



*Florida Department of Transportation*

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**PROGRAM MANAGEMENT BULLETIN 16-05**

**PRODUCTION SUPPORT BULLETIN 16-02**

**ROADWAY DESIGN BULLETIN 16-10**

*(FHWA Approved: August 25, 2016)*

DATE: September 13, 2016

TO: District Directors of Transportation Operations, District Directors of Transportation Development, District Design Engineers, District Consultant Project Manager Engineers, District Construction Engineers, District Geotechnical Engineers, District Structures Design Engineers, District Maintenance Engineers, District Roadway Design Engineers, District Traffic Operations Engineers, District Program Management Engineers, District Materials Engineers, District Landscape Architects

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SUBJECT: Selective Clearing and Grubbing

*Standard Specification, Section 110*, Clearing and Grubbing, has been updated to address the protection and selective removal of existing vegetation. The updated specification provides the construction requirements for Selective Clearing and Grubbing activities when included in the contract. This part of the specification also provides for the creation of a Plant Preservation Area.

**REQUIREMENTS**

1. Replace *Plans Preparation Manual (PPM), Volume 2, Chapter 21* with the attached document.
2. The Basis of Estimates (BOE) pay items for Selective Clearing and Grubbing have been revised to reflect the new requirements of *Standard Specification, Section 110* and are described as follows:

### **110- 2- A Selective Clearing and Grubbing**

A = Type/level of work

2 (Areas with Trees to Remain) AC

3 (Plant Preservation Area) AC

Pay Item **110- 2- 2 Selective Clearing and Grubbing, Areas with Trees to Remain, Acre**, is to be used when vegetation is to remain and there is selective vegetation removal. Identify areas to Selectively Clear and Grub on the Selective Clearing and Grubbing plan sheet and identify the trees to remain. Also show the location of required tree protection barriers and branch pruning or root pruning.

Pay Item **110- 2- 3 Selective Clearing and Grubbing, Plant Preservation Area, Acre**, is to be used when Plant Preservation Areas are to be established. Designate protected areas, along with tree protection barrier on the Selective Clearing and Grubbing plan sheet. No construction activity is to be performed in these designated areas.

### **COMMENTARY**

The Department is continuing its efforts to improve beautification and aesthetics along Florida's transportation corridors. The Selective Clearing and Grubbing modification to the specification addresses preservation and selective removal of existing vegetation.

Selective Clearing and Grubbing Plans and Pay Items give the Department and Consultant Designers the ability to delineate and protect essential living assets in, and adjacent to, the right-of-way that are of no impact to safety or construction operations. Expected designer level of effort with respect to Selective Clearing and Grubbing is based on the context of the transportation corridor being considered. Special attention should be given to corridors where;

- (1) Existing trees have been previously protected and cared for,
- (2) Previous beautification projects have been implemented,
- (3) Roadway is designated as a Scenic Highways, and
- (4) Roadway passes through conservation lands.

Special attention should also be given to corridors with exceptional natural beauty that enhance the experience for the traveling public.

There is not an expectation that Selective Clearing and Grubbing be instituted on all jobs. A natural features inventory is not a requirement to implement Selective Clearing and Grubbing, a good faith effort to identify natural vegetation areas that can be preserved is all that is expected.

### **IMPLEMENTATION**

The requirements of this bulletin are effective on projects let July 2017 and later.

Implementation on lettings prior to July 2017, is not permitted due to the coordination with multiple specifications and pay item numbers.

The following manuals will be updated to reflect the requirements contained in this bulletin:

- **Standard Specifications, Section 110** will go into effect with the July 2017 eBook release.
- **CADD Manual** will be updated in November 2016
- **Plans Preparation Manual** will be posted in November 2016
- **Basis of Estimates** database within the Design Quantities and Estimates (DQE) program has been updated.
- **Standard Index 542, Tree Protection and Preservation**, will be released in November 2016.
- **Consultant Scope of Services Workbook** will be updated in November 2016

## **CONTACTS**

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MW/AB/mjh

Attachments  
PPM Volume 2, Chapter 21

## Chapter 21

### Selective Clearing and Grubbing

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## Chapter 21

### Selective Clearing and Grubbing

#### 21.1 General

Selective Clearing and Grubbing plan sheets show the extent and type of clearing operation required within the project right of way limits. These sheets may also show plant preservation areas and tree protection barrier.

