



**DEPARTMENT OF NATURAL RESOURCES
STATE OF MICHIGAN**

TIMBER SALE PROSPECTUS #6972

SCHEDULED SALE DATE AND TIME: 4:00 p.m. (local time) on February 28, 2022.

LOCATION: TRAVERSE CITY MGMT UNIT, 2122 M 37 SOUTH, TRAVERSE CITY, MI 49685.

PROSPECTUS NOTE: Effective immediately: all bid openings for the Traverse City Management (Kalkaska Field Office and Traverse City Field Office) will be held at the Traverse City Field Office regardless of sale location within the unit. All payments will now be handled through the Traverse City Field Office. The Kalkaska Field Office will no longer accept payments or hard paper copies of timber sale bids. Payments for all contracts, use permits, bonds, etc. should be sent to the Traverse City Field Office.

The bidder is advised to inspect the sale area and review the location, estimated volumes, operating costs and contract terms of proposed sales. Please be aware that some landowners may request 60 days or more notice for access across their land.

Pine Maze (61-110-22) / T27N, R08W, SEC. 2, N1/2NE.

Kalkaska County, Advertised Price \$36,317.95, 72.9 Acres, Red Pine, White Pine.

SALE NOTE: All units of volume listed for this sale were estimated using the Inventory Manager computer program and the new Michigan taper model.

Timber Ridge Road is not to be used for hauling. Please see sale map.

Access may be through other public land.

Ghost Buster Cut (61-136-21) / T25N, R06W, SEC. 13, SWNE,SW,N1/2SE,SESE.

T25N, R06W, SEC. 14, NESW,S1/2SW,S1/2SE.

T25N, R06W, SEC. 15, S1/2SE.

Kalkaska County, Advertised Price \$75,100.30, 163.9 Acres, Hardwood, Aspen.

SALE NOTE: All units of volume listed for this sale were estimated using the Inventory Manager computer program and the new Michigan taper model.

A recreation site such as a trail, pathway, or campground is within the sale area or the vicinity. Certain restrictions/specifications may be applicable including time restrictions.

Last Resort Mix (61-137-21) / T27N, R05W, SEC. 15, SENW,W1/2NE,SW,SE.

T27N, R05W, SEC. 22, NENW,N1/2NE.

Kalkaska County, Advertised Price \$169,189.10, 253.3 Acres, Hardwood, White Pine.

SALE NOTE: All units of volume listed for this sale were estimated using the Inventory Manager computer program and the new Michigan taper model.

See sell spec 5.2.1.11 for information on the mitigation of slash.

Marco Polo Pine (61-142-21) / T27N, R05W, SEC. 15, NW.

Kalkaska County, Advertised Price \$21,368.35, 44.3 Acres, Red Pine, Hardwood.

SALE NOTE: All units of volume listed for this sale were estimated using the Inventory Manager computer program and the new Michigan taper model.

Please note that Unit 2 is removal of scattered red pine over 1-4" DBH aspen (20 years old) and other trees which must be protected. Equipment and timing of harvest should be chosen to minimize damage to the understory trees.

A recreation site such as a trail, pathway, or campground is within the sale area or the vicinity. Certain restrictions/specifications may be applicable including time restrictions.

BID INSTRUCTIONS (VER. 07/02/2018):

1. Scheduled Bid Location, Date, and Time (2/11)

Bids must be received by the Unit Manager, TRAVERSE CITY OFFICE, 2122 M 37 South, Traverse City, MI 49685, no later than 4:00 p.m. (local time) on February 28, 2022. For further information concerning this sale, contact David Lemmien at 231-922-6040.

2. Bidder's Qualifications (5/16)

Purchaser shall obtain workers compensation insurance to cover claims under Michigan's Worker's Disability Compensation Act of 1969 or similar employee benefit act of any other state applicable to an employee. If all or part of a timber sale was prepared by a private contractor, the contractor and that contractor's company are not permitted to bid on the timber sale contract. Bids will not be accepted from individuals or companies appearing on the DNR/FRD No-Bid List. This list contains the names of purchasers who previously failed to execute a contract within 21-days or who have a history of poor performance.

3. Preparation of Sealed Bids (5/16)

Bid Forms may be completed online thru Michigan DNR Timber Sale Online Bidding (OLB) at www.michigan.gov/timberbidding or by completing the hardcopy Bid Form found in the Timber Sale Prospectus. Hardcopy Bid Forms shall be manually signed in ink. Registration in OLB is considered your 'signature' for all bids submitted thru that system. Bid prices must be entered for each species and product in the Bid Price column for all material subject to bidding and all fill-in blanks must be completed. If erasures or other changes appear on the hardcopy Bid Form, each erasure or change must be initialed by the person signing the bid.

4. Submission of Sealed Bids (5/16)

Bid forms may be obtained from the Unit Manager or thru OLB. Bids may be submitted hardcopy or thru OLB. All hardcopy bids must be submitted on the bid form and in an envelope clearly identified as described in this section. NOTE: Only one bid form per bid envelope. Sealed bids must be submitted to the Unit office designated in the prospectus and must be submitted at or prior to the time established in the prospectus. The envelope should show on the outside (a) the sale name or number and (b) the date and time of bid opening, as shown in the prospectus. Bids received after the time specified in the sale prospectus are late bids and will be rejected.

It is possible for a bidder to submit multiple bids on a single sale. For example, a bid may be submitted hardcopy and a bid may be submitted thru OLB. Or, two bidders from the same company could both submit bids on the same sale. If this were to happen, the State would accept all bids received and award the contract accordingly. All bidding and contractual requirements would apply to all bids received.

5. Public Opening of Sealed Bids (7/16)

If conditions permit, the sealed bids will be publicly opened and posted at the time and place set in the prospectus.

If a bidder, present at a bid opening, has submitted bids on more than one sale, that bidder may withdraw their unopened bid envelopes or announce the withdrawal of their online bid after being declared the successful bidder on one sale.

6. Award of Contract (1/11)

Award of the contract will be made to the Bidder whose bid, conforming to the prospectus, is most advantageous to the State of Michigan on the basis of total value at rates bid for the estimated quantities. The State reserves the right to reject any bid or waive any minor irregularity in bids received. A written award mailed (or otherwise furnished) to the successful Bidder shall be deemed to result in a binding contract without further action by either party.

7. Down Payment (1/11)

The Bidder to whom award is made must make a down payment within 21 days of the sale award. The amount of the down payment will be calculated as shown in the Bond and Payment Schedule of this prospectus. Only cash may be used to meet this requirement.

8. Performance Security (1/11)

As guarantee of faithful performance, a cash bond, certificate of deposit, surety bond or irrevocable letter of credit (LOC) is required within 21 days of the sale award. The amount of the performance security is shown in the Bond and

Payment Schedule of this prospectus. If an LOC or surety is used, the coverage must extend for at least 6 months beyond the contract expiration.

9. Timber Sale Contract (7/18)

Additional conditions and requirements common to all timber sales are listed on the timber sale contract (R4031) and are available on line at www.michigan.gov/timber. Contact the Unit Manager for additional information or a sample contract. Within 21 days of the date of the award letter, the bidder must sign the contract and provide the required down payment, performance security, and verification of worker's disability compensation. The down payment and performance security shall be in accordance with the provisions of the timber sale contract, in the sums stated in this prospectus. If these actions are not taken, then the Bidder, the Bidder's corporation, and the corporation's principals may not be permitted to bid on State timber sales for a period of 3 months after the first offense, 6 months after the second offense, and 1 year after the third offense. An offense will only be counted against the Bidder for 5 years. In addition, the Bidder certifies that if awarded this contract, the Bidder will complete the timber sale contract in accordance with its terms and any modifications thereof including requirements to purchase, cut, and remove the included timber by the expiration date.

Payment Unit values in the State Forest Timber Sale Contract are calculated based on the advertised value of the Payment Unit as a percentage of the total advertised value of the contract. The advertised value of each Payment Unit is given in the Description of Timber by Payment Unit table on the Timber Sale Information page. For example, if the value of Payment Unit 1 is advertised as \$1,500 and the total Timber Sale value is advertised as \$10,000, the contract price for Payment Unit 1 will be 15% of the total bid price ($\$1,500/\$10,000 * 100$).

10. Disclaimer of Estimates and Bidder's Warranty of Inspection (7/16)

Before submitting this bid, the Bidder is advised and cautioned to inspect the sale area, review the requirements of the sale contract, and take other steps as may be reasonably necessary to ascertain the location, estimated volumes, construction estimates, and operating costs of the proposed sale. Failure to do so will not relieve the Bidder from responsibility for completing the contract.

The Bidder warrants that this bid is submitted solely on the basis of the Bidder's examination and inspection of the quality and quantity of the timber offered for sale and the Bidder's opinion of the value thereof and the costs of recovery. No reliance should be placed on the State of Michigan's estimates of timber quality, quantity or costs of recovery. Bidder further acknowledges that the State of Michigan: (i) expressly disclaims any warranty of fitness of timber for any purpose; (ii) offers this timber as is without any warranty of quality (merchantability) or quantity and (iii) expressly disclaims any warranty as to the quantity or quality of timber sold.

11. Certification and Chain-of-Custody (10/14)

Unless otherwise indicated in the contract under section 7 – Other Conditions of the Sale Specific Conditions & Requirements, the area encompassed by this timber sale is certified to the standards of the Forest Stewardship Council (FSC) - Certificate #SCS-FM/COC-00090N and the Sustainable Forestry Initiative (SFI) - Certificate #NSF-SFIS-5Y031-SF5. Forest products from this sale may be delivered to the mill as "FSC 100% and / or SFI certified" as long as the contractor hauling the forest products is chain-of-custody (COC) certified or covered under a COC certificate from the destination mill. The purchaser is responsible for maintaining COC after leaving the sale area.

12. Good Neighbor Authority (GNA) Requirements (7/16)

If the name of this timber sales contains the acronym GNA, it is authorized by the Good Neighbor Authority (GNA) and covered by various agreements between the U.S. Forest Service and the State. The timber sale occurs on federal land and the following conditions apply:

GNA contracts on US Forest Service land will not be awarded to purchasers on the Federal list of excluded parties. The System for Award Management (SAM) will be checked for active excluded parties prior to award of contract. In addition, the Bidder to whom award is made must complete an Assurance Regarding Felony Conviction or Tax Delinquent Status for Corporate Applicants (AD-3031).

13. Good Neighbor Authority (GNA) Requirements, con't (9/16)

Bidder certifies, by signing this bid form, that to the best of Bidder's knowledge that the following representations are accurate and complete.

- a. That the Bidder and its principals are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntary excluded from timber sales (covered transactions) by any Federal department or agency.
- b. That the Bidder and its principals have not within a 3-year period preceding this bid been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining , attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property.
- c. That the Bidder and its principals are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph b of this certification.
- d. That the Bidder and its principals have not within a 3-year period preceding this bid had one or more public transactions (Federal, State, or local) terminated for breach or default of a timber or forest product contract.

Bidders that cannot certify this requirement, in whole or in part, shall submit an explanation with their bid.

DAN EICHINGER
Director

TIMBER SALE INFORMATION

Pine Maze (61-110-22)

T27N, R08W, SEC. 2.

Kalkaska County (Advertised Price \$36,317.95)

SALE NOTE: All units of volume listed for this sale were estimated using the Inventory Manager computer program and the new Michigan taper model.

Timber Ridge Road is not to be used for hauling. Please see sale map.

Access may be through other public land.

A timber sale contract for this lump sum, sealed bid timber sale will be awarded to the responsible bidder offering the highest sealed bid price. All units of volume listed below were estimated using the Inventory Manager computer program and the new Michigan taper model. Bids must be at or above the following advertised price for each product and species:

<u>PRODUCTS & SPECIES</u>	<u>ESTIMATED UNITS*</u>	<u>ADVERTISED PRICE</u>
Sawtimber		
Red Pine	137.1 MBF	\$ 85.00 / MBF
White Pine	23.2 MBF	\$ 37.00 / MBF
Pulpwood		
Red Pine	685 Cords	\$ 33.25 / Cord
White Pine	76 Cords	\$ 13.55 / Cord

* The total volume is statistically estimated within plus (+) or minus (-) 8.50 percent. There are an estimated 1,136 cords on this timber sale, plus or minus 97 cords at the 95% confidence level. The estimated units are final and not subject to adjustment. Prospective bidders are urged to examine this timber and to make their own estimates of quantity and quality.

BOND AND PAYMENT SCHEDULE:

1. A bond in the amount of \$1,816.00 to insure faithful performance of the conditions of the contract will be deposited by the successful bidder within 21 days of the sale award.
2. Cutting in any sale or unit without the required advance payment would be considered a trespass.
3. Total payment must be paid in advance or according to the following schedule :
 - (a) Ten percent (10%) of the sale value must be paid within 21 days of the sale award.
 - (b) The 10% down payment will be credited towards the first unit cut.
 - (c) Payment for each of the following units must be made before cutting begins in that unit:

PAYMENT UNIT NUMBER	PERCENT OF TOTAL SALE VALUE
01	94.8%
02	5.2%

4. If no cutting takes place, the 10% down payment will not be refunded.
5. Operations on the contract issued will terminate on 04/15/2024.

SALE STATISTICS

Volumes were calculated in cubic feet using the Michigan taper model. Cubic foot volume includes all wood inside bark for the product indicated. For display purposes, cubic feet were converted to cords and MBF using a simple conversion factor, e.g. 79 cubic feet per cord and 185 cubic feet per MBF. The cubic foot volumes are precise; the cords and MBF volumes are not. Cubic foot volume cannot be directly converted to cords or boards with precision.

SALE VOLUMES

The total estimated sale volume may not equal the sum of the species/products due to the nature of statistical calculations associated with double sampling methodology.

VOLUME		STATISTICAL RANGE IN CORDS		
TOTAL CUBIC FEET	TOTAL CORDS	PERCENT ERROR	MINIMUM	MAXIMUM
89,757	1,136	8.50%	1,039	1,233

VDU VOLUMES

A VDU is a Volume Determination Unit. Volumes and their associated statistics are calculated at the VDU level and summarized to the sale level. There is often a one to one relationship between a VDU and a Payment Unit, but not always, depending on the cruise design. Refer to the VDU TO PAYMENT UNIT table.

VDU	VOLUME		PERCENT ERROR	RANGE IN CORDS	
	TOTAL CUBIC FEET	TOTAL CORDS		MINIMUM	MAXIMUM
65	75,782	959	9.29%	870	1,048
76	9,647	122	19.05%	99	145
TOTAL:	85,429	1,081		969	1,194

VDU TO PAYMENT UNIT

When a VDU is associated with more than one Payment Unit (PU), the VDU volumes are assigned to the PU based on acres of the VDU within the PU.

