

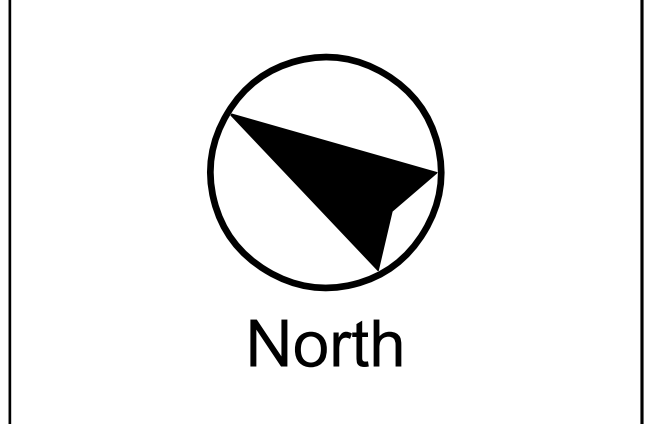
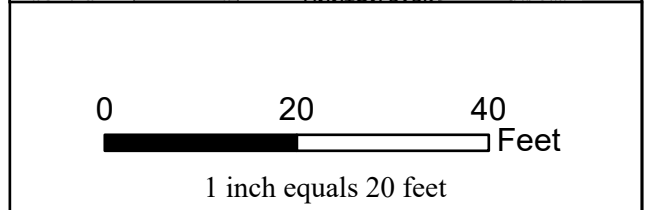
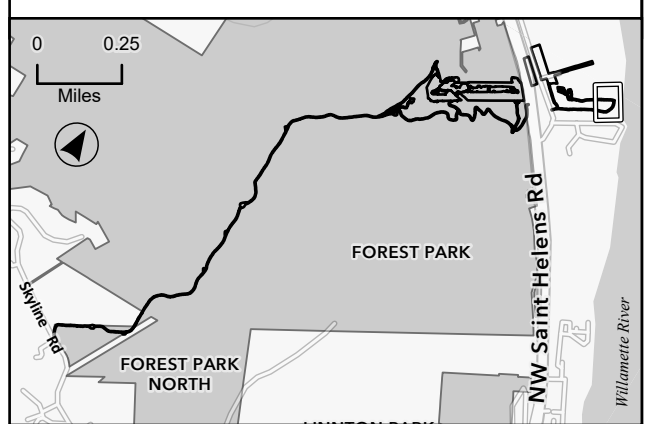


- Legend**
- Limits of Disturbance
  - Surveyed Tree Location**
  - Deciduous Tree (Living) to Be Protected
  - Deciduous Tree (Dead) to Be Protected
  - Deciduous Tree (Living) to Be Removed
  - Deciduous Tree (Dead) to Be Removed
  - Conifer (Living) to Be Protected
  - Conifer (Dead) to Be Protected
  - Conifer (Living) to Be Removed
  - Conifer (Dead) to Be Removed
  - Root Protection Zone
  - Existing Access Road Centerline
  - Proposed Temporary Access Road
  - Proposed Temporary Logging Haul Route
  - Proposed Temporary Circulation Route
  - Edge of Roadway/Access Road (approximate)
  - Trail
  - Wetland/Ordinary High Water (OHW)
  - Greenway Setback (50-ft)
  - Drainage Reserve Area
  - Drainage Flow Arrow
  - Culvert
  - 100-year Floodplain
  - Multnomah County Tax Lot
  - Zoning (City of Portland)
  - Environmental Transition Zone
  - Forest Park Boundary
  - Powerline Easement
  - Contour (5-foot intervals, vertical datum NAVD88)

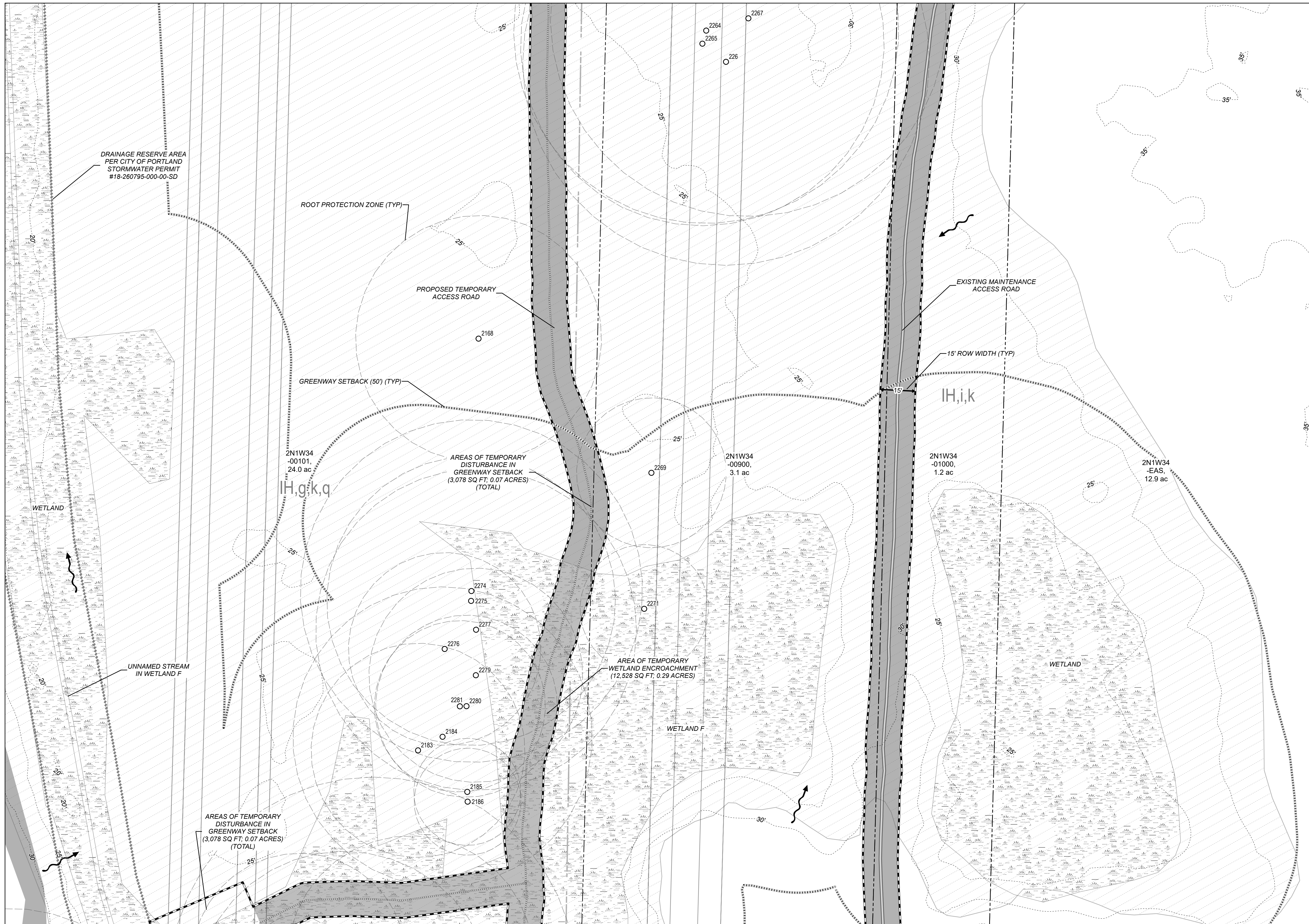
- Zoning (City of Portland):**
- RF = Farm and Forest
  - IH = Heavy Industrial
  - OS = Open Space
  - c = Environmental Conservation
  - d = Design
  - g = River General
  - i = River Industrial
  - k = Prime Industrial
  - p = Environmental Protection
  - q = Water Quality Resource Area
  - s = Scenic Resource

- Area of Temporary Wetland Encroachment:**  
Wetland F (Harborton S/S): 12,528 sq ft; 0.29 ac  
**Area of Temporary Disturbance in Greenway Setback:**  
3,078 sq ft; 0.07 ac  
**Area of Permanent Wetland Encroachment:**  
Wetland A (Forest Park): 1,074 sq ft; 0.02 ac  
Wetland B (Forest Park): 1,854 sq ft; 0.04 ac

- NOTES:**
1. Root protection zones for single-stem trees are calculated by DBH x 1-ft. Therefore, a 6-in DBH tree has a root protection zone of 6-ft in diameter. For multi-stemmed trees, see Mitigation Site Plan Details II, SHT. L325. Root protection zones are not shown for trees to be removed or dead trees.
  2. Vine Maples and all trees with a DBH less than 6-in are not shown on these plans.
  3. South of the Harborton Substation, only trees with RPZs which overlap with the Limits of Disturbance are shown on these plans; all surveyed trees are included in the Project Site area.
  4. See Construction Management Plan set for tree protection fencing.
  5. Tax lots which intersect the Limits of Disturbance are labeled with the Tax Lot ID # and acreage.



MATCHLINE SEE SHEET L102

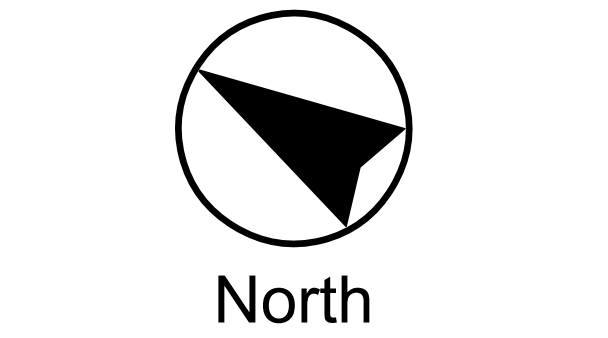
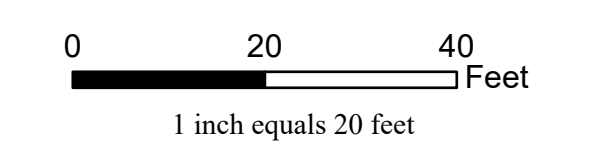


- Legend**
- Limits of Disturbance
  - Surveyed Tree Location**
  - Deciduous Tree (Living) to Be Protected
  - Deciduous Tree (Dead) to Be Protected
  - Deciduous Tree (Living) to Be Removed
  - Deciduous Tree (Dead) to Be Removed
  - Conifer (Living) to Be Protected
  - Conifer (Dead) to Be Protected
  - Conifer (Living) to Be Removed
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  - Root Protection Zone
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  - Proposed Temporary Access Road
  - Proposed Temporary Logging Haul Route
  - Proposed Temporary Circulation Route
  - Edge of Roadway/Access Road (approximate)
  - Trail
  - Wetland/Ordinary High Water (OHW)
  - Greenway Setback (50-ft)
  - Drainage Reserve Area
  - Drainage Flow Arrow
  - Culvert
  - 100-year Floodplain
  - Multnomah County Tax Lot
  - Zoning (City of Portland)
  - Environmental Transition Zone
  - Forest Park Boundary
  - Powerline Easement
  - Contour (5-foot intervals, vertical datum NAVD88)

- Zoning (City of Portland):**
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  - g = River General
  - i = River Industrial
  - k = Prime Industrial
  - p = Environmental Protection
  - q = Water Quality Resource Area
  - s = Scenic Resource

- Area of Temporary Wetland Encroachment:**  
Wetland F (Harborton S/S): 12,528 sq ft; 0.29 ac
- Area of Temporary Disturbance in Greenway Setback:**  
3,078 sq ft; 0.07 ac
- Area of Permanent Wetland Encroachment:**  
Wetland A (Forest Park): 1,074 sq ft; 0.02 ac  
Wetland B (Forest Park): 1,854 sq ft; 0.04 ac

- NOTES:**
1. Root protection zones for single-stem trees are calculated by DBH x 1-ft. Therefore, a 6-in DBH tree has a root protection zone of 6-ft in diameter. For multi-stemmed trees, see Mitigation Site Plan Details II, SHT. L325. Root protection zones are not shown for trees to be removed or dead trees.
  2. Vine Maples and all trees with a DBH less than 6-in are not shown on these plans.
  3. South of the Harborton Substation, only trees with RPPZs which overlap with the Limits of Disturbance are shown on these plans; all surveyed trees are included in the Project Site area.
  4. See Construction Management Plan set for tree protection fencing.
  5. Tax lots which intersect the Limits of Disturbance are labeled with the Tax Lot ID # and acreage.





