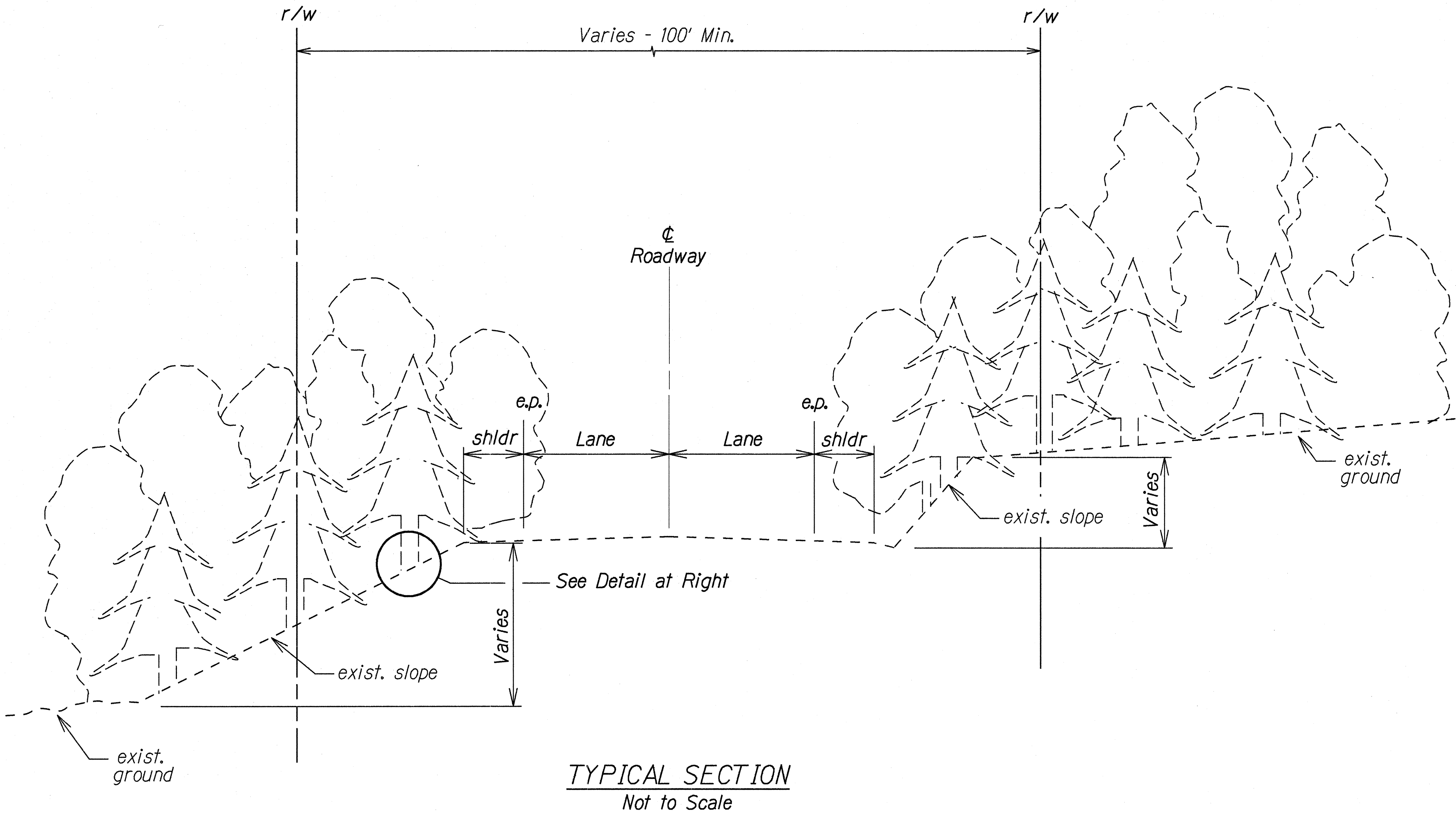


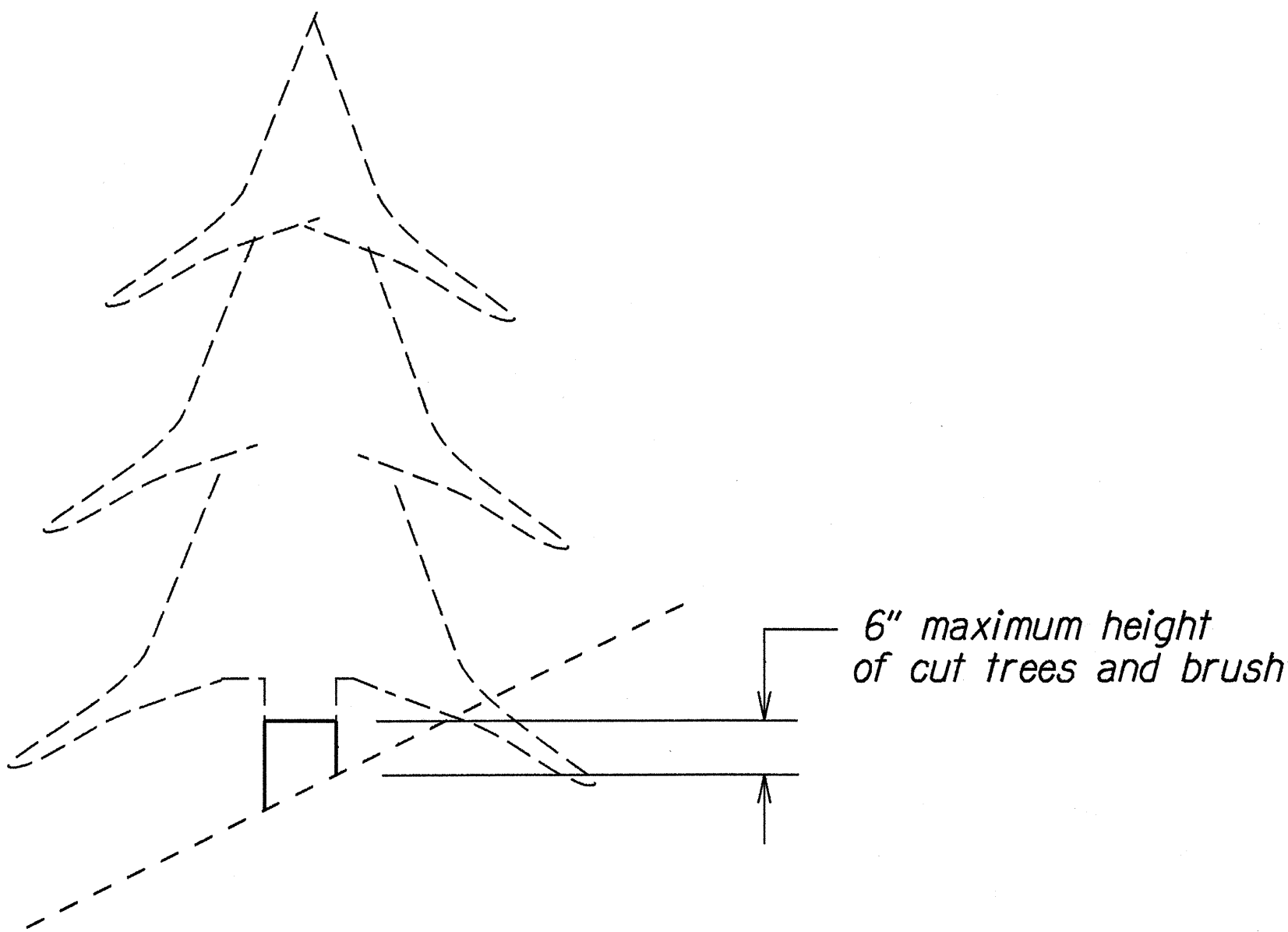
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	19J-01-97M	1997	34	35

Notes:

1. This work consists of trimming and removing trees, disposal of debris, and herbicide treatment of remnant stumps.
2. The Contractor shall inspect the project area for site conditions, tree and crown dimensions, and tree and crown locations prior to tendering a bid.
3. Contractor's attention is directed to Special Provision Section 689. Payment shall be made on a lump sum basis for trimming or removal of trees per site.
4. The Contractor shall be responsible for coordinating all the work for this item with the other contract items in this project. No adjustments shall be made to the contract for such coordination efforts.
5. See Sheet 35 for additional Details and Notes.



