Supporting Documents
ND Forest Service
Community Forestry Grants

Table of Contents

--Revised February 2020--

North Dakota Forest Service
Community Forestry Personnel

Gerri Makay - Community Forestry Manager
North Dakota Forest Service
NDSU Research Extension Center
PO Box 219
Carrington, ND 58421
Phone 701.652.2951
Fax 701.652.2055
Email: Gerri.Makay@ndsu.edu

Mary O'Neill - Community Forestry Specialist
North Dakota Forest Service
6824 Hwy 32 S
PO Box 604
Lisbon, ND 58054-0604
Phone 701.683-4323 ext. 2
Fax 701-683-5895
E-mail: Mary.Oneill@ndsu.edu

Mary Fisk - Bismarck Office Manager North
Dakota Forest Service
916 East Interstate Ave. Suite #4
Bismarck, ND 58503-0560
Phone 701.328.9944
Fax 701.328.9947
Email: Mary.Fisk@ndsu.edu

Tips for Successful Grant Writing

Keep in mind that a successful grant is based on two things - the quality of the project and the ability of the applicant to successfully carry out the project. A few helpful tips to keep in mind:

1. **Do your homework**. Read the guidelines thoroughly before you begin writing. Be certain that you are applying to the right program. Contact the ND Forest Service well in advance to coordinate project planning efforts during the process of completing the application.

2. **Prepare a timeline** backwards from the April 30 deadline that will allow you enough time to think through the project, draft, revise, and edit your proposal. You are also encouraged to contact ND Forest Service well in advance of the April 30 deadline to receive assistance with the review of the application and opportunity for corrections/changes.

3. **Fill out a practice application**. Make blank copies of the application form.

4. **Draft your application narrative and budgets**.
    o Be concise and specific in your narrative.
    o Maintain a positive tone; write in an active voice.
    o Answer all questions. Write "not applicable" rather than leaving the question blank.
    o Make sure your budget supports the goals of your project.
    o Itemize where asked.
    o Check your math.
    o Specific information will give the review committee a clearer picture of your project.

5. **Put yourself in the reviewer's position**. Don't overload the reader with too much unnecessary information or verbose language. Simple, everyday language will best convey your ideas. Plan and organize your application with a well-structured outline. Each part should provide necessary information about your organization or project. Have someone not directly involved with your organization read the application. Having read only the application, ask their opinion about what your needs are, what you are requesting, and your ability to conduct the project.

6. **Submit a draft or discuss your proposal with ND Forest Service staff for review and feedback**. This doesn't guarantee funding, but staff can help you strengthen your proposals. Build this into your timeline. **Provide documentation of your visit with staff on page 1 of the application.**

7. **Revise according to feedback**. Incorporate outside comments into your proposal, double-check spelling, grammar, readability, and math.

8. **Is your application complete**? Follow the application instructions carefully. A checklist is part of the application. Use it to make sure nothing has been overlooked. Has everything been signed by the correct people? **The ORIGINAL application and seven (7) copies (8 TOTAL) are required. Color copies are recommended.**
Do you have the appropriate number of copies, support materials, etc.? Retain one copy for your records.

9. **Submit the complete application by the April 30 postmarked deadline**. Faxed applications will not be accepted. Original signatures are a must.

10. Utilize the **ND TIP Tool**. CTAP communities are encouraged to use the TIP Tool to plan their grant projects. **Extra points will be awarded to communities that successfully implement TIP Tool usage into their applications.**
    Adapted from: ND Council on the Arts, 2011

Applicants should contact ND Forest Service staff with any questions.

CULTURAL RESOURCES FACT SHEET
What are Cultural Resources?

Cultural Resources are evidence of past human activity. This might include pioneer homes, buildings or old roads; structures with unique architecture; prehistoric village sites; historic or prehistoric artifacts or objects; rock inscriptions; human burial sites; earthworks, such as battlefield entrenchment, prehistoric canals, or mounds.

People have lived in North America for at least 12,000 years. Archaeologists and historians have divided this time span into prehistoric and historic periods. The prehistoric period extends from the earliest arrival of humans in North America to the coming of the European explorers. The historic period begins with the arrival of these explorers and continues up to the present.

These nonrenewable resources often yield unique information about past societies and environments, and provide answers for modern day social and conservation problems. Although many have been discovered and protected, there are numerous forgotten, undiscovered, or unprotected cultural resources in rural America.

