

## PROCUREMENT CONTRACT

This Procurement Contract (“**Contract**”) is by and between the Grand Rapids Public Utilities Commission, located at 500 SE 4th St, Grand Rapids, MN 55744 (“**GRPUC**”), and Rob’s Bobcat Service Inc., located at 11197 Hill Road, Hill City, MN 55748 (“**Contractor**”). GRPUC and Contractor may be referred to jointly as the “**Parties**” or individually as a “**Party**.”

1. Term. The effective date of this Contract is July 19, 2022. The Contractor must not begin work under this Contract until Contractor has been notified by GRPUC’s Authorized Representative to begin the work. This Contract will terminate upon the first of the following to occur:
  - 1.1 December 31, 2022 or upon the completion of a project if started in December 2022.
  - 1.2 All of Contractor’s obligations have been satisfactorily fulfilled.
  - 1.3 GRPUC may cancel this Contract at any time, with or without cause, upon ten (10) days’ written notice to the Contractor.
  - 1.4 GRPUC may terminate this Contract immediately in the event of a breach by Contractor.
  - 1.5 The Parties may terminate this Contract at any time by mutual written agreement.
  - 1.6 If the Contractor is not available to perform the necessary work within three weeks of request by the GRPU then the GRPU can contract with another contractor to perform necessary work without any financial obligations to Contractor listed above.

Upon receipt of any notice of termination, Contractor shall immediately stop performance to the extent specified in such notice. In no event shall GRPUC be liable for any loss of revenue or profit incurred by Contractor as a result of any termination. Upon GRPUC’s request, Contractor shall deliver to GRPUC all items requested by GRPUC containing any confidential information or work product information or make such other disposition thereof as GRPUC may direct in writing.

### 2. Contractor’s Duties

- 2.1 The Contractor shall provide the following goods or services (“**Goods and Services**”):

The Contractor shall provide labor and equipment for Vegetation Control and Restoration within the GRPUC’s service territory including tree removal, tree trimming, and right-of-way clearing according the schedule of prices in Exhibit A.

The Contractor shall furnish services and products based on the agreed project written specifications as provided by the Electric Department Manager or their authorized representative.

These services and products may vary depending on the project specifications during the contract period.

This contract is based on time and materials which have been competitively quoted and awarded to the lowest responsible bidder, above identified Contractor.

Exhibit A is the Contractor quoted and accepted services and product pricing through the contract term.

Exhibit B are vegetation control specifications to which the contractor shall perform all vegetation control in accordance with.

GRPUC may make changes to the general scope of Goods and Services by written or oral notice to Contractor.

2.2 Contractor agrees that all Goods and Services shall comply with all applicable laws and legal requirements without extra expense to GRPUC.

2.3 Contractor warrants and represents that the Goods and Services will be provided in a manner that is consistent with the level of care and skill exercised by members of Contractor's profession currently working under similar conditions.

2.4 Contractor shall be responsible for all its employees, agents, subcontractors, and invitees and their health and safety and shall ensure that all persons who perform the Services are professionally competent and properly qualified.

2.5 Contractor shall erect, mark and maintain suitable barricades to protect and maintain public safety. Barricades, warning signs and other safety devices shall meet the requirements of OSHA, Minnesota Department of Highways and Public Transportation and City of Grand Rapids requirements. No work will commence until the Contractor has secured approval for the agency responsible for the right-of-way in which construction is proposed.

2.6 Damage done to existing utility lines, services, poles and other structure shall be replaced or repaired by GRPUC at Contractor expense. The Contractor shall locate underground utilities and shall excavate and expose all existing underground utilities in advance of any excavation.

2.7 Contractor shall upon completion of the project remove all debris, rubbish, etc. and leave the premises in a neat and orderly condition.

2.8 Contractor shall comply with all pertinent provisions of the Occupational Safety and Health Act and alone be responsible for the safety, efficiency, and adequacy of the Contractor employees, plant, equipment, vehicles, etc. and methods and be responsible for any damage which may result from Contractor failure or improper construction, maintenance, or operations.

### 3. Consideration and Payment

3.1 A single vegetation control and restoration project is limited to \$25,000.00 or less and is generally less than \$2500.00.

3.2 Consideration. Contractor will be paid on a time and material pricing using the attached Exhibit as per written project specifications.

3.3 Payment. GRPUC will pay the Contractor within thirty (30) days following receipt and acceptance of Goods or Services and receipt of an undisputed invoice.

3.4 This time and material priced contract does not guarantee the Contractor a minimum amount of work or revenue.

### 4. Authorized Representative

GRPUC's Authorized Representative is Jeremy Goodell, Electric Department Manager at the following business address: 500 SE 4<sup>th</sup> Street, Grand Rapids, MN, 55744 and the following telephone number: 218.326.7182 or his/her successor or delegate, and has the responsibility to monitor the Contractor's performance.

