



TIMBER SALE PRESCRIPTION

GENERAL

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| Date 02/19/2009 | Forest, Mineral and Fire Management Unit Cadillac FMU |
| Timber Sale Number (if applicable) 63-010-09-01 | Sale Name (or prescription name) C26 Small Pieces |

LOCAL CONTACT

| | |
|--|---|
| Name Cheryl Nelson | Telephone (231) 745 - 4651 Ext. 6942 |
| Email Address nelsonca@michigan.gov | FAX (231) 745 - 8743 |

Map of Project Area Attached

LEGAL DESCRIPTION

T18N R12W Section(s) 31 Description See Map

Year of Entry: 2007 Compartment(s):26 Stand Number(s): 17, 99, 102, 214

THIS TIMBER SALE CONTRACT IS BASED ON THE FOLLOWING ACREAGE

Estimated Acres: 53 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 |
|---------|------------|-------|-----|------------------|----------------------|
| 17 | O6 | 15 | 110 | Seed Tree | Oak |
| 99 | O6 | 15 | 100 | Shelterwood-Seed | Oak |
| 102 | J6 | 10 | 90 | Final Harvest | Jack Pine |
| 214 | J6 | 13 | 70 | Seed Tree | Jack Pine |
| | | | | | |
| | | | | | |
| | | | | | |

PRESCRIPTION

- Stand 17: Mark oak 10"DBH or larger to leave for mast and seed source. Residual BA avg. 10 square feet.
- Stand 99: Mark black oak 10" or larger to leave. Leave all white oak. Remove all white and red pine. Residual BA avg. 60 square feet.
- Stand 102: Mark oak 10"DBH or larger to leave for mast and seed source. Remove all other species. Residual BA avg. 10 square feet.
- Stand 214: Mark to leave one oak 10" or larger every 75'. Do not remove any regeneration under 2" DBH. Residual BA avg. 10 square feet.
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Access See map.

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

CONTRACT WORK CAN BEGIN

Immediately Date: _____

CONTRACT WORK MUST BE COMPLETED BY Date 09/01/2009

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 checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" 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 type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yellow | <input type="checkbox"/> Other: |
| Stand type line | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> Red | <input type="checkbox"/> Other: |

Exclusions to mark and why**Standards for marking lines against private land**

1) Private boundary trees should be marked with blue paint forming a "V" at DBH, with the "V" facing into the sale area.

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 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 | |

Special Instructions:

1) GPS units must be compatible with ArcView or Pathfinder software. A CD of the traverse shapefile (.shp) and/or corrected file (.cor) must be supplied to the DNR office. Alternatives to the CD include emailing the file(s) or providing the office with a flash drive.

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**

| CRUISING UNITS | NUMBER OF PLOTS PER ACRE | SPACING (CHAINS) |
|--------------------------------------|--------------------------|------------------|
| All | 1 | 3 X 3 |
| | | X |
| | | X |
| | | X |
| TOTAL NUMBER OF CRUISE POINTS | 53 | |

Cruise Special Instructions:

1) Cruise all sawlogs to a 8" top (DIB), and all pulpwood to a 4.0" top (DIB). Point sample method cruising for all products and species.

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):

Stands 17, 102, and 214: 10 (Minimum 0 to Maximum 20)
 Stand 99: 60 (Minimum 50 to Maximum 70)

| 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 type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Orange <input type="checkbox"/> Other |

| TALLY INTENSITIES | |
|-------------------|-------|
| SPECIES / PRODUCT | RATIO |
| | 1 : |
| | 1 : |
| | 1 : |
| | 1 : |

SPECIAL MARKING INSTRUCTIONS

- 1) Stand/boundary trees shall be marked red at DBH with a "V" that is visible on 3 sides and the point of the "V" facing the sale area. Corners within the sale should be marked with 3 well defined vertical "V"'s.
- 2) Mark leave trees green at DBH with a slash on two sides (that is visible from all sides), and a stump mark.

See appendix for further instructions.

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 to 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 Cheryl Nelson at (231) 745 - 4651, ext. 6942, to make arrangements for paint.
2. Paint will be supplied from the Baldwin 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.

C26 Small Pieces – Contractor Appendix

When establishing Paint Lines

- Avoid using dead or badly damaged trees- boundary trees must last for the duration of the timber sale Up to 5-6 years.
- Avoid using small (fast growing) stems and those exposed to direct sunlight.
- Marking must be done in dry weather and when the trees are not wet.
- Paint the boundary line in such a way that it can be seen from the inside of the sale as well when walking along the line from either direction.
- Lines should be four and a half feet above the base of the tree.

GPS Requirements

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- PDOP mask must be less then or equal to 8.
- SNR setting must be less then or equal to 4.
- The GPS must be set to record data with a minimum of 4 satellites.
- Sale boundaries must be recorded as an area feature not a line.
- The GPS must determine area to tenths of an acre.

When Registered Corners or Witness Trees Are Discovered

- Any wooden posts encountered at corners must be painted/protected.
- Bearing and/or witness trees discovered during the course of sale preparation must be protected this can be accomplished by painting a ring completely around the tree at 4-6 feet above the ground.
- Please report corner condition to the local contact.

When Cruising

- Residual basal area must be recorded.
- Plot centers must be marked on cruise map with a scale of 1:15840 or larger (i.e., 1:7920).
- Plot center will be marked by a stake or stick firmly inserted in the ground (not snow) with ribbon attached to it at a height of not less than two feet above the ground, and labeled with the plot number. In addition, ribbon at least 12 inches long must be attached to a tree closest to plot center.