Legend

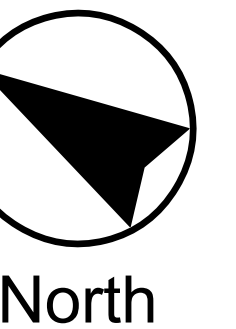
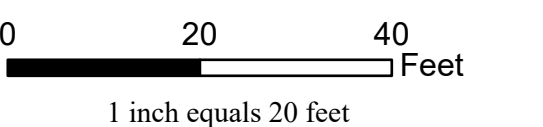
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- Surveyed Tree Location
  - Deciduous Tree (Living) to Be Protected
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  - Deciduous Tree (Living) to Be Removed
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  - Conifer (Dead) to Be Protected
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- Contour (5-foot intervals, vertical datum NAVD88)

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- p = Environmental Protection
- q = Water Quality Resource Area
- s = Scenic Resource

- Area of Temporary Wetland Encroachment: Wetland F (Harborton S/S): 12,528 sq ft; 0.29 ac
- Area of Temporary Disturbance in Greenway Setback: 3,078 sq ft; 0.07 ac
- Area of Permanent Wetland Encroachment: Wetland A (Forest Park): 1,074 sq ft; 0.02 ac
- Wetland B (Forest Park): 1,854 sq ft; 0.04 ac

- NOTES:
1. Root protection zones for single-stem trees are calculated by DBH x 1-ft. Therefore, a 6-in DBH tree has a root protection zone of 6-ft in diameter. For multi-stemmed trees, see Mitigation Site Plan Details II, SHT. L325. Root protection zones are not shown for trees to be removed or dead trees.
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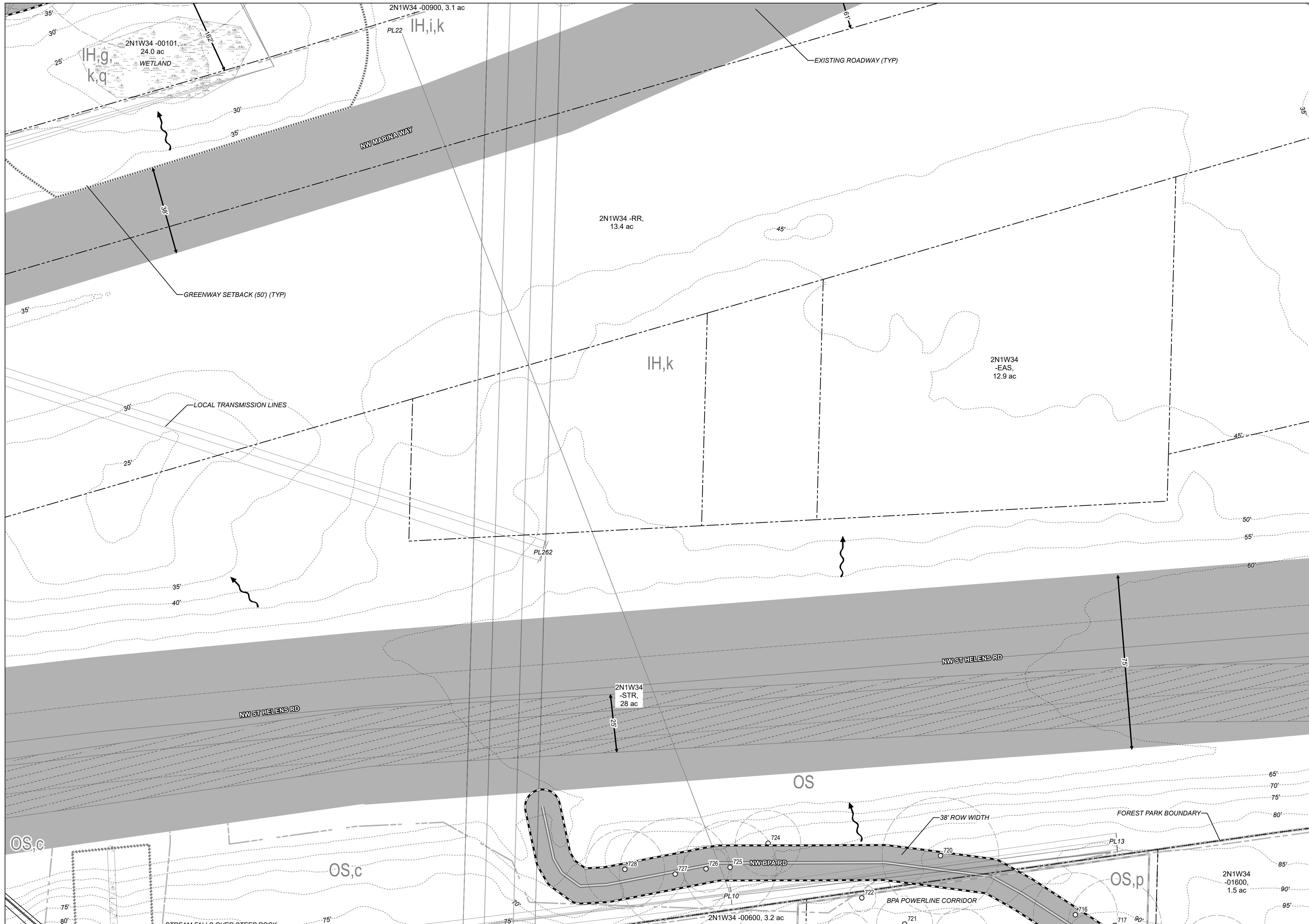


MATCHLINE SEE SHEET L102

MATCHLINE SEE SHEET L104



MATCHLINE SEE SHEET L105



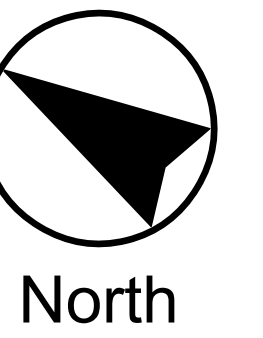
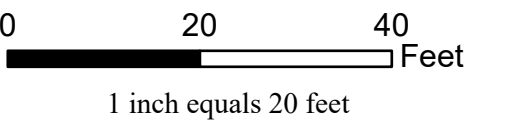
- Legend**
- Limits of Disturbance
  - Surveyed Tree Location**
  - Deciduous Tree (Living) to Be Protected
  - Deciduous Tree (Dead) to Be Protected
  - Deciduous Tree (Living) to Be Removed
  - Deciduous Tree (Dead) to Be Removed
  - Conifer (Living) to Be Protected
  - Conifer (Dead) to Be Protected
  - Conifer (Living) to Be Removed
  - Conifer (Dead) to Be Removed
  - Root Protection Zone
  - Existing Access Road Centerline
  - Proposed Temporary Access Road
  - Proposed Temporary Logging Haul Route
  - Proposed Temporary Circulation Route
  - Edge of Roadway/Access Road (approximate)
  - Trail
  - Wetland/Ordinary High Water (OHW)
  - Greenway Setback (50-ft)
  - Drainage Reserve Area
  - Drainage Flow Arrow
  - Culvert
  - 100-year Floodplain
  - Multnomah County Tax Lot
  - Zoning (City of Portland)
  - Environmental Transition Zone
  - Forest Park Boundary
  - Powerline Easement
  - Contour (5-foot intervals, vertical datum NAVD88)
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  - p = Environmental Protection
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**Area of Temporary Wetland Encroachment:**  
Wetland F (Harborton S/S): 12,528 sq ft; 0.29 ac

**Area of Temporary Disturbance in Greenway Setback:**  
3,078 sq ft; 0.07 ac

**Area of Permanent Wetland Encroachment:**  
Wetland A (Forest Park): 1,074 sq ft; 0.02 ac  
Wetland B (Forest Park): 1,854 sq ft; 0.04 ac

- NOTES:**
1. Root protection zones for single-stem trees are calculated by DBH x 1-ft. Therefore, a 6-in DBH tree has a root protection zone of 6-ft in diameter. For multi-stemmed trees, see Mitigation Site Plan Details II, SHT. L325. Root protection zones are not shown for trees to be removed or dead trees.
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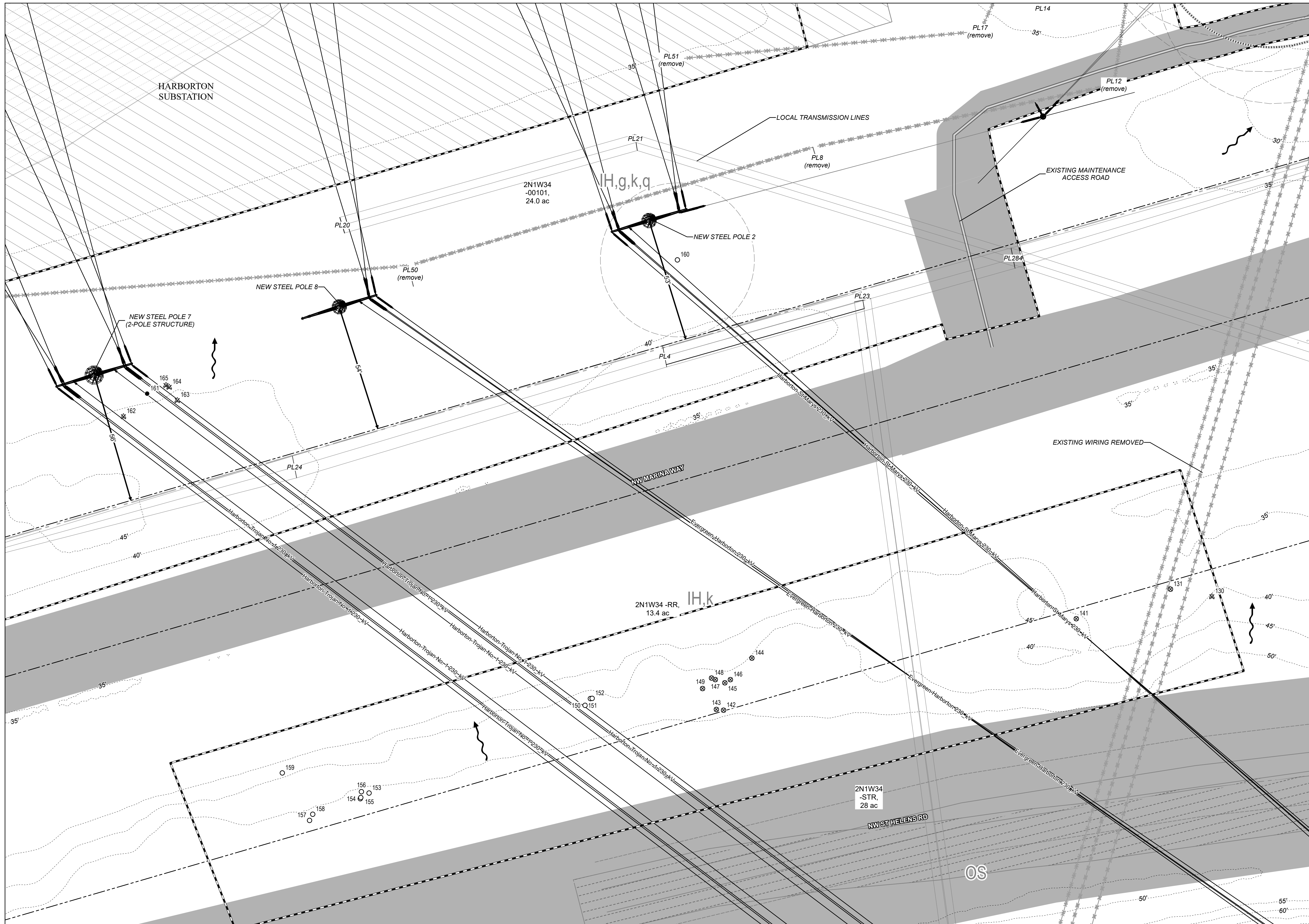
- Legend**
- Limits of Disturbance
  - Surveyed Tree Location
    - Deciduous Tree (Living) to Be Protected
    - Deciduous Tree (Dead) to Be Protected
    - Deciduous Tree (Living) to Be Removed
    - Deciduous Tree (Dead) to Be Removed
    - Conifer (Living) to Be Protected
    - Conifer (Dead) to Be Protected
    - Conifer (Living) to Be Removed
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  - Root Protection Zone
  - Existing Access Road Centerline
  - Proposed Temporary Access Road
  - Proposed Temporary Logging Haul Route
  - Proposed Temporary Circulation Haul Route
  - Edge of Roadway/Access Road (approximate)
  - Trail
  - Wetland/Ordinary High Water (OHW)
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  - Environmental Transition Zone
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  - Powerline Easement
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  - d = Design
  - g = River General
  - i = River Industrial
  - k = Prime Industrial
  - p = Environmental Protection
  - q = Water Quality Resource Area
  - s = Scenic Resource

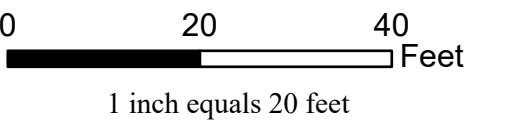
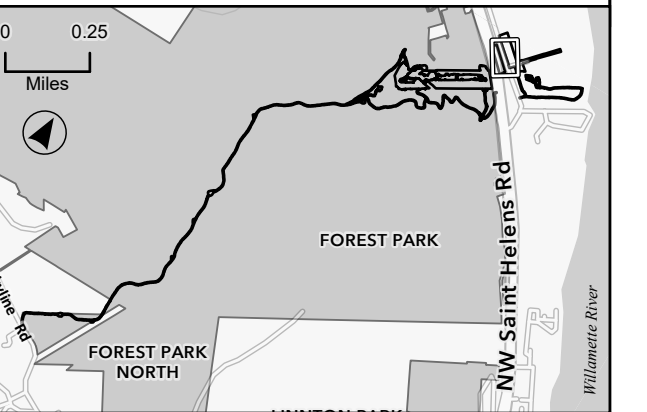
- Area of Temporary Wetland Encroachment:**  
Wetland F (Harborton S/S): 12,528 sq ft; 0.29 ac
- Area of Temporary Disturbance in Greenway Setback:**  
3,078 sq ft; 0.07 ac
- Area of Permanent Wetland Encroachment:**  
Wetland A (Forest Park): 1,074 sq ft; 0.02 ac  
Wetland B (Forest Park): 1,854 sq ft; 0.04 ac

- NOTES:**
1. Root protection zones for single-stem trees are calculated by DBH x 1-ft. Therefore, a 6-in DBH tree has a root protection zone of 6-ft in diameter. For multi-stemmed trees, see Mitigation Site Plan Details II, SHT. L325. Root protection zones are not shown for trees to be removed or dead trees.
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  4. See Construction Management Plan set for tree protection fencing.
  5. Tax lots which intersect the Limits of Disturbance are labeled with the Tax Lot ID # and acreage.

