

E. Drawings and Plans

Figure E.1
General Site Plan - Existing

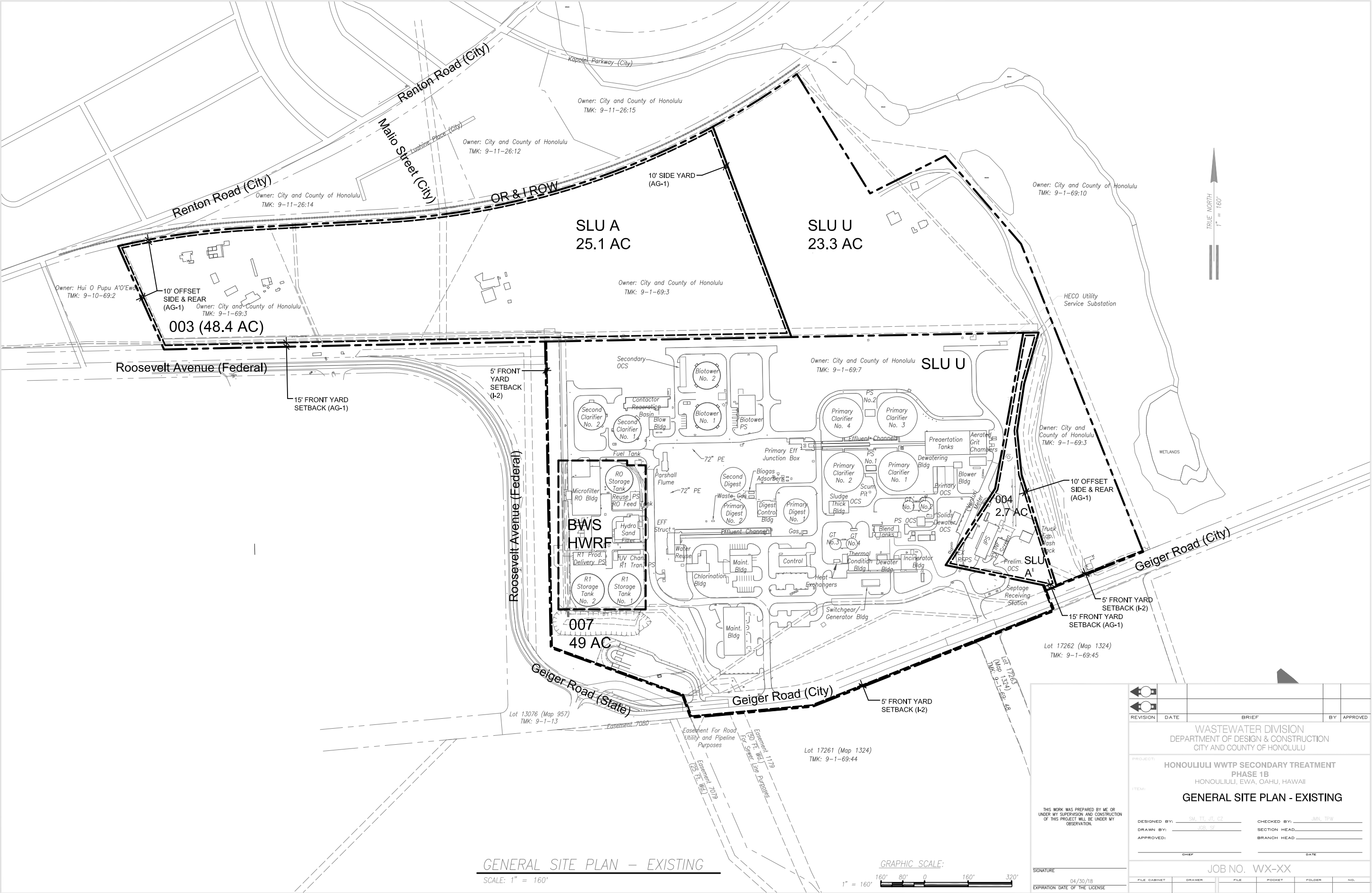


Figure E.2
General Phasing Plan - Phase 1B

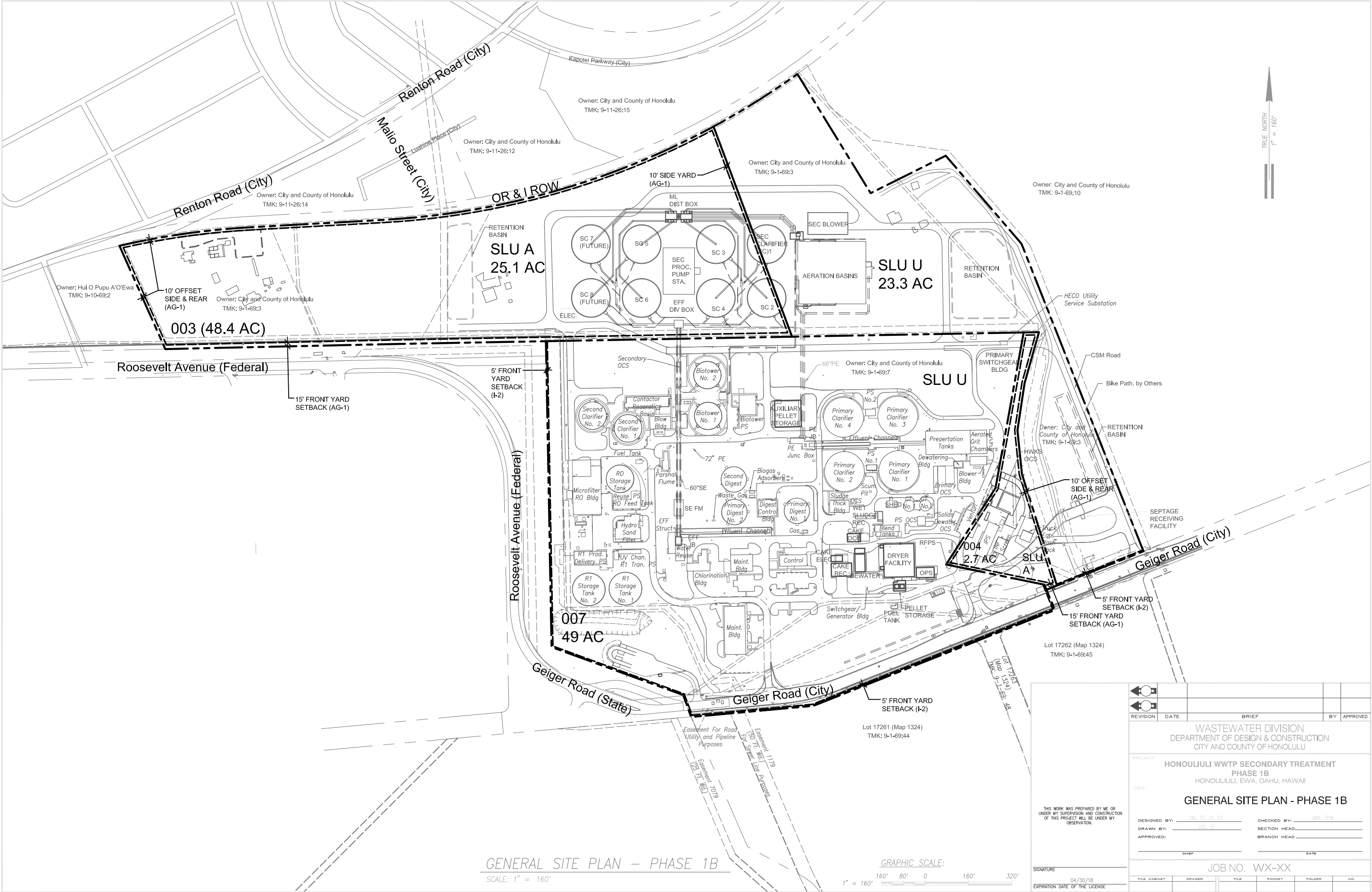
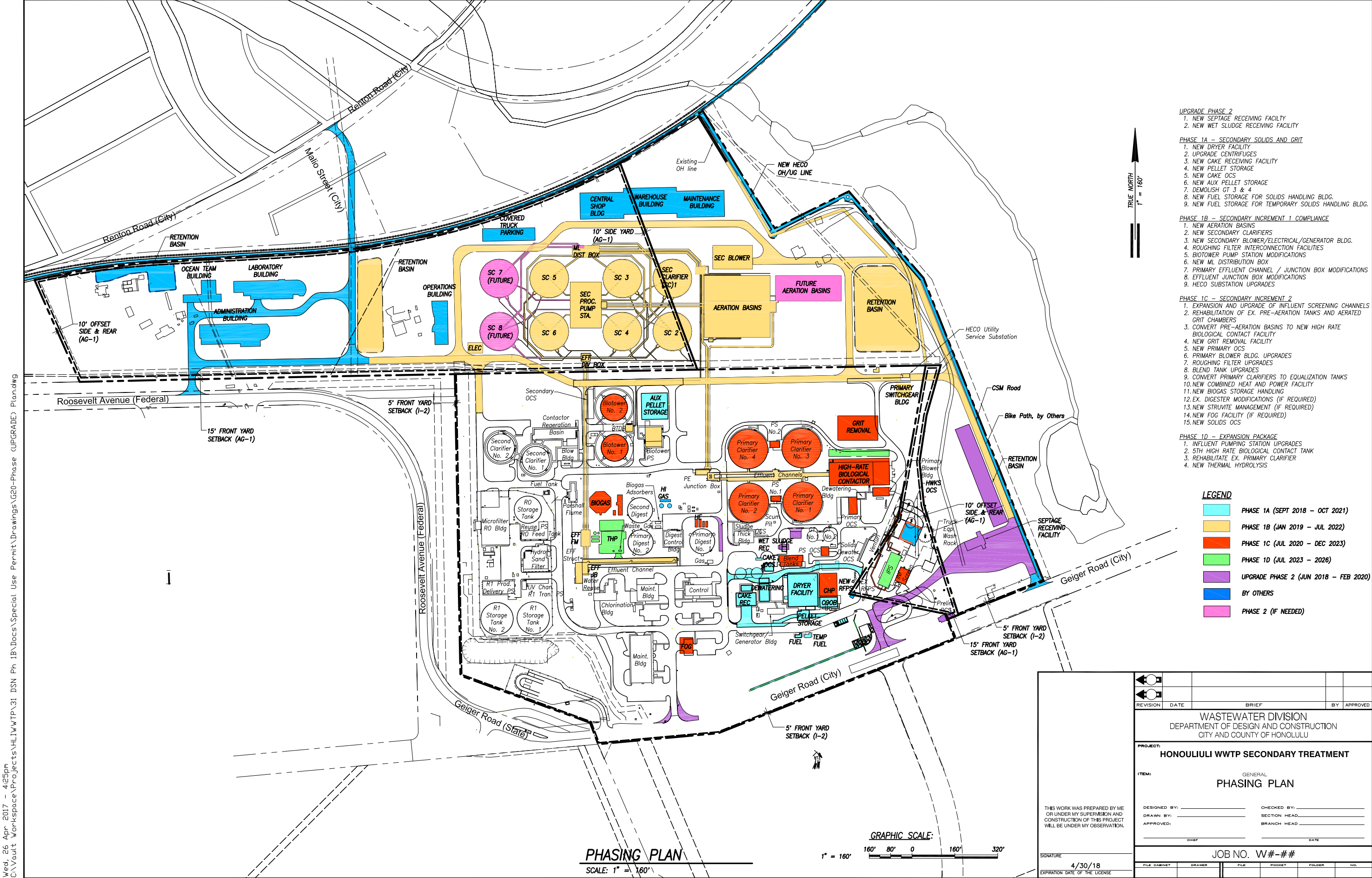
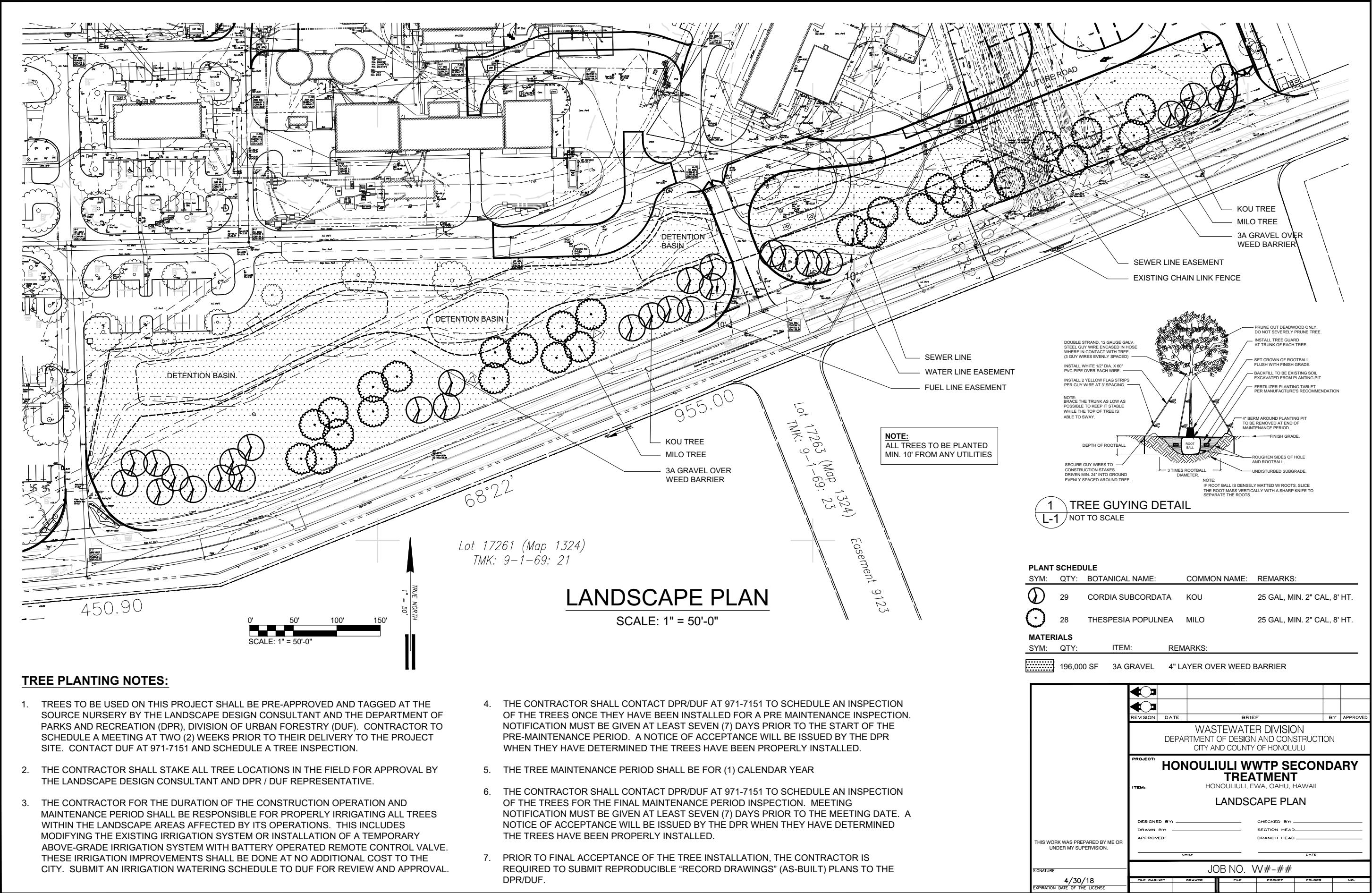


