

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-STP-0300(105)	2017	187	193

PLANT NOTES:

- 1. The Contractor shall field verify all plant quantities and dimensions prior to installation. Quantities shown on plant list for reference only. Verify actual quantities shown on plans. If there is a discrepancy, the planting plan shall take precedence.
- 2. Landscape Contractor shall be responsible for locating and protecting existing utilities.
- 3. Do not plant until ground has been prepared and free of stones greater than 1/2" 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 plan and actual field conditions.
- 5. Notify Engineer 90 days prior to planting operations for approval of all plant material at place of growth. All plant material not approved by Engineer will be subject to rejection.
- 6. The Engineer will inspect plants at the place of growth before and after the delivery to the project. Each tree shall be tagged by Engineer with a consecutively numbered plastic tamper-resistant and locking seal. Seals shall remain on trees and only be removed by Engineer at the completion of the plant establishment period. Trees delivered to the project without engineer seal will be rejected.
- 7. Plants shall meet size indicated by minimum height and spread. Plants shall be straight and uniformly shaped, unless unique or special characteristic are specified, and shall be undamaged, sound, healthy vigorous and free of disease and insect infestation. Plants not to these requirements on delivery to the project and at the end of the plant establishment period will be rejected.
- 8. Contractor shall be solely responsible for the complete removal and damages resulting from the introduction of planting any plant species listed in the Hawaii Department Agriculture "Noxious Rules" as defined in the statute, Hawaii Administrative Rules 4:68:1 or the "Federal Noxious Weed List" as defined in Title 7 of The Code of Federal Regulations (CFR), parts 360 and 361.
- 9. All tree work must adhere to America National Standard Institute (or ANSI)-A300 tree care standards and ANSI-Z133.1 safety standards for tree work. Work shall be contracted to Arborists that has been certified in good standings as an ISA certified Arborists for at least 5 years to assure that tree work is performed properly and trees are not damaged by practices such a topping, flush cuts, over-thinning, or climbing with spikes. Contractor shall submit a copy of the ISA Arborist certification to the Engineer minimum 7 days prior to tree pruning.

- 10. For the duration of construction within the drip line of trees to remain there must be: no changes, alterations, or disturbance to the grade by fill, excavating or scraping except as noted in plans; no storage of construction material or equipment; no stockpiling of any construction material or any excavated material; no disposal of any liquids (e.g. concrete slurry, gas, oil, plant); no vehicular traffic, equipment or excessive pedestrian traffic, no attachment of any wires, ropes, lights, or any other such attachment other than those of 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 remain.
- 11. If trees other than those specifically designated for removal are damaged beyond survival conditions as determined by Engineer, the Contractor shall remove such trees and replace the tree with the same species and size and maintain for the duration of construction or 12 months whichever is greater at no cost to the state.
- 12. Contractor to install a temporary irrigation system until completion of the planting period and acceptance by Engineer. Contractor responsible for locating water source and determining an appropriate point of connection. The cost of water is to be considered incidental to the project.
- 13. Guy wires, stakes, windbreakers, temporary trellises, etc. shall be maintained and replaced by the Contractor until the tree or vine can stand on its own. Contractor shall remove and dispose at the end of plant establishment period after acceptance by Engineer.
- 14. Any planting that obstructs sight distance, signs, traffic lights, or traffic signals shall be relocated or removed by the Engineer.
- 15. Contractor to add 2" of gravel in the area between the new barriers Moanalua Freeway with weed-blocking geotextile that shall be rot-proof, mildew and chemical resistant, delustered polypropelene product that allows passage of air, water, fertilizer, and insecticide into soil but precludes the growth of weeds. Cost of gravel and geotextile material shall be considered incidental to the project.
- 16. Contractor to hydroseed all areas where new concrete barrier installation disturbs soil. Contractor to install temporary overhead irrigation until acceptance from Engineer.

SOIL PREPARATION NOTES:

- 1. Contractor shall be responsible for protecting the highway and all appurtenances from damage resulting from the Contractor's activities. Contractor responsible for any damage resulting from the clearing/or other construction activies.
- 2. Contractor shall maintain all equipment on-site at all times to remove in the event that emergency vehicles require passage through the project area along the highway during the lane closure times. The soil preparation activities shall be temporarily suspended to allow the passage of emergency vehicles through the project area along the highway.

