

McCORRISTON MILLER MUKAI MacKINNON LLP

RANDALL F. SAKUMOTO 4848
LISA W. CATALDO 6159
CATHERINE A. TASCHNER 9585
Five Waterfront Plaza, 4th Floor
500 Ala Moana Boulevard
Honolulu, Hawai'i 96813
Telephone: (808) 529-7300
Facsimile: (808) 524-8293

LAND USE COMMISSION
STATE OF HAWAII

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Attorneys for Petitioners
PIILANI PROMENADE SOUTH, LLC and
PIILANI PROMENADE NORTH, LLC

BEFORE THE LAND USE COMMISSION
OF THE STATE OF HAWAII

In the Matter of the Petition of	)	Docket No. A94-706
)	
KAONOULU RANCH to Amend the	)	PETITIONERS' MEMORANDUM IN
Agricultural Land Use District Boundary	)	OPPOSITION TO INTERVENORS'
into the Urban Land Use District for	)	MOTION TO CONDUCT PHASE II OF
Approximately 88 acres at Kaonoulu,	)	CONTESTED CASE PENDING SINCE
Makawao-Wailuku, Maui, Hawai'i; Tax	)	2012, AND FOR FINAL DECISION,
Map Key Nos. (2) 2-2-02: por. 15 and 3-9-	)	FILED DECEMBER 3, 2018;
01:16)	DECLARATION OF RANDALL F.
)	SAKUMOTO; EXHIBITS "1"- "3";
)	CERTIFICATE OF SERVICE
)	
)	

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<u>Exhibits</u>	<u>Description</u>
<i>Exhibit "1"</i>	<i>Declaration of Darren T. Unemori</i>
Exhibit "A"	Letter dated October 18, 2003 from the County of Maui granting Preliminary Subdivision Approval re Kaonoulu Ranch (Large Lot) Subdivision No. 2, Subdivision File No. 2.2795
Exhibit "B"	Letter dated August 14, 2009 from the County of Maui granting Final Subdivision Approval re Kaonoulu Ranch (Large Lot) Subdivision No. 2, Subdivision File No. 2.2795 and Kaonolulu Ranch Water Tank Subdivision, Subdivision File No. 2.2995
Exhibit "C"	County-approved Final Subdivision Plat Kaonoulu Ranch (Large Lot) Subdivision No. 2, Subdivision File No. 2.2795
Exhibit "D"	County-approved Construction Plans Kaonoulu Ranch (Large Lot) Subdivision No. 2, Subdivision File No. 2.2795
Exhibit "E"	Email dated July 10, 2018 from the County of Maui granting a deadline extension re Kaonoulu Ranch (Large Lot) Subdivision No. 2, Subdivision File No. 2.2795 and Kaonolulu Ranch Water Tank Subdivision, Subdivision File No. 2.2995
Exhibit "F"	Letter dated October 16, 2006 from the County of Maui granting Preliminary Subdivision Approval re Kaonoulu Light Industrial, Subdivision File No. 3.2175
Exhibit "G"	Preliminary Subdivision Plat re Kaonoulu Light Industrial, Subdivision File No. 3.2175
Exhibit "H"	1994 Conceptual Development Plan Kaonoulu Industrial Park
Exhibit "I"	Letter dated September 11, 2018 from the County of Maui granting a time extension re Kaonoulu Light Industrial, Subdivision File No. 3.2175
<i>Exhibit "2"</i>	<i>Declaration of Kenneth F. Gift</i>
Exhibit "J"	2012 Purchase Orders for Construction Materials Goodfellow Bros., Inc.
<i>Exhibit "3"</i>	<i>Declaration of Robert D. Poynor</i>
Exhibit "K"	Assignment and Assumption of Agreement for Subdivision Approval, dated September 13, 2010
Exhibit "L"	Letter dated June 18, 2015 from the County of Maui confirming cash bond amounts re Kaonoulu Ranch (Large Lot) Subdivision No. 2, Subdivision File No. 2.2795 and Kaonolulu Ranch Water Tank Subdivision, Subdivision File No. 2.2995

**PETITIONERS' MEMORANDUM IN OPPOSITION TO INTERVENORS'
MOTION TO CONDUCT PHASE II OF CONTESTED CASE PENDING
SINCE 2012, AND FOR FINAL DECISION, FILED DECEMBER 3, 2018**

Petitioners PIILANI PROMENADE SOUTH, LLC and PIILANI PROMENADE NORTH, LLC (collectively, "Piilani"), successors-in-interest to KAONOULU RANCH, a Hawai'i limited partnership, with regard to the real property that is the subject matter of Docket No. A94-706, as referenced above, submit to the State of Hawai'i Land Use Commission (the "Commission") their Memorandum in Opposition to Intervenor's Motion to Conduct Phase II of Contested Case Pending Since 2012, and for Final Decision.

I. BACKGROUND

A. Ownership of the Petition Area

Piilani owns six of the seven tax map key parcels (collectively, the "Piilani Parcels") encumbered by the Findings of Fact, Conclusions of Law, and Decision and Order issued by the Commission on February 10, 1995 in Docket No. A94-706 (the "D&O"). The Piilani Parcels are identified as tax map key parcels (2) 3-9-001:016 and :170-:174. The seventh parcel encumbered by the D&O is owned by Honua'ula Partners, LLC ("Honua'ula"), which has no affiliation with Piilani. Honua'ula owns tax map key parcel (2) 3-9-001:169, referred to herein as the "Honua'ula Parcel." The Honua'ula Parcel and the Piilani Parcels are collectively referred to as the "Petition Area."

B. Petition Area

The Petition Area is located within the State Land Use Urban District, and within the Urban growth boundary identified in the Maui Island Plan. The Petition Area is designated as LI Light Industrial under the Kihei-Makena Community Plan and is zoned within the M-1 Light Industrial district.

Lands located to the north, south, and west of the Petition Area are located in the State Land Use Urban District. Lands located north of the Petition Area include a commercial complex, which is within the State Land Use Urban District. This complex includes a self-storage facility, a gas station, and an automobile sales lot. Located south of the Petition Area is Kihei High School, which is also within the State Land Use Urban District. Lands located *makai* (west) of the Petition Area include the Kaonoulu Estates residential subdivision and the former Maui Lu Resort, which are within the State Land Use Urban District. Lands located *mauka* (east) of the Petition Area and extending up to Lower Kula are used for commercial ranching and are within the State Land Use Agricultural District.

C. Procedural History

On May 23, 2012, Maui Tomorrow Foundation, Inc., South Maui Citizens for Responsible Growth, and Daniel Kanahele (collectively, the “Intervenors”) filed a Motion for a Hearing, Issuance of Order to Show Cause, and Other Relief (the “Motion for Order to Show Cause”). In the Motion for Order to Show Cause, Intervenors contended in part that Piilani’s intended use of the Piilani Parcels for the development of a retail project (the “Retail Project”) violated Conditions 5, 15, and 17 of the D&O.

On September 10, 2012, the Commission granted Intervenors’ Motion for Order to Show Cause, issued the Order to Show Cause, and ordered that a show cause hearing be set for the entire Petition Area (the “Show Cause Hearing”). Pursuant to the Prehearing Order, entered on September 11, 2012, the Commission stated that it would “first consider whether [Piilani] and [Honua‘ula had] violated the applicable conditions of the [D&O]” (“Phase I”); and “should [the] Commission find that Piilani and/or Honua‘ula has failed to perform according to the conditions imposed or the representations or commitments made, [the] Commission will then determine whether reversion or other designation is the appropriate remedy” (“Phase II”).

On November 1, 2, 15, and 16, 2012, the Commission heard evidence and arguments in Phase I of the Show Cause Hearing. At a meeting on February 7, 2013, the Commission orally found that Piilani's and Honua'ula's proposed uses of the Petition Area would violate Conditions 5 and 15 of the D&O, and that Condition 17 had also been violated. No written order reflecting that oral decision was entered.

On April 18, 2013—because Piilani sought to amend the D&O to allow Piilani to develop a project different from the project originally presented to the Commission as part of the 1995 D&O proceedings—Piilani filed a Motion to Stay Phase II of the Order to Show Cause Proceeding (the “Motion to Stay”). In the Motion to Stay, Piilani requested a stay of the Phase II hearing so the Commission could consider Piilani's Motion for Order Amending the Findings of Fact, Conclusions of Law, and Decision and Order dated February 10, 1995 (the “Motion to Amend”). On June 27, 2013, the Commission granted the Motion to Stay, and ordered the Phase II hearing stayed on the conditions that Piilani file its Motion to Amend before December 31, 2013, and that no construction on the Petition Area occur during the stay. Piilani filed its Motion to Amend on December 31, 2013.

In connection with the mixed-use project contemplated by the Motion to Amend, which incorporated light industrial, business/commercial, and multi-family uses (the “Mixed Use Project”), Piilani prepared an environmental impact statement (“EIS”). In June 2017, Piilani submitted the final EIS to the Commission for processing in connection with its review of the Motion to Amend. After two days of public hearings, the Commission denied the acceptance of the final EIS prepared for the Mixed-Use Project on July 20, 2017.

In its July 5, 2018 status report to the Commission, Piilani advised that it and Honua'ula would develop the Petition Area in substantial compliance with the representations made to the

Commission during the D&O proceedings (the “Original Plan”). The Original Plan was to develop a 123-lot commercial and light industrial subdivision within the Petition Area. Piilani, along with Honua‘ula, reaffirmed their intention to develop the Petition Area in substantial compliance with the Original Plan at the July 11, 2018 meeting of the Commission.

Following the non-acceptance of the EIS in July 2017, Piilani and Honua‘ula met with their consultants to discuss the design and development of a plan substantially compliant with the Original Plan. In January 2018, Piilani retained Koa Partners, LLC (“Koa”) to lead the approval, design, and development efforts, and to identify, reach out to and discuss with stakeholders, including the Intervenors and other interested community members, the development of the Petition Area in substantial compliance with the Original Plan.

As part of the outreach process, Koa arranged meetings with representatives from various subsections of the community, including the Intervenors, ancestral descendants of the Petition Area and surrounding region, and persons who testified in the July 2017 EIS hearing. In addition, Koa arranged for a large meeting and published the meeting time and date in The Maui News, inviting all members from the public to attend. During the year-long outreach process, Koa conducted more than two dozen meetings with the community, as well as numerous one-on-one meetings. Each meeting discussion was intended to solicit feedback on matters of interest to the community, with the ultimate goal of presenting a development concept which both substantially complies with the representations made to the Commission, and reflects input received during the outreach process. While Koa did not receive specific objections to the Original Plan, the Intervenors and other members of the public expressed an interest in seeing that the development incorporate concepts reflecting cultural sensitivity, more open space, and other types of uses (other than just light industrial).

Based on community input, Koa prepared a development plan that includes affordable and senior housing options, and preserved certain physical elements within the Petition Area, including an unnamed natural drainageway that transects the Petition Area in a northeast-to-southwest direction and certain archaeological sites. The development plan also included a celestial viewing area, and preserved vernal and autumnal equinox view planes.

After almost a year of discussions and meaningful progress toward a mutually acceptable development proposal compatible with the Original Plan, the Intervenor notified Piilani of their intent to end all further discussions with Koa. Shortly thereafter, on November 30, 2018, the Intervenor filed a Motion to Conduct Phase II of Contested Case Pending Since 2012, and for Final Decision (the “Phase II Motion”). Piilani affirms that it will continue to proceed with a development proposal that is substantially compliant with the Original Plan, with accommodations to cultural areas based upon input from the community.

II. ANALYSIS

A. Phase II Cannot Begin Because Phase I Has Not Been and Cannot Be Completed

In the Phase II Motion, Intervenor acknowledges that Phase II may not be initiated until Phase I is completed, and accordingly request that the Commission issue findings of fact and conclusions of law as to the Phase I proceedings (the “Phase I Findings”). Intervenor’s request may not be granted as a matter of law, because the Commission is not authorized to enter findings more than 365 days following the entry of an order to show cause. In addition, Intervenor’s request to adopt Phase I Findings based on the parties’ submittal of proposed findings of fact and conclusions of law is inequitable, as the procedural history and actions taken by the parties in the interim period have materially impacted the facts that served as a basis for the proposed Phase I Findings.

1. The Commission May Not Enter Findings of Fact More Than 365 Days After the Entry of an Order to Show Cause

The Commission entered the Order to Show Cause on September 10, 2012 and thereafter bifurcated the Show Cause Hearing into two phases: first, the Phase I evidentiary hearings to determine whether a violation had occurred, and second, if a violation was found, the Phase II hearings to determine whether reversion or other designation is the appropriate remedy.

The Order to Show Cause stated that the Commission “will conduct a hearing on this matter in accordance with the requirements of chapter 91, [Hawai‘i Revised Statutes (“HRS”)], and subchapters 7 and 9 of chapter 15-15, [Hawai‘i Administrative Rules (“HAR”)]. More specifically, the Commission “shall conduct a hearing on an order to show cause in accordance with the requirements of [title 15, chapter 15,] subchapter 7, where applicable” with “decisions and orders [to] be issued in accordance with subchapter 7 or subchapter 9.” Section 15-15-93 (c), (d), HAR.

Subchapter 7, HAR provides in relevant part that any decision must be rendered:

prior to a period of **not more than three hundred sixty-five days after the petition has been deemed a proper filing** by the commission or the executive officer, unless otherwise ordered by a court, or unless a time extension, not to exceed ninety days, is established by a two-thirds vote of the members of the commission, **the commission, by filing findings of fact and conclusions of law, shall act to approve the petition, deny the petition, or to modify the petition** by imposing conditions in accordance with subchapter 11. If the commission fails to act on the petition pursuant to Section 205-4(g), HRS, the petition shall be deemed approved, subject to the provisions of section 15-15-90(e).

Section 15-15-74(b), HAR (emphases added). The 365-day deadline to enter findings of fact and conclusions of law is mirrored in Section 205-4(g), HRS:

Within a period of **not more than three hundred sixty-five days after the proper filing of a petition**, unless otherwise ordered by a court, or unless a time extension, which shall not exceed ninety days, is established by a two-thirds vote of the members of the commission, **the commission, by filing findings of fact and conclusions of law, shall act to approve the petition, deny the petition, or to modify the petition** by imposing conditions necessary to uphold the intent and

spirit of this chapter or the policies and criteria established pursuant to Section 205-17 or to assure substantial compliance with representations made by the petitioner in seeking a boundary change.

(Emphases added). These 365-day timelines are mandatory and included to give certainty to land use proceedings and to avoid requests from being stalled indefinitely. Town v. Land Use Comm'n, 55 Haw. 538, 544, 524 P.2d 84, 88 (1974) (holding that time period under Section 205-4(b), HRS is mandatory and stating that interested parties to the hearing “should not be placed in a state of limbo at the discretion of the applicant or the [Commission], and the time limitations prescribed by [Section 205-4, HRS] and LUC Regulation 2.35 insures the protection of both the applicant and the adjoining landowners at both extremes”) (distinguished on other grounds).

In DW Aina Le'a Development, LLC v. Bridge Aina Le'a, LLC, 134 Hawai'i 187, 339 P.3d 685 (2014), the Hawai'i Supreme Court interpreted the Commission's obligations in a contested reversion of land following the issuance of an order to show cause. Finding that the property owners had substantially commenced use of the land, the Hawai'i Supreme Court held that the Commission was bound by the requirements of Section 205-4, HRS. In particular, the Hawai'i Supreme Court specifically applied the 365-day period stated in Section 205-4(g), HRS to the resolution of the order to show cause, explaining that the Commission's duty to resolve an order to show cause must be completed within “365 days after the initial [order to show cause] was issued.” Id. at 216, 339 P.3d at 714. The Hawai'i Supreme Court found that the Commission's rolling and continuing order to show cause proceedings failed to comply with the requirements of Section 205-4, HRS because the proceedings far exceeded the stated 365-day period, ultimately contributing to the resulting reversal of the Commission's final order of reversion.

Instead of overturning the Commission's order on the basis that the Commission failed to comply with the 365-day requirement of Section 205-4, HRS, the Bridge Aina Le'a Court also analyzed whether the developers had substantially commenced use of the land. The factual circumstances in that case, namely that a reversion of the land actually occurred, may have led the Court to apply this two-step analysis.

Unlike Bridge Aina Le'a, the Commission has not yet reverted the Petition Area. Accordingly, analysis of whether substantial commencement of the use of the land has occurred is premature.¹ The statutory 365-day rule is the sole consideration of whether the Commission may enter findings of fact and conclusions of law on this matter and at this time. Adopting Phase I Findings, as sought by the Intervenor, would constitute a violation of Section 205-4, HRS and Section 15-15-93, HAR².

¹ Even assuming, *arguendo*, that the Bridge Aina Le'a two-step analysis is applicable, because Piilani has substantially commenced use of the Petition Area in accordance with the representations made to the Commission in 1995 as stated *infra*, the Commission is required to comply with the provisions of Section 205-4(g), HRS requiring adoption of findings of fact and conclusions of law within the 365-day period.

² A hearing on an order to show cause must comply with subchapter 7 "**where applicable.**" Section 15-15-93(c), HAR (emphasis added). Although Section 15-15-74(b), HAR automatically deems a petition for district boundary amendments approved "[i]f the commission fails to act on the petition pursuant to Section 205-4(g)[, HRS]," this is specific to petitions for boundary amendment and not an order to show cause. This is evidenced by the legislative history of the enabling statute for this provision, Section 91-13.5, HRS, which requires state and county agencies to adopt rules specifying a maximum time period for granting or denying a business or development-related permit, and was intended to address concerns about the "lengthy and indeterminate time required for business and development-related regulatory approvals[.]" 1998 Haw. Sess. Laws Act 164, § 2 at 613. An order to show cause is not a business or development-related regulatory approval. The literal application of the automatic approval provision is therefore inconsistent with the policies of Section 91-13.5, HRS. The legislative history indicates a clear intent to apply this provision to business and development-related permit approvals; stripping this provision of its stated purpose is inconsistent with the reason and spirit of the law. Further, it is unclear what it would mean to "approve" of an evidentiary hearing, and thus literal application of the provision produces an absurd result.

In conclusion, the 365-day deadline stated in Section 15-15-74(b), HAR, applies to the resolution of the Order to Show Cause. Here, the Commission issued the Order to Show Cause on September 10, 2012. Therefore, the Commission had a duty to file its Phase I Findings by September 10, 2013. To this end, following the Phase I evidentiary hearings, Piilani timely submitted its proposed Findings of Fact and Conclusions of Law and Decision and Order on December 21, 2012, and the County of Maui Department of Planning filed its joinder to Piilani's proposed findings on December 21, 2012. The State of Hawai'i Office of Planning also submitted their Proposed Findings of Fact, Conclusions of Law, and Decision and Order on Petitioners' Failure to Perform According to Conditions Imposed on the Petition on December 21, 2012, and the Intervenors submitted their Proposed Findings of Fact for Phase One on December 24, 2012. To date, however, and without any further action or explanation, the Commission has never issued its own required Phase I Findings.

The conclusion that the Phase I Findings are untimely is not altered by the Motion to Stay filed by Piilani on April 18, 2013. The Motion to Stay addressed and pertained to the Phase II proceedings only. Piilani did not request that the Commission delay, extend, or toll any action as to the Phase I Findings.

Entering the Phase I Findings more than 365 days after the issuance of the Order to Show Cause is a violation of Section 15-15-74(b), HAR. Because the 365-day period has lapsed, the Commission lacks authority to enter the Phase I Findings. Accordingly, Intervenors' request that the Commission adopt the Phase I Findings cannot be granted by the Commission as a matter of law. Phase II Motion at 3.

2. The Commission May Not Enter Phase I Findings Based on the Proposed Findings of Fact and Conclusions of Law Submitted by the Parties in 2013

The Intervenor request that the Commission “adopt findings of fact and conclusions of law with respect to Phase I of the contested case based on the previous submissions of the parties.” Phase II Motion at 19. Following the completion of the Phase I evidentiary hearings, each of Piilani, Intervenor, and the State of Hawai‘i Office of Planning submitted proposed Phase I Findings (the “Proposed Phase I Findings”). Each of the Proposed Phase I Findings only include findings as of December 2012.

As noted *supra*, Piilani has taken many actions since December 2012, including filing the Motion to Amend, preparing an EIS, and preparing a development proposal that is substantially compliant with the Original Plan. None of the Proposed Phase I Findings speak to these actions, which actions are well documented and appear on the Commission’s docket. Thus, all of the Proposed Phase I Findings now contain incorrect findings of fact and conclusions of law. For example, each of the Proposed Phase I Findings state that Piilani will develop the Retail Project,³ even though, as represented in its July 5, 2018 status report to the Commission, Piilani represented that it would develop the Piilani Parcels in substantial compliance with Original Plan. This is just one example of how each of the Proposed Phase I Findings incorrectly state a material fact.

Findings “must be sufficient to allow the reviewing court to track the steps by which the agency reached its decision.” Kilauea Neighborhood Ass’n v. Land Use Comm’n, 7 Haw. App. 227, 230, 751 P.2d 1031, 1034 (1988). Each of the Proposed Phase I Findings are replete with

³ See State of Hawai‘i Office of Planning’s Proposed Findings of Fact, Conclusions of Law, and Decision and Order on Petitioners’ Failure to Perform According to Conditions Imposed on the Petition, Finding of Fact ¶ 16; the Intervenor’s Proposed Findings of Fact for Phase One, Finding of Fact ¶ 13; Piilani’s Findings of Fact and Conclusions of Law and Decision and Order, Finding of Fact ¶ 19.

factual inaccuracies due to the different state of events since 2012, and material steps such as the filing of the Motion to Amend are not reflected. Entering Phase I Findings based on the Proposed Phase I Findings would be clear error and contrary to substantial evidence on the record.

B. Because the Commission Cannot Enter the Phase I Findings, the Commission Cannot Issue a Final Decision on the Contested Case

The Order to Show Cause states that hearings on the matter will be subject to the requirements of chapter 91, HRS. Intervenors argue that chapter 91, HRS requires finality of a contested case within a reasonable period of time, and request that the Commission “issue a final decision on all remaining issues.” Phase II Motion at 14.

Piilani does not contest that chapter 91, HRS requires that an agency overseeing the contested case issue a final decision within a reasonable time. Section 91-12, HRS provides that the agency overseeing the contested case “shall notify the parties to the proceeding by delivering or mailing a certified copy of the decision and order and accompanying findings and conclusions **within a reasonable time** to each party or to the party’s attorney of record.” (Emphasis added).

Intervenors argue that the “evidence has been received” by the Commission, and cite Outdoor Circle v. Harold K.L. Castle Trust Estate, 4 Haw. App. 633, 675 P.2d 784 (1983), to support their argument that the Commission must issue a final decision on the contested case. Phase II Motion at 14. In Outdoor Circle, the Commission adopted final versions of the findings of fact at an open meeting, and thereafter issued a final decision on the contested case. 4 Haw. App. at 641-42, 675 P.2d at 791.

Here, and unlike in Outdoor Circle, the Commission did not orally accept and adopt any of the proposed Phase I Findings submitted by the parties at one of its hearings, nor did it issue a ruling thereon. By their own admission, Intervenors acknowledge that “the Commission did not

adopt the [Phase I Findings] at [its February 7, 2013 hearing].” Phase II Motion at 16.

As stated *supra*, pursuant to Section 15-15-74(b), HAR, the Commission is procedurally barred from entering Phase I Findings. In addition, for the reasons stated *supra*, the Commission cannot enter the Phase I Findings. Without the Phase I Findings, the Commission cannot issue a decision and order in compliance with chapter 91, HRS. HRS § 91-12. Accordingly, the Intervenor’s request for “finality of this contested case” cannot be granted.

C. Piilani Substantially Commenced Use of the Petition Area

1. Piilani’s Investments in Planning, Studies, and Infrastructure Constitute Substantial Commencement of Use of the Land

The Hawai‘i Supreme Court has held that the Commission may revert a property to its former land use classification or be changed to a more appropriate classification without following the process set forth in Section 205-4, HRS only in the absence of “**substantial commencement of use of the land.**” Bridge Aina Le‘a, 134 Hawai‘i at 213, 339 P.3d at 711 (emphasis added) (citing Section 205-4(g), HRS (“The commission may provide by condition that absent substantial commencement of use of the land in accordance with such representations, the commission shall issue and serve upon the party bound by the condition an order to show cause why the property should not revert to its former land use classification or be changed to a more appropriate classification.”)). Here, Piilani has substantially commenced use of the land, and the Commission cannot revert the Petition Area except in accordance with Section 205-4, HRS.

Section 205-4(g), HRS does not define “substantial commencement.” Citing to Black’s Law Dictionary, the Hawai‘i Supreme Court, explained that “substantial” is “considerable in amount or value; large in volume or number.” Id. at 213-14, 339 P.3d at 711-12. The Court

emphasized that the legislature “did not require that the use be substantially **completed**, but rather that it be substantially **commenced**.” Id. at 214, 339 P.3d at 712.

In analyzing whether the developers in Bridge Aina Le‘a substantially commenced **use** of the land, the Court considered the developers’ preparation of plans and studies, as well as work on infrastructure. For example, the Court specifically noted that the developers had “continued to actively proceed with **preparation of plans and studies**, including building plans and studies for the EIS” and “continued work on infrastructure.” Id. (emphasis added). The Court recognized that “more than \$20,000,000.00 had been expended for plans and construction work on the project” and explained that the developers’ investment was “a considerable amount of money and effort, by any reasonable measure.” Id. Accordingly, the Court held that the developers substantially commenced use of the land. Id.

Thus, actions taken in the preparation of plans and studies and expenditures to advance a project’s infrastructure and to comply with the conditions imposed by the Commission constitute “use” of the land. Intervenor’s argue that “construction activity,” particularly grading work, is required to show “substantial commencement of use.” Phase II Motion at 4, 10 (citing Motion to Stay at 4, 5). However, as explained in Bridge Aina Le‘a, even if a developer’s actions do not involve ground-disturbing activity or vertical construction, pre-development work such as preparation of plans and studies will nonetheless be considered in any determination of “substantial commencement of use of the land.”

The legislative history of Section 205-4(g), HRS further supports this conclusion. Specifically, the “substantial commencement” language was added “to empower the [Commission] to address a particular situation, namely, where the landowner does not develop the property in a timely manner.” Bridge Aina Le‘a, 134 Hawai‘i at 211, 339 P.3d at 709. As

the Senate Committee on Energy and Natural Resources specifically noted: “[v]acant land with the appropriate state and county land use designation is often subjected to undesirable private land speculation and uncertain development schedules[,]” and that “[s]uch speculation and untimely development inflates the value of land, increases development costs, and frustrates federal, state, county, and private coordination of planning efforts, adequate funding, public services, and facilities.” Id. at 211-12, 339 P.3d at 709-10 (citing S. Stand. Comm. Rep. No. 2116, in 1990 S. Journal, at 915).

As reflected by this history, the purpose of Section 205-4(g), HRS is to discourage landowners from holding land undeveloped for speculative purposes and to encourage timely development. Non-ground disturbing activities, such as preparation of plans and studies as noted in Bridge Aina Le‘a, are a necessary part of the development timetable. Therefore, a developer’s investment in the land—whether such an investment is in the planning stage or has advanced to vertical construction—is evidence that the developer commenced use of the land. Vertical construction and ground-disturbing activities are not the sole means to demonstrate that land is timely developed. To the extent that the activities and the investment are substantial, the developer has engaged in substantial commencement of use of the land, and has demonstrated that they are not engaging in private land speculation or delay.

2. Piilani Substantially Commenced Use of the Land

Piilani has undertaken considerable effort and incurred great expense to develop the Piilani Parcels in substantial compliance with the representations made to the Commission. Intervenor improperly characterize the activities that occurred on the Piilani Parcels as only applicable to the Mixed-Use Project and not relevant to the commencement of the Original Plan.⁴

⁴ Intervenor contends that Piilani is judicially estopped from arguing that it has substantially commenced the Original Plan. Phase II Motion at 18-19. The doctrine of judicial

Phase II Motion at 18. In fact, Piilani, as well as prior landowners, have engaged in substantial work to develop the Petition Area in substantial compliance with the Original Plan and have expended significant sums in this effort.

Of significance, the prior landowner obtained final approval of its large lot subdivision application on August 14, 2009 subject to certain bond obligations. Exhibit “B.” **The subdivision application created four large lots, which are compatible with the original 1994 light industrial subdivision concept plan.** Unemori Declaration ¶ 14; Exhibits “C,” “D,” and “H.” To complete the final subdivision approval process, as required by the County of Maui Department of Public Works’ Development Services Administration, Piilani deposited \$22,058,826.00 in cash to fund civil infrastructure improvements to support implementation of the Original Plan. Exhibits “B,” “K,” & “L.” The improvements include:

- Sitework Improvements - \$1,256,710.00
- East Kaonoulu Street Improvements - \$2,299,046.00

estoppel prevents parties from arguing inconsistent or mutually exclusive positions. Roxas v. Marcos, 89 Hawai’i 91, 124, 969 P.2d 1209, 1242 (1998). “Judicial estoppel is a concept **to be applied with restraint in egregious cases** only and with clear regard for the facts of the particular case.” 28 Am. Jur. 2d Estoppel and Waiver § 68 (2018) (emphasis added). While there is no set formula or test, there are certain factors that inform the decision whether to apply the doctrine, including that “a party’s later position must be clearly inconsistent with its earlier position.” New Hampshire v. Maine, 532 U.S. 742, 750-51 (2001) (citations and quotation marks omitted).

Piilani’s current position is consistent with its earlier position. Intervenor’s argument appears to be based on certain statements in Piilani’s Motion to Stay that “no significant grading or construction has occurred” or would occur during the stay. Phase II Motion at 4, 10 (citing Motion to Stay at 4). As discussed above, grading or construction is not synonymous with “use of the land,” and Piilani has shown that it substantially commenced use of the Piilani Parcels through its efforts and expenditure of funds to fulfill bond obligations for improvements and infrastructure (discussed *infra*), as well as to fund plans and studies. Accordingly, judicial estoppel does not bar Piilani from asserting that it has substantially commenced use of the Piilani Parcels in accordance with the Original Plan.

- Piilani Highway Widening Improvements - \$1,411,106.00
- Access Road and Swales - \$1,771,330.00
- Sewer System/Revisions - \$712,592.00
- Storm Drainage System/Revisions - \$2,895,052.00
- Onsite Water System - \$834,700.00
- 12" Offsite Water/IMG Water Tank - \$4,802,784.00
- 36" Water Main/Water/Misc. Revisions - \$2,444,940.00
- Electrical - \$885,566.00
- Traffic Signal Improvements - \$643,000.00
- Landscape/Irrigation - \$1,202,000.00
- CRM Walls - \$900,000.00

Exhibit "B." Approximately \$1,900,000.00 of the cash bond has been released to purchase materials, which have been located upon the Piilani Parcels since 2012, and remain located on the site as of this date, waiting to be utilized. Declaration of Kenneth F. Gift at ¶ 9. The County of Maui continues to hold the remaining \$20,150,000.00 as a bond for the improvements and infrastructure required by the subdivision approval. Exhibit "L."

In 2012, Piilani contracted with Goodfellow Bros., Inc. for onsite and offsite construction work. At that time, Goodfellow Bros., Inc. purchased materials on behalf of Piilani to proceed with the offsite construction. Exhibit "J." In total, Piilani has spent \$3,418,822.01 on construction materials. Declaration of Kenneth F. Gift at ¶ 10. More than \$880,000.00 has been spent on labor and construction costs to clear the Piilani Parcels, to erect fencing around the perimeter, and to mobilize for the installation of necessary infrastructure and other startup costs. Declaration of Kenneth F. Gift at ¶ 11. Approximately 5 acres of the Piilani Parcels were cleared

by stripping away brush, grass, and top soil. Declaration of Ken Gift at ¶ 9.

Additionally, Piilani has expended more than \$387,000.00 on engineering and surveying work on the Piilani Parcels. Unemori Declaration ¶¶ 17, 20. Although the majority of that work was performed in connection with certain aspects of the Mixed-Use Project, approximately \$85,000 of the work performed is also necessary to the development of the Original Plan, as set forth in the 1994 Conceptual Development Plan, including the subdivision of the MECO substation site, design of the irrigation well pumping station, studies of development lot grading alternatives, research into the existing infrastructure, and the evaluation of new infrastructure needed to support commercial and light industrial land uses. Unemori Declaration ¶¶ 18, 20; Exhibit “H.”

In total, Piilani has invested more than \$22,000,000.00 in support of development of the Piilani Parcels and implementation of a proposal in substantial compliance with the Original Plan. Using Bridge Aina Le‘a as a benchmark, Piilani’s expenditures exceed those made by the developers in Bridge Aina Le‘a by at least \$2,000,000.00. The use of the Piilani Parcels is evidenced by Piilani’s expenditures to prepare plans and studies, to advance the project’s infrastructure, and to comply with the conditions imposed by the Commission. These expenditures and the related commitment of time and other resources are indicators of substantial commencement of use of the land and demonstrate that Piilani has not “sat on the land for speculative purposes.”

This is in contrast to the petitioners in Docket No. A06-767 (Waikoloa Mauka, LLC), who made most of their efforts to develop the project prior to the grant of the 2008 Decision and Order approving of the petition to reclassify the land from the State Land Use Agricultural District to State Land Use Rural District, and thereafter performed minimal work on only one of

the 2008 Decision and Order conditions until the issuance of an order to show cause. Piilani has thus demonstrated a commitment to timely development of the Petition Area, which is in accordance with and reflects the underlying purpose and spirit of Section 205-4(g), HRS.

Moreover, the use of the Petition Area in accordance with the representations made to the Commission substantially commenced even before Piilani acquired title. The prior landowners secured additional entitlements and governmental approvals to develop the Petition Area in accordance with the representations made to the Commission:

- The original petitioner, Kaonoulu Ranch, obtained an amendment to the Kihei Makena Community Plan designating the Petition Area as Light Industrial on March 20, 1998.
- Kaonoulu Ranch obtained approval of its Change in Zoning application for Light Industrial by the Maui County Council, which became effective on May 25, 1999.
- Maui Industrial Partners—the landowner prior to Piilani—invested more than \$408,000.00 in the use of the Petition Area under the Original Plan. Unemori Declaration ¶ 7.

Warren S. Unemori Engineering, Inc. (“WSUE”) completed the following work for Maui Industrial Partners:

- Preparation and processing of maps and application to subdivide the Petition Area into four large lots and associated roadway lots.
- Design and process construction permits for major infrastructure improvements needed to provide access and utility services to the four large lots, including:
 - Roadway improvements;
 - Potable water system improvements, including a new 1.0 MG water storage tank and pipelines;
 - Relocation of the existing 36-inch diameter County of Maui water transmission main into Kaonoulu Street;
 - Storm drainage improvements;
 - Sanitary sewer improvements; and
 - Electrical system improvements.
- Preparation and processing of preliminary plat and application to subdivide two of the four large lots into 56 light industrial lots.

Unemori Declaration ¶ 7. Additionally, Maui Industrial Partners obtained preliminary subdivision approval on October 16, 2006 for a 56-lot light industrial subdivision that is compatible with the Original Plan's 1994 Kaonoulu Conceptual Plan. Unemori Declaration ¶ 12; Exhibits "F" & "G." This subdivision application is pending the filing of the final plat with the County of Maui. Exhibits "F" & "I."

As the Hawai'i Supreme Court has stated: "a determination of whether a party has substantially commenced use of the land will turn on the circumstances of each case, not on a dollar amount or percentage of work completed." Bridge Aina Le'a, 134 Hawai'i at 214 n.16, 339 P.3d at 712 n.16. In this case, Piilani alone has spent more than \$22,000,000.00 in its effort to develop the Piilani Parcels in substantial compliance with the Original Plan. Given that the \$22,000,000.00 cash bond held by the County of Maui represents a good faith estimate of the cost to complete the needed infrastructure and improvements for the Original Plan, Piilani has demonstrated that it has expended more than 100% of the costs necessary for construction of the Original Plan's infrastructure. Taken collectively, the aforementioned activities and expenses constitute substantial commencement of use of the land.

3. The D&O Did Not Include a Condition Regarding Substantial Commencement

Piilani has substantially commenced use of the land in accordance with the representations made to the Commission. However, the Commission has not reserved its right to revert the property in accordance with Section 205-4(g), HRS as this section specifically states that the "commission **may provide by condition.**" (Emphasis added). Similarly, the Commission's rules also require that the Commission impose a condition on the property to revert the land use classification on the basis that the petitioner has failed to substantially commence use of the land:

The commission **may provide by condition** that absent substantial commencement of use of the subject property or substantial progress in developing the land receiving the boundary amendment in accordance with representations and commitments made by the petitioner to the commission, the commission shall issue and serve upon the party bound by the condition an order to show cause why the property should not revert to its former land use district classification or be changed to a more appropriate land use district classification.

Section 15-15-79(b), HAR (emphasis added). Notwithstanding the clear statutory authority to do so, the Commission did not include a condition in the D&O reserving the right to revert the Petition Area for failure of the petitioner to substantially commence use of the land.

The D&O contains a condition that “Petitioner shall develop the Property in **substantial compliance** with the representations made to the Commission” and “Failure to so develop the Property may result in reversion of the Property to its former classification.” D&O at 30 (Condition 15) (emphasis added). However, the D&O does not contain any condition that the petitioner’s failure to substantially commence use of the Petition Area may result in reversion.

In comparison, the Decision and Order in Docket No. A06-767 (Waikoloa Mauka, LLC) set a time period for the completion of the project and stated that if the petitioner failed to complete the project, the Commission may file an order to show cause and require the petitioner explain why the property should not revert. No similar condition is included in the D&O.

In addition to the plain language of Section 205-4(g), HRS, the legislative history demonstrates that the Commission must impose a condition on a boundary amendment in order to subsequently revert the property absent substantial commencement of use of the land. As the Senate Committee on Energy and Natural Resources stated in its report, the relevant portion of Section 205-4(g) was added “to allow the [] Commission to **attach a condition** to a boundary amendment decision” which would void the boundary amendment when substantial commencement of the approved land use activity does not occur in accordance with

representations made by the petitioner.” S. Stand. Comm. Rep. No. 2116, in 1990 S. Journal, at 915 (emphasis added).

In its 1990 testimony in favor of the proposed amendment, the Commission endorsed this requirement: “[T]he proposed amendment will clarify the Commission’s authority to **impose a specific condition** to downzone property in the event that the Petitioner does not develop the property in a timely manner.” Letter from Land Use Comm’n, to S. Comm. on Energy & Natural Res. (Feb. 7, 1990) (on file with the Hawai‘i State Archives) (emphasis added); Letter from Land Use Comm’n, to H. Comm. on Planning, Energy & Env’tl. Protection (Mar. 8, 1990) (on file with the Hawai‘i State Archives) (emphasis added).

Without the imposition of such a condition, the Commission holds little enforcement power. Bridge Aina Le‘a, 134 Hawai‘i at 211, 339 P.3d at 709 (explaining the one exception to the general rule that the Commission holds no enforcement power is Section 205-4(g)). Rather, “looking to the express language of Section 205-12, HRS, it is clear and unambiguous that enforcement power resides with the appropriate officer or agency charged with the administration of county zoning laws, namely the counties, and not the [Commission].” Lanai Co. v. Land Use Comm’n, 105 Hawai‘i 296, 318, 97 P.3d 372, 394 (2004). The Commission is empowered “**to use conditions as needed** to (1) ‘uphold the intent and spirit’ of HRS chapter 205, (2) uphold ‘the policies and criteria established pursuant to Section 205–17,’ and (3) to ‘assure substantial compliance with representations made by petitioner in seeking a boundary change.’” Id. at 317, 97 P.3d at 393 (citation omitted) (emphasis added). But, again, the Commission must specifically impose the condition to retain its right to revert.

Where, as here, the 1995 Commission did not include a condition regarding substantial commencement, it has no authority to revert the land use classification of the Petition Area.

Accordingly, because the aforesaid substantial commencement condition was omitted from the D&O, the Commission has no authority to revert the land use classification of the Petition Area.

D. Piilani Has Demonstrated Good Cause Why the Petition Area Should Not Revert to Its Former Classification or Be Changed to a More Appropriate Classification

If, assuming *arguendo*, the Commission determines that it was not required to include a condition as to substantial commencement in the D&O and that Piilani has not substantially commenced use of the land, Piilani has nonetheless demonstrated good cause why the Petition Area should not revert to its former classification or be changed to a more appropriate classification for three main reasons.

First, Piilani is in compliance with all conditions of the D&O. Previously, in 2012, the Commission orally determined that Piilani had failed or would fail, to meet three conditions of the D&O: (1) filing of annual reports; (2) completing a frontage road; and (3) substantially complying with representations made to the Commission. Piilani has since become current on the annual report filings, and is committed to working with the State of Hawai'i Department of Transportation to complete a frontage road parallel to Piilani Highway or otherwise incorporate within the design of the Piilani Parcels something substantially compliant with the requirement to complete a frontage road, as reviewed and approved by the State of Hawai'i Department of Transportation and the County of Maui Department of Transportation. Piilani has also informed the Commission that it will develop the Petition Area in substantial compliance with the Original Plan, and therefore the development will be completed in substantial compliance with the representations made to the Commission.

Given that Piilani is in compliance with all of the conditions of the D&O, it is unlike other projects that the Commission has recently reverted. In Docket No. A05-755 (Hale Mua Properties, LLC), the petitioner stipulated that it was not in compliance with a number of

conditions of the Decision and Order and voluntarily submitted to the reversion. In Docket No. A06-767 (Waikoloa Mauka, LLC), the only other contested reversion since Bridge Aina Le'a, the Commission determined that the petitioner violated certain conditions of the Decision and Order and did not substantially commence use of the land. Unlike these projects, Piilani has complied with all conditions of the D&O, has undertaken significant development efforts, and expended substantial sums in accordance with the Original Plan.

Second, Piilani, through Koa, devoted substantial resources—money, time, and effort—towards developing the Piilani Parcels in a manner that meaningfully addresses the input of Intervenor, lineal descendants, and other community members, including developing the Original Plan in a manner that is culturally sensitive and appropriate.

Third, Piilani has demonstrated its financial capacity to undertake development of the Piilani Parcels to completion. Piilani has deposited more than \$22,000,000.00 in cash to secure the development of infrastructure improvements to support the Original Plan and expended additional funds to commission plans and studies. Curbing the lost opportunity costs sustained by Piilani based on these currently unavailable cash funds are a clear motivating factor for Piilani to complete development expeditiously.

The record reflects a consistent effort by Piilani and its predecessors-in-interest to timely develop the Petition Area. Together with Piilani's representations to continue development of the Piilani Parcels in substantial compliance with the Original Plan, Piilani has demonstrated good cause that the Petition Area should not revert to its former classification.

III. CONCLUSION

For the foregoing reasons, Piilani requests that the Commission deny Intervenor's Motion to Conduct Phase II of Contested Case Pending Since 2012, and for Final Decision, filed December 3, 2018.

DATED: Honolulu, Hawai'i, January 10, 2019.

A handwritten signature in black ink, appearing to read 'Randall F. Sakumoto', written over a horizontal line.

RANDALL F. SAKUMOTO
LISA W. CATALDO
CATHERINE A. TASCHNER

Attorneys for PIILANI PROMENADE
SOUTH, LLC and PIILANI PROMENADE
NORTH, LLC

BEFORE THE LAND USE COMMISSION

OF THE STATE OF HAWAI'I

In the Matter of the Petition of	)	Docket No. A94-706
)	
KAONOULU RANCH to Amend the	)	DECLARATION OF
Agricultural Land Use District Boundary	)	RANDALL F. SAKUMOTO; EXHIBITS
into the Urban Land Use District for	)	"1" – "3"
Approximately 88 acres at Kaonoulu,)	
Makawao-Wailuku, Maui, Hawai'i; Tax)	
Map Key Nos. (2) 2-2: por. 15 and 3-9-)	
01:16)	
)	
)	
)	
)	
)	

DECLARATION OF RANDALL F. SAKUMOTO

I, RANDALL F. SAKUMOTO, hereby declare:

1. I am licensed to practice law in all courts of the State of Hawai'i.
2. I am an attorney with the law firm of McCorriston Miller Mukai MacKinnon LLP, attorneys for Petitioners Piilani Promenade South, LLC and Piilani Promenade North, (collectively, "Piilani"), as referenced above in this matter.
3. This declaration is submitted in support of Petitioners' Memorandum in Opposition to Intervenor's Motion to Conduct Phase II of Contested Case Pending Since 2012, and for Final Decision, Filed December 3, 2018.
4. As an attorney at McCorriston Miller Mukai MacKinnon LLP, I have personal knowledge of the filings in the above-referenced case and access to records and files kept in the normal course of the business conducted by McCorriston Miller Mukai MacKinnon LLP.
5. Submitted herewith as Exhibit "1" is the Declaration of Darren T. Unemori, Vice President of Warren S. Unemori Engineering, Inc., which contains an electronic signature of Mr.

Unemori. I understand that the original is being mailed to my office and I intend to file the original with the Land Use Commission of the State of Hawai'i (the "Commission") upon our receipt of the document.

6 Submitted herewith as Exhibit "2" is the Declaration of Kenneth F. Gift, Divisional Engineer of Goodfellow Bros., Inc., which contains an electronic signature of Mr. Gift. I understand that the original is being mailed to my office and I intend to file the original with the Commission upon our receipt of the document.

7. Submitted herewith as Exhibit "4" is the Declaration of Robert D. Poynor, Vice President of Sarofim Realty Advisors, which contains an electronic signature of Mr. Poynor. I understand that the original is being mailed to my office and I intend to file the original with the Commission upon our receipt of the document.

I, RANDALL F. SAKUMOTO, declare under penalty of law that the foregoing is true and correct.

Executed this 10th day of January, 2019, at Honolulu, Hawai'i.



RANDALL F. SAKUMOTO

BEFORE THE LAND USE COMMISSION
OF THE STATE OF HAWAI'I

In the Matter of the Petition of	)	Docket No. A94-706
)	
KAONOULU RANCH to Amend the	)	CERTIFICATE OF SERVICE
Agricultural Land Use District Boundary)	
into the Urban Land Use District for)	
Approximately 88 acres at Kaonoulu,)	
Makawao-Wailuku, Maui, Hawai'i; Tax)	
Map Key Nos. (2) 2-2: por. 15 and)	
3-9-01:16)	
_____)	

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing document will be duly served upon the following persons by electronic mail ("**EM**"), or by mailing said copy, postage prepaid, first class, in a United States post office ("**M**") or by hand delivery ("**HD**") in the manner indicated, addressed as set forth below:

DANIEL ORODENKER, Executive Officer Land Use Commission, State of Hawai'i 235 South Beretania Street Room 406, Leiopapa A Kamehameha Bldg. Honolulu, Hawai'i 96813	<u>Daniel.E.Orodenker@dbedt.hawaii.gov</u> (HD, EM)
--	--

DAWN T. APUNA, Esq. Deputy Attorney General State of Hawaii Department of the Attorney General Hale Auhau, Third Floor 425 Queen Street Honolulu, Hawai'i 96813	<u>Dawn.T.Apuna@hawaii.gov</u> (EM)
---	-------------------------------------

LEO R. ASUNCION, JR., Director
Office of Planning, State of Hawai'i
235 South Beretania Street
Room 600, Leiopapa A Kamehameha Bldg.
Honolulu, Hawai'i 96813

Leo.R.Asuncion@hawaii.gov (EM)

MICHELE CHOUTEAU MCLEAN,
Planning Department, County of Maui
One Main Plaza
2200 Main Street, Suite 315
Wailuku, Maui, Hawai'i 96793

Michele.McLean@co.maui.hi.us (EM)

PATRICK K. WONG, Esq.
MICHAEL HOPPER, ESQ.
KRISTIN TARNSTROM, ESQ.
Department of Corporation Counsel
200 South High Street, Room 322
Wailuku, Hawai'i 96793

pat.wong@co.maui.hi.us (EM)

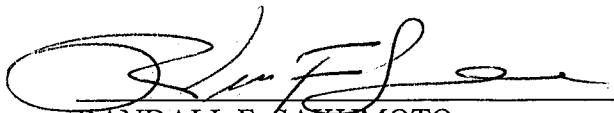
TOM PIERCE, Esq.
P.O. Box 798
Makawao, Hawai'i 96768

tom@maulandlaw.com (M, EM)

BENJAMIN M. MATSUBARA, Esq.
CURTIS T. TABATA, Esq.
888 Mililani Street, Eighth Floor
Honolulu, Hawai'i 96813

ctabata@m-klawyers.com (EM)

DATED: Honolulu, Hawai'i January 10, 2019.



RANDALL F. SAKUMOTO
LISA W. CATALDO
CATHERINE A. TASCHNER

Attorneys for PIILANI PROMENADE
SOUTH, LLC and PIILANI PROMENADE
NORTH, LLC

BEFORE THE LAND USE COMMISSION
OF THE STATE OF HAWAI‘I

In the Matter of the Petition of	)	Docket No. A94-706
)	
KAONOULU RANCH to Amend the	)	DECLARATION OF
Agricultural Land Use District Boundary	)	DARREN T. UNEMORI; EXHIBITS
into the Urban Land Use District for	)	“A”-“I”
Approximately 88 acres at Kaonoulu,)	
Makawao-Wailuku, Maui, Hawai‘i; Tax)	
Map Key Nos. (2) 2-2-02: por. 15 and)	
3-9-01:16)	
_____)	

DECLARATION OF DARREN T. UNEMORI

I, DARREN T. UNEMORI, hereby declare that:

1. I am the Vice President of Warren S. Unemori Engineering, Inc. (“WSUE”) and am a civil engineer licensed in the State of Hawai‘i since 1993.
2. This declaration is submitted in reference to the above-captioned case.
3. Unless otherwise indicated, all statements made herein are based on personal knowledge.
4. I am an individual over eighteen (18) years of age and under no legal or mental disability, and I am competent to testify, having personal knowledge of the matters set forth herein.
5. I am a graduate of the University of California at Berkeley, from which I received both a Bachelor of Science and a Master of Engineering degree in Civil Engineering.
6. WSUE has performed engineering and surveying services to assist in the development of the property formerly identified as Tax Map Key (“TMK”) Nos. (2) 2-2-002: por. 015 and 3-9-001:016, and now identified as TMK Nos. (2) 3-9-001:016, 169, 170-174

(“Petition Area”), since prior to the grant of the boundary amendment of the Petition Area in 1995.

7. WSUE was previously engaged by Maui Industrial Partners, or Pacific Rim Land, Inc. on behalf of Maui Industrial Partners. Under its contracts with Maui Industrial Partners, WSUE invoiced Maui Industrial Partners \$408,462 for work completed—100% of which was applicable to the original 1994 light industrial subdivision concept plan (“1994 Plan”). WSUE performed the following services for Maui Industrial Partners:

- Preparation and processing of maps and application to subdivide the Petition Area into four developable large lots and associated roadway lots.
- Design and processing of construction permits for major infrastructure improvements needed to provide access and utility services to the four developable large lots, including:
 - Roadway improvements;
 - Potable water system improvements, including a new 1.0 MG water storage tank and pipelines;
 - Relocation of the existing 36-inch diameter County water transmission main into Kaonoulu Street;
 - Storm drainage improvements;
 - Sanitary sewer improvements; and
 - Electrical system improvements.
- Preparation and processing of preliminary plat and application to subdivide two of the four large lots into 56 light industrial lots.

8. The County of Maui granted preliminary approval to the Kaonoulu Ranch (Large Lot) Subdivision No. 2, Subdivision File No. 2.2795 (“Large Lot Subdivision”), on October 18, 2003. A true and correct copy of the preliminary subdivision approval letter is attached hereto as Exhibit “A.”

9. The County subsequently granted final approval for the Large Lot Subdivision, as well as for the Kaonoulu Ranch – Water Tank Subdivision, Subdivision File No. 2.2995, on

August 14, 2009, subject to the payment of a subdivision bond. A true and correct copy of the final subdivision approval letter is attached hereto as Exhibit “B.”

10. The Large Lot Subdivision application created four development large lots as shown on the County-approved final subdivision plat and the County-approved construction plans. A true and correct copy of the County-approved final subdivision plat for the Large Lot Subdivision is attached hereto as Exhibit “C” and a true and correct copy of the County-approved construction plans for the Large Lot Subdivision is attached hereto as Exhibit “D.”

11. The final subdivision approval letter for the Large Lot Subdivision set forth a deadline to complete the required subdivision improvements. The County has granted Piilani an extension of the deadline to August 25, 2019. A true and correct copy of the County’s extension of the deadline to complete the subdivision construction improvements is attached hereto as Exhibit “E.”

12. On October 16, 2006, the County granted preliminary approval to the Kaonoulu Light Industrial subdivision, Subdivision File No. 3.2175 (“LI Subdivision”). A true and correct copy of the preliminary subdivision approval letter is attached hereto as Exhibit “F.”

13. The LI Subdivision application subdivided Lots 2B and 2C of the Large Lot Subdivision into 56 lots as shown in the preliminary subdivision plat. A true and correct copy of the preliminary subdivision plat is attached hereto as Exhibit “G.”

14. The Large Lot Subdivision and LI Subdivision are each compatible with the 1994 Plan. A true and correct copy of the 1994 Plan is attached hereto as Exhibit “H.”

15. Pursuant to the preliminary subdivision approval letter, the final plat and construction plans for the LI Subdivision were required to be submitted within one year from the date of preliminary approval unless an extension of time was granted. The landowner has

requested annual time extensions and the new deadline for the filing of the final plat is October 17, 2019. A true and correct copy of the County letter granting the current time extension is attached hereto as Exhibit “I.”

16. Piilani Promenade South, LLC and Piilani Promenade North, LLC (collectively “Piilani”) engaged WSUE from 2010 to 2011 to provide civil engineering and land surveying services related to the development of the Large Lot Subdivision (“Large Lot Services”), including assistance in permitting, preparing construction documents, and construction support, as well as for the development of Maui Electric Company’s new electrical substation facility, and the design of a permanent pumping stations for the irrigation well located within the Petition Area.

17. To date, WSUE has invoiced Piilani \$302,161 for its Large Lot Services.

18. Based on my experience as an engineer and my knowledge of the 1994 Plan and services performed, I estimate that approximately 22%, or \$65,295, of the Large Lot Services constitutes work that is applicable to the 1994 Plan. The applicable work includes the subdivision of the electrical substation facility site, design of the permanent pumping station, and studies of development lot grading alternatives.

19. In 2013, Sarofim Realty Advisors, on behalf of Piilani, engaged WSUE to prepare a Preliminary Engineering Report for inclusion in the Environmental Impact Statement for the Piilani Parcels (the “PER Services”).

20. To date, WSUE has invoiced Sarofim Realty Advisors \$85,470 for the PER Services. Based upon my experience and knowledge of the project, I estimate that approximately 23%, or \$19,334, of the PER Services are applicable to the 1994 Plan. The applicable work includes research into the existing infrastructure and an evaluation of the new

infrastructure, which research is equally helpful to determine the infrastructure necessary to support the 1994 Plan.

21. In addition to the subdivision approvals discussed above, Piilani has obtained the following permits and approvals:

<u>Permit</u>	<u>Permit Number</u>
Subdivision Infrastructure	Grading Permit G2012-0030
Mass Grading of Project Site	Grading Permit G2012-0039
Kaonoulu Marketplace Water Storage Tank*	Building Permit #B2012/1111
NPDES Permit for Construction Stormwater Discharge**	File No. R10D273
Kaonoulu Electrical Substation Subdivision - Preliminary Approval	Subdivision File No. 3.2275

* Maximum number of extensions allowed by County Ordinance reached: no further extension allowed.

** Administrative extension granted by State Dept. of Health on October 30, 2018, pending reauthorization of State NPDES permit program.

I, DARREN T. UNEMORI, declare under penalty of law that the foregoing is true and correct.

Executed this 9th day of January, 2019, at Wailuku, Hawai'i.


DARREN T. UNEMORI

ALAN M. ARAKAWA
Mayor

GILBERT S. COLOMA-AGARAN
Director

MILTON M. ARAKAWA, A.J.C.P.
Deputy Director



RALPH M. NAGAMINE, L.S., P.E.
Development Services Administration

TRACY TAKAMINE, P.E.
Wastewater Reclamation Division

LLOYD P.C.W. LEE, P.E.
Engineering Division

BRIAN HASHIRO, P.E.
Highways Division

JOHN D. HARDER
Solid Waste Division

COUNTY OF MAUI
DEPARTMENT OF PUBLIC WORKS
AND ENVIRONMENTAL MANAGEMENT
DEVELOPMENT SERVICES ADMINISTRATION
250 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII 96793

October 18, 2003

Mr. Warren S. Unemori, President
WARREN S. UNEMORI ENGINEERING, INC.
2145 Wells Street, Suite 403
Wailuku, Hawaii 96793

SUBJECT: KAONOULU RANCH (LARGE LOT) SUBDIVISION NO. 2
TMK: (2) 2-2-002:PORTION OF 015
(2) 3-9-001:PORTION OF 016
SUBDIVISION FILE NO. 2.2795

Dear Mr. Unemori:

Preliminary approval was granted to the subject subdivision on October 18, 2003. Final approval shall be contingent upon compliance with the following conditions:

1. Requirements/comments from Maui Electric Company:
 - a. Electricity is available from nearby existing facilities (overhead and/or underground).
 - b. Requires line extension (overhead and/or underground) within existing County or State road right-of-way.
 - c. Requires line extension (overhead and/or underground) within private road or property.
 - d. Requires easement(s) from owner/subdivider/developer within subdivision for new or existing MECO facilities.

Comments: Easements are required. To process easements, applicant must submit a service request to Maui Electric Company. Please contact our Engineering Clerk at 871-2390.

If you have any questions, please contact Mr. Alan Miyazaki at 871-2390.

Mr. Warren S. Unemori, President

SUBJECT: **KAONOULU RANCH (LARGE LOT) SUBDIVISION NO. 2**
SUBDIVISION FILE NO. 2.2795

October 18, 2003

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2. *Rev. 10/22/03* Comply with requirements/comments from the State of Hawaii, Department of Land and Natural Resources, Historic Preservation Division (SHPD). We are currently waiting for preliminary subdivision review comments from SHPD. For further information, please contact Ms. Cathleen Dagher at (808) 692-8023.

3. Comply with requirements/comments from the State of Hawaii, Department of Transportation, Highways Division (SDOT).

a. Submit drainage report. Appears to be diverting runoff to Kulanihakoi Gulch.

b. Submit construction plans for review and approval.

If you have any questions, please contact Paul Chung at 873-3535.

4. Requirements/comments from the Department of Public Works and Environmental Management, Engineering Division:

Submit drainage report.

If you have any questions, please contact Lloyd Lee at 270-7745.

5. Requirements/comments from the Department of Public Works and Environmental Management, Wastewater Reclamation Division:

a. Although wastewater system capacity is currently available as of September 11, 2003, the developer should be informed that wastewater system capacity cannot be ensured until the issuance of the building permit.

b. Provide discussion and calculations (sewer impact study) to substantiate that the existing wastewater system is adequate to serve this project.

c. Wastewater contribution calculations are required before building permit is issued.

d. Developer shall pay assessment fees for treatment plant expansion costs in accordance with ordinance setting forth such fees.

e. Developer is required to fund any necessary off-site improvements to collection system and wastewater pump stations.

Mr. Warren S. Unemori, President

SUBJECT: **KAONOULU RANCH (LARGE LOT) SUBDIVISION NO. 2**
SUBDIVISION FILE NO. 2.2795

October 18, 2003

Page 3 of 7

- f. Plans should show the installation of a single service lateral and advanced riser for each lot.
- g. Indicate on the plans the ownership of each easement (in favor of which party). **NOTE: County will not accept sewer easements that traverse private property.**

If you have any questions, please contact Scott Rollins at 270-7417.

6. Requirements/comments from the Department of Water Supply:

- a. Provide fire protection in accordance with the standards.
- b. Provide water service to each lot in accordance with the standards.
- c. The subdivider shall deliver to the department perpetual easements required for the water system improvements.
- d. The subdivider shall convey to the department fee simple title to all sites on which tanks or pumps are constructed.
- e. Water system development fees will be charged upon application for water meters.
- f. Provide water source and storage.
- g. The applicant should be advised that the department's processing of this subdivision does not in any way imply that water service for the subdivision will be available. Approval of water service to each lot will be subject to rules and regulations of the department at the time water service is applied for.

If you have any questions, please contact the Department of Water Supply at 270-7835.

7. Comply with requirements/comments from the Department of Planning. We are currently waiting for preliminary subdivision review comments from the Department of Planning. For further information, please contact Mr. Francis Cerizo at 270-7253.

Rev.
11/2/03

Mr. Warren S. Unemori, President

SUBJECT: **KAONOULU RANCH (LARGE LOT) SUBDIVISION NO. 2**
SUBDIVISION FILE NO. 2.2795

October 18, 2003

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8. Requirements/comments from the Department of Fire and Public Safety:

At this time, the Fire Prevention Bureau would request that a water supply for fire protection shall be provided prior to the location and construction of buildings. Service roads to proposed properties shall have a clear width of 20 feet, all turns and required turnarounds shall have an outside turning radius of 40.5 feet.

If you have any questions, please contact Lt. Scott English at 270-7122.

9. In accordance with Section 18.12.030(E)(13.a.) of the Maui County Code (MCC), submit a letter from all governmental agencies with an easement, lease or license affecting the land subdivided consenting to the preparation and recording of the final plat.
10. In accordance with Section 18.12.040(C) MCC, submit a tax clearance certificate (issued by Department of Finance, Real Property Tax Division) to show written proof that all taxes and assessments on the tract are paid to date. An "Application for Tax Clearance" form is enclosed for your use. **NOTE:** The tax clearance certificate shall be valid at the time of final subdivision approval.
11. In accordance with Section 18.20.030 (Pavement of streets), improve the proposed subdivision road and access easement to the provisions of the subdivision ordinance for roadways within the urban district.
12. Provide additional information on which lots Access and Utility Easement 3 is intended to serve. The easement shall be improved to the provisions of the subdivision ordinance based on the number of lots being served.
13. Design and construct the drainage facilities to the requirements of the Department of Public Works and Environmental Management. A detailed final drainage report and site specific erosion control plan shall be submitted with the construction plans for review and approval. The drainage report shall include, but not be limited to, hydrologic and hydraulic calculations, and the schemes for disposal of runoff waters. The site specific erosion control plan shall show the location and details of structural and non-structural best management measures. The drainage and erosion control plans shall provide verification that the grading and all runoff water generated by the project will not have an adverse effect on the adjacent and downstream properties.

Mr. Warren S. Unemori, President

SUBJECT: **KAONOULU RANCH (LARGE LOT) SUBDIVISION NO. 2**
SUBDIVISION FILE NO. 2.2795

October 18, 2003

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14. Submit a "sight distance" report to determine required sight distance and available sight distance at existing and proposed street intersections. If you have any questions, please contact the Engineering Division at 270-7745.
15. Provide verification that adequate driveway sight distance has been provided for each lot. Access shall be restricted along the portion of any lot where adequate sight distance is not available. If you have any questions, please contact the Engineering Division at 270-7745.
16. Obtain street name approval from the Commission On Naming Streets, Parks and Facilities, and show street names on the construction plans and final plat.
17. In accordance with Section 12.24A.070(D) MCC, submit street tree planting and irrigation plans and a completed "Maui County Arborist Committee Plans Review Form" for review and approval.
18. The Owner's Acknowledgment/Authorization to Subdivide only authorizes your office to obtain preliminary approval. Provide authorization to obtain final subdivision approval.
19. Add the following note on the final plat and construction plan:

Pursuant to Maui County Code Section 3.44.015(C), the County of Maui is not responsible for any park, roadway, easement (including but not limited to drainage, sewer, access, reclaimed water, or avigation easement), or any other interest in real property shown on this map or shown on these plans, unless the Maui County Council has accepted its dedication by a resolution approved by a majority of Council's members at a regular or special meeting of the Maui County Council.
20. Submit ten (10) sets of the construction plans and three (3) sets of a drainage and soil erosion control report or drainage verification, whichever is applicable, for review and approval by the applicable agencies. In accordance with Section 18.24.010(D) MCC, a construction plan review fee (\$50/lot) shall be paid upon submission of the construction plans.

When the construction plans are approved, post construction requirements will be noted on the construction plan approval letter. The post construction requirements will need to be completed prior to final subdivision approval.

Mr. Warren S. Unemori, President

SUBJECT: **KAONOULU RANCH (LARGE LOT) SUBDIVISION NO. 2**
SUBDIVISION FILE NO. 2.2795

October 18, 2003

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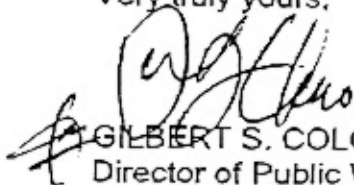
21. Submit fifteen (15) prints of the final plat in accordance with Chapter 18.12 (Final Plat) MCC. The final plat shall include all revisions addressing the comments noted on the enclosed preliminary plat. The final plats shall be folded into 8 ½" x 11" sized sheets.
22. Submit a digital copy (either on 3½" floppy disk or compact disc) of the final plat. The digital map shall either be in Arcview GIS file format or be an AutoCAD drawing with NAD83 State Plane Meters, Zone 2 coordinates, and shall include only the lot line drawing.

Within one (1) year from the date of preliminary approval of the subdivision, the final plat must be filed and the construction plans must be submitted, unless an extension of time is granted.

Be forewarned that requests for time extensions must be made in writing and received by our department in accordance with the following requirements. A time extension request for the filing of the final plat must be made at least fifteen days prior to the filing deadline. A time extension request for the submittal of the construction plans must be made prior to the submittal deadline. Therefore, a time extension request for the filing of the final plat must be made no later than October 2, 2004, and a time extension request for the submittal of the construction plans must be made no later than October 18, 2004. If no construction plans will be required for the subdivision, our department must be notified in writing prior to the submittal deadline. A "good cause" reason for any time extension shall be stated in the request. Time extension requests which are not in compliance with all of these requirements, will result in the subdivision being deemed null and void.

If you have any questions regarding this letter, please call Ms. Lesli Otani of our Development Services Administration at 270-7252.

Very truly yours,



GILBERT S. COLOMA-AGARAN
Director of Public Works
And Environmental Management

Mr. Warren S. Unemori, President

SUBJECT: **KAONOULU RANCH (LARGE LOT) SUBDIVISION NO. 2**
SUBDIVISION FILE NO. 2.2795

October 18, 2003

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Enclosures: Preliminary Plat
Application For Tax Clearance

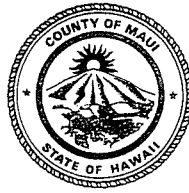
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c: Dept. of Finance, Real Property Tax Div. (unmarked preliminary plat only)
Dept. of Finance, Tax Map Div. (unmarked preliminary plat only)
Engineering Division w/preliminary plat
Wastewater Reclamation Division
Dept. of Water Supply, SD 03-090
Dept. of Fire and Public Safety
Dept. of Planning
Dept. of Parks and Recreation
DOT, Highways Division
State Dept. of Health
Maui Electric Company

CHARMAINE TAVARES
Mayor

MILTON M. ARAKAWA, A.I.C.P.
Director

MICHAEL M. MIYAMOTO
Deputy Director



RALPH M. NAGAMINE, L.S., P.E.
Development Services Administration

CARY YAMASHITA, P.E.
Engineering Division

BRIAN HASHIRO, P.E.
Highways Division

COUNTY OF MAUI
DEPARTMENT OF PUBLIC WORKS
DEVELOPMENT SERVICES ADMINISTRATION
250 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII 96793

August 14, 2009

Mr. Darren Okimoto, P.E.
WARREN S. UNEMORI ENGINEERING, INC.
2145 Wells Street, Suite 403
Wailuku, Hawaii 96793

SUBJECT: KAONOULU RANCH (LARGE-LOT) SUBDIVISION NO. 2
TMK: (2) 3-9-001:016
SUBDIVISION FILE NO. 2.2795

KAONOULU RANCH-WATER TANK SUBDIVISION
TMK: (2) 2-2-002:015
SUBDIVISION FILE NO. 2.2995

Dear Mr. Okimoto:

Final approval for the subject subdivisions have been granted on August 14, 2009, based upon an "Agreement For Subdivision Approval" and "Subdivision Bond" in the following amounts totaling \$22,058,826.00:

Bond No. SU1102685 (Sitework Improvements)	\$1,256,710.00
Bond No. SU1102686 (East Kaonoulu Street Improvements)	2,299,046.00
Bond No. SU1102687 (Piilani Highway Widening Improvements)	1,411,106.00
Bond No. SU1102688 (Access Road and Swales)	1,771,330.00
Bond No. SU1102689 (Sewer System/Revisions)	712,592.00
Bond No. SU1102690 (Storm Drainage System/Revisions)	2,895,052.00
Bond No. SU1102691 (Onsite Water System)	834,700.00
Bond No. SU1102692 (12" Offsite Water/1MG Water Tank)	4,802,784.00
Bond No. SU1102693 (36" Water Main/Water/Misc. Revisions)	2,444,940.00
Bond No. SU1102694 (Electrical)	885,566.00
Bond No. SU1102695 (Traffic Signal Improvements)	643,000.00
Bond No. SU1102696 (Landscape/Irrigation)	1,202,000.00
Bond No. SU1102697 (CRM Walls)	\$ 900,000.00

The approved final plats and copies of the "Agreement For Subdivision Approval" and "Subdivision Bond" are enclosed for your records.

Mr. Darren Okimoto, P.E.

**SUBJECT: KAONOULU RANCH (LARGE-LOT) SUBDIVISION NO. 2
SUBDIVISION FILE NO. 2.2795
KAONOULU RANCH-WATER TANK SUBDIVISION
SUBDIVISION FILE NO. 2.2995**

August 14, 2009

Page 2 of 2

The "Agreement For Subdivision Approval" and "Subdivision Bond" stipulates that the Subdivider shall complete the required subdivision improvements on or before July 17, 2010.

If you have any questions regarding this letter, please contact Lesli Otani of our Development Services Administration at 270-7252.

Sincerely,



MILTON M. ARAKAWA, A.I.C.P.
Director of Public Works

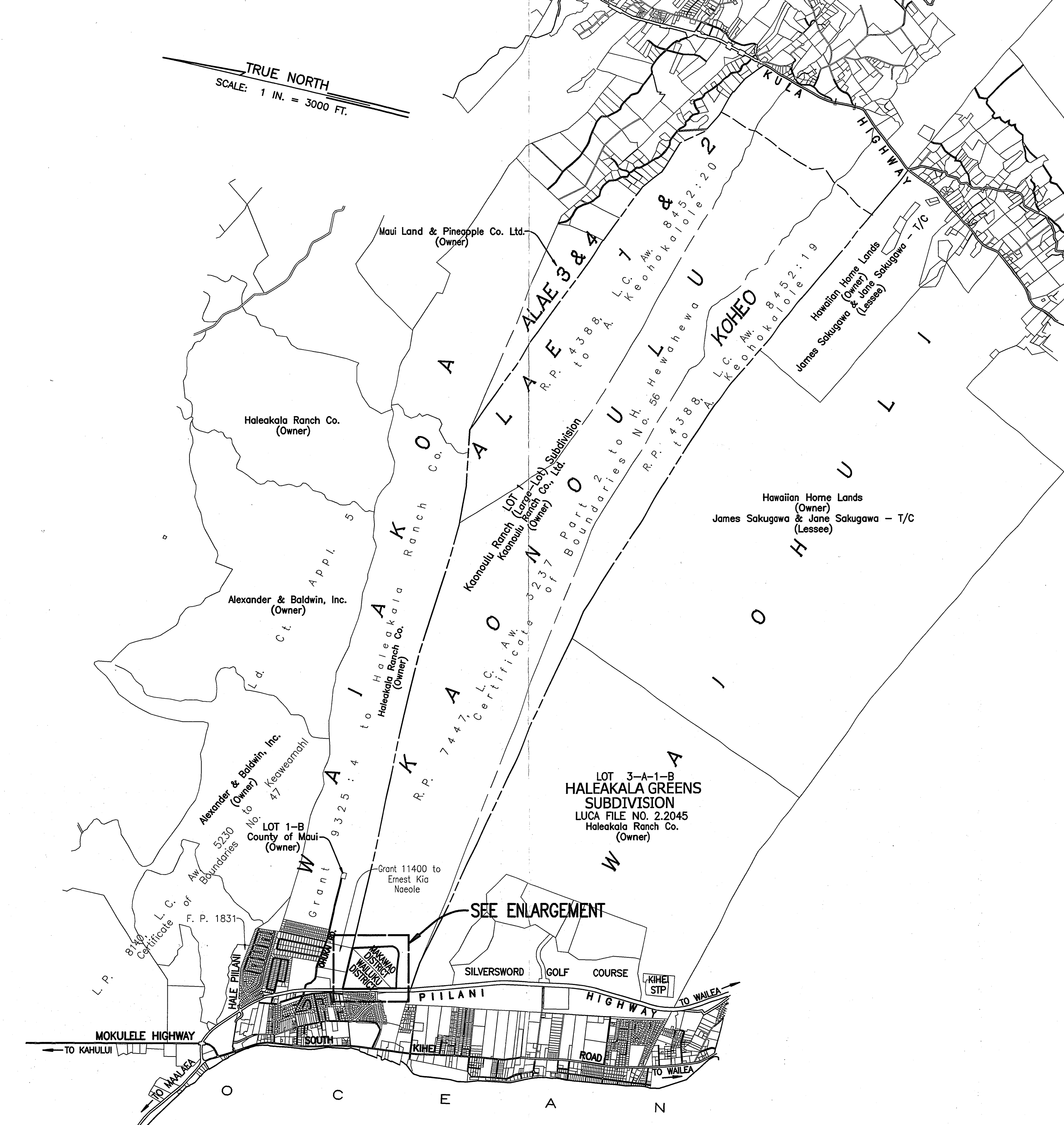
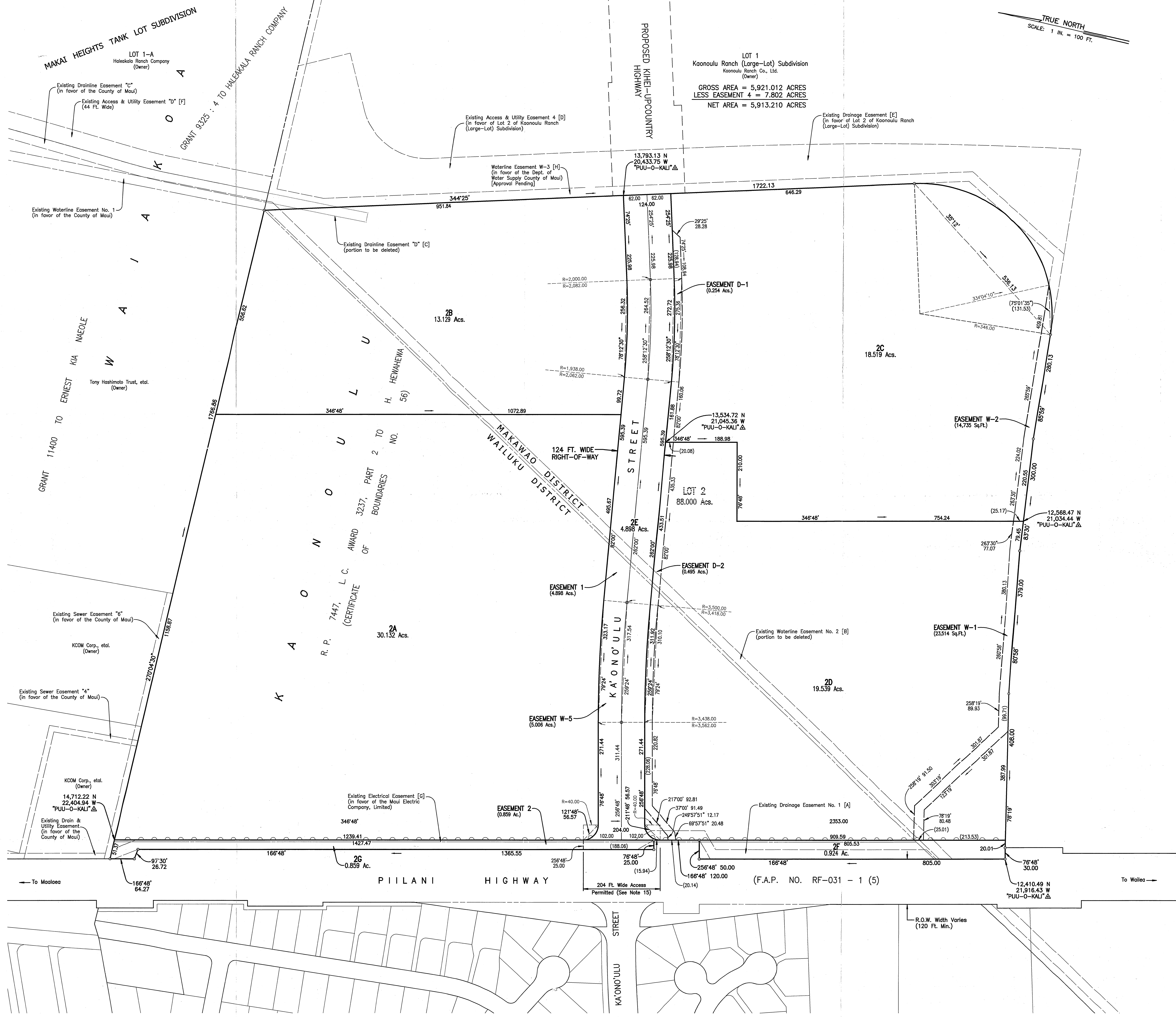
Enclosures: Final Plats

Agreement For Subdivision Approval

Subdivision Bond (Bond Nos. SU1102685 thru SU1102697)

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c: Dept. of Finance, Accounts Division w/final plats, agreement, & bonds
Dept. of Finance, Real Property Tax Division w/final plats
Dept. of Finance, Tax Map Division w/final plats
Building Permit Section w/final plats
Engineering Division w/final plats
Dept. of Environmental Management, WWRD w/final plats
Dept. of Planning w/final plats
Dept. of Water Supply, SD 03-90 & 06-106 w/final plats
Police Dept. w/final plats
Dept. of Parks and Recreation w/final plats
State Department of Health w/final plats
DOT, Highways Division w/final plats
Maui Electric Co. w/final plats



KAONOULU RANCH (LARGE-LOT) SUBDIVISION NO. 2

SUBDIVISION OF LOT 2 OF KAONOULU RANCH (LARGE-LOT) SUBDIVISION INTO LOTS 2A TO 2G, INCLUSIVE, DESIGNATION OF EASEMENTS 1, 2, D-1, D-2, W-1, W-2, AND W-5, AND DESIGNATION OF RESTRICTION OF VEHICULAR ACCESS RIGHTS AFFECTING LOTS 2A AND 2D, AND DELETION OF PORTIONS OF EASEMENTS NO. 2 AND D.

BEING A PORTION OF R.P. 7447, L.C. AW. 3237, PART 2 TO H. HEWAHEWA, CERTIFICATE OF BOUNDARIES NO. 56

KAONOULU, MAKAWAO AND WAILUKU, MAUI, HAWAII

TOTAL AREA = 88.000 ACRES

SCALE: 1 IN. = 100 FT.

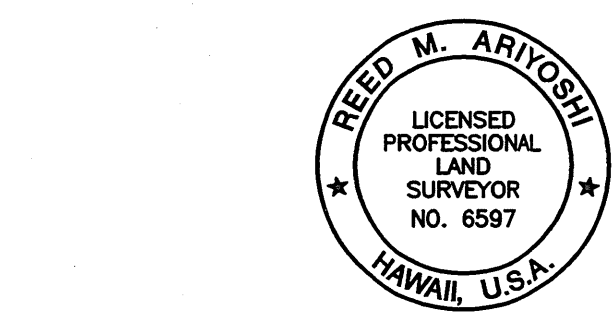
OWNER: MAUI INDUSTRIAL PARTNERS, LLC
ADDRESS: 381 HEIKU L'YI PLACE, SUITE 202
KIHAE, HI. 96753

NOTES:

- ALL BOUNDARY CORNERS ARE MARKED WITH 3/4" PIPES, UNLESS OTHERWISE NOTED.
- ALL AZIMUTHS AND RECORD COORDINATES, REFERS TO GOVERNMENT SURVEY TRIANGULATION STATION "PUU-O-KALI".
- OWNERS OF ADJOINING LANDS, AS SHOWN ON PLAN, TAKEN FROM RECORDS IN THE REAL PROPERTY MAPPING BRANCH.
- PURSUANT TO MAUI COUNTY CODE SECTION 3.44.015(C), THE COUNTY OF MAUI IS NOT RESPONSIBLE FOR ANY PARK, ROADWAY, EASEMENT (INCLUDING BUT NOT LIMITED TO DRAINAGE, SEWER, ACCESS, RECLAIMED WATER OR AVIGATION EASEMENT), OR ANY OTHER INTEREST IN REAL PROPERTY SHOWN ON THIS MAP OR SHOWN ON THESE PLANS, UNLESS THE MAUI COUNTY COUNCIL HAS ACCEPTED ITS DEDICATION BY A RESOLUTION APPROVED BY A MAJORITY OF COUNCIL'S MEMBERS AT A REGULAR OR SPECIAL MEETING OF THE MAUI COUNTY COUNCIL.
- STREET NAMES DO NOT REQUIRE THE COMMISSION ON NAMING STREETS, PARKS AND FACILITIES APPROVAL AS STATED IN THEIR LETTER DATED AUGUST 31, 2006.
- DENOTES NO VEHICULAR ACCESS PERMITTED.
- DENOTES VEHICULAR ACCESS PERMITTED.
- LOT 2E, IS A ROADWAY LOT, TO BE DEDICATED TO THE STATE OF HAWAII.
- LOTS 2F AND 2G, ARE ROAD WIDENING LOTS, TO BE DEDICATED TO THE STATE OF HAWAII.
- EASEMENT 1, AFFECTING LOT 2E, IS FOR ACCESS PURPOSES IN FAVOR OF LOT 1 OF KAONOULU RANCH (LARGE-LOT) SUBDIVISION.
- EASEMENT 2, AFFECTING LOT 2G, IS FOR ACCESS PURPOSES IN FAVOR OF LOT 1 OF KAONOULU RANCH (LARGE-LOT) SUBDIVISION.
- EASEMENT "W-1", AFFECTING LOT 2D, IS FOR WATERLINE PURPOSES IN FAVOR OF THE DEPARTMENT OF WATER SUPPLY, COUNTY OF MAUI.
- EASEMENT "W-2", AFFECTING LOT 2C, IS FOR WATERLINE PURPOSES IN FAVOR OF THE DEPARTMENT OF WATER SUPPLY, COUNTY OF MAUI.
- EASEMENT "W-5", AFFECTING LOTS 2E AND 2G, IS FOR WATERLINE PURPOSES IN FAVOR OF THE DEPARTMENT OF WATER SUPPLY, COUNTY OF MAUI.
- EASEMENT "D-1", AFFECTING LOT 2C, IS FOR DRAINAGE PURPOSES IN FAVOR OF THE KAONOULU OWNERS ASSOCIATION.
- EASEMENT "D-2", AFFECTING LOT 2D, IS FOR DRAINAGE PURPOSES IN FAVOR OF THE KAONOULU OWNERS ASSOCIATION.
- ACCESS TO LOTS 2A TO 2D, INCLUSIVE, PROVIDED OVER ROADWAY LOT 2E, ADDITIONAL ACCESS TO LOT 2B PROVIDED OVER ACCESS & UTILITY EASEMENT 4, ROADWAY IMPROVEMENTS TO BE CONSTRUCTED AS PART OF CONSTRUCTION PLANS FOR KAONOULU MARKET PLACE.
- APPROVAL PENDING FOR RELOCATION AND WIDENING OF ACCESS PERMITTED FOR KAONOULU STREET ALONG PILIHI HIGHWAY.

EXISTING EASEMENT: (LETTERS IN BRACKETS ON MAP CORRESPONDS WITH NOTE BELOW)

- EXISTING DRAINAGE EASEMENT NO. 1 (25 FEET WIDE) IN FAVOR OF TONY AND HILDA HASHIMOTO ET AL., RECORDED JULY 20, 1987 IN LIBER 20934, PAGE 687 AFFECTING LOT 2 OF KAONOULU RANCH (LARGE-LOT) SUBDIVISION. (1.268 ACRES).
- EXISTING WATERLINE EASEMENT NO. 2 (25 FEET WIDE) IN FAVOR OF THE BOARD OF WATER SUPPLY, COUNTY OF MAUI, RECORDED DECEMBER 12, 1979 IN LIBER 14514, PAGE 194 AFFECTING LOT 2 OF KAONOULU RANCH (LARGE-LOT) SUBDIVISION. (1.967 ACRES). [PORTION TO BE DELETED]
- EXISTING DRAINAGE EASEMENT "D" (25 FEET WIDE) IN FAVOR OF THE COUNTY OF MAUI, RECORDED APRIL 9, 1990 IN DOCUMENT NO. 90-066551 AFFECTING LOTS 1 AND 2 OF KAONOULU RANCH (LARGE-LOT) SUBDIVISION. (6,728 SQUARE FEET). [PORTION TO BE DELETED]
- EXISTING ACCESS & UTILITY EASEMENT 4 IN FAVOR OF LOT 2 OF KAONOULU RANCH (LARGE-LOT) SUBDIVISION, RECORDED APRIL 5, 2006 IN DOCUMENT NO. 2006-054112 AFFECTING LOT 1 OF KAONOULU RANCH (LARGE-LOT) SUBDIVISION. (7.802 ACRES).
- EXISTING DRAINAGE EASEMENT IN FAVOR OF LOT 2 OF KAONOULU RANCH (LARGE-LOT) SUBDIVISION, RECORDED APRIL 5, 2006 IN DOCUMENT NO. 2006-054112 AFFECTING LOT 1 OF KAONOULU RANCH (LARGE-LOT) SUBDIVISION. (7.802 ACRES).
- EXISTING ACCESS & UTILITY EASEMENT "D" (44 FEET WIDE) IN FAVOR OF LOTS 1 AND 2 OF KAONOULU RANCH (LARGE-LOT) SUBDIVISION, RECORDED JANUARY 14, 2002 IN DOCUMENT NO. 2002-005668 AFFECTING LOT 1-A OF MAKA HEIGHTS TANK LOT SUBDIVISION. (48,731 SQUARE FEET).
- THERE EXISTS A UTILITY EASEMENT IN FAVOR OF MAUI ELECTRIC COMPANY, LIMITED AS RECORDED IN LIBER 12706, PAGE 32-44. (REDLINE EASEMENT).
- WATERLINE EASEMENT W-3 IN FAVOR OF THE DEPARTMENT OF WATER SUPPLY COUNTY OF MAUI AFFECTING LOT 1-A OF KAONOULU RANCH WATER TANK SUBDIVISION. (1.535 ACRES) [APPROVAL PENDING]



Warren S. Unemori
4/30/10
1/1/10
I, the undersigned, was prepared by me
under my supervision
Signature Date
of License Use

WARREN S. UNEMORI - ENGINEERING, INC.
2145 Wells Street - Suite 403
Honolulu, Hawaii 96813
FAX: (808)242-4403

FINAL SUBDIVISION APPROVAL

Subdivision File Number: 2.2795
Approved for Recordation with the Bureau of
Conveyances and Department of Taxation,
State of Hawaii.
Director of Public Works Date

KAONOULU MARKET PLACE

TAX MAP KEY: (2) 3-9-01 : 16

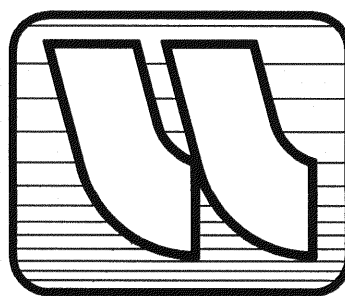
Waiohuli-Keokea, Kula, (Kihei), Maui, Hawaii

Subdivision File No. 2.2795 DWS SD. No. 03-90

Prepared for . . .

MAUI INDUSTRIAL PARTNERS, LLC.
Kihei, Maui, Hawaii

Prepared By . . .



WARREN S. UNEMORI ENGINEERING, INC.
Civil & Structural Engineers - Land Surveyor
Wells Street Professional Center - Suite 403
2145 Wells Street -Wailuku, Maui, Hawaii 96793

INDEX OF DRAWINGS:

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3.01	GRADING AND DRAINAGE AREA PLAN	12.03	DETAILS OF FITTINGS AT TIE-IN TO EXISTING 36" CONCRETE CYLINDER PIPE
3.02	DETAILED GRADING PLAN - PIILANI HIGHWAY	12.03B	DETAILS OF AMERON 36" CCP X FLANGE ADAPTER
3.03	DETAILED GRADING PLAN - KAONOULU STREET EXTENSION	12.04	WATER DETAILS
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4.10 - 4.15	CROSS SECTIONS - PIILANI HIGHWAY	12.06	DETAILS OF REINFORCED CONCRETE THRUST BEAMS FOR 12" OFFSITE WATERLINES
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5.10 - 5.11	PLAN & PROFILE - PIILANI HIGHWAY & DRAINAGE	12.13	STORAGE TANK LADDER DETAILS
5.20	PLAN & PROFILE - 102" DRAINLINE CROSSING PIILANI HIGHWAY	12.14	STORAGE TANK CONTROL VALVE
5.30	PLAN & PROFILE - 24" OFFSITE CULVERT	12.20	STORAGE TANK FLOOR STEEL PLAN
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7.03	PLAN & PROFILE - DITCH ALONG ACCESS ROAD TO DIVERSION DITCH	TS-1 - TS-7	TRAFFIC SIGNAL PLANS
7.04 - 7.05	CROSS SECTION - TEMPORARY ACCESS ROAD FROM OHUKAI ROAD	E-1 - E-6	ELECTRICAL PLANS
7.10 - 7.11	PLAN & PROFILE - DIVERSION DITCH	EM-1 - EM-2	INSTRUMENT HOUSE ENCLOSURE AND DETAILS
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7.13	TYPICAL SECTION - DIVERSION DITCH	LI-1 - LI-12	LANDSCAPE IRRIGATION PLANS
7.14	DIVERSION DITCH TRANSITION WALL SECTIONS	LP-SITE	LANDSCAPE PLANTING PLAN SHEET LAYOUT
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9.01A - 9.04	INTERSECTION DETAILS		
10.01 - 10.10	DRAINAGE DETAILS		
11.01	SEWER DETAILS		

APPROVED BY:

[Signature] 3/24/09
DIRECTOR DEPARTMENT OF PUBLIC WORKS
COUNTY OF MAUI
(Approval for work in County Right-of-Way Only)

[Signature] 03/03/2009
DIRECTOR DEPARTMENT OF WATER SUPPLY
COUNTY OF MAUI
(Approval is limited to the Water System Improvements which will be dedicated to the Department of Water Supply)

[Signature] 3/6/2009
CHIEF, ENVIRONMENTAL MANAGEMENT DIVISION
STATE OF HAWAII

[Signature] 2/25/09
CHIEF, HIGHWAYS DIVISION DEPARTMENT OF TRANSPORTATION
STATE OF HAWAII
(Approval Granted for Work Within State Right-of-Way Only)
Letter of Approval No. HWT-M-2096-09 Date 2/25/09
I.D. No. ME 05-40
* Per added State DOT conditions outlined on above referenced letter

RE-APPROVED BY:

[Signature] 7/1/10
DIRECTOR DEPARTMENT OF PUBLIC WORKS
COUNTY OF MAUI
(Approval for work in County Right-of-Way Only)
[Signature] 6/29/2012
DIRECTOR DEPARTMENT OF WATER SUPPLY
COUNTY OF MAUI
(Approval is limited to the Water System Improvements which will be dedicated to the Department of Water Supply)

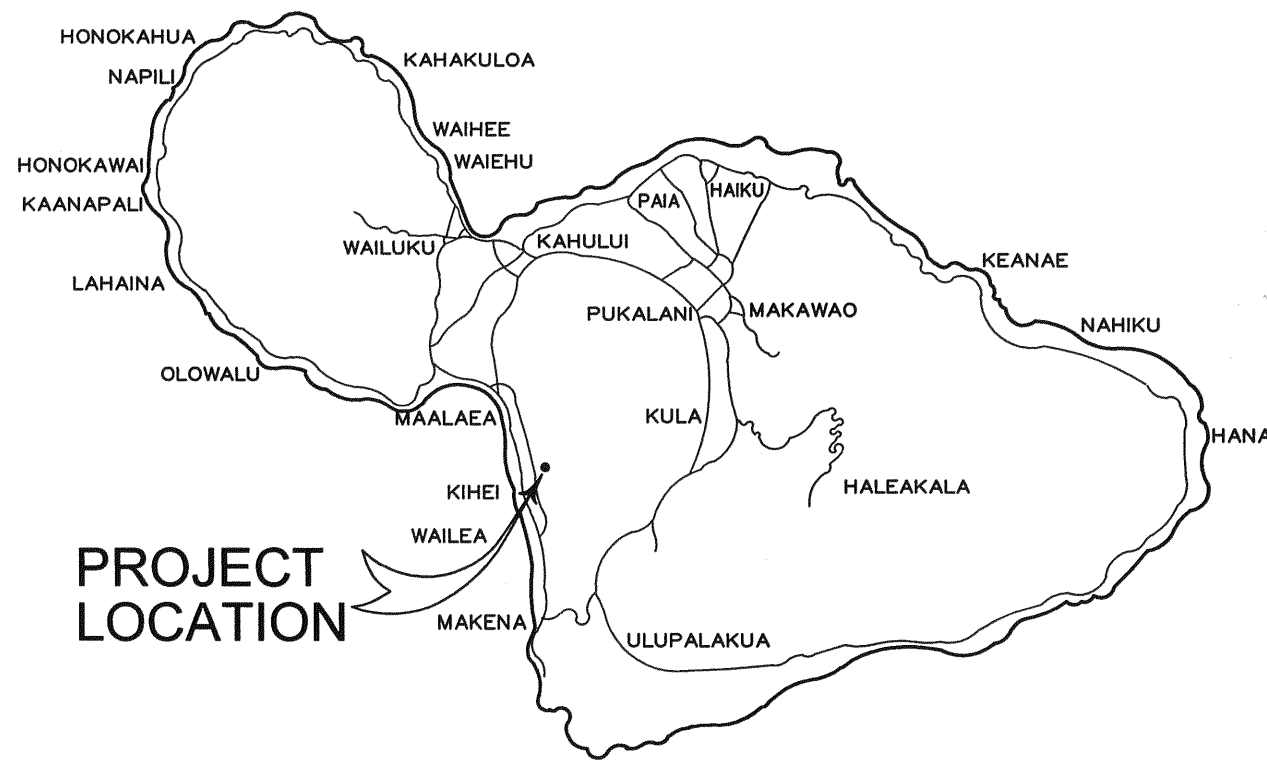
CHIEF, HIGHWAYS DIVISION DEPARTMENT OF TRANSPORTATION, STATE OF HAWAII
(Approval Granted for Work Within State Right-of-Way Only)
Letter of Approval No. HWT-M 2,096-09 Date 2/25/09
I.D. No. ME 05-40. Approval subject to State DOT conditions outlined in above referenced letter with the added condition that a Permit to Perform Work cannot be issued until Chapter 343 requirements are satisfied.

RE-APPROVED BY:

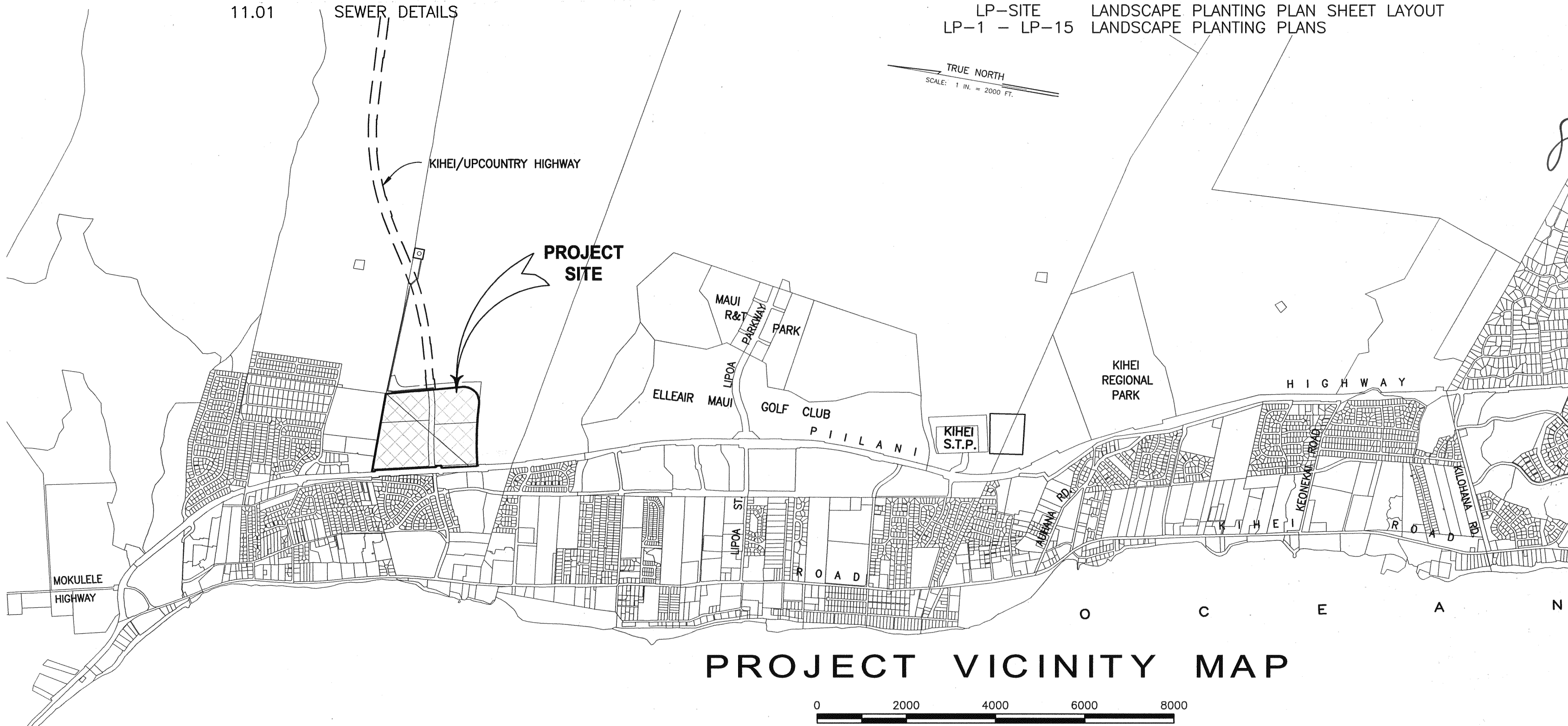
[Signature] 4-27-11
DIRECTOR DEPARTMENT OF PUBLIC WORKS
COUNTY OF MAUI
(Approval for work in County Right-of-Way Only)

RE-APPROVED BY:

[Signature] 4-8-15
DIRECTOR DEPARTMENT OF PUBLIC WORKS
COUNTY OF MAUI
(Approval for work in County Right-of-Way Only)

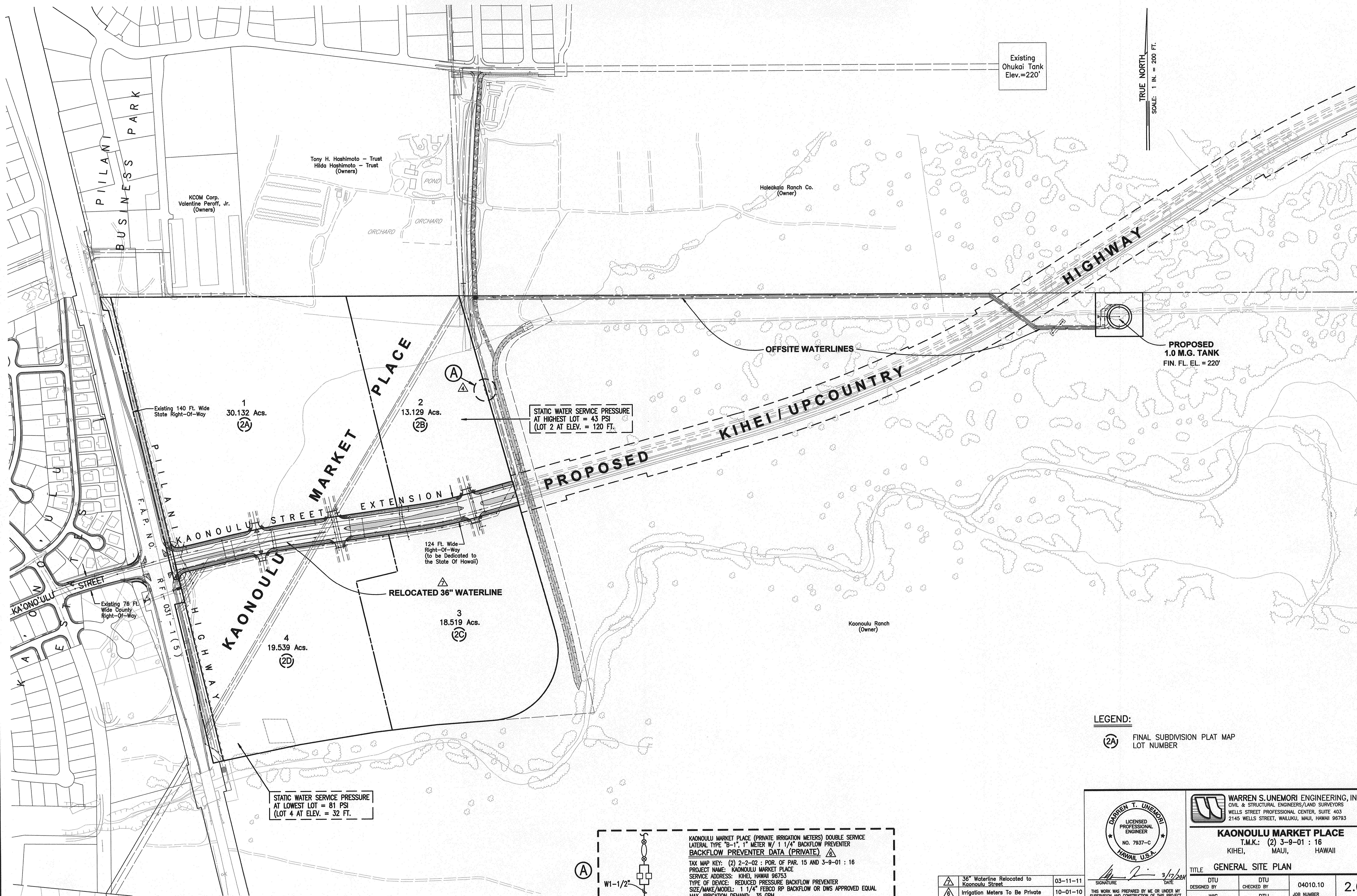


ISLAND OF MAUI
NOT TO SCALE



PROJECT VICINITY MAP

\\projdata\cprproj\04010101.dwg(2004) completed\STEP\AND.dwg



LEGEND:

(2A) FINAL SUBDIVISION PLAT MAP
LOT NUMBER

KAONOULU MARKET PLACE (PRIVATE IRRIGATION METERS) DOUBLE SERVICE LATERAL TYPE "B-1", 1" METER W/ 1 1/4" BACKFLOW PREVENTER

BACKFLOW PREVENTER DATA (PRIVATE)

TAX MAP KEY: (2) 2-2-02 : POR. OF PAR. 15 AND 3-9-01 : 16

PROJECT NAME: KAONOULU MARKET PLACE

SERVICE ADDRESS: KIHAI, HAWAII 96753

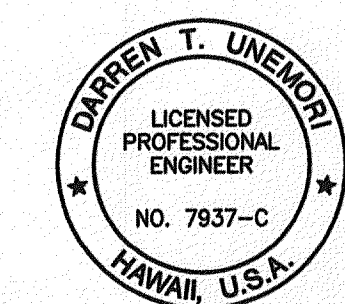
TYPE OF DEVICE: REDUCED PRESSURE BACKFLOW PREVENTER

SIZE/MAKE/MODEL: 1 1/4" FEBCO RP BACKFLOW OR DWS APPROVED EQUAL

MAX. IRRIGATION DEMAND: 35 GPM

SOURCE: OWNER FURNISHED ON-SITE WELL (BY OTHERS)

7	36" Waterline Relocated to Kaonoulu Street	03-11-11
6	Irrigation Meters To Be Private	10-01-10
4	Revised Irrigation Source	12-12-08
LETTER	DESCRIPTION	DATE



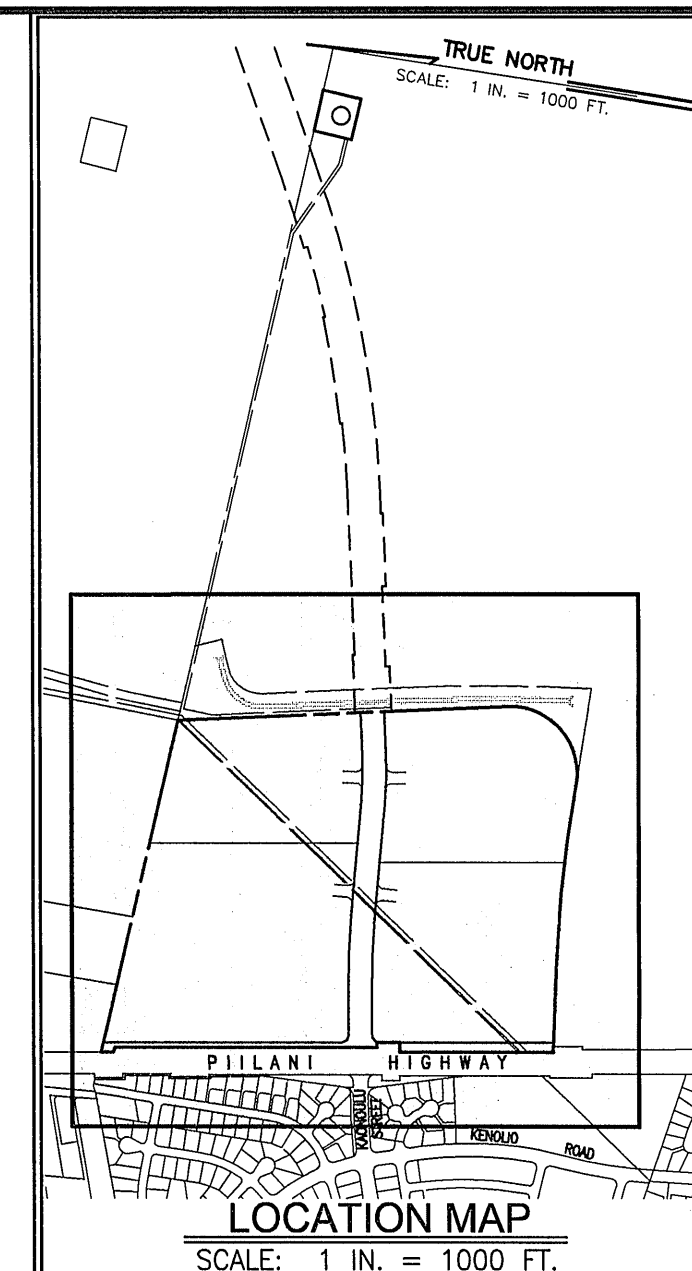
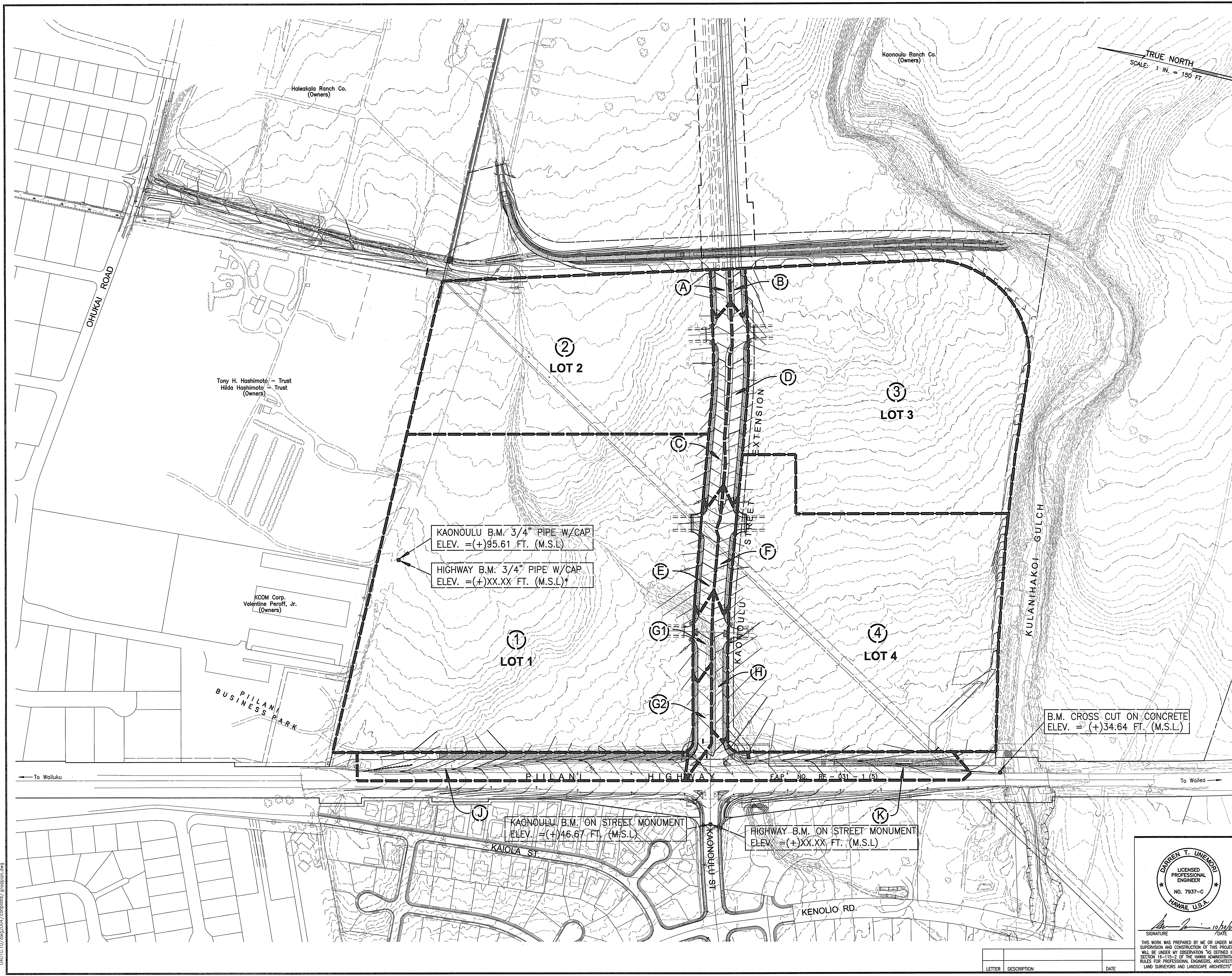
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION "AS DEFINED IN SECTION 16-115-2 OF THE HAWAII ADMINISTRATIVE RULES FOR PROFESSIONAL ENGINEERS, ARCHITECTS, LAND SURVEYORS AND LANDSCAPE ARCHITECTS"

WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

KAONOULU MARKET PLACE
T.M.K.: (2) 3-9-01 : 16
KIHAI, MAUI, HAWAII

TITLE: GENERAL SITE PLAN

DTU	DTU	04010.10	2.01
DESIGNED BY	CHECKED BY	JOB NUMBER	
WIS	DTU	10-10-05	SHEET
DRAWN BY	APPROVED BY	DATE	
SCALE 1 in. = 200 ft.			OF SHEETS



- LEGEND:**
- 80 ——— FINISH GRADE W/ ELEVATION
 - 80 - - - EXISTING GRADE W/ ELEVATION
 - - - DRAINAGE AREA LIMITS
 - (25) DRAINAGE AREA NUMBER
- APPROXIMATE EARTHWORK QUANTITIES**
- EXCAVATION = 42,400 CU.YD.
EMBANKMENT = 44,000 CU.YD.
APPROX. GRADING AREA=29.0± ACRES

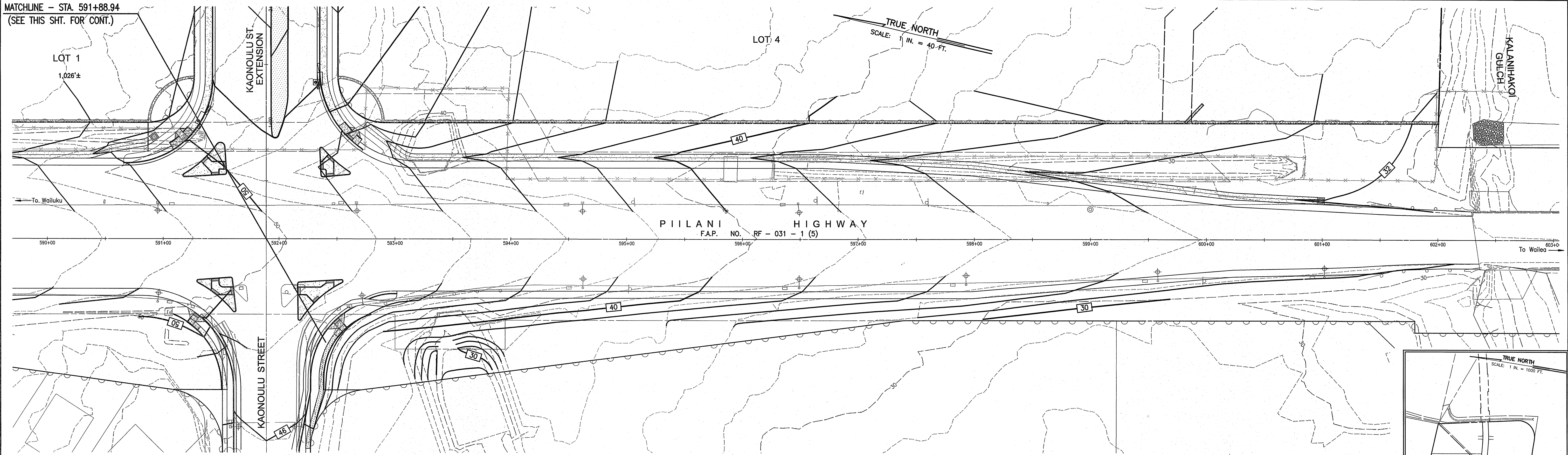
WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

KAONOULU MARKET PLACE
T.M.K.: (2) 3-9-01 : 16
KIHEI, MAUI, HAWAII

TITLE: GRADING AND DRAINAGE AREA PLAN	
DESIGNED BY: ALU	CHECKED BY: DTU
DRAWN BY: WIS	APPROVED BY: DTU
SCALE: 1 in. = 150 ft.	
DATE: 10-10-05	
SHEET: 3.01	

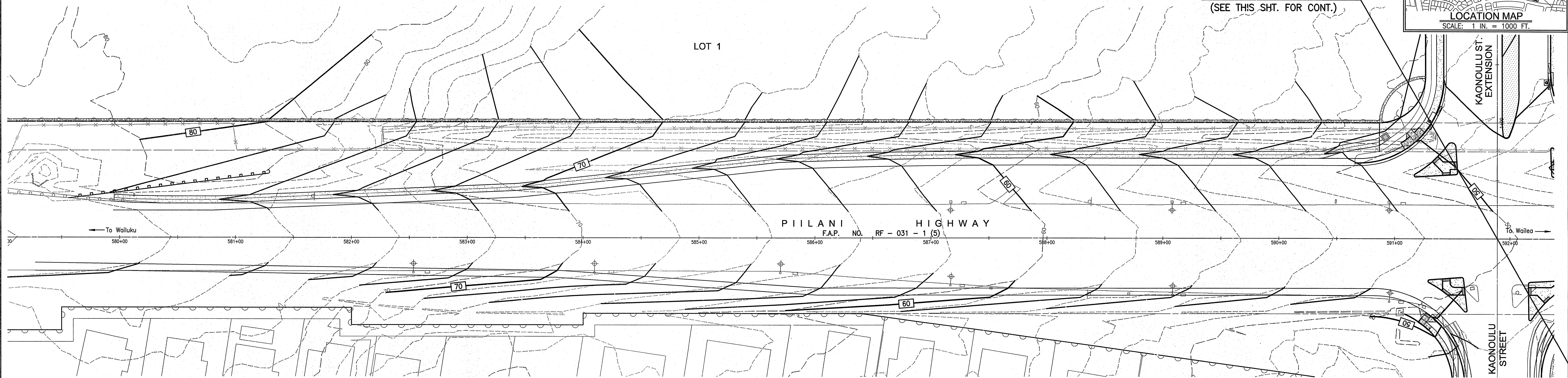
04010.10/4w2004/corplans/gradplan.dwg

MATCHLINE - STA. 591+88.94
(SEE THIS SHT. FOR CONT.)

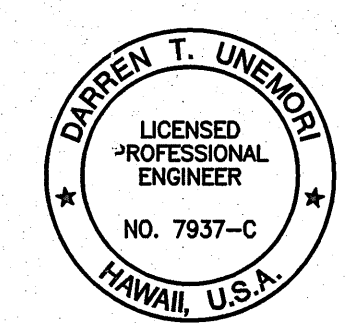
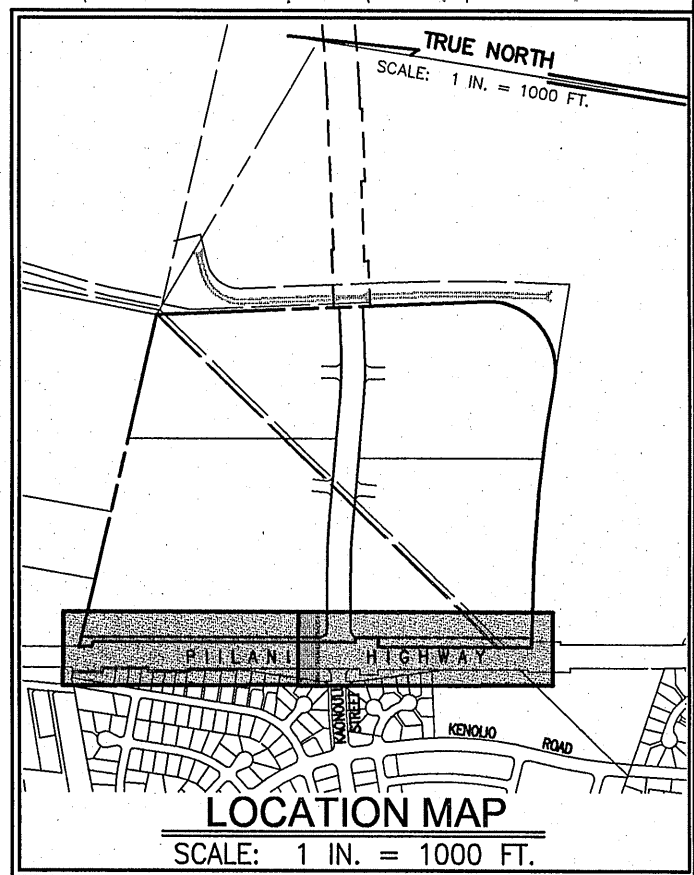


PIILANI HIGHWAY
(STA. 590+00 TO 602+00)
Scale: 1 in. = 40 ft.

MATCHLINE - STA. 591+88.94
(SEE THIS SHT. FOR CONT.)



PIILANI HIGHWAY
(STA. 578+50 TO 590+00)
Scale: 1 in. = 40 ft.



WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

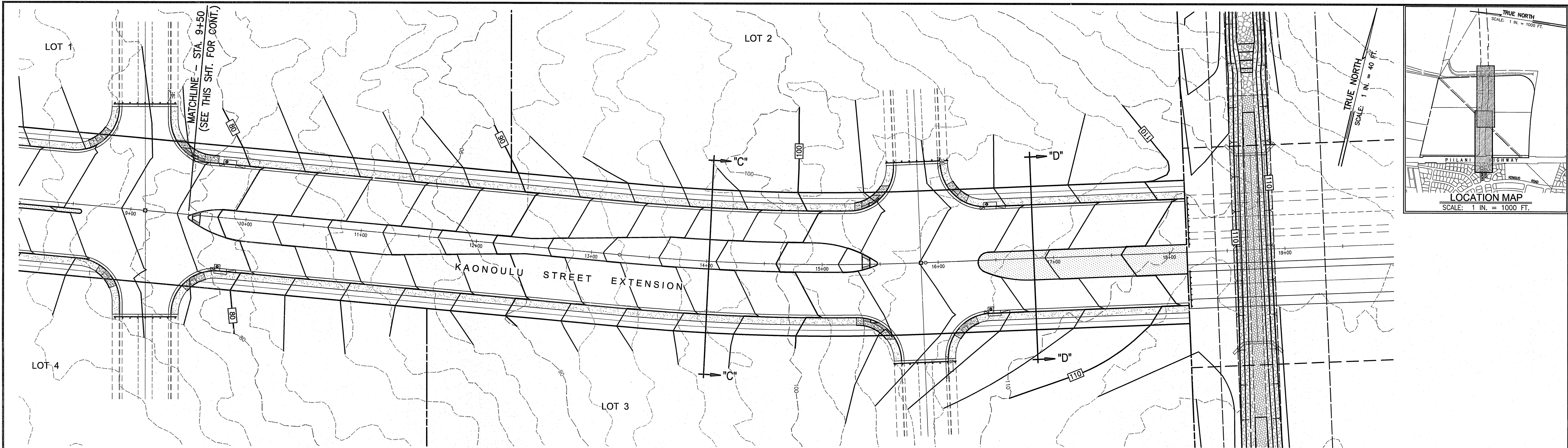
KAONOULU MARKET PLACE
T.M.K.: (2) 2-2-02 : Por. of Par. 15 and 3-9-01 : 16
KIHAI, MAUI, HAWAII

TITLE DETAILED GRADING PLAN - PIILANI HIGHWAY

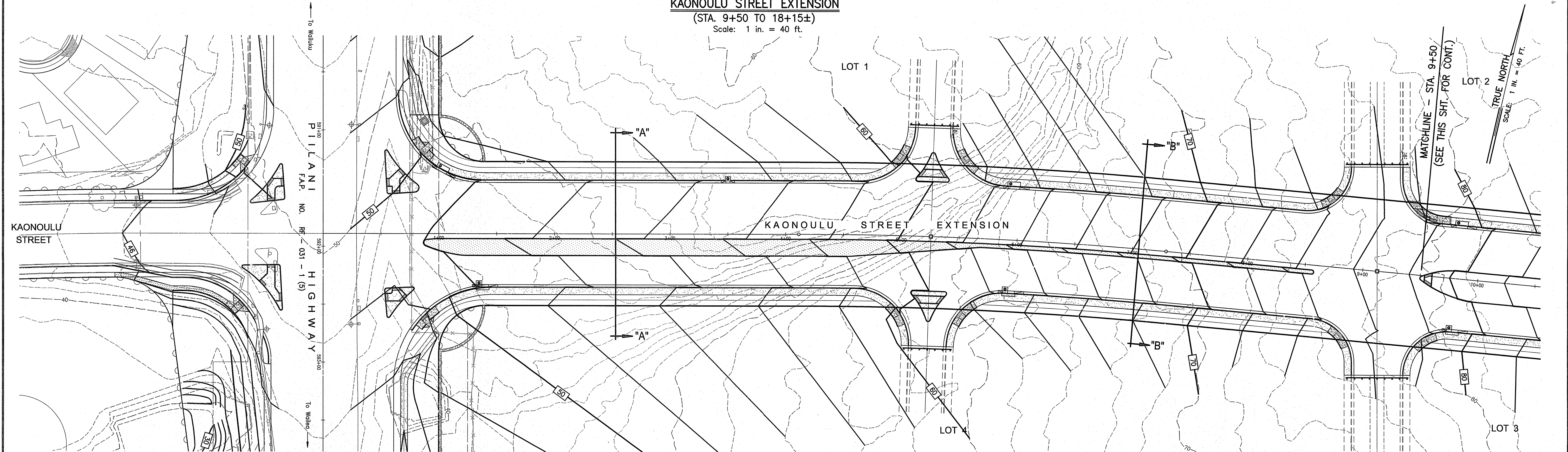
ALU DESIGNED BY	DTU CHECKED BY	04010.10 JOB NUMBER	3.02 SHEET
WIS DRAWN BY	DTU APPROVED BY	10-10-05 DATE	OF SHEETS
SCALE 1 in. = 40 ft.			

SIGNATURE
DATE
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION AS DEFINED IN SECTION 10-115-2 OF THE HAWAII ADMINISTRATIVE RULES FOR PROFESSIONAL ENGINEERS, ARCHITECTS, LAND SURVEYORS AND LANDSCAPE ARCHITECTS

LETTER	DESCRIPTION	DATE



KAONOULU STREET EXTENSION
(STA. 9+50 TO 18+15±)
Scale: 1 in. = 40 ft.



KAONOULU STREET EXTENSION
(STA. 0+00 TO 9+50)
Scale: 1 in. = 40 ft.

04010.10.dwg/2004/complan/grad0040c.dwg

WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

KAONOULU MARKET PLACE
T.M.K.: (2) 2-2-02 : Por. of Par. 15 and 3-9-01 : 16
KIHAI, MAUI, HAWAII

DETAILED GRADING PLAN -
TITLE: KAONOULU STREET EXTENSION

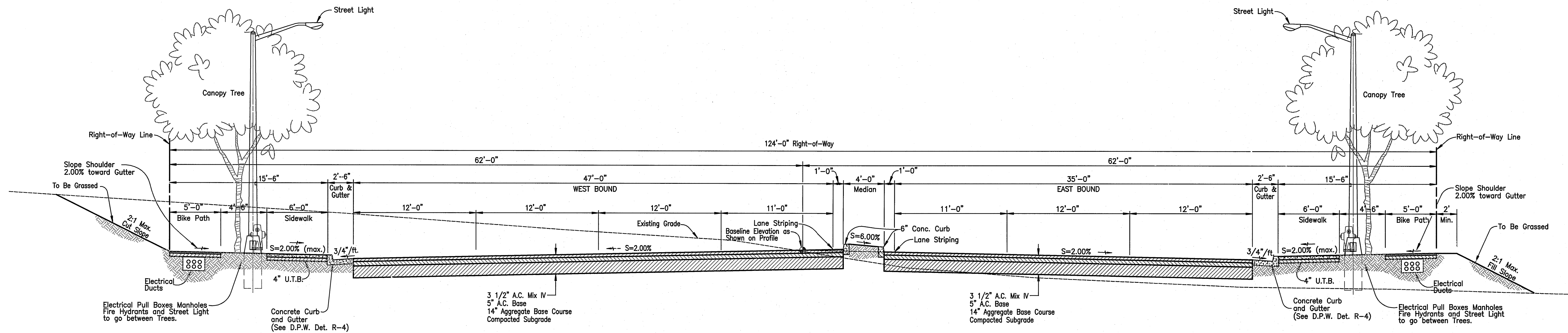
SCALE: 1 in. = 40 ft.

04010.10
JOB NUMBER

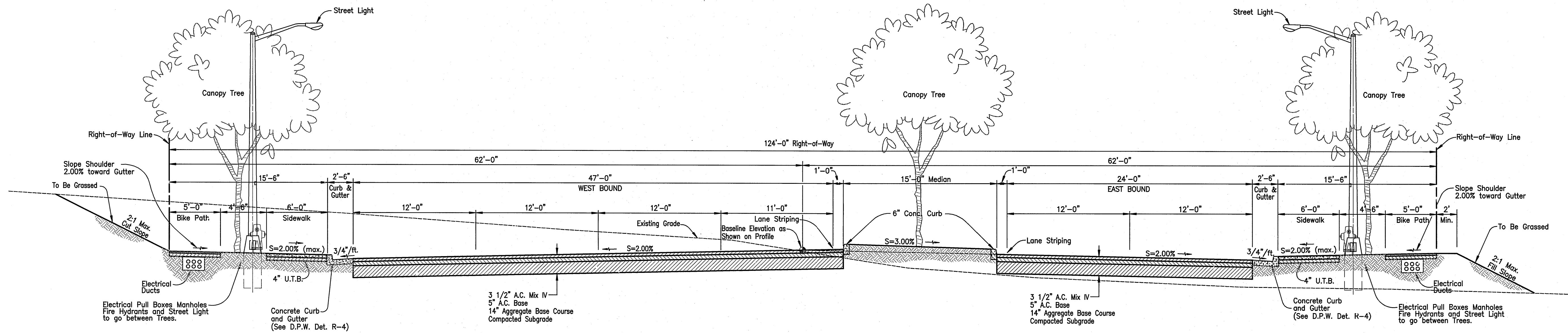
3.03
SHEET

10-10-05
DATE

OF SHEETS



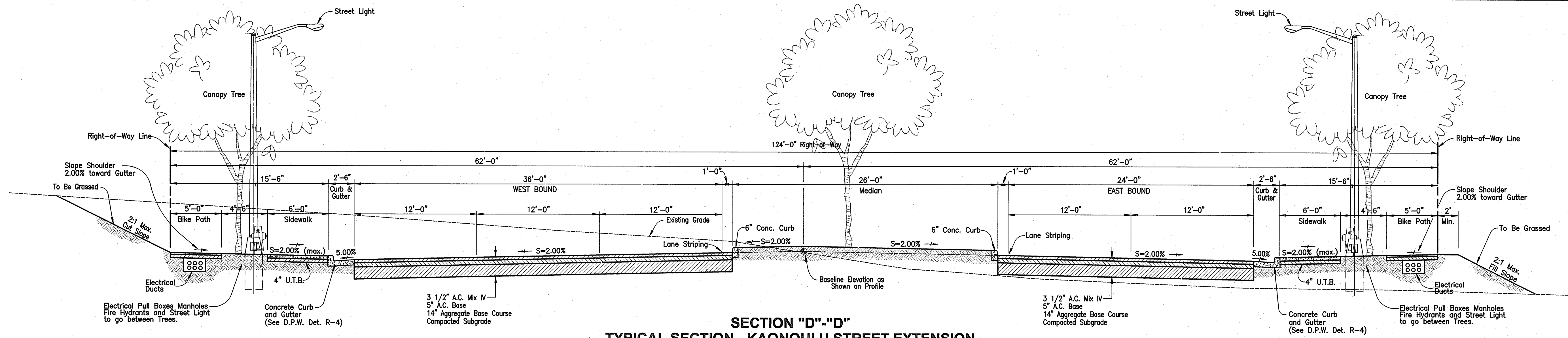
SECTION "B"-"B"
TYPICAL SECTION - KAONOULU STREET EXTENSION
 SCALE: 3/16" = 1'-0"



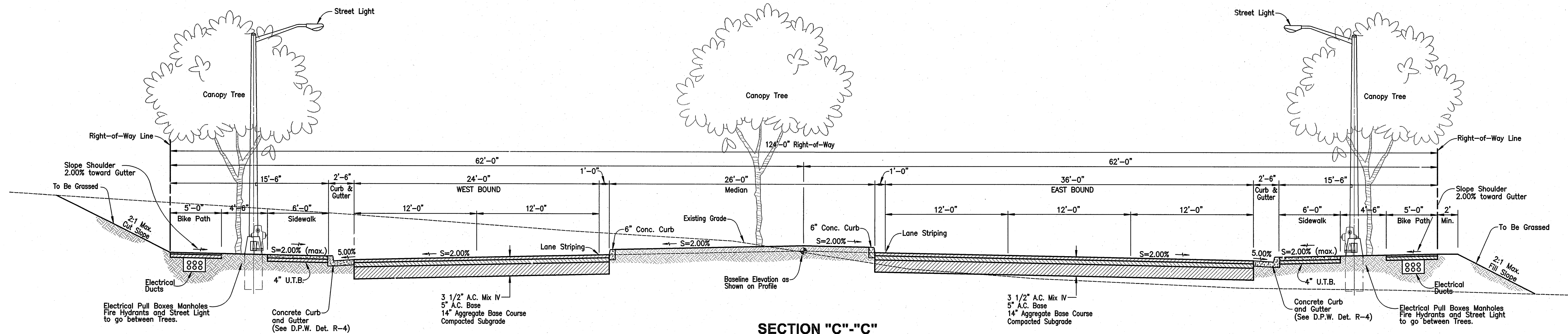
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TYPICAL SECTION - KAONOULU STREET EXTENSION
 SCALE: 3/16" = 1'-0"

04010.10.dwg 2/2/2004 1:04:00 PM 1/25/2004 1:04:00 PM

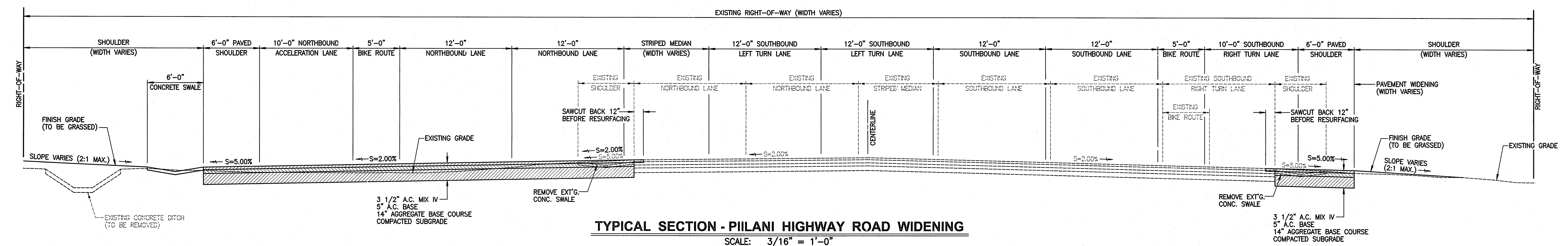
		WARREN S. UNEMORI ENGINEERING, INC. CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS WELLS STREET PROFESSIONAL CENTER, SUITE 403 2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793	
		KAONOULU MARKET PLACE T.M.K.: (2) 2-2-02 : Por. of Par. 15 and 3-9-01 : 16 KIHAEI, MAUI, HAWAII	
TITLE: KAONOULU STREET EXTENSION		SCALE: As Shown	
DESIGNED BY: ALU DRAWN BY: WIS	CHECKED BY: WSU APPROVED BY: WSU	JOB NUMBER: 04010.10 DATE: 10-10-05	4.01 SHEET OF SHEETS



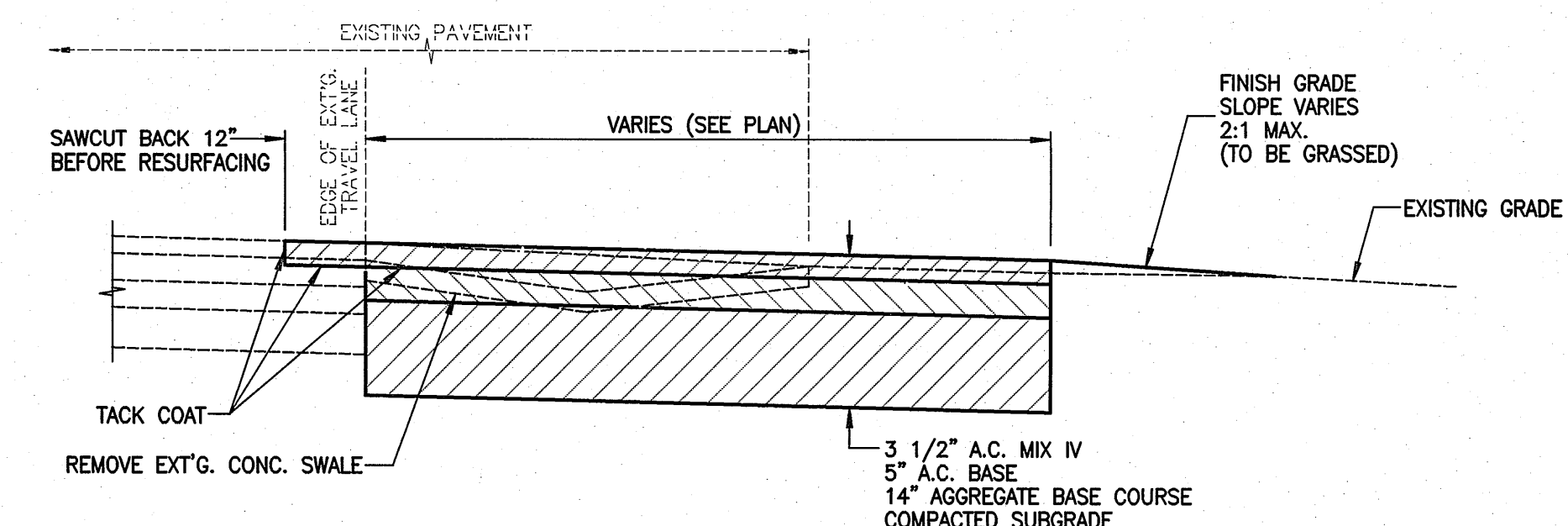
SECTION "D"-"D"
TYPICAL SECTION - KAONOULU STREET EXTENSION
 SCALE: 3/16" = 1'-0"



SECTION "C"-"C"
TYPICAL SECTION - KAONOULU STREET EXTENSION
 SCALE: 3/16" = 1'-0"



TYPICAL SECTION - PIILANI HIGHWAY ROAD WIDENING
 SCALE: 3/16" = 1'-0"



DETAIL - PAVEMENT WIDENING / CONNECTION
 NOT TO SCALE

WARREN S. UNEMORI ENGINEERING, INC.
 CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
 WELLS STREET PROFESSIONAL CENTER, SUITE 403
 2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

KAONOULU MARKET PLACE
 T.M.K.: (2) 2-2-02 : Por. of Par. 15 and 3-9-01 : 16
 KIHU, MAUI, HAWAII

TYPICAL SECTIONS
 TITLE KAONOULU STREET EXTENSION & PIILANI HIGHWAY

DESIGNED BY	CHECKED BY	DATE
WIS	DTU	10-10-05
DRAWN BY	APPROVED BY	

SCALE: As Shown

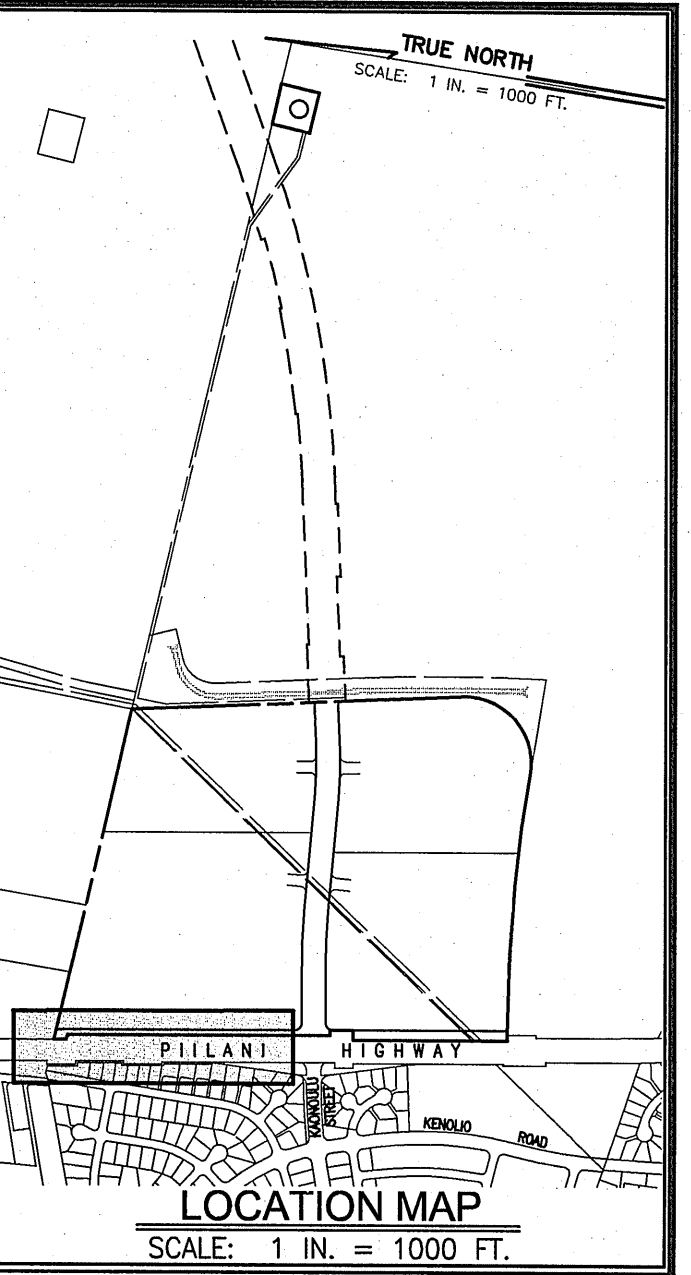
04010.10
 JOB NUMBER

4.02
 SHEET

10-10-05
 DATE

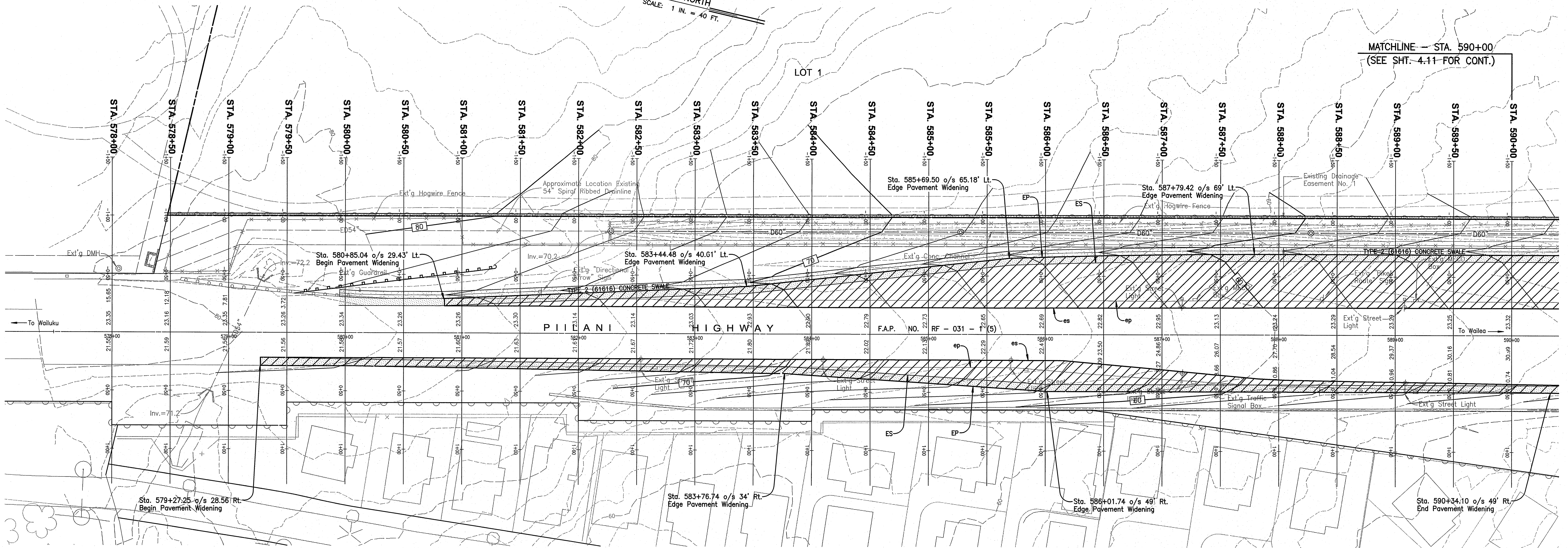
OF SHEETS

D:\010.10\dwg\2004\complan\typsec00.dwg



TRUE NORTH
SCALE: 1 IN. = 40 FT.

MATCHLINE — STA. 590+00
(SEE SHT. 4-11 FOR CONT.)



LEGEND:

- es = Existing Edge Stripe
- ep = Existing Edge Pavement
- ES = Proposed Edge Stripe
- EP = Proposed Edge Pavement

WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

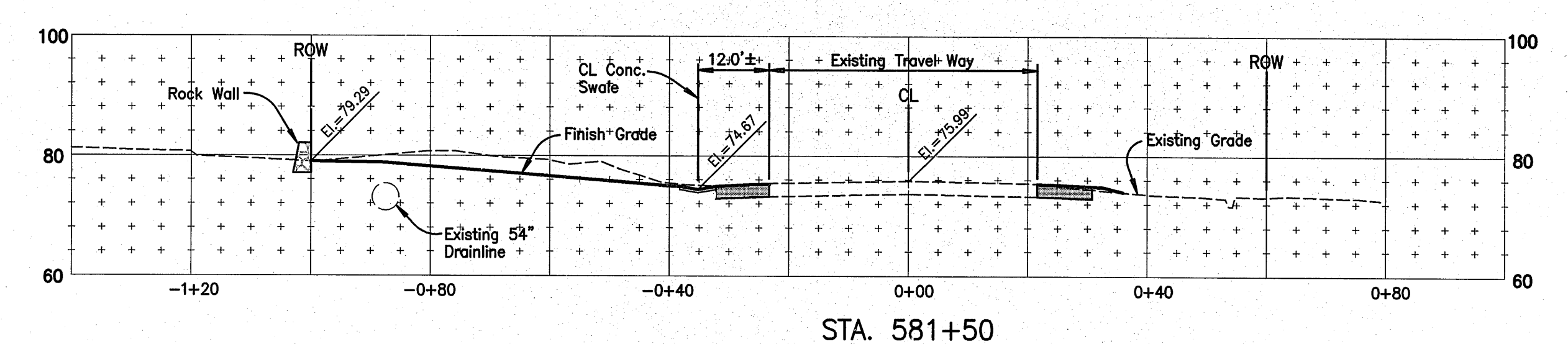
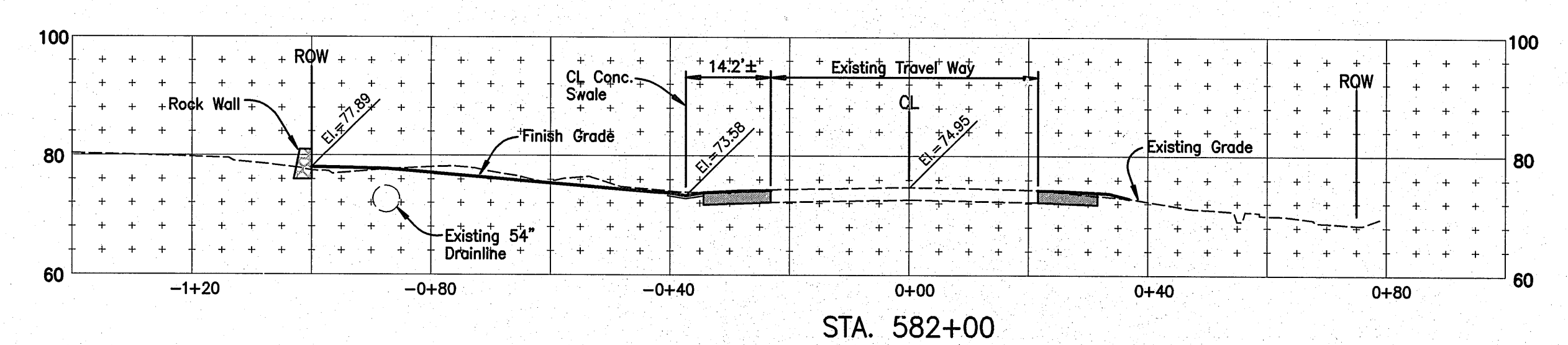
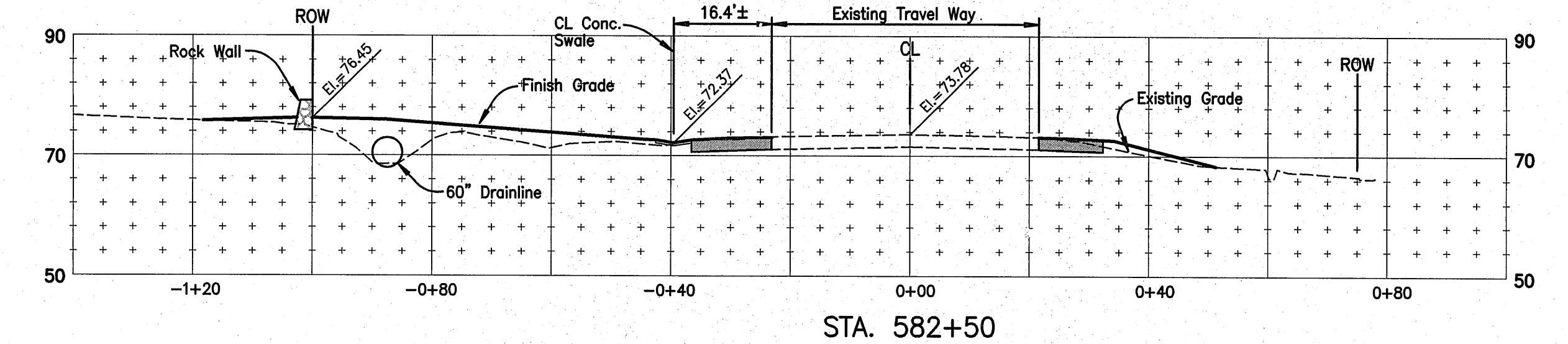
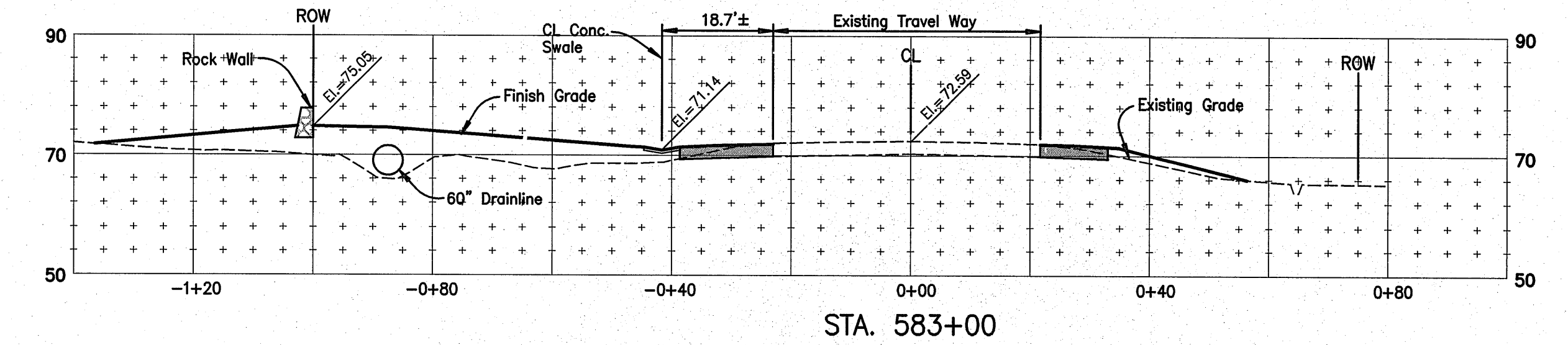
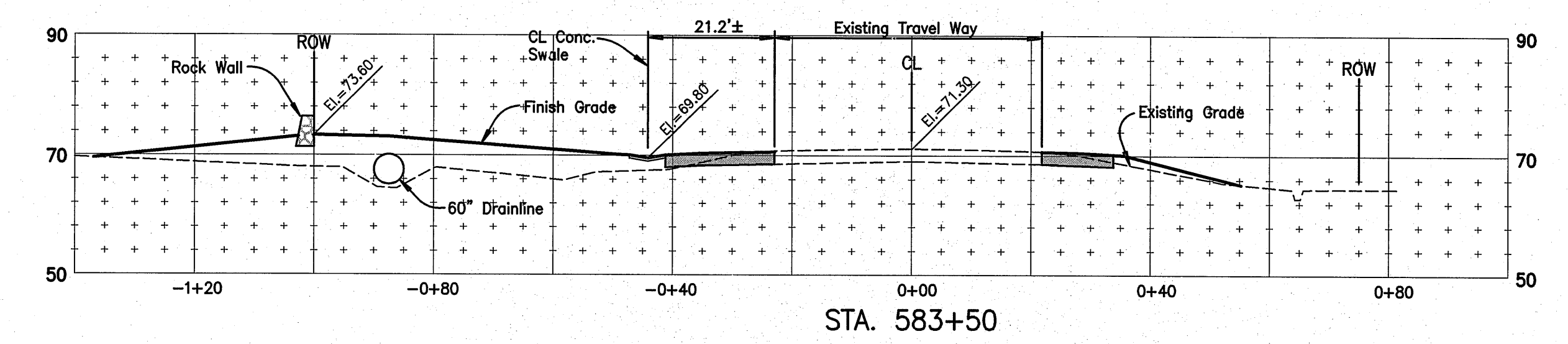
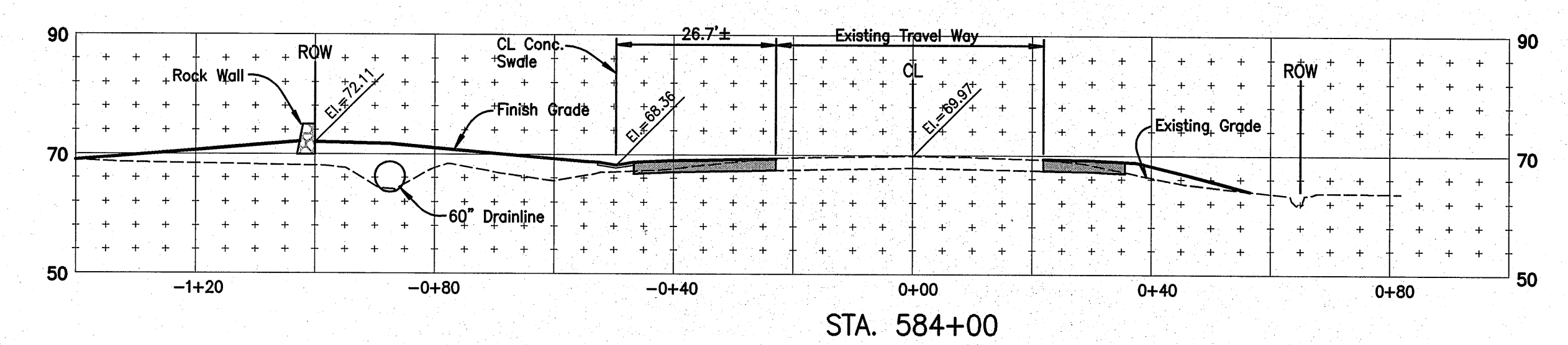
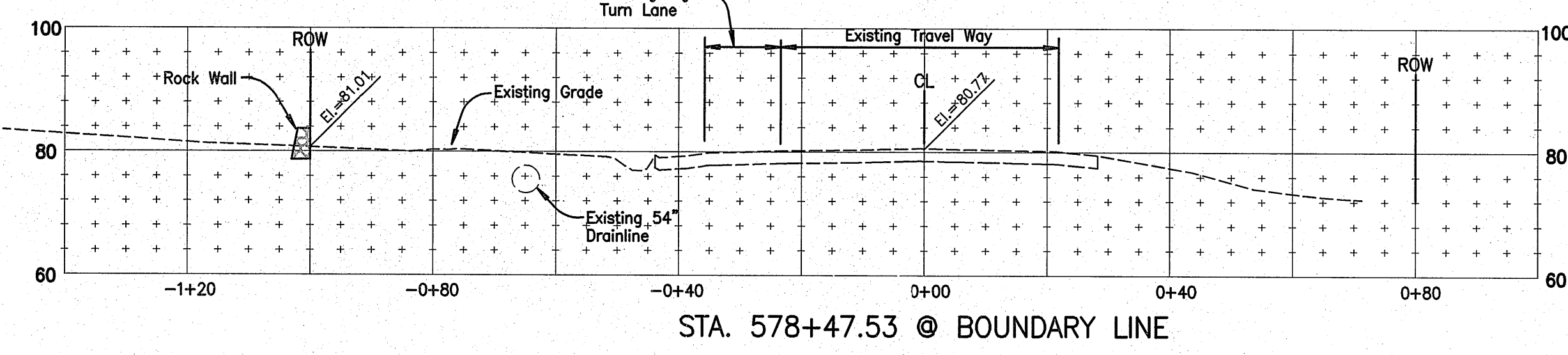
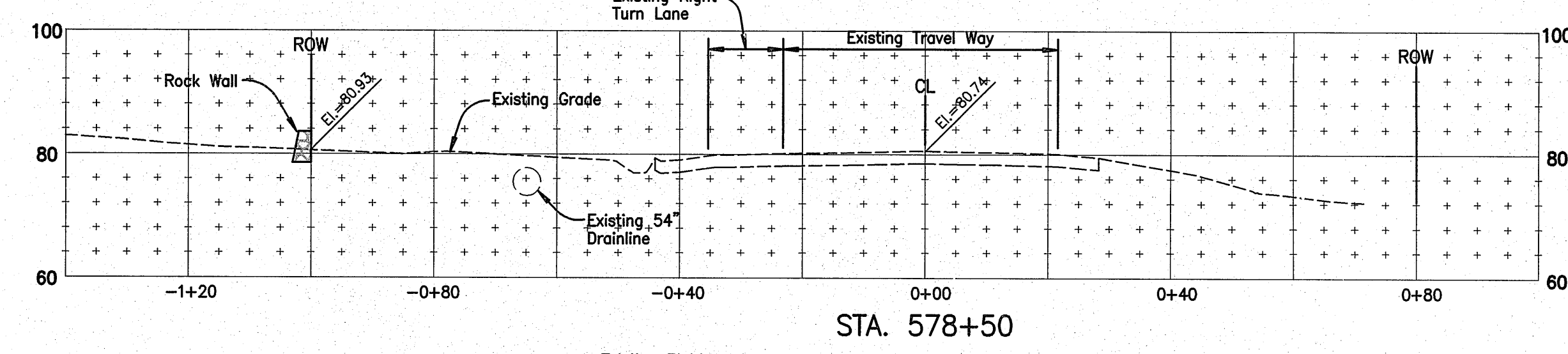
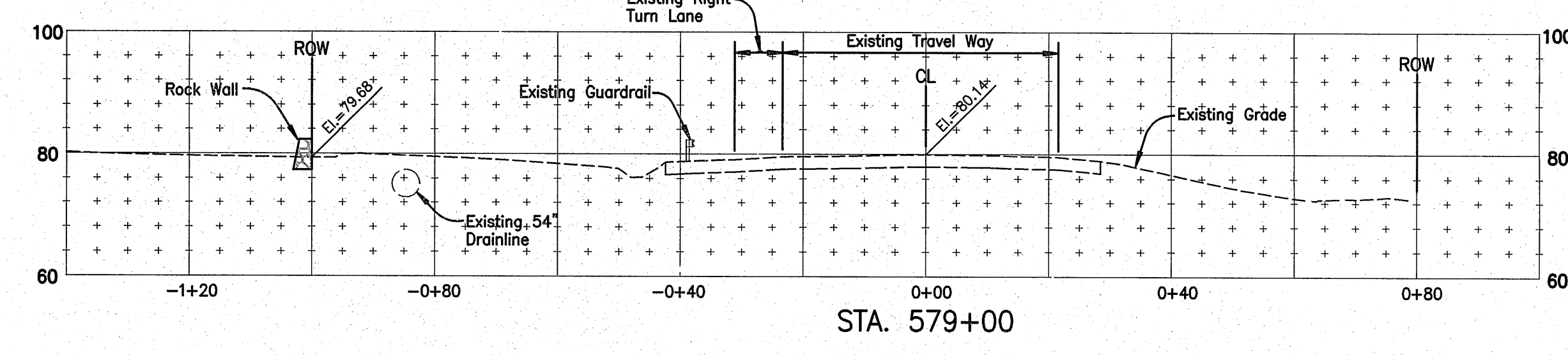
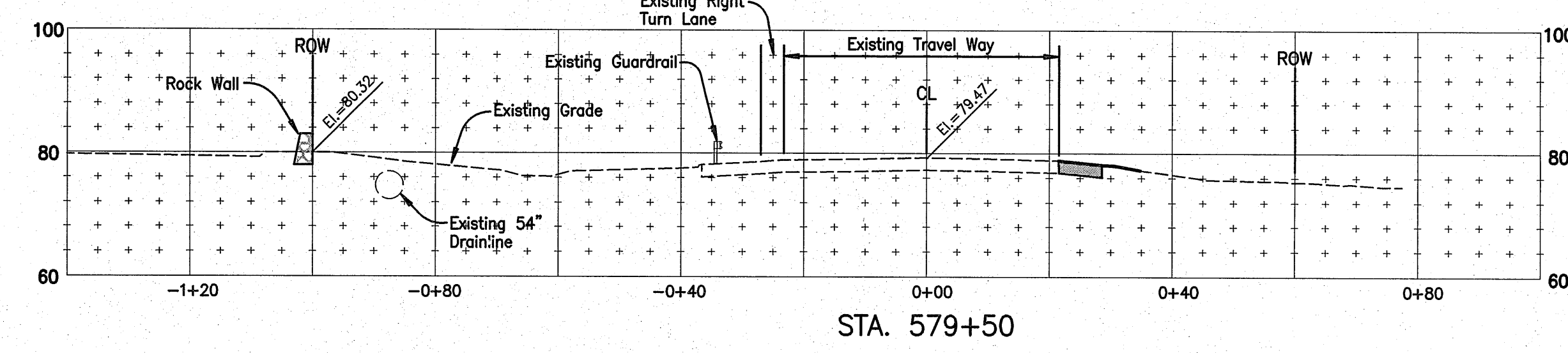
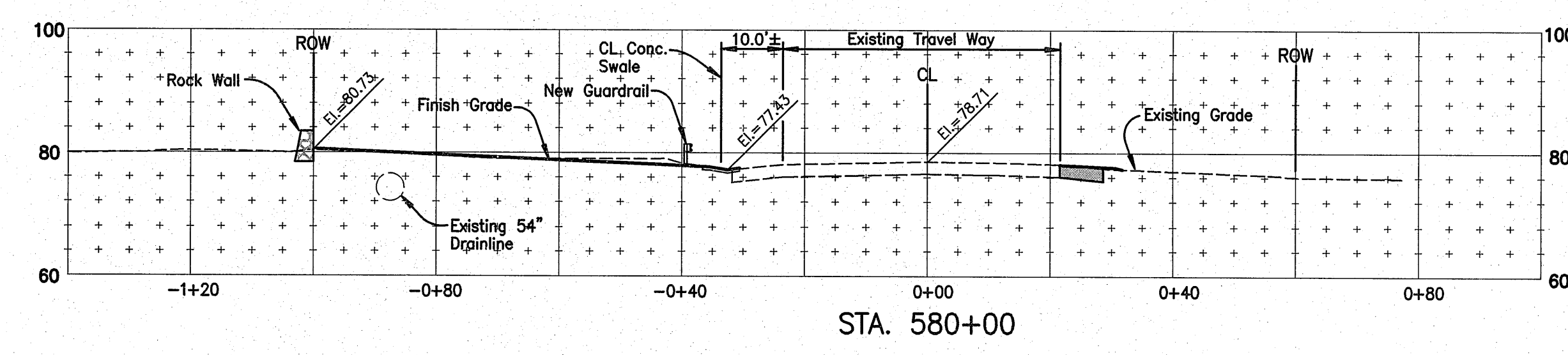
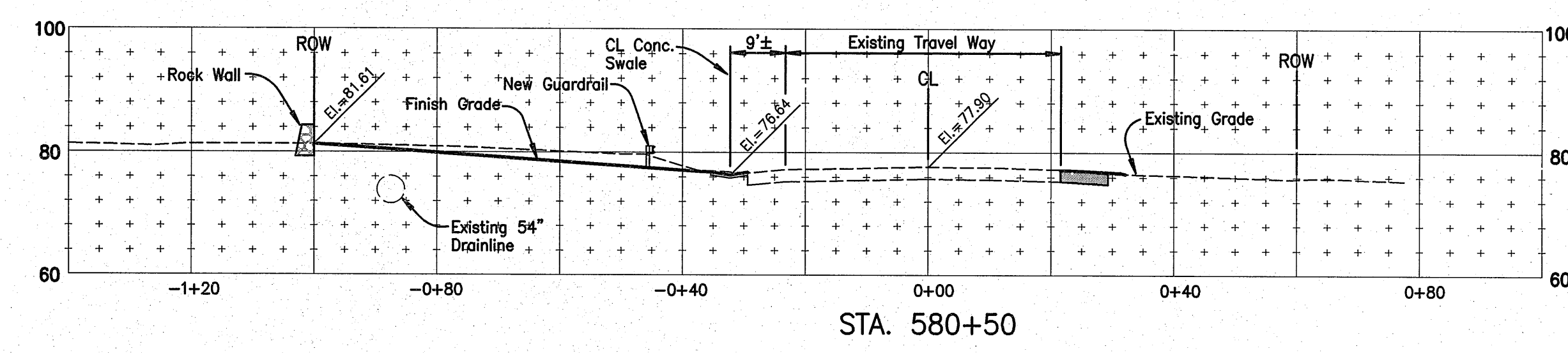
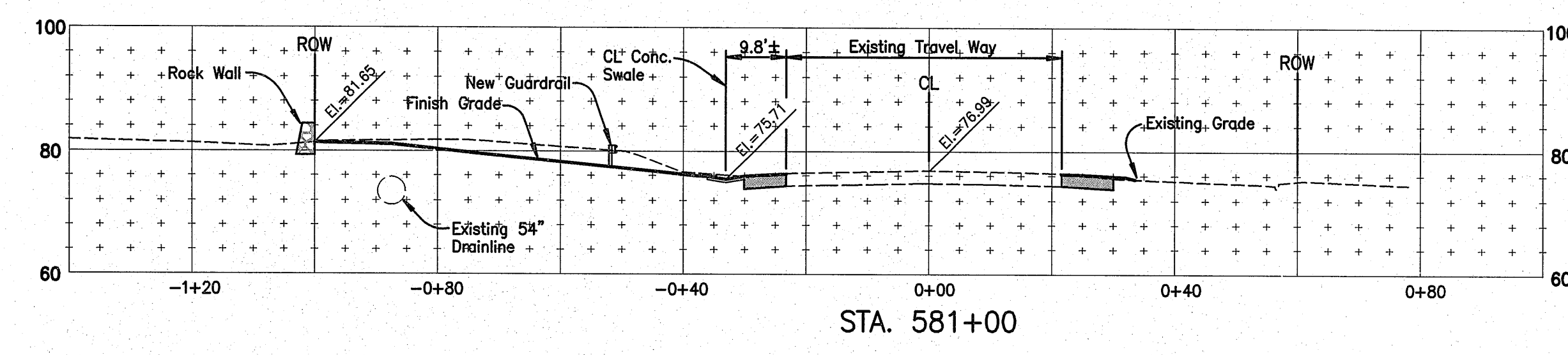
KAONOULU MARKET PLACE
T.M.K.: (2) 2-2-02 : Por. of Par. 15 and 3-9-01 : 16
KIHEI, MAUI, HAWAII

CROSS SECTION — PIILANI HIGHWAY

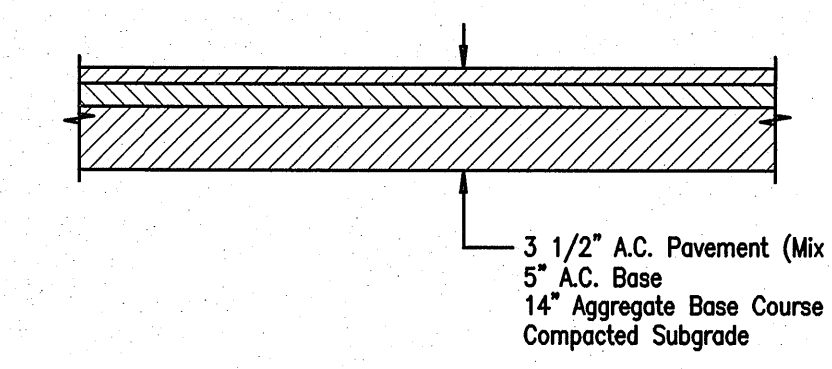
ALU	DTU	04010.10	4.10
WIS	DTU	JOB NUMBER	
DRAWN BY	APPROVED BY	10-10-05	SHEET
SCALE 1 in. = 40 ft.	DATE	OF SHEETS	

SIGNATURE: DATE: 1/29/09

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION "AS DEFINED IN SECTION 16-115-2 OF THE HAWAII ADMINISTRATIVE RULES FOR PROFESSIONAL ENGINEERS, ARCHITECTS, LAND SURVEYORS AND LANDSCAPE ARCHITECTS"



CROSS SECTIONS
 Scale: Horiz. 1" = 20'
 Vert. 1" = 20'



TYPICAL PAVEMENT SECTION FOR PILI HIGHWAY WIDENING
 NOT TO SCALE

WARREN S. UNEMORI ENGINEERING, INC.
 CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
 2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

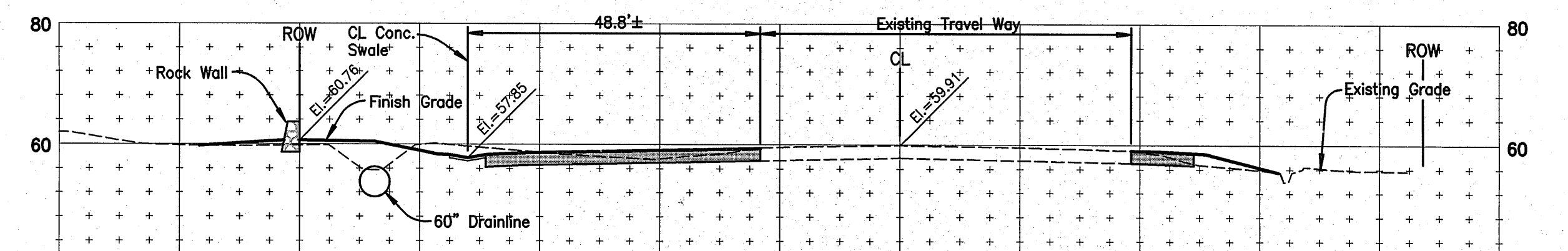
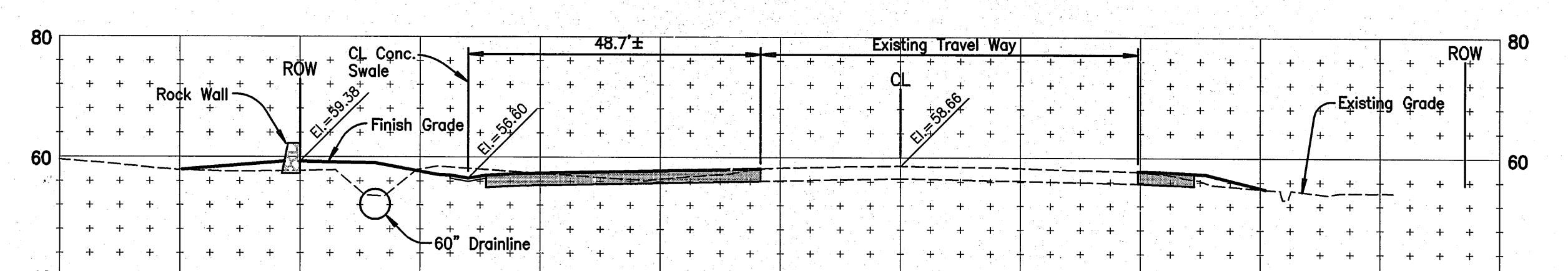
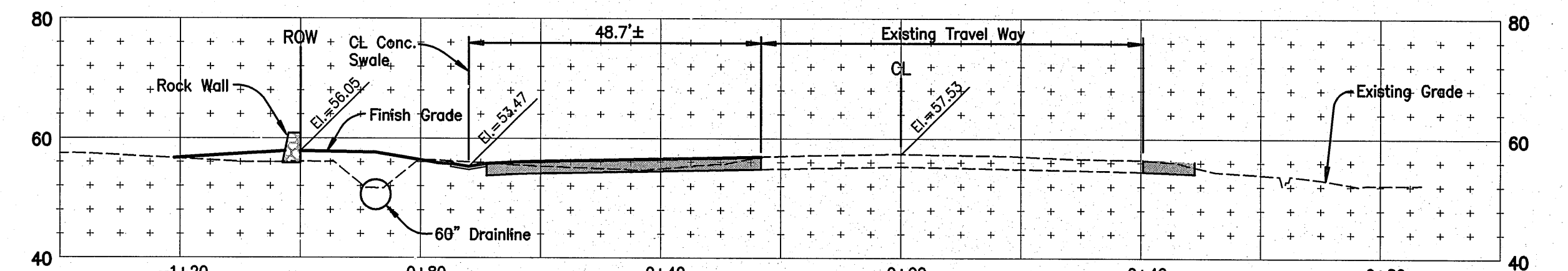
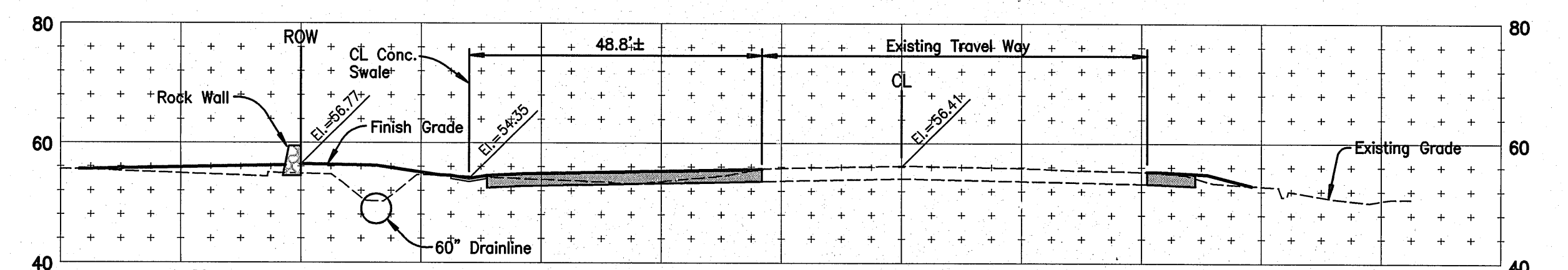
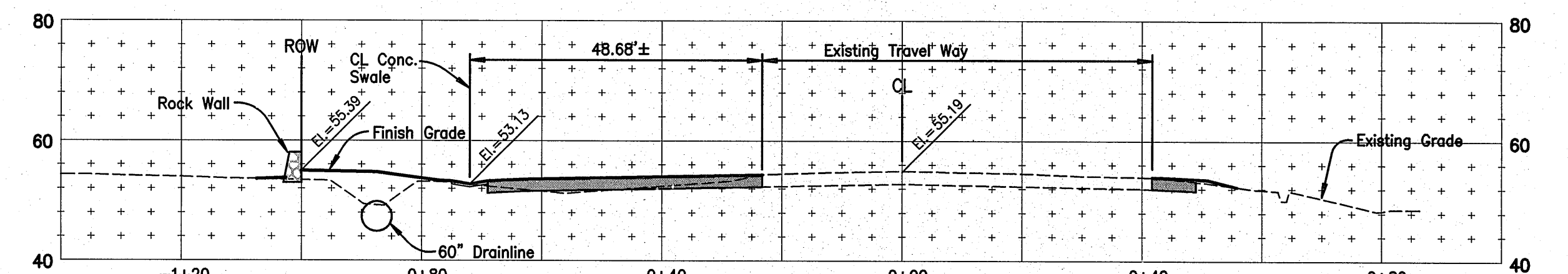
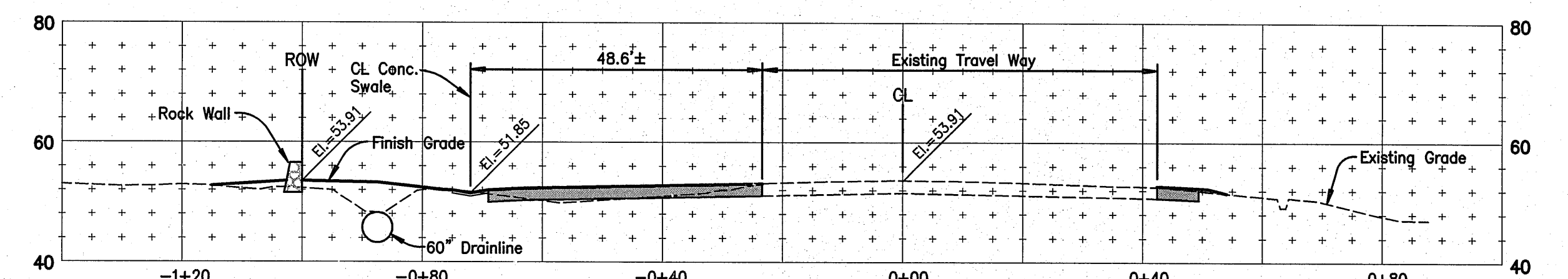
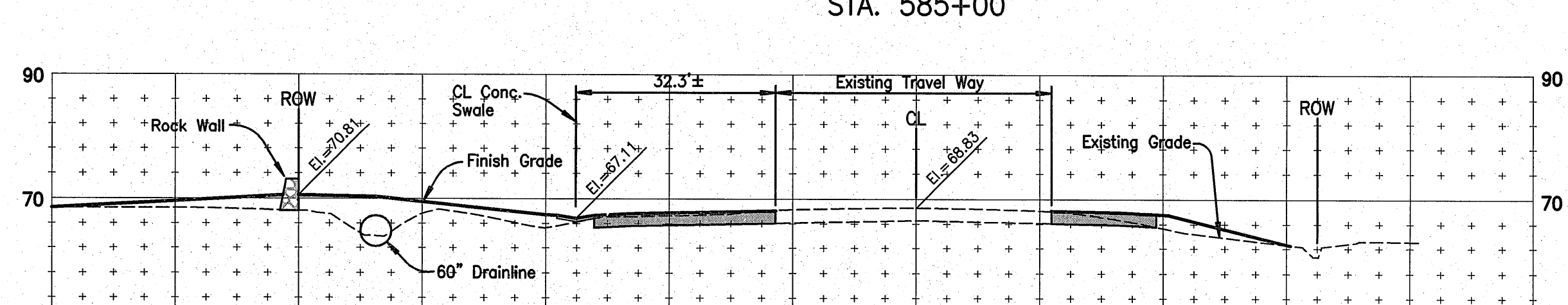
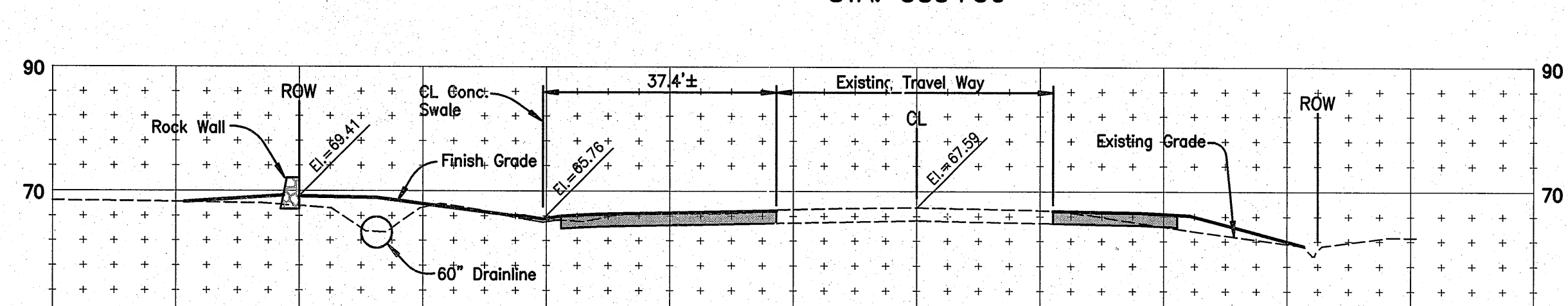
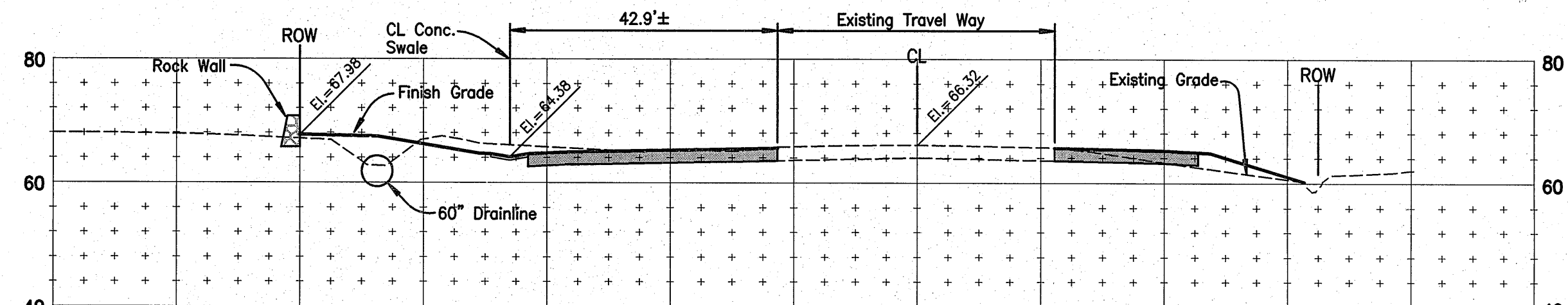
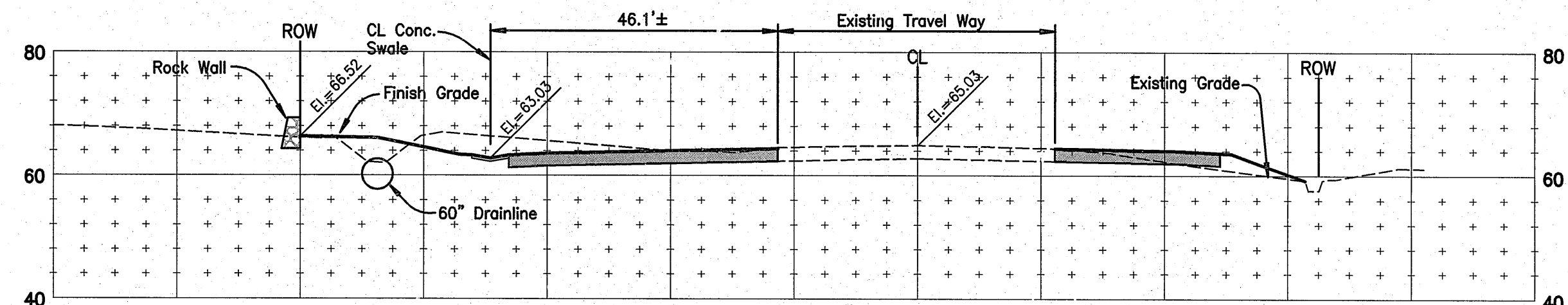
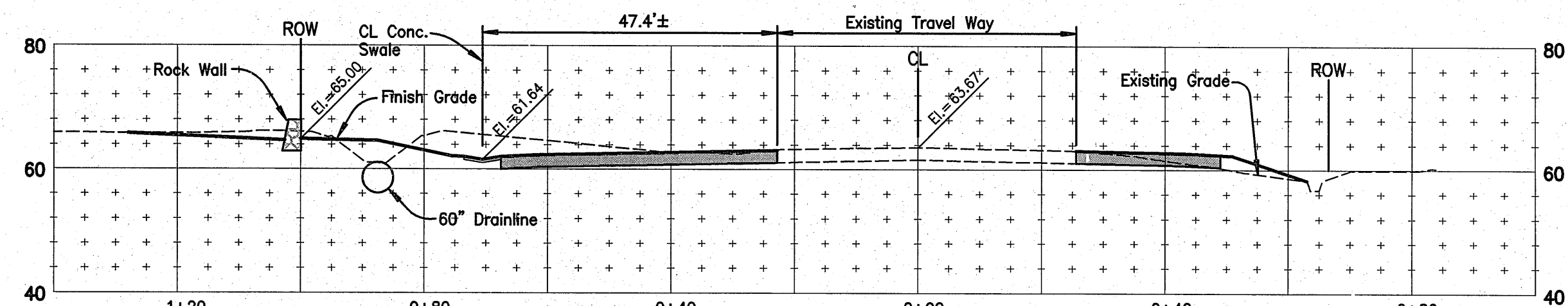
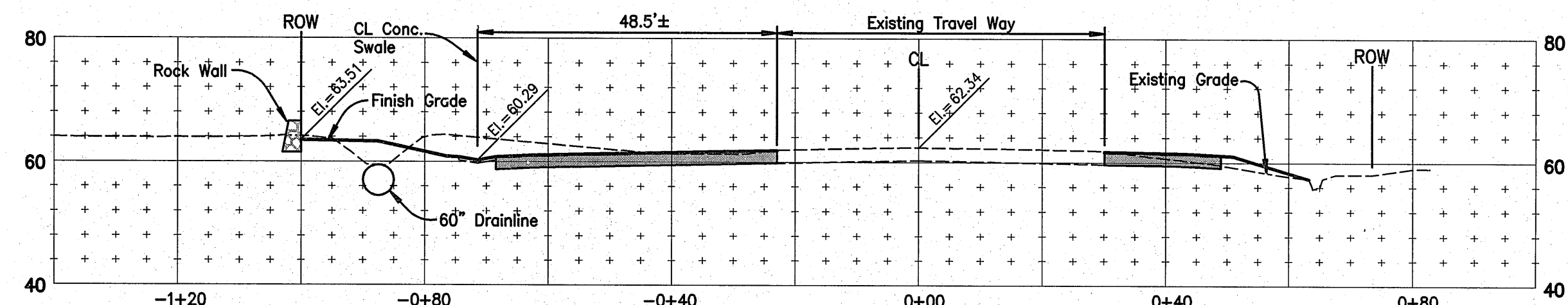
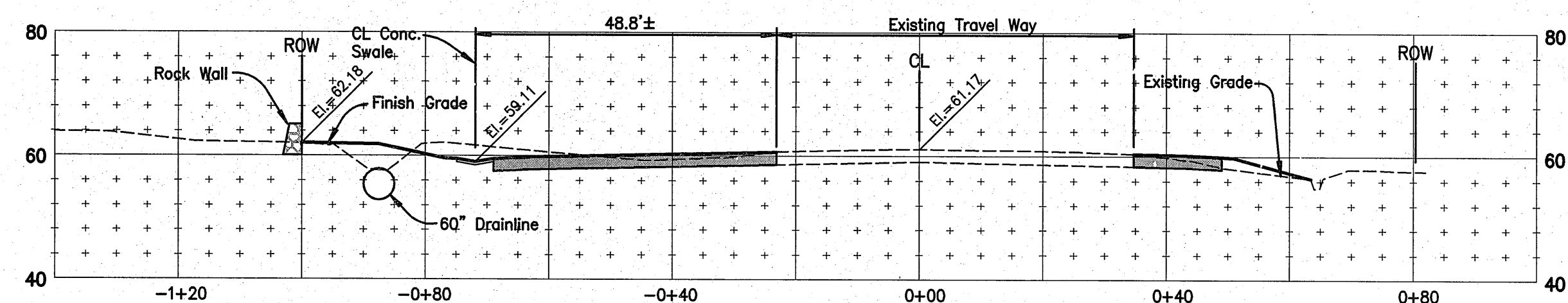
KAONOULU MARKET PLACE
 T.M.K.: (2) 2-2-02 : Por. of Par. 15 and 3-9-01 : 16
 KIHAI, MAUI, HAWAII

CROSS SECTION: PILANI HIGHWAY

DESIGNED BY	DTU	04010.10	4.12
WIS	DTU	JOB NUMBER	
DRAWN BY	APPROVED BY	10-10-05	SHEET
DATE	DATE	OF SHEETS	

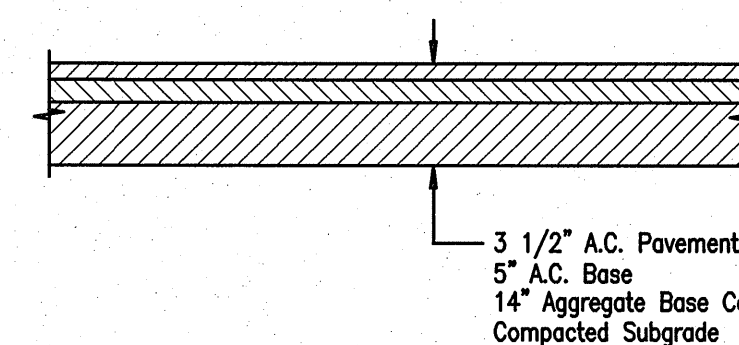
SCALE 1 in. = 20 ft.

04010.10/awg2004/complans/ksae-pilani00.dwg



CROSS SECTIONS

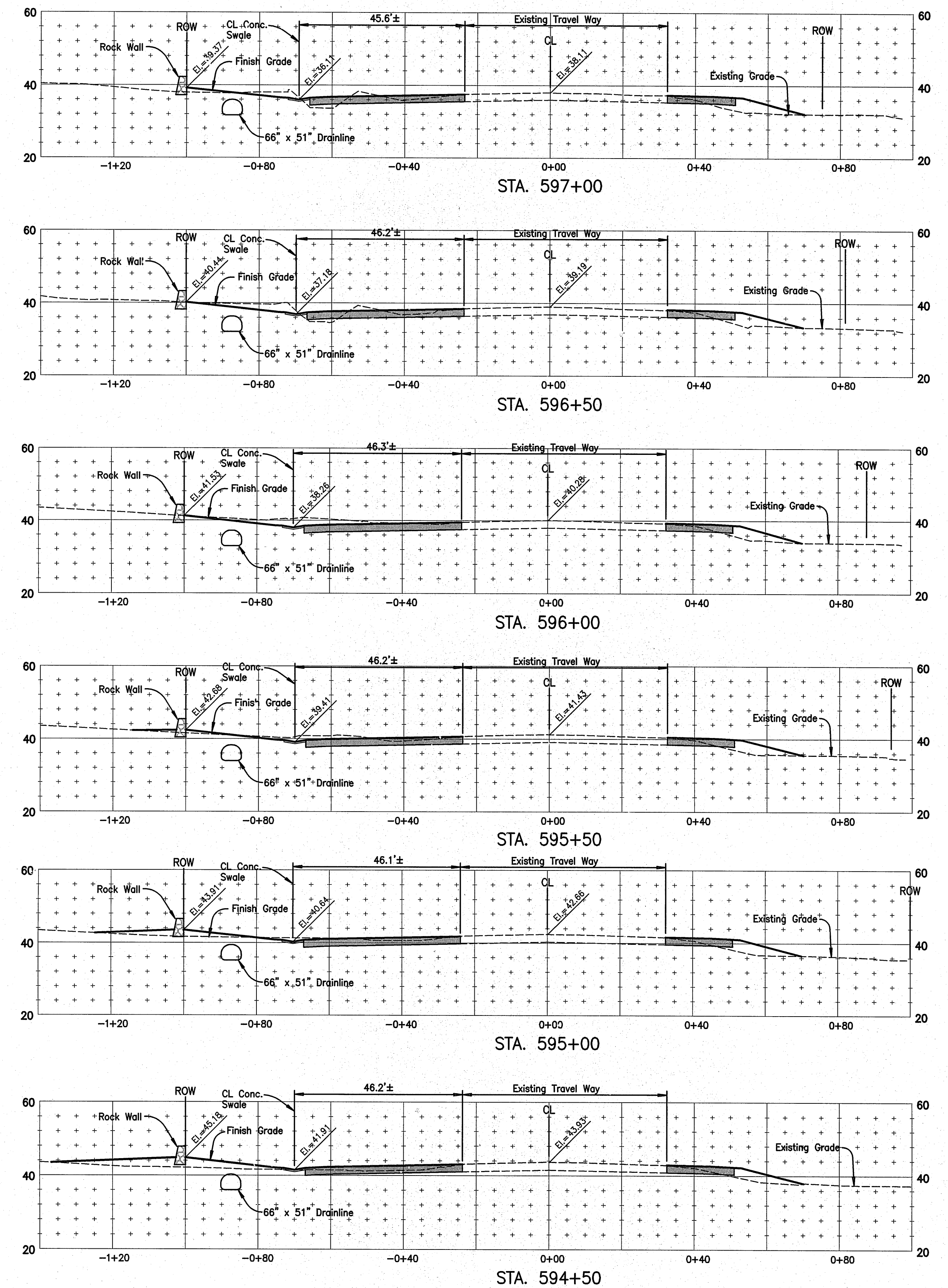
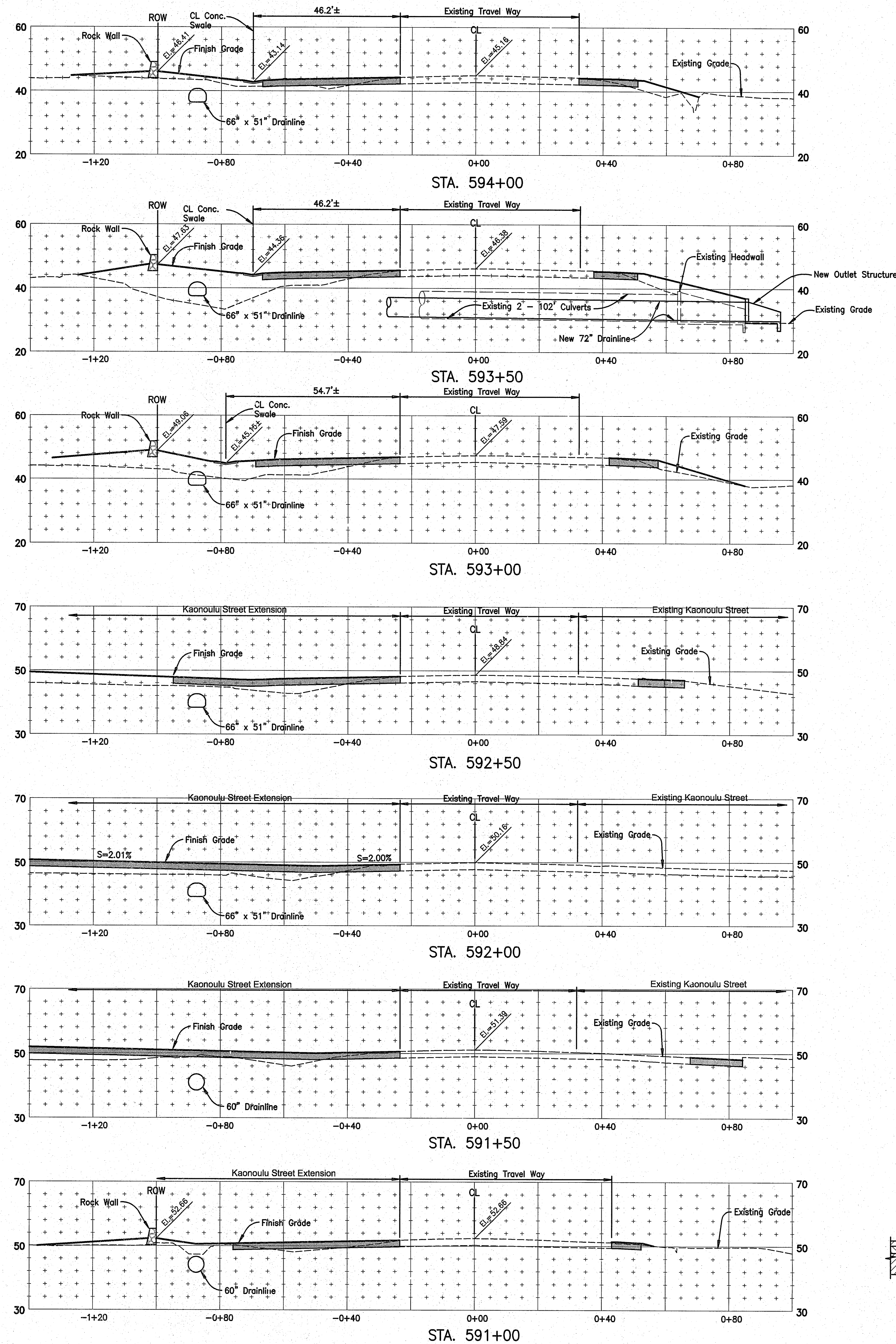
Scale: Horiz. 1" = 20'
Vert. 1" = 20'



TYPICAL PAVEMENT SECTION FOR PIILANI HIGHWAY WIDENING

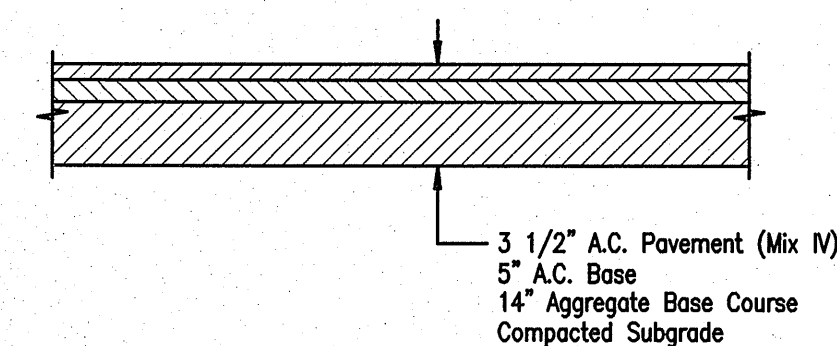
NOT TO SCALE

		WARREN S. UNEMORI ENGINEERING, INC. CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS 2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793	
KAONOLU MARKET PLACE T.M.K.: (2) 2-2-02 : Por. of Par. 15 and 3-9-01 : 16 KIHAI, MAUI, HAWAII			
TITLE CROSS SECTION: PIILANI HIGHWAY			
DESIGNED BY	DTU	04010.10	4.13
WIS	DTU	JOB NUMBER	
DRAWN BY	APPROVED BY	10-10-05	SHEET
		DATE	
SCALE 1 in. = 20 ft.		OF SHEETS	



CROSS SECTIONS

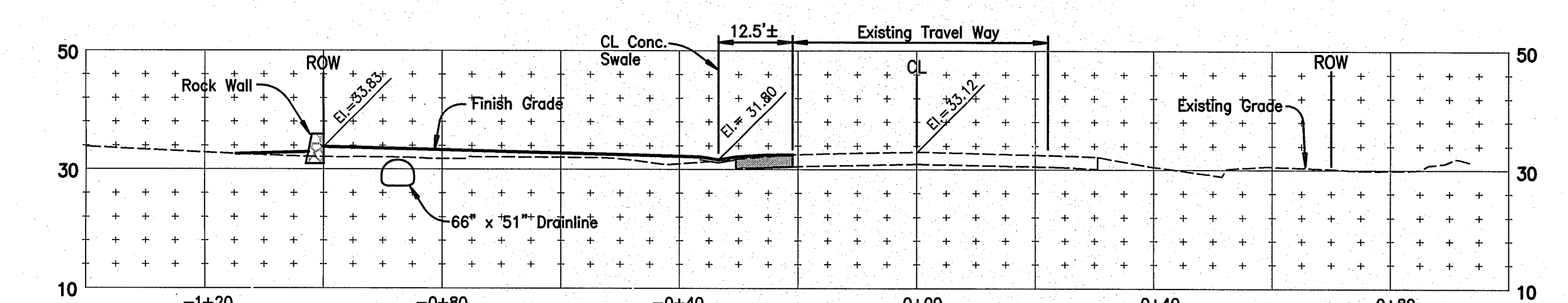
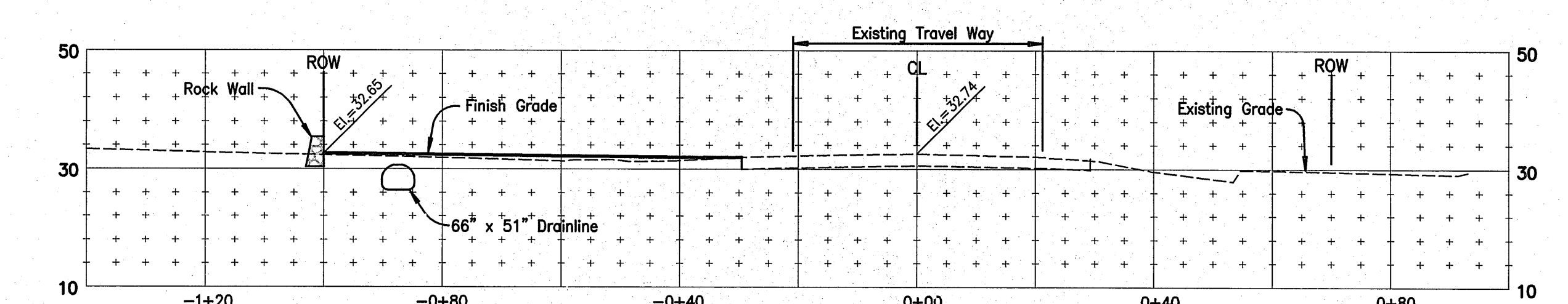
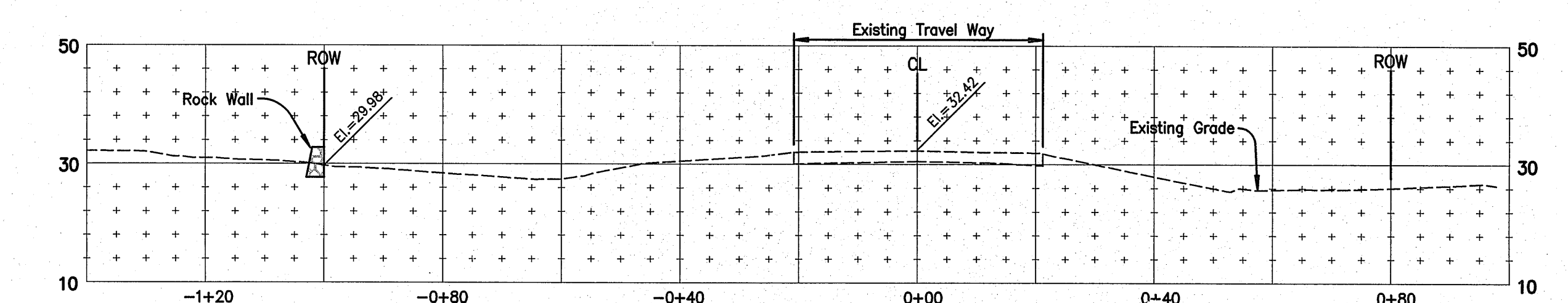
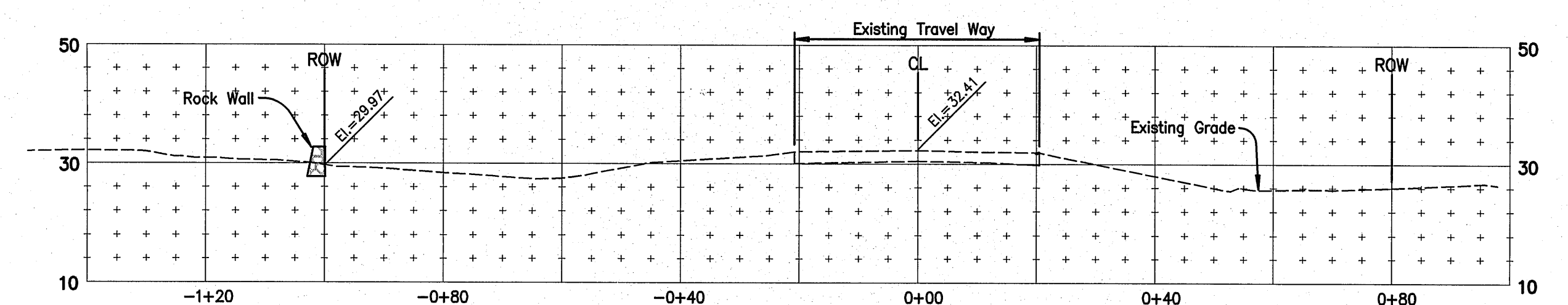
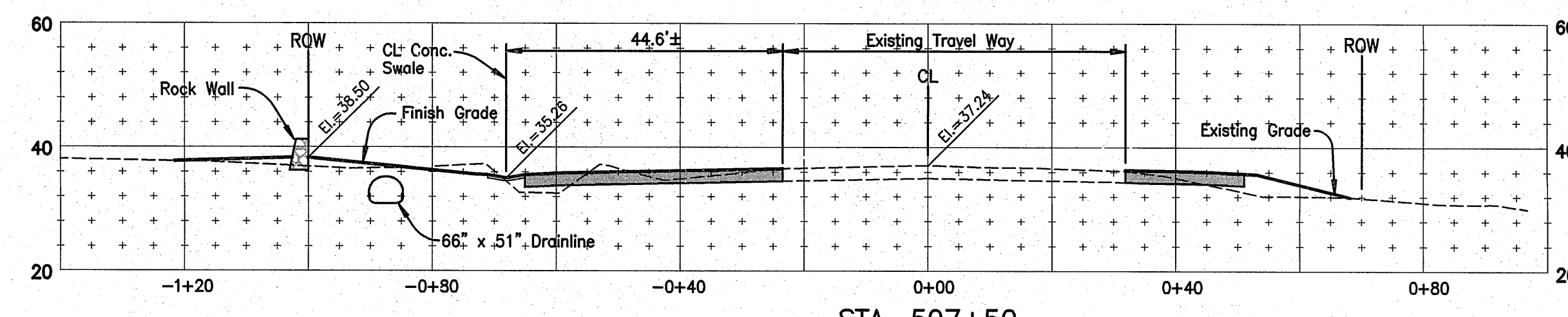
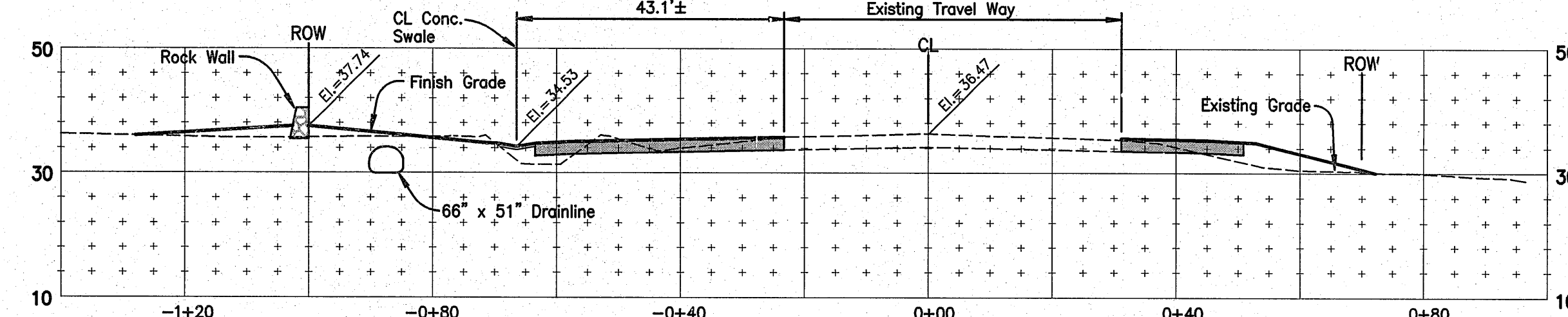
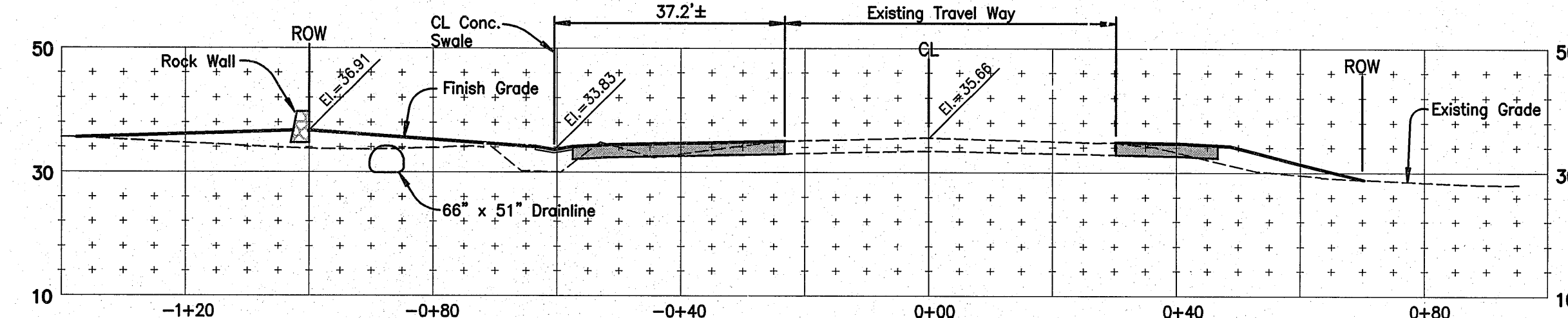
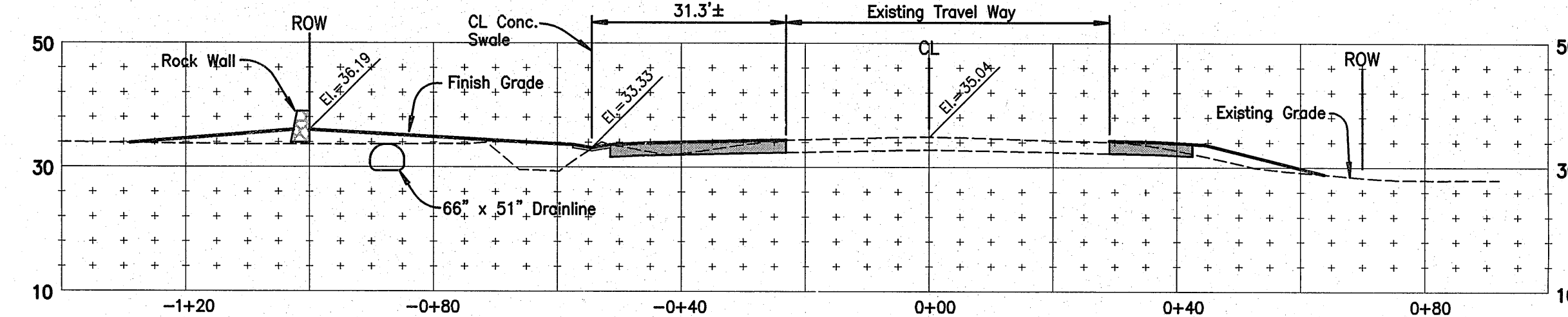
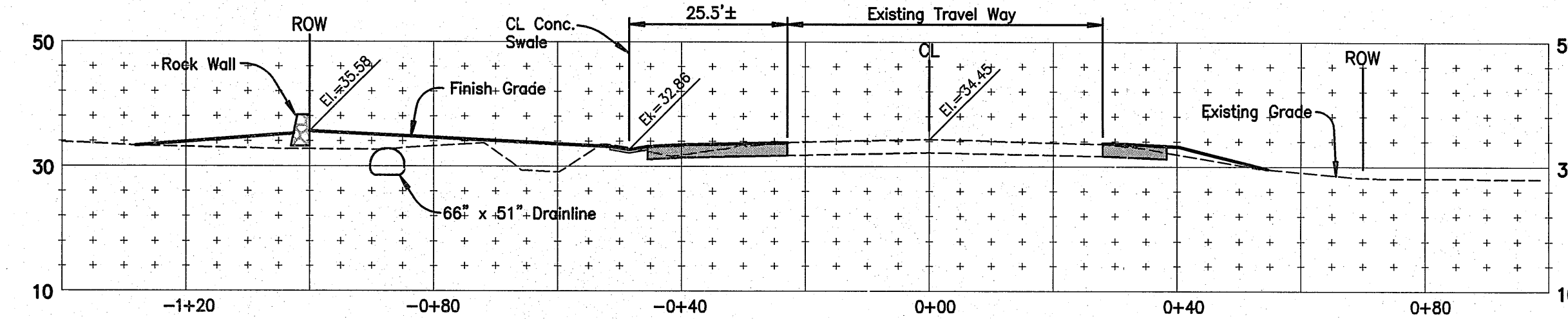
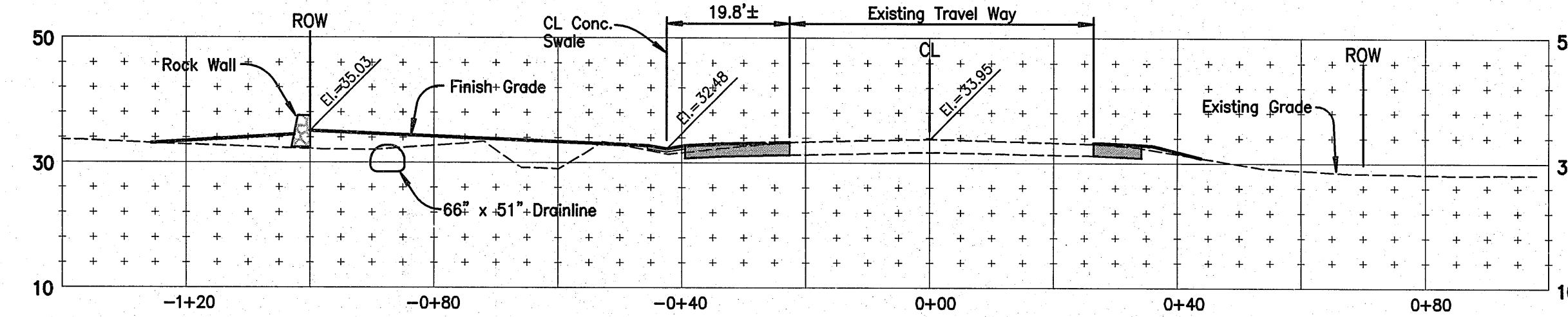
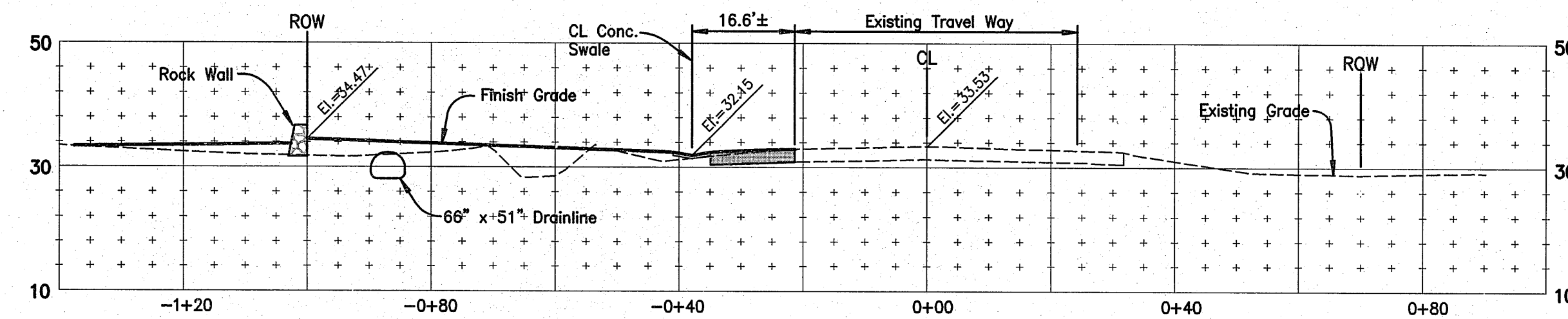
Scale: Horiz. 1" = 20'
Vert. 1" = 20'



TYPICAL PAVEMENT SECTION FOR PIILANI HIGHWAY WIDENING

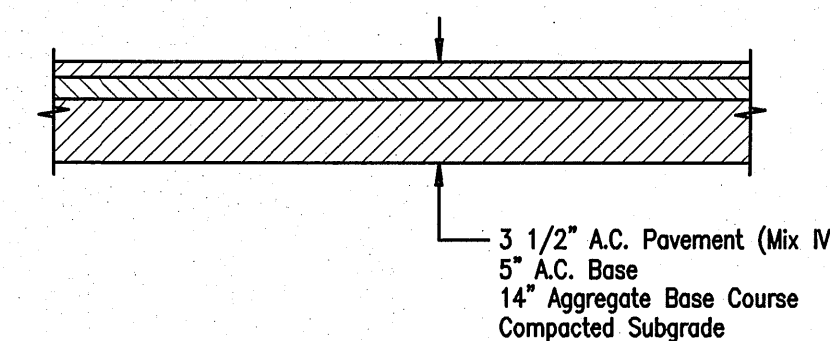
NOT TO SCALE

 WARREN S. UNEMORI ENGINEERING, INC. CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS 2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793		KAONOULU MARKET PLACE T.M.K.: (2) 2-2-02 : Por. of Par. 15 and 3-9-01 : 16 KIHEI, MAUI, HAWAII	
TITLE: CROSS SECTION: PIILANI HIGHWAY			
DESIGNED BY WIS	CHECKED BY DTU	04010.10 JOB NUMBER	4.14 SHEET
DRAWN BY WIS	APPROVED BY DTU	10-10-05 DATE	
SCALE: 1 in. = 20 ft.		OF SHEETS	



CROSS SECTIONS

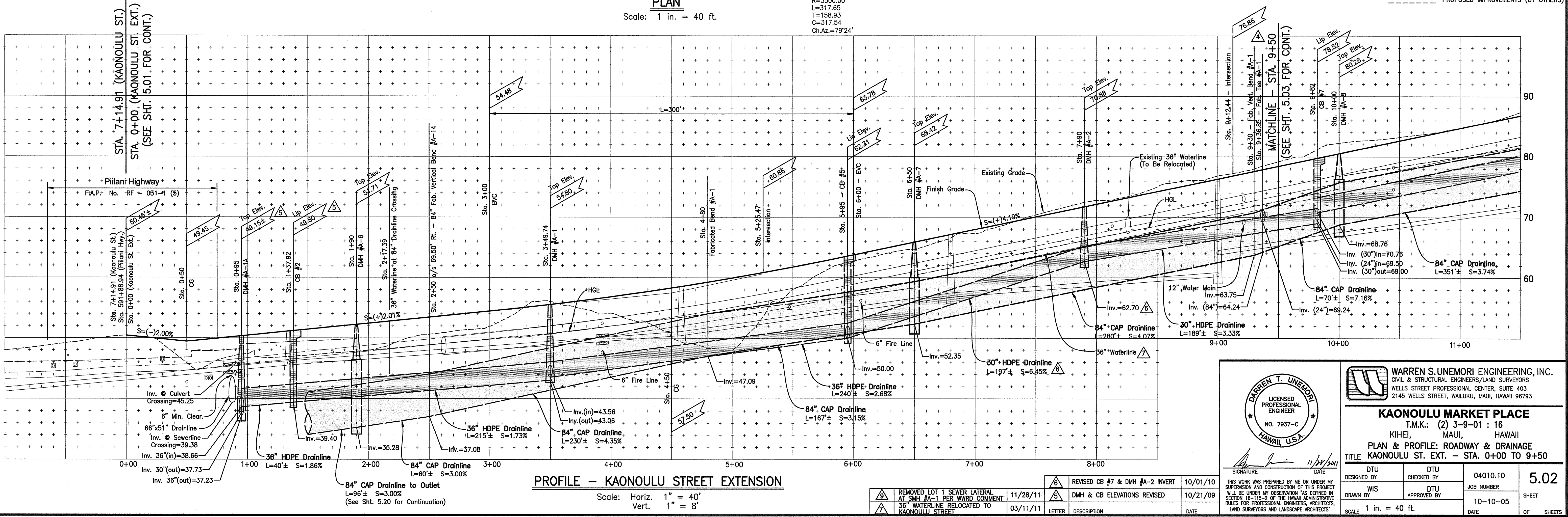
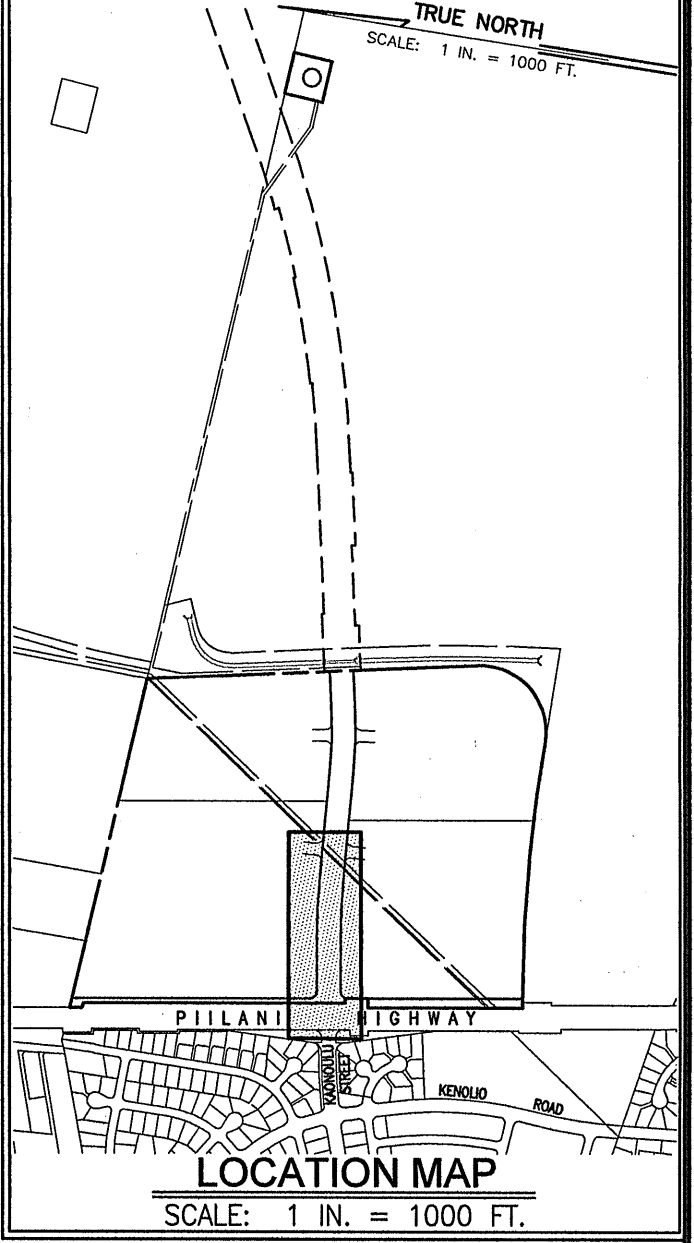
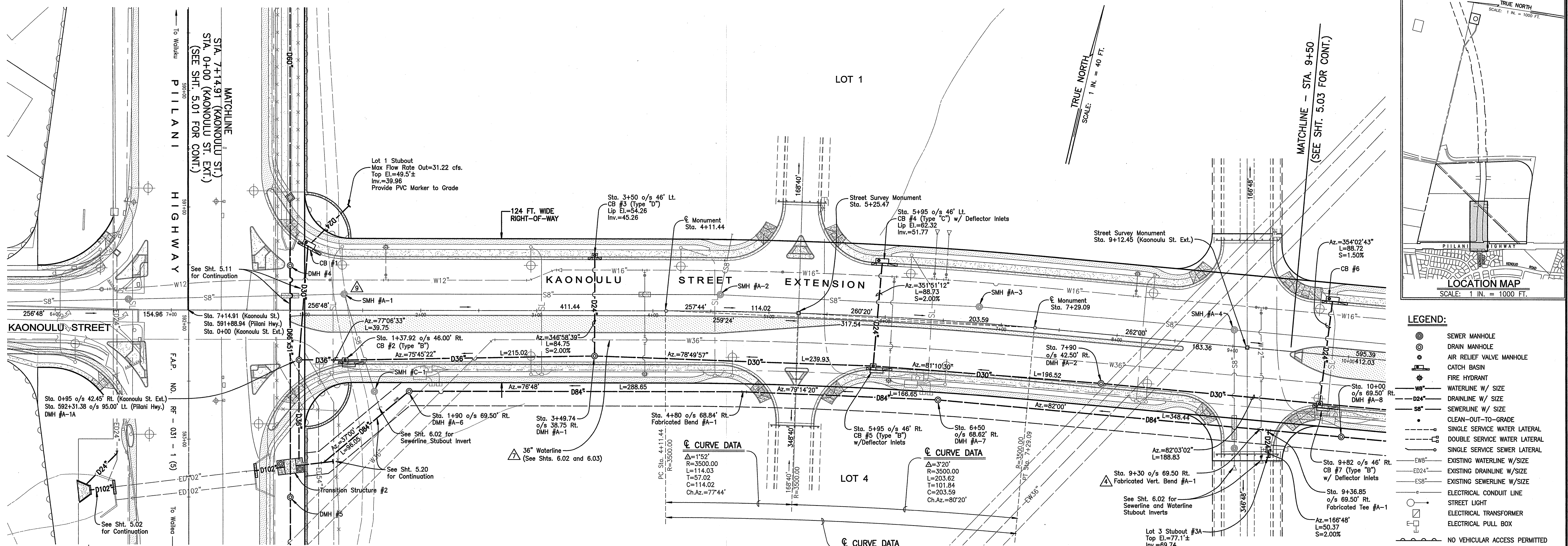
Scale: Horiz. 1" = 20'
Vert. 1" = 20'



TYPICAL PAVEMENT SECTION FOR PIILANI HIGHWAY WIDENING

NOT TO SCALE

<p>WARREN S. UNEMORI ENGINEERING, INC. CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS WELLS STREET PROFESSIONAL CENTER, SUITE 403 2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793</p>		<p>KAONOULU MARKET PLACE T.M.K.: (2) 2-2-02 : Por. of Par. 15 and 3-9-01 : 16 KIHEI, MAUI, HAWAII</p>	
<p>TITLE: CROSS SECTION: PIILANI HIGHWAY</p>			
<p>DESIGNED BY WIS</p>	<p>CHECKED BY DTU</p>	<p>DATE 1/14/04</p>	<p>PROJECT NO. 04010.10</p>
<p>DRAWN BY</p>	<p>APPROVED BY</p>	<p>DATE 10-10-05</p>	<p>SHEET 4.15</p>
<p>SCALE: 1 in. = 20 ft.</p>		<p>DATE</p>	



WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

KAONOULU MARKET PLACE
T.M.K.: (2) 3-9-01 : 16
KIHEI, MAUI, HAWAII

PLAN & PROFILE: ROADWAY & DRAINAGE
TITLE: KAONOULU ST. EXT. - STA. 0+00 TO 9+50

DTU DESIGNED BY: 04010.10
DTU CHECKED BY: 10-10-05
WIS DRAWN BY: 10-10-05
DTU APPROVED BY: 10-10-05

DATE: 11/24/04

SCALE: 1 in. = 40 ft.

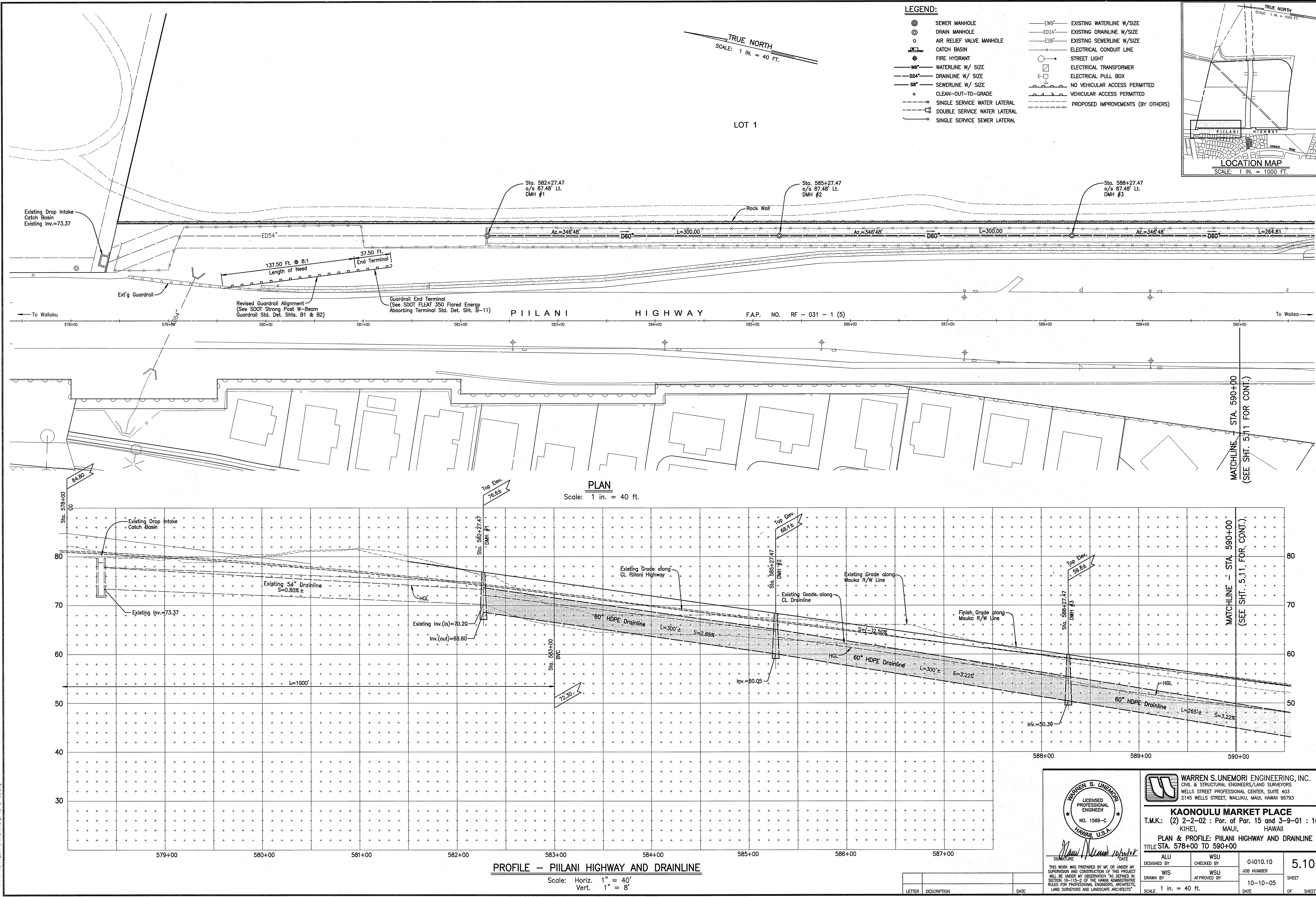
REMOVED LOT 1 SEWER LATERAL AT SMH #A-1 PER WWD COMMENT 11/28/11

36" WATERLINE RELOCATED TO KAONOULU STREET 03/11/11

REVISIONS

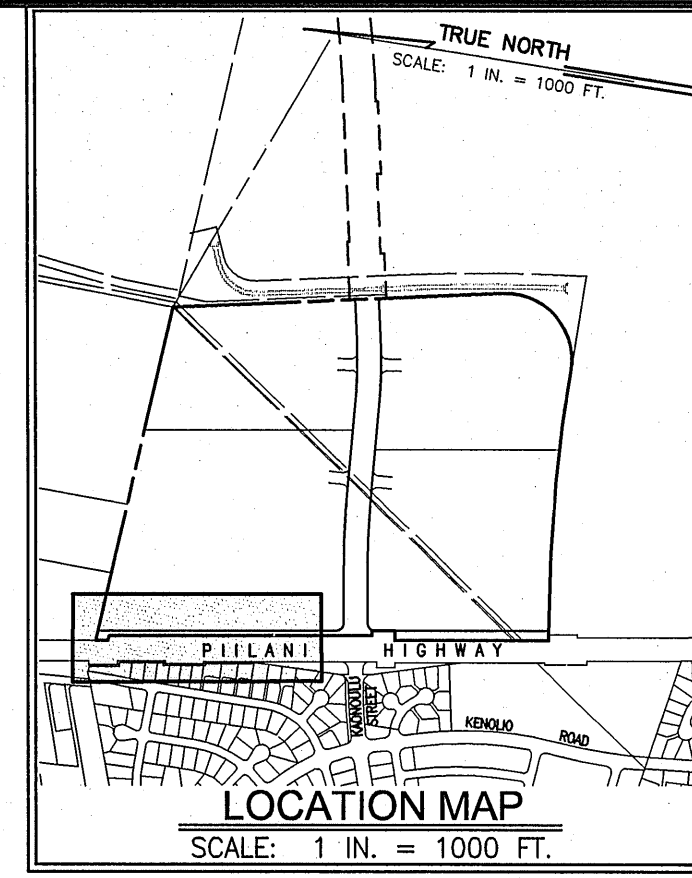
NO.	DESCRIPTION	DATE
1	REVISED CB #7 & DMH #A-2 INVERT	10/01/10
2	DMH & CB ELEVATIONS REVISED	10/21/09

D:\010.10\dwg\2004\complan\pl-rd-d-00.dwg



LEGEND:

- SEWER MANHOLE
- DRAIN MANHOLE
- AIR RELIEF VALVE MANHOLE
- CATCH BASIN
- FIRE HYDRANT
- WATERLINE W/ SIZE
- DRAINLINE W/ SIZE
- SEWERLINE W/ SIZE
- CLEAN-OUT-TO-GRADE
- SINGLE SERVICE WATER LATERAL
- DOUBLE SERVICE WATER LATERAL
- SINGLE SERVICE SEWER LATERAL
- EXISTING WATERLINE W/SIZE
- EXISTING DRAINLINE W/SIZE
- EXISTING SEWERLINE W/SIZE
- ELECTRICAL CONDUIT LINE
- STREET LIGHT
- ELECTRICAL TRANSFORMER
- ELECTRICAL PULL BOX
- NO VEHICULAR ACCESS PERMITTED
- VEHICULAR ACCESS PERMITTED
- PROPOSED IMPROVEMENTS (BY OTHERS)



PLAN

Scale: 1 in. = 40 ft.

PROFILE - PIILANI HIGHWAY AND DRAINLINE

Scale: Horiz. 1" = 40'
Vert. 1" = 8'

WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

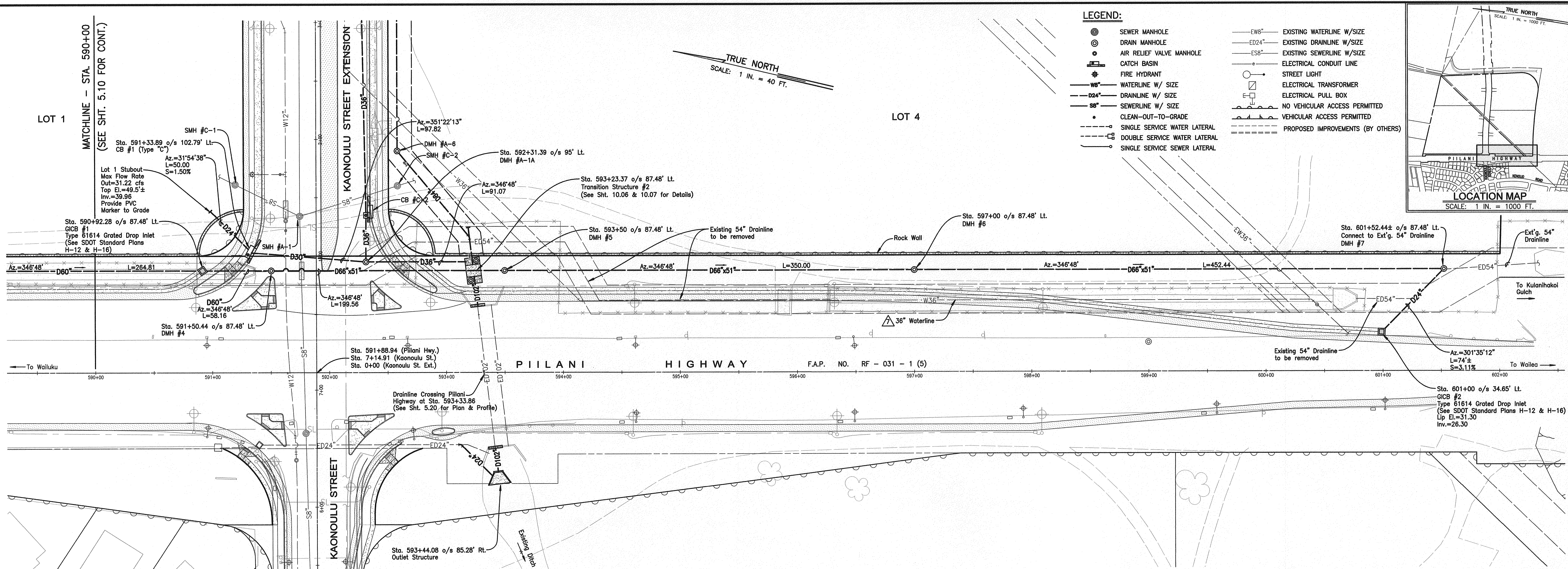
KAONOULU MARKET PLACE
T.M.K.: (2) 2-2-02 : Por. of Par. 15 and 3-9-01 : 16
KIHEI, MAUI, HAWAII

PLAN & PROFILE: PIILANI HIGHWAY AND DRAINLINE
TITLE STA. 578+00 TO 590+00

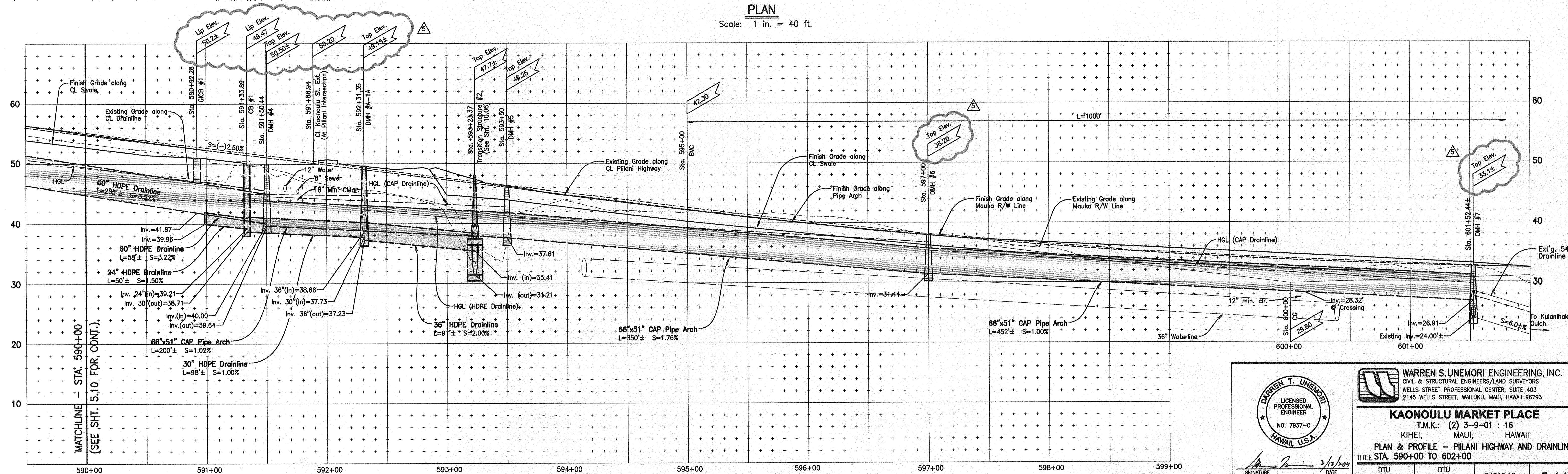
DESIGNED BY	WSU	CHECKED BY	WSU	DATE	0-10-10
DRAWN BY	WIS	APPROVED BY	WSU	JOB NUMBER	10-10-05
SCALE 1 in. = 40 ft.				DATE	10-10-05

5.10
SHEET
OF SHEETS

V:\Projects\CAIPROJ\04010.10\dwg2004\complan\pl-rd-dl-00.dwg



PLAN
Scale: 1 in. = 40 ft.



PROFILE - PIILANI HIGHWAY AND DRAINLINE

Scale: Horiz. 1" = 40'
Vert. 1" = 8'

36" WATERLINE RELOCATED TO
KAONOULU STREET

LETTER	DESCRIPTION	DATE
5	DMH & CB ELEVATIONS REVISED	10/21/09
6	ADDED 66" X 51" DRAINLINE	10/22/08
7		

WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

KAONOULU MARKET PLACE
T.M.K.: (2) 3-9-01 : 16
KIHEI, MAUI, HAWAII

PLAN & PROFILE - PIILANI HIGHWAY AND DRAINLINE
TITLE STA. 590+00 TO 602+00

DATE: 3/12/09

SIGNATURE: [Signature]

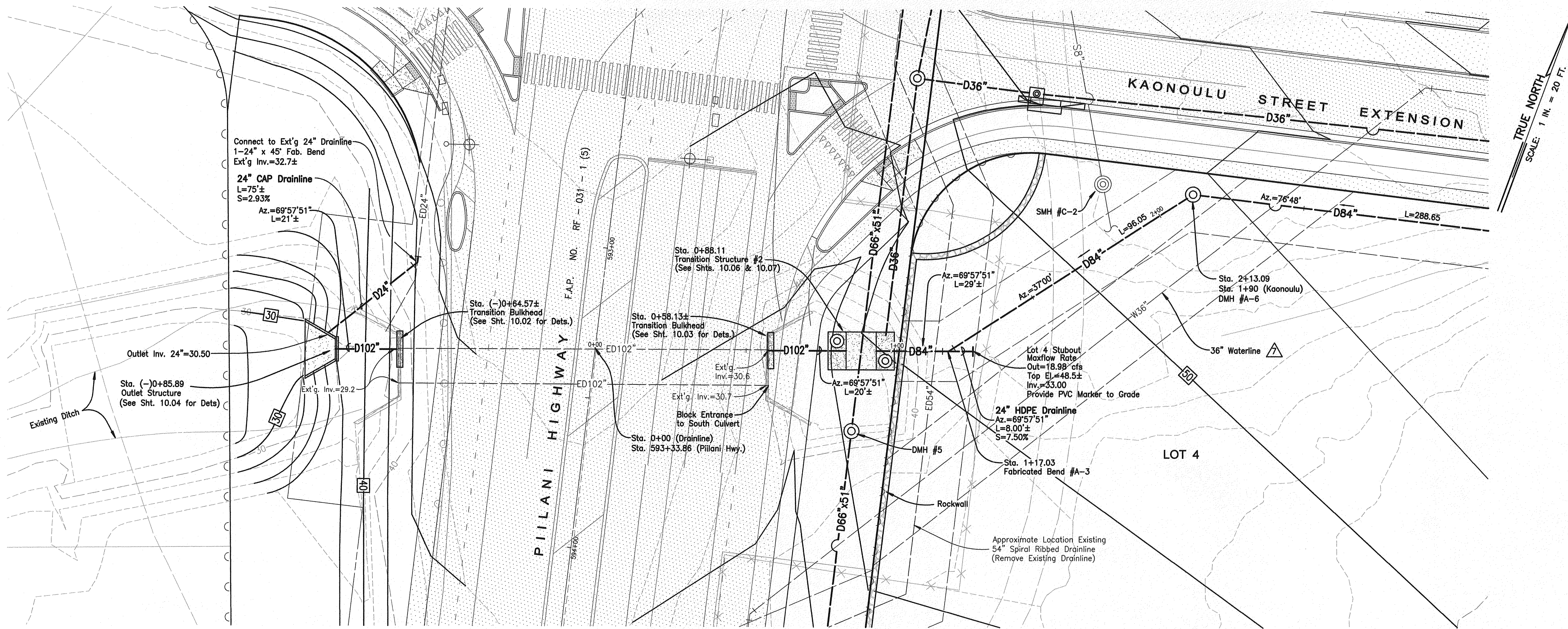
DTU: [Signature]
DESIGNED BY: WIS
CHECKED BY: DTU
APPROVED BY: DTU

04010.10
JOB NUMBER

10-10-05
DATE

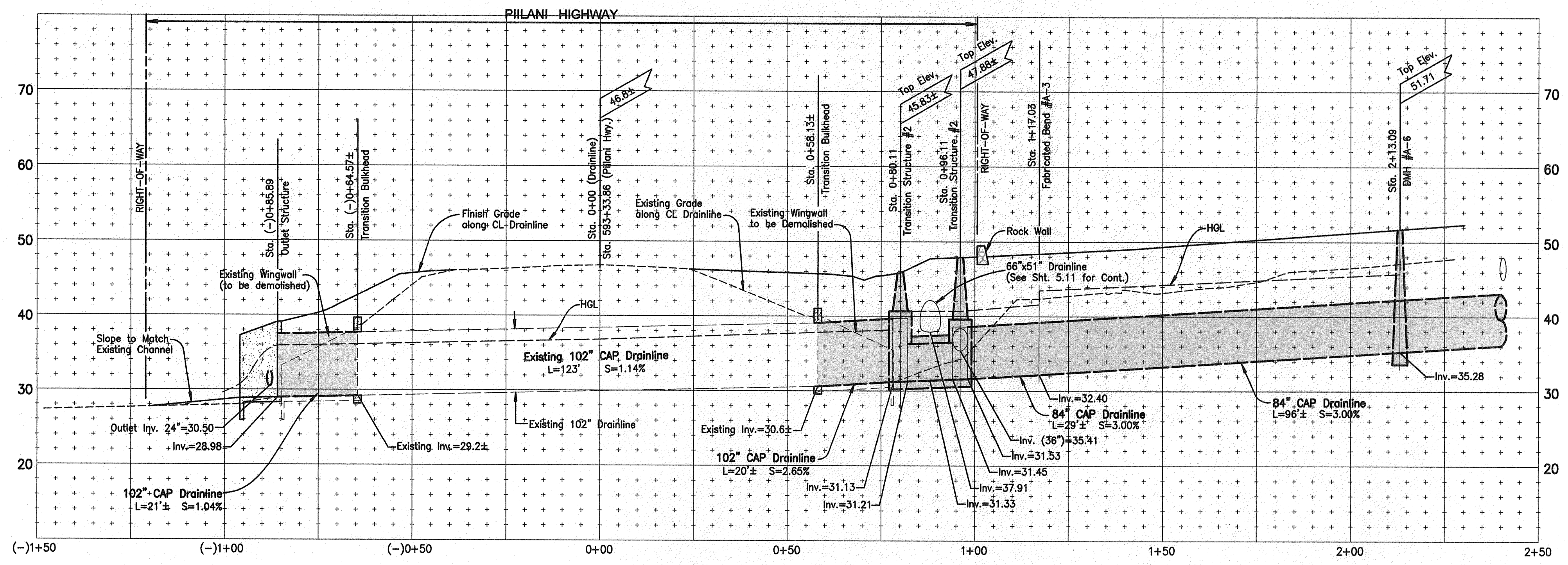
5.11
SHEET

OF SHEETS



PLAN
Scale: 1 in. = 20 ft.

- LEGEND:**
- ⊙ SEWER MANHOLE
 - ⊙ DRAIN MANHOLE
 - ⊙ AIR RELIEF VALVE MANHOLE
 - ⊙ CATCH BASIN
 - ⊙ FIRE HYDRANT
 - W8" — WATERLINE W/ SIZE
 - D24" — DRAINLINE W/ SIZE
 - S8" — SEWERLINE W/ SIZE
 - — CLEAN-OUT-TO-GRADE
 - — SINGLE SERVICE WATER LATERAL
 - — DOUBLE SERVICE WATER LATERAL
 - — SINGLE SERVICE SEWER LATERAL
 - EW8" — EXISTING WATERLINE W/SIZE
 - ED24" — EXISTING DRAINLINE W/SIZE
 - ES8" — EXISTING SEWERLINE W/SIZE
 - — ELECTRICAL CONDUIT LINE
 - ⊙ STREET LIGHT
 - ⊙ ELECTRICAL TRANSFORMER
 - ⊙ ELECTRICAL PULL BOX
 - — NO VEHICULAR ACCESS PERMITTED
 - — VEHICULAR ACCESS PERMITTED
 - — PROPOSED IMPROVEMENTS (BY OTHERS)



PROFILE — 102" DRAINLINE CROSSING PIILANI HIGHWAY
Scale: Horiz. 1" = 20'
Vert. 1" = 10'

WARREN S. UNEMORI ENGINEERING, INC.
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WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

KAONOULU MARKET PLACE
T.M.K.: (2) 3-9-01 : 16
KIHAEI, MAUI, HAWAII

PLAN & PROFILE — EXTENSION TO 102"
TITLE DRAINLINE CROSSING PIILANI HIGHWAY

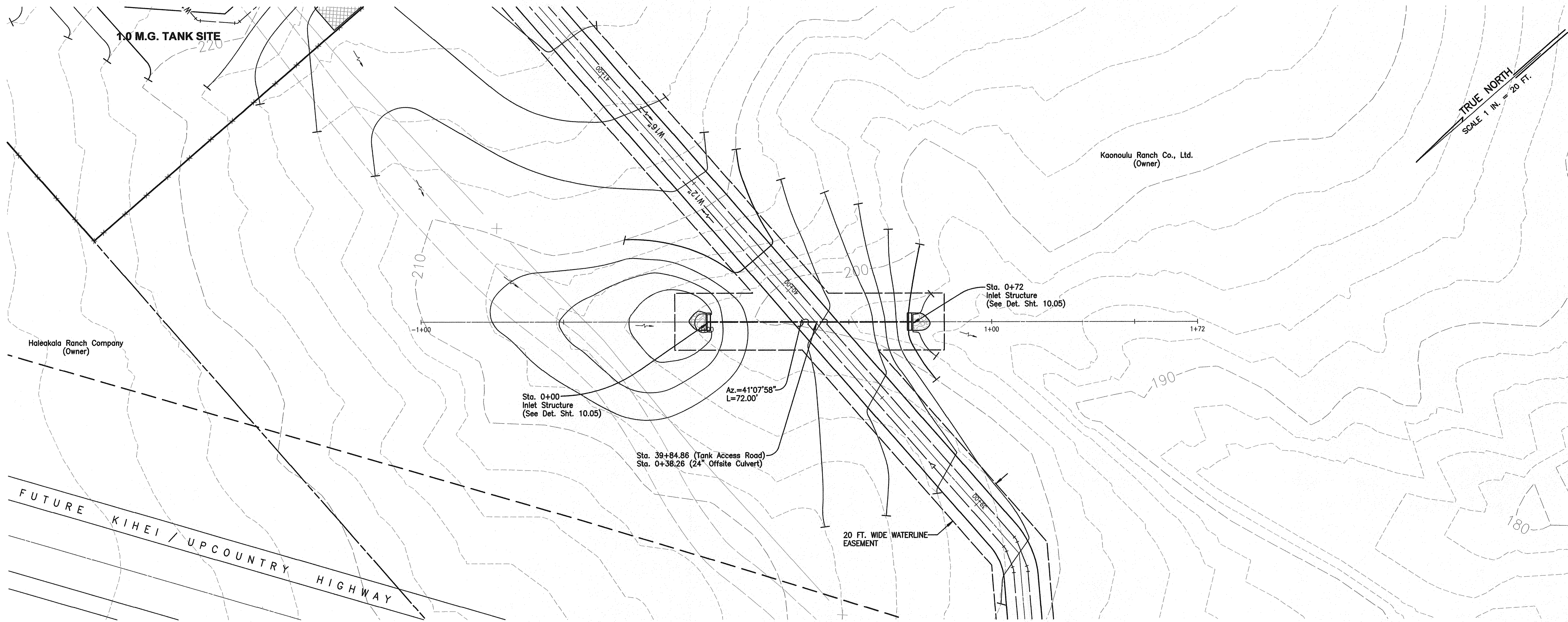
DESIGNED BY: DTU
CHECKED BY: DTU
DATE: 04/10/10
JOB NUMBER: 10-10-05
SHEET: 5.20
OF SHEETS: 5

SCALE: 1 in. = 20 ft.