Figure E.3
General Phasing Plan - Phasing Plan



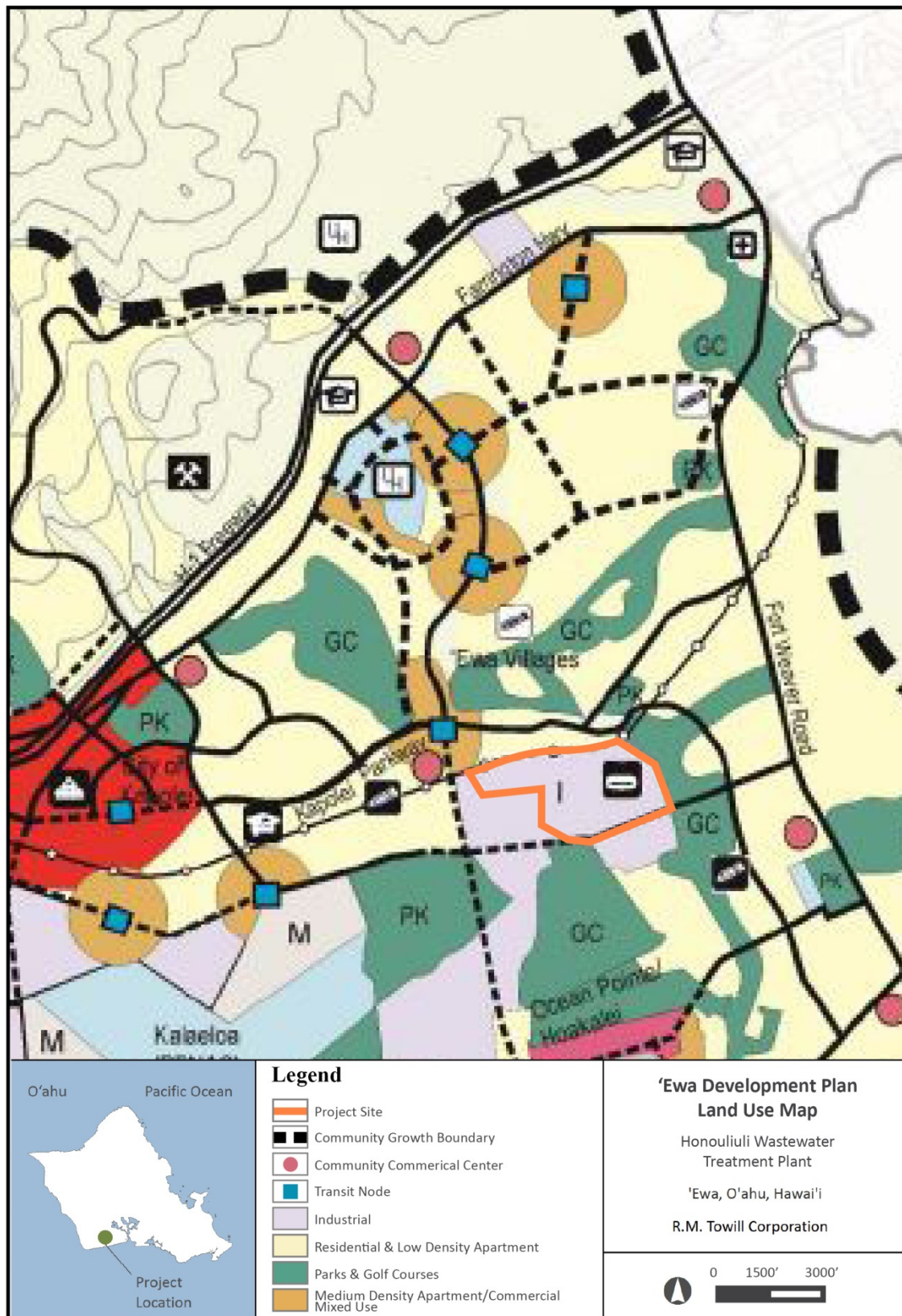
Wed, 26 Apr 2017 - 4:25pm
C:\Vault Workspace\Projects\HLL\WVTP\31 DSN Ph 1B\Drawings\G20-Phase (UPGRADE) Phasing

Figure E.4
Landscape Plan



E.5. Figures

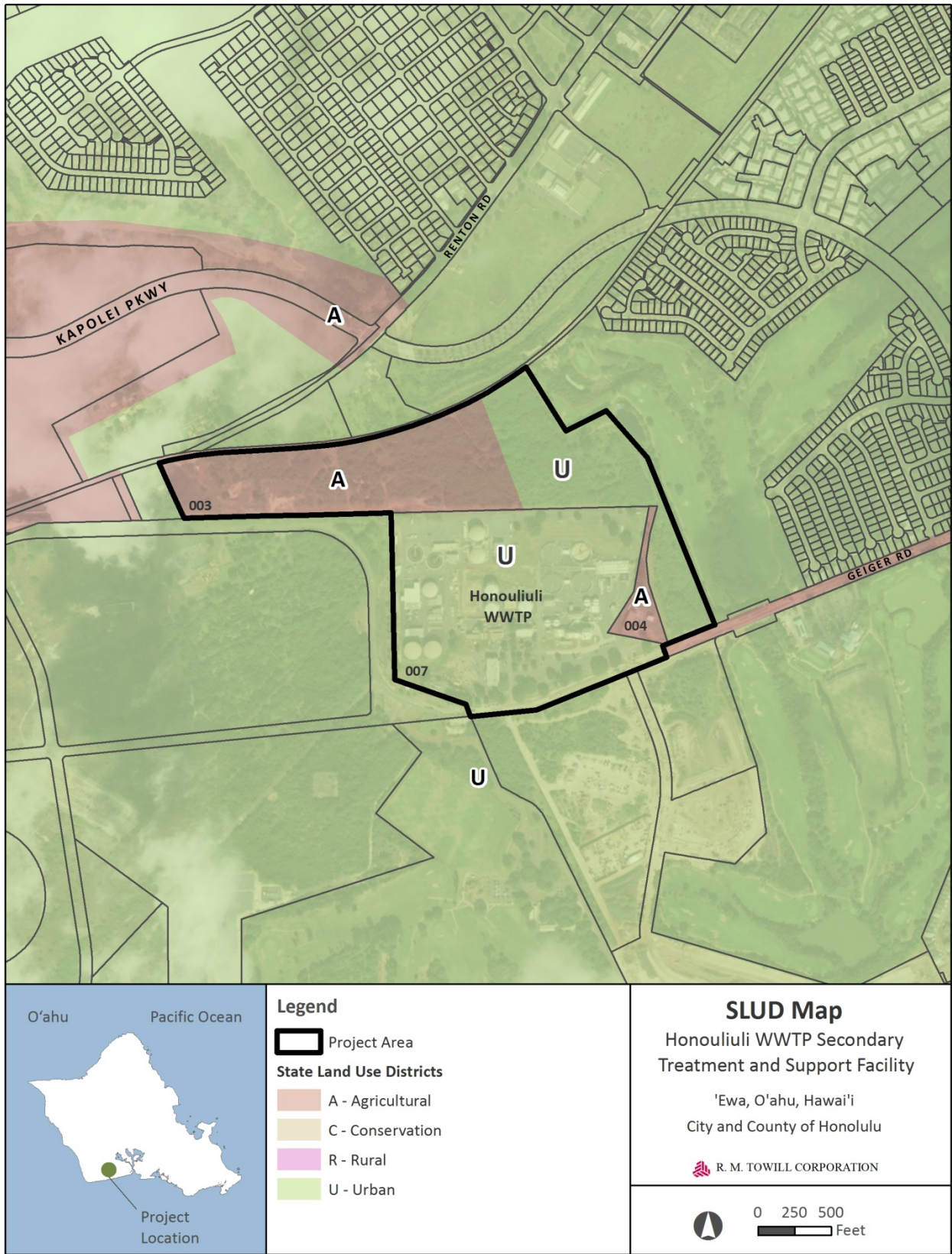
E.5.1. 'EWA DEVELOPMENT PLAN – LAND USE MAP



