

Johnson Brothers Warehouse

1011 Munu Steet, Kapolei Business Park, Hawaii, 96707
TMK: 9-1-75:25

Geoffrey B. Goggin
Licensed Professional Engineer
5903-C
Exp. Date: 4-30-08
G.B. Goggin
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 the current Hawaii Administrative Rules "Professional Engineers, Architects, Surveyors, and Landscape Architects.")

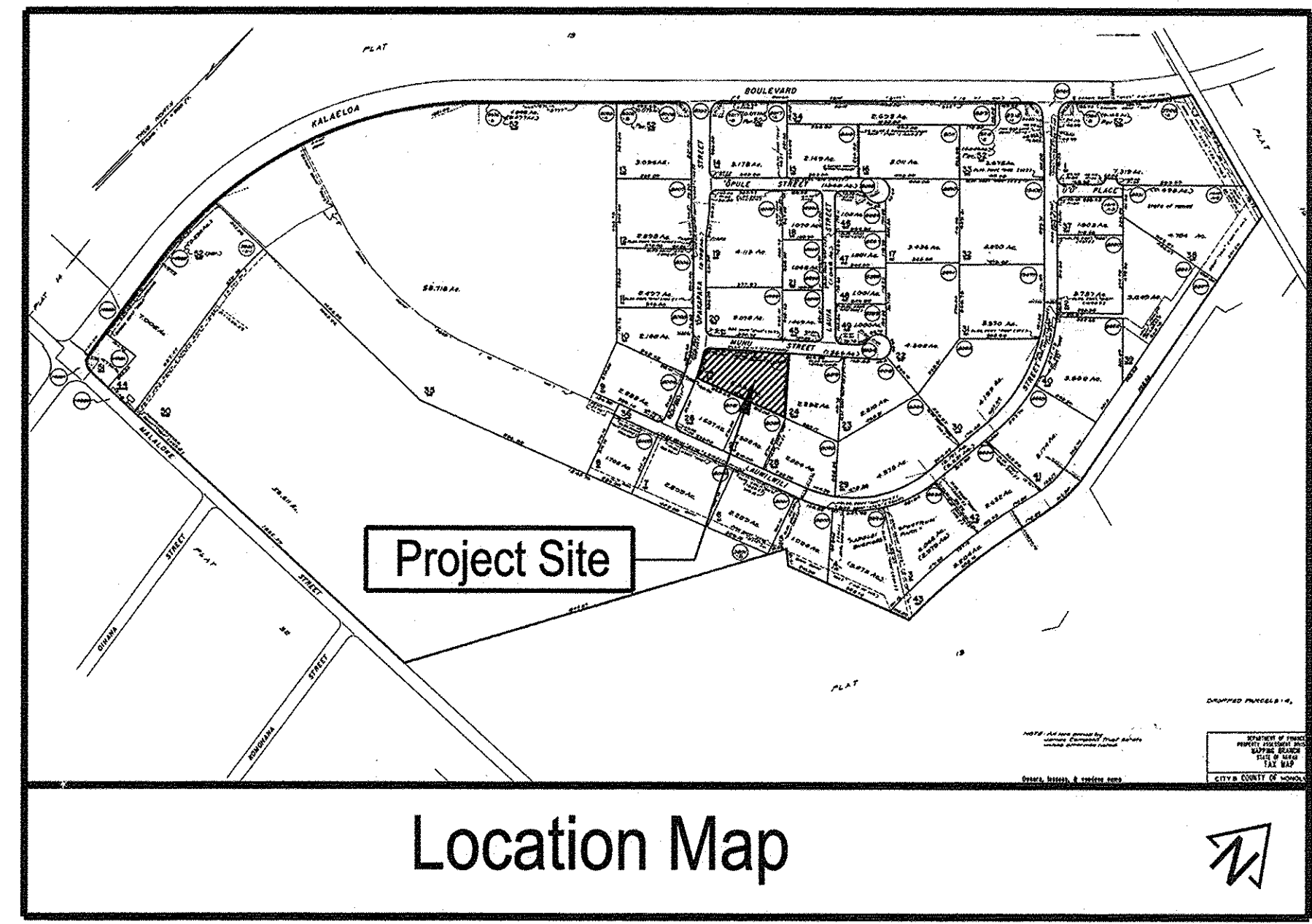
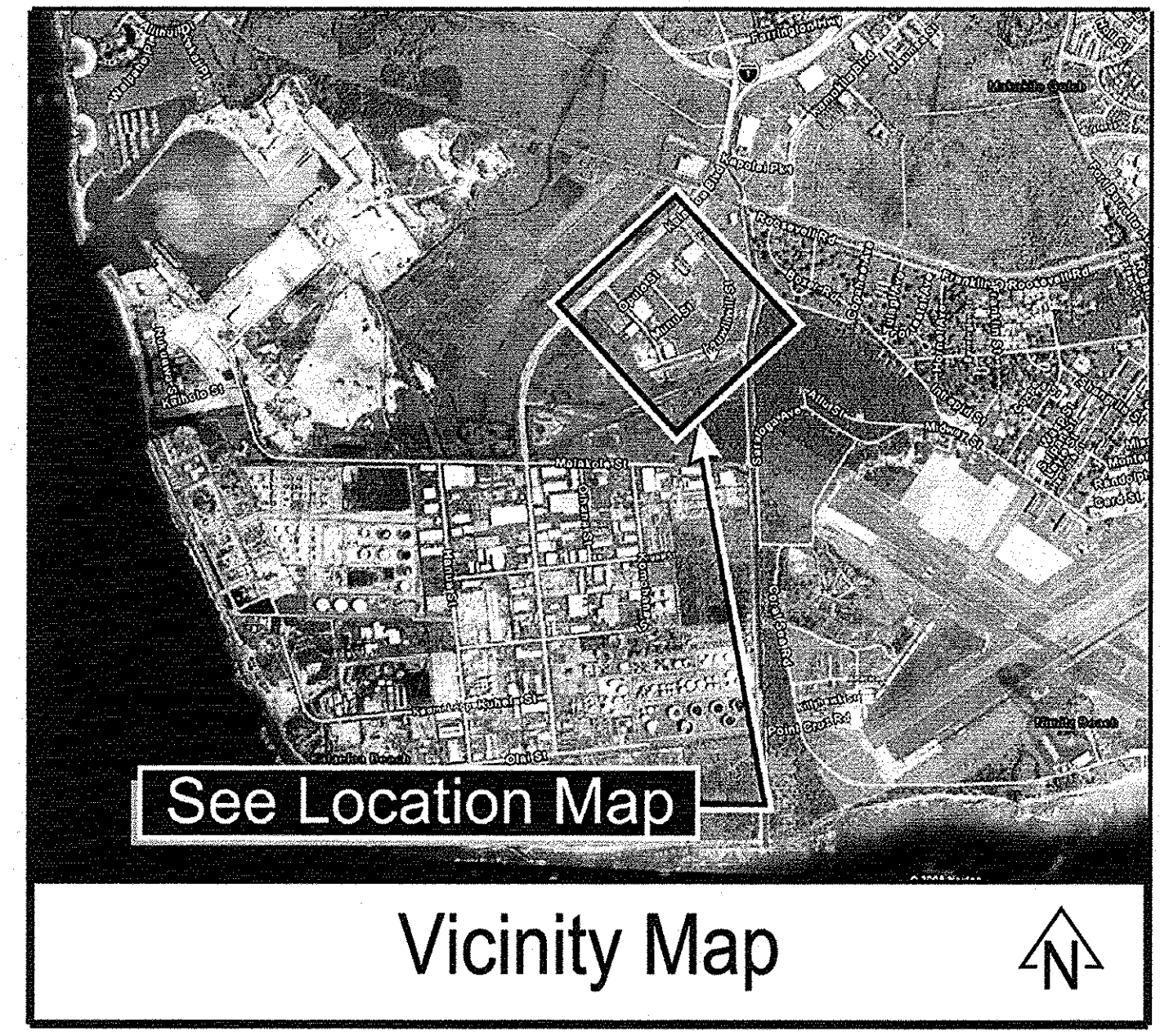
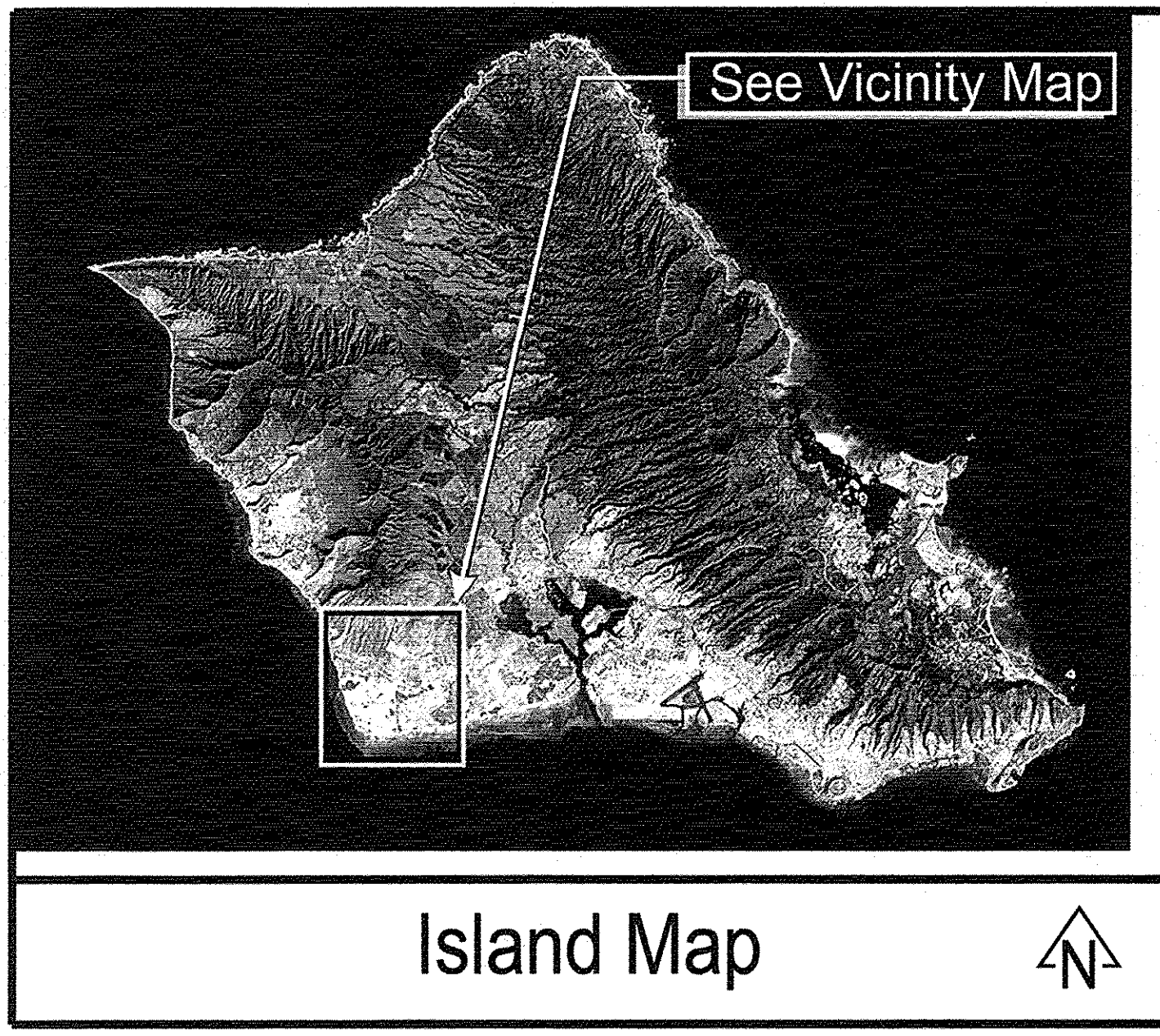
REVISIONS	Work	Description	Date	Appr.
2	Revised per Achitectoral Comments		07/24/07	
3	Revised per agency comments		09/27/07	
5	FINALS		10/08/07	

Designed by: gbg	Date: 3/19/07	Rev.
Dwn by: gbg		
Reviewed by: gbg	Drawing code:	
Submitted by: gbg	File name:	
Chief, Arch. Branch	Plot date:	
	Plot scale:	

Hawaii Consulting Group
98-711 Iho Pl. # 3-903
Aiea, HI, 96701
tel: 808-371-9695
email: geoff@hawaiiconsultinggroup.net
website: http://hicons.net/

Johnson Brothers Warehouse
Title Sheet
1011 Munu Steet
Kapolei Business Park, Hawaii, 96707
TMK: 9-1-75:25

Sheet reference number:
T-1
Sheet 1 of 10



Index of Drawings	
Sht.	Description
T-1	Title Sheet
N-1	Civil Notes
C-1	Existing/Demolition Plan
C-2	Site Plan
C-3	Grading Plan
C-4	Utility Plan
C-5	Erosion Control Plan
C-6	Civil Details
C-7	Profiles
C-8	Profiles, Cross SectionsTraffic Control Plan

APPROVED :
M. Fong
Director, Dept. of Planning and Permitting
City and County of Honolulu
(for site grading and construction within proposed City R/W only)
Date: 10/25/07

Water Notes

- Unless otherwise specified, all materials and construction of water system facilities and appurtenances shall be accordance with the City County of Honolulu Board Water Supply's "WATER SYSTEM STANDARDS", DATED 2002, THE "WATER SYSTEM EXTENSION CONSTRUCTION CONTROL STANDARDS", VOLUME 3, DATED 1991, and all subsequent amendments and additions.
- Nuts and bolts flange connections within meter shall be bronze or stainless except coupling adapters where "COR-TEN" (U.S. Steel) may be used. Flange connections outside of meter box may use "COR-TEN" or "MAYAR" type nuts and bolts.
- Test pressure shall be one of the following:
 - prevailing line pressure, joints left exposed for 24 hours to check for leak prior to backfill.
 - 150 psi. During the 30-minute pressure test, the pressure shall not drop more than 10 psi.

4. The contractor shall chlorinate the entire inside surface of each pipe and fitting with disinfection solution of 5 ounces of sodium hypochlorite mixed with 10 gallons of water.

5. The project shall pay the applicable water system facilities and/or one-time services charge and for the meter which will be furnished by BWS and installed by the Contractor when the lateral is installed.

6. The Contractor shall notify BWS Capital Projects Division, Construction Section in writing and submit six (6) sets of approved construction plans one week prior to commencing work on the water system.

7. Contractor shall cut and plug all existing unused laterals at the main whether or not shown on the plans. Meter and valve boxes to be or already abandoned shall be demolished, removed and properly disposed of. The damage area shall be repaired to an equal or better condition than the immediate area. All work shall be done at the expense of the contractor.

8. After installation of tapping sleeve and valve prior to actual tapping operations, the assembly shall be tested at 150 psi on both sides of the valve.

9. All plans approved by the Board of Water Supply are based solely on the adequacy of the water supply.

10. For the meter 3 inches and larger (Compound, F.M. and Detector Check), contractor shall notify Customer Care Division - Service Engineering Section in writing after the plans is approved, no later than 120 days, prior to withdrawing meter from BWS store yard. Such notice shall indicate number, withdrawing meter from BWS store yard. Such notice shall indicate number, size and type of meter (Compound F.M. or Detector Check) and approximate month and year meter is anticipated to be drawn out. If the approved plan is allowed to lapse, the 120-day notice will be avoided.

11. Board of Water Supply approval of these plans does not constitute a water commitment. Availability of water will be determined when the building is presented to the Department. Water commitment will depend upon the status of the water system at that time. Should water service be made available, the water commitment will be effective when the project receives an approved building permit from the Building Department. All water commitments will be canceled in the events the building permit is canceled.

12. The project shall be subject to the Board of Water Supply's Cross-Connection Control requirements prior to issuance of the Building Permit.

13. The contractor, in the presence of the consulting engineer, will flow test most critical hydrants (hydrants with the least flow expected). The consulting engineer will furnish to the Honolulu Fire Department (with a copy to the Board of Water Supply, Maintenance Unit or Engineering, Construction Section) the following flow data: static and residual pressure in psi, pilot and flow in gpm, general layout drawing location of hydrants, and manufacturer

14. Easement documents must be submitted to BWS and recorded before meter is issued.

15. The installation, chlorination and testing of the water main facilities after the meter shall be the responsibility of the Board of Water Supply.

16. The Contractor shall be responsible for the protection of all water lines during construction. The Contractor shall be especially careful when excavating behind water lines, tees, and bends supporting earth beyond the existing reaction blocks. The Contractor shall take whatever measures necessary to protect the water lines, such as constructing special reaction blocks with BWS approval) and/or modifying his connection

17. The existence and location of underground utilities and structures as shown on the plans are from the latest available data but is not guaranteed as to the accuracy or the encountering of the other obstacle during the course of work. The Contractor shall be responsible and pay for all damage to existing utilities. The Contractor shall not assume that where no utilities are shown, that none exist.

18. Prior to installation, the Contractor shall submit for approval by Board of Water Supply, the manufacturer's certification that all cast iron (gray or ductile) fittings for the project conform in all respects to the Water System Standards dated 2002.

19. Polygon shape for the mechanical joint glands as described in AWWA Standard C11 shall be "straight-sided" or an approved equal on a job-to-job basis.

20. Re-approval shall be required if this project is not under construction within a period of two years.

21. The backflow preventer device must be installed before meter is issued.

22. The Contractor Developer shall obtain a NPDES permit prior to chlorination and/or dewatering. A copy of the permit shall be submitted to the Board of Water Supply, Capital Projects Division, Construction Section.

23. Pipe cushion shall be of high resistivity material. The contractor shall submit a soil certification that high resistant cushion material has resistivity greater than 5,000 OHM-CM. Remainder of the back fill material shall contain no hazardous substances above regulatory action levels including but not limit to lead, asbestos, mercury, chromium, cadmium, zinc, strontium, and polychlorinated biphenyls (PCB)

24. Install 4 mil. Thick, non-metallic, blue colored, 6 inches wide warning tape over centerline of the pipe and below the base course along entire length of trench. Tape be marked with "CAUTION WATER LINE BURIED BELOW".

25. The contractor shall install electronic markers to all mains and test the electronic markers prior to installations to verify proper operation. BWS personnel shall verify the number and location of placed electronic markers before final paving of the project.

26. The contractor shall furnish and install polyethylene wrap, 3 foot minimum at all taps (for DI type and copper lateral combination only) and plastic pipe (PE tubing) 3 foot long at the meters for all service lateral connections.

FOR ESTIMATING PURPOSES ONLY

DESCRIPTION OF WORK				Estimate
2-1/2" DOMESTIC SERVICE 1" METER				\$ 109+\$180 \$ 289.00
(WSFC) WATER SYSTEM FACILITIES CHARGE				50 fu's @ \$ 620.85 \$ 31,042.50
*CREDIT				41.9 fu's @ \$ 220.29 \$ 9,230.15
S/N _____ 8" FIRE SERVICE				
8" D.C. Meter				\$ 1,861.00 \$ 1,861.00
Installation Charge				n/a \$ 21,100.00
One-time Charge				\$ 21,100.00 \$ 63,522.65
TOTAL				

* CREDITS WILL BE DETERMINED WHEN THE BUILDING PERMIT APPLICATION IS SUBMITTED FOR BWS REVIEW AND APPROVAL.

THIS ESTIMATE IS SUBJECT TO CHANGE. A FORMAL WRITTEN QUOTATION MAYBE OBTAINED AND ALL PAYMENTS FOR THE CHARGES SHOWN ON THE QUOTATION MADE WITHIN 30 DAYS AFTER THE CONSTRUCTION PLAN IS APPROVED BY BWS. IF PAYMENTS ARE NOT RECEIVED WITHIN THE 30 DAY PERIOD, THE PROJECT WILL BE SUBJECT TO THE PREVAILING RATES.

Public Transit Division (DTS) Note

The contractor shall notify Oahu Transit Services, inc., (OTS-The Bus Contractor), Ed Sniffen (848-4571) or Lowell Tom (848-4578), two weeks prior to construction, informing them of location, scope of work, proposed closure of any street or traffic lanes, and the need to relocate any bus stops.

Mech./Elect. Design & Engineering Division Notes:

1. The contractor shall notify the Joint Pole Committee two (2) weeks in advance of any relocation of utility pole(s) that may be necessary.

2. The contractor shall notify the Mechanical/Electrical Division, Department of Design and Construction, three (3) working days prior to commencing work on the street light system (phone: 527-8002).

3. The street lighting system shall be kept operational during construction. Any relocation required shall be approved by the Mechanical/Electrical Division and paid for the contractor.

4. The locations of the existing underground street light facilities shown on the plans are from existing plans and are approximate only. The contractor shall exercise caution when construction crosses or is in close proximity to the existing street light facilities. The contractor shall be responsible for any damages to the existing street lighting facilities. Any and all damages to these facilities shall be repaired by the contractor at his cost in accordance with the requirements of the City and County of Honolulu.

5. The contractor shall be responsible for any damages to the city's existing communications fiber optic cable system. Any and all damages to these facilities shall be repaired by the contractor at his cost in accordance with the requirements of the City and County of Honolulu.

