



Community Development Department
 Building | Planning | Code Enforcement
 P.O. Box 9, 230 Davidson Avenue
 (360) 225-7299, www.ci.woodland.wa.us

NOTICE OF DECISION & Recommendation

438 Washington Subdivision

DATE ISSUED: October 9TH, 2023

Land Use Application Nos.:	WLD-2023-002 (Consolidated Application) ❖ Preliminary Subdivision ❖ Minor Variance (Lot Width – 10%) ❖ SEPA Review Processing
Applicant:	Windsor Engineers Attn. Dan Koistinen 27300 NE 10th Avenue Ridgefield, WA 98642
Property Owner:	<u>Developer/Contract Purchaser:</u> Homestead LLC Attn. Roger Foley PO Box 255 Yacolt, WA 98675 <u>Underlying Property Owner:</u> R. Scott Brunson and Karla Brunson 580 Aspen Avenue La Center, WA 98629
Site Location:	438 Washington Street, Woodland, WA 98674
Parcel & Size:	50339, 0.93 Acres
Zoning Designation:	Low Density Residential (LDR-6, Approx. 7 units/acre)
Date Application Received:	June 29th, 2023
Notice of Application & Likely DNS issued:	September 12 th , 2023 [See: case # WLD-2023-002]
Comment Period & SEPA Appeal Period Ended:	October 4th, 2023 in written form, October 17th for the testimony at the Hearing.
Public Hearing Scheduled:	The city will hold a public hearing on this matter at 1:00 p.m. on Tuesday October 17th, 2023 at the Woodland City Council Chambers, 200 East Scott Avenue, Woodland, WA. Please review www.ci.woodland.wa.us for notices and announcements regarding upcoming meetings and hearings.
DRC Recommendation:	Approve with Conditions

I. DESCRIPTION OF PROPOSAL

Applicant proposes the subdivision of a 0.93 Acre (40,510 Sq Ft) legal lot of record located at 438 Washington Street in Woodland, Washington (the “parent lot”). The proposed subdivision would ultimately result in the creation of five new lots ranging in size from 6,021 Sq Ft to 6,841 Sq Ft for a total of six lots to accommodate future residential development.

The proposed lots one, two, and three requires a minor variance of 10% to the required minimum lot width under WMC 17.16.070(B), which would permit a six (6) foot reduction to the minimal width. As required under WMC 19.08.020(B), the subdivision and minor variance applications have been consolidated and the final decision will be rendered by the City of Woodland Hearing Examiner as the highest authority associated with the application.

II. REVIEW AUTHORITY & FINDINGS

Per Woodland Municipal Code (WMC) 19.08.030, a recommendation of approval, conditional approval (“approval with conditions”), or denial for Preliminary Plat applications (and associated applications) shall be provided by the Development Review Committee and decisions shall be issued by the Hearing Examiner¹.

Development Impact Fees – Fire and Park, Recreation, Open Space Impact Fees | WMC 3.41

Finding 1: Fire Impact Fees shall be required at the time of building permit issuance. Fees are calculated based on \$1,530 per Single Family dwelling. Fees are calculated and due at the time of building permit issuance, and subject to change. Fees are estimated to be $(6 \times \$1,530) = \$9,180$ for the project.

Finding 2: Park Impact Fees shall be required at the time of building permit issuance. Fees are calculated based on \$4,580 per Single Family dwelling. Fees are calculated and

¹ **Comment One - Interpretation:** WMC Chapter 16, Article 1 (“Subdivisions”) makes multiple references to “The Planning Commission” and/or “The City Council” as holding authority over Subdivision applications, however WMC 19.08.030 clearly identifies the City of Woodland Hearing Examiner as being the final authority over such applications, following a recommendation from the DRC. As WMC 19.08.040 clearly notes that provisions of WMC Chapter 19.08 shall control in the event of conflicts, staff shall consider the references to the “planning commission” and “city council” to refer to the hearing examiner as the party responsible for the final municipal decision on the preliminary plat.

due at the time of building permit issuance, and subject to change. Fees are estimated to be $(6 \times \$4,580) = \$27,480$ for the project².