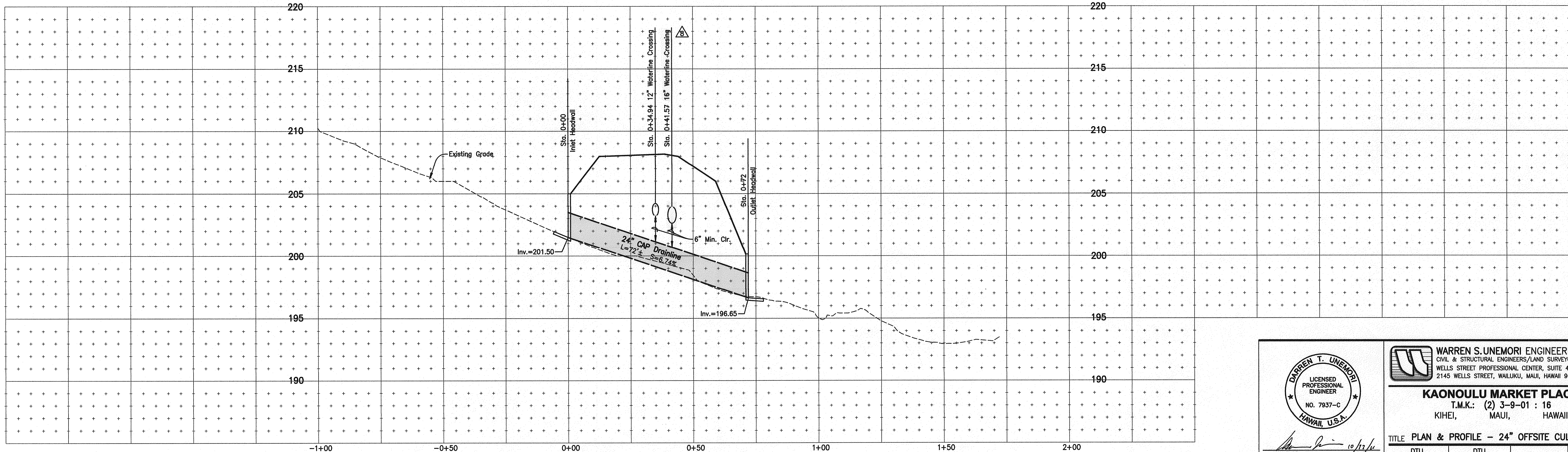
LETTER	DESCRIPTION	DATE
A	36" Waterline Relocated to Kaonoulu Street	03/11/11
B	Revised Hwy Crossing and Added Transition Structure	10/22/08

SIGNATURE: *[Signature]* DATE: 3/17/2011

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION "AS DEFINED IN SECTION 16-115-2 OF THE HAWAII ADMINISTRATIVE RULES FOR PROFESSIONAL ENGINEERS, ARCHITECTS, LAND SURVEYORS AND LANDSCAPE ARCHITECTS"

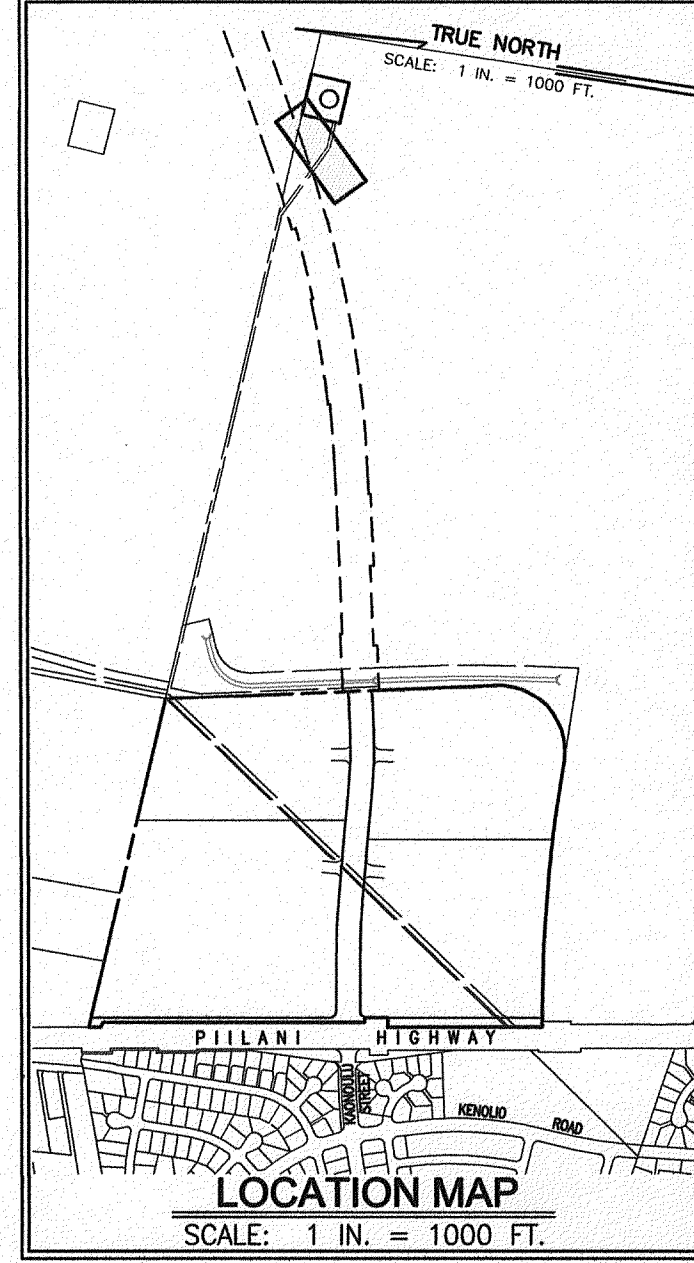


PLAN
Scale: 1 in. = 20 ft.



PROFILE - 24" OFFSITE CULVERT (STA. 39+84.86 TANK ACCESS ROAD)

Scale: Horiz. 1" = 20'
Vert. 1" = 4'



- LEGEND:**
- SEWER MANHOLE
 - DRAIN MANHOLE
 - AIR RELIEF VALVE MANHOLE
 - CATCH BASIN
 - FIRE HYDRANT
 - WATERLINE W/ SIZE
 - DRAINLINE W/ SIZE
 - SEWERLINE W/ SIZE
 - CLEAN-OUT-TO-GRADE
 - SINGLE SERVICE WATER LATERAL
 - DOUBLE SERVICE WATER LATERAL
 - SINGLE SERVICE SEWER LATERAL
 - EXISTING WATERLINE W/SIZE
 - EXISTING DRAINLINE W/SIZE
 - EXISTING SEWERLINE W/SIZE
 - ELECTRICAL CONDUIT LINE
 - STREET LIGHT
 - ELECTRICAL TRANSFORMER
 - ELECTRICAL PULL BOX
 - NO VEHICULAR ACCESS PERMITTED
 - VEHICULAR ACCESS PERMITTED
 - PROPOSED IMPROVEMENTS (BY OTHERS)

WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

KAONOULU MARKET PLACE
T.M.K.: (2) 3-9-01 : 16
KIHEI, MAUI, HAWAII

TITLE: PLAN & PROFILE - 24" OFFSITE CULVERT

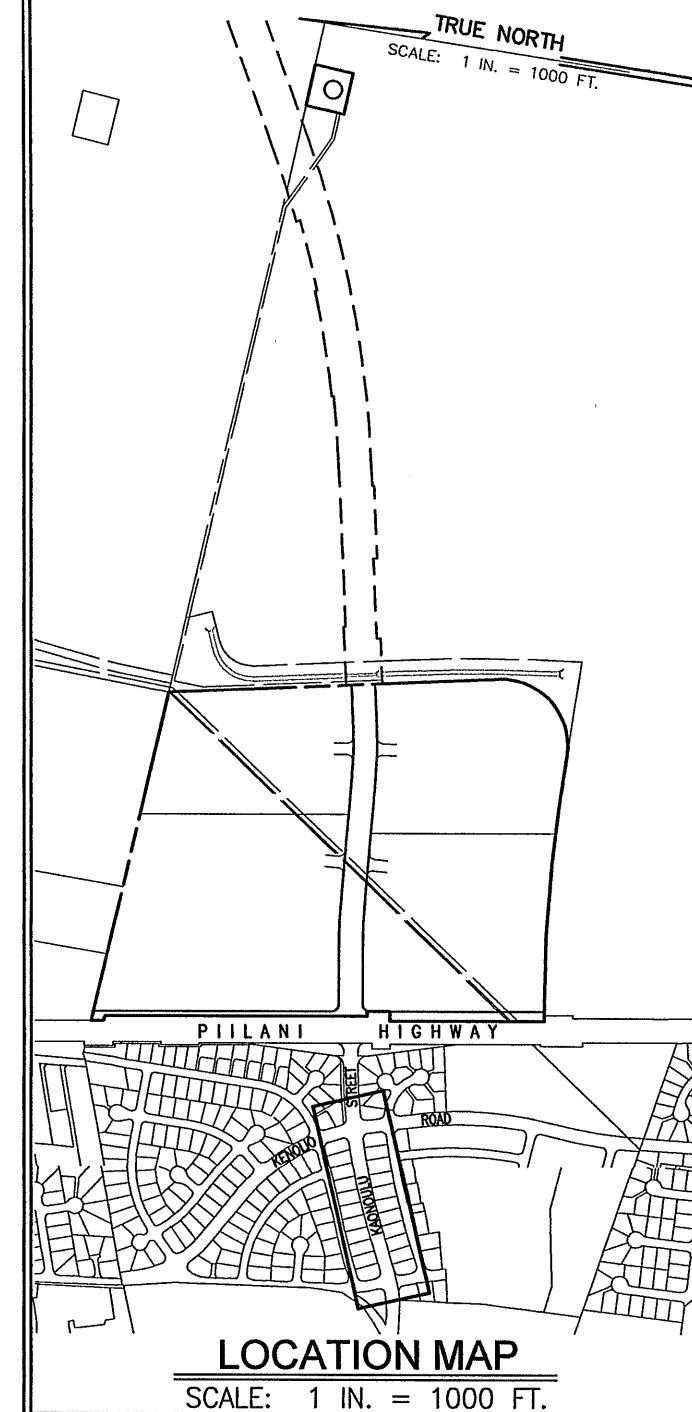
SIGNATURE	DATE
	10/12/16

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION "AS DEFINED IN SECTION 16-115-2 OF THE HAWAII ADMINISTRATIVE RULES FOR PROFESSIONAL ENGINEERS, ARCHITECTS, LAND SURVEYORS AND LANDSCAPE ARCHITECTS"

DESIGNED BY	DTU	CHECKED BY	DTU	JOB NUMBER	04010.10
DRAWN BY	WIS	APPROVED BY	DTU	JOB NUMBER	10-10-05
SCALE	1 in. = 20 ft.	DATE	10/06/11	SHEET	5.30

OF SHEETS

TRUE NORTH
SCALE: 1 IN. = 40 FT.



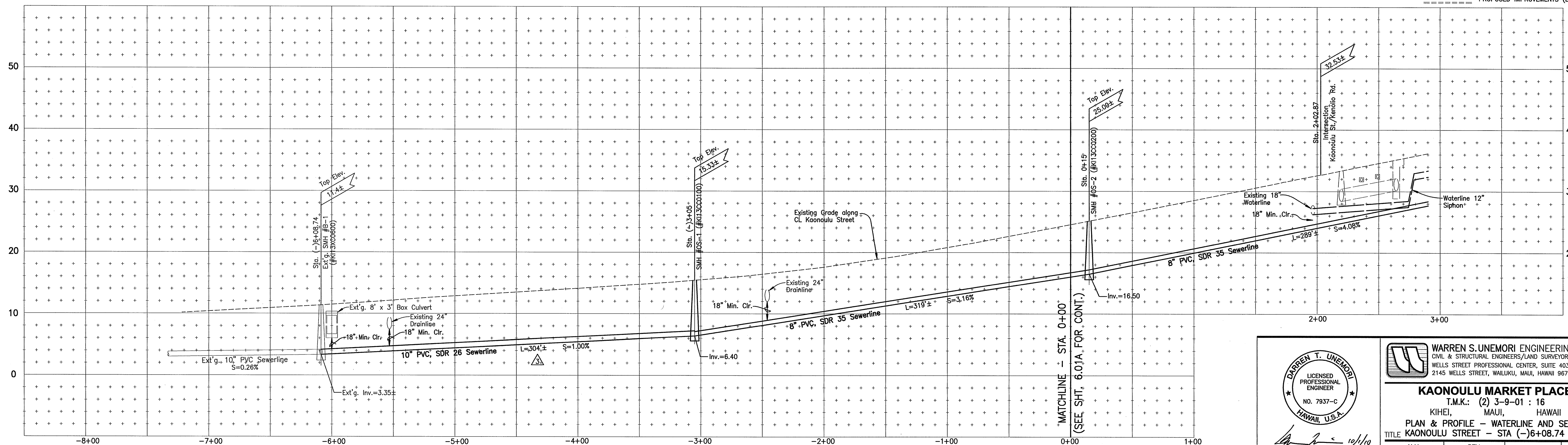
- LEGEND:**
- SEWER MANHOLE
 - DRAIN MANHOLE
 - AIR RELIEF VALVE MANHOLE
 - CATCH BASIN
 - FIRE HYDRANT
 - WATERLINE W/ SIZE
 - DRAINLINE W/ SIZE
 - SEWERLINE W/ SIZE
 - CLEAN-OUT-TO-GRADE
 - SINGLE SERVICE WATER LATERAL
 - DOUBLE SERVICE WATER LATERAL
 - SINGLE SERVICE SEWER LATERAL
 - EXISTING WATERLINE W/SIZE
 - EXISTING DRAINLINE W/SIZE
 - EXISTING SEWERLINE W/SIZE
 - ELECTRICAL CONDUIT LINE
 - STREET LIGHT
 - ELECTRICAL TRANSFORMER
 - ELECTRICAL PULL BOX
 - NO VEHICULAR ACCESS PERMITTED
 - VEHICULAR ACCESS PERMITTED
 - PROPOSED IMPROVEMENTS (BY OTHERS)

NOTES:

- CONTRACTOR SHALL VERIFY EXACT LOCATION, INVERT, SIZE, AND TYPE OF EXISTING UTILITIES PRIOR TO ORDERING MATERIALS, SHOULD ANY DISCREPANCIES EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.

PLAN

Scale: 1 in. = 40 ft.



PROFILE - KAONOULU STREET

Scale: Horiz. 1" = 40'
Vert. 1" = 8'

INCREASE SIZE TO 10"	10/22/08
REVISED PER WWD COMMENTS	10/01/08
LETTER	DATE

DARREN T. UNEMORI
LICENSED PROFESSIONAL ENGINEER
NO. 7937-C
HAWAII, U.S.A.

SIGNATURE: *[Signature]* DATE: 10/10

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION AS SET FORTH IN SECTION 16-115-2 OF THE HAWAII ADMINISTRATIVE RULES FOR PROFESSIONAL ENGINEERS, ARCHITECTS, LAND SURVEYORS AND LANDSCAPE ARCHITECTS.

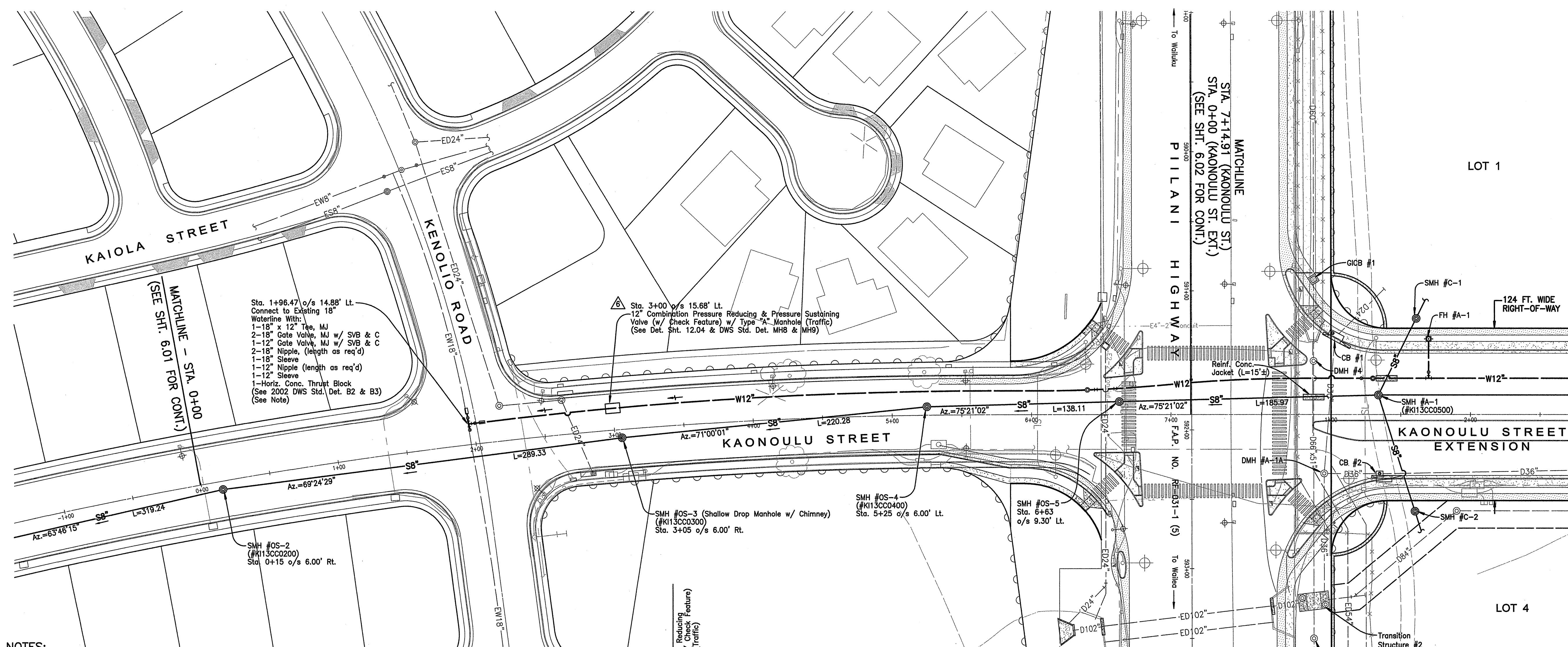
WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

KAONOULU MARKET PLACE
T.M.K.: (2) 3-9-01 : 16
KIHIEI, MAUI, HAWAII

PLAN & PROFILE - WATERLINE AND SEWERLINE
TITLE KAONOULU STREET - STA (-)6+08.74 TO 0+00

ALU	DTU	04010.10	6.01
DESIGNED BY	CHECKED BY	JOB NUMBER	
WIS	DTU	10-10-05	
DRAWN BY	APPROVED BY	DATE	OF SHEETS

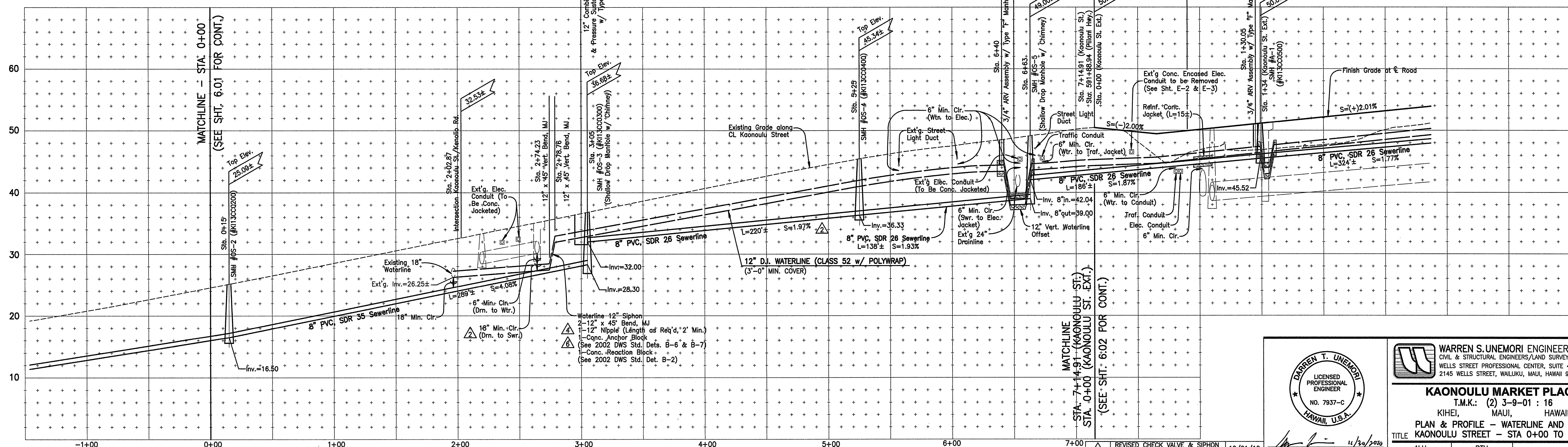
SCALE 1 in. = 40 ft.



NOTES:

- CONTRACTOR SHALL VERIFY EXACT LOCATION, INVERT, SIZE, AND TYPE OF EXISTING UTILITIES PRIOR TO ORDERING MATERIALS. SHOULD ANY DISCREPANCIES EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.

PLAN
Scale: 1 in. = 40 ft.



PROFILE - KAONOULU STREET

Scale: Horiz. 1" = 40'
Vert. 1" = 8'

LEGEND:

- SEWER MANHOLE
- DRAIN MANHOLE
- ⊙ AIR RELIEF VALVE MANHOLE
- ⊕ CATCH BASIN
- ⊕ FIRE HYDRANT
- W8" WATERLINE W/ SIZE
- D24" DRAINLINE W/ SIZE
- S8" SEWERLINE W/ SIZE
- CLEAN-OUT-TO-GRADE
- SINGLE SERVICE WATER LATERAL
- DOUBLE SERVICE WATER LATERAL
- SINGLE SERVICE SEWER LATERAL
- EW8" EXISTING WATERLINE W/SIZE
- ED24" EXISTING DRAINLINE W/SIZE
- ES8" EXISTING SEWERLINE W/SIZE
- ELECTRICAL CONDUIT LINE
- STREET LIGHT
- ⊕ ELECTRICAL TRANSFORMER
- ⊕ ELECTRICAL PULL BOX
- NO VEHICULAR ACCESS PERMITTED
- VEHICULAR ACCESS PERMITTED
- PROPOSED IMPROVEMENTS (BY OTHERS)

WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

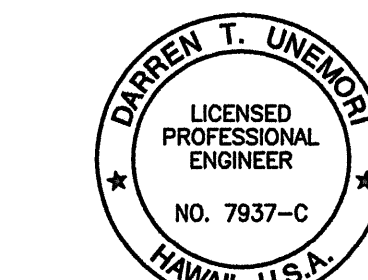
KAONOULU MARKET PLACE

T.M.K.: (2) 3-9-01 : 16

KIHEI, MAUI, HAWAII

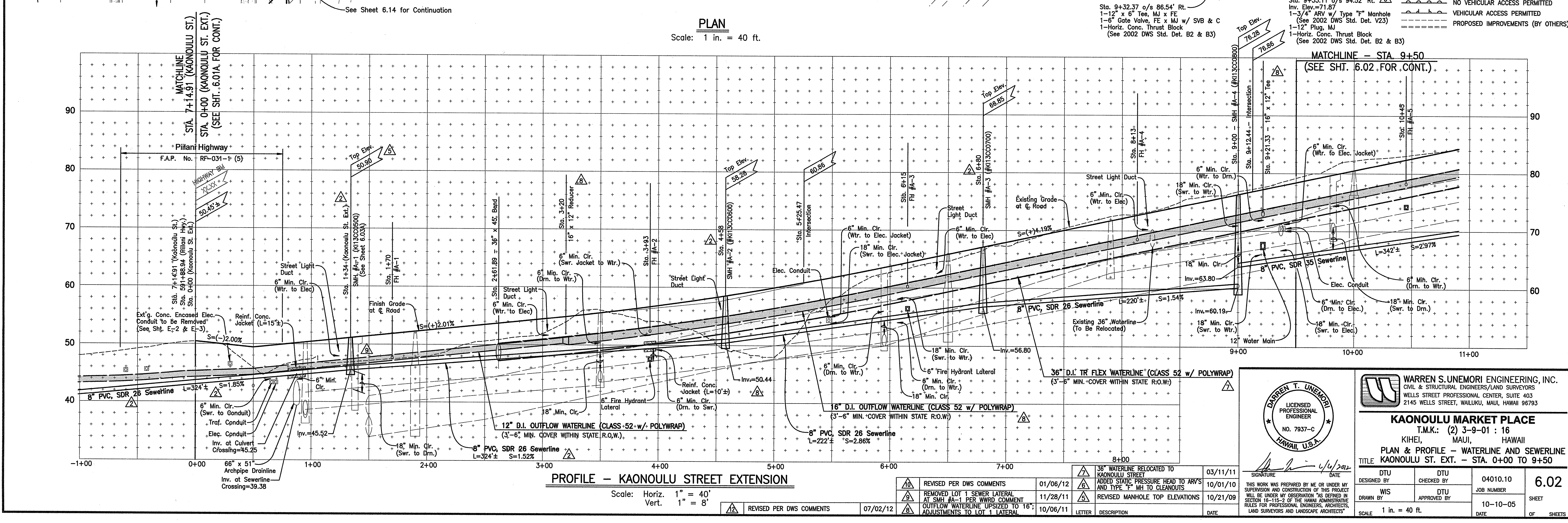
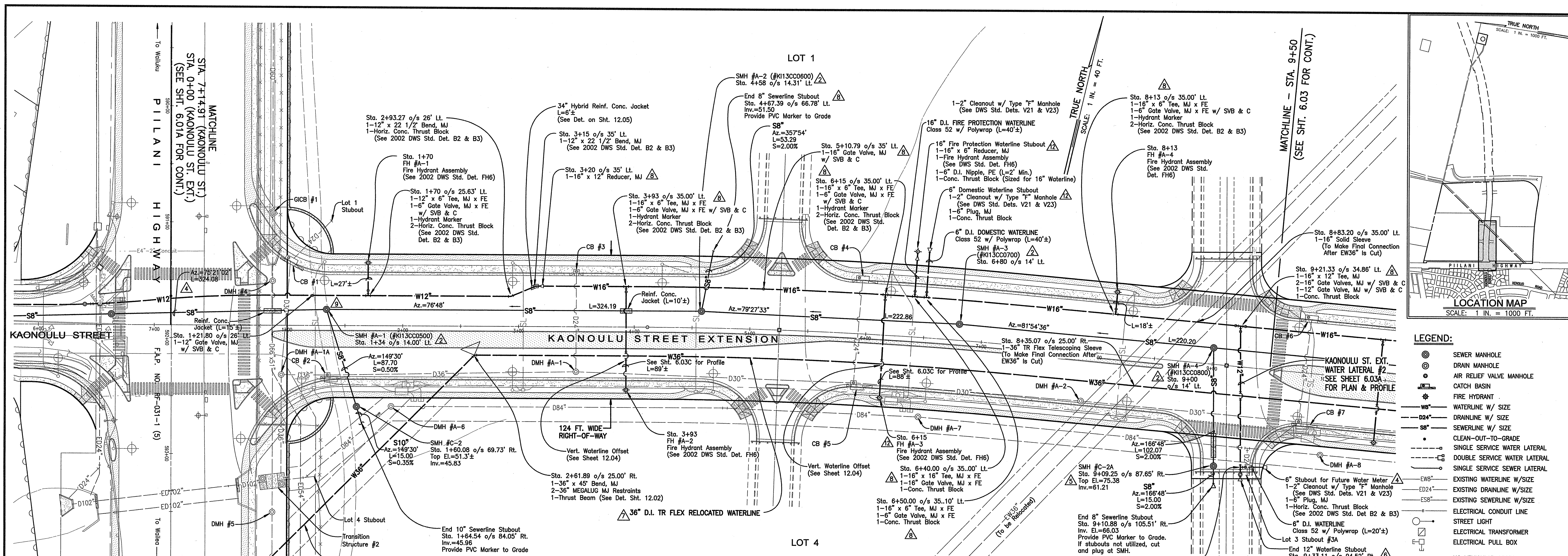
PLAN & PROFILE - WATERLINE AND SEWERLINE
KAONOULU STREET - STA 0+00 TO 7+14.91

DESIGNED BY	DTU	04010.10	6.01A
CHECKED BY	DTU	JOB NUMBER	
APPROVED BY	DTU	DATE	
DRAWN BY	WIS	10-10-05	SHEET
SCALE	1 in. = 40 ft.	DATE	OF SHEETS

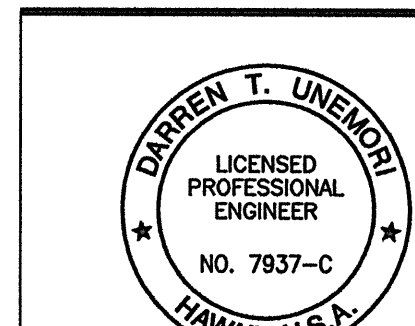
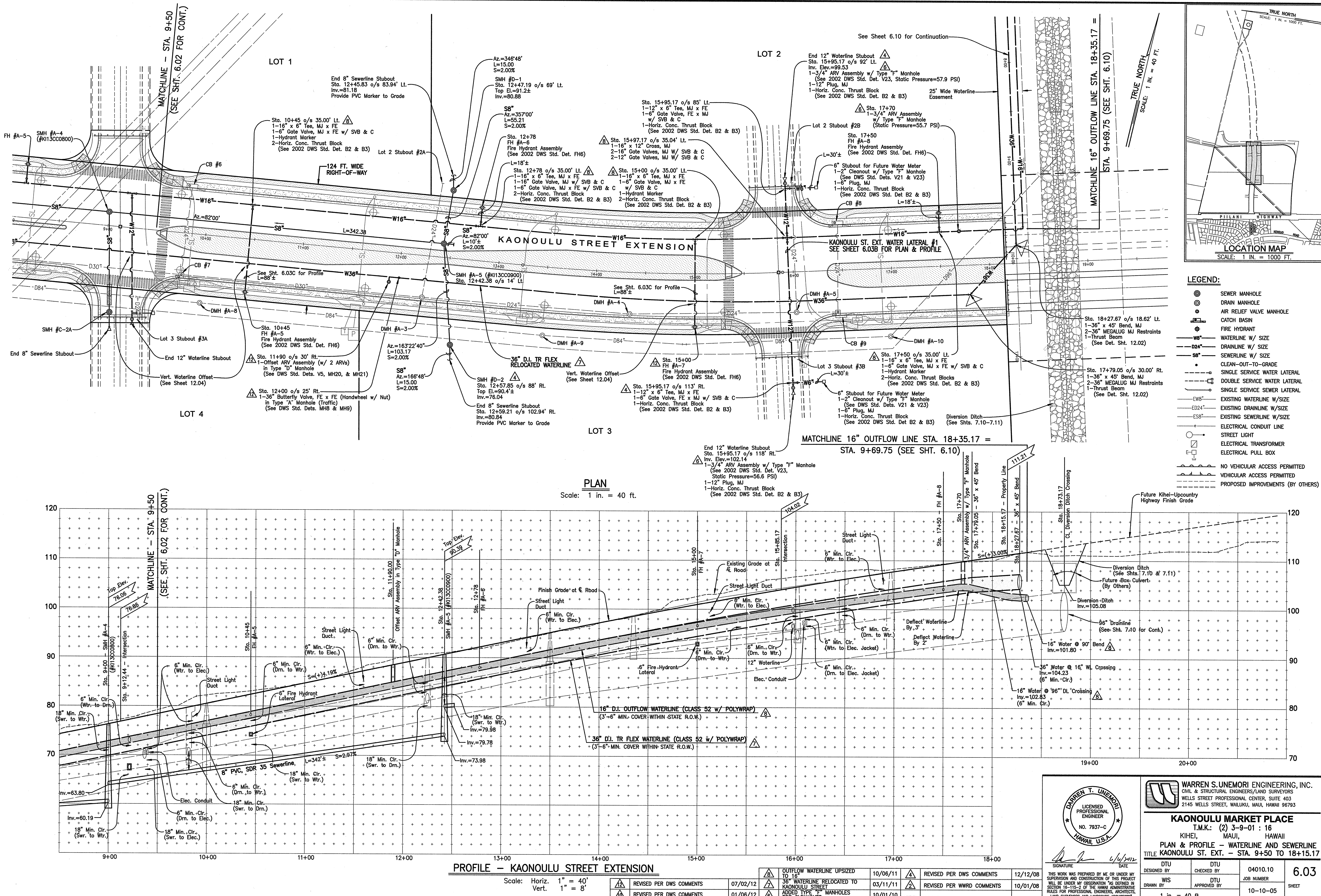


THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION "AS DEFINED IN SECTION 16-115-2 OF THE HAWAII ADMINISTRATIVE RULES FOR PROFESSIONAL ENGINEERS, ARCHITECTS, LAND SURVEYORS AND LANDSCAPE ARCHITECTS"

REVISION	DESCRIPTION	DATE
6	REVISED CHECK VALVE & SIPHON CONC. BLOCKS PER DWS REQUEST	10/01/10
5	REVISED PER DWS COMMENTS	12/12/08
4	REVISED PER WWD COMMENTS	10/01/08



V:\Projects\0401010\dwg\0401010.dwg (PL-WL-ST-10).dwg



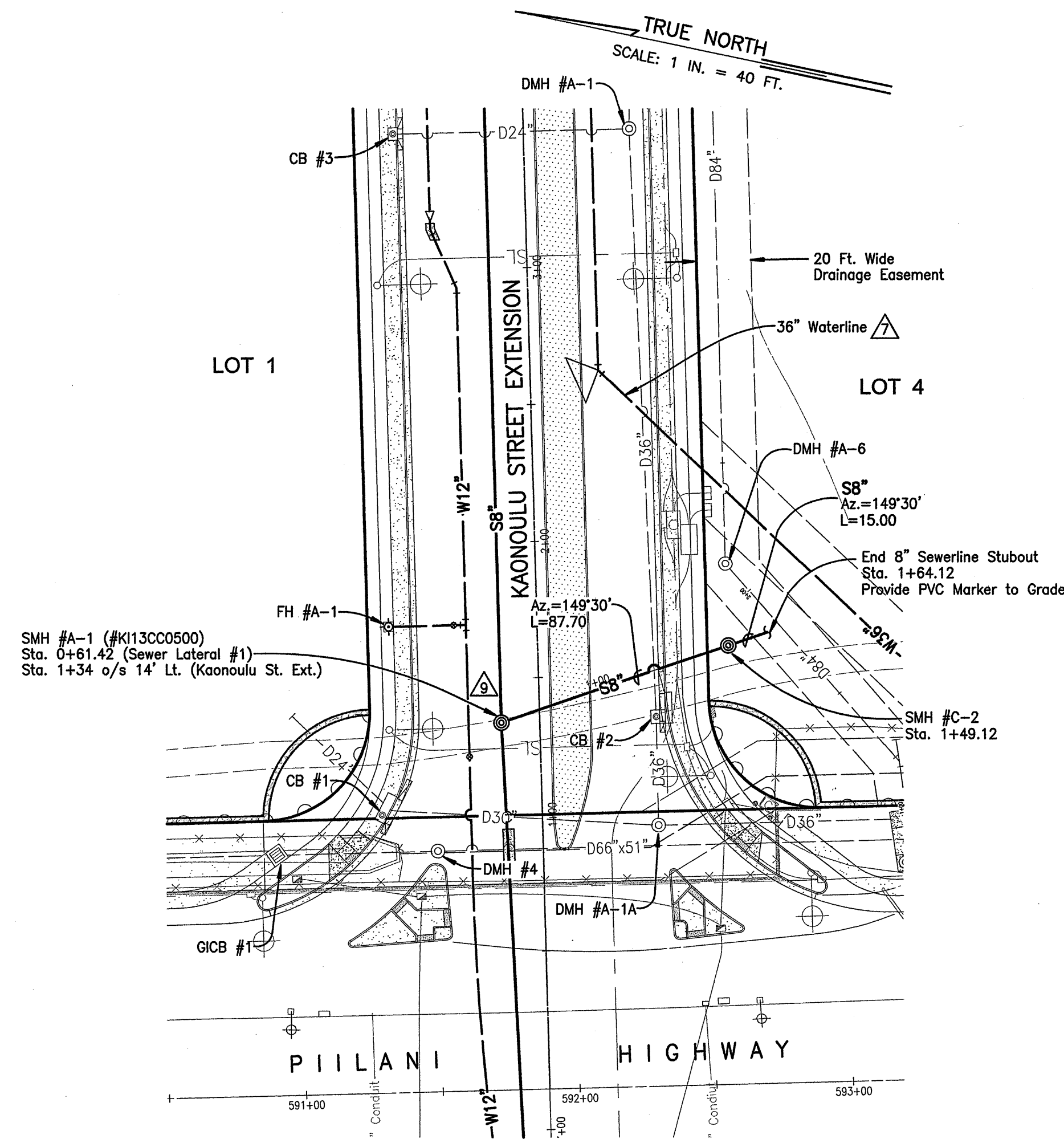
WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

KAONOULU MARKET PLACE
T.M.K.: (2) 3-9-01 : 16
KIHEI, MAUI, HAWAII

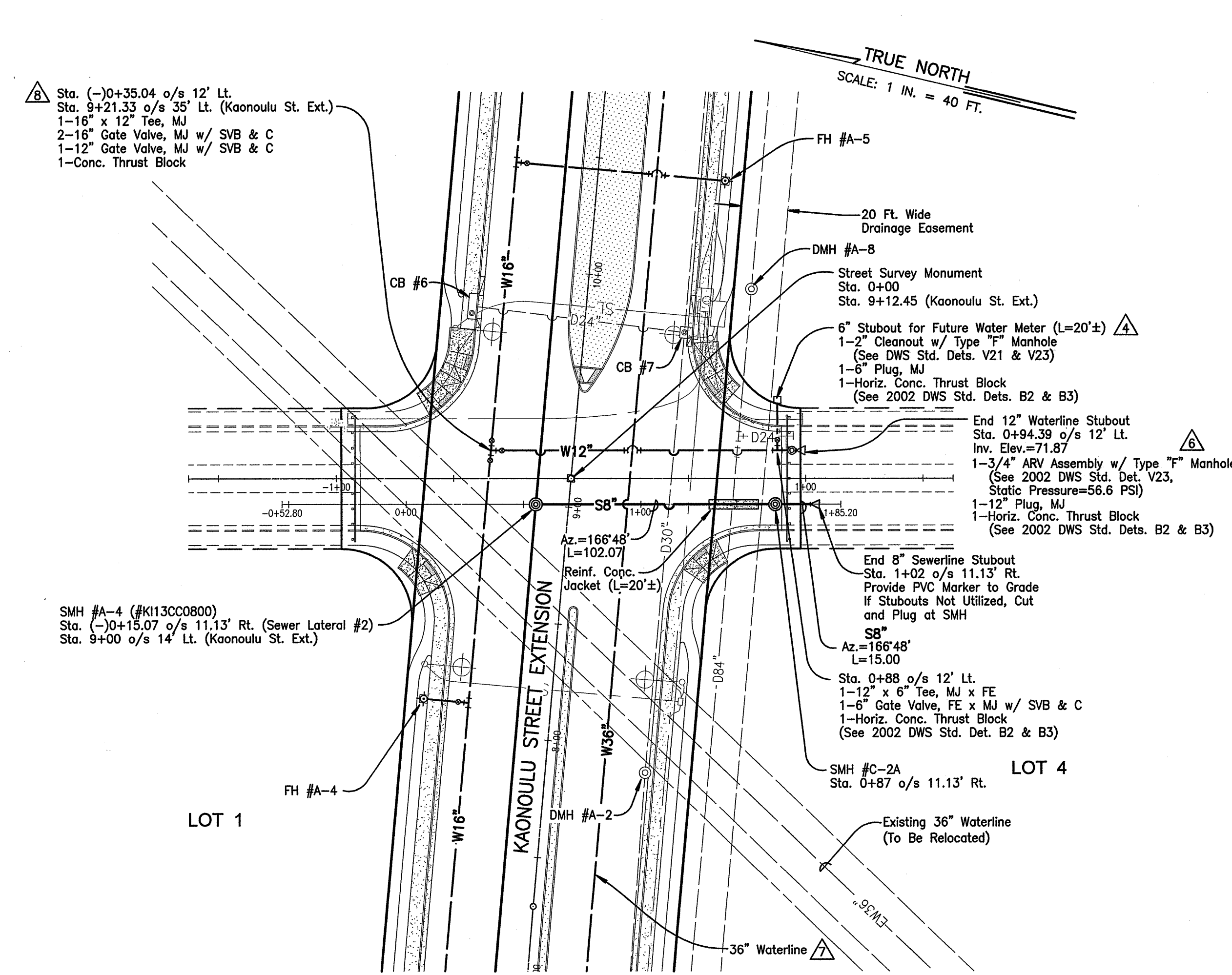
PLAN & PROFILE - WATERLINE AND SEWERLINE
TITLE: KAONOULU ST. EXT. - STA. 9+50 TO 18+15.17

DTU	DTU	04010.10	6.03
DESIGNED BY	CHECKED BY	JOB NUMBER	SHEET
WIS	DTU	10-10-05	OF SHEETS
DRAWN BY	APPROVED BY	DATE	

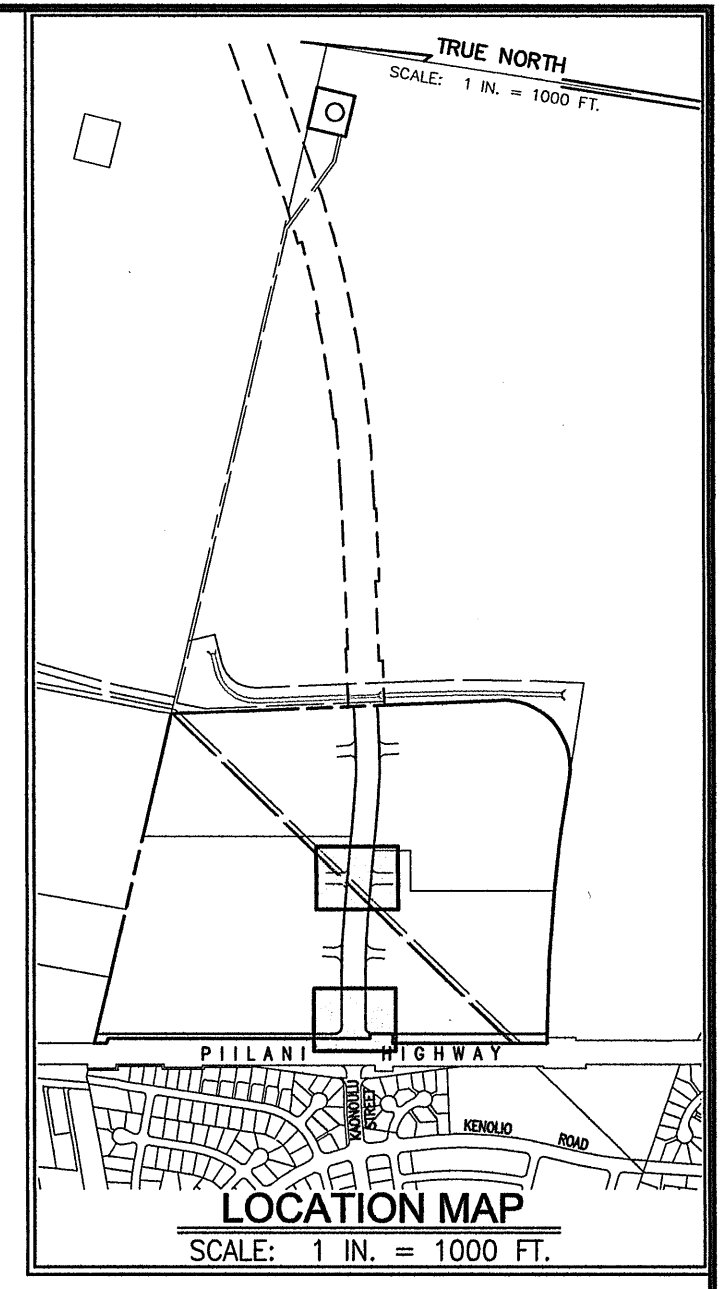
Scale 1 in. = 40 ft.



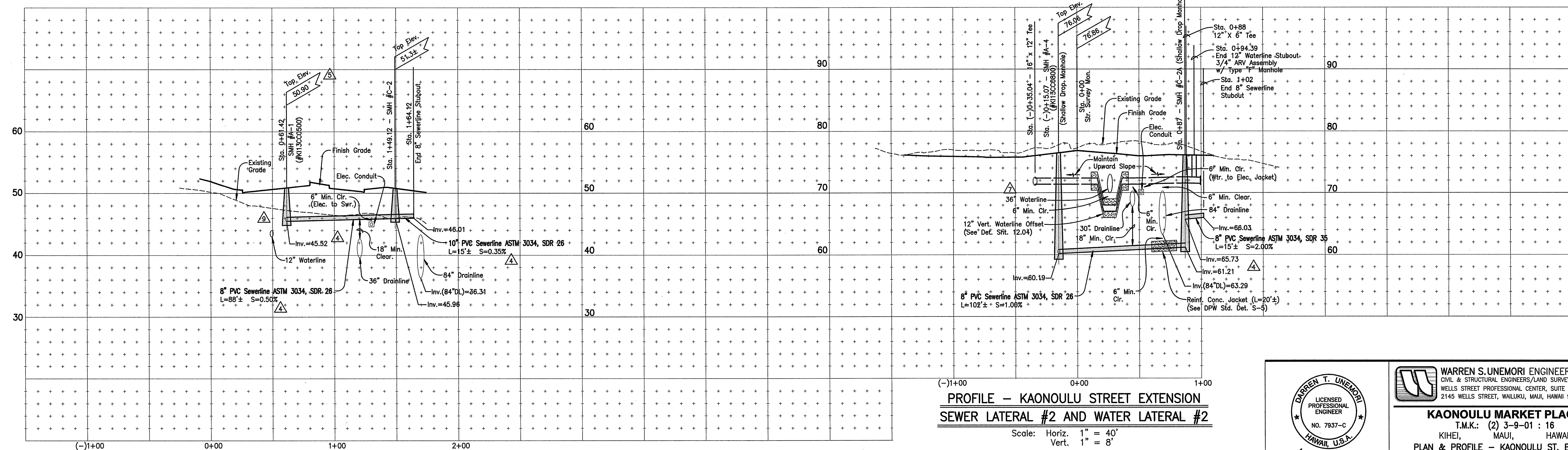
PLAN
Scale: 1 in. = 40 ft.



PLAN
Scale: 1 in. = 40 ft.



- LEGEND:**
- ⊙ SEWER MANHOLE
 - ⊙ DRAIN MANHOLE
 - ⊙ AIR RELIEF VALVE MANHOLE
 - ⊙ CATCH BASIN
 - ⊙ FIRE HYDRANT
 - W8" — WATERLINE W/ SIZE
 - D24" — DRAINLINE W/ SIZE
 - S8" — SEWERLINE W/ SIZE
 - — CLEAN-OUT-TO-GRADE
 - — SINGLE SERVICE WATER LATERAL
 - — DOUBLE SERVICE WATER LATERAL
 - — SINGLE SERVICE SEWER LATERAL
 - EWB" — EXISTING WATERLINE W/SIZE
 - ED24" — EXISTING DRAINLINE W/SIZE
 - ES8" — EXISTING SEWERLINE W/SIZE
 - — ELECTRICAL CONDUIT LINE
 - ⊙ STREET LIGHT
 - ⊙ ELECTRICAL TRANSFORMER
 - ⊙ ELECTRICAL PULL BOX
 - — NO VEHICULAR ACCESS PERMITTED
 - — VEHICULAR ACCESS PERMITTED
 - — PROPOSED IMPROVEMENTS (BY OTHERS)



PROFILE - KAONOULU STREET EXTENSION
SEWER LATERAL #1

Scale: Horiz. 1" = 40'
Vert. 1" = 8'

PROFILE - KAONOULU STREET EXTENSION
SEWER LATERAL #2 AND WATER LATERAL #2

Scale: Horiz. 1" = 40'
Vert. 1" = 8'

REVISION	DESCRIPTION	DATE
1	REVISED PER DWS COMMENTS	01/06/12
2	REMOVED LOT 1 SEWER LATERAL AT SMH #A-1 PER WWRD COMMENT	11/28/11
3	OUTFLOW WATERLINE UPSIZED TO 16"	10/17/11
4	36" WATERLINE RELOCATED TO KAONOULU STREET	03/11/11
5	ADDED TYPE "F" MANHOLES FOR CLEANOUTS	10/01/10
6	REVISED TOP MANHOLE ELEVATIONS	10/21/09
7	REVISED PER DWS COMMENTS	12/12/08
8	REVISED PER WWRD COMMENTS	10/01/08
REVISION	DESCRIPTION	DATE

DARREN T. UNEMORI
LICENSED PROFESSIONAL ENGINEER
NO. 7937-C
HAWAII, U.S.A.

WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

KAONOULU MARKET PLACE
T.M.K.: (2) 3-9-01 : 16
KIHEI, MAUI, HAWAII

PLAN & PROFILE - KAONOULU ST. EXT.
TITLE SEWER LATERALS #1 AND #2

DESIGNED BY	CHECKED BY	DATE
WIS	DTU	10-10-05
DRAWN BY	APPROVED BY	DATE

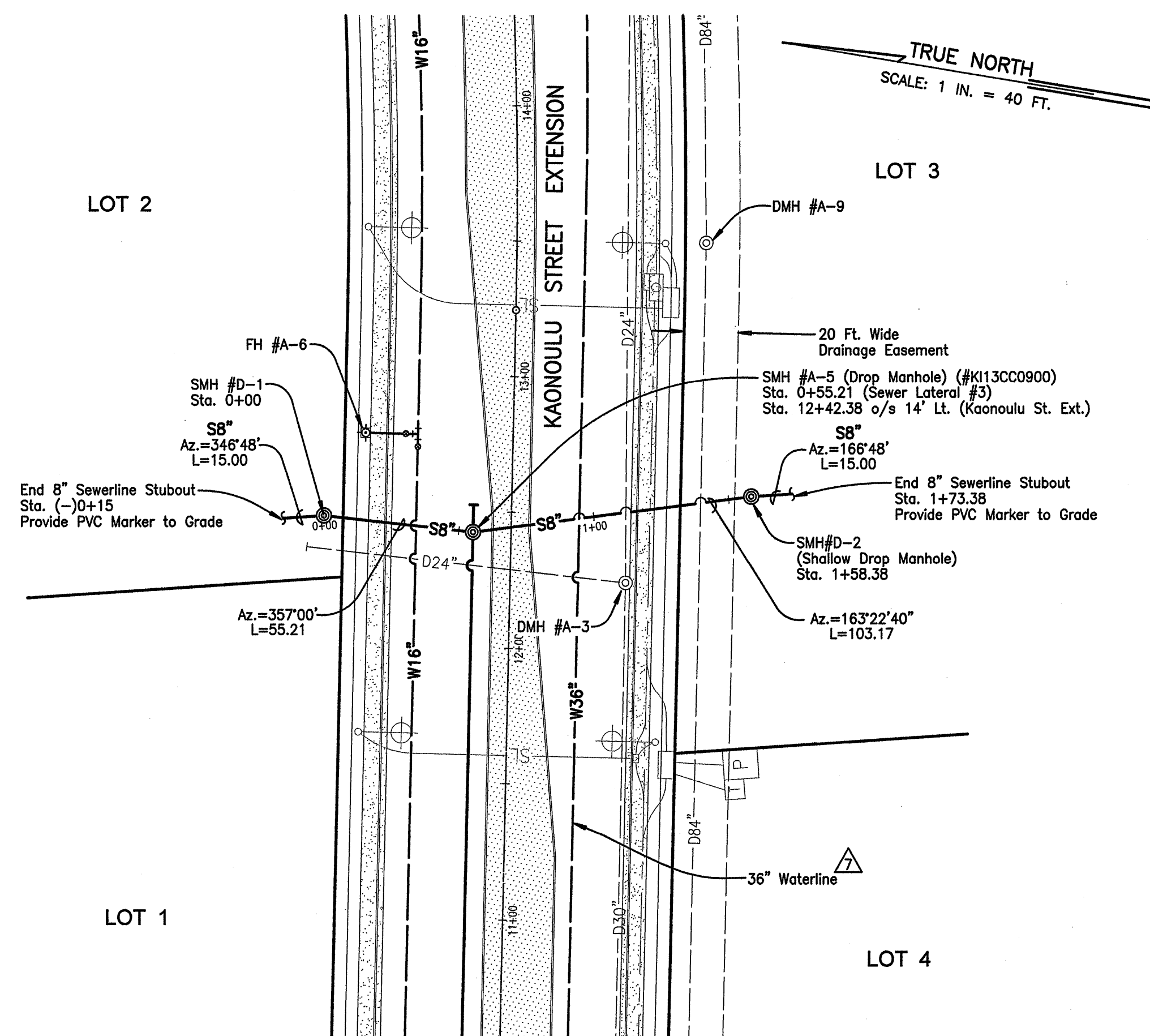
SCALE 1 in. = 40 ft.

04010.10
JOB NUMBER

10-10-05
DATE

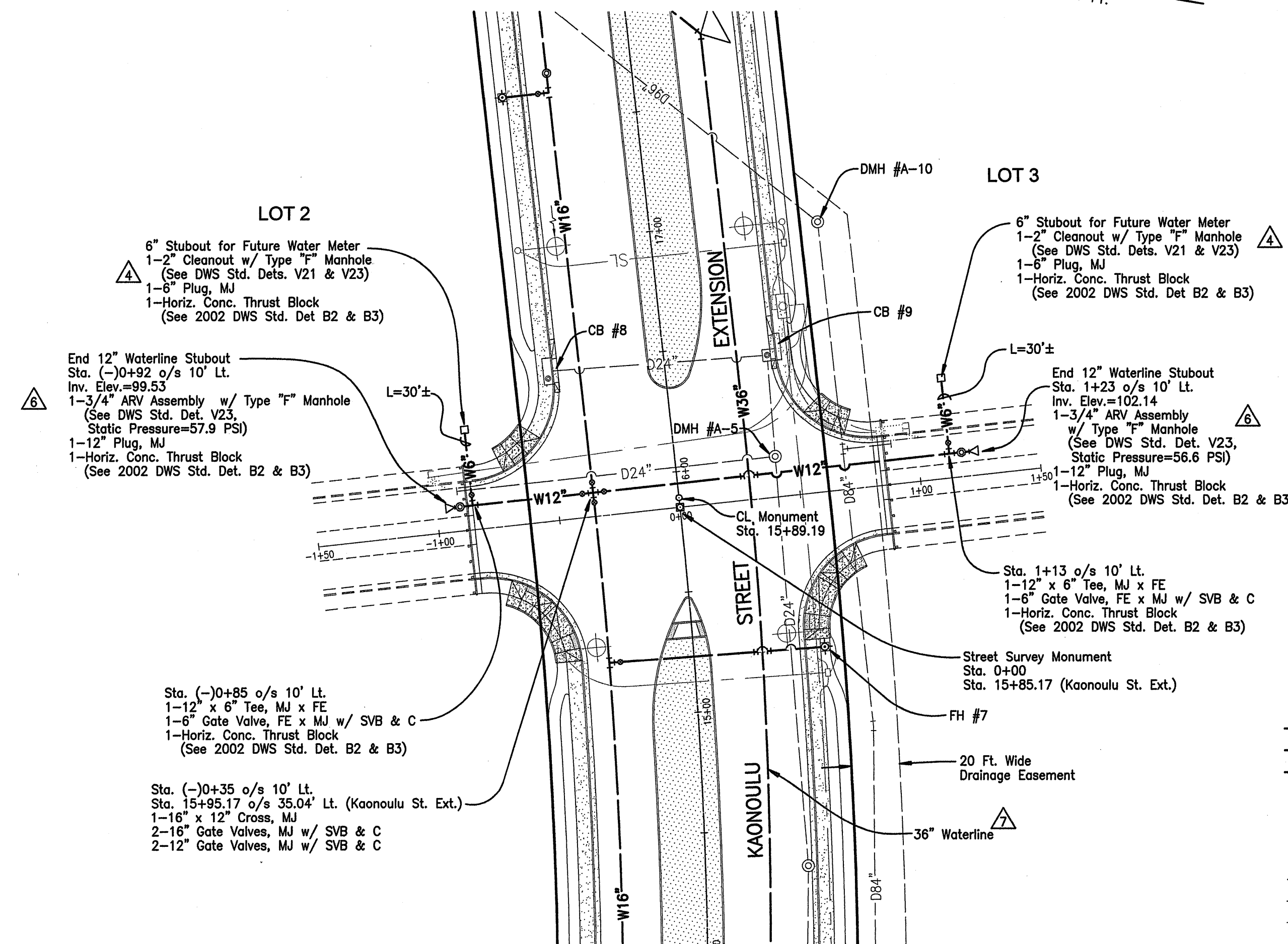
6.03A
SHEET

OF SHEETS



PLAN

Scale: 1 in. = 40 ft.

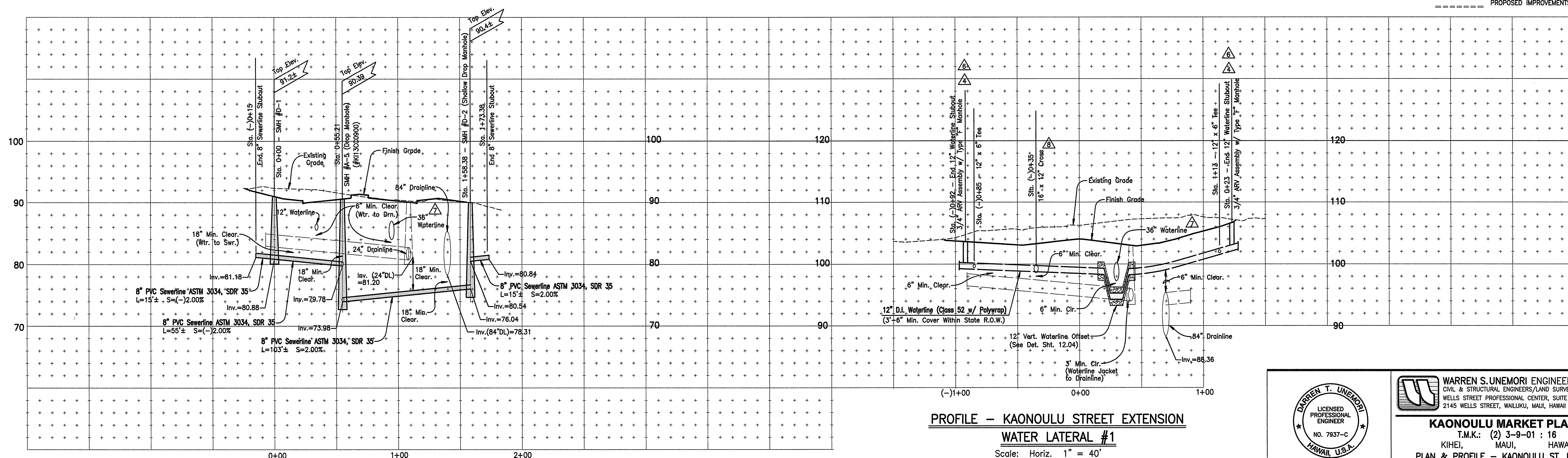


PLAN

Scale: 1 in. = 40 ft.

LEGEND:

- ⊙ SEWER MANHOLE
- ⊙ DRAIN MANHOLE
- ⊙ AIR RELIEF VALVE MANHOLE
- ⊙ CATCH BASIN
- ⊙ FIRE HYDRANT
- W8" — WATERLINE W/ SIZE
- D24" — DRAINLINE W/ SIZE
- S8" — SEWERLINE W/ SIZE
- — CLEAN-OUT-TO-GRADE
- — SINGLE SERVICE WATER LATERAL
- — DOUBLE SERVICE WATER LATERAL
- — SINGLE SERVICE SEWER LATERAL
- EW8" — EXISTING WATERLINE W/SIZE
- ED24" — EXISTING DRAINLINE W/SIZE
- ES8" — EXISTING SEWERLINE W/SIZE
- — ELECTRICAL CONDUIT LINE
- ⊙ STREET LIGHT
- ⊙ ELECTRICAL TRANSFORMER
- ⊙ ELECTRICAL PULL BOX
- — NO VEHICULAR ACCESS PERMITTED
- — VEHICULAR ACCESS PERMITTED
- — PROPOSED IMPROVEMENTS (BY OTHERS)



PROFILE — KAONOULU STREET EXTENSION

SEWER LATERAL #3

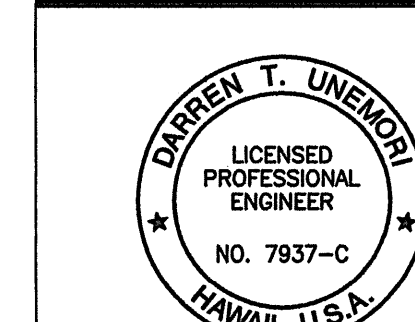
Scale: Horiz. 1" = 40'
Vert. 1" = 8'

PROFILE — KAONOULU STREET EXTENSION

WATER LATERAL #1

Scale: Horiz. 1" = 40'
Vert. 1" = 8'

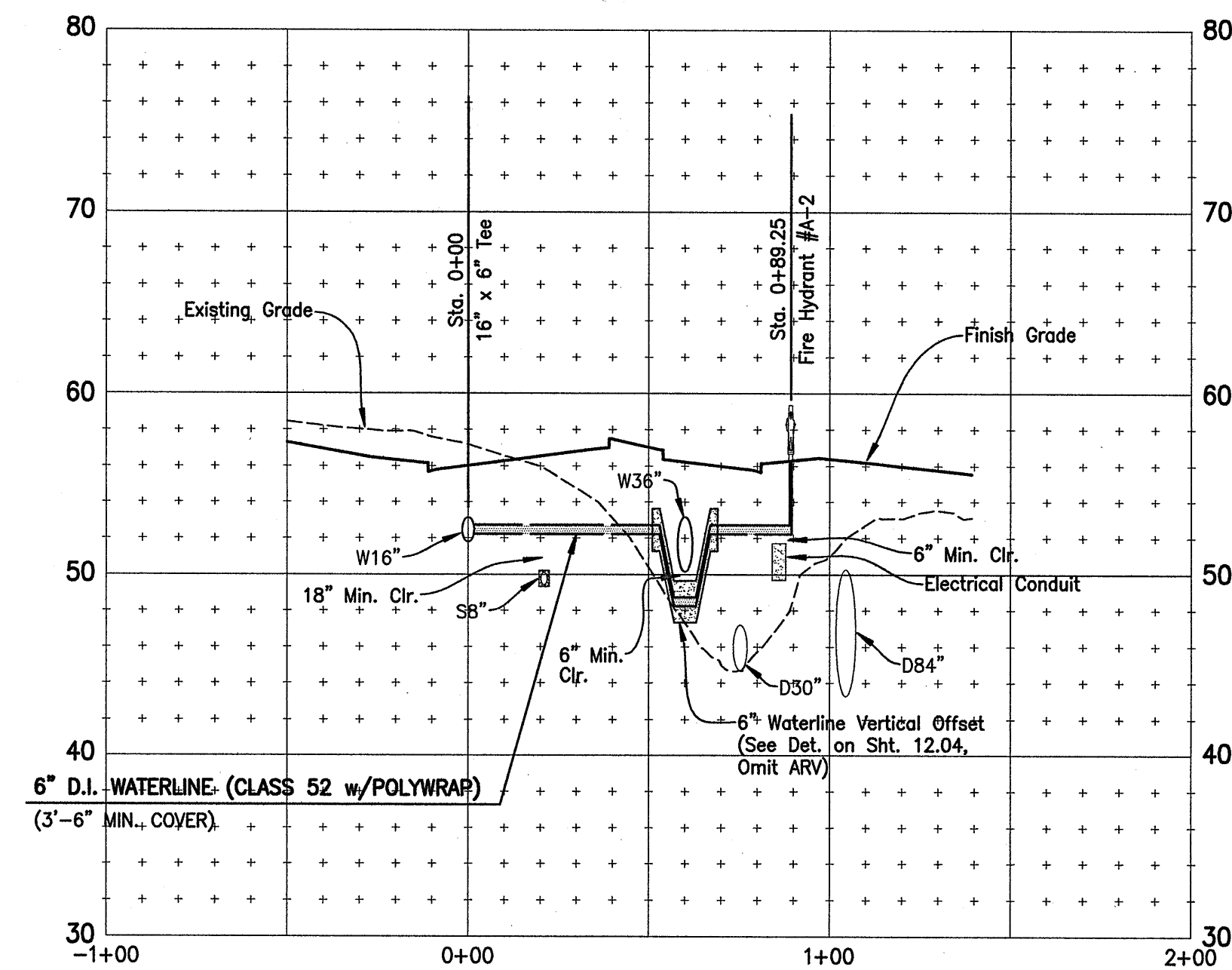
NO.	REVISION	DATE	DESCRIPTION
1	REVISED PER DWS COMMENTS	01/06/12	
2	OUTFLOW WATERLINE UPSIZED TO 16"	10/17/11	
3	36" WATERLINE RELOCATED TO KAONOULU STREET	03/11/11	



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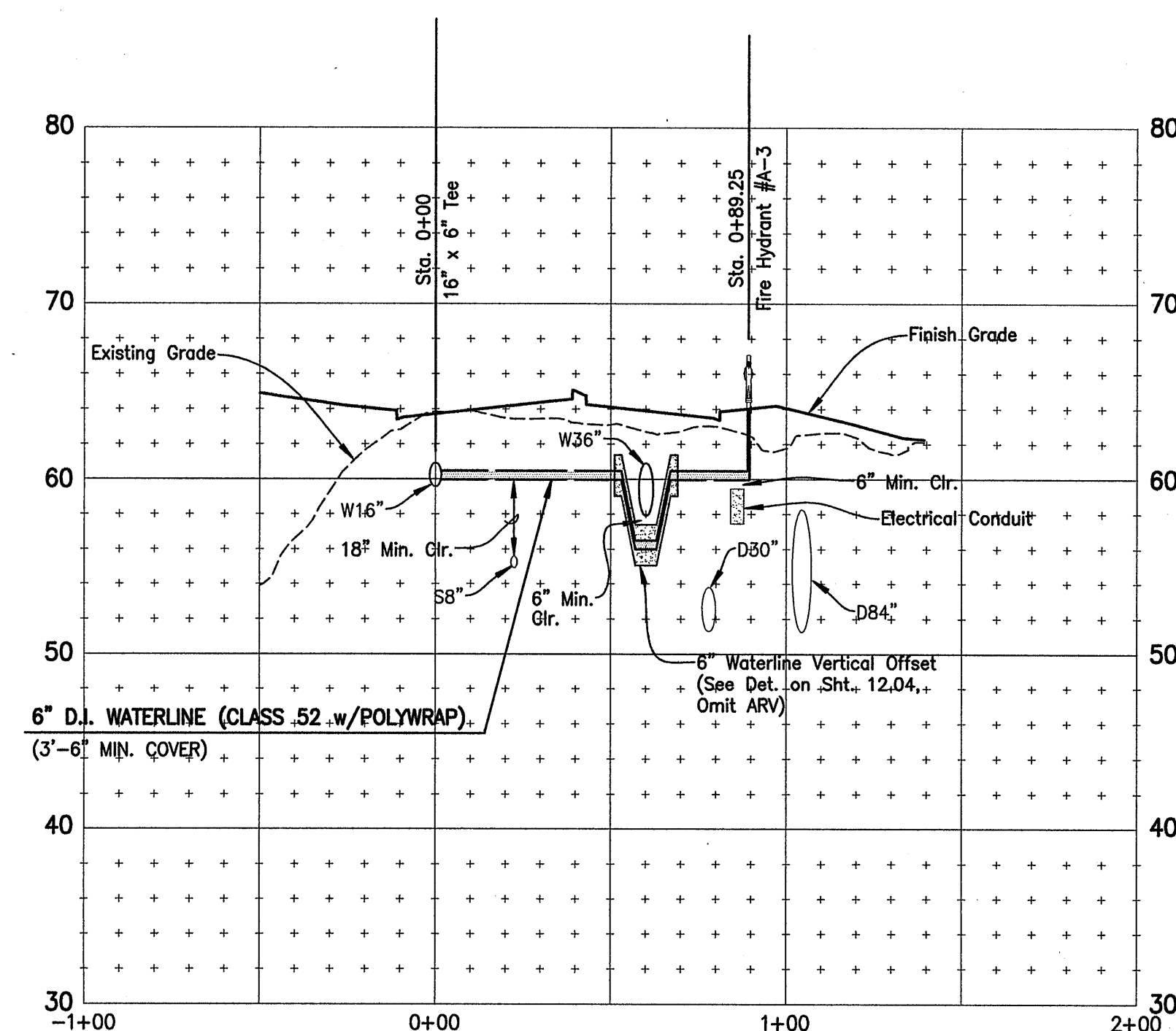
KAONOULU MARKET PLACE
T.M.K.: (2) 3-9-01 : 16
KIHEI, MAUI, HAWAII
PLAN & PROFILE — KAONOULU ST. EXT.
TITLE SEWER LATERAL #3 AND WATER LATERAL #1

DESIGNED BY	DTU	CHECKED BY	DTU	JOB NUMBER	04010.10
DRAWN BY	WIS	APPROVED BY	DTU	JOB NUMBER	10-10-05
SCALE	1 in. = 40 ft.	DATE		SHEET	6.03B
				OF SHEETS	



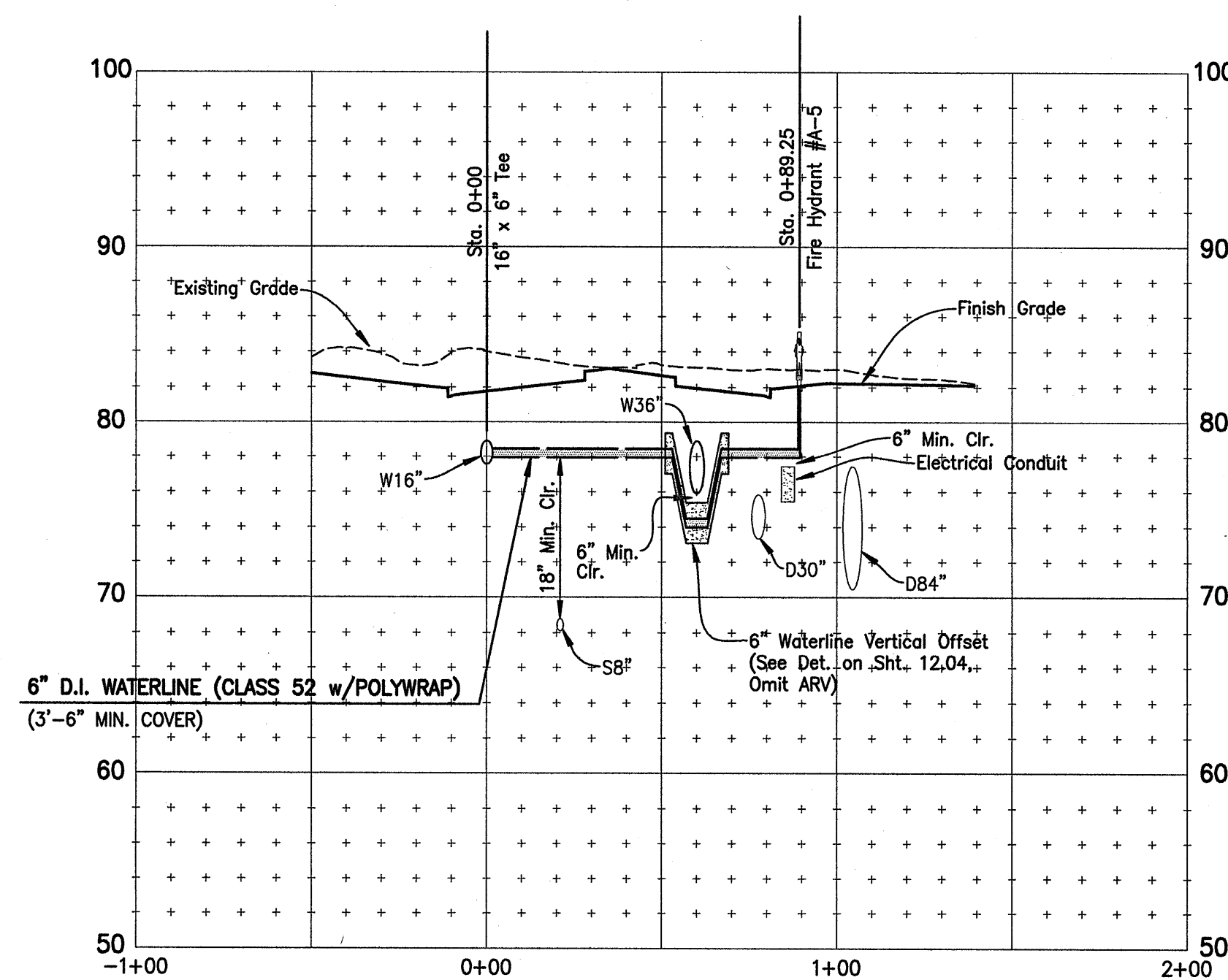
PROFILE - WATERLINE CONNECTION FOR FIRE HYDRANT #A-2
 @ STA. 3+93 (KAONOULU STREET EXTENSION)

Scale: Horiz. 1" = 40'
 Vert. 1" = 8'



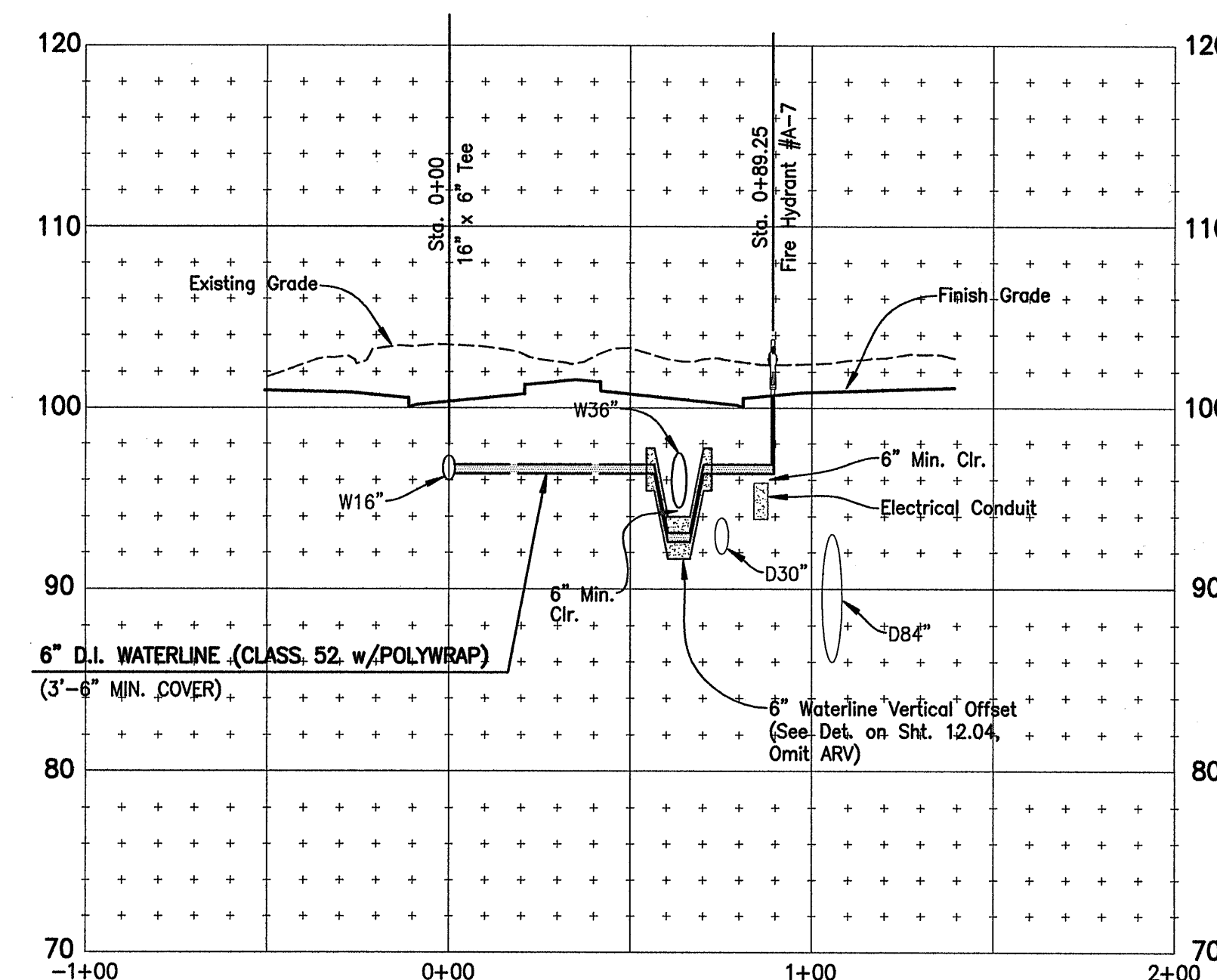
PROFILE - WATERLINE CONNECTION FOR FIRE HYDRANT #A-3
 @ STA. 6+15 (KAONOULU STREET EXTENSION)

Scale: Horiz. 1" = 40'
 Vert. 1" = 8'



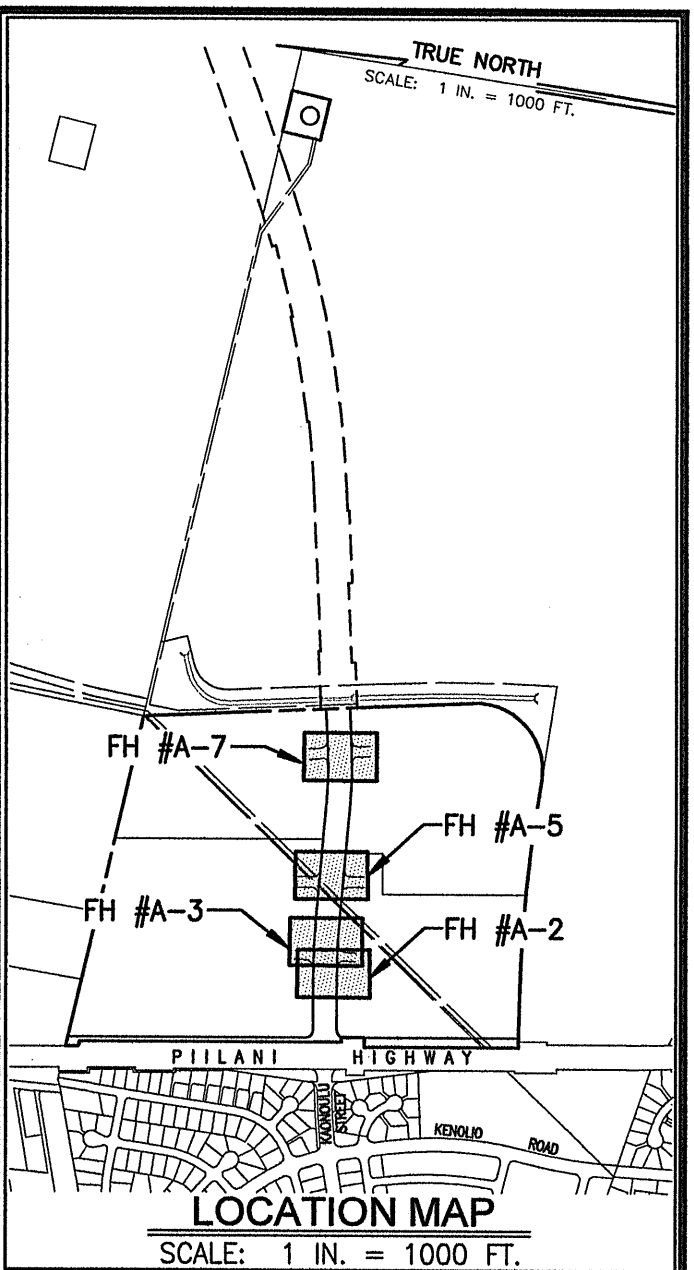
PROFILE - WATERLINE CONNECTION FOR FIRE HYDRANT #A-5
 @ STA. 10+45 (KAONOULU STREET EXTENSION)

Scale: Horiz. 1" = 40'
 Vert. 1" = 8'



PROFILE - WATERLINE CONNECTION FOR FIRE HYDRANT #A-7
 @ STA. 15+00 (KAONOULU STREET EXTENSION)

Scale: Horiz. 1" = 40'
 Vert. 1" = 8'



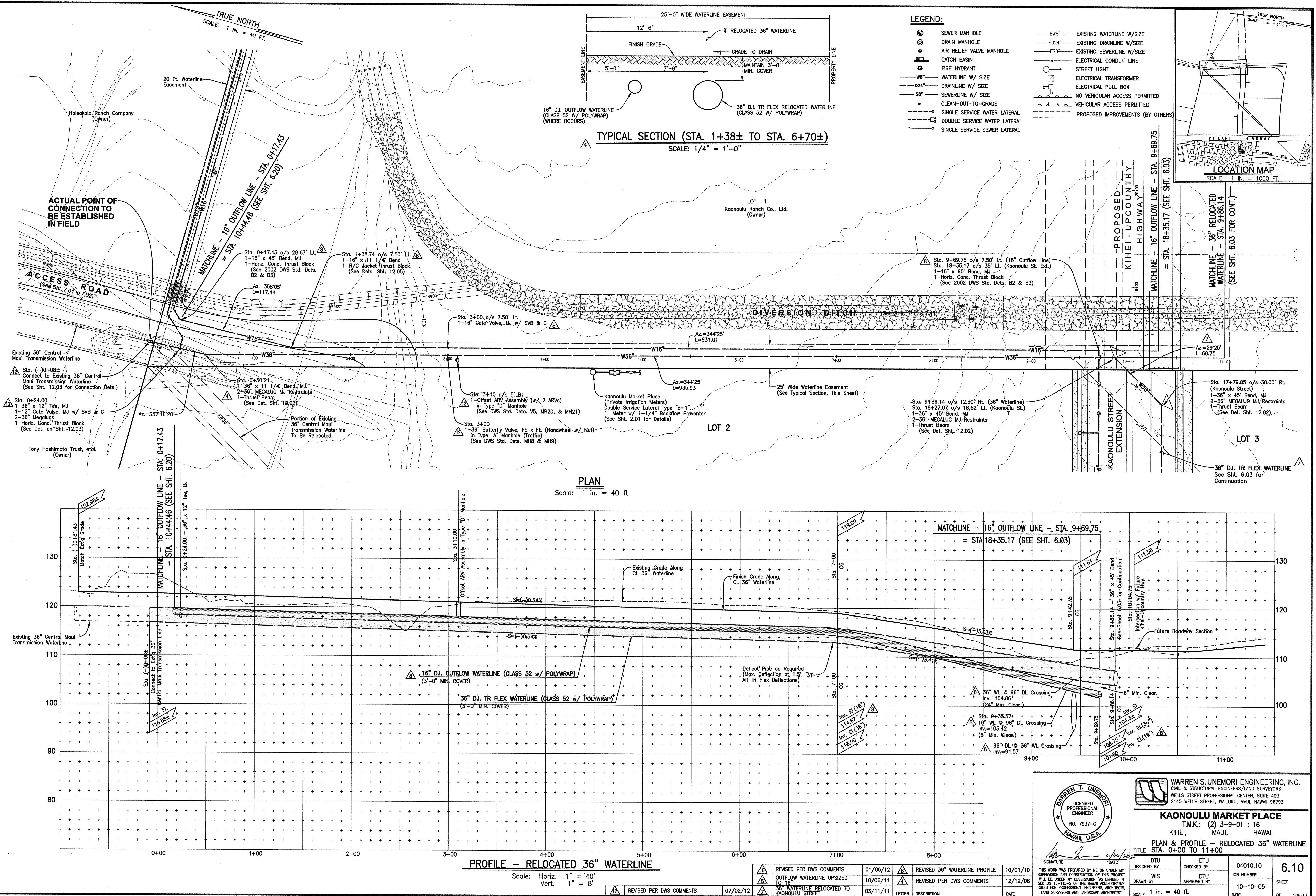
WARREN S. UNEMORI ENGINEERING, INC.
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KAONOULU MARKET PLACE
 T.M.K.: (2) 3-9-01 : 16
 KIHAI, MAUI, HAWAII

TITLE PROFILES - FIRE HYDRANT LATERALS			
DESIGNED BY DTU	CHECKED BY DTU	JOB NUMBER 04010.10	6.03C
DRAWN BY WIS	APPROVED BY DTU	DATE 10-10-05	
SCALE 1 in. = 40 ft.			OF SHEETS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION AS DEFINED IN SECTION 10-115-2 OF THE HAWAII ADMINISTRATIVE RULES FOR PROFESSIONAL ENGINEERS, ARCHITECTS, LAND SURVEYORS AND LANDSCAPE ARCHITECTS.

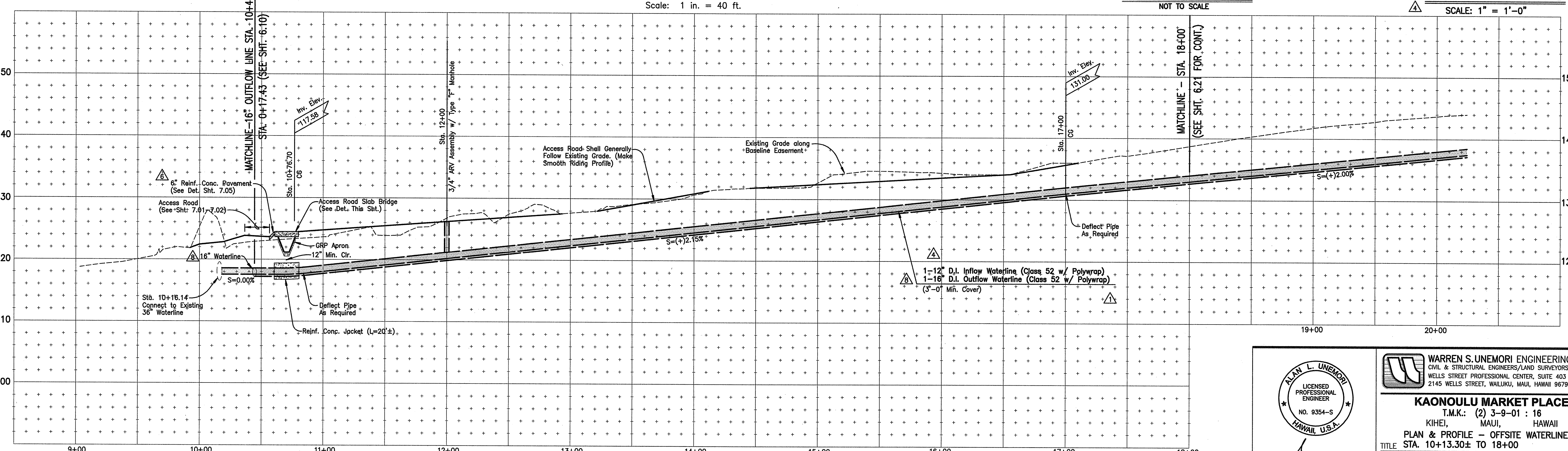
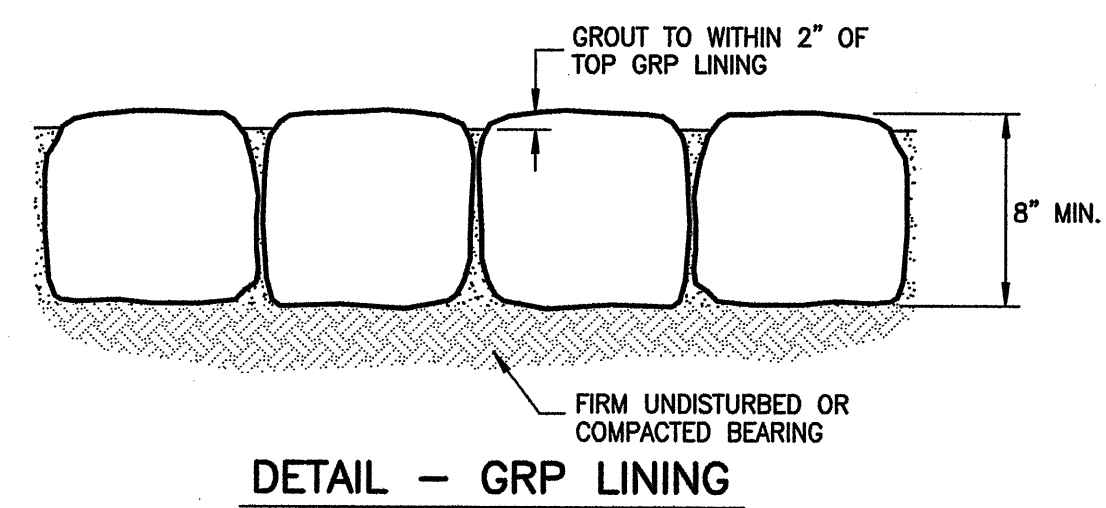
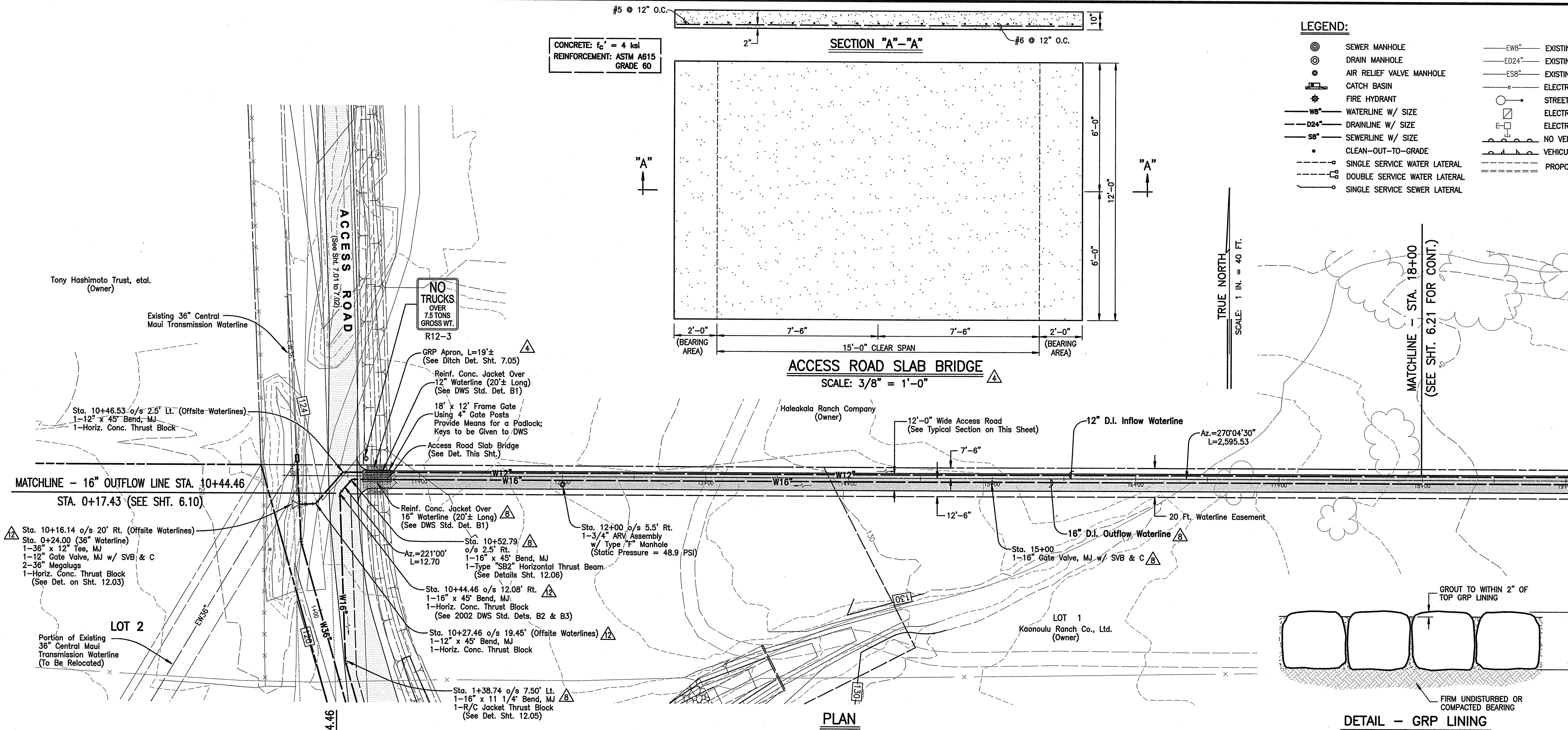
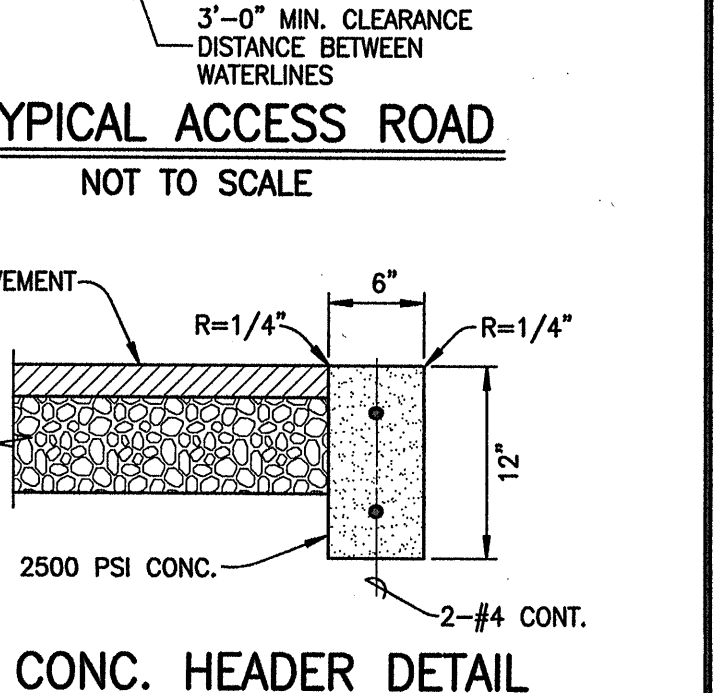
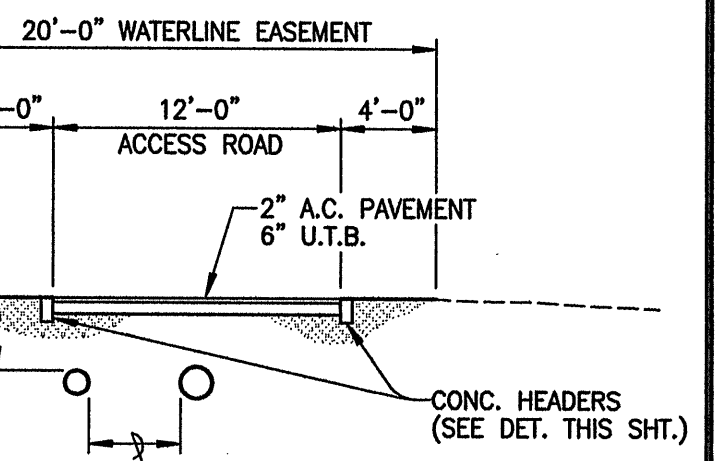
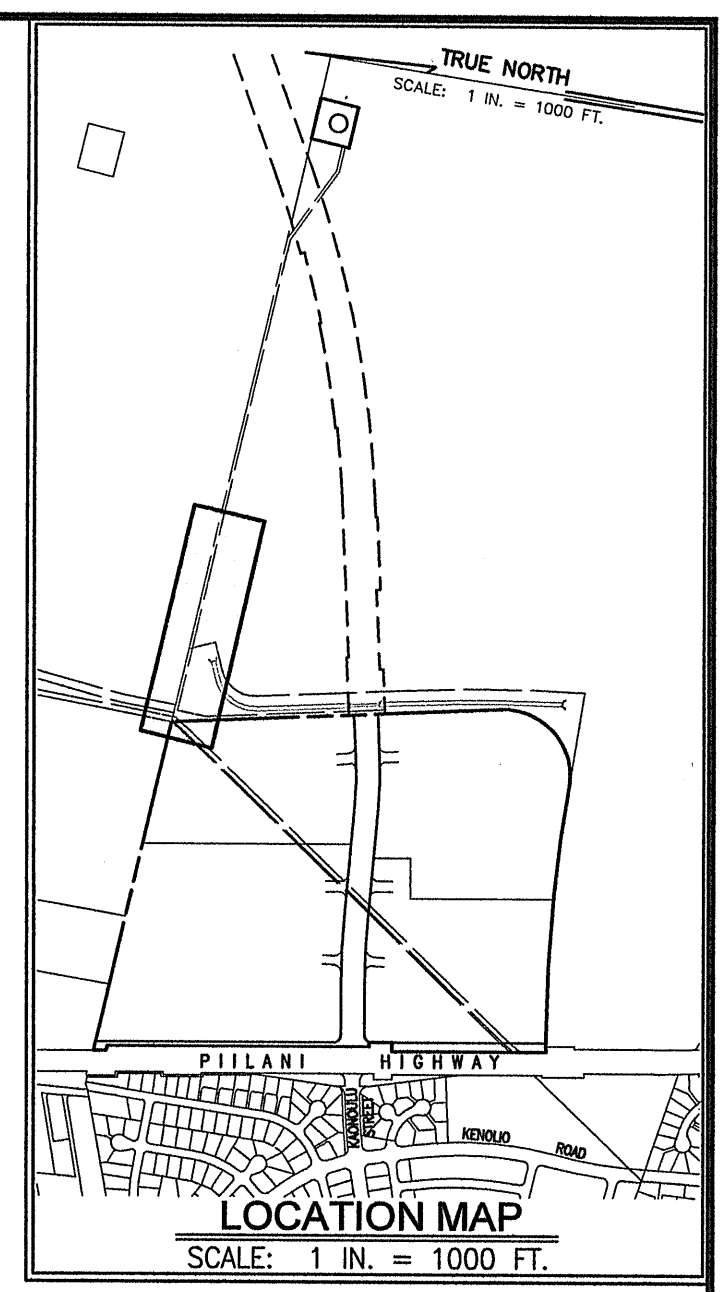
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CONCRETE: $f_c' = 4$ ksi
REINFORCEMENT: ASTM A615
GRADE 60

LEGEND:

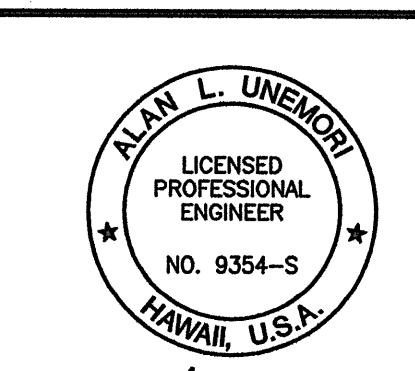
- SEWER MANHOLE
- DRAIN MANHOLE
- AIR RELIEF VALVE MANHOLE
- CATCH BASIN
- FIRE HYDRANT
- WATERLINE W/ SIZE
- DRAINLINE W/ SIZE
- SEWERLINE W/ SIZE
- CLEAN-OUT-TO-GRADE
- SINGLE SERVICE WATER LATERAL
- DOUBLE SERVICE WATER LATERAL
- SINGLE SERVICE SEWER LATERAL
- EXISTING WATERLINE W/SIZE
- EXISTING DRAINLINE W/SIZE
- EXISTING SEWERLINE W/SIZE
- ELECTRICAL CONDUIT LINE
- STREET LIGHT
- ELECTRICAL TRANSFORMER
- ELECTRICAL PULL BOX
- NO VEHICULAR ACCESS PERMITTED
- VEHICULAR ACCESS PERMITTED
- PROPOSED IMPROVEMENTS (BY OTHERS)



PROFILE - OFFSITE WATERLINES

Scale: Horiz. 1" = 40'
Vert. 1" = 8'

REVISED PER DWS COMMENTS	01/06/12	ADDED ACCESS ROAD SLAB BRIDGE	12/12/08
OUTFLOW WATERLINE UPSIZED	10/06/11	REVISED TANK INFLOW LINE	5/08/08
ADDED REINF. CONC. PAVEMENT	10/01/10	LETTER	DESCRIPTION
DATE	DATE	DATE	DATE



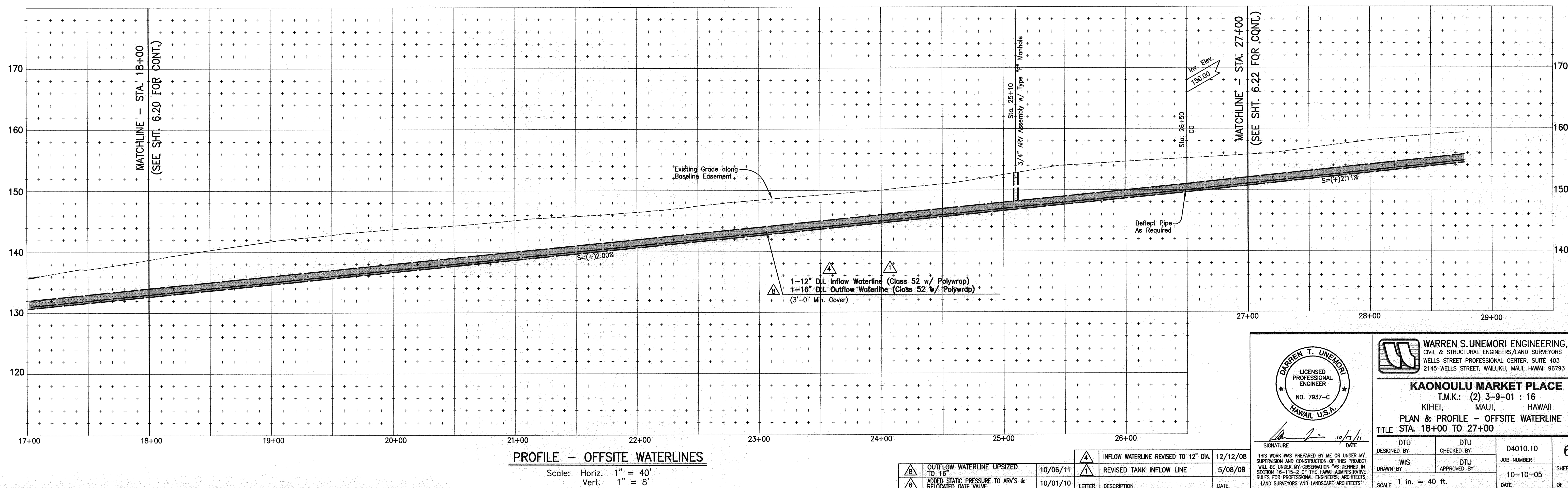
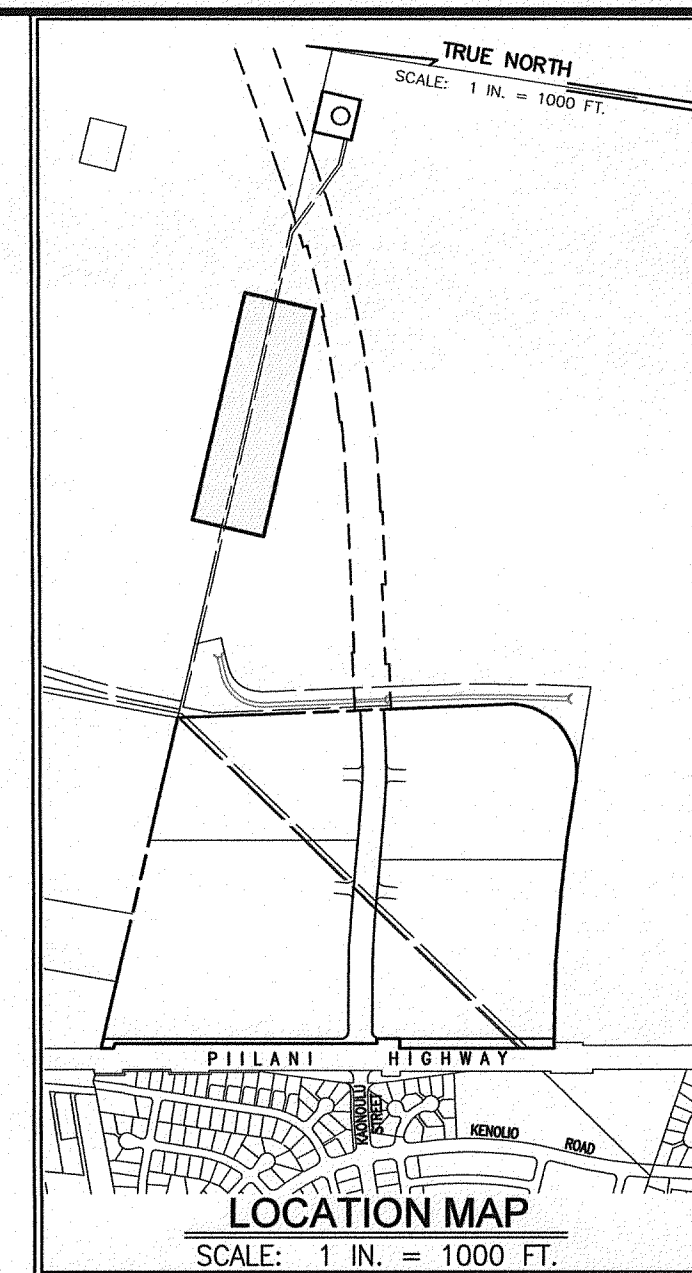
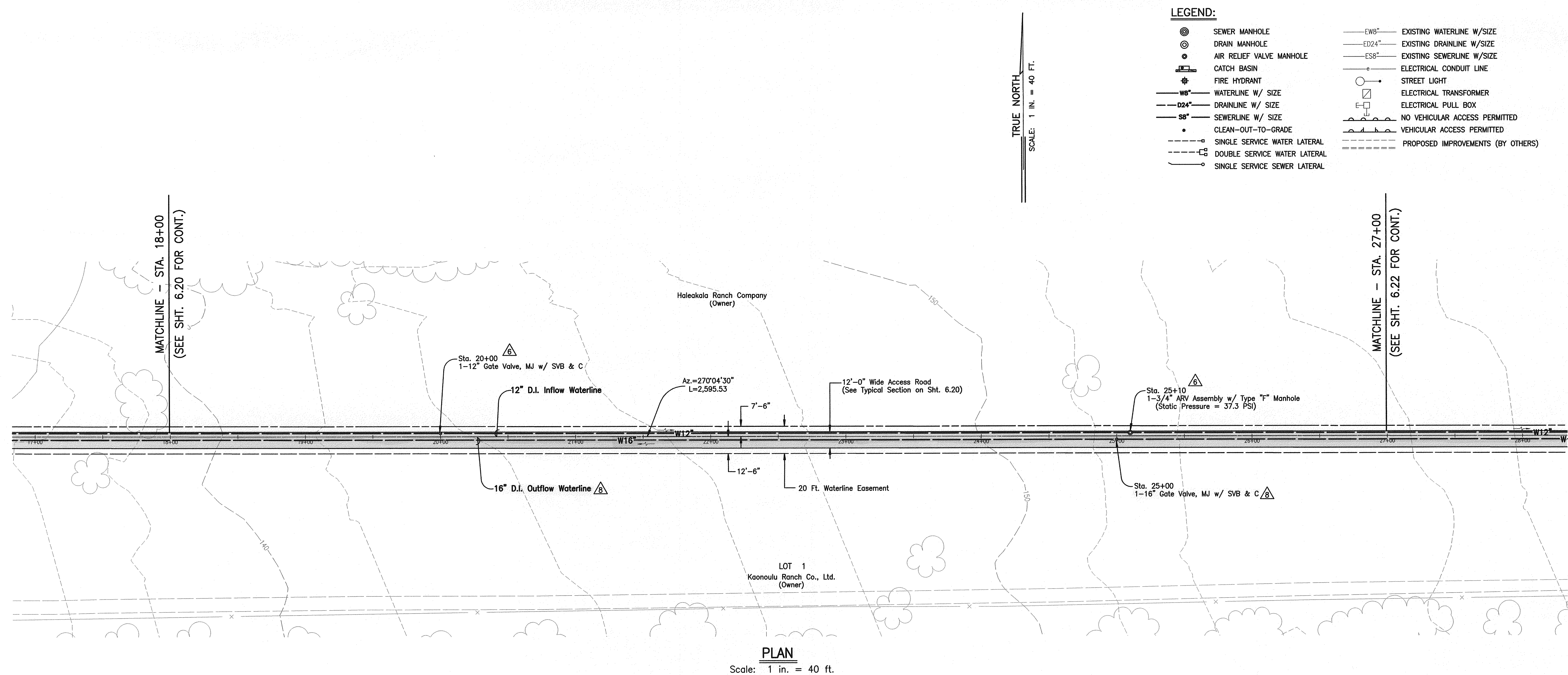
WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

KAONOULU MARKET PLACE
T.M.K.: (2) 3-9-01 : 16
KIHEI, MAUI, HAWAII

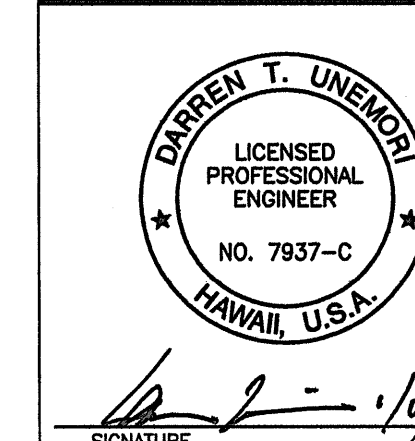
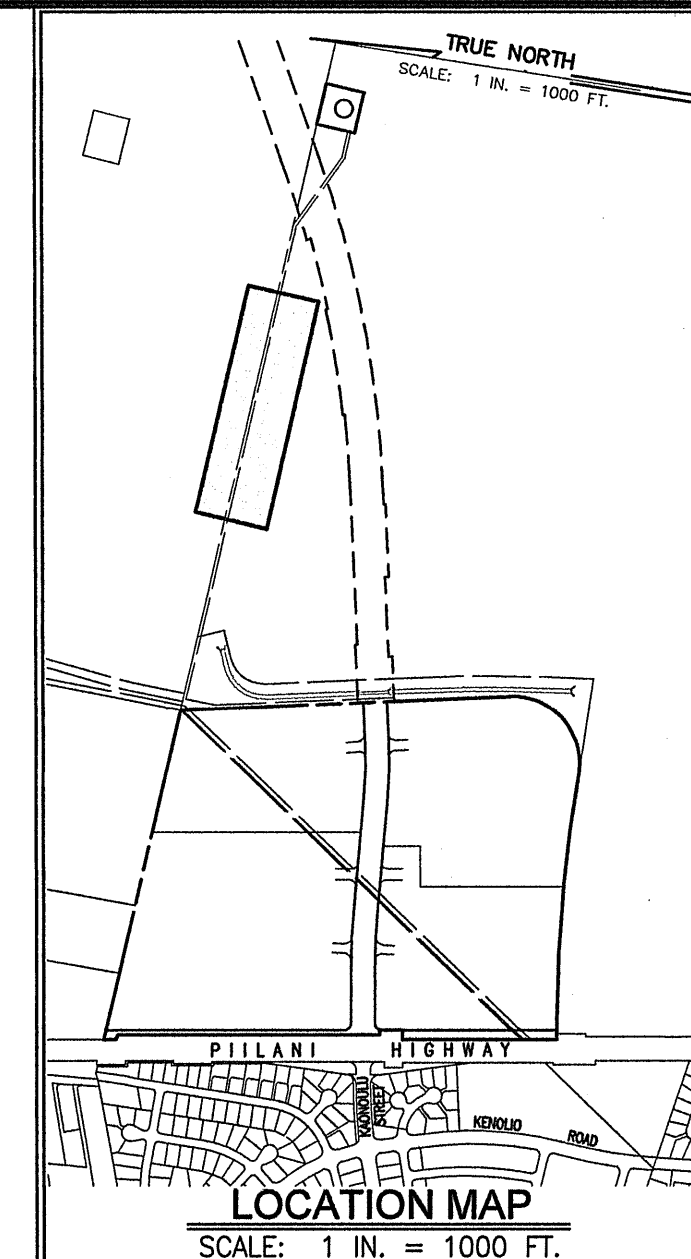
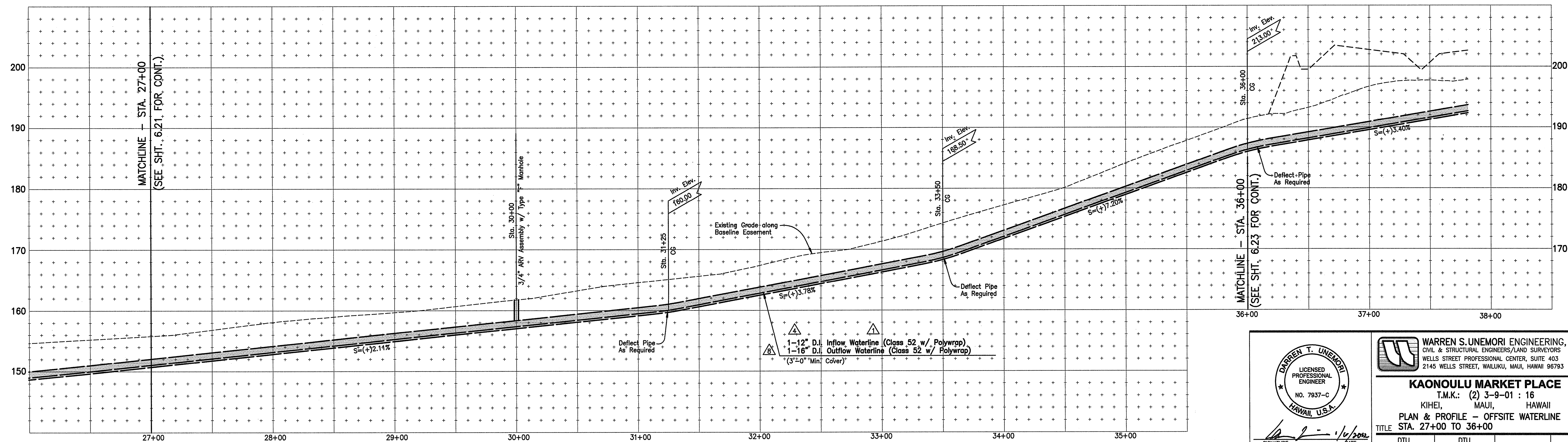
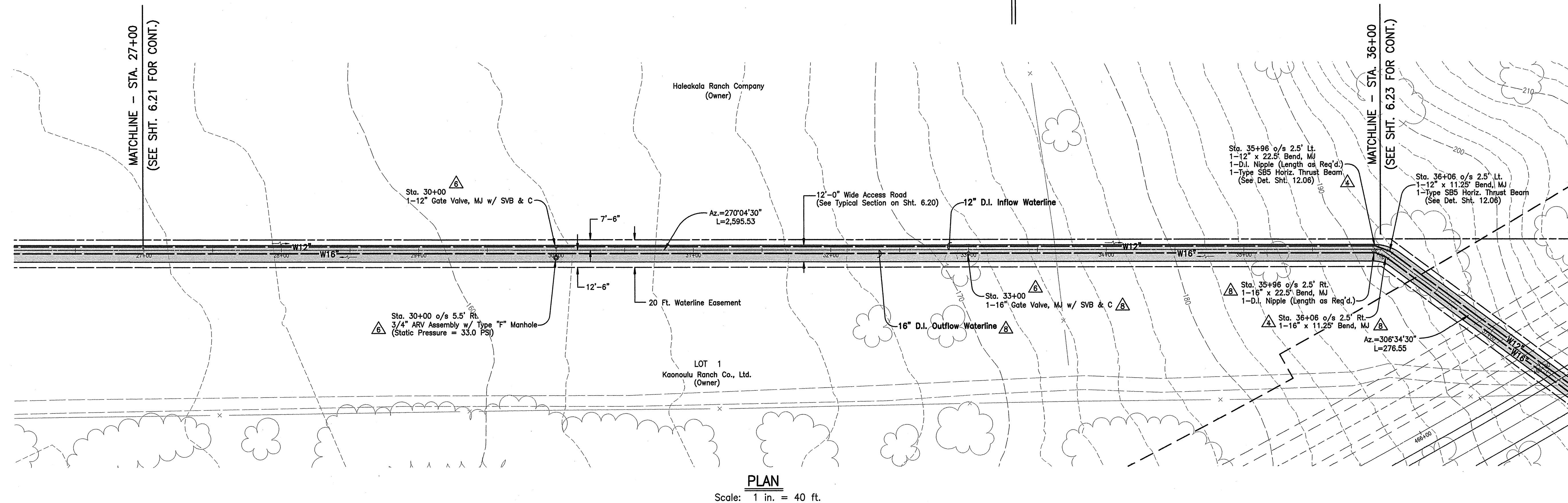
PLAN & PROFILE - OFFSITE WATERLINE
STA. 10+13.30± TO 18+00

SIGNATURE	DATE	DTU DESIGNED BY	DTU CHECKED BY	04010.10	6.20
WIS	DTU	APPROVED BY	JOB NUMBER	10-10-05	
SCALE 1 in. = 40 ft.				DATE	OF SHEETS

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V:\Projects\CHPR001\0401010\dwg2004\complan\PL-OSWL-00.dwg



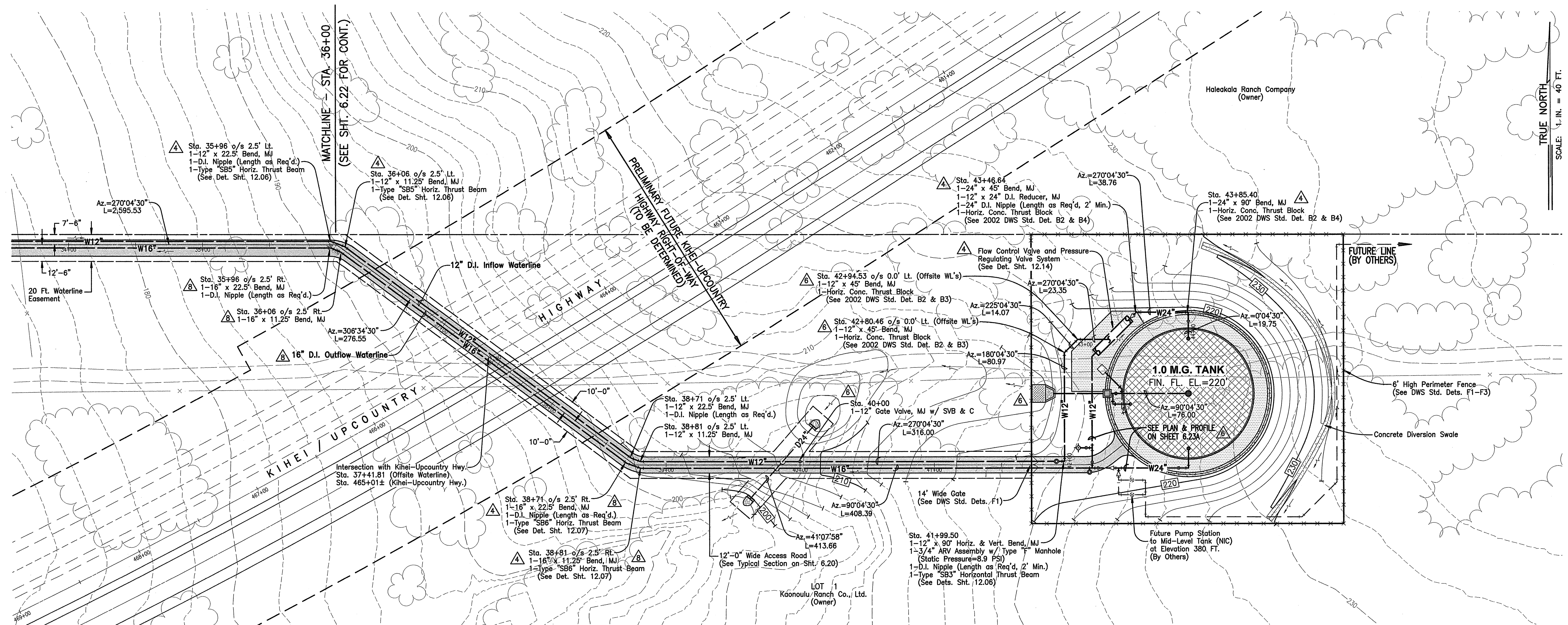
WARREN S. UENOMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

KAONOULU MARKET PLACE
T.M.K.: (2) 3-9-01 : 16
KIHAI, MAUI, HAWAII

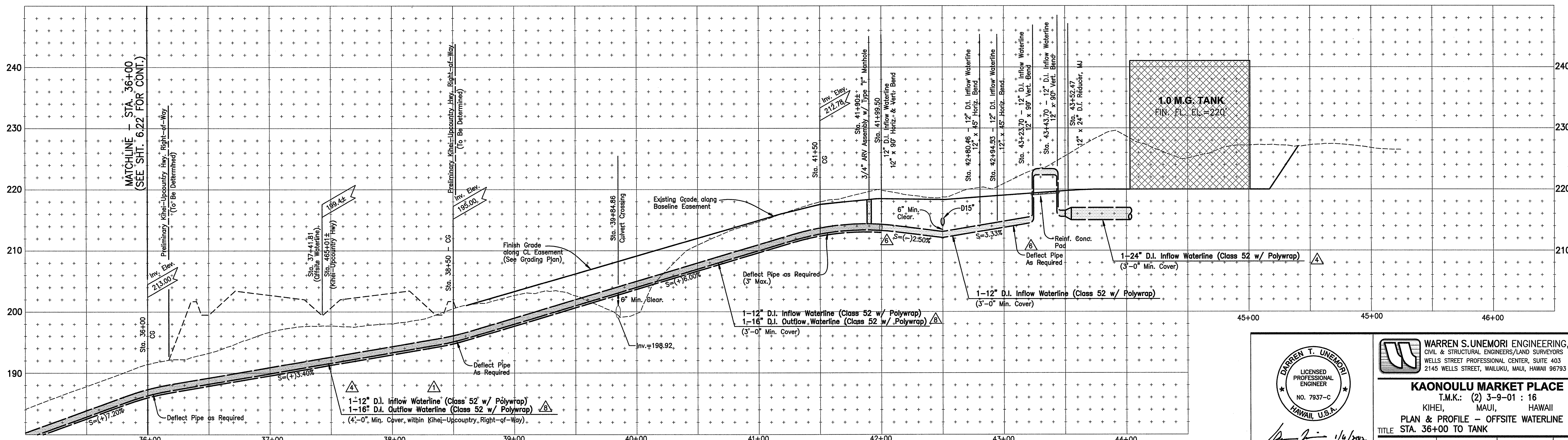
PLAN & PROFILE - OFFSITE WATERLINE
TITLE: STA. 27+00 TO 36+00

10	REVISED PER DWS COMMENTS	01/06/12	10	REVISED PER DWS COMMENTS	12/12/08
8	OUTFLOW WATERLINE UPSIZED TO 16"	10/06/11	11	REVISED TANK INFLOW LINE	5/08/08
6	ADDED STATIC PRESSURE TO ARV'S & RELOCATED GATE VALVE	10/01/10	LETTER	DESCRIPTION	DATE

SIGNATURE	DATE	DTU DESIGNED BY	DTU CHECKED BY	04010.10	6.22
WIS	1/6/2012	WIS	DTU	JOB NUMBER	SHEET
SCALE 1 in. = 40 ft.		APPROVED BY		10-10-05	OF SHEETS

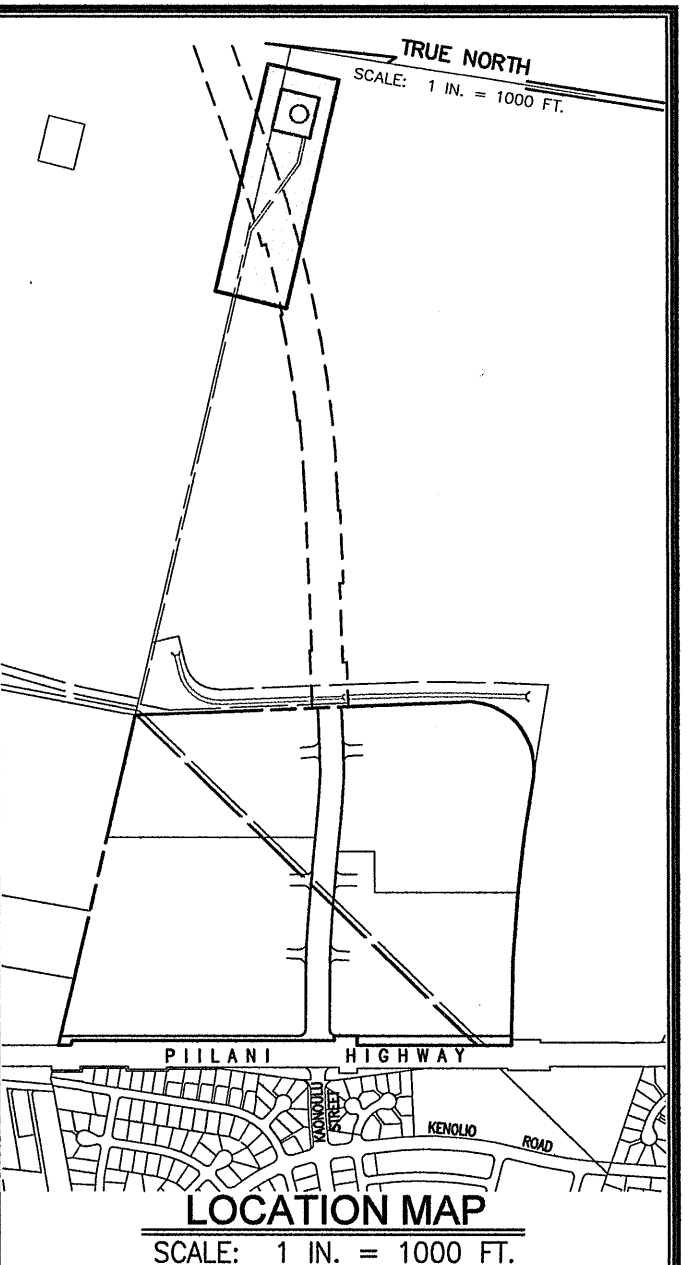


PLAN
Scale: 1 in. = 40 ft.



PROFILE - OFFSITE WATERLINES

Scale: Horiz. 1" = 40'
Vert. 1" = 8'



- LEGEND:**
- ⊙ SEWER MANHOLE
 - ⊙ DRAIN MANHOLE
 - ⊙ AIR RELIEF VALVE MANHOLE
 - ⊙ CATCH BASIN
 - ⊙ FIRE HYDRANT
 - W8" WATERLINE W/ SIZE
 - D24" DRAINLINE W/ SIZE
 - S8" SEWERLINE W/ SIZE
 - CLEAN-OUT-TO-GRADE
 - SINGLE SERVICE WATER LATERAL
 - DOUBLE SERVICE WATER LATERAL
 - SINGLE SERVICE SEWER LATERAL
 - EWB" EXISTING WATERLINE W/SIZE
 - ED24" EXISTING DRAINLINE W/SIZE
 - ES8" EXISTING SEWERLINE W/SIZE
 - ELECTRICAL CONDUIT LINE
 - STREET LIGHT
 - ELECTRICAL TRANSFORMER
 - ELECTRICAL PULL BOX
 - NO VEHICULAR ACCESS PERMITTED
 - VEHICULAR ACCESS PERMITTED
 - PROPOSED IMPROVEMENTS (BY OTHERS)

WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

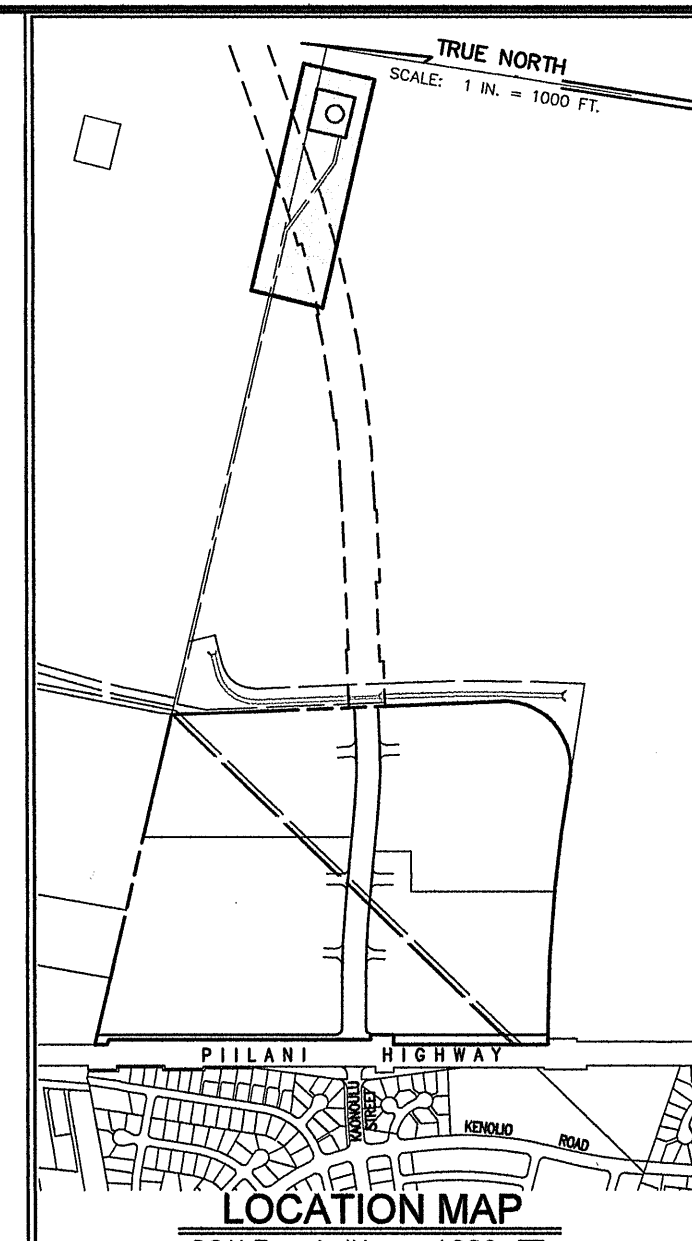
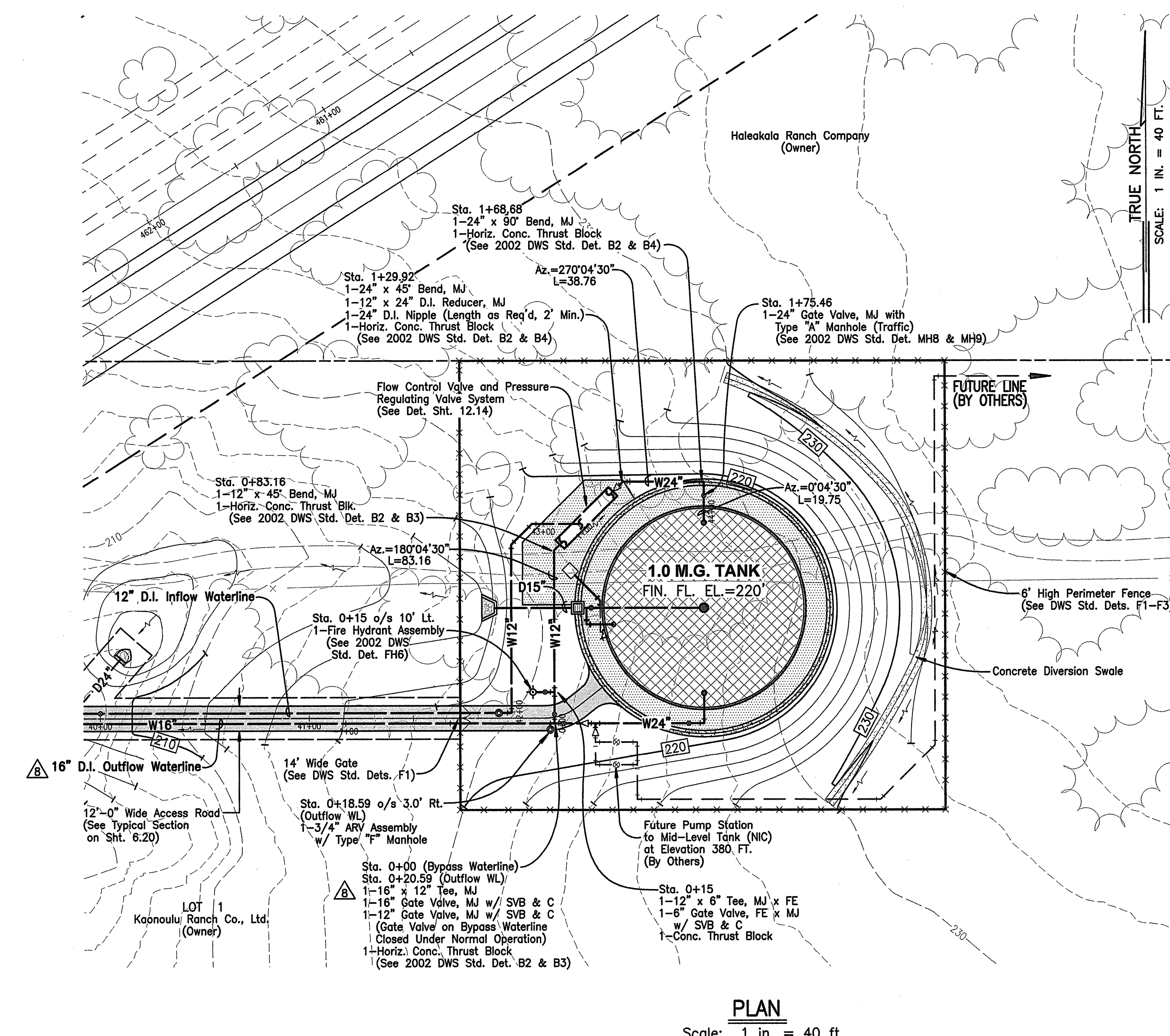
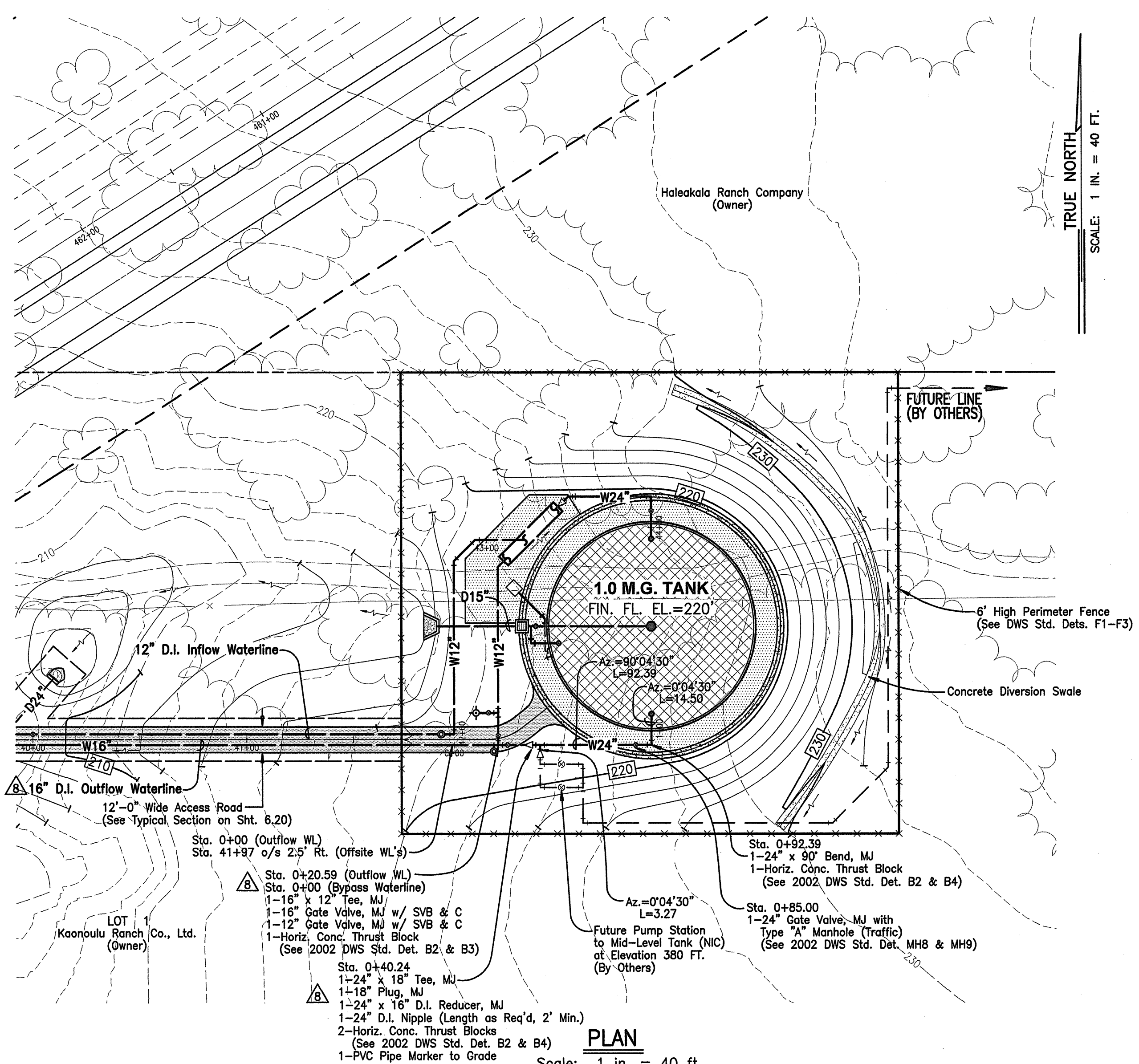
KAONOULU MARKET PLACE
T.M.K.: (2) 3-9-01 : 16
KIHAI, MAUI, HAWAII
PLAN & PROFILE - OFFSITE WATERLINE
TITLE STA. 36+00 TO TANK

DARREN T. UNEMORI
LICENSED PROFESSIONAL ENGINEER
NO. 7937-C
HAWAII, U.S.A.

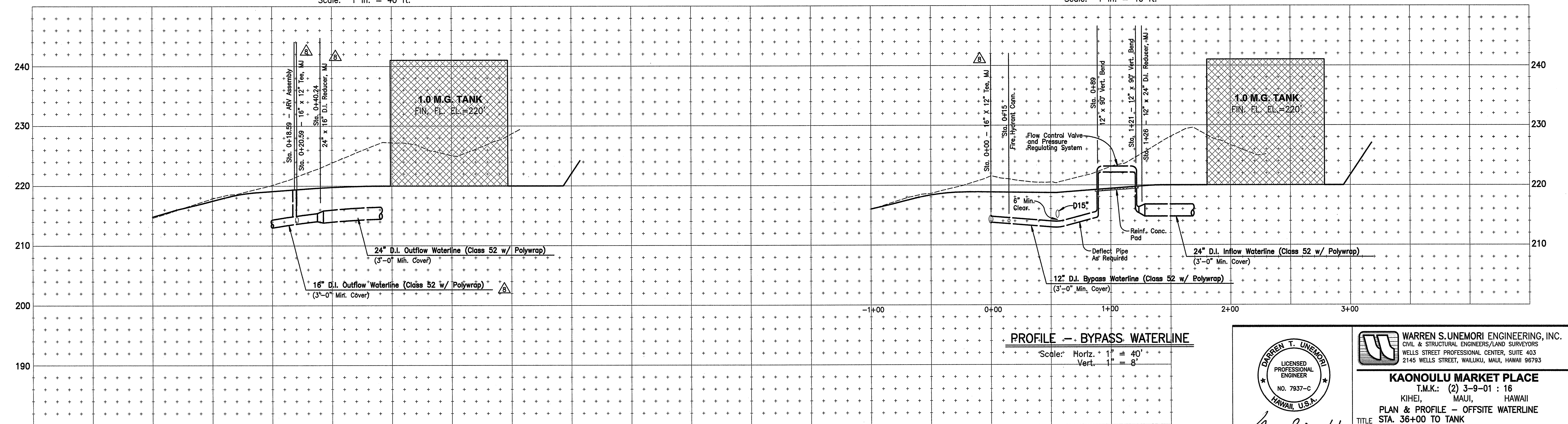
DATE: 1/6/2010

DESIGNED BY: DTU	CHECKED BY: DTU	DATE: 04/01/10
DRAWN BY: WIS	APPROVED BY: DTU	JOB NUMBER: 10-10-05
SCALE: 1 in. = 40 ft.		SHEET: 6.23

V:\Projects\0401010\dwg2004\complan\PL-OSWL-00.dwg



- LEGEND:**
- ⊙ SEWER MANHOLE
 - ⊙ DRAIN MANHOLE
 - ⊙ AIR RELIEF VALVE MANHOLE
 - ⊙ CATCH BASIN
 - ⊙ FIRE HYDRANT
 - W8" — WATERLINE W/ SIZE
 - D24" — DRAINLINE W/ SIZE
 - S8" — SEWERLINE W/ SIZE
 - — CLEAN-OUT-TO-GRADE
 - — SINGLE SERVICE WATER LATERAL
 - — DOUBLE SERVICE WATER LATERAL
 - — SINGLE SERVICE SEWER LATERAL
 - EW8" — EXISTING WATERLINE W/SIZE
 - ED24" — EXISTING DRAINLINE W/SIZE
 - ES8" — EXISTING SEWERLINE W/SIZE
 - — ELECTRICAL CONDUIT LINE
 - ⊙ STREET LIGHT
 - ⊙ ELECTRICAL TRANSFORMER
 - ⊙ ELECTRICAL PULL BOX
 - — NO VEHICULAR ACCESS PERMITTED
 - — VEHICULAR ACCESS PERMITTED
 - — PROPOSED IMPROVEMENTS (BY OTHERS)



WARREN S. UNEMORI ENGINEERING, INC.
 CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
 2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

KAONOULU MARKET PLACE
 T.M.K.: (2) 3-9-01 : 16
 KIHEI, MAUI, HAWAII

PLAN & PROFILE - OFFSITE WATERLINE
 TITLE STA. 36+00 TO TANK

6.23A

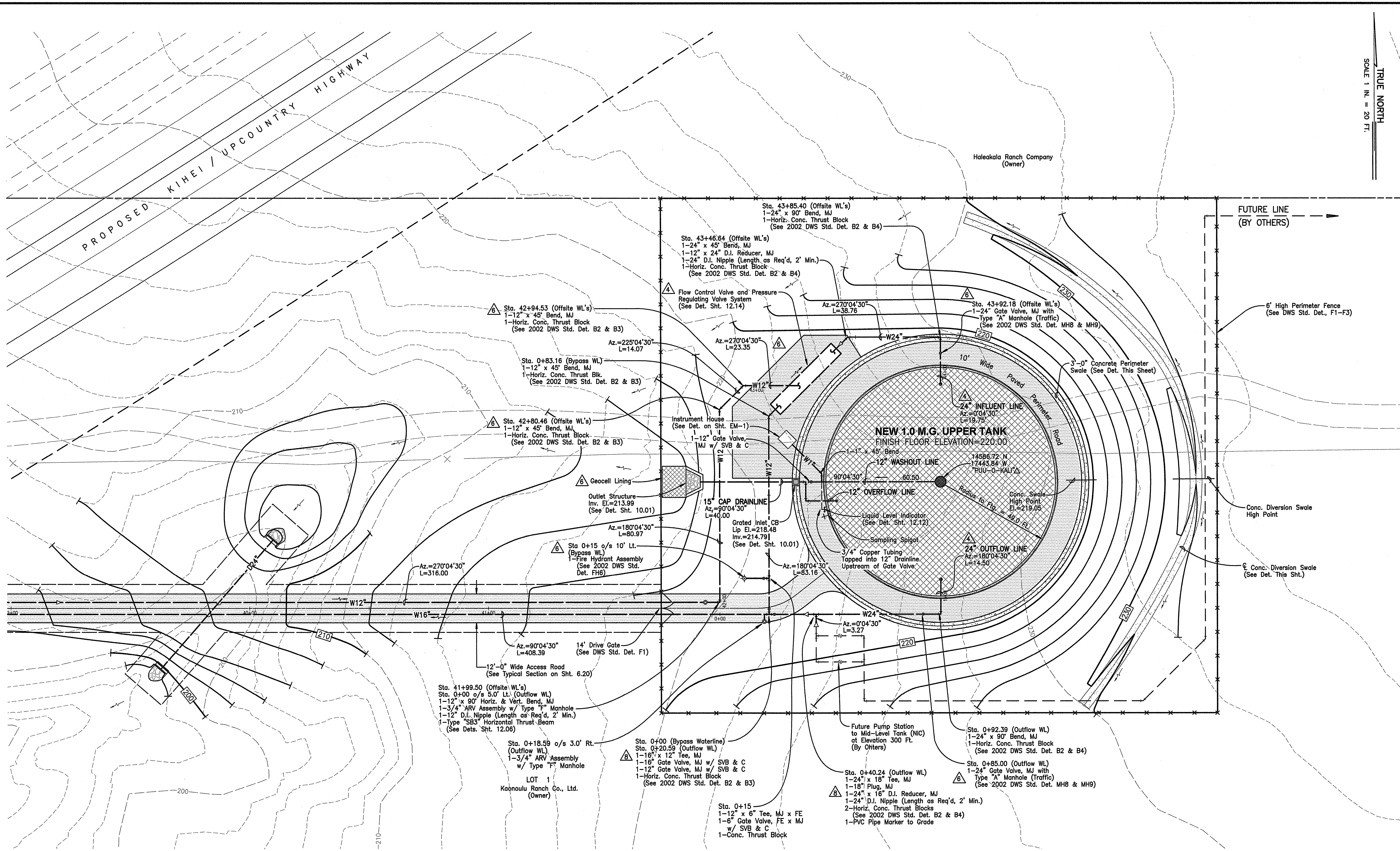
DTU DESIGNED BY: WIS
 DTU CHECKED BY: DTU
 DTU APPROVED BY: DTU

DATE: 10/06/11

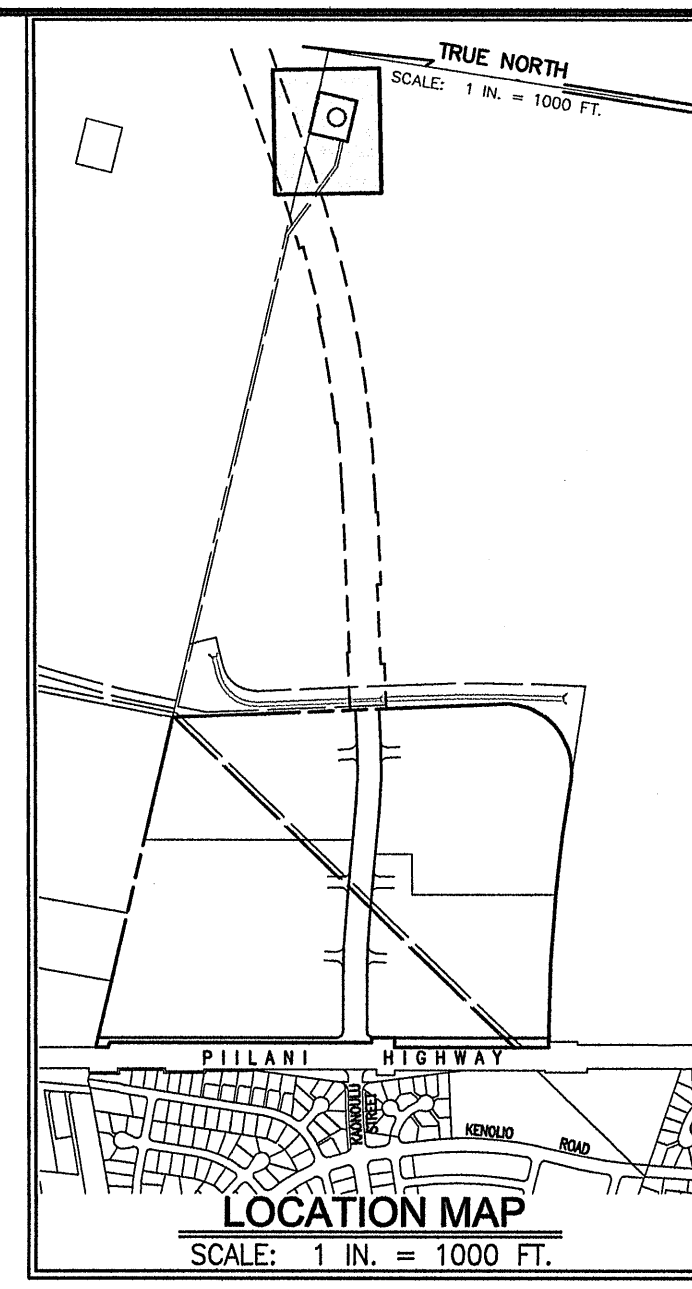
SCALE: 1 in. = 40 ft.

V:\Projects\CHP\CHP001\0401010\dwg2004\complan\PL-OSWL-00.dwg

V:\Projects\04PR03\04010.10.dwg(2004)complan SITE - TANK02.dwg

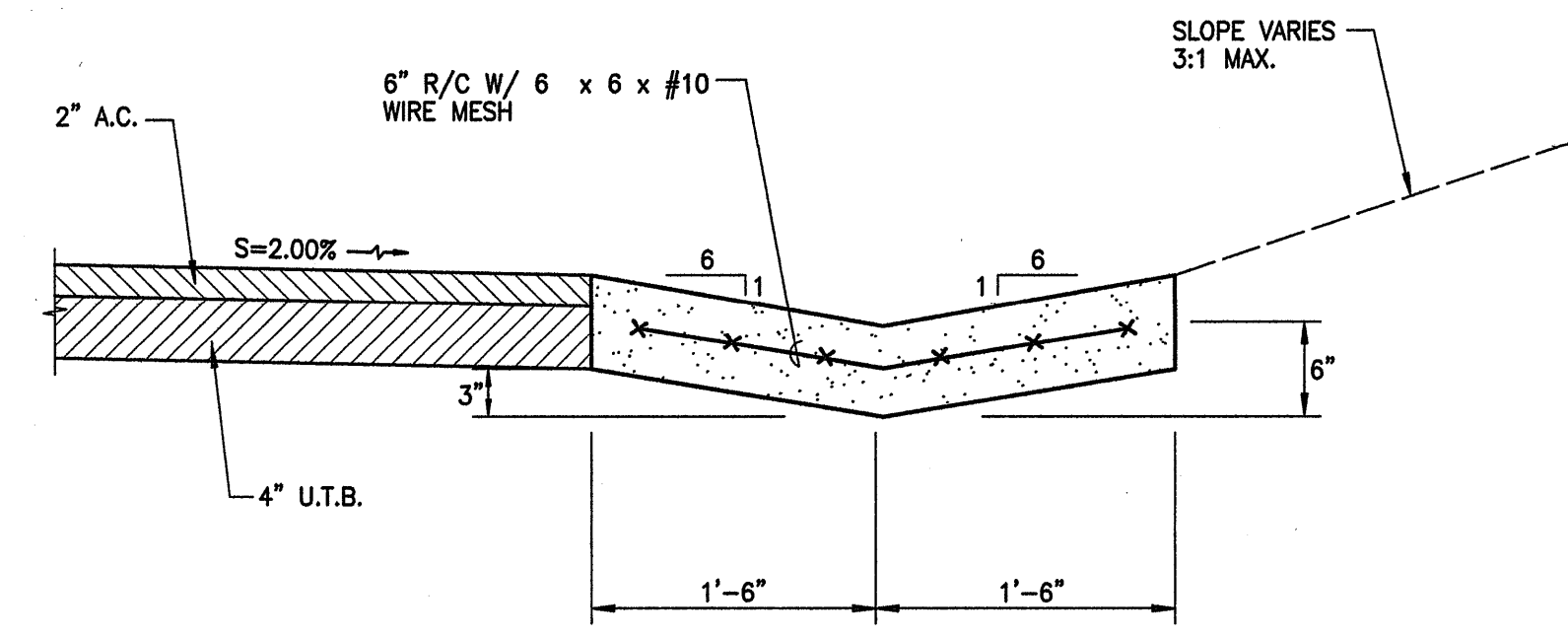


TRUE NORTH
SCALE 1 IN. = 20 FT.

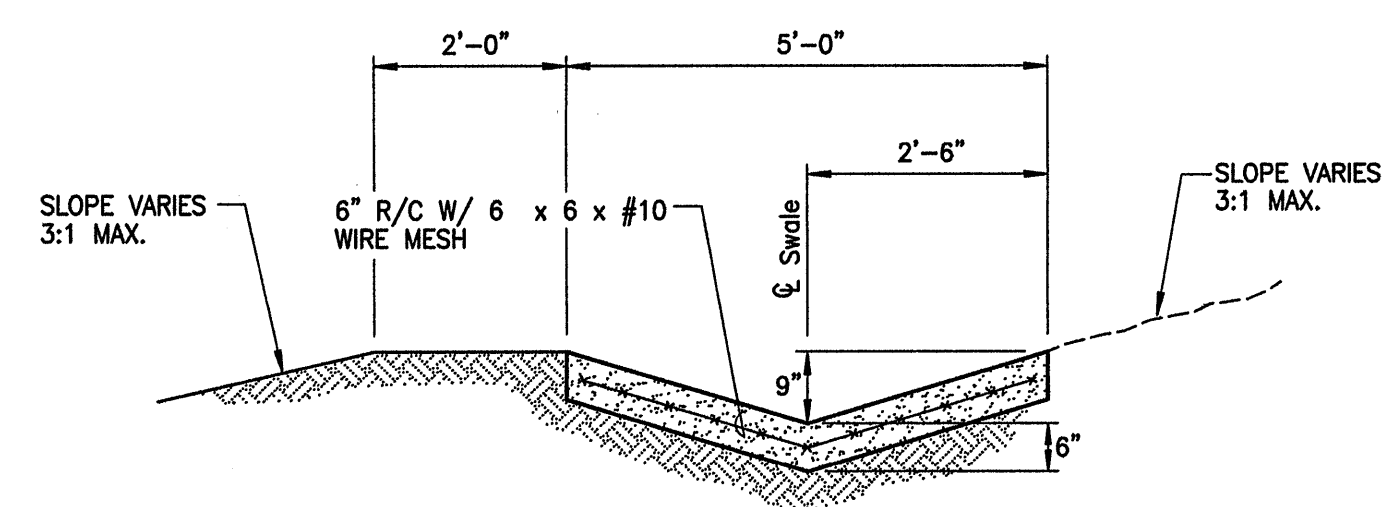


NOTES:
1. PROPOSED PRELIMINARY RIGHT OF WAY AS SHOWN ON PLAN, OBTAINED FROM SDOT HIGHWAYS DIVISION PRELIMINARY RIGHT-OF-WAY MAP - KIHAI/UPCOUNTRY HIGHWAY (SUBJECT TO CHANGE)

APPROXIMATE EARTHWORK QUANTITIES
EXCAVATION = 7,109 CU.YD.
EMBANKMENT = 1,257 CU.YD.



DETAIL - 3'-0" WIDE PERIMETER SWALE
SCALE: 1" = 1'-0"



5 FT. WIDE CONCRETE DIVERSION SWALE
SCALE: 1/2" = 1'-0"

NO.	REVISION	DATE
1	Revised Per DWS Comments	01/06/12
2	Outflow Waterline Upsized to 16"	10/06/11
3	Relocated Outlet Structure; Added Standpipe, Type "A" Manholes, and A.C. Pavement; Extended Swale and Concrete Lined	10/01/10
4	Revised Per DWS Comments Added Tank Control Valve	12/12/08
LETTER	DESCRIPTION	DATE

DARREN T. UNEMORI
LICENSED PROFESSIONAL ENGINEER
NO. 7937-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 AS DEFINED IN SECTION 16-115-2 OF THE HAWAII ADMINISTRATIVE RULES FOR PROFESSIONAL ENGINEERS, ARCHITECTS, LAND SURVEYORS AND LANDSCAPE ARCHITECTS.

WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

KAONOULU MARKET PLACE
T.M.K.: (2) 3-9-01 : 16
KIHAI, MAUI, HAWAII

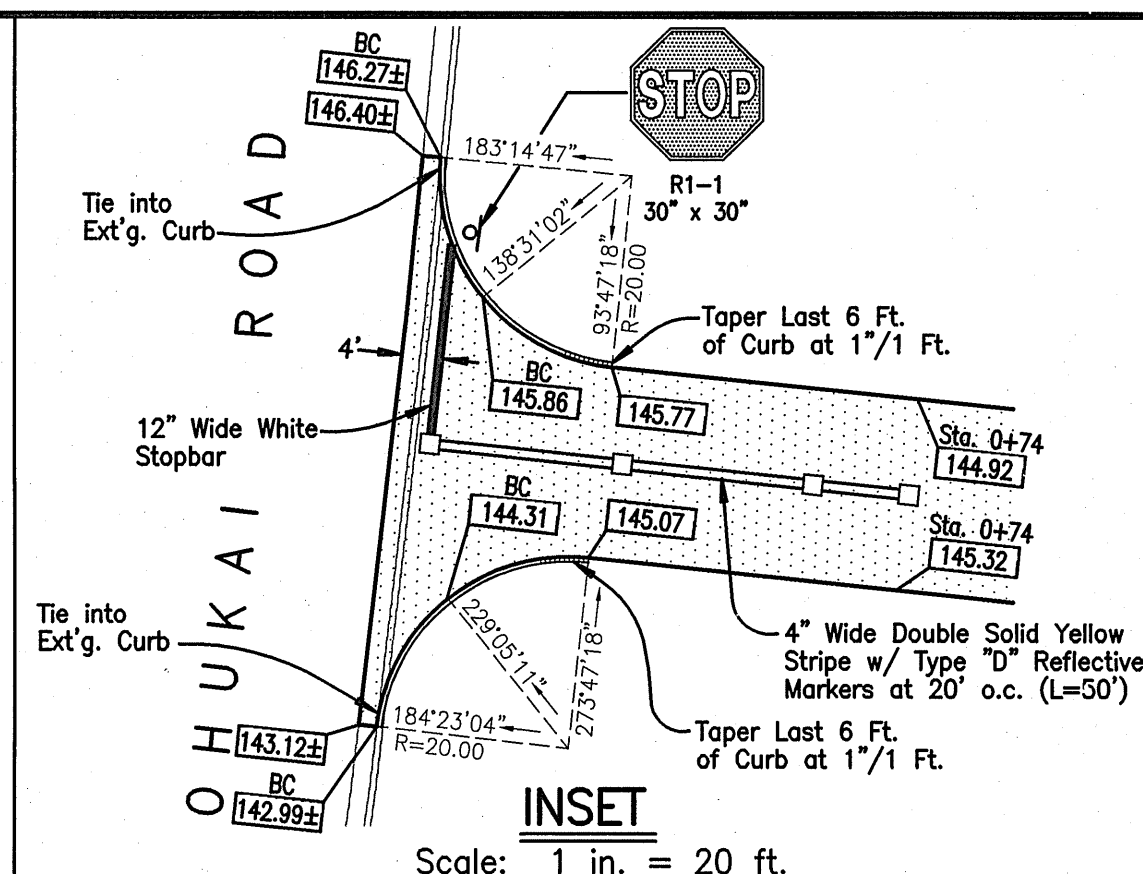
TITLE SITE PLAN - 1.0 M.G. WATER TANK

DESIGNED BY	DTU	CHECKED BY	DTU	JOB NUMBER	04010.10	6.24
DRAWN BY	WIS	APPROVED BY	DTU	10-10-05		
SCALE	1 in. = 20 ft.	DATE				

HOALIKE STREET

TRUE NORTH
SCALE: 1" = 40 FT.

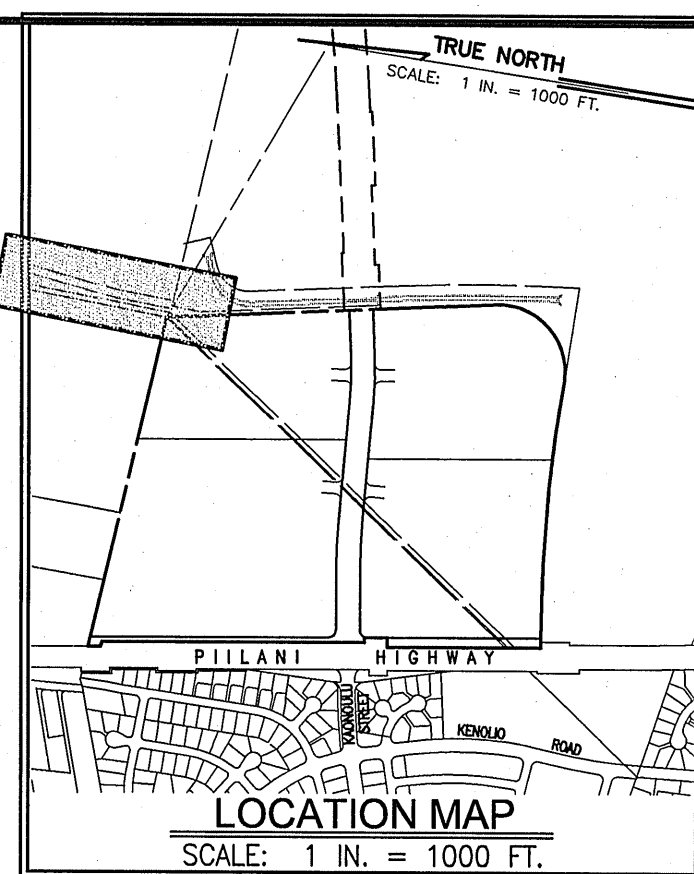
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 $R=1000.00$
 $L=16.67$
 $T=8.33$
 $C=16.67$
 $Ch.Az.=03^\circ18'39"$



LEGEND:

- SEWER MANHOLE
- DRAIN MANHOLE
- AIR RELIEF VALVE MANHOLE
- CATCH BASIN
- FIRE HYDRANT
- WATERLINE W/ SIZE
- ED24" EXISTING DRAINLINE W/ SIZE
- ES8" EXISTING SEWERLINE W/ SIZE
- ELECTRICAL CONDUIT LINE
- STREET LIGHT
- ELECTRICAL TRANSFORMER
- ELECTRICAL PULL BOX
- NO VEHICULAR ACCESS PERMITTED
- VEHICULAR ACCESS PERMITTED
- PROPOSED IMPROVEMENTS (BY OTHERS)
- CLEAN-OUT-TO-GRADE
- SINGLE SERVICE WATER LATERAL
- DOUBLE SERVICE WATER LATERAL
- SINGLE SERVICE SEWER LATERAL

- EW8" EXISTING WATERLINE W/ SIZE
- ED24" EXISTING DRAINLINE W/ SIZE
- ES8" EXISTING SEWERLINE W/ SIZE
- ELECTRICAL CONDUIT LINE
- STREET LIGHT
- ELECTRICAL TRANSFORMER
- ELECTRICAL PULL BOX
- NO VEHICULAR ACCESS PERMITTED
- VEHICULAR ACCESS PERMITTED
- PROPOSED IMPROVEMENTS (BY OTHERS)



HALE KAI STREET

OHUKAI ROAD

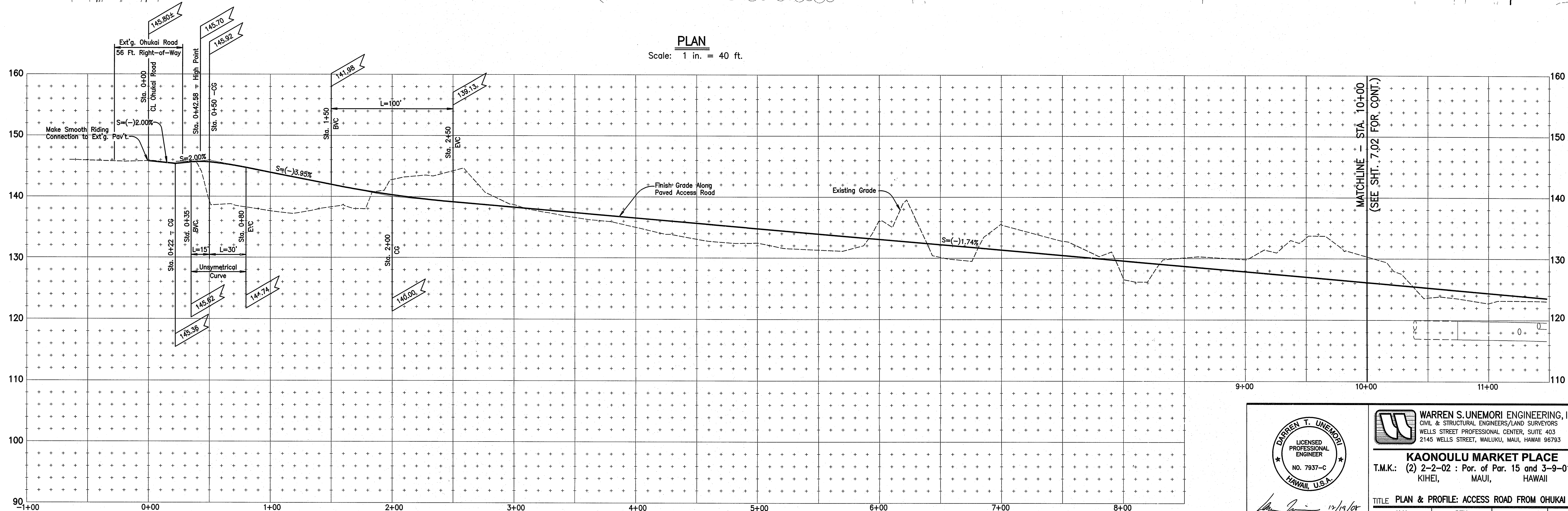
INSET

CURVE DATA
 $\Delta=4^\circ45'00"$
 $R=1165.50$
 $L=96.62$
 $T=48.34$
 $C=96.60$
 $Ch.Az.=00^\circ27'30"$

MATCHLINE - STA. 10+00
(SEE SHT. 7.02 FOR CONT.)

PLAN

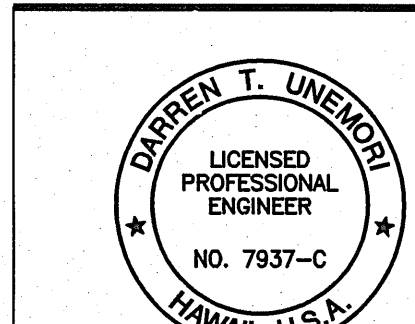
Scale: 1 in. = 40 ft.



PROFILE - ACCESS ROAD

Scale: Horiz. 1" = 40'
Vert. 1" = 8'

4 Roadway Connection Details
Per DSA Comments
12/12/08



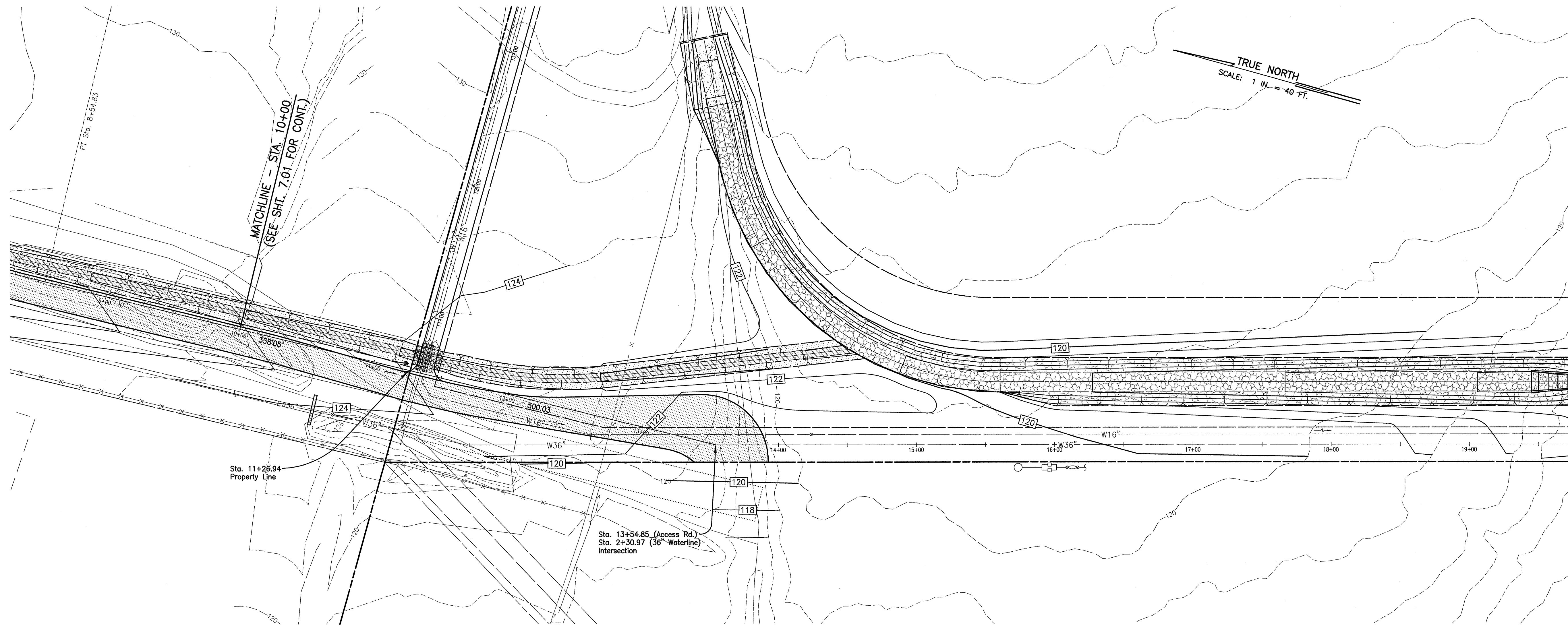
WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

KAONOULU MARKET PLACE
T.M.K.: (2) 2-2-02 : Por. of Par. 15 and 3-9-01 : 16
KIHIE, MAUI, HAWAII

TITLE: PLAN & PROFILE: ACCESS ROAD FROM OHUKAI ROAD

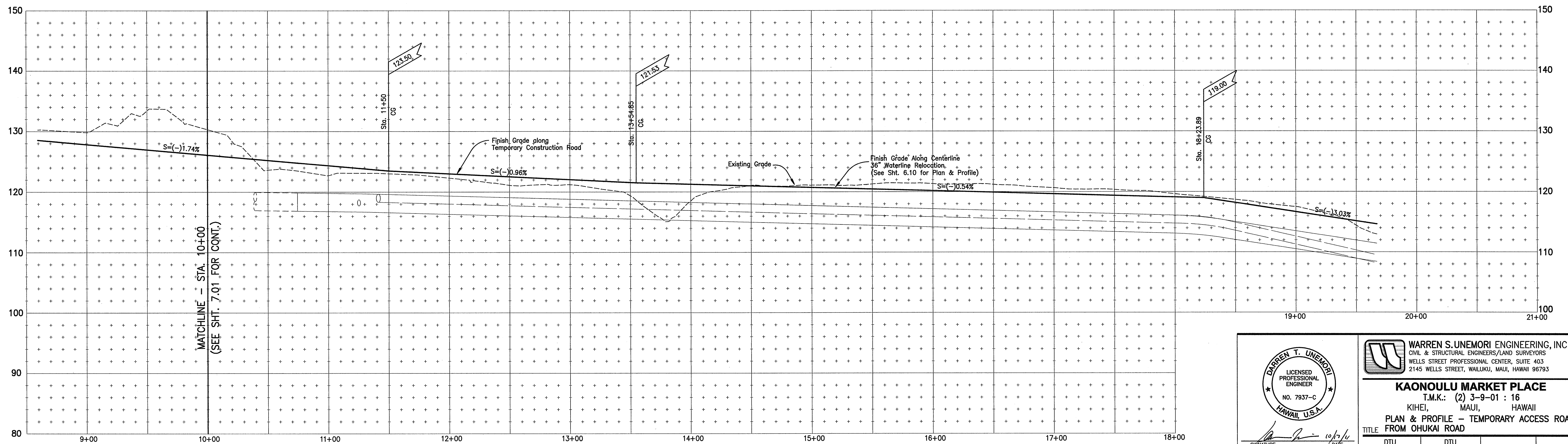
DESIGNED BY	DTU	04010.10	7.01
DRAWN BY	DTU	JOB NUMBER	
APPROVED BY	DTU	10-10-05	SHEET
SCALE	1 in. = 40 ft.	DATE	

V:\Projects\CHUKAI\CHUKAI_0401010\CHUKAI_0401010.dwg - ACC - CHUKAI.dwg



PLAN

Scale: 1 in. = 40 ft.

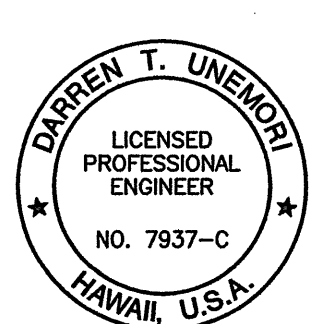


PROFILE - TEMPORARY ACCESS ROAD

Scale: Horiz. 1" = 40'
Vert. 1" = 8'

LEGEND:

- SEWER MANHOLE
- DRAIN MANHOLE
- AIR RELIEF VALVE MANHOLE
- CATCH BASIN
- FIRE HYDRANT
- WATERLINE W/ SIZE
- DRAINLINE W/ SIZE
- SEWERLINE W/ SIZE
- CLEAN-OUT-TO-GRADE
- SINGLE SERVICE WATER LATERAL
- DOUBLE SERVICE WATER LATERAL
- SINGLE SERVICE SEWER LATERAL
- EXISTING WATERLINE W/SIZE
- EXISTING DRAINLINE W/SIZE
- EXISTING SEWERLINE W/SIZE
- ELECTRICAL CONDUIT LINE
- STREET LIGHT
- ELECTRICAL TRANSFORMER
- ELECTRICAL PULL BOX
- NO VEHICULAR ACCESS PERMITTED
- VEHICULAR ACCESS PERMITTED
- PROPOSED IMPROVEMENTS (BY OTHERS)

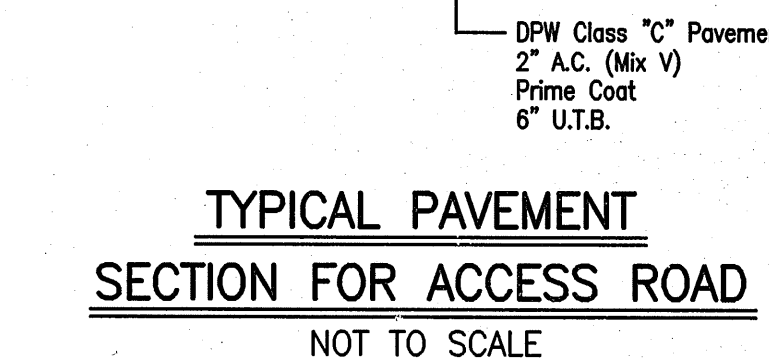
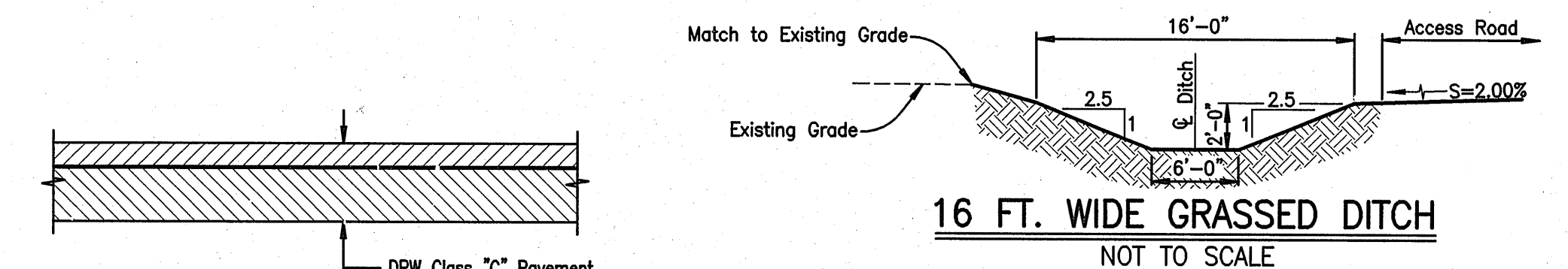
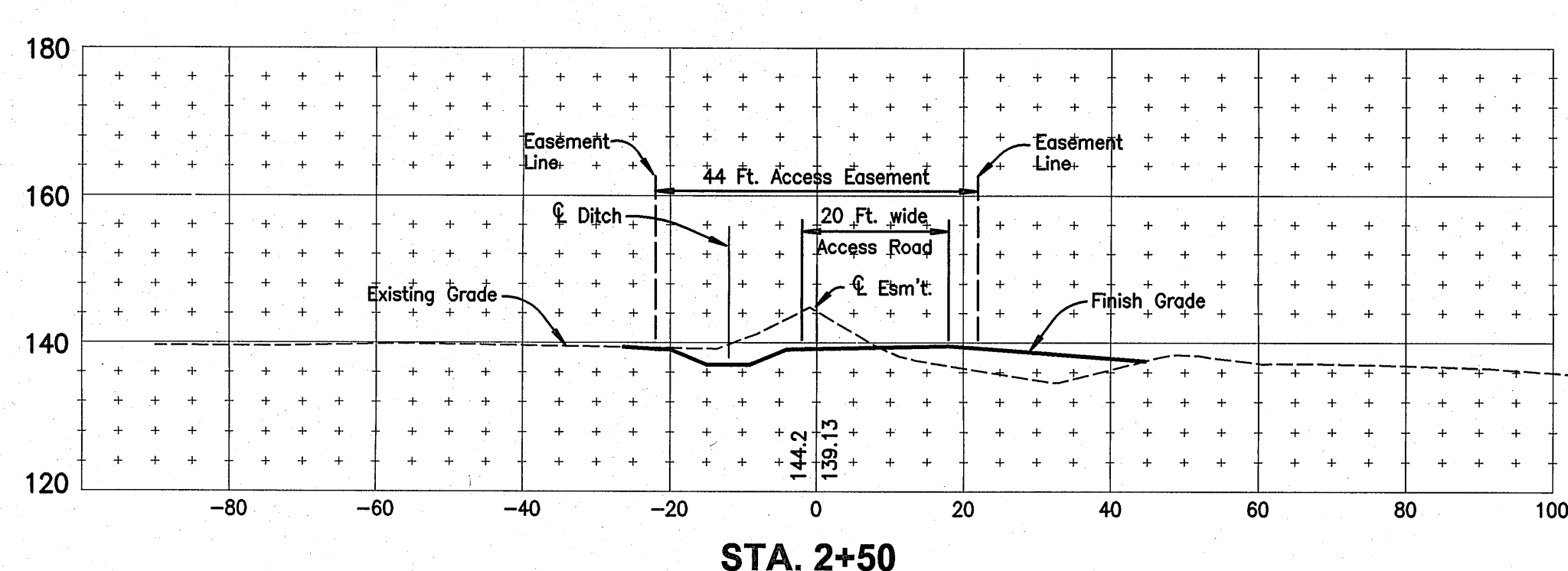
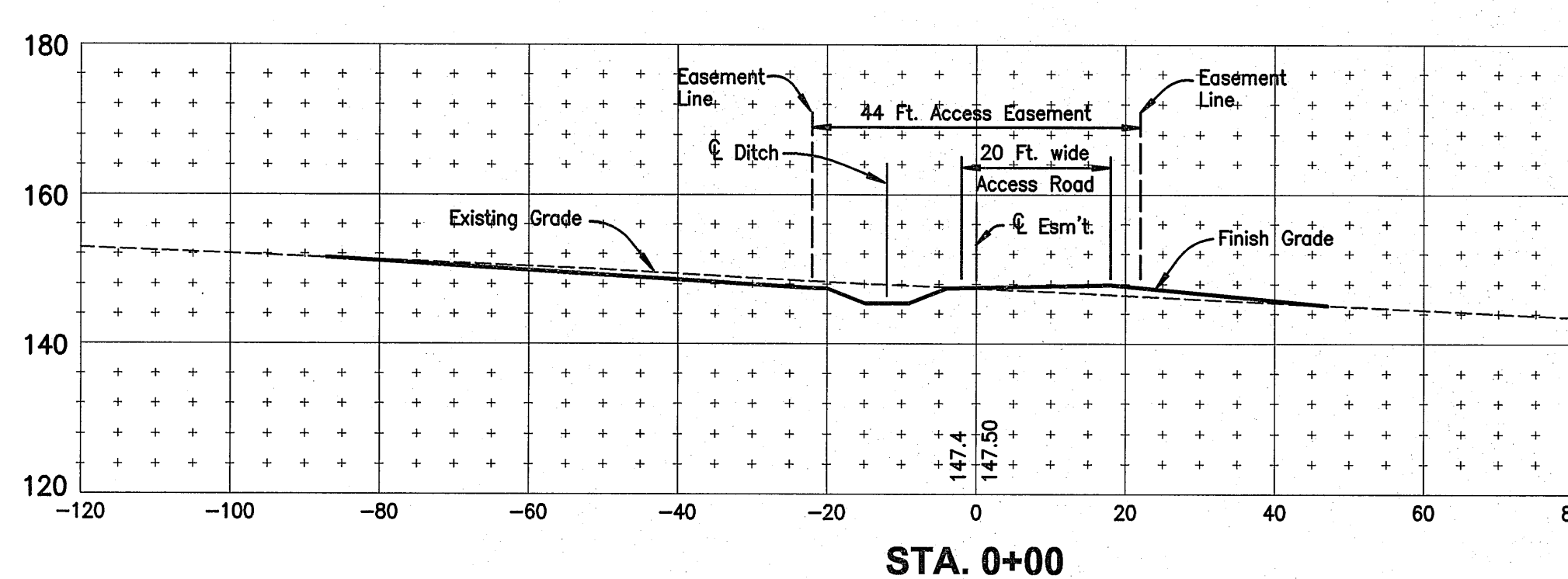
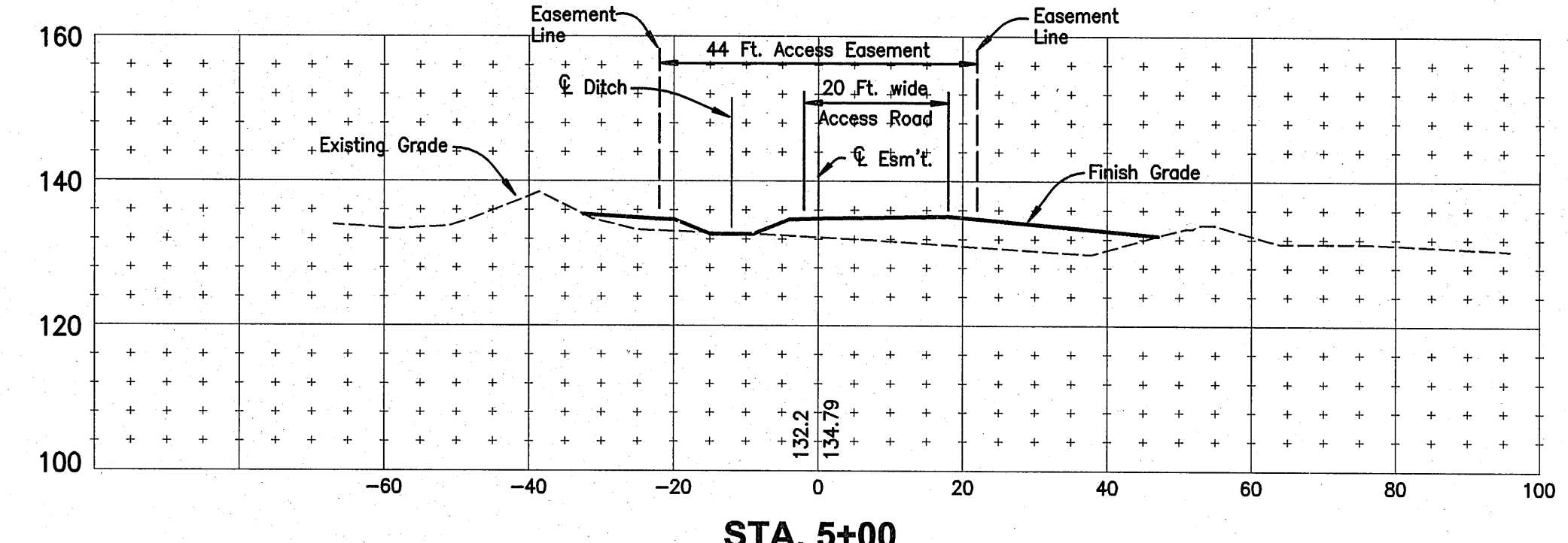
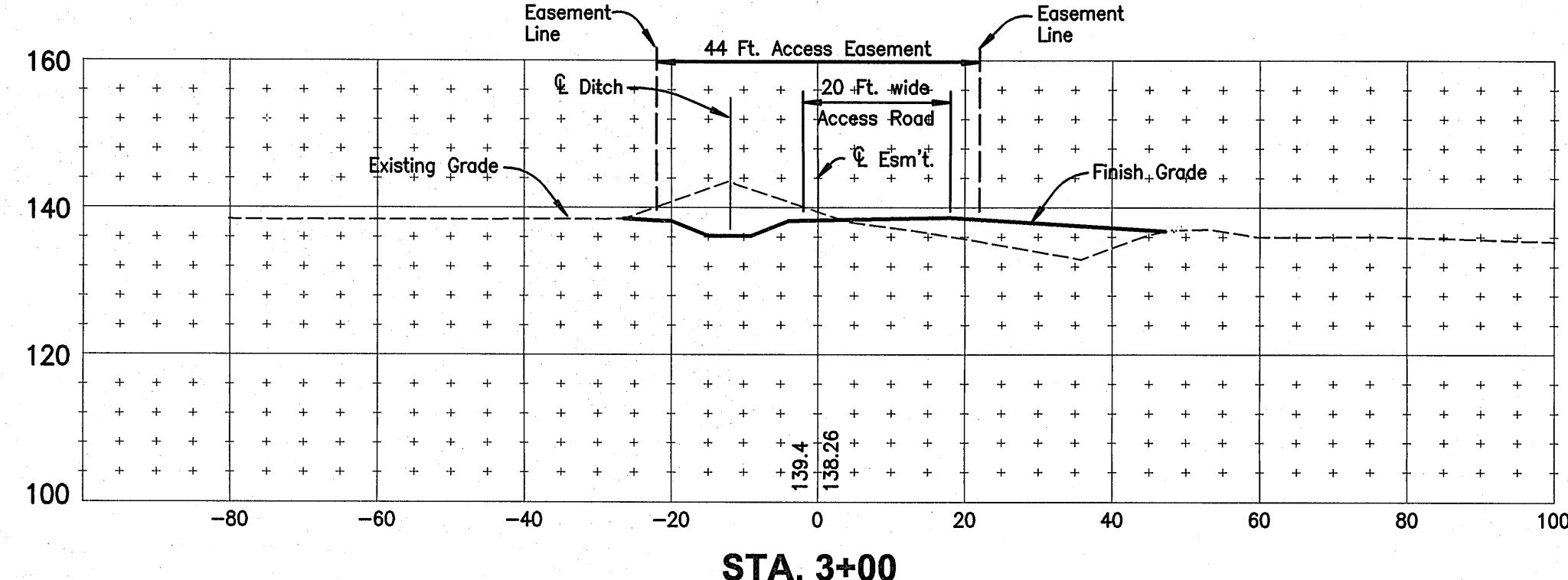
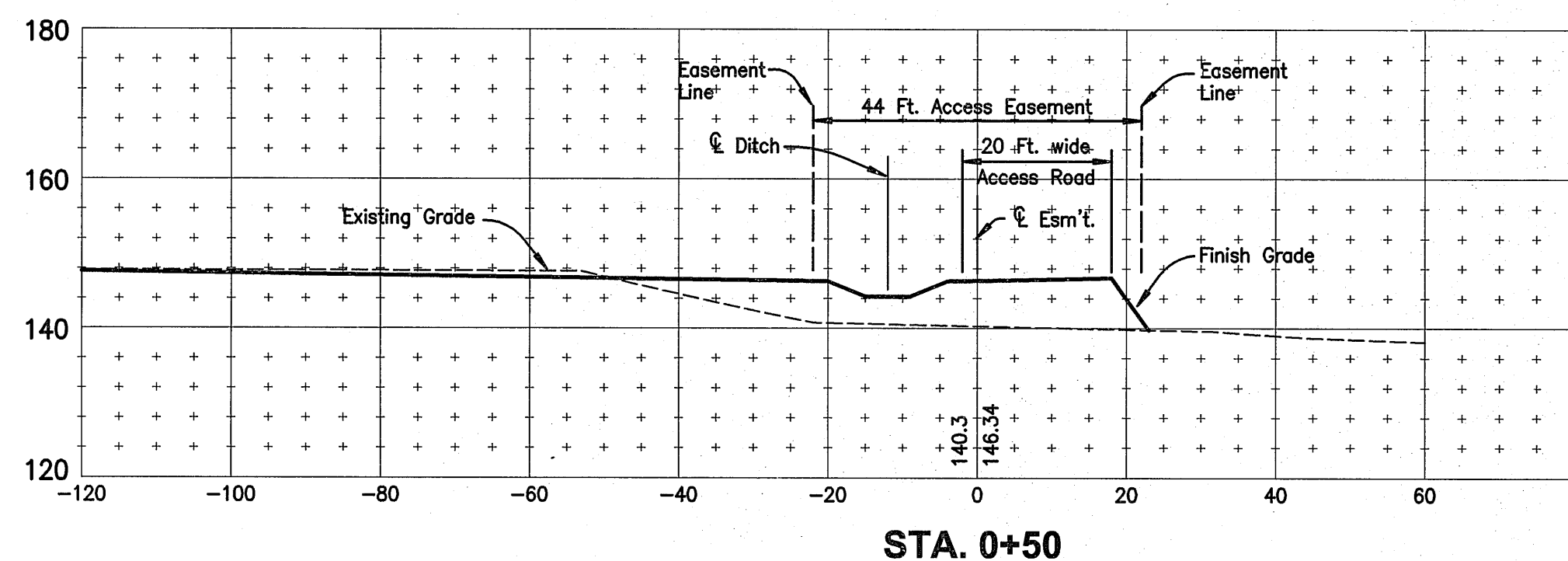
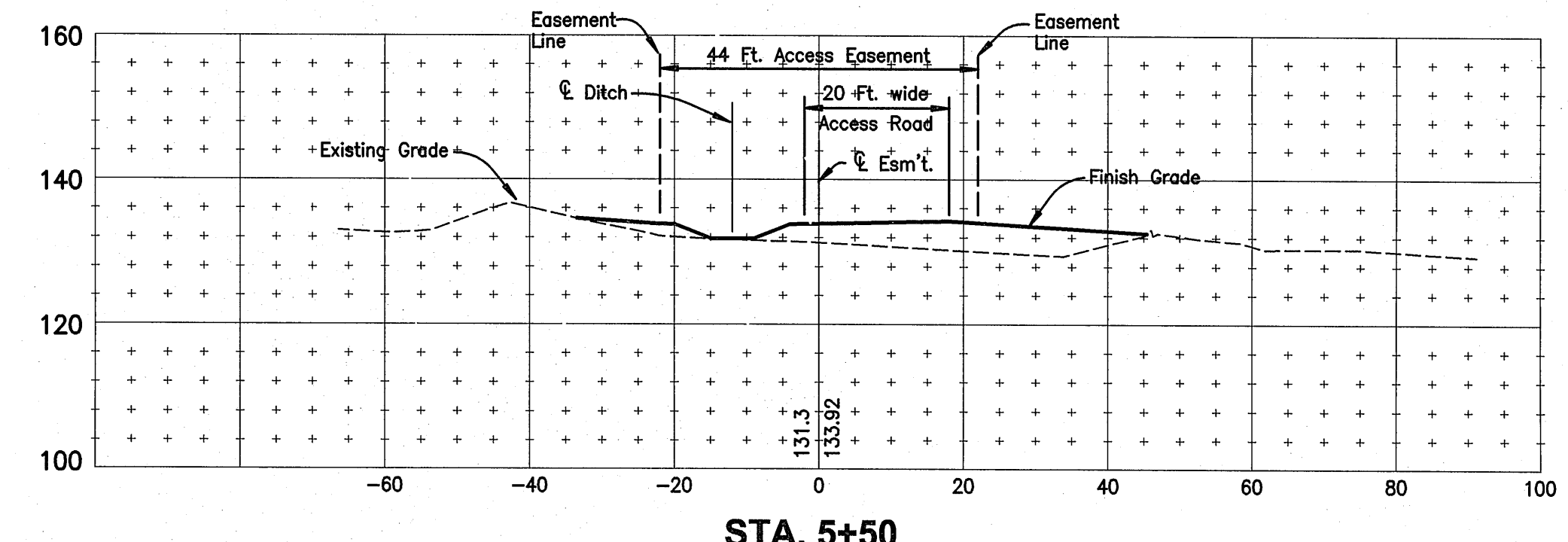
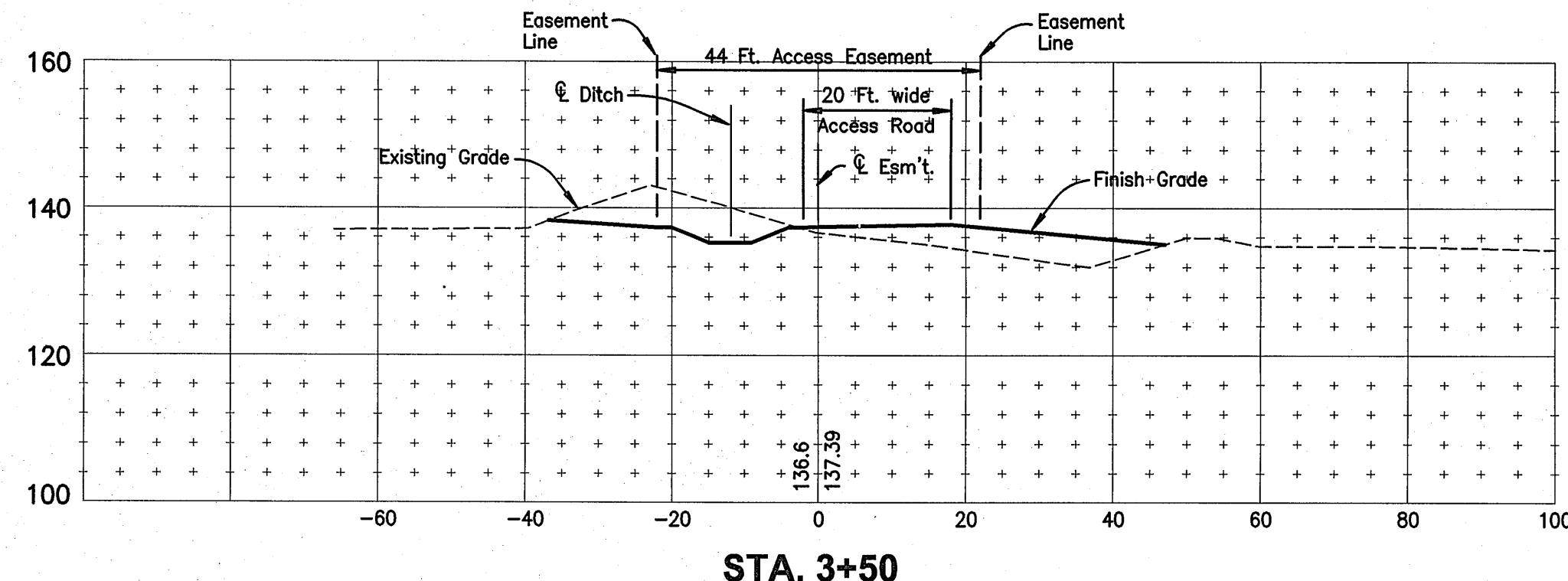
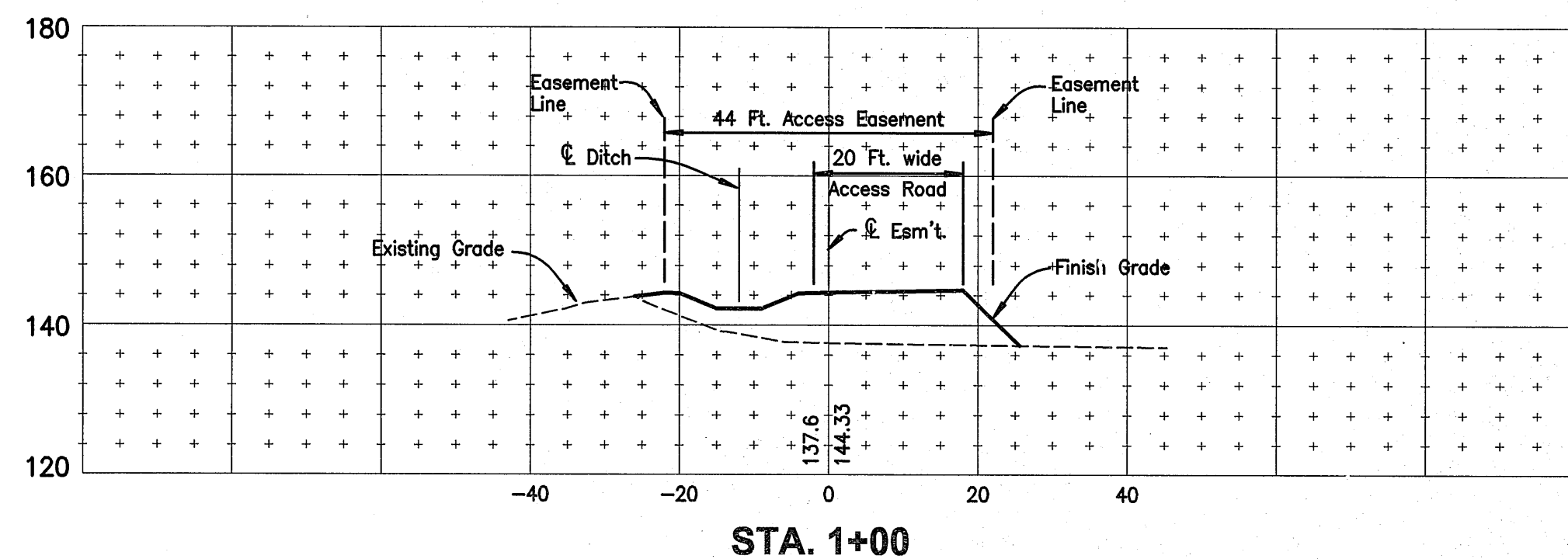
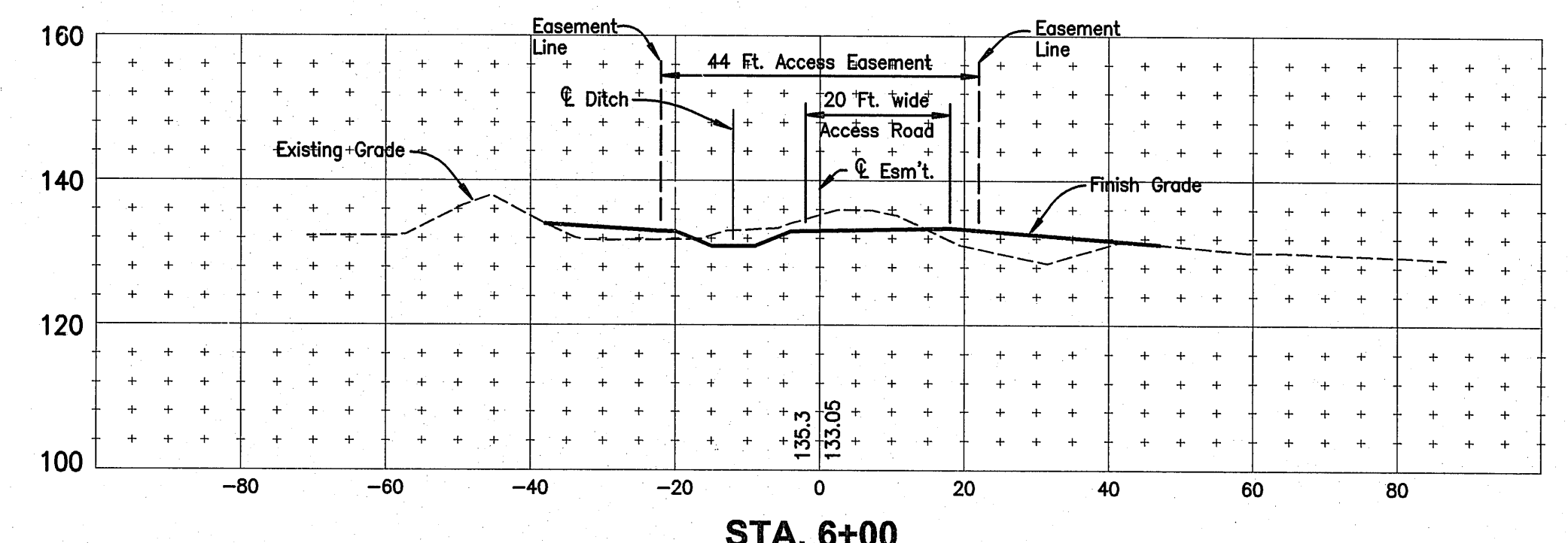
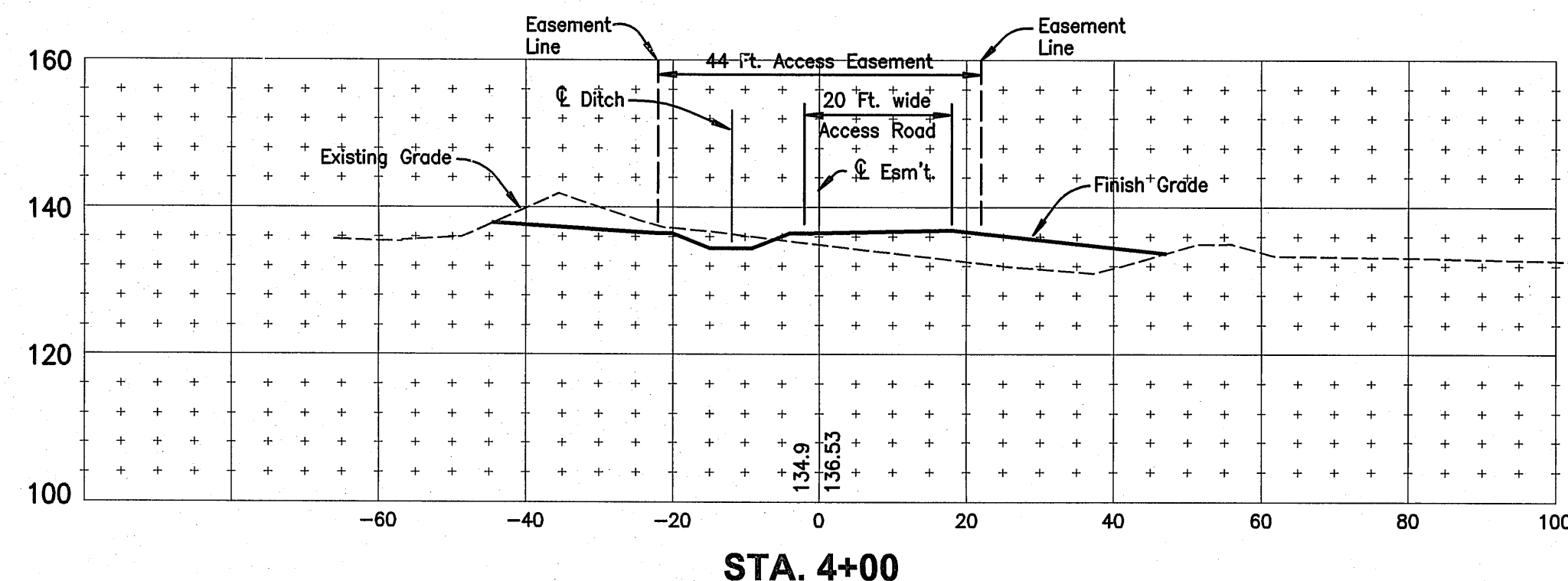
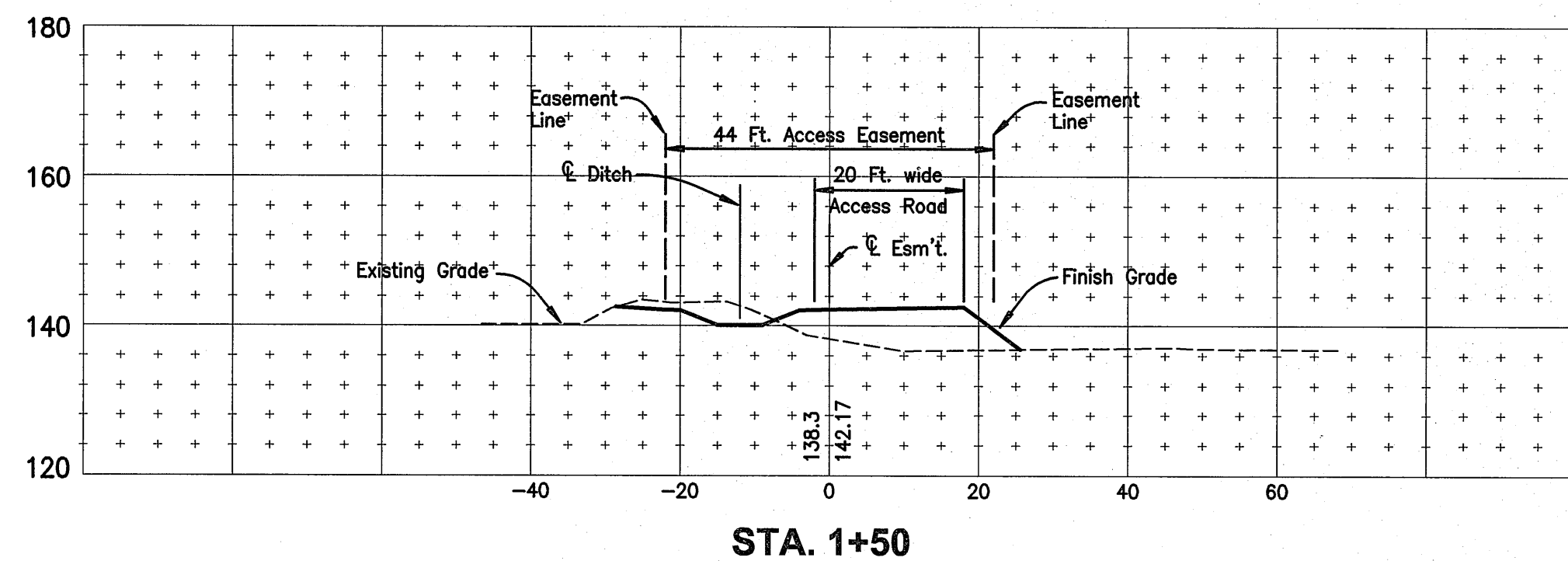
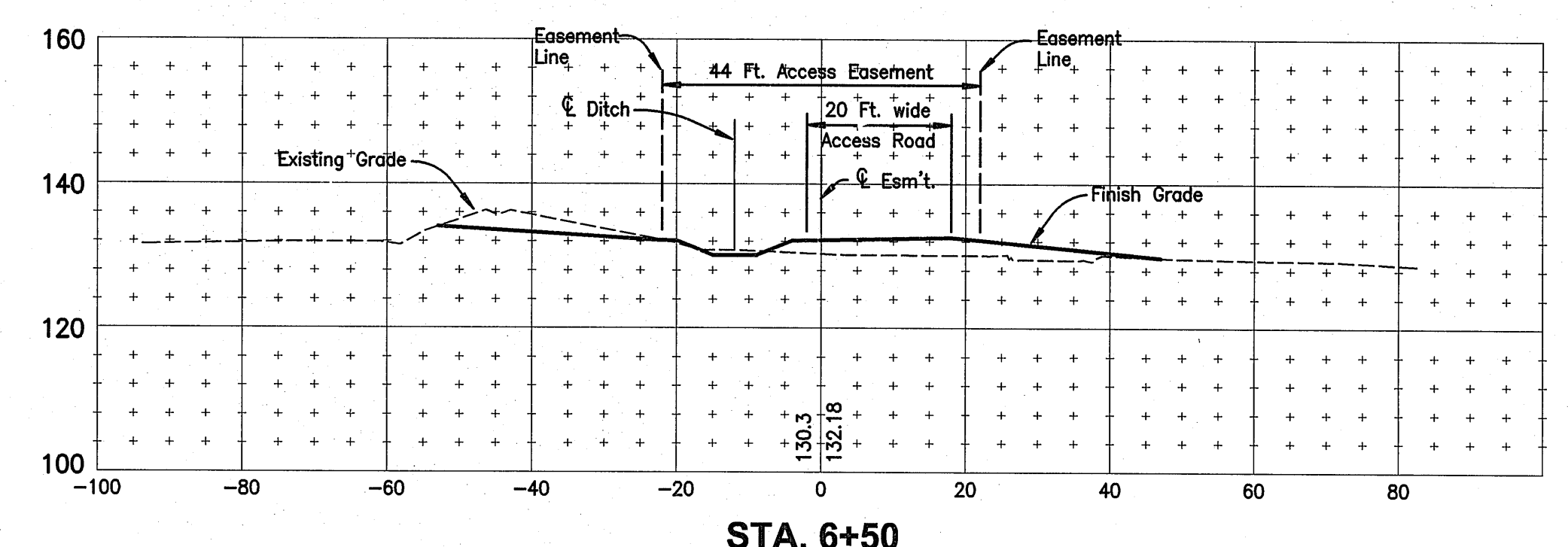
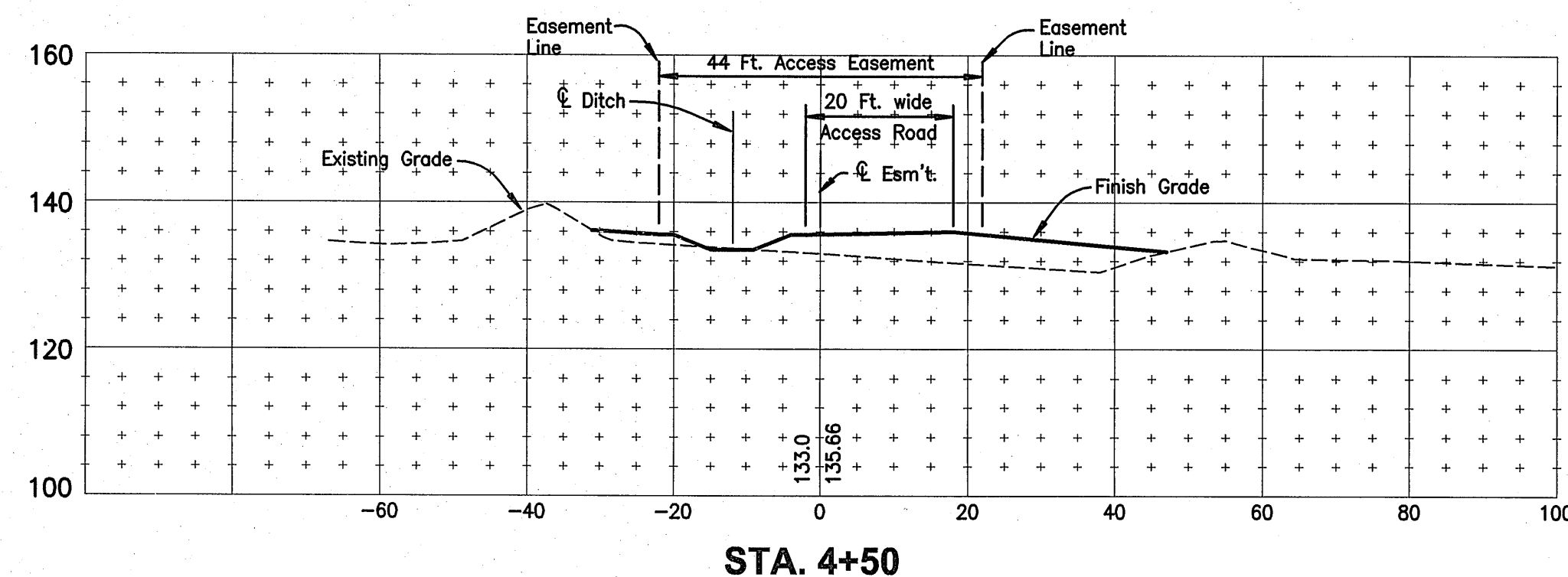
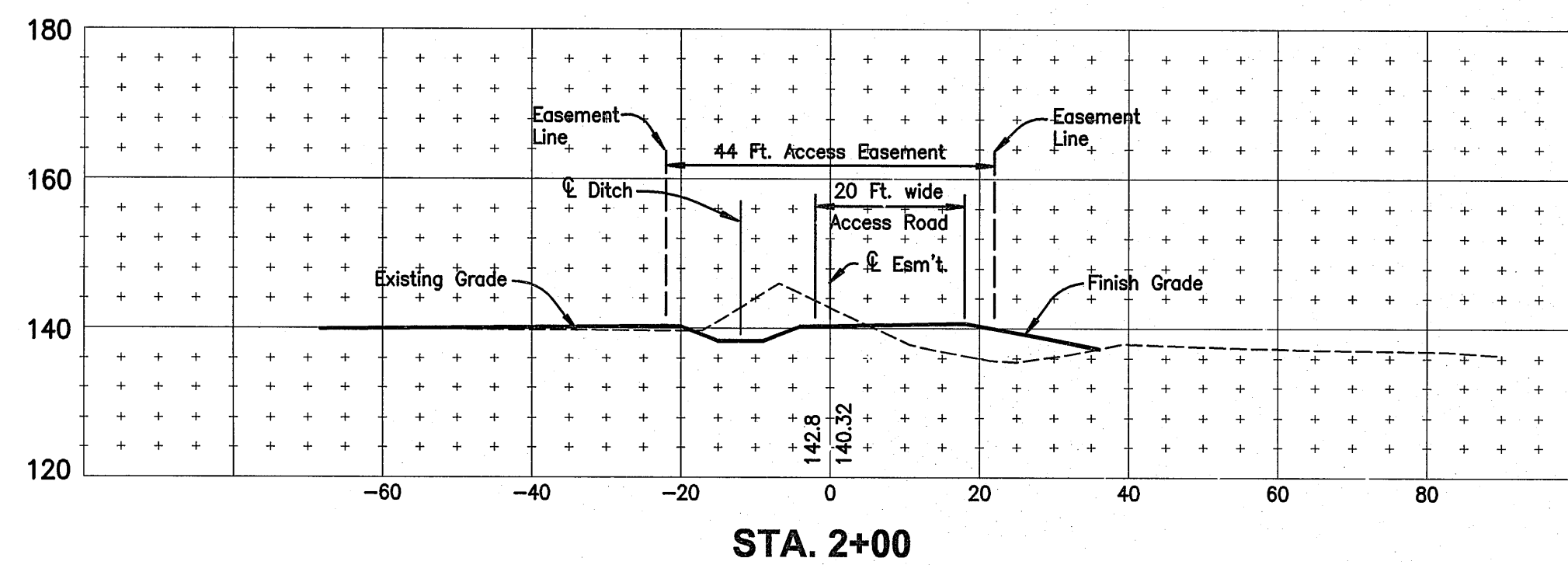


SIGNATURE: [Signature] DATE: 10/7/14
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION "AS DEFINED IN SECTION 10-115-2 OF THE HAWAII ADMINISTRATIVE RULES FOR PROFESSIONAL ENGINEERS, ARCHITECTS, LAND SURVEYORS AND LANDSCAPE ARCHITECTS"

WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

KAONOULU MARKET PLACE
T.M.K.: (2) 3-9-01 : 16
KIHEI, MAUI, HAWAII
PLAN & PROFILE - TEMPORARY ACCESS ROAD
FROM OHUKAI ROAD

DTU	DTU	04010.10	7.02
DESIGNED BY	CHECKED BY	JOB NUMBER	
WIS	DTU	10-10-05	
DRAWN BY	APPROVED BY	DATE	
		SCALE 1 in. = 40 ft.	OF SHEETS



WARREN S. UNEMORI ENGINEERING, INC.
 CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
 WELLS STREET PROFESSIONAL CENTER, SUITE 403
 2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

KAONOULU MARKET PLACE
 T.M.K.: (2) 2-2-02 : Por. of Par. 15 and 3-9-01 : 16
 KIHAI, MAUI, HAWAII

CROSS SECTIONS ALONG ACCESS ROAD FROM OHUKAI ROAD TO PROJECT SITE

TITLE

ALU DESIGNED BY
 WIS DRAWN BY

DTU CHECKED BY
 DTU APPROVED BY

04010.10 JOB NUMBER
 10-10-05 DATE

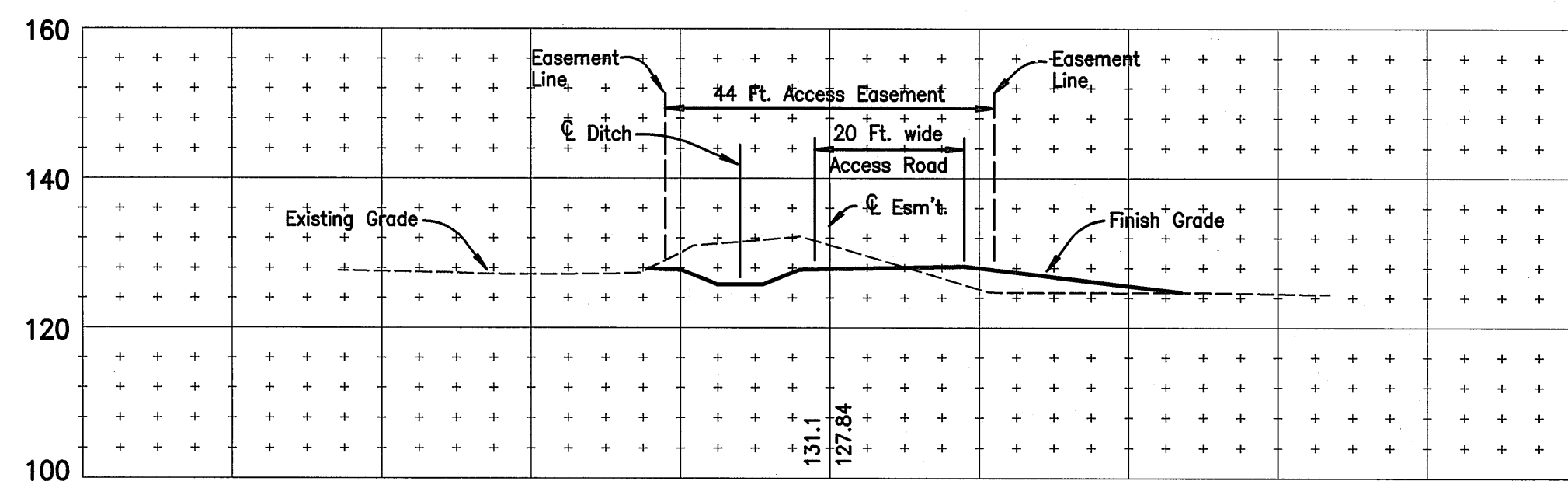
7.04 SHEET
 OF SHEETS

SCALE 1 in. = 20 ft.

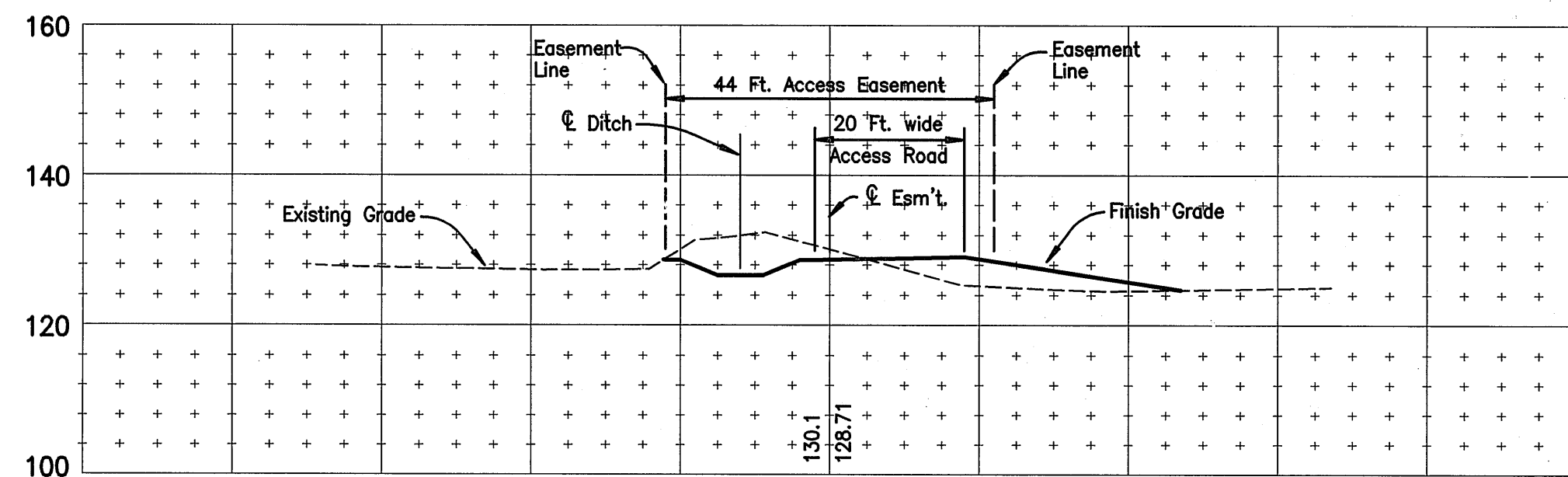
DATE 10/22/08

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION AS DEFINED IN SECTION 16-115-2 OF THE HAWAII ADMINISTRATIVE RULES FOR PROFESSIONAL ENGINEERS, ARCHITECTS, LAND SURVEYORS AND LANDSCAPE ARCHITECTS.

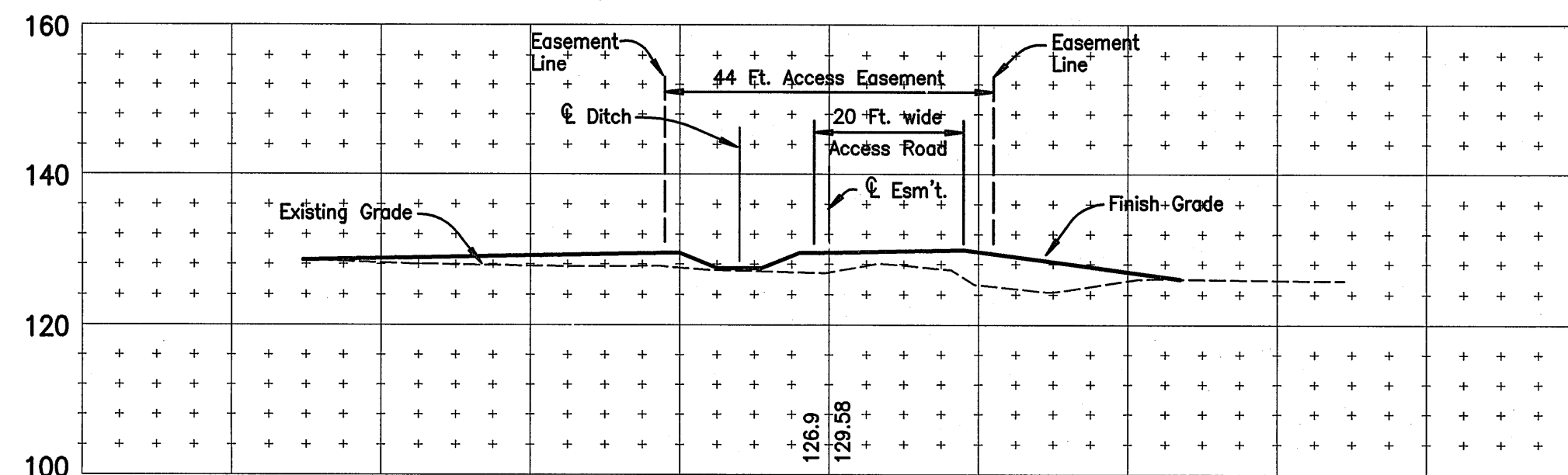
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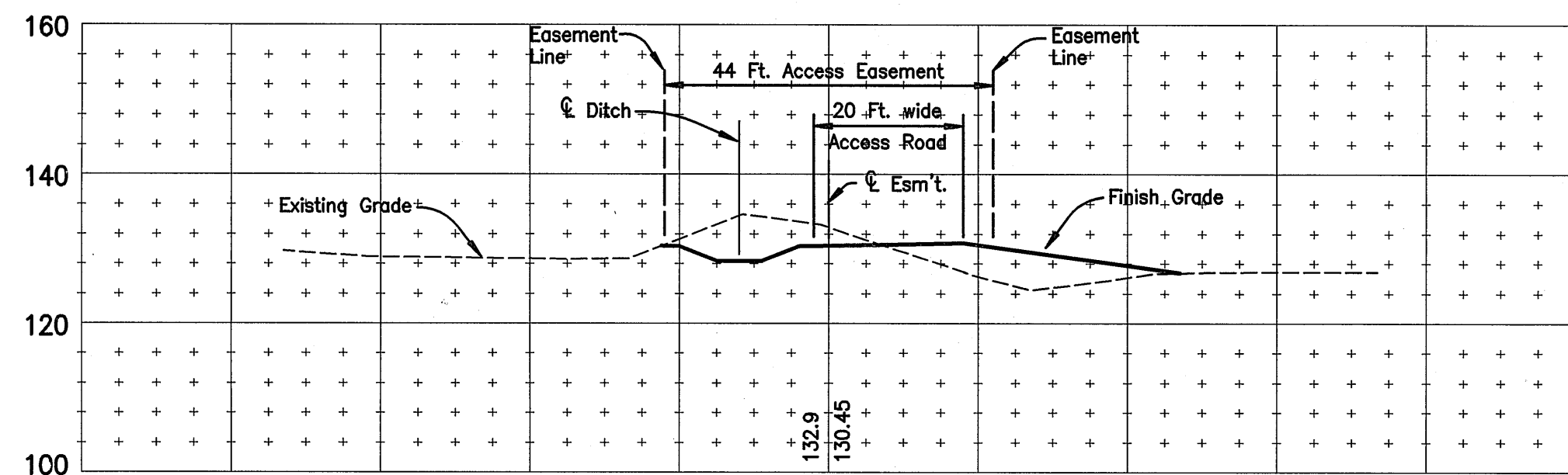
STA. 9+00



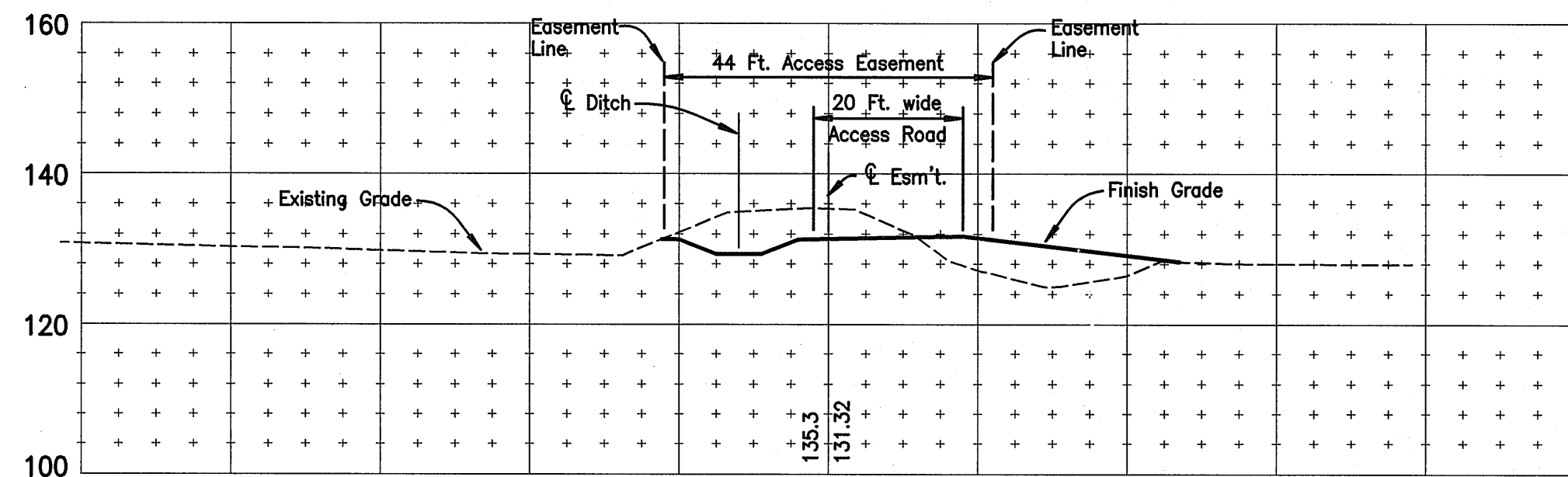
STA. 8+50



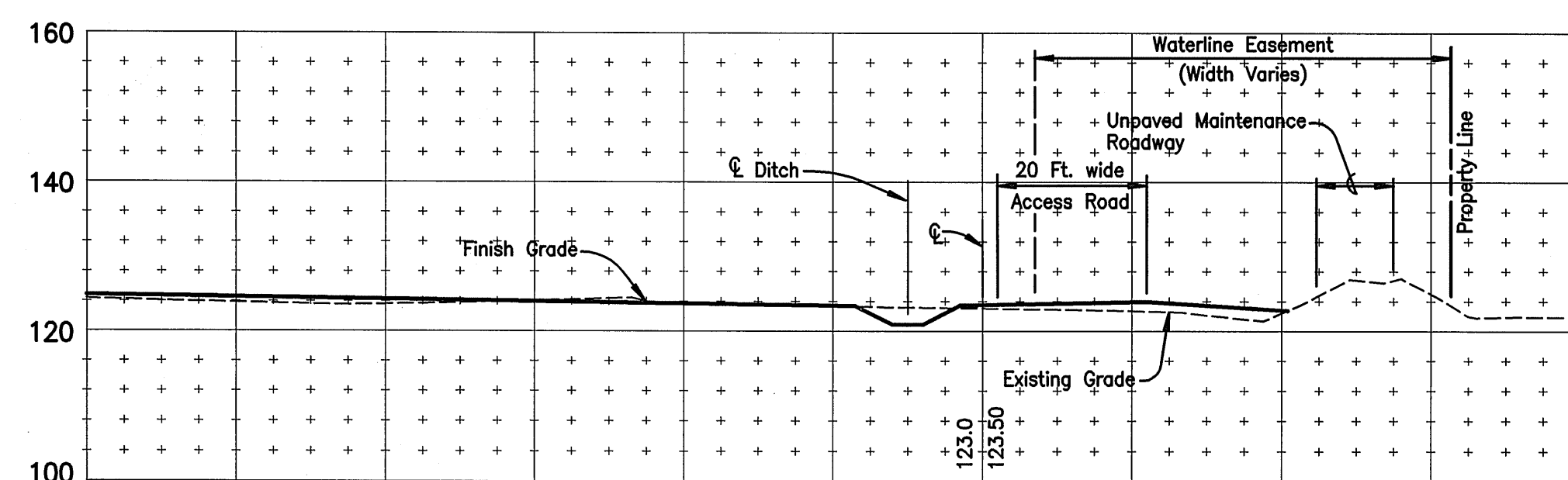
STA. 8+00



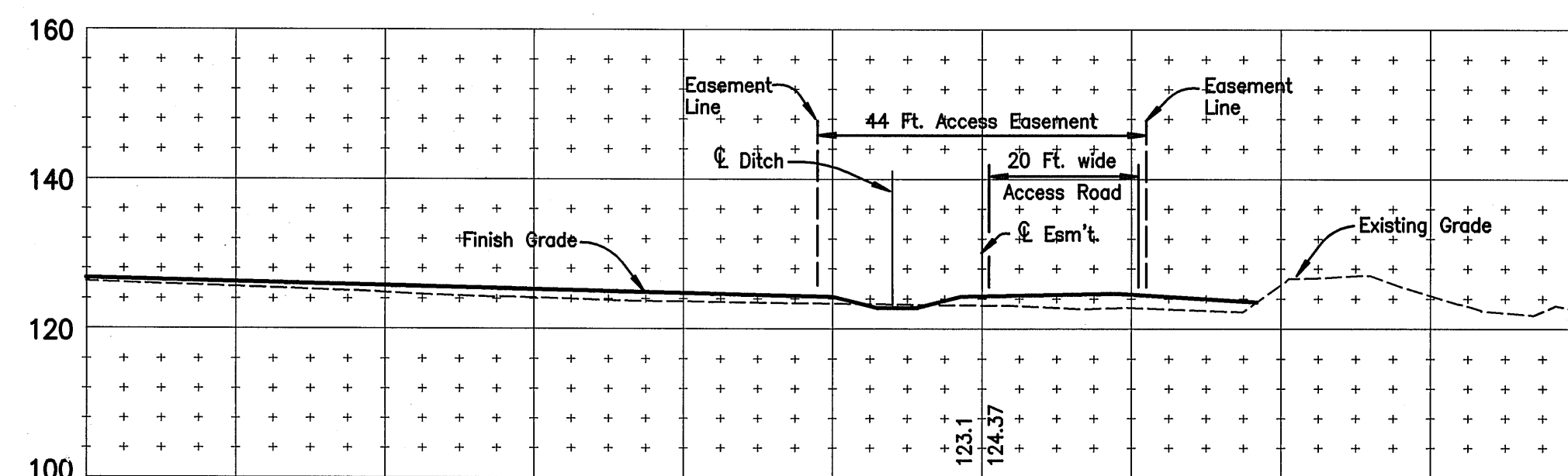
STA. 7+50



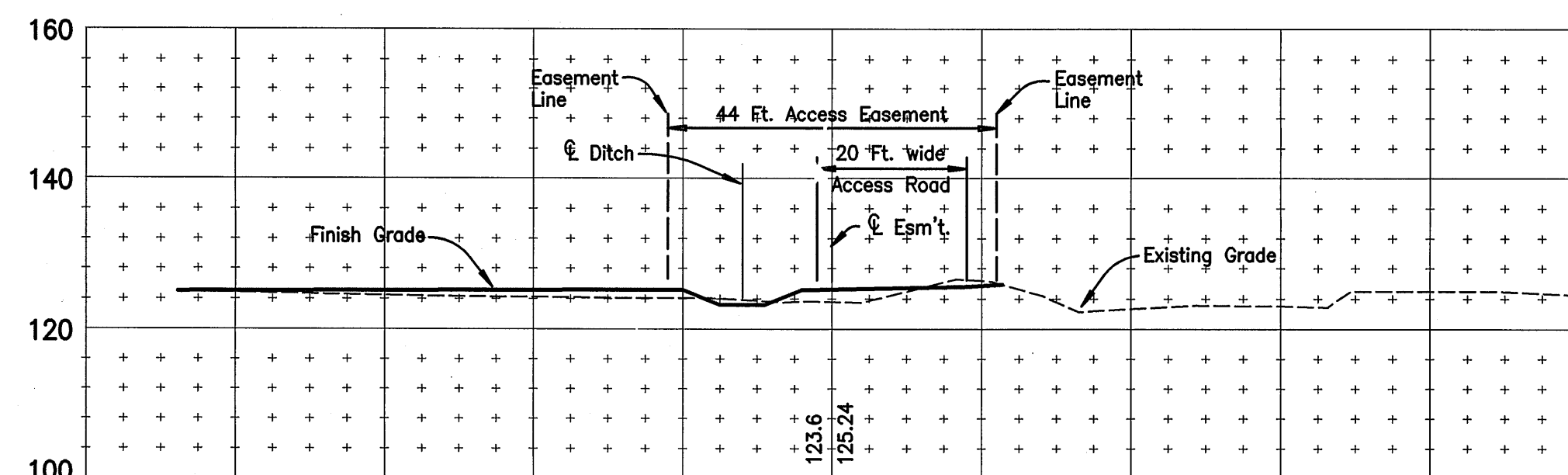
STA. 7+00



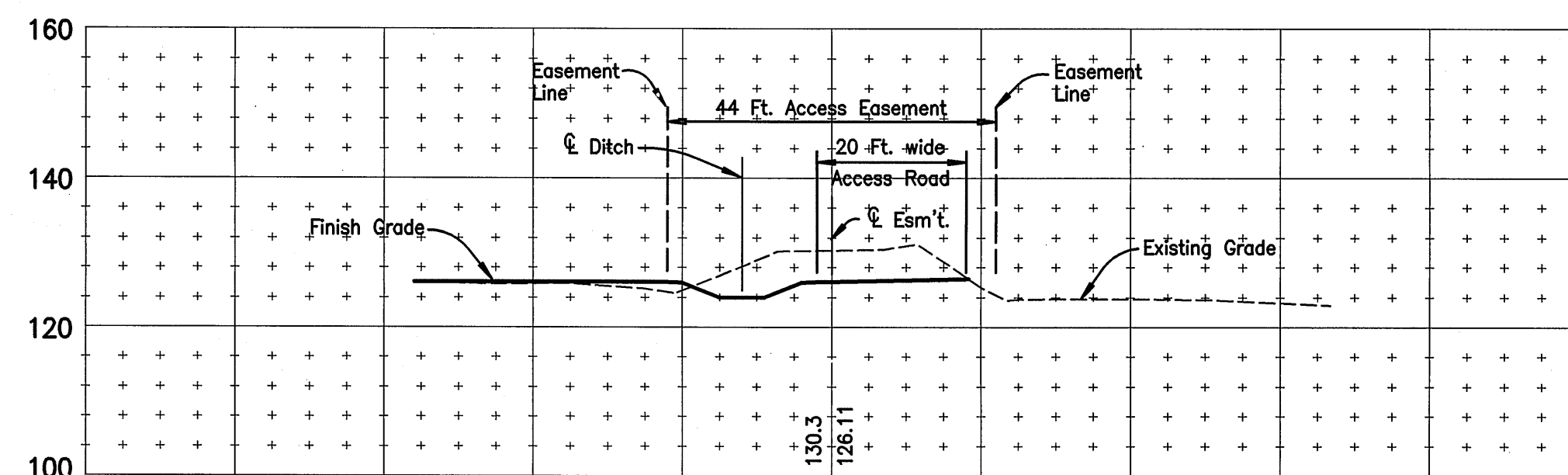
STA. 11+50



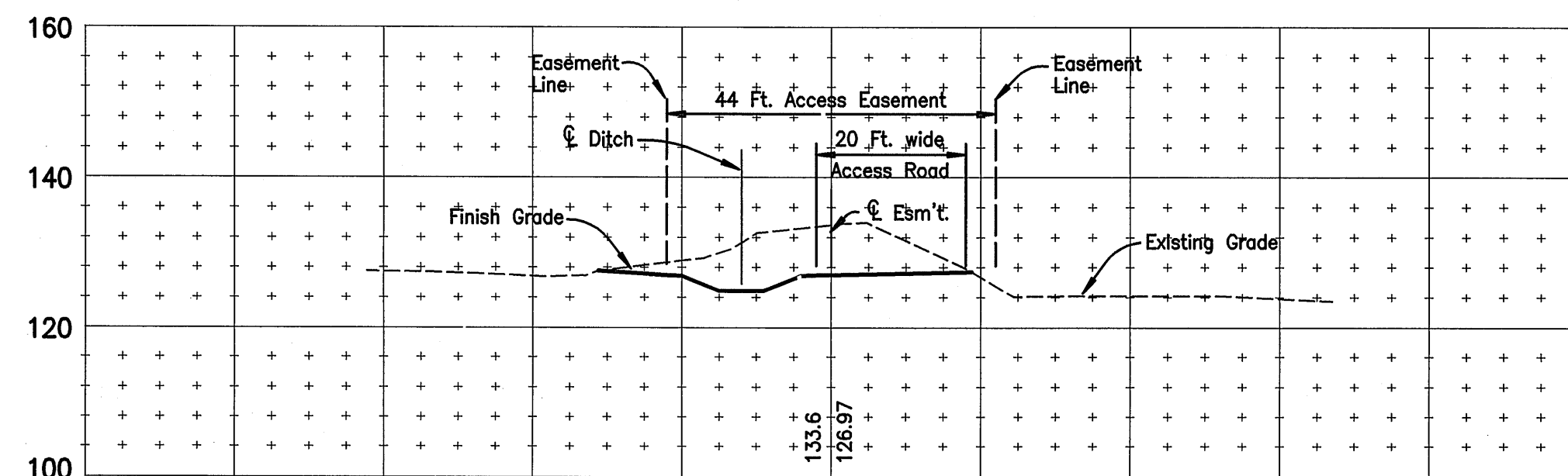
STA. 11+00



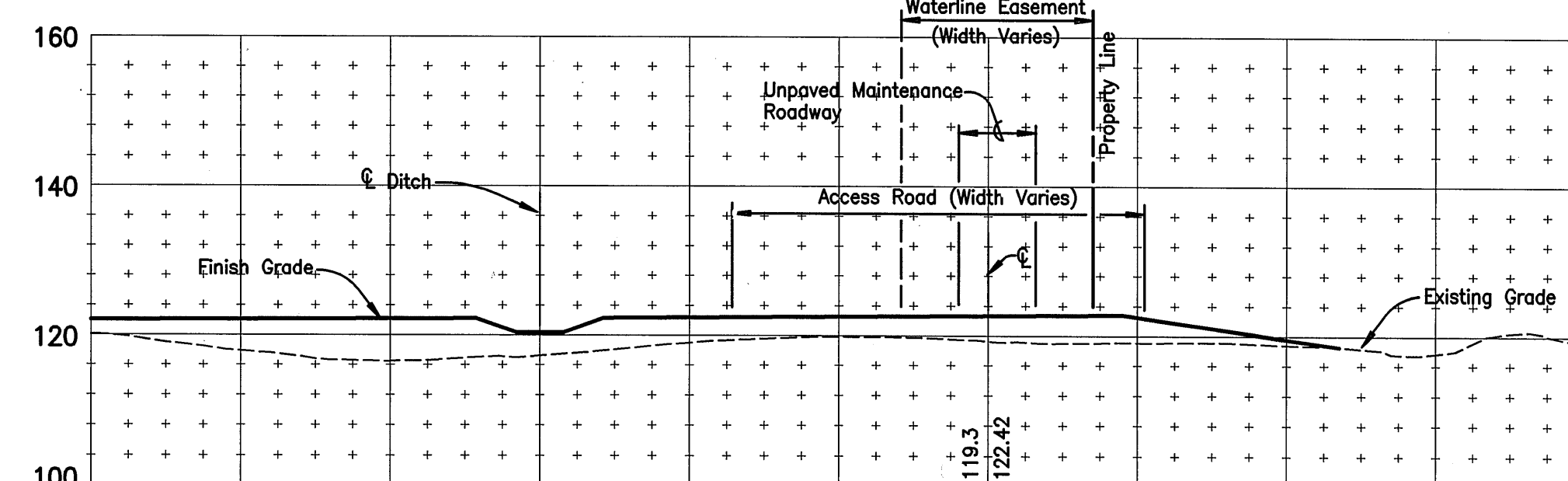
STA. 10+50



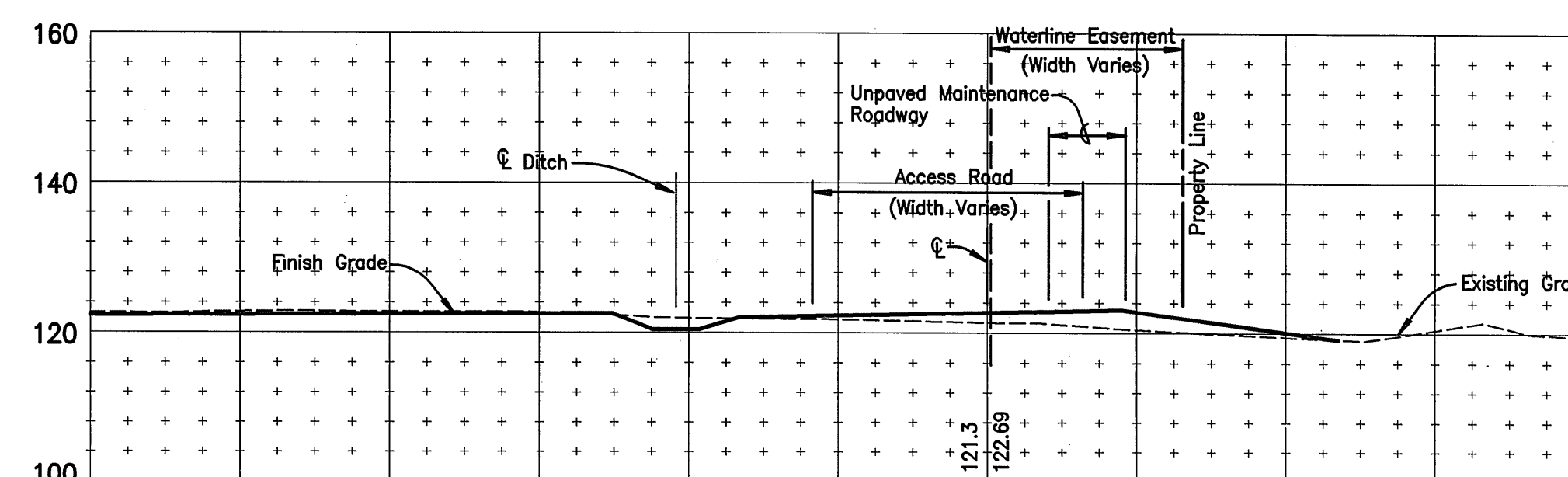
STA. 10+00



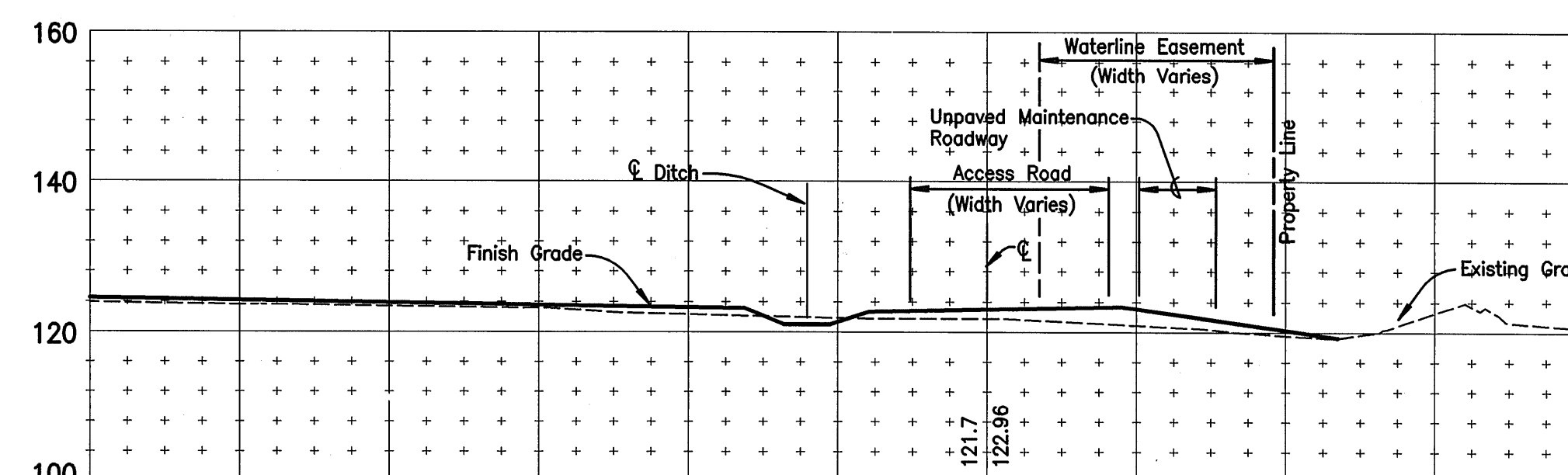
STA. 9+50



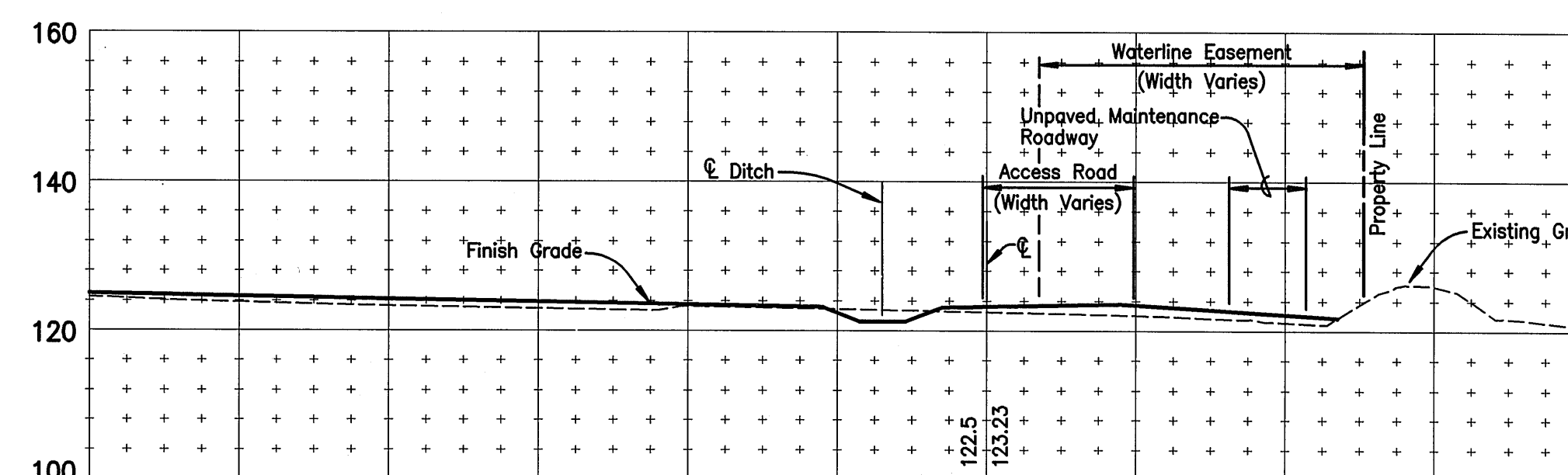
STA. 13+50



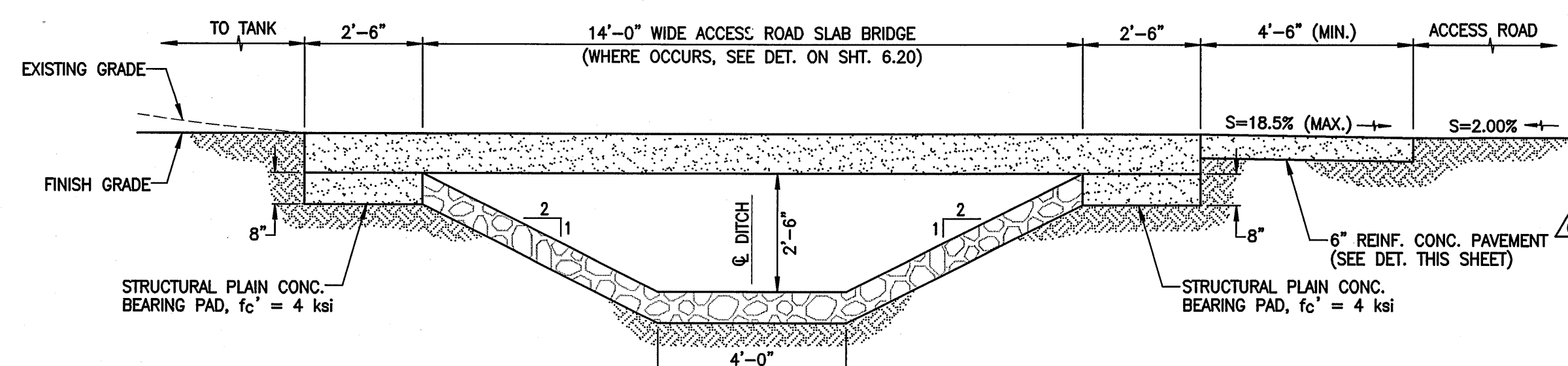
STA. 13+00



STA. 12+50

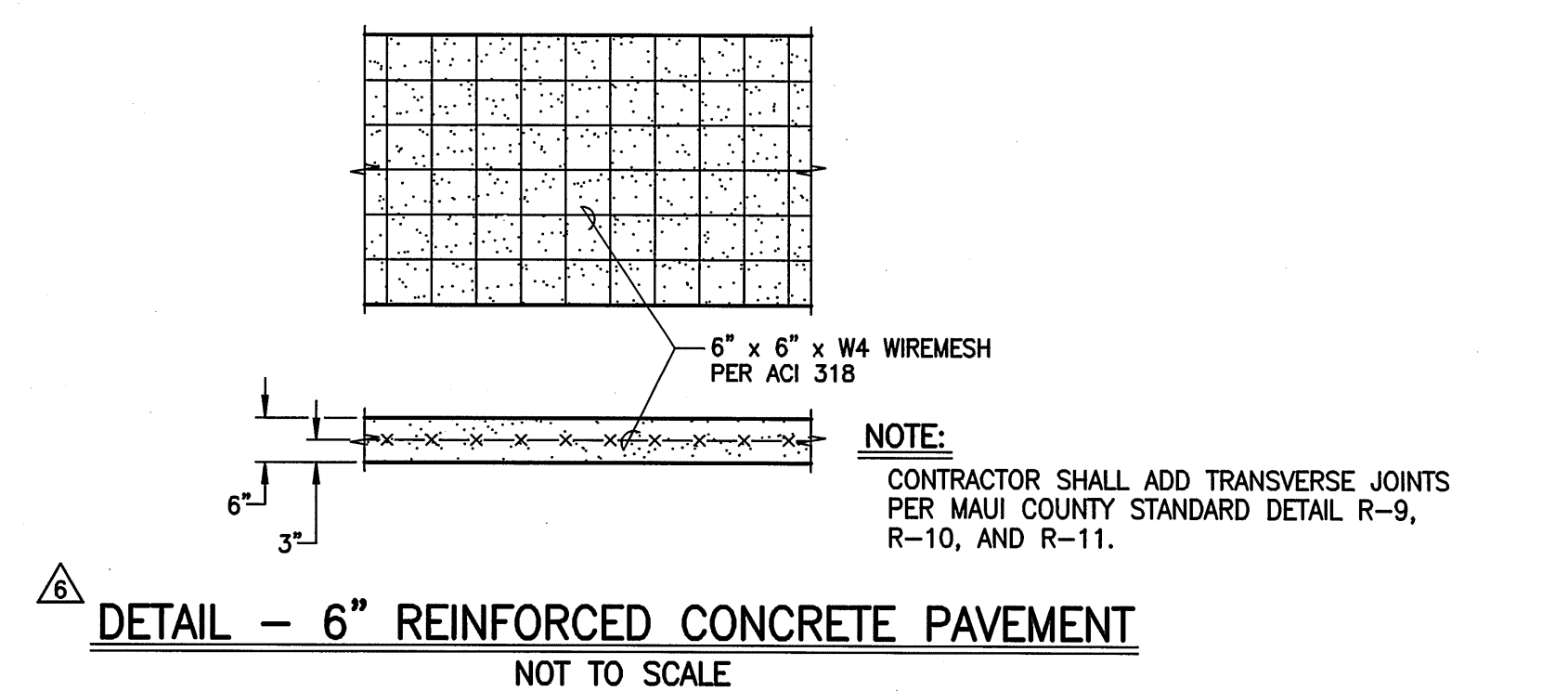


STA. 12+00



14 FT. WIDE GRP DITCH (STA. 11+28 TO 11+47)

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

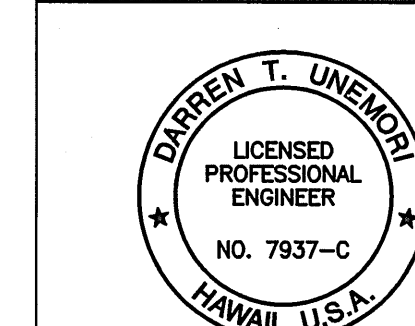


DETAIL - 6" REINFORCED CONCRETE PAVEMENT
NOT TO SCALE

6	REVISED GRP DITCH DETAIL	10/01/10
6	ADDED 14 FT. DITCH SECTION	12/12/08
LETTER	DESCRIPTION	DATE

SIGNATURE	DATE
10/1/10	

DESIGNED BY	CHECKED BY	JOB NUMBER
WIS	DTU	04010.10
DRAWN BY	APPROVED BY	10-10-05
SCALE 1 in. = 20 ft.	DATE	SHEET
		7.05
		OF SHEETS



WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

KAONOLU MARKET PLACE
T.M.K.: (2) 3-9-01 : 16
KIHEI, MAUI, HAWAII

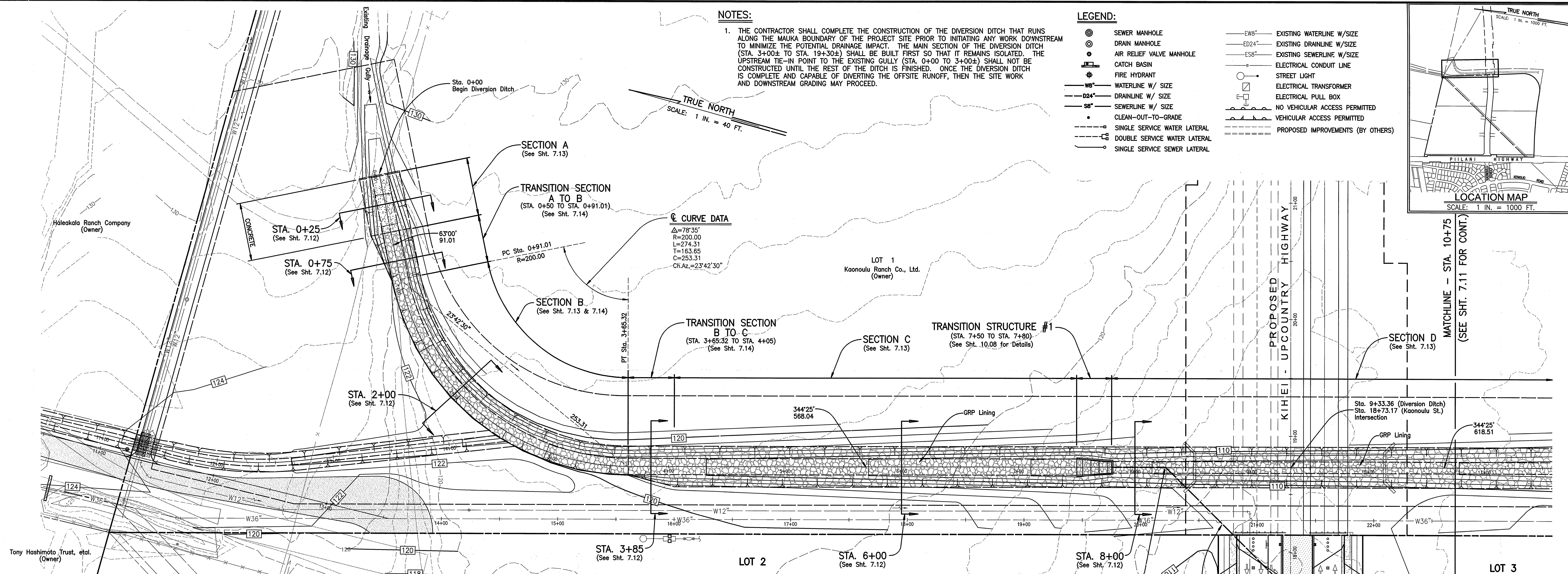
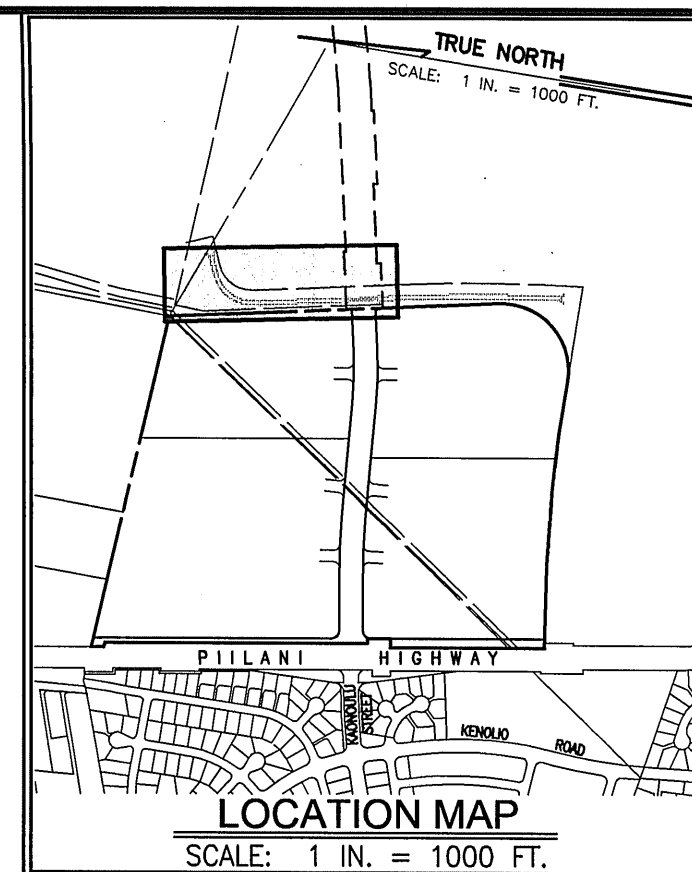
CROSS SECTIONS ALONG ACCESS ROAD
FROM OHUKAI ROAD TO PROJECT SITE

NOTES:

1. THE CONTRACTOR SHALL COMPLETE THE CONSTRUCTION OF THE DIVERSION DITCH THAT RUNS ALONG THE MAUKA BOUNDARY OF THE PROJECT SITE PRIOR TO INITIATING ANY WORK DOWNSTREAM TO MINIMIZE THE POTENTIAL DRAINAGE IMPACT. THE MAIN SECTION OF THE DIVERSION DITCH (STA. 3+00± TO STA. 19+30±) SHALL BE BUILT FIRST SO THAT IT REMAINS ISOLATED. THE UPSTREAM TIE-IN POINT TO THE EXISTING GULLY (STA. 0+00 TO 3+00±) SHALL NOT BE CONSTRUCTED UNTIL THE REST OF THE DITCH IS FINISHED. ONCE THE DIVERSION DITCH IS COMPLETE AND CAPABLE OF DIVERTING THE OFFSITE RUNOFF, THEN THE SITE WORK AND DOWNSTREAM GRADING MAY PROCEED.