SEWER Notes: (Private)

1. All sewer construction shall be performed in accordance with the Standard Specifications for Public Works Constructions, September 1986, Standard Details for Public Construction, September 1984, as amended, of Department of Public Works, City and County of Honolulu and the counties of Kauai, Maui, and Hawaii, current City practices, the Revised Ordinances of Honolulu, 1990, as amended, and the Design Standards of the Department of Wastewater Management, Vol. 1, July 1993.

2. In the event that any change in alignment or grade for the proposed sewers are required due to unforeseen conflict with other utilities, the engineer in charge or the maker of the plans shall be responsible for the required changes which are to be presented to the Department of Planning and Permitting for approval.

3. Crushed rock cradle is permitted where soil is stable. In areas of unstable soil, the maker of the plans and the construction engineer will determine the pipe support required.

4. Trees in the road right-of-way shall be situated a min. of six (6) feet from the city's sewer lines.

5. The underground pipes, cables and ductlines known to exist by the contractor shall be indicated on the plans. The contractor shall verify the location and depth of the facilities, including and affecting sewer lines, in the presence of the DPP inspector and exercise proper care in excavating the area. The Contractor shall be responsible and shall pay for all damaged utilities.

6. The Contractor shall be responsible for maintaining continuous sewer service to all affected areas during construction.

7. The Contractor shall be responsible for any sewage spills caused during construction. The Contractor shall notify the State Department of Health and utilize appropriate sampling and analyzing procedures. The Contractor shall be responsible for all public notifications and press releases.

8. The Contractor shall obtain approval for advance sewer riser agreement at the Department of Planning and Permitting and obtain building permit for plumbing work before any advance riser is made.

9. All sewer pipe joints within easements shall be wrapped with geotextile root barrier.

10. Geotextile fabric to envelop the pipe cradle and select backfill material shall be provided where water or unstable soil conditions are encountered.

11. Confined Space

For entry by City personnel, including inspectors, into a permit required confined space as defined in 29 CFR Part 1910.146(b), the Contractor shall be responsible for providing:

I. All safety equipment required by the confined space regulations applicable to all parties other than the construction industry, to include, but not limited to, the following:

- Full body harnesses for up to two personnel.
- Lifeline and associated clips.
- Ingress/egress and fall protection equipment.
- Two-way radios (walkie-talkies) if out of line-of-sight.
- Emergency (escape) respirator (10 minute duration).
- Cellular telephone to call emergency assistance.
- Continuous gas detector (calibrated) to measure oxygen, hydrogen sulfide, carbon.
- Personal multi-gas detector to be carried by inspector.

II. Continuous forced air ventilation adequate to provide safe entry conditions.

III. One attendant/rescue personnel topside (two, if conditions warrant it).

Traffic Notes for work on City & County Streets

1. A permit shall be obtained from the Department Of Transportation Services before work on any portion of a public street or highway may begin. Construction traffic control plans approved by the Department Of Transportation Services and/or the Department Of Planning and Permitting must be provided when applying for the permit.

2. The contractor shall provide, install, and maintain all necessary signs and other protective facilities, which shall conform with the "Hawaii Administrative Rules 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 Highways Administration's "Manual On Uniform Traffic Control Devices For Street and Highways, Part VI -Traffic Controls for Street and Highway Construction and Maintenance Operations."

3. Work on any city street area may be performed only between the hours of 8:30 a.m. to 3:30 p.m., Monday through Friday, unless otherwise permitted by the Department of Transportation Services.

4. During working hours, the contractor shall provide for through traffic. During non-working hours, all trenches shall be covered with a safe non-skid bridging material and all lanes shall be open to traffic.

5. As required by the Department of Transportation Services, the contractor shall provide off-duty police officers to control the flow of traffic.

Construction Notes

1. All applicable construction work shall be done in accordance with the Standard Specifications for Public Works Construction, September 1986 and Standard Details for Public Works Construction, September 1984, as amended, of the Department of Public Works, City and County of Honolulu and the Counties of Kauai, Maui, and Hawaii.

2. The underground pipes, cables or ductlines known to exist by the engineer from his search of records are indicated on the plans. The Contractor shall verify the locations and depths of the facilities and exercise proper care in excavating in the area. Wherever connections of new utilities to existing utilities are shown on the plans, the Contractor shall expose the existing lines at the proposed connections to verify their locations and depths prior to excavation for the new lines.

3. No Contractor shall perform any construction operation so as to cause falling rocks, soil or debris in any form to fall, slide or flow into existing City drainage systems, or adjoining properties, streets or natural watercourses. Should such violations occur, the Contractor may be cited and the Contractor shall immediately make all remedial actions necessary.

4. The Contractor shall be responsible for conformance with the applicable provisions of the water quality and water pollution control standards contained in Hawaii Administrative Rules, Title 11, Chapter 54, "Water Quality Standards", and Title 11, Chapter 55, "Water Pollution Control", as well as Chapter 14 of the Revised Ordinances of Honolulu, as amended. Best Management Practices shall be employed at all times during construction.

5. The Contractor shall notify the Civil Engineering Branch, Department of Planning and Permitting, at 768-8084 to arrange for inspectional services and submit four (4) sets of approved Construction Plans seven (7) days prior to commencement of construction work.

6. Confined Space
For entry by City personnel, including inspectors, into a permit required confined space as defined in 29 CFR Part 1910.146(b), the Contractor shall be responsible for providing:

- All safety equipment required by the confined space regulations applicable to all parties other than the construction industry, to include, but not limited to, the following:
 - Full body harnesses for up to two personnel.
 - Lifeline and associated clips.
 - Ingress/egress and fall protection equipment.
 - Two-way radios (walkie-talkies) if out of line-of-sight.
 - Emergency (escape) respirator (10 minute duration).
 - Cellular telephone to call for emergency assistance.
 - Continuous gas detector (calibrated) to measure oxygen, hydrogen sulfide, carbon
 - Personal multi-gas detector to be carried by inspector.
- Continuous forced air ventilation adequate to provide safe entry conditions.
- One attendant/rescue personnel topside (two, if conditions warrant it).

7. Pursuant to Chapter 6E, HRS, in the event any artifacts or human remains are uncovered during construction operations, the Contractor shall immediately suspend work and notify the Honolulu Police Department, the State Department of Land and Natural Resources-Historic Preservation Division (692-8015). In addition, for non-City projects, the Contractor shall inform the Civil Engineering Branch, Department of Planning and Permitting (768-8084) and for City projects, notify the responsible City agency.

Grading Notes

1. All grading work shall be done in accordance with Chapter 14, Articles 13, 14, 15, and 16, as related to Grading, Soil Erosion and Sediment Control, of the Revised Ordinances of Honolulu, 1990, as amended and Soils Report by Ernest Hirata & Associates, W.O. 05-4118 dated July 21, 2005.

2. No Contractor shall perform any grading operations so as to cause falling rocks, soil or debris in any form to fall, slide or flow onto adjoining properties, streets or natural watercourses. Should such violations occur, the Contractor may be cited and the Contractor shall immediately make all remedial actions necessary.

3. The Contractor, at his own expense, shall keep the project area and surrounding area free from dust nuisance. The work shall be in conformance with the air pollution control standards contained in the Hawaii Administrative Rules, Title 11, Chapter 60. 1, "Air Pollution Control".

4. The underground pipes, cables, or duct lines known to exist by the engineer from his search of records are indicated on the plans. The Contractor shall verify the locations and depths of the facilities and exercise proper care excavating in the area. Wherever connections of new utilities are shown on the plans, the Contractor shall expose the existing lines at the proposed connections to verify their locations and depths prior to excavation for the new line.

5. Adequate provisions shall be made to prevent surface waters from damaging the cut face of an excavation or the sloped surfaces of a fill. Furthermore, adequate provisions shall be made to prevent sediment-laden runoff from leaving the site.

6. All slopes and exposed areas shall be sodded or planted as soon as final grades have been established. Planting shall not be delayed until all grading work has been completed. Grading to final grade shall be continuous, and any area within which work has been interrupted, shall be planted.

7. Fills on slopes steeper than 5:1 shall be keyed.

8. The City shall be informed of the location of the borrow/disposal site for the project when application for a grading permit is made. The borrow/disposal site must also fulfill the requirements of the grading ordinance.

9. No grading work shall be done on Saturdays, Sundays and holidays at any time without prior notice to the Director, D.P.P., provided such grading work is also in conformance with the community noise control standards contained in the Hawaii Administrative Rules, Title 11, Chapter 46, "Community Noise Control".

10. The limits of the area to be graded shall be flagged before the commencement of the grading work.

11. All grading operations shall be performed in conformance with the applicable provisions of the water quality and water pollution control standards contained in Hawaii Administrative Rules, Title 11, Chapter 54, "Water Quality Standards" and Title 11, Chapter 55, "Water Pollution Control" and if applicable, the NPDES permit for the project.

12. Where applicable and feasible, the measures to control erosion and other pollutants shall be in place before any earth moving phase of the grading is initiated.

13. Temporary erosion control shall not be removed before permanent erosion controls are in-place and established.

14. Temporary Erosion Control Procedures shall be submitted for approval prior to application for grading permit.

15. If the grading work involves contaminated soil then all grading work shall be done in accordance with applicable State and Federal Requirements.

16. The Building Permit for retaining walls shall be obtained prior to commencement of grading work on the site.

17. For non-City projects, the Contractor shall notify the Civil Engineering Branch, D.P.P. at 768-8084 to arrange for inspectional services and submit three (3) sets of approved Construction Plans seven (7) days prior to commencement of construction work. For City projects, the Contractor shall coordinate inspectional services with the responsible City agency.

18. Pursuant to Chapter 6E, HRS, in the event any artifacts or human remains are uncovered during construction operations, the Contractor shall immediately suspend work and notify the Honolulu Police Department, the State Department of Land and Natural Resources-Historic Preservation Division (692-8015). In addition, for non-City projects, the Contractor shall inform the Civil Engineering Branch (768-8084); and for City projects, notify the responsible City agency.

19. For benchmark, see sheet C-1. (C&C Street Monuments).

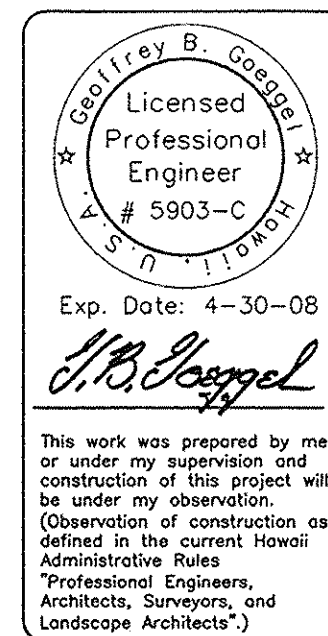
20. For all projects, which will disturb one (1) acre or more of land, the Contractor shall not start construction until a Notice of General Permit Coverage (NGPC) is received from the Department of Health, State of Hawaii, and has satisfied any other applicable requirements of the NPDES permit program. Also, for non-City and other non-governmental agency projects, the Contractor shall provide a written copy of the NGPC to the Permitting and Inspection Section, Civil Engineering Branch, D.P.P., at least seven (7) calendar days before the start of the construction. For City or other governmental projects, the Contractor should provide a written copy of the NGPC to the appropriate City department or governmental agency per their requirements.

21. All grading and construction work shall implement measures to ensure that the discharge of pollutants from the construction site will be reduced to the maximum extent practicable and will not cause or contribute to an exceedance of water quality standards.

22. Non-compliance to any of the above requirements shall mean immediate suspension of all work, and remedial work should commence immediately. All costs incurred shall be billed to the violator. Furthermore, violators shall be subjected to administrative, civil and/or criminal penalties.

APPROVED :

DIRECTOR	DATE
DEPARTMENT OF PLANNING AND PERMITTING	
<i>Robert Chun</i>	10/25/07
CHIEF, CAPITAL PROJECTS DIVISION	DATE
BOARD OF WATER SUPPLY	
<i>John</i>	10/25/07
CHIEF, TRAFFIC REVIEW BRANCH	DATE
DEPARTMENT OF PLANNING AND PERMITTING	
<i>Meloni Salas</i>	10/18/07
CHIEF, CIVIL ENGINEERING BRANCH	DATE
DEPARTMENT OF PLANNING AND PERMITTING	



REVISED	Revised per Architectural Comments	Revised per agency comments	REVISED	Revised per agency comments	REVISED	Revised per agency comments
07/24/07		10/3/07		10/08/07		
Work	Mark	Mark	Work	Mark	Work	Mark

Designed by:	Rev.
Own by:	3/19/07
Drawn by:	gag
Checked by:	gag
Reviewed by:	gag
Submitted by:	gag
Chief, Arch. Branch	

Hawaii Consulting Group
98-7111 Iho Pl. # 3-903
Aiea, HI, 96701
tel: 808-371-9695
email: geoff@hawaiiconsultinggroup.net
website: http://hicons.net/

Johnson Brothers Warehouse	Civil Notes
1011 Muna Street	
Kapolei Business Park, Hawaii, 96707	
TMK: 9-1-75:25	

Sheet reference number:
N-1
Sheet 2 of 10

Licensed Professional Engineer

 # 5903-C

 Exp. Date: 4-30-08

G.B. Gogel

This work was prepared by me or under my supervision and construction of this project will be under my observation. I am a duly Licensed Professional Engineer in the State of Hawaii. I am not providing any professional services in any other state.

 "Professional Engineers, Architects, Surveyors, and Landscape Architects"

REVISIONS	Rev.	Date	Revised per Architectural Comments	Revised per agency comments	FINALS	Description	Work	Date	Appr.
1		07/24/07							
2		09/27/07							
3		10/08/07							

Hawaii Consulting Group

 98-711 Iho Pl. # 3-903

 Aiea, HI, 96701

 tel: 808-371-9695

 email: geoff@hawaiiconsultinggroup.net

 website: http://hicons.net/

Designed by: gbg

 Drawn by: dy

 Reviewed by: gbg

 Submitted by: Chief, Arch. Branch

Date: 3/19/07

 Drawing code: gbg

 File name:

 Plot scale:

Johnson Brothers Warehouse

Existing & Demolition Plan

 1011 Muna Street

 Kapolei Business Park, Hawaii, 96707

 TMK: 9-1-75:25

Sheet reference number:

C-1

 Sheet 3 of 10

NOTE: Existing conditions based on a topographic survey by Control Point Surveying on 6/26/05.

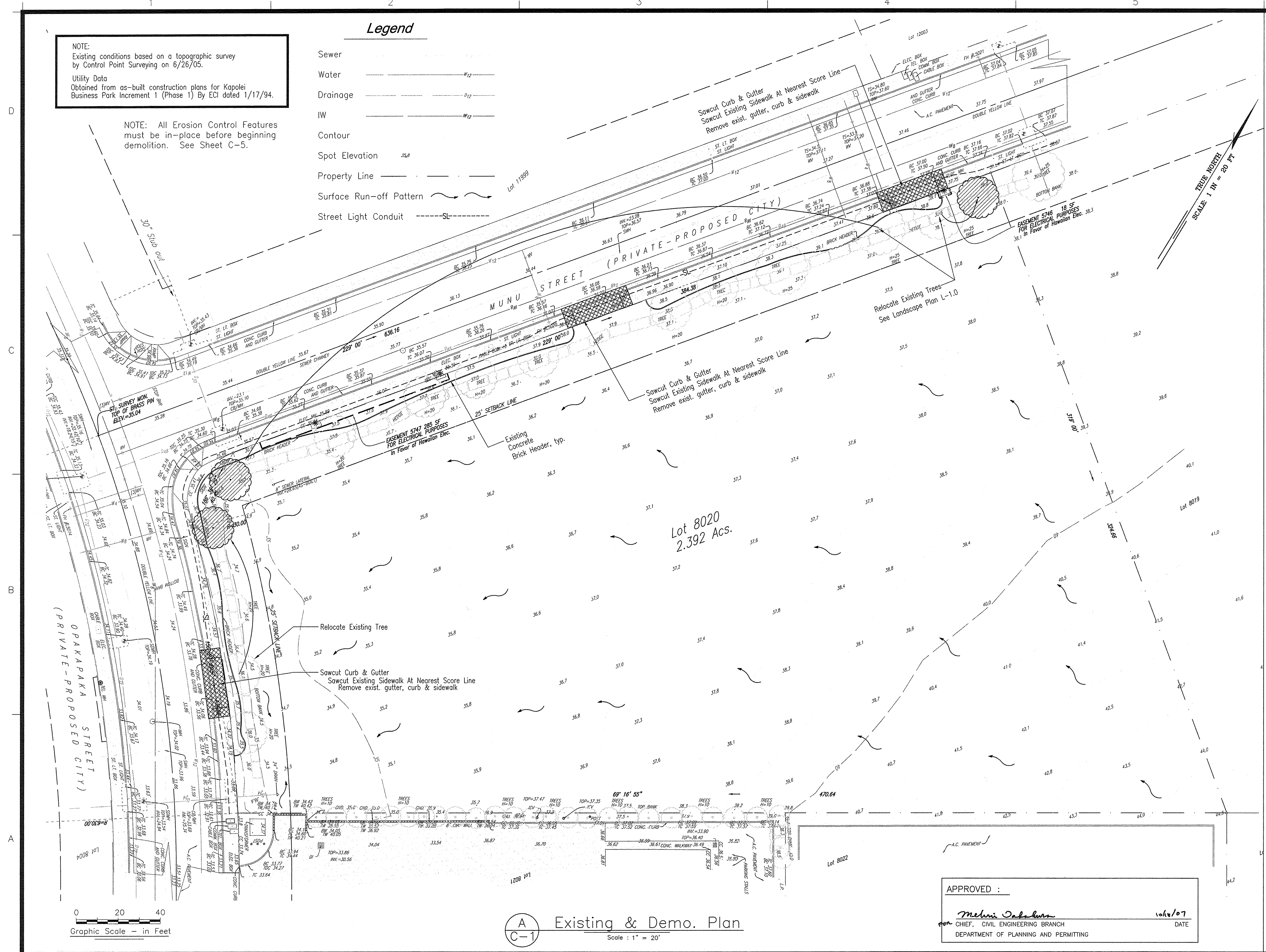
 Utility Data Obtained from as-built construction plans for Kapolei Business Park Increment 1 (Phase 1) By ECI dated 1/17/94.

NOTE: All Erosion Control Features must be in-place before beginning demolition. See Sheet C-5.

