LEAHI HOSPITAL

HAWAII HEALTH SYSTEMS CORPORATION

3675 Kilauea Avenue ■ Honolulu, Hawaii 96816 ■ Telephone: (808) 733-8000

I N V I T A T I O N F O R B I D S

FOR

FURNISHING LABOR AND MATERIALS

REQUIRED FOR

LEAHI HOSPITAL

PARKING LOT IMPROVEMENTS

IFB No. 19L-008

3675 KILAUEA AVENUE
HONOLULU, HAWAII 96816

TMK: 03-2-031:001

FOR THE

HAWAII HEALTH SYSTEMS CORPORATION (HHSC)

STATE OF HAWAII

July 26, 2019

Invitation for Bids

Leahi Hospital - Parking Lot Improvements

The Hawaii Health Systems Corporation (HHSC) Oahu Region is requesting bids from qualified companies for parking lot improvements at Leahi Hospital located at 3675 Kilauea Avenue Honolulu 96816.

The IFB may be obtained electronically from the following website:
http://www.leahi.hhsc.org/procurement/notices/

A site visit is scheduled for August 6, 2019 at 9:00 a.m. All interested companies shall meet in the lobby area. The deadline for submission of written/emailed questions pertaining to the IFB is August 15, 2019.

All bids must be received and time stamped by HHSC by September 5, 2019, 2:00 p.m. Hawaii Standard Time. Bids shall be submitted to the Purchasing Office, located on the basement floor of **Maluhia**, at 1027 Hala Dr., Honolulu, Hawaii 96817.

Addenda to the IFB will be posted on the website listed above.

For any inquiries, please contact Scott Kawai, Oahu Region Senior Contracts Manager, at (808) 832-3025 or by email at skawai@hhsc.org.

Purchasing Office
Maluhia
1027 Hala Dr.
Honolulu, Hawaii 96817

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SECTION 1
ADMINISTRATION

1.0 INTRODUCTION

This Invitation for Bid (hereinafter "IFB") is issued by the Hawaii Health Systems Corporation (hereinafter "HHSC"), a public body corporate and politic and an instrumentality and agency of the State of Hawaii. All procedures and processes will be in accordance with HHSC Oahu Region policy and procedures.

In order for HHSC to accept Bidder's response in a timely manner, please thoroughly read this IFB and follow instructions as presented.

1.1 IFB TIMETABLE AS FOLLOWS

The timetable as presented represents HHSC's best estimated schedule. If an activity of the timetable, such as "Closing Date for Receipt of Bids" is delayed, the rest of the timetable dates may be modified. BIDDER will be advised, by addendum to the IFB, of any such modifications to the timetable. Contract start date will be subject to the issuance of a Notice to Proceed.

ACTIVITY		SCHEDULED DATES
1.	IFB Public Announcement	July 26, 201
2.	Pre-Bid Orientation Leahi Hospital lobby area 9:00 a.m.	August 6, 2019
3.	Closing Date for Receipt of Questions	August 15, 2019
4.	Closing Date for Receipt of Bids 2:00 p.m. at **Maluhia**	September 5, 2019
5.	Contractor Selection/Award Notification (on/about)	September 6, 2019
6.	Contract Start Date (on/about)	October 14, 2019

1.2 AUTHORITY

This IFB is issued under the provisions of Chapter 323F, Hawaii Revised Statutes (HRS), and its administrative rules. All BIDDERS are charged with presumptive knowledge of all requirements of the cited authorities. Submission of a valid executed bid by any BIDDER shall constitute admission of such knowledge on the part of such BIDDER.

1.2.1 IFB ORGANIZATION

This IFB is organized into five sections:

SECTION 1: ADMINISTRATIVE
Provides information regarding administrative requirements.

SECTION 2: SCOPE OF SERVICES
Provides a detailed description of goods and/or services to be provided and delineates HHSC and CONTRACTOR responsibilities.

SECTION 3: BID FORMS AND GENERAL CONDITIONS
Describes the required format and content for submission of the bid.

SECTION 4: BID EVALUATION AND AWARD
Describes how bids will be evaluation and procedures for selection and award of contract.

1.3 HEAD OF PURCHASING AGENCY (HOPA)

The HOPA for HHSC, or designee, is authorized to execute any and all Agreements (Contracts), resulting from this IFB.

The HOPA for this IFB is:

Derek Akiyoshi
Regional Chief Executive Officer
Hawaii Health Systems Corporation

1.4 DESIGNATED OFFICIALS

The officials identified in the following paragraphs have been designated by the HOPA as HHSC's procurement officials responsible for execution of this IFB, award of Agreement and coordination of CONTRACTOR's satisfactory completion of contract requirements.

1.4.1 ISSUING OFFICER

The Issuing Officer is responsible for administrating/facilitating all requirements of the IFB solicitation process and is the **sole point of contact** for BIDDER from date of public announcement of the IFB until the selection of the successful BIDDER. The Issuing Officer will also be responsible for contractual actions throughout the term of the contract. For purposes of this IFB, the designated Issuing Officer is:

Scott Kawai, Oahu Region Senior Contracts Manager
Purchasing Office
1027 Hala Drive
Honolulu, Hawaii 96817
e-mail: skawai@hhsc.org
phone: (808) 832-3025

1.5.1 CHARTER

HHSC is a public body corporate and politic and an instrumentality and agency of the State of Hawaii. HHSC is administratively attached to the Department of Health, State of Hawaii and was created by the legislature with passage of Act 262, Session Laws of the State of Hawaii 1996. Act 262 affirms the State's commitment to provide quality health care for the people in the State of Hawaii, including those served by small rural facilities.

1.5.2 STRUCTURE AND SERVICES

HHSC is organized into four operational regions and provides a broad range of healthcare services including acute, long term, rural and ambulatory health care services. As the fourth largest public health system in the country, HHSC is the largest provider of healthcare in the Islands, other than on Oahu. This solicitation is for Leahi Hospital on the island of Oahu.

1.5.3 MISSION

The mission of HHSC is to provide and enhance accessible, comprehensive health care services that are quality-driven, customer-focused and cost-effective.

1.6 FACILITY INFORMATION

Detailed information pertaining to HHSC facilities is located at http://www.hhsc.org.

1.7 SUBMISSION OF QUESTIONS

Questions must be submitted in writing via electronic mail, facsimile or post mail to the Issuing Officer no later than the "Closing Date for Receipt of Questions", identified in paragraph 1.1 in order to generate an official answer. All written questions will receive an official written response from HHSC and become addenda to the IFB.

IMPORTANT

BIDDER may request changes and/or propose alternate language to the attached HHSC General and Special Terms and Conditions during this phase only. All requests will be presented to the HHSC Legal Department for review. No requests to change the HHSC General or Special Terms and Conditions will be entertained after the bids have been submitted or during the contracting process. All written questions and/or approved changes will receive an official written response from HHSC and shall be recorded as addenda to the IFB.

HHSC reserves the right to reject or deny any request(s) made by BIDDER.

Responses by HHSC shall be due to the BIDDER prior to notice of award.

Impromptu, un-written questions are permitted and verbal answers will be provided during pre-bid conferences and other occasions, but are only intended as general direction and will not represent the official HHSC position. The only official position of HHSC is that which is stated in writing and issued in the IFB as addenda thereto.

No other means of communication, whether oral or written, shall be construed as a formal or official response/statement and may not be relied upon.

SEND QUESTIONS TO:

Scott Kawai, Issuing Officer
e-mail: skawai@hhsc.org

1.8 SOLICITATION REVIEW

BIDDER should carefully review this solicitation for defects and questionable or objectionable matter. Comments concerning defects and questionable or objectionable matter, **excluding requests to revise the General or Special Conditions**, must be made in writing and should be received by the Issuing Officer, Scott Kawai, no later than the "Closing Date for Receipt of Bids" as identified in Section 1.1. This will allow issuance of any necessary amendments to the IFB. It will also assist in preventing the opening of bids upon which award may not be made due to a defective solicitation package.

1.9 IFB AMENDMENTS

HHSC reserves the right to amend the IFB any time prior to the deadline date of the IFB. IFB Amendments will be in the form of addenda.

1.10 CANCELLATION OF IFB

The IFB may be canceled when it is determined to be in the best interests of HHSC.

1.11 PROTESTS

Any protest shall be submitted in writing to the HOPA as noted below.

A protest based upon the content of the solicitation shall be submitted in writing within five (5) working days **after** the aggrieved individual/business knows or should have known of the facts giving rise thereto; provided further that the protest shall not be considered unless it is submitted in writing prior to and not later than the "Closing Date for Receipt of Bid" identified in section 1.1.

A protest of an award or proposed award shall be submitted within five (5) working days after the posting of award of the contract. The notice of award, if any, resulting from this solicitation shall be posted at the following website: http://www.leahi.hhsc.org/procurement/notices/

Any and all protests shall be submitted in writing to the HOPA, as follows:

Derek Akiyoshi
Hawaii Health Systems Corporation
Oahu Region
3675 Kilauea Avenue
Honolulu, Hawaii 96816

1.12 PERFORMANCE AND PAYMENT BOND

Performance and payment bonds shall be required for contracts $25,000 and higher. At the time of the execution of the contract, the successful Bidder shall file good and sufficient performance and payment bonds, each in an amount equal to one hundred percent (100%) of the amount of the contract price unless otherwise stated in the solicitation of bids.

1.13 SPECIALTY CONTRACTOR'S LICENSE

A. Contractor shall be solely responsible to ensure that all specialty licenses required to perform the Work are covered by the Contractor and/or its subcontractor(s).

1.14 WORKING HOURS

A. Regular working hours for this project shall take place between the hours of 7:00 AM to 3:30 PM Monday through Friday, excluding State Holidays, unless otherwise noted or restricted.

B. The Contractor may be given approval to work beyond the regular hours including Saturdays, Sundays, State Holidays, night work, or after hours under the provisions of the GENERAL CONDITIONS.

1.15 SPECIAL PROCEDURES DURING BIDDING

A. Bid documents will be available upon request from the office of the Chief Executive Officer, at Leahi Hospital, 3675 Kilauea Avenue, Honolulu, HI, 96816.

B. All bids shall be submitted to the Issuing Officer.

C. All questions regarding the IFB shall be submitted, in writing, to the Issuing Officer, who shall review the questions and issue any responses via Addendum. Only information received by Addendum shall be binding.

E. Any visitation to the site to examine the scope of work shall be requested through the HHSC Representative. Disruption of facility operations shall not be permitted.

SECTION 2
SCOPE OF SERVICES

2.0 INTRODUCTION

PARKING IMPROVEMENTS AT LEAHI HOSPITAL

Work for this project shall include, but is not limited to, the following:

- Secure all necessary permits and licenses required for the project prior to its commencement.
- Provide erosion control BMPs.
- Remove and dispose of only trees and vegetation as indicated on the landscape plans.
- Protection of trees and vegetation designated to remain.
- Remove and dispose of groundcover in areas subject to grading.
- Remove at grade and underground storm drain and utilities shown on the plan.
- Grade site to finish subgrade for new parking area.
- Construct new parking area improvements, including underground conduits, drywells, aggregate base course, concrete curbs, a. c. pavement and driveway apron, pavement markings and traffic signs, concrete walkways, stairs and railings, and new lighting.
- Install new irrigation system.
- Install new landscape planting.
- Remove temporary erosion control BMPs.

2.1 CONTRACT PERIOD

The work shall be completed within 120 consecutive calendar days.

2.2 SCOPE OF SERVICES

A. The CONTRACTOR shall complete the work specified in the drawings and specifications in APPENDIX C.

B. Qualifications. The CONTRACTOR shall have:

1. A current and valid license to perform the scope of work.
2. Have been in business for the past three (3) consecutive years.
3. A permanent, on-island office location in conducting business which is accessible to telephone calls. An answering service is not acceptable.

C. HOSPITAL shall provide:

Technical Representatives who shall have the authority to oversee the successful completion of contract requirements, including monitoring, coordinating and assessing CONTRACTOR performance; placing requests for services; and, approving completed work/services with verification of same for CONTRACTOR's invoices. Technical Representatives will also serve as points of contact for "technical" matters throughout the term of the contract.

SECTION 3
Bid Forms and General Conditions

General Instructions for Completing Forms

- *Bids shall be submitted in the prescribed format outlined in this IFB*
- *No supplemental literature, brochures or other unsolicited information should be included in the bid packet.*
- *A written response is required for each item unless indicated otherwise.*

3.0 Bid Form

The bid form must be completed and submitted to HHSC by the required due date and time, and in the form prescribed by the HHSC. Facsimile transmissions shall not be accepted.

Interested bidders shall submit their bid under the interested bidder's exact legal name that is registered with the Department of Commerce and Consumer Affairs and shall indicate this exact legal name in the appropriate space on page 1 of the bid form. Failure to do so may delay proper execution of the Contract.

Interested bidders shall certify its ability to provide services on October 14, 2019 or upon execution of the Contract agreement by both parties. The Hospital reserves the right to apply liquidated damages for the delay in Contract execution on the part of the Contractor.

The interested bidder's authorized signature shall be an original signature in ink. If the Bid Form on Appendix A is unsigned or the affixed signature is a facsimile or a photocopy, the bid shall be automatically rejected.

The option to extend the Contract shall be at the sole discretion of the Hospital and determined to be in the best interests of the State.

3.1 Bid Security

All lump sum bids of $25,000 and higher, or lump sum base bids including alternates of $25,000 and higher, that are not accompanied by bid security are non –responsive.

a. The bid security shall be in an amount equal to at least five percent (5%) of the lump sum bid or lump sum base bid including alternates or in an amount required by the terms of the federal funding, where applicable.

3.2 General Conditions

The State of Hawaii INTERIM GENERAL CONDITIONS, dated August 1999, and AMENDMENTS shall be read by the Contractor as they form a part of the Agreement to be entered into between the Contractor and Leahi Hospital. The Interim General Conditions are not physically included in these specifications, but are included by reference. Copies of the INTERIM GENERAL CONDITIONS may be obtained from the Division of Public works, Department of Accounting and General Services, State of Hawaii at the following website: http://hawaii.gov/pwd/construction_bids/Members/qc/gen_cond_constr

The General Conditions are hereby amended as follows:

a. The following terms specified in Section 1 are hereby defined:

i) Bidder shall have the same definition as Contractor.

ii) Comptroller shall be the Chief Financial Officer at Leahi Hospital or his authorized representative.

iii) Department shall be Leahi Hospital or its designee.

iv) Engineer shall be the person so designated by Leahi Hospital.

v) State shall be Leahi Hospital or its designee.

b. Section 1.20 and 1.25 replace "State of Hawaii" with "State".

c. The last two sentences of the third paragraph of Section 2.1.1.2, in the Interim General Conditions is deleted and is replaced with the following:

" If the notice is faxed, the time of receipt by the CEO's fax machine shall be official. The submittal of intention to bid via fax is acceptable only to this office."

d. Section 2.1.2.1: second sentence is hereby deleted in its entirety.

e. Last sentence of paragraph 2.1.2.3 of the Interim General Conditions is amended to read as follows:

"Failure to submit either the required tax clearance certificate or Bid Form 4 will be sufficient grounds for Leahi Hospital to refuse to receive or consider the prospective bidder's proposal."

f. The addresses specified in Section 2.6.1 of the Interim General Conditions shall be changed to Leahi Hospital 3675 Kilauea Avenue Honolulu Hawaii 96816.

g. Sections 2.10 through 2.11 are hereby deleted in their entirety.

h. Paragraph 3.8.1 of the Interim General Conditions is amended to read as follows:

“The contract shall be signed and forwarded to Leahi Hospital (Contracts Office), by the successful bidder all within three (3) days of receipt of the contract. The performance and payment bonds shall be received by Leahi Hospital (Contracts Office) within ten (10) calendar days after the bidders is awarded the contract. No proposal or contract shall be considered binding upon the State until the contract has been fully and properly executed by all parties thereto.”

i. In paragraph 3.9.2 of the Interim General Conditions, “ten (10) calendar days after such award or within such further time as the Comptroller may allow” shall be replaced with, “the time allowed in the previous section.”

j. Section 4.1: the words “accepted bid” is deleted from the first sentence.

k. Section 4.9.3: the words “submission of bids” is replaced with the words “execution of this contract”.

l. Section 5.5: the last sentence is hereby deleted in its entirety and replaced with the following:

"In the event of conflict among the Contract Documents, the order of precedence is listed in paragraph 5 of this contract and is further detailed in the following subparagraphs:"

m. Sections 5.5.1 and 5.5.2 are hereby deleted in their entirety.

n. Section 5.8.1: "twenty-four (24)" is hereby changed to "three (3)".

o. Section 5.11 is hereby deleted in its entirety.

p. Section 5.12.4 is hereby deleted in its entirety.

q. Section 7.3.7.4, subparagraphs a and b: Replace "If the project falls within the State University System, The University of Hawaii" with "Leahi Hospital."

r. Section 7.4.1 is hereby deleted in its entirety and replaced with the following:

> "The Contractor shall prepare, process, obtain, and pay for all permits necessary for the proper execution of the work."

s. Section 7.7.2 is amended to read as follows: "The wage rate schedule is attached to this contract."

t. Sections 7.14.2, 7.19.2, and 7.19.4: delete "Departments and Agencies and their" and insert "directors" between "officers" and "representatives".

u. Section 7.14.4 is hereby added and reads as follows:

> "Contractor warrants that it and none of its employees, agents or subcontractors performing services or providing goods pursuant to this Agreement are excluded from participation in federal health care programs, as defined in the Social Security Act (section 1128 and 1128A), and other federal laws and regulations relating to health care. Leahi Hospital reserves the right to verify that the above warranty is true and to immediately cancel this Agreement in the event it is violated."

v. Section 7.15 delete "and its Departments and Agencies".

w. Section 7.21.8.6 — Delete the word "bad" before the words "weather day conditions."

x. Section 7.35.1: the last word "earlier" is changed to "later".

3. CORPORATE COMPLIANCE PROGRAM. A description of the Corporate Compliance Program of HHSC is posted on the HHSC Internet (www.hhsc.org). The CONTRACTOR, by signing this contract, acknowledges that it has read said description, and that the CONTRACTOR knows of the fact and substance of the Corporate Compliance Program, which governs operations at all facilities of the HHSC. The CONTRACTOR understands and agrees that employees, agents, and contractors performing any services at any of the HHSC facilities shall be fully subject to such Corporate Compliance Program, as may be amended from time to time, as well as all federal program requirements and applicable policies and procedures of HHSC and its facilities. The Corporate Compliance Program requires periodic training, including an orientation program, of all people who provide financial, business office, personnel, coding, medical records information systems and clinical services in the facility. The CONTRACTOR agrees to cause its employees, agents, and contractors who provide any services at any financial, business office, personnel, coding, medical records information systems and clinical services at any of the HHSC facilities to participate in the orientation and training programs.

4. CONFIDENTIAL INFORMATION. It is acknowledged and agreed that all of the trade secrets, business plans, marketing plans, know how, data, contracts, documents, scientific and medical concepts, billing records, personnel records, medical records of any kind, and referral resources for existing or future services, products, operations, management, business, pricing, financial status, valuations, business plans, goals, strategies, objectives and agreements of HHSC and any of its facilities, affiliates or subsidiaries, and all patient information, in any form, whether written, verbal, or electronic, are confidential ("Confidential Information"); provided, however, that Confidential Information, with the exception of patient information, shall not include information that is in the public domain.

5. CONTRACTOR EXCLUSION FROM FEDERAL PROGRAMS. CONTRACTOR warrants that it and none of its employees, agents or subcontractors performing services or providing goods pursuant to this Agreement are excluded from participation in federal health care programs, as defined in the Social Security Act (section 1128 and 1128A), and other federal laws and regulations relating to health care. Leahi Hospital reserves the right to verify that the above warranty is true and to immediately cancel this Agreement in the event it is violated.

6. CAMPAIGN CONTRIBUTIONS BY STATE AND COUNTY CONTRACTORS.
CONTRACTORs are hereby notified of the applicability of Section 11-205.5, HRS, which states that campaign contributions are prohibited from specified State or county government contractors during the term of the contract if the contractors are paid with funds appropriated by a legislative body. For more information, please consult with the Campaign Spending Commission, or visit its website, www.hawaii.govicampaign.

(END OF SECTION)

SECTION 4
BID EVALUATION AND AWARD

4.0 Bid Evaluation

Each bid offer will be reviewed for exact conformity of the requirements in the IFB, known as a responsible bid. Information provided in/with the bid offer will be used to determine whether the interested bidder has the technical and financial capacity to deliver the goods or services, known as a responsive bid.

4.1 Method of Award

A. The contract will be awarded to the lowest responsive and responsible Bidder whose bid (including any alternates which may be selected) meets the requirements and criteria set forth in the solicitation documents.

B. In the event the total lump sum bid of all bidders exceeds the project control budget, HHSC reserves the right to make an award to the apparent Low Bidder if additional funds are available or by reducing the scope of work through negotiation.

C. The option to extend the Contract will be at the sole discretion of the HHSC. Nothing in this IFB shall be construed or interpreted to mean that the Hospital is obligated to exercise the 12-month option period. The Contract may be extended, without the necessity of rebidding, at the same rates as proposed in the original bid, unless price adjustments are made and agreed upon by HHSC.

4.2 Contract Execution

Upon receipt of the Contract document, the CONTRACTOR shall have ten (10) business days to execute and return the Contract to the Issuing Officer. Explicit execution instructions will accompany the Contract. A copy of the fully executed Contract will be provided the CONTRACTOR within seven (7) business days of Contract execution.

Award of Contract may be withdrawn if the CONTRACTOR is unable to meet Contract execution requirements.

(END OF SECTION)

APPENDIX A

SAMPLE
BID TRANSMITTAL COVER LETTER

Dear Mr. Kawai,

(Name of Business) proposes to provide any and all goods and services as set forth in the "Invitation for Bid" for Parking Lot Improvements at Leahi Hospital IFB No. 19L-008, for which fees/costs have been set. The fees/costs offered herein shall apply from XXX, 2019 to XXX, 2021.

It is understood and agreed that (Name of Business) have read HHSC's Scope of Services described in the IFB and that this bid is made in accordance with the provisions of such Scope of Services. By signing this bid, (Name of Business) guarantee and certify that all items included in this bid meet or exceed any and all such Scope of Services. (Name of Business) agree, if awarded the contract, to provide the goods and services set forth in the IFB; and comply with all terms and conditions indicated in the IFB; and at the fees/costs set forth in this bid. The following individual(s) may be contacted regarding this bid:_____

Other information:

Address:		Federal Tax ID #:	
Phone No.:		Hawaii GET ID #:	
E-mail address:			

(Name of Business) is a: ☐ Sole Proprietor ☐ Partnership ☐ Corporation ☐ Joint Venture Other (Specify)_____

State of Incorporation is: (Specify)_____

Year of Business started: _____

The exact legal name of the business under which the contract, if awarded, shall be executed is:_____

(Authorized Bidder's Signature, Printed Name/Title; Corporate Seal or Notarized)

IFB No. 19L-008
Leahi Hospital - Parking Lot Improvements

BID FORM

After carefully examining the bid documents, drawings and specifications identified above, the Bidder proposes to furnish at its own expense all necessary labor, materials, tools and equipment to complete the work according to the true intent and meaning of the drawings and specifications, all for the Lump Sum Base Bid of:

_____DOLLARS ($_____)

(Schedule of Values must be submitted with the Bid).

Respectfully Submitted:

_____ _____
Signature / Printed Name Date

_____
Title

OTHER CONDITIONS

1. Bidder agrees to pay liquidated damages to the HHSC to be specified.

2. By submitting this proposal, the Bidder is declaring that its firm has not been assisted or represented on this matter by an individual who has, in a County capacity, been involved in the subject matter of this contract in the past two years;

3. Anti-collusion certification. In accordance with HAR 3-122-192, by submitting this proposal, the Bidder is declaring that the price submitted is independently arrived at without collusion.

4. Certification for Safety and Health Program for bids in excess of $100,000. In accordance with HRS 396-18, the Bidder certifies that its organization will have a written safety and health plan for this project that will be available and implemented by the Notice to Proceed date of this project. Details of the requirements of this plan may be obtained from the Department of Labor and Industrial Relations, Occupational Safety and Health Division (HIOSH); and

5. Upon the acceptance of the proposal by the HHSC, the Bidder must enter into and execute a contract for the same and furnish a Performance and Payment bond, as required by law.

RECEIPT OF ADDENDA
Receipt of the following addenda issued by HHSC is acknowledged by the date (s) of receipt indicated below:

Addendum No. 1 _____ Addendum No. 3 _____
Date
Addendum No. 2 _____ Addendum No. 4_____

It is understood that failure to receive any such addendum shall not relieve the Bidder from any obligation under this Proposal as submitted.

ALL JOINT CONTRACTORS OR SUBCONTRACTORS TO BE ENGAGED ON THIS PROJECT

The Bidder certifies that the following is a complete listing of all joint contractors or subcontractors covered under Chapter 444, Hawaii Revised Statutes, who will be engaged by the Bidder on this project to perform the nature and scope of work indicated and understands that failure to comply with this requirement may be just cause for rejection of the bid.

The Bidder further understands that only those joint contractors or subcontractors listed shall be allowed to perform work on this project and that all other work necessary shall be performed by the Bidder with his own employees. If no joint contractor or subcontractor is listed, it shall be construed that all of the work shall be performed by the Bidder with its own employees.

The Bidder must be sure that it has and that the subcontractor(s) listed in the proposal have all the necessary specialty licenses needed to perform the work for this project. The Bidder shall be solely responsible for assuring that all the specialty licenses required to perform the work are covered in its bid.

The Bidder shall include the license number of the joint contractors or subcontractors listed below. Failure to provide the correct names and license numbers as registered with the Contractor's Licensing Board may cause rejection of the bid submitted.

Complete Firm Name Joint Contractor or Subcontractor for Lump Sum Base Bid	License Number	Nature and Scope of Work to be Performed

Enclosed herewith:

1. Surety Bond (*1))
2. Legal Tender (*2))
3. Cashier's Check (*3))
4. Certified Check (*3))

(Cross Out Those Not Applicable)

in the amount of:

_____ DOLLARS ($_____).

as required by law.

Respectfully submitted,

_____
Name of Company, Joint Venture or Partnership

_____
License

By _____
Signature (*4)

Title _____

Date: _____

(CORPORATE SEAL)
(*5)

NOTES:

1. Surety bond underwritten by a company licensed to issue bonds in this State;

2. Legal tender; or

3. A cashier's or a certified check accepted by, and payable on demand to the HHSC by a bank, a savings institution, or credit union insured by the Federal Deposit Insurance Corporation.

   a. These instruments may be utilized only to a maximum of $100,000.

   b. If the required security or bond amount totals over $100,000, more than one instrument not exceeding $100,000 each and issued by different financial institutions shall be accepted.

4. Please attach to this page evidence of the authority of this officer to submit bids on behalf of the Company, and also the names and residence addresses of all officers of the Company.

5. Fill in all blank spaces with information asked for or bid may be invalidated. PROPOSAL MUST BE INTACT. MISSING PAGES MAY INVALIDATE YOUR BID.

END OF BID FORM\

APPENDIX C

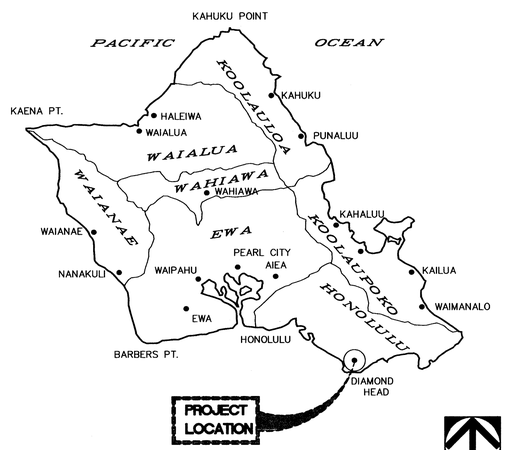
2017/CP-195

PARKING IMPROVEMENTS AT LEAHI HOSPITAL

T.M.K. 3-2-031:001

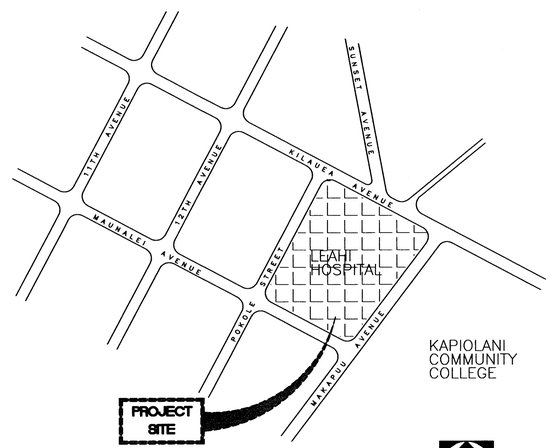
HONOLULU, OAHU, HAWAII 96815

VICINITY MAP



VICINITY MAP
NOT TO SCALE

LOCATION MAP



LOCATION MAP
NOT TO SCALE

INDEX TO DRAWINGS

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C-2	BORING LOGS & NOTES
C-3	GENERAL SITE PLAN
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C-6	SITE LAYOUT PLAN
C-7	SITE GRADING & DRAINAGE PLAN
C-8	SITE SECTIONS & DRAINLINE PROFILE
C-9	TRAFFIC CONTROL PLAN
C-10	DETAILS
C-11	DETAILS
C-12	DETAILS
C-13	DETAILS
C-14	SPECIFICATIONS
C-15	SPECIFICATIONS
C-16	SPECIFICATIONS
E-1	EXISTING ELECTRICAL SITE PLAN (REMOVAL WORK)
E-2	NEW ELECTRICAL PLAN
L-1	TREE DISPOSITION PLAN
L-2	PLANTING PLAN
L-3	IRRIGATION PLAN
L-4	PLANTING DETAILS, NOTES & LEGEND
L-5	IRRIGATION DETAILS, NOTES & SCHEDULE
L-6	LANDSCAPE SPECIFICATIONS

APPROVAL BLOCK

APPROVED:

8/30/18

DIRECTOR, DEPARTMENT OF PLANNING AND PERMITTING — DATE
(FOR GRADING AND CONSTRUCTION WITHIN CITY R/W ONLY)

PROJECT TEAM

CIVIL ENGINEER
IMATA & ASSOCIATES, INC.
1750 KALAKAUA AVENUE
SUITE 115
HONOLULU, HAWAII 96826
PH. 808.946-6588

ELECTRICAL ENGINEER
H & O - III, INC.
1542 YOUNG STREET
SUITE 310
HONOLULU, HAWAII 96826
PH. 808.955-5911

LANDSCAPE ARCHITECT/PLANNER
MURATA LANDSCAPE ARCHITECT/PLANNER, LLC
94-628 HEAINOA STREET
WAIPAHU, HAWAII 96797
PH. 808.382-8922

REVISION NO.	SYM.	DESCRIPTION	SHT. ___ OF ___	DATE	APPROVED:

GORDON Y. IMATA
LICENSED PROFESSIONAL ENGINEER
No. 2726-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

LICENSE EXPIRATION DATE 4/30/2018

IMATA AND ASSOCIATES, INC.
1750 KALAKAUA AVENUE SUITE 115
HONOLULU,HAWAII 96826

PARKING IMPROVEMENTS AT
LEAHI HOSPITAL

T.M.K.: 3-2-031: 001 — HONOLULU, OAHU, HAWAII 96815

TITLE SHEET, PROJECT LOCATION MAP AND PLAN

IMATA & ASSOCIATES, INC			DRAWING NO.
DESIGNED BY: RDL	CHECKED BY: EMM		T-1
DRAWN BY: RDL	APPROVED BY: GYI	DATE	SHEET 1
SCALE: AS NOTED		AUG. 2017	OF 19 SHTS

GENERAL CONSTRUCTION NOTES:

1. ALL APPLICABLE CONSTRUCTION WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, SEPTEMBER 1986 AND STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION, SEPTEMBER 1984, AS AMENDED, OF THE DEPARTMENT OF PUBLIC WORKS, CITY AND COUNTY OF HONOLULU AND THE COUNTIES OF KAUAI, MAUI, AND HAWAII.