Contractor's Authorized Representative is Rob Benes, Chief Executive Officer at the following business address: 11197 Hill Road, Hill City, MN 55748, and the following telephone number: 218-326-9072, or his/her successor.

5. Indemnification. Contractor will indemnify, defend, and hold harmless GRPUC, its agents, and employees, in relation to any expenses, damages, claims or causes of action, including reasonable attorney's fees, to the extent caused by any negligent or wrongful act, error or omission, breach of contract, or infringement of any intellectual property right by Contractor, any third party that Contractor has a business relationship with, or any of Contractor's agents or employees.
6. Ownership. Contractor agrees that all legal right, title, and interest to intellectual property, data, documents, photographs, drawings, analyses, graphs, reports, physical property or other subject matter prepared, delivered, procured, or produced in relation to Contractor's obligations under this Contract shall vest in GRPUC.
7. Insurance. Contractor shall maintain with reputable insurance companies all insurance required by law and insurance against loss or damage of the kinds customarily insured against by members of Contractor's profession, of such types and in such amounts as are customarily carried under similar circumstances by members of Contractor's profession. Contractor's insurance companies waive the right to assert the immunity of GRPUC as a defense to any claims made under said insurance. Minimum insurance coverage requirements: Commercial General Liability Insurance \$1,500,000 per occurrence and \$1,500,000 annual aggregate; Commercial Automobile Liability Insurance \$1,500,000 per occurrence combined single limit for bodily injury and property damage and include owned, hired, and non-owned automobile; and Workers' Compensation Insurance as required under State of Minnesota laws. Contractor can use umbrella coverage to get to the minimum limit amount of \$1,500,000.
8. Miscellaneous. No provision of this Contract may be modified or waived except as agreed to in writing by the Parties. This Contract shall be governed by the internal laws of Minnesota. Contractor may not assign or subcontract Contractor's rights or obligations hereunder without the prior written consent of GRPUC. This Contract may be executed in counterparts. An electronic signature and counterpart shall be treated the same as an original. When Contractor's employees are working on the premises of GRPUC, wherever located, they shall observe all of GRPUC's policies and procedures, including, its respectful workplace policy. The Parties must comply with the Minnesota Government Data Practices Act in relation to this Contract. Contractor certifies that neither it nor its principals are presently debarred or suspended by any federal, state, or local government or agency or political subdivision thereof. Contractor shall not use or disclose any confidential information it receives from GRPUC except as is necessary to perform under this Contract. Any notice or other communication to any Party in connection with this Contract shall be in writing and shall be sent by hand-delivery, overnight courier, or United States mail (postage prepaid) addressed to the address set forth in the preamble.
9. Exhibits  
Exhibit A – Time and material services and product pricing.  
Exhibit B – Vegetation Control Specifications for Electrical Distribution Line Right of Ways

IN WITNESS WHEREOF, the Parties hereto by their duly authorized representatives have executed this Contract effective as of the effective date set forth above.

**Rob's Bobcat Service Inc.**

By:  \_\_\_\_\_

Print Name: Jena Benes

Title: Office Manager

Date: 8/3/2022

**Grand Rapids Public Utilities Commission**

By:  \_\_\_\_\_

Print Name: Julie A. Kennedy

Title: General Manager

Date: 8/12/22

**EXHIBIT A**  
**TIME AND MATERIAL**  
**SERVICES AND PRODUCT PRICING**

<b>Item</b>	<b>Description</b>	<b>Unit cost</b>	<b>Units</b>
1	Bucket truck with operator – 80 foot bucket	140.00	per hour
2	Bucket truck with operator – 55 foot bucket	140.00	per hour
3	Disposal: grapple truck with operator	130.00	per hour
4	Skid steer with operator	130.00	per hour
5	Excavator with operator	185.00	per hour
6	Labor: supervisor/foreman	80.00	per hour
7	Labor: general laborer	60.00	per hour
8	Restoration - gravel	18.00	per cubic yard
9	Restoration - grass	30.00	per cubic yard
10	Dump Truck – quad axle	120.00	per hour
11	Dump Truck – Tandem axle	100.00	per hour

EXHIBIT B

VEGETATION CONTROL SPECIFICATIONS FOR ELECTRICAL DISTRIBUTION LINE  
RIGHT OF WAYS

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## 1. GENERAL INFORMATION

### 1.1. Scope

The right-of-way shall be free of all obstructions which interfere with the construction and operation of the electric power line. The work shall be completed in conformance with these Specifications and all other provisions of the contract documents. The Contractor shall



observe all conditions applicable to any particular description or tract of land. The contractor shall also observe all relevant laws and regulations applicable to his operations.

## 1.2. Definitions

### 1.2.1 Desirable Species

Those plants which at maturity will not reach a height that will endanger the line and those which will provide food cover for wildlife. Specific species which have been identified as desirable species are listed in Section 4.

### 1.2.2 Tree

A woody plant normally maturing at 20 feet or more in height and achieving a diameter of at least 4 inches or more at a height of 4 1/2 feet above ground (diameter breast height).