- Legend**
- Sewer
 - Water
 - Drainage
 - IW
 - Contour
 - Spot Elevation
 - Property Line
 - Surface Run-off Pattern
 - Street Light Conduit

TRUE NORTH

 SCALE: 1" = 20' FT



0 20 40

 Graphic Scale - in Feet

A

C-1

Existing & Demo. Plan

 Scale: 1" = 20'

APPROVED:

Mehdi Sababheer

 CHIEF, CIVIL ENGINEERING BRANCH

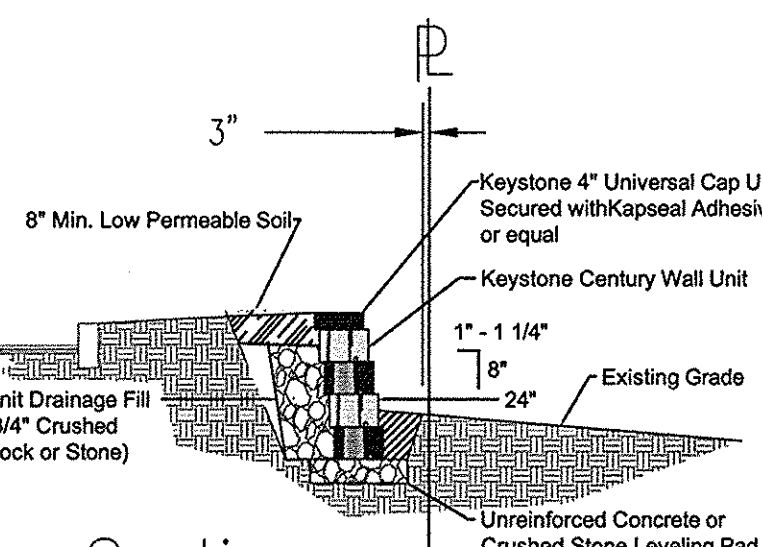
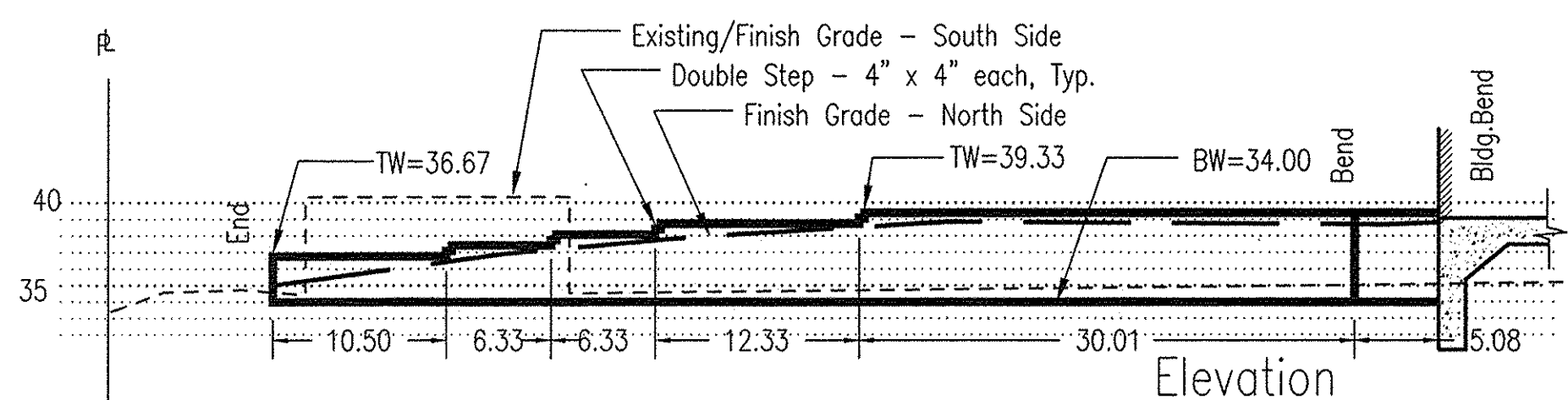
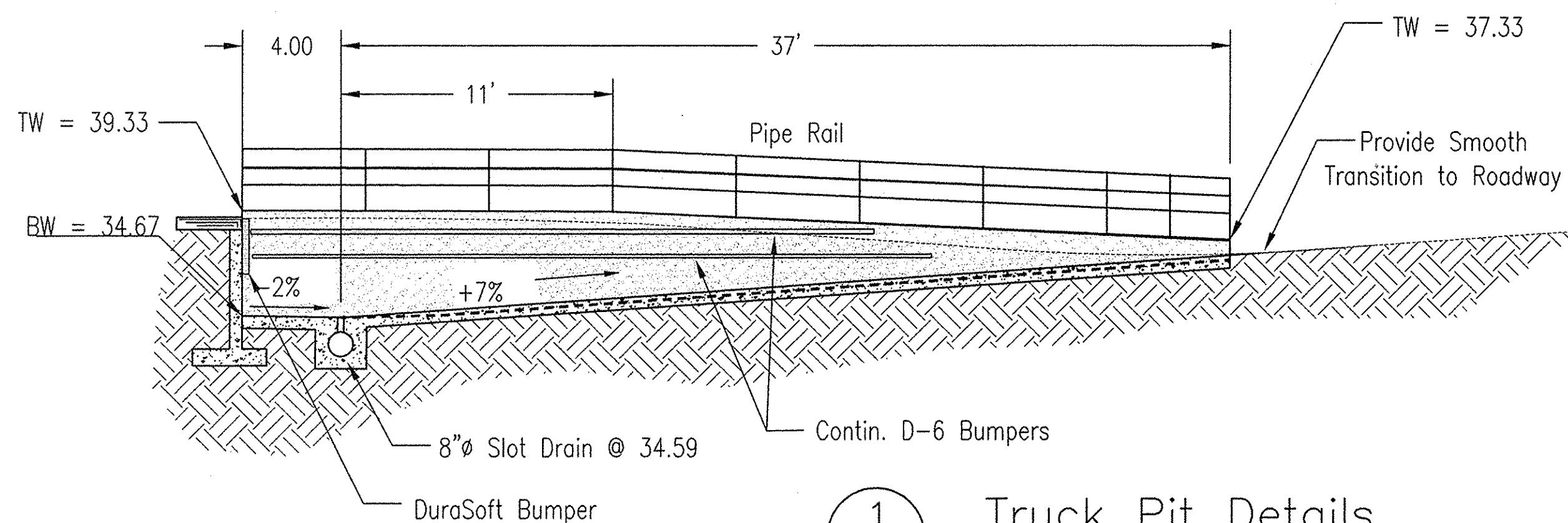
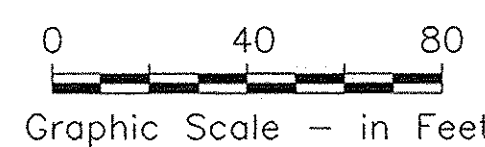
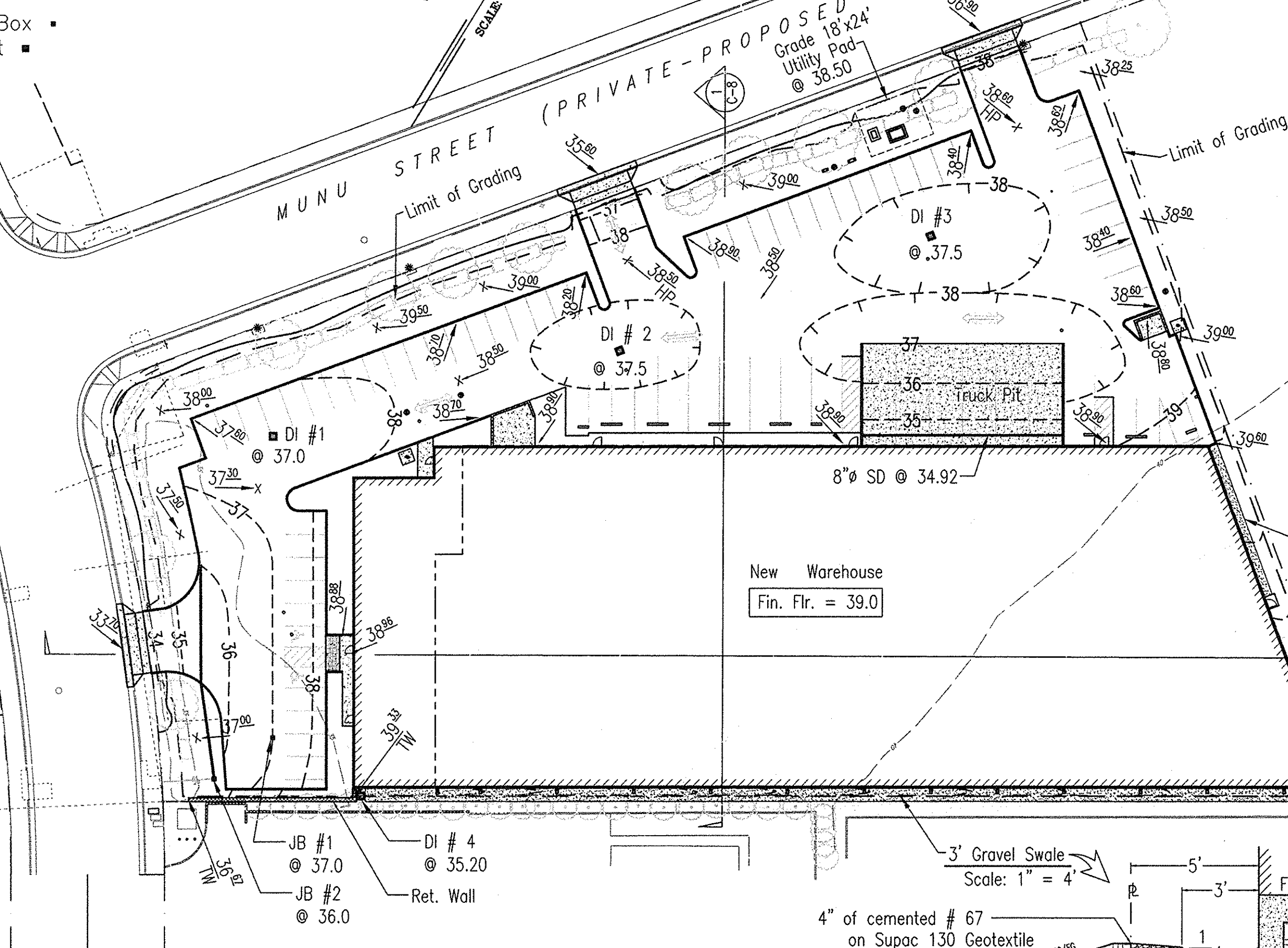
 DEPARTMENT OF PLANNING AND PERMITTING

 DATE: 10/10/07

Legend

Existing Proposed

Property Line
Limits of Grading
Contours
Junction Box
Drain Inlet



EARTHWORK QUANTITIES

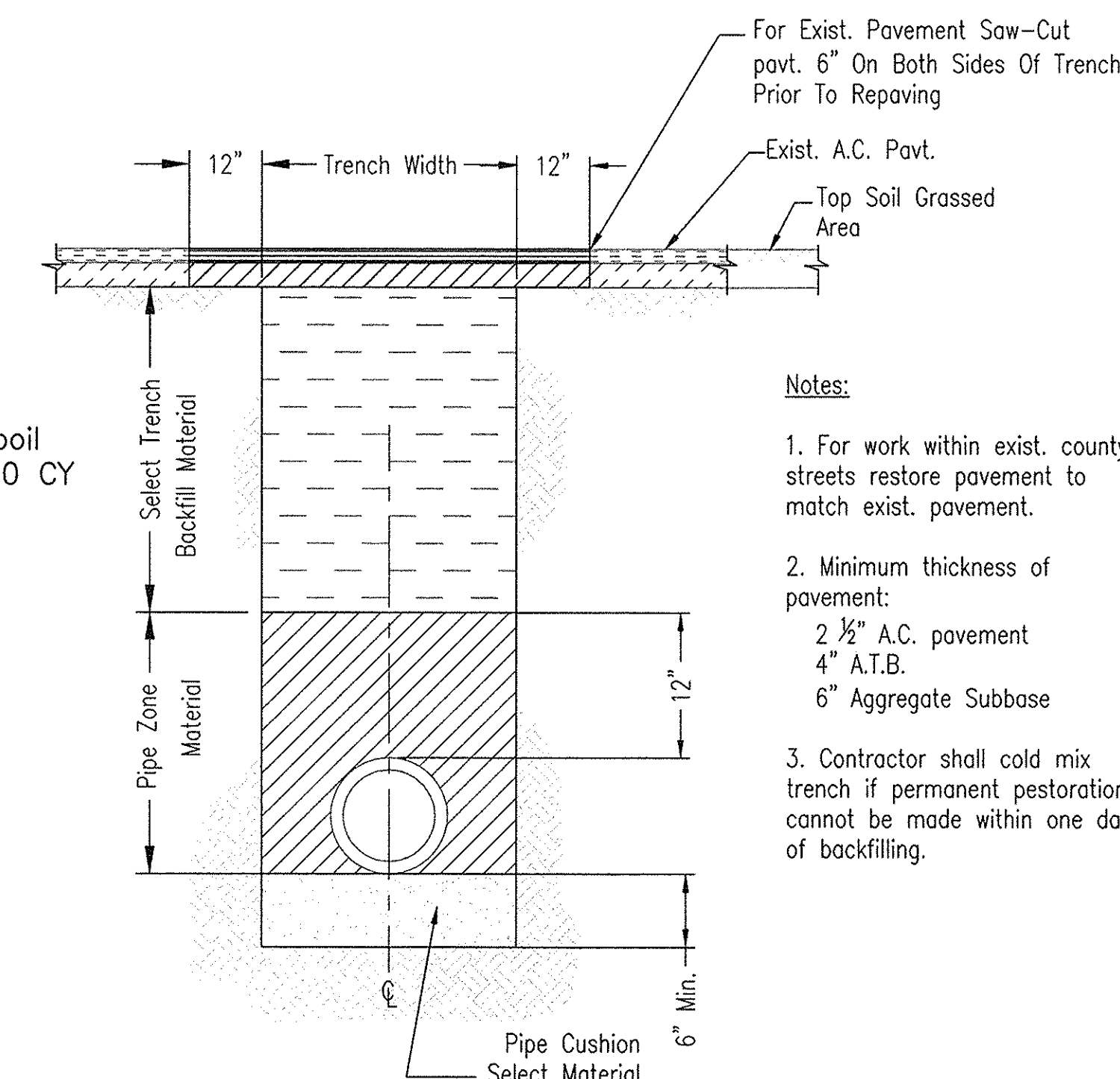
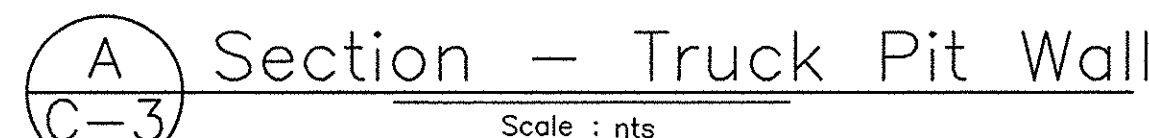
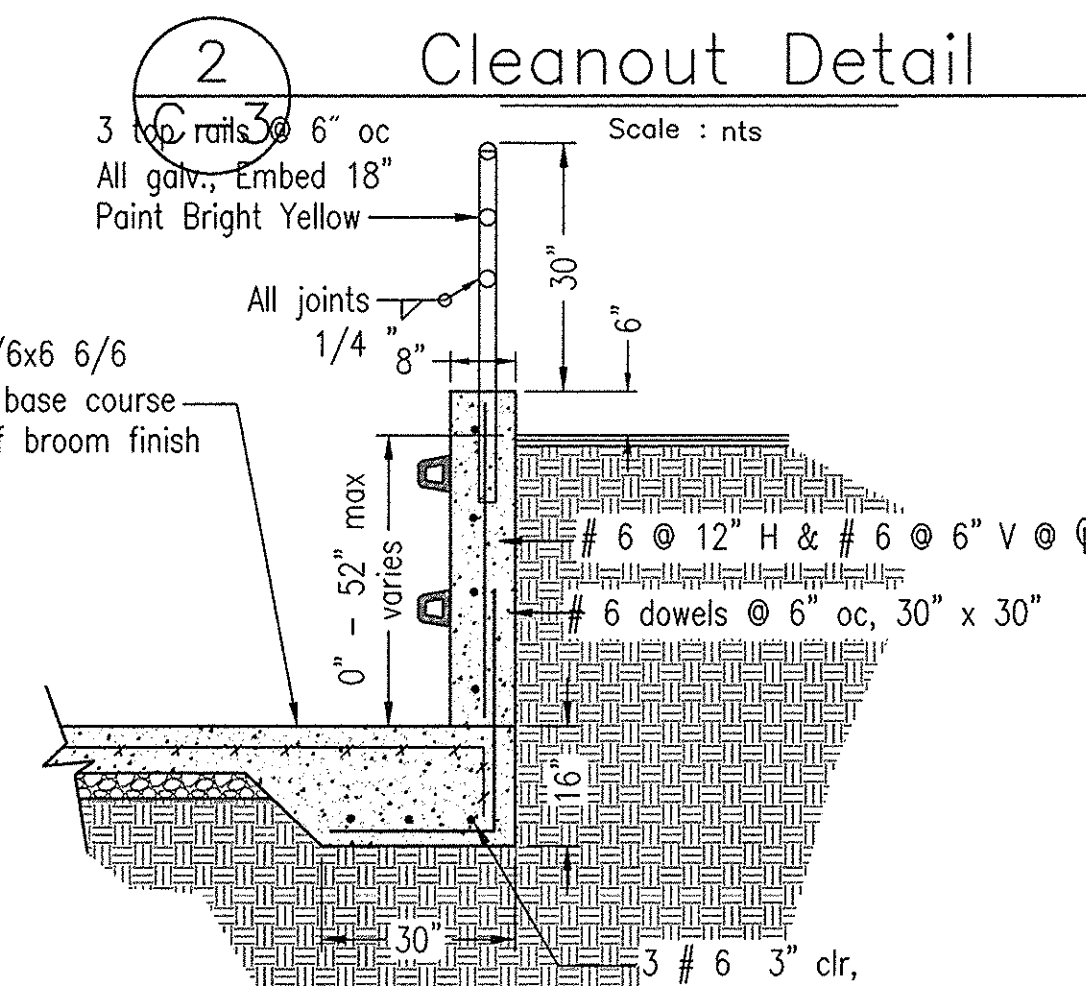
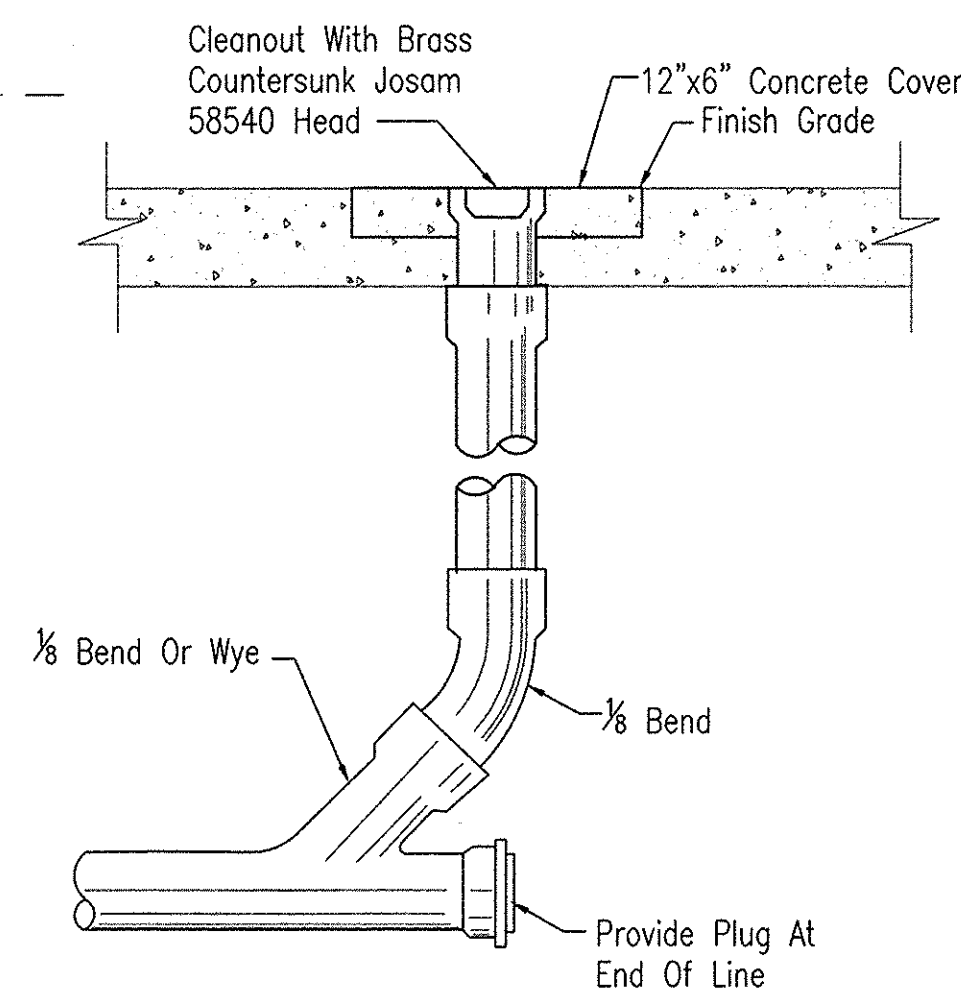
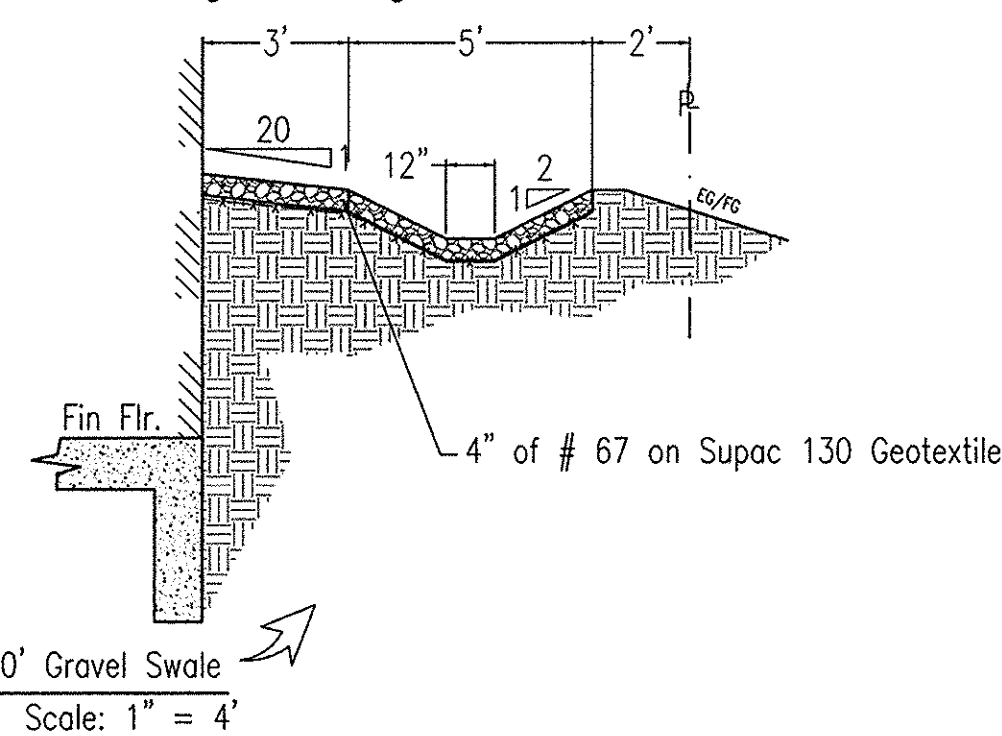
Earthwork quantities shown excludes structural quantities within the building limits and are approximate and for permit purposes only. Contractor to verify.