2. THE UNDERGROUND PIPES, CABLES OR DUCTLINES KNOWN TO EXIST BY THE ENGINEER FROM HIS SEARCH OF RECORDS ARE INDICATED ON THE PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATIONS AND DEPTHS OF THE FACILITIES AND EXERCISE PROPER CARE IN EXCAVATING IN THE AREA. WHEREVER CONNECTIONS OF NEW UTILITIES TO EXISTING UTILITIES ARE SHOWN ON THE PLANS, THE CONTRACTOR SHALL EXPOSE THE EXISTING LINES AT THE PROPOSED CONNECTIONS TO VERIFY THEIR LOCATIONS AND DEPTHS PRIOR TO EXCAVATION FOR THE NEW LINES.

3. NO CONTRACTOR SHALL PERFORM ANY CONSTRUCTION OPERATION SO AS TO CAUSE FALLING ROCKS, SOIL OR DEBRIS IN ANY FORM TO FALL, SLIDE OR FLOW INTO EXISTING CITY DRAINAGE SYSTEMS, OR ADJOINING PROPERTIES, STREETS OR NATURAL WATERCOURSES. SHOULD SUCH VIOLATIONS OCCUR, THE CONTRACTOR MAY BE CITED AND THE CONTRACTOR SHALL IMMEDIATELY MAKE ALL REMEDIAL ACTIONS NECESSARY.

4. THE GENERAL CONTRACTOR/DEVELOPER/OWNER OF THE PROJECT SHALL BE RESPONSIBLE FOR ALL GRADING OPERATIONS TO BE PERFORMED IN CONFORMANCE WITH THE APPLICABLE PROVISIONS OF THE HAWAII ADMINISTRATIVE RULES, TITLE 11, CHAPTER 54, "WATER QUALITY STANDARDS", AND TITLE 11, CHAPTER 55, "WATER POLLUTION CONTROL", AS WELL AS CHAPTER 14 OF THE REVISED ORDINANCES OF HONOLULU, AS AMENDED. BEST MANAGEMENT PRACTICES SHALL BE EMPLOYED AT ALL TIMES DURING CONSTRUCTION.

   THE GENERAL CONTRACTOR/DEVELOPER/OWNER OF THE PROJECT SHALL OBTAIN NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT COVERAGE(S) FOR THE FOLLOWING:

   1. STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES THAT DISTURB ONE (1) ACRE OR MORE, AND

   2. DISCHARGE OF HYDROTESTING EFFLUENT, DEWATERING EFFLUENT, AND WELL DRILLING EFFLUENT TO STATE WATERS.

   IN ACCORDANCE WITH STATE LAW, ALL DISCHARGES RELATED TO PROJECTS CONSTRUCTION OR OPERATIONS ARE REQUIRED TO COMPLY WITH STATE WATER QUALITY STANDARDS (HAWAII ADMINISTRATIVE RULES, CHAPTER 11-54). BEST MANAGEMENT PRACTICES SHALL BE USED TO MINIMIZE OR PREVENT THE DISCHARGE OF SEDIMENT, DEBRIS, AND OTHER POLLUTANTS TO STATE WATERS. PERMIT COVERAGE IS AVAILABILITY FROM THE DEPARTMENT OF HEALTH, CLEAN WATER BRANCH AT http://health.hawaii.gov/cwb. THE OWNER/DEVELOPER/CONTRACTORIS RESPONSIBLE FOR OBTAINING OTHER FEDERAL, STATE, OR LOCAL AUTHORIZATION AS REQUIRED BY LAW.

5. THE CONTRACTOR SHALL NOTIFY THE CIVIL ENGINEERING BRANCH, D.P.P. AT 768-8084 TO ARRANGE FOR INSPECTIONAL SERVICES AND SUBMIT TWO (2) SETS OF APPROVED CONSTRUCTION PLANS SEVEN (7) DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION WORK.

6. CONFINED SPACE

   FOR ENTRY BY CITY PERSONNEL, INCLUDING INSPECTORS, INTO A PERMIT REQUIRED CONFINED SPACE AS DEFINED IN 29 CFR PART 1910.146(b), THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING:

   I. ALL SAFETY EQUIPMENT REQUIRED BY THE CONFINED SPACE REGULATIONS APPLICABLE TO ALL PARTIES OTHER THAN THE CONSTRUCTION INDUSTRY, TO INCLUDE, BUT NOT LIMITED TO, THE FOLLOWING:

      A. FULL BODY HARNESSES FOR UP TO TWO PERSONNEL.
      B. LIFELINE AND ASSOCIATED CLIPS.
      C. INGRESS/EGRESS AND FALL PROTECTION EQUIPMENT
      D. TWO-WAY RADIOS (WALKIE-TALKIES) IF OUT OF LINE-OF-SIGHT.
      E. EMERGENCY (ESCAPE) RESPIRATOR (10 MINUTE DURATION).
      F. CELLULAR TELEPHONE TO CALL FOR EMERGENCY ASSISTANCE.
      G. CONTINUOUS GAS DETECTOR (CALIBRATED) TO MEASURE OXYGEN, HYDROGEN SULFIDE, CARBON MONOXIDE AND FLAMMABLES (CAPABLE OF MONITORING AT AT DISTANCE AT LEAST 20-FEET AWAY).
      H. PERSONAL MULTI-GAS DETECTOR TO BE CARRIED BY INSPECTOR.

   II. CONTINUOUS FORCED AIR VENTILATION ADEQUATE TO PROVIDE SAFE ENTRY CONDITIONS.

   III. ONE ATTENDANT/RESCUE PERSONNEL TOPSIDE (TWO, IF CONDITIONS WARRANT IT).

7. PURSUANT TO CHAPTER 6E, HRS, IN THE EVENT ANY ARTIFACTS OR HUMAN REMAINS ARE UNCOVERED DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL IMMEDIATELY SUSPEND WORK AND NOTIFY THE HONOLULU POLICE DEPARTMENT, THE STATE DEPARTMENT OF LAND AND NATURAL RESOURCES – HISTORIC PRESERVATION DIVISION (692-8015). IN ADDITION, FOR NON-CITY PROJECTS, THE CONTRACTOR SHALL INFORM THE CIVIL ENGINEERING BRANCH, D.P.P. (768-8084) AND FOR CITY PROJECTS, NOTIFY THE RESPONSIBLE CITY AGENCY.

8. FOR BENCH MARK SEE SHEET. C-7.

GRADING NOTES:

1. ALL GRADING WORK SHALL BE DONE IN ACCORDANCE WITH CHAPTER 14, ARTICLES 13, 14, 15 AND 16, AS RELATED TO GRADING, SOIL EROSION AND SEDIMENT CONTROL OF THE REVISED ORDINANCES OF HONOLULU, 1990, AS AMENDED AND SOIL REPORT BY HIRATA & ASSOCIATES, INC. ENTITLED " SOILS INVESTIGATIONS NEW PARKING & DROP-OFF AREA, LEAHI HOSPITAL, HONOLULU, HAWAII, TMK: 3-2-031:001, DATED APRIL 1, 2011.

2. NO CONTRACTOR SHALL PERFORM ANY GRADING OPERATION SO AS TO CAUSE FALLING ROCKS, SOIL OR DEBRIS IN ANY FORM TO FALL, SLIDE OR FLOW ONTO ADJOINING PROPERTIES, STREETS OR NATURAL WATERCOURSES. SHOULD SUCH VIOLATIONS OCCUR, THE CONTRACTOR MAY BE CITED AND THE CONTRACTOR SHALL IMMEDIATELY MAKE ALL REMEDIAL ACTIONS NECESSARY.

3. THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL KEEP THE PROJECT AREA AND SURROUNDING AREA FREE FROM DUST NUISANCE. THE WORK SHALL BE IN CONFORMANCE WITH THE AIR POLLUTION CONTROL STANDARDS CONTAINED IN THE HAWAII ADMINISTRATIVE RULES, TITLE 11, CHAPTER 60.1, "AIR POLLUTION CONTROL".

4. THE UNDERGROUND PIPES, CABLES OR DUCTLINES KNOWN TO EXIST BY THE ENGINEER FROM HIS SEARCH OF RECORDS ARE INDICATED ON THE PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATIONS AND DEPTHS OF THE FACILITIES AND EXERCISE PROPER CARE IN EXCAVATING THE AREA. WHEREVER CONNECTIONS OF NEW UTILITIES ARE SHOWN ON THE PLANS, THE CONTRACTOR SHALL EXPOSE THE EXISTING LINES AT THE PROPOSED CONNECTIONS TO VERIFY THEIR LOCATIONS AND DEPTHS PRIOR TO EXCAVATIONS FOR THE NEW LINES.

5. ADEQUATE PROVISIONS SHALL BE MADE TO PREVENT SURFACE WATERS FROM DAMAGING THE CUT FACE OF AN EXCAVATION OR THE SLOPED SURFACES OF A FILL. FURTHERMORE, ADEQUATE PROVISIONS SHALL BE MADE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE SITE.

6. ALL SLOPES AND EXPOSED AREAS SHALL BE SODDED OR PLANTED AS SOON AS FINAL GRADES HAVE BEEN ESTABLISHED. PLANTING SHALL NOT BE DELAYED UNTIL ALL GRADING WORK HAS BEEN COMPLETED. GRADING TO FINAL GRADE SHALL BE CONTINUOUS, AND AN AREA WITHIN WHICH WORK HAS BEEN INTERRUPTED OR DELAYED SHALL BE PLANTED.

7. FILLS ON SLOPES STEEPER THAN 5:1 SHALL BE KEYED.

8. THE CITY SHALL BE INFORMED OF THE LOCATION OF THE BORROW/DISPOSAL SITE FOR THE PROJECT WHEN THE APPLICATION FOR A GRADING PERMIT IS MADE. THE BORROW/DISPOSAL SITE MUST ALSO FULFILL THE REQUIREMENTS OF THE GRADING ORDINANCE.

9. NO GRADING WORK SHALL BE DONE ON SATURDAYS, SUNDAYS AND HOLIDAYS AT ANY TIME WITHOUT PRIOR NOTICE TO THE DIRECTOR, D.P.P., PROVIDED SUCH GRADING WORK IS ALSO IN CONFORMANCE WITH THE COMMUNITY NOISE CONTROL STANDARD CONTAINED IN THE HAWAII ADMINISTRATIVE RULES, TITLE 11, CHAPTER 46, "COMMUNITY NOISE CONTROL".

10. THE LIMITS OF THE AREA TO BE GRADED SHALL BE FLAGGED BEFORE COMMENCEMENT OF THE GRADING WORK.

11. THE GENERAL CONTRACTOR/DEVELOPER/OWNER OF THE PROJECT SHALL BE RESPONSIBLE FOR ALL GRADING OPERATIONS TO BE PERFORMED IN CONFORMANCE WITH THE APPLICABLE PROVISIONS OF THE HAWAII ADMINISTRATIVE RULES, TITLE 11, CHAPTER 54, "WATER QUALITY STANDARDS", AND TITLE 11, CHAPTER 55, "WATER POLLUTION CONTROL", AS WELL AS CHAPTER 14 OF THE REVISED ORDINANCES OF HONOLULU, AS AMENDED. BEST MANAGEMENT PRACTICES SHALL BE EMPLOYED AT ALL TIMES DURING CONSTRUCTION.

    THE GENERAL CONTRACTOR/DEVELOPER/OWNER OF THE PROJECT SHALL OBTAIN NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT COVERAGE(S) FOR THE FOLLOWING:

    1. STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES THAT DISTURB ONE (1) ACRE OR MORE, AND

    2. DISCHARGE OF HYDROTESTING EFFLUENT, DEWATERING EFFLUENT, AND WELL DRILLING EFFLUENT TO STATE WATERS.

    IN ACCORDANCE WITH STATE LAW, ALL DISCHARGES RELATED TO PROJECTS CONSTRUCTION OR OPERATIONS ARE REQUIRED TO COMPLY WITH STATE WATER QUALITY STANDARDS (HAWAII ADMINISTRATIVE RULES, CHAPTER 11-54). BEST MANAGEMENT PRACTICES SHALL BE USED TO MINIMIZE OR PREVENT THE DISCHARGE OF SEDIMENT, DEBRIS, AND OTHER POLLUTANTS TO STATE WATERS. PERMIT COVERAGE IS AVAILABILITY FROM THE DEPARTMENT OF HEALTH, CLEAN WATER BRANCH AT http://health.hawaii.gov/cwb. THE OWNER/DEVELOPER/CONTRACTORIS RESPONSIBLE FOR OBTAINING OTHER FEDERAL, STATE, OR LOCAL AUTHORIZATION AS REQUIRED BY LAW.

12. WHERE APPLICABLE AND FEASIBLE THE MEASURES TO CONTROL EROSION AND OTHER POLLUTANTS SHALL BE IN PLACE BEFORE ANY EARTH MOVING PHASE OF THE GRADING IS INITIATED.

13. TEMPORARY EROSION CONTROLS SHALL NOT BE REMOVED BEFORE PERMANENT EROSION CONTROLS ARE IN-PLACE AND ESTABLISHED.

14. TEMPORARY EROSION CONTROL PROCEDURES SHALL BE SUBMITTED FOR APPROVAL PRIOR TO APPLICATION FOR GRADING PERMIT.

15. IF THE GRADING WORK INVOLVES CONTAMINATED SOIL THEN ALL GRADING WORK SHALL BE DONE IN CONFORMANCE WITH APPLICABLE STATE AND FEDERAL REQUIREMENTS.

16. FOR NON-CITY PROJECTS, THE CONTRACTOR SHALL NOTIFY THE CIVIL ENGINEERING BRANCH, D.P.P. AT 768-8084 TO ARRANGE FOR INSPECTIONAL SERVICES AND SUBMIT THREE (3) SETS OF APPROVED CONSTRUCTION PLANS SEVEN (7) DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION WORK. FOR CITY PROJECTS, THE CONTRACTOR SHALL COORDINATE INSPECTIONAL SERVICES WITH THE RESPONSIBLE CITY AGENCY.

17. PURSUANT TO CHAPTER 6E, HRS, IN THE EVENT ANY ARTIFACTS OR HUMAN REMAINS ARE UNCOVERED DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL IMMEDIATELY SUSPEND WORK AND NOTIFY THE HONOLULU POLICE DEPARTMENT, THE STATE DEPARTMENT OF LAND AND NATURAL RESOURCES-HISTORIC PRESERVATION DIVISION (692-8015) IN ADDITION, FOR NON-CITY PROJECTS, THE CONTRACTOR SHALL INFORM THE CIVIL ENGINEERING BRANCH D.P.P. (768-8084): AND FOR CITY PROJECTS, NOTIFY THE RESPONSIBLE CITY AGENCY.

18. ALL GRADING AND CONSTRUCTION WORK SHALL IMPLEMENT MEASURES TO ENSURE THAT THE DISCHARGE OF POLLUTANTS FROM THE CONSTRUCTION SITE WILL BE REDUCED TO THE MAXIMUM EXTENT PRACTICABLE AND WILL NOT CAUSE OR CONTRIBUTE TO AN EXCEEDANCE OF WATER QUALITY STANDARDS.

GRADING NOTES: CONT.

19. FOR ALL PROJECTS, WHICH WILL DISTURB ONE (1) ACRE OF MORE OF LAND, THE CONTRACTOR SHALL NOT START CONSTRUCTION UNTIL A NOTICE OF GENERAL PERMIT COVERAGE (NGPC) IS RECIEVED FROM THE DEPARTMENT OF HEALTH, STATE OF HAWAII, AND HAS SATISFIED ANY OTHER APPLICABLE REQUIREMENTS OF THE NPDES PERMIT PROGRAM. ALSO, FOR NON-CITY AND OTHER NON-GOVERNMENTAL AGENCY PROJECTS, THE CONTRACTOR SHALL PROVIDE A WRITTEN COPY OF THE NGPC TO THE PERMITTING AND INSPECTION SECTION, CIVIL ENGINEERING BRANCH, D.P.P., AT LEAST SEVEN (7) CALENDAR DAYS BEFORE THE START OF THE CONSTRUCTION. FOR CITY OF OTHER GOVERNMENTAL PROJECTS, THE CONTRACTOR SHOULD PROVIDE A WRITTEN COPY DEPARTMENT OF NGPC TO THE APPROPRIATE CITY DEPARTMENT OF GOVERNMENTAL AGENCY PER THEIR REQUIREMENTS.

20. NON-COMPLIANCE TO ANY OF THE ABOVE REQUIREMENTS SHALL MEAN IMMEDIATE SUSPENSION OF ALL WORK AND REMEDIAL WORK SHALL COMMENCE IMMEDIATELY. ALL COSTS INCURRED SHALL BE BILLED TO THE VIOLATOR. FURTHERMORE, VIOLATORS SHALL BE SUBJECTED TO ADMINISTRATIVE, CIVIL AND/OR CRIMINAL PENALTIES.

21. FOR BENCH MARK, SEE SHEET C-7.

APPROVED:

For Melvin Takahashi 10/25/17

CHIEF, CIVIL ENGINEERING BRANCH, D.P.P. DATE

REVISION NO.	SYM.	DESCRIPTION	SHT. ___ OF ___	DATE	APPROVED:

GORDON Y. IMATA
LICENSED PROFESSIONAL ENGINEER
No. 2726-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

LICENSE EXPIRATION DATE 4/30/2018

IMATA AND ASSOCIATES, INC.
1750 KALAKAUA AVENUE SUITE 115
HONOLULU,HAWAII 96826

PARKING IMPROVEMENTS AT
LEAHI HOSPITAL

T.M.K.: 3-2-031: 001 HONOLULU, OAHU, HAWAII 96815

NOTES

IMATA & ASSOCIATES, INC			DRAWING NO.
DESIGNED BY: RDL	CHECKED BY: EMM		C-1
DRAWN BY: RDL	APPROVED BY: GYI	DATE	SHEET 2
SCALE: AS NOTED			OF 19 SHTS

HIRATA & ASSOCIATES, INC.

BORING LOG

W.O. 11-5088

BORING NO. B1 DRIVING WT. 140 lb. START DATE 2/24/11
SURFACE ELEV. 195.7±* DROP 30 in. END DATE 2/24/11

DEPTH	GRAPH	SAMPLE	BLOWS PER FOOT	DRY DENSITY (PCF)	MOIST. CONT. (%)	DESCRIPTION
0			38	88	26	Clayey SILT (ML) – Reddish brown, moist, stiff.
			10/No Penetration			HIGHLY WEATHERED BASALT (WH) – Gray, medium hard.
5						MODERATELY WEATHERED BASALT (WM) – Gray, moist, vesicular, fractured, hard. Begin NX coring at 6.5 feet. 75% Recovery from 6.5 to 11.5 feet. RQD = 67%
10						End boring at 11.5 feet.
15						
20						
25						Neither groundwater nor seepage water encountered. * Elevations based on Topographic Survey Map provided by Imata & Associates, Inc.
30						

Plate A4.1

HIRATA & ASSOCIATES, INC.

BORING LOG

W.O. 11-5088

BORING NO. B2 DRIVING WT. 140 lb. START DATE 2/24/11
SURFACE ELEV. 199.3± DROP 30 in. END DATE 2/24/11

DEPTH	GRAPH	SAMPLE	BLOWS PER FOOT	DRY DENSITY (PCF)	MOIST. CONT. (%)	DESCRIPTION
0			34	86	30	Clayey SILT (ML) – Reddish brown, moist, stiff.
5			33	87	29	
			35	89	14	HIGHLY WEATHERED BASALT (WH) – Gray, moist, dense to medium hard.
10						End boring at 9.5 feet.
15						
20						
25						Neither groundwater nor seepage water encountered.
30						

Plate A4.2

HIRATA & ASSOCIATES, INC.

BORING LOG

W.O. 11-5088

BORING NO. B3 DRIVING WT. 140 lb. START DATE 2/24/11
SURFACE ELEV. 192.6± DROP 30 in. END DATE 2/24/11

DEPTH	GRAPH	SAMPLE	BLOWS PER FOOT	DRY DENSITY (PCF)	MOIST. CONT. (%)	DESCRIPTION
0			38	80	28	Clayey SILT (ML) – Reddish brown, moist, stiff.
5			50/4"	87	28	Cobble at 4.5 feet.
			10/No Penetration			HIGHLY WEATHERED BASALT (WH) – Gray, medium hard.
10						End boring at 8.5 feet.
15						
20						
25						Neither groundwater nor seepage water encountered.
30						

Plate A4.3

HIRATA & ASSOCIATES, INC.

BORING LOG

W.O. 11-5088

BORING NO. B4 DRIVING WT. 140 lb. START DATE 2/24/11
SURFACE ELEV. 195.4± DROP 30 in. END DATE 2/24/11

DEPTH	GRAPH	SAMPLE	BLOWS PER FOOT	DRY DENSITY (PCF)	MOIST. CONT. (%)	DESCRIPTION
0			36	79	25	Clayey SILT (ML) – Reddish brown, moist, stiff.
			29	94	27	
5			55	85	33	
						HIGHLY WEATHERED BASALT (WH) – Gray, moist, dense to medium hard.
10			60	91	21	
						End boring at 10.5 feet.
15						
20						
25						Neither groundwater nor seepage water encountered.
30						

Plate A4.4

BORING NOTES:

1. BORING LOGS INDICATE THE APPROXIMATE SUBSURFACE SOIL CONDITIONS ENCOUNTERED ONLY AT THE DRILL HOLES WHERE THE BORINGS WERE MADE AT THE TIMES DESIGNATED ON THE LOGS AND MAY NOT REPRESENT CONDITIONS AT OTHER LOCATIONS OR AT OTHER DATES. SOIL CONDITIONS AND WATER LEVELS MAY CHANGE WITH THE PASSAGE OF TIME AND CONSTRUCTION METHODS OR IMPROVEMENTS AT THE SITE.
2. THE INFORMATION SHOWN IN THE BORING LOGS WERE OBTAINED FOR THE EXCLUSIVE USE OF THE OWNER FOR DESIGN PURPOSES ONLY AND FOR THE CONVENIENCE OF THE OWNER IN CONTROL OF THE EARTHWORK. NO GUARANTEE IS GIVEN AS TO THE CHARACTER OF THE MATERIAL ENCOUNTERED IN ANY BORING NOR IS ANY GUARANTEE GIVEN THAT ANY BORING REPRESENTS THE TRUE CHARACTER OF THE MATERIAL WHICH WILL BE EXCAVATED OR WHICH WILL UNDERLIE THE PROPOSED STRUCTURE. THE OWNER ASSUMES NO RESPONSIBILITY AS TO THE ACCURACY AND/OR SUFFICIENCY OF THE BORING AND ANY INTERPRETATION MADE THEREOF AND WILL MAKE NO GUARANTEE OF THE SAME.
3. THE BORINGS SHOWN ON THIS SHEET WERE OBTAINED FROM A SOILS INVESTIGATION ENTITLED "NEW PARKING & DROP-OFF, LEAHI HOSPITAL, HONOLULU, HAWAII TMK: 3-2-031:001" PREPARED BY HIRATA & ASSOCIATES, INC. DATED APRIL 1, 2011.
4. SEE PLAN SHEET C-7 FOR BORING LOCATIONS.

REVISION NO.	SYM.	DESCRIPTION	SHT. OF	DATE	APPROVED:

GORDON Y. IMATA
LICENSED PROFESSIONAL ENGINEER
No. 2726-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

LICENSE EXPIRATION DATE 4/30/2018

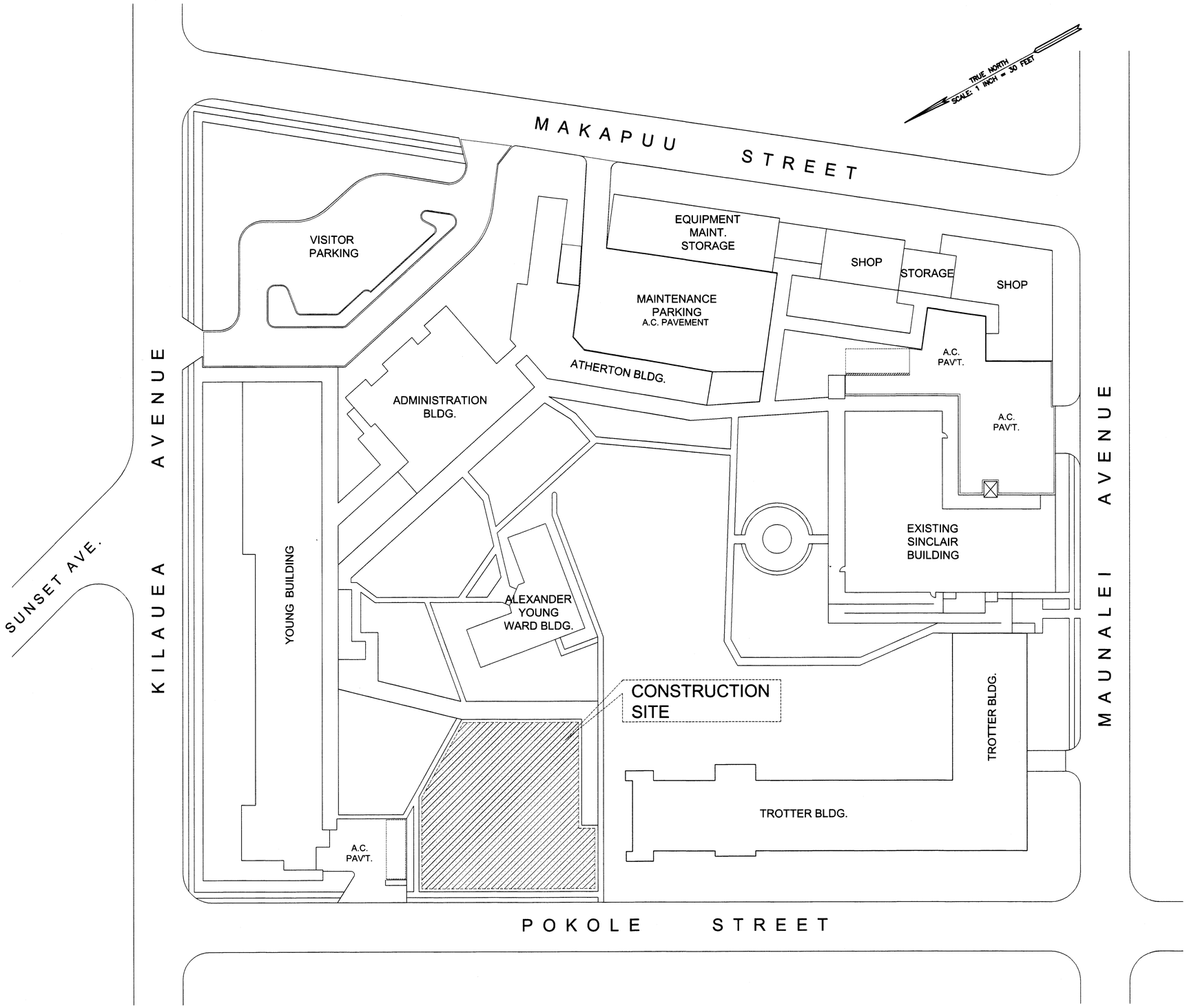
IMATA AND ASSOCIATES, INC.
1750 KALAKAUA AVENUE SUITE 115
HONOLULU,HAWAII 96826

PARKING IMPROVEMENTS AT
LEAHI HOSPITAL

T.M.K.: 3-2-031: 001 HONOLULU, OAHU, HAWAII 96815

BORING LOGS & NOTES

IMATA & ASSOCIATES, INC			DRAWING NO.
DESIGNED BY: RDL	CHECKED BY: EMM		C-2
DRAWN BY: RDL	APPROVED BY: GYI	DATE AUGUST 2017	SHEET 3 OF 19 SHTS
SCALE: AS NOTED			



GENERAL SITE PLAN
SCALE: 1" = 30'-0"

REVISION NO.	SYM.	DESCRIPTION	SHT. OF	DATE	APPROVED:

GORDON Y. IMATA
LICENSED PROFESSIONAL ENGINEER
No. 2726-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

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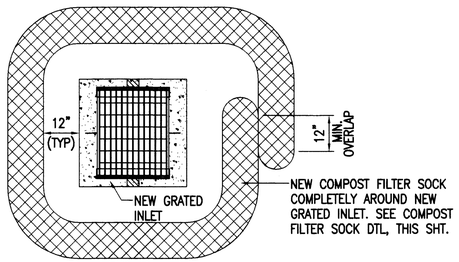
IMATA AND ASSOCIATES, INC.
1750 KALAKAUA AVENUE SUITE 115
HONOLULU,HAWAII 96826

PARKING IMPROVEMENTS AT
LEAHI HOSPITAL

T.M.K.: 3-2-031: 001 HONOLULU, OAHU, HAWAII 96815

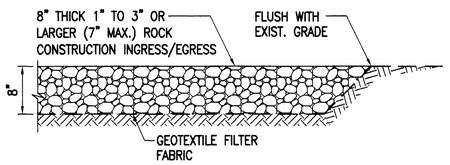
GENERAL SITE PLAN

IMATA & ASSOCIATES, INC			DRAWING NO.
DESIGNED BY: RDL	CHECKED BY: GYI		C-3
DRAWN BY: RDL	APPROVED BY: GYI	DATE	SHEET 4
SCALE: AS NOTED		AUGUST 2017	OF 19 SHTS



GRATED INLET PROTECTION DETAIL

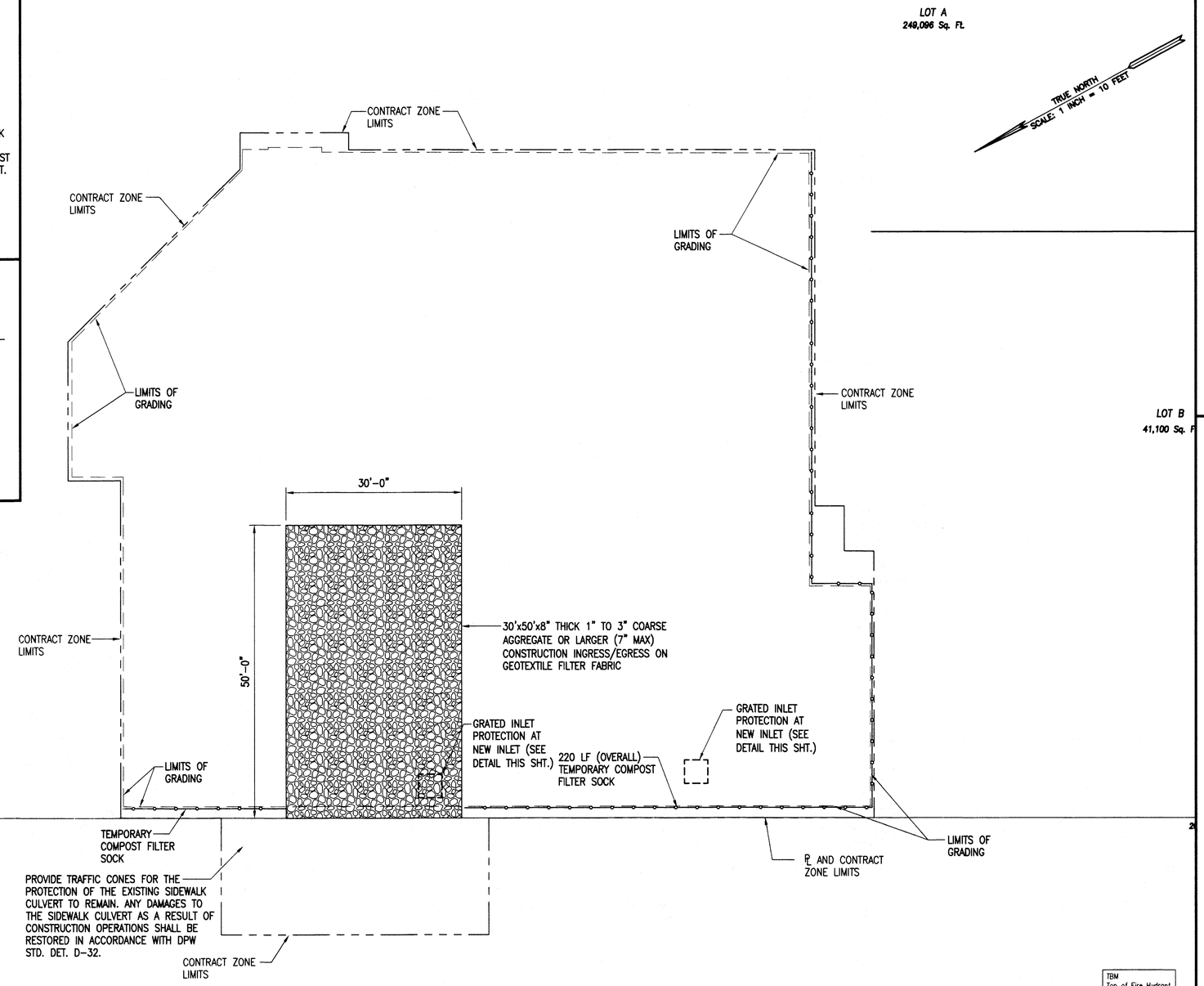
SCALE: ½" = 1'-0"

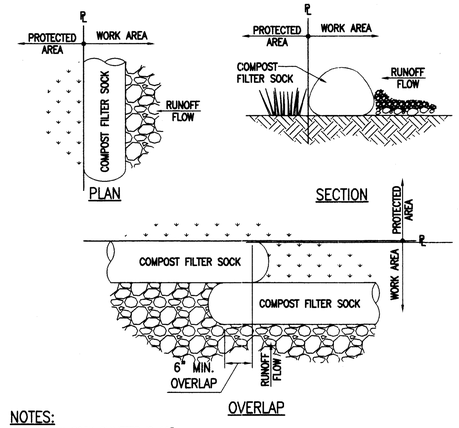


SECTION – CONSTRUCTION INGRESS/EGRESS

CONSTRUCTED FLUSH WITH TOP OF EXIST. GRADE

SCALE: 1" = 1'-0"





NOTES:

1. MINIMUM SOCK DIAMETER IS 12".
2. COMPOST FILL OF THE FILTER SOCK SHALL NOT CONTAIN BIOSOLIDS AND SHALL BE CONSISTENT WITH EPA GUIDELINES FOR FILTER SOCK FILL MATERIAL.
3. ENDS OF FILTER SOCKS (WHERE NOT OVERLAPPING) SHALL BE TURNED UPSLOPE TO PREVENT RUNOFF FROM RUNNING AROUND THE END OF THE SOCK.
4. STAKING OF THE FILTER SOCK IS NOT REQUIRED.