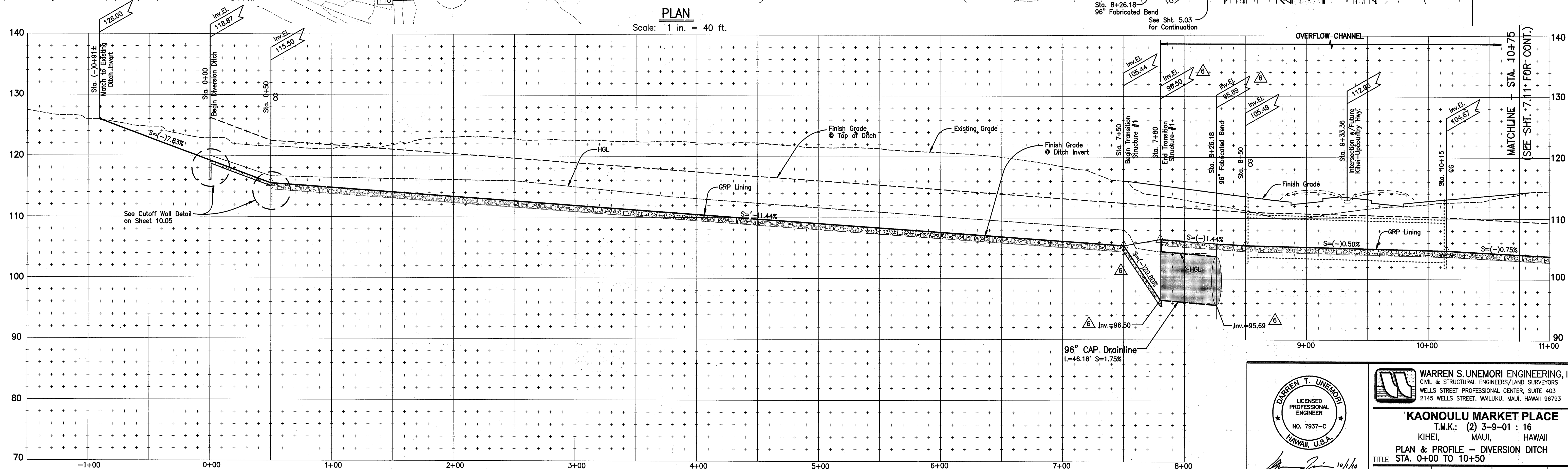
LEGEND:

- SEWER MANHOLE
- DRAIN MANHOLE
- AIR RELIEF VALVE MANHOLE
- CATCH BASIN
- FIRE HYDRANT
- WATERLINE W/ SIZE
- DRAINLINE W/ SIZE
- SEWERLINE W/ SIZE
- CLEAN-OUT-TO-GRADE
- SINGLE SERVICE WATER LATERAL
- DOUBLE SERVICE WATER LATERAL
- SINGLE SERVICE SEWER LATERAL
- EXISTING WATERLINE W/SIZE
- EXISTING DRAINLINE W/SIZE
- EXISTING SEWERLINE W/SIZE
- ELECTRICAL CONDUIT LINE
- STREET LIGHT
- ELECTRICAL TRANSFORMER
- ELECTRICAL PULL BOX
- NO VEHICULAR ACCESS PERMITTED
- VEHICULAR ACCESS PERMITTED
- PROPOSED IMPROVEMENTS (BY OTHERS)



PLAN

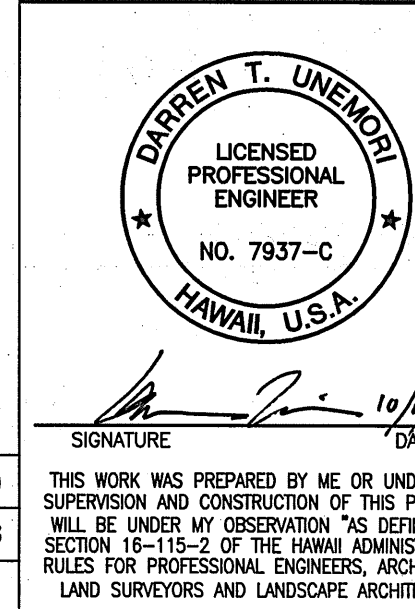
Scale: 1 in. = 40 ft.



PROFILE - DIVERSION DITCH

Scale: Horiz. 1" = 40'
Vert. 1" = 8'

LETTER	DESCRIPTION	DATE
A	REVISED 96" CAP INVERTS	10/01/10
B	ADDED 96" DRAINLINE AND TRANSITION STRUCTURE	10/22/08



WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

KAONOULU MARKET PLACE
T.M.K.: (2) 3-9-01 : 16
KIHAI, MAUI, HAWAII

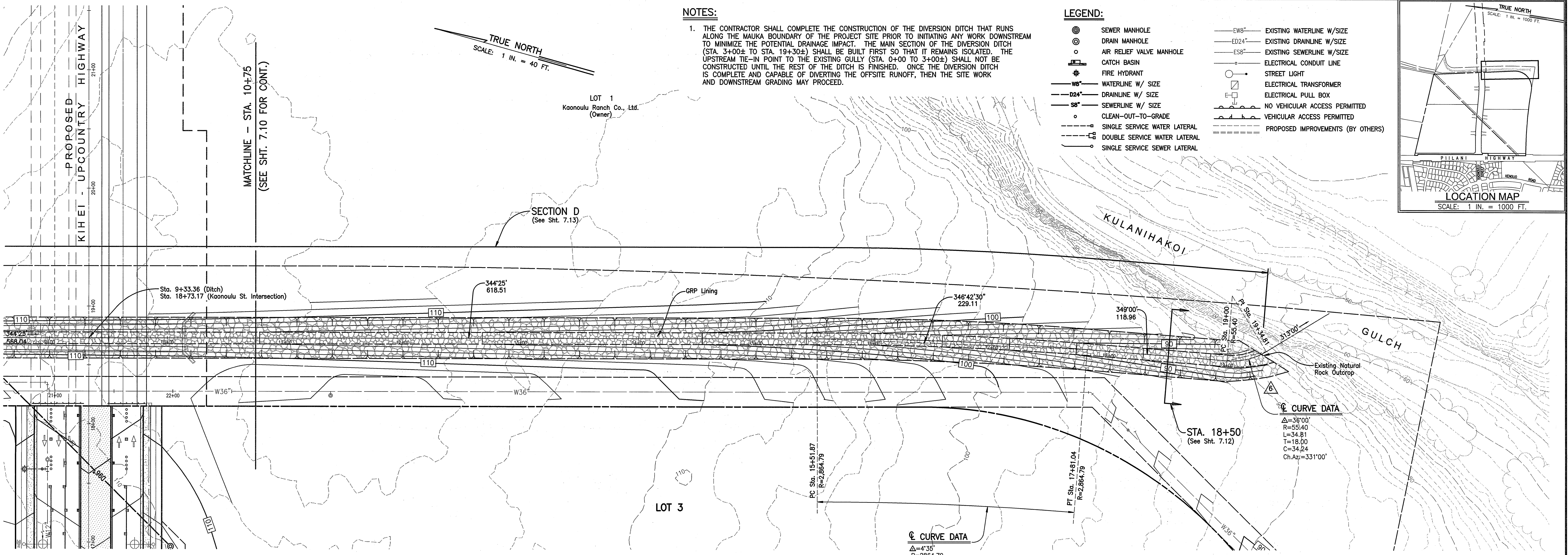
PLAN & PROFILE - DIVERSION DITCH
TITLE STA. 0+00 TO 10+50

DESIGNED BY	DTU	04010.10
CHECKED BY	DTU	JOB NUMBER
DRAWN BY	DTU	10-10-05
APPROVED BY	DTU	DATE

SCALE 1 in. = 40 ft.

7.10

SHEET
OF SHEETS



NOTES:

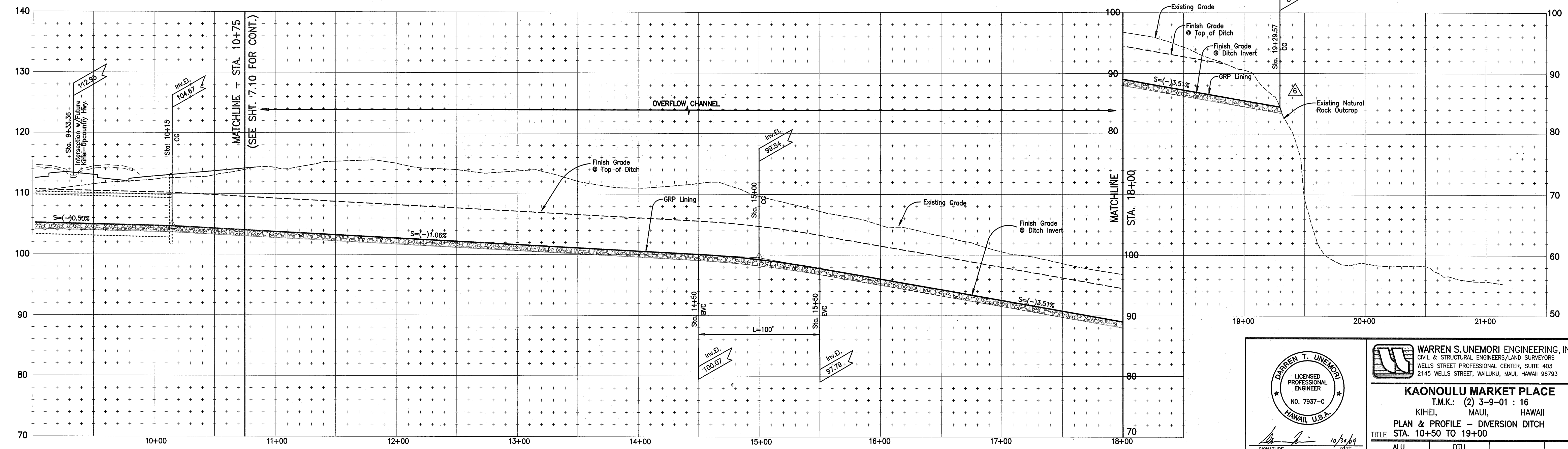
1. THE CONTRACTOR SHALL COMPLETE THE CONSTRUCTION OF THE DIVERSION DITCH THAT RUNS ALONG THE MAUKA BOUNDARY OF THE PROJECT SITE PRIOR TO INITIATING ANY WORK DOWNSTREAM TO MINIMIZE THE POTENTIAL DRAINAGE IMPACT. THE MAIN SECTION OF THE DIVERSION DITCH (STA. 3+00± TO STA. 19+30±) SHALL BE BUILT FIRST SO THAT IT REMAINS ISOLATED. THE UPSTREAM TIE-IN POINT TO THE EXISTING GULLY (STA. 0+00 TO 3+00±) SHALL NOT BE CONSTRUCTED UNTIL THE REST OF THE DITCH IS FINISHED. ONCE THE DIVERSION DITCH IS COMPLETE AND CAPABLE OF DIVERTING THE OFFSITE RUNOFF, THEN THE SITE WORK AND DOWNSTREAM GRADING MAY PROCEED.

LEGEND:

- SEWER MANHOLE
- DRAIN MANHOLE
- AIR RELIEF VALVE MANHOLE
- CATCH BASIN
- ⊕ FIRE HYDRANT
- W6" WATERLINE W/ SIZE
- D24" DRAINLINE W/ SIZE
- S8" SEWERLINE W/ SIZE
- CLEAN-OUT-TO-GRADE
- SINGLE SERVICE WATER LATERAL
- DOUBLE SERVICE WATER LATERAL
- SINGLE SERVICE SEWER LATERAL
- EWB" EXISTING WATERLINE W/SIZE
- ED24" EXISTING DRAINLINE W/SIZE
- ES8" EXISTING SEWERLINE W/SIZE
- ELECTRICAL CONDUIT LINE
- STREET LIGHT
- ELECTRICAL TRANSFORMER
- ELECTRICAL PULL BOX
- NO VEHICULAR ACCESS PERMITTED
- VEHICULAR ACCESS PERMITTED
- PROPOSED IMPROVEMENTS (BY OTHERS)

PLAN

Scale: 1 in. = 40 ft.



PROFILE - DIVERSION DITCH

Scale: Horiz. 1" = 40'
Vert. 1" = 8'

WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

KAONOULU MARKET PLACE
T.M.K.: (2) 3-9-01 : 16
KIHETI, MAUI, HAWAII

PLAN & PROFILE - DIVERSION DITCH
TITLE STA. 10+50 TO 19+00

DARREN T. UNEMORI
LICENSED PROFESSIONAL ENGINEER
NO. 7937-C
HAWAII, U.S.A.

10/31/09

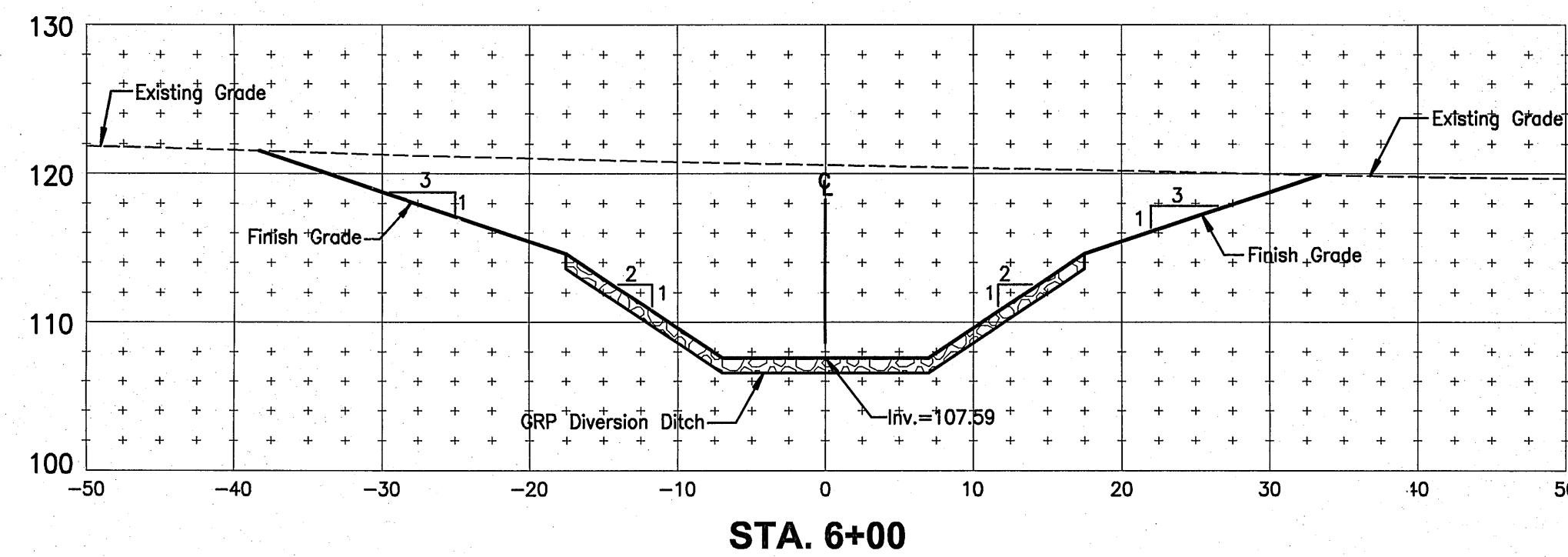
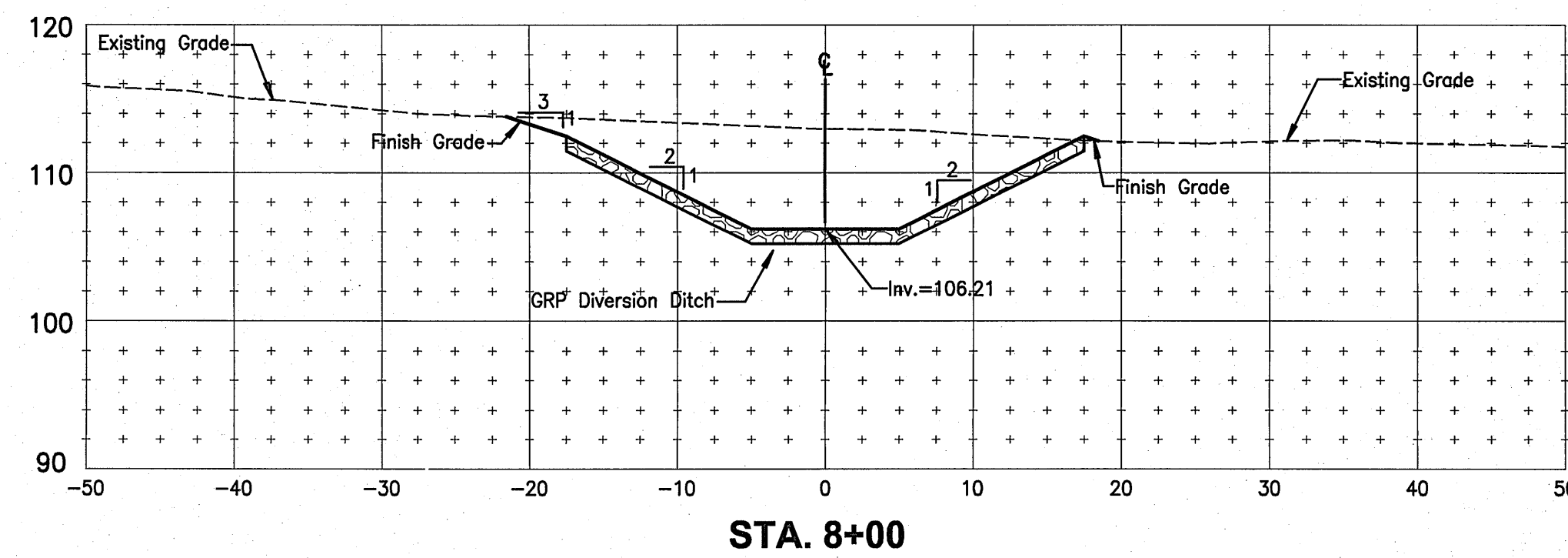
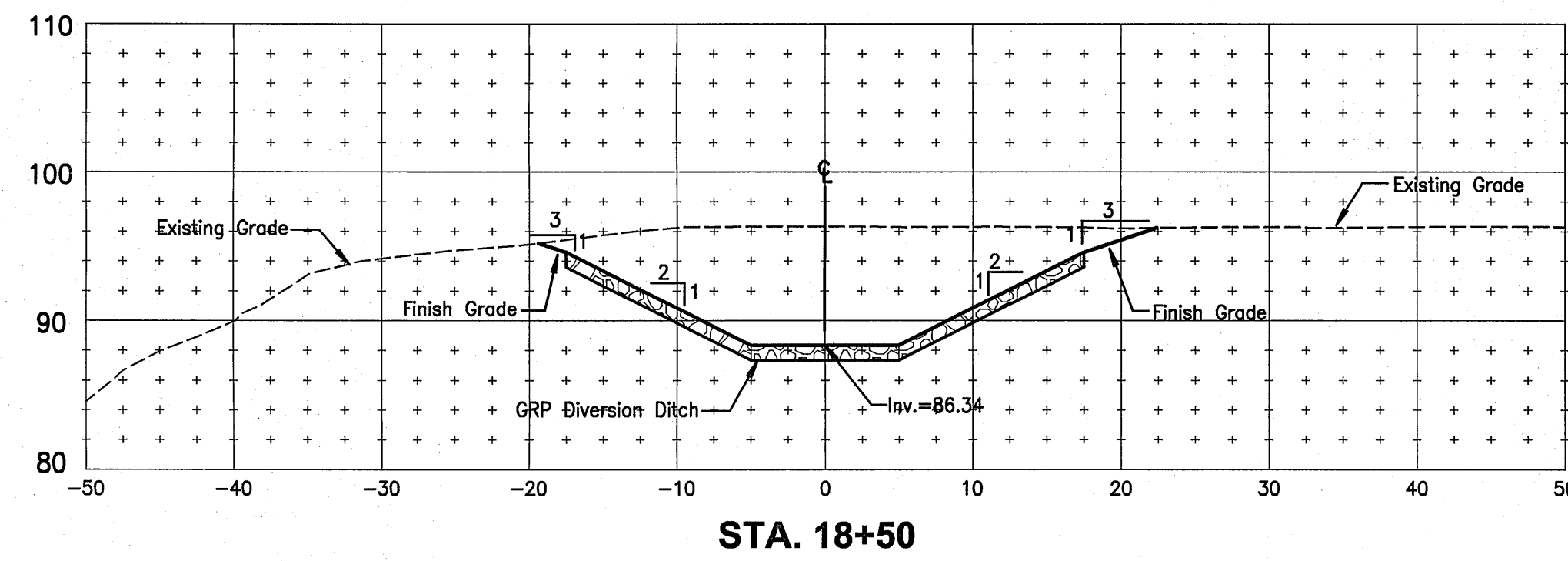
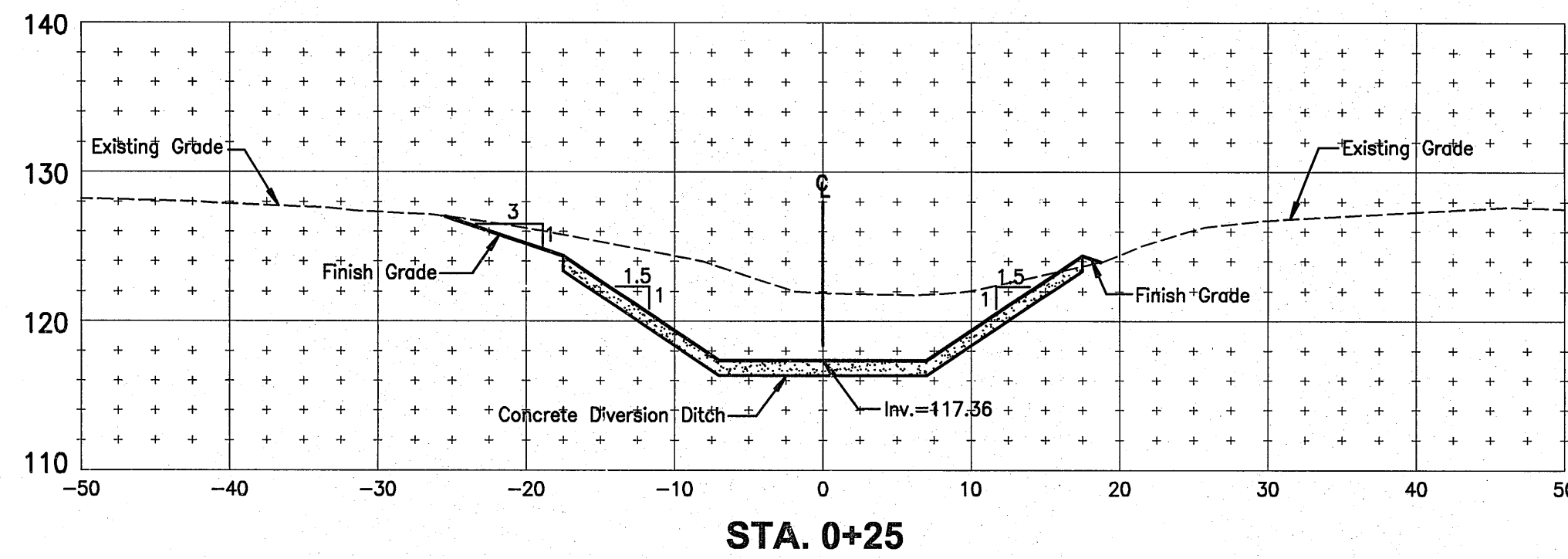
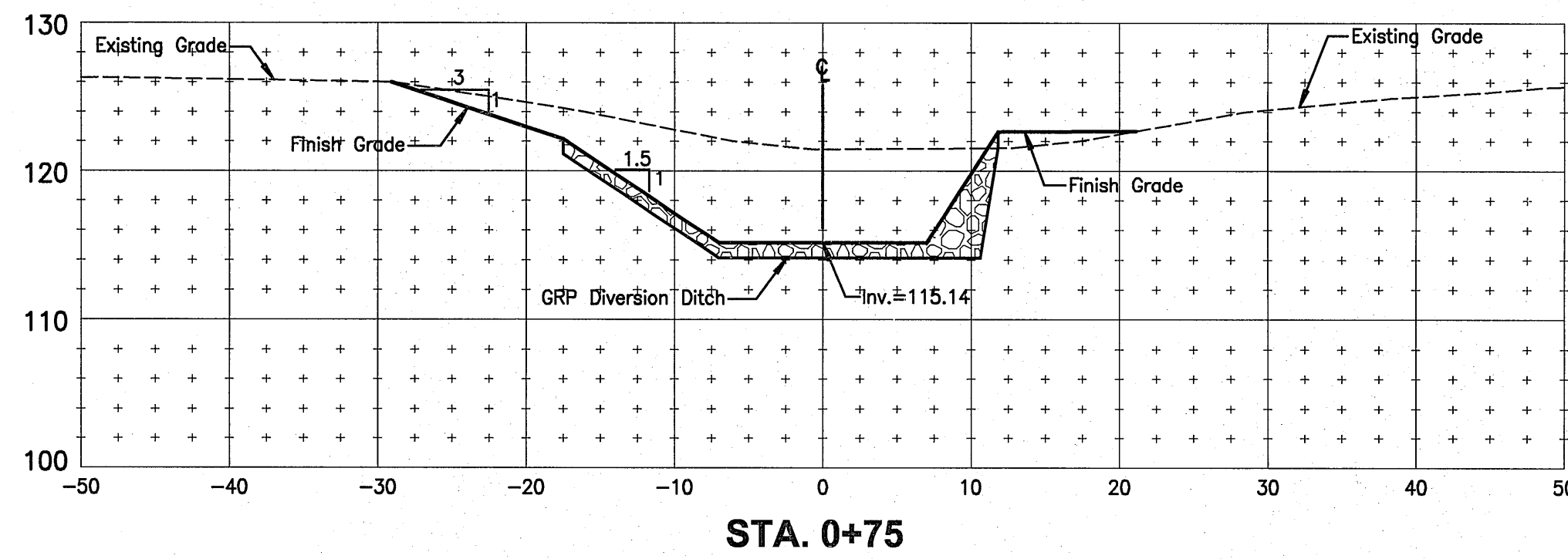
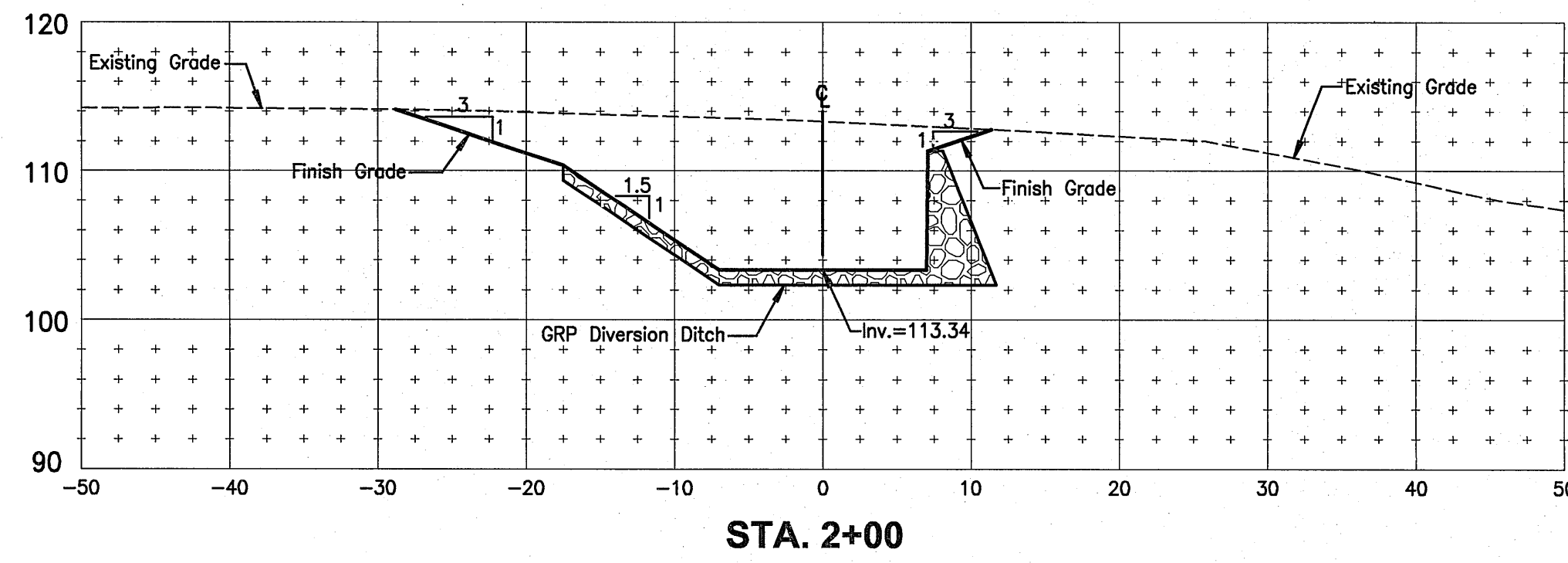
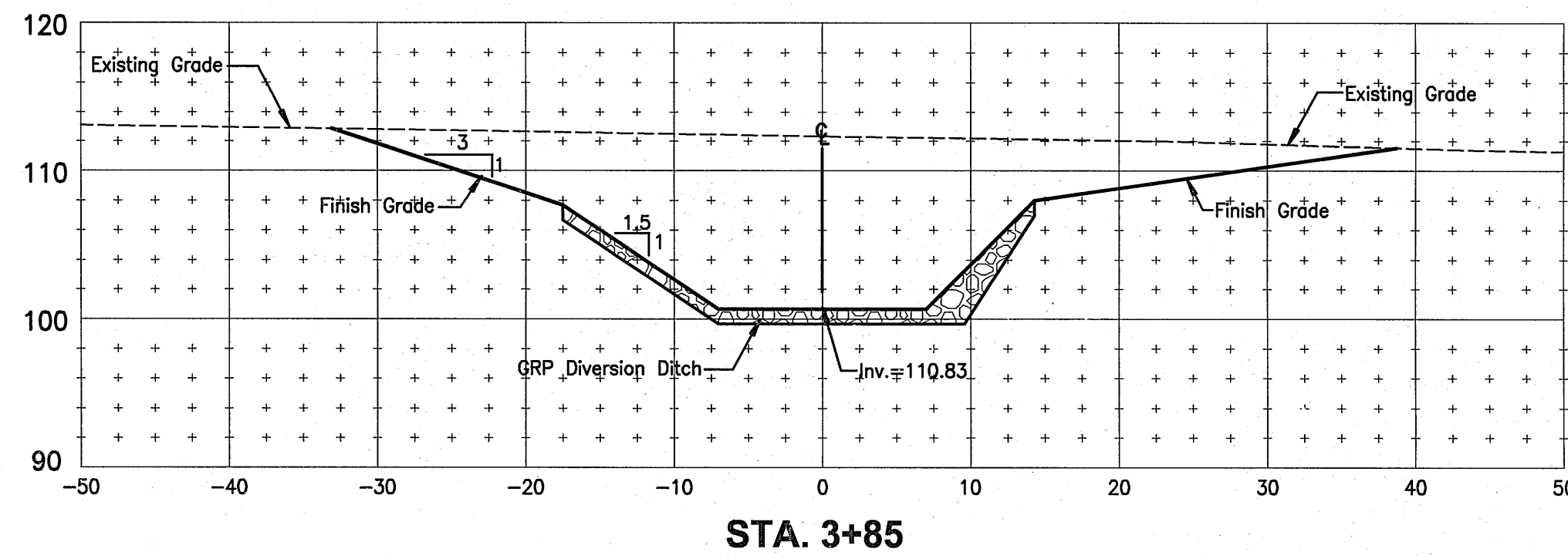
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION AS DEFINED IN SECTION 16-115-2 OF THE HAWAII ADMINISTRATIVE RULES FOR PROFESSIONAL ENGINEERS, ARCHITECTS, LAND SURVEYORS AND LANDSCAPE ARCHITECTS.

LETTER	DESCRIPTION	DATE
Δ	Deleted GRP Outfall and Stilling Basin	10/16/09
Δ	Section E Changed to Pyramid TRM	10/22/08

DESIGNED BY	CHECKED BY	DATE
ALU	DTU	10/16/09
WIS	DTU	10/22/08

SCALE	JOB NUMBER	SHEET
1 in. = 40 ft.	04010.10	7.11
	10-10-05	OF SHEETS

04010.10/awg2004/complans/pl-ditch-ditch-00.dwg



ALAN L. UNEMORI
LICENSED PROFESSIONAL ENGINEER
NO. 9354-C
HAWAII, U.S.A.

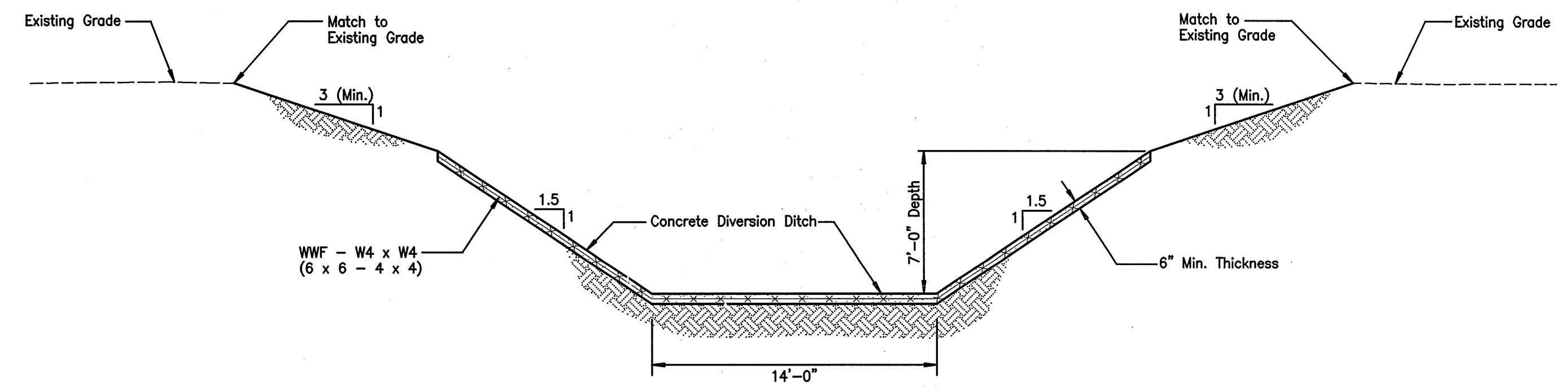
WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

KAONOULU MARKET PLACE
T.M.K.: (2) 2-2-02 : Por. of Par. 15 and 3-9-01 : 16
KIHEI, MAUI, HAWAII

TITLE: CROSS SECTIONS - DIVERSION DITCH

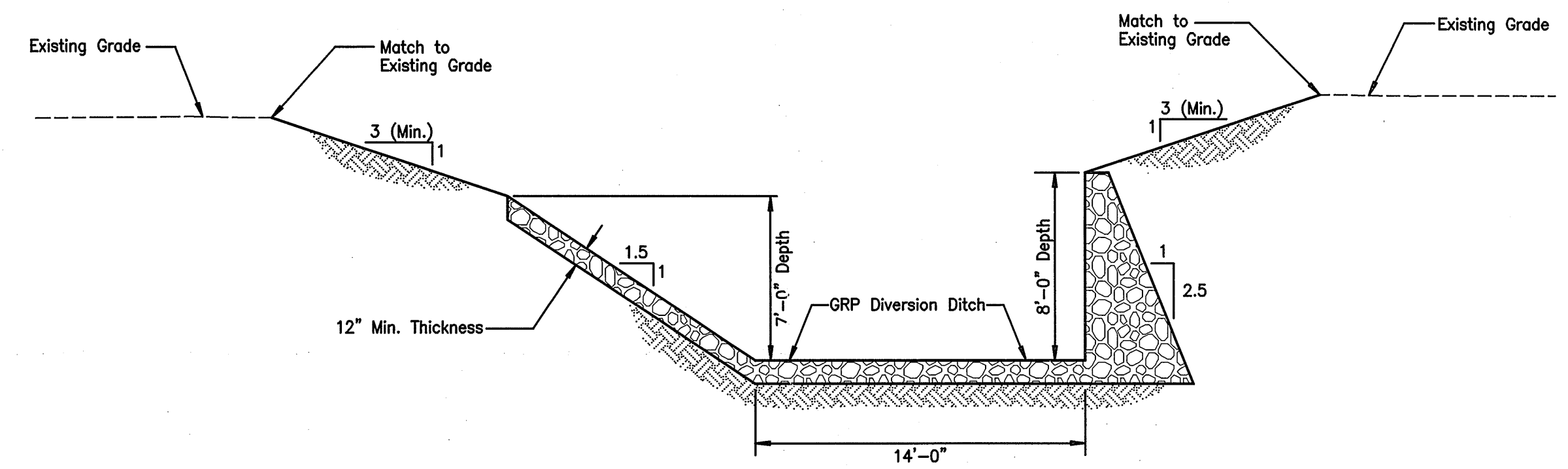
DESIGNED BY	WSU	CHECKED BY	WSU	JOB NUMBER	04010.10
DRAWN BY	WIS	APPROVED BY	WSU	10-10-05	7.12
SCALE 1 IN. = 10 FT.				DATE	OF SHEETS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION "AS DEFINED IN SECTION 15-115-2 OF THE HAWAII ADMINISTRATIVE RULES FOR PROFESSIONAL ENGINEERS, ARCHITECTS, LAND SURVEYORS AND LANDSCAPE ARCHITECTS"



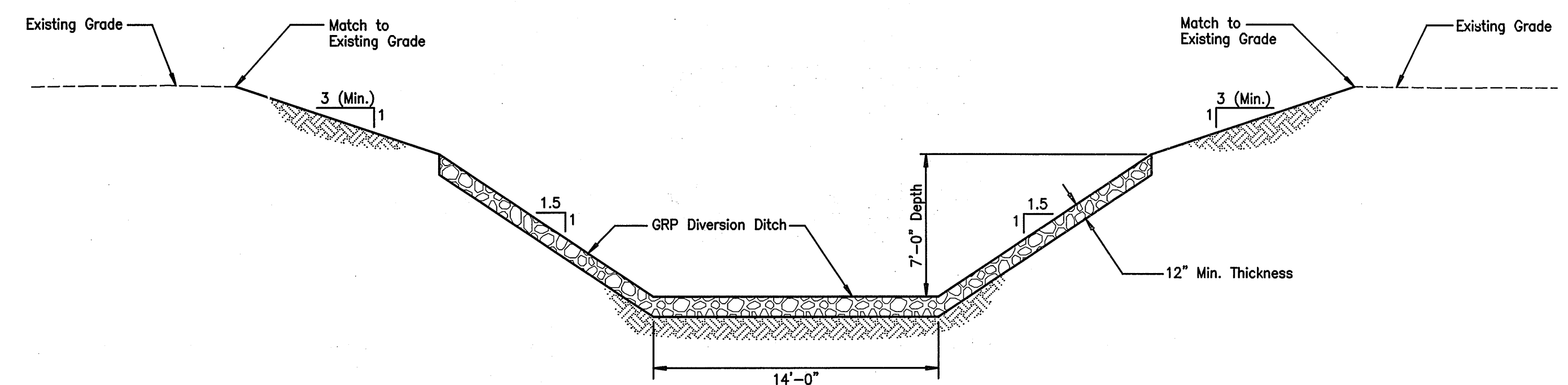
TYPICAL SECTION A - (STA. 0+00 TO STA. 0+50)

SCALE: 3/16" = 1'-0"



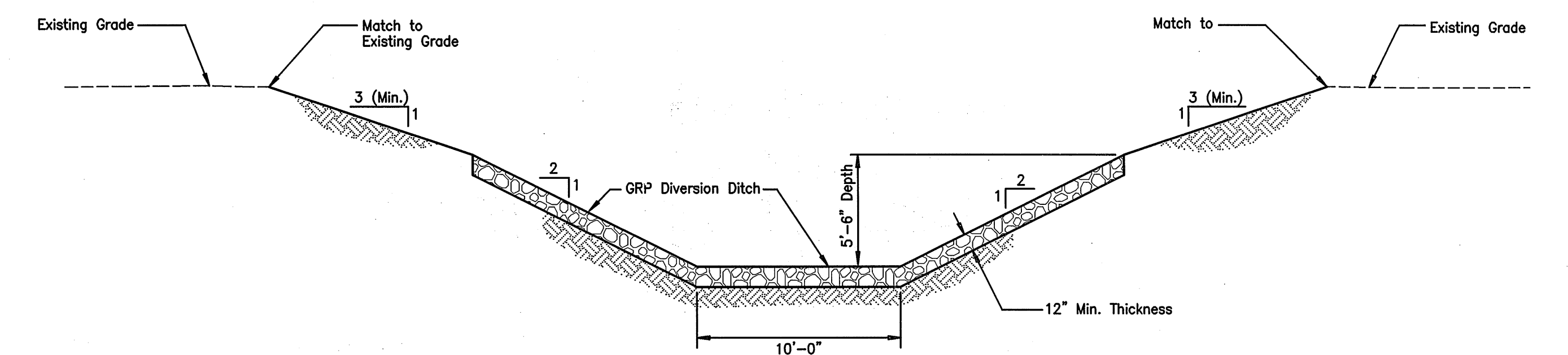
TYPICAL SECTION B - (STA. 0+91.01 TO STA. 3+65.32)

SCALE: 3/16" = 1'-0"



TYPICAL SECTION C - (STA. 4+05 TO STA. 7+50)

SCALE: 3/16" = 1'-0"



TYPICAL SECTION D - (STA. 7+80 TO STA. 19+30±)

SCALE: 3/16" = 1'-0"

LETTER	DESCRIPTION	DATE
6	DELETED GRP OUTFALL AND STILLING BASIN	10/16/09
3	SECTION E CHANGED TO PYRAMAT TRM	10/22/08

WARREN S. UNEMORI
ENGINEER
NO. 7937-C
HAWAII, U.S.A.

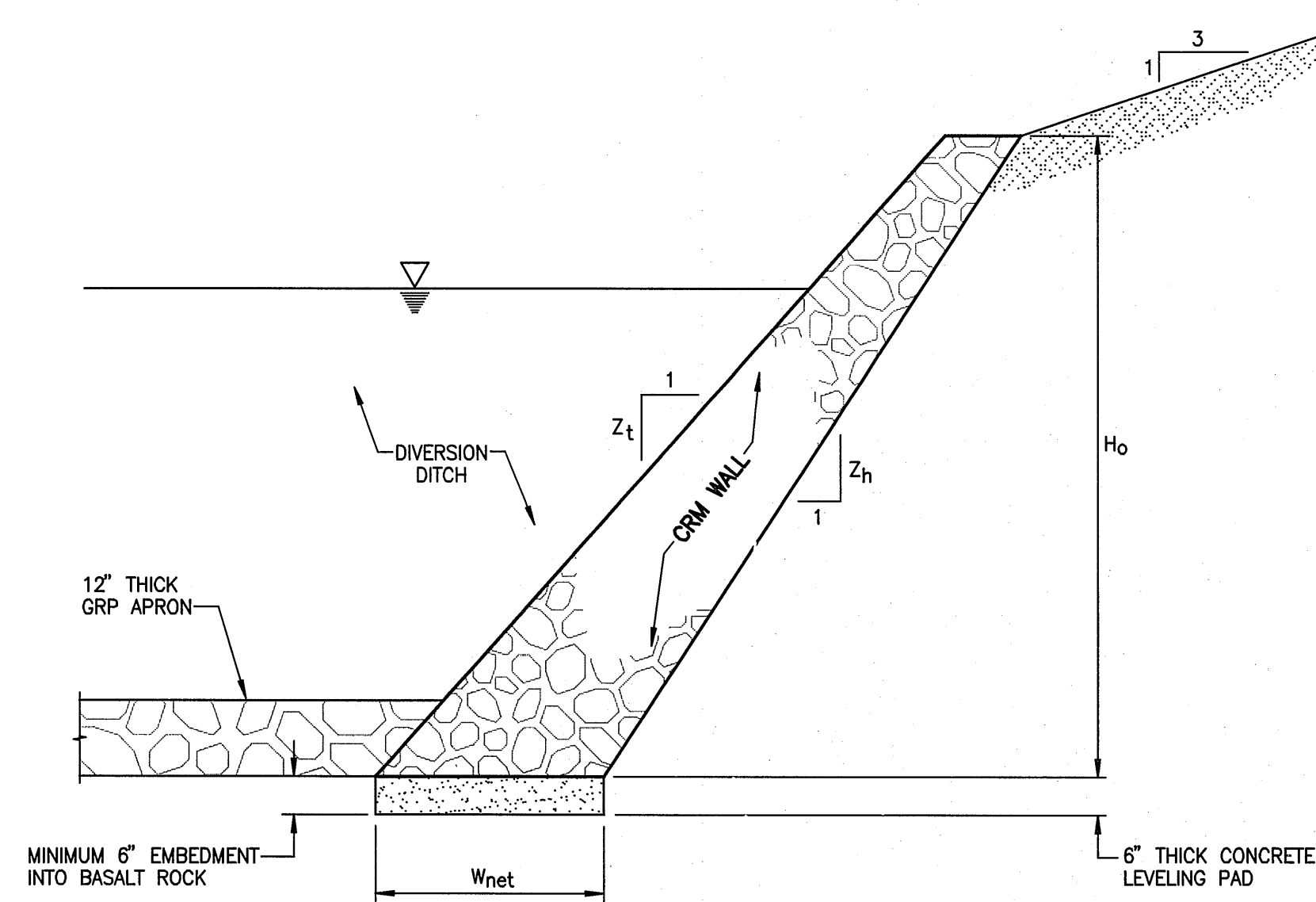
WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

KAONOULU MARKET PLACE
T.M.K.: (2) 3-9-01 : 16
KIHAI, MAUI, HAWAII

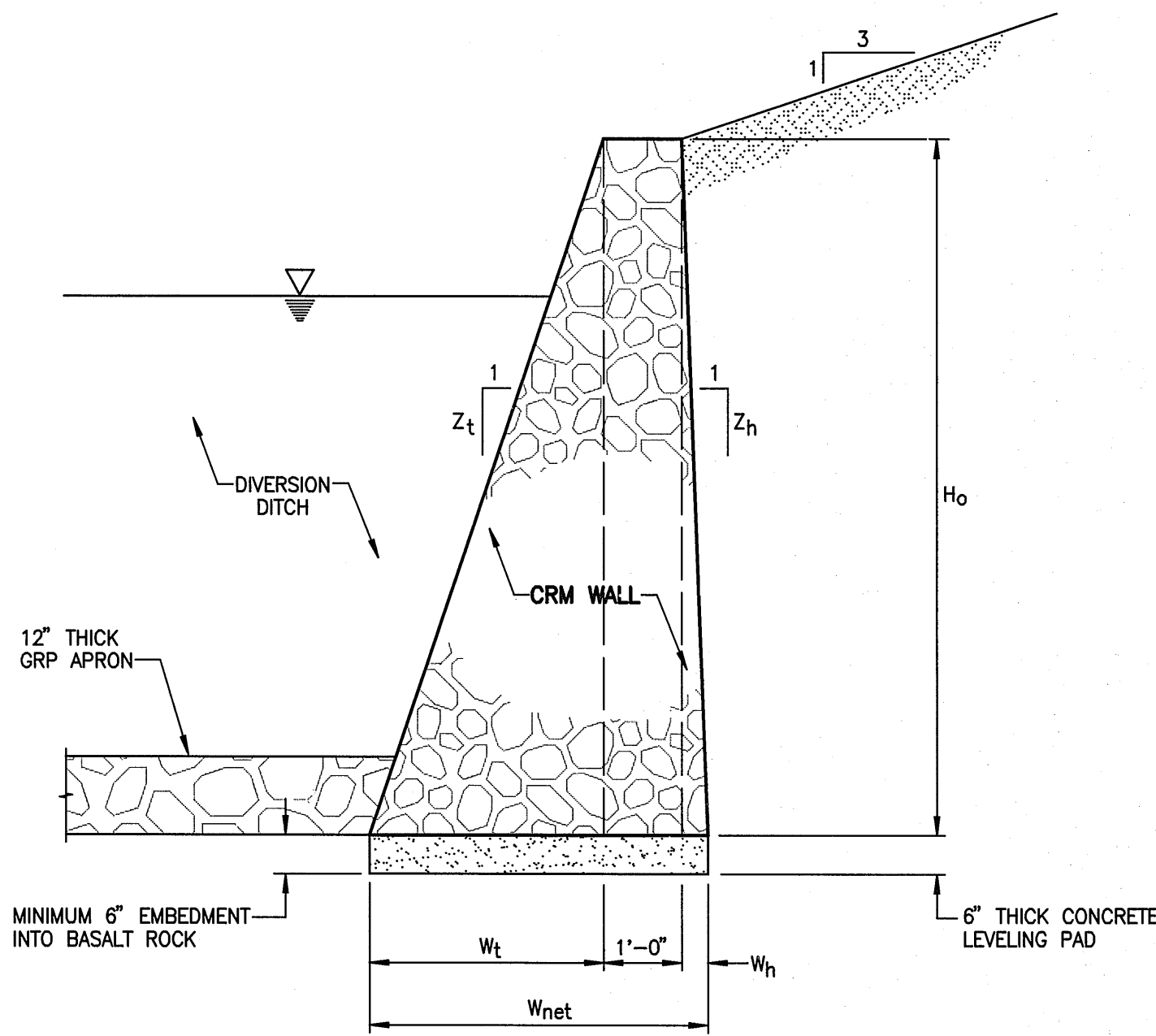
TITLE TYPICAL SECTIONS - DIVERSION DITCH

DESIGNED BY ALU	CHECKED BY DTU	JOB NUMBER 04010.10	7.13
DRAWN BY WIS	APPROVED BY DTU	JOB NUMBER 10-10-05	
SCALE As Shown		DATE	

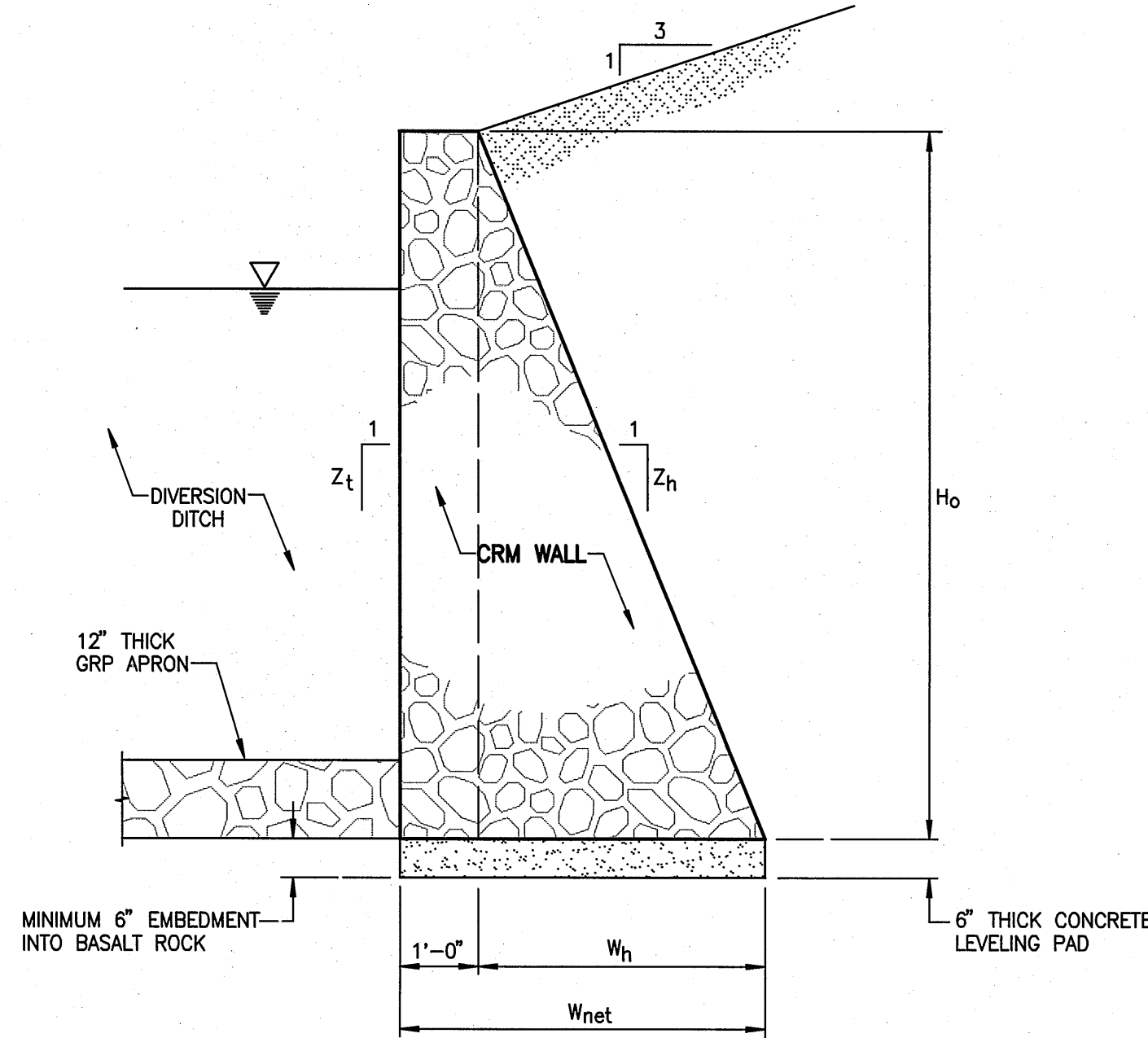
OF SHEETS



**CROSS-SECTION OF SLOPED RETAINING WALL WITH
NEGATIVE HEEL BATTER IN DIVERSION DITCH
BETWEEN STA. 0+50 TO 0+75.63 AND STA. 3+80.20 TO 4+05**
SCALE: 1/2" = 1'-0"



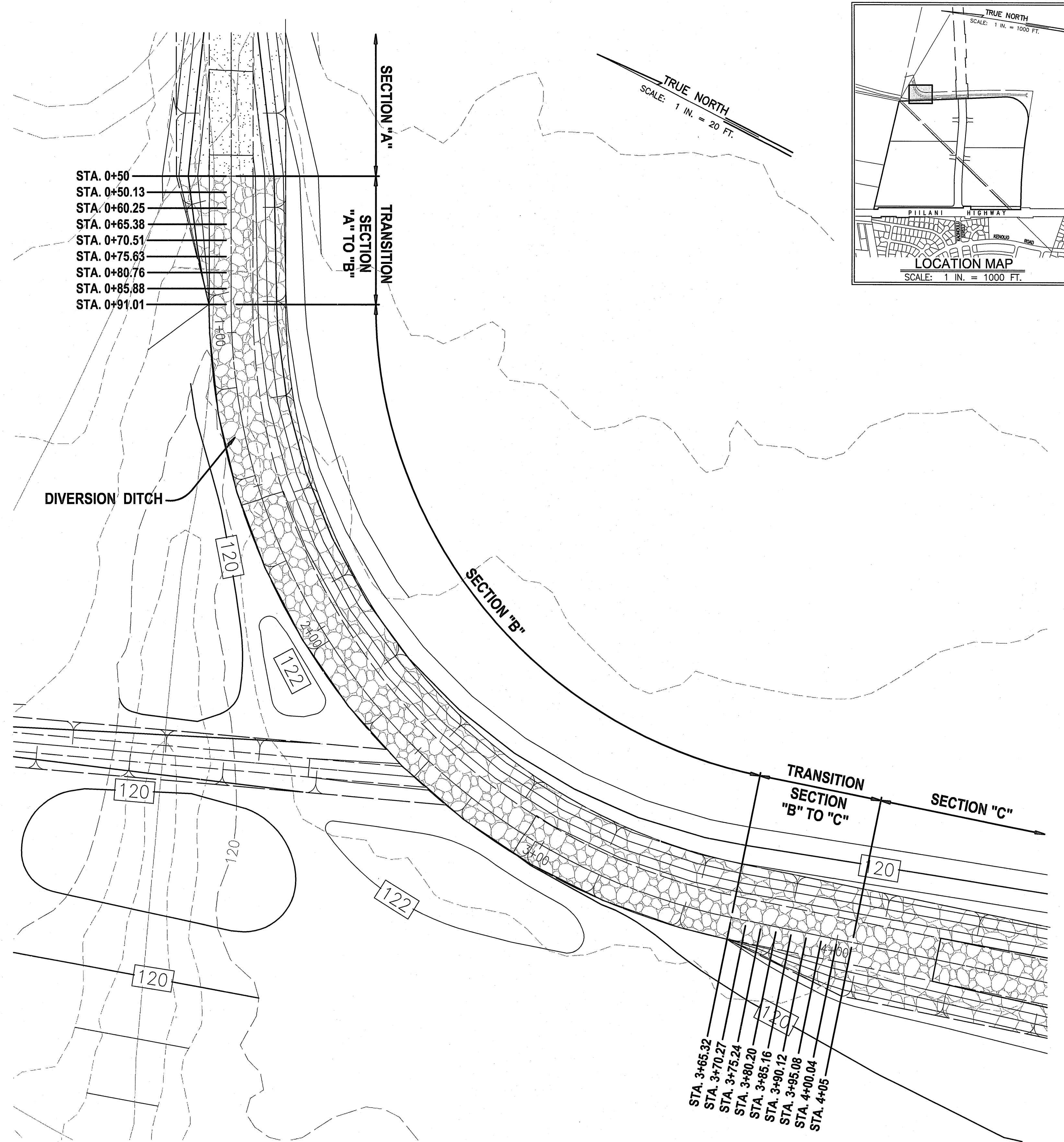
**CROSS-SECTION OF SLOPED FACE RETAINING WALL
IN DIVERSION DITCH BETWEEN STA. 0+80.76 TO 0+91.01
AND STA. 3+65.32 TO 3+75.24**
SCALE: 1/2" = 1'-0"



**CROSS-SECTION OF VERTICAL FACED RETAINING WALL
IN DIVERSION DITCH STA. 0+91.01 TO 3+65.32**
SCALE: 1/2" = 1'-0"

Sta	Wall Height, Ho (ft)	Toe Width	Toe Batter, Zt	Heel Batter, Zh*	Wt	Wh	Leveling Pad Width, Wnet (ft)
0+50	8.00	12.00	0.67	(0.67)	N/A	N/A	1'-2"
0+55.13	8.13	10.50	0.77	(0.85)	N/A	N/A	2'-0"
0+60.25	8.25	9.00	0.92	(1.10)	N/A	N/A	2'-6"
0+65.38	8.38	7.50	1.12	(1.53)	N/A	N/A	3'-0"
0+70.51	8.50	6.00	1.42	(2.50)	N/A	N/A	3'-7"
0+75.63	8.63	4.50	1.92	(7.00)	N/A	N/A	4'-3"
0+80.76	8.75	3.00	2.92	25.00	3'-0"	4"	4'-4"
0+85.88	8.88	1.50	5.92	4.75	1'-6"	1'-10"	4'-4"
0+91.01	9.00	0.00	100.00	2.50	0	3'-8"	4'-8"
3+65.32	9.00	0.00	100.00	2.50	0	3'-8"	4'-8"
3+70.27	8.88	1.50	5.92	4.75	1'-6"	1'-10"	4'-4"
3+75.24	8.75	3.00	2.92	25.00	3'-0"	4"	4'-4"
3+80.20	8.63	4.50	1.92	(7.00)	N/A	N/A	4'-3"
3+85.16	8.50	6.00	1.42	(2.50)	N/A	N/A	3'-7"
3+90.12	8.38	7.50	1.12	(1.53)	N/A	N/A	3'-0"
3+95.08	8.25	9.00	0.92	(1.10)	N/A	N/A	2'-6"
4+00.04	8.13	10.50	0.77	(0.85)	N/A	N/A	2'-0"
4+05	8.00	12.00	0.67	(0.67)	N/A	N/A	1'-2"

* Note: Heel Batters in Parentheses () indicate heel batter is toward toe



DIVERSION DITCH TRANSITION WALL SECTIONS
SCALE: 1 IN. = 20 FT.

WARREN S. UNEMORI ENGINEERING, INC.
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2145 WELLS STREET, WAILIKU, MAUI, HAWAII 96793

KAONOULU MARKET PLACE
T.M.K.: (2) 2-2-02 : Por. of Par. 15 and 3-9-01 : 16
KIHAI, MAUI, HAWAII

TITLE DIVERSION DITCH TRANSITION WALL SECTIONS

DESIGNED BY: ALU
CHECKED BY: WSU
DRAWN BY: WIS
APPROVED BY: WSU
SCALE: AS NOTED

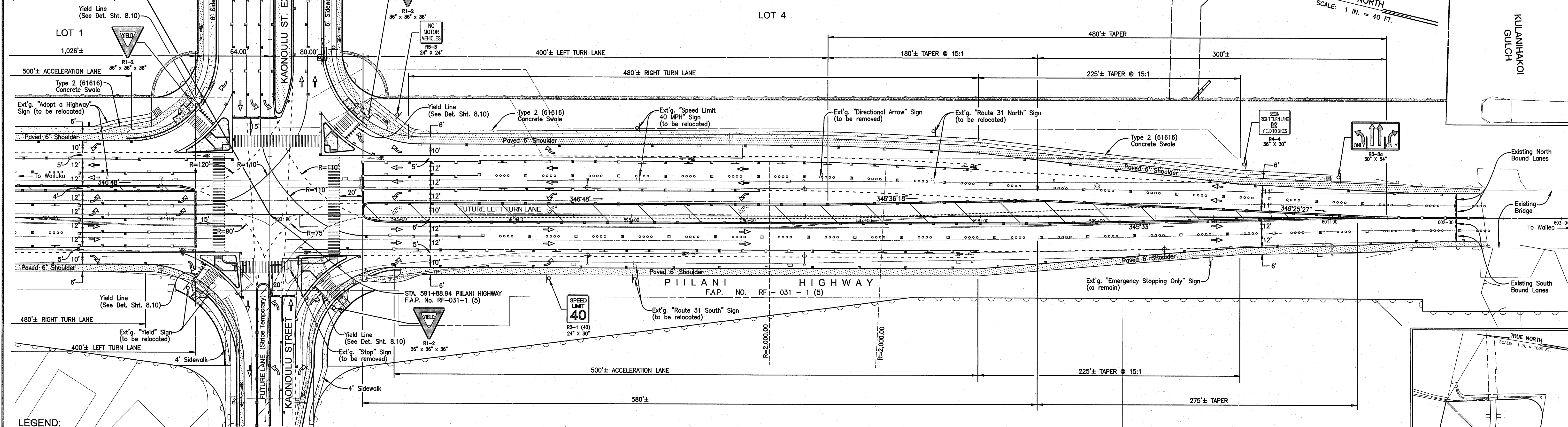
DATE: 11/28/2007

NO. 9354-S
HAWAII, U.S.A.

04010.10
JOB NUMBER
10-10-05
DATE

7.14
SHEET
OF SHEETS

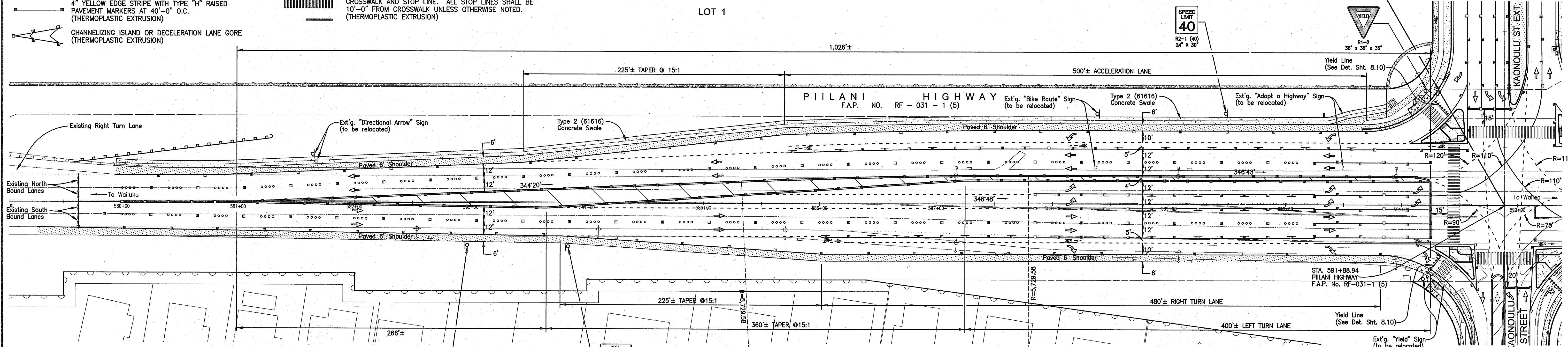
MATCHLINE - STA. 591+88.94
(SEE THIS SHT. FOR CONT.)



- LEGEND:**
- 4" DOUBLE SOLID YELLOW STRIPES WITH TYPE "D" RAISED PAVEMENT MARKERS AT 20'-0" O.C. (THERMOPLASTIC EXTRUSION)
 - 4 EACH TYPE "A" RAISED PAVEMENT MARKERS TYPE "C" RAISED PAVEMENT MARKERS AT 40'-0" O.C. (THERMOPLASTIC EXTRUSION)
 - 4" DOUBLE SOLID YELLOW STRIPES WITH TYPE "H" RAISED PAVEMENT MARKERS AT 20'-0" O.C. (THERMOPLASTIC EXTRUSION)
 - 8" SOLID WHITE STRIPE W/ TYPE "C" RAISED PAVEMENT MARKERS AT 20'-0" O.C. (THERMOPLASTIC EXTRUSION)
 - 4" YELLOW EDGE STRIPE WITH TYPE "H" RAISED PAVEMENT MARKERS AT 40'-0" O.C. (THERMOPLASTIC EXTRUSION)
 - CHANNELIZING ISLAND OR DECELERATION LANE CORE (THERMOPLASTIC EXTRUSION)
 - 4" OR 8" WHITE EDGE STRIPE W/ TYPE "C" RAISED PAVEMENT MARKERS AT 40'-0" O.C. (THERMOPLASTIC EXTRUSION)
 - BIKE LANE MARKING (THERMOPLASTIC EXTRUSION)
 - 4" WHITE GUIDELINES (THERMOPLASTIC EXTRUSION EXCEPT FOR BUS BAYS) (GUIDE LINES FOR TURNING MOVEMENTS THROUGH INTERSECTIONS SHALL BE YELLOW)
 - TRANSVERSE MEDIAN MARKING (THERMOPLASTIC EXTRUSION)
 - PAVEMENT ARROW (THERMOPLASTIC EXTRUSION)
 - CROSSWALK AND STOP LINE. ALL STOP LINES SHALL BE 10'-0" FROM CROSSWALK UNLESS OTHERWISE NOTED. (THERMOPLASTIC EXTRUSION)

PIILANI HIGHWAY
(STA. 590+00 TO 602+00)
Scale: 1 in. = 40 ft.

MATCHLINE - STA. 591+88.94
(SEE THIS SHT. FOR CONT.)

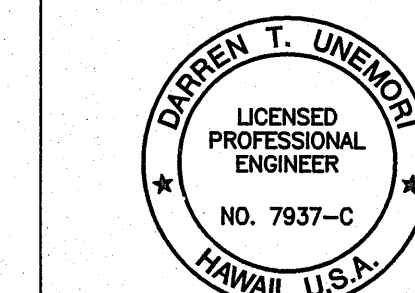


PIILANI HIGHWAY
(STA. 578+50 TO 590+00)
Scale: 1 in. = 40 ft.

NOTE:

MAINTAIN 5 FT. MINIMUM CLEARANCE BETWEEN TRAVELWAY STRIPING AND FACE OF CURB AT PEDESTRIAN ISLANDS.

DESIGN SPEED : 45 M.P.H.
POSTED SPEED : 40 M.P.H.

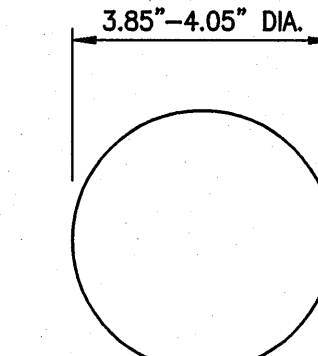
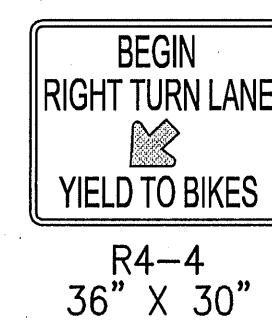
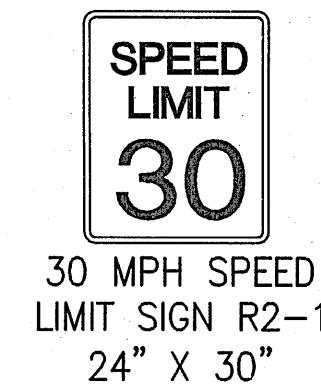
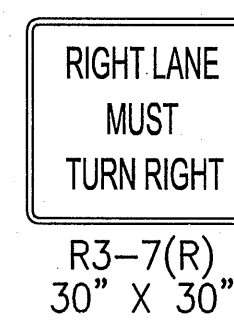
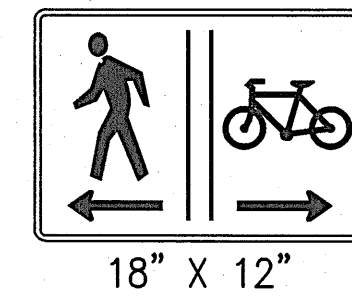
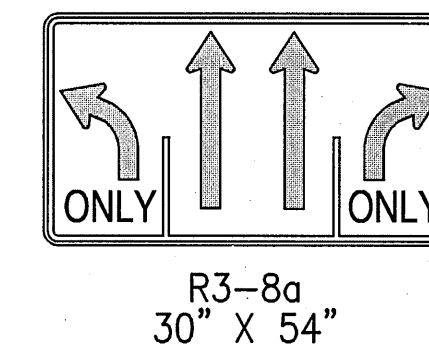
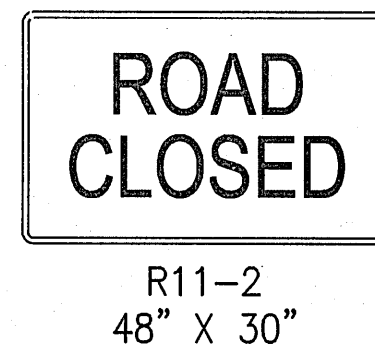
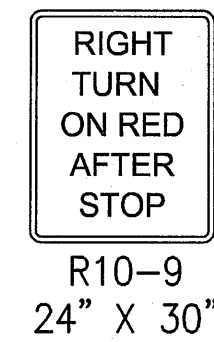
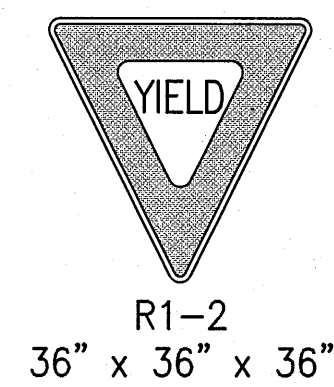


WARREN S. UNEMORI ENGINEERING, INC.
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WELLS STREET PROFESSIONAL CENTER, SUITE 403
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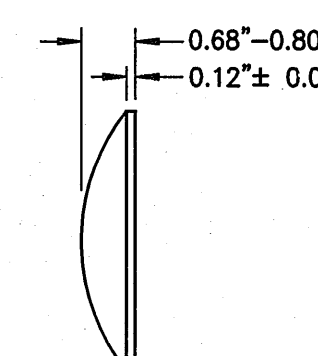
KAONOULU MARKET PLACE
T.M.K.: (2) 2-2-02 : Por. of Par. 15 and 3-9-01 : 16
KIHAI, MAUI, HAWAII

TITLE STRIPING PLAN - PIILANI HIGHWAY

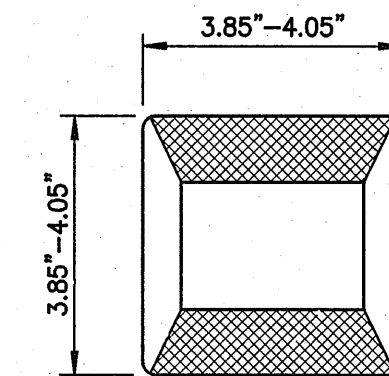
ALU	DTU	04010.10	8.02
DESIGNED BY	CHECKED BY	JOB NUMBER	SHEET
WIS	DTU	10-10-05	
DRAWN BY	APPROVED BY	DATE	OF SHEETS
SCALE 1 in. = 40 ft.			



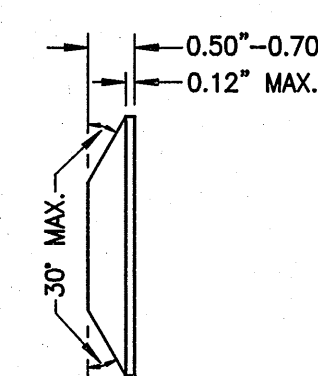
TYPE "A"
NON-REFLECTIVE WHITE MARKER
TYPE "J"
NON-REFLECTIVE YELLOW MARKER



TYPE "C"
RED-CLEAR REFLECTIVE MARKER

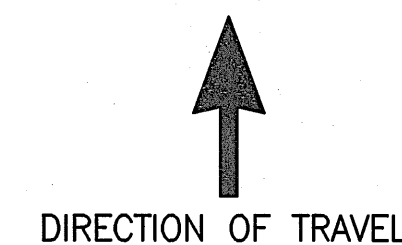
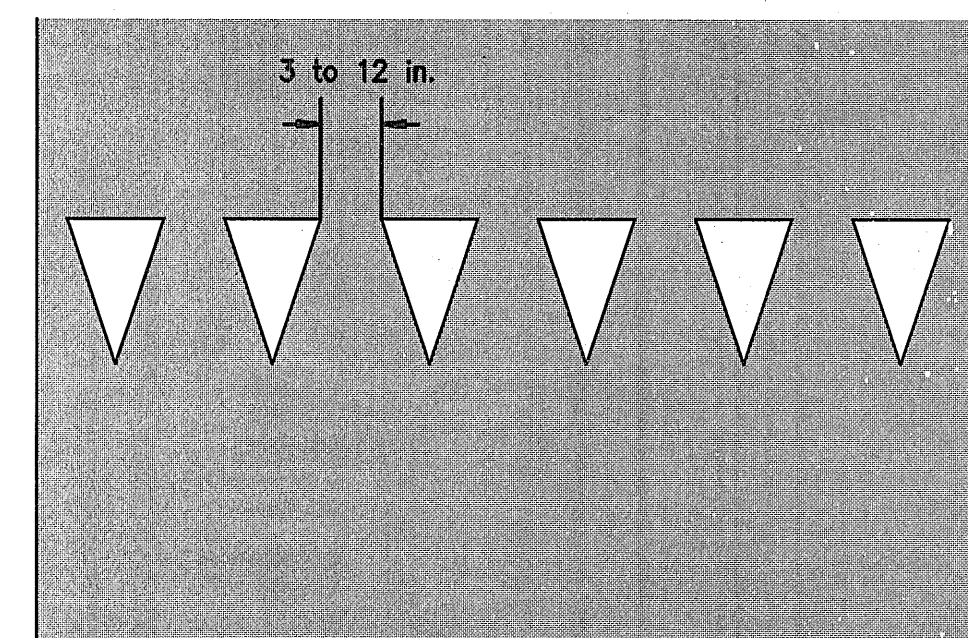


TYPE "D"
TWO-WAY YELLOW REFLECTIVE MARKER

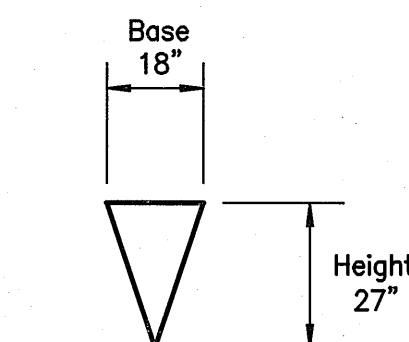


TYPE "H"
ONE-WAY YELLOW REFLECTIVE MARKER

RAISED PAVEMENT MARKER DETAILS NOT TO SCALE

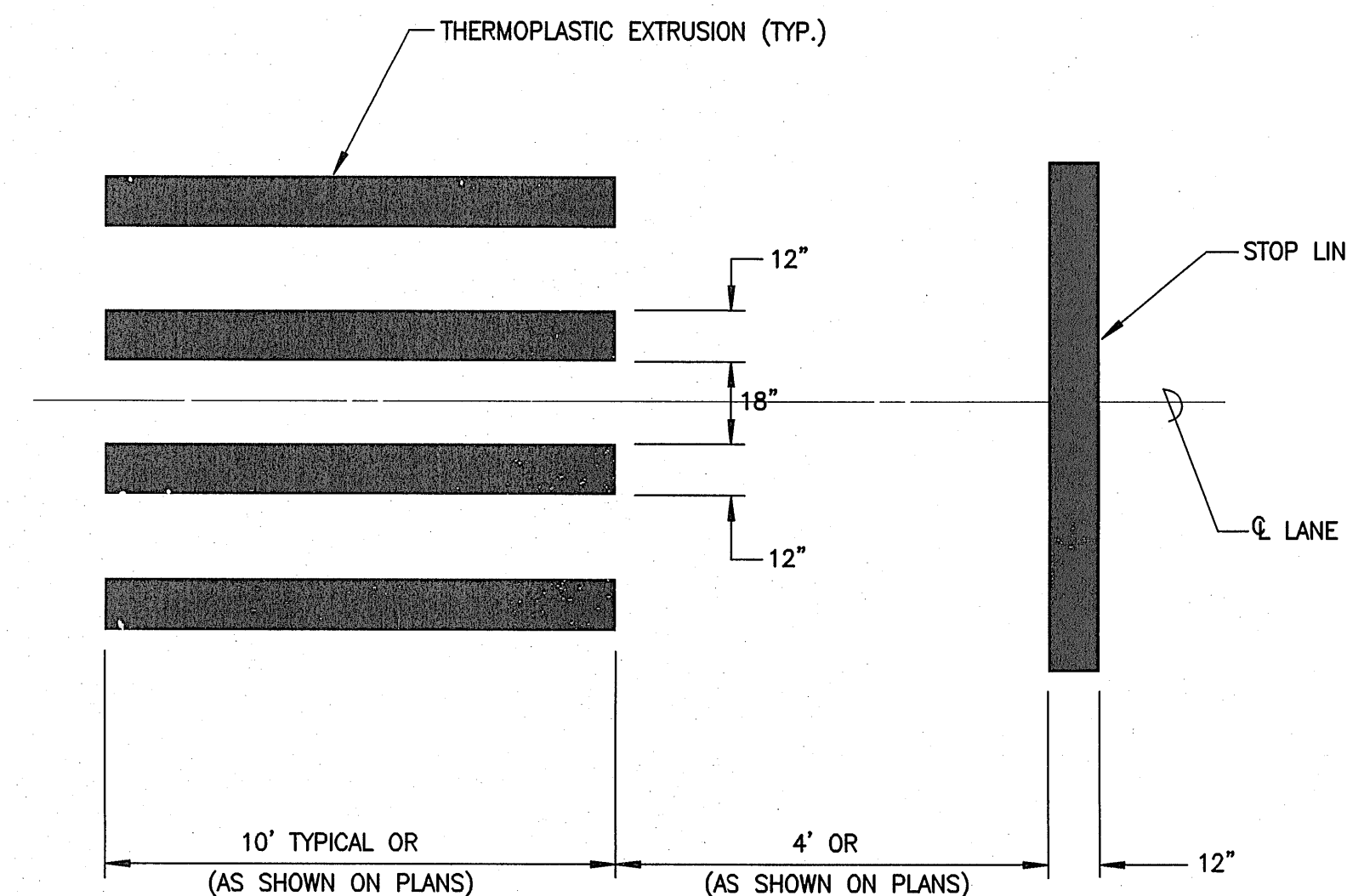


DETAIL - YIELD LINE LAYOUT
NOT TO SCALE

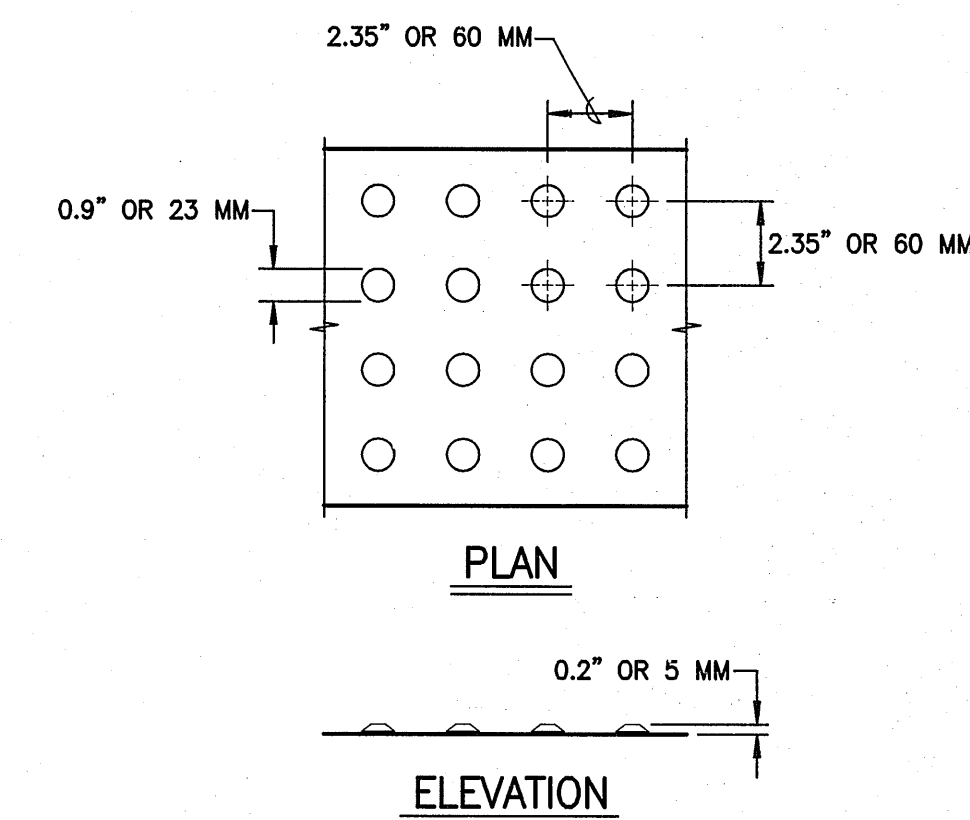


NOTES:

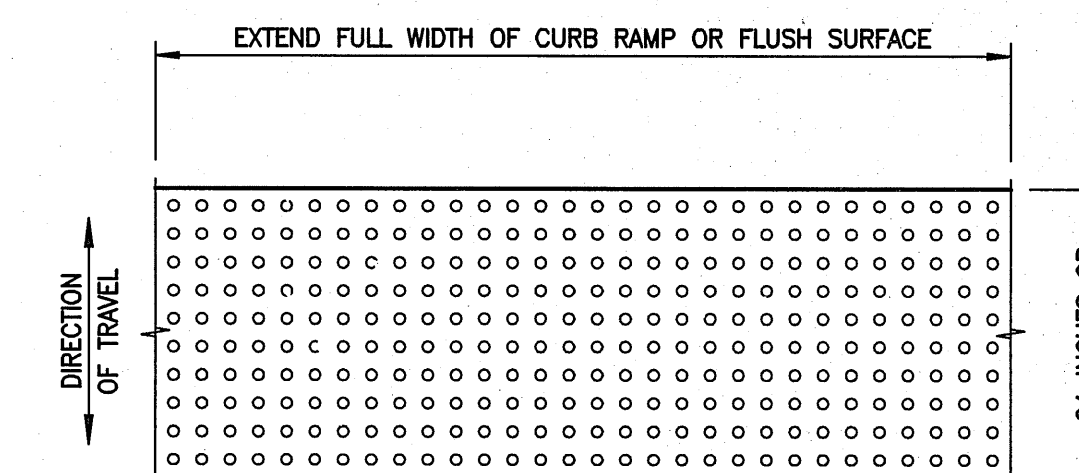
1. TRIANGLE HEIGHT IS EQUAL TO 1.5 TIMES THE BASE DIMENSION.
2. YIELD LINES MAY BE SMALLER THEN SUGGESTED WHEN INSTALLED ON NARROWER, SLOW-SPEED FACILITIES SUCH AS SHARED-USE PATHS.



CROSSWALK STRIPING DETAIL
NOT TO SCALE



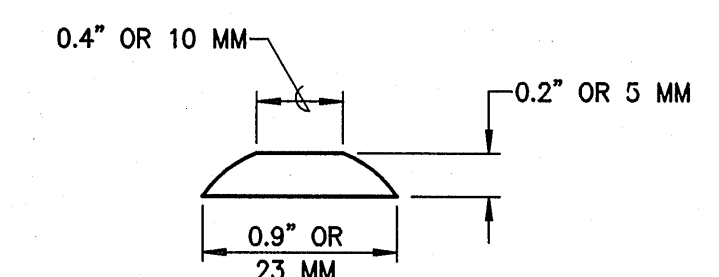
DETAIL - DOME SPACING



PLAN - DOME ALIGNMENT

NOTES:

1. SIZE: DETECTABLE WARNINGS SHALL BE 24 INCHES (610 MM) IN THE DIRECTION OF TRAVEL AND EXTEND THE FULL WIDTH OF THE CURB RAMP OR FLUSH SURFACE.
2. LOCATION: THE DETECTABLE WARNING SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE OR OTHER POTENTIAL HAZARD IS 6 TO 8 INCHES (150 TO 205 MM) FROM CURB LINE OR OTHER POTENTIAL HAZARD.
3. DOME SIZE AND SPACING: TRUNCATED DOMES SHALL HAVE A DIAMETER OF 0.9 INCH (23 MM) AT THE BOTTOM, A DIAMETER OF 0.4 INCH (10 MM) AT THE TOP, A HEIGHT OF 0.2 INCH (5 MM) AND A CENTER-TO-CENTER SPACING OF 2.35 INCHES (60 MM) MEASURED ALONG ONE SIDE OF A SQUARE ARRANGEMENT.
4. DOME ALIGNMENT: DOMES SHALL BE ALIGNED ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF TRAVEL TO PERMIT WHEELS TO ROLL BETWEEN DOMES.
5. VISUAL CONTRAST: THERE SHALL BE A MINIMUM OF 70 PERCENT CONTRAST IN LIGHT REFLECTANCE BETWEEN THE DETECTABLE WARNING AND AN ADJOINING SURFACE, OR THE DETECTABLE WARNING SHALL BE "SAFETY YELLOW". THE MATERIAL USED TO PROVIDE VISUAL CONTRAST SHALL BE AN INTEGRAL PART OF THE DETECTABLE WARNING SURFACE.
6. SEE SITE SPECIFIC WHEELCHAIR RAMP DETAILS ON SHEETS



SECTION - TYPICAL DOME

DETAIL - DETECTABLE WARNING ON CURB RAMPS NOT TO SCALE

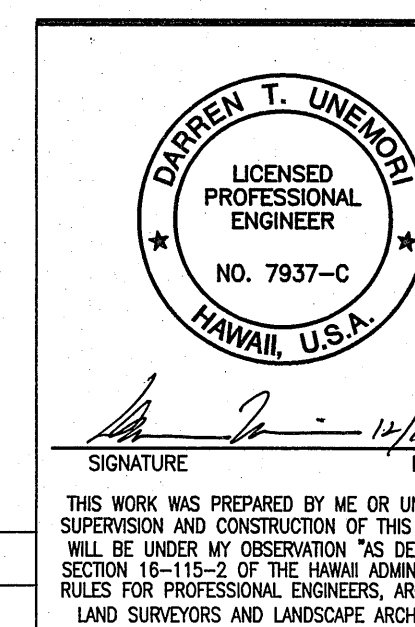
GENERAL NOTES

1. SIGNS SHALL CONFORM TO THE LATEST EDITIONS OF FHWA PUBLICATIONS "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS," "STANDARD ALPHABETS FOR HIGHWAY SIGNS," AND "STANDARD HIGHWAY SIGNS," AND AS AMENDED.
2. ALL SIGNS SHALL BE MADE OF HIGH INTENSITY REFLECTIVE SHEETING MATERIALS.
3. PAVEMENT WORDING SHALL CONFORM TO, DOT STANDARD PLAN TE-35.
4. ALL WORK AND MATERIALS REQUIRED TO COMPLETE THE AC PAVING, SIGNS, AND MARKINGS SHALL CONFORM TO THE REQUIREMENTS THE "HAWAII STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND PUBLIC WORKS CONSTRUCTION 1994".

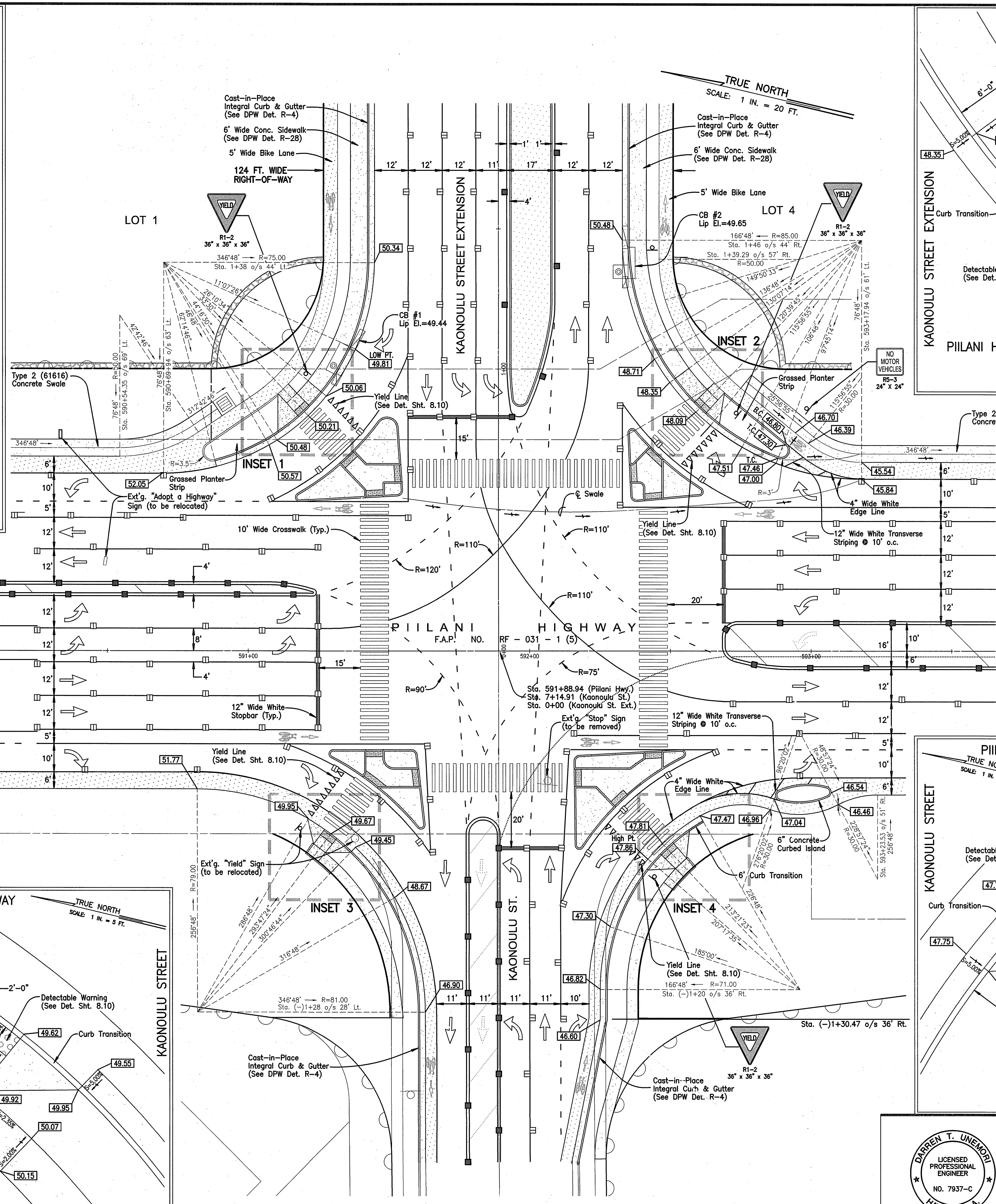
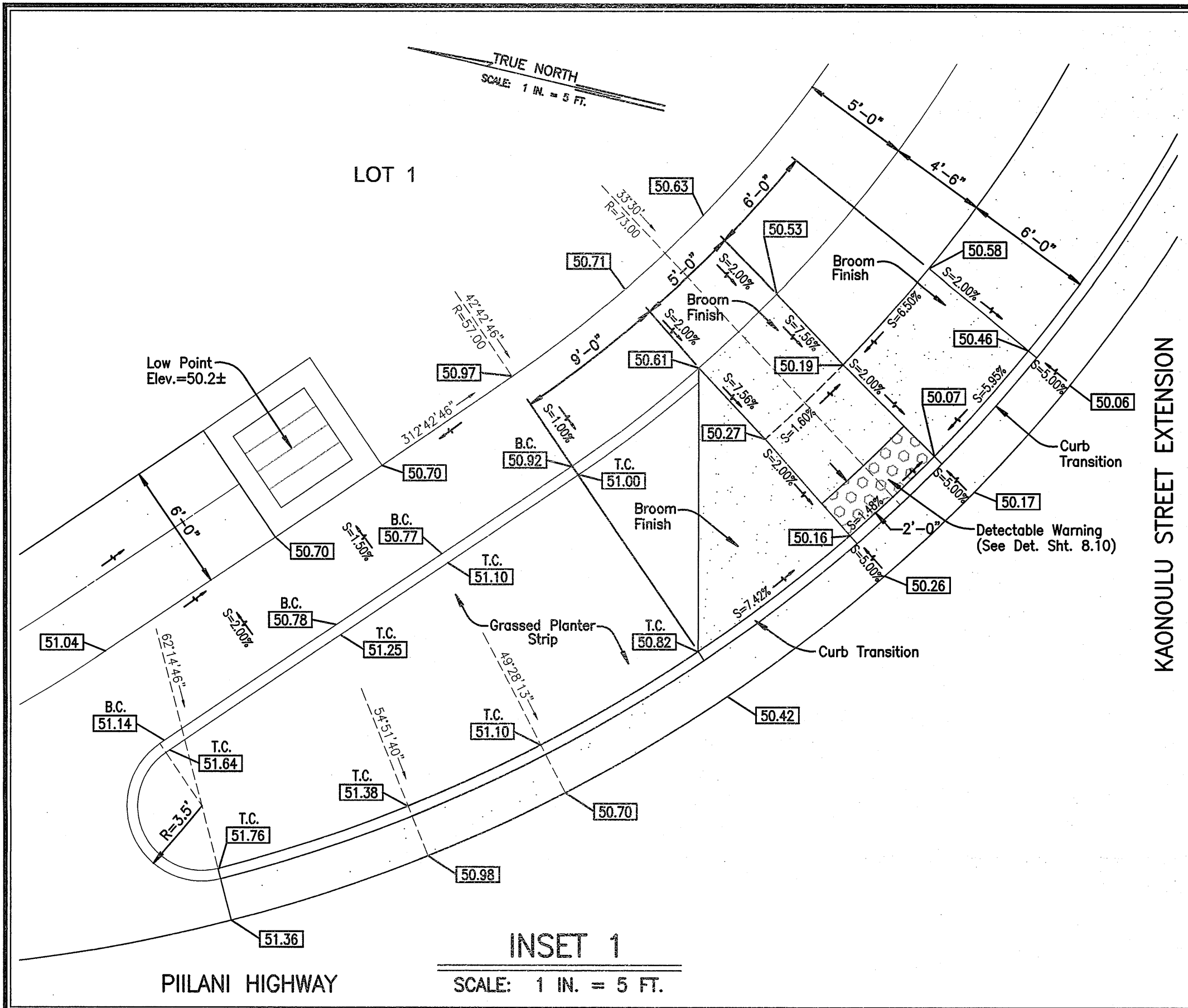
NOTES:

1. FOR LOCATION OF SIGNS AND MARKINGS AT INTERSECTION, SEE INTERSECTION DETAILS.
2. ALL SIGNS AND PAVEMENT MARKINGS AND STRIPING, SHALL CONFORM TO THE LATEST EDITION OF THE U.S. DEPT. OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION PUBLICATION "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREET AND HIGHWAYS", AND AS AMENDED.
3. ALL CONSTRUCTION WORK AND MATERIALS SHALL CONFORM TO THE LATEST REVISION OF THE STANDARD DETAIL DRAWINGS AND STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND PUBLIC WORK CONSTRUCTION.
4. LAYOUT OF PAVEMENT MARKINGS AND STRIPING SHALL BE DONE BY THE CONTRACTOR. THE CONTRACTOR SHALL CHECK LAYOUT OF MARKINGS AND STRIPING WITH THE STATE OF HAWAII PRIOR TO PERFORMING WORK.
5. EDGE LINES SHALL NOT BE CONTINUED THROUGH INTERSECTIONS UNLESS OTHERWISE SHOWN OR DIRECTED.
6. ALL EXISTING STRIPING SHALL BE ERADICATED BY GRINDING.

LETTER	DESCRIPTION	DATE



WARREN S. UNEMORI ENGINEERING, INC. CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS WELLS STREET PROFESSIONAL CENTER, SUITE 403 2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793			
KAONOULU MARKET PLACE T.M.K.: (2) 2-2-02 : Por. of Par. 15 and 3-9-01 : 16 KIHAI, MAUI, HAWAII			
TITLE: STRIPING DETAILS			
DESIGNED BY ALU	CHECKED BY DTU	04010.10	
DRAWN BY WIS	APPROVED BY DTU	JOB NUMBER	
SCALE AS NOTED		DATE	
		10-10-05	
		SHEET	
		8.10	
		OF SHEETS	

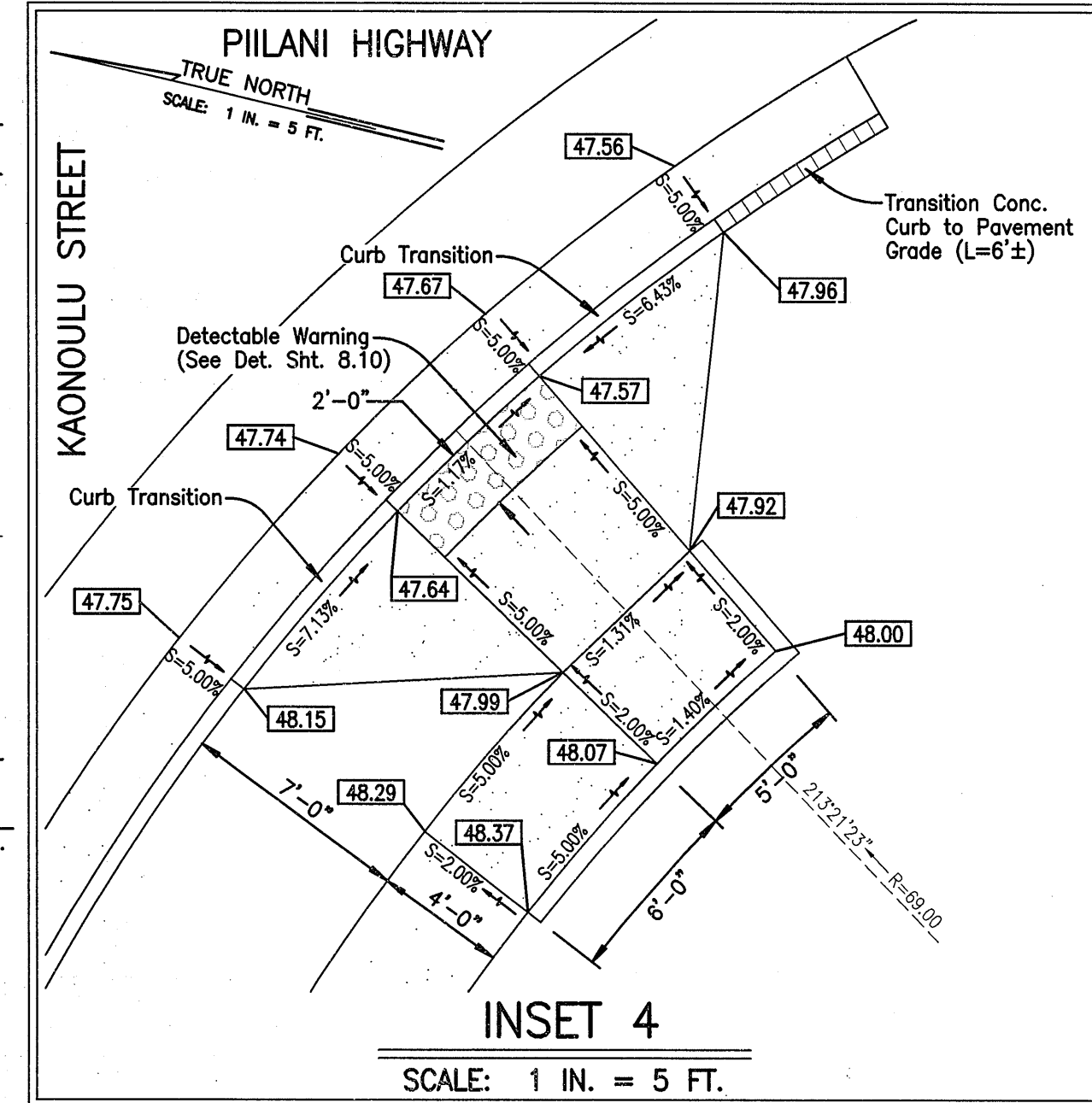
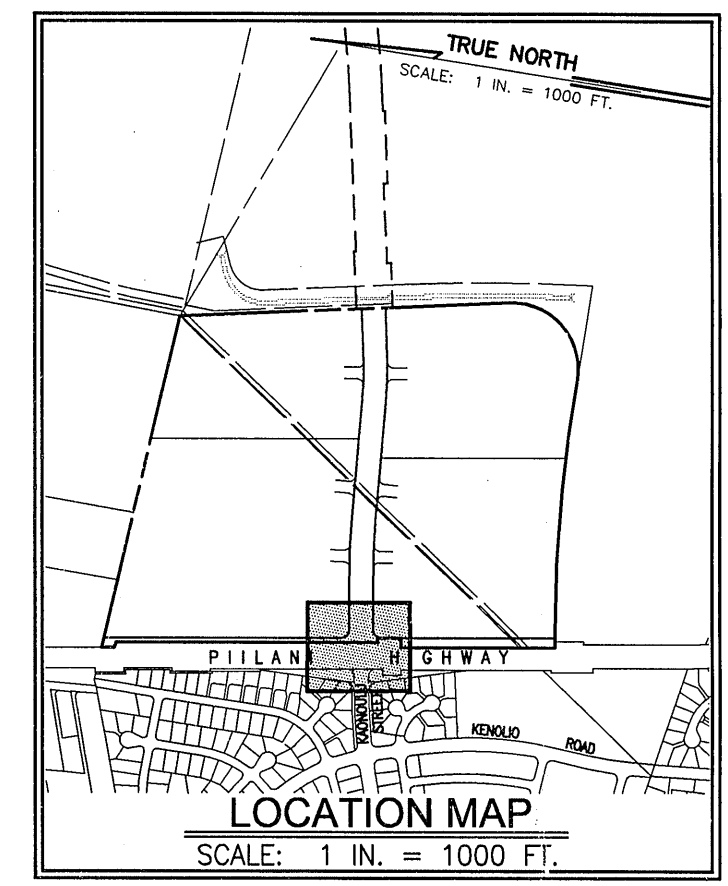
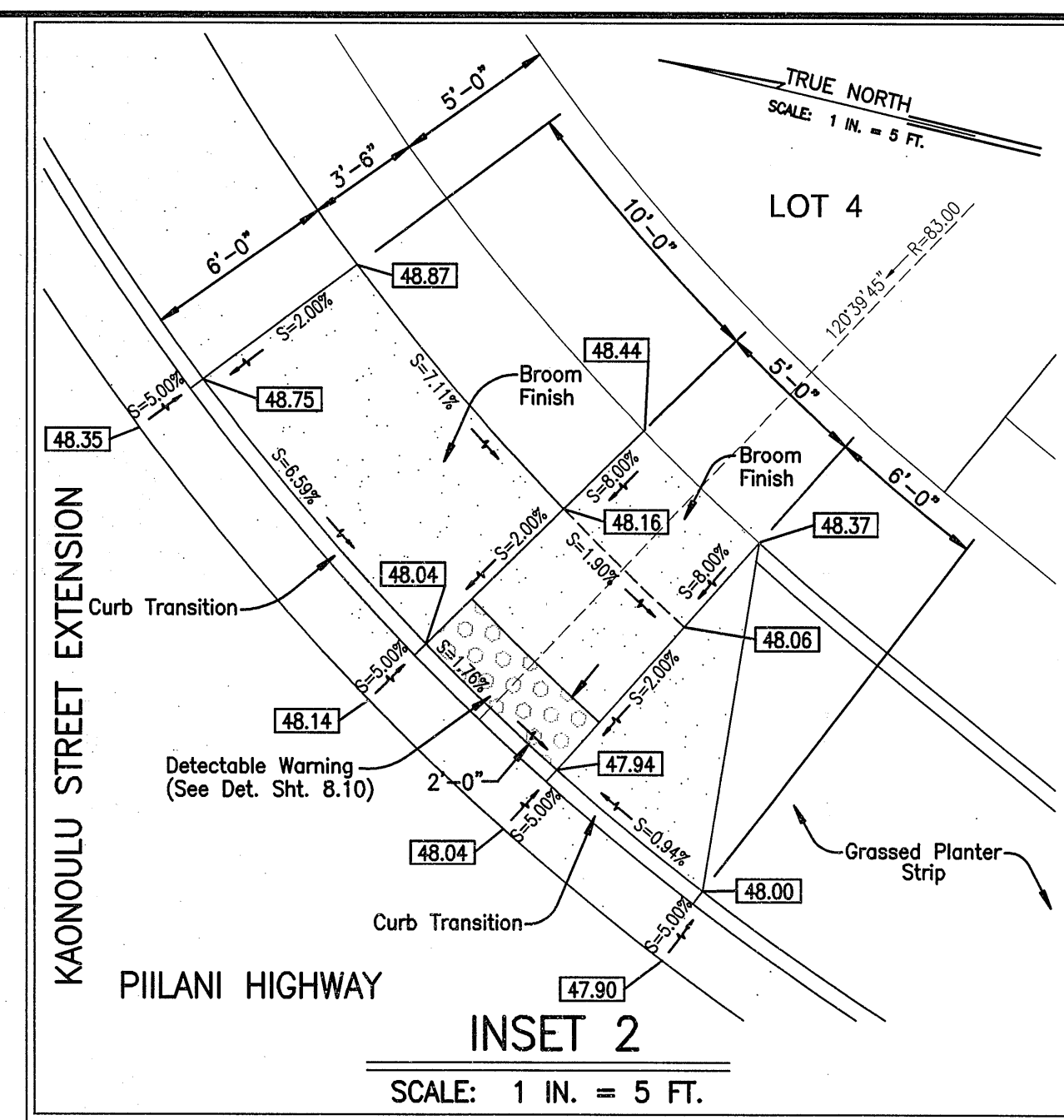
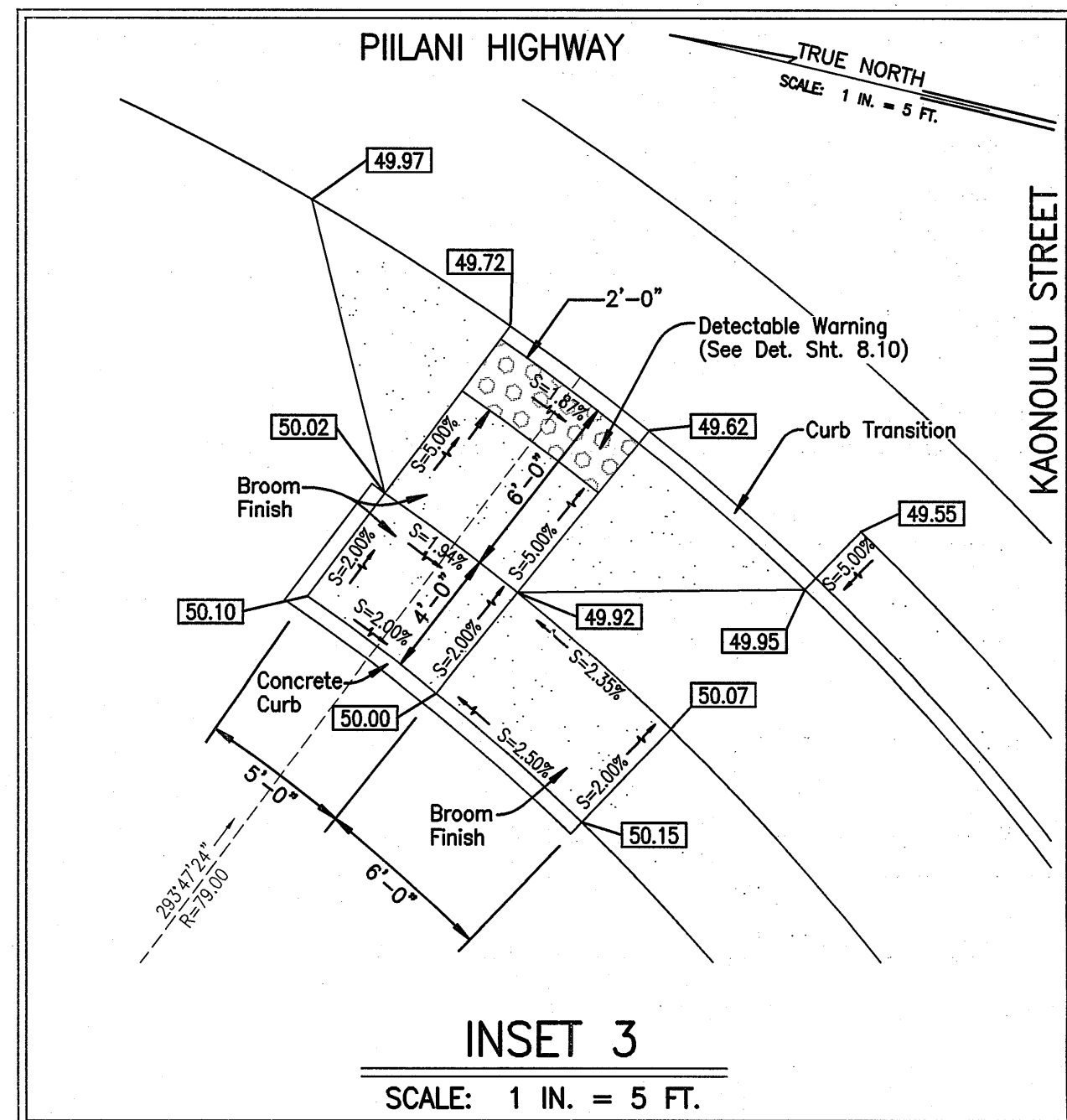


NOTES:

- FINISH GRADE SPOT ELEVATIONS, INDICATED ON CONSTRUCTION PLANS, FOR EDGE OF PAVEMENT SHALL BE USED FOR THE PURPOSE OF DETERMINING INITIAL EDGE OF PAVEMENT PROFILE. CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS AS REQUIRED, DURING CONSTRUCTION, SO THE FINAL PROFILE SATISFIES THE FOLLOWING CONDITIONS:
 - DRAINAGE PATTERN AS INDICATED ON CONSTRUCTION PLANS SHALL BE MAINTAINED.
 - PROFILE OF TRANSITION ALONG EDGE OF PAVEMENT FROM STREET TO STREET SHALL BE UNIFORM AND SMOOTH.
 UPON COMPLETION OF LAYOUT OF THE INITIAL EDGE OF PAVEMENT PROFILE, CONTRACTOR SHALL CONTACT ENGINEER FOR APPROVAL, PRIOR TO PROCEEDING WITH ANY FURTHER WORK, OTHERWISE ANY CORRECTIVE WORK REQUIRED BY THE ENGINEER WILL BE DONE AT CONTRACTOR'S EXPENSE.
- SIGNS SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES & MAUI COUNTY TRAFFIC CODE.
- EXISTING LONGITUDINAL DRAINAGE PATTERN SHOWN ON INTERSECTION DETAILS SHALL BE MAINTAINED AT ALL TIMES.
- STREET NAMES MAY NOT BE AS SHOWN ON PLANS. CONTRACTOR TO VERIFY STREET NAMES WITH ENGINEER PRIOR TO ORDERING MATERIALS.
- TRAFFIC STRIPING AND MARKING SHALL BE WITH THERMOPLASTIC EXTRUSION.
- TRAFFIC SIGNS SHALL BE WITH ALUMINUM SIGN BLANKS AND WITH HIGH INTENSITY SHEETING.
- DURING EXISTING SIDEWALK AND SHOULDER IMPROVEMENTS, THE CONTRACTOR SHALL PROVIDE NECESSARY ADJUSTMENTS TO ACCOMMODATE BICYCLISTS AND PEDESTRIANS AND SHALL MAINTAIN AN ACCESSIBLE ROUTE AT ALL TIMES.
- RAISED PEDESTRIAN ISLANDS IN MARKED CROSSINGS SHALL BE CUT THROUGH LEVEL WITH THE STREET.

LEGEND:

- 4" DOUBLE SOLID YELLOW STRIPES WITH TYPE "D" RAISED PAVEMENT MARKERS AT 20'-0" O.C. (THERMOPLASTIC EXTRUSION)
- 4" EACH TYPE "A" RAISED PAVEMENT MARKERS TYPE "C" RAISED PAVEMENT MARKERS AT 40'-0" O.C. (THERMOPLASTIC EXTRUSION)
- 4" DOUBLE SOLID YELLOW STRIPES WITH TYPE "H" RAISED PAVEMENT MARKERS AT 20'-0" O.C. (THERMOPLASTIC EXTRUSION)
- 8" SOLID WHITE STRIPE W/ TYPE "C" RAISED PAVEMENT MARKERS AT 20'-0" O.C. (THERMOPLASTIC EXTRUSION)
- 4" YELLOW EDGE STRIPE WITH TYPE "H" RAISED PAVEMENT MARKERS AT 40'-0" O.C. (THERMOPLASTIC EXTRUSION)
- CHANNELIZING ISLAND OR DECELERATION LANE GORE (THERMOPLASTIC EXTRUSION)
- 4" OR 8" WHITE EDGE STRIPE W/ TYPE "C" RAISED PAVEMENT MARKERS AT 40'-0" O.C. (THERMOPLASTIC EXTRUSION)
- BIKE LANE MARKING (THERMOPLASTIC EXTRUSION)
- 4" WHITE GUIDELINES (THERMOPLASTIC EXTRUSION EXCEPT FOR BUS BAYS) (GUIDE LINES FOR TURNING MOVEMENTS THROUGH INTERSECTIONS SHALL BE YELLOW)
- TRANSVERSE MEDIAN MARKING (THERMOPLASTIC EXTRUSION)
- PAVEMENT ARROW (THERMOPLASTIC EXTRUSION)
- CROSSWALK AND STOP LINE. ALL STOP LINES SHALL BE 10'-0" FROM CROSSWALK UNLESS OTHERWISE NOTED. (THERMOPLASTIC EXTRUSION)



WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

KAONOULU MARKET PLACE
T.M.K.: (2) 3-9-01 : 16
KIHAI, MAUI, HAWAII

TITLE: INTERSECTION DETAILS

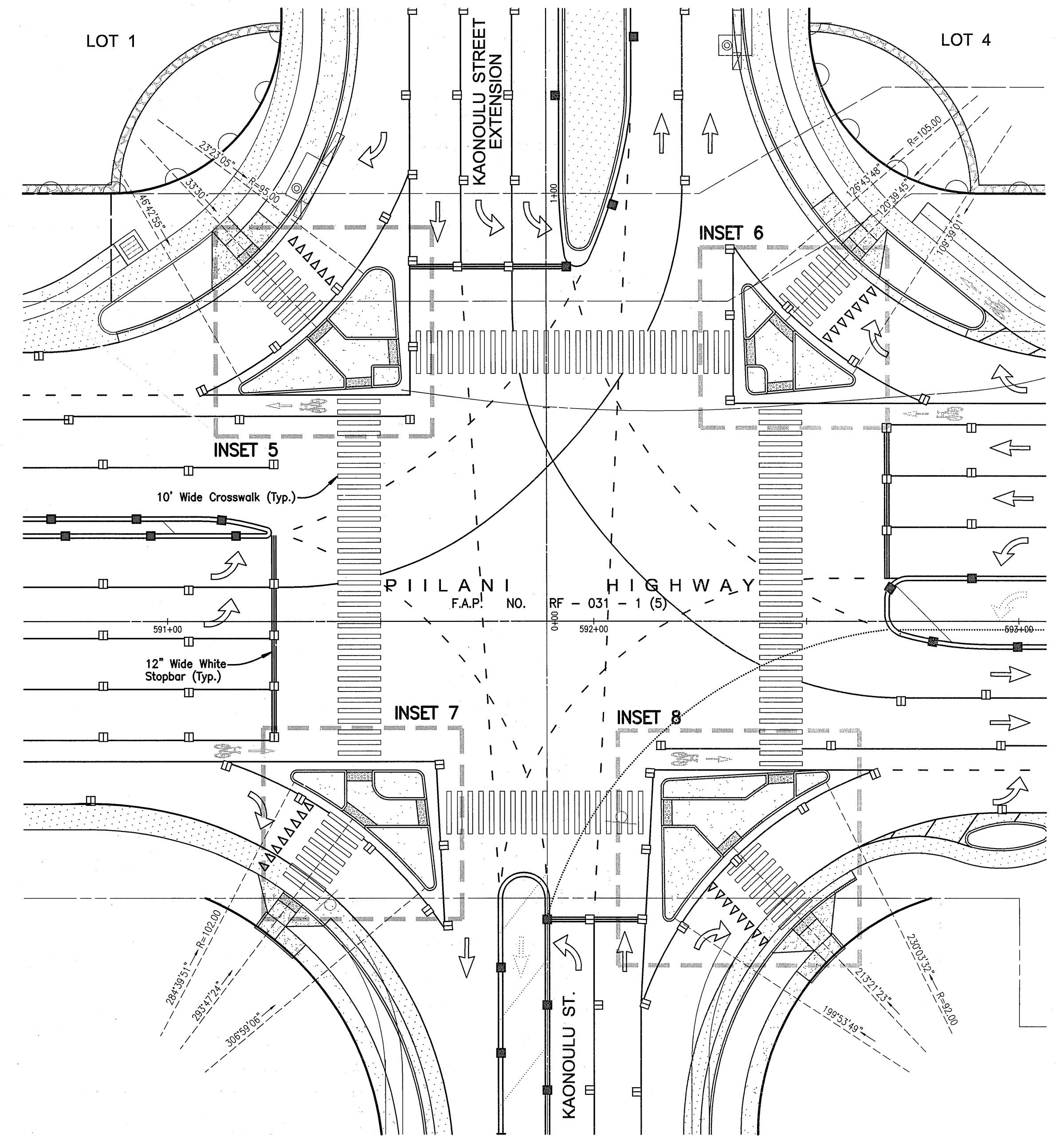
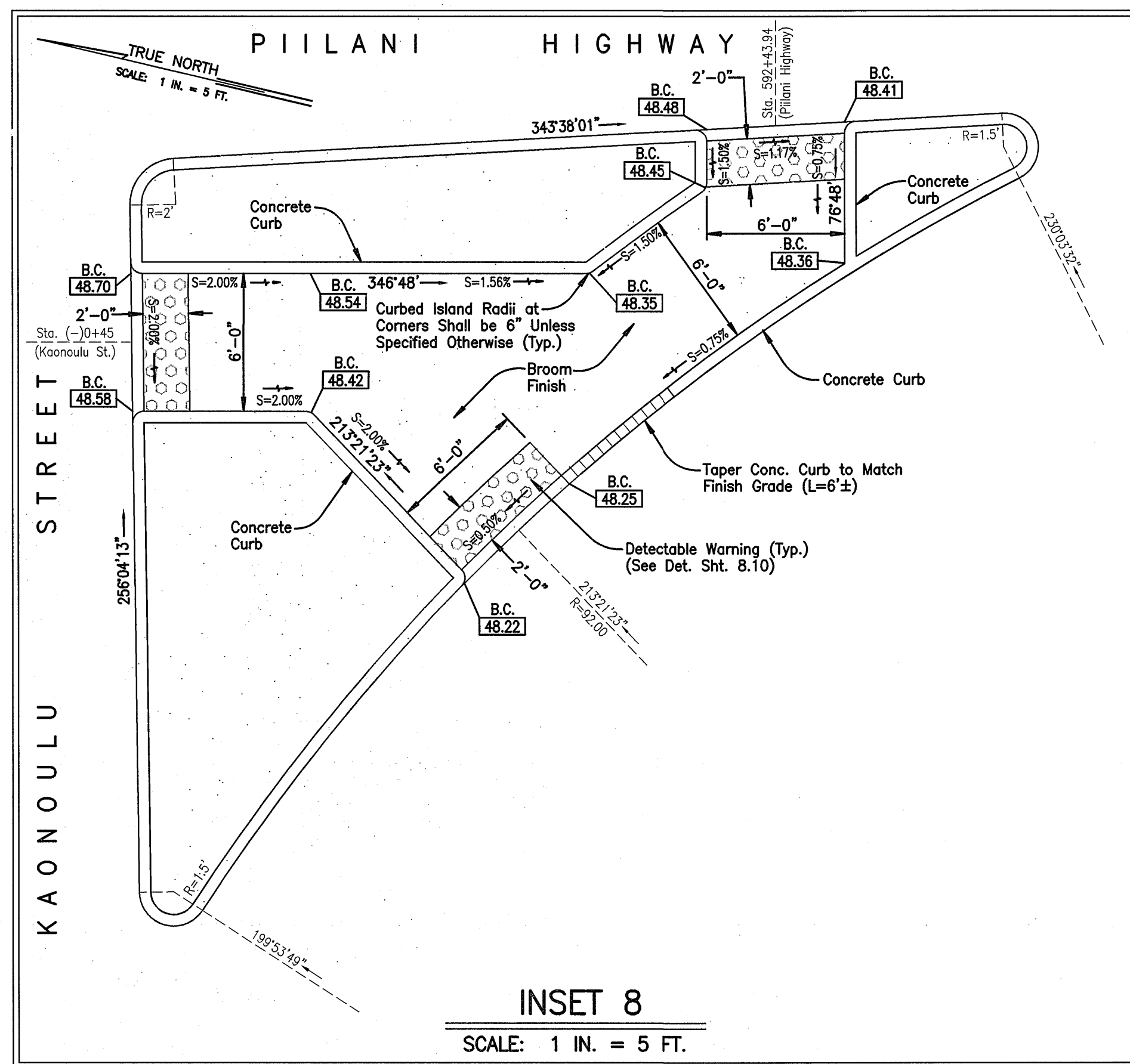
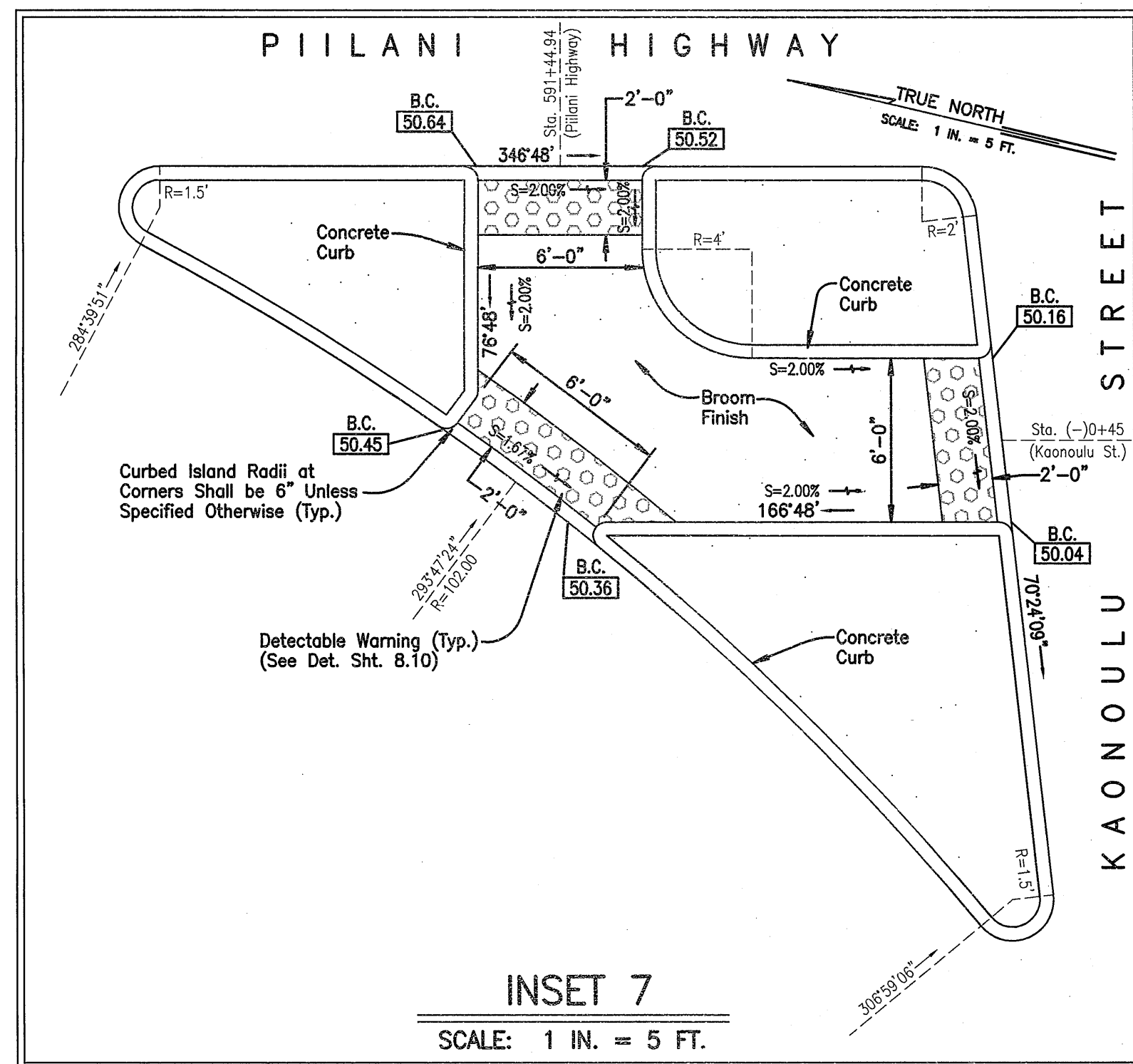
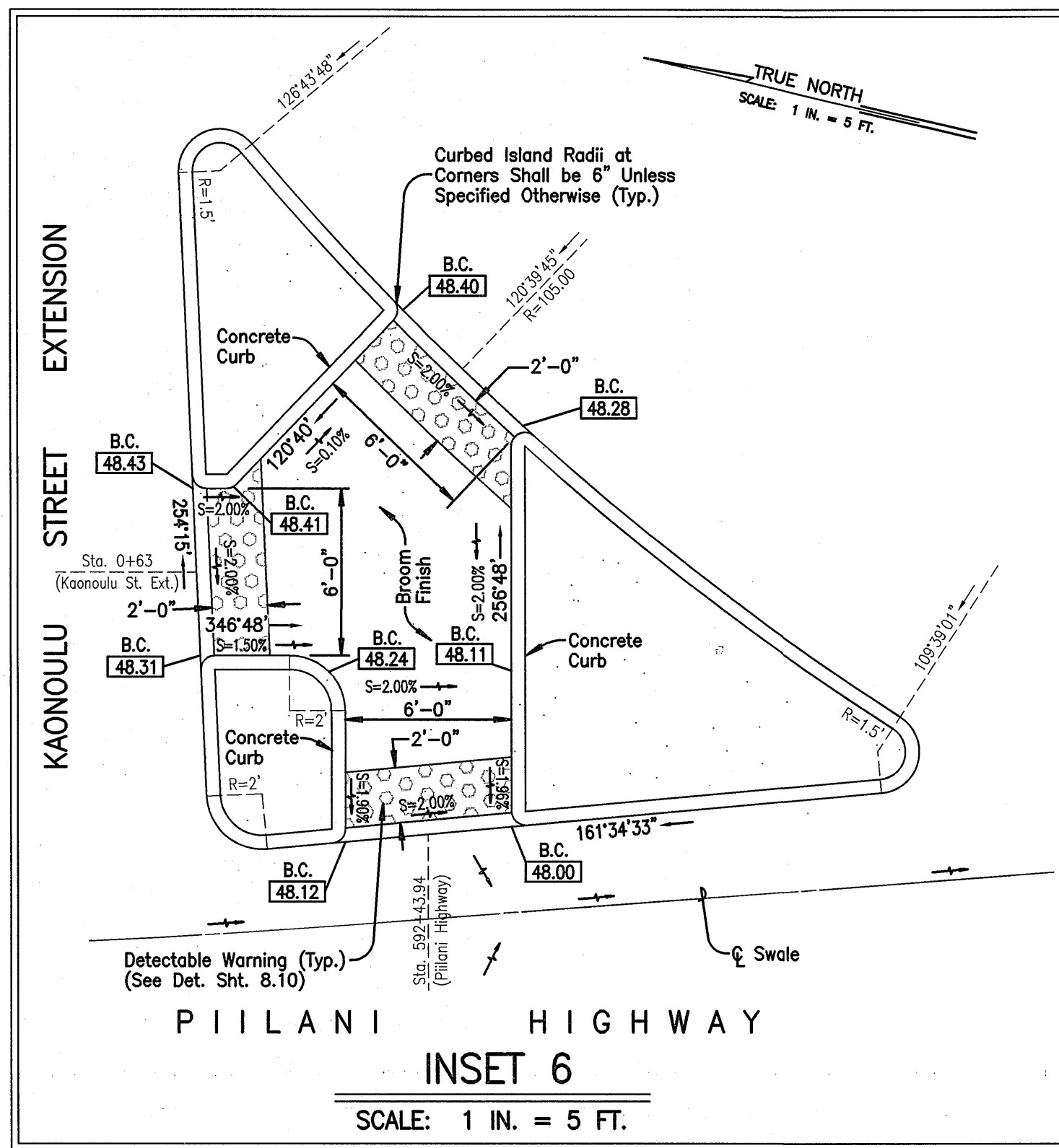
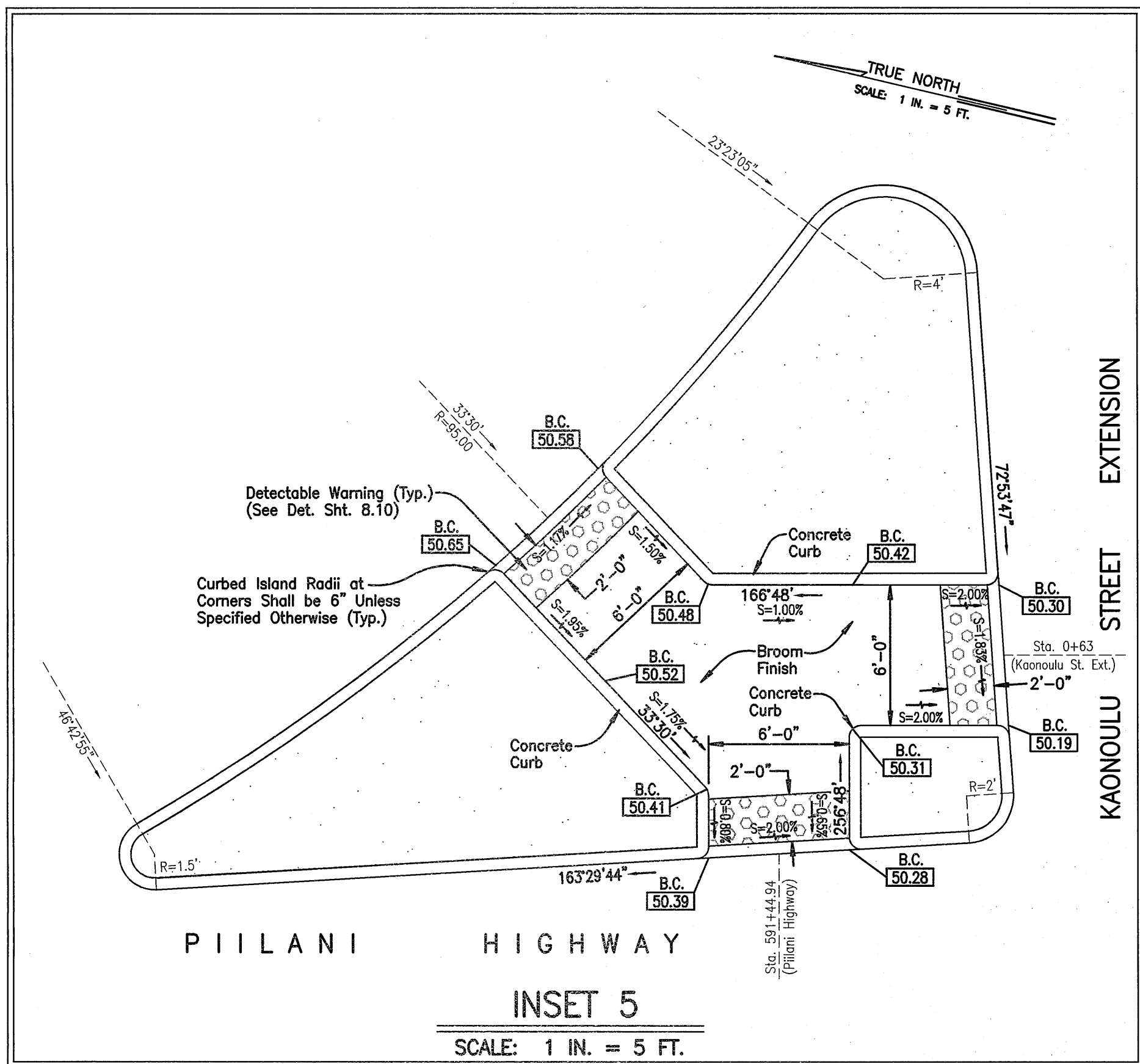
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CHECKED BY	DTU	JOB NUMBER	
DRAWN BY	DTU	10-10-05	
DATE			SHEET
DATE			OF SHEETS

SCALE 1 in. = 20 ft.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION "AS DEFINED IN SECTION 10-115-2 OF THE HAWAII ADMINISTRATIVE RULES FOR PROFESSIONAL ENGINEERS, ARCHITECTS, LAND SURVEYORS AND LANDSCAPE ARCHITECTS"

SIGNATURE: DATE: 10/27/09

LETTER	DESCRIPTION	DATE
A	Spot Elevation and Curb Ramp Revisions	10/21/09



LEGEND:

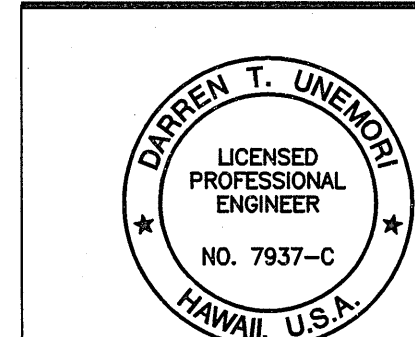
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- 4 EACH TYPE "A" RAISED PAVEMENT MARKERS TYPE "C" RAISED PAVEMENT MARKERS AT 40'-0" O.C. (THERMOPLASTIC EXTRUSION)
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NOTES:

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 - PROFILE OF TRANSITION ALONG EDGE OF PAVEMENT FROM STREET TO STREET SHALL BE UNIFORM AND SMOOTH.
 UPON COMPLETION OF LAYOUT OF THE INITIAL EDGE OF PAVEMENT PROFILE, CONTRACTOR SHALL CONTACT ENGINEER FOR APPROVAL, PRIOR TO PROCEEDING WITH ANY FURTHER WORK, OTHERWISE ANY CORRECTIVE WORK REQUIRED BY THE ENGINEER WILL BE DONE AT CONTRACTOR'S EXPENSE.
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- EXISTING LONGITUDINAL DRAINAGE PATTERN SHOWN ON INTERSECTION DETAILS SHALL BE MAINTAINED AT ALL TIMES.
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- TRAFFIC SIGNS SHALL BE WITH ALUMINUM SIGN BLANKS AND WITH HIGH INTENSITY SHEETING.
- DURING EXISTING SIDEWALK AND SHOULDER IMPROVEMENTS, THE CONTRACTOR SHALL PROVIDE NECESSARY ADJUSTMENTS TO ACCOMMODATE BICYCLISTS AND PEDESTRIANS AND SHALL MAINTAIN AN ACCESSIBLE ROUTE AT ALL TIMES.
- RAISED PEDESTRIAN ISLANDS IN MARKED CROSSINGS SHALL BE CUT THROUGH LEVEL WITH THE STREET.

INTERSECTION PIILANI HWY / KAONOULU ST. EXT.

Scale: 1 in. = 20 ft.



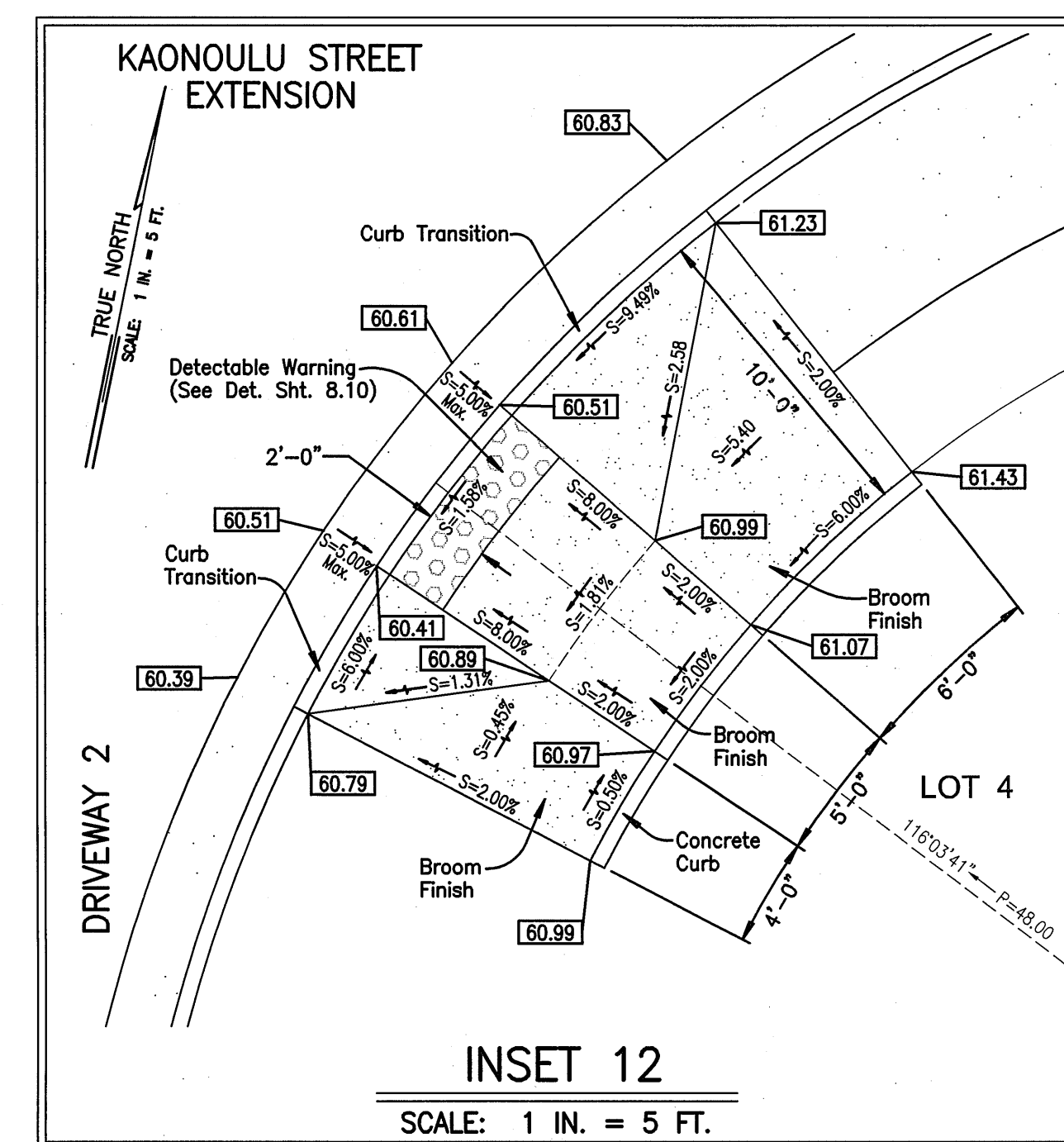
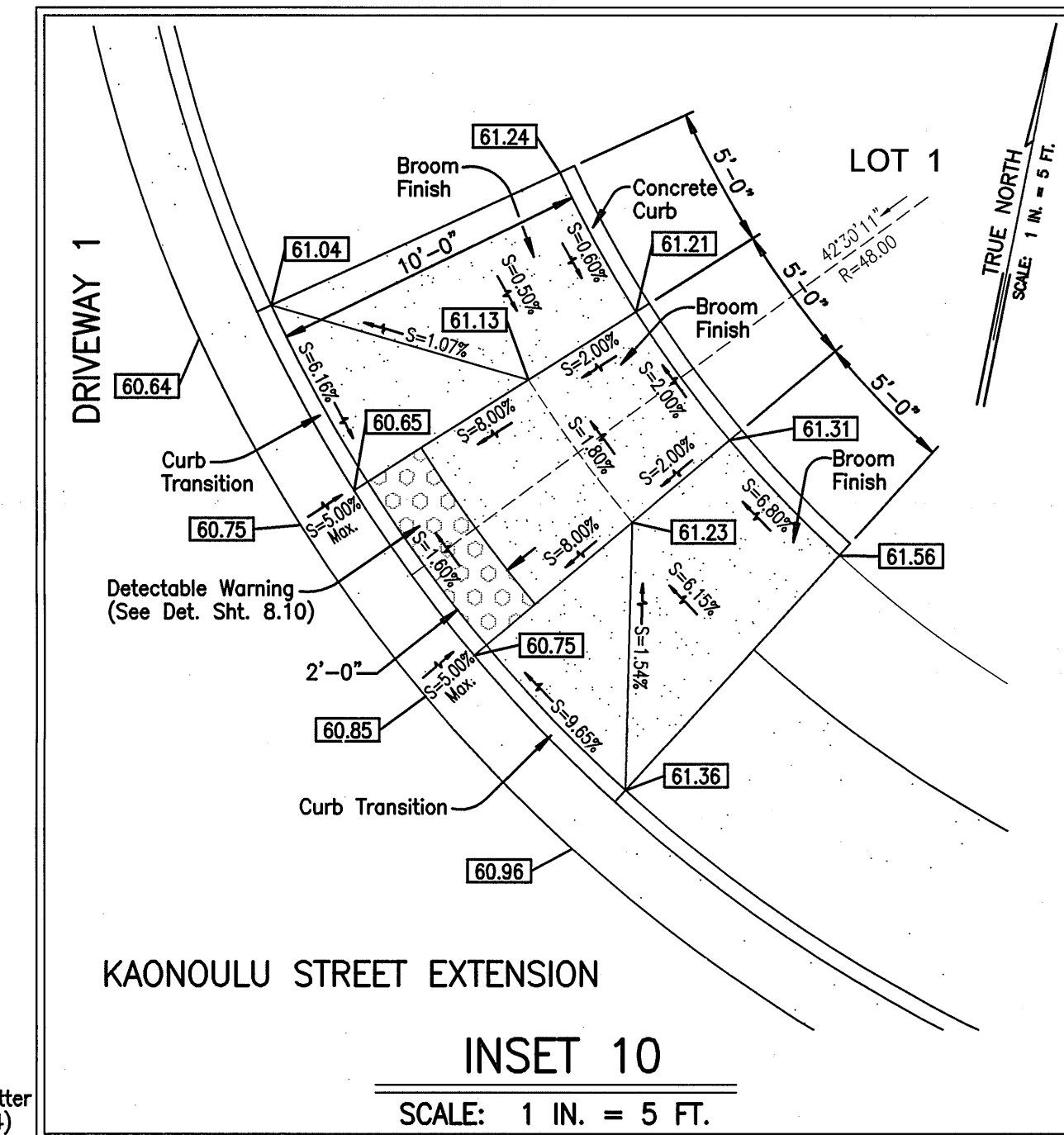
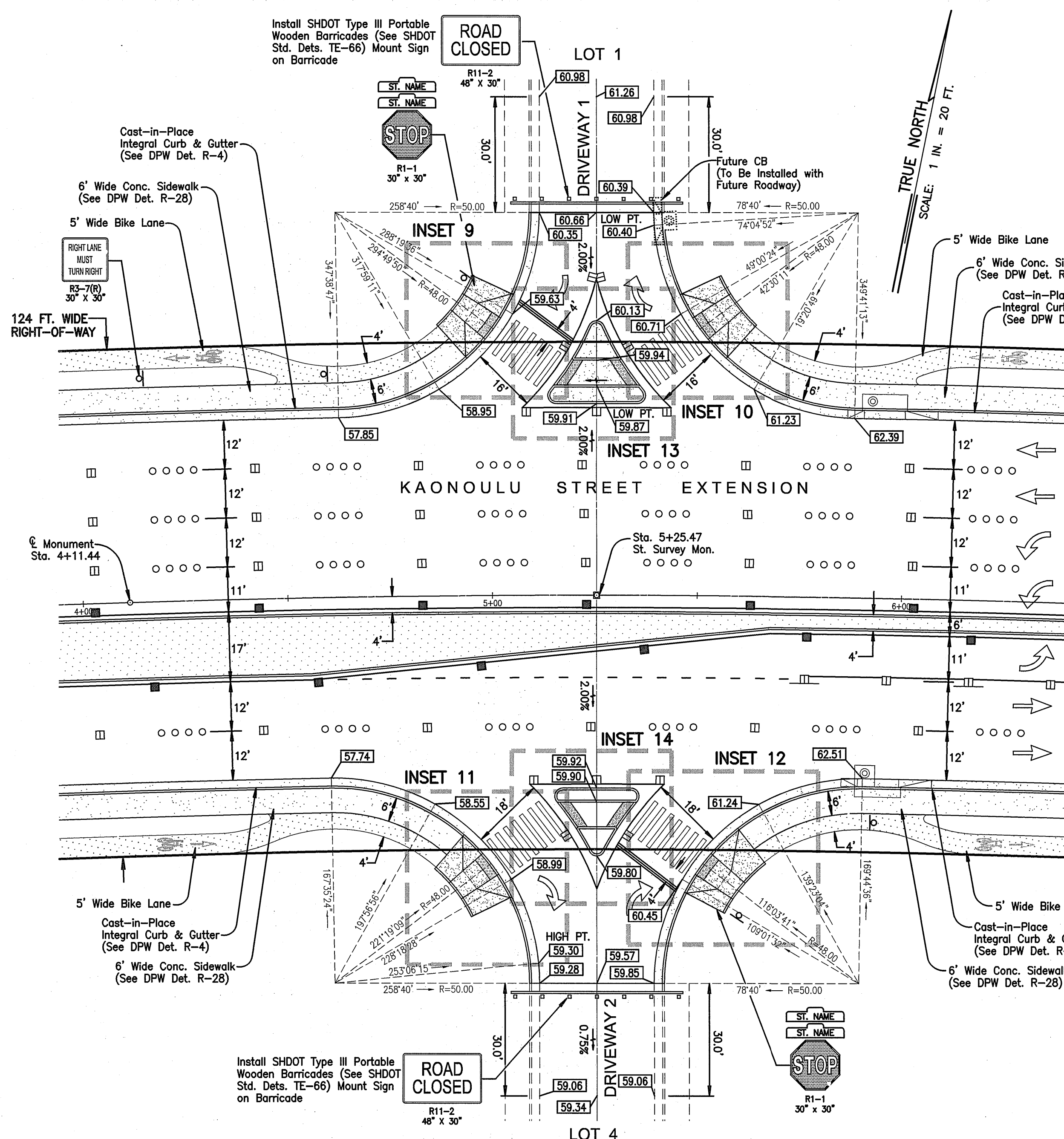
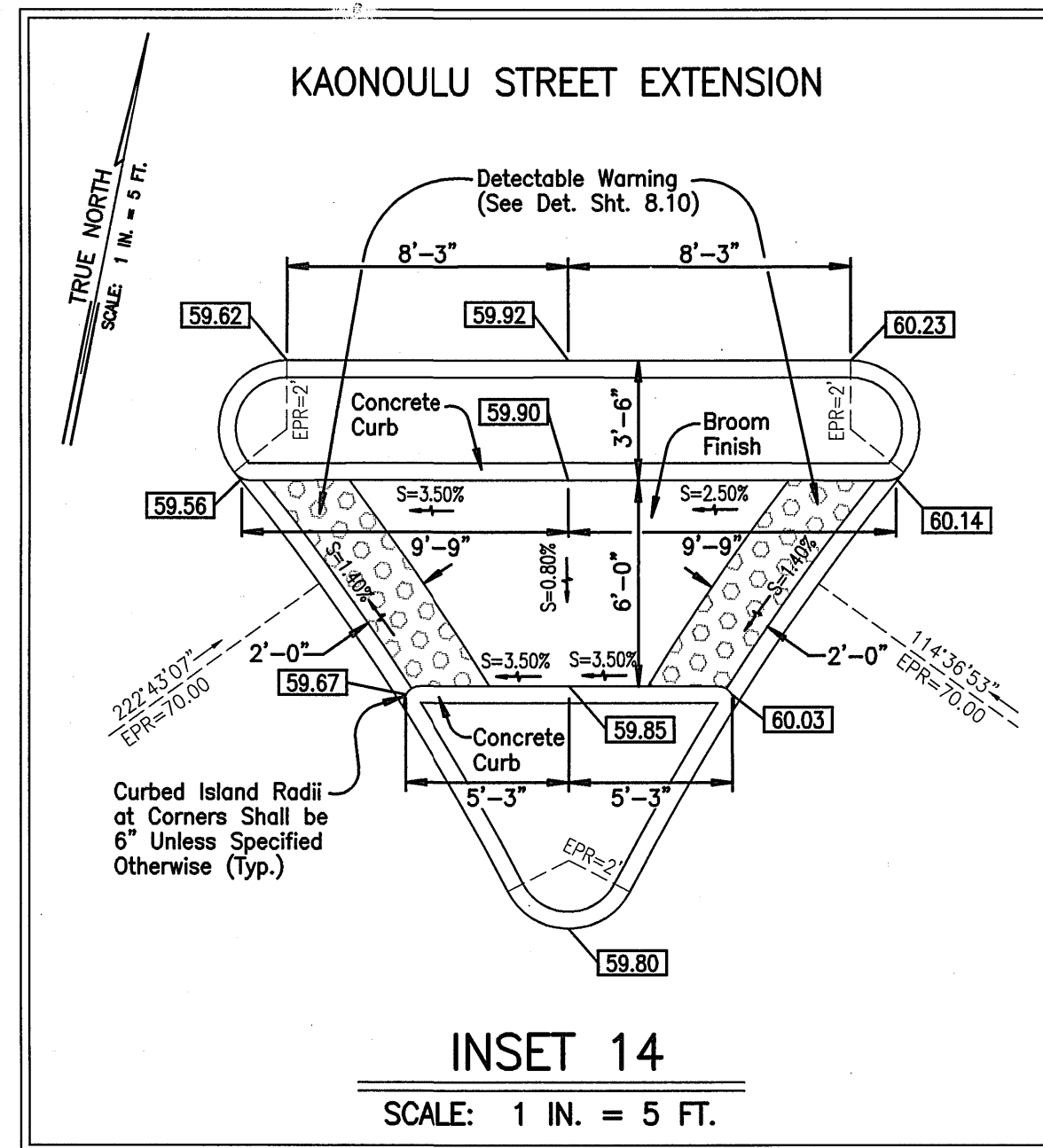
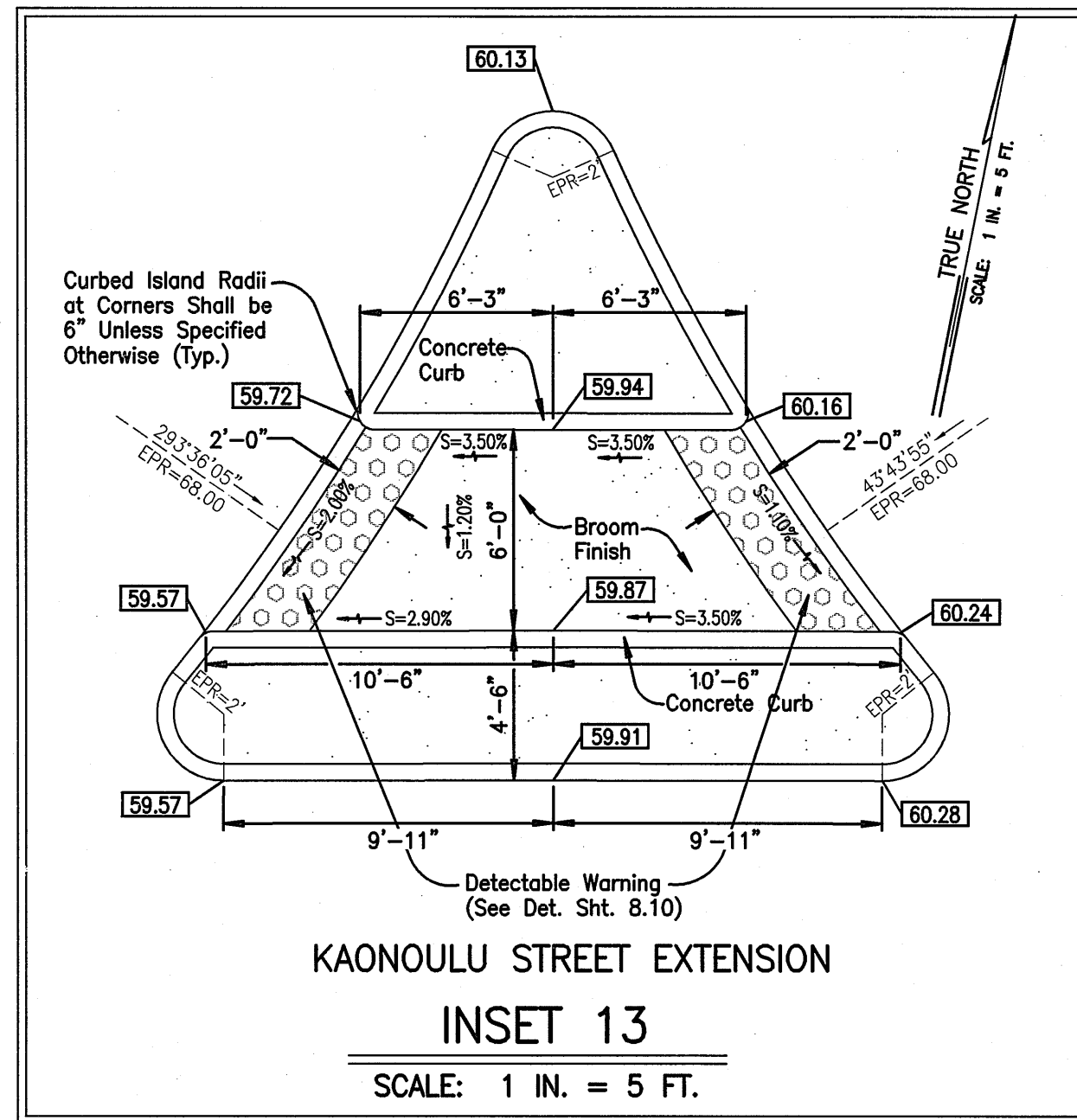
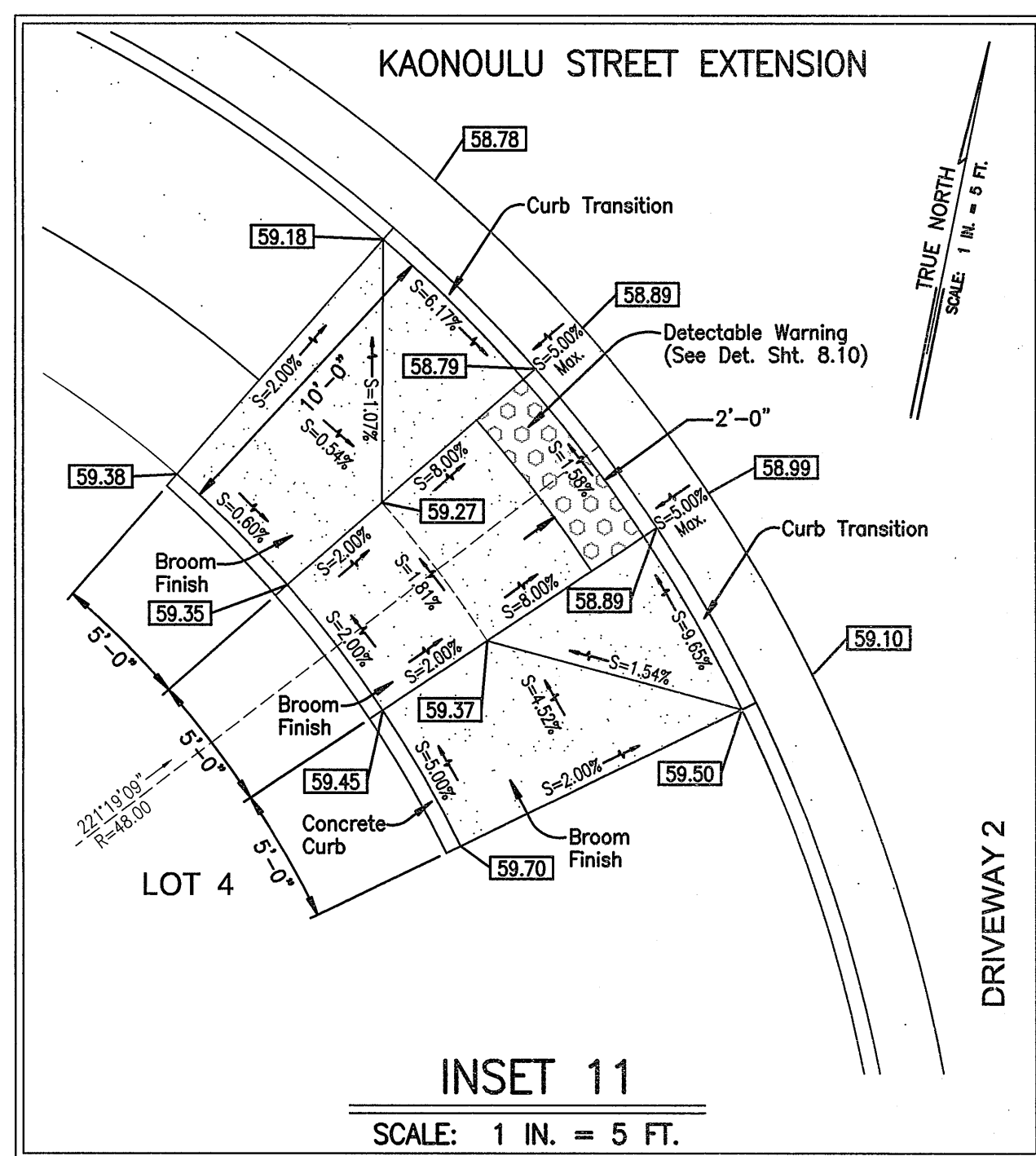
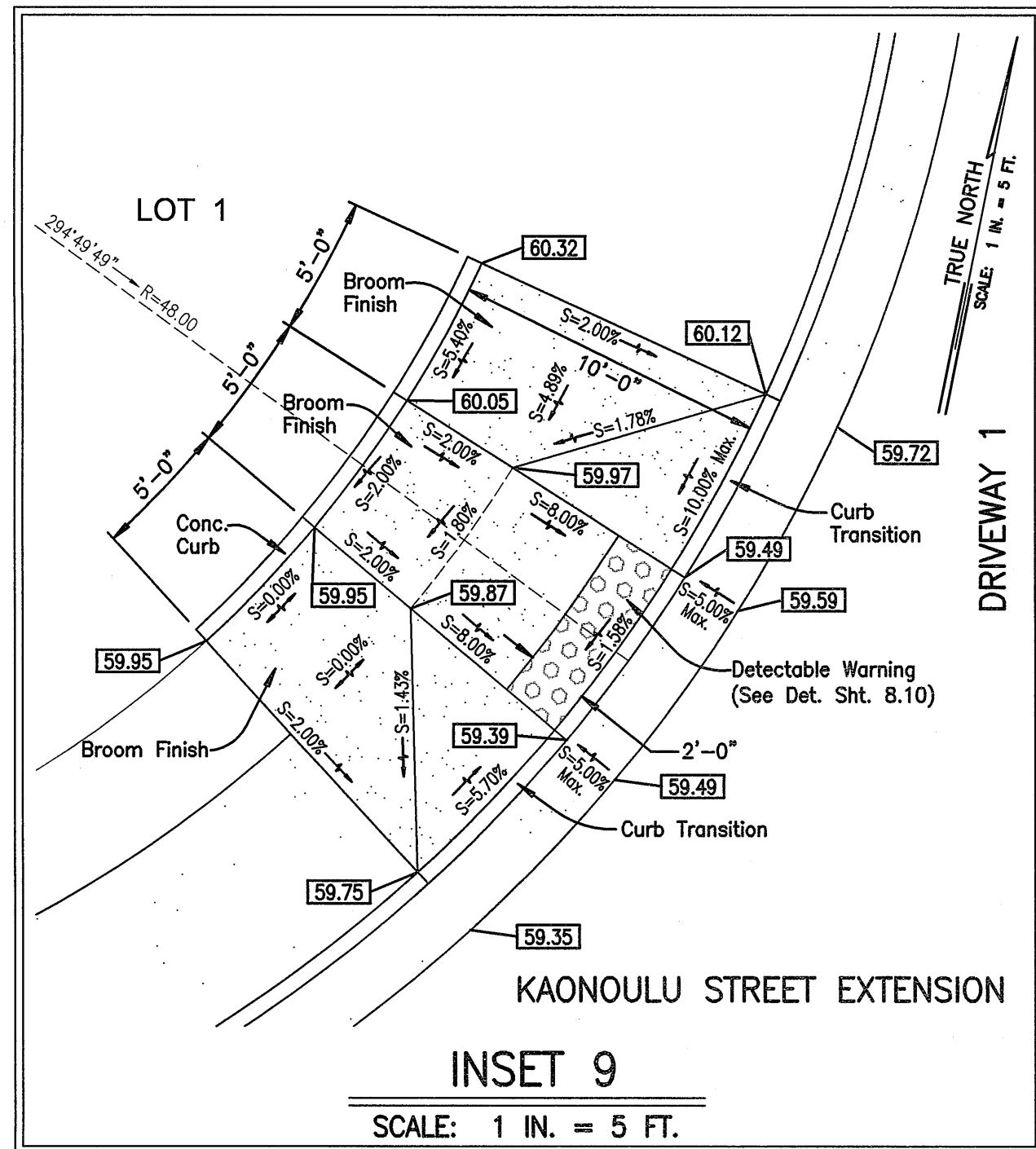
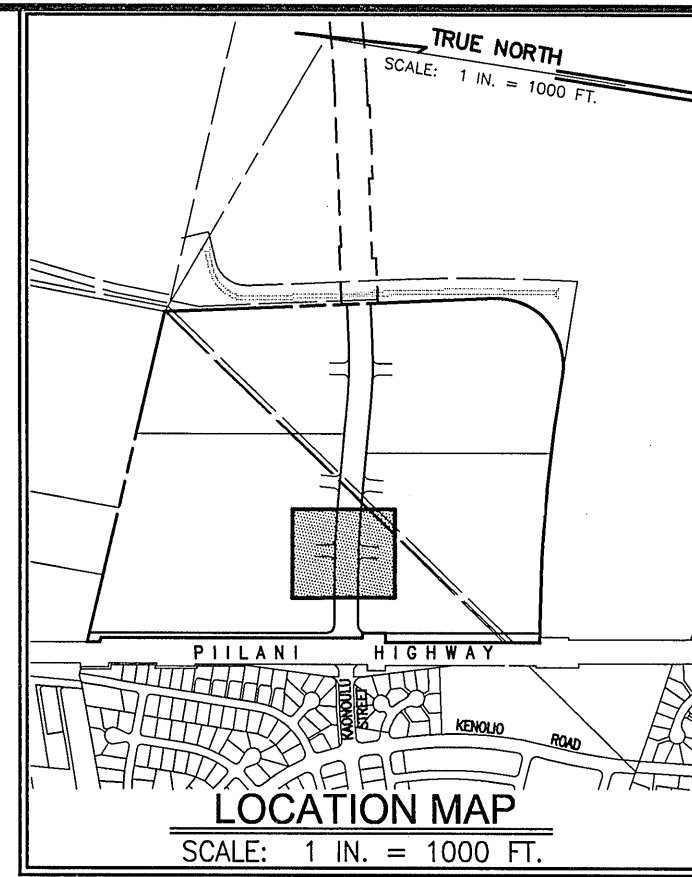
WARREN S. UNEMORI ENGINEERING, INC.
 CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
 2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793
KAONOULU MARKET PLACE
 T.M.K.: (2) 3-9-01 : 16
 KIHIE, MAUI, HAWAII

TITLE INTERSECTION DETAILS

DESIGNED BY	DTU	04010.10	9.01B
WIS	DTU	JOB NUMBER	
DRAWN BY	APPROVED BY	10-10-05	SHEET
DATE	DATE	OF SHEETS	

LETTER	DESCRIPTION	DATE
A	Spot Elevation and Curbed Island Revisions	10/21/09

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION "AS DEFINED IN SECTION 16-115-2 OF THE HAWAII ADMINISTRATIVE RULES FOR PROFESSIONAL ENGINEERS, ARCHITECTS, LAND SURVEYORS AND LANDSCAPE ARCHITECTS"



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 - TRAFFIC SIGNS SHALL BE WITH ALUMINUM SIGN BLANKS AND WITH HIGH INTENSITY SHEETING.
 - DURING EXISTING SIDEWALK AND SHOULDER IMPROVEMENTS, THE CONTRACTOR SHALL PROVIDE NECESSARY ADJUSTMENTS TO ACCOMMODATE BICYCLISTS AND PEDESTRIANS AND SHALL MAINTAIN AN ACCESSIBLE ROUTE AT ALL TIMES.
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- LEGEND:**
- 4" DOUBLE SOLID YELLOW STRIPES WITH TYPE "D" RAISED PAVEMENT MARKERS AT 20'-0" O.C. (THERMOPLASTIC EXTRUSION)
 - 4" EACH TYPE "A" RAISED PAVEMENT MARKERS TYPE "C" RAISED PAVEMENT MARKERS AT 40'-0" O.C. (THERMOPLASTIC EXTRUSION)
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KAONOULU MARKET PLACE
T.M.K.: (2) 3-9-01 : 16
KIHAI, MAUI, HAWAII

INTERSECTION DETAILS

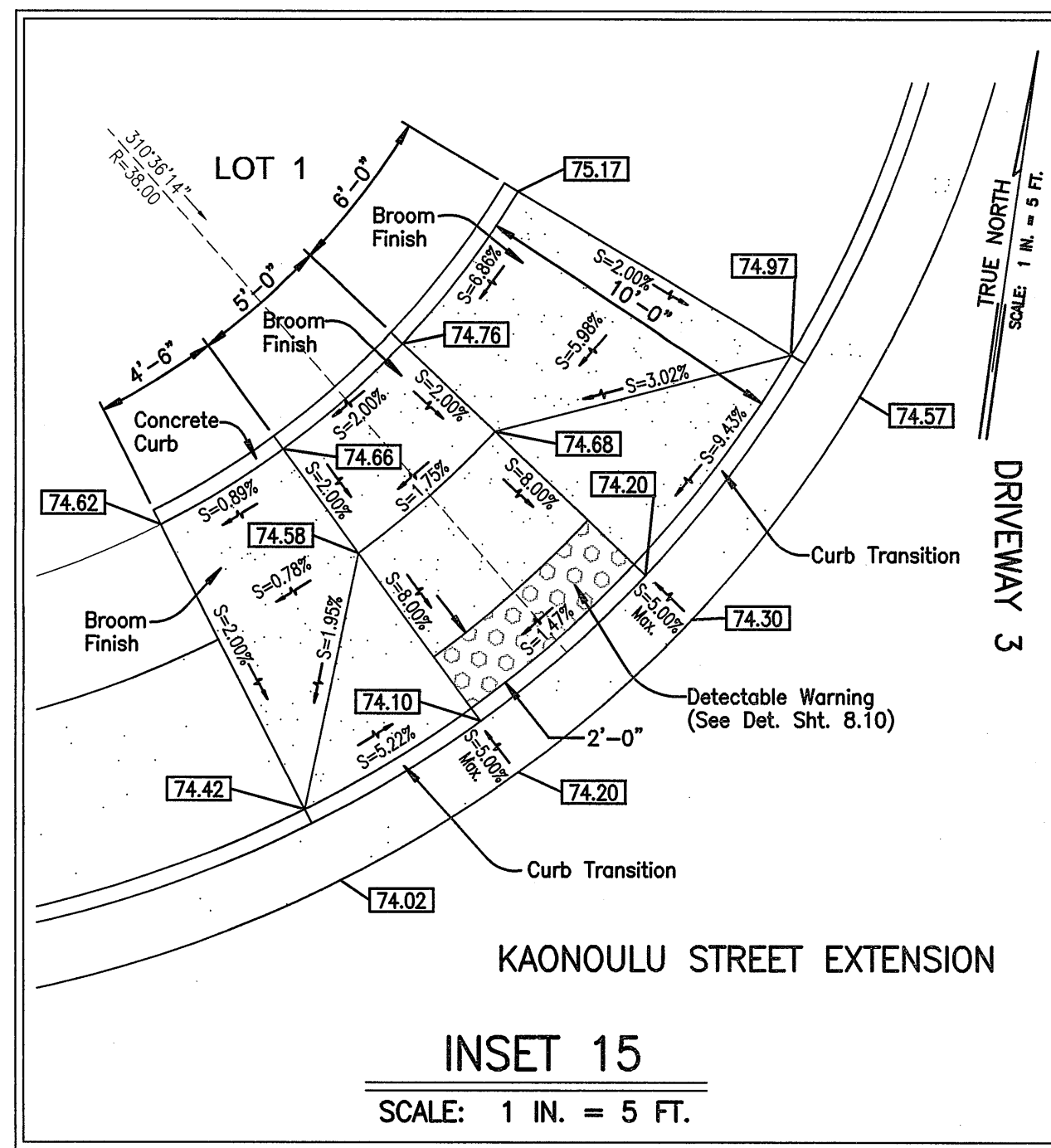
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DRAWN BY	WIS	APPROVED BY	DTU	DATE	10-10-05

Scale: 1 in. = 20 ft.

9.02

10-10-05

OF SHEETS



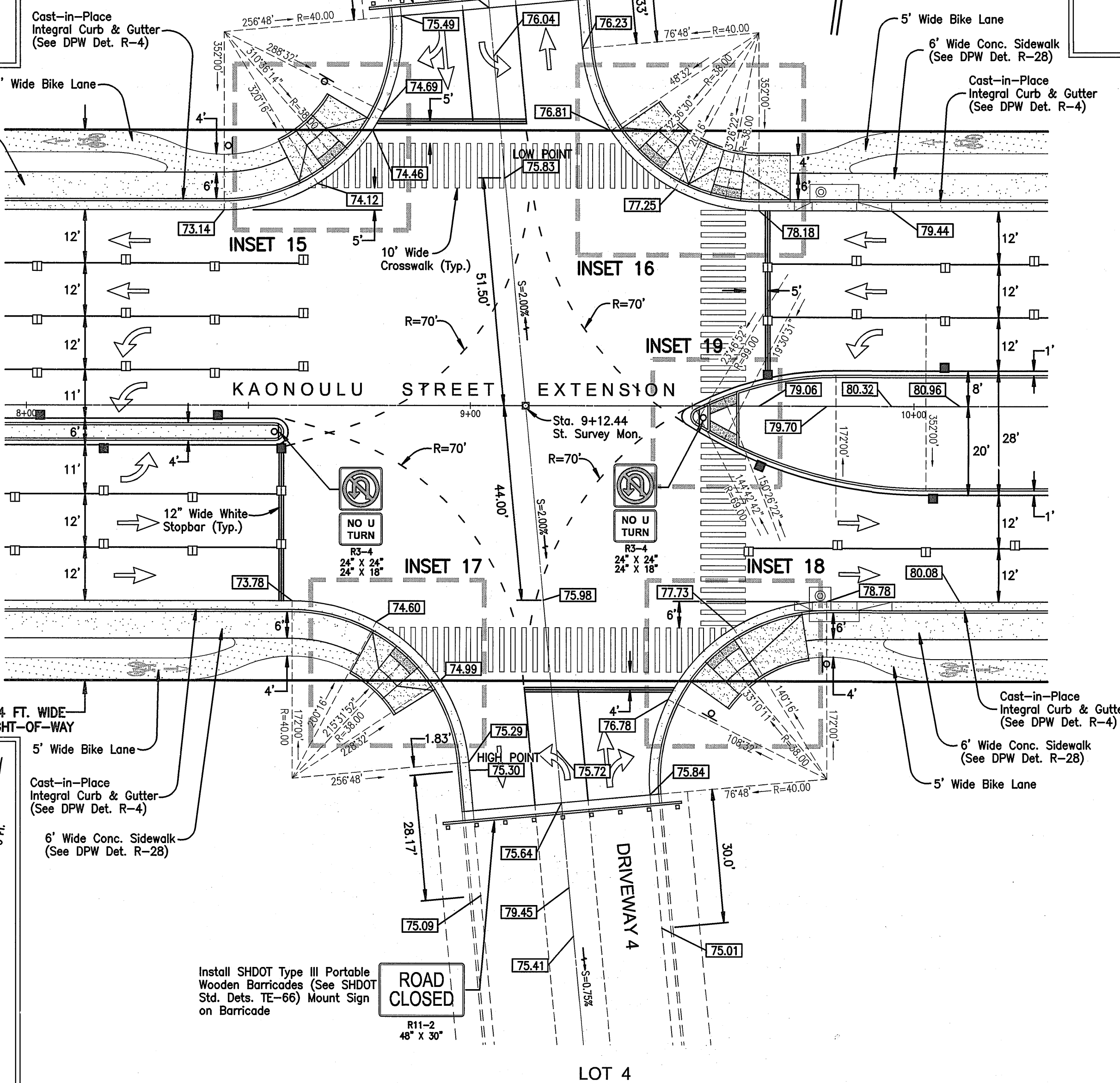
Install SHDOT Type III Portable Wooden Barricades (See SHDOT Std. Dets. TE-66) Mount Sign on Barricade

ROAD CLOSED
R11-2
48" x 30"

LOT 1

Future CB (To Be Installed with Future Roadway)

TRUE NORTH
SCALE: 1 in. = 20 ft.



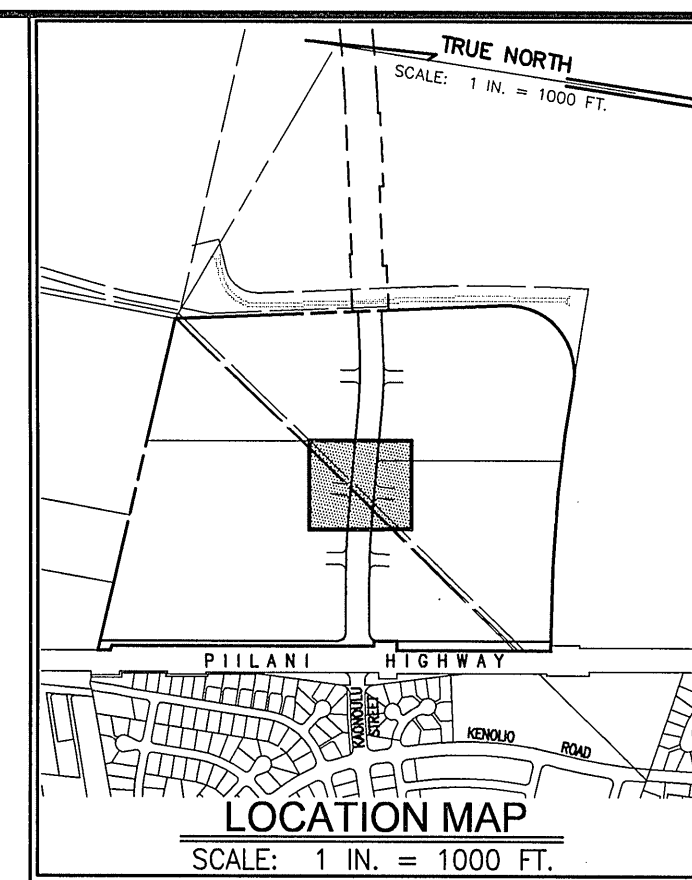
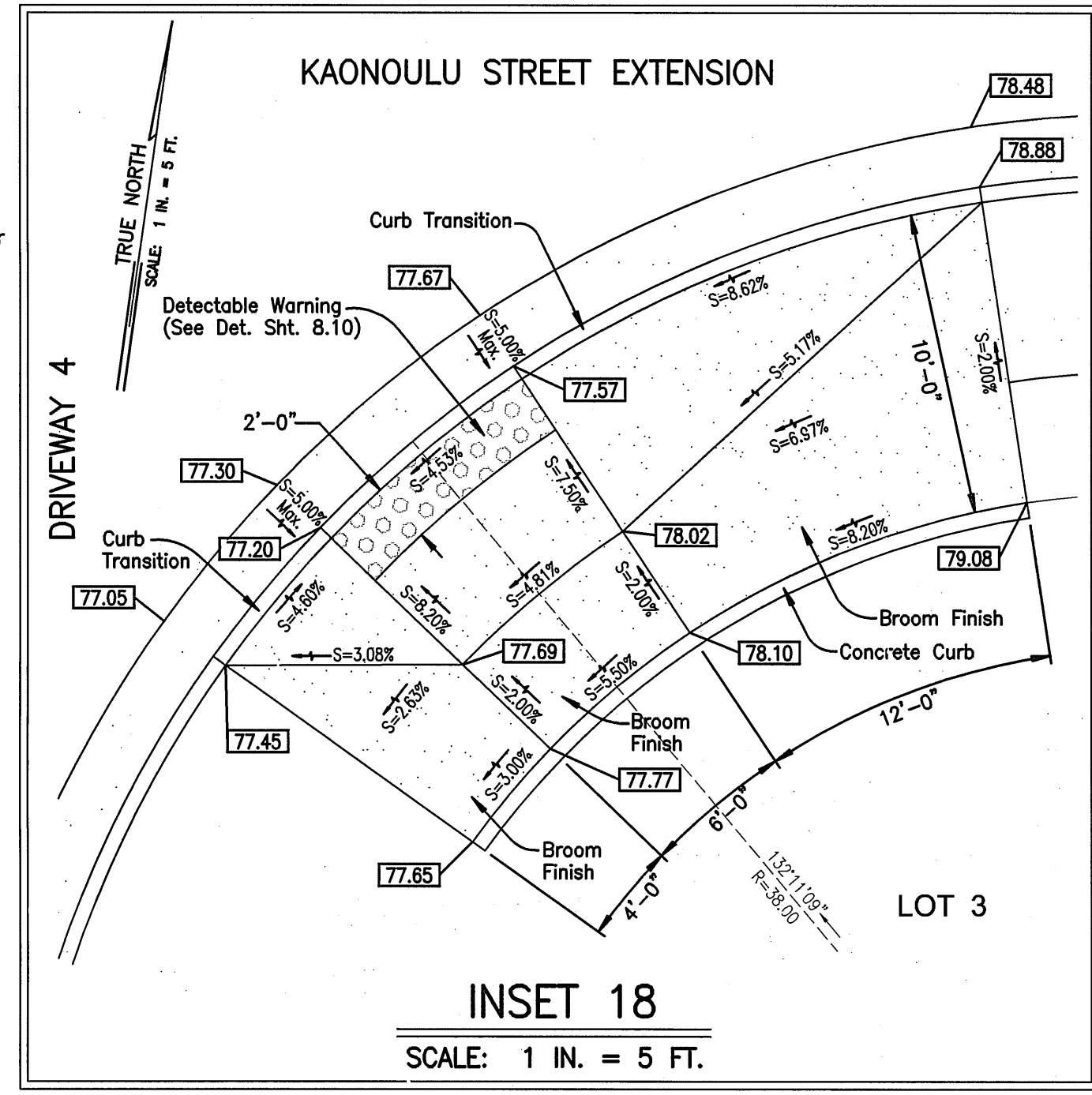
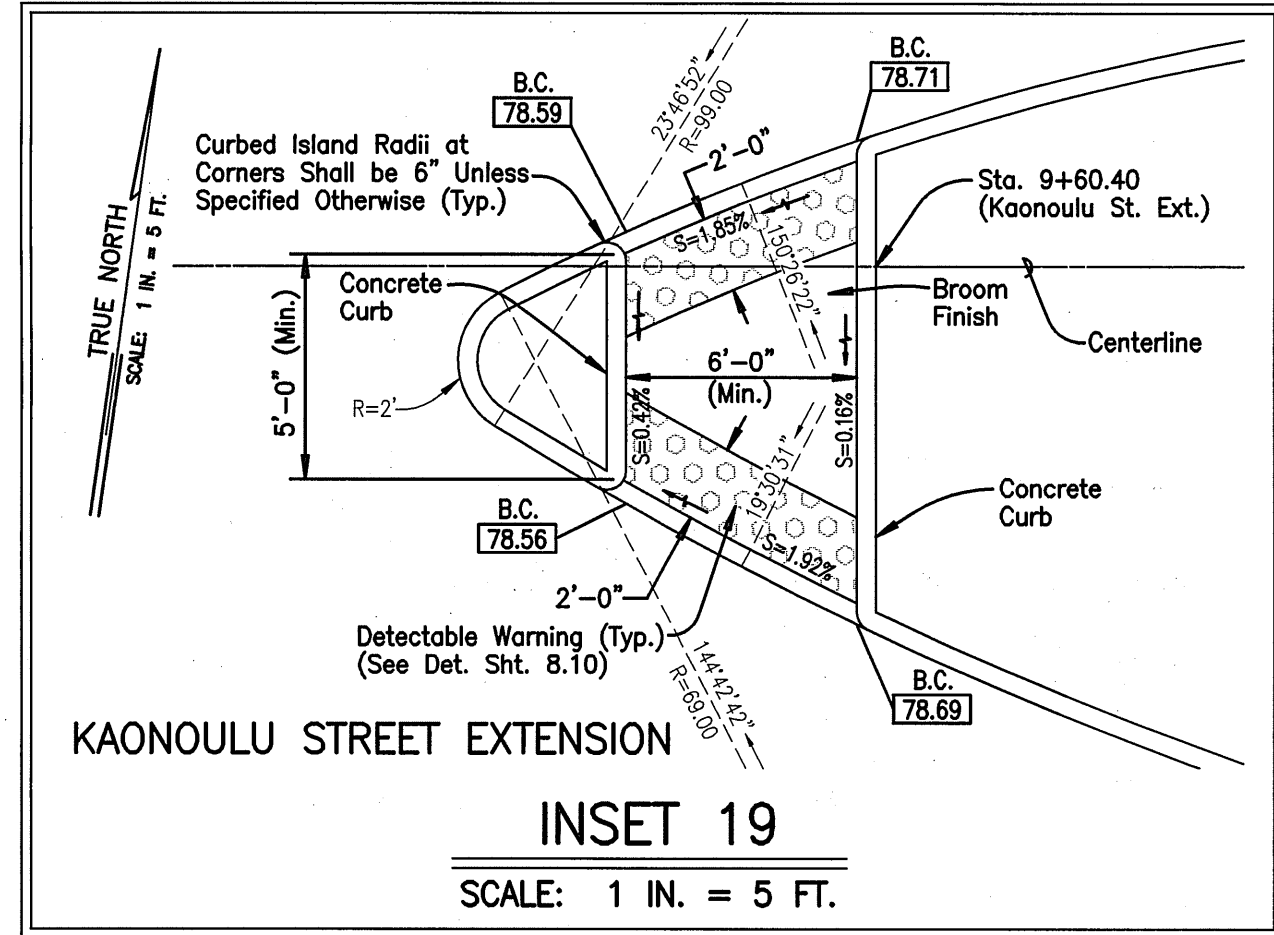
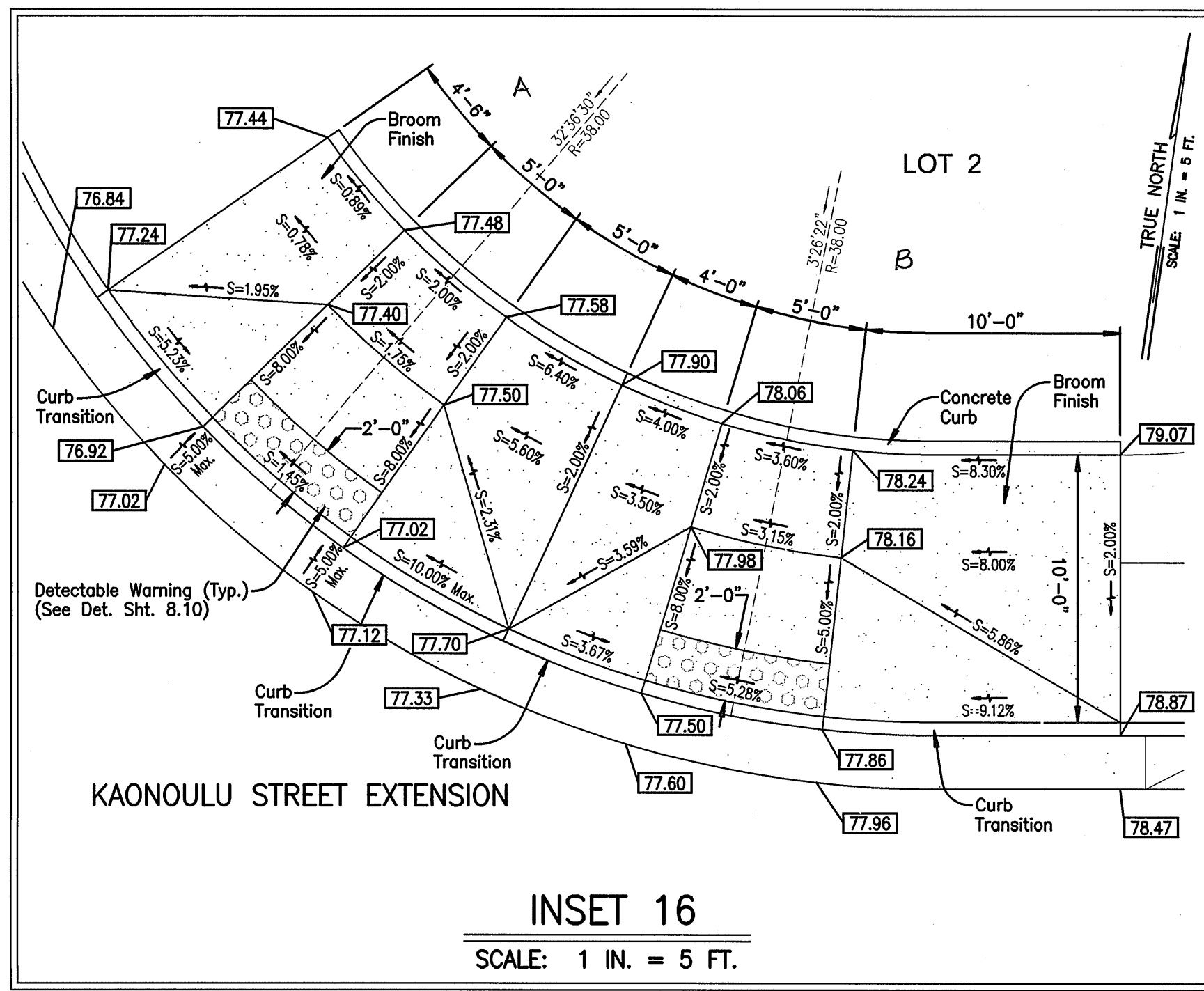
Install SHDOT Type III Portable Wooden Barricades (See SHDOT Std. Dets. TE-66) Mount Sign on Barricade

ROAD CLOSED
R11-2
48" x 30"

LOT 4

INTERSECTION NO. 2 - KAONOULU ST. EXTENSION

Scale: 1 in. = 20 ft.

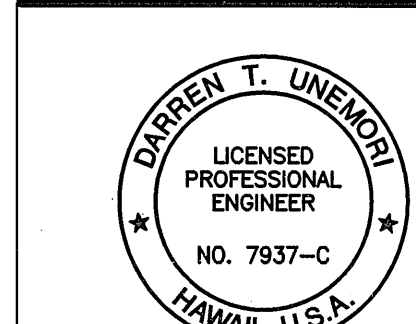
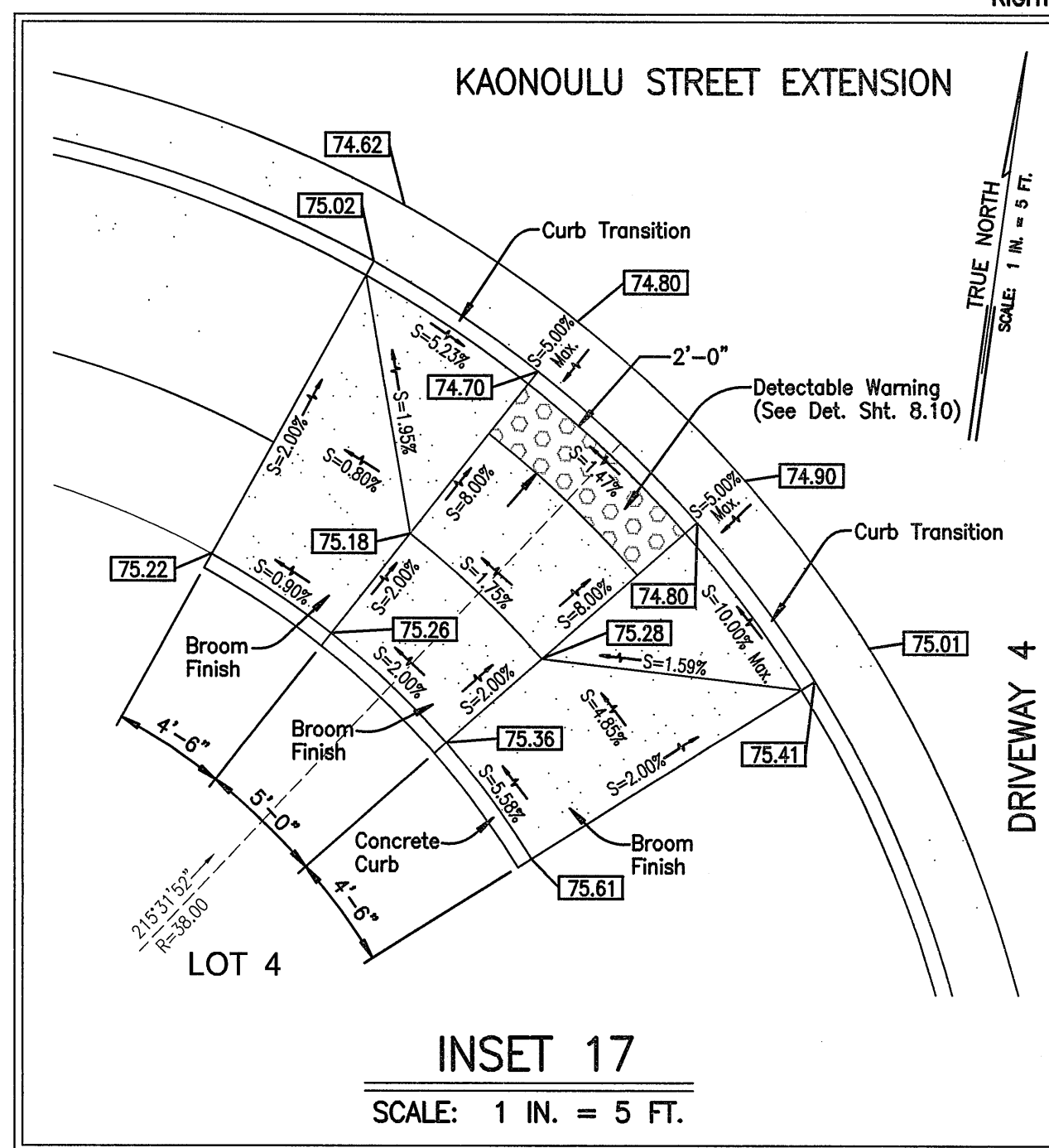


NOTES:

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LEGEND:

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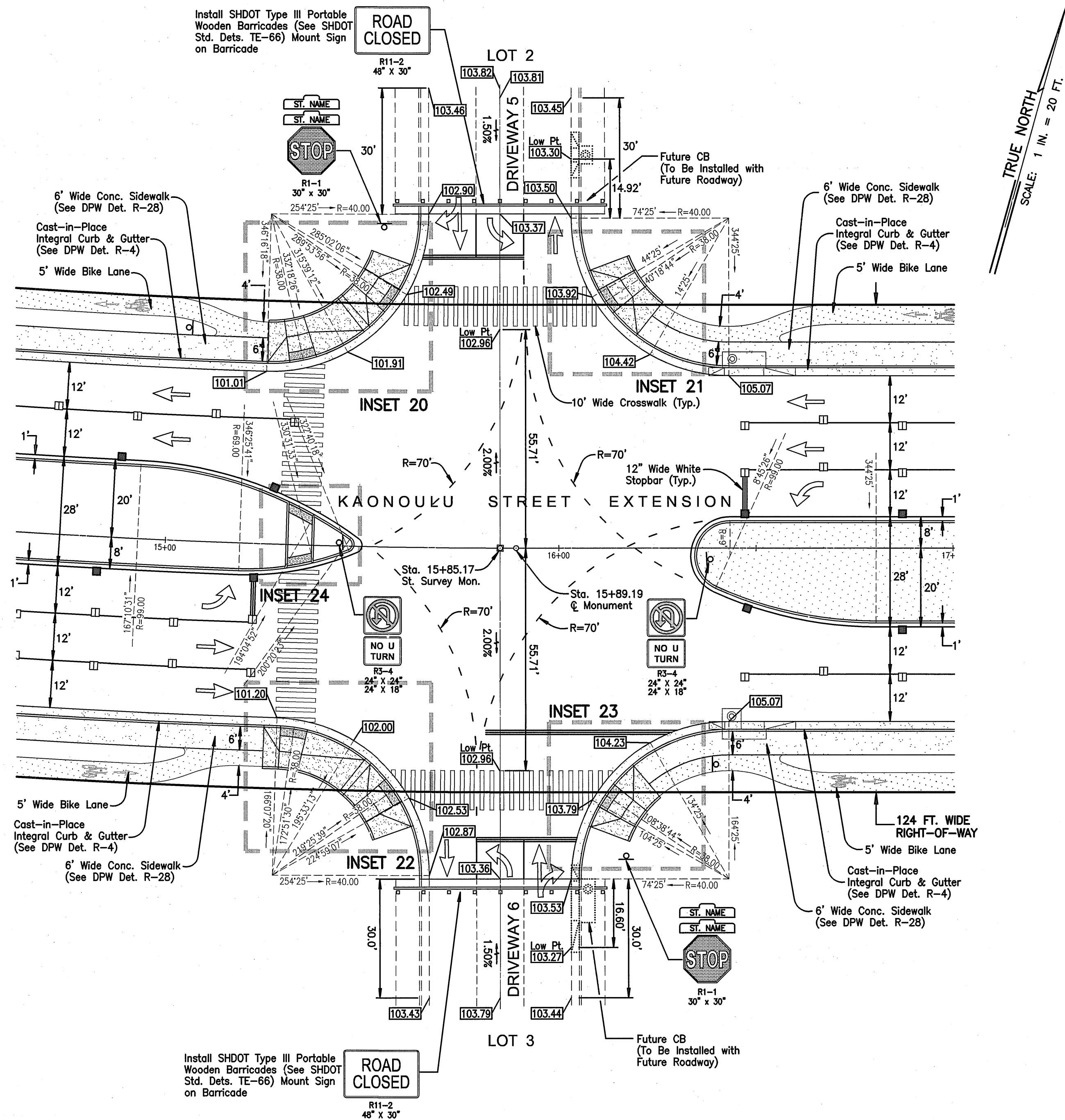
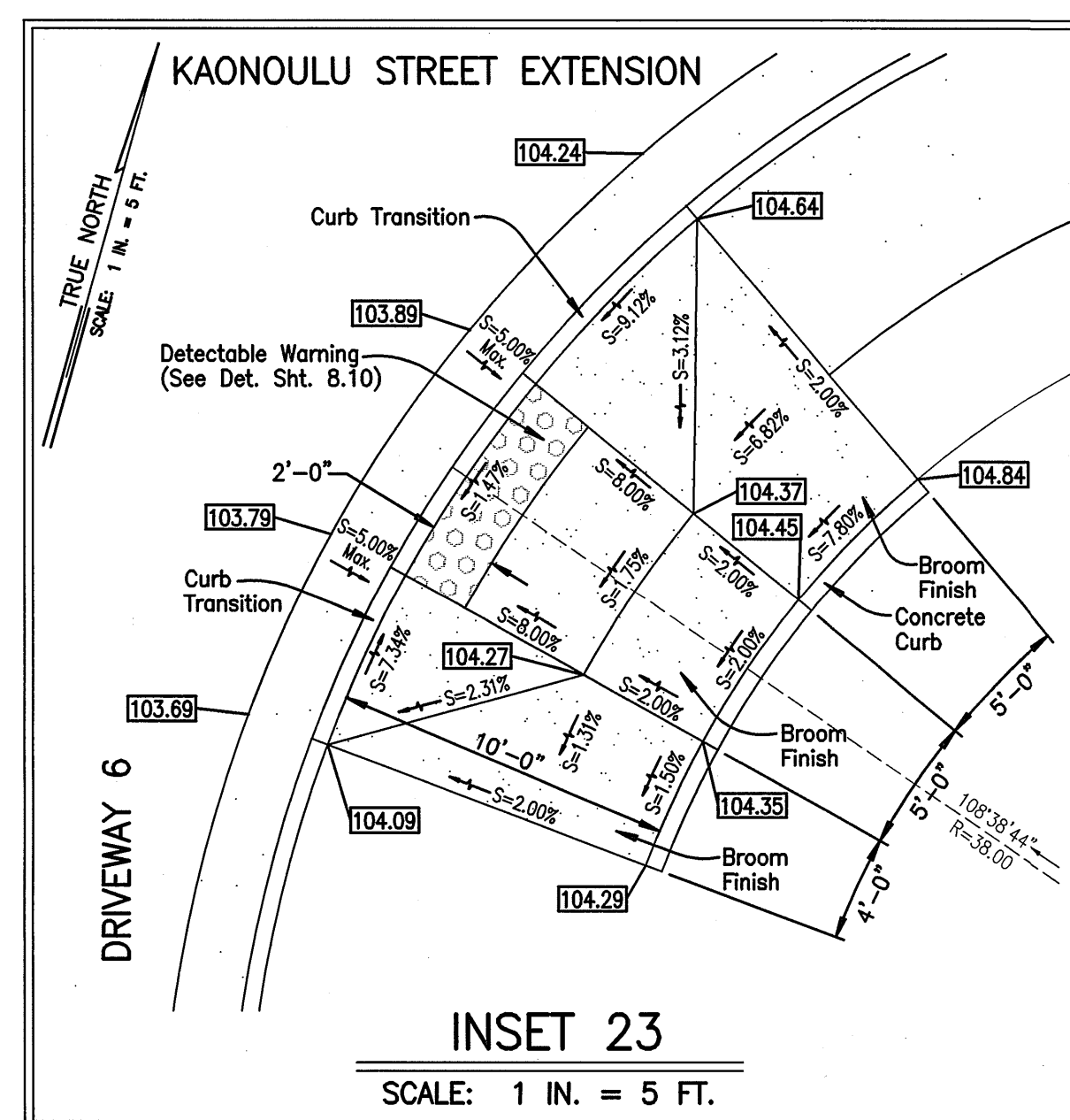
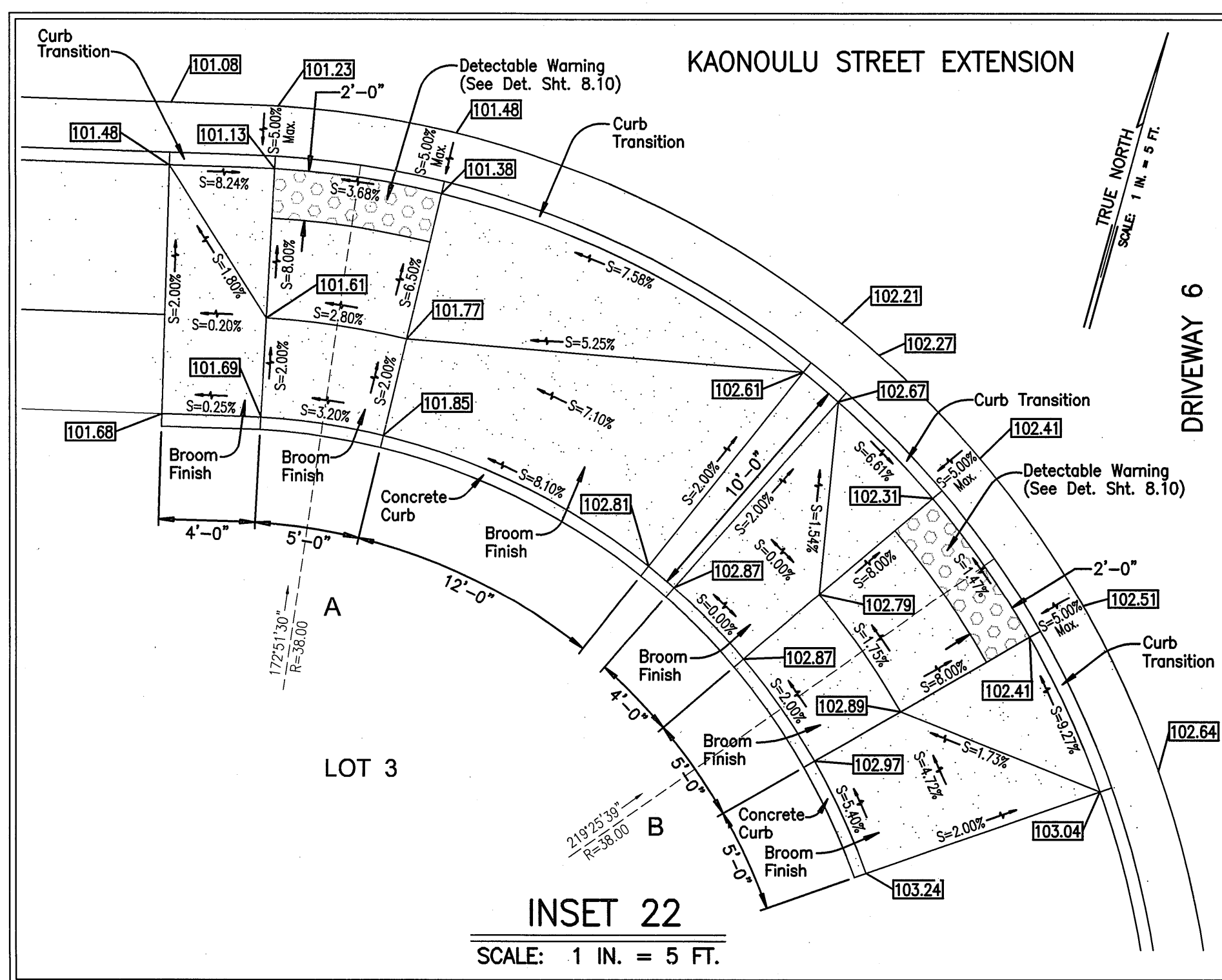
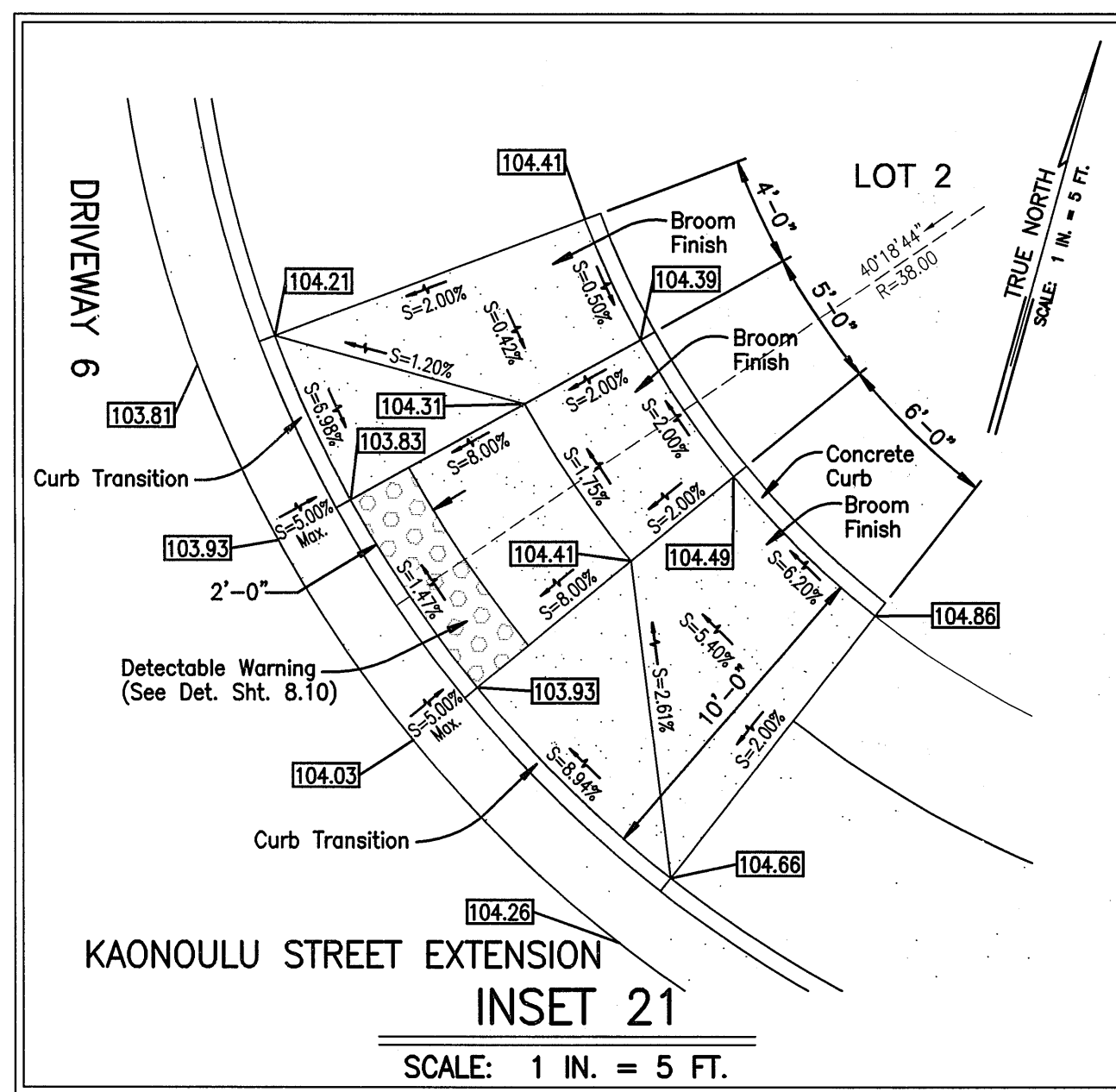
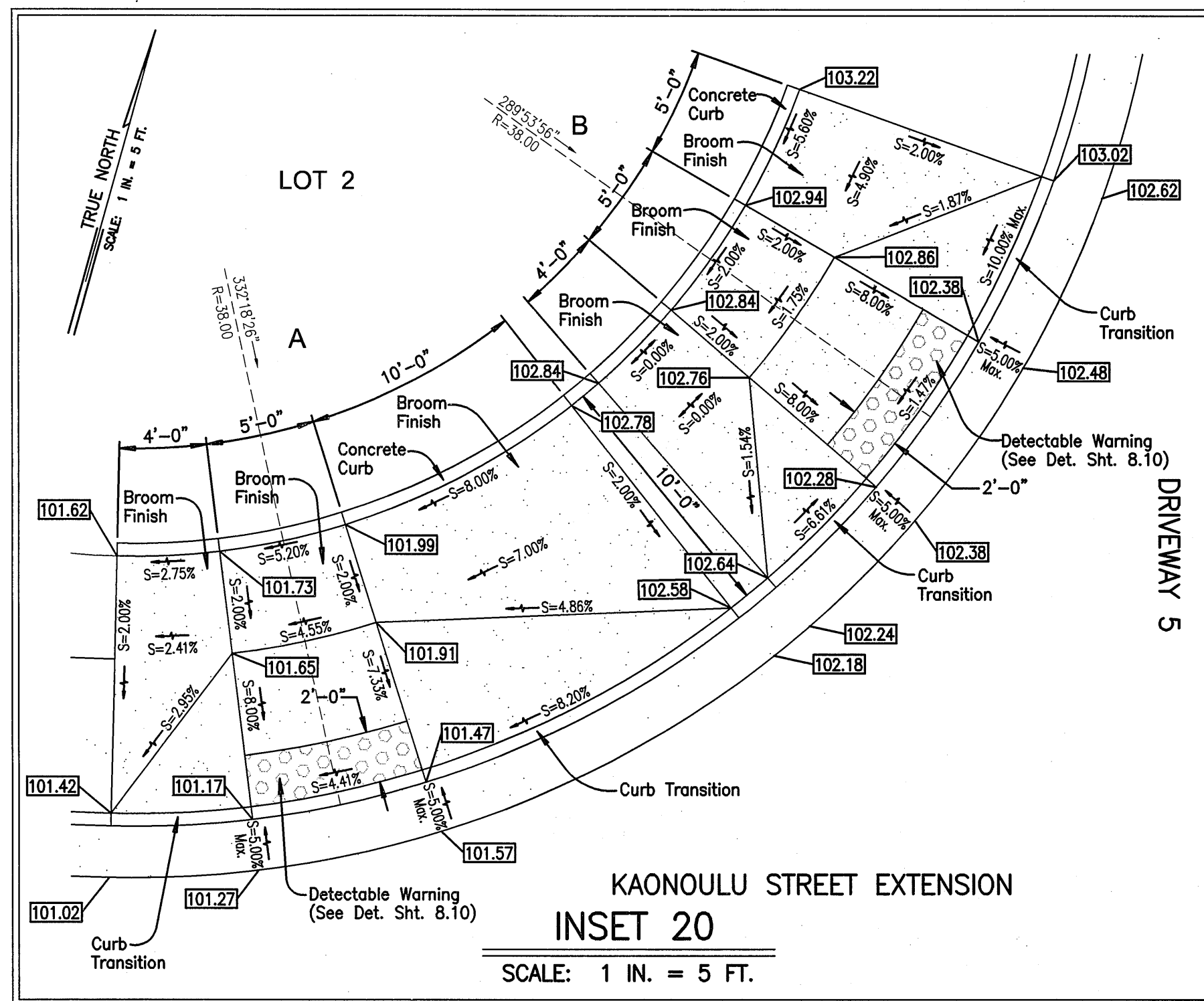
WARREN S. UNEMORI ENGINEERING, INC.
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KAONOULU MARKET PLACE
T.M.K.: (2) 3-9-01 : 16
KIHAI, MAUI, HAWAII

TITLE: INTERSECTION DETAILS

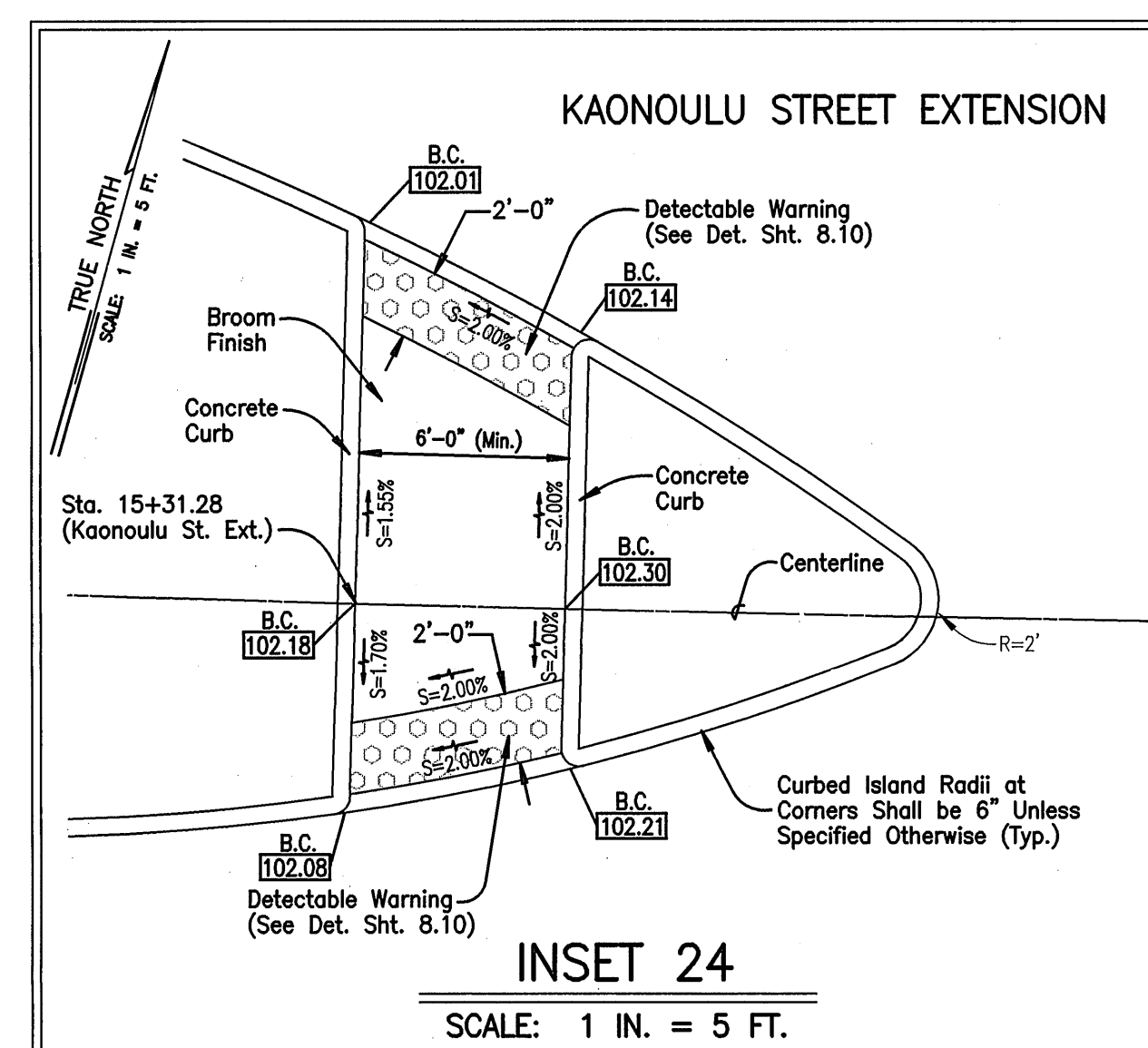
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DRAWN BY	WIS	APPROVED BY	10-10-05	SHEET
DATE	10/21/09	DATE	10-10-05	OF SHEETS

Scale: 1 in. = 20 ft.



INTERSECTION NO. 3 - KAONOULU ST. EXTENSION

Scale: 1 in. = 20 ft.

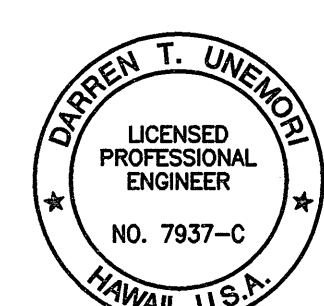


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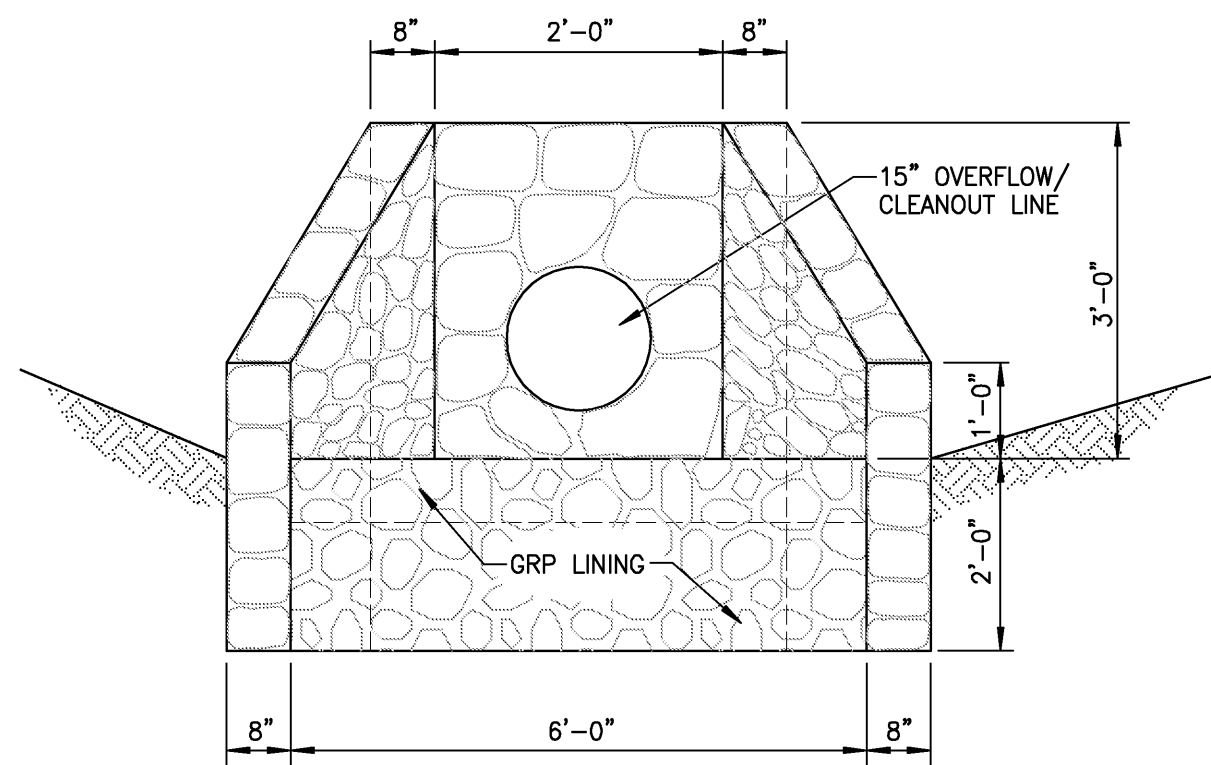
WARREN S. UNEMORI ENGINEERING, INC.
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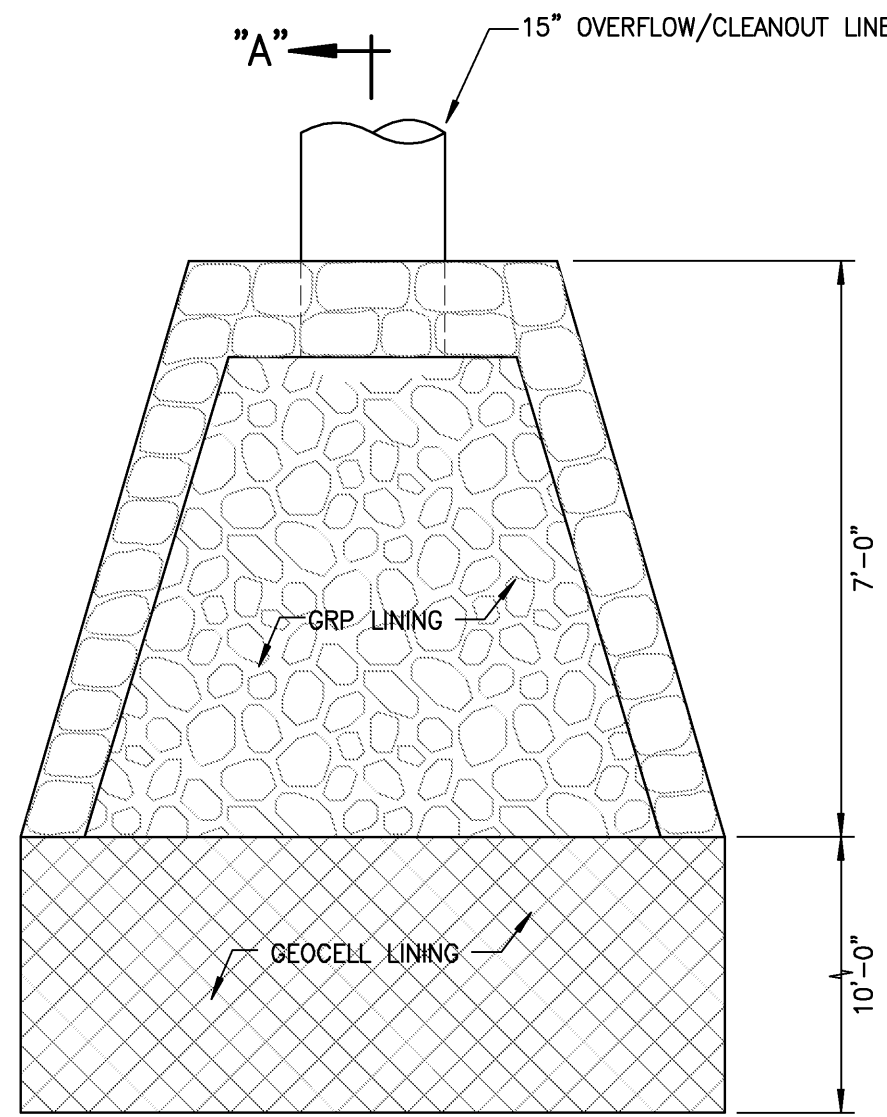
TITLE: INTERSECTION DETAILS

DESIGNED BY	DTU	04010.10	9.04
WIS	DTU	JOB NUMBER	
DRAWN BY	APPROVED BY	10-10-05	SHEET
SCALE 1 in. = 20 ft.	DATE	OF SHEETS	

	Spot Elevation and Curb Ramp Revisions	10/21/09
LETTER	DESCRIPTION	DATE



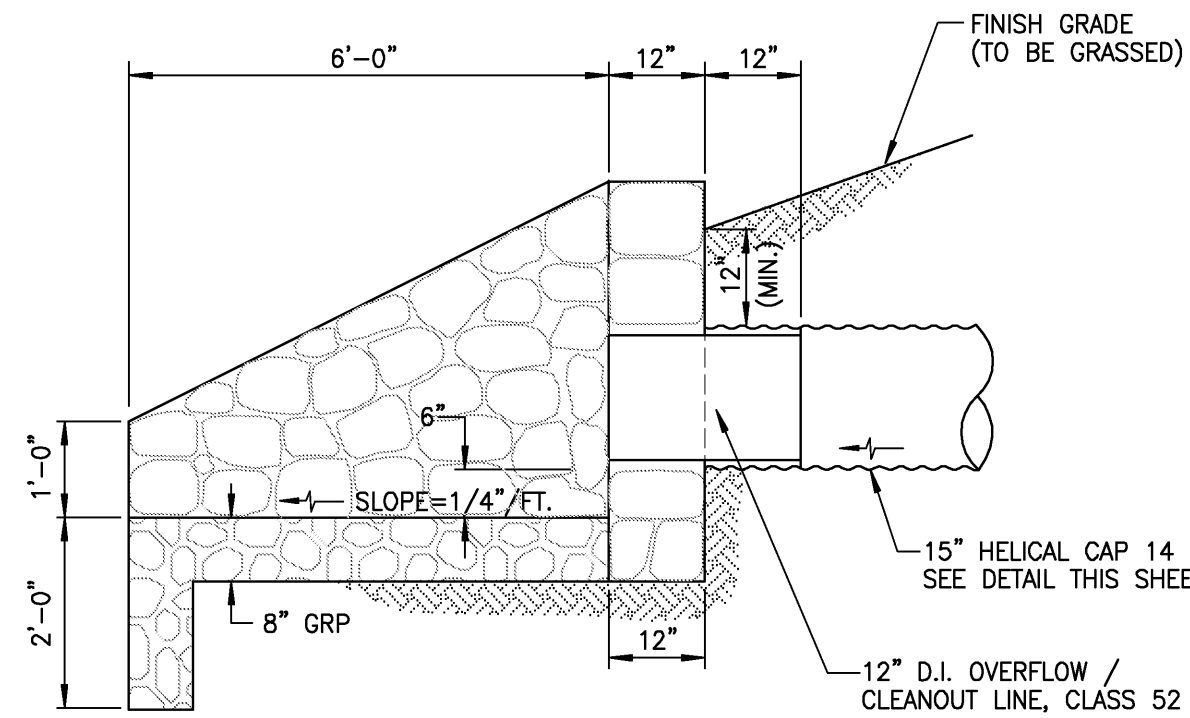
ELEVATION



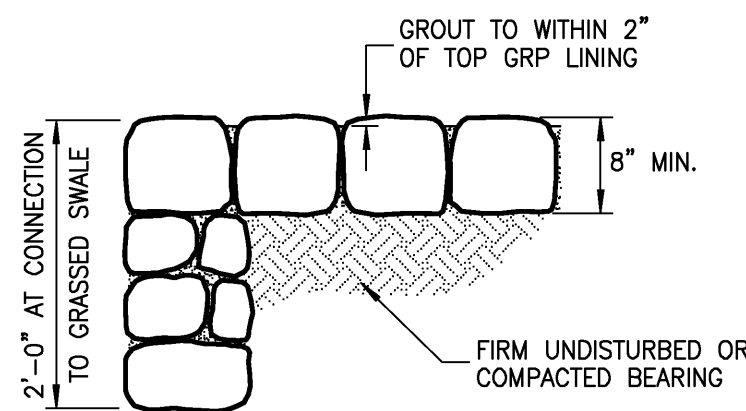
PLAN

DETAIL - OUTLET STRUCTURE FOR OVERFLOW DRAINLINE

NOT TO SCALE

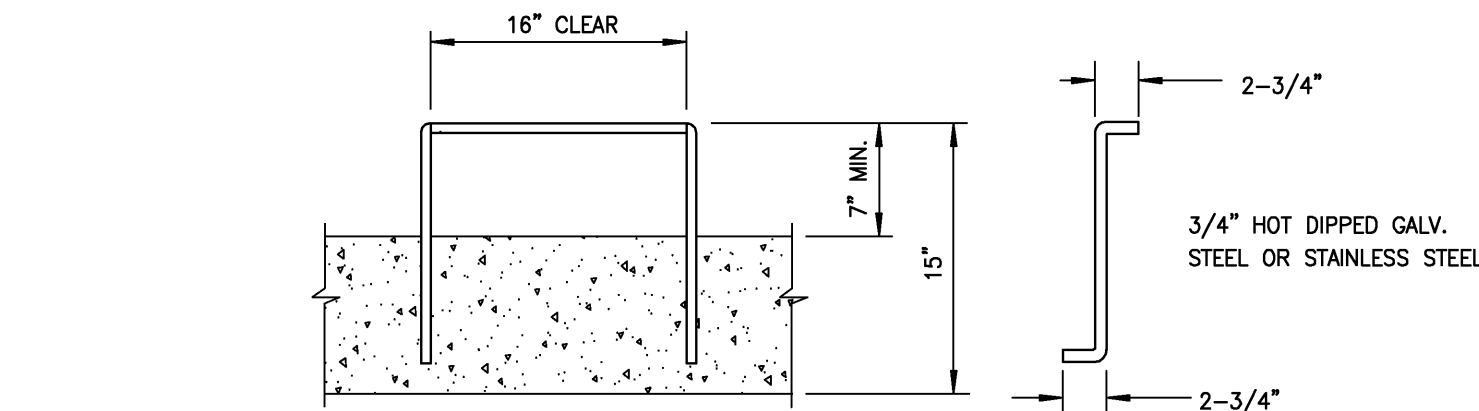


SECTION "A"- "A"



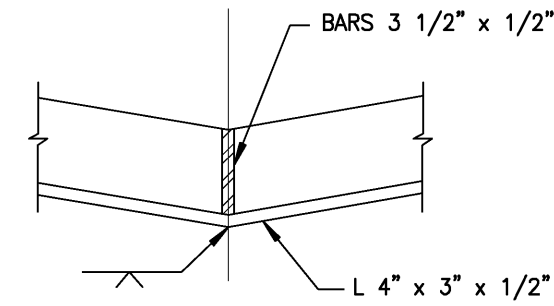
DETAIL - GRP LINING

NOT TO SCALE



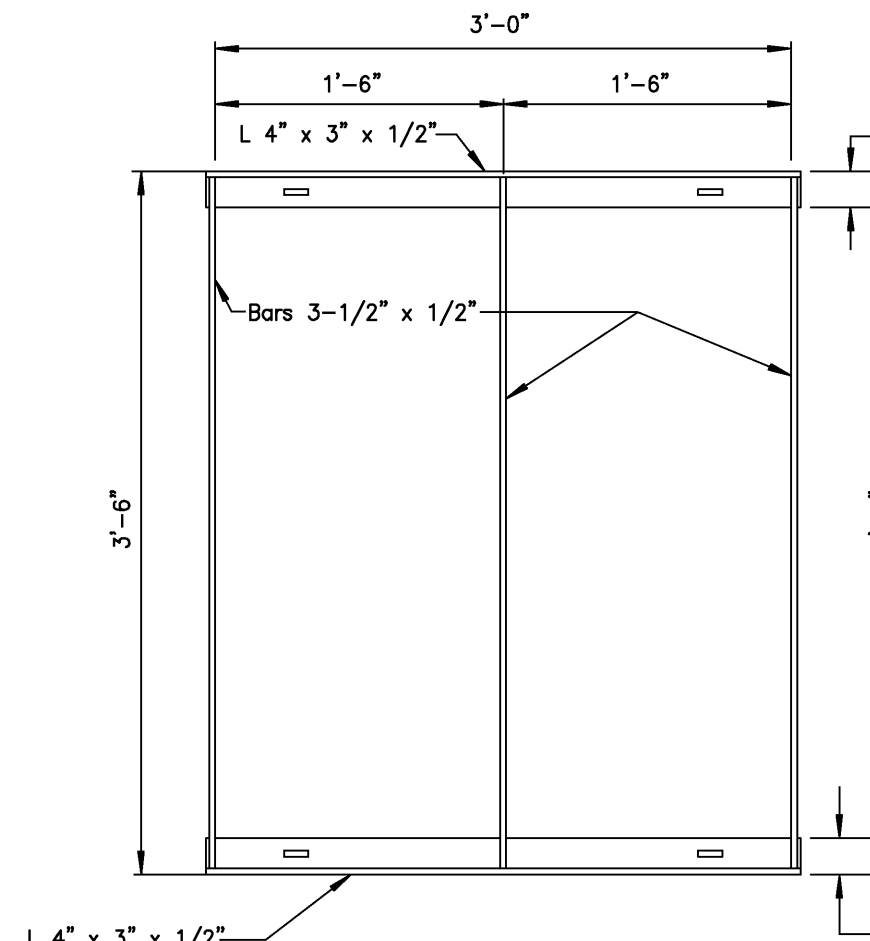
RUNG DETAIL

SCALE: 1" = 1'-0"

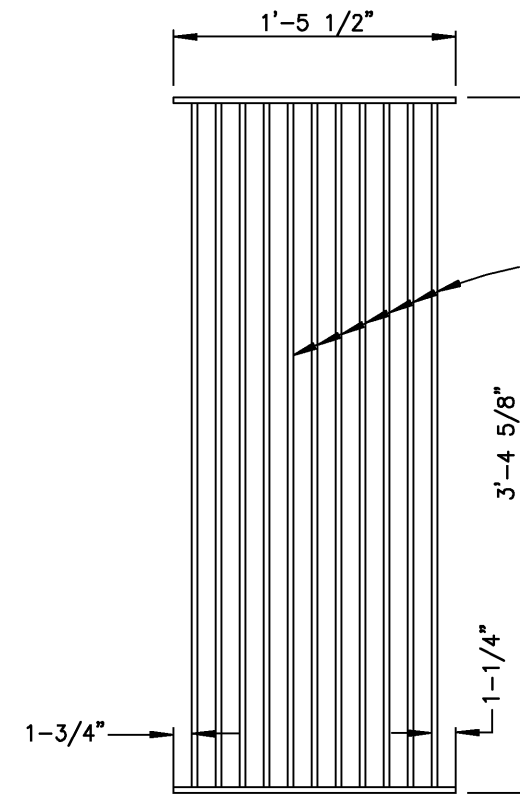


DETAIL "C"

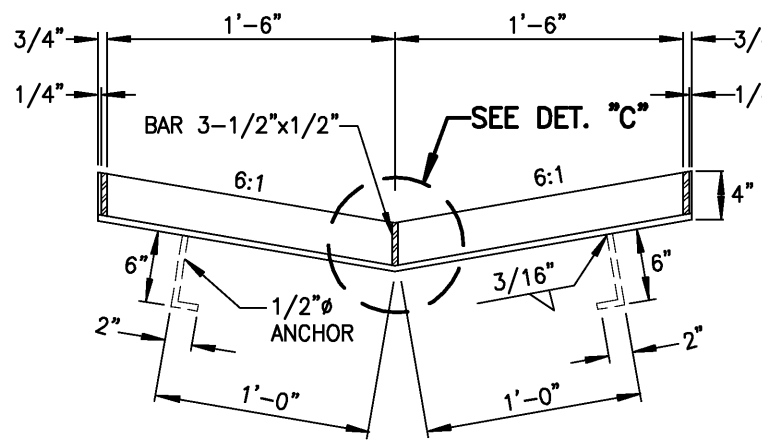
SCALE: 1 1/2" = 1'-0"



PLAN



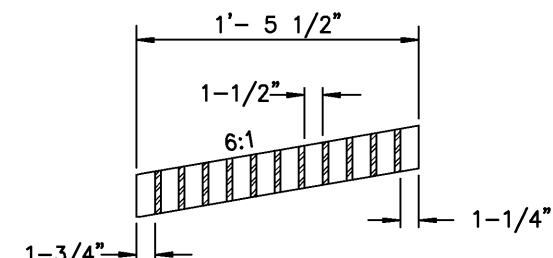
SECTION



SECTION

DETAILS - TYPE "L" GRATE & FRAME

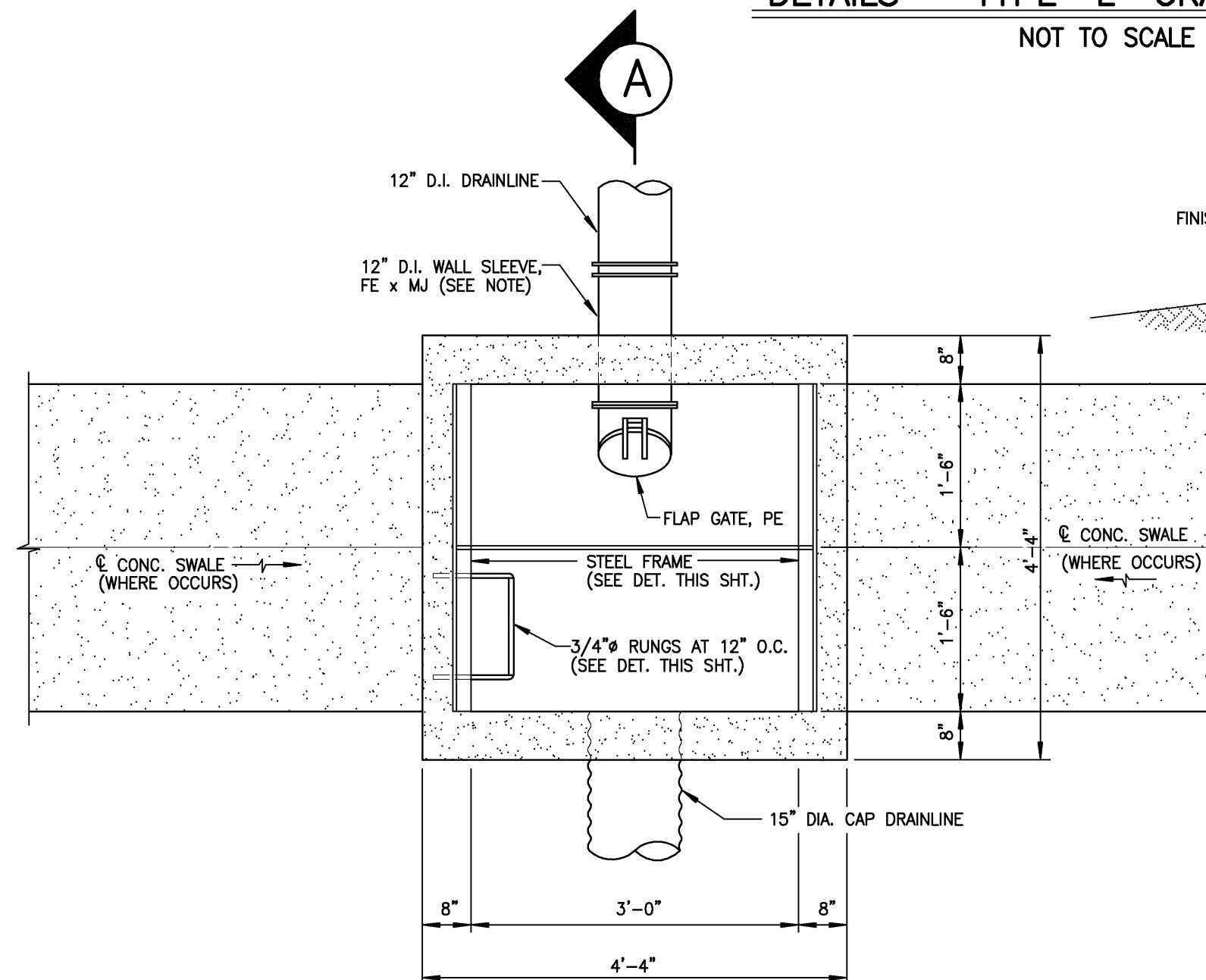
NOT TO SCALE



SECTION

NOTES:

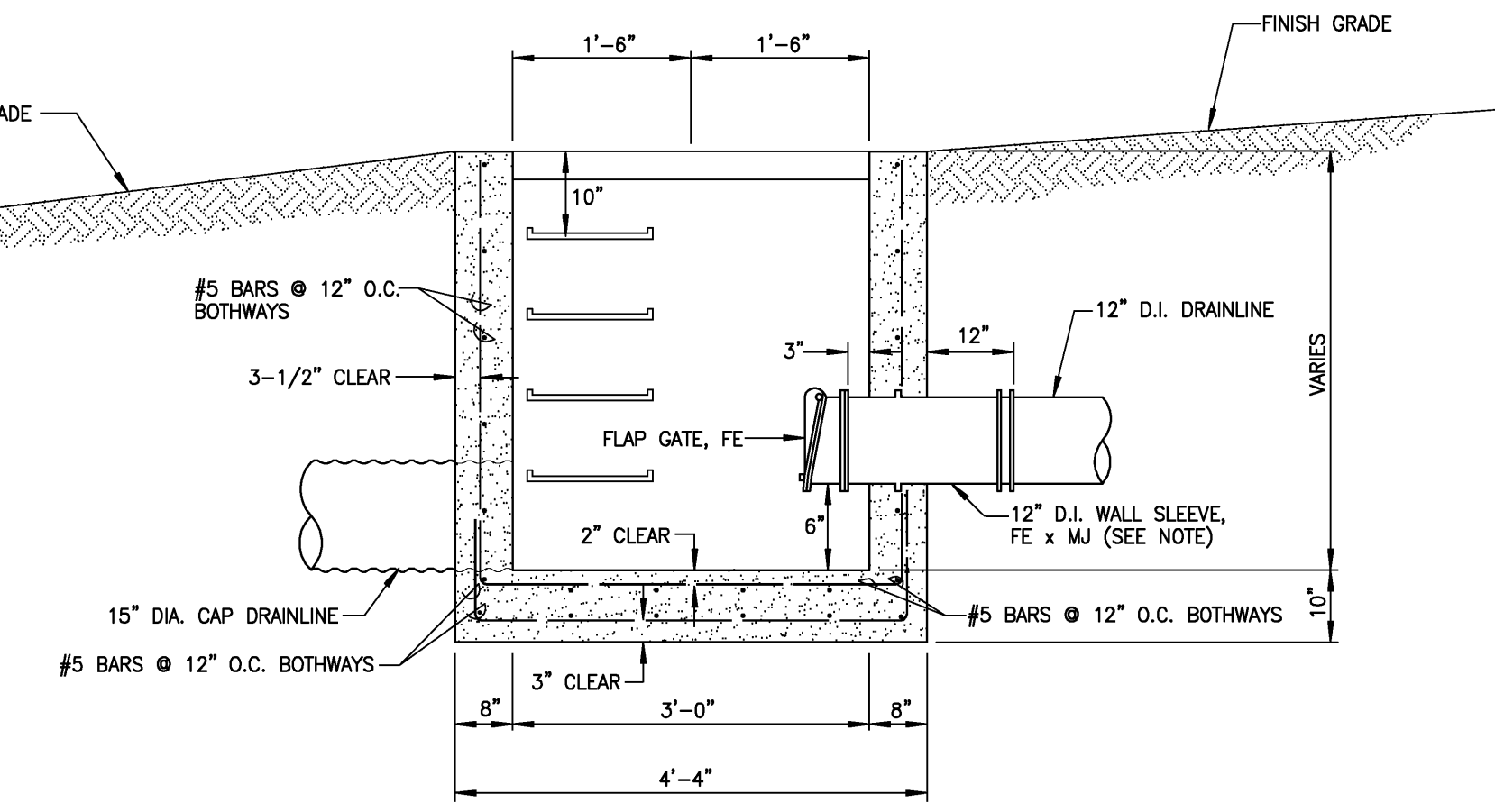
1. CONTRACTOR SHALL HAVE OPTION TO SUBSTITUTE APPROVED HYDRAULICALLY AND STRUCTURALLY EQUIVALENT OR BETTER PRECAST CONCRETE CATCH BASIN DROP INLETS AND PREFABRICATED GRATE ASSEMBLIES. SHOP DRAWINGS SHALL BE SUBMITTED FOR APPROVAL.
2. ALL GRATES WITHIN PAVED AREAS SHALL BE GARY GRATING "TYPE GO SERIES" (MANUFACTURED BY IKG INDUSTRIES, RATED TO SUSTAIN HS20-44 LOADING, OR APPROVED EQUAL. FRAME ANGLE LEG DIMENSIONS SHALL BE ADJUSTED AS REQUIRED.
3. ALL STEEL COMPONENTS SHALL BE HOT-DIPPED GALVANIZED.
4. SEE D.P.W. STANDARD DETAILS SHEET "D-44" FOR CORNER AFTER FABRICATION.
5. ALL WELDS 3/8" UNLESS OTHERWISE NOTED. CONNECTIONS.
6. THE FRAME AND GRATE MATERIAL SHALL CONFORM TO THE SPECIFICATIONS OF A.S.T.M. DESIGNATION STRUCTURAL STEEL A283, GRADE D AND THE STANDARD SPECIFICATIONS.
7. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND MATERIAL SUBMITTAL OF FLAP GATE INSTALLATION TO ENGINEER FOR APPROVAL PRIOR TO ORDERING MATERIALS.