Plant preservation areas are areas in which no clearing and grubbing activities are to occur. Vegetation, including grasses, wildflowers or trees are to be protected from and undisturbed by construction activities. For an illustration of a Selective Clearing and Grubbing sheet, see **Exhibit SCG-1**.

The amount and type of notes required for selective clearing and grubbing will vary depending on the project. It may be desirable to provide a separate Selective Clearing and Grubbing Detail sheet to display the notes, symbols and details that are applicable to the project. For an illustration of a Selective Clearing and Grubbing Detail sheet, see **Exhibit SCG-2**.

Place Selective Clearing and Grubbing sheets in the component plans in accordance with **Section 3.2.7** of this Volume.

#### 21.2 Plan Sheet

Use the standard plan format sheet provided in the FDOT CADD Software to prepare Selective Clearing and Grubbing sheets. Refer to the FDOT [CADD Manual](#) for CADD standards associated with selective clearing and grubbing.

Show complete existing topography and the centerline of construction with stationing, proposed edge of roadway pavement lines, R/W lines, canopy of existing trees to remain, tree protection barrier and limits of construction. Show a legend on each sheet depicting the type of selective clearing and grubbing operation to be performed.

Place a north arrow and scale in a conspicuous location, typically in the upper right portion of the sheet. Use a scale that provides clarity and legibility. Use appropriate match lines when necessary.

When two or more tree canopies overlap, the entire outline of the tree canopies can be shown as one mass. Show tree protection barrier and root pruning locations. When existing trees to remain are to be root pruned, the trees will be assigned a label which is to be shown adjacent to the tree trunk. Trees that are to be branch pruned may also be labeled in the plans. Each tree does not need to be labeled when a group of trees are to be branch pruned. Label areas of root or branch pruning on the plans or in the Work Table. The disposition of labeled trees is to be shown on Tree Disposition sheets.

Where clarification is needed, trees to be removed may be noted on the plan.

Delineate areas of tree protection and plant preservation areas with tree protection barrier. Tree protection barrier may be used to delineate areas of selective clearing and grubbing. When a plant preservation area is adjacent to a R/W fence to remain, or similar permanent barrier, tree protection barrier parallel to the permanent barrier may be omitted.

## **21.3 Detail Sheet**

### **21.3.1 Work Table**

For an illustration of a Selective Clearing and Grubbing Work Table, see **Exhibit SCG-2**.

Selective clearing and grubbing areas are defined and labeled by location. Location numbers can be based on roadway stationing numbers, quadrants or sheet numbers.

Provide a Selective Clearing and Grubbing Work Table when the project includes selective removal of vegetation. As a minimum, the table includes:

- Abbreviated name of primary species to remain
- Abbreviated name of primary species targeted for removal
- Work Description

Other information that may be included in the table:

- Florida Exotic Plant Council Category #1 species to be removed
- Estimated percent of Category #1 vegetative cover for each area
- Additional species to target for removal, and/or additional species to preserve
- Root and branch pruning
- Notes

### **21.3.2 Legend and Work Table Notes**

Include a legend with the Selective Clearing and Grubbing Work Table. The legend is to show all plant species noted in the table. Plant species are typically abbreviated by the first letter of the genus and the first letter of the species of the botanical name; e.g. show Live Oak, *Quercus virginiana* as QV.