E.5.2. 'EWA DEVELOPMENT PLAN – PUBLIC FACILITIES MAP

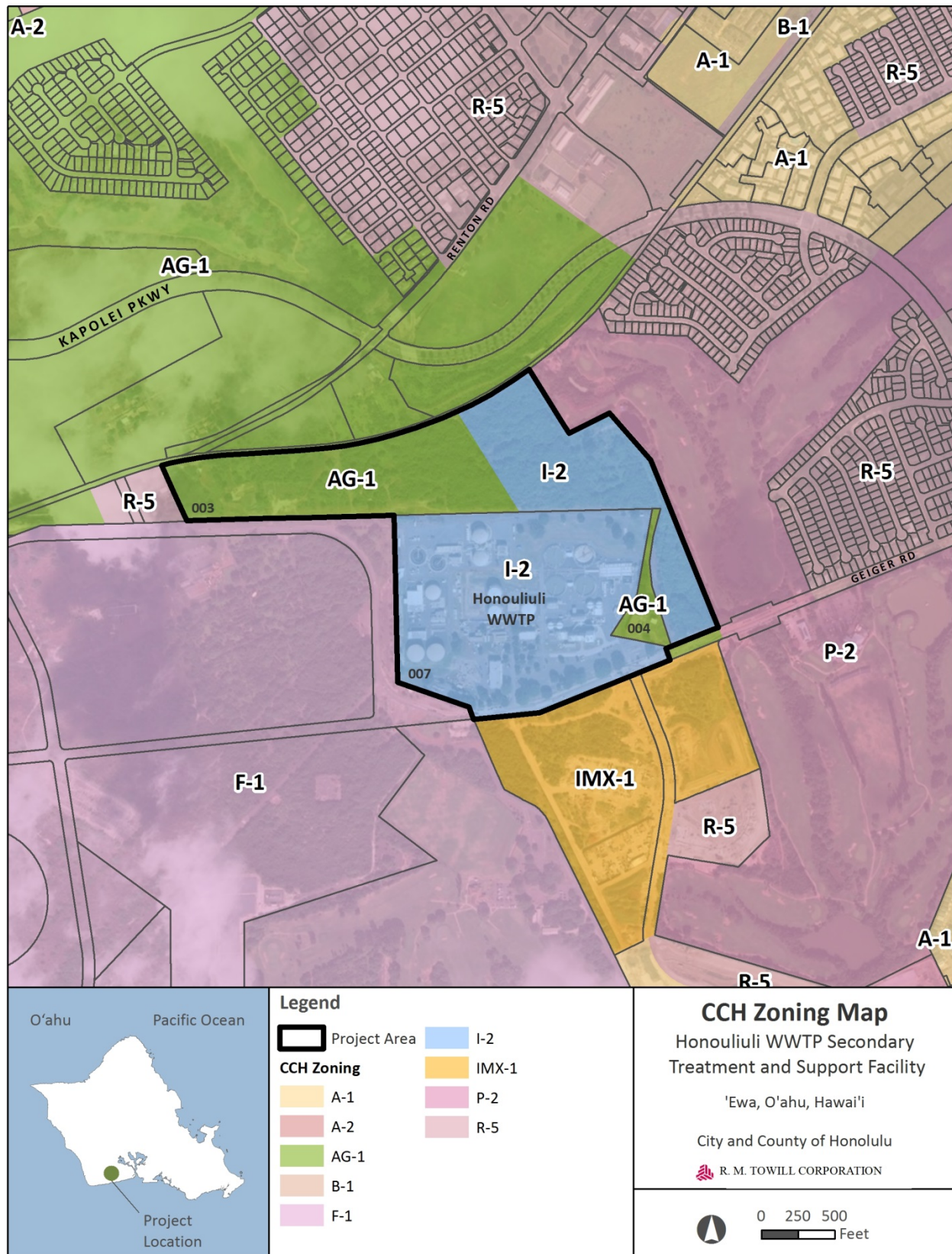


E.5.3. STATE LAND USE DISTRICT MAP



Sources: Esri, State Land Use Commission, USGS

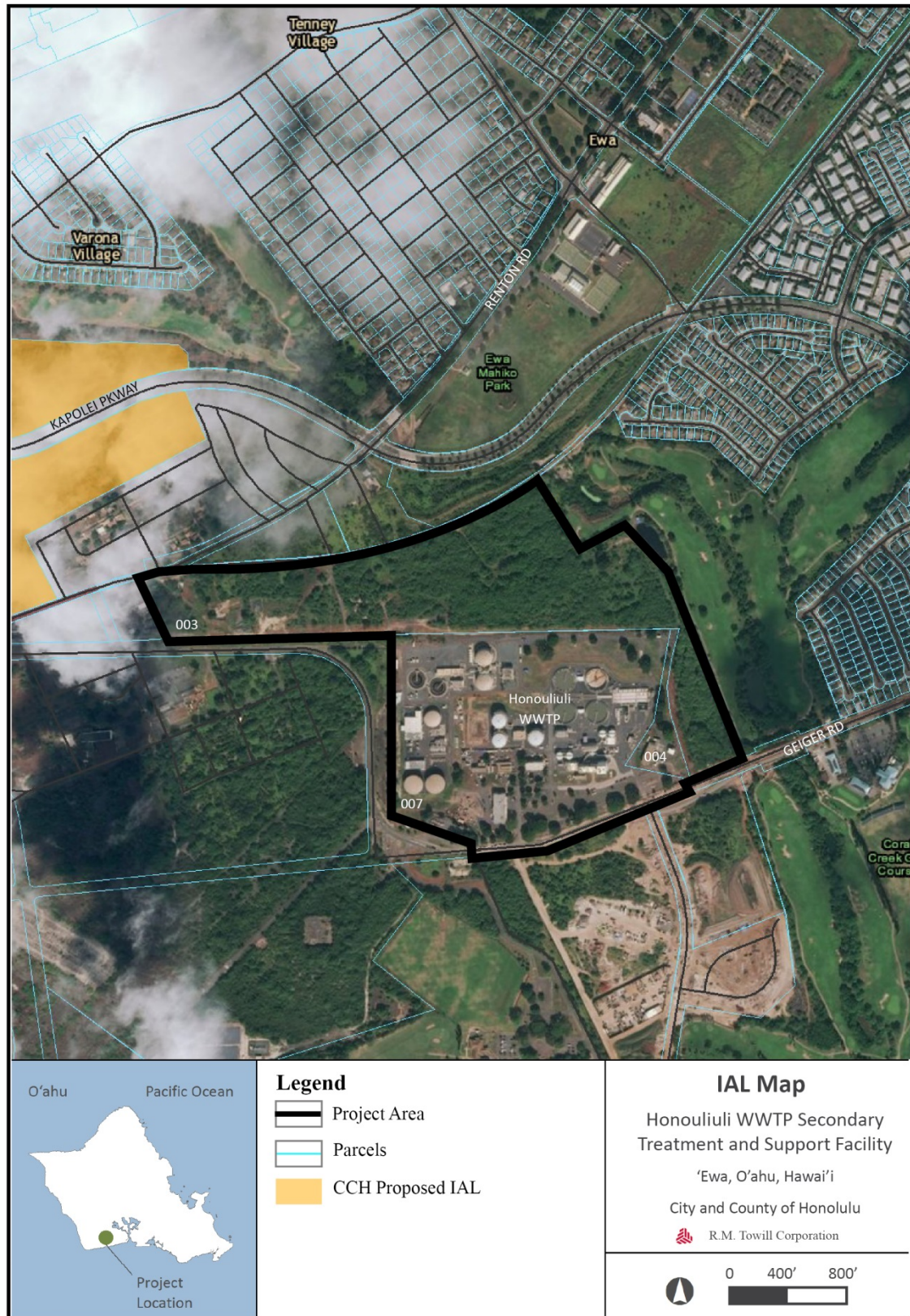
E.5.4. CCH ZONING MAP



Sources: Esri, City and County of Honolulu, USGS