MATCHLINE SEE SHEET L104



MATCHLINE SEE SHEET L107





Legend

- Limits of Disturbance
- Surveyed Tree Location**
- Deciduous Tree (Living) to Be Protected
- Deciduous (Dead) to Be Protected
- Deciduous Tree (Living) to Be Removed
- Deciduous (Dead) to Be Removed
- Conifer (Living) to Be Protected
- Conifer (Dead) to Be Protected
- Conifer (Living) to Be Removed
- Conifer (Dead) to Be Removed
- Root Protection Zone
- Existing Access Road Centerline
- Proposed Temporary Access Road
- Proposed Temporary Logging Haul Route
- Proposed Temporary Circulation Route
- Edge of Roadway/Access Road (approximate)
- Trail
- Wetland/Ordinary High Water (OHW)
- Drainage Reserve Area
- Drainage Flow Arrow
- Culvert
- 100-year Floodplain
- Multnomah County Tax Lot
- Zoning (City of Portland)
- Environmental Transition Zone
- Forest Park Boundary
- Powerline Easement
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Area of Temporary Wetland Encroachment:

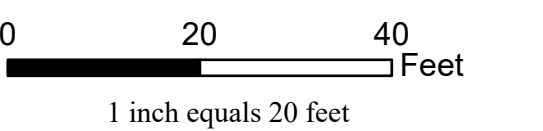
Wetland F (Harborton S/S): 12,528 sq ft; 0.29 ac  
Area of Temporary Disturbance in Greenway Setback:  
3,078 sq ft; 0.07 ac

Area of Permanent Wetland Encroachment:

Wetland A (Forest Park): 1,074 sq ft; 0.02 ac  
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NOTES:

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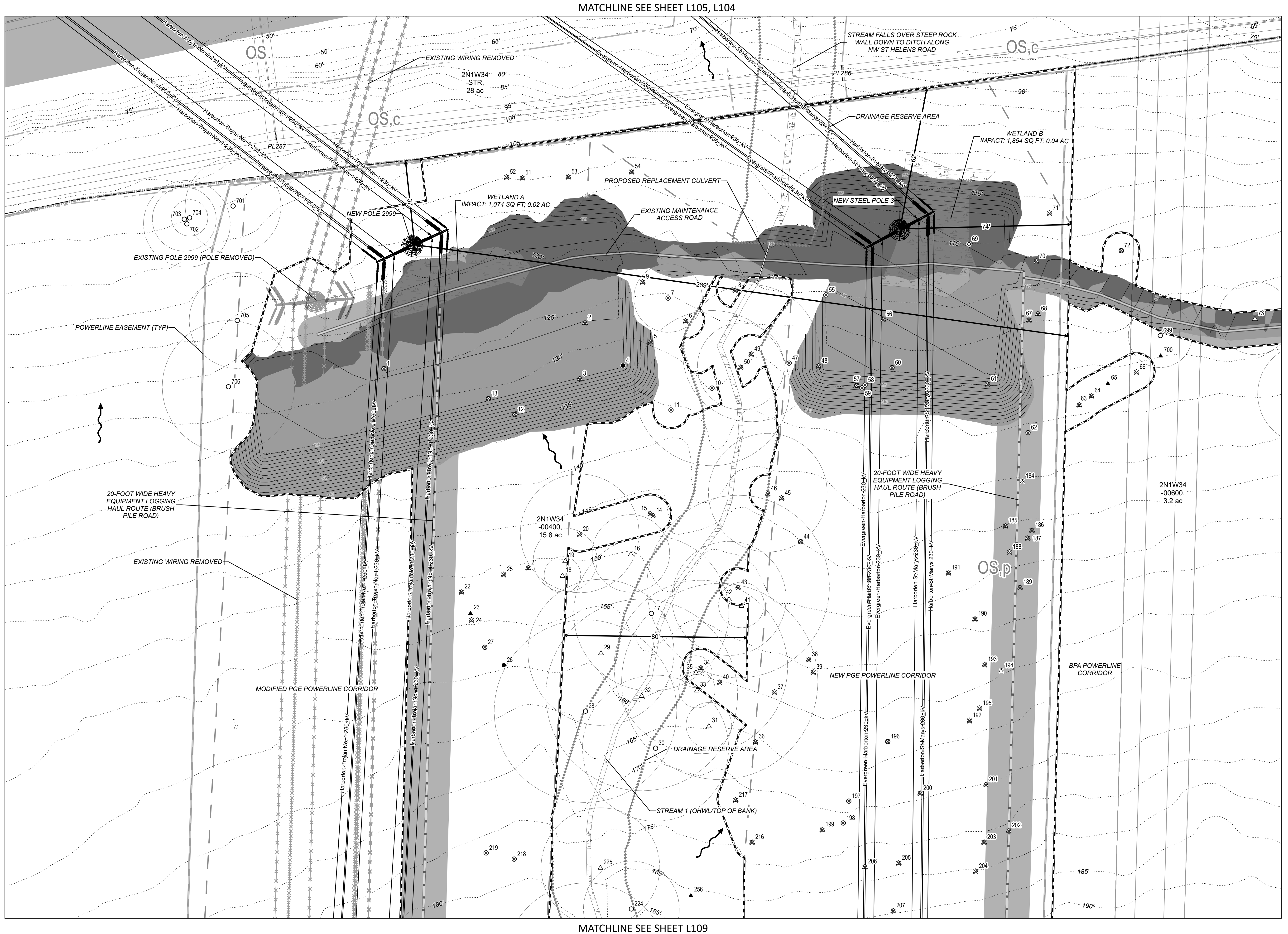
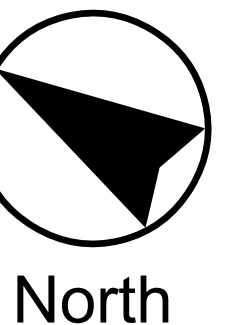
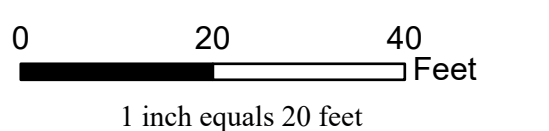
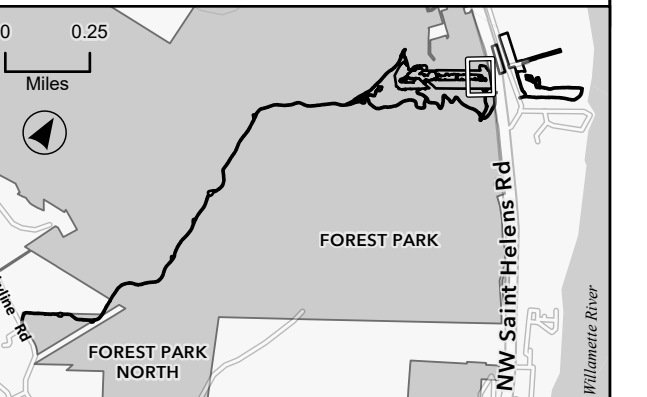


- Legend**
- Limits of Disturbance
  - Surveyed Tree Location**
  - Deciduous Tree (Living) to Be Protected
  - Deciduous (Dead) to Be Protected
  - Deciduous Tree (Living) to Be Removed
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  - Conifer (Living) to Be Protected
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MATCHLINE SEE SHEET L105, L104

MATCHLINE SEE SHEET L109

MATCHLINE SEE SHEET L106

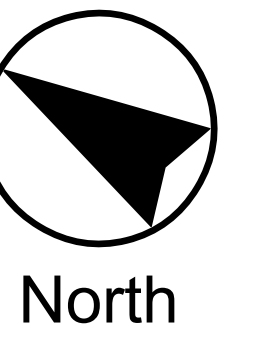
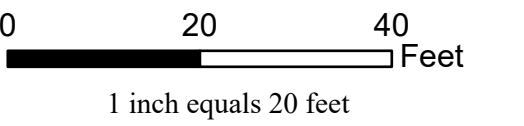


Legend

- Limits of Disturbance
  - Surveyed Tree Location**
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MATCHLINE SEE SHEET L106

MATCHLINE SEE SHEET L110

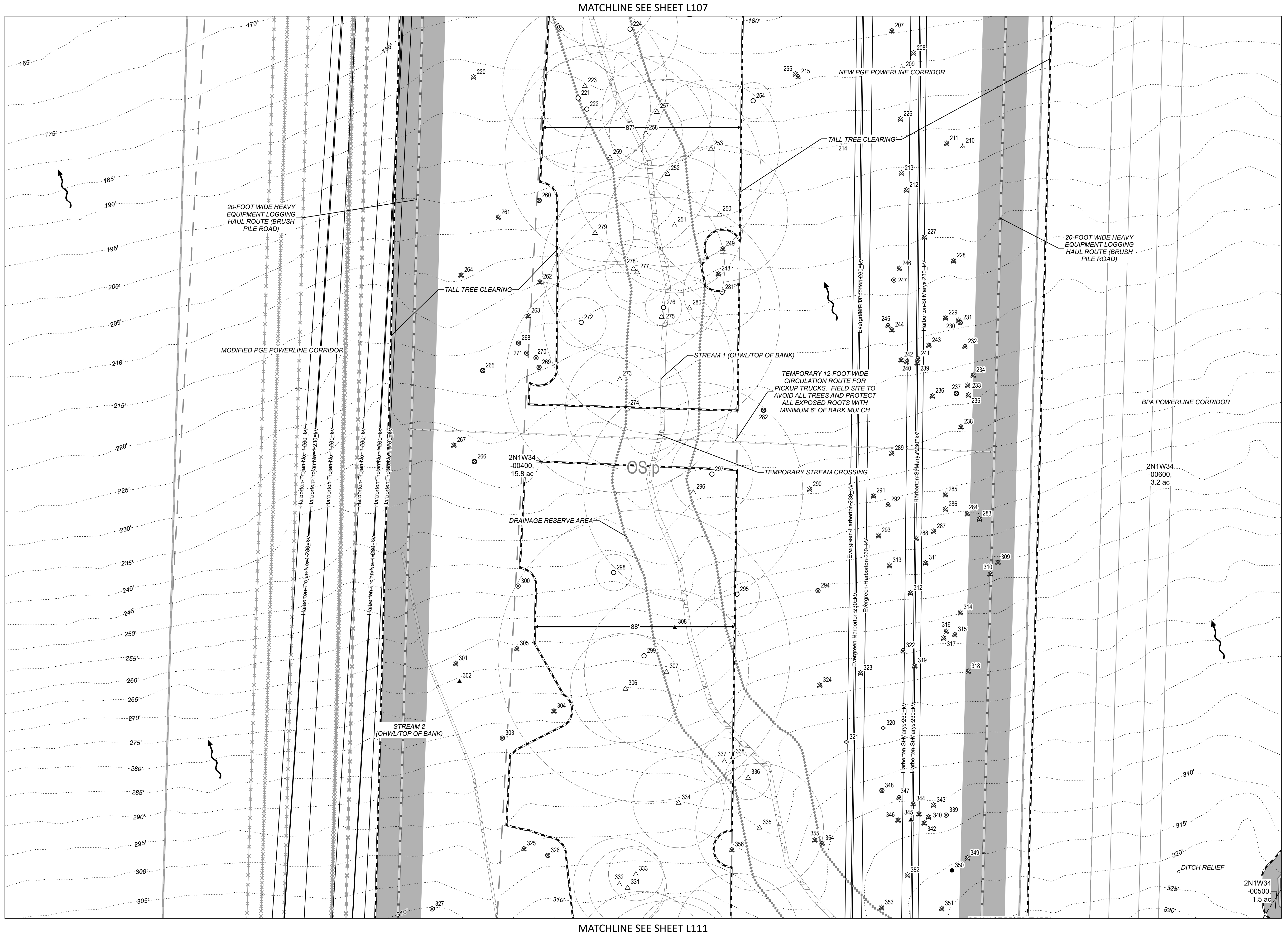
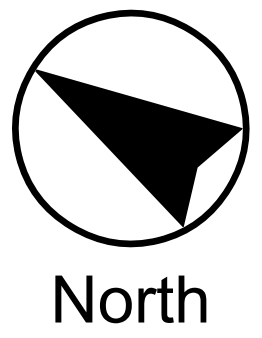
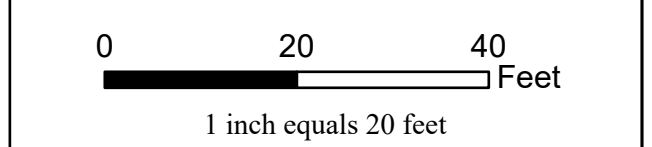
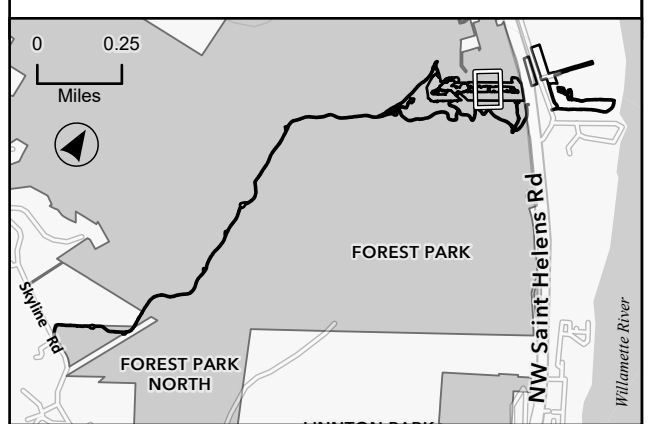
MATCHLINE SEE SHEET L109