VDU	VDU ACRES	PU	PU ACRES
65	64.2	1	64.2
76	8.7	2	8.7
TOTAL:	72.9		72.9

DESCRIPTION OF TIMBER BY PAYMENT UNIT (PU)

PU	MARKET GROUP	PRODUCT	QUANTITY	UNIT	ACRES	ADVERTISE PRICE
1	Red Pine	Sawtimber	137.1	MBF	64.2	\$34,429.75
	Red Pine	Pulpwood	685	Cords		
2	White Pine	Sawtimber	23.2	MBF	8.7	\$1,888.20
	White Pine	Pulpwood	76	Cords		
TOTAL:			160.3	MBF		
TOTAL:			761	Cords		

Sale Specific Conditions & Requirements

Sale Name: Pine Maze

Sale Number: 61-110-22 Seq#: 1

1 - Sale Area

1.2 - Boundaries

1.2.1 - Painted boundaries (9/19)

The sale boundary is marked and identified by blue and red paint. Exterior sale boundary lines against private property are marked with blue paint. Exterior sale boundary lines against state are marked with red paint. The interior Payment Unit boundary is on the road that separates the red pine and white pine. Retention patches are marked with red paint; no harvesting activities may occur within these areas. The painted boundary line trees are not Included Timber and are to be protected unless marked with orange paint.

2 - Timber Specifications

2.1 - Included Timber

2.1.3 - Cut tree marked unit(s) (12/08)

Within Payment Unit(s) 1 and 2, all trees are designated for cutting when marked with orange paint above and below stump height, regardless of merchantability.

2.2 - Utilization

2.2.3 - Stump heights (4/07)

Stump heights within the Sale Area shall not exceed 12 inches for trees greater than 10 inches at DBH and 4 inches for trees smaller than 10 inches at DBH.

3 - Payments

3.3 - Pre-measured Sales

3.3.4 - Dividing payment units (7/14)

Payment Unit(s) 1 may be divided at the request of the Purchaser and upon approval of the Unit Manager. Dividing Payment Units is a contract modification which requires a Timber Sale Contract Amendment. There will be only one division per Payment Unit.

3.4 - Damaged Timber

3.4.1 - Damaged timber (7/16)

General Condition and Requirement 3.4 Damaged Timber, defines liquidated damages for undesignated live merchantable trees which are cut or injured.

No damage is acceptable to undesignated live merchantable trees. Within the Sale Area, if more than 10 % of trees (> 4.5" DBH) within a specified area of the sale are damaged, liquidated damages will be assessed for all trees damaged. Rates will be in accordance with General Condition and Requirement 3.4 Damaged Timber.

4 - Transportation

4.1 - Construction

4.1.6 - Road construction (1/09)

Construction of new roads or improvements of existing roads shall be done in such a way as to minimize the environmental and visual impacts. Merchantable trees shall be cut and utilized unless otherwise directed. Non-merchantable trees shall be severed and laid flat on the ground. Slash shall be scattered, and not left in windrows and kept a minimum of 10 feet back from the road edge. Stumps shall be set upright, not left on edge, and be moved at least 10 feet away from the road edge. Disturbed soil shall be feathered into the woods and not left in berms or windrows.

4.1.7 - Road closure (10/11)

All new roads built into the sale must be blocked to vehicle traffic within 30 days of completion of hauling. Overgrown roads that are reopened shall be considered new roads. In general, this will require constructing a four (4') foot high berm of stumps

and logs covered with earth. Stumps and brush must be placed along the remainder of the trail. These roads must be rendered impassable to cars and trucks. Contact the sale administrator for specific details of design and placement.

4.4 - Access

4.4.4 - Restricted access (10/05)

Hauling is not allowed on Timber Ridge Road/N. Smith Lake Road. See map for access into the sale.

5 - Operations

5.2 - Conduct of Operations

5.2.1 - Slash

5.2.1.8 - Slash height (12/08)

No slash or tree tops may exceed 24 inches in height.

5.2.3 - Operating Restrictions

5.2.3.6 - Bark beetle restriction (12/08)

In the event drought creates a high risk of pine bark beetle infestation, pine is not to be cut during the period March 1 through July 1, unless all portions of trees greater than two inches in diameter are removed from the sale area, reduced to chips, or treated to the satisfaction of the Unit Manager or his/her representative, within fifteen days of being severed from the stump. Pine log decks, pulpwood piles and treetops that are piled for chipping in the fall or winter within a 1/4 mile of susceptible sites must be removed before March 15. Residual slash must not be placed in piles or rows and must be spread over the site for quick drying. The Department of Natural Resources will exercise this specification if the risk of damage warrants.

5.2.32 - Decking/landing restoration (9/13)

All decking and landing areas must have the surface area restored to a condition equal to or better than before. This is to ensure the proper regeneration of the stand. Wood debris, chips, and "cookies" from trimmings must be removed or scattered away from landing and loading areas and may not be windrowed on the edge.

5.4 - Soil Protection

5.4.1 - Rutting restriction, general (7/16)

Operations are to cease immediately if equipment and weather conditions result in rutting of roads and/or skid trails which is 12 inches or greater in depth and 50 feet in length. The Unit Manager or his/her representative may restrict hauling and/or skidding if ruts exceed the specified depth. With the Unit Manager or his/her representative's approval, the Purchaser may return to the area when the risk of rutting has decreased.

5.7 - Protection of Historical Sites

5.7.1 - Historical sites (7/12)

The Purchaser shall not cut live or dead trees or operate equipment within historical sites. Historical sites are marked with a red boundary line and are designated on the map as retention areas. The Purchaser shall protect historical sites from damage by the Purchaser's operations. If Purchaser's operations have cut or damaged historical sites through carelessness, the Purchaser shall pay \$1000 as fixed, agreed and liquidated damages for each acre or part thereof cut or damaged.

5.8 - Protection of Endangered Species

5.8.5 - Protection of raptor nests (3/13)

All trees with raptor nests will be protected if found during harvesting operations. Notification will be made to the Unit Manager or his/her representative who will notify the Wildlife Biologist so an on-site evaluation and recommendation can be made, if necessary.

6 - Safety and Fire Prevention

6.2 - Signing

6.2.1 - Road posting (10/20)

The Purchaser is responsible for posting and maintaining caution signs on Old 72 and any other haul roads prior to beginning

operations. The road must be posted at appropriate distances from the Sale Area to warn of logging activity and truck traffic. Signs must be removed when harvest operations are suspended or completed. The Purchaser will provide these signs.



TIMBER SALE MAP

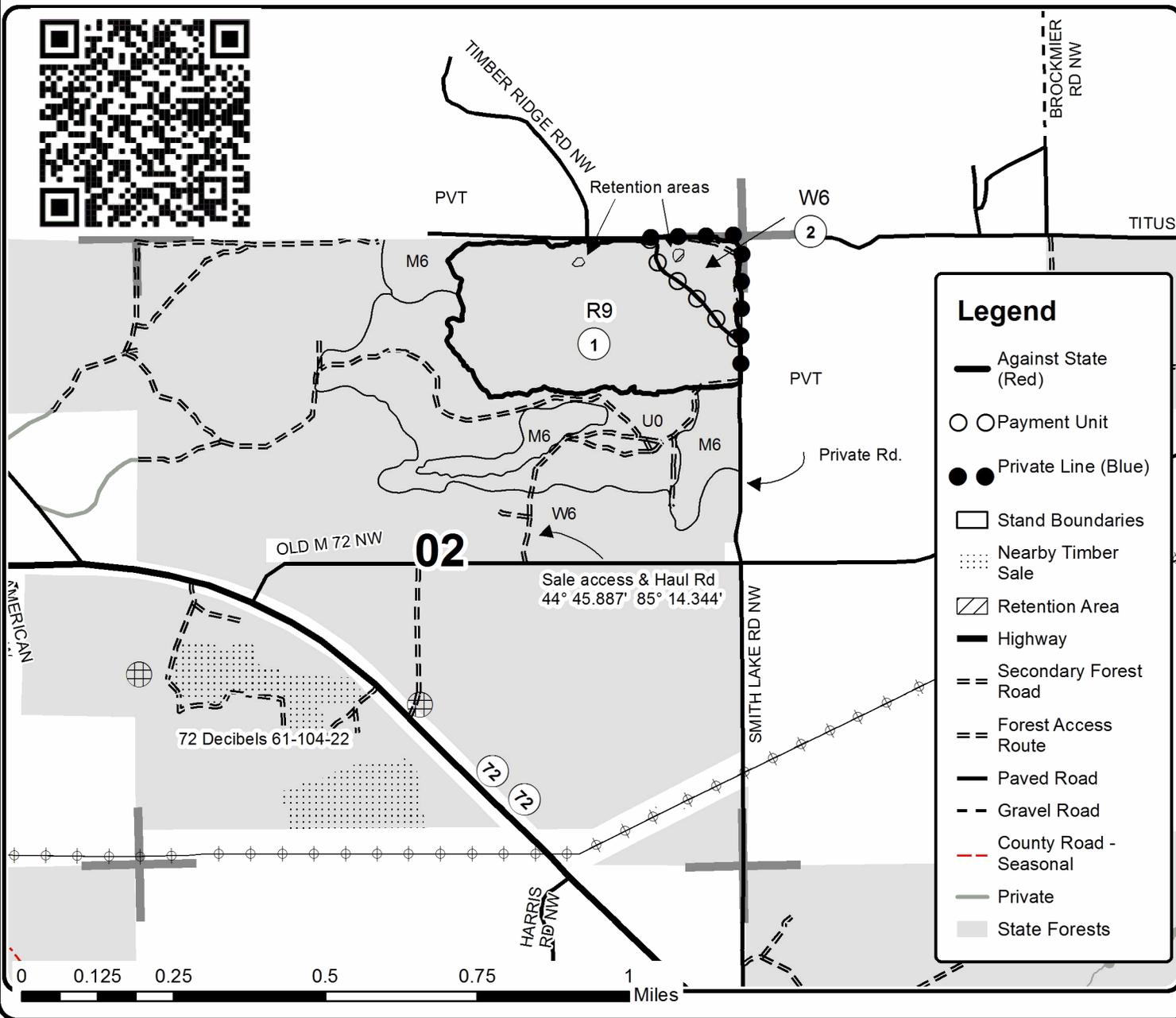
This information provided by authority of Part 525, 1994 PA 451, as amended.

Forest Management Unit Traverse City	County Kalkaska	Mapped By Crigier	Date 11/22/2021	Page 1	of 1
Township 27N	Range 08W	Section(s) and Subdivision(s) Sec 2 N1/2NE	Scale 1:15,840		

Cover Type				Density	
A = Aspen	H = Hemlock	N = Marsh	U = Upland Brush	0 = Non Stocked	5 = Pole Timber Medium
B = Paper Birch	J = Jack Pine	O = Oak	UM = Upland Mixed	1 = Seedling Sapling Poor	6 = Pole Timber Well
C = Cedar	L = Lowland Brush	P = Lowland Poplar	V = Bog or Marsh	2 = Seedling Sapling Medium	7 = Saw Timber Poor
D = Treed Bog	LM = Lowland Mixed	Q = Mixed Swamp Conifer	W = White Pine	3 = Seedling Sapling Well	8 = Saw Timber Medium
E = Swamp Hdwoods	M = Mpl, Bch, Brch	R = Red Pine	X = Non Stocked	4 = Pole Timber Poor	9 = Saw Timber Well
F = Spruce Fir	MC = Mixed Conifer	S = Black Spruce	Z = Water		
G = Grass	MD = Mixed Deciduous	T = Tamarack			

PU	Acres
1	64.2
2	8.7

Pine Maze Compartment 167 72.9 Acres



TIMBER SALE INFORMATION

Ghost Buster Cut (61-136-21)

T25N, R06W, SEC. 13; T25N, R06W, SEC. 14; T25N, R06W, SEC. 15.
Kalkaska County (Advertised Price \$75,100.30)

SALE NOTE: All units of volume listed for this sale were estimated using the Inventory Manager computer program and the new Michigan taper model.

A recreation site such as a trail, pathway, or campground is within the sale area or the vicinity. Certain restrictions/specifications may be applicable including time restrictions.

A timber sale contract for this lump sum, sealed bid timber sale will be awarded to the responsible bidder offering the highest sealed bid price. All units of volume listed below were estimated using the Inventory Manager computer program and the new Michigan taper model. Bids must be at or above the following advertised price for each product and species:

<u>PRODUCTS & SPECIES</u>	<u>ESTIMATED UNITS*</u>		<u>ADVERTISED PRICE</u>
Sawtimber			
B. T. Aspen	59.4	MBF	\$ 96.00 / MBF
Bl/R/Hybrid Oak	228.0	MBF	\$ 55.00 / MBF
Quaking Aspen	12.7	MBF	\$ 96.00 / MBF
Red Maple	28.6	MBF	\$ 107.00 / MBF
Red Oak	29.9	MBF	\$ 106.00 / MBF
Red Pine	101.3	MBF	\$ 85.00 / MBF
White Oak	78.5	MBF	\$ 71.00 / MBF
White Pine	96.1	MBF	\$ 37.00 / MBF
Pulpwood			
Balsam Fir	74	Cords	\$ 7.45 / Cord
Jack Pine	33	Cords	\$ 9.20 / Cord
Mixed Aspen	604	Cords	\$ 13.20 / Cord
Mixed Oak	472	Cords	\$ 14.95 / Cord
Red Maple	314	Cords	\$ 14.50 / Cord
Red Pine	207	Cords	\$ 33.25 / Cord
White Pine	321	Cords	\$ 13.55 / Cord

* The total volume is statistically estimated within plus (+) or minus (-) 4.92 percent. There are an estimated 3,508 cords on this timber sale, plus or minus 173 cords at the 95% confidence level. The estimated units are final and not subject to adjustment. Prospective bidders are urged to examine this timber and to make their own estimates of quantity and quality.

BOND AND PAYMENT SCHEDULE:

1. A bond in the amount of \$3,755.00 to insure faithful performance of the conditions of the contract will be deposited by the successful bidder within 21 days of the sale award.
2. Cutting in any sale or unit without the required advance payment would be considered a trespass.
3. Total payment must be paid in advance or according to the following schedule :
 - (a) Ten percent (10%) of the sale value must be paid within 21 days of the sale award.
 - (b) The 10% down payment will be credited towards the first unit cut.
 - (c) Payment for each of the following units must be made before cutting begins in that unit:

PAYMENT UNIT NUMBER	PERCENT OF TOTAL SALE VALUE
01	12.0%
02	8.4%
03	9.7%
04	13.3%
05	11.9%
06	19.1%
07	25.6%

4. If no cutting takes place, the 10% down payment will not be refunded.
5. Operations on the contract issued will terminate on 04/15/2024.