Several Federal, state, and local laws have been enacted to preserve cultural resources. The most important of these is the National Historic Preservation Act of 1966. Under this and other legislation, Federal agencies, including the U.S. Department of Agriculture, are required to protect cultural resources.

SOME BENEFITS OF CULTURAL RESOURCES

Cultural resources provide many useful benefits to people today. They:
* Expand our knowledge and understanding of history.
* Provide scientific data. Archeological sites for example, can provide information not available from historic records on droughts, floods, and erosion over thousands of years.
* Provide jobs during the renovation process. Preserving cultural resources may also stimulate other community improvements.
* Attract tourists, who bring money into the community.
* Provide information that will help solve conservation and natural resource problems. Some modern irrigation techniques, for example, are actually based on prehistoric methods.

YOUR ROLE

Every American has a stake in the protection of cultural resources. All of the protected and restored cultural resources that we enjoy today have one thing in common: some individual, group, or organization went to work to protect and preserve for future generations to come.

If you know of an undeveloped cultural resource, do your part to preserve our country's heritage. Contact a local historical society, museum, archeological society, university archeology (sociology, anthropology) department, or your local natural resources conservation service office.

http://www.nrcs.usda.gov/technical/ECS/culture/mission.html

North Dakota CTAP, 2012-2019

December 2019 Update

The Community Threat Assessment Protocol (CTAP) is an urban forest survey and assessment approach that was developed under the first project phases of the Great Plains Initiative (GPI). Rapid street tree inventories have been conducted in selected communities across North Dakota by ND Forest Service Community Forestry Program staff. These inventories provide detailed and specific assessments of the environmental and economic impacts of selected invasive pests on these communities, at the community level. In addition, the use of iTree and Forest Health Risk Assessment protocols provide a means of data analyses, spatial mapping, and reporting. Emerald ash borer is one of the primary potential threats facing North Dakota's community forests. Summaries of CTAP street tree data reveal populations of green ash ranging from 16 to nearly 80 percent, with an average street tree population consisting of 38 percent ash.

North Dakota CTAP INVENTORIES (2010 census population numbers)

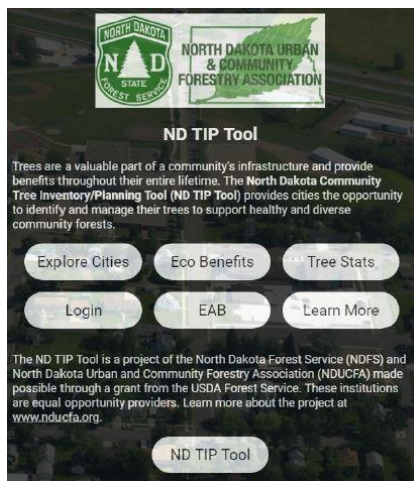| 2012	2013	2014	2015	2016 - 2019
17 communities	19 communities	27 communities	*21 communities*	*11 communities*
Arthur (337)	Bottineau (2,211)	Abercrombie (263)	Anamoose (227)	Beulah-Park (3,121)
Beulah (3,121)	Bowbells (336)	Ashley (749)	Carrington (2,065)	Fairmount (367)
Buffalo (188)	Burlington (1,060)	Beach (1,019)	Center (571)	Grafton (4,284)
Granville (241)	Cando (1,115)	Bowman (1,650)	Flaxton (66)	Tower City (253)
Hatton (777)	Casselton (2,329)	Carson (293)	Glen Ullin (807)	
Hazen (2,411)	Crosby (1,070)	Cavalier (1,302)	Lansford (245)	
Hope (258)	Ellendale (1,394)	Cooperstown (984)	Larimore (1,346)	Souris (58)
Lincoln (2,406)	Harvey (1,783)	Drayton (824)	Leeds (427)	
Lisbon (2,154)	Hettinger (1,226)	Forman (504)	Lidgerwood (652)	
Mapleton (762)	Hunter (261)	Gwinner (753)	McClusky (380)	Garrison (1,453)
Milnor (653)	Kenmare (1,096)	Hebron (747)	Medora (112)	Horace (2,652)
Oakes (1,856)	Langdon (1,878)	Hillsboro (1,603)	Michigan (294)	Linton (1,097)
Towner (533)	McVille (349)	Kindred (692)	Minto (604)	Rutland (159)
Velva (1,084)	New Rockford (1,391)	Lakota (672)	Northwood (945)	
Walhalla (996)	Pekin (70)	LaMoure (889)	Park River (1,403)	
Washburn (1,246)	Rugby (2,876)	Lankin (98)	Pembina (592)	Dakota Coll. Bottineau
Wilton (711)	Stanley (1,458)	Marion (133)	Rolette (594)	Verona (85)
	Tioga (1,230)	Mayville (1,858)	Tuttle (80)	
	Watford City (1,744)	Mohall (783)	United Tribes TC	
		Neche (371)	Wimbledon (216)	
		New England (600)	Wishek (1,002)	
		New Town (1,925)		
		Portland (606)		
		Rolla (1,280)		**Total: 95 inventories**
		Steele (715)		
		Turtle Lake (581)		
		Wyndmere (429)		

Listed by dates (year) of completion

ND TIP Tool
(ND Tree Inventory and Planning Tool)

The ND TIP Tool is an extension of the CTAP (Community Threat Assessment Protocol) inventories conducted by ND Community Forestry staff in communities all across the state. The tool supports community forestry planning, enabling ND communities to make well-informed tree care decisions based on current inventory information.

If your community has a CTAP inventory, that information is available via the ND TIP Tool website: **ndcitytrees.org**
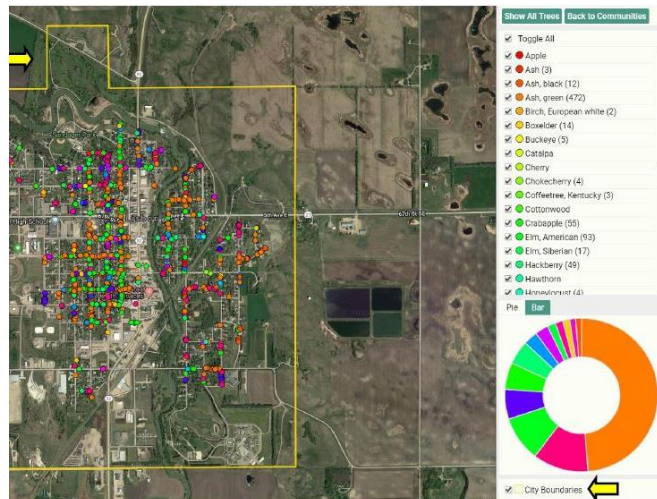

This is the homepage for the ND TIP Tool.

From this page, every CTAP community can access its tree inventory information and view details about any particular tree included in the inventory – such as species, size, and the annual eco-benefits provided by that tree.

To access the full details of each tree and to make updates or changes to the online inventory, a designated community representative (city forester or tree board member) must participate in a one-hour **recorded training webinar** to learn the basics of the ND TIP Tool.

The ND TIP Tool is accessible from any web-enabled device, including desktop computer, laptop, tablet or smartphone. A detailed **ND TIP Tool User's Guide** prepared by the NDFS provides step-by-step instructions for using this resource.

The **ND TIP Tool** provides:
- Online access to your original CTAP tree inventory completed by NDFS, plus the ability to add and remove trees to update your inventory
- Tree stats with colorful reports on species, health and size of public trees
- Ecosystem benefit values calculated by tree and community-wide
- Emerald ash borer (EAB) cost calculator to make the most cost-effective management decisions in preparation for the arrival of EAB
- Cost-share (NDFS Community Forestry grants) project planning and maps that allow you to add planting spaces and identify poor condition trees for removal

Use of the ND TIP Tool during planning and implementation of NDFS Community Forestry grant projects earns extra points during the application review and scoring process. Contact NDFS Community Forestry Staff for more information.

North Dakota Forest Service
Planting and Three-Year Maintenance Plan
Community Tree Planting Projects

February 2020

NOTICE

Successful projects have great tree selection, planting, and care techniques in common. Follow this plan so that your trees will thrive. Failure to select and plant trees according to these instructions may result in replanting recommendations. Replanting is costly and reduces survival, so direct your efforts to select and plant your trees according to the following techniques the first time!

YEAR ONE

Tree Selection:

- See Recommended Species for ND to assist in selecting diverse yet appropriate species for your tree planting project.
- Trees and shrubs shall be nursery-grown and shall meet American Standard of Nursery Stock standards. Businesses that sell nursery stock must have a valid nursery license.
- Trees must be of good vigor with normal well-developed branches and vigorous root systems; and must be free from injury, pests, disease, nutritional disorders, or root defects.
- Deciduous trees must be a minimum of 1.0 inch caliper (measured 6 inches above ground line). Coniferous trees must be at least 3 feet in height.
- Conservation stock is acceptable only for conservation plantings.
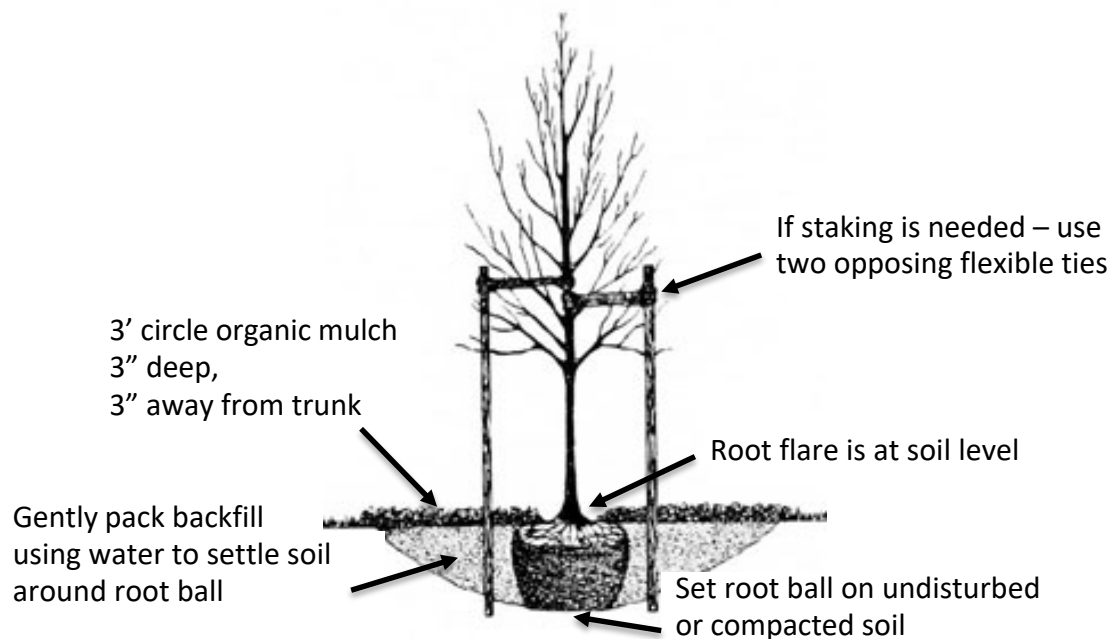- Understand the terms of the nursery's guarantee.

Pre-Planting:

- Locate underground and above utility lines – ND One Call **811** or **800-795-0555** http://www.ndonecall.com/

Tree Planting:

- See diagram following this section.
- Keep roots moist; this is especially critical for bare-root trees.
- Remove turf from planting area.
- Dig planting hole wide and shallow. The hole should be at least 3 times wider than the root spread.
- Remove all twine or rope from trunk and branches.
- Remove planting container and burlap or any other material such as wire or plastic that would constrict root growth.
- If containerized material is to be planted, cut circling roots by slicing the root ball vertically from top to bottom with a sharp knife in 3 or 4 well-spaced lines around the root ball.

- Use the soil that came from the planting hole to backfill, less any rocks or debris.
- Do not use amendments in the planting hole. This discourages roots from expanding outside the planting hole, which can lead to girdling roots.
- Make SURE that root flare is at soil level. Many trees arrive from the nursery with soil on top of the root flare and stem tissues. This extra soil **must** be removed from the top of the root ball in order to expose the root flare. **Planting too deeply is one of the most common reasons for unsuccessful tree planting projects.**
- Water tree at planting to remove large air pockets. After backfilling, gently firm soil –do not pack soil. Heavy packing will remove air spaces and can potentially damage fine roots.
- Do not mound soil against trunk of tree.
- Apply organic mulch such as wood chips or shredded bark 3 inches deep in a 3-foot diameter circle around the trees, keeping the mulch 3 inches away from the trunk.
- Staking is optional and may not be necessary unless the site is extremely windy, the tree has an unusually small root system or an unusually large canopy, or the tree is vulnerable to vandalism.
- Prune dead and broken branches, and remove double leaders.
- Fertilizer is not recommended for newly planted trees.
- **Any tree planted with the top of the root flare below natural ground level shall not meet the requirements for tree planting projects until it is replanted at the proper depth.**