COMPOST FILTER SOCK

SCALE: ¾" = 1'-0"

BEST MANAGEMENT PRACTICES (BMP) NOTES:

1. GROUND COVER SHALL BE PLANTED AS SOON AS POSSIBLE TO PREVENT EROSION. GRADING WORK SHALL BE CONTINUOUS UNTIL COMPLETION. ANY AREA WHERE WORK HAS BEEN INTERRUPTED OR DELAYED, GROUND COVER SHALL BE PLANTED. A.C. PAVEMENT SHALL BE INSTALLED IMMEDIATELY UPON COMPLETION OF GRADING AND PLACEMENT OF BASE COURSE. IN AREAS TO BE RE-PAVED, PAVEMENT SHALL BE INSTALLED IMMEDIATELY UPON REMOVAL OF THE EXISTING A.C. PAVEMENT.
2. INSTALL COMPOST FILTER SOCKS AND OTHER EROSION CONTROL DEVICES TO PREVENT EROSION ON TO SURROUNDING PROPERTIES. COMPOST FILTER SOCKS SHALL BE KEPT CLEAR AND IN GOOD CONDITION AT ALL TIMES. ALL EROSION CONTROL MEASURES SHALL BE CHECKED AND REPAIRED AS NECESSARY IMMEDIATELY AFTER A STORM EVENT THAT EXCEEDS 0.25 INCHES, OR AT LEAST ONCE A WEEK DURING DRY CONDITIONS. ANY DAMAGES SHALL BE REPAIRED IMMEDIATELY.
3. THE CONTRACTOR SHALL PROVIDE DUST CONTROL MEASURES (SUCH AS WATERING THE SITE) AS NECESSARY.
4. ALL BEST MANAGEMENT PRACTICES AND EROSION CONTROL MEASURES SHALL BE INSTALLED BEFORE STARTING ANY CONSTRUCTION ACTIVITIES AND SHALL NOT BE REMOVED UNTIL ALL PERMANENT EROSION CONTROLS ARE IN PLACE AND ESTABLISHED. THE CONTRACTOR SHALL PERFORM ROUTINE INSPECTIONS OF ALL EROSION CONTROL MEASURES. ANY DAMAGED OR DEFECTIVE EROSION CONTROL MEASURES SHALL BE REPAIRED OR REPLACED IMMEDIATELY. EROSION CONTROL MEASURES FOR NEW DRAIN INLETS SHALL BE INSTALLED IMMEDIATELY AFTER INLET CONSTRUCTION.
5. NO STOCKPILING WORK SHALL DONE ON SATURDAYS, SUNDAYS AND HOLIDAYS AT ANYTIME WITHOUT PRIOR NOTICE TO THE DIRECTOR, D.P.P. PROVIDED SUCH STOCKPILING WORK IS ALSO IN CONFORMANCE WITH THE COMMUNITY NOISE CONTROL STANDARDS CONTAINED IN THE HAWAII ADMINISTRATIVE RULES, TITLE 11, CHAPTER 46, "COMMUNITY NOISE CONTROL".
6. ROADWAY IMPROVEMENTS DAMAGED AS A RESULT OF THE PROPOSED WORK SHALL BE RECONSTRUCTED OR RESTORED TO EXISTING CONDITIONS OR BETTER.
7. SEE THIS SHEET FOR LOCATION OF CONSTRUCTION INGRESS/EGRESS.

LEGEND:

- INGRESS/EGRESS
- LIMITS OF GRADING
- COMPOST FILTER SOCK
- CONTRACT ZONE LIMITS
- EXIST. PROPERTY LINE

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft.

EROSION CONTROL PLAN

SCALE: 1" = 10'-0"

APPROVED:

Melvin Takahashi 10/25/17

CHIEF, CIVIL ENGINEERING BRANCH, D.P.P. DATE

REVISION NO.	SYM.	DESCRIPTION	SHT. NO.	DATE	APPROVED:

GORDON Y. IMATA LICENSED PROFESSIONAL ENGINEER No. 2726-C HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

LICENSE EXPIRATION DATE 4/30/2018

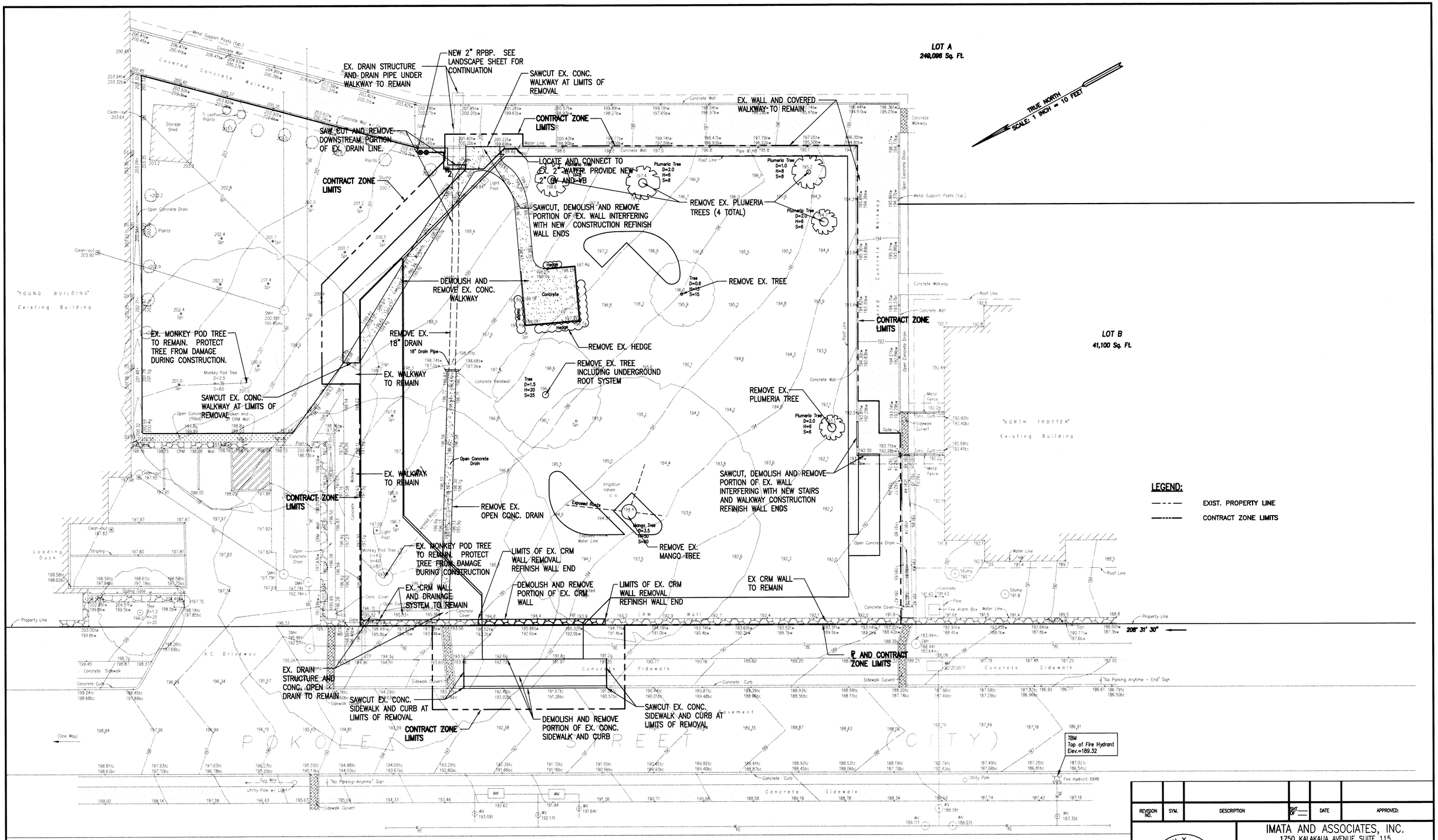
IMATA AND ASSOCIATES, INC.
1750 KALAKAUA AVENUE SUITE 115
HONOLULU,HAWAII 96826

PARKING IMPROVEMENTS AT
LEAHI HOSPITAL

T.M.K.: 3-2-031: 001 HONOLULU, OAHU, HAWAII

EROSION CONTROL PLAN

DESIGNED BY: EMM/GYI	CHECKED BY: GYI		DRAWING NO. C-4
DRAWN BY: EMM	APPROVED BY: GYI	DATE AUGUST 2017	SHEET 4 OF 19 SHTS
SCALE: AS NOTED			



GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft.

EXISTING CONDITIONS AND DEMOLITION PLAN
SCALE: 1" = 10'-0"

APPROVED:

for Melvin Yotsuhara 10/25/17
CHIEF, CIVIL ENGINEERING BRANCH, D.P.P. DATE

REVISION NO.	SYM.	DESCRIPTION	SHT. NO.	DATE	APPROVED:

GORDON Y. IMATA
LICENSED PROFESSIONAL ENGINEER
No. 2726-C
HAWAII, U.S.A.

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LICENSE EXPIRATION DATE 4/30/2018

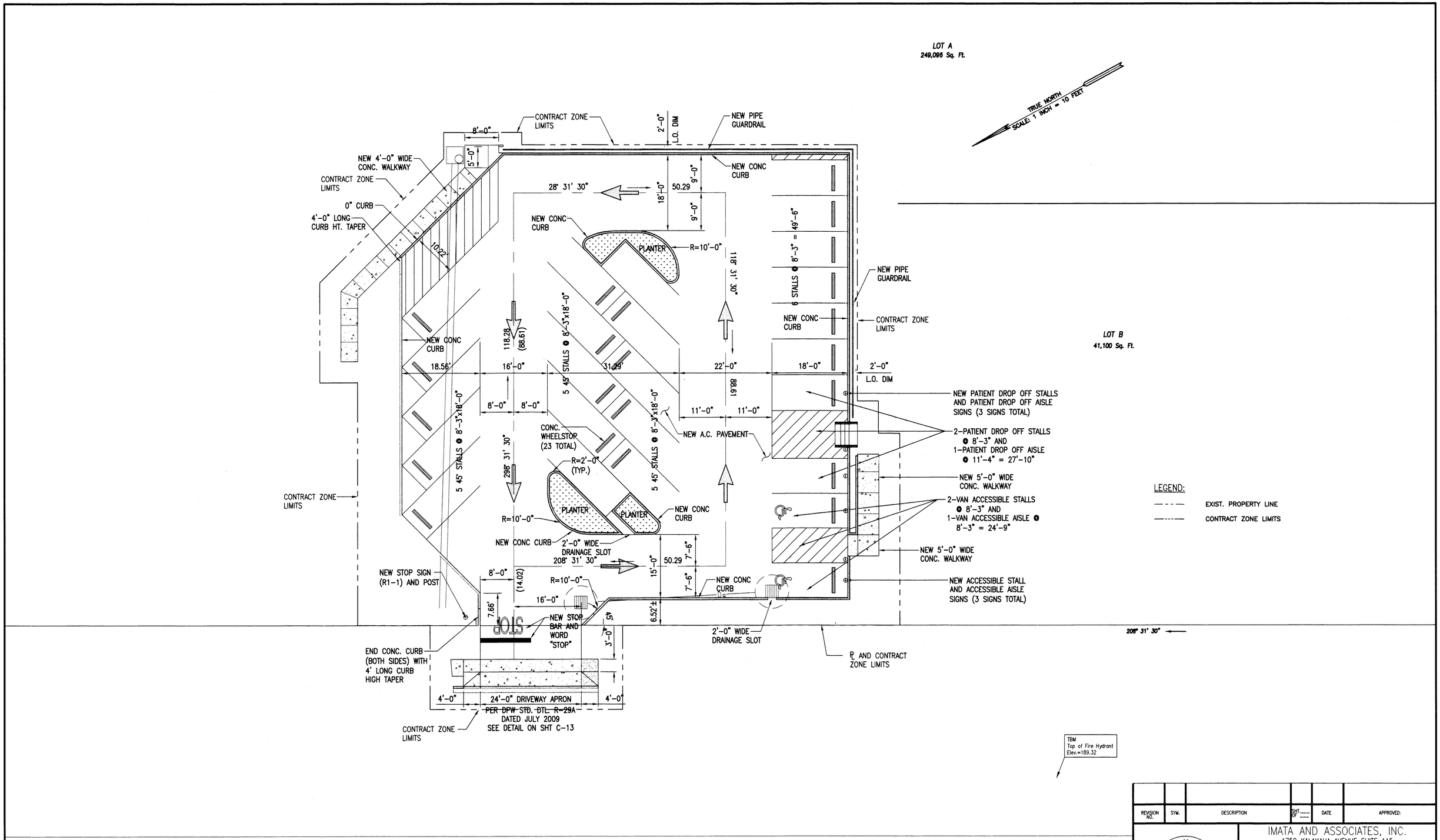
IMATA AND ASSOCIATES, INC.
1750 KALAKAUA AVENUE SUITE 115
HONOLULU,HAWAII 96826

PARKING IMPROVEMENTS AT
LEAHI HOSPITAL

T.M.K.: 3-2-031: 001 HONOLULU, OAHU, HAWAII

EXISTING CONDITIONS AND DEMOLITION PLAN

IMATA & ASSOCIATES, INC			DRAWING NO.
DESIGNED BY: EMM/GYI	CHECKED BY: GYI		C-5
DRAWN BY: EMM	APPROVED BY: GYI	DATE	SHEET 4
SCALE: AS NOTED		AUGUST 2017	OF 19 SHTS



GRAPHIC SCALE

(IN FEET)
1 inch = 10 ft.

SITE LAYOUT PLAN
SCALE: 1" = 10'-0"

APPROVED:

For Melvin Tafeburg 10/25/17
CHIEF, CIVIL ENGINEERING BRANCH, D.P.P. DATE

REVISION NO.	SYM.	DESCRIPTION	SHT. OF	DATE	APPROVED:

GORDON Y. IMATA
LICENSED PROFESSIONAL ENGINEER
No. 2726-C
HAWAII, U.S.A.

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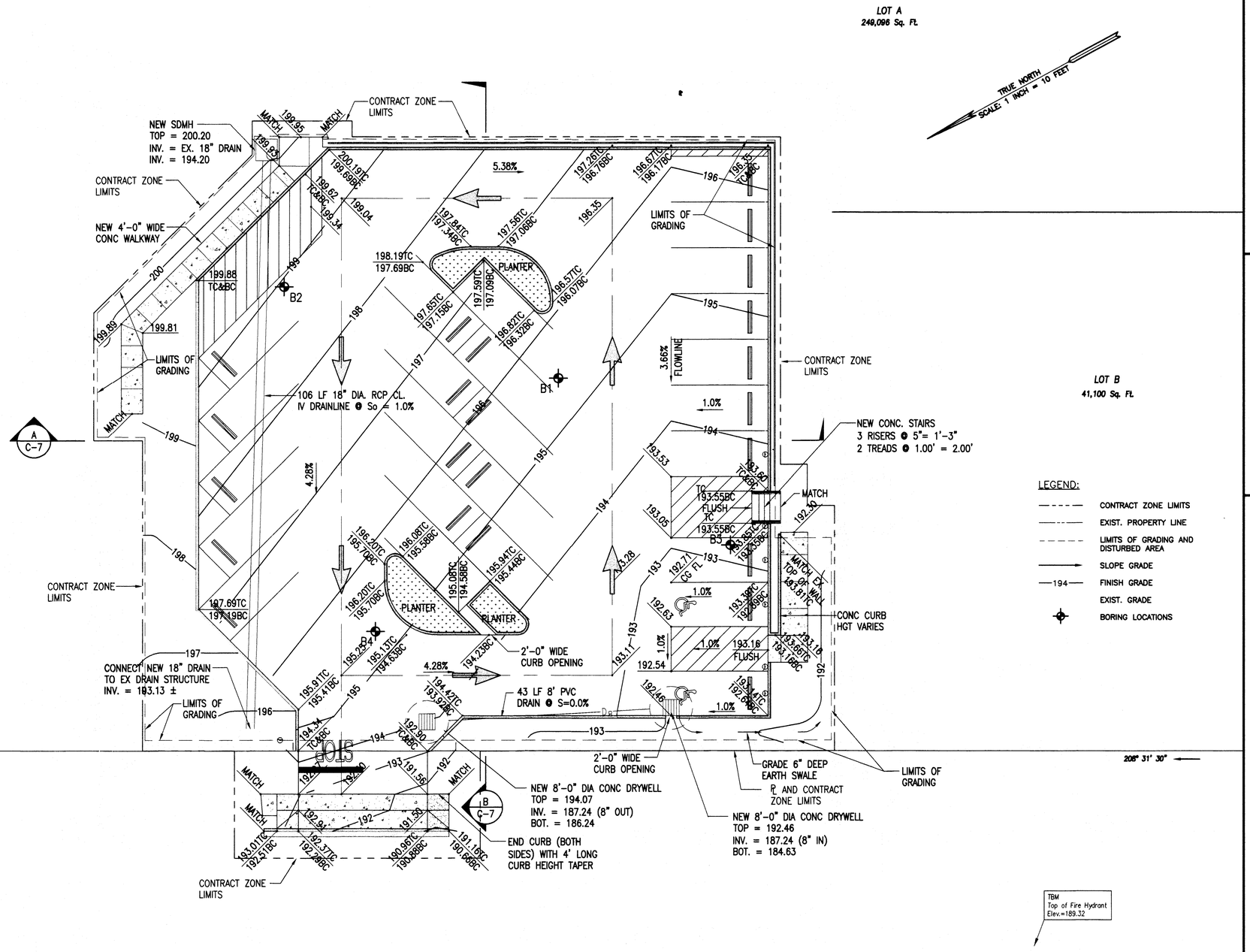
LICENSE EXPIRATION DATE 4/30/2018

IMATA AND ASSOCIATES, INC.
1750 KALAKAUA AVENUE SUITE 115
HONOLULU,HAWAII 96826

PARKING IMPROVEMENTS AT
LEAHI HOSPITAL
T.M.K.: 3-2-031: 001 HONOLULU, OAHU, HAWAII

SITE LAYOUT PLAN

IMATA & ASSOCIATES, INC			DRAWING NO.
DESIGNED BY: EMM/GYI	CHECKED BY: GYI		C-6
DRAWN BY: EMM	APPROVED BY: GYI	DATE	SHEET 5
SCALE: AS NOTED		AUGUST 2017	OF 19 SHTS



LEGEND:

- CONTRACT ZONE LIMITS
- EXIST. PROPERTY LINE
- LIMITS OF GRADING AND DISTURBED AREA
- SLOPE GRADE
- 194 FINISH GRADE
- EXIST. GRADE
- BORING LOCATIONS

ESTIMATED EARTHWORK SUMMARY

TOTAL EXCAVATION = 25 C.Y.

TOTAL EMBANKMENT = 135 C.Y.

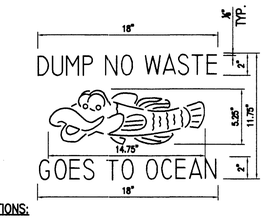
TOTAL AREA TO BE GRADED = 0.31 AC

TOTAL AREA TO BE DISTURBED = 0.35 AC. (FOR NPDES PURPOSES, PER DOH DEFINITION OF "DISTURBANCE OF LAND")

1. QUANTITIES SHOWN ARE FOR GRADING PERMIT PURPOSES ONLY AND SHALL NOT BE USED FOR BIDDING PURPOSES. THE CONTRACTOR IS RESPONSIBLE TO DETERMINE THE EXACT QUANTITIES FOR HIS BIDDING PURPOSES.
2. THE CONTRACTOR SHALL BE RESPONSIBLE TO COMPLETE THE GRADING WORK TO THE GRADES AND DIMENSIONS SHOWN ON THE PLANS. IF IMPORTED MATERIALS ARE REQUIRED TO OBTAIN FINISHED GRADES, THE CONTRACTOR IS REQUIRED TO IMPORT SUITABLE MATERIALS AS SPECIFIED AT THE CONTRACTOR'S EXPENSE. IF EXCAVATED MATERIAL IS IN EXCESS, THE CONTRACTOR SHALL BE REQUIRED TO DISPOSE OF THE MATERIAL AWAY FROM THE PROJECT AT THE CONTRACTOR'S EXPENSE.
3. EARTHWORK QUANTITIES ARE TAKEN FROM FINISHED GRADE TO EXISTING GROUND.

POST CONSTRUCTION (BMP)
SOURCE CONTROL BMP'S

1. CLEAN LEAVES, TRASH AND OTHER DEBRIS REGULARLY.
2. PROVIDE RECEPTACLES FOR THE DISPOSAL.
3. SWEEP PARKING LOT BEFORE THE ONSET OF WET SEASON.
4. DO NOT HOSE DOWN PAVEMENT UNLESS ABSOLUTELY NECESSARY. DISCHARGE WASH WATER TO SANITARY SEWER.
5. CONTAIN ALL WASH WATER AND CLEANED UP AND DISPOSED OF APPROPRIATELY.
6. DO NOT APPLY PESTICIDES AND FERTILIZERS WHEN IT IS RAINING.
7. INSTALL STENCIL TO DRAIN INLET SEE DETAIL THIS SHT.
8. CLEAN DRYWELLS OF TRASH AND DEBRIS YEARLY.



SPECIFICATIONS:

MATERIAL: ALUMINUM ALLOY (CAST ALUMINUM), LEAD, OR EQUAL.

LETTERING: HEIGHT OF LETTERS SHALL BE 2" HIGH AND 1/8" WIDE, THE UNDER SIDE OF ALL LETTERING SHALL BE V-SHAPED.

LINE WORK: ALL LINE WORK FOR THE FISH DIAGRAM SHALL BE MADE OUT OF 1/8" THICK. THE UNDER SIDE OF THE LINE WORK SHALL BE V-SHAPED.

PLACEMENT: THE STENCIL SHALL BE CENTERED ON THE TOP DECK OF THE CATCH BASIN AND SHALL BE A MINIMUN OF 3" AWAY FROM THE FRONT FACE OF THE INLET.

IMPRESSION: THE STENCIL SHALL BE PRESSED 1/4" INTO THE GREEN CONCRETE WHEN THE INLET IS MADE.

STENCIL DETAIL FOR CATCH BASIN
NOT TO SCALE

REVISION NO.	SYM.	DESCRIPTION	SHT. OF	DATE	APPROVED:

GRAPHIC SCALE
10 0 5 10 20 40
(IN FEET)
1 inch = 10 ft.

SITE GRADING AND DRAINAGE PLAN
SCALE: 1" = 10'-0"

APPROVED:

For Melvin Takahara 10/25/17
CHIEF, CIVIL ENGINEERING BRANCH, D.P.P. DATE

GORDON Y. IMATA
LICENSED PROFESSIONAL ENGINEER
No. 2726-C
HAWAII, U.S.A.

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LICENSE EXPIRATION DATE 4/30/2018

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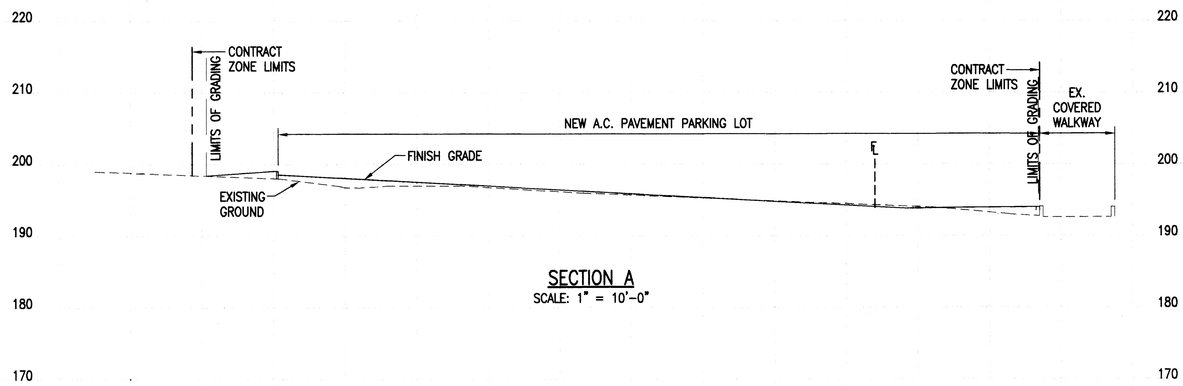
1750 KALAKAUA AVENUE SUITE 115
HONOLULU,HAWAII 96826

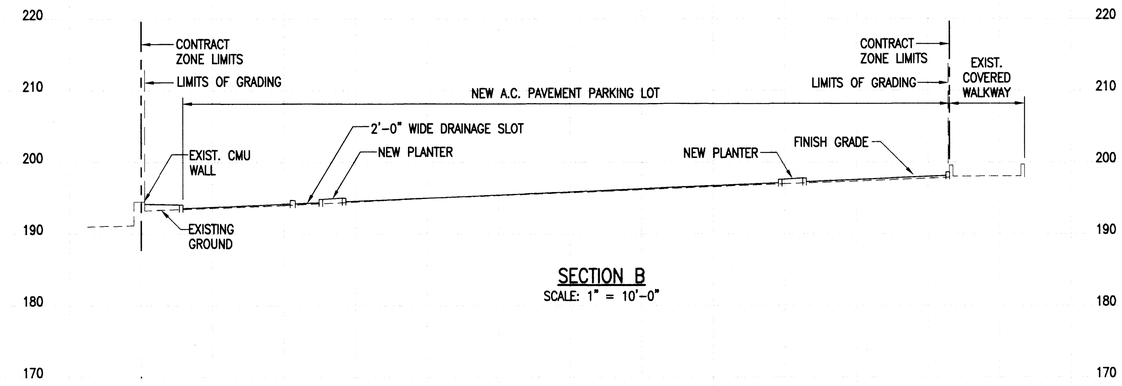
PARKING IMPROVEMENTS AT
LEAHI HOSPITAL
T.M.K.: 3-2-031: 001 HONOLULU, OAHU, HAWAII

SITE GRADING AND DRAINAGE PLAN

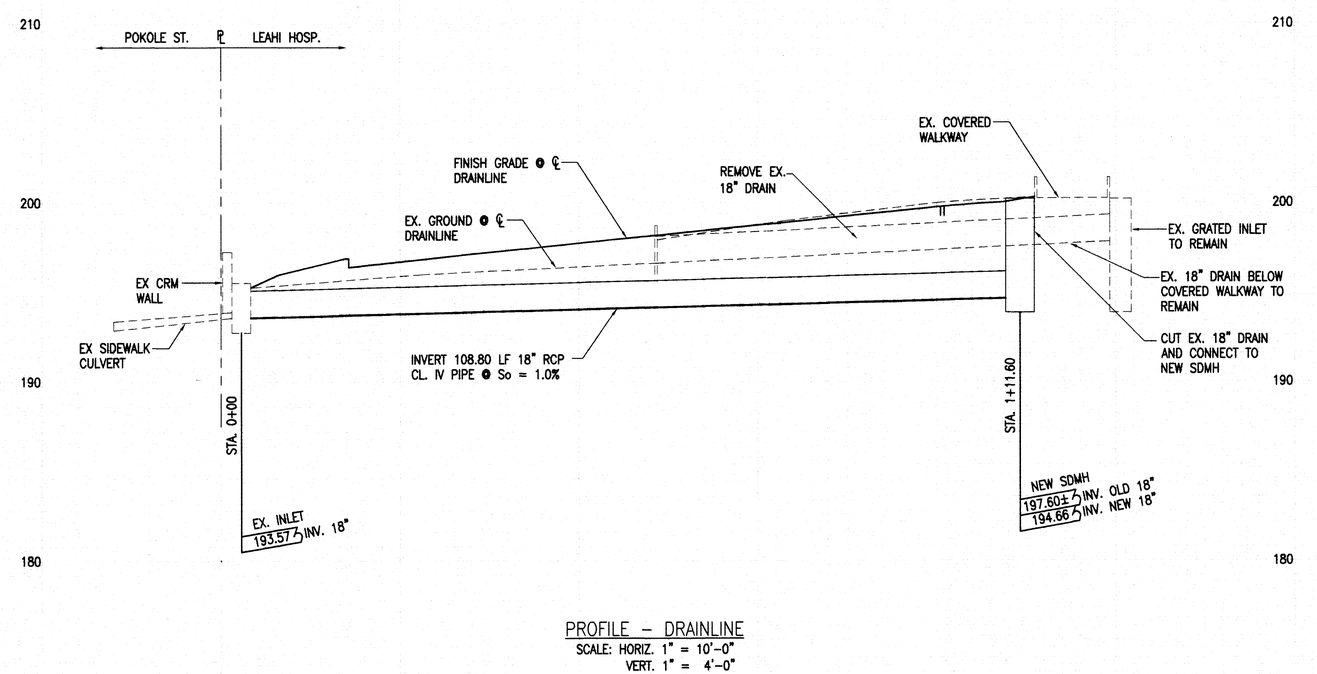
IMATA & ASSOCIATES, INC			DRAWING NO.
DESIGNED BY: EMM/GYI	CHECKED BY: GYI		C-7
DRAWN BY: EMM	APPROVED BY: GYI	DATE	SHEET 6
SCALE: AS NOTED		AUGUST 2017	OF 19 SHTS



