List of Trees Allowed as New Carrington City Street Trees

This list of approved Carrington city street trees was selected from a list of trees which are considered to survive and grow well in North Dakota. These trees are the only new trees which should be planted into boulevard areas along city streets.

Boulevard areas are the normal space between the curb and the sidewalk. If the street does not have a sidewalk, this is 13 feet in from the curb. For some streets, the boulevard area is 20 feet from the curb. These streets are \bullet 3rd St N west of 13th Ave N \bullet 2nd St S \bullet 3rd St S \bullet 5th Ave, north of 4th St S \bullet JoAl Drive and \bullet the complex of 3rd Ave N/Faith Rd/5th St N that is west of Hwy 52/281.

Please consider:

- ▶ City ordinance does not allow conifer trees to be used as street trees due to impaired lines of sight and snow removal.
- ▶ The tree list does not include fruit-bearing trees because they can create slipping hazards on sidewalks and streets.

When planting a city street tree, keep the tree well-watered the first year and during times of low rainfall for the next 2 to 3 years. Bark or woodchip mulch applied 3-4 inches deep for several feet around the tree will reduce stress and weeds, prevent mower damage and keep the soil moist longer. However, the mulch should be thin/pulled away from the trunk so that the trunk does not rot. Think of a donut with a center hole when you apply the mulch. The tree goes in the middle.

There are many sources of information on planting a tree. It is currently agreed that it is better to plant the roots wide and shallow instead of burying the tree deeply. The natural root flare (where the trunk gets wider and the roots begin) should be within 1 inch of the soil surface no matter how the tree looked in its pot. If roots are seen to circle in a pot, wash the soil away and spread the roots outward. If the roots are too constricted within the pot, consider returning the tree and buying from a different supplier. Most trees grow naturally with their roots in the top 6-8 inches of the soil. Therefore, it is a good idea to remove the sod and loosen the soil in about a 4-foot circle with your young tree planted in the center. Mulch the area.

If a tree seems big for the amount of roots that it has, stake it with loose ties that allow it to move gently in the wind. The ties should not be tight to the posts; the tree needs to move.

Finally, do not amend your soil with more than 1-inch of compost. Do not fertilize the tree. The soil in Carrington is generally a good loam that provides all the nutrients your tree will need. Keeping the soil mulched and moist allows the tree to find and use what it needs.

These trees will grow to provide shade in the summer and protect your neighborhood from wind. City trees increase home values by about 10% and make your street last longer. A green neighborhood is more relaxing to look at and to live in.

October 2020

Large Trees (45' & up)

ELM *all elms listed have resistance to Dutch elm disease (DED)

PRAIRIE EXPEDITION ELM Height: 55' Spread: 60' Shape: Upright, spreading NDSU selection, fast growth, moderate maintenance during formative years. High DED resistance.

PRINCETON ELM Height: 60-80' Spread: 40-60' Shape: Upright

Fast growth, *high maintenance* during formative years. Adaptable to extremes in pH, moisture, heat and wind. High DED resistance.

VALLEY FORGE ELM Height: 60-70' Spread: 60-70' Shape: Upright, arching

Very fast growth, *high maintenance* during formative years. Exhibits tolerance to salts, drought, poor soil, and air pollution. High DED resistance.

<u>CATHEDRAL HYBRID ELM</u> Height: 40-50' Spread: 40-60' Shape: Broadly vase-shaped Fast growth, *high maintenance* during formative years. Moderate resistance to DED.

NEW HORIZON HYBRID ELM Height: 45' Spread: 25' Shape: Slightly arching

One of the better elm trees in NDSU trials, tolerating very dry conditions in one central North Dakota site. May suffer some damage from foliage-feeding insects. Upright oval form and finer, dark green leaves.

TRIUMPH HYBRID ELM Height: 60' Spread: 35-40' Shape: Upright

Very fast growth, moderate maintenance during formative years. Outstanding tree for much of North Dakota. Shiny, attractive dark green foliage. Excellent disease and pest resistance.

LINDEN/BASSWOOD

<u>AMERICAN LINDEN</u> Height: 75-90' Spread: 40-50' Shape: Rounded at maturity Tall, spreading, adaptable, native Linden with fragrant yellow flowers. Large leaves and dense foliage.