If staking is needed – use two opposing flexible ties

3' circle organic mulch
3" deep,
3" away from trunk

Root flare is at soil level

Gently pack backfill using water to settle soil around root ball

Set root ball on undisturbed or compacted soil

Inspection:
- Contact NDFS Community Forestry Staff:

| Mary O'Neill | Lisbon Office | 701- 683-4323 ext. 2 | Mary.Oneill@ndsu.edu |
| Gerri Makay | Carrington Office | 701-652-2951 | Gerri.Makay@ndsu.edu |

After Planting:
- Water tree as needed, especially during dry periods. Deep watering is better than shallow watering. Continue watering until the ground freezes.
- Inspect trees for disease or insect problems.
- Monitor health and vigor of trees.
- In fall, wrap thin-barked trees with tree wrap. Remove the wrap in spring.
  - Thin-barked trees include lindens, mountain-ash, and silver maple. Fruit trees may also benefit from wrapping in fall to prevent rodent damage.

YEAR TWO
- Continue to monitor tree health and vigor. Inspect for disease and insect problems. Inspect evergreen trees for winter injury and fruit trees for rodent damage.
- Notify nursery or contractor to replace any trees that have died. Refer to planting contract for guarantee.
- Remove tree wraps in spring.
- Remove stakes after one year.
- Refresh and extend mulch as needed.
- Begin pruning to train trees for correct form one year after planting. Remove no more than ¼ of the foliage in one season. Retain lower branches on trees to help increase trunk taper more quickly.
- Continue deep watering as needed, until ground freezes.
- Wrap trees as needed for winter protection.

YEAR THREE
- Continue to monitor tree health and vigor. Inspect for disease and insect problems. Inspect evergreen trees for winter injury and fruit trees for rodent damage.
- Replace any trees that have died.
- Remove tree wraps in spring.
- Refresh and extend mulch as needed.
- Continue corrective pruning. Remove no more than ¼ of the foliage in one season. Remove lower branches on trees once they begin to interfere with foot traffic or maintenance equipment.
- Continue deep watering as needed, until ground freezes. Do not over-water.
- If necessary, a fertilizing schedule may begin during third or fourth year.
- Protect trees from mechanical, herbicide, and salt damage.
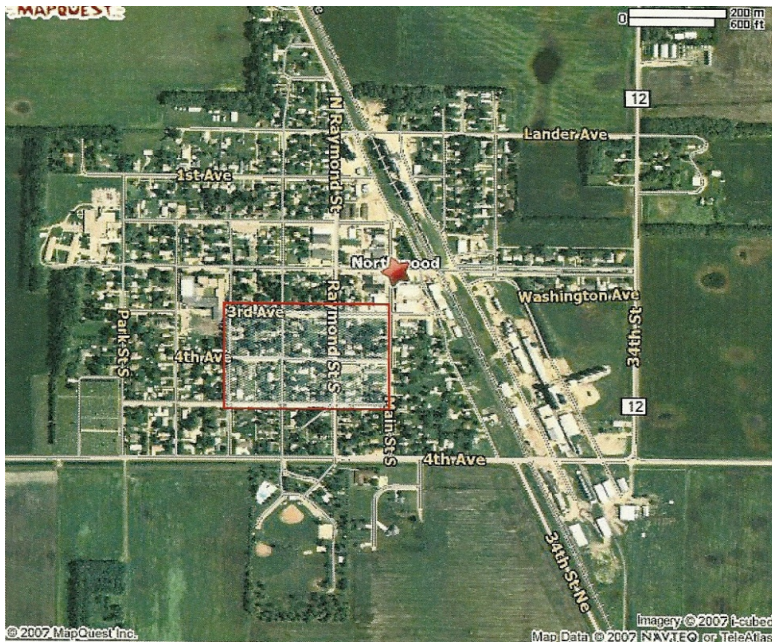- Wrap trees as needed for winter protection.

References:
- American Association of Nurserymen. ANSI Z60.1-1990. American Standard for Nursery Stock. 1250 I Street, N.W., Suite 500, Washington, DC 20005
- http://www.treesaregood.com/treecare/resources/New_TreePlanting.pdf
- http://www.ag.ndsu.edu/pubs/plantsci/trees/h531.pdf
- Shigo, Alex L. 1991. *Modern Arboriculture*, New Hampshire, Shigo and Trees, Associates, 424 pp.
- Watson, Gary W., and E.B. Himelick. 2005. *Best Management Practices: Tree Planting.* International Society of Arboriculture, Champaign, Il. 41 pp.

Examples of Vicinity Maps

If your community has a CTAP Inventory, use the ND TIP Tool to create a vicinity map and project design map. Information is available via the ND TIP Tool website: https://ndcitytrees.org/.