SECTION A
SCALE: 1" = 10'-0"



SECTION B
SCALE: 1" = 10'-0"



PROFILE – DRAINLINE
SCALE: HORIZ. 1" = 10'-0"
VERT. 1" = 4'-0"

APPROVED:

for Melvin Sakahara 10/25/17
CHIEF, CIVIL ENGINEERING BRANCH, D.P.P. DATE

REVISION NO.	SYM.	DESCRIPTION	SHT. ___ OF ___	DATE	APPROVED:

GORDON Y. IMATA
LICENSED PROFESSIONAL ENGINEER
No. 2726-C
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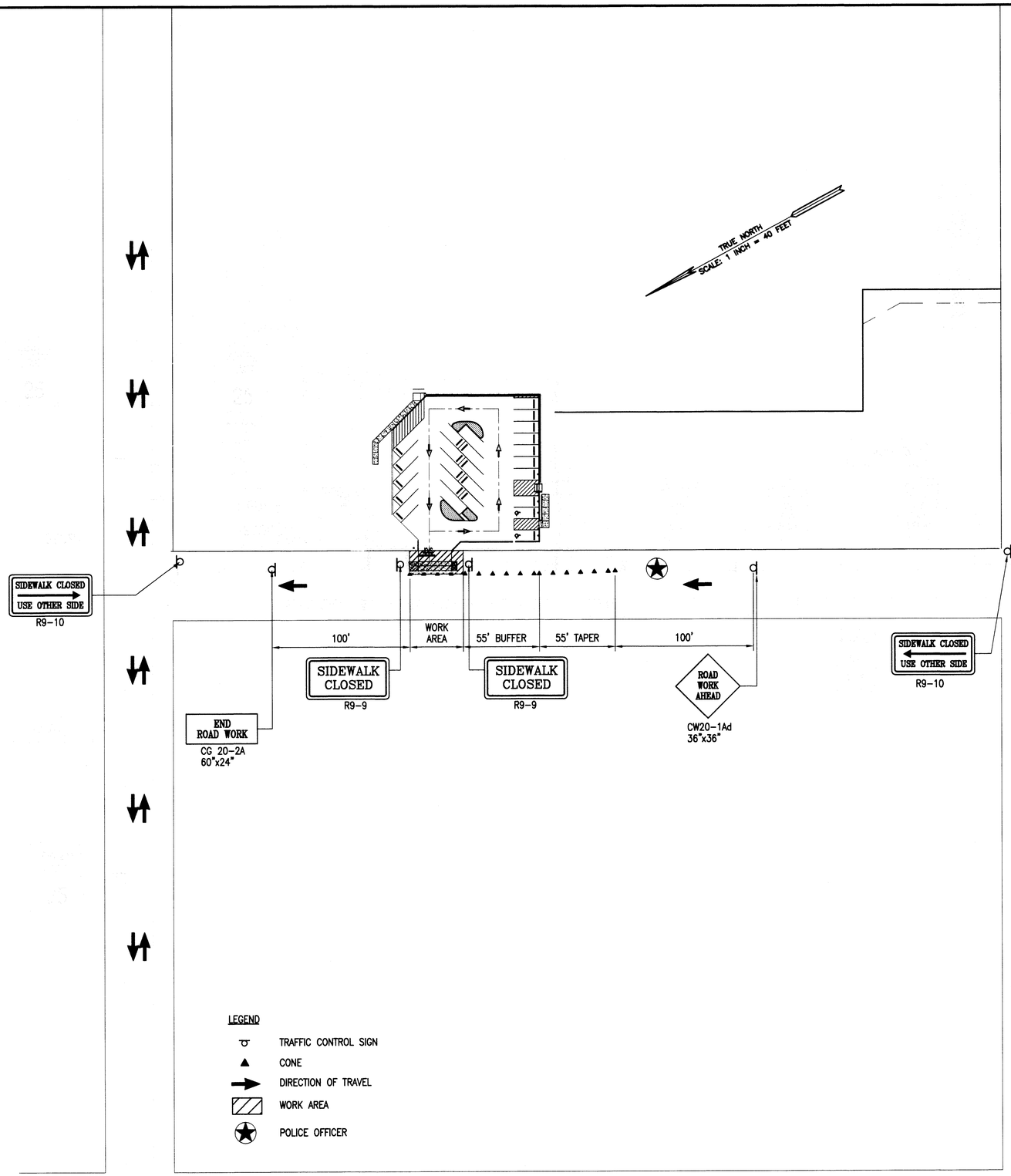
LEAHI HOSPITAL

T.M.K.: 3-2-031: 001 HONOLULU, OAHU, HAWAII

SITE SECTIONS AND DRAINLINE PROFILE

IMATA & ASSOCIATES, INC			DRAWING NO.
DESIGNED BY: EMM/GYI	CHECKED BY: GYI		C-8
DRAWN BY: EMM	APPROVED BY: GYI	DATE AUGUST 2017	SHEET 7 OF 19 SHTS
SCALE: AS NOTED			



TRAFFIC CONTROL PLAN
SCALE: 1" = 40'-0"

GENERAL NOTES FOR TRAFFIC CONTROL PLAN:

1. THE PERMITTEE SHALL MAKE MINOR ADJUSTMENTS AT INTERSECTIONS, DRIVEWAYS, BRIDGES, STRUCTURES, ETC., TO FIT FIELD CONDITIONS.
2. CONES OR DELINEATORS SHALL BE EXTENDED TO POINT WHERE THEY ARE VISIBLE TO APPROACHING TRAFFIC.
3. TRAFFIC CONTROL DEVICES SHALL BE INSTALLED SUCH THAT THE SIGN OR DEVICE FARTHEST FROM THE WORK AREA IS PLACED FIRST. THE OTHERS SHALL THEN BE PLACED PROGRESSIVELY TOWARD THE WORK AREA.
4. REGULATORY AND WARNING SIGNS WITHIN THE CONSTRUCTION ZONE THAT ARE IN CONFLICT WITH THE TRAFFIC CONTROL PLANS SHALL BE REMOVED OR COVERED.
5. FLAGGERS AND / OR POLICE OFFICERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES.
6. WHEN REQUIRED BY THE ISSUING OFFICE, THE PERMITTEE SHALL INSTALL A FLASHING ARROW SIGNAL AS SHOWN ON THE TRAFFIC CONTROL PLANS.
7. ALL TRAFFIC LANES SHALL BE A MINIMUM OF 10 FEET WIDE.
8. ALL CONSTRUCTION WARNING SIGNS SHALL BE PROMPTLY REMOVED OR COVERED WHENEVER THE MESSAGE IS NOT APPLICABLE OR NOT IN USE.
9. THE BACKS OF ALL SIGNS USED FOR TRAFFIC CONTROL SHALL BE APPROPRIATELY COVERED TO PRECLUDE THE DISPLAY OF INAPPLICABLE SIGN MESSAGES (I.E., WHEN SIGNS HAVE MESSAGES ON BOTH FACES).
10. LANE CLOSURE SHALL BE LIMITED ONLY TO THE EXTENT OF ACCOMPLISHING EACH DAY'S WORK. AS SOON AS EACH DAY'S WORK IS COMPLETED, THE PERMITTEE SHALL REMOVE ALL TRAFFIC CONTROL DEVICES NO LONGER NEEDED TO PERMIT FREE AND SAFE PASSAGE OF PUBLIC TRAFFIC. REMOVAL SHALL BE IN THE REVERSE ORDER OF INSTALLATION. EXISTING FADED OR OBLITERATED PAVEMENT MARKINGS THAT ARE NECESSARY FOR SAFE TRAFFIC FLOW IN THE CONSTRUCTION AREA SHALL BE REPLACED WITH TEMPORARY OR PERMANENT MARKINGS BEFORE OPENING THE ROADWAY TO PUBLIC TRAFFIC EACH DAY.
11. PERMANENT PAVEMENT MARKINGS AND TRAFFIC SIGNS SHALL BE REPLACED UPON COMPLETION OF EACH PHASE OF WORK.
12. CONES AND DELINEATORS SHALL BE SPACED AT A MAXIMUM DISTANCE OF 20 FEET APART. A MINIMUM OF SIX CHANNELIZING DEVICES SHALL BE USED FOR EACH TAPER LENGTH.
13. DRIVEWAYS SHALL BE KEPT OPEN UNLESS THE OWNERS OF THE PROPERTY USING THE DRIVEWAY ARE OTHERWISE PROVIDED FOR SATISFACTORILY. FURTHER, THE PERMITTEE SHALL CONTROL TRAFFIC GOING INTO AND OUT OF DRIVEWAYS.
14. BUFFER AND TAPER AREA ON APPROACH TO ANY WORK AREA SHALL BE KEPT CLEAR OF VEHICLES AND EQUIPMENT.
15. A HIGH LEVEL WARNING DEVICE (FLAG TREE) SHALL BE INSTALLED ON APPROACH TO ALL WORK AREAS.
16. "NO PARKING" SIGNS SHALL BE POSTED WITHIN ANY WORK AREA AND FOR THE BUFFER AND TAPER AREAS APPROACHING THE WORK AREA.
17. TRAFFIC CONTROL PLANS ARE APPROVED FOR WORK ON ANY CITY STREET AREA ONLY BETWEEN THE HOURS OF 08:30 A.M. AND 03:30 P.M. (MONDAY–FRIDAY).

APPROVED:

CHIEF, TRAFFIC REVIEW BRANCH, D.P.P. KA — DATE 10/23/17

REVISION NO.	SYM.	DESCRIPTION	SHT. ___ OF ___	DATE	APPROVED:

GORDON Y. IMATA — LICENSED PROFESSIONAL ENGINEER No. 2726-C — HAWAII, U.S.A.

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LICENSE EXPIRATION DATE 4/30/2018

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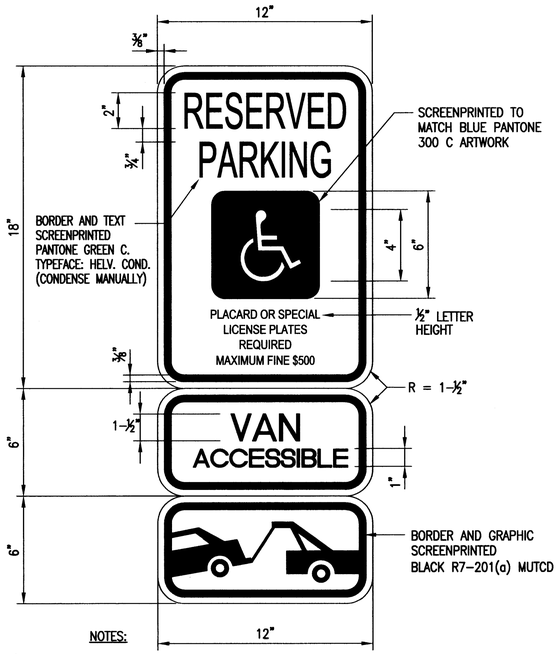
1750 KALAKAUA AVENUE SUITE 115
HONOLULU,HAWAII 96826

PARKING IMPROVEMENTS AT
LEAHI HOSPITAL

T.M.K.: 3-2-031: 001 — HONOLULU, OAHU, HAWAII

TRAFFIC CONTROL PLAN

IMATA & ASSOCIATES, INC			DRAWING NO.
DESIGNED BY: EMM/GYI	CHECKED BY: GYI		C-9
DRAWN BY: EMM	APPROVED BY: GYI	DATE	SHEET 8
SCALE: AS NOTED		AUGUST 2017	OF 19 SHTS

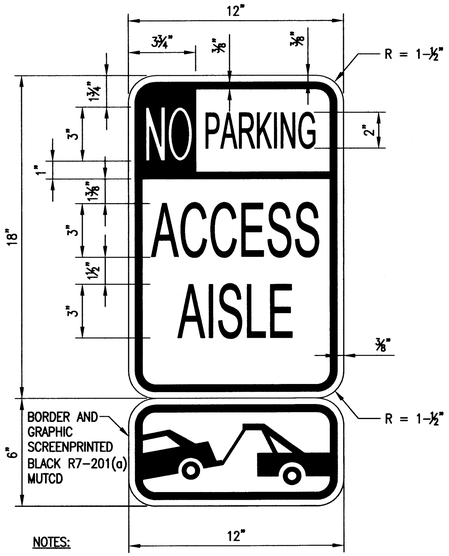


NOTES:

1. SIGNS SHALL BE ALUMINUM T6061 SHEET COVERED WITH ENGINEERING GRADE REFLECTIVE SHEETING.
2. SIGN LETTERING SHALL BE UPPER-CASE LETTERS OF THE TYPE APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION.

TYPICAL RESERVED PARKING SIGN FOR VAN ACCESSIBLE STALL DETAIL

SCALE: 3" = 1'-0"



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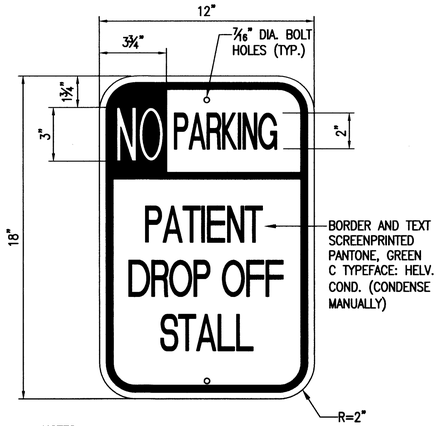
2. SIGN LETTERING SHALL BE UPPER-CASE LETTERS OF THE TYPE APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION.

TYPICAL ACCESS AISLE SIGN DETAIL

SCALE: 3" = 1'-0"



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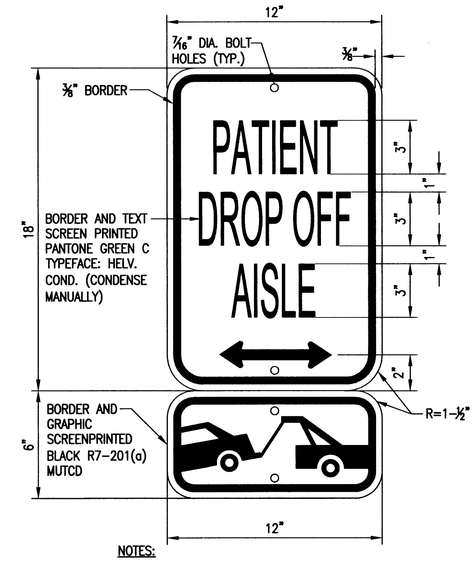
2. SIGN LETTERING SHALL BE UPPER-CASE LETTERS OF THE TYPE APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION.

PATIENT DROP OFF STALL SIGN DETAIL

SCALE: 3" = 1'-0"



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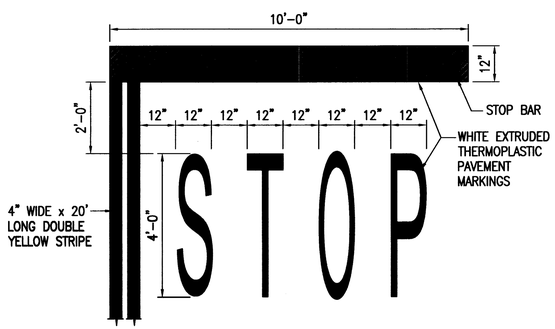
2. SIGN LETTERING SHALL BE UPPER-CASE LETTERS OF THE TYPE APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION.

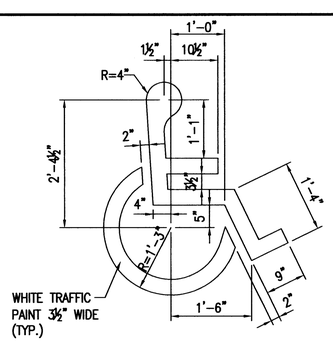
PATIENT DROP OFF AISLE SIGN DETAIL

SCALE: 3" = 1'-0"



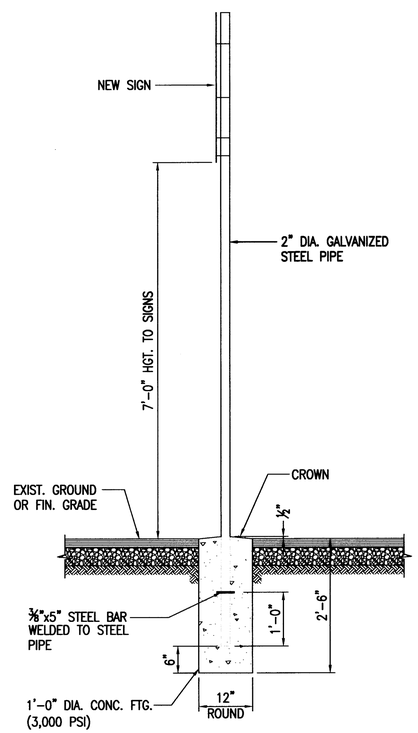
STANDARD DETAIL OF THE WORD "STOP" AT 4'-0" SIZE

SCALE : 1/2" = 1'-0"



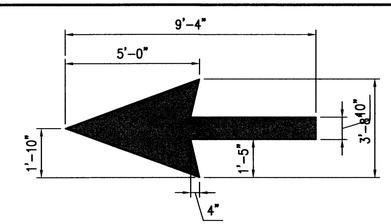
ACCESSIBLE STALL MARKING DETAIL

SCALE: 3/4" = 1'-0"



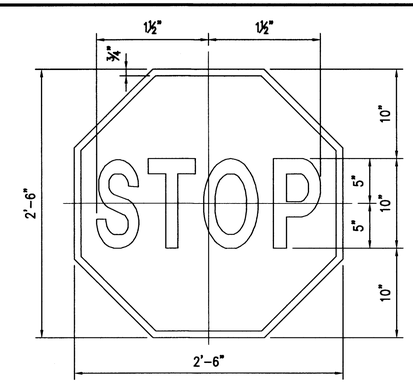
SIGN POST DETAIL

SCALE: 3/4" = 1'-0"



DIRECTIONAL ARROW

SCALE: 3/8" = 1'-0"

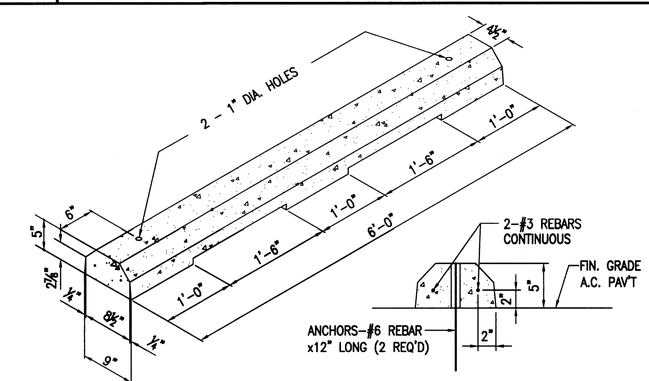


NOTE:

STOP SIGN SHALL BE AN OCTAGON WITH A WHITE (RETROREFLECTIVE) LEGEND AND BORDER ON A RED (RETROREFLECTIVE) BACKGROUND.

STOP SIGN (R1-1) DETAIL

SCALE: 1 1/2" = 1'-0"



NOTE:
PAINT ALL WHEELSTOPS WITH YELLOW TRAFFIC PAINT.

TYPICAL SECTION
SCALE: 1 1/2" = 1'-0"

CONCRETE WHEELSTOP

SCALE: 1" = 1'-0"

REVISION NO.	SYM.	DESCRIPTION	SHT. NO.	DATE	APPROVED:

GORDON Y. IMAYA
LICENSED PROFESSIONAL ENGINEER
No. 2726-C
HAWAII, U.S.A.

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LICENSE EXPIRATION DATE 4/30/2018

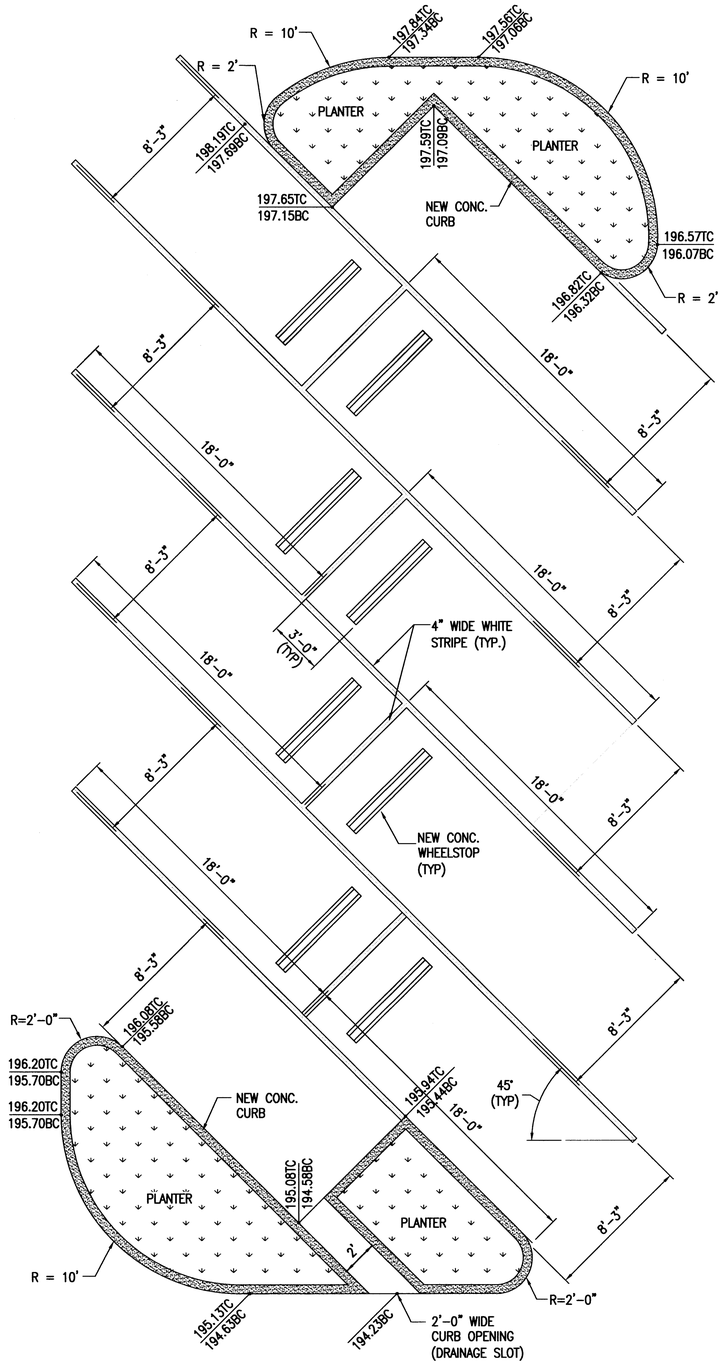
IMATA AND ASSOCIATES, INC.
1750 KALAKAUA AVENUE SUITE 115
HONOLULU,HAWAII 96826

PARKING IMPROVEMENTS AT
LEAHI HOSPITAL

T.M.K.: 3-2-031: 001 HONOLULU, OAHU, HAWAII 96815

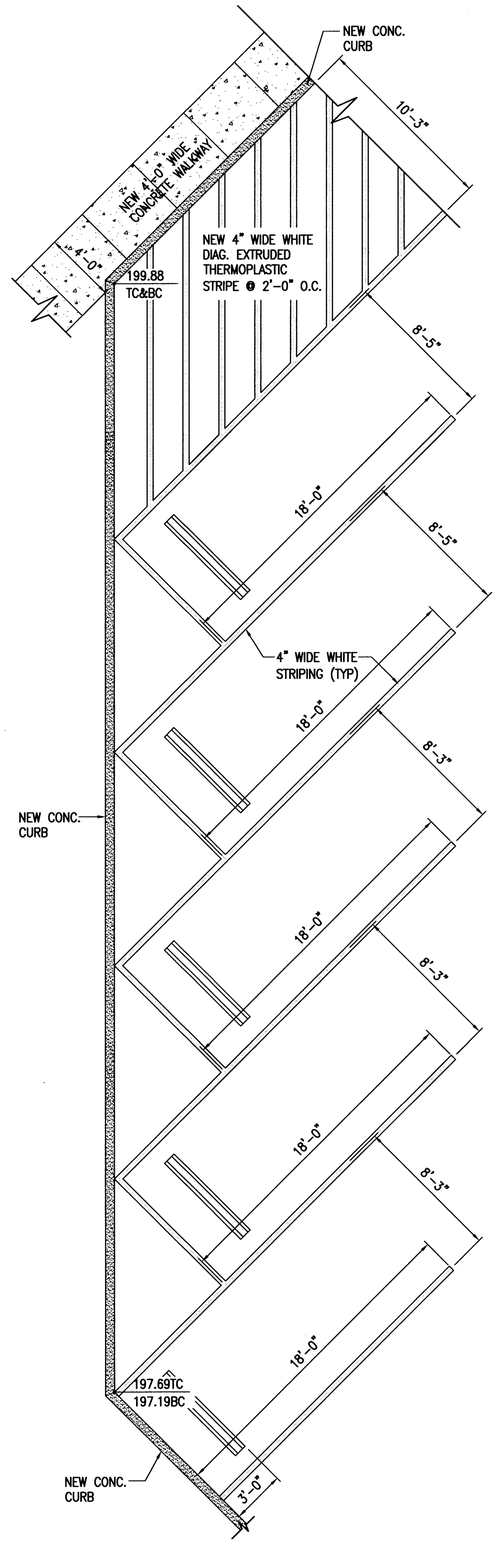
DETAILS

IMATA & ASSOCIATES, INC			DRAWING NO.
DESIGNED BY: GYI	CHECKED BY: EMM		C-10
DRAWN BY: RDL	APPROVED BY: GYI	DATE	SHEET 10
SCALE: AS NOTED		AUGUST 2017	OF 19 SHTS



45° DIAGONAL DOUBLE STALLS

SCALE: ¼" = 1'-0"



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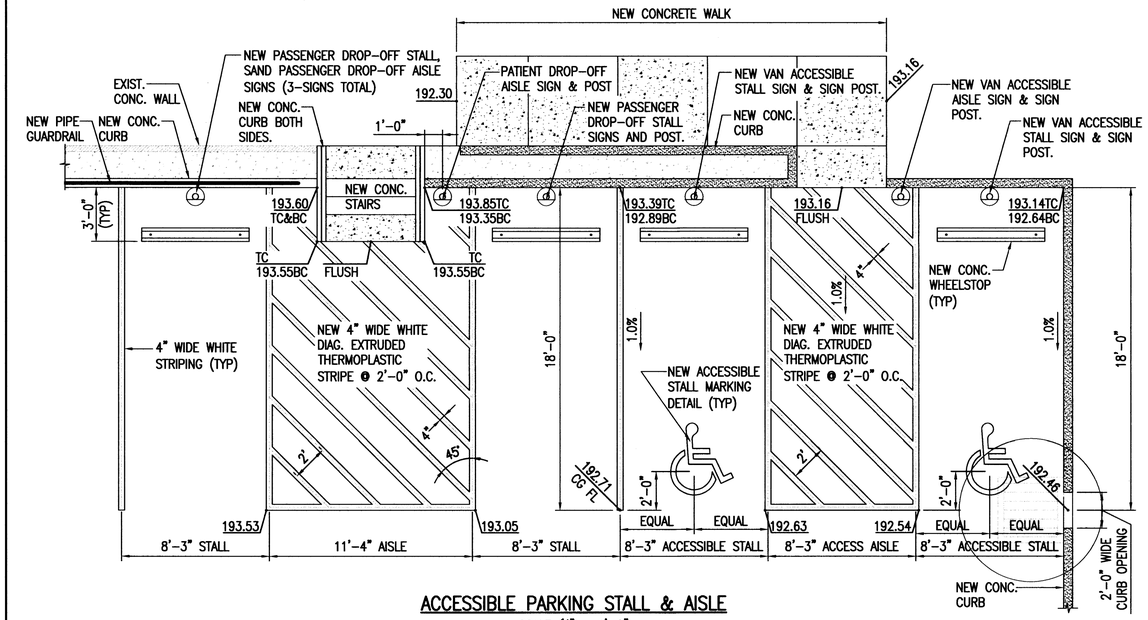
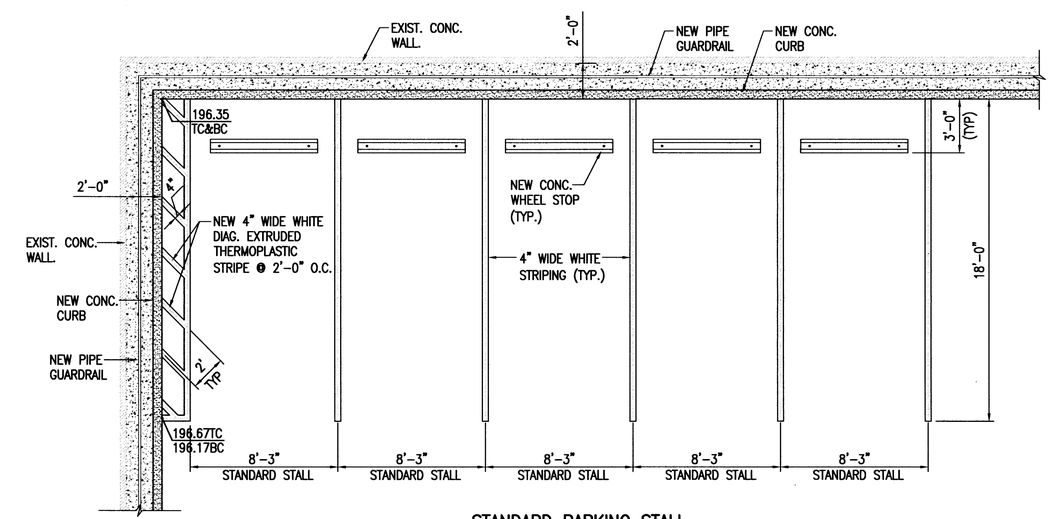
SCALE: ¼" = 1'-0"



ACCESSIBLE PARKING STALL & AISLE

SCALE: ¼" = 1'-0"



STANDARD PARKING STALL

SCALE: ¼" = 1'-0"

REVISION NO.	SYM.	DESCRIPTION	SHT. OF	DATE	APPROVED:

GORDON Y. IMATA
LICENSED PROFESSIONAL ENGINEER
No. 2726-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

LICENSE EXPIRATION DATE 4/30/2018

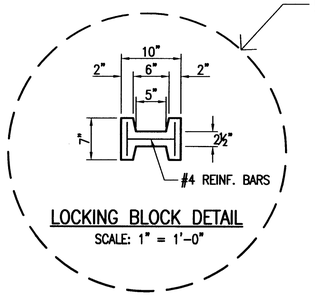
IMATA AND ASSOCIATES, INC.
1750 KALAKAUA AVENUE SUITE 115
HONOLULU,HAWAII 96826

PARKING IMPROVEMENTS AT
LEAHI HOSPITAL

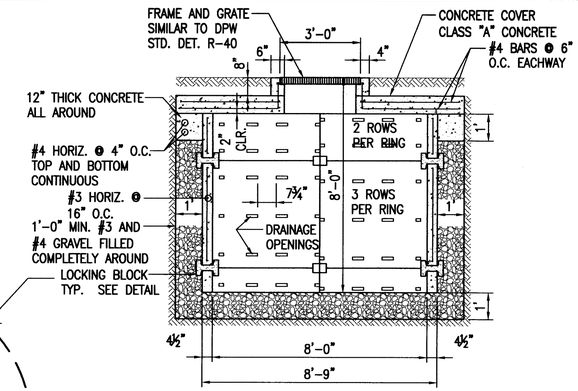
T.M.K.: 3-2-031: 001 HONOLULU, OAHU, HAWAII 96815

DETAILS

IMATA & ASSOCIATES, INC			DRAWING NO.
DESIGNED BY: GYI	CHECKED BY: EMM		C-11
DRAWN BY: RDL	APPROVED BY: GYI	DATE	SHEET 11
SCALE: AS NOTED		AUGUST 2017	OF 19 SHTS



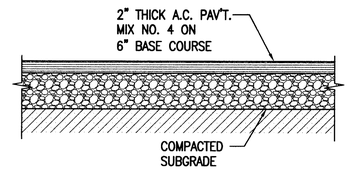
LOCKING BLOCK DETAIL
SCALE: 1" = 1'-0"



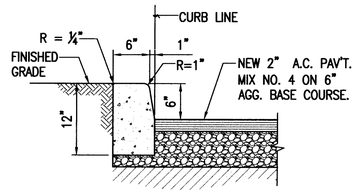
NOTE:

1. TO COMPLY WITH EXEMPTION REQUIREMENTS (U.I.C.), AT NO POINT SHALL THE DEPTH BE GREATER THAN THE INSIDE DIMENSION OF THE DRYWELL.
2. PROVIDE 2 CU.FT. OF CRUSHED ROCK, ASTM SIZE #9 ROCK SAND, AT WEEP HOLE.

