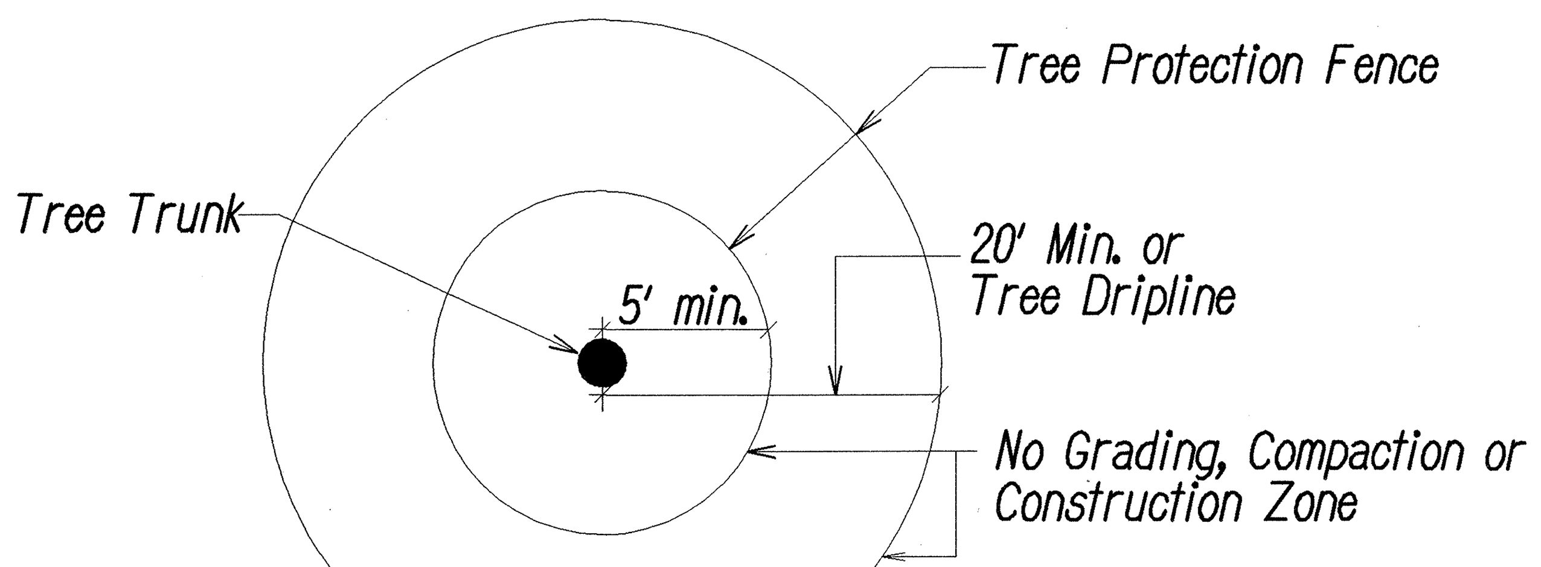
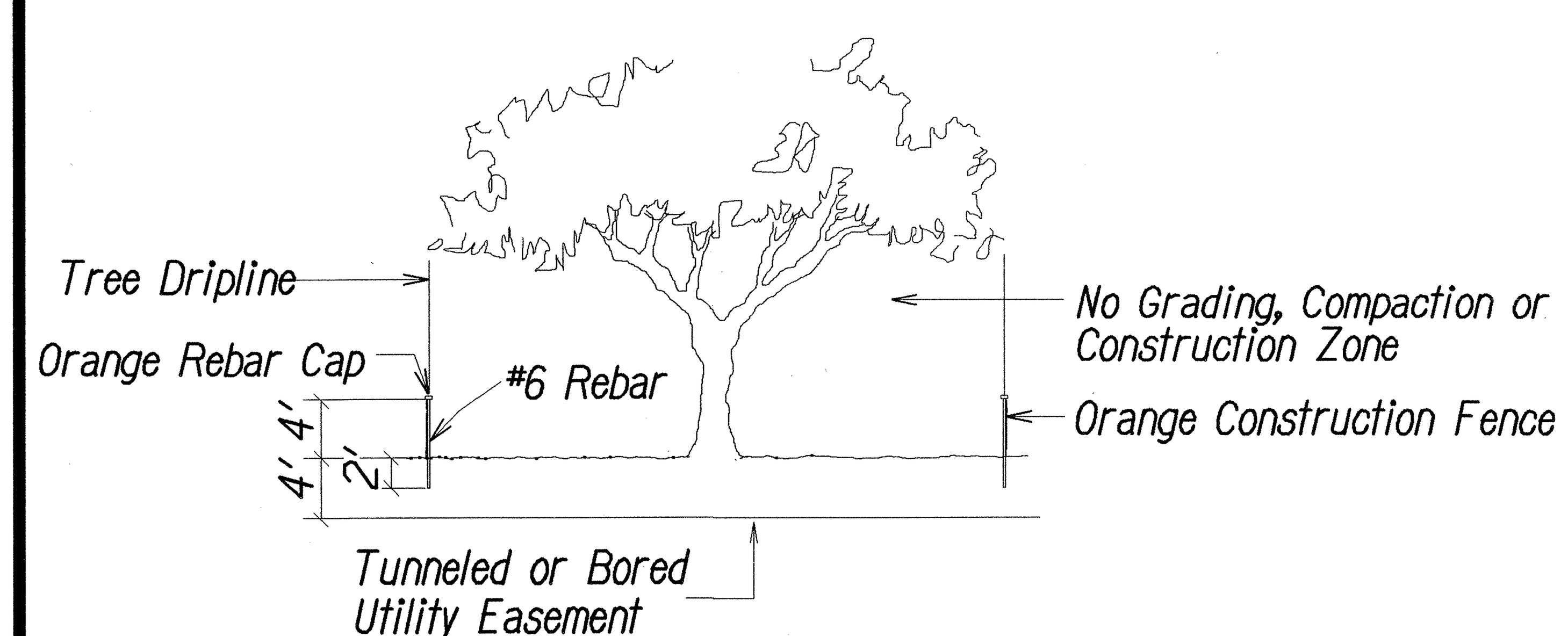
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	92AB-01-06M	2006	74	74