PLANT LIST:

QUANTITY	COMMON NAME	BOTANICAL NAME	NOTE AND SIZE	
6 each	Gold Tree	Tabebuia donnel-smithii	15 Gal. Plant According to Plan, 4' Height, 2' Spread MINIMUM	
13 each	Jacaranda	Jacaranda mimosifolia	15 Gal. Plant According to Plan, 4' Height, 3' Spread MINIMUM	
8 each	Hala Tree	Pandanus tectorius	7 Gal. Plant According to Plan, 3' Height, 2' Spread MINIMUM	
67 each	Pohinahina	Vitex rotundifolia	4" Pots According to Plan, 1' Height, 1' Spread MINIMUM	
57 each	Alahe'e	Psydrax oderata	5 Gal. Plant According to Plan, 2' Height, 1' Spread MINIMUM	

 SURVEY PLOTTED BY
 DATE

 DRAWN BY
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 TRACED BY
 .

 DESIGNED BY
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 QUANTITIES BY
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 CHECKED BY
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

<u>LANDSCAPE DETAILS & NOTES</u>

INTERSTATE ROUTE H-2 and MOANALUA FREEWAY

Guardrail and Shoulder Improvements

Federal Aid Project No. IM-STP-0300(106)

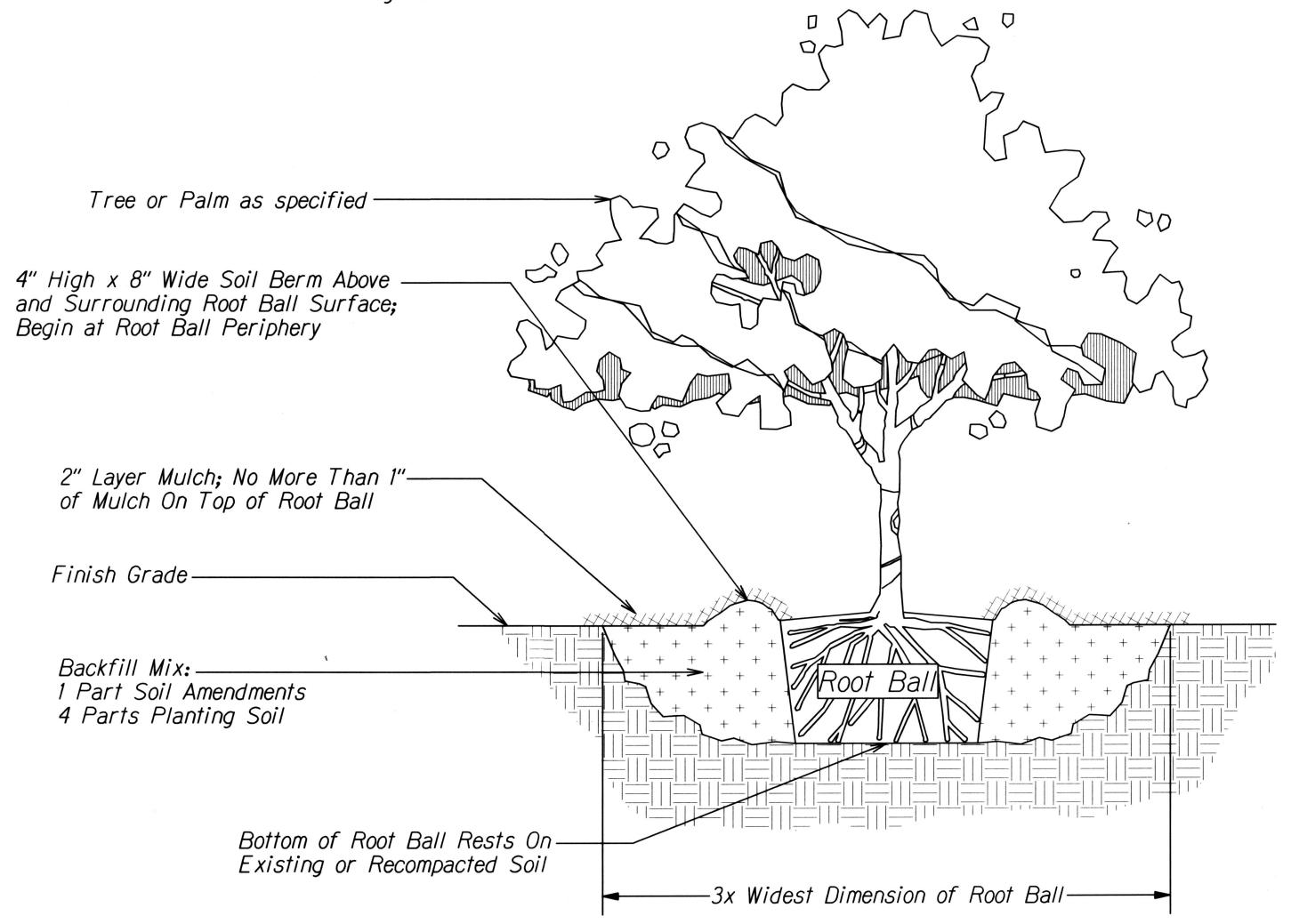
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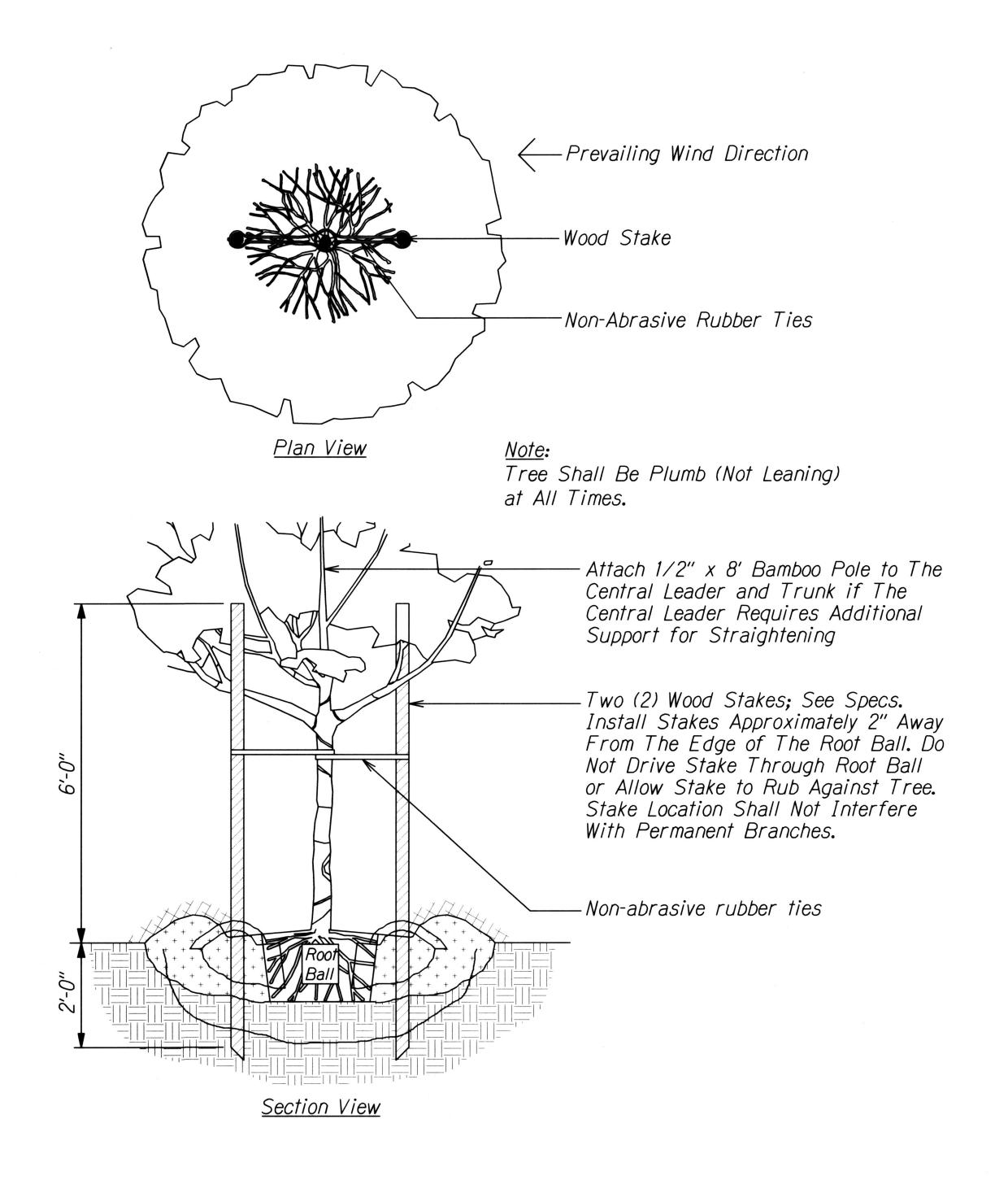
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Notes:

- 1. Top of Root Ball to Be Set at One-Quarter Inch Above Finish Grade and Trunk Flare Shall Be Visible. If Trunk Flare is Not Visible, Tree Will Be Rejected. Roughen Sides of Root Ball. Scarify Root Ball. Cut Circling Roots at The Bottom of The Root Ball.
- 2. Prior to Mulching, Lightly Tamp Soil Around The Root Ball in 6" Lifts to Brace Tree. Do Not Over Compact. When The Planting Hole Has Backfilled, Pour Water Around The Root Ball to Settle The Soil.
- 3. For Palm Trees, Remove Lower Fronds and Sacking.
- 4. Tree Shall Be Plumb (Not Leaning) at All Times.



Tree/Palm Planting Detail Not to Scale



Tree Double Stake Detail Not to Scale

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION

PLANTING DETAIL

INTERSTATE ROUTE H-2 and MOANALUA FREEWAY

Guardrail and Shoulder Improvement Fed-Aid Project IM-STP-0300(106)

SHEET No. 3 OF 8 SHEETS

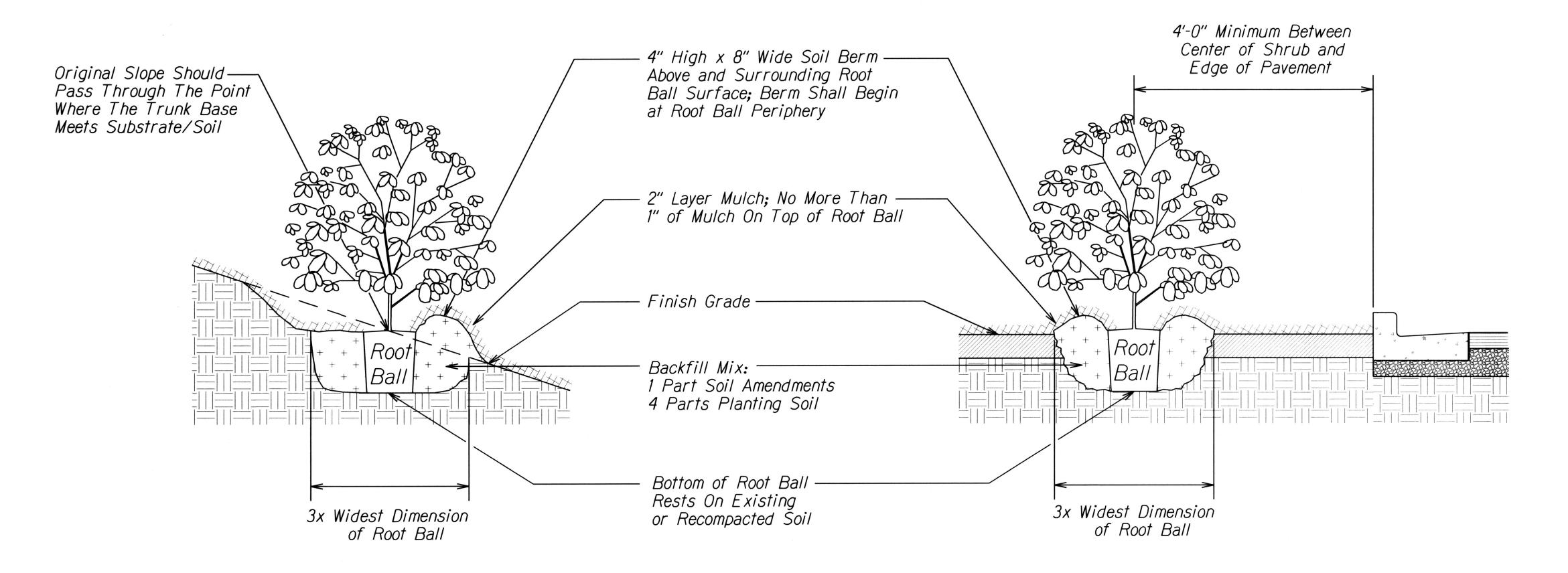
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ORIGINAL SURVEY PLOTTEI
PLAN DRAWN BY
TRACED BY
NOTE BOOK DESIGNED BY
OUANTITIES BY
CHECKED BY