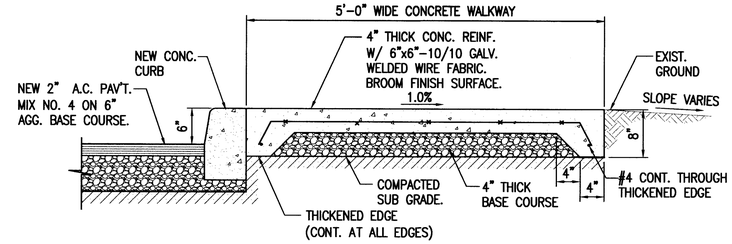
NEW 8' DIAMETER CONCRETE DRYWELL
SCALE: ⅜" = 1'-0"



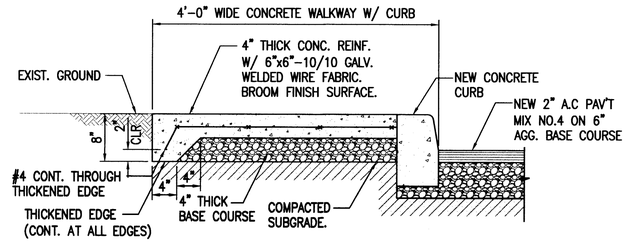
TYPICAL A.C. PAVEMENT SECTION
SCALE: 1" = 1'-0"



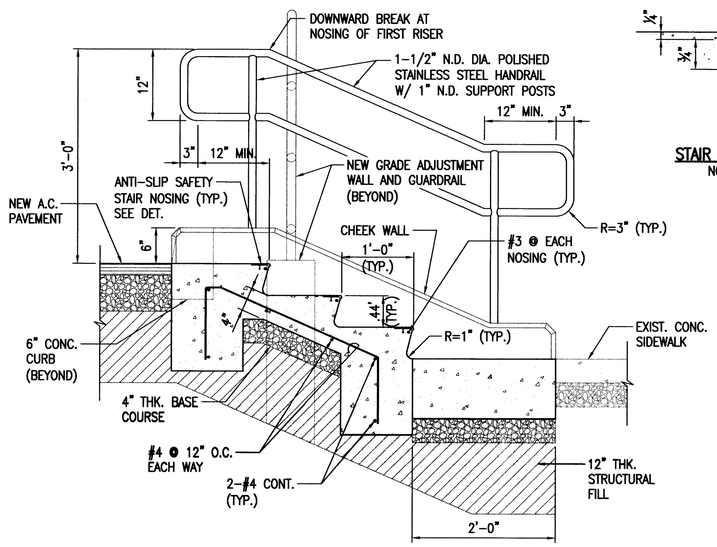
CONCRETE CURB DETAIL
SCALE: 1" = 1'-0"



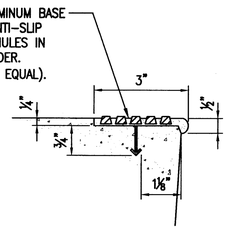
5'-0" WIDE CONCRETE WALKWAY WITH CONC. CURB
SCALE: 1" = 1'=0"



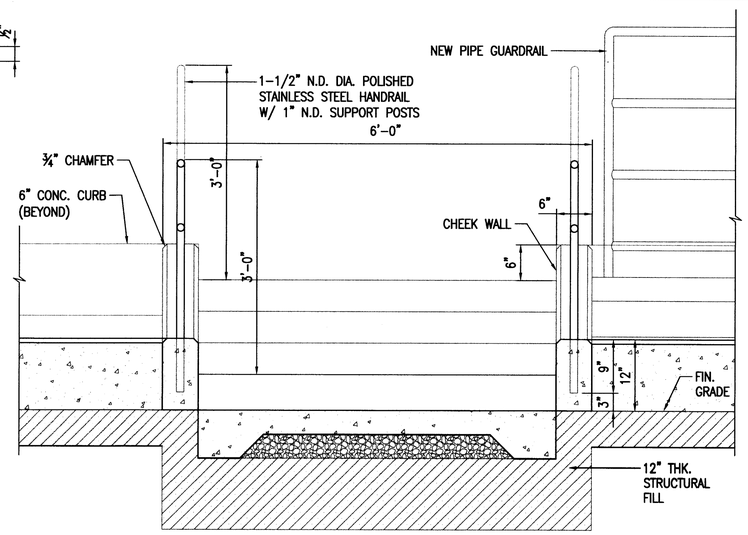
4'-0" WIDE CONCRETE WALKWAY WITH CONC. CURB
SCALE: 1" = 1'=0"



SECTION

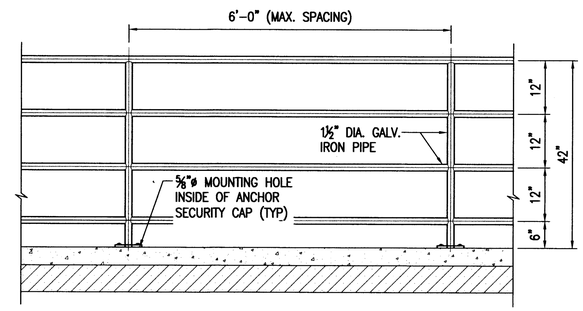


STAIR NOSING DETAIL
NOT TO SCALE

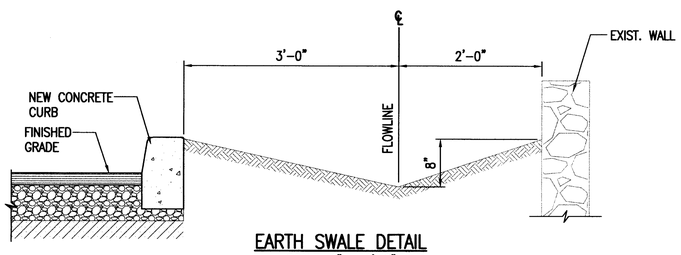


FRONT ELEVATION

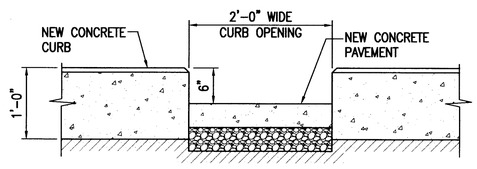
SECTION THROUGH CONCRETE STAIR
SCALE: 1" = 1'-0"



TYPICAL GALVANIZED IRON PIPE GUARDRAIL
SCALE: ¾" = 1'-0"



EARTH SWALE DETAIL
SCALE: 1" = 1'-0"



CONCRETE CURB OPENING DETAIL
SCALE: 1" = 1'-0"

APPROVED:

FOR Melvin Takabuna 10/25/17
CHIEF, CIVIL ENGINEERING BRANCH, D.P.P. DATE

REVISION NO.	SYM.	DESCRIPTION	SHT. OF	DATE	APPROVED:

GORDON Y. IMATA LICENSED PROFESSIONAL ENGINEER No. 2726-C HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

LICENSE EXPIRATION DATE 4/30/2018

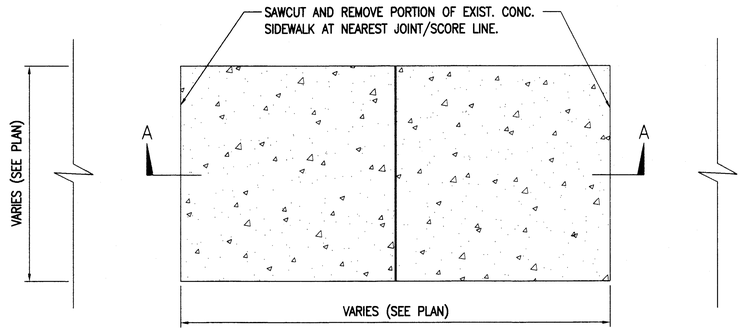
IMATA AND ASSOCIATES, INC.
1750 KALAKAUA AVENUE SUITE 115
HONOLULU,HAWAII 96826

PARKING IMPROVEMENTS AT
LEAHI HOSPITAL

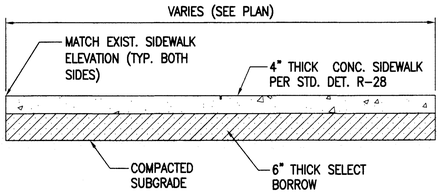
T.M.K.: 3-2-031: 001 HONOLULU, OAHU, HAWAII 96815

DETAILS

IMATA & ASSOCIATES, INC			DRAWING NO.
DESIGNED BY: RDL	CHECKED BY: EMM		C-12
DRAWN BY: RDL	APPROVED BY: GYI	DATE	SHEET 12
SCALE: AS NOTED		AUGUST 2017	OF 18 SHTS



PLAN



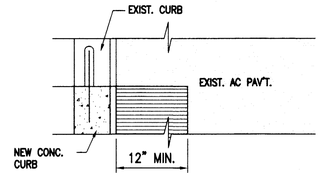
NOTE: CONTRACTOR SHALL COMPLY W/ CITY'S JOINT POLICY DATED APRIL 6, 2009

SECTION "A-A"

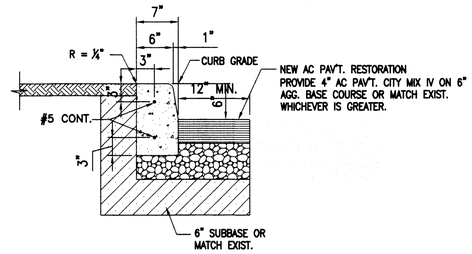
CONCRETE SIDEWALK RESTORATION DETAIL

(FOR CITY AND COUNTY SIDEWALKS ONLY)

SCALE: ¾" = 1'-0"



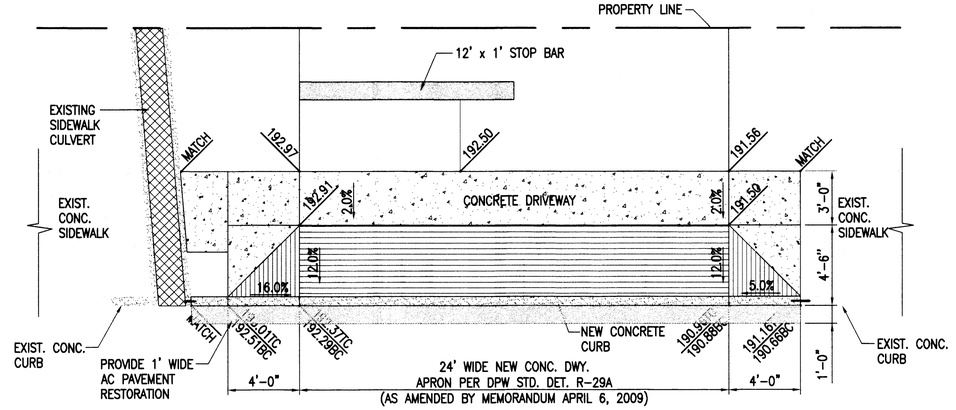
PLAN VIEW



ELEVATION

CONCRETE CURB CONNECTION RESTORATION DETAIL (CITY)

SCALE: 1" = 1'-0"



NOTE:
CONTRACTOR SHALL COMPLY W/ CITY'S JOINT POLICY DATED APRIL 6, 2009.

NEW CONCRETE DRIVEWAY APRON PER DPW STD. R29-A (REVISED JULY 2009)

SCALE: ¼" = 1'-0"

APPROVED:

For Melvin Sakahara 10/25/17

CHIEF, CIVIL ENGINEERING BRANCH, D.P.P. DATE

REVISION NO.	SYM.	DESCRIPTION	SHT ___ OF ___	DATE	APPROVED:

GORDON Y. IMATA
LICENSED PROFESSIONAL ENGINEER
No. 2726-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

LICENSE EXPIRATION DATE 4/30/2018

IMATA AND ASSOCIATES, INC.
1750 KALAKAUA AVENUE SUITE 115
HONOLULU,HAWAII 96826

PARKING IMPROVEMENTS AT
LEAHI HOSPITAL

T.M.K.: 3-2-031: 001 HONOLULU, OAHU, HAWAII 96815

DETAILS

IMATA & ASSOCIATES, INC			DRAWING NO.
DESIGNED BY: RDL	CHECKED BY: EMM		C-13
DRAWN BY: RDL	APPROVED BY: GYI	DATE AUGUST 2017	SHEET 13 OF 19 SHTS
SCALE: AS NOTED			

SECTION 02050 - DEMOLITION, REMOVAL AND RELOCATION

PART 1 - GENERAL

1.01 GENERAL REQUIREMENTS

A. Furnish all materials, labor and equipment necessary to demolish and remove all concrete slabs, structures, pavement, walls, and all other existing improvements as shown in the drawings and as specified herein.

B. Condition at Site

1. Visit the site, examine and note all existing conditions and extent of work involved for completion of this work.

2. Accept obvious conditions of existing premises on date of bid opening as part of the work, even though they may not be indicated on the drawings or may vary therefrom.

3. Exercise every precaution to preserve and protect from damage all existing structures, plants, trees, walls, private and public utilities above and below ground, etc., that are to remain. Repair any damage to the satisfaction of the Project Engineer.

C. Permits, Notices, Etc.

1. Procure and pay for all necessary permits or certificates required in connection with this work.

2. Serve proper notices and consult with the Project Engineer regarding any temporary disconnections of electrical or other utility lines which may interfere with this work. Properly disconnect all such lines where necessary before commencing with the work.

D. Existing Utility Lines

Existence of underground utility lines other than those shown is not definitely known. Should any be encountered, immediately notify the Project Engineer and follow his direction as to procedure at no additional cost to the HHSC.

PART 2 - PRODUCTS

2.01 MATERIALS

None

PART 3 - EXECUTION

3.01 DEMOLITION, REMOVAL AND RELOCATION

A. Execute all work in an orderly manner, with proper safety precautions observed at all times . Provide warning signs, lights, barricades, etc. as required or as directed by the Project Engineer.

B. Demolish all improvements indicated on the drawings completely on the site. Do not remove from the site, portions of any structure or any improvements, either as a whole or substantially as a whole, for reuse elsewhere. Break up and remove pavement in areas noted on the drawings.

C. Cut portions of concrete curbs, sidewalks and pavements which are to remain to a depth of 1-1/2" with a power-driven abrasive saw. The saw cut shall be neat and true with no shattering or spalling of the portion of concrete to remain in place or to be joined with the new work.

D. Relocate existing improvements as indicated on the drawings.

E. Removed material having no salvage value, as determined by the Project Engineer, shall become the property of the Contractor and shall be removed from the premises. Removed material with salvage value, as determined by the Project Engineer, shall be stored where directed.

F. Backfill all voids, trenches, holes, depressions and pits created by the removal of such miscellaneous improvements as required in the EARTHWORK section.

G. Provide new bypass lines and connections as required to maintain utility service to existing structures.

3.02 CONTRACT ZONE LIMITS

The Contract Zone Limits shown on the drawings indicate only in general, limits of the work involved. Perform any and all necessary and incidental work which may fall outside of these demarcation lines. Confine all construction activities within the Contract Zone Limits and do not spread equipment and materials indiscriminately about the area.

3.03 MAINTAINING TRAFFIC

Conduct operations and schedule work for minimum interference to streets, driveways and parking areas, sidewalks, etc. Confine all work, equipment, materials and personnel, as much as possible, to the work area as indicated so as not to interfere with the normal function of adjacent streets and Leahi Hospital operations.

Schedule all work involving excessive noise, dust, dirt, or any other detrimental aspect of this work in order that there will be a minimum disruption of the normal Leahi Hospital operations.

3.04 DUST CONTROL

Keep the work area thoroughly wetted down to prevent dirt and dust from rising. Provide all waterlines required for this purpose. Grade to fill all depressions or pits and to remove high spots after grubbing and removing all debris.

3.05 DEBRIS

Remove all debris existing or accumulated from this work completely and promptly from the site to the satisfaction of the Project Engineer. Burning of debris on the site is not permitted.

3.06 CLEANING

Keep the premises clean, neat and orderly at all times. Promptly remove all tools, debris, materials, apparatus, temporary toilets, lights, barriers, etc. from the site upon completion of this work.

END OF SECTION

SECTION 02100 - SITE PREPARATION

PART 1 - GENERAL

1.01 GENERAL REQUIREMENTS: Work required under this section includes, but is not necessarily limited to:

A. Clearing: This item shall consist of clearing and disposal of all materials, vegetation, trees, roots, rubbish, loose boulders, rocks, and other objectionable material within the area shown on the plans. It shall include removal of loose material, trash piles and other obstructions interfering with the new work; salvaging and stockpiling designated materials; and disposal of debris.

B. Grubbing: This item shall consist of grubbing the areas within the contract zone limits. The work shall consist of removal of large roots and other organic material at or near the ground surface.

1.03 JOB CONDITIONS

A. Dust Control: The Contractor shall use all means necessary to protect existing improvements designated to remain and, in the event of damage, immediately make all repairs and replacements necessary with the approval and no additional cost of the HHSC.

B. Burning: Onsite burning of debris is not permitted.

C. Contract Zone Limits: The Contract Zone Limits shall be as shown on the contract drawings. The Contractor, however, is required to perform any and all necessary and incidental work, which may fall outside of these demarcation lines. The Contractor is also expected to confine all of his contraction activities within the Contract Zone Limits and not to spread his equipment and materials indiscriminately around the area.

1.04 STANDARDS, CODES AND SPECIFICATIONS

The "Standard Details for Public Works Construction, " September 1986, of the Department of Public Works, City and County of Honolulu, except as amended in the drawings and specifications herewith, shall govern work covered under this section.

PART 3 EXECUTION

3.01 PREPARATION

A. Notification: Notify the Project Engineer at least 2 full working days prior to commencing the work of this section.

B. Permits: The Contractor shall obtain all necessary permits prior to the commencement of the work.

C. Site Examination: Prior to commencement of any work in this section, the Contractor shall examine the entire site and become familiar with the existing conditions and the amount and kind of work involved.

D. Scheduling: Schedule all work in a careful manner with all necessary consideration for the neighbors and adjacent businesses. Avoid interference with the use of and safe passage to and from adjacent buildings and facilities.

E. Maintaining Traffic: The Contractor shall conduct operations with minimum interference to streets driveways, parking areas, sidewalks, covered passageways, traffic, etc. The Contractor shall confine all work, equipment, materials and personnel as much as possible to the work area as indicated so as not to interfere with the normal function of Leahi Hospital operations.

3.02 LAYING OUT

A. Licensed Surveyor: The laying out of baselines, establishment of finish grades and staking out of the entire work shall be done by a Surveyor licensed in the State of Hawaii. The Contractor shall carefully preserve all data and monuments set by the Surveyor and, if displaced or lost, immediately replace them to the approval of and at no additional cost to the HHSC.

B. Discrepancies: Should any discrepancies be discovered in the dimensions given in the plans, the Contractor shall immediately notify the Project Engineer before proceeding any further with the work, otherwise he will be held responsible for any costs involved in the correction of the construction placed due to such discrepancies.

3.03 EXISTING MATERIALS

A. Existing Materials: All objectionable materials on the ground surface within the project site shall be removed and disposed of at and approved dump site. The Contractor shall be responsible for the protection of existing improvements designated to remain within the site.

B. Buried Material: All materials below the ground surface such as tree stumps, roots, logs, junk and other objectionable materials shall be removed and disposed as directed by the Project Engineer.

3.04 BACKFILLING

Except in excavation areas, all trenches, holes, depressions or pits resulting from clearing and grubbing operations shall be backfilled with approved embankment material as required by these specifications or as directed by the Project Engineer.

3.05 REMOVAL OF DEBRIS

Clean up and remove all debris accumulated from the construction operations from time to time or as directed by the Project Engineer. Upon completion of the construction work and before final acceptance of the contract work, remove all surplus materials, and leave the job raked clean and neat to the satisfaction of the Project Engineer.

END OF SECTION

SECTION 02200 - EARTHWORK

PART 1 - GENERAL

1.01 GENERAL REQUIREMENTS

Furnish all materials, labor and equipment required to accomplish all excavation, filling and grading as indicated on the drawings.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Fill materials shall be non-expansive soil free from debris, perishable or combustible materials, sod and stones larger than 3 inches in maximum dimension, subject to the approval of the Project Engineer. The onsite clayey silt will be acceptable for reuse in compacted fills and backfill.

B. Structural fill materials and granular backfill shall be select imported well graded, non-expansive granular material, with a maximum particle size of 3-inches and between 8 and 20 percent of the soil by weight passing the #200 sieve. The plasticity index (P.I.) of that portion of the soil passing the #40 sieve shall not be greater than 10. The imported fill material shall have a minimum CBR value of 15 and a CBR expansion value less than 1.0 percent when tested in accordance with ASTM D 1883.

C. Cushion fill under the concrete slabs shall be No. 3B-Fine gravel, manufactured from crushed basalt rock with a minimum of 4-inches compacted thickness.

D. Top Soil shall be imported, screened, natural, fertile, friable soil free from rocks, gravel, debris, noxious seeds, weeds, roots and subsoil.

E. Insufficient earth material: The Contractor shall import all necessary material to complete the grading work at no additional cost to the HHSC. Such imported material shall be subject to the approval of the Project Engineer and shall meet the requirements as specified for each category of the materials.

PART 3 - EXECUTION

3.01 PROTECTIVE MEASURES

A. All excavation shall be protected and guarded against danger to life, limb and property.

B. Shoring, as required to safely preserve the excavations and earth banks free from damages resulting from the work, shall be provided and installed by the Contractor.

C. All excavations shall be kept free from standing water. The Contractor shall do all pumping and draining that may be necessary to remove the water to the extent required in carrying on the work. Grading shall be controlled so that the ground surface is properly sloped to prevent water runoff from entering open trench excavations.

D. The Contractor shall conduct operations with minimum interference to normal Hospital operations, streets, driveways, sidewalks, passageways, traffic, etc.

The Contractor shall confine all work, equipment, materials and personnel as much as possible to the work area as indicated so as not to interfere with the normal function of the Hospital. The Contractor shall schedule all work that involves excessive noise, dust, dirt or any other detrimental aspect of this work in order that there will be minimum disruptions to normal Hospital functions.

When necessary and when directed, the Contractor shall provide and erect barriers, etc. with special attention given to the protection of personnel.

3.02 LAYING OUT

A. The laying out of baselines, establishment of grades and staking out the entire work shall be done by a Land Surveyor, licensed in the State of Hawaii, at the expense of the Contractor and he shall be solely responsible for their accuracy. The Contractor shall erect and maintain substantial batter boards showing construction lines and levels.

B. Should any discrepancies be discovered in the dimensions given in the plans, the Contractor shall immediately notify the Project Engineer before proceeding any further with the work; otherwise, he will be held responsible for any costs involved in correction of construction placed due to such discrepancies.

3.03 SITE GRADING REGULATIONS

A. All grading work shall conform to Chapter 14, Articles 13, 14, 15, and 16 as related to Grading, Soil Erosion and Sediment Control, of the Revised Ordinances of Honolulu, 1990, as amended and as specified herein.

B. Site excavation, embankment and grading shall be performed in accordance with Section 203, STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, Department of Transportation, State of Hawaii, 1994, as amended with deletion of sub-sections related to measurements and payments and as specified herein.

C. All excess materials from necessary grading work shall be disposed of at sites of the Contractor's own choosing outside of the project area at no cost to the HHSC.

D. No blasting will be permitted.

E. Any underground structures such as cesspool, cisterns, septic tanks, well, pipelines, fuel tanks, etc. discovered in the site preparation work shall be removed and backfilled in accordance with these specifications.

3.04 SITE PREPARATION

A. Prior to commencement of earthwork operations, the site shall be cleared of all vegetation, including tree roots, debris, asphalt concrete pavement, concrete slabs and footings and other deleterious materials.

B. Soil or rock material determined by the Project Engineer to be unsuitable for placement in compacted fills shall be removed and wasted from the site.

C. After clearing operations have been completed and prior to placing fill, scarify the exposed subgrade to a depth of 6 inches until the surface upon which fill is to be placed is uniform and free of uneven features which may prevent uniform compaction.

D. The scarified ground shall be moisture conditioned to about 2 percent above the optimum moisture content, mixed and compacted to between 90 and 95 percent of the maximum dry density as determined by ASTM D 1557.

E. Prior to placing fill, the ground surface shall be inspected and approved by the Project Engineer.

3.05 STRUCTURAL EXCAVATION AND BACKFILL

A. Prior to placing the granular fill, the exposed earth surface shall be scarified to a depth of 6-inches, moistened if necessary to about 2 percent above optimum moisture content, and re-compacted to between 90 and 95 percent of the maximum dry density as determined by ASTM D 1557.

D. The granular structural fill shall be placed in 8-inch loose lifts and compacted to a minimum 95 percent compaction as determined by ASTM D 1557. The 4-inch cushion fill layer shall be considered as part of the granular fill section.

C. Excavation for wall footings shall have level beds of firm bearing, with stepped levels where necessary.

D. Structural excavations carried below specified levels shall be filled with concrete to proper levels at the expense of the Contractor unless otherwise approved by the Project Engineer.

E. Excavated material approved for non-structural filling operations shall be transported to fill areas and placed as specified herein. Excavated materials declared unusable by the project Engineer shall be removed from the site at the Contractor's expense. Excess excavated materials shall be removed from the site at no additional cost to the HHSC.

F. Should any existing utility lines other than those shown on the drawings be encountered during excavation, the Contractor shall immediately notify the Project Engineer and follow his direction as to procedure at no additional cost to the HHSC.

3.06 YARD FILL

A. Yard fill, where no concrete slabs or pavements occur, shall be placed in 8-inch thick loose level lifts and compacted to 90% of maximum dry density as determined by ASTM D 1557.

B. Rocks or broken masonry less than 3 inches in diameter shall be well distributed in earth or other fine material with voids filled and shall not be placed within 3 feet of finished grade.

C. All fills against existing ground surfaces steeper than 5 horizontal to 1 vertical shall be keyed and benched into sound bedrock or firm undisturbed earth. The key for side hill fills shall have a minimum width of 8 feet.

D. The areas not covered by concrete slab or pavement up to the Contract Zone Limits shall be graded to conform to finish contours with allowance for depth of top soil. Rough grading shall prevent the drainage of water into construction areas.

3.07 TRENCHING AND BACKFILL FOR EXTERIOR UTILITY WORK

A. Trench excavation for exterior water, irrigation and electrical work shall be dug to depths shown on the drawings. If depths are not indicated, the trench shall be cut down to proper levels that will provide the minimum coverage to the ducts or pipes as required by Code.

B. Trenching work shall be open cut excavation with banks as nearly vertical as practical, with sufficient width to provide proper working space and bottom of trench accurately graded to provide uniform slope and support.

3.08 CUSHION FILL UNDER CONCRETE SLABS

Under exterior slabs on grade, the cushion fill shall be a minimum of 4" thick and shall be compacted to a level surface using a vibratory compactor.

3.09 FINISH GRADING

Outdoor areas not covered by buildings except planting and garden areas shall be graded to finish grade and contours with allowance for 6-inch layer of topsoil.

1. Topsoil shall be evenly spread and raked to a uniform plane at required contours and grades.

2. Topsoil shall not be installed until pavement, walks and other site work are substantially completed. It shall be spread to an even thickness of 6-inches in planting areas and 6- inches over all areas disturbed by excavation limits indicated on the drawings. Rake to finish grade. Break up or remove all lumps larger than one inch. The finished surface shall blend continuously with the surrounding land and be carefully sloped to drain away from buildings.

END OF SECTION

REVISION NO.	SYM.	DESCRIPTION	SHT. ___ OF ___	DATE	APPROVED:

GORDON Y. IMATA
LICENSED PROFESSIONAL ENGINEER
No. 2728-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

LICENSE EXPIRATION DATE 4/30/2018

IMATA AND ASSOCIATES, INC.
1750 KALAKAUA AVENUE SUITE 115
HONOLULU,HAWAII 96826

PARKING IMPROVEMENTS AT
LEAHI HOSPITAL

T.M.K.: 3-2-031: 001 HONOLULU, OAHU, HAWAII 96815

SPECIFICATIONS

IMATA & ASSOCIATES, INC			DRAWING NO.
DESIGNED BY: RDL	CHECKED BY: EMM		C-14
DRAWN BY: RDL	APPROVED BY: GYI	DATE	SHEET 16
SCALE: AS NOTED		AUGUST 2017	OF 18 SHTS

SECTION 02270 - SOIL EROSION CONTROL

PART 1 - GENERAL

1.01 GENERAL REQUIREMENTS

Furnish all materials, labor, material, services, and equipment and related items necessary to control water pollution through the use of retention basins, berms, silt fences, composted filter sock, fiber mats, netting, gravel pads and filters, grassing, slope drains, surface covering and other erosion control devices or methods as shown in the drawings and as specified herein.