Legend

- Limits of Disturbance
  - Surveyed Tree Location
    - Deciduous Tree (Living) to Be Protected
    - Deciduous (Dead) to Be Protected
    - Deciduous Tree (Living) to Be Removed
    - Deciduous (Dead) to Be Removed
    - Conifer (Living) to Be Protected
    - Conifer (Dead) to Be Protected
    - Conifer (Living) to Be Removed
    - Conifer (Dead) to Be Removed
  - Root Protection Zone
  - Existing Access Road Centerline
  - Proposed Temporary Access Road
  - Proposed Temporary Logging Haul Route
  - Proposed Temporary Circulation Route
  - Edge of Roadway/Access Road (approximate)
  - Trail
  - Wetland/Ordinary High Water (OHW)
  - Drainage Reserve Area
  - Drainage Flow Arrow
  - Culvert
  - 100-year Floodplain
  - Multnomah County Tax Lot
  - Zoning (City of Portland)
  - Environmental Transition Zone
  - Forest Park Boundary
  - Powerline Easement
  - Contour (5-foot intervals, vertical datum NAVD88)
- Zoning (City of Portland):**  
 RF = Farm and Forest  
 IH = Heavy Industrial  
 OS = Open Space  
 e = Environmental Conservation  
 d = Design  
 g = River General  
 i = River Industrial  
 k = Prime Industrial  
 p = Environmental Protection  
 q = Water Quality Resource Area  
 s = Scenic Resource
- Area of Temporary Wetland Encroachment:**  
 Wetland F (Harborton S/S): 12,528 sq ft; 0.29 ac  
**Area of Temporary Disturbance in Greenway Setback:**  
 3,078 sq ft; 0.07 ac  
**Area of Permanent Wetland Encroachment:**  
 Wetland A (Forest Park): 1,074 sq ft; 0.02 ac  
 Wetland B (Forest Park): 1,854 sq ft; 0.04 ac

- NOTES:**
1. Root protection zones for single-stem trees are calculated by DBH x 1-ft. Therefore, a 6-in DBH tree has a root protection zone of 6-ft in diameter. For multi-stemmed trees, see Mitigation Site Plan Details II, SHT. L325. Root protection zones are not shown for trees to be removed or dead trees.
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  3. South of the Harborton Substation, only trees with RPZs which overlap with the Limits of Disturbance are shown on these plans; all surveyed trees are included in the Project Site area.
  4. See Construction Management Plan set for tree protection fencing.
  5. Tax lots which intersect the Limits of Disturbance are labeled with the Tax Lot ID # and acreage.



MATCHLINE SEE SHEET L107

MATCHLINE SEE SHEET L111

MATCHLINE SEE SHEET L108

2N1W34-00500, 1.5 ac



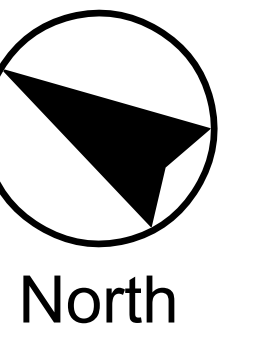
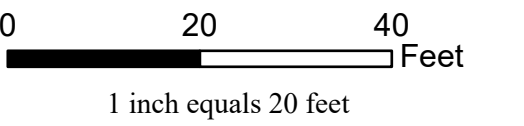
MATCHLINE SEE SHEET L111

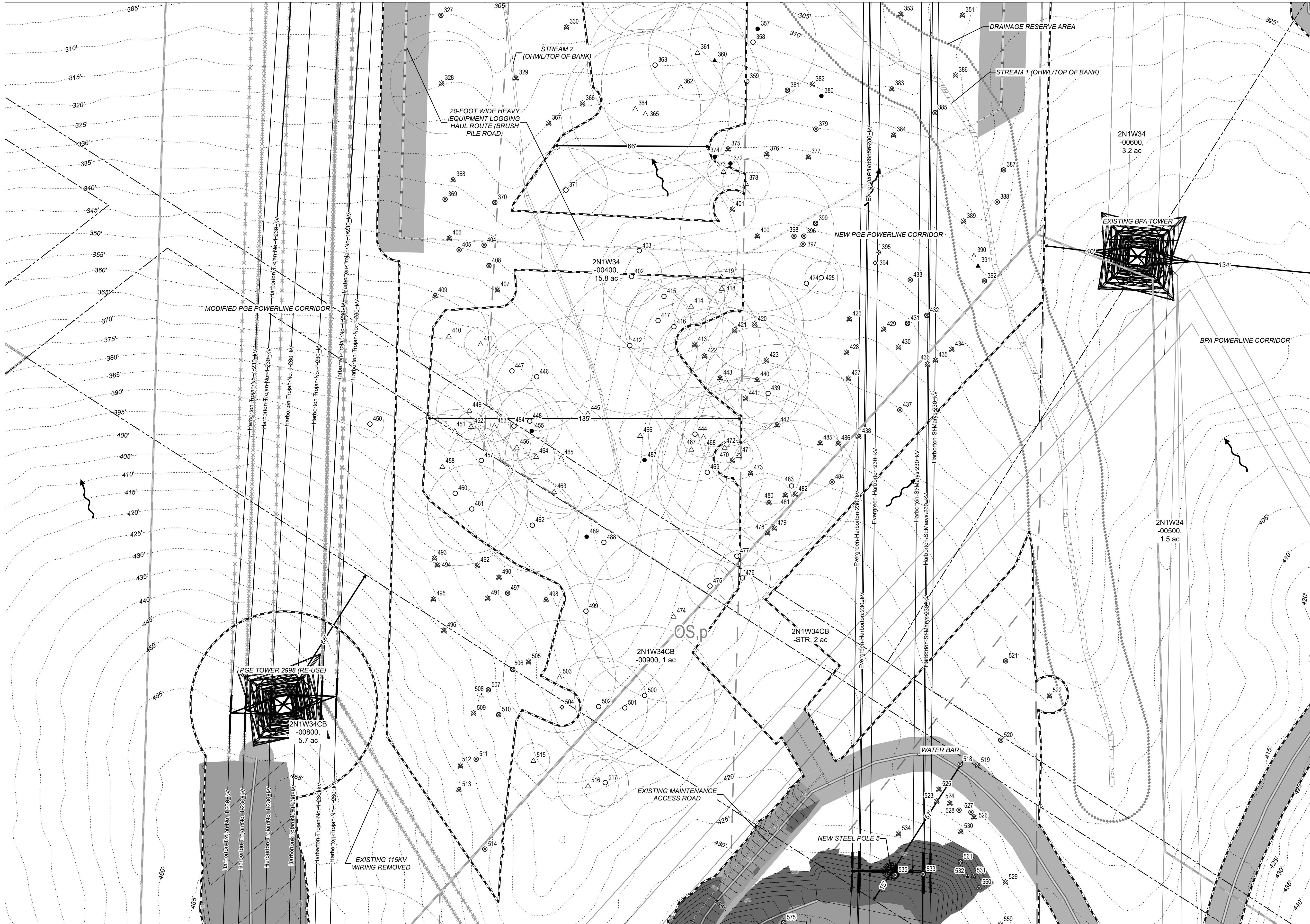


- Legend**
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**Area of Temporary Wetland Encroachment:**  
Wetland F (Harborton S/S): 12,528 sq ft; 0.29 ac  
**Area of Temporary Disturbance in Greenway Setback:**  
3,078 sq ft; 0.07 ac  
**Area of Permanent Wetland Encroachment:**  
Wetland A (Forest Park): 1,074 sq ft; 0.02 ac  
Wetland B (Forest Park): 1,854 sq ft; 0.04 ac

- NOTES:**
1. Root protection zones for single-stem trees are calculated by DBH x 1-ft. Therefore, a 6-in DBH tree has a root protection zone of 6-ft in diameter. For multi-stemmed trees, see Mitigation Site Plan Details II, SHT. L325. Root protection zones are not shown for trees to be removed or dead trees.
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  5. Tax lots which intersect the Limits of Disturbance are labeled with the Tax Lot ID # and acreage.



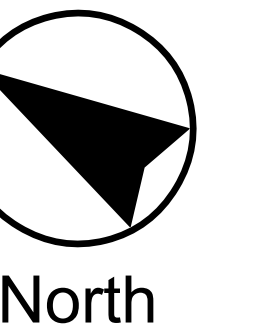
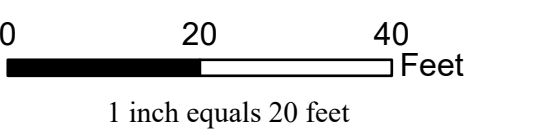
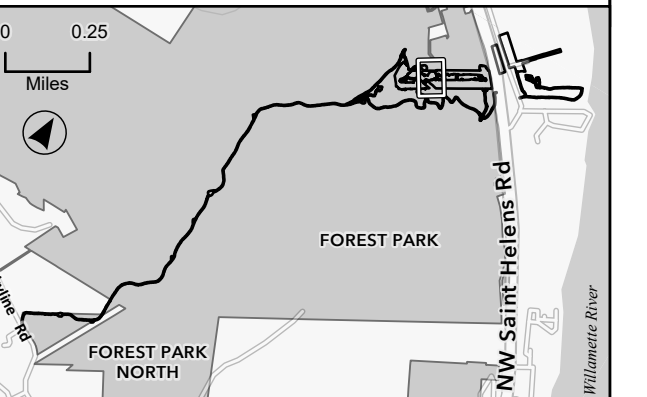


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  - Surveyed Tree Location**
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  - Proposed Temporary Access Road
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  - Drainage Flow Arrow
  - Culvert
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  - Environmental Transition Zone
  - Forest Park Boundary
  - Powerline Easement
  - Contour (5-foot intervals, vertical datum NAVD88)

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- Area of Temporary Wetland Encroachment:**  
Wetland F (Harborton S/S): 12,528 sq ft; 0.29 ac  
**Area of Temporary Disturbance in Greenway Setback:**  
3,078 sq ft; 0.07 ac  
**Area of Permanent Wetland Encroachment:**  
Wetland A (Forest Park): 1,074 sq ft; 0.02 ac  
Wetland B (Forest Park): 1,854 sq ft; 0.04 ac

- NOTES:**
1. Root protection zones for single-stem trees are calculated by DBH x 1-ft. Therefore, a 6-in DBH tree has a root protection zone of 6-ft in diameter. For multi-stemmed trees, see Mitigation Site Plan Details II, SHT. L325. Root protection zones are not shown for trees to be removed or dead trees.
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  4. See Construction Management Plan set for tree protection fencing.
  5. Tax lots which intersect the Limits of Disturbance are labeled with the Tax Lot ID # and acreage.