A condition of approval has been added which requires a note be added to the final plat acknowledging that impacts fees will be required and calculated at the time of building permit issuance. (*See Condition #1a*)

Conclusion: As conditioned, the proposal can comply with this requirement. (See Findings 42 and 43 for fire review requirements.)

Development Impact Fees – School | WMC 3.40

Finding 3: School Impact Fees shall be required at the time of building permit issuance. Fees are calculated based on \$5,900 per Single Family dwelling. Fees are calculated and due at the time of building permit issuance, and subject to change. Fees are estimated to be $(6 \times \$5,900) = \$35,400$ for the project.

A condition of approval has been added which requires a note be added to the final plat acknowledging that impacts fees will be required and calculated at the time of building permit issuance. (*See Conditions #1a*)

Conclusion: As conditioned, the project can comply with this requirement.

Development Impact Fees – Transportation | WMC 3.42

Finding 4: Transportation Impact Fees shall be required at the time of building permit issuance. Fees are calculated based on \$838 per Single Family dwelling. Fees are calculated and due at the time of building permit issuance, and subject to change. Fees are estimated to be $(6 \times \$838) = \$5,028$ for the project, however, please note that the City is in the process of updating our transportation impact fees, and this estimate is expected to significantly change.

A condition of approval has been added which requires a note be added to the final plat acknowledging that impacts fees will be required and calculated at the time of building permit issuance. (*See Condition #1a*)

² **Comment Two – Clarification:** Resolution NO. 766, dated the Fifth day of June, 2023 adopted a new park impact fee rate of \$4,580 per single family residential unit.

Conclusion: As conditioned, the project can comply with this requirement.

Streets and Sidewalks | WMC 12

Finding 5: Required frontage improvements along Washington Street shall include half street improvements, attached sidewalk, landscaping, and street lighting consistent with City of Woodland Engineering Standards for Construction (Standards) and applicable Woodland Municipal Code (WMC). Additionally, dedication of Right-of-Way shall comply with the Standards and WMC.. (See Conditions #2a and 2b)

Conclusion: As conditioned, the proposal can comply with the development standards.

Water and Sewage | WMC 13

Finding 6: Existing 6-inch Water and 8-inch Sewer mains are available to tie into within Washington Street adjacent to the proposed development. Comply with backflow and cross-connection requirements of WMC 13.28, as well as all other applicable WMC, and CCFR code. (See Condition #2c and 2d)

Finding 7: Water and Sewer Assessment Fees: Connection charges and assessments for water and sewer will be assessed in accordance with the applicable rate schedule.

Conclusion: As conditioned, the proposal can comply with the development standards.

Erosion Control Ordinance | WMC 15.10

Finding 8: Applicants are required to install and maintain erosion control measures per the Best Management Practices as outlined in the 2012 Stormwater Management Manual for Western Washington during site excavations and grading. A fill and grade permit is required. (See Conditions #5 and 6)

Conclusion: As conditioned, the project can comply with this standard.

Stormwater Management | WMC 15.12

Finding 9: The applicant will be required to submit a Final stormwater TIR addressing the following comments:

- Per Woodland Municipal Code 15.12, the City of Woodland follows the 1992 Puget Sound Manual. If the applicant chooses to design per current Ecology standards, this meets or exceeds City requirements and is acceptable.
- The stormwater runoff from the frontage improvements needs to be addressed, including the collection and treatment from the asphalt surface.
- All stormwater runoff from the individual six (6) lots must be infiltrated on the individual site or discharged to a natural drainage way or discharged to the City's storm drain system.
- Currently the CAVFS for Lots 4, 5, and 6 slope to adjacent lots. The report and modeling show CAVFS conveyed to infiltration trenches.
- The City of Woodland requires any conveyance system to be designed for the 100-year storm event.
- Ensure all pollution generating surface area from lots 4, 5, and 6 receive treatment.
- BMP T7.20 requires 20' setbacks from building foundations.
- Address the required separation from the seasonal high groundwater for the infiltration facilities.
- Underground Injection Control (UIC) regulations apply to infiltration trenches.
- The available building pads for Lots 1, 2, and 3 cannot be located over the infiltration trenches.
- Stormwater requirements for individual lots shall be noted on the final

A condition of approval has been added that the applicant submit a final revised stormwater TIR that addresses all comments regarding the Stormwater Plans and Preliminary TIR. (*See Condition # 3*)

Critical Areas | WMC Chapter 15.08

Finding 10: The applicant is proposing a six lot subdivision located at 438 Washington Street in Woodland, Washington. The Washington Department of Fish and Wildlife's PHS on the web mapping system does not identify any wetlands, habitat area(s), or other critical areas present on the site, and a site visit conducted on September 12th, 2023 did not identify any unmapped critical areas present.

Finding 11: The subject property is mapped on the FEMA Flood Insurance Risk Management (FIRM) as being located in an area with reduced risk due to levee protection, and as such is not subject to WMC Chapter 14.40 and Chapter 15.08.

Conclusion: As proposed, the project does not impact WMC Chapter 15.08, and will not have any impact(s) on mapped and/or identified critical areas or their buffers.

TITLE 16 – SUBDIVISION

Preliminary Plat – Application, Fee Schedule, And Preliminary Hearing | WMC 16.08.010

Finding 12: The subject application for a preliminary plat has been submitted and determined to be complete as of August 31st, 2023. Payment for the Preliminary Subdivision and SEPA Review process had been received prior to the application being determined to be complete on July 29th, 2023.

Finding 13: Following the City’s determination of completeness, a public hearing was scheduled on September 7th, 2023 with the City of Woodland’s Hearing Examiner for October 17th, 2023, which meets the requirements of WMC 16.08.040 regarding the initial hearing. The scheduled public hearing was advertised in the City’s paper of record on September 20th, 2023 (*See Exhibit # 9 – Legal Notice*) and public notice was provided by mail to both the applicant and all owners of property within three hundred (300) feet of the property to be subdivided as required by WMC 16.08.040 (*See Exhibit 10 – Affidavit of Mailing*).

It should be noted that WMC 16.08.040 refers to an initial hearing before the City’s Planning Commission, which would previously provide a recommendation to the City Council regarding the preliminary plat. As WMC Chapter 19.08 has been modified to remove City Council or Planning Commission approval of the preliminary subdivision. In doing so the additional hearings before the Planning Commission and City Council shall not be required. The Hearing Examiner may, should he feel more consideration is required, choose to continue the public hearing, either scheduling a second date for a public hearing or through submittals to be provided to the City.

Conclusion: As implemented, the proposal meets the procedural standards of WMC Title 16 in regards to the review of a preliminary subdivision.

Conformance of Plat to Plans and Ordinances | WMC 16.08.016

Finding 14: The preliminary plat must substantially conform to the following plans and factors per WMC 16.08.016:

- A. The goals, policies, objectives and land use map of the Woodland comprehensive plan in location, use, timing of improvements, and design;

- B. Capital improvements program;
- C. Other plans and programs as the city may adopt;
- D. Woodland zoning ordinance;
- E. Woodland flood damage ordinance;
- F. Woodland shoreline master program;
- G. The standards of this article.

Finding 15: The City of Woodland’s 2016 Comprehensive Plan includes a variety of goals, policies, and standards that are relevant to the project, primarily located within the Land Use (LU) and Housing (H) elements. The project generally meets these goals and policies as proposed. Further discussion regarding the subdivision’s conformance to the Comprehensive plan can be found in Section III of this report.

Finding 16: The City of Woodland’s Capital Facilities plan serves as the Comprehensive Plan’s Capital Facilities element. The applicant is proposing a five lot subdivision that will be consistent with the Capital facilities plan, as conditioned within this report.

Finding 17: As conditioned in this report, the proposed subdivision will comply with WMC Title 17, which serves as the City’s zoning ordinance. This is discussed extensively later in this report.

Finding 18: The project is not subject to the City’s flood damage ordinance (WMC Chapter 14.40) or Shoreline Master Program. As such, consistency with these ordinances is not required.

Conclusion: As conditioned, the proposed development can comply with this standard.

Open Space, Streets, and Utility Provisions | WMC 16.08.070

Finding 19: City records identifies a 6” PVC water main that runs within the Washington Street right of way. The applicant is proposing connecting into this existing water line with new 1” private service lines for each lot, except for ‘Lot 2,’ which would be served by the existing water meter. Due to the age of the existing water main, the City believes that the section fronting the subject property may require replacement in order to facilitate the five additional connections resulting from this development, in which case the applicant and/or their contractor shall coordinate such replacement with the city and construct the replacement main according to the city’s standards and details. (*See Condition #1b*)

Finding 20: City records identifies an 8” sanitary sewer main that runs within the Washington Street Right of Way. The applicant is proposing connecting into this existing

sewer main line with new 4" sewer service lines for each individual property. Due to the age of the existing sewer main line, the City believes that the section fronting the subject property may require replacement in order to facilitate the six additional connections resulting from this development, in which case the applicant and/or their contractor shall coordinate such replacement with the city and construct the replacement main line according to the city's standards and details. (See Condition #1b)

Finding 21: The applicant is not proposing any new public open space. Each lot will include passive open space to address residents' needs, including front, rear, and side yards.

Conclusion: As conditioned, the proposed development can comply with this standard.

Curbs, sidewalk, drainage, and roadway improvements | WMC 16.08.175

Finding 22: The applicant is proposing five new driveways off Washington Street, which is an existing local access street. The applicant will dedicate a ten (10) foot strip along the Washington Street frontage in order to satisfy the City of Woodland's local access standard. Additionally, the applicant will construct improvements, including sidewalk, curb, and gutter to meet the City's standards, manage roadway drainage, and provide pedestrian access and circulation. A condition of approval has been added that the applicant shall provide a full Civil Plan Set demonstrating compliance with WMC Title 12 (Streets and Sidewalks) and the city's engineering standards for construction for Civil Review. (See Condition #2)

Finding 23: Applicant is proposing individual, onsite stormwater infiltration utilizing compost-amended vegetated filter strips located in the driveways that will convey the runoff to infiltration trenches on each lot to provide flow control. The site grading will be done in a manner to drain runoff away from the homes into these systems. This strategy is generally feasible, and comments from Ryan Walters, the City's contracted engineer, have been provided to integrate into the final stormwater TIR submitted alongside the civil review application. A condition of approval has been added that a final TIR and stormwater design should be submitted alongside the applicant's civil review application for detailed review, and will be reviewed for consistency with WMC Chapter 16.08 and the City's engineering standards during civil review. (See Condition #3)

Conclusion: As conditioned, the proposed development can comply with this standard.

Public Dedications | WMC 16.08.180

Finding 24: The applicant has proposed the public dedication of a ten (10) foot strip of right of way along the subject property's Washington street frontage in order to accommodate the proposed sidewalk, curb, gutter, and other frontage improvement and meet city standards. Applicant is not proposing any additional dedications at this time. A condition of approval has been added that dedication of right of way shall comply with the city's engineering standards and WMC. *See Condition #4*

Conclusion: As conditioned, the proposed development can comply with this standard.

Physical site characteristics | WMC 16.08.190

Finding 25: WMC 16.08.190 permits the city to consider existing natural limitations, including but not limited to slope, soil slip potential, flood hazard, inundation, swamp conditions, drainage conditions, and location in or proximity to environmentally sensitive areas when considering whether to approve, deny, or approve a preliminary subdivision with conditions.

The subject site is currently primarily flat, with a slight depression along the eastern side of the property. No inundation or significant erosion concerns have been identified, nor is the property located in proximity of a mapped and/or observed environmentally sensitive area, and construction is generally feasible on the property following subdivision. As such, staff does not recommend denying the preliminary subdivision application based on the physical site characteristics present.

Conclusion: As proposed, the project can comply with WMC Chapter 16.

Effect on surrounding properties and off-site facilities | WMC 16.08.220

Finding 26: WMC 16.08.220 requires the City consider the effects of a proposed subdivision on surrounding properties and on off-site and city-wide public facilities and services, such as existing parks, recreation facilities, schools, streets, transit facilities, drainageways and sewer and water systems prior to approving or denying a preliminary subdivision application. Additionally, this standard requires the City to ensure that the subdivider bear a fair share of the cost of repair or improvement of those effected properties, facilities, and services, and empowers the city to require the construction,

repair, expansion, improvement or other provision of off-site improvements by the subdivider to meet this requirement.

Finding 27: The proposed subdivision will gain access off of Washington street, with an estimated five (5) new daily PM Peak Hour Trips (PMPHTs) will be generated by the development. To address additional wear and tear on Washington Street as a result of the proposed development, the applicant shall conduct half-street improvements alongside their other civil improvements, including a half street grind and overlay along the entire frontage of the subject property. A condition of approval has been added to include a half street improvements meeting the city's standards on the final civil plans submitted for civil review. (See *Condition #2a*)

Finding 28: The proposed subdivision will not include any additional park and/or recreational facilities for the residents. Presumably, residents will utilize existing park and recreational facilities, including Hoffman park (approx. 1,400 feet from the property), the old Woodland Middle School facilities (approx. 1,500 feet from the property), and Horseshoe Lake Park (approximately 0.6 miles from the property) for recreational activity. Additionally, the applicant will provide the city with park impact fees that will go towards development of new park and recreational sites that will address additional stresses place on these existing sites by the development. See (*Condition #1a*)

Finding 29: The proposed subdivision will connect to the existing public sewer and water mains located within the Washington Street right of way, and will upgrade the water and sewer mains along their frontage as required to facilitate these connections. Additionally, the applicant will pay all required water and sewer assessments and fees as determined by the Woodland Public Works department prior to connection. (See *Conditions #1b and 7*)

Conclusion: As conditioned, the proposed development can comply with this standard.

TITLE 17 - Zoning

Permitted Uses | WMC 17.16.020

Finding 30: WMC 17.16.020 lists the principal uses permitted outright within the low density residential district. A variety of uses, including single family detached dwellings, manufactured homes, and adult family homes are considered permitted uses, and may be permitted through additional land use and/or building permits, as appropriate.

Finding 31: Applicant is proposing the development of a single family dwelling on each individual lot following finalization of the subdivision. This would be a permitted use within the low density residential zoning district, however would require the submission of building permits prior to construction. A condition of approval has been added to include a note on the final plat acknowledging that the final plat does not on its own permit further development on the parcels without the approval of appropriate building permits. (See Condition #1c)

Conclusion: As proposed, the project can comply with this standard.

Property Development Standards | WMC 17.16.070

Finding 32: WMC 17.16.070(A-K) outlines the property standards specific to the low density residential district. WMC 17.16.070(A-B and J) for lot specific standards (including minimum lot size, width, and street frontage) that are reviewed at the time of property subdivision, while the majority of these development standards will be reviewed at the time of building permit submittal.

Finding 33: WMC 17.16.070(A) requires each lot created within the LDR-6 zoning district to have a minimum size of 6,000 Sq. Feet.

