

# FROG POND ESTATES

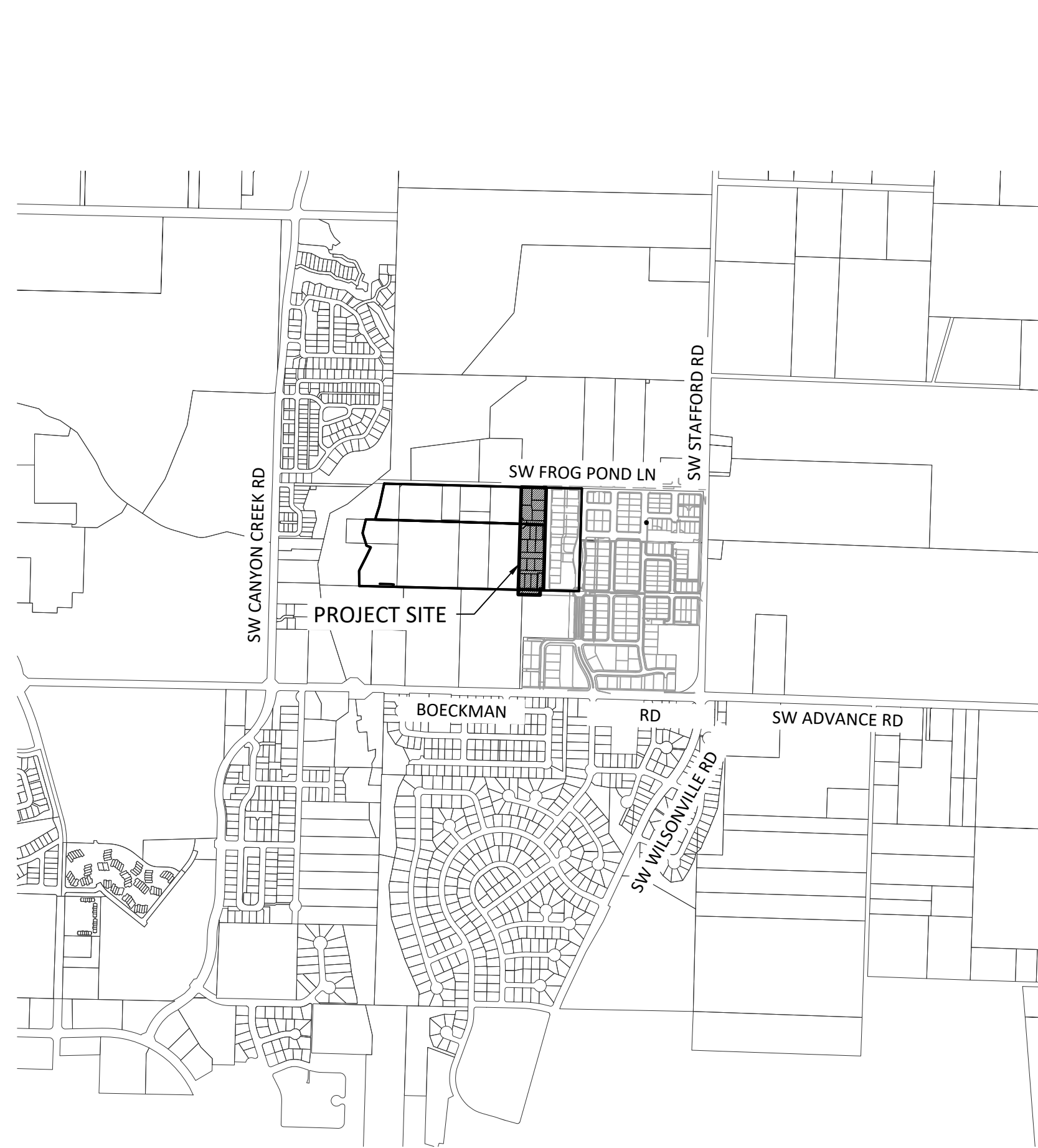
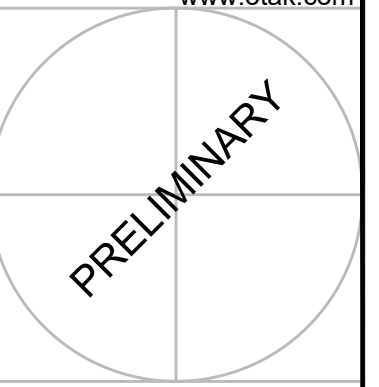
## PLANNED DEVELOPMENT

### 17 DETACHED SINGLE FAMILY LOTS

### CITY OF WILSONVILLE, OREGON



Otak, Inc.  
808 SW Third Avenue, Ste. 800  
Portland, OR 97204  
503.287.6825  
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VICINITY MAP  
N.T.S.



PROJECT MAP  
N.T.S.

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IL-4	ILLUMINATION PLAN

#### APPLICANT/ DEVELOPER

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CONTACT: DAN GRIMBERG  
ADDRESS: 3330 NW YEON AVENUE, SUITE 200  
PORTLAND, OR 97210  
PHONE: (503) 641-7342

#### ARBORIST

NAME: PORTLAND TREE CONSULTING  
CONTACT: RYAN NEUMANN  
ADDRESS: PO BOX 19042  
PORTLAND, OR 97280  
PHONE: (503) 421-3883

#### PLANNER /CIVIL ENGINEER/ SURVEYOR/ LANDSCAPE ARCHITECT

NAME: OTAK INCORPORATED  
PLANNER: LI ALLIGOOD, AICP  
ENGINEER: KEITH BUISMAN, P.E.  
SURVEYOR: MICHAEL SPELTS, PLS  
LANDSCAPE ARCHITECT: GABRIEL KRUSE  
ADDRESS: 808 SW THIRD AVENUE, SUITE 800  
PORTLAND, OR 97204  
PHONE: (503) 287-6825

#### GEOTECHNICAL ENGINEER

NAME: HARDMAN GEOTECHNICAL SERVICES, INC.  
CONTACT: SCOTT HARDMAN, P.E.  
ADDRESS: 10110 SW NIMBUS AVENUE, SUITE B-5  
PORTLAND, OR 97223  
PHONE: (503) 530-8076

#### SITE INFORMATION

CLACKAMAS COUNTY  
CITY OF WILSONVILLE, OREGON, 97070

TAXLOT	AREA (AC)
3S 1W 12D 1501 (7070 SW FROG POND LANE)	4.06
PLUS PROPOSED R.O.W. DEDICATION ON TAXLOT 3S 1W 12DC 04500 AND 3S 1W 12DD 00400 (SCHOOL DISTRICT)	(7600 SF / 0.17 AC)
PLUS REPLAT OF PROPOSED TRACT I OF FROG POND RIDGE NO. 2 PLAT (EXISTING TAXLOT 3S 1W 12D 01500)	(2966 SF / 0.07 AC)

FROG POND ESTATES  
17 DETACHED SINGLE FAMILY LOTS  
CITY OF WILSONVILLE, OREGON

COVER SHEET

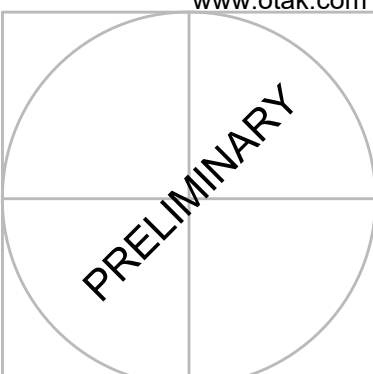
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CHECKED BY
LAND USE SUBMITTAL STATUS
DECEMBER 30, 2021 DATE
20141 PROJECT NUMBER

**P0.00**

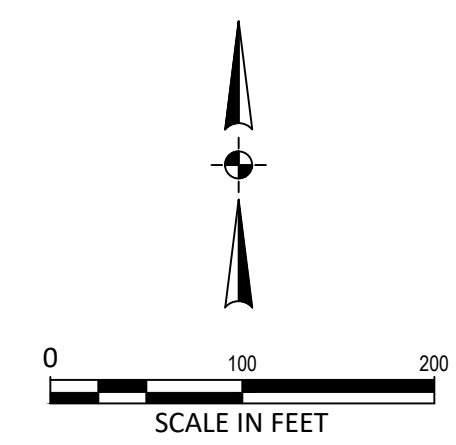
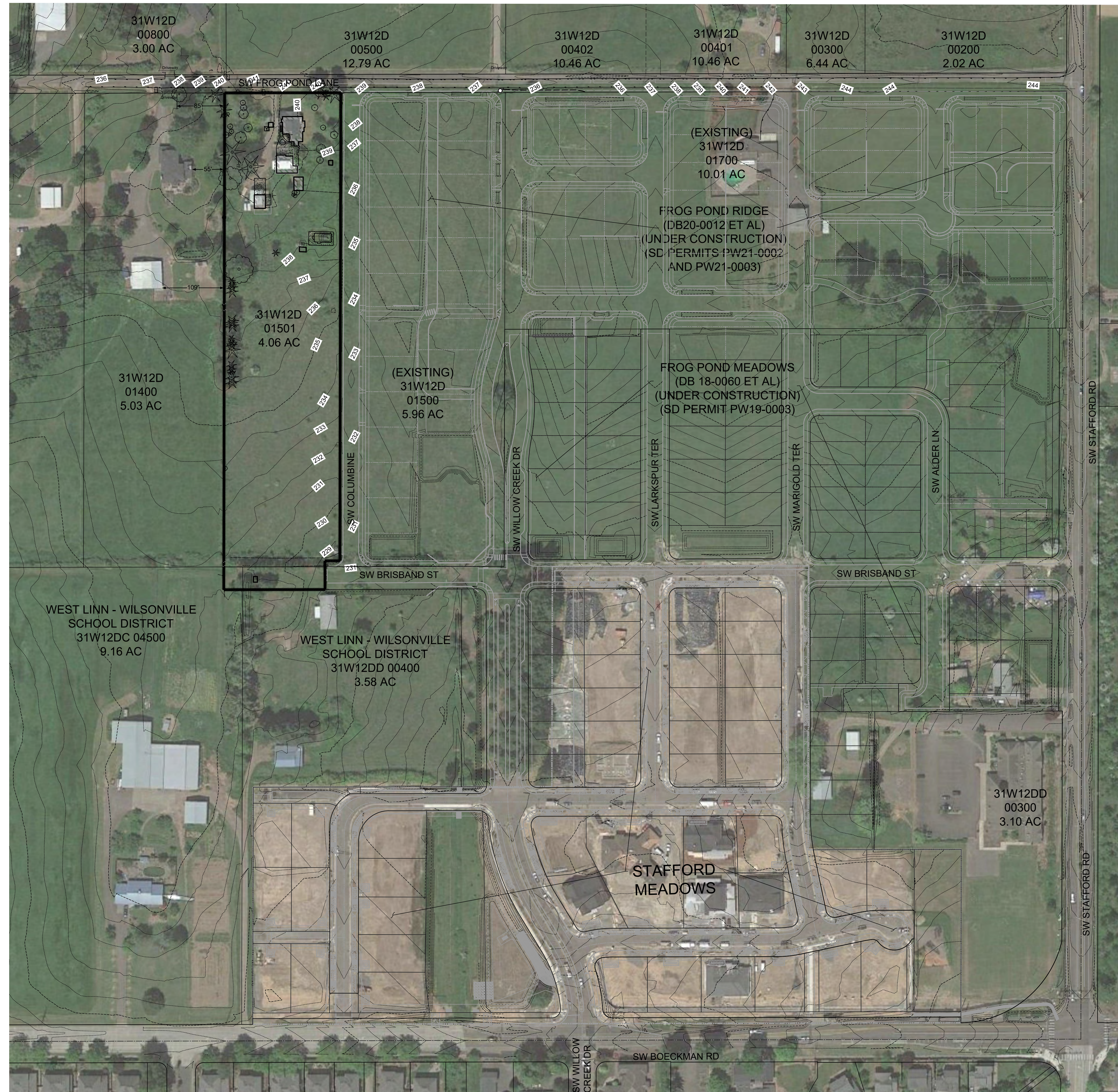
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**LEGEND**

- SITE
- PROPERTY LINE
- PROJECT LIMITS
- EXISTING 5' CONTOUR
- OVERHEAD LINE
- COM. CABLE LINE
- GAS LINE
- WATER LINE
- ELECTRIC LINE
- SANITARY SEWER LINE
- WETLAND AREAS
- CULVERT PIPE
- TREES



**FROG POND ESTATES**  
17 DETACHED SINGLE FAMILY LOTS  
CITY OF WILSONVILLE, OREGON

**EXISTING CONDITIONS - AERIAL**

#	DATE	DESCRIPTION

REVISIONS

NAVDS8 DATUM

OTAK CAD DRAWN BY KJB CHECKED BY

LAND USE SUBMITTAL STATUS

DECEMBER 30, 2021 DATE

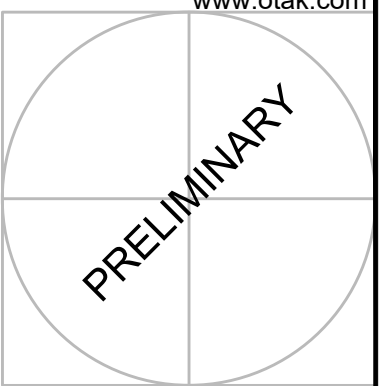
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**P1.00**

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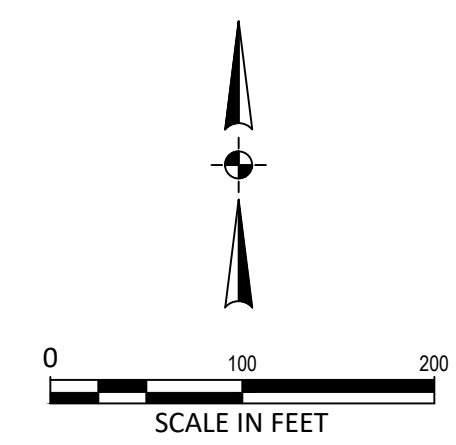
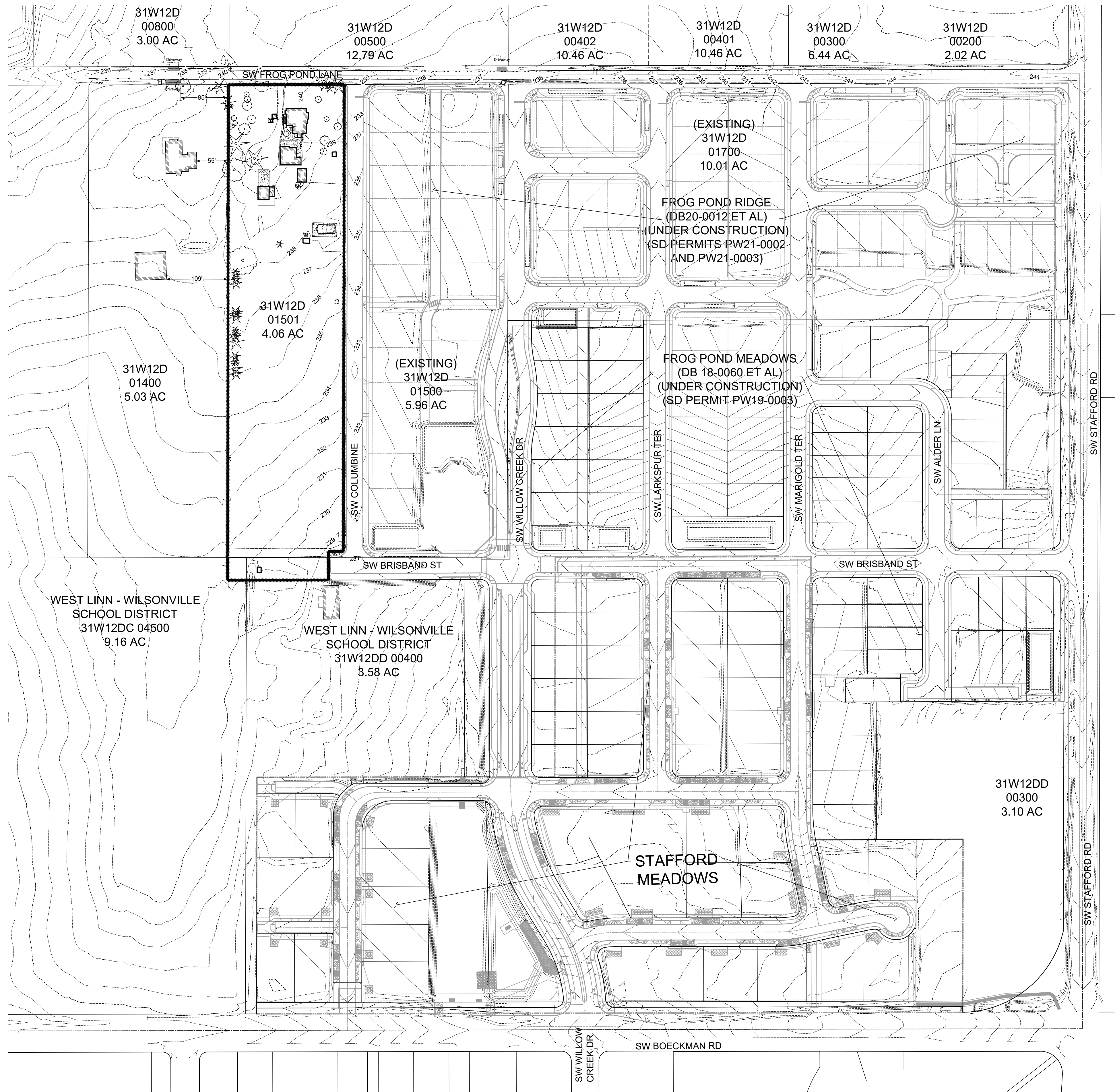
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**LEGEND**

- SITE
- PROPERTY LINE
- PROJECT LIMITS
- EXISTING 5' CONTOUR
- OVERHEAD LINE
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- TREES



**FROG POND ESTATES**  
17 DETACHED SINGLE FAMILY LOTS  
CITY OF WILSONVILLE, OREGON

**EXISTING CONDITIONS - SURVEY MAPPING**

#	DATE	DESCRIPTION

REVISIONS

NAV D88  
DATUM

OTAK CAD KJB  
DRAWN BY CHECKED BY

LAND USE SUBMITTAL  
STATUS

DECEMBER 30, 2021  
DATE

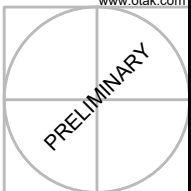
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PROJECT NUMBER

**P1.10**

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STAMP  
**WEST HILLS**  
LAND DEVELOPMENT  
CONSULTANT

**FROG POND ESTATES**  
17 DETACHED SINGLE FAMILY LOTS  
CITY OF WILSONVILLE, OREGON

PRELIMINARY SITE PLAN

TITLE	#	DATE	DESCRIPTION

REVISIONS	DATE	DESCRIPTION

NAV/D88  
DATUM  
OTAK CAD  
DRAWN BY  
LAND USE SUBMITTAL  
STATUS  
DECEMBER 30, 2021  
DATE  
20141  
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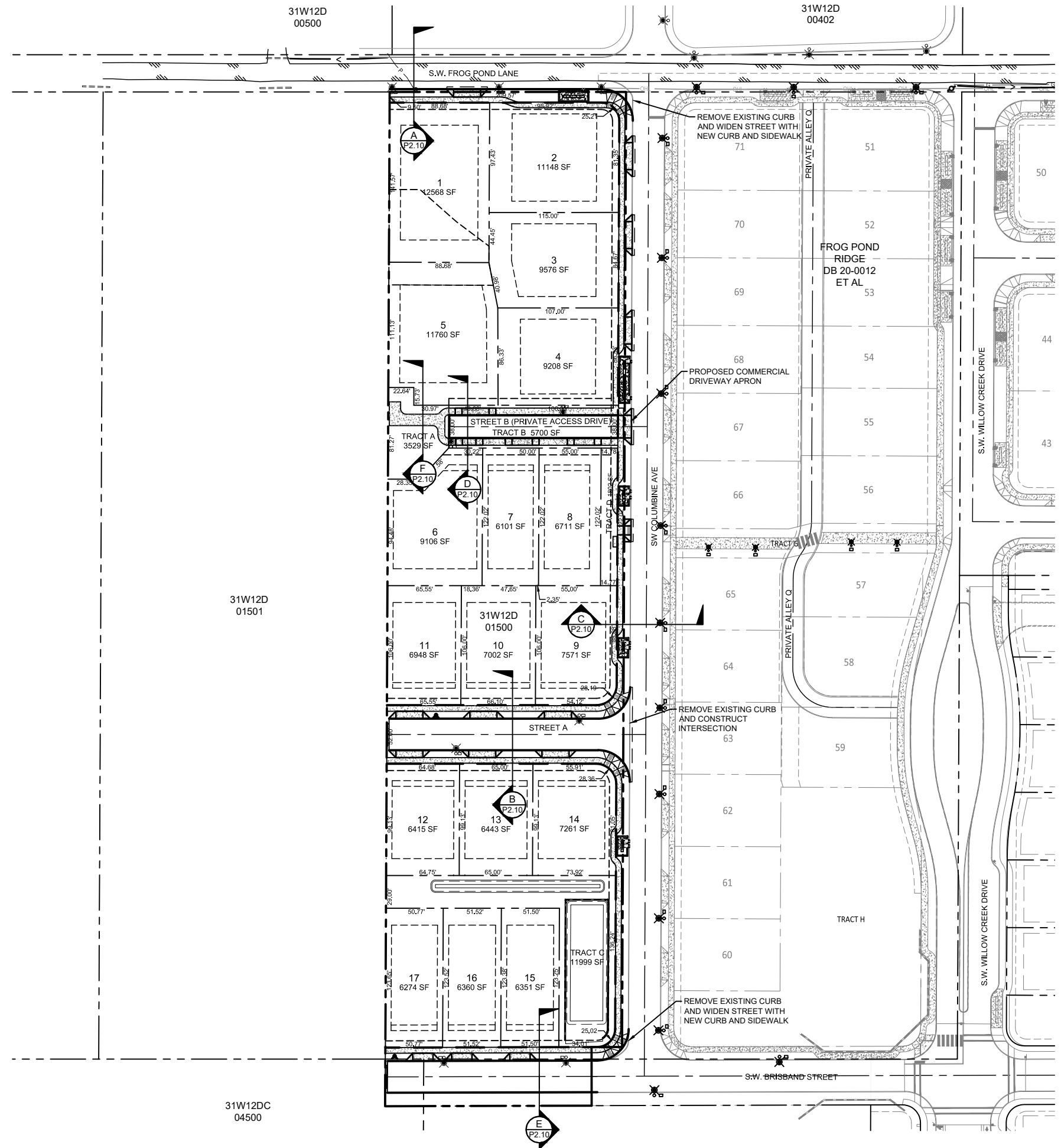
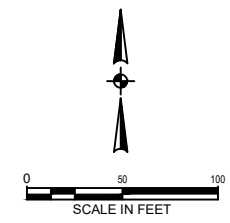
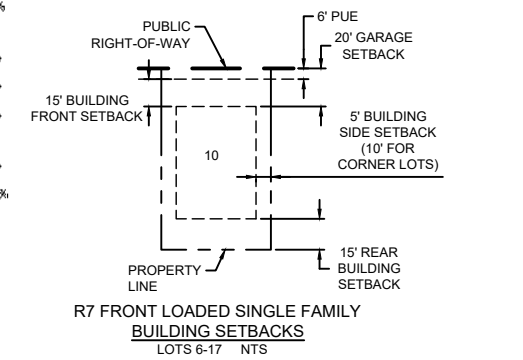
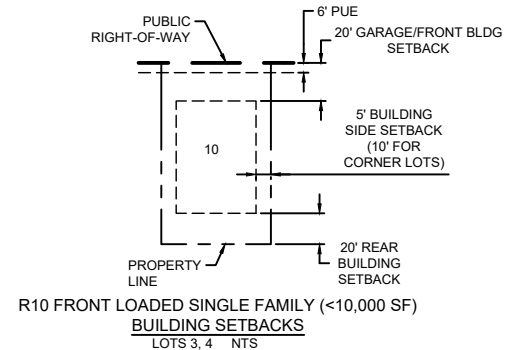
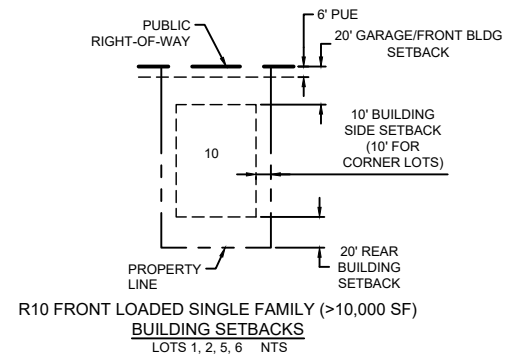
**LEGEND**