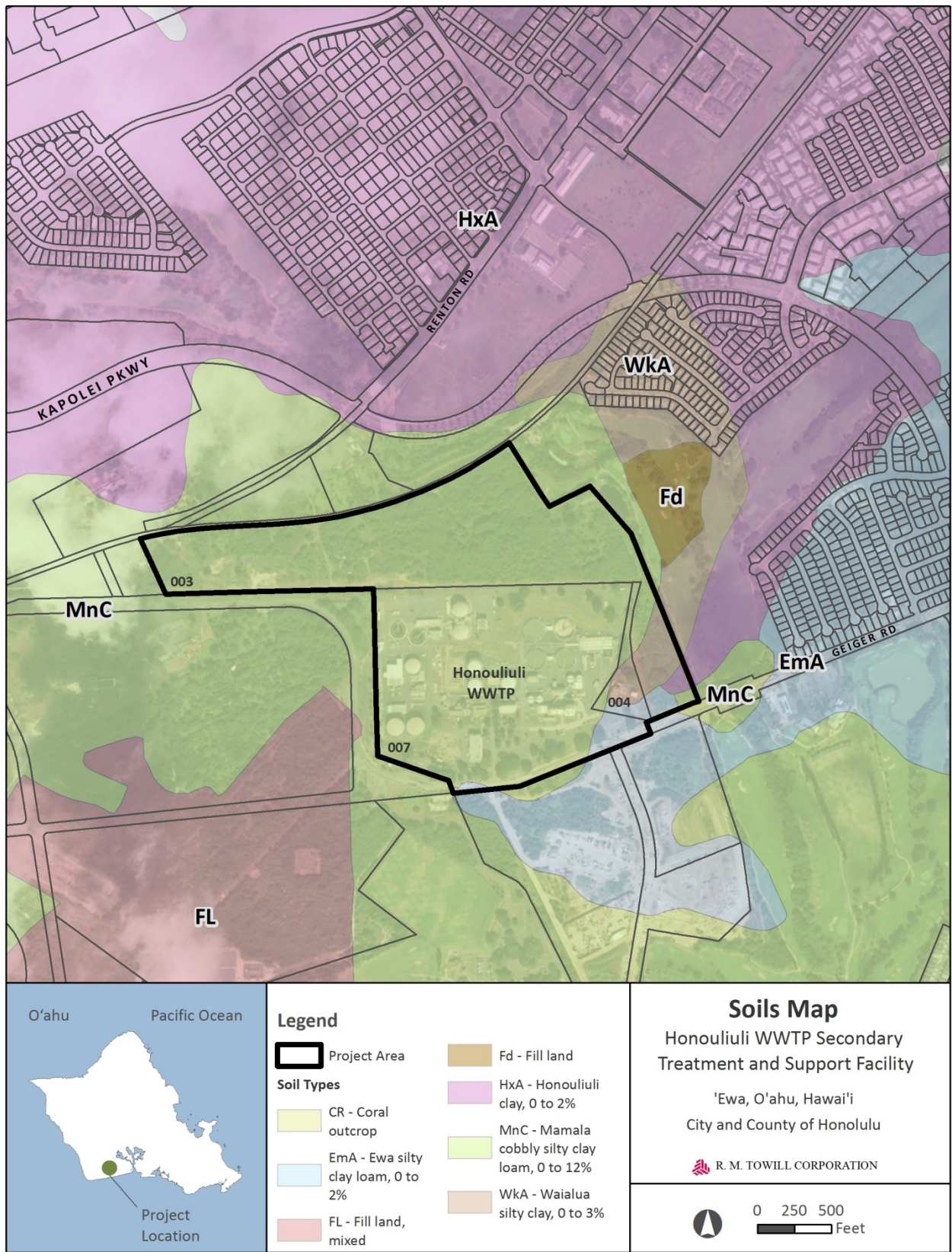
Special Use Permit Application
Honouliuli Wastewater Treatment Plant Secondary Treatment and Support Facilities

E.5.5. IAL MAP



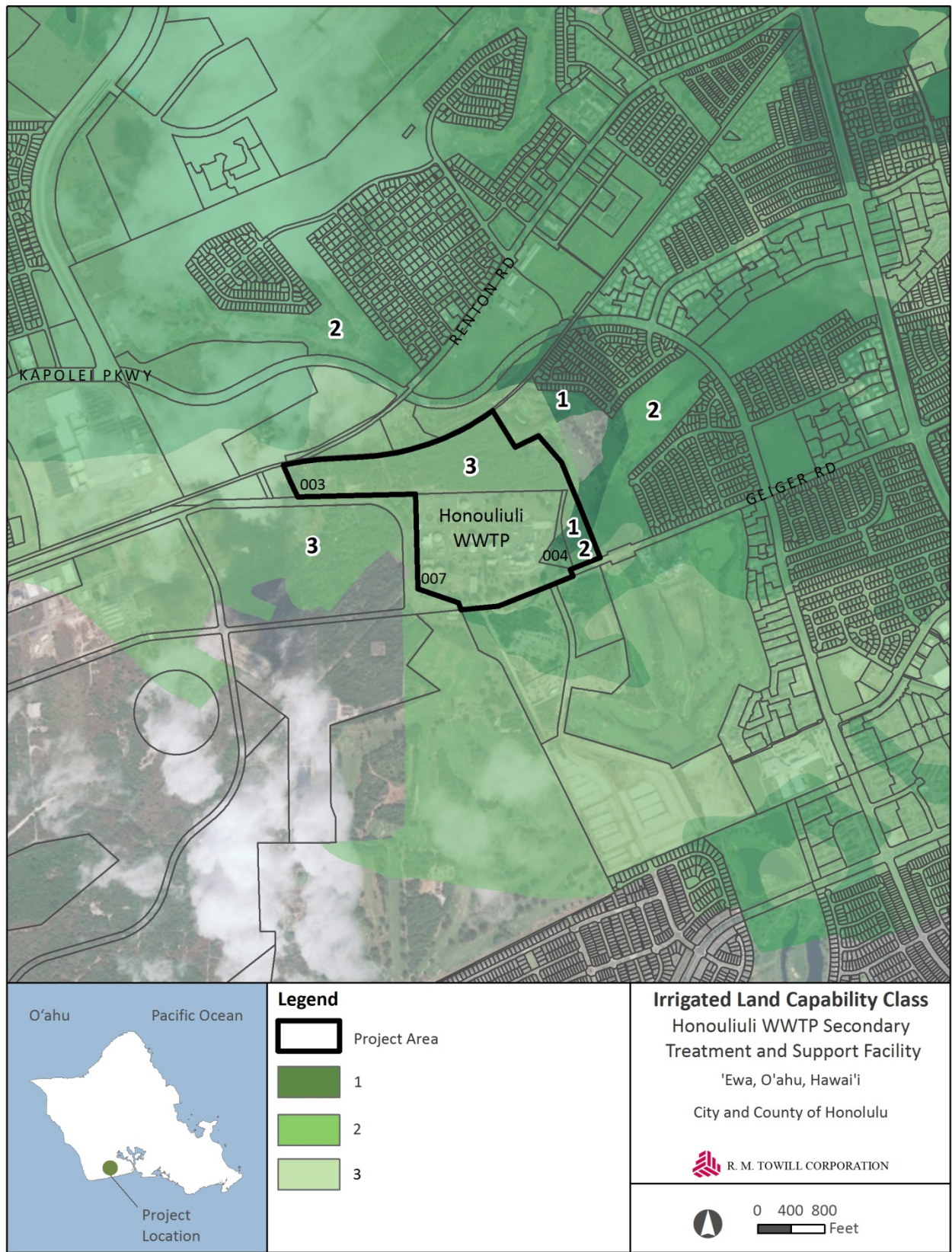
Sources: ESRI, City and County of Honolulu Department of Planning and Permitting, Google Maps