1.02 SUMMARY

A. It shall be the responsibility of the Contractor to visit, examine and note all existing site conditions and extent of work involved for completion of this work.

B. Erosion and siltation control measures shall be applied to any erodible material within the project site, including local material sources and work areas.

C. The Contractor shall be responsible for providing the necessary erosion control measures shown on the erosion control plan and as ordered by the Project Engineer. All grading operations shall be performed in conformance with applicable provisions of the "Water Pollution Control and Water Quality Standards" contained in the "Public Health Regulations," State Department of Health.

D. The Contractor shall be responsible for removing all silt and debris resulting from his work and deposited in drainage facilities, streams, roadways, adjacent lands and other areas.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Silt fence shall be compost filter socks of the diameter and staked as indicated on the plans.

B. Dust fence shall be fabric mounted on a wood frame and supported with diagonal bracing to withstand wind loads. The fabric shall be specifically formulated for the purpose intended.

C. Gravel pad for construction equipment ingress and egress shall be 30 feet wide by 50 feet long, 8-inch thick, 1" to 3" or larger with 7" maximum rock constructed on a geotextile fabric base.

D. Mulches as temporary surface covering shall be bagasse, hay straw, fiber mats, fiber nettings or other suitable material acceptable to the project Engineer and shall be reasonably clean and free of noxious weeds and deleterious materials.

E. Slope drains shall be constructed of pipe, fiber mats, rubble, Portland concrete, bituminus asphaltic concrete, plastic sheets or other materials acceptable to the Project Engineer.

F. Grass shall be common Bermuda grass, suitable to the area and shall provide a permanent ground cover.

PART 3 - EXECUTION

3.01 TEMPORARY EROSION CONTROL

A. The Project Engineer will have the authority to limit the amount of surface area exposed by clearing and grubbing and demolition operations.

B. No work shall be done until temporary erosion control measures, including silt fences, dust fences, gravel ingress and egress, drain inlet filters, etc. are in place.

C. The Project Engineer may also direct the Contractor to provide immediate, permanent or temporary pollution control measures to prevent the contamination of streams, drainage facilities, roads, adjacent lands and other areas. The Contractor shall determine the appropriate erosion control measure to use. Such work may involve the construction of temporary berms, retention basins or involve the construction of other measures or devices as necessary to control erosion.

D. The Contractor shall limit the surface area exposed by grubbing, stripping of topsoil and grading to that which is necessary for him to perform the next operation and which is within his capability and progress in keeping with the construction contract schedule.

E. The exposed bare earth area shall not exceed 15 acres, or the maximum limit established by County Code or Ordinances, whichever is less.

F. Any area bared or exposed for a period of 10 days and is not within the limits of active construction shall be immediately hydromulched and seeded without additional cost to the HHSC. All areas where finish grading is complete shall be grassed within 3 calendar days after completion of grading for the area.

G. The Contractor shall at the end of each work day, shape the earthwork in such a manner as to minimize the erosion of soils. He shall construct earth berms to intercept and control runoff at the limits of grubbing or grading. Erodible areas such as stockpiles of graded material, topsoil or imported material shall be covered with an impermeable material.

H. Construction of berms, cofferdams or other erosion control structures near streams or waterways shall be of approved materials.

I. Temporary erosion control measures shall remain in place until permanent measures such as grassing or pavement are completed and established.

J. The temporary erosion control measures outlined in these specifications are minimum requirements and shall not preclude construction of additional measures the Contractor may deem necessary. Damages caused by the erosion of soils from the project site on downstream areas shall be the responsibility of the Contractor and he shall bear the costs of repairing, correcting, replacing and cleaning damaged or polluted facilities.

END OF SECTION

SECTION 02362 - SOIL TREATMENT FOR VEGETATION CONTROL

PART 1 - GENERAL

1.01 GENERAL REQUIREMENTS

This work shall consist of spraying weed killer on the prepared roadway subgrade prior to the installation of the base course and where called for on plans and on existing growth prior to application of asphalt in the case of resurfacing jobs.

1.03 SUBMITTALS

Prior to the start of work, the Contractor shall submit to the Project Engineer the material product data and Material Safety Data Sheets for the material proposed for use.

PART 2 - PRODUCTS

2.01 MATERIALS

Weed killer shall be "Casoron 4G", "Norosac 10G", or an approved equal for under asphalt application on new or rebuilt pavement, and shall be "Hyvar X", "Roundup" or an approved equal for application to existing weeds for resurfacing jobs.

PART 3 - EXECUTION

3.01 APPLICATION

The under asphalt weed killer shall be mixed and uniformly spread using calibrated application equipment at the maximum rates permitted for "under asphalt" use and in strict accordance with the manufacturer's label. Base course material shall be installed as soon as possible after applying the weed killer to preclude loss of germination inhibiting action.

In treatment of existing growth on resurfacing jobs, the weed killer shall be mixed and uniformly sprayed in strict accordance with the manufacturer's label.

Nut grass shall be retreated two (2) days after initial application and again if growth still exists.

The Contractor shall notify the Project Engineer 24 hours before application of weed killer.

END OF SECTION

SECTION 02400 - DRAINAGE

PART 1 - GENERAL

1.01 GENERAL REQUIREMENTS

Work Included: The work to be performed under this Section shall consist of furnishing all labor, materials, equipment, and incidentals necessary to install the new drainage system as shown on the drawings.

1.03 SUBMITTALS

A. Certificates: Before installation, submit to the Project Engineer affidavits from the manufacturers or suppliers of pipe, pipe coating and fittings proposed to be furnished and installed under this section, certifying that such materials delivered to the project conform to the requirements of these specifications.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Materials for drainage system shall be in accordance with the below-listed sections of the Counties' STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION , dated September 1986 and STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION , dated September 1984 as revised, except as amended in the plans and/or specifications herewith. (Paragraphs concerning Measurements and Payments in the Sections are not applicable to this project.)

1. Drain Pipes (Reinforced Concrete Pipe; Appurtenances) Class IV..... Section 24
   and,
   (PVC Sewer Pipe and Appurtenances), SDR 35.....Section 21
2. Catch Basins and Storm Water Inlets.....Section 26
3. Portland Cement Concrete.....Section 39
4. Reinforcing Steel.....Section 48

PART 3 - EXECUTION

3.01 INSTALLATION

A. Location of Utility Lines

1. The Contractor shall be responsible for precisely laying out the various storm drain lines shown on the drawings.
2. Prior to the actual work of constructing the drain system, the Contractor shall excavate and expose all utility facilities which will be crossed by the new drain and verify their elevations with respect to the new drain grades. Elevations of inverts of the new drain lines to be connected to the existing drain shall be verified at their point of connections under this requirement.
3. Should the actual elevation of any existing utility show a possible discrepancy which may affect the alignment and grade of the new drain, the Contractor shall immediately notify the Project Engineer of his findings and shall not proceed with the drain construction until authorized to do so by the Project Engineer.
4. In performing all work the Contractor shall exercise due care and caution necessary to avoid any damage to, and impairment in the use of, any utility line. Any damage to existing lines resulting from the Contractor's operations shall be immediately repaired and restored as approved by the Project Engineer at the Contractor's expense.
5. The Contractor shall verify that all drain lines are constructed with a minimum of 3 feet cover. Notify the Project Engineer immediately of any discrepancy prior to placing of pipes.

B. Excavation and Backfill

Trench excavation and backfill for the laying out and installation of drain pipes, to the required line and grade, shall be governed by the following provisions of the Counties' STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION , dated September 1986 and STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION , dated September 1984 except as amended in the plans and/or specifications herewith. (Paragraphs concerning Measurements and Payments in the Sections are not applicable to this project.)

1. Trench Excavation and Backfill.....Section 11
2. Roadway Excavation.....Section 12
3. Restoring Pavements and Other Improvements.....Section 38

C. Storm Drainage Piping and Drainage Structures

Installation shall be in accordance with the applicable sections noted hereinbefore.

3.02 FINAL INSPECTION

At the time of final inspection of the work performed under the contract, the utilities covered by this section shall be complete in every respect and operating as designed. All surplus materials of every character resulting from the work of this section shall have been removed. Drainage lines and drywells shall be free from sand, silt or other obstructions. Any defects discovered in the utilities subsequent to this inspection shall be corrected prior to final acceptance.

END OF SECTION

SECTION 02453 - TRAFFIC SIGNAGE

PART 1 - GENERAL

1.01 GENERAL REQUIREMENTS

Work Included: The work to be performed under this Section shall consist of furnishing all labor, materials, equipment, and incidentals necessary to install new traffic signs as shown on the drawings.

1.03 REFERENCES

The publications listed for a part of these specifications to the extent referred.

Hawaii Standard Specifications for Road, Bridge, and Public Works Construction, 1994, with exception of paragraphs "Method of Measurement" and "Basis of Payment", referred to as "Standard Specifications".

Manual on Uniform Traffic Control Devices, current edition.

1.04 QUALITY ASSURANCE

Codes and Standards: Comply with the codes, specifications and standards referred to in this specification, except where provisions in this specification or drawings exceed such requirements.

1.05 SUBMITTALS

A. Product Data: Manufacturer's product data and application instructions.

1.06 PRODUCT HANDLING

Deliver materials in the original manufacturer's unopened containers. Store materials in a dry, protected area and handle in accordance with manufacturer's recommendations. If not used within six (6) months, retest materials prior to use.

PART 2 - PRODUCTS

2.01 MATERIALS

Traffic and Accessible Signs: Materials for traffic and accessible signs shall be constructed in accordance with Section 621 - TRAFFIC CONTROL SIGNS of the "Standard Specifications" and shall conform with the current edition of the Manual of Uniform Traffic Control Devices.

PART 3 - EXECUTION

3.01 INSPECTION

Examine the areas and conditions under which signage is to be installed. Should any condition be found unsuitable, no work shall be done until the unsatisfactory conditions have been corrected and area is acceptable to the Project Engineer. Proceeding with work will imply acceptance of the conditions by the Contractor.

3.02 INSTALLATION

A. Install new traffic, handicap signs and pavement striping as noted on the drawings and in accordance with the "Standard Specifications".

B. Contact the Project Engineer a minimum of three (3) days before start of installation.

C. Set new sign posts plumb in concrete as shown on the drawings.

3.03 DEFECTIVE WORKMANSHIP OR MATERIAL

Material not conforming to the requirement of the specifications or drawings that have been delivered to the project or incorporated in the work, or work that is performed of inferior quality, shall be considered defective and shall be corrected as directed by the Project Engineer.

END OF SECTION

REVISION NO.	SYM.	DESCRIPTION	SHT. OF	DATE	APPROVED:

GORDON Y. IMATA
LICENSED PROFESSIONAL ENGINEER
No. 2726-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

LICENSE EXPIRATION DATE 4/30/2018

IMATA AND ASSOCIATES, INC.
1750 KALAKAUA AVENUE SUITE 115
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PARKING IMPROVEMENTS AT
LEAHI HOSPITAL

T.M.K.: 3-2-031: 001 HONOLULU, OAHU, HAWAII 96815

SPECIFICATIONS

IMATA & ASSOCIATES, INC			DRAWING NO.
DESIGNED BY: RDL	CHECKED BY: EMM		C-15
DRAWN BY: RDL	APPROVED BY: GYI	DATE	SHEET 17
SCALE: AS NOTED		AUGUST 2017	OF 18 SHTS

SECTION 02513 - ASPHALT CONCRETE PAVING

PART 1 - GENERAL

1.01 GENERAL REQUIREMENTS

Furnish materials, labor and equipment necessary to install new asphalt concrete pavement and pavement structural section, and lay out the entire work, all as indicated on the drawings and specified herein.

1.02 SUBMITTALS

A. Product Data: Manufacturer's product data and application instructions.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Weed killer as specified in Section 02362 - Soil Treatment for Vegetation Control.

B. Materials for parking area shall be constructed in accordance with the below-listed sections of the STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION dated 1986 and STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION, dated September 1984 as revised, except as amended in the plans and/or specifications herewith. (Paragraphs concerning Measurements and Payments in the Sections are not applicable to this project.)

1. Subgrade.....Section 29
2. Aggregate Base Course ..... Section 31
3. Asphalt Concrete Pavement .....Section 34
   Mix shall be No. IV
4. Tack Coat .....Section 33
5. Prime Coat ..... Section 33

PART 3 - EXECUTION

3.01 INSTALLATION

A. The Contractor shall stake out the areas to be paved, using grade stakes on which the final finish elevations, base course and subgrade elevations are clearly marked. All such stakes and elevations shall be approved by the Project Engineer before any work is done.

B. Roads, parking areas: Installation shall be in accordance with the applicable sections noted hereinbefore.

Application of the prime coat specified above over newly constructed base course will not be required where the longitudinal grade of the pavement is less than 8% or where the asphaltic concrete pavement thickness is greater than 4 inches.

Where a prime coat is provided, the Contractor shall control runoff and protect adjacent work, property, utilities, waterways, etc. against damage. Damaged work, etc. shall be repaired and restored to their original condition at no additional cost to the HHSC.

C. Existing weed growth shall be treated with weed killer prior to paving. Weed killer shall be applied per the manufacturer's directions.

D. The Contractor shall notify the Project Engineer 24 hours in advance before application of weed killer.

3.02 REPAIR OF EXISTING A.C. PAVEMENTS

Any existing asphaltic concrete pavements including roads, walkways, driveways, and parking areas that have been damaged by construction activities shall be repaired to the original condition and to the satisfaction of the Project Engineer. Damage done by heavy equipment, especially on roads and yards not stable for such equipment, shall be repaired to the original condition and to the satisfaction of the Project Engineer.

END OF SECTION

SECTION 02515 - PORTLAND CEMENT CONCRETE PAVING

PART 1 - GENERAL

1.01 GENERAL REQUIREMENTS

Furnish materials, labor and equipment necessary to install new Portland cement concrete pavement and cushion fill and lay out the entire work, all as indicated on the drawings and specified herein.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Materials shall be in accordance with the below listed Sections of the City and County of Honolulu STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, dated September 1986, and STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION, dated September 1984, as revised, except as amended in the drawings and specifications herewith. Paragraphs concerning Measurements and Payments in the sections are not applicable to this project.

1. Subgrade.....Section 29
2. Base Course (4" compacted thickness).....Section 31
3. Concrete Sidewalk.....Section 42

PART 3 - EXECUTION

3.01 INSTALLATION

A. Stake out the areas to be paved, using wooden stakes on which the final finish elevations, base course, and subgrade elevations are clearly marked. All such stakes and elevations shall be approved by the Project Engineer before any work is done.

B. Spray weed killer on the prepared subgrade of walkways at a uniform rate in accordance with the weed killer manufacturer's recommendation. Notify the Project Engineer 24 hours before application of weed killer.

C. Install walkways in accordance with the applicable sections noted hereinbefore.

D. Broom Finish: Apply a broom finish to exterior concrete platforms, steps, and ramps, and all walking surfaces as indicated. Immediately after float finishing, slightly roughen trafficked surface by brooming with fiber-bristle broom perpendicular to main traffic route. Coordinate required final finish with Project Engineer before application.

3.02 ADJUSTMENT OF EXISTING UTILITY STRUCTURES TO FINISHED GRADE

Adjust existing utility structures to finished grade in accordance with Section 36 of the City and County of Honolulu STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, dated September 1986. Paragraphs concerning Measurements and Payments in the section are not applicable to this project.

3.03 REPAIR OF EXISTING PAVEMENTS

A. Repair to the original condition and to the satisfaction of the Project Engineer, all existing pavements (including roads and walkways) that have been damaged by construction activities, including damage done by heavy equipment.

B. Restore pavements and other improvements in accordance with Section 38 of the City and County of Honolulu STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, dated September 1986. Paragraphs concerning Measurements and Payments in the section are not applicable to this project.

END OF SECTION

SECTION 02577 - PAVEMENT MARKINGS

PART 1 - GENERAL

1.01 GENERAL REQUIREMNTS

The work to be performed under this section shall include the furnishing of all labor and equipment necessary to perform all pavement markings as indicated on the drawings.

1.02 SUBMITTALS

A. Submit in accordance with Section 01300 - SUBMITTALS.

1.03 DELIVERY AND STORAGE

Deliver paints and paint materials in original sealed containers that plainly show the designated name, specification number, batch number, color, date of manufacture, manufacturer's directions, and name of manufacturer.

PART 2 - PRODUCTS

2.01 MATERIALS

Paint: Non-reflective conforming to Fed. Spec. TT-P-85, color as indicated on the drawings or as selected by the Project Engineer.

2.02 EQUIPMENT

The mechanical marker shall be an atomizing spray-type marking machine suitable for application of traffic paint. It shall produce an even and uniform film thickness at the required coverage and shall be designed so as to apply markings of uniform cross sections and clear-cut edges without running or spattering and within the limits for straightness set forth herein.

PART 3 - EXECUTION

3.01 INSPECTION

Examine the areas and conditions under which pavement markings are to be installed. Should any condition be found unsuitable, no work shall be done until the unsatisfactory conditions have been corrected and are acceptable to the Contractor. Proceeding with the work will imply acceptance of the conditions by the Contractor.

3.02 SURFACE PREPARATION

Allow new pavement surfaces to cure for a period of not less than 30 days before application of marking materials. Thoroughly clean surfaces to be marked before application of the paint. Remove dust, dirt, and other granular surface deposits by sweeping, blowing with compressed air, rinsing with water, or a combination of these methods as required. Remove rubber deposits, existing paint markings, and other coatings adhering to the pavement by waterblasting. Scrub affected areas, where oil or grease is present on old pavements to be marked, with several applications of trisodium phosphate solution or other approved detergent or degreaser and rinse thoroughly after each application. After cleaning oil-soaked areas, seal with shellac or primer recommended by the manufacturer to prevent bleeding through the new paint.

3.03 INSTALLATION

A. Approval of Layout: Do not apply paint until the layouts, indicated alignment, and the condition of the existing surface has been approved by the Project Engineer.

B. Painting: Provide guidelines and templates as necessary to control paint application. Take special precautions in marking symbols. Sharply outline all edges of markings. The maximum drying time requirements of the paint specifications will be strictly enforced, to prevent undue softening of bitumen, and pickup, displacement, or discoloration by tires of traffic. Striping widths for lines shall be 4-inches, unless otherwise indicated.

C. Finish: The finished product shall have an opaque, well painted appearance, with no black or other discoloration showing through.

3.04 TRAFFIC CONTROL AND PROTECTION

Place warning signs near the beginning of the work site and well ahead of the work site for alerting traffic. Place small markers along newly painted lines to control traffic and prevent damage to newly painted surfaces.

END OF SECTION

REVISION NO.	SYM.	DESCRIPTION	SHT. OF	DATE	APPROVED:

GORDON Y. IMATA
LICENSED PROFESSIONAL ENGINEER
No. 2726-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

LICENSE EXPIRATION DATE 4/30/2018

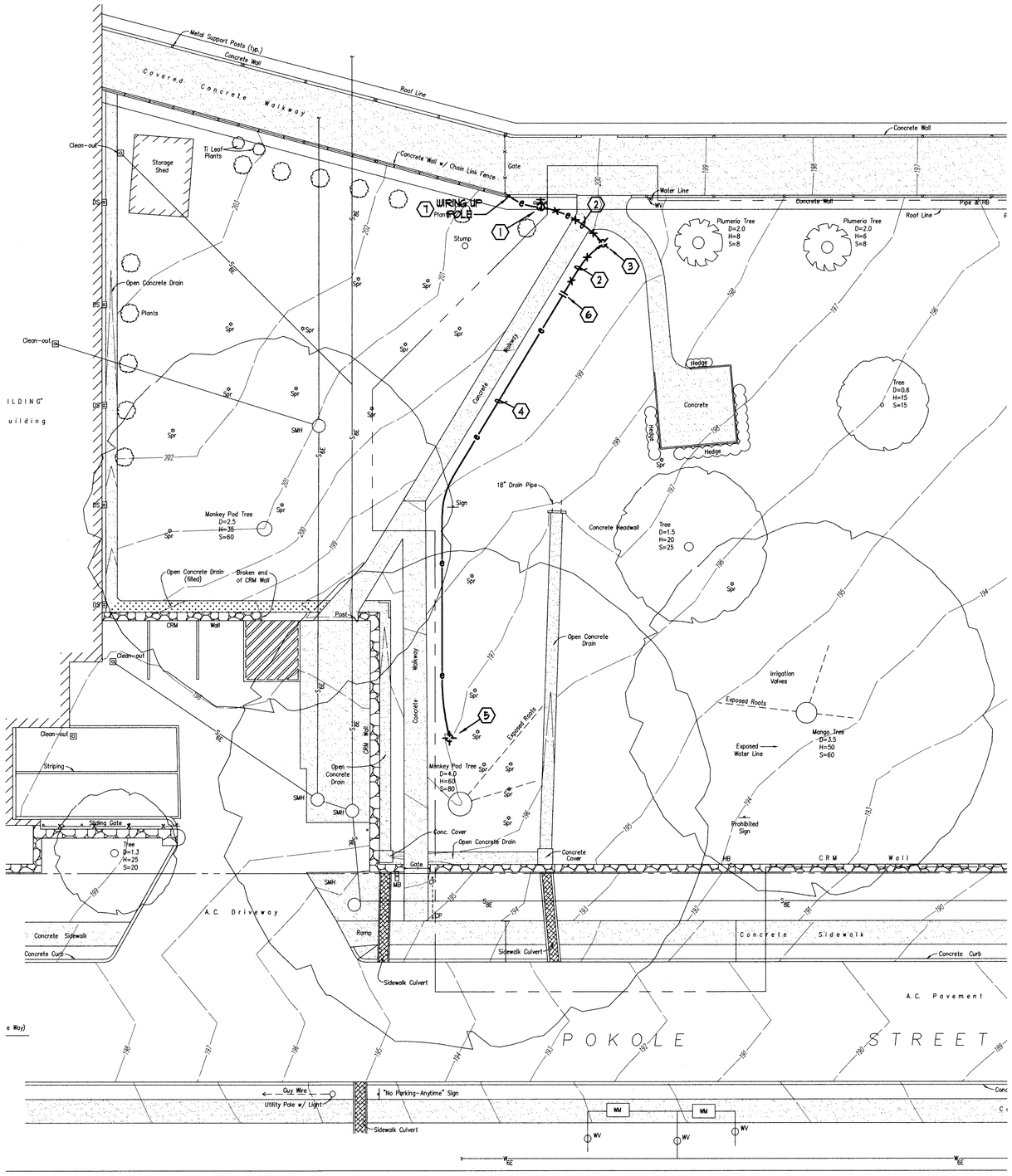
IMATA AND ASSOCIATES, INC.
1750 KALAKAUA AVENUE SUITE 115
HONOLULU,HAWAII 96826

PARKING IMPROVEMENTS AT
LEAHI HOSPITAL

T.M.K.: 3-2-031: 001 HONOLULU, OAHU, HAWAII 96815

SPECIFICATIONS

IMATA & ASSOCIATES, INC			DRAWING NO.
DESIGNED BY: RDL	CHECKED BY: EMM		C-16
DRAWN BY: RDL	APPROVED BY: GYI	DATE	SHEET 18
SCALE: AS NOTED		AUGUST 2017	OF 18 SHTS



GENERAL ELECTRICAL NOTES:

1. ELECTRICAL CONTRACTOR SHALL VISIT THE JOB SITE AND FAMILIARIZE HIMSELF WITH ALL EXISTING CONDITIONS PRIOR TO BIDDING. BID SUBMISSION SHALL BE CONSIDERED AS CONFIRMATION THAT THE CONTRACTOR HAS VISITED THE SITE AND HAS RESOLVED ALL DISCREPANCIES AND QUESTIONS REGARDING THE WORK. NO EXTRA PAYMENT WILL BE GIVEN FOR WORK MADE NECESSARY BY THE CONTRACTOR'S FAILURE TO VISIT THE SITE.
2. ALL RACEWAYS SHALL BE CONCEALED UNLESS OTHERWISE NOTED.
3. CONDUIT SIZES INDICATED ON THE DRAWINGS ARE NOT NECESSARILY BASED ON THE MINIMUM SIZE ALLOWED BY THE NATIONAL ELECTRICAL CODE AND MAY BE PURPOSELY OVERSIZED FOR FUTURE CONDUCTORS OR TO AVOID CONDUIT HEATING. CONDUIT SIZES NOT CALLED OUT ON THE DRAWINGS SHALL BE SIZED BY THE CONTRACTOR, BASED ON THE ACTUAL NUMBER OF CONDUCTORS TO BE INSTALLED, USING THE NATIONAL ELECTRICAL CODE AS A GUIDE. IN NO CASE SHALL CONDUIT SIZES BE SMALLER THAN ¾" DIAMETER.
4. ALL WIRING SHALL INCLUDE AN INSULATED GREEN GROUNDING CONDUCTOR SIZED PER TABLE 250.66 OF THE NATIONAL ELECTRICAL CODE. THIS CONDUCTOR SHALL BE CARRIED IN ALL RACEWAYS AND SHALL BE ATTACHED TO THE LIGHT FIXTURE AND POLE USING A SUITABLE GROUNDING LUG.
5. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL JUNCTION AND PULL BOXES REQUIRED FOR THE INSTALLATION OF ELECTRICAL DEVICES AND EQUIPMENT, WHETHER OR NOT SPECIFICALLY INDICATED ON THE PLANS. SIZING OF THESE BOXES SHALL BE PER THE NATIONAL ELECTRICAL CODE.
6. PROJECT CONDITIONS MAY REQUIRE REARRANGEMENT OF ELECTRICAL WORK, THE CONTRACTOR SHALL INDICATE SUCH CHANGES ON THE AS-BUILT DRAWINGS. WHERE CHANGES REQUIRE ALTERNATE METHODS TO THOSE SPECIFIED IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL SUBMIT DRAWINGS SHOWING THE PROPOSED METHOD FOR APPROVAL. THE CONTRACTOR SHALL NOT PROCEED UNTIL APPROVAL IS OBTAINED. REARRANGEMENT OF WORK FOR THE PURPOSE OF COORDINATION BETWEEN TRADES SHALL NOT BE CONSIDERED A REASON FOR EXTRA COST.
7. EXISTING CONDITION SHOWN ON DRAWINGS ARE TAKEN FROM PAST DESIGN DRAWING AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS. PRIOR TO STARTING NEW WORK, CONTRACTOR SHALL VERIFY AND TRACE ALL EXISTING CONDITION SHOWN. DEVIATIONS SHALL BE SHOWN ON AS-BUILT DRAWINGS.
8. THE CONTRACTOR SHALL REMOVE EXISTING BRANCH CIRCUIT WIRES FROM EXISTING WIRING THAT ARE TO BE DEMOLISHED. ALL REMAINING WIRES SHALL BE TAGGED WITH CIRCUIT NUMBER FOR EASE OF RECONNECTING.
9. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL OTHER TRADES.

ELECTRICAL SYMBOL LIST

EXISTING	NEW	DESCRIPTION
		PARKING LIGHT, POLE TOP MOUNTED.
		JUNCTION BOX, WALL MOUNTED.
—e—		RACEWAY, CONCEALED BELOW FINISH FLOOR. NO HASHMARKS INDICATES TWO WIRES WITHIN.
		ELECTRICAL NOTE INDICATOR.
		DUCT SECTION INDICATOR.
		FIXTURE INDICATOR UPPER HALF: FIXTURE TYPE. LOWER HALF: NO. OF LAMPS & WATTS OR LENGTH.
		DETAIL INDICATOR UPPER HALF: DETAIL NUMBER. LOWER HALF: SHEET NUMBER, DETAIL LOCATION.
	WP	INDICATES WEATHERPROOF.
		ELECTRIC PULLBOX.

CITY AND COUNTY OF HONOLULU
REVISED ORDINANCE CHAPTER 32,
HONOLULU COUNTY CODE 1990, AS AMENDED

To the best of my knowledge, this project's design substantially conforms to the Building Energy Conservation Code for:

____ Building Component Systems
X Electrical Component Systems
____ Mechanical Component Systems

Signature: ____ Date: 08-30-17
Name: BRIAN ITOZAKI
Title: ELECTRICAL ENGINEER
License No.: 9058-E

BUILDING ENERGY EFFICIENCY STANDARDS

EXTERIOR LIGHTING POWER ALLOWANCE 1,165 W INSTALLED 130 W

EXTERIOR LIGHTING POWER ALLOWANCE

ELPA = ELUPA X GLA

WHERE

ELPA = EXTERIOR LIGHTING POWER ALLOWANCE (W)
EULPA = EXTERIOR UNIT LIGHTING POWER ALLOWANCE
GLA = GROSS LIGHTED AREA

	EULPA	GLA	ELPA	INSTALLED
PARKING LOT, DRIVEWAY	0.10 W/ft.^{2}	11,650 ft.^{2}	1,165 W	130 W
			1,165 W	130 W

ELECTRICAL NOTES (EXISTING/REMOVAL WORK)

1. EXISTING WALL MTD. CAST METAL OUTLET TO REMAIN. VERIFY LOCATION IN FIELD.
2. TRACE AND VERIFY LOCATION OF EXISTING U.G. WIRING. REMOVE U.G. WIRING.
3. DISCONNECT AND REMOVE EXISTING POLE AND POLE TOP MTD. LUMINAIRE. REMOVE CONCRETE BASE. RETURN POLE AND LUMINAIRE TO HOSPITAL.
4. TRACE AND VERIFY LOCATION OF EXISTING U.G. WIRING.
5. POLE AND POLE TOP MOUNTED LUMINAIRE TO REMAIN.
6. INTERCEPT EXISTING U.G. WIRING. VERIFY LOCATION IN FIELD.
7. TRACE SOURCE OF EXISTING WIRING. VERIFY WITH HOSPITAL.