SALE STATISTICS

Volumes were calculated in cubic feet using the Michigan taper model. Cubic foot volume includes all wood inside bark for the product indicated. For display purposes, cubic feet were converted to cords and MBF using a simple conversion factor, e.g. 79 cubic feet per cord and 185 cubic feet per MBF. The cubic foot volumes are precise; the cords and MBF volumes are not. Cubic foot volume cannot be directly converted to cords or boards with precision.

SALE VOLUMES

The total estimated sale volume may not equal the sum of the species/products due to the nature of statistical calculations associated with double sampling methodology.

VOLUME			STATISTICAL RANGE IN CORDS	
TOTAL CUBIC FEET	TOTAL CORDS	PERCENT ERROR	MINIMUM	MAXIMUM
277,118	3,508	4.92%	3,335	3,681

VDU VOLUMES

A VDU is a Volume Determination Unit. Volumes and their associated statistics are calculated at the VDU level and summarized to the sale level. There is often a one to one relationship between a VDU and a Payment Unit, but not always, depending on the cruise design. Refer to the VDU TO PAYMENT UNIT table.

VDU	VOLUME		PERCENT ERROR	RANGE IN CORDS	
	TOTAL CUBIC FEET	TOTAL CORDS		MINIMUM	MAXIMUM
19	119,363	1,511	8.58%	1,381	1,641
27	62,060	786	9.04%	715	857
49	78,863	998	7.02%	928	1,068
TOTAL:	260,286	3,295		3,024	3,566

VDU TO PAYMENT UNIT

When a VDU is associated with more than one Payment Unit (PU), the VDU volumes are assigned to the PU based on acres of the VDU within the PU.

VDU	VDU ACRES	PU	PU ACRES
19	35.3	6	15.1
		7	20.2
27	55.8	4	29.4
		5	26.4
49	72.8	1	28.9
		2	20.5
		3	23.4
TOTAL:	163.9		163.9

DESCRIPTION OF TIMBER BY PAYMENT UNIT (PU)

PU	MARKET GROUP	PRODUCT	QUANTITY	UNIT	ACRES	ADVERTISE PRICE
1	BI/R/Hybrid Oak	Sawtimber	43.9	MBF	28.9	\$9,014.00
	Red Maple		0.6	MBF		
	Red Pine		14.7	MBF		
	White Oak		20.2	MBF		
	White Pine		9.5	MBF		
	Jack Pine	Pulpwood	11	Cords		
	<i>Jack Pine</i>	<i>Sawtimber</i>	0.3	<i>MBF</i>		
	<i>Jack Pine</i>	<i>Pulpwood</i>	10	<i>Cords</i>		
	Mixed Oak		122	Cords		
	<i>BI/R/Hybrid Oak</i>		63	<i>Cords</i>		
	<i>White Oak</i>		59	<i>Cords</i>		
	Red Maple		23	Cords		
	Red Pine		19	Cords		
	White Pine		45	Cords		
	2	BI/R/Hybrid Oak	Sawtimber	31.1		
Red Maple			0.4	MBF		
Red Pine			10.4	MBF		
White Oak			14.3	MBF		
White Pine			6.8	MBF		
Jack Pine		Pulpwood	6	Cords		
<i>Jack Pine</i>		<i>Sawtimber</i>	0.2	<i>MBF</i>		
<i>Jack Pine</i>		<i>Pulpwood</i>	6	<i>Cords</i>		
Mixed Oak			86	Cords		
<i>BI/R/Hybrid Oak</i>			44	<i>Cords</i>		
<i>White Oak</i>			42	<i>Cords</i>		
Red Maple			16	Cords		
Red Pine			13	Cords		
White Pine			32	Cords		
3		BI/R/Hybrid Oak	Sawtimber	35.6	MBF	23.4
	Red Maple		0.5	MBF		
	Red Pine		11.9	MBF		
	White Oak		16.4	MBF		
	White Pine		7.7	MBF		
	Jack Pine	Pulpwood	7	Cords		
	<i>Jack Pine</i>	<i>Sawtimber</i>	0.2	<i>MBF</i>		
	<i>Jack Pine</i>	<i>Pulpwood</i>	7	<i>Cords</i>		
	Mixed Oak		99	Cords		
	<i>BI/R/Hybrid Oak</i>		51	<i>Cords</i>		
	<i>White Oak</i>		48	<i>Cords</i>		
	Red Maple		19	Cords		
	Red Pine		15	Cords		
	White Pine		36	Cords		
	4	BI/R/Hybrid Oak	Sawtimber	48.5	MBF	
Red Pine			22.3	MBF		
White Oak			7.6	MBF		
White Pine			25.3	MBF		
Jack Pine		Pulpwood	2	Cords		
<i>Jack Pine</i>			2	<i>Cords</i>		
Mixed Aspen			5	Cords		
<i>B. T. Aspen</i>			5	<i>Cords</i>		
Mixed Oak			47	Cords		
<i>BI/R/Hybrid Oak</i>			40	<i>Cords</i>		
<i>White Oak</i>			7	<i>Cords</i>		
Red Maple			7	Cords		
Red Pine			55	Cords		
White Pine			90	Cords		

DESCRIPTION OF TIMBER BY PAYMENT UNIT (PU), CON'T

PU	MARKET GROUP	PRODUCT	QUANTITY	UNIT	ACRES	ADVERTISE PRICE
5	BI/R/Hybrid Oak	Sawtimber	43.5	MBF	26.4	\$8,971.80
	Red Pine		19.9	MBF		
	White Oak		6.8	MBF		
	White Pine		22.7	MBF		
	Jack Pine	Pulpwood	1	Cords		
	<i>Jack Pine</i>		1	<i>Cords</i>		
	Mixed Aspen		5	Cords		
	<i>B. T. Aspen</i>		5	<i>Cords</i>		
	Mixed Oak		43	Cords		
	<i>BI/R/Hybrid Oak</i>		36	<i>Cords</i>		
	<i>White Oak</i>		7	<i>Cords</i>		
	Red Maple		6	Cords		
	Red Pine		50	Cords		
	White Pine		81	Cords		
6	B. T. Aspen	Sawtimber	25.4	MBF	15.1	\$14,375.45
	BI/R/Hybrid Oak		10.9	MBF		
	Quaking Aspen		5.4	MBF		
	Red Maple		11.6	MBF		
	Red Oak		12.8	MBF		
	Red Pine		9.5	MBF		
	White Oak		5.6	MBF		
	White Pine		10.3	MBF		
	Balsam Fir	Pulpwood	32	Cords		
	<i>Balsam Fir</i>	<i>Sawtimber</i>	0.8	<i>MBF</i>		
	<i>Balsam Fir</i>	<i>Pulpwood</i>	30	<i>Cords</i>		
	Jack Pine		3	Cords		
	<i>Jack Pine</i>		3	<i>Cords</i>		
	Mixed Aspen		254	Cords		
	<i>B. T. Aspen</i>		236	<i>Cords</i>		
	<i>Quaking Aspen</i>		18	<i>Cords</i>		
	Mixed Oak		33	Cords		
	<i>BI/R/Hybrid Oak</i>		12	<i>Cords</i>		
	<i>Red Oak</i>		10	<i>Cords</i>		
	<i>White Oak</i>		11	<i>Cords</i>		
	Red Maple		104	Cords		
	Red Pine		24	Cords		
White Pine		16	Cords			
7	B. T. Aspen	Sawtimber	34.0	MBF	20.2	\$19,141.80
	BI/R/Hybrid Oak		14.5	MBF		
	Quaking Aspen		7.3	MBF		
	Red Maple		15.5	MBF		
	Red Oak		17.1	MBF		
	Red Pine		12.6	MBF		
	White Oak		7.6	MBF		
	White Pine		13.8	MBF		
	Balsam Fir	Pulpwood	42	Cords		
	<i>Balsam Fir</i>	<i>Sawtimber</i>	1.0	<i>MBF</i>		
	<i>Balsam Fir</i>	<i>Pulpwood</i>	40	<i>Cords</i>		
	Jack Pine		3	Cords		
	<i>Jack Pine</i>		3	<i>Cords</i>		
	Mixed Aspen		340	Cords		
	<i>B. T. Aspen</i>		315	<i>Cords</i>		
	<i>Quaking Aspen</i>		25	<i>Cords</i>		
	Mixed Oak		42	Cords		
	<i>BI/R/Hybrid Oak</i>		15	<i>Cords</i>		
	<i>Red Oak</i>		13	<i>Cords</i>		

DESCRIPTION OF TIMBER BY PAYMENT UNIT (PU), CON'T

PU	MARKET GROUP	PRODUCT	QUANTITY	UNIT	ACRES	ADVERTISE PRICE
7 con't	<i>White Oak</i>	<i>Pulpwood</i>	14	<i>Cords</i>		
	Red Maple		139	Cords		
	Red Pine		31	Cords		
	White Pine		21	Cords		
TOTAL:			634.5	MBF		
TOTAL:			2,025	Cords		

Sale Specific Conditions & Requirements

Sale Name: Ghost Buster Cut

Sale Number: 61-136-21 Seq#: 1

1 - Sale Area

1.2 - Boundaries

1.2.1 - Painted boundaries (9/19)

The sale boundary and Payment Unit boundaries are marked and identified by blue, red, and yellow paint. Exterior sale boundary lines against private property are marked with blue paint. Exterior sale boundary lines against state are marked with red paint. Interior Payment Unit boundaries are marked with yellow paint. Retention patches are marked with red paint; no harvesting activities may occur within these areas. The painted boundary line trees are not Included Timber and are to be protected. Yellow painted trees designating an interior Payment Unit boundary are only to be cut when all surrounding Payment Units have been paid.

2 - Timber Specifications

2.1 - Included Timber

2.1.1 - Clearcut unit(s) with unmerchantable trees (6/14)

Within Payment Unit(s) 6 and 7, cut all trees that are two (2) inches or more at DBH, except species trees marked with green paint.

2.1.5 - Overstory removal unit(s) (8/11)

Within Payment Unit(s) 1-5, all trees with DBH greater than 4 inches which meet minimum piece specifications in 2.2 Utilization, are designated for cutting, except do not cut any trees marked with green paint and only cut pine greater than 6 inches at DBH.

3 - Payments

3.3 - Pre-measured Sales

3.3.4 - Dividing payment units (7/14)

Payment Unit(s) may be divided at the request of the Purchaser and upon approval of the Unit Manager. Dividing Payment Units is a contract modification which requires a Timber Sale Contract Amendment.

3.4 - Damaged Timber

3.4.1 - Damaged timber (7/16)

General Condition and Requirement 3.4 Damaged Timber, defines liquidated damages for undesignated live merchantable trees which are cut or injured. In addition, extreme care should be taken to avoid damage to tree seedlings and saplings. Within Payment Units 1-5, if more than 33% of the tree seedlings or saplings (1/4" to 4.5" DBH) within a specified portion of the Sale Area are damaged, liquidated damages will be assessed at \$300 per acre for all acreage within that specified portion of the Sale Area that was damaged.

No damage is acceptable to undesignated live merchantable trees. Within the Sale Area, if more than 5% of trees (> 4.5" DBH) within a specified area of the sale are damaged, liquidated damages will be assessed for all trees damaged. Rates will be in accordance with General Condition and Requirement 3.4 Damaged Timber.

4 - Transportation

4.1 - Construction

4.1.6 - Road construction (1/09)

Construction of new roads or improvements of existing roads shall be done in such a way as to minimize the environmental and visual impacts. Merchantable trees shall be cut and utilized unless otherwise directed. Non-merchantable trees shall be severed and laid flat on the ground. Slash shall be scattered, and not left in windrows and kept a minimum of 10 feet back from the road edge. Stumps shall be set upright, not left on edge, and be moved at least 10 feet away from the road edge. Disturbed soil shall be feathered into the woods and not left in berms or windrows.

4.1.7 - Road closure (10/11)

All new roads built into the sale must be blocked to vehicle traffic upon completion of the sale. Overgrown roads that are reopened shall be considered new roads. In general, this will require constructing a four (4') foot high berm of stumps and logs covered with earth. These roads must be rendered impassable to cars and trucks. Contact the sale administrator for specific details of design and placement.

4.2 - Maintenance

4.2.1 - Hauling restriction (12/08)

Hauling may be restricted on forest roads by the Unit Manager or his/her representative. The restriction may occur during wet weather conditions.

4.2.3 - Road maintenance (8/13)

The following road maintenance may be needed: Within 60 days of completion of hauling, or if no hauling occurs for 60 days, the road must be maintained and graded. This includes cleaning of drainage areas, grading, crowning, and filling with gravel, if necessary. Damages will be assessed if grading/repair does not occur.

4.2.5 - Two wheel drive condition (2/04)

All existing trail roads on and adjacent to the sale area must be passable by two-wheel drive traffic for the duration of the sale.

5 - Operations

5.1 - Notification

5.1.1 - Pre-sale conference (10/16)

A pre-sale conference between the Purchaser and sale administrator is required prior to beginning any operations to determine landing and road locations. The Unit Manager or his/her representative must be contacted at least 1 day in advance to schedule the conference.

5.1.3 - Well heads and natural gas pipelines (11/15)

The Purchaser is responsible for contacting the gas and pipeline company 5 days prior to operating equipment in the vicinity of well heads or natural gas pipelines.

5.1.4 - Post-sale conference (10/16)

A post-sale conference on site between the Purchaser and sale administrator is required 5 days prior to the completion of active logging operations to determine clean-up and repair of landings, road edges, and the fulfillment of other contract specifications.

5.2 - Conduct of Operations

5.2.1 - Slash

5.2.1.8 - Slash height (12/08)

No slash or tree tops may exceed 24 inches in height.

5.2.3 - Operating Restrictions

5.2.3.5 - Oak wilt restriction (1/18)

Within Payment Unit(s) 1-7, unless changed by written agreement, cutting, skidding, hauling within the sale and brushing of access roads to the sale are not permitted during the period of April 15 to July 15. Operations may be allowed if specific steps are taken to prevent damaging uncut oak during the high risk period. Those steps may include completing all road brushing before April 15th and clearing a tree-length buffer along uncut oak cover before April 15th. This is necessary to reduce the spread of oak wilt. For more information, contact the Unit Manager or his/her representative.

