

September 2016



## North Ridge Estates

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### Phase II Planting Plans and Illustrations



## BACKGROUND

In the 1980s, the 144-acre North Ridge Estates subdivision was developed approximately three miles north of Klamath Falls, Oregon. Due to the demolition of an estimated eighty 1940s-era military barracks buildings, the soil beneath this residential development contained asbestos and asbestos-contaminated materials. Frost heave, which is typical of the climate in this area, began to bring asbestos to the ground surface where residents and visitors could be exposed to the contamination. EPA conducted a series of emergency removal actions between 2003 and 2008, but was unable to mitigate unacceptable risks to residents of the site. In January 2006, the developer entered a consent decree to permanently relocate the majority of the subdivision residents. Some residents elected not to leave.

In September 2011, EPA selected the remedy for the site, which includes excavation and consolidation of asbestos-contaminated materials into on-site repositories, placement of a marker layer to prevent future digging below the deepest extent of excavation and placement of caps and clean fill over excavated areas. One of the questions that remained to be addressed in the remedial design process was whether older "legacy" trees on the site, thought to pre-date asbestos contamination, could remain in place with soil excavation to be performed around them. Initial findings suggest that the majority, if not all, trees will need to be removed from the remedial properties to adequately address contamination. However, during the first two seasons, the project team plans to evaluate the option of preserving a select group of ponderosa pine "legacy" trees.

### Phase I, Planting Prototypes and Plant List, 2013

Given that the remaining residents have a great appreciation for their landscape, EPA sought a way to share what tree removal and re-planting subsequent to cleanup would look like for the North Ridge Estates properties. The EPA Superfund Redevelopment Initiative (SRI) engaged Skee in 2013 to develop a series of illustrated images showing two residential properties with initial plantings immediately following the tree removal and cleanup, and then after five years of growth. Renderings of a potential landscaped community walk/bike path that might connect the two on-site repositories were also provided. EPA used these images at a community meeting in fall 2014 to engage present homeowners in discussing cleanup activities and future plans for site use. This phase also included developing a plant list of appropriate native species to help homeowners consider landscape options following remedial action.

Top right, Google Earth view of North Ridge Estates, 2013.  
Bottom right, illustration of potential walk/bike path and landscape condition following remedial action (completed during Phase I).

### Phase II, Planting Plans and Illustrations, 2015-2016

As the remedial design and planning for clean up activity progressed, SRI provided support to capture resident input on plant species and placement to inform remedial design. This enabled owners to decide the types of trees and shrubs that would replace the ones removed during remedial action. Planting concepts were developed for 11 privately-owned properties to be affected by the remedial action.

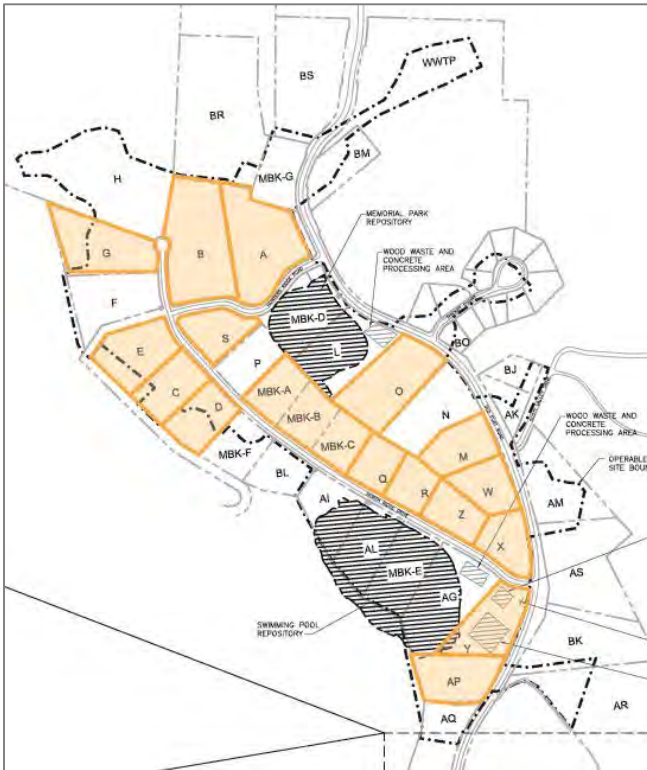
The SRI effort also included designing conceptual planting plans for 20 vacant properties in Receivership to determine how they will be replanted following the removal of the ponderosa woodlands and existing landscaping around formerly occupied homes. In addition to the planting plans, a site-wide rendering and six property illustrations depicting improved structures, planned plantings and landscape growth projected five to ten years following remedial action were developed.



## LOCATOR MAP

Conceptual planting plans were developed for the privately-owned parcels and those in Receivership listed below. Those plans informed the design and development of the landscape specifications for the remedial action.

Illustrations were developed for the Memorial Park Repository and for parcels A, G, O, Q, S and Z.



Properties shown in orange are in Receivership

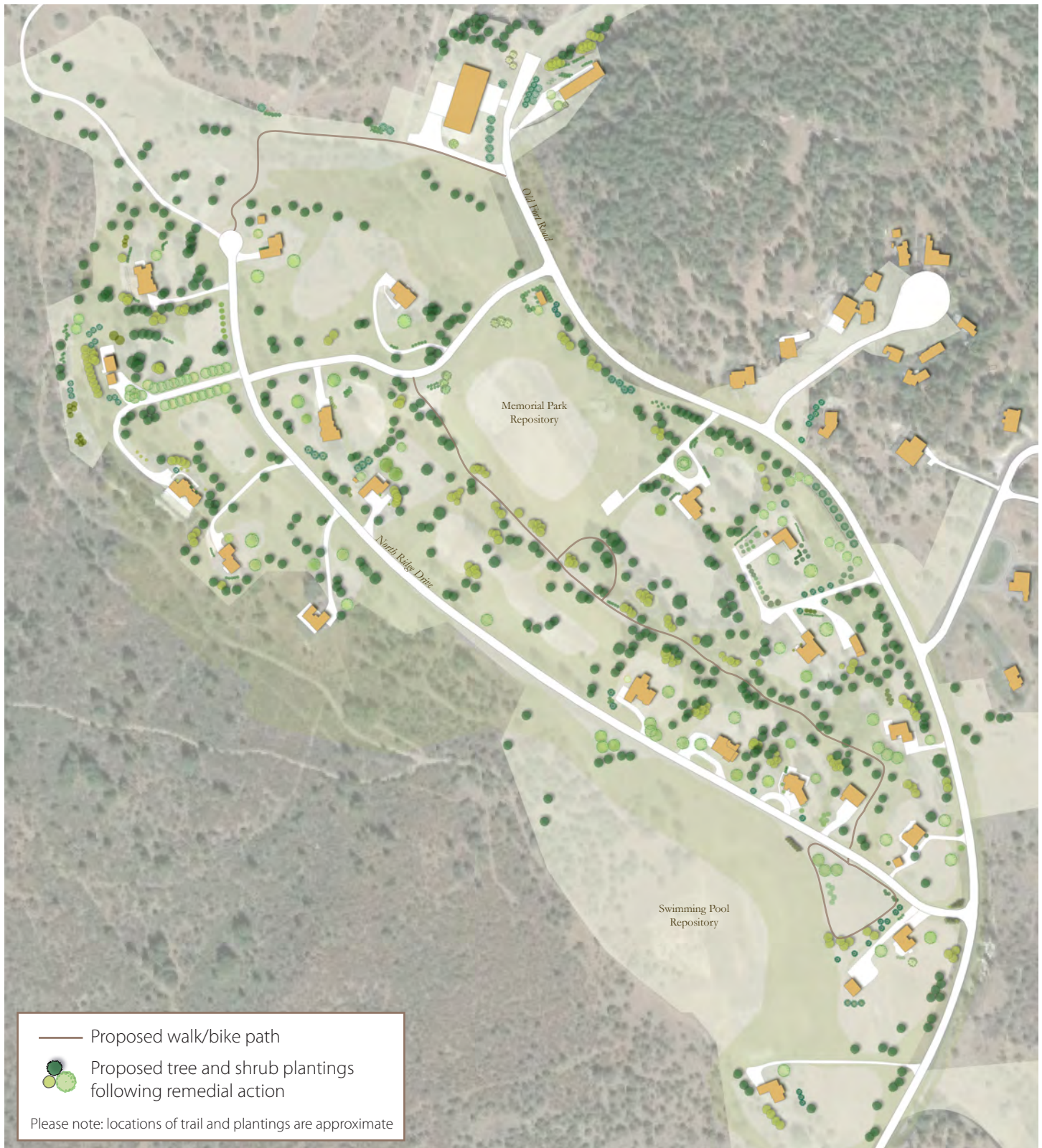
Parcel	Ownership	Future designation
A	Receiver	To be sold
AG	Receiver	Swimming Pool Repository
AI	Receiver	Swimming Pool Repository
AL	Receiver	Swimming Pool Repository
AP	Receiver	To be sold
B	Receiver	To be sold
C	Receiver	To be sold
D	Receiver	To be sold
E	Receiver	To be sold
G	Receiver	To be sold
L	Receiver	Memorial Park Repository
M	Receiver	To be sold
MBK-A	Receiver	TBD. Development not likely.
MBK-B	Receiver	TBD. Development not likely.
MBK-C	Receiver	TBD. Development not likely.
MBK-E	Receiver	Swimming Pool Repository
MBK-O	Receiver	Memorial Park Repository
O	Receiver	To be sold
Q	Receiver	To be sold
R	Receiver	To be sold
S	Receiver	To be sold
W	Receiver	To be sold
X	Receiver	To be sold
Y	Receiver	To be sold
Z	Receiver	To be sold
AM	Private owner	Active housing
AQ	Private owner	Active housing
BM	Private owner	Active housing (apartments)
BO	Private owner	Active housing
BR	Private owner	Commercial (warehouse)
BS	Private owner	Active housing
F	Private owner	Active housing
H	Private owner	Active housing
MBK-G	Private owner	Active use (warehouse)
N	Private owner	Active housing
P	Private owner	Active housing



## CONCEPTUAL LANDSCAPE PLAN

The conceptual landscape plan below illustrates the approximate distribution of replacement trees and shrubs across the properties, and the two repository areas where the contaminated materials will be stored and capped.

A brown line shows a proposed walk/bike path that connects Old Fort Road to North Ridge Drive, and then continues behind several properties to connect the two repositories.





## PARCEL ILLUSTRATIONS

The bottom image shows the property before remedial action, and the top image illustrates how the property might look five to ten years after remedial action and replanting.



**Memorial Park Repository**





## PARCEL ILLUSTRATIONS

The bottom image shows the property before remedial action, and the top image illustrates how the property might look five to ten years after remedial action and replanting.



Parcel A





## PARCEL ILLUSTRATIONS

The bottom image shows the property before remedial action, and the top image illustrates how the property might look five to ten years after remedial action and replanting.



Parcel G





## PARCEL ILLUSTRATIONS

The bottom image shows the property before remedial action, and the top image illustrates how the property might look five to ten years after remedial action and replanting.



Parcel O





## PARCEL ILLUSTRATIONS

The bottom image shows the property before remedial action, and the top image illustrates how the property might look five to ten years after remedial action and replanting.



Parcel Q





## PARCEL ILLUSTRATIONS

The bottom image shows the property before remedial action, and the top image illustrates how the property might look five to ten years after remedial action and replanting.



Parcel S





## PARCEL ILLUSTRATIONS

The bottom image shows the property before remedial action, and the top image illustrates how the property might look five to ten years after remedial action and replanting.



Parcel Z



## PLANTING CONCEPTS BASIS OF DESIGN

Planting concepts for North Ridge Estates were driven by considerations to restore the site ecology, restore property values and improve the quality of life for residents of the neighborhood. Located in a high desert climate, the site's unique growing conditions, varied topography and history also guided planting designs.

### Species selection

During the initial conceptual design phase, EPA requested the use of local native species where possible in all conceptual work. The use of native species are critical to restore biodiversity and conserve water and ongoing maintenance. The addition of species that provide seasonal interest (i.e., spring bloom, fall color) was also requested.

Interviews with a local plant nursery and field work on site confirmed the viability of the native species specified in the plant list developed during Phase I, and these native species comprise the majority of the plants proposed in planting concepts developed for replanting the site. However, the plant list was extended to include non-regional North American natives to fill gaps in which local native options are limited, such a deciduous shade trees. These selections were made based upon evidence of existing plantings thriving in the area (such as *Acer rubrum*), and based upon local nursery stock and recommendations. Several other species not included in the plant list (i.e. *Fagus sylvatica* 'Tricolor') specified by property owners are also included in several concepts to replace existing plantings.

Because the conceptual designs prioritized establishing the planted form and plant characteristics, a landscape contractor with local growing knowledge should make final decisions regarding species selection, making substitutions as needed to ensure viability of the plantings and ensuring adequate protection from foraging.

### Design process for Receivership Parcels

The parcels included in the planting concepts include 20 properties in receivership of a Trustee, Dan Silver, who will oversee selling the properties following remedial action to recoup costs. In order to increase the value of the properties, Mr. Silver proposed redistributing the concentration of replacement trees more equitably among the properties, and designing plantings to impart a more comprehensive neighborhood aesthetic.

To meet these requests, a redistribution plan to determine how the total number of trees to be replaced (approximately 550) might be allocated among the 20 parcels was developed. Considerations for allocation included how plantings might provide value in the following ways:

- Reduce erosion on steep grades.
- Facilitate wildlife connectors to areas of non-disturbance and plantings on adjacent sites.
- Provide privacy, shade and seasonal interest for potential owners.

These also guided the selection of species and locations for tree and shrub plantings on each site. In addition, the planting concepts for each site took into consideration existing plantings, particularly for higher-value properties that had been occupied and extensively landscaped. Several designs, such as those for parcels Z and A, replicated some of the existing plantings that are thriving, even in conditions of neglect.

For properties that may require extensive structural repair or those likely lower in value, planting concepts were developed to establish planted form for the property long-term, but do not propose investment in plantings to complement the existing structures in the event the homes are heavily renovated or removed.

### Privately owned properties

The amount of trees to be replaced on privately owned properties varies greatly — several require over 90 mature trees to be replaced, others require fewer than ten.

Meetings on site were conducted with owners of properties that require a significant number of replacement trees (parcels F, N and P) to understand the owners' desires and expectations for reestablishing their landscapes. Although not available for a meeting on site, the property owner of the apartments also provided detailed input for the significant number of replacement plantings on that property. Discussions with owners requiring fewer replacement trees were conducted by phone.

For each privately-owned property, a draft concept plan has been developed and reviewed by email and phone with the owner and revised as needed to accurately reflect owner input. The majority of owners prefer the naturalized ponderosa pine woodland landscape to a more traditional neighborhood aesthetic, and support plantings that provide forage and protection for wildlife throughout the year.



## Repositories

Planting concepts for the Memorial Park and Swimming Pool repositories were designed to provide small park-like areas for neighborhood use in the minimal spaces outside of the slope. Additional features may need to be included to prohibit vehicular access on the cap. The Memorial Park Repository design includes plantings along Old Fort Road to reduce visibility of the repository.

## Bike/Walk Path

During the first stage of the project, a neighborhood walk/bike path was proposed to extend along the former lower barracks road, from Hunter's Ridge Road to the former parade grounds that end at the back of Parcel X, with access paths from North Ridge Drive and Old Fort Road between parcels that are likely to be occupied.

In fall 2016, a proposed plan for the path was revised to include a connector on the north side of the neighborhood, and the path connects the two repositories along the former lower barracks road, crossing North Ridge Drive at the Swimming Pool Repository. The plan has not been finalized, and may be adjusted.

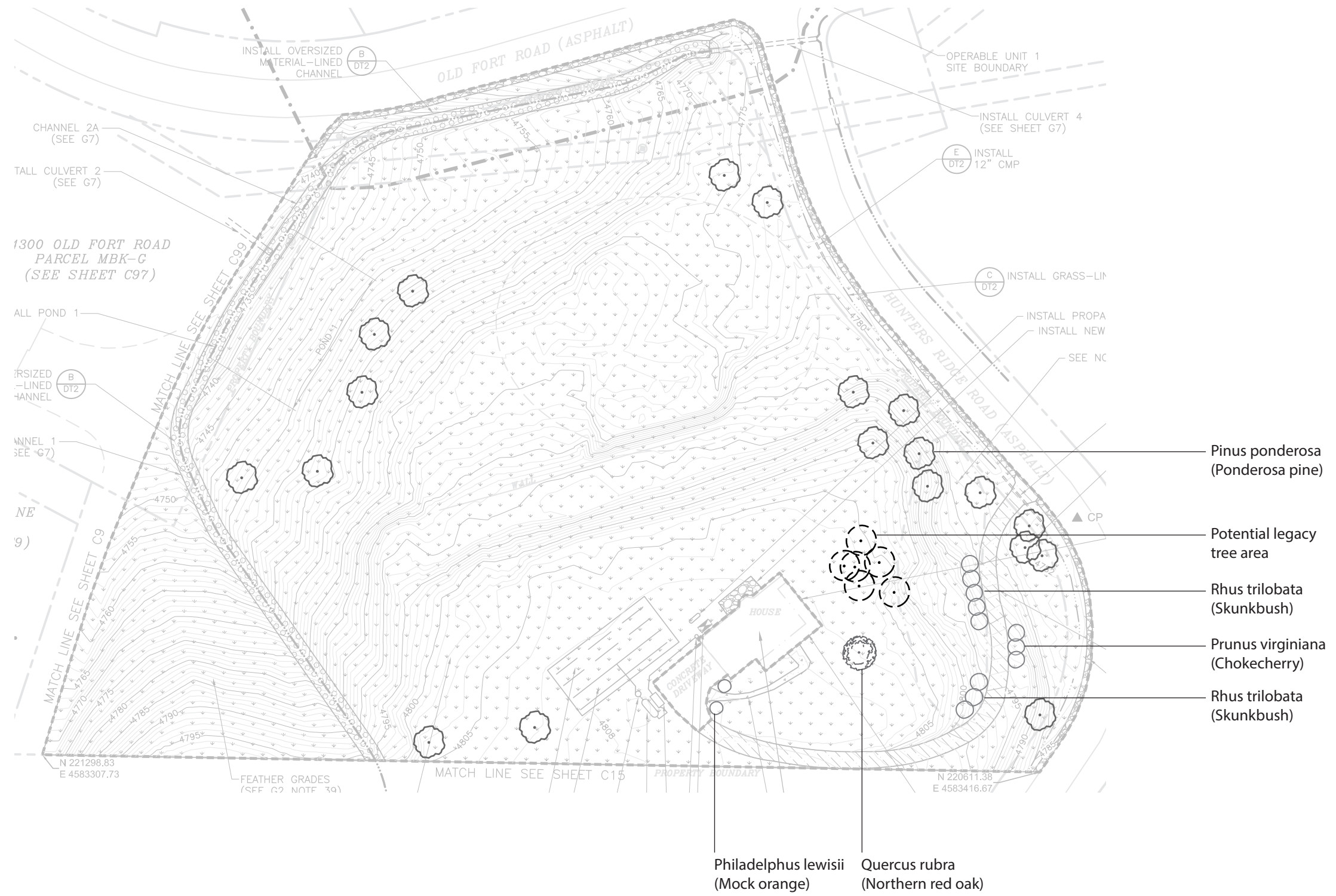
## ADDENDUM: PLANTING CONCEPTS

The following conceptual planting plans were developed to inform the tree distribution, location and species for replanting the North Ridge Estates properties following remedial action. The concept plans were used to provide guidance for the remedial action landscape design plan, and do not reflect final site design.