- PROPERTY LINE
- RIGHT-OF-WAY
- CENTER LINE
- LOT LINE
- LOT SETBACK
- LOT NUMBER / NAME
- EASEMENT LINE
- STANDARD CURB
- SIDEWALK
- RETAINING WALL
- INTERSECTION SIGHT DISTANCE  
*X* = DESIGN SPEED(MPH) X 10 / MPH
- TYPICAL STREET CROSS SECTION (SEE SHEET P2.10)
- PUBLIC RAIN GARDEN
- DRIVEWAY
- CURB RAMP

PARCEL	AREA
1	12,568 SF
2	11,148 SF
3	9,576 SF
4	9,208 SF
5	11,760 SF
6	9,106 SF
7	6,101 SF
8	6,711 SF
9	7,571 SF
10	7,002 SF
11	6,948 SF
12	6,415 SF
13	6,443 SF
14	7,261 SF
15	6,351 SF
16	6,360 SF
17	6,274 SF

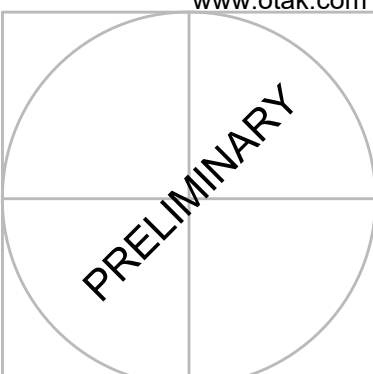
TRACT	AREA
ROW	17,866 SF
TRACT A	3,529 SF
TRACT B	5,700 SF
TRACT C	11,999 SF
TRACT D	1,802 SF

Residential lot Area	136,803	77.39%
Stormwater tracts	11,999	6.79%
Open space	5,331	3.02%
Right of way	16,949	9.50%
Private street tracts	5,700	3.22%
Total site area	176,782	100.00%



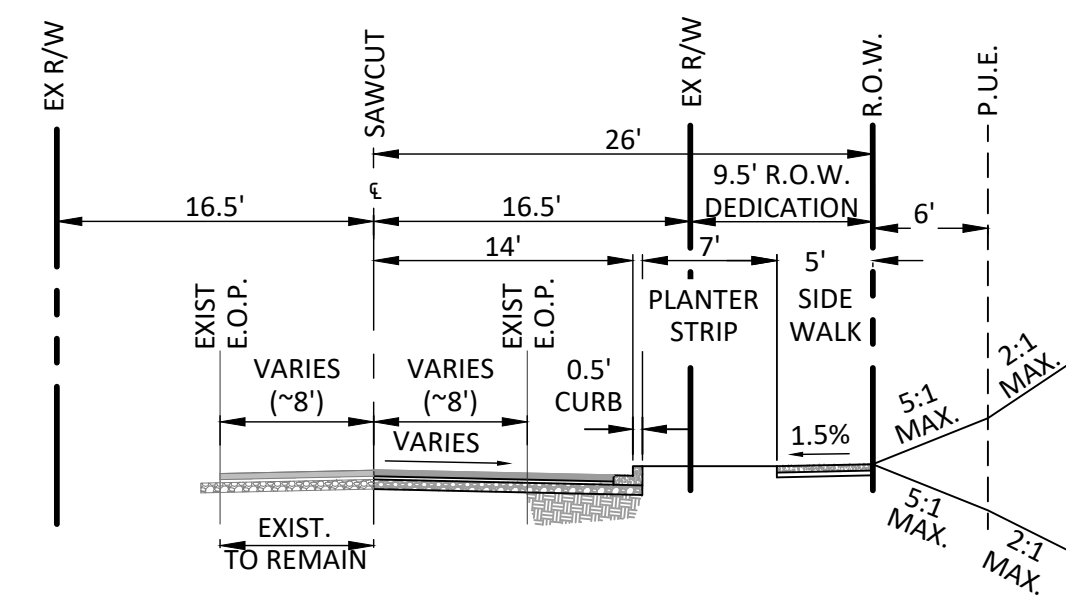
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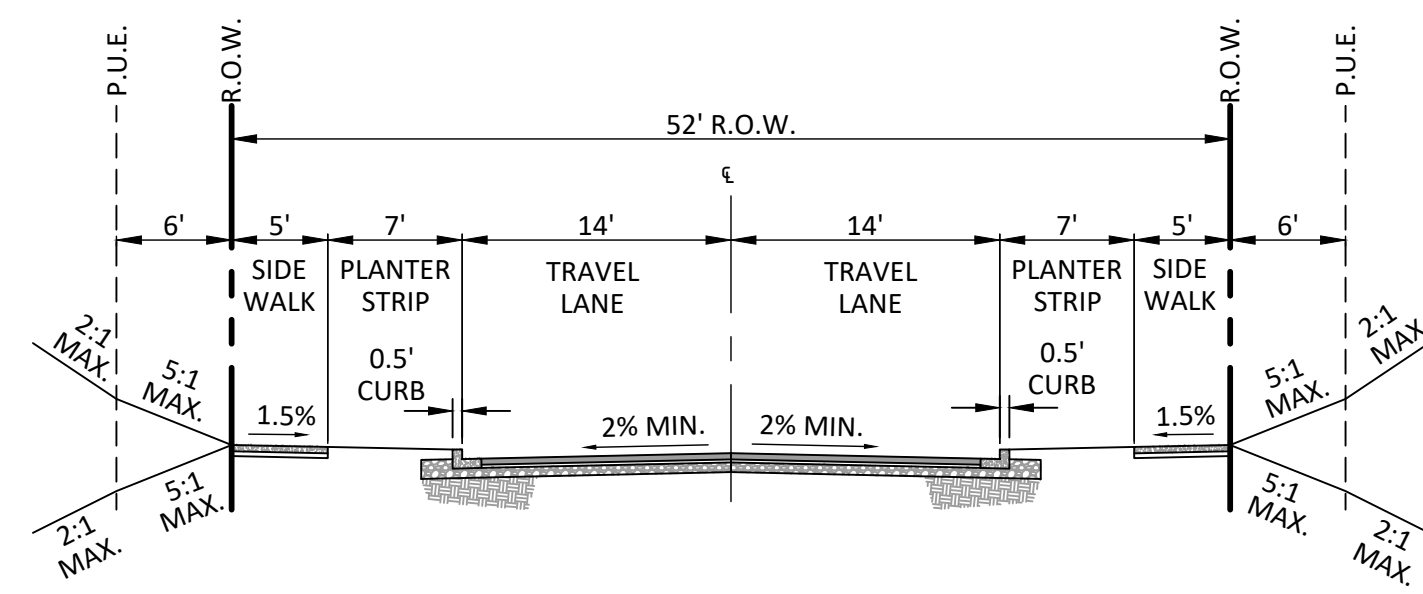


PRELIMINARY STREET CROSS SECTIONS

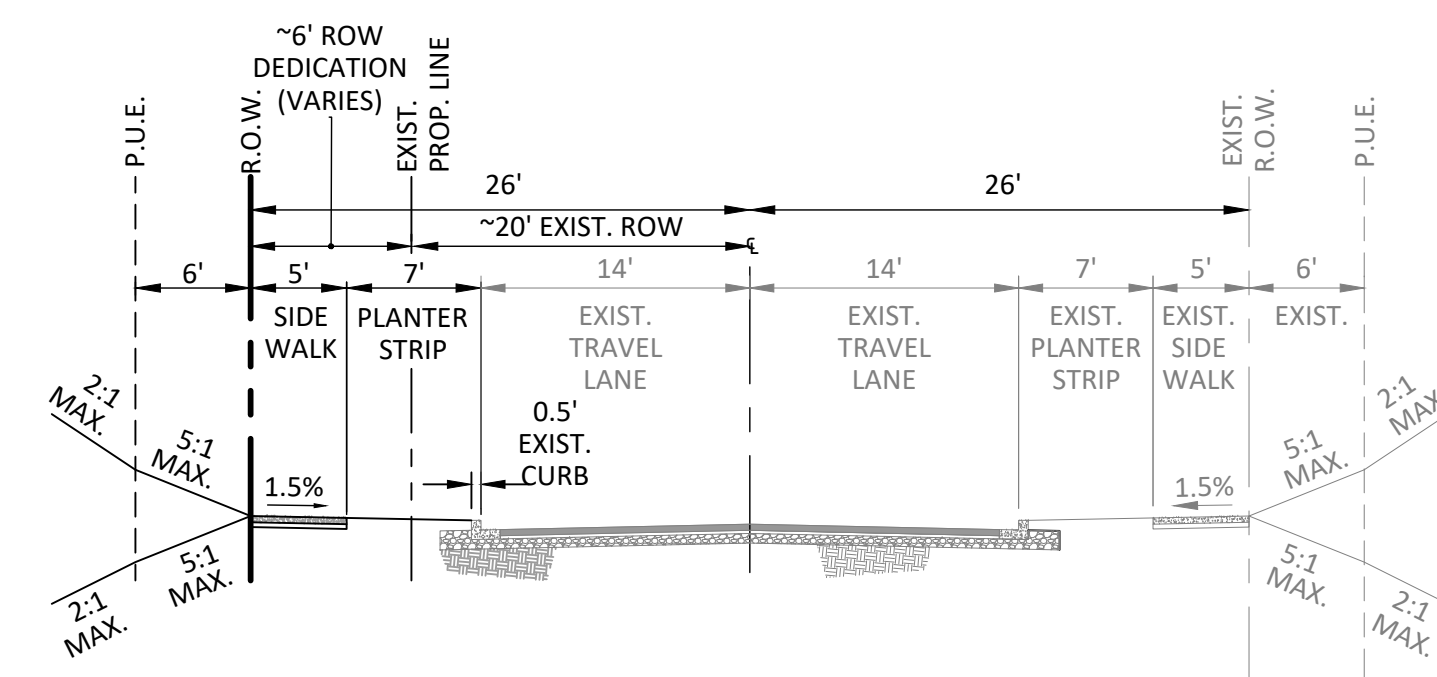
FROG POND ESTATES  
17 DETACHED SINGLE FAMILY LOTS  
CITY OF WILSONVILLE, OREGON



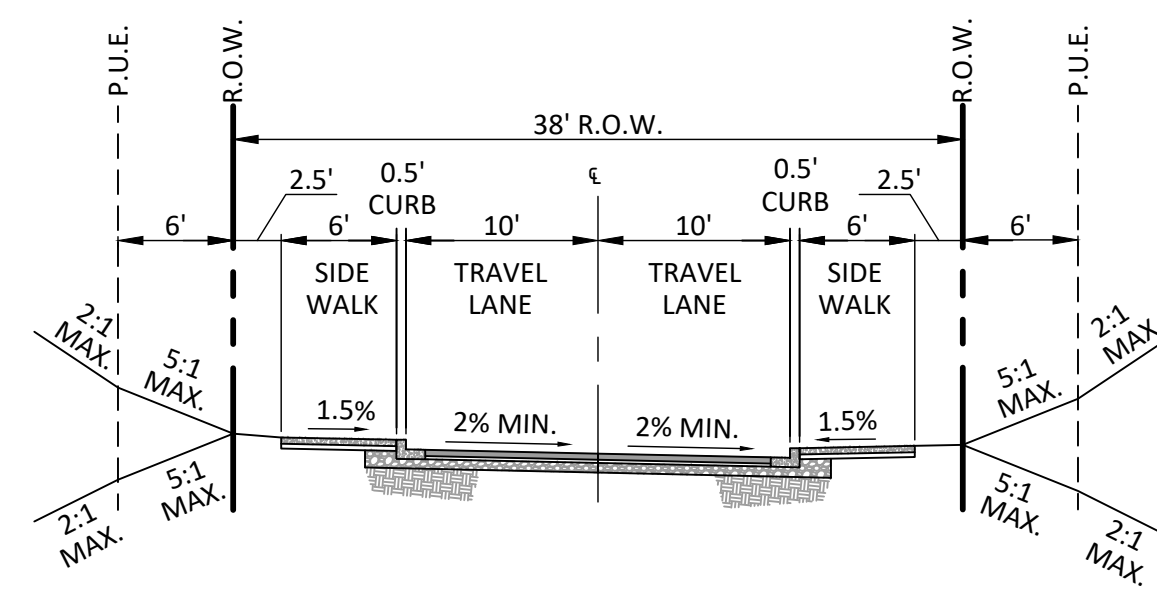
**A** SW FROG POND LN  
(LOCAL STREET - NO PARKING)  
SCALE: 1" = 10'-0"



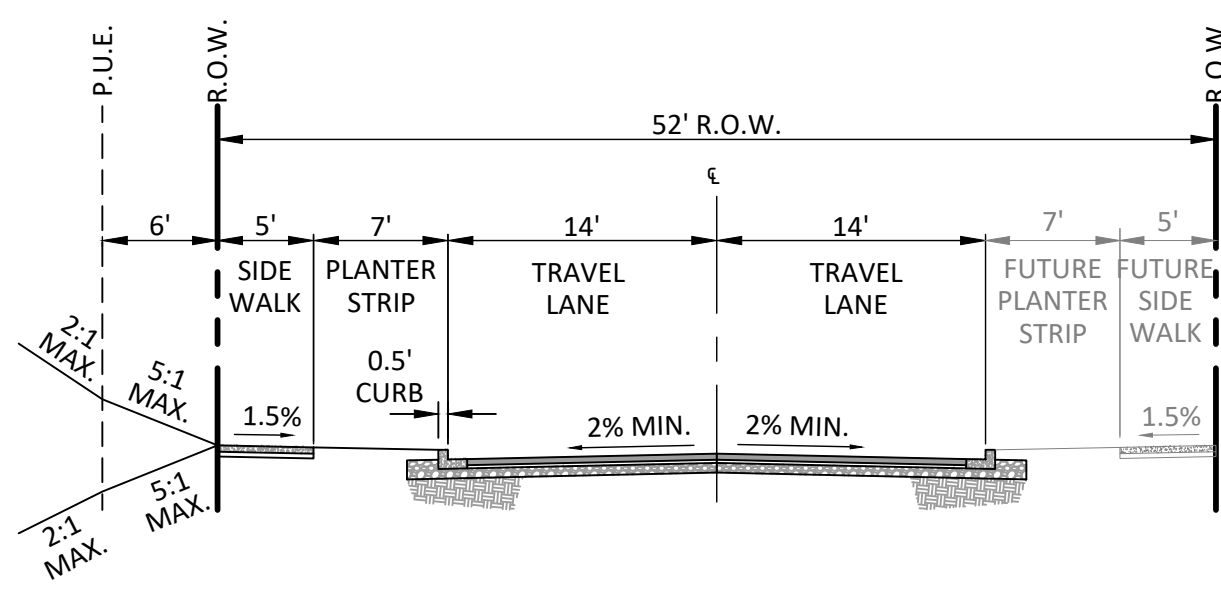
**B** STREET A  
(LOCAL STREET - PARKING ON BOTH SIDES)  
SCALE: 1" = 10'-0"



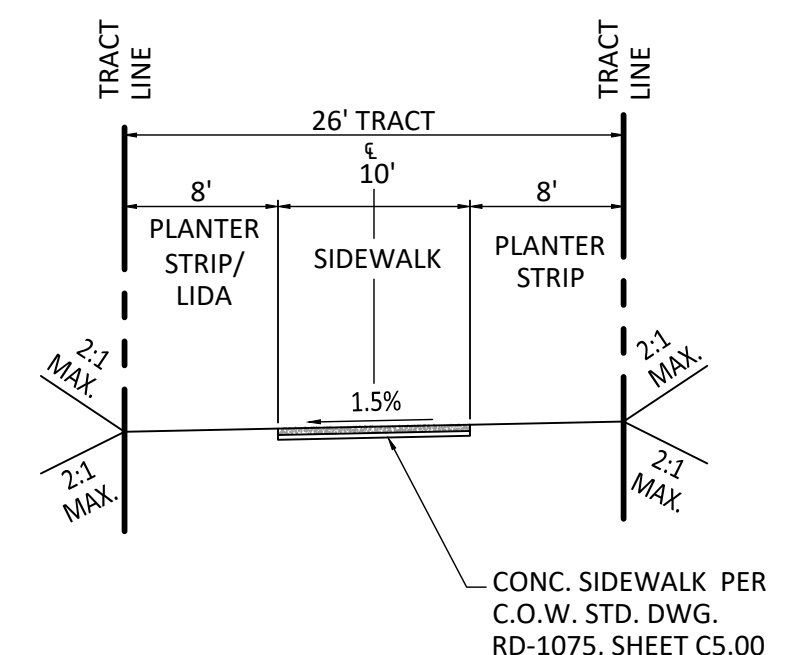
**C** SW COLUMBINE AVE  
(LOCAL STREET - PARKING ON BOTH SIDES)  
SCALE: 1" = 10'-0"



**D** STREET B (PRIVATE)  
(LOCAL STREET - NO PARKING)  
SCALE: 1" = 10'-0"



**E** SW BRISBAND ST  
(LOCAL STREET - PARKING ON BOTH SIDES)  
SCALE: 1" = 10'-0"



**F** PEDESTRIAN ACCESS PATH  
SCALE: 1" = 10'-0"

**STREET CROSS SECTIONS**  
SEE SHEET P2.00 FOR SECTION LOCATIONS

#	DATE	DESCRIPTION

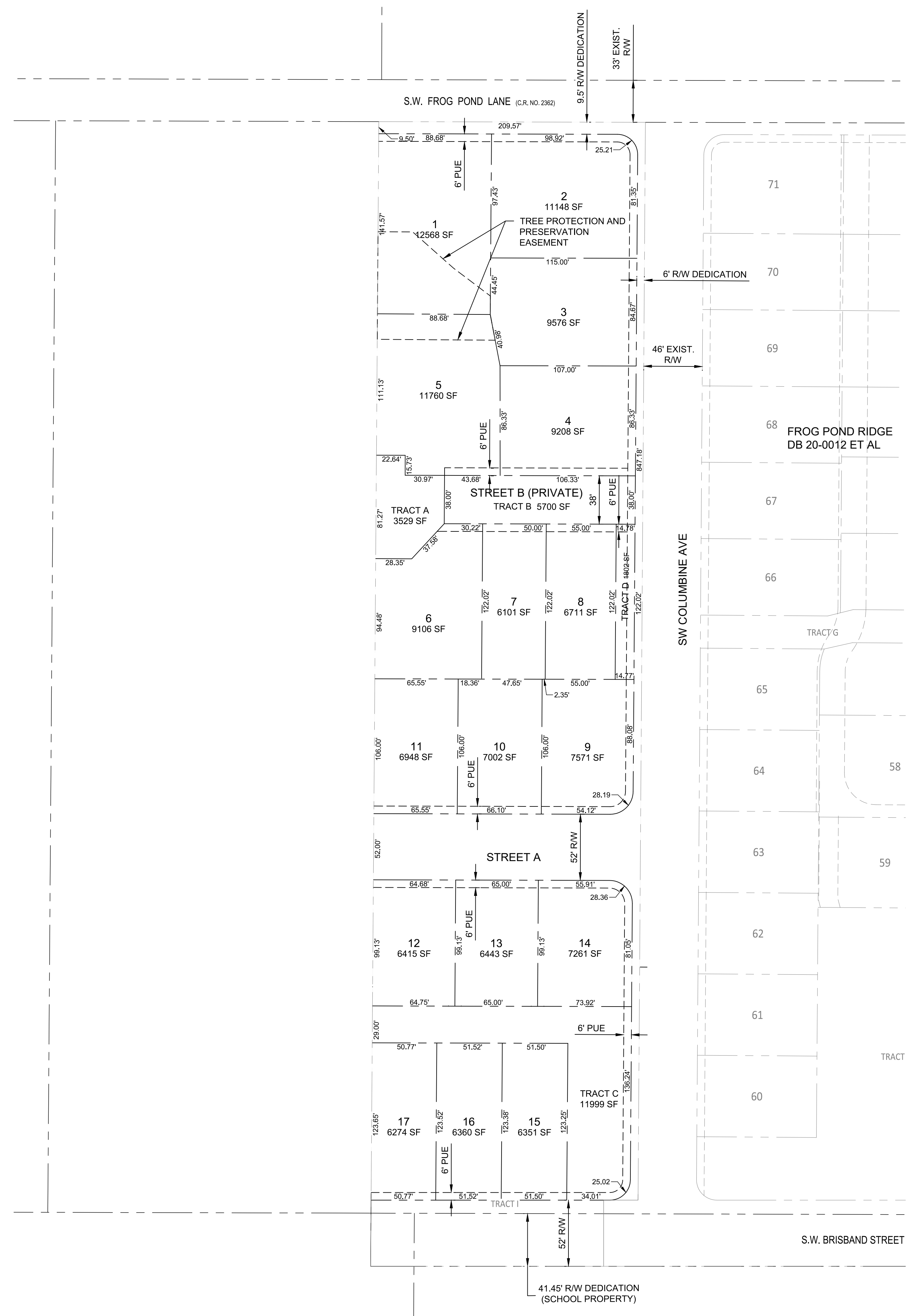
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OTAK CAD DRAWN BY	KJB CHECKED BY
LAND USE SUBMITTAL STATUS	
DECEMBER 30, 2021 DATE	
20141 PROJECT NUMBER	

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Plotted: Feb. 09. 2022 - 1:48pm. Health.buisman... L:\Projects\201000\20141\CADD\ACADD\WellErod Pond - Estates\P20141P300.dwg - Layout Name: P3.00

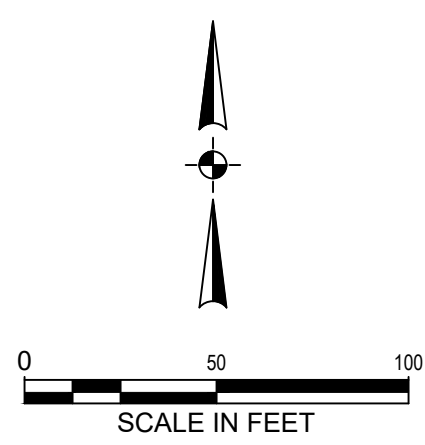


**GENERAL NOTES:**

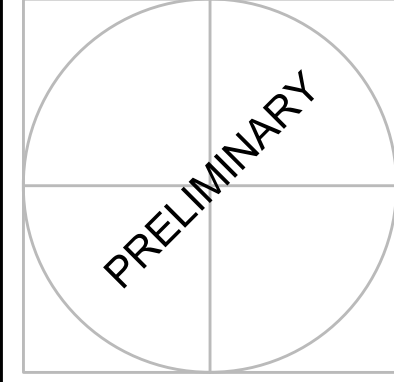
- TRACT A IS FOR NATURAL RESOURCE PURPOSES. TRACT A IS SUBJECT TO A TREE PROTECTION AND PRESERVATION EASEMENT OVER ITS ENTIRETY.
- TRACT B IS FOR SHARED DRIVEWAY PURPOSES AND IS SUBJECT TO A PUBLIC ACCESS EASEMENT. TRACT B IS ALSO SUBJECT TO A SANITARY SEWER PIPELINE EASEMENT, WATER PIPELINE EASEMENT, AND A STORMWATER PIPELINE EASEMENT, ALL TO BENEFIT THE CITY OF WILSONVILLE, OVER ITS ENTIRETY.
- TRACT C IS FOR STORMWATER TREATMENT PURPOSES AND IS SUBJECT TO A STORM DRAINAGE AND STORMWATER PIPELINE EASEMENT TO BENEFIT THE CITY OF WILSONVILLE, OVER ITS ENTIRETY.