5.2.3.11 - Coppice regeneration protection (4/10)

Timber harvesting in any Payment Unit must be completed before significant aspen sprouting occurs in that Payment Unit to minimize damage to the new regeneration. Any post-harvest operations, such as chipping, must be completed before sprouting of regeneration occurs. If it is anticipated that chipping will be delayed, then tops shall be carried to one central location or left unchipped. The Unit Manager or his/her representative may cease such operations if sprouting occurs before the operation is complete.

5.2.30 - Landing/road top soil protection (2/15)

Top soil on landings and new roads must be removed, stockpiled and saved. Upon completion of the timber sale, soil must be evenly distributed back over the area for revegetation.

5.2.32 - Decking/landing restoration (9/13)

All decking and landing areas must have the surface area restored to a condition equal to or better than before. This is to ensure the proper regeneration of the stand. Wood debris, chips, and "cookies" from trimmings must be removed or scattered away from landing and loading areas and may not be windrowed on the edge.

5.2.41 - Snowmobile trail protection (9/11)

There is a snowmobile trail within the Sale Area that is shown on the Timber Sale Map. Do not cut or damage posts with orange trail markers or traffic control signs. If the trail is used, it must be maintained and restored to a condition equal to or better than before the sale. If the trail road is to be used for hauling during the snowmobile season, then a snow-covered base must be left on the trail. The snowmobile trail may only be crossed at right angles. Maintain a 20-foot-wide slash, debris, and rut free zone daily using the snowmobile trail as the centerline. All stumps along the edge of the snowmobile trail must be cut at ground level.

5.4 - Soil Protection

5.4.4 - Slope protection (9/19)

Skid trails and roads on slopes shall be water barred with slash and stumps as soon as use is complete to prevent erosion.

6 - Safety and Fire Prevention

6.2 - Signing

6.2.2 - Snowmobile trail posting (10/20)

The Purchaser is responsible for posting and maintaining caution signs on the snowmobile trail prior to beginning operations during the snowmobile season (approximately December 1 to March 31). The trail must be posted at appropriate distances from the Sale Area to warn of logging activity and truck traffic. Signs must be removed when harvest operations are suspended or completed. The Purchaser will provide these signs.



TIMBER SALE MAP

This information provided by authority of Part 525, 1994 PA 451, as amended.

Forest Management Unit	County	Mapped By	Date	Page	of
Traverse City Management Unit	Kalkaska County	Lewicki	09/29/21	1	2
Township	Range	Section(s) and Subdivision(s)	Scale		
25N	06W	S.13 SWNE;SW;N1/2SE;SESE S.14 NESW;S1/2SW;S1/2SE S.15 S1/2SE	1:15,840		

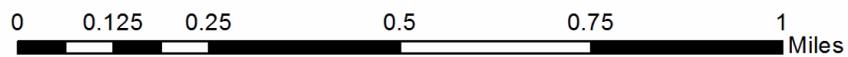
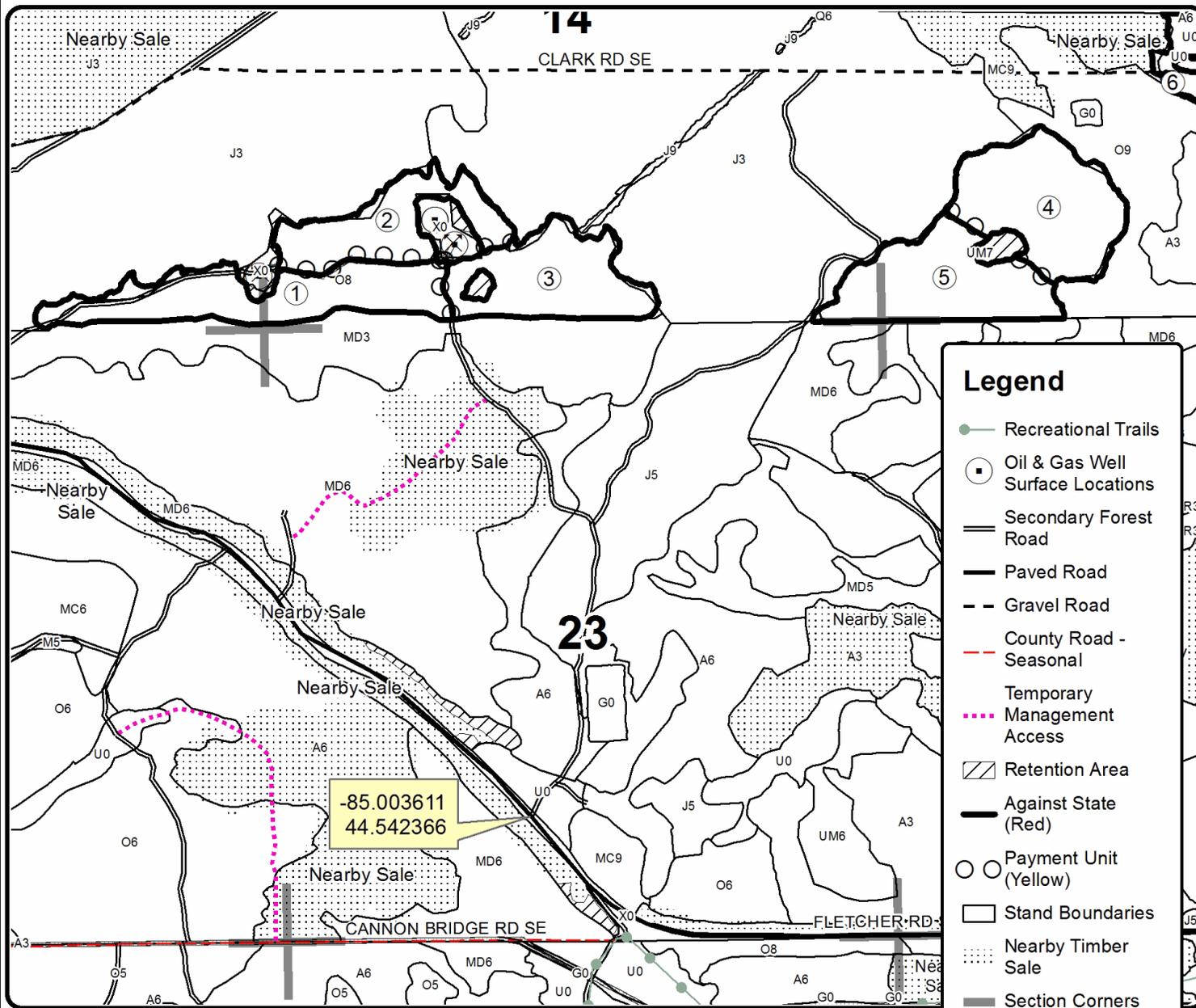
Cover Type				Density	
A = Aspen	H = Hemlock	N = Marsh	U = Upland Brush	0 = Non Stocked	5 = Pole Timber Medium
B = Paper Birch	J = Jack Pine	O = Oak	UM = Upland Mixed	1 = Seedling Sapling Poor	6 = Pole Timber Well
C = Cedar	L = Lowland Brush	P = Lowland Poplar	V = Bog or Marsh	2 = Seedling Sapling Medium	7 = Saw Timber Poor
D = Treed Bog	LM = Lowland Mixed	Q = Mixed Swamp Conifer	W = White Pine	3 = Seedling Sapling Well	8 = Saw Timber Medium
E = Swamp Hdwoods	M = Mpl, Bch, Brch	R = Red Pine	X = Non Stocked	4 = Pole Timber Poor	9 = Saw Timber Well
F = Spruce Fir	MC = Mixed Conifer	S = Black Spruce	Z = Water		
G = Grass	MD = Mixed Deciduous	T = Tamarack			

PU	Acres	PU	Acres
1	28.9	4	29.4
2	20.5	5	26.4
3	23.4		

Ghost Buster Cut

Compartment 137

163.9 Acres





Sale Number	Year
61-136	21

TIMBER SALE MAP

This information provided by authority of Part 525, 1994 PA 451, as amended.

Forest Management Unit	County	Mapped By	Date	Page	of
Traverse City Management Unit	Kalkaska County	Lewicki	09/29/21	1	2
Township	Range	Section(s) and Subdivision(s)	Scale		
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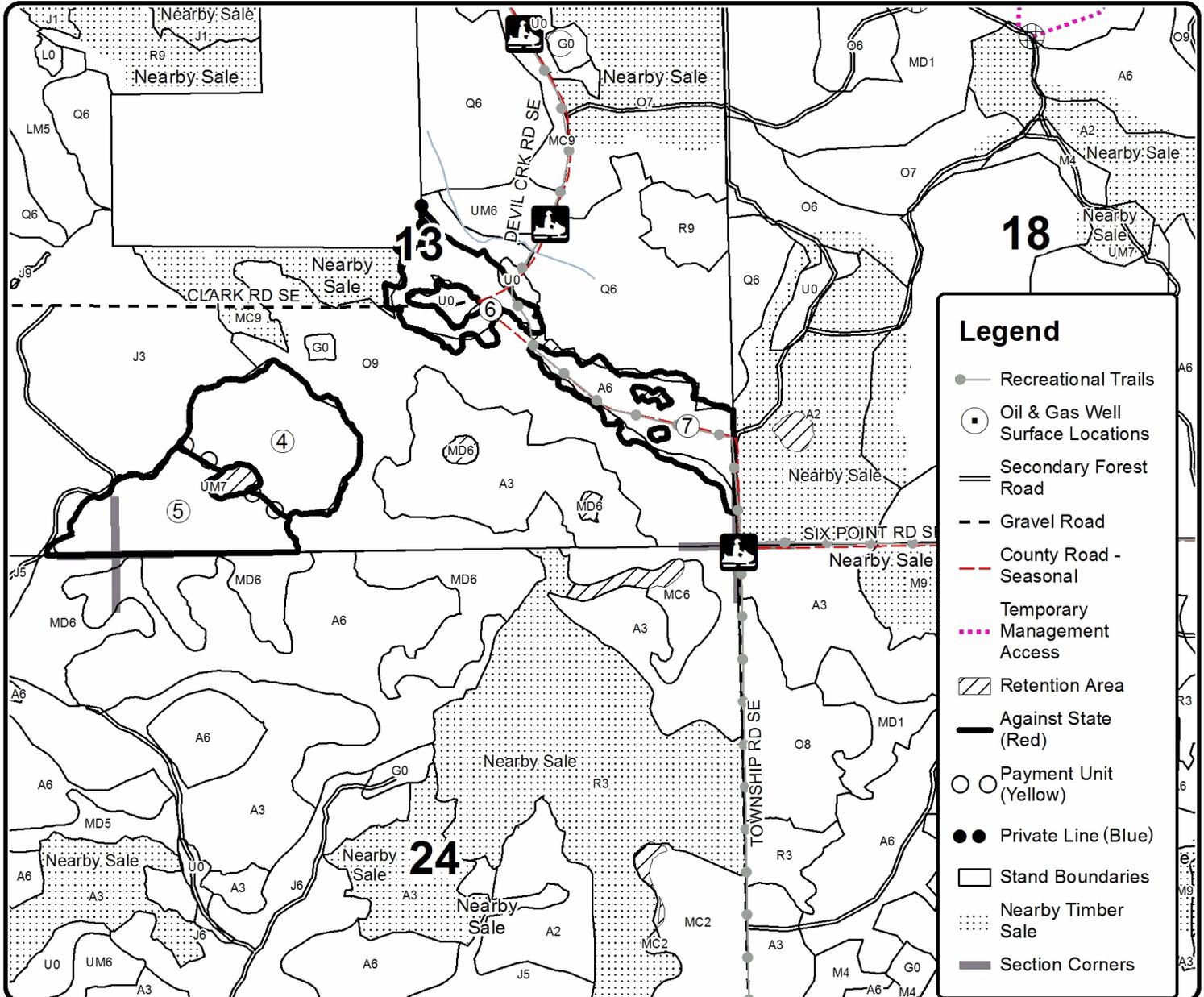
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F = Spruce Fir	MC = Mixed Conifer	S = Black Spruce	Z = Water		
G = Grass	MD = Mixed Deciduous	T = Tamarack			

PU	Acres	PU	Acres
4	29.4	7	20.2
5	26.4		
6	15.1		

Ghost Buster Cut

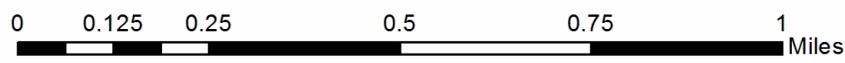
Compartment 137

163.9 Acres



Legend

- Recreational Trails
- Oil & Gas Well
- Surface Locations
- Secondary Forest Road
- Gravel Road
- County Road - Seasonal
- Temporary Management Access
- Retention Area
- Against State (Red)
- Payment Unit (Yellow)
- Private Line (Blue)
- Stand Boundaries
- Nearby Timber Sale
- Section Corners



TIMBER SALE INFORMATION

Last Resort Mix (61-137-21)

T27N, R05W, SEC. 15; T27N, R05W, SEC. 22.
Kalkaska County (Advertised Price \$169,189.10)

SALE NOTE: All units of volume listed for this sale were estimated using the Inventory Manager computer program and the new Michigan taper model.

See sell spec 5.2.1.11 for information on the mitigation of slash.

A timber sale contract for this lump sum, sealed bid timber sale will be awarded to the responsible bidder offering the highest sealed bid price. All units of volume listed below were estimated using the Inventory Manager computer program and the new Michigan taper model. Bids must be at or above the following advertised price for each product and species:

<u>PRODUCTS & SPECIES</u>	<u>ESTIMATED UNITS*</u>	<u>ADVERTISED PRICE</u>
Sawtimber		
B. T. Aspen	3.2 MBF	\$ 96.00 / MBF
Beech	89.2 MBF	\$ 90.00 / MBF
Black Cherry	6.4 MBF	\$ 146.00 / MBF
Jack Pine	19.9 MBF	\$ 18.00 / MBF
Paper Birch	32.0 MBF	\$ 28.00 / MBF
Quaking Aspen	204.1 MBF	\$ 96.00 / MBF
Red Maple	254.8 MBF	\$ 107.00 / MBF
Red Pine	504.7 MBF	\$ 85.00 / MBF
Sugar Maple	11.9 MBF	\$ 194.00 / MBF
White Pine	509.0 MBF	\$ 37.00 / MBF
Pulpwood		
Beech	321 Cords	\$ 14.50 / Cord
Jack Pine	142 Cords	\$ 9.20 / Cord
Mixed Aspen	496 Cords	\$ 13.20 / Cord
Mixed Hardwood	1,386 Cords	\$ 14.50 / Cord
Red Pine	196 Cords	\$ 33.25 / Cord
White Pine	638 Cords	\$ 13.55 / Cord

* The total volume is statistically estimated within plus (+) or minus (-) 4.65 percent. There are an estimated 6,915 cords on this timber sale, plus or minus 322 cords at the 95% confidence level. The estimated units are final and not subject to adjustment. Prospective bidders are urged to examine this timber and to make their own estimates of quantity and quality.