NORTH

1 / E-1 EXISTING ELECTRICAL PLAN (REMOVAL WORK)
SCALE: 1" = 10'

GRAPHIC SCALE
0 5' 10' 20' 30'
SCALE: 1"=10'

BRIAN T. ITOZAKI LICENSED PROFESSIONAL ENGINEER No. 9058-E HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

LICENSE EXPIRATION DATE 4/30/2018

IMATA AND ASSOCIATES, INC.
1750 KALAKAUA AVENUE SUITE 115
HONOLULU,HAWAII 96826

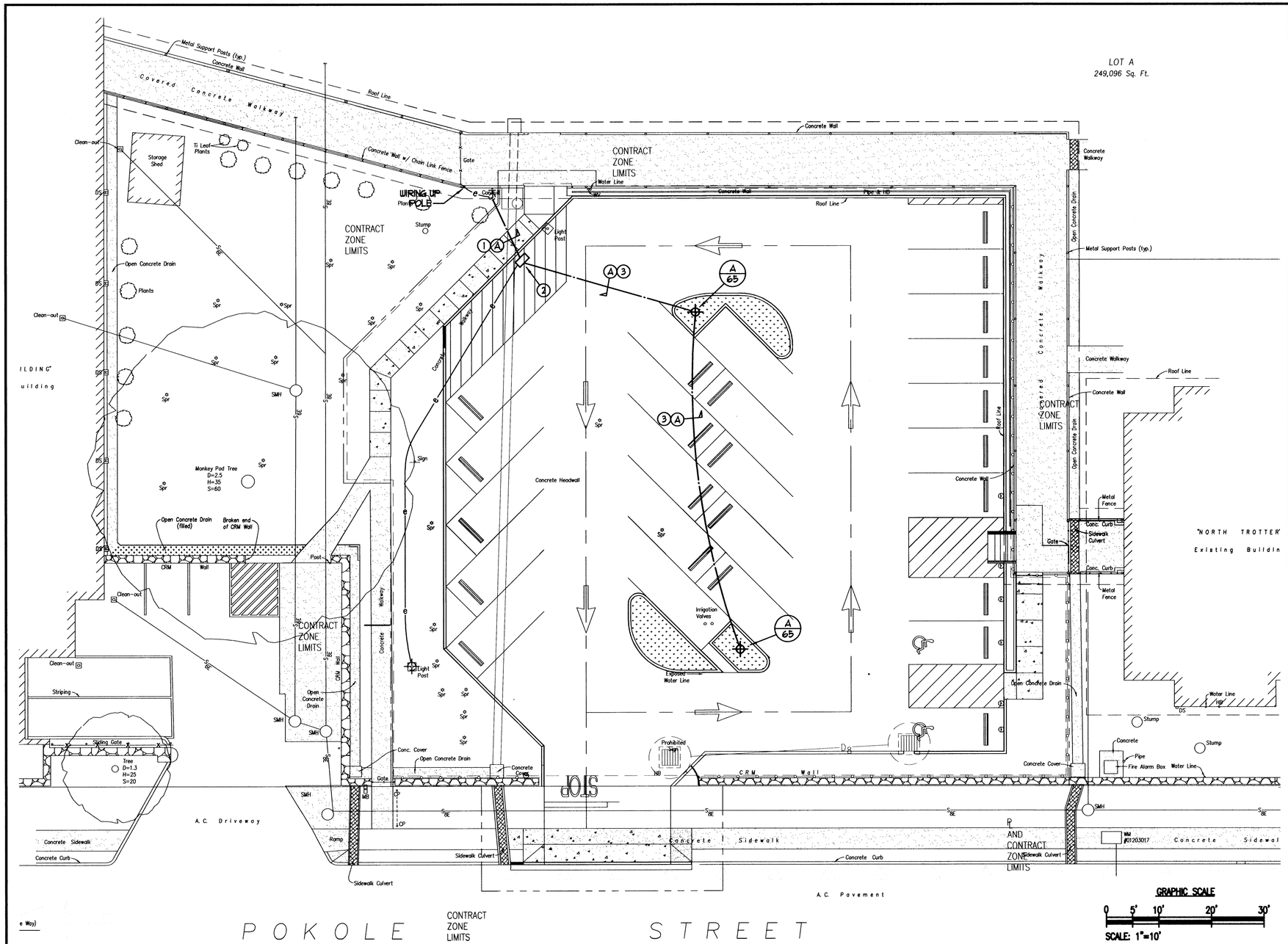
PARKING IMPROVEMENTS AT
LEAHI HOSPITAL

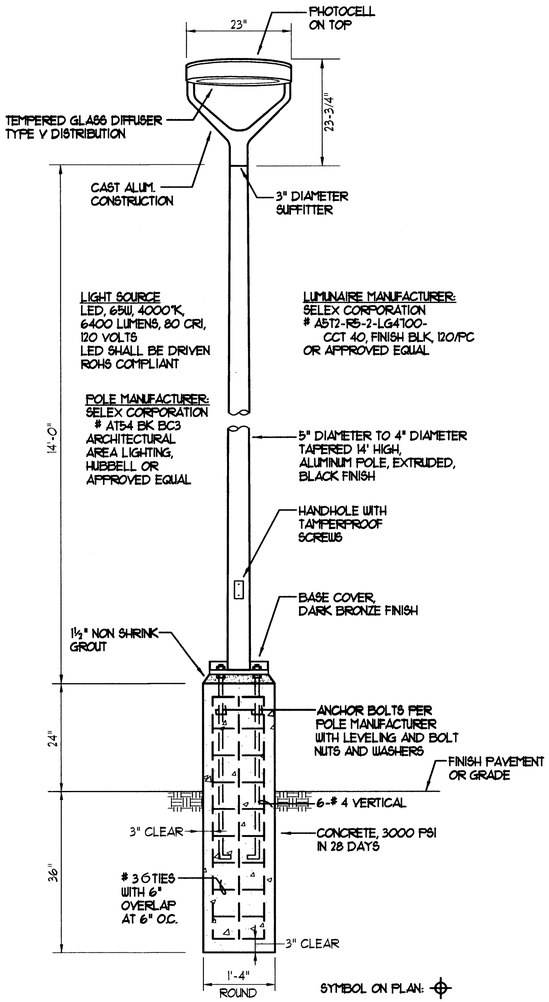
T.M.K.: 3-2-031: 001 HONOLULU, OAHU, HAWAII

EXISTING ELECTRICAL SITE PLAN (REMOVAL WORK)

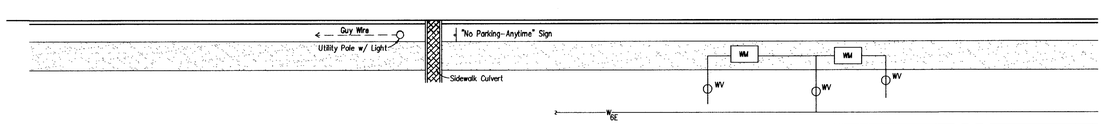
H & O – III, INC.			DRAWING NO.
DESIGNED BY: SM	CHECKED BY: BI		E-1
DRAWN BY: BI/KN	APPROVED BY: SM	DATE AUG 2017	SHEET OF SHTS
SCALE AS NOTED			

265.034





2 / E-2 LIGHT STANDARD TYPE "A"
NOT TO SCALE



ELECTRICAL NOTES: NEW WORK

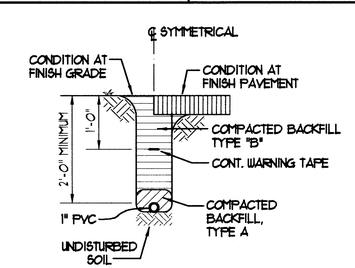
1. NEW UNDERGROUND WIRING, 1" PVC, 3-# 10, CONNECT EXISTING OUTLET BOX AND WIRING.
2. NEW PULLBOX, INSTALL OVER INTERCEPTED WIRING. ARMOR CAST NO. A6001425TAPC POLYMER CONCRETE BOX, 12" x 18" x 12"D.
3. NEW UNDERGROUND WIRING, 1" PVC, 3-# 10.

NORTH

1 / E-2 NEW ELECTRICAL PLAN
SCALE: 1" = 10'

NOTES:

1. BACKFILL MATERIAL TYPE " A"
   BLACK OR BEACH SAND, EARTH AND GRAVEL MIXTURE. IF EARTH & GRAVEL MIXTURE, ROCK SIZE SHALL BE 1-INCH OR SMALLER AND SHALL NOT CONTAIN MORE THAN 50% BY VOLUME. THIS FILL SHALL BE ALL AROUND DIRECT OVER CONCRETE ENCASED DUCTS AND OVER DIRECT BURIED DUCTS AND CABLES AFTER BACKFILL TYPE "B" HAS BEEN PLACED IN ACCORDANCE WITH DRAWINGS.
2. BACKFILL MATERIAL TYPE " B"
   BLACK OR BEACH SAND, EARTH AND GRAVEL MIXTURE. EARTH & GRAVEL MIXTURE MUST PASS A 1/2-INCH SCREEN AND CONTAIN NOT MORE THAN 20% ROCK PARTICLES BY VOLUME. THIS FILL SHALL BE ALL AROUND DIRECT BURIED CONDUITS AND CABLES AS SHOWN ON DRAWINGS.
3. ALL DUCTS SHALL BE PVC SCHEDULE 40.
4. PROVIDE DUCT WARNING TAPE 1'-0" BELOW FINISH GRADE.



SECTION (A)

BRIAN T. ITOZAKI
LICENSED PROFESSIONAL ENGINEER
No. 9058-E
HAWAII, U.S.A.

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LICENSE EXPIRATION DATE 4/30/2018

IMATA AND ASSOCIATES, INC.
1750 KALAKAUA AVENUE SUITE 115
HONOLULU,HAWAII 96826

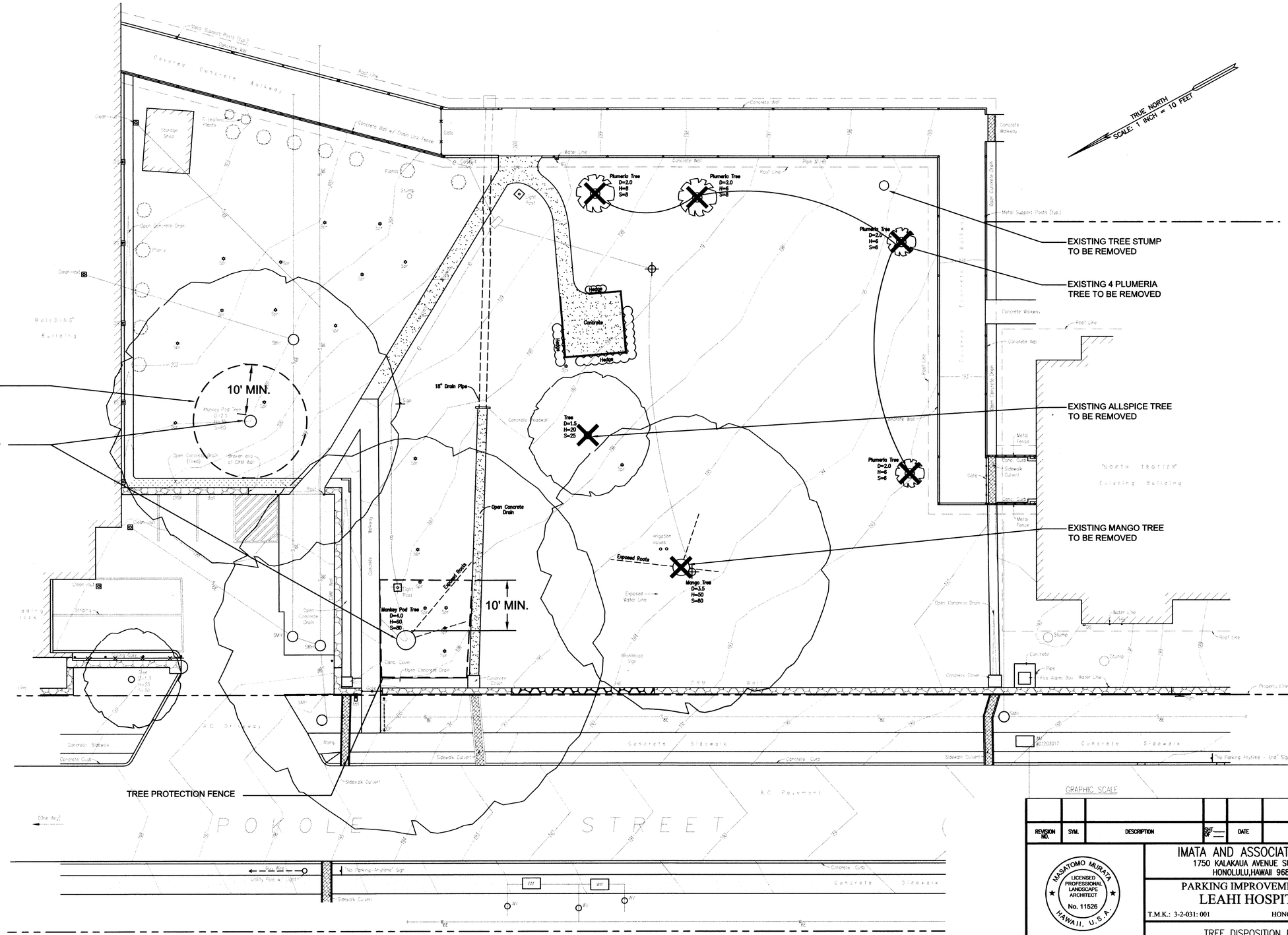
PARKING IMPROVEMENTS AT
LEAHI HOSPITAL

T.M.K.: 3-2-031: 001 HONOLULU, OAHU, HAWAII

NEW ELECTRICAL PLAN

H & O – III, INC.			DRAWING NO.
DESIGNED BY: SM	CHECKED BY: BI		E-2
DRAWN BY: BI/KN	APPROVED BY: SM	DATE	SHEET
SCALE: AS NOTED		AUG 2017	OF SHTS

265.034



TREE DISPOSITION PLAN
SCALE: 1" = 10'-0"

REVISION NO.	SYM.	DESCRIPTION	SHT. NO.	DATE	APPROVED:

MASATOMO MURATA
LICENSED PROFESSIONAL LANDSCAPE ARCHITECT
No. 11526
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

LICENSE EXPIRATION DATE 4/30/2018

IMATA AND ASSOCIATES, INC.
1750 KALAKAUA AVENUE SUITE 115
HONOLULU,HAWAII 96826

PARKING IMPROVEMENTS AT
LEAHI HOSPITAL

T.M.K.: 3-2-031: 001 HONOLULU, OAHU, HAWAII

TREE DISPOSITION PLAN

IMATA & ASSOCIATES, INC			DRAWING NO.
DESIGNED BY: MM	CHECKED BY: MM		L-1
DRAWN BY: MM	APPROVED BY: MM	DATE DEC 2017	SHEET — OF — SHTS
SCALE: AS NOTED			

30 TI - GREEN, 3 GAL.

PROTECT EXISTING GRASS AS MUCH AS PRACTICABLE. RESTORE WITH PLUGS IF DAMAGED DURING CONSTRUCTION.

10' CLEAR

TRUE NORTH
SCALE: 1 INCH = 10 FEET

LIGHT POST. (TYP. SYM.) SEE ELECTRICAL DWGS.

ZOYSIA 'EL TORO' GRASS

DWARF WHITE TECOMA 25 GAL. (TYP. SYM.) ZOYSIA 'EL TORO' BELOW

EXISTING MONKEYPOD TO REMAIN AND TO BE PRUNED AND PROTECTED

ZOYSIA 'EL TORO'

ROOT BARRIER

40 JAPANESE PRIVET HEDGE 3 GAL. 18" O.C.

POKOLE STREET

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft.

PLANTING PLAN
SCALE: 1" = 10'-0"

GRAPHIC SCALE

REVISION NO.	SYM.	DESCRIPTION	SHT. OF	DATE	APPROVED:

MASATOMO MURATA
LICENSED PROFESSIONAL LANDSCAPE ARCHITECT
No. 11526
HAWAII, U.S.A.

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LICENSE EXPIRATION DATE 4/30/2018

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LEAHI HOSPITAL

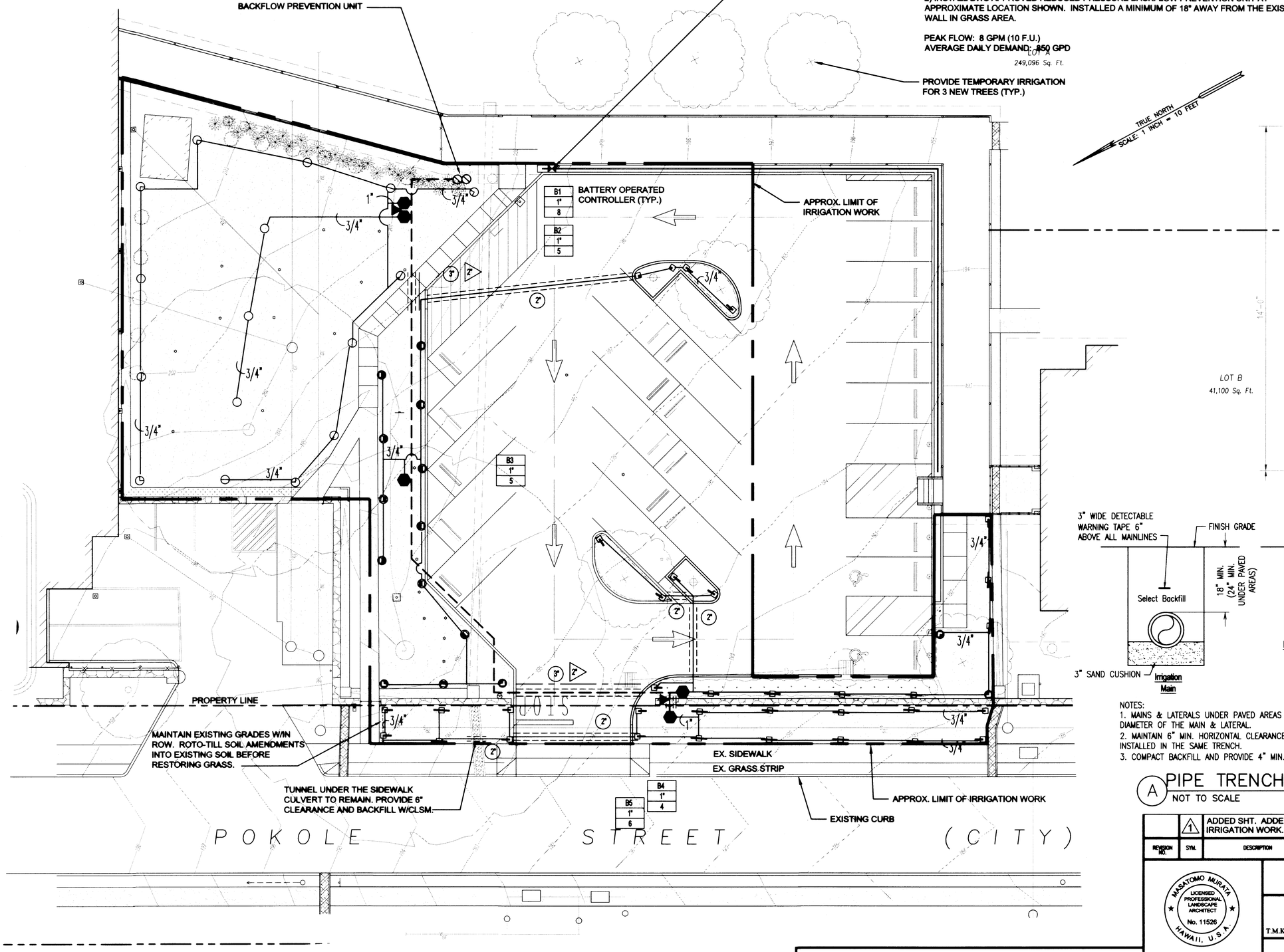
T.M.K.: 3-2-031: 001 HONOLULU, OAHU, HAWAII

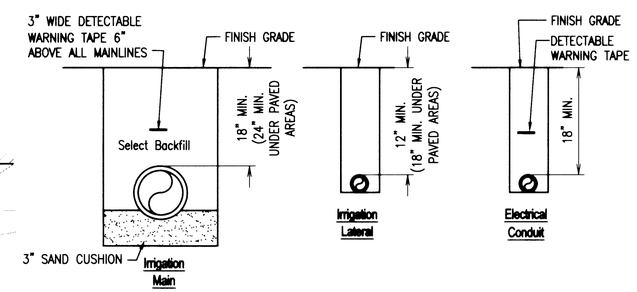
PLANTING PLAN

IMATA & ASSOCIATES, INC			DRAWING NO.
DESIGNED BY: MM	CHECKED BY: MM		L-2
DRAWN BY: MM	APPROVED BY: MM	DATE DEC 2017	SHEET – OF – SHTS
SCALE: AS NOTED			

POINT OF CONNECTION:
1) REMOVE AND REPLACE THE EXISTING GATE VALVE AT APPROX. LOCATION SHOWN. SEE CIVIL PLAN. INSTALL 1-1/2" MASTER SHUTOFF VALVE AT APPROXIMATE LOCATION SHOWN. INSTALL A 1-1/2" TYPE K COPPER PIPE BETWEEN POINT OF CONNECTION AND BACKFLOW PREVENTION UNIT.
2) INSTALL BWS APPROVED REDUCED PRESSURE BACKFLOW PREVENTION UNIT AT APPROXIMATE LOCATION SHOWN. INSTALLED A MINIMUM OF 18" AWAY FROM THE EXISTING WALL IN GRASS AREA.

PEAK FLOW: 8 GPM (10 F.U.)
AVERAGE DAILY DEMAND: 850 GPD





NOTES:
1. MAINS & LATERALS UNDER PAVED AREAS SHALL BE INSTALLED IN SLEEVES TWO TIMES THE DIAMETER OF THE MAIN & LATERAL.
2. MAINTAIN 6" MIN. HORIZONTAL CLEARANCE BETWEEN PIPING (IE. MAIN, LATERAL, & CONDUIT) INSTALLED IN THE SAME TRENCH.
3. COMPACT BACKFILL AND PROVIDE 4" MIN. TOPSOIL

(A) PIPE TRENCH DETAIL
NOT TO SCALE

GRAPHIC SCALE
10 0 5 10 20 40
(IN FEET)
1 inch = 10 ft.

IRRIGATION PLAN
SCALE: 1" = 10'-0"

APPROVED:
Mishmi Takahara 8/10/18
CHIEF, CIVIL ENGINEERING BRANCH, D.P.P. DATE

REVISION NO.	SYM.	DESCRIPTION	SHT. OF	DATE	APPROVED:
	1	ADDED SHT. ADDED IRRIGATION WORK.		7/9/18	

MASATOMO MURATA
LICENSED PROFESSIONAL LANDSCAPE ARCHITECT
No. 11526
HAWAII, U.S.A.

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LICENSE EXPIRATION DATE 4/30/2020

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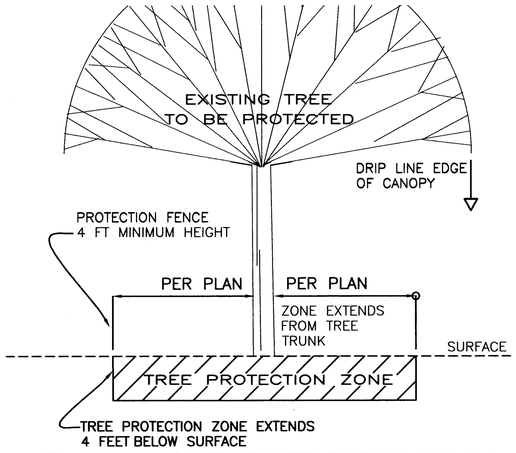
1750 KALAKAUA AVENUE SUITE 115
HONOLULU,HAWAII 96826

PARKING IMPROVEMENTS AT
LEAHI HOSPITAL
T.M.K.: 3-2-031: 001 HONOLULU, OAHU, HAWAII

IRRIGATION PLAN

IMATA & ASSOCIATES, INC			DRAWING NO.
DESIGNED BY: MM	CHECKED BY: MM		L-3
DRAWN BY: MM	APPROVED BY: MM	DATE DEC 2017	SHEET – OF – SHTS
SCALE: AS NOTED			



NOTE: EXISTING LANDSCAPE WITHIN TREE PROTECTION ZONE TO BE RESTORED & MAINTAINED PER SPECIFICATION.

1 TREE PROTECTION DETAIL

NOT TO SCALE

TREE PROTECTION NOTE

1. ALL EXISTING TREES SHOWN ON THE PLANTING PLAN IS TO REMAIN UNLESS OTHERWISE NOTED ON THE PLAN. CONTRACTOR IS RESPONSIBLE TO PROTECT THE TREES THAT REMAIN. ANY TREES DAMAGED OR KILLED DURING THE CONSTRUCTION PERIOD MUST BE REPLACED WITH LIKE KIND AND SIZE AT THE CONTRACTOR'S EXPENSE.

2. CONTRACTOR SHALL RETAIN THE SERVICES OF AN ARBORIST DURING CONSTRUCTION WHO HAS BEEN CERTIFIED IN GOOD STANDING AS AN INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA) CERTIFIED ARBORIST FOR AT LEAST 5 YEARS AND HAS EXPERIENCES IN TREE PROTECTION AND PRESERVATION PLANNING DURING CONSTRUCTION, TREE AND ROOT PRUNING, AND TRANSPLANTING OF TREES.

3. NO TRENCHING, GRADING, COMPACTING OR CONSTRUCTION ACTIVITY SHALL OCCUR WITHIN CANOPY OF THE EXISTING TREES. PRIOR TO COMMENCEMENT OF ON-SITE WORK IN PROXIMITY TO EXISTING TREES, THE ARBORIST SHALL VERIFY THAT ALL TREE PROTECTIVE MEASURES HAVE BEEN FULLY AND PROPERLY IMPLEMENTED.

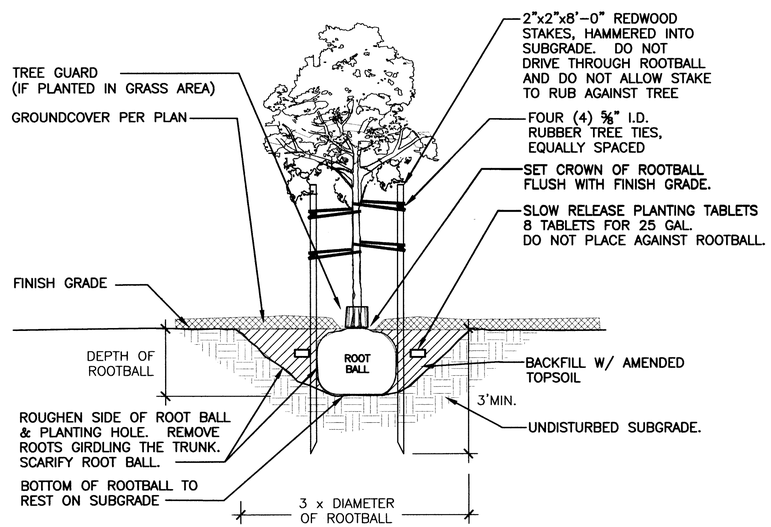
4. MATERIAL AND TOPSOIL STOCKPILING, VEHICLE PARKING, TEMPORARY ROADWAYS, CONSTRUCTION MATERIAL MIXING OR DUMPING, PORTABLE LATRINES AND FIELD OFFICES SHALL NOT BE TEMPORARILY OR PERMANENTLY LOCATED UNDER TREE CROWNS EXCEPT IN AREAS WITH PRE-EXISTING PAVING AND/OR IN AREAS SPECIFICALLY APPROVED BY THE CONTRACTING OFFICER.

5. A ISA CERTIFIED TREE WORKER UNDER THE SUPERVISION OF THE ARBORIST SHALL PERFORM THE TREE PRUNING WORK.

6. ALL EXCAVATION WORK REQUIRED UNDER THE CROWNS OF THE TREES SHALL BE PERFORMED UNDER THE DIRECTION OF THE ARBORIST. ANY SUB-CONTRACTOR SHALL LIMIT ACTIVITIES UNDER THE CROWNS OF THE TREES TO ONLY THOSE ACTIVITIES EXPLICITLY REQUIRED TO COMPLETE THE CONSTRUCTION ACTIVITIES AS SPECIFIED UNDER AND/OR ADJACENT TO TREE CROWNS.

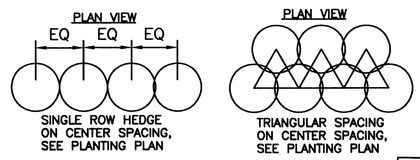
7. BEFORE GRADING, PAD PREPARATION, OR TRENCHING, ROOTS THAT ARE GREATER THAN 2" IN DIAMETER SHALL BE PRUNED BY MANUALLY DIGGING A TRENCH WITH SHARP BLADE, OR OTHER APPROVED ROOT PRUNING EQUIPMENT. ANY ROOTS DAMAGED DURING GRADING OR CONSTRUCTION SHALL BE EXPOSED TO SOUND TISSUE AND CUT CLEANLY WITH A SAW.

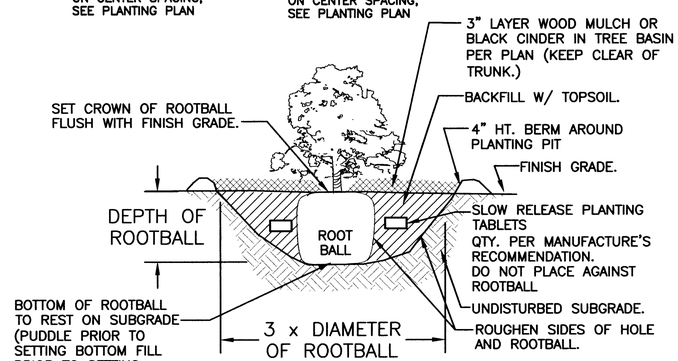
8. CONTRACTOR SHALL TAKE PROPER MEASURES TO PROTECT THE CROWN AND ROOT SYSTEMS OF THE TREES FROM UNNECESSARY DAMAGE DURING DEMOLITION AND CONSTRUCTION ACTIVITIES. WHEN POTENTIALLY DAMAGING CONSTRUCTION ACTIVITIES ARISE, I.E. REMOVAL OF MAJOR SUPPORTING ROOTS, EXCESSIVE ROOT REMOVAL ON ONE OR MORE SIDES OF THE TREES, MAJOR CROWN BRANCH REMOVAL, OR TREE TRANSPLANTING: THE ARBORIST SHALL PRESENT IN WRITING THE RECOMMENDED PROCEDURE CHANGES TO BE APPROVED BY THE CONTRACTING OFFICER. ALTERNATIVE PROCEDURES MAY BE REQUIRED ON A TREE-BY-TREE BASIS, AND FIELD DECISIONS BY THE ARBORIST, SUB-CONTRACTORS AND CONTRACTING OFFICER MAY BE REQUIRED TO ENSURE SAFETY AND HEALTH OF THE TREES.



2 TREE STAKING DETAIL

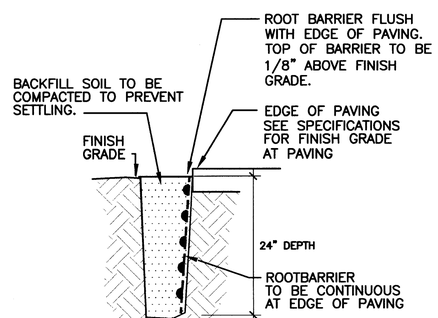
NOT TO SCALE





3 SHRUB PLANTING DETAIL

NOT TO SCALE



4 ROOT BARRIER DETAIL

NOT TO SCALE

PLANTING NOTES

1. ALL WORK SHALL BE PERFORMED BY PERSONS FAMILIAR WITH PLANTING WORK AND UNDER THE SUPERVISION OF A QUALIFIED PLANTING FOREMAN (CERTIFIED LANDSCAPE TECHNICIAN).
2. THE CONTRACTOR IS TO VERIFY THE LOCATION OF ALL ON-SITE UTILITIES BEFORE COMMENCING THE WORK. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE REPAIR OF ANY DAMAGED UTILITIES.
3. PLANT MATERIAL LOCATION SHOWN ON PLANS ARE DIAGRAMMATIC AND WILL BE SUBJECT TO ADJUSTMENT IN THE FIELD BY THE LANDSCAPE ARCHITECT. GRAPHIC SYMBOLS ON PLANS DO NOT NECESSARILY REPRESENT INDIVIDUAL PLANT MATERIAL QUANTITIES.
4. QUANTITIES SHOWN ON THE LANDSCAPE LEGEND ARE FOR THE CONVENIENCE OF THE CONTRACTOR. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE AND INSTALL THE NECESSARY LANDSCAPE MATERIALS IN THE QUANTITIES SUFFICIENT TO FULFILL THE DESIGN AT THE SPACING/DEPTH SPECIFIED AND IN THE LOCATIONS SHOWN ON THE PLANTING PLANS.
5. TREE AND SHRUB PITS SHALL BE DUG PRIOR TO MOVING PLANTS TO THEIR RESPECTIVE LOCATIONS. ALL TREE PITS SHALL BE WATER TESTED PRIOR TO PLANTING TO ASSURE THAT WATER WILL DRAIN. NOTIFY THE UNIVERSITY IN WRITING OF ALL SOIL OR DRAINAGE CONDITIONS ENCOUNTERED DURING PLANTING OPERATIONS WHICH THE CONTRACTOR CONSIDERS DETRIMENTAL TO GROWTH OF PLANT MATERIAL.
6. THE LANDSCAPE CONTRACTOR SHALL TAKE ALL REASONABLE PRECAUTIONS TO COORDINATE WORK AND TO MINIMIZE DAMAGE TO COMPLETE GRADING, IRRIGATION, AND RELATED WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING ALL LANDSCAPE AREAS THAT HAVE BEEN DAMAGED AS THE RESULT OF HIS OPERATIONS.
7. NO MATERIALS, EQUIPMENT, AND VEHICLES SHALL BE STOCKPILED, PARKED, STORED, OR PERMITTED TO OPERATE WITHIN THE DRIP LINE DURING THE INSTALLATION OF TREES.
8. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING NEW TREES AND PLANTING AREA AND REPLACING PLANTS THAT FAIL TO DEVELOP A HEALTHY GROWTH OR DESTROYED DURING PLANT MAINTENANCE PERIOD AT NO ADDITIONAL COST.

