

Tree and Shrub Mitigation Plan

Magellan Pipeline Company, L.P.
Fargo Relocation Project

Case No. PU-12-042

Prepared for:
Magellan Pipeline Company, L.P.

Prepared by:
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INTRODUCTION

The Fargo Relocation Project being constructed by Magellan Pipeline Company, L.P. (Magellan) consists of moving approximately 2,300 feet of two existing 6-inch and 8-inch co-located refined petroleum product pipelines to accommodate a North Dakota Department of Transportation (DOT) roadway reconstruction project in West Fargo, North Dakota. The project is located in T139N, R49W, Section 9 in Cass County. The DOT requested that Magellan relocate the segments of the pipelines affected by the roadway construction so that the pipelines would be outside of the working area for portions of the DOT roadway project along 17th Street E and Main Avenue E/U.S. Highway 10.

REGULATORY REQUIREMENTS

The project is under the jurisdiction of the North Dakota Public Service Commission (PSC) requiring project construction to replace trees and shrubs in accordance with their requirements. Magellan will comply with the tree and shrub mitigation specifications as outlined by the North Dakota Public Service Commission in the *Findings of Fact, Conclusions of Law and Order*. The PSC requires approval of Magellan's Inventory/Sampling Plan prior to the start of construction, and filing for approval of the Tree and Shrub Mitigation Plan/Replacement Plan before trees or shrubs are planted.

TREE, SAPLING & SHRUB INVENTORY

E3 Environmental, LLC (E3) was contracted by Magellan to conduct a preconstruction tree and shrub inventory which was completed January 7th, 2012. The inventory report and sampling methods used were filed with the PSC in the February 2012 Consolidated Application for Certificate of Corridor Compatibility and Route Permit.

MITIGATION PLAN

A complete inventory was conducted for trees within 50 feet of the proposed centerline of the pipeline alignment. Magellan maintained records of actual tree and shrub impacts arising from construction. These impacts totaled 14 trees; two (2) of the impacted trees are conifers in the Spruce family (*Picea spp.*), and the remaining twelve (12) are deciduous and consist of five (5) Green Ash (*Fraxinus pennsylvanica*), two (2) Elm (*Ulmus spp.*) and five (5) Flowering Crabapples (*Malus spp.*) (see Appendix B). All inventoried trees that will be impacted are approximately 3-inches in diameter. No shrubs were identified within the project corridor.

In accordance with the PSC tree and shrub mitigation specifications, these trees will be replaced on a 2 to 1 basis with the same or similar species suitable for North Dakota. Magellan retained E3 to assist in the preparation of a tree and shrub mitigation plan for the project and in contacting the landowner (i.e. City of West Fargo) to determine their tree replacement preferences. To ensure that the 2 to 1 replacement ratio is satisfied, Magellan proposes to plant 30 replacement trees within the boulevard and surrounding City owned property working directly with the City Forester to designate the appropriate placement.

All impacted trees are located on City-owned property and all replacement trees will be planted within the City's right-of-way property. Therefore, the City of West Fargo Forestry Department was contacted via telephone and consulted as to the acceptable replacement tree species within the re-aligned 17th Street E boulevard. The City's preference is to discontinue planting Green Ash (*Fraxinus spp.*) due to the ever-increasing threat of the Emerald Ash Borer (*Agilus planipennis*). Additionally, the City no longer desires the planting of conifer (i.e. evergreen) trees within its boulevards due to winter snow maintenance damage (e.g. plows and use of road salt). Due to variance between the current City specifications and the species removed, replacement trees may not be replaced with the same species as those removed. City permitted tree specifications can be found in Appendix A. The replacement trees selected will consist of three (3) Hackberry (*Celtis occidentalis*), two (2) Kentucky Coffeetrees (*Gymnocladus dioica*), five (5) American Linden/Basswood (*Tilia Americana*), five (5) Red Maples (*Acer rubrum*), three (3) Prairie Expedition Elm (*Ulmus Americana*), five (5) Flowering Crabapples (*Malus 'Red Splendor' or 'Radiant'*), five (5) Thornless Hawthornes (*Crataegus crus-falli var. inermis*), and two (2) Amur Maple (*Acer ginnala*) (see Appendix B). The contractor will work with the City Forester to determine a planting plan to ensure adequate spacing for replacement trees.