MATCHLINE SEE SHEET L110

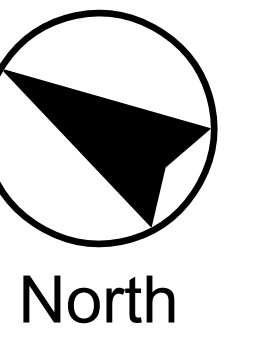
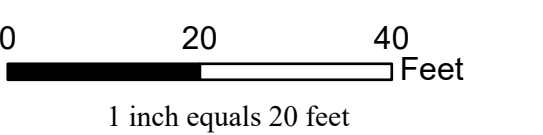


- Legend**
- Limits of Disturbance
  - Surveyed Tree Location
    - Deciduous Tree (Living) to Be Protected
    - Deciduous (Dead) to Be Protected
    - Deciduous Tree (Living) to Be Removed
    - Deciduous (Dead) to Be Removed
    - Conifer (Living) to Be Protected
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  - Contour (5-foot intervals, vertical datum NAVD88)

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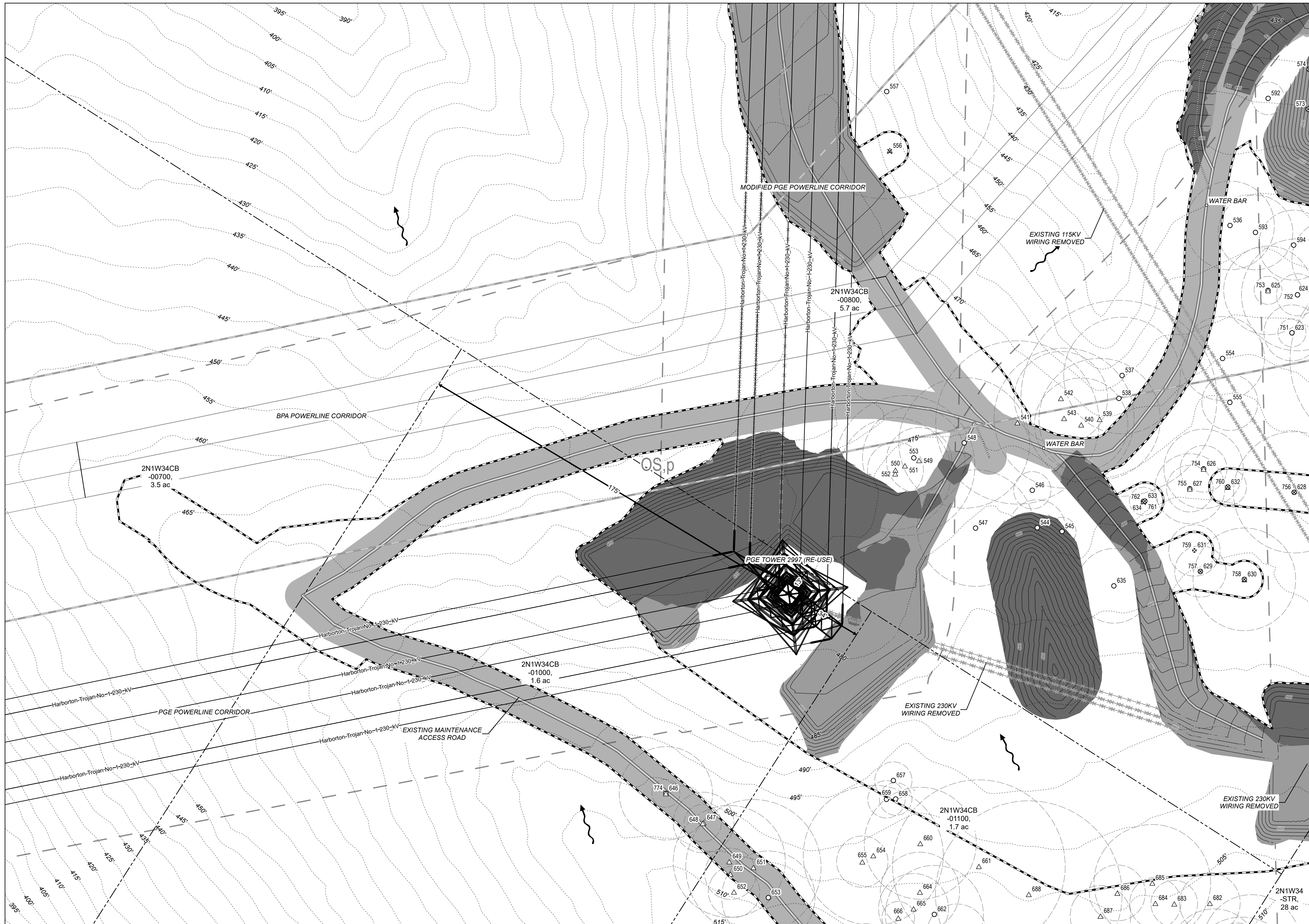
- Area of Temporary Wetland Encroachment:**  
Wetland F (Harborton S/S): 12,528 sq ft; 0.29 ac  
**Area of Temporary Disturbance in Greenway Setback:**  
3,078 sq ft; 0.07 ac  
**Area of Permanent Wetland Encroachment:**  
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Wetland B (Forest Park): 1,854 sq ft; 0.04 ac

- NOTES:**
1. Root protection zones for single-stem trees are calculated by DBH x 1-ft. Therefore, a 6-in DBH tree has a root protection zone of 6-ft in diameter. For multi-stemmed trees, see Mitigation Site Plan Details II, SHT. L325. Root protection zones are not shown for trees to be removed or dead trees.
  2. Vine Maples and all trees with a DBH less than 6-in are not shown on these plans.
  3. South of the Harborton Substation, only trees with RPZs which overlap with the Limits of Disturbance are shown on these plans; all surveyed trees are included in the Project Site area.
  4. See Construction Management Plan set for tree protection fencing.
  5. Tax lots which intersect the Limits of Disturbance are labeled with the Tax Lot ID # and acreage.



MATCHLINE SEE SHEET L113





Legend

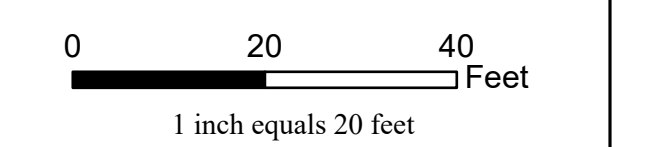
- Limits of Disturbance
- Surveyed Tree Location
- Deciduous Tree (Living) to Be Protected
- Deciduous (Dead) to Be Protected
- Deciduous Tree (Living) to Be Removed
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  5. Tax lots which intersect the Limits of Disturbance are labeled with the Tax Lot ID # and acreage.

MATCHLINE SEE SHEET L112



MATCHLINE SEE SHEET L112



MATCHLINE SEE SHEET L115

MATCHLINE SEE SHEET L116

Harborton Reliability Project

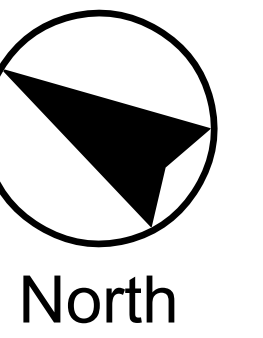
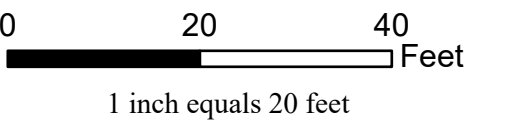


Proposed Development Plan  
 Sheet 14 of 25  
**L114**

10/24/2024

- Legend**
- Limits of Disturbance
  - Surveyed Tree Location**
  - Deciduous Tree (Living) to Be Protected
  - Deciduous (Dead) to Be Protected
  - Deciduous Tree (Living) to Be Removed
  - Deciduous (Dead) to Be Removed
  - Conifer (Living) to Be Protected
  - Conifer (Dead) to Be Protected
  - Conifer (Living) to Be Removed
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  - Root Protection Zone
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  - Proposed Temporary Access Road
  - Proposed Temporary Logging Haul Route
  - Proposed Temporary Circulation Route
  - Edge of Roadway/Access Road (approximate)
  - Trail
  - Wetland/Ordinary High Water (OHW)
  - Drainage Reserve Area
  - Drainage Flow Arrow
  - Culvert
  - 100-year Floodplain
  - Multnomah County Tax Lot
  - Zoning (City of Portland)
  - Environmental Transition Zone
  - Forest Park Boundary
  - Powerline Easement
  - Contour (5-foot intervals, vertical datum NAVD88)
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- Area of Temporary Wetland Encroachment:**  
 Wetland F (Harborton S/S): 12,528 sq ft; 0.29 ac  
**Area of Temporary Disturbance in Greenway Setback:**  
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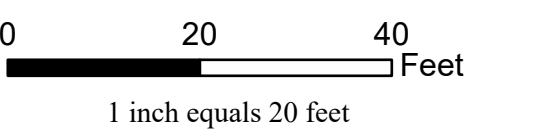
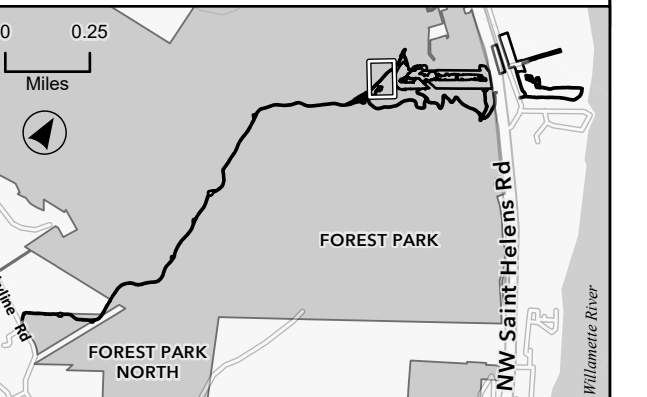
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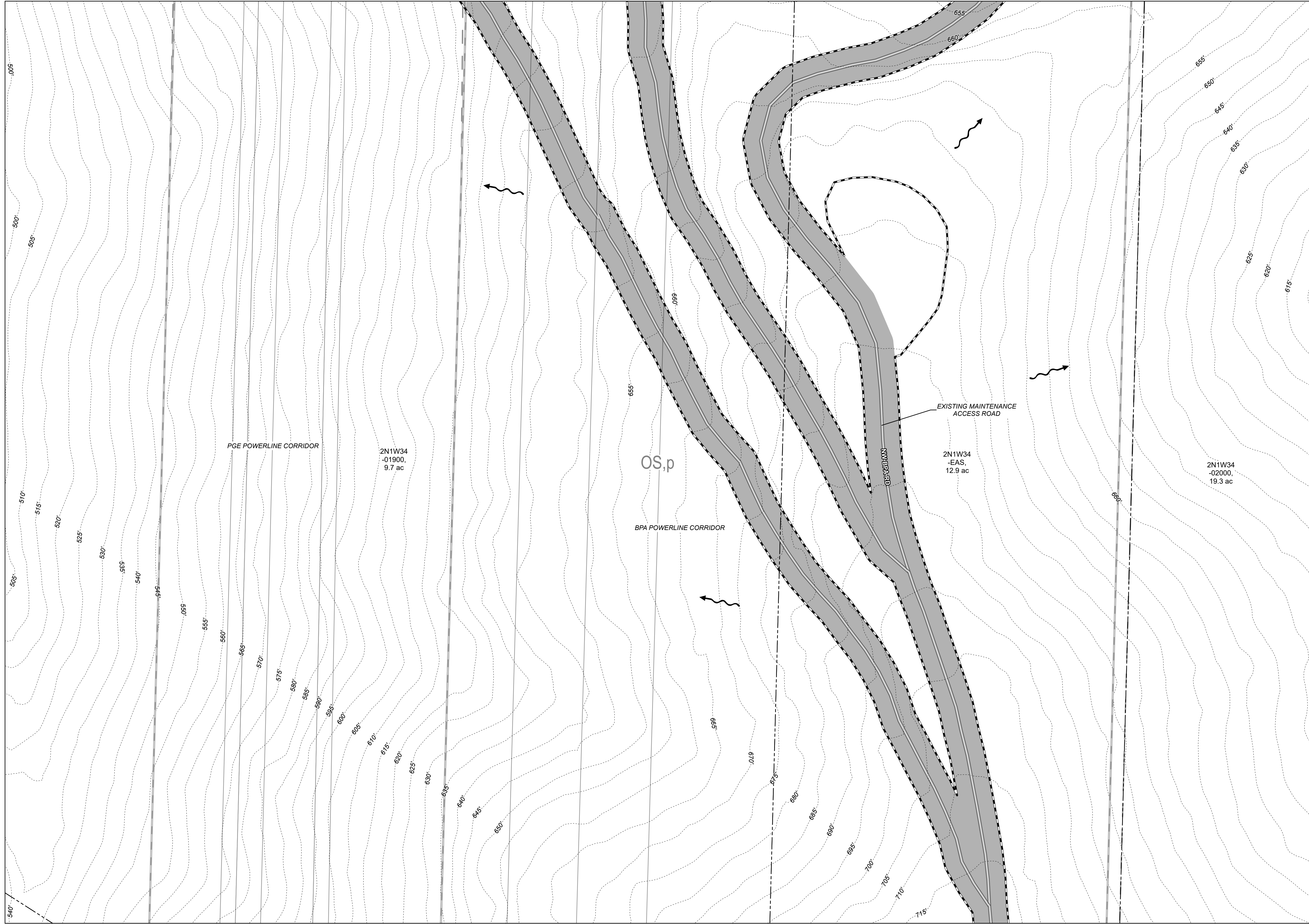
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MATCHLINE SEE SHEET L113

MATCHLINE SEE SHEET L116

MATCHLINE SEE SHEET L114

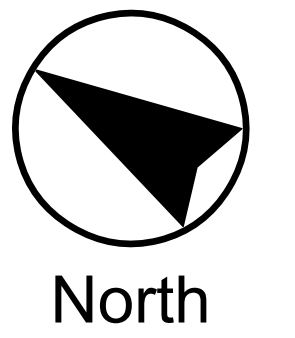
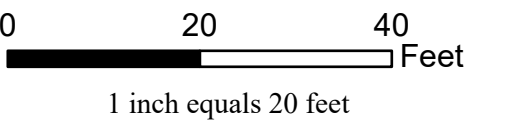


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Area of Temporary Wetland Encroachment:

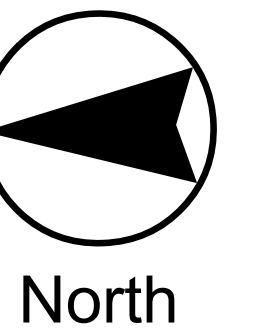
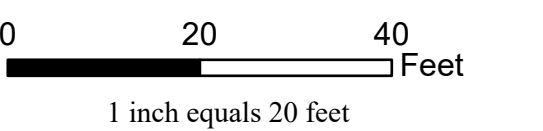
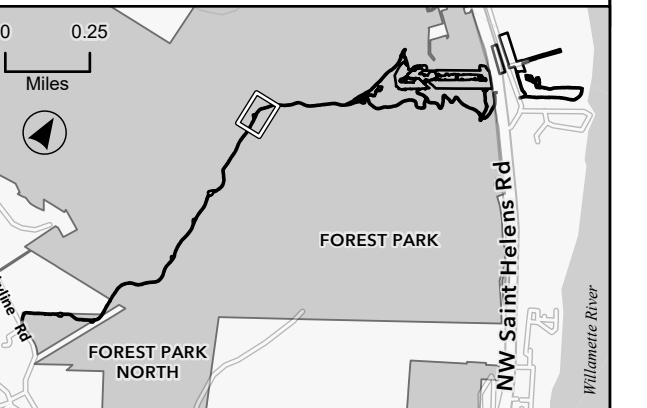
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3,078 sq ft; 0.07 ac

Area of Permanent Wetland Encroachment:

Wetland A (Forest Park): 1,074 sq ft; 0.02 ac  
Wetland B (Forest Park): 1,854 sq ft; 0.04 ac

NOTES:

1. Root protection zones for single-stem trees are calculated by DBH x 1-ft. Therefore, a 6-in DBH tree has a root protection zone of 6-ft in diameter. For multi-stemmed trees, see Mitigation Site Plan Details II, SHT. L325. Root protection zones are not shown for trees to be removed or dead trees.
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3. South of the Harborton Substation, only trees with RPPZs which overlap with the Limits of Disturbance are shown on these plans; all surveyed trees are included in the Project Site area.
4. See Construction Management Plan set for tree protection fencing.
5. Tax lots which intersect the Limits of Disturbance are labeled with the Tax Lot ID # and acreage.