PLANTING LEGEND

TREES & SHRUBS SYM.	QTY.	NAME		SIZE AND CONDITION
	6	DWARF WHITE TECOMA	TABEBUIA BAHAMENSIS	25 GAL., 7' HT, 4' SPREAD, 2" CAL. MIN.
	30	TI-GREEN	CORDYLINE FRUTICOSA	3 GAL., 3'-0" O.C.
	40	JAPANESE PRIVET	LIGUSTRUM JAPONICUM	3 GAL. 18" O.C.

GROUNDCOVER & GRASS SYM.	QTY.	NAME		SIZE AND CONDITION
	6,600 S.F.	ZOYSIA 'EL TORO'	ZOYSIA JAPONICA	STOLONS, 10 BUSHELS/1,000S.F., WITH HYDROMULCH, 30 LBS./1,000S.F. OR PLUGS

MISCELLANEOUS QTY.	DESCRIPTION	SIZE AND CONDITION
20 C.Y.	ORGANIC SOIL CONDITIONER, 2" LAYER, TILLED 4-6" INTO EXISTING SOIL	
50 C.Y.	PLANTING SOIL, PLANTING PIT AND 6" LAYER FOR NEW PLANTER	
130 L.F.	ROOT BARRIER (TYPAR BIOBARRIER 24" DEEP)	

REVISION NO.	SYM.	DESCRIPTION	SHT. OF	DATE	APPROVED:

MASATOMO MURATA
LICENSED PROFESSIONAL LANDSCAPE ARCHITECT
No. 11526
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

LICENSE EXPIRATION DATE 4/30/2018

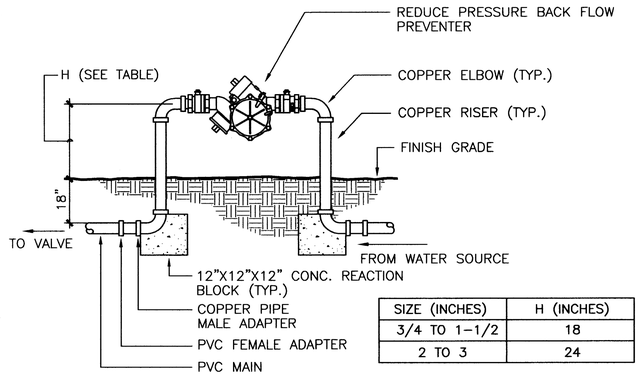
IMATA AND ASSOCIATES, INC.
1750 KALAKAUA AVENUE SUITE 115
HONOLULU,HAWAII 96826

PARKING IMPROVEMENTS AT
LEAHI HOSPITAL

T.M.K.: 3-2-031: 001 HONOLULU, OAHU, HAWAII

PLANTING DETAILS, NOTES & LEGEND

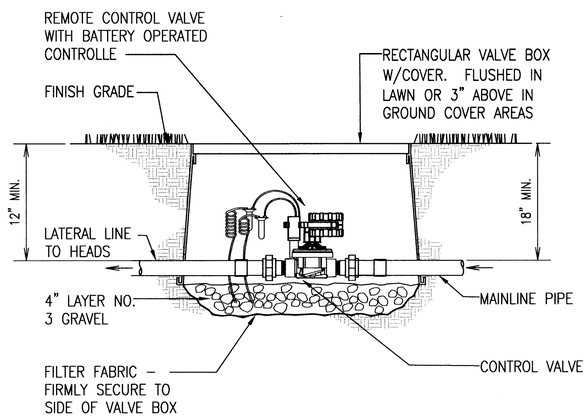
IMATA & ASSOCIATES, INC			DRAWING NO.
DESIGNED BY: MM	CHECKED BY: MM		L-4
DRAWN BY: MM	APPROVED BY: MM	DATE DEC 2017	SHEET - OF - SHTS
SCALE: AS NOTED			



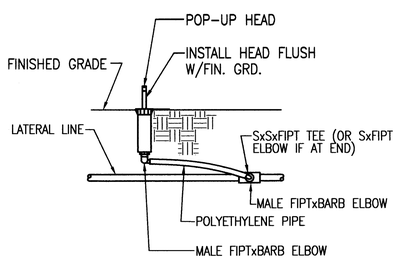
SIZE (INCHES)	H (INCHES)
3/4 TO 1-1/2	18
2 TO 3	24

NOTES:
1. ALL PIPES AND FITTINGS INSTALLED ABOVE GRADE SHALL BE EITHER COPPER OR BRONZE ONLY.
2. BACK FLOW PREVENTER SHALL BE PLUMB.
3. BACK FLOW PREVENTER SHALL BE LOCATED IN AN AREA WELL PROTECTED FROM VEHICLES (CLEAR ZONE). IF THE BACK FLOW PREVENTOR IS LOCATED IN AN UNPROTECTED AREA, THEN FOUR (4) 6" PIPE BOLLARDS FILLED WITH CONCRETE SHALL SURROUND THE BACK FLOW PREVENTER.

(A) BACKFLOW PREVENTION UNIT
NOT TO SCALE



(B) REMOTE CONTROL VALVE DETAIL
NOT TO SCALE



(C) TYP. POP-UP SPRINKLER
NOT TO SCALE

IRRIGATION NOTES

1. PERFORM A PRESSURE TEST AT THE IRRIGATION POINT OF CONNECTION TO VERIFY SUFFICIENT WORKING PRESSURE. NOTIFY THE LANDSCAPE ARCHITECT IF ANY DISCREPANCIES SHOULD OCCUR.

2. ALL INDICATED ITEMS ARE NEW UNLESS OTHERWISE NOTED.

3. THE IRRIGATION SYSTEM IS DESIGNED TO OPERATE AT THE PRESSURE INDICATED ON THE IRRIGATION LEGEND FOR ALL SPRINKLER HEAD TYPES. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE TO INSURE ALL REMOTE CONTROL VALVES AND SPRINKLER HEADS OPERATE AT THE SPECIFIED PRESSURE.

4. THE IRRIGATION PLAN IS DIAGRAMMATIC. IRRIGATION SYSTEM IS SUBJECT TO FIELD ADJUSTMENTS DUE TO UNANTICIPATED SITE CONDITIONS. EXACT LOCATIONS OF HEADS AND ADEQUATE COVERAGE IS THE CONTRACTOR'S RESPONSIBILITY.

5. THE CONTRACTOR SHALL CONFIRM ALL SITES DIMENSIONS AND CONDITIONS, AND REPORT ANY DISCREPANCIES TO THE LANDSCAPE ARCHITECT.

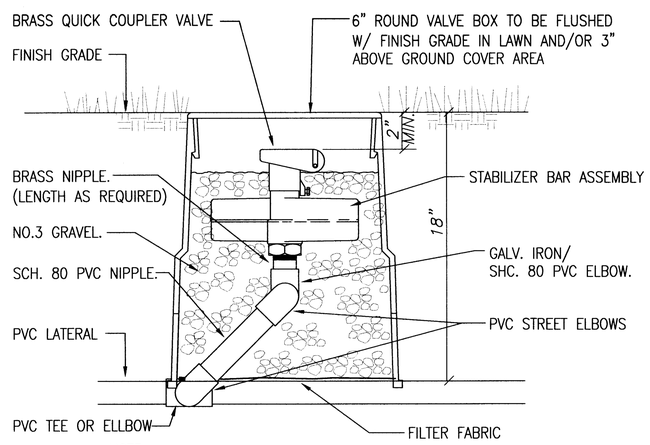
6. CONTRACTOR TO PROTECT EXISTING STRUCTURE, CONCRETE CURBS AND WALKWAY. ALL DAMAGES SHALL BE REPAIRED/ REPLACED AT NO COST TO THE OWNER.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING UTILITIES. PRIOR TO EXCAVATION FOR IRRIGATION PIPING, THE CONTRACTOR SHALL VERIFY IN THE FIELD THE EXACT LOCATION AND DEPTH OF THE EXISTING UTILITY LINES AND EXERCISE CAUTION WHEN EXCAVATING. WHEREVER CONNECTIONS OF NEW UTILITIES TO EXISTING UTILITIES ARE SHOWN ON THE PLANS, THE CONTRACTOR SHALL EXPOSE THE EXISTING LINES AT THE PROPOSED CONNECTIONS TO VERIFY THEIR LOCATIONS AND DEPTHS PRIOR TO EXCAVATION FOR THE NEW LINES. CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN EXCAVATING NEAR UTILITIES AND ALL DAMAGES SHALL BE IMMEDIATELY REPAIRED AND/OR RESTORED TO ITS ORIGINAL CONDITION BY THE CONTRACTOR AT HIS COST.

8. ALL WORK SHALL BE PERFORMED BY PERSONS FAMILIAR WITH SPRINKLER WORK AND UNDER THE SUPERVISION OF A QUALIFIED SPRINKLER TECHNICIAN (CERTIFIED LANDSCAPE TECHNICIAN) WHO HAS BEEN CERTIFIED IN GOOD STANDING AS A LANDSCAPE INDUSTRY COUNCIL OF HAWAII CERTIFIED LANDSCAPE TECHNICIAN EXTERIOR/IRRIGATION.

9. INSTALL THE IRRIGATION CONTROLLERS AS NOTED ON THE DRAWINGS AND IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE CONTRACTOR, TOGETHER WITH THE APPROPRIATE OWNER'S REPRESENTATIVE, SHALL PROGRAM THE CONTROLLER TO ACCOMMODATE THE LANDSCAPE AND SITE REQUIREMENTS.

10. IRRIGATION SYSTEM SHALL BE OPERATED DURING NON-PEAK HOURS.



NOTE:
1. KBI OR LASCO SWING JOINTS UPON APPROVAL BY ARCHITECT.
2. VALVE BOX COVER SHALL BE LABELED "IRRIGATION".
3. CONTROLLER SHALL PROVIDE ONE (1) QUICK COUPLER KEY AND ONE (1) HOSE ELL FOR EACH QUICK COUPLER VALVE.

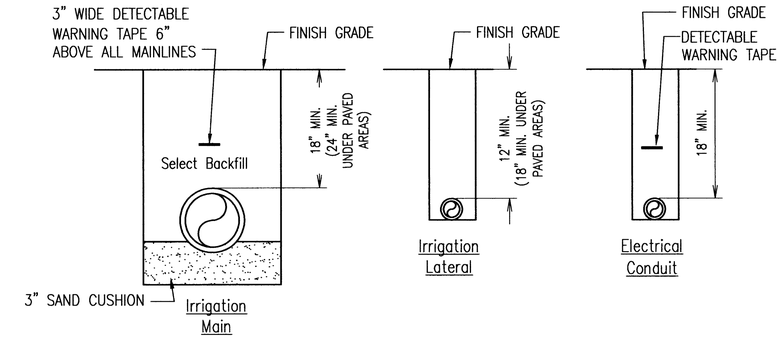
(D) QUICK COUPLER DETAIL
NOT TO SCALE

IRRIGATION MATERIAL SCHEDULE

SYMBOL	DESCRIPTION	DEVICE
	REDUCED PRESSURE BACKFLOW PREVENTION UNIT	FEBCO 825Y
	REMOTE CONTROL VALVE W/ LOCKABLE VALVE BOX	HUNTER ICV VALVE W/ PRESSURE REGULATOR, DC LATCHING SOLENOIDS WITH BATTERY CONTROLLERS SEE PLAN FOR SIZE.
	QUICK COUPLER VALVE	BUCKNER QB44-LRCA-10 1" INLET, LOCKING COVER W/ STABILIZER BAR ASSEMBLY OR EQUAL
	BALL VALVE (FULL LINE SIZE)	NIBCO BRONZE (MADE IN USA)
	BATTERY OPERATED CONTROLLER	HUNTER NODE (ONE CONTROLLER PER VALVE)
	IRRIGATION MAINLINE	SCH 40 PVC W/ WARNING TAPE, 18" MIN. DEPTH
	IRRIGATION LATERAL	SCH 40 PVC, 3/4" UNLESS OTHERWISE NOTED
	PVC SLEEVE UNDER PAVEMENT	SCH 40 PVC PIPE, SIZE AS NOTED
	IRRIGATION CONDUIT	SCH 40 PVC PIPE UL LISTED, SIZE AS NOTED
CONTROL VALVE INFO. A — CONTROLLER NO. – STATION NO.; 1" — CONTROL VALVE SIZE; 3 — FLOW RATE THROUGH VALVE (GPM)	#	IRRIGATION SLEEVE SIZE
	#	IRRIGATION CONDUIT SIZE

SPRINKLER SCHEDULE

SYMBOL	ARC	DEVICE	G.P.M.	P.S.I.	Radius
DESCRIPTION:	4" POP-UP W/ MP ROTATOR BUILT IN PRESSURE REGULATOR AND CHECK VALVE				
	90°	HUNTER MP1000-90	0.19	40	14'
	180°	HUNTER MP1000-180	0.37	40	14'
	360°	HUNTER MP1000-360	0.75	40	14'
	90°	HUNTER MP2000-90	0.40	40	20'
	180°	HUNTER MP2000-180	0.74	40	19'
	360°	HUNTER MP2000-360	1.47	40	19'
	RIGHT/LEFT STRIP	HUNTER MPR40-04-CV-MPCS515	0.22	40	5'X15'
	SIDE STRIP	HUNTER MPR40-04-CV-MPSS530	0.44	40	5'X30'



NOTES:
1. MAINS & LATERALS UNDER PAVED AREAS SHALL BE INSTALLED IN SLEEVES TWO TIMES THE DIAMETER OF MAIN & LATERAL.
2. MAINTAIN 6" MIN. HORIZONTAL CLEARANCE BETWEEN PIPING (IE. MAIN, LATERAL, & CONDUIT) INSTALLED IN SAME TRENCH.
3. COMPACT BACKFILL AND PROVIDE 4" MIN. TOPSOIL

(E) PIPE TRENCH DETAIL
NOT TO SCALE

REVISION NO.	SYM.	DESCRIPTION	SHT. OF	DATE	APPROVED:

MASATOMO MURAIA — LICENSED PROFESSIONAL LANDSCAPE ARCHITECT — No. 11526 — HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

LICENSE EXPIRATION DATE 4/30/2018

IMATA AND ASSOCIATES, INC.
1750 KALAKAUA AVENUE SUITE 115
HONOLULU,HAWAII 96826

PARKING IMPROVEMENTS AT
LEAHI HOSPITAL

T.M.K.: 3-2-031: 001 — HONOLULU, OAHU, HAWAII

IRRIGATION DETAILS, NOTES & SCHEDULE

IMATA & ASSOCIATES, INC			DRAWING NO.
DESIGNED BY: MM	CHECKED BY: MM		L-5
DRAWN BY: MM	APPROVED BY: MM	DATE DEC 2017	SHEET – OF – SHTS
SCALE: AS NOTED			

GENERAL SPECIFICATIONS:

1. ALL LANDSCAPE WORK INDICATED ON DRAWINGS BY NOTES SHALL BE PROVIDED WHETHER OR NOT SPECIFICALLY MENTIONED HEREWITH.
2. LANDSCAPING IS INCLUSIVE OF PRE–PLANTING WEED CONTROL, SOIL PREPARATION, PLANTING OPERATIONS, AND MAINTENANCE, UNLESS NOTED OTHERWISE.
3. LANDSCAPE IRRIGATION IS INCLUSIVE OF EXCAVATION AND BACKFILLING, PIPING, FITTINGS AND SPRINKLER HEADS, VALVES, WIRES, ADJUSTMENT, PROJECT RECORD DRAWINGS AND WARRANTY, UNLESS NOTED OTHERWISE.
4. PERFORM WORK IN ACCORDANCE WITH ALL APPLICABLE LAWS, CODES AND REGULATIONS AND PROVIDE FOR ALL INSPECTIONS AND PERMITS REQUIRED BY FEDERAL, STATE AND LOCAL AUTHORITIES.
5. VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES AND OTHER OBSTRUCTIONS.
6. PROTECT ALL AREAS AND EXERCISE CAUTION AGAINST INJURY. PREVENT VEHICLES ON SIDEWALKS AND CURBS. DO NOT STORE MATERIALS OR EQUIPMENT IN AREAS WHERE PUBLIC MAY HAVE ACCESS TO THEM.
7. KEEP AREA OF WORK CLEAN, NEAT AND ORDERLY AT ALL TIMES.
8. REQUEST INSPECTIONS FIVE (5) WORKING DAYS PRIOR TO COMPLETION OF WORK. THE AREA OF WORK SHOULD BE FREE OF WEEDS, DEAD PLANTS AND TRASH, NEATLY CULTIVATED AND RAKED. ALL PLANTINGS AND IRRIGATION NEED TO BE PERFORMED AS DETAILED.
9. IF, AFTER THE PRE–MAINTENANCE INSPECTION, LANDSCAPE ARCHITECT IS OF THE OPINION THAT ALL WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS, WRITTEN NOTICE OF PRELIMINARY ACCEPTANCE WILL BE GIVEN. THIS REPORT WILL NOTE ANY ITEMS WHICH MUST BE CORRECTED, AND STATE THE DATE OF COMMENCEMENT AND COMPLETION OF THE FORMAL 90–DAY MAINTENANCE PERIOD.
10. AT THE COMPLETION OF THE 90–DAY MAINTENANCE PERIOD, ANOTHER SITE WALKTHROUGH AND OBSERVATION SHALL BE HELD WITH LANDSCAPE CONTRACTOR, LANDSCAPE ARCHITECT, AND OWNER'S REPRESENTATIVE FOR FINAL APPROVAL.
11. WARRANTY: ALL PLANTS AND IRRIGATION WORK SHALL BE WARRANTED FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE. WARRANTY DOES NOT INCLUDE VANDALISM, NEGLIGENCE BY OTHERS OR ACTS OF GOD.

PLANTING SPECIFICATIONS:

1. FERTILIZER: 15–15–15 FERTILIZER, UNIFORM IN COMPOSITION, FREE–FLOWING AND SUITABLE FOR APPLICATION WITH APPROVED EQUIPMENT, DELIVERED TO THE SITE IN UNOPENED CONTAINERS, EACH FULLY LABELED, CONFORMING TO THE APPLICABLE FERTILIZER LAWS, AND BEARING THE NAME OR MARK OF THE MANUFACTURER.

   THE CONTRACTOR SHALL PROVIDE ALL FERTILIZERS AND AMENDMENTS, I.E: GYPSUM, FERTILIZER, SOIL CONDITIONERS AT THE RECOMMENDED RATES FOR THE SATISFACTORY GROWTH OF TREE.

   PLANT TABLET: AGRIFORM 21 GRAM OR EQUAL.

2. IMPORTED SCREENED SOIL: SHALL BE SCREENED, (1/2–INCH SCREEN), NATURAL, FERTILE, FRIABLE SOIL FREE OF STONES, NOXIOUS SEEDS, ROOTS, STICKS, WEEDS, (ESPECIALLY NUTGRASS), SUBSOIL IN ANY QUANTITY. RED HUMIC LATOSOL SOILS OR TYPES KNOWN AS "PALOLO CLAY" OR "LUALUALEI CLAY" ARE UNACCEPTABLE. SOIL SHOULD HAVE SATISFACTORY LOAM CHARACTERISTICS, AND IT SHALL NOT BE SCREENED SUBSOIL. THE PLANTING SOIL SHALL:
   - A. BE OBTAINED FROM WELL DRAINED ARABLE LAND.
   - B. BE FREE FROM REFUSE, STUMPS, ROOTS, HEAVY OR STILL CLAY, COARSE SAND, NOXIOUS SEEDS, STICKS, BRUSH, LITTER AND OTHER MATERIAL THAT WOULD BE UNDESIRABLE TO THE PROPER DEVELOPMENT OF VEGETATIVE GROWTH.
   - C. BE FREE FROM ABNORMAL QUANTITIES OF ACID OR ALKALINE ELEMENTS, NEMATODES, OR TOXIC COMPOUNDS.
   - D. SPECIAL CARE SHALL BE TAKEN TO PROTECT AND PREVENT SOIL LOSS DUE TO WIND, RAIN AND CONSTRUCTION OPERATIONS.
3. ORGANIC SOIL CONDITIONER: ORGANIC NUTRIENT–SOIL CONDITIONER SHALL BE MENEHUNE MAGIC COMPOST WITH MANURE AS MANUFACTURED BY HAWAIIAN EARTH PRODUCTS OR GRO–POWER PLUS (5–3–1) OR EQUAL.
4. PRE–PLANTING HERBICIDE: ROUND–UP OR APPROVED EQUAL.
5. PLANT MATERIAL: AS SPECIFIED ON PLANT LEGEND AND DRAWINGS.
   - A. ALL PLANT MATERIALS SHALL BE UNIFORM AND HAVE A HABIT OF GROWTH THAT IS NORMAL FOR THE SPECIES AND SHALL BE SOUND, HEALTHY, VIGOROUS AND FREE FROM INSECT PESTS, PLANT DISEASE AND INJURIES. TREE IN CONTAINER OF THE SIZE SPECIFIED SHALL HAVE SUFFICIENT ROOTS TO HOLD EARTH TOGETHER INTACT AFTER REMOVAL FROM CONTAINERS WITHOUT BEING ROOTBOUND.
   - B. TREE WILL BE STRAIGHT OF UNIFORM SHAPE WITHOUT DAMAGED, CROOKED OR MULTIPLE LEADER, UNLESS OTHERWISE SPECIFIED. TREES SHALL BE FREE OF BARK ABRASIONS, CRACKS, RIPS, STUBS, CAVITIES, SUNSCALDS, DISFIGURING KNOTS OR FRESH CUTS OF LIMBS WHICH HAVE NOT COMPLETELY CALLOUSED.

PLANTING SPECIFICATIONS (CONTINUED):

6. MISCELLANEOUS MATERIALS:
   - A. ROOT BARRIER – TYPAR ROOT BARRIER, BIOBARRIER, 24 INCHES DEPTH OR EQUAL. INSTALL AS SHOWN ON DETAIL AND PER MANUFACTURER'S INSTRUCTIONS.
7. WATER: TO UTILIZE EXISTING POTABLE WATER SOURCE FOR EXISTING IRRIGATION SYSTEM.
8. SOIL PREPARATION:
   - A. IMPORTED SCREENED TOPSOIL SHALL BE USED AS REQUIRED. AFTER INITIAL SETTLEMENT OF THE SOIL, FINISH GRADE SHALL BE AS SHOWN PER DETAIL.
9. TREE PLANTING OPERATIONS:
   - A. HANDLE PLANTS TO AVOID DISRUPTING THE ROOTBALL.
   - B. FOLLOW DETAILS AS SHOWN ON PLANS FOR PLANTING PITS.
   - C. PLANTS SHOULD NOT BE PLANTED TOO DEEP, BUT LEVEL PER DETAIL.
   - D. FORM SAUCER BERM AROUND PITS TO RETAIN WATER. REMOVE SAUCER AT THE END OF THE MAINTENANCE PERIOD.
   - E. WATER TREE IMMEDIATELY AFTER PLANTING.
10. DURING 90 DAY LANDSCAPE MAINTENANCE PERIOD, CONTRACTOR SHALL BE RESPONSIBLE FOR:
    - A. PROTECT AREAS SUSCEPTIBLE TO TRAFFIC.
    - B. REGULATE IRRIGATION AS NECESSARY TO INSURE ACTIVE GROWTH.
    - C. KEEP PLANTING AREAS FREE OF WEEDS AND FERTILIZE AS NEEDED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
    - D. IMMEDIATELY REMOVE DEAD OR DYING PLANTS AND REPLACE WITH SAME SPECIES AND SIZE.
    - E. INSPECT TREE FOR INSECT DAMAGE WEEKLY AND TREAT AFFECTED MATERIAL IMMEDIATELY.
    - F. RESTAKE AND RESET GRADES.
11. SEE LANDSCAPE PLANTING PLANS AND DETAIL SHEETS FOR ADDITIONAL NOTES.

IRRIGATION SPECIFICATIONS:

1. MATERIALS SHALL BE NEW, WITHOUT FLAWS OR DEFECTS.
2. PIPE:
   - A. PRESSURE MAINS: SCHEDULE 40 PVC, ASTM D–1785.
   - B. LATERALS: SCHEDULE 40 PVC, ASTM D–1795 WITH SOLVENT OR INTEGRAL SOLVENT WELD BELL END. 3/4" MINIMUM
   - C. VISIBLE PIPE FITTINGS:
     1. THREADED RISERS AND NIPPLES: SCHEDULE 80 PVC.
     2. OTHER RISERS AND FITTINGS: SCHEDULE 40 PVC.
     3. CEMENT: ASTM D–2564.
     4. FLEXIBLE TUBING: TORO 850–01 THICK WALL PIPE OR EQUAL.
   - D. COPPER TUBING AND ASSOCIATED FITTINGS
     1. TUBING: ASTM B88M ASTM B88, TYPE K.
     2. FITTINGS: ASME B16.22 AND ASME B16.18, SOLDER JOINT. SOLDER, ASTM B32 ALLOY GRADE SN95 OR SN94. FLUX, CID A–A–51145, TYPE I.
3. BALL VALVE: AMERICAN MADE 200 WOG BRASS WITH THREADED ENDS.
4. VALVE BOX: PLASTIC BOX WITH LOCKING LID. AMETEK, BROOKS, CARSON OR EQUAL. RECTANGULAR FOR REMOTE CONTROL VALVES AND ROUND FOR GATE VALVES.
5. MANUAL ANGLE VALVES: BRASS, CHAMPION 200 OR 300 SERIES WITH RUBBER SEATS
6. FLEX RISERS: KING BROTHERS, GLOBAL WATER SYSTEM, EXCALIBER OR EQUAL.
7. THRUST BLOCKS: ONE CU. FT. OF REDI–MIX CONCRETE OR MINIMUM 1 CU. FT. OF 2500 PSI/28 DAY CONCRETE.
8. TRENCHES: 18" MINIMUM COVER OVER MAINS. 12" MINIMUM COVER OVER LATERALS.
9. ANY ROCK OVER 2" EXPOSED DURING TRENCHING SHALL BE REMOVED AND DISPOSED OF OFFSITE.

IRRIGATION SPECIFICATIONS (CONTINUED):

10. PIPE FITTINGS AND ASSEMBLY:
    - A. PARALLEL PIPING SHOWN MAY BE INSTALLED IN THE SAME TRENCH WITH 1" MINIMUM SEPARATION BETWEEN PIPES.
    - B. CROSSING PIPES SHALL HAVE 2" MINIMUM VERTICAL SEPARATION.
    - C. PIPE SHALL BE FLUSHED OUT THOROUGHLY TO REMOVE ALL DEBRIS.
    - D. PRIOR TO BACKFILLING, PIPES SHALL BE INSPECTED FOR LEAKS AT ALL JOINTS AND FITTINGS.
11. SPRINKLER HEADS:
    - A. SET HEADS PLUMB AND LEVEL OR AS DETAILED.
    - B. ADJUST AND CLEAN ALL HEADS FOR OPERATION.
12. VALVES:
    - A. INSTALL PLUMB WITH SUFFICIENT CLEARANCE FOR SERVICE AND OPERATION.
    - B. MANUAL CONTROL VALVES OR GATE VALVES ACCESSIBLE FOR PROPER USE.
    - C. ALL SOLENOIDS SHALL BE LATCHING RELAY SOLENOIDS COMPATIBLE FOR USE WITH THE REMOTE CONTROL VALVE AND BATTERY OPERATED CONTROLLER.
13. BACKFILLING:
    - A. BACKFILL– NO ROCKS AND DEBRIS OVER 2" IN DIAMETER.
    - B. REPAIR PAVING CUTS WITH MATERIALS TO MATCH ORIGINAL SURFACE.
    - C. RESEED, RESOD OR REPLANT THE TRENCHED AREAS AS NEEDED.
    - D. DURING THE MAINTENANCE PERIOD REFILL TRENCHES AS NEEDED TO BE LEVEL WITH EXISTING GRADE..
14. ADJUSTING SYSTEMS: ALL SPRINKLER HEADS TO PROVIDE ADEQUATE AND UNIFORM COVERAGE.
15. QUICK COUPLING VALVES: QUICK COUPLING VALVES SHALL BE AS INDICATED ON THE PLANS OR EQUAL. ALL QUICK COUPLING VALVES SHALL BE INSTALLED ON SWING JOINTS UNLESS OTHERWISE NOTED ON THE PLANS AND SHALL HAVE LOCKING VINYL COVERS AND SHALL BE INSTALLED WITHIN A ROUND PLASTIC BOX WITH LOCKING LID.
16. BATTERY OPERATED CONTROLLER AS CALLED FOR ON THE PLANS AND HOUSED IN A LOCKABLE VALVE BOX. ALL SIGNIFICANT COMPONENTS, PARTS AND CONTROLS SHALL BE AS SPECIFIED BY THE MANUFACTURER. CONTRACTOR SHALL PROVIDE AN AS–BUILT IRRIGATION SYSTEM DRAWING INDICATING THE ASSIGNED STATION NUMBERS TO RESPECTIVE CONTROL VALVES. DRAWINGS SHALL BE CLEAN AND LEGIBLE AND FOLDED IN A "ZIP LOCK" PLASTIC ENCLOSURE. A COPY OF A SCHEMATIC WIRING DIAGRAM FOR THE CONTROLLER SHALL ALSO BE INCLUDED.
17. SEE LANDSCAPE IRRIGATION PLANS AND DETAIL SHEETS FOR ADDITIONAL NOTES.

REVISION NO.	SYM.	DESCRIPTION	SHT. OF	DATE	APPROVED:

MASATOMO MURATA
LICENSED PROFESSIONAL LANDSCAPE ARCHITECT
No. 11526
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

LICENSE EXPIRATION DATE 4/30/2018

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PARKING IMPROVEMENTS AT
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T.M.K.: 3-2-031: 001 HONOLULU, OAHU, HAWAII

LANDSCAPE SPECIFICATIONS

IMATA & ASSOCIATES, INC			DRAWING NO.
DESIGNED BY: MM	CHECKED BY: MM		L–6
DRAWN BY: MM	APPROVED BY: MM	DATE DEC 2017	SHEET – OF – SHTS
SCALE: AS NOTED			