**North Ridge Estates | Klamath Falls, OR**  
 Planting Concept Design DRAFT  
 Parcel A - reference 10/15 drawings sheet C6  
 January 20, 2016 10:21 PM

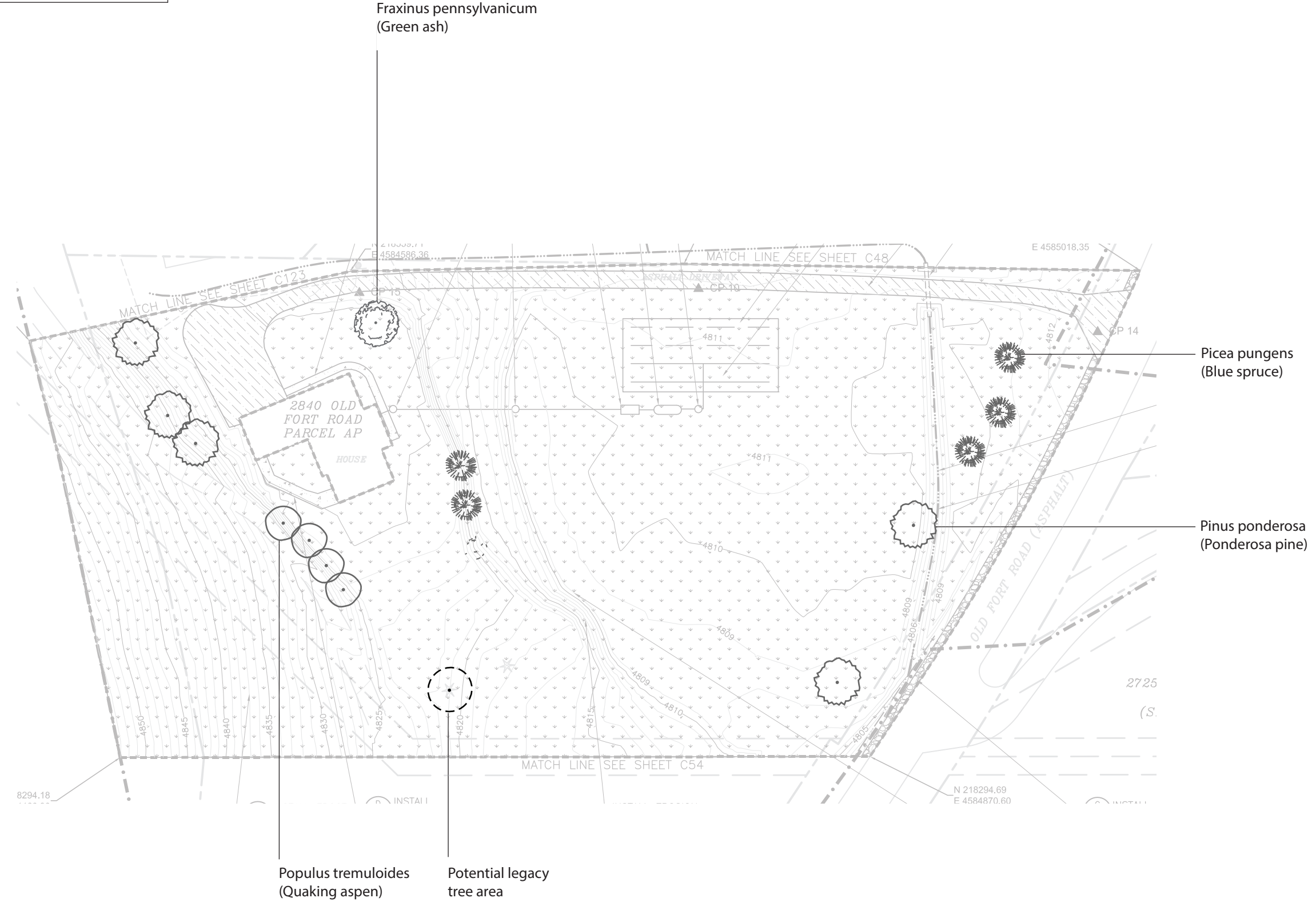
- 19 Pinus ponderosa
- 1 Fraxinus pennsylvanicum
- 8 Rhus trilobata
- 3 Prunus virginiana
- 2 Philadelphus lewisii





**North Ridge Estates | Klamath Falls, OR**  
 Planting Concept Design DRAFT  
 Parcel AP - reference 10/15 drawings sheet C66  
 January 20, 2016 5:19 PM

- 7 *Pinus ponderosa*
- 4 *Populus tremuloides*
- 1 *Fraxinus pennsylvanicum*
- 6 *Picea pungens*



**North Ridge Estates | Klamath Falls, OR**  
 Planting Concept Design DRAFT  
 Parcel B  
 January 4, 2016

- 9 *Pinus ponderosa*
- 5 *Populus tremuloides*
- 1 *Acer rubrum*
- 1 *Acer griseum*
- 2 *Populus trichocarpa* or hybrid poplar
- 1 *Crataegus douglasii*
- 5 *Cornus sericea*

NOTES:

1. RES
2. RES
- EXC
- AS
2. IF
- REN
- INS
- WIT



*Pinus ponderosa*  
 (Ponderosa pine)

*Acer rubrum*  
 (Red maple)

*Populus tremuloides*  
 (Quaking aspen)

*Crataegus douglasii*  
 (Douglas hawthorn)  
 or *Amelanchier*  
*x grandifolia*  
 (Serviceberry  
 "Autumn Brilliance")

*Cornus sericea*  
 (Red twig dogwood)

*Acer griseum*  
 (Paperbark maple)

*Populus trichocarpa*  
 (Black cottonwood)  
 or hybrid poplar

Potential Legacy Tree  
 Areas



**North Ridge Estates | Klamath Falls, OR**

Planting Concept Design DRAFT

Parcel C - reference 10/15 drawings sheet C27

January 11, 2016

*Pinus ponderosa*  
(Ponderosa pine)

- 17 *Pinus ponderosa*
- 4 *Populus tremuloides*
- 1 *Acer rubrum*
- 1 *Quercus alba*
- 1 *Alnus incana*
- 1 *Philadelphus lewisii*
- 5 *Physocarpus malvaceus*
- 6 *Ribes aureum*

*Crataegus douglasii*  
(Douglas hawthorn)

*Philadelphus lewisii*  
(Mock orange)

*Ribes aureum*  
(Golden currant)

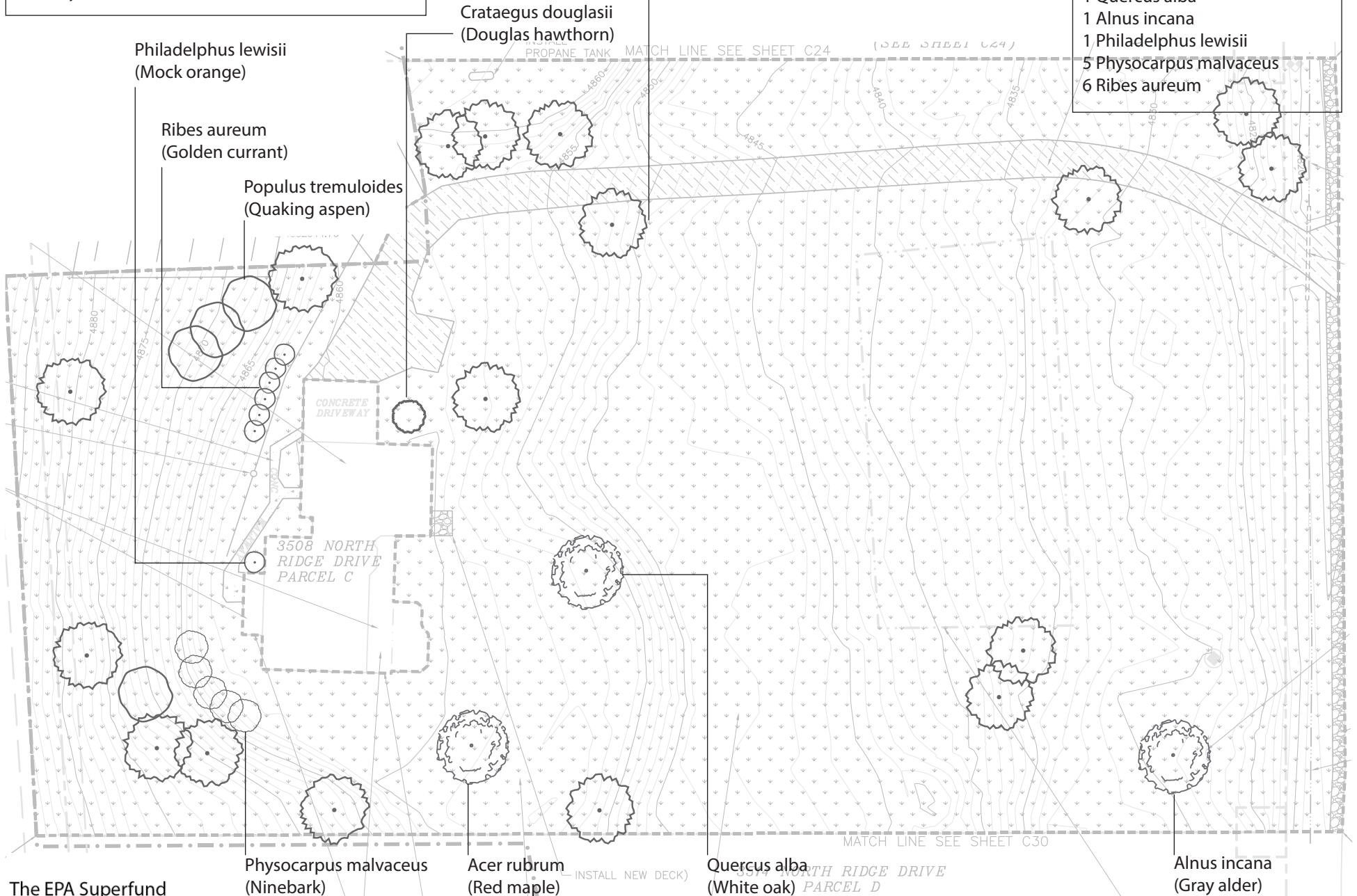
*Populus tremuloides*  
(Quaking aspen)

*Physocarpus malvaceus*  
(Ninebark)

*Acer rubrum*  
(Red maple)

*Quercus alba*  
(White oak)

*Alnus incana*  
(Gray alder)



**North Ridge Estates | Klamath Falls, OR**

Planting Concept Design DRAFT

Parcel D - reference 10/15 drawings sheet C30

January 11, 2016

- 13 *Pinus ponderosa*
- 1 *Quercus coccinea*
- 1 *Acer saccharinum*
- 1 *Alnus incana*
- 3 *Ribes aureum*

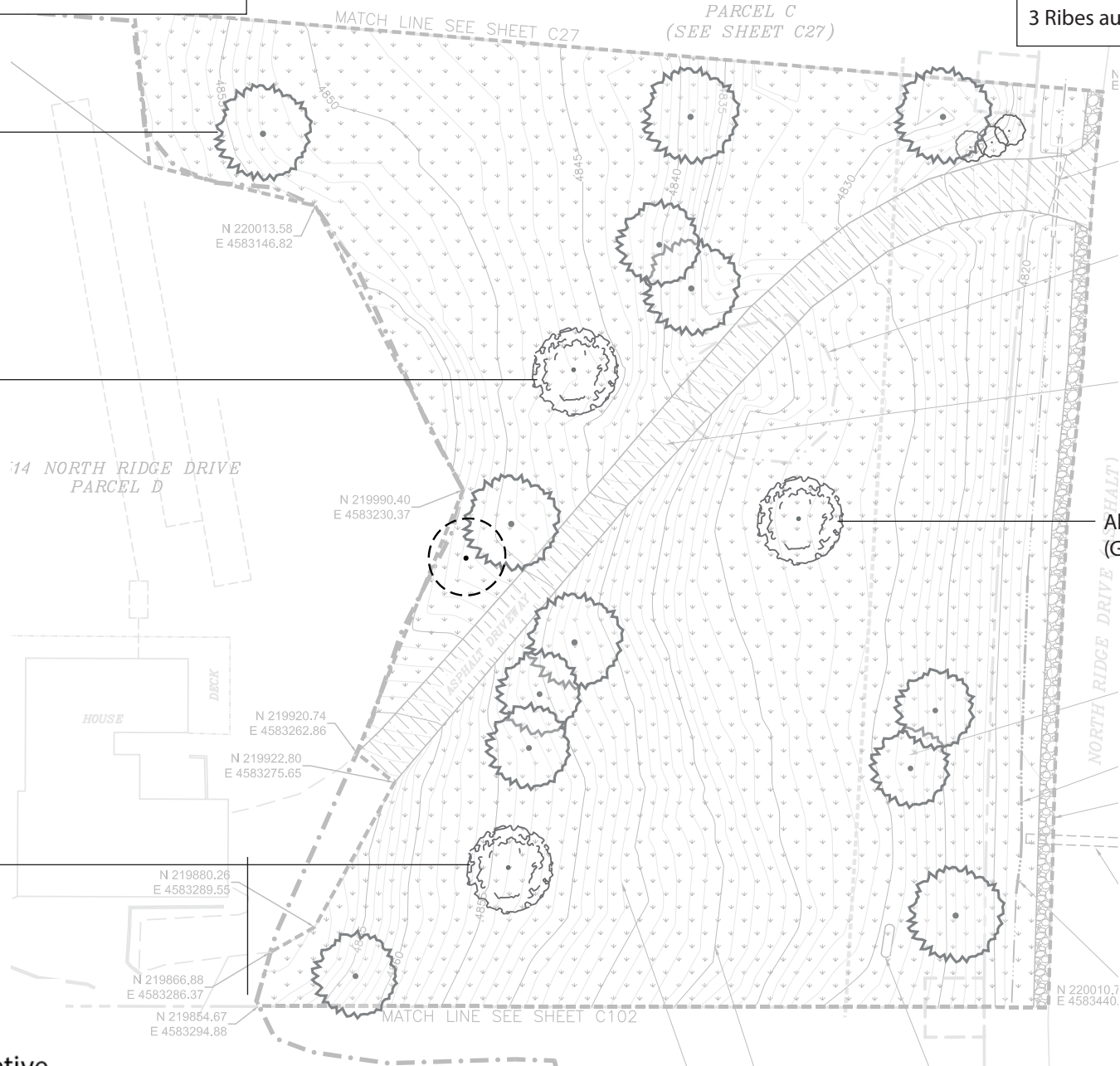
*Pinus ponderosa*  
(Ponderosa pine)

*Quercus coccinea*  
(Scarlet Oak)

*Acer saccharinum*  
(Sugar maple)

*Alnus incana*  
(Gray alder)

The EPA Superfund  
Redevelopment Initiative





# North Ridge Estates | Klamath Falls, OR

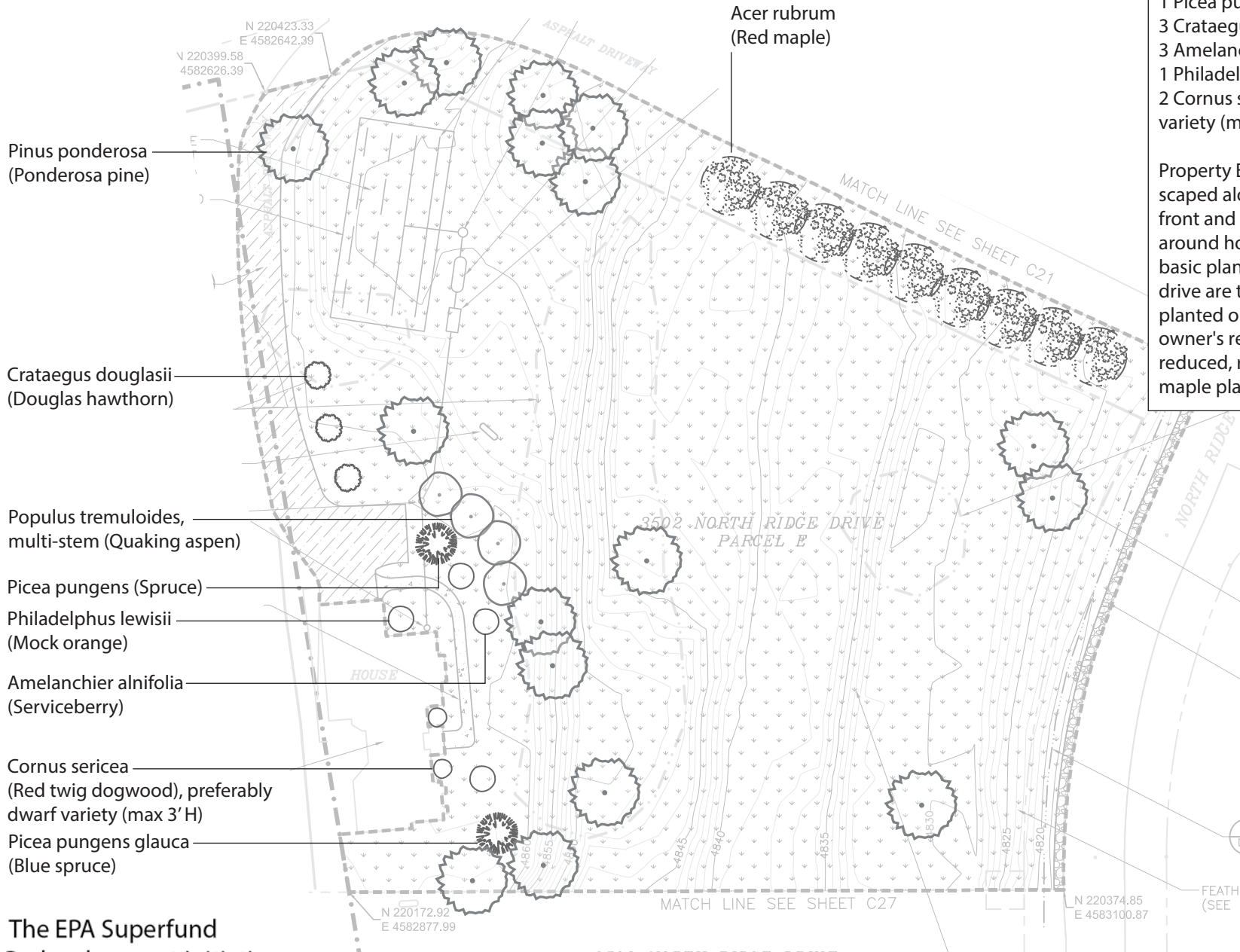
Planting Concept Design DRAFT

Parcel E - reference 10/15 drawings sheet C24

January 11, 2016

- 17 Pinus ponderosa
- 4 Populus tremuloides, multi-stem
- 9 Acer rubrum
- 1 Picea pungens
- 1 Picea pungens glauca
- 3 Crataegus douglasii
- 3 Amelanchier alnifolia
- 1 Philadelphus lewisii
- 2 Cornus sericea, preferably dwarf variety (max 3' H)

Property E is extensively landscaped along driveway and in front and behind house. Plantings around house replicate existing basic plant structure. Maples along drive are to align with maples planted on property F upon owner's request. If costs are to be reduced, recommend removing maple planting.