### 1.2.3 Danger Trees

Danger trees are defined as dead, dying, diseased, and/or leaning trees growing outside of the recommended right-of-way width which may conflict with the conductors or structures (poles and hardware) when such trees fall in the direction of or otherwise endanger the line.

### 1.2.4 Brush or Shrub

A woody plant normally maturing less than 20 feet in height with generally bushy appearance because of its several erect, spreading, or prostrate stems. It usually attains a diameter of less than 4 inches at breast height.

### 1.2.5 Slash

Branches and tops less than 4 inches in diameter within the right-of-way boundaries.

### 1.2.6 Debris

Scattered logs, uprooted stumps, and/or trees or other foreign material located within the right-of-way boundaries.

### 1.2.7 Clear Cutting

Cutting and/or removal of all woody vegetation within the right-of-way boundaries; i.e., trees, shrubs, fallen logs, uprooted stumps, etc.

### 1.2.8 Selective Cutting

Removal from within the right-of-way boundaries of only that vegetation which would potentially interfere with the construction and/or operation of the transmission or distribution line or is undesirable for wildlife food or habitat.

### 1.2.9 Keep Off

Areas which the Contractor must not enter until he has received written permission from the Owner.

### 1.2.10 General Construction Area

Areas such as structure sites, staging areas, access roads, or other locations where construction activities and movement of traffic will take place. Structure sites include the entire width of the right-of way.

### 1.2.11 Owner

The Grand Rapids Public Utilities Commission.

#### 1.2.12 Authorized Owner Representative

Persons whose names have been certified in writing to the Contractor by the Grand Rapids Public Utilities General Manager as having the authority to act for the Owner in regard to the work.

#### 1.3. Route Maps

General location of the right-of-way shall be indicated on drawings supplied by the Owner.

#### 1.4. Width of Vegetation Control Operations

Prior to beginning work, the Contractor shall delineate the edges of all areas where vegetation control operations will occur. This delineation shall be accomplished with flagging or other markings approved by the Owner. After an area is delineated, the Owner's representative will review the markings in the field. No work is to occur until the Owner has reviewed and approved the markings.

#### 1.5. Landowner Contacts

The Contractor shall contact all landowners prior to entering and/or performing work on their property and maintain a log of such contacts. Upon request by an authorized Owner representative, the Contractor shall furnish a summary of all landowner contacts for a particular line, feeder, or area.

#### 1.6. Work Progression

The Contractor shall work progressively along the line and shall complete all work in a given portion of the line before starting work in another portion.

#### 1.7. Stream Crossings

Existing Bridge or culvert crossings are to be utilized for all stream crossings.

#### 1.8. Pipelines

If it becomes necessary to cross any pipeline with equipment, it shall be the responsibility of the Contractor to obtain the necessary permission for such crossing from the appropriate pipeline companies. The Contractor shall hold the Owner harmless from all claims resulting from such crossings.

#### 1.9. Guy Anchors

Contractor shall maintain an area of 10 feet (or as otherwise designated by the authorized Owner representative) on all sides of guy wires, guy anchors and structure braces devoid of trees, shrubs, brush and other types of woody vegetation.

#### 1.10. Energized Lines and Substations

When working on or near energized facilities, the Contractor shall take or use all necessary precautions to prevent any outages and/or damage to facilities. The Contractor shall not perform any work within the confines of a substation unless an authorized Owner representative is present at all times.

#### 1.11. Notification of Work Locations

The Contractor must notify the Owner dispatcher and/or appropriate personnel prior to and upon completion of work on a daily basis. Notification shall include specific work location(s) identified by line number, structure number, and/or road location.

#### 1.12. Right-of-Way Inspection

Contractor's work shall at all times be subject to inspection by the Owner and public authorities. Contractor shall notify the Owner of any proposed changes in daily crew assignments or working hours sufficiently in advance so that suitable inspection can be provided by the Owner.

#### 1.13. Established Land Survey Corners

It will be the Contractor's responsibility to properly preserve all established corners or other permanent landmarks, which may be encountered in the maintenance, clearing, or re-clearing operations. Destruction of such landmarks will require additional surveys for reestablishment of same, for which Contractor will be liable.

#### 1.14. ANSI Standard

The Contractor shall comply with the latest revisions in the Z-133.1 American National Standard for Tree Care Operations - Pruning, Trimming, Repairing, Maintaining, and Removing Trees, and Cutting Brush - Safety Requirements.

### **2. GENERAL CLEARING AND RE-CLEARING GUIDELINES**

All work to be performed under the supervision of the Contractor shall be conducted in a manner such that all phases of the clearing and re-clearing work shall progress concurrently; i.e., cutting, disposal, and final cleanup. Clearing and re-clearing shall be performed in a manner, which will maximize preservation of natural beauty and conservation of natural resources and minimize adverse effects of the landscape or silting of streams. For areas as outlined below and where the entire width of the right-of-way traverses vegetation types such as low-growing brush, muskeg swamps, or black spruce bogs or when crossing a deep valley or ravine, the right-of-way clearing, re-clearing, and the maintenance activities shall be reduced in width as designated by the Owner. Also, where selective cutting may be beneficial, this type of clearing and re-clearing will be accomplished as designated by the Owner.