E.5.6. SOILS MAP



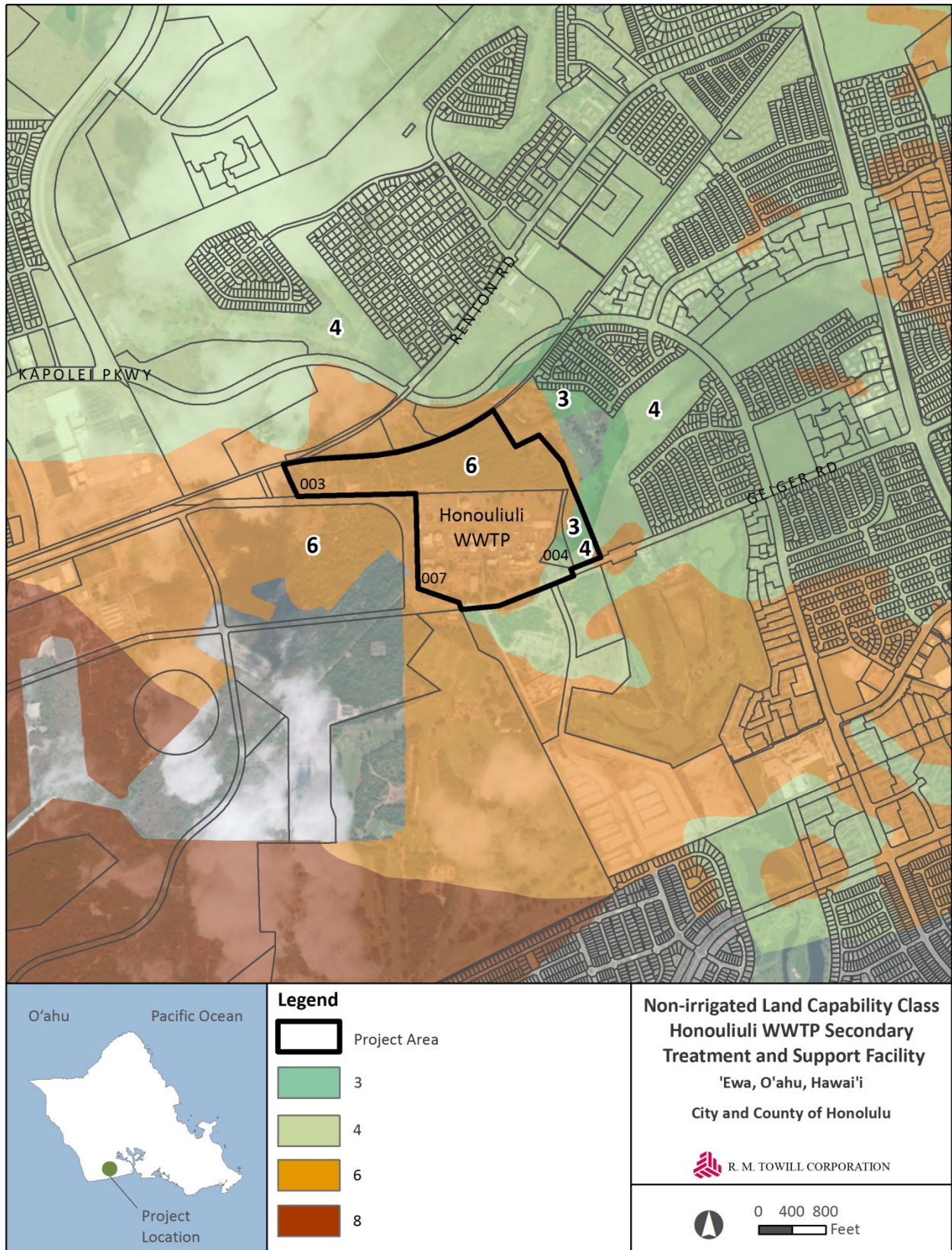
Sources: Esri, USDA, USGS

E.5.7. IRRIGATED LAND CAPABILITY CLASS MAP



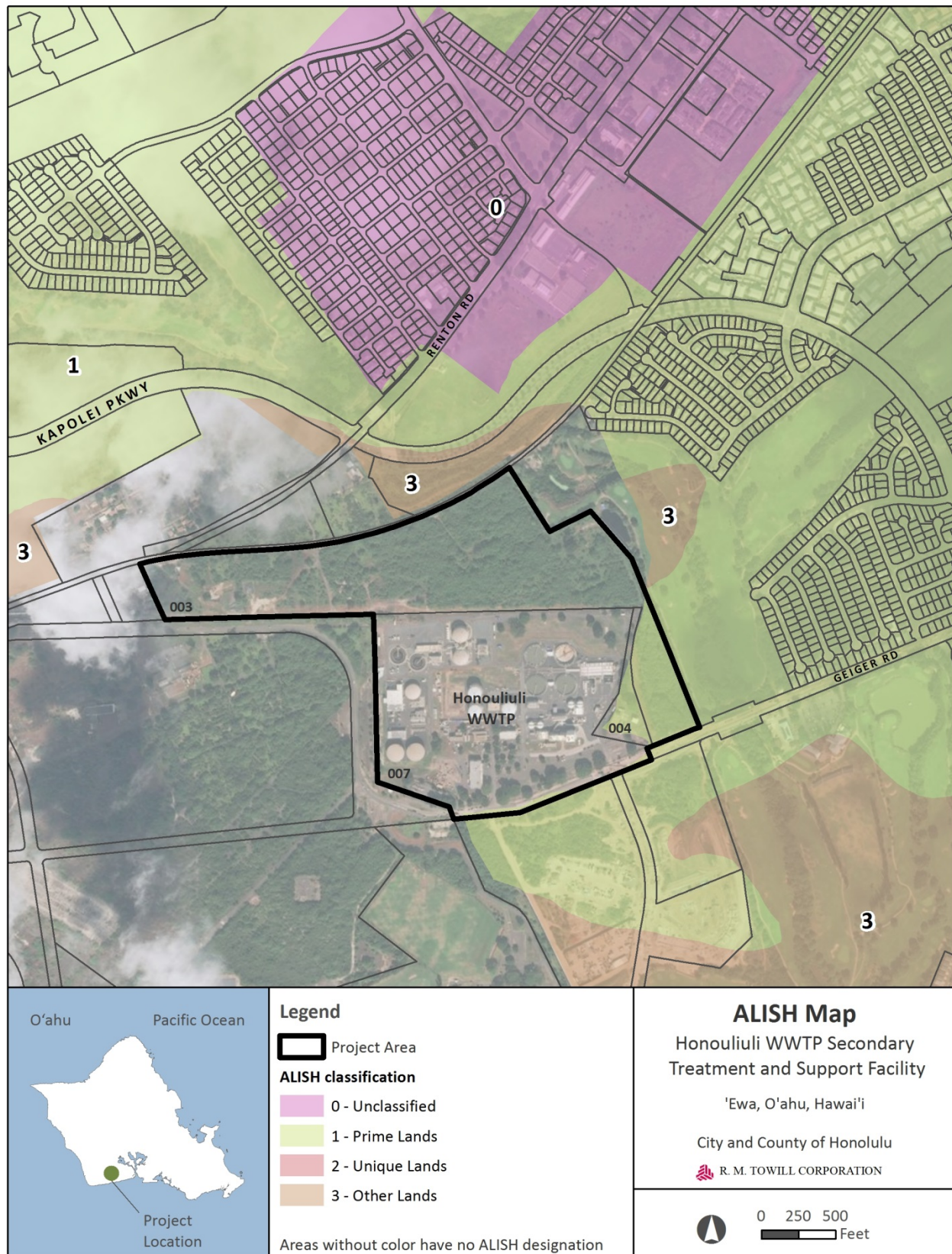
Sources: Esri, USDA, USGS

E.5.8. NON-IRRIGATED LAND CAPABILITY CLASS MAP



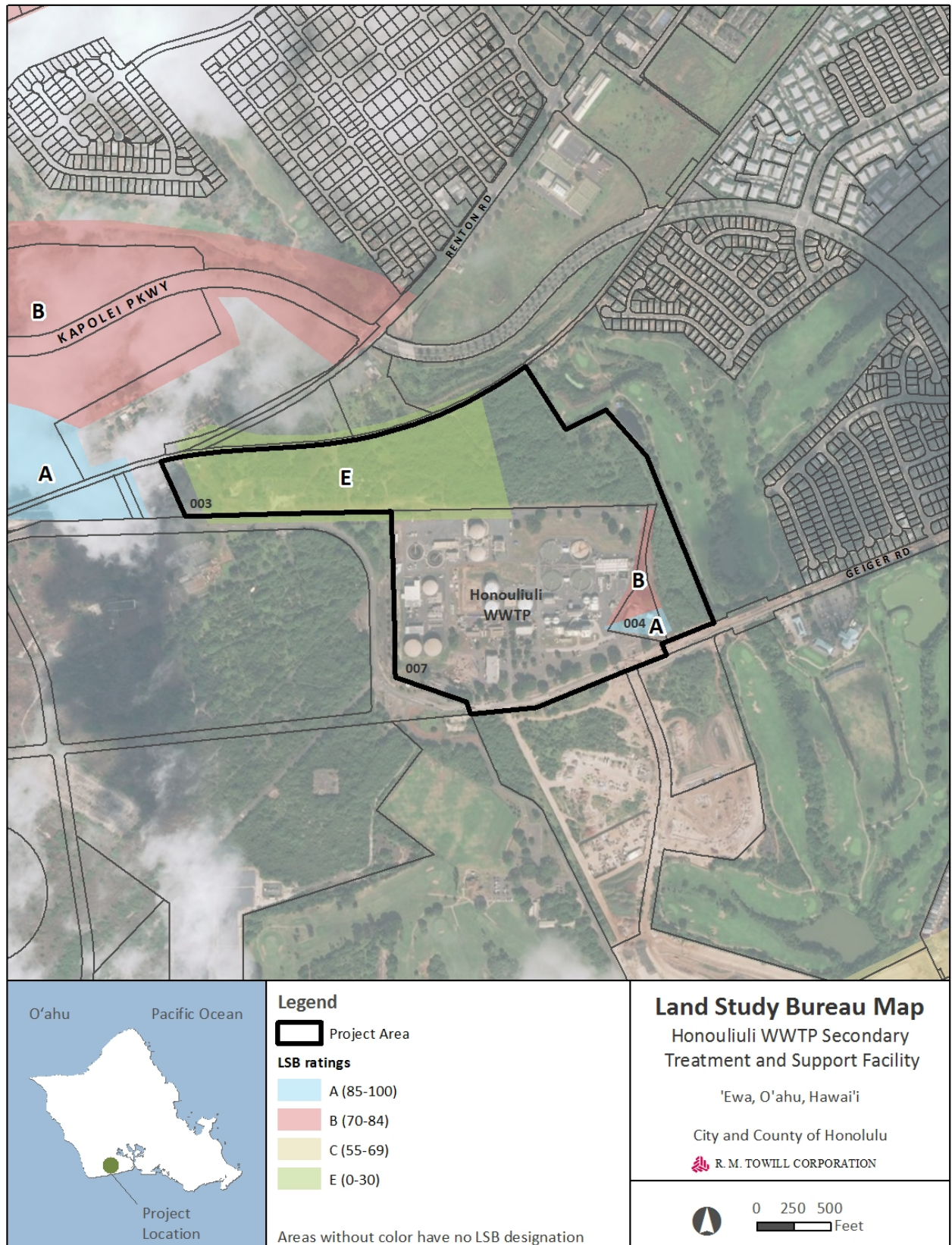
Sources: Esri, USDA, USGS

E.5.9. ALISH MAP



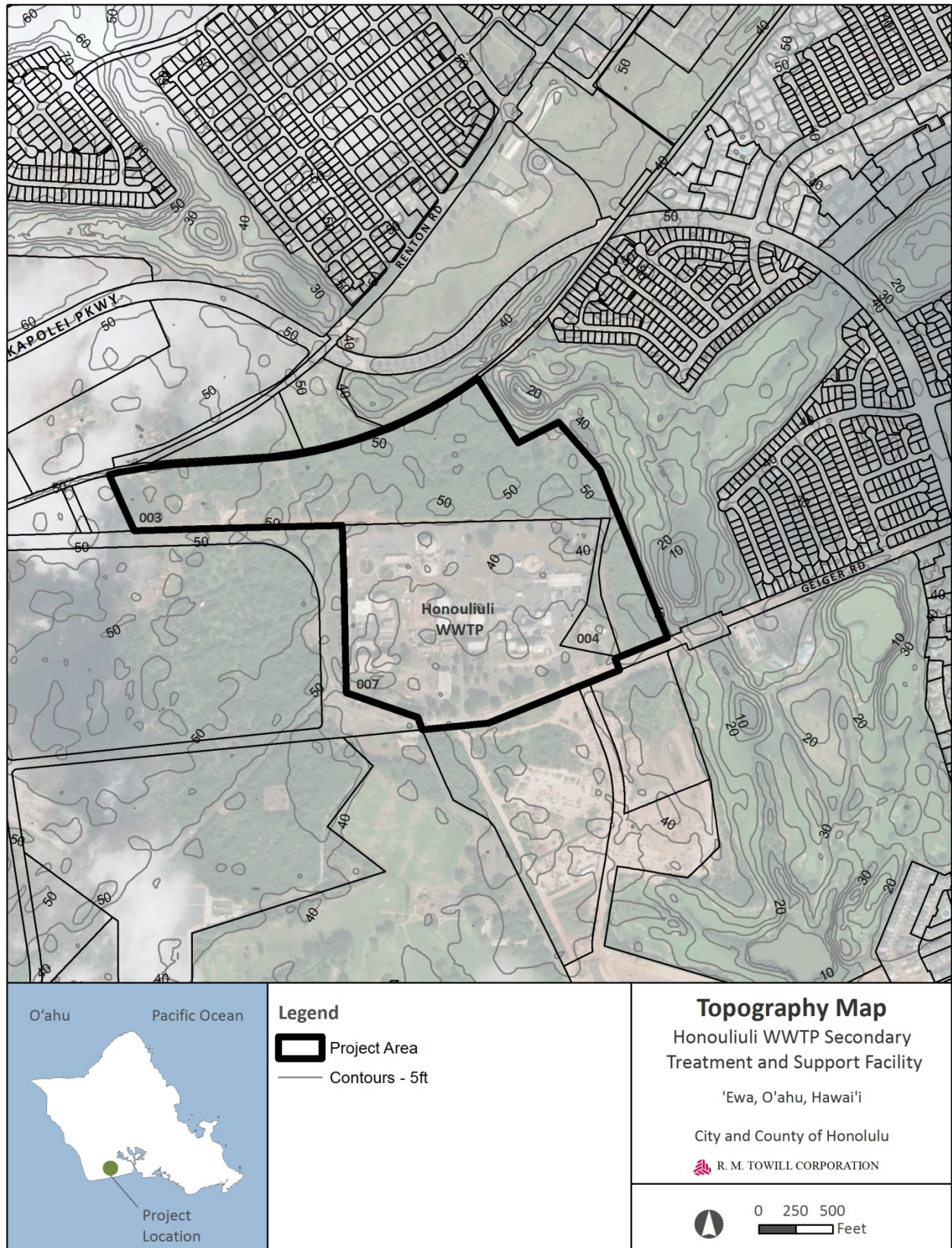
Sources: Esri, State Department of Agriculture, USGS