Acer rubrum  
(Red maple)

Pinus ponderosa  
(Ponderosa pine)

Crataegus douglasii  
(Douglas hawthorn)

Populus tremuloides,  
multi-stem (Quaking aspen)

Picea pungens (Spruce)

Philadelphus lewisii  
(Mock orange)

Amelanchier alnifolia  
(Serviceberry)

Cornus sericea  
(Red twig dogwood), preferably  
dwarf variety (max 3' H)

Picea pungens glauca  
(Blue spruce)

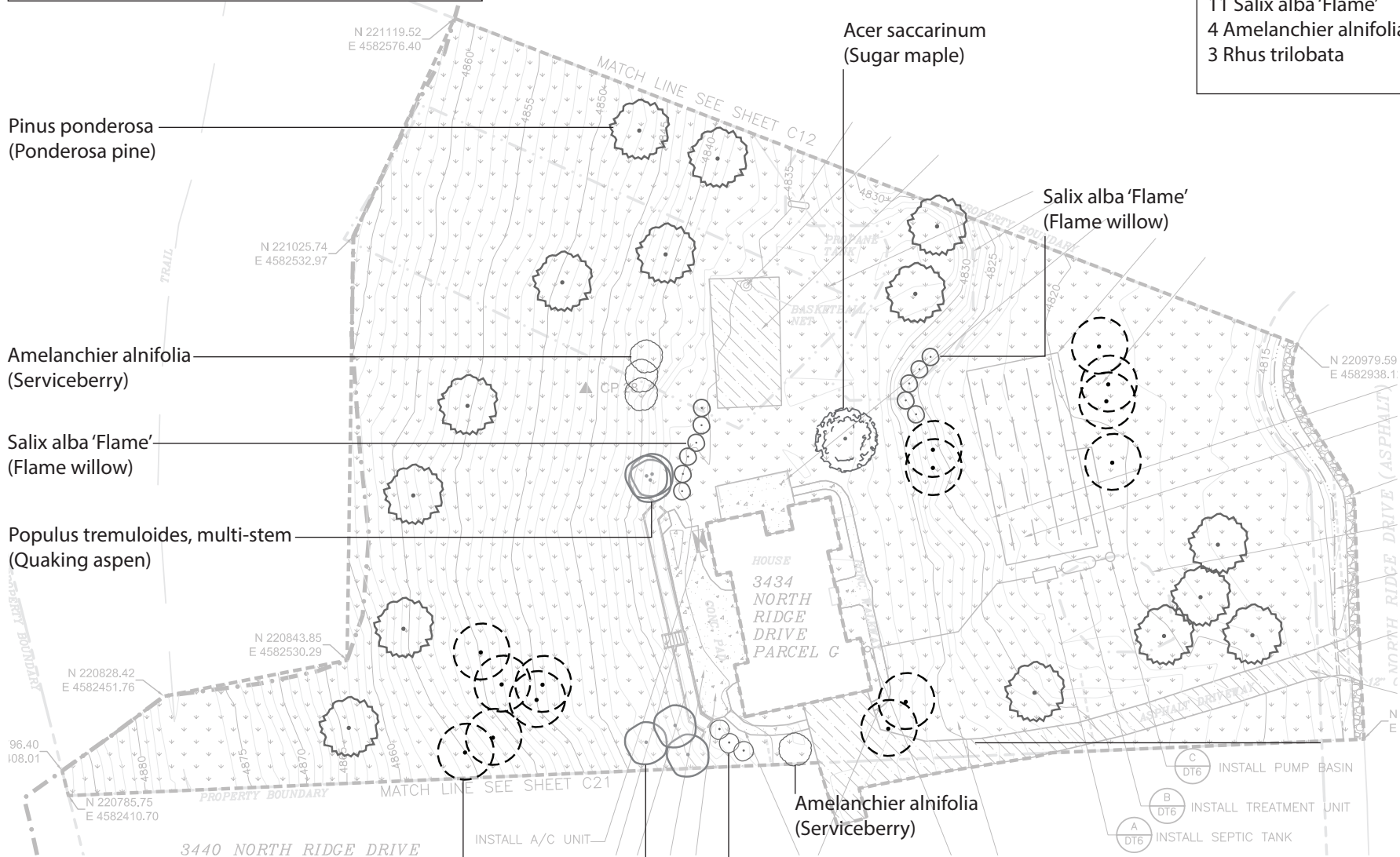
# North Ridge Estates | Klamath Falls, OR

Planting Concept Design DRAFT

Parcel G - reference 10/15 drawings sheet C26

January 7, 2016

- 15 Pinus ponderosa
- 3 Populus tremuloides
- 1 Populus tremuloides, multi-stem
- 1 Acer saccharinum
- 11 Salix alba 'Flame'
- 4 Amelanchier alnifolia
- 3 Rhus trilobata



Pinus ponderosa  
(Ponderosa pine)

Amelanchier alnifolia  
(Serviceberry)

Salix alba 'Flame'  
(Flame willow)

Populus tremuloides, multi-stem  
(Quaking aspen)

Acer saccharinum  
(Sugar maple)

Salix alba 'Flame'  
(Flame willow)

Amelanchier alnifolia  
(Serviceberry)

Rhus trilobata  
(Skunkbush or  
Oakleaf sumac)

The EPA Superfund  
Redevelopment Initiative

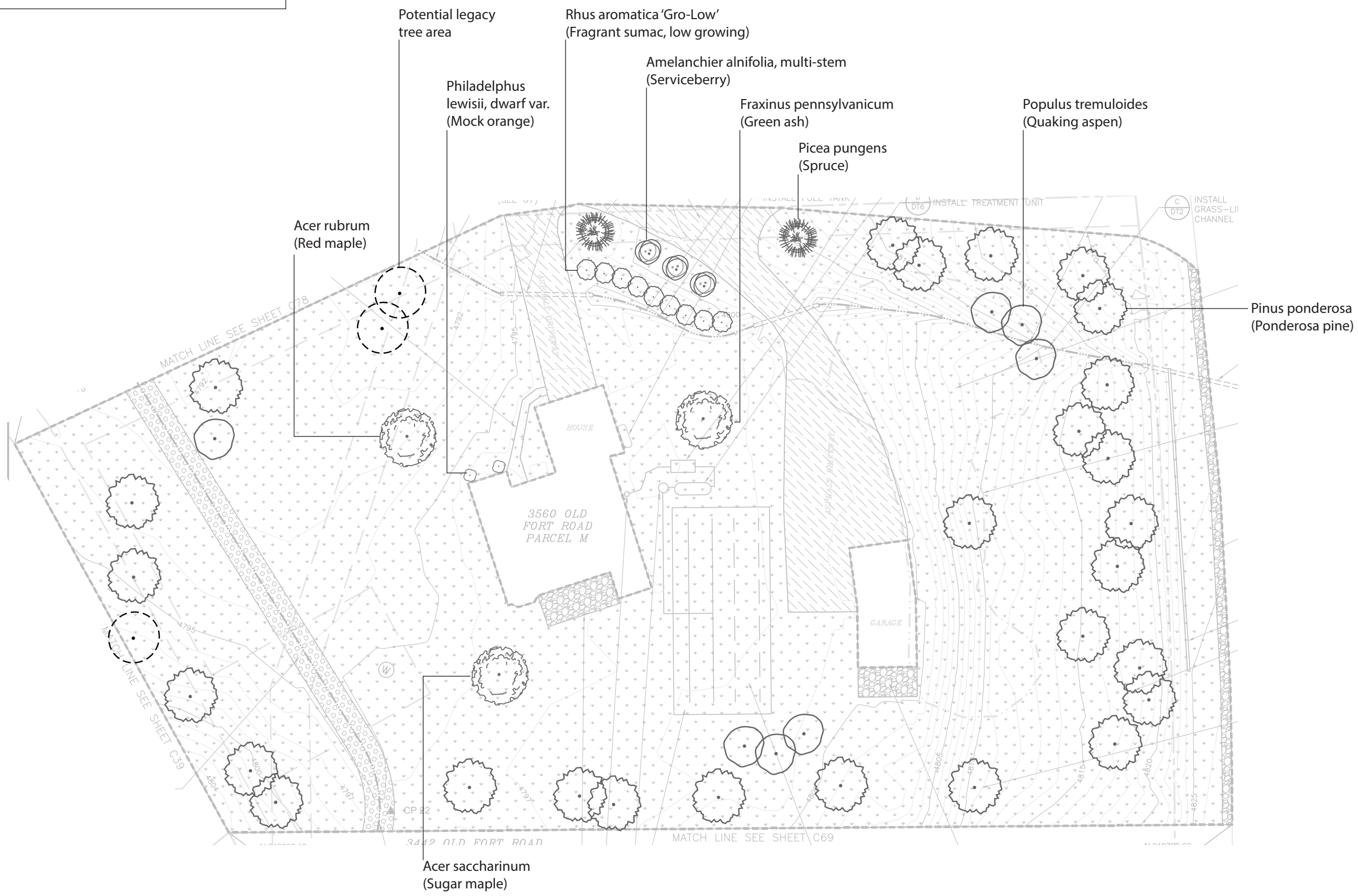
Potential legacy  
tree area

Populus tremuloides  
(Quaking aspen)



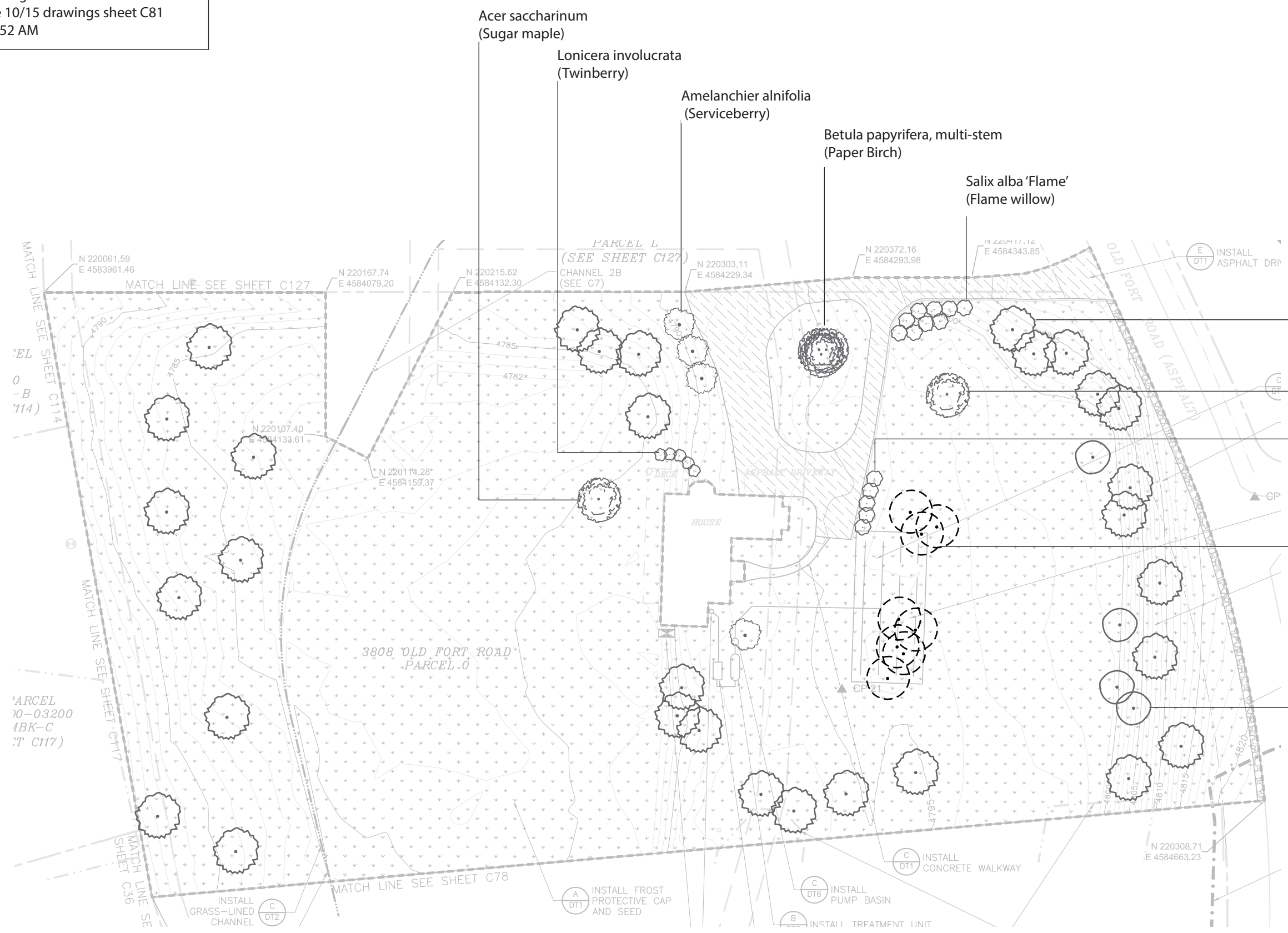
**North Ridge Estates | Klamath Falls, OR**  
 Planting Concept Design DRAFT  
 Parcel M - reference 10/15 drawings sheet C75  
 January 19, 2016 8:52 AM

- 27 Pinus ponderosa
  - 2 Picea pungens
  - 7 Populus tremuloides
  - 1 Acer rubrum
  - 1 Acer saccharinum
  - 1 Fraxinus pennsylvanicum
  - 3 Amelanchier alnifolia, multi-stem
  - 9 Rhus aromatica 'Gro-Low'
  - 2 Philadelphus lewisii, dwarf var.
- Address owner's concern regarding property line.



**North Ridge Estates | Klamath Falls, OR**  
 Planting Concept Design DRAFT  
 Parcel O - reference 10/15 drawings sheet C81  
 January 19, 2016 8:52 AM

- 31 *Pinus ponderosa*
  - 4 *Populus tremuloides*
  - 1 *Betula papyrifera*, multi-stem
  - 1 *Acer saccharinum*
  - 1 *Alnus incana*
  - 4 *Amelanchier alnifolia*
  - 5 *Rhus trilobata*
  - 5 *Lonicera involucrata*
  - 9 *Salix alba* 'Flame'
- Extensive landscaping, particularly shrub layer, around home, exists.



- Acer saccharinum*  
(Sugar maple)
- Lonicera involucrata*  
(Twinberry)
- Amelanchier alnifolia*  
(Serviceberry)
- Betula papyrifera*, multi-stem  
(Paper Birch)
- Salix alba* 'Flame'  
(Flame willow)

- Pinus ponderosa*  
(Ponderosa pine)
- Alnus incana*  
(Gray alder)
- Rhus trilobata*  
(Skunkbush)
- Potential legacy tree area
- Populus tremuloides*  
(Quaking aspen)



**North Ridge Estates | Klamath Falls, OR**

Planting Concept Design DRAFT

Parcel Q - reference 10/15 drawings sheet C36

January 4, 2016

*Pinus ponderosa*  
(Ponderosa pine)

*Alnus incana*  
(White or gray alder)

- 15 *Pinus ponderosa*
- 2 *Picea pungens glauca*
- 5 *Populus tremuloides*
- 3 *Acer rubrum* or *Prunus emarginata*
- 1 *Acer saccharinum*
- 1 *Alnus incana*
- 3 *Rhus typhina*
- 3 *Rhus trilobata*
- 2 *Philadelphus lewisii*
- 3 *Cornus sericea*

If additional shrubs can be allocated, plant 10-12 willows along bank adjacent to driveway

*Rhus typhina*  
(Staghorn sumac)

*Picea pungens glauca*  
(Blue spruce)

Pending additional tree/shrub allocation, plant along bank: 10-12

*Salix lemnii*  
(Lemmon's willow)

*Philadelphus lewisii*  
(Mock orange)

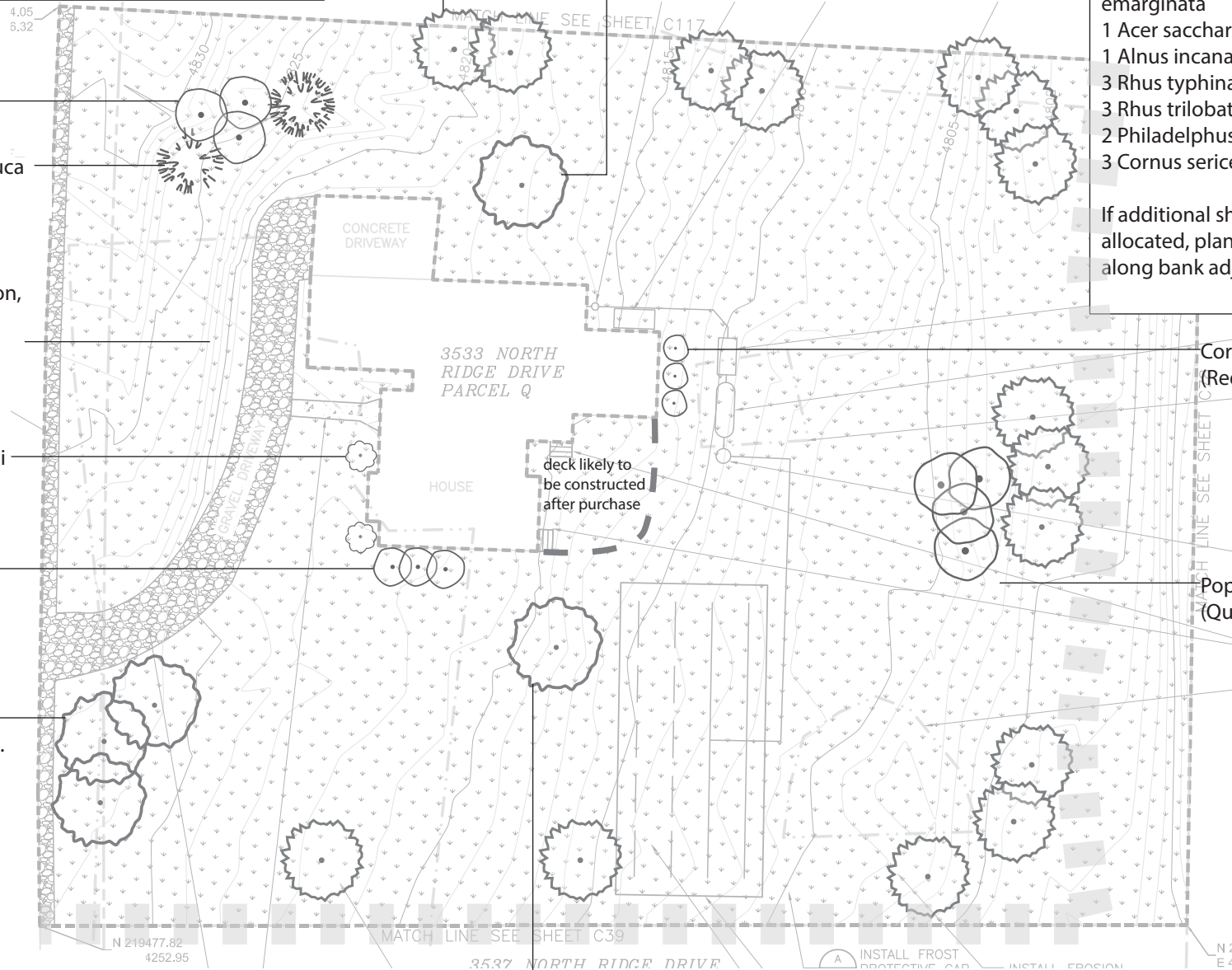
*Rhus trilobata*  
(Skunkbush or Oakleaf sumac)

*Acer rubrum*  
(red maple) approx. 18' O.C.  
or regional native:  
*Prunus emarginata*  
var. *mollis* (bitter cherry) approx. 10' O.C.