#### 2.1. Field Locations

If requested, field survey stakes designating the centerline of the right-of-way will be established by the Owner. All survey stakes designating points on tangents and points of intersection shall be preserved by the Contractor. Should any of these stakes be removed or destroyed by the Contractor, they will be replaced by the Owner at the Contractor's expense.

#### 2.2. Right-of-Way

When access roads are necessary, they will be constructed at an angle to avoid a vista down the right-of-way (see Section 4.2). All access roads will be located to minimize destruction of desirable plants and damage to cultivated fields. The location of access roads will be designated by the Owner.

#### 2.3. Cutting Procedures

##### 2.3.1 Selective Cutting

Selective cutting will be accomplished in specific areas so noted on the Owner drawings or as designated by an authorized Owner representative generally in areas of high public exposure including the U.S. highways, heavily traveled state and county roads, streams, lakes, and wildlife travel lanes such that a natural vegetative screen remains (Section 4.2). A list of native plant species which could remain in these areas is shown in Section 4.

### 2.3.2 Stump/Stubble Height

All trees and other woody vegetation shall be cut such that pointed spikes are eliminated. No stumps or stubble shall be left standing higher than 3 inches above ground unless otherwise designated by an authorized Owner representative. (Stump height to be measured on high side of sloping terrain.)

### 2.3.3 Mechanical Clearing and Re-clearing

Clearing and re-clearing will be permitted by mechanical operation unless otherwise specified. Generally, shearing will be restricted to slopes less than 15 degrees. Before any rolling or brush chopping will be permitted, written approval must first be obtained from the Owner. When this cutting procedure is approved, all trees 4 inches or greater in diameter breast height must first be removed. After any mechanical operation, the Contractor shall, to the satisfaction of the Owner, restore the natural contours existing prior to the start of work.

## 2.4. Disposal Procedures

Generally, all trees, brush and other debris shall be removed by the contractor and hauled away to an approved disposal site or incinerator. Alternatively trees, brush, and other debris may be disposed of in accordance with the procedures outlined below. No slash and/or debris left on the right-of-way shall be greater than 1 inch in diameter and/or 4 feet in length or as otherwise specified by the contract documents.

### 2.4.1 Lopping and Scattering of Slash

In areas approved by the Owner, lopping and scattering of slash may be accomplished such that slashing shall not exceed 30 inches in height. The method of disposal shall be limited to the outer one third area of the right of-way. In such areas, all logs shall be neatly piled along the edge of the right-of-way (Section 4.3). Lopping and scattering of slash will generally not be approved within sight of any residence or business.

### 2.4.2 Chipping

In areas approved by the Owner, where practical, chips shall be disposed of within the right-of-way limits. Chips shall not accumulate to depths greater than 12 inches. Chipping shall be accomplished in such a manner that no chipped material will enter any open water, accumulate in branches of existing trees, or bury desirable low-growing shrubs.

### 2.4.3 Brush and/or Slash Piles

Where designated by the Owner, all brush and/or slash shall be piled and left at least 10 feet from the edges of the right-of-way. Brush, slash, and/or debris piles shall not exceed the following dimensions: length - 15 feet, width -15 feet, height - 6 feet (section 4.3).

### 2.4.4 Corduroy

In some swamp areas where the stumpage is the property of the Owner, the Contractor may dispose of some or all of the trees and slash by placing trees, slashing, etc. perpendicular to the right-of-way and packed down to a maximum height of 18 inches by running over this

material with crawler type equipment. All material must be located within the outer one third of the right-of-way. The outermost 10 feet, however, must be clear of all slashing. No corduroying will be permitted within the General Construction Area (Section 4.3).

#### 2.4.5 Salvage of Timber and Firewood

All trees and firewood to be salvaged shall be trimmed flush to the trunk and neatly piled along the edge of the right-of-way in lengths as specified by the Owner (Section 4.3). Log piles shall not exceed 3 feet in height and shall not extend out into the right-of-way by more than 20 feet. At no time will log piles obstruct trails, access roads, and the general Construction area, or be piled up against standing trees on the edge of the right-of-way.

No wood material over 6 inches in diameter shall be destroyed without first having been offered to the adjacent property owner, the Owner or the public (in that order of preference) by the Contractor for use as firewood in accordance with the intent of Minnesota Statutes 116F.30.

### 3. GENERAL REMOVAL AND PRUNING GUIDELINES

#### 3.1. General Procedures

##### 3.1.1 Minimum Clearances

The Contractor shall provide minimum clearance from conductors by line voltage levels as provided in the Required Minimum Tree Clearance of Conductors for Various Distribution Voltages in Section 4.4, or as recommended by an authorized Owner representative.