Maps also available via www.mapquest.com

Project area on map is outlined in red

Examples of Design Plans

Examples of Design Plans

Hebron
Project Design
Page 8, #4

Tinta Tawa Park Master Plan

Casselton ND

SCHEDULE OF EQUIPMENT RATES by FEMA (as of August 15, 2019)   Found at: https://www.fema.gov/media-library-data/

Equipment	Specifications	Capacity or	HP	Notes	Rate/Unit
Auger, Portable	Hole Diameter	16 In	to 6		$2.34/hour
Auger, Portable	Hole Diameter	18 In	to 13		$4.65/hour
Auger, Tractor Mounted	Max. Auger Diameter	36 In	to 13	Digger, boom & mounting hardware	$3.25/hour
Auger	Horizontal Directional Boring	250 x 100	300	DD-140B YR-2003	$172.29/hour
Auger	Horizontal Directional Boring	50 x 100			$33.83/hour
Auger	Auger, Directional Boring				$41.04/hour
Chainsaw	20" Bar, 3.0 cu in				$1.91/hour
Chainsaw	20" Bar 5.0 cu in				$2.59/hour
Chainsaw	20" Bar 6.0 cu in				$2.77/hour
Chainsaw	Bar Length	16 In			$1.80/hour
Chainsaw	Bar Length	25 In			$3.73/hour
Chainsaw, Pole	Bar Size	18 In			$2.10/hour
Chipper, Brush	Chipping Capacity	6 In	to 35	Trailer mounted	$8.97/hour
Chipper, Brush	Chipping Capacity	9 In	to 65	Trailer mounted	$17.06/hour
Chipper, Brush	Chipping Capacity	12 In	to 100	Trailer mounted	$24.89/hour
Chipper, Brush	Chipping Capacity	15 In	to 125	Trailer mounted	$35.75/hour
Chipper, Brush	Chipping Capacity	18 In	to 200	Trailer mounted	$50.41/hour
Loader, Skid-Steer	Operating Capacity	1250 Lbs	to 36		$26.83/hour
Loader, Skid-Steer	Operating Capacity	2200 Lbs	to 66		$35.47/hour
Loader, Skid-Steer	Operating Capacity	3300 Lbs	to 81		$38.72/hour
Stump Grinder	1988 Vermeer SC-112		102		$48.59/hour
Stump Grinder	24" Grinding Wheel		110		$46.31/hour
Trailer, Dump	Capacity	20 CY		Does not include prime mover	$13.13/hour
Trailer, Dump	Capacity	30 CY		Does not include prime mover	$13.37/hour
Trailer, Equipment	Capacity	30 Tons			$16.71/hour
Trailer, Equipment	Capacity	40 Tons			$18.49/hour
Trailer, Equipment	Capacity	60 Tons			$19.30/hour
Trailer, Equipment	Capacity	120 Tons			$30.52/hour
Trailer, Water	Tank Capacity	4000 Gal		With sump and a rear spraybar	$15.85/hour
Trailer, Water	Tank Capacity	6000 Gal		With sump and a rear spraybar	$19.49/hour
Trailer, Water	Tank Capacity	10000 Gal		With sump and a rear spraybar	$22.76/hour
Trailer, Water	Tank Capacity	14000 Gal		With sump and a rear spraybar	$28.39/hour
Trailer, Water Tank	Tank Capacity	1000 Gal	175		$35.84/hour
Truck, Pickup				When transporting people	$0.545 mile
Truck, Pickup	1/2 Ton	4x2 Axle	160		$12.78/hour
Truck, Pickup	1 Ton	4x2 Axle	234		$17.91/hour
Truck, Pickup	1 1/4 Ton	4x2 Axle	260		$21.10/hour
Truck, Pickup	1 1/2 Ton	4x2 Axle	300		$23.22/hour
Truck, Pickup	1 3/4 Ton	4x2 Axle	300		$24.85/hour
Truck, Pickup	3/4 Ton	4x2 Axle	165		$14.32/hour
Truck, Pickup	3/4 ton	4x4 Axle	285	Crew	$22.64/hour
Truck, Pickup	1 Ton	4x4 Axle	340	Crew	$22.99/hour
Truck, Pickup	1 1/4 Ton	4x4 Axle	360	Crew	$26.55/hour
Truck, Pickup	1 1/2 Ton	4x4 Axle	362	Crew	$26.82/hour
Truck, Pickup	1 3/4 Ton	4x4 Axle	362	Crew	$27.55/hour