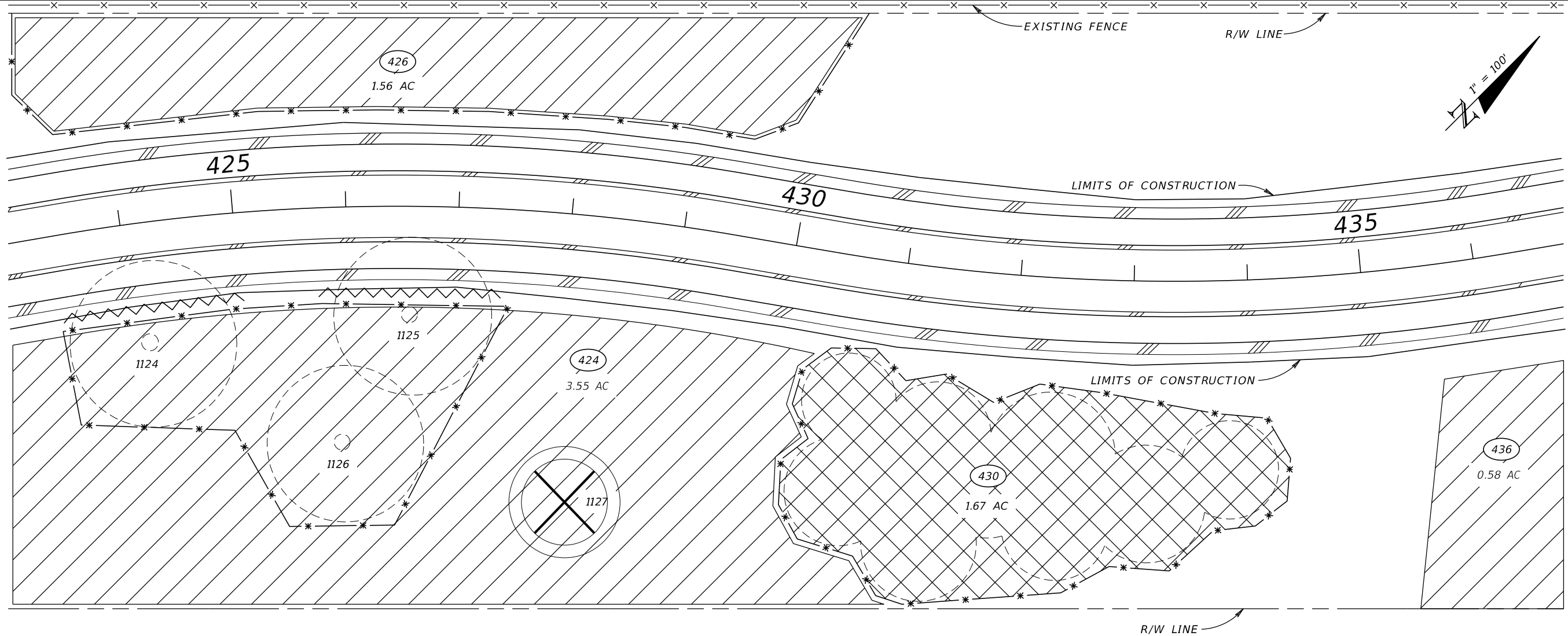
Except where called out in the Work Table Notes or Selective Clearing and Grubbing Work Table, list undesirable exotic pest plants, as listed as Category I by the Florida Exotic Pest Plant Council to be totally removed.

Provide the following note on the Selective Clearing and Grubbing Detail sheet:

“Primary” species to target (remove) or preserve are those that were determined to be most prevalent in that area, and are not intended to be the only species that occur.



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**LEGEND**

- \* — TREE PROTECTION BARRIER
- ⚡ ROOT PRUNING LINE
- (dashed) CANOPY OF EXISTING TREE TO REMAIN  
(DASHED LINE DENOTES DRIPLINE OF TREE)
- ⊗ TREES TO BE REMOVED
- ⊗ (XX) SELECTIVE CLEARING AND GRUBBING
- ⊗ (XX) PLANT PRESERVATION AREAS