TYPICAL SECTION
Not to Scale



CUT STUMP HEIGHT DETAIL
Not to Scale

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTED	DRAWN BY	
DESIGNED BY	CHECKED BY	
DATE		

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**TREE TRIMMING SECTION
AND NOTES**

HAWAII BELT ROAD RESURFACING
PAUKAA TO PAPA'IKOU
PROJECT NO. 19J-01-97M

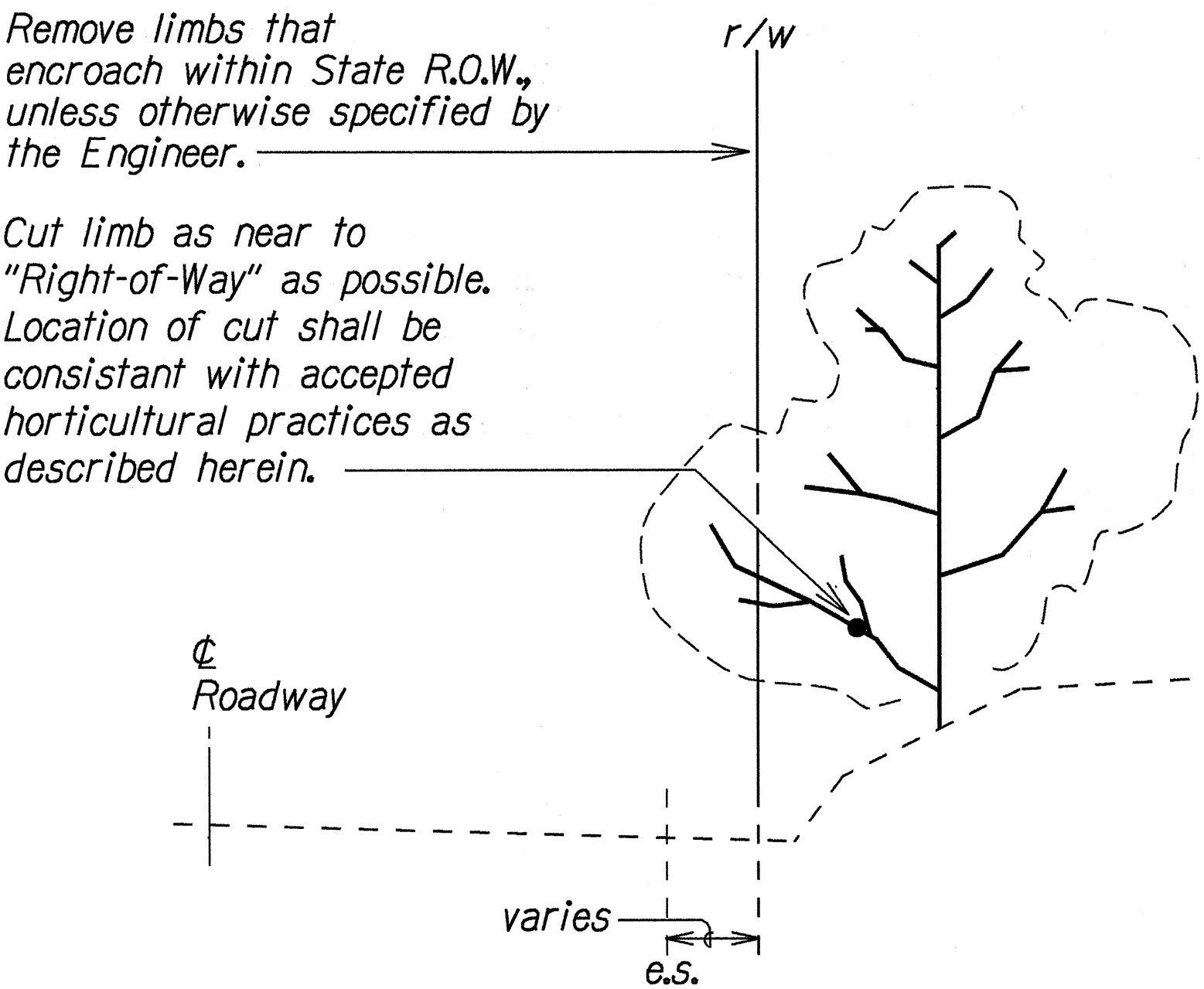
Scale: As Shown Date: Jan., 1997

SHEET No. 1 OF 2 SHEETS

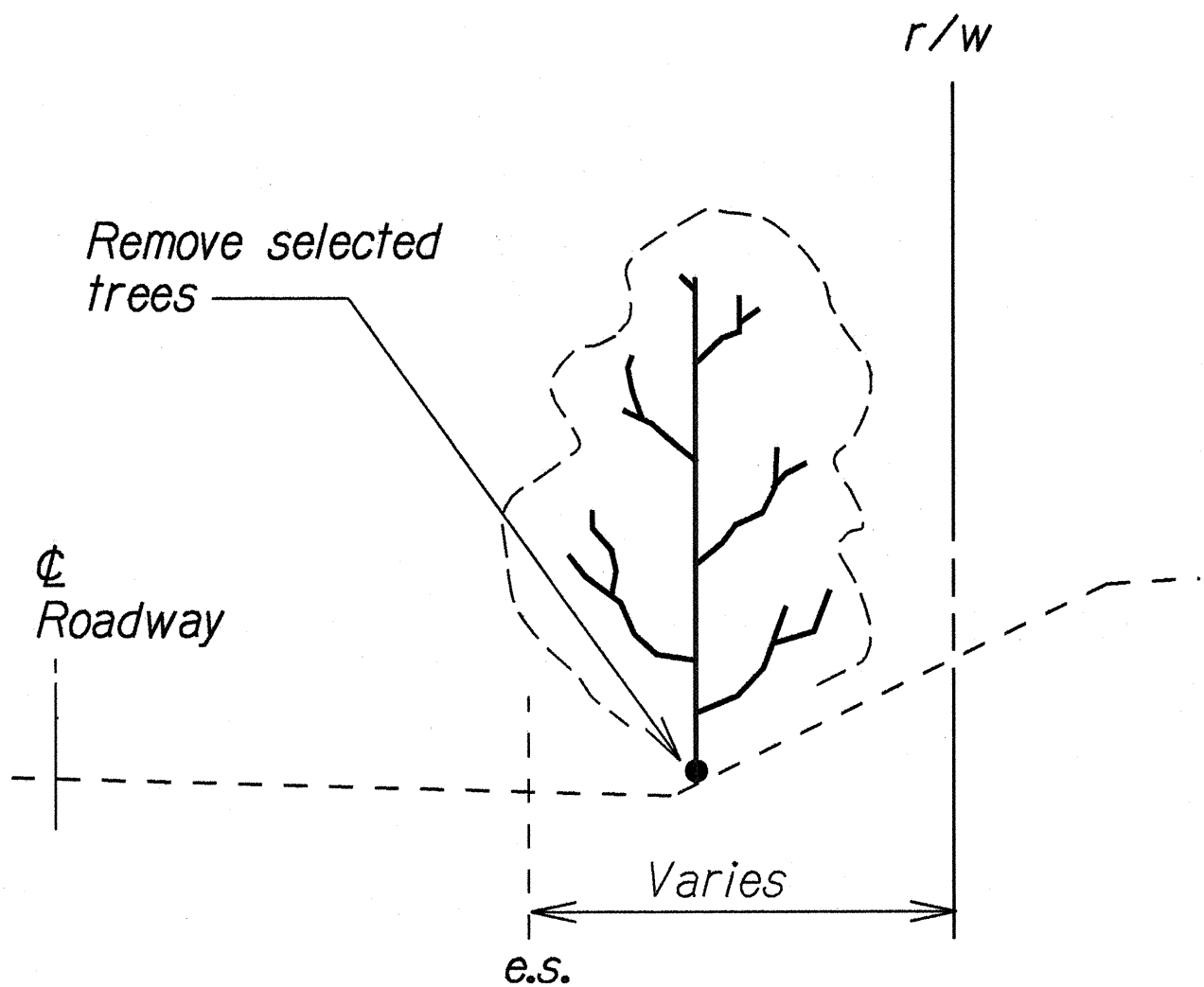
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	19J-01-97M	1997	35	35

Notes:

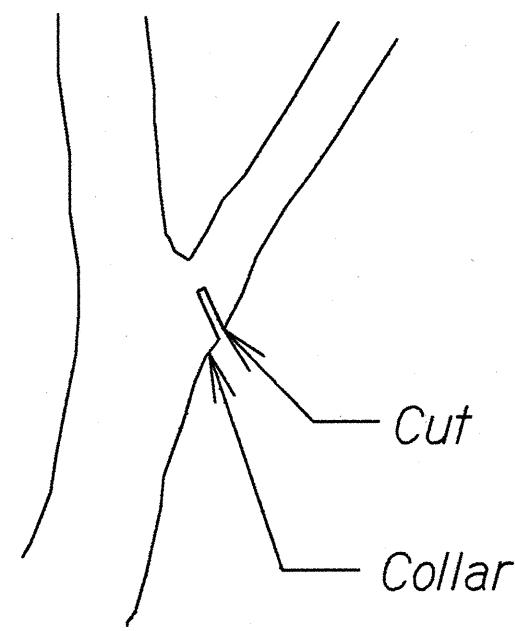
- Contractor's attention is directed to Landowner Notification requirements in Section 689 of the Special Provisions for trimming of branches of trees outside of the State Highway right-of-way.
- All diseased and/or dead branches that are on the trees trimmed in this project shall be cut off at the live portion of the tree. The Engineer may identify branches to remain that would otherwise be removed when applying the trimming details on this sheet.
- All trimming of Trees & Shrubs shall follow Standard Practices as per the Committee of the National Arborists Association, Inc. Requirements for Class II Pruning are described in notes 4 to 12.
- All cuts shall be made as close as possible to the trunk or parent limb, without cutting into the branch collar or leaving a protruding stub (see detail 'A'). Bark at the edge of all pruning cuts should remain firmly attached.
- All branches too large to support with one hand shall be pre-cut to avoid splitting or tearing of the bark (see detail 'B'). Where necessary, ropes, or other equipment should be used to lower large branches or stubs to the ground.
- Treatment of cuts and wounds with wound dressing or paints has not been shown to be effective in preventing or reducing decay, and is not generally recommended for that reason. Wound dressing over infected wood may stimulate the decay process. If wounds are painted for cosmetic or other reasons, then materials non-toxic to the cambium layer of meristematic tissue must be used. Care must be taken to apply a thin coating of the material only to the exposed wood.
- Old injuries are to be inspected. Those not closing properly and where the callus is not already completely established should be bark traced if the bark appears loose or damaged. Such tracing shall not penetrate the xylem (sapwood), and margins shall be kept rounded.
- Equipment that will damage the bark and cambium layer should not be used on or in the tree. For example, the use of climbing spurs (hooks, irons) is not acceptable work practice for pruning operations on live trees. Sharp tools shall be used so that clean cuts will be made at all times.
- All cut limbs shall be removed from the crown upon completion of the pruning.
- Trees susceptible to serious infectious diseases should not be pruned at the time of the year during which the pathogens causing the diseases or the insect vectors are most active. Similarly, if pruning wounds may attract harmful insects, pruning should be timed so as to avoid insect infestation.
- All visible girdling roots are to be reported to a supervisor and/or the Engineer.
- The presence of any disease condition, fungus fruit bodies, decayed trunk or branches, split crotches or branches, cracks or other structural weakness should be reported in writing to the Engineer and/or the owner and corrective measures recommended.
- Refer to Specification 689 for additional details & directions.



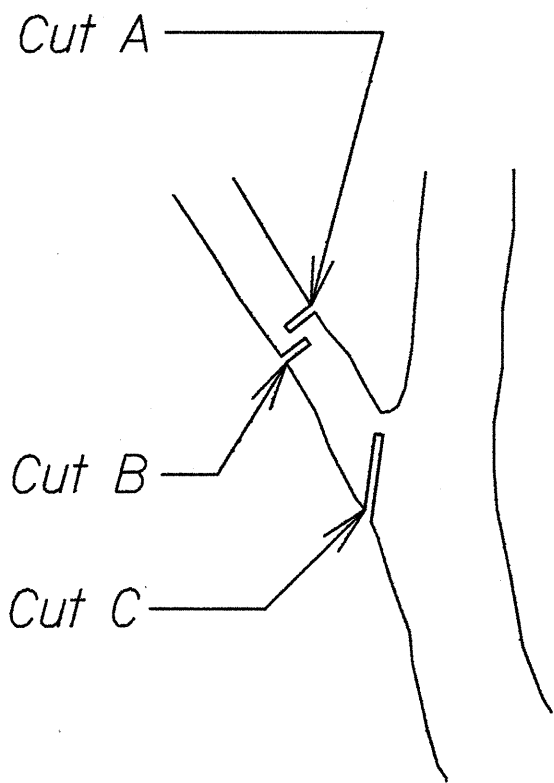
**TRIMMING LATERAL BRANCHES OF TREES
OUTSIDE THE STATE HIGHWAYS RIGHT-OF-WAY**
Scale: n.a.



REMOVAL OF TREES WITHIN STATE R/W
Scale: n.a.



DETAIL 'A'



DETAIL 'B'

CLASS II PRUNING STANDARD DETAILS
Scale: n.a.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**TREE TRIMMING SECTION
AND NOTES**

HAWAII BELT ROAD RESURFACING
PAUKA'A TO PAPA'IKOU
PROJECT NO. 19J-01-97M

Scale: As Shown
Date: Jan., 1997

SHEET No. 2 OF 2 SHEETS

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
libraris2	DESIGNED BY	
	QUANTITIES BY	
	CHECKED BY	