PLAN

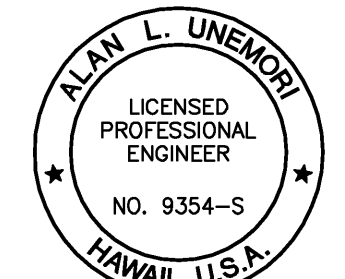
DETAILS - GRATED INLET CATCH BASIN AT WATER TANK

NOT TO SCALE



SECTION A

NOT TO SCALE



WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

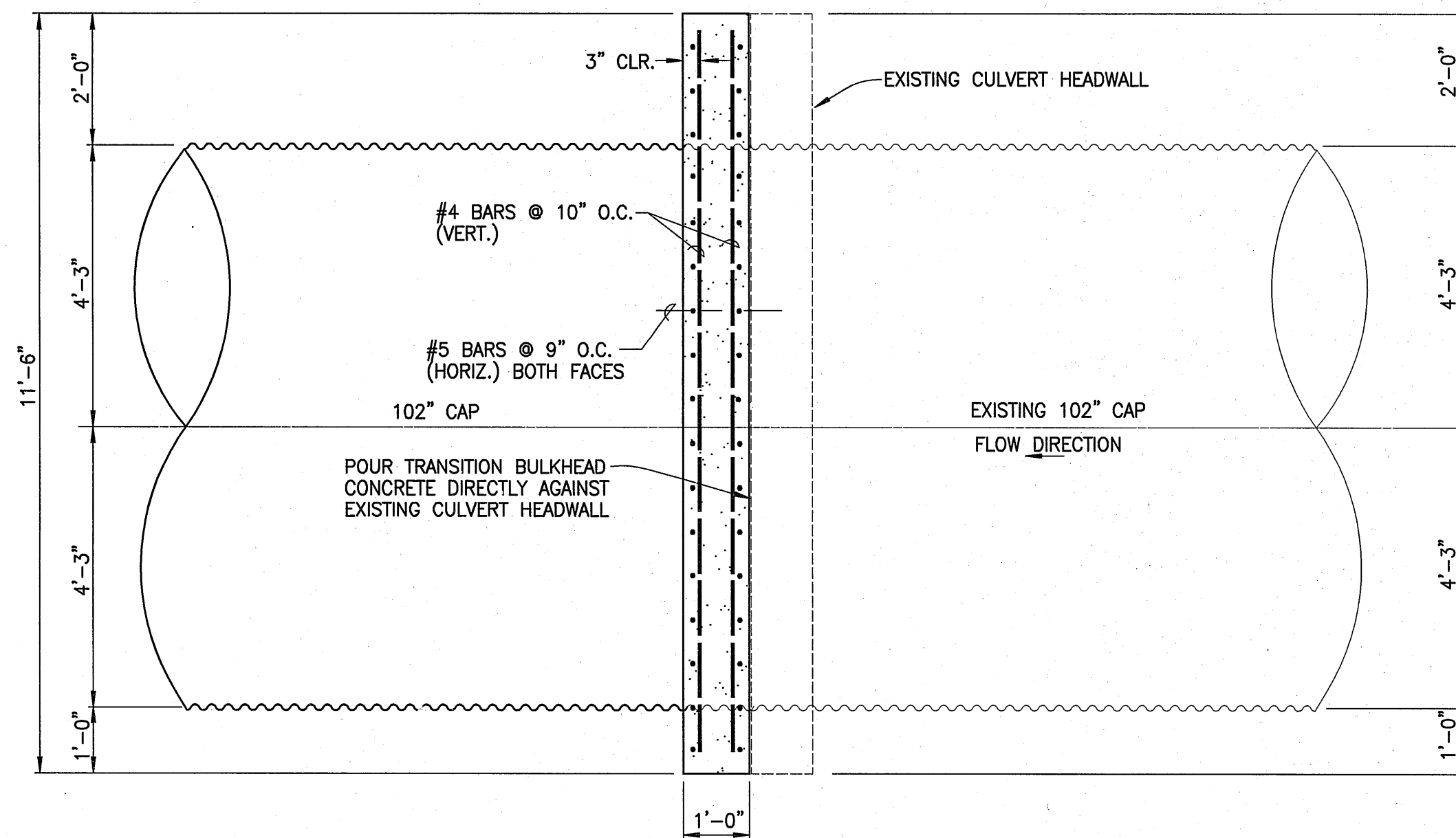
KAONOLU MARKET PLACE
T.M.K.: (2) 3-9-01 : 16
KIHAEI, MAUI, HAWAII

TITLE DRAINAGE DETAILS

LETTER	DESCRIPTION	DATE
△	REVISED PER DWS COMMENTS	10/16/10
△	REVISED PER DWS COMMENTS	12/12/08

SIGNATURE	DATE
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION "AS DEFINED IN SECTION 18-115-2 OF THE HAWAII ADMINISTRATIVE RULES FOR PROFESSIONAL ENGINEERS, ARCHITECTS, LAND SURVEYORS AND LANDSCAPE ARCHITECTS"	

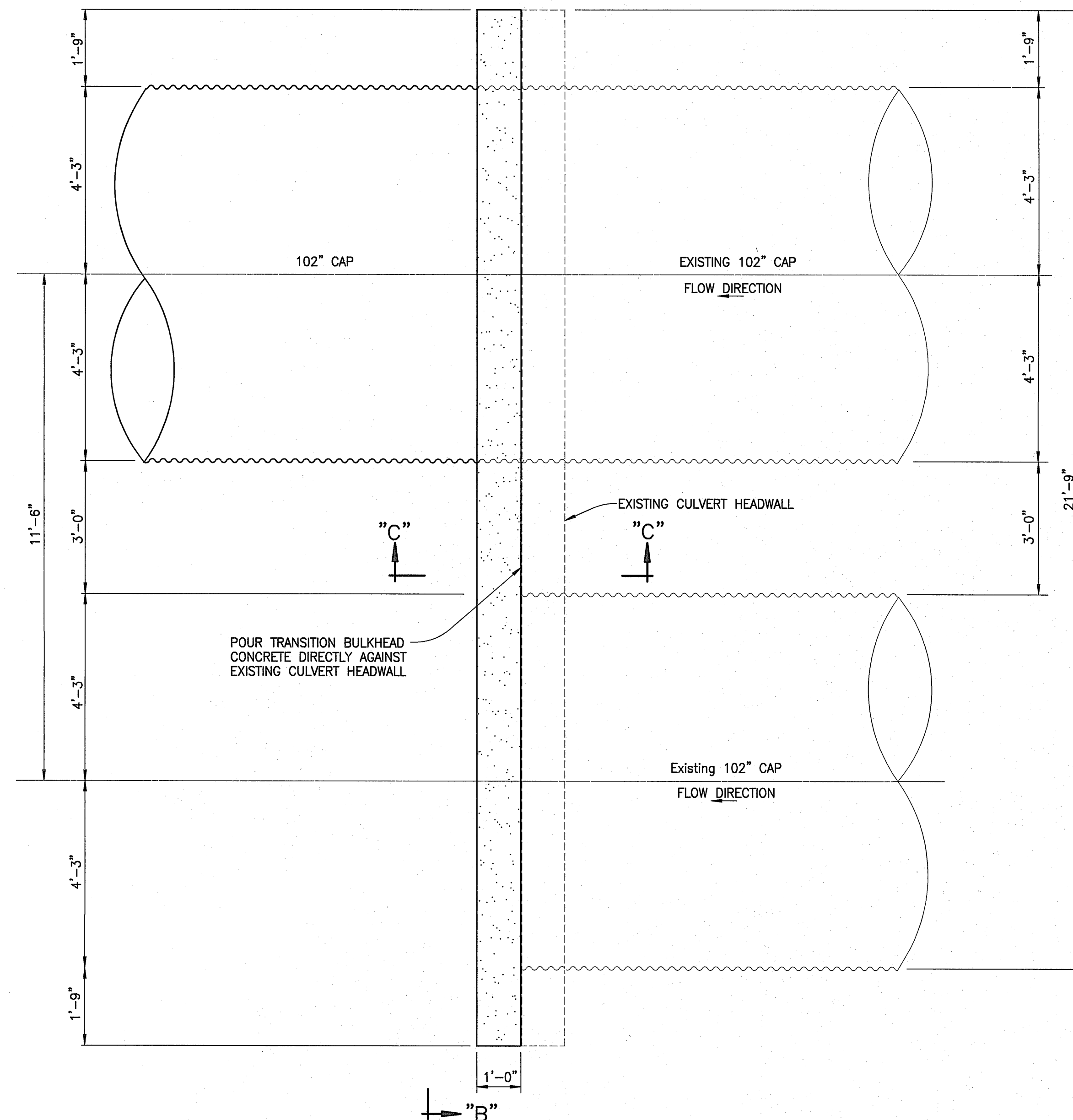
ALU DESIGNED BY	DTU CHECKED BY	04010.10	10.01
WIS DRAWN BY	DTU APPROVED BY	10-10-05	
SCALE	AS NOTED	DATE	SHEETS



SECTION "A"-"A" ELEVATION VIEW OF
TRANSITION BULKHEAD AT STA. (-)0+65±

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

"B"



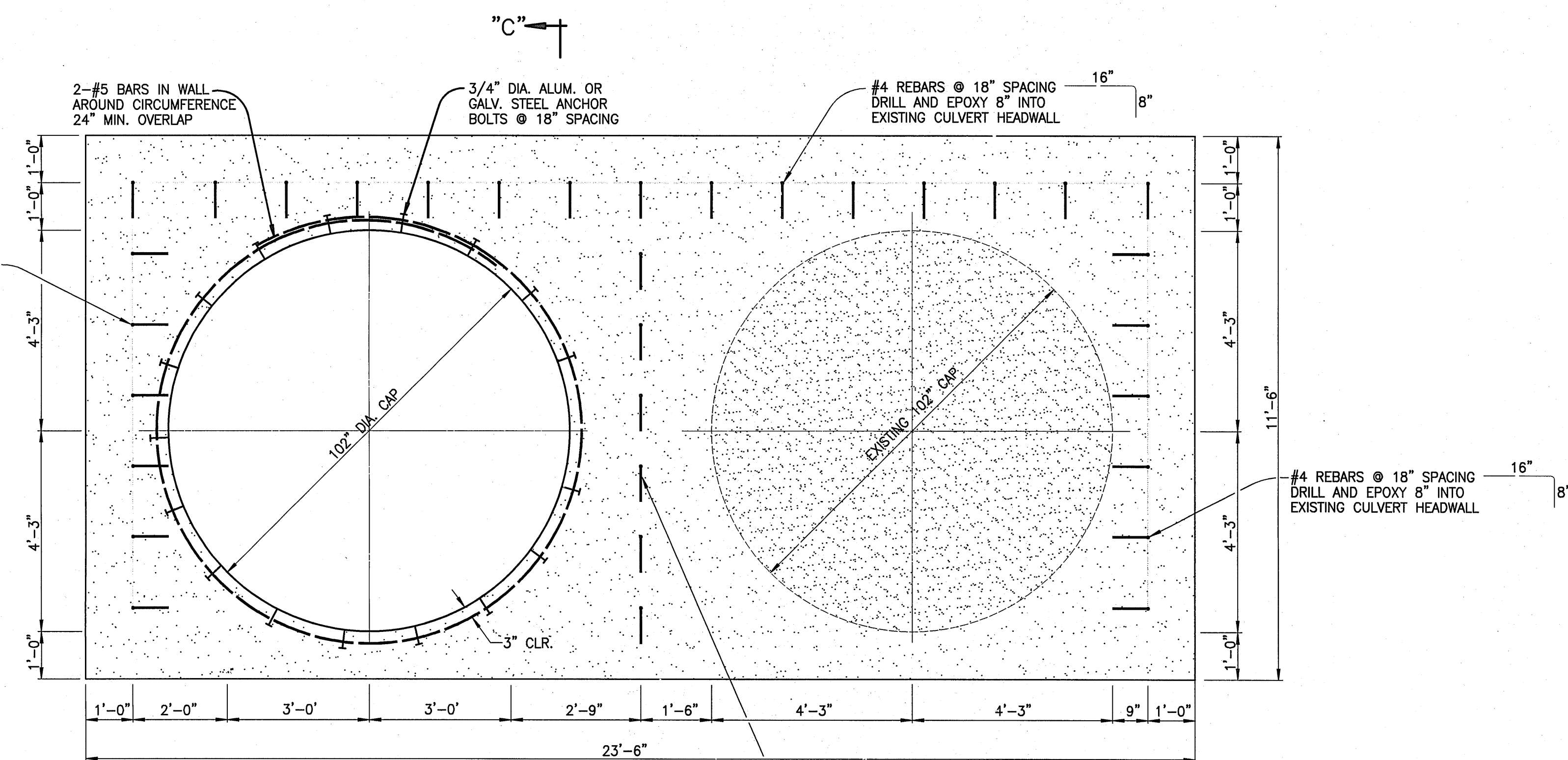
PLAN VIEW OF TRANSITION BULKHEAD AT
STA. (-)0+65± BETWEEN EXISTING 102" AND 72" CAP

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

NOTES:

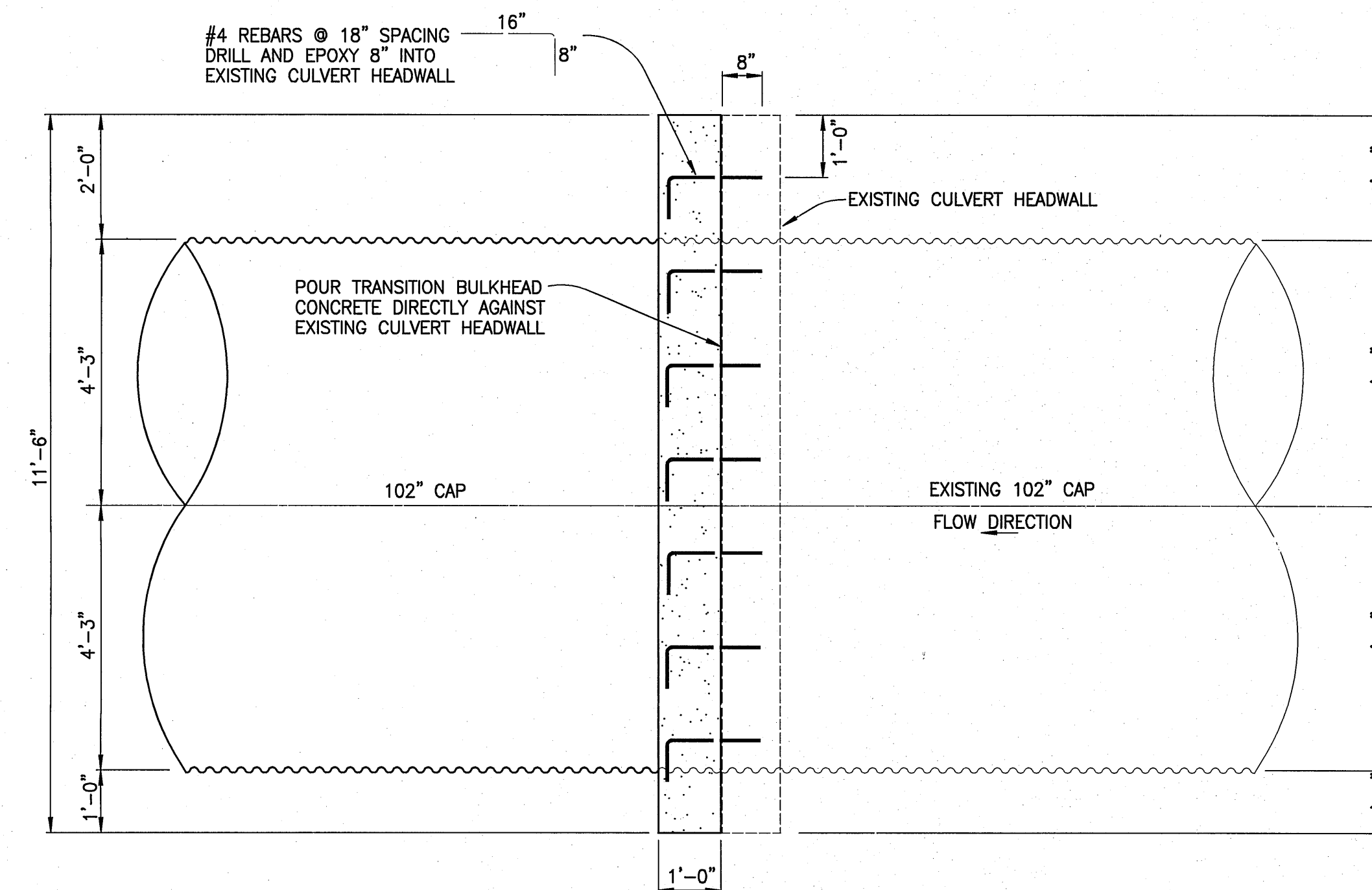
1. HORIZONTAL STEEL IS OUTSIDE VERTICAL STEEL.
2. 2-#5 REBARS AROUND CIRCUMFERENCE OF 72" CAP NOT SHOWN FOR CLARITY.

#4 REBARS @ 18" SPACING
DRILL AND EPOXY 8" INTO
EXISTING CULVERT HEADWALL



SECTION "B"-"B" ELEVATION VIEW OF
TRANSITION BULKHEAD AT STA. (-)0+65±

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



SECTION "C"-"C" ELEVATION VIEW OF DOWNSTREAM
TRANSITION BULKHEAD AT STA. (-)0+65±

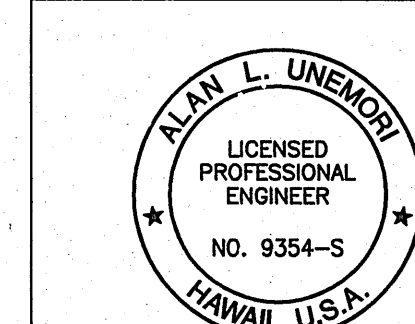
SCALE: 1/2" = 1'-0"

NOTE: DOWNSTREAM FACE REBARS
NOT SHOWN FOR CLARITY

NOTE: HORIZONTAL AND VERTICAL REBARS
NOT SHOWN FOR CLARITY

CONCRETE: $f'_c = 4$ ksi
REINFORCEMENT: ASTM A615 GRADE 60

3/4" CHAMFER ALL EXPOSED EDGES
OF CAST-IN-PLACE CONCRETE (TYP.)



WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

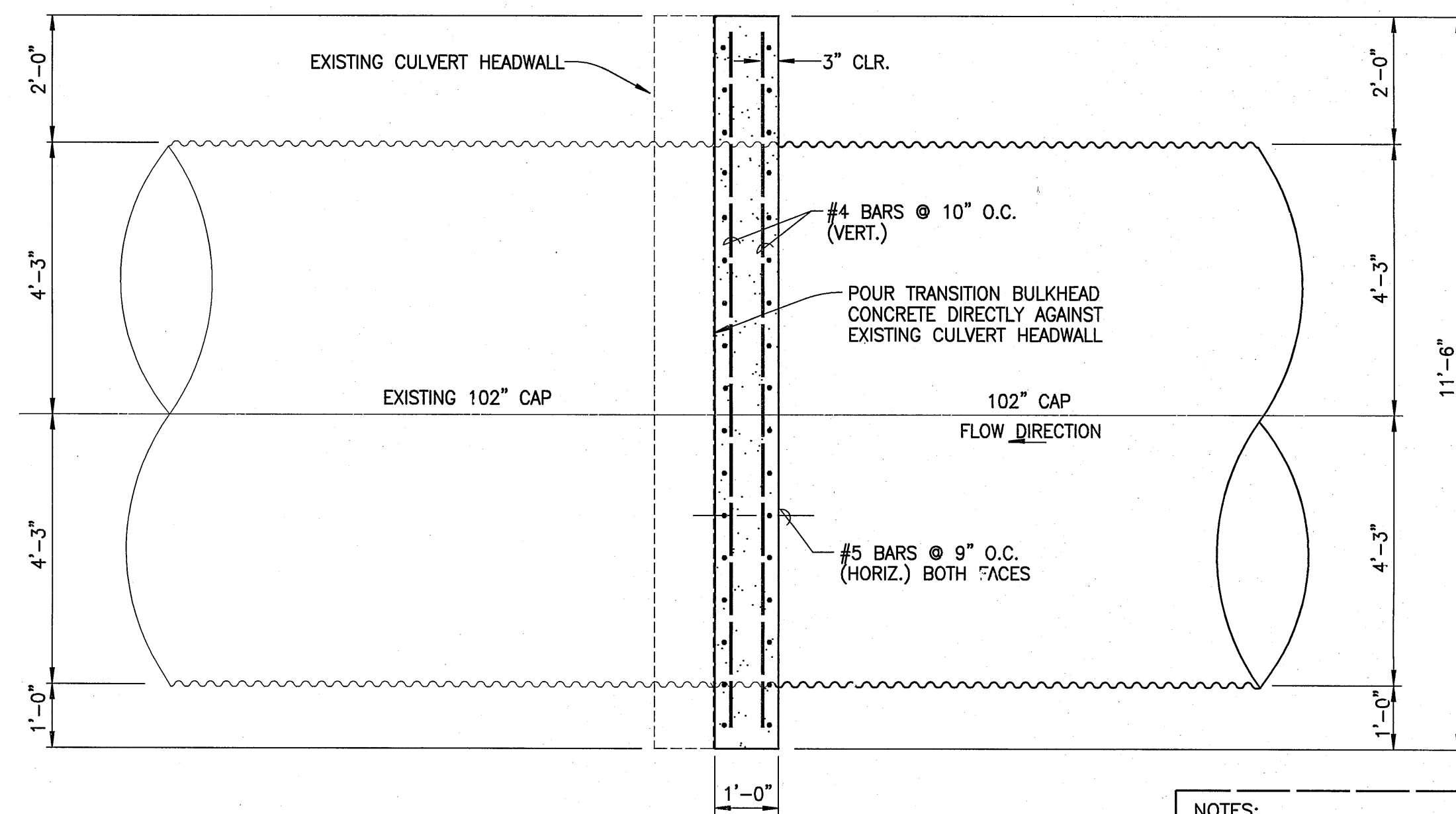
KAONOULU MARKET PLACE
T.M.K.: (2) 2-2-02 : Por. of Par. 15 and 3-9-01 : 16
KIHEI, MAUI, HAWAII

TITLE DRAINAGE DETAILS

Revised Drawing Details	8/23/06
LETTER	DESCRIPTION
DATE	

SIGNATURE
DATE 10/27/2008
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION AS DEFINED IN SECTION 10-115-2 OF THE HAWAII ADMINISTRATIVE RULES FOR PROFESSIONAL ENGINEERS, ARCHITECTS, LAND SURVEYORS AND LANDSCAPE ARCHITECTS

DESIGNED BY WIS	CHECKED BY WSU	JOB NUMBER 04010.10	10.02 SHEET OF SHEETS
DRAWN BY AS NOTED	APPROVED BY	DATE 10-10-05	

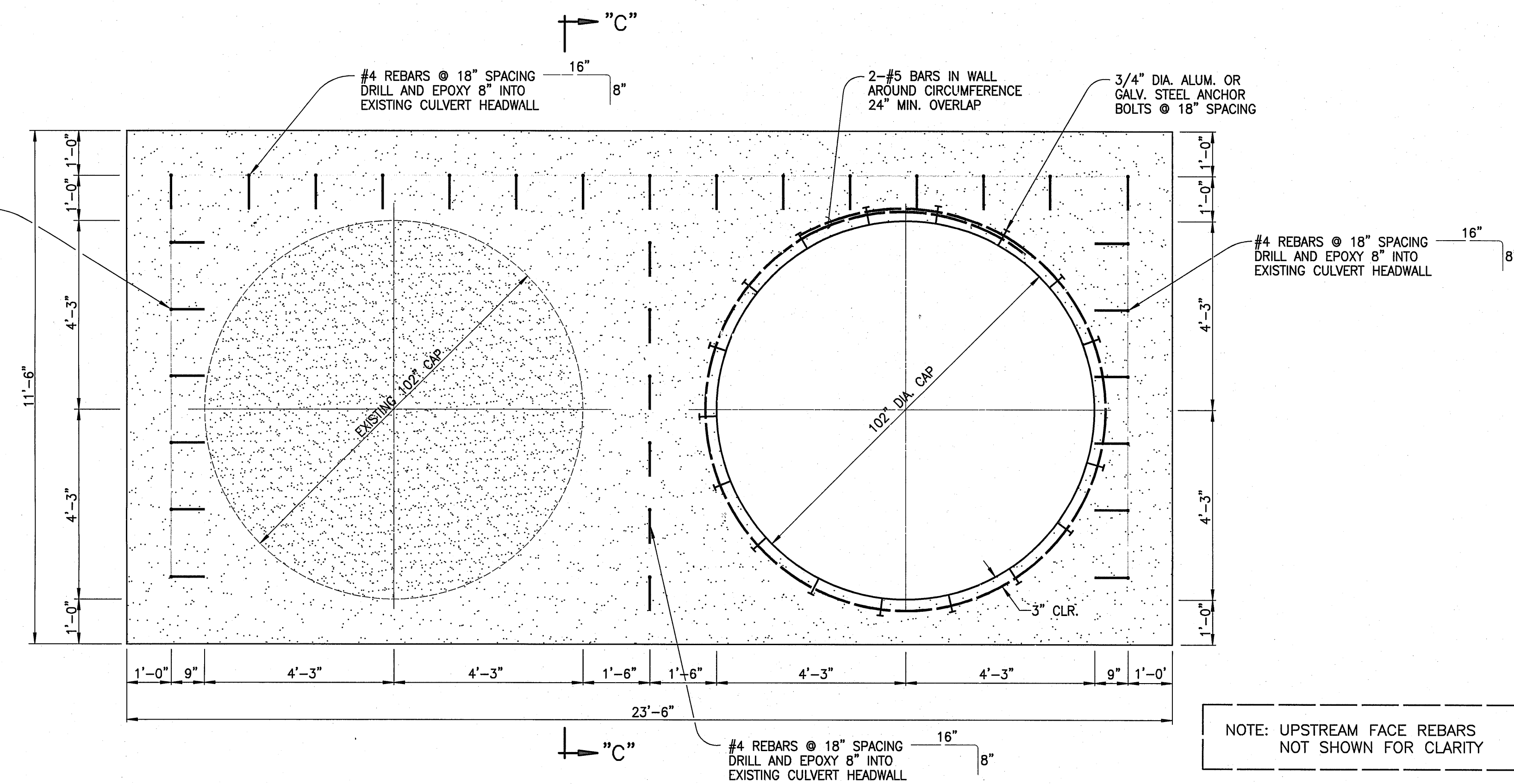


SECTION "A"-"A" ELEVATION VIEW OF
TRANSITION BULKHEAD AT STA. 0+58.13

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

NOTES:

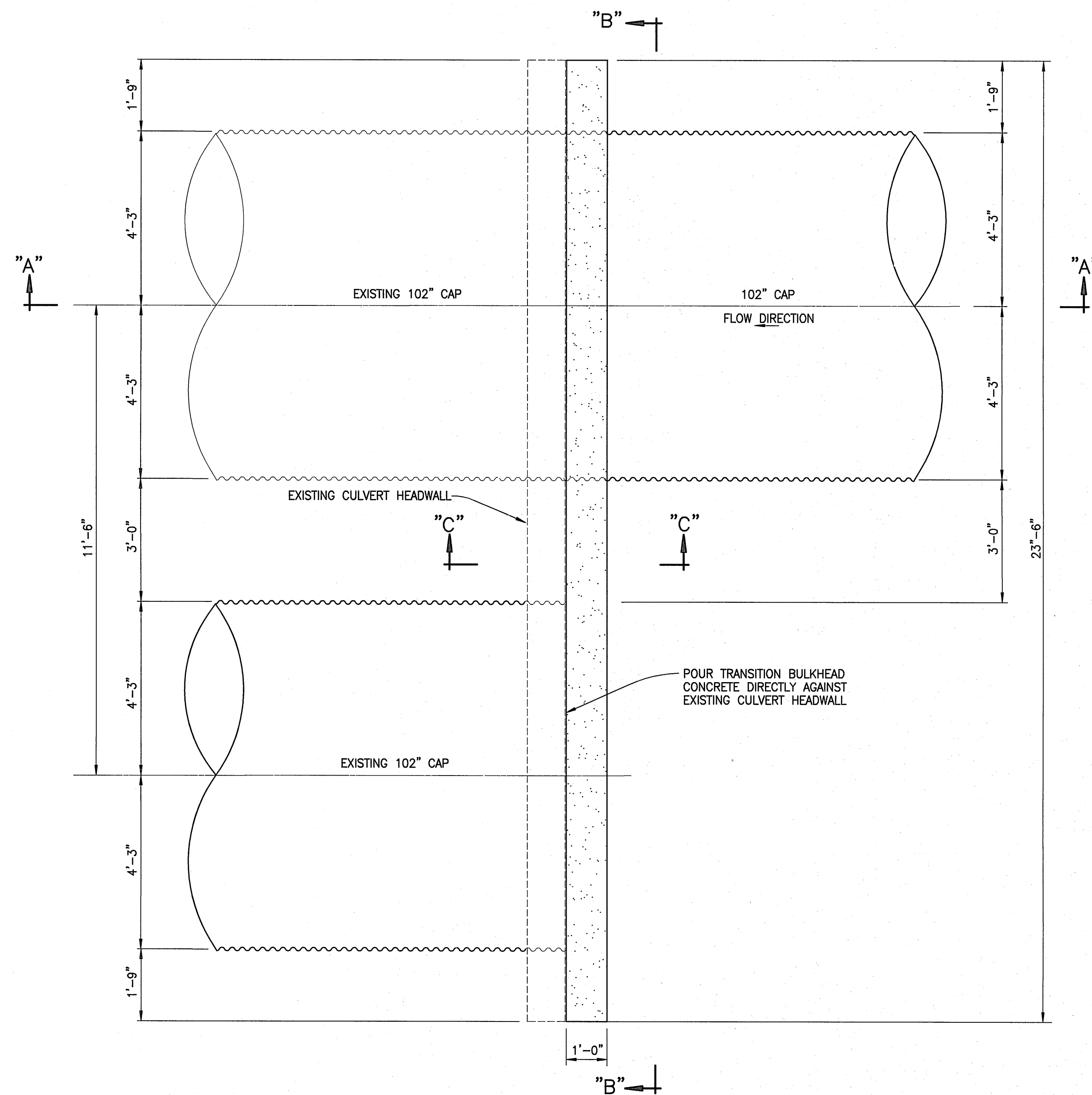
1. HORIZONTAL STEEL IS OUTSIDE VERTICAL STEEL.
2. 2-#5 REBARS AROUND CIRCUMFERENCE OF 72" CAP NOT SHOWN FOR CLARITY.



SECTION "B"-"B" ELEVATION VIEW OF
TRANSITION BULKHEAD AT STA. 0+58.13

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

NOTE: UPSTREAM FACE REBARS NOT SHOWN FOR CLARITY

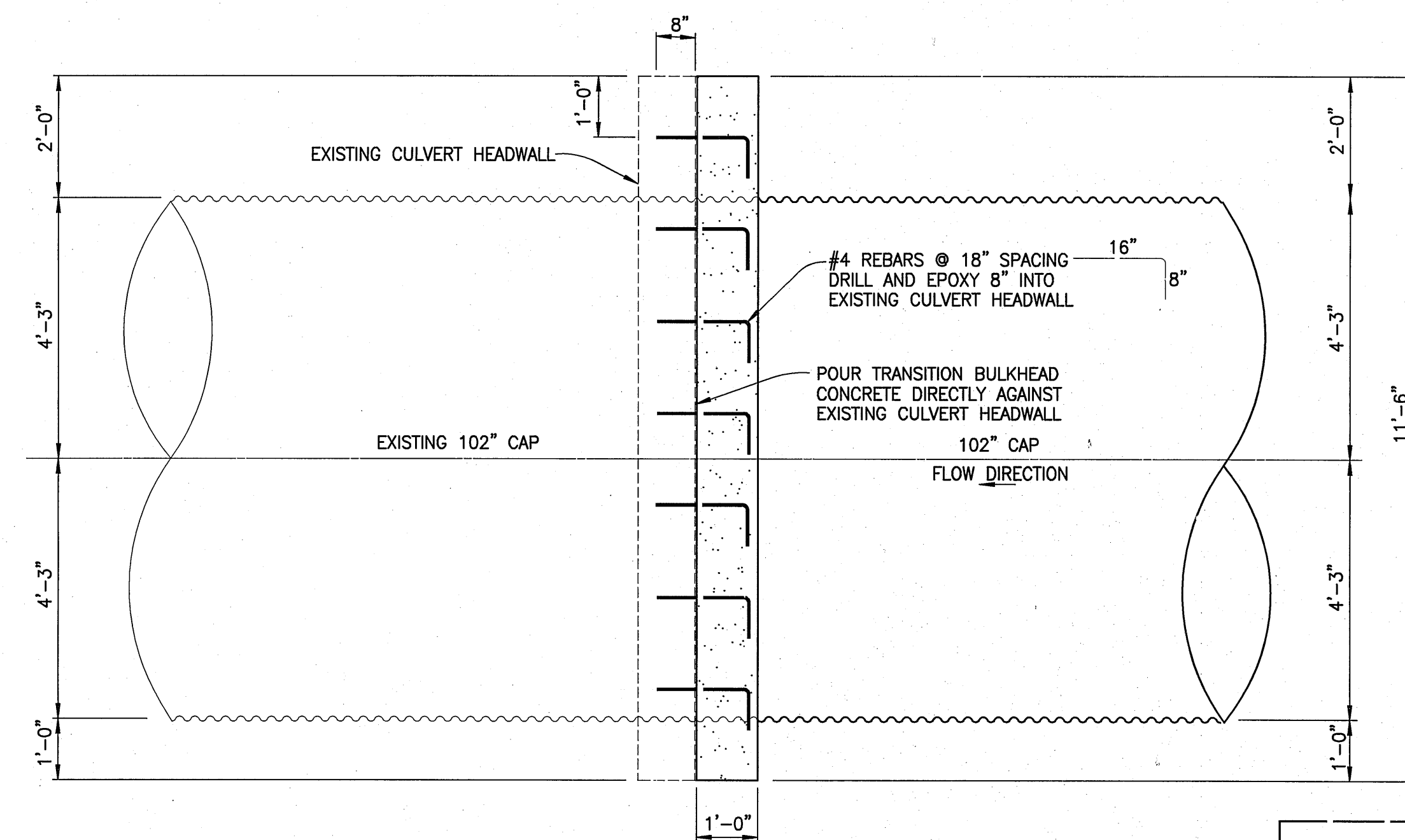


PLAN VIEW OF TRANSITION BULKHEAD AT STA. 0+58.13
BETWEEN EXISTING AND PROPOSED 102" CAP

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

CONCRETE: $f'_c = 4$ ksi
REINFORCEMENT: ASTM A615 GRADE 60

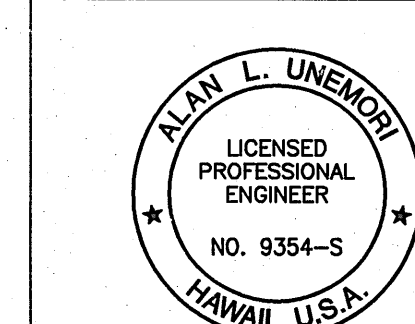
3/4" CHAMFER ALL EXPOSED EDGES
OF CAST-IN-PLACE CONCRETE (TYP.)



SECTION "C"-"C" ELEVATION VIEW OF UPSTREAM
TRANSITION BULKHEAD AT STA. 0+58.13

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

NOTE: HORIZONTAL AND VERTICAL REBARS NOT SHOWN FOR CLARITY

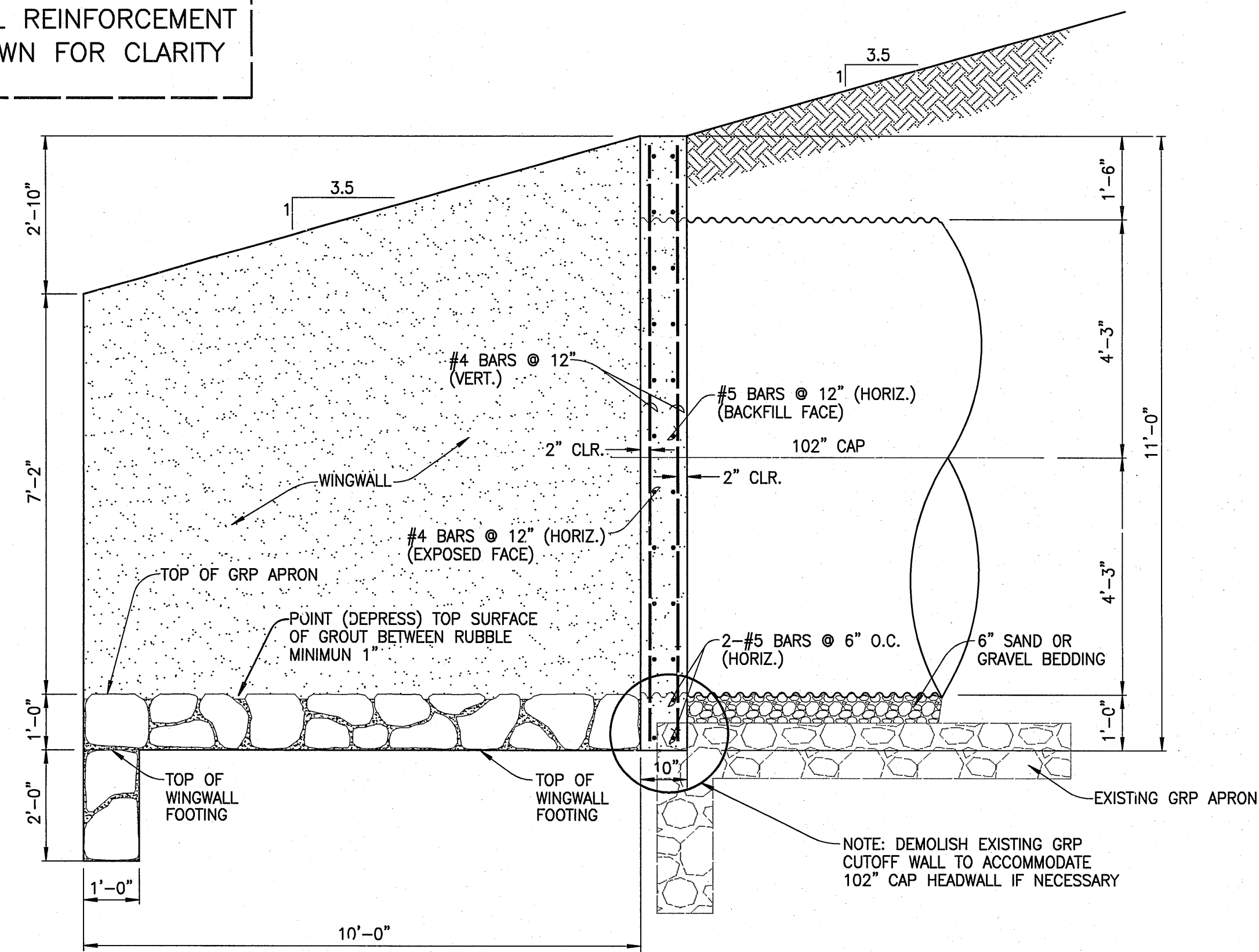


WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793
KAONOULU MARKET PLACE
T.M.K.: (2) 2-2-02 : Por. of Par. 15 and 3-9-01 : 16
KIHEI, MAUI, HAWAII

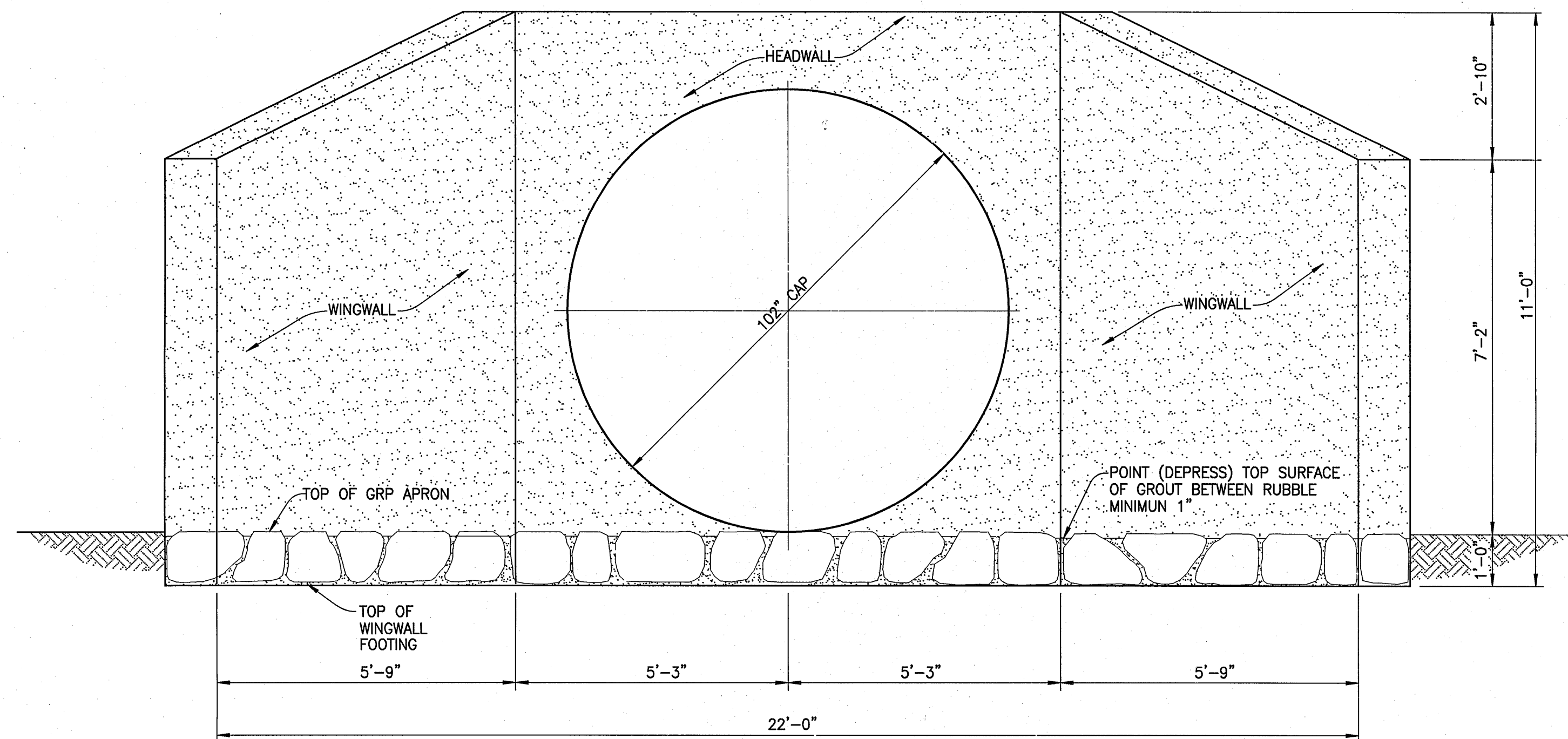
TITLE DRAINAGE DETAILS		10.03	
DESIGNED BY	WSU	CHECKED BY	ALU
DRAWN BY	WIS	APPROVED BY	WSU
DATE	8/23/06	DATE	10-10-05
SCALE	AS NOTED	DATE	OF SHEETS

Revised Drawing Details	8/23/06
LETTER	DESCRIPTION

NOTE: WINGWALL REINFORCEMENT NOT SHOWN FOR CLARITY



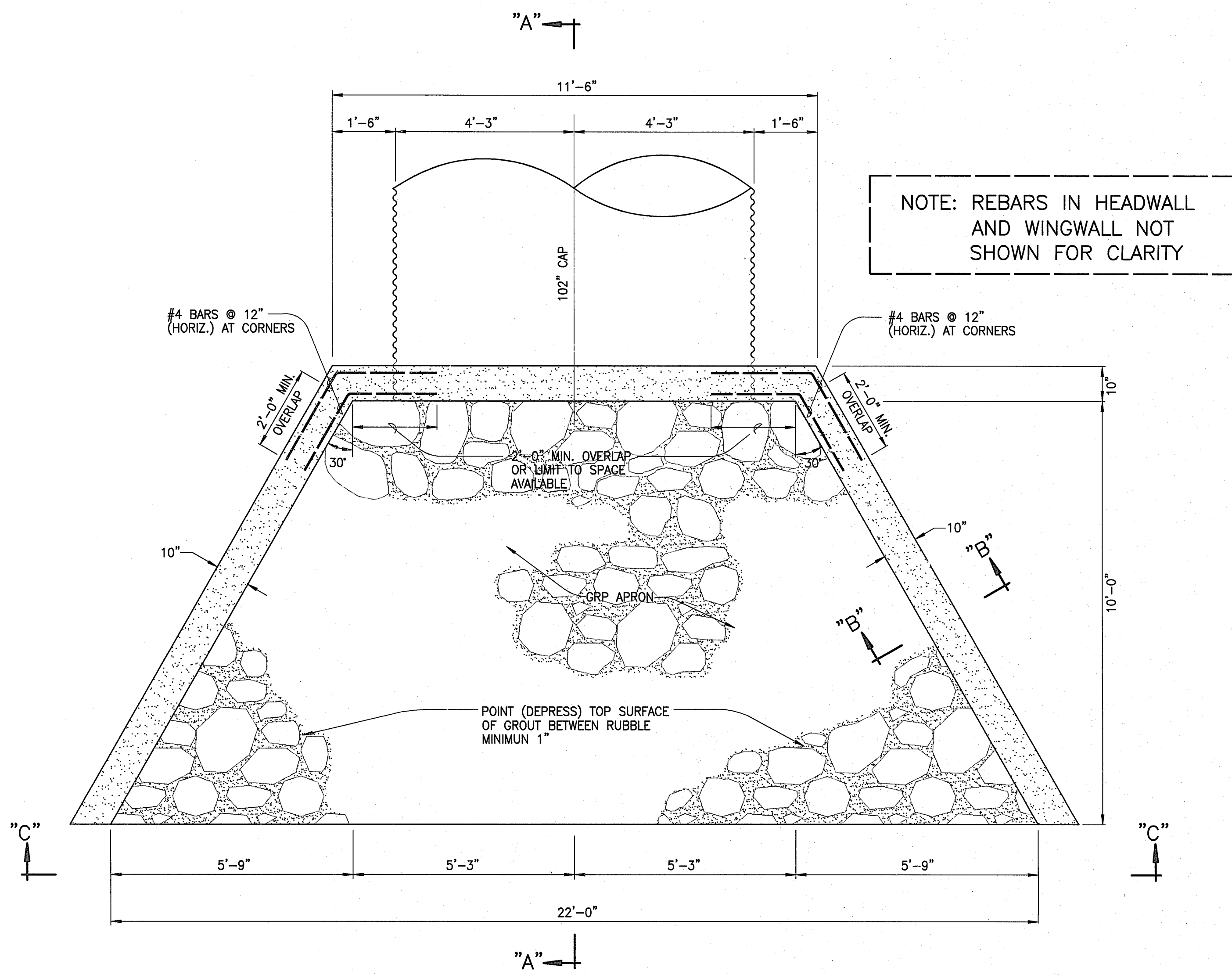
SECTION "A"-"A" SIDE ELEVATION VIEW OF WINGWALLS, GRP APRON AND CUTOFF WALL
SCALE: 1/2" = 1'-0"



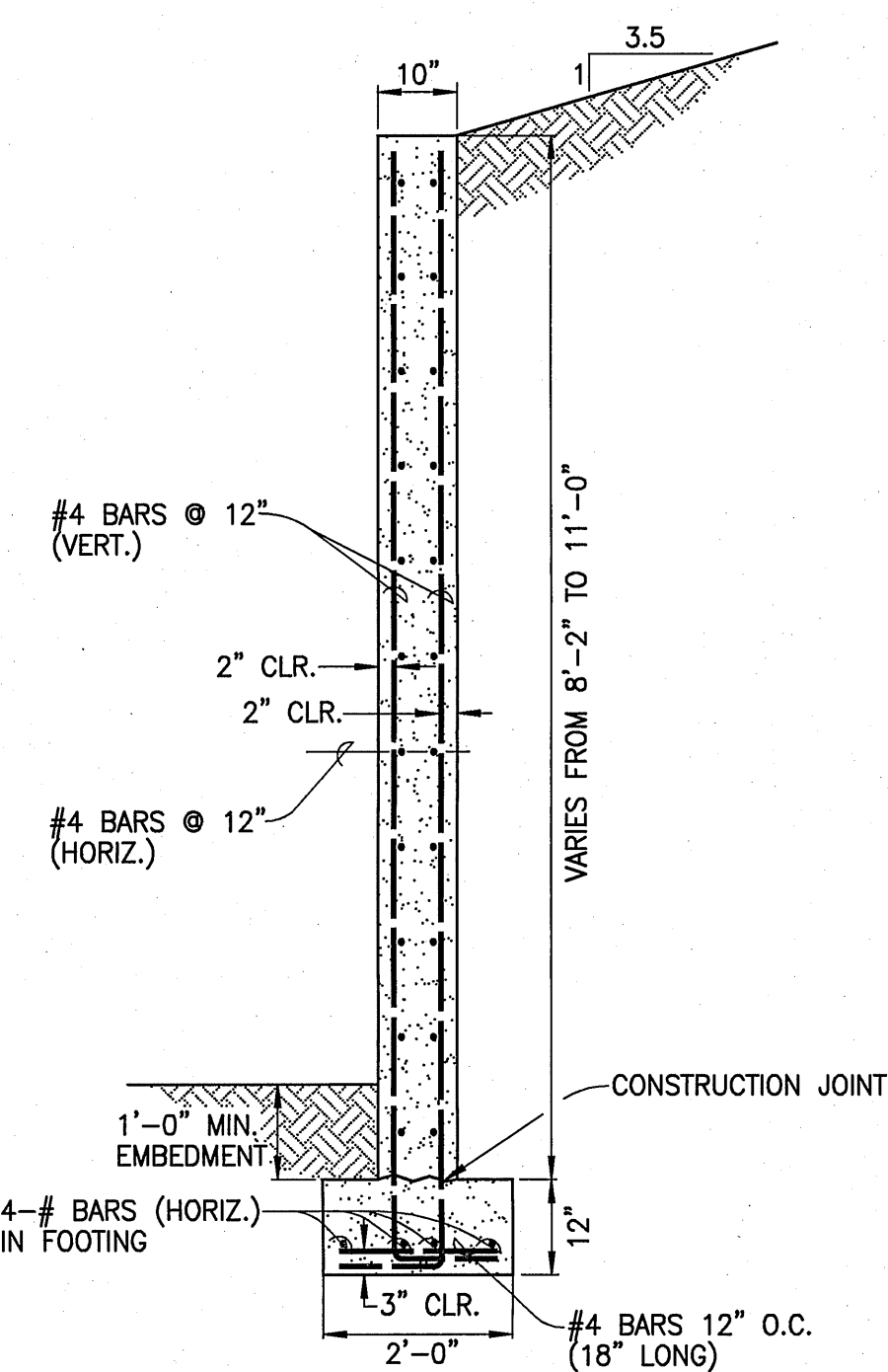
SECTION "C"-"C" FRONT ELEVATION VIEW OF 72" CAP OUTLET
SCALE: 1/2" = 1'-0"

NOTE: GRP APRON AND 1'-0" WIDE x 3'-0" DEEP GRP CUTOFF WALL NOT SHOWN FOR CLARITY

NOTE: 3/4" CHAMFER ALL EXPOSED EDGES OF CAST-IN-PLACE CONCRETE



PLAN VIEW OF 72" CAP OUTLET HEADWALL AND WINGWALL AT STA. (-) 0+85±
SCALE: 1/2" = 1'-0"



SECTION "B"-"B" WINGWALL CROSS-SECTION AND FOOTING
SCALE: 1/2" = 1'-0"

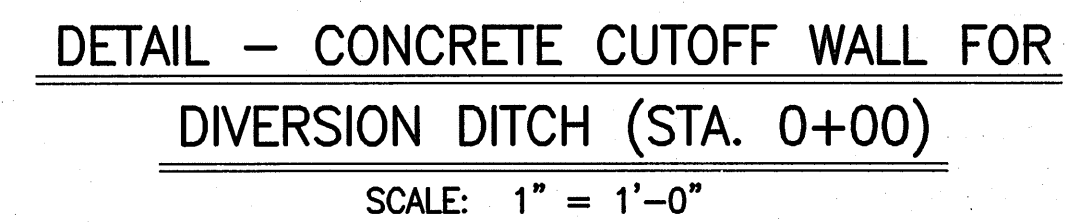
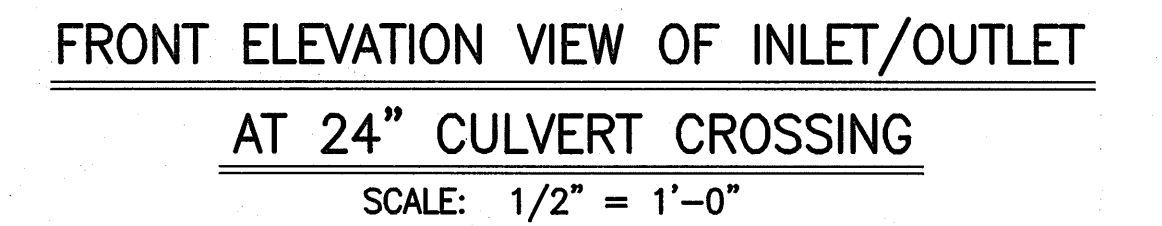
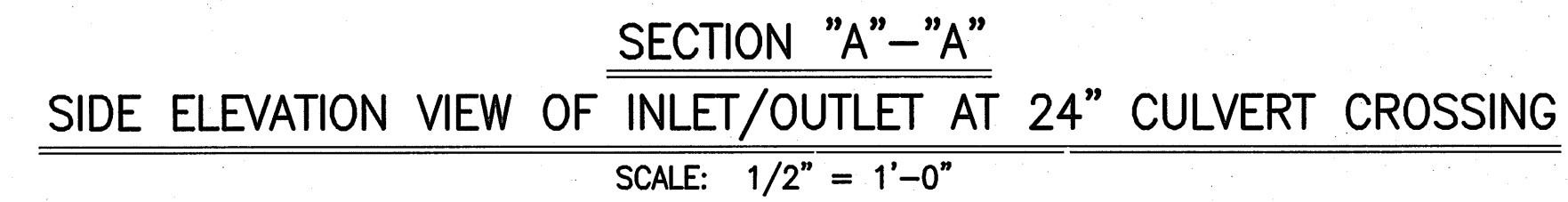
ALAN L. UNEMORI
LICENSED PROFESSIONAL ENGINEER
NO. 9354-S
HAWAII, U.S.A.

WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

KAONOULU MARKET PLACE
T.M.K.: (2) 2-2-02 : Por. of Par. 15 and 3-9-01 : 16
KIHAI, MAUI, HAWAII

TITLE DRAINAGE DETAILS	
DESIGNED BY	WSU
CHECKED BY	WSU
DRAWN BY	WSU
APPROVED BY	WSU
SCALE	AS NOTED
JOB NUMBER	04010.10
DATE	10-10-05
SHEET	10.04
OF SHEETS	

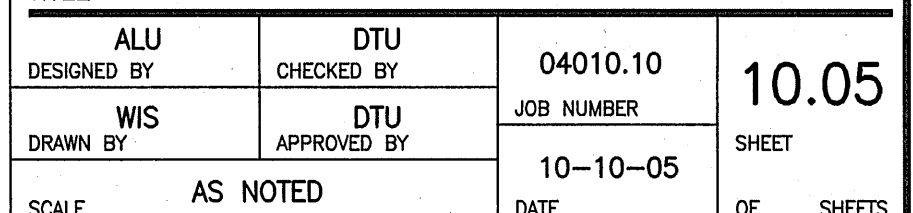
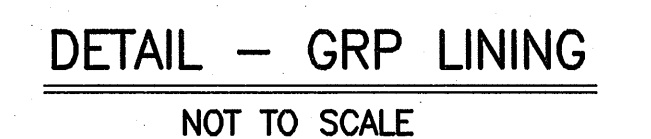
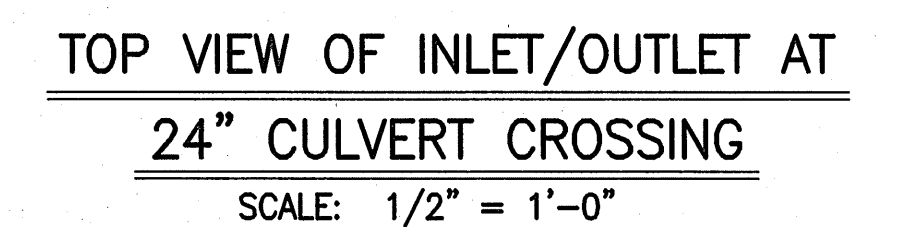
04010.10.dwg/04010.10/comp/04010.10/comp/04010.10.dwg

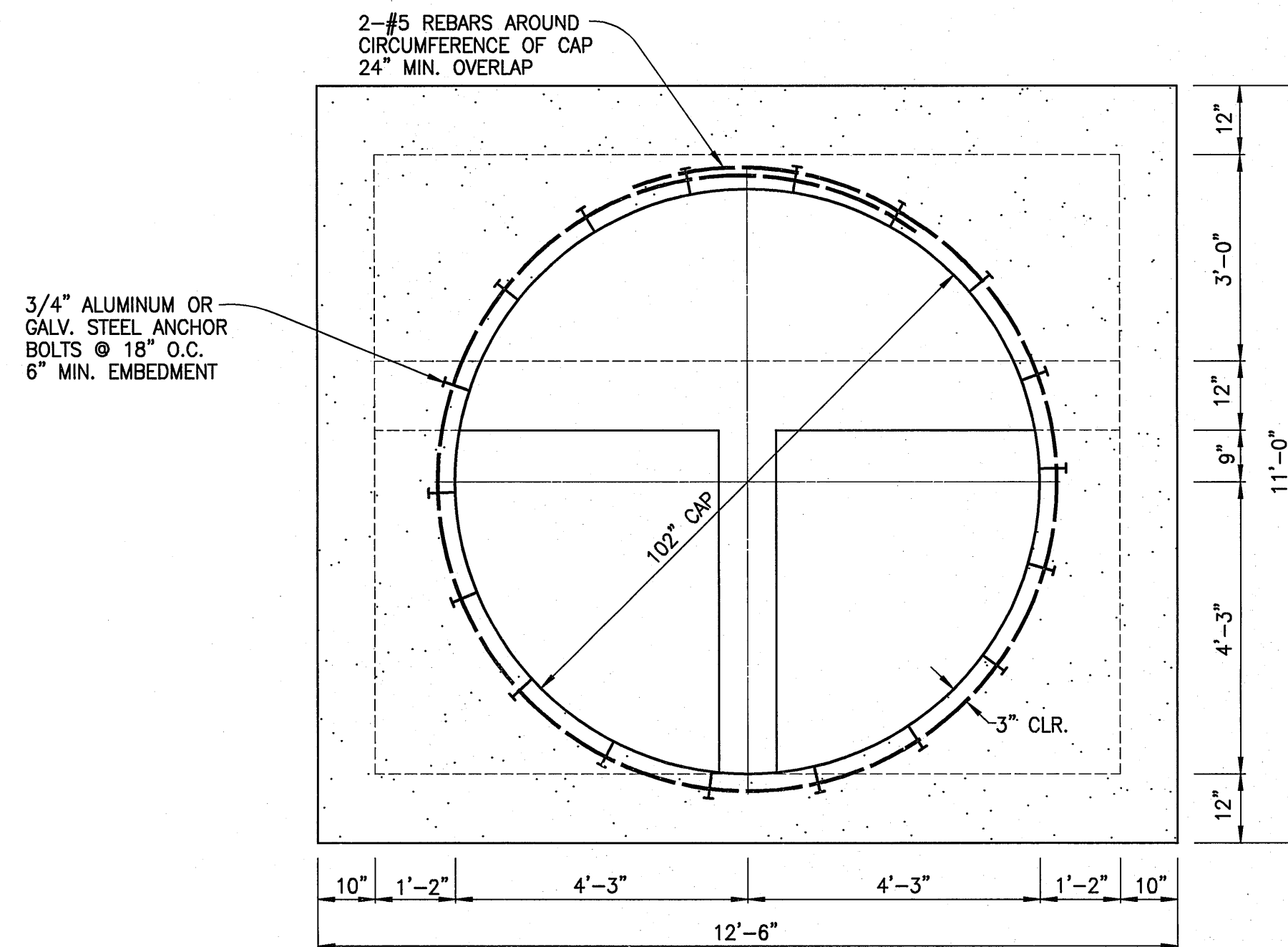


NOTE:

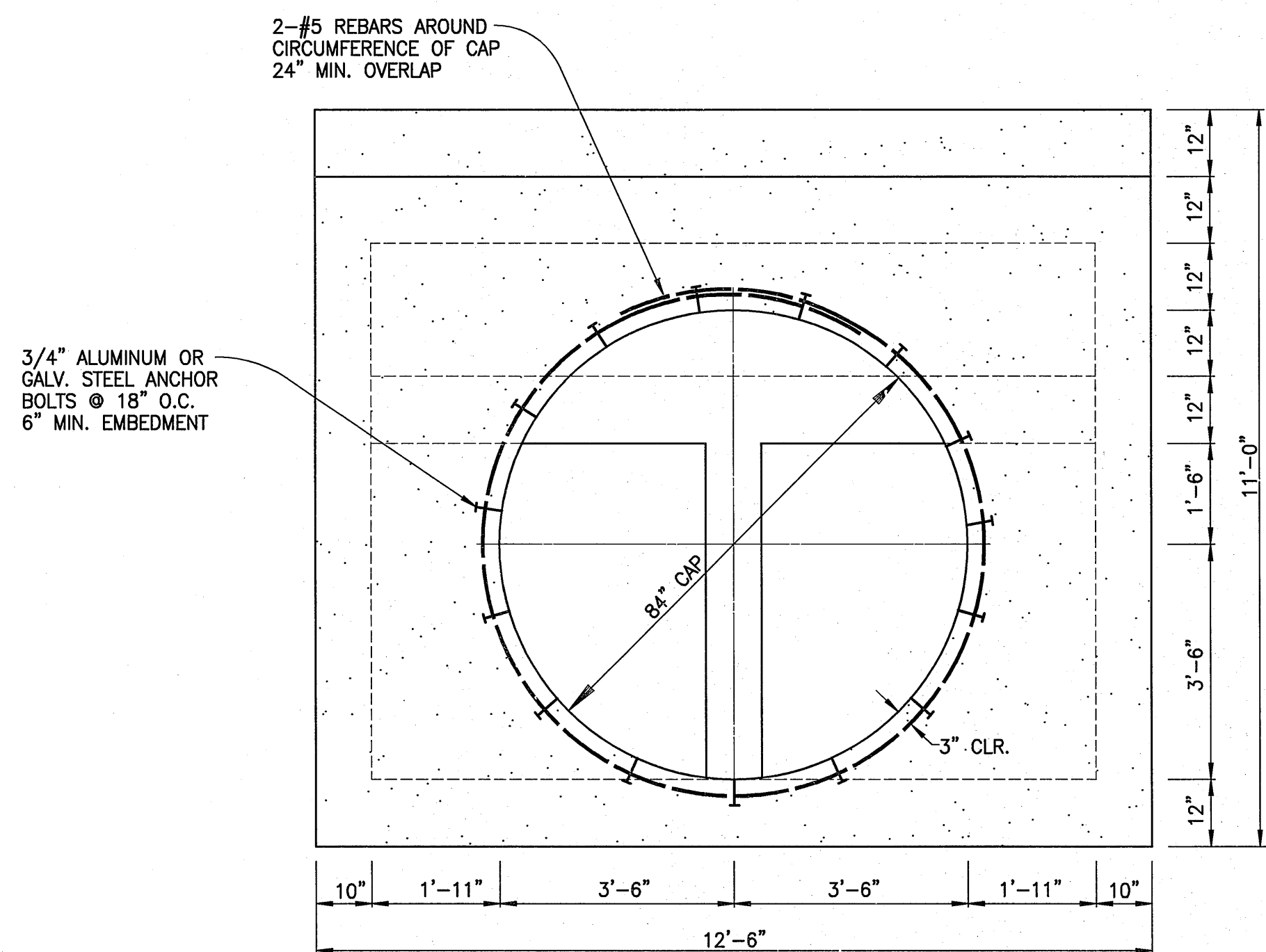
1. THE CONTRACTOR AT THEIR OPTION MAY SUBSTITUTE PRE-CAST CONCRETE DRAIN MANHOLE WITH ECCENTRIC CONE FOR HELICAL CAP DRAIN MANHOLE.

	ADDED ECCENTRIC DRAIN MANHOLE CONE DETAIL	10/22/08
LETTER	DESCRIPTION	DATE

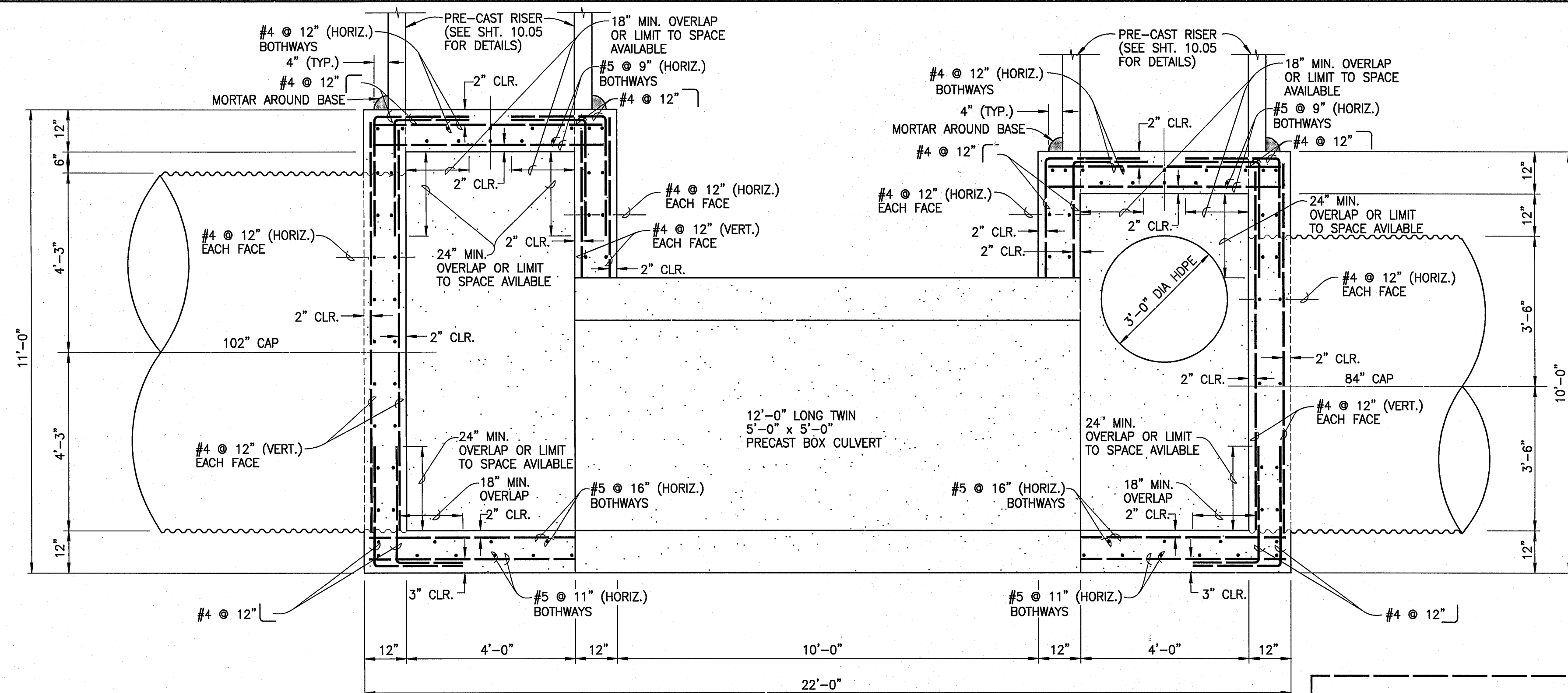




SECTION "C"-"C"
BACK VIEW OF 84" TO 102" CAP TRANSITION STRUCTURE
SCALE: 1/2" = 1'-0"

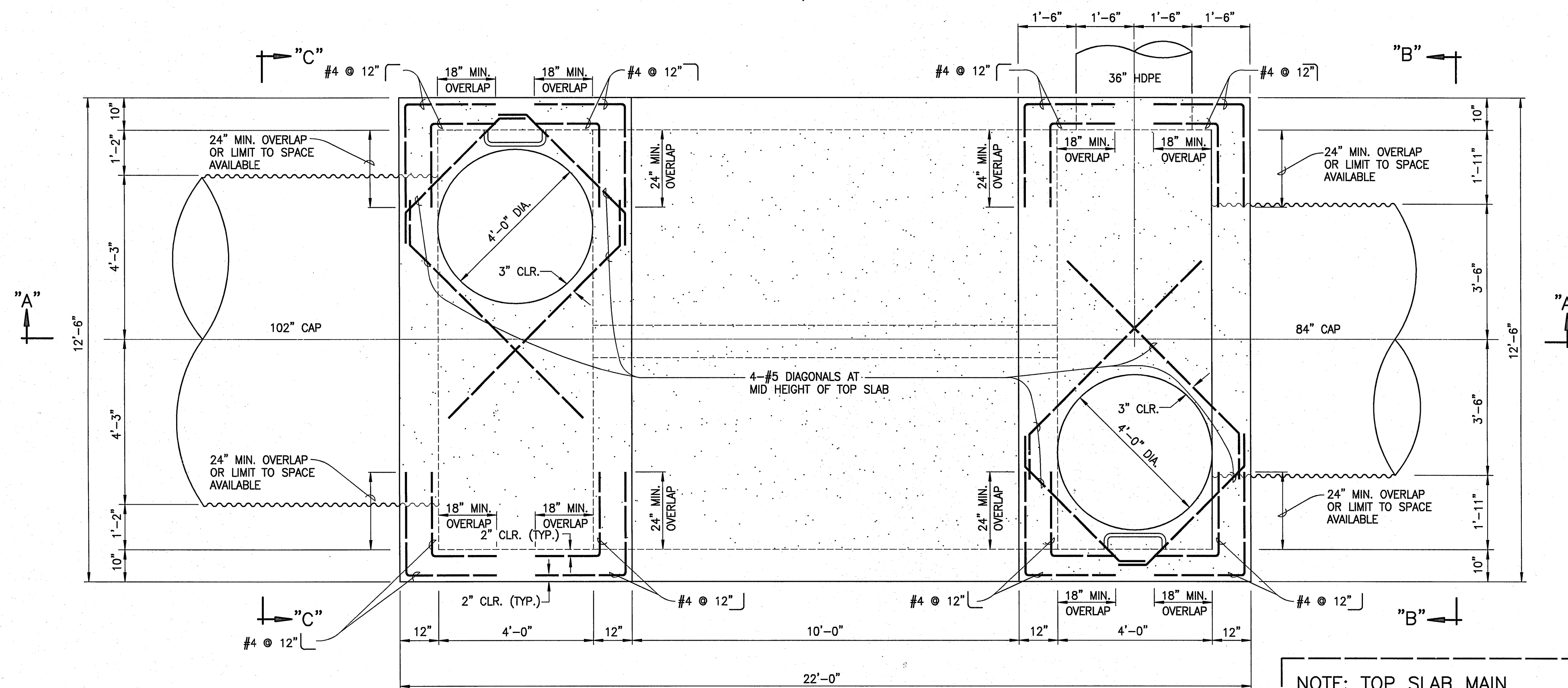


SECTION "B"-"B"
FRONT VIEW OF 84" TO 102" CAP TRANSITION STRUCTURE
SCALE: 1/2" = 1'-0"



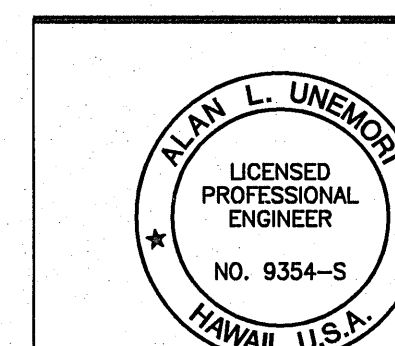
SECTION "A"-"A"
ELEVATION VIEW OF 84" CAP TO 102" CAP TRANSITION STRUCTURE #2
SCALE: 1/2" = 1'-0"

NOTE: PRECAST TWIN 5'x5' BOX
CURRENT REINFORCEMENT
NOT SHOWN FOR CLARITY



PLAN VIEW OF 84" CAP TO 102" CAP TRANSITION STRUCTURE #2
SCALE: 1/2" = 1'-0"

NOTE: TOP SLAB MAIN
REINFORCEMENT NOT
SHOWN FOR CLARITY



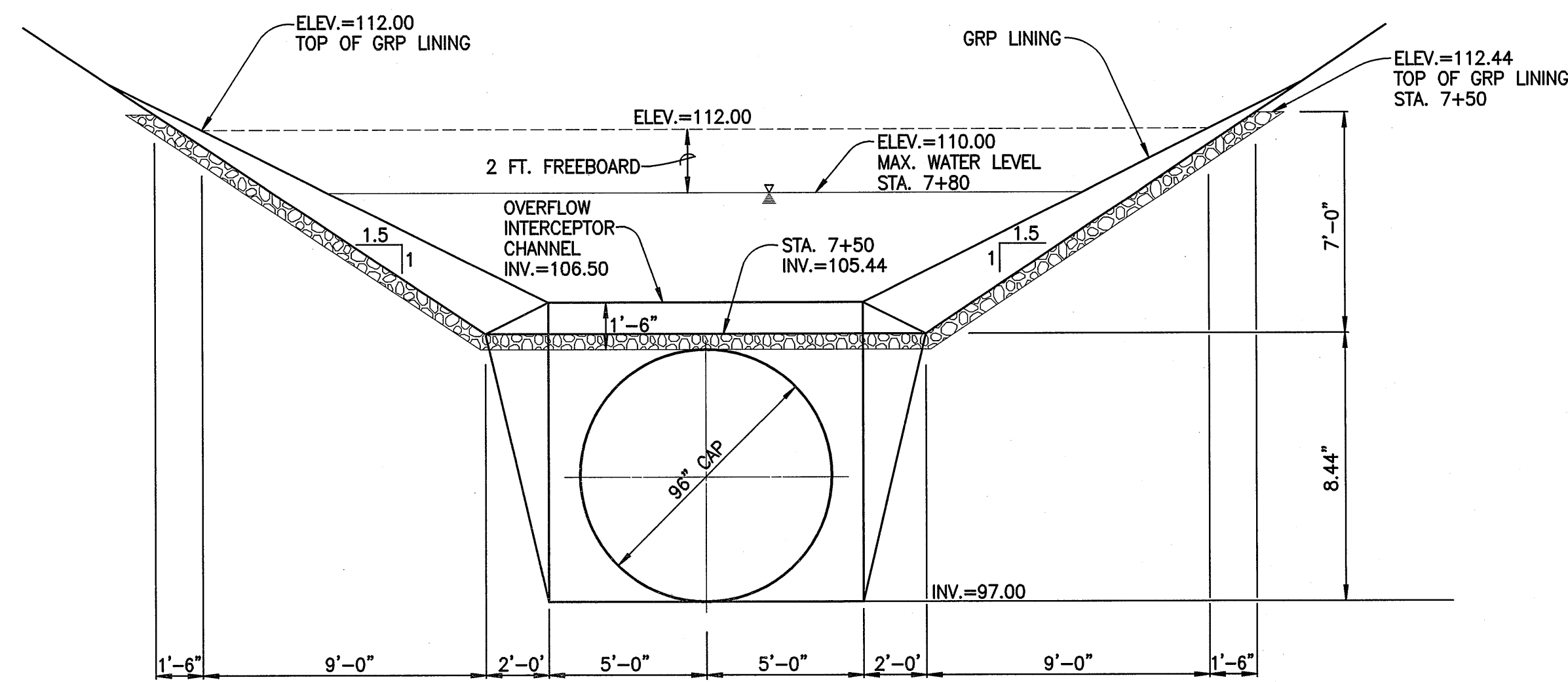
SIGNATURE
DATE 10/30/2008
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION "AS DEFINED" IN SECTION 16-115-2 OF THE HAWAII ADMINISTRATIVE RULES FOR PROFESSIONAL ENGINEERS, ARCHITECTS, LAND SURVEYORS AND LANDSCAPE ARCHITECTS

WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793
KAONOULU MARKET PLACE
T.M.K.: (2) 2-2-02 : Por. of Par. 15 and 3-9-01 : 16
KIHAI, MAUI, HAWAII

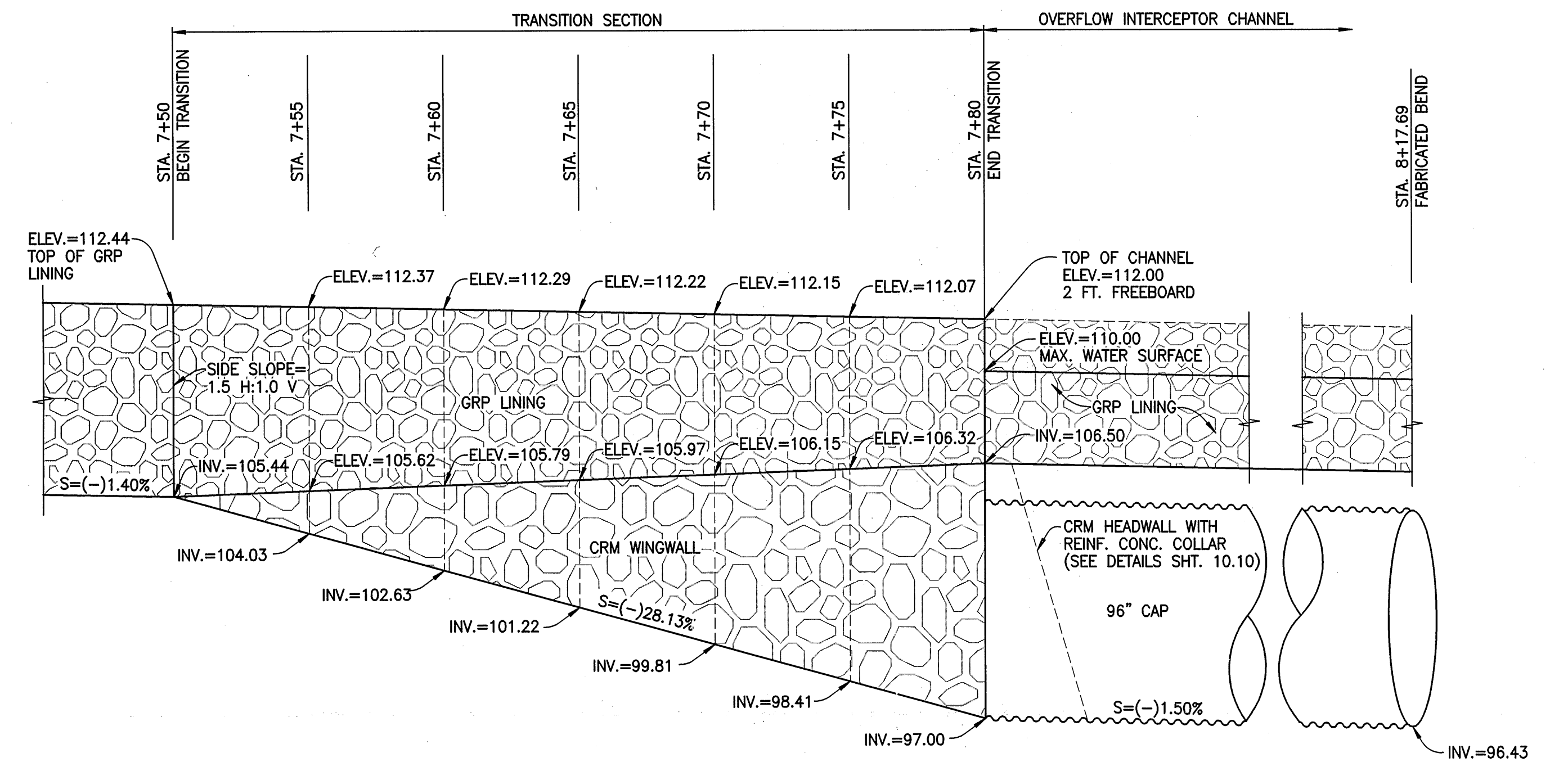
TITLE DRAINAGE DETAILS

ALU	WSU	04010.10	10.06
DESIGNED BY	CHECKED BY	JOB NUMBER	
WIS	WSU	10-10-05	
DRAWN BY	APPROVED BY	DATE	SHEET
SCALE	AS NOTED		OF SHEETS

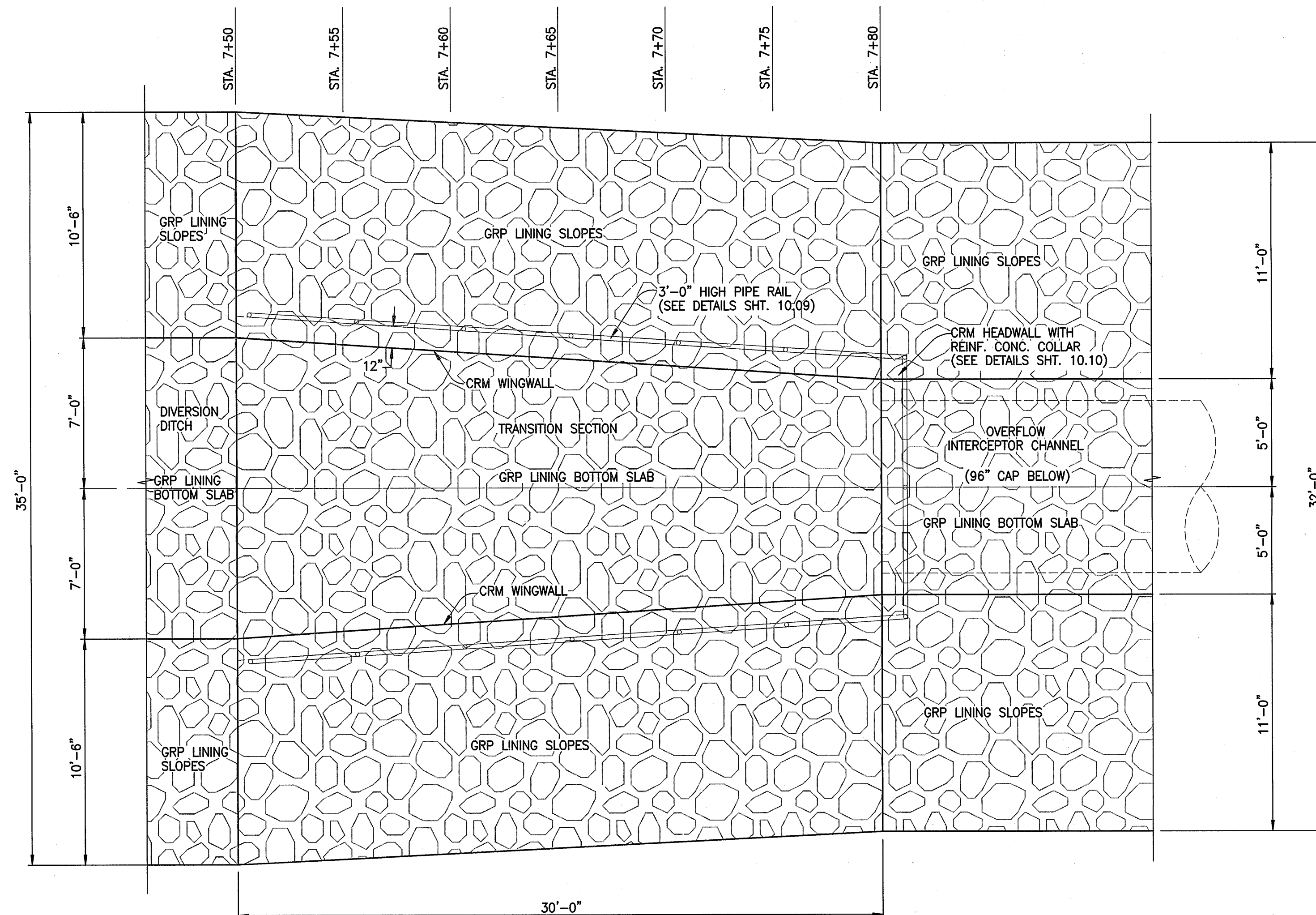
3	SHEET ADDED IN ITS ENTIRETY	10/22/08
LETTER	DESCRIPTION	DATE



TRANSITION STRUCTURE #1 FROM STA. 7+50 TO STA. 7+80
SCALE: 1/4" = 1'-0"



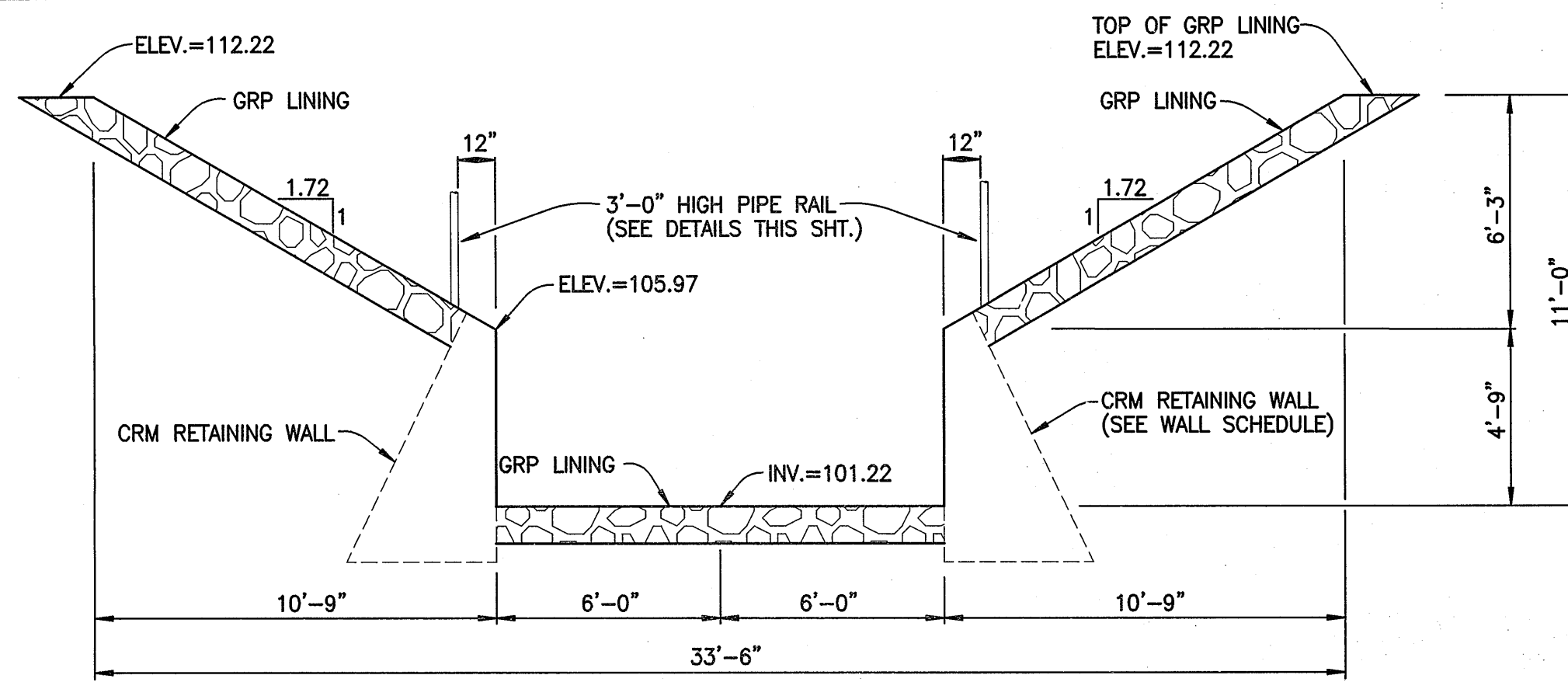
SIDE ELEVATION OF TRANSITION STRUCTURE #1
SCALE: 1/4" = 1'-0"



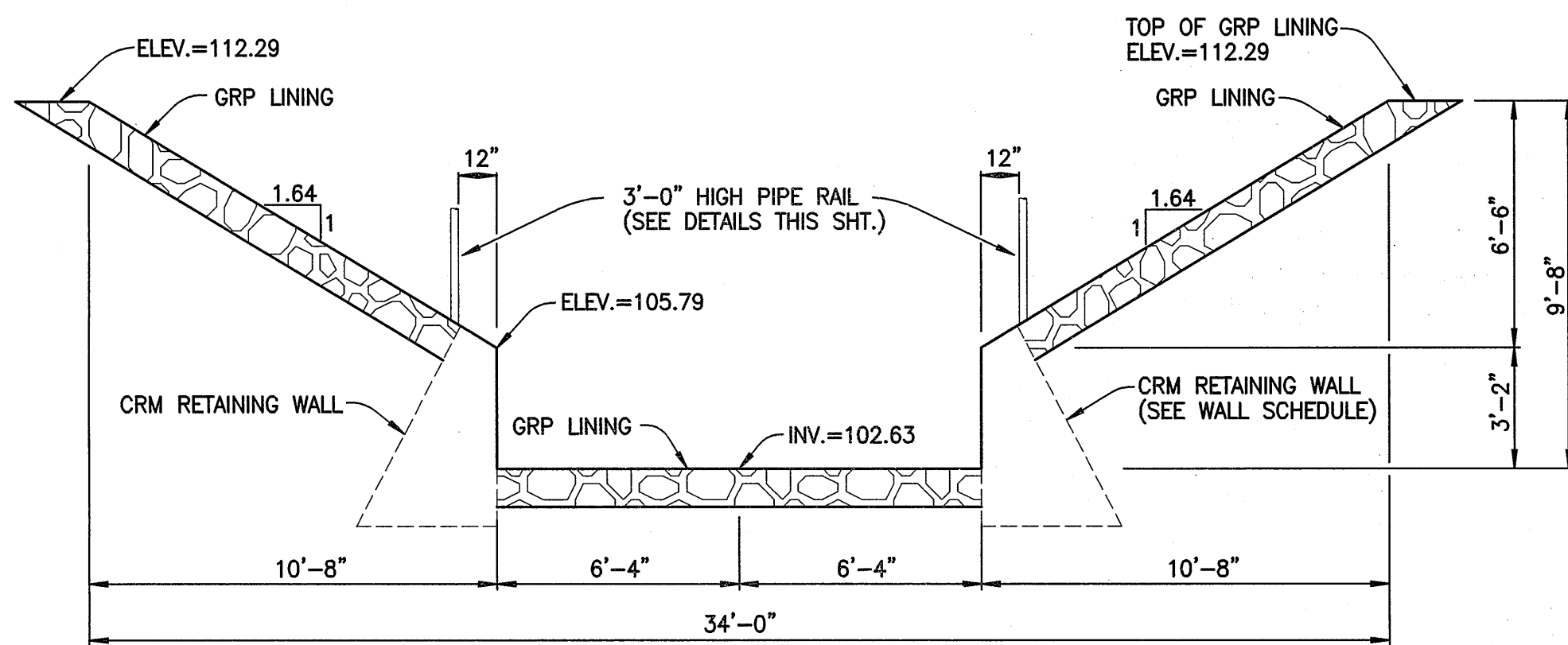
PLAN VIEW OF TRANSITION STRUCTURE #1
SCALE: 1/4" = 1'-0"

		WARREN S. UNEMORI ENGINEERING, INC. CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS WELLS STREET PROFESSIONAL CENTER, SUITE 403 2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793	
KAONOULU MARKET PLACE T.M.K.: (2) 3-9-01 : 16 KIHAI, MAUI, HAWAII		TITLE DRAINAGE DETAILS	
SIGNATURE 	DATE 10/30/2009	DESIGNED BY ALU	CHECKED BY DTU
DRAWN BY WIS	APPROVED BY DTU	JOB NUMBER 04010.10	SHEET 10.08
SCALE AS NOTED		DATE 10-10-05	OF SHEETS 10

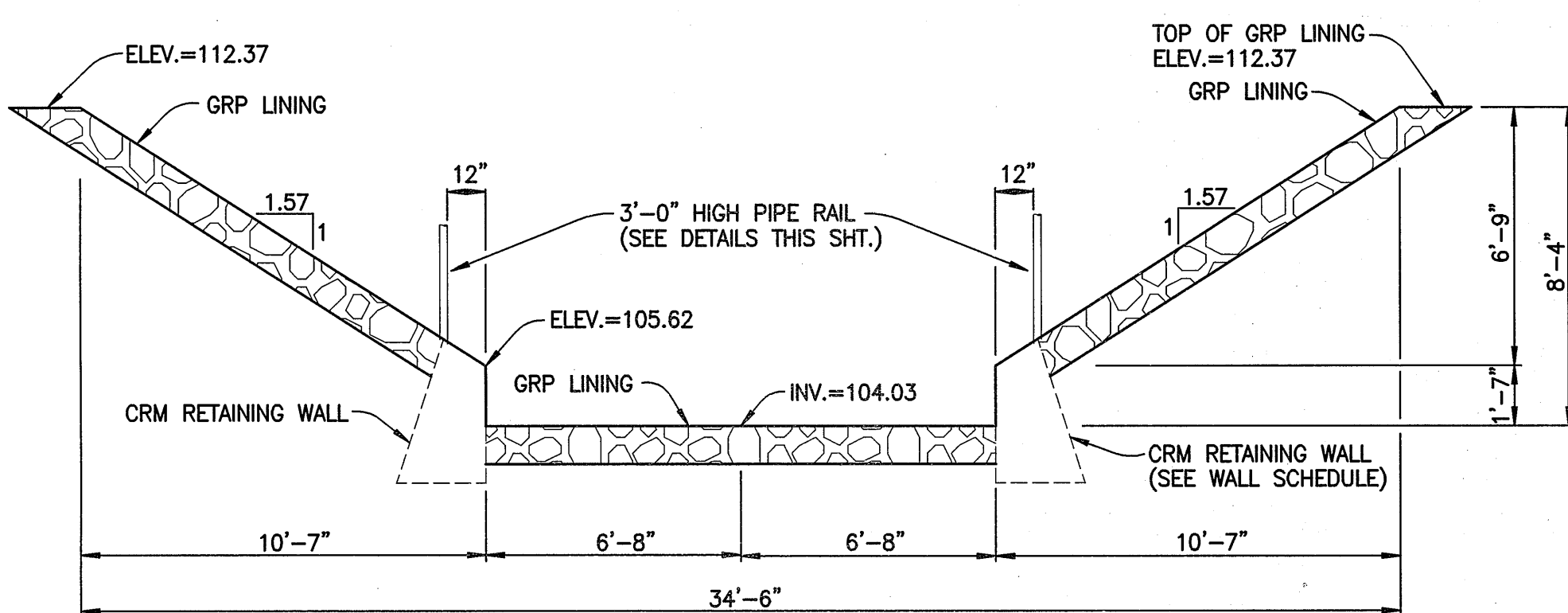
3	SHEET ADDED IN ITS ENTIRETY	10/22/08
LETTER	DESCRIPTION	DATE



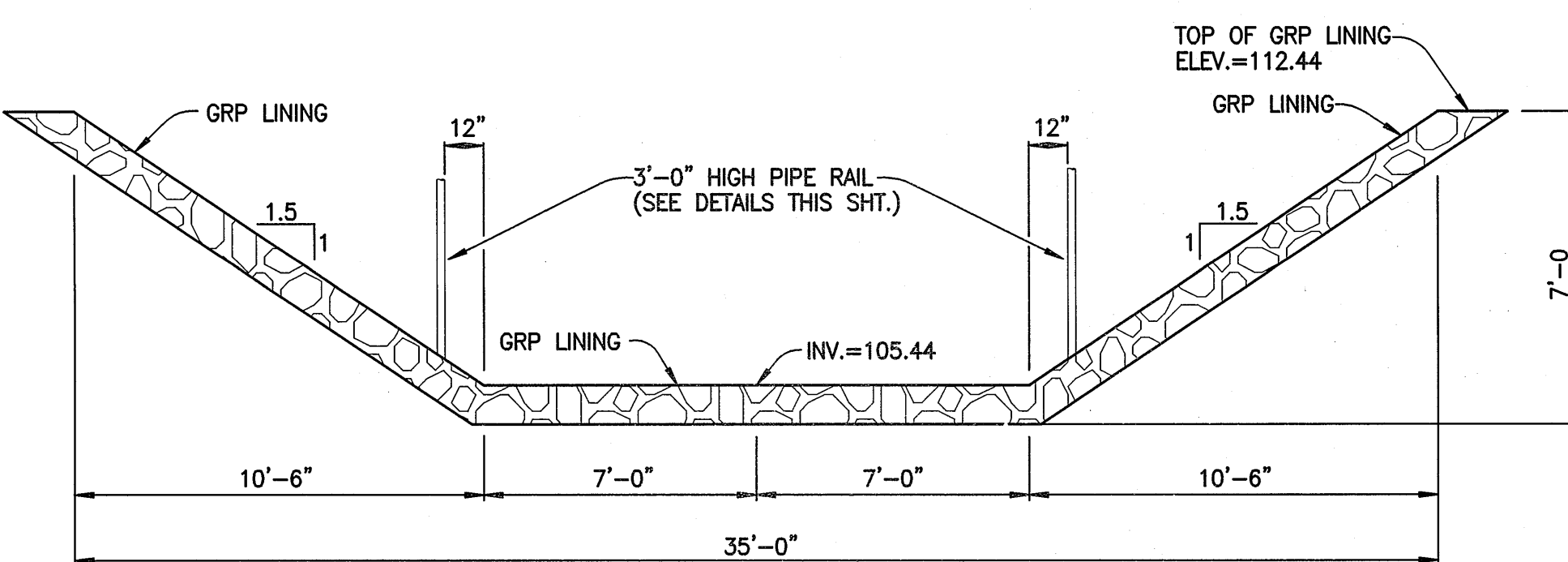
CROSS-SECTION AT STA. 7+65
SCALE: 1/4" = 1'-0"



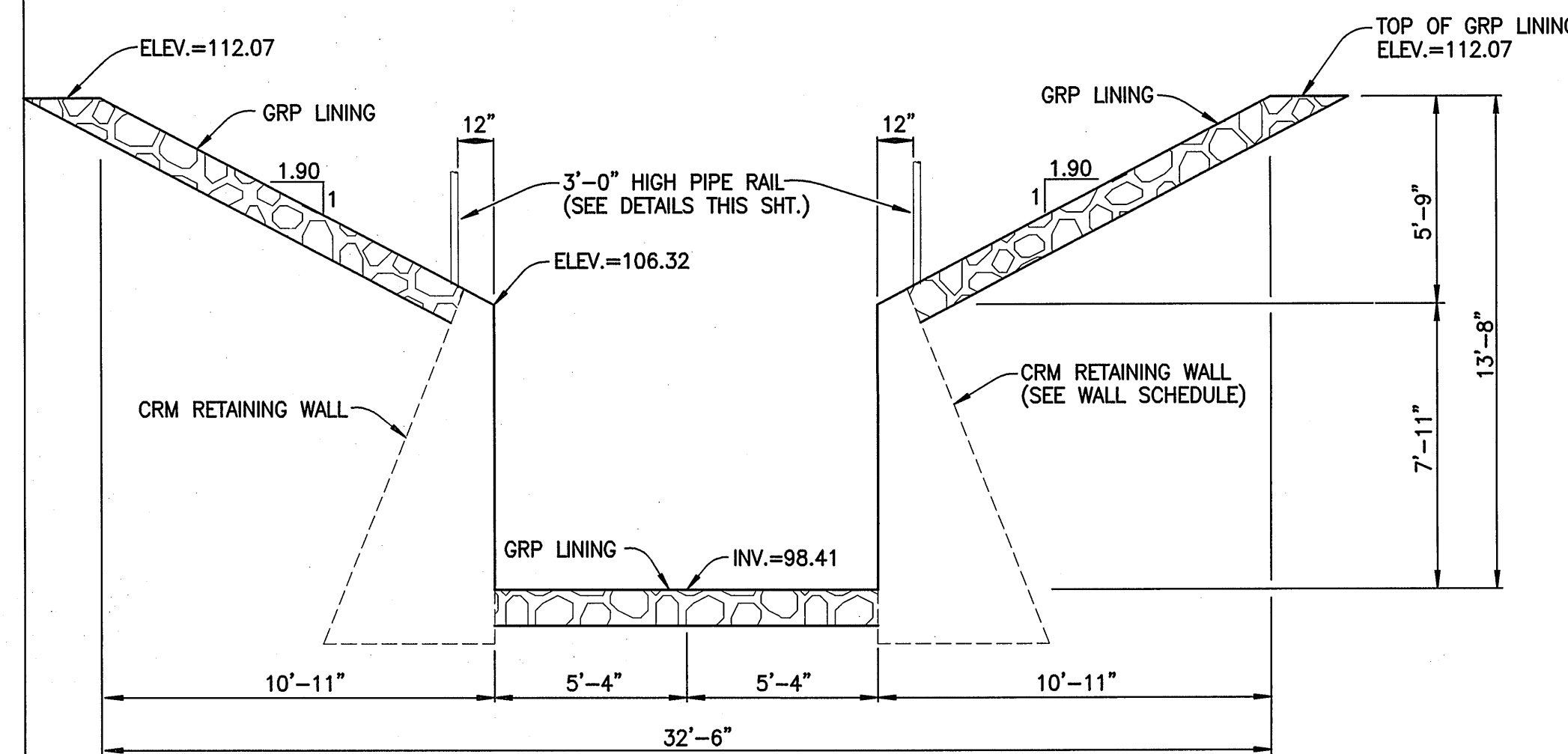
CROSS-SECTION AT STA. 7+60
SCALE: 1/4" = 1'-0"



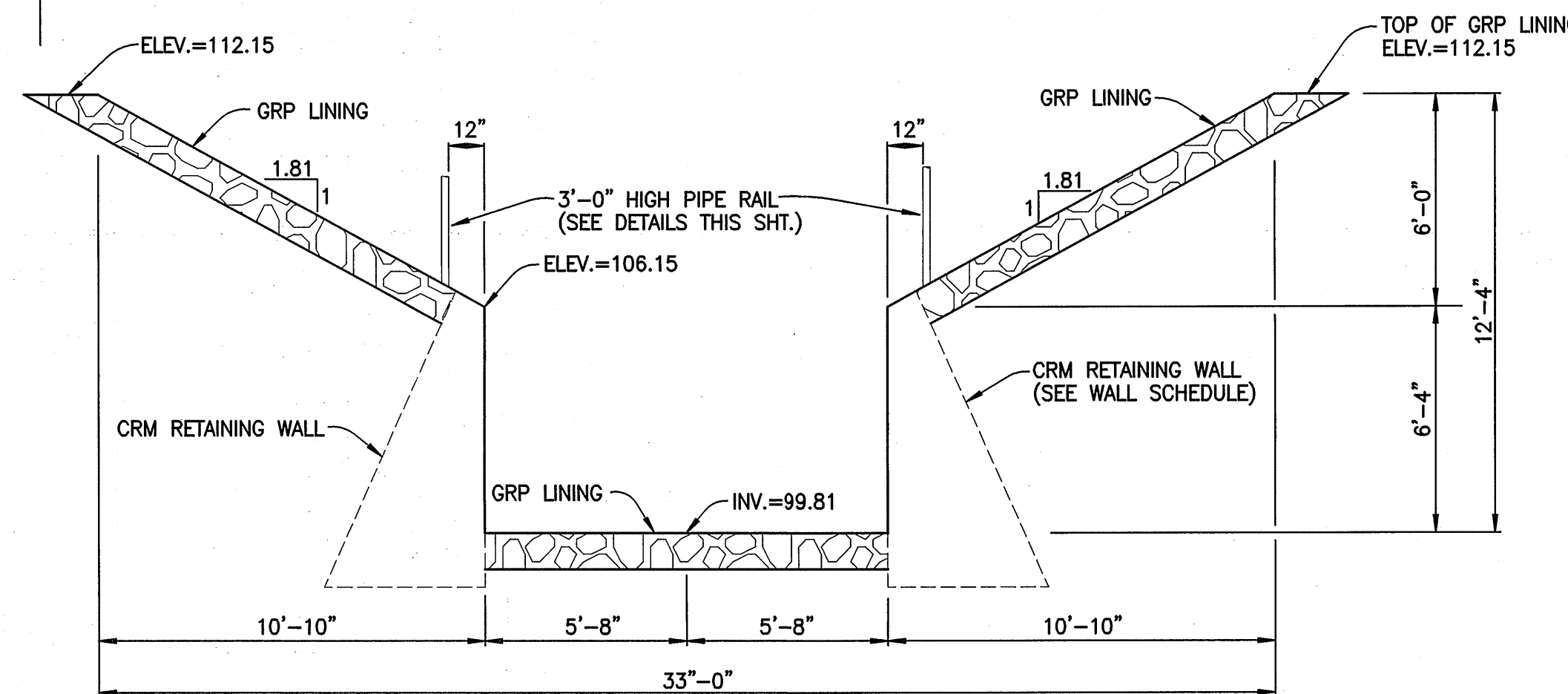
CROSS-SECTION AT STA. 7+55
SCALE: 1/4" = 1'-0"



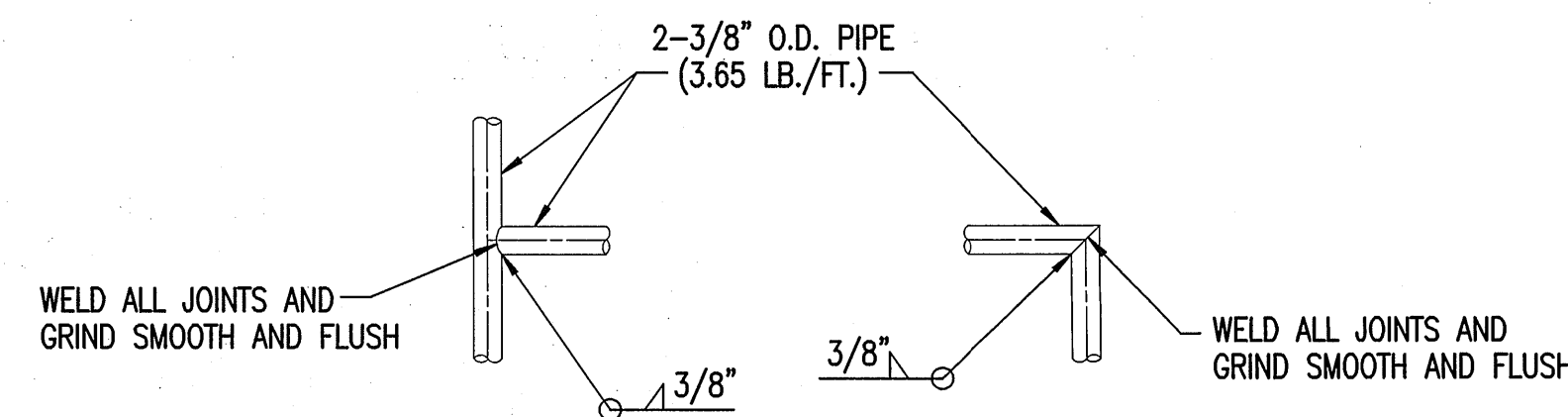
CROSS-SECTION AT STA. 7+50
SCALE: 1/4" = 1'-0"



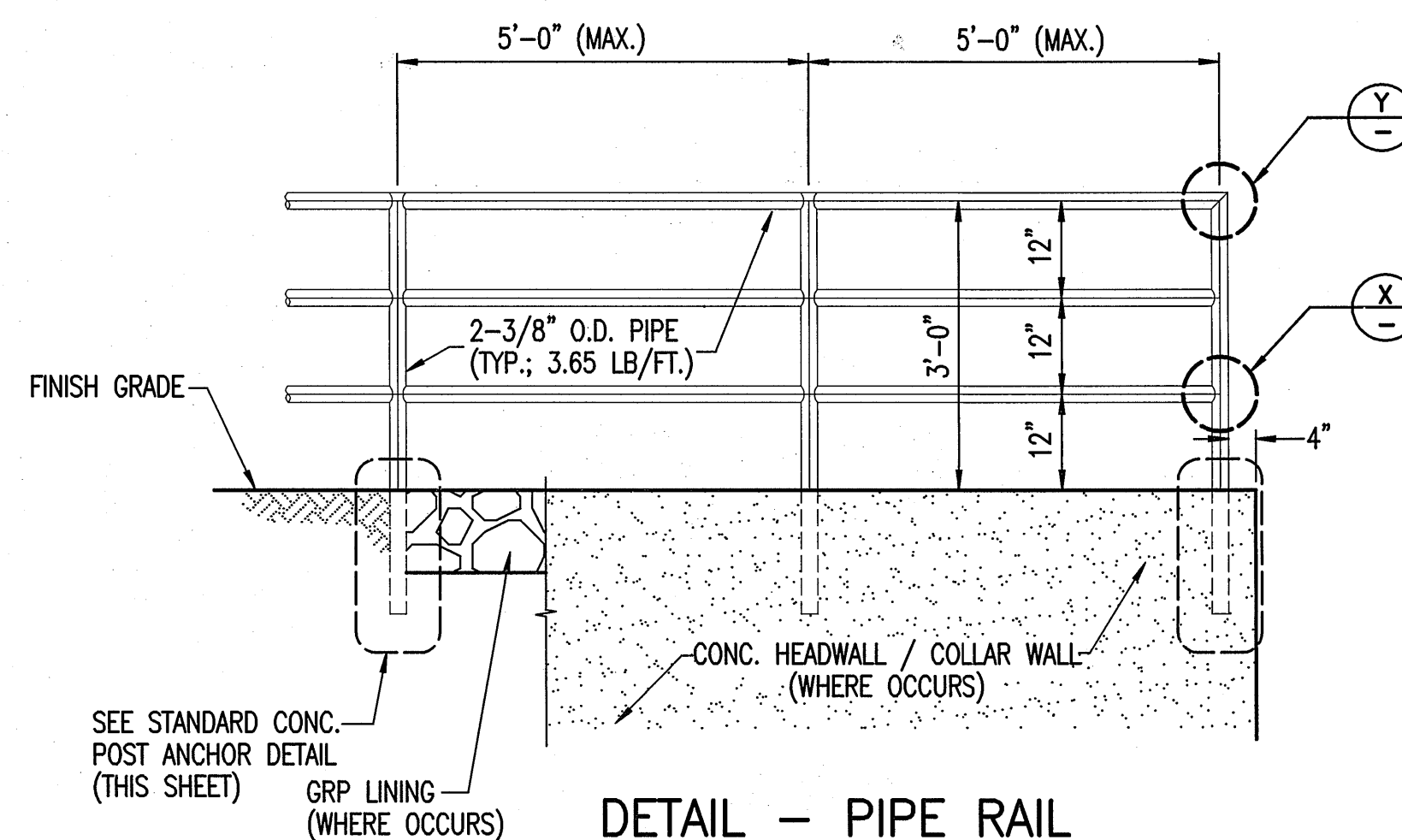
CROSS-SECTION AT STA. 7+75
SCALE: 1/4" = 1'-0"



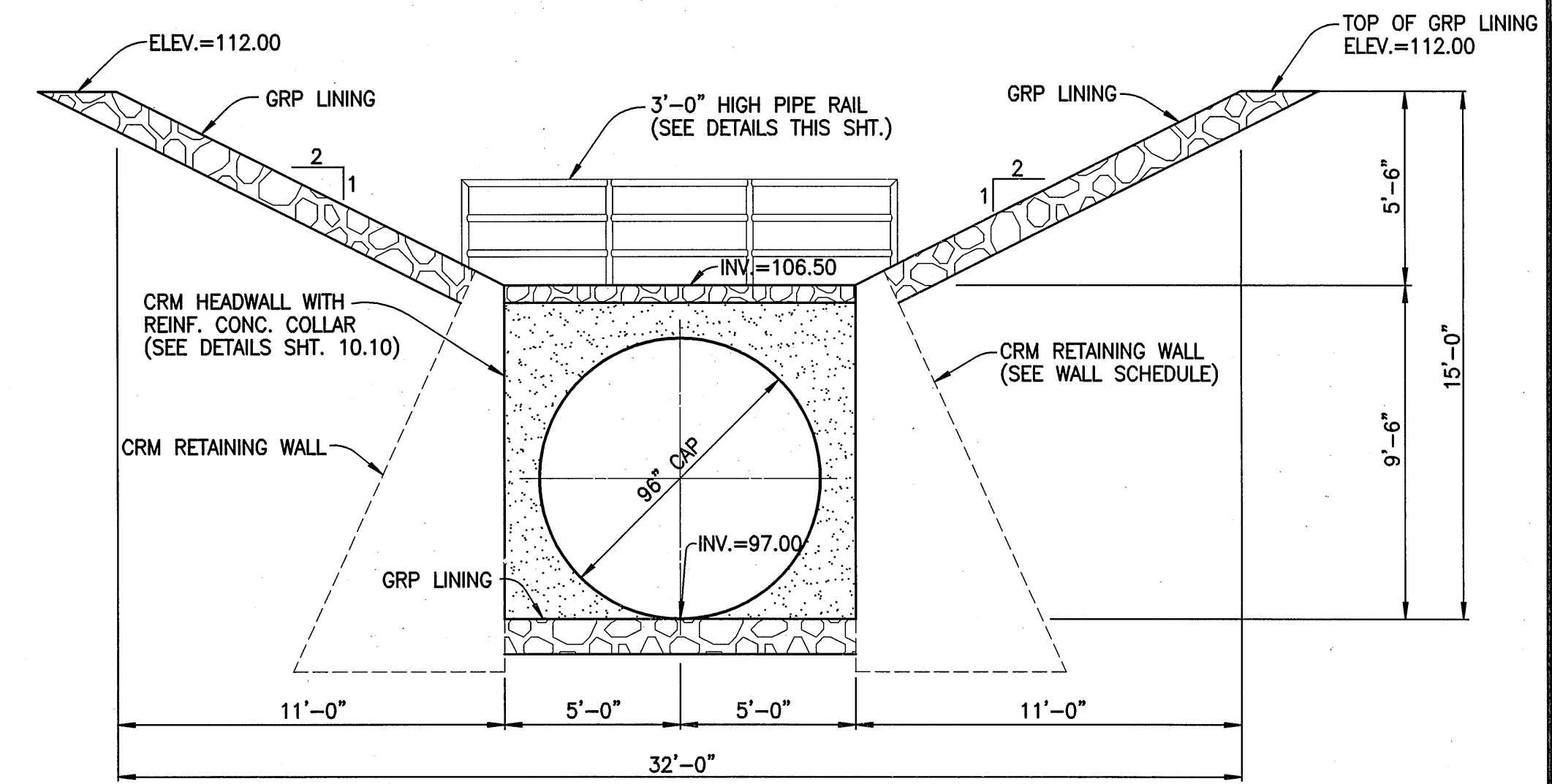
CROSS-SECTION AT STA. 7+70
SCALE: 1/4" = 1'-0"



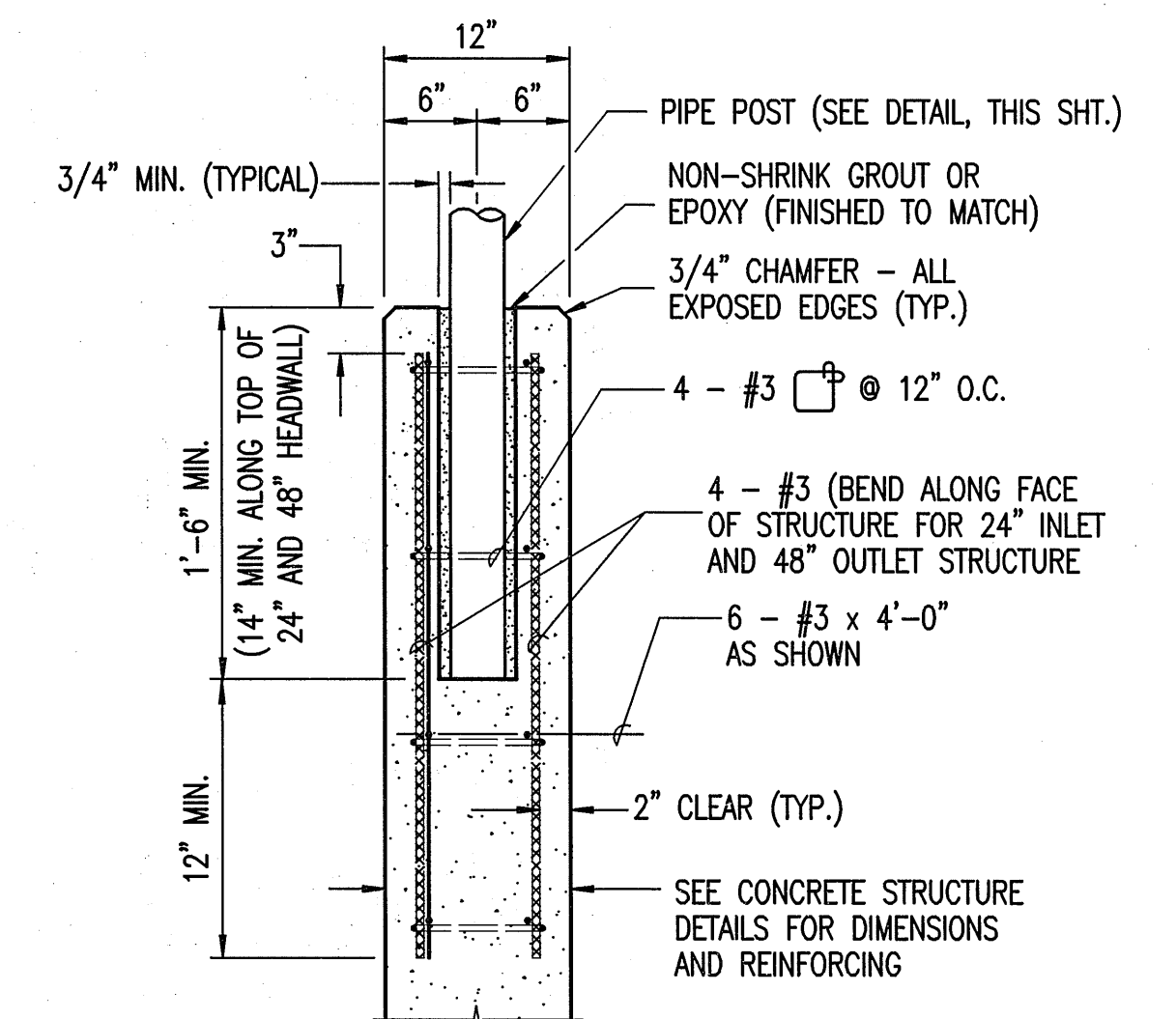
DETAIL X
SCALE: 1/2 IN. = 1 FT.



DETAIL - PIPE RAIL
NOT TO SCALE



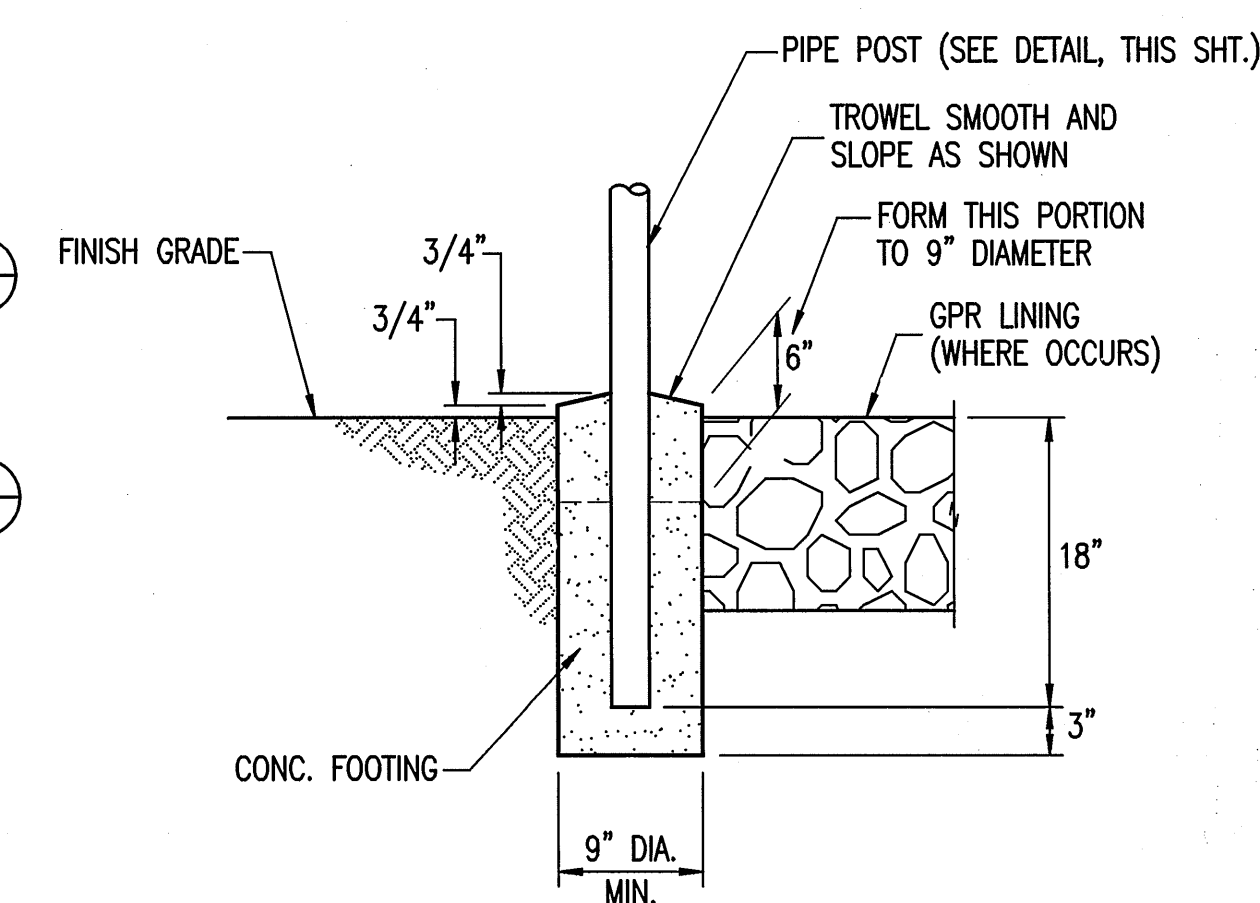
CROSS-SECTION AT STA. 7+80
SCALE: 1/4" = 1'-0"



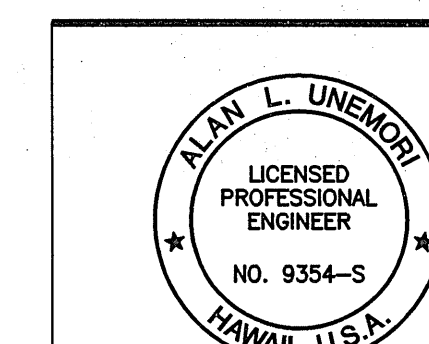
DETAIL - REINF. CONC. POST ANCHOR
SCALE: 1 IN. = 1 FT.

NOTES:

1. RAILING SHALL BE HOT-DIPPED, GALVANIZED AFTER FABRICATION. WELDS & DAMAGED GALVANIZING SHALL BE COATED WITH APPROVED GALVANIZING REPAIR COMPOUND.
2. ALL MISCELLANEOUS ITEMS SHALL BE A.S.T.M. A36.
3. ALL ROUGH EDGES ON PIPE FRAME SHALL BE GROUND SMOOTH.
4. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR REVIEW AND APPROVAL BY ENGINEER PRIOR TO ORDERING OF MATERIALS.
5. ALL END CAPS, WHERE REQ'D., SHALL BE WELDED METAL PLATES. FRICTION FIT CAPS SHALL NOT BE PERMITTED.



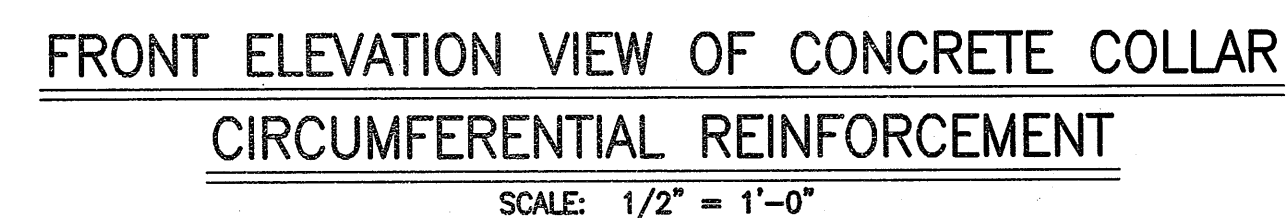
DETAIL - STANDARD CONCRETE POST ANCHOR
SCALE: 1 IN. = 1 FT.



WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793
KAONOULU MARKET PLACE
T.M.K.: (2) 3-9-01 : 16
KIHAI, MAUI, HAWAII

TITLE: DRAINAGE DETAILS			
DESIGNED BY	CHECKED BY	DATE	JOB NUMBER
DRAWN BY	APPROVED BY	DATE	10-10-05
SCALE	AS NOTED	DATE	10-09

LETTER	DESCRIPTION	DATE



INTERCEPTOR CHANNEL

GRP LINING AT INVERT OF OVERFLOW INTERCEPTOR CHANNEL

1'-0"

#5 @ 10" O.C. BOTH WAYS (HORIZ. AND VERT.)

REINFORCED CONCRETE COLLAR

CRM HEADWALL

96" CAP

10'-6"

9'-6"

6"

GRP LINING

1'-0" MIN. THICKNESS

6" REINFORCED CONC. LEVELING PAD

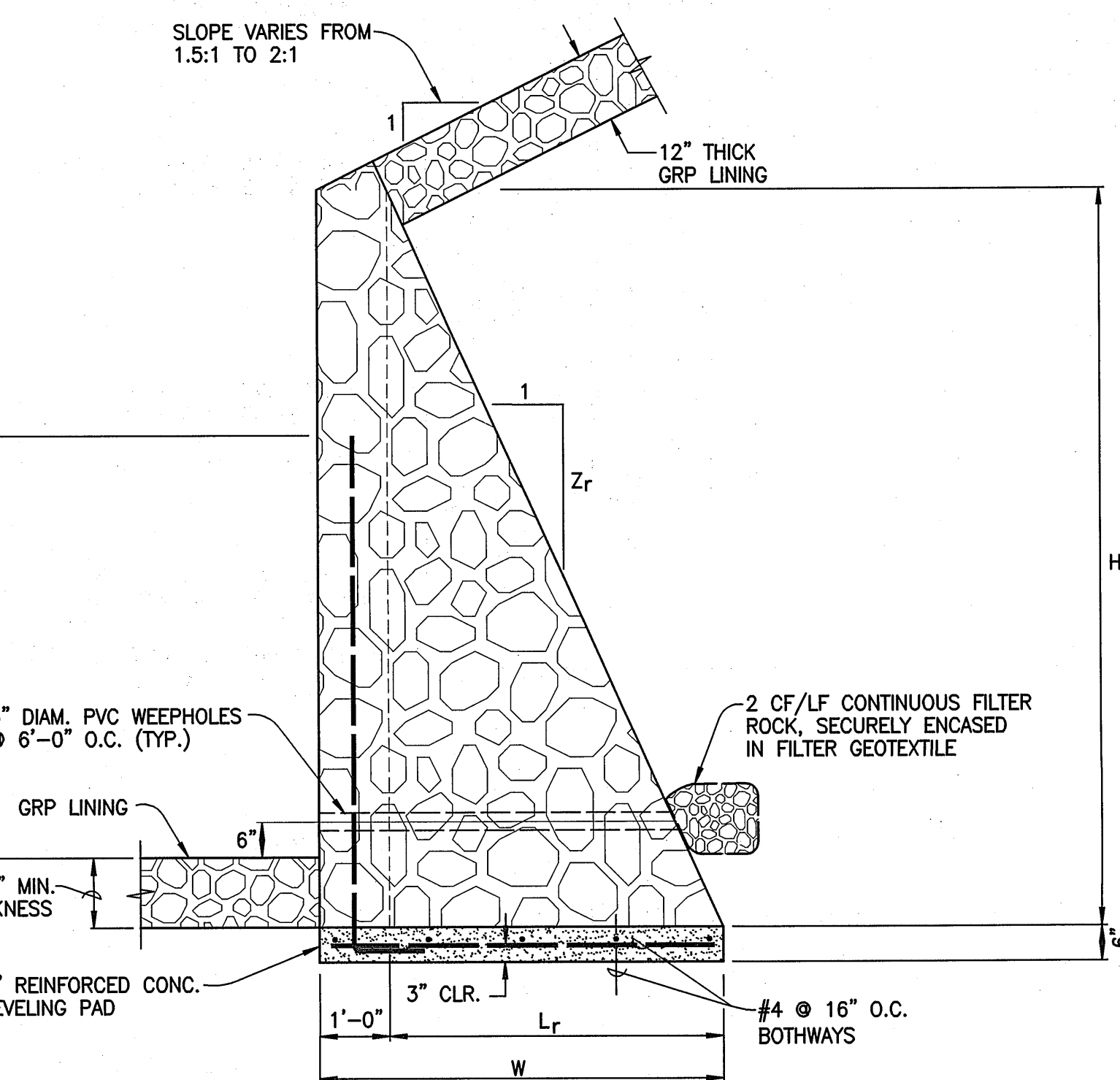
3" CLR.

3'-9"

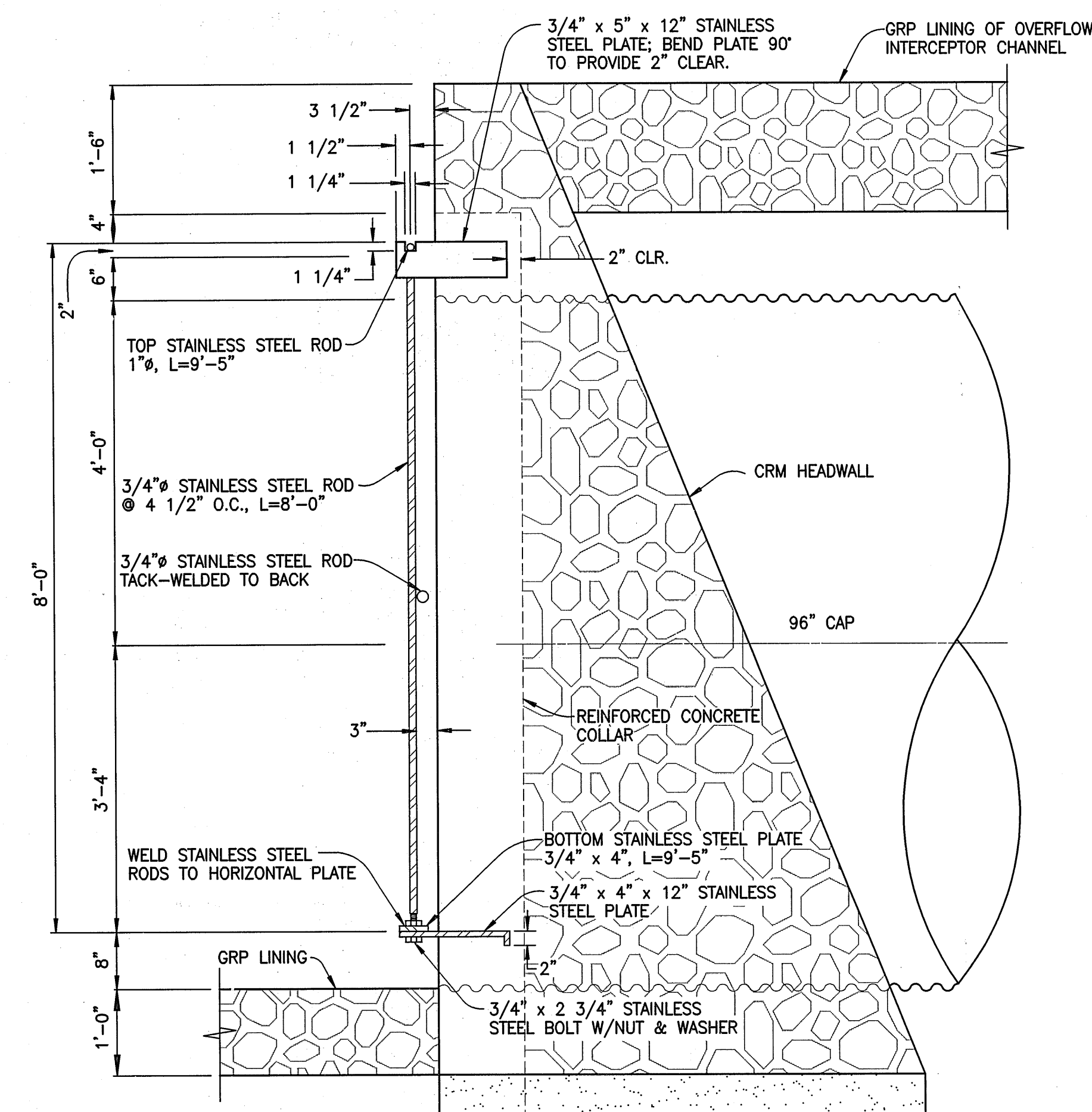
4'-9"

#4 @ 16" O.C. BOTHWAYS

CROSS-SECTION OF CRM HEADWALL
SCALE: 1/2" = 1'-0"





CROSS-SECTION OF CRM WINGWALL
SCALE: $1/2" = 1'-0"$



GEOMETRY AND LOCATION OF INLET GRATING SUPPORTS
SCALE: 3/4" = 1'-0"

Component	Sta	Wall Height, Ho (ft)	Backslope	Zr	Lr	W
Wingwall	7+50	0	1.5:1	N/A	N/A	N/A
	7+55	2' – 6"	1.57:1	2.00	1' – 3"	2' – 3"
	7+60	4' – 2"	1.64:1	1.65	2' – 7"	3' – 7"
	7+65	5' – 9"	1.72:1	1.60	3' – 8"	4' – 8"
	7+70	7' – 4"	1.81:1	1.60	4' – 9"	5' – 9"
	7+75	8' – 11"	1.90:1	1.65	5' – 6"	6' – 6"
	7+80	10' – 6"	2.0:1	2.25	4' – 9"	5' – 9"
Headwall	7+80	10' – 6"	Level	2.90	3' – 9"	4' – 9"





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KAONOOLU MARKET PLACE

T.M.K.: (2) 3-9-01 : 16

KIHEI,
MAUI,
HAWAII

Signature

 SIGNATURE

Date

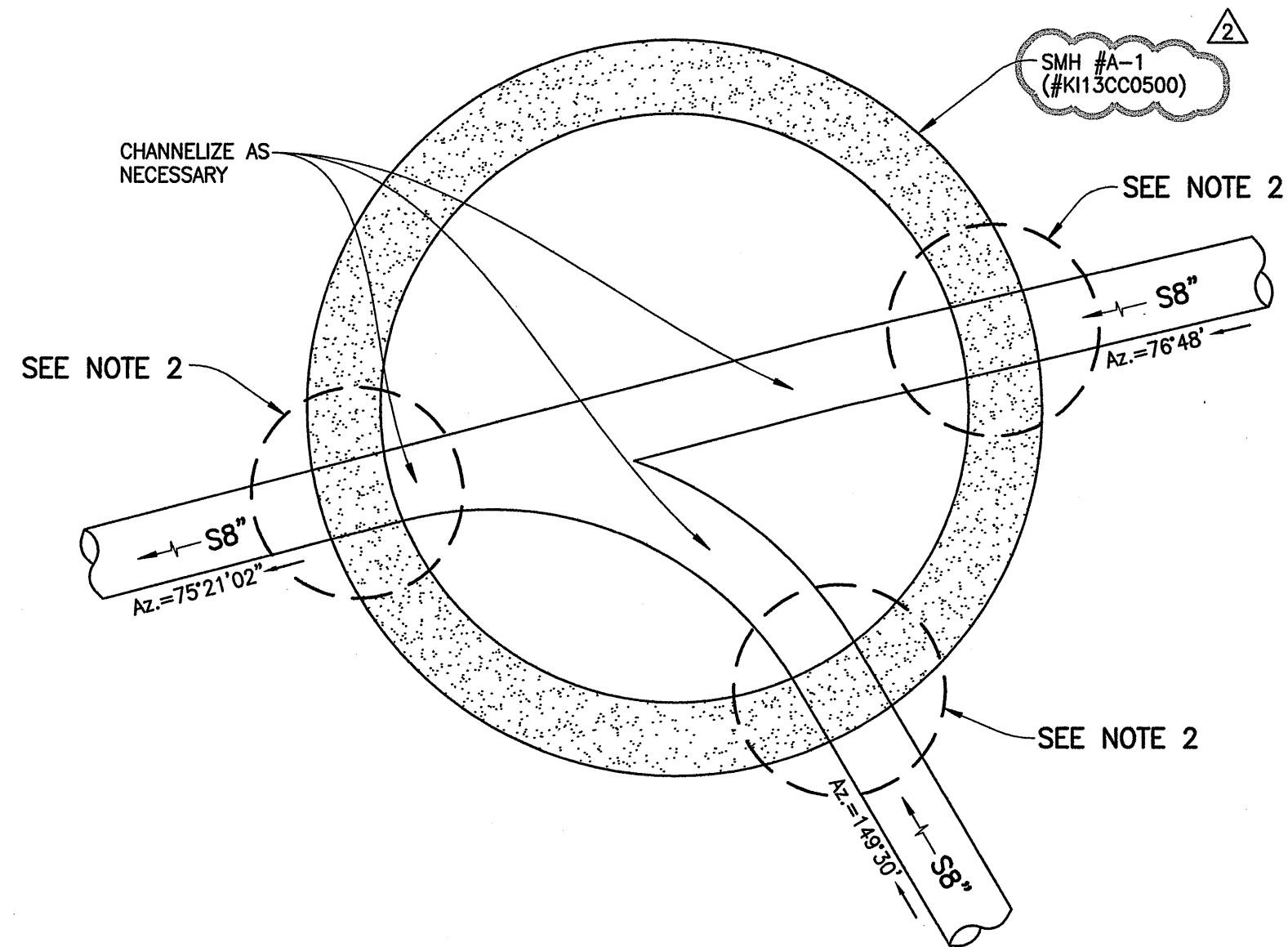
 DATE

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION "AS DEFINED" IN SECTION 16-115-2 OF THE HAWAII ADMINISTRATIVE RULES FOR PROFESSIONAL ENGINEERS, ARCHITECTS, LAND SURVEYORS AND LANDSCAPE ARCHITECTS"

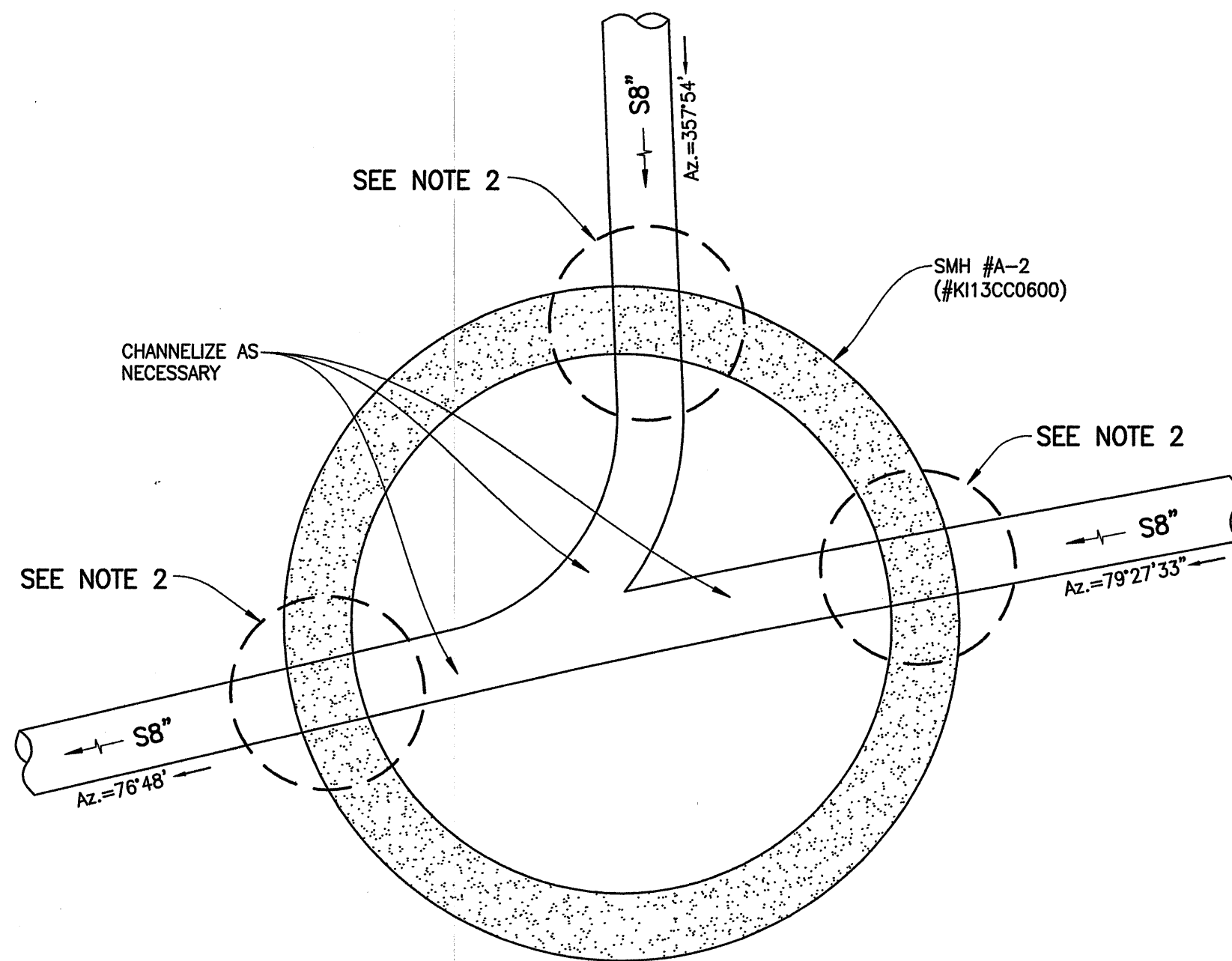
TITLE: DRAINAGE DETAILS

ALU DESIGNED BY	DTU CHECKED BY	04010.10	10.10
WIS DRAWN BY	DTU APPROVED BY	JOB NUMBER 10-10-05	SHEET OF SHEET

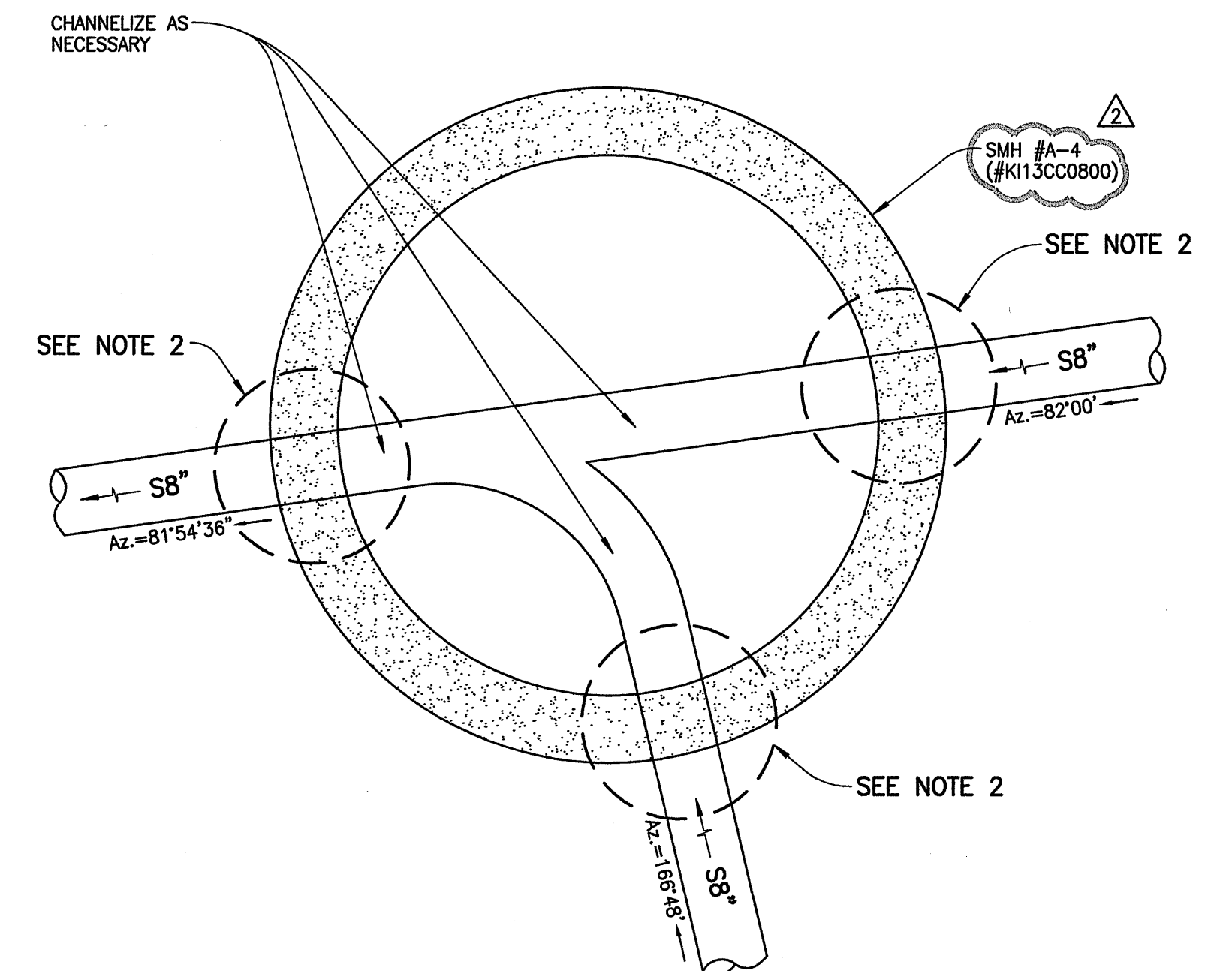
SCALE
AS NOTED
DATE
OF



**DETAIL - CHANNELIZATION OF
SMH #A-1 (#K113CC0500)**
NOT TO SCALE



**DETAIL - CHANNELIZATION OF
SMH #A-2 (#K113CC0600)**
NOT TO SCALE



**DETAIL - CHANNELIZATION OF
SMH #A-4 (#K113CC0800)**
NOT TO SCALE

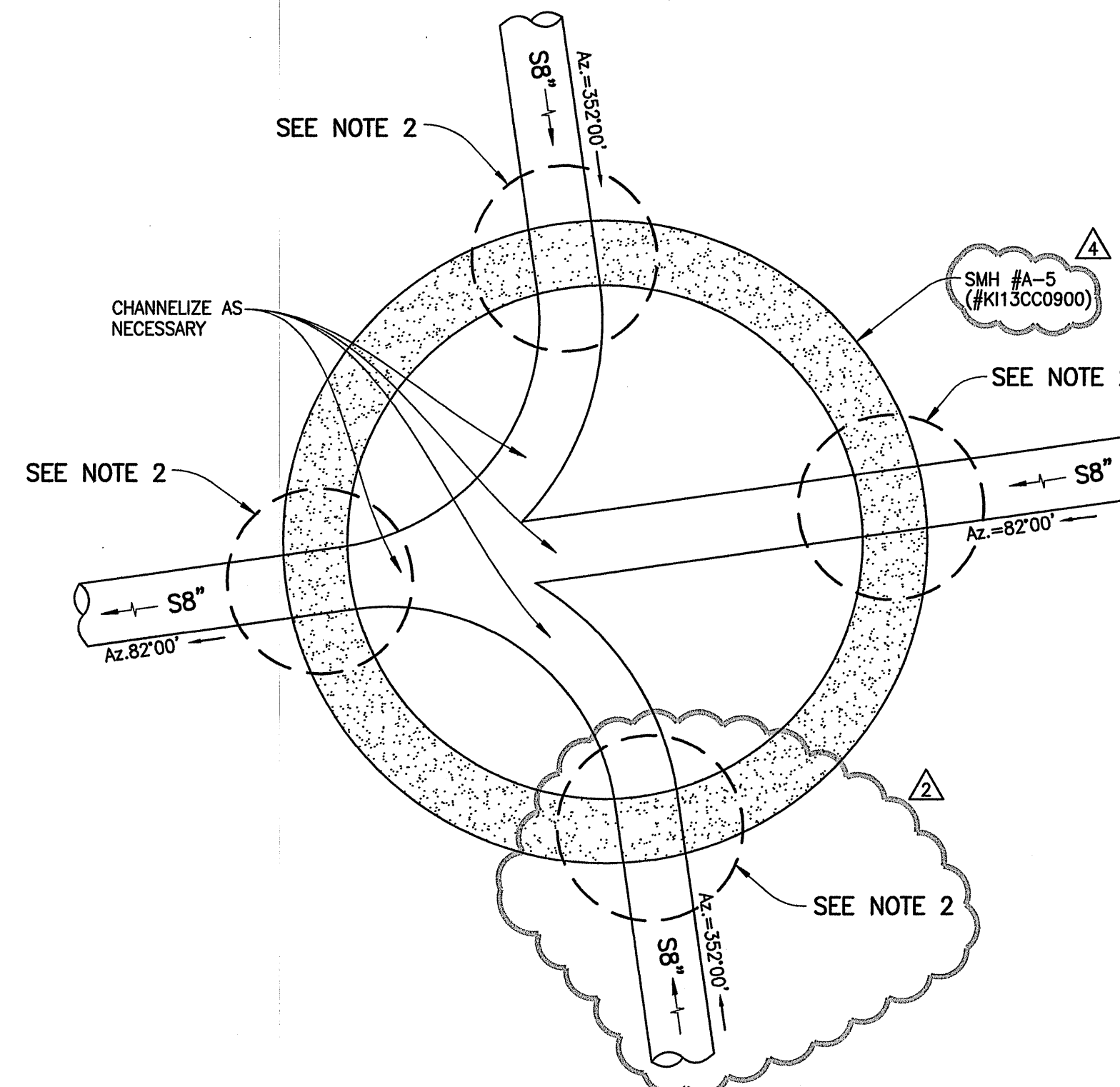
NOTES:

1. FOR CONNECTION OF NEW SEWERLINE INTO EXISTING MANHOLE, CONTRACTOR SHALL USE A-LOK X-CEL GASKET FIELD SLEEVE AS DISTRIBUTED BY WALKER INDUSTRIES LTD., OR APPROVED EQUAL. INSTALLATION SHALL BE AS RECOMMENDED BY MANUFACTURER.
2. FOR ALL NEW SEWERLINE / NEW MANHOLE CONSTRUCTION, CONTRACTOR SHALL USE A-LOK X-CEL GASKET AS DISTRIBUTED BY WALKER INDUSTRIES LTD., OR APPROVED EQUAL. INSTALLATION SHALL BE AS RECOMMENDED BY MANUFACTURER.

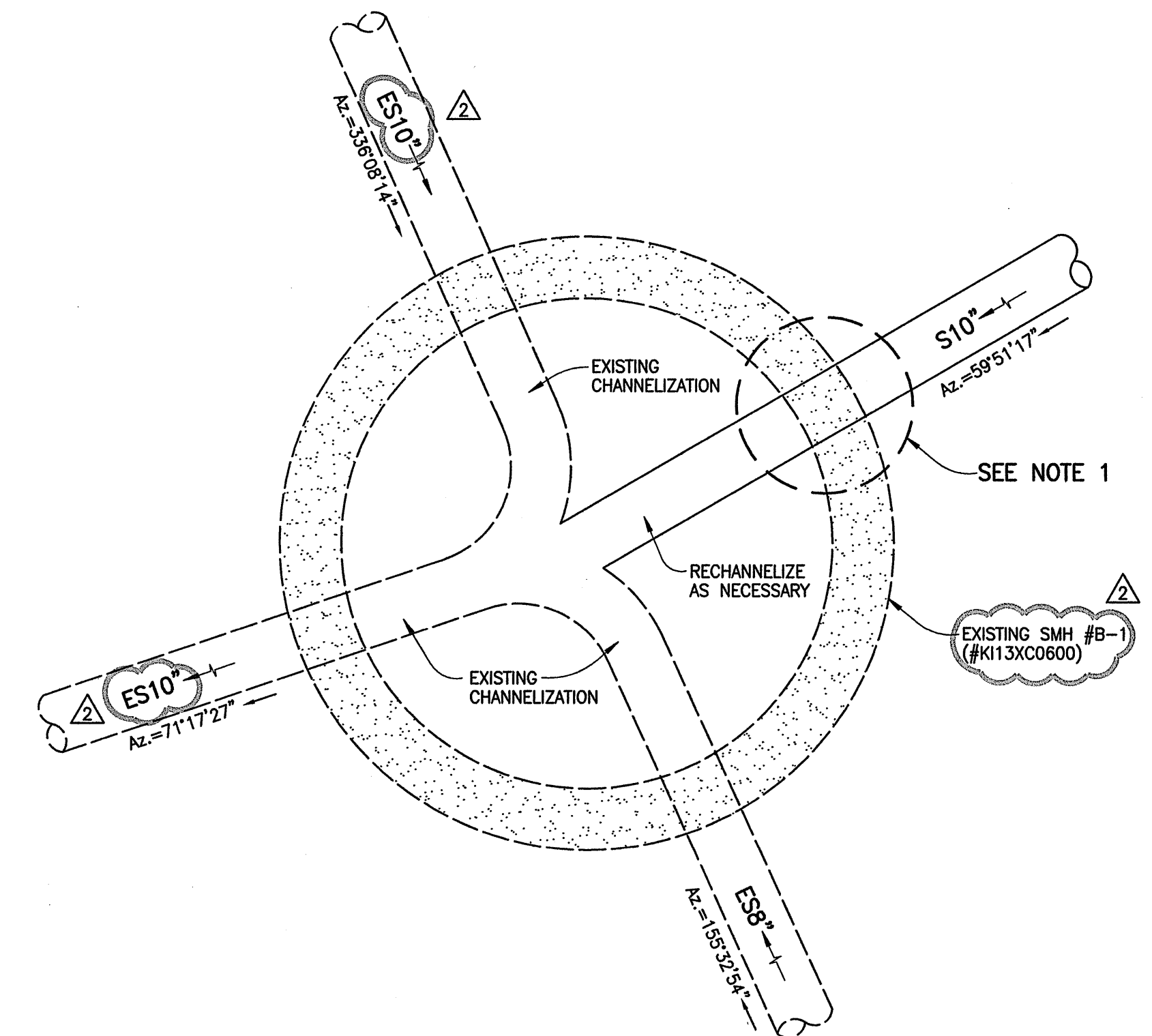
STANDARD SEWER DETAILS

THE FOLLOWING DETAILS AS SHOWN ON "STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION, STATE OF HAWAII", ARE SPECIFICALLY REFERENCED WITHIN THESE PLANS AND SHALL BE CONSIDERED PART OF THE CONSTRUCTION DRAWINGS. (THIS SHALL NOT BE CONSTRUED TO RELIEVE CONTRACTOR FROM COMPLYING WITH ALL PERTINENT PARTS OF THE FOREMENTIONED LIST, STANDARD DETAILS AND STANDARDS.)

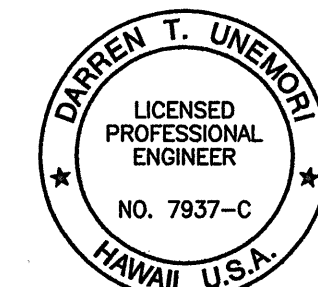
PLATE	CONTENTS
S-6	LATERALS
S-7	ADVANCE RISER CONNECTION
S-9	CHIMNEY
S-10	INDEX TO SEWER MANHOLE DETAILS
S-11, S-12	MANHOLE NOTES
S-13	PRE-CAST CONCRETE PLAIN MANHOLE
S-15	PRE-CAST CONCRETE SHALLOW DROP MANHOLE
S-16	PRE-CAST CONCRETE SHALLOW DROP MANHOLE-BUTT JOINT DETAILS
S-22	PRE-CAST CONCRETE ECCENTRIC MANHOLE CONE
S-31	MANHOLE COVER-TYPE SA
S-32	MANHOLE FRAME-TYPE SA
S-47	PVC PIPE-BEDDING REQUIREMENTS
S-48	PVC PIPE-RESILIENT MANHOLE CONNECTION



**DETAIL - CHANNELIZATION OF
SMH #A-5 (#K113CC0900)**
NOT TO SCALE



**DETAIL - RE-CHANNELIZATION
OF EXISTING SMH #B-1 (#K113XC0600)**
NOT TO SCALE



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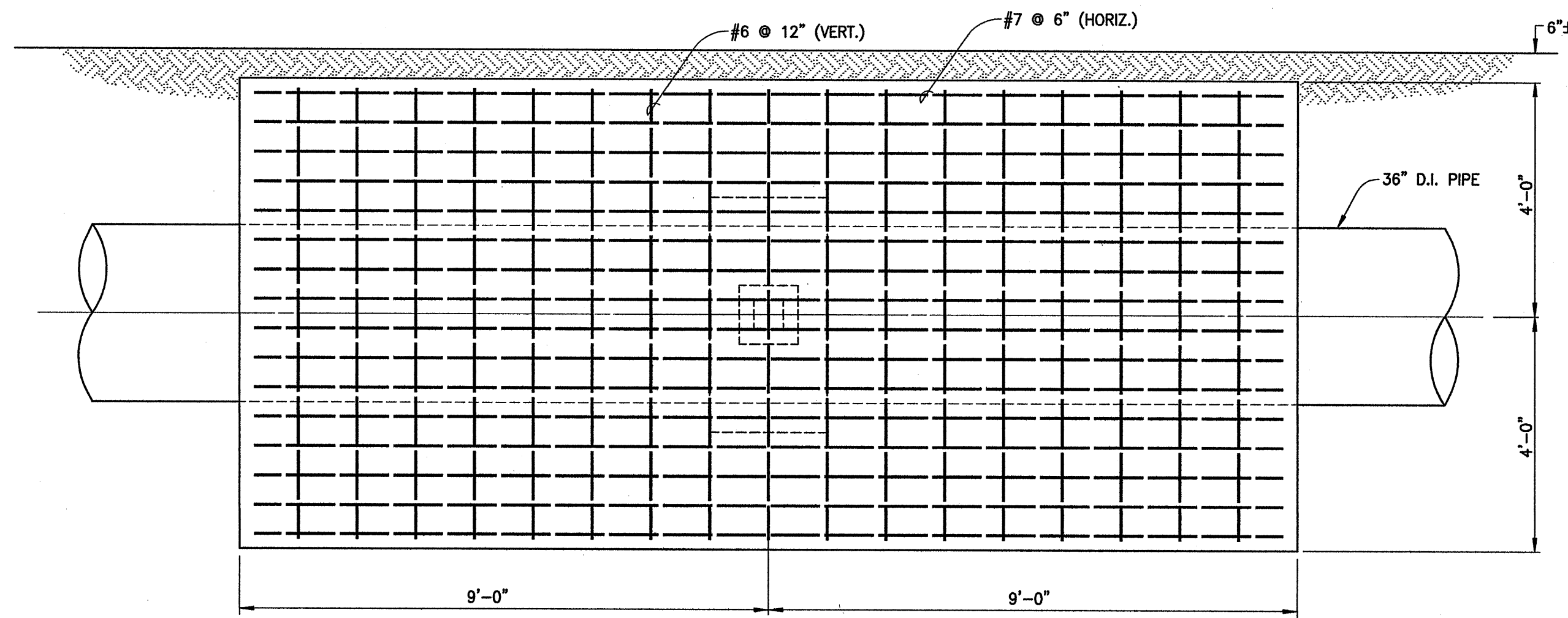
KAONOULU MARKET PLACE
T.M.K.: (2) 3-9-01 : 16
KIHAEI, MAUI, HAWAII

REMOVED LOT 1 SEWER LATERAL AT SMH #A-1 PER WWRD COMMENT	11/28/11
ADJUSTMENTS TO LOT 1 LATERALS	10/18/11
REVISED PER WWRD COMMENTS	12/12/08
REVISED PER WWRD COMMENTS	10/01/08

LETTER	DESCRIPTION	DATE
8	REMOVED LOT 1 SEWER LATERAL AT SMH #A-1 PER WWRD COMMENT	11/28/11
8	ADJUSTMENTS TO LOT 1 LATERALS	10/18/11
8	REVISED PER WWRD COMMENTS	12/12/08
8	REVISED PER WWRD COMMENTS	10/01/08

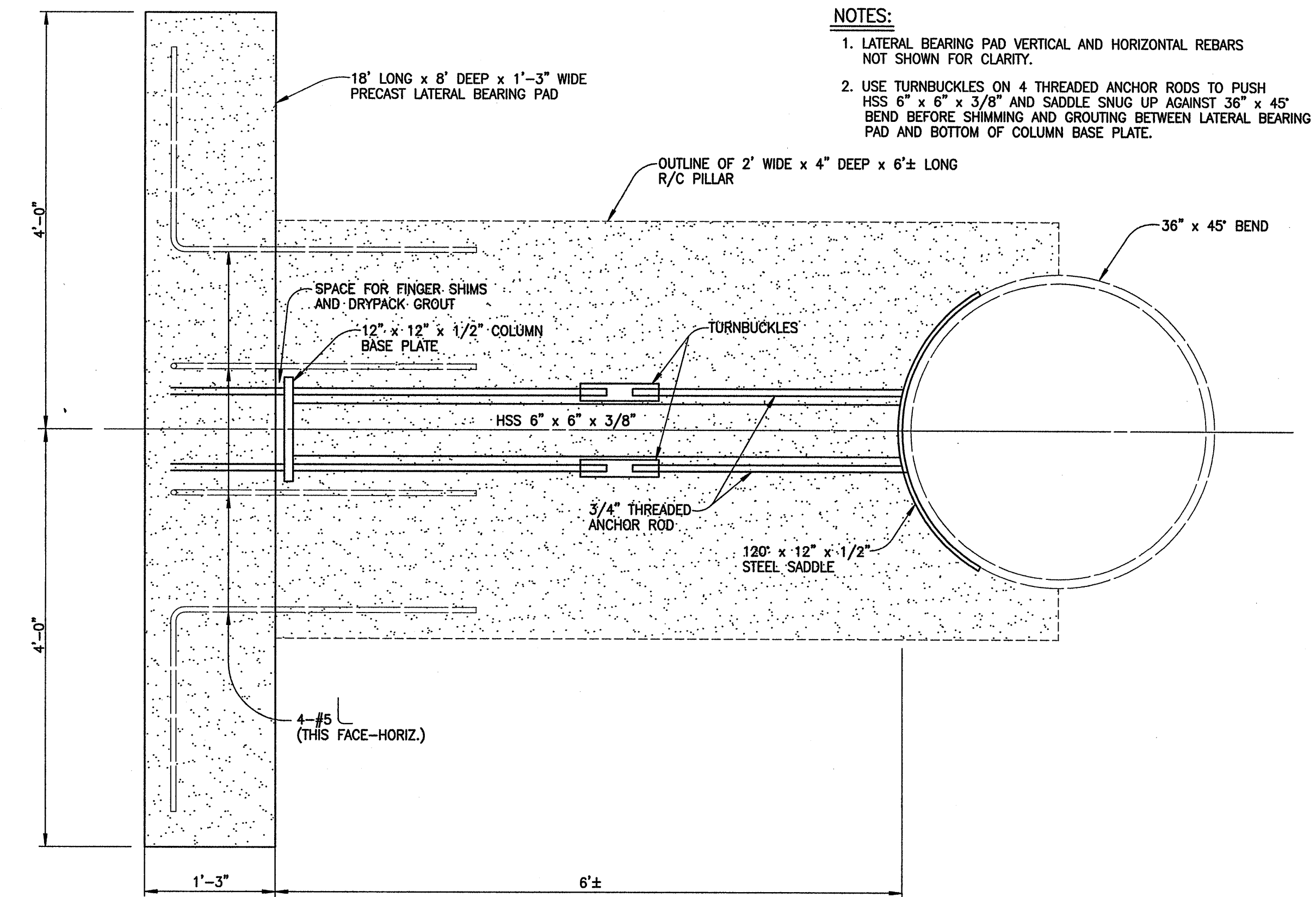
DTU DESIGNED BY	DTU CHECKED BY	04010.10
WIS DRAWN BY	DTU APPROVED BY	10-10-05
SCALE	AS NOTED	DATE

11.01	SHEET
10-10-05	DATE
OF	SHEETS

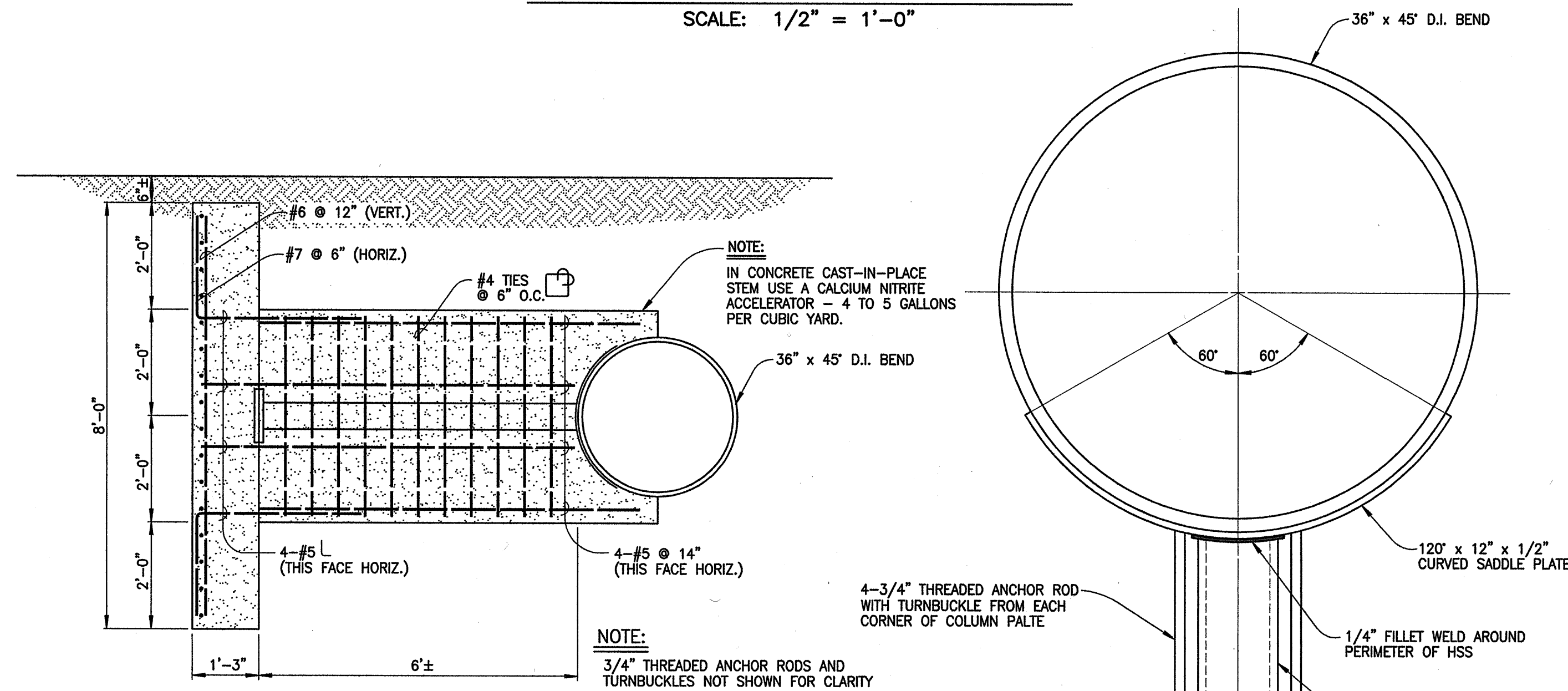


SECTION "B" - "B" BACK ELEVATION VIEW
SCALE: 1/2" = 1'-0"

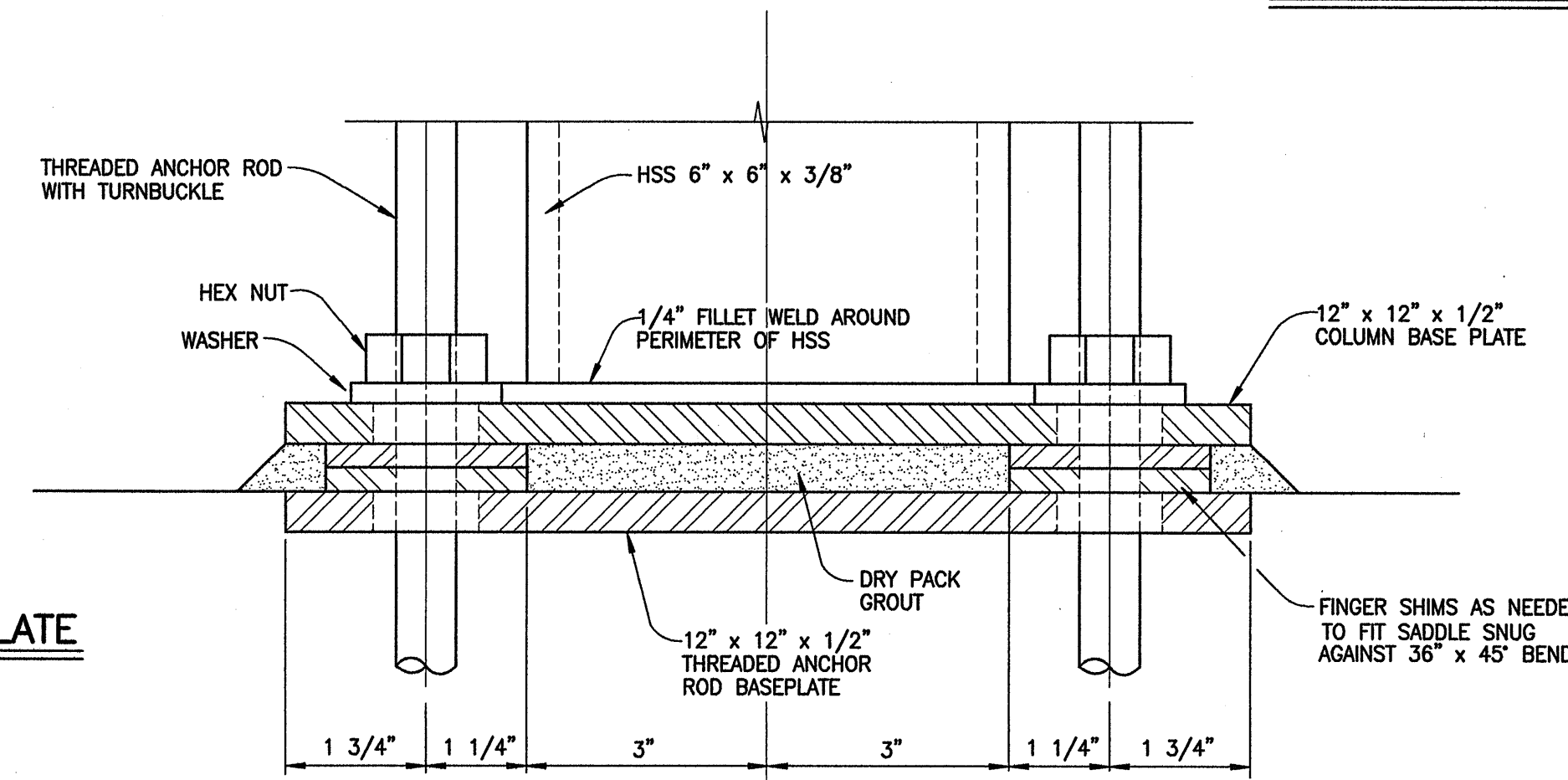
- INSTALLATION PROCEDURE FOR 36" X 45" BEND HYBRID THRUST BEAM WITH THREADED ROD AND TURNBUCKLES.**
1. PRECAST 18'-0" X 8'-0" X 1'-3" THICK BEARING PAD WITH REINFORCEMENT SHOWN, INCLUDING THE L-SHAPED #5 COLUMN REINFORCEMENT, 4 - 3/4" THREADED ANCHOR RODS (BOTTOM HALF), AND 12" X 12" X 1/2" THREADED ANCHOR ROD BASEPLATE.
 2. MANUFACTURE THE 120" X 12" X 1/2" SADDLE WELDED TO THE HSS 6" X 6" X 3/8" WHOSE BASE IS WELDED TO A 12" X 12" X 1/2" COLUMN BASEPLATE.
 3. ALSO WELD THE 4 - 3/4" THREADED ANCHOR RODS (TOP HALF) TO THE SADDLE.
 4. ASSEMBLE THE HSS 6" X 6" X 3/8" WITH SADDLE AND THREADED RODS (TOP HALF) TO THE PRECAST 18'-0" X 8'-0" X 1'-3" BEARING PAD WITH USING THE TURNBUCKLES TO CONNECT TO THE THREADED RODS (BOTTOM HALF). THIS CAN BE DONE EITHER BEFORE TRANSPORT TO THE FIELD OR ONCE IN THE FIELD.
 5. IN THE FIELD INSTALL THE 36" X 45" D.I. BEND.
 6. INSTALL THE BEARING PAD PLUS HSS WITH SADDLE ASSEMBLY WITHIN A FEW INCHES OF THE BASE OF THE 36" X 45" D.I. BEND.
 7. USE THE TURNBUCKLES TO ADJUST THE LENGTH OF THE HSS STRUT ASSEMBLY TO FIT SNUGLY AGAINST THE BASE OF THE 36" X 45" BEND.
 8. INSERT FINGER SHIMS TO SUPPORT THE BASE PLATE FLUSH AGAINST THE PRECAST BEARING PAD.
 9. ADD DRY PACK GROUT BETWEEN THE BASE PLATE AND THE PRECAST BEARING PAD.
 10. COMPACT AND BACKFILL THE BEARING SIDE OF THE PRECAST BEARING PAD TO SUPPORT THE THRUST OF THE 36" X 45" BEND.
 11. BEFORE (OR AFTER) THE LIVE CONNECTION IS MADE AND THE 36" D.I. WATERLINE IS FULLY OPERATIONAL, ADD THE REINFORCEMENT REQUIRED FOR THE CAST-IN-PLACE CONCRETE STEM, INCLUDING THE 10 - #5 COLUMN BARS AND THE #4 COLUMN TIES @ 6" O.C.
 12. FORM AND CAST-IN-PLACE THE CONCRETE PEDESTAL.
 13. COMPACT AND BACKFILL THE CONCRETE PEDESTAL AND 36" X 45" BEND ASSEMBLY.



DETAILS OF 3/4" THREADED ANCHOR RODS WITH
TURNBUCKLES, COLUMN BASE PLATE AND 120" X 12" X 1/2"
STEEL SADDLE SURROUNDING HSS X 6" X 6" X 3/8"
SCALE: 1" = 1'-0"

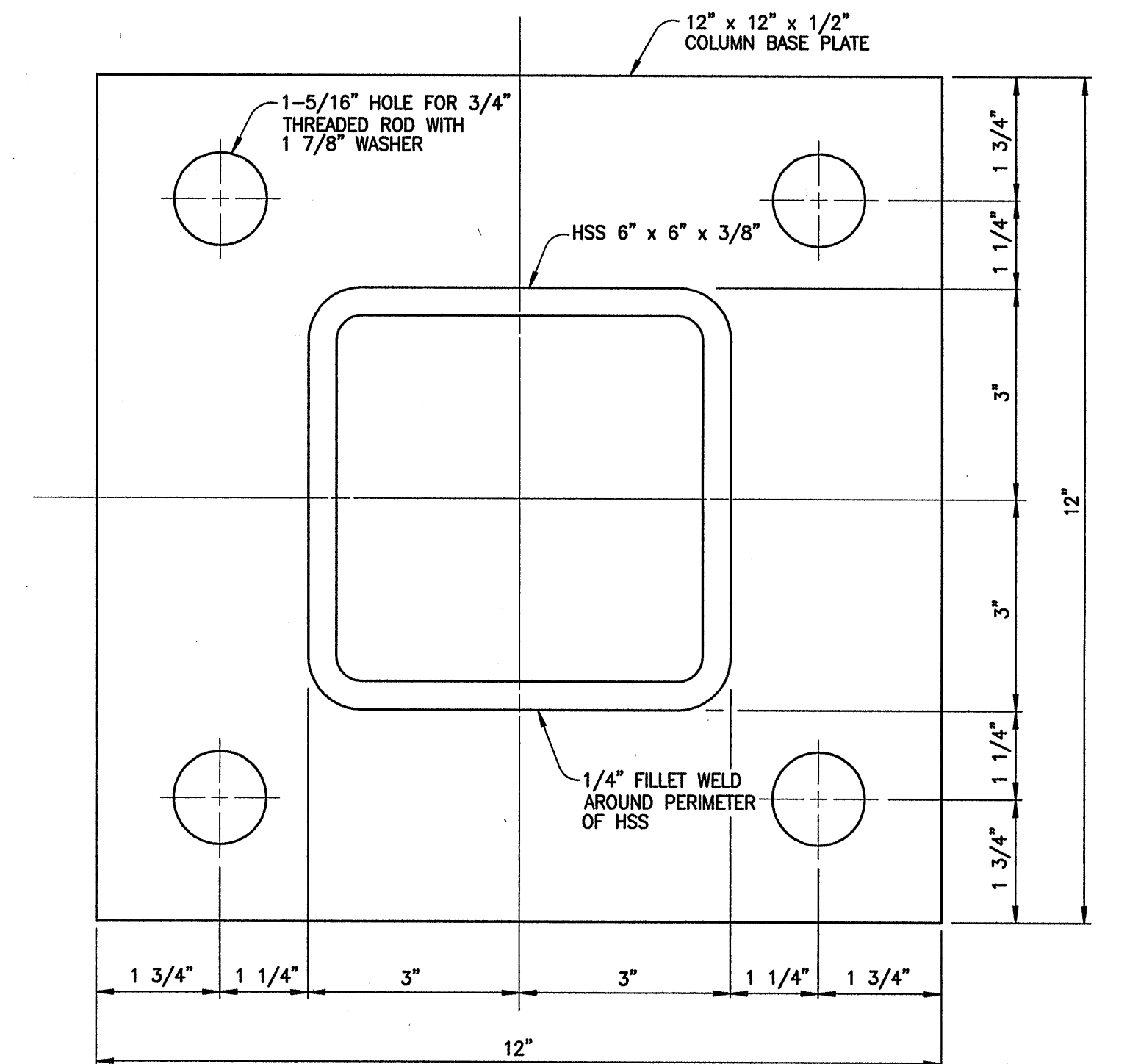


SECTION "A" - "A" SIDE ELEVATION VIEW
SCALE: 1/2" = 1'-0"



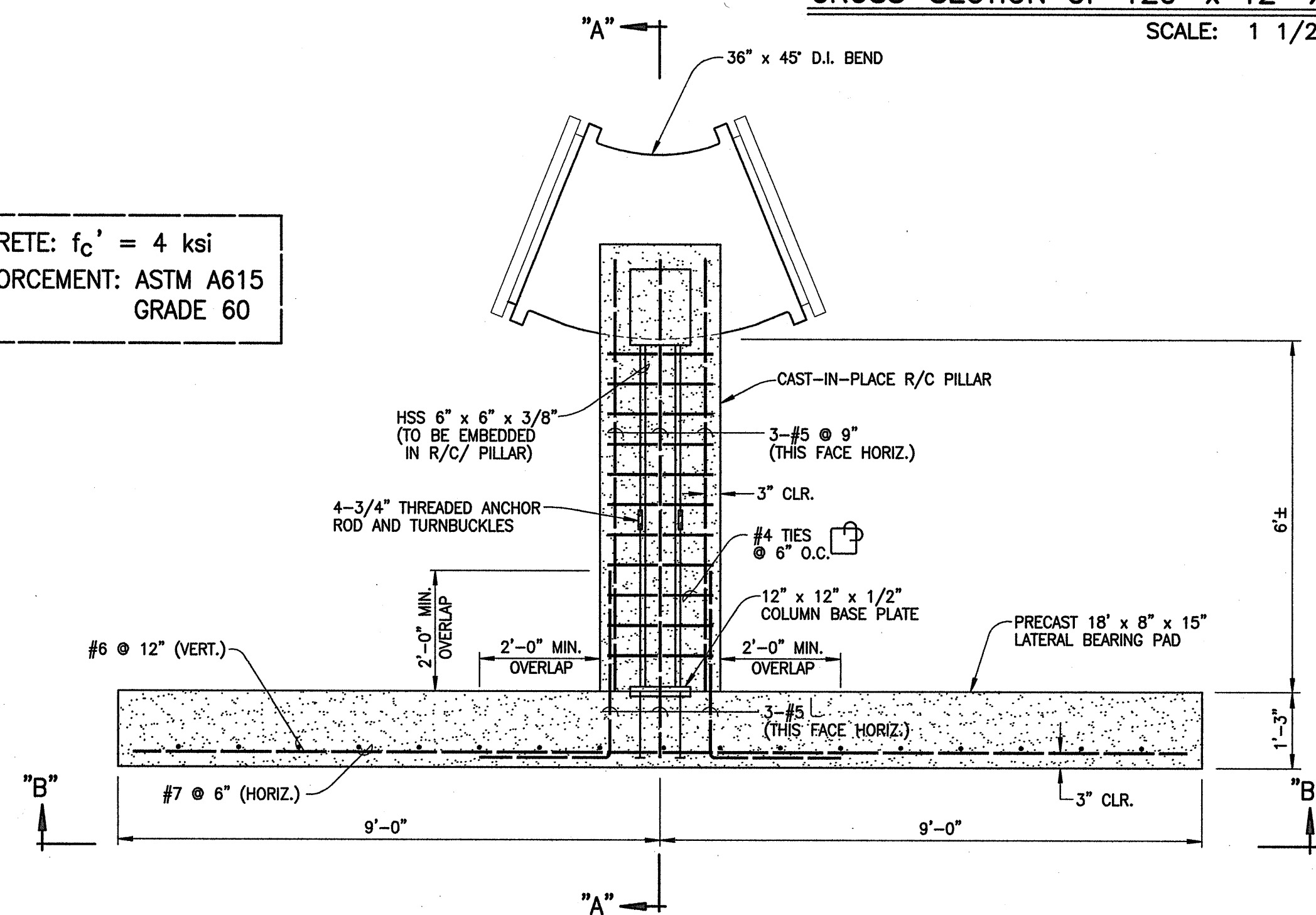
CROSS-SECTION OF 120" X 12" X 1/2" CURVED SADDLE PLATE
SCALE: 1 1/2" = 1'-0"

COLUMN BASE PLATE ASSEMBLY
SCALE: 1/2" = 1"

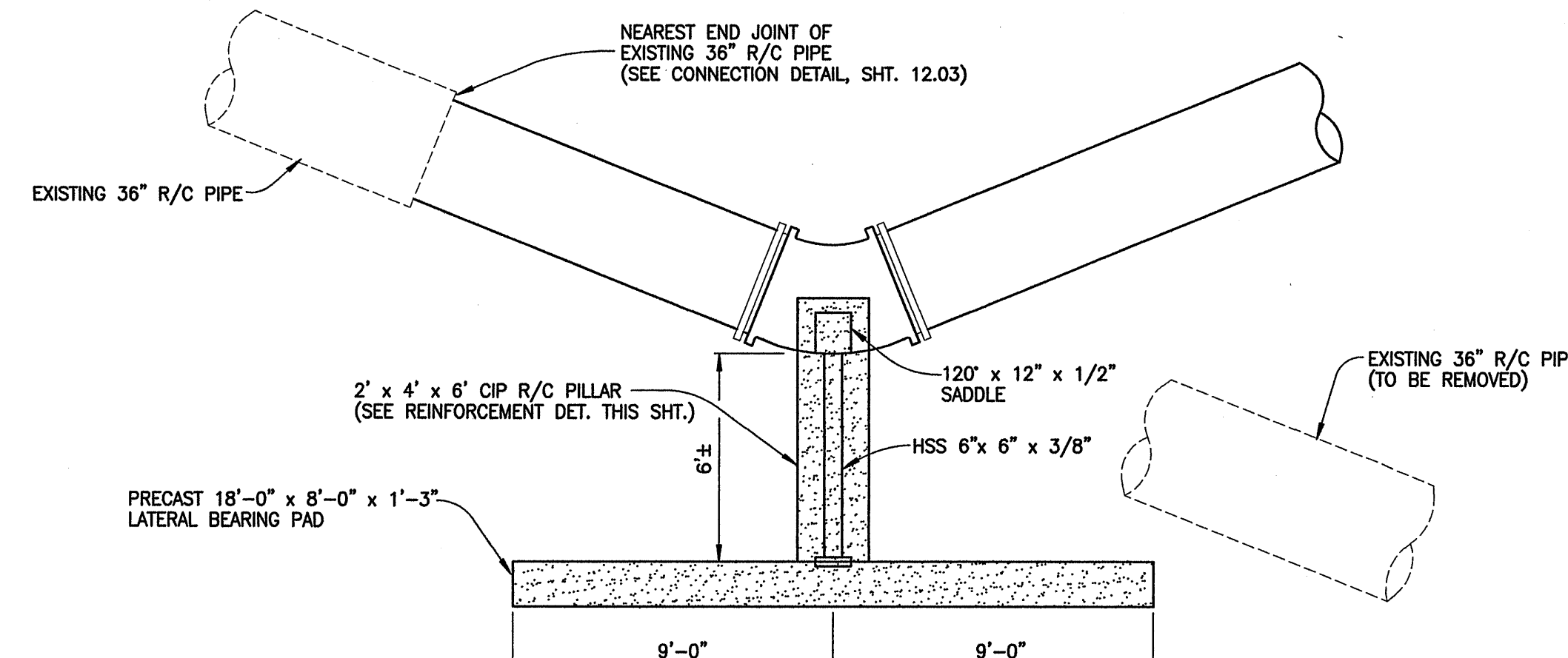


DETAILS OF COLUMN BASE PLATE
SCALE: 1/2" = 1"

CONCRETE: $f_c' = 4$ ksi
REINFORCEMENT: ASTM A615
GRADE 60



PLAN VIEW OF 36" X 45" BEND HYBRID
THRUST BEAM AT STA. 600+50±
SCALE: 1/2" = 1'-0"



PLAN VIEW SHOWING LOCATION OF 36" X 45" BEND
CONNECTING TO EXISTING 36" R/C PIPE STA. 600+50±
SCALE: 1/4" = 1'-0"

REVISION	DESCRIPTION	DATE
1	REVISED PER DWS COMMENTS	07/02/12

ALAN L. UNEMORI
LICENSED PROFESSIONAL ENGINEER
NO. 9384-S
HAWAII, U.S.A.

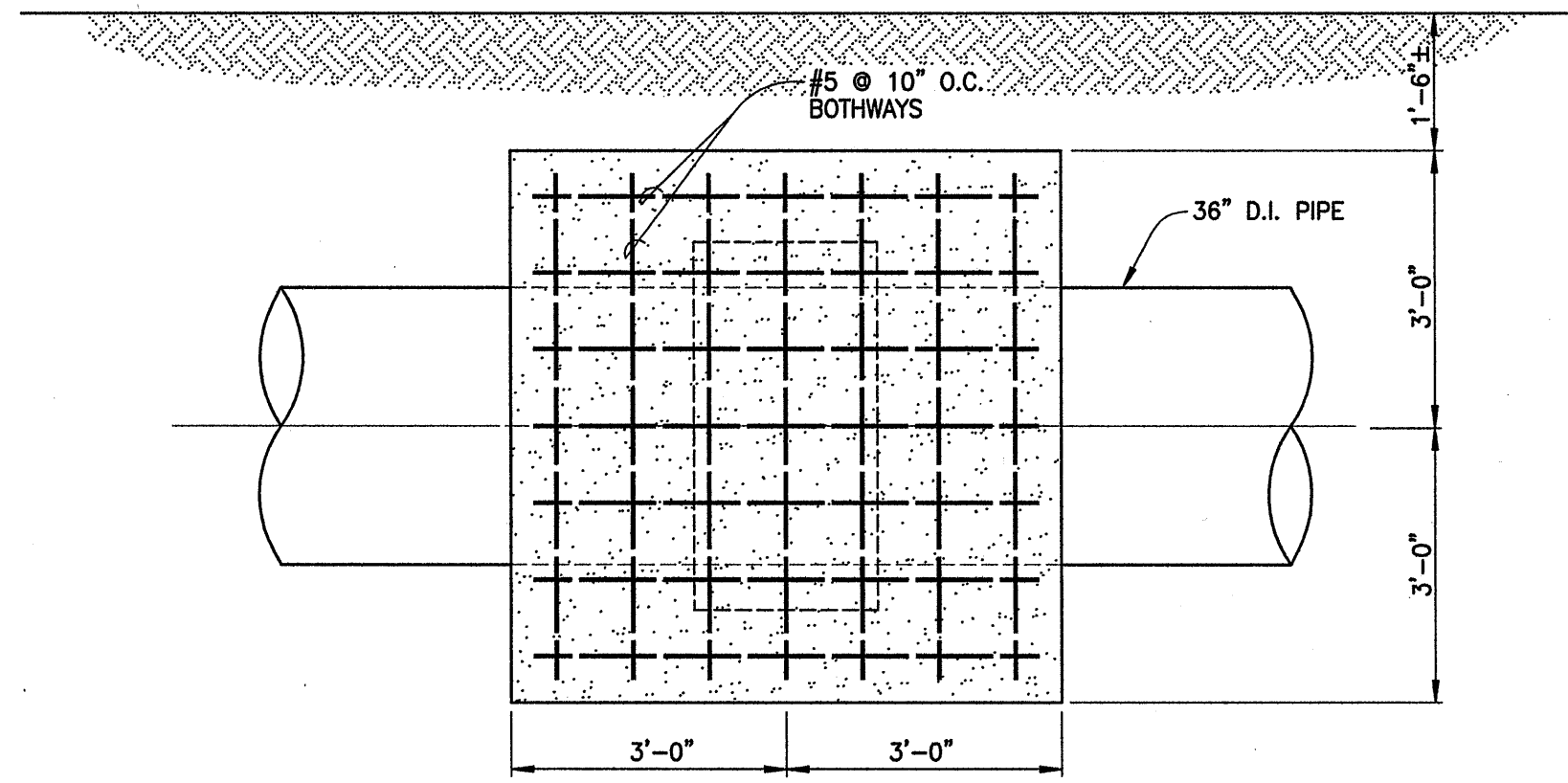
SIGNATURE: *[Signature]* DATE: 7/2/2012

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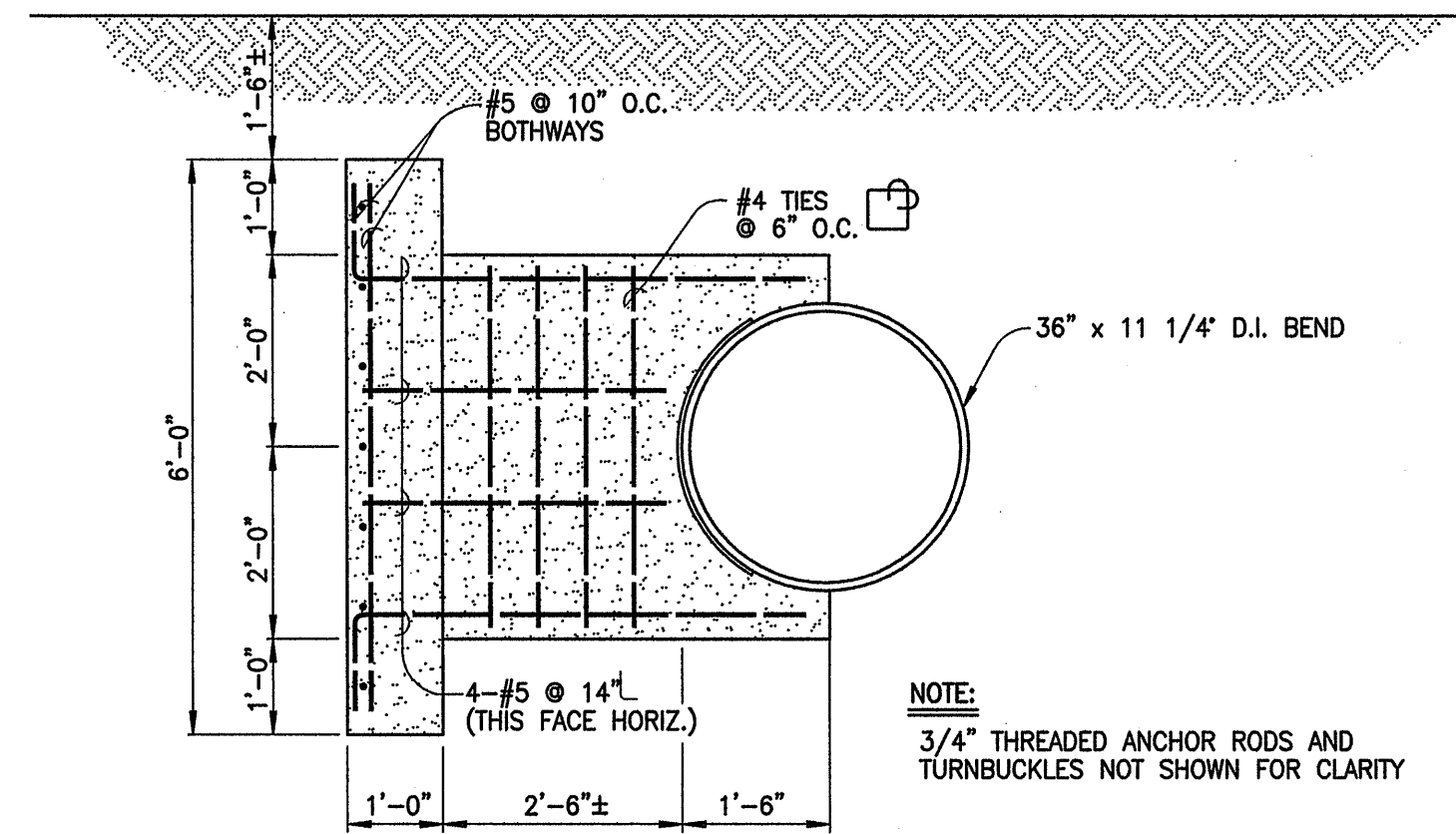
WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

KAONOULU MARKET PLACE
T.M.K.: (2) 3-9-01 : 16
KIHEI, MAUI, HAWAII
DETAILS OF REINFORCED CONCRETE ANCHOR AND THRUST BLOCKS FOR RELOCATED 36" WATERLINE

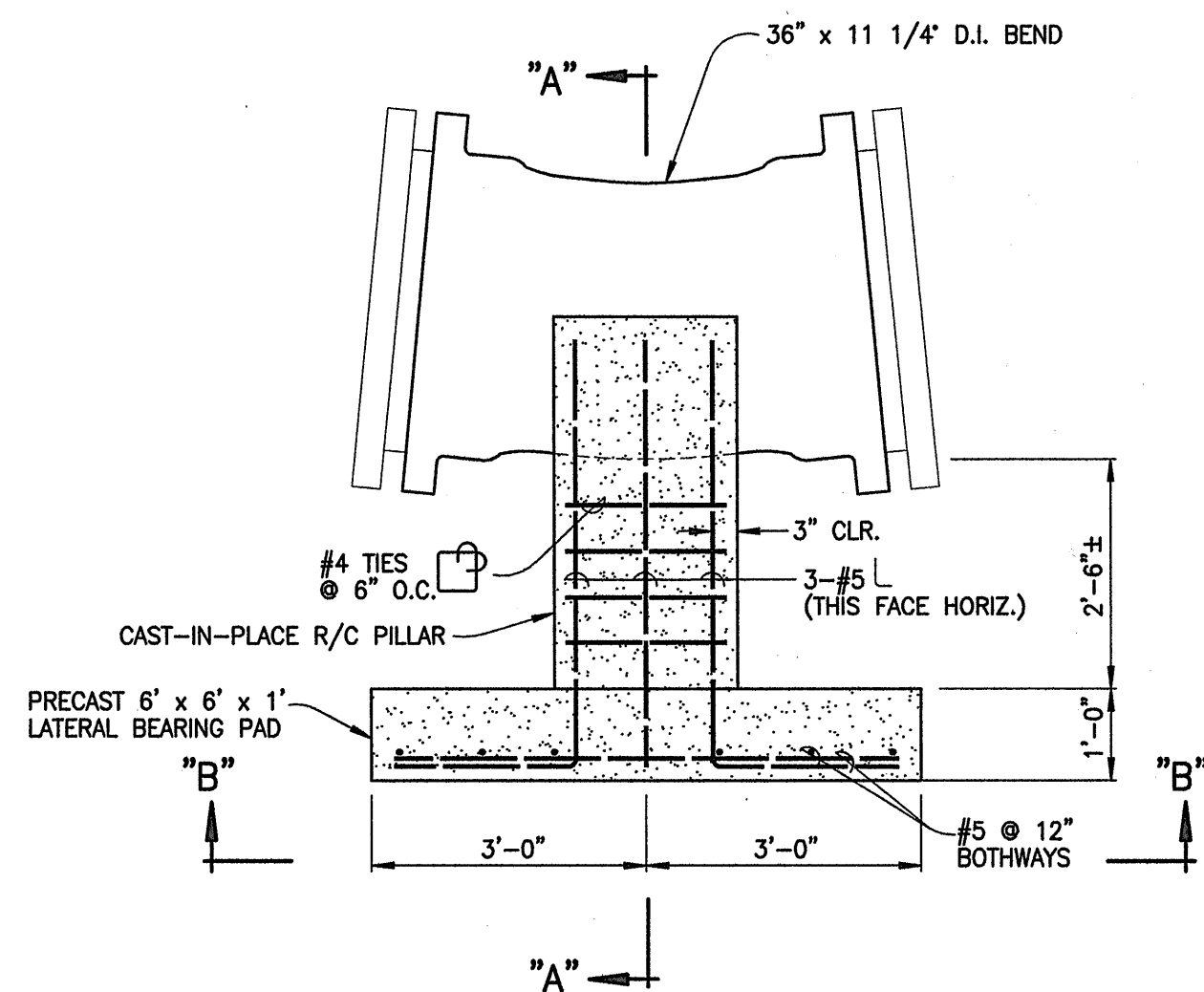
DESIGNED BY	DTU	04010.10	12.01
DRAWN BY	DTU	JOB NUMBER	
DATE	DATE	10-10-05	SHEET
SCALE	AS NOTED	DATE	OF SHEETS



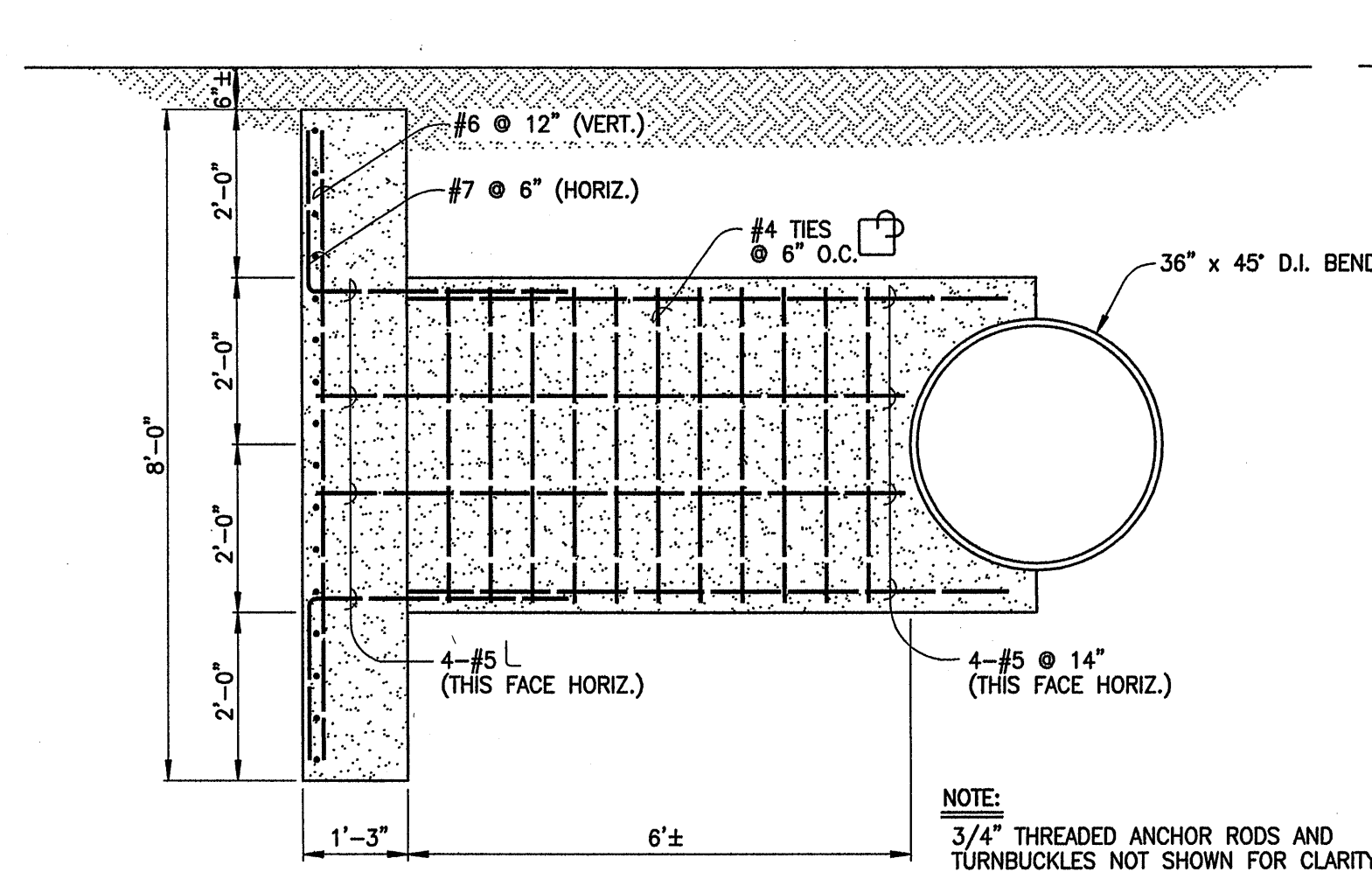
SECTION "B"-"B" BACK ELEVATION VIEW
SCALE: 1/2" = 1'-0"



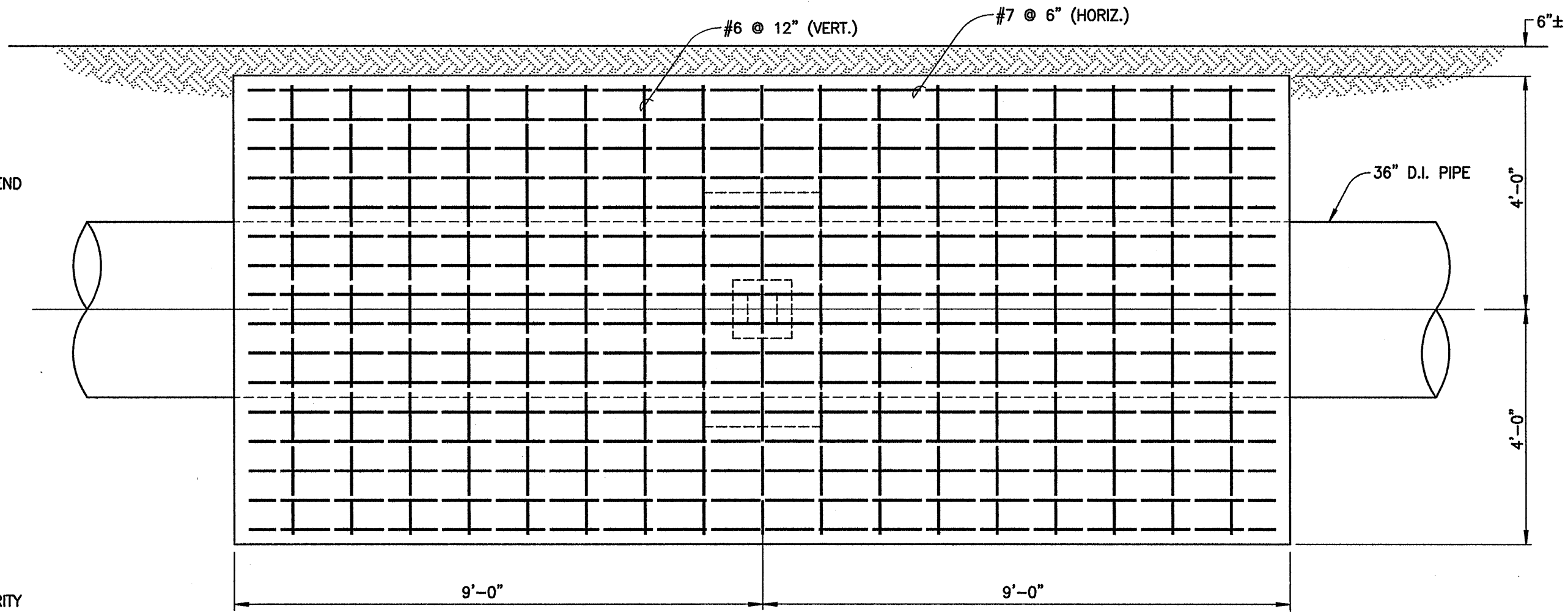
SECTION "A"-"A" SIDE ELEVATION VIEW
SCALE: 1/2" = 1'-0"



PLAN VIEW OF 36" x 11 1/4" BEND THRUST BEAM
SCALE: 1/2" = 1'-0"

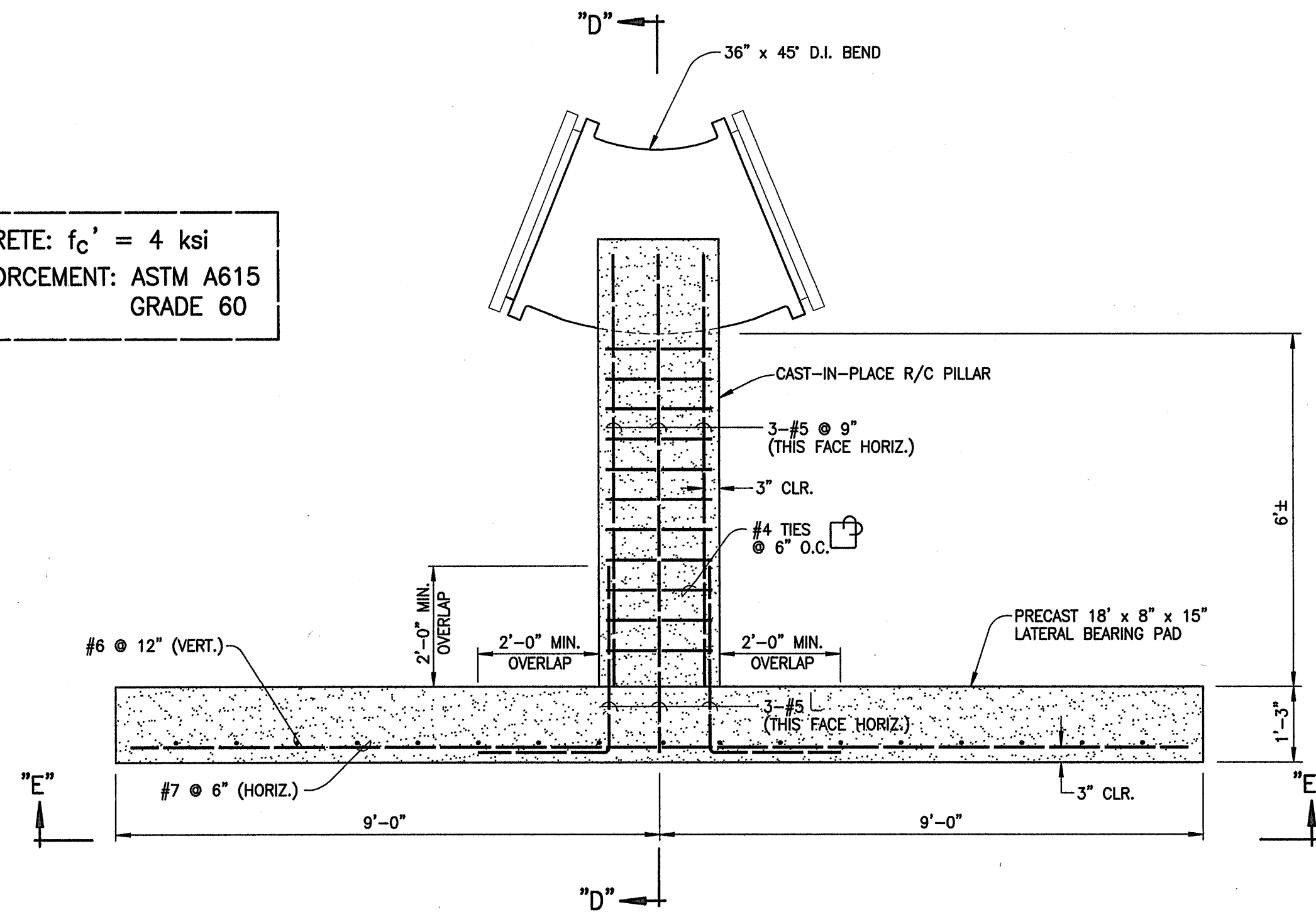


SECTION "D"-"D" SIDE ELEVATION VIEW
SCALE: 1/2" = 1'-0"

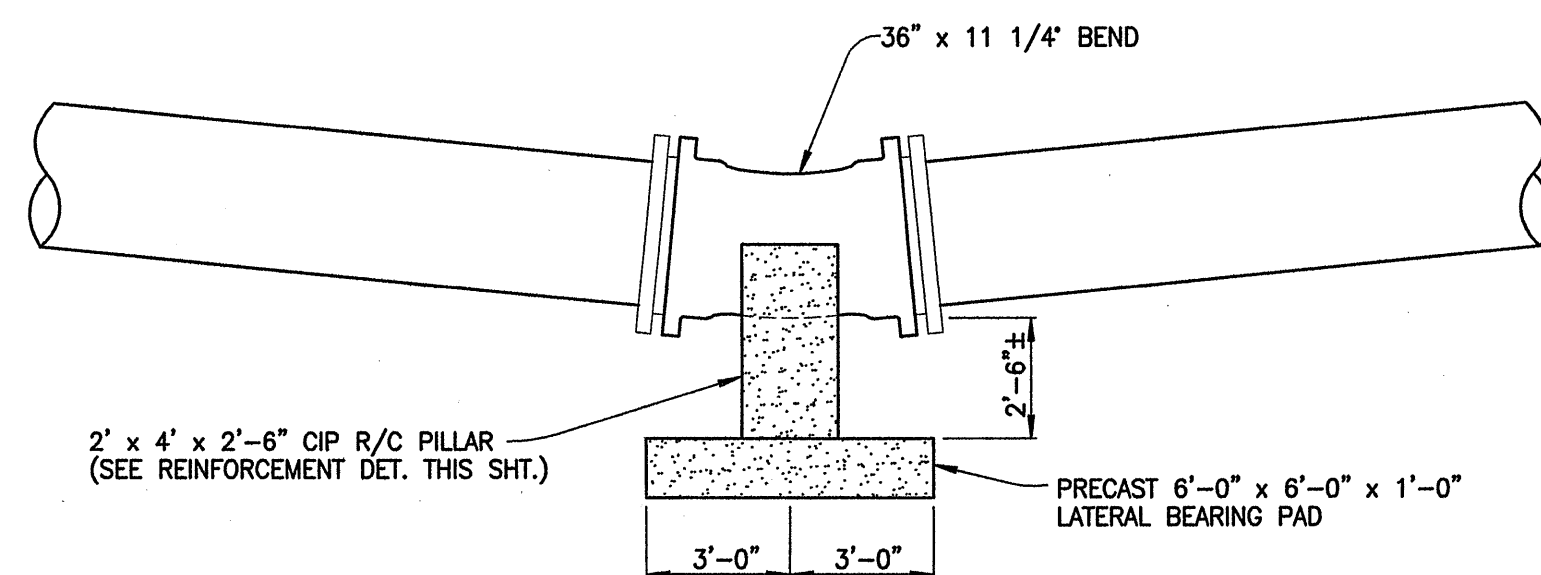


SECTION "E"-"E" BACK ELEVATION VIEW
SCALE: 1/2" = 1'-0"

CONCRETE: $f_c' = 4$ ksi
REINFORCEMENT: ASTM A615
GRADE 60



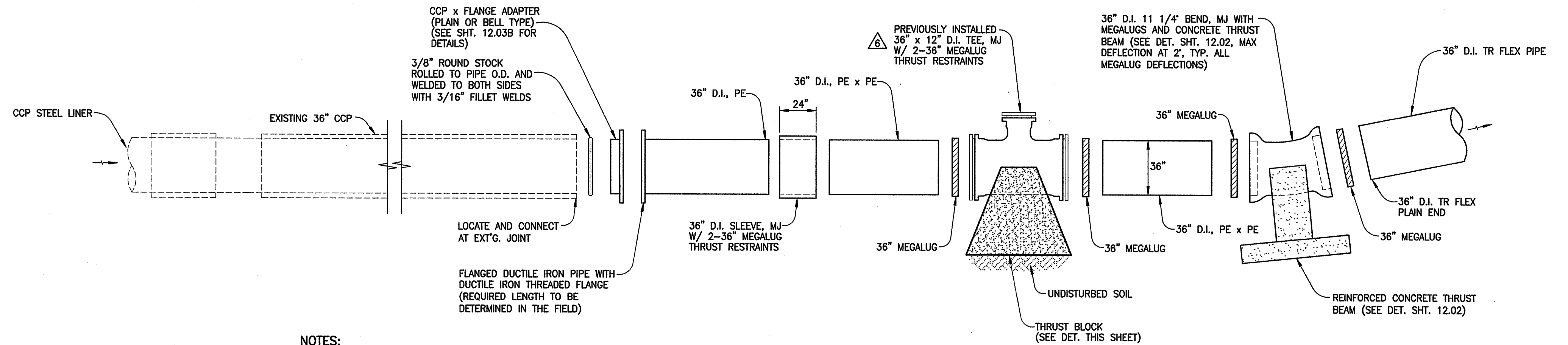
PLAN VIEW OF 36" x 45" BEND STANDARD CAST-IN-PLACE THRUST BEAM
SCALE: 1/2" = 1'-0"



PLAN VIEW SHOWING LOCATION OF 36" x 11 1/4" BEND AT STA. 0+50.21
SCALE: 1/4" = 1'-0"

		WARREN S. UNEMORI ENGINEERING, INC. CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS WELLS STREET PROFESSIONAL CENTER, SUITE 403 2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793	
KAONOULU MARKET PLACE T.M.K.: (2) 3-9-01 : 16 KIHEI, MAUI, HAWAII		DETAILS OF REINFORCED CONCRETE THRUST BEAMS FOR RELOCATED 36" WATERLINE	
DTU DESIGNED BY WIS DRAWN BY	DTU CHECKED BY DTU APPROVED BY	04010.10 JOB NUMBER 10-10-05 DATE	12.02 SHEET OF SHEETS
SCALE AS NOTED		DATE	

V:\Projects\04PR001\0401010.dwg(2004)complan\del-wr0.dwg



NOTES:

- BEFORE CONSTRUCTION, CONTRACTOR TO DO FIELD VERIFICATION OF EXISTING PIPE, VERIFY JOINT LOCATIONS, ETC.
- ANY CHANGES DUE TO FIELD CONDITIONS MUST BE APPROVED BY DWS BEFORE WORK CAN CONTINUE.

SUGGESTED CONSTRUCTION SEQUENCE FOR LIVE CONNECTION TO EXISTING 36" CCP PIPE

PRE-LIVE INSTALLATION ACTIVITIES

- CHLORINATE AND PRESSURE TEST RELOCATED LINE FROM UPSTREAM END TO DOWNSTREAM END OF PIPE.

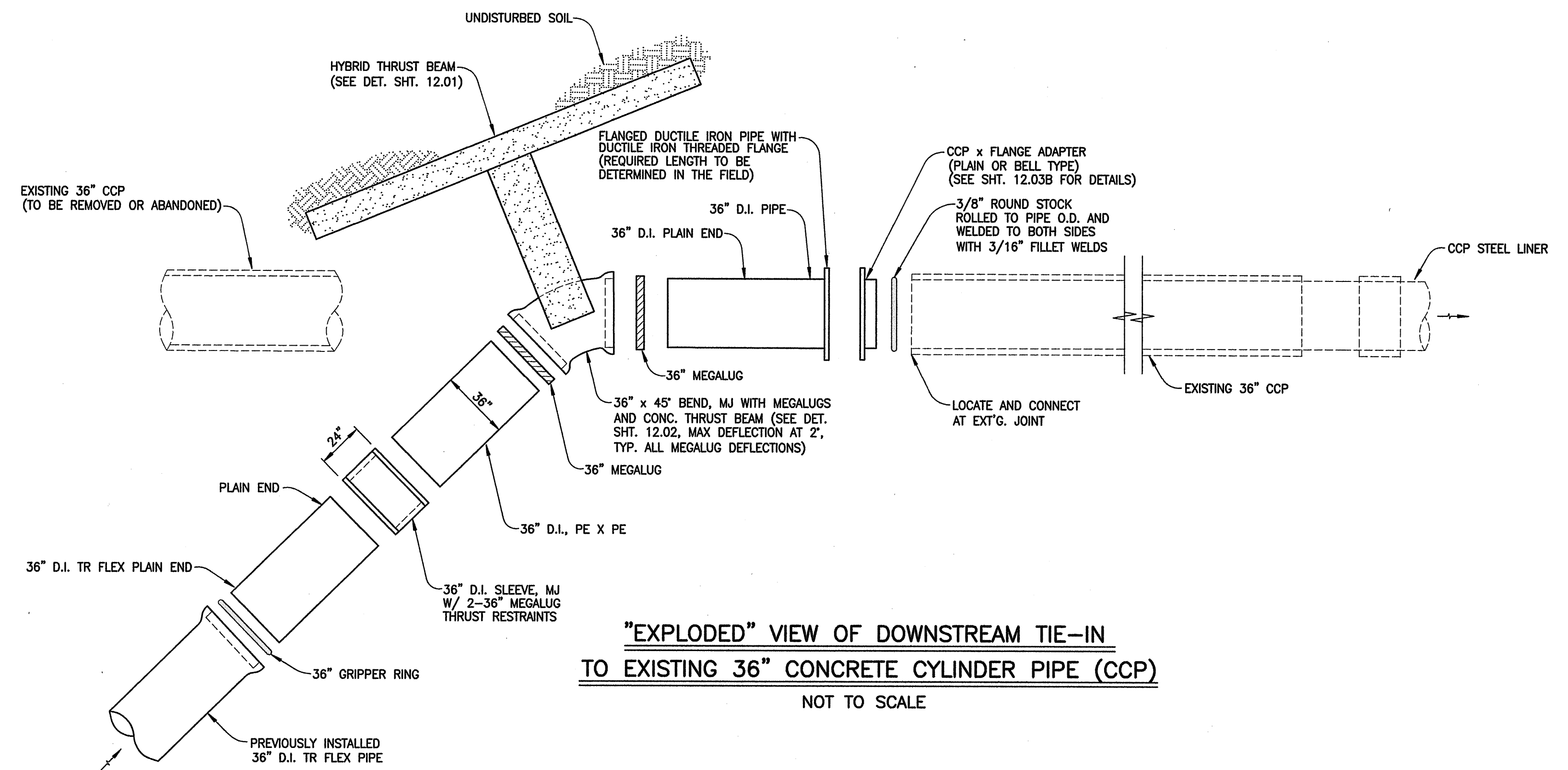
LIVE INSTALLATION ACTIVITIES

- CLOSE 36" CCP LINE (2 LOCATIONS UPSTREAM AND DOWNSTREAM OF PROJECT SITE)
- CUT 36" LINE
- DRAIN 36" LINE CONTENTS INTO TEMPORARY RETENTION BASIN
- WELD FLANGE ADAPTORS TO CUT END OF 36" CCP LINE (2 LOCATIONS)
- INSTALL 36" x 45 DEGREE BEND
- COMPLETE THRUST BEAM CONSTRUCTION AT BEND
- PRESSURE TEST AND CHLORINATE 36" PIPE FITTINGS AS NECESSARY
- CONNECT 36" JUST INSTALLED LINE TO PRE-INSTALLED RELOCATED LINE (2 LOCATIONS)
- OPEN 36" CCP LINE, CHECK FOR LEAKS

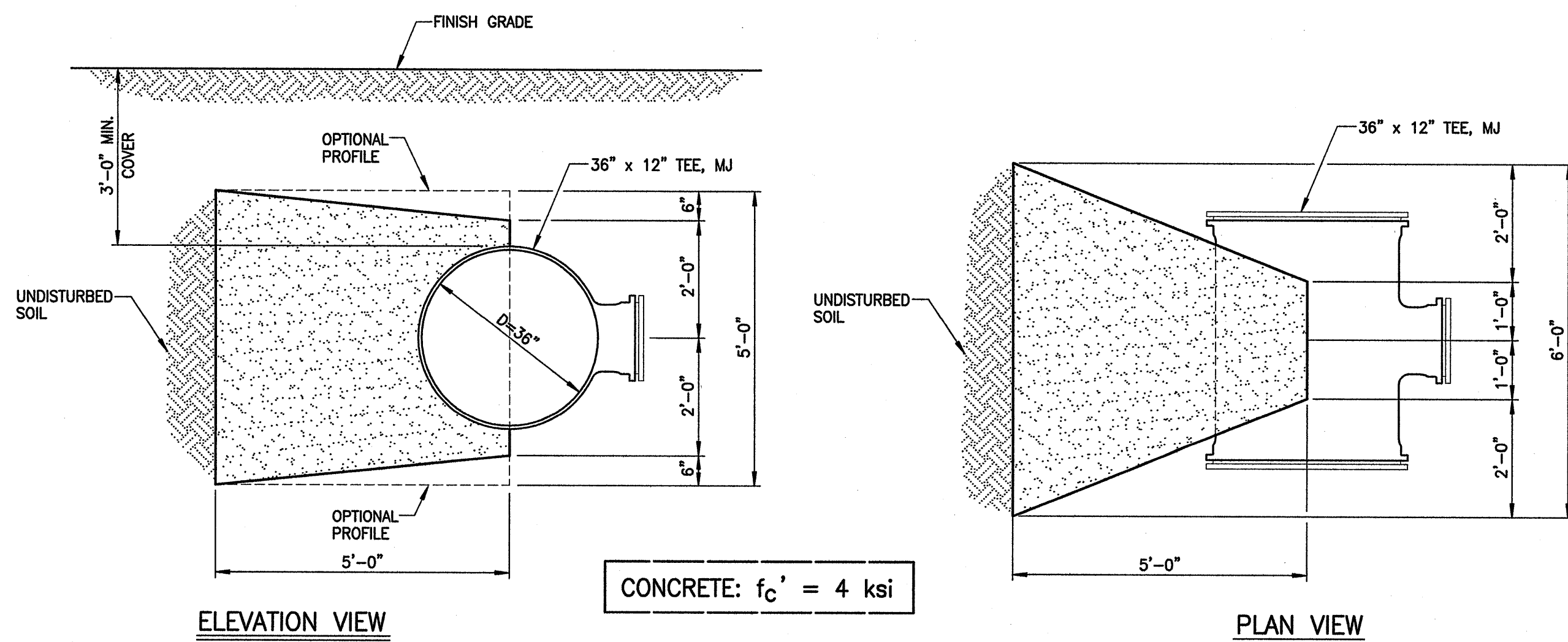
POST-LIVE INSTALLATION ACTIVITIES

- ABANDON/REMOVE ONSITE 36" CCP LINE

**"EXPLODED" VIEW OF UPSTREAM TIE-IN
TO EXISTING 36" CONCRETE CYLINDER PIPE (CCP)**
NOT TO SCALE



**"EXPLODED" VIEW OF DOWNSTREAM TIE-IN
TO EXISTING 36" CONCRETE CYLINDER PIPE (CCP)**
NOT TO SCALE

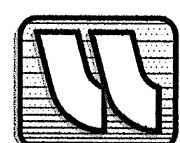
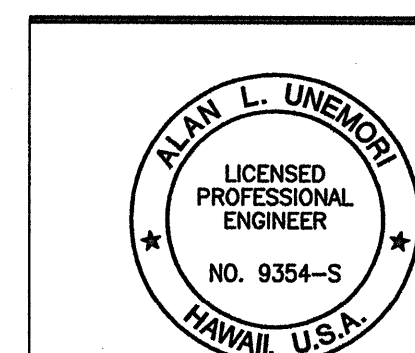


ELEVATION VIEW

PLAN VIEW

THRUST BLOCK GEOMETRY FOR 36" x 12" TEE AT STA. 0+24

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



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KAONOULU MARKET PLACE
T.M.K.: (2) 3-9-01 : 16
KIHEI, MAUI, HAWAII
DETAILS OF FITTINGS AT TIE-IN TO EXISTING
36" CONCRETE CYLINDER PIPE

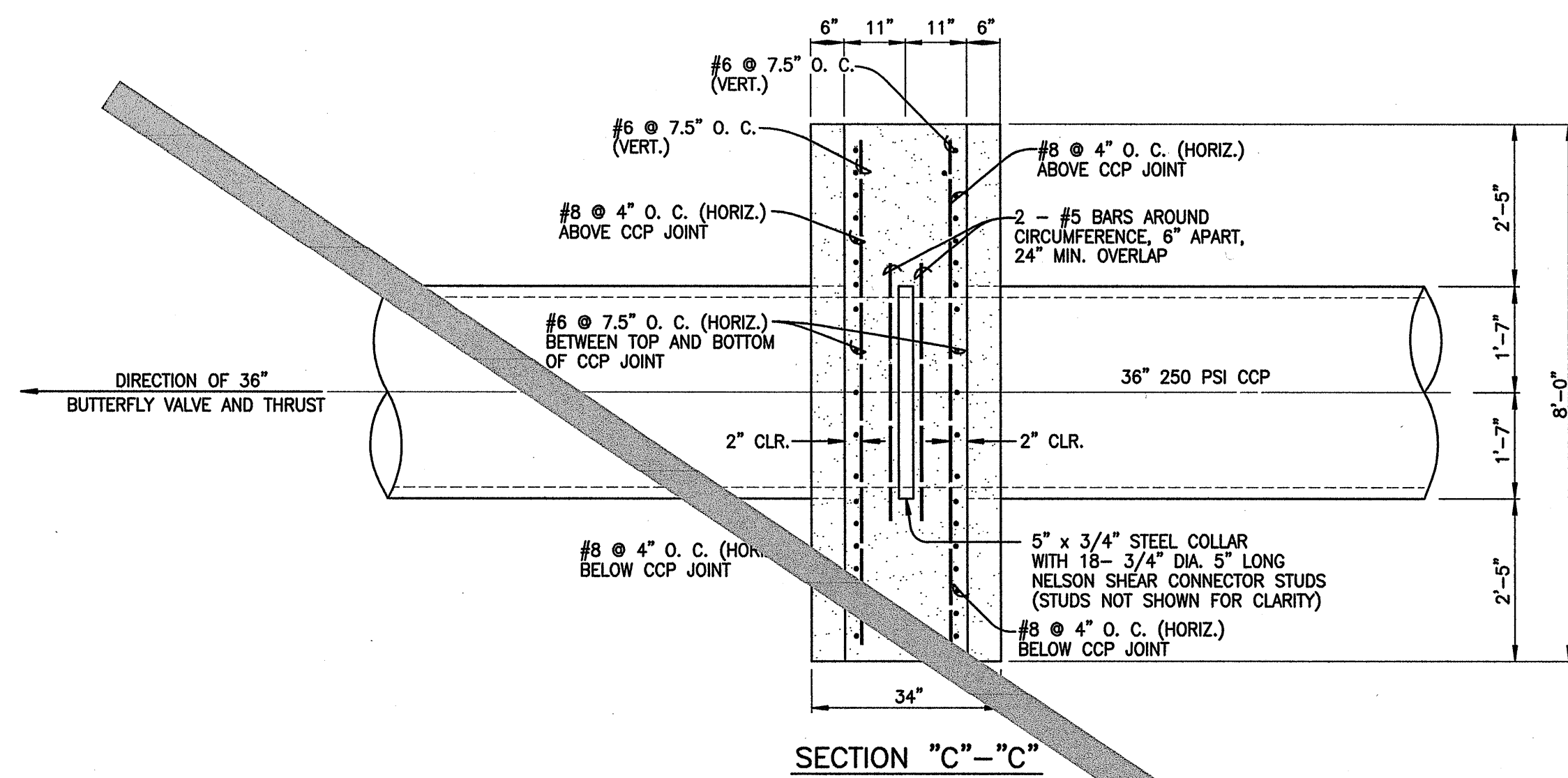
TITLE

DESIGNED BY	DTU	CHECKED BY	DTU	JOB NUMBER	04010.10
WIS	WIS	DTU	DTU	JOB NUMBER	10-10-05
LETTER	DESCRIPTION	DATE	DATE	DATE	DATE

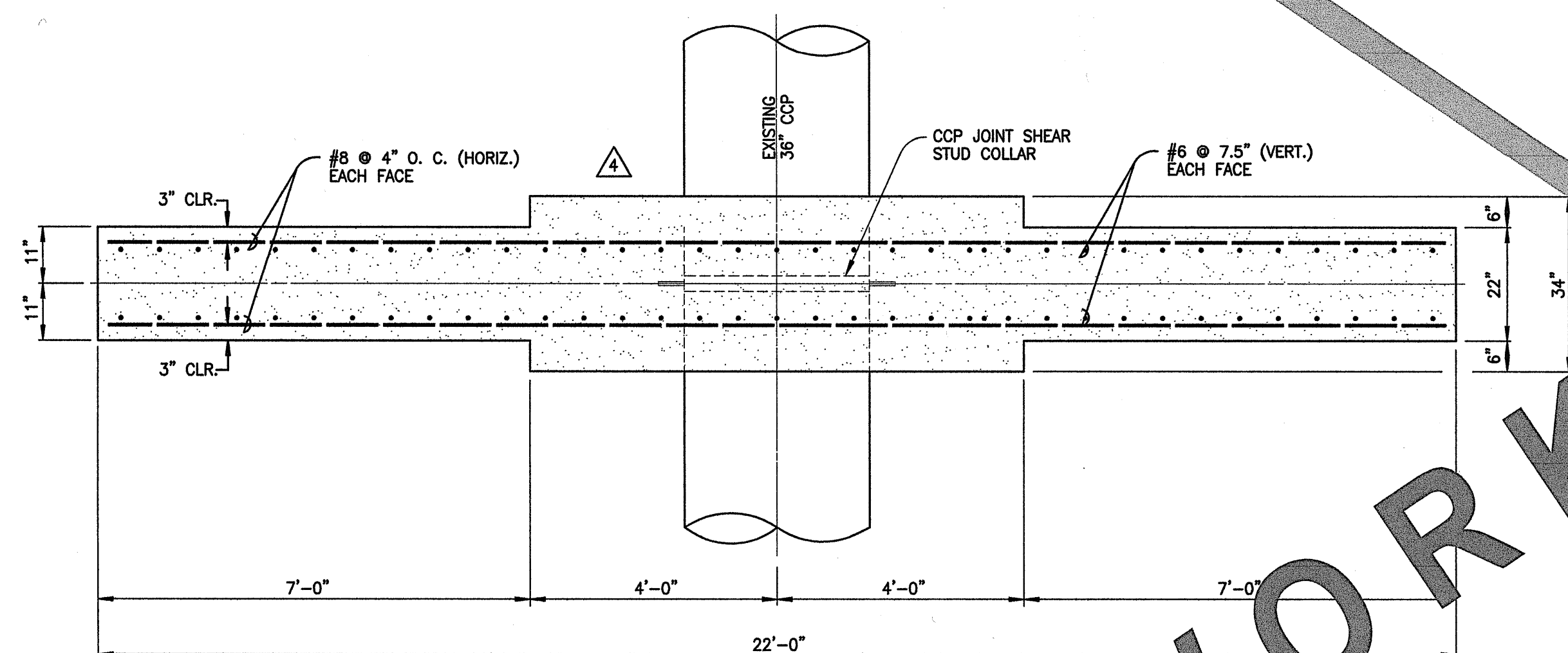
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION "AS DEFINED IN SECTION 10-115-2 OF THE HAWAII ADMINISTRATIVE RULES FOR PROFESSIONAL ENGINEERS, ARCHITECTS, LAND SURVEYORS AND LANDSCAPE ARCHITECTS"

SCALE	AS NOTED	DATE	DATE	DATE	DATE
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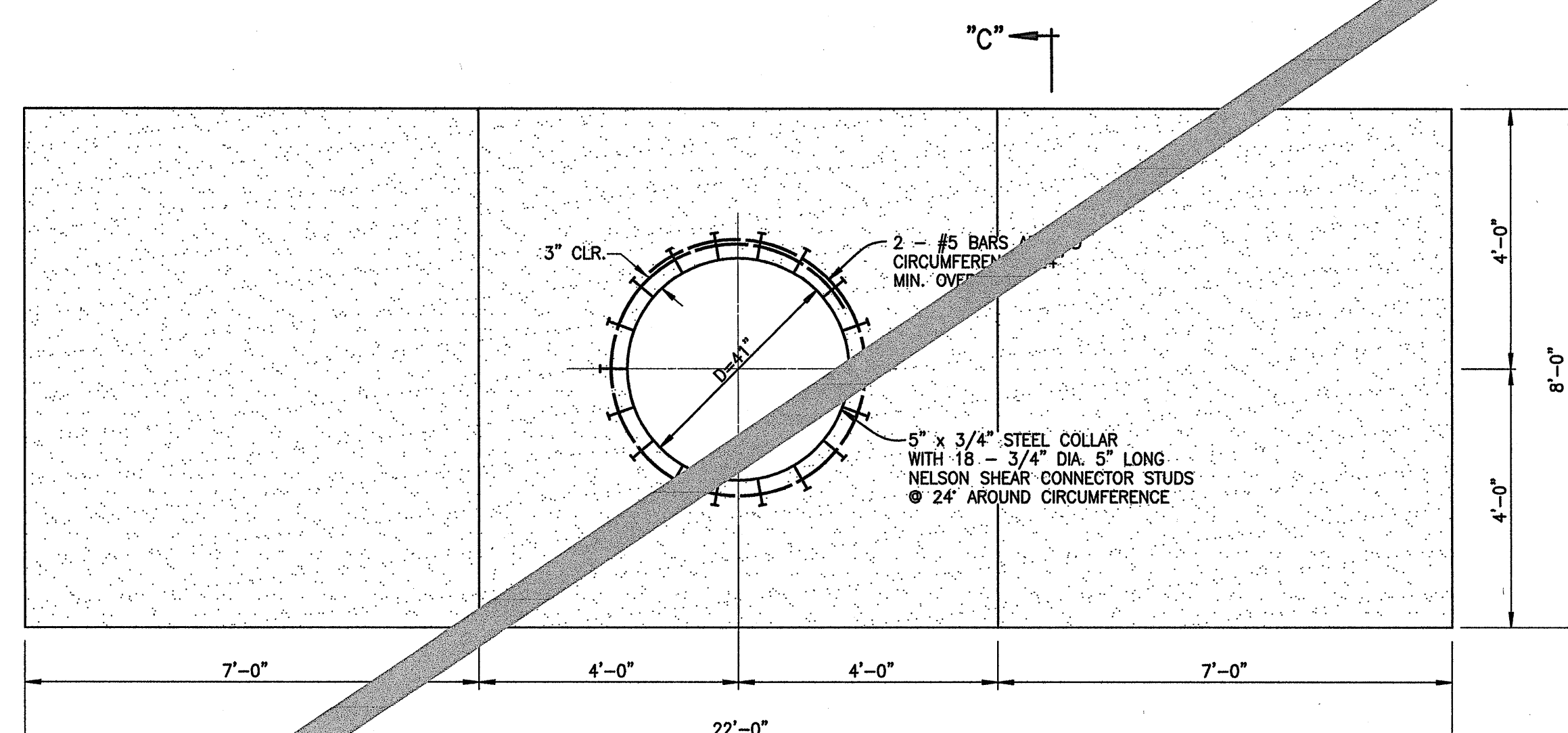
12.03
SHEET
OF SHEETS



SECTION "C"-"C"
GEOMETRY OF THRUST BEAM FOR 36" BUTTERFLY VALVE
SCALE: 1/2" = 1'-0"



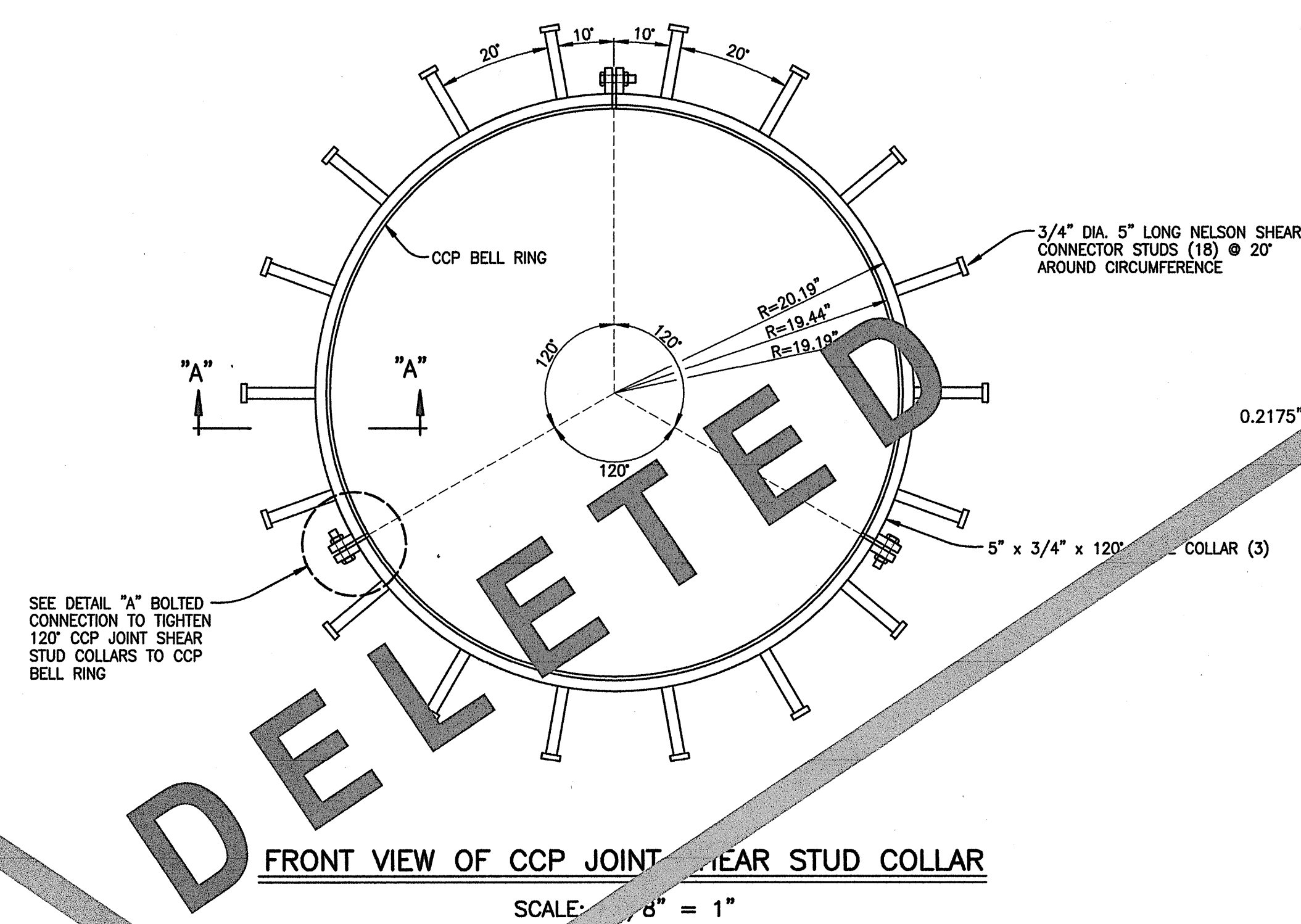
PLAN VIEW
GEOMETRY OF THRUST BEAM FOR 36" BUTTERFLY VALVE
SCALE: 1/2" = 1'-0"



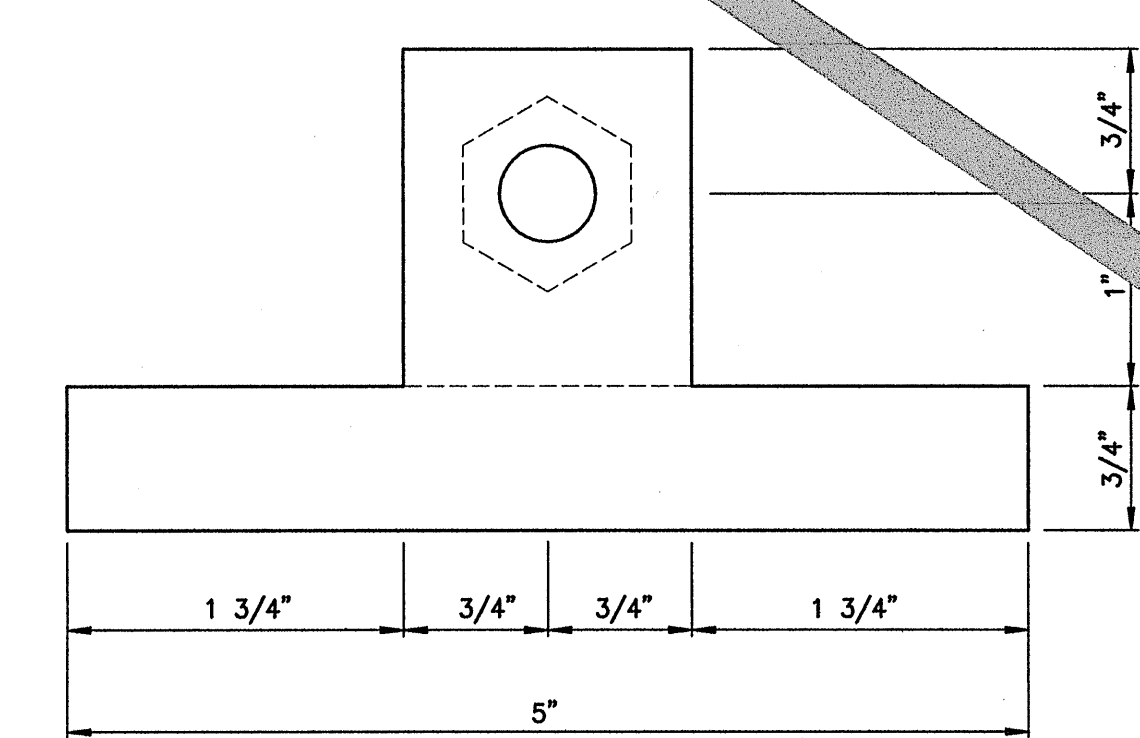
SECTION "C"-"C"
GEOMETRY OF THRUST BEAM FOR 36" BUTTERFLY VALVE
SCALE: 1/2" = 1'-0"

NOTE: HORIZONTAL AND VERTICAL
REBARS NOT SHOWN FOR CLARITY
CONCRETE: $f_c' = 4$ ksi
REINFORCEMENT: ASTM A615
GRADE 60

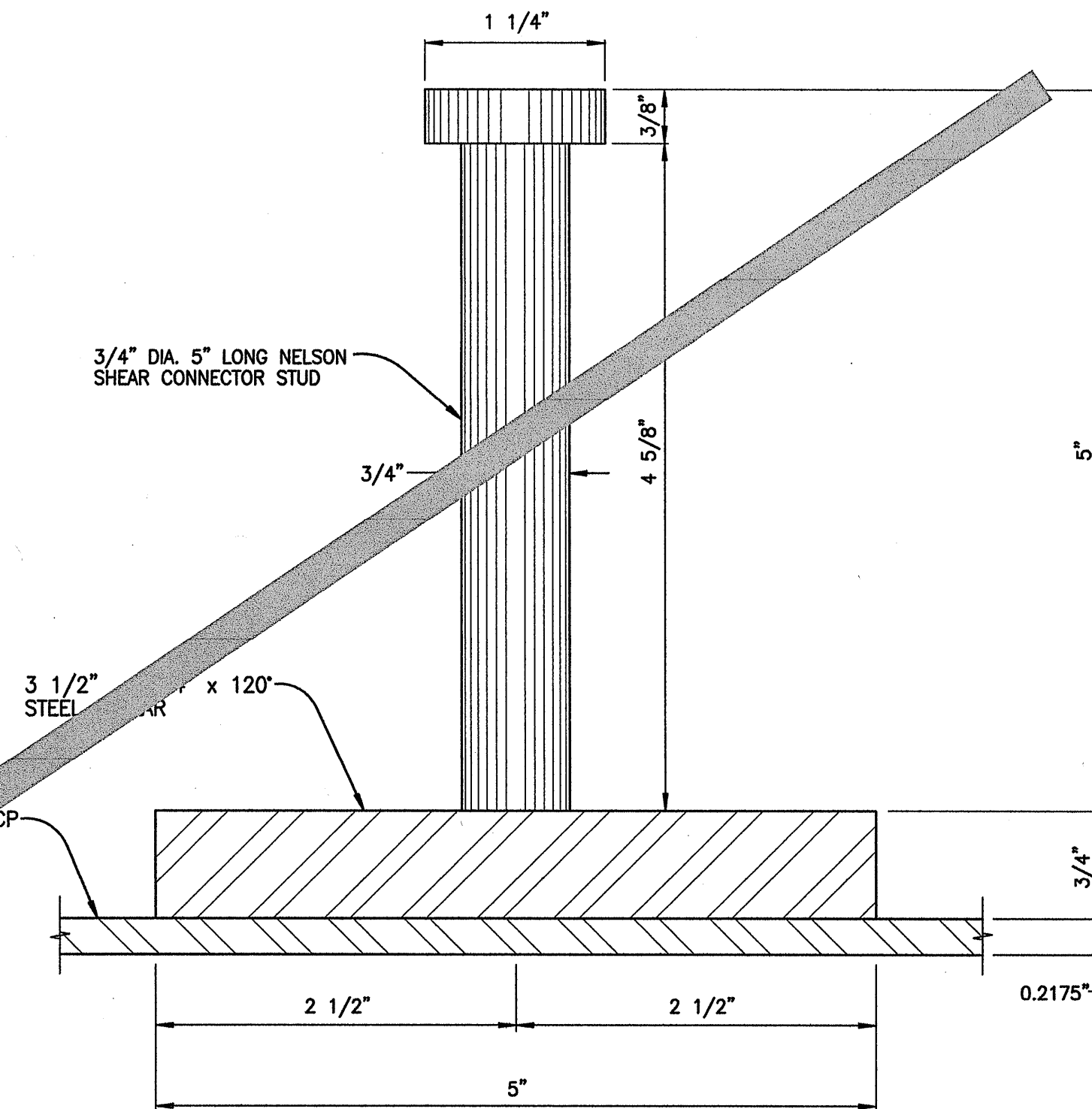
STEEL: ASTM A36
NELSON SHEAR CONNECTION STUDS:
ASTM A108 GRADE C-1010 THROUGH C-1020
 $F_u = 65$ ksi
 $F_y = 51$ ksi



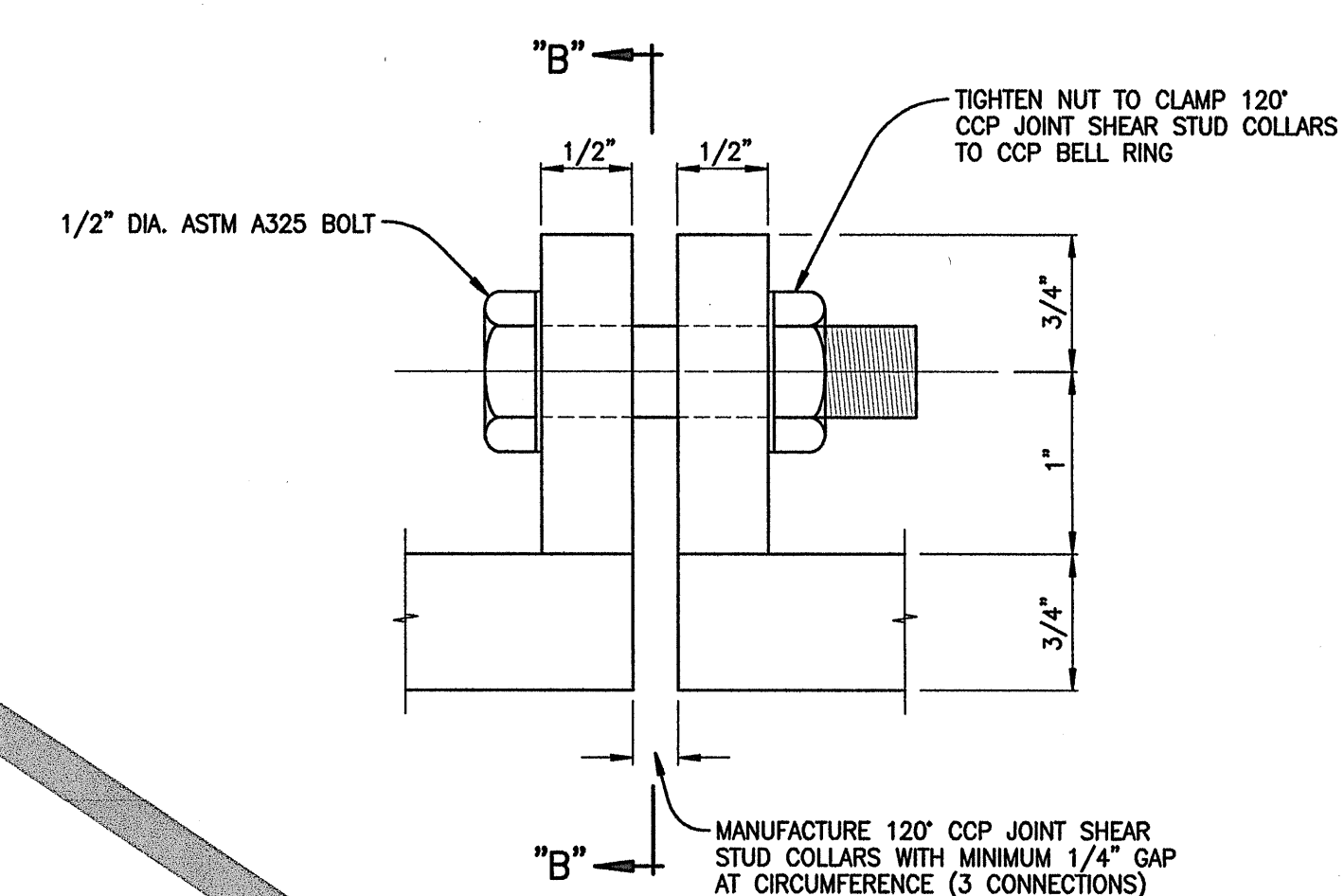
FRONT VIEW OF CCP JOINT SHEAR STUD COLLAR
SCALE: 1/8" = 1"



SECTION "B"-"B"
BOLTED CONNECTION TO TIGHTEN 120" CCP JOINT
SHEAR STUD COLLARS TO CCP BARREL
SCALE: 1" = 1"



SECTION "A"-"A" - CROSS-SECTION OF
CCP JOINT SHEAR STUD COLLAR
SCALE: 1" = 1"



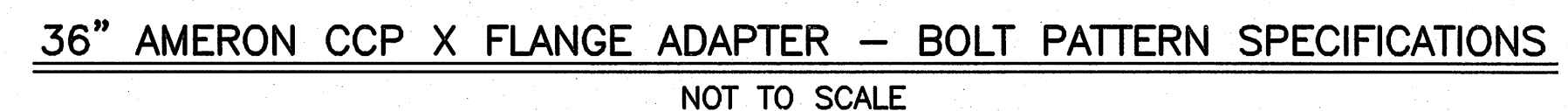
DETAIL "A" - BOLTED CONNECTION TO TIGHTEN 120"
CCP JOINT SHEAR STUD COLLARS TO CCP BARREL
SCALE: 1" = 1"

		WARREN S. UNEMORI ENGINEERING, INC. CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS 403 WELLS STREET PROFESSIONAL CENTER, SUITE 403 WELLS STREET, WAILUKU, MAUI, HAWAII 96793	
KAONANU MARKET PLACE T.M.K. 3-9-01 : 16 KIHEI, HAWAII		DETAILS OF REINFORCED CONCRETE THRUST TITLE BEAM AND SHEAR STUD COLLAR	
SIGNATURE	DATE	DTU DESIGNED BY	DTU CHECKED BY
WIS	07/02/12	WIS	DTU
DRAWN BY	APPROVED BY	JOB NUMBER	12.03A
DATE	DATE	10-10-05	SHEET
LETTER	DESCRIPTION	DATE	OF SHEETS

REVISED PER DWS COMMENTS	07/02/12
INTERIOR PORTION OF THRUST BEAM WIDENED	12-12-08
LETTER	DESCRIPTION
DATE	DATE

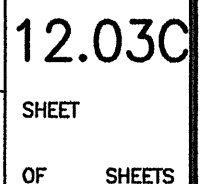
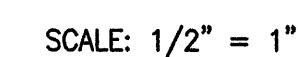
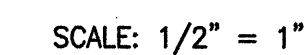
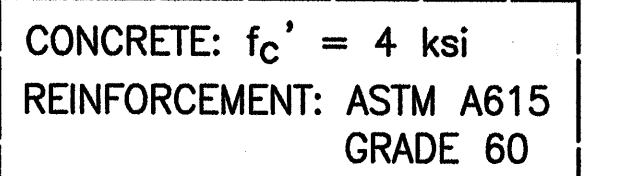
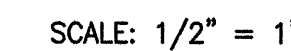
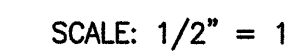
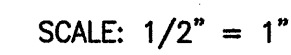
V:\Projdata\04PRC\04010.10.dwg(2004) (complan) (set-w)10.dwg

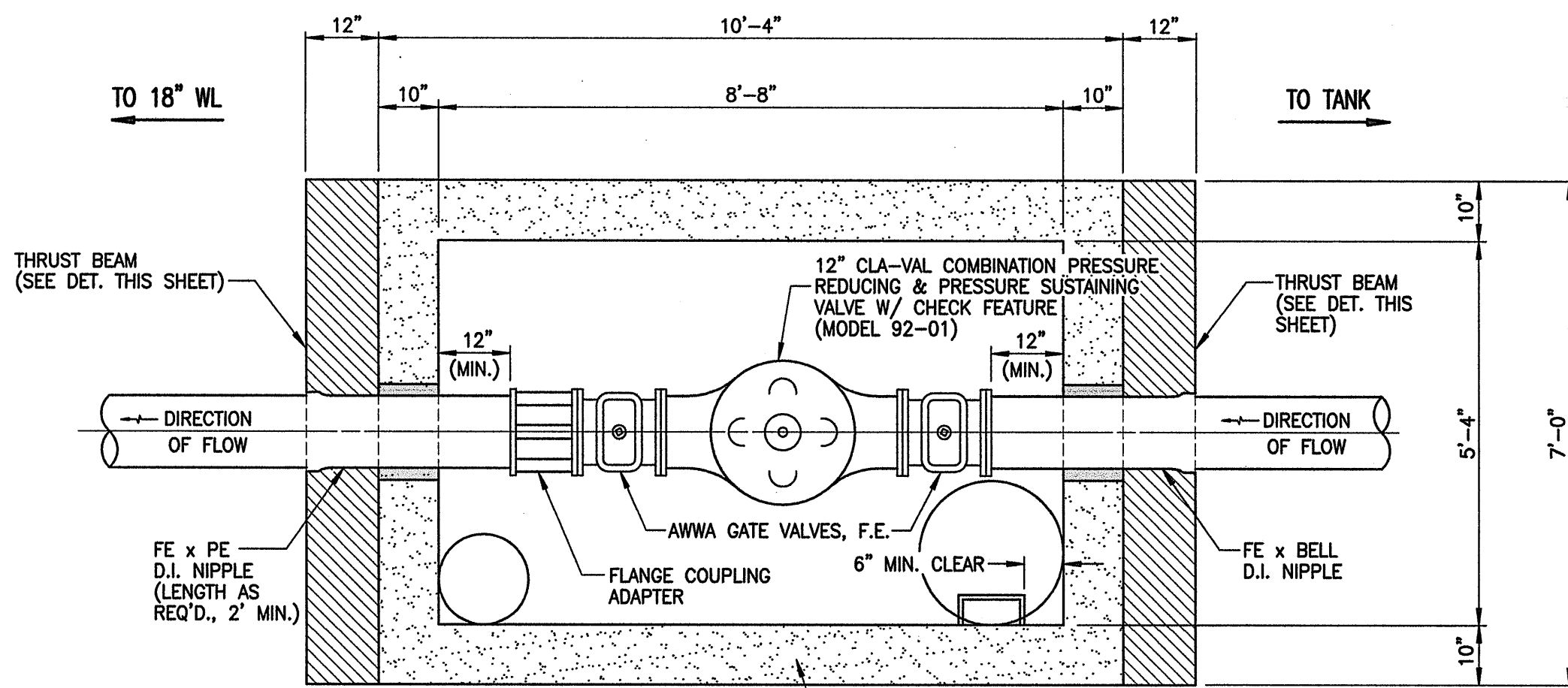
36" AMERON CCP X FLANGE ADAPTER - MALE
NOT TO SCALE



36" AMERON CCP X FLANGE ADAPTER – FEMALE
NOT TO SCALE

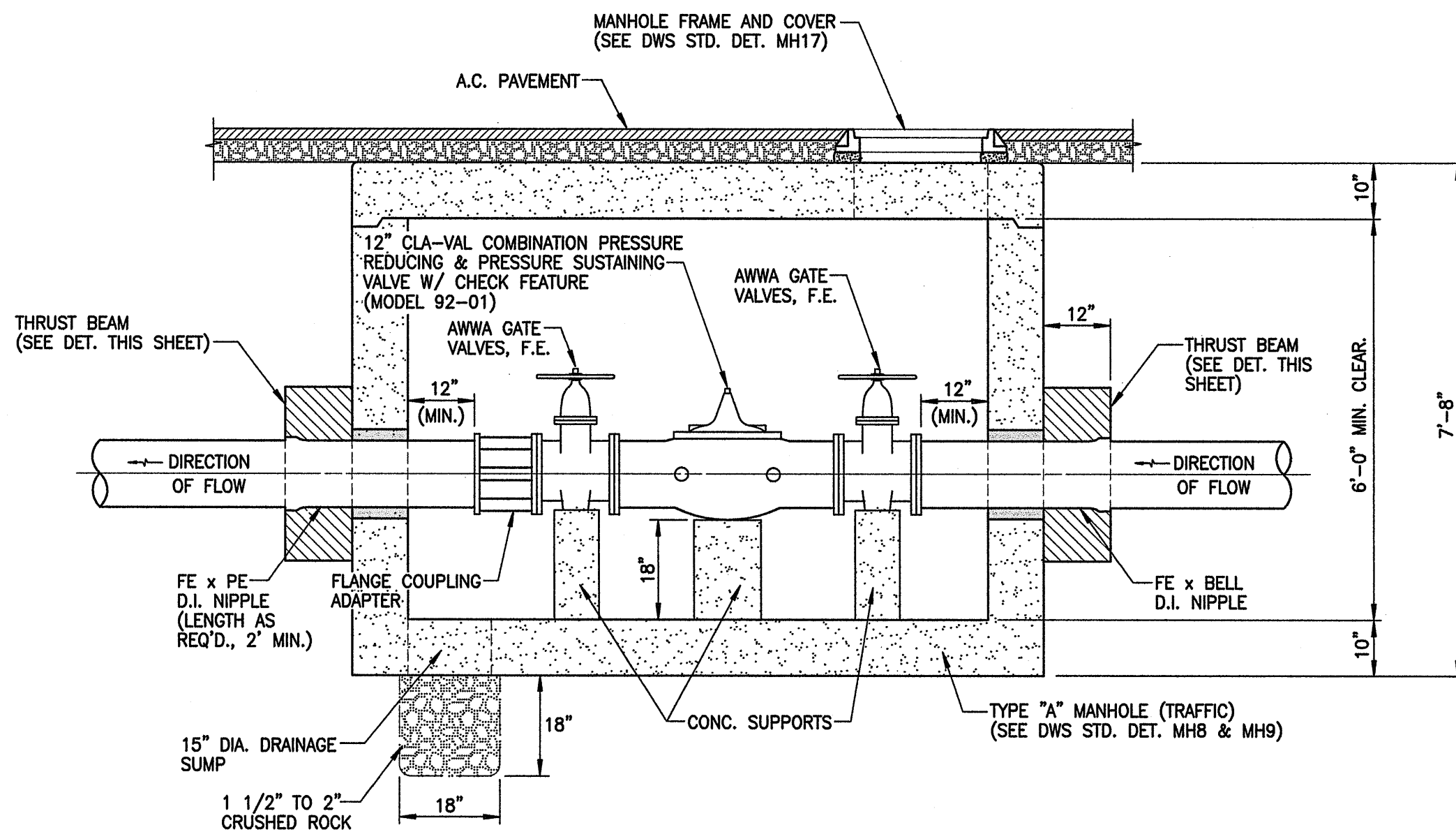
	SHEET ADDED IN ITS ENTIRETY	12/12/08	SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION "AS DEFINED IN SECTION 115-115-2 OF THE HAWAII ADMINISTRATIVE RULES FOR PROFESSIONAL ENGINEERS, ARCHITECTS, LAND SURVEYORS AND LANDSCAPE ARCHITECTS"	WIS	DTU	JOB NUMBER	SHEET
	LETTER	DESCRIPTION		DATE	DRAWN BY	APPROVED BY		10-10-05
				SCALE	AS NOTED	DATE	OF SHEETS





NOTE:
SEE DWS STD. DETAILS MH8 & MH9 FOR
REINFORCING AND ALL OTHER INFORMATION
NOT EXPLICITLY SHOWN ON PLAN.

