

KT.3.5.2# - DESIGNATION BY SPECIES AND DIAMETER (09/2004)

Tree Designation Table

Payment Unit(s)	Designated Species <u>1</u>/	More than Stump Diameter (inches) <u>2</u>/	Less than Stump Diameter (inches) <u>2</u>
2,3,4,5,7,8,9	"LIVE" SLP, WS, MH, CEDAR	N/A	N/A

KT-CT.3.5.5# - INDIVIDUAL TREES, CUT TREE MARKING (06/2009)

Individual trees to be cut are marked with indicated color above and below stump height in all or parts of the following Payment Unit(s). Areas of cut tree marking are shown on the Contract Area Map with the symbol "CTM."

PAYMENT UNITS	PAINT COLOR
1	BLUE
6	BLUE
10	BLUE

KT-FT.3.1#- ROAD MAINTENANCE REQUIREMENTS (09/2004)

Contract Road Maintenance Requirements Summary

Road	Termini		Miles	Applicable Prehaul Road Maintenance Specifications										
	From	To		T-8110	T-8130	T-8310								
1163.010	0+00	70+22	1.33	P	P	P								

P = Purchaser Performance Item, D = Deposit to Forest Service, D3 = Deposit to Third Party

Place 200 tons of #23 and/or #53 and/or #2 aggregate on Road 1163.010 in areas designated by the FS for pre-haul rocking (T-8130). If the required tonnage is not needed the remaining tonnage shall be stockpiled or placed in an area/location designated by the FS.

Road	Termini		Miles	Applicable During Haul Road Maintenance Specifications										
	From	To		T-8030	T-8110	T-8130	T-8310	T-8420	T-8620					
1163.010	0+00	70+22	1.33	P	P	P	P	P						
1161.020	0+00	43+30	0.82	P	P	P	P	P	P					

P = Purchaser Performance Item, D = Deposit to Forest Service, D3 = Deposit to Third Party

Road	Termini		Miles	Applicable Post Haul Road Maintenance Specifications										
	From	To		T-8110	T-8130	T-8310								
1163.010	0+00	70+22	1.33	P	P	P								
1161.020	0+00	43+30	0.82	P	P	P								

P = Purchaser Performance Item, D = Deposit to Forest Service, D3 = Deposit to Third Party

Place 300 tons of #23 and/or #53 and/or #2 aggregate on FSR 1163.010 and 260 tons of #23 and/or #53 and/or #2 aggregate on FSR 1161.020 in areas designated by the FS for during haul and post haul spot rocking (T-8130), If the required tonnage is not needed the remaining tonnage shall be stockpiled or placed in areas/location designated by the FS.

KT-GT.9#- STEWARDSHIP PROJECTS (09/2004)

Mandatory work under this contract consists of the following project numbers:

01-07. Mechanical site preparation- within Payment Units 2-5 and 7-9, Contractor shall cut and sever from the stump all sub and non-merchantable trees from 1.0 – 6.9 inches dbh. Contractor will leave any shagbark hickories above 4 inches dbh. Stump heights will be less than 6 inches. Refer to Contract Area Map 2 of 6. The following table lists the acres to treat by Payment Unit:

Project Number	Payment Unit Number	Acres
1	2	9
2	3	7
3	4	10
4	5	13
5	7	10
6	8	6
7	9	5

08. Mechanical and herbicide treatment of shrubs and woody vines- Contractor shall cut and immediately apply herbicide to the stump of non-native invasive species (NNIS) on approximately 5.60 acres within three forest openings in the Mogan Ridge area of Perry County. Autumn olive is the primary species of emphasis under this project number. Refer to Contract Area Map 4 of 6 for the locations of openings to be treated under this project number.

09. Foliar herbicide treatment of shrubs and woody vines- Contractor shall treat by foliar applications of herbicide Japanese honeysuckle, multiflora rose and autumn olive infestations scattered throughout and on the forested edge of approximately 17.70 acres within two forest openings in the Mogan Ridge area of Perry County. Refer to Contract Area Maps 4 of 6 for the locations of these openings.

14. Foliar herbicide treatment of shrubs and woody vines- OPTIONAL PROJECT- Contractor shall treat by foliar applications of herbicide Japanese honeysuckle, multiflora rose and autumn olive infestations scattered throughout and on the forested edge of approximately 12.30 acres within 5 forest openings in the Mogan Ridge area of Perry County. Refer to Contract Area Map 4 of 6 for the locations of these openings.

15. Foliar herbicide treatment of shrubs and woody vines- OPTIONAL PROJECT- Contractor shall treat by foliar applications of herbicide Japanese honeysuckle, multiflora rose and autumn olive infestations scattered throughout and on the forested edge of approximately 6.20 acres within 3 forest openings in the Mogan Ridge area of Perry County. Refer to Contract Area Map 5 of 6 for the locations of these openings.

16. Foliar herbicide treatment of shrubs and woody vines- OPTIONAL PROJECT- Contractor shall treat by foliar applications of herbicide Japanese honeysuckle, multiflora rose and autumn olive infestations scattered throughout and on the forested edge of approximately 4.50 acres within 6 forest openings in the Mogan Ridge area of Perry County. Refer to Contract Area Map 5 of 6 for the locations of these openings.