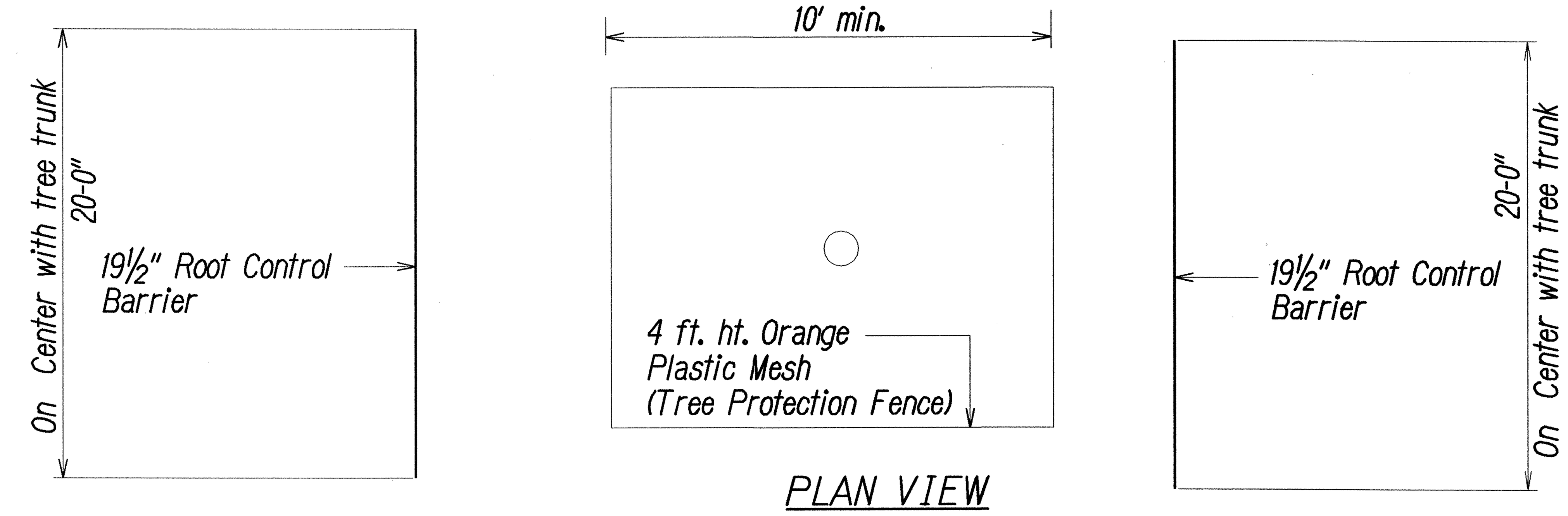
TREE PROTECTION ZONE

1. All trees identified on the plans should be protected. All trees 6" caliper or greater (as measured at 4½ feet height) shall be protected. If trees other than those designated for removal are damaged beyond survival condition as determined by the Engineer, the Contractor shall remove such trees and replace with a tree of the same specie and size and maintain for the duration of the construction or 12 months whichever is greater at no cost to the state.
2. The recommended Tree Protection Zone should be located at the outer drip line of the canopy of the tree. However, the minimum protection zone around a tree should be at least 20 feet from the external surface of the tree's trunk.
3. All trees shall remain unless shown for removal. All protected trees shall be listed on the roadway plans. If there is a discrepancy, contractor shall contact the Engineer immediately.
4. Protective fences shall be erected around trees identified on the plans or trees with a trunk diameter greater than 6 inches (as measured at a height of 4½ feet.) Protective fence shall be 4 feet high orange plastic mesh or approved equivalent supported on steel T-post a minimum of 6 feet long. Protective fence shall surround the tree at a minimum of 5 feet from the tree trunk with steel T-post at a minimum of 5 feet on center. Fence shall be installed and approved by Landscape Architect or Engineer prior to any demolition work and shall remain in place until site work is completed. Signs shall be posted on all four sides to read "Tree Protection Zone (TPZ) - No Grade Changed, Storaged or Equipment Permitted Within TPZ."
5. For the duration of construction within the drip line of the trees to remain, there must be :
   - No changed, alternation or disturbance to the grade by adding fill, excavating or scraping except as noted on plans;
   - No storage on construction materials or equipment;
   - No stockpiling of any construction materials or excavated materials;
   - No disposal of any liquids example concrete sleuth, gas, oil or paint;
   - No vehicular traffic, equipment or excessive pedestrian traffic;
   - No attachment of any wires, ropes, lights or any other such attachment other than those of a protective nature to any tree to be preserved, and
   - No cleaning of equipment or material under the canopy of any tree or group of trees to be preserved.