FED. ROAD	STATE	FED. AID	FISCAL	SHEET	TOTAL
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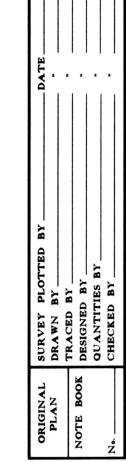
Notes

- 1. Top of Root Ball to be Set at One-Quarter Inch Above Finish Grade.
- 2. Prior to Mulching, Lightly Tamp Soil Around The Root Ball in 6" Lifts to Brace Shrub. Do Not Over Compact. When The Planting Hole Has Been Backfilled, Pour Water Around The Root Ball To Settle The Soil.



Shrub Planting on Slope Detail
Not to Scale

Shrub Planting Detail
Not to Scale



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
PLANTING DETAIL

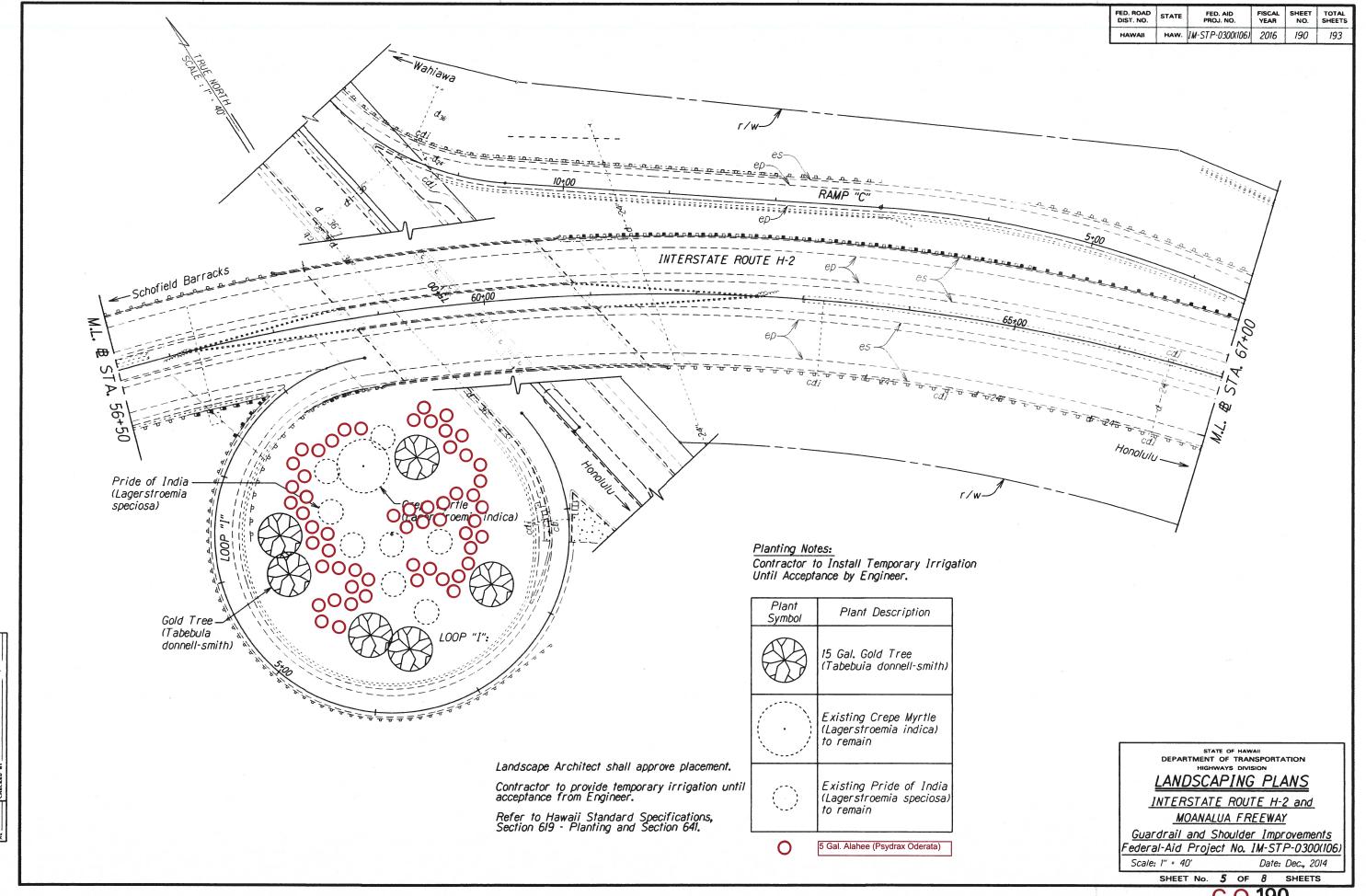
INTERSTATE ROUTE H-2 and
MOANALUA FREEWAY
Shrub Planting Detail and
Shrub Planting on Slope Detail