**LEGEND**

	PROPOSED
PROJECT BOUNDARY	———
RIGHT OF WAY	———
CENTER LINE	———
LOT LINE	———
EASEMENT LINE	———
LOT NUMBER / NAME	2



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17 DETACHED SINGLE FAMILY LOTS  
CITY OF WILSONVILLE, OREGON

**PRELIMINARY PLAT**

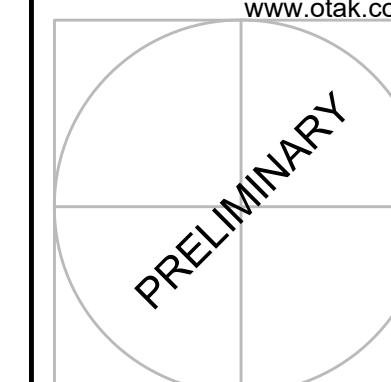
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#	DATE	DESCRIPTION

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**FROG POND ESTATES**  
 17 DETACHED SINGLE FAMILY LOTS  
 CITY OF WILSONVILLE, OREGON  
**PRELIMINARY UTILITY PLAN**

TITLE	DATE	DESCRIPTION

REVISIONS	
NAVD88 DATUM	
OTAK CAD	KJB
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LAND USE SUBMITTAL STATUS	
DECEMBER 30, 2021	
DATE	
20141	
PROJECT NUMBER	

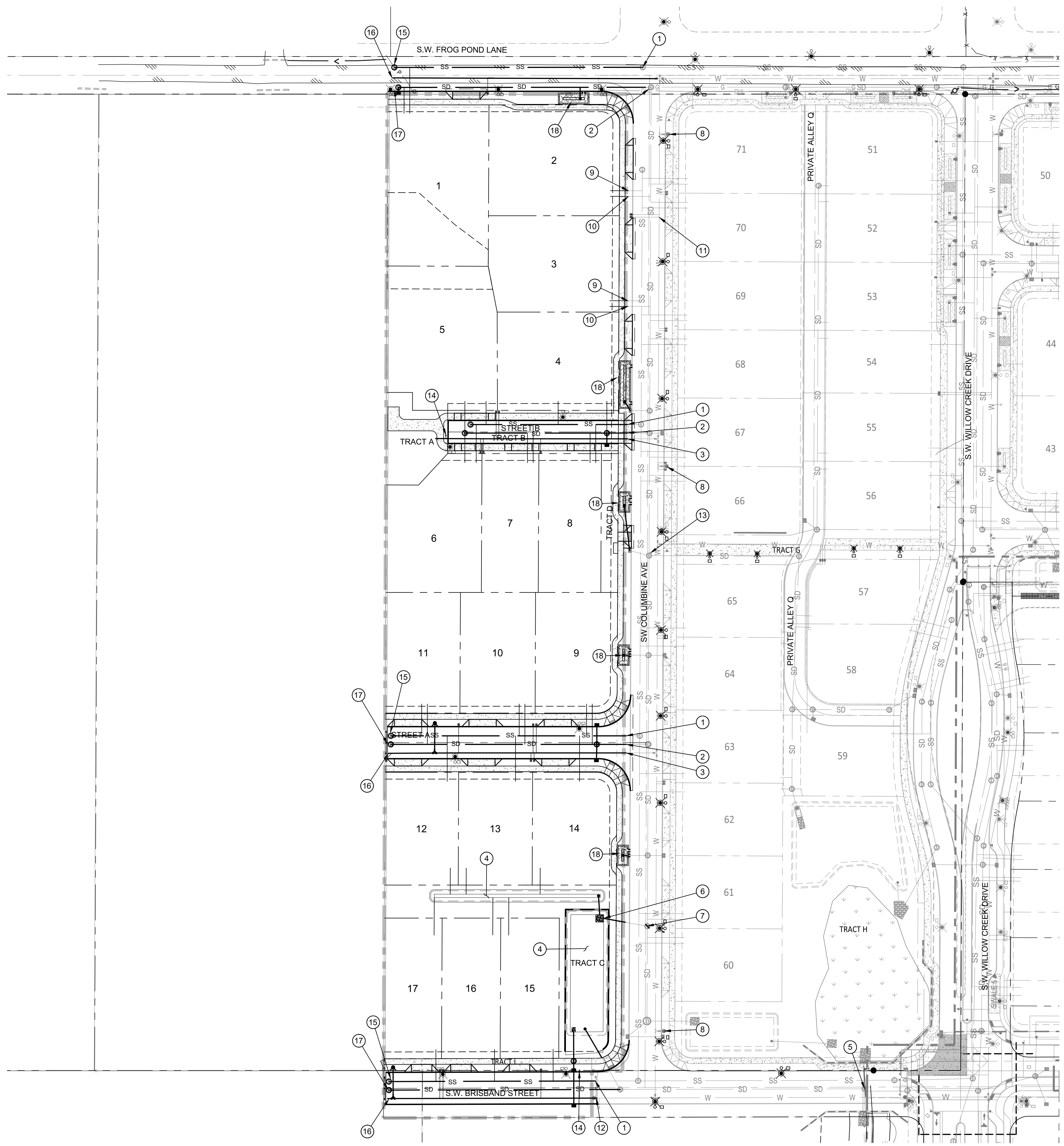
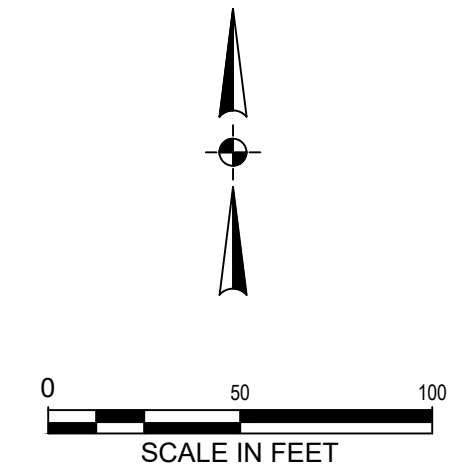
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**KEY NOTES**

- ① CONNECT TO EXISTING SANITARY SEWER.
- ② CONNECT TO EXISTING STORM SEWER.
- ③ CONNECT TO EXISTING WATER LINE.
- ④ PROPOSED RAIN GARDEN (CITY STD. DWG. ST-6020)
- ⑤ CONNECT TO EXISTING CULVERT.
- ⑥ STORM SEWER OUTFALL TO RAIN GARDEN.
- ⑦ EXISTING FLOW SPLIT MANHOLE WITH PIPE STUB WEST.
- ⑧ EXISTING FIRE HYDRANT.
- ⑨ PROPOSED SEWER LATERAL EXTENSION TO EXISTING SEWER LATERAL.
- ⑩ PROPOSED STORM LATERAL EXTENSION TO EXISTING STORM LATERAL.
- ⑪ PROPOSED WATER SERVICE CONNECTION TO EXISTING WATER LINE.
- ⑫ REMOVE EXISTING FIRE HYDRANT AND EXTEND WATER LINE.
- ⑬ EXISTING FLOW SPLIT MANHOLE.
- ⑭ PROPOSED IRRIGATION SERVICE.
- ⑮ PROPOSED SEWER MAIN EXTENSION TO WESTERN PROPERTY BOUNDARY.
- ⑯ PROPOSED WATER MAIN EXTENSION TO WESTERN PROPERTY BOUNDARY.
- ⑰ PROPOSED STORM SEWER MAIN EXTENSION TO WESTERN PROPERTY BOUNDARY. SINCE WESTERN BOUNDARY IS AT A RIDGE, STORM SEWER FROM FUTURE DEVELOPMENT TO THE WEST WILL LIKELY NEED TO DISCHARGE TO FACILITIES TO THE WEST.
- ⑱ PUBLIC LIDA WITH CURB OPENINGS (CITY STD. DWG. ST-6012)

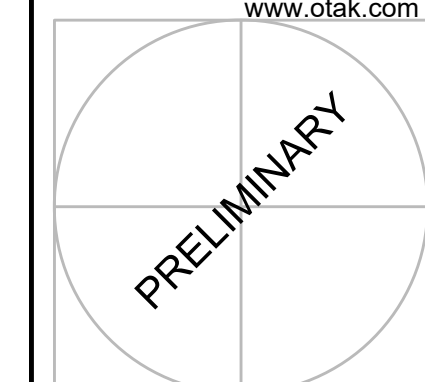
**LEGEND**

SITE	PROPOSED
PROJECT BOUNDARY	---
STORM DRAIN MANHOLE	⊕
STORM DRAIN CLEAN OUT	⊙
LIDA FLOW CONTROL STRUCTURE (BEEHIVE: CITY STANDARD DWG. ST-6120)	•
CATCH BASIN	■
STORM DRAIN MAIN	SD
STORM DRAIN LATERAL	SD
SANITARY SEWER MANHOLE	⊕
SANITARY SEWER CLEAN OUT	⊙
SANITARY SEWER MAIN	SS
SANITARY SEWER LATERAL	SS
WATER VALVE	⊕
WATER BLOW-OFF	⊕
WATER METER	⊕
WATER FIRE HYDRANT	⊕
WATER MAIN	W
WATER LATERAL	W
STREET LIGHT PGE OPTION "B" LED WITH WESTBROOKE 35W LED AND 18" DECORATIVE ALUMINUM POLE (20' MOUNTING HEIGHT W/ 4' MAST ARM)	⊕
LIDA FACILITY	⊕



Plotted: Feb. 09, 2022, 4:50pm, health\_buisman... I:\Projects\2010020141\CADD\ACADD\WetEros\Final - Estates\20141\F400.dwg - Layout Name: P4.00





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CITY OF WILSONVILLE, OREGON

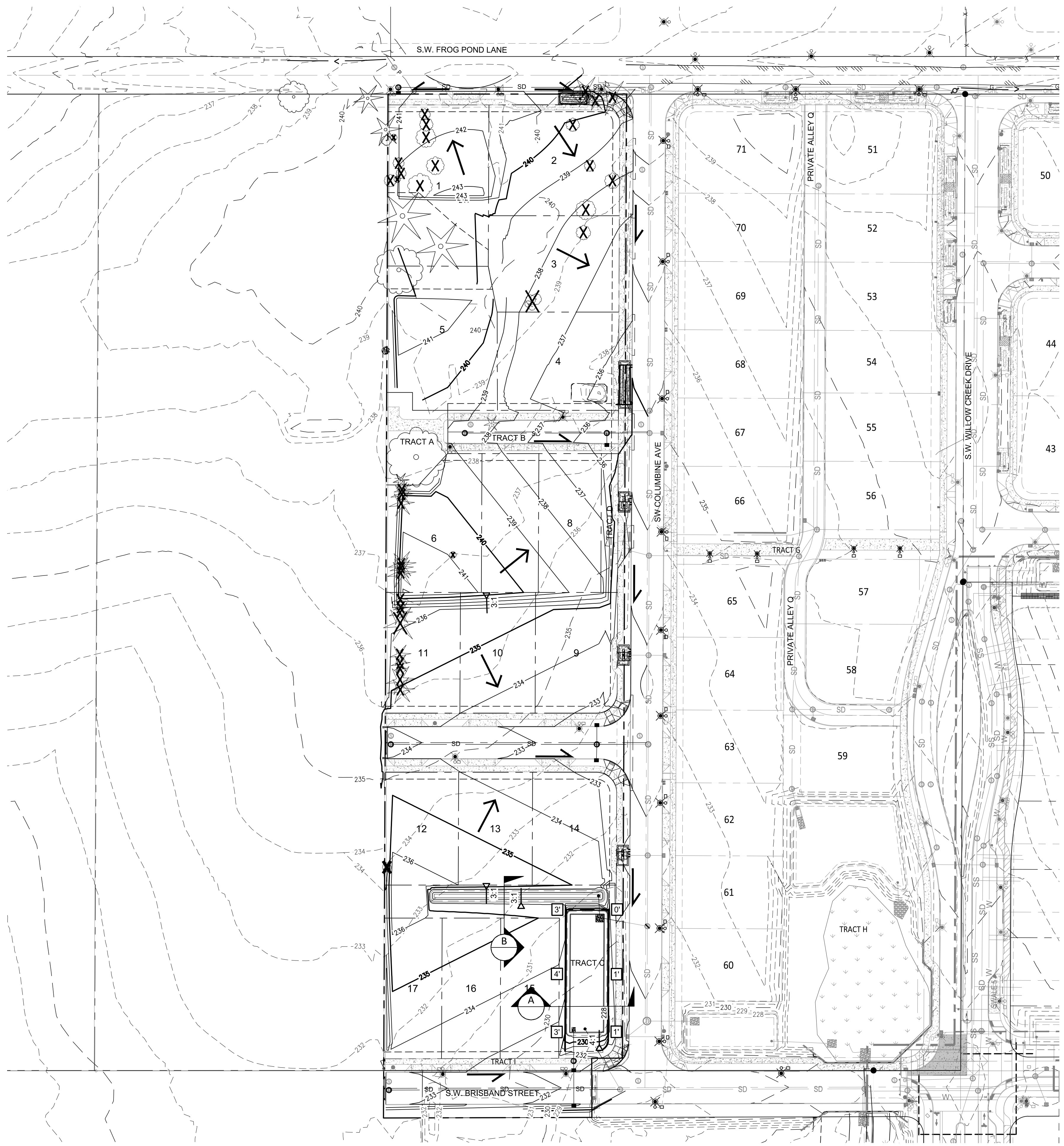
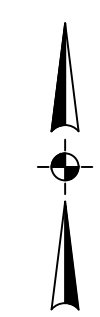
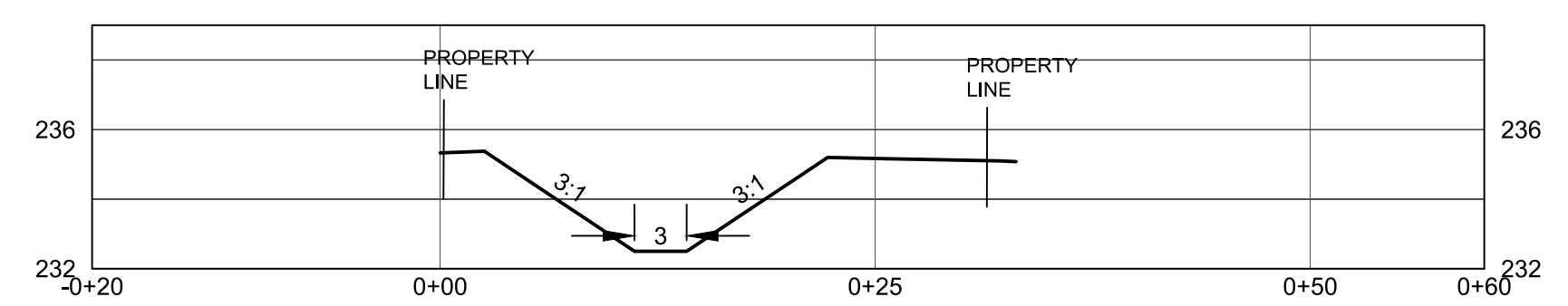
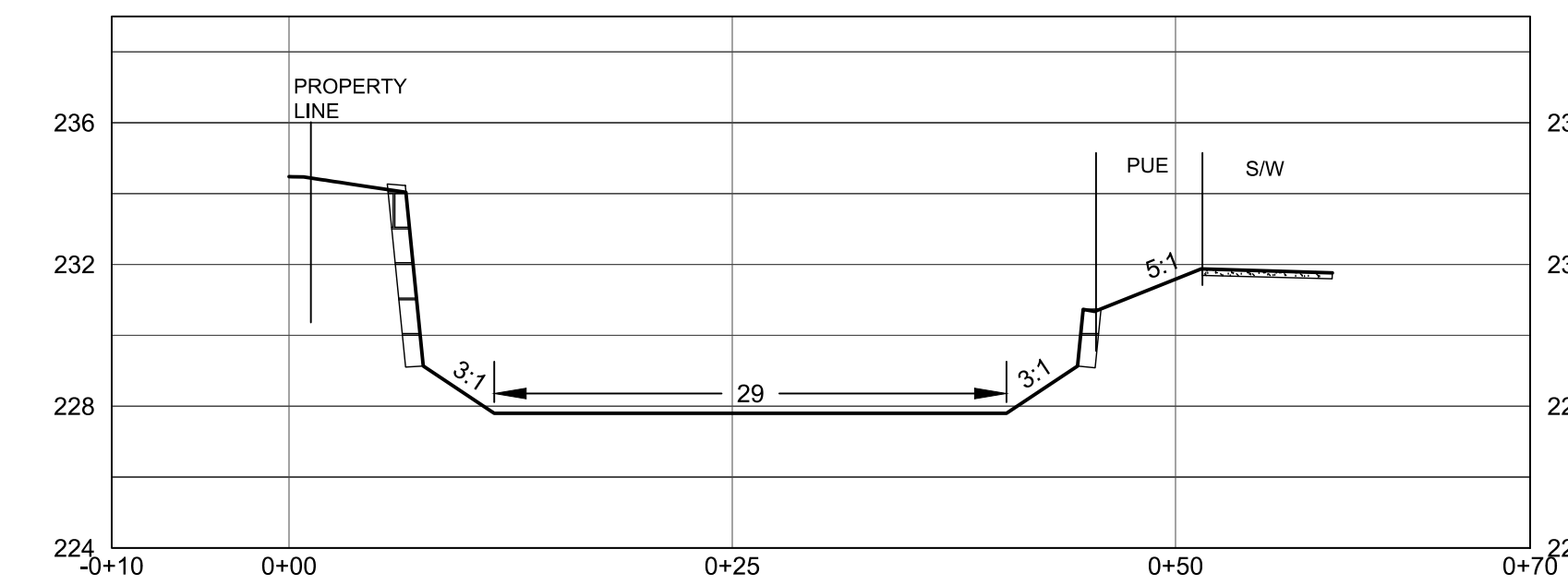
**PRELIMINARY GRADING PLAN**

#	DATE	DESCRIPTION

REVISIONS  
NAVD88 DATUM  
OTAK CAD KJB  
DRAWN BY CHECKED BY  
LAND USE SUBMITTAL STATUS  
DECEMBER 30, 2021  
DATE  
20141  
PROJECT NUMBER  
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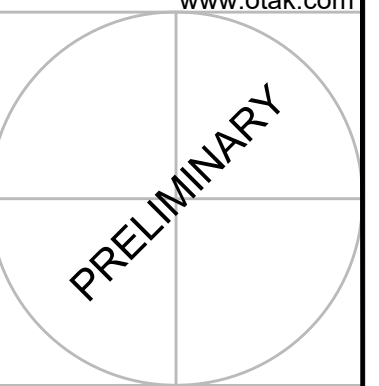
**LEGEND**

- EXISTING 1' CONTOUR 280
- EXISTING 5' CONTOUR 280
- PROPOSED 1' CONTOUR 280
- PROPOSED 5' CONTOUR 280
- RETAINING WALL
- LANDSCAPE WALL (<4' HIGH) OR BUILDING FOUNDATION WALL
- STREET FLOW ARROW
- LOT FLOW ARROW
- EXISTING TREES TO REMAIN (SEE SHEET L1.00)
- EXISTING TREES TO BE REMOVED (SEE SHEET L1.00)
- APPROXIMATE WALL HEIGHT



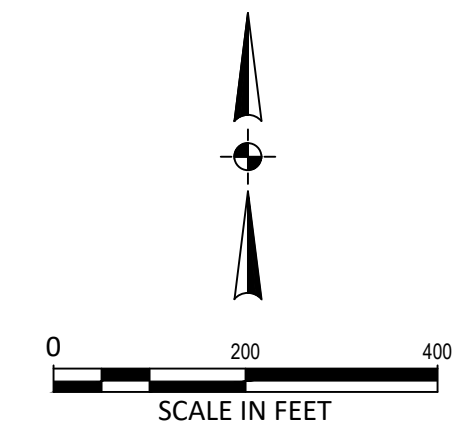
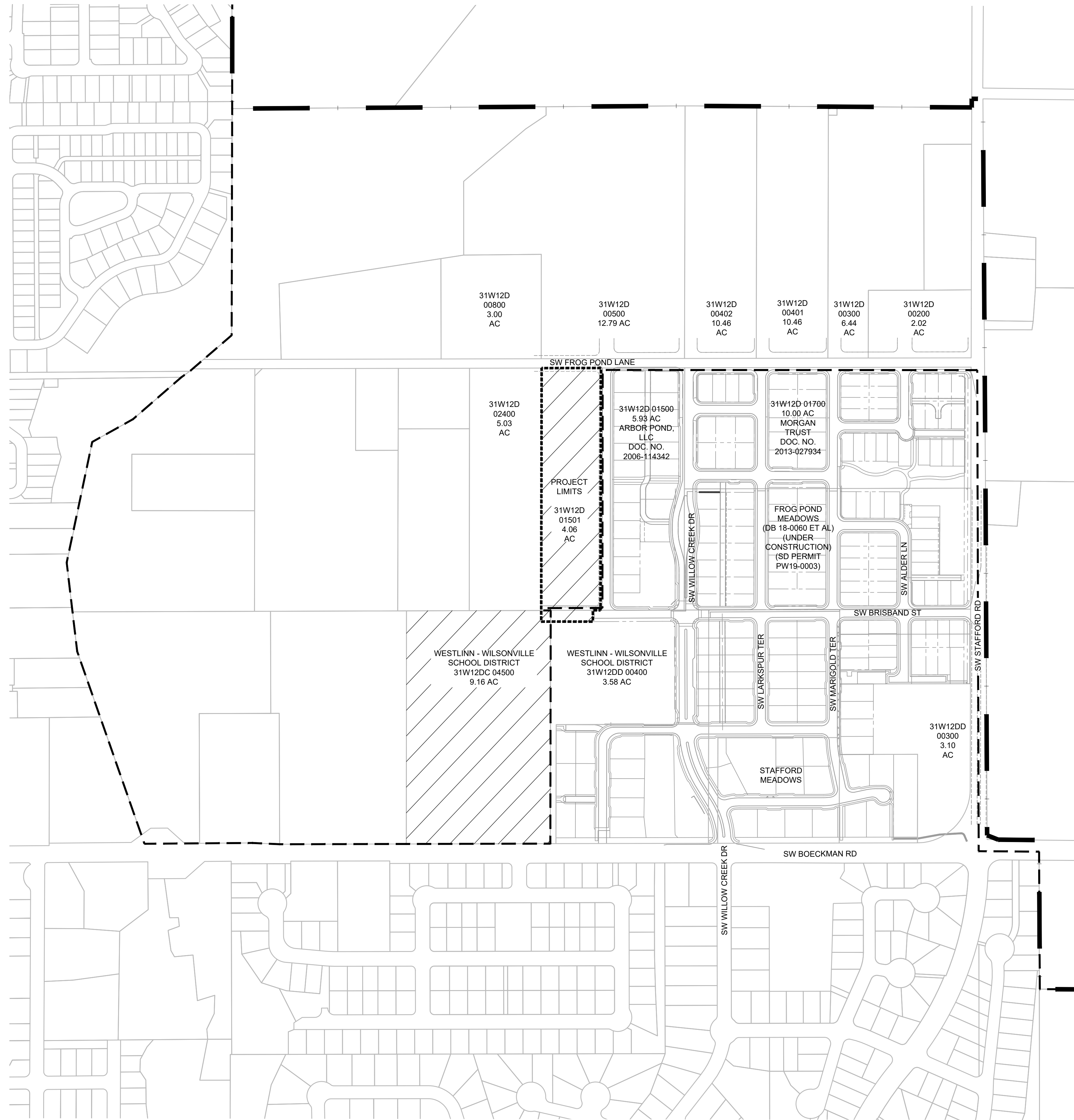
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**FROG POND ESTATES**  
17 DETACHED SINGLE FAMILY LOTS  
CITY OF WILSONVILLE, OREGON

**ANNEXATION PLAN**



**LEGEND**

- PROJECT LIMITS
- EXISTING CITY LIMITS
- EXISTING URBAN GROWTH BOUNDARY
- PROPOSED AREA TO BE ANNEXED TO THE CITY OF WILSONVILLE

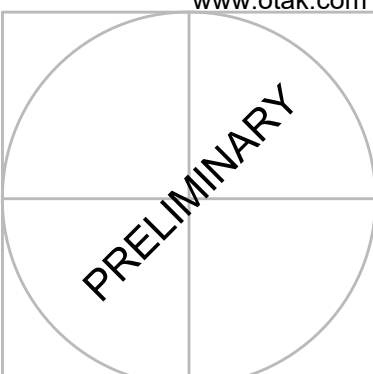
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DECEMBER 30, 2021	DATE
20141	PROJECT NUMBER