BOND AND PAYMENT SCHEDULE:

1. A bond in the amount of \$16,919.00 to insure faithful performance of the conditions of the contract will be deposited by the successful bidder within 21 days of the sale award.
2. Cutting in any sale or unit without the required advance payment would be considered a trespass.
3. Total payment must be paid in advance or according to the following schedule :
 - (a) Ten percent (10%) of the sale value must be paid within 21 days of the sale award.
 - (b) The 10% down payment will be credited towards the first unit cut.
 - (c) Payment for each of the following units must be made before cutting begins in that unit:

PAYMENT UNIT NUMBER	PERCENT OF TOTAL SALE VALUE
01	4.4%
02	17.0%
03	16.5%
04	3.9%
05	8.9%
06	18.3%
07	18.3%
08	12.7%

4. If no cutting takes place, the 10% down payment will not be refunded.
5. Operations on the contract issued will terminate on 04/15/2025.

SALE STATISTICS

Volumes were calculated in cubic feet using the Michigan taper model. Cubic foot volume includes all wood inside bark for the product indicated. For display purposes, cubic feet were converted to cords and MBF using a simple conversion factor, e.g. 79 cubic feet per cord and 185 cubic feet per MBF. The cubic foot volumes are precise; the cords and MBF volumes are not. Cubic foot volume cannot be directly converted to cords or boards with precision.

SALE VOLUMES

The total estimated sale volume may not equal the sum of the species/products due to the nature of statistical calculations associated with double sampling methodology.

VOLUME			STATISTICAL RANGE IN CORDS	
TOTAL CUBIC FEET	TOTAL CORDS	PERCENT ERROR	MINIMUM	MAXIMUM
546,260	6,915	4.65%	6,593	7,237

VDU VOLUMES

A VDU is a Volume Determination Unit. Volumes and their associated statistics are calculated at the VDU level and summarized to the sale level. There is often a one to one relationship between a VDU and a Payment Unit, but not always, depending on the cruise design. Refer to the VDU TO PAYMENT UNIT table.

VDU	VOLUME		PERCENT ERROR	RANGE IN CORDS	
	TOTAL CUBIC FEET	TOTAL CORDS		MINIMUM	MAXIMUM
14	83,257	1,054	11.69%	931	1,177
22	57,751	731	19.51%	588	874
23	71,147	901	8.49%	824	977
24	16,933	214	17.50%	177	252
28	22,005	279	17.47%	230	327
29	64,372	815	6.78%	760	870
214	194,139	2,457	8.08%	2,259	2,656
TOTAL:	509,603	6,451		5,768	7,133

VDU TO PAYMENT UNIT

When a VDU is associated with more than one Payment Unit (PU), the VDU volumes are assigned to the PU based on acres of the VDU within the PU.

VDU	VDU ACRES	PU	PU ACRES
14	39.2	7	19.1
		8	20.1
22	68.0	1	22.0
		2	11.3
		3	17.9
		4	16.8
23	23.4	1	0.1
		2	9.2
		3	12.5
		4	1.6
24	6.2	5	6.2
28	8.7	2	2.3
		3	6.4
29	19.5	1	0.9
		2	14.1
		3	4.5
214	88.3	5	14.7
		6	43.8
		7	22.1
		8	7.7
TOTAL:	253.3		253.3

DESCRIPTION OF TIMBER BY PAYMENT UNIT (PU)

PU	MARKET GROUP	PRODUCT	QUANTITY	UNIT	ACRES	ADVERTISE PRICE	
1	Beech	Sawtimber	2.6	MBF	23.0	\$7,525.45	
	Black Cherry		1.4	MBF			
	Paper Birch		3.9	MBF			
	Red Maple		6.4	MBF			
	Red Pine		37.1	MBF			
	Sugar Maple		0.1	MBF			
	White Pine		49.6	MBF			
	Beech		Pulpwood	9			Cords
	Mixed Hardwood	25		Cords			
	<i>Black Cherry</i>	1		<i>Cords</i>			
	<i>Paper Birch</i>	5		<i>Cords</i>			
	<i>Red Maple</i>	18		<i>Cords</i>			
	<i>Red Oak</i>	1		<i>Cords</i>			
	Red Pine		12	Cords			
White Pine		29	Cords				
2	B. T. Aspen	Sawtimber	1.3	MBF	36.9	\$28,839.35	
	Beech		52.3	MBF			
	Black Cherry		1.5	MBF			
	Paper Birch		12.8	MBF			
	Red Maple		74.2	MBF			
	Red Pine		31.9	MBF			
	Sugar Maple		4.7	MBF			
	White Pine		40.5	MBF			
	Beech		Pulpwood	181			Cords
	Mixed Aspen			1			Cords
	<i>B. T. Aspen</i>	1		<i>Cords</i>			
	Mixed Hardwood	466		Cords			
	<i>Black Cherry</i>	2		<i>Cords</i>			
	<i>Paper Birch</i>	54		<i>Cords</i>			
	<i>Red Maple</i>	372		<i>Cords</i>			
	<i>Red Oak</i>	23	<i>Cords</i>				
	<i>Sugar Maple</i>	15	<i>Cords</i>				
Red Pine		13	Cords				
White Pine		40	Cords				
3	B. T. Aspen	Sawtimber	1.7	MBF	41.3	\$27,881.75	
	Beech		31.8	MBF			
	Black Cherry		2.3	MBF			
	Paper Birch		11.7	MBF			
	Red Maple		72.0	MBF			
	Red Pine		46.4	MBF			
	Sugar Maple		6.3	MBF			
	White Pine		69.5	MBF			
	Beech		Pulpwood	120			Cords
	Mixed Aspen			1			Cords
	<i>B. T. Aspen</i>	1		<i>Cords</i>			
	Mixed Hardwood	383		Cords			
	<i>Black Cherry</i>	2		<i>Cords</i>			
	<i>Paper Birch</i>	21		<i>Cords</i>			
	<i>Red Maple</i>	317		<i>Cords</i>			
	<i>Red Oak</i>	19	<i>Cords</i>				
	<i>Sugar Maple</i>	24	<i>Cords</i>				
Red Pine		19	Cords				
White Pine		60	Cords				
4	B. T. Aspen	Sawtimber	0.2	MBF	18.4	\$6,562.75	
	Beech		2.5	MBF			
	Black Cherry		1.2	MBF			

DESCRIPTION OF TIMBER BY PAYMENT UNIT (PU), CON'T

PU	MARKET GROUP	PRODUCT	QUANTITY	UNIT	ACRES	ADVERTISE PRICE	
4 con't	Paper Birch	Sawtimber	3.6	MBF			
	Red Maple		7.1	MBF			
	Red Pine		28.9	MBF			
	Sugar Maple		0.8	MBF			
	White Pine		39.3	MBF			
	Beech		Pulpwood	7			Cords
	Mixed Hardwood			32			Cords
	<i>Black Cherry</i>			1			<i>Cords</i>
	<i>Paper Birch</i>			2			<i>Cords</i>
	<i>Red Maple</i>			25			<i>Cords</i>
	<i>Red Oak</i>			2			<i>Cords</i>
	<i>Sugar Maple</i>			2			<i>Cords</i>
	Red Pine			9			Cords
	White Pine			26			Cords
5	Jack Pine	Sawtimber		1.3	MBF	20.9	\$15,011.45
	Quaking Aspen		20.4	MBF			
	Red Maple		25.4	MBF			
	Red Pine		36.9	MBF			
	White Pine		50.3	MBF			
	Beech		Pulpwood	4	Cords		
	Jack Pine			6	Cords		
	Mixed Aspen			61	Cords		
	<i>Quaking Aspen</i>			61	<i>Cords</i>		
	Mixed Hardwood			176	Cords		
	<i>Black Cherry</i>			2	<i>Cords</i>		
	<i>Red Maple</i>			174	<i>Cords</i>		
	Red Pine			20	Cords		
	White Pine			87	Cords		
6	Jack Pine	Sawtimber		3.9	MBF	43.8	\$30,992.60
	Quaking Aspen		60.9	MBF			
	Red Maple		22.6	MBF			
	Red Pine		109.8	MBF			
	White Pine		123.2	MBF			
	Jack Pine		Pulpwood	19	Cords		
	Mixed Aspen			181	Cords		
	<i>Quaking Aspen</i>			181	<i>Cords</i>		
	Mixed Hardwood			142	Cords		
	<i>Black Cherry</i>			7	<i>Cords</i>		
	<i>Red Maple</i>			135	<i>Cords</i>		
	Red Pine			48	Cords		
	White Pine			188	Cords		
	7			Jack Pine	Sawtimber		
Quaking Aspen		70.4		MBF			
Red Maple		26.9	MBF				
Red Pine		123.2	MBF				
White Pine		87.9	MBF				
Jack Pine		Pulpwood	60	Cords			
Mixed Aspen			154	Cords			
<i>Quaking Aspen</i>			154	<i>Cords</i>			
Mixed Hardwood			104	Cords			
<i>Black Cherry</i>			4	<i>Cords</i>			
<i>Red Maple</i>			100	<i>Cords</i>			
Red Pine			45	Cords			
White Pine			134	Cords			
8			Jack Pine	Sawtimber		6.8	MBF
	Quaking Aspen		52.4		MBF		

DESCRIPTION OF TIMBER BY PAYMENT UNIT (PU), CON'T

PU	MARKET GROUP	PRODUCT	QUANTITY	UNIT	ACRES	ADVERTISE PRICE
8 con't	Red Maple	Sawtimber	20.2	MBF		
	Red Pine		90.5	MBF		
	White Pine		48.7	MBF		
	Jack Pine	Pulpwood	57	Cords		
	Mixed Aspen		98	Cords		
	<i>Quaking Aspen</i>		98	<i>Cords</i>		
	Mixed Hardwood		58	Cords		
	<i>Black Cherry</i>		1	<i>Cords</i>		
	<i>Red Maple</i>		57	<i>Cords</i>		
	Red Pine		30	Cords		
	White Pine		74	Cords		
TOTAL:			1,635.2	MBF		
TOTAL:			3,179	Cords		

Sale Specific Conditions & Requirements

Sale Name: Last Resort Mix

Sale Number: 61-137-21 Seq#: 1

1 - Sale Area

1.2 - Boundaries

1.2.1 - Painted boundaries (9/19)

The sale boundary and Payment Unit boundaries are marked and identified by red and pink paint and the ORV trail. Exterior sale boundary lines against state are marked with red paint. Interior Payment Unit boundaries are marked with pink paint and/or identified by the ORV trail. The painted boundary line trees are not Included Timber and are to be protected.

2 - Timber Specifications

2.1 - Included Timber

2.1.1 - Clearcut unit(s) with unmerchantable trees (6/14)

Within Payment Unit(s) 1-4, cut all trees that are one (1) inch or more at DBH.

2.1.7 - Leave tree marked unit(s) (6/14)

Within Payment Unit(s) 5-8, all trees, which meet minimum piece specifications in 2.2 Utilization, are designated for cutting except trees marked with green paint above and below stump height. In addition, leave all white oak, and any red pine or white pine that is 6" or less at DBH.

2.2 - Utilization

2.2.3 - Stump heights (4/07)

Stump heights within Payment Unit 1-4, shall not exceed 6 inches for all trees. This is to facilitate planting operations.

2.2.4 - Skidding length (2/14)

Within Payment Units 5-8, skidding of lengths over 17 feet is permissible if the timber sale administrator approves the method and machinery used. If at any point damage to residual trees or advanced regeneration exceeds specification 3.4.1, all the remaining wood must be skid in lengths less than 17 feet.

3 - Payments

3.3 - Pre-measured Sales

3.3.4 - Dividing payment units (7/14)

Payment Unit(s) greater than \$25,000 may be divided at the request of the Purchaser and upon approval of the Unit Manager. Dividing Payment Units is a contract modification which requires a Timber Sale Contract Amendment. There will be only one division per Payment Unit.

3.4 - Damaged Timber

3.4.1 - Damaged timber (7/16)

General Condition and Requirement 3.4 Damaged Timber, defines liquidated damages for undesignated live merchantable trees which are cut or injured. In addition, extreme care should be taken to avoid damage to tree seedlings and saplings. Within Payment Units 5-8, if more than 25% of the tree seedlings or saplings (1/4" to 4.5" DBH) within a specified portion of the Sale Area are damaged, liquidated damages will be assessed at \$300 per acre for all acreage within that specified portion of the Sale Area that was damaged.

4 - Transportation

4.1 - Construction

4.1.6 - Road construction (1/09)

Construction of new roads or improvements of existing roads shall be done in such a way as to minimize the environmental and visual impacts. Merchantable trees shall be cut and utilized unless otherwise directed. Non-merchantable trees shall be severed and laid flat on the ground. Slash shall be scattered, and not left in windrows and kept a minimum of 10 feet back from the road edge. Stumps shall be set upright, not left on edge, and be moved at least 10 feet away from the road edge.

Disturbed soil shall be feathered into the woods and not left in berms or windrows.

4.1.7 - Road closure (10/11)

All new roads built into the sale must be blocked to vehicle traffic within 30 days of completion of hauling. Overgrown roads that are reopened or roads that are already bermed shall be considered new roads. In general, this will require constructing a four (4') foot high berm of stumps and logs covered with earth. These roads must be rendered impassable to cars, trucks and ORVs. Temporary berms may be required if no sale activity occurs for 30 or more consecutive days. Contact the sale administrator for specific details of design and placement.

4.2 - Maintenance

4.2.3 - Road maintenance (8/13)

The following road maintenance may be needed: geofabric, gravel, crane mats, grading and/or winter hauling might be necessary on some very sandy areas of the Secondary Forest Road along the north boundary of the Sale Area.

5 - Operations

5.2 - Conduct of Operations

5.2.1 - Slash

5.2.1.8 - Slash height (12/08)

No slash or tree tops, within Payment Units 5-8, may exceed 36 inches in height.

5.2.1.11 - Slash for reforestation (3/21)

Within Payment Units 1-4, chipping is strongly encouraged as it is the most effective and efficient way to mitigate slash for reforestation. Other tactics to mitigate slash for site preparation would need to be approved by the Unit Manager or his/her representative. Liquidated damages may be assessed at \$250 per acre if it is determined that slash mitigation was inadequate, and mastication is needed for the DNR to conduct site preparation for planting.