(Category 4)
Area To Be Graded : 1.26 Acres
(Excluding Building Area)

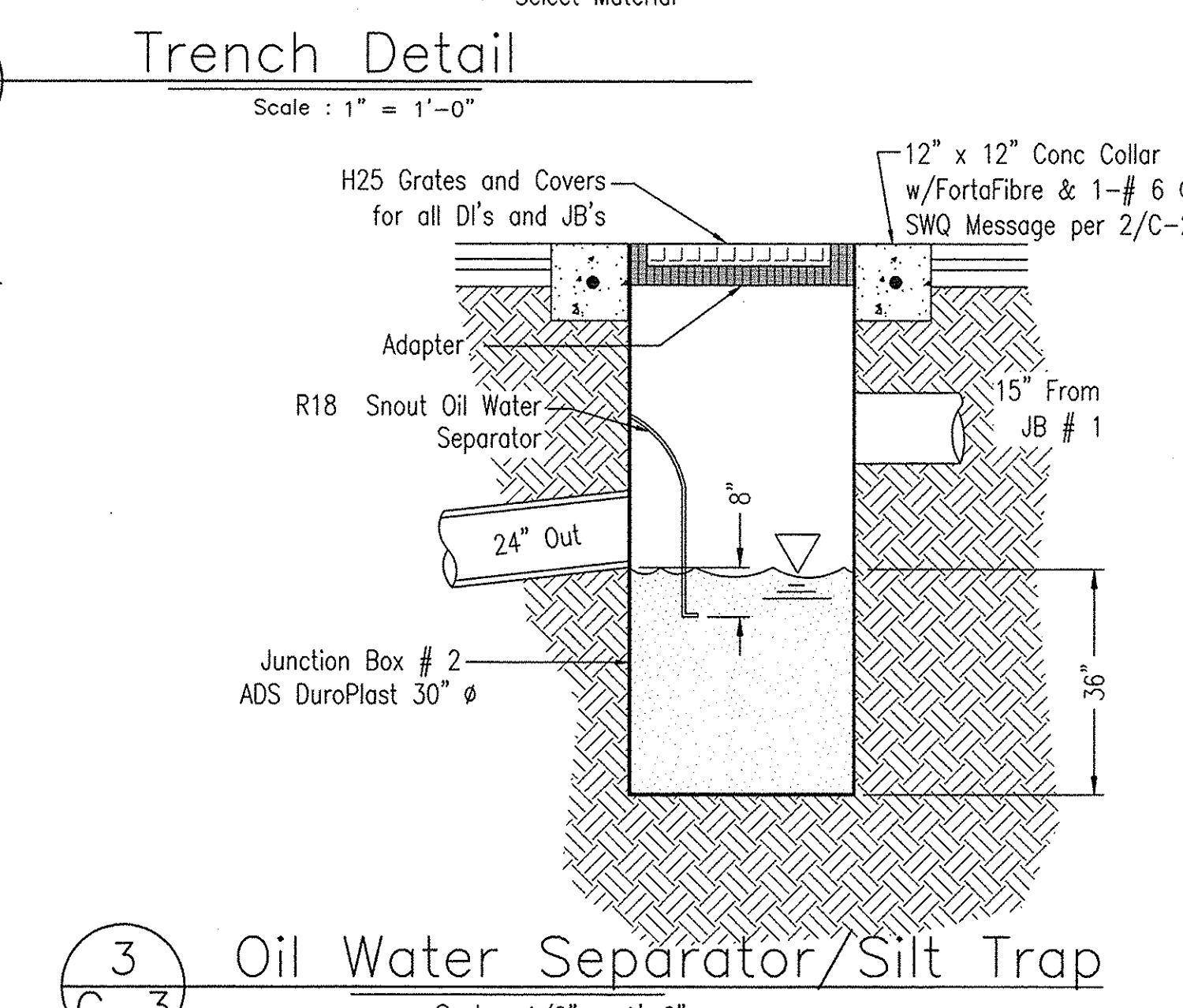
Unclassified Excavation = 750 C.Y.

Embankment = 675 C.Y.

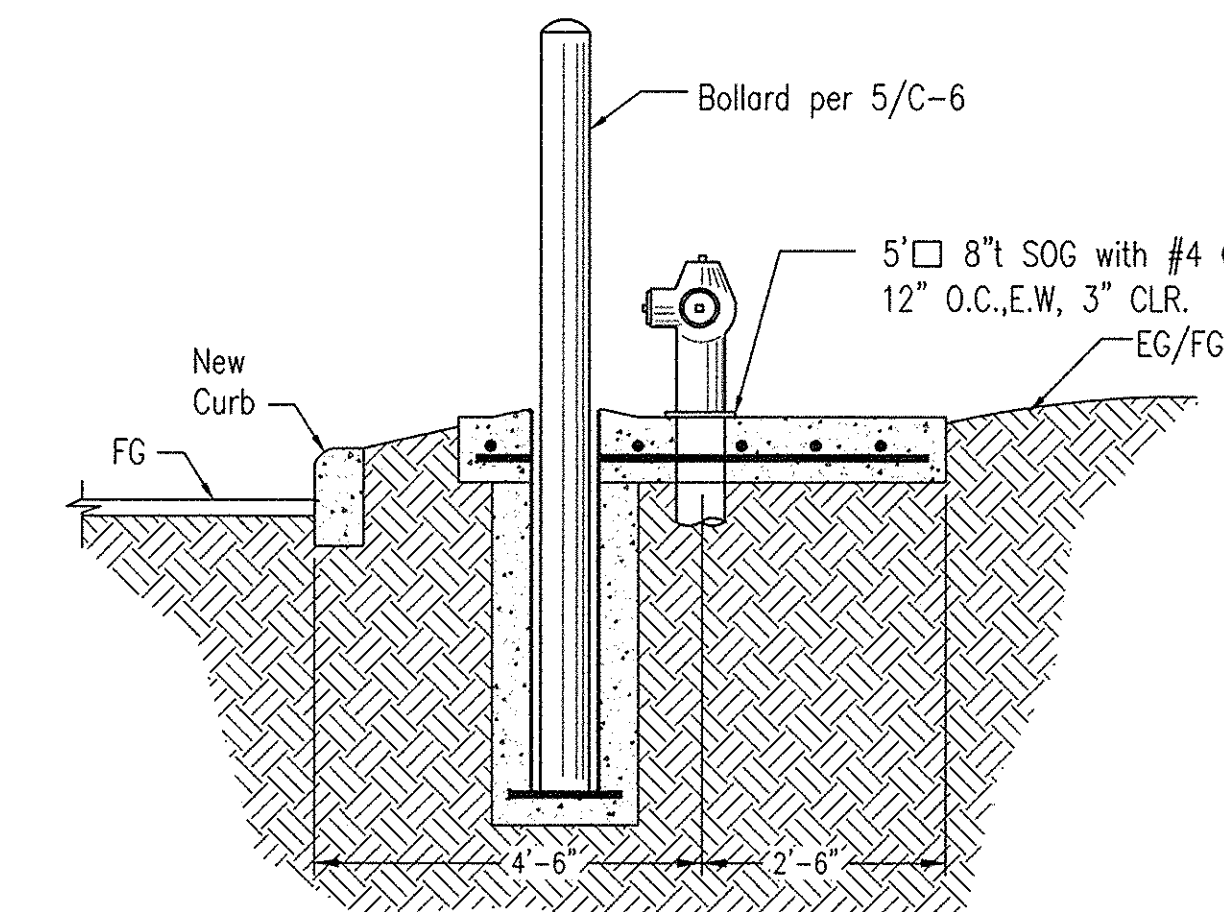
Clear and Grub 6" average depth = 1,900 CY
Clean and re-use with approval of Soil's Engineer. Spoil remaining. Building Cut = 1,650 CY Fill = 1,400 CY



5
C-3



3
C-3

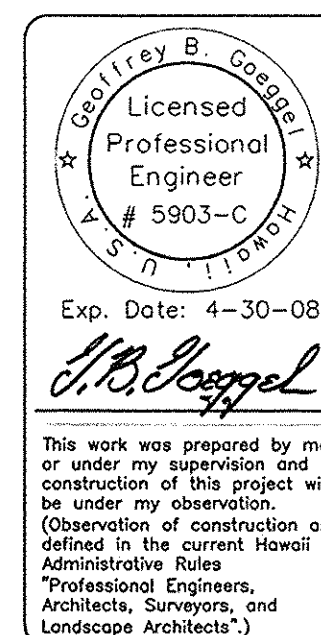


4
C-3

APPROVED (For Grading Only):

Meloni J. J. J.
CHIEF, CIVIL ENGINEERING BRANCH
DEPARTMENT OF PLANNING AND PERMITTING

10/10/07
DATE



REVISIONS	Revised per Architectural Comments	Revised per agency comments	FINALS
1	07/24/07	09/27/07	10/08/07
2			
3			
4			
5			

Rev.	Date	By	Check	Draw	File	Plot
1	3/19/07	gog	gog	gog	gog	gog
2						
3						
4						
5						

Johnson Brothers Warehouse
Grading Plan
1011 Muna Street
Kapolei Business Park, Hawaii, 96707
TMK: 9-1-7525

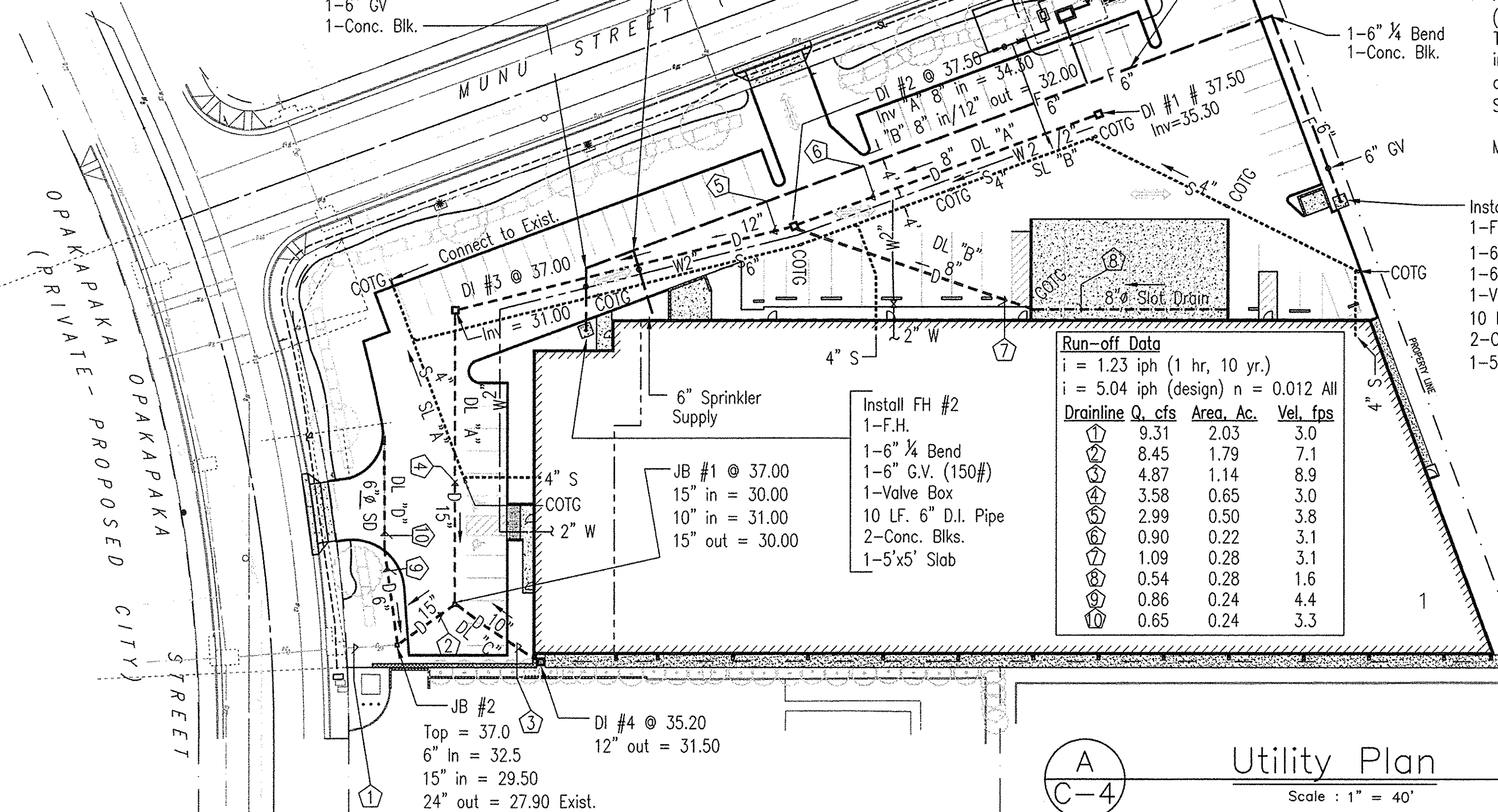
Sheet reference number:
C-3
Sheet 5 of 10

Legend

Sewer S
Water W
Drainage D
Fire F

0 40 80
Graphic Scale - in Feet

1-6" x 6" Tee
1-6" GV
1-Conc. Blk.
1-6" 1/4 Bend
1-6" 1/2 Bend
1-6" Nipple 12" Long
1-6" GV
1-Conc. Blk.



Run-off Data
i = 1.23 iph (1 hr, 10 yr.)
i = 5.04 iph (design) n = 0.012 All

Drainline	Q, cfs	Area, Ac.	Vel, fps
1	9.31	2.03	3.0
2	8.45	1.79	7.1
3	4.87	1.14	8.9
4	3.58	0.65	3.0
5	2.99	0.50	3.8
6	0.90	0.22	3.1
7	1.09	0.28	3.1
8	0.54	0.28	1.6
9	0.86	0.24	4.4
10	0.65	0.24	3.3

Install FH #2
1-F.H.
1-6" 1/4 Bend
1-6" G.V. (150#)
1-Valve Box
10 LF. 6" D.I. Pipe
2-Conc. Blks.
1-5'x5' Slab

JB #1 @ 37.00
15" in = 30.00
10" in = 31.00
15" out = 30.00

JB #2
Top = 37.0
6" in = 32.5
15" in = 29.50
24" out = 27.90 Exist.

Utility Plan

Scale: 1" = 40'

FIRE NOTES

The fire hydrant(s) shall have a fire flow of 2000 gpm's for a duration of 2 hours at 20 psi residual pressure. (1997 UFC, Section 903.4.2 as amended and BWS Water System Standards).

The fire hydrant system shall be installed and made serviceable prior to and during the time of construction. (1997 UFC, Section 901.3).

Provide an acceptance test for the fire hydrant system after installation is complete. (1997 UFC, Section 1001.4 as amended) The fire apparatus access roads shall be installed and made serviceable prior to and during the time of construction. (1997 UFC, Section 901.3)

Mark Fire Lanes.....
12" Yellow Letters
& 6" Yellow Line
11' FIRE LANE
DO NOT BLOCK

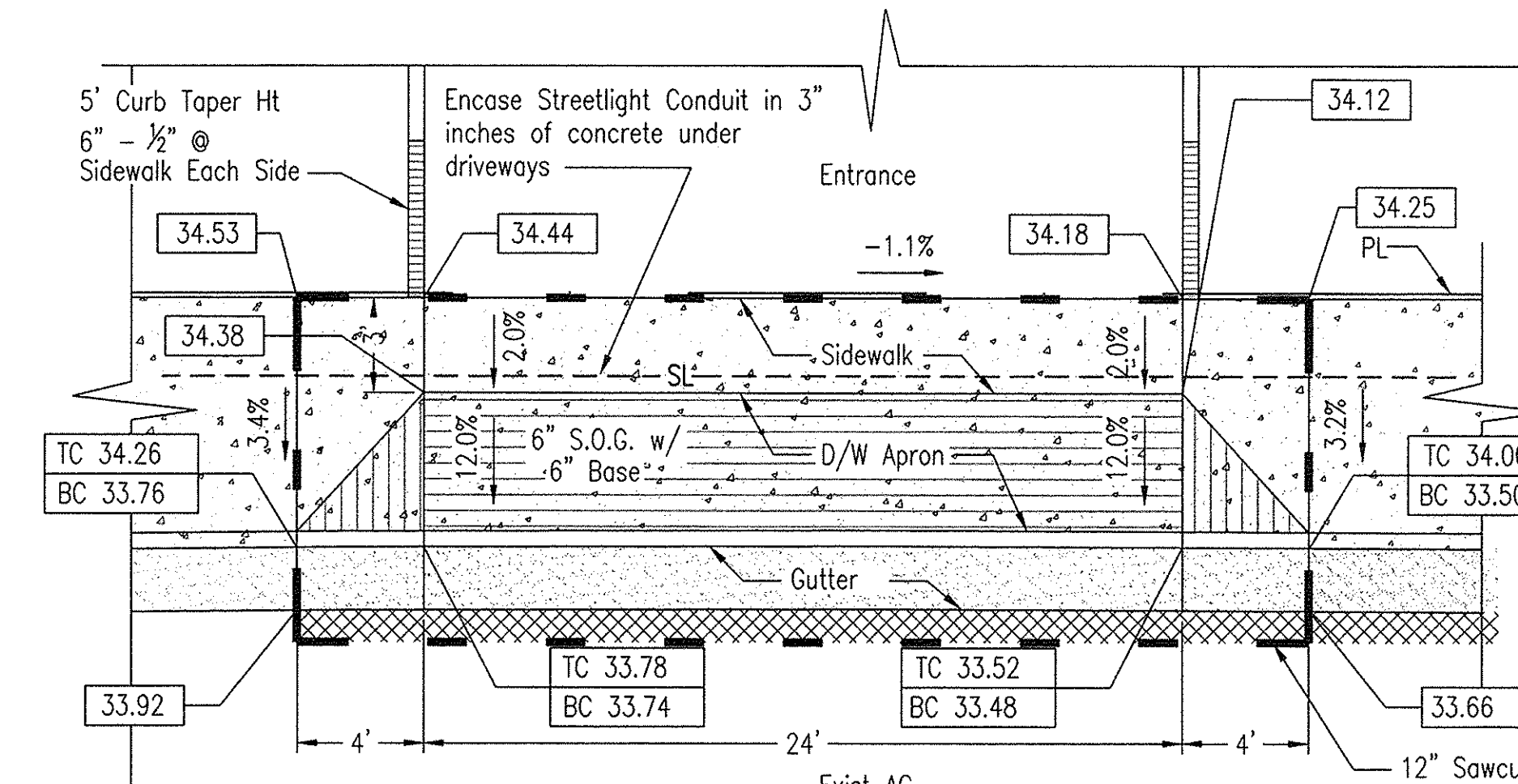
Install FH #1
1-F.H.
1-6" 1/4 Bend
1-6" G.V. (150#)
1-Valve Box
10 LF. 6" D.I. Pipe
2-Conc. Blks.
1-5'x5' Slab

Inlet Data

Structure	Q, cfs	Area, Ac.
DI 1	0.90	0.22
DI 2	1.00	0.25
DI 3	0.59	0.15
DI 4	4.87	1.14
SD B	1.09	0.28
SD D	0.86	0.24

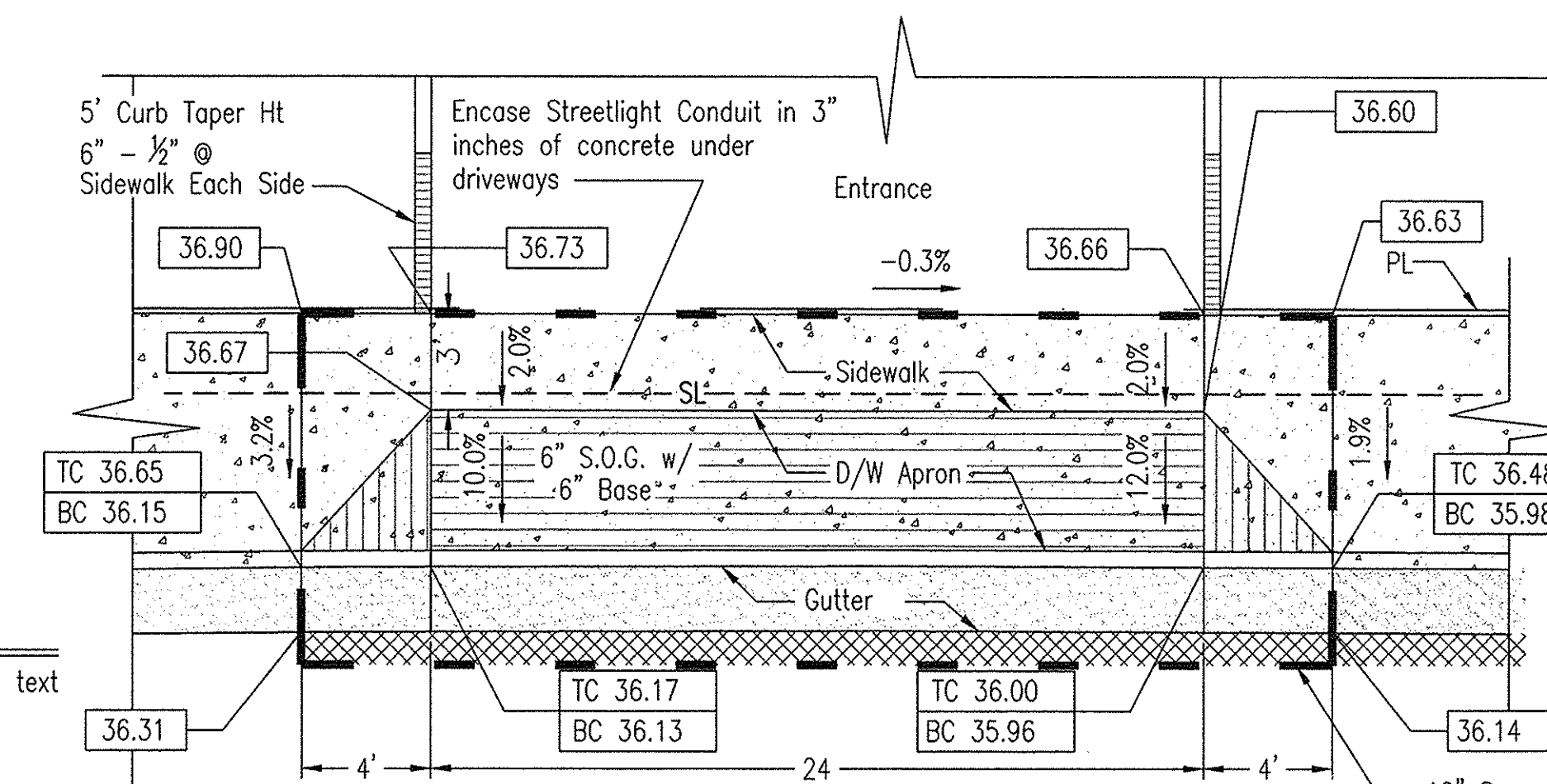
SWQ Messages

Mark all drainage structures with caution text to avoid ocean contamination per Detail C/C-2.