**P6.00**





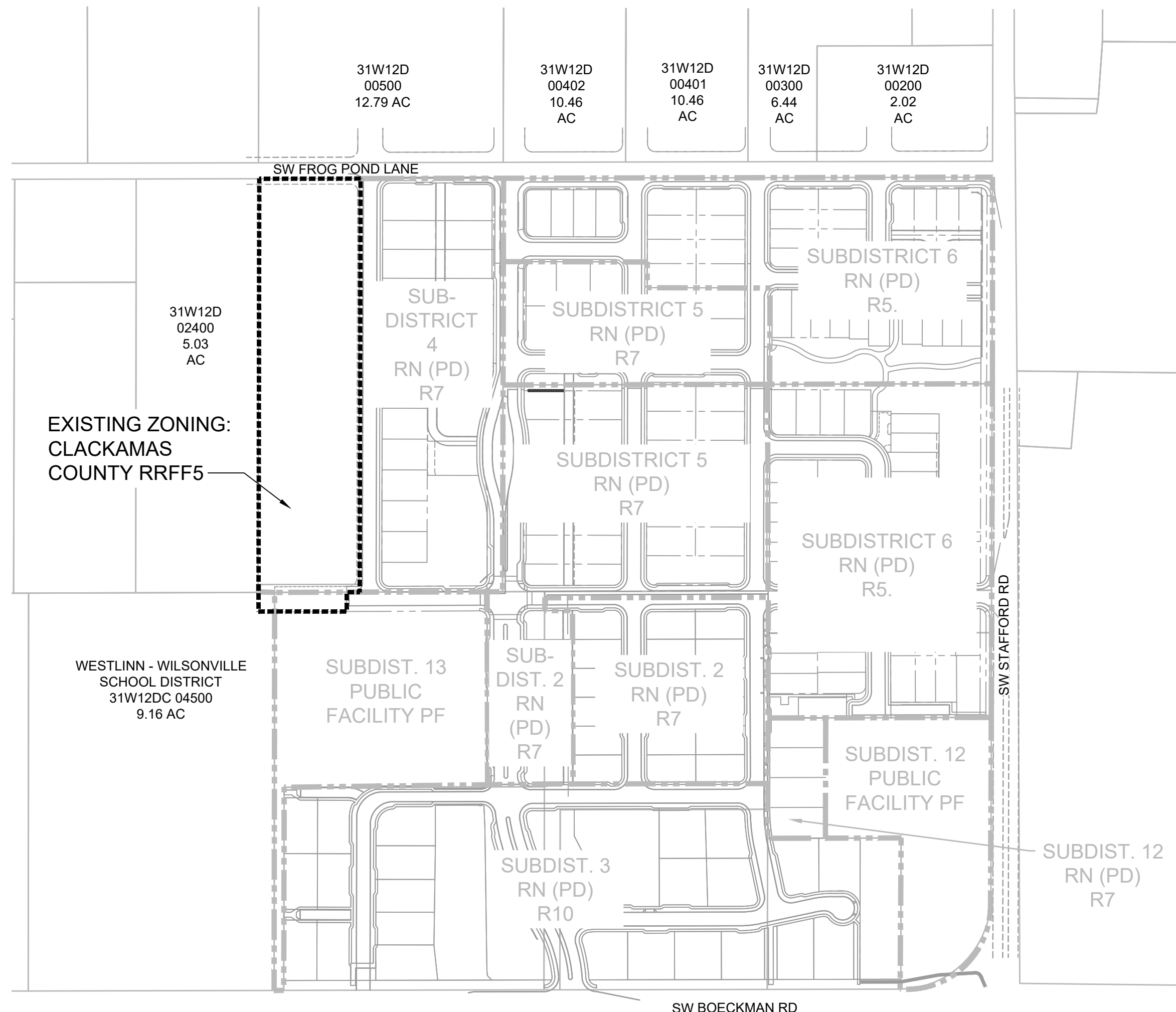
STAMP



WEST HILLS  
LAND DEVELOPMENT  
CONSULTANT

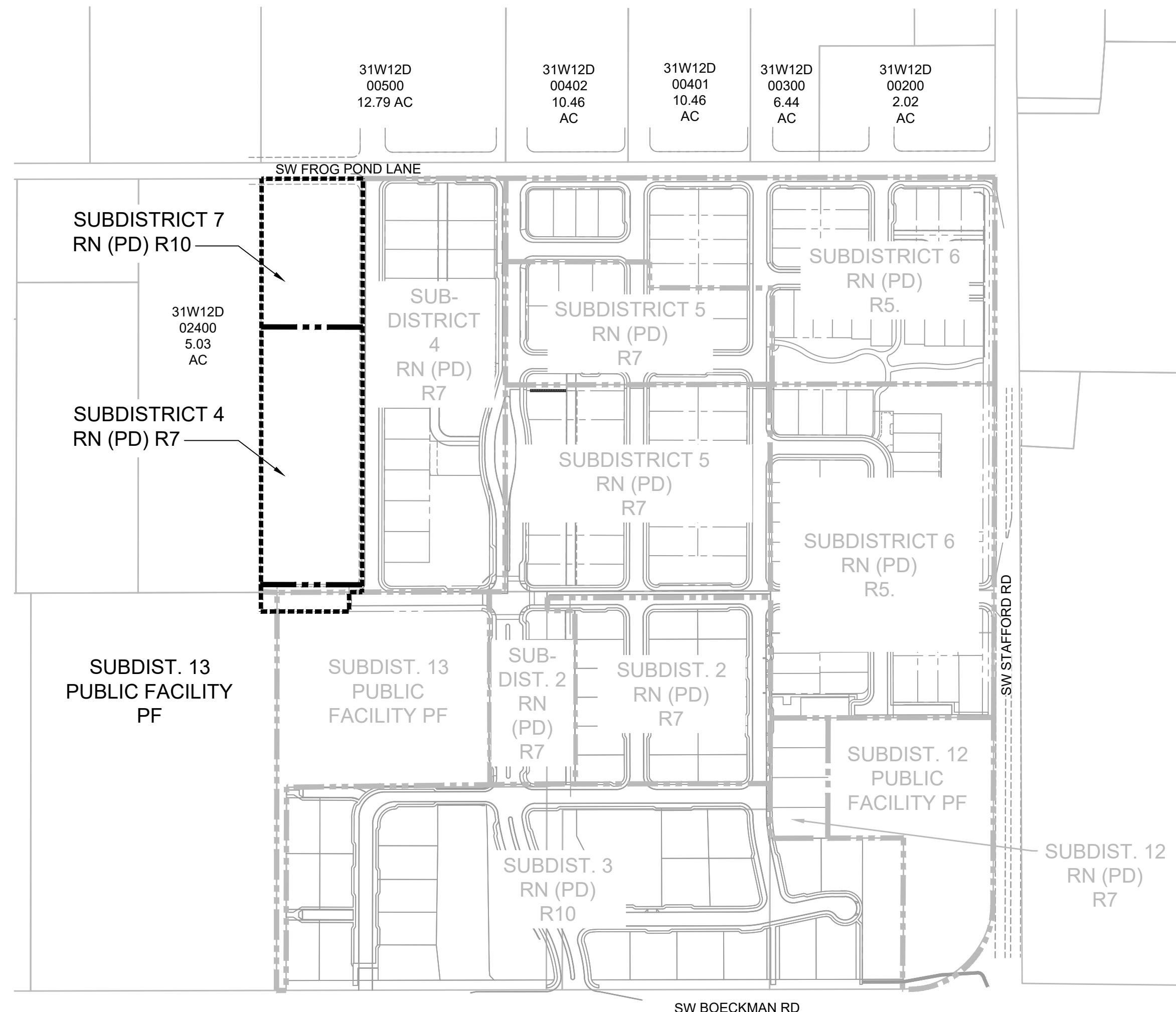
**FROG POND ESTATES**  
17 DETACHED SINGLE FAMILY LOTS  
CITY OF WILSONVILLE, OREGON

ZONING MAP



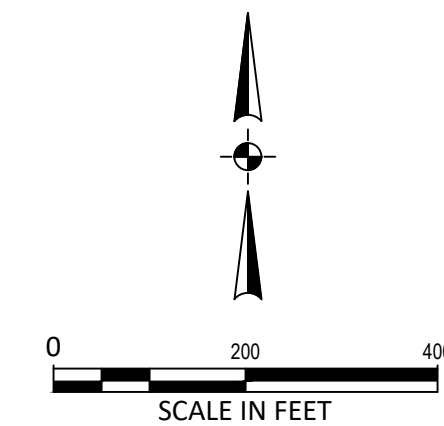
EXISTING ZONING MAP

EXISTING ZONING: CLACKAMAS COUNTY RRRF5



PROPOSED ZONING MAP

PROPOSED ZONING: CITY OF WILSONVILLE RESIDENTIAL NEIGHBORHOOD RN WITH PLANNED DEVELOPMENT PD OVERLAY



LEGEND

- PROJECT LIMITS
- SUBDISTRICT LINE

#	DATE	DESCRIPTION

REVISIONS	
NAVD88 DATUM	
OTAK CAD	KJB
DRAWN BY	CHECKED BY
LAND USE SUBMITTAL STATUS	
DECEMBER 30, 2021	
DATE	
20141	
PROJECT NUMBER	

**P7.00**

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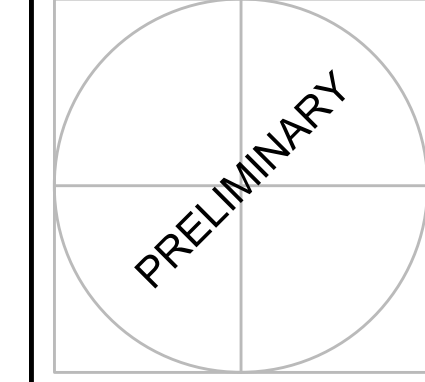




Plotted: Feb 09, 2022 - 12:12pm, Keith Buisman, L:\Project\20120141\CAD\DWG\Frog Pond - Estates\20141P900.dwg, Layout Name: P9.00



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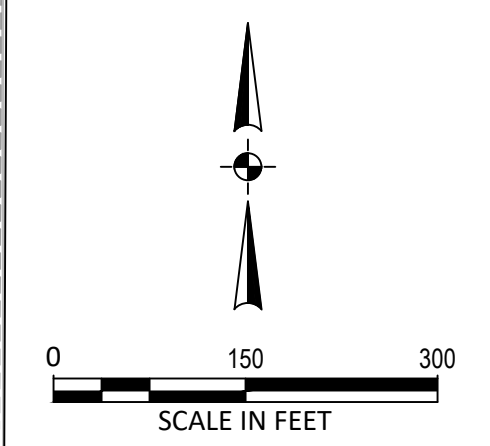
**FROG POND ESTATES**  
17 DETACHED SINGLE FAMILY LOTS  
CITY OF WILSONVILLE, OREGON

POSSIBLE FUTURE DEVELOPMENT

TITLE	#	DATE	DESCRIPTION

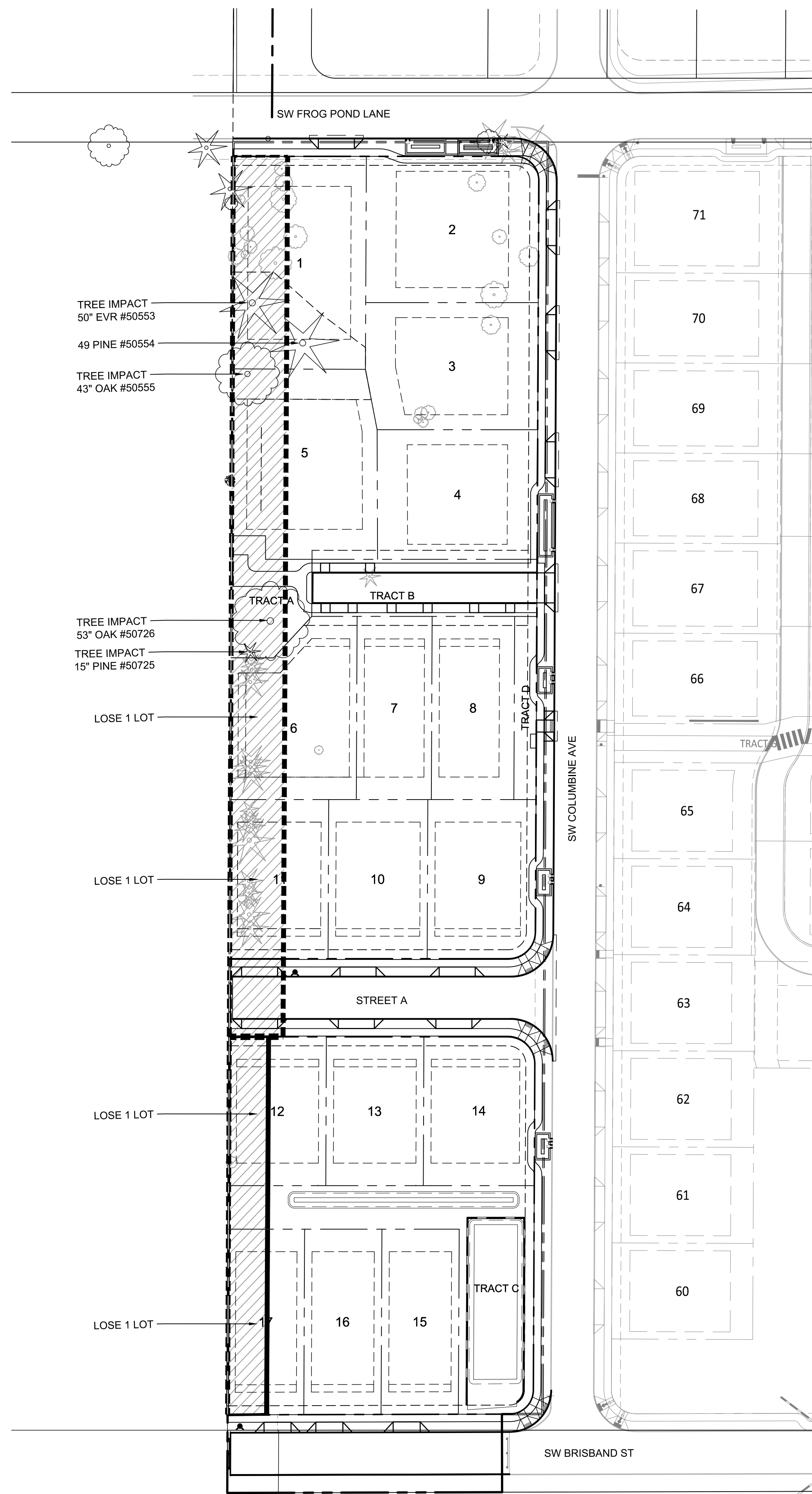
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NAVD88 DATUM	
OTAK CAD DRAWN BY	KJB CHECKED BY
LAND USE SUBMITTAL STATUS	
DECEMBER 30, 2021	DATE
20141	PROJECT NUMBER

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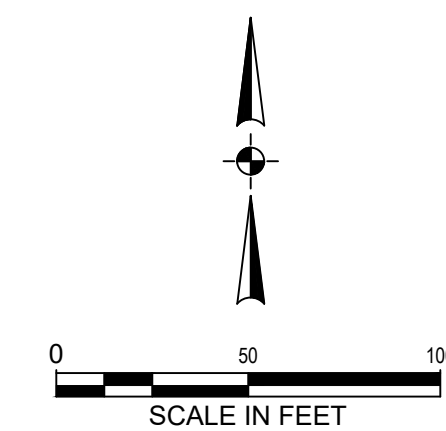


Plotted: Feb. 09. 2022. 12:13pm. kalth.buisman. L:\Projects\2010020141\CADD\DWG\Frog Pond - Estates\20141 P10.00.dwg. Layout Name: P11.00

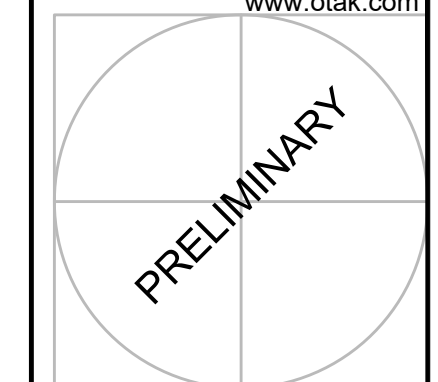


LEGEND

-  REQUIRED RIGHT-OF-WAY
-  REQUIRED PEDESTRIAN ACCESS
-  EXISTING TREES TO REMAIN
-  EXISTING TREES TO BE REMOVED WITH DEVELOPMENT



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**FROG POND ESTATES**  
 17 DETACHED SINGLE FAMILY LOTS  
 CITY OF WILSONVILLE, OREGON

**SITE IMPACTS OF STREET EXTENSIONS**

TITLE

#	DATE	DESCRIPTION

REVISIONS

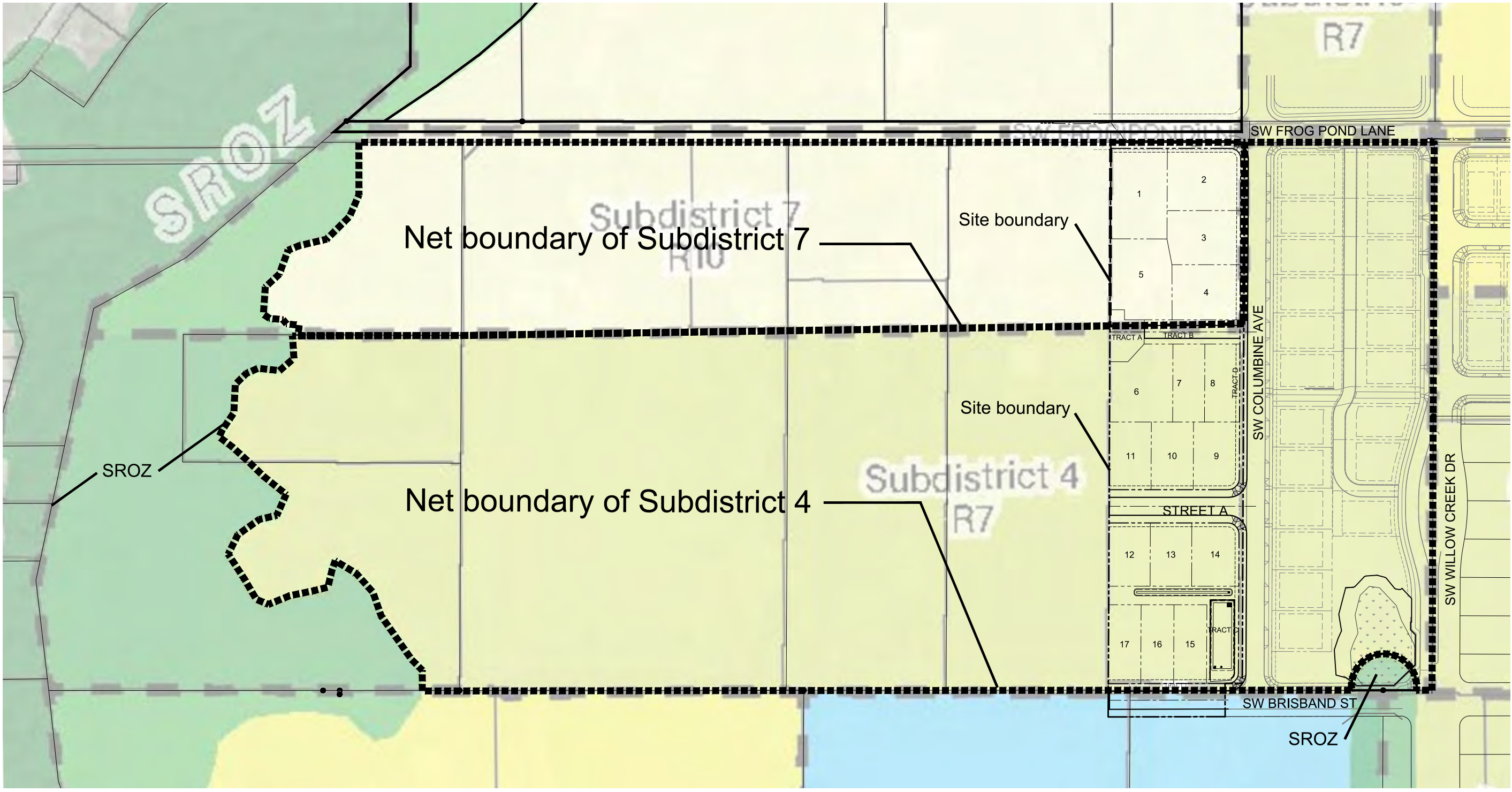
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OTAK CAD	KJB
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DECEMBER 30, 2021	
DATE	
20141	
PROJECT NUMBER	

**P10.00**

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**Frog Pond Estates**  
 Density Calculations

Subdistrict	Net Subdistrict Area (sf)	Net Subdistrict Area (ac)	Proposed Site area (sf)	Proposed Site area (ac)	Percentage of Subdistrict	Minimum Units Allowed in Subdistrict	Maximum Units Allowed in Subdistrict	Minimum Units Allowed on Site	Maximum Units Allowed on Site	Proposed Lots
4	1,087,653	24.97	116,892	2.683	10.75%	86	107	9.24	11.50	12.00
7	431,244	9.90	59,890	1.375	13.89%	24	30	3.33	4.17	5.00
				4.058						

**FROG POND ESTATES**  
 17 DETACHED SINGLE FAMILY LOTS  
 CITY OF WILSONVILLE, OREGON

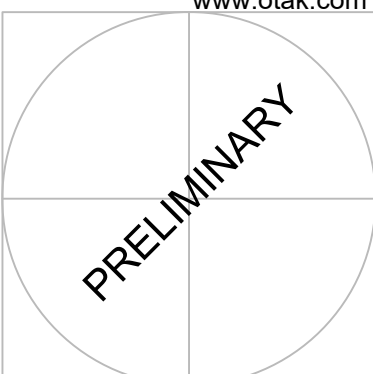
**SUB-DISTRICTS AND DENSITY**

TITLE	#	DATE	DESCRIPTION
REVISIONS			
NAVDR8 DATUM			
OTAK CAD DRAWN BY			KJB
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DATE			
20141			
PROJECT NUMBER			

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STAMP



WEST HILLS  
LAND DEVELOPMENT  
CONSULTANT

**FROG POND ESTATES**  
17 DETACHED SINGLE FAMILY LOTS  
CITY OF WILSONVILLE, OREGON

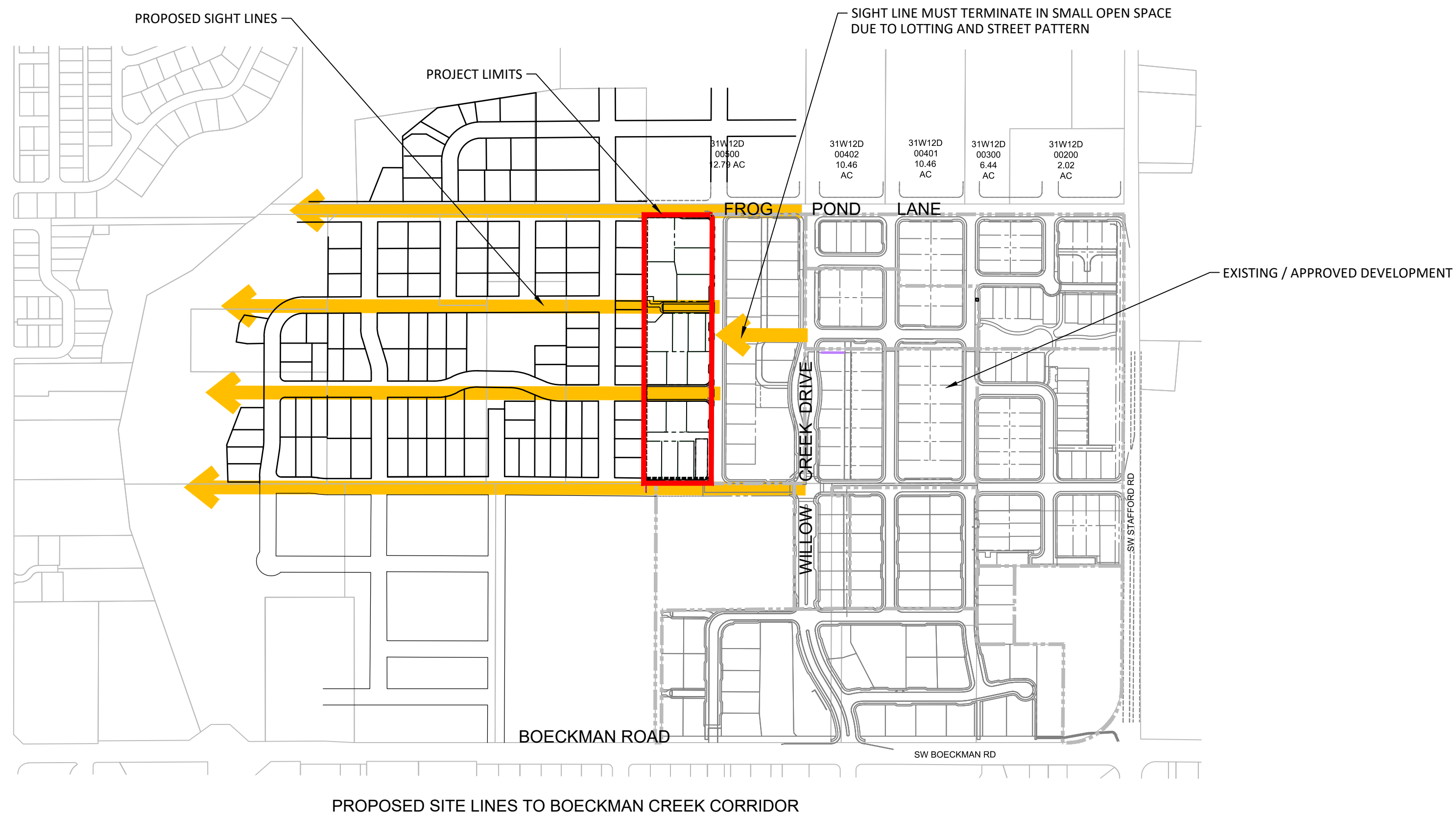
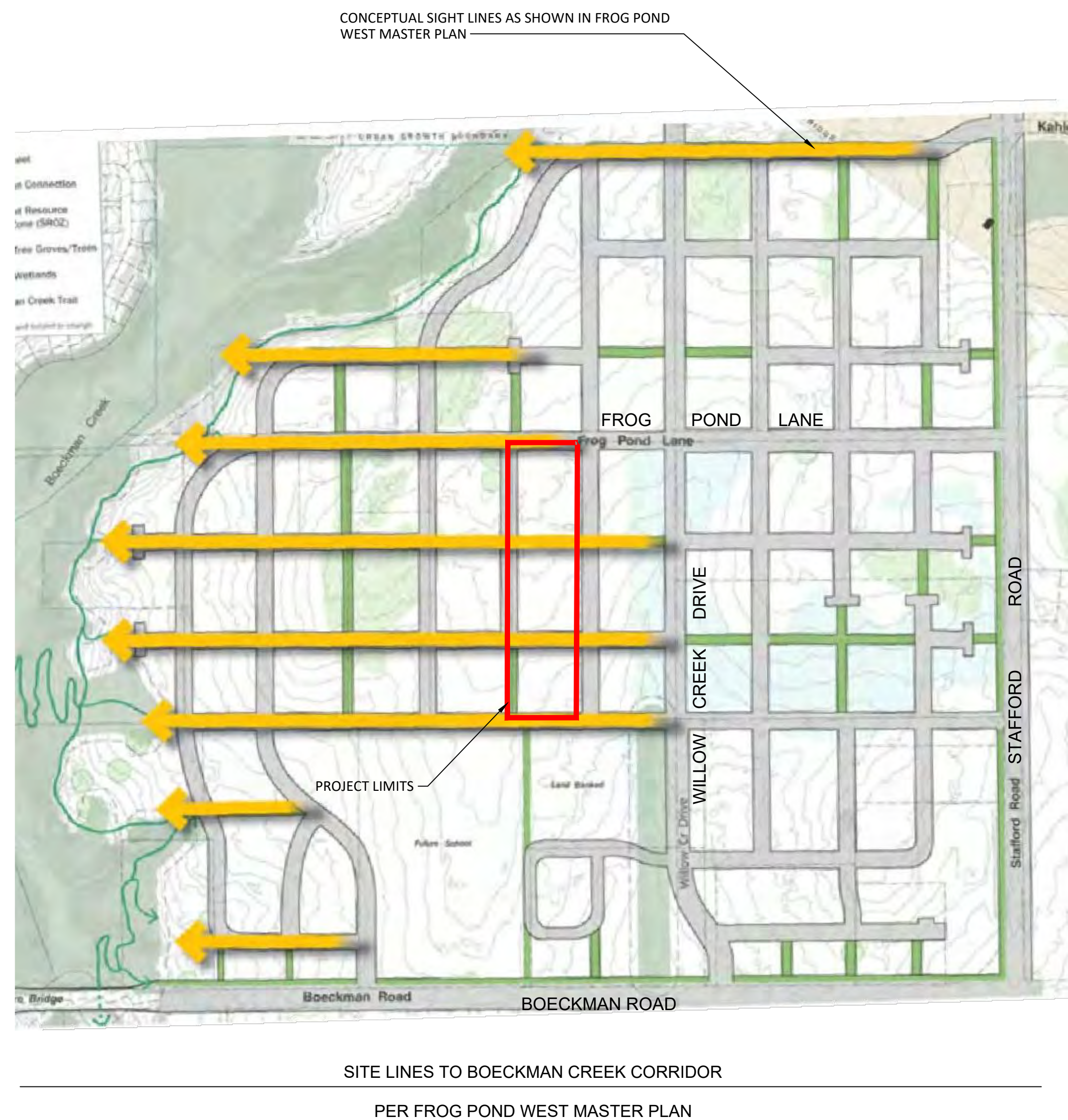
SIGHT LINES TO BOECKMAN CREEK CORRIDOR