5.2.2 - Hazard Trees/Snags

5.2.2.1 - Den trees (10/16)

Obvious hollow and/or den trees shall be protected and left standing unless they are a safety hazard.

5.2.3 - Operating Restrictions

5.2.3.3 - Bark slippage restriction (3/09)

Within Payment Unit(s) 5-8, unless changed by written agreement, cutting and skidding are not permitted during the period of April 15 to July 15. This restriction is because of bark slippage.

5.2.3.11 - Coppice regeneration protection (4/10)

Within Payment Units 5-8, any post-harvest operations, such as chipping, must be completed before sprouting of regeneration occurs. If it is anticipated that chipping will be delayed, then tops shall be carried to one central location or left unchipped. The Unit Manager or his/her representative may cease such operations if sprouting occurs before the operation is complete.

5.2.29 - Shrub protection (1/20)

Within Payment Units 5-8, do not cut or damage hawthorn, witch-hazel, dogwood, or junberry. These woody-shrub plants are highly beneficial to various wildlife species.

5.2.32 - Decking/landing restoration (9/13)

All decking and landing areas must have the surface area restored to a condition equal to or better than before. This is to ensure the proper regeneration of the stand. Wood debris, chips, and "cookies" from trimmings must be removed or scattered away from landing and loading areas and may not be windrowed on the edge.

5.2.38 - No decking against live trees (2/04)

Cut products may not be decked against unmarked or designated leave trees.

5.2.39 - ORV trail/route protection (4/18)

There is an ORV trail within the Sale Area as shown on the Timber Sale Map. Do not damage carsonite posts with yellow ORV markers. All stumps within 5 feet of the trail must be cut flush with the ground. Keep all slash, tree tops and piled

wood more than 10 feet away from the ORV trail at the end of each day. Do not run equipment down the ORV trail. Skidding across the trail should be minimized, in specific locations to be approved and flagged by the sale administrator.

5.4 - Soil Protection

5.4.1 - Rutting restriction, general (7/16)

Operations are to cease immediately if equipment and weather conditions result in rutting of roads and/or skid trails which is 12 inches or greater in depth and 50 feet in length. The Unit Manager or his/her representative may restrict hauling and/or skidding if ruts exceed the specified depth. With the Unit Manager or his/her representative's approval, the Purchaser may return to the area when the risk of rutting has decreased.

5.8 - Protection of Endangered Species

5.8.5 - Protection of raptor nests (3/13)

All trees with raptor nests will be protected if found during harvesting operations. Notification will be made to the Unit Manager or his/her representative who will notify the Wildlife Biologist so an on-site evaluation and recommendation can be made, if necessary.

6 - Safety and Fire Prevention

6.2 - Signing

6.2.3 - Recreational trail posting (10/20)

The Purchaser is responsible for posting and maintaining caution signs on the ORV trail prior to beginning operations. The trail must be posted at appropriate distances from both ends of the Sale Area to warn of logging activity and truck traffic at both ends of the trail. Signs must be removed when harvest operations are suspended or completed. The Purchaser will provide these signs.

7 - Other Conditions

7.3 - Contract Modifications

7.3.3 - Modification for reforestation (8/05)

When contractual work of Purchaser has been accepted for any Payment Unit identified on Sale Area Map, Payment Unit will be eliminated from the Sale Area on written notice so that reforestation operations can begin.



TIMBER SALE MAP

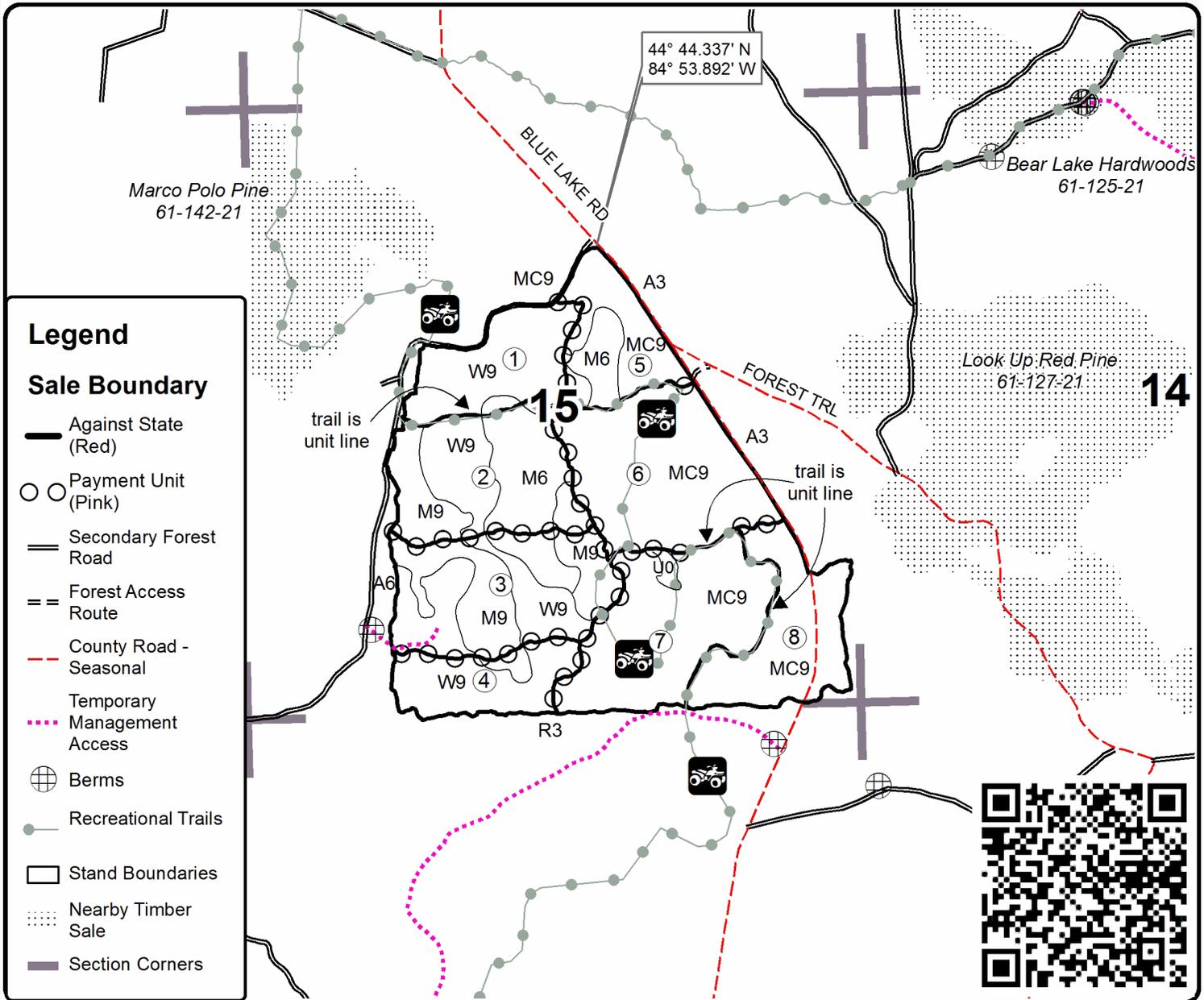
This information provided by authority of Part 525, 1994 PA 451, as amended.

Forest Management Unit Traverse City	County Kalkaska	Mapped By Armstrong	Date 9/27/2021	Page 1	of 1
Township 27N	Range 5W	Section(s) and Subdivision(s) Sec. 15: SENW, W1/2NE, SW, SE; Sec. 22: NENW, N1/2NE	Cruised By Armstrong, Roell		
Scale 1:15,840					

Cover Type				Density	
A = Aspen	H = Hemlock	N = Marsh	U = Upland Brush	0 = Non Stocked	5 = Pole Timber Medium
B = Paper Birch	J = Jack Pine	O = Oak	UM = Upland Mixed	1 = Seedling Sapling Poor	6 = Pole Timber Well
C = Cedar	L = Lowland Brush	P = Lowland Poplar	V = Bog or Marsh	2 = Seedling Sapling Medium	7 = Saw Timber Poor
D = Treed Bog	LM = Lowland Mixed	Q = Mixed Swamp Conifer	W = White Pine	3 = Seedling Sapling Well	8 = Saw Timber Medium
E = Swamp Hdwoods	M = Mpl, Bch, Brch	R = Red Pine	X = Non Stocked	4 = Pole Timber Poor	9 = Saw Timber Well
F = Spruce Fir	MC = Mixed Conifer	S = Black Spruce	Z = Water		
G = Grass	MD = Mixed Deciduous	T = Tamarack			

PU	Acres	PU	Acres
1	23.0	5	20.9
2	36.9	6	43.8
3	41.3	7	41.2
4	18.4	8	27.8

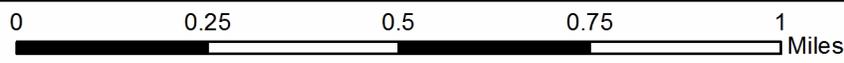
Last Resort Mix Compartment 113 253.3 acres



Legend

Sale Boundary

- Against State (Red)
- ○ Payment Unit (Pink)
- == Secondary Forest Road
- == Forest Access Route
- - - County Road - Seasonal
- Temporary Management Access
- ⊕ Berms
- Recreational Trails
- Stand Boundaries
- ⋯ Nearby Timber Sale
- Section Corners



TIMBER SALE INFORMATION

Marco Polo Pine (61-142-21)
T27N, R05W, SEC. 15.
Kalkaska County (Advertised Price \$21,368.35)

SALE NOTE: All units of volume listed for this sale were estimated using the Inventory Manager computer program and the new Michigan taper model.

Please note that Unit 2 is removal of scattered red pine over 1-4" DBH aspen (20 years old) and other trees which must be protected. Equipment and timing of harvest should be chosen to minimize damage to the understory trees.

A recreation site such as a trail, pathway, or campground is within the sale area or the vicinity. Certain restrictions/specifications may be applicable including time restrictions.

A timber sale contract for this lump sum, sealed bid timber sale will be awarded to the responsible bidder offering the highest sealed bid price. All units of volume listed below were estimated using the Inventory Manager computer program and the new Michigan taper model. Bids must be at or above the following advertised price for each product and species:

<u>PRODUCTS & SPECIES</u>	<u>ESTIMATED UNITS*</u>	<u>ADVERTISED PRICE</u>
Sawtimber		
American Elm	1.6 MBF	\$ 96.00 / MBF
Red Maple	3.1 MBF	\$ 107.00 / MBF
Red Pine	212.4 MBF	\$ 85.00 / MBF
Sugar Maple	1.2 MBF	\$ 194.00 / MBF
Pulpwood		
Mixed Hardwood	30 Cords	\$ 14.50 / Cord
Red Pine	65 Cords	\$ 33.25 / Cord

* The total volume is statistically estimated within plus (+) or minus (-) 15.26 percent. There are an estimated 605 cords on this timber sale, plus or minus 92 cords at the 95% confidence level. The estimated units are final and not subject to adjustment. Prospective bidders are urged to examine this timber and to make their own estimates of quantity and quality.

BOND AND PAYMENT SCHEDULE:

1. A bond in the amount of \$2,137.00 to insure faithful performance of the conditions of the contract will be deposited by the successful bidder within 21 days of the sale award.
2. Cutting in any sale or unit without the required advance payment would be considered a trespass.
3. Total payment must be paid in advance or according to the following schedule :
 - (a) Ten percent (10%) of the sale value must be paid within 21 days of the sale award.
 - (b) The 10% down payment will be credited towards the first unit cut.
 - (c) Payment for each of the following units must be made before cutting begins in that unit:

PAYMENT UNIT NUMBER	PERCENT OF TOTAL SALE VALUE
01	17.4%
02	82.6%
4. If no cutting takes place, the 10% down payment will not be refunded.
5. Operations on the contract issued will terminate on 04/15/2024.

SALE STATISTICS

Volumes were calculated in cubic feet using the Michigan taper model. Cubic foot volume includes all wood inside bark for the product indicated. For display purposes, cubic feet were converted to cords and MBF using a simple conversion factor, e.g. 79 cubic feet per cord and 185 cubic feet per MBF. The cubic foot volumes are precise; the cords and MBF volumes are not. Cubic foot volume cannot be directly converted to cords or boards with precision.

SALE VOLUMES

The total estimated sale volume may not equal the sum of the species/products due to the nature of statistical calculations associated with double sampling methodology.

VOLUME		STATISTICAL RANGE IN CORDS		
TOTAL CUBIC FEET	TOTAL CORDS	PERCENT ERROR	MINIMUM	MAXIMUM
47,823	605	15.26%	513	698

VDU VOLUMES

A VDU is a Volume Determination Unit. Volumes and their associated statistics are calculated at the VDU level and summarized to the sale level. There is often a one to one relationship between a VDU and a Payment Unit, but not always, depending on the cruise design. Refer to the VDU TO PAYMENT UNIT table.

VDU	VOLUME		PERCENT ERROR	RANGE IN CORDS	
	TOTAL CUBIC FEET	TOTAL CORDS		MINIMUM	MAXIMUM
36	34,985	443	17.71%	364	521
38	7,118	90	21.79%	70	110
TOTAL:	42,103	533		435	631

VDU TO PAYMENT UNIT

When a VDU is associated with more than one Payment Unit (PU), the VDU volumes are assigned to the PU based on acres of the VDU within the PU.

VDU	VDU ACRES	PU	PU ACRES
36	39.8	1	1.3
		2	38.5
38	4.5	1	4.5
TOTAL:	44.3		44.3

DESCRIPTION OF TIMBER BY PAYMENT UNIT (PU)

PU	MARKET GROUP	PRODUCT	QUANTITY	UNIT	ACRES	ADVERTISE PRICE	
1	American Elm	Sawtimber	1.6	MBF	5.8	\$3,724.85	
	Red Maple		3.1	MBF			
	Red Pine		28.3	MBF			
	Sugar Maple		1.2	MBF			
	Mixed Hardwood		Pulpwood	30			Cords
	<i>American Elm</i>			1			<i>Cords</i>
	<i>Beech</i>			12			<i>Cords</i>
	<i>Red Maple</i>			15			<i>Cords</i>
	<i>Sugar Maple</i>			2			<i>Cords</i>
Red Pine	5	Cords					
2	Red Pine	Sawtimber	184.1	MBF	38.5	\$17,643.50	
	Red Pine	Pulpwood	60	Cords			
TOTAL:			218.3	MBF			
TOTAL:			95	Cords			

Sale Specific Conditions & Requirements

Sale Name: Marco Polo Pine

Sale Number: 61-142-21 Seq#: 1

1 - Sale Area

1.2 - Boundaries

1.2.1 - Painted boundaries (9/19)

The sale boundary and Payment Unit boundary are marked and identified by blue, red, and pink paint and the ORV trail.

