



TIMBER SALE PRESCRIPTION

GENERAL

Date 8/21/08	Forest, Mineral and Fire Management Unit Grayling
Timber Sale Number (if applicable) 728060901	Sale Name (or prescription name) Compartment 206 mix

LOCAL CONTACT

Name Lucas Merrick	Telephone (989) 348-6371 ext: 7446
Email Address MerrickL@michigan.gov	FAX (989) 348-8825

Map of Project Area Attached

LEGAL DESCRIPTION

T27N R04w Section(s) 24 Description: SESE, N1/2SE, NE1/4, NW1/4-sec24

Compartment(s): 206 (YOE 2009) stands 3, 10, 13, 25, & 26

THIS TIMBER SALE CONTRACT IS BASED ON THE FOLLOWING ACREAGE

Estimated Acres: 197 Source: OI GPS Other _____

Payment will be made on the basis of these estimated acres.

TREATMENT & OBJECTIVE

STAND #	COVER TYPE	ACRES	BA	TREATMENT	MANAGEMENT OBJECTIVE
03	R6	25	140	Thinning	Red Pine
10	O9	63	80	Seed Tree	Oak
13	A6	39	70	Final Harvest	Aspen
25	O6	57	120	Final Harvest	Oak
26	R6	13	130	Thinning	Red Pine

PRESCRIPTION

1. Stand 03-Thinning-Mark to cut to a residual of 80 BA
2. Stand 10-Seed Tree Mark-to-Leave to a residual of 20 BA with retention
3. Stand 13-Final harvest with retention
4. Stand 25-Final harvest with retention
5. Stand 26- Thinning-Mark to cut to a residual of 70 BA

Access: From the entrance of the Grayling High School go north 1.5 miles on Old U.S. 27, then turn right follow two-track to the snowmobile trail.

DNR PREPARATION WORK TO BE DONE PRIOR TO CONTRACT WORK	ESTIMATED DATE

CONTRACT WORK CAN BEGIN

Immediately Date: 10/1/2008

CONTRACT WORK MUST BE COMPLETED BY July 31, 2009

PAINT LINE WORK This is included in the bid This is not included in the bid**Paint line work to be performed: (See attached map for locations)**

TYPE OF LINE	WORK TO BE DONE	NOT APPLICABLE	PAINT COLOR	
Private boundary	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> Blue	<input type="checkbox"/> Other:
Sale boundary	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Red	<input type="checkbox"/> Other:
Sale cutting unit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Yellow	<input type="checkbox"/> Other:
Retention islands & leave clumps	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Green	<input type="checkbox"/> Other:

Exclusions to mark and why: For retention: In stand 10 leave a total of 5% of the stand in 0.25 acre islands scattered throughout the stand. In addition mark all red pine trees larger than 20 inches at DBH with a single green paint line that encircles the trees. In stand 13, leave a total of 3% of the stand acres in scattered islands ranging in size from 0.25 - 0.5 acre along the snowmobile trail. In stand 25 leave a total of 8 % of the stand in 0.25 – 0.5 acre islands scattered throughout the stand avoid leaving any aspen in the retention islands, in addition leave one **HEALTHY** oak every two acres with a single green paint line that encircles the trees.

Standards for marking lines against private land

N/A

AREA CALCULATION This is included in the bid This is not included in the bid

UNIT	METHOD	STANDARD
Sale	<input checked="" type="checkbox"/> GPS <input type="checkbox"/> String Chain <input type="checkbox"/> Other	
Payment Unit	<input checked="" type="checkbox"/> GPS <input type="checkbox"/> String Chain <input type="checkbox"/> Other	
Stand	<input checked="" type="checkbox"/> GPS <input type="checkbox"/> String Chain <input type="checkbox"/> Other	
Retention Island	<input checked="" type="checkbox"/> GPS <input type="checkbox"/> String Chain <input type="checkbox"/> Other	

Special Instructions: GPS files must provide acreage for the total sale area and for each stand, payment unit and retention island. Unit lines must be recorded as line features. Retention islands must be recorded as area features.

See APPENDIX A

TIMBER CRUISING SPECIFICATIONS This is included in the bid This is not included in the bid**Required Basal Area Factor:** 10 20 Other:**Cruise Line Directions** East/West

CRUISING UNITS	NUMBER OF PLOTS PER ACRE	SPACING (CHAINS)
1 (stand 03)	1	3.3 X 3
2 & 3 (stand 10)	0.8	3.3 X 4
4 (stand 13)	1	3.3 X 3
5 & 6 (stands 25)	0.9	3.3 X 3.5
7 (stand 26)	1	3.3 X 3
TOTAL NUMBER OF CRUISE POINTS	117	

Cruise Special Instructions: Cruise all species separately. Separate cruise data by stand.

See APPENDIX 8 (will be provided upon request) and APPENDIX B

Unless otherwise specified, the tally sheets used must be those supplied by the Forest, Mineral and Fire Management Unit.