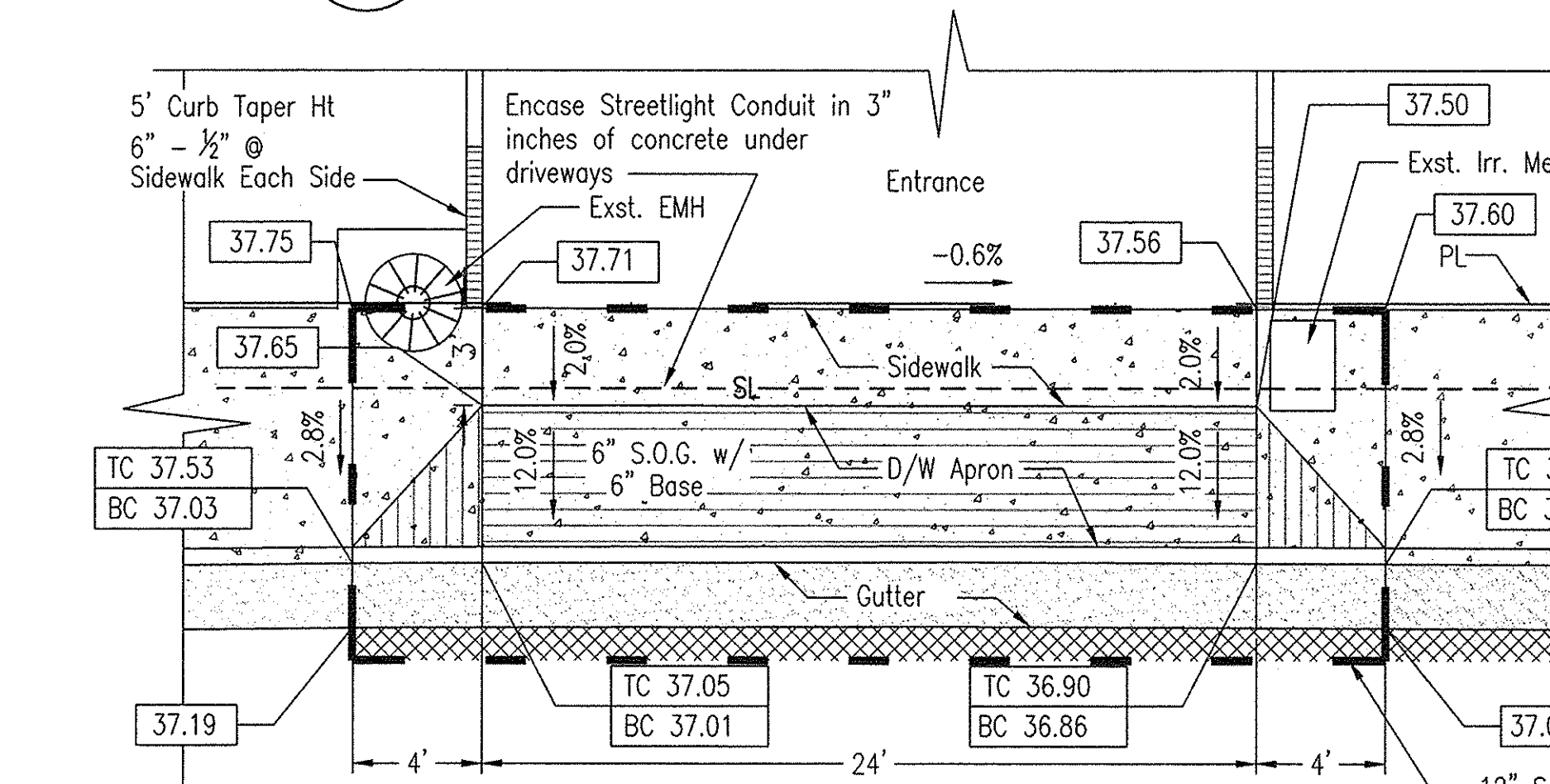
Driveway #1 Plan

Scale: 1" = 5'



Driveway #2 Plan

Scale: 1" = 5'



Driveway #3 Plan

Scale: 1" = 5'

NOTE: For all new driveways, follow C&C Standard Details for curb and gutters R-4 Revised, for driveway R-29A, for sidewalks R-28.

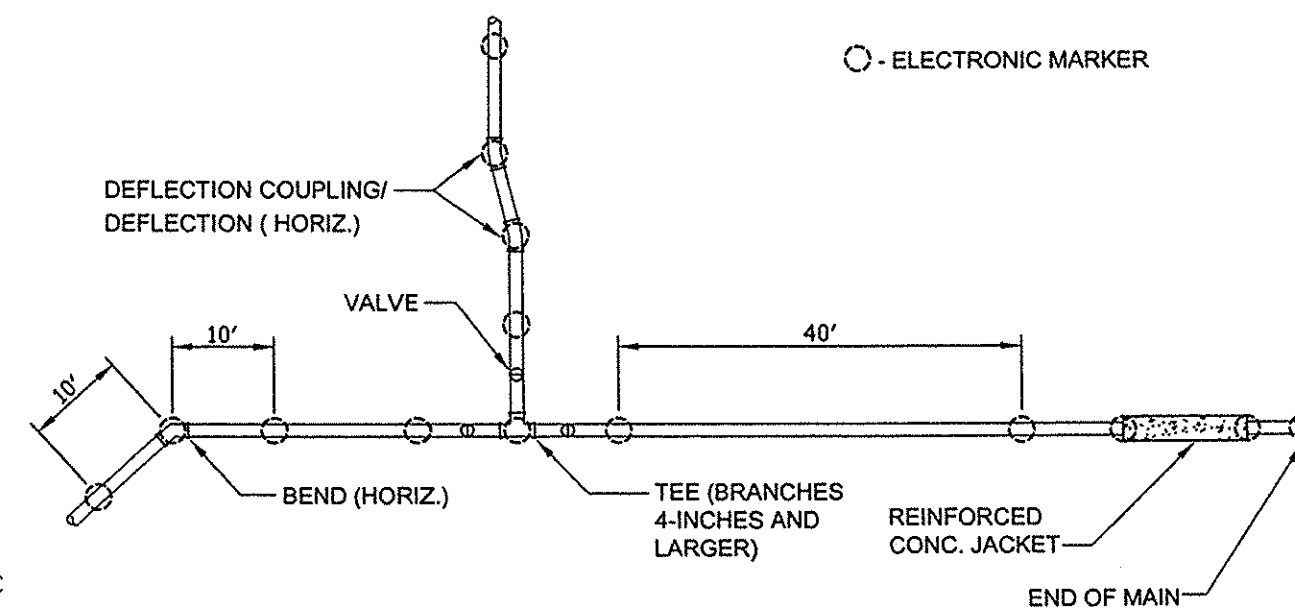
Post Construction

Best Management Practice (BMP)

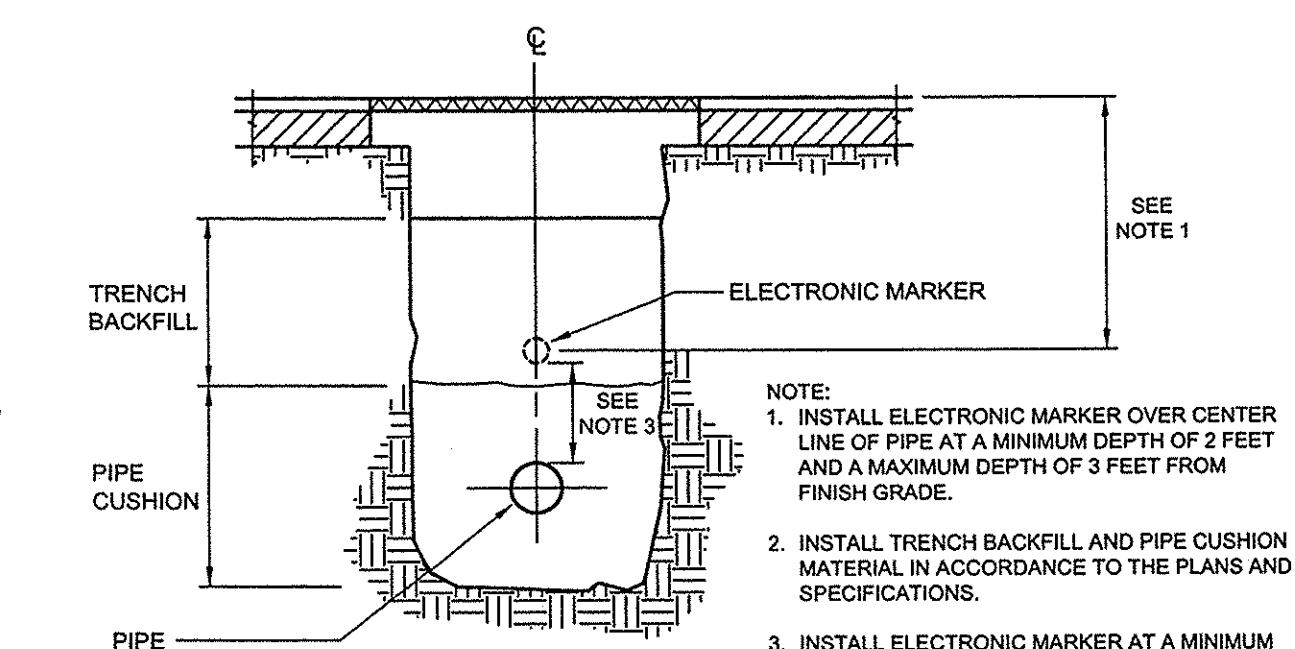
1. Maintain a 55 gallon barrel on-site with oil and chemical absorbent rags.
2. Immediately clean up and oil and chemical spills on the pavement areas with the spill control rags. Dispose of soiled rags per State regulations.
3. Remove oil film in the Oil Water Separator at Junction Box # 1. Remove debris at bottom of JB box.
4. Gravel swales will capture and filter pollutants from roof drains.

APPROVED :

Robert Chun 10/25/07
CHIEF, CAPITAL PROJECTS DIVISION
BOARD OF WATER SUPPLY
FIRE CHIEF
HONOLULU FIRE DEPARTMENT
Mehomi Oshimura 10/25/07
CHIEF, CIVIL ENGINEERING BRANCH
DEPARTMENT OF PLANNING AND PERMITTING



PLAN VIEW



SECTION VIEW

Water Lines Marker

Scale: nts

Connect to Ex. 8" W
Remove Ex. Cap & CO
Materials for Connection
1 - 8" Sleeve, 12" Long
4 LF 8" DI Pipe, CL 52

Temp for Testing
1 - 8" Cap w/ 2 1/2" CO
1 - Conc. Blk.

1- Type "E" Lateral
1-1" Meter in Type III MB
Contractor to install Type "E"
Lateral, blind meter splice
length to accommodate a 1"
meter w/ provisions for
future 2" meter and all
appurtenances in accordance
with BWS Std. BWS to remove
splice and install 1" meter
after water service is applied
and paid for. Provide 12"
Wide x 4" Thick Conc. Slab
around MB.

1" reduced pressure
backflow preventer and 1 1/2"
Valve

Existing Irrigation Source
is not Active. When it
Becomes an Active
Source, Remove Irrigation
Valve, BFP, and Cut &
Plug Line

Install 2 1/2" BWS approved reduced pressure
backflow preventer assembly, per BWS Std. Det V9

Utility Detail Plan

Scale: 1" = 10'

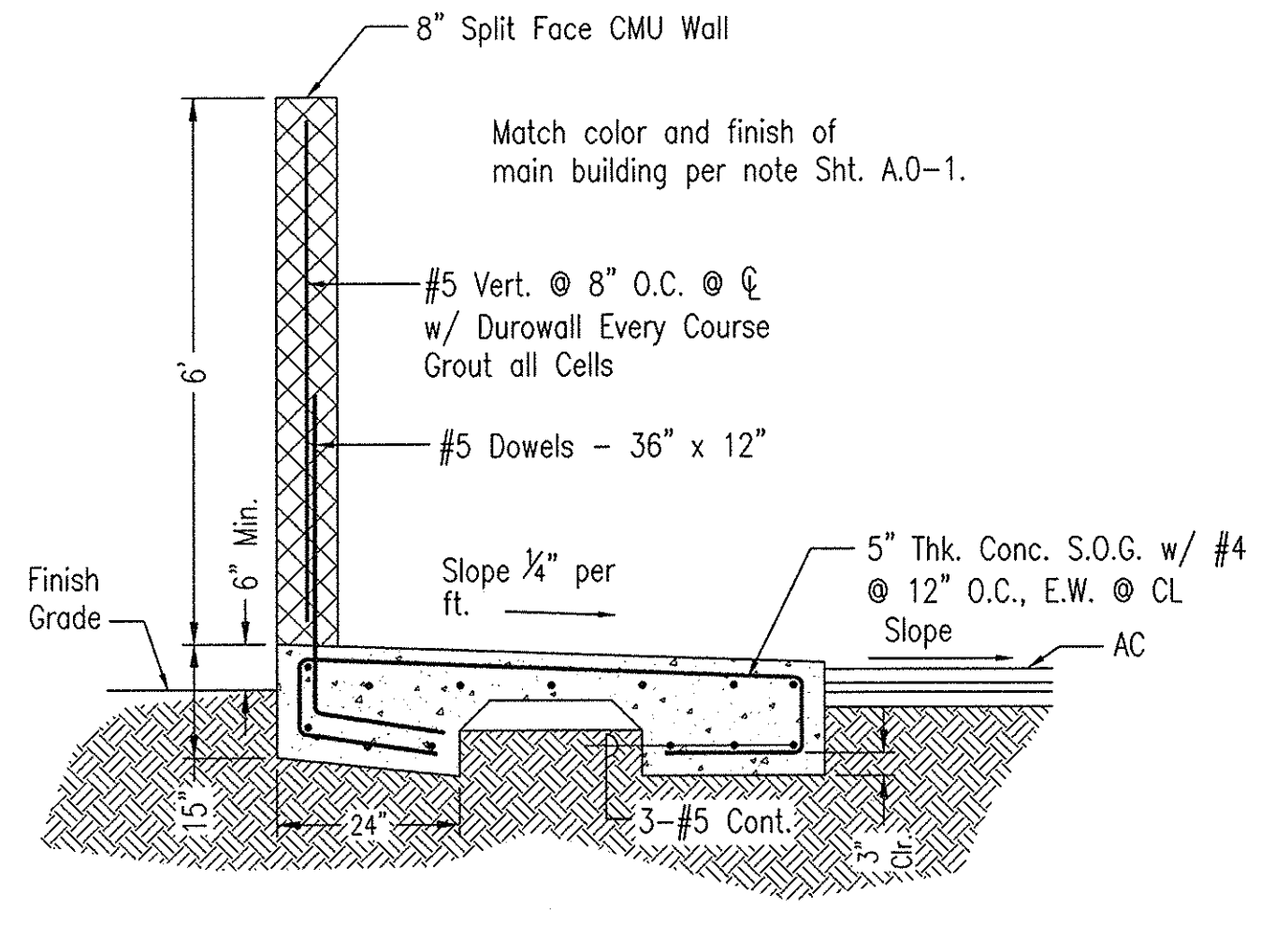
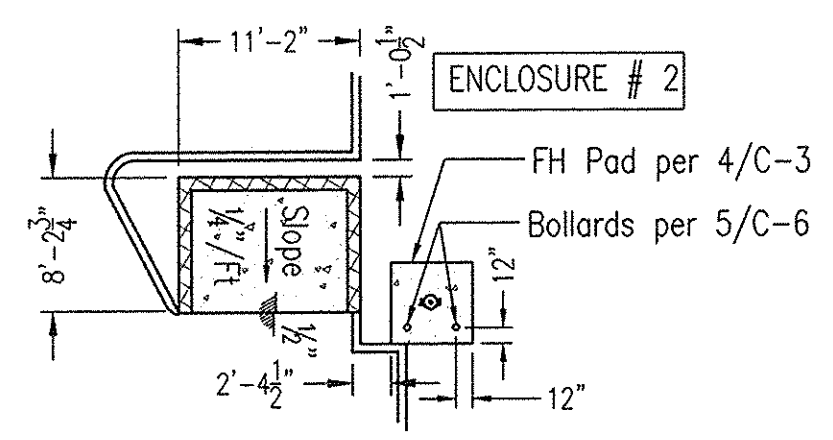
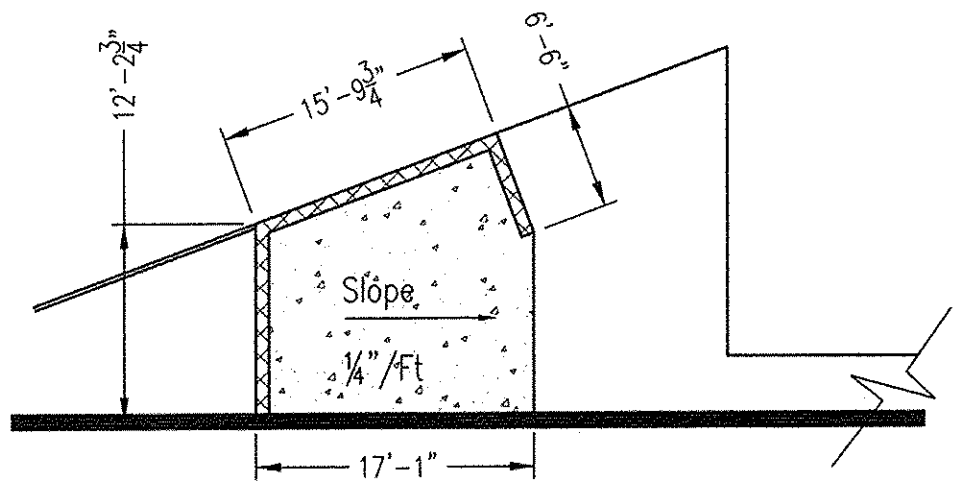
Geoffrey B. Goggin
Licensed Professional Engineer
5903-C
Exp. Date: 4-30-08
This work was prepared by me or under my supervision and construction of this project will be under my observation. (Observation of construction as defined in the current Hawaii Administrative Rules "Professional Engineers, Architects, Surveyors, and Landscape Architects")

REVISED	Revised per Architectural Comments	Revised per agency comments	FINALS	Mark	Description	Date	Appr.
1						07/24/07	
2						09/27/07	
3						10/08/07	