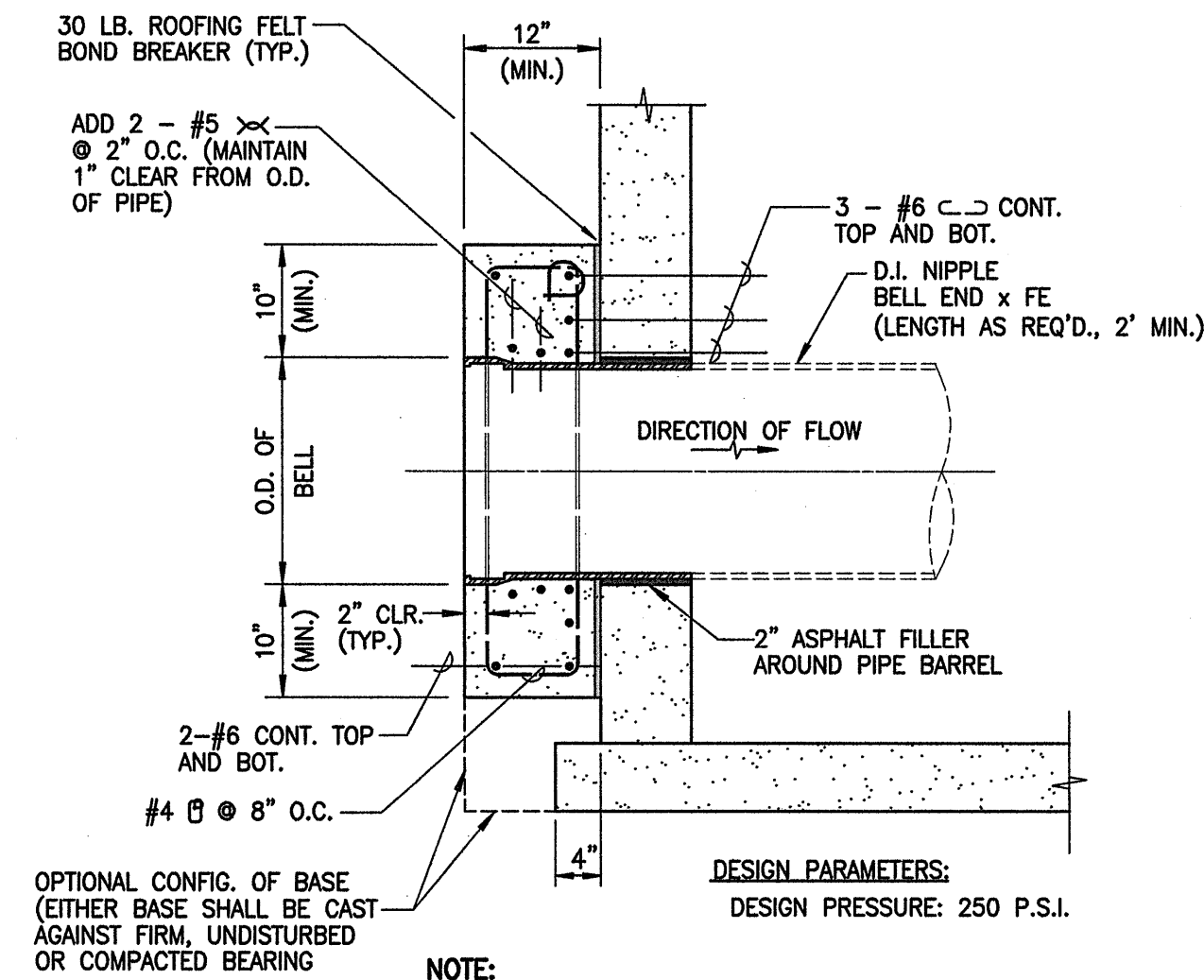
PLAN
TYPE "A" MANHOLE (TRAFFIC)
(SEE DWS STD. DET. MH8 & MH9)



ELEVATION

DETAIL - 12" CHECK VALVE ASSEMBLY

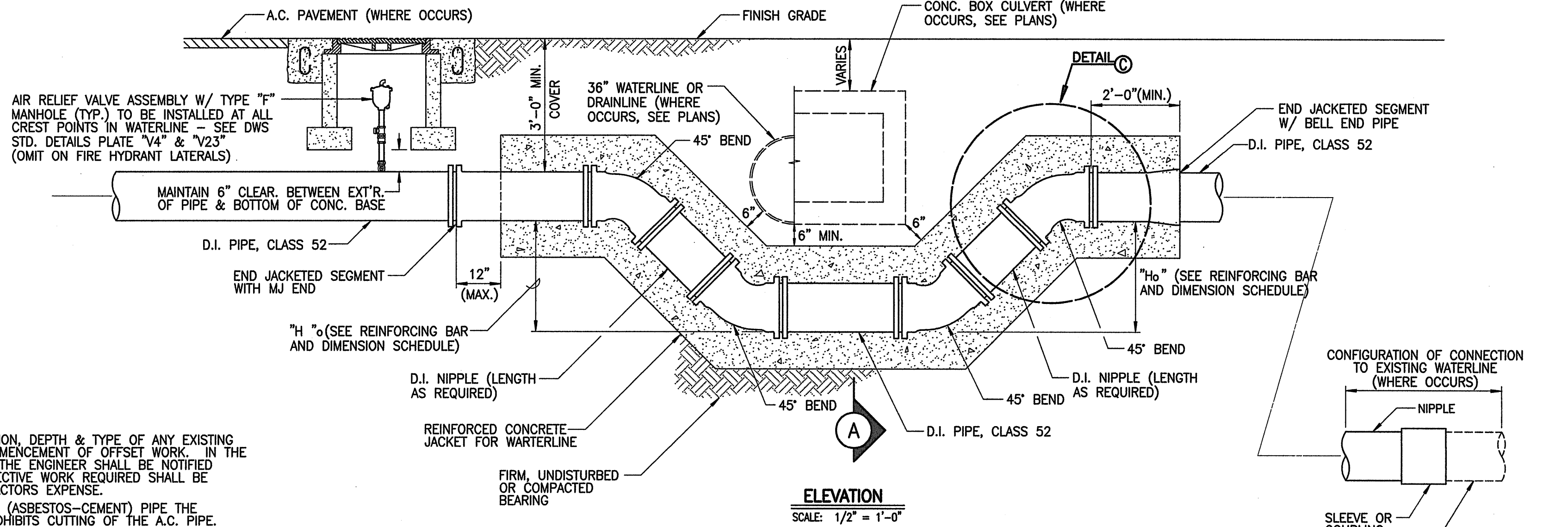
SCALE: 1/2" = 1'-0"



NOTE:
THRUST BEAM TO BE CONSTRUCTED ON BOTH
ENDS OF MANHOLE WALL AND OVER THE ENTIRE
LENGTH OF THE MANHOLE.

DETAIL - CHECK VALVE MANHOLE THRUST BEAM

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



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

1 DETAIL - REINF. CONC. WATERLINE JACKET FOR VERTICAL OFFSETS

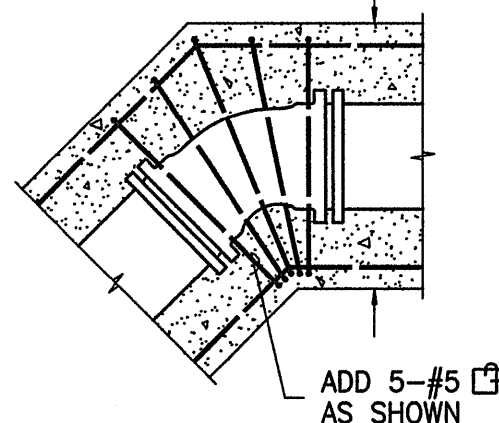
SCALE: 1/2" = 1'-0"

NOTES:

- CONTRACTOR SHALL CONFIRM LOCATION, DEPTH & TYPE OF ANY EXISTING UTILITIES CROSSINGS PRIOR TO COMMENCEMENT OF OFFSET WORK. IN THE EVENT ANY DISCREPANCIES OCCUR, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY. OTHERWISE ANY CORRECTIVE WORK REQUIRED SHALL BE PERFORMED SOLELY AT THE CONTRACTORS EXPENSE.
- FOR CONNECTIONS TO EXISTING A.C. (ASBESTOS-CEMENT) PIPE THE DEPARTMENT OF WATER SUPPLY PROHIBITS CUTTING OF THE A.C. PIPE. CONTRACTOR SHALL REMOVE ONE (1) COMPLETE SECTION OF A.C. PIPE AT EACH CONNECTION TO THE EXISTING A.C. WATERLINE AND REPLACE SAME WITH EQUIVALENT DIAMETER DUCTILE IRON PIPE (CLASS 52).
- WHEREVER CONSTRUCTION JOINTS ARE REQUIRED 6" RUBBER OR NEOPRENE WATERSTOPS SHALL BE INSTALLED. WATERSTOP SHALL BE OF THE TYPE SPECIFIED AND MANUFACTURED BY THE KIRKILL COMPANY, OR APPROVED EQUAL.
- SEE REINFORCING BAR & DIMENSION SCHEDULE FOR REINFORCING AND DIMENSIONS.
- ALL INTERIOR JOINTS AND FITTINGS SHALL BE "MJ".

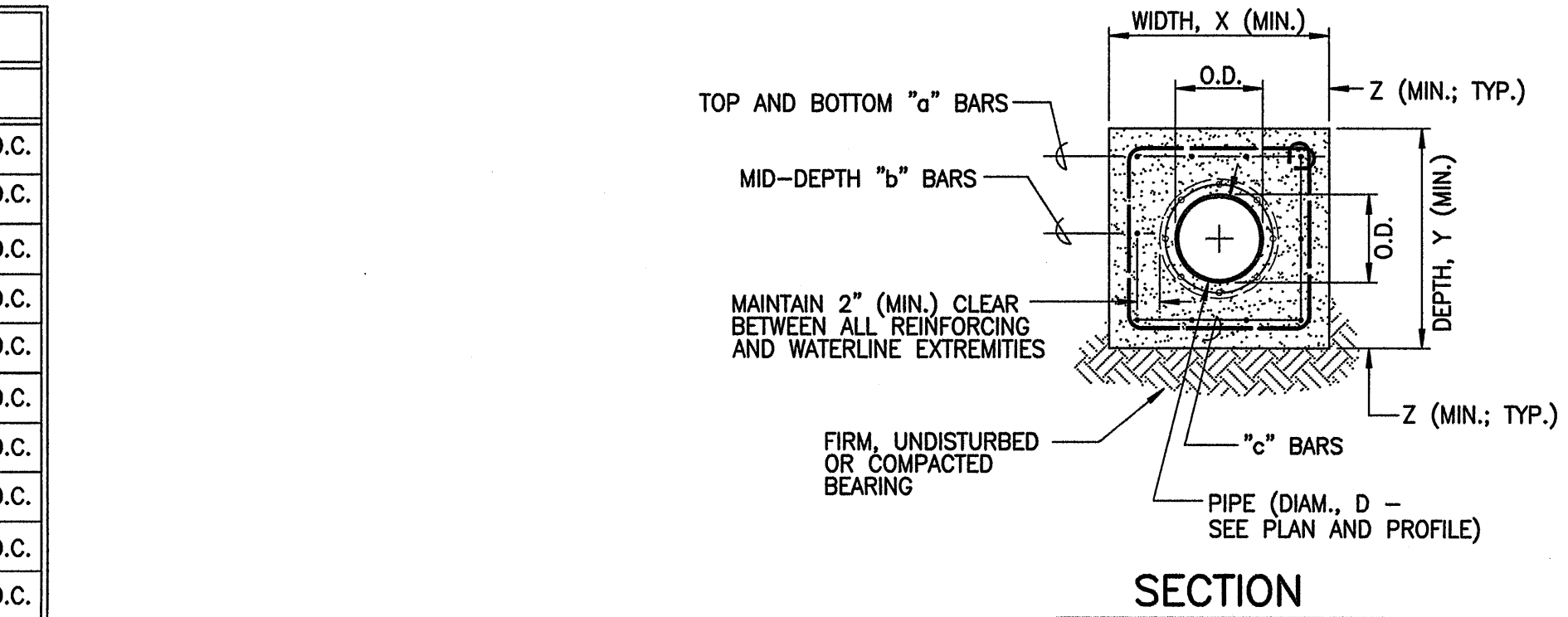
REINFORCING BAR & DIMENSION SCHEDULE							
DIAMETER	H ₀ (MAX.)	X	Y	Z	TOP & BOTTOM "a" BARS	"b" BARS	"c" BARS
6" & SMALLER	4'-0"	2'-3"	2'-3"	10"	2-#6 T&B	2-#6	#4 @ 12" O.C.
6" & SMALLER	5'-0"	2'-3"	2'-3"	10"	2-#6 T&B	2-#6	#4 @ 12" O.C.
6" & SMALLER	6'-0"	2'-3"	2'-3"	10"	2-#6 T&B	2-#6	#4 @ 12" O.C.
6" & SMALLER	7'-0"	2'-3"	2'-3"	10"	2-#7 T&B	2-#6	#4 @ 12" O.C.
6" & SMALLER	8'-0"	2'-3"	2'-3"	10"	2-#7 T&B	2-#6	#4 @ 12" O.C.
12"	4'-0"	2'-8"	2'-8"	10"	4-#6 T&B	2-#6	#5 @ 12" O.C.
12"	5'-0"	2'-8"	2'-8"	10"	2-#6 T&B AND 2-#7 T&B	2-#7	#5 @ 12" O.C.
12"	6'-0"	3'-0"	3'-0"	1'-0"	2-#6 T&B AND 2-#7 T&B	2-#7	#5 @ 12" O.C.
12"	7'-0"	3'-0"	3'-0"	1'-0"	4-#7 T&B	2-#7	#5 @ 12" O.C.
12"	8'-0"	3'-0"	3'-0"	1'-0"	5-#7 T&B	2-#7	#5 @ 12" O.C.
16"	4'-0"	3'-8"	3'-8"	1'-2"	5-#6 T&B	2-#6	#5 @ 12" O.C.
16"	5'-0"	3'-8"	3'-8"	1'-2"	2-#6 T&B AND 3-#7 T&B	2-#7	#5 @ 12" O.C.
16"	6'-0"	3'-8"	3'-8"	1'-2"	5-#7 T&B	2-#7	#5 @ 12" O.C.
16"	7'-0"	4'-0"	4'-0"	1'-4"	4-#8 T&B	2-#8	#5 @ 12" O.C.
16"	8'-0"	4'-0"	4'-0"	1'-4"	5-#8 T&B	2-#8	#5 @ 12" O.C.

ONLY ADDITIONAL REINFORCEMENT
SHOWN - SEE SECTION FOR STD.
REINFORCING



DETAIL - ADDITIONAL REINFORCEMENT AT BENDS

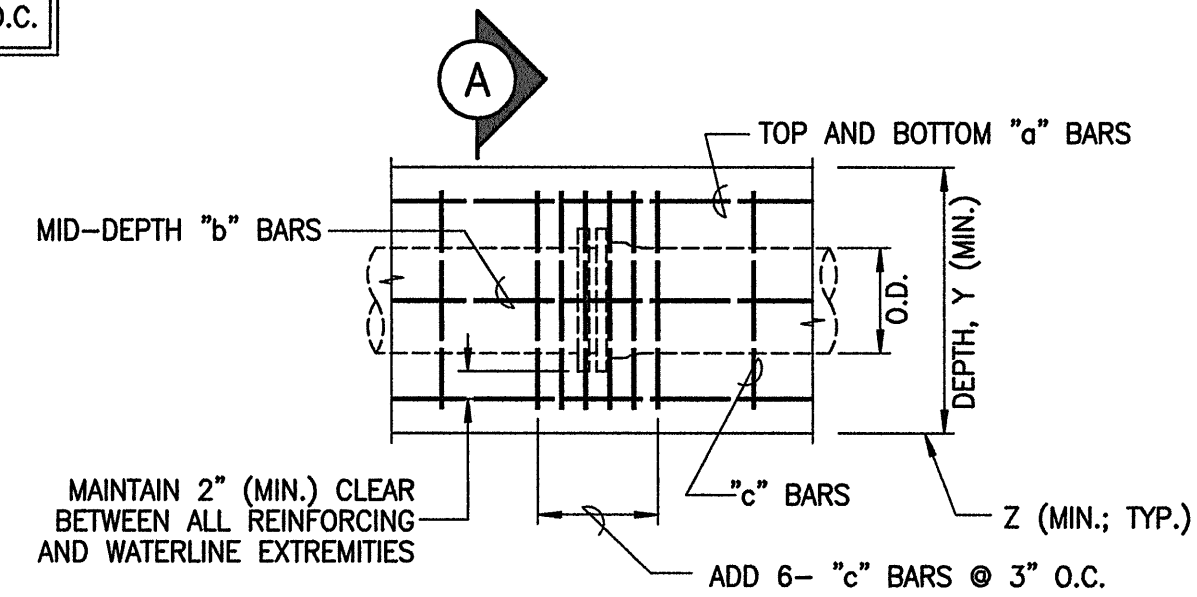
SCALE: 1/2" = 1'-0"



SECTION

4 TYP. SECTION - REINF. CONC. WATERLINE JACKET

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



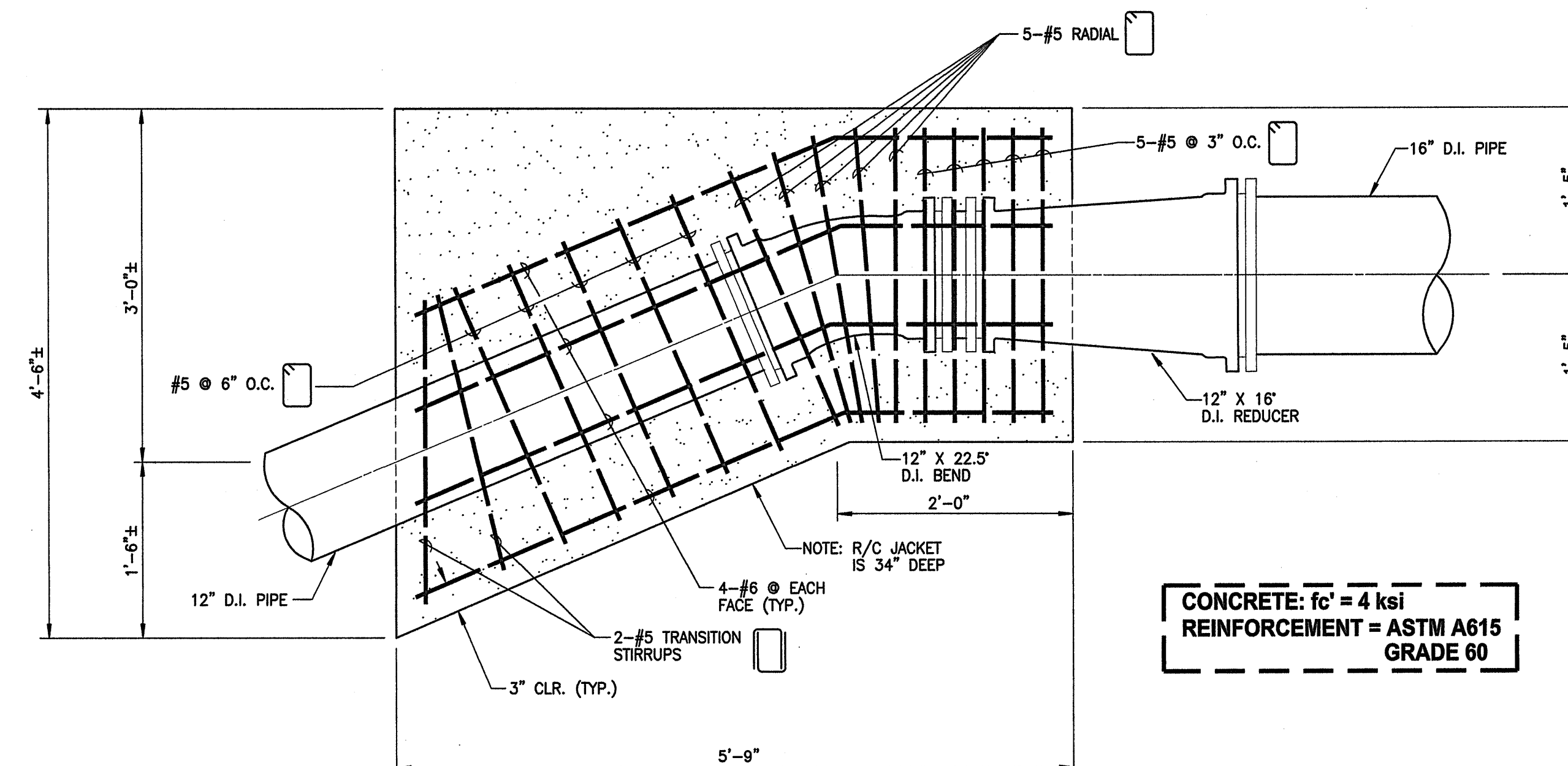
3 DETAIL - CONC. JACKET AT INTERIOR JOINTS

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

LETTER	DESCRIPTION	DATE
10	REVISED PER DWS COMMENTS	01/06/12
6	REVISED 12" CHECK VALVE ASSEMBLY	10/01/10

SIGNATURE: *[Signature]* DATE: 3/12/12
 THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION AS DEFINED IN SECTION 16-115-2 OF THE HAWAII ADMINISTRATIVE RULES FOR PROFESSIONAL ENGINEERS, ARCHITECTS, LAND SURVEYORS AND LANDSCAPE ARCHITECTS.

WARREN S. UNEMORI ENGINEERING, INC.
 CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
 WELLS STREET PROFESSIONAL CENTER, SUITE 403
 2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793
KAONOULU MARKET PLACE
 T.M.K.: (2) 3-9-01 : 16
 KIHIE, MAUI, HAWAII
 TITLE: WATER DETAILS
 DTU DESIGNED BY: WIS
 DTU CHECKED BY: WIS
 DTU DRAWN BY: WIS
 DTU APPROVED BY: WIS
 SCALE: AS NOTED
 JOB NUMBER: 04010.10
 SHEET: 12.04
 DATE: 10-10-05
 OF SHEETS: 12



DETAIL FOR HYBRID R/C JACKET SEGMENT

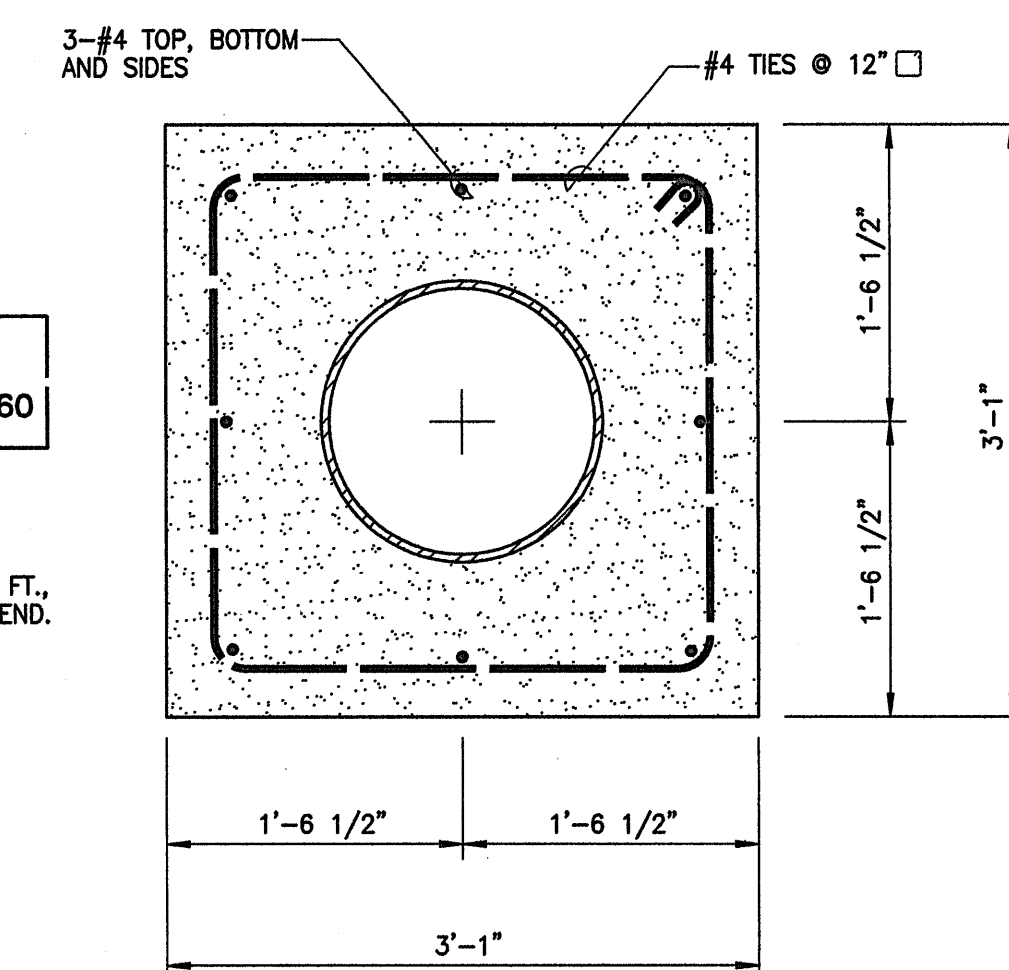
SCALE: 1" = 1'-0"

detail/water/brnd-00.dwg

CONCRETE: $f'_c = 4$ ksi
REINFORCEMENT: ASTM A615 GRADE 60

NOTES:

1. MINIMUM LENGTH OF R/C JACKET IS 6 FT., 3 FT. EACH SIDE OF 16" x 11 1/4" BEND.

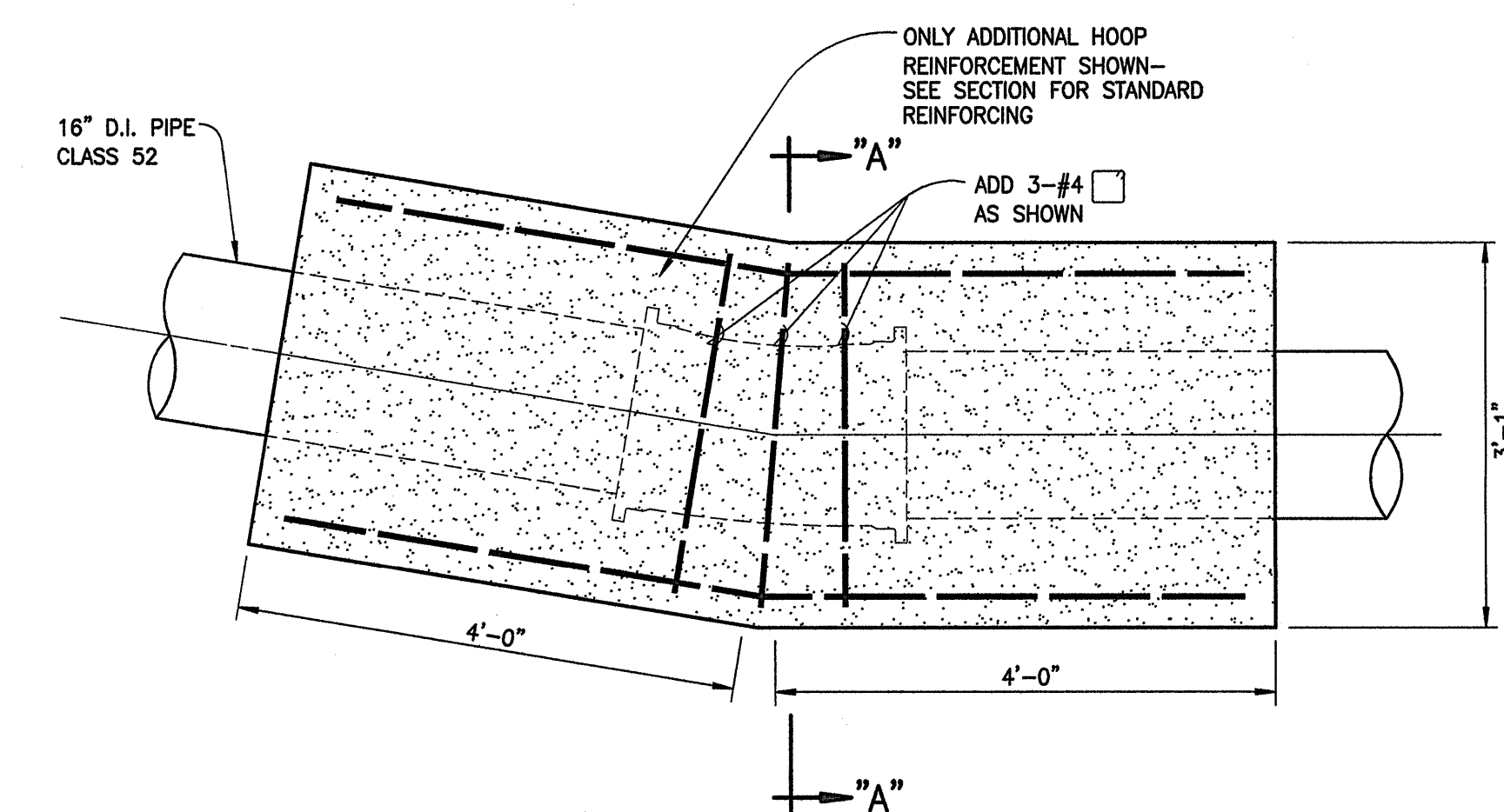


SECTION "A"-"A"

TYPICAL CROSS-SECTION FOR REINFORCED
CONCRETE JACKET FOR 16" x 11 1/4" BEND

AT STA. 1+38.74

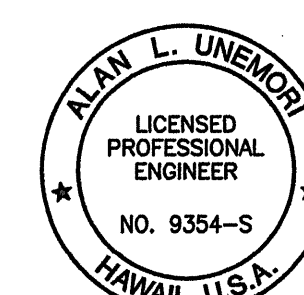
SCALE: 1" = 1' - 0"



PLAN VIEW OF R/C JACKET AT STA. 1+38.74

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

detail/water/brnd-00.dwg



SIGNATURE
DATE
11/6/2012

WARREN S. UMEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
2145 WELLS STREET, WALLUKU, MAUI, HAWAII 96793

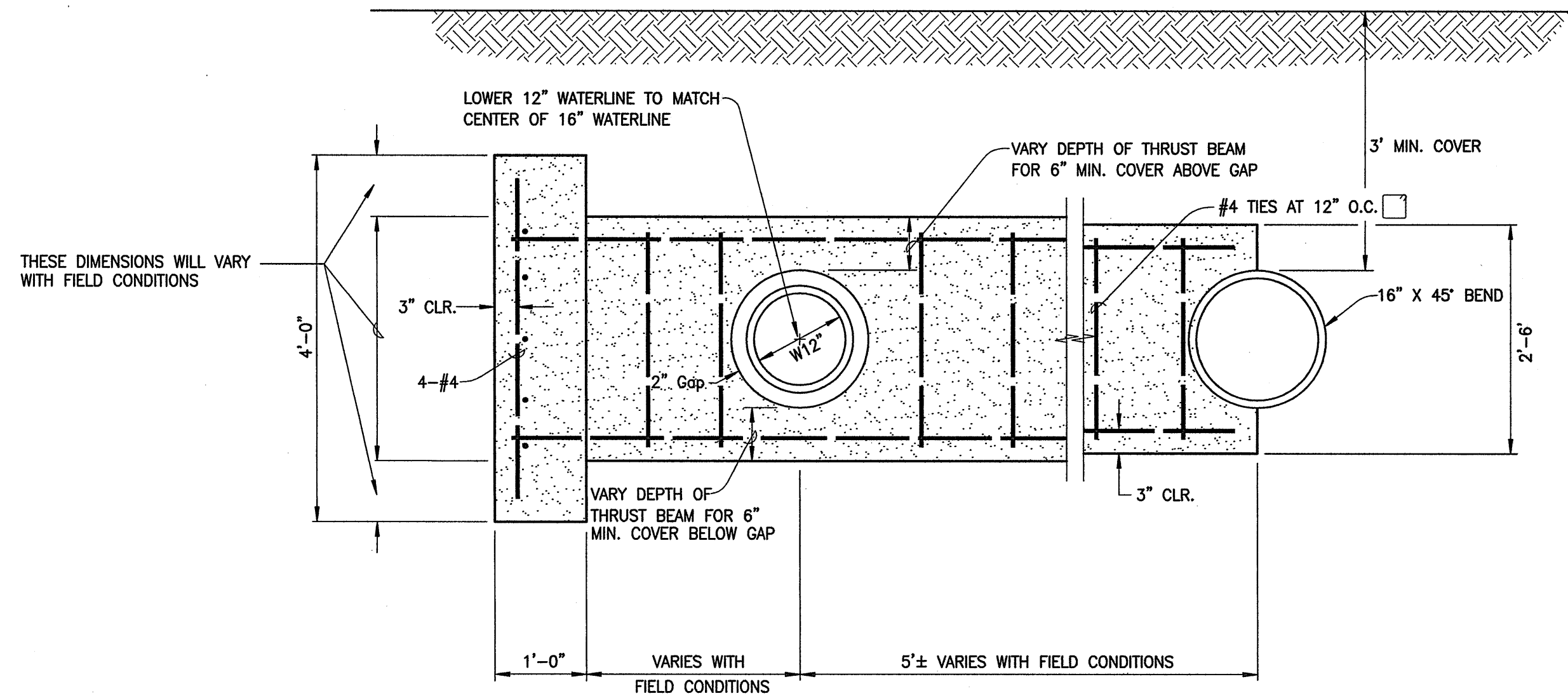
KAONOULU MARKET PLACE
T.M.K.: (2) 3-9-01 : 16
KIHEI, MAUI, HAWAII

TITLE DETAILS - REINFORCED CONCRETE JACKET

DESIGNED BY	DTU	CHECKED BY	DTU	JOB NUMBER	04010.10
DRAWN BY	WIS	APPROVED BY	DTU	JOB NUMBER	10-10-05
LETTER	DESCRIPTION	DATE	SCALE	DATE	OF SHEETS

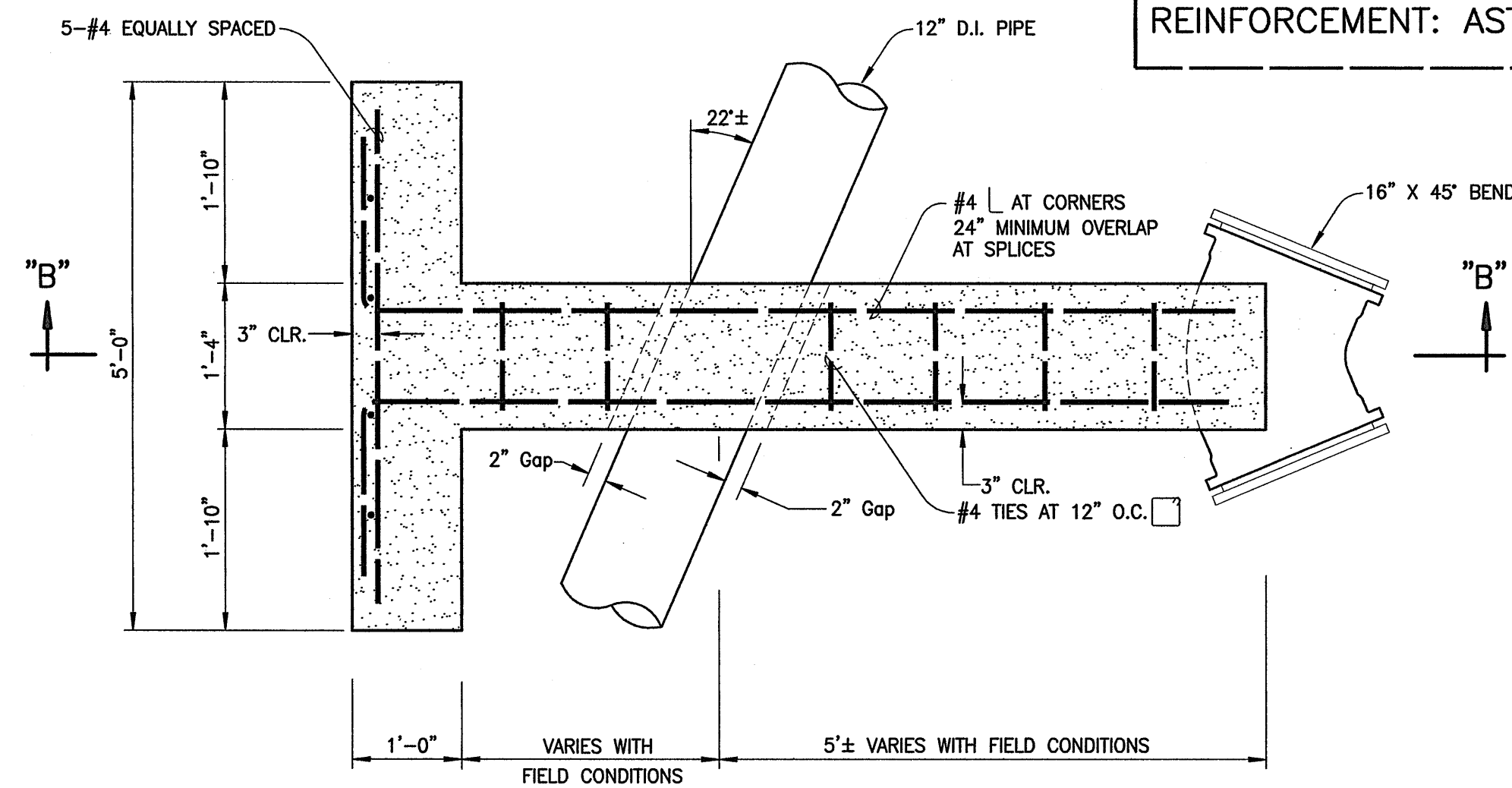
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION "AS DEFINED IN SECTION 16-115-2 OF THE HAWAII ADMINISTRATIVE RULES FOR PROFESSIONAL ENGINEERS, ARCHITECTS, LAND SURVEYORS AND LANDSCAPE ARCHITECTS"

12.05
SHEET
OF SHEETS



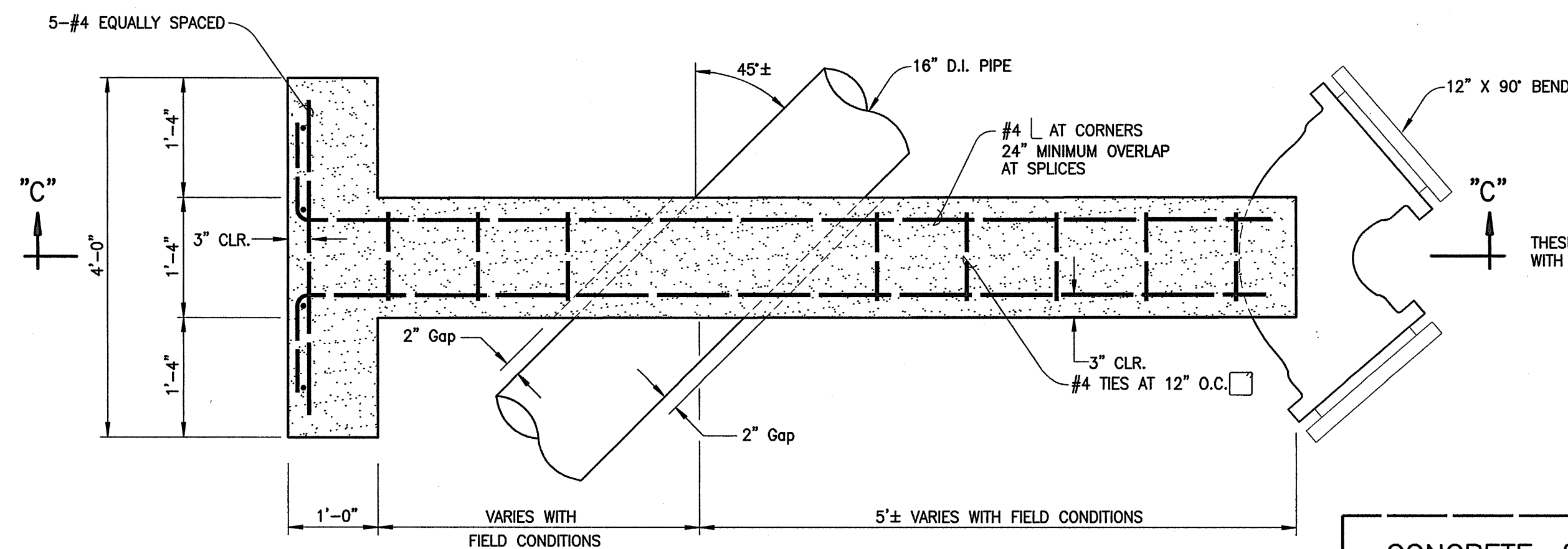
SECTION "B" - "B"
ELEVATION VIEW

CONCRETE: $f_c' = 4$ ksi
REINFORCEMENT: ASTM A615 GRADE 60



PLAN VIEW

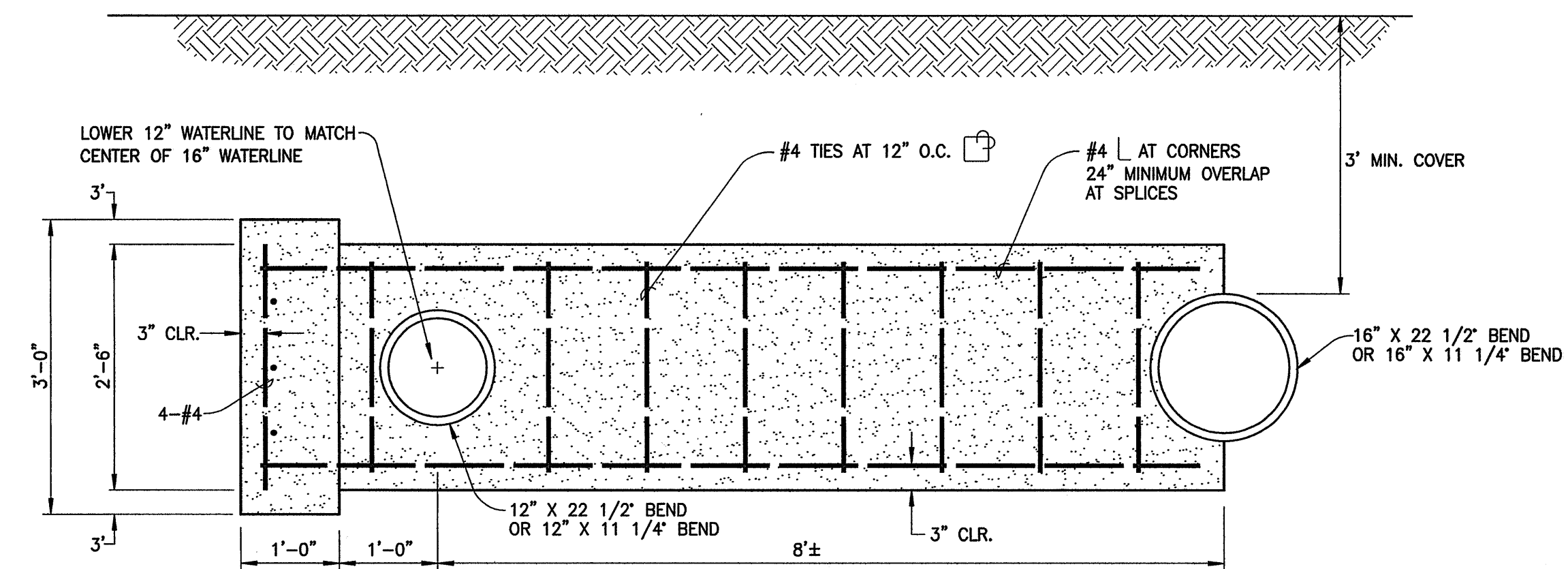
TYPE "SB2" HORIZONTAL THRUST BEAM AT STA. 10+52.79
SCALE: 3/4" = 1'-0"



PLAN VIEW

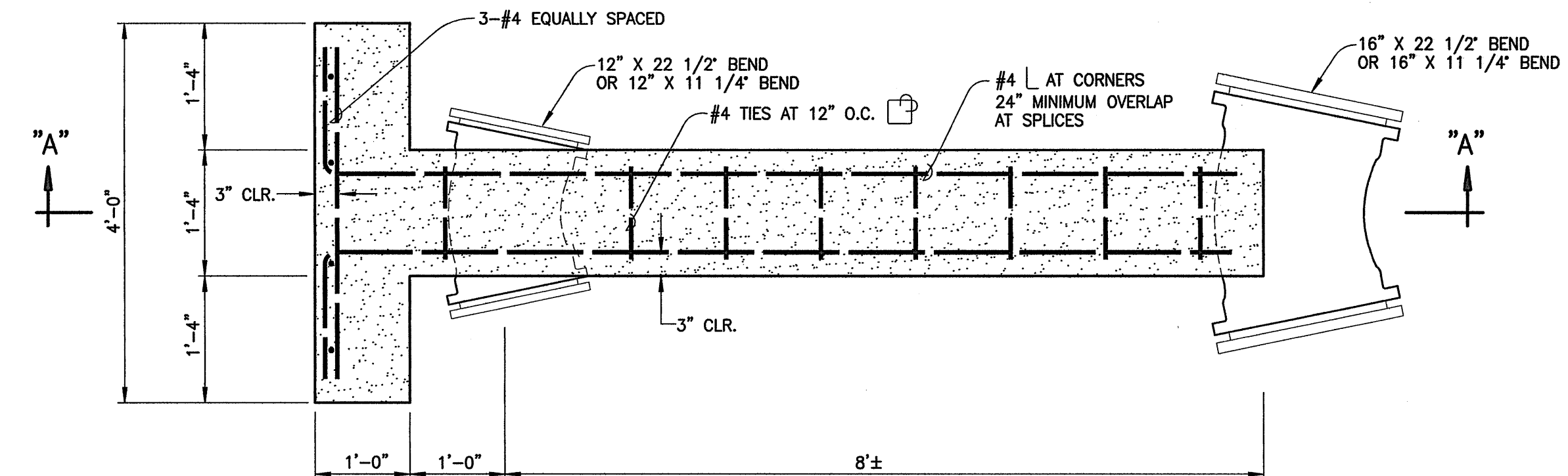
TYPE "SB3" HORIZONTAL THRUST BEAM AT STA. 41+99.50
SCALE: 3/4" = 1'-0"

CONCRETE: $f_c' = 4$ ksi
REINFORCEMENT: ASTM A615 GRADE 60



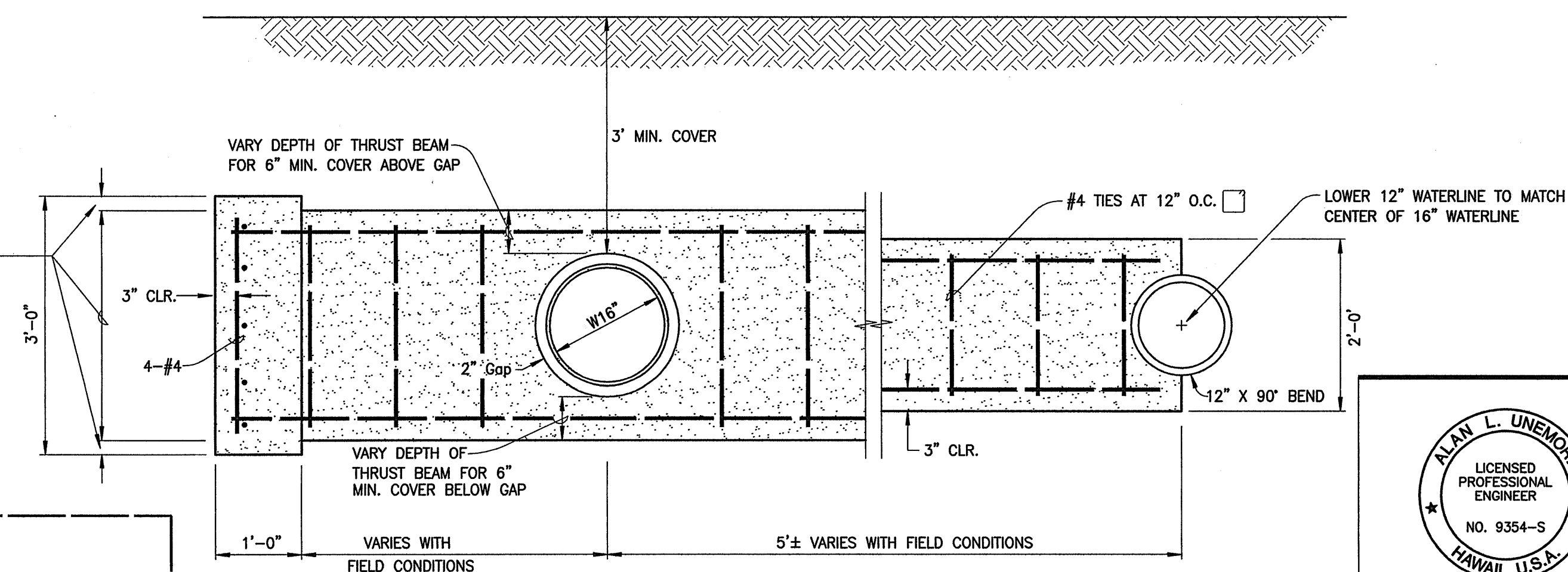
SECTION "A" - "A"
ELEVATION VIEW

CONCRETE: $f_c' = 4$ ksi
REINFORCEMENT: ASTM A615 GRADE 60



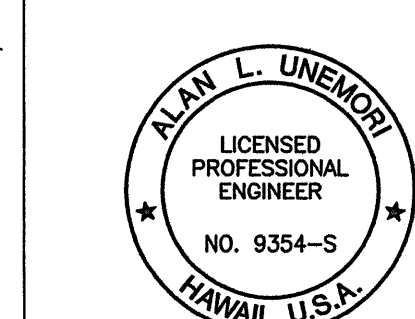
PLAN VIEW

TYPE "SB5" HORIZONTAL THRUST BEAM AT
STA. 35+96 AND 36+06
SCALE: 3/4" = 1'-0"



SECTION "C" - "C"
ELEVATION VIEW

LETTER	DESCRIPTION	DATE
A	Outflow Waterline Upsized to 16"	10/06/11
B	Revised Tank Inflow Line	5/9/08



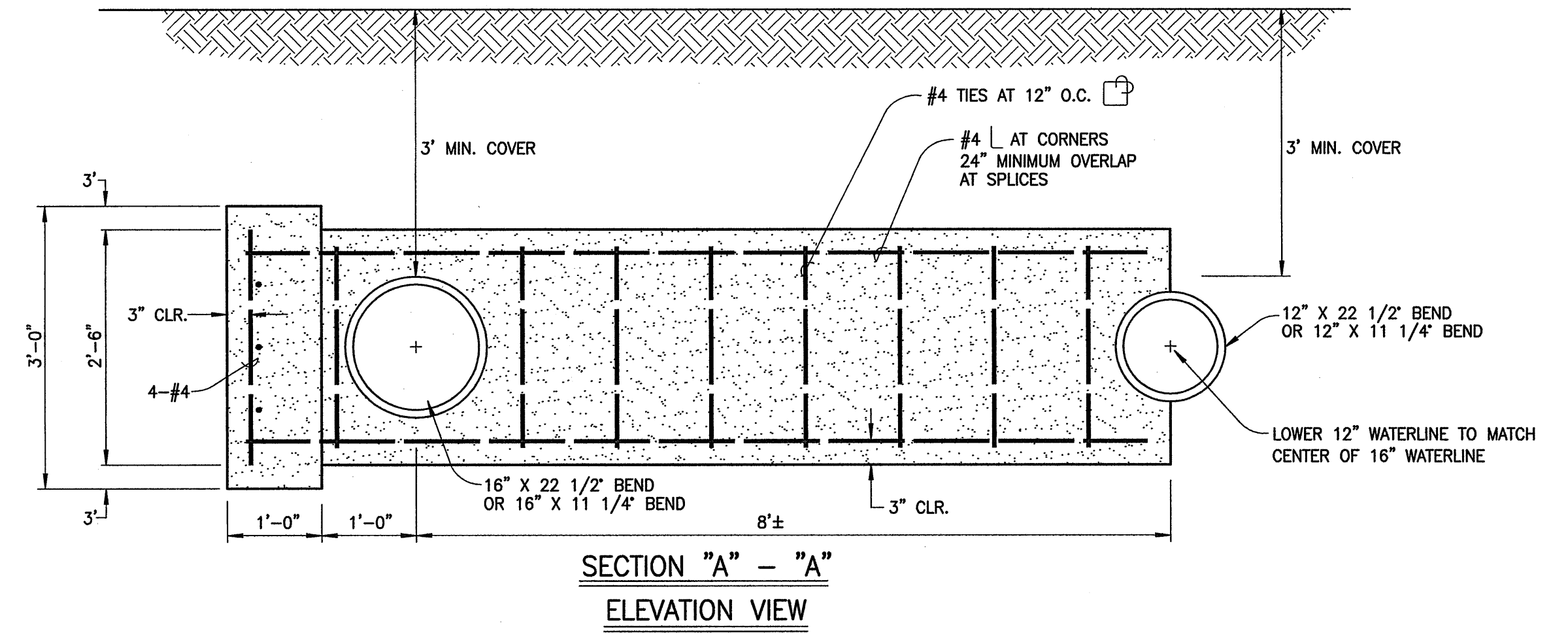
SIGNATURE: *Alan L. Unemori* DATE: 10/17/2011
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION "AS DEFINED IN SECTION 10-115-2 OF THE HAWAII ADMINISTRATIVE RULES FOR PROFESSIONAL ENGINEERS, ARCHITECTS, LAND SURVEYORS AND LANDSCAPE ARCHITECTS"

WARREN S. UNEMORI ENGINEERING, INC.
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WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

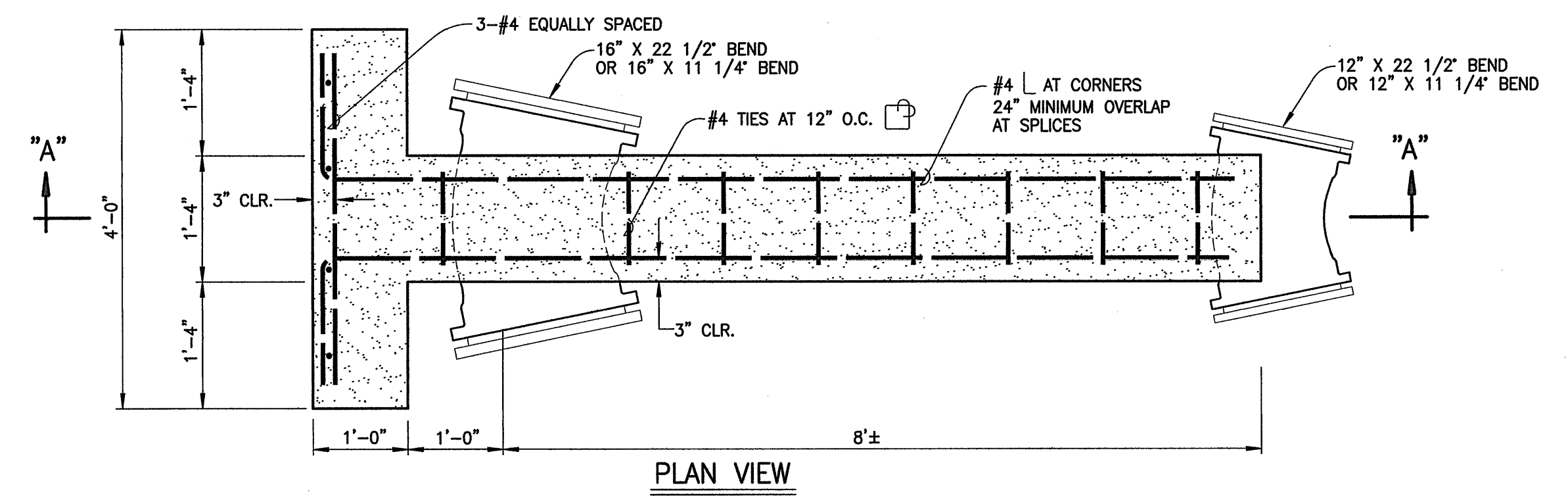
KAONOULU MARKET PLACE
T.M.K.: (2) 3-9-01 : 16
KIHEI, MAUI, HAWAII
DETAILS - REINFORCED CONCRETE THRUST BEAMS FOR 12" AND 16" OFFSITE WATERLINES

DESIGNED BY WIS	CHECKED BY DTU	DATE 10-10-05	12.06 SHEET
DRAWN BY	APPROVED BY	DATE	

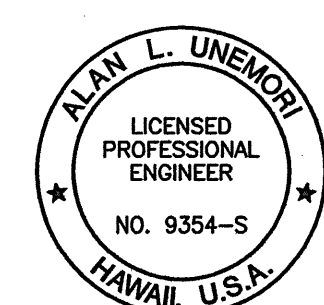
SCALE: 3/4" = 1'-0"



CONCRETE: $f_c' = 4$ ksi
REINFORCEMENT: ASTM A615 GRADE 60

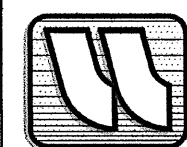


TYPE "SB6" HORIZONTAL THRUST BEAM AT
STA. 38+71 AND 38+81
SCALE: $3/4" = 1'-0"$



SIGNATURE: *[Signature]* DATE: 10/17/2011

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION "AS DEFINED IN SECTION 10-115-2 OF THE HAWAII ADMINISTRATIVE RULES FOR PROFESSIONAL ENGINEERS, ARCHITECTS, LAND SURVEYORS AND LANDSCAPE ARCHITECTS"



WARREN S. UNEMORI ENGINEERING, INC.
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WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

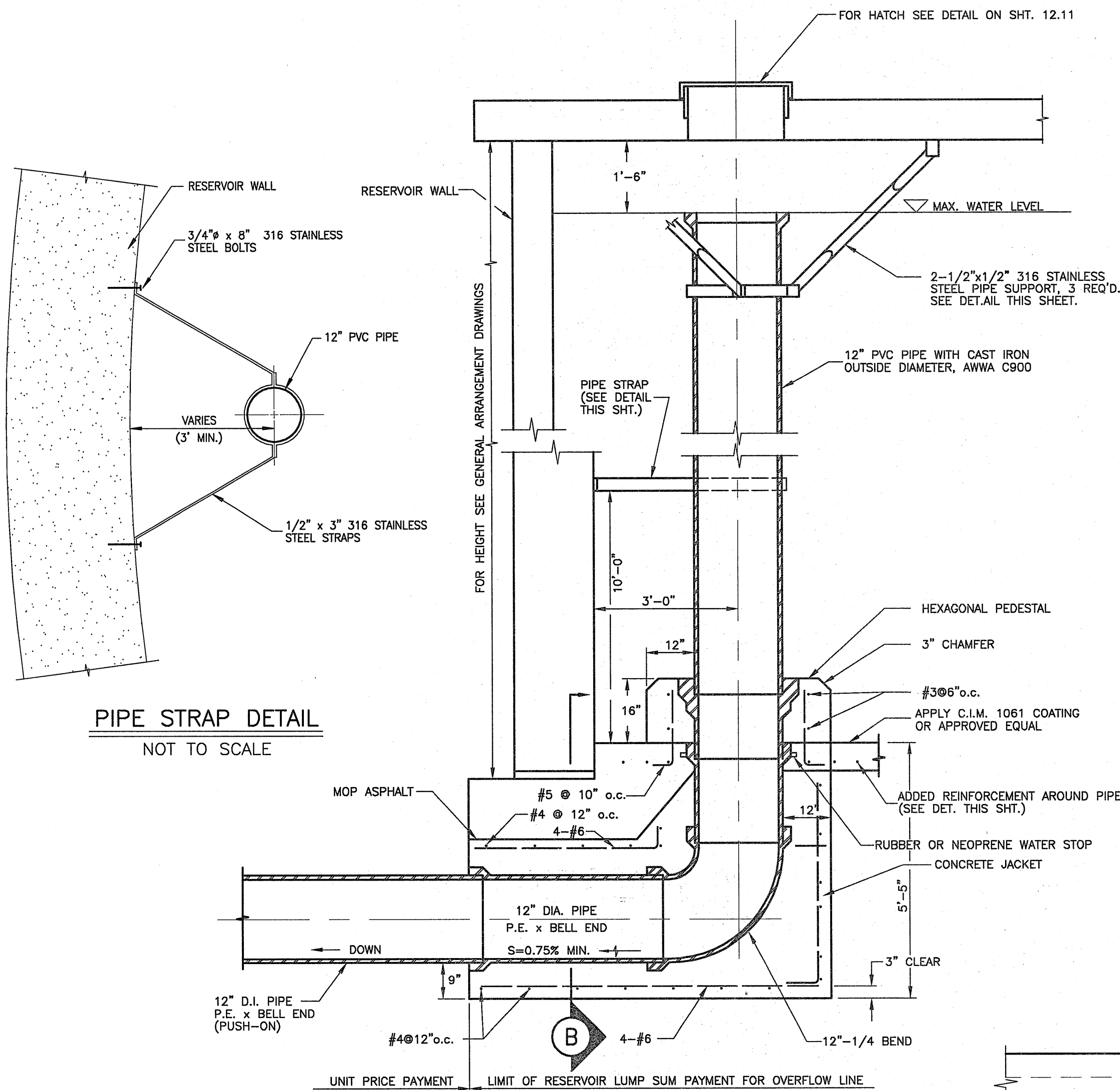
KAONOULU MARKET PLACE

T.M.K.: (2) 3-9-01 : 16
KIHAI, MAUI, HAWAII

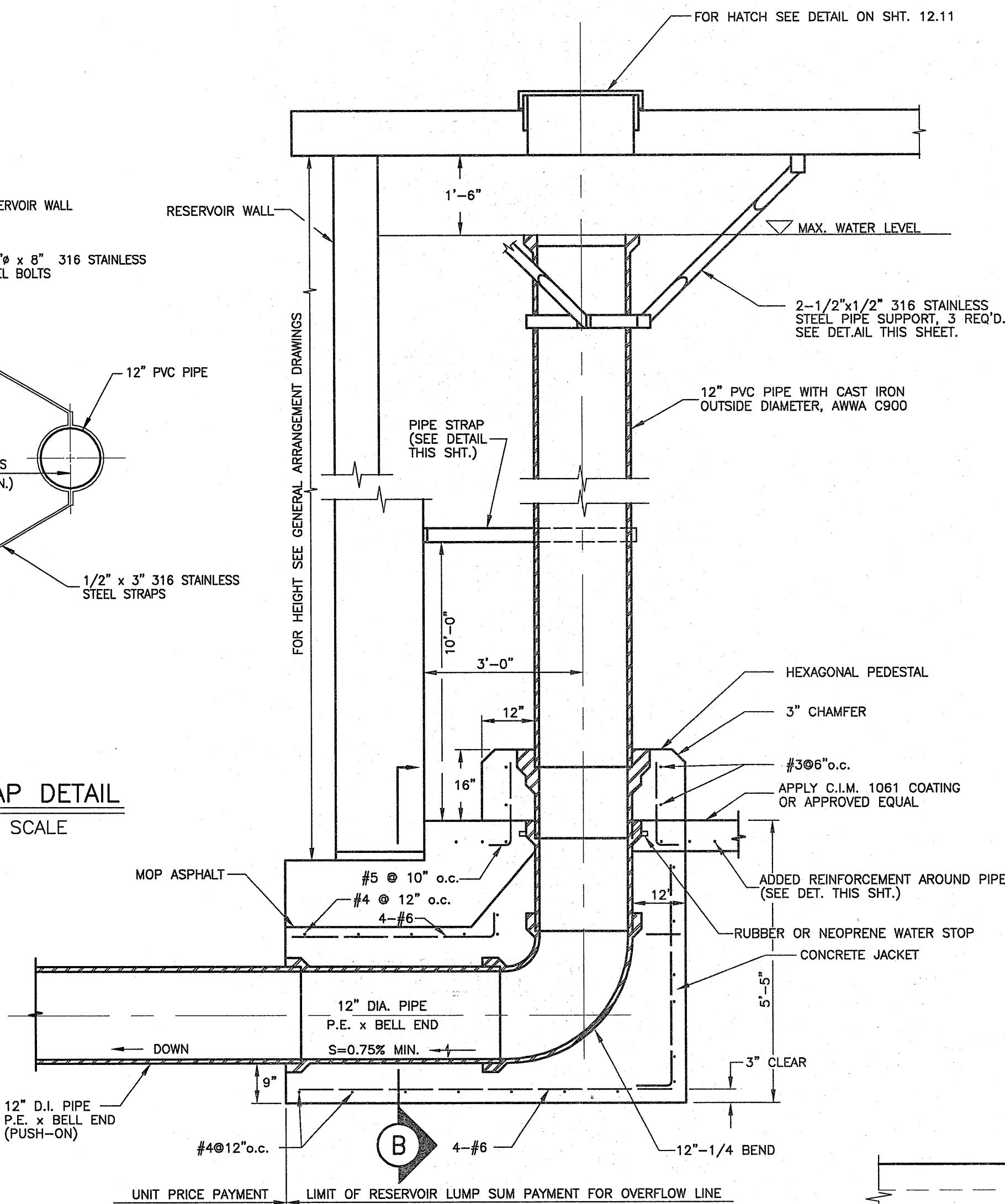
DETAILS - REINFORCED CONCRETE THRUST BEAMS FOR 12" AND 16" OFFSITE WATERLINES

DTU	DTU	04010.10	12.07
DESIGNED BY	CHECKED BY	JOB NUMBER	SHEET
WIS	DTU	10-10-05	OF SHEETS
DRAWN BY	APPROVED BY	DATE	
SCALE: $3/4" = 1'-0"$			

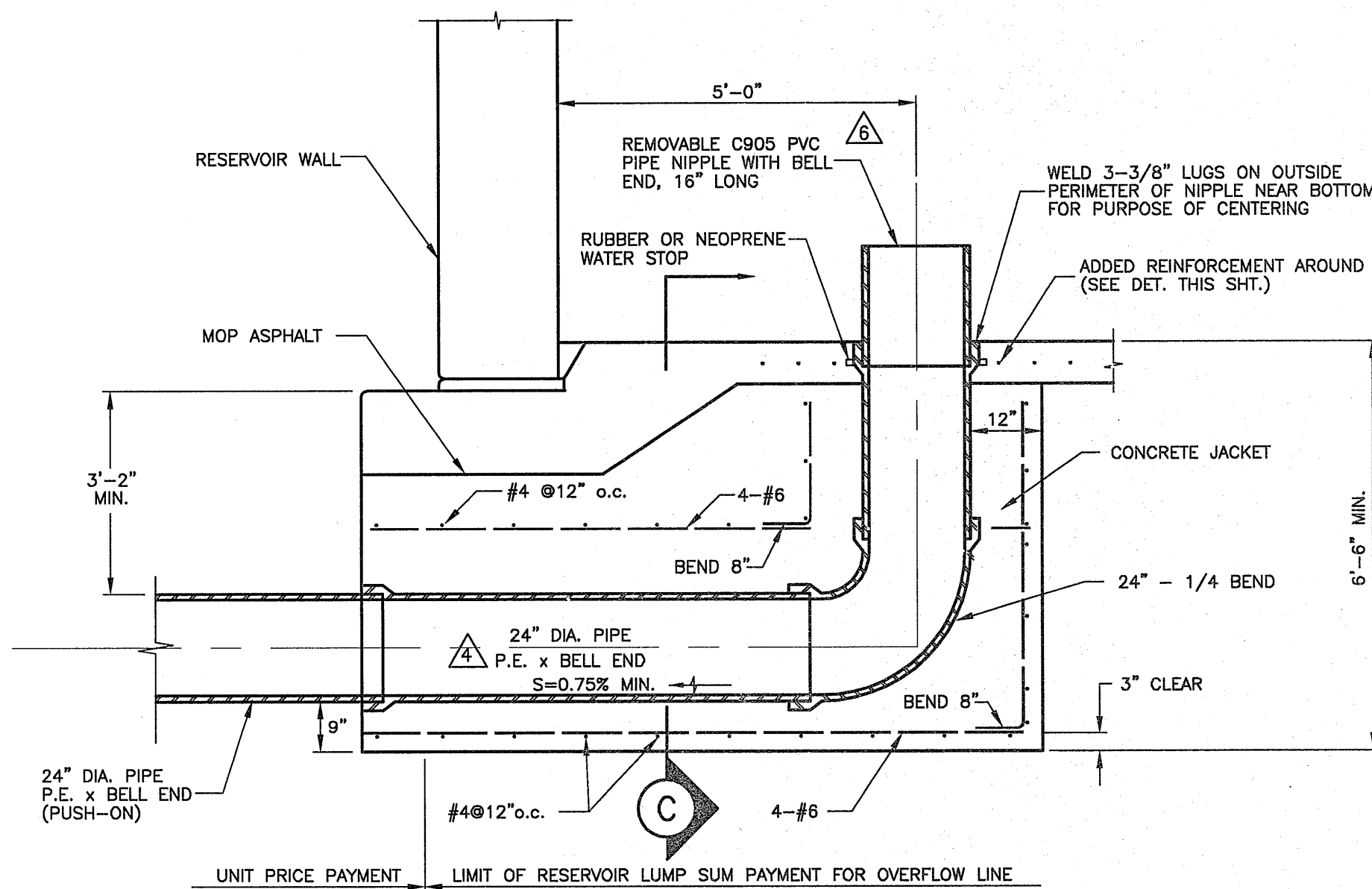
8	Outflow Waterline Upsized to 16"	10/06/11
1	Revised Tank Inflow Line	5/9/08
LETTER	DESCRIPTION	DATE



PIPE STRAP DETAIL
NOT TO SCALE

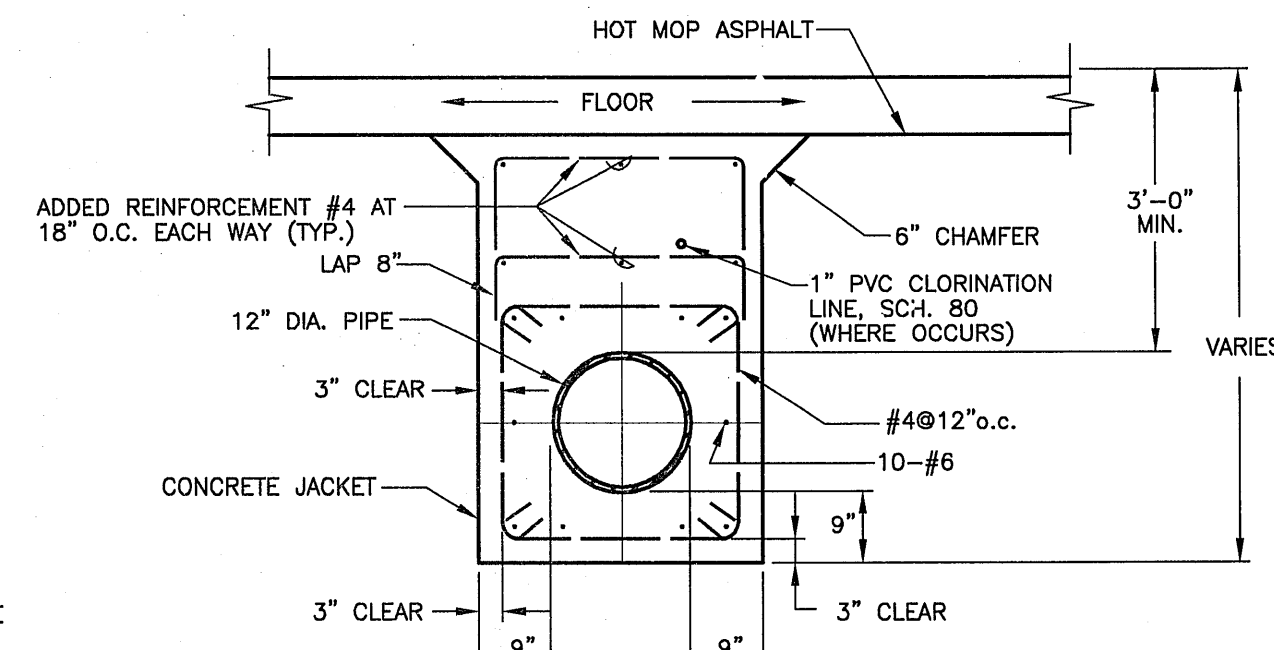


DETAIL OF OVERFLOW
NOT TO SCALE

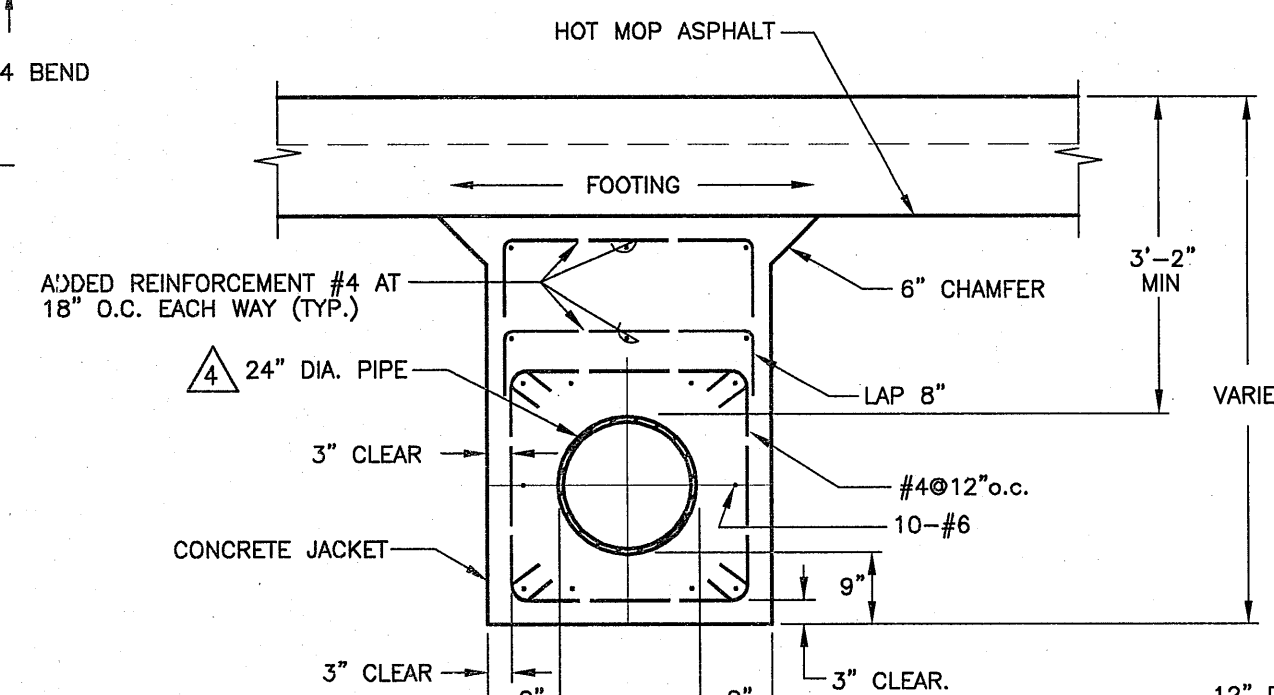


INFLUENT-EFFLUENT LINE
NOT TO SCALE

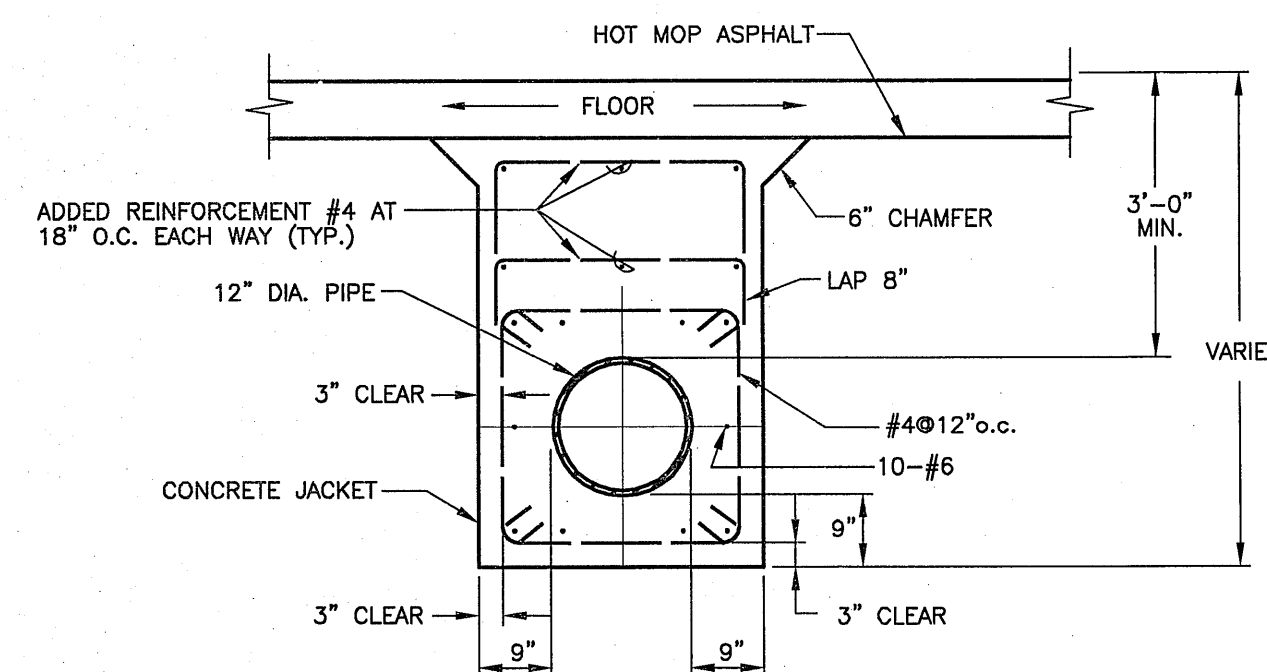
PEDESTAL FOR 12" OVERFLOW
SCALE: 1/2" = 1'-0"



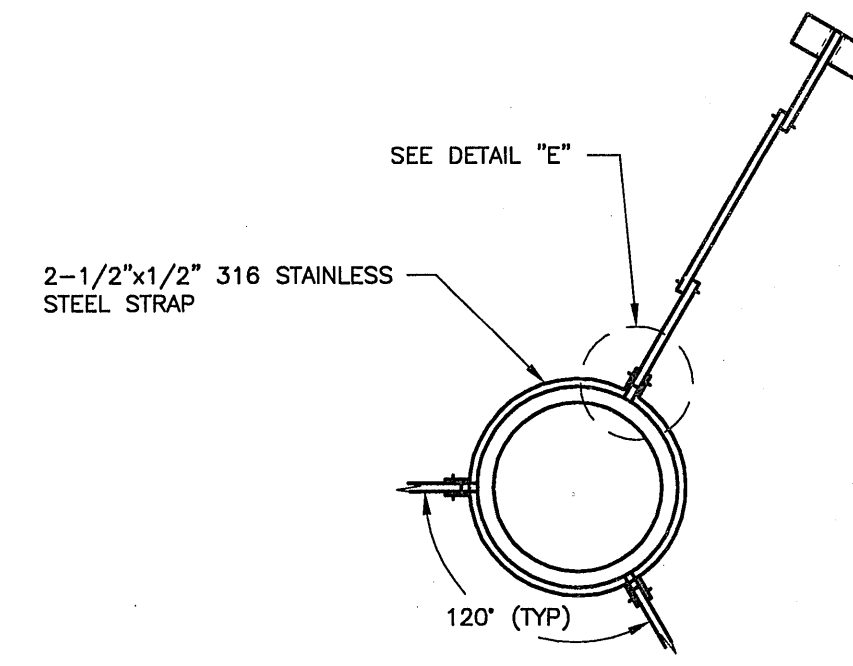
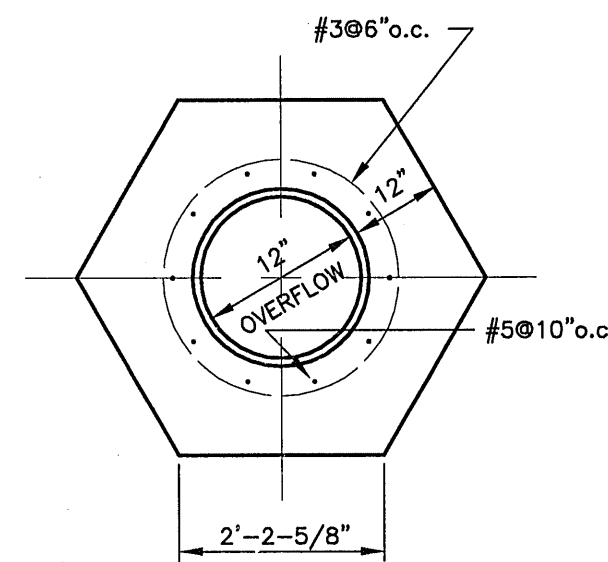
SECTION B
NOT TO SCALE



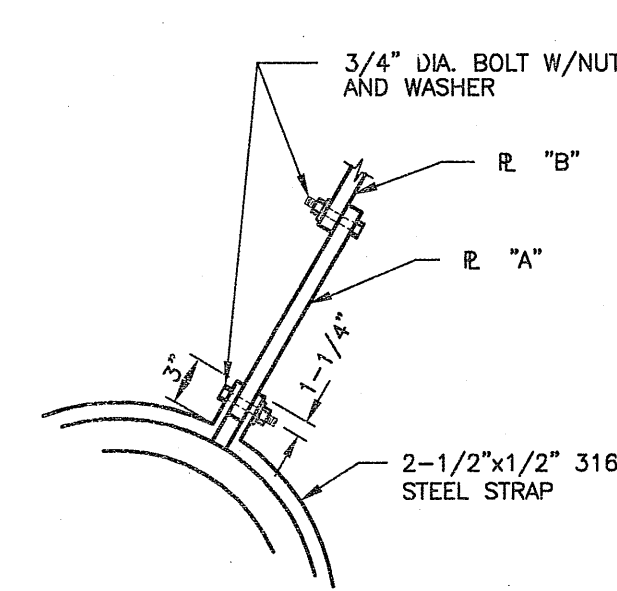
SECTION C
NOT TO SCALE



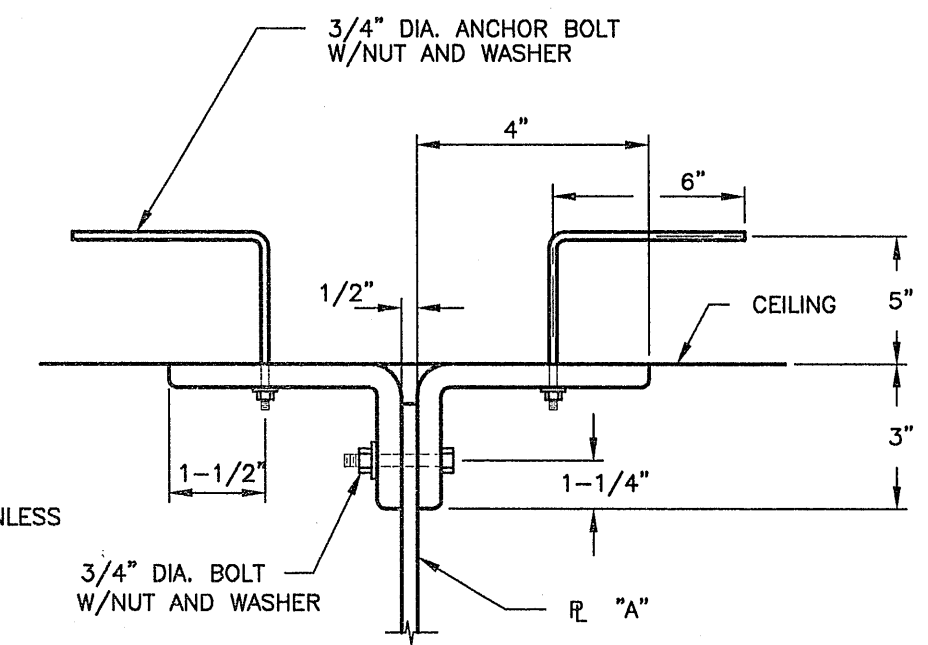
SECTION D
NOT TO SCALE



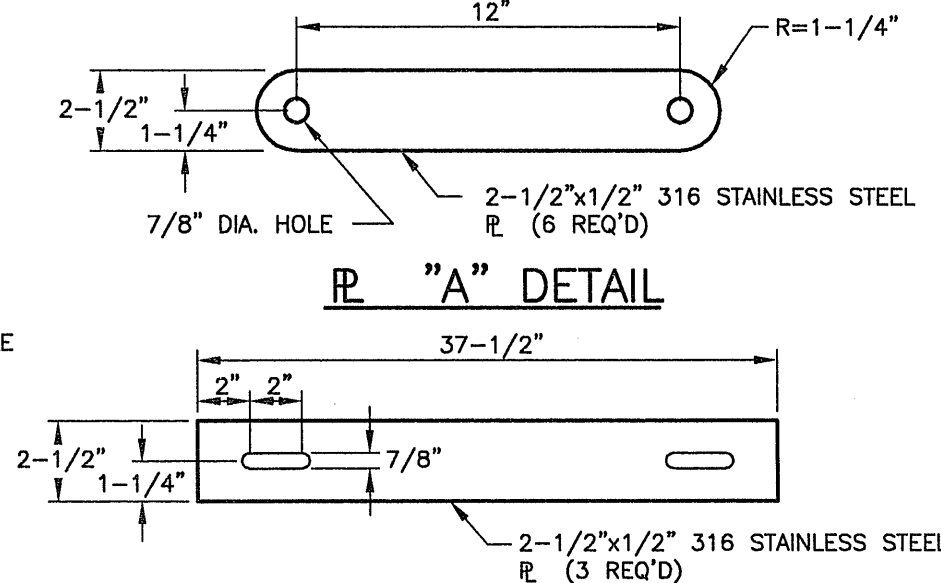
PLAN



DETAIL "E"



CEILING ANCHOR

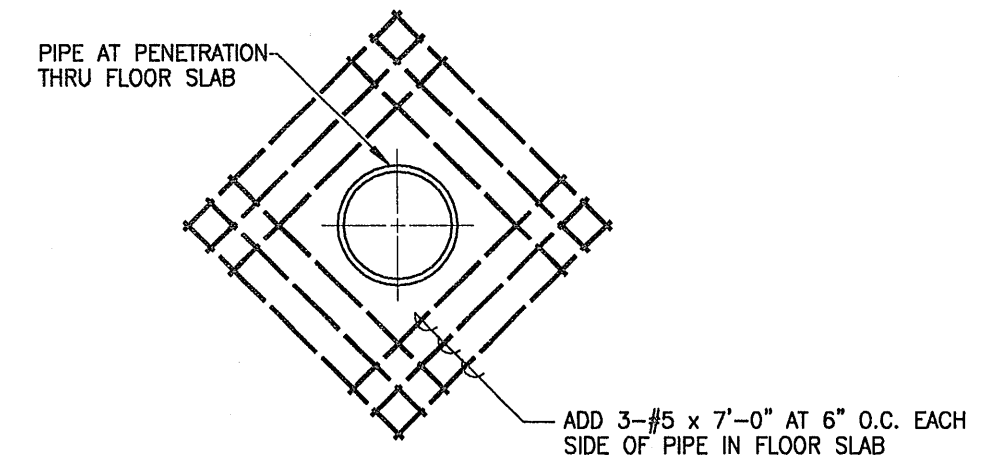


DETAIL "A"

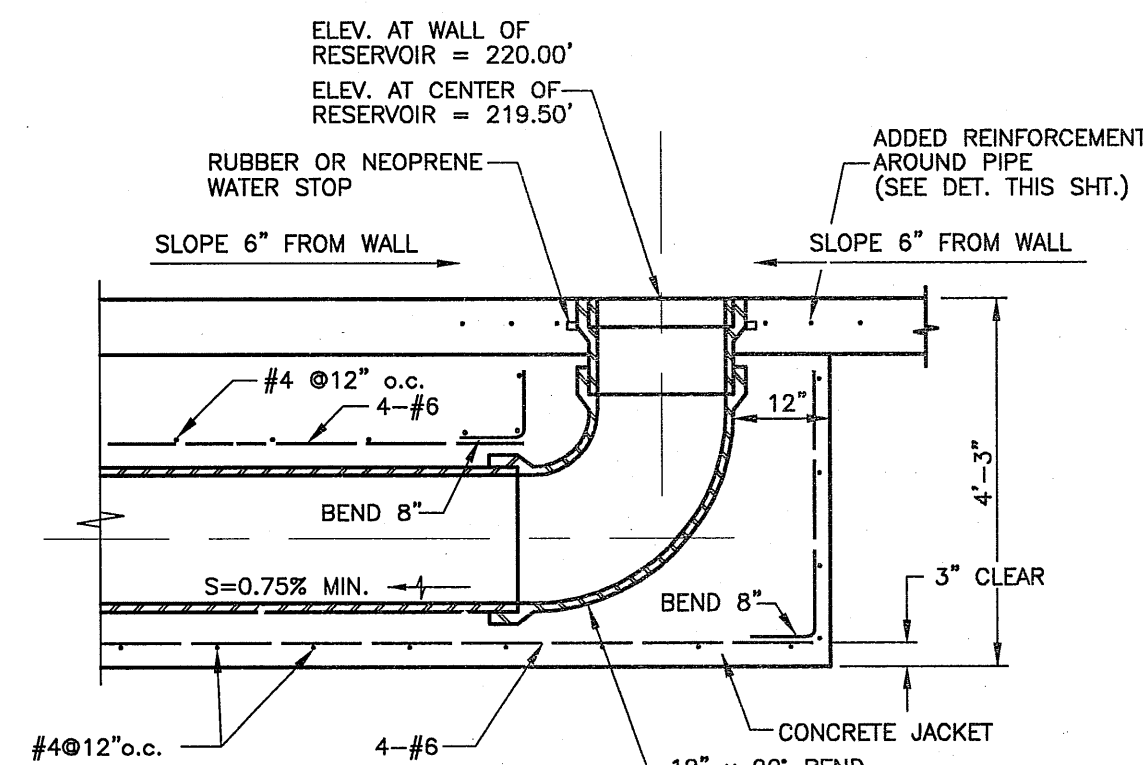
DETAIL "B"

NOTE: ALL BOLTS, NUTS, WASHERS, AND ANCHOR BOLTS FOR OVERFLOW PIPE SUPPORT SHALL BE AISI 316 STAINLESS STEEL OR APPROVED EQUAL. SUBMIT 6 SHOP DRAWINGS FOR APPROVAL.

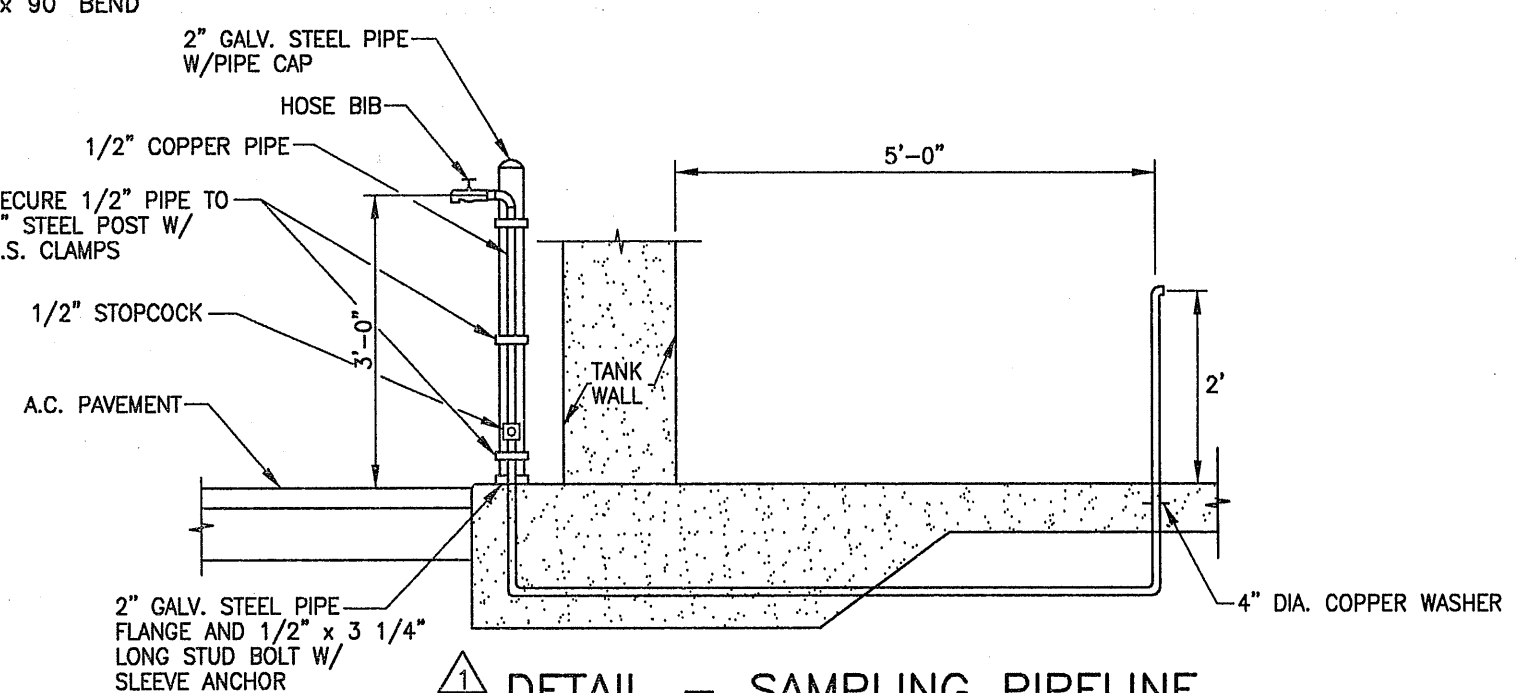
OVERFLOW PIPE SUPPORT DETAILS
SCALE: NONE



TYPICAL SLAB REINFORCING
AT PIPE PENETRATION
NOT TO SCALE

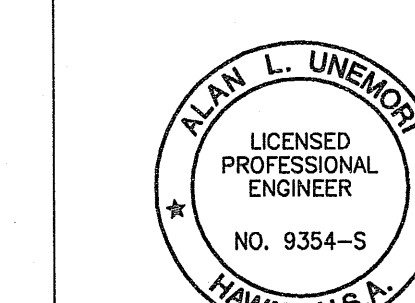


WASHOUT LINE
NOT TO SCALE



DETAIL - SAMPLING PIPELINE
SCALE: 1/2" = 1'-0"

- NOTES:
1. NIPPLES & FITTINGS SHALL BE COPPER.
 2. ISOLATE ALL COPPER FITTINGS FROM REINFORCED STEEL.
 3. SOLDER SHALL BE 1/8" DIAMETER AND SHALL CONTAIN NOT MORE THAN 0.2 PERCENT LEAD.
 4. SEE SITE UTILITY PLAN, SHT. 6.24 FOR LOCATION.



WARREN S. UNEMORI ENGINEERING, INC.
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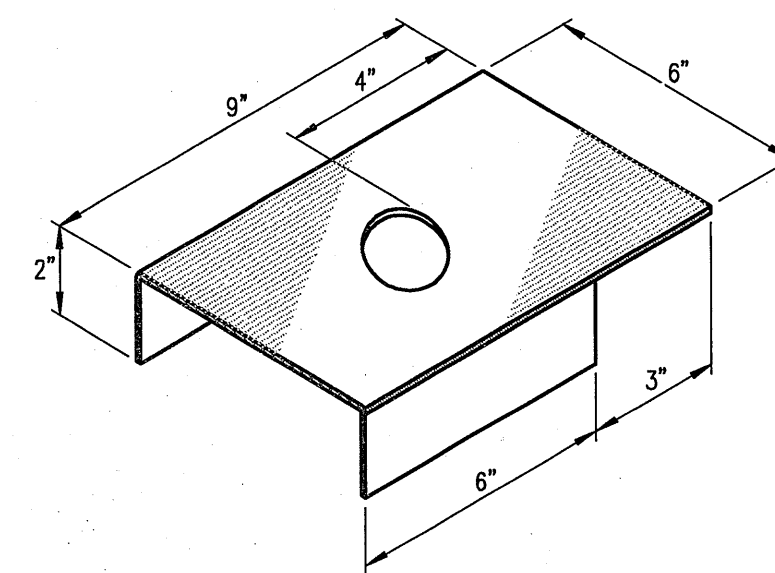
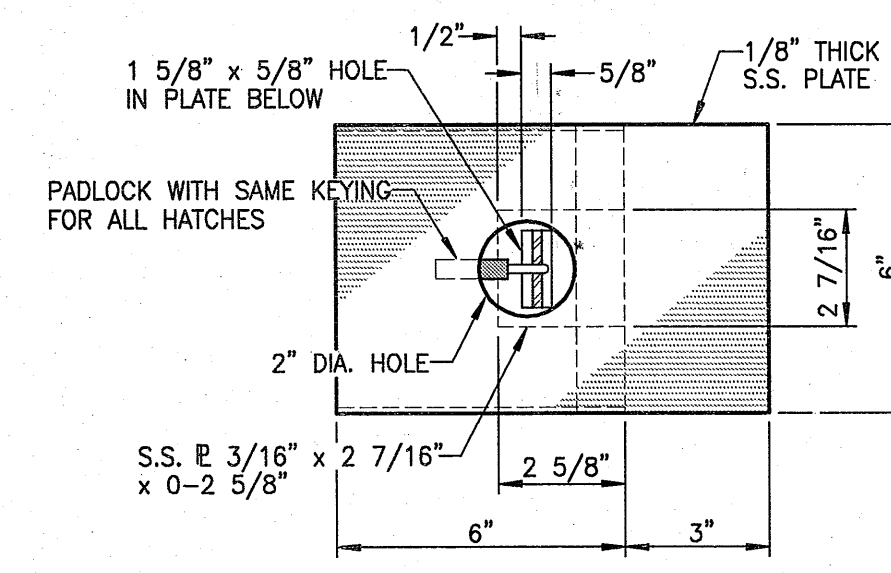
KAONOULU MARKET PLACE
T.M.K.: (2) 3-9-01 : 16
KIHAI, MAUI, HAWAII

TITLE: STORAGE TANK DETAILS

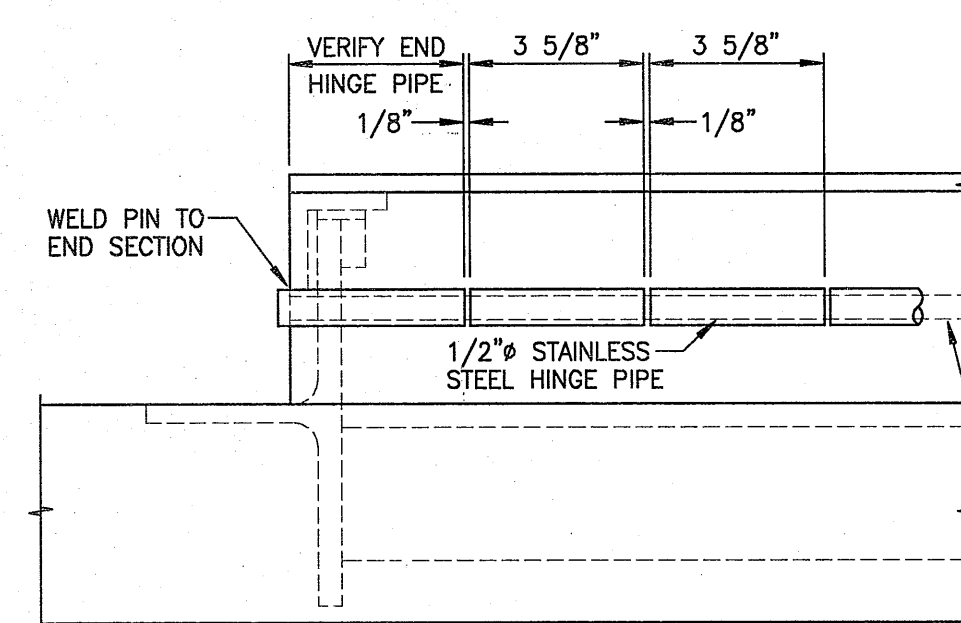
REVISION	DESCRIPTION	DATE
6	Revised Removable Pipe Nipple & Moved Hatch Details to Sht. 12.11	10/01/10
5	Revised Influent-Effluent Line to 24" Dia.	12/12/08
4	Changed Sampling Pipeline Detail, and Materials to Type 316 Steel per DWS Comments.	9/11/06
LETTER	DESCRIPTION	DATE

SIGNATURE: *[Signature]* DATE: 3/12/2012
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION "AS DEFINED IN SECTION 16-115-2 OF THE HAWAII ADMINISTRATIVE RULES FOR PROFESSIONAL ENGINEERS, ARCHITECTS, LAND SURVEYORS AND LANDSCAPE ARCHITECTS"

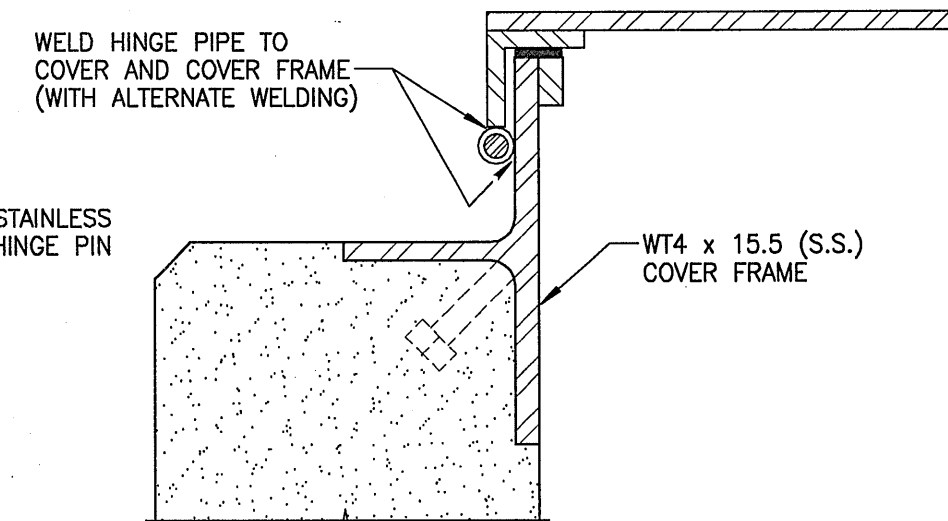
DESIGNED BY	CHECKED BY	DATE	JOB NUMBER	SHEET
ALU	DTU	3/12/2012	04010.10	12.10
DRAWN BY	APPROVED BY	DATE	JOB NUMBER	SHEET
WIS	DTU	3/12/2012	10-10-05	12.10
SCALE	As Shown	DATE	JOB NUMBER	SHEET



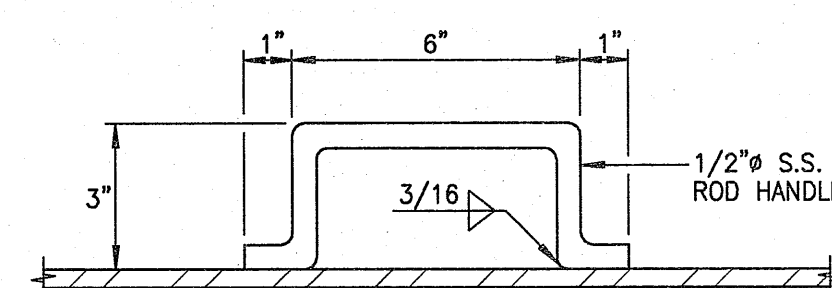
PADLOCK COVER PLATE DETAIL "D"
SCALE: 3" = 1'-0"



OVERFLOW HATCH DETAIL
SCALE: 3/4" = 1'-0"



SECTION

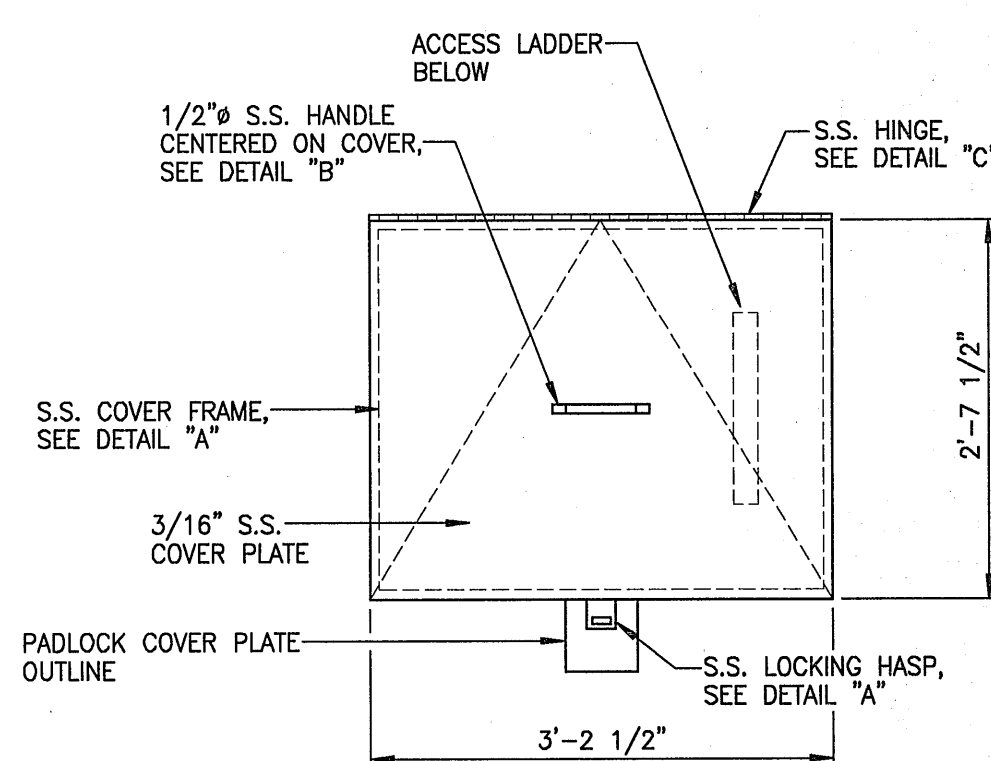


COVER HANDLE DETAIL "B"
SCALE: 3" = 1'-0"

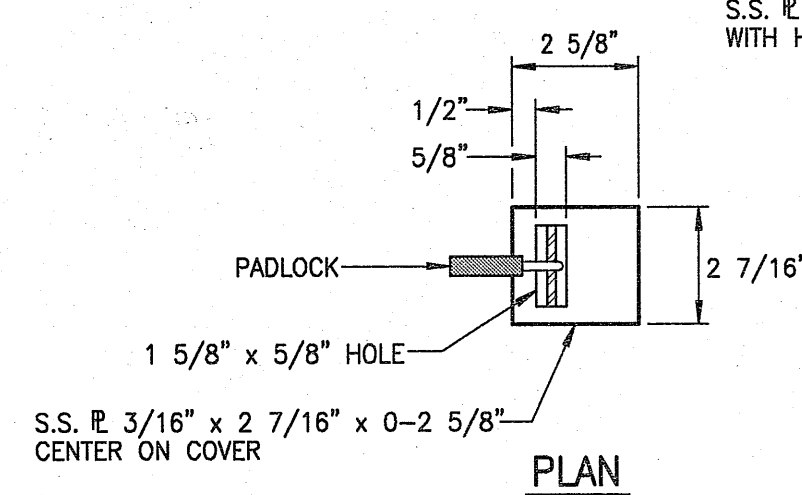
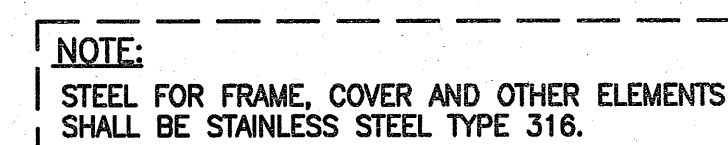


COVER HINGE DETAIL "C"

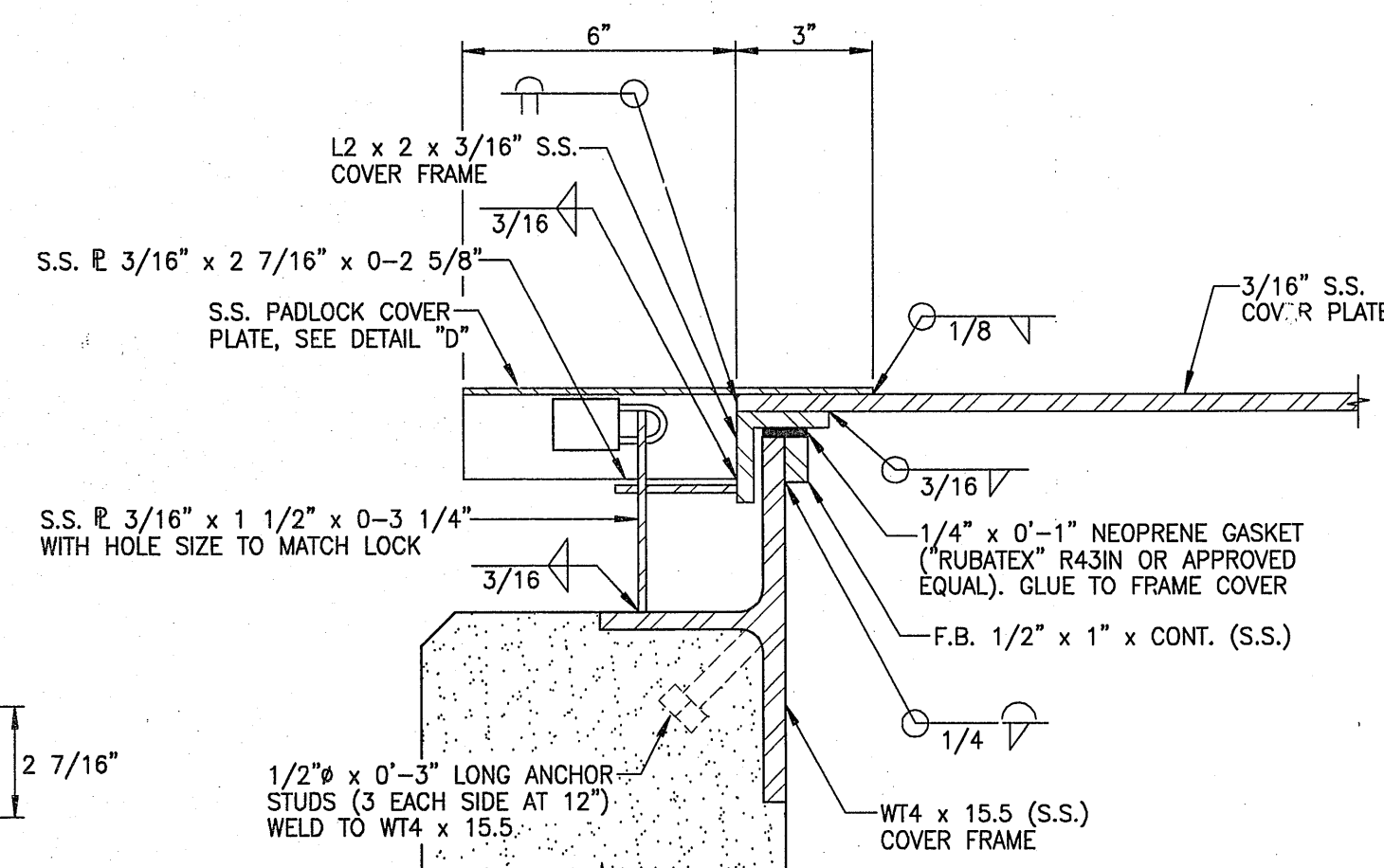
SCALE: 3" = 1'-0"



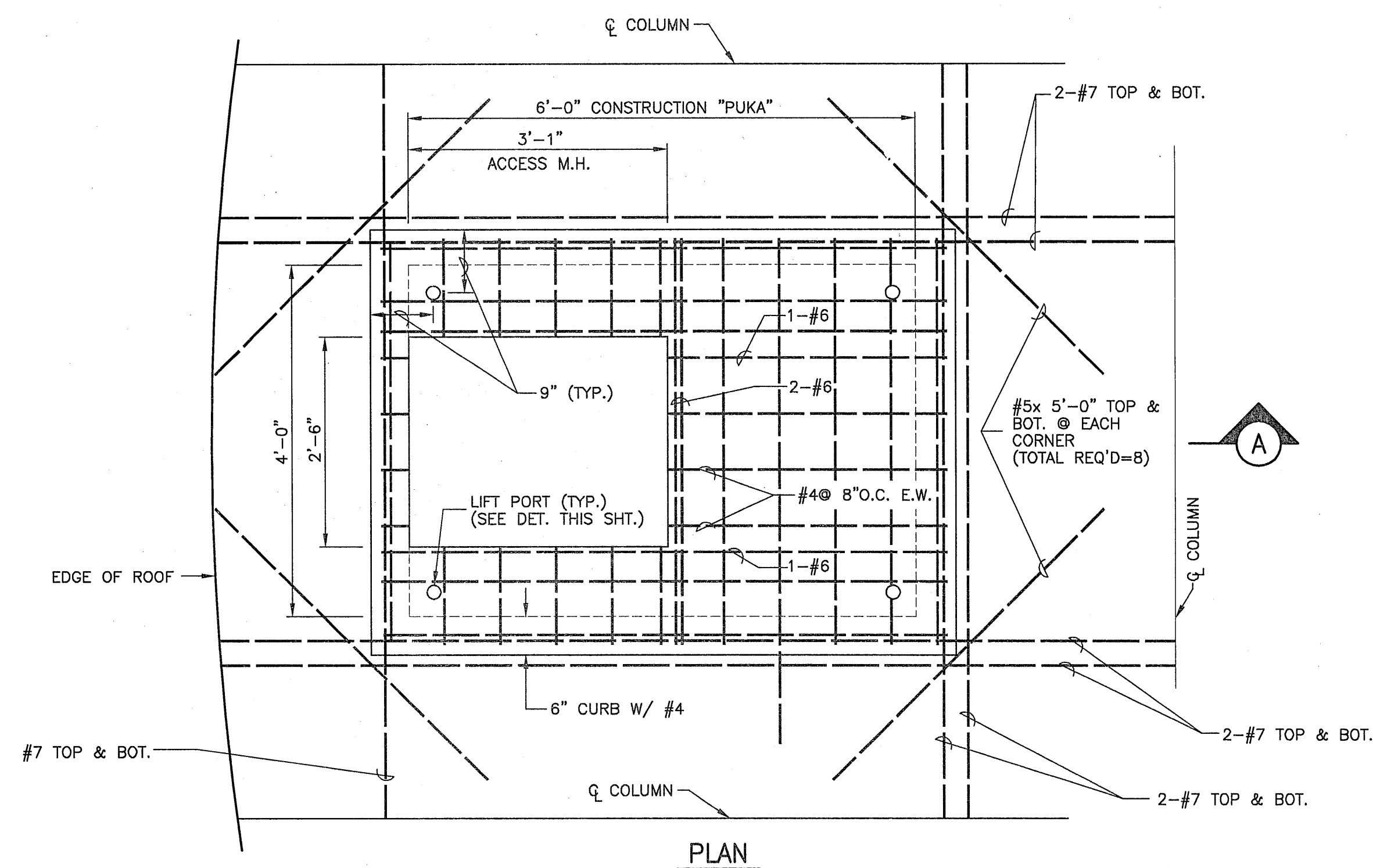
PLAN - ACCESS MANHOLE COVER
SCALE: 3/4" = 1'-0"



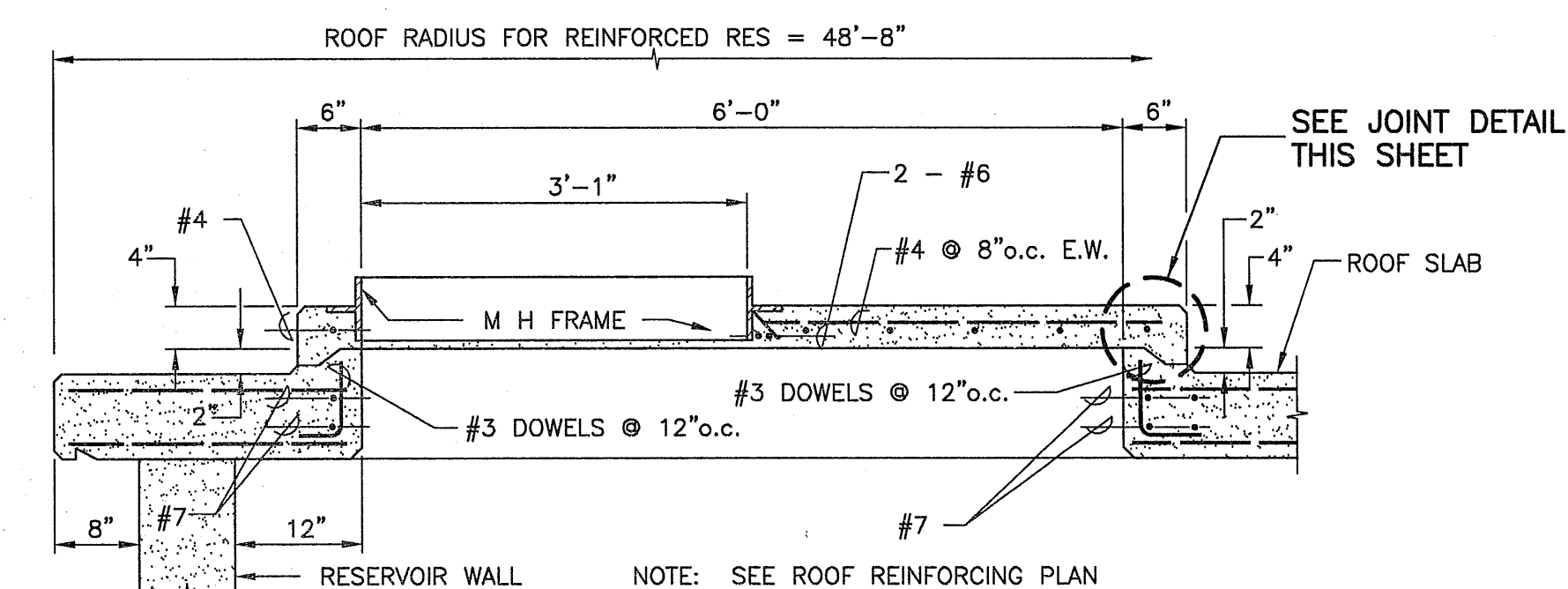
PLAN



COVER FRAME AND LOCKING HASP DETAIL "A"
SCALE: 3" = 1'-0"



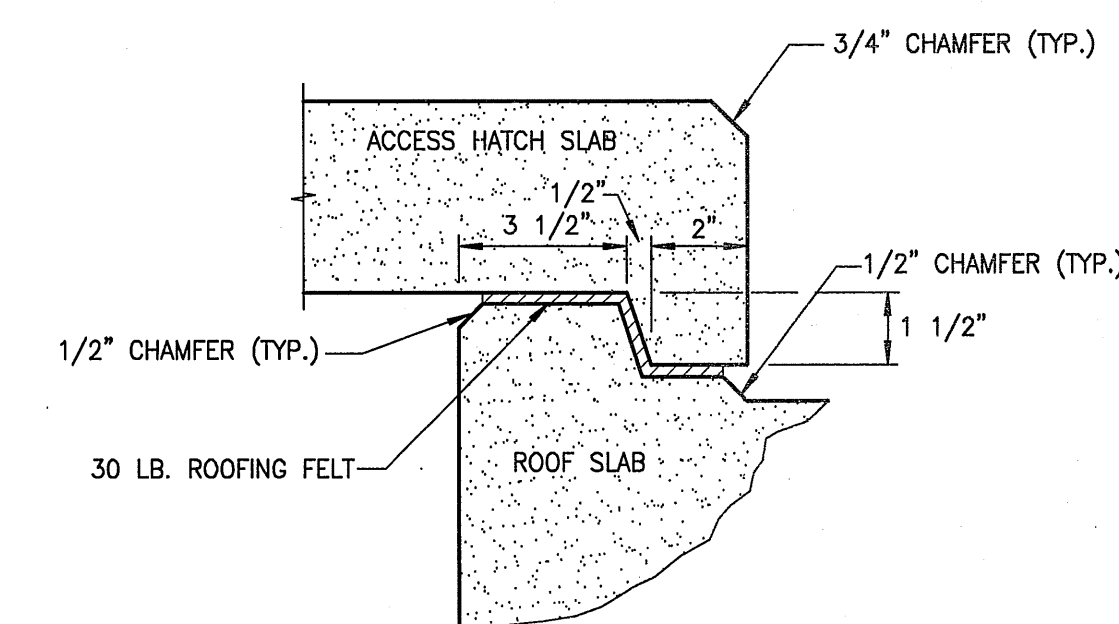
PLAN



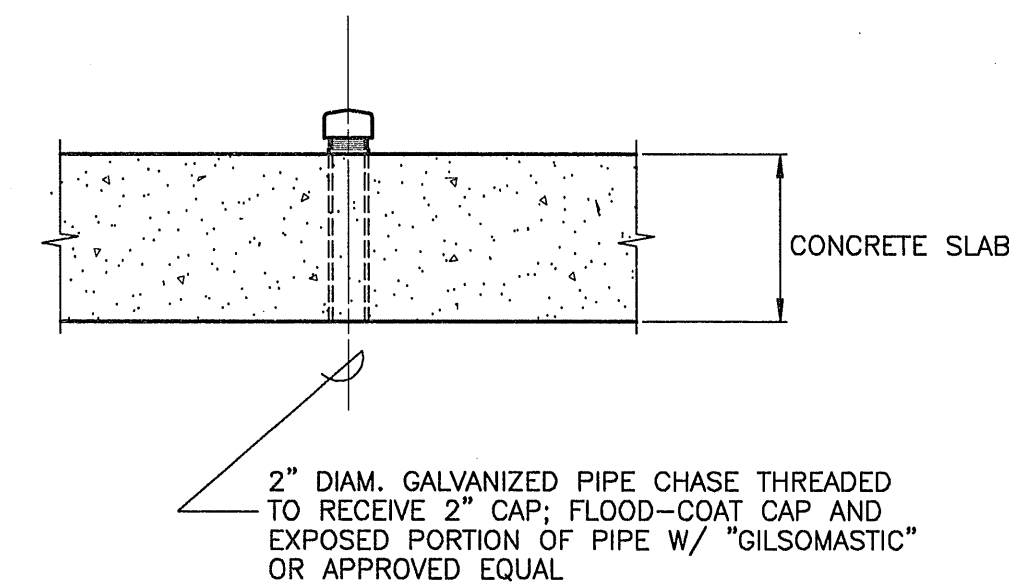
SECTION A

ACCESS HATCH

SCALE: 3/4" IN. = 1 FT. 0 IN.



DETAIL - KEY JOINT FOR ACCESS HATCH
SCALE: 3 IN. = 1 FT. - 0 IN.




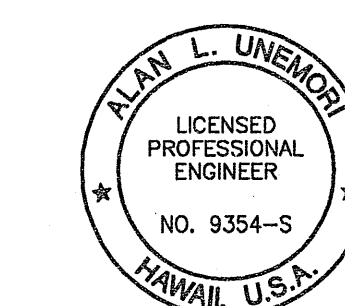
DETAIL -LIFT PORT

SCALE: 1 IN. = 1 FT. - 0 IN.

ACCESS MANHOLE/OVERFLOW HATCH COVER AND FRAME DETAILS 

SCALES AS NOTED

NOTE:
FOR LOCATION IN PLAN VIEW
SEE ROOF GRID DETAILS AND
SITE PLAN

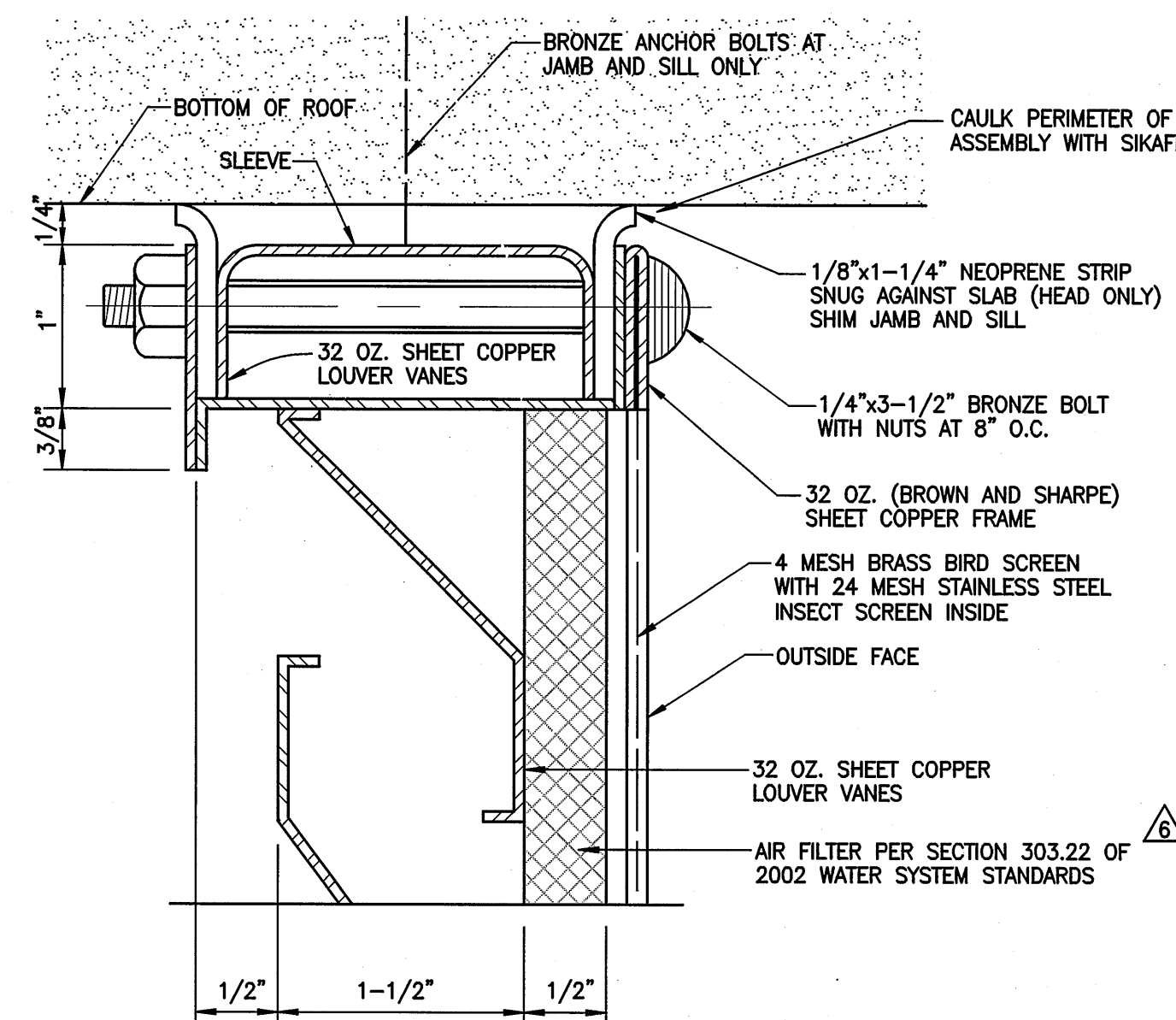


WARREN S. UNEMORI ENGINEERING, INC.
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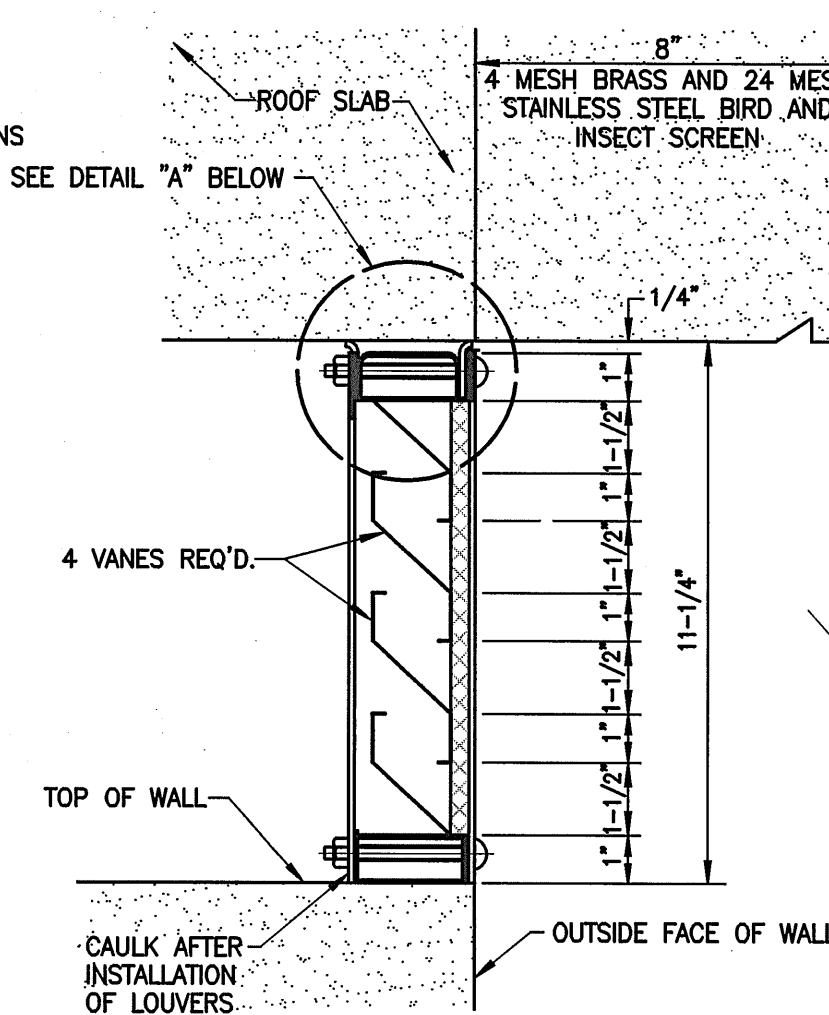
KAONOULU MARKET PLACE
T.M.K.: (2) 3-9-01 : 16
KIHEI, MAUI, HAWAII

TITLE	STORAGE TANK DETAILS
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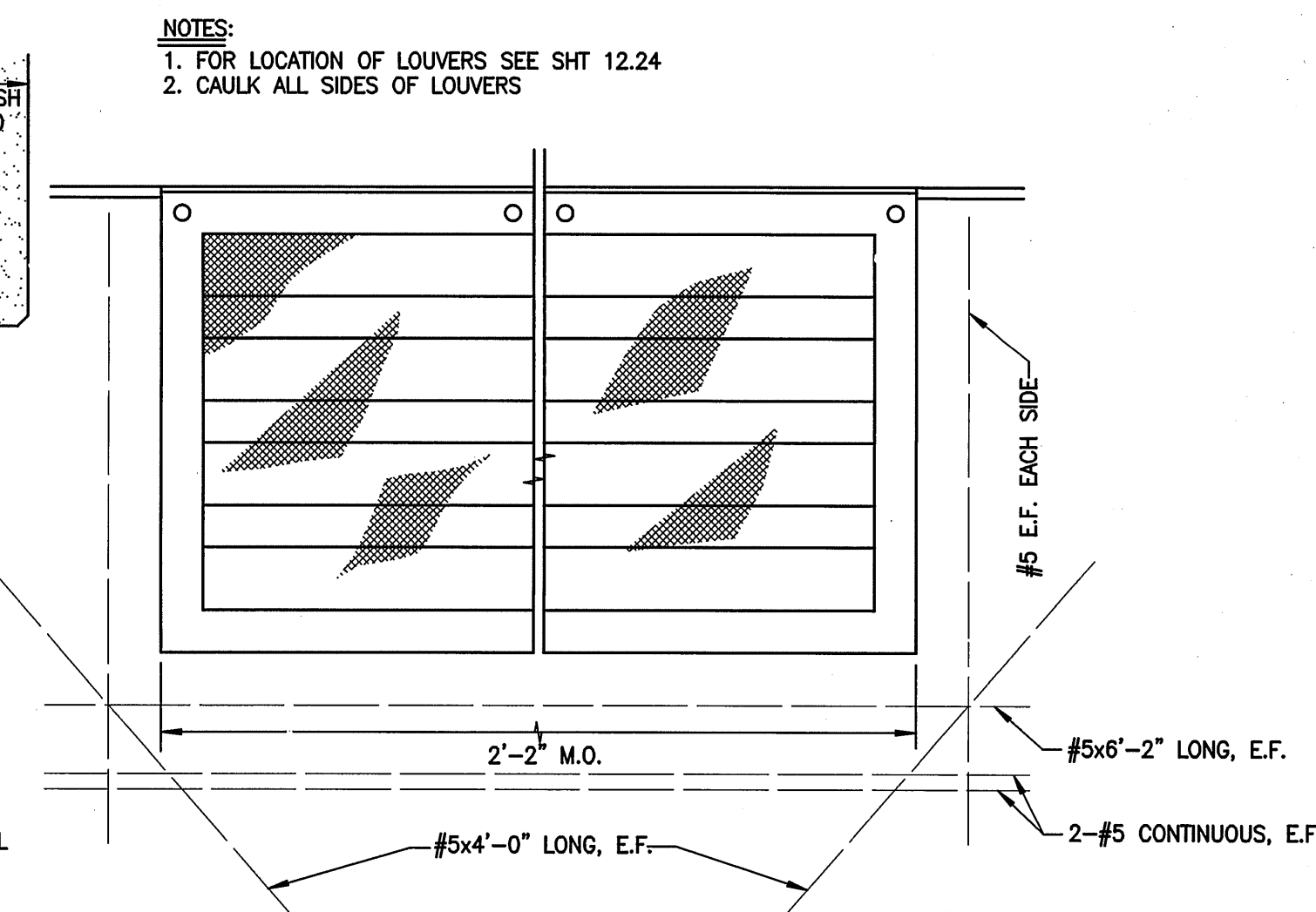
<div><div>6</div></div>	Added Hatch Details Per DWS Comments	10/01/10	<div><div><div><div></div></div></div><div>SIGNATURE</div><div>DATE</div><div>3/2/2012</div></div> <div>THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION "AS DEFINED IN SECTION 16-115-2 OF THE HAWAII ADMINISTRATIVE RULES FOR PROFESSIONAL ENGINEERS, ARCHITECTS, LAND SURVEYORS AND LANDSCAPE ARCHITECTS"</div>	TITLE STORAGE TANK DETAILS					
	<div><div>A</div></div>	Changed Sampling Pipeline Detail, and Materials to Type 316 Steel per DWS Comments.		9/11/06	ALU	DTU	04010.10	12.1	
DESIGNED BY			CHECKED BY		JOB NUMBER				
WIS			DTU		SHEET				
			DRAWN BY	APPROVED BY	10-10-05				
LETTER	DESCRIPTION	DATE	SCALE	As Shown	DATE	OF SHEET			



HEAD & JAMB SIMILAR
DETAIL "A"
FULL SIZE



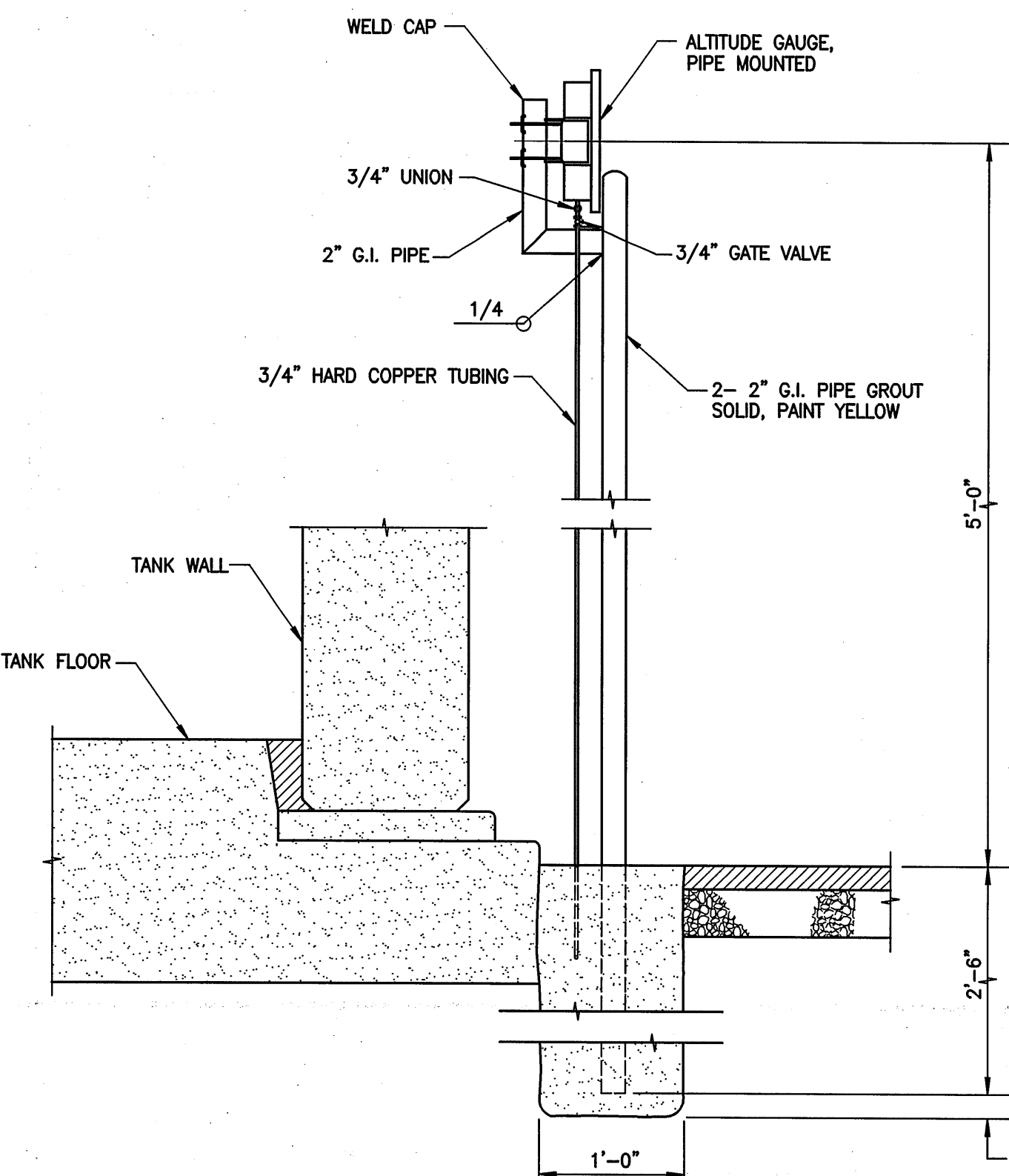
SECTION



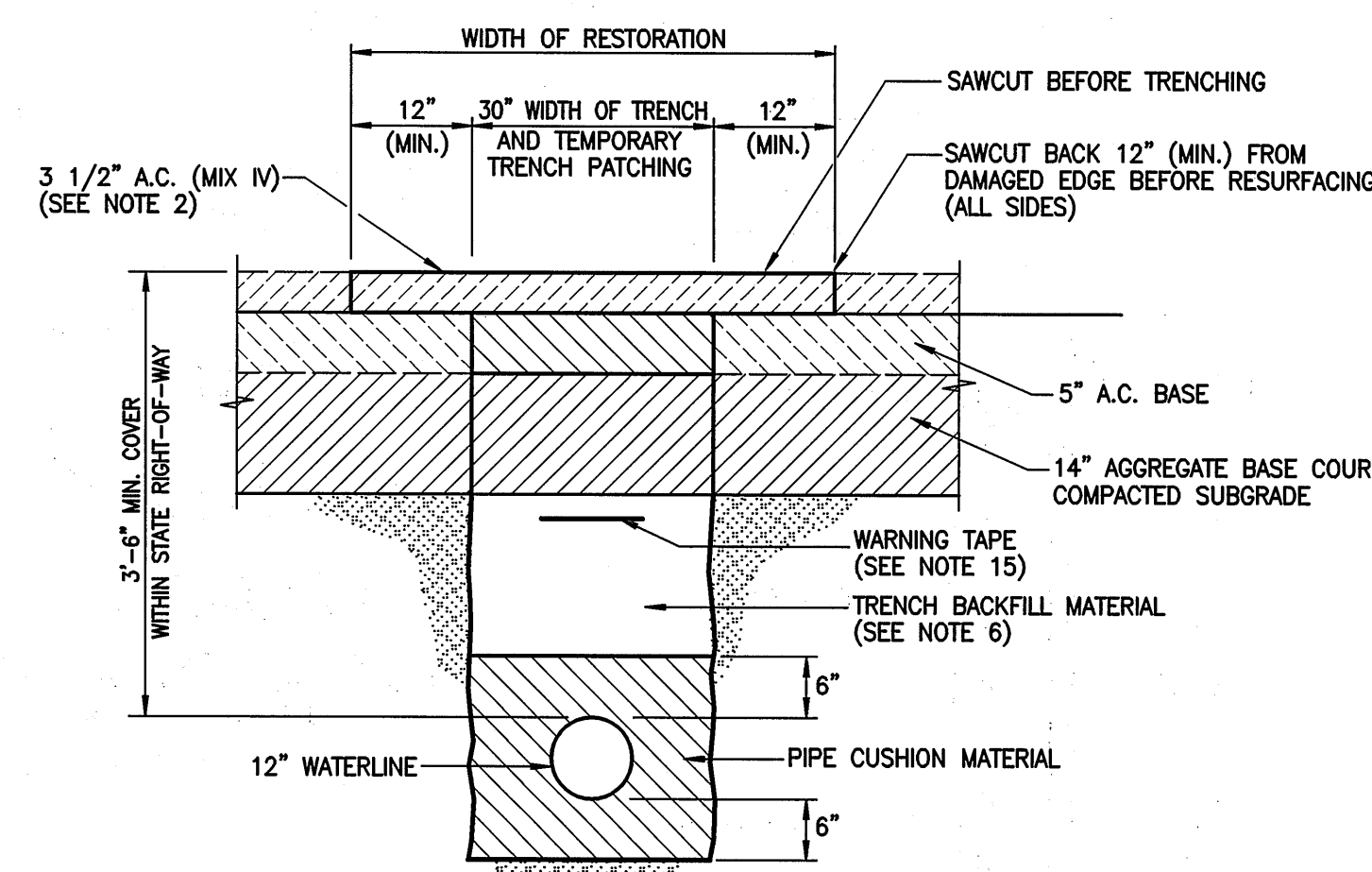
ELEVATION

LOUVERS DETAILS

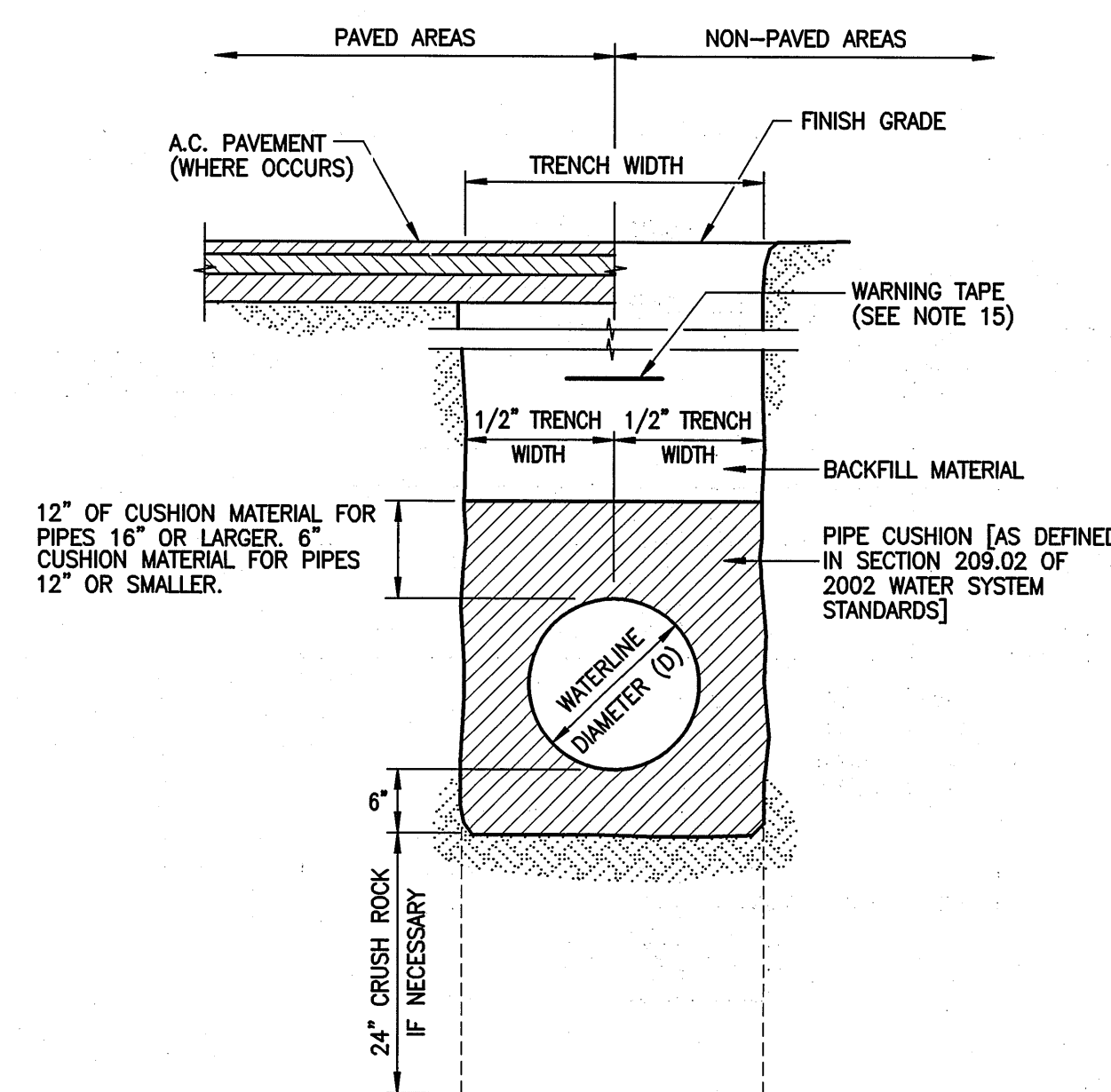
SCALE: 3 IN. = 1 FT. - 0 IN.



SECTION



TYPICAL TRENCH SECTION AND PAVEMENT
RESTORATION SECTION ALONG PIILANI HIGHWAY
NOT TO SCALE



TYPICAL TRENCH EXCAVATION SECTION
FOR OFFSITE WATERLINES
NOT TO SCALE

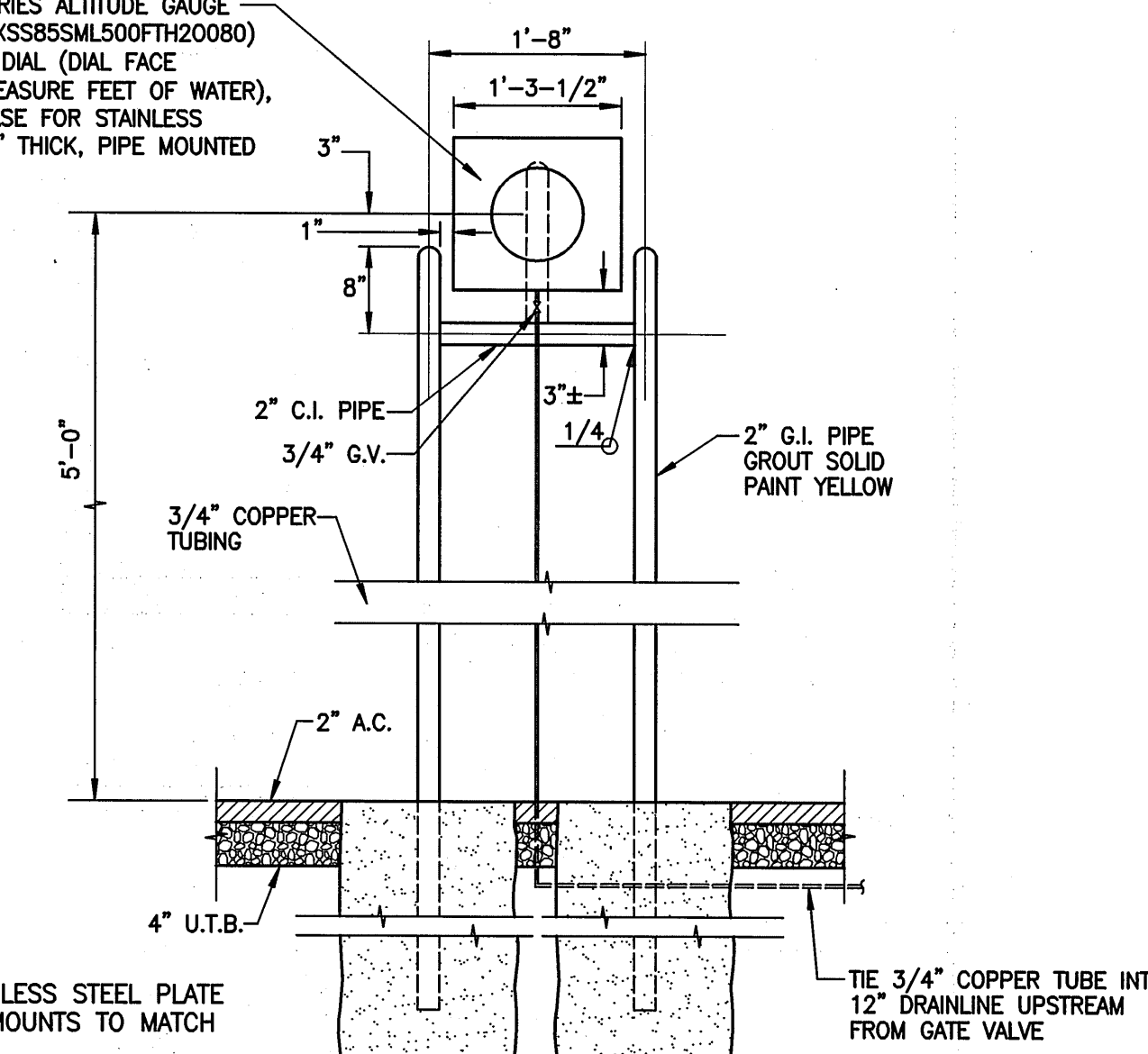
NOTES:

- RESTORE PAVEMENT TO MATCH EXT'G PAVEMENT SECTION.
- MINIMUM THICKNESS OF PAVEMENT:
PIILANI HIGHWAY
3 1/2" AC PAVEMENT (MIX IV)
5" A.C. BASE
14" AGGREGATE BASE COURSE
COMPACTED SUBGRADE
- EXCAVATION FOR EXTRA 24" WIDTH OF REPAVING TO BE INCLUDED WITH TRENCH EXCAVATION.
- THE CONTRACTOR SHALL PROVIDE TEMPORARY COLD PATCH IF RESTORATION WORK CANNOT BE MADE WITHIN 24 HOURS AFTER BACKFILL HAS BEEN COMPLETED.
- PRIME COAT SHALL BE PLACED ON NEW AGGREGATE BASE COURSE AND EXISTING AGGREGATE BASE COURSE PRIOR TO PLACING OF A.C.
- TRENCH BACKFILL AND BED COURSE MATERIAL SHALL CONFORM TO SECTION 703, "AGGREGATES" OF THE "HAWAII STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (2005)". PIPE CUSHION SHALL FOLLOW DWS STANDARD 209.02.
- INSTALLATION OF WATERLINES SHALL CONFORM TO SECTION 624, "WATER SYSTEM" OF THE "HAWAII STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (2005)".
- TRENCH WIDTH SHALL CONFORM TO TABLE 624.03-1 OF SECTION 624.03(B) OF THE "HAWAII STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (2005)".
- CONTRACTOR SHALL INSTALL BIOBARRIER ROOT CONTROL SYSTEM AS MANUFACTURED BY REEMAY, INC. OR APPROVED EQUIVALENT. CONTRACTOR SHALL CUT ALL EXISTING ROOTS PROTRUDING INTO PIPE TRENCH AND PLACE 10 LINEAL FEET OF ROOT BARRIER WHEN TRENCH WALL LIES WITHIN 24" OF EXISTING TREE.
- CONTRACTOR SHALL MAINTAIN AND RESTORE EXISTING SWALES ALONG ROADWAY SHOULDERS TO PROVIDE ADEQUATE DRAINAGE.
- ALL EXPOSED AREAS ARE TO BE GRASSED.
- THE CONTRACTOR SHALL RESTRIPE CENTERLINE, STOPBARS, AND REPLACE ALL PAVEMENTS MARKERS.
- THE TRENCH SECTION IN UNPAVED AREAS SHALL BE BACKFILLED WITH A CROWN APPROXIMATELY THREE (3) INCHES HIGHER THAN THE ADJOINING UNDISTURBED GROUND TO KEEP SURFACE RUNOFF AWAY FROM THE BACKFILLED TRENCH AREA. ADD GEOTEXTILE OVER BACKFILL TO PREVENT EROSION.
- GRUBBING ALONG THE LENGTH OF WATERLINE SHALL BE LIMITED TO 15 FT. WIDTH. ALL EXPOSED AREAS NOT WITHIN A ROADWAY SHALL BE GRASSED IMMEDIATELY FOLLOWING INSTALLATION OF WATERLINE.
- WARNING TAPE SHALL BE IN ACCORDANCE WITH SECTIONS 212.08 AND 302.03 OF 2002 WATER SYSTEM STANDARDS.

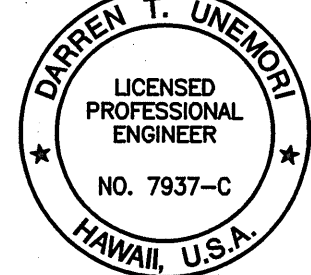
△ TRERICE 500X SERIES ALTITUDE GAUGE (ORDER NO.: 500XSS85SML500FTH20080) WITH AN 8-1/2" DIAL (DIAL FACE CALIBRATED TO MEASURE FEET OF WATER), FRONT FLANGE CASE FOR STAINLESS STEEL PLATE 1/8" THICK, PIPE MOUNTED

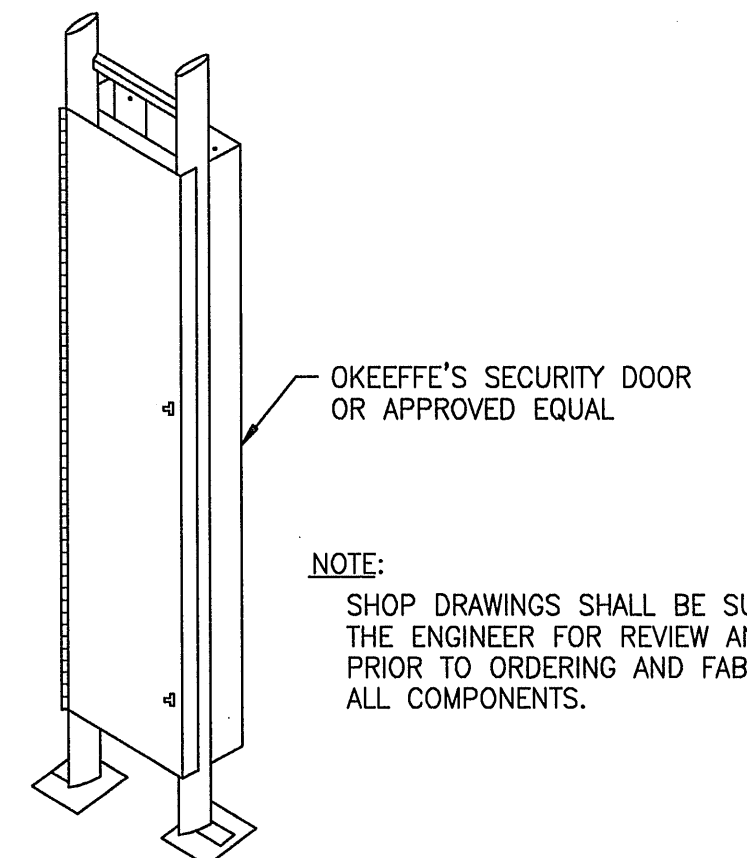
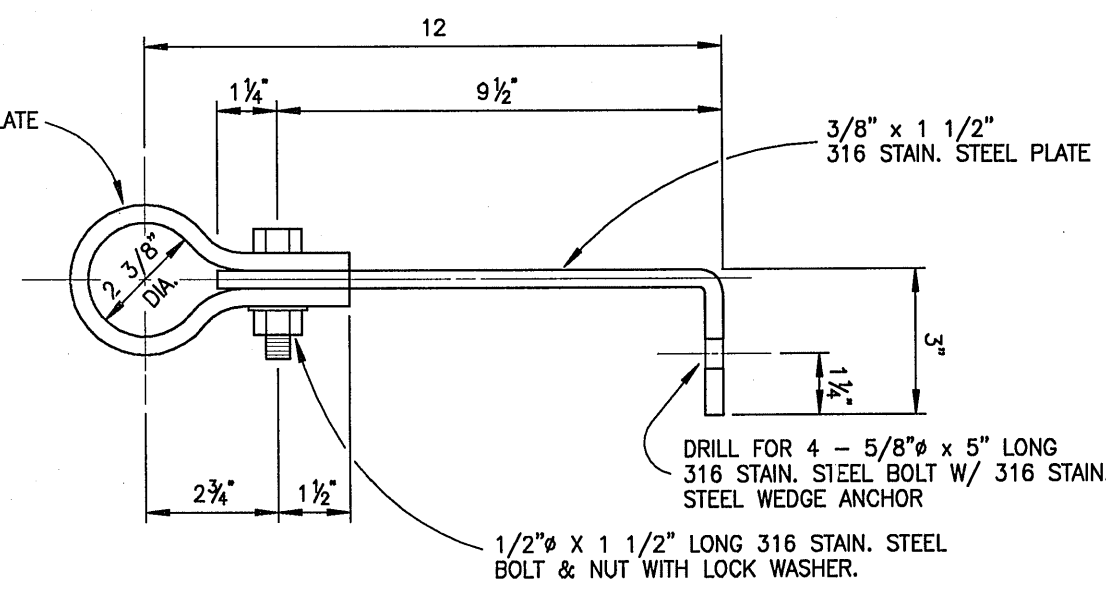
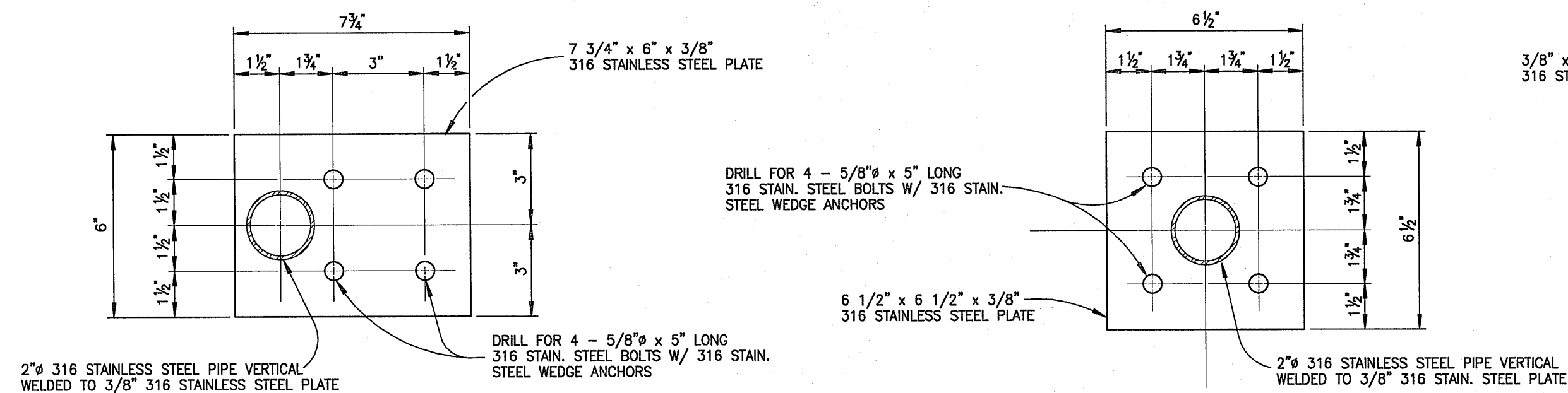
NOTE:

PAINT STAINLESS STEEL PLATE AND PIPE MOUNTS TO MATCH

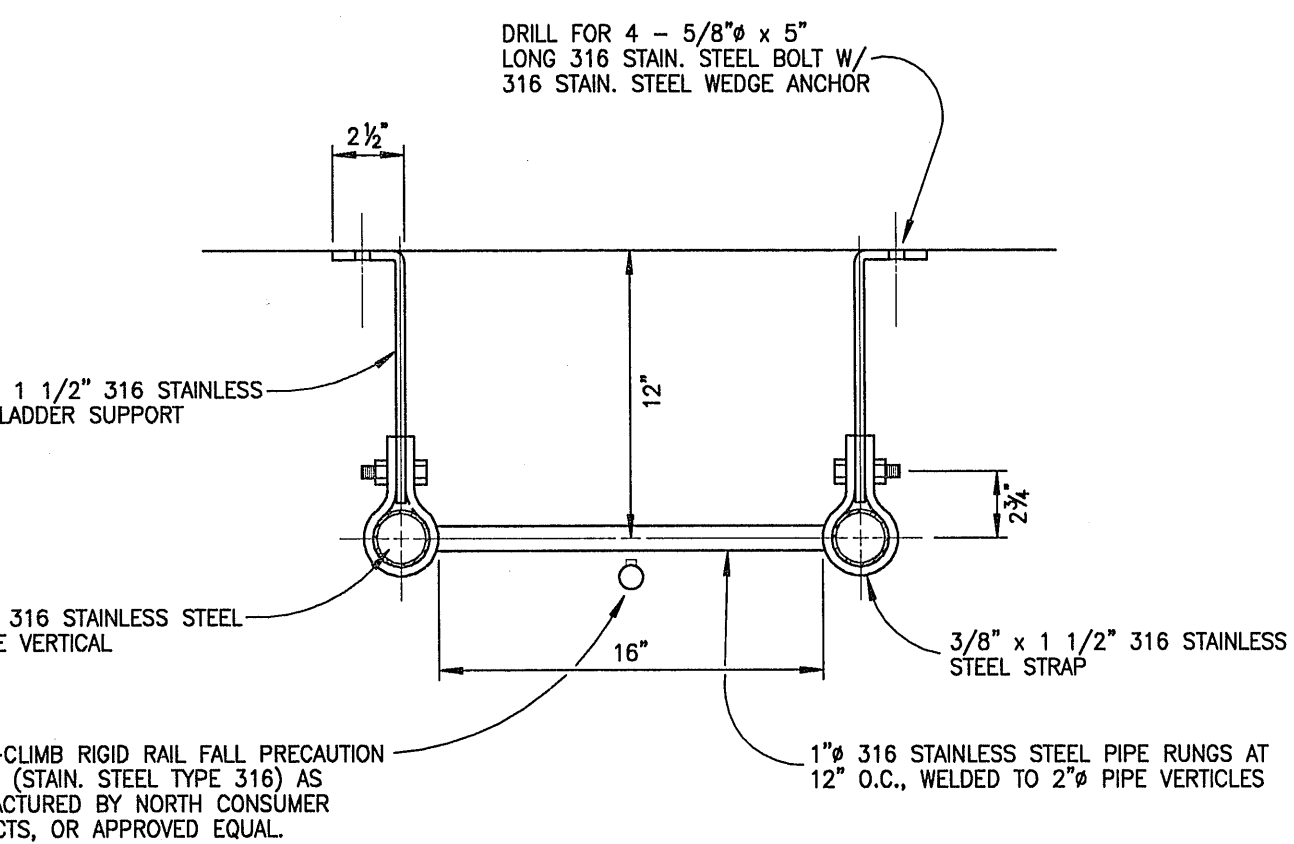


DETAIL - LIQUID LEVEL INDICATOR
SCALE: 3/4 IN. = 1 FT. - 0 IN.

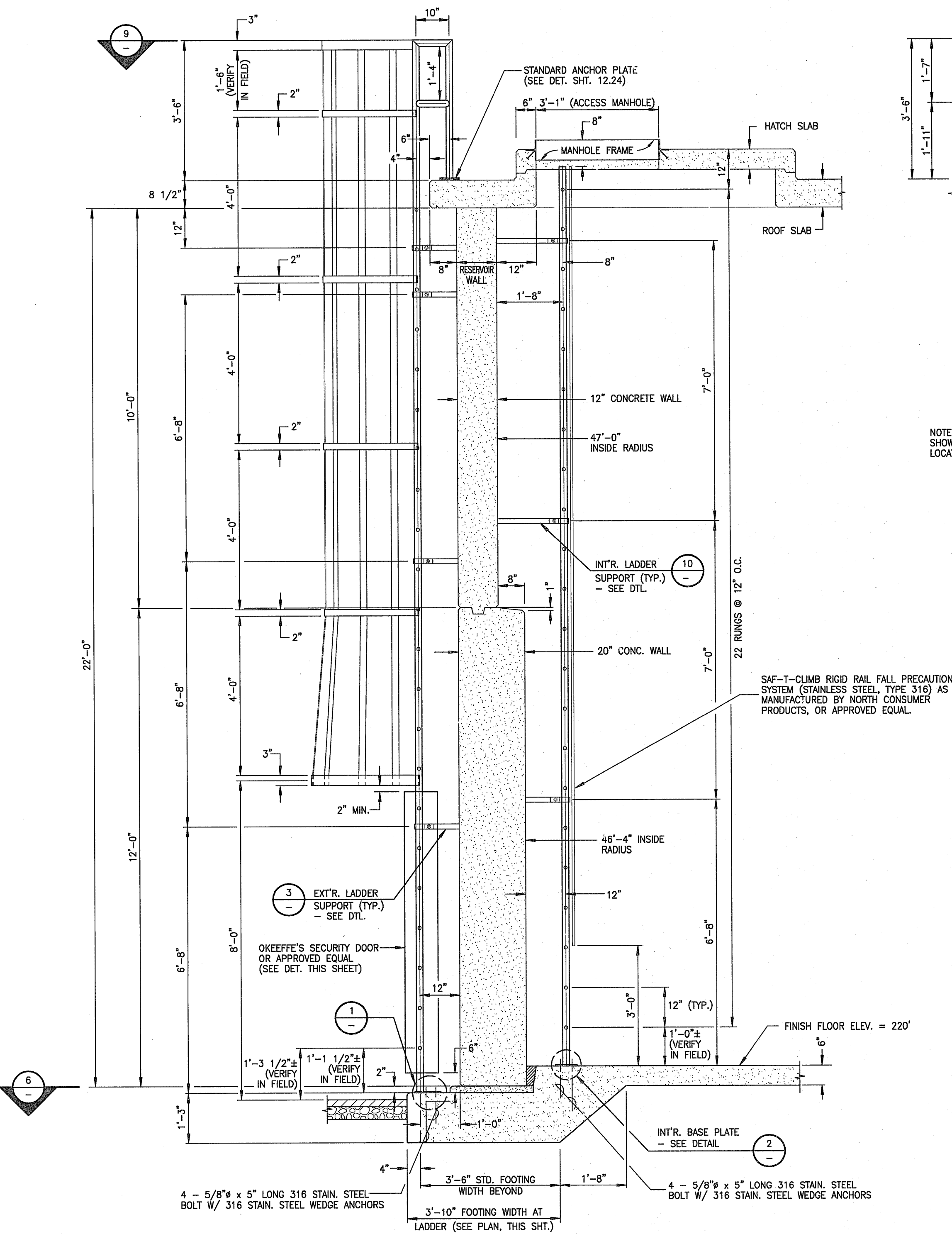
 WARREN S. UNEMORI ENGINEERING, INC. CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS WELLS STREET PROFESSIONAL CENTER, SUITE 403 2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793		KAONOULU MARKET PLACE T.M.K.: (2) 3-9-01 : 16 KIHAEI, MAUI, HAWAII	
TITLE: STORAGE TANK DETAILS			
DESIGNED BY	DTU	04010.10	12.12
WIS	DTU	JOB NUMBER	
DRAWN BY	APPROVED BY	10-10-05	SHEET
SCALE: As Shown	DATE	OF SHEETS	



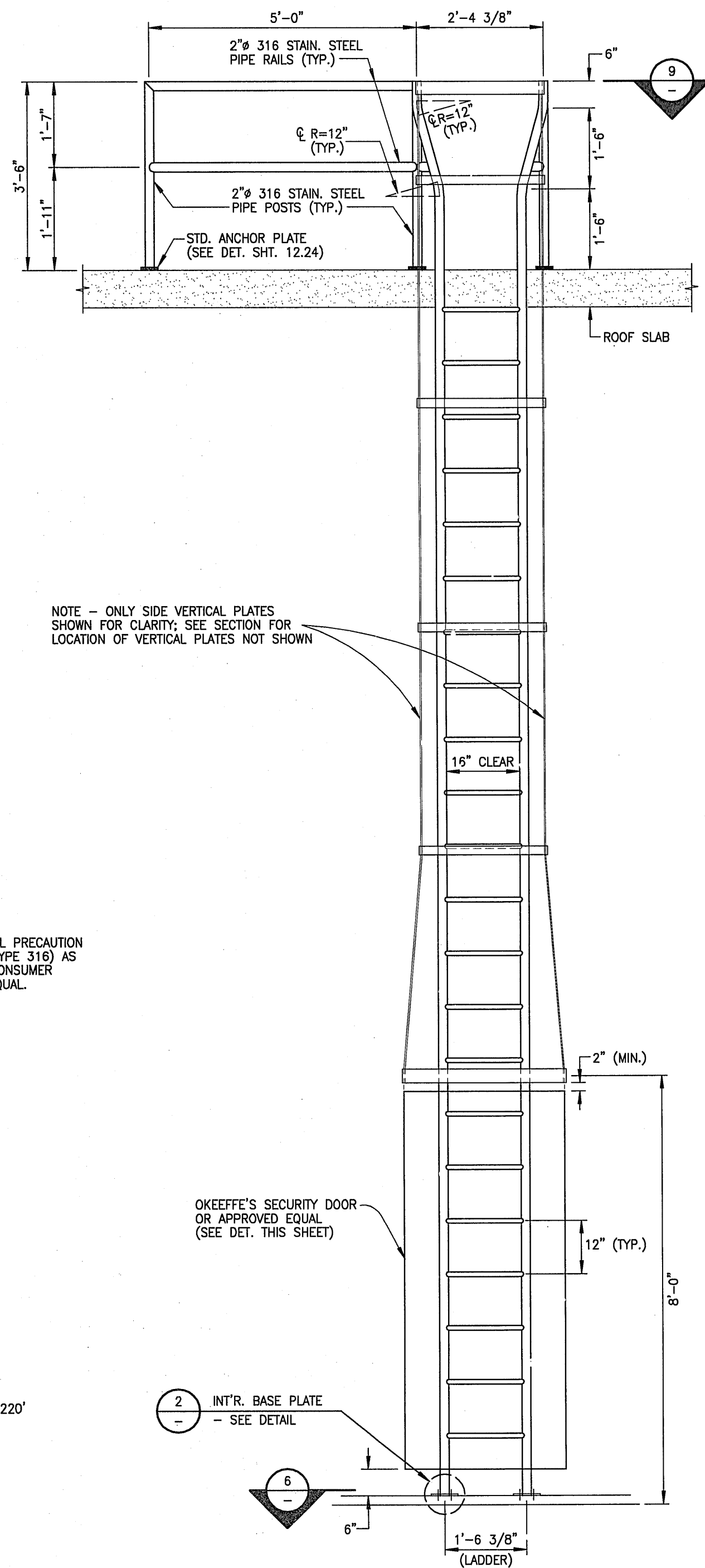
DETAIL - CLIMB PREVENTIVE SECURITY DOOR (4)
 NOT TO SCALE



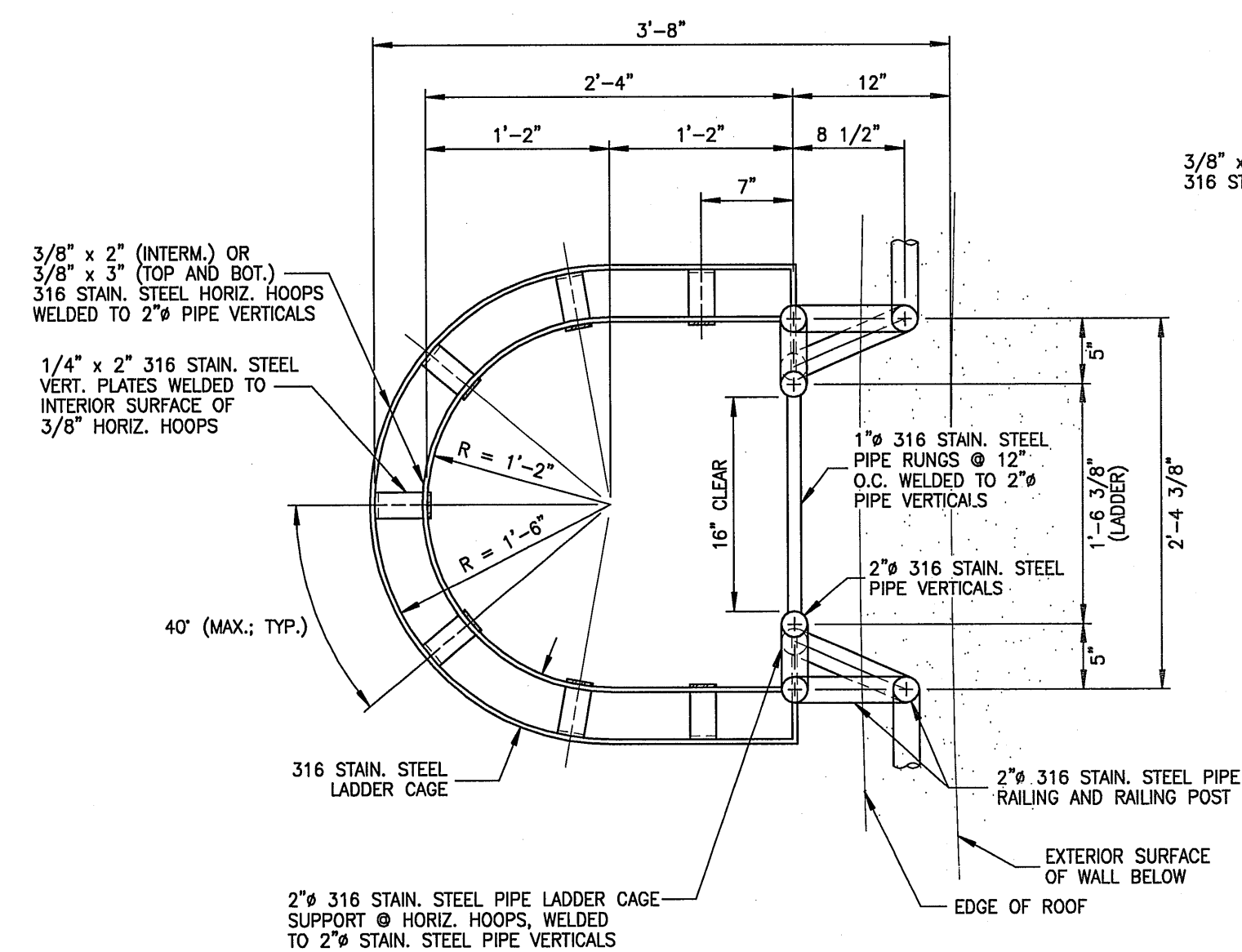
PLAN - INTERIOR LADDER (7)
 SCALE: 1 1/2" IN. = 1 FT. - 0 IN.



DETAIL - INTERIOR AND EXTERIOR LADDER (8)
 SCALE: 1/2 IN. = 1 FT. - 0 IN.



SECTION - FOOTING AT EXTERIOR LADDER (6)
 SCALE: 3 IN. = 1 FT. - 0 IN.



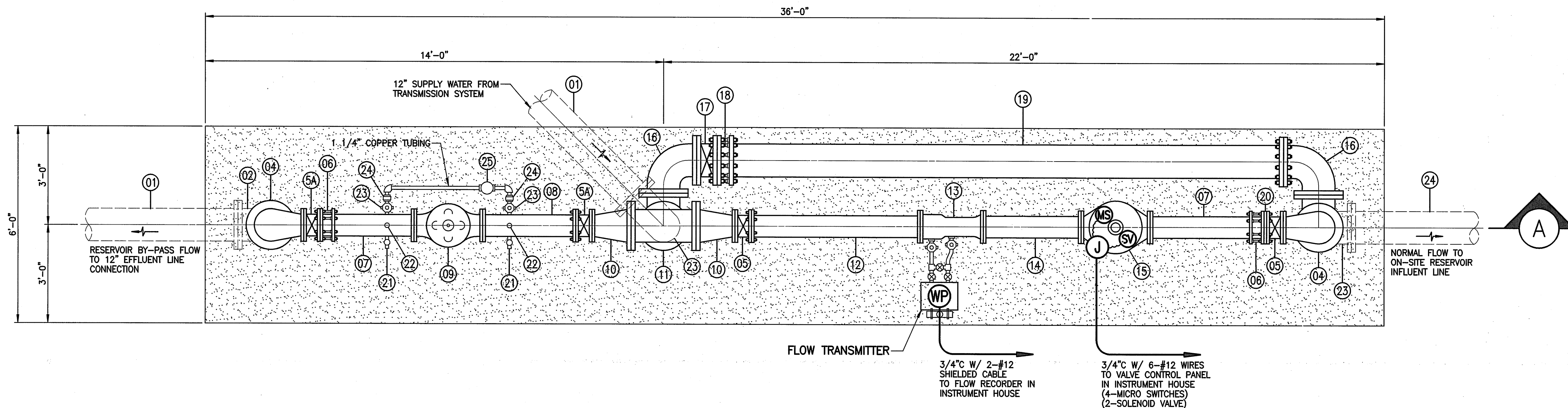
- NOTES:**
- ALL MISCELLANEOUS METALS, PIPES, FASTENERS & RELATED ACCESSORY COMPONENTS, UNLESS OTHERWISE SPECIFIED, SHALL BE STAINLESS STEEL, ASTM A 312 TYPE 316. TYPE 316 SHALL BE USED WHERE FIELD WELDING IS REQUIRED OR WELDED FABRICATION WITH SUBSEQUENT SOLUTION HEAT TREATMENT IS NOT POSSIBLE.
 - ALL ROUGH OR SHARP EDGES SHALL BE GROUND SMOOTH. ALL WELDED JOINTS SHALL BE GROUND SMOOTH AND FLUSH WITH ADJOINING METAL AND SHALL BE FREE OF CRACKS, PITS, OR CREVICES.
 - ALL PIPE, UNLESS OTHERWISE SPECIFIED, SHALL BE SCHEDULE 40S (STANDARD WALL) OR BETTER. PIPE VERTICAL FOR INTERIOR LADDER SHALL BE SCHEDULE 80S (EXTRA STRONG) OR BETTER.
 - SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO ORDERING AND FABRICATION OF ALL COMPONENTS.
 - INTERIOR LADDER SHALL BE FURNISHED WITH SAF-T-CRIMP RIGID RAIL FALL PRECAUTION SYSTEM (STAINLESS STEEL, TYPE 316), AS MANUFACTURED BY NORTH CONSUMER PRODUCTS, OR APPROVED EQUAL. TWO (2) COMPLETE SETS OF ALL ACCESSORIES SHALL BE FURNISHED TO THE DEPARTMENT OF WATER SUPPLY.

WARREN S. UNEMORI ENGINEERING, INC.
 CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
 2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

KAONOULU MARKET PLACE
 T.M.K.: (2) 3-9-01 : 16
 KIHAI, MAUI, HAWAII

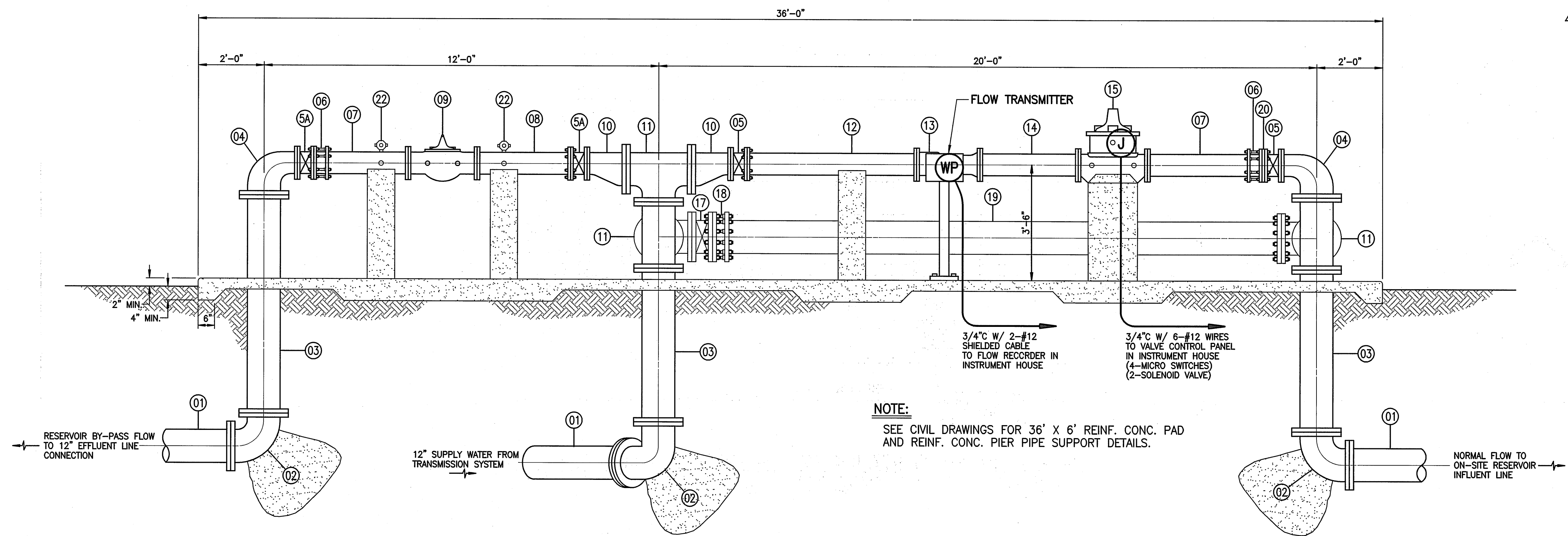
TITLE: STORAGE TANK LADDER DETAILS

DESIGNED BY	DTU	04010.10	12.13
WIS	DTU	JOB NUMBER	
DRAWN BY	DTU	10-10-05	SHEET
SCALE	As Shown	DATE	



CONTROL VALVE AND PRESSURE REGULATING VALVE PIPING PLAN

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



NOTE:
SEE CIVIL DRAWINGS FOR 36' X 6' REINF. CONC. PAD
AND REINF. CONC. PIER PIPE SUPPORT DETAILS.

SECTION A

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

MATERIALS LIST		
ITEM	QTY.	DESCRIPTION
01	3	12" FE-PE PIPE, 2'-0" LONG
02	3	12" FL. 90° BEND W/ CONC. BLOCK
03	3	12" FL. PIPE, LENGTH TO FIT
04	2	12" X 8" FL. RED 90° BEND, 12" C-F
05	2	8" FL. GATE VALVE, NRS W/ HANDWHEEL
05A	2	8" FL. GATE VALVE, NRS W/ HANDWHEEL (TO REMAIN CLOSED UNDER NORMAL OPERATION)
06	2	8" FLANGE COUPLING ADAPTER W/ S.S. TIE BOLTS
07	2	8" FE-PE PIPE, (LENGTH TO FIT - 12" MIN.)
08	1	8" FL. PIPE, 18" MIN. LENGTH, W/ CONC. PIER SUPPORT
09	1	8" CLA-VAL ANTI-CAVITATION PRV MODEL 90-01KO W/ CHECK FEATURE, FLANGED.
10	2	12" X 8" ECCENTRIC FL. REDUCER
11	3	12" X 12" FL. TEE
12	1	8" FL. PIPE, 4'-0" LONG W/ CONC. PIER SUPPORT
13	1	8" UNIVERSAL VENTURI TUBE, 23" F-F
14	1	8" FL. PIPE, 3'-0" LONG
15	1	8" CLA-VAL ROF CONTROL VALVE MODEL 43-01, F.E. F-F W/ X101 VALVE POSITION INDICATOR, EPOXY COATING, CHECK FEATURE, KO ANTI-CAVITATION TRIM AND CONC. PEIR.
16	2	12" FL. 90° BEND
17	1	12" FL. GATE VALVE, OS & Y (TO REMAIN CLOSED UNDER NORMAL OPERATION)
18	1	12" FLANGE COUPLING ADAPTER W/ S.S. TIE BOLTS
19	1	12" FE-PE PIPE, LENGTH TO FIT W/ 3 MIN. CONC. PIER SUPPORTS
20	1	ORIFICE
21	2	1/2" HOSE BIB CONNECTION
22	2	3/4" CORP. STOP
23	2	1 1/4" CORP. STOP
24	2	1 1/4" UNION
25	1	1 1/4" CLA-VAL PRV-90 SERIES

NOTE:
ALL FLANGES AND FITTINGS SHALL BE DUCTILE IRON, RATED FOR
250 PSI WORKING PRESSURE, FACED AND DRILLED IN ACCORDANCE
WITH ANSI B16.1 CLASS 125 OR CLASS 250 AS REQUIRED.

INITIAL VALVE SETTINGS

LOCATION	INSTALLED ELEVATION	THEORETICAL INLET (UPSTREAM) PRESSURE	OUTLET (DOWNSTREAM) PRESSURE SETTINGS	
			1 1/4" PRV (Cla-Val Model 90 Series)	8" PRV (Cla-Val Model 90 Series)
PRV @ Sta. 43+23 of Offsite Waterline	219 ft.±	110 psi	2 psi	5 psi

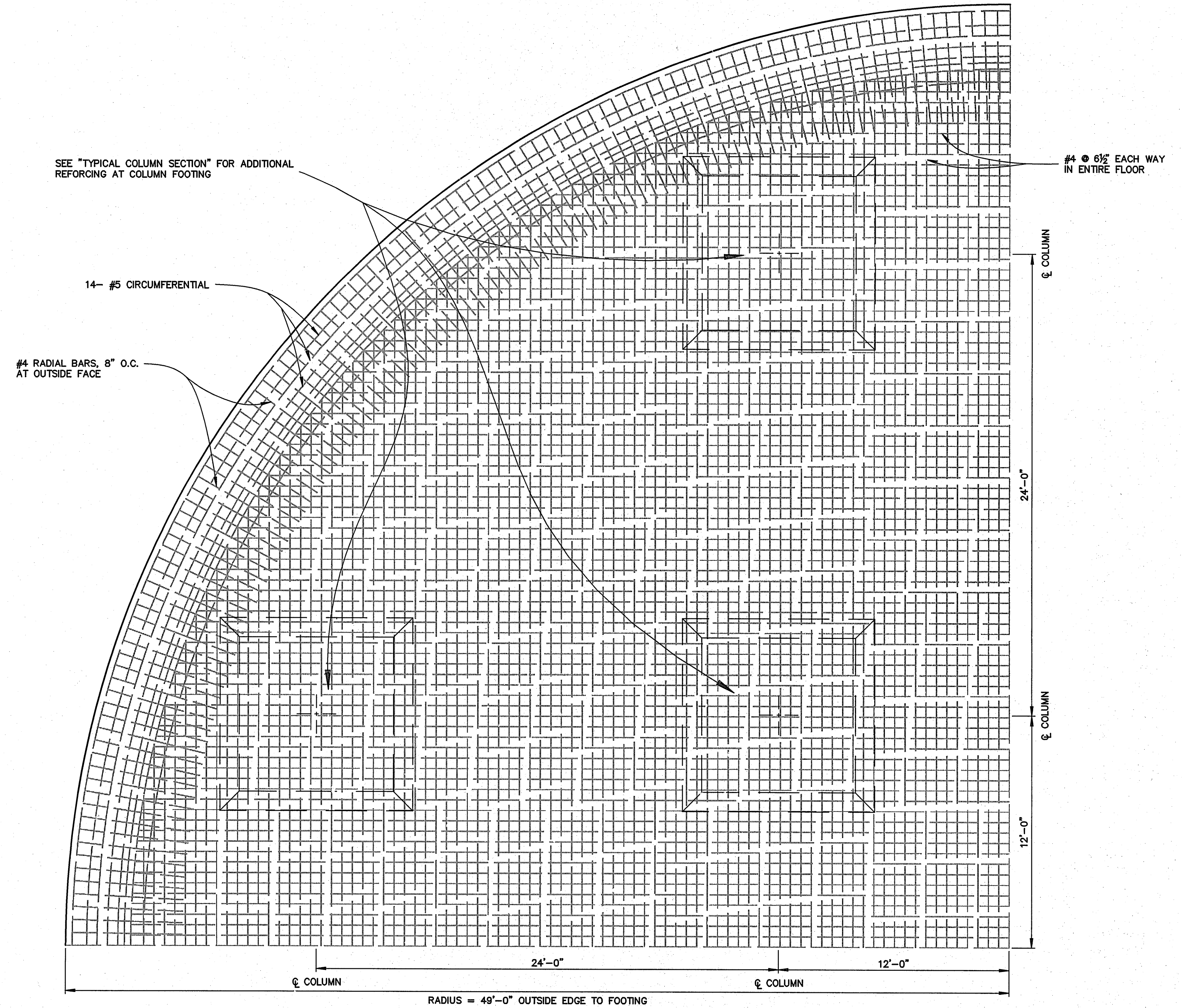
LOCATION	INSTALLED ELEVATION	SUSTAINING PRESSURE
Control Valve @ Sta. 43+23 of Offsite Waterline	219 ft.±	75 psi

DESIGNED BY	DTU	04010.10	12.14
CHECKED BY	DTU	JOB NUMBER	
WIS	DTU	10-10-05	
APPROVED BY	DTU	DATE	
SCALE	AS NOTED	OF SHEETS	

WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
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KAONOULU MARKET PLACE
T.M.K.: (2) 3-9-01 : 16
KIHAI, MAUI, HAWAII

TITLE STORAGE TANK CONTROL VALVE



NOTE:
ALL LAPS IN THE SAME PLANE SHALL BE STAGGERED 40 DIAMETERS

REINFORCING STEEL
1/4 FLOOR PLAN
SCALE: 1/4" = 1'-0"

04010.10/6wg2004/comp/plan/DET-TANK-FLOOR.DWG

LETTER	DESCRIPTION	DATE

ALAN L. UNEMORI
LICENSED PROFESSIONAL ENGINEER
NO. 9354-S
HAWAII, U.S.A.

SIGNATURE: *[Signature]* DATE: 10/10/05

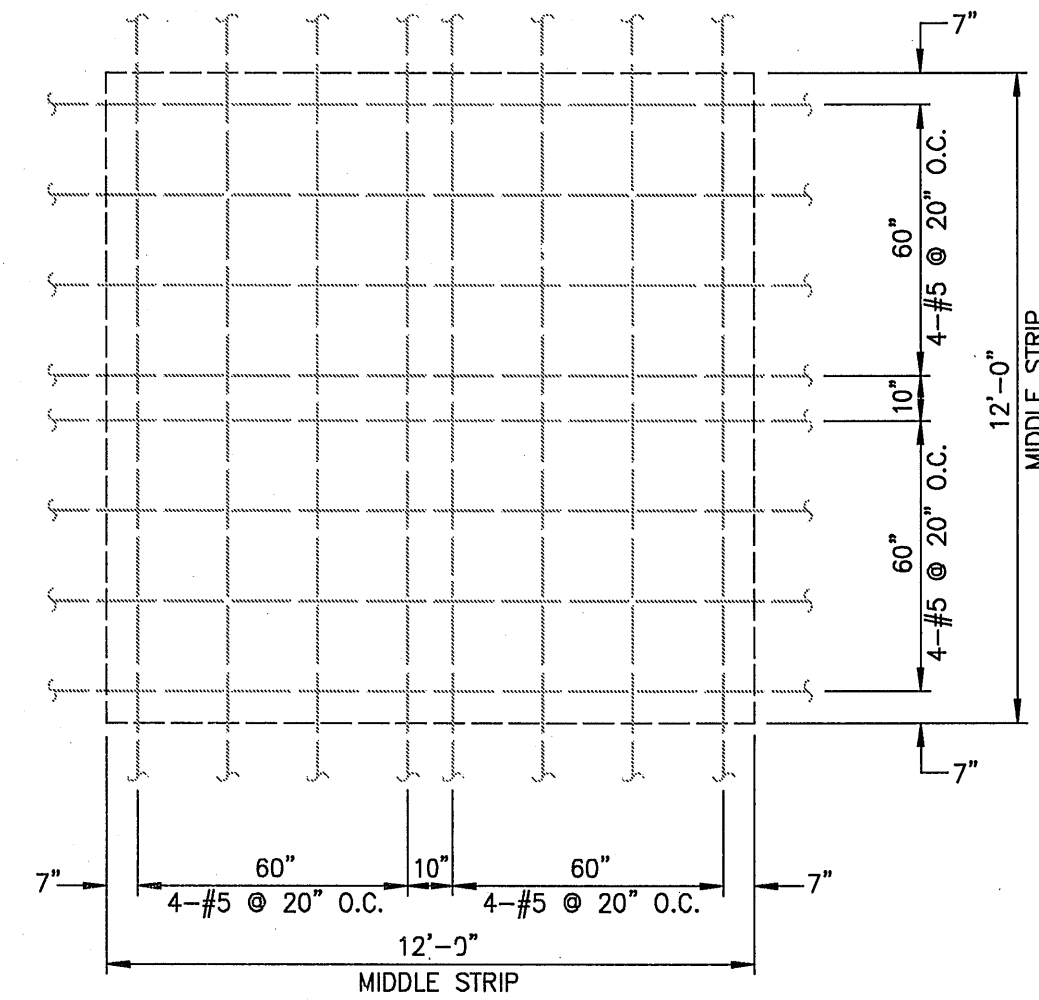
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION "AS SET FORTH IN SECTION 16-115-2 OF THE HAWAII ADMINISTRATIVE RULES FOR PROFESSIONAL ENGINEERS, ARCHITECTS, LAND SURVEYORS AND LANDSCAPE ARCHITECTS"

WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

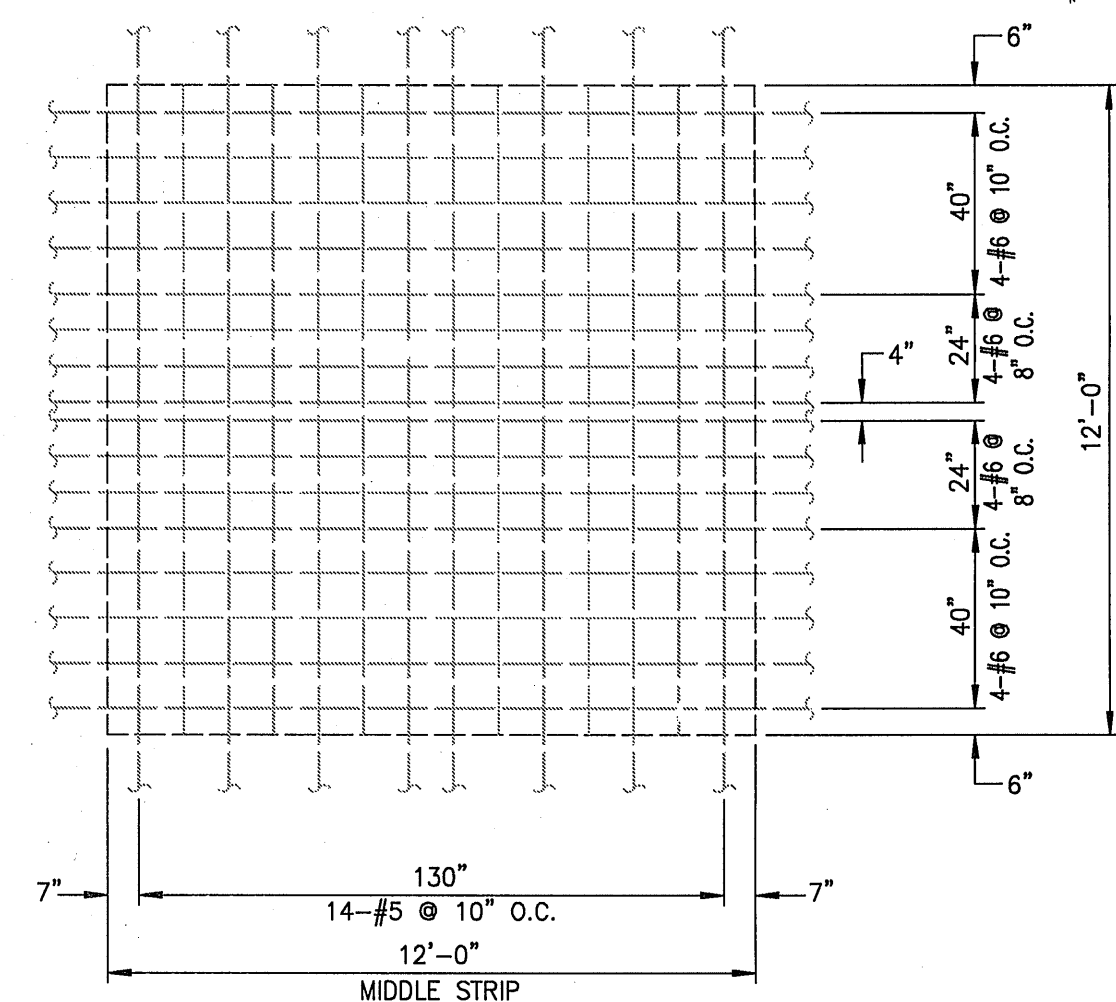
KAONOULU MARKET PLACE
T.M.K.: (2) 2-2-02 : Por. of Par. 15 and 3-9-01 : 16
KIHEI, MAUI, HAWAII

TITLE: STORAGE TANK FLOOR STEEL PLAN	
DESIGNED BY: ALU	CHECKED BY: DTU
DRAWN BY: WIS	APPROVED BY: DTU
SCALE: As Shown	

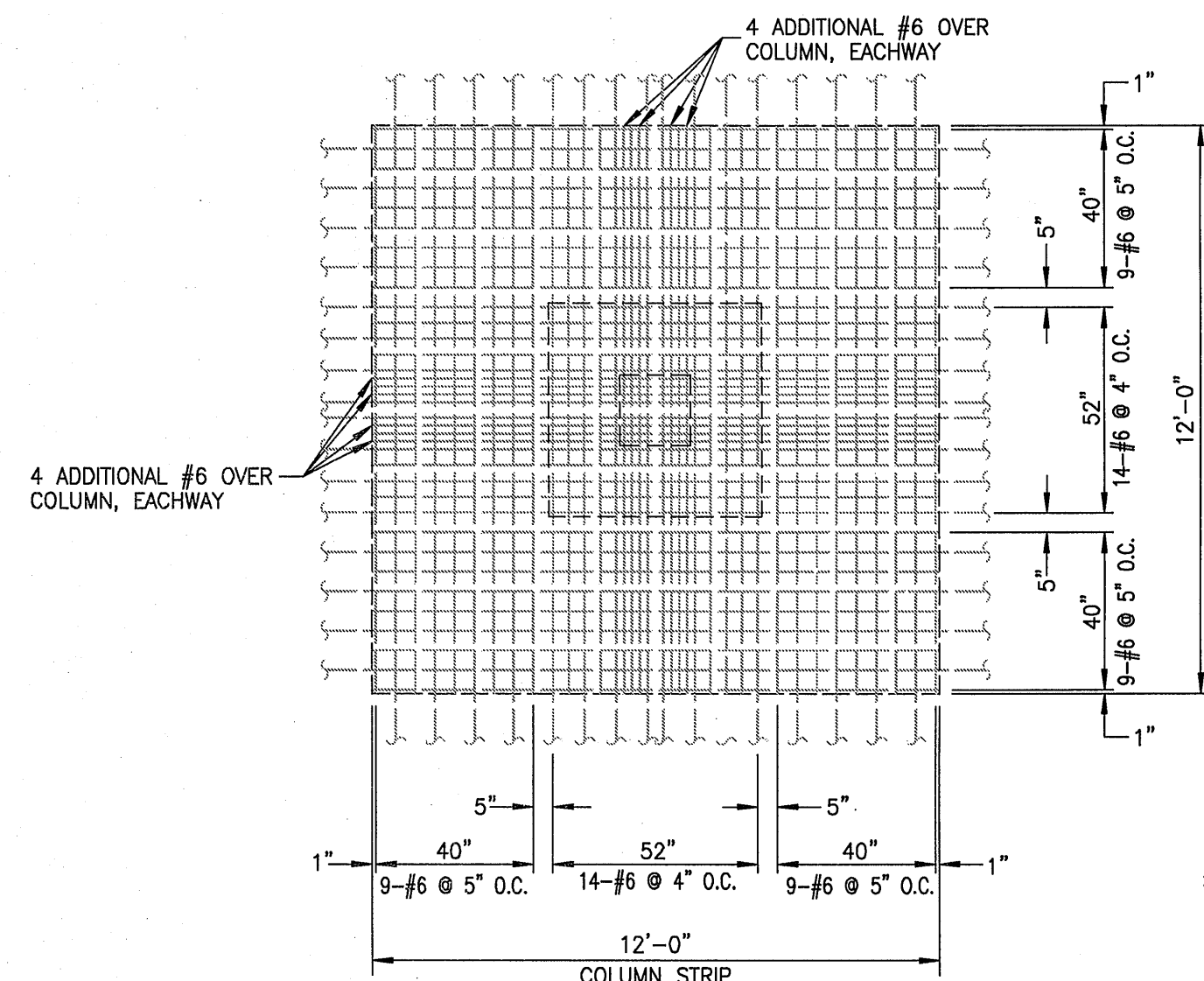
04010.10	12.20
JOB NUMBER	
10-10-05	SHEET
DATE	
OF	SHEETS



MIDDLE STRIP / MIDDLE STRIP
NOT TO SCALE



COLUMN STRIP / MIDDLE STRIP
NOT TO SCALE

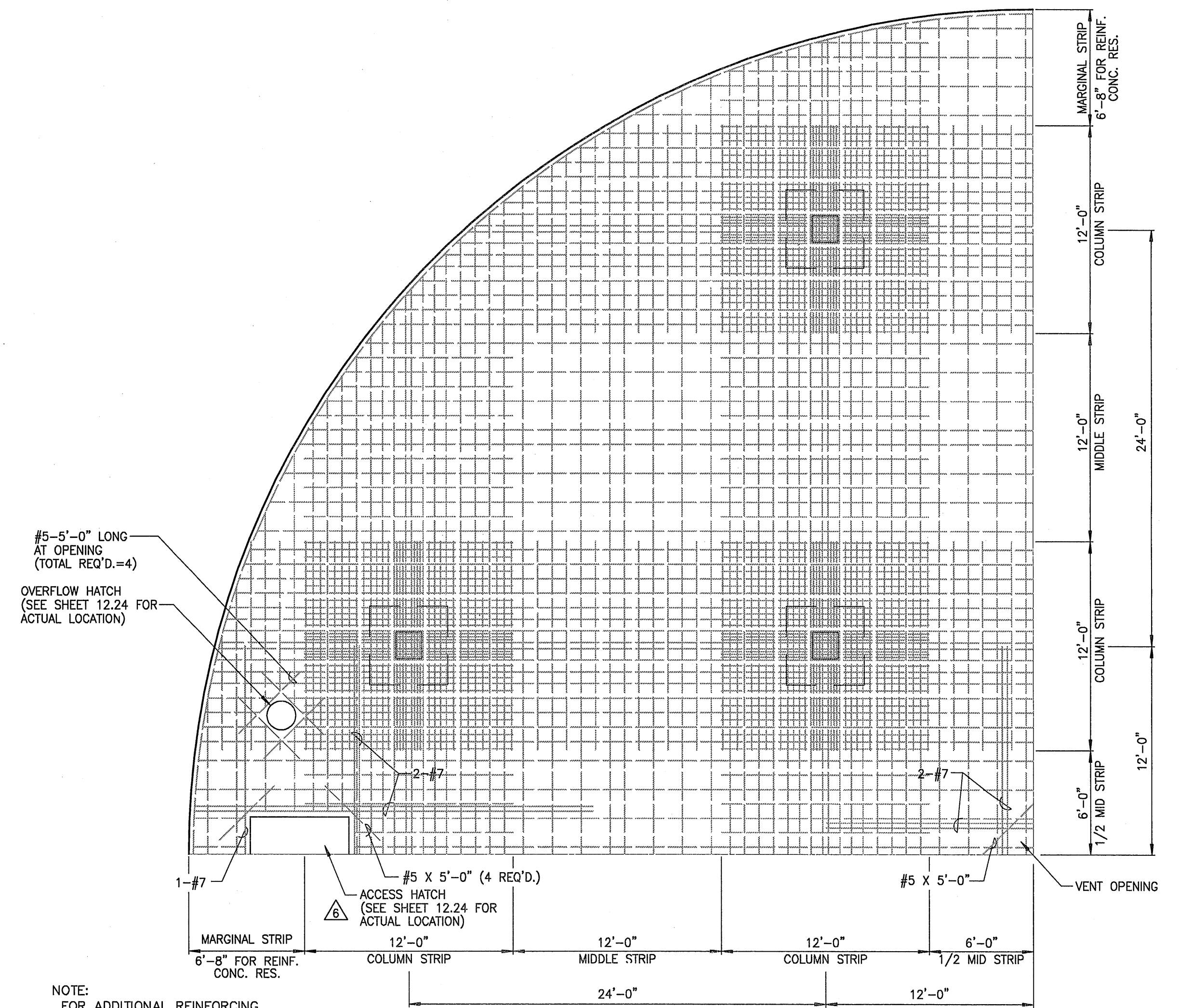


COLUMN STRIP / COLUMN STRIP
NOT TO SCALE

UPPER GRID STEEL LAYOUT
NOT TO SCALE

NOTES:

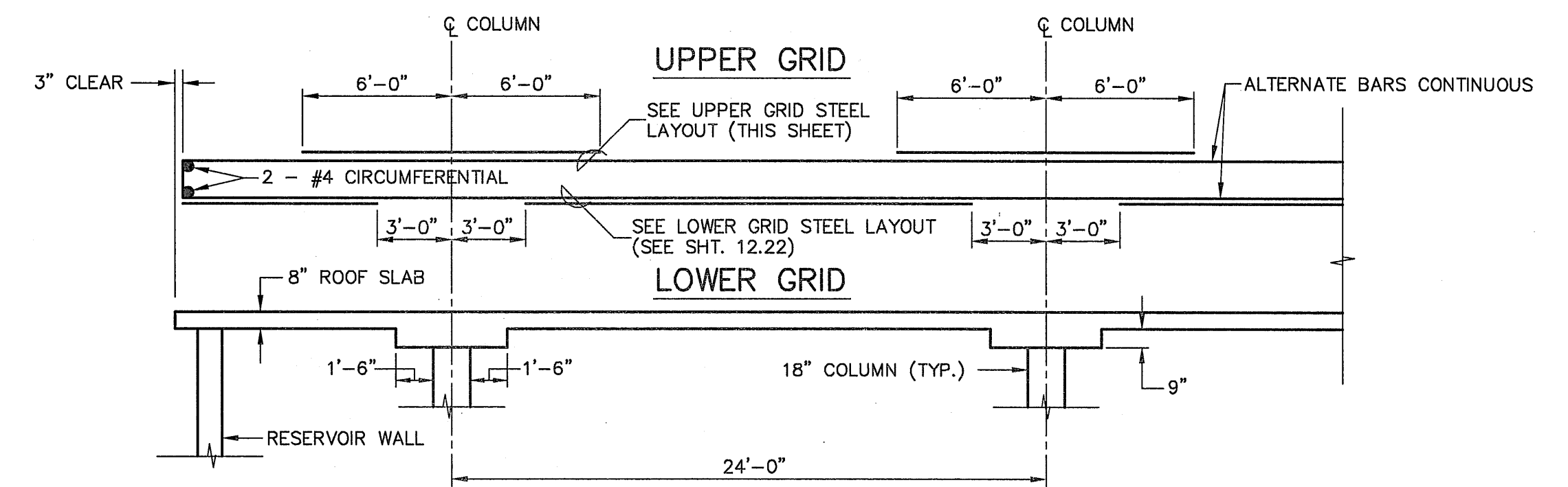
- CONCRETE COVER OVER REINFORCING STEEL IN ROOF SLAB:
1-1/2" AT TOP OF SLAB
1" AT BOTTOM OF SLAB
3" AT OUTSIDE EDGE OF SLAB
- ALL ROOF SLAB REINFORCING STEEL IN THE UPPER GRID SHALL BE LAPPED WITHIN THE MIDDLE STRIP AND THE LOWER GRID SHALL BE LAPPED WITHIN THE COLUMN STRIP.
- ALL LAPS ON THE SAME PLANE, SHALL BE STAGGERED 40 DIAMETERS.



NOTE:
FOR ADDITIONAL REINFORCING
STEEL AT OPENING SEE
"ACCESS HATCH DETAIL"

1/4 PLAN ROOF STEEL - UPPER GRID

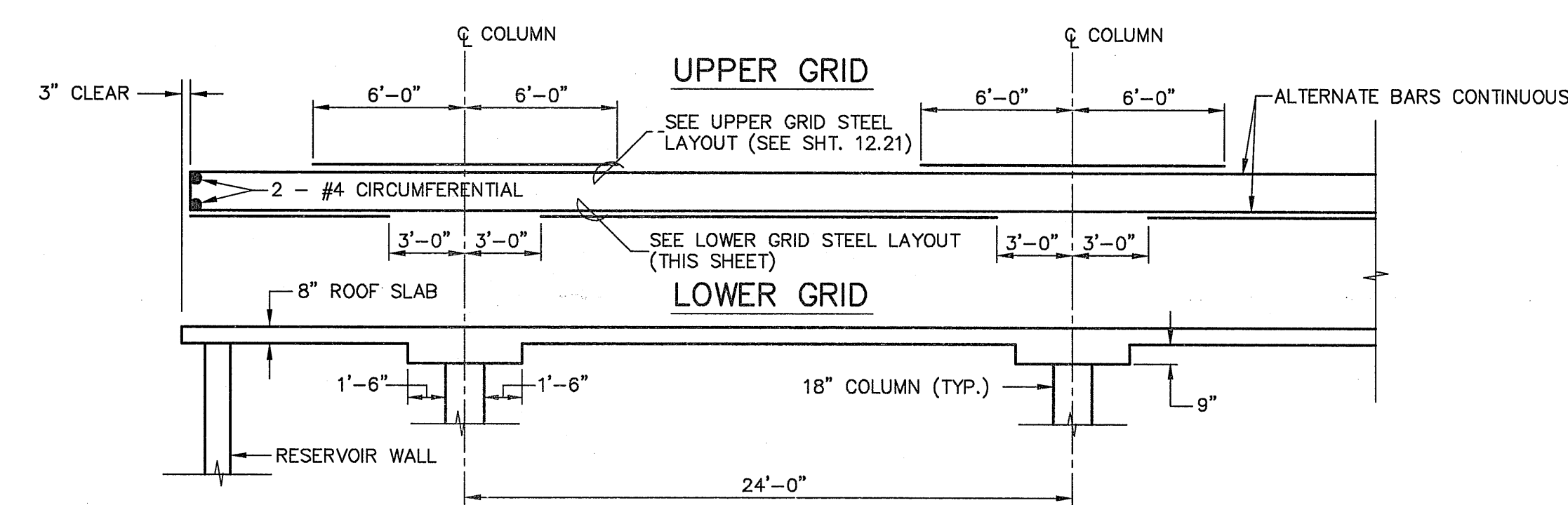
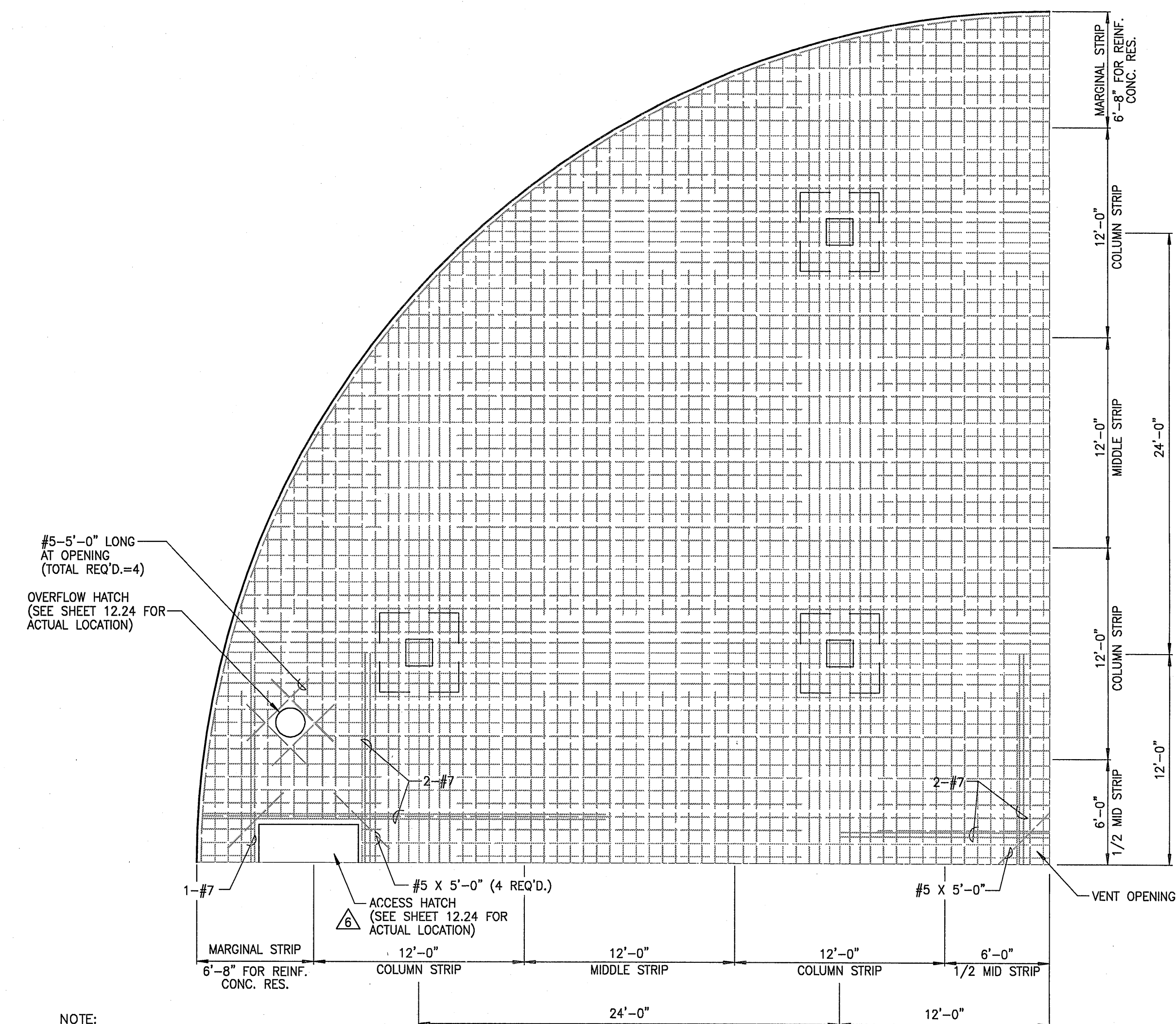
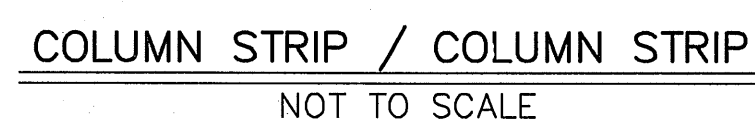
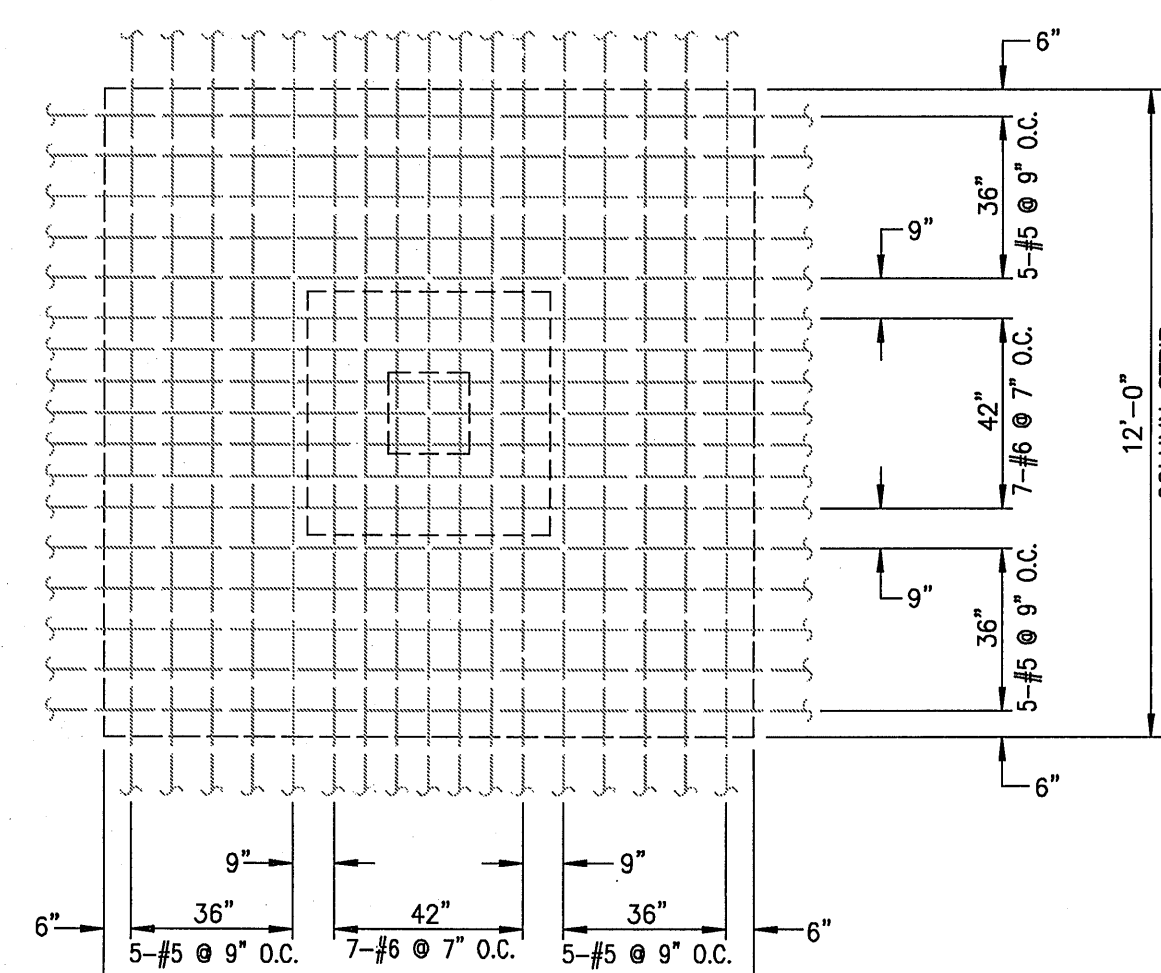
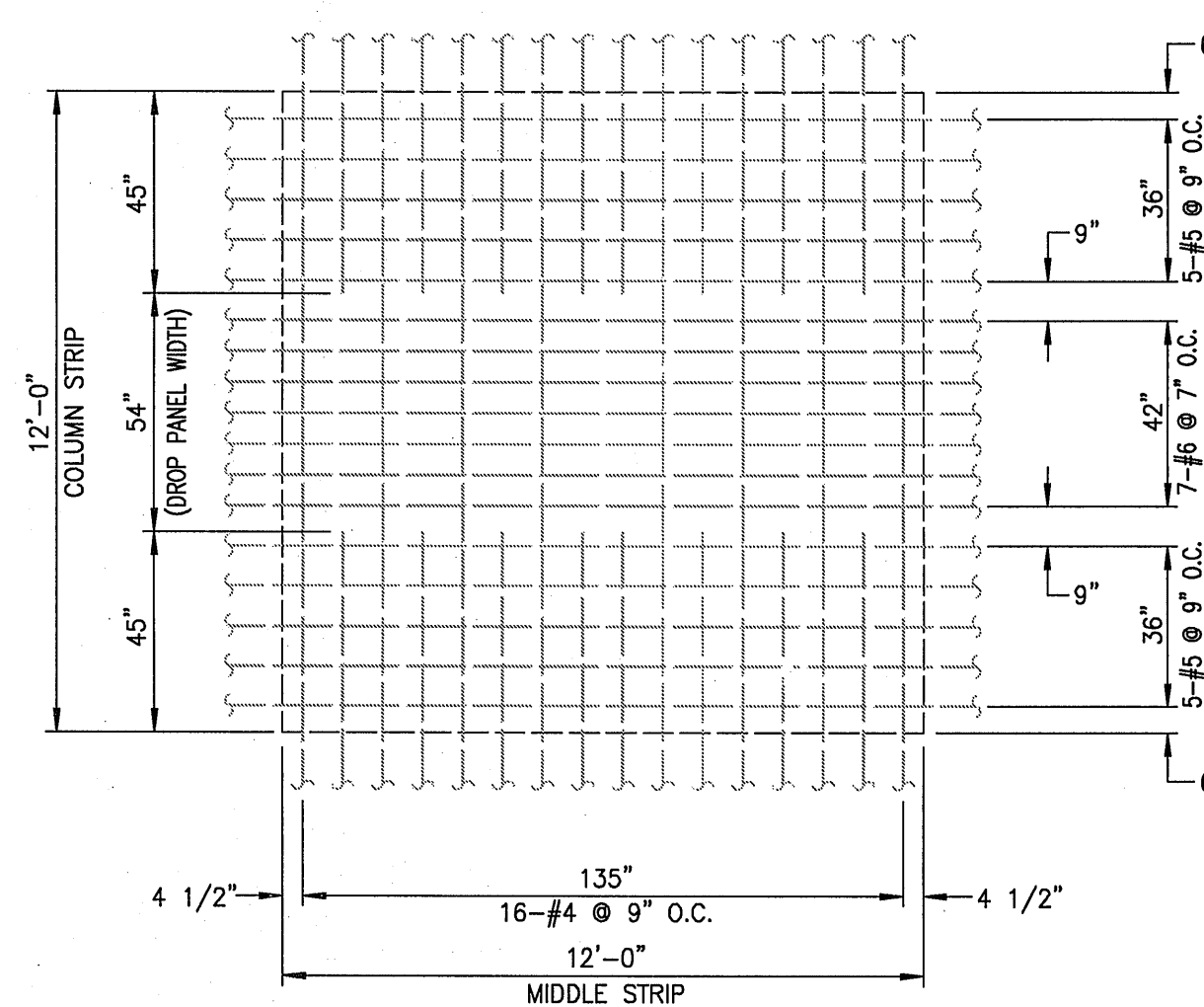
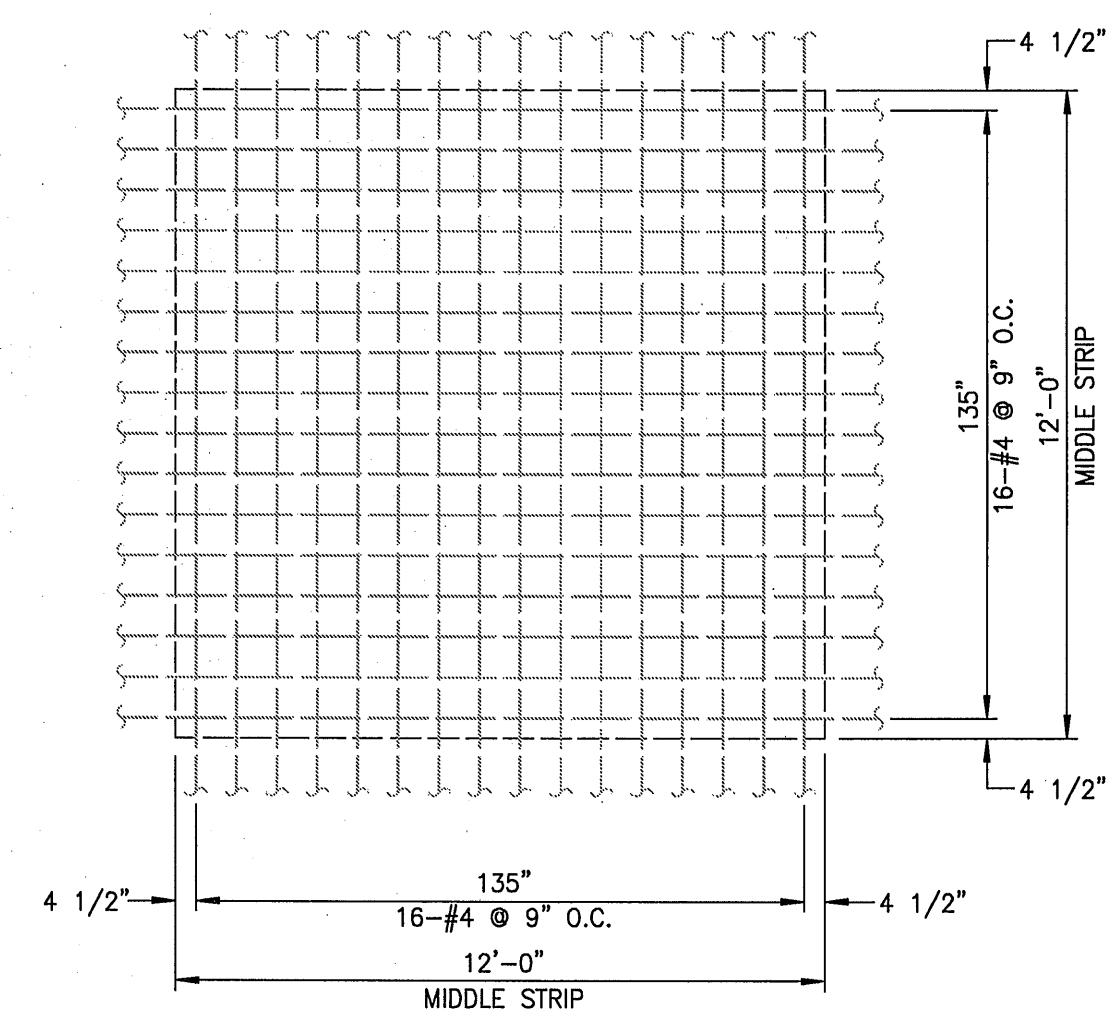
SCALE: 3/16 IN. = 1 FT. - 0 IN.



REINFORCING STEEL COLUMN STRIP

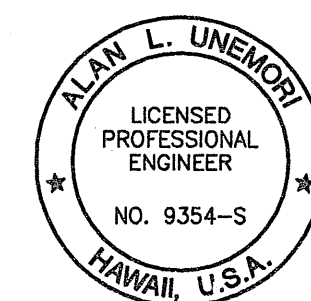
SCALE: 3/16 IN. = 1 FT. - 0 IN.

		WARREN S. UNEMORI ENGINEERING, INC. CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS WELLS STREET PROFESSIONAL CENTER, SUITE 403 2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793	
KAONOULU MARKET PLACE T.M.K.: (2) 3-9-01 : 16 KIHAI, MAUI, HAWAII		ROOF UPPER GRID STEEL DETAILS	
TITLE ALU DESIGNED BY WIS DRAWN BY As Shown	DTU CHECKED BY DTU APPROVED BY As Shown	04010.10 JOB NUMBER 10-10-05 DATE	12.21 SHEET OF SHEETS



NOTES:

1. CONCRETE COVER OVER REINFORCING STEEL IN ROOF SLAB:
 - 1-1/2" AT TOP OF SLAB
 - 1" AT BOTTOM OF SLAB
 - 3" AT OUTSIDE EDGE OF SLAB
2. ALL ROOF SLAB REINFORCING STEEL IN THE UPPER GRID STRIP SHALL BE LAPPED WITHIN THE MIDDLE STRIP AND THE LOWER GRID SHALL BE LAPPED WITHIN THE COLUMN STRIP.
3. ALL LAPS ON THE SAME PLANE, SHALL BE STAGGERED 40 DIAMETERS.



3/12/2012

SIGNATURE _____ DATE _____

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION "AS DEFINED IN SECTION 16-115-2 OF THE HAWAII ADMINISTRATIVE RULES FOR PROFESSIONAL ENGINEERS, ARCHITECTS, LAND SURVEYORS AND LANDSCAPE ARCHITECTS".