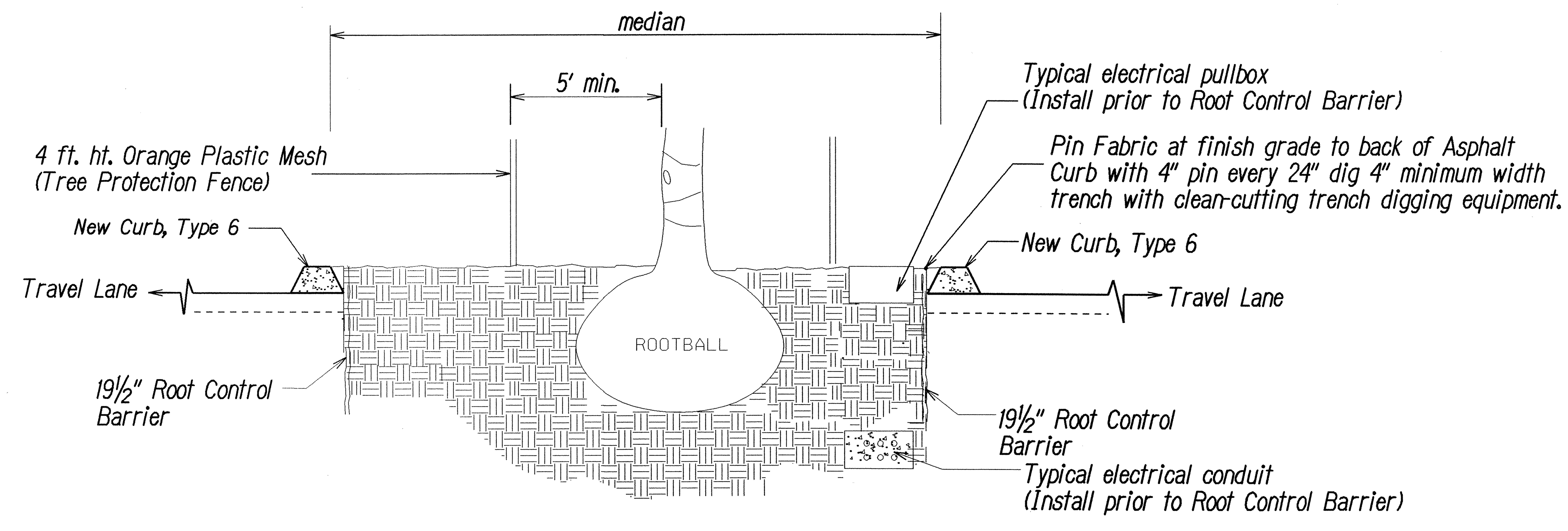




TREE PROTECTION ZONE (TPZ) DETAIL
Not to Scale



PLAN VIEW

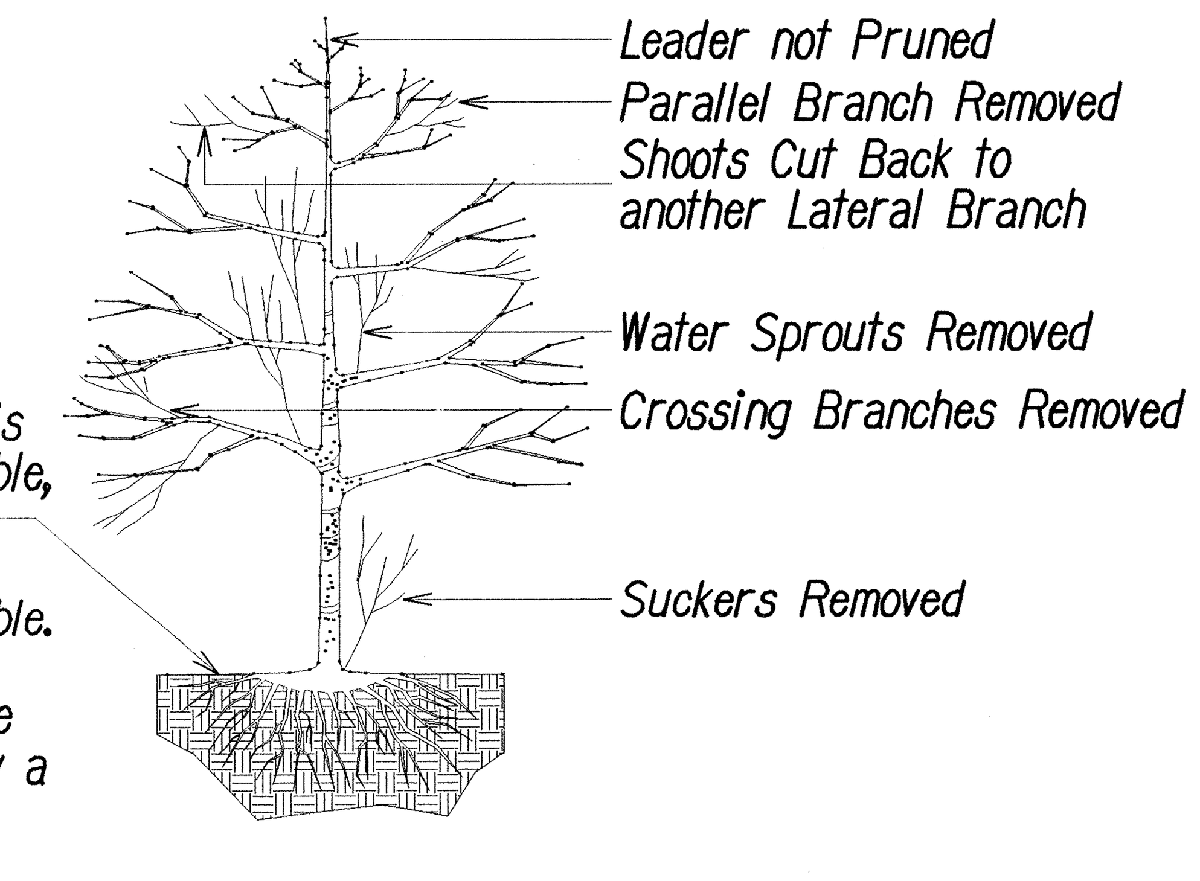


Note :

Nodules to face tree. Place top edge of root control barrier at finish grade and secure with manufacturer provided pins. Seams shall have minimum 3 inches overlap. Refer to manufacturer instructions for bonding the seam. Do not allow gaps in fabric during installation or backfilling. Root control barrier should not be left exposed to surface water or sunlight for more than 12 hours since high temperatures and sunlight reduce effective life of product label and MSDS sheet for safety information.