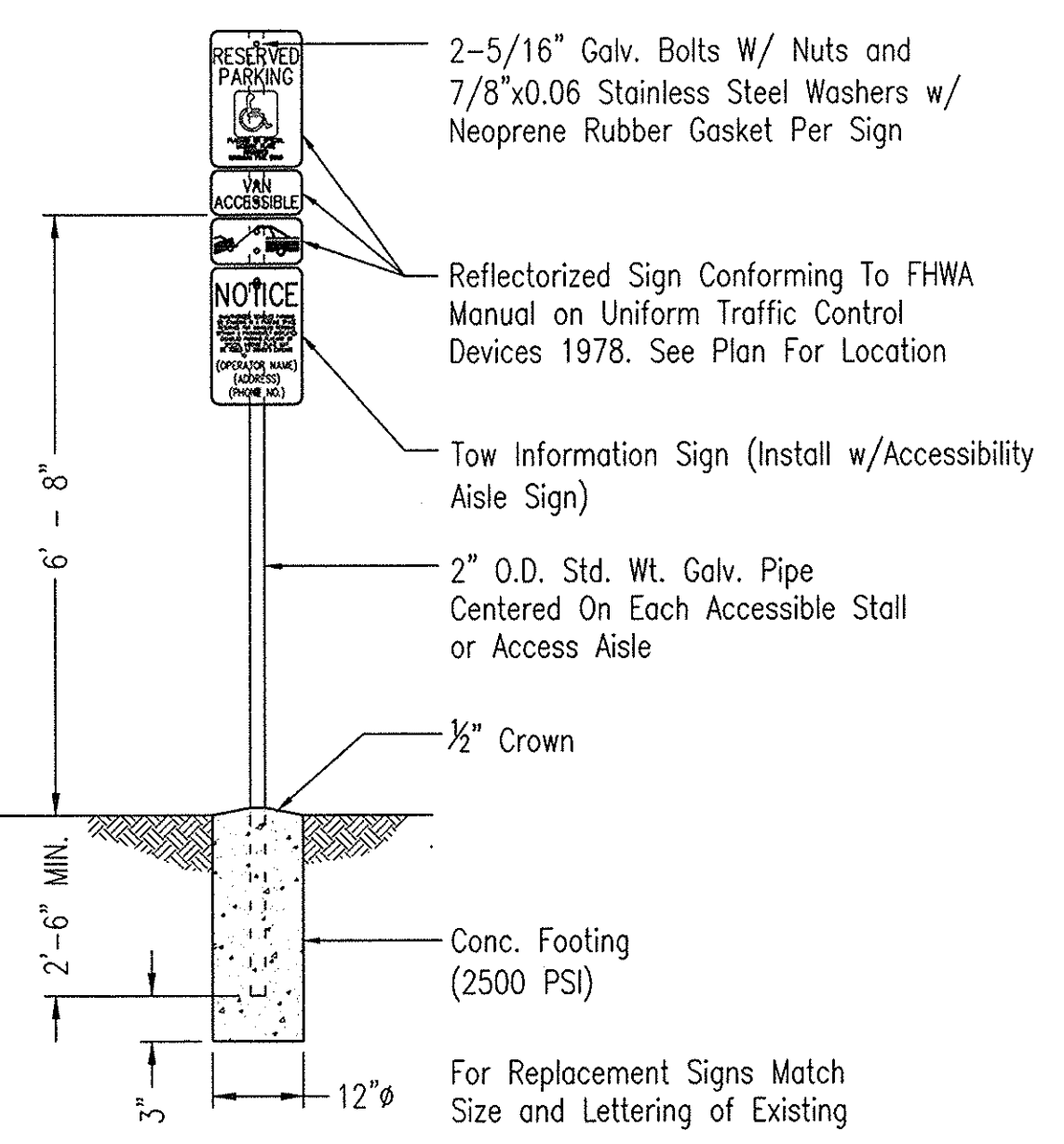
Hawaii Consulting Group
98-711 Iho Pl. # 3-903
Aiea, HI, 96701
tel: 808-371-9695
email: geoff@hwaiconsultinggroup.net
website: http://hwaicons.net/
Designed by: gbg
Dwn by: gbg
Reviewed by: gbg
Submitted by: gbg
Chief, Arch. Branch

Johnson Brothers Warehouse
Utility Plan
1011 Munu Street
Kapolei Business Park, Hawaii, 96707
TMK: 9-1-75:25

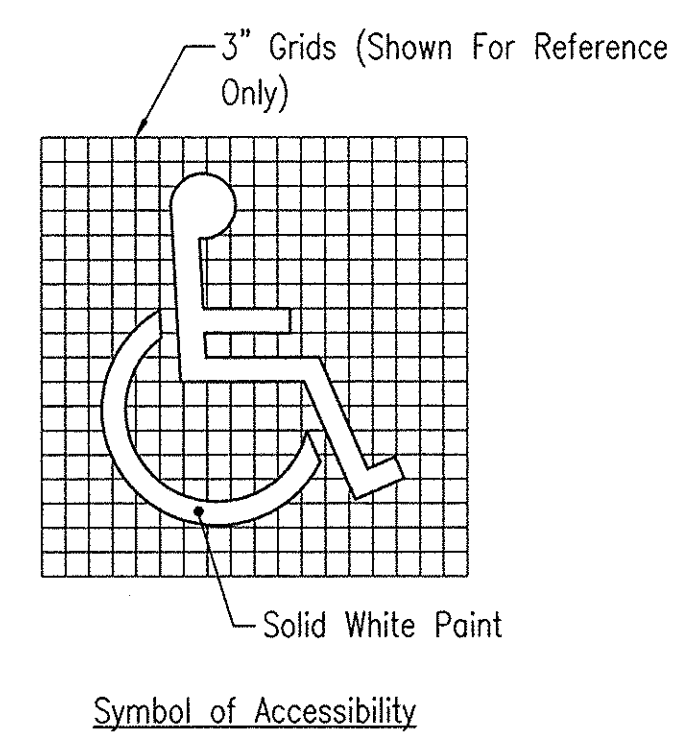
Sheet reference number:
C-4
Sheet 6 of 10



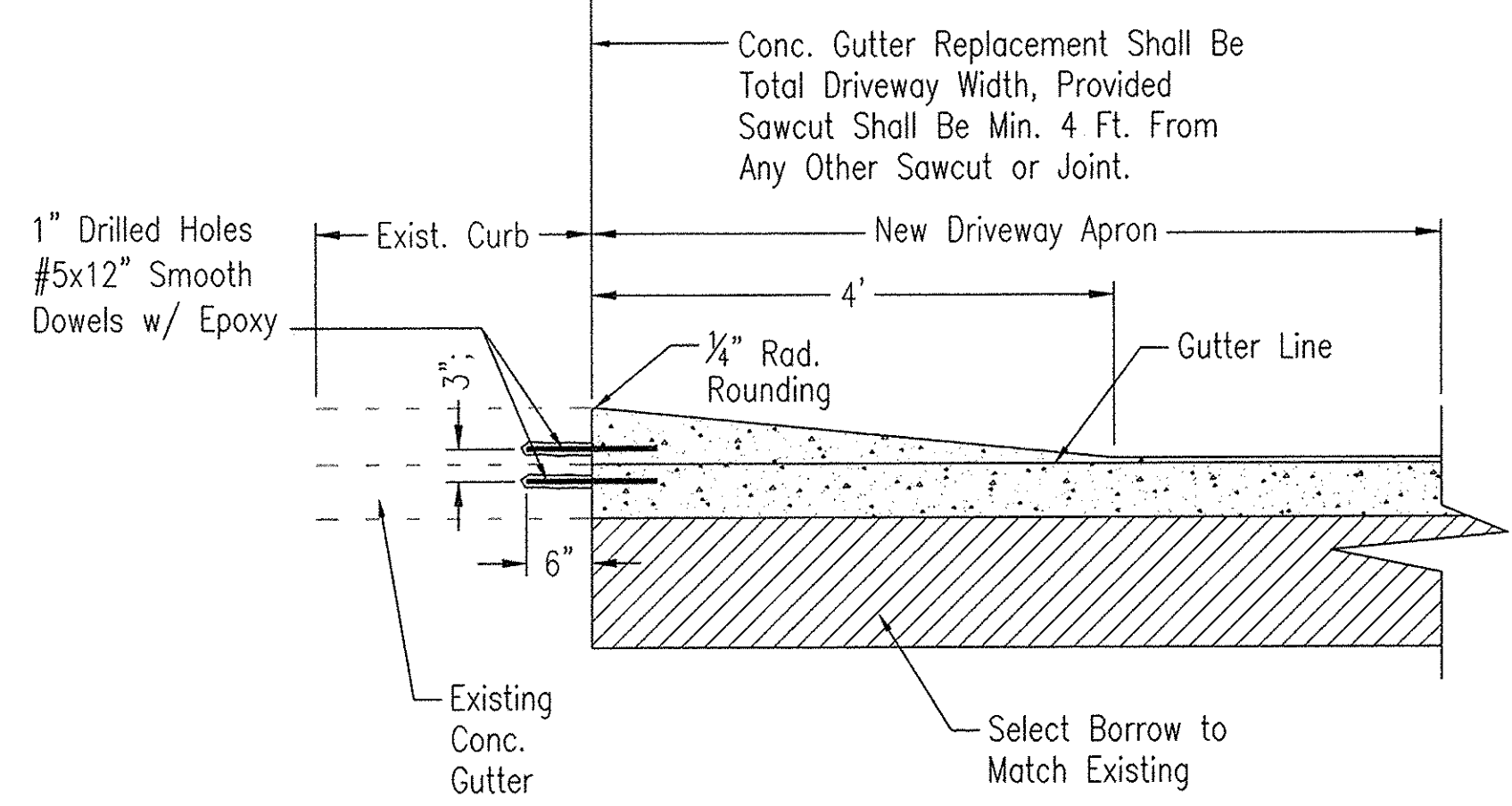
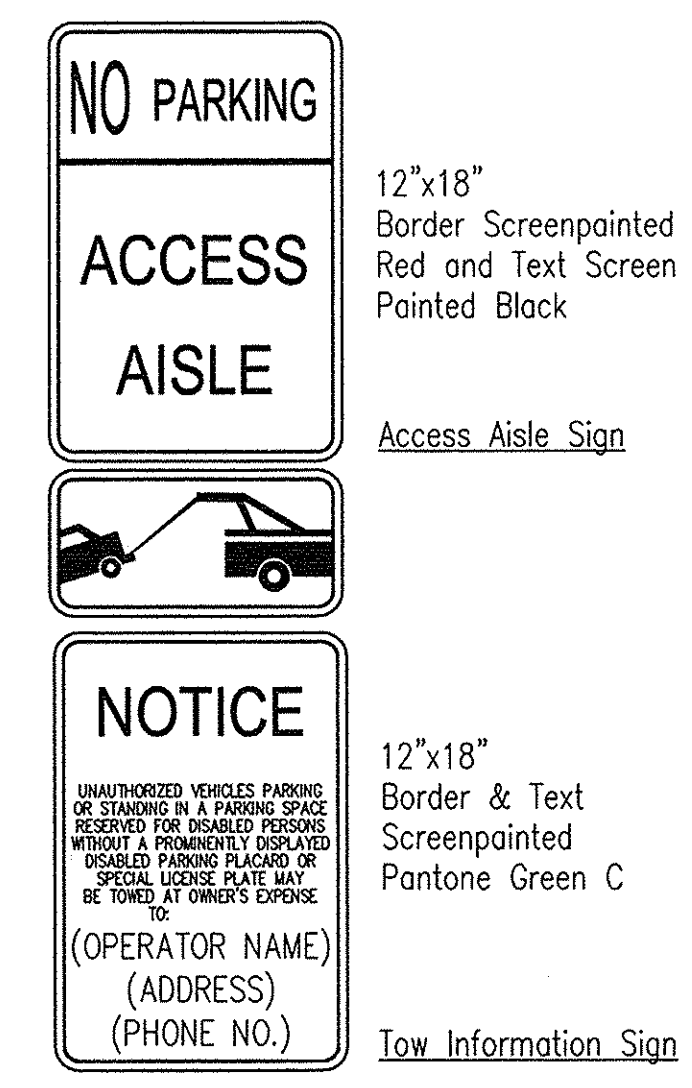
7 Trash Enclosure Detail
Scale: 1/2" = 1'-0"



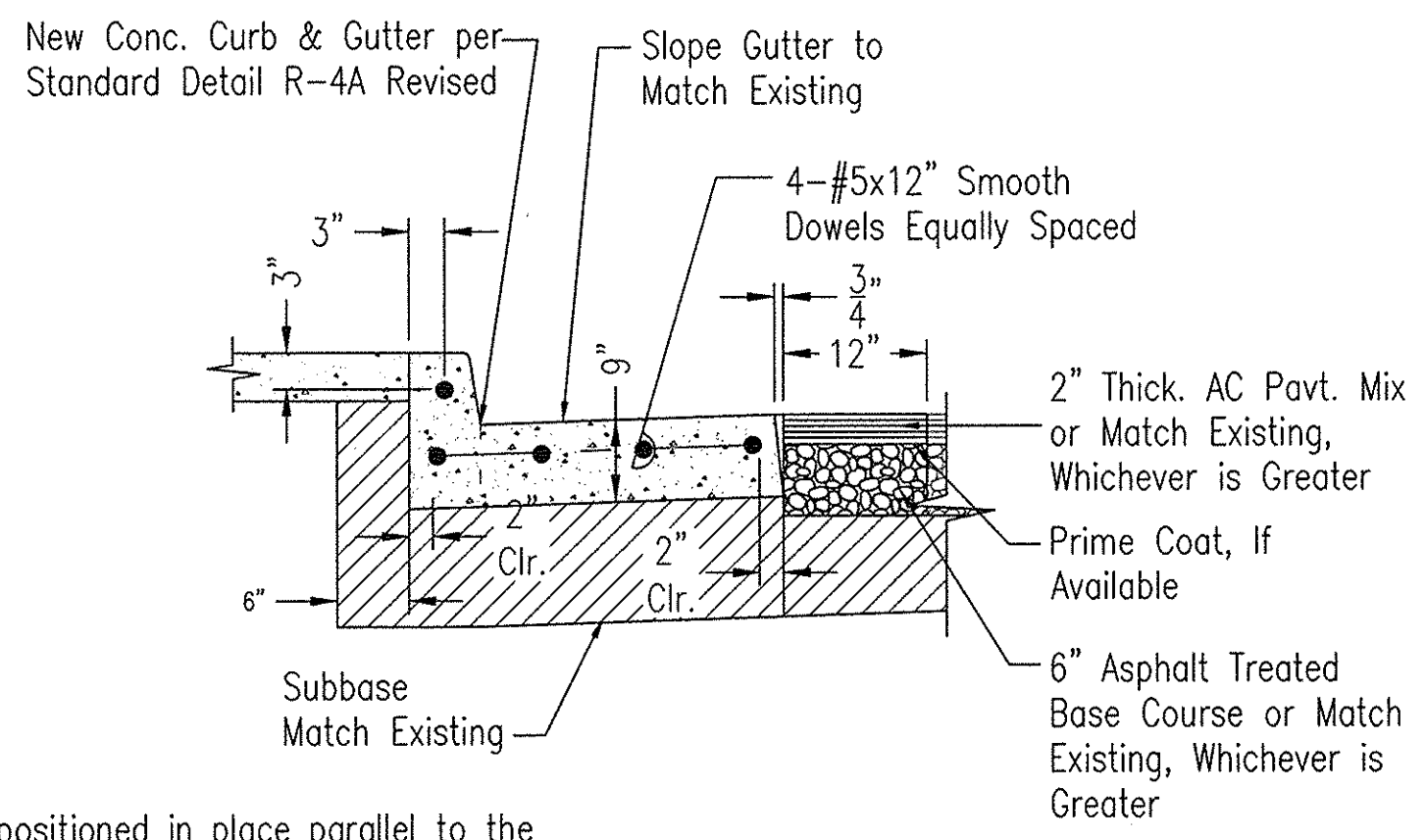
3 Sign & Posts Details
Scale: nts



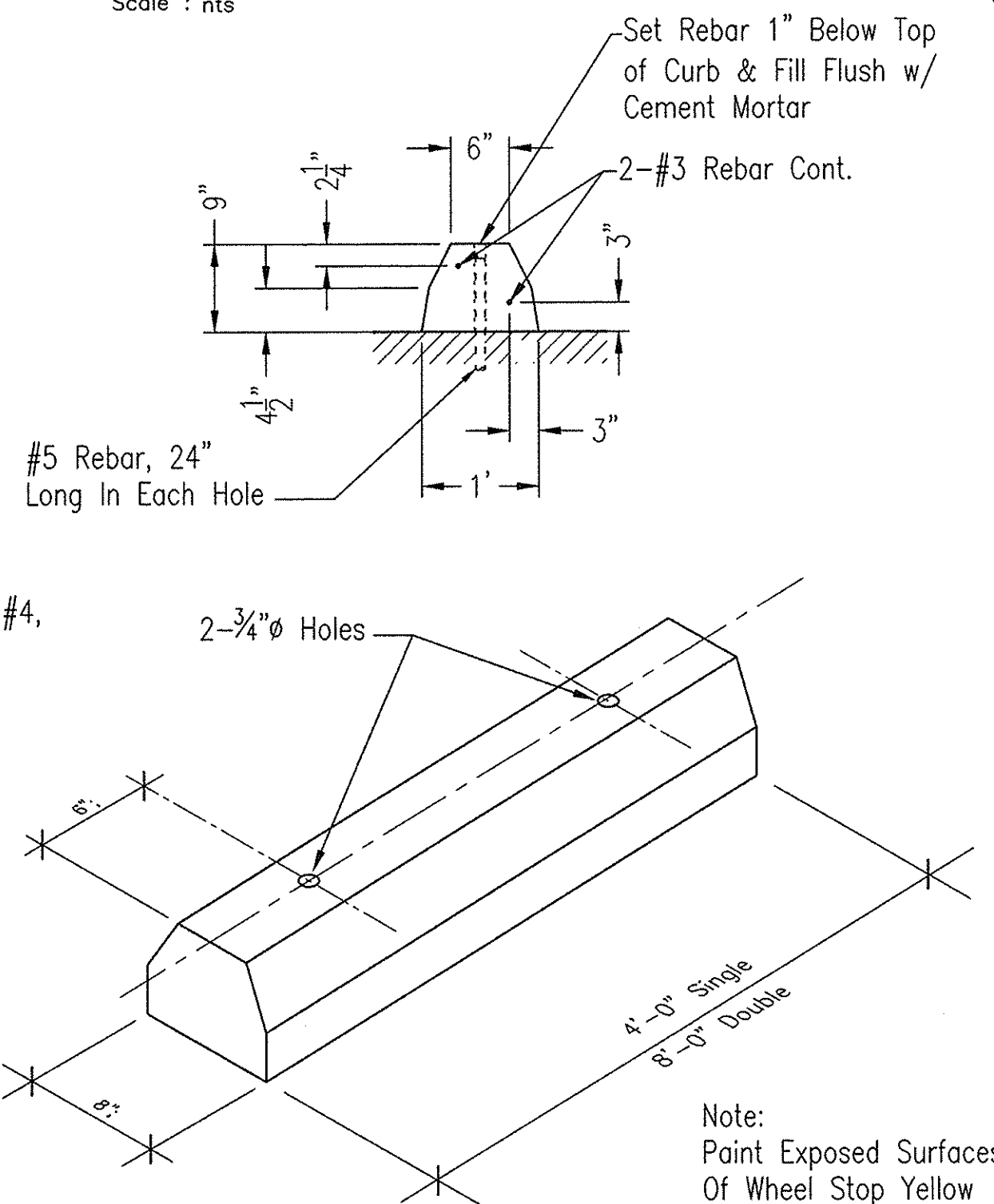
4 HC Sign Details
Scale: nts



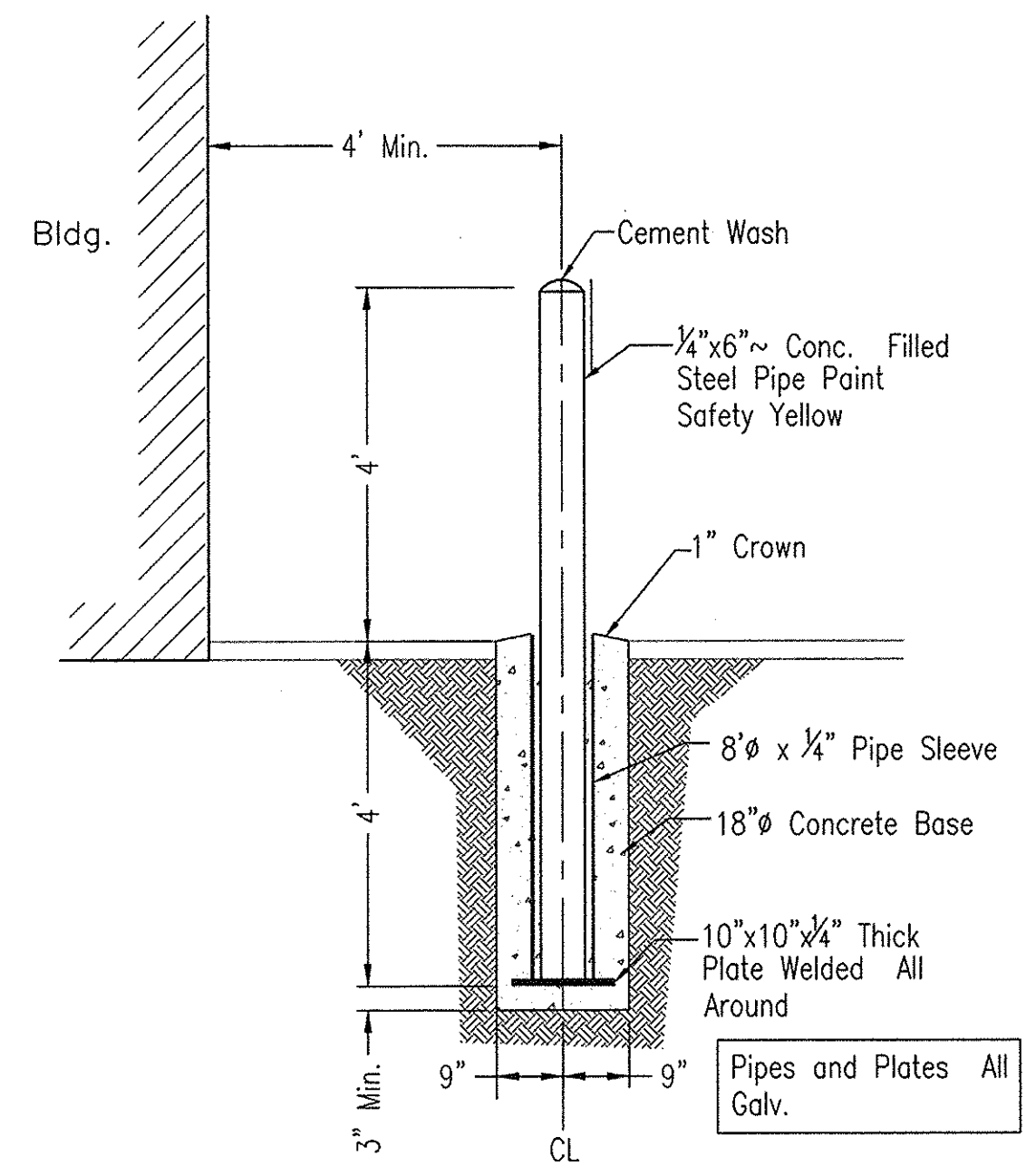
Section "A"
Scale: 3/4" = 1'-0"