*Cornus sericea*  
(Red twig dogwood)

*Populus tremuloides*  
(Quaking aspen)

*Acer saccharinum*  
(Sugar maple)

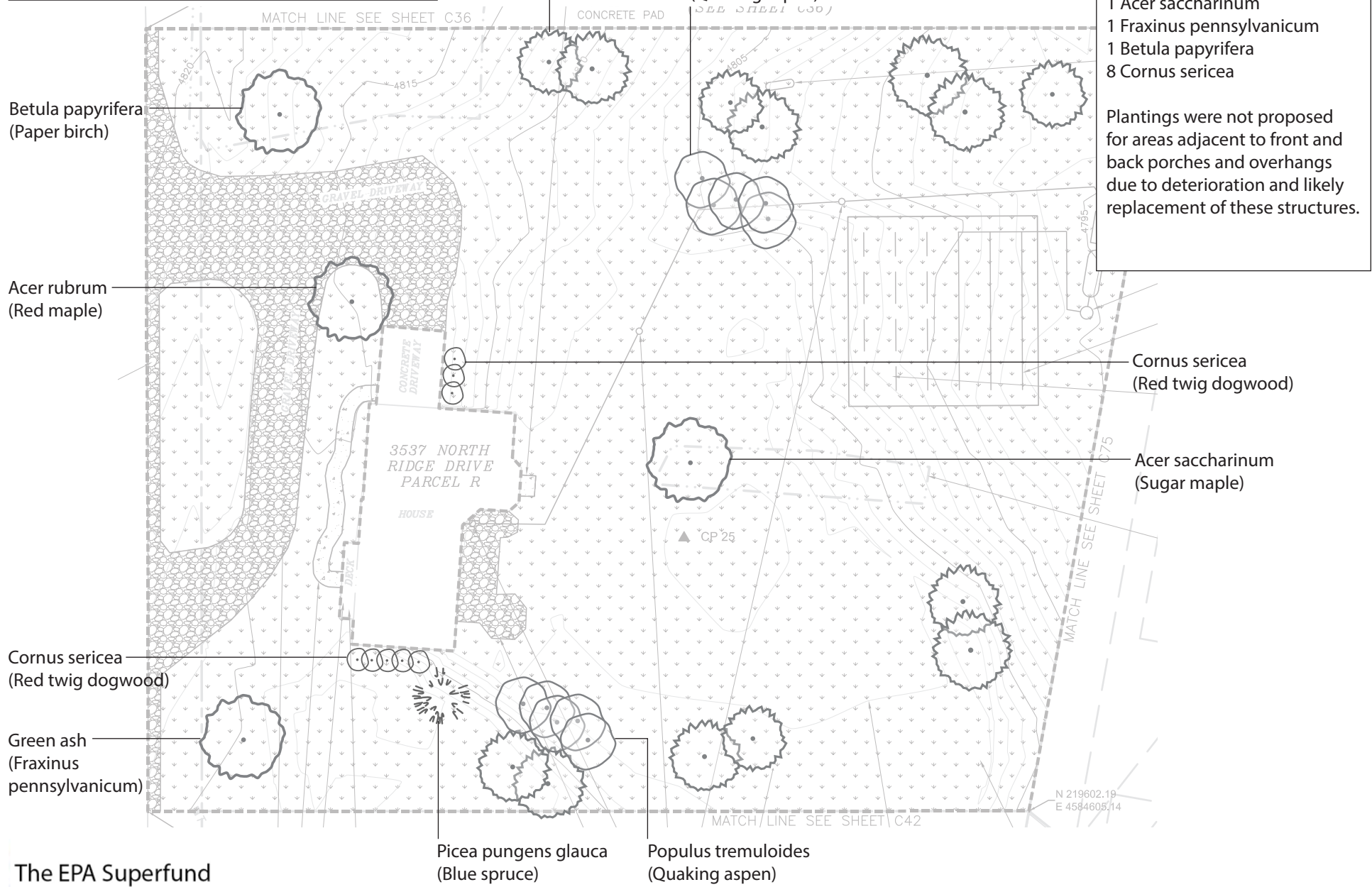


# North Ridge Estates | Klamath Falls, OR

Planting Concept Design DRAFT

Parcel R - reference 10/15 drawings sheet C39

January 4, 2016





**North Ridge Estates | Klamath Falls, OR**

Planting Concept Design DRAFT

Parcel S - reference 10/15 drawings sheet C3

January 4, 2016

- 16 Pinus ponderosa
- 3 Picea pungens
- 3 Populus tremuloides
- 1 Quercus rubra
- 1 Betula papyrifera
- 1 Prunus subcordata
- 6 Amelanchier alnifolia
- 5 Philadelphus lewisii

Plantings not proposed around house due to unfinished construction. Decks, porches and overhangs adjoining to house likely to be constructed following sale.

Philadelphus lewisii  
(Mock orange)

Quercus rubra  
(Northern red oak)

Amelanchier alnifolia  
(Serviceberry)

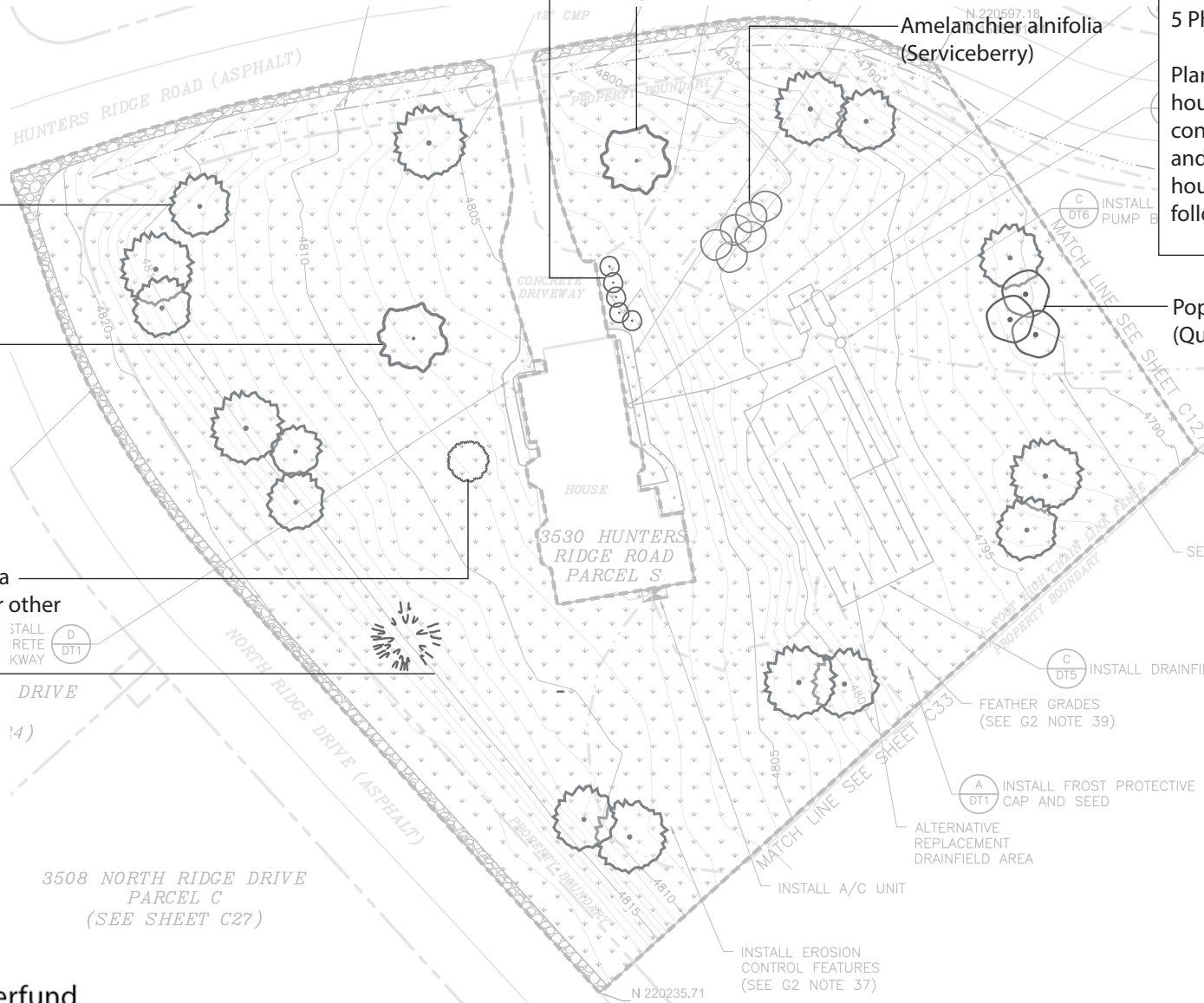
Pinus ponderosa  
(Ponderosa pine)

Betula papyrifera  
(Paper birch)

Prunus subcordata  
(Klamath plum) or other  
ornamental

Picea pungens  
(Spruce)

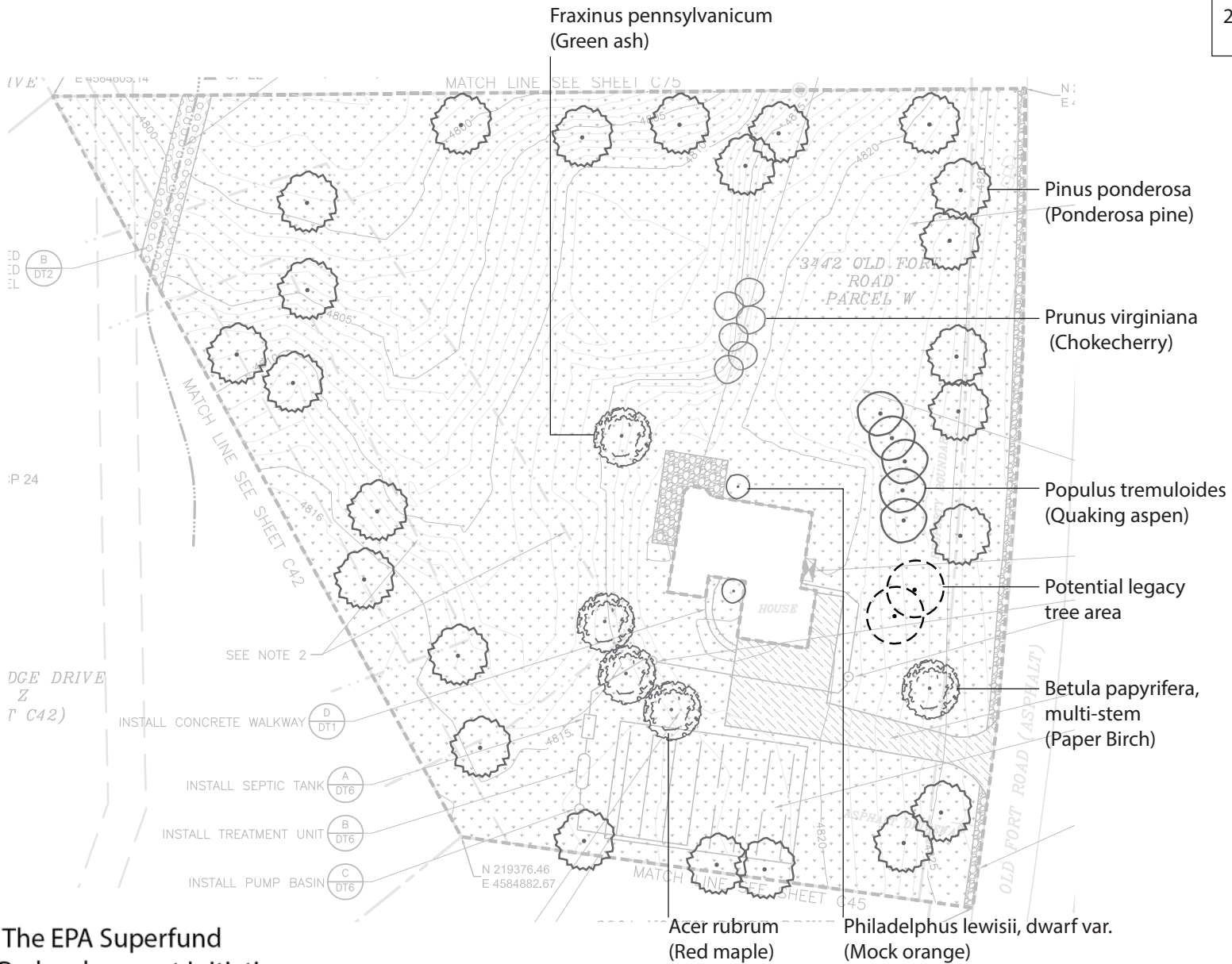
Populus tremuloides  
(Quaking aspen)



3508 NORTH RIDGE DRIVE  
PARCEL C  
(SEE SHEET C27)

**North Ridge Estates | Klamath Falls, OR**  
 Planting Concept Design DRAFT  
 Parcel W - reference 10/15 drawings sheet C69  
 January 19, 2016

- 24 *Pinus ponderosa*
- 5 *Populus tremuloides*
- 3 *Acer rubrum*
- 1 *Betula papyrifera*, multi-stem
- 1 *Fraxinus pennsylvanicum*
- 6 *Prunus virginiana*
- 2 *Philadelphus lewisii*, dwarf var.





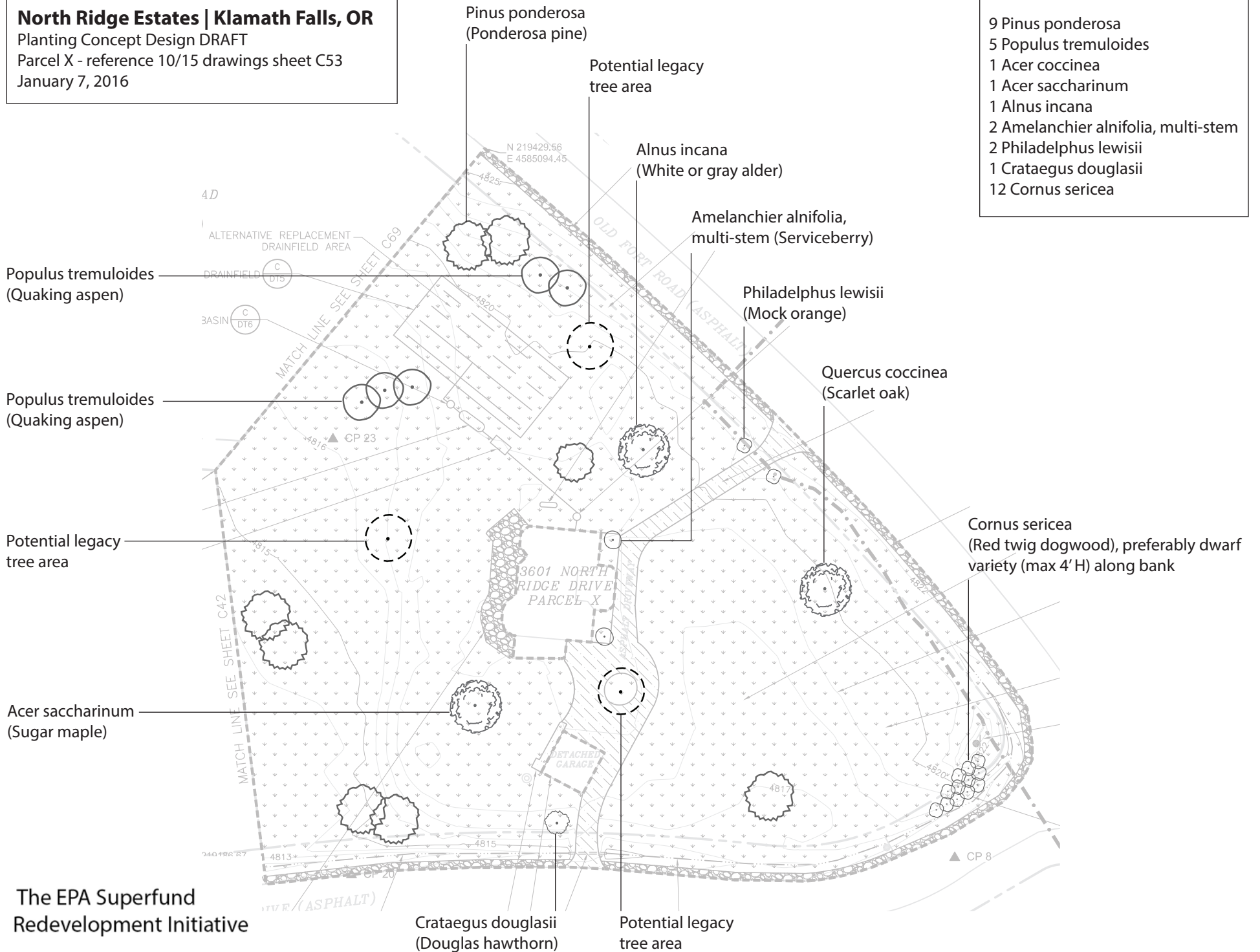
**North Ridge Estates | Klamath Falls, OR**

Planting Concept Design DRAFT

Parcel X - reference 10/15 drawings sheet C53

January 7, 2016

- 9 Pinus ponderosa
- 5 Populus tremuloides
- 1 Acer coccinea
- 1 Acer saccharinum
- 1 Alnus incana
- 2 Amelanchier alnifolia, multi-stem
- 2 Philadelphus lewisii
- 1 Crataegus douglasii
- 12 Cornus sericea



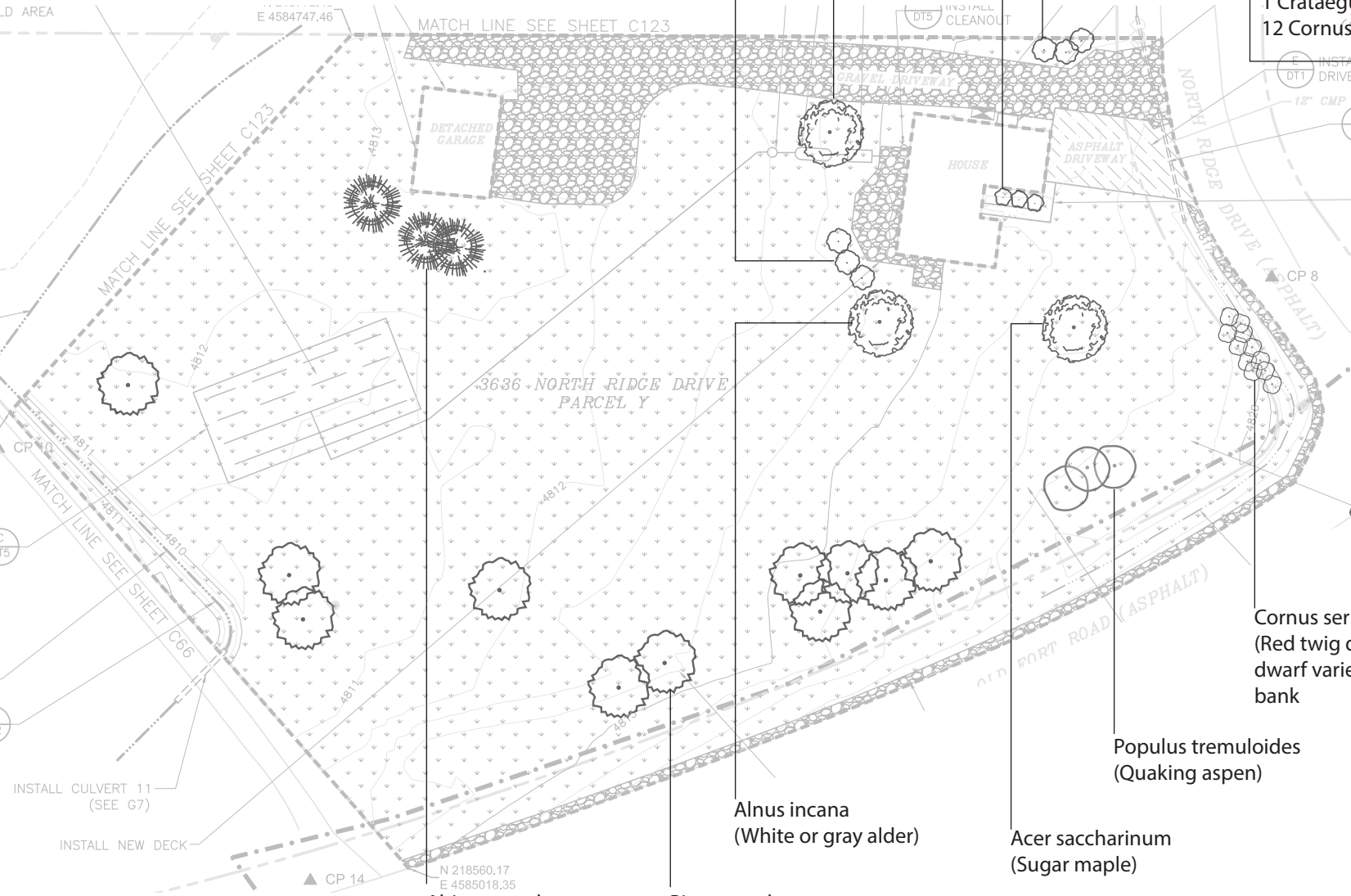
The EPA Superfund Redevelopment Initiative

**North Ridge Estates | Klamath Falls, OR**

Planting Concept Design DRAFT

Parcel Y - reference 10/15 drawings sheet C56

January 7, 2016



- 11 *Pinus ponderosa*
- 3 *Populus tremuloides*
- 1 *Acer rubrum*
- 1 *Acer saccharinum*
- 1 *Alnus incana*
- 6 *Lonicera involucrata*
- 3 *Philadelphus lewisii*, dwarf var.
- 1 *Crataegus douglasii*
- 12 *Cornus sericea*, dwarf var.