**NOTES**

1. TREE DESIGNATION (ID) NUMBERS TO BE DETAILED ON THE TREE DISPOSITION SHEETS.

**EXHIBIT SCG-1**  
Date: 1/1/17

REVISIONS				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		

SELECTIVE CLEARING & GRUBBING WORK TABLE					
AREA ID	WORK DESCRIPTION	EST. % OF PRIMARY SPECIES TO TARGET	PRIMARY SPECIES TO TARGET	SPECIES TO PRESERVE	NOTES
424	DESIGNATES AREAS WHERE CATEGORY #1 INVASIVE, EXOTIC VEGETATION AND NATIVE UNDERSTORY WILL BE SELECTIVELY REMOVED FROM LARGE DESIREABLE TREES TO REMAIN. ALL TREES UNDER 4" DBH TO BE REMOVED.	75%	JP, BP, LY, AA	PE, QV, SP	RAISE CANOPY OF QV BY PRUNING. REMOVE LARGE TREE DEBRIS OR GRIND ON SITE AND SPREAD IN UPLAND (NON-GRASSED) AREAS.
426	DESIGNATES AREAS WHERE ALL NATIVE VEGETATION WILL BE MOWED FLUSH WITH THE GROUND AND ALL CATEGORY #1 INVASIVE, EXOTIC VEGETATION WILL BE TREATED WITH HERBICIDES AND ALLOWED TO DIE IN PLACE.	100%	CT, BP, WW	NONE	INCLUDES REMOVAL OR MOWING OF WILLOWS AND WAX MYRTLE.
436	DESIGNATES AREAS WHERE CATEGORY #1 INVASIVE, EXOTIC VEGETATION WILL BE SELECTIVELY REMOVED FROM DESIREABLE VEGETATION TO REMAIN.	50%	JP, BP, LY	PE, QV, SP	

**WORK TABLE NOTES**

- "PRIMARY" SPECIES TO TARGET (REMOVE) OR PRESERVE ARE THOSE MOST PREVALENT IN THAT AREA.  
  
THE FOLLOWING ADDITIONAL UNDESIRABLE NATIVE SPECIES WILL BE TARGETED FOR REMOVAL IN ALL AREAS LISTED IN THE WORK TABLE.  
  
BOTANICAL NAME (COMMON NAME)  
MYRICA CERIFERA (SOUTHERN WAX MYRTLE)  
TYPHA SPP. (CATTAILS)
- ESTIMATED PERCENTAGES OF INVASIVE EXOTIC VEGETATION ARE BASED ON FIELD OBSERVATIONS AND ARE SUBJECT TO CHANGE.
- THE FOLLOWING CATEGORY #1 INVASIVE SPECIES WILL NOT BE TARGETED FOR REMOVAL.  
  
BOTANICAL NAME (COMMON NAME)  
SOLANUM TAMPICENSE (WETLAND NIGHTSHADE)  
PANICUM REPENS (TORPEDO GRASS)

**SPECIES LEGEND**

(SYM)	BOTANICAL NAME (COMMON NAME)
(AA)	ACACIA AURICULIFORMIS (EARLEAF ACACIA)
(BP)	SCHINUS TEREBINTHIFOLIUS (BRAZILIAN PEPPER)
(CT)	TYPHA SPP. (CATTAILS)
(JP)	SYZYGIVM CUMINI (JAVA PLUM)
(LY)	LYGODIUM SPP. (JAPANESE/OLD WORLD CLIMBING FERN)
(MC)	MYRICA CERIFERA (SOUTHERN WAX MYRTLE)
(PE)	PINUS ELLIOTTII (SLASH PINE)
(SP)	SABAL PALMETTO (SABAL PALM)
(QV)	QUERCUS VIRGINIANA (LIVE OAK)
(WW)	SALIX CAROLINIANA (COASTAL PLAIN WILLOW)

ONLY USE WITH SELECTIVE CLEARING AND GRUBBING PAY ITEMS

EXHIBIT SCG-2  
Date: 1/1/17

REVISIONS				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION	SELECTIVE CLEARING AND GRUBBING DETAIL SHEET	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION			