

## Exhibit 14: Predevelopment Final Comments



Planning and Development  
www.spokanecity.org

## Pre-Development Conference Notes

**Project Name:** Land Development

**To:** Mamdough Elaarag  
MHE Engineering  
9702 W Masters Lane  
Cheney, WA 99004  
melaarag@yahoo.com

**Phone:** 509-230-1960

**From:** Tami Palmquist, Facilitator

**Phone:** 509-625-6323

**Project Name:** Land Development  
**Permit No.:** B19M0115PDEV  
**Site Address:** 2500 W 17th Ave  
**Parcel No.:** 25252.0032  
**Meeting Date:** Thursday, November 07, 2019

Thank you for attending a Pre-Development meeting with the City of Spokane. Below are notes summarizing the information that was presented to you at your meeting on Thursday, November 7, 2019. These notes are broken down into three sections:

- Section 1: This section describes those proposed items specific to the building improvements with directives for code compliance addressed by the Building and Fire Departments as well as Spokane Regional Health District when warranted.
- Section 2: This section describes all issues outside of the building within the property boundaries including landscaping, parking requirements and accessibility, utilities, traffic, and refuse addressed by Planning, Engineering, Traffic, and Solid Waste Departments.
- Section 3: This section contains information for permit submittal, our intake process, and general information.

Please be advised that these notes are non-binding and do not constitute permit review or approval. The comments were generated based on current development standards and information provided by the applicant; therefore, they are subject to change. Comments on critical items will be highlighted in **bold** text.

### Project Information:

- A. Project Description: 3 Phases, 60 lots
- B. Scope and Size: The scope of work includes development of 60 +/- lots for single family dwellings constructed under the International Residential Code. a site for future construction of buildings. The construction type was not noted, and is assumed to be Type VB.
- C. Special Considerations: PUD/Plat, SEPA, Traffic, Design Review, GFC's, GeoTech
- D. Estimated Schedule: Construction nextg summer, submit Plat in December

E. Estimated Construction Cost: None given

## Section 1 – Comments Specific to the Building

### **Dermott Murphy - Deputy Building Official (509-625-6142):**

1. The Plan Review will reflect the extent and completeness of the submitted documents. **Attached** is a listing (by discipline) of the plans, specifications, and engineering details which should be submitted.

### **Tami Palmquist – Associate Planner (509-625-6157):**

1. No comments at this time.

### **Dave Kokot – Fire Prevention Engineer (509-625-7056):**

1. Construction and demolition shall be conducted in accordance with IFC Chapter 33 and NFPA 241.
2. Smoke and carbon monoxide detection is required.
3. Address numbers or other approved signs are required to be provided on the building in a visible location (IFC 505).

### **Eric Meyer – Spokane Regional Health District (509-324-1582):**

1. The Spokane Regional Health District has indicated they have no requirements for the project as proposed.

## Section 2 – Comments Specific to the Site

### **Tami Palmquist – Associate Planner (509-625-6157):**

1. **This proposal will require a preliminary long plat and PUD.**
2. **SEPA will be required for this application and can be processed with the Preliminary Plat Application and PUD Application.**
3. **A PUD requires that Design Review be completed before a plat/PUD application is submitted to planning.**
4. Applying the PUD standards could offer additional flexibility for lots size, density, and street standards. **Currently a few of the lots do not meet the minimum lot depth of 80 feet.**
5. Separated sidewalks with street trees will be required for all new streets.
6. Street layout shall provide for future extension of streets into areas which are presently not subdivided.
7. **Blocks shall not be longer than 600’.** The cross road will need to be adjusted to meet this requirement.
8. Have you considered building a pedestrian connection to the Fish Lake Trail? It may work

with the grades between lots 34 and 35.

9. Setbacks for Primary Structures- *SMC 17C.110.220*

- a. Front – 15 Feet, living space
- b. Front – 20 Feet, Garage
- c. Side – 5ft on both sides
- d. Rear – 25 feet

10. Lot Coverage- *SMC 17C.110.210*

- a. 2,250 sq. ft. +35% for portion of lot over 5,000 sq. ft. maximum lot coverage for all structures on each site

11. Height- *SMC 17C.110.215*

- a. Maximum Wall Height – 25 Feet
- b. Maximum Roof Height – 35 feet

**Joelie Eliason – Engineering Tech IV (509-625-6385):**

- 1. WSDOT will most likely require a traffic analysis for the new development. Please coordinate with WSDOT for details.
- 2. The City of Spokane requests a connection between this development and the Fish Lake Trail. The connection may qualify for a partial credit to the transportation impact fee (see fee info below).
- 3. Adequate access and maneuvering for refuse/emergency vehicles is required per the City Standards and must be maintained during construction.
- 4. Maintain clear view at intersections, pedestrian ways, and driveways.
- 5. All parking and maneuvering areas are to be hard surfaced. All required parking, landscaping, and onsite stormwater designs must be within the property lines and not in the public right-of-way.
- 6. The Pavement Cut Policy will be applicable.
- 7. Please dimension the travel lanes and driveway approaches.
- 8. Any new or modified driveway access locations must be reviewed and approved by Traffic Engineering prior to permit issuance. All unused driveways must be removed and replaced with City standard curb and sidewalk.
- 9. Confine illumination lighting to the site.
- 10. *“The City shall collect impact fees, based on the schedules in SMC 17D.075.180, or an independent fee calculation provided for in SMC17D.075.050, from any applicant seeking development approval from the City.”* A transportation impact fee will be assessed for each SFR the South Service Area calculated at \$1,160.64/dwelling + \$50.00 admin fee. This fee must be paid with the other permit fees prior to issuance of the building fee permit.

**Mike Nilsson – Engineer (509-625-6323):**

- 1. There is a future water main replacement in 16<sup>th</sup> Avenue tentatively scheduled for 2020. This may affect access to the site.
- 2. The project property contains areas with slopes greater than 16%.
  - a. Any proposed street grades in excess of 8% will need to be identified on the preliminary plat submittal.
  - b. Any development, including grading, in areas with slopes 30% or greater will require a geotechnical evaluation.

3. A conceptual sewer, water, and stormwater plan will need to be provided as part of the preliminary plat submittal.
  - a. The sanitary sewer and water in Nettleton Lane to the north of the proposed development is private. Agreements between the developments will need to be in place prior to private utility plans being accepted for construction.
  - b. The public water, sewer, and Cochran Street have not been extended from Crystal Ridge through Crystal Ridge 1<sup>st</sup> Addition Phase 2.
4. New residential side sewers shall be a minimum of four inches in diameter, have a minimum slope of two percent and 3.5 feet of cover where vehicular traffic passes over, two feet minimum in other areas. Sewer and Water separation requirements are 18 inches minimum vertical, five feet minimum horizontal. Sewer cleanouts shall be installed at every 100 feet and every angle 45 degrees or greater. See City of Spokane Design Standards Section 4 for additional information on Sewers.
5. The proposed project is not within the General Facility Charge (GFC) Waiver Zone, so GFCs will be assessed for this project for new sewer/water service connections.
6. All storm water and surface drainage generated on-site must be disposed of on-site in accordance with *SMC 17D.060.140* "Storm water Facilities". Stormwater requirements can be found in the Spokane Regional Stormwater Manual (SRSM) and City of Spokane Design Standards Section 6. In general, any new impervious surface will require a geotechnical site characterization (report) and drainage report/plan. Please include a detailed Site Plan or Civil Plans, which show and clearly delineate existing and proposed sewer, water, drainage structures, dry well types, swale bottom dimensions and areas, and property lines. Show proposed and existing pavement. Geotechnical reports, drainage reports, and civil plans must be stamped and signed by an engineer licensed in the State of Washington. **If a design variance is desired, it will need to be completed prior to intake.**
7. Combining landscape and stormwater treatment areas per Washington State Department of Ecology (DOE) low impact development (LID) guidelines is allowed. The link to DOE LID resources can be found at:  
<http://www.ecy.wa.gov/programs/wq/stormwater/municipal/LID/Resources.html>
8. Any drywells and subsurface drainage galleries (existing and proposed) for the site must be shown on the plans and registered with the Washington State Department of Ecology (DOE). Please send a copy of the completed registration form to the City of Spokane Development Services Center. See the following link at the Department of Ecology (DOE) website for information about the Underground Injection Control (UIC):  
<https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Underground-injection-control-program>  
**Note all new projects must submit a UIC registration to Ecology at least 60 days prior to commencing UIC well construction. Ecology's approval of the registration is required prior to construction of a new UIC well.**
9. Most land-disturbing activities require an Erosion and Sediment Control (ESC) plan. Land-disturbing activities are activities that result in a change in existing soil cover (vegetative or non-vegetative) or site topography. Land-disturbing activities include, but are not limited to, demolition, construction, clearing and grubbing, grading, and logging. An ESC plan detailing how erosion and other adverse stormwater impacts from construction activities will be handled must be submitted to the Development Services Center for review and acceptance prior to construction of said phase. See Section 9 of the SRSM for ESC requirements and applicability. The following link provides information on ESC training and certification programs: <https://ecology.wa.gov/Regulations-Permits/Permits-certifications/Certified-erosion-sediment-control>
10. All cracked or broken curb and sidewalk will be repaired or replaced whether caused by construction or not and the following words must appear on the plan, "ALL BROKEN

HEAVED OR SUNKEN SIDEWALK AND CURBS ADJACENT TO THE PROJECT WILL BE REPLACED OR REPAIRED”(SMC 12.01.010).

11. The developer will be responsible for all costs associated with design and construction of water, sanitary sewer, stormwater, and street improvements necessary to serve the proposed plat.
  - a. Two copies of an overall water plan and hydraulic analysis must be submitted to Development Services for review and acceptance. The hydraulic analysis must include supporting calculations for domestic and fire flows.
  - b. All lots will have individual water and sewer connections constructed prior to final plat.
  - c. Public streets, including paving, curb, sidewalk, signs, storm drainage structures/facilities, and swales/planting strips necessary to serve the proposed plat, shall be designed and constructed in accordance with City of Spokane standards. Sidewalks shall serve each lot.

**Dave Kokot – Fire Prevention Engineer (509-625-7056):**

1. An approximate site fire flow (obtained from IFC Table B105.1 and Table C105.1) is 1,000 GPM with or without automatic sprinklers throughout and requires one fire hydrant.
2. There are two existing fire hydrants in the area that meet part of the code requirements for this project.
3. At least one additional fire hydrant will be required.
4. Site fire flow will be required to be maintained or provided during construction and prior to the issuance of building permits.
5. Fire hydrant spacing shall not be more than 500 feet (along an acceptable path of travel), within 500 feet of the property line for non-sprinklered buildings and 750 feet of the property line for fire sprinklered buildings (SMC 17F.080.030).
6. For International Residential Code buildings, fire hydrants are required within 600 feet of all points around the building (IFC 507.5.1, exception 1). For single family residential infill projects in existing developed areas, fire hydrants are allowed to be within 500 feet of the property line along an acceptable path of travel (SMC 17F.080.321).
7. The proposal appears to meet the requirements of the Fire Code for fire access.
8. Fire Department approved all-weather access must be provided to within 150 feet of any point around the outside of a building (IFC 503.1.1). For fully sprinklered buildings, this is extended to 165 feet (IFC 503.1.1, exception 1). Dead-end roads longer than 150 feet need approved fire apparatus turn-arounds (IFC 503.2.5). Fire apparatus turning radius is 50 feet external, 28 feet internal (SMC 17F.080.030.D.3). Minimum height clearance is 13 feet-6 inches (IFC 503.2.1). Fire lanes will have a maximum slope of 10 percent (based on IFC 503.2.7). Minimum width for fire access is 20 feet, unobstructed (IFC 503.2.1).
9. Single family and duplex residential developments that exceed 30 dwelling units on any single road are required to have a second fire access road (IFC D107.1). Multi-family developments with more than 200 dwelling units in which all structures are provided with automatic fire sprinklers are required to have a minimum of two fire access roads (IFC D106.1, exception). If all of the buildings in a multi-family development are not provided with fire sprinklers, the maximum number of dwelling units on a single fire access road is reduced to 100 (IFC D106.1).
10. Fire access will be maintained during construction. The fire lanes will be maintained with an all-weather surface (IFC 3310.1). Building permits will not be approved until the fire access has been constructed and approved.

**Mathias Bauman – Water Department (509-625-7953):**

1. There are no existing water services running to this parcel.
2. There is a 12-inch ductile iron water distribution main in Cochran St and an 8-inch ductile iron private water distribution main in Nettleton Ln. To utilize the 12-inch water main in Cochran St, right-of-way would have to be dedicated and extended to the property line of the new subdivision. In order to utilize the 8-inch main, this subdivision would be required to be a part of the Crystal Ridge PUD.
3. A hydraulic model must be performed to prove that the design meets minimum standards and to show how this projects effects our water system.
4. The City of Spokane Water Department Cross Connection Control and Backflow program rules and regulations shall be followed in accordance with Washington Administrative Code (WAC 246-290-490) and the City of Spokane Municipal Code 13.04.0814.
5. This parcel falls outside of our General Facilities Connection Waiver zone, therefore, General Facilities Charges will apply if new water taps are made. See Section 13.04.2042 in the Spokane Municipal Code.
6. Pressures exceeding 54-70 psi require a pressure reducing valve to be installed.
7. A utility site plan illustrating new water lines and/or services to be installed shall detail the location of new tap(s) and meter(s) prepared by a Professional Engineer licensed in the State of Washington. Water Department plan reviewers and inspectors will ensure that any new water line(s) and Service line(s) needing backflow assemblies are installed in accordance with applicable rules and regulations. Water Department Water Service Inspectors, (north side) Harry Ward (509) 625-7845, (south side) Ryan Penaluna (625-7844) will review submitted plans and inspect on-site construction. Water Department Cross Connection Control Specialists, Donovan Aurand (509) 625-7968 and Lance Hudkins (509) 625-7967, will review any backflow assemblies where required.
8. Taps and meters can be purchased at Developer Services Center, located on third floor of City Hall -Spokane. Size of service(s) shall comply with International Plumbing Code. Tap, meter, and connection fees will comply with section 13.04 of SMC. Tapping of the water main and installation of new meters shall be done by City forces. All excavation and restoration is the owner's responsibility. All trenches and/or excavations must comply with current W.A.C. #296-155 part N. No City of Spokane employee will be permitted into any trench and/or excavation without proper shoring or sloping, no exceptions. Please see Water Department Rules and Regulations for information about tap and meter sizes and sewer/water separation requirements.

**Rick Hughes – Solid Waste (509-625-7871):**

1. The plan would be approved by Solid Waste Management when the Fire Department access requirements are met.

**Becky Phillips – Urban Forestry (509-363-5495)**

1. Please see attached letter.

### Section 3 – General Information and Submittal Requirements

1. Site plan requirements are as shown on the attached “Commercial Building Permit Plan Checklist”. For the permit intake submittal, please provide three (3) **Full Building Plan Sets** and an electronic copy of the **Site Sets**. **Full Building Plan Sets** shall include all plans created for this project: cover sheet, architectural, structural, plumbing, mechanical, electrical, civil engineered plans, landscaping and irrigation drawings. **Site Sets** shall include: cover sheet, overall site plan (either architectural or civil engineered), all civil engineering plans, landscaping and irrigation plans, and building elevations. Plans are required to be stamped and sealed by an architect, landscape architect, or engineer licensed to do business within the State of Washington. All reports and supporting documentation noted in departmental comments will also be required for the permit intake submittal (i.e. NREC, drainage report, geotechnical site characterization, etc.)
2. Please provide an electronic copy of site plans showing dimensions, **property lines, and City Limits**, relative topography, all on-street signs and street markings, any new and existing frontage improvements, all structures, on-street storm drainage facilities, sidewalks, curbs, parking calculations and dimensions, dimension existing roadway, new and existing driveways and their locations, and other relative information. Show all existing topography in the public right-of-way such as street signs, water valves, hydrants, etc. All required landscaping must be within the property lines and not in the public right-of-way.
3. An Intake Meeting handout was provided to you in your packet at the Pre-Development meeting. Please call (509) 625-6300 to schedule an Intake Meeting to submit plans for a new commercial/industrial building, an addition to an existing building, a change-of-use, or a parking lot. Appointments must be made at least 24 hours in advance and can be scheduled for Monday through Thursday.
4. Please provide a complete set of plans to Spokane Regional Health District if food and/or beverage handling business is planned.
5. If you would like a full Certificate of Occupancy on any portion of the permit prior to completion of the other phases, it is required to file separate permits for each phase. An additional \$250 fee will be assessed for a Temporary Certificate of Occupancy and/or a Temporary Certificate of Occupancy extension per SMC 8.02.031M.
6. For additional forms and information, see [my.spokanecity.org](http://my.spokanecity.org).





**PRE-DEVELOPMENT NOTES**

Date Delivered: November 25, 2019

**PROJECT: Land Development B19M0115PDEV  
2500 W 17th Ave (Parcel 25252.0032)**

**To: Mamdouh Elaarag, MHE Engineering  
Cc: Dermott Murphy, Deputy Building Official, City of Spokane  
Tami Palmquist, Associate Planner, City of Spokane**

Dear Mr. Elaarag,

I am enclosing a packet of information from Urban Forestry that will be beneficial to you should you decide to proceed with plans to develop the above property.

The property to the east of the above property belongs to the Washington Department of Transportation and there is a public right of way with Fish Lake Trail running the entire length of the property. This trail is managed by the City of Spokane Parks & Recreational Department.

We would require the installation of Tree Protection Fencing to be installed per City of Spokane standards and specifications prior to any demo/soil work and to remain intact throughout all phases of construction. The fencing shall run from 17<sup>th</sup> Avenue south to the southern boundary of your property. I am enclosing a map for clarity that shows the extent of the Tree Protection Fencing.

No tree removal within this right of way will be permitted without the consent of Parks Planning and Urban Forestry. As stewards of the trail, our goal is to preserve the trail's natural beauty and woodland atmosphere for the enjoyment of the citizens and visitors to the area. We would also require a site visit prior to the start of any construction activities with city departments and the general contractors.

New street trees will be required along the frontages of all streets within your development. You will be required to hire a licensed certified arborist for the installation of new street trees so I am supplying you with a list of city approved arborists for that work. The arborist you choose will be familiar with Street Tree permitting process. This permitting process could take up to 10 business days so please plan with this time requirement in mind. All street trees on site will be inspected to ensure they are planted correctly before a Certificate of Occupancy is issued.

Please also consider tree placement and business signage to prevent visibility issues as the trees mature. This will lessen tree maintenance in the future.

Please let me know if I can be of any assistance to you.

Respectfully,

Becky Phillips  
Urban Forestry Specialist  
City of Spokane



**PRE-DEVELOPMENT PACKET**

Date Delivered: November 25, 2019

**PROJECT: Land Development B19M0115PDEV  
2500 W 17th Ave (Parcel 25252.0032)**

**To: Mamdouh Elaarag, MHE Engineering**  
**Cc: Dermott Murphy, Deputy Building Official, City of Spokane**  
**Tami Palmquist, Associate Planner, City of Spokane**

Dear Mr. Elaarag,

The purpose of this Pre-Development Packet is to provide general information needed to meet Street Tree requirements in the City of Spokane. If the project includes planting, pruning (crown or roots), protecting or removing street trees then the information in this packet will assist you in meeting the requirements and avoiding delays in your project.

Urban Forestry also performs final landscape inspections for the interior of the property during the Certificate of Occupancy review. This includes making sure the landscape matches the approved design, and that design elements are installed in accordance with City of Spokane Municipal Codes. A licensed certified arborist is only required for the planting of street/public trees, but the planting standards and specifications are the same for interior trees, so please use the V-101 & V-102 as planting standards for all trees and shrubs on this site.

The documents included in this packet are as follows:

- Certified & Licensed Arborists in the City of Spokane
- Tree and Shrub Planting Details Diagram
- A Clear View: Vegetation & Traffic Safety Diagram
- Existing Sidewalk Retrofit Diagram
- Tree Protection Specifications & Detail

In addition, the documents below may be helpful to you as well and can be found at the corresponding websites:

Street Tree Permit Application available online at [www.aca.spokanepermits.org](http://www.aca.spokanepermits.org)

Approved Street Tree List available online at [www.spokaneurbanforestry.org](http://www.spokaneurbanforestry.org)

Please pay particular attention to the following as these are the most common concerns:

1. Please use the City's standard tree and shrub planting details V-101 & V-102 (Attached)
2. No tree shall be planted within fifteen (15) feet of any driveway, alley, streetlight, utility pole, non-safety street sign (ex. parking, street name) or fire hydrant. No tree shall be planted within twenty (20) feet of a critical street safety sign (stop, yield, or pedestrian crossing). The potential placement

of street signs, street lights and utility poles shall be evaluated to lessen the conflict with the growth of existing street trees.

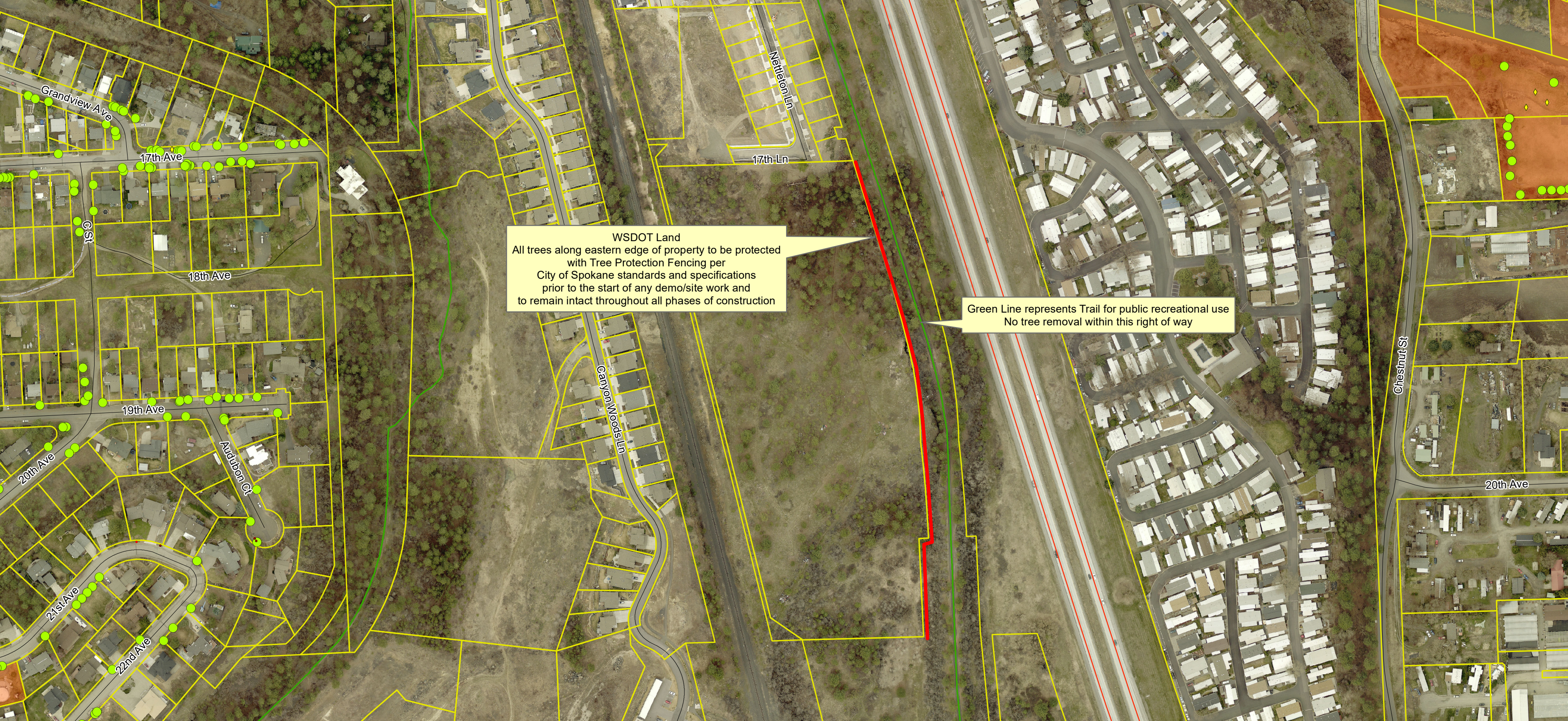
3. Any substitutions or revisions to the final approved plant schedule and planting plan must have written approval from Urban Forestry and the Landscape Architect prior to installation.
4. Please have a licensed Certified Arborist from the attached list submit a complete Street Tree Permit Application 10 days prior to tree work for this project.

The documents provided are also available on our website: [www.spokaneurbanforestry.org](http://www.spokaneurbanforestry.org) or if you have any questions please contact Katie Kosanke at 509.363.5495 or [kkosanke@spokanecity.org](mailto:kkosanke@spokanecity.org). Our intent is to provide guidance and assistance early in this process to ensure your project is successful; please do not hesitate to contact us.

Respectfully,

Katie Kosanke  
Urban Forester, City of Spokane





WSDOT Land  
All trees along eastern edge of property to be protected  
with Tree Protection Fencing per  
City of Spokane standards and specifications  
prior to the start of any demo/site work and  
to remain intact throughout all phases of construction

Green Line represents Trail for public recreational use  
No tree removal within this right of way





*Certified & Licensed Arborists in the City of Spokane*

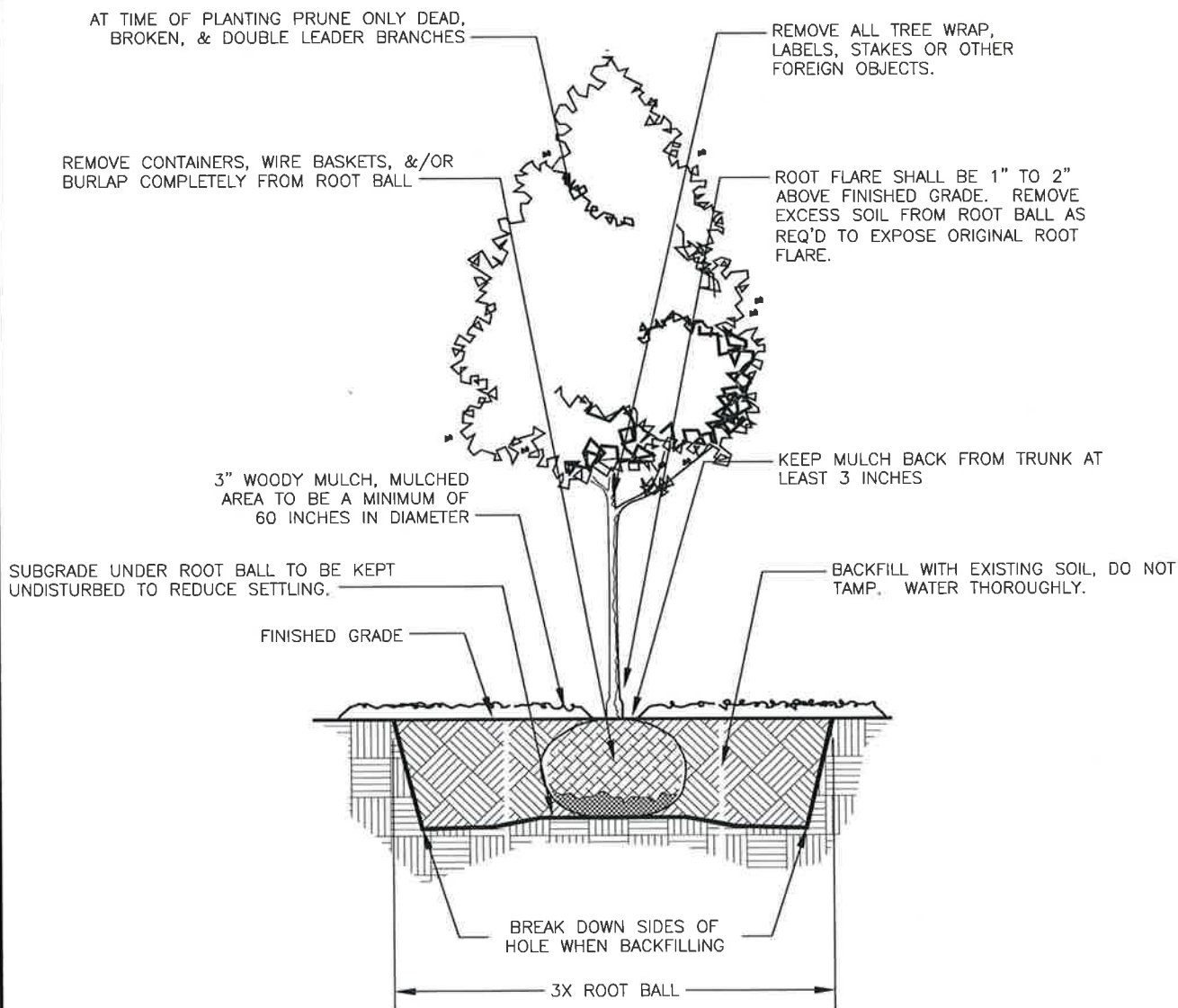
[www.spokaneurbanforestry.org](http://www.spokaneurbanforestry.org)

Company Name	Phone	Email/Website
F.A. Bartlett Tree Expert Company	509-892-0110	shogan@bartlett.com
Spokane Tree Pro	509-998-2771	spokanetreepro@gmail.com
C & C Yard Care Inc*	509-482-0303	chrisc@candcyardcare.com
Budget Arbor & Logging LLC	509-458-0838	mike@budget-arbor.com
Senske Services	509-891-6629	sjones@senske.com
All Seasons Tree Service	208-660-7461	office@allseasonstreeservice.contractors
Sam's Tree & Landscape LLC	509-467-3801	sam@samsapes.net
Skyline Tree Service LLC	509-496-9793	crendall1@hotmail.com
Heindl Tree Care Inc*	509-475-9135	arborpaul@hotmail.com
Spirit Pruners LLC*	509-979-3496	k@spiritpruners.com
Clearwater Summit Group Inc	509-482-2722	rnee@clearwatersummitgroup.com
Aardvark Tree Service	509-891-7650	aardvarktree@live.com
Community Forestry Consultants Inc*	509-954-6454	cfconsults@comcast.net
Land Expressions	509-466-6683	frontdesk@landexpressions.com
Little Tree Inland Northwest LLC	509-212-4972	clarkrjacob@gmail.com
Dan Dengler	970-401-0412	dandenglerlongboards@yahoo.com
Affordable Arborist Tree Care Inc	509-879-0577	sandnessmerret@gmail.com
Don Taylor Tree Services Inc	208-640-1951	don@dontaylortreeservice.com
Palms Tree Service & Landscaping	509-939-0460	darrenpalmer1@gmail.com
Frontier Tree Service	509-487-8733	frontiertreeservicespokane@gmail.com
Tall Tree Service	509-747-8733	talltreeservice@gmail.com
Treescapescapes Inc	509-922-8733	treescapescapes@roadrunner.com
ABC Consulting Arborists LLC	509-953-0293	daniel@abcarborist.com
A1 Tree Service*	509-623-0344	a1stumpremovalspokane@gmail.com
Bluebird Tree Care Inc*	208-651-3959	benlarsontree@gmail.com
Miller Tree Care LLC	509-981-4208	millertreecarellc@gmail.com
Deep Roots Garden & Landscaping	509-216-4835	christopher.re78@gmail.com
Greenleaf Landscaping Inc	509-536-2885	melanie@greenleafwa.com
Selkirk Landscape Services	509-536-1919	selkirklandscape@gmail.com

\*Currently qualified to provide Risk Assessments

~as of October 2019

808 W. Spokane Falls Blvd., Spokane, Washington 99201-3317  
Ph.: 509.363.5495 • FAX: 509.625.6205



**NOTES:**

1. TREES BURIED TOO DEEP, OR WITHOUT EXPOSING ROOT FLARE WILL BE REJECTED & SHALL BE REMOVED & REPLANTED AT PROPER DEPTH.
2. ALL 'ADVENTITIOUS ROOTS' AND 'SUCKERS' SHALL BE PRUNED AWAY PRIOR TO PLANTING.
3. DEVIATIONS FROM THIS DETAIL SHALL ONLY BE ALLOWED WITH PERMISSION FROM THE CITY ARBORIST.
4. TREES NOT PLANTED IN CONFORMITY WITH THIS DETAIL WILL BE REJECTED BY THE CITY ARBORIST. REPLACEMENT OF REJECTED TREES WILL BE DONE AT THE CONTRACTOR'S EXPENSE & NOT BY THE CITY OF SPOKANE.
5. LOCATIONS OF TREES TO MEET THE REQUIREMENTS OF DESIGN STANDARDS 3.5-2.  
 $\geq 15$  FT FROM DRIVEWAYS,  $\geq 10$  FT FROM DRAINAGE INLETS,  $\geq 20$  FT FROM DRYWELLS,  
 NOT OBSTRUCT TRAFFIC SIGNS OR SIGHT TRIANGLES, AND 15 FT FROM UNDERGROUND UTILITIES
6. AFTER PLANTING, IF TREES ARE UNSTABLE, STAKING MAY BE USED BUT ONLY AS NECESSARY.  
 AT 6 MONTHS, ALL STAKING MATERIAL SHALL BE REMOVED. IF TREE IS STILL UNSTABLE,  
 AFTER 6 MONTHS, TREE MAY NEED TO BE REPLACED.

APPROVED BY

ENGINEERING OPERATIONS MANAGER

KYLE TWOHIG

PRINCIPAL ENGINEER, CONST.

KENNETH M. BROWN, P.E.

ADOPTED: 2/1986

REVISED: 05/2015

SUPERSEDES: 04/2012

CHECKED BY: SJS

SCALE: NTS

REVISED BY: MLD

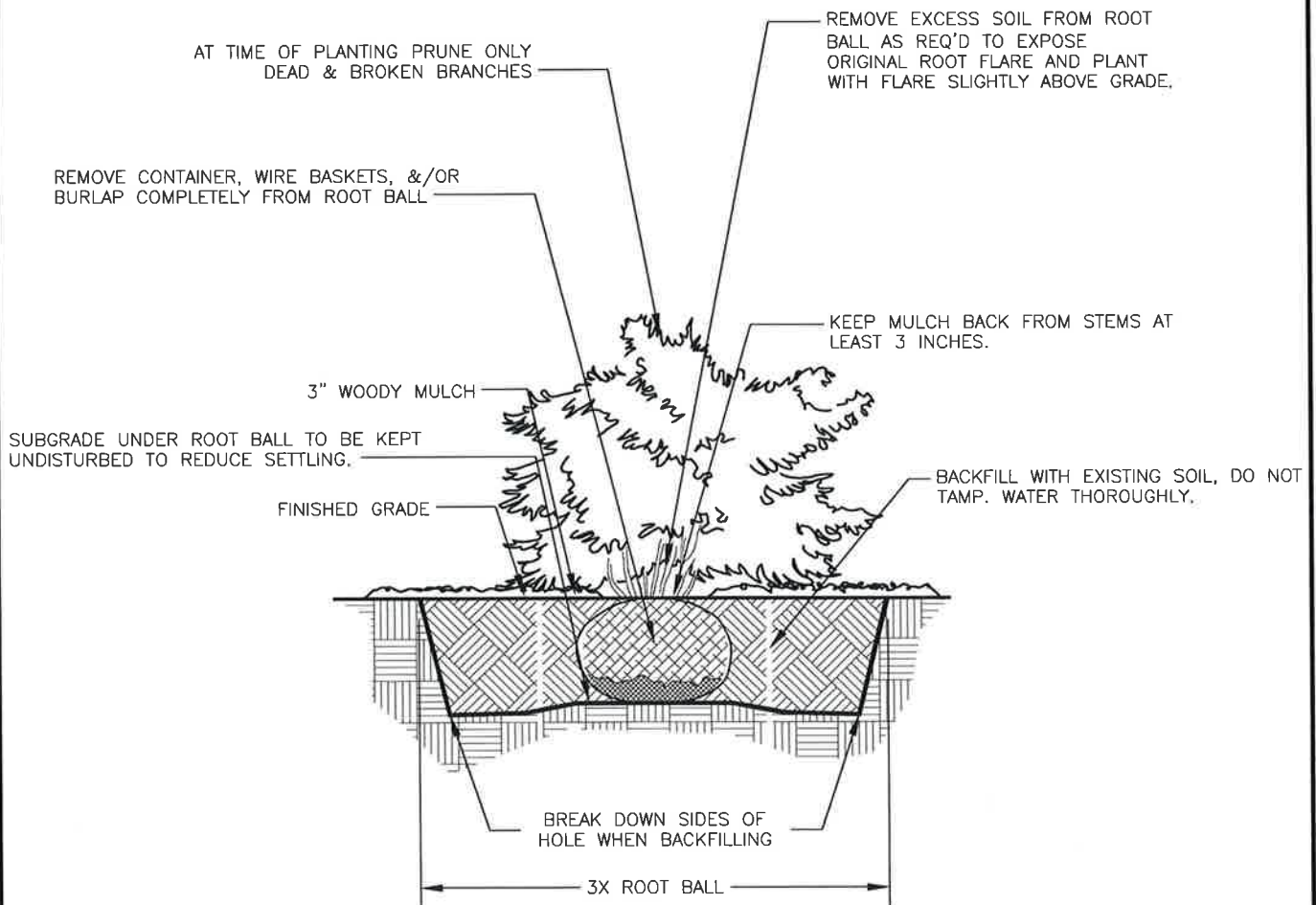


**TREE PLANTING DETAILS**

ALL TYPES, FORMS AND SPECIES

ENGINEERING SERVICES  
CITY OF SPOKANE, WASHINGTON

STANDARD  
PLAN No.  
**V-101**



**NOTES:**

1. SHRUBS BURIED TOO DEEP, OR WITHOUT EXPOSING ROOT FLARE WILL BE REJECTED & SHALL BE REMOVED & REPLANTED AT PROPER DEPTH.
2. DEVIATIONS FROM THIS DETAIL SHALL ONLY BE ALLOWED WITH PERMISSION FROM THE CITY ARBORIST.
3. SHRUBS NOT PLANTED IN CONFORMITY WITH THIS DETAIL WILL BE REJECTED BY THE CITY ARBORIST. REPLACEMENT OF REJECTED SHRUBS WILL BE DONE AT THE CONTRACTOR'S EXPENSE & NOT BY THE CITY OF SPOKANE.

APPROVED BY

ENGINEERING OPERATIONS MANAGER

KYLE TWOHIG

PRINCIPAL ENGINEER, CONST.

KENNETH M. BROWN, P.E.

ADOPTED: 2/1986

REVISED: 05/2015

SUPERSEDES: 04/2012

CHECKED BY: SJS

SCALE: NTS

REVISED BY: MLD



**SHRUB PLANTING DETAILS**

ALL TYPES, FORMS AND SPECIES

ENGINEERING SERVICES  
CITY OF SPOKANE, WASHINGTON

STANDARD  
PLAN No.  
**V-102**



Crown drip line or other limit of Tree Protection area. See tree preservation plan for fence alignment.

Notes:

1- See specifications for additional tree protection requirements.

2- If there is no existing irrigation, see specifications for watering requirements.

3- No pruning shall be performed except by approved arborist.

4- No equipment shall operate inside the protective fencing including during fence installation and removal.

5- See site preparation plan for any modifications with the Tree Protection area.

8.5" x 11" sign laminated in plastic spaced every 50' along the fence.

4'-0"

KEEP OUT  
TREE  
PROTECTION  
AREA

Tree Protection fence: High density polyethylene fencing with 3.5" x 1.5" openings; Color-orange. Steel posts installed at 8' o.c.

2" x 6' steel posts or approved equal.

5" thick layer of mulch.

Maintain existing grade with the tree protection fence unless otherwise indicated on the plans.

**SECTION VIEW**



## TREE PROTECTION

URBAN TREE FOUNDATION © 2014  
OPEN SOURCE FREE TO USE

## Tree Protection Specifications for Development in the City of Spokane

### 1. General

The City of Spokane's Municipal Code requires that tree pruning, planting, or removal work within the public right-of-way and on public property must be performed by a person or entity with a commercial tree license. (SMC 10.25.010)

Additionally, all tree pruning (crown or root) and tree removal work must be performed by an International Society of Arboriculture (ISA) certified arborist or certified tree worker. Tree planting must be directly supervised by an ISA certified arborist or certified tree worker.

The term "Contracted Arborist" shall be used in the remainder of this document to refer to the licensed tree company.

All equipment to be used and all work to be performed must be in full compliance with the most current revision of the American National Standards Institute Z-133-2017, or as amended.

### 2. Tree Protection Zone (TPZ)

For the purpose of protecting trees in the right of way during development, the contractor/developer may install the TPZ in accordance with the standards below.

The tree protection zone (TPZ) will either be determined in the field by Urban Forestry staff or established by the Contracted Arborist for approval by Urban Forestry staff prior to any excavation or work by the following method. The minimum TPZ shall be equal to the Critical Root Zone (CRZ) as defined by the International Society of Arboriculture (ISA): an area equal to 1 foot radius from the base of the tree's trunk for each 1 inch of the tree's diameter at 4.5 feet above grade (referred to as diameter at breast height or dbh). TPZ modifications may be made due to construction objectives and site infrastructure only with prior authorization by Urban Forestry staff.

**Mulch:** The area within the TPZ shall be mulched with 1-2 inches of untreated wood chips, leaving a 1 foot radius from the trunk free of mulching materials, unless otherwise pre-approved by Urban Forestry staff.

**Water:** All trees designated for protection shall receive 5-10 gallons of water per caliper inch every seven days throughout the construction period. The amount and frequency of irrigation may be adjusted as needed due to temperature fluctuations and site conditions.





**Temporary Fencing:** Install temporary fencing, 3' tall minimum, orange plastic construction fencing per manufacturer's specifications, located as indicated or outside the TPZ of trees to protect remaining vegetation from construction damage. Fencing must be maintained at all times during construction. Alternative or modified fencing material may be permitted with prior authorization by Urban Forestry staff.

**Removal of Hardscapes:** Where equipment is necessary to remove hardscapes in proximity of a protected tree, construction personnel must exhibit due care to ensure no damage occurs to the existing roots. If roots are encountered in the demo area, consultation with Urban Forestry staff or a Contracted Arborist is required to determine best management practice to meet construction and tree preservation objectives.

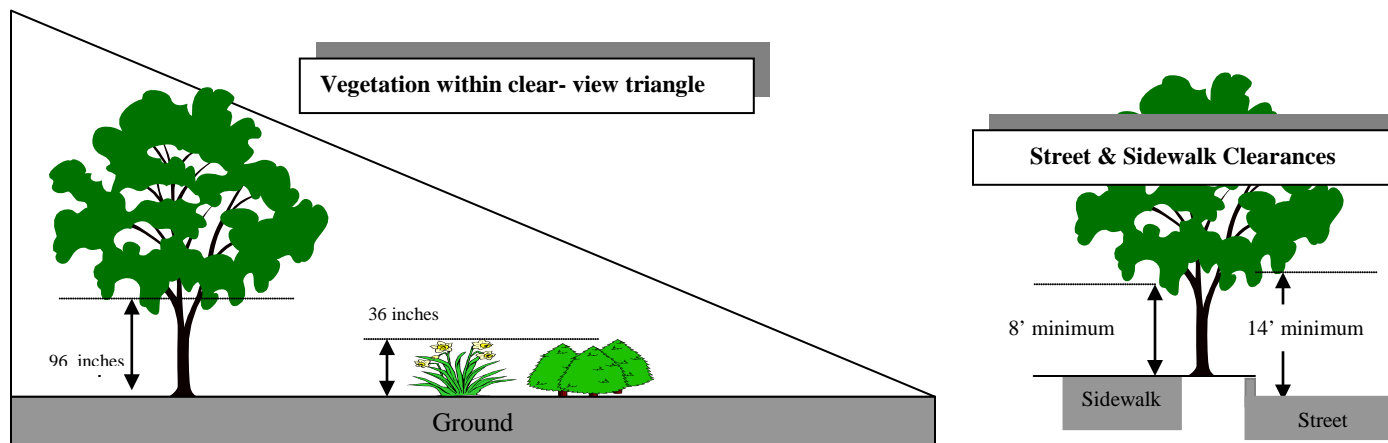
Protect tree root systems from damage due to noxious materials caused by runoff or spillage while mixing, placing, or storing construction materials. Protect root systems from flooding, eroding, or excessive wetting caused by dewatering operations.

Do not store construction materials, debris, or excavated material within the TPZ of remaining trees. Do not permit vehicles or foot traffic within the TPZ; prevent soil compaction over root systems.

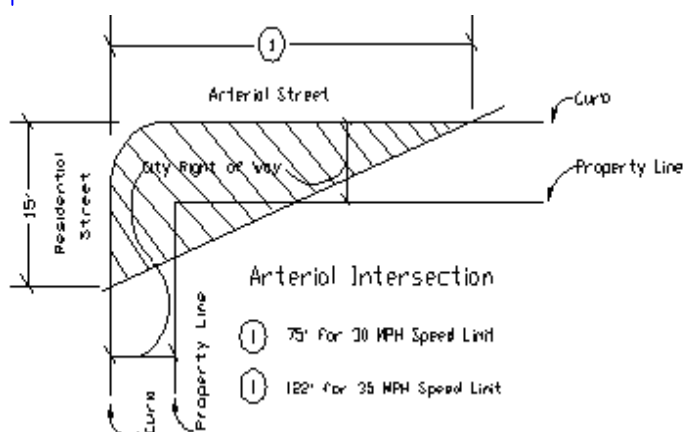


## A CLEAR VIEW: VEGETATION & TRAFFIC SAFETY

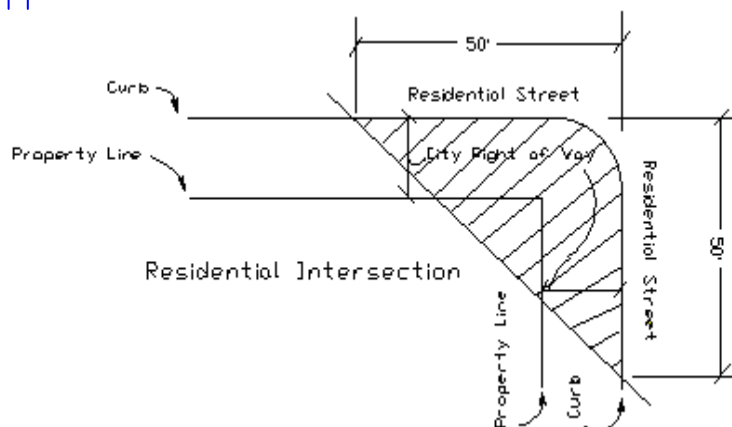
Overgrown vegetation impedes the safe flow of traffic when it blocks our view of traffic signs, pedestrians and other vehicles. If vegetation is blocking visibility in the street or an intersection, it is your responsibility as the adjacent property owner or resident to trim the vegetation. Below are the City vegetation standards as they apply to visibility.



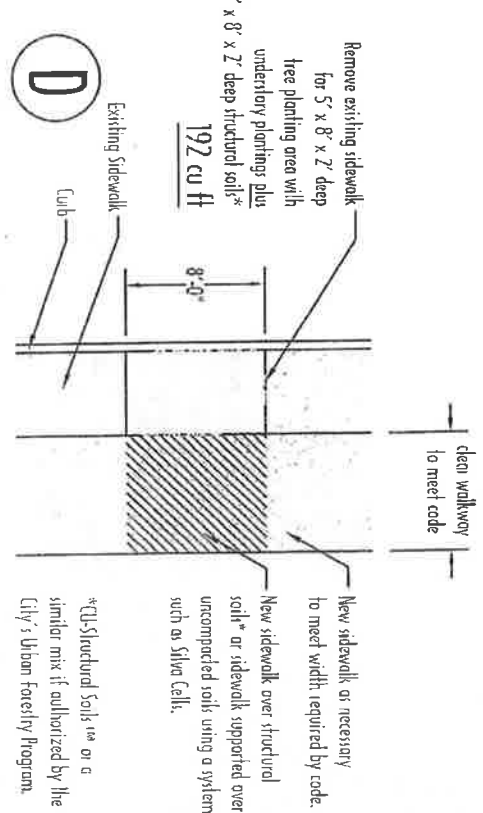
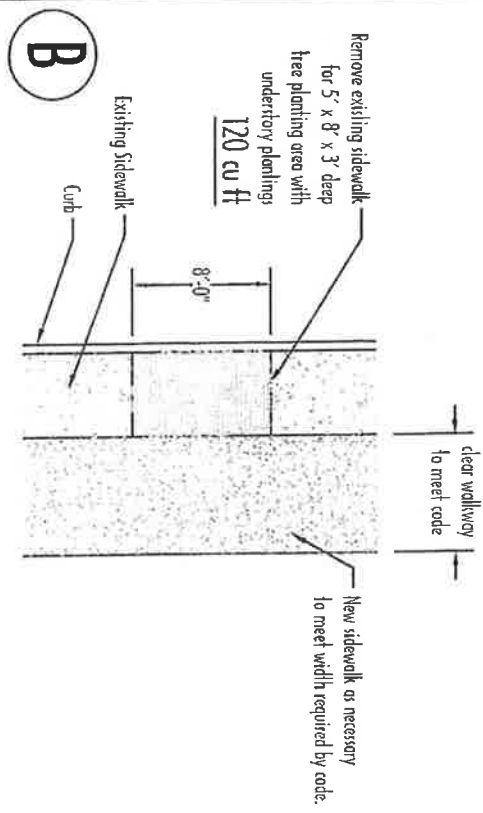
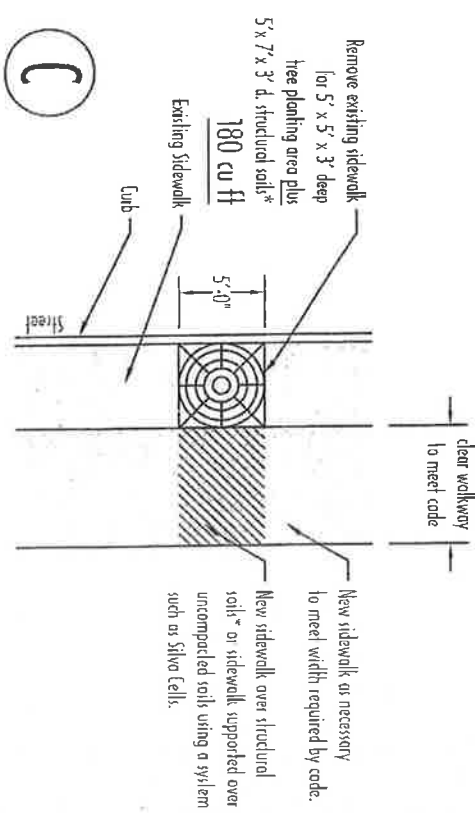
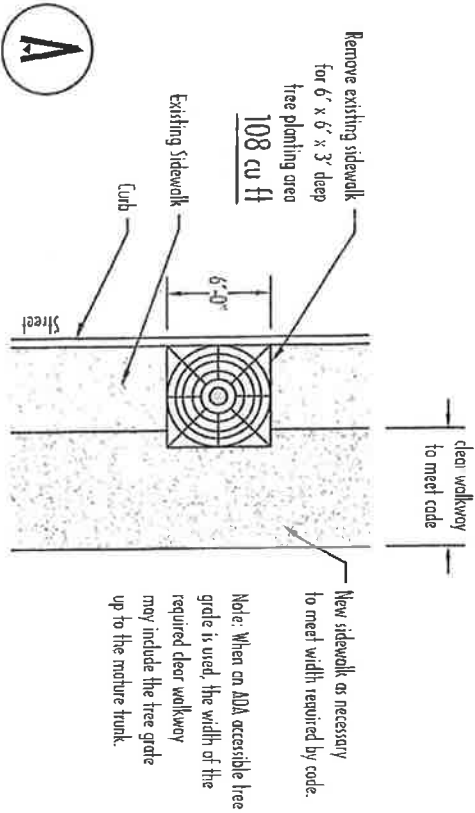
## Arterial Intersection



## Residential Intersection



	Description of Existing Vegetation	Vegetation Requirements	Reference in City Codes
1.	Shrubs/Hedge/Plants existing in Clear Triangle.	Trim Shrubs/Hedge/Plants to 36 inches in height.	17C.200.050
2.	Tree branches and any vegetation overhanging in Clear Triangle (no sidewalk).	Remove all tree limbs/vegetation existing from ground level to minimum height of 96 inches.	17C.200.050
3.	Tree branches and any vegetation overhanging sidewalk (in and outside Clear Triangle).	Remove all branches/vegetation existing from sidewalk level to minimum height of 8 feet.	12.02.0202
4.	Tree branches and any vegetation overhanging street (in and outside Clear Triangle).	Remove all branches/vegetation existing from street level to a minimum height of 14 feet.	12.02.0202



\*CIS-Structural Soils<sup>TM</sup> or a similar mix if authorized by the City's Urban Forestry Program.



## Existing Sidewalk Retrofit - Possible options to provide 100 cu ft of uncompacted soil for street trees.

Soil is a key factor for tree health but in an urban setting it's almost impossible to provide ideal soil volumes. The City of Spokane highly encourages building permit applicants to consider providing as much uncompacted soil as possible for trees, and requires at least 100 cu ft (max. 3' depth may be factored into volume). A permit is necessary to plant a tree in the public right of way; please contact the Urban Forestry Program at 363-5470.

Courtesy of the Urban Design Section of the Planning Services Department.