The following table summarizes the number of forest openings to treat and the estimated number of acres to treat by project number:

Project Number	Number of forest openings to treat by project number.	Estimated number of acres to treat by project number.
8	3	5.60
9	2	17.70
14*	5	12.30
15*	3	6.20
16*	6	4.50

*- Optional projects

The Contractor will provide all herbicides, carriers, adjuvants, materials, equipment, tools, supplies, permits, worker personal protective equipment (PPE) and incidentals necessary to perform project numbers 8-9 and 14-16. Contractor shall use selective herbicides or a selective method to reduce mortality of non-target plant species. Application operations shall be conducted as indicated on the herbicide label, including approved herbicide concentrations, rates/acre, and environmental conditions. The use of an herbicide other than the ester formulation of triclopyr (Garlon 4[®] or equivalent product) is required within 100 feet of water.

Herbicide applicators, either the Contractor, or a sub-contractor if used, must have a valid Indiana state commercial pesticide applicators license. Information on Indiana pesticide certification is available at: <http://www.oisc.purdue.edu/pesticide/index.html>

The Contractor, or sub-contractor if used, is responsible for the cleanup of any spills and will notify the Contractor Officer's Representative (COR) immediately of any spills. The Contractor must have herbicide labels and copies of material safety data sheets (MSDS) of chemicals used on site. The Contractor must provide copies or notification by telephone or email of herbicide labels and MSDS of chemicals to the COR prior to the start of work.

Contractor will place caution signs around the sprayed areas according to the appropriate interval per label directions of the chemical used in application areas where the public may have contact with herbicide (e.g. trail or road entry points). Where necessary, per label directions, caution signs may include a temporary closure of treatment areas.

The Contractor, or sub-contractor if used, will provide a written safety plan that demonstrates how the contractor will ensure a safe work environment for themselves, their employees and the public. The safety plan should include: 1) a chemical spill plan documenting internal procedures, in the event of a pesticide spill on-site or in transport, 2) documentation to substantiate that the Contractor has an ongoing safety training program, 3) documentation regarding any Occupation Safety and Health Administration (OSHA) actions/citations issued against the Contractor within the previous three (3) years, to include follow-up measures or remedies taken by the Contractor.

Indiscriminate broadcast applications or aerial spraying is not allowed. Where appropriate, vehicle or UTV mounted sprayers is permissible to apply herbicides in designated old fields or grassland openings, and along roads. ATV's cannot be used for these projects. Other spot spraying, typically involves the use of backpack sprayers or other hand techniques, and along some wider trails UTV mounted sprayers is also permissible. Suitable dye is required to indicate where applicators have sprayed or used herbicides.

Mechanical cutting of NNIS under project number 8 may be done with handtools, chainsaws or equipment such as fecon/tree cutter on a skid steer. The maximum cut stump height is 6 inches from the ground surface.

Foliar herbicide application will occur mainly after full leaf expansion and applicators will apply herbicides in a systematic fashion to provide coverage to the entire NNIS infestation. Contractor shall apply foliar spray in such a manner to thoroughly wet foliage, but not to the point of runoff to avoid harm or mortality to desirable non-target plant species. There are multiple rare native plant species in treatment areas. All herbicide applicator staff must be able

to identify target NNIS plant species in the field, including dormant seasons, to a sufficient degree without exceeding the maximum acceptable levels of mortality to desirable non-target native species and to meet minimum kill rates to target NNIS infestations.

Contractor will conduct treatments to at least 90-95% of the specified project numbers of the target NNIS infestations. Contractor will conduct treatments at a sufficient interval and concentration to meet or exceed the kill rate ranging from 85-90% for target NNIS infestations, and with no more than 10-15% mortality to nearby or interspersed desirable non-target native plant species because of inadvertent treatment or overspray of herbicides.

10-13. Opening Maintenance- Contractor will maintain the early successional habitat characteristics of 4 openings totaling approximately 83 acres by use of a mower or brush hog to inhibit the growth of tree species. Contractor shall be able to identify and remove all unwanted tree species in project area, such as maples, tulips, beech, pines and other tree species directed by the COR. Species such as oaks, hickories, dogwood, persimmon and cherry shall remain. Location of winter cover of grasses and flowers from 25-50% of the area shall also remain as designated by the COR. All unwanted woody vegetation ≤ 3 "DBH shall be mowed.

The deck height of mowing equipment shall be set between 3-6 inches from the ground.

Opening maintenance must take place after 8/15/2016 and all mowing must be completed by 10/1/2016 unless the Forest Service determines conditions are suitable to allow mowing beyond 10/1/2016.

Before implementation, the COR will meet the Contractor on site to address the opening maintenance specifications. Where necessary, Contractor must pull, and then replace barrier posts when access to Contract Area is needed.

The Forest Service has a legal right-of-way for access to project number 12 by crossing the private land to the south of project number 12. The COR will identify the location of this right-of-way for the Contractor. Refer to Contract Area Map 3 of 6 for the locations of these openings.

The following table summarizes the estimated acres of opening maintenance by project number. Additionally, there is a required order to maintain the openings as listed in the table:

Project Number	Estimated acres of opening maintenance	Order of maintenance
10	9	1
11	13	2
12	34	4
13	27	3

To prevent the spread of NNIS, the Contractor or sub-contractors shall not move any off-road equipment including ATV's, UTV's, tractors, mowers or brush hogs, skid-steers, or other equipment onto the Contract Area without taking reasonable measures to rid equipment of soil, seeds, vegetative matter, or other debris that could contain or hold seeds. The Forest Service will inspect the Contractor's equipment for clean equipment prior to Contractor beginning work.

KT-IT.2.3.1# - ADDITIONS OF NET GROWTH (06/2009)

Species Groups	Products	Annual Growth Percentage	Payment Units to Which Applicable
All Hardwoods, Cedar	Sawtimber and Pulpwood	1%	All
All Pine	Sawtimber and Pulpwood	3%	All