energy photovoltaic (PV) system is going to be installed, be aware that PV systems located in or near the approach path of aircrafts can create a hazardous condition for pilots due to possible glint and glare reflected from the PV panel array. If glint or glare from the PV array creates a hazardous condition for pilots, the owner of the PV system shall be prepared to immediately mitigate the hazard upon notification by the HDOT-A and/or FAA.

The FAA requires a glint and glare analysis for all solar energy PV systems near airports. The www.sandia.gov/glare website has information and guidance with the preparation of a glint and glare analysis. A separate FAA Form 7460-1 will be necessary for the solar energy PV system. After the FAA determination of the Form 7460-1 glint and glare analysis, a copy shall be provided to the HDOT-A by the owner of the solar energy PV system.

Solar energy PV systems have also been known to emit radio frequency interference (RFI) to aviation-dedicated radio signals, thereby disrupting the reliability of air-to-ground communications. Again, the owner of the solar energy PV system shall be prepared to immediately mitigate the RFI hazard upon notification by the HDOT-A and/or FAA.

Highways Division (HDOT-HWY)

- HDOT-HWY has reviewed the proposed project and have determined that it does not appear to impact the State highway system directly or indirectly; therefore HDOT-HWY has no comments or objections on the Chapter 201H application.

EXHIBIT H

HAWAII DEPARTMENT OF EDUCATION (DOE)

Response letter dated November 16, 2022

- DOE previously commented on the proposed Project by letter dated September 1, 2022, and has no additional comments at this time.

Response letter dated September 1, 2022

- The Department has determined that schools servicing the Project will be Salt Lake Elementary, Aliamanu Middle, and Moanalua High Schools. Salt Lake Elementary is currently operating over capacity. In the next five years Salt Lake Elementary is projected to operate below capacity. Aliamanu Middle School is operating below capacity and will continue to operate at this capacity during the next five years. Moanalua High School is currently operating above capacity and will continue to operate over capacity during the next five years.

HONOLULU FIRE DEPARTMENT (HFD)

Response letter dated November 2, 2022

- HFD approves the request for an exemption from the fire plan review fees set forth in Section 20-1.1 of the Fire Code of the City and County of Honolulu for the proposed Project.

HONOLULU POLICE DEPARTMENT (HPD)

Response letter dated November 2, 2022

- HPD has reviewed the project and anticipates short and long-term impacts to traffic along Ala Napuaa Place. Thus, HPD recommends the ingress and egress of construction vehicles, equipment, and deliveries be evaluated to ensure the flow of traffic is not adversely affected.
- HPD recommends that the contractor work with the Neighborhood Board, as the development is envisioned to add 190 rental or for sale units when completed and may increase the calls for services.

HONOLULU DEPARTMENT OF PLANNING AND PERMITTING (DPP)

Response letter dated November 21, 2022

- No objections to the requested exemption from plan review fees, building permit fees, grading and grubbing permit fees, Wastewater System Facility Charge (WSFC), park dedication requirement, and Land Use Ordinance (LUO) section pertaining to bicycle parking. A request to waive the WSFC for affordable housing should be submitted to the Department of Environmental Services for approval.
- DPP requested the Applicant should explain, in detail, the need for the exemption from the storm drainage connection license fee.
 - The Applicant has rescinded this request and it is no longer included in the exemptions list.
- No objections to the proposed exemptions from the LUO sections pertaining to certain development standards for A-2 Medium Density Apartment District. Recommend that the conditions the Applicant sends to City Council be generalized and not overly specific to allow some flexibility when reviewing the permit plans.
- DPP has the following comments relating to traffic:

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- A time line or phasing plan of the anticipated dates to obtain major building permit(s) for demolition/construction work, including the projected date of occupancy or opening, shall be prepared by the applicant in a format acceptable to the DPP. The time line should identify when the construction management plan (CMP), the traffic management plan (TMP), updates and/or validation to the findings of the traffic impact analysis report (TIAR) dated October 2022 will be submitted for review and approval. Typically, the CMP should be submitted for review and approval prior to the issuance of demolition/building permits for major construction work. The TMP should be submitted and approved prior to the issuance of the (temporary) certificate of occupancy (CO).
- The CMP shall identify the type, frequency, and routing of heavy trucks and construction related vehicles. Every effort shall be made to minimize impacts from these vehicles and related construction activities. The CMP should identify and limit vehicular activity related to construction to periods outside of the peak periods of traffic, utilizing alternate routes for heavy trucks, provisions for either on-site or off-site staging areas for construction related workers and vehicles to limit the use of on-street parking around the project site and other mitigation measures related to traffic and potential neighborhood impacts. Preliminary or conceptual traffic control plans should also be included in the CMP. The applicant shall document the condition of roadways prior to the start of construction activities and provide remedial measures, as necessary, such as restriping, road resurfacing and/or reconstruction if the condition of the roadways has deteriorated as a result of the related construction activities.
- A TMP shall include traffic demand management (TOM) strategies to minimize the amount of vehicular trips for daily activities. The TMP should also include an analysis of the parking/loading operations. TOM strategies could include carpooling and ride sharing programs, transit, bicycle and pedestrian incentives and other similar TOM measures. A pedestrian circulation plan should also be included to provide accessibility and connectivity to and along the surrounding public sidewalks, street intersections, and adjacent properties. A determination of the effective sidewalk widths, taking into account Complete Streets initiatives, shall be provided. Bicycle racks should be situated in easily accessible locations and in adequate number throughout the project. A post TMP will be required approximately one year after the issuance of the certificate of occupancy to validate the relative effectiveness of the various TOM strategies identified in the initial report. Additional bicycle racks shall be installed if it is determined there is a latent demand and the existing number of racks are inadequate.
- The TIAR under section 3.0 needs to be updated to reflect changes to the Ala Napuaa Pl./Ala Ilima St. intersection. The Applicant should work with the Department of Transportation Services (DTS).
- The TIAR under section 3.5 references "Kuhio Park Development". This should be revised.
- Provide traffic signal warrant analysis for Ala Ilima St./Ala Napunani St. intersection.
- The TIAR recommendations should include mitigative measures to any movements impacted by the proposed development. Provide additional TDM strategies to reduce any traffic impact created by the development.
- A post TIAR will be required approximately one year after the issuance of the certificate of occupancy to validate the traffic projections, distribution and assignment contained in the latest accepted TIAR. If additional traffic mitigation