Exterior sale boundary lines against private property are marked with blue paint. Exterior sale boundary lines against state are marked with red paint. The interior Payment Unit boundary is marked with pink paint or designated by the ORV trail. The painted boundary line trees are not Included Timber and are to be protected.

2 - Timber Specifications

2.1 - Included Timber

2.1.5 - Overstory removal unit(s) (8/11)

Within Payment Unit(s) 2, all red pine trees, which meet minimum piece specifications in 2.2 Utilization, are designated for cutting.

2.1.7 - Leave tree marked unit(s) (6/14)

Within Payment Unit(s) 1, cut all trees that are two (2) inches or more at DBH, except trees marked with green paint above and below stump height. In addition, do not cut sugar maple less than six (6) inches at DBH.

2.2 - Utilization

2.2.4 - Skidding length (2/14)

Skidding of unlimbed tops or lengths over 17 feet is not permissible unless approved by the Unit Manager or his/her representative.

3 - Payments

3.4 - Damaged Timber

3.4.1 - Damaged timber (7/16)

General Condition and Requirement 3.4 Damaged Timber, defines liquidated damages for undesignated live merchantable trees which are cut or injured. In addition, extreme care should be taken to avoid damage to tree seedlings and saplings.

Within the Sale Area, if more than 25% of the tree seedlings or saplings (1/4" to 4.5" DBH) within a specified portion of the Sale Area are damaged, liquidated damages will be assessed at \$300 per acre for all acreage within that specified portion of the Sale Area that was damaged.

4 - Transportation

4.1 - Construction

4.1.6 - Road construction (1/09)

Construction of new roads or improvements of existing roads shall be done in such a way as to minimize the environmental and visual impacts. Merchantable trees shall be cut and utilized unless otherwise directed. Non-merchantable trees shall be severed and laid flat on the ground. Slash shall be scattered, and not left in windrows and kept a minimum of 10 feet back from the road edge. Stumps shall be set upright, not left on edge, and be moved at least 10 feet away from the road edge. Disturbed soil shall be feathered into the woods and not left in berms or windrows.

4.1.7 - Road closure (10/11)

If it is used, the Temporary Management Access, shown on the Timber Sale Map, must be blocked to vehicle traffic within 30 days of completion of hauling. In general, this will require constructing a four (4') foot high berm of stumps and logs covered with earth. Closed roads must be rendered impassable to cars, trucks and ORVs. Temporary berms may be required if no sale activity occurs for 30 or more consecutive days. Contact the sale administrator for specific details of design and placement.

4.2 - Maintenance

4.2.3 - Road maintenance (8/13)

The following road maintenance may be needed: geofabric, gravel, crane mats, grading and/or winter hauling might be necessary on some very sandy areas of the Secondary Forest Road between Blue Lake Road and the Sale Area.

5 - Operations

5.2 - Conduct of Operations

5.2.1 - Slash

5.2.1.8 - Slash height (12/08)

No slash or tree tops may exceed 36 inches in height.

5.2.2 - Hazard Trees/Snags

5.2.2.1 - Den trees (10/16)

Obvious hollow and/or den trees shall be protected and left standing unless they are a safety hazard.

5.2.3 - Operating Restrictions

5.2.3.3 - Bark slippage restriction (3/09)

Within Payment Unit(s) 1 and 2, unless changed by written agreement, cutting and skidding are not permitted during the period of April 15 to July 15. This restriction is because of bark slippage.

5.2.3.6 - Bark beetle restriction (12/08)

In the event drought creates a high risk of pine bark beetle infestation, pine is not to be cut during the period March 1 through July 1, unless all portions of trees greater than two inches in diameter are removed from the sale area, reduced to chips, or treated to the satisfaction of the Unit Manager or his/her representative, within fifteen days of being severed from the stump. Pine log decks, pulpwood piles and treetops that are piled for chipping in the fall or winter within a 1/4 mile of susceptible sites must be removed before March 15. Residual slash must not be placed in piles or rows and must be spread over the site for quick drying. The Department of Natural Resources will exercise this specification if the risk of damage warrants.

5.2.22 - Operating Caution

5.2.22.1 - Operating caution (6/11)

It is recommended, but not required, that within Payment Unit(s) 2, cutting occur during leaf-off conditions. The reason for the recommendation is because the subcanopy is dense and leaf-off conditions will make it easier to find the trees to be cut and minimize damage to subcanopy trees.

5.2.29 - Shrub protection (1/20)

Do not cut or damage hawthorn, witch-hazel, dogwood, or junberry. These woody-shrub plants are highly beneficial to various wildlife species.

5.2.32 - Decking/landing restoration (9/13)

All decking and landing areas must have the surface area restored to a condition equal to or better than before. This is to ensure the proper regeneration of the stand. Wood debris, chips, and "cookies" from trimmings must be removed or scattered away from landing and loading areas and may not be windrowed on the edge.

5.2.38 - No decking against live trees (2/04)

Cut products may not be decked against unmarked or designated leave trees.

5.2.39 - ORV trail/route protection (4/18)

An ORV trail runs through the Sale Area, as shown on the Timber Sale Map. Do not damage carsonite ORV signs. All stumps within 5 feet of the trail must be cut flush with the ground. Keep all slash, tree tops and piled wood more than 10 feet away from the ORV trail at the end of each day. Do not run equipment down the ORV trail. Skidding across the trail will only be allowed in 1-2 locations which must be approved and flagged by the sale administrator.

5.4 - Soil Protection

5.4.1 - Rutting restriction, general (7/16)

Operations are to cease immediately if equipment and weather conditions result in rutting of roads and/or skid trails which is 12 inches or greater in depth and 50 feet in length. The Unit Manager or his/her representative may restrict hauling and/or skidding if ruts exceed the specified depth. With the Unit Manager or his/her representative's approval, the Purchaser may return to the area when the risk of rutting has decreased.

5.8 - Protection of Endangered Species

5.8.5 - Protection of raptor nests (3/13)

All trees with raptor nests will be protected if found during harvesting operations. Notification will be made to the Unit Manager or his/her representative who will notify the Wildlife Biologist so an on-site evaluation and recommendation can be made, if necessary.

6 - Safety and Fire Prevention

6.2 - Signing

6.2.3 - Recreational trail posting (10/20)

The Purchaser is responsible for posting and maintaining caution signs on the ORV trail prior to beginning operations. The trail must be posted at appropriate distances from both ends of the Sale Area and/or where the ORV trail is on a Secondary Forest Road to warn of logging activity and truck traffic at both ends of the trail. Signs must be removed when harvest operations are suspended or completed. The Purchaser will provide these signs.



TIMBER SALE MAP

This information provided by authority of Part 525, 1994 PA 451, as amended.

Forest Management Unit Traverse City	County Kalkaska	Mapped By Armstrong	Date 9/21/2021	Page 1	of 1
Township 27N	Range 5W	Section(s) and Subdivision(s) NW 1/4	Scale 1:7,920		
Cruised By Roell, Armstrong					

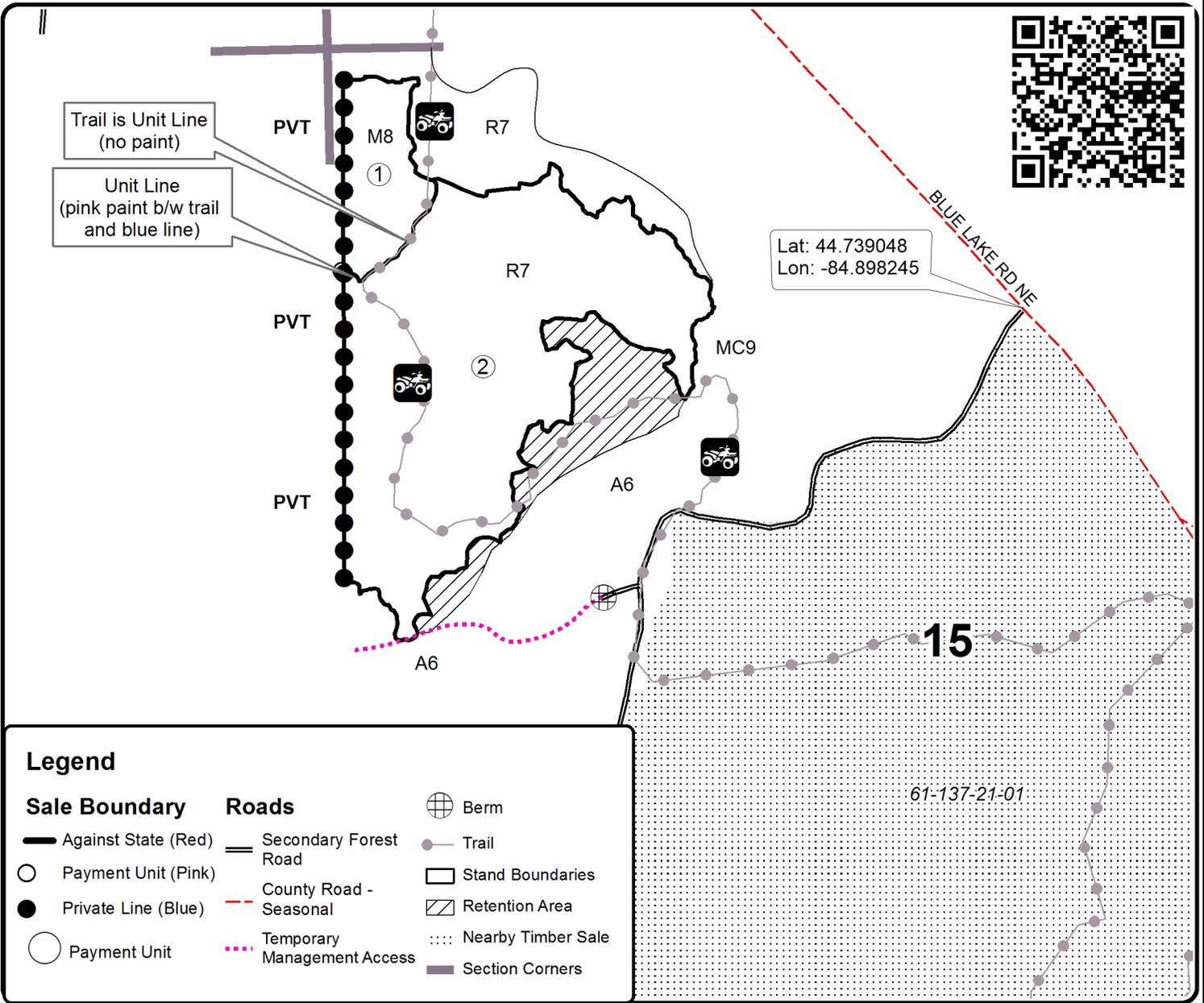
Cover Type				Density	
A = Aspen	H = Hemlock	N = Marsh	U = Upland Brush	0 = Non Stocked	5 = Pole Timber Medium
B = Paper Birch	J = Jack Pine	O = Oak	UM = Upland Mixed	1 = Seedling Sapling Poor	6 = Pole Timber Well
C = Cedar	L = Lowland Brush	P = Lowland Poplar	V = Bog or Marsh	2 = Seedling Sapling Medium	7 = Saw Timber Poor
D = Treed Bog	LM = Lowland Mixed	Q = Mixed Swamp Conifer	W = White Pine	3 = Seedling Sapling Well	8 = Saw Timber Medium
E = Swamp Hdwoods	M = Mpl, Bch, Brch	R = Red Pine	X = Non Stocked	4 = Pole Timber Poor	9 = Saw Timber Well
F = Spruce Fir	MC = Mixed Conifer	S = Black Spruce	Z = Water		
G = Grass	MD = Mixed Deciduous	T = Tamarack			

PU	Acres
1	5.8
2	38.5

Marco Polo Pine

Compartment 113

44.3 acres



Legend	
Sale Boundary	Roads
— Against State (Red)	— Secondary Forest Road
○ Payment Unit (Pink)	— County Road - Seasonal
● Private Line (Blue)	— Temporary Management Access
○ Payment Unit	— Section Corners
⊕ Berm	● Trail
□ Stand Boundaries	▨ Retention Area
⋯ Nearby Timber Sale	



Last Resort Mix (61-137-21)
T27N, R05W, SEC. 15; T27N, R05W, SEC. 22; Kalkaska COUNTY

In response to the notice of sale to be held 4:00 p.m. (local time) on February 28, 2022, I am hereby submitting my sealed bid (firm offer) for the following forest products to be cut. Bids for individual species must be at or above the advertised price. All non-responsive bid forms may be rejected.

<u>PRODUCTS & SPECIES</u>	<u>ESTIMATED VOLUME*</u>	<u>ADVERTISED PRICE</u>	<u>BID PRICE/UNIT</u>
Sawtimber			
B. T. Aspen	3.2 MBF	\$ 96.00/MBF	\$ _____
Beech	89.2 MBF	\$ 90.00/MBF	\$ _____
Black Cherry	6.4 MBF	\$ 146.00/MBF	\$ _____
Jack Pine	19.9 MBF	\$ 18.00/MBF	\$ _____
Paper Birch	32.0 MBF	\$ 28.00/MBF	\$ _____
Quaking Aspen	204.1 MBF	\$ 96.00/MBF	\$ _____
Red Maple	254.8 MBF	\$ 107.00/MBF	\$ _____
Red Pine	504.7 MBF	\$ 85.00/MBF	\$ _____
Sugar Maple	11.9 MBF	\$ 194.00/MBF	\$ _____
White Pine	509.0 MBF	\$ 37.00/MBF	\$ _____
Pulpwood			
Beech	321 Cords	\$ 14.50/Cord	\$ _____
Jack Pine	142 Cords	\$ 9.20/Cord	\$ _____
Mixed Aspen	496 Cords	\$ 13.20/Cord	\$ _____
Mixed Hardwood	1,386 Cords	\$ 14.50/Cord	\$ _____
Red Pine	196 Cords	\$ 33.25/Cord	\$ _____
White Pine	638 Cords	\$ 13.55/Cord	\$ _____

*The volumes are statistically estimated within plus (+) or minus (-) 4.65 percent at 95% confidence level. These estimated volumes are final and not subject to adjustment. Prospective bidders are urged to examine this timber and to make their own estimates of quantity and quality.

I understand that any or all bids may be rejected. All bids must be signed and all bid items must be bid or the bid form may be rejected. I also understand that consideration and awarding a contract will be based upon my past performance and ability to complete the contract based upon equipment and staffing subject to my control.