Shrub Planting on Slope Detail Federal Aid Project No. IM-STP-0300(106)

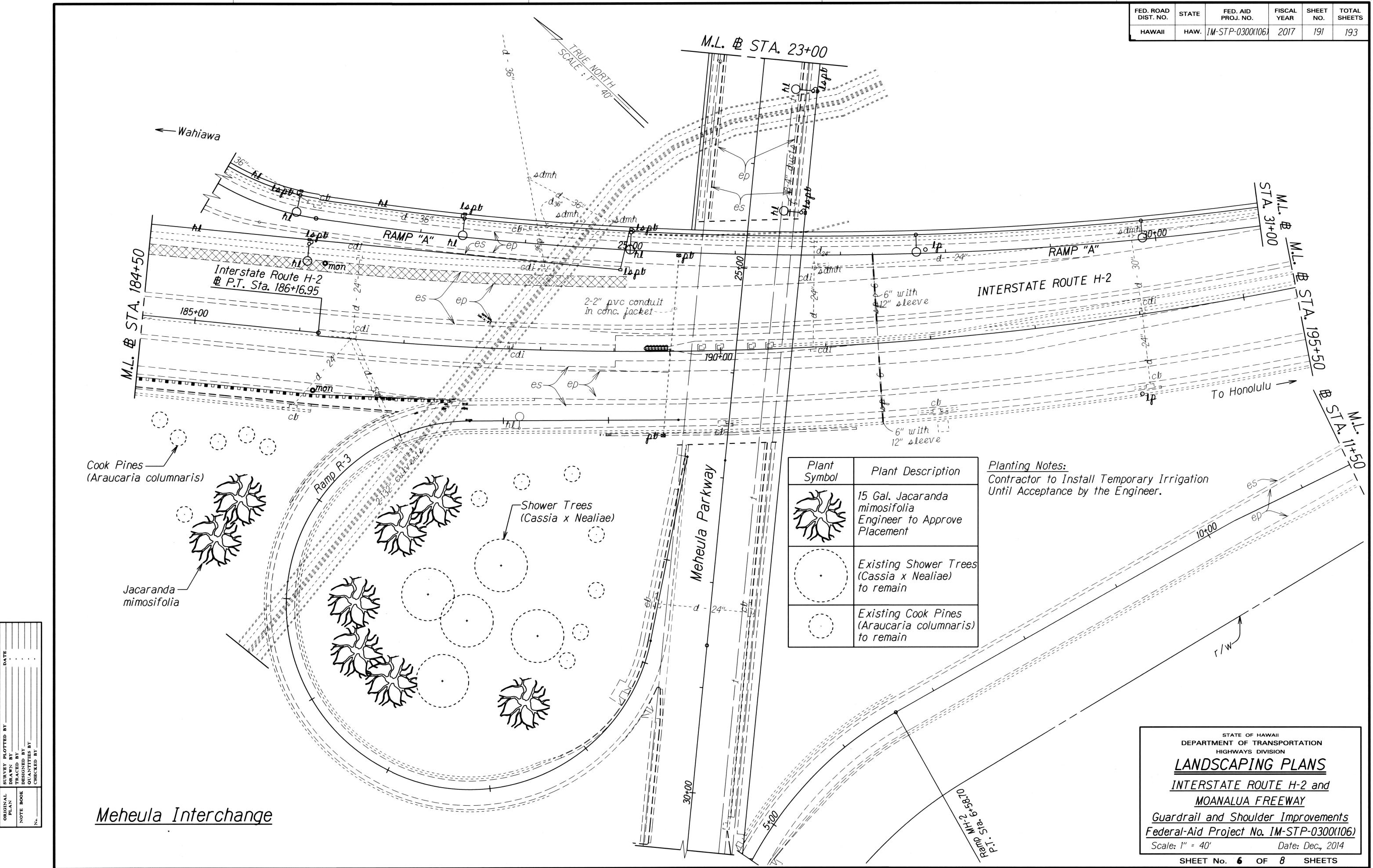