BOULEVARD AMER. LINDEN Height: 60' Spread: 30' Shape: Pyramidal

Fragrant yellow flowers. Ideal for boulevards and other sites where height is needed but width is limited.

FRONTYARD AMER. LINDEN Height: 60-75' Spread: 40' Shape: Rounded

Broadly pyramidal when young and nicely rounded with age. Dense foliage offers excellent shade.

GREENSPIRE LINDEN Height: 40-50' Spread: 30-35' Shape: pyramidal

(Littleleaf) Fragrant, creamy-yellow flowers with tidy leaves. Neat, trim, very adaptable and tolerant.

<u>REDMOND AMER. LINDEN</u> Height: 40-60' Spread: 25-30' Shape: Pyramidal, uniform Dense foliage, large leaves and reddish bark. Very hardy.

MAPLE

<u>FALL FIESTA SUGAR MAPLE</u> Height: 50-75′ Spread: 50′ Shape: Upright, rounded Fall Foliage: Orange, red. Rapid grower, prefers well-drained soil with slight acidity.

<u>GREEN MOUNTAIN SUGAR MAPLE</u> Height: 50-75' Spread: 35' Shape: Upright oval Fall Foliage: Orange-scarlet. Excellent heat tolerance, and performs well in dry, restricted sites.

NORTHERN FLARE SUGAR MAPLE Height: 40-50' Spread: 30' Shape: Broad oval NDSU selection from South Dakota. Fall Foliage: Orange-red. Prefers a deep, well-drained, non-droughty soil. Will tolerate higher soil pH levels than the species.

<u>SIENNA GLEN MAPLE</u> Height: 50-75′ Spread: 40′ Shape: Pyramidal Fall Foliage: Yellow, orange, red. MN origin. Tolerant of alkaline, acidic and wet soil conditions.

<u>SEPTEMBER FLARE SUGAR MAPLE</u> Height: 40-50′ Spread: 30′ Shape: Broad oval NDSU selection from NW Minn. Fall Foliage: Orange-red. Colors reliably and early. Hardy with no chlorosis.

WHITE OAK

BUR OAK Height: 60-80' Spread: 60-80' Shape: Rounded, open

Drought tolerant native oak of the white oak family. Tolerates a wide range of soil types and air pollutants. Attractive corky bark. Slow growing.

CRIMSON SPIRE OAK Height 45' Spread: 15' Shape: Upright

A hybrid between English and White oak. Selected for a narrow form and good red fall color. Tolerant of a wide range of conditions. A fast-growing, hardy tree with dense foliage.

<u>URBAN PINNACLE OAK</u> Height: 55' Spread: 25-30' Shape: Narrow, upright Lobed, dark green, glossy foliage. Heat and drought tolerant.

SELECTIONS FOR DIVERSITY

<u>ESPRESSO KENTUCKY COFFEETREE</u> Height: 50-60' Spread: 35-40' Shape: Oval to vase Seedless cultivar. Drought tolerant. Excellent for tough urban locations.

HACKBERRY Height: 50-75' Spread: 50' Shape: Spreading, rounded

Tall, spreading, native tree. Very adaptable to urban conditions. However, sensitive to broadleaf herbicides such as those used for weed control in lawns or fields.

<u>PRAIRIE SENTINEL HACKBERRY</u> Height: 40-45' Spread: 10-15' Shape: Narrow, columnar Perfect for tight spaces. Adaptability to heat, cold, and drought. However, sensitive to broadleaf herbicides such as those used for weed control in lawns or fields.

<u>PERFECTION HONEYLOCUST</u> Height: 50' Spread: 35' Shape: Open, upright, spreading Good branch structure. Extremely fine and delicately textured leaves. Provides filtered shade. Perhaps tougher than 'Northern Acclaim' (see medium trees) but hard to find.

Medium Trees (30-45')

BIRCH

<u>DAKOTA PINNACLE ASIAN WHITE BIRCH</u> Height: 35' Spread: 10-12' Shape: Narrow NDSU selection for form; bronze birch borer *tolerant*. Tolerant of heat, drought, and alkaline soils.