TIMBER MARKING SPECIFICATIONS

This is included in the bid This is not included in the bid

Precise specifications to be delineated at pre-work meeting with DNR staff

Total Merchantable Residual BA (Basal Area): see below (Minimum see below to Maximum see below)

TREATMENT		NUMBER	SIZE
Regeneration Gaps Per Acre			
Girdled Trees Per Acre			
PRODUCT	MARKING SYMBOL	MINIMUM DBH	TOP DIB
Sawlogs			
Sawbolts			
Pulpwood			

TYPE OF WORK	WORK TO BE DONE	NOT APPLICABLE	PAINT COLOR
Trees marked to leave	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Green <input type="checkbox"/> Other
Trees marked to cut	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Orange <input type="checkbox"/> Other

TALLY INTENSITIES

SPECIES / PRODUCT	RATIO
	1 :

SPECIAL MARKING INSTRUCTIONS:

In stand 3, mark-to-cut with orange paint to a residual BA of 80 (min 70 to max 90). Removing the majority of jack pine, but leaving some for retention. Also marking the suppressed red pine around the oak trees.

In stand 10, mark-to-leave with green paint to a residual BA of 20 (min 10 to max 30), concentrating on cutting the smaller diameter oak, and marking all red pine trees larger than 20 inches at DBH with a single green paint line that encircles the tree to leave.

In stand 26, mark-to-cut with orange paint to a residual BA of 70 (min 60 to max 80), taking out some of the economically mature pine, but marking for future poles.

Unless otherwise specified, the tally sheets used must be those provided by the Forest, Mineral and Fire Management Unit.

RESTRICTIONS

1. Forest, Mineral and Fire Management Division must be able to identify who did what on the timber sale.
2. The contractor may not have more than two markers in one payment unit without prior approval.
3. Each marker should have an assigned area to mark (not strips).

PAINT

1. Call Lucas Merrick at (989) 348 - 6371 ext: 7446, to make arrangements for paint.
2. Paint will be supplied from the Grayling Field Office.
3. Contractor's work schedule must coincide with the DNR work schedule for paint supply.
4. The DNR will not be available on weekends or evenings.

DELIVERABLES

1. A list of names that marked or cruised each payment unit.
2. A summary of paint used (in quarts).
3. Tally summaries for each payment unit (one summary, regardless of the number of markers) and all of the original tally sheets.
4. GPS files for any GPS work.
5. Cruise data entered into POSALE and exported onto a disk. Use the sale name and number from page 1.

Grayling Management Unit **Boundary Marking and Area Calculation**

1. The attached type map delineates the contract marking area.
2. Marking must be done in dry weather and when tree surfaces are not wet.
3. Paint the boundary line in such a way that it can be seen from both the inside of the sale area and when walking along the line from either direction (two sides). Each boundary line tree must be stump-marked at the base of the stump (one side) between the roots extending all the way to the ground.
4. Paint a unit line which will constitute the payment unit boundary, dividing the sale into payment units, as shown on the attached map.
5. Place marks approximately six feet above the base of the tree.
6. The contractor will keep track of total quarts of paint used per sale by color.
7. The contractor will use a GPS unit to determine enclosed acreage to the nearest one-tenth acre, unless an alternative method is approved prior by Unit Management.
8. GPS units used must be compatible with Pathfinder Office (2.01 or later) and capable of producing a Trimble .cor file format. Supply a disk and paper copy of the corrected and edited (outlier/erroneous points cleaned up) traverse file.
9. Position Mode must be set so that the GPS receiver collects data from a minimum of four satellites. This must be recorded in the position properties window after downloading.
10. The GPS receiver must log PDOP. This log must be recorded in the position properties window after downloading.
11. PDOP mask must be less than or equal to 8.
12. SNR setting must be greater than or equal to 4.
13. Sale boundaries are to be recorded as an area feature, not a line. Isolated stands must each be recorded as separate area features.
14. Payment Unit lines must be recorded as a line feature bisecting the sale.

Grayling Management Unit Timber Cruising Specifications

1. Cruise designated timber using Appendix 8 Product Standards to determine products and heights of products. Separate cruise data by species/product. Appendix 8 will be provided upon request.
2. Cruise at the sampling intensity specified in the Timber Sale Prescription and apply that rate to your actual GPS'd stand acreage.
3. Separate cruise data by stand.
4. Use a 10-factor prism.
5. Mark location of plots on the map, using the plot number.
6. Record residual BA of trees where applicable. Record any mark-to-girdle trees separately. Do not count mark-to-girdle trees toward the specified residual BA target.
7. Unless otherwise agreed to by the contract administrator and the contractor, plot center will be marked by a stake or stick firmly inserted in the ground (not snow) with a ribbon attached to it at a height of not less than two feet above the ground, and labeled with the PU/stand number and plot number. In addition, ribbon at least 12 inches long must be attached to the tree closest to plot center.
8. All cruise sheets must be labeled with the compartment #, stand #, unit #, prism factor, date, individual tree species, and the cruiser's name.
9. The Grayling Management Unit Office will provide cruise sheets.
10. A copy of the "POSALE" program will be provided to the successful bidder for cruise data entry. Original cruise sheets and a disk containing cruise data exported from POSALE must be delivered upon the completion of the sale. Note: At the cruise data entry screen in POSALE, when prompted to enter the stand acres, enter your actual GPS file acres – NOT the contract's estimated inventory-based acreage.