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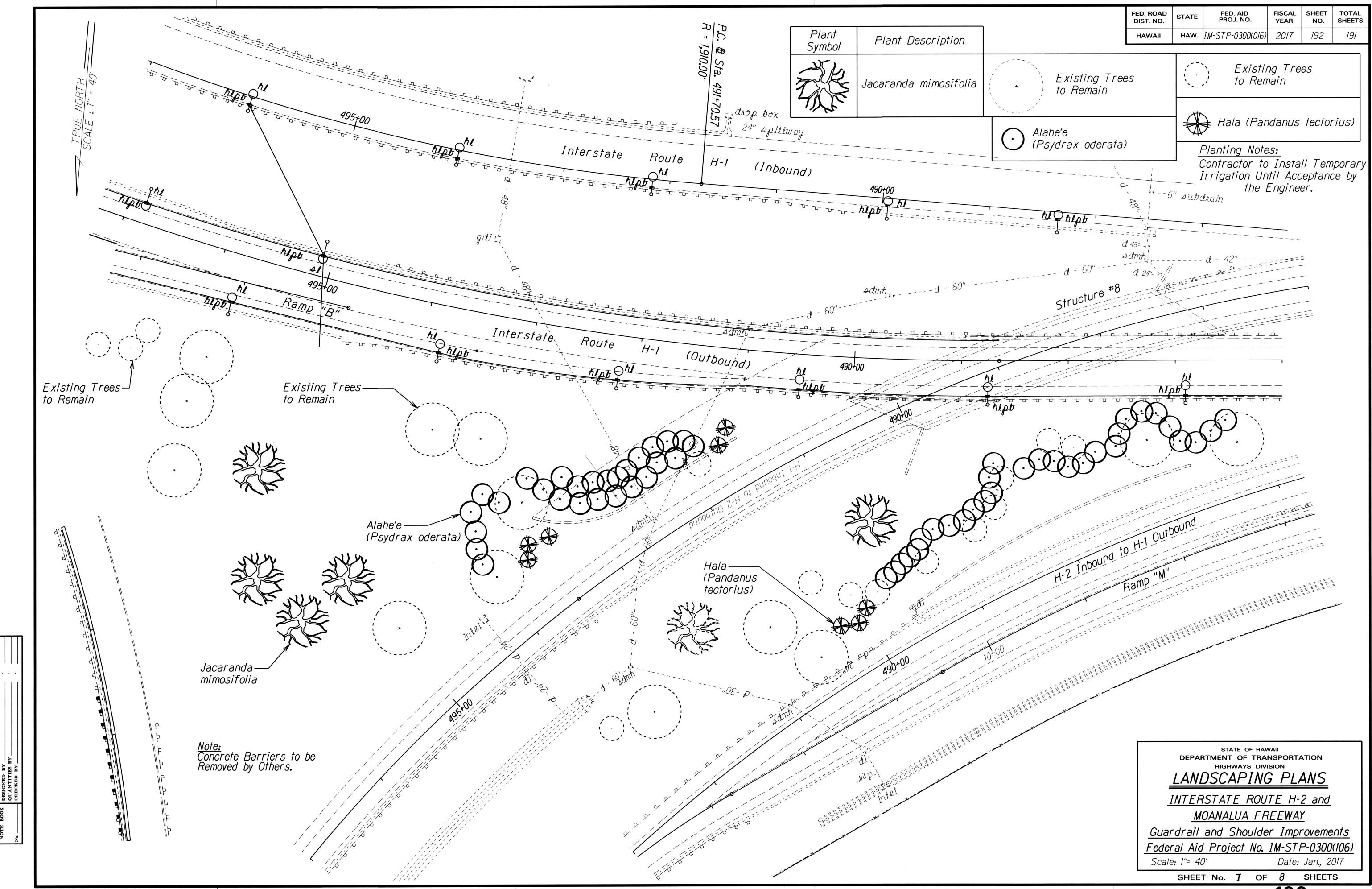
Date: XX, 20XX