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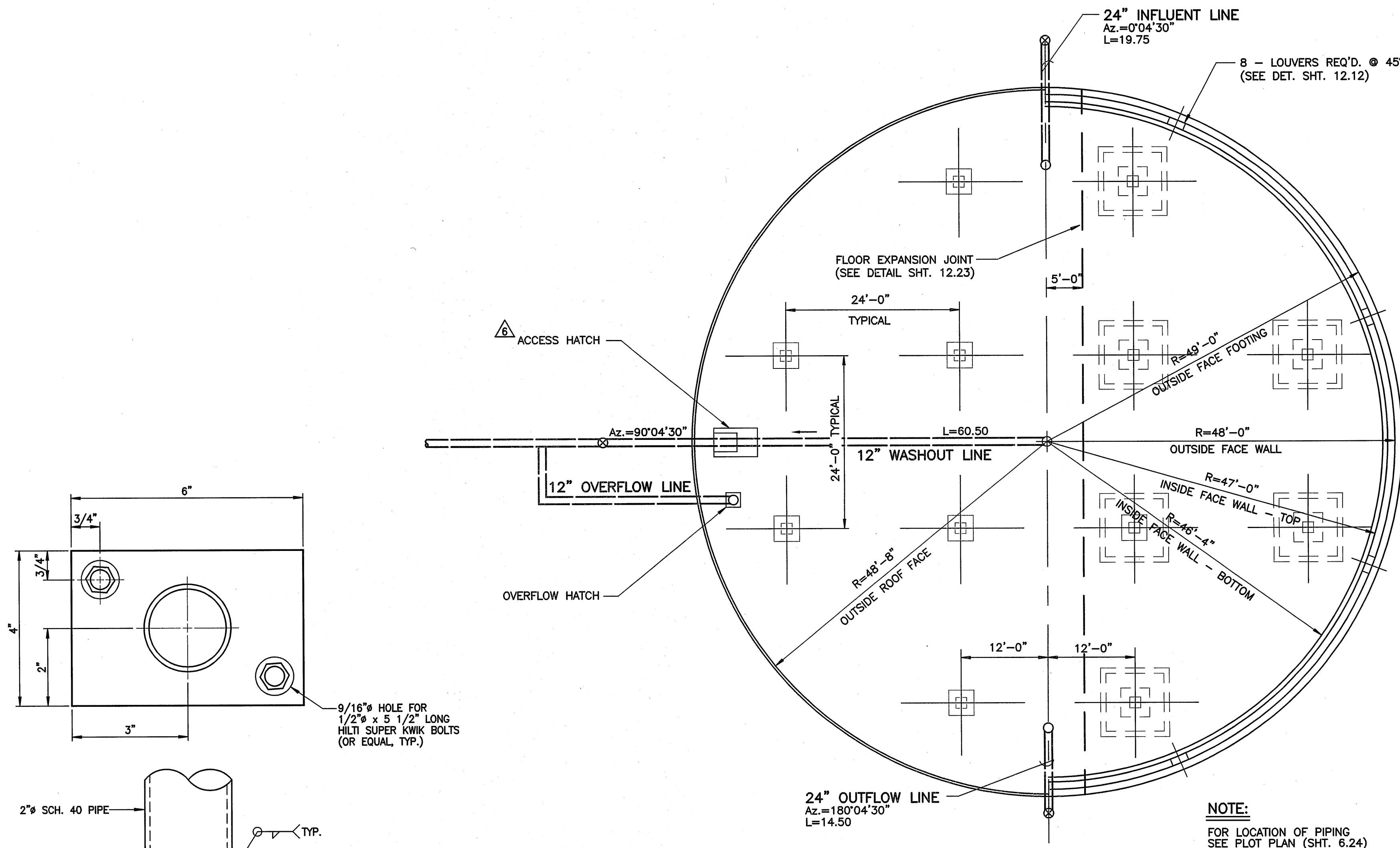
KAONOULU MARKET PLACE

T.M.K.: (2) 3-9-01 : 16
KIHEI, MAUI, HAWAII

TITLE ROOF LOWER GRID STEEL DETAILS

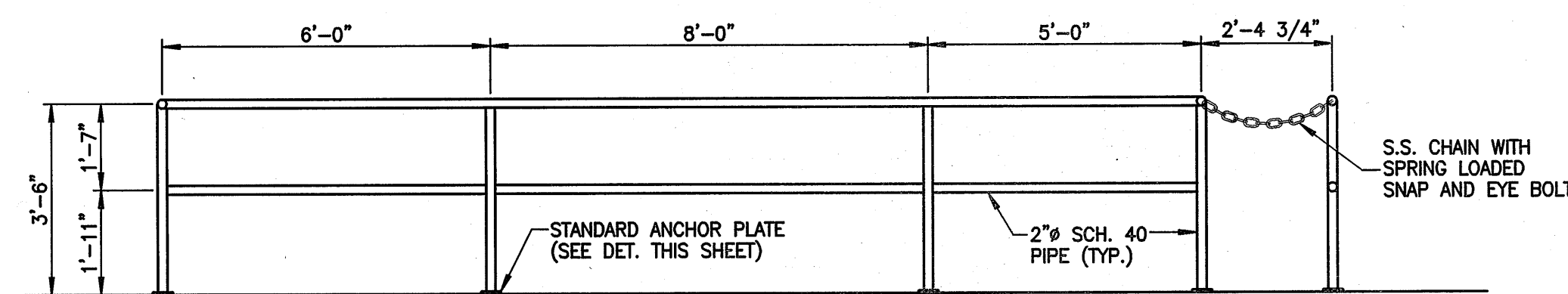
ALU DESIGNED BY	DTU CHECKED BY	04010.10	12.22
WIS DRAWN BY	DTU APPROVED BY	JOB NUMBER	
SCALE As Shown		10-10-05	SHEET

	REVISED HATCH LOCATION	10/01/10
LETTER	DESCRIPTION	DATE

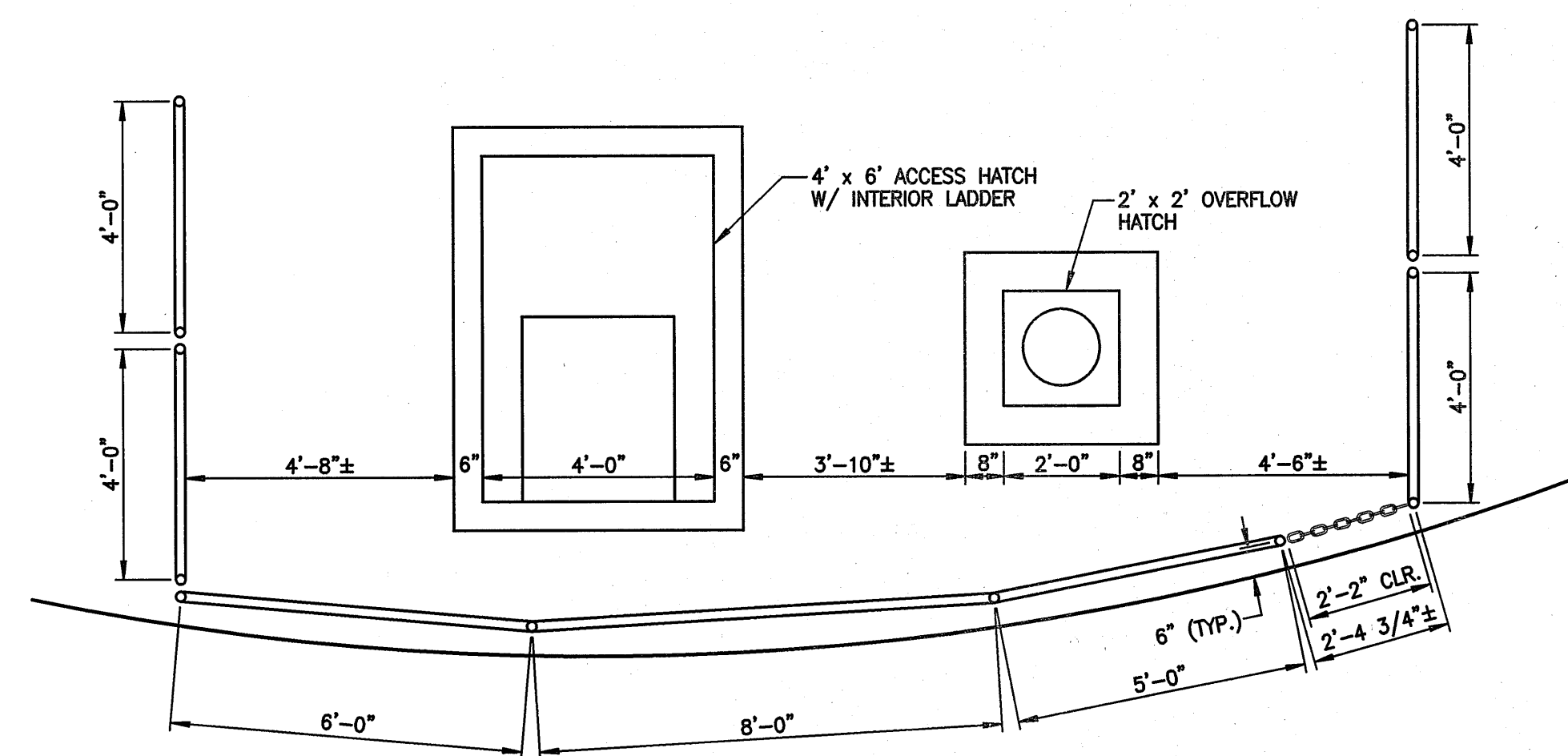


HALF FLOOR PLAN - HALF ROOF PLAN
SCALE: 3/32" = 1'-0"

STANDARD ANCHOR PLATE DETAIL
NOT TO SCALE



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



PLAN VIEW OF GUARDRAILS ON TANK ROOF
SCALE: 3/8" = 1'-0"

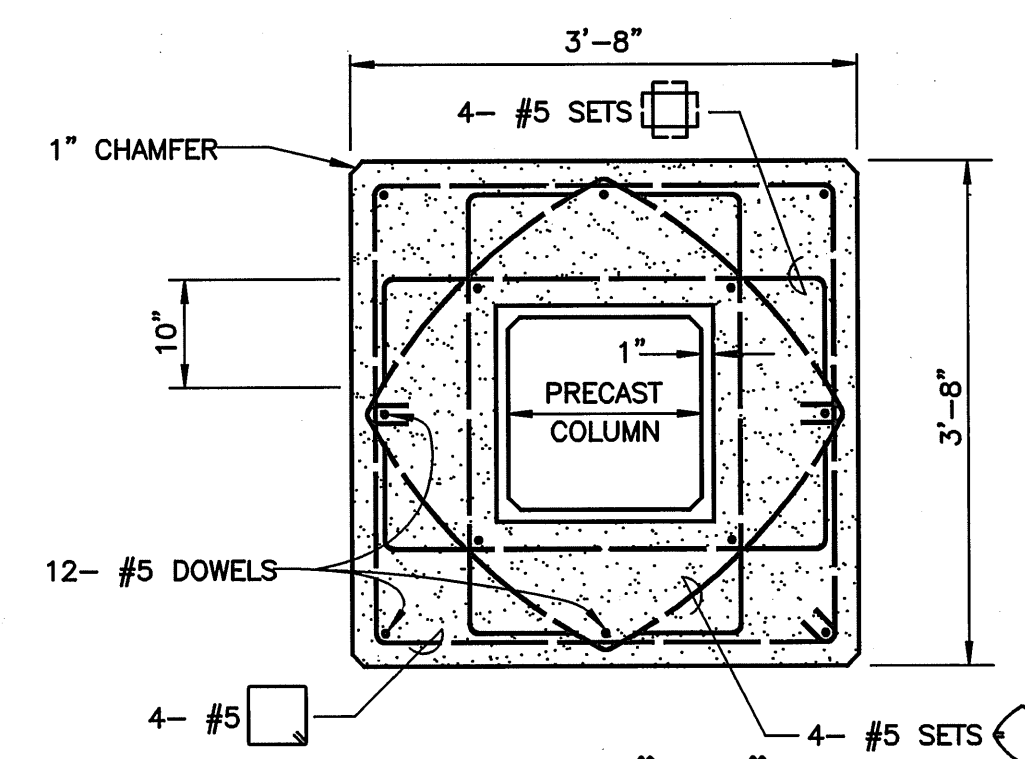
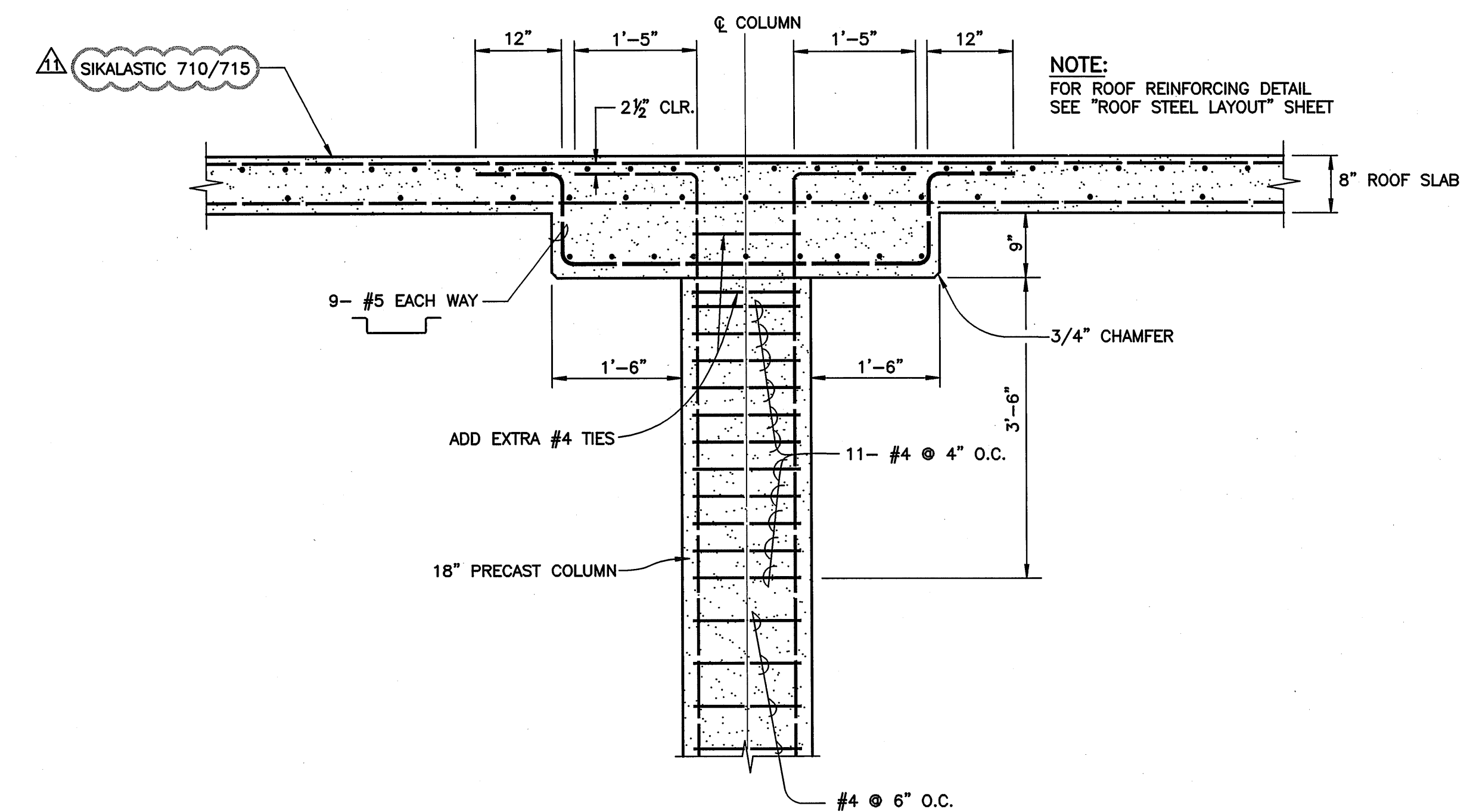
GENERAL NOTES:

- ALLOWABLE STRESSES:
WALL, ROOF AND COLUMNS $f_c' = 4000$ psi
FOOTING AND FLOOR SLAB $f_c' = 4000$ psi
BENDING - ROOF SLAB $f_s = 20,000$ psi
BENDING - WALL $f_s = 18,000$ psi
RING WALL CIRCUMFERENTIAL STEEL $f_s = 10,000$ psi
MAX. SOIL $f_{soil} = 4000$ psf
HYDROSTATIC AND SHRINKAGE LOAD $f_c = 350$ psi
COLUMNS, ROOF SLAB, WALL $f_y = 60,000$ psi
- DESIGN LIVE LOAD ON ROOF IS 20 psf
- DESIGN SEISMIC LOAD IS AS PER U.S. SEISMIC ZONE 2B.
- ALL INTERSECTIONS AND SPLICES OF RUBBER WATERSTOPS TO BE JOINED BY VULCANIZING OR OTHER APPROVED MEANS TO FORM A WATERTIGHT CONNECTION.
- LOWER 4 1/2" OF WALL TO BE POURED WITH CLASS "E-M" CONCRETE.
- RESERVOIR FLOOR TO BE POURED IN ALTERNATE SECTION AND CURED FOR AT LEAST 7 DAYS BEFORE POURING ADJACENT SECTION.
- ALL LAPS IN THE SAME PLANE SHALL BE STAGGERED 40 DIAMETERS.
- ONCE THE RESERVOIR FLOOR IS POURED, 6"± OF WATER SHALL BE MAINTAINED IN THE RESERVOIR FOR THE REMAINDER OF THE PROJECT.
- TESTING OF CYLINDERS SHALL BE PAID FOR BY THE CONTRACTOR. SIX (6) CYLINDERS PER POUR - APPROX. 30 CYLINDERS REQUIRED.
- MOLDS TO BE SUPPLIED BY B.W.S.
- ALL EXTERIOR CONCRETE SURFACES SHALL RECEIVE AN ARCHITECTURAL FINISH AS SPECIFIED IN THE WATER SYSTEM STANDARDS SECTION 402.8, CONCRETE SURFACE FINISHES.

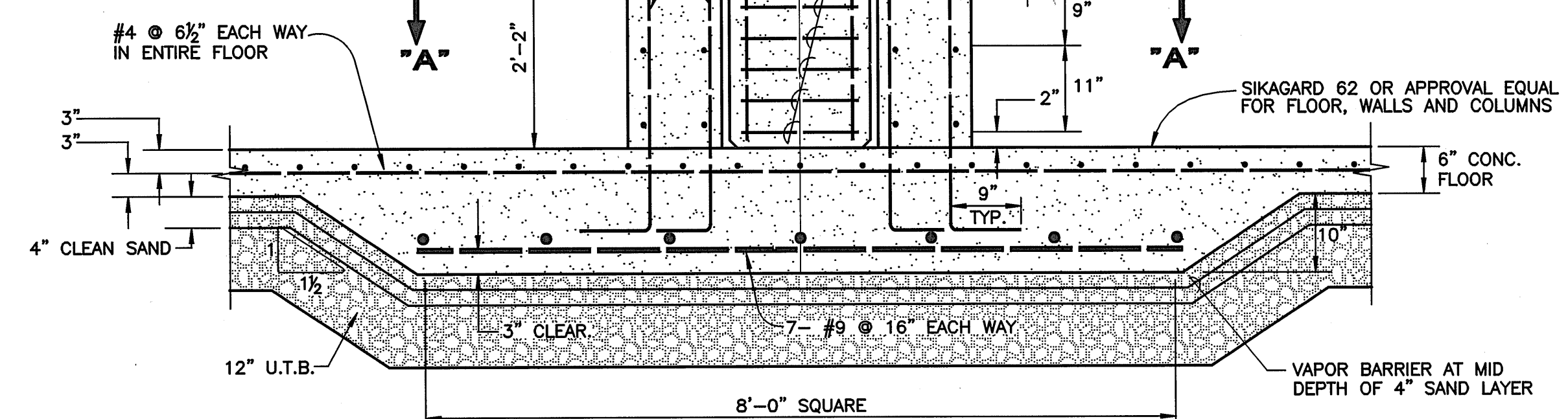
SPECIAL CONSIDERATIONS:

FINISHED FLOOR ELEVATION FOR THE WATERTANK IS SET AT +220.0' MSL. IN ORDER TO MINIMIZE THE ADVERSE EFFECTS OF DIFFERENTIAL SETTLEMENT OF THIS WATERTANK, IT IS RECOMMENDED THAT THE ENTIRE TANK PAD BE OVER-EXCAVATED TO ELEVATION +217.0' AND THEN PROOF-ROLLED WITH A VIBRATORY SHEEPSFOOT COMPACTOR WEIGHING NOT LESS THAN 20,000 POUNDS. NOTE: SOME ROCK OUTCROPS MAY BE ENCOUNTERED ON THE MAUKA SIDE OF THE TANK DURING THIS MASS-EXCAVATION. PROOF-ROLLING OF THE EXISTING SOILS AT ELEVATION +217.0' SHALL BE CONTINUED UNTIL A DENSE/UNYIELDING SURFACE HAS BEEN ACHIEVED AS DETERMINED BY THE PROJECT GEOTECHNICAL ENGINEER. FOLLOWING PROOFROLLING THE TANK PAD SUBGRADE AT ELEVATION +217.0', THE PAD MAY BE FILLED WITH IMPORTED 1.5 INCH MINUS GRANULAR STRUCTURAL FILL (UTB OR SELECT BORROW) COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY. THE IMPORTED STRUCTURAL FILL SHALL CONTAIN NOT MORE THAN 15 PERCENT PASSING THE #200 SIEVE.

FOLLOWING THE ABOVE PAD PREPARATION, THE PROPOSED STRUCTURE CAN BE SUPPORTED ON SPREAD OR CONTINUOUS FOOTINGS EMBEDDED A MINIMUM OF 12 INCHES BELOW THE LOWEST ADJACENT COMPACTED GRADE.



SECTION "A-A"
BASE CONNECTION FOR
PRECAST COLUMN
SCALE: 3/4" = 1'-0"



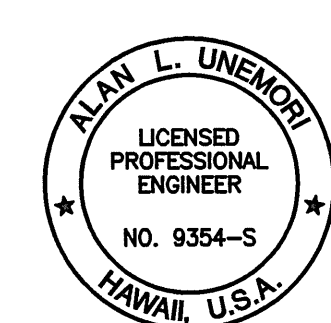
TYPICAL COLUMN SECTION
SCALE: 3/4" = 1'-0"

NOTE:

PRECAST COLUMNS SHALL BE CAST IN ACCORDANCE WITH THE REQUIREMENTS SPECIFIED IN THE SPECIFICATIONS UNDER "CONCRETE WORK". A MINIMUM OF 4 COLUMNS SHALL BE CAST AT ANY ONE OPERATION FOR CONVENIENCE OF INSPECTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER 24 HOURS IN ADVANCE OF THE TIME WHEN HE INTENDS TO CAST THE COLUMNS.

DESIGNED BY	DTU	CHECKED BY	DTU	JOB NUMBER	04010.10	12.24
DRAWN BY	WIS	APPROVED BY	DTU	DATE	10-10-05	SHEET
LETTER	DESCRIPTION	DATE	SCALE	As Shown	DATE	OF SHEETS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION AS DEFINED IN SECTION 15-115-2 OF THE HAWAII ADMINISTRATIVE RULES FOR PROFESSIONAL ENGINEERS, ARCHITECTS, LAND SURVEYORS AND LANDSCAPE ARCHITECTS.



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CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

KAONOULU MARKET PLACE
T.M.K.: (2) 3-9-01 : 16
KIHEI, MAUI, HAWAII

STORAGE TANK COLUMN AND WALL DETAILS

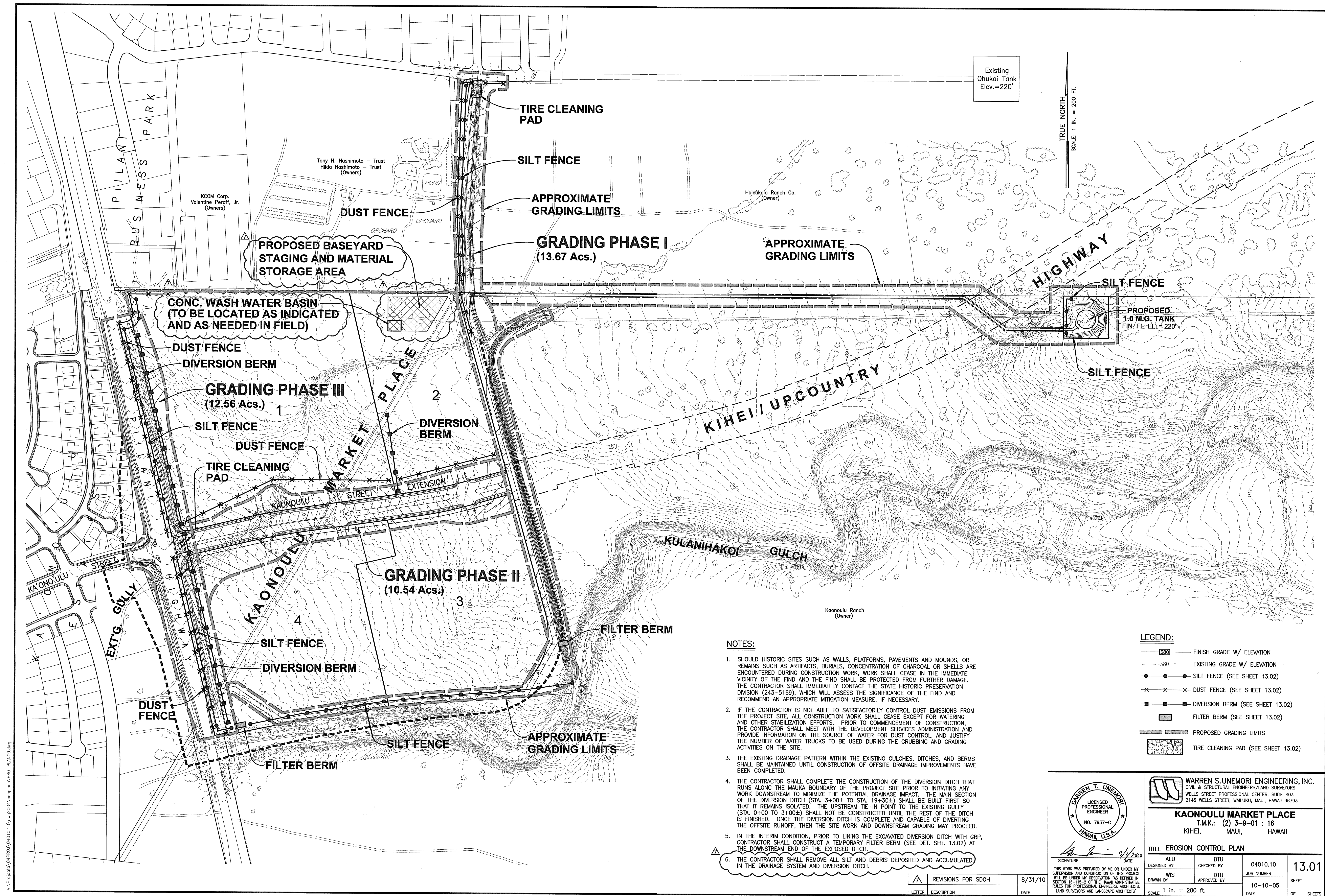
TITLE

DATE

10-10-05

12.24

OF SHEETS

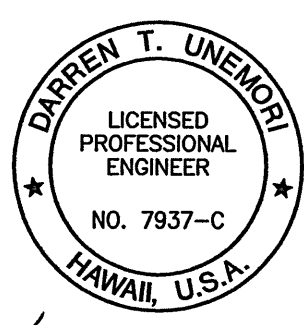


NOTES:

1. SHOULD HISTORIC SITES SUCH AS WALLS, PLATFORMS, PAVEMENTS AND MOUNDS, OR REMAINS SUCH AS ARTIFACTS, BURIALS, CONCENTRATION OF CHARCOAL OR SHELLS ARE ENCOUNTERED DURING CONSTRUCTION WORK, WORK SHALL CEASE IN THE IMMEDIATE VICINITY OF THE FIND AND THE FIND SHALL BE PROTECTED FROM FURTHER DAMAGE. THE CONTRACTOR SHALL IMMEDIATELY CONTACT THE STATE HISTORIC PRESERVATION DIVISION (243-5169), WHICH WILL ASSESS THE SIGNIFICANCE OF THE FIND AND RECOMMEND AN APPROPRIATE MITIGATION MEASURE, IF NECESSARY.
2. IF THE CONTRACTOR IS NOT ABLE TO SATISFACTORILY CONTROL DUST EMISSIONS FROM THE PROJECT SITE, ALL CONSTRUCTION WORK SHALL CEASE EXCEPT FOR WATERING AND OTHER STABILIZATION EFFORTS. PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL MEET WITH THE DEVELOPMENT SERVICES ADMINISTRATION AND PROVIDE INFORMATION ON THE SOURCE OF WATER FOR DUST CONTROL, AND JUSTIFY THE NUMBER OF WATER TRUCKS TO BE USED DURING THE GRUBBING AND GRADING ACTIVITIES ON THE SITE.
3. THE EXISTING DRAINAGE PATTERN WITHIN THE EXISTING GULCHES, DITCHES, AND BERMS SHALL BE MAINTAINED UNTIL CONSTRUCTION OF OFFSITE DRAINAGE IMPROVEMENTS HAVE BEEN COMPLETED.
4. THE CONTRACTOR SHALL COMPLETE THE CONSTRUCTION OF THE DIVERSION DITCH THAT RUNS ALONG THE MAUKA BOUNDARY OF THE PROJECT SITE PRIOR TO INITIATING ANY WORK DOWNSTREAM TO MINIMIZE THE POTENTIAL DRAINAGE IMPACT. THE MAIN SECTION OF THE DIVERSION DITCH (STA. 3+00± TO STA. 19+30±) SHALL BE BUILT FIRST SO THAT IT REMAINS ISOLATED. THE UPSTREAM TIE-IN POINT TO THE EXISTING GULLY (STA. 0+00 TO 3+00±) SHALL NOT BE CONSTRUCTED UNTIL THE REST OF THE DITCH IS FINISHED. ONCE THE DIVERSION DITCH IS COMPLETE AND CAPABLE OF DIVERTING THE OFFSITE RUNOFF, THEN THE SITE WORK AND DOWNSTREAM GRADING MAY PROCEED.
5. IN THE INTERIM CONDITION, PRIOR TO LINING THE EXCAVATED DIVERSION DITCH WITH GRP, CONTRACTOR SHALL CONSTRUCT A TEMPORARY FILTER BERM (SEE DET. SHT. 13.02) AT THE DOWNSTREAM END OF THE EXPOSED DITCH.
6. THE CONTRACTOR SHALL REMOVE ALL SILT AND DEBRIS DEPOSITED AND ACCUMULATED IN THE DRAINAGE SYSTEM AND DIVERSION DITCH.

LEGEND:

- 380 — FINISH GRADE W/ ELEVATION
- 380 — EXISTING GRADE W/ ELEVATION
- ● ● SILT FENCE (SEE SHEET 13.02)
- × × × DUST FENCE (SEE SHEET 13.02)
- — — DIVERSION BERM (SEE SHEET 13.02)
- ▬ FILTER BERM (SEE SHEET 13.02)
- — — PROPOSED GRADING LIMITS
- ▨ TIRE CLEANING PAD (SEE SHEET 13.02)



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KAONOULU MARKET PLACE
T.M.K.: (2) 3-9-01 : 16
KIHAI, MAUI, HAWAII

TITLE EROSION CONTROL PLAN

DESIGNED BY	DTU	04010.10	13.01
CHECKED BY	CHECKED BY	JOB NUMBER	
DRAWN BY	DTU	10-10-05	
APPROVED BY	DATE	DATE	OF SHEETS

REVISIONS FOR SDOH	8/31/10
LETTER	DESCRIPTION

BEST MANAGEMENT PRACTICES

1. EROSION AND SEDIMENT CONTROL PRACTICES:

A. CONSTRUCTION MANAGEMENT

- 1) GRADING OPERATIONS SHALL BE PLANNED SO AS TO MINIMIZE TIME OF CONSTRUCTION.
- 2) GRADING OPERATIONS SHALL BE PLANNED SO AS TO MINIMIZE SIZE OF THE DISTURBED AREA. THE AREA GRUBBED SHALL NOT EXTEND BEYOND WHAT WILL ACTUALLY REQUIRED FOR GRADING.
- 3) THE PROJECT GRADING LIMITS SHALL BE STAKED PRIOR TO THE START OF CONSTRUCTION.
- 4) UPON COMPLETION OF GRADING ALL EXPOSED AREAS WILL BE GRASSED AS REQUIRED.

B. STABILIZATION TECHNIQUES

- 1) EXISTING GROUND COVER SHALL NOT BE DESTROYED, REMOVED OR DISTURBED MORE THAN 30 CALENDAR DAYS PRIOR TO THE START OF GRADING OPERATIONS.
- 2) AREAS THAT REMAIN UNFINISHED FOR MORE THAN 21 CALENDAR DAYS WILL BE HYDROMULCHED TO PROVIDE TEMPORARY SOIL STABILIZATION BY NO LATER THAN THE 14TH DAY AFTER LAST DISTURBANCE.
- 3) AFTER ACHIEVING FINISHED GRADES, ALL SLOPES AND EXPOSED AREAS SHALL BE PERMANENTLY STABILIZED BY HYDROMULCHING WITH GRASS SEED AS SOON AS PRACTICABLE.

C. STRUCTURAL CONTROLS

- 1) SILT FENCES OR FILTER BERMS SHALL BE CONSTRUCTED ALONG THE ENTIRE DOWNSTREAM SIDE OF THE ACTIVE CONSTRUCTION ZONE IN AREAS WHERE ONSITE RUNOFF FLOWS INTO ADJOINING PROPERTIES. FILTER BAGS SHALL BE PLACED AT ALL EXISTING CURB-INLET CATCH BASIN OPENINGS TO REMOVE SILT FROM THE ONSITE RUNOFF.

D. INSPECTION AND MAINTENANCE PROCEDURES

- 1) ALL CONTROL MEASURES SHALL BE INSPECTED AND REPAIRED AS NECESSARY. INSPECTIONS SHALL BE PERFORMED AT LEAST WEEKLY IN DRY PERIODS, AND WITHIN 24 HOURS AFTER ANY RAINFALL 0.5 INCHES OR GREATER OVER A 24-HOUR PERIOD. CONTROL MEASURES SHALL BE CHECKED DAILY DURING PERIODS OF PROLONGED RAINFALL.

E. SCHEDULE FOR IMPLEMENTING CONTROLS

- 1) EROSION AND SEDIMENT CONTROL MEASURES WILL BE IN PLACE AND FUNCTIONAL BEFORE EARTH MOVING OPERATIONS BEGIN, AND WILL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.
- 2) THE FOLLOWING GENERAL ORDER SHOULD BE USED:
 - A. INSTALLATION OF TIRE CLEANING PAD.
 - B. INSTALLATION OF SILT FENCE AND FILTER BERMS.
 - C. GRADING MAY PROCEED.

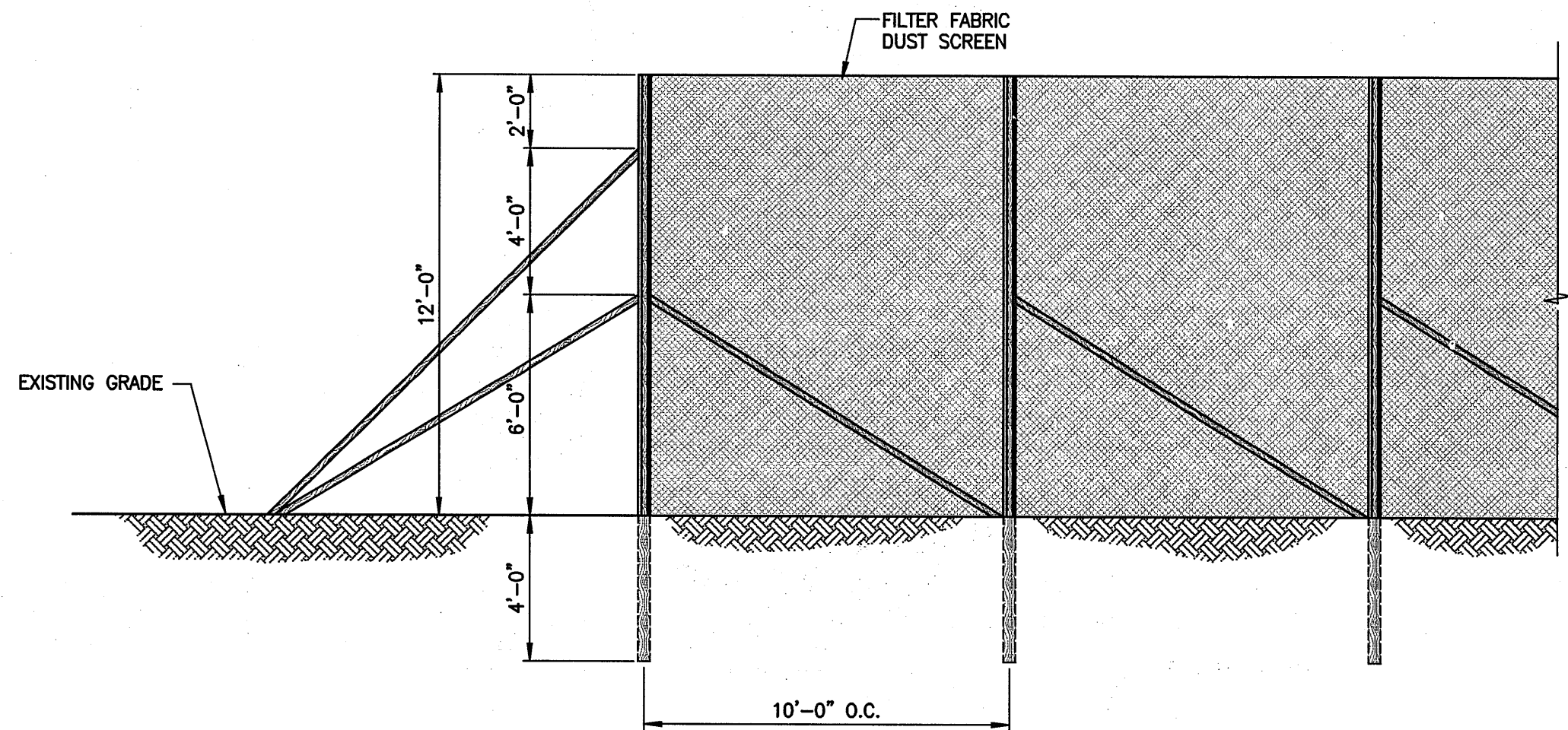
2. DUST CONTROLS:

THE CONTRACTOR SHALL KEEP THE PROJECT AREA AND SURROUNDING AREAS FREE FROM DUST NUISANCE. THE FOLLOWING MITIGATIVE MEASURES WILL BE INCORPORATED:

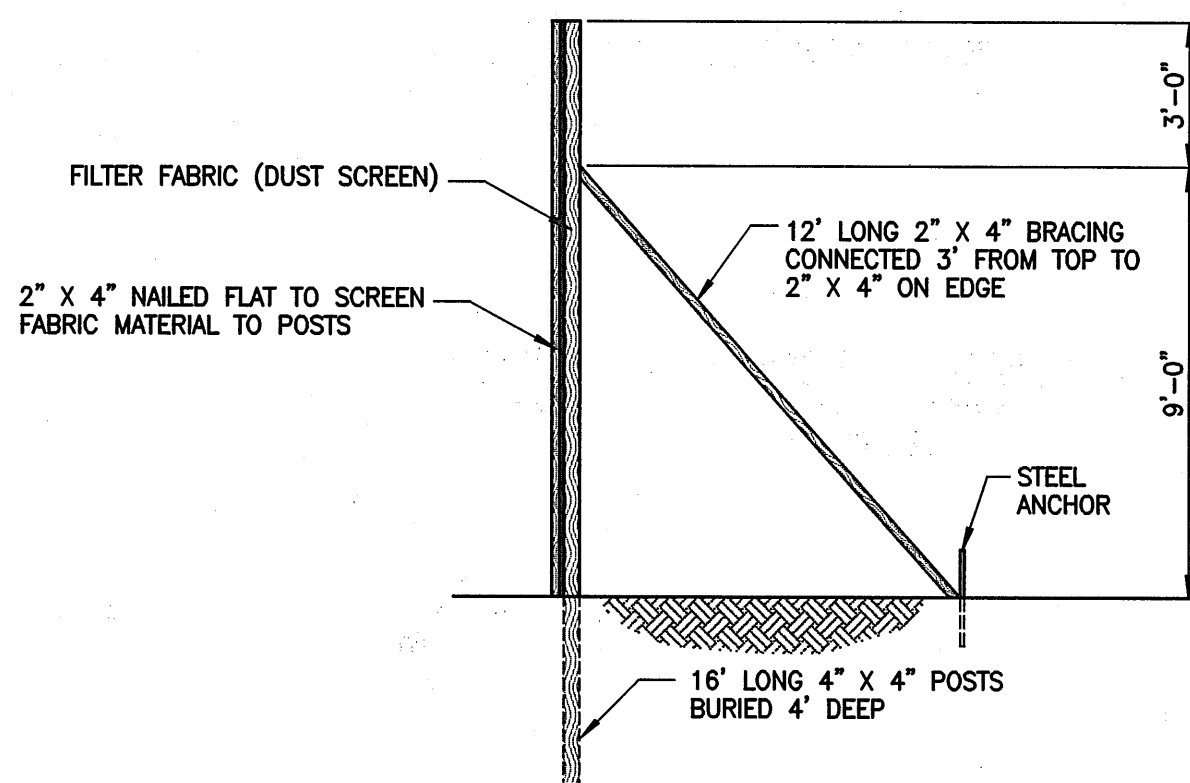
- A. USE TEMPORARY AREA SPRINKLERS IN NON-ACTIVE CONSTRUCTION AREAS WHEN GROUND COVER IS REMOVED.
- B. CONSTRUCT DUST FENCES IF NECESSARY ALONG PROJECT SITE BOUNDARIES AFFECTED BY PREVAILING WIND DIRECTION.
- C. STATION A WATER TRUCK ON SITE AT ALL TIMES DURING CONSTRUCTION PERIOD TO PROVIDE FOR IMMEDIATE SPRINKLING, AS NEEDED, IN ACTIVE CONSTRUCTION ZONES OR WHEREVER NEEDED ON THE CONSTRUCTION SITE (WEEKENDS AND HOLIDAYS INCLUDED).
- D. GRADED AREAS SHALL BE THOROUGHLY WATERED AFTER CONSTRUCTION ACTIVITIES HAVE CEASED FOR THE DAY AND ON WEEKENDS.

3. OTHER POLLUTION CONTROL PRACTICES:

- A. CONTRACTOR SHALL INSTALL DANDY BEAVER DAM OR DANDY BAG (OR APPROVED EQUAL) AT ALL NEW AND EXISTING INLETS AND DISCHARGE POINTS WHICH MAY RECEIVE RUNOFF FROM CONSTRUCTION ACTIVITY.
- B. MAINTENANCE AND FUELING OF CONSTRUCTION EQUIPMENT SHALL BE PERFORMED ONLY IN DESIGNATED AREAS ENCLOSED BY A CONTAINMENT BERM CONSTRUCTED SO AS TO CONTAIN SPILLS AND PREVENT STORM WATER RUNOFF FROM CARRYING POLLUTANTS TO DOWNSTREAM PROPERTIES.



FRONT ELEVATION



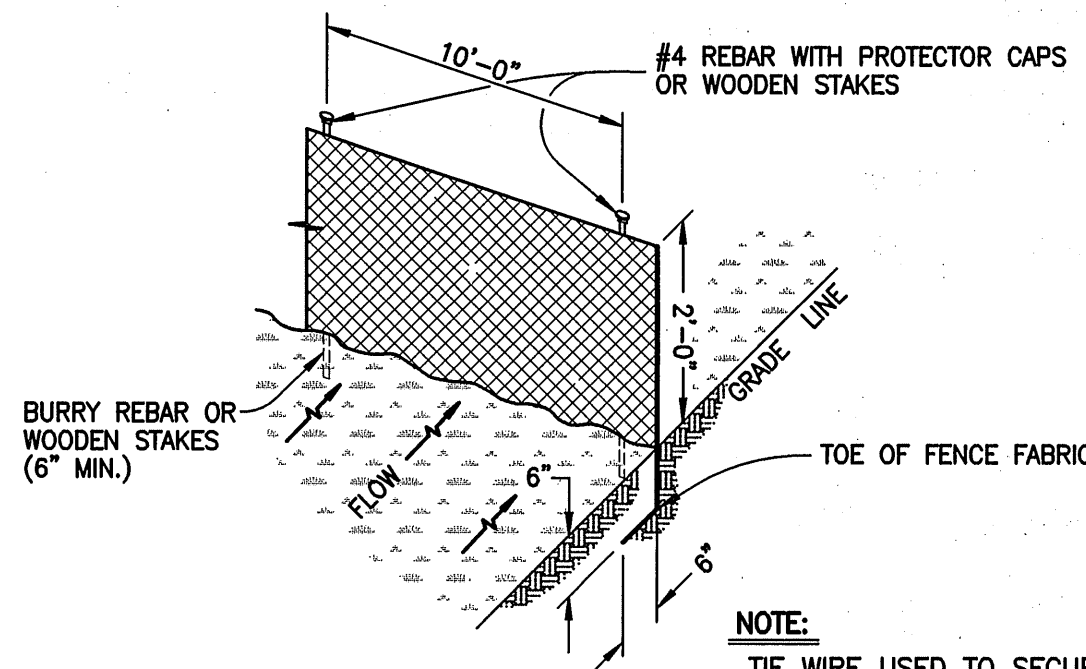
SIDE ELEVATION

NOTE:

CONTRACTOR SHALL BE RESPONSIBLE FOR RETAINING A STRUCTURAL ENGINEER (LICENSED TO PRACTICE IN THE STATE OF HAWAII) TO DESIGN DUST FENCE AND SHALL SUBMIT STAMPED AND SIGNED DRAWINGS FOR DUST FENCE TO ENGINEER AND COUNTY OF MAUI FOR REVIEW AND APPROVAL, AND FOR SECURING ALL REQUIRED AGENCY PERMITS.

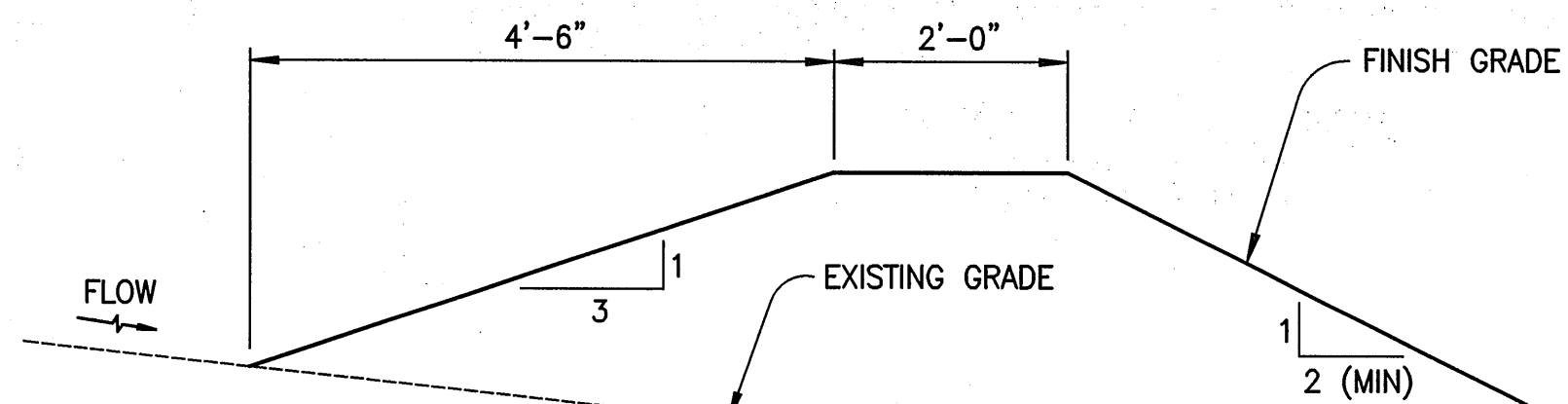
DETAIL - DUST FENCE

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



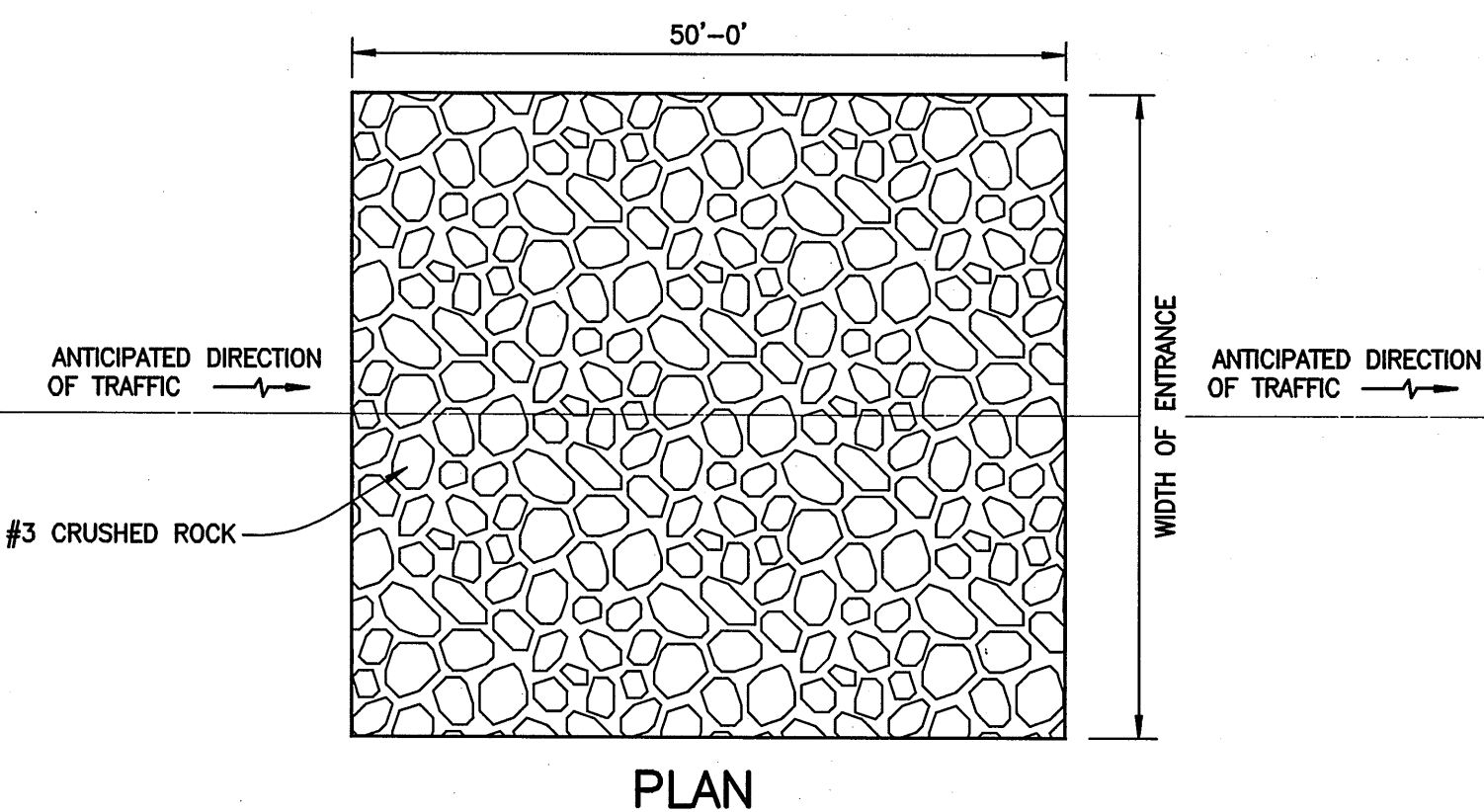
DETAIL - SILT FENCE

NOT TO SCALE



DETAIL - CROSS / DIVERSION BERM

NOT TO SCALE

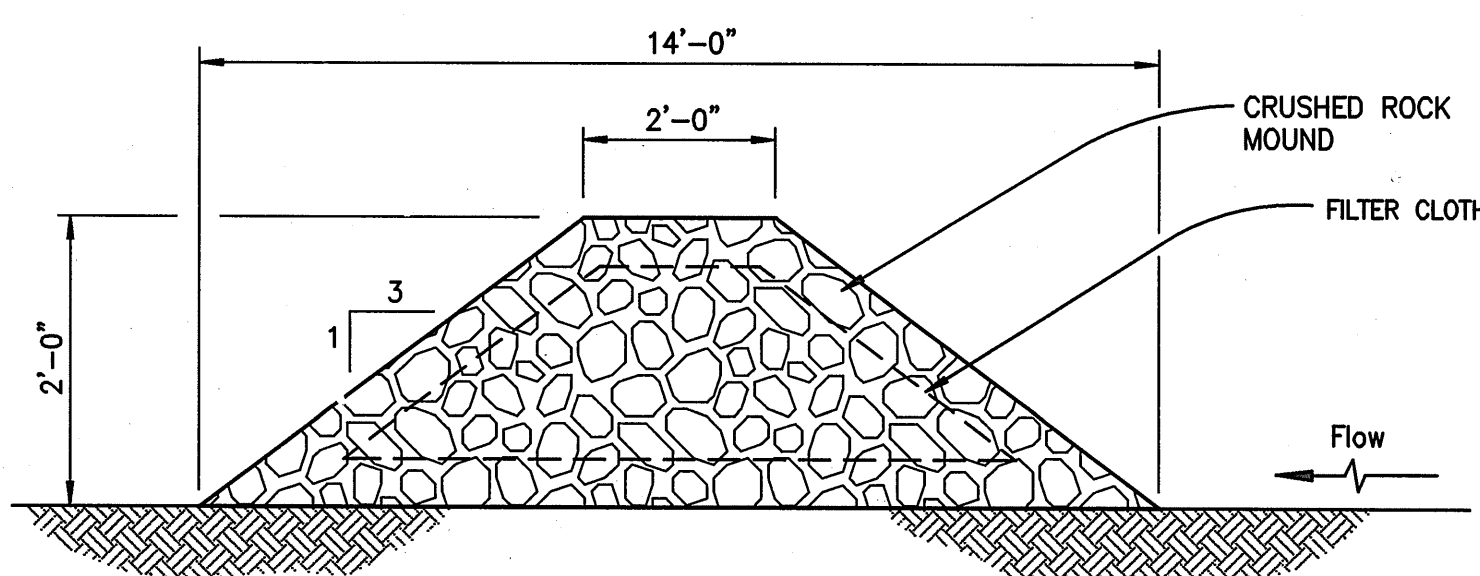


PLAN

SECTION A

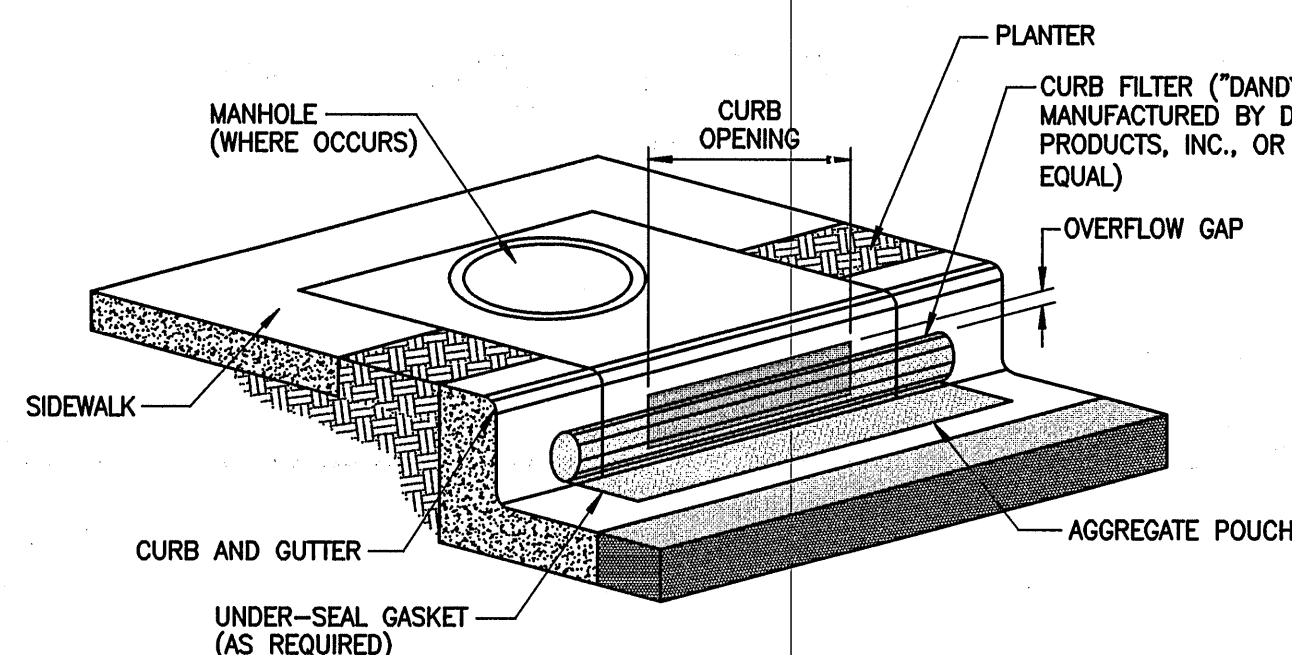
DETAIL - TIRE CLEANING PAD

NOT TO SCALE



DETAIL - FILTER BERM

NOT TO SCALE



NOTES:

1.0 INSTALLATION:

- 1.1 PLACE DANDY CURB INLET PROTECTION UNIT ON GROUND WITH AGGREGATE POUCH ON STREET SIDE NEAR INLET. IT WILL BE INSTALLED ON SURFACE AND VICINITY OF UNIT AFTER EACH RAIN EVENT OR AS DIRECTED BY ENGINEER. THE CONTRACTOR SHALL DISPOSE OF UNIT NO LONGER IN USE AT AN APPROPRIATE RECYCLING OR SOLID WASTE FACILITY.
- 1.2 WHERE OIL AND SEDIMENT MODEL IS REQUIRED, TO INSTALL OR REPLACE ABSORBENT, PLACE ABSORBENT SOCK IN POUCH.
- 1.3 FILL POUCH WITH AGGREGATE SUCH AS #5-7, 8'S OR SIMILAR TO A LEVEL (AT LEAST 3/4 FULL) THAT WILL KEEP UNIT IN PLACE DURING A RAIN EVENT AND CREATE A SEAL BETWEEN THE DANDY CURB AND THE SURFACE OF THE STREET. RESEAL VELCRO ACCESS.
- 1.4 CENTER THE UNIT AGAINST CURB OR MEDIAN INLET OPENING SO THAT THE CURB SIDE OF THE UNIT CREATES A SEAL WITH THE CURB OR MEDIAN BARRIER AND INLET STRUCTURE. THERE WILL BE APPROXIMATELY TWELVE (12) INCHES OF THE INLET PROTECTION UNIT OVERHANGING ON EACH SIDE OF THE OPENING. IF THE UNIT IS NOT INSTALLED IN THIS MANNER, IT WILL NOT FUNCTION PROPERLY.

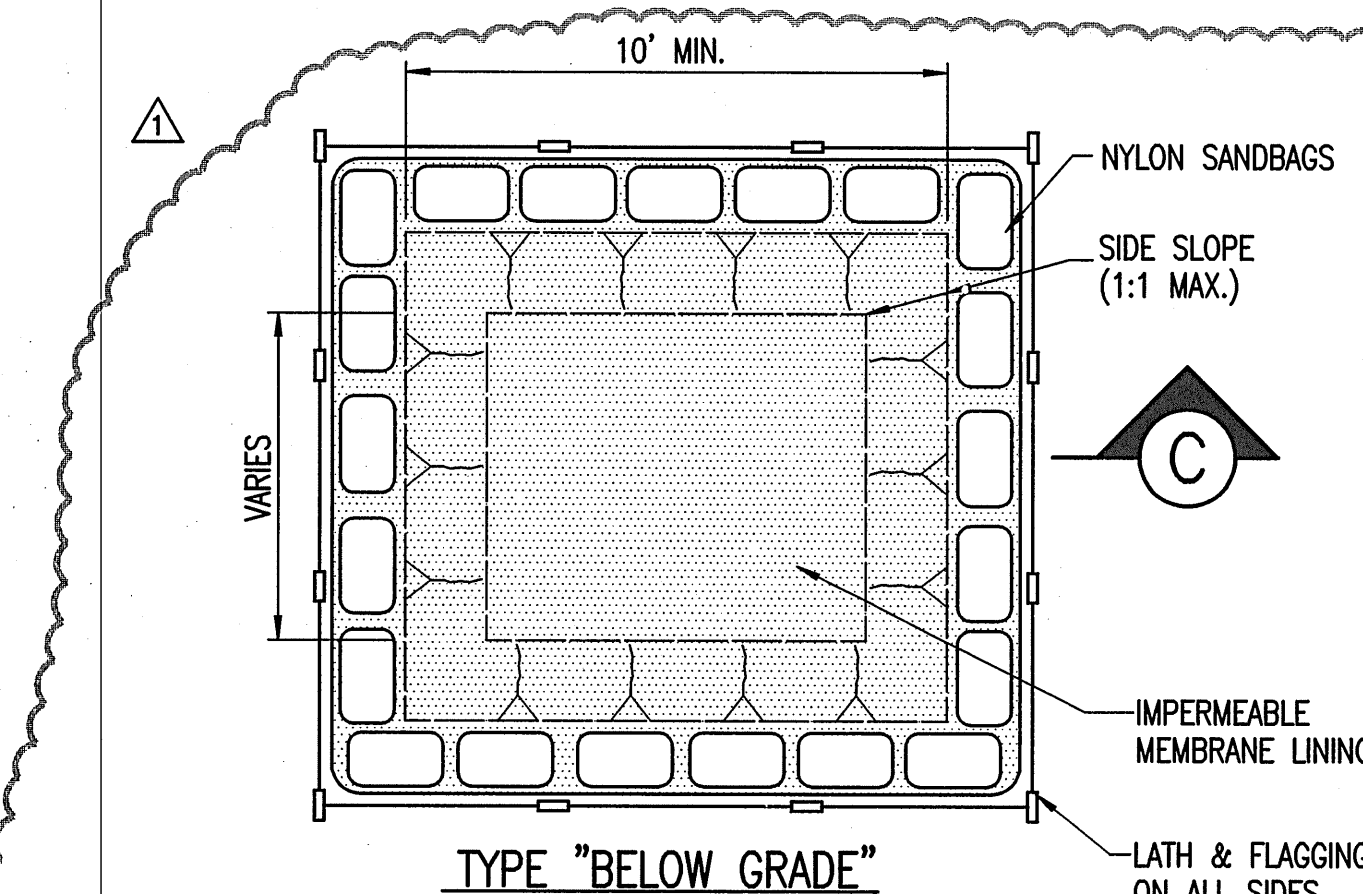
2.0 MAINTENANCE:

- 2.1 THE CONTRACTOR SHALL REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM SURFACE AND VICINITY OF UNIT AFTER EACH RAIN EVENT OR AS DIRECTED BY ENGINEER. THE CONTRACTOR SHALL DISPOSE OF UNIT NO LONGER IN USE AT AN APPROPRIATE RECYCLING OR SOLID WASTE FACILITY.
- 2.2 WHERE OIL AND SEDIMENT MODEL IS REQUIRED, REMOVE AND REPLACE ABSORBENT WHEN NEAR SATURATION.

- 3.0 ALTERNATIVE CURB INLET PROTECTION WILL BE SUBJECT TO REVIEW AND APPROVAL BY COUNTY AND ENGINEER.

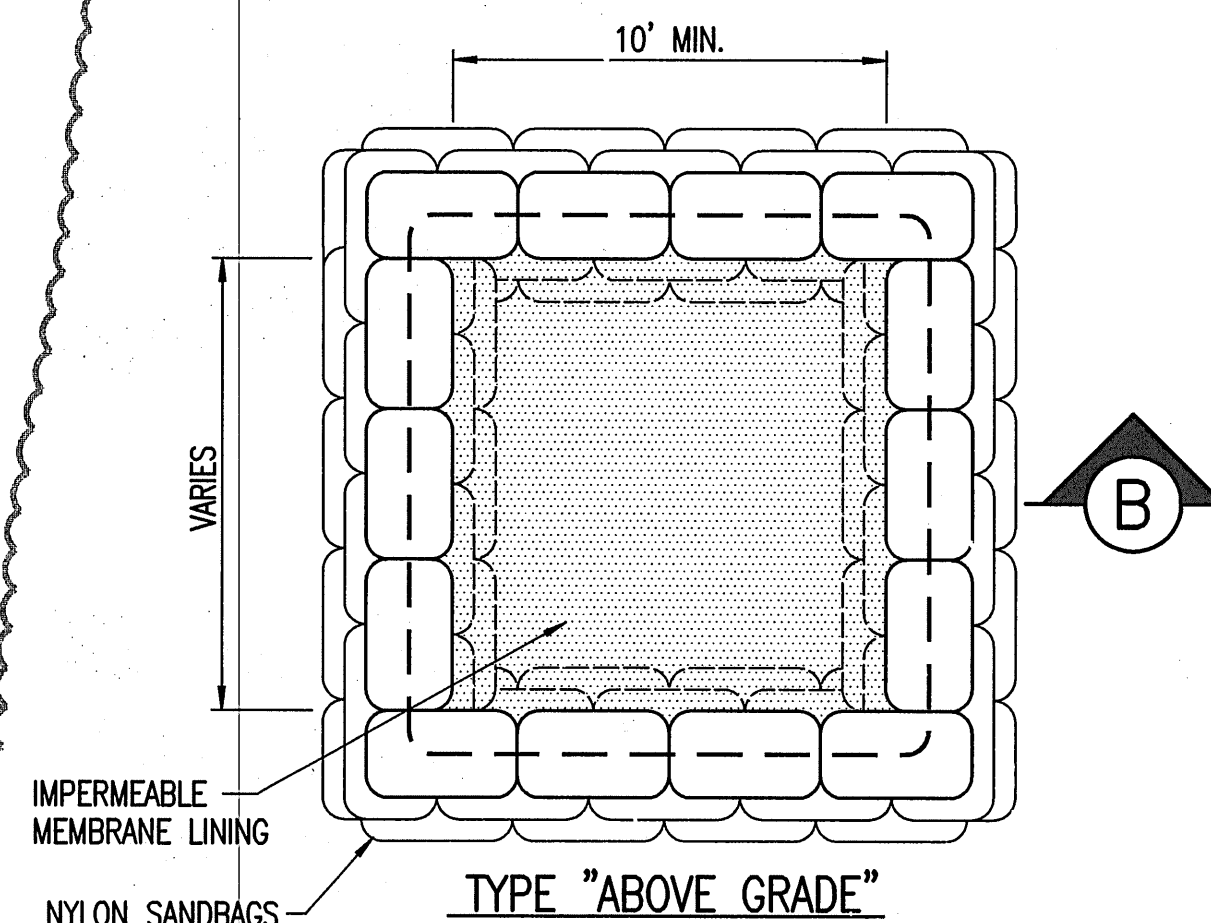
DETAIL - CURB INLET PROTECTION

NOT TO SCALE



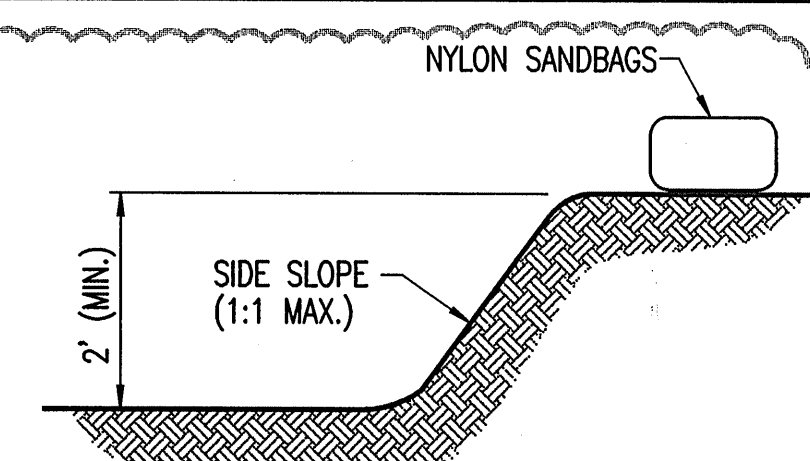
CONCRETE WASH WATER MANAGEMENT (AS REQUIRED)

NOT TO SCALE



CONCRETE WASTE MANAGEMENT (AS REQUIRED)

NOT TO SCALE

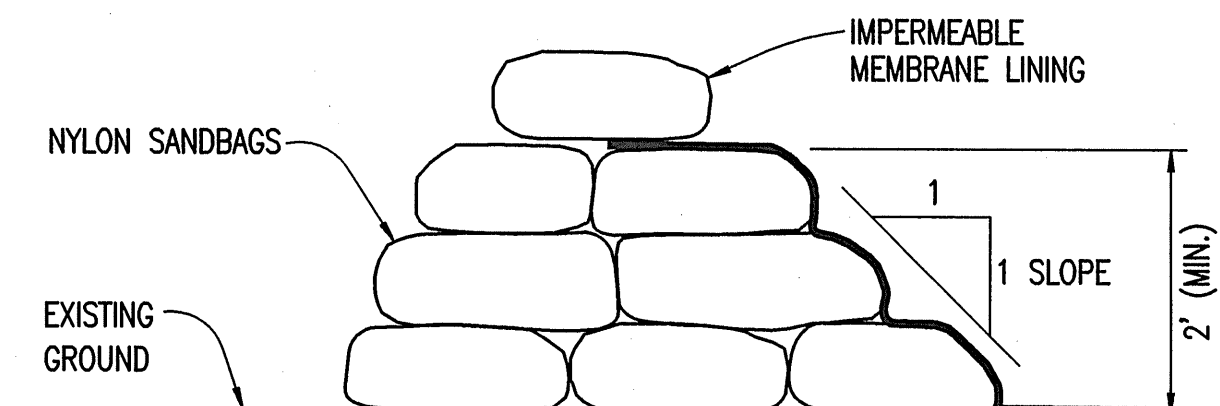


SECTION C

NOT TO SCALE

NOTES:

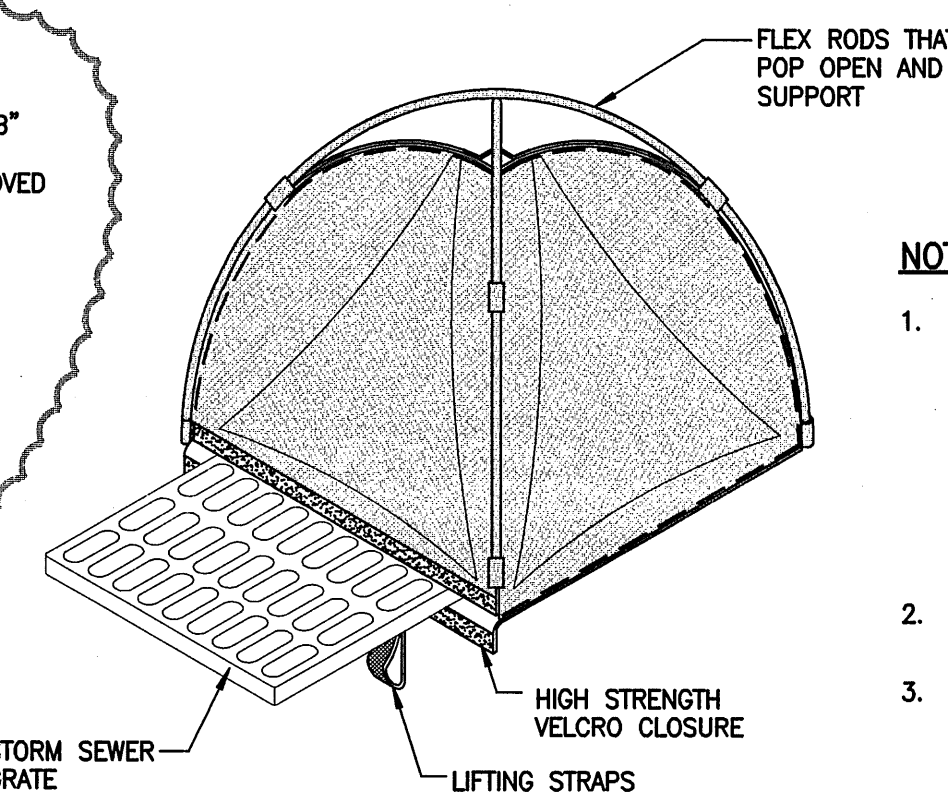
1. ACTUAL LAYOUT TO BE DETERMINED IN FIELD.
2. CONTRACTOR TO VERIFY LOCATION.
3. CONCRETE TRUCK WASH WATER SHALL BE DISPOSED OF OFFSITE OR IN DESIGNATED CONTAINMENT BERMS WITH IMPERMEABLE LINERS TO PREVENT INFILTRATION OR DISCHARGING OF POLLUTANTS DOWNSTREAM.



SECTION B

DETAIL - CONTAINMENT BERM

NOT TO SCALE

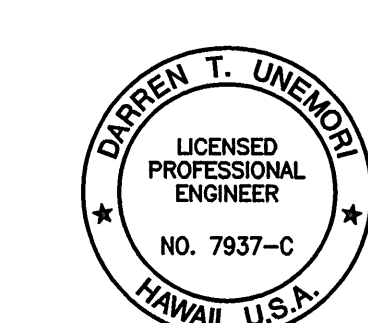


DETAIL - "DANDY POP" INLET PROTECTION SYSTEM

NOT TO SCALE

NOTES:

1. CONTRACTOR SHALL INSPECT & MAINTAIN DANDY POP INLET PROTECTION SYSTEM ON A REGULAR BASIS TO ENSURE PROPER FUNCTION TO KEEP SILT, SEDIMENT AND CONSTRUCTION DEBRIS OUT OF THE STORM WATER SYSTEM. THE CONTRACTOR SHALL REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM PANELS AND SURFACE AND VICINITY OF UNIT AFTER EACH RAIN EVENT OR AS DIRECTED BY ENGINEER/INSPECTOR (FOR OIL AND SEDIMENT MODEL). REMOVE AND REPLACE ABSORBENT WHEN NEAR SATURATION. DISPOSE OF UNIT NO LONGER IN USE AT AN APPROPRIATE RECYCLING OR SOLID WASTE FACILITY.
2. THE DANDY POP INLET PROTECTION UNIT SHALL ENCLOSE THE DRAIN INLET GRATE WITH THE GEOTEXTILE FABRIC.
3. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR REVIEW & APPROVAL PRIOR TO ORDERING MATERIALS.



WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

KAONOULU MARKET PLACE

T.M.K.: (2) 3-9-01 : 16
KIHAI, MAUI, HAWAII

TITLE: EROSION CONTROL NOTES AND DETAILS

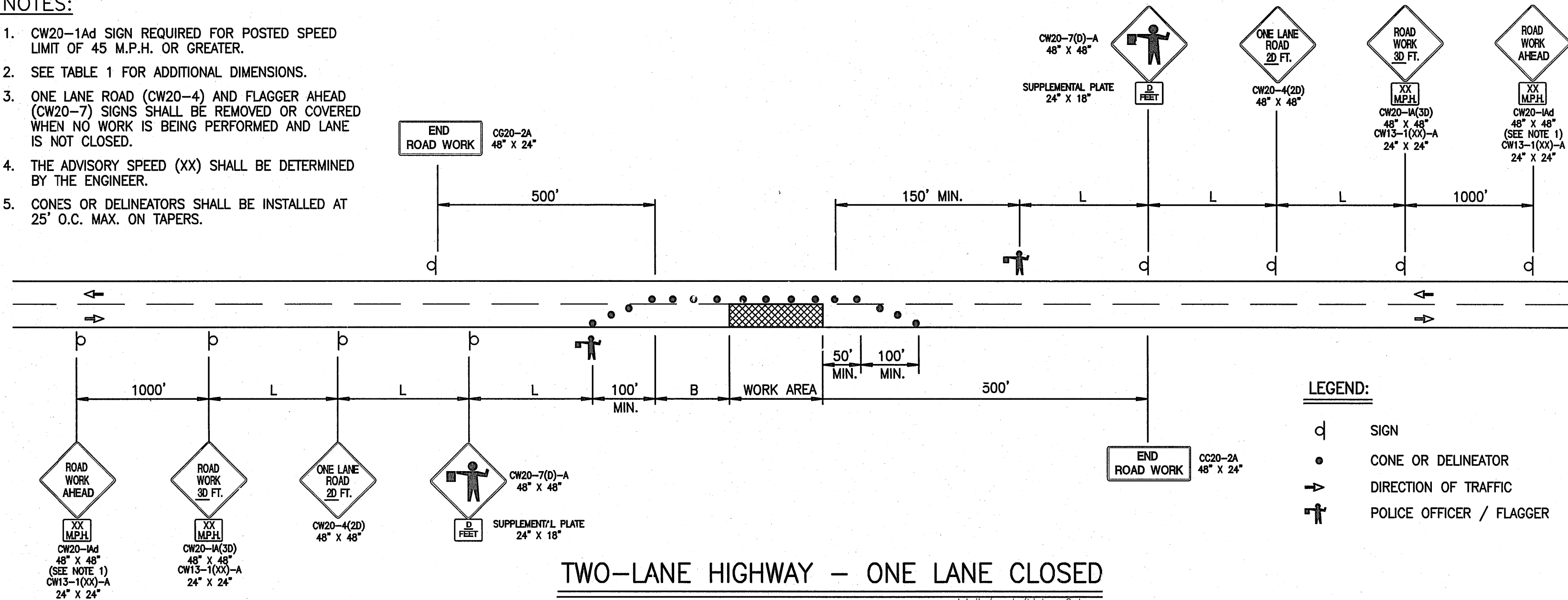
DESIGNED BY	DTU	04010.10	13.02
CHECKED BY	DTU	JOB NUMBER	
DRAWN BY	DTU	10-10-05	SHEET
APPROVED BY	DTU	DATE	
SCALE	AS NOTED		OF SHEETS

REVISIONS FOR SDOH	DATE
LETTER	DESCRIPTION

SIGNATURE
DATE
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION AS REQUIRED IN SECTION 16-115-2 OF THE HAWAII ADMINISTRATIVE RULES FOR PROFESSIONAL ENGINEERS, ARCHITECTS, LAND SURVEYORS AND LANDSCAPE ARCHITECTS

NOTES:

1. CW20-1A4 SIGN REQUIRED FOR POSTED SPEED LIMIT OF 45 M.P.H. OR GREATER.
2. SEE TABLE 1 FOR ADDITIONAL DIMENSIONS.
3. ONE LANE ROAD (CW20-4) AND FLAGGER AHEAD (CW20-7) SIGNS SHALL BE REMOVED OR COVERED WHEN NO WORK IS BEING PERFORMED AND LANE IS NOT CLOSED.
4. THE ADVISORY SPEED (XX) SHALL BE DETERMINED BY THE ENGINEER.
5. CONES OR DELINEATORS SHALL BE INSTALLED AT 25' O.C. MAX. ON TAPERS.



TWO-LANE HIGHWAY - ONE LANE CLOSED

FIGURE 1 - TRAFFIC CONTROL PLAN

GENERAL NOTES FOR TRAFFIC CONTROL PLAN

1. THE PERMITEE SHALL MAKE MINOR ADJUSTMENTS AT INTERSECTIONS, DRIVEWAYS, BRIDGES, STRUCTURES, ETC., TO FIT FIELD CONDITIONS.
2. CONES OR DELINEATORS SHALL BE EXTENDED TO A 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 SHALL BE 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. ALL SIGNS SHALL BE RESTORED UPON COMPLETION OF WORK.
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 PERMITEE SHALL INSTALL A FLASHING ARROW SIGNAL AS SHOWN ON THE TRAFFIC CONTROL PLANS.
7. SIGNS SPACING (L), TAPER LENGTHS (T) AND SPACINGS OF CONES OR DELINEATORS SHALL BE AS SHOWN IN TABLE 1, UNLESS OTHERWISE NOTED ON THE TRAFFIC CONTROL PLANS.
8. ALL TRAFFIC LANES SHALL BE A MINIMUM OF 10 FEET WIDE.
9. ALL CONSTRUCTION WARNING SIGNS SHALL BE PROMPTLY REMOVED OR COVERED WHENEVER THE MESSAGE IS NOT APPLICABLE OR NOT IN USE.
10. 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).
11. AT THE END OF EACH DAY'S WORK OR AS SOON AS THE WORK IS COMPLETED, THE PERMITEE 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.
12. REPLACE PERMANENT PAVEMENT MARKINGS AND TRAFFIC SIGNS UPON COMPLETION OF WORK.

TABLE 1 FOR TRAFFIC CONTROL PLAN

POSTED SPEED LIMIT ① (M.P.H.)	SIGN SPACING (L) (FEET)	TAPER LENGTH (T) (FEET)		LONGITUDINAL BUFFER SPACE (B) (FEET)	SPACING OF CONES OR DELINEATORS (FEET) ③		
		W = 12' OR LESS ②	W = GREATER THAN 12' ②		TAPER	TANGENT	WORK AREA
20	250	200	W x 17	35	20	20	10
25	250	200	W x 17	55	25	25	10
30	250	250	W x 20	85	30	30	10
35	250	250	W x 20	120	35	35	10
40	500	350	W x 30	170	40	40	10
45	500	550	W x 45	220	45	45	10
50	1000	600	W x 50	280	50	50	10
55	1000	700	W x 55	335	55	55	10

NOTE:

- ① USE ADVISORY SPEEDS WHEN POSTED.
- ② W = WIDTH OF LANE, SHOULDER, OR OFFSET.
- ③ NOT APPLICABLE FOR TWO-LANE HIGHWAYS.

TYPICAL TRAFFIC CONTROL PLAN WITHIN COUNTY RIGHT-OF-WAY

NOT TO SCALE

WARREN S. UNEMORI ENGINEERING, INC.
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2145 WELLS STREET, WALLUKU, MAUI, HAWAII 96793

KAONOULU MARKET PLACE

T.M.K.: (2) 2-2-02 : Por. of Par. 15 and 3-9-01 : 16
KIHEI, MAUI, HAWAII

TITLE TRAFFIC CONTROL PLAN - PIILANI HIGHWAY

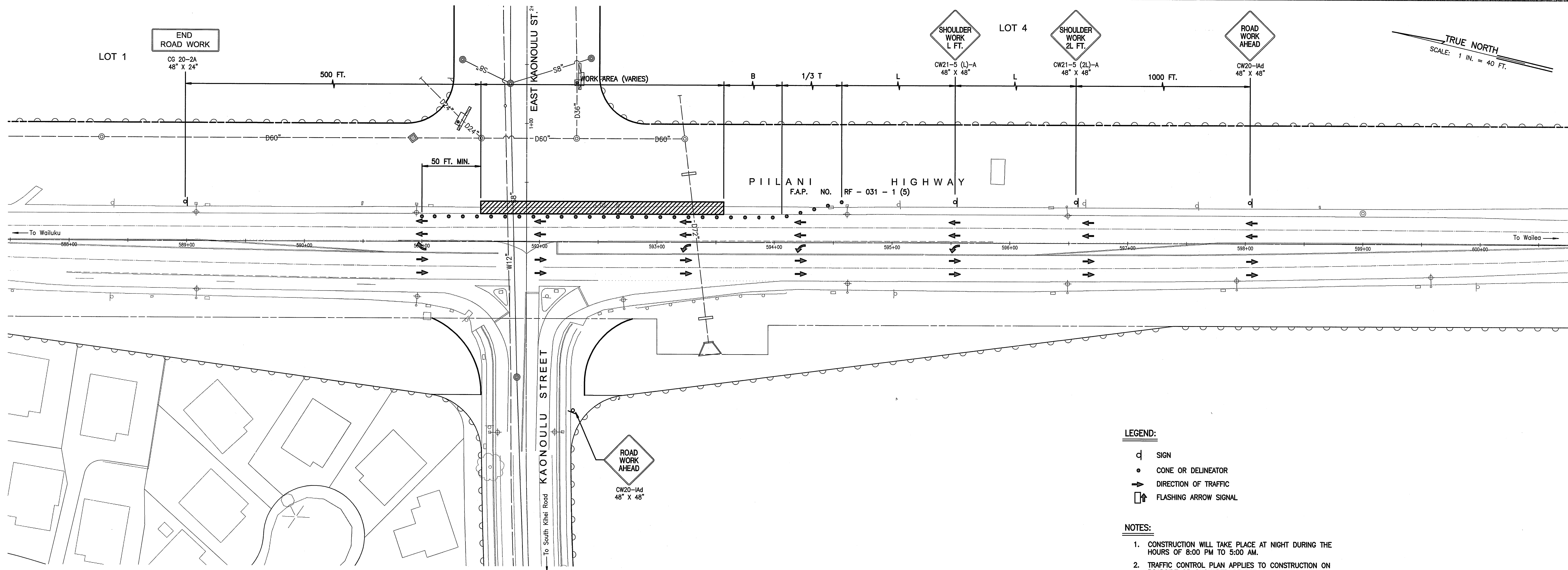
DESIGNED BY ALU
DRAWN BY WIS
CHECKED BY DTU
APPROVED BY DTU

DATE 12/12/02

SCALE 1 in. = 40 ft.

40410.10
JOB NUMBER
10-10-05
DATE

14.01
SHEET
OF SHEETS



LEGEND:

- SIGN
- CONE OR DELINEATOR
- DIRECTION OF TRAFFIC
- ⬇ FLASHING ARROW SIGNAL

NOTES:

- CONSTRUCTION WILL TAKE PLACE AT NIGHT DURING THE HOURS OF 8:00 PM TO 5:00 AM.
- TRAFFIC CONTROL PLAN APPLIES TO CONSTRUCTION ON ROADSIDE OR SHOULDER OF BOTH SIDES OF PILANI HIGHWAY.

TRAFFIC CONTROL PLAN FOR CONSTRUCTION ON SHOULDER OR ROADSIDE OF STATE RIGHT-OF-WAY

GENERAL NOTES FOR TRAFFIC CONTROL PLAN

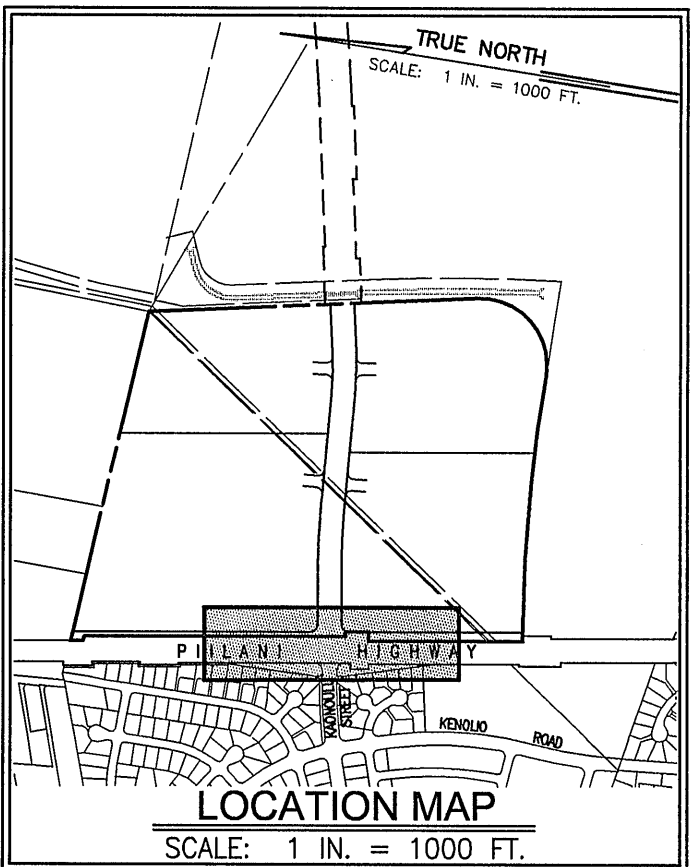
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- REPLACE PERMANENT PAVEMENT MARKINGS AND TRAFFIC SIGNS UPON COMPLETION OF WORK.

TABLE 1 FOR TRAFFIC CONTROL PLAN

POSTED SPEED LIMIT ① (M.P.H.)	SIGN SPACING (L) (FEET)	TAPER LENGTH (T) (FEET)		LONGITUDINAL BUFFER SPACE (B) (FEET)	SPACING OF CONES OR DELINEATORS (FEET) ③		
		W = 12' OR LESS ②	W = GREATER THAN 12' ②		TAPER	TANGENT	WORK AREA
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25	250	200	W x 17	55	25	25	10
30	250	250	W x 20	85	30	30	10
35	250	250	W x 20	120	35	35	10
40	500	350	W x 30	170	40	40	10
45	500	550	W x 45	220	45	45	10
50	1000	600	W x 50	280	50	50	10
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NOTE:

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- NOT APPLICABLE FOR TWO-LANE HIGHWAYS.



WARREN S. UNEMORI
LICENSED PROFESSIONAL ENGINEER
NO. 1569-C
HAWAII, U.S.A.

DATE

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION "AS DEFINED IN SECTION 16-115-2 OF THE HAWAII ADMINISTRATIVE RULES FOR PROFESSIONAL ENGINEERS, ARCHITECTS, LAND SURVEYORS AND LANDSCAPE ARCHITECTS"

LETTER DESCRIPTION DATE

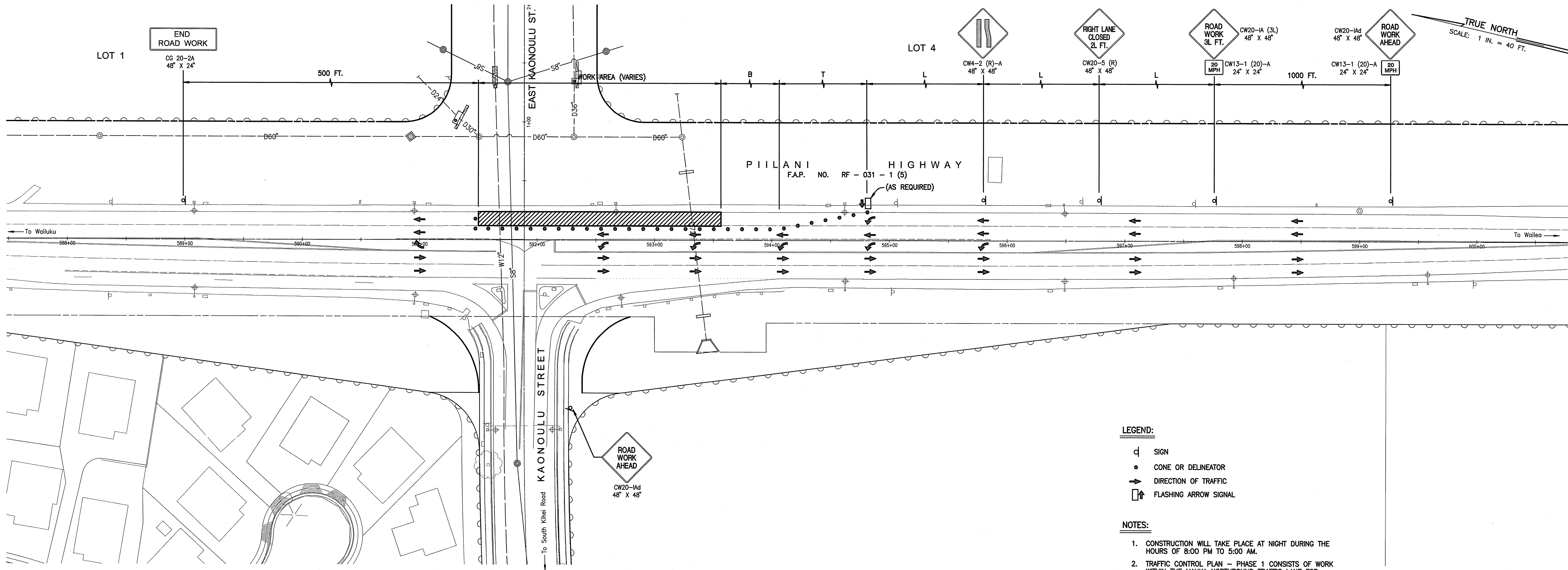
WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

KAONOULU MARKET PLACE
T.M.K.: (2) 2-2-02 : Por. of Par. 15 and 3-9-01 : 16
KIHEI, MAUI, HAWAII

TITLE: TRAFFIC CONTROL PLAN - PILANI HIGHWAY

DESIGNED BY WSU	CHECKED BY WSU	04010.10	14.10
DRAWN BY WIS	APPROVED BY WSU	JOB NUMBER 10-10-05	
SCALE 1 in. = 40 ft.		DATE	

OF SHEETS



TRAFFIC CONTROL PLAN FOR CONSTRUCTION WITHIN STATE RIGHT-OF-WAY - PHASE I

GENERAL NOTES FOR TRAFFIC CONTROL PLAN

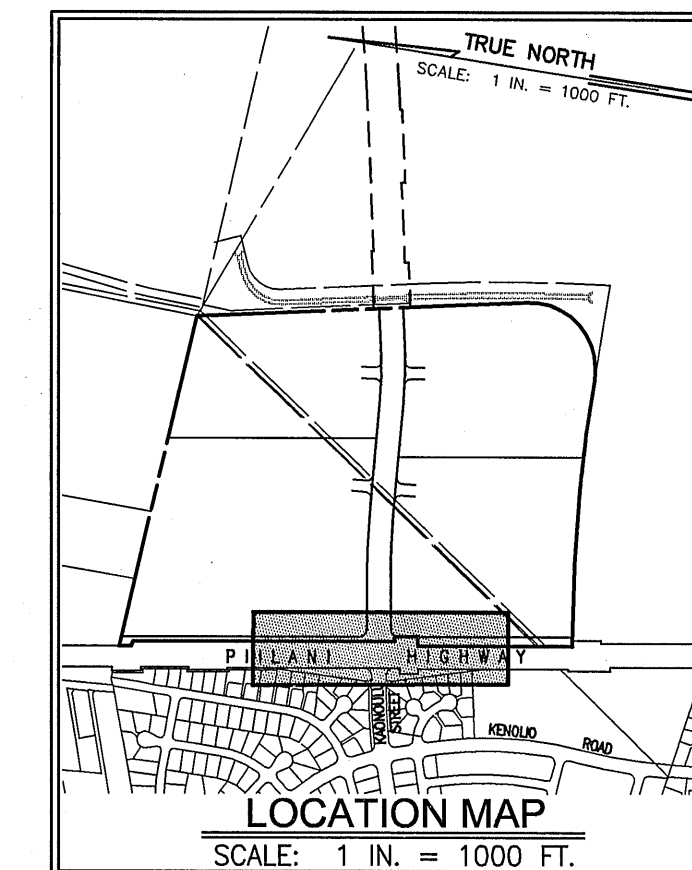
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WARREN S. UNEMORI
LICENSED PROFESSIONAL ENGINEER
NO. 1569-C
HAWAII, U.S.A.

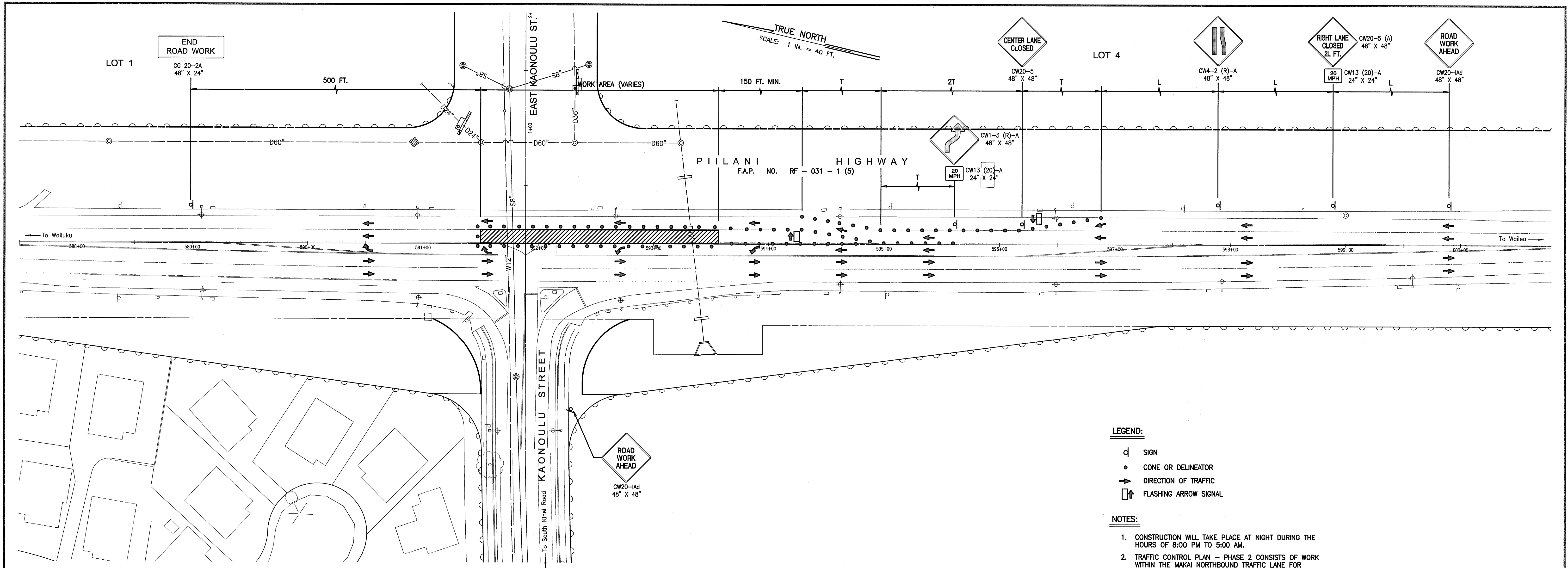
WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

KAONOULU MARKET PLACE
T.M.K.: (2) 2-2-02 : Por. of Par. 15 and 3-9-01 : 16
KIHEI, MAUI, HAWAII

TITLE TRAFFIC CONTROL PLAN - PILANI HIGHWAY

DESIGNED BY WIS	CHECKED BY WSU	DATE 10-10-05	14.11 SHEET OF SHEETS
DRAWN BY WIS	APPROVED BY WSU	DATE 10-10-05	

SCALE 1 in. = 40 ft.



LEGEND:

- SIGN
- CONE OR DELINEATOR
- DIRECTION OF TRAFFIC
- ⬇ FLASHING ARROW SIGNAL

NOTES:

- CONSTRUCTION WILL TAKE PLACE AT NIGHT DURING THE HOURS OF 8:00 PM TO 5:00 AM.
- TRAFFIC CONTROL PLAN - PHASE 2 CONSISTS OF WORK WITHIN THE MAKAI NORTHBOUND TRAFFIC LANE FOR CONSTRUCTION OF THE WATER, SEWER AND DRAINAGE UTILITY CROSSINGS AND PAVEMENT RE-STRIPING.

TRAFFIC CONTROL PLAN FOR CONSTRUCTION WITHIN STATE RIGHT-OF-WAY - PHASE 2

GENERAL NOTES FOR TRAFFIC CONTROL PLAN

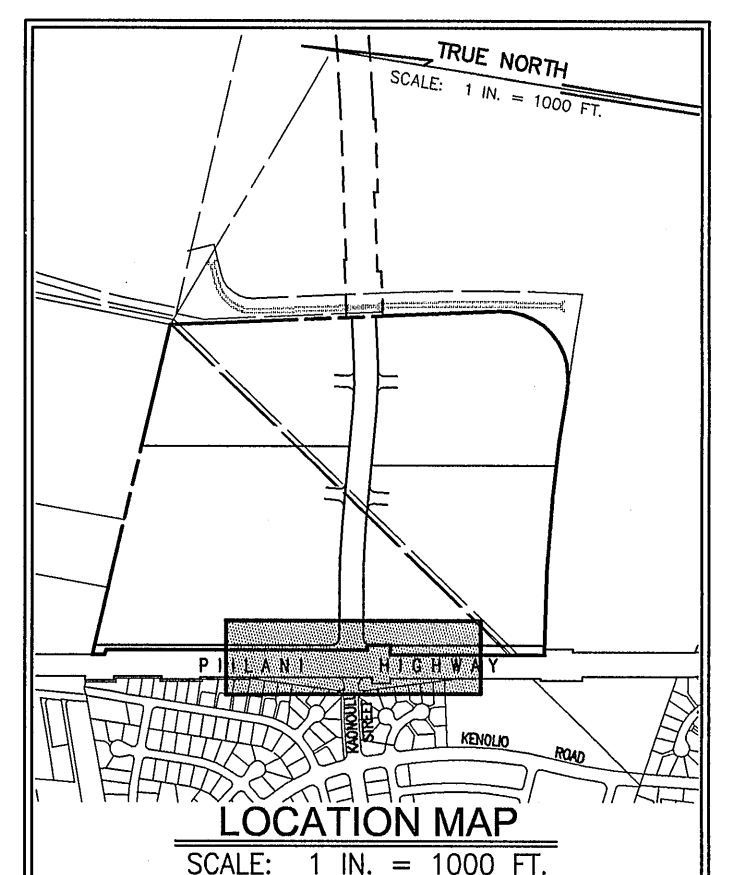
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- REPLACE PERMANENT PAVEMENT MARKINGS AND TRAFFIC SIGNS UPON COMPLETION OF WORK.

TABLE 1 FOR TRAFFIC CONTROL PLAN

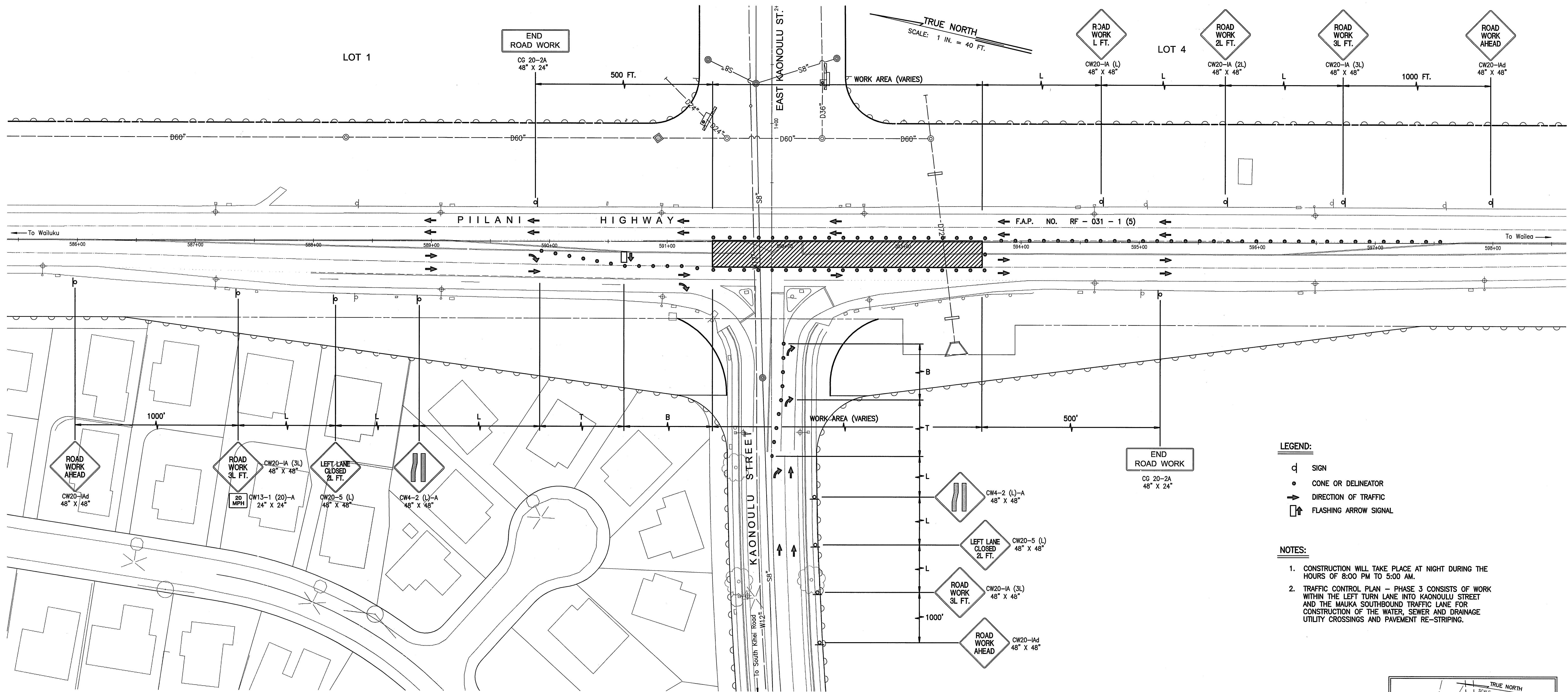
POSTED SPEED LIMIT ① (M.P.H.)	SIGN SPACING (L) (FEET)	TAPER LENGTH (T) (FEET)		LONGITUDINAL BUFFER SPACE (B) (FEET)	SPACING OF CONES OR DELINEATORS (FEET) ③		
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- NOT APPLICABLE FOR TWO-LANE HIGHWAYS.



WARREN S. UNEMORI ENGINEERING, INC. CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS 2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793		KAONOULU MARKET PLACE T.M.K.: (2) 2-2-02 : Por. of Par. 15 and 3-9-01 : 16 KIHAI, MAUI, HAWAII	
TITLE: TRAFFIC CONTROL PLAN - PILANI HIGHWAY			
DESIGNED BY WSU	CHECKED BY WSU	JOB NUMBER 04010.10	14.12 SHEET
DRAWN BY WIS	APPROVED BY WSU	DATE 10-10-05	
SCALE 1 in. = 40 ft.		OF SHEETS	



TRAFFIC CONTROL PLAN FOR CONSTRUCTION WITHIN STATE RIGHT-OF-WAY - PHASE 3

GENERAL NOTES FOR TRAFFIC CONTROL PLAN

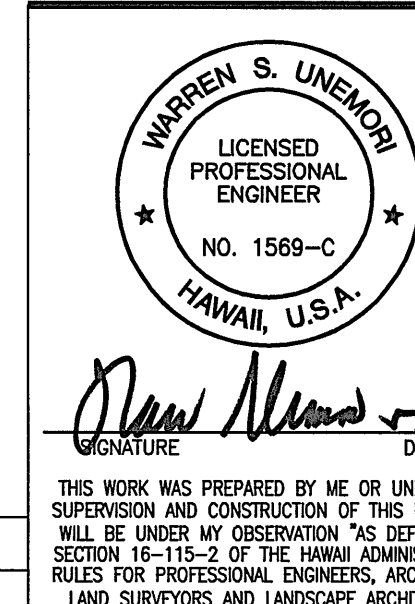
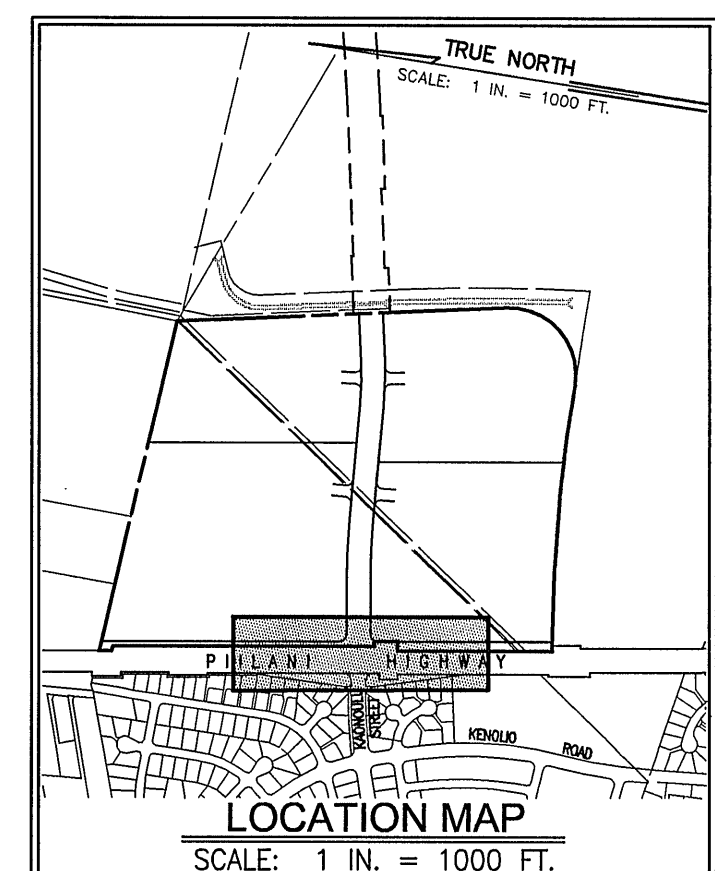
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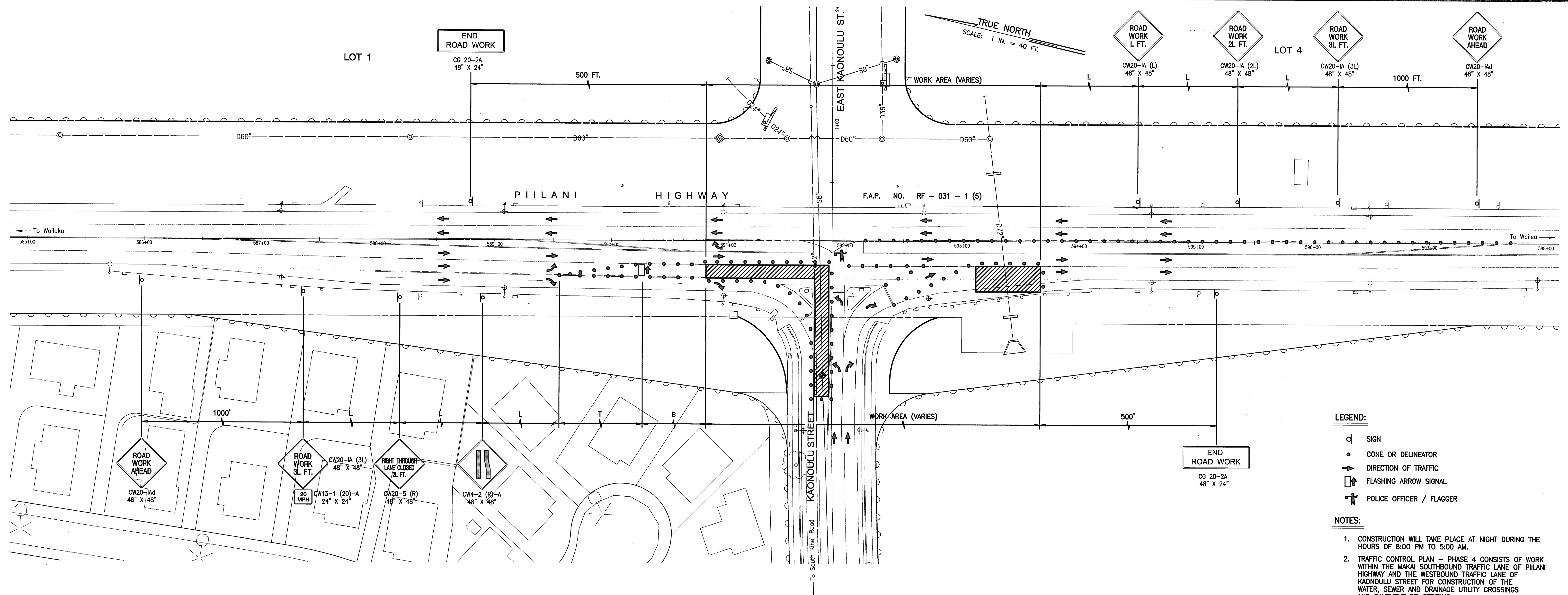
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 KIHAI, MAUI, HAWAII

TITLE: TRAFFIC CONTROL PLAN - PIILANI HIGHWAY

DESIGNED BY	WSU	CHECKED BY	WSU	04010.10
DRAWN BY	WIS	APPROVED BY	WSU	JOB NUMBER
DATE				10-10-05
SCALE 1 in. = 40 ft.				DATE

14.13
 SHEET
 OF SHEETS



TRAFFIC CONTROL PLAN FOR CONSTRUCTION WITHIN STATE RIGHT-OF-WAY – PHASE 4

GENERAL NOTES FOR TRAFFIC CONTROL PLAN

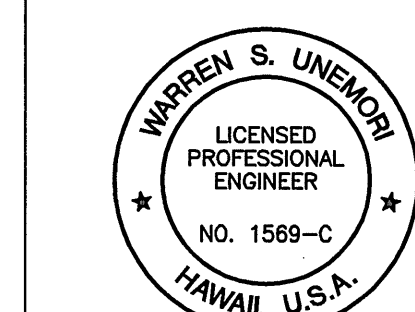
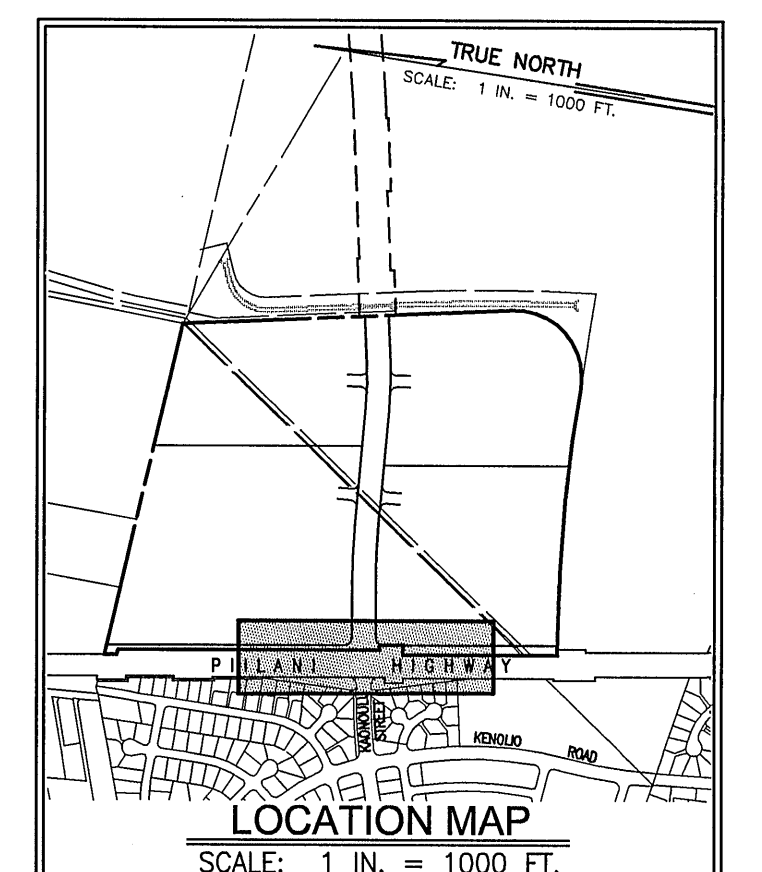
1. THE PERMITEE SHALL MAKE MINOR ADJUSTMENTS AT INTERSECTIONS, DRIVEWAYS, BRIDGES, STRUCTURES, ETC., TO FIT FIELD CONDITIONS.
2. CONES OR DELINEATORS SHALL BE EXTENDED TO A POINT WHERE THEY ARE VISIBLE TO APPROACHING TRAFFIC.
3. TRAFFIC CONTROL DEVICES SHALL BE INSTALLED SUCH THAT THE SIGN OR DEVICE FARTHEST FROM THE WORK AREA SHALL BE 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. ALL SIGNS SHALL BE RESTORED UPON COMPLETION OF WORK.
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 PERMITEE SHALL INSTALL A FLASHING ARROW SIGNAL AS SHOWN ON THE TRAFFIC CONTROL PLANS.
7. SIGNS SPACING (L), TAPER LENGTHS (T) AND SPACINGS OF CONES OR DELINEATORS SHALL BE AS SHOWN IN TABLE 1, UNLESS OTHERWISE NOTED ON THE TRAFFIC CONTROL PLANS.
8. ALL TRAFFIC LANES SHALL BE A MINIMUM OF 10 FEET WIDE.
9. ALL CONSTRUCTION WARNING SIGNS SHALL BE PROMPTLY REMOVED OR COVERED WHENEVER THE MESSAGE IS NOT APPLICABLE OR NOT IN USE.
10. THE BACKS OF ALL SIGNS USED FOR TRAFFIC CONTROL SHALL BE PROMPTLY COVERED TO PRECLUDE THE DISPLAY OF INAPPLICABLE SIGN MESSAGES (I.E., WHEN SIGNS HAVE MESSAGES ON BOTH FACES).
11. AT THE END OF EACH DAY'S WORK OR AS SOON AS THE WORK IS COMPLETED, THE PERMITEE 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.
12. REPLACE PERMANENT PAVEMENT MARKINGS AND TRAFFIC SIGNS UPON COMPLETION OF WORK.


TABLE 1 FOR TRAFFIC CONTROL PLAN


POSTED SPEED LIMIT ① (M.P.H)	SIGN SPACING (L) (FEET)	TAPER LENGTH (T) (FEET)		LONGITUDINAL BUFFER SPACE (B) (FEET)	SPACING OF CONES OR DELINEATORS (FEET) ③		
		W = 12' OR LESS ②	W = GREATER THAN 12' ②		TAPER	TANGENT	WORK AREA
20	250	200	W x 17	35	20	20	10
25	250	200	W x 17	55	25	25	10
30	250	250	W x 20	85	30	30	10
35	250	250	W x 20	120	35	35	10
40	500	350	W x 30	170	40	40	10
45	500	550	W x 45	220	45	45	10
50	1000	600	W x 50	280	50	50	10
55	1000	700	W x 55	335	55	55	10

NOTE:

- ① USE ADVISORY SPEEDS WHEN POSTED.
- ② W = WIDTH OF LANE, SHOULDER, OR OFFSET.
- ③ NOT APPLICABLE FOR TWO-LANE HIGHWAYS.




 SIGNATURE _____ DATE _____
 THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION "AS DEFINED IN SECTION 16-115-2 OF THE HAWAII ADMINISTRATIVE RULES FOR PROFESSIONAL ENGINEERS, ARCHITECTS, LAND SURVEYORS AND LANDSCAPE ARCHITECTS"

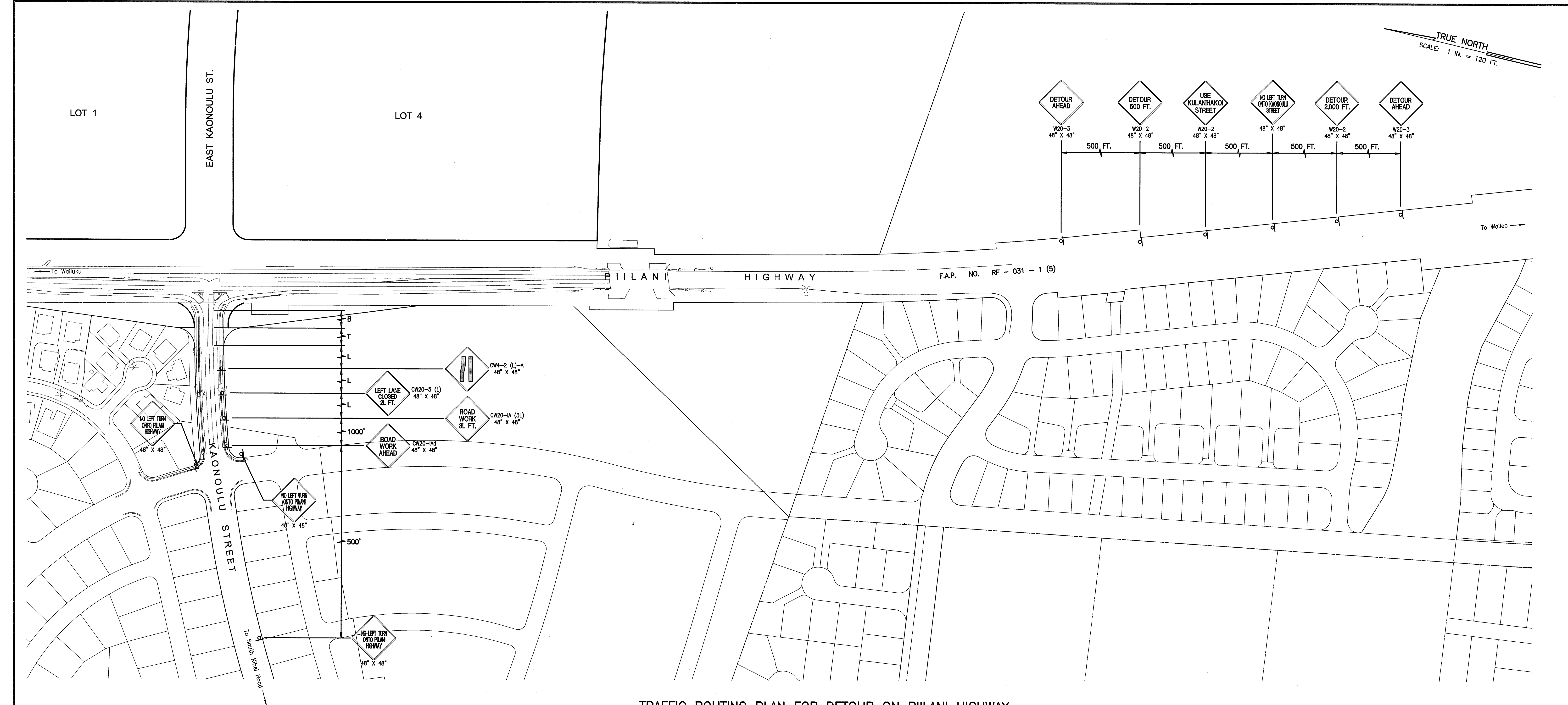


WARREN S. UNEMORI ENGINEERING, INC.
 CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
 WELLS STREET PROFESSIONAL CENTER, SUITE 403
 2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

KAONOULU MARKET PLACE
T.M.K.: (2) 2-2-02 : Por. of Par. 15 and 3-9-01 : 16
KIHEI, MAUI, HAWAII

TITLE TRAFFIC CONTROL PLAN – PIILANI HIGHWAY

WSU DESIGNED BY	WSU CHECKED BY	04010.10 JOB NUMBER	14.14 SHEET
WIS DRAWN BY	WSU APPROVED BY		
SCALE 1 in. = 40 ft.		10-10-05	



TRAFFIC ROUTING PLAN FOR DETOUR ON PIIHI HIGHWAY

GENERAL NOTES FOR TRAFFIC CONTROL PLAN

1. THE PERMITEE SHALL MAKE MINOR ADJUSTMENTS AT INTERSECTIONS, DRIVEWAYS, BRIDGES, STRUCTURES, ETC., TO FIT FIELD CONDITIONS.
2. CONES OR DELINEATORS SHALL BE EXTENDED TO A 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 SHALL BE 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. ALL SIGNS SHALL BE RESTORED UPON COMPLETION OF WORK.
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 PERMITEE SHALL INSTALL A FLASHING ARROW SIGNAL AS SHOWN ON THE TRAFFIC CONTROL PLANS.
7. SIGNS SPACING (L), TAPER LENGTHS (T) AND SPACINGS OF CONES OR DELINEATORS SHALL BE AS SHOWN IN TABLE 1, UNLESS OTHERWISE NOTED ON THE TRAFFIC CONTROL PLANS.
8. ALL TRAFFIC LANES SHALL BE A MINIMUM OF 10 FEET WIDE.
9. ALL CONSTRUCTION WARNING SIGNS SHALL BE PROMPTLY REMOVED OR COVERED WHENEVER THE MESSAGE IS NOT APPLICABLE OR NOT IN USE.
10. 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).
11. AT THE END OF EACH DAY'S WORK OR AS SOON AS THE WORK IS COMPLETED, THE PERMITEE 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.
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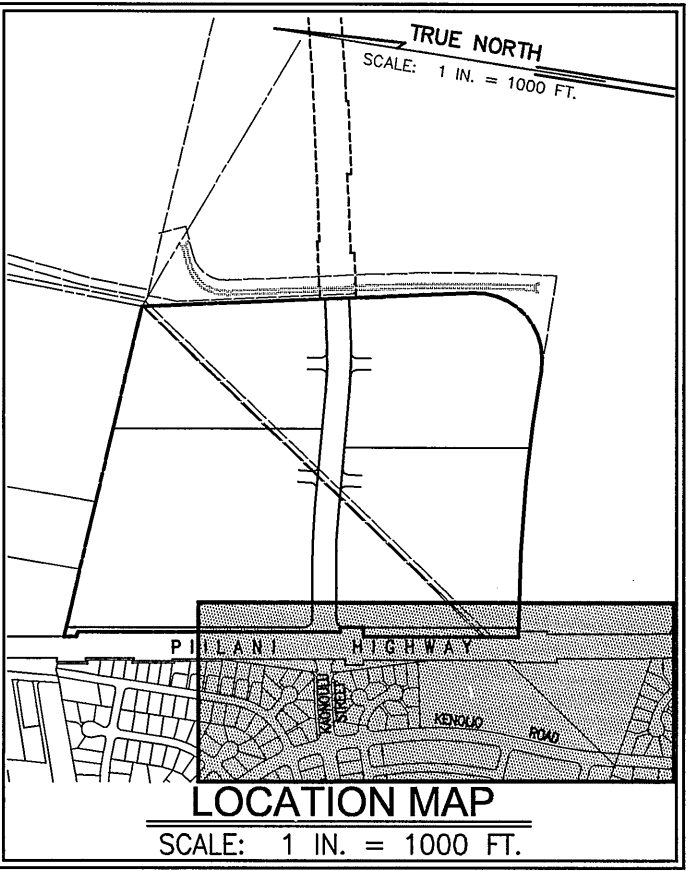
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- ③ NOT APPLICABLE FOR TWO-LANE HIGHWAYS.

LEGEND:

- SIGN
- CONE OR DELINEATOR
- DIRECTION OF TRAFFIC
- ⬇ FLASHING ARROW SIGNAL

NOTES:

1. CONSTRUCTION WILL TAKE PLACE AT NIGHT DURING THE HOURS OF 8:00 PM TO 5:00 AM.
2. TRAFFIC ROUTING PLAN FOR DETOUR ON PIIHI HIGHWAY WILL BE IMPLEMENTED DURING PHASE 3 AND 4 OF THE TRAFFIC CONTROL PLAN WHEN THERE WILL BE NO LEFT TURN INTO OR OUT OF KAONOULU STREET AT ITS INTERSECTION WITH PIIHI HIGHWAY.



WARREN S. UNEMORI
LICENSED PROFESSIONAL ENGINEER
NO. 1569-C
HAWAII, U.S.A.

Warren S. Unemori
DATE: 11/10/2014

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION "AS DEFINED IN SECTION 10-115-2 OF THE HAWAII ADMINISTRATIVE RULES FOR PROFESSIONAL ENGINEERS, ARCHITECTS, LAND SURVEYORS AND LANDSCAPE ARCHITECTS"

WARREN S. UNEMORI ENGINEERING, INC.
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KAONOULU MARKET PLACE
T.M.K.: (2) 2-2-02 : Por. of Par. 15 and 3-9-01 : 16
KIHEI, MAUI, HAWAII

TITLE: TRAFFIC ROUTING PLAN - PIIHI HIGHWAY DETOUR

DESIGNED BY	WSU	CHECKED BY	WSU	04010.10	14.20
DRAWN BY	WIS	APPROVED BY	WSU	JOB NUMBER	
SCALE: 1 in. = 120 ft.				10-10-05	
				DATE	OF SHEETS

CONSTRUCTION NOTES:

PUBLIC WORKS:

- THE CONTRACTOR SHALL OBTAIN THE FOLLOWING PERMITS FROM THE DEVELOPMENT SERVICES ADMINISTRATION (D.S.A.) OF THE DEPARTMENT OF PUBLIC WORKS (D.P.W.), COUNTY OF MAUI, BEFORE ANY WORK IS BEGUN:
 - "WORK TO PERFORM ON COUNTY HIGHWAY PERMIT", TWO (2) WEEKS PRIOR TO COMMENCEMENT OF WORK ON
 - "DRIVEWAY PERMIT", TWENTY-FOUR HOURS PRIOR TO COMMENCEMENT OF WORK ON ANY DRIVEWAY.
 - "GRADING PERMIT", FOUR (4) WEEKS PRIOR TO COMMENCEMENT OF ANY CLEARING AND GRUBBING. A SATISFACTORY DUST AND EROSION CONTROL PLAN AND/OR OUTLINE SHALL BE SUBMITTED BY THE CONTRACTOR.
- EACH PHASE OF ROAD CONSTRUCTION IS TO BE APPROVED BY THE D.P.W., D.S.A., PRIOR TO WORKING ON THE NEXT PHASE OF ROAD CONSTRUCTION.
- COMPACTION REQUIREMENTS: TESTING OF MATERIALS SHALL BE CONDUCTED BY AN APPROVED INDEPENDENT TESTING AGENCY IN ACCORDANCE WITH ASTM STANDARD METHODS OR AS SPECIFIED BY THE DEPARTMENT OF PUBLIC WORKS, ENGINEERING DIVISION, AS FOLLOWS:
 - EMBANKMENT/SELECT BORROW AND SUBGRADE MATERIALS: ONE (1) COMPACTION TEST PER 600 SQUARE YARDS PER LIFT.
 - AGGREGATE SUBBASE COURSE: ONE (1) COMPACTION TEST PER 400 SQUARE YARDS; ONE (1) GRADATION AND SAND EQUIVALENT TEST PER PROJECT.
 - AGGREGATE BASE COURSE: ONE (1) COMPACTION TEST PER 300 SQUARE YARDS; ONE (1) GRADATION AND SAND EQUIVALENT TEST PER PROJECT.
 - ASPHALT CONCRETE PAVEMENT OR ASPHALT TREATED BASE COURSE: THREE (3) A.C. CORES FOR THICKNESS AND DENSITY TESTS PER PROJECT.
 - TRENCH BACKFILL MATERIAL: ONE (1) TEST FOR EACH 300 LINEAL FEET OF TRENCH PER LIFT OF MATERIAL.
- CONTRACTOR SHALL SUBMIT ALL TESTING REPORTS INCLUDING RESULTS TO THE COUNTY'S INSPECTION AGENCY FOR REVIEW AND APPROVAL PRIOR TO COUNTY'S ACCEPTANCE OF WORK. THE CONTRACTOR SHALL BE REQUIRED TO NOTIFY THE COUNTY OF ANY TESTING FAILURES AND CORRECT EACH FAILURE PRIOR TO PROCEEDING TO THE NEXT PHASE OF CONSTRUCTION. NONCOMPLIANCE WILL REQUIRE REMOVAL OF ALL SUBSEQUENT WORK TO CORRECT THE AREA OF FAILURE. ALL COSTS OF TESTING, REMOVAL, AND RECONSTRUCTION, SHALL BE BORNE BY THE CONTRACTOR.
- THE LATEST REVISIONS OF THE STANDARD DETAIL DRAWINGS AND STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND PUBLIC WORKS CONSTRUCTION SHALL BE INCLUDED AS PART OF THE CONSTRUCTION PLANS.
- THE CONTRACTOR SHALL STRIPE STOP LINES, CROSSWALKS AND OTHER LINES, AS REQUIRED, AND SHALL INSTALL SIGNS IN ACCORDANCE WITH THE LATEST REVISIONS OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, DATED MAY 2003."
- THE CONTRACTOR SHALL PROVIDE, INSTALL AND MAINTAIN ALL NECESSARY SIGNS, LIGHTS, FLARES, BARRICADES, AND OTHER PROTECTIVE DEVICES FOR THE PROTECTION, SAFETY, AND CONVENIENCE OF THE PUBLIC, ALL IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, DATED MAY 2003."
- CONTRACTOR SHALL SUBMIT TO D.P.W., A STRIPING PLAN FOR APPROVAL PRIOR TO COMMENCEMENT OF WORK.
- THE DIRECTOR OF PUBLIC WORKS OR THE DIRECTOR OF WATER SUPPLY MAY STOP CONSTRUCTION SHOULD ANY WORK BE FOUND CONTRARY TO THE APPROVED CONSTRUCTION PLANS OR BE DETRIMENTAL TO THE PUBLIC INTEREST.
- THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE DEVELOPMENT SERVICES ADMINISTRATION FIVE (5) DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- RECORD DRAWINGS (ONE (1) TIFF COPY AND SEVEN (7) SETS OF PLANS) ARE TO BE SUBMITTED TO THE DEVELOPMENT SERVICES ADMINISTRATION PRIOR TO FINAL APPROVAL OF THE IMPROVEMENTS AS SHOWN ON THE APPROVED CONSTRUCTION PLANS.
- BENCH MARKS SHALL BE ESTABLISHED AND CERTIFIED BY A REGISTERED SURVEYOR, AND SUBMITTED TO THE DEVELOPMENT SERVICES ADMINISTRATION.
- PURSUANT TO MAUI COUNTY CODE SECTION 3.44.015(C), THE COUNTY OF MAUI IS NOT RESPONSIBLE FOR ANY PARK, ROADWAY, EASEMENT INCLUDING BUT NOT LIMITED TO DRAINAGE, SEWER, ACCESS, RECLAIMED WATER, OR AVIGATION EASEMENT, OR ANY OTHER INTEREST IN REAL PROPERTY SHOWN ON THIS MAP OR SHOWN ON THESE PLANS, UNLESS THE MAUI COUNTY COUNCIL HAS ACCEPTED ITS DEDICATION BY RESOLUTION APPROVED BY A MAJORITY OF COUNCIL'S MEMBERS AT A REGULAR OR SPECIAL MEETING OF THE MAUI COUNTY COUNCIL.

EXISTING UTILITIES:

- THE LOCATION, DEPTH AND TYPE OF THE VARIOUS EXISTING UTILITY LINES SHOWN ON THE CONSTRUCTION PLANS WERE DETERMINED ON THE BASIS OF THE BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL VERIFY EXACT LOCATION, DEPTH AND TYPE PRIOR TO COMMENCEMENT OF WORK.
- CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN THE EXISTING UTILITIES AS SHOWN ON THE CONSTRUCTION PLANS AND IN GROUND, AND NOT PROCEED WITH ANY FURTHER WORK UNTIL WRITTEN NOTIFICATION IS RECEIVED FROM THE ENGINEER.
- ALL EXISTING UTILITIES WHETHER OR NOT SHOWN ON PLANS, IF DAMAGED DURING CONSTRUCTION BY THE CONTRACTOR, SHALL BE REPAIRED SOLELY AT HIS EXPENSE.

ENVIRONMENTAL PROTECTION:

- THE CONTRACTOR SHALL REMOVE ALL SILT AND DEBRIS RESULTING FROM HIS WORK AND DEPOSITED IN DRAINAGE FACILITIES, ROADWAYS AND OTHER AREAS. THE COSTS INCURRED FOR ANY NECESSARY REMEDIAL ACTION BY THE CHIEF ENVIRONMENTALIST SHALL BE BORNE BY THE CONTRACTOR.
- THE CONTRACTOR SHALL KEEP THE PROJECT AREA AND SURROUNDING AREAS FREE FROM DUST NUISANCE, ALL IN ACCORDANCE WITH THE AIR POLLUTION CONTROL STANDARDS AND REGULATIONS OF THE STATE DEPARTMENT OF HEALTH. ALL COSTS SHALL BE BORNE BY THE CONTRACTOR.
- ALL GRADING OPERATIONS SHALL BE PERFORMED IN CONFORMANCE WITH THE APPLICABLE PROVISIONS OF THE WATER POLLUTION CONTROL AND WATER QUALITY STANDARDS OF THE PUBLIC HEALTH REGULATIONS OF THE STATE DEPARTMENT OF HEALTH AND THE COUNTY'S GRADING ORDINANCE.
- ALL CUT AND FILL SLOPES SHALL BE SODDED OR PLANTED IMMEDIATELY AFTER GRADING WORK HAS BEEN COMPLETED OR WITHIN 14 DAYS OF LAST DISTURBANCE.
- CONSTRUCTION DEBRIS AND WASTES SHALL BE DEPOSITED AT APPROPRIATE SITES. THE CONTRACTOR SHALL INFORM THE ENGINEER OF THE LOCATION OF DISPOSAL SITES. THE DISPOSAL SITE SHALL ALSO FULFILL THE REQUIREMENTS OF THE GRADING ORDINANCE.
- THE CONTRACTOR SHALL NOT DEMOLISH OR CLEAR ANY STRUCTURE, SITE, OR VACANT LOT WITHOUT FIRST ASCERTAINING THE PRESENCE OR ABSENCE OF RODENTS WHICH MAY ENDANGER THE PUBLIC HEALTH BY DISPERSAL FROM SUCH PREMISES. SHOULD SUCH INSPECTION REVEAL THE PRESENCE OF SUCH RODENTS, THE CONTRACTOR SHALL ERADICATE SUCH RODENTS BEFORE DEMOLISHING OR CLEARING SAID STRUCTURE, SITE OR VACANT LOT.

CLEARING AND GRUBBING:

- NO CLEARING AND GRUBBING MATERIALS SHALL BE DEPOSITED IN COUNTY SANITARY LANDFILLS. CONTRACTOR SHALL MAKE THEIR OWN ARRANGEMENTS FOR SATISFACTORY DEPOSIT OF SAME.

EXISTING GRADES:

- EXISTING GRADES SHALL BE VERIFIED BY THE CONTRACTOR BEFORE PROCEEDING WITH GRADING WORK. SHOULD ANY DISCREPANCIES BE DISCOVERED IN THE EXISTING GRADES OR DIMENSIONS GIVEN ON THE PLANS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER BEFORE PROCEEDING FURTHER WITH ANY WORK, OTHERWISE HE WILL BE HELD RESPONSIBLE FOR ANY COST INVOLVED IN CORRECTION OF CONSTRUCTION PLACED DUE TO SUCH DISCREPANCIES.

PLAN NOTES FOR WATER SYSTEM:

- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF WATER SUPPLY (DWS), IN WRITING, ONE (1) WEEK PRIOR TO COMMENCEMENT OF WORK.
- ALL MATERIALS USED AND METHODS OF CONSTRUCTION OF WATER SYSTEM FACILITIES SHALL BE IN ACCORDANCE WITH THE LATEST REVISIONS OF DWS STANDARDS. CONTRACTOR SHALL OBTAIN THE LATEST REVISIONS OF THE DWS STANDARD DETAILS BEFORE COMMENCING CONSTRUCTION.
- ALL WATER SYSTEM WORK SHALL BE PERFORMED BY CONTRACTORS POSSESSING VALID STATE OF HAWAII CONTRACTOR'S LICENSES, REGARDLESS OF THE VALUE OF THE WORK.
- THE EXACT DEPTH AND LOCATION OF EXISTING WATERLINES, SERVICE LATERALS AND OTHER UTILITIES ARE NOT KNOWN. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE SAME PRIOR TO TRENCHING FOR THE NEW WATERLINE. THE COST OF LOWERING, RELOCATING OR ADJUSTING EXISTING WATERLINES, SERVICE LATERALS AND OTHER UTILITIES SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE NEW WATERLINE, UNLESS NOTED OTHERWISE, AND WILL NOT BE PAID FOR SEPARATELY.
- CONCRETE FOR REACTION BLOCKS AND ANCHOR BLOCKS SHALL BE DWS CLASS 2500.
- THE MAXIMUM DISTANCE BETWEEN VALVE AND NUT AND TOP OF VALVE MANHOLE COVER SHALL BE THREE (3) FEET.
- THE CONTRACTOR SHALL SUBMIT A MATERIALS LIST TO DWS FOR APPROVAL PRIOR TO CONSTRUCTION.
- CONNECTION TO DWS SYSTEM:
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING ALL NECESSARY FITTINGS AND OTHER MATERIALS AND EQUIPMENT REQUIRED FOR THE HOOK-UP. HE SHALL VERIFY THE EXACT LOCATION, DEPTH, TYPE, AND CONDITION OF THE EXISTING LINE BEFORE ORDERING MATERIALS FOR THE HOOK-UP. HE SHALL, HOWEVER, CHECK WITH DWS BEFORE EXCAVATING FOR VERIFICATION PURPOSES.
 - WHENEVER FEASIBLE, MECHANICAL JOINT FITTINGS SHALL BE USED FOR BURIED APPLICATIONS, AND FLANGED JOINT FITTINGS SHALL BE USED FOR EXPOSED APPLICATIONS.
 - AUTHORIZED DWS PERSONNEL MAY BE REQUIRED TO MAKE THE FINAL CONNECTION TO THE EXISTING LINE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS INCURRED BY DWS FOR SAID WORK, INCLUDING THE COST OF PRESSURE TESTING AND DISINFECTION.
 - IF THE DWS PROVIDES ONLY INSPECTION AND SUPERVISING OPERATORS, AND DOES NOT PROVIDE PERSONNEL FOR THE ACTUAL CONNECTION, THE CONTRACTOR SHALL PROVIDE ALL PIPEFITTERS AND LABORS TO MAKE THE CONNECTION.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING ALL MATERIAL, EQUIPMENT AND LABOR FOR TRENCH EXCAVATION, BACKFILLING, CLEANING AND CHLORINATION, PAVING, AND OTHER WORK NECESSARY TO COMPLETE THE HOOK-UP, AS DIRECTED BY AND TO THE SATISFACTION OF DWS.
- MINIMUM COVER OVER WATER MAIN, 6" DIAMETER OR LARGER, SHALL BE 3'-0". MINIMUM COVER FOR 4" DIAMETER SHALL BE 2'-6". MINIMUM COVER FOR DIAMETERS LESS THAN 4" SHALL BE 1'-6".
- BOLTS FOR EXPOSED FLANGED DUCTILE IRON PIPE JOINTS SHALL BE EITHER SILICON BRONZE BOLTS AND NUTS OR 316 STAINLESS STEEL BOLTING WITH THE HEAVY DUTY STAINLESS STEEL NUTS (ONLY) FURNISHED WITH TRIPAC 2000 BLUE COATING SYSTEM. ANTI-SEIZE SHALL NOT BE USED. T-BOLTS FOR DUCTILE IRON MECHANICAL JOINT (MJ) PIPE AND FITTING CONNECTIONS IN UNDERGROUND SITUATIONS SHALL BE ONE OF THE FOLLOWING SYSTEMS:
 - 316 STAINLESS STEEL T-BOLTS WITH THE HEAVY DUTY STAINLESS STEEL NUTS (ONLY) FURNISHED WITH TRIPAC 2000 BLUE COATING SYSTEM. ANTI-SEIZE SHALL NOT BE USED.
 - COR-TEN T-BOLTS AND NUTS WITH HIGH GRADE ZINC SACRIFICIAL ANODES, EQUIVALENT TO "DURATRON" SACRIFICIAL "SAC-NUT" MODULES, INSTALLED ON THE NUTS FOR ALL STANDARD COR-TEN T-BOLTS.
 - COR-TEN T-BOLTS AND NUTS BOTH FACTORY COATED WITH TRIPAC 2000 BLUE COATING SYSTEM BY "TRIPAC FASTENERS".
- ALL BURIED METALS SHALL BE WRAPPED WITH POLY-WRAP. FOR ALL BURIED INSTALLATIONS OF DUCTILE IRON PIPE AND FITTINGS, POLY-WRAP IS REQUIRED EXCEPT WITHIN CONCRETE JACKETS.
- LUBRICATE HYDRANT NOZZLE THREADS WITH NON-TOXIC GREASE.
- THE CONTRACTOR SHALL PAINT AND NUMBER THE FIRE HYDRANT. NUMBERING TO BE FURNISHED BY DWS.
- WATER MAINS AND APPURTENANCES SHALL BE SUBJECT TO HYDROSTATIC TESTING IN ACCORDANCE WITH THE LATEST REVISION OF AWWA C600, UNDER THE "HYDROSTATIC TESTING" SECTION, TO A PRESSURE OF AT LEAST 1.5 TIMES THE WORKING PRESSURE. UNLESS OTHERWISE STATED IN THE CONSTRUCTION DOCUMENTS OR LIMITED BY THE PRESSURE RATING OF EQUIPMENT, THE PRESSURE TEST AND LEAKAGE TEST SHALL BE PERFORMED AT 225 POUNDS PER SQUARE INCH PRESSURE.
- THE DEVELOPER SHALL SUBMIT A COST LIST ALONG WITH AN AFFIDAVIT FOR THE WATER SYSTEM PRIOR TO ACCEPTANCE.
- THE CONTRACTOR SHALL SUBMIT TWO SETS OF RECORD DRAWINGS VIA A CONSULTANT PRIOR TO ACCEPTANCE OF THE WATER SYSTEM. AN ELECTRONIC IMAGE FILE IN TIF FORMAT SHALL BE PROVIDED TO THE DWS FOR ALL PROJECTS.

PLAN NOTES FOR CHLORINATION OF WATER SYSTEM PIPELINES:

- WATER MAINS AND APPURTENANCES SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA C651. ALL PROCEDURES AND MATERIALS (LIQUID CHLORINE OR CALCIUM HYPOCHLORITE) USED FOR THE CHLORINATION OF THE PROJECT SHALL CONFORM TO AWWA REQUIREMENTS.
- PRIOR TO CHLORINATION, THE PROJECT PIPELINES SHALL BE THOROUGHLY CLEANED. CLEANING OF LINES 8" AND LARGER SHALL BE BY PIGGING USING FOAM PIGS. SMALLER LINES CAN BE FLUSHED IN ACCORDANCE WITH AWWA REQUIREMENTS IF ADEQUATE WATER SUPPLY IS PROVIDED, OTHERWISE BY PIGGING. THE CONTRACTOR SHALL SUBMIT HIS PLAN FOR PIPELINE CLEANING, INCLUDING FITTING REQUIREMENTS FOR PIGGING, FOR APPROVAL PRIOR TO PROCEEDING.
- THE INTERIOR SURFACES OF THE PROJECT SHALL BE EXPOSED TO THE CHLORINATING SOLUTION FOR A MINIMUM OF 24 HOURS AND THE CHLORINE RESIDUAL SHALL NOT BE LESS THAN 10 PPM AFTER SUCH TIME.
- SHOULD CALCIUM HYPOCHLORITE BE USED, NO SOLID AND/OR UNDISSOLVED PORTION OF THE COMPOUND SHALL BE INTRODUCED INTO ANY SECTION OF THE PROJECT TO BE CHLORINATED.
- AT THE END OF THE 24-HOUR DISINFECTION PERIOD, REPRESENTATIVE SAMPLES SHALL BE TAKEN AND ANALYZED TO ASSURE A CHLORINE RESIDUAL OF AT LEAST 10 PPM. MEASUREMENTS FOR CHLORINE RESIDUAL TESTS SHALL BE BY A TRAINED, QUALIFIED TESTER APPROVED BY THE DIRECTOR.
- SHOULD THE RESULTS INDICATE ADEQUATE CHLORINATION, THE PROJECT SHALL BE THOROUGHLY FLUSHED AND FILLED WITH POTABLE WATER FROM THE EXISTING POTABLE WATER SYSTEM AND AGAIN TESTED FOR CHLORINE RESIDUAL. THE FLUSHING SHALL BE CONSIDERED ADEQUATE IF THE TEST RESULTS INDICATE THAT THE WATER IN THE PROJECT HAS A COMPARABLE CHLORINE RESIDUAL AS THE WATER IN THE EXISTING SYSTEM.
- FOLLOWING THE ACCEPTABLE FLUSHING OF THE HIGH CONCENTRATION CHLORINE SOLUTION, TWO CONSECUTIVE SETS OF ACCEPTABLE SAMPLES SHALL BE TAKEN AT LEAST 24 HOURS APART FROM REPRESENTATIVE POINTS IN THE PROJECT AND SUBJECTED TO MICROBIOLOGICAL TESTS PERFORMED BY A CERTIFIED LABORATORY APPROVED BY THE DEPARTMENT OF HEALTH. AT LEAST ONE SET OF SAMPLES SHALL BE COLLECTED AND TESTED FROM EVERY 1,200 FEET OF THE NEW WATER MAIN, PLUS ONE SET FROM THE END OF THE LINE AND AT LEAST ONE SET FROM EACH BRANCH. POSITIVE RESULTS WILL NOT BE ACCEPTABLE AND THE ENTIRE CHLORINATION PROCESS WILL BE REPEATED.
- ANALYSIS FOR RESIDUAL CHLORINE SHALL BE MADE IN ACCORDANCE WITH "STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER", AMERICAN PUBLIC HEALTH ASSOCIATION, CURRENT EDITION.
- MICROBIOLOGICAL TESTS SHALL BE MADE IN ACCORDANCE WITH "STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER", AMERICAN PUBLIC HEALTH ASSOCIATION, CURRENT EDITION.
- THE DEVELOPER/CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH ALL OF THE FOREGOING.

WASTEWATER NOTES:

- ALL WASTEWATER LINES AND APPURTENANCES SHALL CONFORM TO STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION, DATED SEPTEMBER 1984, OF THE DEPARTMENT OF PUBLIC WORKS, COUNTY OF MAUI.
- ALL SEWERLINE AND APPURTENANCES SHALL FOLLOW THE DESIGN STANDARDS OF THE WASTEWATER RECLAMATION DIVISION, CITY AND COUNTY OF HONOLULU, VOLUMES 1 AND 2, DATED JULY 1993 AND JULY 1984 RESPECTIVELY, UNLESS OTHERWISE NOTED.
- BEFORE CONSTRUCTION COMMENCES, THE CONTRACTOR SHALL SCHEDULE AND DOCUMENT A PRE-CONSTRUCTION MEETING WITH ALL AGENCIES HAVING UTILITIES AFFECTED BY THE WORK.
- THE DEPARTMENT OF PUBLIC WORKS, WASTEWATER RECLAMATION DIVISION, HAS THE RIGHT TO STOP CONSTRUCTION, SHOULD ANY WORK BE FOUND CONTRARY TO THE APPROVED PLANS AND SPECIFICATIONS, OR DETRIMENTAL TO THE PUBLIC INTEREST.
- ALL EXISTING WASTEWATER LINES, WHETHER OR NOT SHOWN ON THE PLANS, IF DAMAGED DURING CONSTRUCTION, SHALL BE REPAIRED BY THE CONTRACTOR AND THE CONTRACTOR SHALL PAY ALL EXPENSES.
- THE CONTRACTOR SHALL NOTIFY THE WASTEWATER RECLAMATION DIVISION ONE (1) WEEK PRIOR TO CONNECTION TO ANY EXISTING WASTEWATER LINES.
- SHOULD THE CONTRACTOR EXCAVATE BEYOND THE TRENCH PAY-WIDTH, AS SPECIFIED IN THE STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION, DATED SEPTEMBER 1984, AND SUCH ACTION RESULTS IN A GREATER LOAD TO THE PIPE, THE CONTRACTOR SHALL PROVIDE, AT THE CONTRACTOR'S EXPENSE, A HIGHER CLASS OF BEDDING MATERIAL THAT WILL WITHSTAND THE ADDED LOAD.
- WASTEWATER LATERALS SHALL BE SIX (6) INCHES IN DIAMETER AT A MINIMUM OF 1% SLOPE, UNLESS APPROVED OTHERWISE.
- AN ADVANCE RISER CONNECTION SHALL BE INSTALLED AT EACH NEW WASTEWATER LATERAL.
- WHERE THE CLEARANCE BETWEEN A WASTEWATER LINE AND A NEW OR EXISTING UTILITY LINE IS EIGHTEEN (18) INCHES OR LESS, THE WASTEWATER LINE SHALL BE CONCRETE JACKED IN ACCORDANCE WITH THE STANDARD DETAILS OF PUBLIC WORKS CONSTRUCTION, DATED SEPTEMBER 1984.
- WHEN THE WASTEWATER MAINS ARE OF A DIFFERENT MATERIAL THAN THE LATERALS, THE CONTRACTOR SHALL INSTALL APPROVED ADAPTERS.
- ALL BACKFILL FOR WASTEWATER TRENCHES SHALL BE COMPACTED IN ONE (1) FOOT LIFTS TO A MINIMUM OF 95% OF ITS MAXIMUM DENSITY.
- WHERE CONSTRUCTION IS TO BE DONE IN PHASES OR INCREMENTS, EACH PHASE OR INCREMENT SHALL BE APPROVED BY WASTEWATER RECLAMATION DIVISION BEFORE THE NEXT PHASE OR INCREMENT IS STARTED.
- ALL WASTEWATER MAINS SHALL PASS A MANHOLE TEST AS A CONDITION OF ACCEPTANCE 30 DAYS AFTER COMPLETION AND BACKFILL. THE MANHOLE DIAMETER SHALL BE 95% OR MORE OF THE INSIDE DIAMETER OF THE PIPE BEING TESTED. A CERTIFICATION LETTER FROM THE CONTRACTOR, SIGNED BY THE LUCA INSPECTOR, WILL BE FORWARDED TO THE WASTEWATER RECLAMATION DIVISION.
- PRIOR TO FINAL ACCEPTANCE, ALL WASTEWATER LINES INSTALLED SHALL BE FLUSHED WITH WATER AND ANY ACCUMULATED CONSTRUCTION DEBRIS AND OTHER FOREIGN MATERIALS SHALL BE REMOVED.
- "AS-BUILT" DRAWINGS SHALL BE SUBMITTED AS A CONDITION FOR THE FINAL ACCEPTANCE OF THE PROJECT. IF MAIN TRANSMISSION LINES WILL BE DEDICATED TO THE COUNTY, THE CONTRACTOR SHALL SUBMIT AN AUTOCAD RELEASE 14 DRAWING FILE TO THE WASTEWATER RECLAMATION DIVISION.
- ALL MAIN WASTEWATER LINES WHICH WILL BE DEDICATED TO THE COUNTY OF MAUI SHALL BE INSPECTED BY CLOSED CIRCUIT TELEVISION (CCTV) IN STRICT ACCORDANCE WITH DEPARTMENT OF PUBLIC WORKS CCTV POLICY, EFFECTIVE DATE NOVEMBER 1, 1996. FINAL ACCEPTANCE OF THE SYSTEM SHALL BE CONTINGENT UPON THE PASSING OF ALL REQUIREMENTS OF THIS POLICY.
- ANY CONNECTION MADE UNDER THE WATER TABLE WILL REQUIRE CCTV AT HIGH TIDE TO DETERMINE WATER TIGHTNESS, IN ACCORDANCE WITH DEPARTMENT OF PUBLIC WORKS CCTV POLICY, EFFECTIVE DATE NOVEMBER 15, 1996. FINAL ACCEPTANCE OF THE SYSTEM SHALL BE CONTINGENT UPON THE PASSING OF ALL REQUIREMENTS OF THIS POLICY.
- CONTRACTOR MUST HAVE A SITE SPECIFIC SPILL PREVENTION PLAN (SSSPP) APPROVED BY WWRD PRIOR TO SEWERLINE CONSTRUCTION AND CONNECTION TO EXISTING FACILITIES.

EROSION CONTROL:

THE FOLLOWING MEASURES SHALL BE TAKEN TO CONTROL EROSION DURING THE SITE DEVELOPMENT PERIOD:

- MINIMIZE TIME OF CONSTRUCTION.
- RETAIN EXISTING GROUND COVER UNTIL LATEST DATE TO COMPLETE CONSTRUCTION.
- EARLY CONSTRUCTION OF DRAINAGE CONTROL FEATURES.
- USE TEMPORARY AREA SPRINKLERS IN NON-ACTIVE CONSTRUCTION AREAS WHEN GROUND COVER IS REMOVED.
- STATION WATER TRUCK ON SITE DURING CONSTRUCTION PERIOD TO PROVIDE FOR IMMEDIATE SPRINKLING, AS NEEDED, IN ACTIVE CONSTRUCTION ZONES (WEEKENDS AND HOLIDAYS INCLUDED).
- USE TEMPORARY BERMS AND CUT-OFF DITCHES, WHERE NEEDED, FOR CONTROL OF EROSION.
- GRADED AREAS SHALL BE THOROUGHLY WATERED AFTER CONSTRUCTION ACTIVITY HAS CEASED FOR THE DAY AND ON WEEKENDS.
- ALL CUT AND FILL SLOPES SHALL BE SODDED OR PLANTED IMMEDIATELY AFTER GRADING WORK HAS BEEN COMPLETED.

EARTHWORK:

DISTANCE FROM TOP OF CUT OR BOTTOM OF FILL TO PROPERTY LINE:

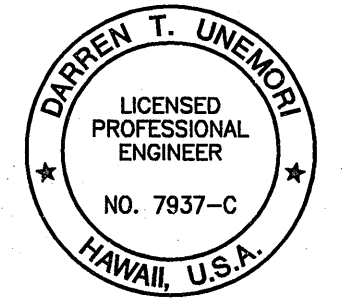
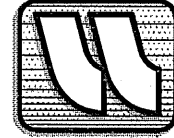
HEIGHT OF CUT OR FILL DISTANCE FROM PROPERTY LINE

0' TO 2':	1'
MORE THAN 2' TO 4':	2'
MORE THAN 4' TO 6':	3'
MORE THAN 6' TO 10':	4'
MORE THAN 10' TO 15':	5'
MORE THAN 15':	8'

NOTE:

SHOULD HISTORIC SITES SUCH AS WALLS, PLATFORMS, PAVEMENTS AND MOUNDS, OR REMAINS SUCH AS ARTIFACTS, BURIALS, CONCENTRATION OF CHARCOAL OR SHELLS ARE ENCOUNTERED DURING CONSTRUCTION WORK, WORK SHALL CEASE IN THE IMMEDIATE VICINITY OF THE FIND AND THE FIND SHALL BE PROTECTED FROM FURTHER DAMAGE. THE CONTRACTOR SHALL IMMEDIATELY CONTACT THE STATE HISTORIC PRESERVATION DIVISION (243-5169), WHICH WILL ASSESS THE SIGNIFICANCE OF THE FIND AND RECOMMEND AN APPROPRIATE MITIGATION MEASURE, IF NECESSARY.

LETTER	DESCRIPTION	DATE

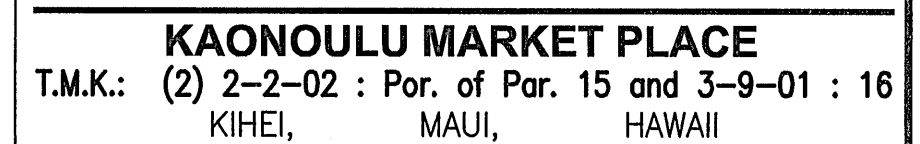
				WARREN S. UNEMORI ENGINEERING, INC. CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS WELLS STREET PROFESSIONAL CENTER, SUITE 403 2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793	
KAONOLU MARKET PLACE					
T.M.K.: (2) 2-2-02 : Por. of Par. 15 and 3-9-01 : 16 KIHEI, MAUI, HAWAII					
TITLE CONSTRUCTION NOTES					
DESIGNED BY		CHECKED BY		04010.10	
WIS		DTU		JOB NUMBER	
DRAWN BY		APPROVED BY		10-10-05	
SCALE		AS NOTED		DATE	
15.01				SHEET	
OF				SHEETS	

1. THE CONTRACTOR SHALL OBTAIN A CONSTRUCTION PERMIT FROM THE STATE'S HIGHWAY DISTRICT ENGINEER AT MAUI DISTRICT OFFICE PRIOR TO COMMENCEMENT OF WORK WITHIN STATE HIGHWAY RIGHT-OF-WAY.
2. CONSTRUCTION AND RESTORATION OF ALL EXISTING HIGHWAY FACILITIES WITHIN STATE RIGHT-OF-WAY SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE SECTIONS OF THE CURRENT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AND THE SPECIFICATION FOR INSTALLATION OF MISCELLANEOUS IMPROVEMENTS WITHIN STATE HIGHWAYS, OF THE STATE HIGHWAYS DIVISION.
3. ALL LANES SHALL BE OPENED TO TRAFFIC AT ALL TIMES. LANE CLOSURE OF HONOAPILANI HIGHWAY WILL NOT BE PERMITTED.
4. THE CONTRACTOR SHALL PROVIDE, INSTALL, AND MAINTAIN ALL NECESSARY SIGNS, LIGHTS, FLARES, BARRICADES, MARKERS, CONES, AND OTHER PROTECTIVE FACILITIES AND SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE PROTECTION AND FOR THE CONVENIENCE AND SAFETY OF PUBLIC TRAFFIC. ALL SUCH PROTECTIVE FACILITIES AND PRECAUTIONS TO BE TAKEN SHALL CONFORM WITH THE "ADMINISTRATIVE RULES OF HAWAII GOVERNING THE USE OF TRAFFIC CONTROL DEVICES AT WORK SITES ON OR ADJACENT TO PUBLIC STREETS AND HIGHWAYS" ADOPTED BY THE DIRECTOR OF TRANSPORTATION, AND THE CURRENT U. S. FEDERAL HIGHWAY ADMINISTRATION "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, PART VI - TRAFFIC CONTROL FOR HIGHWAY CONSTRUCTION AND MAINTENANCE OPERATIONS". IF LANE CLOSURES ARE REQUIRED DURING CONSTRUCTION, A TRAFFIC CONTROL PLAN SHALL BE INCORPORATED INTO THE CONSTRUCTION PLANS AND MUST BE APPROVED BY THE DIVISION PRIOR TO THE ISSUANCE OF THE PERMIT.
5. THE MINIMUM PAVEMENT STRUCTURE SHALL CONSIST OF:
 - A. RESIDENTIAL DRIVEWAYS
 - (1) 2" ASPHALT CONCRETE AND 6" AGGREGATE BASE COURSE, OR 2" ASPHALT CONCRETE AND 2-1/2" ASPHALT CONCRETE BASE COURSE OR ASPHALT CONCRETE.
 - (2) 4" OF CLASS "A" CONCRETE REINFORCED WITH 6"X 6" - 6/6 WIRE MESH ON 12" AGGREGATE SUBBASE IF DEEMED NECESSARY BY ENGINEER.
 - B. COMMERCIAL DRIVEWAYS, SIDE ROADS AND UTILITY INSTALLATIONS ON MINOR HIGHWAYS
 - (1) 2-1/2" ASPHALT CONCRETE, 8" AGGREGATE BASE COURSE AND 12" AGGREGATE SUBBASE, OR 2-1/2" ASPHALT CONCRETE AND 8" ASPHALT CONCRETE BASE COURSE OR ASPHALT CONCRETE.
 - (2) 6" OF CLASS "A" CONCRETE REINFORCED WITH 6"X 6" - 6/6 WIRE MESH ON 12" AGGREGATE SUBBASE IF DEEMED NECESSARY BY ENGINEER.
 - C. CHANNELIZED INTERSECTIONS AND UTILITY INSTALLATIONS ON MAJOR HIGHWAYS
 - 4" ASPHALT CONCRETE, 8" AGGREGATE BASE COURSE AND 12" AGGREGATE SUBBASE, OR 4" ASPHALT CONCRETE AND 8" ASPHALT CONCRETE BASE COURSE OR ASPHALT CONCRETE, OR MATCH EXISTING PAVEMENT STRUCTURE, WHICHEVER IS GREATER.
6. NO MATERIAL AND/OR EQUIPMENT SHALL BE STOCKPILED OR OTHERWISE STORED WITHIN HIGHWAY RIGHTS-OF-WAY EXCEPT AT LOCATIONS DESIGNATED IN WRITING AND APPROVED BY THE DISTRICT ENGINEER.
7. COMPACTION TESTS SHALL BE TAKEN IN ACCORDANCE WITH THE SPECIFICATIONS FOR INSTALLATION OF MISCELLANEOUS IMPROVEMENTS WITHIN STATE HIGHWAYS, AS FOLLOWS:
 - A. SUBBASE: ONE (1) COMPACTION TEST(S)
 - B. BASE COURSE: ONE (1) COMPACTION TEST(S)
 - C. ONE (1) COMPACTION TEST(S) FOR EACH 200 LINEAL FEET OF TRENCH OR FRACTION THEREOF.

SUBMIT COMPACTION TEST RESULTS TO DISTRICT ENGINEER FOR REVIEW.
8. PRIOR TO COMMENCING TRENCH EXCAVATION WORK, THE CONTRACTOR SHALL TAKE A PROFILE ALONG THE NEW CENTERLINE OF UTILITY TRENCH AND THAT SUCH INFORMATION SHALL BE USED IN THE VERIFICATION OF RESTORING THE ROADWAY TO ITS ORIGINAL CONDITION. A COPY OF THE PROFILE SHALL BE SUBMITTED TO THE DISTRICT ENGINEER.
9. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ADEQUATE, SAFE, NON-SKID BRIDGING MATERIAL OVER THE TRENCH, INCLUDING SHORING, WHEN TRENCHING IN PAVEMENT AREAS TO HANDLE ALL TYPES OF VEHICULAR TRAFFIC.
10. NO TRENCH SHALL BE OPENED MORE THAN 150 FEET IN ADVANCE OF THE INSTALLED AND TESTED PIPE AND/OR DUCTLINE.
11. LONGITUDINAL DRAINAGE ALONG THE HIGHWAY SHALL BE MAINTAINED.
12. PAVEMENT STRIPING SHALL BE DONE BY CONTRACTOR.
13. APPROVAL OF PERMIT CONSTRUCTION PLANS SHALL BE VALID FOR A PERIOD OF ONE YEAR THEREOF FROM THE DATE OF NOTIFICATION OF APPROVAL TO THE APPLICANT. IN THE EVENT CONSTRUCTION DOES NOT COMMENCE WITHIN THIS ONE-YEAR PERIOD, THE APPLICANT WILL BE REQUIRED TO RESUBMIT HIS CONSTRUCTION PLANS FOR DIVISION'S REVIEW AND APPROVAL.
14. ALL REGULATORY, GUIDE AND CONSTRUCTION SIGNS AND BARRICADES SHALL BE OF HIGH INTENSITY REFLECTIVE SHEETING.
15. OPERATION OF STEEL TRACK EQUIPMENT WILL NOT BE ALLOWED ON STATE HIGHWAY UNLESS AUTHORIZED BY DEPARTMENT OF TRANSPORTATION, HIGHWAYS DIVISION.



LETTER	DESCRIPTION	DATE



WSU DESIGNED BY	WSU CHECKED BY	04010.10 JOB NUMBER	15.02
WIS DRAWN BY	WSU APPROVED BY		
SCALE AS NOTED		10-10-05 DATE	SHEET

15.02

SHEET

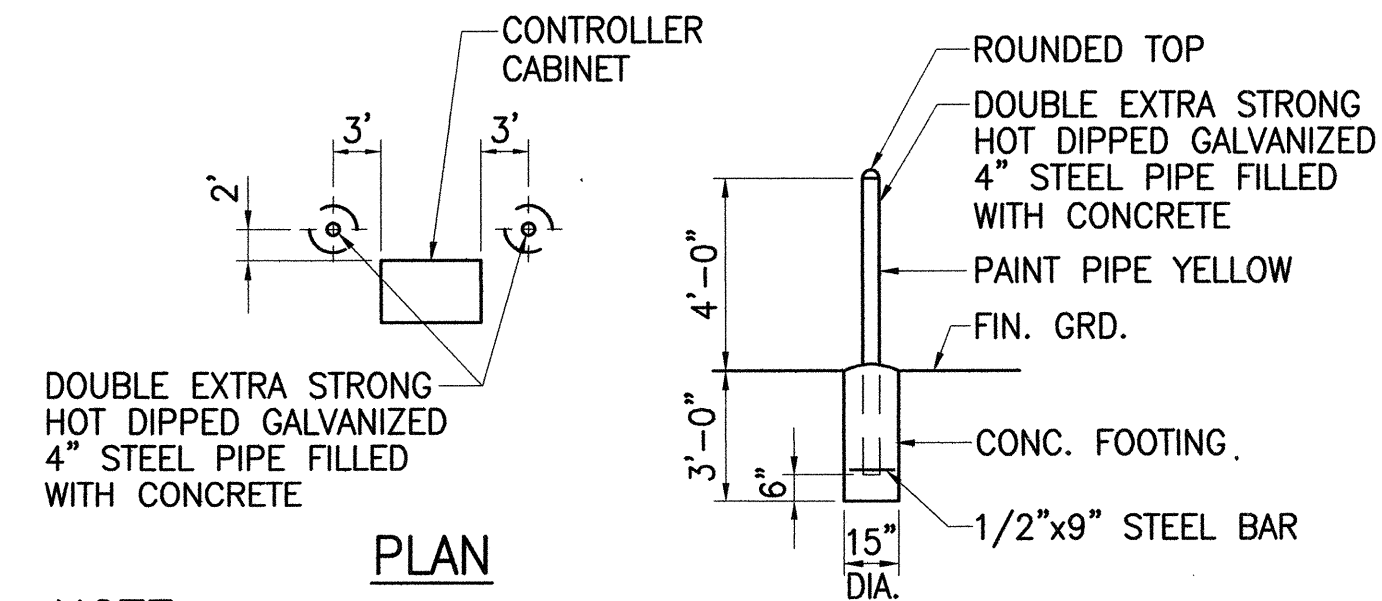
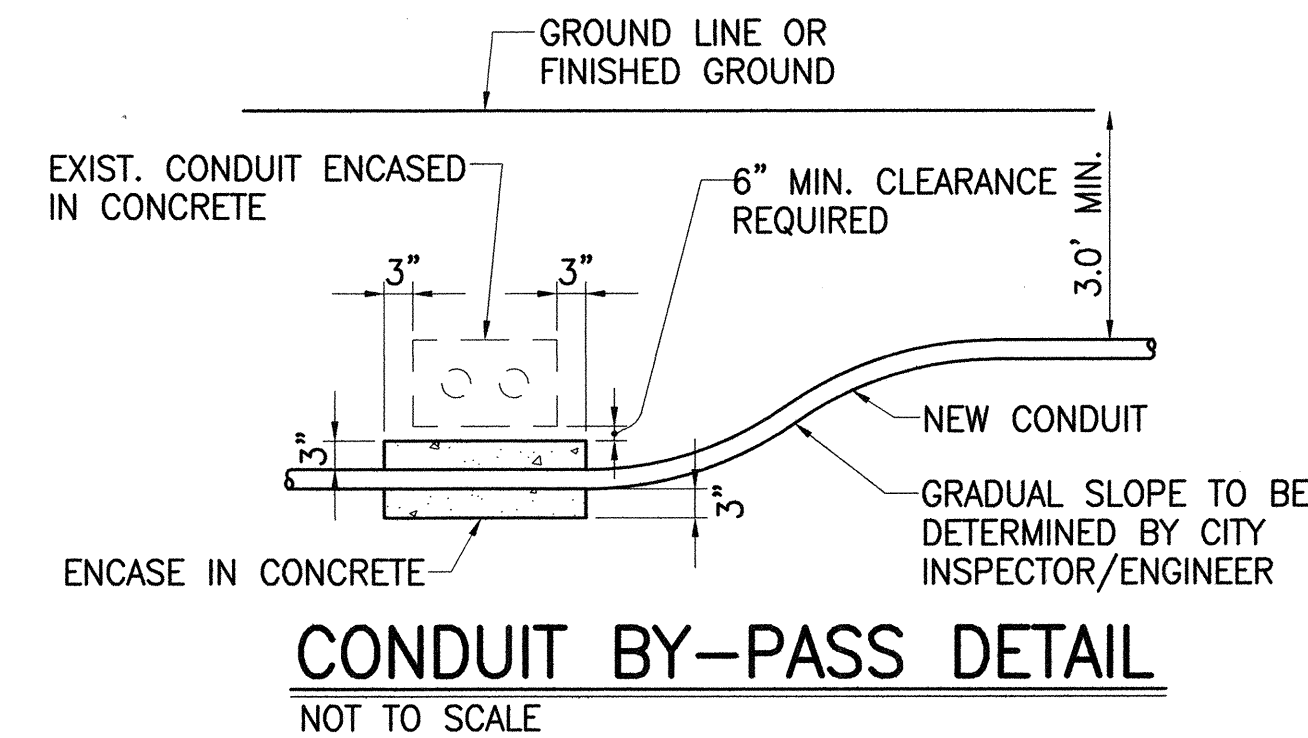
OF SHEETS

TRAFFIC SIGNAL NOTES

- 1. ALL TRAFFIC SIGNAL CONTROLLER EQUIPMENT SHALL BE COMPLETELY WIRED IN THE CABINET AND SHALL CONTROL THE TRAFFIC SIGNALS AS CALLED FOR IN THE PLANS.
- 2. SIGNAL INDICATIONS DURING CLEARANCE INTERVAL:
 - A. IF A SIGNAL IS G OR ~~G~~ AND WILL REMAIN G OR ~~G~~ DURING THE NEXT PHASE, IT SHALL BE G OR ~~G~~ DURING THE CLEARANCE INTERVAL.
 - B. IF A SIGNAL IS G OR ~~G~~ AND WILL BECOME R OR EXTINGUISHED DURING THE NEXT PHASE, IT SHALL BE Y OR ~~Y~~ DURING THE CLEARANCE INTERVAL.
 - C. IF A SIGNAL IS R AND WILL REMAIN R OR BECOMES G DURING THE NEXT PHASE, IT SHALL REMAIN R DURING THE CLEARANCE INTERVAL.
- 3. THE LOOP AMPLIFIER UNITS FURNISHED FOR THIS PROJECT SHALL BE CAPABLE OF OPERATING THE LOOP DETECTOR CONFIGURATIONS SHOWN ON THE PLANS. COST FOR THE LOOP AMPLIFIER SHALL BE INCIDENTAL TO THE INSTALLATION OF THE LOOP DETECTOR.
- 4. A SOLID #8 BARE COPPER WIRE SHALL BE PULLED WITH THE TRAFFIC CONTROL CABLE FOR EQUIPMENT GROUND. COST SHALL BE INCIDENTAL TO THE INSTALLATION OF THE CONTROL CABLE.
- 5. CONDUITS AND PULLBOX LOCATIONS AS SHOWN ON THE PLANS ARE SCHEMATIC. THEY MAY BE MODIFIED BY THE CONTRACTOR WITH THE APPROVAL OF THE ENGINEER.
- 6. THE CONTRACTOR SHALL INSTALL THE CONTROLLER AND CABINET IN THE INDICATED LOCATION.
- 7. ALL WORK FOR THE INSTALLATION OR MODIFICATION OF THE TRAFFIC SIGNAL SYSTEM SHALL CONFORM TO THE LATEST REVISIONS OF THE "HAWAII STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 1994" AND THE "STANDARD PLANS" OF THE DEPARTMENT OF TRANSPORTATION, HIGHWAYS DIVISION AND AS SHOWN ON THESE DRAWINGS.
- 8. ALL SPLICING SHALL BE DONE IN THE PULLBOXES.
- 9. FURNISHING AND INSTALLING THE CONDUIT STUBOUTS (PULLBOXES TO EDGE OF PAVEMENT) WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO THE VARIOUS CONTRACT ITEMS.
- 10. THE CONCRETE JACKET FOR THE CONDUIT BY-PASS DETAIL SHOWN ON THIS SHEET SHALL NOT BE PAID FOR SEPARATELY BUT CONSIDERED INCIDENTAL TO THE VARIOUS CONTRACT ITEMS. THE ENGINEER SHALL DETERMINE IF A CONCRETE JACKET IS REQUIRED.
- 11. ALL CABLE AND ELEMENTS FOR GROUNDING SHALL BE NEW.
- 12. CABLES BETWEEN SIGNAL FACES, PEDESTRIAN HEADS, PEDESTRIAN PUSH BUTTONS, AND EVP DETECTORS AND THE NEAREST PULLBOX ARE NOT CALLED OUT ON THE PLAN, BUT SHALL BE FURNISHED AND INSTALLED IN SUFFICIENT NUMBERS AND LENGTHS AS REQUIRED. COST SHALL BE INCIDENTAL TO VARIOUS TRAFFIC SIGNAL CONTRACT ITEMS.
- 13. CONDUITS BETWEEN THE TRAFFIC SIGNAL STANDARD AND THE PULLBOX SHALL BE IN SUFFICIENT NUMBER AS REQUIRED. COST SHALL BE INCIDENTAL TO THE INSTALLATION OF THE TRAFFIC SIGNAL STANDARD FOUNDATION.
- 14. UNLESS OTHERWISE SPECIFIED, ALL CONDUITS SHALL BE PVC SCHEDULE 80.
- 15. THE CONTRACTOR SHALL NOTIFY THE MAUI DISTRICT OFFICE, HIGHWAY DIVISION, STATE OF HAWAII DEPARTMENT OF TRANSPORTATION, THREE (3) WORKING DAYS PRIOR TO COMMENCING WORK ON THE TRAFFIC SIGNAL SYSTEM (PHONE: 873-3535).
- 16. THE TRAFFIC SIGNAL STANDARDS SHALL BE DESIGNED & CONSTRUCTED IN CONFORMANCE WITH THE CURRENT EDITION OF "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINARIES, AND TRAFFIC SIGNALS" OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIAL'S (AASHTO).
- 17. ALL TRAFFIC SIGNAL CONDUITS SHALL BE CONCRETE ENCASED.

CONSTRUCTION NOTES

- 1. LOCATIONS OF EXISTING UNDERGROUND STRUCTURES AND UTILITIES SUCH AS PIPE-LINES, CONDUITS, CABLES, ETC., SHOWN ON PLANS ARE APPROXIMATE ONLY. IT IS NOT THE INTENT OF THESE PLANS TO SHOW THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES WITH THE RESPECTIVE OWNERS. EXISTING UTILITIES DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN COST.
- 2. THE CONTRACTOR SHALL VERIFY AND CHECK ALL DIMENSIONS AND DETAILS SHOWN ON THE DRAWINGS PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCY SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION.
- 3. THE CONTRACTOR SHALL NOTIFY ALL COMPANIES TO VERIFY, TONE AND LOCATE THEIR EXISTING UTILITIES WITHIN THE PROJECT AREA PRIOR TO EXCAVATING. THE CONTRACTOR SHALL COORDINATE ALL WORK.
- 4. THE LOCATIONS OF THE NEW TRAFFIC SIGNAL STANDARDS, TRAFFIC SIGNAL STANDARDS WITH MAST-ARM, PEDESTRIAN PUSH BUTTONS, TRAFFIC CONTROLLER, PULLBOXES, CONDUITS AND LOOP DETECTORS SHALL BE STAKED OUT IN THE FIELD BY THE CONTRACTOR AND APPROVAL OF THE LOCATIONS SHALL BE OBTAINED FROM THE ENGINEER PRIOR TO CONSTRUCTION AND INSTALLATION.
- 5. ALL TRAFFIC SIGNAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES," FEDERAL HIGHWAY ADMINISTRATION (2003) AND AMENDMENTS.
- 6. MAINTENANCE OF TRAFFIC THROUGH THE CONSTRUCTION AREA SHALL BE IN ACCORDANCE WITH PART VI OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES," FEDERAL HIGHWAY ADMINISTRATION (2003) AS AMENDED AND AS SPECIFIED IN THE SPECIAL PROVISIONS. THE CONTRACTOR SHALL FURNISH AND MAINTAIN ADEQUATE BARRICADES, BLINKERS, CONSTRUCTION SIGNS, ETC., FOR THE SAFETY OF THE MOTORING PUBLIC.
- 7. AT THE END OF EACH DAY'S WORK, THE CONTRACTOR SHALL REMOVE ALL EQUIPMENT AND OTHER OBSTRUCTIONS TO PERMIT FREE AND SAFE PASSAGE OF PUBLIC TRAFFIC.
- 8. THE CONTRACTOR SHALL PROVIDE A 3-FOOT MINIMUM VERTICAL CLEARANCE BETWEEN TRAFFIC SIGNAL CONDUIT AND ALL EXISTING UTILITY LINES.



NOTE:
COST OF CONC. FILLED GALVANIZED POSTS SHALL BE INCIDENTAL TO OTHER ITEMS OF WORK.

PIPE GUARD DETAIL

NOT TO SCALE

LEGEND

- | NEW | EXISTING |
|-----|--|
| | PEDESTRIAN SIGNAL HEAD |
| | 12" R Y G STANDARD TRAFFIC SIGNAL HEAD |
| | 12" R Y ↑ STANDARD TRAFFIC SIGNAL HEAD |
| | 12" R Y G STANDARD TRAFFIC SIGNAL HEAD |
| | EVP DETECTOR |
| | LOOP DETECTOR |
| | MODEL 170 CONTROLLER ON BASE |
| | TYPE "A" PULLBOX |
| | TYPE "B" PULLBOX |
| | TYPE "C" PULLBOX |
| | STANDARD TRAFFIC AND PEDESTRIAN SIGNAL HEADS MOUNTED ON TYPE I SIGNAL STANDARD |
| | TRAFFIC SIGNAL HEADS MOUNTED ON TYPE III SIGNAL STANDARD 50' M.A. : 12' BETWEEN HEADS WITH A 12' ARM FOR THE LUMINAIRE |
| | NEW CONDUIT(S) WITH SIZE & NUMBER AND TYPE OF NEW CABLES AS INDICATED. |
| | MECO METER PEDESTAL |
| | SPREAD SPECTRUM RADIO RECEIVER (SSR) AND DECODER FOR WIRELESS INTERCONNECT |

LETTER	DESCRIPTION	DATE

SIGNATURE: *Keith K. Niika* DATE: *4/30/10*

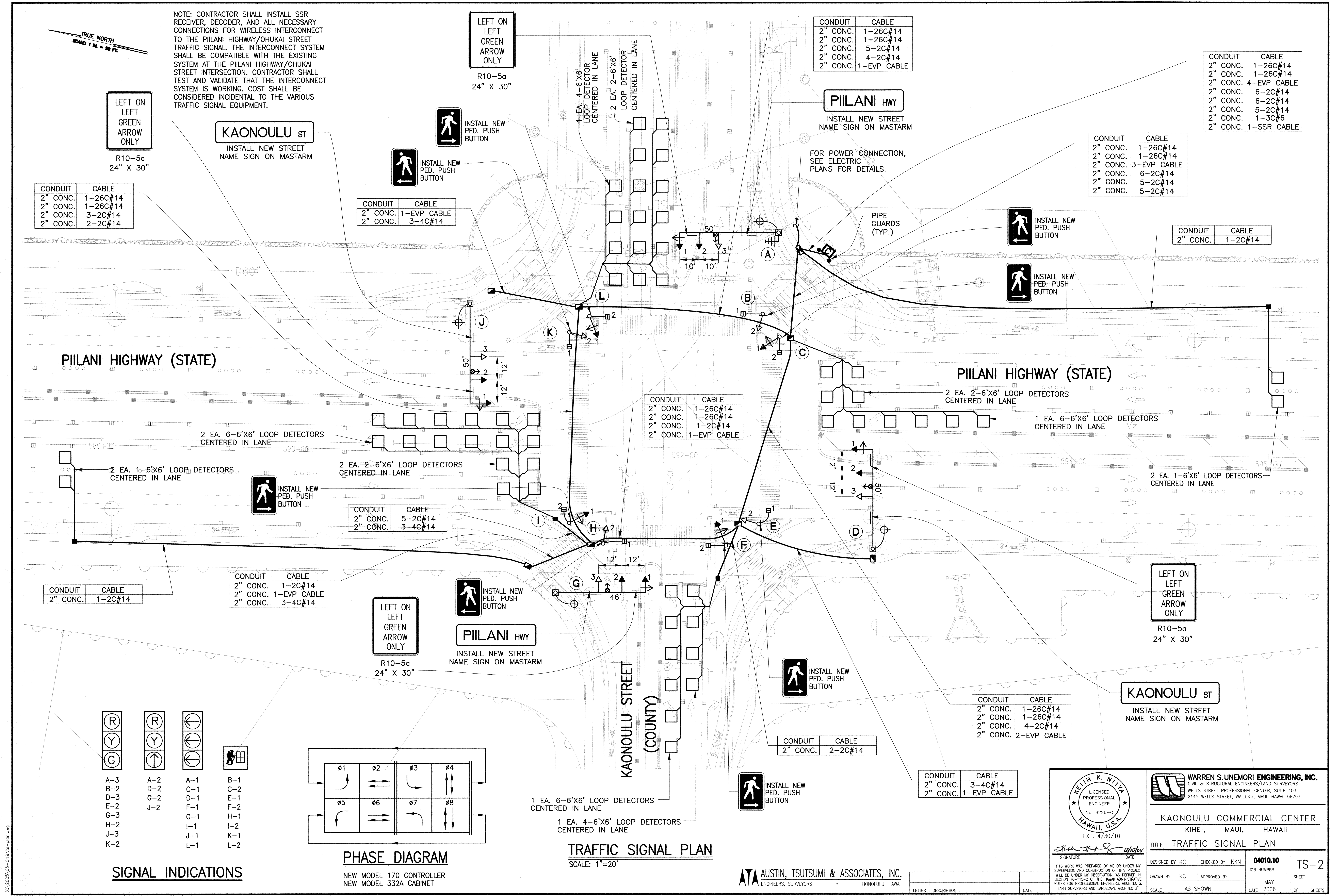
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION "AS DEFINED IN SECTION 16-115-2 OF THE HAWAII ADMINISTRATIVE RULES FOR PROFESSIONAL ENGINEERS, ARCHITECTS, LAND SURVEYORS AND LANDSCAPE ARCHITECTS"

WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

KAONOULU COMMERCIAL CENTER
KIHIEI, MAUI, HAWAII

TITLE: **TRAFFIC SIGNAL NOTES AND LEGEND**

DESIGNED BY: K.C.	CHECKED BY: K.K.N.	JOB NUMBER: 04010.10	SHEET: TS-1
DRAWN BY: K.C.	APPROVED BY:	MAY 2006	
SCALE: AS SHOWN		DATE: MAY 2006	OF SHEETS



NOTE: CONTRACTOR SHALL INSTALL SSR RECEIVER, DECODER, AND ALL NECESSARY CONNECTIONS FOR WIRELESS INTERCONNECT TO THE PIILANI HIGHWAY/OHUKAI STREET TRAFFIC SIGNAL. THE INTERCONNECT SYSTEM SHALL BE COMPATIBLE WITH THE EXISTING SYSTEM AT THE PIILANI HIGHWAY/OHUKAI STREET INTERSECTION. CONTRACTOR SHALL TEST AND VALIDATE THAT THE INTERCONNECT SYSTEM IS WORKING. COST SHALL BE CONSIDERED INCIDENTAL TO THE VARIOUS TRAFFIC SIGNAL EQUIPMENT.

LEFT ON LEFT GREEN ARROW ONLY
R10-5a
24" X 30"

KAONOULU ST
INSTALL NEW STREET NAME SIGN ON MASTARM

LEFT ON LEFT GREEN ARROW ONLY
R10-5a
24" X 30"

INSTALL NEW PED. PUSH BUTTON

CONDUIT 2" CONC. 2" CONC.
CABLE 1-EVP CABLE 3-4C#14

PIILANI HWY
INSTALL NEW STREET NAME SIGN ON MASTARM

FOR POWER CONNECTION, SEE ELECTRIC PLANS FOR DETAILS.

CONDUIT 2" CONC. 2" CONC. 2" CONC. 2" CONC.
CABLE 1-26C#14 1-26C#14 3-EVP CABLE 6-2C#14 5-2C#14 5-2C#14

CONDUIT 2" CONC. 2" CONC. 2" CONC. 2" CONC. 2" CONC. 2" CONC.
CABLE 1-26C#14 1-26C#14 4-EVP CABLE 6-2C#14 6-2C#14 5-2C#14 1-3C#6 1-SSR CABLE

CONDUIT 2" CONC.
CABLE 1-2C#14

INSTALL NEW PED. PUSH BUTTON

INSTALL NEW PED. PUSH BUTTON

PIILANI HIGHWAY (STATE)
2 EA. 2-6'X6' LOOP DETECTORS CENTERED IN LANE

1 EA. 6-6'X6' LOOP DETECTORS CENTERED IN LANE

2 EA. 1-6'X6' LOOP DETECTORS CENTERED IN LANE

2 EA. 6-6'X6' LOOP DETECTORS CENTERED IN LANE

2 EA. 2-6'X6' LOOP DETECTORS CENTERED IN LANE

CONDUIT 2" CONC. 2" CONC.
CABLE 5-2C#14 3-4C#14

CONDUIT 2" CONC. 2" CONC. 2" CONC. 2" CONC.
CABLE 1-26C#14 1-26C#14 1-2C#14 1-EVP CABLE

CONDUIT 2" CONC.
CABLE 1-2C#14

CONDUIT 2" CONC. 2" CONC. 2" CONC.
CABLE 1-2C#14 1-EVP CABLE 3-4C#14

LEFT ON LEFT GREEN ARROW ONLY
R10-5a
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LEFT ON LEFT GREEN ARROW ONLY
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KAONOULU ST
INSTALL NEW STREET NAME SIGN ON MASTARM

CONDUIT 2" CONC. 2" CONC. 2" CONC.
CABLE 1-26C#14 1-26C#14 4-2C#14 2-EVP CABLE

CONDUIT 2" CONC.
CABLE 2-2C#14

CONDUIT 2" CONC. 2" CONC.
CABLE 3-4C#14 1-EVP CABLE

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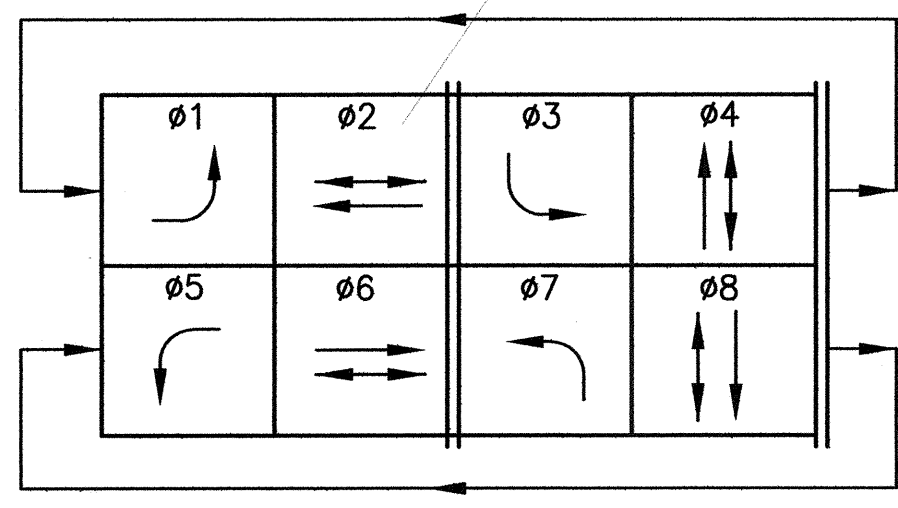
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PHASE DIAGRAM
NEW MODEL 170 CONTROLLER
NEW MODEL 332A CABINET

1 EA. 6-6'X6' LOOP DETECTORS CENTERED IN LANE
1 EA. 4-6'X6' LOOP DETECTORS CENTERED IN LANE

TRAFFIC SIGNAL PLAN
SCALE: 1"=20'

ATA AUSTIN, TSUTSUMI & ASSOCIATES, INC.
ENGINEERS, SURVEYORS
HONOLULU, HAWAII

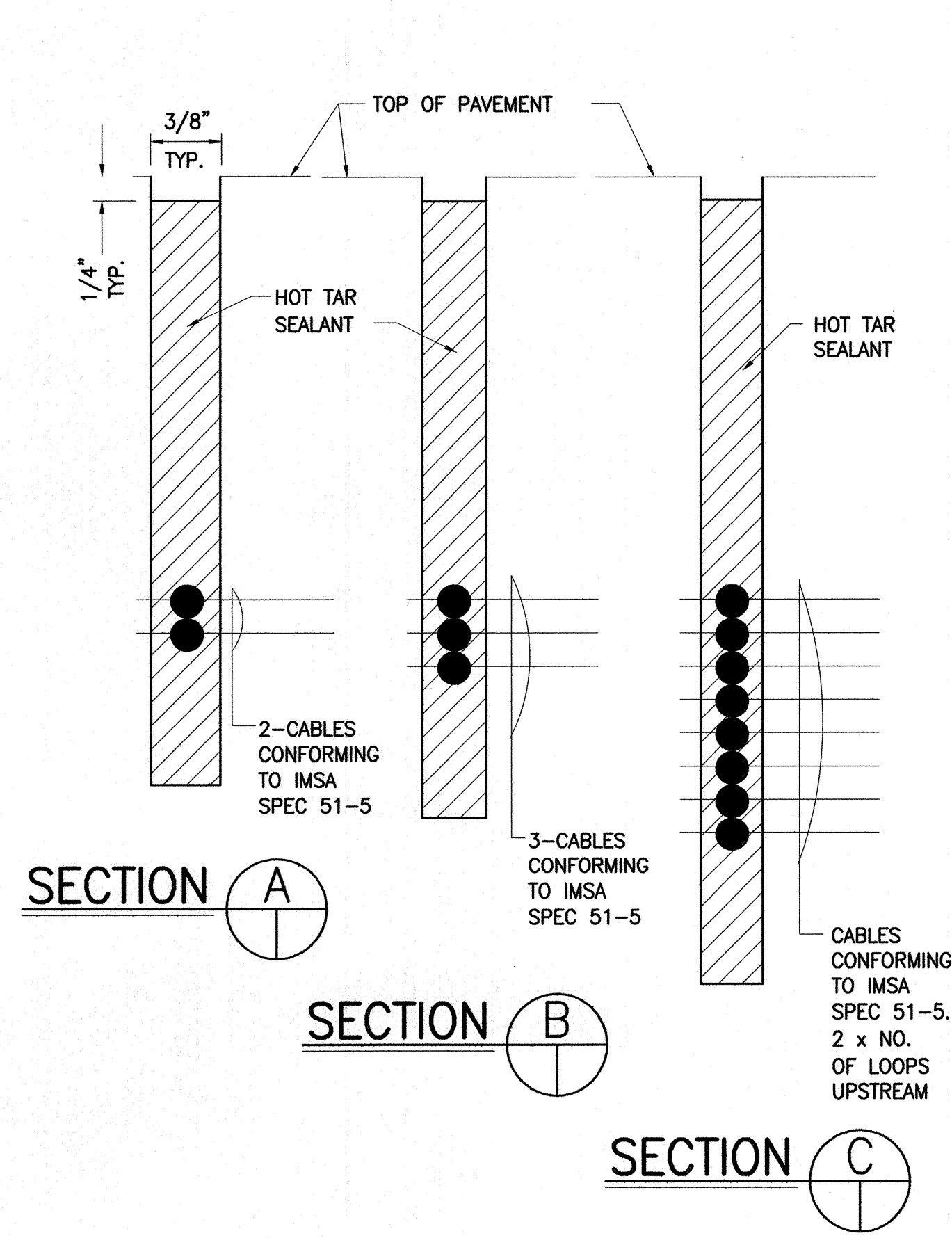
KEITH K. NIJIA
LICENSED PROFESSIONAL ENGINEER
No. 8226-C
HAWAII, U.S.A.
EXP. 4/30/10

WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

KAONOULU COMMERCIAL CENTER
KIHIE, MAUI, HAWAII

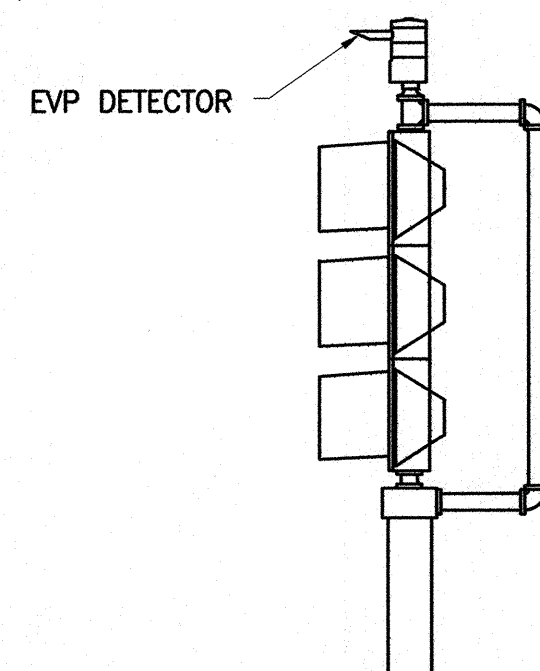
TITLE TRAFFIC SIGNAL PLAN

DESIGNED BY KC	CHECKED BY KKN	JOB NUMBER 04010.10	TS-2
DRAWN BY KC	APPROVED BY	MAY 2006	SHEET
SCALE AS SHOWN	DATE	DATE	OF SHEETS

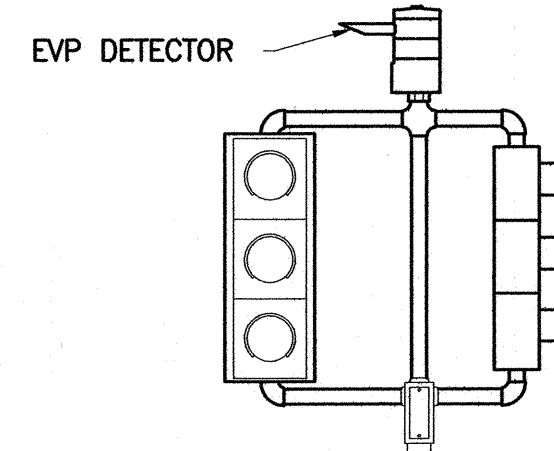


NOTES:

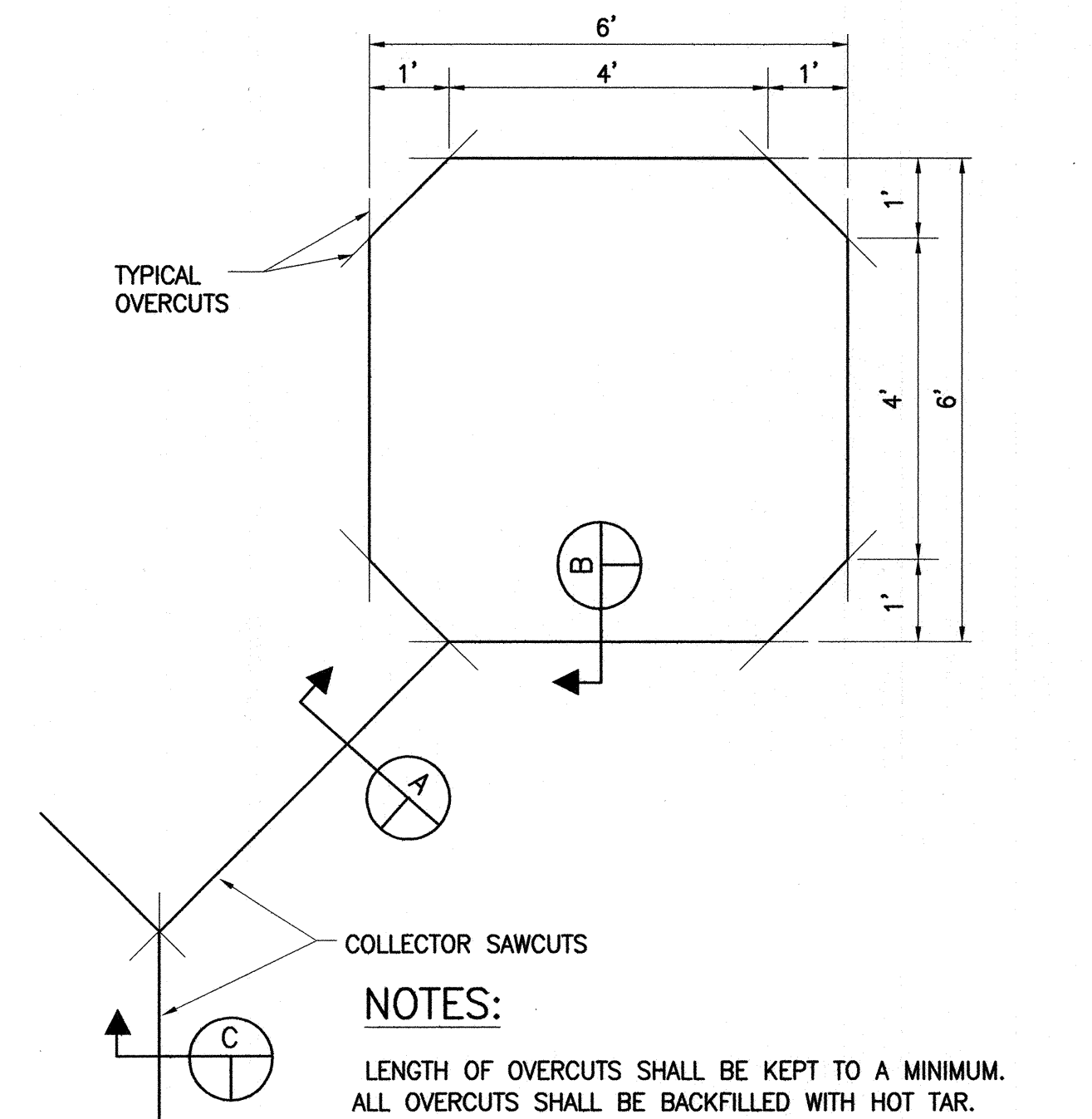
1. OPTICAL DETECTOR SHALL BE "MODEL 711 PREEMPTION DETECTOR" OR APPROVED EQUAL, UNLESS NOTED OTHERWISE IN THE SPECIAL PROVISIONS.
2. SUPPORT SADDLE ASSEMBLY SHALL BE "ASTRO MINI-BRAC, AB-0132-29", OR APPROVED EQUAL, UNLESS NOTED OTHERWISE IN THE SPECIAL PROVISIONS.



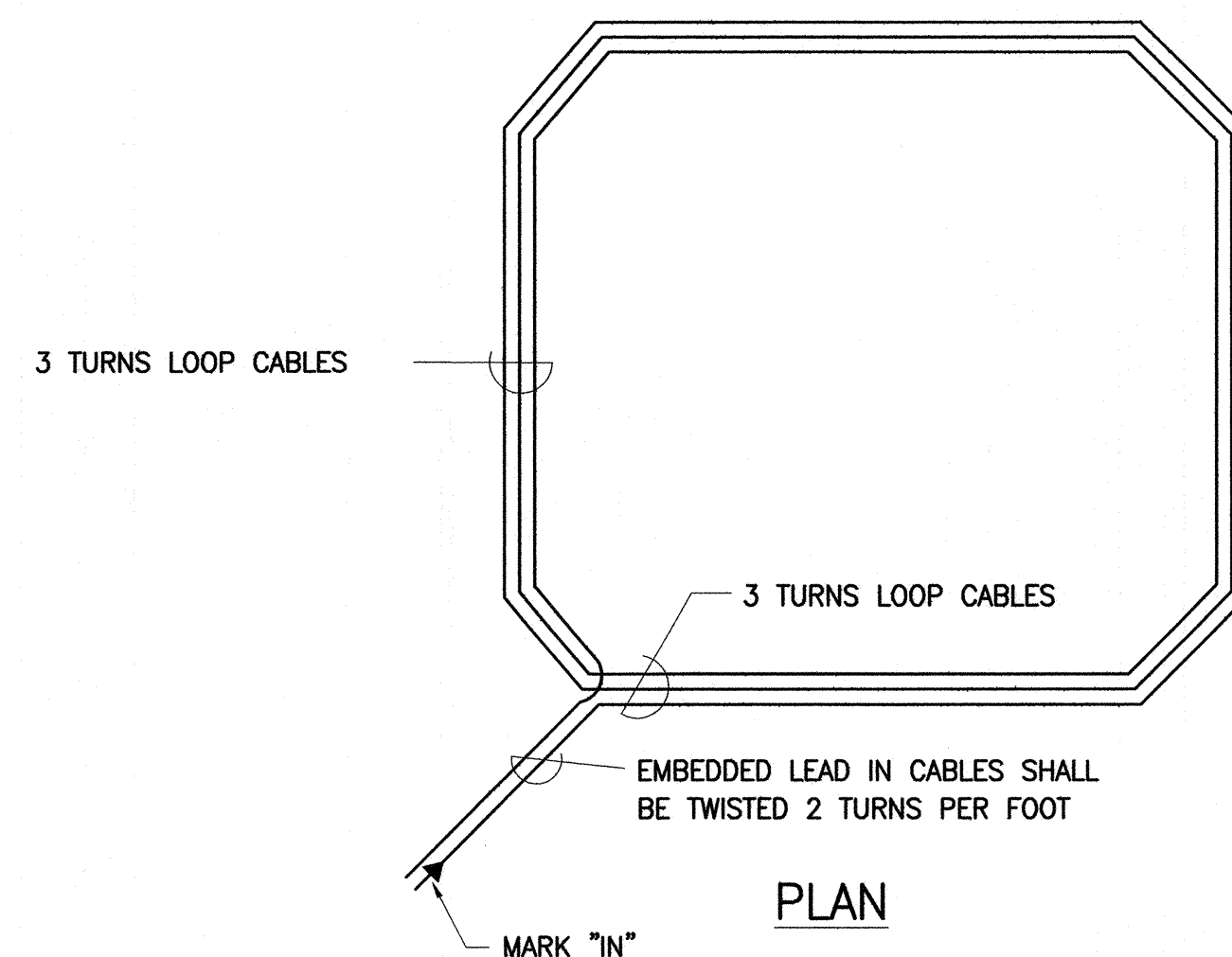
**POST TOP
TP-EVP MOUNTING**
NOT TO SCALE



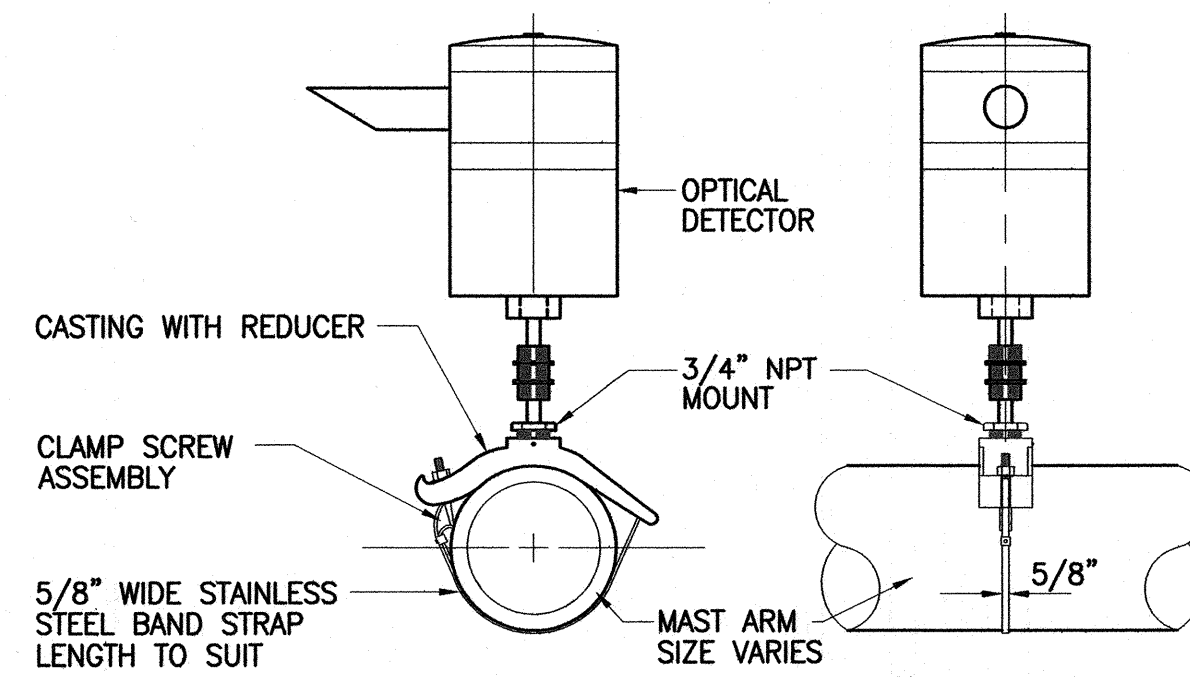
**POST TOP
TP-EVP MOUNTING**
NOT TO SCALE



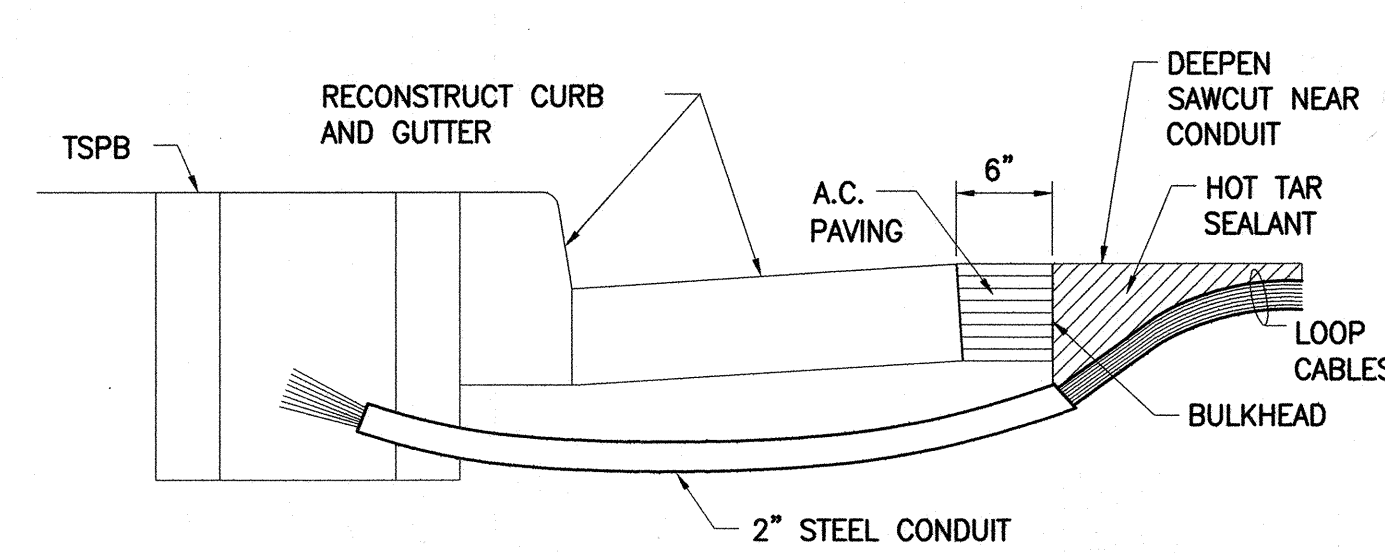
TYPICAL SENSOR LOOP SAWCUT DETAIL
NOT TO SCALE



TYPICAL SENSOR LOOP WIRING DIAGRAM
NOT TO SCALE



**OPTICAL DETECTOR FOR
MAST ARM MOUNTING**
NOT TO SCALE

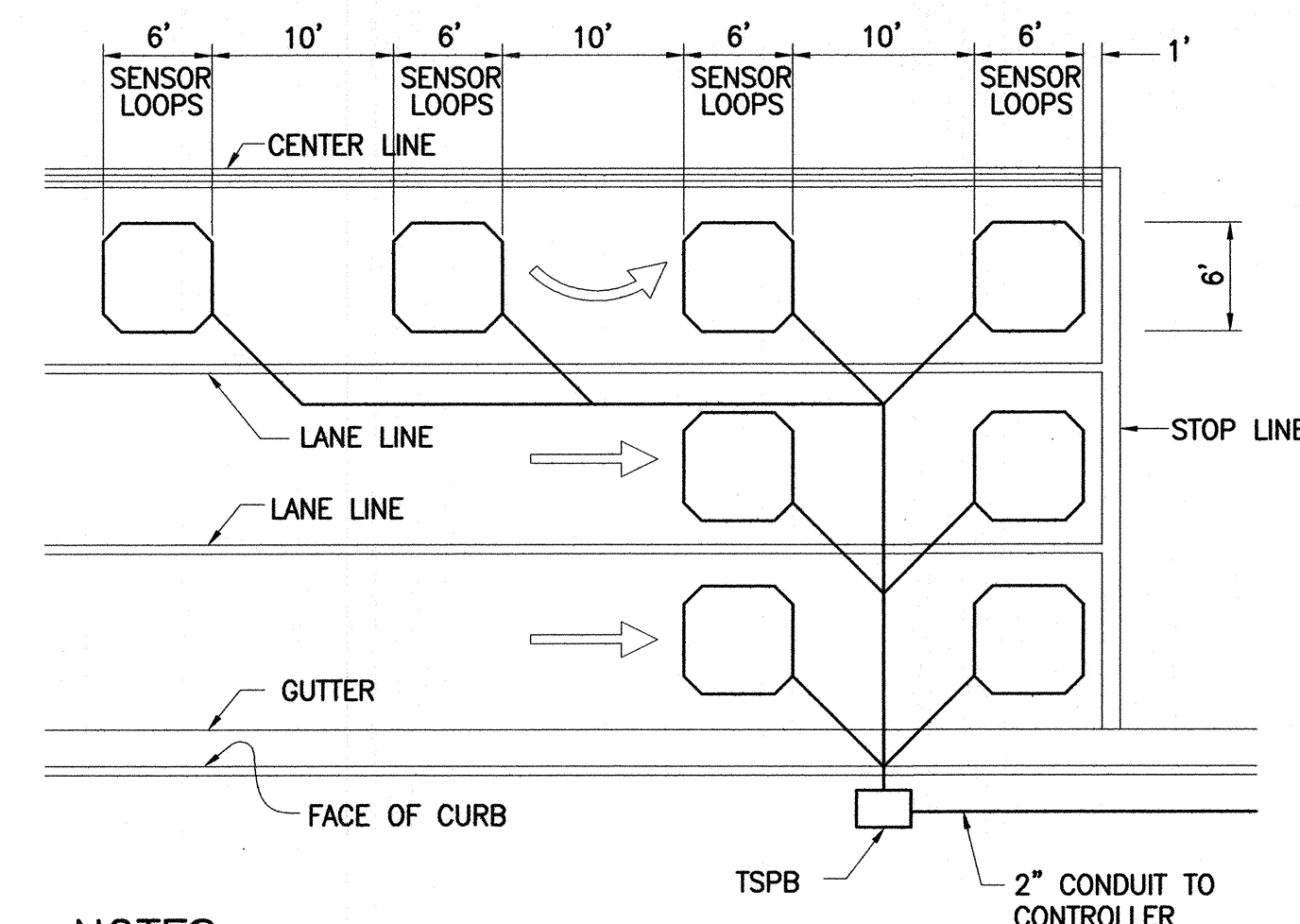


NOTES ON CONSTRUCTION AT END OF SAWCUT

1. SEAL ROADWAY END OF CONDUIT AFTER INSTALLATION OF CONDUCTORS
2. INSTALL BULKHEAD ACROSS CONDUIT TRENCH.
3. PLACE HOT TAR IN SAWCUT.
4. BACKFILL OVER CONDUIT WITH NEW A.C.
5. RECONSTRUCT CURB AND GUTTER AS REQUIRED.

**DETAIL OF SENSOR LOOP INSTALLATION
AT EDGE OF ROADWAY**

NOT TO SCALE



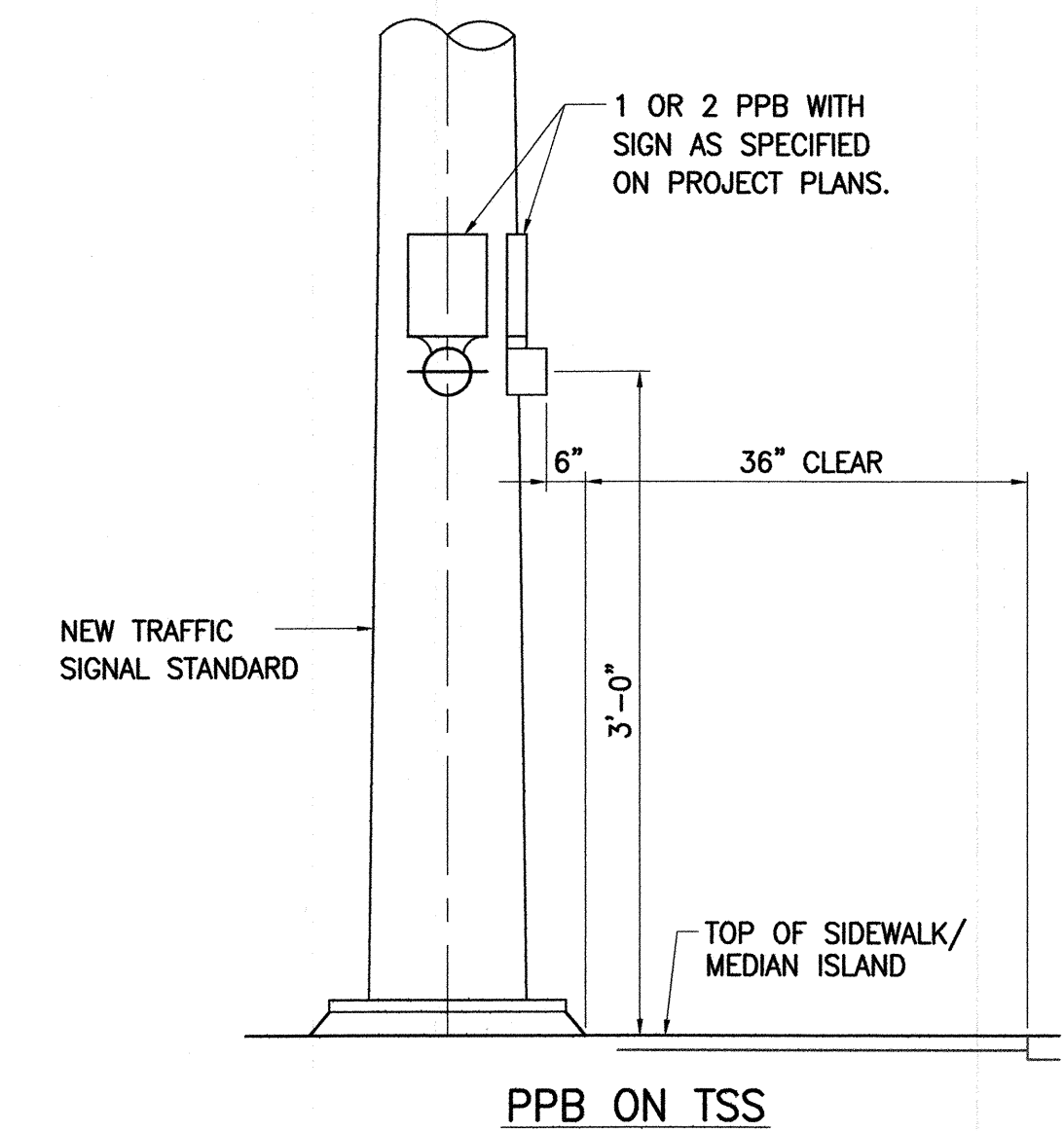
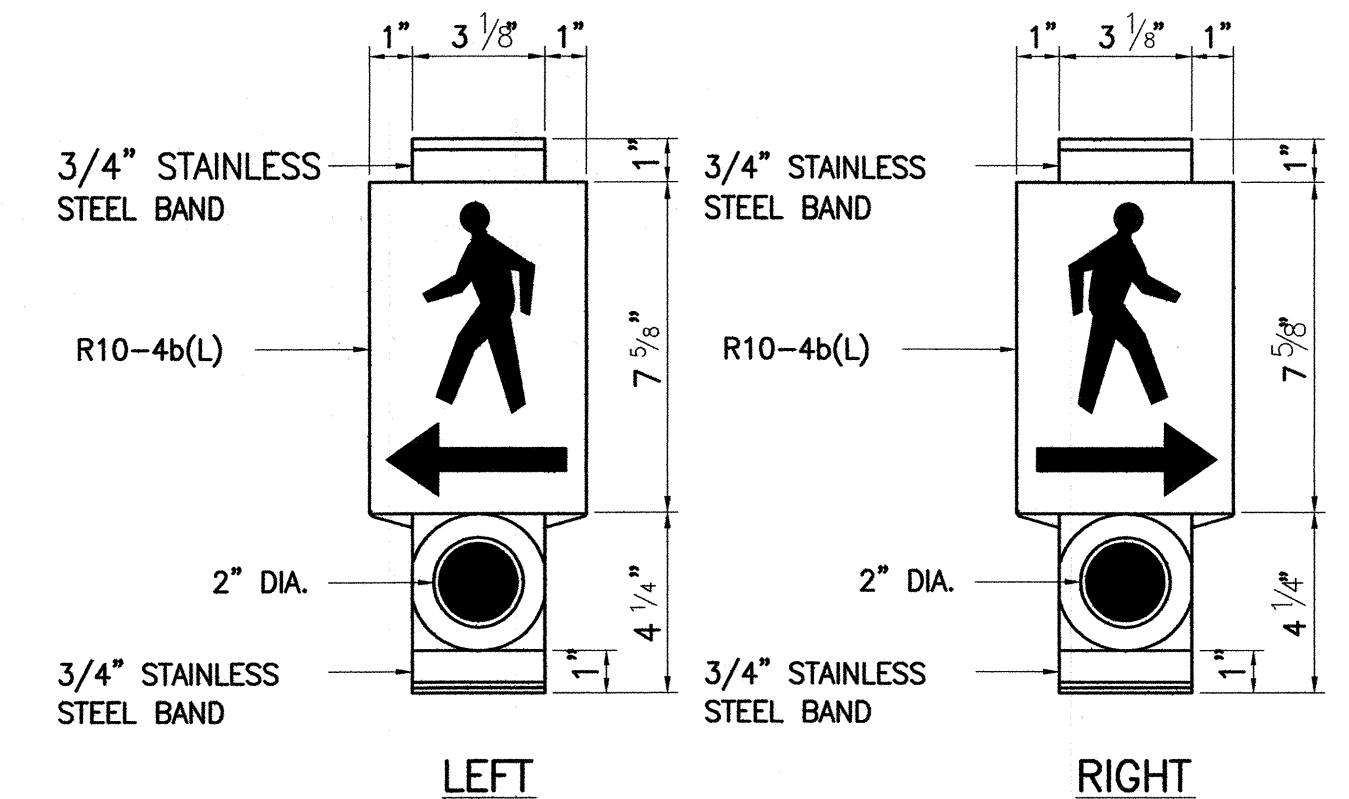
NOTES:

1. CENTER SENSOR LOOPS IN LANES.
2. COLLECTOR CABLES SHALL BE TWISTED 2 TURNS PER FOOT.
3. NUMBER OF LOOPS AND LOCATIONS VARY. SEE PROJECT PLANS.
4. NUMBER AND LOCATIONS OF COLLECTOR SAWCUTS MAY BE VARIED IN THE FIELD TO SUIT.

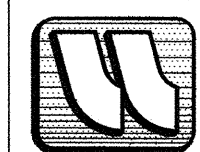
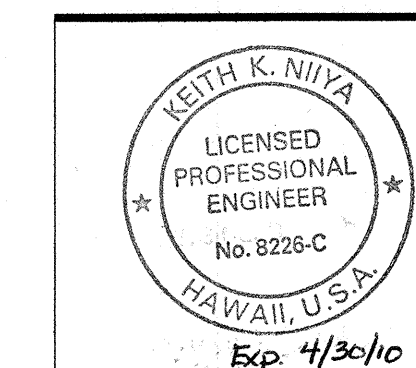
TYPICAL SENSOR LOOP LAYOUT

NOT TO SCALE

THE COLOR SCHEME SHALL BE:
WHITE - MAN, ARROW AND PUSH BUTTON
BLACK - BACKGROUND
NOTE: ON PLAN SHEET, USE APPLICABLE DETAIL



PEDESTRIAN PUSH BUTTON DETAILS
NOT TO SCALE



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KAONOULU COMMERCIAL CENTER
KIHAI, MAUI, HAWAII

TITLE: **TRAFFIC SIGNAL DETAILS - 1**

DESIGNED BY: KJ	CHECKED BY: KKN	DATE: 12/15/06	JOB NUMBER: 04010.10	SHEET: TS-3
DRAWN BY: KJ	APPROVED BY:	DATE: MAY 2006	SCALE: AS SHOWN	OF SHEETS:

ATA AUSTIN, TSUTSUMI & ASSOCIATES, INC.
ENGINEERS, SURVEYORS HONOLULU, HAWAII

LETTER	DESCRIPTION	DATE

CONTROLLED LOW STRENGTH MATERIAL (CLSM)
APPROXIMATELY 50-150 PSI COMPRESSIVE
STRENGTH AT 28 DAYS. CLSM SHALL
COMPLY WITH SECTIONS 313 AND 601 OF
THE SPECIAL PROVISIONS.

NOTE: BASE COURSE & SUB-BASE COURSE PER
1994 STATE STANDARD SPECIFICATIONS
FOR HIGHWAY CONSTRUCTION.

1. IF TRENCH IS LOCATED ON UNPAVED AREA, THE CONTRACTOR SHALL REPLACE 10 A.C. BASE COURSE AND 4" A.C. PAVEMENT WITH TYPE "A" TRENCH BACKFILL MATERIAL. (TRENCH BACKFILL MATERIAL "A" CONSIST OF BEACH SAND, EARTH, OR EARTH AND GRAVEL. IF EARTH AND GRAVEL IS USED, THE MAXIMUM SHALL CONTAIN NOT MORE THAN 50% BY VOLUME OF ROCK PARTICLE. MAXIMUM 8" LOOSE FILL PER LIFT OBTAIN 95% COMPACTION FOR EACH LIFT. ROCK SHALL NOT EXCEED 1" Ø.)
2. THE METAL DETECTABLE RED PLASTIC WARNING TAPE SHALL BE A MINIMUM 5 MILS THICK AND 4" WIDE WITH A CONTINUOUS METALLIC BACKING AND CORROSION RESISTANT 1' MIL THICK FOIL CORE. THE MESSAGE ON THE TAPE SHALL READ, "CAUTION – STATE TRAFFIC SIGNAL AND/OR HWY LIGHTING BURIED BELOW," UTILIZING 1½ INCHES SERIES "C" BLACK LETTERING. THE MESSAGE WILL BE REPEATED WITH A 4¼" SPACING BETWEEN TOP LINE OF MESSAGE AND START OF NEXT REPEAT.
3. THE CONTRACTOR MAY BEGIN BACKFILLING THE CONDUIT TRENCH BEFORE THE CONCRETE REACHES 2500 PSI COMPRESSIVE STRENGTH BUT AFTER CONCRETE HAS HARDENED SUFFICIENTLY ENOUGH THAT BACKFILLING WILL NOT DAMAGE THE CONCRETE JACKET.
4. MAXIMUM FOUR (4) CONDUITS PER ROW FOR MULTIPLE CONDUIT DUCT SECTION. DUCTS SHALL BE INSTALLED WITH SPACERS AND ANCHORED TO THE GROUND BEFORE POURING CONCRETE. SPACERS SHALL BE A MAXIMUM OF 5' APART. JOINTS SHALL BE STAGGERED.
5. FOR DIRECT BURIED DUCT SECTIONS, THE CONCRETE JACKET REQUIRED AT THE CONDUIT BY-PASS FOR VARIOUS UTILITIES, SHALL BE AT THE CONTRACTOR'S EXPENSE.
6. AFTER INSTALLING ALL THE TRAFFIC SIGNAL CABLES, THE CONTRACTOR SHALL DUCT SEAL ALL CONDUITS IN THE PULLBOXES, TRAFFIC SIGNAL STANDARDS AND TRAFFIC SIGNAL CONTROLLER CABINET CONCRETE BASE. THE DUCT SEAL MATERIAL SHALL BE APPROVED BY THE TRAFFIC SIGNAL INSPECTOR/ENGINEER.



SAWCUT PRIOR TO TRENCHING

SAWCUT THROUGH AND REMOVE ALL EXISTING MATERIAL BOUND BY ASPHALT OR PORTLAND CEMENT

24" TRENCH WIDTH 24"

A.C. MIX IV PAV'T.

42" MIN.

4" 8" 4" 8" 12"

VARIES CLSM

AC BASE COURSE

PRIME COAT

3"

12" 12"

METAL DETECTABLE RED PLASTIC WARNING TAPE, SEE NOTE NO. 2.


CONCRETE ENCASEMENT

PVC CONDUITS SCH. 40 (TYP.) (See DUCT SECT.)

PRIOR TO INSTALLING CONDUITS, LEVEL & COMPACT BOTTOM OF TRENCH TO 95% COMPACTION

3" 3" 3"

* PAVEMENT STRUCTURE SHALL CONSISTS OF THE FOLLOWING:
 4" AC MIX (IV)
 8" ACB
 OR
 4" AC MIX (IV)
 8" AGG BASE
 12" AGG SUBBASE



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KAONOULU COMMERCIAL CENTER

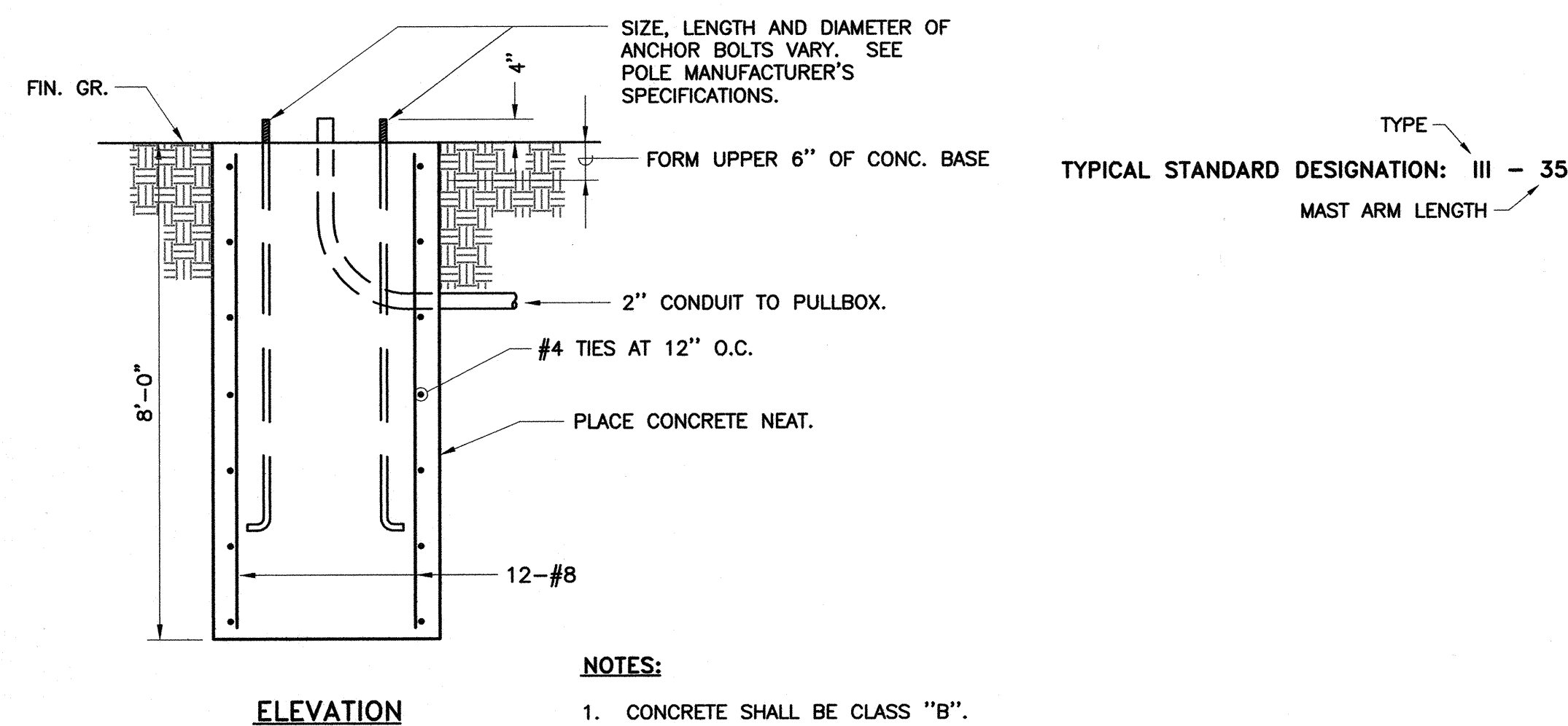
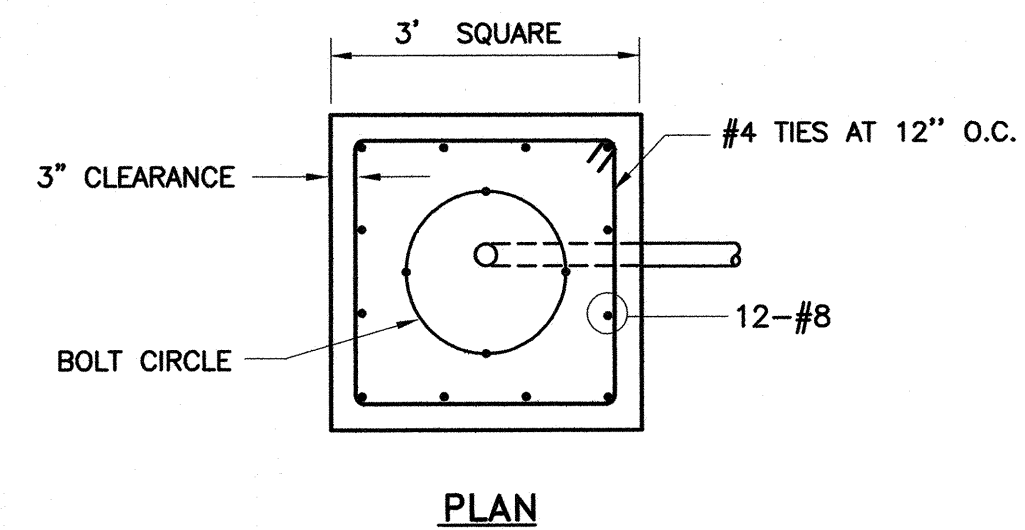
KIHEI, MAUI, HAWAII

Exp 4/30/10
 Signature [Signature]
 DATE

TITLE **TRAFFIC SIGNAL DETAILS - 2**

DESIGNED BY KC	CHECKED BY KKN	04010.10
DRAWN BY KC	APPROVED BY	JOB NUMBER
SCALE	AS SHOWN	MAY DATE 2006
		<div style="font-size: 2em; font-weight: bold; float: right; margin-right: 10px;">TS-4</div> SHEET OF SHEETS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY SUPERVISION AS DEFINED IN SECTION 106-115-2 OF THE HAWAII ADMINISTRATIVE RULES FOR PROFESSIONAL ENGINEERS, ARCHITECTS, LAND SURVEYORS AND LANDSCAPE ARCHITECTS



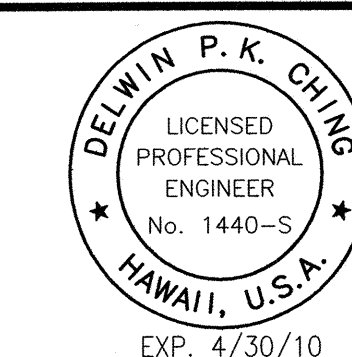
- NOTES:**
1. CONCRETE SHALL BE CLASS "B".
 2. TYPE "C" CONCRETE BASE SHALL BE USED FOR TYPES II AND III TRAFFIC SIGNAL STANDARDS.
 3. DESIGN LATERAL PRESSURE: 1,500 PSF.
 4. CONDUIT BEND IS INCIDENTAL TO CONCRETE BASE.

TYPE "C" CONCRETE BASE
NOT TO SCALE

04010.10/4w2004/complans/

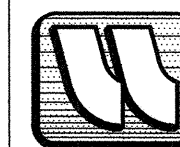
ATA AUSTIN, TSUTSUMI & ASSOCIATES, INC.
ENGINEERS, SURVEYORS HONOLULU, HAWAII

LETTER	DESCRIPTION	DATE



EXP. 4/30/10
Delwin P. K. Ching

SIGNATURE DATE
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION "AS DEFINED IN SECTION 16-115-2 OF THE HAWAII ADMINISTRATIVE RULES FOR PROFESSIONAL ENGINEERS, ARCHITECTS, LAND SURVEYORS AND LANDSCAPE ARCHITECTS"

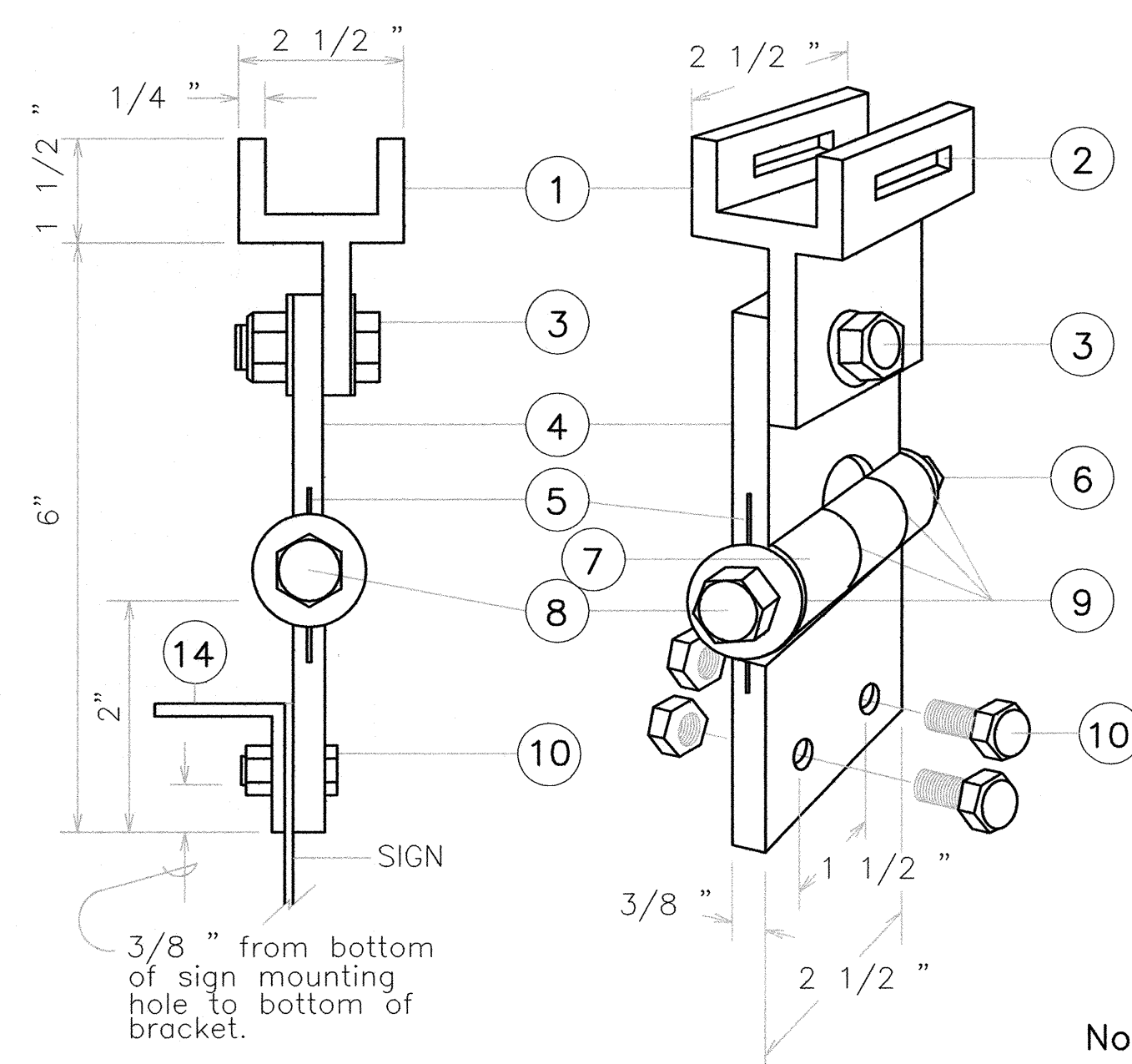


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2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

KAONOULU COMMERCIAL CENTER
KIHAI, MAUI, HAWAII

TITLE TRAFFIC SIGNAL DETAILS - 3

DESIGNED BY KC	CHECKED BY KKN	JOB NUMBER 04010.10	TS-5
DRAWN BY KC	APPROVED BY	DATE MAY 2006	SHEET
SCALE AS SHOWN		DATE	OF SHEETS

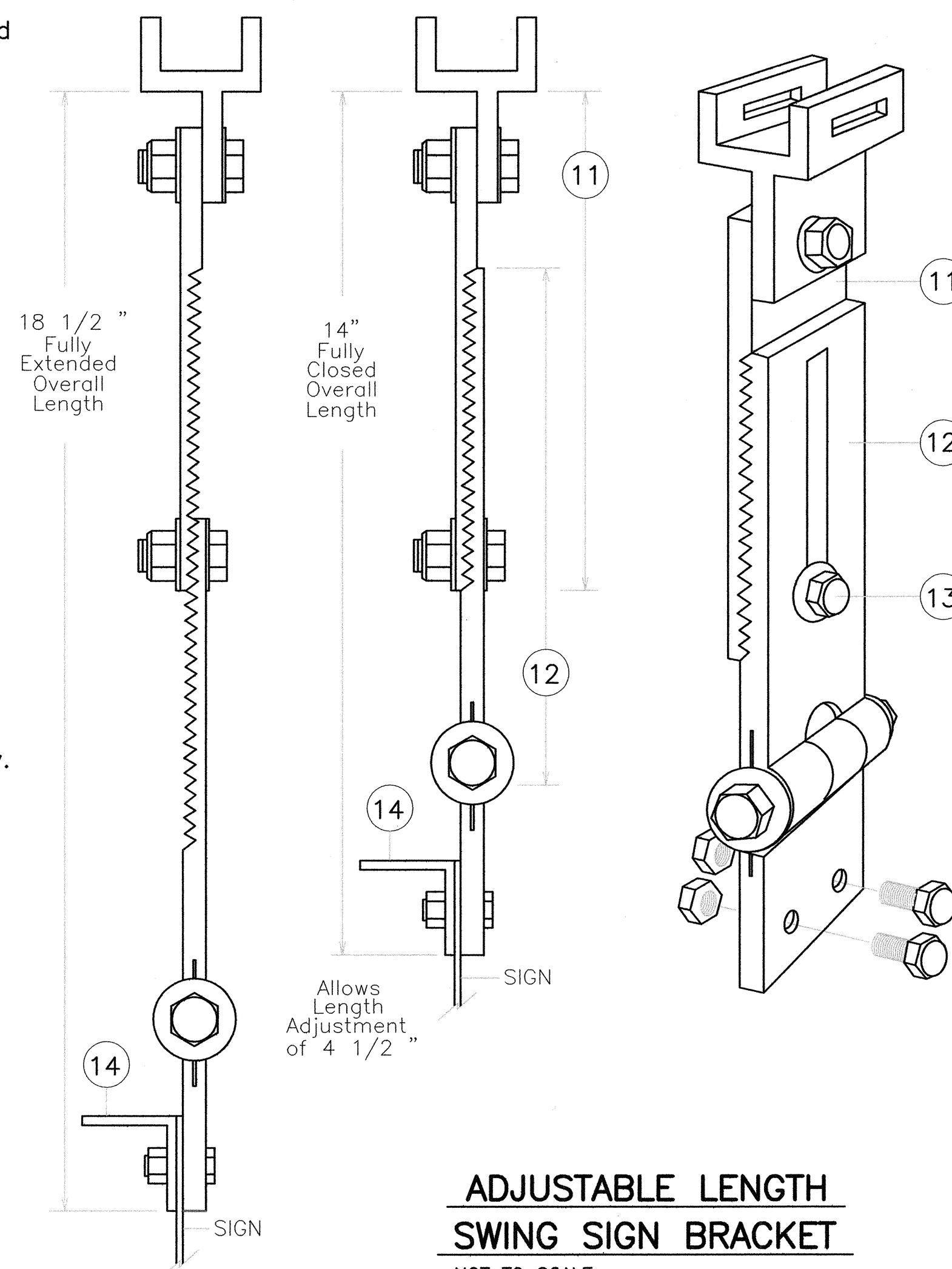


**FIXED LENGTH NON-ADJUSTABLE
SWING SIGN BRACKET**
NOT TO SCALE

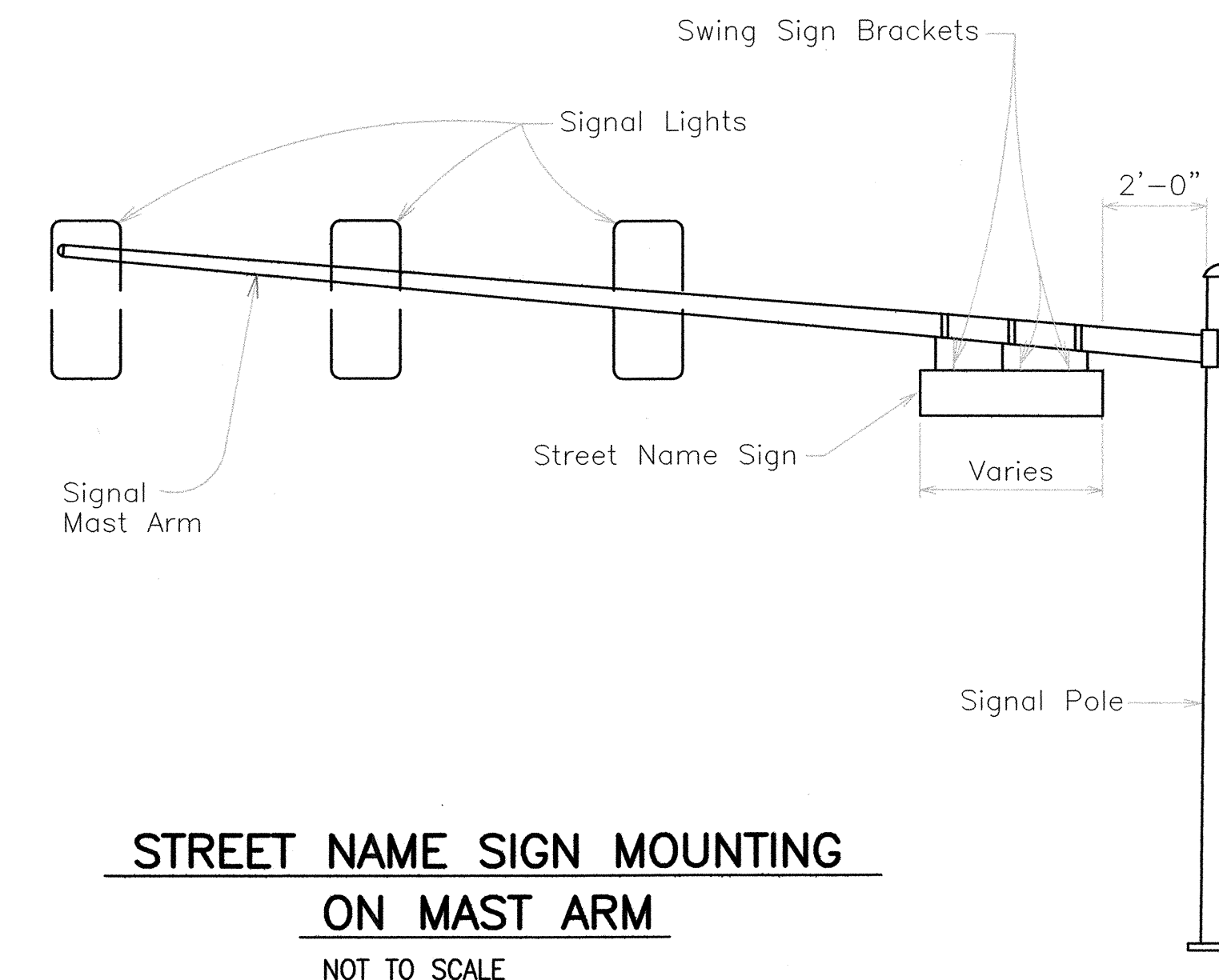
All Aluminum 6061T6 Alloy and
Stainless Steel Components.

Note: Dimensions may vary slightly.