NORTHERN TRIBUTE RIVER BIRCH Height: 35' Spread: 30' Shape: Upright, oval NDSU selection for hardiness. Performs well in alkaline soils and in compacted, dry soils. Seedling selection from western North Dakota.

<u>PRAIRIE DREAM PAPER BIRCH</u> Height: 35-40' Spread: 20-25' Shape: Upright, oval NDSU selection for snow-white peeling bark. Very low maintenance. Excellent cold hardiness and resistance to bronze birch borer. Prefers a moist, well-drained site.

BUCKEYE

<u>AUTUMN SPLENDOR OHIO BUCKEYE</u> Height: 30-35' Spread: 25' Shape: Rounded University of Minnesota selection. Large white blooms in spring, followed by brilliant red fall color. Prefers moist soil and full sun. Tolerates a wide range of soil conditions.

<u>PRAIRIE TORCH OHIO BUCKEYE</u> Height: 25' Spread: 20' Shape: Rounded NDSU Selection. High quality foliage which inclines downward, lending a tropical touch to the tree's appearance. Consistent brilliant fall color

LINDEN

<u>AMERICAN SENTRY LINDEN</u> Height: 40' Spread: 25' Shape: Pyramidal Uniform branching and narrow form. Silvery bark with the most resistance to Japanese beetles

<u>CORINTHIAN LINDEN</u> Height: 45' Spread: 15' Shape: Narrow, pyramidal (Littleleaf) Densely pyramidal tree; small glossy green leaves are attractive all summer turning yellow in fall. A tidy, low maintenance selection.

<u>DROPMORE HYBRID LINDEN</u> Height: 40' Spread: 30' Shape: Pyramidal Slightly coarser branching with distinctive and refined pyramidal form. One of the best for colder climates. Very vigorous.

<u>HARVEST GOLD MONGOLIAN LINDEN</u> Height: 30-40' Spread: 25-30' Shape: Upright, oval (Littleleaf) A very hardy selection with upright growth. Glossy, heart-shaped flowers and fragrant yellow blooms in early summer. Exfoliating bark. An excellent boulevard tree.

<u>LITTLELEAF LINDEN</u> Height: 35-45' Spread: 30-35' Shape: Broad, pyramidal (Littleleaf) Glossy dark foliage and fragrant pendulous flowers in early summer. Very adaptable, does well in poor soil.

<u>MORDEN LINDEN</u> Height: 30' Spread: 20' Shape: Pyramidal (Littleleaf) One of the hardiest cultivars. Tightly pyramidal. Highly fragrant flowers.

OAK

PRAIRIE STATURE OAK Height: 30-40' Spread: 25-30' Shape: Pyramidal

Fall Foliage: Reddish-purple. Outstanding NDSU selection- English x White oak. Prefers a moist, well-drained site. Excellent boulevard, feature or park tree.

REGAL PRINCE OAK Height: 40' Spread: 20-25' Shape: Upright oval

Grows faster than other oak, becoming oval with age. Tolerates wet or dry soil conditions. Shade tree or vertical accent.

SELECTIONS FOR DIVERSITY

NORTHERN ACCLAIM HONEYLOCUST Height: 35-45' Spread: 30-35' Shape: Upright NDSU selection for hardiness. Thornless and seedless, drought resistant.

<u>IRONWOOD/AMERICAN HOPHORNBEAM</u> Height: 30-45' Spread: 25' Shape: Oval Slow growing. Hop-like fruits in late summer. Tolerant of dry locations.

PRAIRIE HORIZON ALDER Height: 30-40' Spread: 20-30' Shape: Upright

NDSU selection for upright growth and attractive foliage. Rapid growing. Light shade won't thin grass. Decorative purple catkins. Drought tolerant.

Small Trees (15-30')

CRABAPPLE

<u>SPRING SNOW CRABAPPLE</u> Height: 25-30' Spread: 15' Shape: Dense, upright Flower: Single, white. Fruitless. Pink buds open to fragrant white flowers in spring.

BIRCH

<u>EMERALD FLARE TIANSHAN BIRCH</u> Height: 25' Spread: 10' Shape: Narrow pyramid NDSU selection. Attractive white exfoliating bark with gray and slight orange undertones.