##### 3.1.2 Remove Rather than Prune

The Contractor shall remove rather than prune or trim trees to meet minimum overhead clearance specifications whenever possible.

##### 3.1.3 Written Permissions

The Contractor shall obtain proper authorization (preferably written) from the landowner before removing or pruning trees. Copies of all authorization forms shall be provided to the Owner.

##### 3.1.4 Refusals

All property owner refusals resulting in inadequate clearance shall be documented on a Right-of-Way Vegetation Refusal Report to be completed by the Contractor to the satisfaction of the Owner and given to the authorized representative.

##### 3.1.5 Special Removals and Pruning

When a property owner or adjacent landowner requests or requires the Contractor to do special removal and/or pruning work, the Contractor shall notify the authorized Owner representative for authorization prior to beginning any such work.

##### 3.1.6 Compliance and Disease - Wood Disposal

Trees removed or pruned shall be disposed of in compliance with all laws, regulations, and ordinances. Additional precautions and methods shall be taken to ensure that diseased trees are handled in a manner which will prevent the spread of the infecting agent.

##### 3.1.7 Daily Disposal

All removed and pruned material shall be disposed of within three working days to the Owner's satisfaction unless otherwise agreed to by the Owner or property owner.

### 3.1.8 Firewood Cutting

Only upon approval from an authorized Owner representative shall wood be cut in firewood lengths.

## 3.2. Removal Procedures

### 3.2.1 Removal Conditions

The Contractor shall remove rather than prune or trim trees when the following conditions exist: dead, dying, diseased, leaning, or seriously defective trees and specific danger trees which may conflict with the conductors or structures or otherwise endanger the line.

### 3.2.2 Joint Agreement on Danger Trees

Danger trees shall be removed after joint agreement and understanding is reached by the Contractor and the authorized Owner representative.

### 3.2.3 Felling

Trees shall be felled away from the conductors whenever possible.

### 3.2.4 Cut Stumps

The cut stumps shall not be more than 3 inches above ground and flush with the grade whenever possible. It is Owner's policy not to remove stumps. Deviations from this policy shall be approved by an authorized Owner representative.

## 3.3. Pruning Procedures

### 3.3.1 Natural Pruning and Drop Crotching

Natural pruning or trimming shall be used. This involves drop crotch pruning which consists of reducing tops, sides, or individual limbs and avoids cutting back to small suckers.

### 3.3.2 Directional Pruning

Directional pruning or trimming shall be used to direct or train future tree growth or sprouting away from the wires (Section 4.5).

### 3.3.3 Quantity Removed

Generally, not more than one third of the total tree crown should be removed.

### 3.3.4 Cuts

Cuts shall be made immediately above lateral branches which are no smaller in diameter than one third of the diameter of the branches being cut. Cuts shall be made flush to the parent stem, limb, or trunk, without cutting into the branch collar or leaving any protruding stubs (Section 4.6).

### 3.3.5 Natural Form and Symmetry

The Pruning Work shall preserve, where possible, the natural form of the tree, typical to the species. The symmetrical appearance shall be maintained wherever possible when reducing overall tree size. The top is to be made higher and the sides reduced in order to maintain a tree-like form.

### 3.3.7 Bark Stripping or Tearing

Limbs shall be removed with proper sequence and placement of saw cuts to prevent stripping or tearing down of bark from the remaining limb or trunk.

### 3.3.8 Hangers

All slash (branches, limbs, and tops) that hang up in the tree(s) being pruned or in adjacent tree(s) shall be removed before moving from current work site.

### 3.3.9 Climbing Aids

In residential areas, the Contractor shall not use climbing spurs, irons, or tree grafts on live trees unless the tree is to be removed or in an Emergency situation.

## 4. DESIRABLE SPECIES

### 4.1. TABLE 1 - DESIRABLE NATIVE PLANT SPECIES

Following are the desirable native plant species which should be encouraged on selected areas of right-of-way:

CONIFEROUS TREES	DECIDUOUS	SHRUBS (1)
Northern White Cedar	Mountain Ash ©	Red-Osier Dogwood (fc)
Red Cedar (Juniper) (f)	Blackcherry *	Other Dogwood Species
Norway pine *	Chokecherry (f)	Mountain Maple
White Pine *	Pincherry (f)	Sumac ©
White Spruce *	Hackberry	Arrowwood (f)
Ironwood *	High-Bush Cranberry (fc)	
Juneberry (f)	Hazel	
Wild Plum (f)	Honeysuckle	
Smooth Wild Rose		

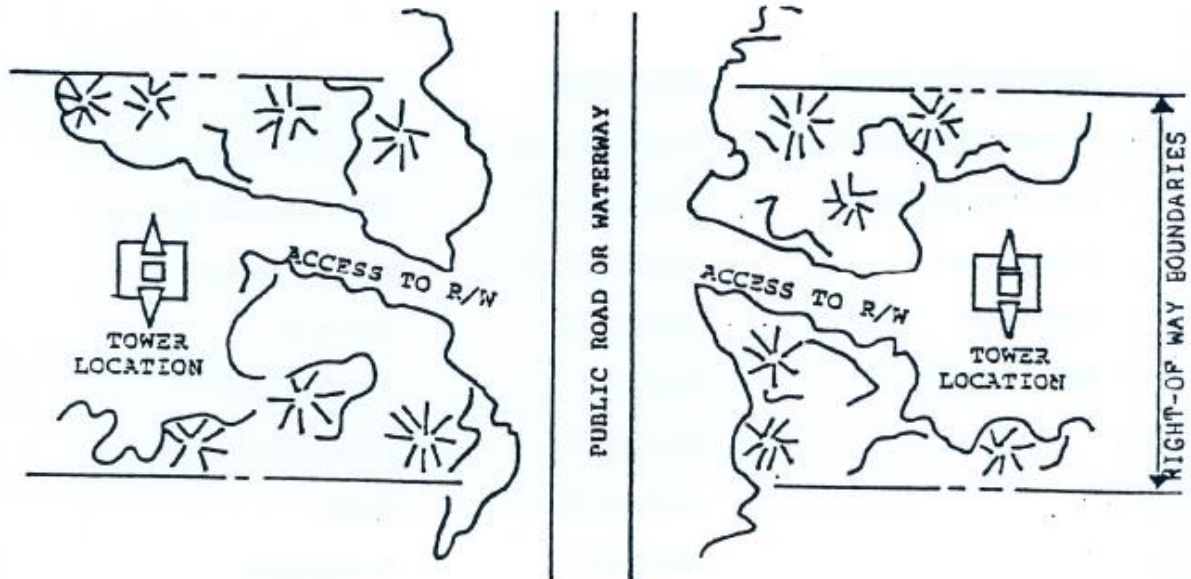
(1) Majority of shrub species listed are beneficial to white tailed deer and ruffed grouse.

(f) Conspicuous flowering shrub.

© Bright autumn or winter colors (fruit, leaves, or stems).

(\*) Areas within the right-of-way where these trees will be permitted must be approved by the Owner.

#### 4.2. Figure 1 ILLUSTRATION OF SELECTIVE CUTTING

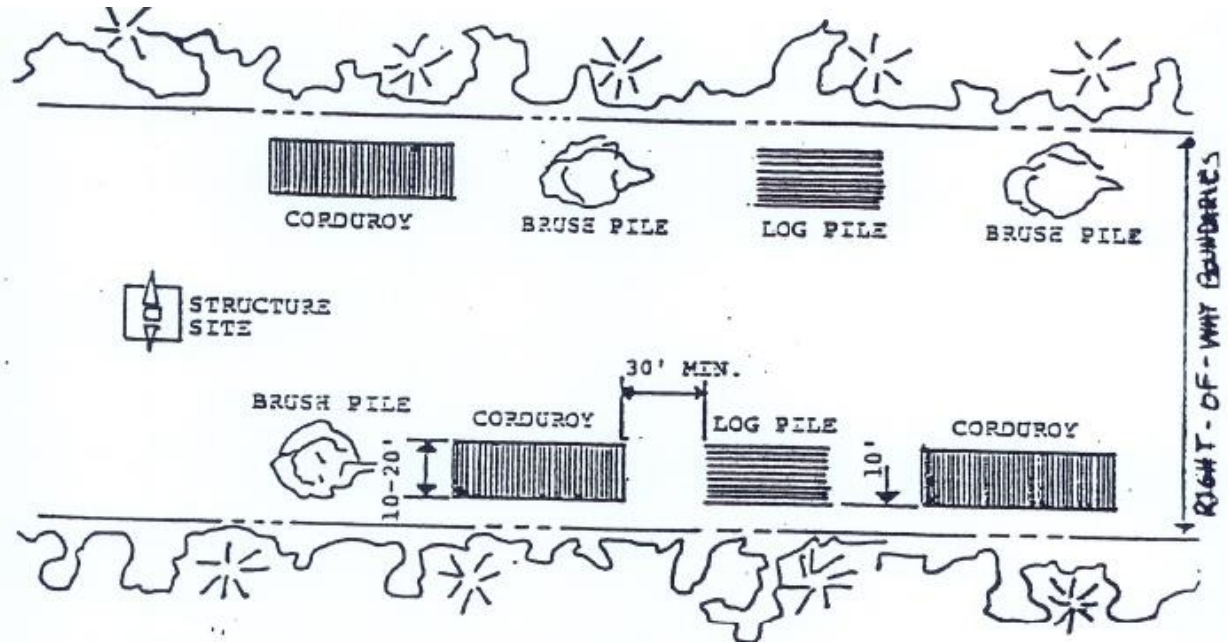


#### NOTES:

1. Special instructions for selective cutting of access roads to the right-of-way are outlined in Section 2.2.
2. Cutting procedures for clearing of access roads and tower locations will be designated in the field by an Owner representative.
3. All selective cutting will be supervised by an Owner representative.
4. Length of selective cutting areas will vary depending on topography.