#	DATE	DESCRIPTION

REVISIONS  
NAVD88 DATUM  
OTAK CAD DRAWN BY KJB  
CHECKED BY  
LAND USE SUBMITTAL STATUS  
DECEMBER 30, 2021 DATE  
20141 PROJECT NUMBER

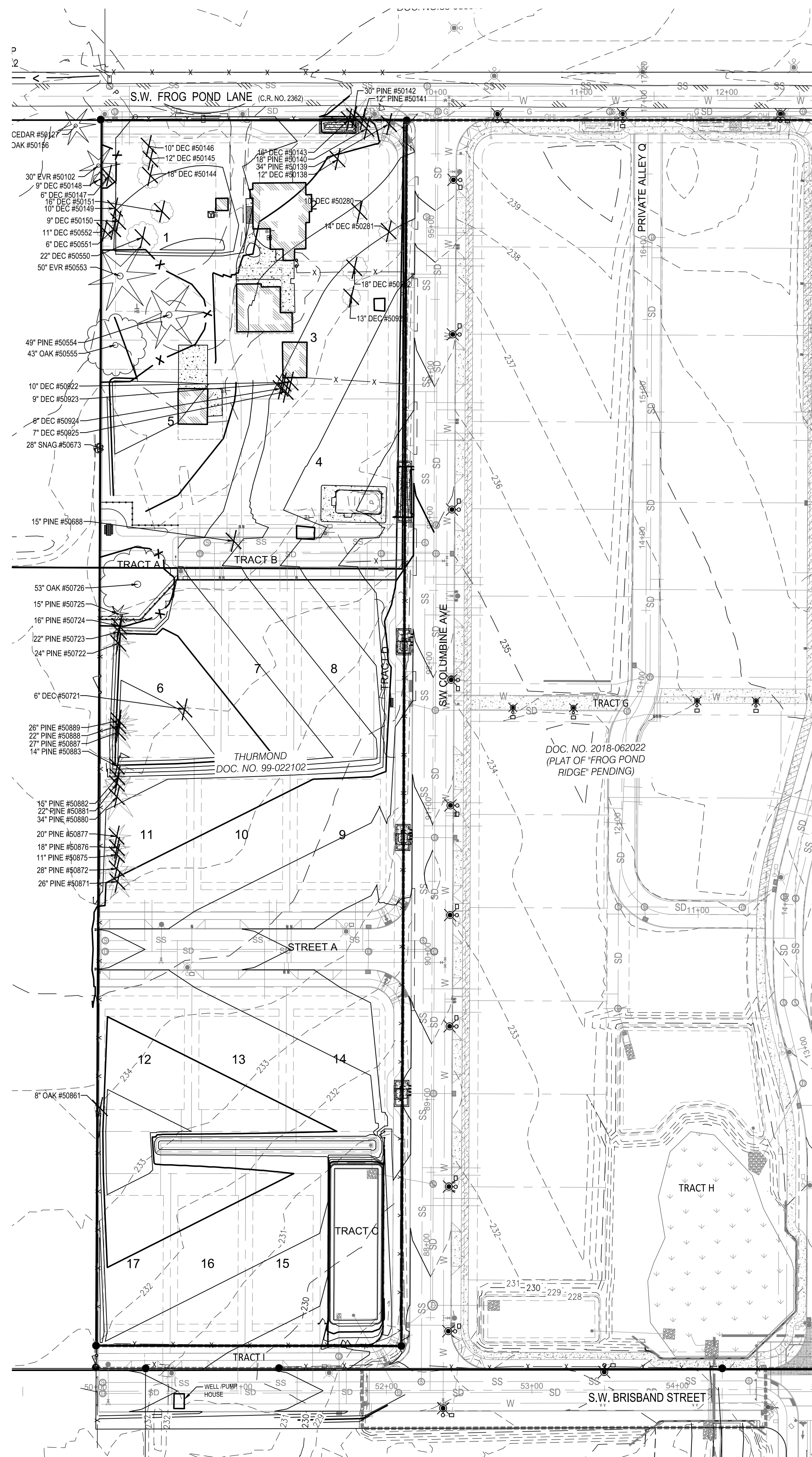
**P12.00**

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This Detail Drawing may not be altered or changed in any manner except by the City Engineer. It is the responsibility of the user to acquire the most current version.

DRIP LINE

6"

NOTES:  
1. FENCE SHALL BE 6" IN HEIGHT AND SET AT TREE DRIP LINE.  
2. FENCE MATERIALS SHALL CONSIST OF 2" MESH CHAIN LINKS SECURED TO A MINIMUM 1 1/2" DIA. STEEL OR ALUMINUM LINE POSTS.  
3. POSTS SHALL BE SET TO A DEPTH OF NO LESS THAN 2 FEET IN NATIVE SOIL.  
4. FENCE SHALL REMAIN IN PLACE UNTIL THE COMPLETION OF CONSTRUCTION ACTIVITIES. MOVEMENT OR REMOVAL OF FENCE REQUIRES APPROVAL BY CITY'S AUTHORIZED REPRESENTATIVE.

Tree Protection Fencing		CITY OF WILSONVILLE PUBLIC WORKS STANDARDS
DRAWING NUMBER: R-1155	SCALE: N.T.S.	
FILE NAME: R-1155.dwg	APPROVED BY: MAS DATE: 11/01/03	

**TREE PLAN LEGEND**

SYMBOL	QTY	DESCRIPTION
	41	EXISTING TREES TO BE REMOVED
	5	EXISTING TREES TO REMAIN
	3	EXISTING OFF-SITE TREES TO BE PROTECTED
	375 LF	TREE PROTECTION FENCING

SEE PLANTING PLAN L2.00 STREET/SITE TREES TO BE PLANTED

NOTES:  
1. CONTOURS ARE SHOWN FOR ROUGH FINISH GRADE DESIGN ONLY. SEE CIVIL PLANS FOR DETAILED GRADING.

NOTES:  
1. ACTION ON TREE TABLES SUPERCEDES PLAN SHEETS.  
2. TREES TO REMAIN TO HAVE TREE PROTECTION FENCING INSTALLED PER CITY OF WILSONVILLE STANDARD DRAWING ON THIS SHEET.  
3. NO MATERIAL STORAGE OR DUMPING OF ANY KIND SHALL OCCUR WITHIN THE DRIP LINE OF TREE.

SCALE IN FEET

7070 SW Frog Pond Ln. Frog Pond Estates 12/8/2021

Tag	Survey	Species	DBH	Rating	Cr. D	Remarks	RPZ	Action
50102		giant sequoia	30	3	28	off property	24	Protect
50127		giant sequoia	28	3	24	off property	24	Protect
50138		apple	12	1	16	topped with decay	0	Remove
29	50139	ponderosa pine	28	1	28	trunk within 10' of high voltage; over-trimmed	0	Remove
28	50140	ponderosa pine	16	1	16	suppressed, trimmed for high voltage	0	Remove
27	50141	ponderosa pine	28	1	16	trimmed for high voltage	0	Remove
	50142	ponderosa pine	30	1	24	trimmed for high voltage	0	Remove
	50143	black locust	16	2	28	over-crowding by ponderosa pine stand at high voltage	0	Remove
	50144	black locust	18	2	20	over-crowding	0	Remove
	50145	black locust	12	2	24	over-crowding	0	Remove
	50146	black locust	10	2	20	over-crowding	0	Remove
	50147	black locust	6	2	16	over-crowding	0	Remove
	50148	black locust	9	2	16	off Property	0	Protect
	50149	black locust	10	2	20	over-crowding	0	Remove
	50150	black locust	9	2	16	over-crowding	0	Remove
	50151	black locust	16	2	20	healthy but spindly due to crowding; tag on tree is 50143	0	Remove
	50280	apple	10	1	25	topped with decay	0	Remove
	50281	apple	14	1	24	topped with decay	0	Remove
	50282	apple	18	1	24	topped with decay	0	Remove
	50550	black locust	22	2	32	structural weakness at grade; tag on tree is 50151	0	Remove
	50551	black locust	6	2	12	over-crowding	0	Remove
	50552	black locust	11	2	16	structurally weak seam in trunk	0	Remove
24	50553	giant sequoia	50	2	36	healthy with vitality	24	Protect
23	50554	ponderosa pine	49	2	44	viable; in center of gravel turn around	24	Protect
25	50555	Gary oak	48	2	64	viable; minor trunk swoop	24	Protect
	50688	ponderosa pine	15	2	16	viable	0	Remove
	50673	Gary oak	28	1	12	Off Property; dead snag	0	none
	50721	missing	0	0	0		0	none
	50722	red pine	24	2	20	windrow	0	Remove
	50723	red pine	22	2	20	windrow	0	Remove
	50724	red pine	16	2	16	windrow	0	Remove
	50725	red pine	15	2	16	end of a windrow, under oak #50726	12	Protect
26	50726	Gary oak	53	2	64	structural defect at main crotch below 8 ft. needs work	24	Protect

Portland Tree Consulting Rating Explanation: 0/dead or hazard 1/decline 2/average 3/excellent

7070 SW Frog Pond Ln. Frog Pond Estates 12/8/2021

Tag	Survey	Species	DBH	Rating	Cr. D	Remarks	RPZ	Action
	50861	Gary oak	8	3	12	property line tree	0	Remove
	50871	red pine	26	2	28	windrow	0	Remove
	50872	red pine	28	2	28	windrow	0	Remove
	50875	red pine	11	2	20	windrow	0	Remove
	50876	red pine	18	2	24	windrow	0	Remove
	50877	red pine	20	2	24	windrow	0	Remove
	50880	red pine	34	2	32	windrow	0	Remove
	50881	red pine	22	2	24	windrow	0	Remove
	50882	red pine	15	2	20	windrow	0	Remove
	50883	red pine	14	2	16	windrow	0	Remove
	50887	red pine	27	2	24	windrow	0	Remove
	50888	red pine	22	2	24	windrow	0	Remove
	50889	red pine	26	2	24	windrow	0	Remove
	50922	cottonwood	10	2	12	stump sprout thicket	0	Remove
	50923	cottonwood	9	2	12	stump sprout thicket	0	Remove
	50924	cottonwood	6	2	12	stump sprout thicket	0	Remove
	50925	cottonwood	7	2	12	stump sprout thicket	0	Remove
	50928	apple	13	1	20	topped with decay	0	Remove

RPZ mean root protection zone. This is a radius to the trunk measured in feet.  
Cr. D = Crown Diameter or Canopy Spread  
Fieldwork done by Ryan Neumann, PN-5539A on 8/17/2020 and by Peter Torres, PN-0650B on 12/8/2021.  
Additional fieldwork done by Otak licensed surveyors for tree positions and DBH measurements at various times.

Species  
apple- *Malus sylvestris*  
black locust- *Robinia pseudoacacia*  
cottonwood- *Populus trichocarpa*  
Gary oak- *Quercus garryana*  
giant sequoia- *Sequoiadendron giganteum*  
ponderosa pine- *Pinus ponderosa*  
red pine- *Pinus rubra*

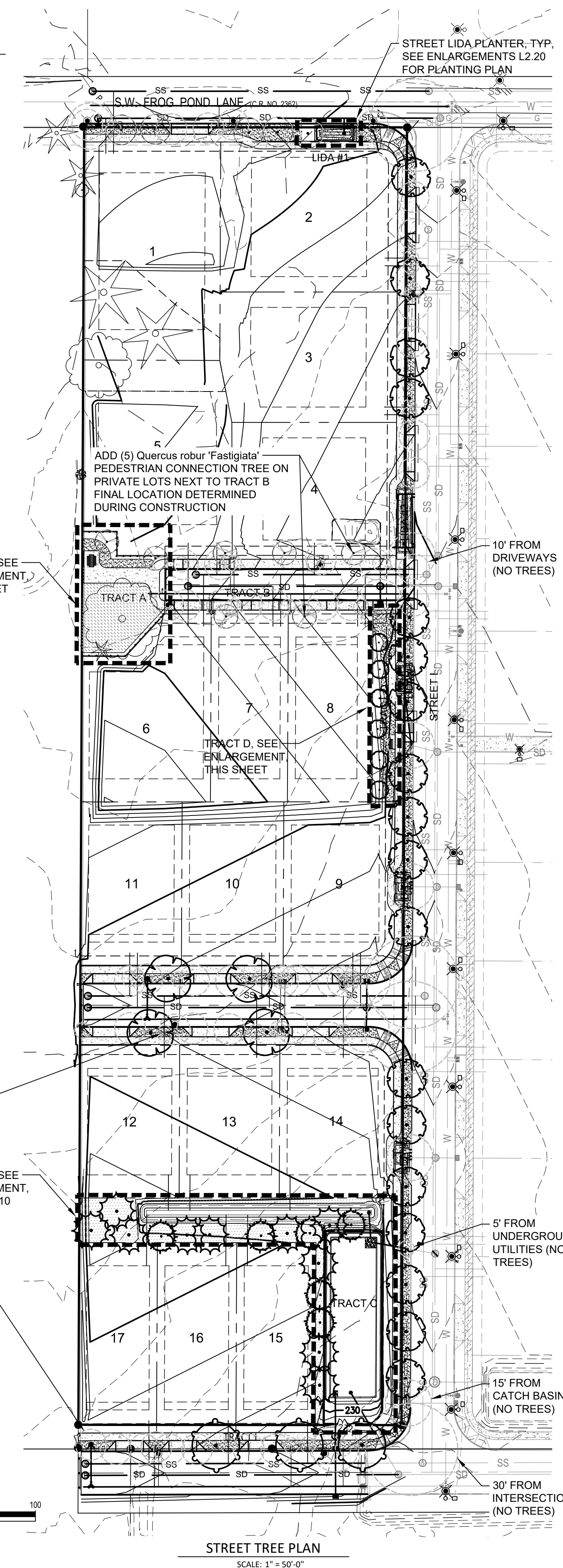
Portland Tree Consulting Rating Explanation: 0/dead or hazard 1/decline 2/average 3/excellent

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#	DATE	DESCRIPTION

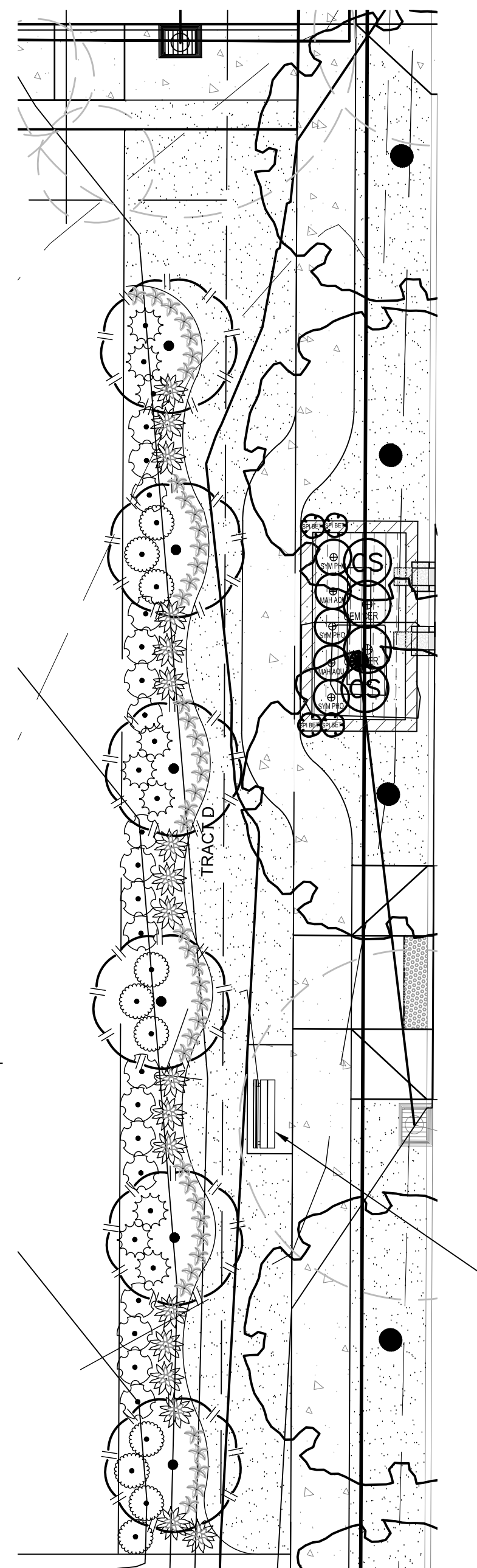
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DATUM	
OTAK CAD	KJB
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LAND USE SUBMITTAL	STATUS
DECEMBER 30, 2021	DATE
20141	PROJECT NUMBER



STREET TREE PLAN  
SCALE: 1" = 50'-0"

PLANT SCHEDULE STREET PLANTING \*STREET TREES AND TREE LAWNS ARE CLASSIFIED AS A MODERATE WATER USAGE AREA (+/- ONE (1) INCH PER WEEK).

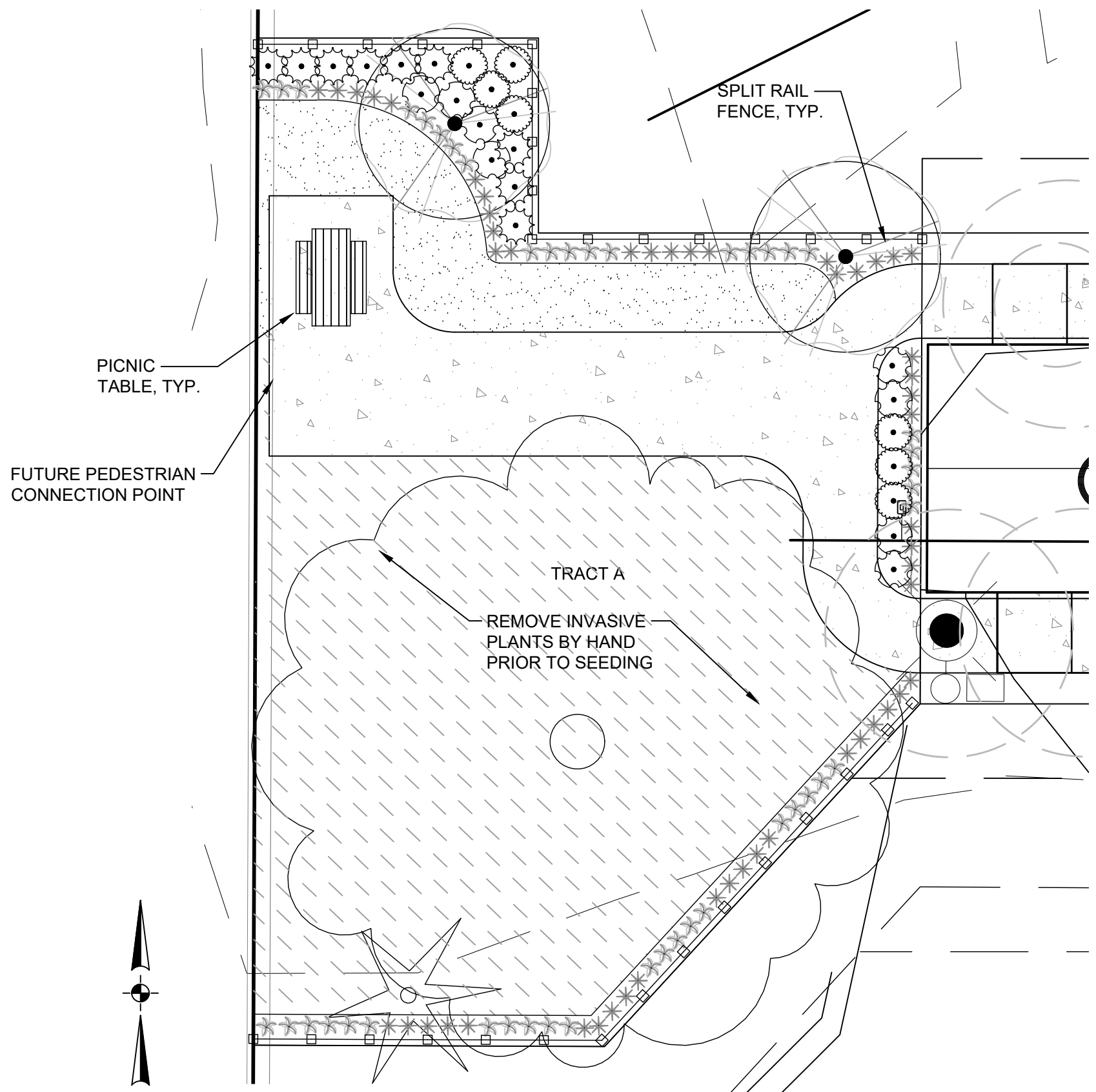
TREES	QTY	BOTANICAL / COMMON NAME	CONT	CAL	REMARKS
	18	CERCIDIPHYLLUM JAPONICUM / KATSURA TREE	B&B	2"	NEIGHBORHOOD STREET
	5	LIRIODENDRON TULIPIFERA 'FASTIGIATUM' / TULIP TREE	B&B	2"	PRIMARY STREET
	3	TILIA AMERICANA / AMERICAN LINDEN	B&B	2"	PRIMARY STREET
	4	TILIA CORDATA 'GLENLEVEN' / GLENLEVEN LITTLELEAF LINDEN	B&B	2"	NEIGHBORHOOD STREET
GROUND COVERS	QTY	BOTANICAL / COMMON NAME	CONT	SPACING	
	6,504 SF	TURF SEED DIAMOND GREEN - SUNMARK SEEDS / EXTREME LOW MAINTENANCE TURF	SEED		



TRACT D LANDSCAPE PLAN  
SCALE: 1" = 10'-0"

PLANT SCHEDULE TRACT A \*CLASSIFIED AS A MODERATE WATER USAGE AREA (+/- ONE (1) INCH PER WEEK).