<u>COPPER CURLS PEKIN BIRCH</u> Ht: 15-20' Spread: 15-20' Shape: Rounded, spreading A small tree with showy creamy white blossoms in late spring and very showy coppery-orange exfoliating bark. Cold-tolerant; withstands urban environments. Mulch to retain moisture.

HAWTHORN

<u>THORNLESS COCKSPUR HAWTHORN</u> Ht: 15-20' Spread: 15-20' Shape: Rounded, spreading Fall Foliage: Orange. Abundant white flowers in June, followed by small bright red persistent fruit in autumn. Prefers moist conditions, but is very drought-tolerant.

MAPLE

APOLLO SUGAR MAPLE Height: 25' Spread: 10' Shape: Narrow columnar

Fall Foliage: Narrow trees. Slow growing, long-lived. Not particular to soil pH. Average to moist soil, don't allow to dry out; use mulch.

HOT WINGS MAPLE Height: 20-25' Spread: 18-20' Shape: Upright, spreading

Fall Foliage: Yellow to red. Bright red samaras. Tolerant of alkalinity and dry conditions.

TATARIAN MAPLE Height: 20-25' Spread: 18-20' Shape: Oval, irregular

Fall Foliage: Yellow to red. Tolerant of alkalinity and dry conditions. Samaras often red and showy.

SELECTIONS FOR DIVERSITY

AUTUMN BRILLIANCE SERVICEBERRY Height: 20-25' Spread: 15' Shape: Rounded

Fall Foliage: Red-orange. White blossoms in spring, followed by showy, sweet purplish-black fruit. Brilliant fall leaves are quite persistent.

AMUR MAACKIA Height: 20-30' Spread: 25-35' Shape: Rounded

White flowers blooming mid-summer. Shiny amber to copper colored bark exfoliates with age into loose flakes and curls. Adaptable to a range of soils. Small 2-3" pods.

MAACNIFICENT AMUR MAACKIA Height: 30' Spread: 20' Shape: Vase-shaped

A more cold-hardy flowering cultivar with a vase-shaped habit and yellow fall color. Bark curls with age.

SUMMERTIME AMUR MAACKIA Height: 15-20' Spread: 12-15' Shape: Rounded

A cold-hardy cultivar introduced by University of Minnesota. White flowers and bark interest.

TREE LILAC

<u>COPPER CURLS PEKIN LILAC</u> Height: 25' Spread: 15' Shape: Rounded or upright spreading NDSU selection. A small tree with showy creamy white blossoms and very showy coppery-orange exfoliating bark

<u>IVORY PILLAR TREE LILAC</u> Height: 20-25' Spread: 10-15' Shape: Upright, pyramidal Dark green leaves with large fragrant flowers in early summer. Upright and narrow.

JAPANESE TREE LILAC Height: 25' Spread: 25' Shape: Spreading

Creamy white flowers in large panicles early summer. Glossy red-brown bark. Tolerates a wide variety of moist, well-drained soils.

SNOWCAP TREE LILAC Height: 15-20' Spread: 10-12' Shape: Compact oval

White, fragrant flowers in early summer. More compact than other tree lilacs with unique, uniform branching.

List of Trees for Carrington Prepared: October 2020

REFERENCES:

- 1. Recommended Trees for North Dakota 2020. ND Forest Service.
- 2. Landscape & Boulevard Trees for North Dakota- Greg Morgenson NDSU 2012
- 3. Elm Trees-Dutch Elm Disease Resistant Varieties- U of MN Extension 2019
- 4. Choice Flowering Crabapple Cultivars for the Northern Plains- Herman, Chaput, West. NDSU 2011
- 5. Bachman's 2019 Wholesale Nursery Catalog
- 6. Small Ornamental Trees for North Dakota Landscapes- Greg Morgenson NDSU 2018
- 7. Tough Trees for North Dakota Landscapes Todd West NDSU 2018
- 8. Bailey 2020 Plant Catalog
- 9. Elms for North Dakota- NDSU Extension (F1893) October 2018
- 10. Bron & Sons Nursery Co. 2020-2021 Reference Guide
- 11. Ash Replacement Trees- Todd West NDSU 2019
- 12. J. Frank Schmidt & Son Co. Reference Guide