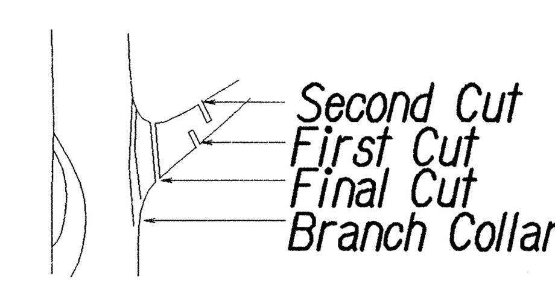
MEDIAN DETAIL WITH ROOT CONTROL BARRIER INSTALLATION DETAIL
Not to Scale

Tree roots shall not be cut unless cutting is unavoidable. When root cutting is unavoidable, a clean, sharp cut shall be made to avoid shredding or smashing. Root cuts shall be made back to a lateral root whenever possible. Exposed roots shall be covered immediately with soil or burlap and keep moist. Fertilize and water to minimize shock as directed by a certified Arborist or Engineer.
Root Cutting shall be considered Incidental to Biochemical Root Control Barrier.



Note :

1. Positions of first and second cuts may be reversed in some cases, particulary when cutting a large branch with a chainsaw.
2. Do not make flush cuts or leave stubs.
3. Do not paint cuts.
4. Remove dead, broken or malformed branches.
5. Remove all vines entwined in the tree or around its trunk.
6. All pruning shall be completed using clean sharp tools. All cuts shall be clean and smooth, with the bark intact with no rough edges or tears.
7. Dispose of all cuttings outside of right of way.
8. Retain the normal shape of the plant.



TREE PRUNING DETAIL
Not to Scale

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

LANDSCAPING DETAILS

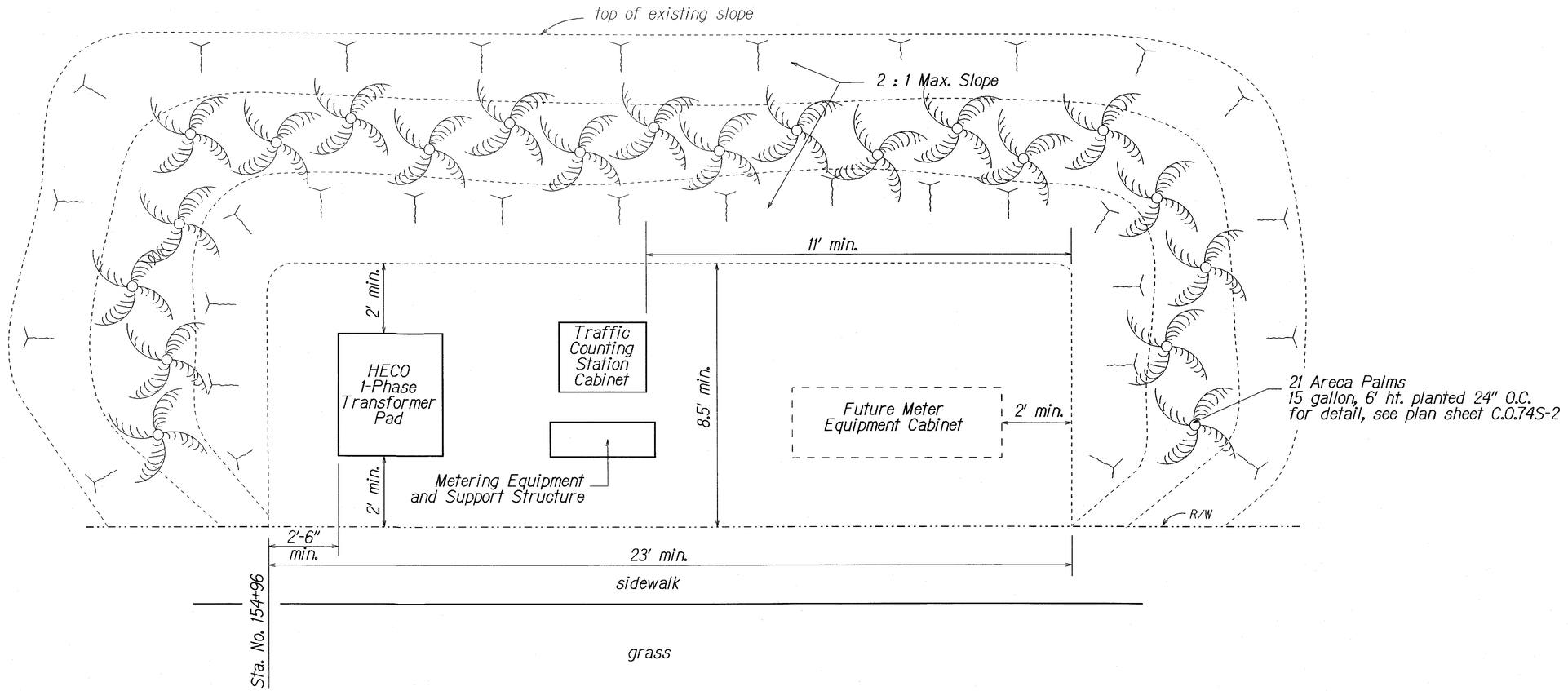
NIMITZ HIGHWAY AND
ALA MOANA BOULEVARD RESURFACING
Fort Street to Piikoi Street
Project No. 92AB-01-06M