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measures or modifications are necessary to support related traffic impacts directly attributable to this development, the applicant will be required to implement these measures. If the findings of the post TIAR is inconclusive, a follow up study may be required within a year of this prior study, as necessary.

- Bicycle parking or bike racks shall be provided within this project and shall be located in a safe and convenient location.
- Construction plans for all work within or affecting public streets should be submitted for review and approval. Traffic control plans during construction should also be submitted for review and approval, as required.
- All vehicular access points shall be constructed as standard City dropped driveways. Adequate vehicular sight distance shall be provided and maintained at all driveways to pedestrians and other vehicles. Driveway grades shall not exceed five percent for a minimum distance of 25-feet from the property line. Entry gates and ticket dispensers should be recessed as far into the driveway as necessary to avoid any queuing onto public streets.
- All loading and trash pick-up areas shall be designed such that vehicles enter and exit front first. Provide adequate on-site turn-around areas and ensure that the layout of parking spaces in the loading/delivery area does not interfere with turning maneuvers for large vehicles.

HONOLULU DEPARTMENT OF PARKS AND RECREATION (DPR)

Response letter dated November 18, 2022 (received after deadline)

- If the Project will be developed as 100% affordable rentals, DPR concurs with the Project's request for an exemption from the Park Dedication Ordinance requirements.
- If the Project is developed as a 60% affordable for-sale project, DPR believes the Developer should make an effort to expand the Project's recreational spaces beyond what is currently envisioned or commit to improving parks in the Project's vicinity. The Project's surrounding parks are heavily used and additional park space and amenities are warranted.

HONOLULU DEPARTMENT OF COMMUNITY SERVICES (DCS)

Response letter dated October 28, 2022

- The proposed project should have no adverse impacts on any DCS activities or projects in the surrounding neighborhood.

HONOLULU DEPARTMENT OF DESIGN AND CONSTRUCTION (DDC)

Response letter dated November 15, 2022

- DCS has reviewed the 201H application for exemptions and has no comments.

HONOLULU DEPARTMENT OF FACILITY MAINTENANCE (DFM)

Response letter dated November 16, 2022

- DFM identified a storm drain easement within the subject parcel, TMK: 1-1-061: 003, closest to Salt Lake Boulevard. DFM would recommend at least five feet setback from the storm drain easement for the proposed building area.

HONOLULU BOARD OF WATER SUPPLY (BWS)

Response letter dated November 7, 2022

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- The existing water system is currently adequate to accommodate the proposed development.
- The existing Honolulu water system capacity has been reduced due to the shut-down of the Halawa Shaft pumping station as a proactive measure to prevent fuel contamination from the Navy's Red Hill Bulk Storage Tank fuel releases.
- The final decision on the availability of water will be confirmed when the building permit application is submitted for approval, pending evaluation of the water system conditions at that time on a first-come first-served basis.
- Presently, there is no moratorium on the issuance of new and additional water services.
- When water is made available, the applicant will be required to pay Water System Facilities Charges (WSFC) for resource development , transmission, and daily storage.
- Water conservation measures are required for all proposed developments.
- High-rise buildings with booster pumps will be required to install water hammer arrestors or expansion tanks.
- The proposed project is subject to BWS Cross-Connection Control and Backflow Prevention requirements prior to the issuance of the Building Permit Applications.
- The construction drawings should be submitted for BWS approval, and the construction schedule should be coordinated to minimize impact to the water system.
- For the request for deferral of WSFC until the Certificate of Occupancy is obtained pursuant to Section 201H, HRS, please coordinate with the Engineering Branch of our Customer Care Division.
- BWS may waive the WSFC and new meter cost for qualified on-site affordable and homeless dwelling units, up to 500 units per year. The waivers will be evaluated when the building permit is submitted for approval.
- On-site fire protection requirements should be coordinated with the Fire Prevention Bureau of the Honolulu Fire Department.

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