*Lonicera involucrata*  
(Twinberry)

*Philadelphus lewisii*,  
dwarf variety  
(Mock orange)

*Acer rubrum*  
(Red maple)

*Lonicera involucrata*  
(Twinberry)

*Cornus sericea*  
(Red twig dogwood), preferably  
dwarf variety (max 4' H) along  
bank

*Populus tremuloides*  
(Quaking aspen)

*Acer saccharinum*  
(Sugar maple)

*Alnus incana*  
(White or gray alder)

*Pinus ponderosa*  
(Ponderosa pine)

*Abies concolor*  
(White fir)



**North Ridge Estates | Klamath Falls, OR**

Planting Concept Design DRAFT

Parcel Z - reference 10/15 drawings sheet C42

January 4, 2016

- 13 *Pinus ponderosa*
- 2 *Picea pungens glauca*
- 10 *Populus tremuloides*
- 1 *Acer saccharinum*
- 1 *Betula papyrifera*
- 1 *Populus trichocarpa* or hybrid
- 1 *Crataegus douglasii*
- 5 *Prunus virginiana*
- 3 *Salix alba* 'Flame'
- 1 *Sambucus nigra*
- 1 *Philadelphus lewisii*
- 3 *Juniperis horizontalis*

Ornamental plantings proposed around front of house are based on existing landscape.

*Pinus ponderosa*  
(Ponderosa pine)

*Populus trichocarpa*  
(Black cottonwood)  
or hybrid poplar

*Salix alba* 'Flame'  
(Flame willow)

*Populus tremuloides*  
(Quaking aspen)

*Sambucus nigra*  
(Elderberry)

*Acer saccharinum*  
(Sugar maple)

*Picea pungens glauca*  
(Blue spruce)

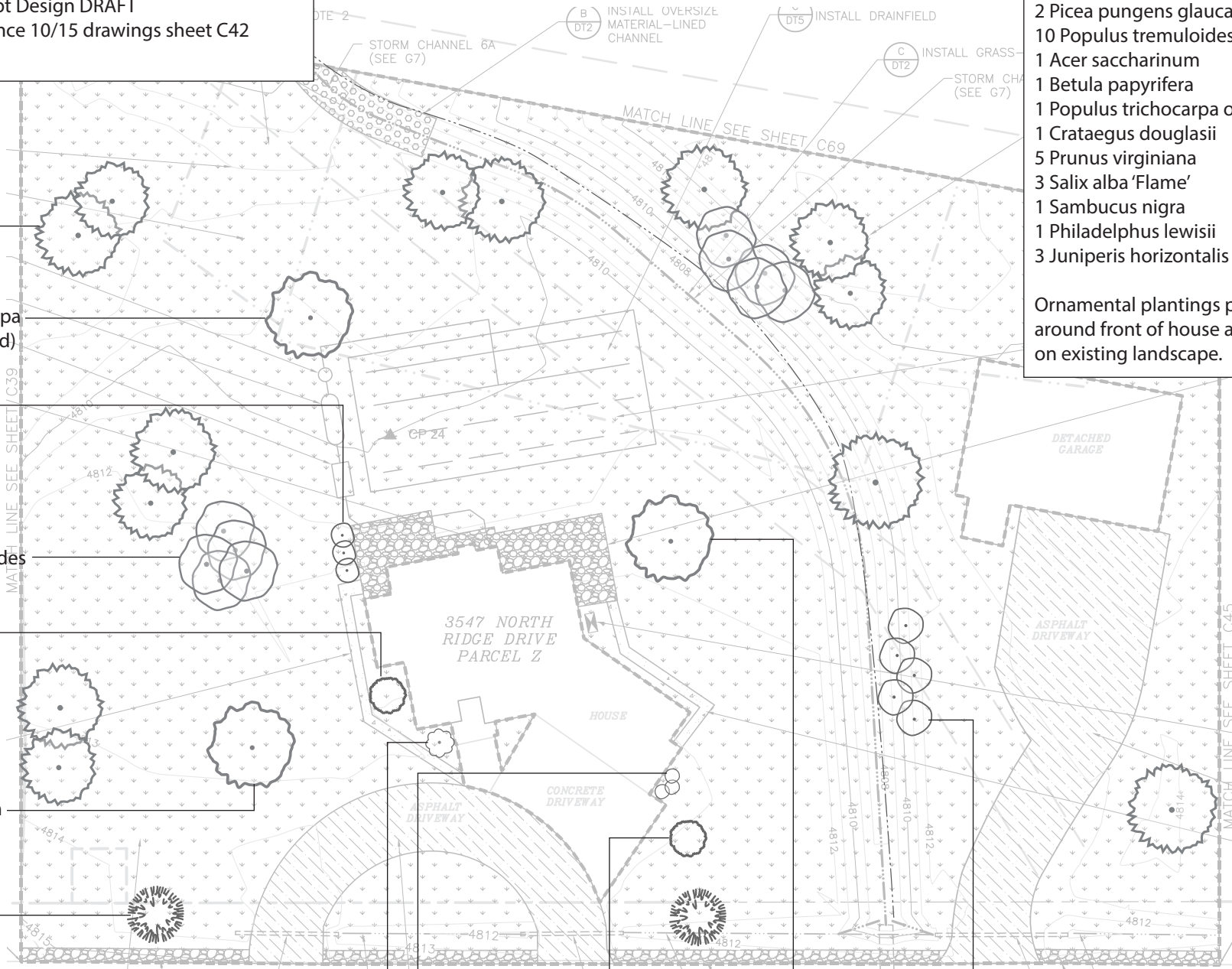
*Philadelphus lewisii*  
(Mock orange)

*Juniperis horizontalis*  
(Creeping juniper)

*Crataegus douglasii*  
(Douglas hawthorn)

*Betula papyrifera*  
(Paper birch)

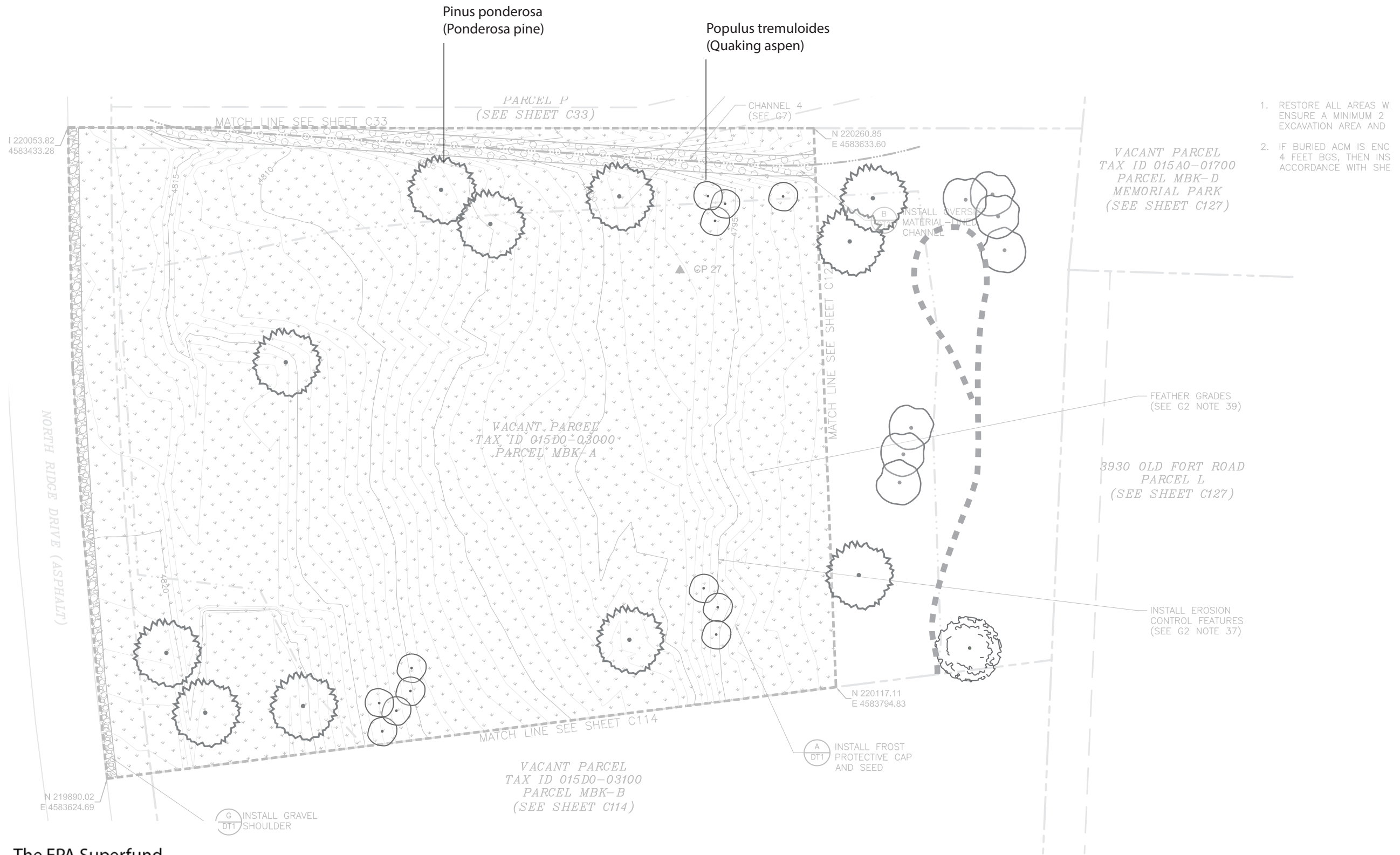
*Prunus virginiana*  
(Chokecherry)



**North Ridge Estates | Klamath Falls, OR**  
 Planting Concept Design DRAFT  
 MBK-A - reference 10/15 drawings sheet C111  
 January 26, 2016 10:27 AM

8 *Pinus ponderosa*  
 12 *Populus tremuloides*

Trees outside of match line  
 are included in Memorial Park  
 Repository concept plan.



1. RESTORE ALL AREAS W/ ENSURE A MINIMUM 2' EXCAVATION AREA AND
2. IF BURIED ACM IS ENC 4 FEET BGS, THEN INS ACCORDANCE WITH SHE



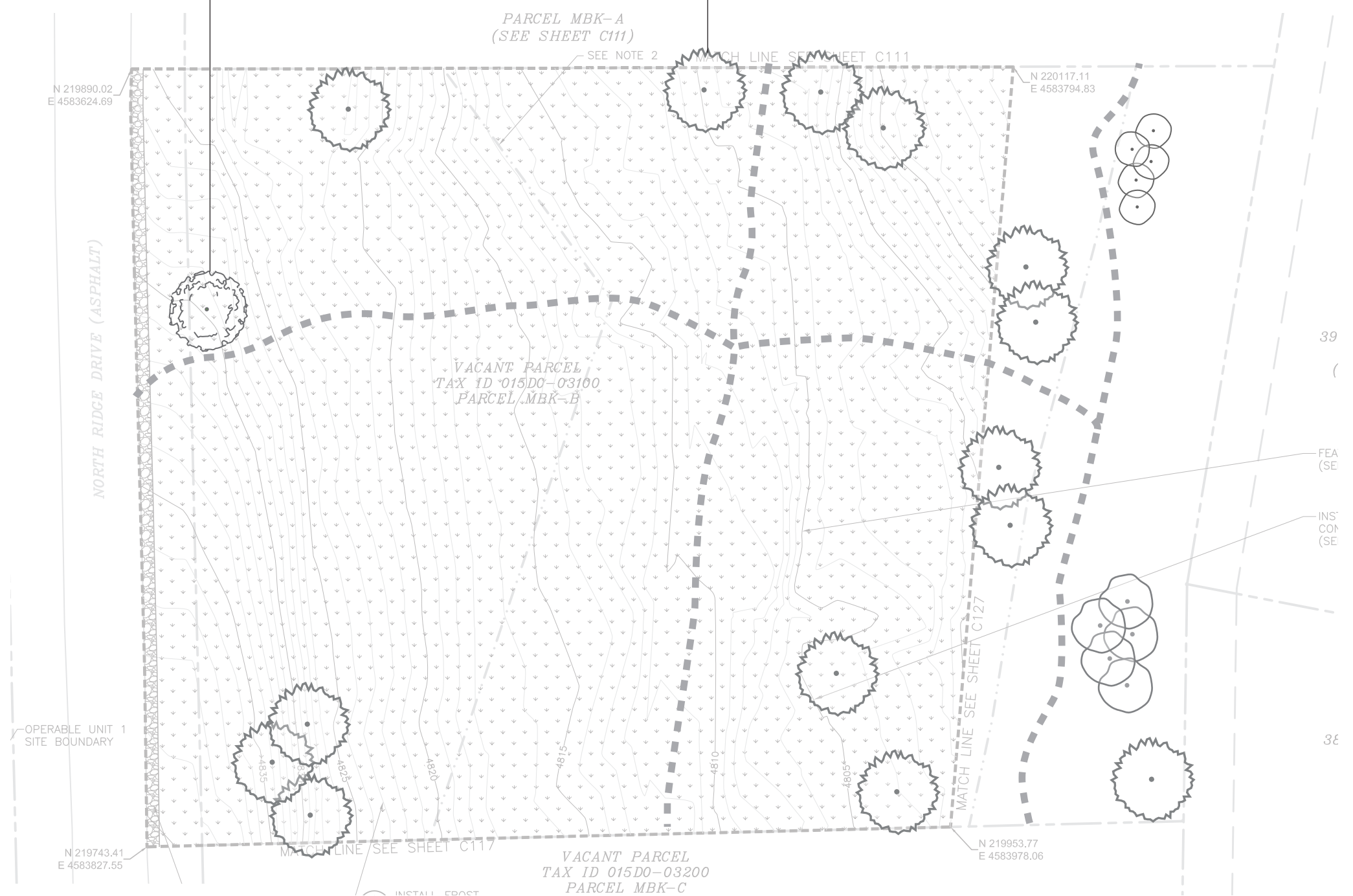
**North Ridge Estates | Klamath Falls, OR**  
 Planting Concept Design DRAFT  
 MBK-B - reference 10/15 drawings sheet C114  
 January 26, 2016 10:27 AM

9 *Pinus ponderosa*  
 1 *Fraxinus pennsylvanicum*

Trees outside of match line  
 are included in Memorial Park  
 Repository concept plan.