Scale: Not to Scale   Date: April 2006

SHEET No. 1 OF 1 SHEETS

ORIGINAL PLAN | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE
NOTE BOOK | No.

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	92AB-01-06M	2006	74S1	74



Note :

Maintain 2 ft. minimum width between utilities and palms except where otherwise noted.

TRAFFIC COUNTING STATION LANDSCAPING PLAN

DATE	REVISION
03/01/07	This sheet added to contract plans

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

LANDSCAPING PLAN

NIMITZ HIGHWAY AND
ALA MOANA BOULEVARD RESURFACING
Fort Street to Piikoi Street
Project No. 92AB-01-06M

Scale: Not to Scale Date: February 2007

SHEET No. 1 OF 2 SHEETS

C.O. 74 S-1

ORIGINAL PLAN
SURVEY PLOTTED BY
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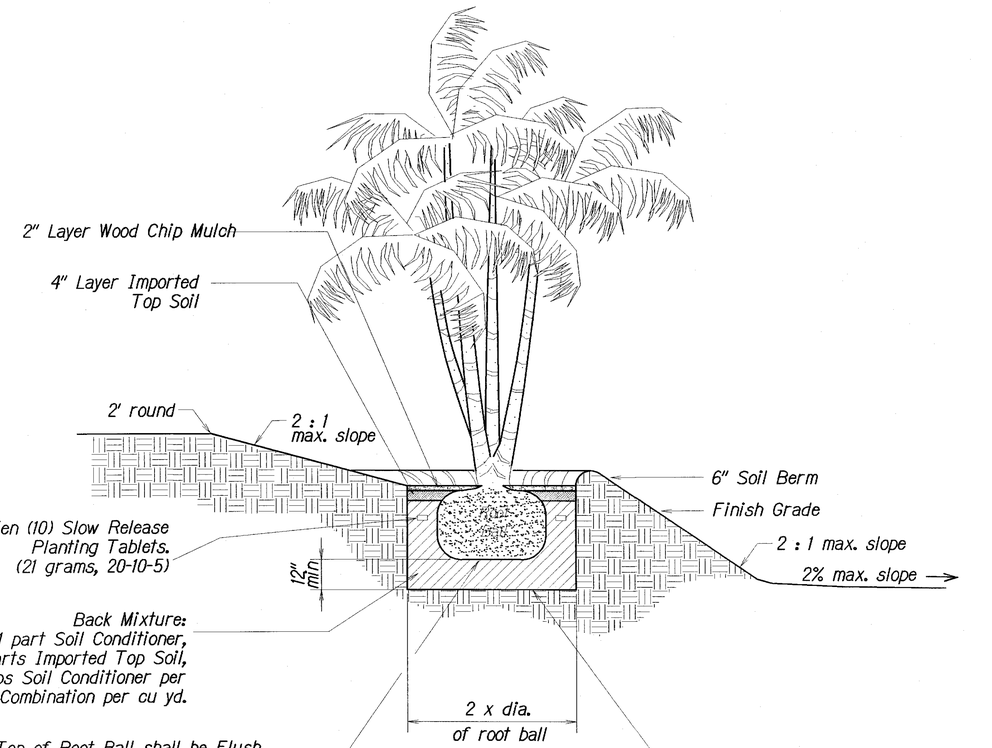
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE
NOTE BOOK landscaping
N. c0741.dgn

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	92AB-01-06M	2006	74S2	74

PLANT NOTES :