4.3. Figure 2 METHODS OF DISPOSAL



NOTES:

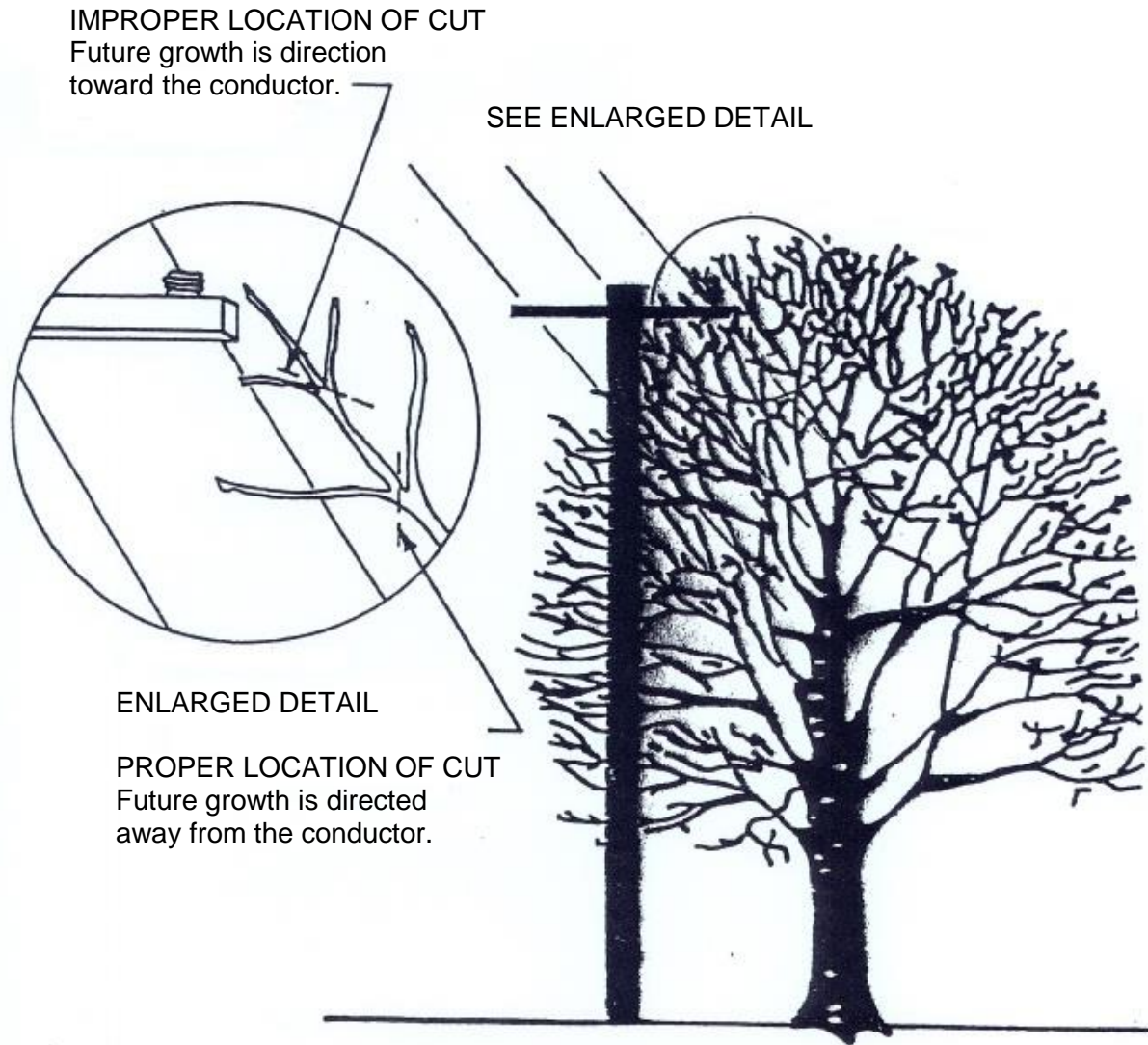
1. No logs, brush, or other material shall be piled within the General Construction Area.
2. When corduroying, all material must be perpendicular to the right-of-way and packed down to a height of 18 inches or less. See Section 2.4.5
3. When disposing of trees in tree lengths or as otherwise specified, the maximum height of the piles must not exceed three (3) feet.
4. Brush piles must not exceed fifteen (15) feet in length by fifteen (15) feet in width by six (6) feet in height.