FEDERAL ID: ____ - ____ - ____ or SOCIAL SECURITY NUMBER: ____ - ____ - ____

Company or individual bidding: _____

Company representative's name: _____

Address: _____

City: _____ State: _____ Zip: _____

IF AVAILABLE, PLEASE PLACE THE PERSONALIZED LABEL FROM YOUR PROSPECTUS IN THE ABOVE BOX.

Individual or company representative's signature: _____ Date: _____

Phone number : _____ Email (optional): _____

THE WINNING BIDDER MUST COMPLETE THE VERIFICATION OF WORKER'S DISABILITY COMPENSATION ACT COMPLIANCE (ON REVERSE SIDE IF DOUBLE SIDED) WITHIN 21 DAYS OF SALE AWARD DATE



FOR DEPARTMENT USE ONLY	
Sale Number (XX - XXX - XX - XX)	
Forest Management Unit:	

TIMBER SALE VERIFICATION OF WORKER'S DISABILITY COMPENSATION ACT COMPLIANCE

As required by Act 317, P.A. 1969 (Worker's Compensation) and
Part 5 of Act 451 of 1994, as amended.

VERIFICATION OF WORKER'S DISABILITY COMPENSATION ACT COMPLIANCE

- This verification must be completed and submitted within 21 days of contract award and prior to the issuance of the timber sale contract.
- In addition, if boxes 2B or 2C are checked, then Notice of Exclusion or Certificate of Insurance must be submitted within twenty-one (21) days of the contract award and prior to the issuance of the timber sale contract.
- All information must be typed or printed except for written signatures.

Please Check Appropriate Categories:

1. My business is organized as (you **must** check one of the boxes below):
 - A. Sole Proprietorship (individual)
 - B. Partnership
 - C. Corporation
2. You **must** check one of the boxes below:
 - A. I certify my business is a sole proprietorship and it has no employees but the sole proprietor. I am not subject to the Worker's Compensation Laws.
 - B. I certify my business has satisfied its obligation to the Worker's Compensation Act through the use of an approved Notice of Exclusion (BWC-337, Rev. 5/96). I will provide a copy of the Notice of Exclusion within 21 days of the contract award. (For questions or a copy of the BWC-337, please call the Worker's Compensation Bureau at 517-322-1195).
 - C. I certify my business has a Worker's Compensation Policy. I will provide an original Certificate of Insurance within twenty-one (21) days of the contract award.
3. If you have checked item 2(A) or 2(B), you **must** indicate the number of **both** full-time and part-time employees, other than yourself, including family members and active partners (if none, you must enter "0").

_____ Full-time Employees

_____ Part-time Employees

Name of Business		Federal ID (or) Social Security No.	
Address		Telephone ()	
City	State	ZIP	

I hereby certify that the above information is true and correct. I agree to notify the Michigan DNR of any changes that occur in factors affecting my coverage during any of my present and future operations.

Signature of Owner or Authorized Representative

Title

Date

Please complete the "SEALED BID" information on the next page

Marco Polo Pine (61-142-21)
T27N, R05W, SEC. 15; Kalkaska COUNTY

In response to the notice of sale to be held 4:00 p.m. (local time) on February 28, 2022, I am hereby submitting my sealed bid (firm offer) for the following forest products to be cut. Bids for individual species must be at or above the advertised price. All non-responsive bid forms may be rejected.

<u>PRODUCTS & SPECIES</u>	<u>ESTIMATED VOLUME*</u>	<u>ADVERTISED PRICE</u>	<u>BID PRICE/UNIT</u>
Sawtimber			
American Elm	1.6 MBF	\$ 96.00/MBF	\$ _____
Red Maple	3.1 MBF	\$ 107.00/MBF	\$ _____
Red Pine	212.4 MBF	\$ 85.00/MBF	\$ _____
Sugar Maple	1.2 MBF	\$ 194.00/MBF	\$ _____
Pulpwood			
Mixed Hardwood	30 Cords	\$ 14.50/Cord	\$ _____
Red Pine	65 Cords	\$ 33.25/Cord	\$ _____

*The volumes are statistically estimated within plus (+) or minus (-) 15.26 percent at 95% confidence level. These estimated volumes are final and not subject to adjustment. Prospective bidders are urged to examine this timber and to make their own estimates of quantity and quality.

I understand that any or all bids may be rejected. All bids must be signed and all bid items must be bid or the bid form may be rejected. I also understand that consideration and awarding a contract will be based upon my past performance and ability to complete the contract based upon equipment and staffing subject to my control.

FEDERAL ID: _____ - _____ or SOCIAL SECURITY NUMBER: _____ - _____ - _____

Company or individual bidding: _____

Company representative's name: _____

Address: _____

City: _____ State: _____ Zip: _____

IF AVAILABLE, PLEASE PLACE THE PERSONALIZED LABEL FROM YOUR PROSPECTUS IN THE ABOVE BOX.

Individual or company representative's signature: _____ Date: _____

Phone number : _____ Email (optional): _____

THE WINNING BIDDER MUST COMPLETE THE VERIFICATION OF WORKER'S DISABILITY COMPENSATION ACT COMPLIANCE (ON REVERSE SIDE IF DOUBLE SIDED) WITHIN 21 DAYS OF SALE AWARD DATE

Ghost Buster Cut (61-136-21)
T25N, R06W, SEC. 13; T25N, R06W, SEC. 14; T25N, R06W, SEC. 15; Kalkaska

In response to the notice of sale to be held 4:00 p.m. (local time) on February 28, 2022, I am hereby submitting my sealed bid (firm offer) for the following forest products to be cut. Bids for individual species must be at or above the advertised price. All non-responsive bid forms may be rejected.

<u>PRODUCTS & SPECIES</u>	<u>ESTIMATED VOLUME*</u>	<u>ADVERTISED PRICE</u>	<u>BID PRICE/UNIT</u>
Sawtimber			
B. T. Aspen	59.4 MBF	\$ 96.00/MBF	\$ _____
Bl/R/Hybrid Oak	228.0 MBF	\$ 55.00/MBF	\$ _____
Quaking Aspen	12.7 MBF	\$ 96.00/MBF	\$ _____
Red Maple	28.6 MBF	\$ 107.00/MBF	\$ _____
Red Oak	29.9 MBF	\$ 106.00/MBF	\$ _____
Red Pine	101.3 MBF	\$ 85.00/MBF	\$ _____
White Oak	78.5 MBF	\$ 71.00/MBF	\$ _____
White Pine	96.1 MBF	\$ 37.00/MBF	\$ _____
Pulpwood			
Balsam Fir	74 Cords	\$ 7.45/Cord	\$ _____
Jack Pine	33 Cords	\$ 9.20/Cord	\$ _____
Mixed Aspen	604 Cords	\$ 13.20/Cord	\$ _____
Mixed Oak	472 Cords	\$ 14.95/Cord	\$ _____
Red Maple	314 Cords	\$ 14.50/Cord	\$ _____
Red Pine	207 Cords	\$ 33.25/Cord	\$ _____
White Pine	321 Cords	\$ 13.55/Cord	\$ _____

*The volumes are statistically estimated within plus (+) or minus (-) 4.92 percent at 95% confidence level. These estimated volumes are final and not subject to adjustment. Prospective bidders are urged to examine this timber and to make their own estimates of quantity and quality.

I understand that any or all bids may be rejected. All bids must be signed and all bid items must be bid or the bid form may be rejected. I also understand that consideration and awarding a contract will be based upon my past performance and ability to complete the contract based upon equipment and staffing subject to my control.

FEDERAL ID: ____ - ____ - ____ or SOCIAL SECURITY NUMBER: ____ - ____ - ____

Company or individual bidding: _____

Company representative's name: _____

Address: _____

City: _____ State: _____ Zip: _____

IF AVAILABLE, PLEASE PLACE THE PERSONALIZED LABEL FROM YOUR PROSPECTUS IN THE ABOVE BOX.

Individual or company representative's signature: _____ Date: _____

Phone number : _____ Email (optional): _____

THE WINNING BIDDER MUST COMPLETE THE VERIFICATION OF WORKER'S DISABILITY COMPENSATION ACT COMPLIANCE (ON REVERSE SIDE IF DOUBLE SIDED) WITHIN 21 DAYS OF SALE AWARD DATE



FOR DEPARTMENT USE ONLY	
Sale Number (XX - XXX - XX - XX)	
Forest Management Unit:	

TIMBER SALE VERIFICATION OF WORKER'S DISABILITY COMPENSATION ACT COMPLIANCE

As required by Act 317, P.A. 1969 (Worker's Compensation) and
Part 5 of Act 451 of 1994, as amended.

VERIFICATION OF WORKER'S DISABILITY COMPENSATION ACT COMPLIANCE

- This verification must be completed and submitted within 21 days of contract award and prior to the issuance of the timber sale contract.
- In addition, if boxes 2B or 2C are checked, then Notice of Exclusion or Certificate of Insurance must be submitted within twenty-one (21) days of the contract award and prior to the issuance of the timber sale contract.
- All information must be typed or printed except for written signatures.

Please Check Appropriate Categories:

1. My business is organized as (you **must** check one of the boxes below):
 - A. Sole Proprietorship (individual)
 - B. Partnership
 - C. Corporation
2. You **must** check one of the boxes below:
 - A. I certify my business is a sole proprietorship and it has no employees but the sole proprietor. I am not subject to the Worker's Compensation Laws.
 - B. I certify my business has satisfied its obligation to the Worker's Compensation Act through the use of an approved Notice of Exclusion (BWC-337, Rev. 5/96). I will provide a copy of the Notice of Exclusion within 21 days of the contract award. (For questions or a copy of the BWC-337, please call the Worker's Compensation Bureau at 517-322-1195).
 - C. I certify my business has a Worker's Compensation Policy. I will provide an original Certificate of Insurance within twenty-one (21) days of the contract award.
3. If you have checked item 2(A) or 2(B), you **must** indicate the number of **both** full-time and part-time employees, other than yourself, including family members and active partners (if none, you must enter "0").

_____ Full-time Employees

_____ Part-time Employees

Name of Business		Federal ID (or) Social Security No.	
Address		Telephone ()	
City	State	ZIP	

I hereby certify that the above information is true and correct. I agree to notify the Michigan DNR of any changes that occur in factors affecting my coverage during any of my present and future operations.

Signature of Owner or Authorized Representative

Title

Date

Please complete the "SEALED BID" information on the next page

Pine Maze (61-110-22)
T27N, R08W, SEC. 2; Kalkaska COUNTY

In response to the notice of sale to be held 4:00 p.m. (local time) on February 28, 2022, I am hereby submitting my sealed bid (firm offer) for the following forest products to be cut. Bids for individual species must be at or above the advertised price. All non-responsive bid forms may be rejected.

<u>PRODUCTS & SPECIES</u>	<u>ESTIMATED VOLUME*</u>	<u>ADVERTISED PRICE</u>	<u>BID PRICE/UNIT</u>
Sawtimber			
Red Pine	137.1 MBF	\$ 85.00/MBF	\$ _____
White Pine	23.2 MBF	\$ 37.00/MBF	\$ _____
Pulpwood			
Red Pine	685 Cords	\$ 33.25/Cord	\$ _____
White Pine	76 Cords	\$ 13.55/Cord	\$ _____

*The volumes are statistically estimated within plus (+) or minus (-) 8.50 percent at 95% confidence level. These estimated volumes are final and not subject to adjustment. Prospective bidders are urged to examine this timber and to make their own estimates of quantity and quality.

I understand that any or all bids may be rejected. All bids must be signed and all bid items must be bid or the bid form may be rejected. I also understand that consideration and awarding a contract will be based upon my past performance and ability to complete the contract based upon equipment and staffing subject to my control.

FEDERAL ID: _____ - _____ or SOCIAL SECURITY NUMBER: _____ - _____ - _____

Company or individual bidding: _____

Company representative's name: _____

Address: _____

City: _____ State: _____ Zip: _____

IF AVAILABLE, PLEASE PLACE THE PERSONALIZED LABEL FROM YOUR PROSPECTUS IN THE ABOVE BOX.

Individual or company representative's signature: _____ Date: _____

Phone number : _____ Email (optional): _____

THE WINNING BIDDER MUST COMPLETE THE VERIFICATION OF WORKER'S DISABILITY COMPENSATION ACT COMPLIANCE (ON REVERSE SIDE IF DOUBLE SIDED) WITHIN 21 DAYS OF SALE AWARD DATE



FOR DEPARTMENT USE ONLY	
Sale Number (XX - XXX - XX - XX)	
Forest Management Unit:	

TIMBER SALE VERIFICATION OF WORKER'S DISABILITY COMPENSATION ACT COMPLIANCE

As required by Act 317, P.A. 1969 (Worker's Compensation) and
Part 5 of Act 451 of 1994, as amended.

VERIFICATION OF WORKER'S DISABILITY COMPENSATION ACT COMPLIANCE

- This verification must be completed and submitted within 21 days of contract award and prior to the issuance of the timber sale contract.
- In addition, if boxes 2B or 2C are checked, then Notice of Exclusion or Certificate of Insurance must be submitted within twenty-one (21) days of the contract award and prior to the issuance of the timber sale contract.
- All information must be typed or printed except for written signatures.

Please Check Appropriate Categories:

1. My business is organized as (you **must** check one of the boxes below):
 - A. Sole Proprietorship (individual)
 - B. Partnership
 - C. Corporation
2. You **must** check one of the boxes below:
 - A. I certify my business is a sole proprietorship and it has no employees but the sole proprietor. I am not subject to the Worker's Compensation Laws.
 - B. I certify my business has satisfied its obligation to the Worker's Compensation Act through the use of an approved Notice of Exclusion (BWC-337, Rev. 5/96). I will provide a copy of the Notice of Exclusion within 21 days of the contract award. (For questions or a copy of the BWC-337, please call the Worker's Compensation Bureau at 517-322-1195).
 - C. I certify my business has a Worker's Compensation Policy. I will provide an original Certificate of Insurance within twenty-one (21) days of the contract award.
3. If you have checked item 2(A) or 2(B), you **must** indicate the number of **both** full-time and part-time employees, other than yourself, including family members and active partners (if none, you must enter "0").

_____ Full-time Employees

_____ Part-time Employees

Name of Business		Federal ID (or) Social Security No.	
Address		Telephone ()	
City	State	ZIP	

I hereby certify that the above information is true and correct. I agree to notify the Michigan DNR of any changes that occur in factors affecting my coverage during any of my present and future operations.

Signature of Owner or Authorized Representative

Title

Date

Please complete the "SEALED BID" information on the next page