TREES	QTY	BOTANICAL / COMMON NAME	CONT	CAL
	2	QUERCUS ROBUR 'FASTIGIATA' / PYRAMIDAL ENGLISH OAK PEDESTRIAN CONNECTION TREE	B&B	1-3/4"
SHRUBS	QTY	BOTANICAL / COMMON NAME	CONT	
	51	DESCHAMPSIA CESPITOSA / TUFTED HAIR GRASS	3 GAL	
	8	EUONYMUS ALATUS 'COMPACTUS' / COMPACT BURNING BUSH	3 GAL	
	44	HEMEROCALLIS X 'STELLA DE ORO' / STELLA DE ORO DAYLILY	3 GAL	
	9	ILEX CRENATA 'HELERII' / HELER JAPANESE HOLLY	3 GAL	
	7	NANDINA DOMESTICA 'MOYERS RED' / MOYERS RED HEAVENLY BAMBOO	3 GAL	
GROUND COVERS	QTY	BOTANICAL / COMMON NAME	CONT	
	1,899 SF	NATIVE SEED SUNMARK SEEDS / ECO-PRAIRIE TURF *CLASSIFIED AS A LOW WATER USAGE AREA (LESS THAN ONE (1) INCH PER WEEK).	SEED	
	344 SF	TURF SEED DIAMOND GREEN - SUNMARK SEEDS / EXTREME LOW MAINTENANCE TURF	SEED	



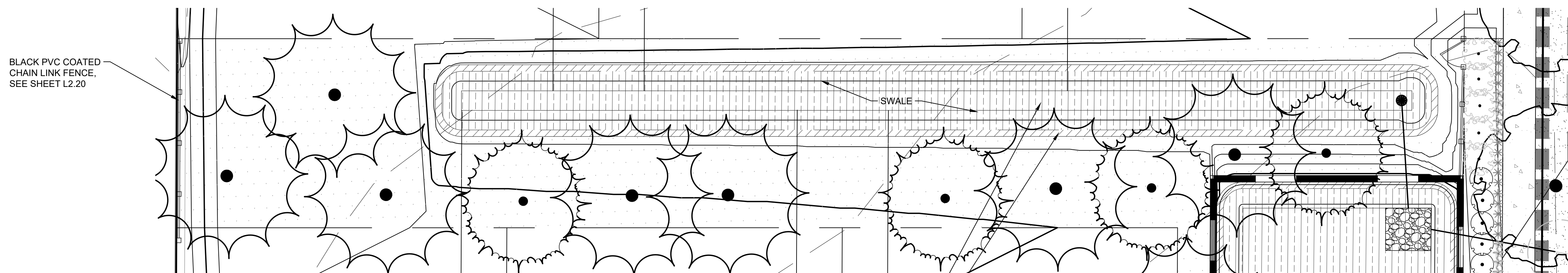
TRACT A LANDSCAPE PLAN  
SCALE: 1" = 10'-0"

PLANT SCHEDULE TRACT D \*CLASSIFIED AS A MODERATE WATER USAGE AREA (+/- ONE (1) INCH PER WEEK).

TREES	QTY	BOTANICAL / COMMON NAME	CONT	CAL
	6	THUJA PLICATA / WESTERN RED CEDAR	B&B	6'-8" HT.
SHRUBS	QTY	BOTANICAL / COMMON NAME	CONT	
	19	EUONYMUS ALATUS 'COMPACTUS' / COMPACT BURNING BUSH	3 GAL	
	44	HEMEROCALLIS X 'STELLA DE ORO' / STELLA DE ORO DAYLILY	3 GAL	
	9	ILEX CRENATA 'HELERII' / HELER JAPANESE HOLLY	3 GAL	
	18	LIRIOPE GIGANTEA / GIANT LIRIOPE	3 GAL	
	10	NANDINA DOMESTICA 'MOYERS RED' / MOYERS RED HEAVENLY BAMBOO	3 GAL	
GROUND COVERS	QTY	BOTANICAL / COMMON NAME	CONT	
	1,113 SF	TURF SEED DIAMOND GREEN - SUNMARK SEEDS / EXTREME LOW MAINTENANCE TURF	SEED	

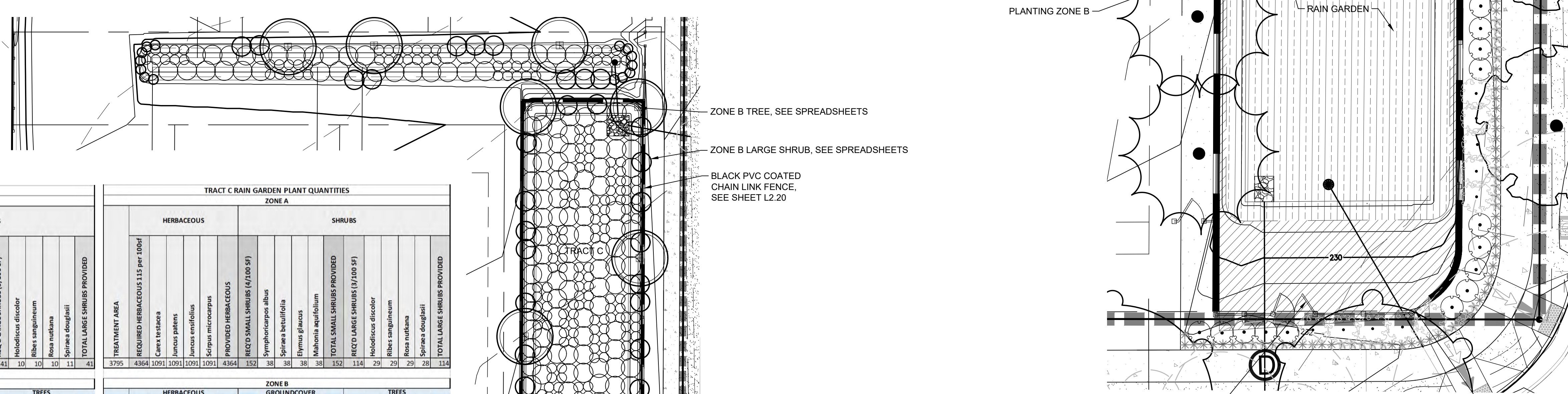
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PLANT SCHEDULE TRACT C \*CLASSIFIED AS A MODERATE WATER USAGE AREA (+/- ONE (1) INCH PER WEEK).

TREES	QTY	BOTANICAL / COMMON NAME	CONT	CAL
	10	PSEUDOTSUGA MENZIESII / DOUGLAS FIR	B&B	6'-8' HT.
	6	THUJA PLICATA 'EXCELSA' / EXCELSA WESTERN RED CEDAR	B&B	6'-8' HT.
SHRUBS	QTY	BOTANICAL / COMMON NAME	CONT	MAXIMUM HEIGHT
	83	DESCHAMPSIA CESPITOSA / TUFTED HAIR GRASS	3 GAL	
	45	HEMEROCALLIS X 'STELLA DE ORO' / STELLA DE ORO DAYLILY	3 GAL	
	25	MAHONIA AQUIFOLIUM / OREGON GRAPE	5 GAL	
	25	VIBURNUM DAVIDII / DAVID VIBURNUM	3 GAL	
GROUND COVERS	QTY	BOTANICAL / COMMON NAME	CONT	
	4,228 SF	DRY AREA SEED PUBLIC WORKS STANDARDS, APPEN/ *CLASSIFIED AS LOW WATER USAGE AREA (LESS THAN ONE (1) INCH PER WEEK).	SEED	



TRACT C SWALE AND RAINGARDEN PLAN  
SCALE: 1" = 20'-0"

TRACT C SWALE PLANT QUANTITIES

ZONE A	
HERBACEOUS	SHRUBS
REQUIRED HERBACEOUS 115 per 100sf	
Carex testacea	
Juncus patens	
Juncus ensifolius	
Scirpus microcarpus	
PROVIDED HERBACEOUS	
REQ'D SMALL SHRUBS (4/100 SF)	
Symphoricarpos albus	
Spiraea betulifolia	
Elymus glaucus	
Mahonia aquifolium	
TOTAL SMALL SHRUBS PROVIDED	
REQ'D LARGE SHRUBS (3/100 SF)	
Holidicoccus discolor	
Ribes sanguineum	
Rosa nutkana	
Spiraea douglasii	
TOTAL LARGE SHRUBS PROVIDED	

TRACT C RAIN GARDEN PLANT QUANTITIES

ZONE A	
HERBACEOUS	SHRUBS
REQUIRED HERBACEOUS 115 per 100sf	
Carex testacea	
Juncus patens	
Juncus ensifolius	
Scirpus microcarpus	
PROVIDED HERBACEOUS	
REQ'D SMALL SHRUBS (4/100 SF)	
Symphoricarpos albus	
Spiraea betulifolia	
Elymus glaucus	
Mahonia aquifolium	
TOTAL SMALL SHRUBS PROVIDED	
REQ'D LARGE SHRUBS (3/100 SF)	
Holidicoccus discolor	
Ribes sanguineum	
Rosa nutkana	
Spiraea douglasii	
TOTAL LARGE SHRUBS PROVIDED	

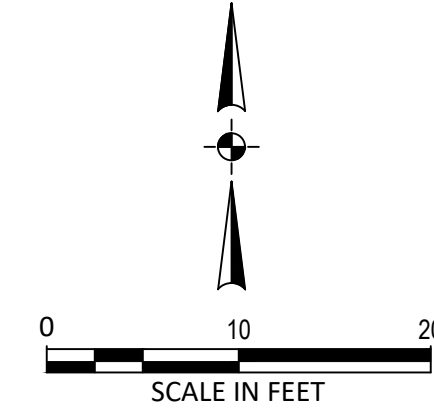
ZONE B	
HERBACEOUS	TREES
REQUIRED HERBACEOUS 115 per 100sf X 0.5	
Carex testacea	
Juncus patens	
Juncus ensifolius	
Scirpus microcarpus	
TOTAL PROVIDED HERBACEOUS	
REQUIRED GROUND COVER 115 per 100sf X 0.5	
Carex testacea	
Juncus patens	
Juncus ensifolius	
Scirpus microcarpus	
TOTAL PROVIDED HERBACEOUS	
REQ'D TREES (1/100 SF)	
Symphoricarpos albus	
Spiraea betulifolia	
Elymus glaucus	
Mahonia aquifolium	
TOTAL TREES PROVIDED	

ZONE B	
HERBACEOUS	TREES
REQUIRED HERBACEOUS 115 per 100sf X 0.5	
Carex testacea	
Juncus patens	
Juncus ensifolius	
Scirpus microcarpus	
TOTAL PROVIDED HERBACEOUS	
REQUIRED GROUND COVER 115 per 100sf X 0.5	
Carex testacea	
Juncus patens	
Juncus ensifolius	
Scirpus microcarpus	
TOTAL PROVIDED HERBACEOUS	
REQ'D TREES (1/100 SF)	
Symphoricarpos albus	
Spiraea betulifolia	
Elymus glaucus	
Mahonia aquifolium	
TOTAL TREES PROVIDED	

SHRUBS	
REQ'D SMALL SHRUBS (4/100 SF)	
Symphoricarpos albus	
Spiraea betulifolia	
Elymus glaucus	
Mahonia aquifolium	
TOTAL SMALL SHRUBS PROVIDED	
REQ'D LARGE SHRUBS (3/100 SF)	
Holidicoccus discolor	
Ribes sanguineum	
Rosa nutkana	
Spiraea douglasii	
TOTAL LARGE SHRUBS PROVIDED	

SHRUBS	
REQ'D SMALL SHRUBS (4/100 SF)	
Symphoricarpos albus	
Spiraea betulifolia	
Elymus glaucus	
Mahonia aquifolium	
TOTAL SMALL SHRUBS PROVIDED	
REQ'D LARGE SHRUBS (3/100 SF)	
Holidicoccus discolor	
Ribes sanguineum	
Rosa nutkana	
Spiraea douglasii	
TOTAL LARGE SHRUBS PROVIDED	

\*CLASSIFIED AS LOW WATER USAGE AREA (LESS THAN ONE (1) INCH PER WEEK).



NOTES:  
1. ALL LANDSCAPE AREAS SHALL BE WATERED BY A FULLY AUTOMATIC UNDERGROUND IRRIGATION SYSTEM, EXCEPT NATIVE GRASS PLANTING WHICH SHALL RECEIVE ESTABLISHMENT IRRIGATION.



TITLE	DATE	DESCRIPTION
#		

REVISIONS
NAV/D88 DATUM
OTAK CAD DRAWN BY
KJB CHECKED BY
LAND USE SUBMITTAL STATUS
DECEMBER 30, 2021 DATE
20141 PROJECT NUMBER

**L2.20**

		FROG POND ESTATES VEGETATED SWALE PLANT QUANTITIES																				
SWALE ID	STREET	ZONE A										ZONE B										
		HERBACEOUS = TREATMENT AREA/2					GROUND COVER = TREATMENT AREA/2		SHRUBS			SHRUBS	GROUND COVER									
		REQUIRED HERBACEOUS 1.15 per 100sf					REQUIRED GROUND COVER 115 per 100sf		NON-TREATMENT TREE MOUND AREA			REQUIRED HERBACEOUS 1.15 per 100sf		REQUIRED GROUND COVER 115 per 100sf								
		Carex testacea	Juncus patens	Juncus ensifolius	Scripus microcarpus	PROVIDED HERBACEOUS	Fragaria chiloensis	REQ'D SMALL SHRUBS (4/100 SF)	REQ'D LARGE SHRUBS (3/100 SF)	Carex testacea	Juncus patens	Juncus ensifolius	Scripus microcarpus	PROVIDED HERBACEOUS	Fragaria chiloensis	REQ'D SMALL SHRUBS (4/100 SF)	REQ'D LARGE SHRUBS (3/100 SF)	AREA (8/100 SF)	Arctostaphylos uva-ursi (1.15/100 SF)			
LIDA #1	FROG POND	176	101	51	51	0	102	101	101	7	5	24	14	7	7	0	14	14	14			
LIDA #2	STREET I	320	184	92	92	0	184	184	184	13	10	0	0	0	0	0	0	0	111	9	128	
LIDA #3	STREET I	128	74	37	37	0	74	74	74	5	4	0	0	0	0	0	0	0	56	4	64	
LIDA #4	STREET I	128	74	37	37	0	74	74	74	5	4	0	0	0	0	0	0	0	56	4	64	
LIDA #5	STREET I	128	74	37	37	0	74	74	74	5	4	0	0	0	0	0	0	0	56	4	64	
<b>TOTALS:</b>		<b>506</b>	<b>253</b>	<b>253</b>	<b>0</b>	<b>0</b>	<b>508</b>	<b>506</b>	<b>506</b>	<b>35</b>	<b>27</b>	<b>0</b>	<b>7</b>	<b>7</b>	<b>0</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>1</b>	<b>70</b>	<b>27</b>	<b>401</b>

**SWALE AREA KEY** SWALE PLANTINGS ARE CLASSIFIED AS LOW WATER USAGE (< ONE (1) INCH PER WEEK).

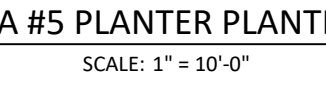
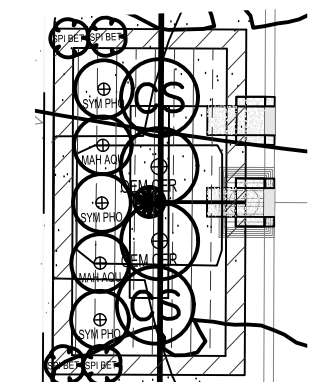
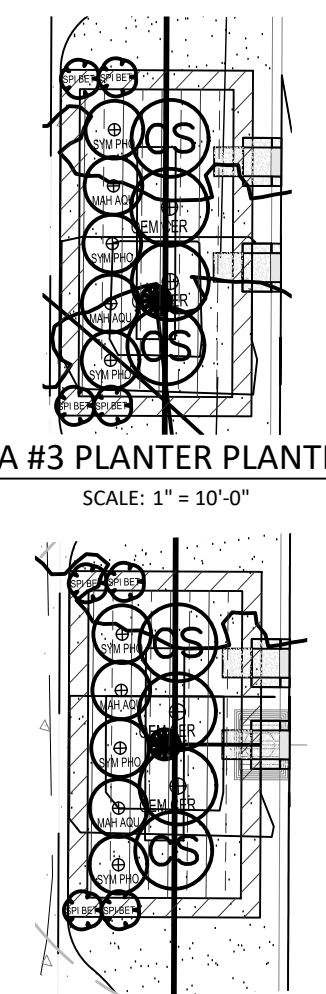
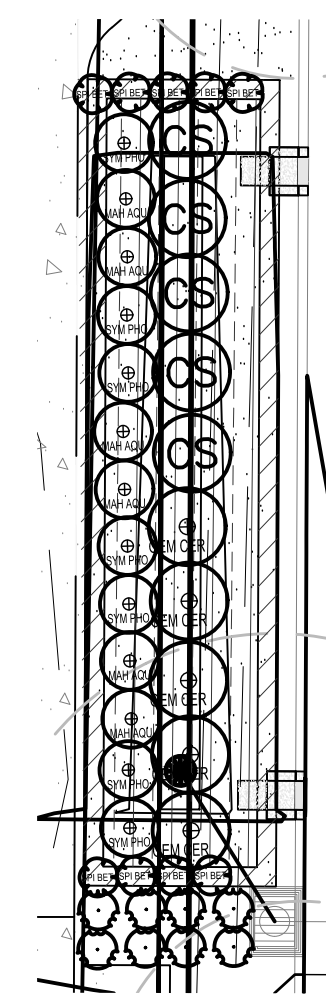
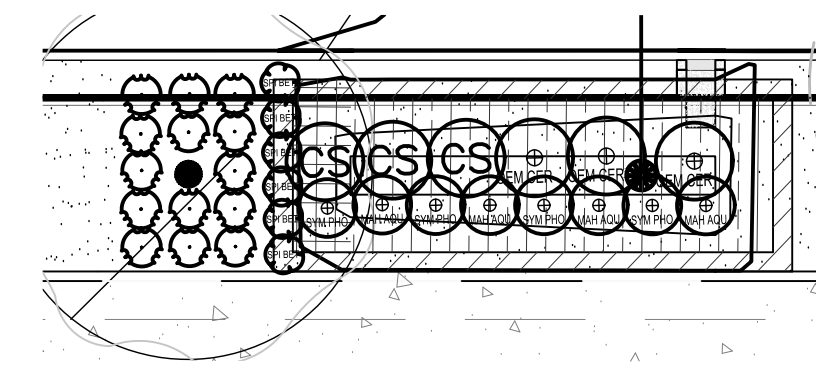
SYMBOL	NOTES
[Symbol]	ZONE A - TREATMENT AREA
[Symbol]	ZONE A - NON-TREATMENT TREE MOUND AREA
[Symbol]	ZONE B - FREEBOARD AREA

**STREET TREE MOUND SHRUBS**

QTY	COMMON NAME / Botanical name	Size
22	STELLA DE ORO DAYLILY / Hemerocallis 'Stella de Oro'	#1 CONT.

**SWALE SHRUB LEGEND**

SYMBOL	QTY	COMMON NAME / Botanical name	Size	Spacing
[Symbol]	23	BIRCHLEAF SPIRAEA / Spiraea betulifolia	1 GAL.	1' o.c.
[Symbol]	16	OREGON GRAPE HOLLY / Mahonia aquifolium	1 GAL.	1' o.c.
[Symbol]	20	SNOWBERRY / Symphoricarpos alba	1 GAL.	1' o.c.
[Symbol]	12	INDIAN PLUM / Omalia cerasiformis	30" HT.	3' o.c.
[Symbol]	14	RED-TWIG BOXWOOD / Cornus sericea	30" HT.	3' o.c.

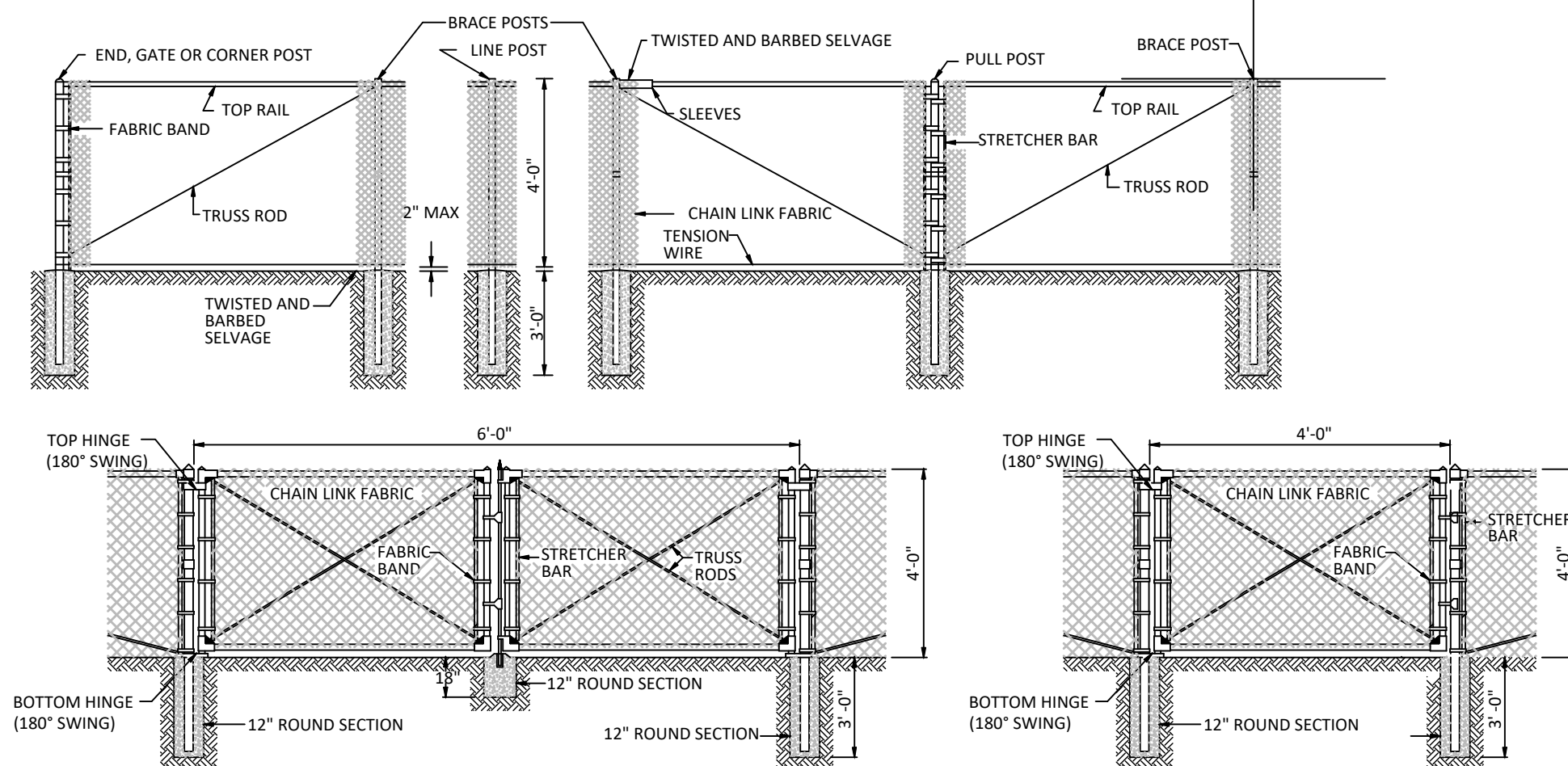


MEMBER	NOMINAL DIA (IN)	MATERIAL
BRACE RAIL	1.660	GALV TUBULAR STL
GATE FRAME	2.00	GALV TUBULAR STL
LINE POSTS	2.375	GALV TUBULAR STL
END & CORNER POST	2.875	GALV TUBULAR STL
CHAIN LINK FABRIC	9 GA.	BLACK PVC COATING