Legend

- Limits of Disturbance
- Surveyed Tree Location**
- Deciduous Tree (Living) to Be Protected
- Deciduous Tree (Dead) to Be Protected
- Deciduous Tree (Living) to Be Removed
- Deciduous Tree (Dead) to Be Removed
- Conifer (Living) to Be Protected
- Conifer (Dead) to Be Protected
- Conifer (Living) to Be Removed
- Conifer (Dead) to Be Removed
- Root Protection Zone
- Existing Access Road Centerline
- Proposed Temporary Access Road
- Proposed Temporary Logging Haul Route
- Proposed Temporary Circulation Route
- Edge of Roadway/Access Road (approximate)
- Trail
- Wetland/Ordinary High Water (OHW)
- Drainage Reserve Area
- Drainage Flow Arrow
- Culvert
- 100-year Floodplain
- Multnomah County Tax Lot
- Zoning (City of Portland)
- Environmental Transition Zone
- Forest Park Boundary
- Powerline Easement
- Contour (5-foot intervals, vertical datum NAVD88)

Zoning (City of Portland):

- RF = Farm and Forest
- IH = Heavy Industrial
- OS = Open Space
- e = Environmental Conservation
- d = Design
- g = River General
- i = River Industrial
- k = Prime Industrial
- p = Environmental Protection
- q = Water Quality Resource Area
- s = Scenic Resource

Area of Temporary Wetland Encroachment:

Wetland F (Harborton S/S): 12,528 sq ft; 0.29 ac

Area of Temporary Disturbance in Greenway Setback:

3,078 sq ft; 0.07 ac

Area of Permanent Wetland Encroachment:

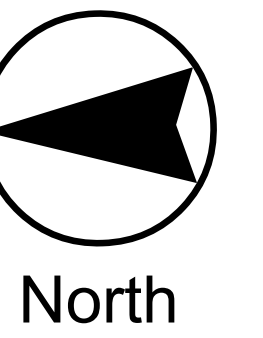
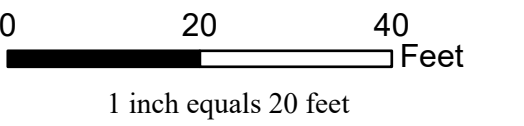
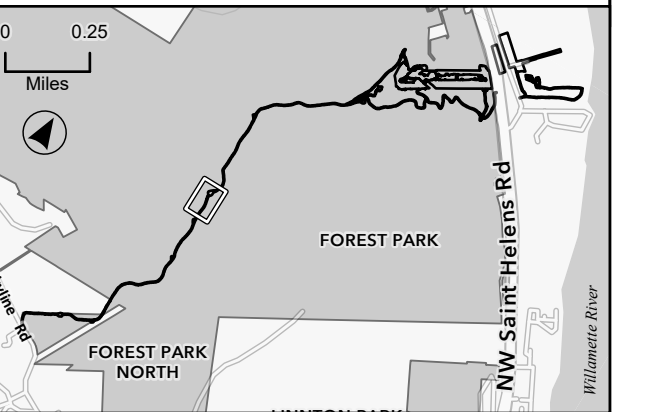
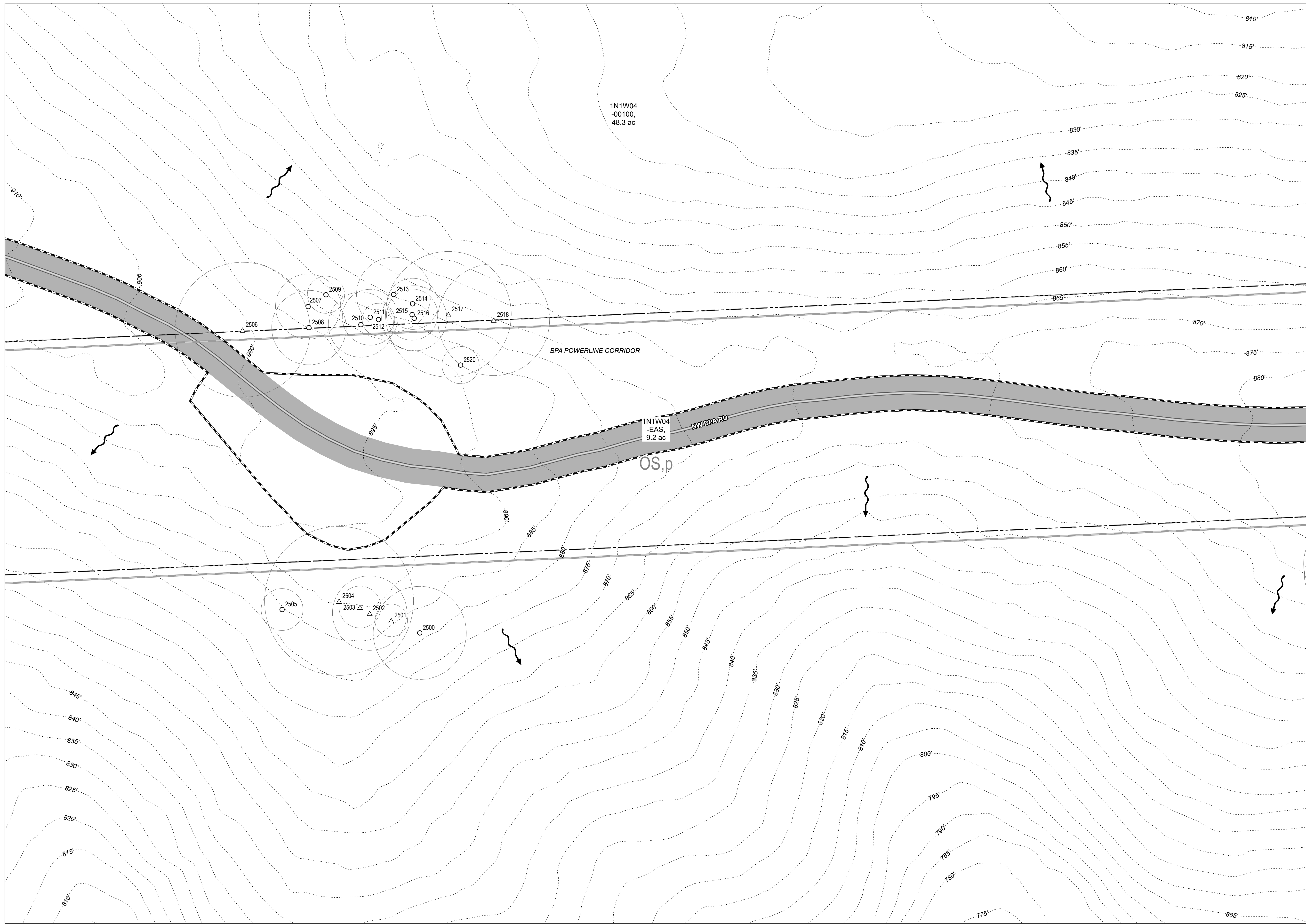
Wetland A (Forest Park): 1,074 sq ft; 0.02 ac

Wetland B (Forest Park): 1,854 sq ft; 0.04 ac

NOTES:

1. Root protection zones for single-stem trees are calculated by DBH x 1-ft. Therefore, a 6-in DBH tree has a root protection zone of 6-ft in diameter. For multi-stemmed trees, see Mitigation Site Plan Details II, SHT. L325. Root protection zones are not shown for trees to be removed or dead trees.
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3. South of the Harborton Substation, only trees with RPZs which overlap with the Limits of Disturbance are shown on these plans; all surveyed trees are included in the Project Site area.
4. See Construction Management Plan set for tree protection fencing.
5. Tax lots which intersect the Limits of Disturbance are labeled with the Tax Lot ID # and acreage.

MATCHLINE SEE SHEET L119





Legend

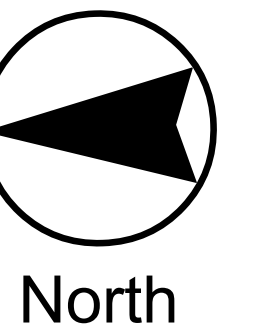
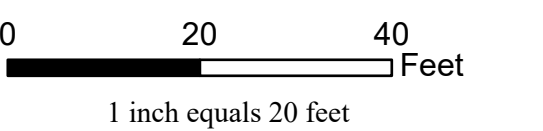
- Limits of Disturbance
- Surveyed Tree Location**
- Deciduous Tree (Living) to Be Protected
- Deciduous Tree (Dead) to Be Protected
- Deciduous Tree (Living) to Be Removed
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- Conifer (Dead) to Be Protected
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- Proposed Temporary Logging Haul Route
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- Drainage Flow Arrow
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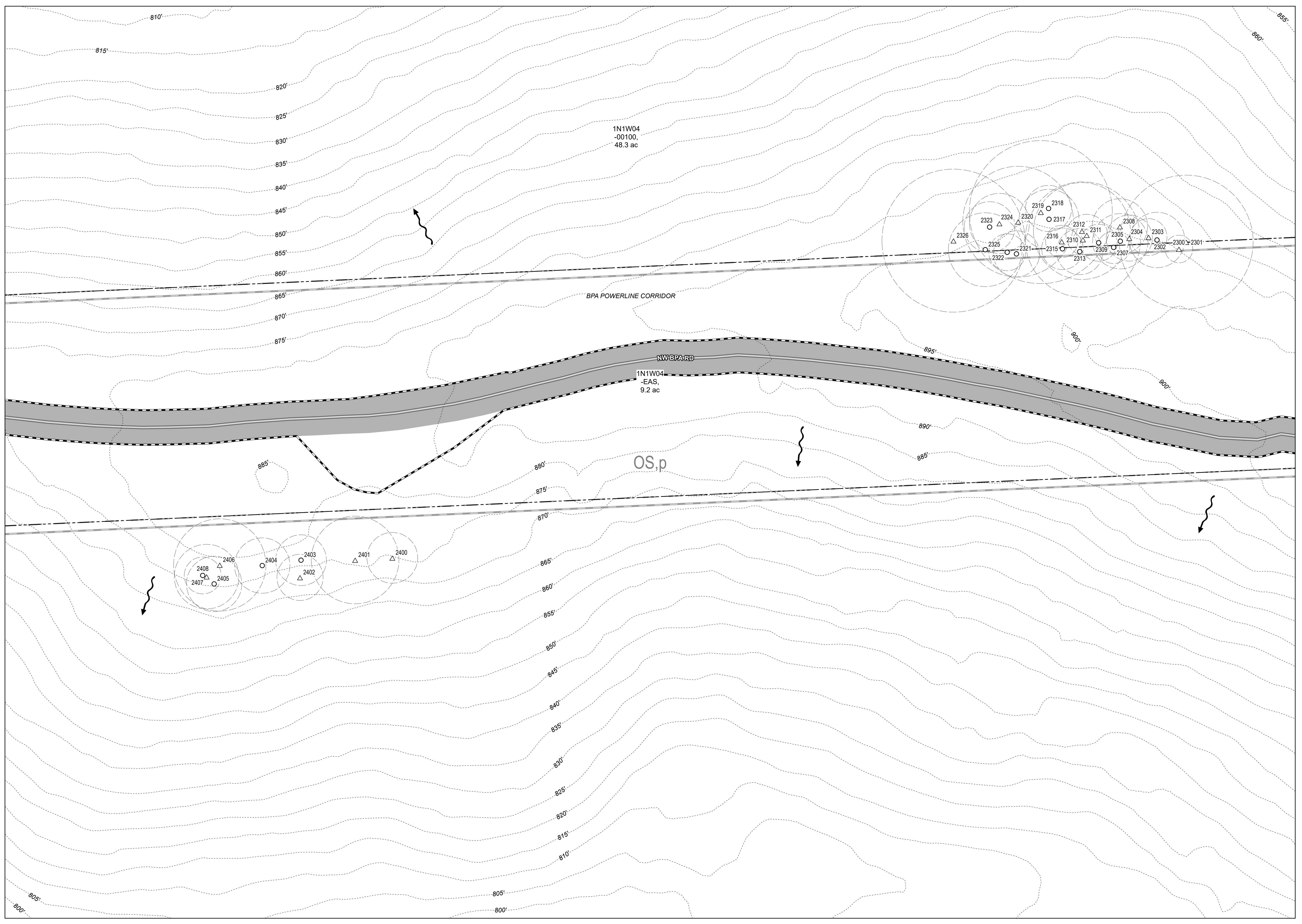
- Area of Temporary Wetland Encroachment:**
- Wetland F (Harborton S/S): 12,528 sq ft; 0.29 ac
- Area of Temporary Disturbance in Greenway Setback:**
- 3,078 sq ft; 0.07 ac
- Area of Permanent Wetland Encroachment:**
- Wetland A (Forest Park): 1,074 sq ft; 0.02 ac
- Wetland B (Forest Park): 1,854 sq ft; 0.04 ac

- NOTES:
1. Root protection zones for single-stem trees are calculated by DBH x 1-ft. Therefore, a 6-in DBH tree has a root protection zone of 6-ft in diameter. For multi-stemmed trees, see Mitigation Site Plan Details II, SHT. L325. Root protection zones are not shown for trees to be removed or dead trees.
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  3. South of the Harborton Substation, only trees with RPZs which overlap with the Limits of Disturbance are shown on these plans; all surveyed trees are included in the Project Site area.
  4. See Construction Management Plan set for tree protection fencing.
  5. Tax lots which intersect the Limits of Disturbance are labeled with the Tax Lot ID # and acreage.