1. Landscape Coontractor shall field verify all plant quantities and dimensions prior to installation. Quantities shown on plant list are for reference only, verify actual quantities as shown on plan. If there is a discrepancy, the planting plan shall take precedence.
2. Landscape Contractor shall be responsible for locating and protecting existing utilities.
3. Prior to tree and shrub hole excavation, all planting locations shall be staked out by Contractor for approval by Engineer. Do not plant until ground has been prepared and free of stones greater that ½ inch diameter, site is neat, orderly, and the Engineer accepts site for planting.
4. Notify Engineer of any discrepancies in plant locations or insufficient plant quantities due to difference in plans and actual field conditons.
5. Notify Engineer 30 days prior to planting operations for approval of all plant material at place of growth. All plant material not approved by the Engineer will be subject to rejection.
6. Provide even four-inches layer of planting soil over all planting areas.
7. The Engineer will inspect plants at the place of growth and after the delivery to the project. Each tree shall be tagged by the Engineer with a consecutively numbered plastic tamper-resistant and self-locking seal. Seals shall remain on trees and only be removed by the Engineer at the completion of the plant establishment period. Trees delivered to the project without Engineer's seal will be rejected.
8. Plants shall meet size indicated by minimum height and spread. Plants shall be straight and uniformly shaped. Unless unique or special characteristics are specified, and shall be undamaged, sound, healthy, vigorous and free of disease and insect infestation. Plants not conforming to these requirements on delivery to the project and at the end of the plant establishment period will be rejected.
9. Contractor shall be solely responsible for the complete removal and damages resulting from planting any plant species listed on the Hawaii Department of Agriculture "Noxious Weed Rules" as defined in the statute, Hawaii Administrative Rules 4:68J or "Federal Noxious Weed List" as defined in Title 7 of the Code of Federal Regulations (CFR), Parts 360 and 361.
10. All tree work must adhere to American National Standard Institute (ANSI) - A300 Tree Care Standards and ANSI-Z133 Safety Standards for Tree Work. Work shall be contracted to arborists that has been certified in good standings as an ISA certified Arborist for at least 5 years to assure that tree work is properly and trees are not damaged by practices such as topping, flush cuts, over-thinning, or climbing with the spikes. Contractor shall submit a copy of the ISA Arborist Certification of Good Standing of 5 years to the Engineer minimum 7 days prior to tree pruning.
11. Guy wires, flagging, stakes, windbreakers, etc. shall be maintained and replaced if necessary by the Contractor until the tree or shrub is able to stand by itself. The Contractor shall remove dispose at the end of plant establishment period.
12. Any planting that obstructs sight distance, signs or traffic lights shall be relocated or removed as determined by the Engineer.
13. All disturbed areas shall be planted with St. Augustine Grass, 6" Sprigs 4" on center.
14. Repair existing irrigation that is damaged during contruction.
15. Provide water for all plantings from installation until final acceptance.

PLANT LIST			
	COMMON NAME	BOTANICAL NAME	COMMENTS
21	Areca Palm	Chrysalidocarpus Lutescens	15 gal. can, 6' ht., 24" O.C.
	St. Augustine Grass	Stenotaphrum Secundatum	6" Sprigs, 4" O.C.



NOTES:

1. Trunks must be protected from rope sling burns and abrasions during moving.
2. Prune off all dead fronds.
3. Water heavily to insure soil settles around roots.
4. Tree shall be plumb, if there is leaning at the end of the plant establishment period, the tree shall be rejected.

MULTI-TRUNK PALM PLANTING DETAIL

Not to Scale

DATE	REVISION
03/01/07	This sheet added to contract plans

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

LANDSCAPING DETAILS

NIMITZ HIGHWAY AND
ALA MOANA BOULEVARD RESURFACING
Fort Street to Piikoi Street
Project No. 92AB-01-06M