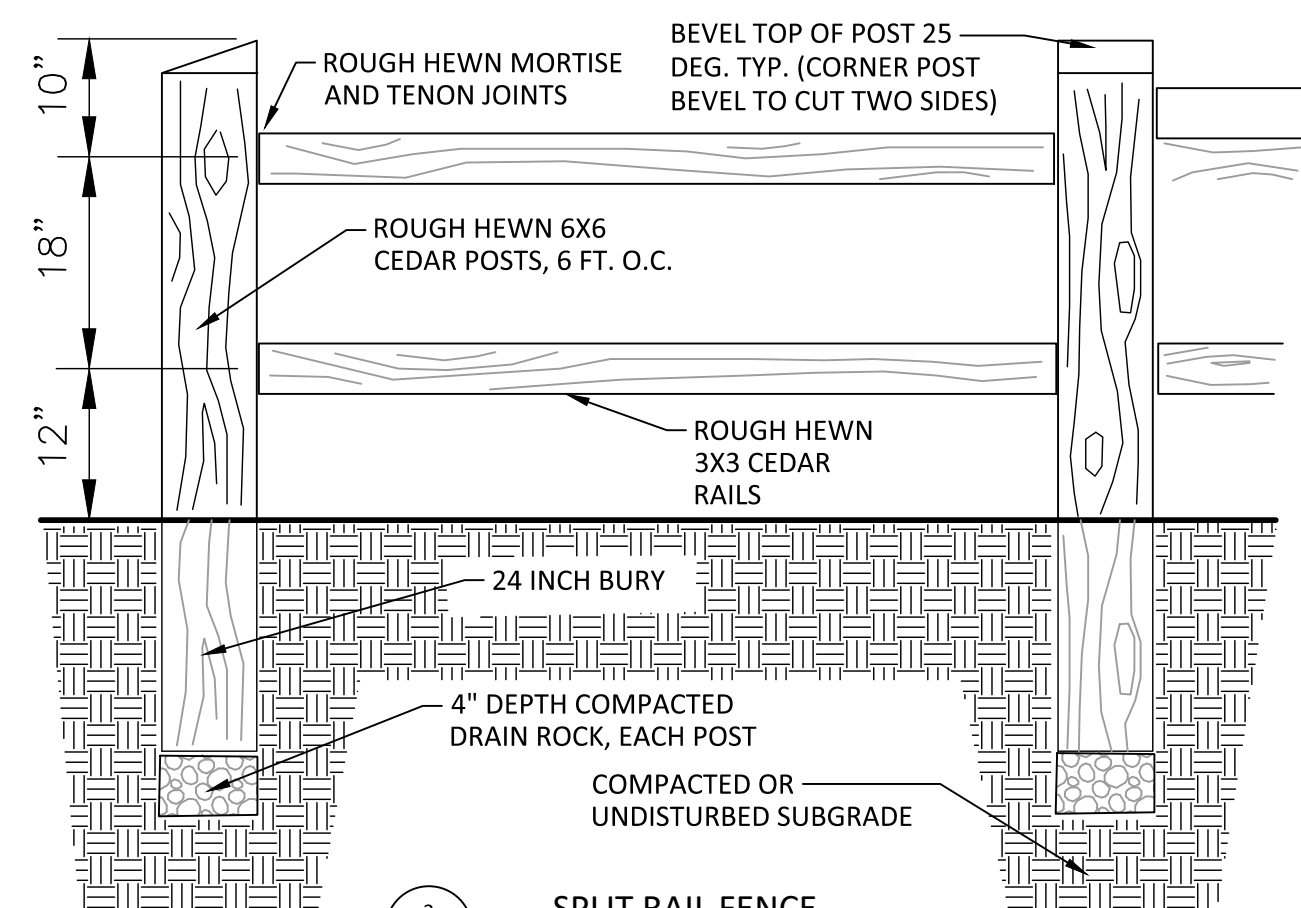
  

GATE POST	GATE OPENING (FT)	NOMINAL DIA (IN)	MATERIAL
	6' OR 4'	4	GALV TUBULAR STL

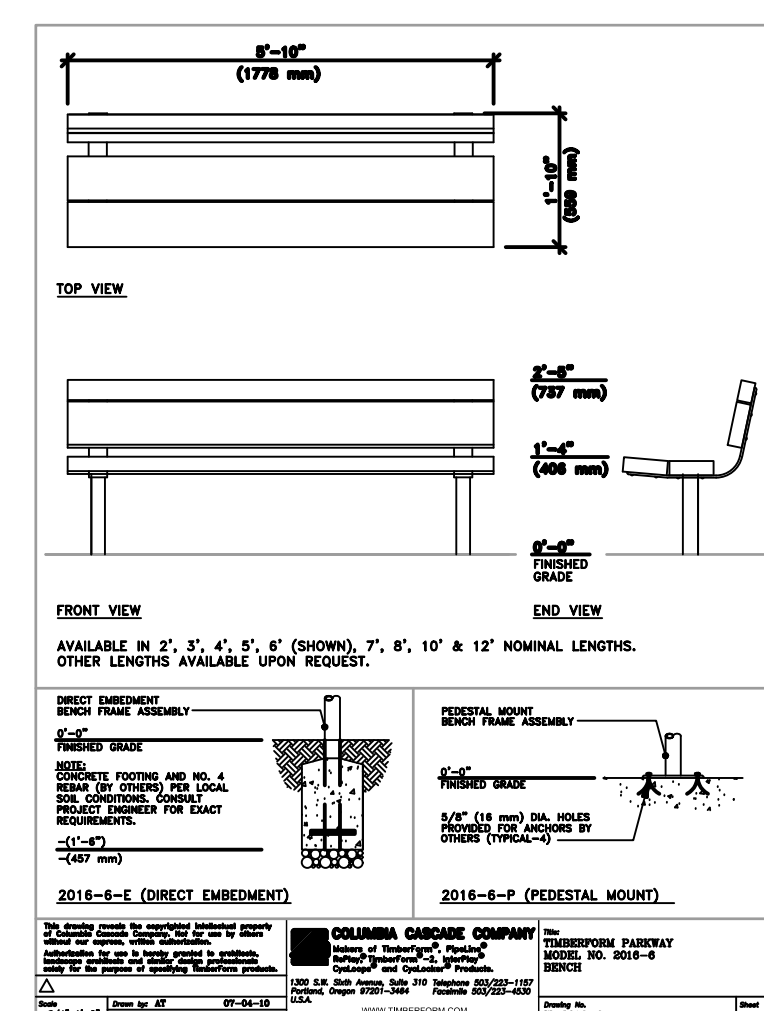
- NOTES:**
1. ALL FITTINGS, FASTENERS, & AND FABRIC TIES SHALL BE HOT DIP GALV.
  2. CONC SHALL BE MIN 2500 PSI @ 28 DAYS.
  3. PROVIDE BRACE RAIL BETWEEN END POSTS AND LINE POSTS. LENGTHS AS REQ'D.
  4. PROVIDE GATE STOPS AND DROP RECEIVERS SET IN CONCRETE AT DOUBLE GATE.
  5. PROVIDE EXTENSION ARMS ON LINE, END AND CORNER POSTS & GATE POSTS AS REQ'D.
  6. ALL POSTS AND RAILS TO MATCH FENCE COLOR - BLACK PVC COATED.



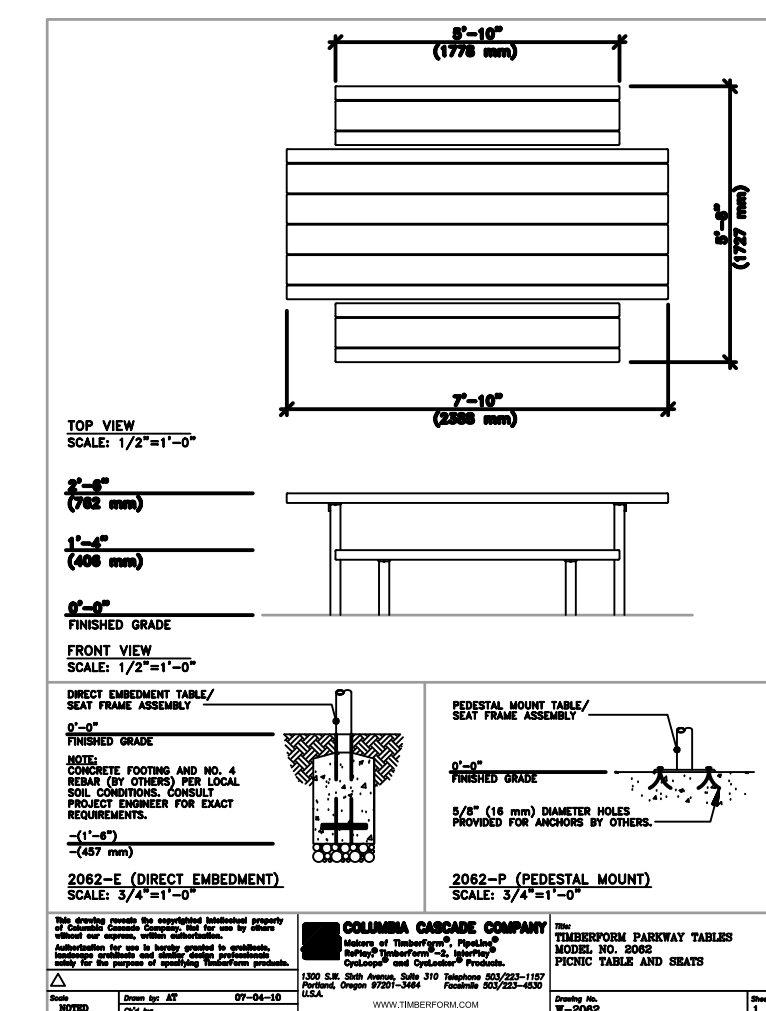
**4 STORMWATER TREATMENT AREA CHAIN LINK FENCE**  
SCALE: NOT TO SCALE



**3 SPLIT RAIL FENCE**  
SCALE: NOT TO SCALE



**2 BENCH**  
SCALE: NOT TO SCALE



**1 PICNIC TABLE**  
SCALE: NOT TO SCALE







## LIGHTING NOTES:

1. LIGHT POLES ALONG ALL ROADWAYS SHALL BE PER PGE APPROVED STREET LIGHTING EQUIPMENT:

MANUFACTURER: HADCO WESTBROOKE POLE WESTBROOKE POLE 4FT MAST ARM  
 MANUFACTURER PRODUCT CODE: CP2871C CA7897  
 PGE NUMBER: SU 40034 SU 90002579

2. LIGHT POLES ALONG ALL PATHS SHALL BE:

MANUFACTURER: NOVA  
 CATALOG NUMBER: NP8050D13AB

3. POLE FOOTING SHALL BE PER CITY PUBLIC WORK STANDARD RD-1345 (PG4):

MANUFACTURER: OLDCASTLE PRECAST  
 CATALOG NUMBER: 20R-LB-4-PGE 7-LB-PGE (USED FOR LIGHT POLES IN SWALES)

4. JUNCTION BOXES SHALL BE PER CITY PUBLIC WORK STANDARD RD-1325 AND RD-1345 (PG5):

"LIGHTING" SHALL BE IN THE LID MARKING AREA PER RD-1325.

5. WESTBROOKE LUMINAIRE FOR THE ROADWAY LIGHTING SHALL BE:

MANUFACTURER: PHILIPS HADCO  
 MANUFACTURER PRODUCT CODE: C7897GA-A3N73032A3NNNA  
 PGE NUMBER: CU 1433

6. WESTBROOKE LUMINAIRE FOR THE PATHWAY LIGHTING SHALL BE:

MANUFACTURER: PHILIPS HADCO  
 CATALOG NUMBER: CXF14-32-G2-A-3-W-A-3-H (HOUSE SIDE SHIELD)

7. 7 PIN ADAPTER FOR CONTROLLER NODE. INSTALL SHORTING CAP IN PLACE OF NODE. THE PHOTOELECTRIC CONTROL SHALL BE PGE APPROVED TWISTLOCK, FAIL-ON, ELECTRONIC, 105-300 VAC, 60 HZ, PER ANS1136.10, BRONZE HOUSING, 1.5 LUMEN TURN-ON, RATED 1000 W TUNGSTON (1800 VA BALLAST), 1.5:1 TURN-OFF / TURN-ON RATION, SOLID BRASS PLUG BLADES, CONFORMALLY COATED CDS CELL, 160 JOULE MOV, 2-4 SEC. TURN-OFF DELAY. PGE APPROVED PHOTOELECTRIC CONTROLS ARE:

MANUFACTURER: ACUITY BRANDS (DTL)  
 CATALOG NUMBER: D124-1.5-1704

8. THE STREETLIGHT WIRE SHALL BE:

#10 AWG, 600 VOLT, 3-CONDUCTOR, CLASS B STRANDING, TYPE TC, WITH SUNLIGHT-RESISTANT 45-MIL PVC JACKET. SUITABLE FOR DIRECT BURIAL INSTALLATIONS. INSULATION TO BE BLACK, RED, AND GREEN PER NEMA WC-7 FOR NEC APPLICATIONS (TFN, THWN, THHN), WITH FILLERS OR BINDING TAPE ADDED TO PRODUCE ROUND OUTER JACKET, RATED 90 DEGREES C DRY AND 75 DEGREES C WET, 1,000 FT NR REELS. JACKET TO DISPLAY SEQUENTIAL FOOTAGE MARKINGS. 2 REEL LABELS, ONE ATTACHED TO THE OUTSIDE FLANGE SURFACE, ONE ATTACHED TO THE DRUM WRAPPING; EACH TO DETAIL TOTAL FOOTAGE, INSIDE OR STARTING FOOTAGE.

## GENERAL NOTES

- ALL MATERIAL AND WORKMANSHIP SHALL CONFORM TO P.G.E. OPTION "B" SPECIFICATIONS.
- ALL ELECTRICAL EQUIPMENT SHALL CONFORM TO THE CURRENT STANDARDS OF THE NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA) AND THE UNDERWRITERS LABORATORIES, INC. (U.L.). WHEREVER APPLICABLE. IN ADDITION TO THE REQUIREMENTS OF THE PLANS, STANDARD SPECIFICATIONS, AND THE SPECIAL PROVISIONS, ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE CURRENT REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC) THE NATIONAL ELECTRICAL SAFETY CODE, STANDARDS OF THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI), AND ANY LOCAL ORDINANCES WHICH MAY APPLY.
- LOCATION OF ILLUMINATION CONDUITS AND JUNCTION BOXES ARE APPROXIMATE. CONTRACTOR SHALL COORDINATE WITH OTHER UTILITIES TO ENSURE PROPER INSTALLATION.
- THE CONTRACTOR SHALL COORDINATE WORK WITH LISA GUARNERO OF PGE AT (503) 742-8299 TO COORDINATE POWER SERVICE CONNECTION FOR THE LIGHTING SYSTEM.

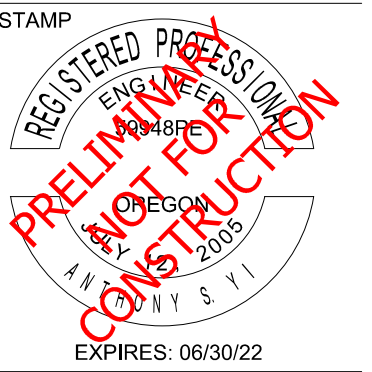
LIGHTING TABLE				
ROADWAY	CLASSIFICATION		3000K FIXTURE	
			LIGHT LEVEL (FC)	UNIFORMITY (AVE:MIN)
SW COLUMBINE AVE @ FROG POND LN INTERSECTION	LOCAL/COLLECTOR	RECOMMENDED	≥1.0	≤4:1
		DESIGN	1.1	2.1 : 1
SW COLUMBINE AVE @ SW ALDER LN INTERSECTION	LOCAL/LOCAL	RECOMMENDED	≥0.8	≤6:1
		DESIGN	0.8	2.1 : 1
SW COLUMBINE AVE @ SW BRISBAND ST INTERSECTION	LOCAL/LOCAL	RECOMMENDED	≥0.8	≤6:1
		DESIGN	0.9	2.3 : 1
SW FROG POND LN WEST LIMITS TO COLUMBINE AVE	COLLECTOR	RECOMMENDED	≥0.6	≤4:1
		DESIGN	0.7	2.3 : 1
SW COLUMBINE AVE FROG POND TO ALDER LN	LOCAL	RECOMMENDED	≥0.4	≤6:1
		DESIGN	0.6	3.2 : 1
SW COLUMBINE AVE ALDER LN TO BRISBAND ST	LOCAL	RECOMMENDED	≥0.4	≤6:1
		DESIGN	0.6	3.2 : 1
ALLEY A WEST LIMITS TO COLUMBINE AVE	LOCAL	RECOMMENDED	≥0.4	≤6:1
		DESIGN	0.7	2.2 : 1
SW ALDER LN WEST LIMITS TO COLUMBINE AVE	LOCAL	RECOMMENDED	≥0.4	≤6:1
		DESIGN	0.6	6.0 : 1
SW BRISBAND ST WEST LIMITS TO COLUMBINE AVE	LOCAL	RECOMMENDED	≥0.4	≤6:1
		DESIGN	0.6	3.2 : 1

LUMINAIRE TABLE										
POLE NUMBER	ROADWAY	STATION	POLE STYLE	POLE TYPE	LUMINAIRE				MOUNTING HEIGHT	ARM LENGTH
					WATT	TYPE	DISTRIBUTION	DIMMING		
1	SW FROG POND LN	7+72	WESTBROOK	DECORATIVE	35	LED	M-C-3	1.0	22'	4'
2	SW FROG POND LN	8+67	WESTBROOK	DECORATIVE	35	LED	M-C-3	1.0	22'	4'
3	SW FROG POND LN	9+58	WESTBROOK	DECORATIVE	35	LED	M-C-3	1.0	22'	4'
4	ALLEY A	-	WESTBROOK	DECORATIVE	35	LED	M-C-3	1.0	22'	4'
5	ALLEY A	-	WESTBROOK	DECORATIVE	35	LED	M-C-3	1.0	22'	4'
6	SW ALDER LN	-	WESTBROOK	DECORATIVE	35	LED	M-C-3	1.0	22'	4'
7	SW ALDER LN	-	WESTBROOK	DECORATIVE	35	LED	M-C-3	1.0	22'	4'
8	SW BRISBAND ST	50+52	WESTBROOK	DECORATIVE	35	LED	M-C-3	1.0	22'	4'
9	SW BRISBAND ST	51+60	WESTBROOK	DECORATIVE	35	LED	M-C-3	1.0	22'	4'



**KITTELSON & ASSOCIATES**

851 SW 6TH AVENUE, SUITE 600  
 PORTLAND, OR 97204  
 P 503.228.5230 F 503.273.8168



CONSULTANT

FROG POND ESTATES ILLUMINATION NOTES

TITLE

#	DATE	DESCRIPTION

REVISIONS

JCH ASY  
 DRAWN BY CHECKED BY  
**PRELIMINARY**  
 STATUS  
 DECEMBER 16, 2021  
 DATE  
 27328  
 PROJECT NUMBER

IL-1

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If this drawing is not 22" x 34", it has been reduced/enlarged. Scale accordingly.





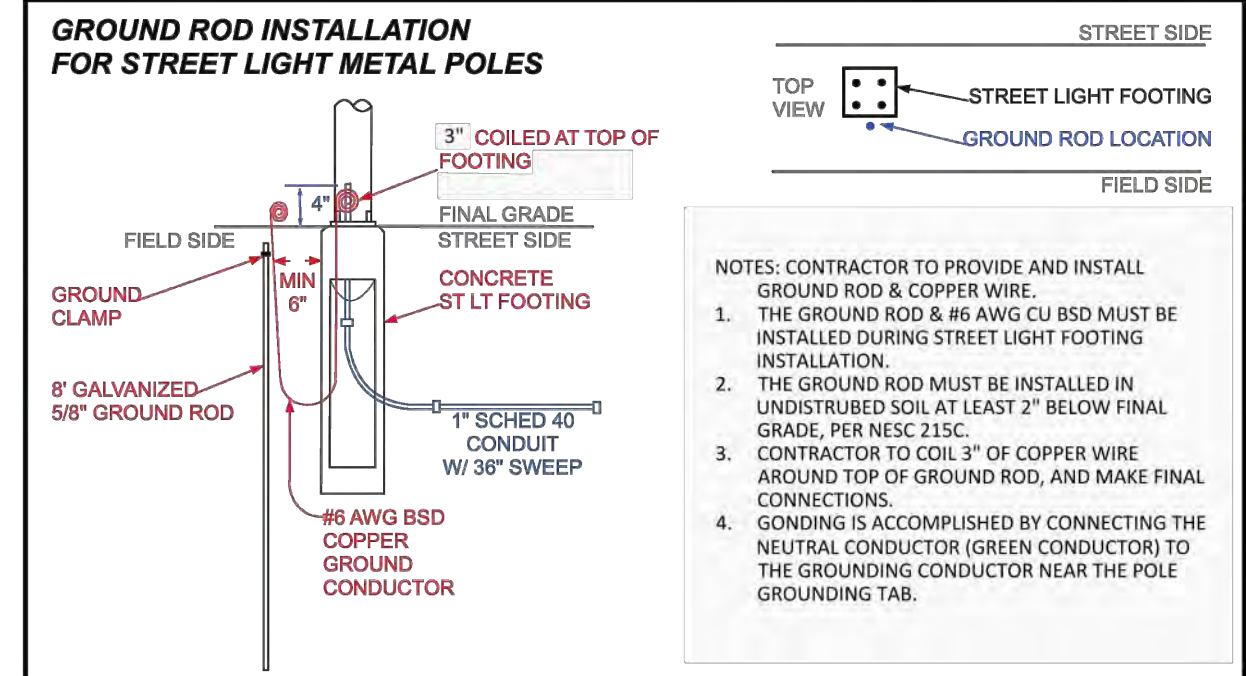
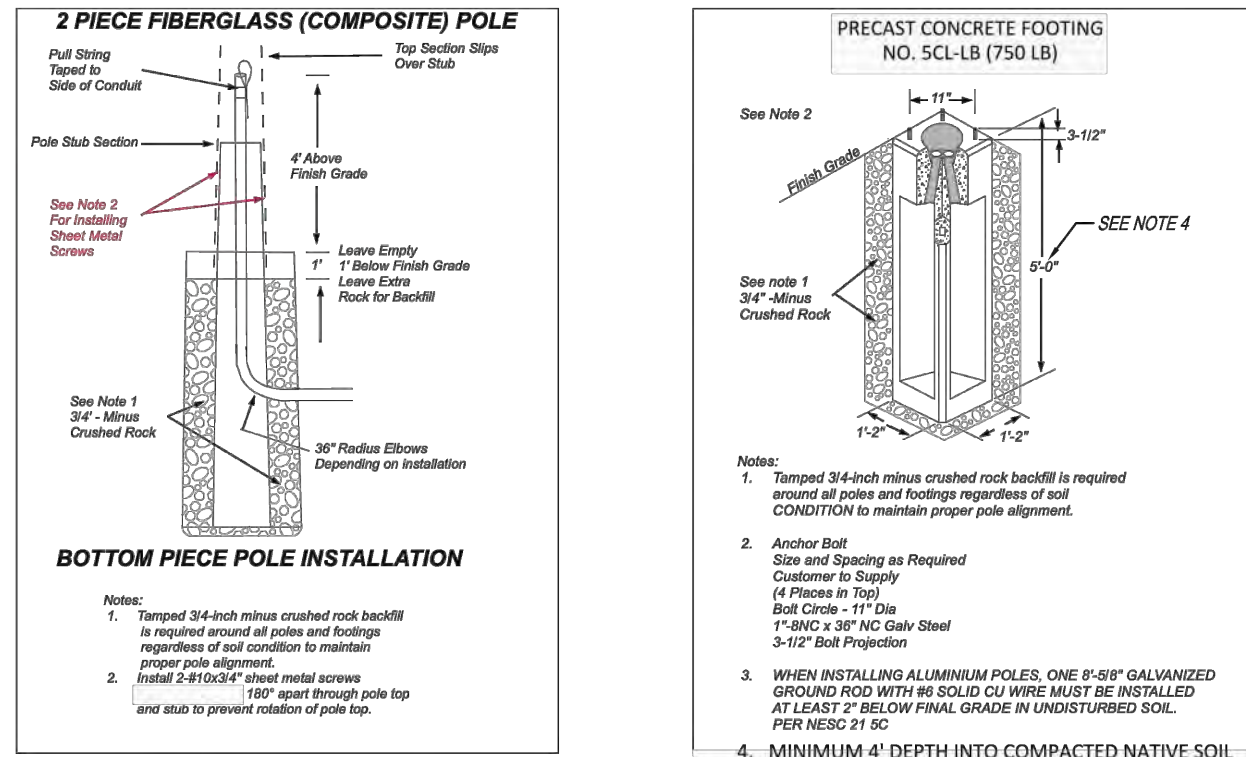


This Detail Drawing may not be altered or changed in any manner except by the City Engineer. It is the responsibility of the user to acquire the most current version.