MATCHLINE SEE SHEET L118

MATCHLINE SEE SHEET L120



1N1W04  
-00100,  
48.3 ac

1N1W04  
-EAS,  
9.2 ac

OS,p

BPA POWERLINE CORRIDOR

NW/BPA RD

2408  
2407  
2406  
2405  
2404  
2403  
2402  
2401  
2400

2323  
2324  
2320  
2317  
2312  
2308  
2305  
2304  
2303  
2302  
2326  
2325  
2321  
2315  
2310  
2311  
2309  
2307  
2313  
2318  
2319  
2316  
2314

800'

800'

810'  
815'  
820'  
825'  
830'  
835'  
840'  
845'  
850'  
855'  
860'  
865'  
870'  
875'  
880'  
885'  
890'  
895'  
900'

855'  
860'



Legend

- Limits of Disturbance
- Surveyed Tree Location**
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- Deciduous Tree (Dead) to Be Protected
- Deciduous Tree (Living) to Be Removed
- Deciduous Tree (Dead) to Be Removed
- Conifer (Living) to Be Protected
- Conifer (Dead) to Be Protected
- Conifer (Living) to Be Removed
- Conifer (Dead) to Be Removed
- Root Protection Zone
- Existing Access Road Centerline
- Proposed Temporary Access Road
- Proposed Temporary Logging Haul Route
- Proposed Temporary Circulation Route
- Edge of Roadway/Access Road (approximate)
- Trail
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- Environmental Transition Zone
- Forest Park Boundary
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- q = Water Quality Resource Area
- s = Scenic Resource

Area of Temporary Wetland Encroachment:

Wetland F (Harborton S/S): 12,528 sq ft; 0.29 ac

Area of Temporary Disturbance in Greenway Setback:

3,078 sq ft; 0.07 ac

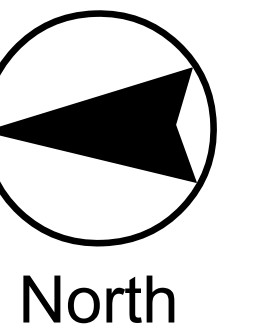
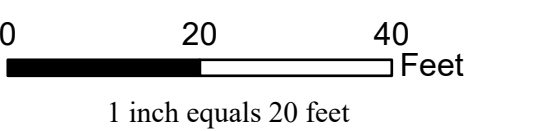
Area of Permanent Wetland Encroachment:

Wetland A (Forest Park): 1,074 sq ft; 0.02 ac

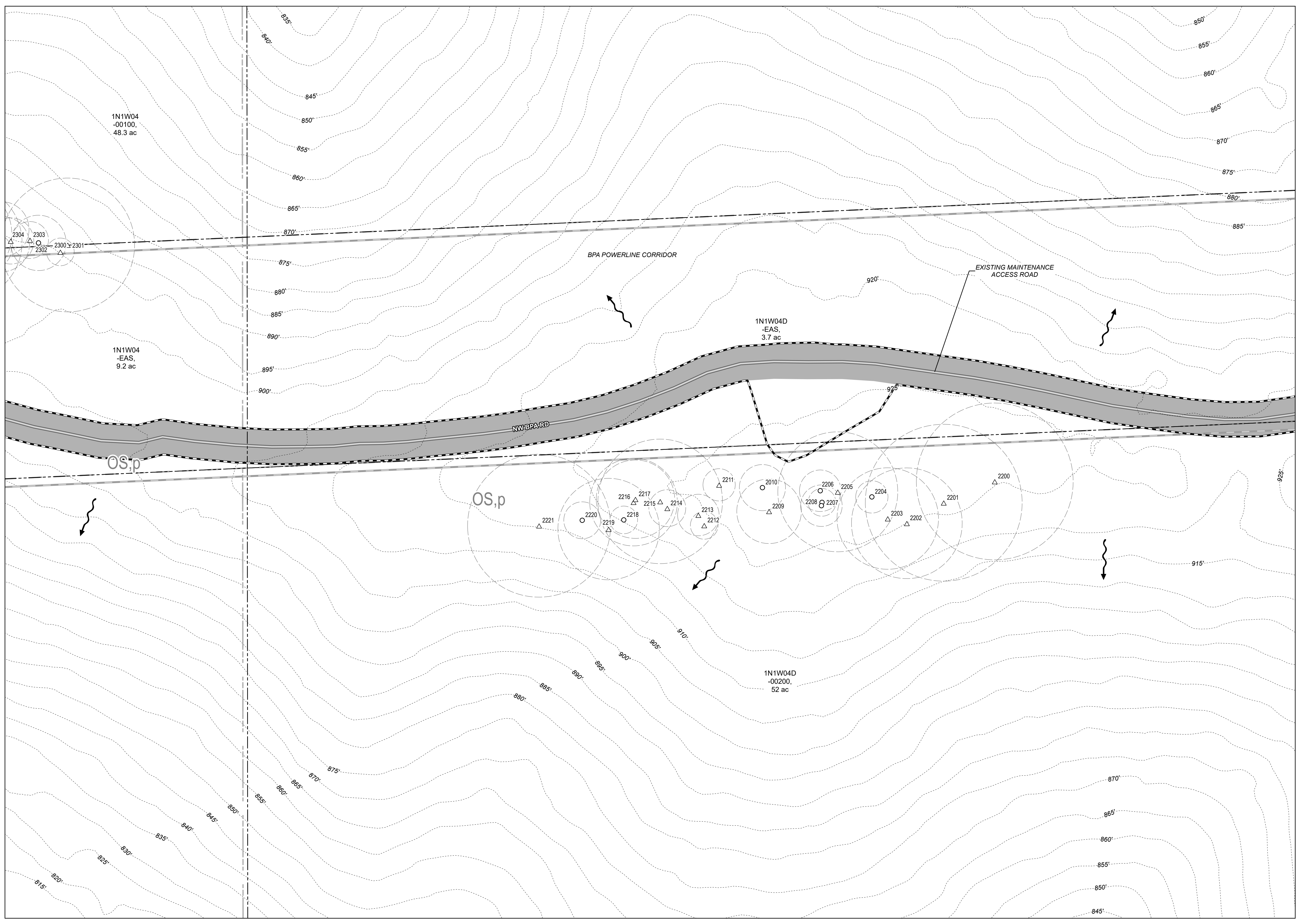
Wetland B (Forest Park): 1,854 sq ft; 0.04 ac

NOTES:

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5. Tax lots which intersect the Limits of Disturbance are labeled with the Tax Lot # and acreage.



MATCHLINE SEE SHEET L119





Legend

- Limits of Disturbance
- Surveyed Tree Location**
- Deciduous Tree (Living) to Be Protected
- Deciduous Tree (Dead) to Be Protected
- Deciduous Tree (Living) to Be Removed
- Deciduous Tree (Dead) to Be Removed
- Conifer (Living) to Be Protected
- Conifer (Dead) to Be Protected
- Conifer (Living) to Be Removed
- Conifer (Dead) to Be Removed
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- Proposed Temporary Access Road
- Proposed Temporary Logging Haul Route
- Proposed Temporary Circulation Route
- Edge of Roadway/Access Road (approximate)
- Trail
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- Drainage Reserve Area
- Drainage Flow Arrow
- Culvert
- 100-year Floodplain
- Multnomah County Tax Lot
- Zoning (City of Portland)
- Environmental Transition Zone
- Forest Park Boundary
- Powerline Easement
- Contour (5-foot intervals, vertical datum NAVD88)

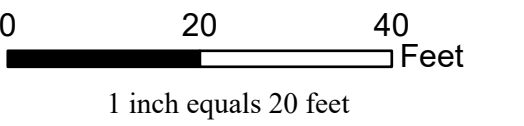
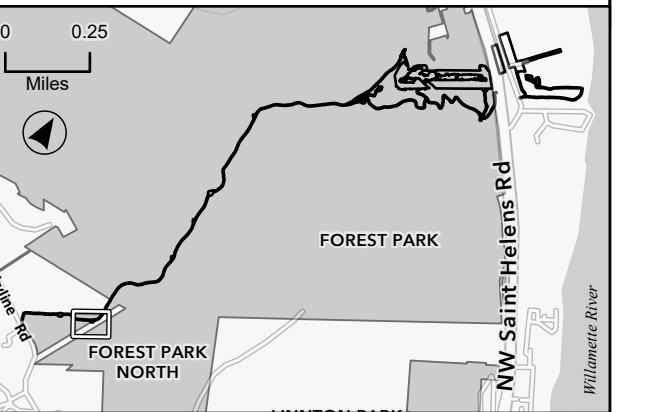
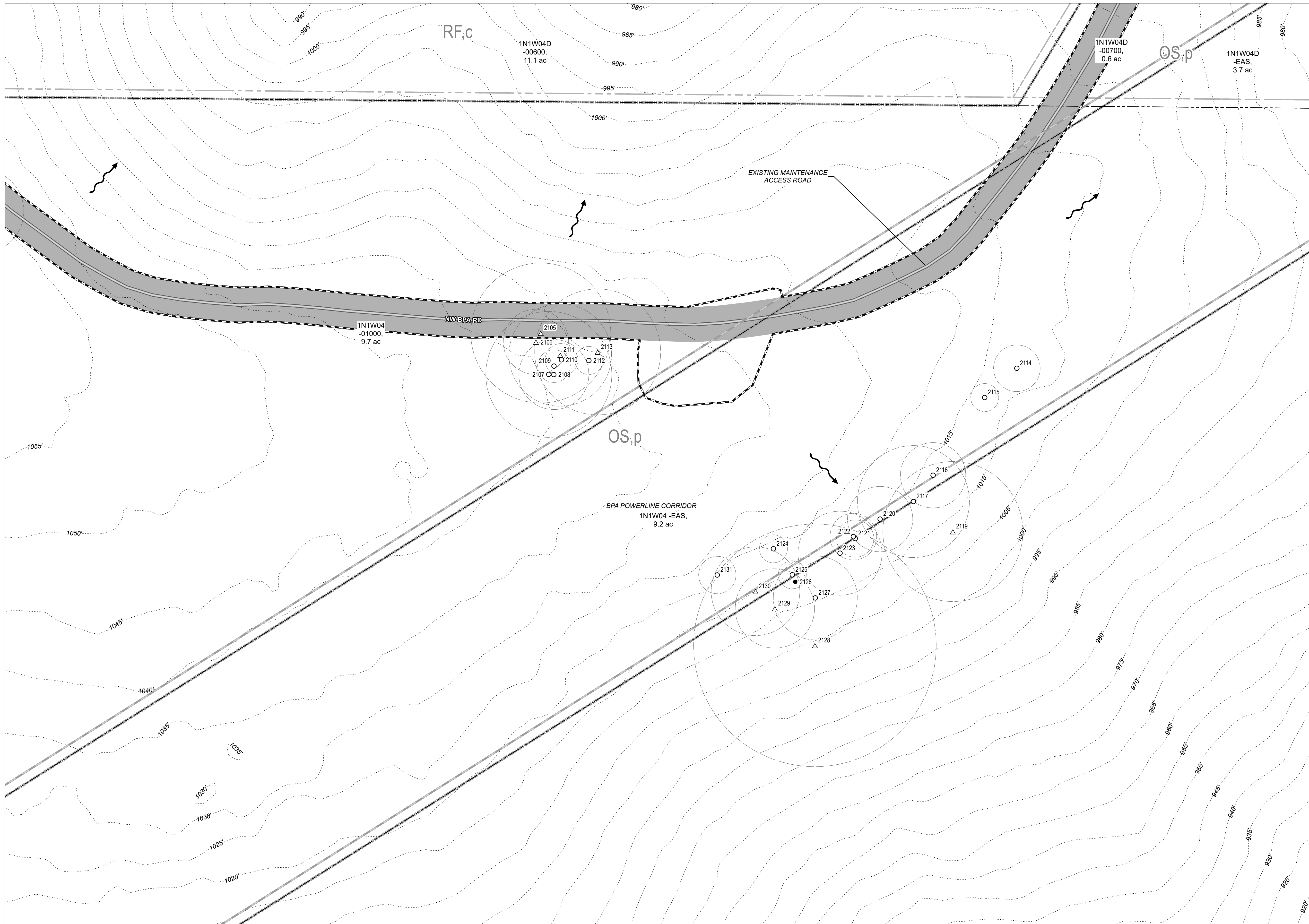
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**Area of Temporary Wetland Encroachment:**  
Wetland F (Harborton S/S): 12,528 sq ft; 0.29 ac  
**Area of Temporary Disturbance in Greenway Setback:**  
3,078 sq ft; 0.07 ac  
**Area of Permanent Wetland Encroachment:**  
Wetland A (Forest Park): 1,074 sq ft; 0.02 ac  
Wetland B (Forest Park): 1,854 sq ft; 0.04 ac