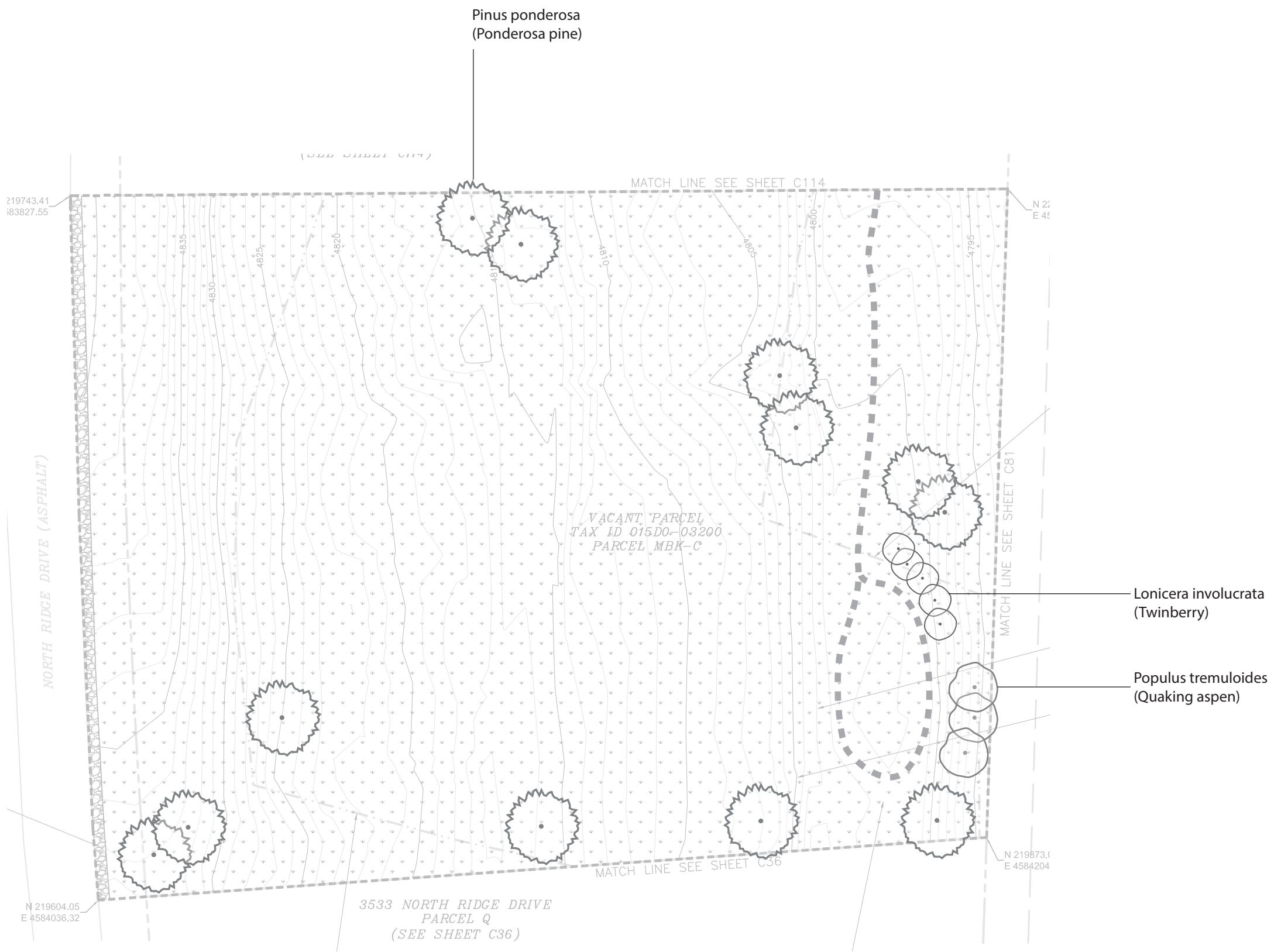
*Fraxinus pennsylvanicum*  
 (Green ash)

*Pinus ponderosa*  
 (Ponderosa pine)



**North Ridge Estates | Klamath Falls, OR**  
Planting Concept Design DRAFT  
MBK-C - reference 10/15 drawings sheet C117  
January 26, 2016 10:27 AM

12 *Pinus ponderosa*  
3 *Populus tremuloides*  
5 *Lonicera involucrata*





**North Ridge Estates | Klamath Falls, OR**  
 Planting Concept Design DRAFT  
 Memorial Park Repository - reference 10/15 drawings  
 sheet C127  
 January 26, 2016 10:00 AM

Amelanchier alnifolia, multi-stem  
 (Serviceberry)

Pinus ponderosa  
 (Ponderosa pine)

Cercocarpus montanus  
 (Mountain mahogany)

Picea pungens  
 (Blue spruce)

Populus tremuloides  
 (Quaking aspen)

25 Pinus ponderosa (excludes  
 ponderosas shaded in grade;  
 those are currently accounted  
 for in plans for Parcel P)  
 21 Populus tremuloides  
 1 Acer saccharinum  
 1 Acer rubrum  
 6 Betula papyrifera, multi-stem  
 12 Picea pungens  
 5 Cercocarpus montanus

Fenced park:  
 7 Amelanchier alnifolia, multi-  
 stem  
 12 Cornus sericea  
 4 Philadelphus lewisii  
 6 Prunus virginiana

Philadelphus lewisii  
 (Mock orange)

Prunus virginiana  
 (Chokecherry) or ornamental

Acer rubrum  
 (Red maple)

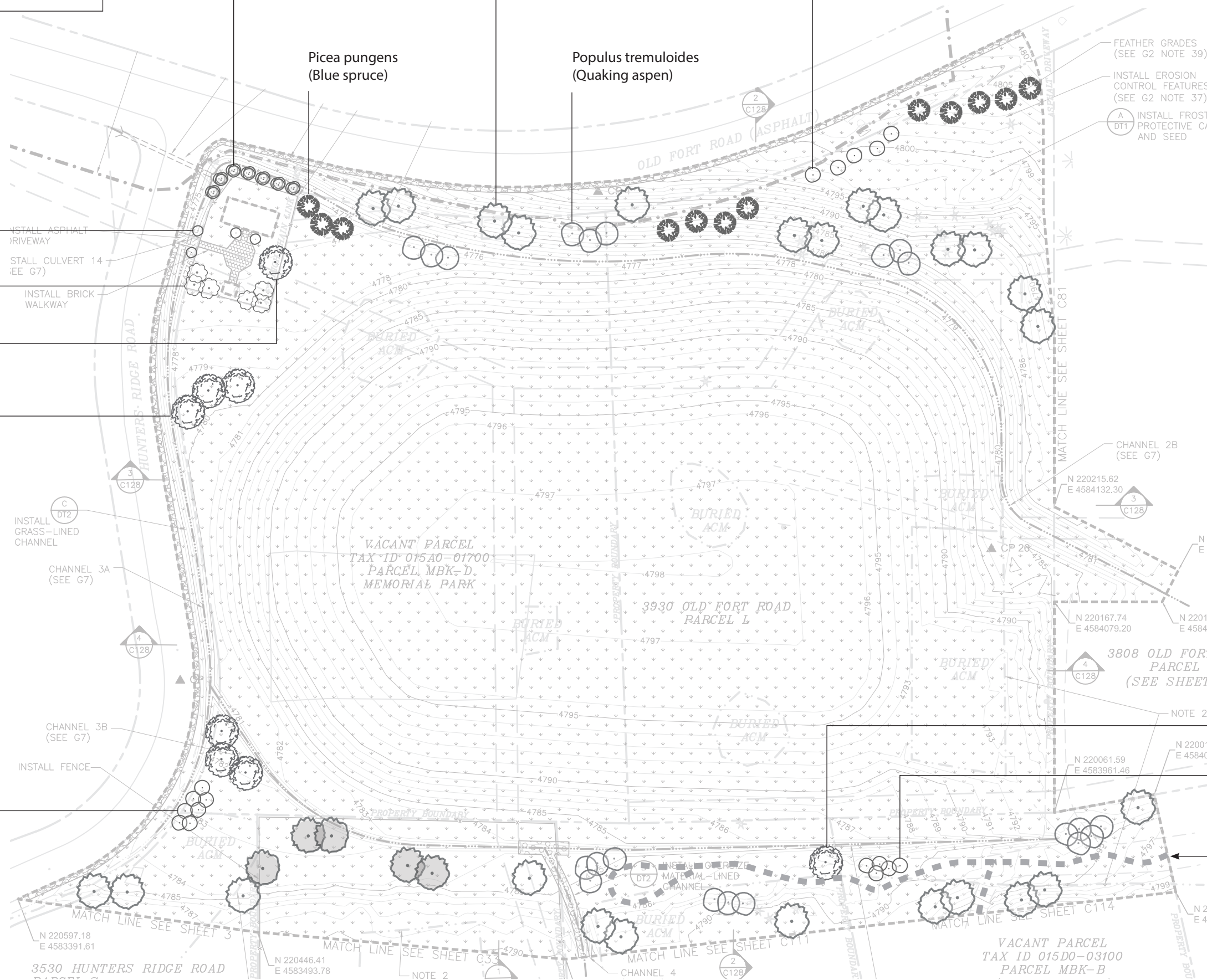
Betula papyrifera, multi-stem  
 (Paper Birch)

Cornus sericea  
 (Redosier dogwood)

Acer saccharinum  
 (Sugar maple)

Cornus sericea  
 (Redosier dogwood)

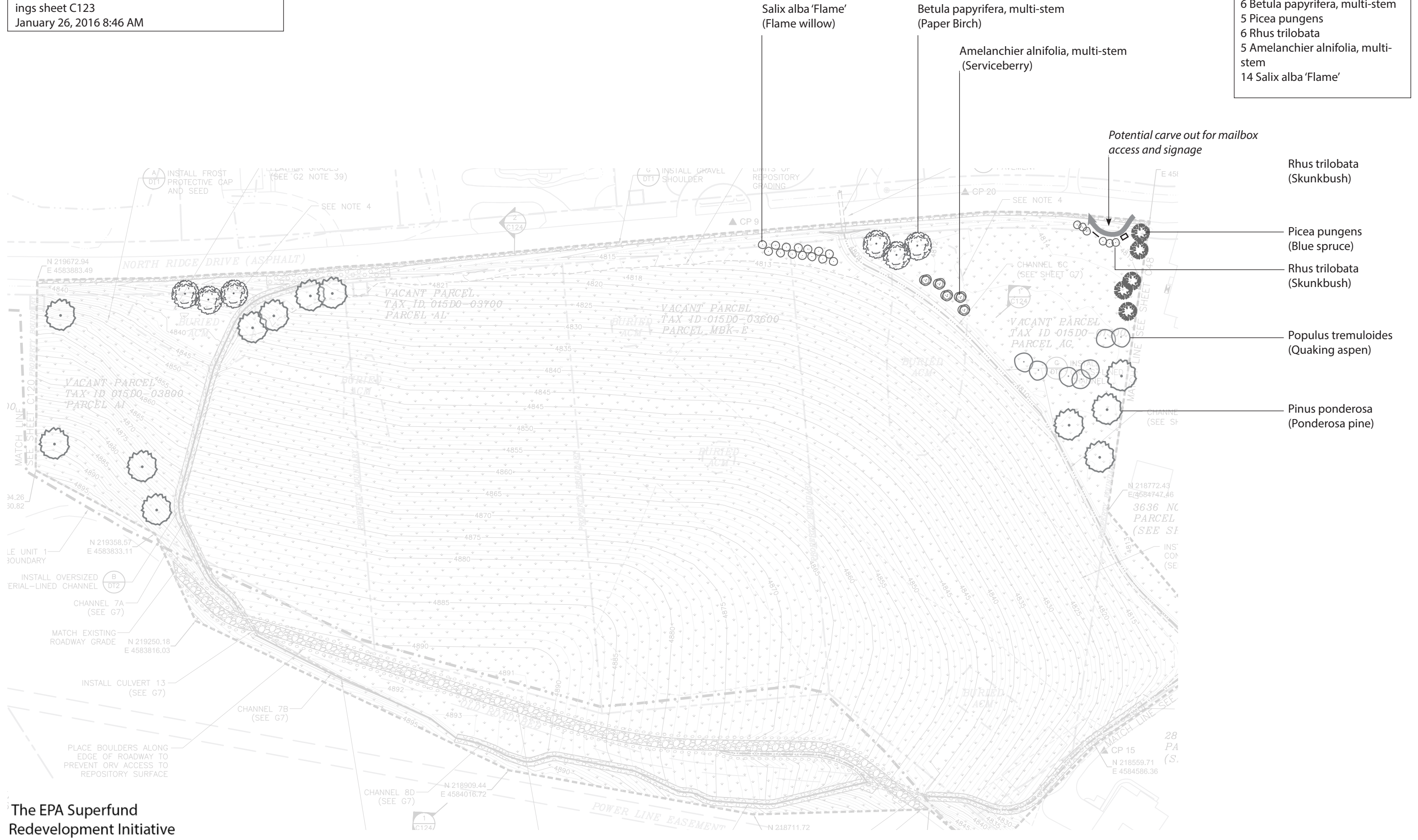
Potential mowed walking path along  
 former Barracks Road grade





**North Ridge Estates | Klamath Falls, OR**  
 Planting Concept Design DRAFT  
 Swimming Pool Repository - reference 10/15 drawings sheet C123  
 January 26, 2016 8:46 AM

- 12 Pinus ponderosa
- 7 Populus tremuloides
- 6 Betula papyrifera, multi-stem
- 5 Picea pungens
- 6 Rhus trilobata
- 5 Amelanchier alnifolia, multi-stem
- 14 Salix alba 'Flame'



Salix alba 'Flame'  
(Flame willow)

Betula papyrifera, multi-stem  
(Paper Birch)

Amelanchier alnifolia, multi-stem  
(Serviceberry)

Rhus trilobata  
(Skunkbush)

Picea pungens  
(Blue spruce)

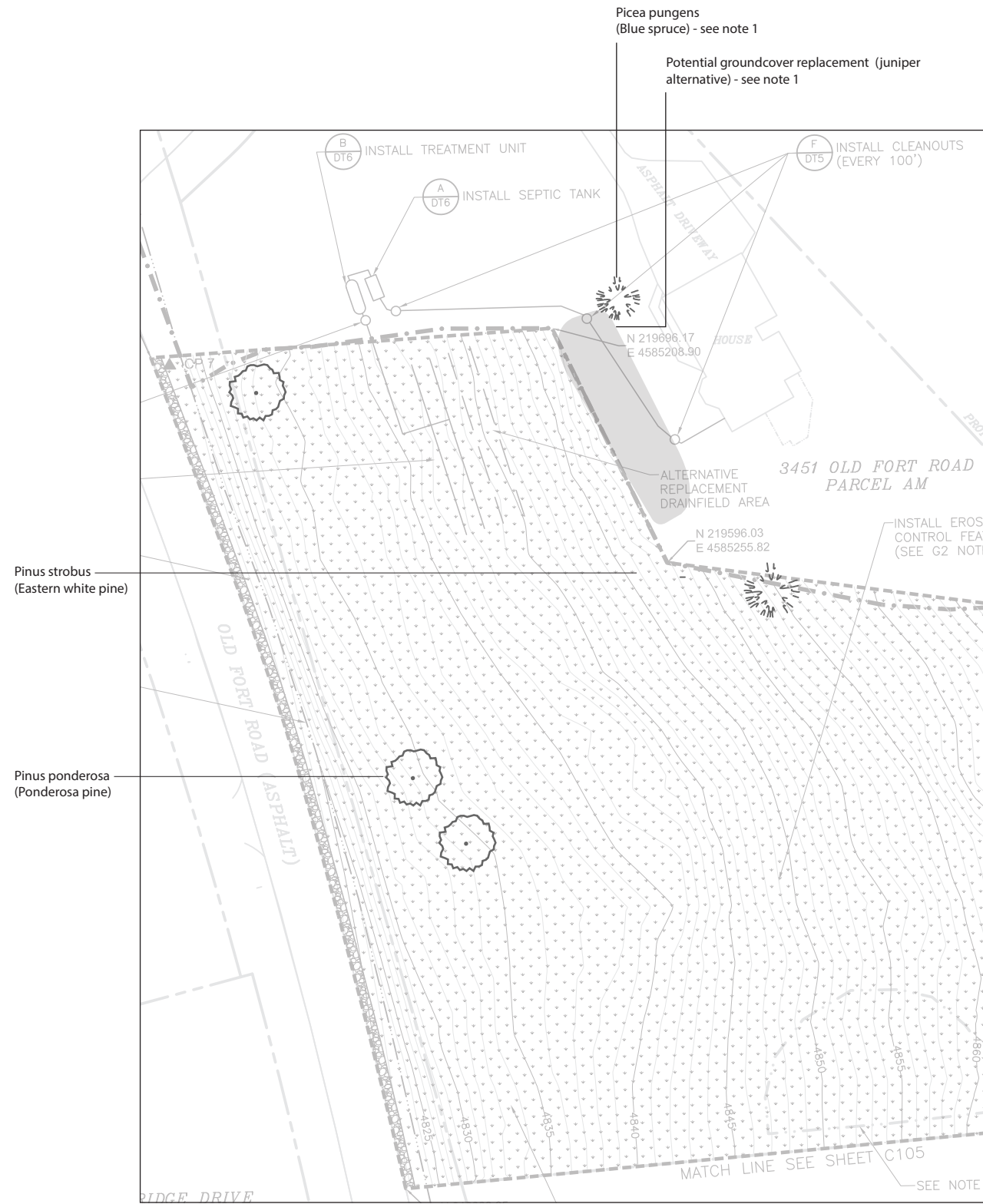
Rhus trilobata  
(Skunkbush)

Populus tremuloides  
(Quaking aspen)

Pinus ponderosa  
(Ponderosa pine)



**North Ridge Estates | Klamath Falls, OR**  
 Planting Concept Design DRAFT  
 Parcel AM - reference 10/15 drawings sheet C72  
 March 1, 2016



Pinus strobus  
(Eastern white pine)

Pinus ponderosa  
(Ponderosa pine)

Picea pungens  
(Blue spruce) - see note 1

Potential groundcover replacement (juniper alternative) - see note 1



- 3 Pinus ponderosa
- 3 Pinus strobus
- 1 Picea pungens (see note 1)
- Groundcover alternative (see note 1)

**Notes:**

1. Owner notes that the lines to new septic tank will be installed across established juniper planting that has drip irrigation. Roots and the irrigation tubing will be cut. Although this area is outside the contamination boundary, it will be part of the construction area.

If the construction destroys the planting, the owner requires consultation with the contractor to replace the juniper with a groundcover alternative. A portion of the value should be directed toward a Picea pungens (Blue spruce) to be planted in the area indicated on the plan. See plan and aerial reference. Consult with owner on these issues prior to construction.

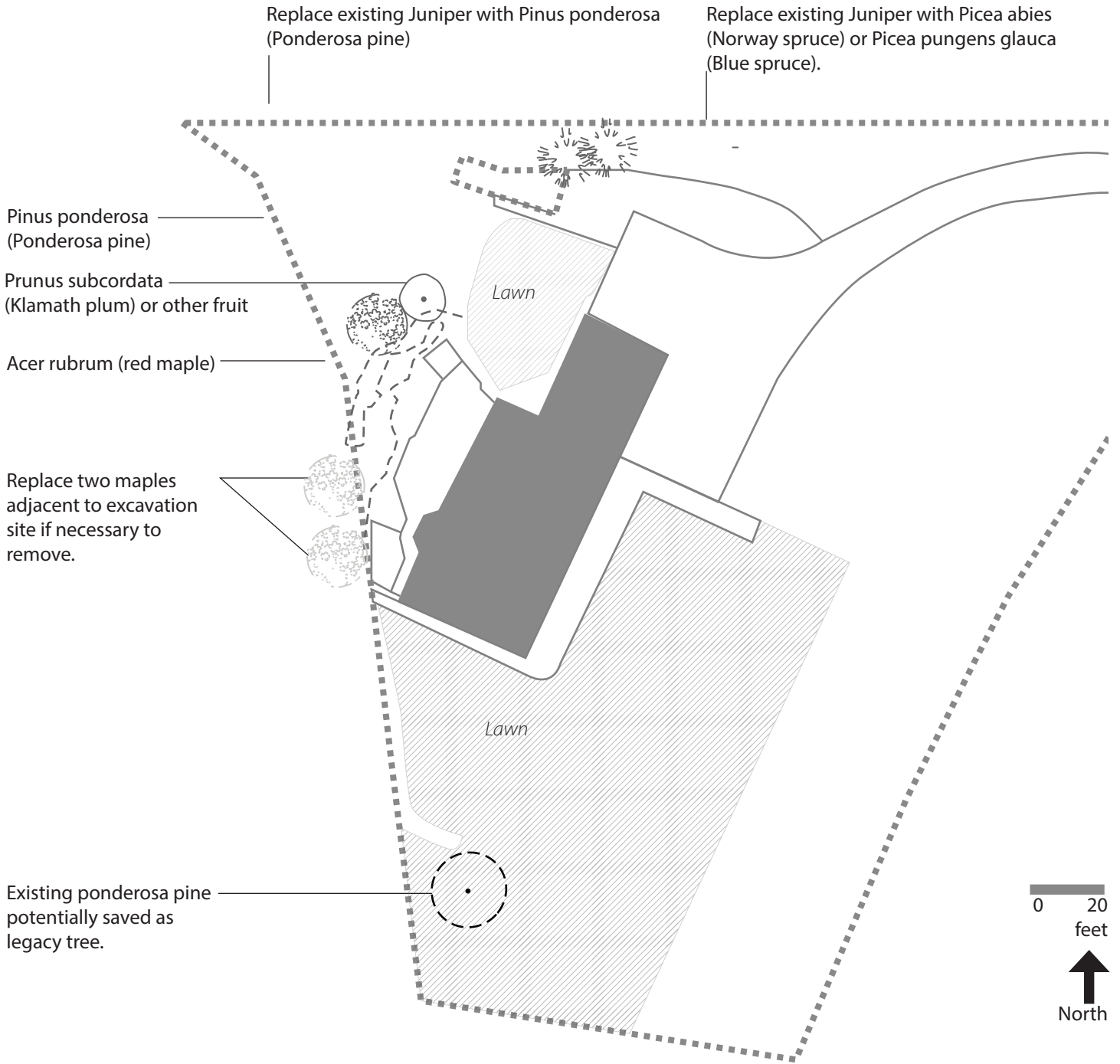
2. Owner notes that the treatment unit will require electricity. Tapping into the existing power unit at the home will require contractors to dig under maintained lawn, possibly destroying the lawn irrigation system. Owner suggests tapping into the power line along the road with a new meter. Consult with owner on these issues prior to construction.