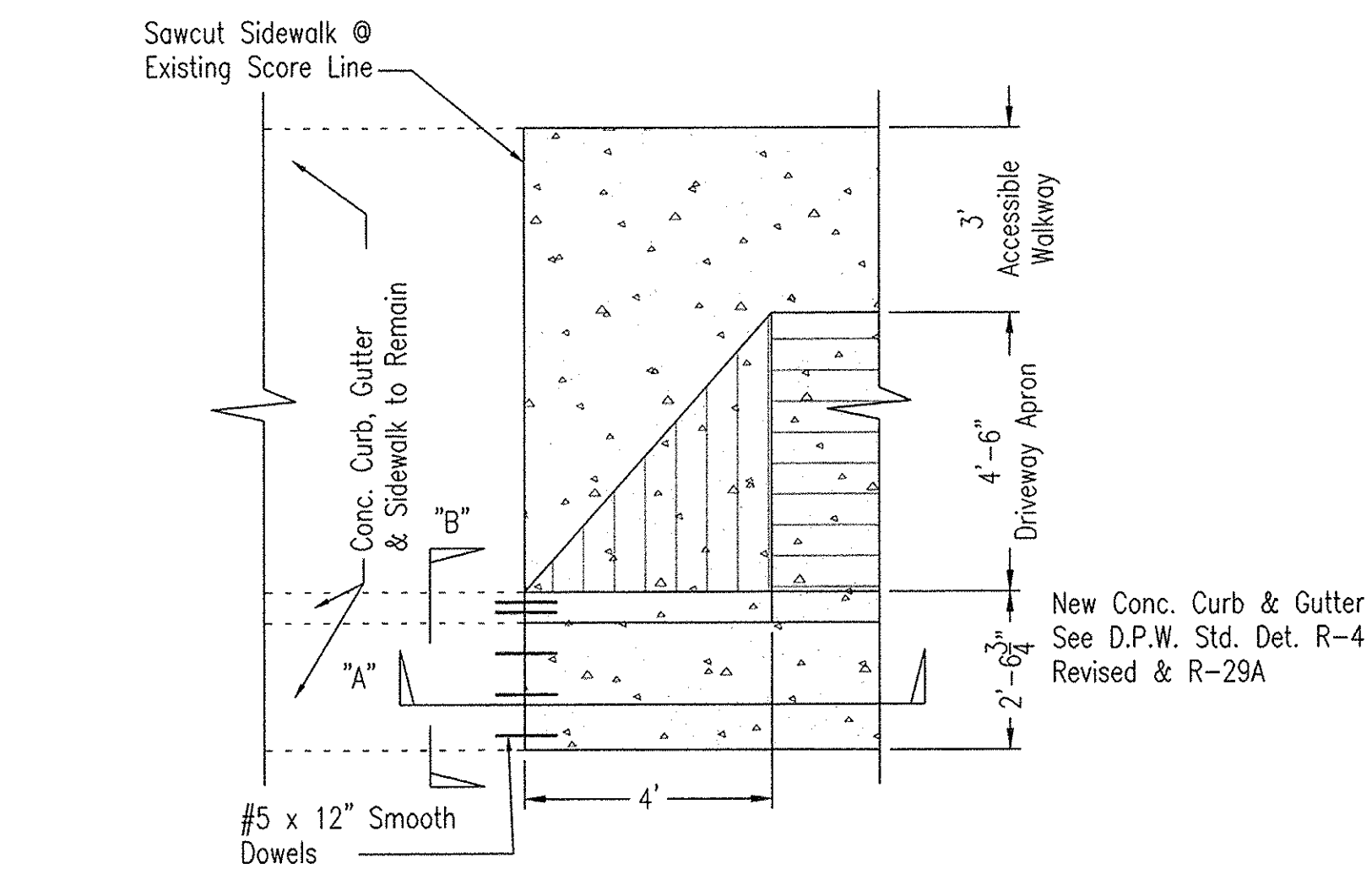
Section "B"
Scale: 3/4" = 1'-0"



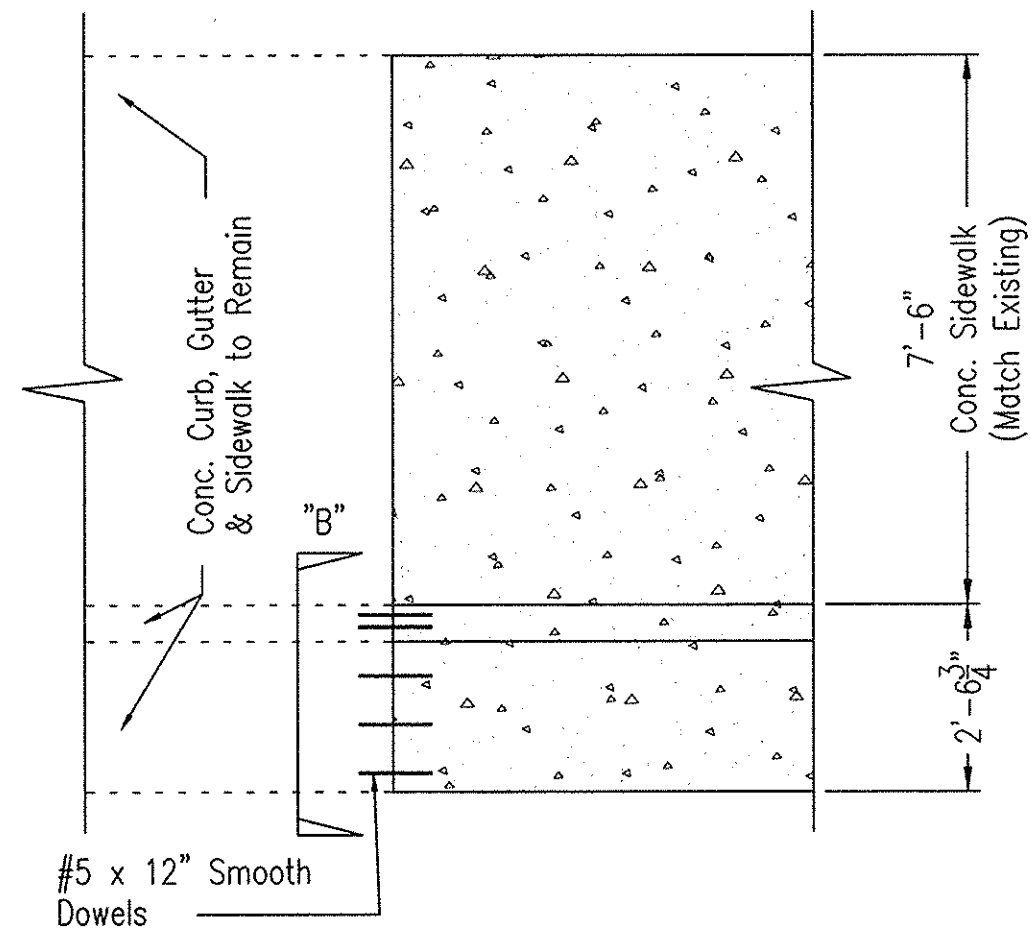
8 Wheel Stop
Scale: nts



5 Bollard Detail
Scale: nts



Driveway Plan
Scale: 3/8" = 1'-0"



Sidewalk Plan
Scale: 3/8" = 1'-0"

6 Restoration of Integral Curb & Gutter Detail
Scale: as shown

1 Section
Scale: 3/4" = 1'-0"

2 Conc. Edge Detail
Scale: 1/2" = 1'-0"

APPROVED: *Melvin Salas* 10/10/07
CHIEF, CIVIL ENGINEERING BRANCH DATE
DEPARTMENT OF PLANNING AND PERMITTING

Licensed Professional Engineer
Exp. Date: 4-30-08
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 the current Hawaii Administrative Rules "Professional Engineers, Architects, Surveyors, and Landscape Architects.")

REVISIONS	Revised per Architectural Comments	Revised per agency comments	FINALS	Date	Appr.
1	07/24/07	09/27/07	10/08/07		

Hawaii Consulting Group
98-711 Iho Pl. # 3-903
Aiea, HI, 96701
tel: 808-371-9695
email: geoff@hwaiconsultinggroup.net
website: http://hwaicons.net/

Designed by: gbg
Dwn by: dy
Reviewed by: gbg
Submitted by: gbg
Chief, Arch. Branch

Johnson Brothers Warehouse
Civil Details
1011 Muna Street
Kapolei Business Park, Hawaii, 96707
TMK: 9-1-75;25

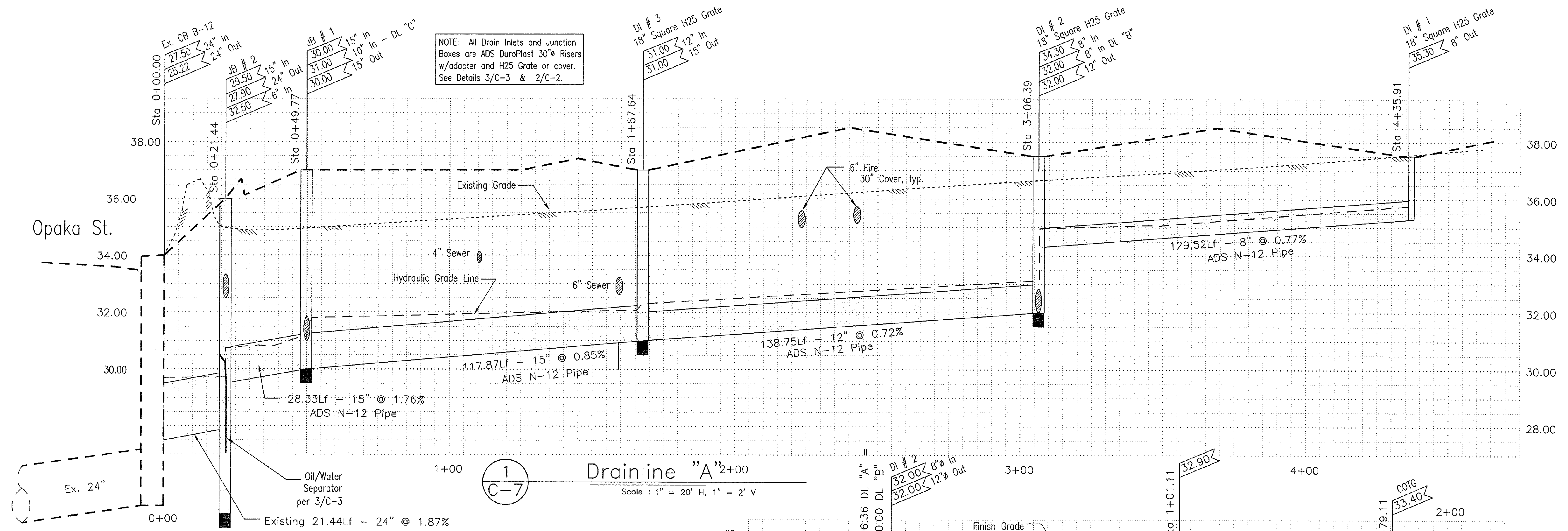
Sheet reference number:
C-6
Sheet 8 of 10

D

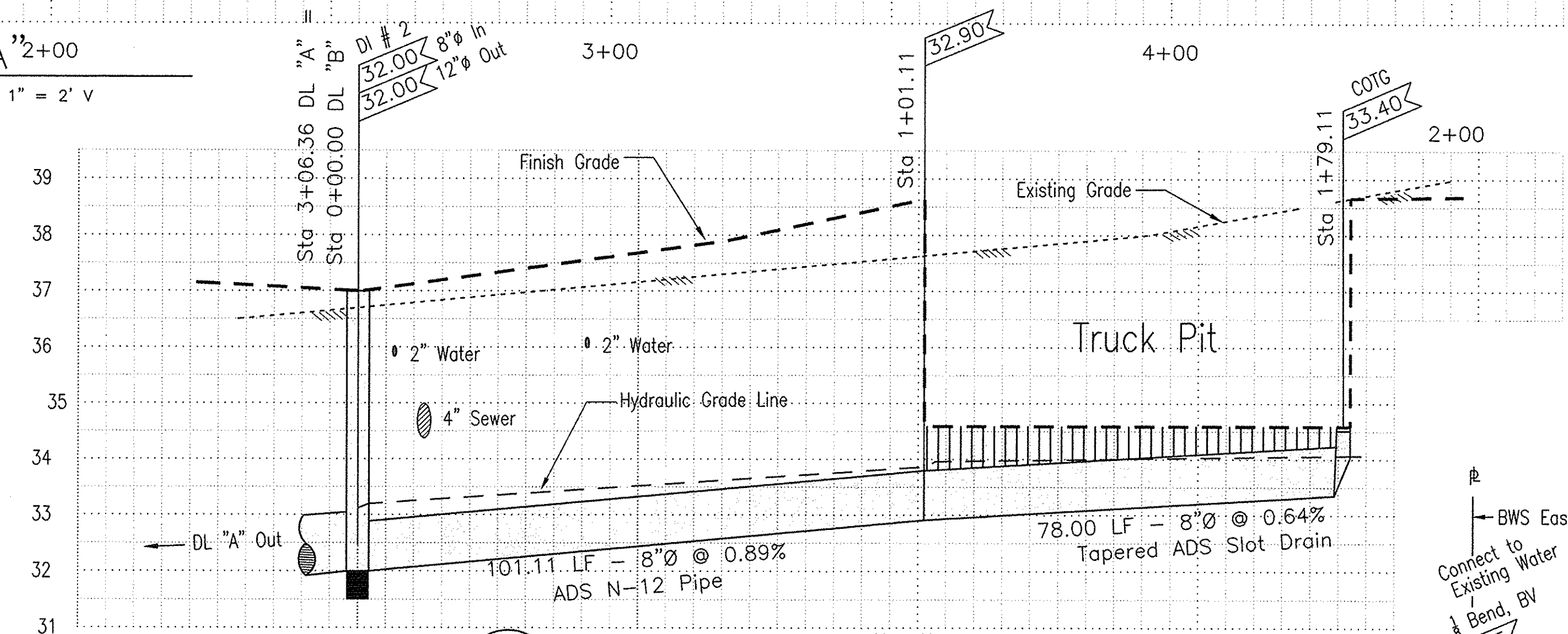
C

B

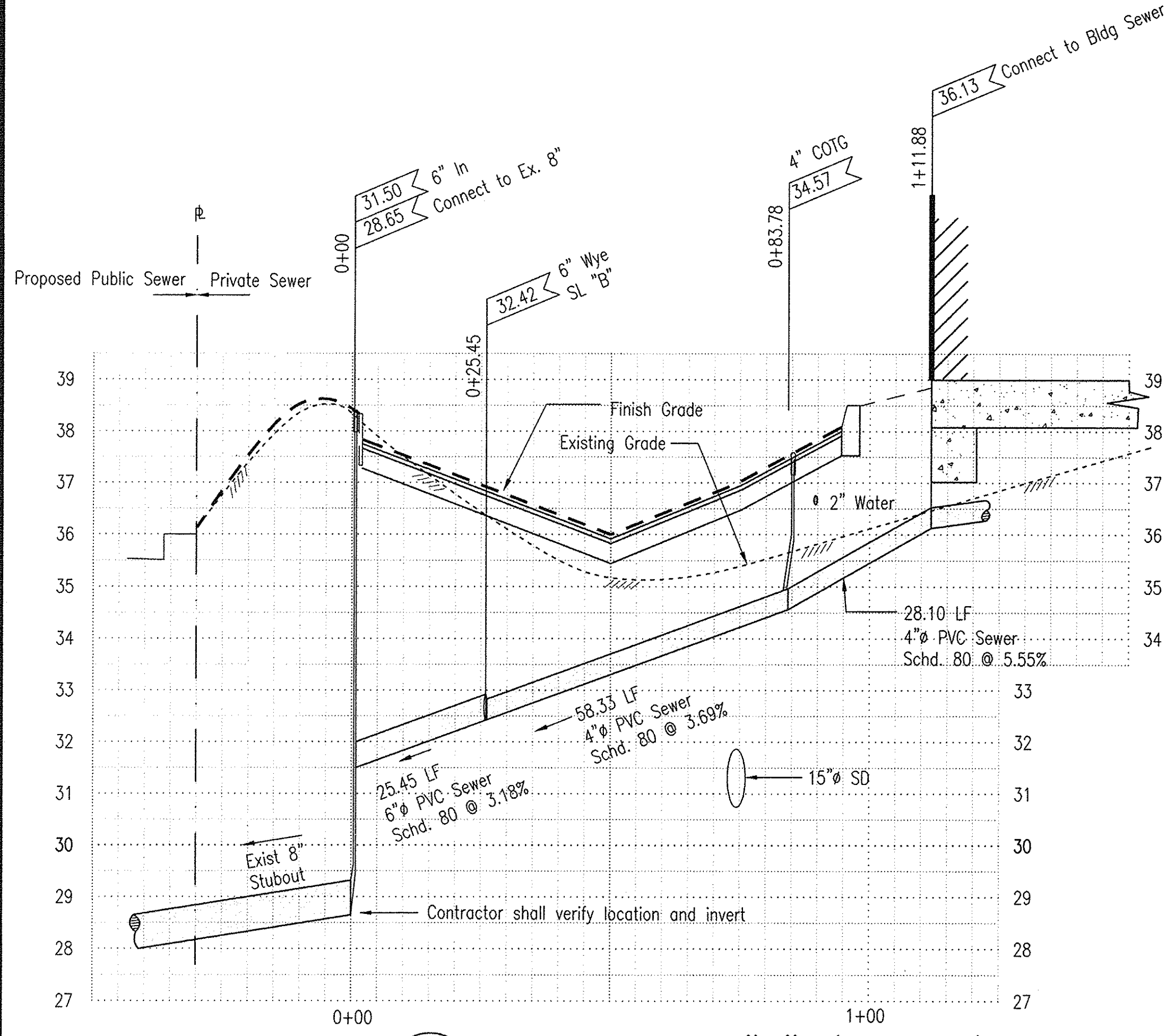
A



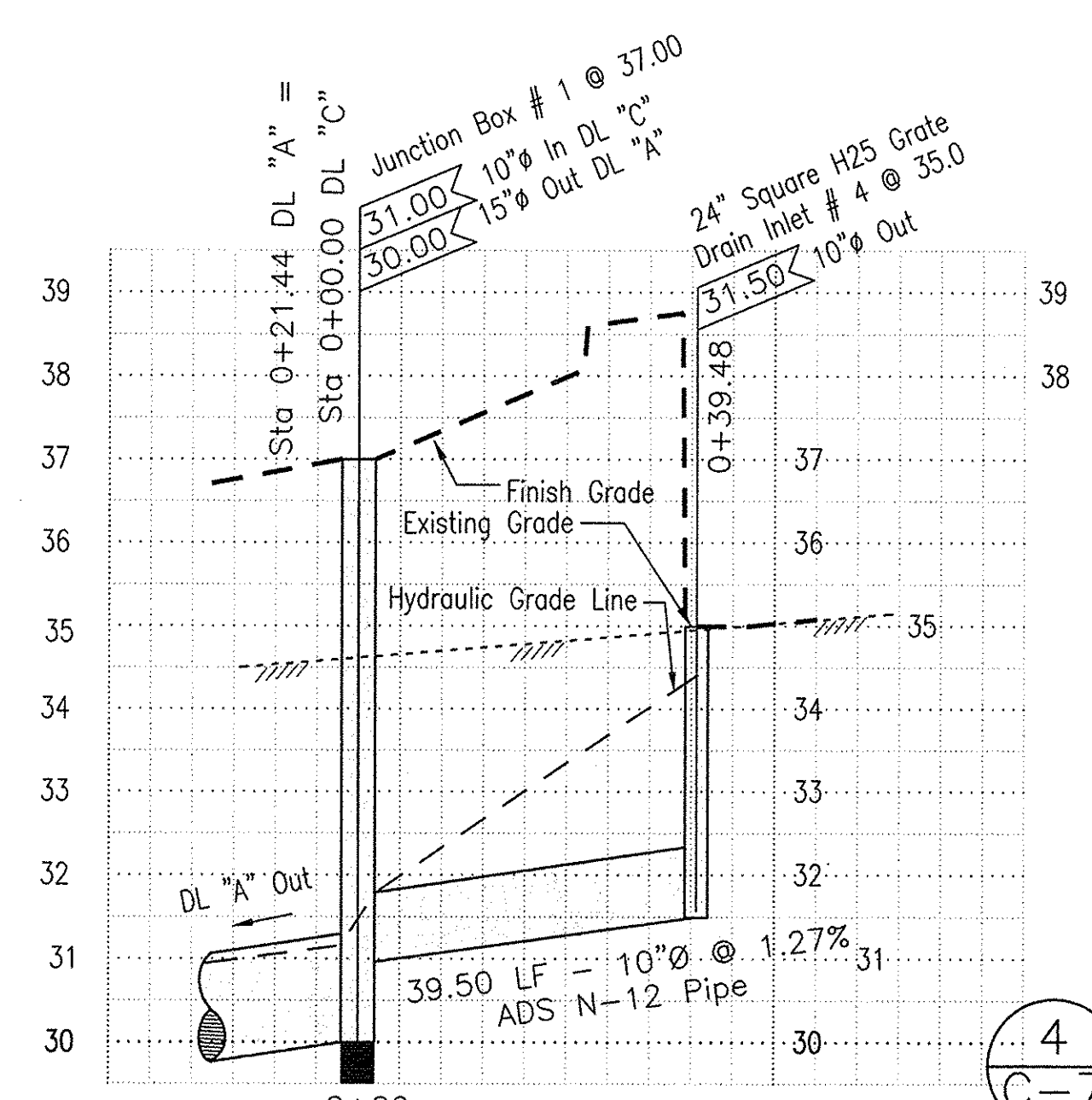
1 Drainline "A" 2+00
Scale: 1" = 20' H, 1" = 2' V