4.4. REQUIRED MINIMUM TREE CLEARANCE OF CONDUCTORS FOR VARIOUS DISTRIBUTION VOLTAGES

Trimming type	Services to business/residence zero to 600 volts	Secondaries from pole to pole zero to 600 volts	Primary cables 1000 volts to 23,000 volts
Top clearance	1 foot	3 feet	10 feet*
Side clearance	1 foot	3 feet	6 feet
Overhang clearance	1 foot	3 feet	15 feet

\* Remove if possible

4.5. FIGURE 3 DIRECTIONAL PRUNING

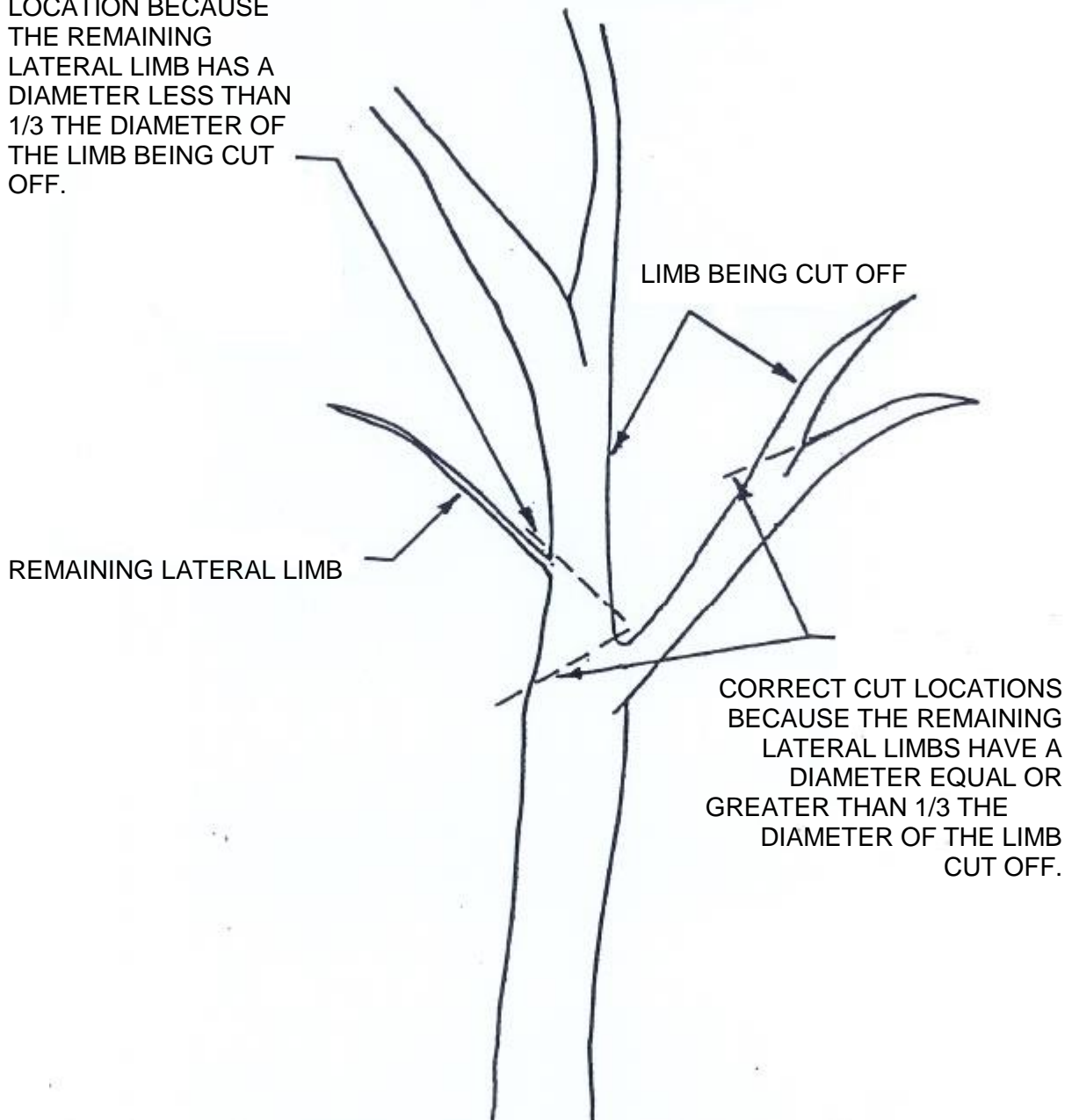


DIRECTIONAL PRUNING

(TO DIRECT GROWTH AWAY FROM WIRES)

#### 4.6. PRUNING PROCEDURES

INCORRECT CUT LOCATION BECAUSE THE REMAINING LATERAL LIMB HAS A DIAMETER LESS THAN 1/3 THE DIAMETER OF THE LIMB BEING CUT OFF.



LIMB BEING CUT OFF

REMAINING LATERAL LIMB

CORRECT CUT LOCATIONS BECAUSE THE REMAINING LATERAL LIMBS HAVE A DIAMETER EQUAL OR GREATER THAN 1/3 THE DIAMETER OF THE LIMB CUT OFF.

#### PRUNING PROCEDURES (CUTS)