# North Ridge Estates | Klamath Falls, OR

Planting Concept Design DRAFT

Parcel AQ

January 11, 2016



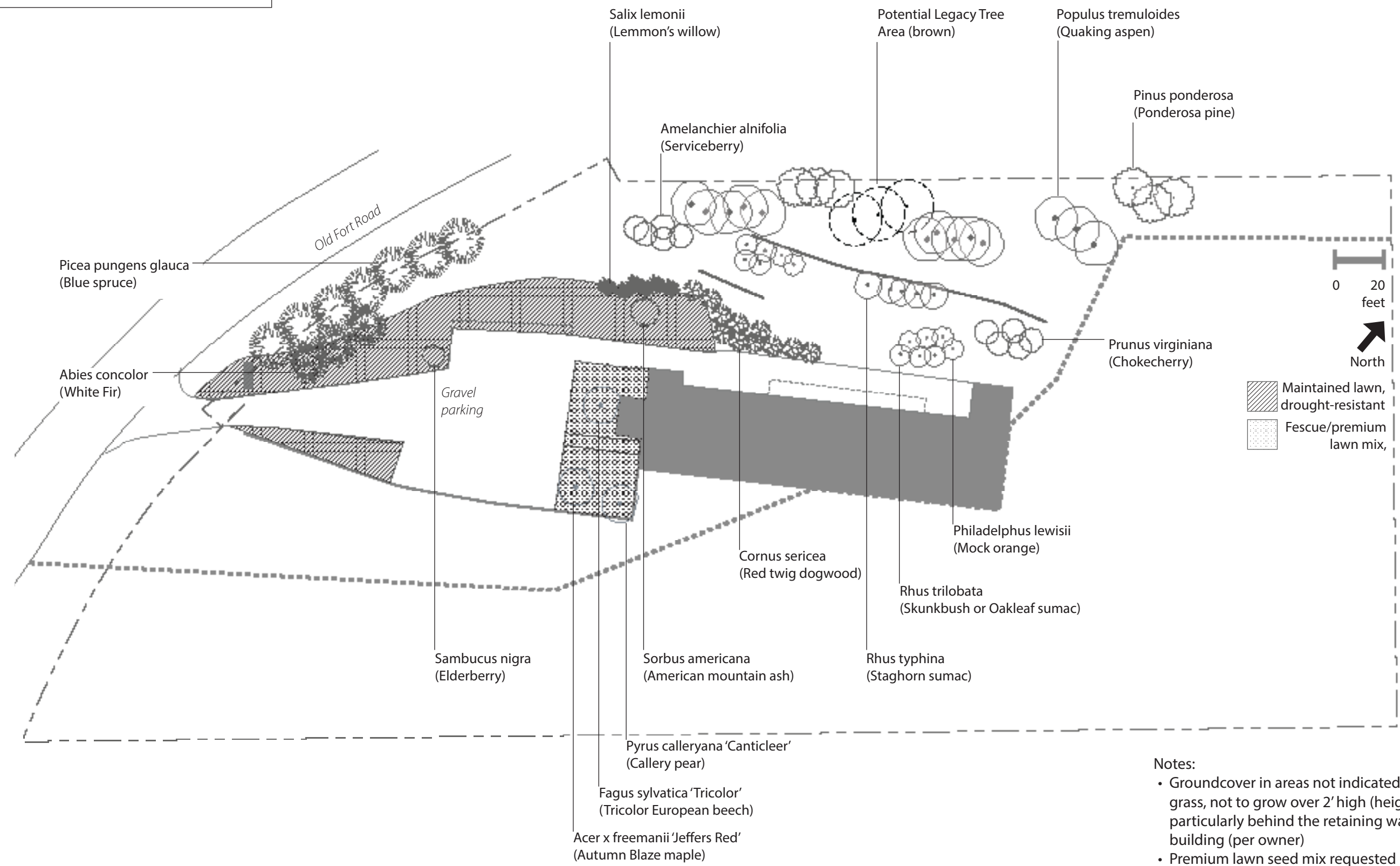
## Notes:

- For a deciduous tree alternative to Blue spruce on western side of house, recommend Quaking aspen.

The EPA Superfund  
Redevelopment Initiative



**North Ridge Estates | Klamath Falls, OR**  
 Planting Concept Design DRAFT  
 Parcel BM  
 December 15, 2015



- Notes:
- Groundcover in areas not indicated is low-growing bunch grass, not to grow over 2' high (height presents fire hazard), particularly behind the retaining wall and apartment building (per owner)
  - Premium lawn seed mix requested is "Rogue Klamath Basin Deluxe Lawn Seed" available at Grange Co-op (per owner)

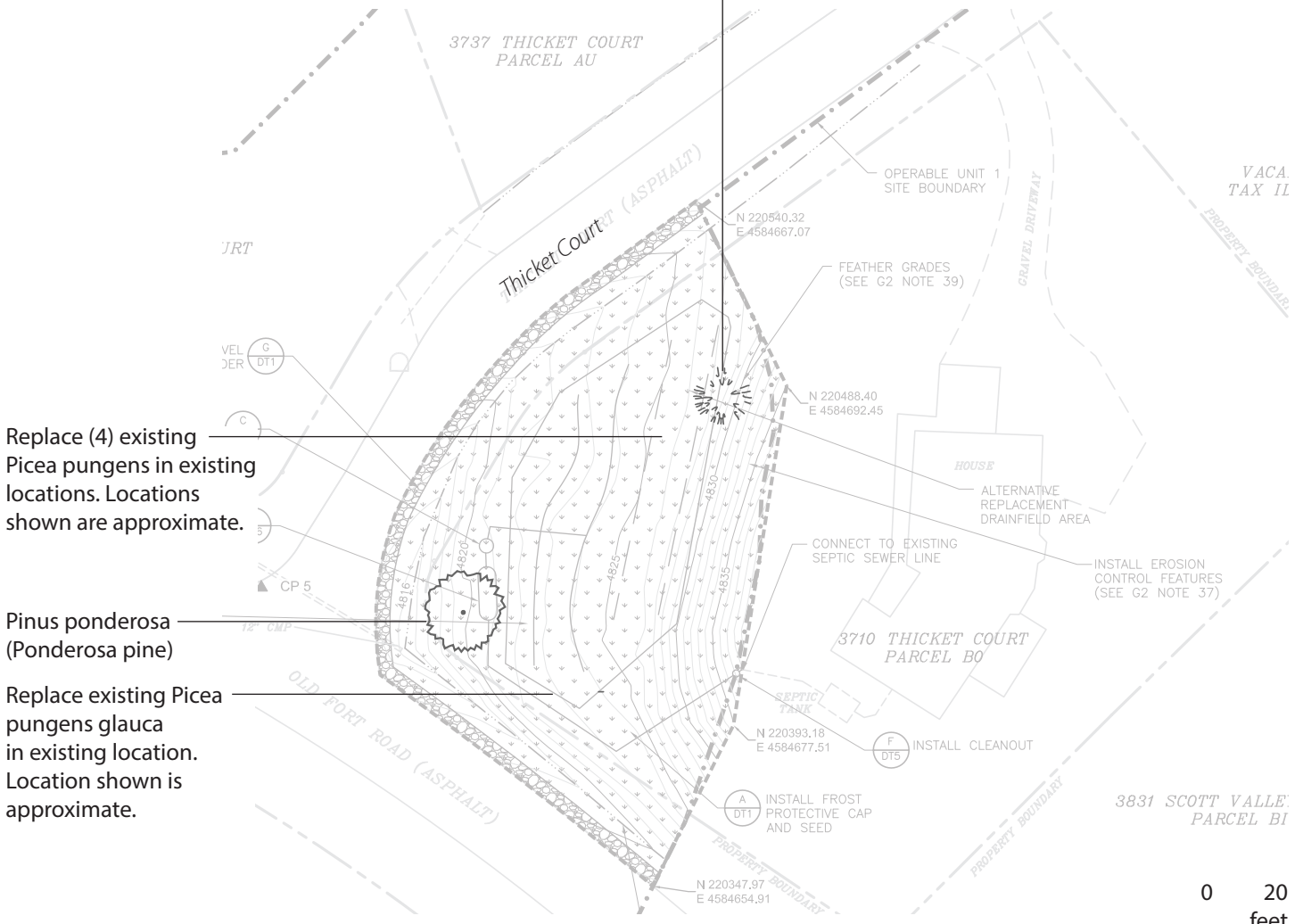
# North Ridge Estates | Klamath Falls, OR

Planting Concept Design DRAFT

Parcel BO

January 20, 2016

Replace existing Juniper with Picea (Spruce).



Replace (4) existing Picea pungens in existing locations. Locations shown are approximate.

Pinus ponderosa (Ponderosa pine)

Replace existing Picea pungens glauca in existing location. Location shown is approximate.



## Notes:

- Excavated area should be seeded with low-growing native grasses.
- Locations show are approximate, use existing tree locations as primary reference.



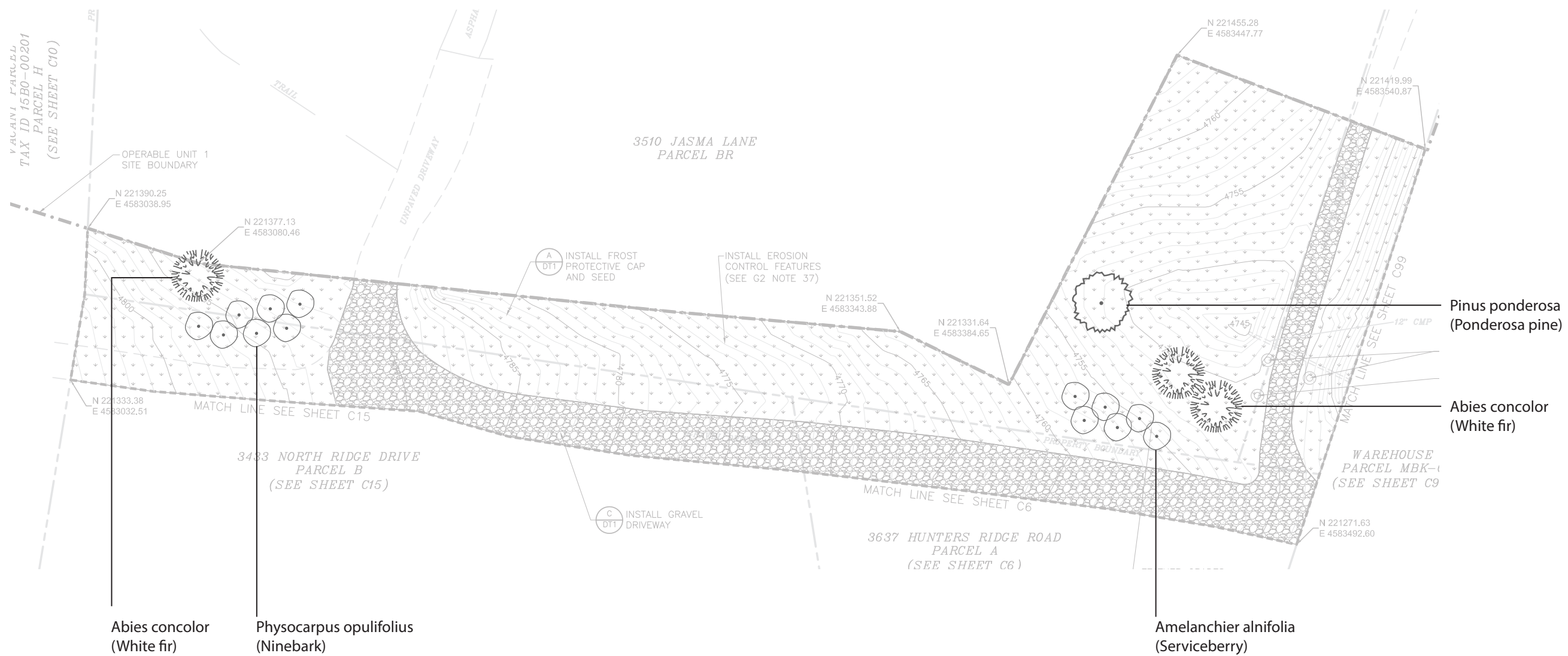
**North Ridge Estates | Klamath Falls, OR**

Planting Concept Design DRAFT

Parcel BR - reference 10/15 drawings sheet C9

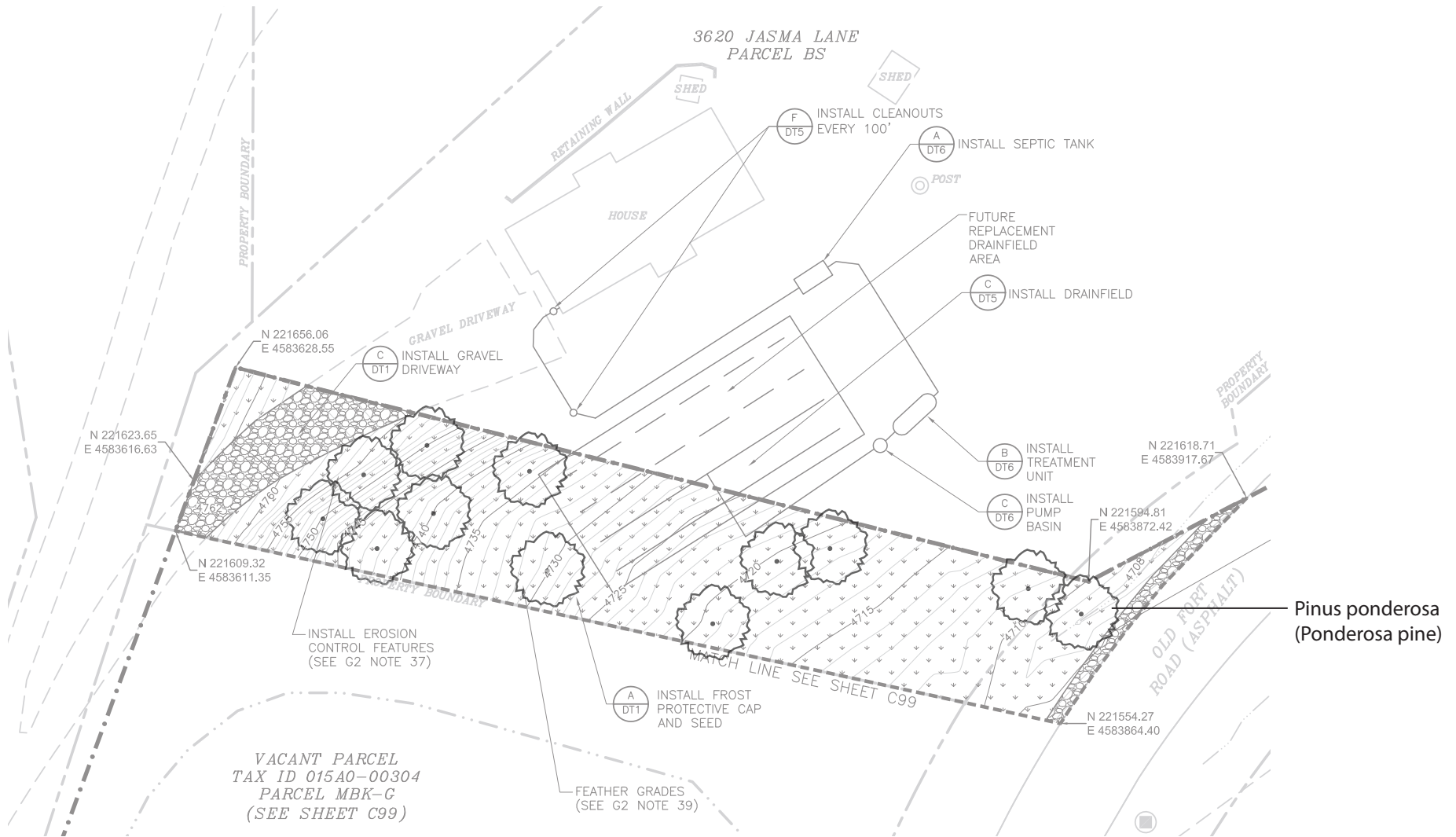
February 4, 2016

- 1 Pinus ponderosa
- 3 Abies concolor
- 6 Amelanchier alnifolia
- 7 Physocarpus opulifolius



**North Ridge Estates | Klamath Falls, OR**  
 Planting Concept Design DRAFT  
 Parcel BS - reference 10/15 drawings sheet C90  
 February 2, 2016