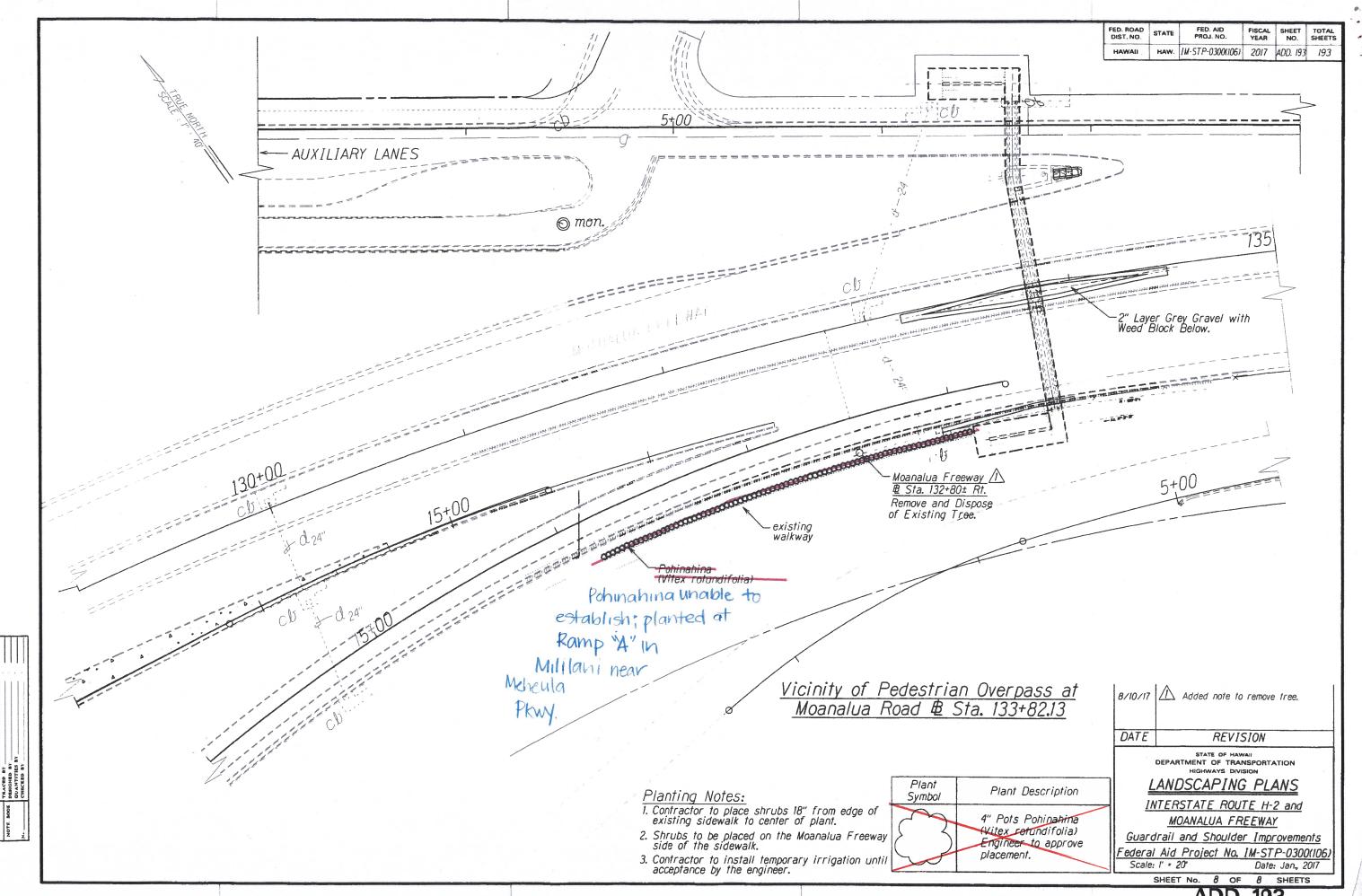
SHEET No. 4 OF 8 SHEETS



C.O.190







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