E.5.10. LAND STUDY BUREAU MAP



Sources: Esri, Land Study Bureau's Detailed Land Classification, USGS

E.5.11. TOPOGRAPHY



Sources: Esri, National Geographic Society, City and County of Honolulu

Figure E.5.12
Abutting Land Uses

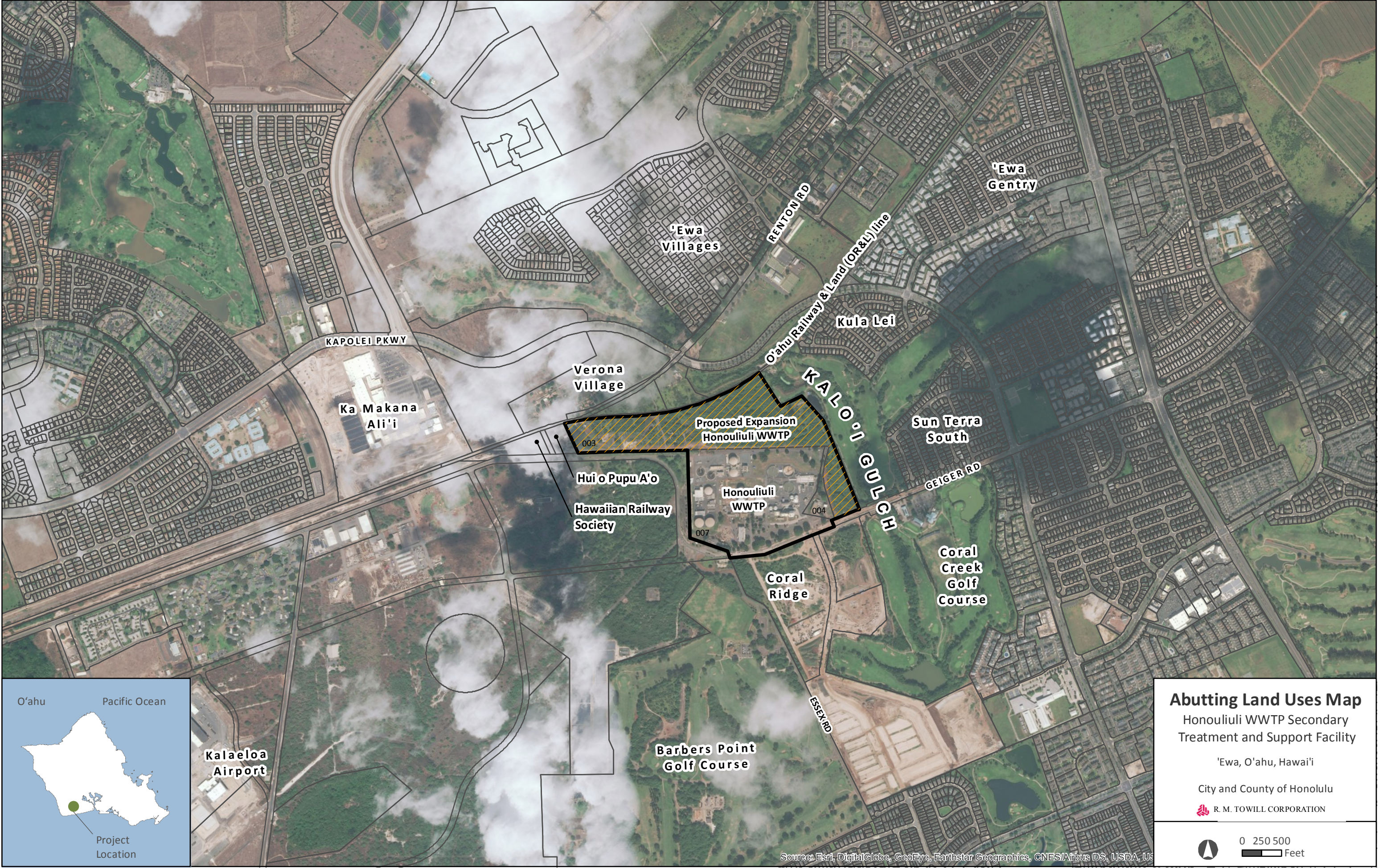


Table E.6.1
Honouliuli WWTP Building Data
Existing Facilities

No. of Bldgs.	Structures	Footprint (sq. ft.)	No. of Stories	Height Above Grade (ft)	Height Below Grade (ft)	Parcel	SLUD	Phase	Remain/ / New / Replace	Comments
Honouliuli WWTP Existing Buildings										
1	Heat Exchangers	616	1	40		7	U	existing	remain	Heat Exchanger on concrete pad to remain
2	Blend Tanks	3,529	2	32		7	U	existing	remain	Upgrade in Phase 1C
3	Storage Shed	715	1	20		7	U	existing	replace	To be Demolished in Upgrade Phase 2 and provide new structure
4	Primary Blower Bldg	1,935	1	16		7	U	existing	remain	Upgrade in Phase 1C
5	Grit Tanks/Preaeration	20,251	1	20		7	U	existing	remain	Rehabilitation in Phase 1C
6	PC 1	17,051	1	15		7	U	existing	remain	Convert to Equalization Tanks in Phase 1C
7	PC 2	17,051	1	15		7	U	existing	remain	Convert to Equalization Tanks in Phase 1C
8	Pump Station for PC 1 and 2	731	1	12	7	7	U	existing	remain	Convert to Equalization Tanks in Phase 1C
9	PC 3	17,051	1	15		7	U	existing	remain	Convert to Equalization Tanks in Phase 1C
10	PC 4	17,051	1	15		7	U	existing	remain	Convert to Equalization Tanks in Phase 1C
11	Pump Station for PC 3 and 4	902	1	12	7	7	U	existing	remain	Convert to Equalization Tanks in Phase 1C
12	Biotower 1	8,174	1	32		7	U	existing	remain	Upgrade in Phase 1C
13	Biotower 2	8,174	1	32		7	U	existing	remain	Upgrade in Phase 1C
14	Gravity Thickener 1 and 2	3,424	1	25	3	7	U	existing	remain	Existing structure to remain
15	Maintenance Bldg (near Geiger Rd)	13,629	2	18		7	U	existing	remain	Existing structure to remain
16	Maintenance Bldg	4,948	1	18		7	U	existing	remain	Existing structure to remain
17	Control Bldg	4,170	2	26		7	U	existing	remain	Existing structure to remain
18	Switchgear/Generator Bldg (near dewatering)	1,354	1	21		7	U	existing	remain	Existing structure to remain
19	PS OCS	958	1	8		7	U	existing	remain	Odor Control on concrete pad to remain
20	Locker Bldg (btwn GT 2 and Influent PS)	1,024	1	10		7	U	existing	remain	Existing structure to remain
21	Dewatering Bldg (near Blower Bldg)	676	1	13		7	U	existing	remain	Existing structure to remain
22	Sludge Thickening Bldg	3,179	1	25		7	U	existing	remain	Existing structure to remain
23	Primary Digester 1	6,793	1	54		7	U	existing	remain	Existing structure to remain
24	Primary Digester 2	6,793	1	54		7	U	existing	remain	Existing structure to remain
25	Secondary Digester	6,793	1	54		7	U	existing	remain	Existing structure to remain
26	Digester Control Bldg	4,047	1	22		7	U	existing	remain	Existing structure to remain
27	Odor Control Pad (btwn Biotowers)	2,025	1	53		7	U	existing	remain	Odor Control on concrete pad to remain
28	Odor Control Pad (west of Biotowers)	2,420	1	12		7	U	existing	remain	Odor Control on concrete pad to remain
29	Solids Contact	6,482	1	10	10	7	U	existing	remain	Existing structure to remain
30	Blower Bldg (near Solids Contact)	3,552	1	19		7	U	existing	remain	Existing structure to remain
31	SC 1	8,110	1	8	12	7	U	existing	remain	Existing structure to remain
32	SC 2	8,110	1	8	12	7	U	existing	remain	Existing structure to remain
33	Tank Bottom Sludge Pit	90	1	6	22	7	U	existing	remain	Existing structure to remain
34	Parshall Flume Box	1,318	1	8	8	7	U	existing	remain	Existing structure to remain
35	Chlorination Bldg	3,800	1	20		7	U	existing	remain	Existing structure to remain
36	Electrical Utility Service Substation	750	1	40		7	U	existing	remain	existng facility
37	Thermal Conditioning Bldg	4,089	1	20		7	U	existing	replace	To be Demolished in Phase 1A, replaced with dryer/dewatering facility

Table E.6.1
Honouliuli WWTP Building Data
Existing Facilities

No. of Bldgs.	Structures	Footprint (sq. ft.)	No. of Stories	Height Above Grade (ft)	Height Below Grade (ft)	Parcel	SLUD	Phase	Remain/ / New / Replace	Comments
38	Chemical Storage Building	232	1	12		7	U	existing	replace	To be Demolished in Phase 1A
39	Dewatering Bldg	4,519	2	40		7	U	existing	replace	To be Demolished in Phase 1A
40	Incinerator Bldg	3,087	3	70		7	U	existing	replace	To be Demolished in Phase 1A
41	Boiler Bldg	651	1	14		7	U	existing	replace	To be Demolished in Phase 1A
42	Gravity Thickener 3 and 4	3,424	1	20	8	7	U	existing	replace	To be Demolished in Phase 1A
43	Storage Trailer (near GT 3 and 4)	193	1	9		7	U	existing	replace	To be Demolished in Phase 1A
44	Biotower Distribution Box	707	1	13	8	7	U	existing	remain	Modifications in Phase 1B
45	Biotower Pump Station	4,558	1	22	16	7	U	existing	remain	Modifications in Phase 1B
46	Effluent Screens Bldg/Plant Water Reuse Bldg (aband)	4,873	1	6	17	7	U	existing	remain	Modifications in Phase 1B
47	Storage Shed	1,000	1	24		7	U	existing	replace	Upgrade Phase 2 - New Structure
	Subtotal parcel 007	235,006								
48	Influent Screens	2,372	1	0	25	4	A	existing	remain	Upgrade in Phase 1C
49	Influent PS	5,415	3	20	35	4	A	existing	remain	Upgrade in Phase 1D
50	Venturi Pit (near Influent PS)	396	1	10	10	4	A	existing	remain	Existing structure to remain
51	Covered Vehicle Wash Station	1,200	1	18		4	A	existing	remain	Existing structure to remain
52	Headworks OCS	880	1	8		4	A	existing	replace	To be replaced with a new structure in Phase 2
53	Solids OCS	1,260	1	28		4	A	1A	replace	To be Demolished in Phase 1A
54	Return Flow Pump Station	168	1	0	24	4	A	1A	replace	Replace with a new subsurface structure across parcel 004 and 007.
	Subtotal parcel 004	11,691								
	Total SF Existing WWTP Building Footprint	246,697								
BWS Honouliuli Water Recycle Facility										
55	RO Storage Tank	8,330	1	40		7	U	existing	remain	Honouliuli Reclamation Facility to remain
56	Microfiltration/RO Building	16,034	1	17		7	U	existing	remain	Honouliuli Reclamation Facility to remain
57	Reuse Pump Station	4,376	1	10	18	7	U	existing	remain	Honouliuli Reclamation Facility to remain
58	Hydro Sand Filter	7,000	1	18		7	U	existing	remain	Honouliuli Reclamation Facility to remain
59	R1 Product Delivery Pump Station	5,690	1	16		7	U	existing	remain	Honouliuli Reclamation Facility to remain
60	UV Channel/R1 Transfer PS	515	1	5	16	7	U	existing	remain	Honouliuli Reclamation Facility to remain
61	R1 Storage Tank No.1	11,300	1	40		7	U	existing	remain	Honouliuli Reclamation Facility to remain
62	R1 Storage Tank No. 2	11,300	1	40		7	U	existing	remain	Honouliuli Reclamation Facility to remain
	Subtotal SF HWRF parcel 007	64,545								
Total SF Existing Building Footprint parcels 004 and 007		311,242								