- ALL CONCRETE FOOTINGS NEED TO BE INSTALLED WITH TOP OF BASE FLUSH TO CURB/SIDEWALK.
- ALL CROSSINGS MUST EXTEND FROM PROPERTY LINE TO PROPERTY LINE. CROSSINGS TO BE 48 INCHES DEEP, MEASURED FROM FINAL GRADE.
- DIRECTIONAL BORING REQUIREMENTS: BLACK HDPE (HIGH DENSITY POLYETHYLENE) DUCT OR SCHEDULE 40 PVC WITH A MECHANICAL CONNECTION (CERTA-LOK OR LIKE MECHANICAL CONNECTION PRODUCT) PROJECT EXTRUDED RED STRIPES (WHICH IS A SPECIFICATION REQUIREMENT) MANDREL TEST OF HDPE PIPE IS REQUIRED AFTER INSTALLATION WITH CITY INSPECTOR PRESENT.
- TRENCH AND ELBOW CONFIGURATIONS, ALL CONDUIT, VAULT AND PAD INSTALLATIONS MUST BE INSPECTED PRIOR TO BACKFILLING.
- ALL CONDUCTORS TO BE INSTALLED IN GRAY, SCHEDULE 40, ELECTRICAL GRADE, PVC CONDUIT WITH NYLON PULL STRINGS (MIN 500 LBS. TEST). PGE TO DETERMINE THE SIZE AND NUMBER OF CONDUITS REQUIRED. MAINTAIN 12 VERTICAL INCHES AND 24 HORIZONTAL INCHES CLEARANCE BETWEEN GAS AND OTHER UTILITIES. ALL ELBOWS 4 INCH & SMALLER TO BE 36 INCH RADIUS. ALL BENDS MUST BE FACTORY MADE. ALL ELBOWS LARGER THAN 4 INCH TO BE 60 INCH RADIUS. RIGID STEEL OR PGE APPROVED. FIBERGLASS BENDS ARE REQUIRED FOR RUNS OF 151 FEET OR LONGER, OR FOR ANY LENGTH RUN WITH MORE THAN 180 DEGREES IN BENDS. PVC SCHEDULE 40 BENDS ARE ACCEPTABLE FOR RUNS OF 150 FEET OR LESS. THE MAXIMUM TOTAL BENDS IN ANY CONDUIT RUN IS 270 DEGREES.
- THE AIR GAP, IF ANY BETWEEN THE TOP OF THE FOOTING/PEDESTAL AND THE BOTTOM OF THE POLE SHALL BE GROUTED WITH HIGH STRENGTH, NON-SHRINK GROUT.

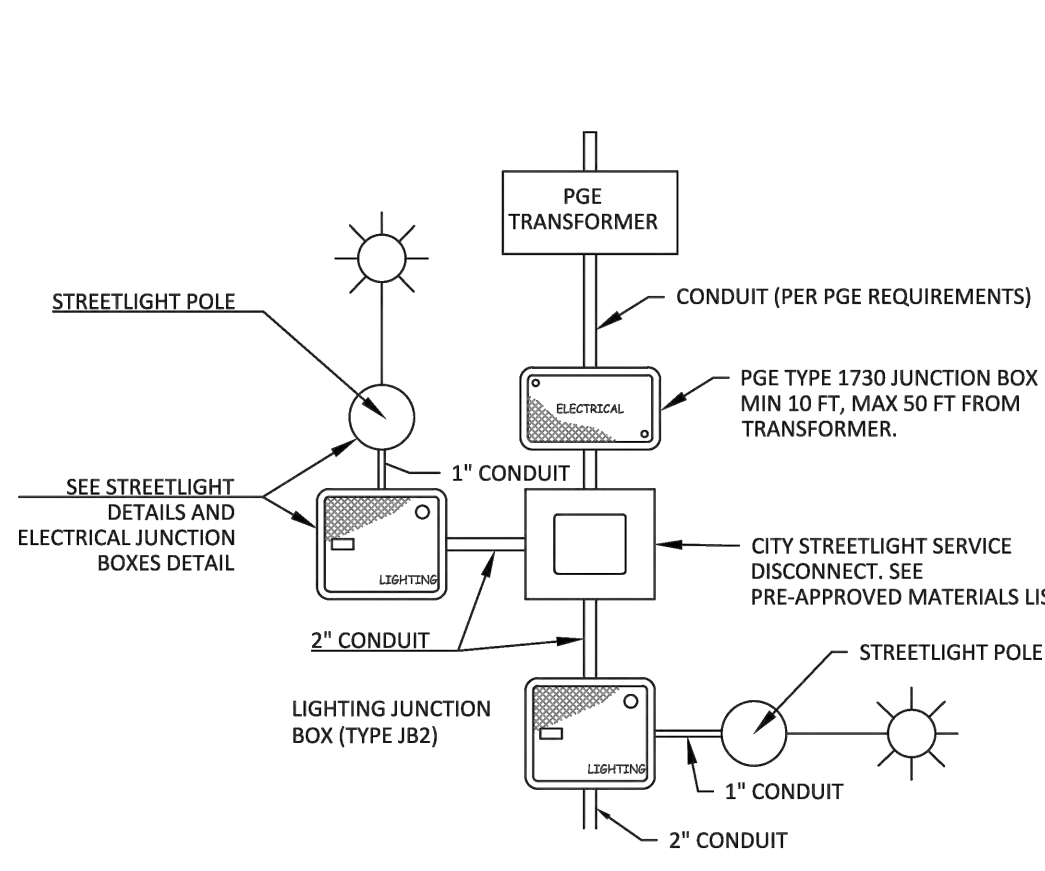
STREETLIGHT FOOTING REQUIREMENTS			CITY OF WILSONVILLE PUBLIC WORKS STANDARDS
DRAWING NUMBER: RD-1340	DRAWN BY: SR	SCALE: N.T.S.	
FILE NAME: RD-1340.dwg	APPROVED BY: NK	DATE: 08/08/17	

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Streetlight Footing Requirements			CITY OF WILSONVILLE PUBLIC WORKS STANDARDS
DRAWING NUMBER: RD-1335	DRAWN BY: SR	SCALE: N.T.S.	
FILE NAME: RD-1335.dwg	APPROVED BY: NK	DATE: 08/08/17	

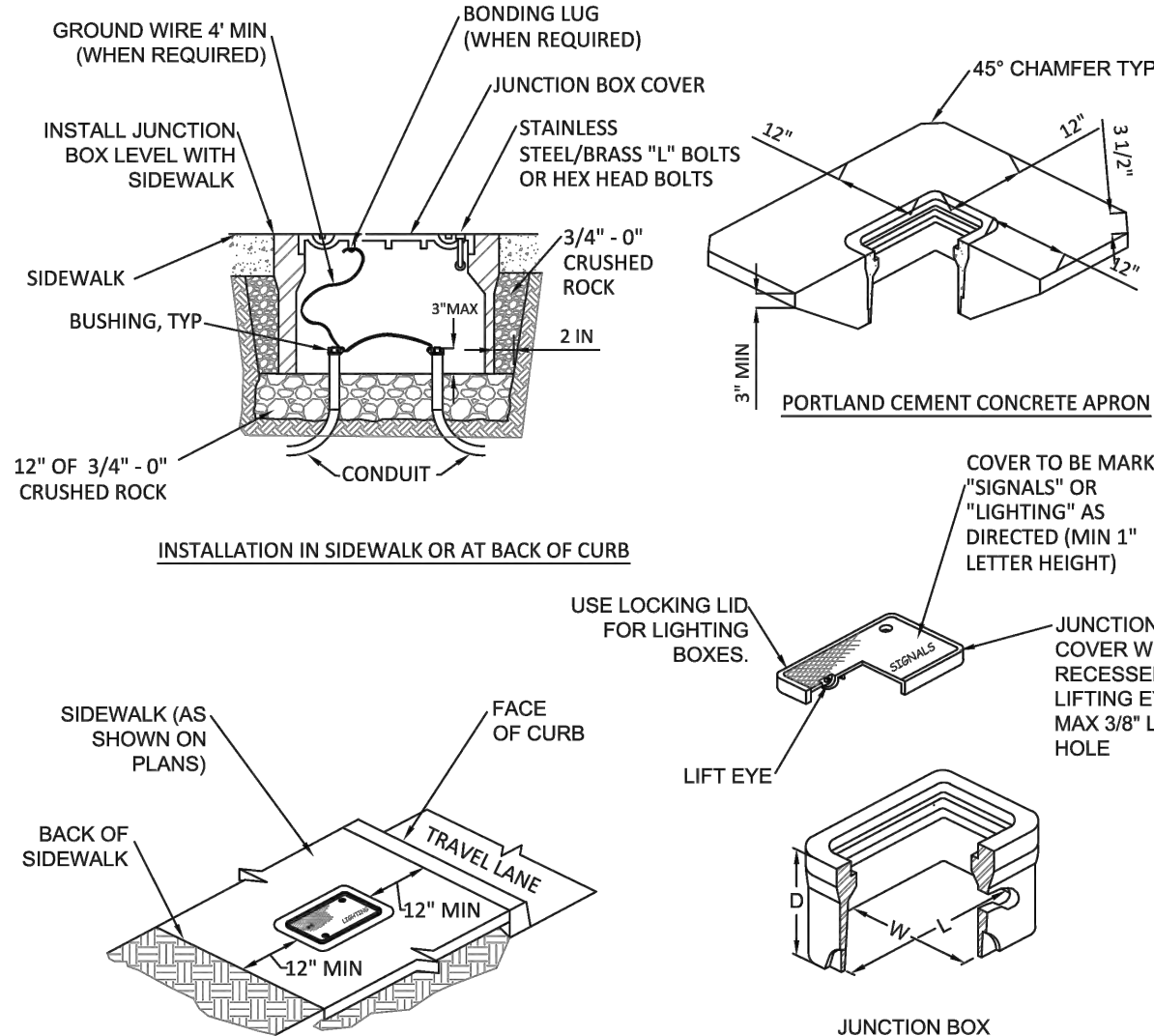
This Detail Drawing may not be altered or changed in any manner except by the City Engineer. It is the responsibility of the user to acquire the most current version.



- NOTES:
- MINIMUM CONDUCTOR SIZE SHALL BE 10 GA. CONDUCTORS SHALL BE UPSIZED IF REQUIRED TO KEEP VOLTAGE DROP TO LESS THAN 3%. 3-CONDUCTOR 7-STRAND COPPER WIRE WITH .030" XLPE INSULATION, FILLERS, AND CLEAR MYLAR WRAP TAPE NON-SHIELDED OVERALL .045" BLACK PVC JACKET (UL) TC-ER XHHW-2/VW-1 600V 90C DRY/WET, SUN RESISTANT, DIRECT BURY, CC: BLACK/RED/GREEN FOR 220 VOLT AND BLACK/WHITE/GREEN FOR 120 VOLT.
  - ALL EMPTY CONDUITS MUST HAVE A #14 LOCATE WIRE AND A NONCONDUCTIVE PULL LINE, 500 POUND RATED, WITH 6 FEET OF LINE EXTENDING FROM EACH END OF THE CONDUIT.
  - INSTALL ELECTRICAL GRADE SCHEDULE 40 GRAY PVC CONDUIT WITH FIBERGLASS BENDS. ALL PVC JOINTS SHALL BE GLUED. ALL FACTORY OR FIELD CUT CONDUITS SHALL BE CHAMFERED TO PREVENT DAMAGE TO CABLES. A WOODEN, PLASTIC, OR HARD RUBBER MANDREL CONFIGURED FOR THE CONDUIT INSIDE DIAMETER SHALL BE PULLED THROUGH TO TEST FOR OBSTRUCTIONS AND OUT-OF-ROUND CONDUIT.
  - ELECTRICAL BUILDING PERMIT REQUIRED.

Streetlight Disconnect			CITY OF WILSONVILLE PUBLIC WORKS STANDARDS
DRAWING NUMBER: RD-1330	DRAWN BY: SR	SCALE: N.T.S.	
FILE NAME: RD1330.dwg	APPROVED BY: NK	DATE: 08/08/17	

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**JUNCTION BOX PLACEMENT WITHIN SIDEWALKS**

SHOULD AVOID INSTALLING JUNCTION BOXES IN SIDEWALKS WHENEVER POSSIBLE. (JUNCTION BOXES TO BE LOCATED ONLY IN FLAT AREAS OF SIDEWALKS CONCRETE JUNCTION BOXES ARE NOT TO BE INSTALLED IN SLOPES OF RAMPS OR DRIVEWAYS) JUNCTION BOXES PLACED WITHIN SIDEWALKS SHALL INCLUDE A FULL PANEL REMOVAL AND REINSTALLATION.

TYPE	L	W	D
JB1	17"	10"	12"
JB2	22"	12"	12"
JB3	30"	17"	12"

Electrical Junction Boxes			CITY OF WILSONVILLE PUBLIC WORKS STANDARDS
DRAWING NUMBER: RD-1325	DRAWN BY: SR	SCALE: N.T.S.	
FILE NAME: RD1325.dwg	APPROVED BY: NK	DATE: 08/08/17	

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POLES AND MAST ARMS	Valmont	Hadco	P&K Poles (Flagpole Inc)	Union Metal
30 foot, Davit	3000-85106D4	41-176PGE	RTA8L30AAD1632D	920-B179-Y1
6' Mast Arm (1952) (CU 279)				
30 foot, Double Davit	3000-856206D4Z	42-158XPGE	NONE	920-B180-Y1
2-6' Mast				
35 foot, Davit	3500-8108D4	41-231PGE	RTA8M35AAD1832D	920-B179-Y2
8' Mast				

POLE: DECORATIVE BLACK ALUMINUM (Use with Hadco Westbrook Fixture)		Hadco
Length		
18 Foot, Black, Smooth Anchor Base (11" B.C.)		CP2871C (40034)
4 Foot Pole Extension w/Arm Bracket, Pole Cap, and 18 Foot Smooth Westbrook Pole (CU 1437)		CA7897-HFP710-P5A (90002579)
4 Foot Pole Extension w/Double Mast Arm, Pole Cap, and 18 Foot Smooth Westbrook Pole (CU 1438)		CA2871L-HFP720-P5A (90003564)

POLES: COMPOSITE, 2-PIECE, SMOOTH FINISH, DIRECT-BURIED, TOP PIECE ONLY			
Length & Type	Mounting Height & Color	Shakespeare	CMT
30 Foot, Direct Buried	25 Feet, Bronze	BHT309955B19901 (39358) (CU 1111)	MDS30-F-100-52-HS-PC-NP-1B-22 (39372) (CU 1112)

POLE FOOTINGS: CONCRETE					
Precast Concrete Base	Bolt Circle	Bolt Projection	Bolt Type	Base Dimensions	Utility Vault Company
For all decorative and post-top anchor base poles 14 to 25 feet. (39083)				20" Round by 48" High	20R-LB-4- PGE
For 25 to 35 Foot Aluminum Anchor Base Poles (00147)	11 inch	3-1/2 inch	1" - 8 NC Galv Steel	14" Square by 60" High	SCL-LB- PGE
For 40 Foot Aluminum Anchor Base Poles (39094)				18" Top 24" Bottom 84" High	7-LB- PGE

Approved Street Lighting Equipment for New Installations Pg 4			CITY OF WILSONVILLE PUBLIC WORKS STANDARDS
DRAWING NUMBER: RD-1345	DRAWN BY: SR	SCALE: N.T.S.	
FILE NAME: RD-1345.dwg	APPROVED BY: NK	DATE: 08/28/17	

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**MISCELLANEOUS**

**GROUT**  
Non-Shrink Grout, such as Alcrete Twenty Minute Fast Setting Grout, or approved equal  
The air gap between the top of pedestal and bottom of light pole shall be grouted with a high-strength, non-shrinking grout meeting ODOT SSC Section 02440.50(b).

**MANHOLE COVER: GRAY, PLASTIC, STEEL CORE, UNIVERSAL**  
Quantum Engineering  
TL-S (90004595)

**STREETLIGHT WIRE: UNDERGROUND OR IN POLE**  
Streetlight Wire Description  
#10 CU 3-Conductor (00036) (CU 635)  
#10 AWG, 600 Volt, 3-Conductor, Class B Stranding, Type TC, with Sunlight-Resistant 45-mil PVC Jacket. Suitable for direct burial installations. Insulation to be black, red, and green per NEMA WC-7 for NEC applications (TFN, THWN, THHN), with fillers or binding tape added to produce round outer jacket, rated 900C dry and 750C wet, 1,000 ft NR reels. Jacket to display sequential footage markings. 2 reel labels, one attached to the outside flange surface, one attached to the drum wrapping; each to detail total footage, inside or starting footage.

**JUNCTION BOX: FOR UNDERGROUND CONDUCTORS & CONNECTIONS**  
Junction Box Description  
Junction Box, Concrete Polymer Lid, Fiberglass Reinforced Polymer flared sides, 18" Deep, No Floor, With Skid Resistant Cover Attached by Two Captive stainless steel 3/8-inch Penta-head Bolts, Gray Color, per Material Specification L26107 Note: 12"x12"x12" is 12 inches deep with straight sides. Covers must be marked ELECTRIC or POWER.

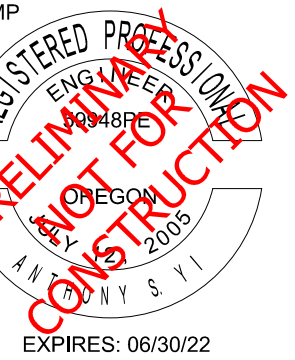
Manufacturer	13" x 24" x 18" (00003478)	17" x 30" x 18" (00003480)	12" x 12" x 12" (39031)
Newbasis	FCA132418T-00043	FCA173018T-00026	PCA1212-00005 (Box: PMB121212SN20 Lid: SMC1212B1A20)
Quazite (Hubbell)	A42132418A017	A42173018A017	N/A
Oldcastle /Carson Industries	13241817	17301820	HLW1212-12-PC
CDR (Electriform)	N/A	N/A	PA-13-1212-12
Highline	CHA132418HE1	CHA173018HE1	PHA121212SE1
Armorcast	A6001946TAX18-PGE	A6001640TAX18-PGE	A6001423TA (Box: A6001423) (Cover: A6001422)

Approved Street Lighting Equipment for New Installations Pg 5			CITY OF WILSONVILLE PUBLIC WORKS STANDARDS
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FILE NAME: RD-1345.dwg	APPROVED BY: NK	DATE: 08/28/17	

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**KITTELSON & ASSOCIATES**  
851 SW 6TH AVENUE, SUITE 600  
PORTLAND, OR 97204  
P 503.228.5230 F 503.273.9169



CONSULTANT

FROG POND ESTATES  
ILLUMINATION DETAILS

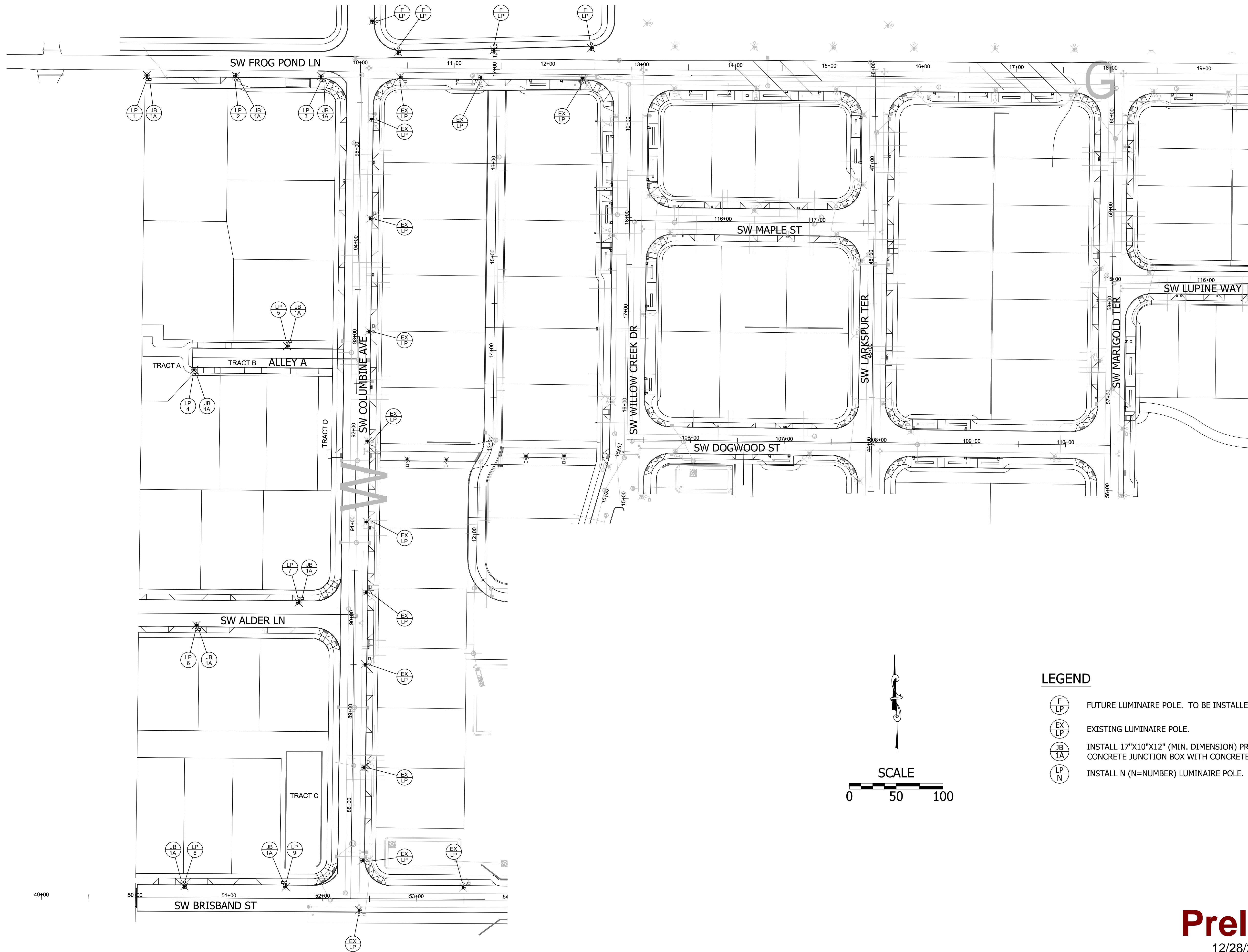
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REVISIONS			
JCH		ASV	
DRAWN BY		CHECKED BY	
PRELIMINARY			
STATUS			
DECEMBER 16, 2021			
DATE			
27328			
PROJECT NUMBER			

**Preliminary**  
12/28/2021 9:13:18 AM





© 2018 OTAK, INC.  
If this drawing is not 22" x 34", it has been reduced/enlarged. Scale accordingly.

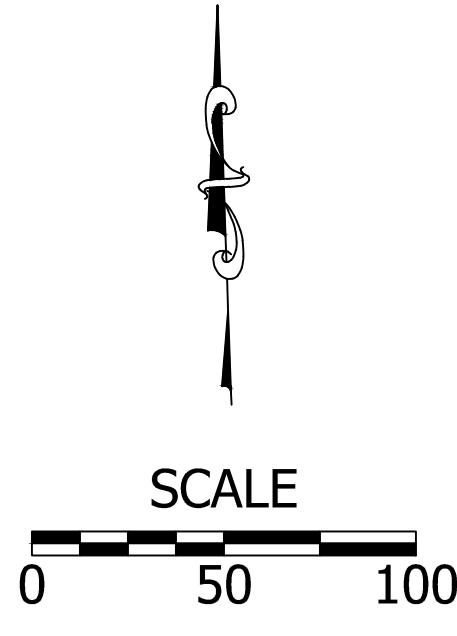


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**LEGEND**

-  FUTURE LUMINAIRE POLE. TO BE INSTALLED BY OTHERS.
-  EXISTING LUMINAIRE POLE.
-  INSTALL 17"x10"x12" (MIN. DIMENSION) PRECAST CONCRETE JUNCTION BOX WITH CONCRETE APRON.
-  INSTALL N (N=NUMBER) LUMINAIRE POLE.



**Preliminary**  
12/28/2021 9:13:24 AM

STAMP  
REGISTERED PROFESSIONAL ENGINEER  
PRELIMINARY  
NOT FOR CONSTRUCTION  
EXPIRES: 06/30/22  
CONSULTANT

**FROG POND ESTATES**  
**ILLUMINATION PLAN**

TITLE		
#	DATE	DESCRIPTION
REVISIONS		
JCH	ASY	
DRAWN BY	CHECKED BY	
PRELIMINARY		
STATUS		
DECEMBER 16, 2021		
DATE		
27328		
PROJECT NUMBER		