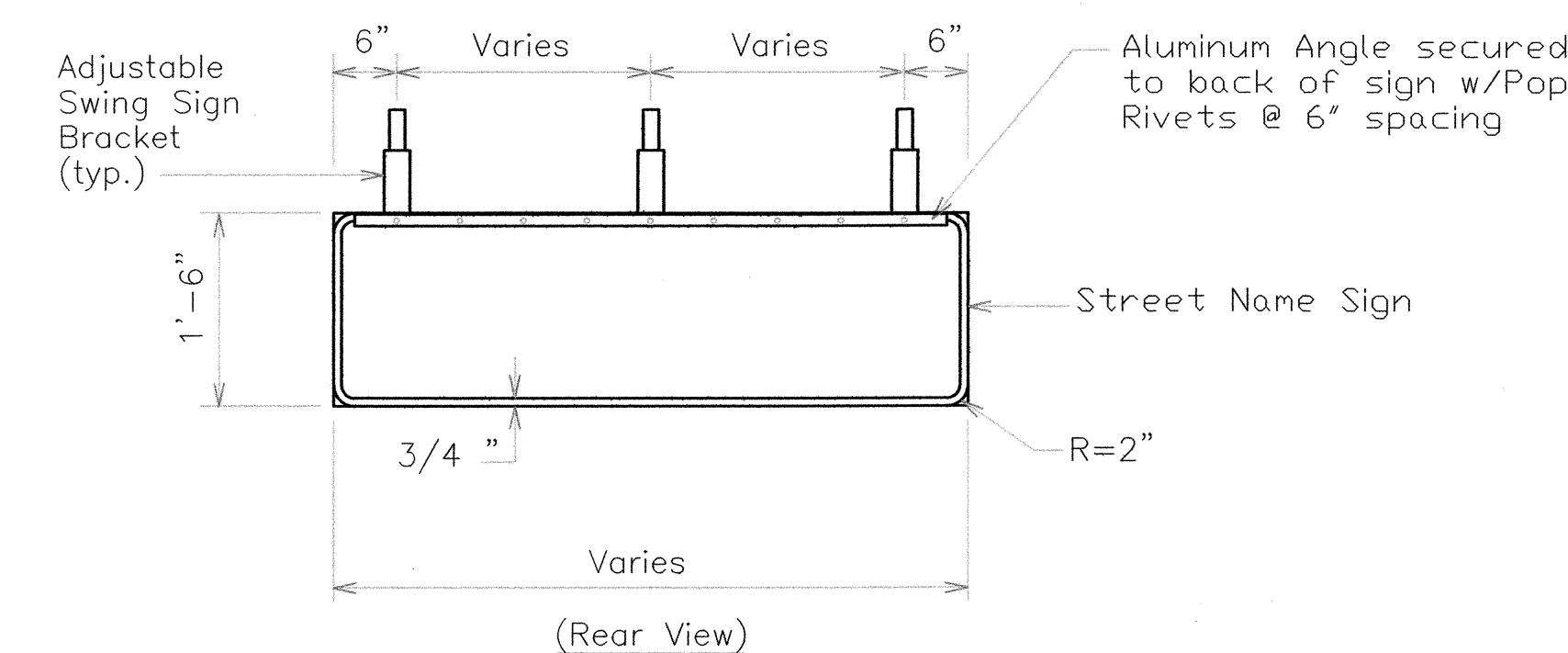
- ① Pivotal Upper Bracket
- ② 1 5/8 " x 1/4 " Slot for double strapping to electrolier mast arm.
(M2G-34S(HD) .030" x 3/4 " Heavy Duty Stainless Steel Strap
with M2G-34B(HD) Buckle recommended.)
- ③ 1/2 " - 13 x 1 1/2 " Stainless Steel Hex Head Bolt with Stainless
Steel Hex Lock Nut and 1/16 " Stainless Steel Washer (both
sides). Allows upper bracket to pivot and align with elec-
trolier mast arm.
- ④ 6" Overall drop with Fixed Length Sign Bracket
- ⑤ Stainless Steel Dampener Spring (Removable)
- ⑥ Stainless Steel Hex Lock Nut with 1/16 " Stainless Steel
Washer
- ⑦ 1" O.D. Axle Housing
- ⑧ 1/2 " - 13 x 4" Stainless Steel Hex Head Bolt with 1/16 " Stainless Steel Washer
- ⑨ Oilite Bushing
- ⑩ Sign Mounting Sets, consisting of two each 5/16 " - 18 x 1" Stainless Steel Hex Head Bolt with Stainless Steel Hex Lock Nut. Two holes on 1 1/2 " centers provide positive lock sign mounting to bracket.
- ⑪ 8 1/4 " overall length Upper Adjustable Sign Bracket section
- ⑫ 9" overall length Lower Adjustable Sign Bracket section, including Axle Housing (8" overall length to top of Axle Housing)
- ⑬ 1/2 " - 13 x 1 1/2 " Stainless Steel Hex Bolt with Stainless Steel Hex Lock Nut and 1/16 " Stainless Steel Washers (both sides). Loosen lock nut, adjust bracket teeth to level sign.
- ⑭ 1 1/4 " x 1 1/4 " x 1/8 " Aluminum Angle



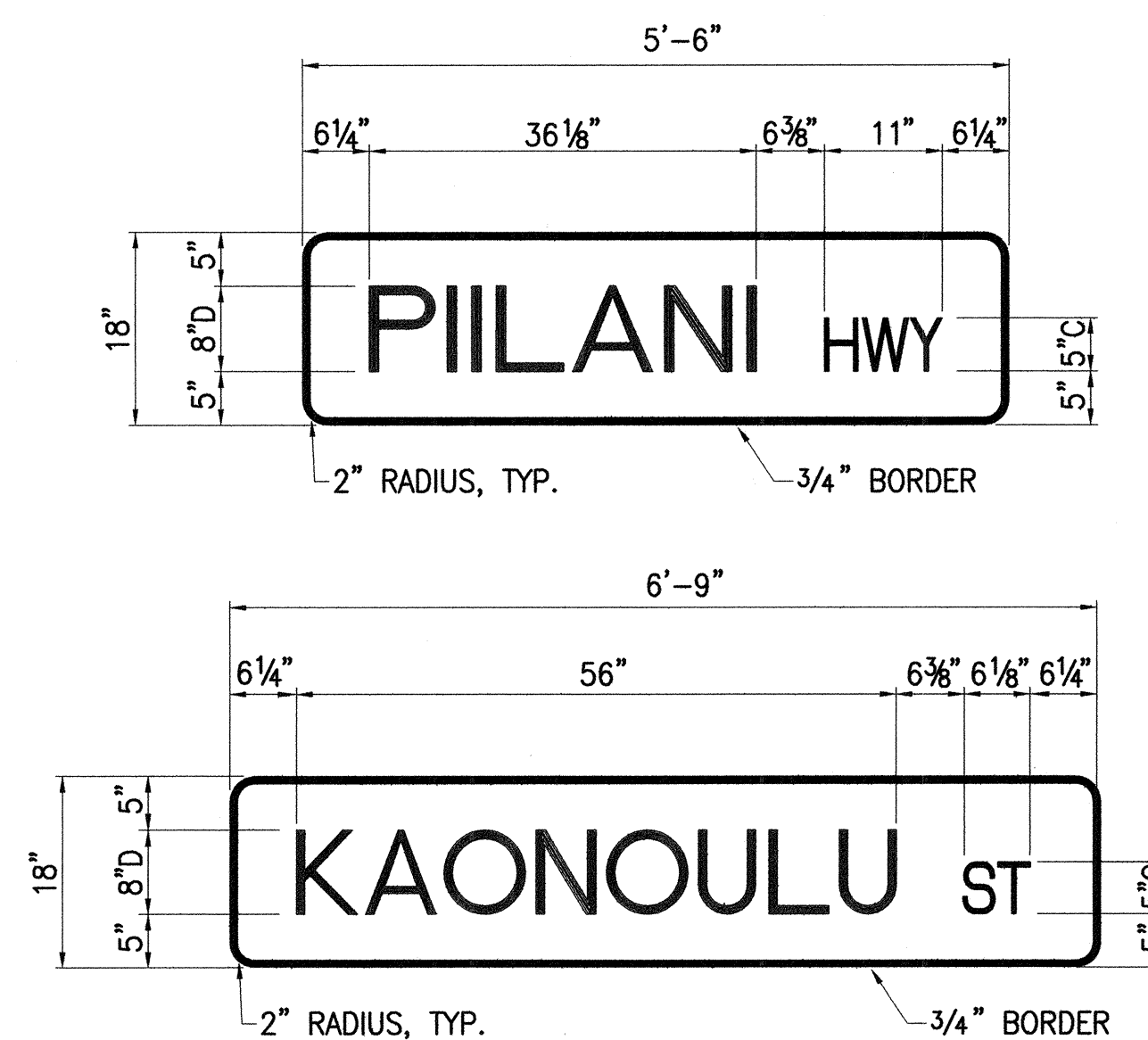
**ADJUSTABLE LENGTH
SWING SIGN BRACKET**
NOT TO SCALE



**STREET NAME SIGN MOUNTING
ON MAST ARM**
NOT TO SCALE

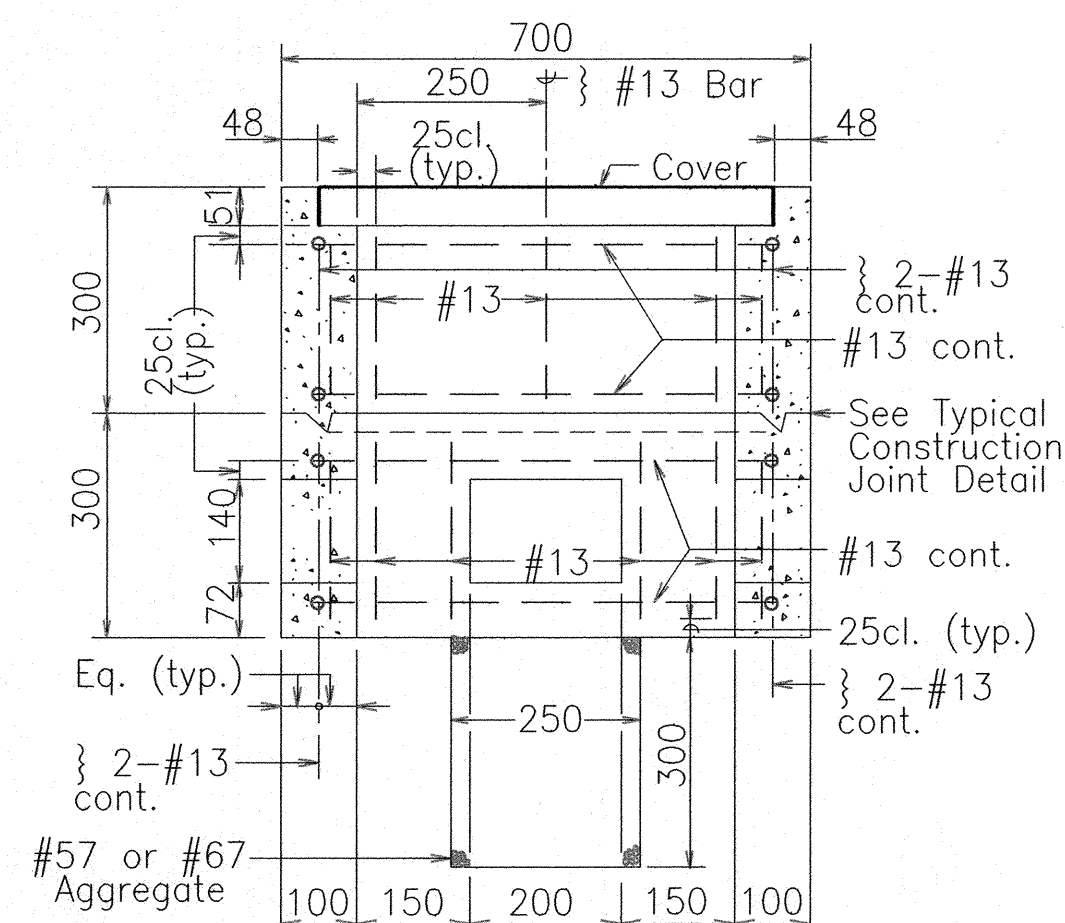
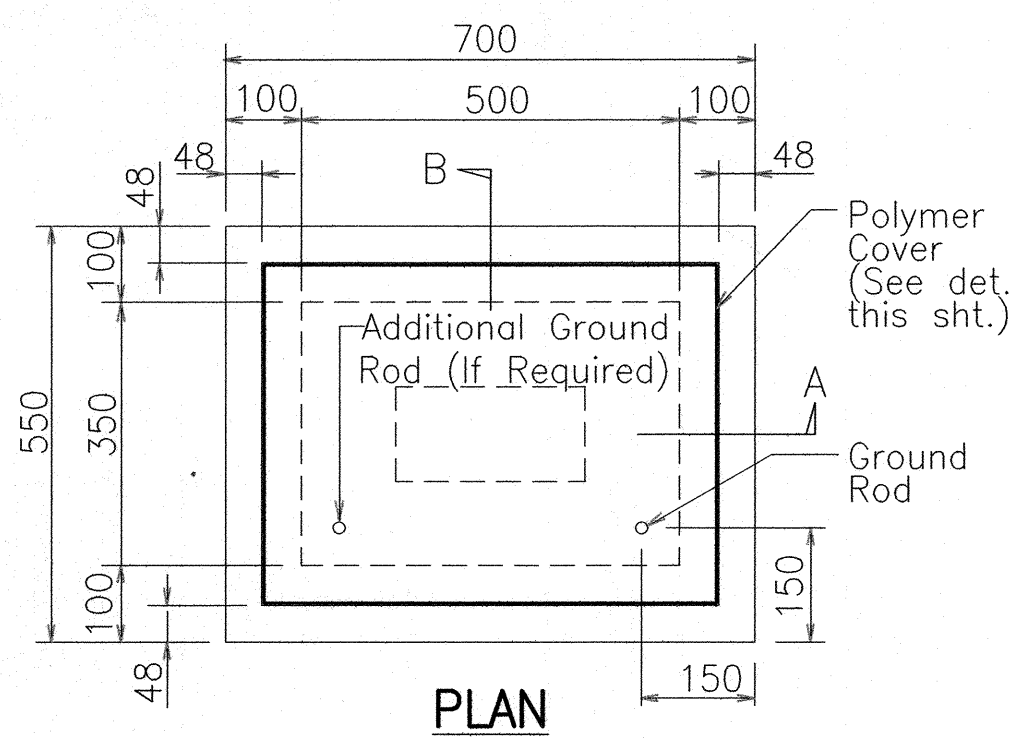


**PANEL & SWING BRACKET LAYOUT
FOR STREET NAME SIGN**
NOT TO SCALE

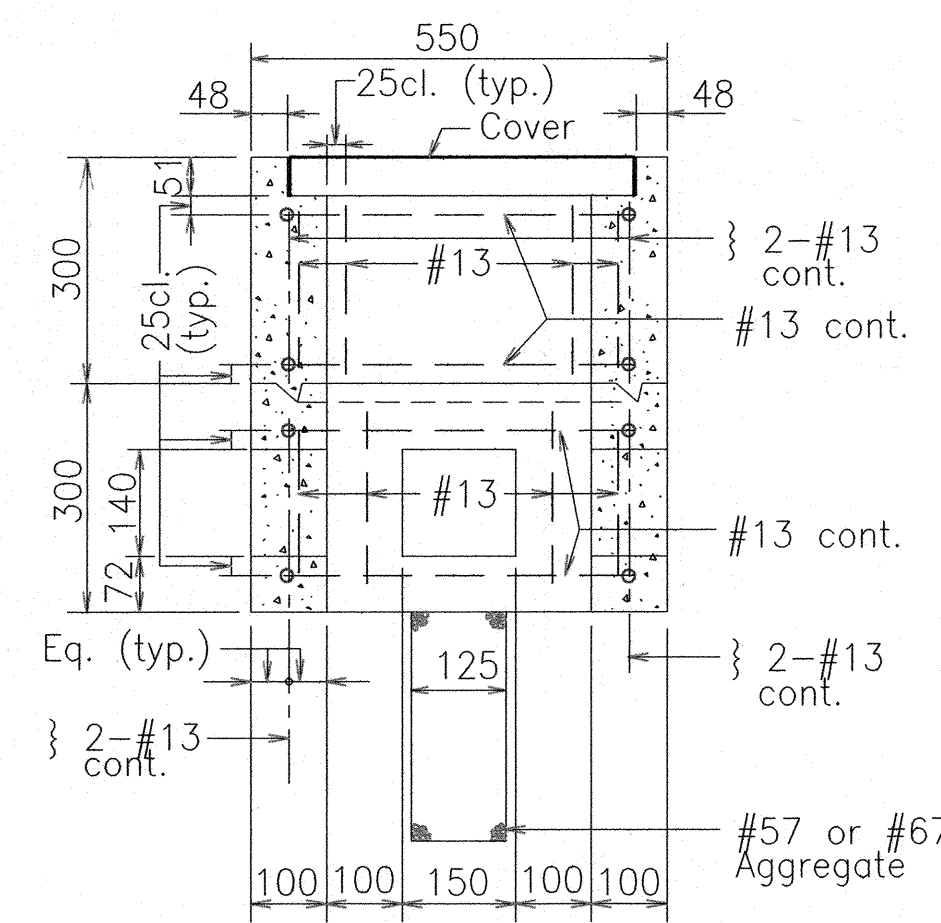


STREET NAME SIGN DETAILS
NOT TO SCALE

	WARREN S. UNEMORI ENGINEERING, INC. CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS WELLS STREET PROFESSIONAL CENTER, SUITE 403 2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793	
	KAONOULU COMMERCIAL CENTER KIHIEI, MAUI, HAWAII	
TITLE STREET NAME SIGN DETAILS		JOB NUMBER 04010.10
DESIGNED BY KC	CHECKED BY KKN	SHEET TS-6
DRAWN BY KC	APPROVED BY	DATE MAY 2006
SCALE AS SHOWN		OF SHEETS

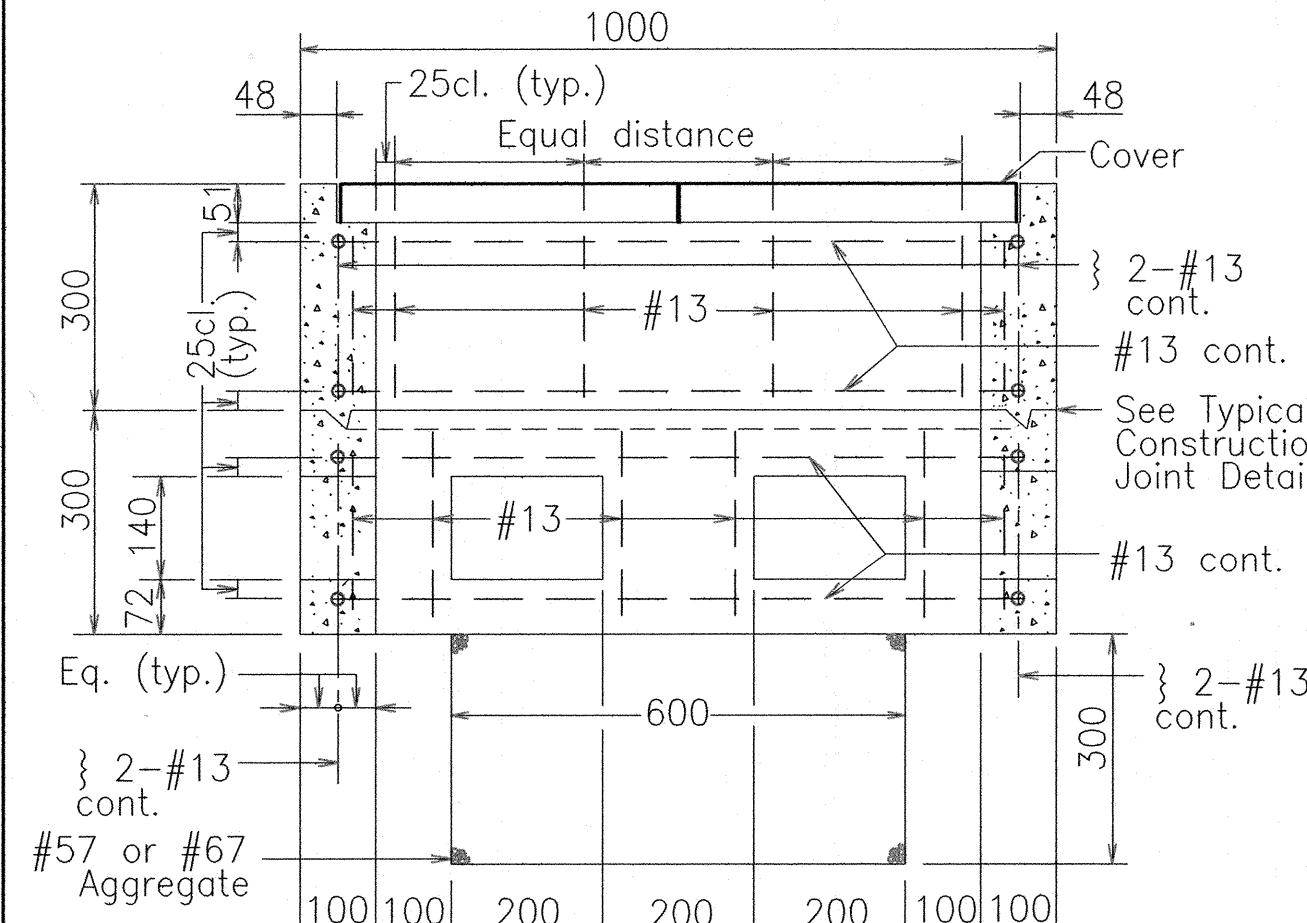
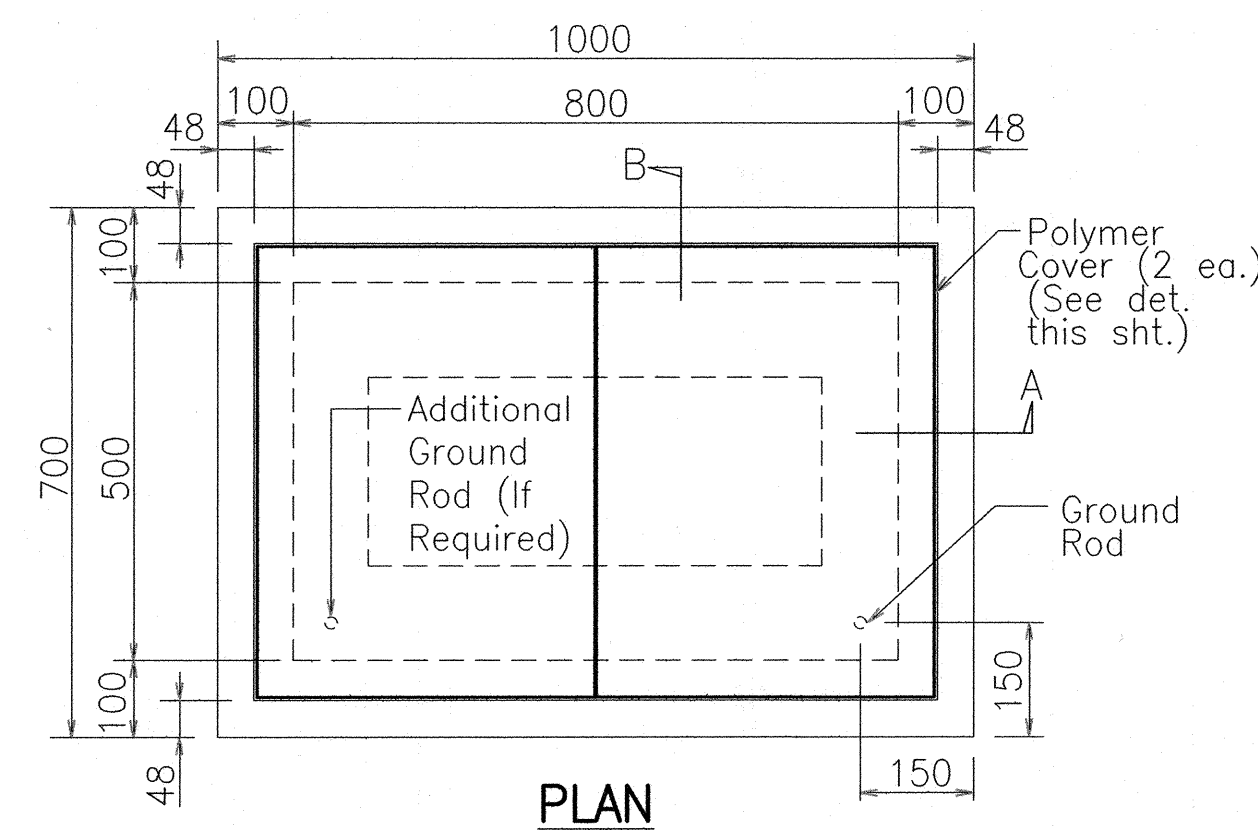


SECTION A-A

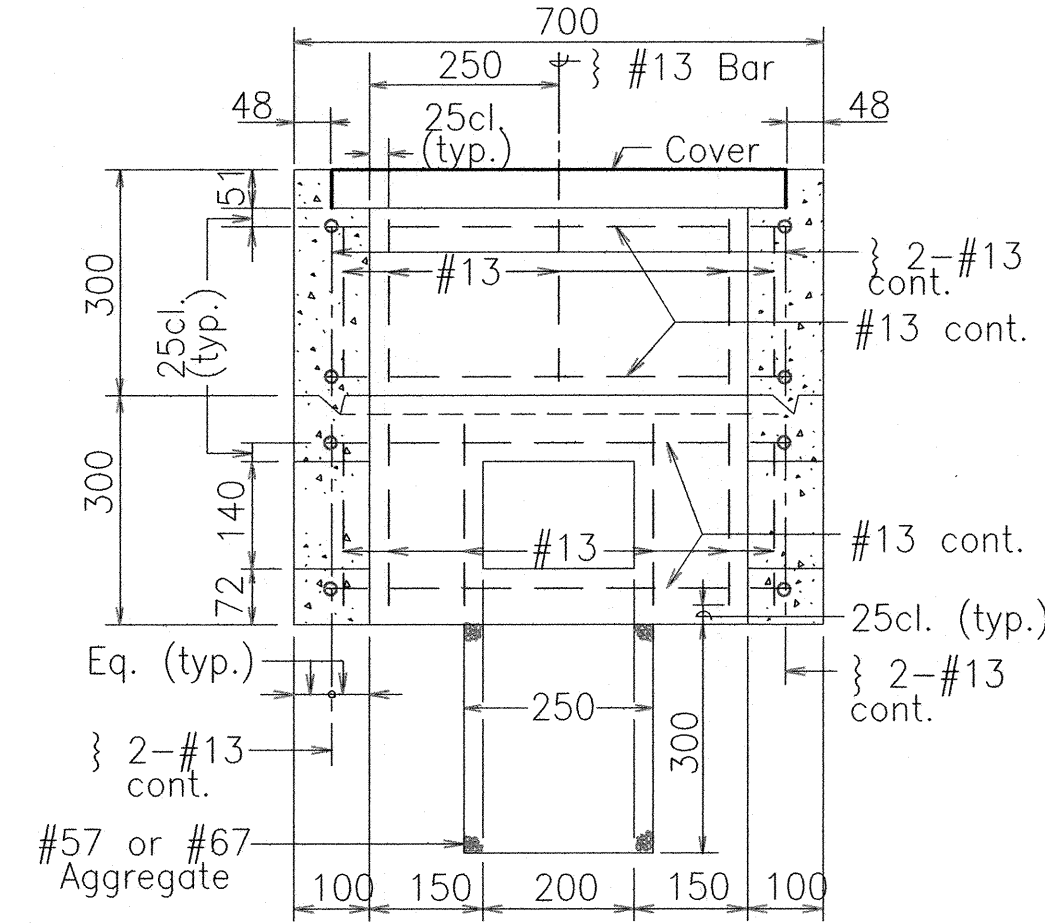


SECTION B-B
TYPE "A" PULLBOX
(Old Type "B")

Scale: 1 : 100

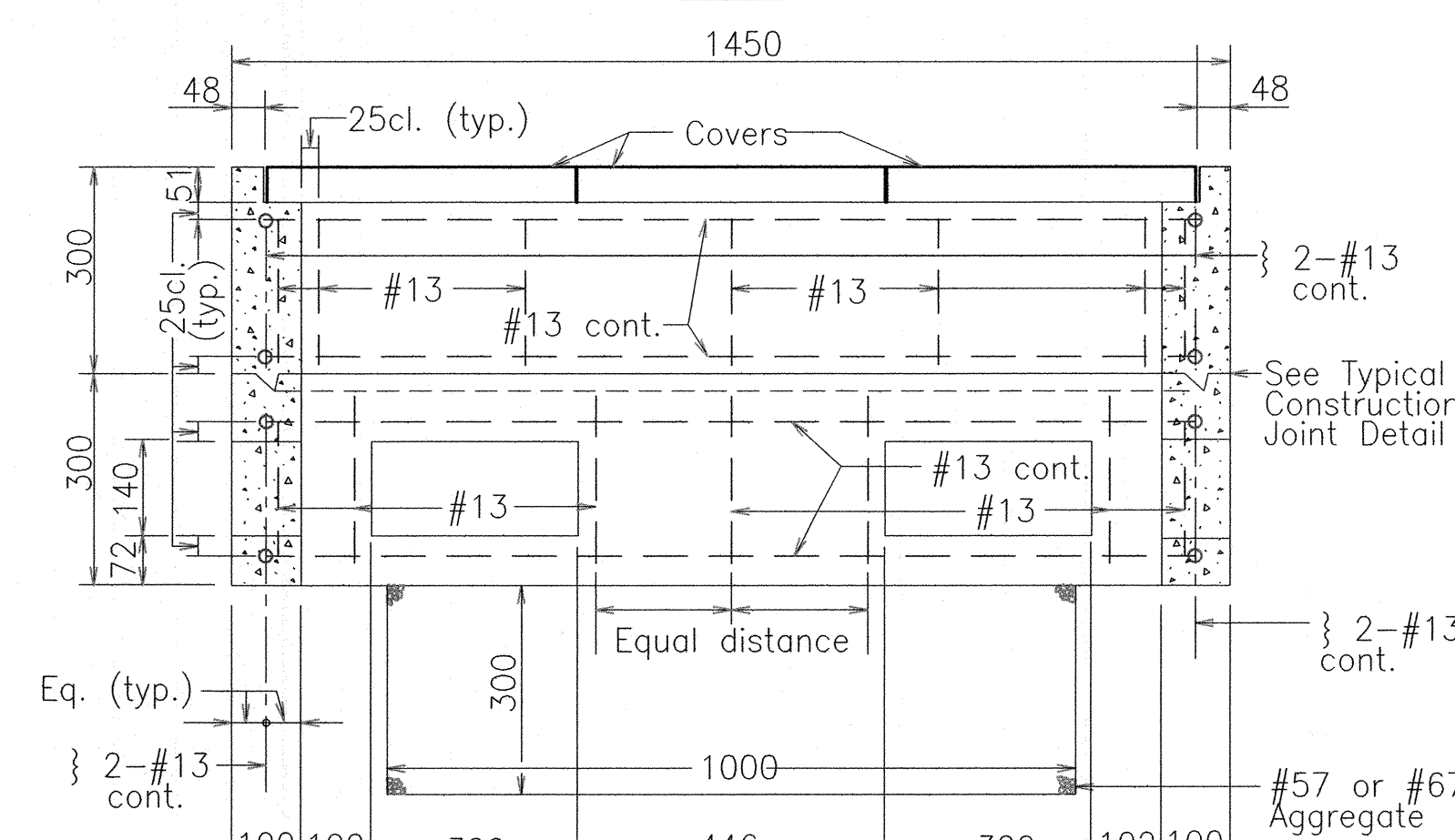
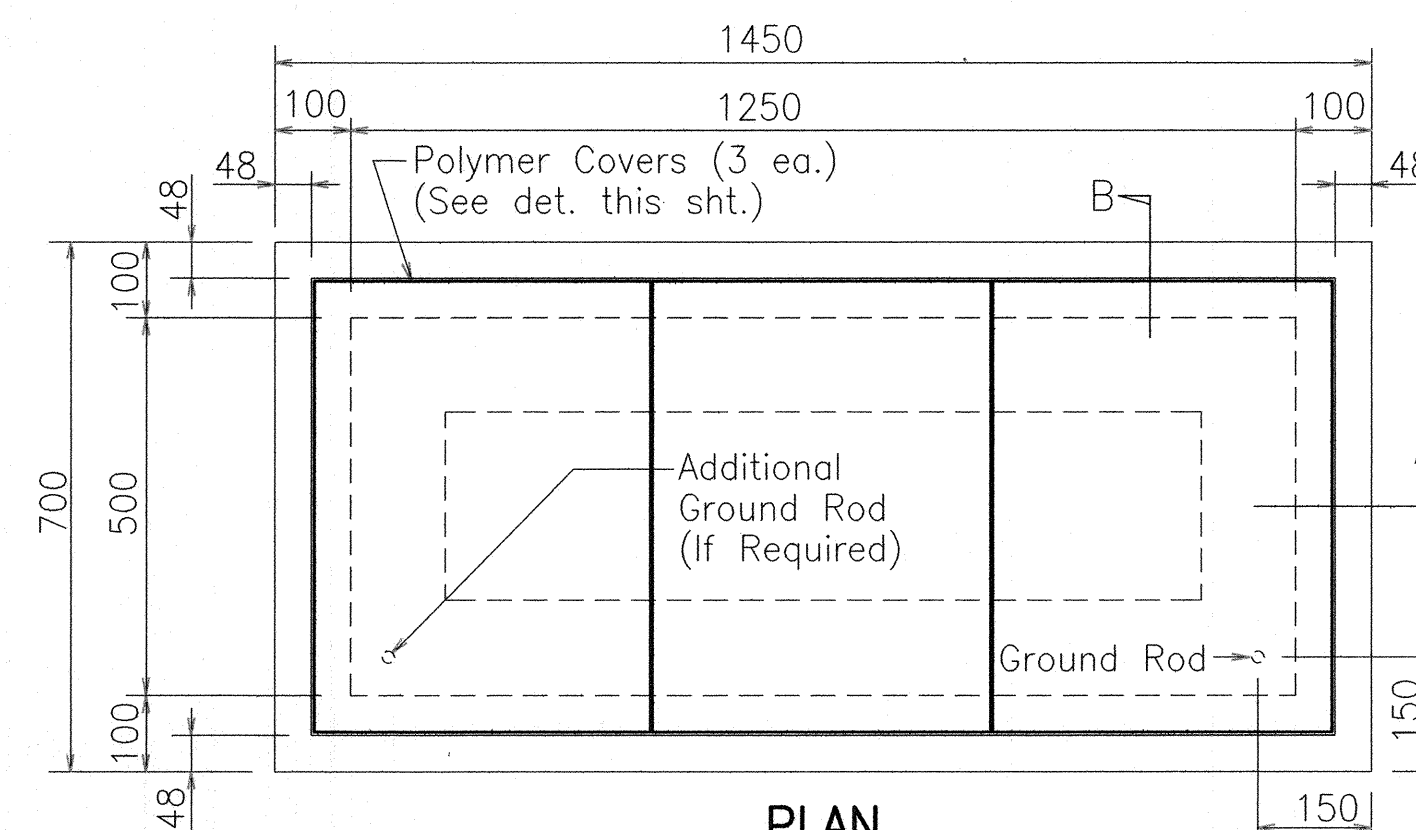


SECTION A-A

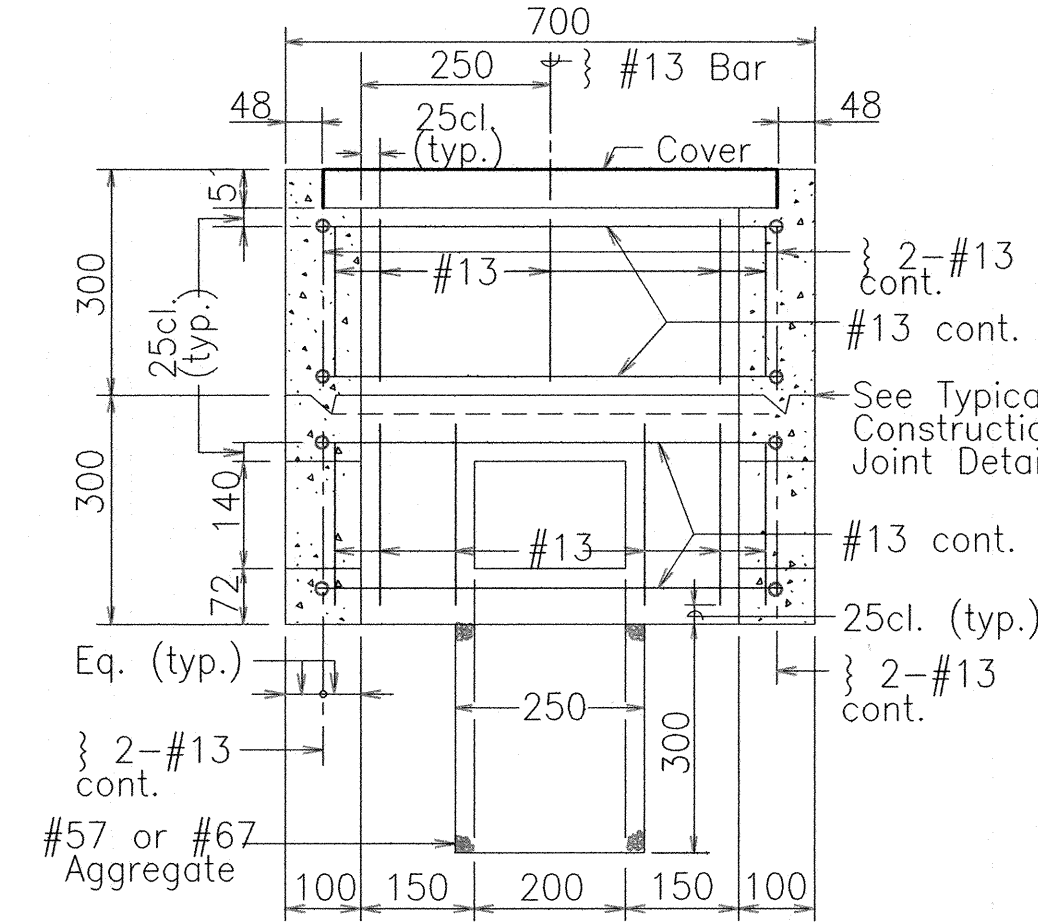


SECTION B-B
TYPE "B" PULLBOX (Old Type "C")

Scale: 1 : 100



SECTION A-A



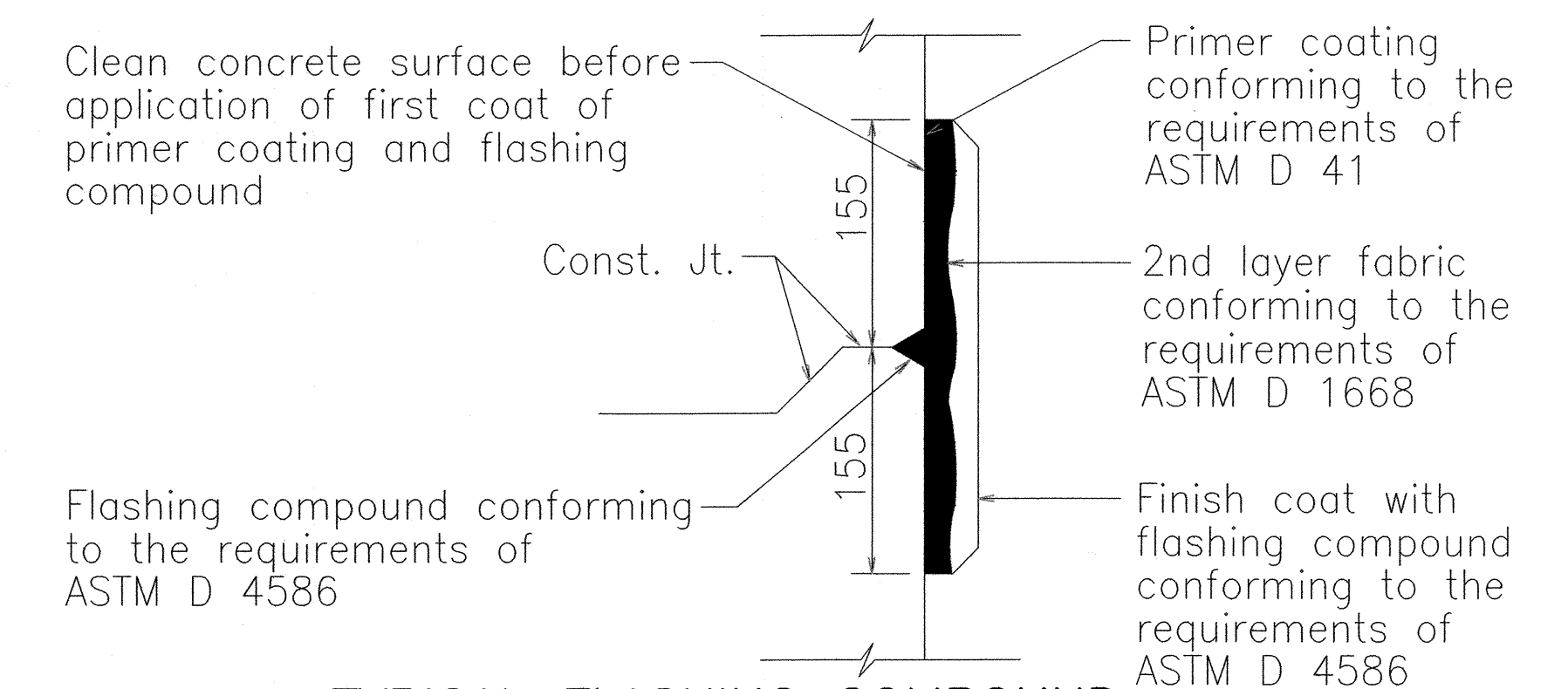
SECTION B-B
TYPE "C" PULLBOX (Old Type "D")

Scale: 1 : 100

**ALL DIMENSIONS ARE IN MILLIMETERS
UNLESS OTHERWISE SHOWN**

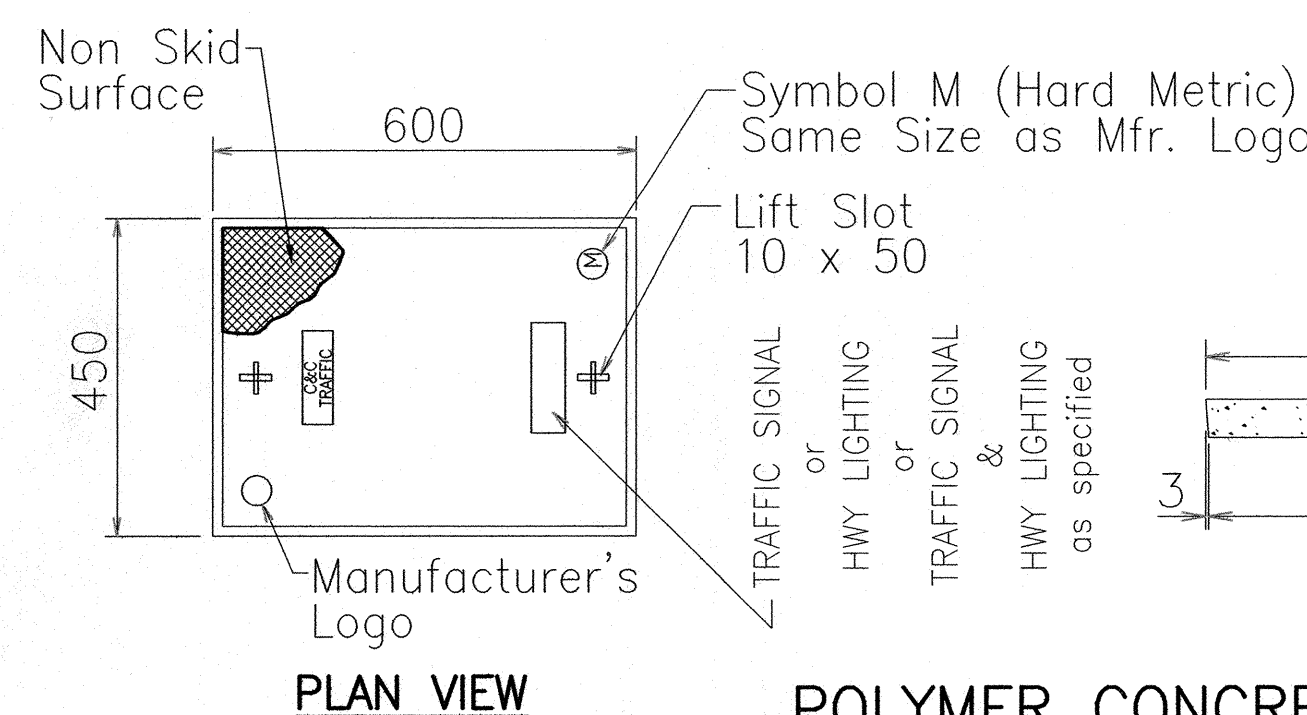
GENERAL NOTES

1. Provide a minimum of one 16 ϕ x 2.5m Copperweld Ground Rod in each pullbox. When directed by the Traffic Signal Inspector/Engineer, install additional Ground Rods. Cost of Ground Rods shall be incidental to the pullboxes.
2. All pre-cast concrete pullboxes shall be manufactured in two pieces.
3. The pullbox with cover shall be capable of supporting an MS 18 Loading.
4. The maximum weight of the pullbox cover shall not exceed 27 kilograms.
5. The openings for the conduits on all pullboxes shall be pre-cast concrete knockouts.
6. After installing the conduits in the openings of the pullboxes, the Contractor shall fill the excess opening in the pre-cast knockouts with concrete mortar.
7. Prior to installing the pullboxes, the Contractor shall level the bottom of the trench and achieve a minimum of 95% relative compaction of the bottom of the trench.
8. All concrete shall be Class A (21MPa or 3000PSI, min.)
9. Rebars shall be Grade 300 and all lapped splices shall be 360mm minimum.
10. The #57 or #67 size aggregate shall conform to latest version of AASHTO M43 (ASTM D 448).
11. Type "C" Pullbox shall be installed in a location protected from vehicular traffic (i.e. raised sidewalk, behind A.C. curbs, traffic signal standard or pipe guards).



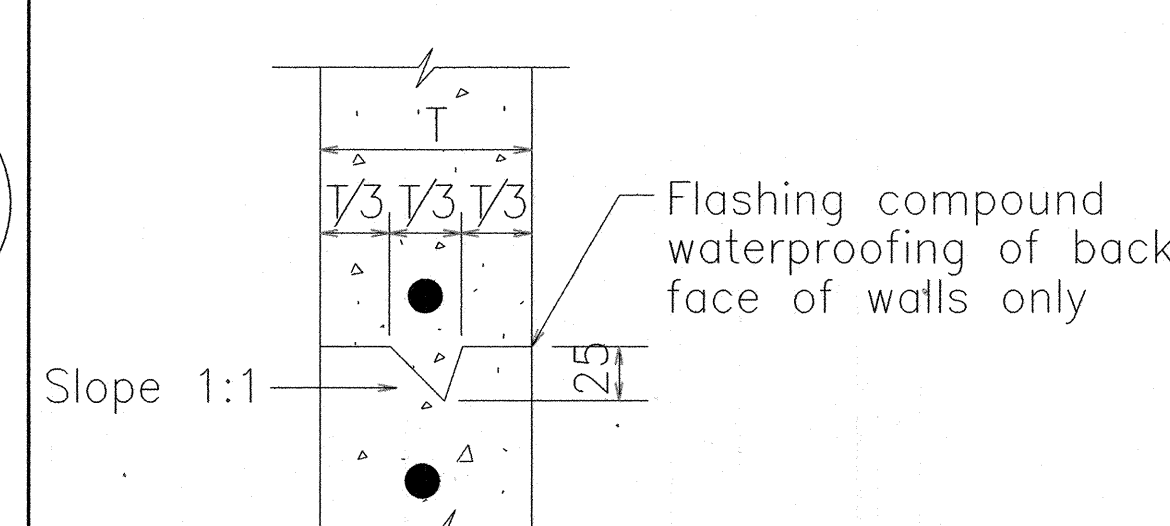
**TYPICAL FLASHING COMPOUND
WATERPROOFING DETAILS**

Not to Scale



POLYMER CONCRETE COVER

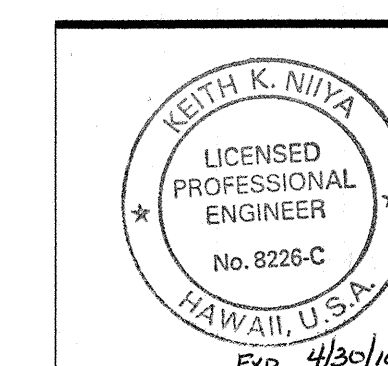
Not to Scale



**TYPICAL CONSTRUCTION
JOINT DETAIL**

Not to Scale

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ENGINEERS, SURVEYORS
HONOLULU, HAWAII



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KAONOULU COMMERCIAL CENTER
KIHAI, MAUI, HAWAII

TITLE: **PULLBOX DETAILS**

DESIGNED BY: KC	CHECKED BY: KKN	DATE: 12/1/09	JOB NUMBER: 04010.10	SHEET: TS-7
DRAWN BY: KC	APPROVED BY:	DATE: MAY 2006	SCALE: AS SHOWN	OF SHEETS:

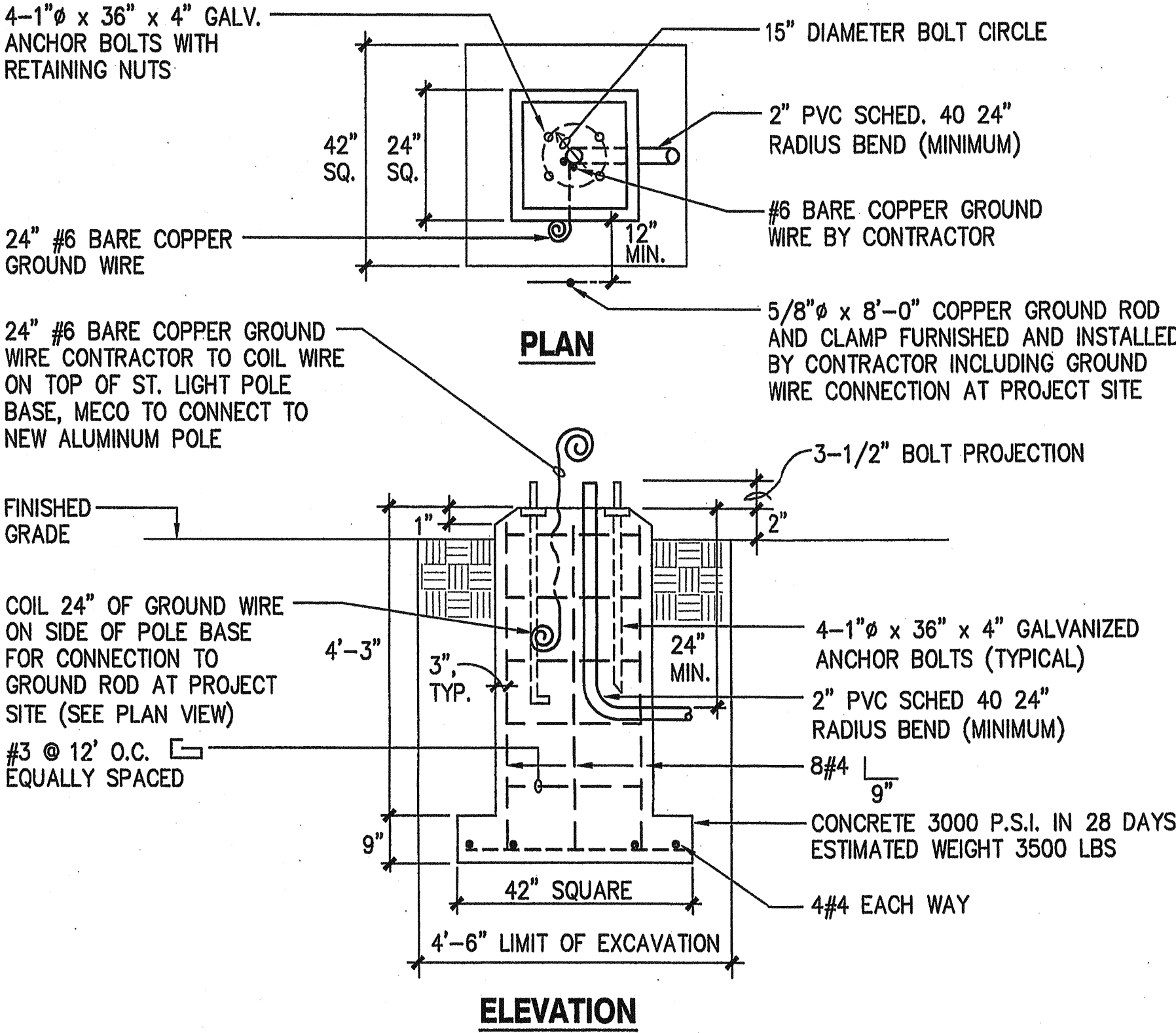
LETTER	DESCRIPTION	DATE
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GENERAL NOTES:

- COORDINATE ALL DUCT WORK WITH RESPECTIVE UTILITY COMPANIES.
- SEE UTILITY COMPANY STANDARD DRAWINGS FOR ALL DETAILS. COORDINATE DUCT ENTRIES INTO HANDHOLES AND MANHOLES WITH UTILITY COMPANY.
- CONTRACTOR SHALL EXCLUDE UTILITY COMPANY SERVICE CHARGES. ALL COSTS PAID BY DEVELOPER.
- HANDHOLES AND MANHOLE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE FOLLOWING UTILITY COMPANY STANDARDS.
 - 2' x 4' MECO HH - PRECAST CONCRETE, PER #30-2005
 - 3' x 5' MECO HH - PRECAST CONCRETE, PER #18841
 - 4' x 6' MECO HH - PRECAST CONCRETE, PER #18842
 - 5' x 7' MECO HH - PRECAST CONCRETE, PER #18843
 - 6' x 11' MECO HH - PRECAST CONCRETE, PER MECO #18844, 6'-6" DEEP
 - 2' x 4' TEL HH - PRECAST CONCRETE, PER #435TB
 - 3' x 5' TEL HH - PRECAST, PER GTE SPEC. #GTS-8395
 - 4' x 6' TEL HH, TYPE 1 - PRECAST, PER GTE SPEC. #GTS-8395
 - 4' x 6' TEL MH - PRECAST CONCRETE, PER GTS #8395 #GTE 4x6.5x6.5
 - 5' x 10' TEL MH - PRECAST CONCRETE, PER GTS #8395 #GTE 5x10.5x6.5
 - 6' x 12' TEL MH - PRECAST CONCRETE, PER GTS #8395 #GTE 6x12x7
 - 2' x 4' CATV HH - PRECAST CONCRETE, 24" MINIMUM DEPTH, NON-SKID COVER WITH "CATV" STENCIL

TELEPHONE GENERAL NOTES:

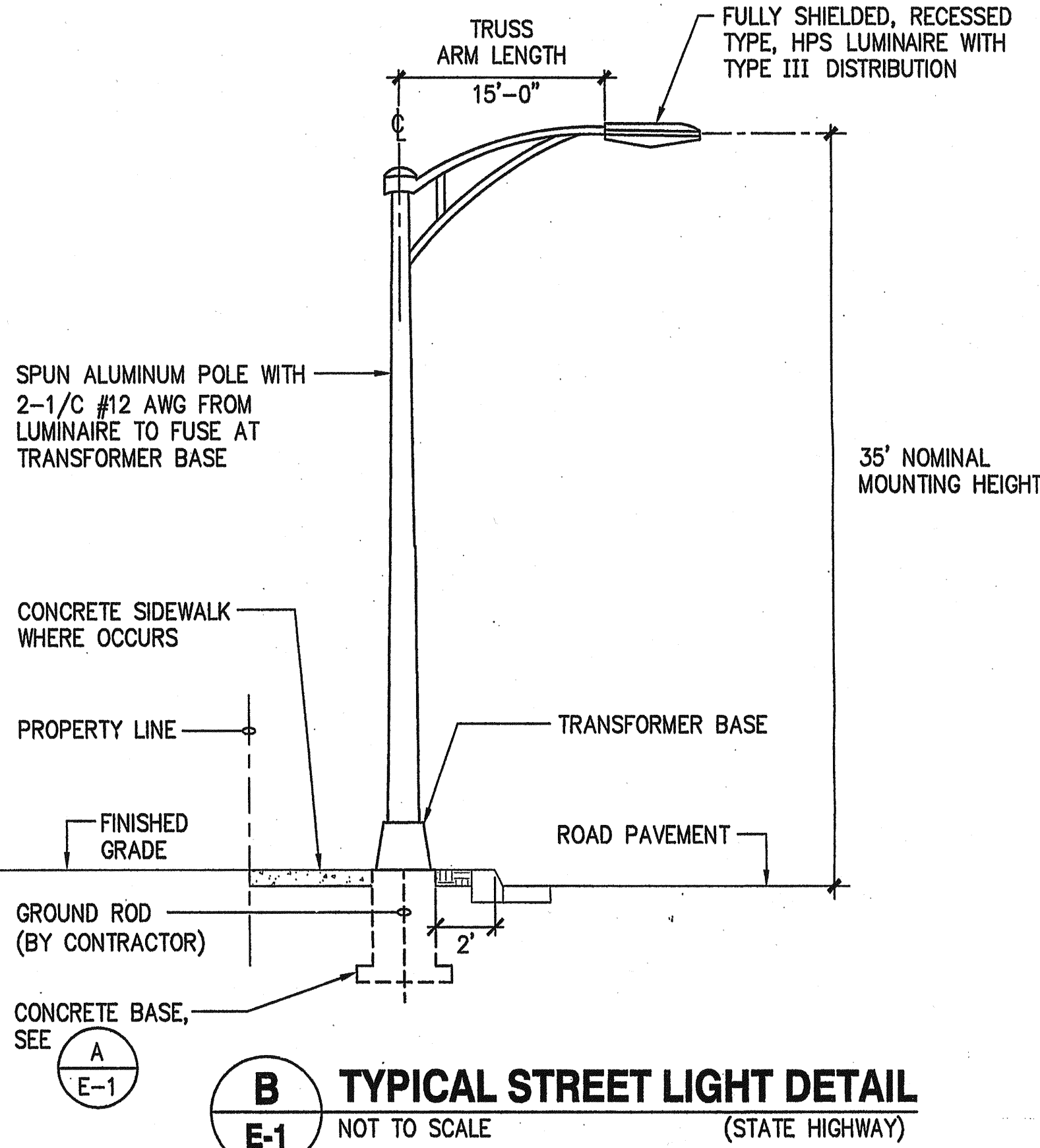
- INSTALLATION OF TELEPHONE DUCTLINE SYSTEM SHALL BE IN CONFORMANCE WITH THE REQUIREMENTS OF VERIZON HAWAII'S "STANDARD SPECIFICATIONS FOR PLACING UNDERGROUND TELECOMMUNICATIONS SYSTEM", MAR 1999, UNLESS OTHERWISE MODIFIED IN THESE PLANS. CHECK WITH VERIZON HAWAII PRIOR TO ORDERING MATERIAL FOR THE DUCTLINE SYSTEM INSTALLATION WORK.
- THE CONTRACTOR WILL PROVIDE A 5/8" x 8' GALVANIZED GROUND ROD IN EACH HANDHOLE AND/OR PULLBOX AND BELOW A TELEPHONE CABINET.
- ALL CONDUITS WILL ENTER AND LEAVE THE HANDHOLE/PULLBOX AT 90 DEGREES TO THE FACE OF THE BOX.
- THE MAXIMUM SIZE CONDUIT THAT MAY ENTER THE SIDE WALL OF A 2' x 4' PULLBOX IS 2".
- ALL CONDUITS WILL BE TERMINATED WITH A BELL END. THE BELL END SHALL BE FLUSH WITH THE INSIDE FACE OF THE PULLBOX WALL. NO PROTRUSION OF THE BELL END WILL BE PERMITTED.
- ALL ENTRANCES INTO THE PULLBOX WILL BE GROUTED AROUND THE CONDUIT. THE INSIDE SURFACE SHALL BE FINISHED SMOOTH AND FLUSH WITH THE EXISTING WALL SURFACE.
- ALL CONDUITS SHALL HAVE AN 1800#, POLYESTER MULETAPE (NEPTCO WP1800P, VERIZON HAWAII MATERIAL CODE NO. 571154) INSTALLED THROUGHOUT ITS ENTIRE LENGTH. ALL CONDUITS SHALL BE CAPPED WITH A TEMPORARY CAP TO PREVENT THE ENTRANCE OF FOREIGN MATERIAL DURING CONSTRUCTION. THE TEMPORARY CAPS SHALL REMAIN INSTALLED ON EACH CONDUIT ENTERING A PULLBOX OR HANDHOLE AT THE COMPLETION OF THE INSTALLATION.
- ALL CONDUIT AND PULLBOXES/HANDHOLES INSTALLED BY THE CONTRACTOR FOR USE BY VERIZON HAWAII WILL BE SUBJECT TO INSPECTION. THE INSPECTION SHALL TAKE PLACE PRIOR TO BACKFILL OR CONCRETE ENCASEMENT. CALL FOR INSPECTION 3 WORKING DAYS PRIOR TO SCHEDULE THE INSPECTION.
- AFTER DUCTLINE HAS BEEN COMPLETED, A MANDREL NOT LESS THAN 12" LONG AND HAVING A DIAMETER OF 1/4" LESS THAN INSIDE DIAMETER OF DUCT, SHALL BE PULLED THROUGH EACH DUCT AFTER WHICH A BRUSH WITH STIFF BRISTLES SHALL BE PULLED THROUGH TO MAKE CERTAIN THAT NO PARTICLES OF EARTH, SAND, OR GRAVEL HAVE BEEN LEFT IN THE LINE.
- A VERIZON HAWAII STANDBY MAN IS REQUIRED TO BE AT THE JOB SITE ANY TIME NON-UTILITY CO. PERSONNEL WILL BE BREAKING INTO OR ENTERING ANY STRUCTURES THAT CONTAIN COMMUNICATION FACILITIES. THE WORKING DAYS ADVANCE NOTICE IS REQUIRED FOR ANY INSPECTION OR STANDBY MAN. FIVE WORKING DAYS ADVANCE NOTICE IS REQUIRED FOR UNDERGROUND CABLE LOCATING AND MARKING.
- THE DEVELOPER WILL BE RESPONSIBLE FOR ALL REVISIONS REQUIRED ON TELEPHONE DESIGN, DUE TO FIELD CONDITIONS.
- MINIMUM BENDING RADIUS SHALL BE 24" FOR 2" DUCT, 36" FOR 4" DUCT.
- MINIMUM HORIZONTAL CURVE FOR 4" DUCT IS 25' RADIUS, MINIMUM VERTICAL CURVE FOR 4" DUCT IS 20' RADIUS.
- ALL PULLBOXES INSTALLED IN NON-SIDEWALK AREAS WILL REQUIRE A 10" CONCRETE COLLAR, 5" THICK AROUND THE ENTIRE COVER FEATHERED TO FINISHED GRADE.
- ONE PIECE 2' x 4' PULLBOXES WILL BE ACCEPTED ONLY IN AREAS WITH CURBS AND GUTTERS, STANCHIONS, OR BERMS.
- THE APPROVAL OF THE SUBJECT DRAWING(S) IS GOOD FOR A PERIOD OF 180 DAYS. IF CONSTRUCTION ACTIVITIES HAVE NOT COMMENCED WITHIN THE 180 DAYS OF VERIZON HAWAII'S APPROVED DATE, THE APPROVAL WILL BE VOID. SHOULD THIS OCCUR, THE GENERAL CONTRACTOR WILL BE NOTIFIED UPON RECEIPT OF REQUEST FOR INSPECTION OF UNDERGROUND TELEPHONE SUPPORT STRUCTURES.



NOTES:

- THIS ITEM PREFABRICATED BY WALKER INDUSTRIES AT MAUI CONCRETE AND AGGREGATE.
- MECO SHALL PROVIDE 1" x 36" x 4" ANCHOR BOLTS (4 EACH) AS FURNISHED BY MANUFACTURER, PICK-UP BY CONTRACTOR AT MECO'S KAHULUI WAREHOUSE.
- INSPECTION BY MECO INSPECTOR REQUIRED PRIOR TO FABRICATION OF FOOTING, CONTACT MECO INSPECTOR (PHONE: 871-8461).

A STREET LIGHT BASE DETAIL
E-1 NOT TO SCALE



STREET LIGHT NOTES:

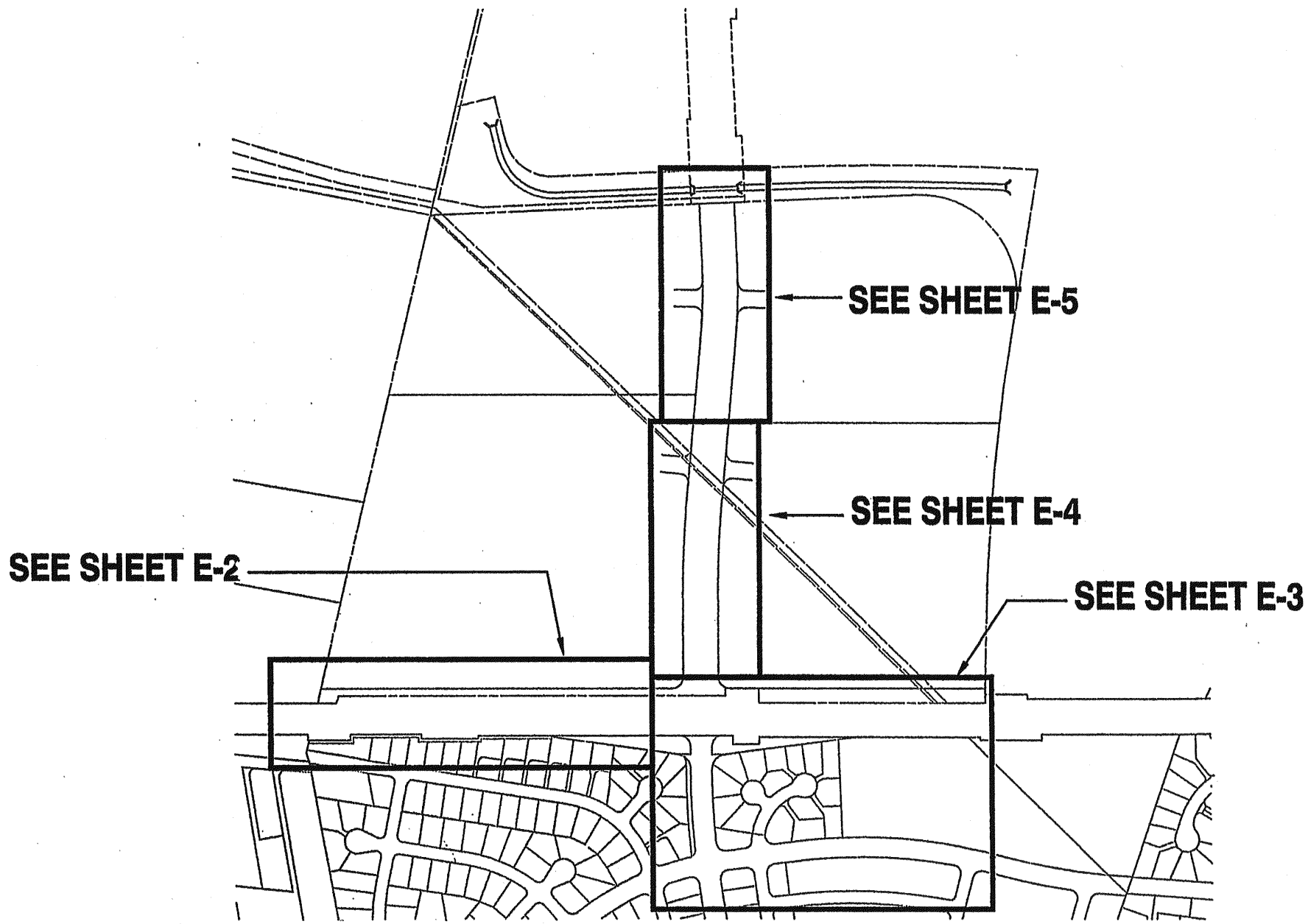
- CONTRACTOR SHALL CONSTRUCT AND INSTALL CONCRETE STREET LIGHT FOOTING AND PROVIDE NECESSARY MATERIALS.
- MECO SHALL PROVIDE THE 1" x 36" x 4" GALVANIZED ANCHOR BOLTS TO BE INSTALLED BY CONTRACTOR.
- MECO SHALL PROVIDE AND INSTALL ALL NECESSARY ELECTRICAL WIRES, ALUMINUM POLES AND FIXTURES.
- CONCRETE SHALL HAVE COMPRESSIVE STRENGTH OF 3,000 P.S.I. AT 28 DAYS.
- OTHER TRADES SHALL BE ALLOWED AMPLE TIME TO PERFORM THEIR WORK.

APPROVED:

MECO *Gregorynn Gaudin* 11/20/08 DATE
[Signature] 12/03/08 DATE
HAWAIIAN TELCOM
[Signature] 12/10/08 DATE
OCEANIC CABLEVISION

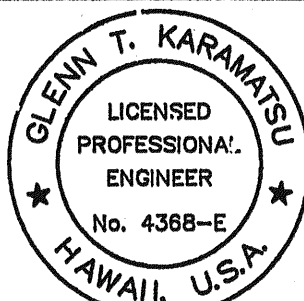
ELECTRICAL SYMBOL LIST

SYMBOLS	DESCRIPTION
	STREET LIGHT BASE FOR MECO STREET LIGHT PER
	EXISTING STREET LIGHT
	2' x 4' MECO PULLBOX
	MANHOLE, TYPE AS NOTED
	UTILITY HANDHOLE GROUP, TYPE AS NOTED
	PME SWITCH CONCRETE PAD, SEE E-6
	1# MECO TRANSFORMER PAD IN MECO EASEMENT
	STUB-OUT WITH CAP AND CONCRETE MARKER FOR FUTURE
	UNDERGROUND ELECTRICAL DUCTLINE, SEE DUCT SCHEDULE E-6, CONCRETE ENCASED
	EXISTING DUCTLINE
	MECO DUCTS
	TEL DUCTS
	CATV DUCTS
	STREET LIGHT DUCT, 2" PVC SCHEDULE 40, WIRING BY MECO, DIRECT BURIED
	DUCT SCHEDULE INDICATOR. =DUCT TYPE, =DUCT SECTION TYPE
	DETAIL INDICATOR TOP HALF: DETAIL LETTER BOTTOM HALF: SHEET ON WHICH SHOWN
	CABLE TELEVISION (OCEANIC CABLEVISION)
	GROUND FAULT CIRCUIT INTERRUPTER
	GROUND
	HANDHOLE GROUP
	MAUI ELECTRIC COMPANY
	NIGHT LIGHT
	TELEPHONE (HAWAIIAN TELCOM)



OVERALL PLAN

SCALE: 1" = 500'



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PROJECT ENGINEER for ECS, Inc.
APRIL 30, 2008
EXPIRATION DATE OF THE LICENSE



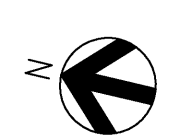
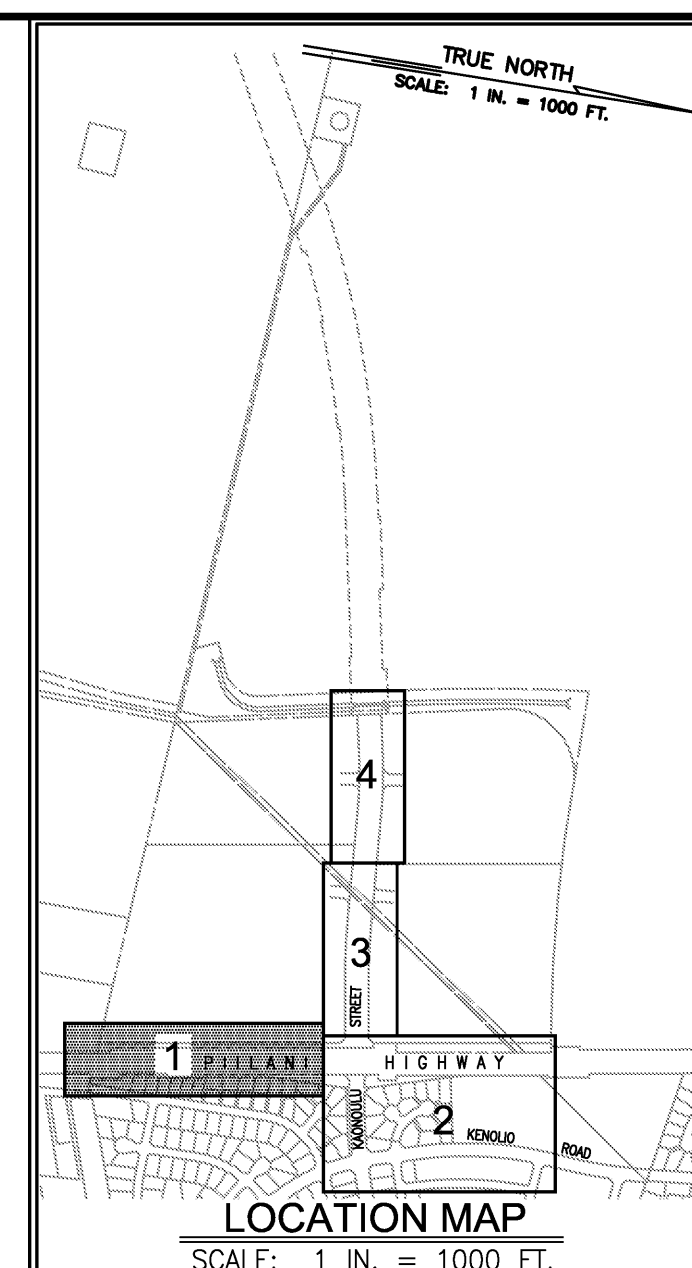
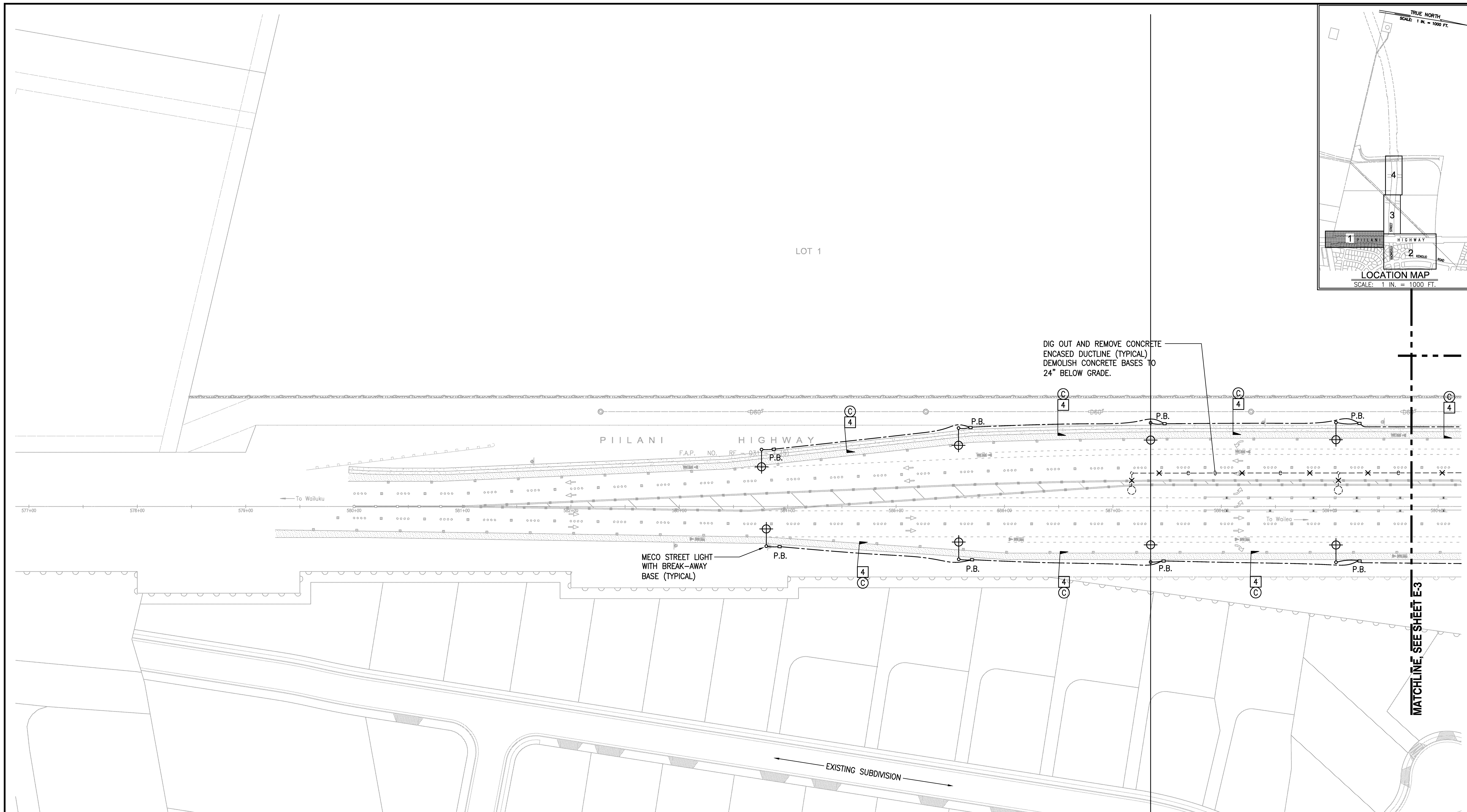
WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

KAONOULU MARKET PLACE

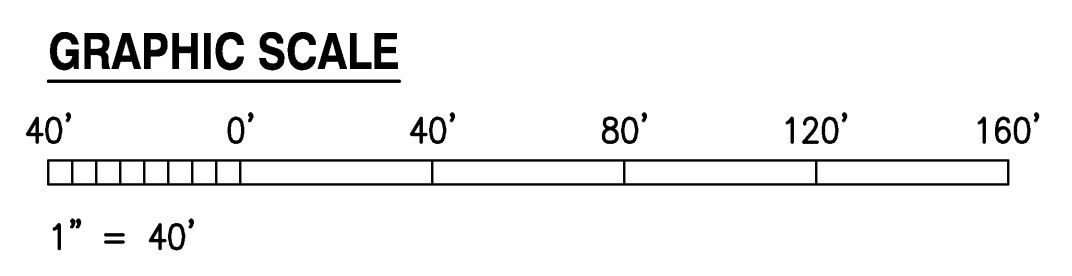
T.M.K.: (2) 2-2-02 : Por. of Par. 15 and 3-9-01 : 16
KIHEI, MAUI, HAWAII

TITLE ELECTRICAL NOTES AND SYMBOLS

DESIGNED BY GK	CHECKED BY GK	JOB NUMBER 04010.10	E-1 SHEET
DRAWN BY CS	APPROVED BY GK	DATE 10-10-08	
SCALE AS NOTED	DATE	OF SHEETS	



PARTIAL ELECTRICAL SITE PLAN - 1
SCALE: 1" = 40'



LETTER	DESCRIPTION	DATE

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

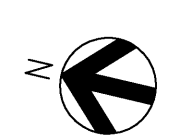
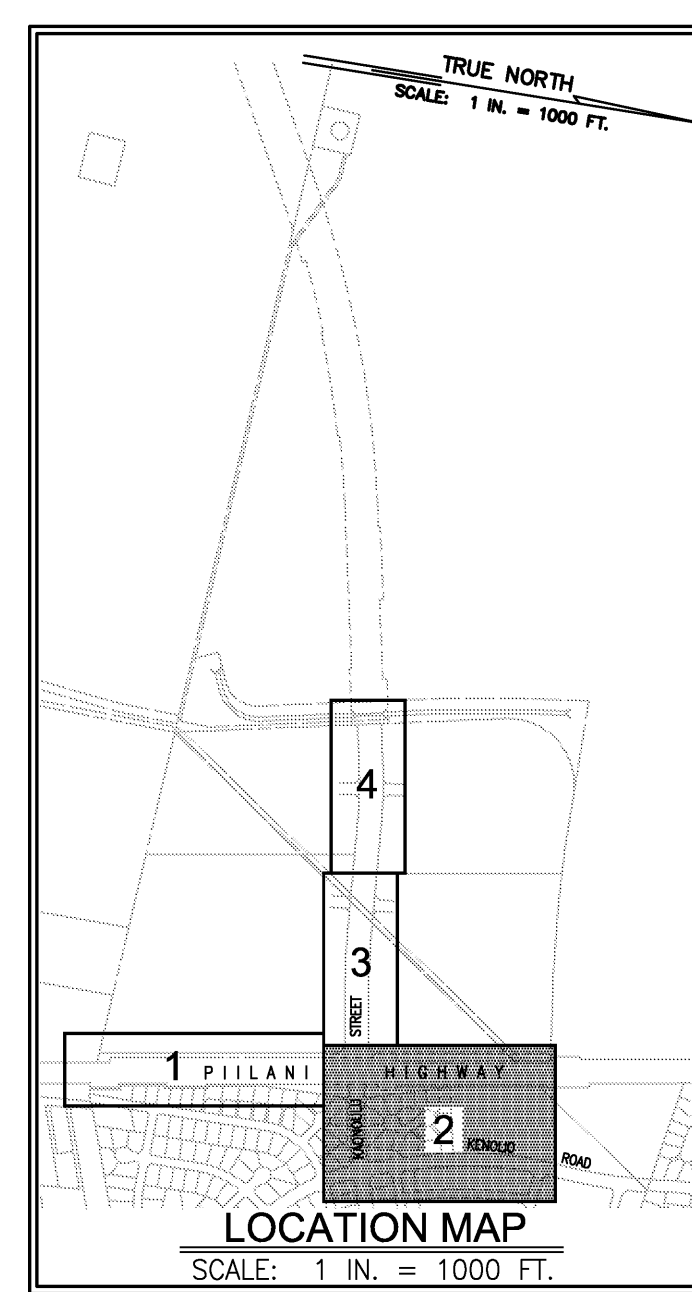
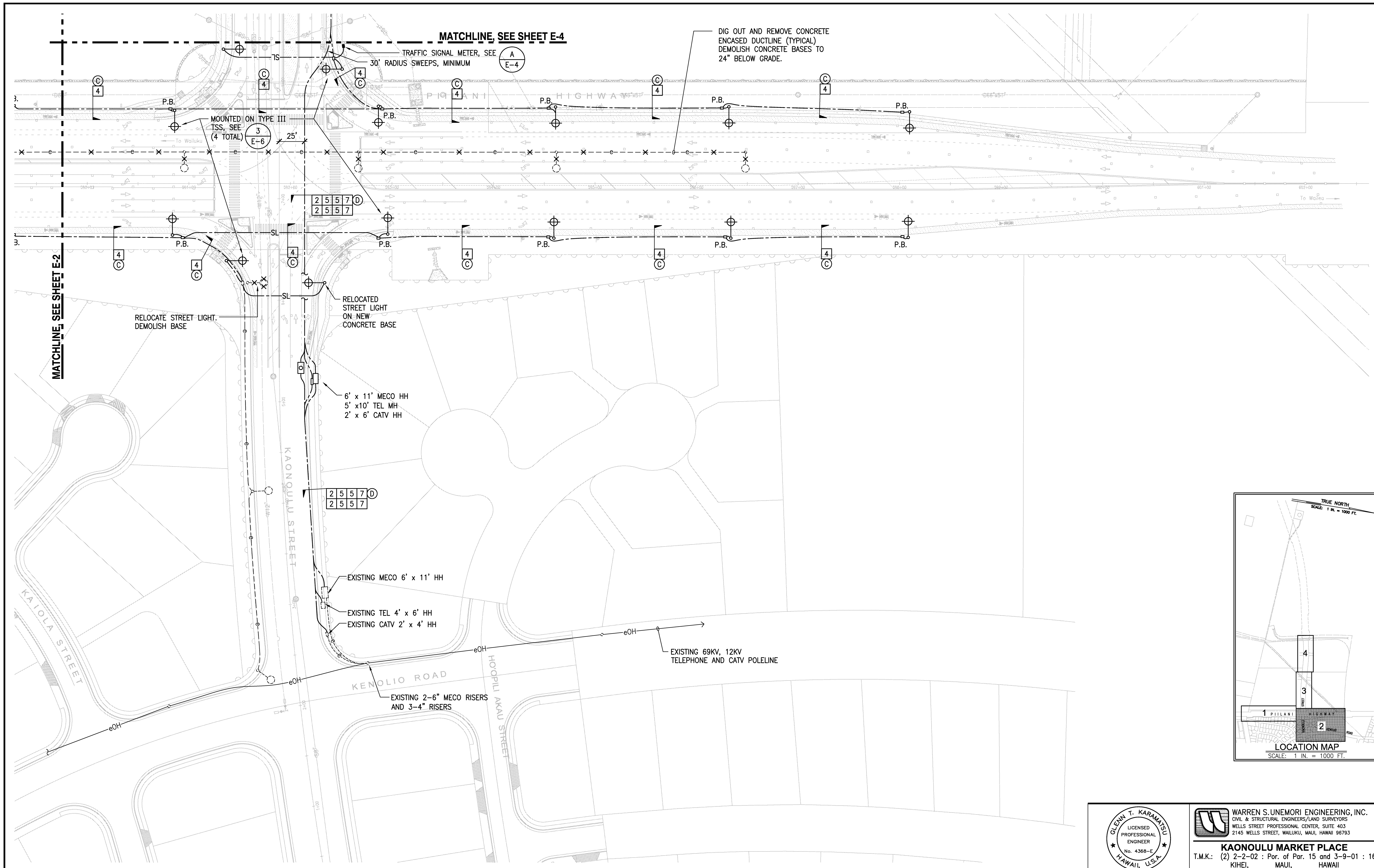
Glenn Karamatsu
PROJECT ENGINEER for ECS, Inc.
APRIL 30, 2010
EXPIRATION DATE OF THE LICENSE

WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

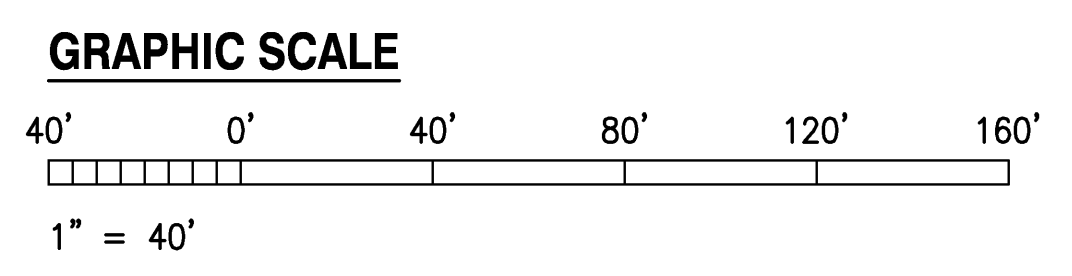
KAONOULU MARKET PLACE
T.M.K.: (2) 2-2-02 : Por. of Par. 15 and 3-9-01 : 16
KIHEI, MAUI, HAWAII

TITLE: PARTIAL ELECTRICAL SITE PLAN - 1

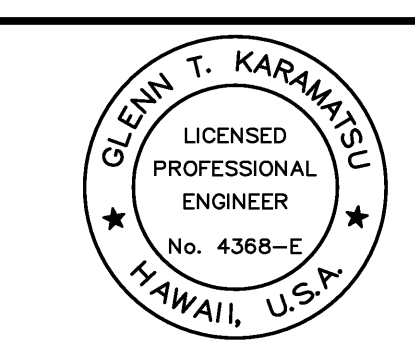
DESIGNED BY CK	CHECKED BY CK	JOB NUMBER 04010.10	E-2 SHEET
DRAWN BY CS	APPROVED BY CK	DATE 11-5-08	
SCALE: AS NOTED			OF SHEETS



PARTIAL ELECTRICAL SITE PLAN - 2
SCALE: 1" = 40'



LETTER	DESCRIPTION	DATE



THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION.

Glenn Karamatsu
PROJECT ENGINEER for ECS, Inc.

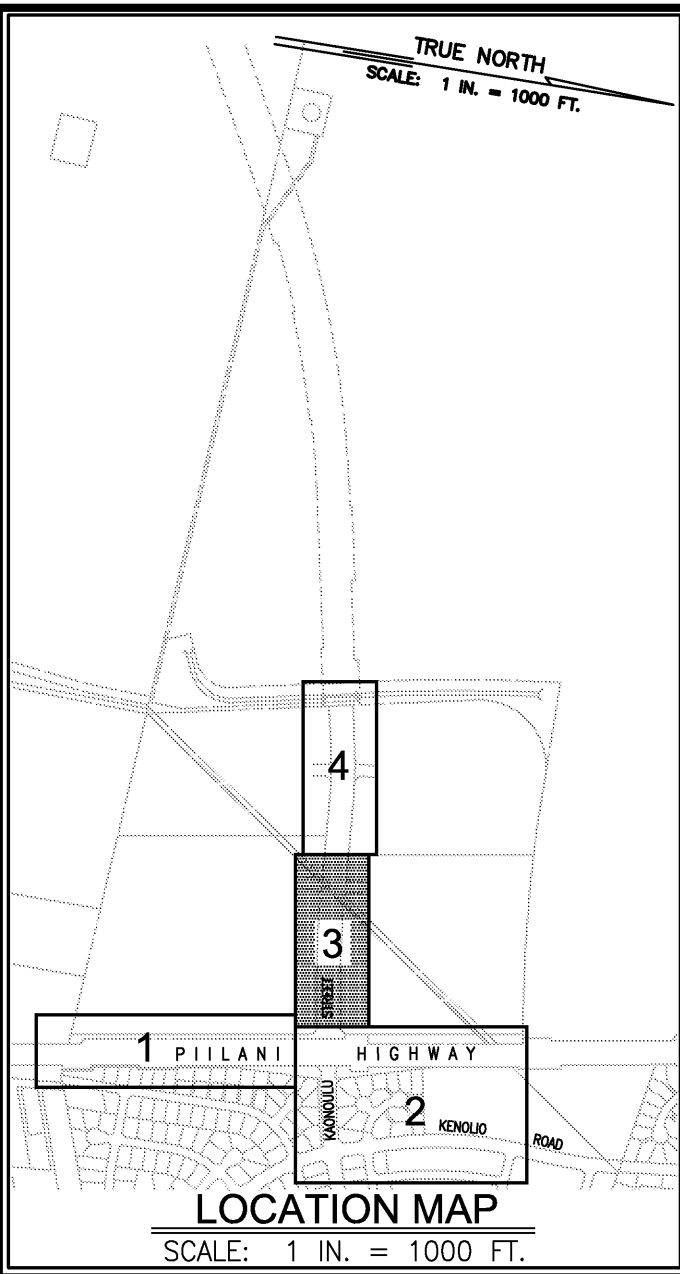
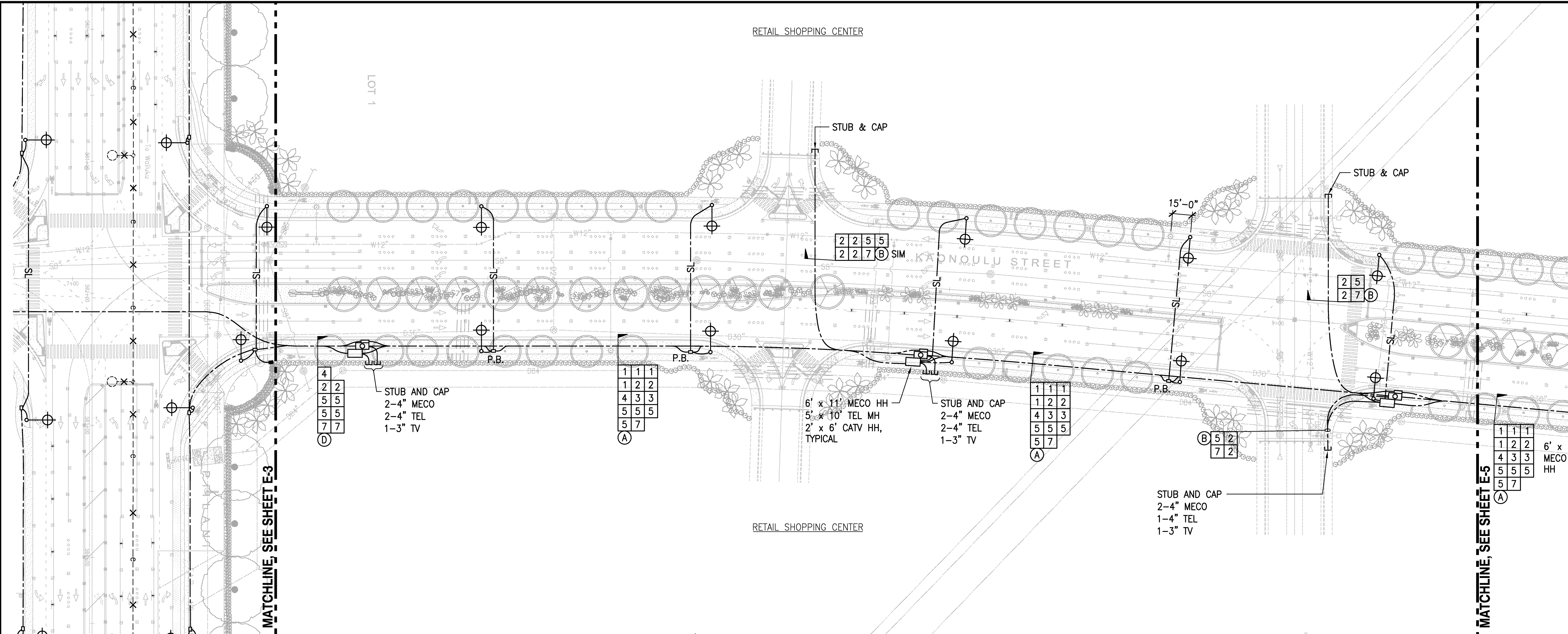
APRIL 30, 2010
EXPIRATION DATE OF THE LICENSE

WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

KAONOULU MARKET PLACE
T.M.K.: (2) 2-2-02 : Por. of Par. 15 and 3-9-01 : 16
KIHEI, MAUI, HAWAII

TITLE: PARTIAL ELECTRICAL SITE PLAN - 2

DESIGNED BY GK	CHECKED BY GK	JOB NUMBER 04010.10	SHEET E-3
DRAWN BY CS	APPROVED BY GK	JOB NUMBER 11-5-08	
SCALE AS NOTED			DATE OF SHEETS

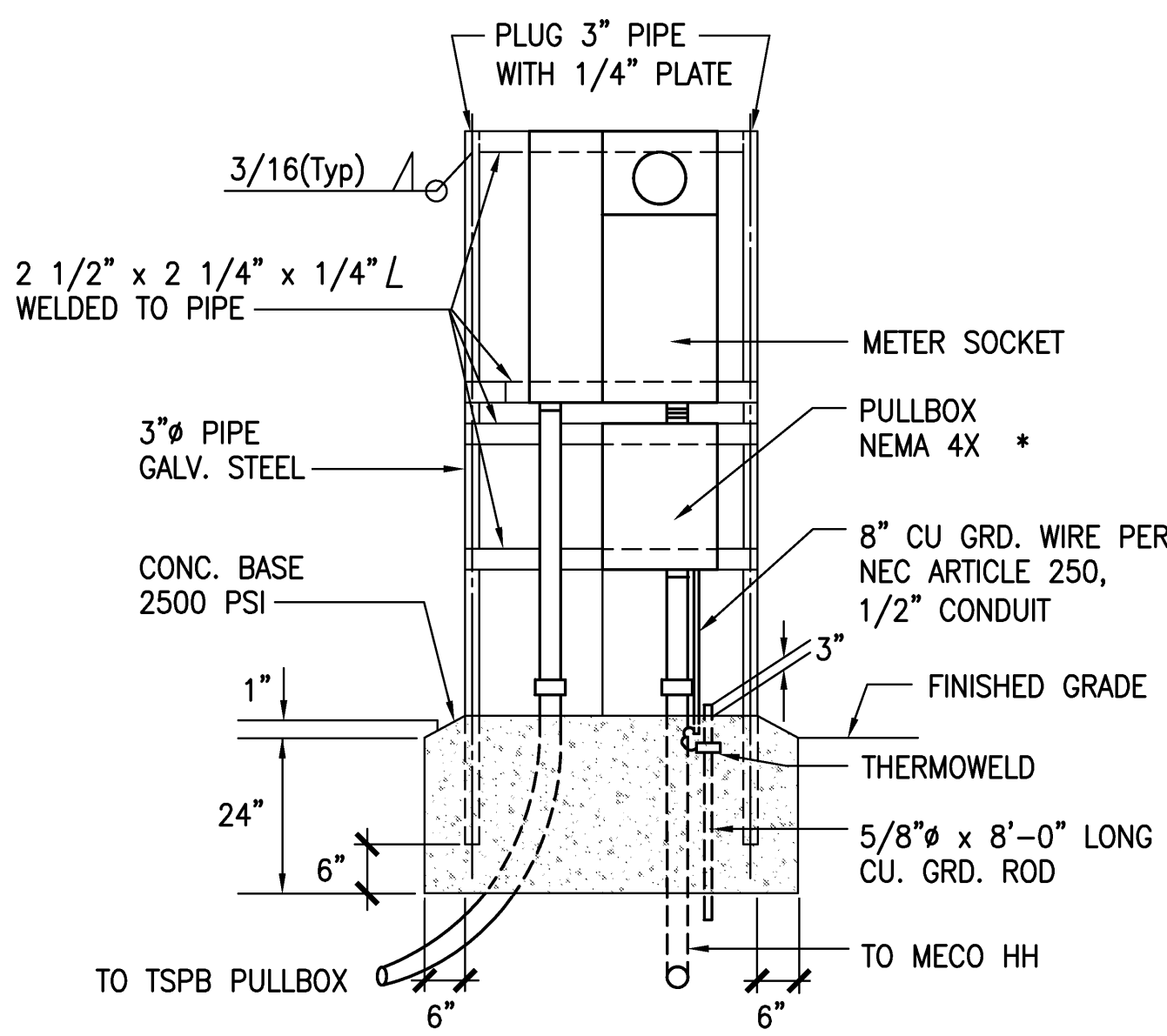


PARTIAL ELECTRICAL SITE PLAN - 3
SCALE: 1" = 40'

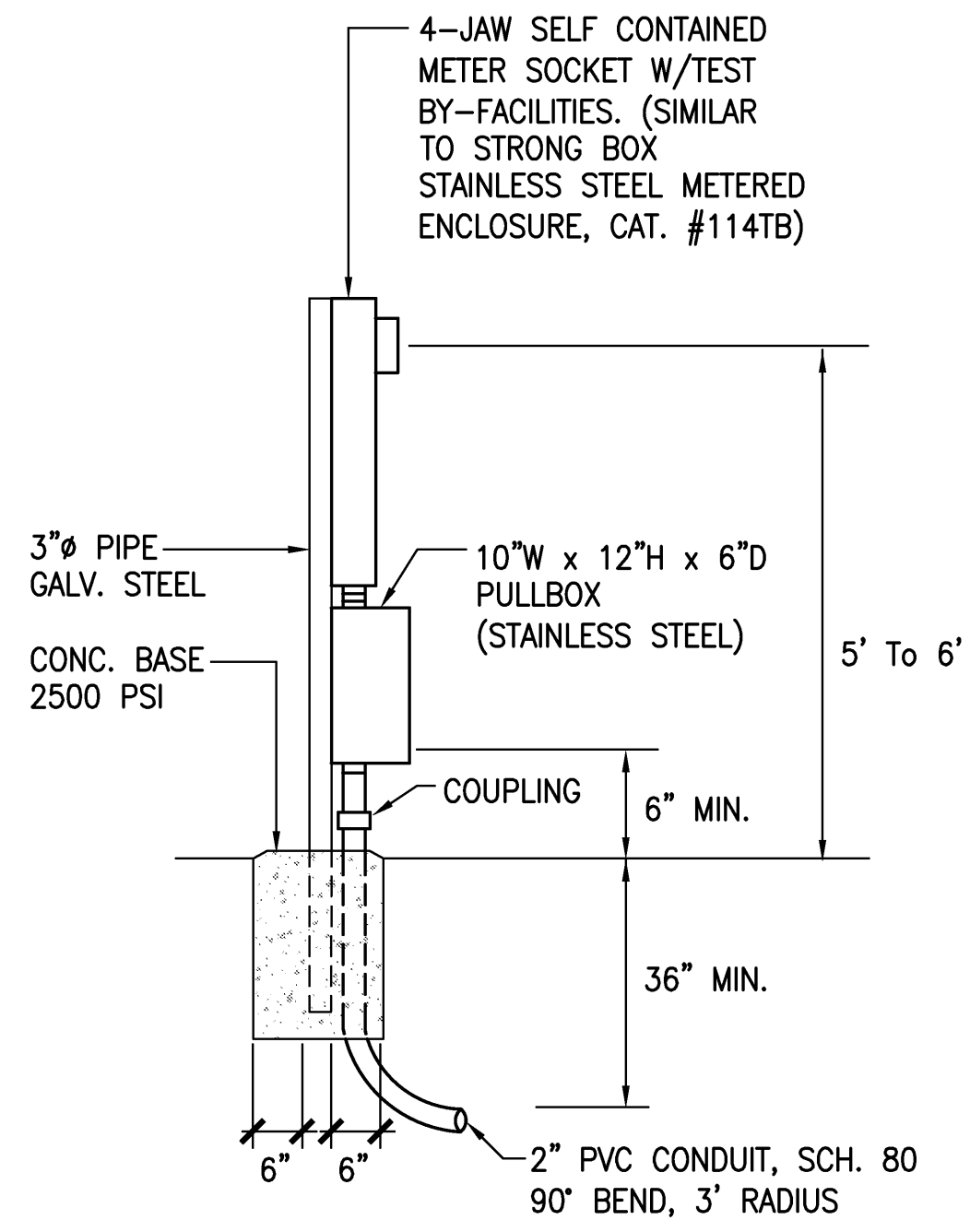
NOTES:

PEDESTAL SHALL BE HOT-DIPPED GALV. AFTER FABRICATION. ALL FASTENING BOLTS, NUTS, & WASHERS SHALL BE STAINLESS STEEL. PROVIDE 4 FT. CL. IN FRONT OF METER.

- * SEALABLE STAINLESS STEEL ENCLOSURE 10"W x 12"H x 6"D.

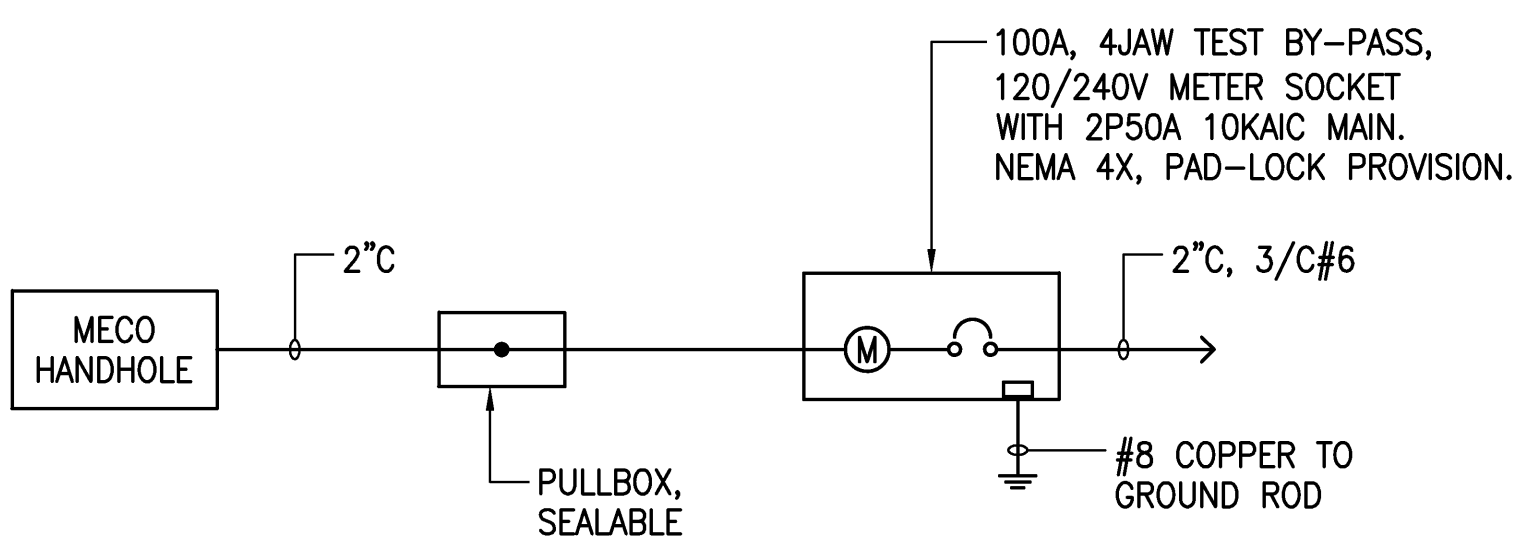


FRONT ELEVATION

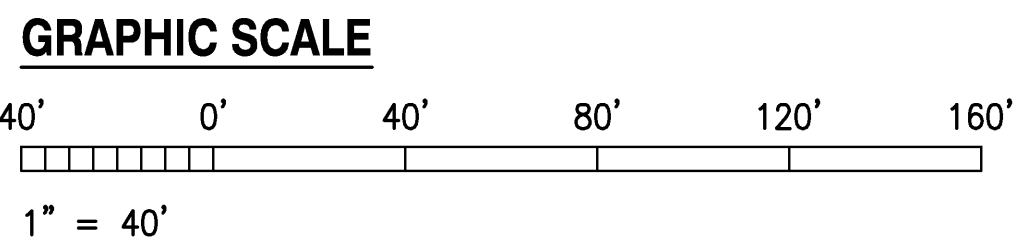


SIDE ELEVATION

A METER PEDESTAL FOR UNDERGROUND SERVICE DETAIL
E-4 NOT TO SCALE



1 TRAFFIC SIGNAL ONE LINE DIAGRAM
E-4 NO SCALE



GLENN T. KARAMATSU
LICENSED PROFESSIONAL ENGINEER
No. 4368-E
HAWAII, U.S.A.

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Glenn Karamatsu
PROJECT ENGINEER for ECS, Inc.

APRIL 30, 2010
EXPIRATION DATE OF THE LICENSE

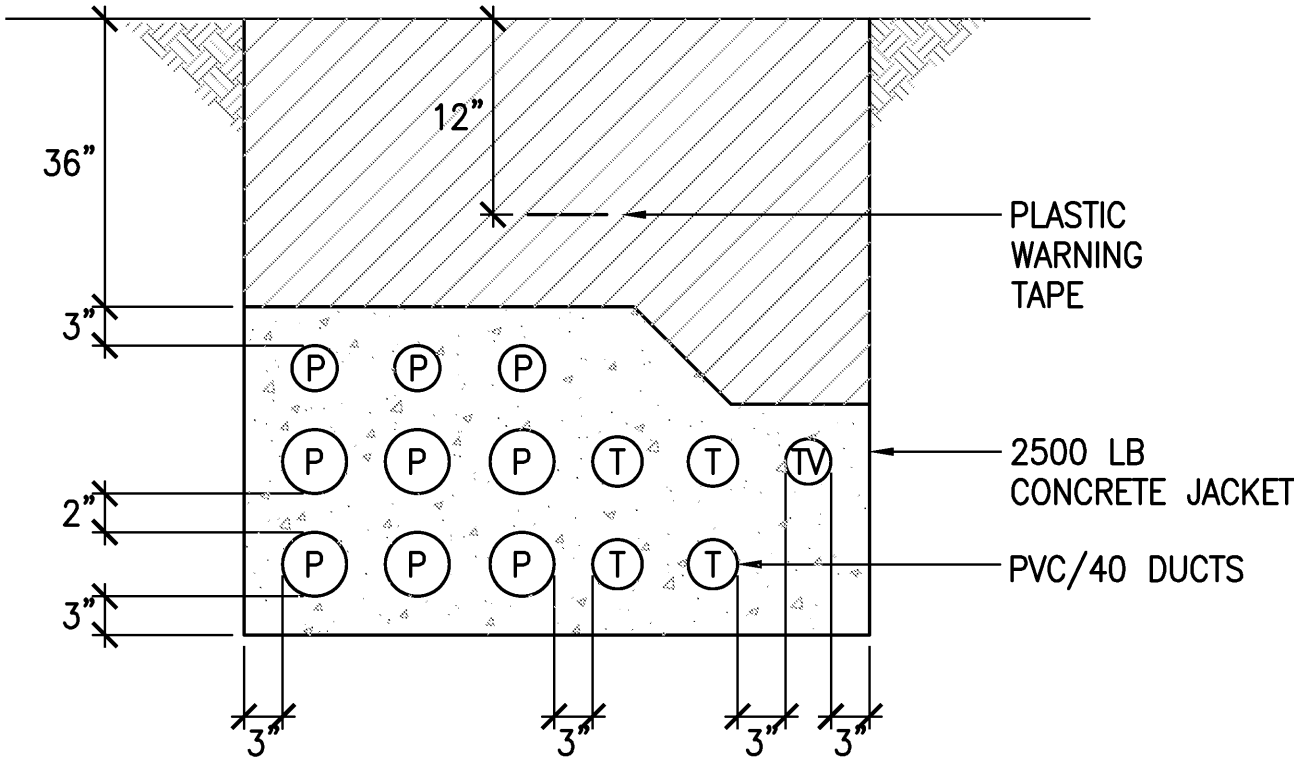
WARREN S. UNEMORI ENGINEERING, INC.
CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS
WELLS STREET PROFESSIONAL CENTER, SUITE 403
2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793

KAONOULU MARKET PLACE
T.M.K.: (2) 2-2-02 : Por. of Par. 15 and 3-9-01 : 16
KIHEI, MAUI, HAWAII

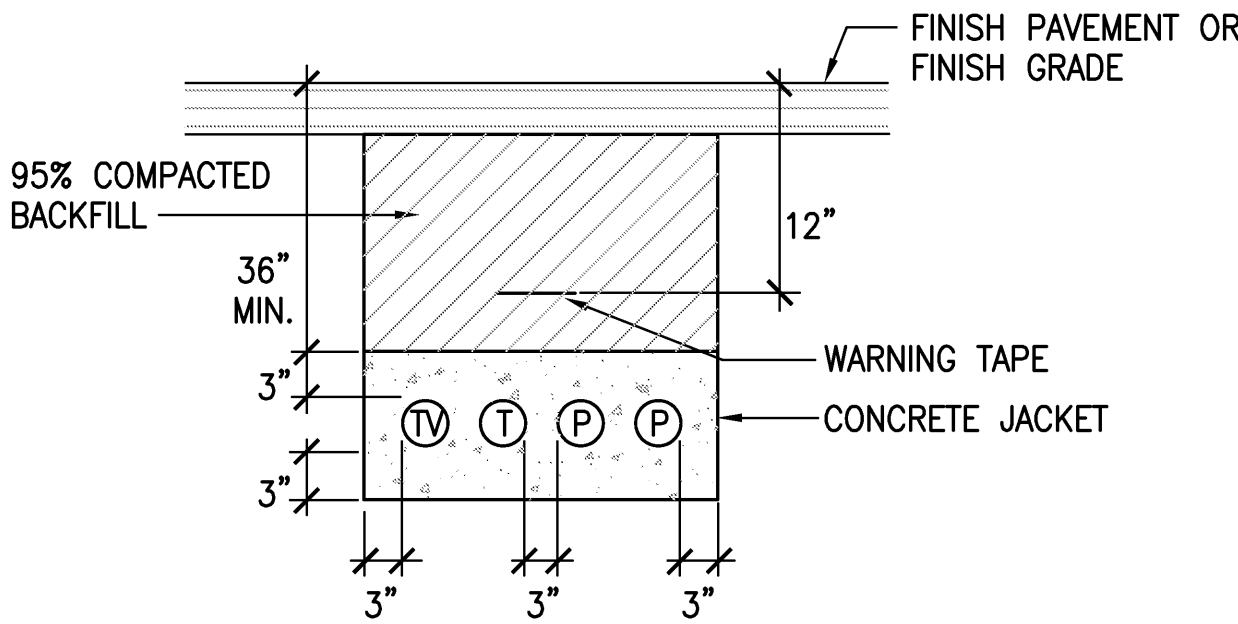
TITLE: PARTIAL ELECTRICAL SITE PLAN - 3

DESIGNED BY GK	CHECKED BY GK	JOB NUMBER 04010.10	E-4 SHEET OF SHEETS
DRAWN BY CS	APPROVED BY GK	DATE 12-26-08	
SCALE AS NOTED		DATE	

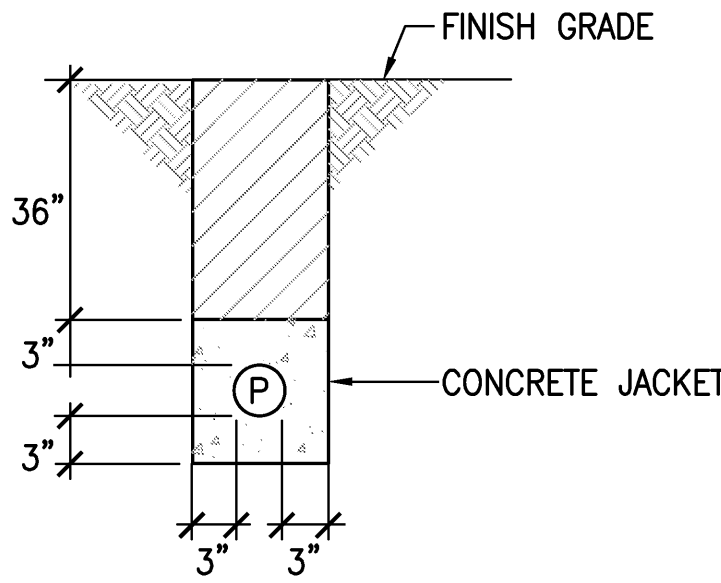
DUCT SCHEDULE			
NO.	USE	SIZE	CABLES
1	MECO 12 KV PRIMARY	5"	NONE-BY MECO
2	MECO 12 KV PRIMARY	4"	NONE-BY MECO
3	MECO 1Ø PRIMARY	2"	NONE-BY MECO
4	MECO SECONDARY	3"	NONE-BY MECO
5	TELEPHONE	4" GTS	MULETAPE
6	TELEPHONE	2" GTS	MULETAPE
7	CATV	4"	MULETAPE



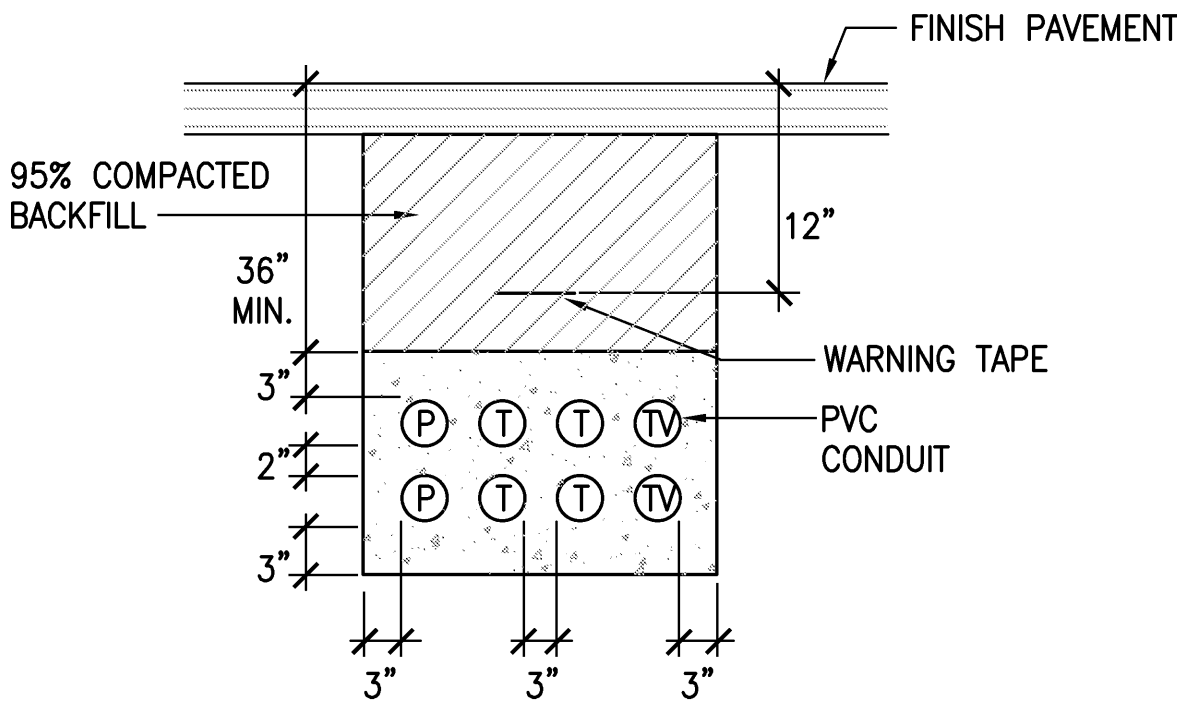
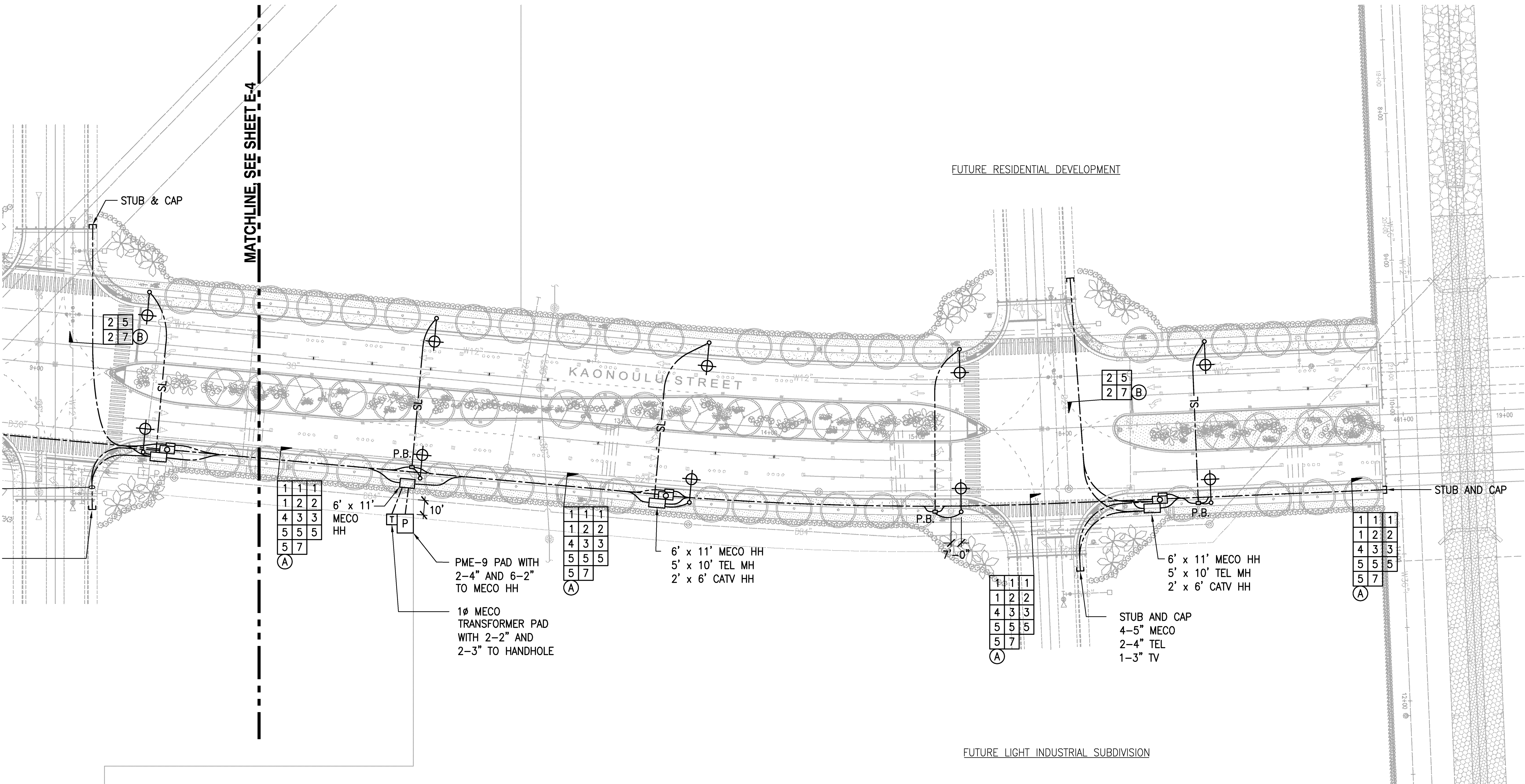
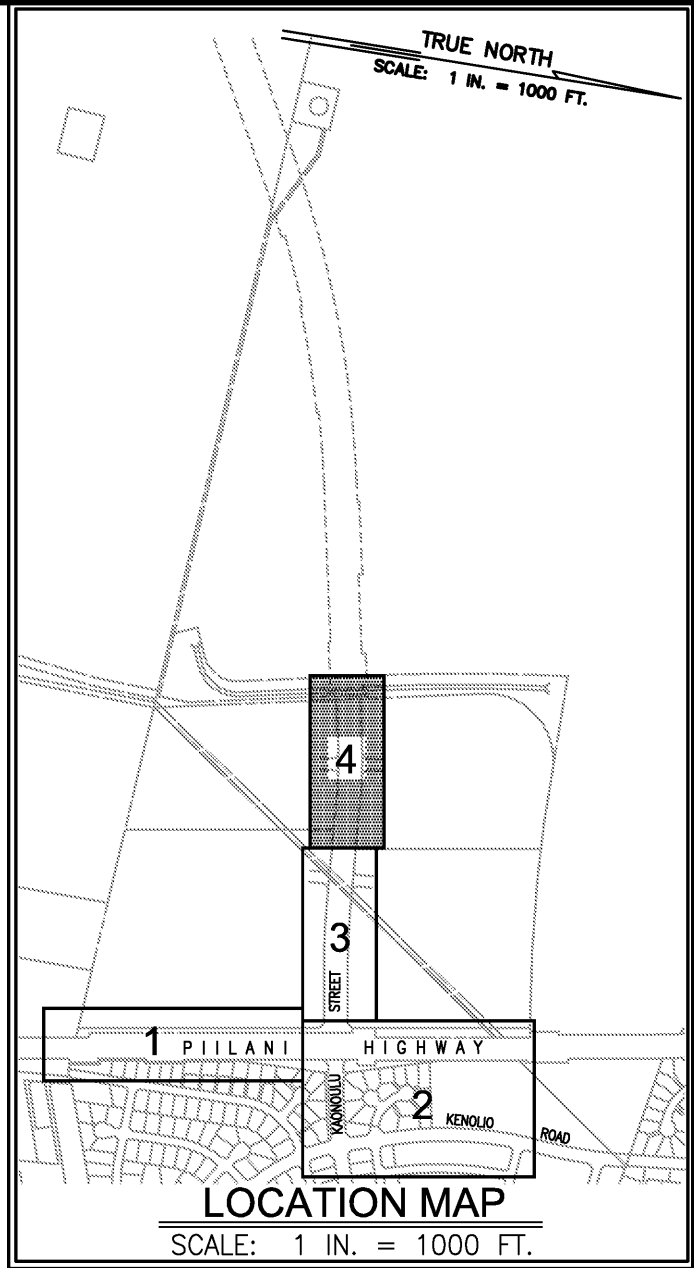
DUCT DETAIL A
NOT TO SCALE



DUCT DETAIL B
NOT TO SCALE

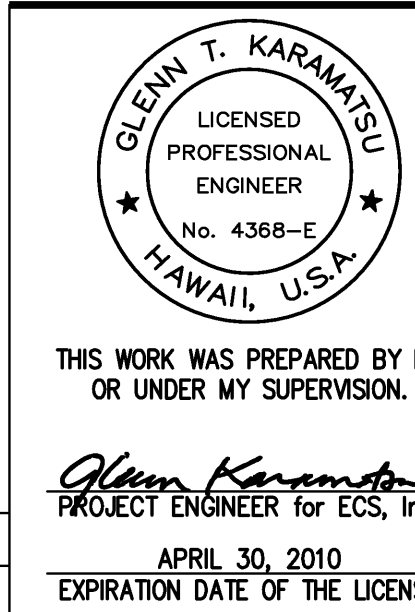
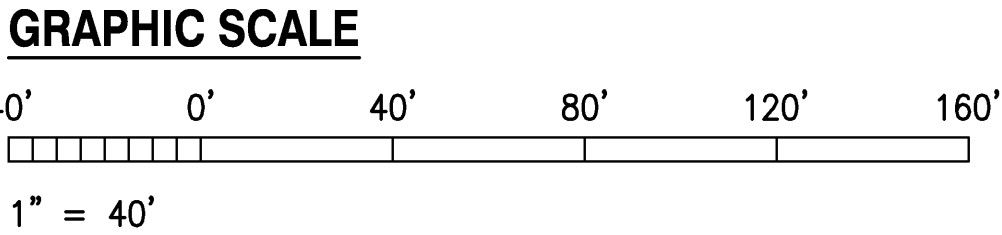


DUCT DETAIL C
NOT TO SCALE

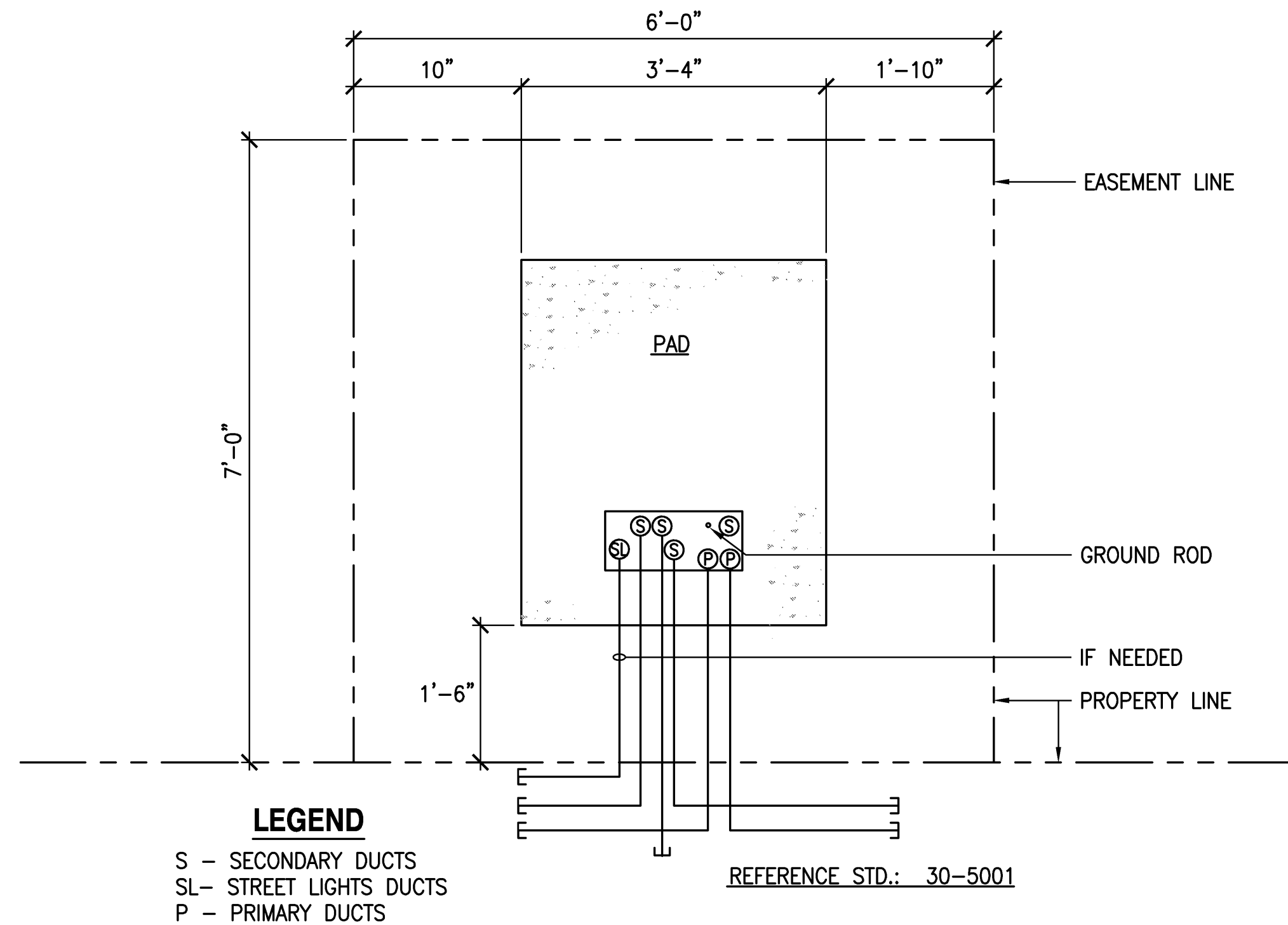


DUCT DETAIL D
NOT TO SCALE

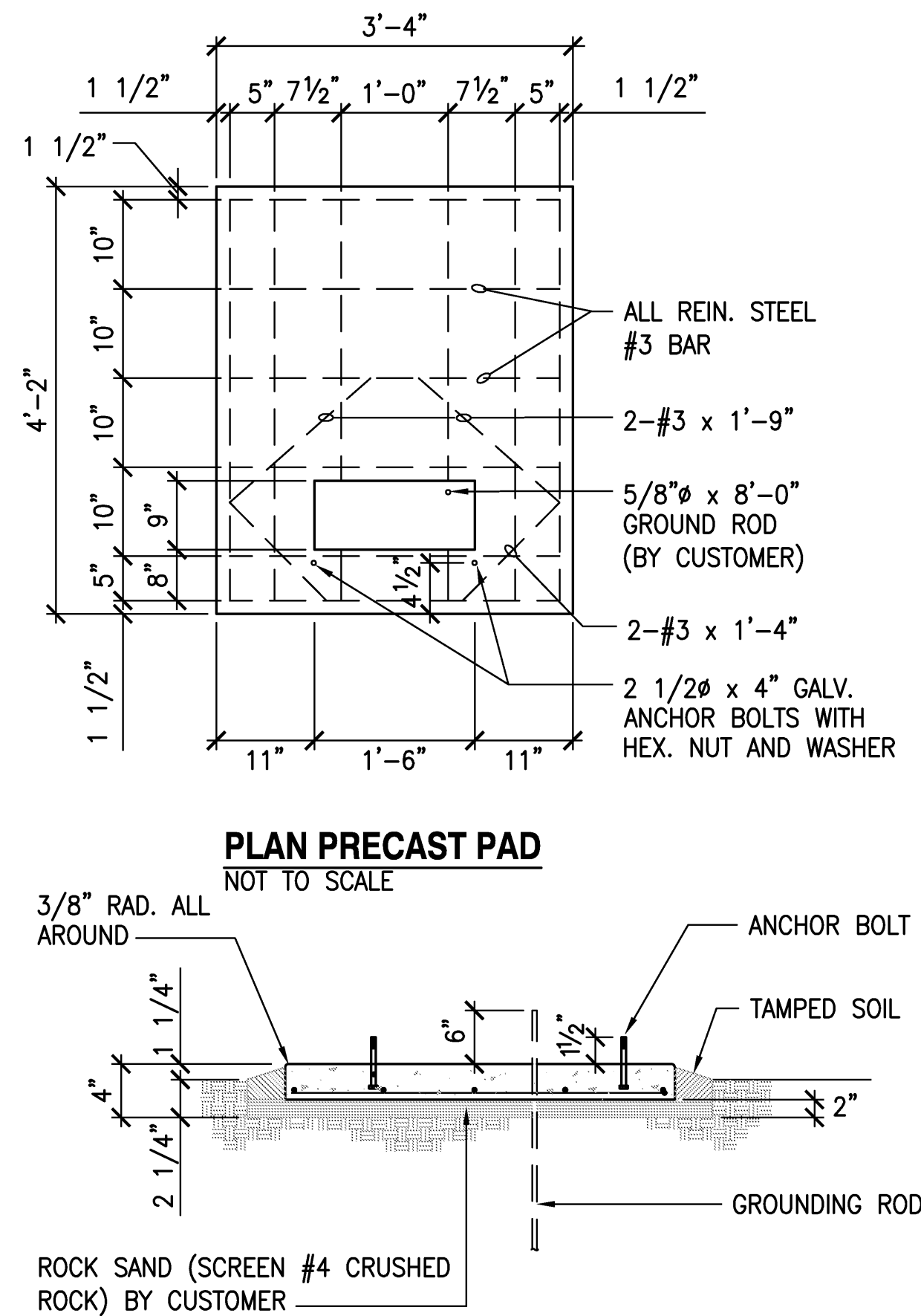
PARTIAL ELECTRICAL SITE PLAN - 4
SCALE: 1" = 40'



WARREN S. UNEMORI ENGINEERING, INC. CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS WELLS STREET PROFESSIONAL CENTER, SUITE 403 2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793	
KAONOULU MARKET PLACE T.M.K.: (2) 2-2-02 : Por. of Par. 15 and 3-9-01 : 16 KIHEI, MAUI, HAWAII	
TITLE: PARTIAL ELECTRICAL SITE PLAN - 4	
DESIGNED BY: GK	CHECKED BY: GK
DRAWN BY: CS	APPROVED BY: GK
JOB NUMBER: 04010.10	
DATE: 12-26-08	
SHEET: E-5	
OF SHEETS: 5	



1 **TRANSFORMER PAD/CONDUIT LAYOUT**
NOT TO SCALE

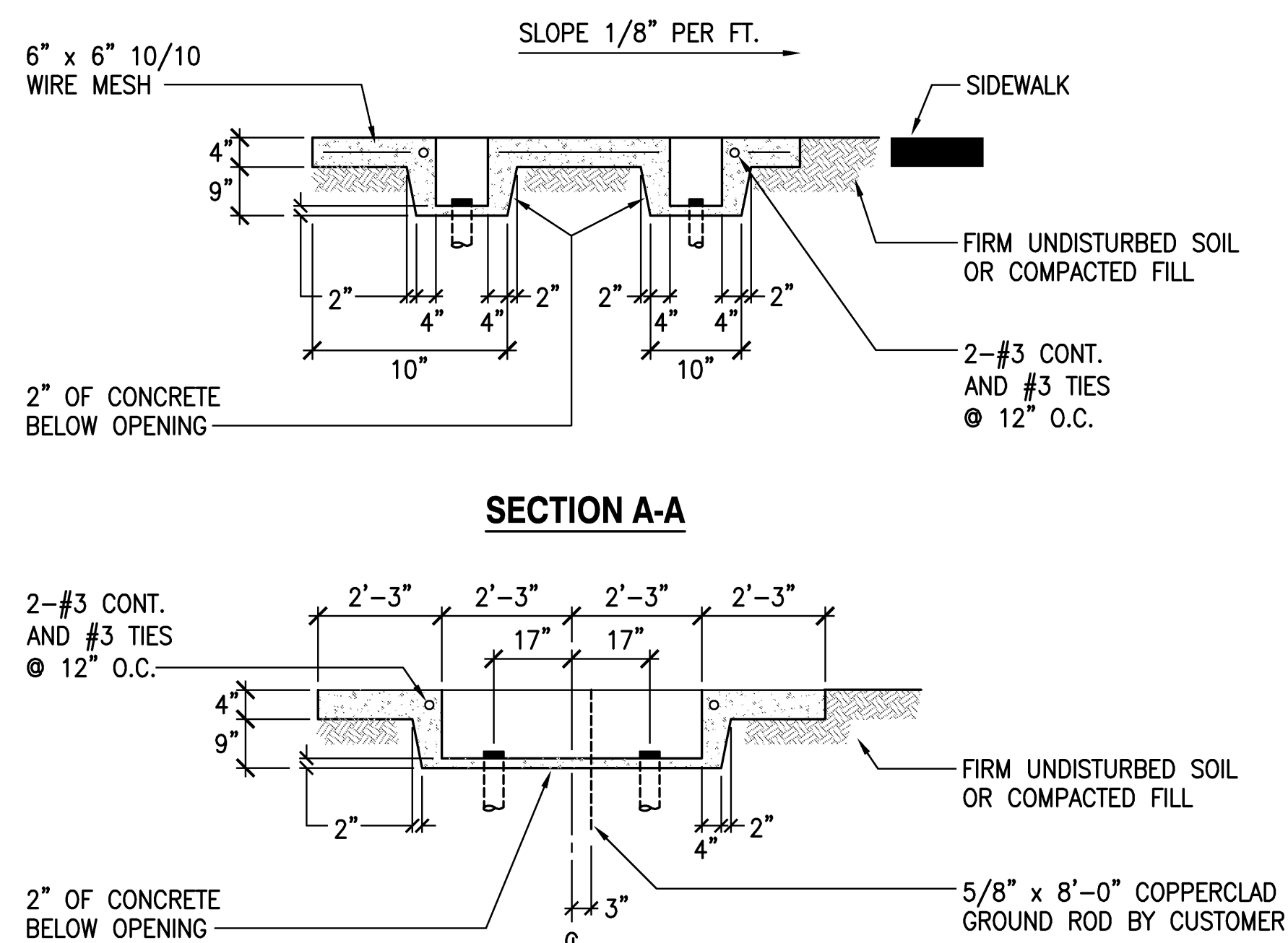
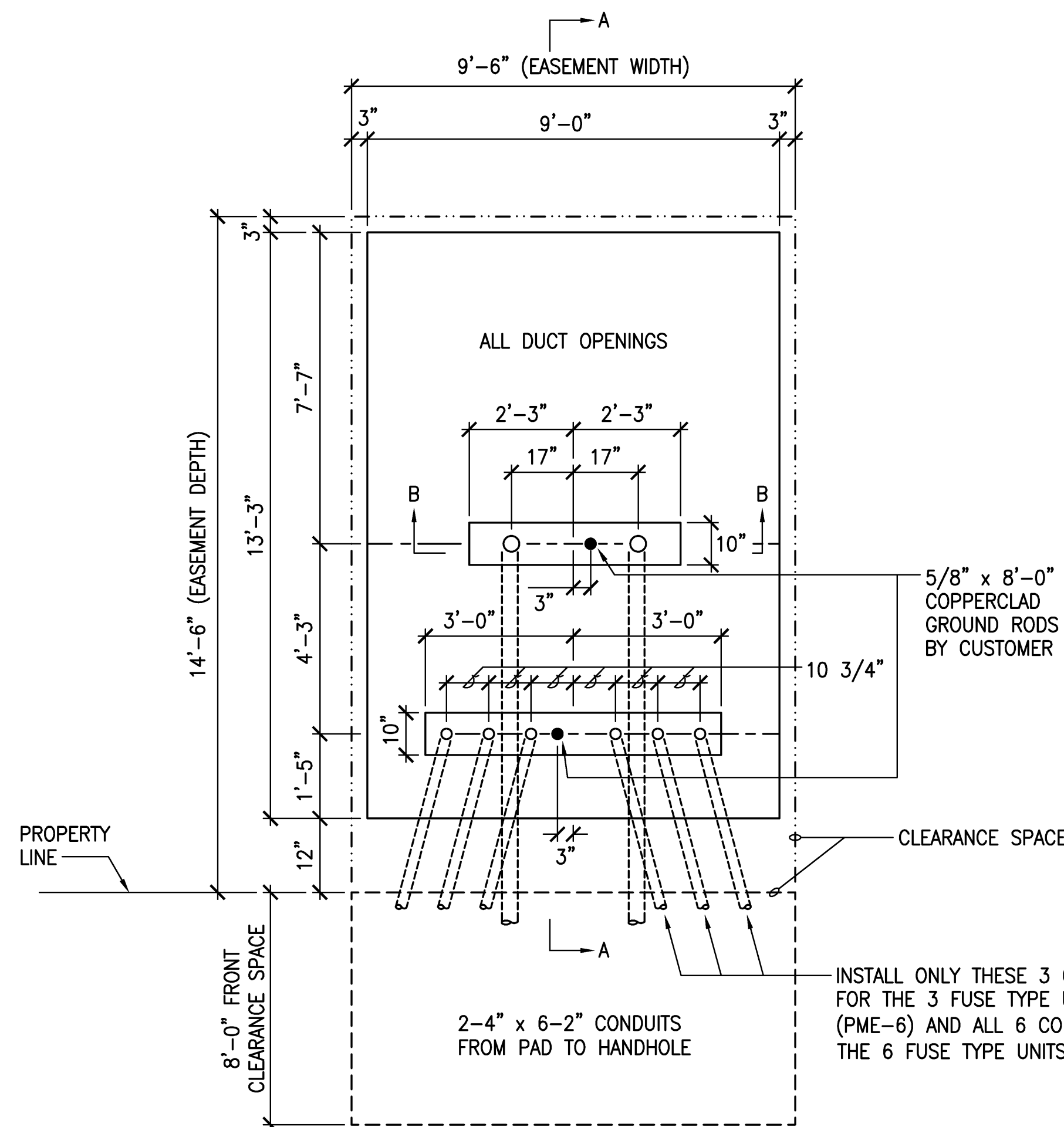


ELEVATION
NOT TO SCALE

TRANSFORMER PAD NOTES:

1. COMPRESSIVE STRENGTH OF CONCRETE SHALL BE 3,000 P.S.I. AT 28 DAYS
2. TOP OF PAD SHALL BE SMOOTH, TRUE, LEVEL AND OTHER EXPOSED SURFACES SHALL BE SMOOTH AND FREE FROM DEFECTS.
3. CONCRETE SHALL BE CURED BY APPROVED METHOD (ASTM A15)
4. REINFORCING BARS SHALL BE CLEAN DEFORMED BARS.
5. PRECAST PAD MADE BY AMERON, MAUI.
6. ALL ITEMS SHALL BE FURNISHED IN PLACE COMPLETE BY CUSTOMER.
7. PAD SITE SHALL BE GRADED AND COMPACTED. COMPACTION SHALL MEET THE REQUIREMENTS OF THE COUNTY OF MAUI "STANDARD SPECIFICATIONS FOR COMPACTING SIDEWALK AREA." THE HIGHER FRONT OR SIDEWALK CORNER SHALL MATCH THE ADJACENT SIDEWALK GRADE. SLOPE SHALL BE TOWARDS THE SIDEWALK OR ROAD, NOT EXCEEDING 1/2" PER FOOT.
8. AREA SURROUNDING THE TRANSFORMER SITE SHALL BE SUFFICIENTLY GRADED OR A SUITABLE RETAINING WALL BUILT TO PREVENT FUTURE FILLING IN THE LOT.
9. AN AREA 3'-8" X 4'-6" AND 2" DEEP SHALL BE EXCAVATED AFTER COMPACTION. THIS AREA SHALL BE FILLED WITH THE 2" BASE MATERIAL AND COMPACTED (SEE ELEVATION).

1 **CONCRETE PAD FOR PADMOUNT TRANSFORMER**
E-6 NOT TO SCALE

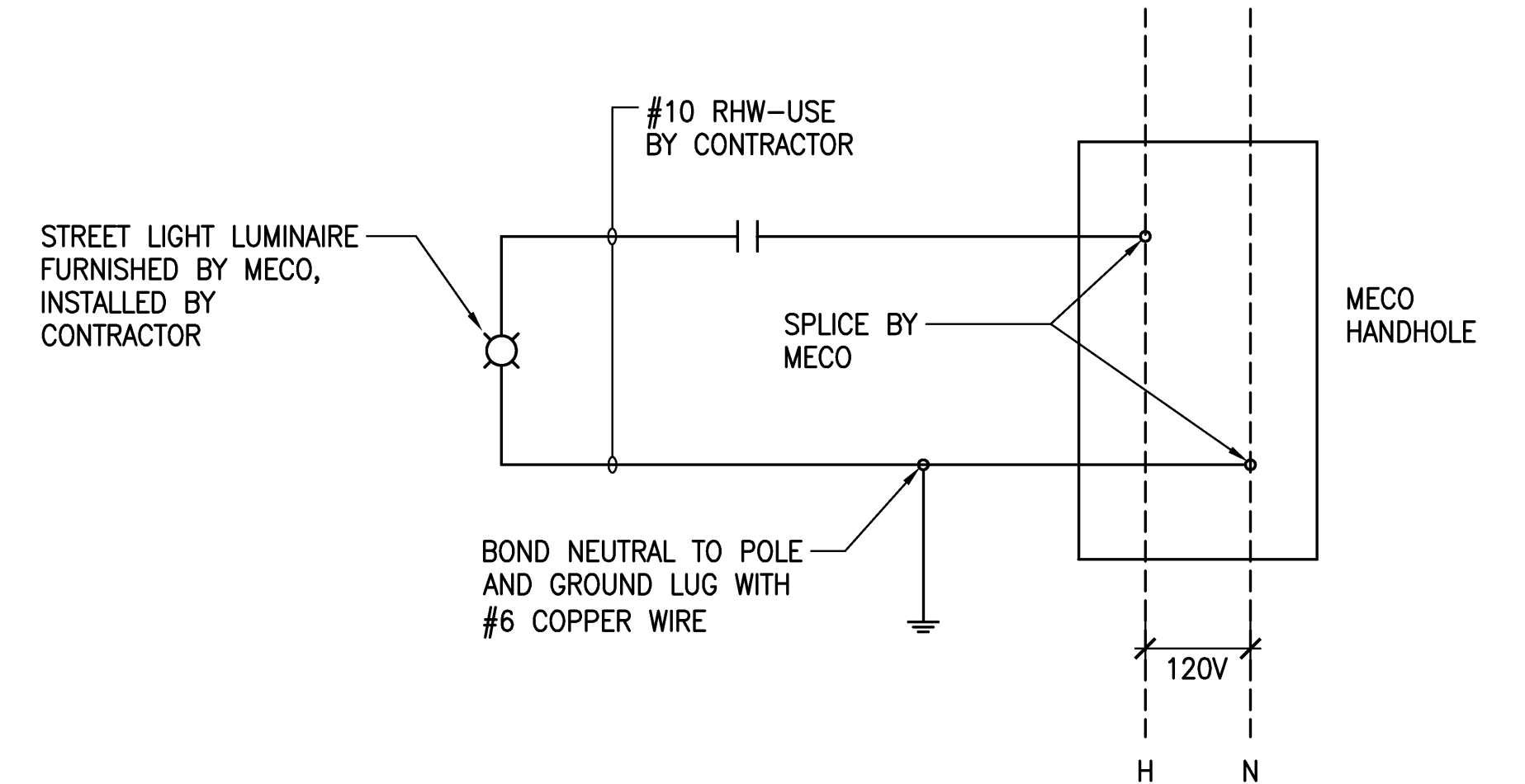


SECTION B-B

PME PAD NOTES

1. CONCRETE COMPRESSIVE STRENGTH: 3000 P.S.I. IN 28 DAYS
2. REINFORCING: CLEAN AND NEW ROUND DEFORMED BARS AND 6x6/10x10 WIRE MESH
3. TOP OF CONCRETE PAD TO BE SMOOTH AND TRUE. OTHER EXPOSED SURFACES TO BE SMOOTH AND FREE FROM DEFECTS SIDEWALK FINISH AS PER COUNTY OF MAUI SPECIFICATIONS

2 **PME-6 & PME-9 PAD**
E-6 N.T.S.

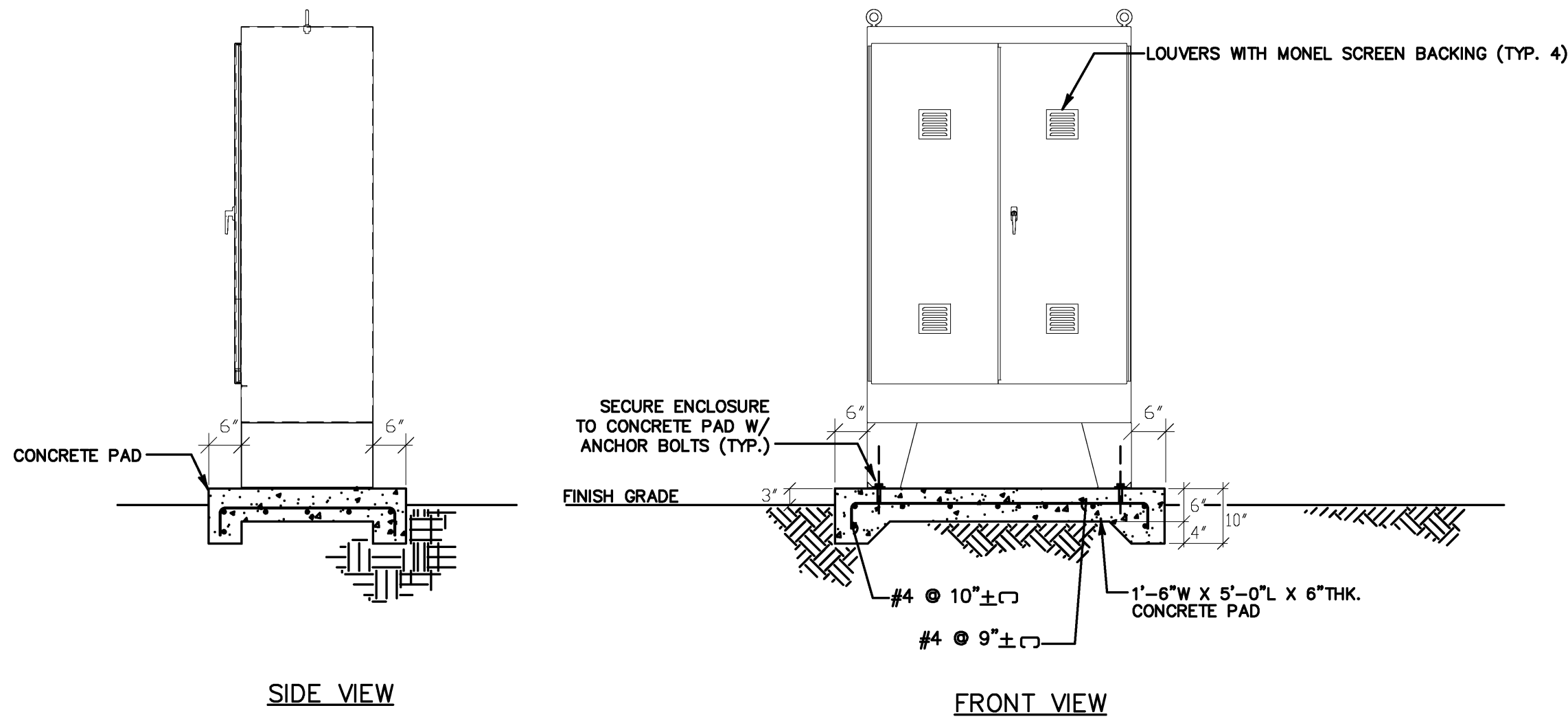


STREET LIGHT WIRING DIAGRAM FOR TYPE III TRAFFIC SIGNAL STANDARD

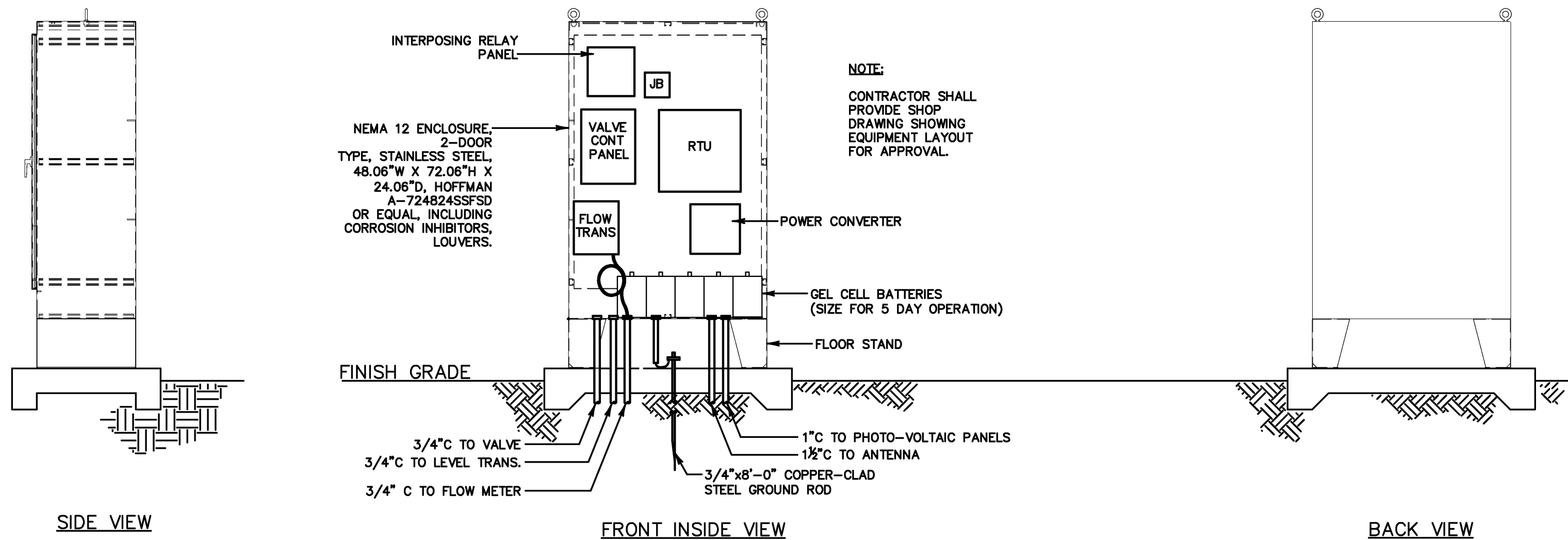
3 **E-6**
N.T.S.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.		WARREN S. UNEMORI ENGINEERING, INC. CIVIL & STRUCTURAL ENGINEERS/LAND SURVEYORS WELLS STREET PROFESSIONAL CENTER, SUITE 403 2145 WELLS STREET, WAILUKU, MAUI, HAWAII 96793	
PROJECT ENGINEER for ECS, Inc.		KAONOLU MARKET PLACE T.M.K.: (2) 2-2-02 : Por. of Par. 15 and 3-9-01 : 16 KIHEI, MAUI, HAWAII	
APRIL 30, 2010 EXPIRATION DATE OF THE LICENSE		TITLE: MISCELLANEOUS DETAILS	
DESIGNED BY GK	CHECKED BY GK	JOB NUMBER 04010.10	E-6 SHEET
DRAWN BY CS	APPROVED BY GK	DATE 11-5-08	
SCALE AS NOTED		DATE	OF SHEETS

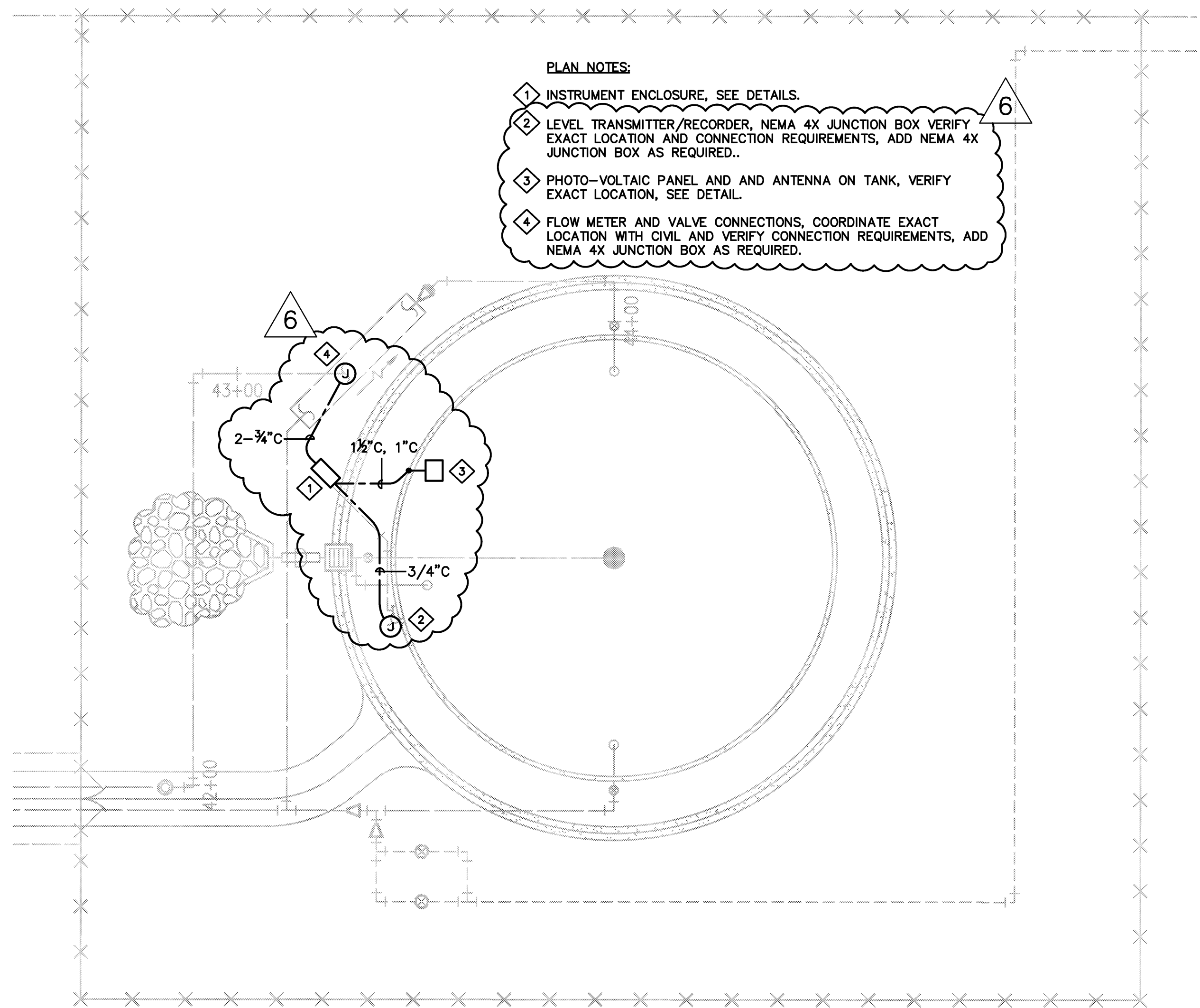
LETTER	DESCRIPTION	DATE



INSTRUMENT ENCLOSURE/PAD DETAIL
NOT TO SCALE



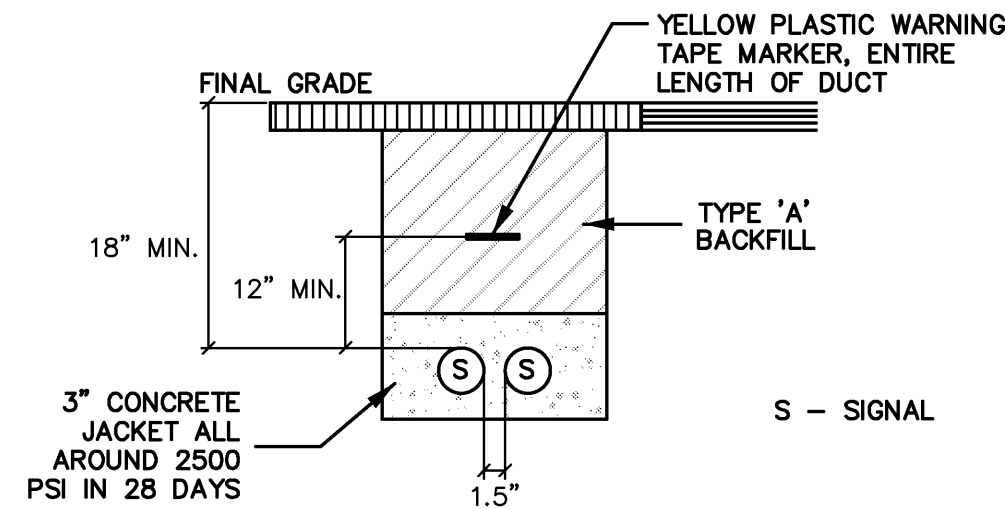
INSTRUMENT ENCLOSURE ELEVATION DETAIL
NOT TO SCALE



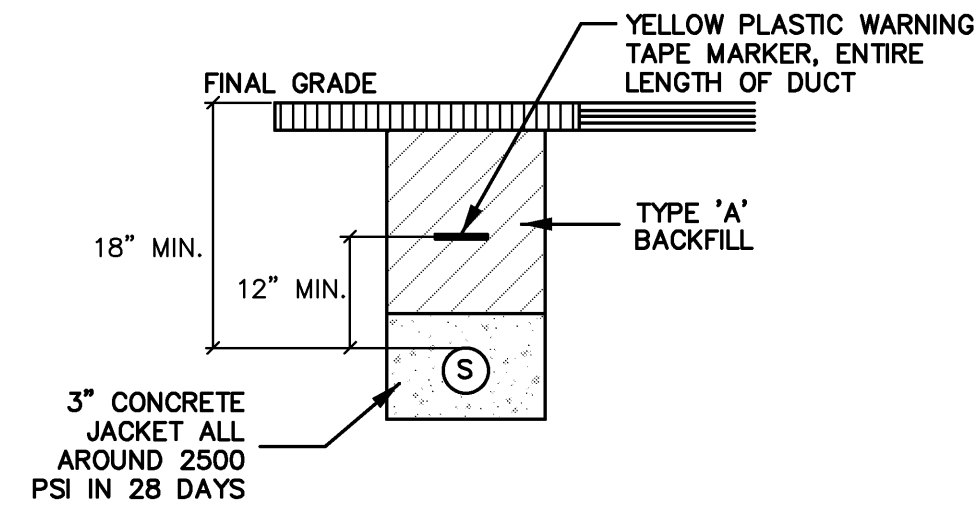
WATER TANK - ELECTRICAL PLAN
SCALE: 1" = 20'-0"

TYPE "A" - BEACH SAND, EARTH, OR EARTH AND GRAVEL. IF EARTH AND GRAVEL, THE MAXIMUM ROCK SHALL BE 1" AND THE MIXTURE SHALL CONTAIN NOT MORE THAN 50% BY VOLUME OF ROCK PARTICLES.

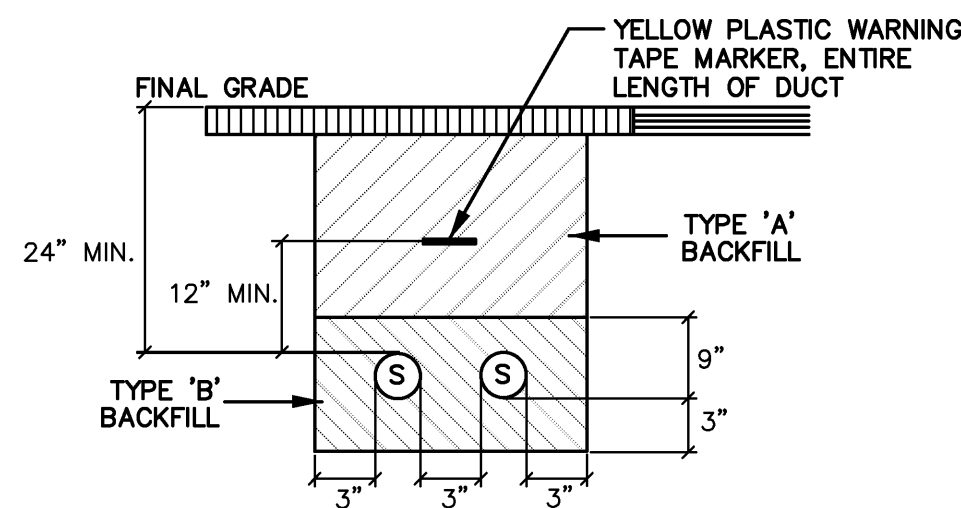
TYPE "B" - BEACH SAND, EARTH, OR EARTH AND GRAVEL. IF EARTH AND GRAVEL, THE MIXTURE MUST PASS A 1/2" MESH SCREEN AND CONTAIN NOT MORE THAN 20% BY VOLUME OF ROCK PARTICLES. CORAL OR CORAL WASTE WILL NOT BE ACCEPTABLE.



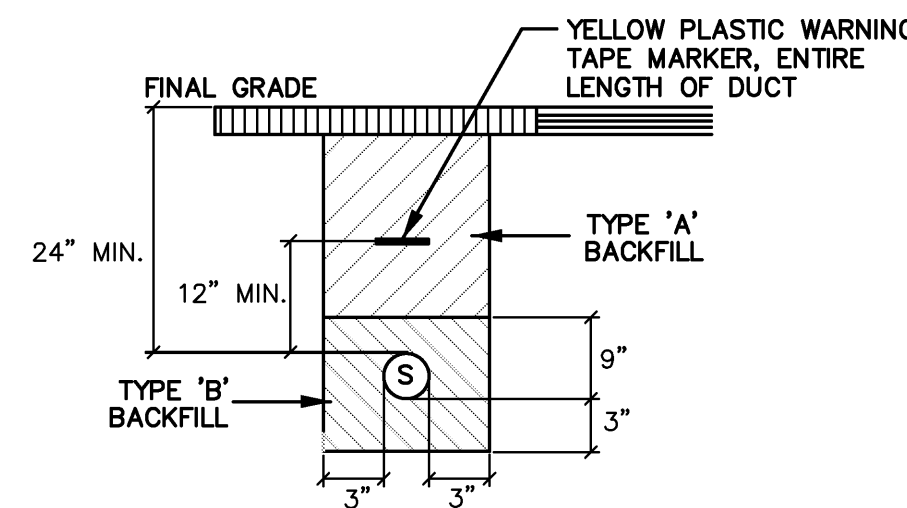
TYPICAL DUCT SECTION THRU DRIVEWAY



TYPICAL DUCT SECTION THRU DRIVEWAY



TYPICAL DUCT SECTION THRU NON-TRAFFIC AREAS



TYPICAL DUCT SECTION THRU NON-TRAFFIC AREAS

ECM Inc.
Electrical Engineering Consultants

MAUI OFFICE
180 North Market Street
Honolulu, Hawaii, HI 96803
Phone: (808)448-6070
Fax: (808)448-6030
E-mail: ecm@ecm-maui.com

TERAL M. FUKUDA
LICENSED PROFESSIONAL ENGINEER
No. 10378-E
HAWAII, U.S.A.

APRIL 2002
EXPIRATION DATE
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION (SUPERVISION OF CONSTRUCTION AS DEFINED UNDER SECTION 16-82-2 OF CHAPTER 82: RULES OF THE BOARD OF PROFESSIONAL ENGINEERS, ARCHITECTS AND LAND SURVEYORS, STATE OF HAWAII.)
Note: Contractor shall check and verify all dimensions at job before proceeding with work.

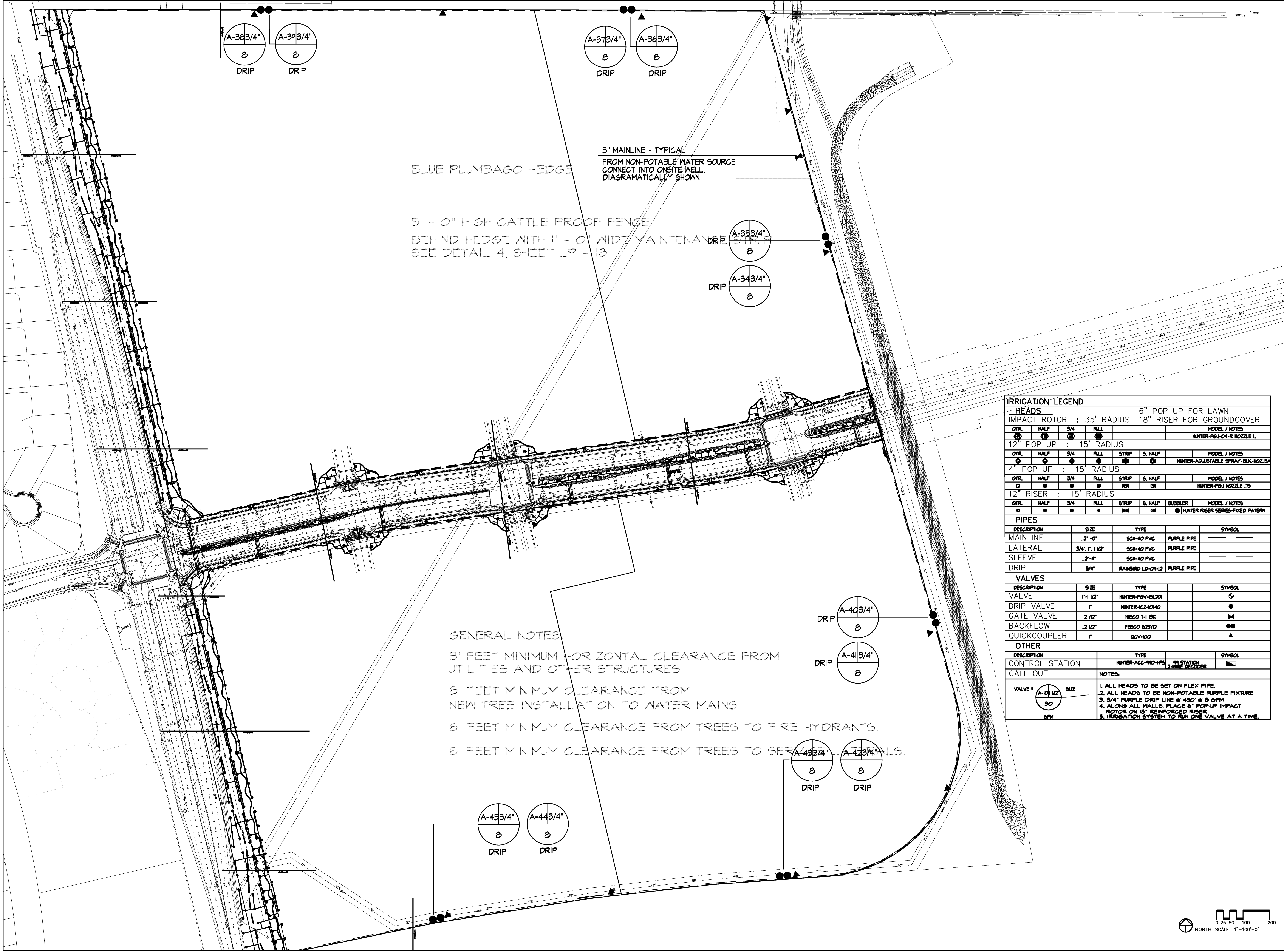
REVISIONS	DESCRIPTION		
	NO	DATE	COMMENTS
	1	10-16-09	DWS
	2	10-16-09	DWS
	3	10-16-09	DWS

JOB NO. 28085
DATE: 2/09
DRAWN BY: RMB
DESIGNED BY: JMF
CHECKED BY: JMF

ELECTRICAL PLANS FOR:
**KAONOULU MARKET PLACE
WATER TANK**
TMK: (2) 2-2-02: POR. OF 15 & 3-9-01:16
KIEHI, MAUI, HAWAII

SHEET NO.
EM-1
1 OF 2 SHEETS

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IRRIGATION LEGEND

HEADS
IMPACT ROTOR : 35' RADIUS 6" POP UP FOR LAWN
12" POP UP : 15' RADIUS 18" RISER FOR GROUNDCOVER

QTR	HALF	3/4	FULL	MODEL / NOTES
⊙	⊙	⊙	⊙	HUNTER-PSJ-04-R NOZZLE 1

4" POP UP : 15' RADIUS

QTR	HALF	3/4	FULL	STRIP	S. HALF	MODEL / NOTES
⊙	⊙	⊙	⊙	⊙	⊙	HUNTER-ADJUSTABLE SPRAY-BLK-NOZZLE 1

12" RISER : 15' RADIUS

QTR	HALF	3/4	FULL	STRIP	S. HALF	MODEL / NOTES
⊙	⊙	⊙	⊙	⊙	⊙	HUNTER-PSJ NOZZLE 1

PIPES

DESCRIPTION	SIZE	TYPE	SYMBOL
MAINLINE	2" - 6"	SCH-40 PVC	PURPLE PIPE
LATERAL	3/4", 1", 1 1/2"	SCH-40 PVC	PURPLE PIPE
SLEEVE	2" - 4"	SCH-40 PVC	
DRIP	3/4"	RAINBIRD LD-09-12	PURPLE PIPE

VALVES

DESCRIPTION	SIZE	TYPE	SYMBOL
VALVE	1" - 1 1/2"	HUNTER-PSV-BL201	⊙
DRIP VALVE	1"	HUNTER-ICE-10140	⊙
GATE VALVE	2 1/2"	HEBCO T-1 1BK	⊙
BACKFLOW	2 1/2"	FEBCO B251D	⊙
QUICKCOUPLER	1"	QCV-100	⊙

OTHER

DESCRIPTION	TYPE	SYMBOL
CONTROL STATION	HUNTER-ACC-4HD-1FS	⊙
CALL OUT	NOTES:	

VALVE # **SIZE**
⊙ 30 GPM

1. ALL HEADS TO BE SET ON FLEX PIPE.
2. ALL HEADS TO BE NON-POTABLE PURPLE FIXTURE
3. 3/4" PURPLE DRIP LINE @ 450' @ 8 GPM
4. ALONG ALL WALLS, PLACE 6" POP-UP IMPACT ROTOR ON 18" REINFORCED RISER
5. IRRIGATION SYSTEM TO RUN ONE VALVE AT A TIME.

Maxwell Design Group, Inc.
Landscape Architecture and Planning
Maui, Hawaii
2670 WAI WAI PLACE
Kihei, Maui, HI 96753
PH: 808-891-0629
FX: 808-891-1869
MP: 808-281-3800
Email: mdghawaii@hawaii.rr.com
www.landscapearchitect.net

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[Signature]
SIGNATURE

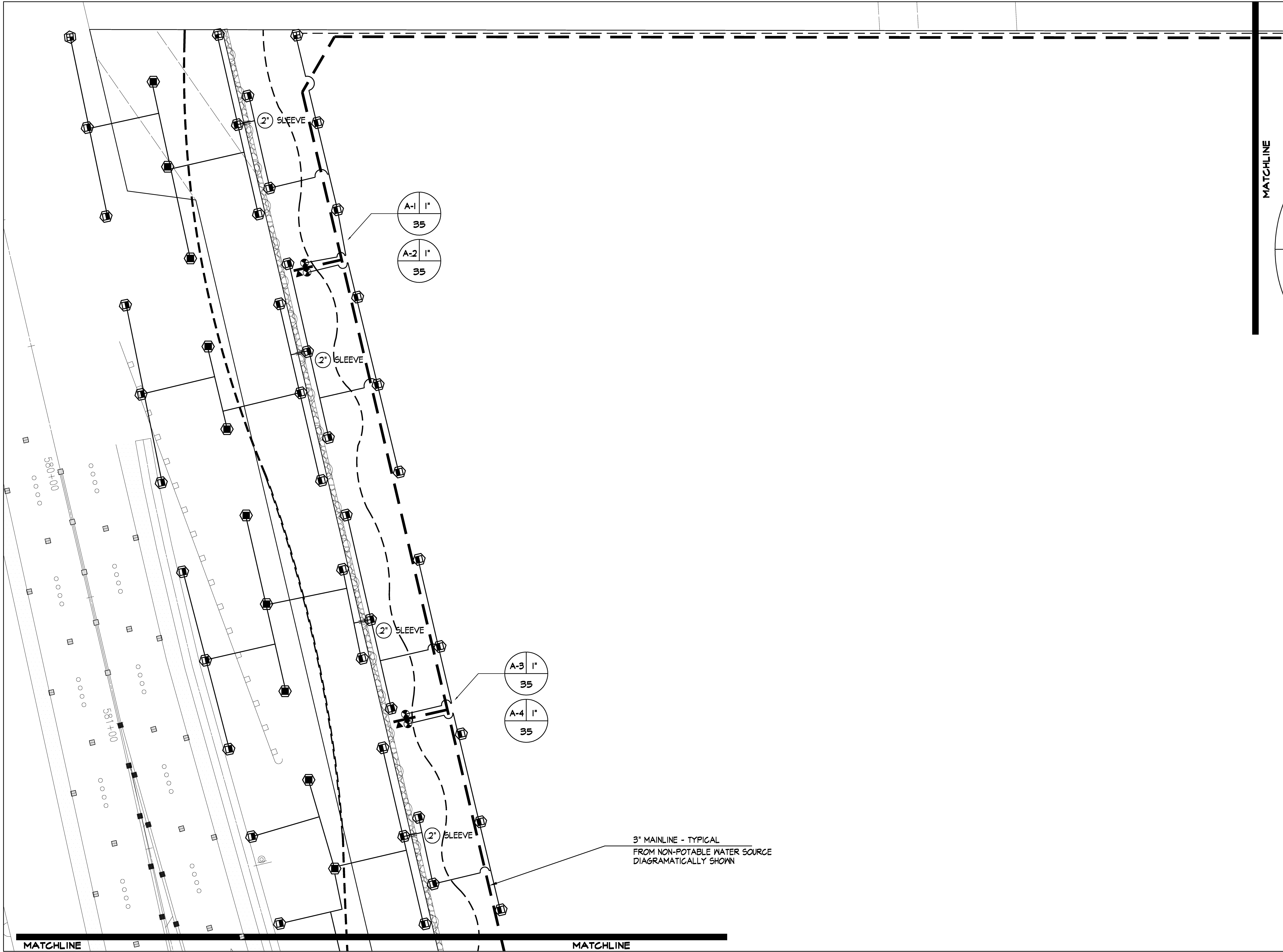
KAONOULU MARKET PLACE
Kihei, Maui, Hawaii
(2) 2-2-02 Por of 15 and (2) 3-9-01:16

Sheet Title
Landscape Irrigation Plan
Sheet Layout

NO.	DESCRIPTION	DATE	BY
1	DWS Comments	11/4/2008	MDG
2	DWS Comments	12/17/2008	MDG
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JOB NUMBER: 2775
DATE: 1 May 2006
PROJECT DIRECTOR: DESIGNED BY
BPM
DRAWN BY: CHECKED BY
JCW
JCW/BPM
CAD FILE: x 2775-4
Scale: 1" = 0' = 100'

Sheet Number
LI - Site
- of -



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Maui, Hawaii
2670 WAI WAI PLACE
Kihei, Maui, HI 96753
PH: 808-891-0629
FX: 808-891-1869
MP: 808-281-3800
Email: mdghawaii@hawaii.rr.com
www.landscapearchitect.net

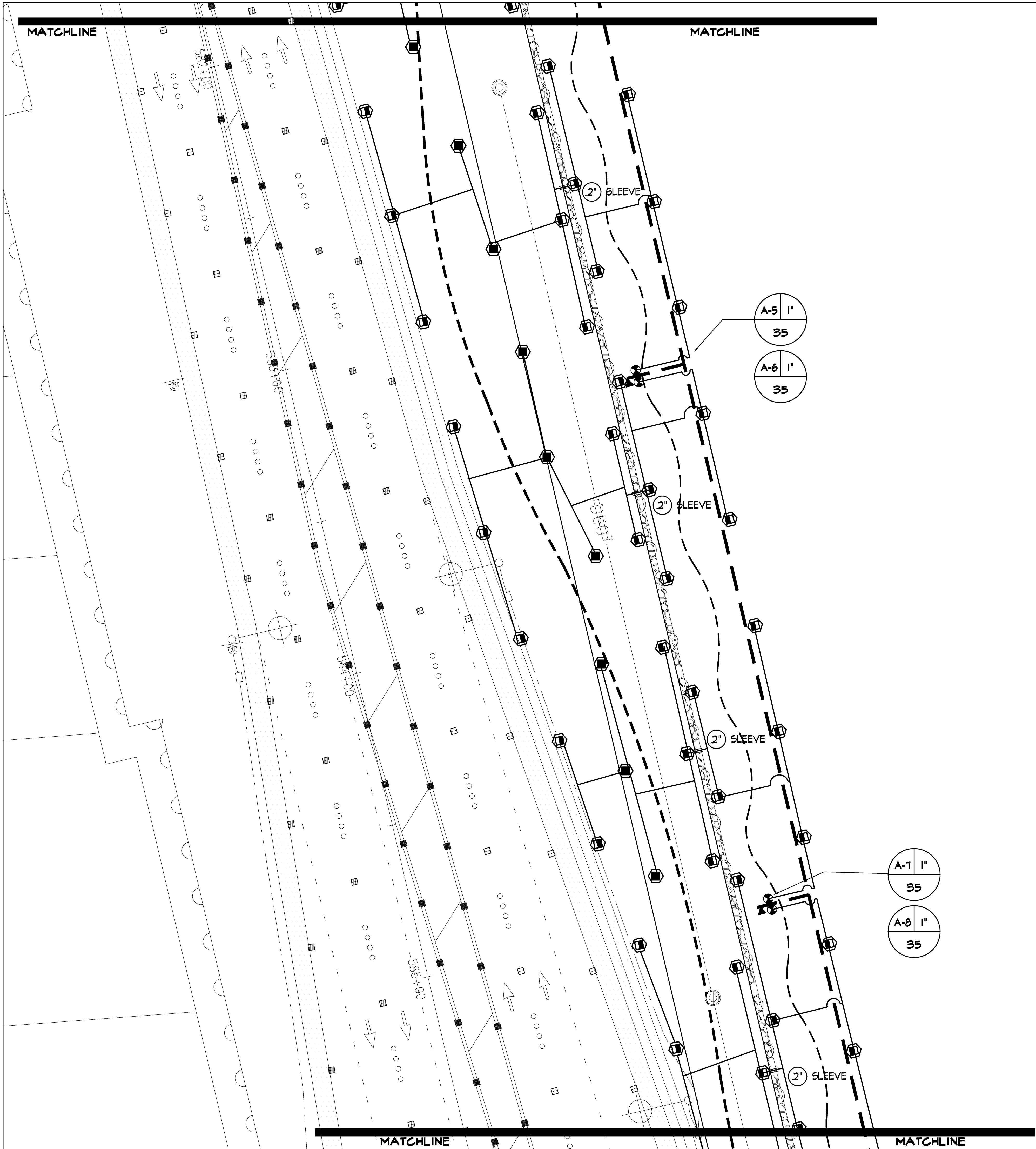
BRYAN P. MAXWELL
LICENSED PROFESSIONAL LANDSCAPE ARCHITECT
No. LA 8901
HAWAII, USA
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KAONOULU MARKET PLACE
Kihei, Maui, Hawaii
(2) 2-2-02 For of 15 and (2) 3-9-01:16

Sheet Title
Landscape Irrigation Plan
Area 1
-

REVISIONS	NO	DESCRIPTION	DATE	BY
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▲	2	DWS Comments	12/17/2008	MDG
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▲	9			
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JOB NUMBER 2775 DATE 1 May 2006
PROJECT DIRECTOR DESIGNED BY
BPM JCW
DRAWN BY CHECKED BY
JCW JCW/BPM
CAD FILE
x2775-i
Scale: 1/16"=1'-0"
Sheet Number
LI - 1
- - of -






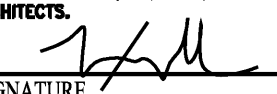
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KAONOULU MARKET PLACE

Kihei, Maui, Hawaii

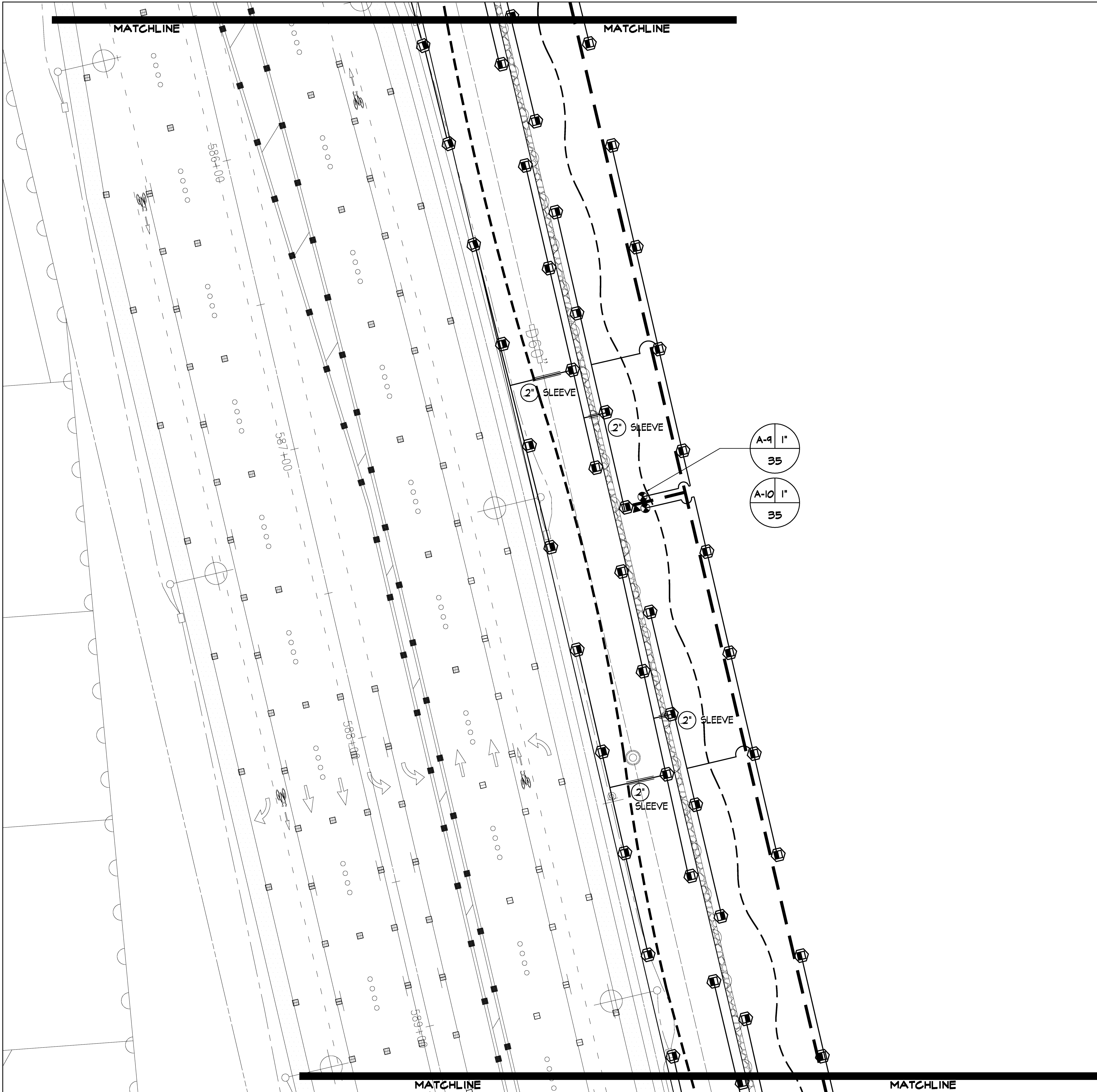
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Sheet Title
Landscape Irrigation Plan
Area 2

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2	DWS Comments	12/17/2008	MDG
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JOB NUMBER 2775	DATE 1 May 2006
PROJECT DIRECTOR BPM	DESIGNED BY JCW
DRAWN BY JCW	CHECKED BY JCW/BPM
CAD FILE x2775-i	
Scale: 1/16"=1'-0"	

Sheet Number
LI - 2
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Kihei, Maui, HI 96753
PH: 808-891-0629
FX: 808-891-1869
MP: 808-281-3800
Email: mdghawaii@hawaii.rr.com

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KAONOULU MARKET PLACE

Kihei, Maui, Hawaii

(2) 2-2-02 Por of 15 and (2) 3-9-01:16

Sheet Title

Landscape Irrigation Plan
Area 3

REVISIONS			
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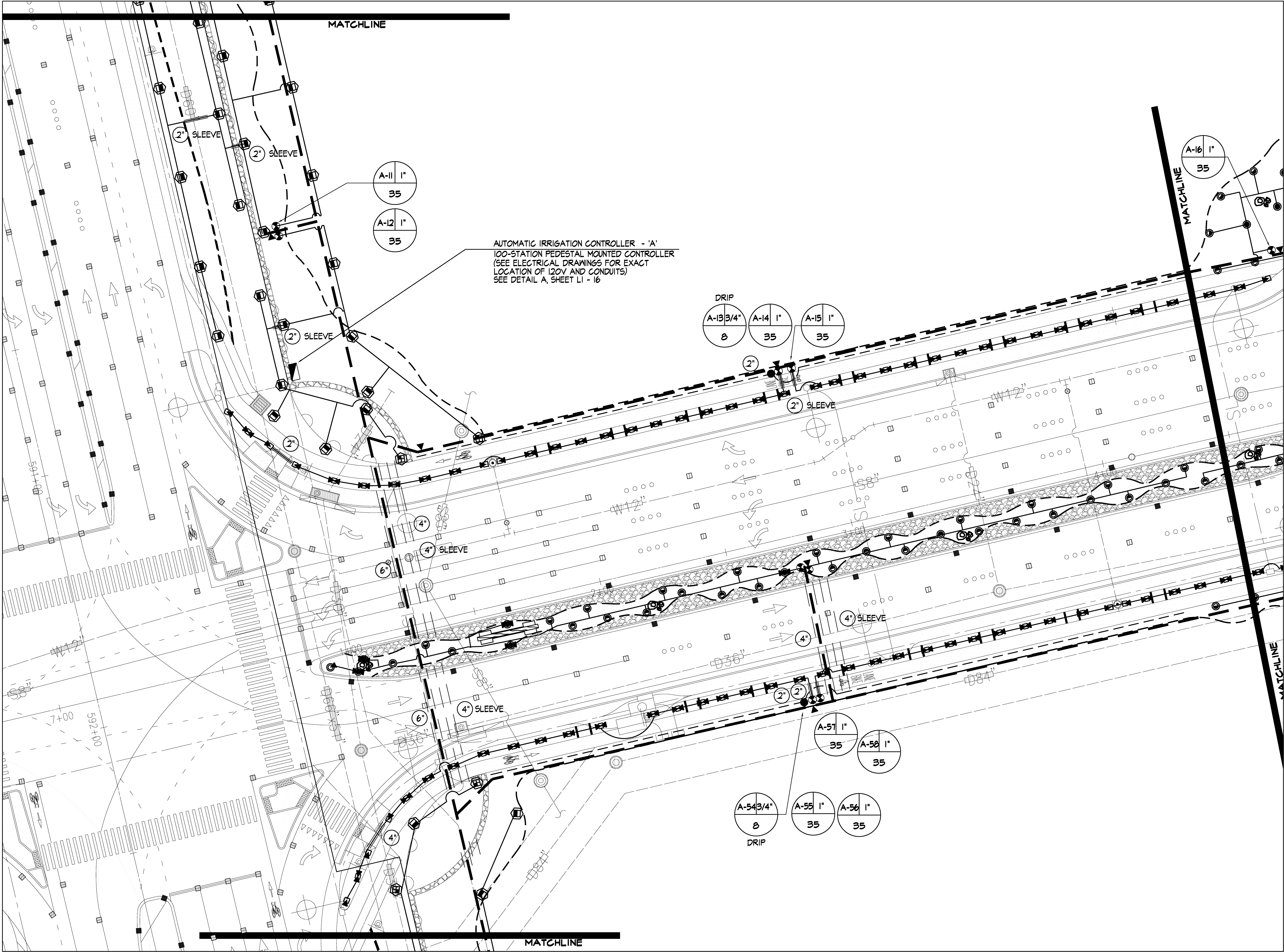
JOB NUMBER	DATE
2775	1 May 2006
PROJECT DIRECTOR	DESIGNED BY
BPM	JCW
DRAWN BY	CHECKED BY
JCW	JCW/BPM
CAD FILE	
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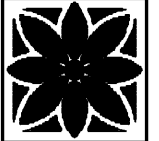
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Sheet Number

LI - 3

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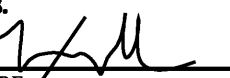
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Maui, Hawaii
2670 WAI WAI PLACE
Kihei, Maui, HI 96753
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MP: 808-281-3800
Email: mdghawaii@hawaii.rr.com

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KAONOULU MARKET PLACE

Kihei, Maui, Hawaii

(2) 2-2-02 Por of 15 and (2) 3-9-01:16

Sheet Title

Landscape Irrigation Plan
Area 4

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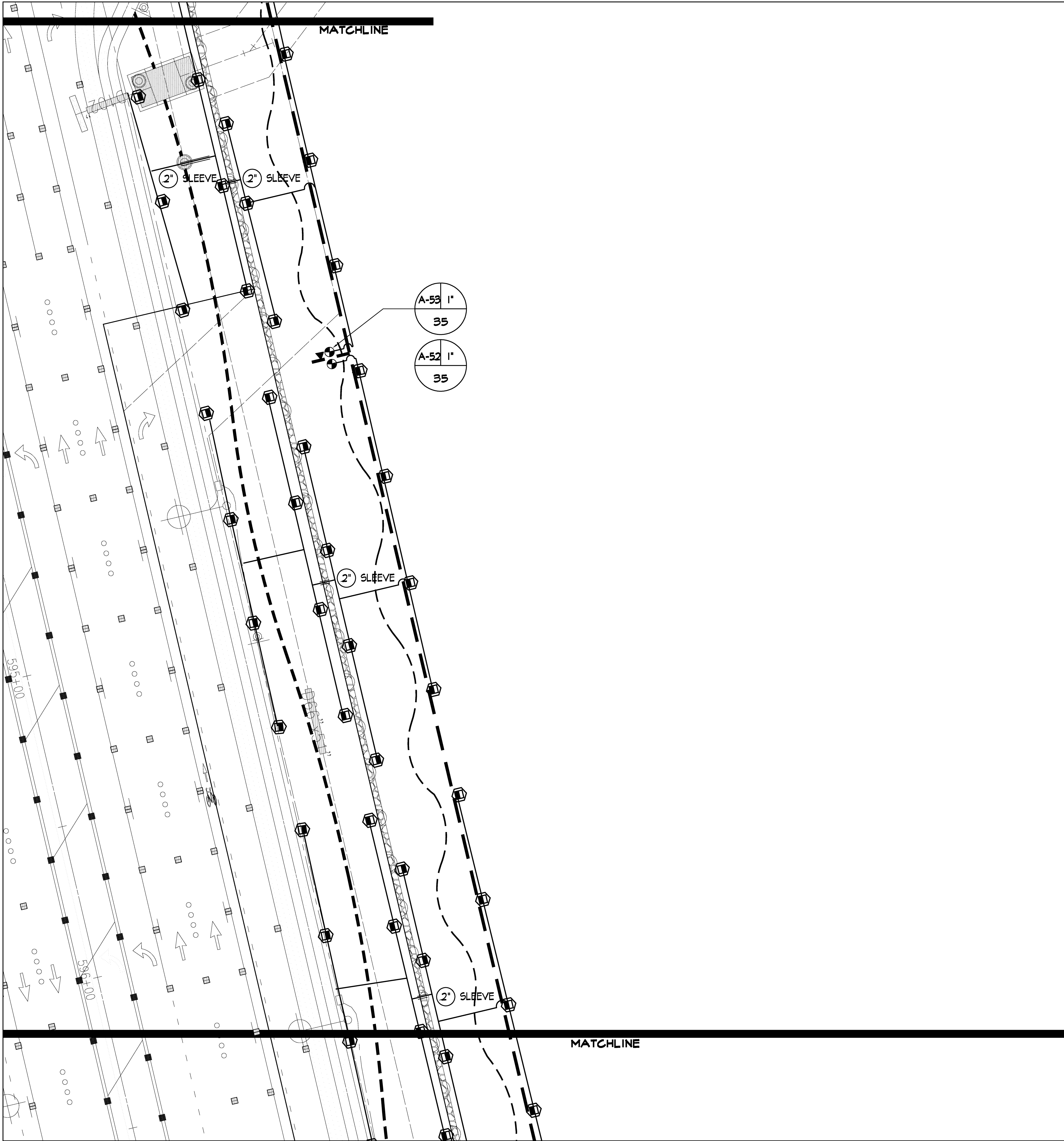
JOB NUMBER	DATE
2775	1 May 2006
PROJECT DIRECTOR	DESIGNED BY
BPM	JCW
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JCW	JCW/BPM
CAD FILE	
x2775-4	

Scale: 1/16"=1'-0"

Sheet Number

LI - 4

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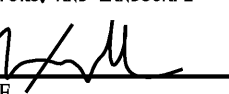
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Kihei, Maui, Hawaii

(2) 2-2-02 Por of 15 and (2) 3-9-01:16

Sheet Title
Landscape Irrigation Plan
Area 5

NO	DESCRIPTION	DATE	BY
1	BWS Comments	11/4/2008	MDG
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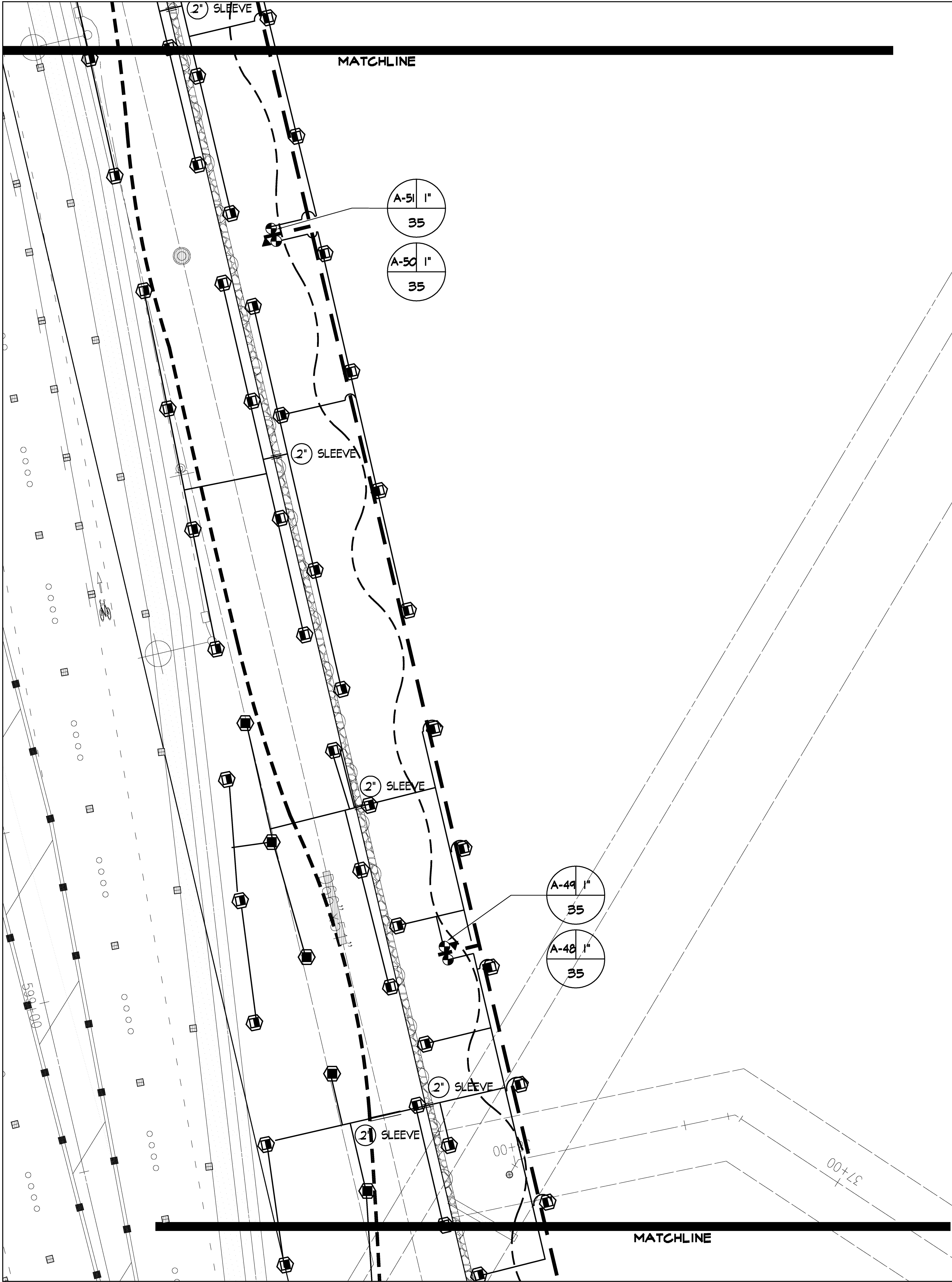
JOB NUMBER 2775	DATE 1 May 2006
PROJECT DIRECTOR BPM	DESIGNED BY JCW
DRAWN BY JCW	CHECKED BY JCW/BPM
CAD FILE x2775-i	

Scale: 1/16"=1'-0"

Sheet Number

LI - 5

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2670 WAI WAI PLACE
Kihei, Maui, HI 96753
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Kihei, Maui, Hawaii

(2) 2-2-02 Por of 15 and (2) 3-9-01:16

Sheet Title
Landscape Irrigation Plan
Area 6

NO	DESCRIPTION	DATE	BY
1	DWS Comments	11/4/2008	MDG
2	DWS Comments	12/17/2008	MDG
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JOB NUMBER 2775 DATE 1 May 2006

PROJECT DIRECTOR BPM DESIGNED BY JCW

DRAWN BY JCW CHECKED BY JCW/BPM

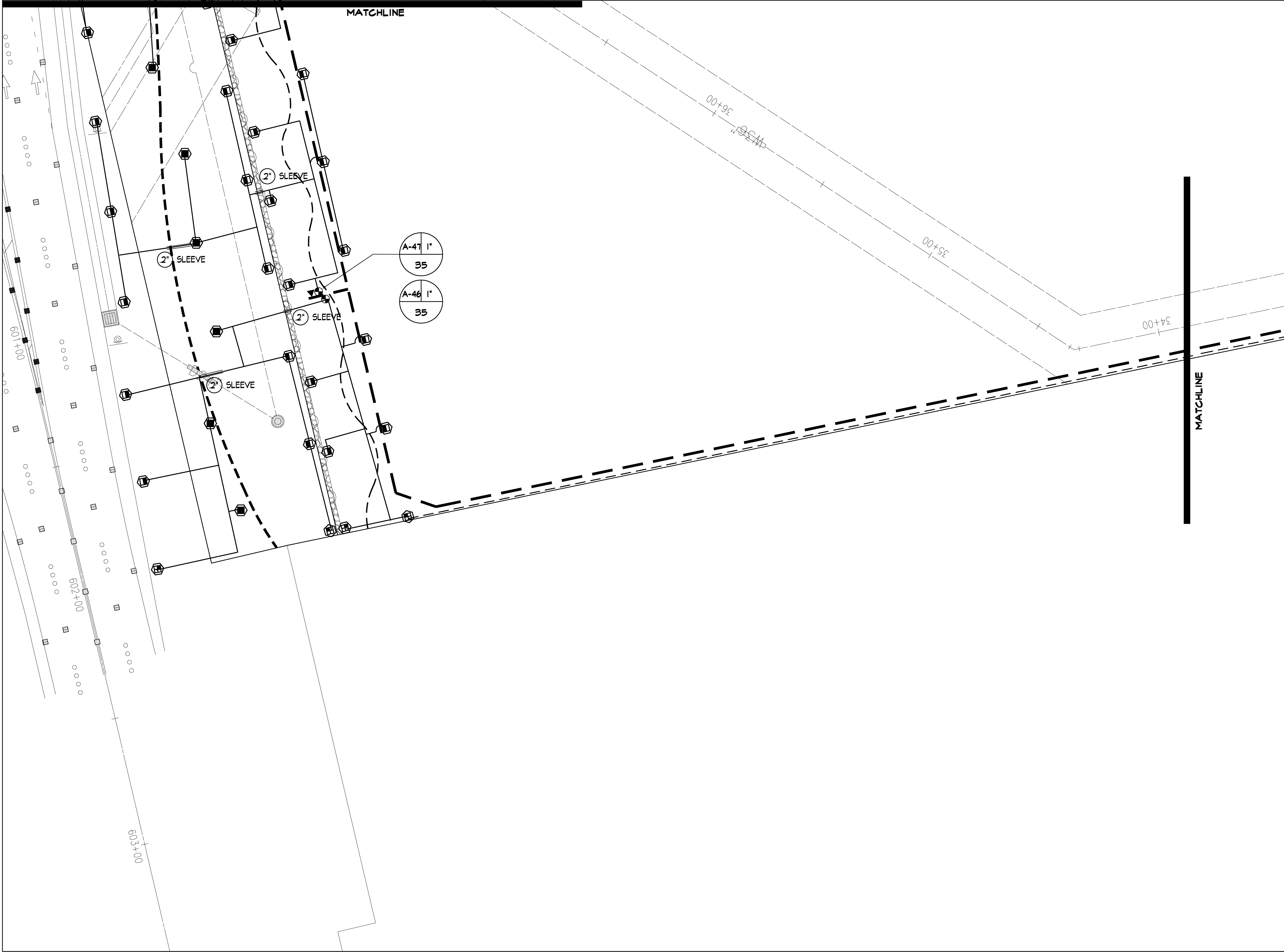
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Sheet Number

LI - 6

of






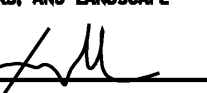
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Kihei, Maui, Hawaii

(2) 2-2-02 Por of 15 and (2) 3-9-01:16

Sheet Title
Landscape Irrigation Plan
Area 7

NO	DESCRIPTION	DATE	BY
1	DWS Comments	11/4/2006	MDG
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JOB NUMBER 2775 DATE 1 May 2006

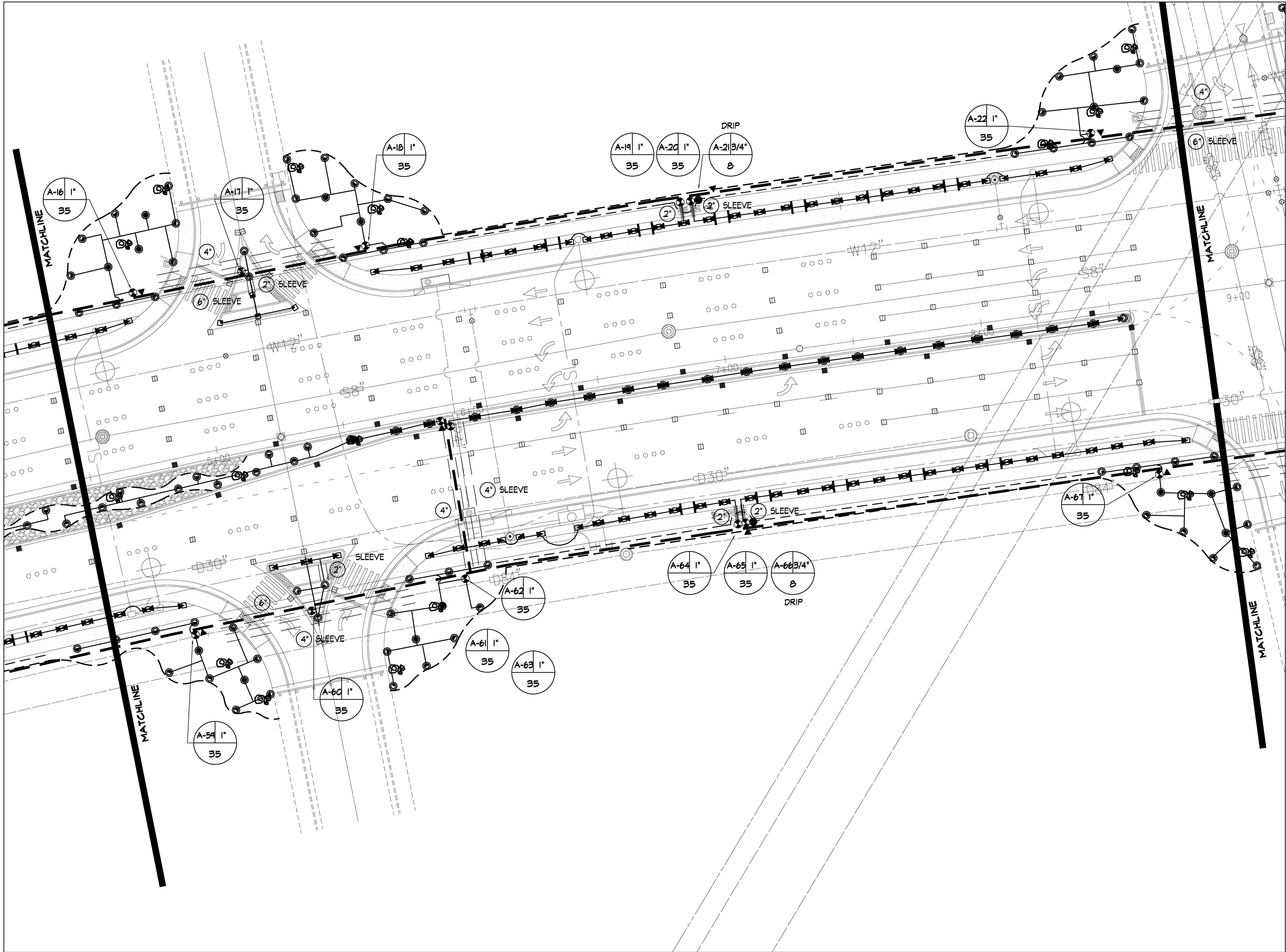
PROJECT DIRECTOR BPM DESIGNED BY JCW

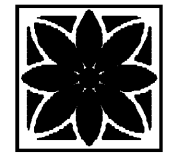
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CAD FILE x2775-i


Scale: 1/16"=1'-0"

Sheet Number
LI - 7
- - of -






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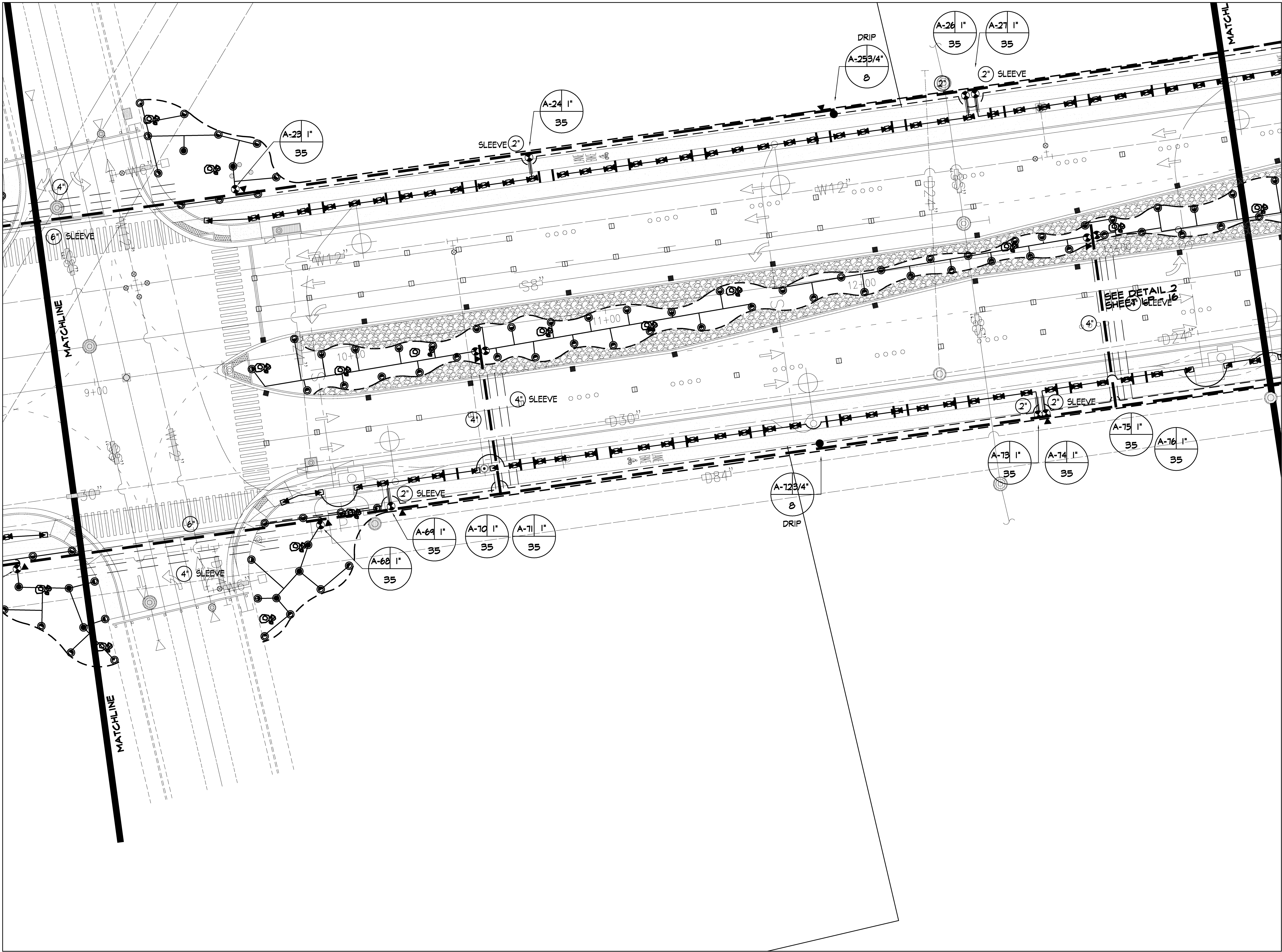
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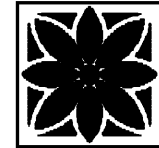
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Landscape Irrigation Plan
Area 8

REVISIONS	NO	DESCRIPTION	DATE	BY
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JOB NUMBER 2775 DATE 1 May 2006
PROJECT DIRECTOR DESIGNED BY
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CAD FILE
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Sheet Number
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Kihei, Maui, HI 96753
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SIGNATURE 

KAONOULU MARKET PLACE

Kihei, Maui, Hawaii

(2) 2-2-02 Por of 1:5 and (2) 3-9-01:1:6

Sheet Title
Landscape Irrigation Plan
Area 9

NO	DESCRIPTION	DATE	BY
1	DWS Comments	11/4/2006	MDG
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JOB NUMBER 2775	DATE 1 May 2006
PROJECT DIRECTOR BPM	DESIGNED BY JCW
DRAWN BY JCW	CHECKED BY JCW/BPM
CAD FILE x2775-i	

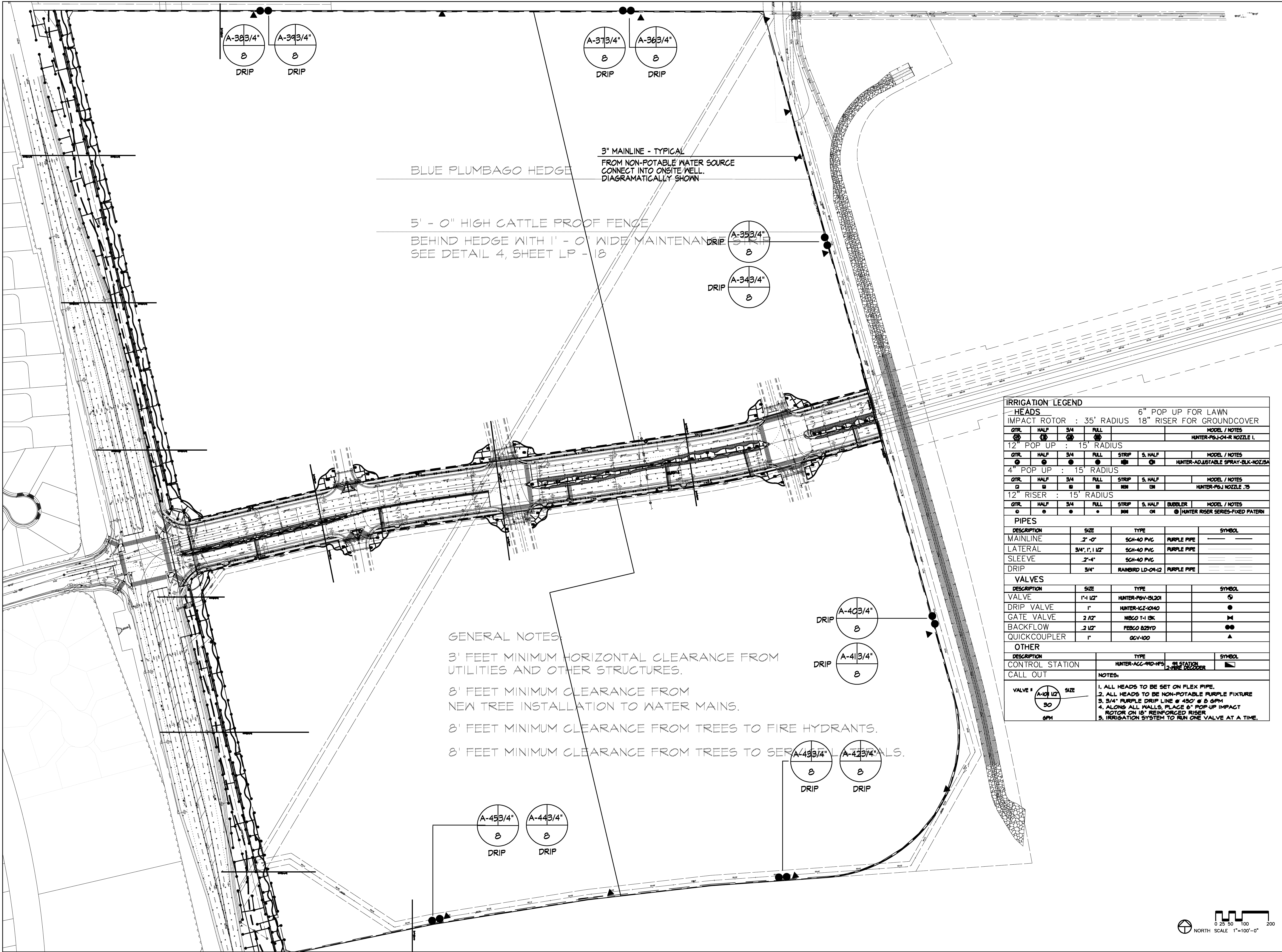
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Sheet Number
LI - 9
- - of -



(2) 2-2-02 Por of 15 and (2) 3-9-01:16

- of -



BLUE PLUMBAGO HEDGE

3" MAINLINE - TYPICAL
FROM NON-POTABLE WATER SOURCE
CONNECT INTO ONSITE WELL.
DIAGRAMATICALLY SHOWN

5' - 0" HIGH CATTLE PROOF FENCE
BEHIND HEDGE WITH 1' - 0" WIDE MAINTENANCE STRIP
SEE DETAIL 4, SHEET LP - 18

GENERAL NOTES

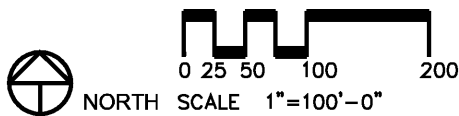
3' FEET MINIMUM HORIZONTAL CLEARANCE FROM
UTILITIES AND OTHER STRUCTURES.

8' FEET MINIMUM CLEARANCE FROM
NEW TREE INSTALLATION TO WATER MAINS.

8' FEET MINIMUM CLEARANCE FROM TREES TO FIRE HYDRANTS.

8' FEET MINIMUM CLEARANCE FROM TREES TO SERVICE UTILITIES.

IRRIGATION LEGEND								
HEADS				6" POP UP FOR LAWN				
IMPACT ROTOR : 35' RADIUS				18" RISER FOR GROUNDCOVER				
GTR.	HALF	3/4	FULL	MODEL / NOTES				
⊙	⊙	⊙	⊙	HUNTER-PSJ-04-R NOZZLE 1				
12" POP UP : 15' RADIUS								
GTR.	HALF	3/4	FULL	STRIP	S. HALF	MODEL / NOTES		
⊙	⊙	⊙	⊙	⊙	⊙	HUNTER-ADJUSTABLE SPRAY-BLK-NOZZLE		
4" POP UP : 15' RADIUS								
GTR.	HALF	3/4	FULL	STRIP	S. HALF	MODEL / NOTES		
⊙	⊙	⊙	⊙	⊙	⊙	HUNTER-PSJ NOZZLE .75		
12" RISER : 15' RADIUS								
GTR.	HALF	3/4	FULL	STRIP	S. HALF	BUBBLER	MODEL / NOTES	
⊙	⊙	⊙	⊙	⊙	⊙	⊙	HUNTER RISER SERIES-FIXED PATTERN	
PIPES								
DESCRIPTION	SIZE		TYPE		SYMBOL			
MAINLINE	3" - 4"		SCH-40 PVC		PURPLE PIPE			
LATERAL	3/4", 1", 1 1/2"		SCH-40 PVC		PURPLE PIPE			
SLEEVE	3" - 4"		SCH-40 PVC		PURPLE PIPE			
DRIP	3/4"		RAINEIRD LD-04-12		PURPLE PIPE			
VALVES								
DESCRIPTION	SIZE		TYPE		SYMBOL			
VALVE	1" - 1 1/2"		HUNTER-PSV-15L201		⊙			
DRIP VALVE	1"		HUNTER-ICZ-10140		⊙			
GATE VALVE	2 1/2"		WEGO T-1 BK		⊙			
BACKFLOW	2 1/2"		FEBCO B259D		⊙			
QUICKCOUPLER	1"		QCV-100		⊙			
OTHER								
DESCRIPTION	TYPE		SYMBOL					
CONTROL STATION	HUNTER-ACC-910-4FS		48 STATION		⊙			
CALL OUT	NOTES:		2-WIRE DECODER		⊙			
VALVE #	⊙		SIZE					
	A-10 1/2"		30					
	GPM							



Maxwell Design Group, Inc.
Landscape Architecture and Planning
Maui, Hawaii
2670 WAI WAI PLACE
Kihei, Maui, HI 96753
PH: 808-891-0629
FX: 808-891-1869
MP: 808-281-3800
Email: mdghawaii@hawaii.rr.com
www.landscapearchitect.net

BRYAN P. MAXWELL
LICENSED PROFESSIONAL LANDSCAPE ARCHITECT
No. LA 8901
HAWAII, U.S.A.
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SIGNATURE

KAONOULU MARKET PLACE

Kihei, Maui, Hawaii

(2) 2-2-02 Por of 15 and (2) 3-9-01:16

Sheet Title
Landscape Irrigation Plan
Sheet Layout

REVISIONS	NO	DESCRIPTION	DATE	BY
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Δ	DWS	Comments	12/17/2008	MDG

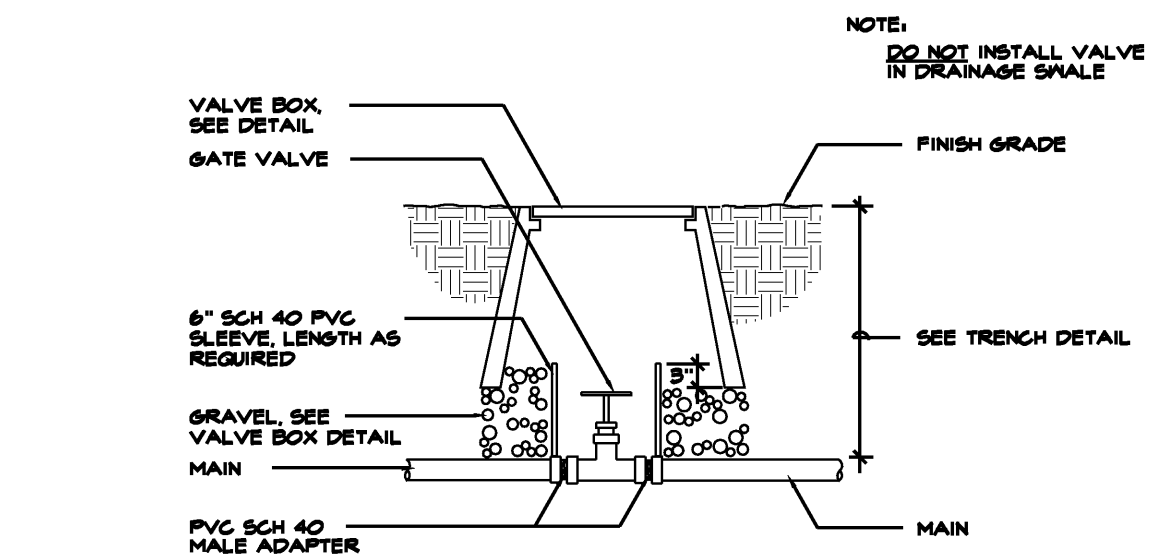
JOB NUMBER	DATE
2775	1 May 2006
PROJECT DIRECTOR	DESIGNED BY
BPM	JCW
DRAWN BY	CHECKED BY
JCW	JCW/BPM
CAD FILE	
x 2775-1	

Scale: 1" = 0' = 100'

Sheet Number
LI - 11
of

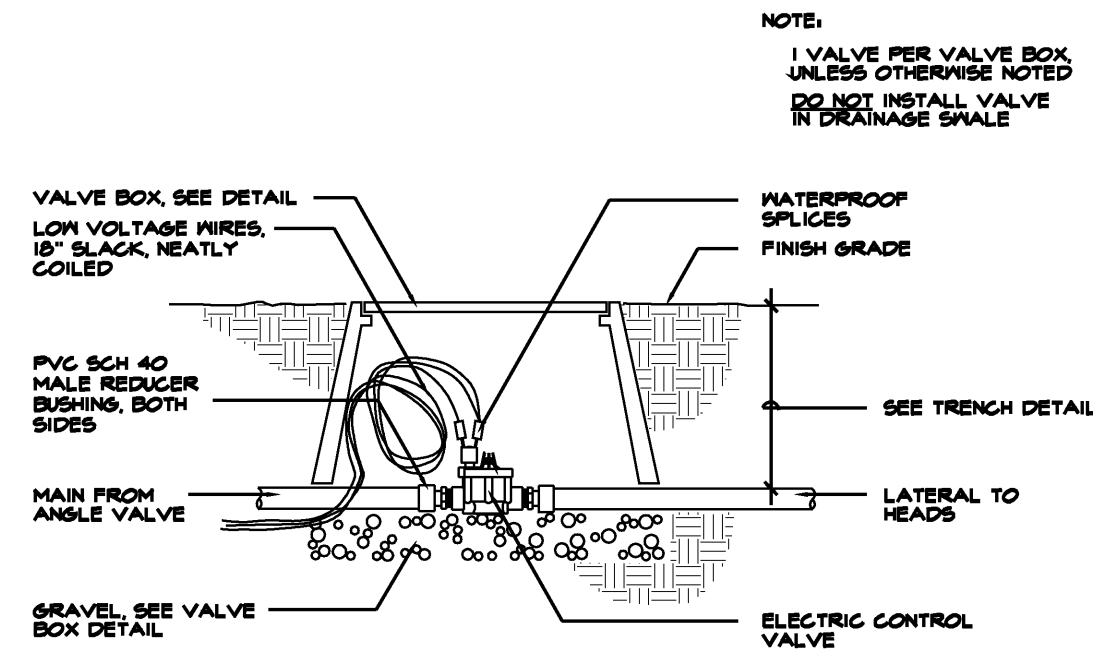
IRRIGATION NOTES

1. THIS PLAN IS DIAGRAMATIC. IRRIGATION SYSTEM IS SUBJECT TO FIELD ADJUSTMENTS DUE TO UNANTICIPATED SITE CONDITIONS. LOCATE ALL MAINLINES, LATERALS, VALVES AND SPRINKLER HEADS WITHIN PLANTING AREAS, UNLESS OTHERWISE NOTED. PLACE MAINLINE IN PLANTING AREAS WHERE NO SLEEVES ARE SHOWN. AVOID ANY CONFLICT BETWEEN UNDERGROUND UTILITIES, STRUCTURES AND PLANTINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING UTILITIES. BURY ALL IRRIGATION LINES UNDER PAVING 24" DEEP. IN PLANTING AREAS BURY PRESSURE MAINLINES 18" AND LATERAL LINES 10" DEEP.
2. THIS IRRIGATION SYSTEM WAS DESIGNED WITH A MINIMUM STATIC WATER PRESSURE OF 30 PSI AT THE POINT OF CONNECTION. NOTIFY THE PROJECT ENGINEER, IF WATER PRESSURE IS LESS THAN 30 PSI OR GREATER THAN 100 PSI.
3. CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS AND OBSERVE ALL LOCAL CODES AND REGULATIONS. THE CONTRACTOR SHALL CONFIRM ALL SITE DIMENSIONS AND CONDITIONS, AND REPORT ANY DISCREPANCIES TO THE OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT.
4. CONTRACTOR IS TO COORDINATE THE INSTALLATION OF ALL SLEEVES, CONDUITS, MAINLINES AND LATERALS UNDER PAVEMENT AND TROUGH WALLS. CONTRACTOR SHALL ASSURE THAT THESE ITEMS ARE LAID PRIOR TO PLACEMENT OF PAVEMENT OR WALL STRUCTURES.
5. CONTRACTOR SHALL INSTALL IRRIGATION LINES, WIRES, VALVES AND HEADS PER SPECIFICATIONS. EXISTING GATE VALVES, POINT OF CONNECTION, ETC. ARE DERIVED FROM THE BEST AVAILABLE INFORMATION AND ON SITE INSPECTIONS. THE CONTRACTOR SHALL VERIFY THOSE POINTS OF CONNECTION NOTED AND REPORT ANY DISCREPANCIES TO THE LANDSCAPE ARCHITECT.
6. LOCATE AND INSTALL ALL SPRINKLER HEADS 6" FROM SIDEWALKS, CURBS, DRIVEWAYS, BUILDINGS AND WALLS UNLESS NOTED OTHERWISE. FLEX TUBING SHALL BE INSTALLED ON ALL SPRINKLER HEADS ALONG SIDEWALKS, DRIVEWAYS AND PARKING SPACES. ADJUST ALL SPRINKLER HEADS AND FLOW CONTROL FOR MAXIMUM COVERAGE AND MINIMUM OVERTHROW AND MISTING. OPERATE ONLY ONE VALVE AT A TIME PER CONTROLLER.



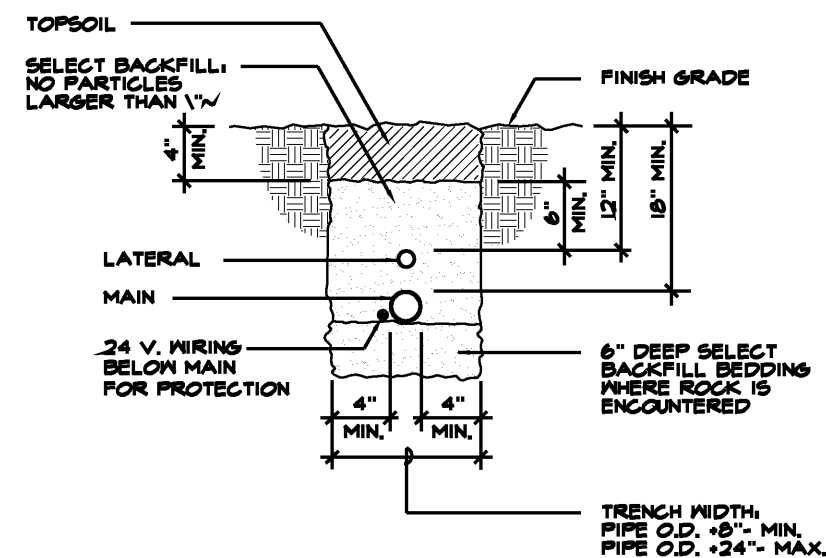
E GATE VALVE (3" AND SMALLER)

NOT TO SCALE



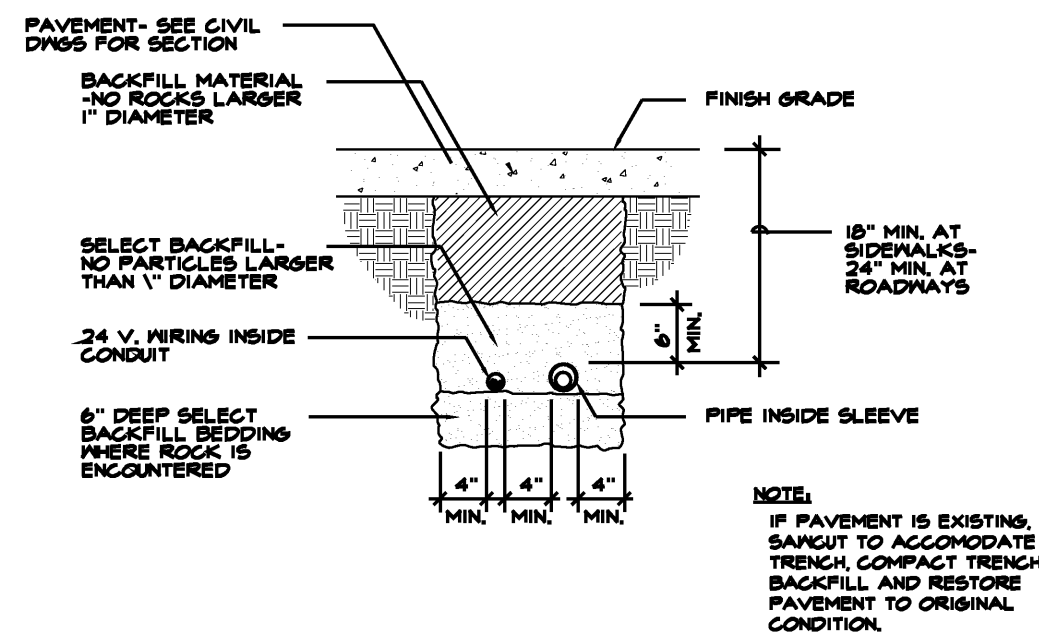
F CONTROL VALVE

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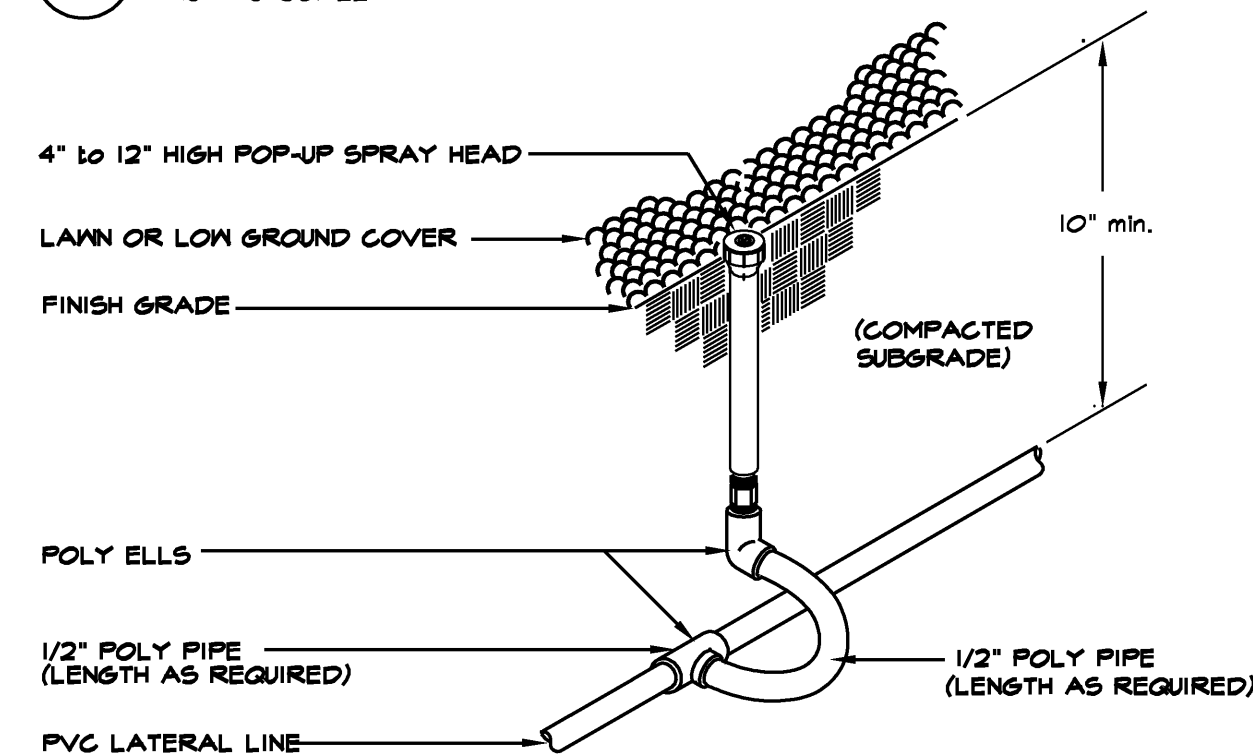
G PIPE TRENCH- PLANTING AREAS

NOT TO SCALE



H PIPE TRENCH- PAVED AREAS

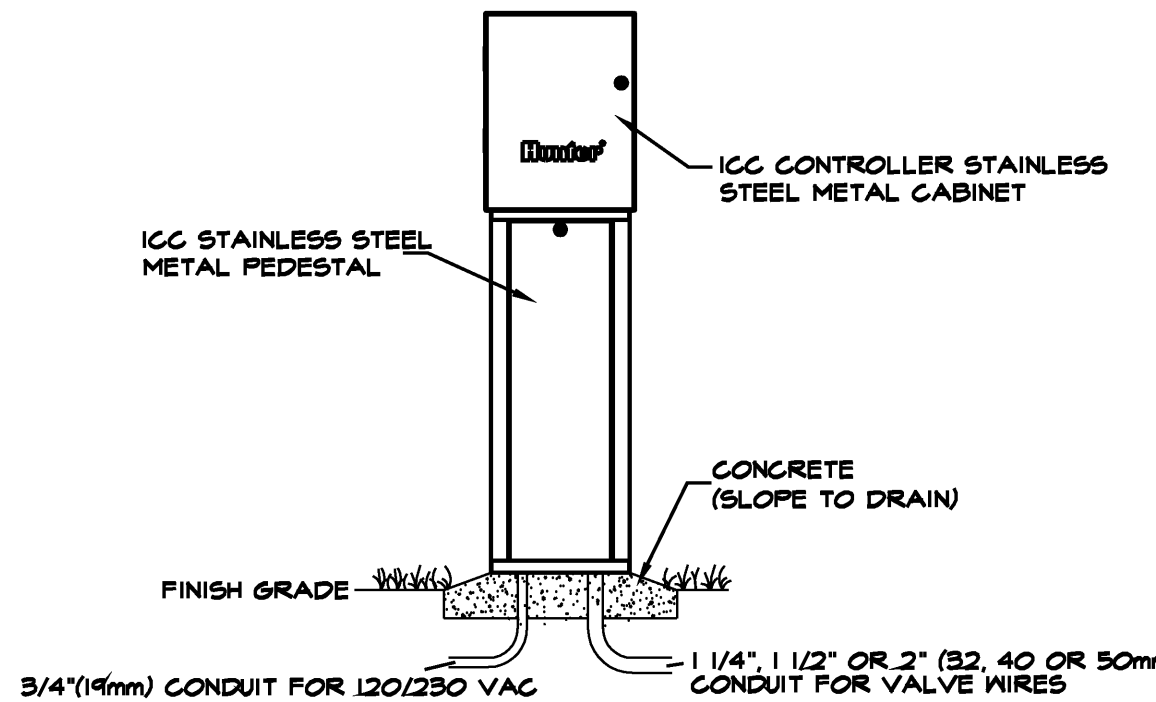
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I LAWN OR HIGH POP-UP SPRAY DETAIL

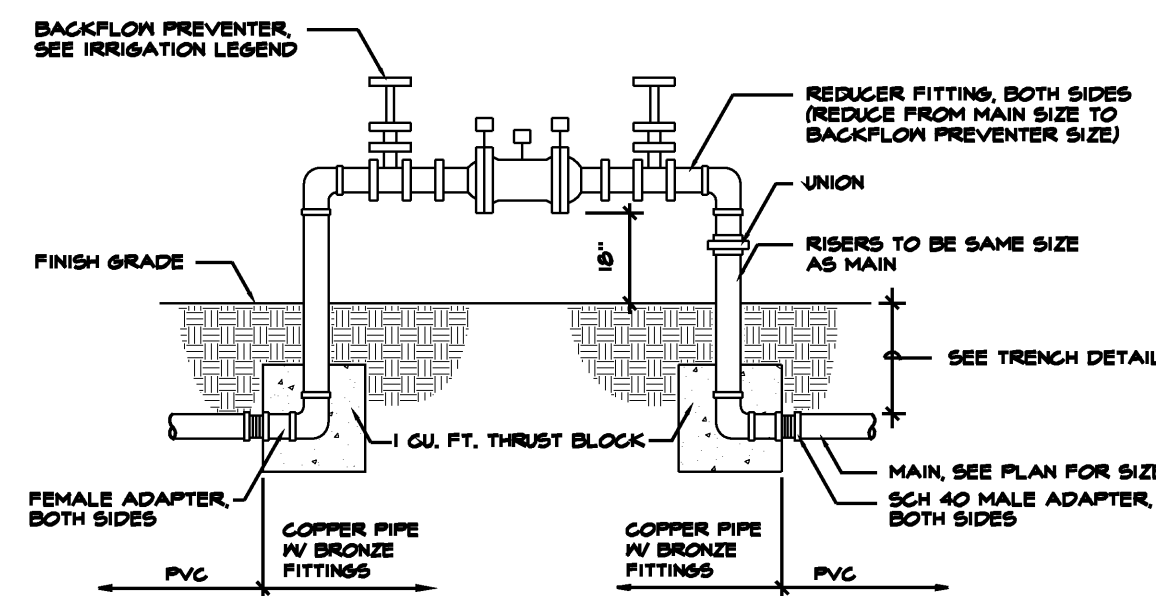
NOT TO SCALE

NOTE: INSTALL IRRIGATION CONTROLLER AT LOCATIONS SHOWN ON DRAWINGS AND ACCORDING TO MANUFACTURERS RECOMMENDATIONS



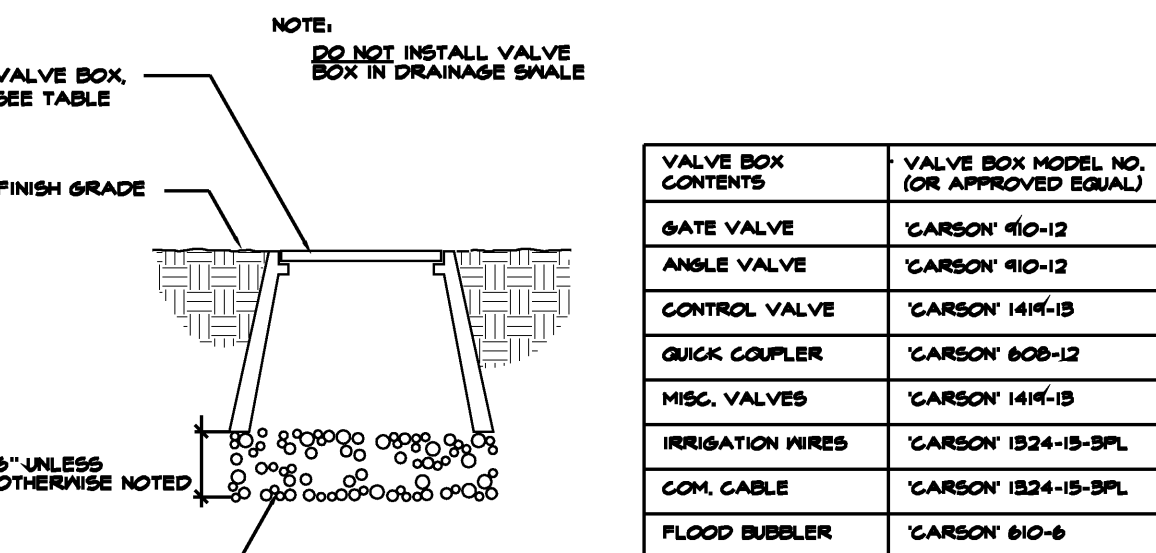
A Irrigation Controller

NOT TO SCALE



B BACKFLOW PREVENTER (2" & SMALLER)

NOT TO SCALE

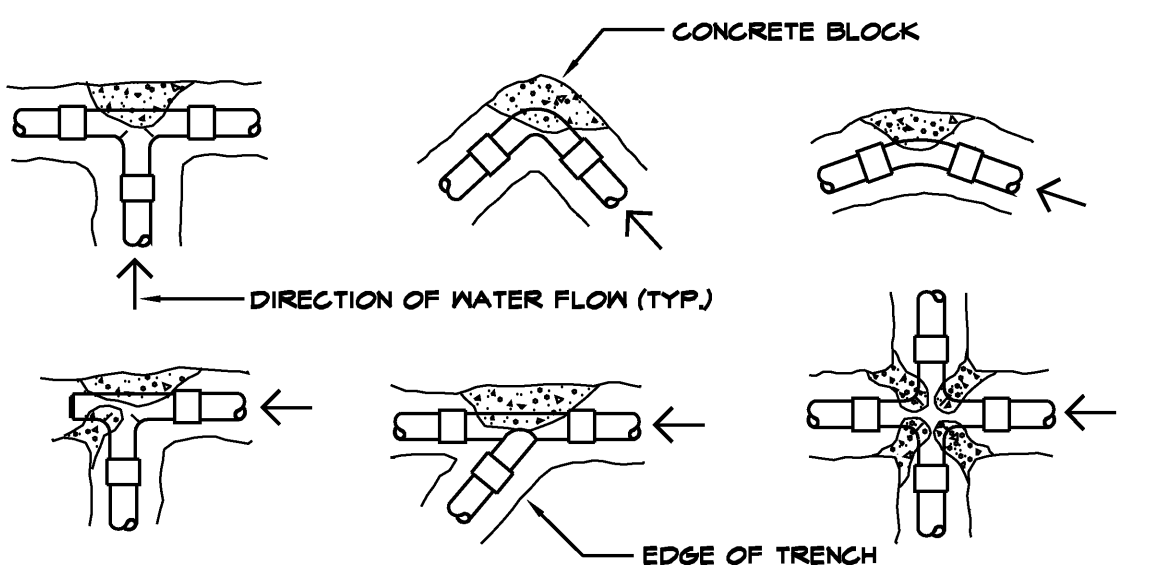


C VALVE BOX

NOT TO SCALE

THRUST BLOCK BEARING AREA (SQ. FT.)				
PIPE SIZE	1 1/4" - 2 1/2"	3"	4"	6"
TEES/ELLS	1.00	1.00	1.25	3.2
40 BENDS	1.00	1.25	2.00	4.5
45 BENDS	1.00	1.00	1.00	2.4

NOTE: INSTALL THRUST BLOCK AT ALL MAINLINE BENDS, TEES OR ELLS AS SHOWN BELOW. THRUST BLOCKS SHALL BE MINIMUM OF (1) CU. FT. RED-1-MX CONCRETE OR 2500 PSI 28 DAY CONCRETE.



D THRUST BLOCK DETAIL

NOT TO SCALE

Maxwell Design Group, Inc.
Landscape Architecture and Planning
Maui, Hawaii
2670 WAI WAI PLACE
Kihei, Maui, HI 96753
PH: 808-891-0629
FX: 808-891-1869
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SIGNATURE

KAONOULU MARKET PLACE

Kihei, Maui, Hawaii

TMK (2) 2-2-02 Por of 15 and (2) 3-9-01 : 16

Sheet Title

IRRIGATION DETAIL

REVISIONS	NO.	DESCRIPTION	DATE	BY
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Δ	2	DWS Comments	12/17/2006	MDG
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JOB NUMBER 2775 DATE May 2006

PROJECT DIRECTOR JCW DESIGNED BY JCW

DRAWN BY JCW CHECKED BY BPM/JCW

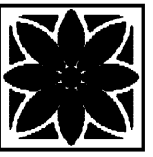
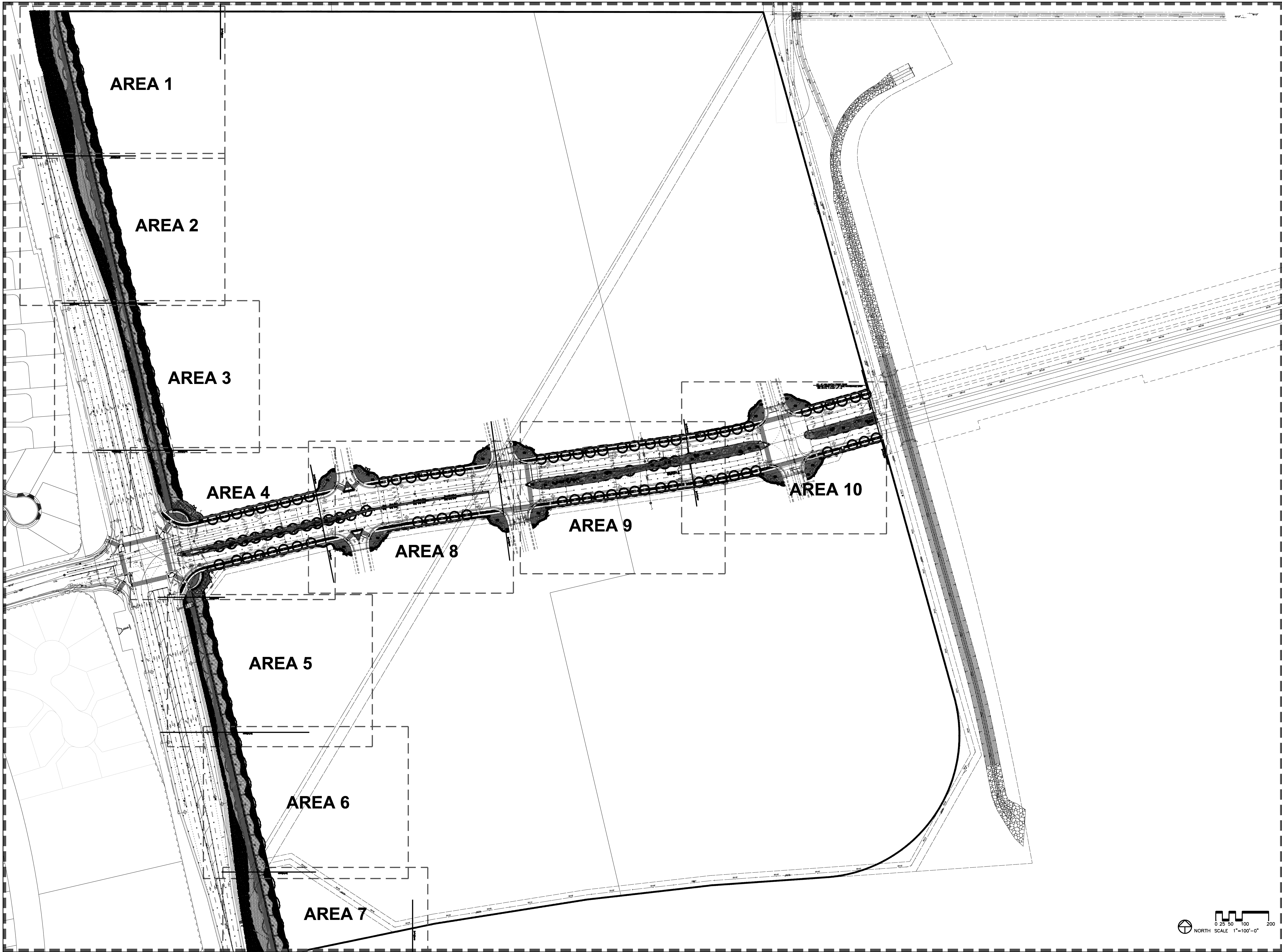
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Sheet Number

LI - 12

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Landscape Architecture and Planning

Maui, Hawaii
2670 WAI WAI PLACE
Kihei, Maui, HI 96753
PH: 808-891-0629
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LAND SURVEYORS, AND LANDSCAPE
ARCHITECTS.