Table E.6.2
Honouliuli WWTP Building Data
Proposed Facilities After Phase 1A

No. of Bldgs.	Structures	Footprint (sq. ft.)	No. of Stories	Height Above Grade (ft)	Height Below Grade (ft)	Parcel	SLUD	Phase	Remain/ / New / Replace	Comments
Honouliuli WWTP Existing Buildings										
1	Heat Exchangers	616	1	40		7	U	existing	remain	Heat Exchanger on concrete pad to remain
2	Blend Tanks	3,529	2	32		7	U	existing	remain	Upgrade in Phase 1C
3	Storage Shed	715	1	20		7	U	existing	replace	To be Demolished in Upgrade Phase 2 and provide new structure
4	Primary Blower Bldg	1,935	1	16		7	U	existing	remain	Upgrade in Phase 1C
5	Grit Tanks/Preaeration	20,251	1	20		7	U	existing	remain	Rehabilitation in Phase 1C; Convert Preaeration basins to High Rate Biological Co
6	PC 1	17,051	1	15		7	U	existing	remain	Convert to Equalization Tanks in Phase 1C
7	PC 2	17,051	1	15		7	U	existing	remain	Convert to Equalization Tanks in Phase 1C
8	Pump Station for PC 1 and 2	731	1	12	7	7	U	existing	remain	Convert to Equalization Tanks in Phase 1C
9	PC 3	17,051	1	15		7	U	existing	remain	Convert to Equalization Tanks in Phase 1C
10	PC 4	17,051	1	15		7	U	existing	remain	Convert to Equalization Tanks in Phase 1C
11	Pump Station for PC 3 and 4	902	1	12	7	7	U	existing	remain	Convert to Equalization Tanks in Phase 1C
12	Biotower 1	8,174	1	32		7	U	existing	remain	Upgrade in Phase 1C
13	Biotower 2	8,174	1	32		7	U	existing	remain	Upgrade in Phase 1C
14	Gravity Thickener 1 and 2	3,424	1	25	3	7	U	existing	remain	Existing structure to remain
15	Maintenance Bldg (near Geiger Rd)	13,629	2	18		7	U	existing	remain	Existing structure to remain
16	Maintenance Bldg	4,948	1	18		7	U	existing	remain	Existing structure to remain
17	Control Bldg	4,170	2	26		7	U	existing	remain	Existing structure to remain
18	Switchgear/Generator Bldg (near dewatering)	1,354	1	21		7	U	existing	remain	Existing structure to remain
19	PS OCS	958	1	8		7	U	existing	remain	Odor Control on concrete pad to remain
20	Locker Bldg (btwn GT 2 and Influent PS)	1,024	1	10		7	U	existing	remain	Existing structure to remain
21	Dewatering Bldg (near Blower Bldg)	676	1	13		7	U	existing	remain	Existing structure to remain
22	Sludge Thickening Bldg	3,179	1	25		7	U	existing	remain	Existing structure to remain
23	Primary Digester 1	6,793	1	54		7	U	existing	remain	Existing structure to remain
24	Primary Digester 2	6,793	1	54		7	U	existing	remain	Existing structure to remain
25	Secondary Digester	6,793	1	54		7	U	existing	remain	Existing structure to remain
26	Digester Control Bldg	4,047	1	22		7	U	existing	remain	Existing structure to remain
27	Odor Control Pad (btwn Biotowers)	2,025	1	53		7	U	existing	remain	Odor Control on concrete pad to remain
28	Odor Control Pad (west of Biotowers)	2,420	1	12		7	U	existing	remain	Odor Control on concrete pad to remain
29	Solids Contact	6,482	1	10	10	7	U	existing	remain	Existing structure to remain
30	Blower Bldg (near Solids Contact)	3,552	1	19		7	U	existing	remain	Existing structure to remain
31	SC 1	8,110	1	8	12	7	U	existing	remain	Existing structure to remain
32	SC 2	8,110	1	8	12	7	U	existing	remain	Existing structure to remain
33	Tank Bottom Sludge Pit	90	1	6	22	7	U	existing	remain	Existing structure to remain
34	Parshall Flume Box	1,318	1	8	8	7	U	existing	remain	Existing structure to remain
35	Chlorination Bldg	3,800	1	20		7	U	existing	remain	Existing structure to remain
36	Electrical Utility Service Substation	750	1	40		7	U	existing	remain	existng facility
37	Biotower Distribution Box	707	1	13	8	7	U	existing	remain	Modifications in Phase 1B

Table E.6.2
Honouliuli WWTP Building Data
Proposed Facilities After Phase 1A

No. of Bldgs.	Structures	Footprint (sq. ft.)	No. of Stories	Height Above Grade (ft)	Height Below Grade (ft)	Parcel	SLUD	Phase	Remain/ / New / Replace	Comments
38	Biotower Pump Station	4,558	1	22	16	7	U	existing	remain	Modifications in Phase 1B
39	Effluent Screens Bldg/Plant Water Reuse Bldg (aband)	4,873	1	6	17	7	U	existing	remain	Modifications in Phase 1B
40	Storage Shed	1,000	1	24		7	U	existing	replace	Upgrade Phase 2 - New Structure
41	Cake OCS	2,500	1	5		7	U	1A	replace	Phase 1A - New Structure
42	Dryer Facility	20,135	2	43		7	U	1A	replace	Phase 1A by CH2M - New Structure
43	Cake Receiving Facility	3,240	1	10	19	7	U	1A	replace	Phase 1A by CH2M - New Structure
44	Dewatering Building	2,166	1	40		7	U	1A	replace	Phase 1A by CH2M - New Structure
45	Cake Receiving Elect Buliding	400	1	17		7	U	1A	replace	Phase 1A by CH2M - New Structure
46	Pellet Storage	2,224	1	56		7	U	1A	new	Phase 1A by CH2M - New Structure
47	Operations Building	2,376	2	43		7	U	1A	New	Phase 1A by CH2M - New Structure
48	Auxiliary Pellet Storage	8,900	1	31		7	U	1A	New	Phase 1A by CH2M - New Structure
49	Fuel Tank	384	1	10		7	U	1A	New	Phase 1A by CH2M - New Structure
	Subtotal parcel 007	261,137								
50	Influent Screens	2,372	1	0	25	4	A	existing	remain	Upgrade in Phase 1C
51	Influent PS	5,415	3	20	35	4	A	existing	remain	Upgrade in Phase 1D
52	Venturi Pit (near Influent PS)	396	1	10	10	4	A	existing	remain	Existing structure to remain
53	Covered Vehicle Wash Station	1,200	1	18		4	A	existing	remain	Existing structure to remain
54	Headworks OCS	880	1	8		4	A	existing	replace	To be replaced with a new structure inPhase 2
55	Return Flow Pump Station	168	1	0	24	4	A	1A	replace	Replace with a new subsurface structure across parcel 004 and 007.
	Subtotal parcel 004	10,431								
	Total SF WWTP Building Footprint - Phase 1A	271,567								
BWS Honouliuli Water Recycle Facility										
56	RO Storage Tank	8,330	1	40		7	U	existing	remain	Honouliuli Reclamation Facility to remain
57	Microfiltration/RO Building	16,034	1	17		7	U	existing	remain	Honouliuli Reclamation Facility to remain
58	Reuse Pump Station	4,376	1	10	18	7	U	existing	remain	Honouliuli Reclamation Facility to remain
59	Hydro Sand Filter	7,000	1	18		7	U	existing	remain	Honouliuli Reclamation Facility to remain
60	R1 Product Delivery Pump Station	5,690	1	16		7	U	existing	remain	Honouliuli Reclamation Facility to remain
61	UV Channel/R1 Transfer PS	515	1	5	16	7	U	existing	remain	Honouliuli Reclamation Facility to remain
62	R1 Storage Tank No.1	11,300	1	40		7	U	existing	remain	Honouliuli Reclamation Facility to remain
63	R1 Storage Tank No. 2	11,300	1	40		7	U	existing	remain	Honouliuli Reclamation Facility to remain
	Subtotal SF HWRF parcel 007	64,545								
	Total WWTP and HWRF Building Footprint After Phase 1A	336,112								

Table E.6.3
Honouliuli WWTP Building Data
Phase 1B and Future Process and Non-Process Facilities

No. of Bldgs.	Structures	Footprint (sq. ft.)	No. of Stories	Height Above Grade (ft)	Height Below Grade (ft)	Parcel	SLUD	Phase	Remain/ / New / Replace	Comments
Honouliuli WWTP Existing Buildings										
1	Heat Exchangers	616	1	40		7	U	existing	Remain	Heat Exchanger on concrete pad to remain
2	Blend Tanks	3,529	2	32		7	U	existing	Remain	Upgrade in Phase 1C
3	Storage Shed	715	1	20		7	U	existing	replace	To be Demolished in Upgrade Phase 2 and provide new structure
4	Primary Blower Bldg	1,935	1	16		7	U	existing	Remain	Upgrade in Phase 1C
5	Grit Tanks/Preaeration	20,251	1	20		7	U	existing	Remain	Rehabilitation in Phase 1C
6	PC 1	17,051	1	15		7	U	existing	Remain	Convert to Equalization Tanks in Phase 1C
7	PC 2	17,051	1	15		7	U	existing	Remain	Convert to Equalization Tanks in Phase 1C
8	Pump Station for PC 1 and 2	731	1	12	7	7	U	existing	Remain	Convert to Equalization Tanks in Phase 1C
9	PC 3	17,051	1	15		7	U	existing	Remain	Convert to Equalization Tanks in Phase 1C
10	PC 4	17,051	1	15		7	U	existing	Remain	Convert to Equalization Tanks in Phase 1C
11	Pump Station for PC 3 and 4	902	1	12	7	7	U	existing	Remain	Convert to Equalization Tanks in Phase 1C
12	Biotower 1	8,174	1	32		7	U	existing	Remain	Upgrade in Phase 1C
13	Biotower 2	8,174	1	32		7	U	existing	Remain	Upgrade in Phase 1C
14	Gravity Thickener 1 and 2	3,424	1	25	3	7	U	existing	Remain	Existing structure to remain
15	Maintenance Bldg (near Geiger Rd)	13,629	2	18		7	U	existing	Remain	Existing structure to remain
16	Maintenance Bldg	4,948	1	18		7	U	existing	Remain	Existing structure to remain
17	Control Bldg	4,170	2	26		7	U	existing	Remain	Existing structure to remain
18	Switchgear/Generator Bldg (near dewatering)	1,354	1	21		7	U	existing	Remain	Existing structure to remain
19	PS OCS	958	1	8		7	U	existing	Remain	Odor Control on concrete pad to remain
20	Locker Bldg (btwn GT 2 and Influent PS)	1,024	1	10		7	U	existing	Remain	Existing structure to remain
21	Dewatering Bldg (near Blower Bldg)	676	1	13		7	U	existing	Remain	Existing structure to remain
22	Sludge Thickening Bldg	3,179	1	25		7	U	existing	Remain	Existing structure to remain
23	Primary Digester 1	6,793	1	54		7	U	existing	Remain	Existing structure to remain
24	Primary Digester 2	6,793	1	54		7	U	existing	Remain	Existing structure to remain
25	Secondary Digester	6,793	1	54		7	U	existing	Remain	Existing structure to remain
26	Digester Control Bldg	4,047	1	22		7	U	existing	Remain	Existing structure to remain
27	Odor Control Pad (btwn Biotowers)	2,025	1	53		7	U	existing	Remain	Odor Control on concrete pad to remain
28	Odor Control Pad (west of Biotowers)	2,420	1	12		7	U	existing	Remain	Odor Control on concrete pad to remain
29	Solids Contact	6,482	1	10	10	7	U	existing	Remain	Existing structure to remain
30	Blower Bldg (near Solids Contact)	3,552	1	19		7	U	existing	Remain	Existing structure to remain
31	SC 1	8,110	1	8	12	7	U	existing	Remain	Existing structure to remain
32	SC 2	8,110	1	8	12	7	U	existing	Remain	Existing structure to remain
33	Tank Bottom Sludge Pit	90	1	6	22	7	U	existing	Remain	Existing structure to remain
34	Parshall Flume Box	1,318	1	8	8	7	U	existing	Remain	Existing structure to remain
35	Chlorination Bldg	3,800	1	20		7	U	existing	Remain	Existing structure to remain
36	Electrical Utility Service Substation	750	1	40		7	U	existing	Remain	existng facility
37	Biotower Distribution Box	707	1	13	8	7	U	existing	Remain	Modifications in Phase 1B