Scale: Not to Scale Date: February 2007

SHEET No. 2 OF 2 SHEETS

C.O. 74 S-2

ORIGINAL PLAN
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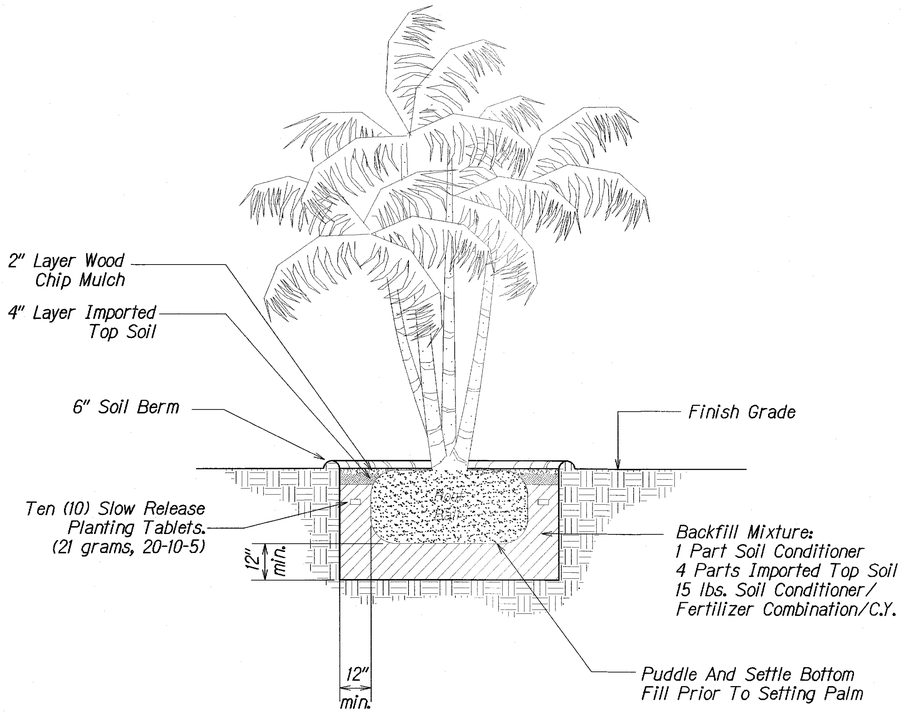
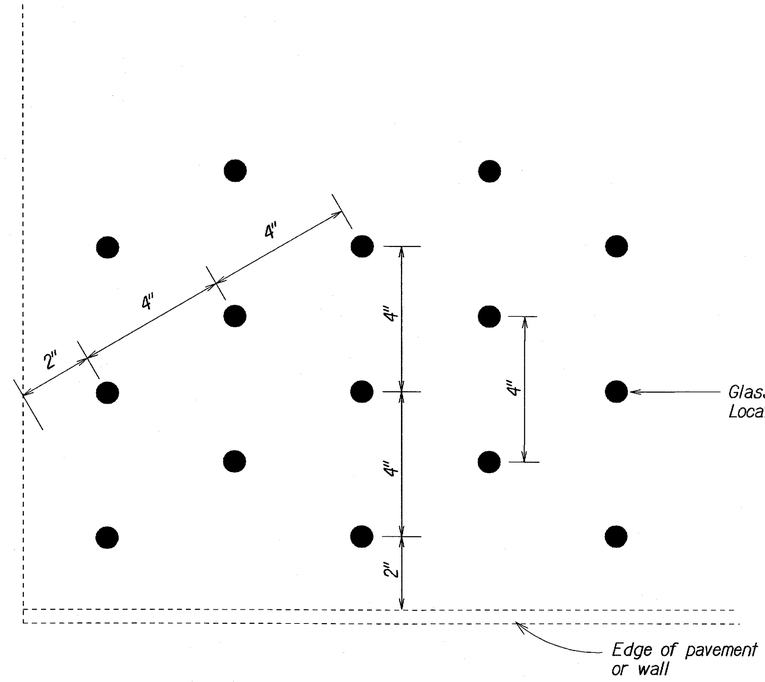
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	92AB-01-06M	2006	74S3	74



MULTI-TRUNK PALM PLANTING DETAIL ON LEVEL GROUND

Not to Scale



GRASS PLUG SPACING DETAIL

Not to Scale

NOTES:

1. Trunks must be protected from rope sling burns and abrasions during moving.
2. Prune off all dead fronds.
3. Water heavily to insure soil settles around roots.
4. Tree shall be plumb, if there is leaning at the end of the plant establishment period, the tree shall be rejected.

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
	DRAWN BY	
NOTE BOOK	TRACED BY	
landscpecs7483	DESIGNED BY	
	QUANTITIES BY	
No.	CHECKED BY	

DATE	REVISION
03/15/07	This sheet added to contract plans

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

LANDSCAPING DETAILS

NIMITZ HIGHWAY AND
ALA MOANA BOULEVARD RESURFACING
Fort Street to Piikoi Street
Project No. 92AB-01-06M

Scale: Not to Scale Date: March 2007

SHEET No. 3 OF 3 SHEETS

C.O. 74 S-3