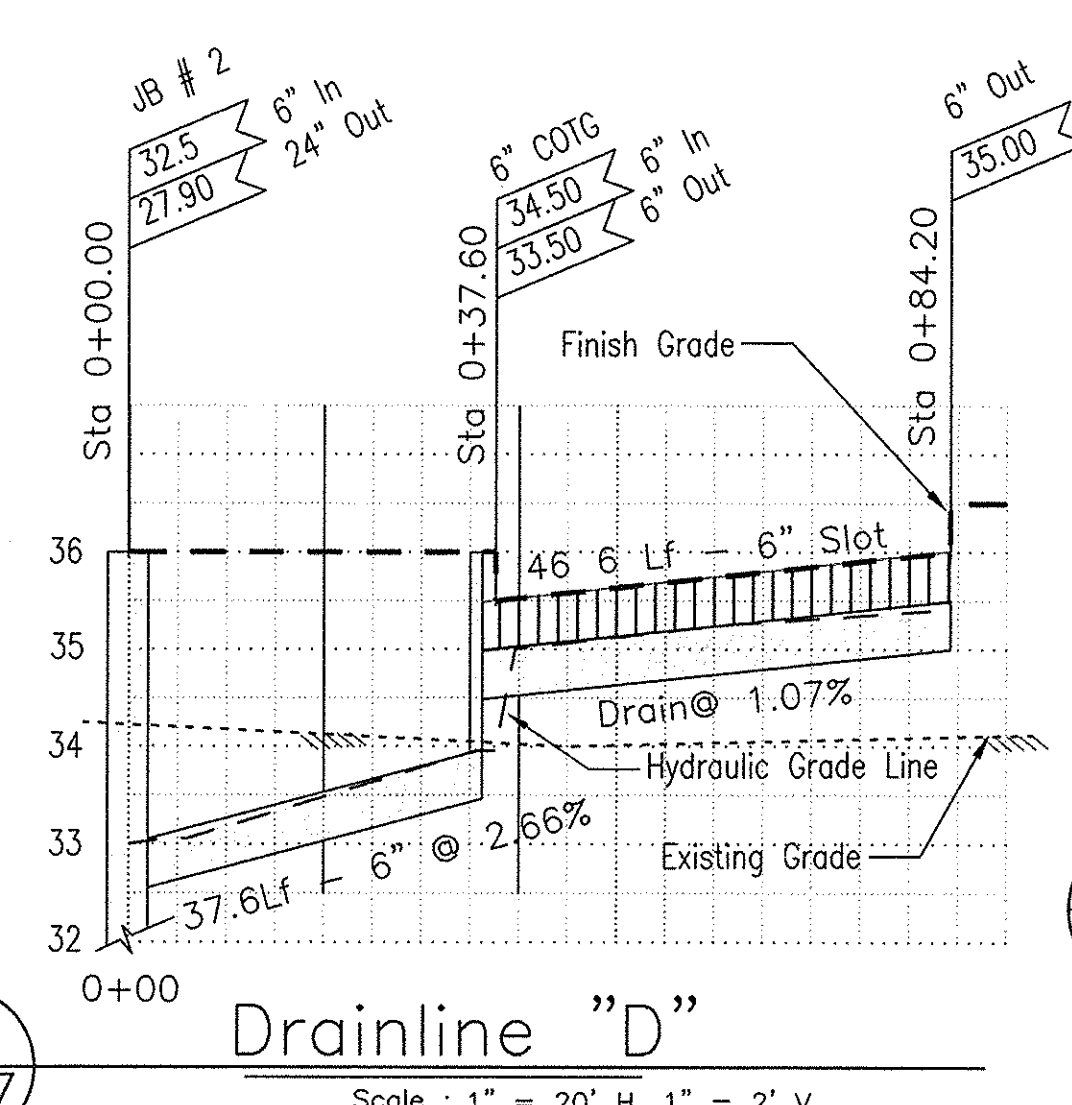
2 Drainline "B"
Scale: 1" = 20' H, 1" = 2' V



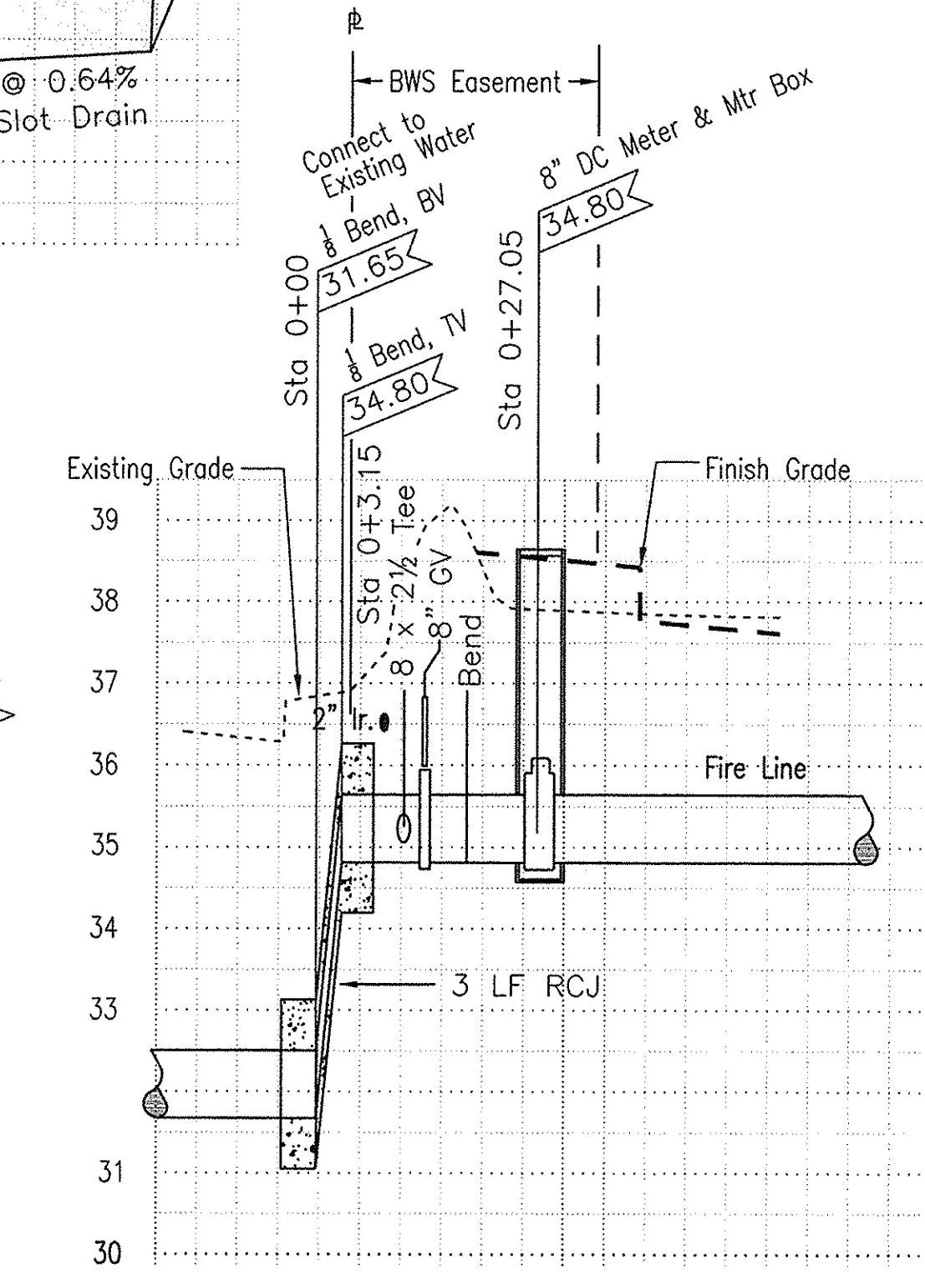
6 Sewer Line "A" (Private)
Scale: 1" = 20' H, 1" = 2' V



3 Drainline "C"
Scale: 1" = 20' H, 1" = 2' V



4 Drainline "D"
Scale: 1" = 20' H, 1" = 2' V



5 Water Line
Scale: 1" = 20' H, 1" = 2' V

APPROVED: *Robert Chun*
CHIEF, CAPITAL PROJECTS DIVISION
BOARD OF WATER SUPPLY
10/25/07
DATE

Geoffrey B. Gossel
Licensed Professional Engineer
5903-C
Exp. Date: 4-30-08
G.B. Gossel
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 the current Hawaii Administrative Rules "Professional Engineers, Architects, Surveyors, and Landscape Architects")

REVISIONS	Revised per Architectural Comments	Revised per agency comments	FINALS	Date	Appr.
1	07/24/07	09/27/07	10/08/07		

Designed by: gbg
Dwn by: dy
Reviewed by: gbg
Submitted by: gbg
Chief, Arch. Branch

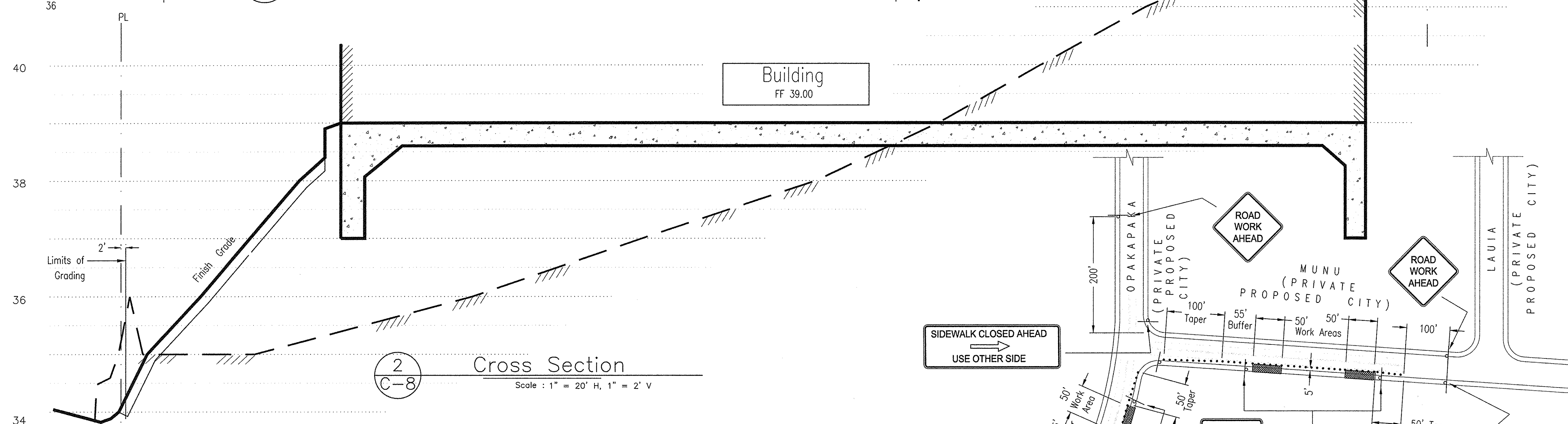
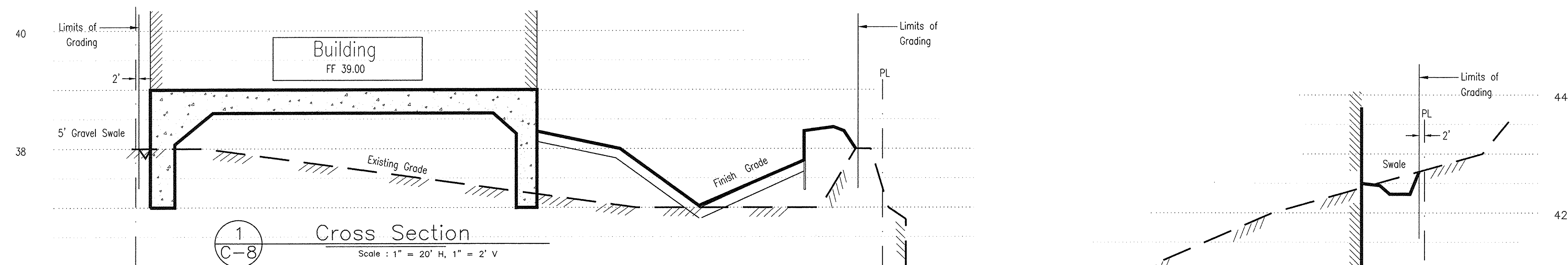
Date: 3/19/07

Rev. 3/19/07

Hawaii Consulting Group
98-711 Iho Pl. # 3-903
Aiea, HI 96701
tel: 808-371-9695
email: geoff@hwaiconsultinggroup.net
website: http://hicons.net/

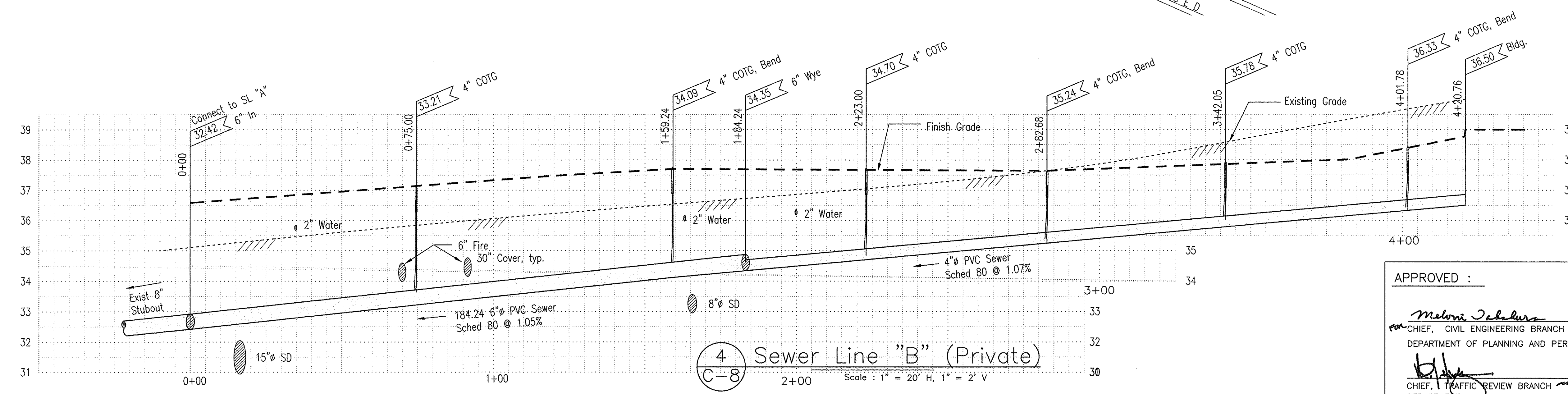
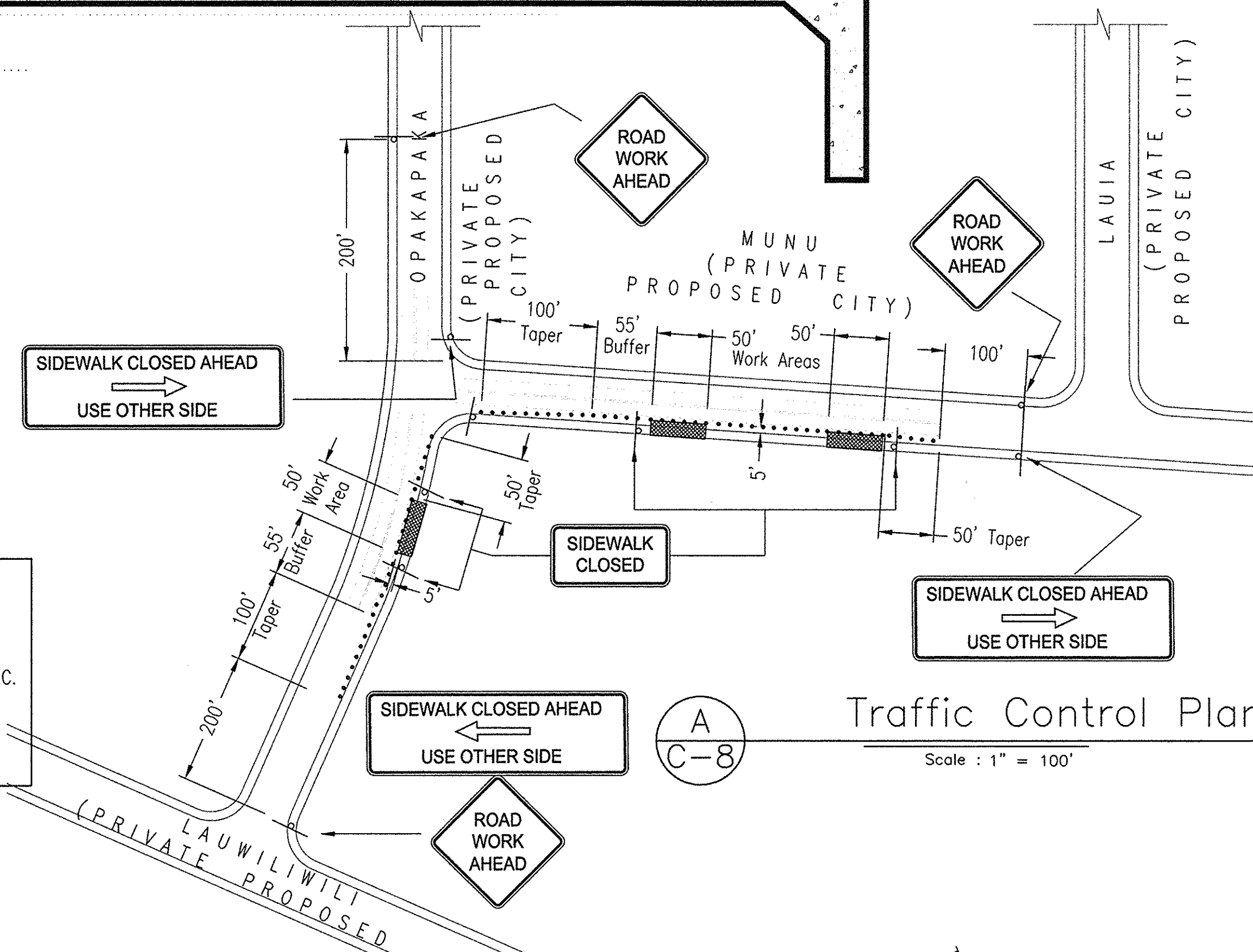
Johnson Brothers Warehouse
Utility Line Profiles
1011 Muna Street
Kapolei Business Park, Hawaii, 96707
TMK: 9-1-175:25

Sheet reference number:
C-7
Sheet 9 of 10



LEGEND

- SIGN MARKER
- TRAFFIC CONES @ 10 FT. O.C.
- WORK AREA



APPROVED :

Meloni Salazar 10/12/07
CHIEF, CIVIL ENGINEERING BRANCH
DEPARTMENT OF PLANNING AND PERMITTING
DATE

[Signature] 10/12/07
CHIEF, TRAFFIC REVIEW BRANCH
DEPARTMENT OF PLANNING AND PERMITTING
DATE

Geoffrey B. Gogel
Licensed Professional Engineer
5903-C
Exp. Date: 4-30-08
G.B. Gogel

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 the current Hawaii Administrative Rules "Professional Engineers, Architects, Surveyors and Landscape Architects.")

REVISED	Revised per Architectural Comments	Revised per agency comments	FINALS	Work	Date	Appr.
1	07/24/07	10/03/07	10/08/07			

Hawaii Consulting Group
98-711 Iho Pl. # 3-903
Aiea, HI, 96701
tel: 808-371-9695
email: geoff@hawaiiconsultinggroup.net
website: http://hicons.net/

Designed by: gbg
Dwn by: dy
Reviewed by: gbg
Submitted by: gbg
Chief, Arch. Branch

Date: 3/19/07
Rev. 1
Drawing code: gbg
File name: gbg
Plot date: gbg
Plot scale: gbg

Johnson Brothers Warehouse
Profiles, Sections, TCP
1011 Muna Street
Kapolei Business Park, Hawaii, 96707
TMK: 9-1-7525

Sheet reference number:
C-8
Sheet 10 of 10