Table E.6.3
Honouliuli WWTP Building Data
Phase 1B and Future Process and Non-Process Facilities

No. of Bldgs.	Structures	Footprint (sq. ft.)	No. of Stories	Height Above Grade (ft)	Height Below Grade (ft)	Parcel	SLUD	Phase	Remain/ / New / Replace	Comments
38	Biotower Pump Station	4,558	1	22	16	7	U	existing	Remain	Modifications in Phase 1B
39	Effluent Screens Bldg/Plant Water Reuse Bldg (aband)	4,873	1	6	17	7	U	existing	Remain	Modifications in Phase 1B
40	Storage Shed	1,000	1	24		7	U	existing	Replace	Upgrade Phase 2 - New Structure
41	Cake OCS	2,500	1	5		7	U	1A	Replace	Phase 1A - New Structure
42	Dryer Facility	20,135	2	43		7	U	1A	Replace	Phase 1A by CH2M - New Structure
43	Cake Receiving Facility	3,240	1	10	19	7	U	1A	Replace	Phase 1A by CH2M - New Structure
44	Dewatering Building	2,166	1	40		7	U	1A	Replace	Phase 1A by CH2M - New Structure
45	Cake Receiving Elect Buliding	400	1	17		7	U	1A	Replace	Phase 1A by CH2M - New Structure
46	Pellet Storage	2,224	1	56		7	U	1A	New	Phase 1A by CH2M - New Structure
47	Operations Building	2,376	2	43		7	U	1A	New	Phase 1A by CH2M - New Structure
48	Auxiliary Pellet Storage	8,900	1	31		7	U	1A	New	Phase 1A by CH2M - New Structure
49	Fuel Tank	384	1	10		7	U	1A	New	Phase 1A by CH2M - New Structure
50	Effluent Diversion Structure	3,466	1	10		7	U	1B	New	Phase 1B - New Structure
51	Mag Meter Box (near Effluent Juction Box)	1,947	1	2	28	7	U	1B	New	Phase 1B - New Structure
52	PE Structure	2,274	1	0	20	7	U	1B	New	Phase 1B - New Structure
53	Primary Switchgear Bldg	2,500	1	15		7	U	1B	Replace	Phase 1B - New Structure
	Subtotal parcel 007	271,325								
54	Influent Screens	2,372	1	0	25	4	A	existing	Remain	Upgrade in Phase 1C
55	Influent PS	5,415	3	20	35	4	A	existing	Remain	Upgrade in Phase 1D
56	Venturi Pit (near Influent PS)	396	1	10	10	4	A	existing	Remain	Existing structure to remain
57	Covered Vehicle Wash Station	1,200	1	18		4	A	existing	Remain	Existing structure to remain
58	Headworks OCS	880	1	8		4	A	existing	Replace	To be replaced with a new structure in Phase 2
59	Return Flow Pump Station	168	1	0	24	4	A	1A	Replace	Replace with a new subsurface structure across parcel 004 and 007.
	Subtotal parcel 004	10,431								
60	Aeration Basins	56,088	1	10		3	U	1B	New	Phase 1B - New Structure
61	Secondary Blower	12,033	1	15		3	U	1B	New	Phase 1B - New Structure
65	Secondary Clarifier (SC) 1	15,394	1	2	43	3	A	1B	New	Phase 1B - New Structure
66	SC 2	15,394	1	2	43	3	A	1B	New	Phase 1B - New Structure
67	SC 3	15,394	1	2	43	3	A	1B	New	Phase 1B - New Structure
68	SC 4	15,394	1	2	43	3	A	1B	New	Phase 1B - New Structure
69	SC 5	15,394	1	2	43	3	A	1B	New	Phase 1B - New Structure
70	SC 6	15,394	1	2	43	3	A	1B	New	Phase 1B - New Structure
71	Secondary Process Pump Station	20,000	3	15	48	3	A	1B	New	Phase 1B - New Structure
72	Sec. Electrical Bldg (West of Clarifiers)	2,090	1	15		3	A	1B	New	Phase 1B - New Structure
73	ML Distribution Box	4,208	1	5	15	3	A	1B	New	Phase 1B - New Structure
	Subtotal parcel 003	186,782								

Table E.6.3
Honouliuli WWTP Building Data
Phase 1B and Future Process and Non-Process Facilities

No. of Bldgs.	Structures	Footprint (sq. ft.)	No. of Stories	Height Above Grade (ft)	Height Below Grade (ft)	Parcel	SLUD	Phase	Remain/ / New / Replace	Comments
	Total SF WWTP Building Footprint After Phase 1B	468,537								
BWS Honouliuli Water Recycle Facility										
74	RO Storage Tank	8,330	1	40		7	U	existing	remain	Honouliuli Reclamation Facility to remain
75	Microfiltration/RO Building	16,034	1	17		7	U	existing	remain	Honouliuli Reclamation Facility to remain
76	Reuse Pump Station	4,376	1	10	18	7	U	existing	remain	Honouliuli Reclamation Facility to remain
77	Hydro Sand Filter	7,000	1	18		7	U	existing	remain	Honouliuli Reclamation Facility to remain
78	R1 Product Delivery Pump Station	5,690	1	16		7	U	existing	remain	Honouliuli Reclamation Facility to remain
79	UV Channel/R1 Transfer PS	515	1	5	16	7	U	existing	remain	Honouliuli Reclamation Facility to remain
80	R1 Storage Tank No.1	11,300	1	40		7	U	existing	remain	Honouliuli Reclamation Facility to remain
81	R1 Storage Tank No. 2	11,300	1	40		7	U	existing	remain	Honouliuli Reclamation Facility to remain
	Subtotal SF HWRF parcel 007	64,545								
	Total WWTP and HWRF Building Footprint After Phase 1B	533,082								
Future WWTP Secondary Treatment and Non-Process Support Facilities										
Future Secondary Treatment Improvements										
81	High Rate Biological Contact Facility	22,456	1	15		7	U	1C	New	Phase 1C - New Structure
82	Grit Removal Facility (Headcell)	9,365	3	45		7	U	1C	New	Phase 1C - New Structure
83	Primary OCS	2,066	1	15		7	U	1C	New	Phase 1C - New Structure
84	Solids OCS	400	1	15		7	U	1C	New	Phase 1C - New Structure
85	CHP Facility	3,322	1	TBD	TBD	7	U	1C	New	Phase 1C by CH2M - New Structure
86	Thermal Hydrolysis	4,543	1	TBD	TBD	7	U	1C	New	Phase 1C by CH2M - New Structure
87	Biogas Storage Handling	6,279	1	TBD	TBD	7	U	1C	New	Phase 1C by CH2M - New Structure
88	Boiler	669	1	TBD	TBD	7	U	1C	New	Phase 1C by CH2M - New Structure
89	Sludge Screen	1,596	1	TBD	TBD	7	U	1C	New	Phase 1C by CH2M - New Structure
90	FOG Facility	2,888	1	TBD	TBD	7	U	1C	New	Phase 1C by CH2M - New Structure
91	Wet Sludge Receiving Facility	669	1	TBD	TBD	7	U	2	New	Upgrade Phase 2 - New Structure
	Subtotal parcel 007	54,252								
62	Septage Receiving Facility	2,262	1	20		3	U	2	replace	Upgrade Phase 2 - New Structure
63	Future aeration basins	23,000	1			3	U	Future	New	Future (if needed)
64	Maintenance Building	17,444	1			3	U	Future	New	Future
74	SC 7	15,394	1	40		3	A	Future	New	Future (if needed)
75	SC 8	15,394	1	40		3	A	Future	New	Future (if needed)

Table E.6.3
Honouliuli WWTP Building Data
Phase 1B and Future Process and Non-Process Facilities

No. of Bldgs.	Structures	Footprint (sq. ft.)	No. of Stories	Height Above Grade (ft)	Height Below Grade (ft)	Parcel	SLUD	Phase	Remain/ / New / Replace	Comments
76	Post Aerobic Digestion	TBD	TBD	TBD	TBD	3	A	Future	New	Future (if needed)
	Subtotal parcel 003	73,494								
Future Non-Process Support Facilities										
77	Ocean Team Building	12,000	2	TBD	TBD	3	A	Future	New	Future
78	Laboratory Building	16,500	2	TBD	TBD	3	A	Future	New	Future
79	Administration Building	22,000	3	TBD	TBD	3	A	Future	New	Future
80	Operations Building	8,800	2	TBD	TBD	3	A	Future	New	Future
81	Covered Truck Parking	9,500	1	TBD	TBD	3	A	Future	New	Future
82	Central Shop Building	23,000	1	TBD	TBD	3	A	Future	New	Future
83	Warehouse Building	25,600	1	TBD	TBD	3	A	Future	New	Future
84	Maintenance Building	20,500	1	TBD	TBD	3	U	Future	New	Future
	Subtotal parcel 003	137,900								
Subtotal Future Secondary and Non-Process Building SF		265,646								