SIGNATURE

KAONOULU MARKET PLACE

Kihei, Maui, Hawaii

(2) 2-2-02 Por of 15 and (2) 3-9-01:16

Sheet Title

Landscape Planting Plan
Sheet Layout

REVISIONS

NO	DESCRIPTION	DATE	BY
1	DWS Comments	11/4/2006	MDG
2	DWS Comments	12/17/2006	MDG
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4			
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JOB NUMBER
2775

DATE
1 May 2006

PROJECT DIRECTOR
BPM

DESIGNED BY
JCW

DRAWN BY
JCW

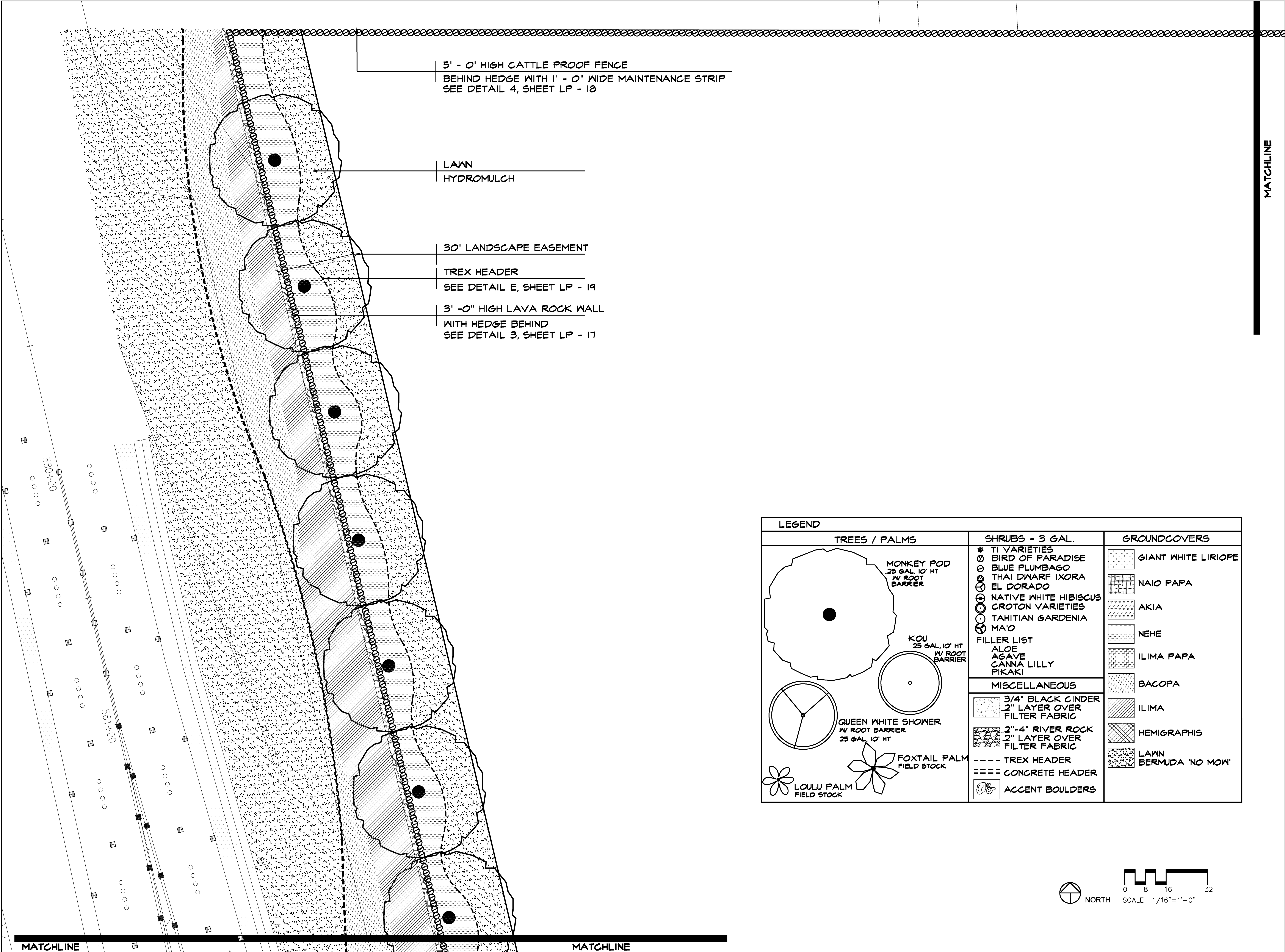
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JCW/BPM

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LP - SITE



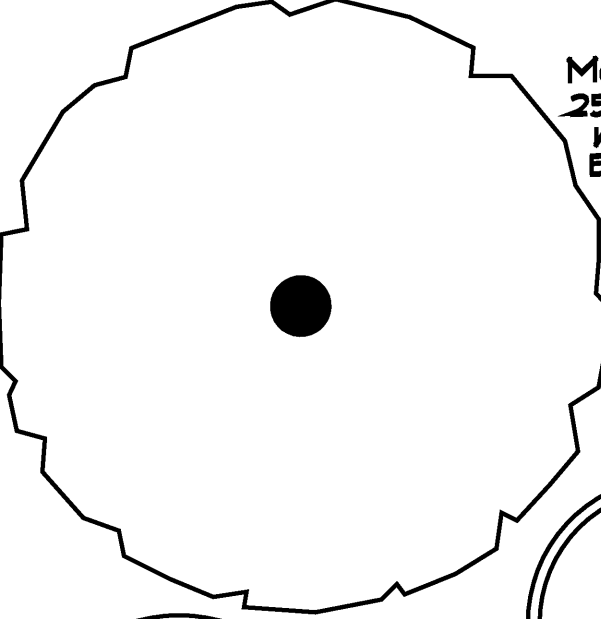
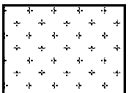



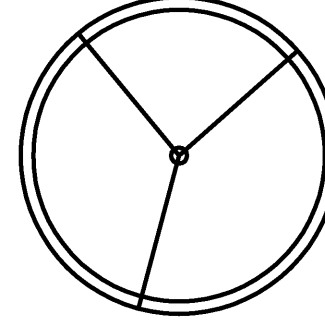


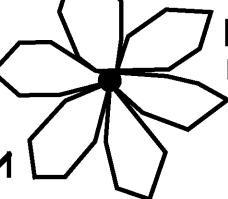
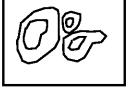


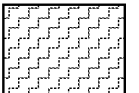
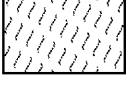

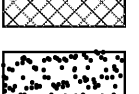
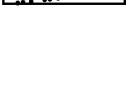
5' - 0" HIGH CATTLE PROOF FENCE
BEHIND HEDGE WITH 1' - 0" WIDE MAINTENANCE STRIP
SEE DETAIL 4, SHEET LP - 18

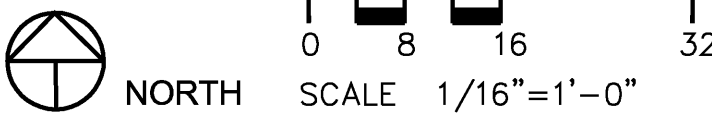
LAWN
HYDROMULCH

30' LANDSCAPE EASEMENT

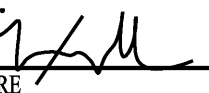
TREX HEADER
SEE DETAIL E, SHEET LP - 19

3' - 0" HIGH LAVA ROCK WALL
WITH HEDGE BEHIND
SEE DETAIL 3, SHEET LP - 17

LEGEND		
TREES / PALMS	SHRUBS - 3 GAL.	GROUNDCOVERS
 MONKEY POD 25 GAL, 10' HT W/ ROOT BARRIER	* TI VARIETIES ○ BIRD OF PARADISE ○ BLUE PLUMBAGO ○ THAI DWARF IXORA ○ EL DORADO ○ NATIVE WHITE HIBISCUS ○ CROTON VARIETIES ○ TAHITIAN GARDENIA ○ MA'O FILLER LIST ○ ALOE ○ AGAVE ○ CANNA LILLY ○ PIKAKI	 GIANT WHITE LIRIOPE
 KOU 25 GAL, 10' HT W/ ROOT BARRIER	MISCELLANEOUS  3/4" BLACK CINDER 2" LAYER OVER FILTER FABRIC	 NAIO PAPA
 QUEEN WHITE SHOWER W/ ROOT BARRIER 25 GAL, 10' HT	 2"-4" RIVER ROCK 2" LAYER OVER FILTER FABRIC	 AKIA
 FOXTAIL PALM FIELD STOCK	---- TREX HEADER ==== CONCRETE HEADER  ACCENT BOULDERS	 NEHE
 LOULU PALM FIELD STOCK		 ILIMA PAPA
		 BACOPA
		 ILIMA
		 HEMIGRAPHIS
		 LAWN BERMUDA 'NO MOW'



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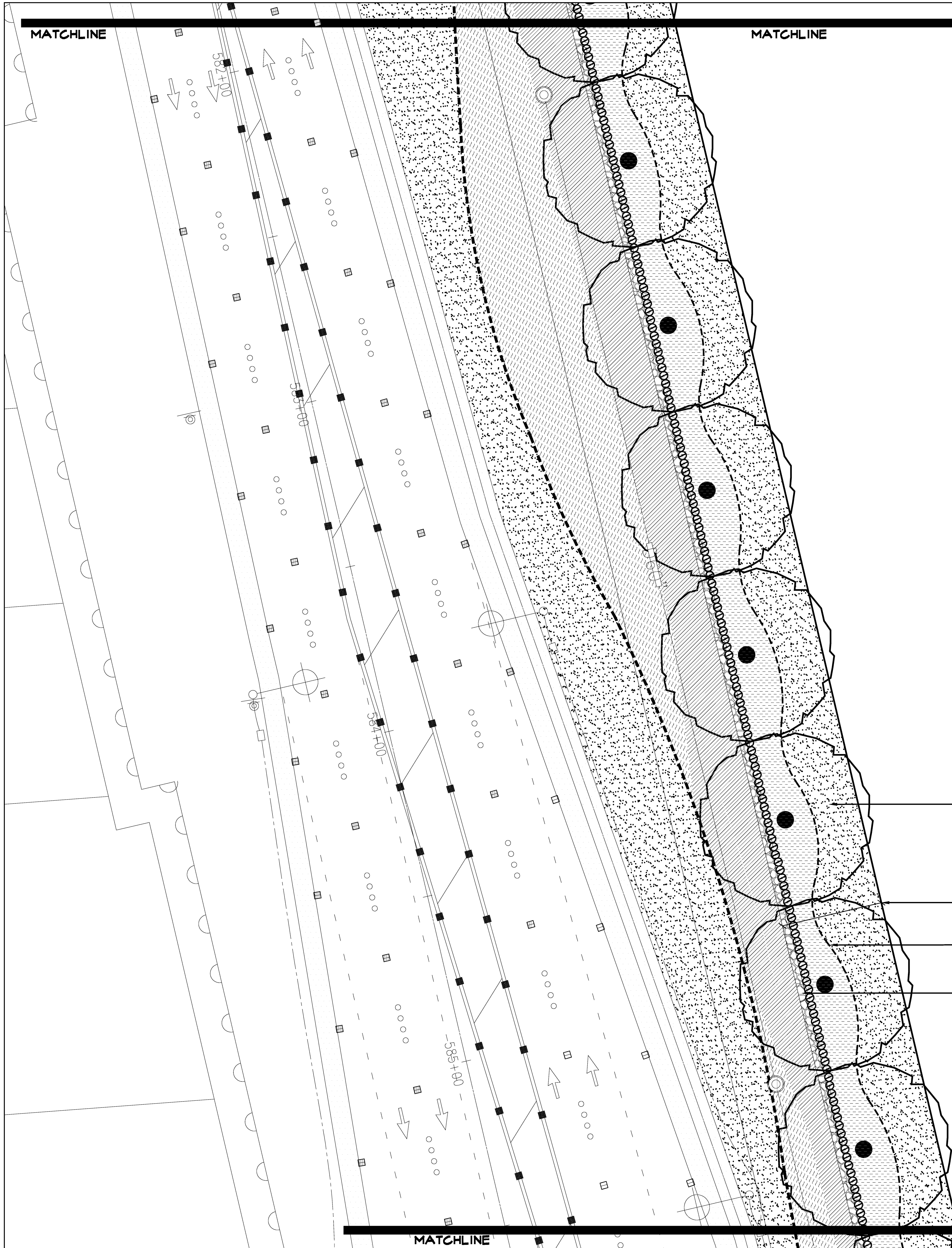
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SIGNATURE 

KAONOULU MARKET PLACE
Kihei, Maui, Hawaii
(2) 2-2-02 Por of 15 and (2) 3-9-01:16

Sheet Title
Landscape Planting Plan
Area 1

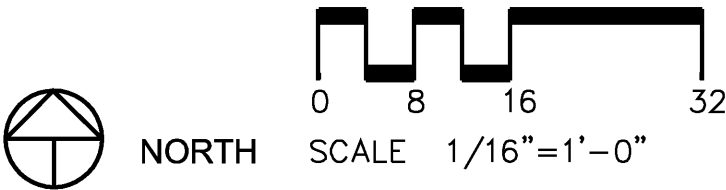
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Δ	DWS	Comments	12/17/2006	MDG
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JOB NUMBER 2775 DATE 1 May 2006
PROJECT DIRECTOR BPM DESIGNED BY JCW
DRAWN BY JCW CHECKED BY JCW/BPM
CAD FILE x2775-p
Scale: 1/16" = 1' - 0"
Sheet Number
LP - 1
- - of -



LEGEND		
TREES / PALMS	SHRUBS - 3 GAL.	GROUNDCOVERS
MONKEY POD 25 GAL, 10' HT W/ ROOT BARRIER	★ TI VARIETIES ○ BIRD OF PARADISE ○ BLUE PLUMBAGO ○ THAI DWARF IXORA ○ EL DORADO ○ NATIVE WHITE HIBISCUS ○ CROTON VARIETIES ○ TAHITIAN GARDENIA ○ MA'O FILLER LIST ALOE AGAVE CANNA LILLY PIKAKI	GIANT WHITE LIRIOPE
KOU 25 GAL, 10' HT W/ ROOT BARRIER	MISCELLANEOUS	NAIO PAPA
QUEEN WHITE SHOWER W/ ROOT BARRIER 25 GAL, 10' HT	3/4" BLACK CINDER 2" LAYER OVER FILTER FABRIC	AKIA
LOULU PALM FIELD STOCK	2"-4" RIVER ROCK 2" LAYER OVER FILTER FABRIC	NEHE
FOXTAIL PALM FIELD STOCK	--- TREX HEADER	ILIMA PAPA
	--- CONCRETE HEADER	BACOPA
	ACCENT BOULDERS	ILIMA
		HEMIGRAPHIS
		LAWN BERMUDA 'NO MOW'

- LAWN
- HYDROMULCH
- 30' LANDSCAPE EASEMENT
- TREX HEADER
SEE DETAIL E, SHEET LP - 19
- 3' -0" HIGH LAVA ROCK WALL
WITH HEDGE BEHIND
SEE DETAIL 3, SHEET LP - 17






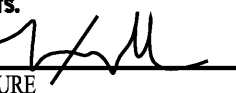
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SIGNATURE 

KAONOULU MARKET PLACE

Kihei, Maui, Hawaii

(2) 2-2-02 Por of 15 and (2) 3-9-01:16

Sheet Title
Landscape Planting Plan
Area 2

NO	DESCRIPTION	DATE	BY
1	DWS Comments	11/4/2006	MDG
2	DWS Comments	12/17/2006	MDG
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JOB NUMBER: x2775 DATE: 1 May 2006

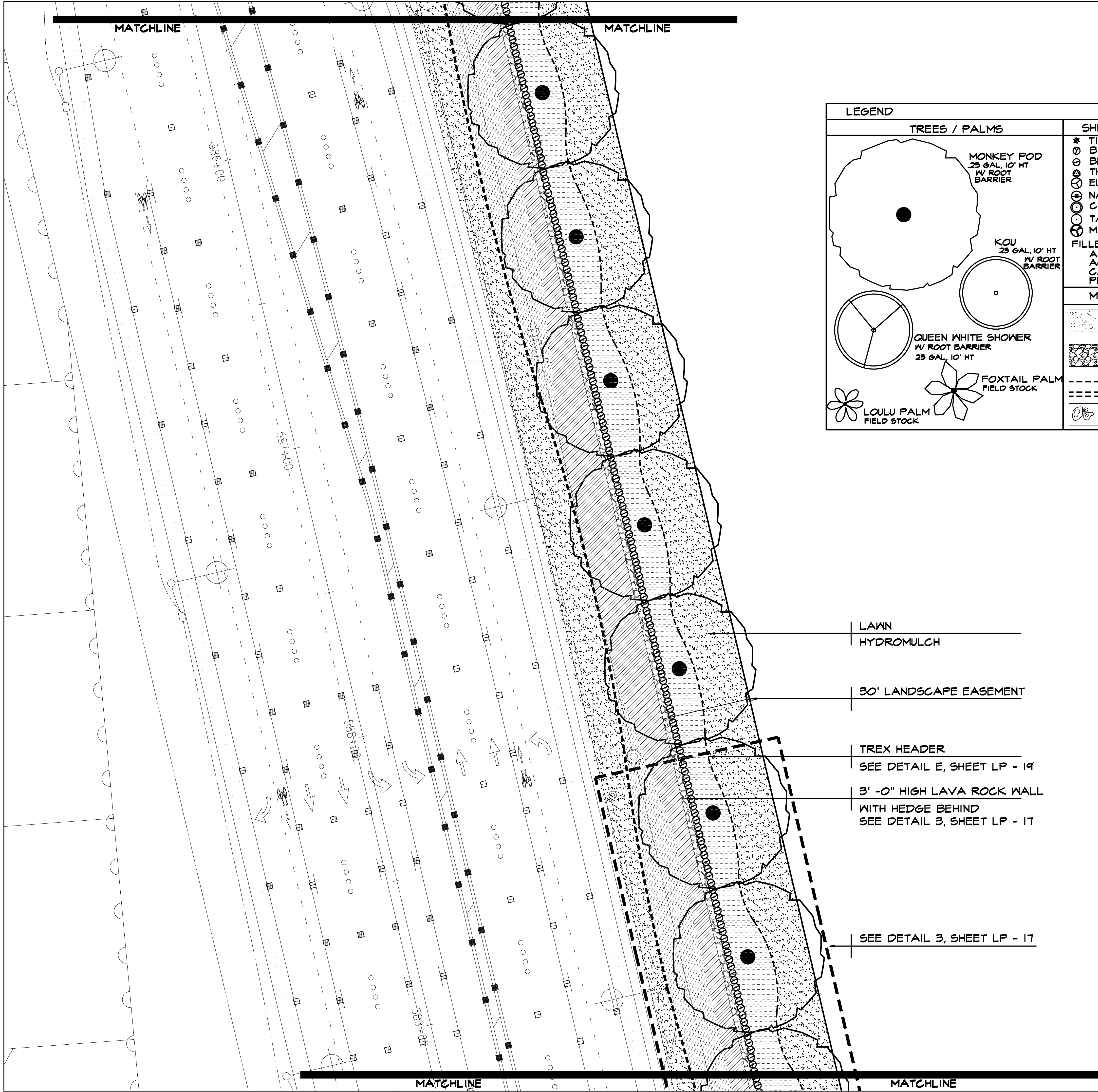
PROJECT DIRECTOR: BPM DESIGNED BY: JCW

DRAWN BY: JCW CHECKED BY: JCW/BPM

CAD FILE: x2775-p

Scale: 1/16" = 1' - 0"

Sheet Number
LP - 2
- - of -



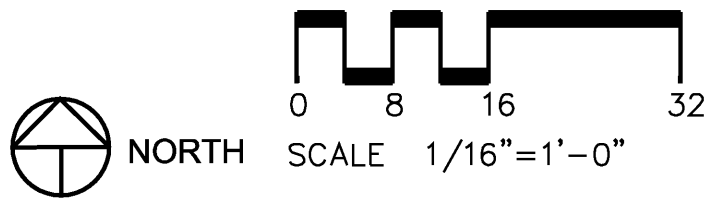
LEGEND		
TREES / PALMS	SHRUBS - 3 GAL.	GROUNDCOVERS
MONKEY POD 25 GAL, 10' HT w/ ROOT BARRIER	* TI VARIETIES ○ BIRD OF PARADISE ○ BLUE PLUMBAGO ○ THAI DWARF IXORA ○ EL DORADO ○ NATIVE WHITE HIBISCUS ○ CROTON VARIETIES ○ TAHITIAN GARDENIA ○ MA'O ○ FILLER LIST ○ ALOE ○ AGAVE ○ CANNA LILLY ○ PIKAKI	GIANT WHITE LIRIOPE
KOU 25 GAL, 10' HT w/ ROOT BARRIER		NAIO PAPA
QUEEN WHITE SHOWER w/ ROOT BARRIER 25 GAL, 10' HT		AKIA
FOXTAIL PALM FIELD STOCK	MISCELLANEOUS	NEHE
LOULU PALM FIELD STOCK	3/4" BLACK CINDER 2" LAYER OVER FILTER FABRIC	ILIMA PAPA
	2"-4" RIVER ROCK 2" LAYER OVER FILTER FABRIC	BACOPA
	---- TREX HEADER	ILIMA
	==== CONCRETE HEADER	HEMIGRAPHIS
	ACCENT BOULDERS	LAWN
		BERMUDA 'NO MOW'

LAWN
HYDROMULCH

30' LANDSCAPE EASEMENT

TREX HEADER
SEE DETAIL E, SHEET LP - 19
3' -0" HIGH LAVA ROCK WALL
WITH HEDGE BEHIND
SEE DETAIL 3, SHEET LP - 17

SEE DETAIL 3, SHEET LP - 17





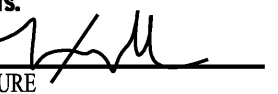
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Maui, Hawaii
2670 WAI WAI PLACE
Kihei, Maui, HI 96753
PH: 808-891-0629
FX: 808-891-1869
MP: 808-281-3800
Email: mdghawaii@hawaii.rr.com

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SIGNATURE

KAONOULU MARKET PLACE

Kihei, Maui, Hawaii
(2) 2-2-02 Por of 15 and (2) 3-9-01:16

Sheet Title
Landscape Planting Plan
Area 3

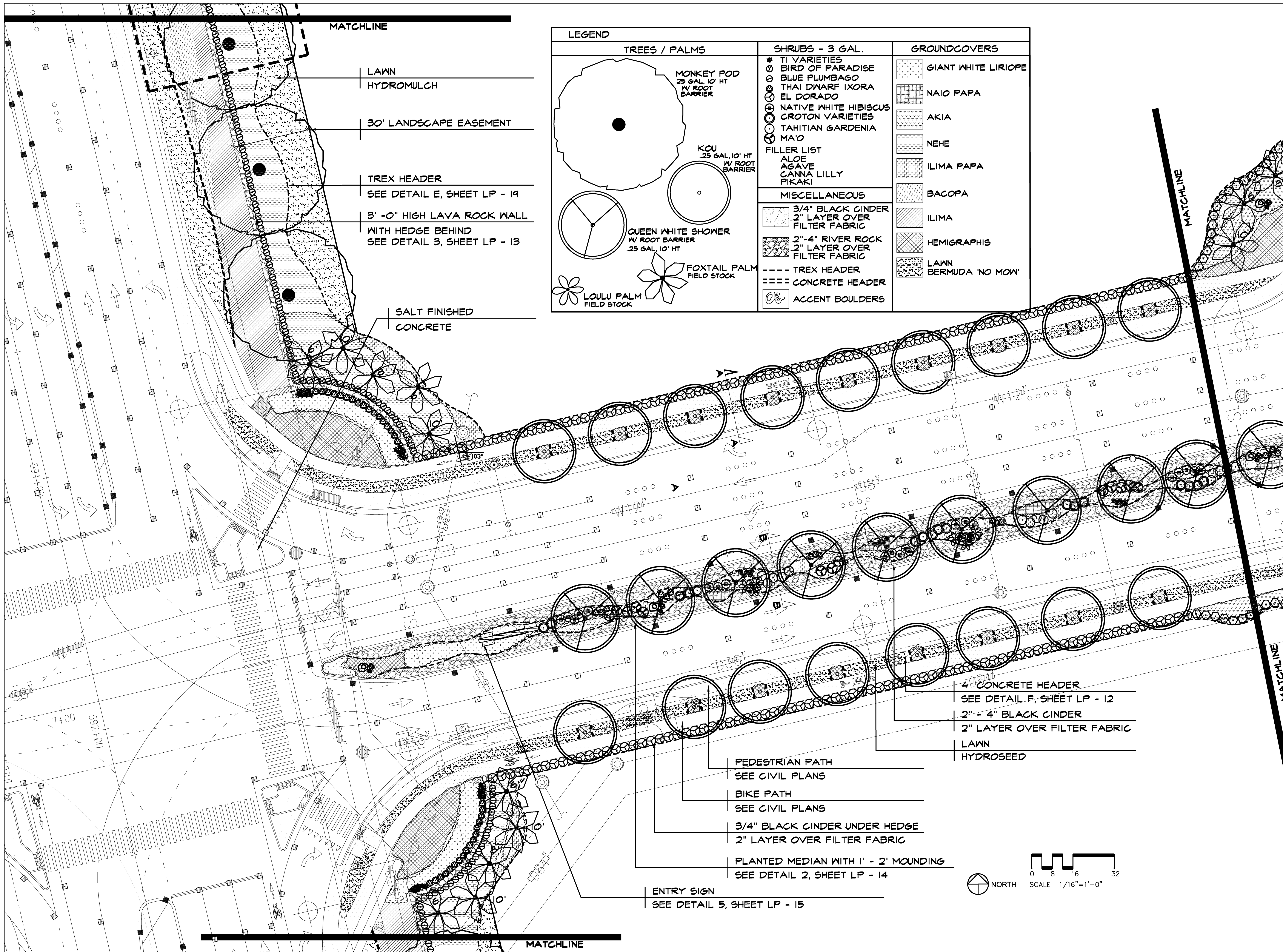
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JOB NUMBER 2775	DATE 1 May 2006
PROJECT DIRECTOR BPM	DESIGNED BY JCW
DRAWN BY JCW	CHECKED BY JCW/BPM
CAD FILE x2775-p	

Scale: 1/16" = 1' - 0"

Sheet Number
LP - 3

- - of -





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SIGNATURE 

KAONOULU MARKET PLACE

Kihei, Maui, Hawaii

(2) 2-2-02 Por of 15 and (2) 3-9-01:16

Sheet Title

Landscape Planting Plan
Area 4

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JOB NUMBER 2775 DATE 1 May 2006

PROJECT DIRECTOR DESIGNED BY JCW

BPM

DRAWN BY CHECKED BY JCW/BPM

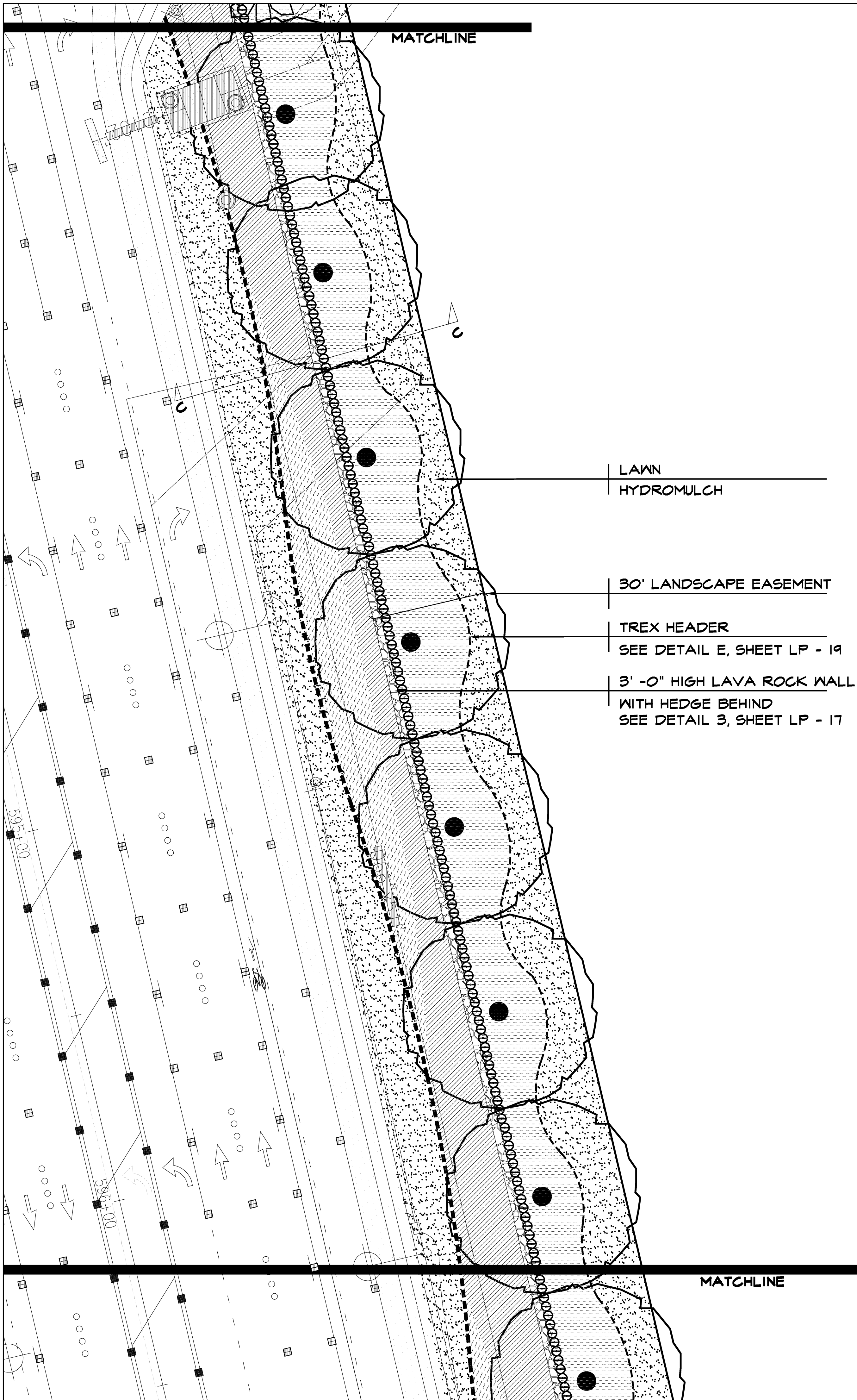
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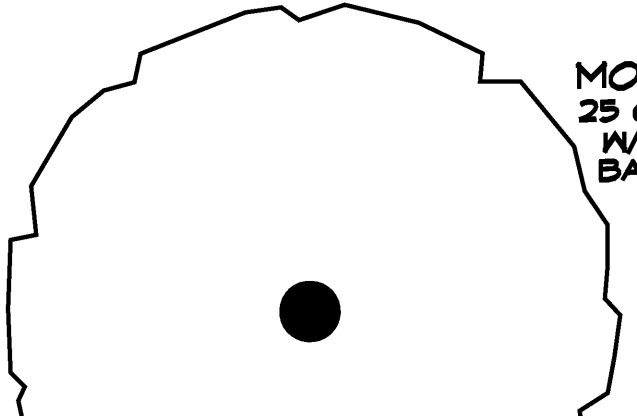
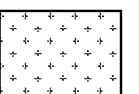

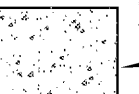

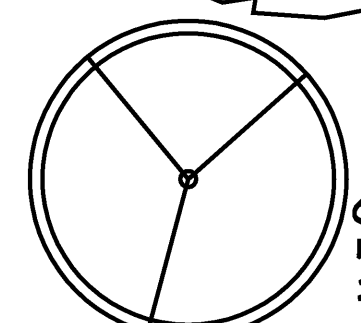


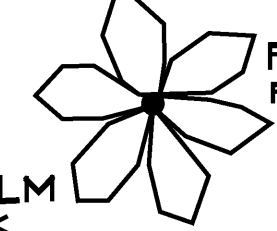
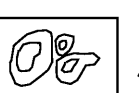
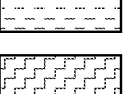

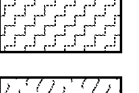
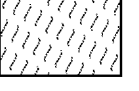

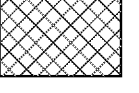

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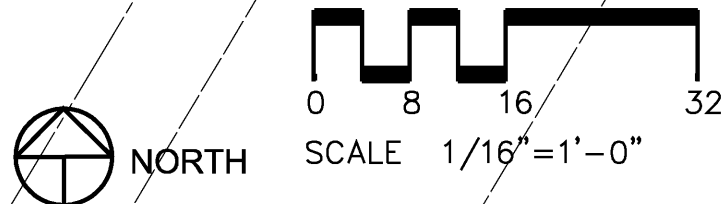
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LP - 4

- - of -



LEGEND		
TREES / PALMS	SHRUBS - 3 GAL.	GROUNDCOVERS
 MONKEY POD 25 GAL, 10' HT w/ ROOT BARRIER	★ TI VARIETIES ○ BIRD OF PARADISE ○ BLUE PLUMBAGO ○ THAI DWARF IXORA ○ EL DORADO ○ NATIVE WHITE HIBISCUS ○ CROTON VARIETIES ○ TAHITIAN GARDENIA ○ MA'O FILLER LIST ALOE AGAVE CANNA LILLY PIKAKI	 GIANT WHITE LIRIOPE
 KOU 25 GAL, 10' HT w/ ROOT BARRIER	MISCELLANEOUS  3/4" BLACK CINDER 2" LAYER OVER FILTER FABRIC	 NAIO PAPA
 QUEEN WHITE SHOWER w/ ROOT BARRIER 25 GAL, 10' HT	 2"-4" RIVER ROCK 2" LAYER OVER FILTER FABRIC	 AKIA
 FOXTAIL PALM FIELD STOCK	---- TREX HEADER ==== CONCRETE HEADER  ACCENT BOULDERS	 NEHE
 LOULU PALM FIELD STOCK		 ILIMA PAPA
		 BACOPA
		 ILIMA
		 HEMIGRAPHIS
		 LAWN BERMUDA 'NO MOW'






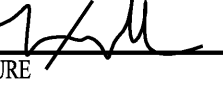
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2670 WAI WAI PLACE
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Email: mdghawaii@hawaii.rr.com

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SIGNATURE 

KAONOULU MARKET PLACE

Kihei, Maui, Hawaii

(2) 2-2-02 Por of 15 and (2) 3-9-01:16

Sheet Title

Landscape Planting Plan
Area 5

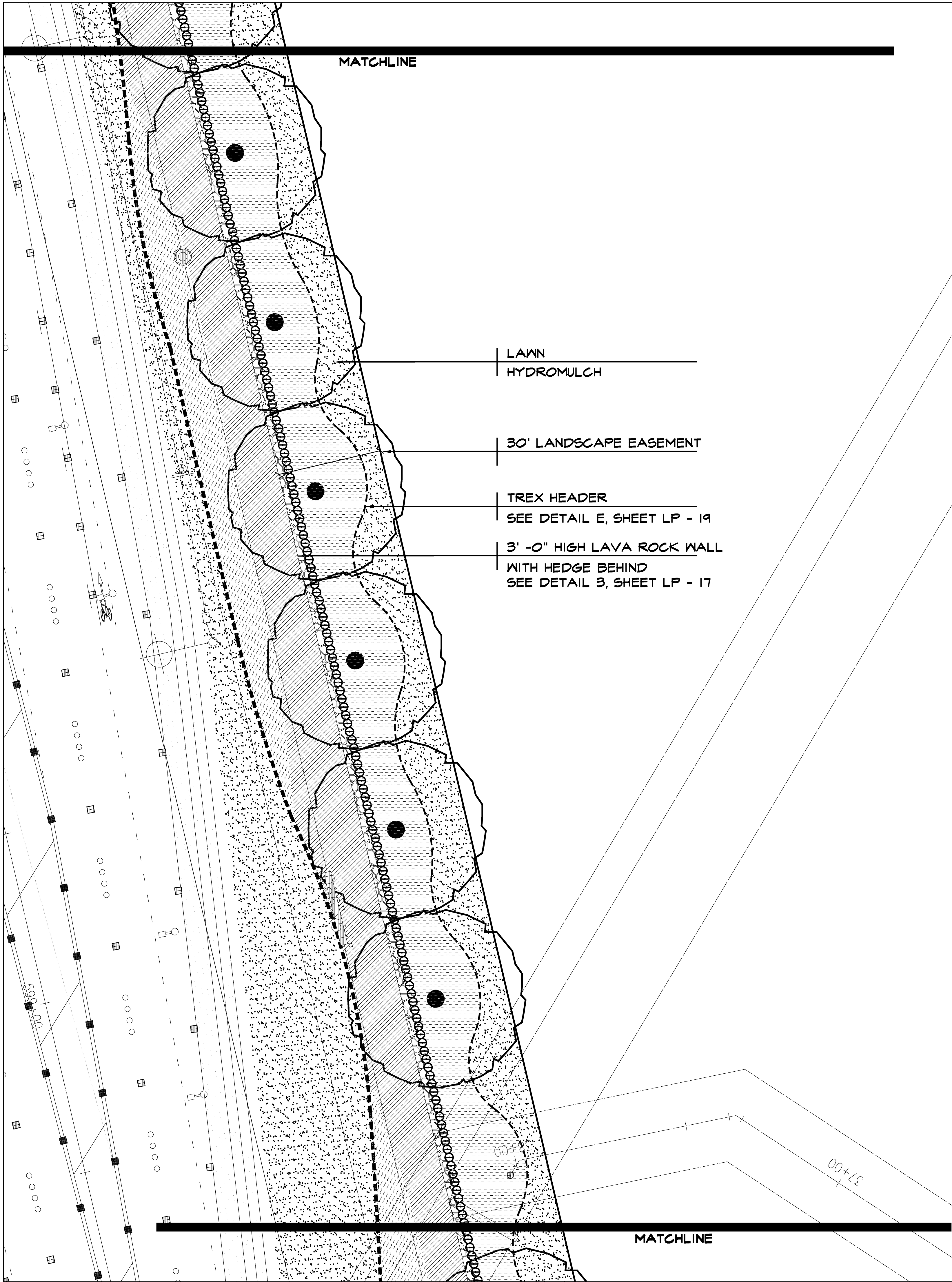
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2	DWS Comments	12/17/2008	MDG
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JOB NUMBER	DATE
2775	1 May 2006
PROJECT DIRECTOR	DESIGNED BY
BPM	JCW
DRAWN BY	CHECKED BY
JCW	JCW/BPM
CAD FILE	
x2775-p	
Scale:	1/16" = 1' - 0"

Sheet Number

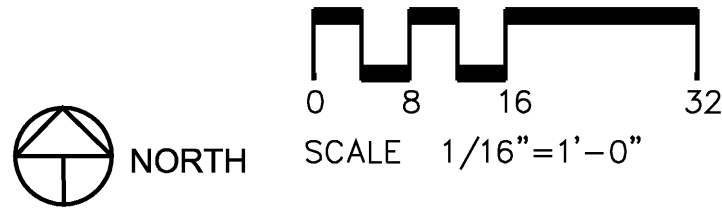
LP - 5

- - of -



- LAWN
- HYDROMULCH
- 30' LANDSCAPE EASEMENT
- TREX HEADER
- SEE DETAIL E, SHEET LP - 19
- 3' -0" HIGH LAVA ROCK WALL
- WITH HEDGE BEHIND
- SEE DETAIL 3, SHEET LP - 17

LEGEND		
TREES / PALMS	SHRUBS - 3 GAL.	GROUNDCOVERS
MONKEY POD 25 GAL, 10' HT w/ ROOT BARRIER	* TI VARIETIES ○ BLUE PLUMBAGO ○ THAI DWARF IXORA ○ EL DORADO ○ NATIVE WHITE HIBISCUS ○ CROTON VARIETIES ○ TAHITIAN GARDENIA ○ MA'O FILLER LIST ALOE AGAVE CANNA LILLY PIKAKI	GIANT WHITE LIRIOPE
KOU 25 GAL, 10' HT w/ ROOT BARRIER	MISCELLANEOUS 3/4" BLACK CINDER 2" LAYER OVER FILTER FABRIC	NAIO PAPA
QUEEN WHITE SHOWER w/ ROOT BARRIER 25 GAL, 10' HT	2"-4" RIVER ROCK 2" LAYER OVER FILTER FABRIC	AKIA
FOXTAIL PALM FIELD STOCK	---- TREX HEADER ---- CONCRETE HEADER ACCENT BOULDERS	NEHE
LOULU PALM FIELD STOCK		ILIMA PAPA
		BACOPA
		ILIMA
		HEMIGRAPHIS
		LAWN BERMUDA 'NO MOW'






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Landscape Architecture and Planning

Maui, Hawaii
2670 WAI WAI PLACE
Kihei, Maui, HI 96753
PH: 808-891-0629
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MP: 808-281-3800
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[Signature]
SIGNATURE

KAONOULU MARKET PLACE

Kihei, Maui, Hawaii

(2) 2-2-02 Por of 15 and (2) 3-9-01:16

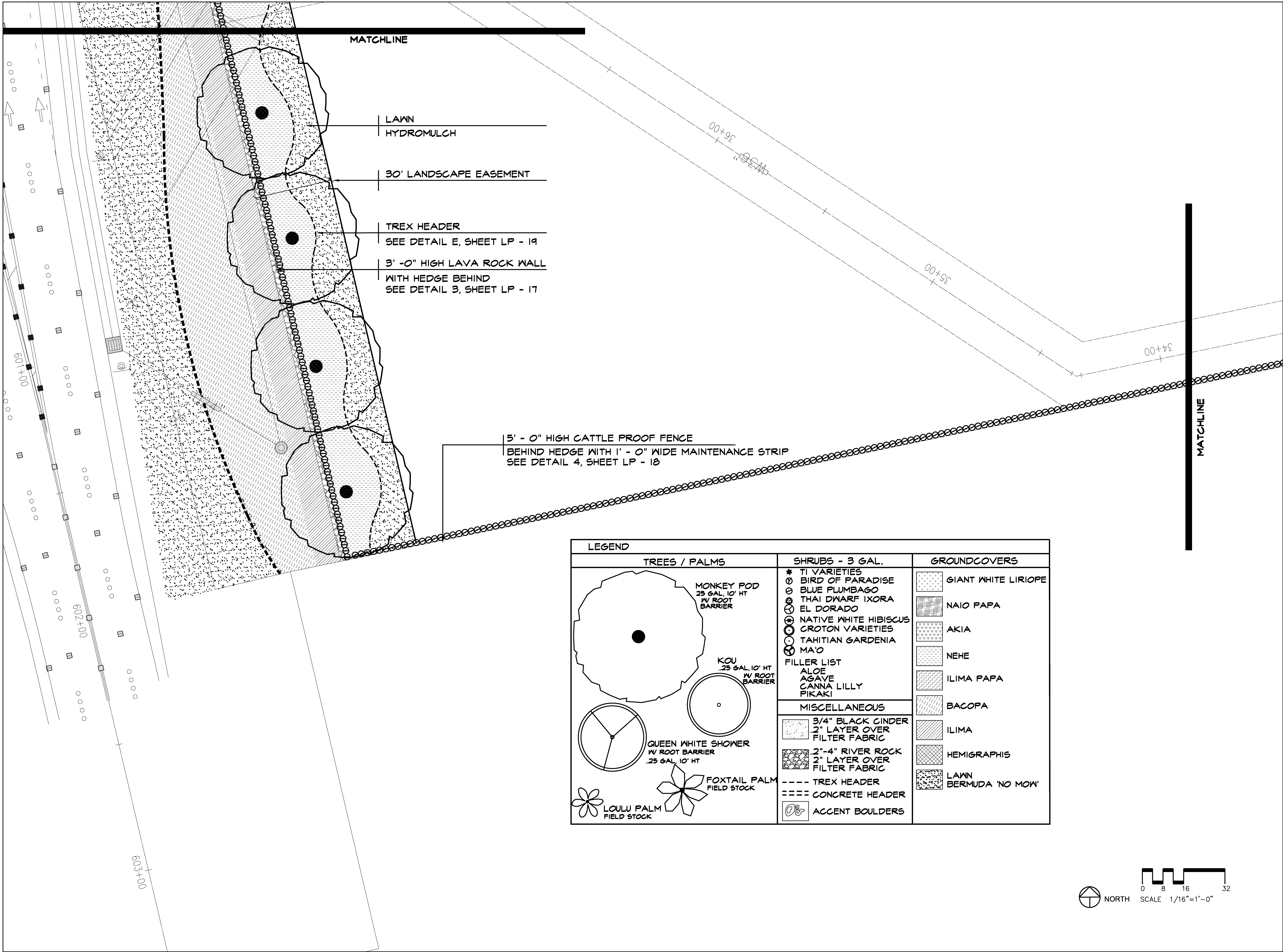
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Landscape Planting Plan
Area 6

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2	DWS Comments	12/17/2008	MDG
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JOB NUMBER 2775	DATE 1 May 2006
PROJECT DIRECTOR BPM	DESIGNED BY JCW
DRAWN BY JCW	CHECKED BY JCW/BPM
CAD FILE x2775-p	

Scale: 1/16" = 1' - 0"

Sheet Number
LP - 6
- - of -





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Maui, Hawaii
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Kihei, Maui, HI 96753
PH: 808-891-0629
FX: 808-891-1869
MP: 808-281-3800
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KAONOULU MARKET PLACE

Kihei, Maui, Hawaii

(2) 2-2-02 Por of 15 and (2) 3-9-01:16

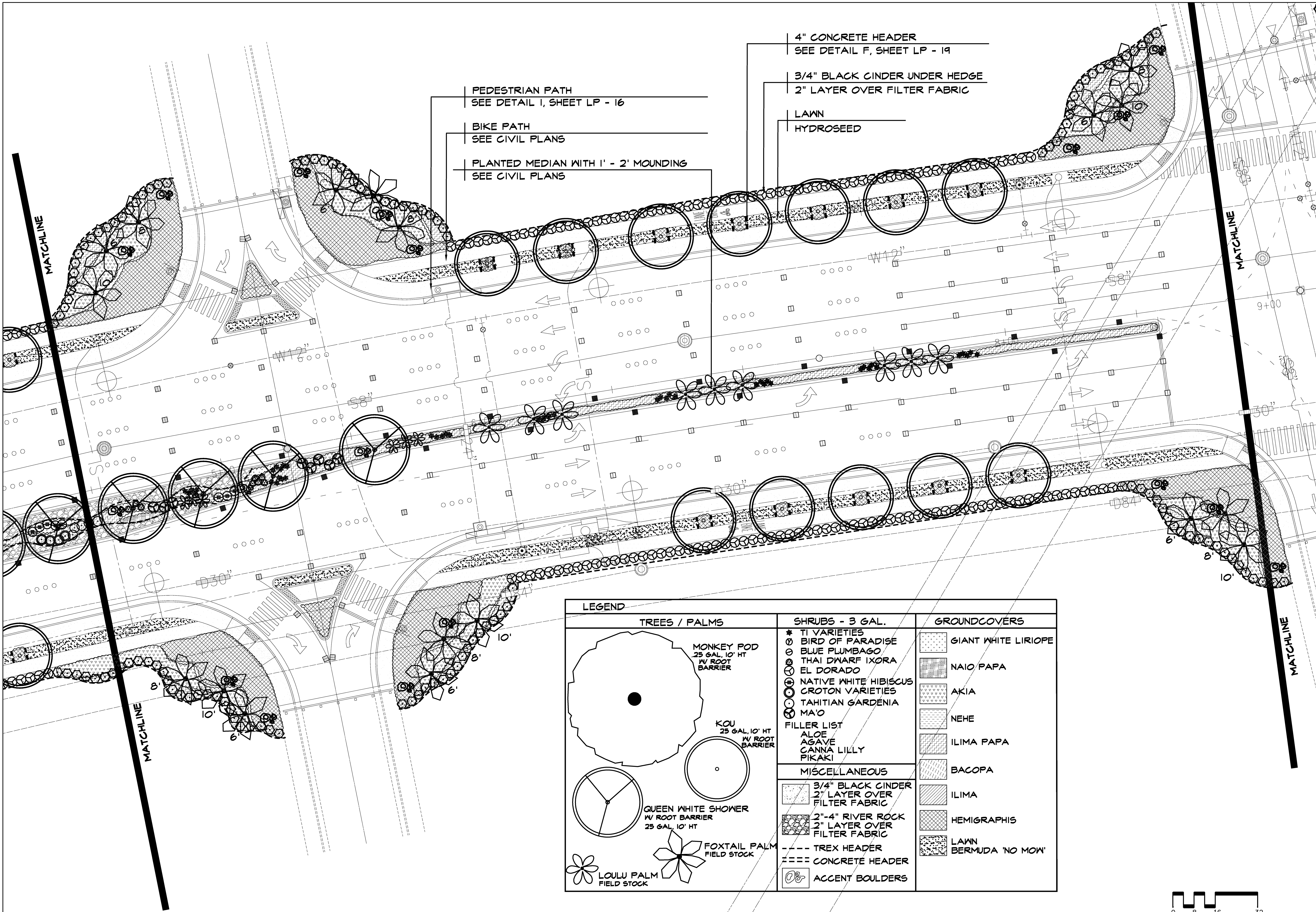
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Landscape Planting Plan
Area 7


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NO	DESCRIPTION	DATE	BY
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JOB NUMBER 2775	DATE 1 May 2006
PROJECT DIRECTOR BPM	DESIGNED BY JCW
DRAWN BY JCW	CHECKED BY JCW/BPM
CAD FILE x2775-p	


Scale: 1/16" = 1' - 0"

Sheet Number
LP - 7
- - of -

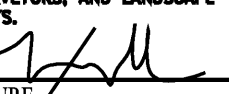




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Landscape Architecture and Planning
Maui, Hawaii
2670 WAI WAI PLACE
Kihei, Maui, HI 96753
PH: 808-891-0629
FX: 808-891-1869
MP: 808-281-3800
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KAONOULU MARKET PLACE

Kihei, Maui, Hawaii

(2) 2-2-02 Por of 15 and (2) 3-9-01:16

Sheet Title
Landscape Planting Plan
Area 8

NO	DESCRIPTION	DATE	BY
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JOB NUMBER 2775 DATE 1 May 2006

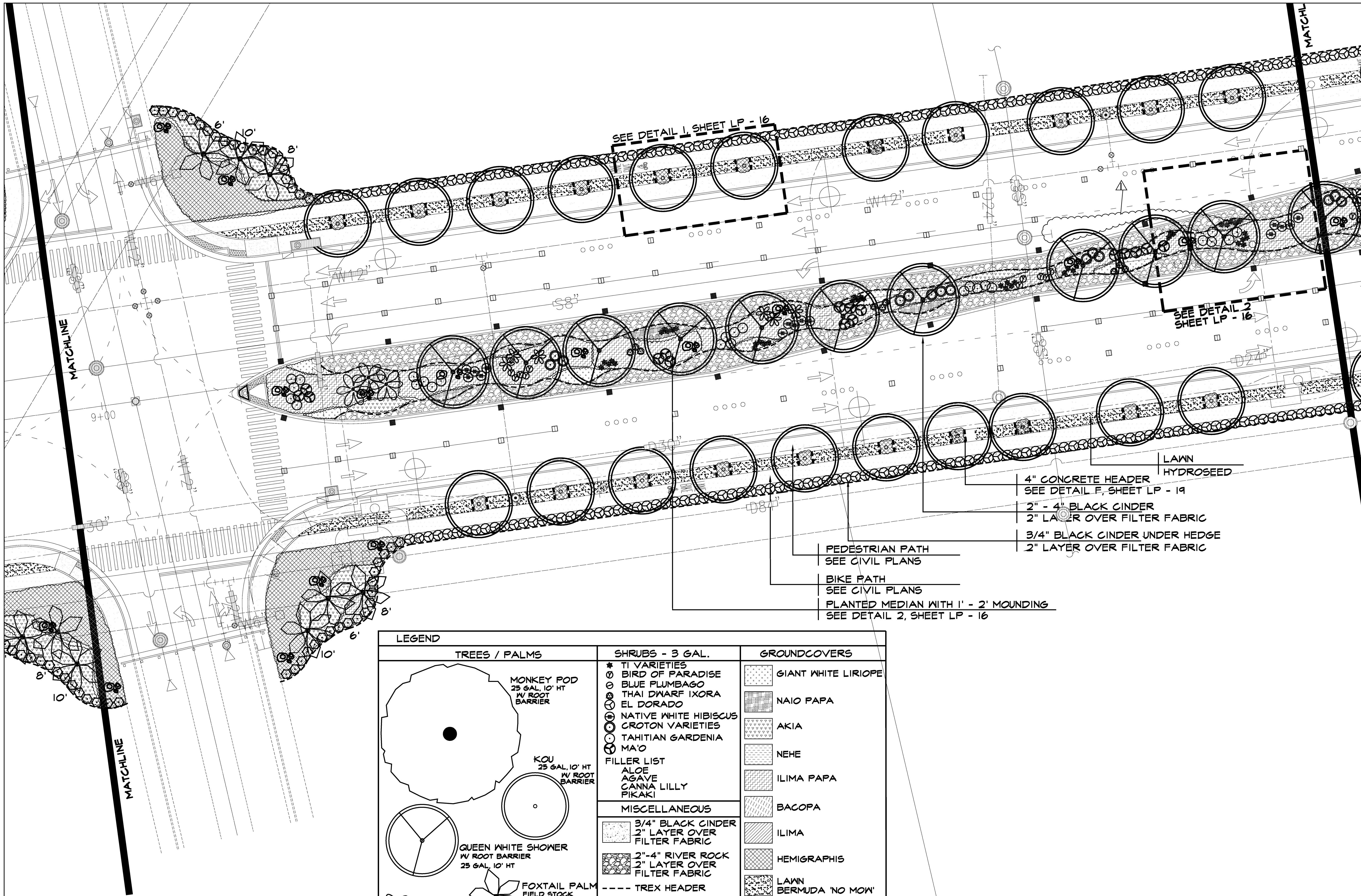
PROJECT DIRECTOR DESIGNED BY
BPM JCB


DRAWN BY CHECKED BY
JCB JCB/BPM

CAD FILE
x2775-p

Scale: 1/16" = 1' - 0"

Sheet Number
LP - 8
of






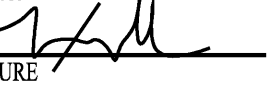
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KAONOULU MARKET PLACE

Kihei, Maui, Hawaii

(2) 2-2-02 Por of 15 and (2) 3-9-01:16

Sheet Title
Landscape Planting Plan
Area 9

REVISIONS	NO	DESCRIPTION	DATE	BY
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JOB NUMBER	DATE
2775	1 May 2006

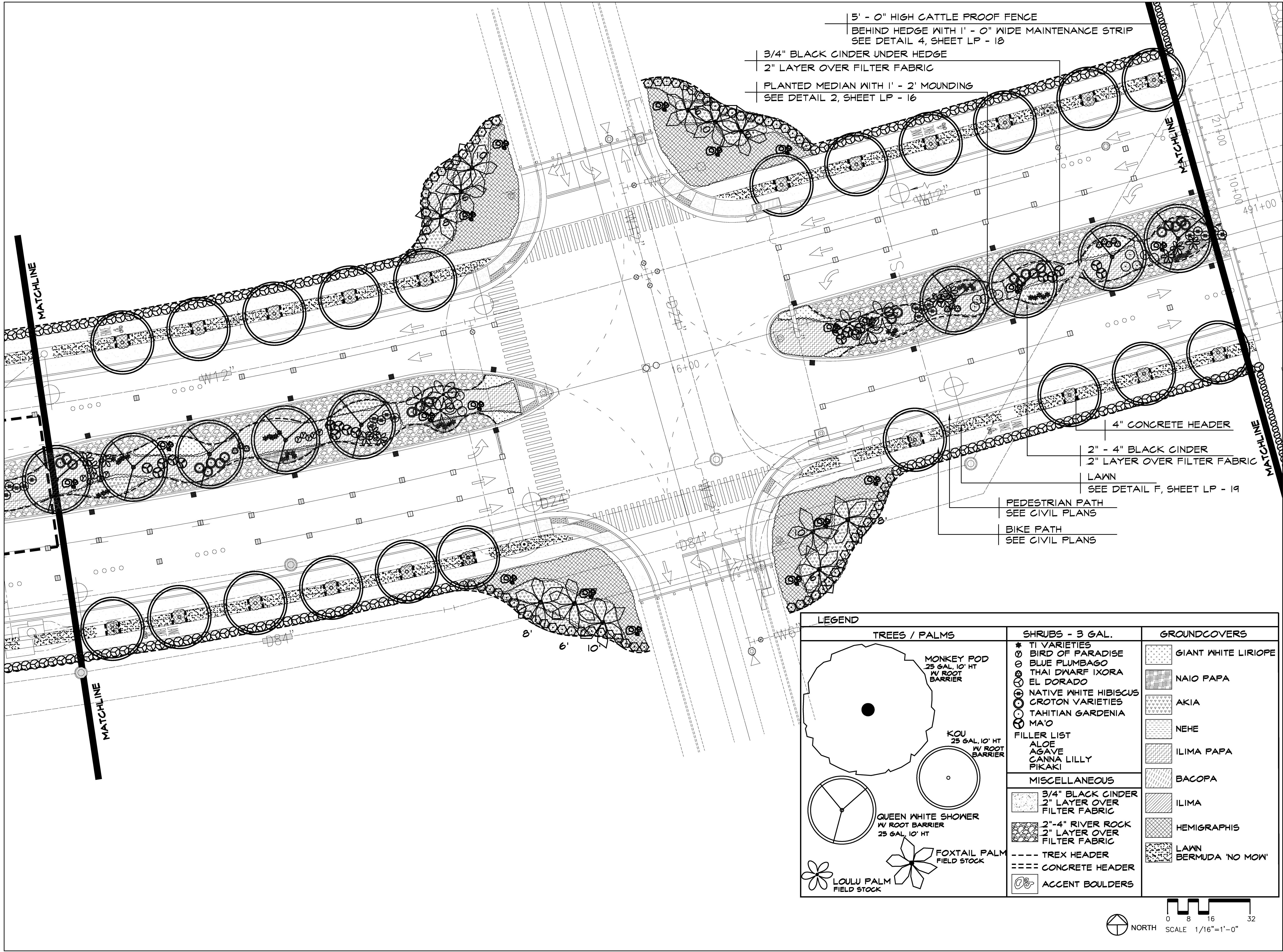
PROJECT DIRECTOR	DESIGNED BY
BPM	JCW

DRAWN BY	CHECKED BY
JCW	JCW/BPM

CAD FILE
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Scale: 1/16" = 1' - 0"

Sheet Number
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Maui, Hawaii
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Kihei, Maui, HI 96753
PH: 808-891-0629
FX: 808-891-1869
MP: 808-281-3800
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BRYAN P. MAXWELL
LICENSED PROFESSIONAL LANDSCAPE ARCHITECT
No. LA 8901
HAWAII, USA
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SIGNATURE

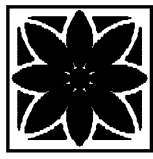
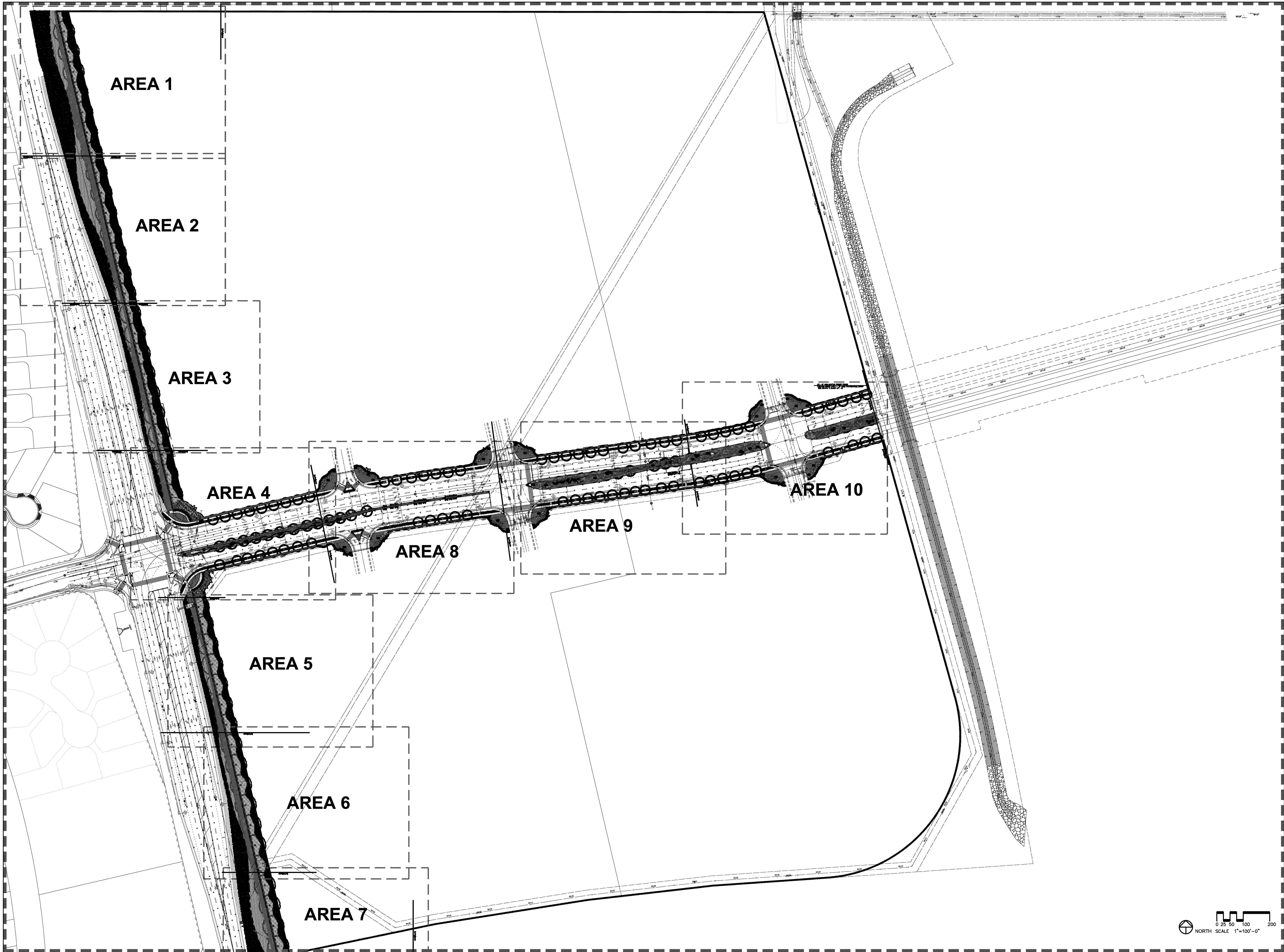
KAONOULU MARKET PLACE
Kihei, Maui, Hawaii
(2) 2-2-02 Por of 15 and (2) 3-9-01:16

Sheet Title
Landscape Planting Plan
Area 10

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JOB NUMBER 2775 DATE 1 May 2006
PROJECT DIRECTOR DESIGNED BY
BPM JCW
DRAWN BY CHECKED BY
JCW JCW/BPM
CAD FILE
x2775-p
Scale: 1/16" = 1' - 0"

Sheet Number
LP - 10
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Landscape Architecture and Planning

Maui, Hawaii

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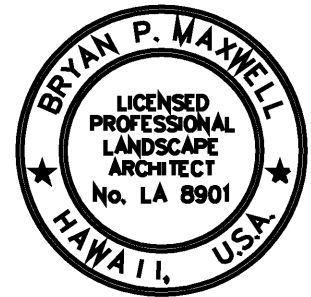
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RELATING TO ENGINEERS, ARCHITECTS,
LAND SURVEYORS, AND LANDSCAPE
ARCHITECTS.

[Signature]
SIGNATURE

KAONOULU MARKET PLACE

Kihei, Maui, Hawaii

(2) 2-2-02 Por of 15 and (2) 3-9-01:16

Sheet Title

Landscape Planting Plan
Perimeter Area

REVISIONS			
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JOB NUMBER DATE

2775 1 May 2006

PROJECT DIRECTOR DESIGNED BY

BPM JCW

DRAWN BY CHECKED BY

JCW JCW/BPM

CAD FILE

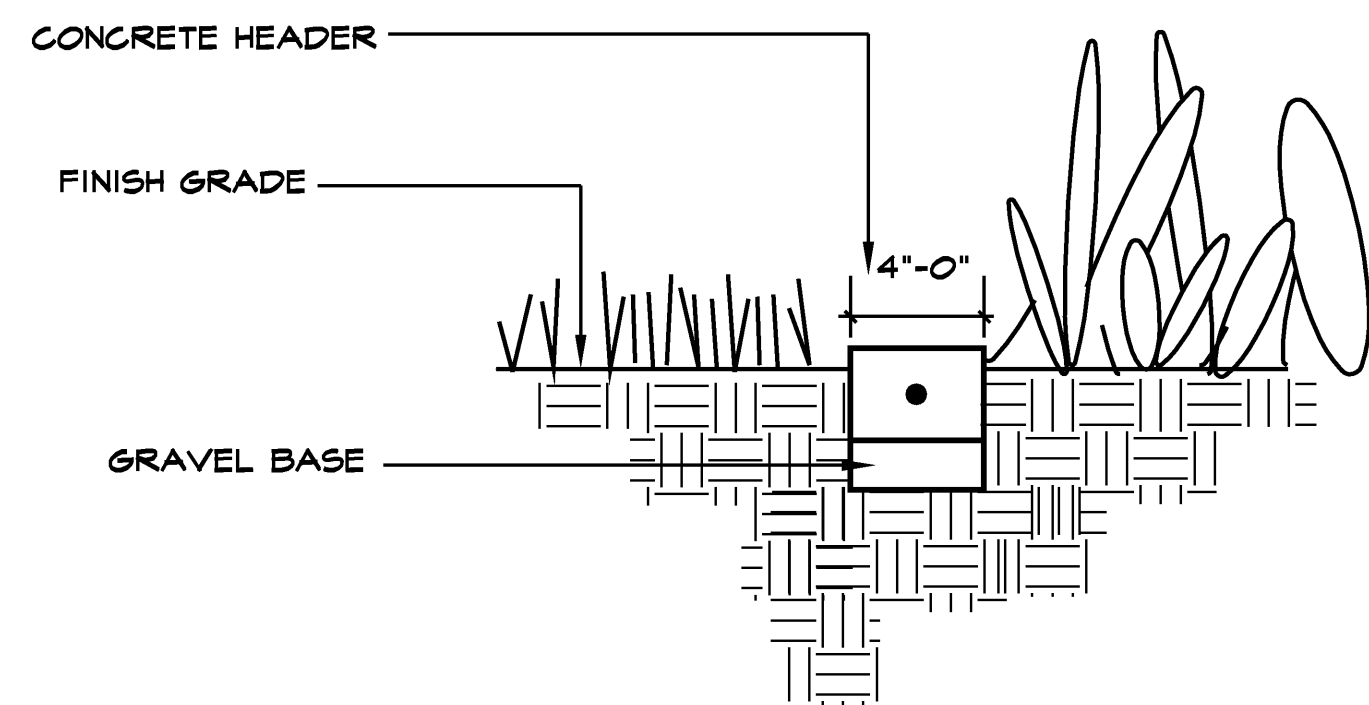
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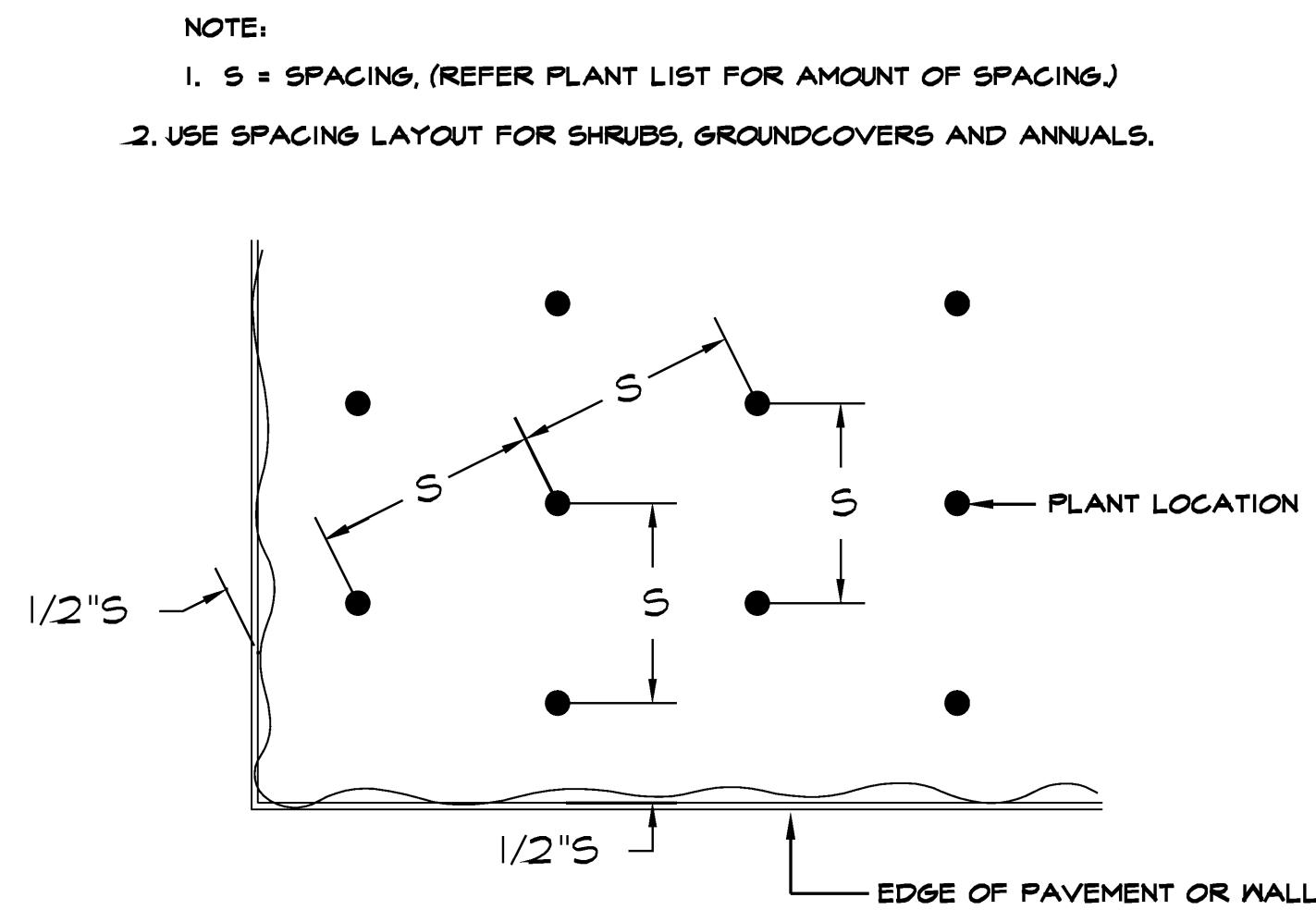
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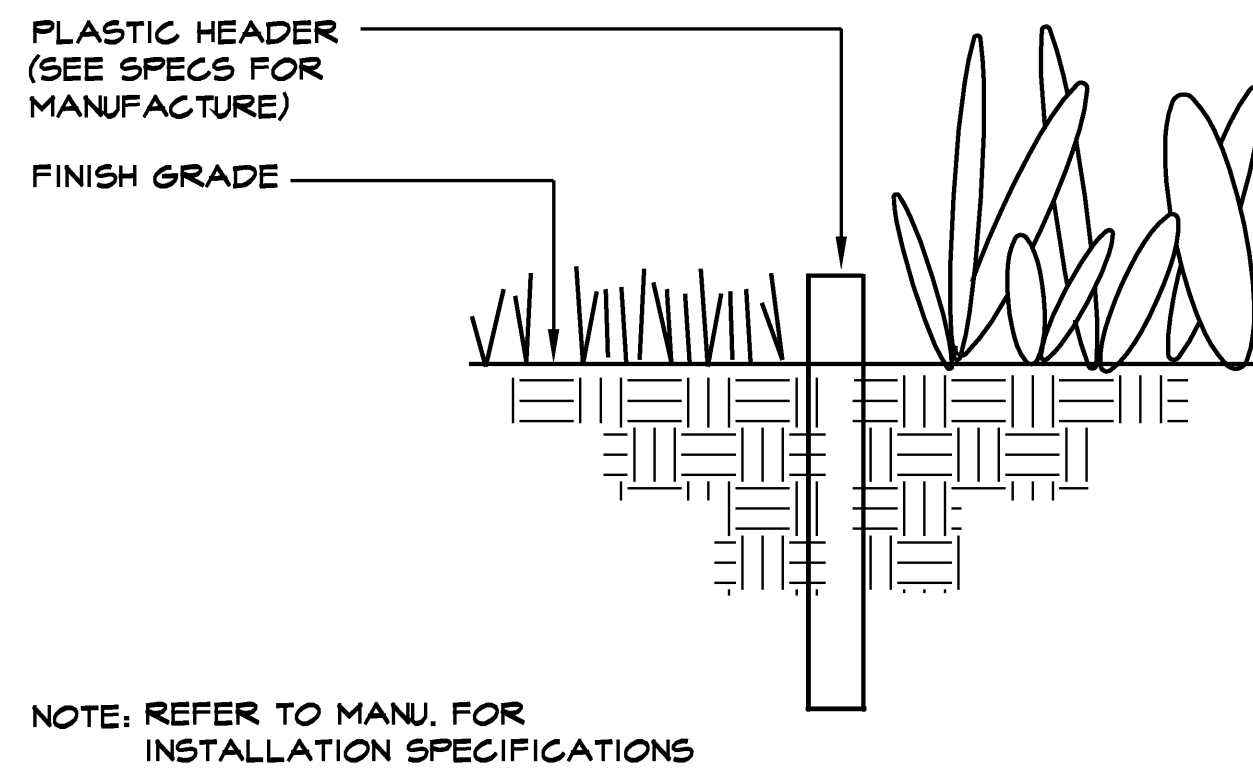
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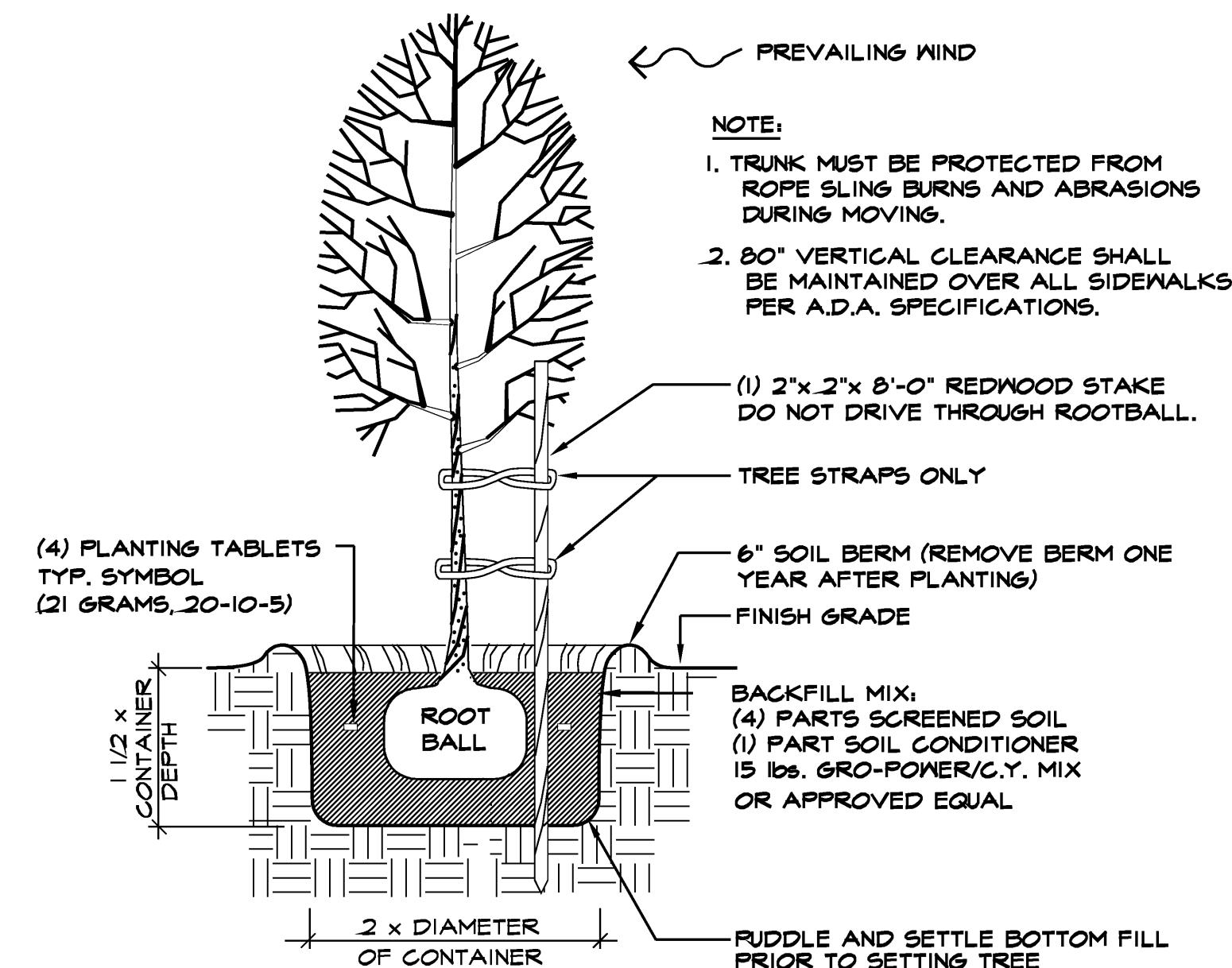
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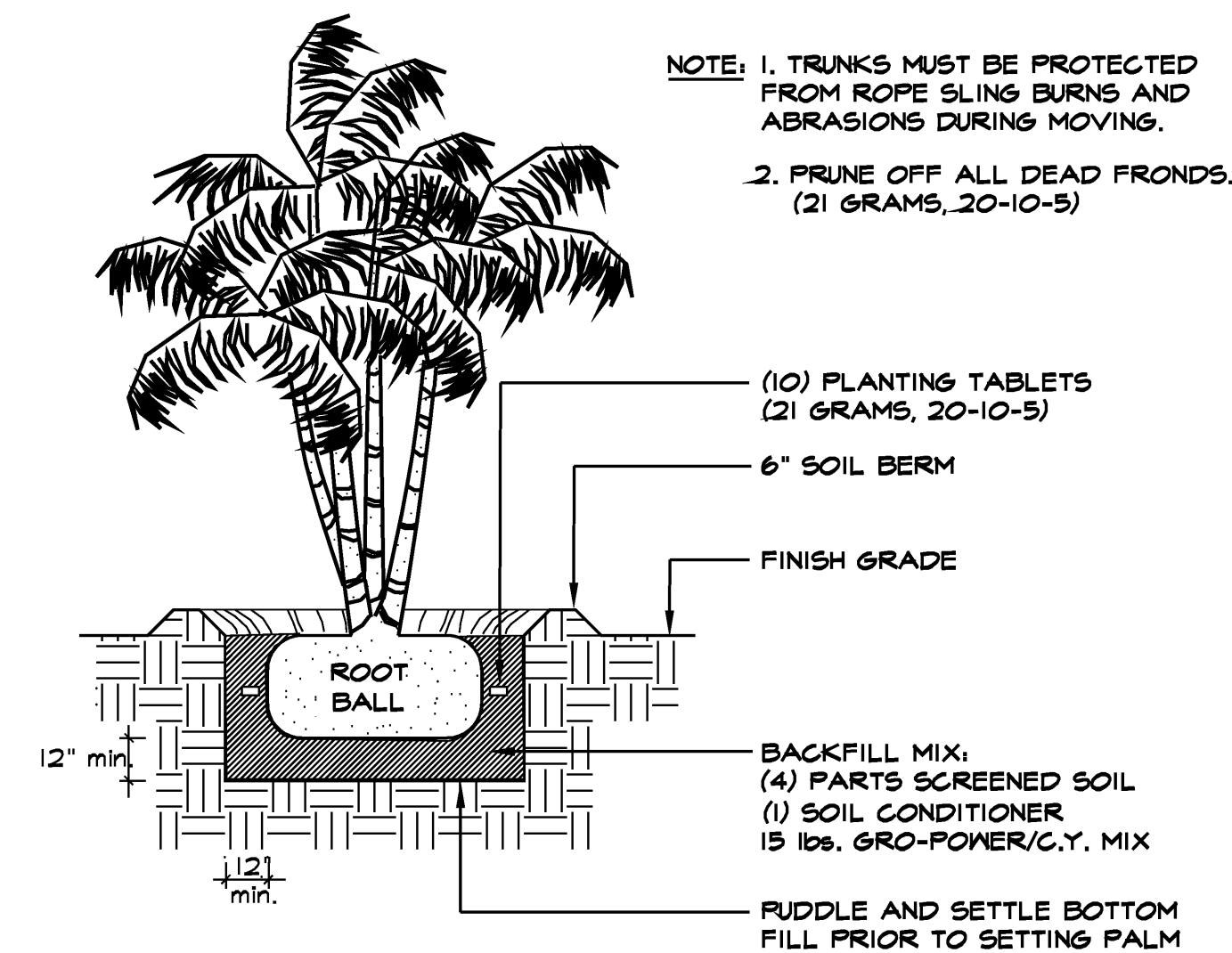
D TRIANGULAR PLANT SPACING DIAGRAM
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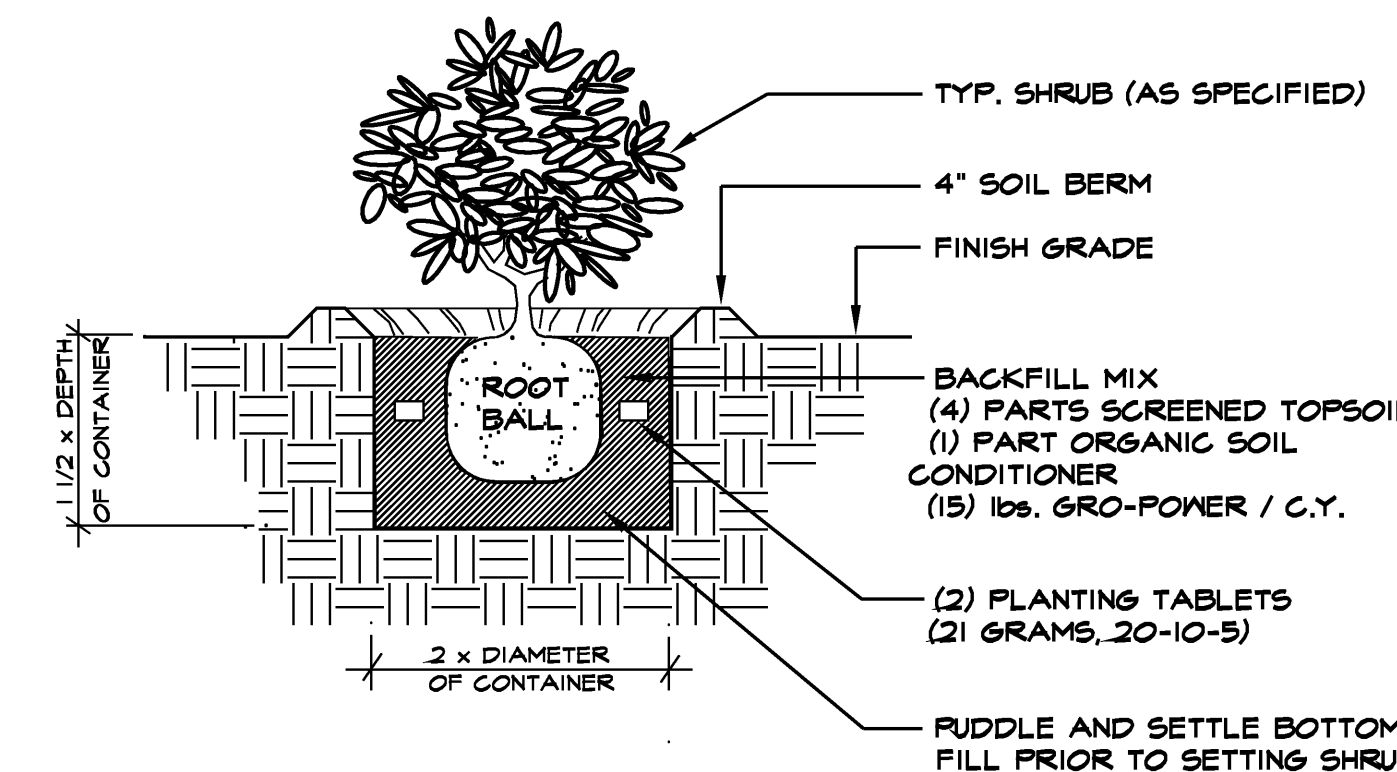
E TREX HEADER
NOT TO SCALE



A TREE STAKING DETAIL
NOT TO SCALE



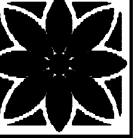
B MULTI-TRUNK PALM DETAIL
NOT TO SCALE




C SHRUB PLANTING DETAIL
NOT TO SCALE

PLANT NOTES

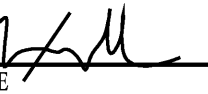
- Contractor shall verify all plant quantities and dimension prior to construction.
- Contractor shall be responsible for locating and protecting all existing utilities.
- Notify and meet with the Landscape Architect prior to plant installation for verification and interpretation of plans.
- Landscape contractor shall clear and grub planting areas prior to commencing with work.
- All trees and Palms to be field placed by landscape architect. Call 1 week prior to planting for coordination.



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Landscape Architecture and Planning
Maui, Hawaii
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Kihei, Maui, HI 96753
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MP: 808-281-3800
Email: mdghawaii@hawaii.rr.com
www.landscapearchitect.net



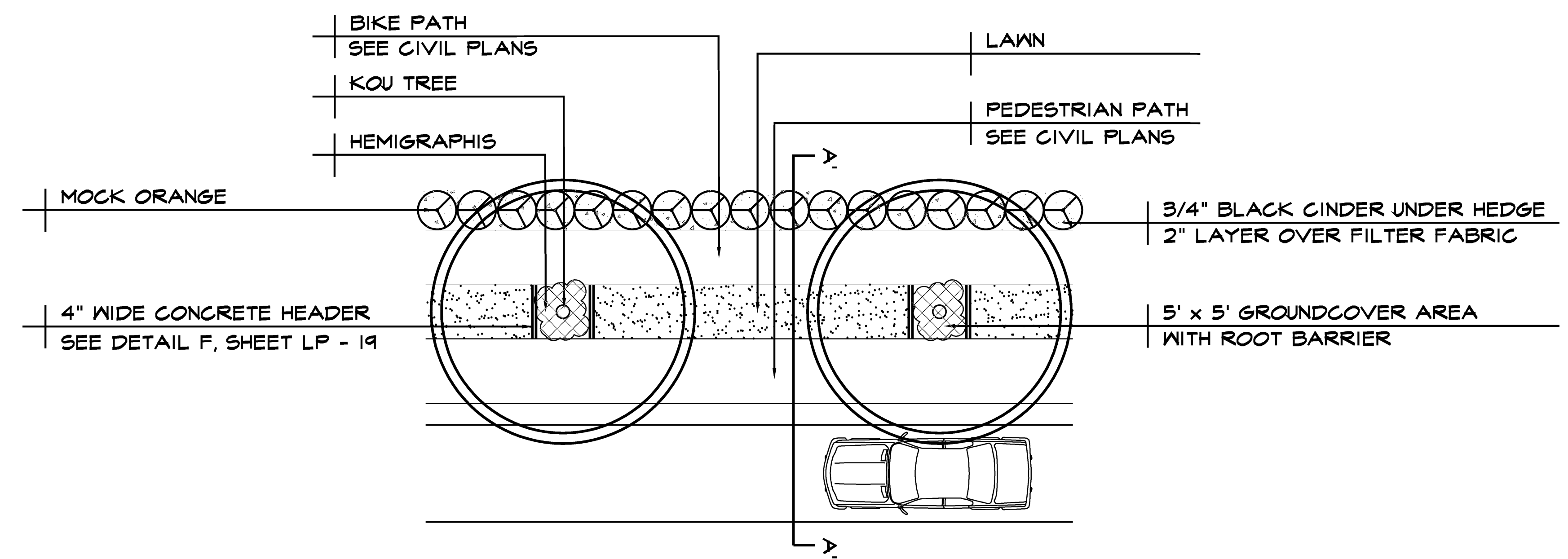
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION. OBSERVATION OF CONSTRUCTION AS DEFINED IN SECTION 16-115-2, OF THE HAWAII ADMINISTRATIVE RULES, DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS, STATE OF HAWAII, RELATING TO ENGINEERS, ARCHITECTS, LAND SURVEYORS, AND LANDSCAPE ARCHITECTS.

SIGNATURE: 

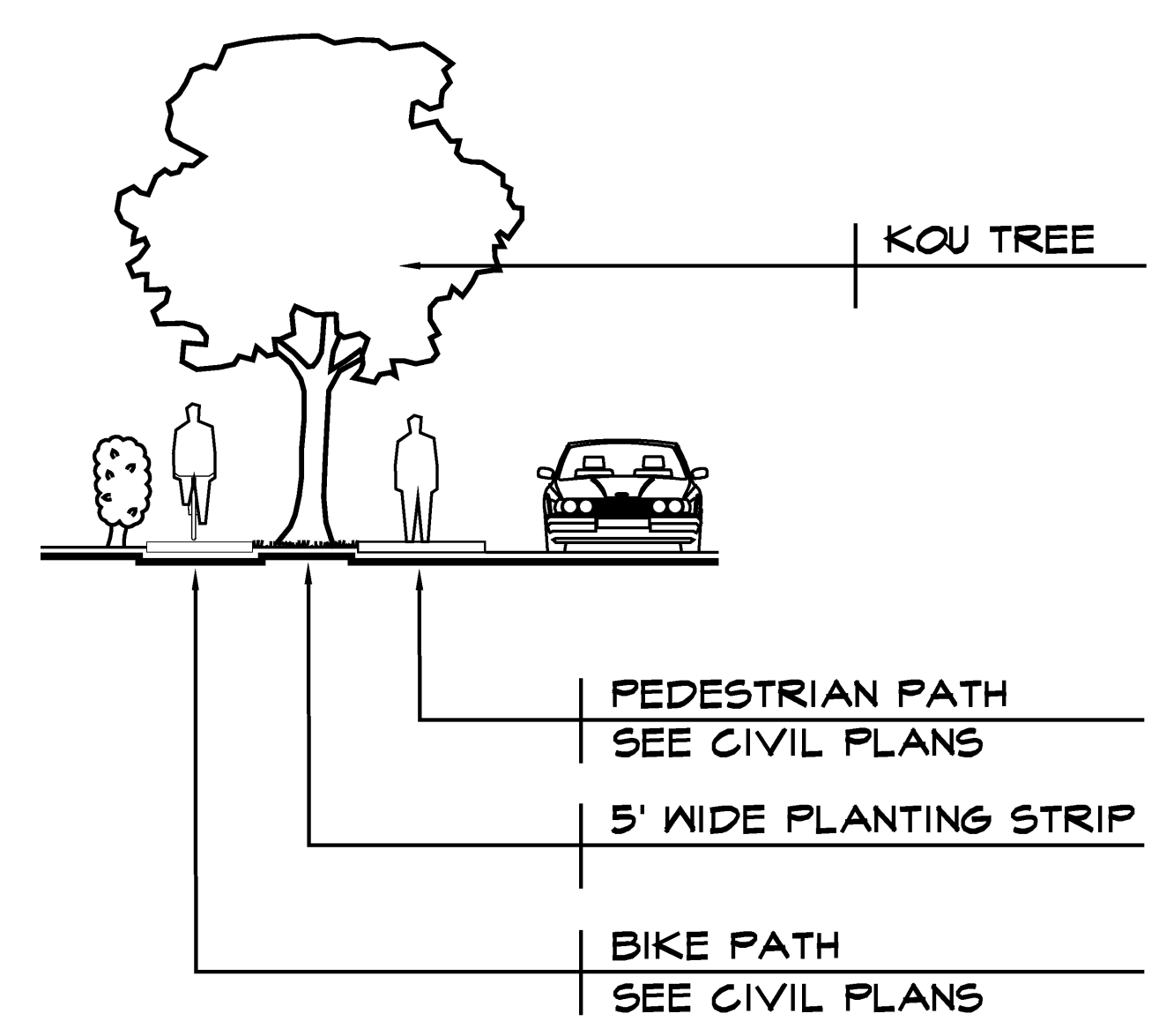
KAONOULU MARKET PLACE
Kihei, Maui, Hawaii
TMK (2) 2-2-02 Por of 15 and (2) 3-9-01 : 16

Sheet Title			
LANDSCAPE DETAIL			
REVISIONS			
NO	DESCRIPTION	DATE	BY
1	DWS Comments	12/17/2008	MDG
2			
3			
4			
5			
JOB NUMBER		DATE	
2775		2 May 2006	
PROJECT DIRECTOR		DESIGNED BY	
JCW		JCW	
DRAWN BY		CHECKED BY	
JCW		BPM/JCW	
CAD FILE			
x2775			
Scale:		NTS	
Sheet Number			
LP - 12			
- - of -			

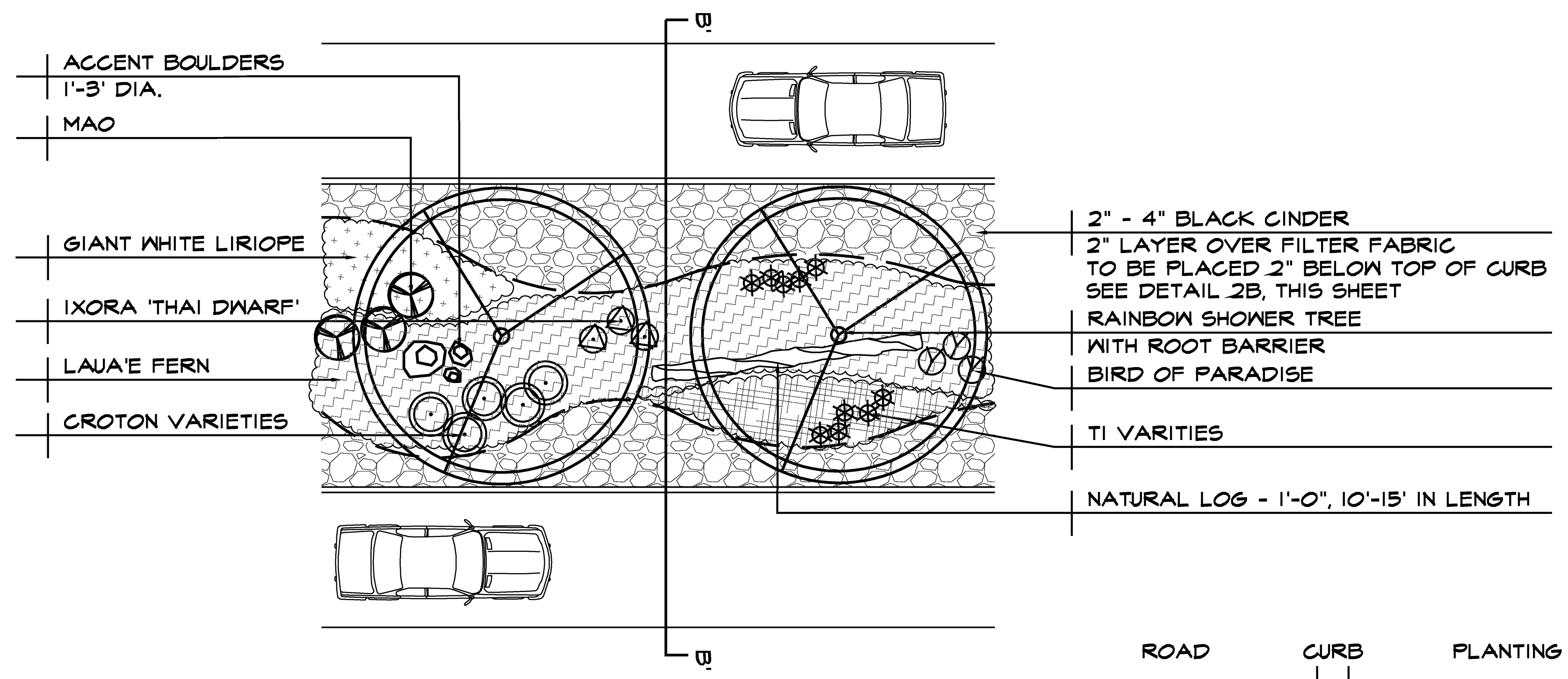
Sheet Title			
Hardscape Details			
-			
-			
REVISIONS			
NO	DESCRIPTION	DATE	BY
▲	DWS Comments	11/4/2008	MDG
▲	DWS Comments	12/17/2008	MDG
▲			
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JOB NUMBER		DATE	
2775		2 May 2006	
PROJECT DIRECTOR		DESIGNED BY	
JCW		JCW	
DRAWN BY		CHECKED BY	
JCW		BPM/JCW	
CAD FILE			
x2775-details			
Scale:		AS SHOWN	



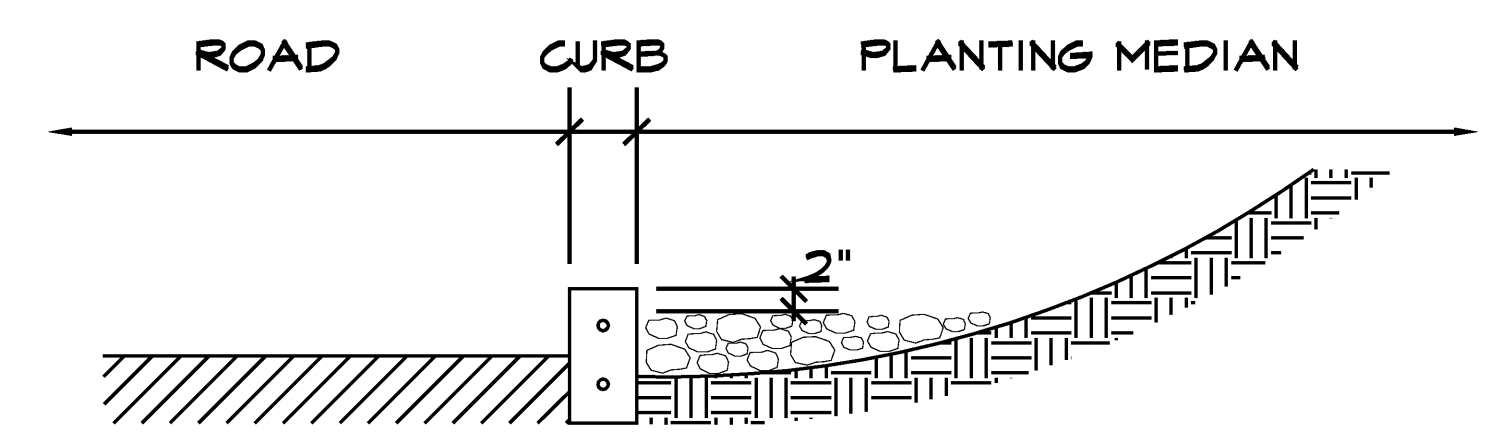
DETAIL 1 - PLAN VIEW
SCALE: 1/8" = 1'



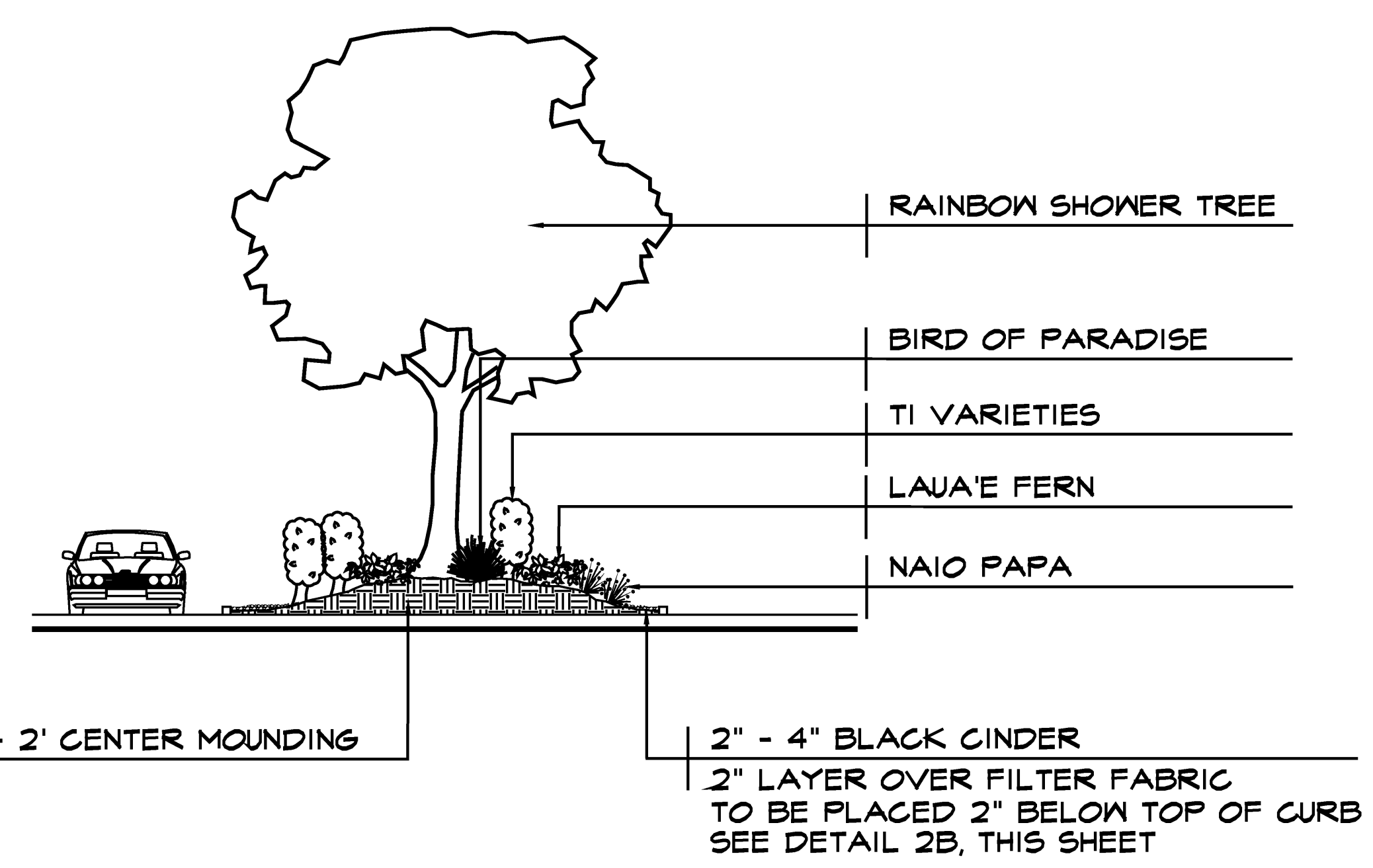
DETAIL 1 - SECTION A
SCALE: 1/8" = 1'



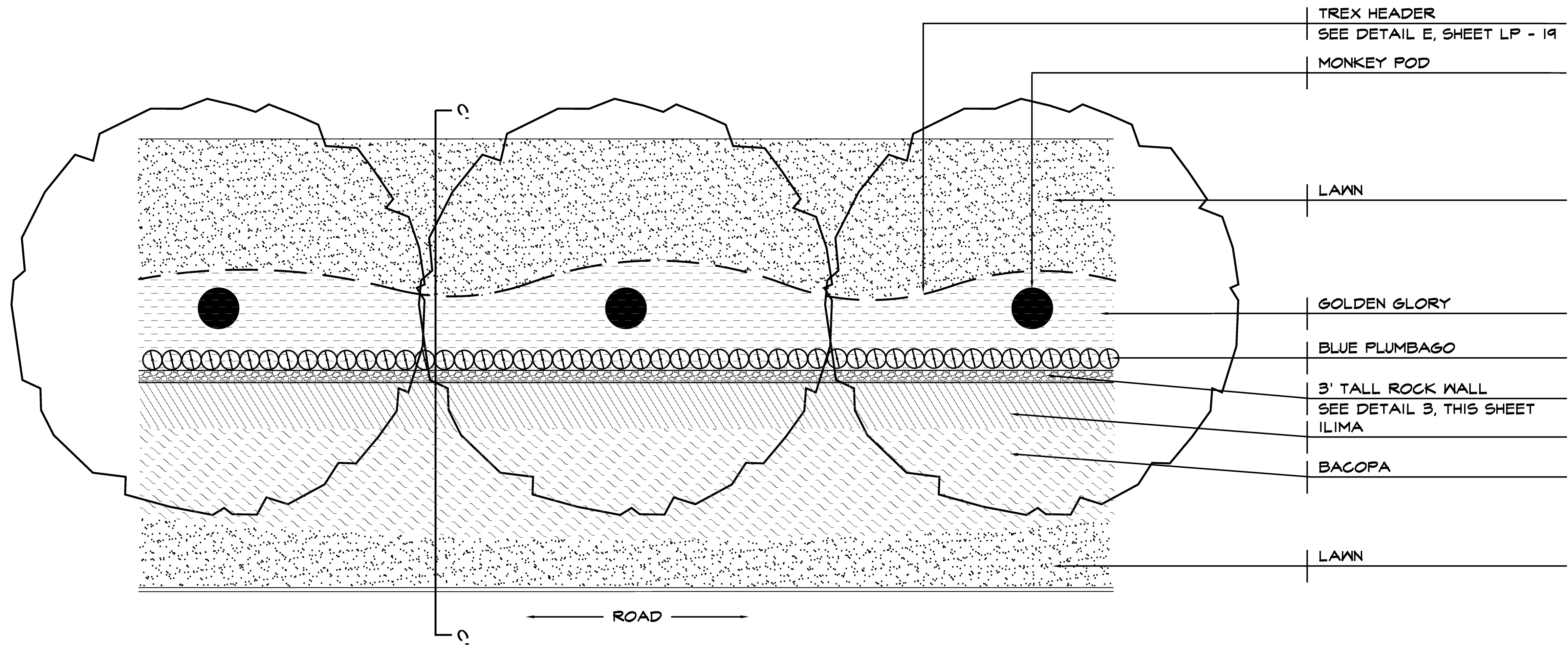
DETAIL 2 - PLAN VIEW
SCALE: 1/8" = 1'



DETAIL 2B - SECTION A
NOT TO SCALE

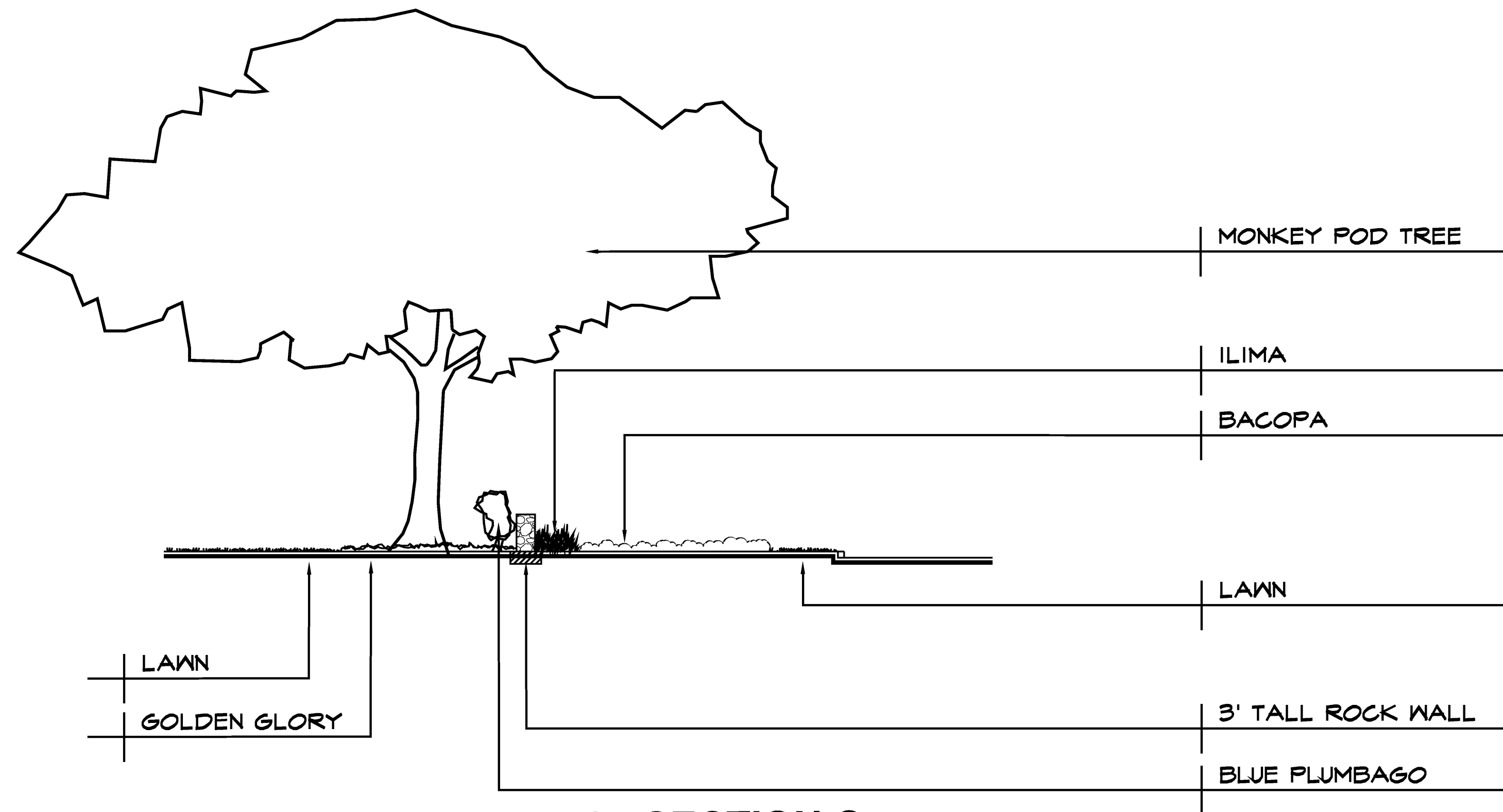


DETAIL 2 - SECTION B
SCALE: 1/8" = 1'



DETAIL 3 - PLAN VIEW

SCALE: 1/8" = 1'



DETAIL 3 - SECTION C

SCALE: 1/8" = 1'

Maxwell Design Group, Inc.
Landscape Architecture and Planning
Maui, Hawaii
2670 WAI WAI PLACE
Kihei, Maui, HI 96753
PH: 808-891-0629
FX: 808-891-1869
MP: 808-281-3800
Email: mdghawaii@hawaii.rr.com
www.landscapearchitect.net

BRYAN P. MAXWELL
LICENSED PROFESSIONAL LANDSCAPE ARCHITECT
No. LA 8901
HAWAII, U.S.A.
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THE PROJECT WILL BE UNDER MY OBSERVATION, OBSERVATION OF CONSTRUCTION AS DEFINED IN SECTION 18-115-2, OF THE HAWAII ADMINISTRATIVE RULES, DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS, STATE OF HAWAII, RELATING TO ENGINEERS, ARCHITECTS, LAND SURVEYORS, AND LANDSCAPE ARCHITECTS.
SIGNATURE

KAONOULU MARKET PLACE
Kihei, Maui, Hawaii
(2) 2-2-02 Por of 15 and (2) 3-9-01 :16

Sheet Title
Hardscape Details

NO	DESCRIPTION	DATE	BY
1	DWS Comments	11/14/2008	MDG
2	DWS Comments	12/17/2008	MDG
3			
4			
5			
6			

JOB NUMBER
2775
DATE
2 May 2006

PROJECT DIRECTOR
JCW
DESIGNED BY
JCW

DRAWN BY
JCW
CHECKED BY
BPM/JCW

CAD FILE
x2775-details

Scale: 1/8" = 1'

Sheet Number
LP - 14

Unemori, Darren T.

From: Lesli Otani <Lesli.Otani@co.maui.hi.us>
Sent: Tuesday, July 10, 2018 11:40 AM
To: Unemori, Darren T.
Cc: Estelle Imamura; Miller, Kris C.
Subject: Re: Kaonoulu Ranch (Large-Lot) Subd. No. 2 and Kaonoulu Ranch Water Tank Subdivision; DSA Subd. File Nos. 2.2795 and 2.2995
Attachments: Request for Additional Time and Extension.pdf

Darren,

In response to your attached request, the deadline to complete the subdivision construction improvements for Subdivision File Nos. 2.2795 and 2.2995 have been extended to August 25, 2019.

According to our database, the current expiration date of G 2012/0030 is April 4, 2019 and for G 2012/0039 it is April 12, 2019. Please submit a time extension requests for the grading permits closer to the expiration deadline.

If you have any questions regarding this e-mail please contact me.

Lesli L. Otani, P.E., L.S.
Development Services Administration
Department of Public Works
County of Maui
250 South High Street
Wailuku, Hawaii 96793
Phone: (808) 270-7242

Lesli.Otani@mauicounty.gov

>>> "Miller, Kris C." <kmiller@wsue.com> 7/9/2018 7:52 AM >>>

Project Name: Kaonoulu Ranch (Large-Lot) Subd. No. 2
Kaonolulu Ranch Water Tank Subdivision
WSUE Project No.: 04010.10; 06035.00
To: Estelle Imamura, DSA
From: Kris Miller on behalf of Darren Unemori
Date: July 9, 2018

Good Morning Estelle,

Please find attached letter requesting additional tim to complete its subdivision improvements and and extension of construction permits issued in conjuction with the Piilani Promenade devleopment.

If you have any questions or concerns, please feel free to contact our office.

Thank you,

Kris Miller

WARREN S. UNEMORI ENGINEERING, INC.

Civil & Structural Engineers / Land Surveyors

Wells Street Professional Center
2145 Wells Street, Suite 403
Wailuku, Maui, Hawaii 96793

Office: (808) 242-4403

Fax: (808) 244-4856

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July 9, 2018

Ms. Lesli Otani
Development Services Administration
Department of Public Works
County of Maui
250 South High Street
Wailuku, Hawaii 96793

Dear Ms. Otani,

Subject: Time Extension Request for Kaonolulu Ranch (Large-Lot)
Subdivision No. 2 and Kaonolulu Ranch Water Tank Subdivision
Subdivision Improvements and Related Construction Permits
DSA Subdivision File Nos. 2.2795 and 2.2995
Kihei, Maui, Hawaii

Landowner and subdivider Piilani Promenade LLC respectfully requests additional time to complete its subdivision improvements and an extension of construction permits issued in conjunction with the Piilani Promenade development, including:

- a) Permit G 2012-0030 for construction of subdivision infrastructure; and
- b) Permit G 2012-0039 for mass grading of the project site.

Our current extension will expire on August 25, 2018, and additional time is needed in order to thoroughly address the concerns of the State Land Use Commission before construction activity resumes.

Thank you very much for considering our request. We look forward to your reply.

Sincerely,

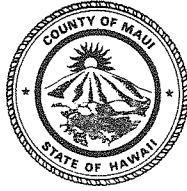
Darren Unemori

cc: Robert Poynor, Piilani Promenade
Harry Lake, Koa Partners

ALAN M. ARAKAWA
Mayor

MILTON M. ARAKAWA, A.I.C.P.
Director

MICHAEL M. MIYAMOTO
Deputy Director



RALPH M. NAGAMINE, L.S., P.E.
Development Services Administration

DAVID TAYLOR, P.E.
Wastewater Reclamation Division

CARY YAMASHITA, P.E.
Engineering Division

BRIAN HASHIRO, P.E.
Highways Division

TRACY TAKAMINE, P.E.
Solid Waste Division

COUNTY OF MAUI
DEPARTMENT OF PUBLIC WORKS
AND ENVIRONMENTAL MANAGEMENT
DEVELOPMENT SERVICES ADMINISTRATION
250 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII 96793

RECEIVED

October 16, 2006

OCT 17 2006

WARREN S. UNEMORI ENGINEERING, INC.

Mr. Warren S. Unemori, President
WARREN S. UNEMORI ENGINEERING, INC.
2145 Wells Street, Suite 403
Wailuku, Hawaii 96793

SUBJECT: **KAONOULU LIGHT INDUSTRIAL**
TMK: (2) 3-9-001:PORTION OF 016
SUBDIVISION FILE NO. 3.2175

Dear Mr. Unemori:

Preliminary approval was granted to the subject subdivision on October 16, 2006. Final approval shall be contingent upon compliance with the following conditions:

1. Requirements/comments from Maui Electric Company:
 - a. Electricity is available from nearby existing facilities (overhead and/or underground).
 - b. Requires line extension (overhead and/or underground) within private road or property.
 - c. Requires easement(s) from owner/subdivider/developer within subdivision for new or existing MECO facilities.

Comments: Easements and line extensions are required. The applicant must submit a service request to Maui Electric Company. Please contact our Engineering Clerk at 871-2390.

If you have any questions, please contact Ms. Bernadette Johnson at 871-2369.

2. Comply with requirements/comments from the State of Hawaii, Department of Land and Natural Resources, Historic Preservation Division (SHPD). We are currently waiting for preliminary subdivision review comments from SHPD. For further information, please contact SHPD at 243-4641.

Mr. Warren S. Unemori, President
SUBJECT: **KAONOULU LIGHT INDUSTRIAL
SUBDIVISION FILE NO. 3.2175**

October 16, 2006

Page 2 of 6

3. Comply with requirements/comments from the State of Hawaii, Department of Transportation, Highways Division (SDOT). We are currently waiting for preliminary subdivision review comments from SDOT, Highways Division. For further information, please contact Paul Chung at 873-3535.

4. Requirements/comments from the State of Hawaii, Department of Health:

No comment.

Should you have any questions, please call Mr. Herbert S. Matsubayashi at 984-8230.

5. Requirements/comments from the Department of Public Works and Environmental Management, Wastewater Reclamation Division:

- a. Although wastewater system capacity is currently available as of September 13, 2006, the developer should be informed that wastewater system capacity cannot be ensured until the issuance of the building permit.
- b. Provide discussion and calculations (sewer impact study) to substantiate that the existing wastewater system is adequate to serve this project. Be advised, upgrade to the existing wastewater system may be required.
- c. Wastewater contribution calculations are required before building permit is issued.
- d. Developer shall pay assessment fees for treatment plant expansion costs in accordance with ordinance setting forth such fees. (Kihei Assessment Area #3)
- e. Developer is required to fund any necessary off-site improvements to collection system and wastewater pump stations.
- f. Plans should show the installation of a single service lateral and an advance riser for each lot and installation of a service manhole near the property line prior to connection to the County sewer.
- g. Non-contact cooling water, condensate, etc. should not drain to the wastewater system.

Mr. Warren S. Unemori, President
SUBJECT: **KAONOULU LIGHT INDUSTRIAL
SUBDIVISION FILE NO. 3.2175**

October 16, 2006

Page 3 of 6

- h. Indicate on the plans the ownership of each easement (in favor of which party). **NOTE: County will not accept sewer easements that traverse private property.**
- i. Commercial kitchen facilities within the proposed project shall comply with pretreatment requirements (including grease interceptors, sample boxes, screens, etc.).
- j. The proposed sewer improvements shall be privately owned and maintained.

If you have any questions, please contact Ms. Dyan Ariyoshi at 270-7417.

- 6. Comply with requirements/comments from the Department of Planning. We are currently waiting for preliminary subdivision review comments from the Department of Planning. For further information, please contact Mr. Francis Cerizo at 270-7253.
- 7. Comply with requirements/comments from the Department of Water Supply (DWS). We are currently waiting for preliminary subdivision review comments from DWS. For further information, please contact DWS at 270-7835.
- 8. Requirements/comments from the Department of Parks and Recreation:

We have reviewed the Preliminary Plat Review for the subject project and have no comments to submit. Subdivisions that do not develop buildings, apartments, and/or condominiums for residential use are not subject to park dedication requirements.

If you have any questions, please contact Mr. Patrick Matsui at 270-7387.

- 9. Requirements/comments from the Department of Fire and Public Safety:

At this time, the Fire Prevention Bureau would request that a water supply for fire protection and Fire Department access roads shall be provided prior to final subdivision approval. Once construction of buildings are planned, there shall be at least one hydrant within 300 feet of any building to be constructed. Water supply for fire protection shall have a minimum flow of 2,000 gallons per minute for a two hour duration with hydrant spacing a maximum of 250 feet between hydrants.

Mr. Warren S. Unemori, President
SUBJECT: **KAONOULU LIGHT INDUSTRIAL
SUBDIVISION FILE NO. 3.2175**

October 16, 2006

Page 4 of 6

Access roads to buildings shall have a clear width of 20 feet and dead end/culdesac streets should have a clear width of 32 feet. All turns and required turnarounds shall have an outside turning radius of 40.5 feet.

If you have any questions, please contact Lt. Scott English at 270-7122.

10. In accordance with Section 18.12.030(E)(13.a.) of the Maui County Code (MCC), submit a letter from all governmental agencies with an easement, lease or license affecting the land subdivided consenting to the preparation and recording of the final plat.
11. In accordance with Section 18.12.040(B) MCC, submit a copy of any deed restrictions or covenants applicable to the subdivision. If there are none, please indicate this in writing.
12. In accordance with Section 18.12.040(C) MCC, submit a tax clearance certificate (issued by Department of Finance, Real Property Tax Division) to show written proof that all taxes and assessments on the tract are paid to date. An "Application for Tax Clearance" form is enclosed for your use. **NOTE:** The tax clearance certificate shall be valid at the time of final subdivision approval.
13. In accordance with Section 18.20.030 (Pavement of streets), improve the proposed subdivision roadways to the provisions of the subdivision ordinance for roadways within the urban district.
14. Comply with or show compliance with Section 18.20.040(3.a.) MCC which requires the pavement on existing streets providing access to the subdivision to be a minimum width of twenty-four feet in areas zoned apartment, business, hotel or industrial. The director may require such additional improvements as may be practicable, up to and including curbs, gutters and sidewalks. Contact the Engineering Division at 270-7745 for roadway improvement requirements.
15. Design and construct the drainage facilities to the requirements of the Department of Public Works and Environmental Management. A detailed final drainage report and site specific erosion control plan shall be submitted with the construction plans for review and approval. The drainage report shall include, but not be limited to, hydrologic and hydraulic calculations, and the schemes for disposal of runoff waters. The site specific erosion control plan shall show the location and details of structural and non-structural best management measures. The drainage and erosion control plans shall provide verification that the grading and all runoff water generated by the project will not have an adverse effect on the adjacent and downstream properties.

Mr. Warren S. Unemori, President
SUBJECT: **KAONOULU LIGHT INDUSTRIAL
SUBDIVISION FILE NO. 3.2175**

October 16, 2006

Page 5 of 6

16. Submit documentation verifying compliance with Section 18.16.060(C) MCC, wherein it states "...A subdivision shall not be allowed unless the director is satisfied that the rights-of-way of access streets are, or will be, at least twenty-four feet. ...".
17. Submit a "sight distance" report to determine required sight distance and available sight distance at existing and proposed street intersections. If you have any questions, please contact the Engineering Division at 270-7745.
18. Provide verification that adequate driveway sight distance has been provided for each lot. Access shall be restricted along the portion of any lot where adequate sight distance is not available. If you have any questions, please contact the Engineering Division at 270-7745.
19. Obtain street name approval from the Commission On Naming Streets, Parks and Facilities, and show street names on the construction plans and final plat.
20. Obtain final subdivision approval for Subdivision File No. 2.2795.
21. In accordance with Section 12.24A.070(D) MCC, submit street tree planting and irrigation plans and a completed "Maui County Arborist Committee Plans Review Form" for review and approval.
22. Submit ten sets of the construction plans and three sets of a drainage and soil erosion control report or drainage verification, whichever is applicable, for review and approval by the applicable agencies. In accordance with Section 18.24.010(D) MCC, a construction plan review fee (\$50/lot) shall be paid upon submission of the construction plans.

When the construction plans are approved, post construction requirements will be noted on the construction plan approval letter. The post construction requirements will need to be completed prior to final subdivision approval.
23. Submit fifteen prints of the final plat in accordance with Chapter 18.12 (Final Plat) MCC. The final plat shall include all revisions addressing the comments noted on the enclosed preliminary plat. The final plats shall be folded into 8 ½" x 11" sized sheets.
24. Submit a digital copy (either on 3¼" floppy disk or compact disc) of the final plat. The digital map shall either be in Arcview GIS file format or be an AutoCAD drawing with NAD83 State Plane Meters, Zone 2 coordinates, and shall include only the lot line drawing.

Mr. Warren S. Unemori, President
SUBJECT: **KAONOULU LIGHT INDUSTRIAL
SUBDIVISION FILE NO. 3.2175**

October 16, 2006

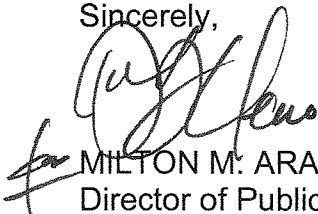
Page 6 of 6

Within one year from the date of preliminary approval of the subdivision, the final plat must be filed and the construction plans must be submitted, unless an extension of time is granted.

Be forewarned that requests for time extensions must be made in writing and received by our department in accordance with the following requirements. A time extension request for the filing of the final plat must be made at least fifteen days prior to the filing deadline. A time extension request for the submittal of the construction plans must be made prior to the submittal deadline. Therefore, a time extension request for the filing of the final plat must be made no later than October 1, 2007 and a time extension request for the submittal of the construction plans must be made no later than October 16, 2007. If no construction plans will be required for the subdivision, our department must be notified in writing prior to the submittal deadline. A "good cause" reason for any time extension shall be stated in the request. Time extension requests which are not in compliance with all of these requirements, will result in the subdivision being deemed null and void.

If you have any questions regarding this letter, please call Ms. Lesli Otani of our Development Services Administration at 270-7252.

Sincerely,



MILTON M. ARAKAWA, A.I.C.P.
Director of Public Works
and Environmental Management

Enclosures: Preliminary Plat
Application For Tax Clearance

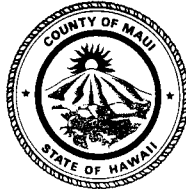
llo/eri S:\DSA\Subd\Reg3\3#2175-1.pre

c: Dept. of Finance, Real Property Tax Div. (unmarked preliminary plat only)
Dept. of Finance, Tax Map Div. (unmarked preliminary plat only)
Engineering Division w/preliminary plat
Wastewater Reclamation Division
Dept. of Water Supply
Dept. of Planning
Dept. of Parks and Recreation
DOT, Highways Division
State Dept. of Health
Maui Electric Company

CHARMAINE TAVARES
Mayor

MILTON M. ARAKAWA, A.I.C.P.
Director

MICHAEL M. MIYAMOTO
Deputy Director



RALPH M. NAGAMINE, L.S., P.E.
Development Services Administration

CARY YAMASHITA, P.E.
Engineering Division

BRIAN HASHIRO, P.E.
Highways Division

COUNTY OF MAUI
DEPARTMENT OF PUBLIC WORKS
DEVELOPMENT SERVICES ADMINISTRATION
250 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII 96793

January 28, 2010

RECEIVED

JAN 29 2010

ENGINEERING DIVISION

Mr. Darren Okimoto
WARREN S. UNEMORI ENGINEERING, INC.
2145 Wells Street, Suite 403
Wailuku, Hawaii 96793

SUBJECT: **KAONOULU LIGHT INDUSTRIAL**
TMK: (2) 3-9-001:PORTION OF 016
SUBDIVISION FILE NO. 3.2175

Dear Mr. Okimoto:

Condition no. 6 of our October 16, 2006, preliminary approval letter has been revised with the following:

6. Requirements/comments from the Department of Planning:
 - a. The project is located within Flood Zone X. A flood development permit will be required if any work is done within any existing drainageway. For the designated 100-year flood inundation limits provide base flood elevations for the existing drainageway. Submit a hard copy and digital file of all hydrologic and hydraulic calculations for the 100 year inundation limits and base flood elevations for our files. A conditional letter of map revision from FEMA may be required to formalize the base flood elevations for the subject project.
 - b. Verify that all of the conditions of the conditional zoning (CIZ 9800013) for the property have been satisfied.
 - c. As stated in the Kihei-Makena Community plan, new communities should provide convenient pedestrian and bicycle access between residences and neighborhood commercial areas, parks and public facilities. Provide an explanation on how this subdivision complies with this objective.

Mr. Darren Okimoto

SUBJECT: **KAONOULU LIGHT SUBDIVISION
SUBDIVISION FILE NO. 3.2175**


January 28, 2010

Page 2 of 2

- d. In an effort to encourage oral history and cultural identity, provide information regarding any cultural resources including historic vegetation located within or adjacent to the project area, as well as consult with individuals knowledgeable about such cultural resources and the history of the property. Provide a brief description of any proposed actions to mitigate potential adverse impacts on cultural resources including site avoidance, adequate buffer areas, and interpretation.

If you have any questions regarding this letter, please contact Francis Cerizo at 270-7253.

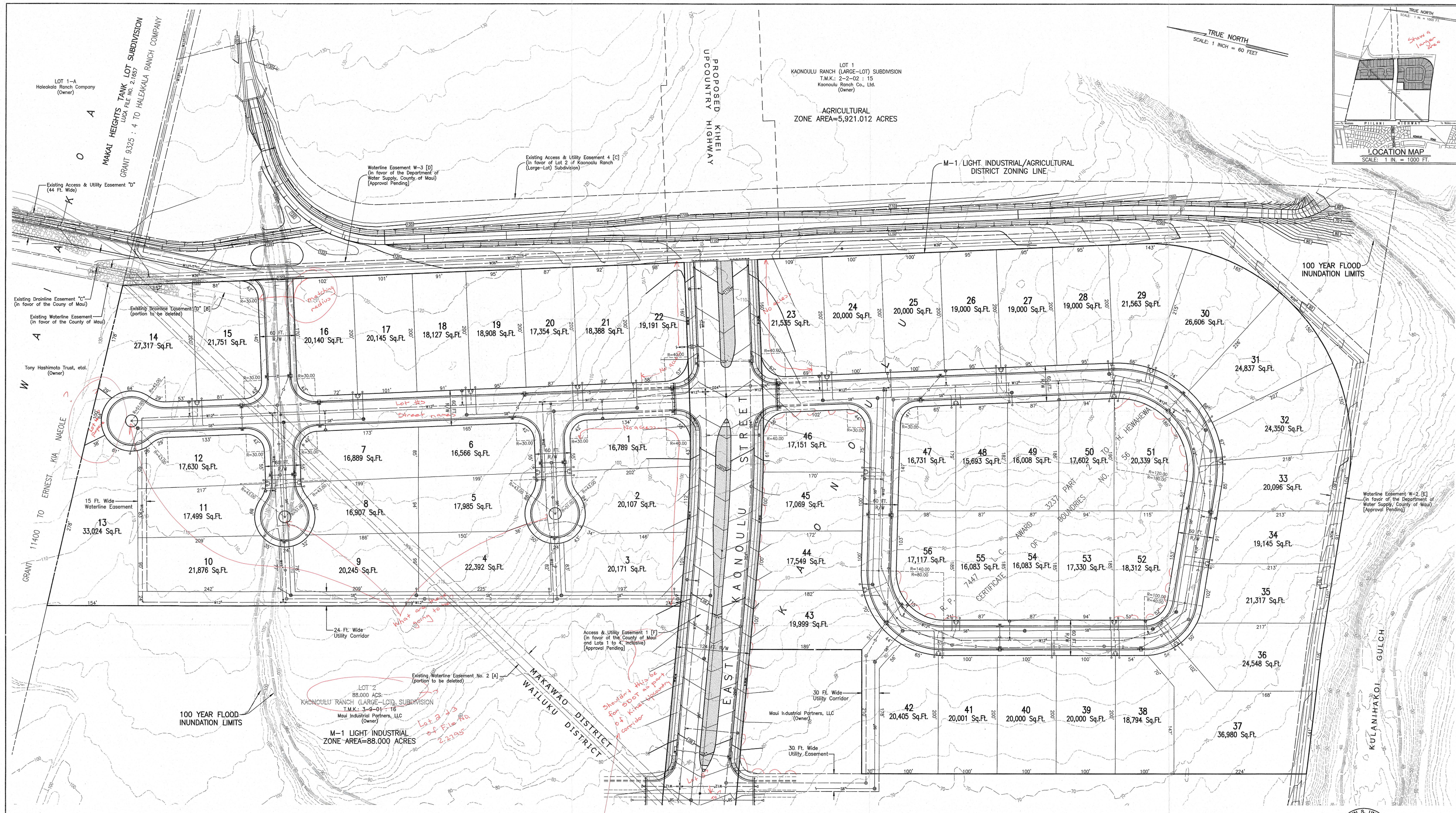
Sincerely,



MILTON M. ARAKAWA, A.I.C.P.
Director of Public Works

gau/eri

S:\DSA\Subd\Reg3\3#2175-3.ltr



NOTES:

- ALL BOUNDARY CORNERS ARE MARKED WITH 3/4" PIPES, UNLESS OTHERWISE NOTED.
- ALL AZIMUTHS AND RECORD COORDINATES, REFERS TO GOVERNMENT SURVEY TRIANGULATION STATION "PUU-O-KALI".
- OWNERS OF ADJOINING LANDS, AS SHOWN ON PLAN, TAKEN FROM RECORDS IN THE REAL PROPERTY MAPPING BRANCH.
- DENOTES NO VEHICLE ACCESS PERMITTED.
--- DENOTES VEHICLE ACCESS PERMITTED.
- PURSUANT TO MAUI COUNTY CODE SECTION 3.44.015(C), THE COUNTY OF MAUI IS NOT RESPONSIBLE FOR ANY PARK, ROADWAY, EASEMENT (INCLUDING BUT NOT LIMITED TO DRAINAGE, SEWER, ACCESS, RECLAIMED WATER OR AVIGATION EASEMENT), OR ANY OTHER INTEREST IN REAL PROPERTY SHOWN ON THIS MAP OR SHOWN ON THESE PLANS, UNLESS THE MAUI COUNTY COUNCIL HAS ACCEPTED ITS DEDICATION BY A RESOLUTION APPROVED BY A MAJORITY OF COUNCIL'S MEMBERS AT A REGULAR OR SPECIAL MEETING OF THE MAUI COUNTY COUNCIL.

Street names were approved by the Commission on Nomenclature Streets, Parks and Facilities on

6. Roadway lots? ownership? maintenance?

Access to subdivision provided by:

EXISTING EASEMENT: (LETTERS IN BRACKETS ON MAP CORRESPONDS WITH NOTE BELOW.)

- EXISTING WATERLINE EASEMENT NO. 2 (25 FEET WIDE) IN FAVOR OF THE BOARD OF WATER SUPPLY, COUNTY OF MAUI, RECORDED DECEMBER 12, 1979 IN LIBER 14314, PAGE 194 AFFECTING LOT 2 OF KAONOULU RANCH (LARGE-LOT) SUBDIVISION. (1.967 ACRES). [PORTION TO BE DELETED]
- EXISTING DRAINAGE EASEMENT "D" (25 FEET WIDE) IN FAVOR OF THE COUNTY OF MAUI, RECORDED APRIL 9, 1990 IN DOCUMENT NO. 90-066551 AFFECTING LOTS 1 AND 2 OF KAONOULU RANCH (LARGE-LOT) SUBDIVISION. (6,728 SQUARE FEET). [PORTION TO BE DELETED]
- EXISTING ACCESS & UTILITY EASEMENT 4 IN FAVOR OF LOT 2 OF KAONOULU RANCH (LARGE-LOT) SUBDIVISION, RECORDED MARCH 30, 2006 IN DOCUMENT NO. 2006-060137 AFFECTING LOT 1 OF KAONOULU RANCH (LARGE-LOT) SUBDIVISION. (7,802 ACRES).
- WATERLINE EASEMENT W-3 IN FAVOR OF THE DEPARTMENT OF WATER SUPPLY, COUNTY OF MAUI AFFECTING LOT 1-A OF KAONOULU RANCH (LARGE-LOT) SUBDIVISION. (1.535 ACRES). [APPROVAL PENDING]
- WATERLINE EASEMENT W-2 IN FAVOR OF THE DEPARTMENT OF WATER SUPPLY, COUNTY OF MAUI AFFECTING LOT 3 OF KAONOULU RANCH (LARGE-LOT) SUBDIVISION NO. 2. (0.338 ACRES). [APPROVAL PENDING]
- ACCESS & UTILITY EASEMENT 1 IN FAVOR OF THE COUNTY OF MAUI AND LOTS 1 TO 4, INCLUSIVE, OF KAONOULU RANCH (LARGE-LOT) SUBDIVISION NO. 2 AFFECTING LOT 5 OF KAONOULU RANCH (LARGE-LOT) SUBDIVISION NO. 2. (4,898 ACRES). [APPROVAL PENDING]

PRELIMINARY SUBDIVISION PLAT
KAONOULU LIGHT INDUSTRIAL

T.M.K. : (2)3-9-01 : POR. OF 16

SUBDIVISION OF LOTS 2 AND 3 OF KAONOULU RANCH (LARGE-LOT) SUBDIVISION NO. 2 INTO LOTS 1 TO 56, INCLUSIVE.

BEING A PORTION OF R.P. 7447, L.C. AW. 3237 PART 2 TO H. HEWAHEWA, CERTIFICATE OF BOUNDARIES NO. 56

KIHEI, MAUI, HAWAII

SCALE: 1 IN. = 60 FT.

OWNERS: MAUI INDUSTRIAL PARTNERS, LLC.
ADDRESS: KIHEI, MAUI, HAWAII

GENERAL INFORMATION

GROSS AREA: 31.648 ACS.

ZONING: M-1 LIGHT INDUSTRIAL

MIN. LOT SIZE = 7,500 S.F.

MIN. LOT WIDTH = 65 FT.

NO. OF LIGHT INDUSTRIAL LOTS = 56

Drainage and soil erosion control report to be submitted for approval with grading permit or construction plan approval.

WARREN S. UNEMORI
LICENSED PROFESSIONAL LAND SURVEYOR
No. 1568
HAWAII, U.S.A.

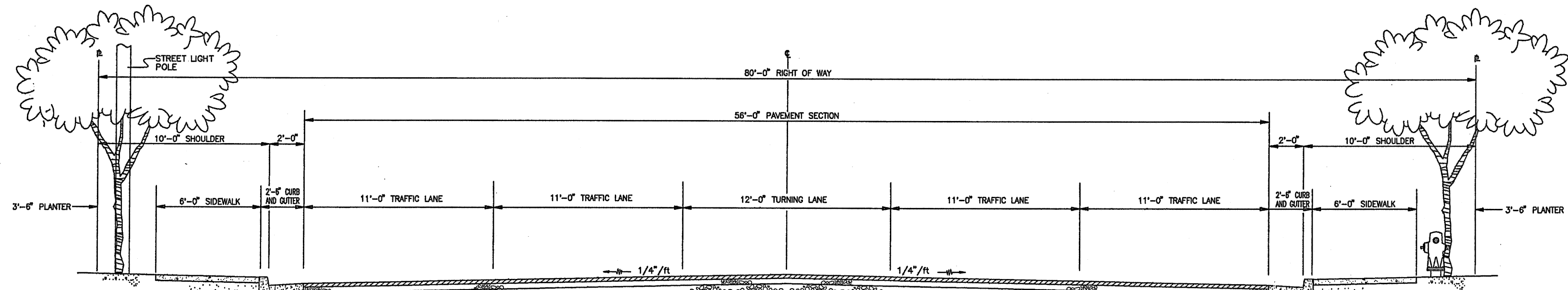
Subdivision File Number: 2.215

Subdivider authorized to prepare detailed drawings on plat as submitted including corrections noted. Recordation with the Bureau of Conveyance, State of Hawaii, or State Department of Land and Natural Resources, is required at a later date.

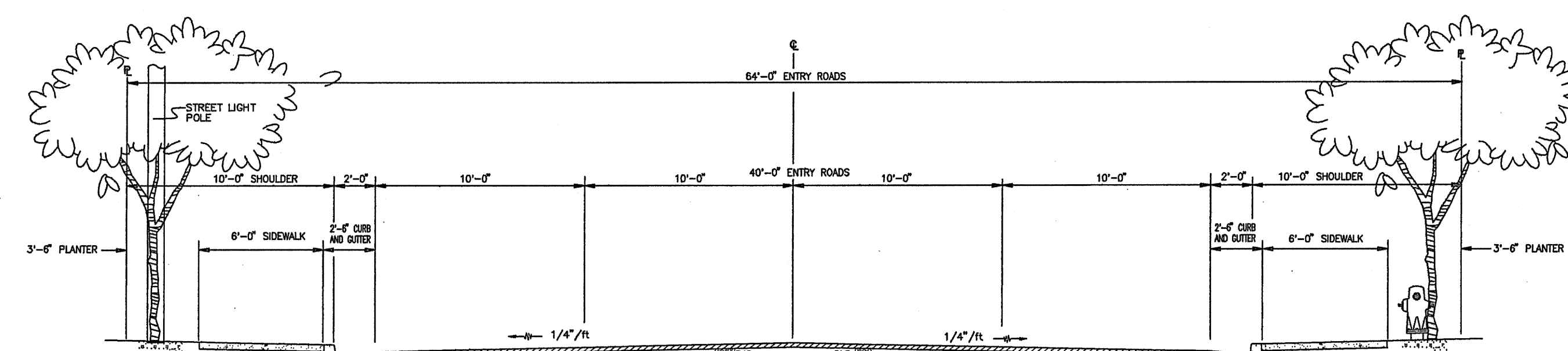
August 25, 2006

Revised: 8/2/06

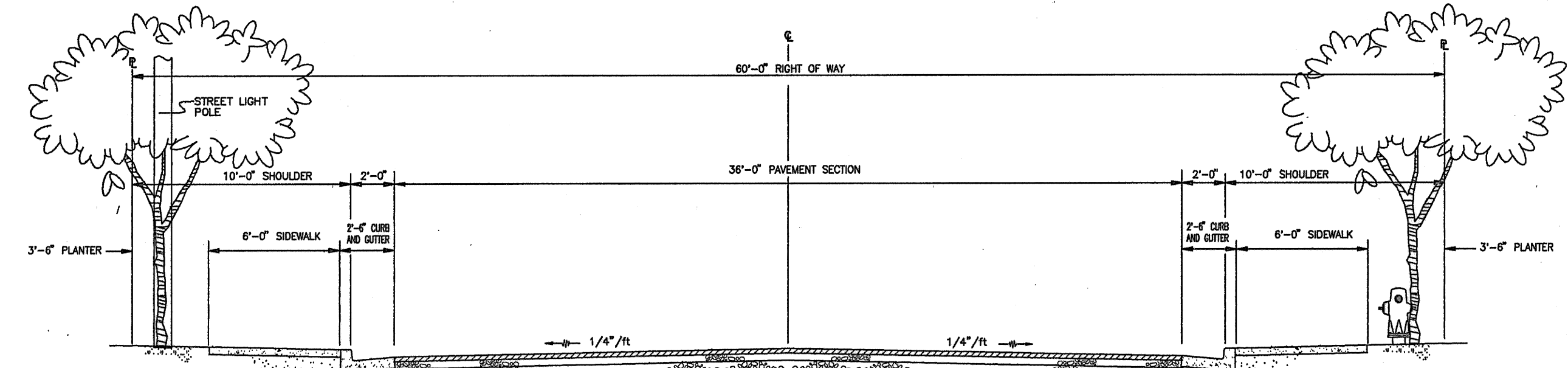
Subdivision File No. 2.215



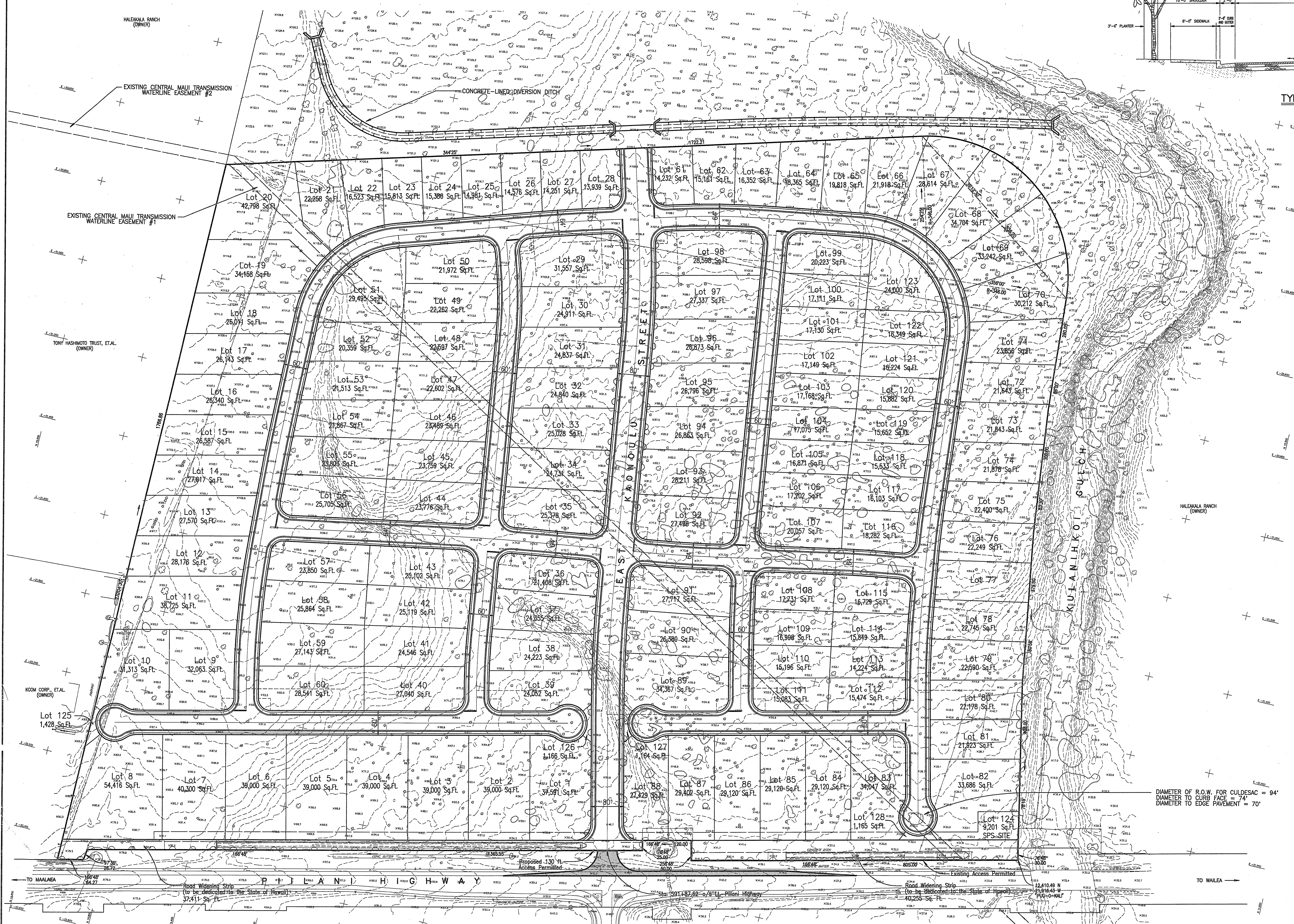
TYPICAL ROADWAY SECTION — EAST KAONOULU STREET
SCALE: 3/16"=1'-0"



TYPICAL ROADWAY SECTION — MAIN ENTRY ROADS
SCALE: 3/16"=1'-0"



TYPICAL ROADWAY SECTION — INTERNAL ROADS
SCALE: 3/16"=1'-0"



CONCEPTUAL DEVELOPMENT PLAN KAONOULU INDUSTRIAL PARK

T.M.K. 3-9-01:16 AND
T.M.K. 2-2-02: PORTION OF 15
KIHAI, MAUI, HAWAII

SCALE: 1 IN. = 100 FT.
OWNER: KAONOULU RANCH
ADDRESS: WAILUKU, MAUI

LEGEND

- BUILDING
- PAVED ROAD
- UNPAVED ROAD
- FENCE
- WALL
- POWER POLE
- DRAIN
- INDEX, INTERMEDIATE CONTOUR
- APPROXIMATE CONTOUR
- SPOT ELEVATION
- DEPRESSION CONTOUR
- TREE, TREELINE, SCRUB
- PALM TREE
- HV CONTROL

NOTES:

DIAMETER OF R.O.W. FOR CULDESAC = 94'
DIAMETER TO CURB FACE = 74'
DIAMETER TO EDGE PAVEMENT = 70'

DAVID C. GOODE
Director



GLEN A. UENO, P.E., P.L.S.
Development Services Administration

COUNTY OF MAUI
DEPARTMENT OF PUBLIC WORKS
DEVELOPMENT SERVICES ADMINISTRATION
250 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII 96793

September 11, 2018

Mr. Darren Okimoto, P.E.
WARREN S. UNEMORI ENGINEERING, INC.
2145 Wells Street, Suite 403
Wailuku, Hawaii 96793

SUBJECT: **KAONOULU LIGHT INDUSTRIAL**
TMK: (2) 3-9-001:169 & 170
SUBDIVISION FILE NO. 3.2175

Dear Mr. Okimoto:

This is in reply to your letter dated September 11, 2018, requesting a time extension for the subject subdivision.

Your request for a time extension has been granted and the new deadline for the filing of the final plat is October 17, 2019.

Be forewarned that future requests for time extensions must be made in writing and received by our department in accordance with the following:

A time extension request for the filing of the final plat must be made no later than October 17, 2019. In addition, a "good cause" reason for the time extension shall be stated in your request. Time extension requests which are not in compliance with all of these requirements, will result in the subdivision being deemed null and void.

If you have any questions regarding this letter, please contact Lesli Otani of our Development Services Administration at 270-7252.

Sincerely,

A handwritten signature in black ink, appearing to read "D. Goode", is written over the printed name.

DAVID C. GOODE
Director of Public Works

eri S:\DSA\Subd\Extensions\3#2175.doc
c: Dept. of Water Supply

BEFORE THE LAND USE COMMISSION

OF THE STATE OF HAWAII

In the Matter of the Petition of	)	Docket No. A94-706
)	
KAONOULU RANCH to Amend the	)	DECLARATION OF
Agricultural Land Use District Boundary	)	KENNETH F. GIFT; EXHIBIT "J"
into the Urban Land Use District for)	
Approximately 88 acres at Kaonoulu,)	
Makawao-Wailuku, Maui, Hawai'i; Tax)	
Map Key Nos. (2) 2-2-02: por. 15 and)	
3-9-01:16)	
_____)	

DECLARATION OF KENNETH F. GIFT

I, KENNETH F. GIFT, hereby declare that:

1. I am the Divisional Engineer for Hawaii for Goodfellow Bros. ("GBI").
2. This declaration is submitted in reference to the above-captioned case.
3. Unless otherwise indicated, all statements made herein are based on personal knowledge.
4. I am an individual over eighteen (18) years of age and under no legal or mental disability, and I am competent to testify, having personal knowledge of the matters set forth herein.
5. I am a graduate of Southern Methodist University, with a Bachelor of Arts degree in Social Studies.
6. In 2012, Piilani Promenade South, LLC and Piilani Promenade North, LLC (collectively, "Piilani") entered into two contracts with GBI for onsite and offsite construction work.
7. To my knowledge, the offsite construction work corresponded to the improvements required by the County of Maui pursuant to its final subdivision approval for the

Kaonoulu Ranch (Large-Lot Subdivision No. 2, Subdivision File No. 2.2795, and Kaonoulu Ranch – Water Tank Subdivision, Subdivision File No. 2.2995.

8. From June through September 2012 GBI purchased materials for the offsite construction work on behalf of Piilani. True and correct copies of the purchase orders are attached hereto as Exhibit “J.” In summary, GBI purchased the following:

<i>Purchase Order No.</i>	<i>Vendor</i>	<i>Brief Description</i>
85052537	American Cast Iron	36” DIP, smaller size DIP and Misc.
85052922	Ferguson Enterprises, Inc.	36” BFV and Misc.
85056404	Ferguson Enterprises, Inc.	36” Adapters
85055165	Ferguson Enterprises, Inc.	Sewer Pipe, Fittings and Water Fittings
85055663	Geotech Solutions, Inc.	Geomat
85054180	Hawaii Concrete Products	CAP Pipe and Cap Manholes
85055245	Prinsco Inc.	HDPE Pipe
85054245	Walker Industries, Inc.	Pre-Cast Concrete Structures

9. Approximately 5 acres of the parcels owned by Piilani were cleared by stripping away brush, grass, and top soil. The materials listed above, as well as other miscellaneous materials needed for the improvements, are located on a portion of the cleared area. The materials have been located on the parcels since 2012, and remain located on site as of the date of this Declaration.

10. The total amount expended for materials for the offsite construction work was \$3,418,822.01. Piilani has reimbursed GBI for the purchased materials in the entirety.

11. A breakdown of GBI’s costs through August 2018 totaling \$5,225,159.06, which Piilani has paid in full, is provided below:

<i>Offsite Construction Work</i>		
\$3,418,822.01	Materials	Includes purchase price, shipping costs, markup and taxes
\$115,000.00	Mobilization	Costs to bring equipment to the site including transport from other islands and Washington

\$490,692.54	Startup costs incurred	Costs to plan, schedule and prepare for the work, bond and permit fees
\$581,159.94	Delay costs to March 2013	Equipment on standby, site maintenance, security, general expenses
\$60,750.31	Finance charges to March 2013	
\$282,474.26	Misc. services from March 2013 to August 2018	Includes inspection and protection of the purchased materials, dust fence replacement and removal as necessary

<i>Onsite Construction Work</i>		
\$255,860.00	BMP's	Primarily installation of the dust fence and silt fence
\$20,400.00	Grading (for BMP's)	Clearing and grading for the dust fence and silt fence, and preparation of the materials laydown area

I, KENNETH F. GIFT, declare under penalty of law that the foregoing is true and correct.

Executed this ninth day of January, 2019, at Kihei, Maui, Hawai'i.



KENNETH F. GIFT

** CHANGE ORDER **

GOODFELLOW BROS INC
PO BOX 598

WENATCHEE WA 98807

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AMERICAN CAST IRON PIPE
COMPANY

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PIILANI PROMENADE OS

PURCHASE ORDER NO. 85052537
(MUST APPEAR ON ALL DOCUMENTS AND PACKAGES)

TAX RESALE NO 1 W20182340-01

TAX RESALE NO 2

INSTRUCTIONS AND CONDITIONS

1. Return Acknowledgment promptly upon receipt of order.
2. Place Order Number on all packages, bills of lading and invoices.
3. Seller warrants goods shipped produced in accordance with applicable provisions of fair labor and standards act.
4. No charges for packing or crating will be accepted unless previously agreed upon.
5. Invoice promptly. Send three copies of invoice.
6. Discount period will be calculated from date of receipt of material, or receipt of invoice, whichever is later.
7. Invoice and correspondence to office only.

CO	DIV	VENDOR NO	ORDER PLACED WITH	IN PERSON	BY PHONE	BY WIRE	PO DATE	REQUESTED BY	BUYER	PAGE
50	0	28269	CORY				4/09/12		DENISE	1
REFERENCE			PAYMENT TERMS			FOB POINT		PARTIAL SHIPMENTS	SHIP VIA	
						JOBSITE		ACCEPTED		

PO ITEM	JOB / SUB JOB COST DISTRIBUTION	C T	PART NUMBER AND DESCRIPTION	DATE REQUIRED	QUANTITY	U/M	UNIT PRICE	SALES TAX RATE	AMOUNT
1	6812 33.11000	M	36" MJ C153 DISHED CAP	04/10/12	2.00	EA	1130.4000	.000	2,260.80
2	6812 33.11000	M	TG 36 DI FIELDFLEX RING	04/10/12	3.00	EA	567.5000	.000	1,702.50
3	6812 33.11000	M	36" MJ C153 5.625 BEND	04/10/12	2.00	EA	3380.3900	.000	6,760.78
4	6812 33.11000	M	36" MJ C153 45 BEND	04/10/12	5.00	EA	4686.0000	.000	23,430.00
5	6812 33.11000	M	36" MJ SLEEVE C153 SOLID	04/10/12	3.00	EA	3561.6000	.000	10,684.80
6	6812 33.11000	M	36"X36"X12" MJ C153 TEE	04/10/12	1.00	EA	3100.0000	.000	3,100.00
7	6812 33.11000	M	JG 36 MEGALUG RETAINER	04/10/12	24.00	EA	1348.2000	.000	32,356.80
8	6812 33.11000	M	24" FST FSTPE PIPE	04/10/12	160.33	FT	76.6000	.000	12,281.28
9	6812 33.11000	M	18" PIPE	04/10/12	20.00	FT	58.5000	.000	1,170.00
10	6812 33.11000	M	16" PIPE	04/10/12	5832.13	FT	46.2000	.000	269,444.41
11	6812 33.11000	M	12" PIPE	04/10/12	4358.08	FT	31.8500	.000	138,804.85
12	6812 33.11000	M	6" FST FSTPE PIPE	04/10/12	582.42	FT	13.5800	.000	7,909.26
13	6812 33.11000	M	36" FR FRE PIPE	04/10/12	3334.23	FT	183.2000	.000	610,830.94
14	6812 33.11000	M	36" FR FRE	04/10/12	177.56	FT	183.2000	.000	32,528.99
15	6812 33.11000	M	36" MJPE	04/10/12	1.00	EA	6320.8300	.000	6,320.83

** CHANGE ORDER **

GOODFELLOW BROS INC
PO BOX 598

WENATCHEE WA 98807

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AMERICAN CAST IRON PIPE
COMPANY

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PIILANI PROMENADE OS

PURCHASE ORDER NO. 85052537
(MUST APPEAR ON ALL DOCUMENTS AND PACKAGES)

TAX RESALE NO 1 W20182340-01

TAX RESALE NO 2

INSTRUCTIONS AND CONDITIONS

1. Return Acknowledgment promptly upon receipt of order.
2. Place Order Number on all packages, bills of lading and invoices.
3. Seller warrants goods shipped produced in accordance with applicable provisions of fair labor and standards act.
4. No charges for packing or crating will be accepted unless previously agreed upon.
5. Invoice promptly. Send three copies of invoice.
6. Discount period will be calculated from date of receipt of material, or receipt of invoice, whichever is later.
7. Invoice and correspondence to office only.

CO	DIV	VENDOR NO	ORDER PLACED WITH	IN PERSON	BY PHONE	BY WIRE	PO DATE	REQUESTED BY	BUYER	PAGE
50	0	28269	CORY				4/09/12		DENISE	2
REFERENCE			PAYMENT TERMS			FOB POINT		PARTIAL SHIPMENTS	SHIP VIA	
						JOBSITE		ACCEPTED		

PO ITEM	JOB / SUB JOB COST DISTRIBUTION	C T	PART NUMBER AND DESCRIPTION	DATE REQUIRED	QUANTITY	U/M	UNIT PRICE	SALES TAX RATE	AMOUNT
16	6812 33.11000	M	36" FLG MJPE	04/10/12	2.00	EA	4138.8820	.000	8,277.76
17	6812 33.11000	M	36" FR MJPE	04/10/12	19.73	FT	183.2000	.000	3,614.54
18	6812 33.11000	M	36" FR MJPE PIPE	04/10/12	19.73	FT	183.2000	.000	3,614.54

DELIVER TO JOBSITE	BY	ESTIMATED FREIGHT .00	TOTAL --> \$1,175,093.08
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** CHANGE ORDER **

GOODFELLOW BROS INC
PO BOX 598

WENATCHEE WA 98807

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FERGUSON ENTERPRISES, INC
FILE #30129 #3014
P.O. BOX 60000
SAN FRANCISCO
CA
94160-0001

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PIILANI PROMENADE OS

PURCHASE ORDER NO. 85052922
(MUST APPEAR ON ALL DOCUMENTS AND PACKAGES)

TAX RESALE NO 1 W20182340-01

TAX RESALE NO 2

INSTRUCTIONS AND CONDITIONS

1. Return Acknowledgment promptly upon receipt of order.
2. Place Order Number on all packages, bills of lading and invoices.
3. Seller warrants goods shipped produced in accordance with applicable provisions of fair labor and standards act.
4. No charges for packing or crating will be accepted unless previously agreed upon.
5. Invoice promptly. Send three copies of invoice.
6. Discount period will be calculated from date of receipt of material, or receipt of invoice, whichever is later.
7. Invoice and correspondence to office only.

CO	DIV	VENDOR NO	ORDER PLACED WITH	IN PERSON	BY PHONE	BY WIRE	PO DATE	REQUESTED BY	BUYER	PAGE
50	0	6003	CORY				4/11/12		DENISE	1
REFERENCE			PAYMENT TERMS			FOB POINT		PARTIAL SHIPMENTS		SHIP VIA
9163882333						JOBSITE		ACCEPTED		

***** SPECIAL INSTRUCTIONS *****

36" bfv model 2236/ig24
awwa class 250b flanged butterfly
valves with lsa traveling nut
actuator and handwheel with
position indicator

PO ITEM	JOB / SUB JOB COST DISTRIBUTION	C T	PART NUMBER AND DESCRIPTION	DATE REQUIRED	QUANTITY	U/M	UNIT PRICE	SALES TAX RATE	AMOUNT
1	6812 33.11000	M	RDJ40036197512F DJ400 36X19.75 CLS FLG EPOX 316SS	04/12/12	2.00 .00	EA	9657.3050	.500	19,314.61
2	6812 33.11000	M	DISFTJM36 3X36 FLGXTJ DI SPL	04/12/12	4.00 .00	EA	2631.5800	.500	10,526.32
3	6812 33.11000	M	FFB4007 2 CC X MIP BALL CORP ST	04/12/12	4.00 .00	EA	137.1760	.500	548.70
4	6812 33.11000	M	NE150FFGA36 36 NEOP 1/8 FF 150# GSKT	04/12/12	6.00 .00	EA	80.0930	.500	480.56
5	6812 33.11000	M	TILBOX6T36BFV 36" 316 SS BFC BOLT SET W/BUE NUTS	04/12/12	4.00 .00	EA	3215.5200	.500	12,862.08
6	6812 33.11000	M	BP300SS31636 36" 300# 136SS BOLT KIT W/BUE NUT	04/12/12	2.00 .00	EA	3688.8000	.500	7,377.60
7	6812 33.11000	M	SP-JOBSPEC 36" BFV MODEL 2236/IG24	04/12/12	2.00 .00	EA	13614.0000	.500	27,228.00

120/002 STATE .5000 391.68
TOTAL SALES TAX 391.68

DELIVER TO JOBSITE	BY	ESTIMATED FREIGHT .00	TOTAL -> \$78,729.55
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GOODFELLOW BROS INC
PO BOX 598

WENATCHEE WA 98807

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R** FERGUSON ENTERPRISES, INC
#3014
FILE 56809
LOS ANGELES
CA
90074-6809

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PURCHASE ORDER NO. 85056404
(MUST APPEAR ON ALL DOCUMENTS AND PACKAGES)

TAX RESALE NO 1 W20182340-01

TAX RESALE NO 2

INSTRUCTIONS AND CONDITIONS

1. Return Acknowledgment promptly upon receipt of order.
2. Place Order Number on all packages, bills of lading and invoices.
3. Seller warrants goods shipped produced in accordance with applicable provisions of fair labor and standards act.
4. No charges for packing or crating will be accepted unless previously agreed upon.
5. Invoice promptly. Send three copies of invoice.
6. Discount period will be calculated from date of receipt of material, or receipt of invoice, whichever is later.
7. Invoice and correspondence to office only.

CO	DIV	VENDOR NO	ORDER PLACED WITH	IN PERSON	BY PHONE	BY WIRE	PO DATE	REQUESTED BY	BUYER	PAGE
50	0	6003	CORY				9/11/12		ANDI	1
REFERENCE			PAYMENT TERMS			FOB POINT		PARTIAL SHIPMENTS		SHIP VIA
9163882333						JOBSITE		ACCEPTED		

PO ITEM	JOB / SUB JOB COST DISTRIBUTION	C T	PART NUMBER AND DESCRIPTION	DATE REQUIRED	QUANTITY	U/M	UNIT PRICE	SALES TAX RATE	AMOUNT
1	6812 33.11000	M	36" L301 SPIGOT X MJS ADAPTER	09/12/12	1.00 .00	EA	10853.3300	.500	10,853.33
2	6812 33.11000	M	36" L301 BELLXMJS ADAPTER	09/12/12	1.00 .00	EA	10853.3300	.500	10,853.33
3	6812 33.11000	M	FREIGHT	09/12/12	1.00 .00	EA	1500.0000	.500	1,500.00

120/002 STATE .5000 116.04
TOTAL SALES TAX 116.04

DELIVER TO JOBSITE	BY	ESTIMATED FREIGHT .00	TOTAL -> \$23,322.70
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** CHANGE ORDER **

GOODFELLOW BROS INC
PO BOX 598

WENATCHEE WA 98807

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FERGUSON ENTERPRISES, INC
FILE #30129 #3014
P.O. BOX 60000
SAN FRANCISCO
CA
94160-0001

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PIILANI PROMENADE OS

PURCHASE ORDER NO. 85055165
(MUST APPEAR ON ALL DOCUMENTS AND PACKAGES)

TAX RESALE NO 1 W20182340-01

TAX RESALE NO 2

INSTRUCTIONS AND CONDITIONS

1. Return Acknowledgment promptly upon receipt of order.
2. Place Order Number on all packages, bills of lading and invoices.
3. Seller warrants goods shipped produced in accordance with applicable provisions of fair labor and standards act.
4. No charges for pecking or crating will be accepted unless previously agreed upon.
5. Invoice promptly. Send three copies of invoice.
6. Discount period will be calculated from date of receipt of material, or receipt of invoice, whichever is later.
7. Invoice and correspondence to office only.

CO	DIV	VENDOR NO	ORDER PLACED WITH	IN PERSON	BY PHONE	BY WIRE	PO DATE	REQUESTED BY	BUYER	PAGE
50	0	6003	KYLE N				7/25/12		DENISE	1
REFERENCE			PAYMENT TERMS			FOB POINT		PARTIAL SHIPMENTS		SHIP VIA
9163882333						JOBSITE		ACCEPTED		

PO ITEM	JOB / SUB JOB COST DISTRIBUTION	C T	PART NUMBER AND DESCRIPTION	DATE REQUIRED	QUANTITY	U/M	UNIT PRICE	SALES TAX RATE	AMOUNT
1	6812 31.11000	M	SEWER 8X20 SDR35 PVC GJ SWR PIPE	07/26/12	1340.00 .00	FT	4.5160	.500	6,051.44
2	6812 31.11000	M	SEWER 8X20 SDR26 HW PVC GJ SWR PIPE	07/26/12	1700.00 .00	FT	5.8820	.500	9,999.40
3	6812 31.11000	M	SEWER 10X20 SDR26 HW PVC GJ SWR PIPE	07/26/12	340.00 .00	FT	9.2240	.500	3,136.16
4	6812 31.11000	M	SEWER 10 PVC HW SWR M/HOLE ADPT	07/26/12	1.00 .00	EA	91.7040	.500	91.70
10	6812 33.11000	M	6" MJ C153 45 BEND W/ACCS	07/26/12	16.00 .00	EA	135.4690	.500	2,167.50
11	6812 33.11000	M	SPC920112 12" #92-01 DCDS KCX X101 PRV&PSV	07/26/12	1.00 .00	EA	12926.0800	.500	12,926.08
12	6812 33.11000	M	CF6102120LHW 12 FLG RW NRS OL GATE VLV W/H/WHL	07/26/12	2.00 .00	EA	1781.3260	.500	3,562.65
13	6812 33.11000	M	RFCA50113551201 CVR FCA501-13.55 SET SSFE EPOX	07/26/12	1.00 .00	EA	1316.7420	.500	1,316.74
14	6812 33.11000	M	SPDISFTJ1234 12"X34" FLG X BE DI SPOOL	07/26/12	1.00 .00	EA	600.0000	.500	600.00
15	6812 33.11000	M	SPDISTJPE1242 12"X42" BEXPE DI SPOOL	07/26/12	1.00 .00	EA	625.0000	.500	625.00
16	6812 33.11000	M	UFTG12 12 FLG TYTE GSKT	07/26/12	4.00 .00	EA	9.4150	.500	37.66
17	6812 33.11000	M	T1LBOX6T1012 10-12 3 16 SS BOLT SET W/BLUE NUTS	07/26/12	4.00 .00	EA	80.0480	.500	320.19
18	6812 33.11000	M	PTMJ912 12" MJ C153 90 BEND W/ACCS	07/26/12	5.00 .00	EA	343.4200	.500	1,717.10
19	6812 33.11000	M	PTMJ412 12" MJ C153 45 BEND W/ACCS	07/26/12	21.00 .00	EA	308.1210	.500	6,470.54

** CHANGE ORDER **

GOODFELLOW BROS INC
PO BOX 598

WENATCHEE WA 98807

PURCHASE ORDER NO. 85055165
(MUST APPEAR ON ALL DOCUMENTS AND PACKAGES)

TAX RESALE NO 1 W20182340-01
TAX RESALE NO 2

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FERGUSON ENTERPRISES, INC
FILE #30129 #3014
P.O. BOX 60000
SAN FRANCISCO
CA
94160-0001

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PIILANI PROMENADE OS

INSTRUCTIONS AND CONDITIONS

1. Return Acknowledgment promptly upon receipt of order.
2. Place Order Number on all packages, bills of lading and invoices.
3. Seller warrants goods shipped produced in accordance with applicable provisions of fair labor and standards act.
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CO	DIV	VENDOR NO	ORDER PLACED WITH	IN PERSON	BY PHONE	BY WIRE	PO DATE	REQUESTED BY	BUYER	PAGE
50	0	6003	KYLE N				7/25/12		DENISE	2
REFERENCE			PAYMENT TERMS			FOB POINT		PARTIAL SHIPMENTS		SHIP VIA
9163882333						JOBSITE		ACCEPTED		

PO ITEM	JOB / SUB JOB COST DISTRIBUTION	C T	PART NUMBER AND DESCRIPTION	DATE REQUIRED	QUANTITY	U/M	UNIT PRICE	SALES TAX RATE	AMOUNT
20	6812		PTMJ212	07/26/12	4.00	EA	305.6300	.500	1,222.52
	33.11000	M	12" MJ C153 22-1/2 BEND W/ACCS		.00				
21	6812		PTMJ112	07/26/12	2.00	EA	278.7560	.500	557.51
	33.11000	M	12" MJ C153 11-1/4 BEND W/ACCS		.00				
22	6812		PTMJSCAP12	07/26/12	4.00	EA	152.3220	.500	609.29
	33.11000	M	12" MJ C153 SOLID CAP W/ACCS		.00				
23	6812		PTMJT12	07/26/12	1.00	EA	484.5520	.500	484.55
	33.11000	M	12" MJ C153 TEE W/ACCS		.00				
24	6812		PT12MJGV	07/26/12	10.00	EA	1744.9430	.500	17,449.43
	33.11000	M	12" MJRW OL GATE VLV W/ACCS		.00				
25	6812		PTMJS12	07/26/12	6.00	EA	300.1590	.500	1,800.95
	33.11000	M	12X12 MJ C153 SLV W/ACCS		.00				
26	6812		PTMJR1612	07/26/12	1.00	EA	430.6750	.500	430.68
	33.11000	M	16"X12" MJ C153 REDUCER W/ACCS		.00				
27	6812		PT16MJGV	07/26/12	11.00	EA	5556.6990	.500	61,123.69
	33.11000	M	16 MJRW GATE VALVE OL W/ACCS		.00				
28	6812		PTMJS16	07/26/12	6.00	EA	551.0380	.500	3,306.23
	33.11000	M	16 MJ C153 SLV W/ACCS		.00				
29	6812		PTMJT1612	07/26/12	2.00	EA	850.6750	.500	1,701.35
	33.11000	M	16X12 MJ C153 TEE W/ACCS		.00				
30	6812		PTMJ416	07/26/12	3.00	EA	583.1310	.500	1,749.39
	33.11000	M	16" MJ C153 45 BEND W/ACCS		.00				
31	6812		PTMJ116	07/26/12	3.00	EA	600.7970	.500	1,802.39
	33.11000	M	16" MJ C153 11-1/4 BEND W/ACCS		.00				
32	6812		PTMJ216	07/26/12	3.00	EA	594.2370	.500	1,782.71
	33.11000	M	16" MJ C153 22-1/2 BEND W/ACCS		.00				
33	6812		MJSP18	07/26/12	1.00	EA	326.7170	.500	326.72
	33.11000	M	18 MJ C153 SLD PLUG		.00				
34	6812		MJTLA1812	07/26/12	1.00	EA	757.7570	.500	757.76
	33.11000	M	18X12 MJ C153 TEE L/A		.00				
35	6812		FBG18	07/26/12	2.00	EA	124.6520	.500	249.30
	33.11000	M	18 FB MJ C110 GLAND		.00				
36	6812		MJGA18	07/26/12	2.00	EA	15.0680	.500	30.14
		M							

** CHANGE ORDER **

GOODFELLOW BROS INC
PO BOX 598

WENATCHEE WA 98807

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FERGUSON ENTERPRISES, INC
FILE #30129 #3014
P.O. BOX 60000
SAN FRANCISCO
CA
94160-0001

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PIILANI PROMENADE OS

PURCHASE ORDER NO. 85055165
(MUST APPEAR ON ALL DOCUMENTS AND PACKAGES)

TAX RESALE NO 1 W20182340-01

TAX RESALE NO 2

INSTRUCTIONS AND CONDITIONS

1. Return Acknowledgment promptly upon receipt of order.
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CO	DIV	VENDOR NO	ORDER PLACED WITH	IN PERSON	BY PHONE	BY WIRE	PO DATE	REQUESTED BY	BUYER	PAGE
50	0	6003	KYLE N				7/25/12		DENISE	3
REFERENCE			PAYMENT TERMS			FOB POINT		PARTIAL SHIPMENTS		SHIP VIA
9163882333						JOBSITE		ACCEPTED		

PO ITEM	JOB / SUB JOB COST DISTRIBUTION	C T	PART NUMBER AND DESCRIPTION	DATE REQUIRED	QUANTITY	U/M	UNIT PRICE	SALES TAX RATE	AMOUNT
37	33.11000 6812	M	18 MJ GSKT BTCNFR	07/26/12	.00 24.00	EA	3.1920	.500	76.61
38	33.11000 6812	M	3/4X4-1/2 TEXLON COAT T-BOLT FBG12	07/26/12	.00 1.00	EA	40.5270	.500	40.53
39	33.11000 6812	M	12 FB MJ C110 GLAND MJGA12	07/26/12	.00 1.00	EA	6.3540	.500	6.35
40	33.11000 6812	M	12 MJ GASKET T2LBXT9T1012	07/26/12	.00 1.00	EA	22.3520	.500	22.35
41	33.11000 6812	M	10-12 MJ T-BOLT BX SET CORTEN BLUE	07/26/12	.00 2.00	EA	3920.5600	.500	7,841.12
42	33.11000 6812	M	SPC2218 18" 250B BFC	07/26/12	.00 2.00	EA	3228.6500	.500	6,457.30
43	33.11000 6812	M	MODEL# 2218/1E24A.3XF SPRDJ400181650	07/26/12	.00 2.00	EA	2271.4280	.500	9,085.71
44	33.11000 6812	M	DJ400-18X16.50 CLS FLG EPOX 316SS	07/26/12	.00 4.00	EA	91.2660	.500	365.06
45	33.11000 6812	M	18"X48" 250# FLG X BE DI SPOOL FFB16006	07/26/12	.00 4.00	EA	32.5000	.500	260.00
46	33.11000 6812	M	1-1/2 CC X FIP BALL CORP ST SPG2X12LIFTPORT	07/26/12	.00 8.00	EA	71.2150	.500	142.43
47	33.11000 6812	M	2"X12" GALV NIPPLE W/CAP TOE SPGEYEBOLTWPLAT	07/26/12	.00 2.00	EA	49.3630	.500	98.73
48	33.11000 6812	M	1 EYE BOLT W/W/4X6 PLATE WASH&NUT	07/26/12	.00 2.00	EA	13.6110	.500	27.22
49	33.11000 6812	M	0146020 6X6 CI MON BDY	07/26/12	.00 2.00	EA	267.0450	.500	1,068.18
50	33.11000 6812	M	0146040 7 CI MON CVR WIR	07/26/12	.00 4.00	EA	36.2400	.500	217.44
	33.11000 6812	M	011244ONSET 22 CI M/HOLE RNG & CVR WTR	07/26/12	.00 6.00	EA			
	33.11000 6812	M	SPT3LGF8C/18 18" 250# FF GSKT 1/8" CI RUBB	07/26/12	.00 .00	EA			

** CHANGE ORDER **

GOODFELLOW BROS INC
PO BOX 598

WENATCHEE WA 98807

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FERGUSON ENTERPRISES, INC
FILE #30129 #3014
P.O. BOX 60000
SAN FRANCISCO
CA
94160-0001

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PIILANI PROMENADE OS

PURCHASE ORDER NO. 85055165
(MUST APPEAR ON ALL DOCUMENTS AND PACKAGES)

TAX RESALE NO 1 W20182340-01

TAX RESALE NO 2

INSTRUCTIONS AND CONDITIONS

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50	0	6003	KYLE N				7/25/12		DENISE	4
REFERENCE			PAYMENT TERMS			FOB POINT		PARTIAL SHIPMENTS		SHIP VIA
9163882333						JOBSITE		ACCEPTED		

PO ITEM	JOB / SUB JOB COST DISTRIBUTION	C T	PART NUMBER AND DESCRIPTION	DATE REQUIRED	QUANTITY	U/M	UNIT PRICE	SALES TAX RATE	AMOUNT
51	6812 33.11000	M	SPT3LBFV6T/18 18" 250# BFV BOX SET T316 W/BLUNUT	07/26/12	4.00 .00	EA	582.1330	.500	2,328.53
52	6812 33.11000	M	SPT3LBOX6T/18 18" 250# BOX SET T316 W/BLUNUT	07/26/12	2.00 .00	EA	633.3350	.500	1,266.67
53	6812 33.11000	M	MJSLA18 18X15 MJ C153 LONG SLV L/A	07/26/12	2.00 .00	EA	392.6210	.500	785.24
54	6812 33.11000	M	FBG18 18 FB MJ C110 GLAND	07/26/12	4.00 .00	EA	124.6520	.500	498.61
55	6812 33.11000	M	MJGA18 18 MJ GSKT	07/26/12	4.00 .00	EA	15.0680	.500	60.27
56	6812 33.11000	M	BTCNFR 3/4X4-1/2 TEXLON COAT-BOLT	07/26/12	48.00 .00	EA	3.1920	.500	153.22
57	6812 33.11000	M	MJRLA2416 24X16 MJ C153 RED L/A	07/26/12	1.00 .00	EA	606.4700	.500	606.47
58	6812 33.11000	M	FBG24 24 FB MJ C110 GLAND	07/26/12	1.00 .00	EA	211.7250	.500	211.73
59	6812 33.11000	M	MJGA24 24 MJ GSKT	07/26/12	1.00 .00	EA	16.8860	.500	16.89
60	6812 33.11000	M	SPBTCNFS 3/4X5 TEXLON COAR BOLT W/NUT	07/26/12	16.00 .00	EA	6.5000	.500	104.00
61	6812 33.11000	M	FBG16 16 FB MJ C110 GLAND	07/26/12	1.00 .00	EA	83.2300	.500	83.23
62	6812 33.11000	M	MJGA16 16 MJ GSKT	07/26/12	1.00 .00	EA	10.2800	.500	10.28
63	6812 33.11000	M	BTCNFR 3/4X4-1/2 TEXLON COAT BOLT	07/26/12	12.00 .00	EA	3.1920	.500	38.30
64	6812 33.11000	M	MJTLA2418 24X18 MJ C153 TEE L/A	07/26/12	1.00 .00	EA	1313.3080	.500	1,313.31
65	6812 33.11000	M	FBG24 24 FB MJ C110 GLAND	07/26/12	2.00 .00	EA	211.7300	.500	423.46
66	6812 33.11000	M	MJGA24 24 MJ GSKT	07/26/12	2.00 .00	EA	16.8860	.500	33.77

** CHANGE ORDER **

GOODFELLOW BROS INC
PO BOX 598

WENATCHEE WA 98807

PURCHASE ORDER NO. 85055165
(MUST APPEAR ON ALL DOCUMENTS AND PACKAGES)

TAX RESALE NO 1 W20182340-01

TAX RESALE NO 2

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FERGUSON ENTERPRISES, INC
FILE #30129 #3014
P.O. BOX 60000
SAN FRANCISCO
CA
94160-0001

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PIILANI PROMENADE OS

INSTRUCTIONS AND CONDITIONS

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50	0	6003	KYLE N			7/25/12		DENISE	5
REFERENCE			PAYMENT TERMS			FOB POINT	PARTIAL SHIPMENTS	SHIP VIA	
9163882333						JOBSITE	ACCEPTED		

PO ITEM	JOB / SUB JOB COST DISTRIBUTION	C T	PART NUMBER AND DESCRIPTION	DATE REQUIRED	QUANTITY	U/M	UNIT PRICE	SALES TAX RATE	AMOUNT
67	6812 33.11000	M	SPBTCNFS 3/4X5 TEXLON COAT T-BOLT W/NUT	07/26/12	16.00 .00	EA	6.5000	.500	104.00
68	6812 33.11000	M	FBG18 18 FB MJ C110 GLAND	07/26/12	1.00 .00	EA	124.6520	.500	124.65
69	6812 33.11000	M	MJGA18 18 MJ GSKT	07/26/12	1.00 .00	EA	15.0680	.500	15.07
70	6812 33.11000	M	BTCNFR 3/4X4-1/2 TEXLON COAT T-BOLT	07/26/12	12.00 .00	EA	3.1920	.500	38.30
71	6812 33.11000	M	SPV2224 24" 250B BFV MODEL#2224/1F24A.3XF	07/26/12	2.00 .00	EA	6744.1850	.500	13,488.37
72	6812 33.11000	M	SPRDJ400241725 DJ400-24X17.25 CLS FLG EPOX 316SS	07/26/12	2.00 .00	EA	4916.1900	.500	9,832.38
73	6812 33.11000	M	SPDISF250DE2448 24X48 250# FLGXBE DI SPOOL	07/26/12	4.00 .00	EA	2666.6680	.500	10,666.67
74	6812 33.11000	M	FFB16007 2 CC X FIP BALL CORP ST	07/26/12	4.00 .00	EA	147.3960	.500	589.58
75	6812 33.11000	M	SPG2X12LIFTPORT 2"X12" GALV NIPPLE W/CAP TOE	07/26/12	8.00 .00	EA	32.5000	.500	260.00
76	6812 33.11000	M	SPGEYEBOLTPLATE 1 EYE BOLT W/1/4X6 PLATE WASH&NUT	07/26/12	2.00 .00	EA	71.2150	.500	142.43
77	6812 33.11000	M	0146020 6X6 CI MON BDY	07/26/12	2.00 .00	EA	49.3630	.500	98.73
78	6812 33.11000	M	0146040 7 CI MON CVR WTR	07/26/12	2.00 .00	EA	13.6110	.500	27.22
79	6812 33.11000	M	011244ONSET 22 CII M/HOLE RING & CVR WTR	07/26/12	4.00 .00	EA	267.0450	.500	1,068.18
80	6812 33.11000	M	SPT3LGF8C/24 24" 250# FF GSKT 1/8" CI RBR	07/26/12	6.00 .00	EA	56.6400	.500	339.84
81	6812 33.11000	M	SPTLBFV6T/24 24" 250# BFV BOX SET T316	07/26/12	4.00 .00	EA	999.9330	.500	3,999.73

** CHANGE ORDER **

GOODFELLOW BROS INC
PO BOX 598

WENATCHEE WA 98807

PURCHASE ORDER NO. 85055165
(MUST APPEAR ON ALL DOCUMENTS AND PACKAGES)

TAX RESALE NO 1 W20182340-01

TAX RESALE NO 2

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FERGUSON ENTERPRISES, INC
FILE #30129 #3014
P.O. BOX 60000
SAN FRANCISCO
CA
94160-0001

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PIILANI PROMENADE OS

INSTRUCTIONS AND CONDITIONS

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CO	DIV	VENDOR NO	ORDER PLACED WITH	IN PERSON	BY PHONE	BY WIRE	PO DATE	REQUESTED BY	BUYER	PAGE
50	0	6003	KYLE N				7/25/12		DENISE	6
REFERENCE			PAYMENT TERMS			FOB POINT		PARTIAL SHIPMENTS		SHIP VIA
9163882333						JOBSITE		ACCEPTED		

PO ITEM	JOB / SUB JOB COST DISTRIBUTION	C T	PART NUMBER AND DESCRIPTION	DATE REQUIRED	QUANTITY	U/M	UNIT PRICE	SALES TAX RATE	AMOUNT
82	6812 33.11000		W/BLUENUT						
		M	SPT3LBOX6T/24	07/26/12	2.00	EA	1080.6650	.500	2,161.33
			24" 250# BOLXSET T316 W/BLUNUT		.00				
83	6812 33.11000		MJ9LA24	07/26/12	4.00	EA	1133.8310	.500	4,535.32
		M	24 MJC153 90 BEND L/A		.00				
84	6812 33.11000		FBG24	07/26/12	8.00	EA	211.7250	.500	1,693.80
		M	24 FB MJ C110 GLAND		.00				
85	6812 33.11000		MJGA24	07/26/12	8.00	EA	16.8860	.500	135.09
		M	24 MJ GSKT		.00				
86	6812 33.11000		SPBTCNFS	07/26/12	128.00	EA	6.5000	.500	832.00
		M	3/4X5 TEXLON COAT BOLT W/NUT		.00				
87	6812 33.11000		MJ4LA24	07/26/12	1.00	EA	764.6020	.500	764.60
		M	24 MJ C153 45 BEND L/A		.00				
88	6812 33.11000		FBG24	07/26/12	2.00	EA	211.7250	.500	423.45
		M	24 FB MJ C110 GLAND		.00				
89	6812 33.11000		MJGA24	07/26/12	2.00	EA	16.8860	.500	33.77
		M	24 MJ GSKT		.00				
90	6812 33.11000		SPBTCNFS	07/26/12	32.00	EA	6.5000	.500	208.00
		M	3/4X5 TEXLON COAT BOLT W/NUT		.00				
91	6812 33.11000		MJRLA2412	07/26/12	1.00	EA	618.3070	.500	618.31
		M	24X12 MJ C153 RED LA		.00				
92	6812 33.11000		FBG24	07/26/12	1.00	EA	211.7250	.500	211.73
		M	24 FBMJ C110 GLAND		.00				
93	6812 33.11000		MJGA24	07/26/12	1.00	EA	16.8660	.500	16.87
		M	24 MJ GSKT		.00				
94	6812 33.11000		SPBTCNFS	07/26/12	16.00	EA	6.5000	.500	104.00
		M	3/4X5 TEXLON COAT T-BOLT W/NUT		.00				
95	6812 33.11000		FBG12	07/26/12	1.00	EA	36.0010	.500	36.00
		M	12 FB MJ C110 GLAND		.00				
96	6812 33.11000		MJGA12	07/26/12	1.00	EA	6.3540	.500	6.35
		M	12 MJ GSKT		.00				
97	6812 33.11000		T2LBXT9T1012	07/26/12	1.00	EA	22.3550	.500	22.36
		M	10-12 MJ T-BOLT BX SET CORTEN		.00				

** CHANGE ORDER **

GOODFELLOW BROS INC
PO BOX 598

WENATCHEE WA 98807

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FERGUSON ENTERPRISES, INC
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P.O. BOX 60000
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94160-0001

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PIILANI PROMENADE OS

PURCHASE ORDER NO. 85055165
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TAX RESALE NO 1 W20182340-01

TAX RESALE NO 2

INSTRUCTIONS AND CONDITIONS

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REFERENCE			PAYMENT TERMS			FOB POINT	PARTIAL SHIPMENTS	SHIP VIA	
9163882333						JOBSITE	ACCEPTED		

PO ITEM	JOB / SUB JOB COST DISTRIBUTION	C T	PART NUMBER AND DESCRIPTION	DATE REQUIRED	QUANTITY	U/M	UNIT PRICE	SALES TAX RATE	AMOUNT
98	6812 33.11000	M	BLUE MJLSLA24 24X15 MJ C153 LONG SLV L/A	07/26/12	2.00 .00	EA	672.6610	.500	1,345.32
99	6812 33.11000	M	FBG24 24 FB MJ C110 GLAND	07/26/12	4.00 .00	EA	211.7250	.500	846.90
100	6812 33.11000	M	MJGA24 24 MJ GSKT	07/26/12	4.00 .00	EA	16.8860	.500	67.54
101	6812 33.11000	M	SPBTCNFS 3/4X5 TEXLON BOAT T-BOLT W/NUT	07/26/12	64.00 .00	EA	6.5000	.500	416.00
102	6812 33.11000	M	16"X3/4" ARV ASSEMBLY	07/26/12	1.00 .00	EA	1007.5600	.500	1,007.56
103	6812 33.11000	M	12"X3/4" ARV ASSEMBLY	07/26/12	1.00 .00	EA	2350.9400	.500	2,350.94
104	6812 33.11000	M	6"X3/4" ARV ASSEMBLY	07/26/12	1.00 .00	EA	1343.4000	.500	1,343.40
105	6812 33.11000	M	PTMJFT12U 12X6 MJXFLG C153 TEE W/ACCS	07/26/12	3.00 .00	EA	388.2630	.500	1,164.79
106	6812 33.11000	M	PT6MJFGV 6 MJXFLG RW GATE VLV OL W/ACCS	07/26/12	3.00 .00	EA	595.0310	.500	1,785.09
107	6812 33.11000	M	PTMFH48	07/26/12	1.00 .00	EA	3610.2800	.500	3,610.28
108	6812 33.11000	M	PTMJFT16U 16"X6" MJXFLG C153 TEE W/ACCS	07/26/12	8.00 .00	EA	842.9750	.500	6,743.80
109	6812 33.11000	M	PT6MJFGV 6 MJXFLG RW GATE VLV OL W/ACCS	07/26/12	8.00 .00	EA	595.0280	.500	4,760.22
110	6812 33.11000	M	PTMFH48	07/26/12	1.00 .00	EA	9627.4500	.500	9,627.45
111	6812 33.11000	M	PTMJFT16U 16"X6" MJXFLG C153 TEE W/ACCS	07/26/12	1.00 .00	EA	842.9780	.500	842.98
112	6812 33.11000	M	PT6MJFGV 6 MJXFLG RW GATE VLV OL W/ACCS	07/26/12	1.00 .00	EA	595.0300	.500	595.03
113	6812 33.11000	M	PTMJTCAPUK 6"X2" MJ C153 TAP CAP W/ACCS	07/26/12	1.00 .00	EA	140.3210	.500	140.32

** CHANGE ORDER **

GOODFELLOW BROS INC
PO BOX 598

WENATCHEE WA 98807

PURCHASE ORDER NO. 85055165
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TAX RESALE NO 2

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FILE #30129 #3014
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REFERENCE			PAYMENT TERMS			FOB POINT		PARTIAL SHIPMENTS		SHIP VIA
9163882333						JOBSITE		ACCEPTED		

PO ITEM	JOB / SUB JOB COST DISTRIBUTION	C T	PART NUMBER AND DESCRIPTION	DATE REQUIRED	QUANTITY	U/M	UNIT PRICE	SALES TAX RATE	AMOUNT
114	6812		PTM2PCO	07/26/12	1.00	EA	381.5230	.500	381.52
	33.11000	M	2" MAUI CLEANOUT ASSY		.00				
115	6812		PTMJFT12U	07/26/12	3.00	EA	388.2630	.500	1,164.79
	33.11000	M	12X6 MJXFLG C153 TEE W/ACCS		.00				
116	6812		PT6MJFGV	07/26/12	3.00	EA	595.0300	.500	1,785.09
	33.11000	M	6 MJXFLG RW GATE VLV OL W/ACCS		.00				
117	6812		PTMJTCAPUK	07/26/12	3.00	EA	140.3190	.500	420.96
	33.11000	M	6"X2" MJ C153 TAP CAP W/ACCS		.00				
118	6812		PTM2PCO	07/26/12	3.00	EA	381.5230	.500	1,144.57
	33.11000	M	2" MAUI CLEANOUT ASSY		.00				
119	6812		PTMJSCAP12	07/26/12	3.00	EA	152.3230	.500	456.97
	33.11000	M	12" MJ C153 SOLID CAP W/ACCS		.00				
120	6812		PTMJFT16	07/26/12	1.00	EA	1245.8360	.500	1,245.84
	33.11000	M	16" MJXF C153 TEE W/ACCS		.00				
121	6812		SPCF6106LA16OL	07/26/12	1.00	EA	5293.0750	.500	5,293.08
	33.11000	M	16 FLGXMJ RW NRS OL GATE VLV L/A		.00				
122	6812		FBG16	07/26/12	1.00	EA	83.2000	.500	83.20
	33.11000	M	16 FBMJ C110 GLAND		.00				
123	6812		MJGA16	07/26/12	1.00	EA	10.2780	.500	10.28
	33.11000	M	16 MJ GSKT		.00				
124	6812		BCTNFR	07/26/12	12.00	EA	3.1920	.500	38.30
	33.11000	M	3/4X4-1/2 TEXLON COAT T-BOLT		.00				
125	6812		UFTG16	07/26/12	1.00	EA	20.0000	.500	20.00
	33.11000	M	16 FLG TYTE GSKT		.00				
126	6812		MJRLA16U	07/26/12	1.00	EA	266.0800	.500	266.08
	33.11000	M	16X6 MJ C153 RED L/A		.00				
127	6812		FBG16	07/26/12	1.00	EA	83.2300	.500	83.23
	33.11000	M	16 FB MJ C110 GLAND		.00				
128	6812		MJGA16	07/26/12	1.00	EA	10.2780	.500	10.28
	33.11000	M	16 MJ GSKT		.00				
129	6812		BCTNFR	07/26/12	12.00	EA	3.1920	.500	38.30
	33.11000	M	3/4X4-1/2 TEXLON COAT BOLT		.00				

** CHANGE ORDER **

GOODFELLOW BROS INC
PO BOX 598

WENATCHEE WA 98807

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FERGUSON ENTERPRISES, INC
FILE #30129 #3014
P.O. BOX 60000
SAN FRANCISCO
CA
94160-0001

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PIILANI PROMENADE OS

PURCHASE ORDER NO. 85055165
(MUST APPEAR ON ALL DOCUMENTS AND PACKAGES)

TAX RESALE NO 1 W20182340-01

TAX RESALE NO 2

INSTRUCTIONS AND CONDITIONS

1. Return Acknowledgment promptly upon receipt of order.
2. Place Order Number on all packages, bills of lading and invoices.
3. Seller warrants goods shipped produced in accordance with applicable provisions of fair labor and standards act.
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6. Discount period will be calculated from date of receipt of material, or receipt of invoice, whichever is later.
7. Invoice and correspondence to office only.

CO	DIV	VENDOR NO	ORDER PLACED WITH	IN PERSON	BY PHONE	BY WIRE	PO DATE	REQUESTED BY	BUYER	PAGE
50	0	6003	KYLE N				7/25/12		DENISE	9
REFERENCE			PAYMENT TERMS			FOB POINT		PARTIAL SHIPMENTS		SHIP VIA
9163882333						JOBSITE		ACCEPTED		

PO ITEM	JOB / SUB JOB COST DISTRIBUTION	C T	PART NUMBER AND DESCRIPTION	DATE REQUIRED	QUANTITY	U/M	UNIT PRICE	SALES TAX RATE	AMOUNT
130	6812		FBGU	07/26/12	1.00	EA	16.8800	.500	16.88
	33.11000	M	6 FB MJ C110 GLAND		.00				
131	6812		MJGAU	07/26/12	1.00	EA	3.1700	.500	3.17
	33.11000	M	6 MJ GSKT		.00				
132	6812		T2LBXT9T68	07/26/12	1.00	EA	20.2700	.500	20.27
	33.11000	M	6-8 MJ T-BOLT DX SET CORTEN BL		.00				
133	6812		PTMPFH48	07/26/12	1.00	EA	1203.4400	.500	1,203.44
	33.11000	M			.00				
134	6812		DISFPE1224	07/26/12	3.00	EA	243.7500	.500	731.25
	33.11000	M	12X24 FLGXPE DI SPL		.00				
135	6812		F912	07/26/12	5.00	EA	384.9640	.500	1,924.82
	33.11000	M	12 DI 125# C110 FLG 90 BEND		.00				
136	6812		DISFPE1260	07/26/12	3.00	EA	450.0000	.500	1,350.00
	33.11000	M	12X60 FLGXPE DI SPL		.00				
137	6812		DISF1242	07/26/12	2.00	EA	437.5000	.500	875.00
	33.11000	M	12X42 FLGXFLG DI SPL		.00				
138	6812		SPDISF1266	07/26/12	1.00	EA	562.5000	.500	562.50
	33.11000	M	12"X66" FLGXFLG DI SPL		.00				
139	6812		F912X	07/26/12	2.00	EA	368.3580	.500	736.72
	33.11000	M	12X8 DI 125# C110 FLG 90 BEND		.00				
140	6812		FT12	07/26/12	4.00	EA	619.8840	.500	2,479.54
	33.11000	M	12 DI 125# C110 FLG TEE		.00				
141	6812		CF6102XOLHW	07/26/12	4.00	EA	975.4760	.500	3,901.90
	33.11000	M	8 FLG RW NRS OL GATE VLV W/H/WHL		.00				
142	6812		RFCA50109060801	07/26/12	2.00	EA	465.0690	.500	930.14
	33.11000	M	CVR FCA501-9.06 SET SSFE EPOX		.00				
143	6812		DISFPEX30	07/26/12	2.00	EA	168.7500	.500	337.50
	33.11000	M	8X30 FLGXPE DI SPL		.00				
144	6812		SPC9001X	07/26/12	1.00	EA	8553.6600	.500	8,553.66
	33.11000	M	8" #90-01 BCDSY KCOX X101 PRV		.00				
145	6812		SPC4301X	07/26/12	1.00	EA	10329.6600	.500	10,329.66
	33.11000	M	8" #4301 BCDSY KCOX X105L2W		.00				

** CHANGE ORDER **

GOODFELLOW BROS INC
PO BOX 598

WENATCHEE WA 98807

PURCHASE ORDER NO. 85055165
(MUST APPEAR ON ALL DOCUMENTS AND PACKAGES)

TAX RESALE NO 1 W20182340-01

TAX RESALE NO 2

V
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FERGUSON ENTERPRISES, INC
FILE #30129 #3014
P.O. BOX 60000
SAN FRANCISCO
CA
94160-0001

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PIILANI PROMENADE OS

INSTRUCTIONS AND CONDITIONS

1. Return Acknowledgment promptly upon receipt of order.
2. Place Order Number on all packages, bills of lading and invoices.
3. Seller warrants goods shipped produced in accordance with applicable provisions of fair labor and standards act.
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7. Invoice and correspondence to office only.

CO	DIV	VENDOR NO	ORDER PLACED WITH	IN PERSON	BY PHONE	BY WIRE	PO DATE	REQUESTED BY	BUYER	PAGE
50	0	6003	KYLE N				7/25/12		DENISE	10
REFERENCE			PAYMENT TERMS			FOB POINT		PARTIAL SHIPMENTS	SHIP VIA	
9163882333						JOBSITE		ACCEPTED		

PO ITEM	JOB / SUB JOB COST DISTRIBUTION	C T	PART NUMBER AND DESCRIPTION	DATE REQUIRED	QUANTITY	U/M	UNIT PRICE	SALES TAX RATE	AMOUNT
146	6812		DISFX36	07/26/12	1.00	EA	237.5000	.500	237.50
	33.11000	M	8X36 FLGXFLG DI SPL		.00				
147	6812		DISFX18	07/26/12	1.00	EA	168.7500	.500	168.75
	33.11000	M	8X18 FLGXFLG DI SPL		.00				
148	6812		DISFX48	07/26/12	1.00	EA	275.0000	.500	275.00
	33.11000	M	8X48 FLGXFLG DI SPL		.00				
149	6812		FER12X	07/26/12	2.00	EA	295.6670	.500	591.33
	33.11000	M	12X8 DI 125# C110 FLG ECC RED		.00				
150	6812		SPVENTURITUBEX	07/26/12	1.00	EA	10125.8800	.500	10,125.88
	33.11000	M	PFS 8" A HVT CI VENTURI TUBE		.00				
151	6812		SPCF613612	07/26/12	1.00	EA	2493.2300	.500	2,493.23
	33.11000	M	12 CLOW CF6136 OS&Y FLG GATE VLV		.00				
152	6812		RFCAS0113551200	07/26/12	1.00	EA	705.0890	.500	705.09
	33.11000	M	12 FLG COUP ADPT 13.15-13.55		.00				
153	6812		SPDISFPE12216	07/26/12	1.00	EA	2500.0000	.500	2,500.00
	33.11000	M	12X8-0 DI FEXPE SPOOL		.00				
154	6812		FFV16005	07/26/12	2.00	EA	85.2840	.500	170.57
	33.11000	M	1-1/4IN FB1600 CORP ST		.00				
155	6812		FFB16003	07/26/12	2.00	EA	28.6380	.500	57.28
	33.11000	M	3/4 CCXFIP BALL CORP ST		.00				
156	6812		IBR125UH	07/26/12	2.00	EA	23.8550	.500	47.71
	33.11000	M	1-1/4 BRS 125# UNION		.00				
157	6812		CHA251	07/26/12	2.00	EA	8.0580	.500	16.12
	33.11000	M	1/2 MALE HOSE BIBB NO KINK		.00				
158	6812		UFTG12	07/26/12	19.00	EA	8.7430	.500	166.12
	33.11000	M	12 FLG TYTE GSKT		.00				
159	6812		TILBOX6T1012	07/26/12	19.00	EA	80.0480	.500	1,520.91
	33.11000	M	10-12 316 SS BOLT SET W/BLNUT		.00				
160	6812		UFTGX	07/26/12	14.00	EA	4.8710	.500	68.19
	33.11000	M	8 FLG TYTE GSKT		.00				
161	6812		TILBOX6T68	07/26/12	14.00	EA	27.7670	.500	388.74
	33.11000	M	6-8 316 SS BOLT SET W/BLUNUT		.00				

** CHANGE ORDER **

GOODFELLOW BROS INC
PO BOX 598

WENATCHEE WA 98807

PURCHASE ORDER NO. 85055165
(MUST APPEAR ON ALL DOCUMENTS AND PACKAGES)

TAX RESALE NO 1 W20182340-01

TAX RESALE NO 2

**V
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FERGUSON ENTERPRISES, INC
FILE #30129 #3014
P.O. BOX 60000
SAN FRANCISCO
CA
94160-0001

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PIILANI PROMENADE OS

INSTRUCTIONS AND CONDITIONS

1. Return Acknowledgment promptly upon receipt of order.
2. Place Order Number on all packages, bills of lading and invoices.
3. Seller warrants goods shipped produced in accordance with applicable provisions of fair labor and standards act.
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CO	DIV	VENDOR NO	ORDER PLACED WITH	IN PERSON BY PHONE	BY WIRE	PO DATE	REQUESTED BY	BUYER	PAGE
50	0	6003	KYLE N			7/25/12		DENISE	11
REFERENCE		PAYMENT TERMS			FOB POINT		PARTIAL SHIPMENTS	SHIP VIA	
9163882333					JOBSITE		ACCEPTED		

PO ITEM	JOB / SUB JOB COST DISTRIBUTION	C T	PART NUMBER AND DESCRIPTION	DATE REQUIRED	QUANTITY	U/M	UNIT PRICE	SALES TAX RATE	AMOUNT
162	6812		PTMVB	07/26/12	39.00	EA	79.0000	.500	3,081.00
	33.11000	M	MAUI 2 PC SPLIDING VLV BX SLIP		.00				
163	6812		PTMJCR1612	07/26/12	1.00	EA	1188.4530	.500	1,188.45
	31.11000	M	16X12 MJ C153 CROSS W/ACCS		.00				
164	6812		PTMJ916	07/26/12	1.00	EA	687.6430	.500	687.64
	31.11000	M	16" MJ C153 90 BEND W/ACCS		.00				

120/002 STATE .5000 1,690.95
TOTAL SALES TAX 1,690.95

DELIVER TO JOBSITE	BY	ESTIMATED FREIGHT .00	TOTAL -> \$339,874.93
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** CHANGE ORDER **

GOODFELLOW BROS INC
PO BOX 598

WENATCHEE WA 98807

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GEOTECH SOLUTIONS, INC.
94-155 C LEOWAENA STREET
WAIPAHU
HI
96797

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PIILANI PROMENADE OS

PURCHASE ORDER NO. 85055663
(MUST APPEAR ON ALL DOCUMENTS AND PACKAGES)

TAX RESALE NO 1 W20182340-01

TAX RESALE NO 2

INSTRUCTIONS AND CONDITIONS

1. Return Acknowledgment promptly upon receipt of order.
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CO	DIV	VENDOR NO	ORDER PLACED WITH	IN PERSON	BY PHONE	BY WIRE	PO DATE	REQUESTED BY	BUYER	PAGE
50	0	7417	CORY				8/15/12		DENISE	1
REFERENCE			PAYMENT TERMS			FOB POINT		PARTIAL SHIPMENTS		SHIP VIA
8086771580						KAHULAI DOCKS		ACCEPTED		

PO ITEM	JOB / SUB JOB COST DISTRIBUTION	C T	PART NUMBER AND DESCRIPTION	DATE REQUIRED	QUANTITY	U/M	UNIT PRICE	SALES TAX RATE	AMOUNT
1	6812 11.46100	M	NAM GREEN TURF MATTING	08/16/12	3680.00	SY	9.2000	4.166	33,856.00
2	6812 11.46100	M	STAPLES	08/16/12	8.00	EA	65.0000	4.166	520.00

120/200 STATE 4.1660 1,432.10
TOTAL SALES TAX 1,432.10

DELIVER TO JOBSITE	BY	ESTIMATED FREIGHT .00	TOTAL -> \$35,808.10
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** CHANGE ORDER **

GOODFELLOW BROS INC
PO BOX 598

WENATCHEE WA 98807

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HAWAII CONCRETE PRODUCTS
91-027 KAOMI LOOP
KAPOLEI
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96707

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PIILANI PROMENADE OS

PURCHASE ORDER NO. 85054180
(MUST APPEAR ON ALL DOCUMENTS AND PACKAGES)

TAX RESALE NO 1 W20182340-01

TAX RESALE NO 2

INSTRUCTIONS AND CONDITIONS

1. Return Acknowledgment promptly upon receipt of order.
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CO	DIV	VENDOR NO	ORDER PLACED WITH	IN PERSON	BY PHONE	BY WIRE	PO DATE	REQUESTED BY	BUYER	PAGE
50	0	8125	CORY				6/18/12		DENISE	1
REFERENCE			PAYMENT TERMS			FOB POINT		PARTIAL SHIPMENTS	SHIP VIA	
8086825639						HONOLULU DOC		ACCEPTED		

PO ITEM	JOB / SUB JOB COST DISTRIBUTION	C T	PART NUMBER AND DESCRIPTION	DATE REQUIRED	QUANTITY	U/M	UNIT PRICE	SALES TAX RATE	AMOUNT
1	6812 32.12000	M	96"X8' CAP 45 DEGREE BEND CUTTING AND WELDING	06/19/12 09/01/12	1.00 .00	EA	3000.0000	.500	3,000.00
2	6812 32.12000	M	102"X20 CAP 10GA	06/19/12 09/01/12	41.00 .00	LF	230.0000	.500	9,430.00
3	6812 32.12000	M	96"X20' CAP 12 GA	06/19/12 09/01/12	300.00 .00	LF	210.0000	.500	63,000.00
4	6812 32.12000	M	DIMPLE COUPLING	06/19/12 09/01/12	15.00 .00	EA	210.0000	.500	3,150.00
5	6812 32.12000	M	84"X20' CAP 12 GA	06/19/12 09/01/12	1680.00 .00	LF	6.4286	.500	10,800.05
6	6812 32.12000	M	84" DIMPLE COOUP	06/19/12 09/01/12	86.00 .00	EA	185.0000	.500	15,910.00
7	6812 32.12000	M	72"X44"X20' CAP ARCH PIPE 12GA	06/19/12 09/01/12	1040.00 .00	LF	133.0000	.500	138,320.00
8	6812 32.12000	M	DIMPLE COUP	06/19/12 09/01/12	52.00 .00	EA	135.0000	.500	7,020.00
9	6812 32.12000	M	84" W/24" CAP STUB WELDED TO 84" BEND SECTION	06/19/12 09/01/12	1.00 .00	EA	3740.0000	.500	3,740.00
10	6812 32.12000	M	84" W/24" CAP STUB WELDED TO 8' LONG PIPE SECTION	06/19/12 09/01/12	2.00 .00	EA	1960.0000	.500	3,920.00
13	6812 32.12000	M	48" CAP 12 GA	06/19/12 09/01/12	1.00 .00	EA	4000.0000	.500	4,000.00
14	6812 32.12000	M	48" CAP 12 GA RISER WELDED TO 84" PIPE	06/19/12 09/01/12	1.00 .00	EA	3000.0000	.500	3,000.00
15	6812 32.12000	M	48"CAP 12GA RISER WELDED TO 84 PIP	06/19/12 09/01/12	1.00 .00	EA	2700.0000	.500	2,700.00
16	6812 32.12000	M	48" CAP 12 GA RISER WELDED TO 84" PIP	06/19/12 09/01/12	1.00 .00	EA	2900.0000	.500	2,900.00
17	6812 32.12000	M	48" CAP 12 GA RISER WELDED TO 84" PIPE	06/19/12 09/01/12	1.00 .00	EA	4000.0000	.500	4,000.00

** CHANGE ORDER **

GOODFELLOW BROS INC
PO BOX 598

WENATCHEE WA 98807

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HAWAII CONCRETE PRODUCTS
91-027 KAOMI LOOP
KAPOLEI
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96707

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PIILANI PROMENADE OS

PURCHASE ORDER NO. 85054180
(MUST APPEAR ON ALL DOCUMENTS AND PACKAGES)

TAX RESALE NO 1 W20182340-01

TAX RESALE NO 2

INSTRUCTIONS AND CONDITIONS

1. Return Acknowledgment promptly upon receipt of order.
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CO	DIV	VENDOR NO	ORDER PLACED WITH	IN PERSON	BY PHONE	BY WIRE	PO DATE	REQUESTED BY	BUYER	PAGE
50	0	8125	CORY				6/18/12		DENISE	2
REFERENCE			PAYMENT TERMS			FOB POINT		PARTIAL SHIPMENTS		SHIP VIA
8086825639						HONOLULU DOC		ACCEPTED		

PO ITEM	JOB / SUB JOB COST DISTRIBUTION	C T	PART NUMBER AND DESCRIPTION	DATE REQUIRED	QUANTITY	U/M	UNIT PRICE	SALES TAX RATE	AMOUNT
18	6812		48" CAP 12 GA RISER WELDED TO	06/19/12	1.00	EA	2000.0000	.500	2,000.00
	32.12000	M	84" PIP	09/01/12	.00				
20	6812		48" ID X 10" THICK CONCRETE	06/19/12	7.00	EA	350.0000	.500	2,450.00
	32.12000	M		09/01/12	.00				
26	6812		84" ID BEND H OR V (12' PIPE)	06/19/12	4.00	EA	3340.0000	.500	13,360.00
	32.12000	M		09/01/12	.00				
27	6812		ADVANCE PAYMENT	06/19/12	1.00	EA	287999.9500	.500	287,999.95
	32.12000	M	ADVANCE PAYMENT W/ 4% DISCOUNT	08/16/12	.00				
			PER KEN GIFT/WAYNE K ANBE HCP						

120/002 STATE .5000 2,903.50
TOTAL SALES TAX 2,903.50

DELIVER TO JOBSITE	BY	ESTIMATED FREIGHT .00	TOTAL --> \$583,603.50
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GOODFELLOW BROS INC
PO BOX 598

WENATCHEE WA 98807

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PRINSCO, INC.
ATTN: ACCOUNTS RECEIVABLE
PO BOX 26
PRINSBURG
MN
56281

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PIILANI PROMENADE OS

PURCHASE ORDER NO. 85055245
(MUST APPEAR ON ALL DOCUMENTS AND PACKAGES)

TAX RESALE NO 1 W20182340-01

TAX RESALE NO 2

INSTRUCTIONS AND CONDITIONS

1. Return Acknowledgment promptly upon receipt of order.
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CO	DIV	VENDOR NO	ORDER PLACED WITH	IN PERSON BY PHONE	BY WIRE	PO DATE	REQUESTED BY	BUYER	PAGE
50	0	17874	BILL			7/24/12		DENNIS	1
REFERENCE			PAYMENT TERMS			FOB POINT	PARTIAL SHIPMENTS	SHIP VIA	
8009921725						PRINSCO PLANT	ACCEPTED		

PO ITEM	JOB / SUB JOB COST DISTRIBUTION	C T	PART NUMBER AND DESCRIPTION	DATE REQUIRED	QUANTITY	U/M	UNIT PRICE	SALES TAX RATE	AMOUNT
1	6812 32.11000	M	60WT20NP 60"X20' GOLDFLO WT NON PERF	07/25/12	1000.00 .00	FT	46.5100	.000	46,510.00
2	6812 32.11000	M	36WT20NP 36"X20' GOLDFLO WT NON PERF	07/25/12	400.00 .00	FT	20.6400	.000	8,256.00
3	6812 32.11000	M	30WT20NP 30"X20' GOLDFLO WT NON PERF	07/25/12	970.00 .00	FT	16.2900	.000	15,801.30
4	6812 32.11000	M	24WT20NP 24"X20' GOLDFLO WT NON PERF	07/25/12	1280.00 .00	FT	10.9600	.000	14,028.80
5	6812 32.11000	M	15WT20NP 15"X20' GOLDFLO WT NON PERF	07/25/12	40.00 .00	FT	5.0000	.000	200.00
6	6812 32.11000	M	GFWTS60 60" GOLDLOK WATER TIGHT SLEEVE	07/25/12	6.00 .00	EA	199.0000	.000	1,194.00
7	6812 32.11000	M	GFWTS36 36" GOLDLOK WATER TIGHT SLEEVE	07/25/12	4.00 .00	EA	108.7500	.000	435.00
8	6812 32.11000	M	GFWTS30 30" GOLDLOK WATER TIGHT SLEEVE	07/25/12	4.00 .00	EA	93.7500	.000	375.00
9	6812 32.11000	M	GFWTS24 24" GOLDLOK WATER TIGHT SLEEVE	07/25/12	6.00 .00	EA	77.5000	.000	465.00

DELIVER TO JOBSITE	BY	ESTIMATED FREIGHT .00	TOTAL -> \$87,265.10
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GOODFELLOW BROS INC
PO BOX 598

WENATCHEE WA 98807

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WALKER INDUSTRIES, LTD.
P.O. BOX 1568
KAHULUI
HI
96733-1568

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PIILANI PROMENADE OS

PURCHASE ORDER NO. 85054245
(MUST APPEAR ON ALL DOCUMENTS AND PACKAGES)

TAX RESALE NO 1 W20182340-01

TAX RESALE NO 2

INSTRUCTIONS AND CONDITIONS

1. Return Acknowledgment promptly upon receipt of order.
2. Place Order Number on all packages, bills of lading and invoices.
3. Seller warrants goods shipped produced in accordance with applicable provisions of fair labor and standards act.
4. No charges for packing or crating will be accepted unless previously agreed upon.
5. Invoice promptly. Send three copies of invoice.
6. Discount period will be calculated from date of receipt of material, or receipt of invoice, whichever is later.
7. Invoice and correspondence to office only.

CO	DIV	VENDOR NO	ORDER PLACED WITH	IN PERSON	BY PHONE	BY WIRE	PO DATE	REQUESTED BY	BUYER	PAGE
50	0	24275	CORY/KYLE/ANDRW				7/03/12		DENISE	1
REFERENCE			PAYMENT TERMS			FOB POINT		PARTIAL SHIPMENTS		SHIP VIA
8088773430						JOBSITE		ACCEPTED		

PO ITEM	JOB / SUB JOB COST DISTRIBUTION	C T	PART NUMBER AND DESCRIPTION	DATE REQUIRED	QUANTITY	U/M	UNIT PRICE	SALES TAX RATE	AMOUNT
1	6812 31.13000	M	SEWER MANHOLE INCL. A-LOK SEAL	07/04/12	14.00 .00	EA	3030.0000	.000	42,420.00
2	6812 32.16000	M	4'X4' DRAIN MANHOLE FOR PAVEMENT (DMH A-2, A-3, A-5)	07/04/12	4.00 .00	EA	3620.0000	.000	14,480.00
3	6812 32.16000	M	4'8"X4'8" MOD DOT TYPE C DRAIN (DMH A-1, A-1A)	07/04/12	2.00 .00	EA	6590.0000	.000	13,180.00
4	6812 32.16000	M	TYPE B CATCH BASIN (CB 2,5,7,9)	07/04/12	4.00 .00	EA	5780.0000	.000	23,120.00
5	6812 32.16000	M	TYPE C CATCH BASIN (CB 1,4,6,8)	07/04/12	4.00 .00	EA	4810.0000	.000	19,240.00
6	6812 32.16000	M	TYPE D CATCH BASIN (CB 3)	07/04/12	1.00 .00	EA	2640.0000	.000	2,640.00
7	6812 32.16000	M	4'8"X6'8" SPECIAL DRAIN M-HOLE (DMH #1,2,3,4,5,6 & 7)	07/04/12	7.00 .00	EA	7880.0000	.000	55,160.00
8	6812 32.16000	M	4'X12' TRANSITION STRUCTURE	07/04/12	1.00 .00	EA	18650.0000	.000	18,650.00
9	6812 32.16000	M	4'X12' TRANSITION STRUCTURE #2	07/04/12	1.00 .00	EA	16730.0000	.000	16,730.00
10	6812 32.16000	M	3'X4' GRATED INLET CATCH BASIN (GICB #1 and 2 - 61614)	07/04/12	2.00 .00	EA	5270.0000	.000	10,540.00
11	6812 33.15000	M	5'4"X6'8" TYPE A MANHOLE FOR 24"	07/04/12	2.00 .00	EA	10680.0000	.000	21,360.00
12	6812 33.15000	M	5'4"X8" TYPE A MANHOLE FOR 36"	07/04/12	2.00 .00	EA	17610.0000	.000	35,220.00
13	6812 32.16000	M	3'X3' TYPE L GRATED INLET CATCH BASIN (Tank Site)	07/04/12	1.00 .00	EA	3410.0000	.000	3,410.00
14	6812 32.16000	M	10' SPAN X5' RISE REINF CNCRTE BOX CULVERT	07/04/12	12.00 .00	LF	1055.0000	.000	12,660.00

***** SPECIAL INSTRUCTIONS *****

NOTE: ALL CONCRETE BOX CULVERTS INCLUDE; REINFORCING, RAM NEK JOINT

GOODFELLOW BROS INC
PO BOX 598

WENATCHEE WA 98807

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WALKER INDUSTRIES, LTD.
P.O. BOX 1568
KAHULUI
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96733-1568

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PIILANI PROMENADE OS

PURCHASE ORDER NO. 85054245
(MUST APPEAR ON ALL DOCUMENTS AND PACKAGES)

TAX RESALE NO 1 W20182340-01

TAX RESALE NO 2

INSTRUCTIONS AND CONDITIONS

1. Return Acknowledgment promptly upon receipt of order.
2. Place Order Number on all packages, bills of lading and invoices.
3. Seller warrants goods shipped produced in accordance with applicable provisions of fair labor and standards act.
4. No charges for packing or crating will be accepted unless previously agreed upon.
5. Invoice promptly. Send three copies of invoice.
6. Discount period will be calculated from date of receipt of material, or receipt of invoice, whichever is later.
7. Invoice and correspondence to office only.

CO	DIV	VENDOR NO	ORDER PLACED WITH	IN PERSON	BY PHONE	BY WIRE	PO DATE	REQUESTED BY	BUYER	PAGE
50	0	24275	CORY/KYLE/ANDRW				7/03/12		DENISE	2
REFERENCE		PAYMENT TERMS			FOB POINT		PARTIAL SHIPMENTS		SHIP VIA	
8088773430					JOBSITE		ACCEPTED			

COMPOUND WITH PRIMER, INSERTS, SHOP DRAWINGS.
LAY LENGTH = 6 FEET MAX LIFT WEIGHT = 14 TONS

DELIVER TO JOBSITE	BY	ESTIMATED FREIGHT .00	TOTAL -> \$288,810.00
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BEFORE THE LAND USE COMMISSION

OF THE STATE OF HAWAI'I

In the Matter of the Petition of)	Docket No. A94-706
)	
KAONOULU RANCH to Amend the	)	DECLARATION OF
Agricultural Land Use District Boundary	)	ROBERT D. POYNOR; EXHIBITS
into the Urban Land Use District for	)	"K" - "L"
Approximately 88 acres at Kaonoulu,)	
Makawao-Wailuku, Maui, Hawai'i; Tax)	
Map Key Nos. (2) 2-2-02: por. 15 and)	
3-9-01:16)	
)	
)	
)	
)	
)	

DECLARATION OF ROBERT D. POYNOR

I, ROBERT D. POYNOR, hereby declare that:

1. I am the Vice President of Sarofim Realty Advisors.
2. This declaration is submitted in reference to the above-captioned case.
3. Unless otherwise indicated, all statements made herein are based on personal knowledge.
4. I am an individual over eighteen (18) years of age and under no legal or mental disability, and I am competent to testify, having personal knowledge of the matters set forth herein.
5. Piilani Promenade South, LLC ("PPS") and Piilani Promenade North, LLC (together with PPS, "Piilani") are wholly owned subsidiaries of an entity managed by Sarofim Realty Advisors. Sarofim Realty Advisors is a registered investment advisor founded in 1982, and provides real estate investment management services which include entitlements, development, construction and asset management.



6. The County of Maui, PPS, and Maui Industrial Partners, LLC (“MIP”) entered into the Assignment and Assumption of Agreement for Subdivision Approval dated September 13, 2010 (the “Assignment”). A true and correct copy of the Assignment is attached hereto as Exhibit “K.”

7. Pursuant to the Assignment, the County accepted a new approved security in the amount of \$22,058,826.00 (the “Cash Bond”) and permitted PPS to assume MIP’s obligations as subdivider with regard to the Kaonoulou Ranch (Large-Lot) Subdivision No. 2, Subdivision File No. 2.2795, and the Kaonolulu Ranch Water Tank Subdivision, Subdivision File No. 2.2995.

8. From 2010 to the present day, Piilani entered into multiple contracts with Warren S. Unemori Engineering, Inc. (“WSUE”) to provide civil engineering and land surveying services, including assistance in permitting, preparing construction documents, and construction support.

9. In 2012, Piilani entered into two contracts with Goodfellow Bros., Inc. (“GBI”) for onsite and offsite construction work.

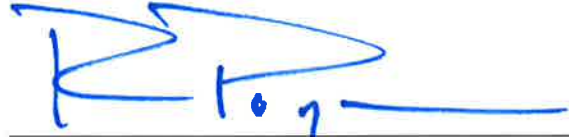
10. In accordance with the contracts, GBI purchased construction materials on Piilani’s behalf for the offsite work. Piilani reimbursed GBI, with a portion of the reimbursement paid through the withdrawal of \$1,909,191 from the Cash Bond.

11. On June 18, 2015, the Department of Finance, County of Maui confirmed by letter that the amount of the Cash Bond held by the County totaled \$20,149,635. A true and correct copy of the June 18, 2015 letter is attached hereto as Exhibit “L.”



I, ROBERT D. POYNOR, declare under penalty of law that the foregoing is true and correct.

Executed this 10th day of January, 2019, at DALLAS, TEXAS.



ROBERT D. POYNOR

TMK Nos.: (2) 3-9-001:016; -169; -170; -171; -172; -173; -174; and (2) 2-2-002:015
Subdivision File Nos.: 2.2795 and 2.2995

**ASSIGNMENT AND ASSUMPTION OF
AGREEMENT FOR SUBDIVISION APPROVAL**

THIS AGREEMENT is made and entered into this 13th day of September, 2010 (the "Effective Date"), by and between PIILANI PROMENADE SOUTH, LLC, whose business and mailing address is 17802 Skypark Circle, Suite 200, Irvine, California 92614 ("Subdivider"), MAUI INDUSTRIAL PARTNERS, LLC, whose business and mailing address is 1999 Avenue of the Stars, #2850, Los Angeles, California 90067 ("MIP"), and the COUNTY OF MAUI, through its DEPARTMENT OF PUBLIC WORKS, and/ or its DEPARTMENT OF WATER SUPPLY, ("County").

WHEREAS, MIP and KAONOULU RANCH LLLP (collectively, "Original Developer"), as subdivider, and the County entered into that certain Agreement for Subdivision Approval, dated August 14, 2009 (the "First Agreement"), attached hereto as Exhibit "B" and incorporated herein by reference and made a part hereof, in which the Original Developer agreed to construct those certain improvements for the subdivision of land indentified in Subdivision File Nos. 2.2795 and 2.2995, for that property formerly identified as Tax Map Key ("TMK") Nos. (2) 3-9-001:016 and (2) 2-2-002:015, and now identified as (i) TMK Nos. (2) 3-9-001:016; 170; 171; 172; 173; and 174 (the "Maui Industrial Property"), (ii) TMK No. (2) 3-9-001-169 (the "Honua'ula Partners Property"), and (iii) TMK No. (2) 2-2-002:015 (the "Kaonoulu Ranch Property"), containing a total area of approximately 88.000 acres and 1.154 acres, (the Maui Industrial Property, the Honua'ula Partners Property and the Kaonoulu Ranch Property, collectively, the "Property") and known as Kaonoulu Ranch (Large-Lot) Subdivision No. 2 and Kaonoulu Ranch Water Tank Subdivision, hereinafter sometimes called the "Subdivision".

As of the Effective Date, (i) MIP has conveyed to Subdivider the Maui Industrial Property, (ii) Kaonoulu Ranch LLLP has conveyed to Subdivider a right of entry to the Kaonoulu Ranch Property for the purposes of constructing the above-referenced improvements, and (iii) Honua'ula Partners, LLC has conveyed to Subdivider a license to enter the Honua'ula Partners Property for the purposes of constructing the above-referenced improvements.

MIP desires to assign, and Subdivider desires to assume, the obligation of MIP to construct the above-referenced improvements pursuant to the First Agreement.

Subdivider has requested that the County accept a new surety bond, certified check, or other approved security in lieu of the existing surety bond or bonds listed on Exhibit A attached hereto, dated July 17, 2009 and issued by Arch Insurance Company (collectively referred to as the "First Bond"), and permit Subdivider to assume MIP's obligations as subdivider with respect to the Subdivision.

NOW, THEREFORE, it is hereby agreed by the parties hereto:

1. Effective as of the Effective Date, MIP hereby assigns, transfers, sets over and delivers unto Subdivider MIP's obligations as subdivider with respect to the Subdivision and MIP's obligation to construct the above-referenced improvements in accordance with the First Agreement, and Subdivider hereby accepts such assignment, and as of the Effective Date, Subdivider hereby assumes MIP's obligations as subdivider with respect to the Subdivision and MIP's obligation to construct the above-referenced improvements in accordance with the First Agreement.

2. In consideration of the foregoing, and in consideration of Subdivider's delivery to the County of a new surety bond, certified check, or other approved security herewith to replace the First Bond, receipt of which is hereby acknowledged, the First

Bond is hereby unconditionally and irrevocably released. The County shall provide Arch Insurance Company with an executed copy of this agreement, or other suitable document, as evidence of the County's exoneration of the "First Bond".

3. Subdivider shall complete the above-referenced improvements on or before the 7th day of July, 2011, or such extensions as may be granted by the County, in accordance with First Agreement and the approved construction plans of the Subdivision, and all rules, regulations, requirements and ordinances of the County, and any other applicable laws.

4. The approved security in the amount of Twenty-Two Million Fifty-Eight Thousand Eight Hundred Twenty-Six and No/100 Dollars (\$22,058,826.00) (the "Security"), which accompanies this Agreement is for the purpose of guaranteeing that Subdivider shall construct the above-mentioned improvements.

5. Should Subdivider fail to complete the above-referenced improvements by the time specified above, or such extension as may be granted by the County, the County may cause all required work which is unfinished to be completed and shall recover the full cost and expenses thereof from the parties executing the Security and the Subdivider, it being understood that in the event such cost and expense exceeds the amount of the Security or other approved security the Subdivider shall be liable for such amount beyond the limit of such Security or other security.

6. Arch Insurance Company is a third party beneficiary of this Agreement.

7. The Security initially deposited with the County may be replaced by Subdivider with a surety bond, certified check or other approved security, if acceptable to the County's Director of Public Works and approved by the County's Department of the Corporation Counsel, in an amount equal to the Security remaining at the time of such

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replacement, and upon such replacement, the County shall promptly return any remaining portion of the Security to Subdivider.

8. This Agreement may be executed in counterparts, each of which shall be deemed an original, and said counterparts shall together constitute one and the same instrument.

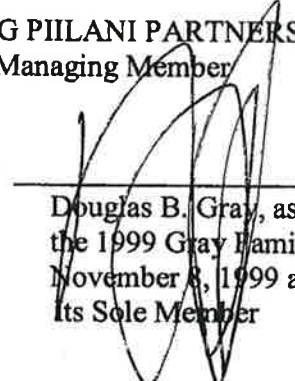
IN WITNESS WHEREOF, the parties hereto have executed this Agreement on
the date first above written.

SUBDIVIDER:

PIILANI PROMENADE SOUTH, LLC

By: PIILANI PROMENADE PARTNERS, LLC
Its Sole Member

By: EDG PIILANI PARTNERS, LLC
Its Managing Member

By: 
Douglas B. Gray, as Trustee of
the 1999 Gray Family Trust dated
November 8, 1999 as amended
Its Sole Member

COUNTY OF MAUI:

DEPARTMENT OF PUBLIC WORKS

By: 
MILTON M. ARAKAWA
Its Director

DEPARTMENT OF WATER SUPPLY

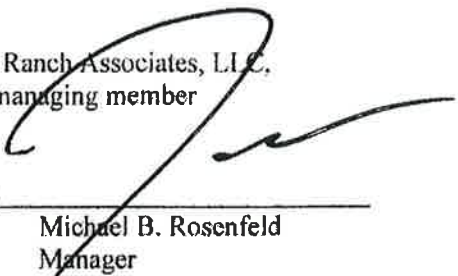
By: 
JEFFREY K. ENG
Its Director

APPROVED AS TO FORM
AND LEGALITY:


Deputy Corporation Counsel
County of Maui

MAUI INDUSTRIAL PARTNERS, LLC

By: RG Ranch Associates, L.L.C.,
its managing member

By: 
Michael B. Rosenfeld
Manager

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

STATE OF CALIFORNIA

COUNTY OF ORANGE

On SEPTEMBER 09, 2010 before me L. Fox, Notary Public,
Here Insert Name of the Officer

personally appeared DOUGLAS B. GRAY
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose names(s) is
(are) subscribed to the within instrument and acknowledged to me that he/she/they executed the
same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the
instrument, the person(s) or the entity upon behalf of which the person(s) acted, executed the
instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the
foregoing paragraph is true and correct.



(Place Notary Seal Above)

WITNESS my hand and official seal.

[Signature]
Signature of Notary Public,
State of California

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

STATE OF CALIFORNIA

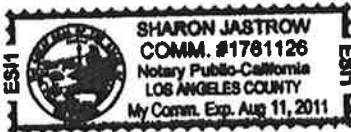
COUNTY OF Los Angeles

On Sept 13, 2010 before me Sharon Jastrow, Notary Public,
Here Insert Name of the Officer

personally appeared Michael B. Rosenfeld
Name(s) of Signer(s)


who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is
(are) subscribed to the within instrument and acknowledged to me that he/she/they executed the
same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the
instrument, the person(s) or the entity upon behalf of which the person(s) acted, executed the
instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the
foregoing paragraph is true and correct.



(Place Notary Seal Above)

WITNESS my hand and official seal.


Signature of Notary Public,
State of California

STATE OF HAWAII

)
) SS.

COUNTY OF MAUI

)

On this 13th day of September, 2010, before me appeared MILTON M. ARAKAWA, to me personally known, who being by me duly sworn did say that he is the Director of Public Works of the County of Maui, a political subdivision of the State of Hawaii, and that the seal affixed to the foregoing instrument is the lawful seal of the said County of Maui, and that the said instrument was signed and sealed on behalf of said County of Maui pursuant to Title 18 of the Maui County Code, the Subdivision Ordinance, and the said MILTON M. ARAKAWA acknowledged the said instrument to be the free act and deed of said County of Maui.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal.

V.S.

Jill Anne S. Ono
NOTARY PUBLIC, State of Hawaii.
Print Name JILL ANNE S. ONO
My commission expires: 11/30/10

NOTARY PUBLIC CERTIFICATION	
Doc. Date: <u>9/13/10</u>	# Pages: <u>21</u>
Notary Name: <u>JILL ANNE S. ONO</u>	Judicial Circuit: <u>Second</u>
Doc. Description: <u>Assignment and Assumption of Agreement for Subdivision Approval</u>	
Notary Signature: <u>Jill Anne S. Ono</u>	
Date: <u>9/13/10</u>	

V.S.

STATE OF HAWAII)
) SS.
COUNTY OF MAUI)

On this 13th day of SEPTEMBER, 2010, before me appeared JEFFREY K. ENG, to me personally known, who being by me duly sworn did say that he is the Director of Water Supply of the County of Maui, a political subdivision of the State of Hawaii, and that the seal affixed to the foregoing instrument is the lawful seal of the said County of Maui, and that the said instrument was signed and sealed in behalf of said County of Maui pursuant to rules and regulations of the Department of Water Supply, and the said JEFFREY K. ENG acknowledged the said instrument to be the free act and deed of said County of Maui.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal.



Gaye Hayashida

NOTARY PUBLIC, State of Hawaii.

Print Name GAYE HAYASHIDA

My commission expires: MAY 23, 2014

NOTARY PUBLIC CERTIFICATION

Doc. Date: SEPTEMBER 13, 2010 # Pages: 21

Notary Name: GAYE HAYASHIDA Judicial Circuit: SECOND

Doc. Description: ASSIGNMENT AND ASSUMPTION
OF AGREEMENT FOR SUBDIVISION
APPROVAL

Notary Signature: Gaye Hayashida

Date: 9/13/10



EXHIBIT A

FIRST BOND

Principal Name	Bond Number	Bond Amount	Effective Date	Obligee Name	Bond Description
Maui Industrial Partners, LLC	SU 1102685	\$ 1,256,710.00	7/17/2009	County of Maui	Kaonolu Ranch (Large Lot) Subdivision 2 Sitework
Maui Industrial Partners, LLC	SU 1102686	\$ 2,299,046.00	7/17/2009	County of Maui	Kaonolu Ranch (Large Lot) Subdivision 2 East Kaonolu Street
Maui Industrial Partners, LLC	SU 1102687	\$ 1,411,106.00	7/17/2009	County of Maui	Kaonolu Ranch (Large Lot) Subdivision 2 Pitahi Highway Widening
Maui Industrial Partners, LLC	SU 1102688	\$ 1,771,330.00	7/17/2009	County of Maui	Kaonolu Ranch (Large Lot) Subdivision 2 Access Road & Swales
Maui Industrial Partners, LLC	SU 1102689	\$ 712,592.00	7/17/2009	County of Maui	Kaonolu Ranch (Large Lot) Subdivision 2 Sewer System Revision
Maui Industrial Partners, LLC	SU 1102690	\$ 2,895,052.00	7/17/2009	County of Maui	Kaonolu Ranch (Large Lot) Subdivision 2 Storm Drainage System/Revision
Maui Industrial Partners, LLC	SU 1102691	\$ 834,700.00	7/17/2009	County of Maui	Kaonolu Ranch (Large Lot) Subdivision 2 Onsite Water System
Maui Industrial Partners, LLC	SU 1102692	\$ 4,802,784.00	7/17/2009	County of Maui	Kaonolu Ranch (Large Lot) Subdivision 2 Water/Water Tank
Maui Industrial Partners, LLC	SU 1102693	\$ 2,444,940.00	7/17/2009	County of Maui	Kaonolu Ranch (Large Lot) Subdivision 2 Water/Water Main
Maui Industrial Partners, LLC	SU 1102694	\$ 885,566.00	7/17/2009	County of Maui	Kaonolu Ranch (Large Lot) Subdivision 2 Electrical
Maui Industrial Partners, LLC	SU 1102695	\$ 643,000.00	7/17/2009	County of Maui	Kaonolu Ranch (Large Lot) Subdivision 2 Traffic Signal
Maui Industrial Partners, LLC	SU 1102696	\$ 1,202,000.00	7/17/2009	County of Maui	Kaonolu Ranch (Large Lot) Subdivision 2 Landscape/Irrigation
Maui Industrial Partners, LLC	SU 1102697	\$ 900,000.00	7/17/2009	County of Maui	Kaonolu Ranch (Large Lot) Subdivision 2 CRM Walls
		\$ 22,058,826.00			

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TMK No. (2) 3-9-001:016 and (2) 2-2-002:015

Subdivision File No. 2.2795 and 2.2995

AGREEMENT FOR SUBDIVISION APPROVAL

THIS AGREEMENT is made and entered into this 14th day of August, 2009, by and between Kaonoulu Ranch LLLP and Maui Industrial Partners, LLC, whose residence address is P.O. Box 390, Kula, Hawaii, 96790; 1999 Avenue of the Stars, Suite 2850, Los Angeles, CA 90067; respectively ("Subdivider"), and the COUNTY OF MAUI, through its DEPARTMENT OF PUBLIC WORKS, and/or its DEPARTMENT OF WATER SUPPLY, ("County").

WHEREAS, the Subdivider has agreed to provide certain improvements for the subdivision of land identified in Subdivision File No. 2.2795 and 2.2995 and incorporated herein by reference and made a part hereof and situate at Tax Map Key No. (2) 3-9-001:016 and (2) 2-2-002:015, containing an area of approximately 88.000 Acres and 1.154 Acres, ("Property") and known as Kaonoulu Ranch (Large-Lot) Subdivision No. 2 and Kaonoulu Ranch Water Tank Subdivision called the "Subdivision", all in accordance with the rules, regulations, requirements and ordinances of the County of Maui on or before the 17th day of July, 2010, or such extensions as may be granted by the County; and

WHEREAS, said improvements are more particularly designated on the approved construction plans of the Subdivision, which construction plans are incorporated herein by reference and

EXHIBIT " B "

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made a part hereof; and

WHEREAS, the Subdivider desires to receive final approval of the Subdivision in accordance with the subdivision ordinance of the County of Maui by submitting a surety bond, certified check, or other approved security to guarantee the construction of said improvements;

NOW, THEREFORE, it is hereby agreed by the parties hereto:

1. That the Subdivider shall complete the above-mentioned improvements on or before the 17th day of July, 2010, in accordance with the above-mentioned Subdivision File No., construction plans and the rules, regulations, requirements and ordinances of the County of Maui and any other applicable laws.

2. That the surety bond, certified check or other approved security in the amount of Twenty two million fifty-eight thousand eight hundred twenty six AND 00 /100 DOLLARS (\$ 22,058,826.00), which accompanies this Agreement is for the purpose of guaranteeing that the Subdivider shall construct the hereinabove-mentioned improvements.

3. That should the Subdivider fail to complete the work required at the time specified, or such extension as may be granted by the County, the County may cause all required work which is unfinished to be completed and shall recover the full cost and expenses thereof from the parties executing the bond and the

Subdivider, it being understood that in the event such cost and expense exceeds the amount of the bond or other approved security the Subdivider shall be liable for such amount beyond the limit of such bond or other security.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the date first above written.

SUBDIVIDER:

Maui Industrial Partners, LLC

(print name above)

Maui Industrial Partners, LLC a Delaware limited liability company
By: RC Ranch Associates, LLC a Delaware limited liability company

By

name: Michael Rosenfeld
Its Manager

By

name:
Its

By

name:
Its

Subdivider, it being understood that in the event such cost and expense exceeds the amount of the bond or other approved security the Subdivider shall be liable for such amount beyond the limit of such bond or other security.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the date first above written.

SUBDIVIDER:

Kaonoulu Ranch LLLP

(print name above)

By 

name: Henry F. Rice
Its Managing General Partner

By _____

name:
Its

By _____

name:
Its

By _____
name:
Its

By _____
name:
Its

By _____
name:
Its

COUNTY OF MAUI:

DEPARTMENT OF PUBLIC WORKS

By Milton M. Arakawa
MILTON M. ARAKAWA
Its Director

DEPARTMENT OF WATER SUPPLY

By Jeffrey M. Eng
JEFFREY M. ENG
Its Director

APPROVED AS TO FORM
AND LEGALITY:

David A. Galazin
DAVID A. GALAZIN
Deputy Corporation Counsel
County of Maui

S:\OSA\STANDARD FORMS\Subdivision\Standard Agreements\SubdapprRev0707.wpd

State of California
County of Los Angeles

On July 17, 2009 before me, **Sharon Jastrow**, a Notary Public personally appeared **Michael Rosenfeld** who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she~~/they executed the same in his/~~her~~/their authorized capacity(ies), and that by his/~~her~~/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature


Notary Public (Seal)



BP

STATE OF HAWAII

COUNTY OF MAUI

)
) ss.
)

On this 10th day of August, 2009, before me personally appeared **HENRY F. RICE**, personally known/proved to me on the basis of satisfactory evidence, who, being by me duly sworn or affirmed, did say that such person executed the foregoing instrument as the free act and deed of such person, and if applicable in the capacity shown, having been duly authorized to execute such instrument in such capacity.



(Notary Seal or Stamp)

C. Iles

Name: _____

Notary Public, State of Hawaii

My commission expires: _____

C. Iles
My Commission Expires 02/29/2012

NOTARY CERTIFICATION STATEMENT

Document Identification or Description: Agreement for Subdivision Approval

Document Date: Undated

No. of Pages: 10

Jurisdiction (in which notarial act is performed):

Second

Signature of Notary

C. Iles

8-10-09

Date of Notarization and
Certification Statement

Printed Name of Notary



(Notary Seal or Stamp)

RP

STATE OF HAWAII

)

) SS.

COUNTY OF MAUI

)

On this 14th day of August, 2009, before me personally appeared MILTON M. ARAKAWA, to me personally known, who being by me duly sworn, did say that he is the Director of Public Works of the County of Maui, a political subdivision of the State of Hawaii, and that the seal affixed to the foregoing instrument is the lawful seal of the said County of Maui, and that the said instrument was signed and sealed on behalf of said County of Maui pursuant to Title 18 of the Maui County Code, the Subdivision Ordinance, and the said MILTON M. ARAKAWA acknowledged the said instrument to be the free act and deed of the said County of Maui.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal.

Jin Anne S. Ono
NOTARY PUBLIC, State of Hawaii.
Print Name _____
My commission expires: 11/30/10

L.S.

Doc. Date: <u>8/14/09</u>	# Pages: <u>10</u>
JIN Anne S. Ono	Second Circuit
Doc. Description: <u>Agreement for Subdivision Approval</u>	
<i>Jin Anne S. Ono</i>	<u>8/14/09</u>
Notary Signature	Date
NOTARY CERTIFICATION	

L.S.

EP

STATE OF HAWAII)
) SS.
COUNTY OF MAUI)

On this 13th day of August, 2009,
before me appeared JEFFREY K. ENG, to me personally known, who
being by me duly sworn did say that he is the Director of Water
Supply of the County of Maui, a political subdivision of the State
of Hawaii, and that the seal affixed to the foregoing instrument is
the lawful seal of the said County of Maui, and that the said
instrument was signed and sealed in behalf of said County of Maui
pursuant to rules and regulations of the Department of Water
Supply, and the said JEFFREY K. ENG acknowledged the said
instrument to be the free act and deed of said County of Maui.

IN WITNESS WHEREOF, I have hereunto set my hand and
official seal.



Jerry Ann Wells
NOTARY PUBLIC, State of Hawaii
Print Name Jerry Ann Wells
My commission expires: 4/19/2016

NOTARY PUBLIC CERTIFICATION		
Doc. Date:	Undated at time of notarization	# Pages: 10
Notary Name:	JERRY ANN WELLS	Judicial Circuit: SECOND
Doc. Description:	Agreement for Subdivision Approval	
Notary Signature:	<u>Jerry Ann Wells</u>	
Date:	August 13, 2009	



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Schedule of Subdivision Bonds

Kaonoulu Ranch (Large Lot) Subdivision No. 2 and Kaonoulu Ranch Water Tank Subdivision

TMK No. 3-9-001:016 and (2) 2-2-002:015

Subdivision File No. 2.2795 and 2.2995

Description of Work	Bond #	Bond Amount
Sitework Improvements	SU1102685	1,256,710
East Kaonoulu St. Improvements	SU1102686	2,299,046
Piilani Hwy Widening Improvements	SU1102687	1,411,106
Access Road & Swales	SU1102688	1,771,330
Sewer System / Revisions	SU1102689	712,592
Storm Drainage System / Revisions	SU1102690	2,895,052
Onsite Water System	SU1102691	834,700
12" Offsite Water/ 1MG Water Tank	SU1102692	4,802,784
36" Water Main / Water / Misc. Revisions	SU1102693	2,444,940
Electrical	SU1102694	885,566
Traffic Signal Improvements	SU1102695	643,000
Landscape / Irrigation	SU1102696	1,202,000
CRM Walls	SU1102697	900,000

TOTAL SUBDIVISION BOND AMOUNT: \$ **22,058,826**

PP

ALAN M. ARAKAWA
Mayor



DANILO F. AGSALOG
Director

MARK R. WALKER
Deputy Director

COUNTY OF MAUI
DEPARTMENT OF FINANCE
200 S. HIGH STREET
WAILUKU, MAUI, HAWAII 96793

June 18, 2015

SENT VIA E-MAIL

Mr. Robert D. Paynor
Vice President
Sarofim Realty Advisors
8115 Preston Road, Suite 400
Dallas, Texas 75225

**RE: KAONOULU RANCH SUBDIVISION NO. 2
SUBDIVISION FILE NO. 2.2795 & 22995**

Dear Mr. Paynor,

✓ This letter will confirm that the County of Maui currently holds cash totaling \$20,149,635.00 as a bond for the performance of certain improvements required for the above referenced subdivision and as agreed to in the "ASSIGNMENT AND ASSUMPTION OF AGREEMENT FOR SUBDIVISION APPROVAL" dated September 13, 2010 by and between the County of Maui, Piilani Promenade South, LLC and Maui Industrial Partners, LLC .

Should you have any questions or need additional information please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Mark R. Walker", is written over a horizontal line.

MARK R. WALKER
Deputy Director

cc: Danilo F. Agsalog, Director of Finance

RP

BEFORE THE LAND USE COMMISSION
OF THE STATE OF HAWAI'I

In the Matter of the Petition of	)	Docket No. A94-706
)	
KAONOULU RANCH to Amend the	)	CERTIFICATE OF SERVICE
Agricultural Land Use District Boundary)	
into the Urban Land Use District for)	
Approximately 88 acres at Kaonoulu,)	
Makawao-Wailuku, Maui, Hawai'i; Tax)	
Map Key Nos. (2) 2-2: por. 15 and)	
3-9-01:16)	
_____)	

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing document will be duly served upon the following persons by electronic mail ("**EM**"), or by mailing said copy, postage prepaid, first class, in a United States post office ("**M**") or by hand delivery ("**HD**") in the manner indicated, addressed as set forth below:

DANIEL ORODENKER, Executive Officer Land Use Commission, State of Hawai'i 235 South Beretania Street Room 406, Leiopapa A Kamehameha Bldg. Honolulu, Hawai'i 96813	<u>Daniel.E.Orodenker@dbedt.hawaii.gov</u> (HD, EM)
--	--

DAWN T. APUNA, Esq. Deputy Attorney General State of Hawaii Department of the Attorney General Hale Auhau, Third Floor 425 Queen Street Honolulu, Hawai'i 96813	<u>Dawn.T.Apuna@hawaii.gov</u> (EM)
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LEO R. ASUNCION, JR., Director
Office of Planning, State of Hawai'i
235 South Beretania Street
Room 600, Leiopapa A Kamehameha Bldg.
Honolulu, Hawai'i 96813

Leo.R.Asuncion@hawaii.gov (EM)

MICHELE CHOUTEAU MCLEAN,
Planning Department, County of Maui
One Main Plaza
2200 Main Street, Suite 315
Wailuku, Maui, Hawai'i 96793

Michele.McLean@co.maui.hi.us (EM)

PATRICK K. WONG, Esq.
MICHAEL HOPPER, ESQ.
KRISTIN TARNSTROM, ESQ.
Department of Corporation Counsel
200 South High Street, Room 322
Wailuku, Hawai'i 96793

pat.wong@co.maui.hi.us (EM)

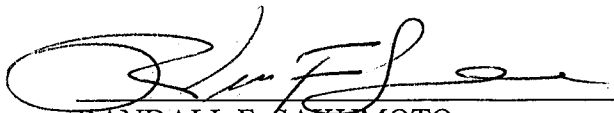
TOM PIERCE, Esq.
P.O. Box 798
Makawao, Hawai'i 96768

tom@maulandlaw.com (M, EM)

BENJAMIN M. MATSUBARA, Esq.
CURTIS T. TABATA, Esq.
888 Mililani Street, Eighth Floor
Honolulu, Hawai'i 96813

ctabata@m-klawyers.com (EM)

DATED: Honolulu, Hawai'i January 10, 2019.



RANDALL F. SAKUMOTO
LISA W. CATALDO
CATHERINE A. TASCHNER

Attorneys for PIILANI PROMENADE
SOUTH, LLC and PIILANI PROMENADE
NORTH, LLC