The replacement trees will be installed in the spring or early summer of 2012. These plantings will be located in Section 9, Township 139N, Range 49W. Magellan will hire a contractor to install the replacement trees, which will each be a minimum age of 2-year old saplings.

MONITORING & REPORTING

Following the initial installation of the replacement trees, the following information will be documented and filed with the PSC:

- Quantities;
- Variety and type;
- Locations; and
- Planting date.

Replacement plantings will be inspected annually for a minimum of three (3) years following initial installation, which will occur on or near the anniversary planting date. The number and type of each surviving tree will be documented and notes on the condition of the saplings will be recorded. Survival rates will be calculated and a report will be submitted to the PSC before October 1 of each year documenting this information. If the survival rate after three years is less than 75%, additional plantings may be ordered based on consideration by the PSC.

Magellan Pipeline Company, L.P.
Fargo Relocation Project
Case No.: PU-12-042



APPENDIX A:

City of West Fargo Tree Specifications



Boulevard Tree Permit
Required for Boulevard Tree Planting Only
(Revised 02-23-2012)

Name: _____

Date: _____

Address: _____

Phone: _____

I hereby state that the planted trees are planted according to West Fargo City Ordinance.
The following trees are permitted to be planted:

- | | |
|---|--|
| 1) Honey Locust-thornless only | 10) Ironwood |
| 2) Hackberry | 11) Prairie Gem Pear |
| 3) Thornless Hawthorne | 12) Maple-any variety |
| 4) Amur Chokecherry | 13) Japanese Tree Lilac |
| 5) Lindens-any variety | 14) Amur Maple-tree form only |
| 6) Bur Oak, Swamp White Oak, or
Prairie Stature Oak | 15) European or American Mountain Ash -
(Sorbus americana or Sorbus aucuparia only) |
| 7) Flowering Crab-any fruitless varieties
or Red Splendor and Radiant only | 16) Lewis and Clark Expedition Elm |
| 8) DED Resistant Elms (Accolade, Cathedral,
Discovery) | 17) Kentucky Coffeetree |
| 9) Ironwood | 18) Amur Corktree |
| | 19) Prairie Horizon Alder |
| | 20) No Room For Trees |

Circle the variety of tree planted. Signed: _____
Owner

Size Requirements:

No tree measuring less than 1 1/4" in diameter of trunk one foot above ground may be planted on the City boulevard. The lowest branch shall not be over 9 1/2 feet from the ground. It must be a single stem trunk.

Duty to Trim Trees:

It shall be the duty of all persons, whether owners or tenants, to keep the shade trees along the public streets and avenues adjoining such property trimmed in such a manner that such trees shall not interfere with travel on said streets, avenues, and sidewalks.

Tree Spacings:

Trees shall be planted 12' (feet) from driveways and alleyways. The spacing shall be at least 25' (feet) from existing trees. On corner lots, the trees shall be planted 40' (feet) from the point of intersection of the curbs. The City Forester shall have the right to approve variances from the above requirements where conditions necessitate.

Please print and sign then send completed form to:
Yvette Gehrke -Public Works
810 12th Avenue NW
West Fargo, ND 58078

Planted Trees Approved

Dated: _____

Signed: _____

City Auditor, City of West Fargo

Dated: _____

Signed: _____

City Forester, City of West Fargo

APPENDIX B:

Tree Mitigation Plan Table

Tree Mitigation Plan		Magellan Fargo Relocation Project	
Impacted Species		Replacement Species	
2	Spruce (<i>Picea spp.</i>)	3	Hackberry Trees (<i>Celtis occidentalis</i>)
5	Green Ash (<i>Fraxinus pennsylvanica</i>)	2	Kentucky Coffeetrees (<i>Gymnocladus dioica</i>)
2	Elm (<i>Ulmus spp.</i>)	5	American Linden/Basswood (<i>Tilia americana</i>)
5	Flowering Crabapples (<i>Malus spp.</i>)	5	Red Maples (<i>Acer rubrum</i>)
		3	Prairie Expedition Elm (<i>Ulmus Americana</i> 'Lewis & Clark')
		5	Flowering Crabapples (<i>Malus</i> 'Red Splendor' or 'Radiant')
		5	Thornless Hawthornes (<i>Crataegus crus-galli var. inermis</i>)
		2	Amur Maple (<i>Acer ginnala</i>)
Total:	14	30	