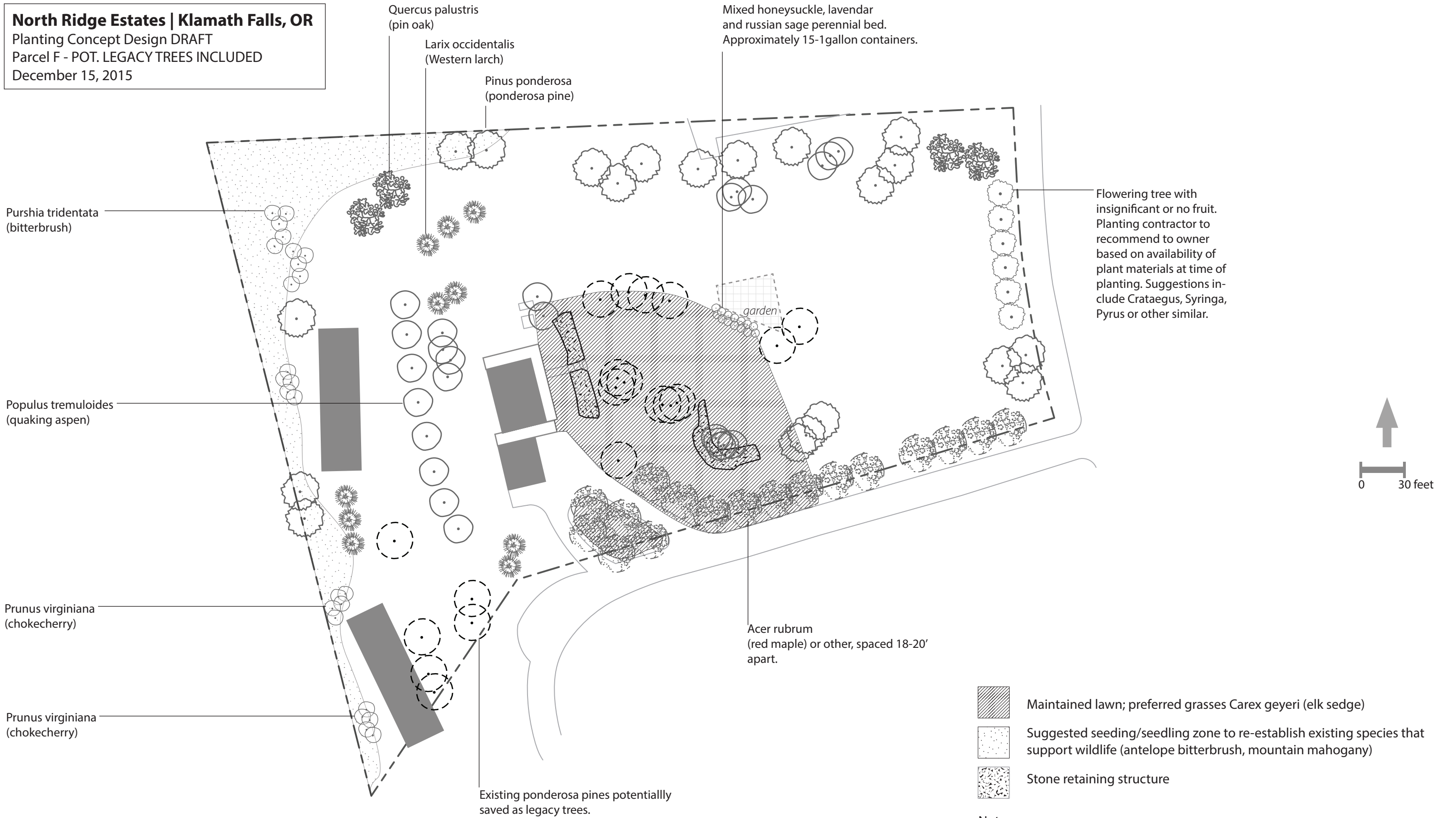
12 Pinus ponderosa



The EPA Superfund  
 Redevelopment Initiative



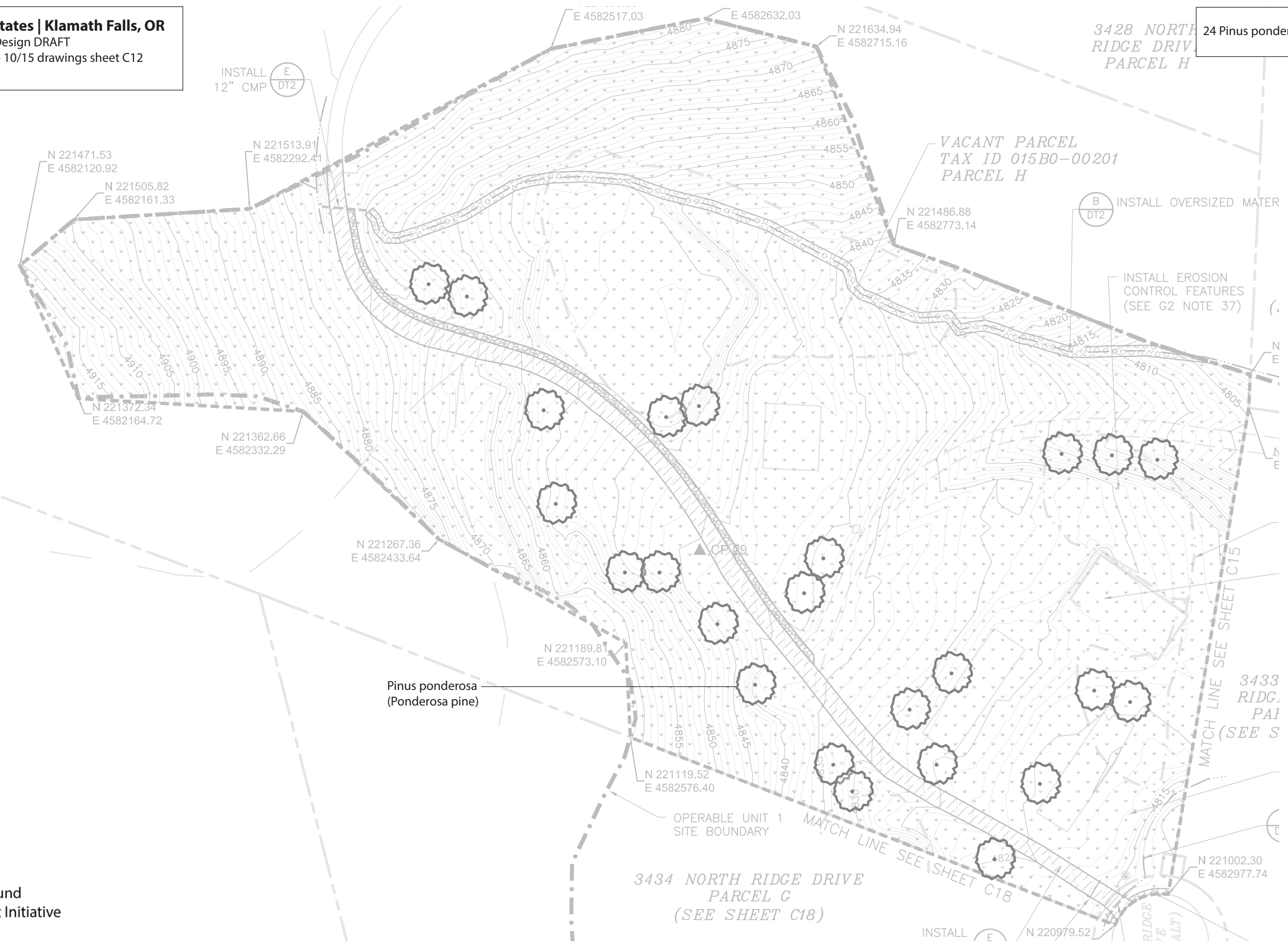
**North Ridge Estates | Klamath Falls, OR**  
 Planting Concept Design DRAFT  
 Parcel F - POT. LEGACY TREES INCLUDED  
 December 15, 2015



- Notes:
- Species are suggested based on existing plantings, site conditions and owner input.
  - Canopy spread shown at projected minimum range for mature growth.
  - Include owner while flagging tree and perennial locations prior to installation.

**North Ridge Estates | Klamath Falls, OR**  
Planting Concept Design DRAFT  
Parcel H - reference 10/15 drawings sheet C12  
February 4, 2016

24 Pinus ponderosa



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Redevelopment Initiative

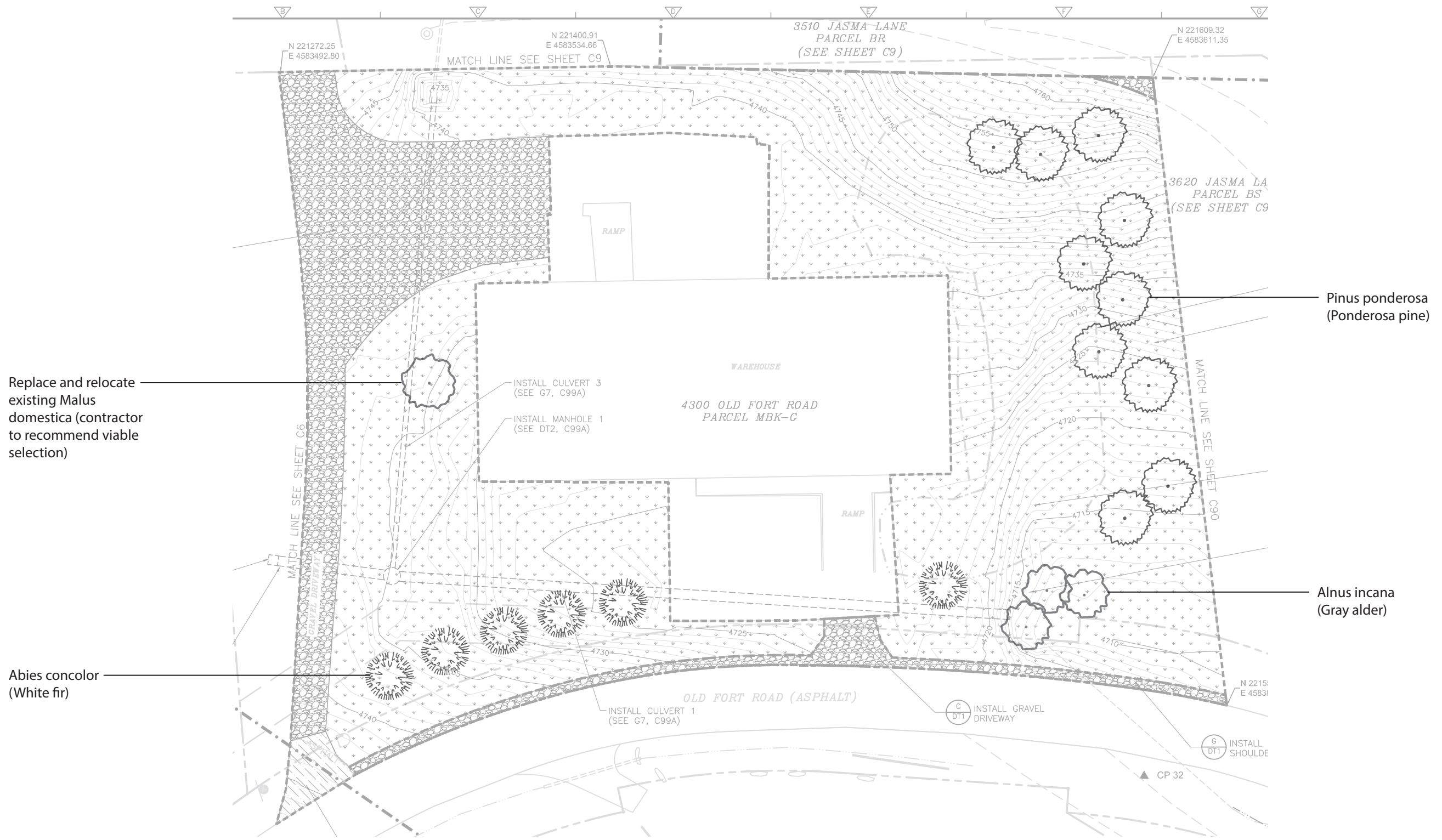
3434 NORTH RIDGE DRIVE  
PARCEL G  
(SEE SHEET C18)

3433  
RIDG.  
PAI  
(SEE S



**North Ridge Estates | Klamath Falls, OR**  
 Planting Concept Design DRAFT  
 Parcel MBK-G - reference 10/15 drawings sheet C99  
 February 4, 2016

10 *Pinus ponderosa*  
 6 *Abies concolor*  
 3 *Alnus incana*  
 1 *Malus domestica*



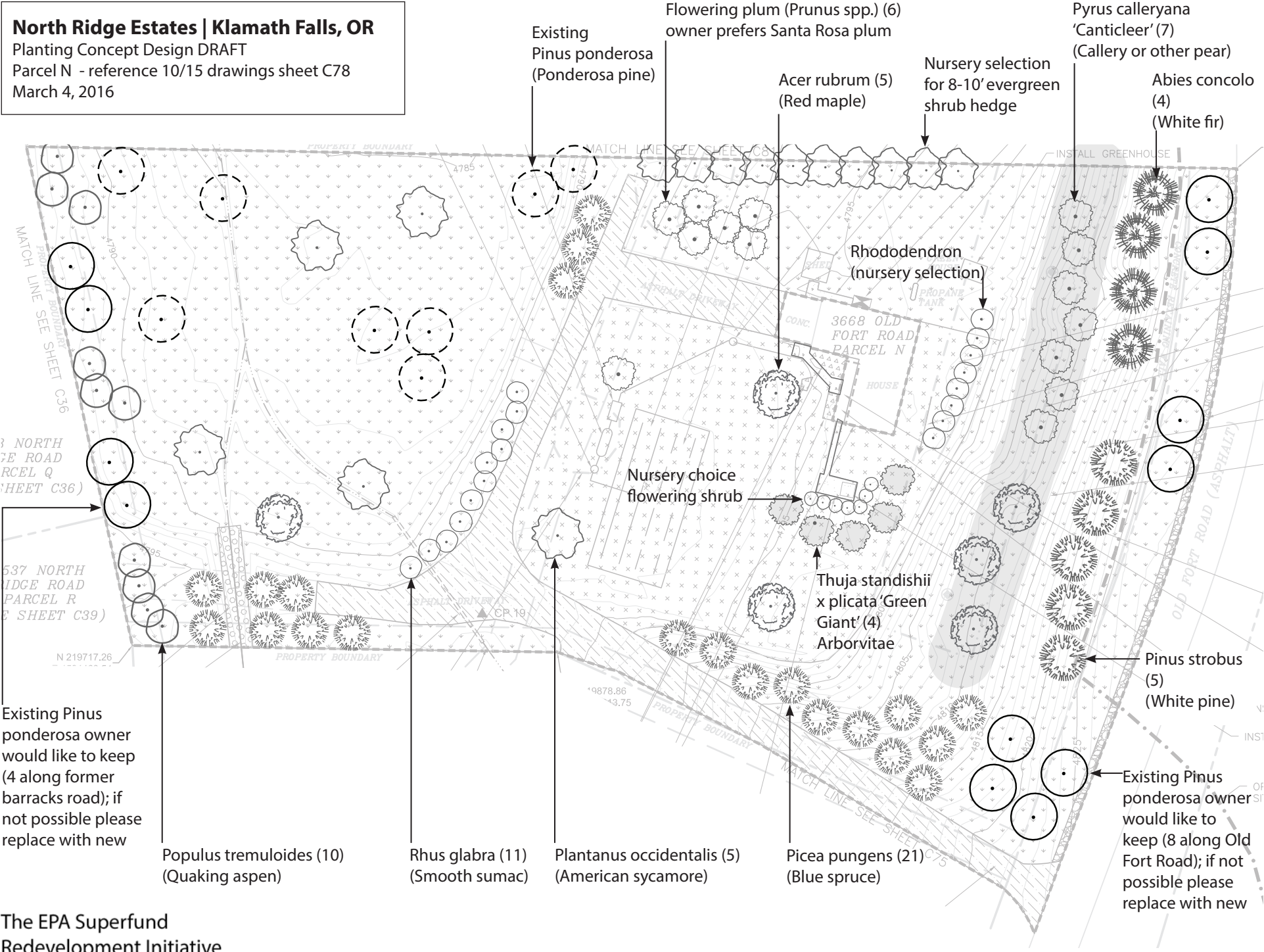
Replace and relocate existing *Malus domestica* (contractor to recommend viable selection)

*Abies concolor* (White fir)

*Pinus ponderosa* (Ponderosa pine)

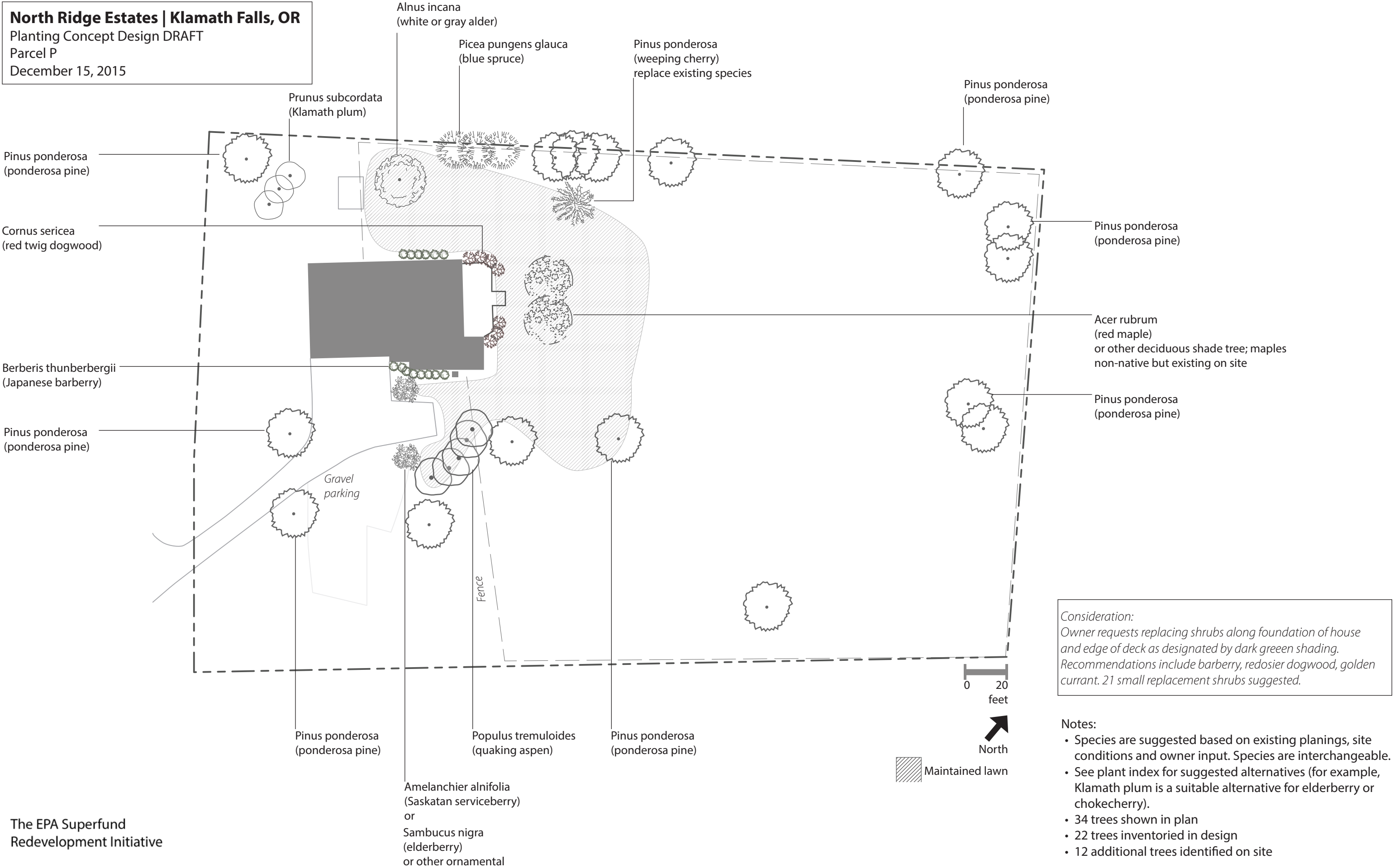
*Alnus incana* (Gray alder)

**North Ridge Estates | Klamath Falls, OR**  
 Planting Concept Design DRAFT  
 Parcel N - reference 10/15 drawings sheet C78  
 March 4, 2016





**North Ridge Estates | Klamath Falls, OR**  
 Planting Concept Design DRAFT  
 Parcel P  
 December 15, 2015



The EPA Superfund  
 Redevelopment Initiative

*Consideration:*  
 Owner requests replacing shrubs along foundation of house and edge of deck as designated by dark green shading. Recommendations include barberry, redosier dogwood, golden currant. 21 small replacement shrubs suggested.

- Notes:**
- Species are suggested based on existing plantings, site conditions and owner input. Species are interchangeable.
  - See plant index for suggested alternatives (for example, Klamath plum is a suitable alternative for elderberry or chokecherry).
  - 34 trees shown in plan
  - 22 trees inventoried in design
  - 12 additional trees identified on site