- NOTES:**
1. Root protection zones for single-stem trees are calculated by DBH x 1-ft. Therefore, a 6-in DBH tree has a root protection zone of 6-ft in diameter. For multi-stemmed trees, see Mitigation Site Plan Details II, SHT. L325. Root protection zones are not shown for trees to be removed or dead trees.
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  4. See Construction Management Plan set for tree protection fencing.
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MATCHLINE SEE SHEET L122





Legend

- Limits of Disturbance
- Surveyed Tree Location**
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- Deciduous Tree (Dead) to Be Protected
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- Deciduous Tree (Dead) to Be Removed
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- Zoning (City of Portland)
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Area of Temporary Wetland Encroachment:

Wetland F (Harborton S/S): 12,528 sq ft; 0.29 ac

Area of Temporary Disturbance in Greenway Setback:

3,078 sq ft; 0.07 ac

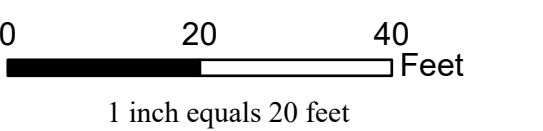
Area of Permanent Wetland Encroachment:

Wetland A (Forest Park): 1,074 sq ft; 0.02 ac

Wetland B (Forest Park): 1,854 sq ft; 0.04 ac

NOTES:

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MATCHLINE SEE SHEET L121

MATCHLINE SEE SHEET L123



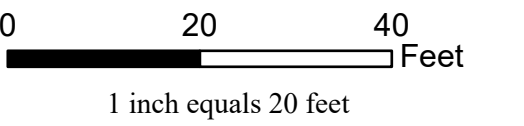


- Legend**
- Limits of Disturbance
  - Surveyed Tree Location**
  - Deciduous Tree (Living) to Be Protected
  - Deciduous (Dead) to Be Protected
  - Deciduous Tree (Living) to Be Removed
  - Deciduous (Dead) to Be Removed
  - Conifer (Living) to Be Protected
  - Conifer (Dead) to Be Protected
  - Conifer (Living) to Be Removed
  - Conifer (Dead) to Be Removed
  - Root Protection Zone
  - Existing Access Road Centerline
  - Proposed Temporary Access Road
  - Proposed Temporary Logging Haul Route
  - Proposed Temporary Circulation Route
  - Edge of Roadway/Access Road (approximate)
  - Trail
  - Wetland/Ordinary High Water (OHW)
  - Drainage Reserve Area
  - Drainage Flow Arrow
  - Culvert
  - 100-year Floodplain
  - Multnomah County Tax Lot
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**Zoning (City of Portland):**  
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 p = Environmental Protection  
 q = Water Quality Resource Area  
 s = Scenic Resource

**Area of Temporary Wetland Encroachment:**  
 Wetland F (Harborton S/S): 12,528 sq ft; 0.29 ac  
**Area of Temporary Disturbance in Greenway Setback:**  
 3,078 sq ft; 0.07 ac  
**Area of Permanent Wetland Encroachment:**  
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 Wetland B (Forest Park): 1,854 sq ft; 0.04 ac

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MATCHLINE SEE SHEET L122



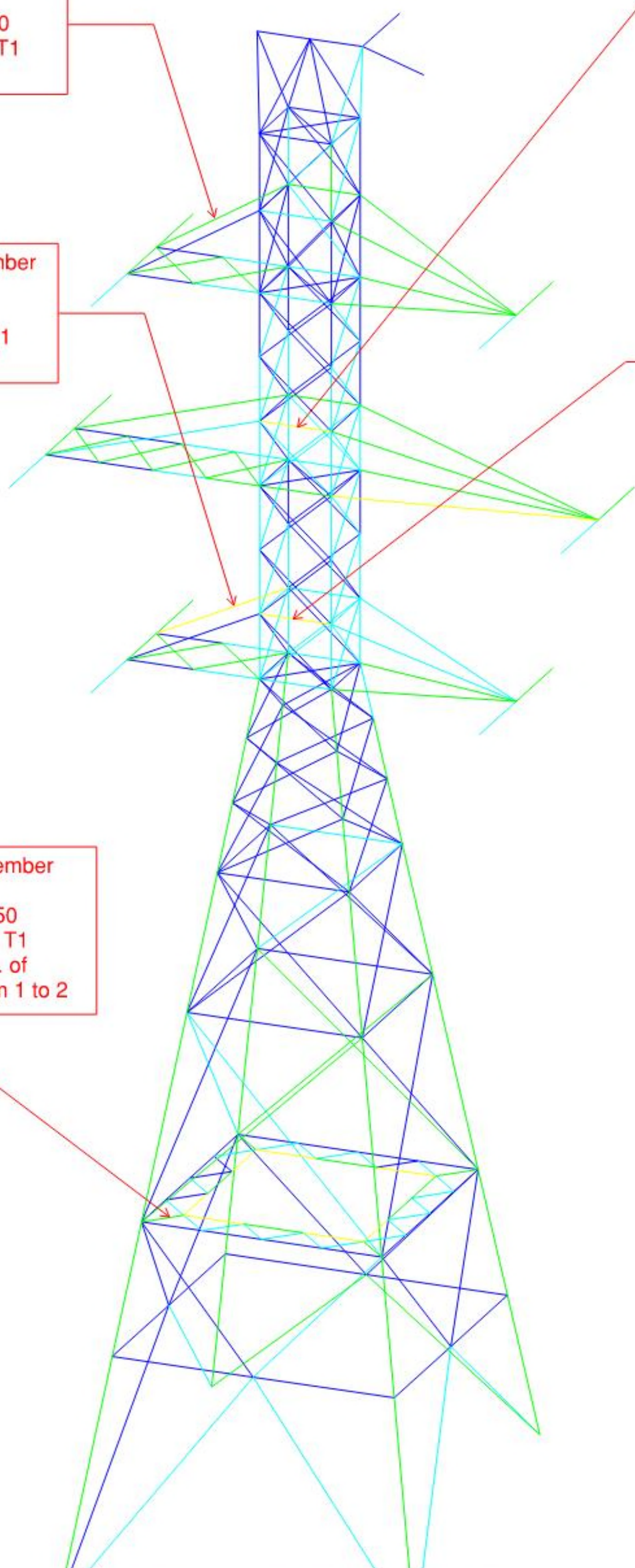
Replace original member  
L3.5x2.5x0.25 with  
L3.5x3.5x0.25 GR.50  
Use new 3/4" A394 T1  
Bolts

Replace original member  
L3x2.5x0.25 with  
L3x3x0.25 GR.50  
Use new 3/4" A394 T1  
Bolts

Replace original member  
L3x3x0.1875 with  
L3x3x0.3125 GR.50  
Use new 3/4" A394 T1  
Bolts

Replace original member  
L2.5x2.5x0.1875 with  
L3x3x0.25 GR.50  
Use new 3/4" A394 T1  
Bolts

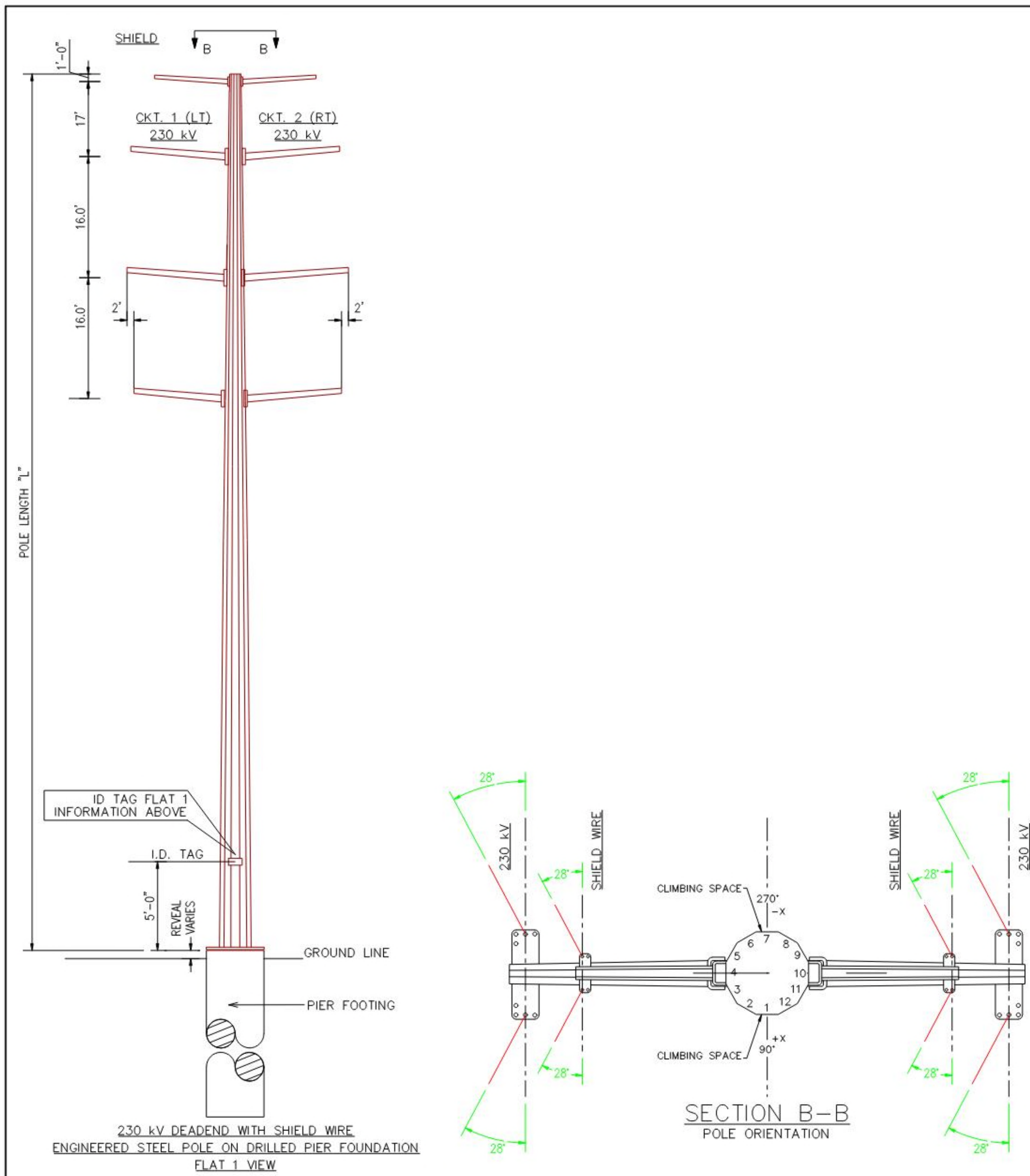
Replace original member  
L2x1.5x0.125 with  
L2.5x2.5x0.25 GR.50  
Use new 3/4" A394 T1  
Bolts. Increase nos. of  
connecting bolt from 1 to 2



% Usage Legend

Blue	0 ≤ % < 25
Cyan	25 ≤ % < 50
Green	50 ≤ % < 75
Yellow	75 ≤ % < 100
Red	100 ≤ %





REV	DATE	DESCRIPTION	DRN	DSGN	CKD
<b>PGE STRUCTURE DESIGN SPECIFICATIONS</b>					
DATE:		SCALE: NTS	DRAWING NO. STR-10717	JOB NO. M3405996	
	TITLE DEADEND 56-DEG LT, DOUBLE CIRCUIT, 230 kV, SHIELDED				
	CIRCUIT				SIZE 11x17
	LOCATION VARIOUS				
COUNTY VARIOUS			SECTION(S) VARIOUS		
ENGINEERING SUPERVISOR					SHEET 1 OF 1
TRANSMISSION ENGINEERING & SPECIALIZED DESIGN 3700 SE 17TH AVE PORTLAND, OR 97202		ENGINEER	PHONE	DRAWN BY	
© PORTLAND GENERAL ELECTRIC CO. - ALL RIGHTS RESERVED					