As proposed by the applicant, each of the six (6) parcels that would be created through the proposed subdivision meets this minimum lot size, with each parcel ranging from 6,021 to 6,841 Sq. Ft. in size.

Finding 34: WMC 17.16.070(B) requires each lot created within the LDR-6 zoning district to have a minimum lot width of sixty feet, measured at the front setback line.

Finding 35: Lots 1, 2, and 3 have a lot width ranging from 49.31 to 54 feet. This does not meet this standard, and as such the applicant has applied for a variance to the minimum lot width requirements for these lots as permitted under WMC 17.81.180 to be reviewed concurrently with the preliminary subdivision application. For the two lots with a minimum lot width of 54 feet (Lots 2 and 3), this would be a ten percent (10%) variance to this standard, while for the lot with a lot width of 54.98 feet, this would be an eight point four percent (8.4%) variance to this standard. The request for a variance will be addressed further below, however any preliminary decision on the preliminary subdivision is dependent on the approval of such a variance.

Finding 36: Lots 4, 5, and 6 qualify as pipestream ("flag") lots under WMC 17.08.472, with the buildable area gains road access by means of a lot extension. Per our code, the

front lot line of a pipestream lot is the interior lot line most parallel to and nearest the street from which access is obtained.

The lot width, measured at the setback line from this 'front lot line' ranges from sixty-nine (69) to seventy-point-eight (70.8) feet for lots 4, 5, and 6, which meets this standard.

Finding 37: Setbacks are defined as follows in WMC 17.16.070:

- A. Front yard setback in feet: 25
- B. Rear yard setback in feet: 15
- C. Interior side yard setback in feet: 5
- D. Street side yard setback in feet: 15

The application materials identify available building envelopes for each lot that generally meet these required setbacks. Staff has attached a condition of approval requiring that setbacks be added as a note on the face of the plat. (*See Condition #1d*)

Finding 38: WMC 17.16.070(G) and (H) establishes a maximum building height of 30 feet and a maximum lot coverage standard of 50% within the Low-Density residential zoning district. These standards are reviewed alongside the review of the building permit, so staff has requested an advisory not addressing these standards be added to the face of the final plat as a condition of approval. (*See Condition #1d*)

Finding 39: WMC 17.16.070(I) establishes a minimum parking standard that requires each lot developed as a single family home to provide a minimum of two (2) standard parking spaces. This standard is reviewed alongside the review of the building permit, so staff has requested an advisory not addressing these standards be added to the face of the final plat as a condition of approval. (*See Condition #1d*)

Finding 40: WMC 17.16.070(J) requires all lots to have a minimum of 15 feet of street frontage. All lots meet this standard as proposed.

Conclusion: As conditioned, the subdivision can meet city zoning standards.

Minor Variances | 17.81.180

Finding 41: Per WMC 17.81.180(A)(1), a reduction in lot area, setbacks, lot dimensions, lot coverage, and building height of no more than thirty (30) percent may be considered a 'minor variance' and is subject to the approval criteria of WMC 17.81.180(B).

The applicant is requesting a variance to the lot width requirement found in WMC 17.16.070(B), which requires all lots within the LDR-6 zoning district to have a minimum lot width of sixty (60) feet. The applicant is requesting to reduce this minimum lot width standard by between 6 and 10.69 feet on lots 1, 2, and 3, which would permit the

subject lots to have a minimum lot width of between 49.32 and 54.00 feet. This would permit each of the front three lots (Lots 1, 2, 3) to have the below substandard widths:

- “Lot 1”: Lot width of 49.32 feet, a 19.6% variance to WMC 17.16.070(B);
- “Lot 2”: Lot width of 49.31 feet, a 19.6% variance to WMC 17.16.070(B);
- “Lot 3”: Lot width of 54.00 feet, a 10.5% variance to WMC 17.16.070(B).

Finding 42: WMC 17.81.180(B) provides the applicable approval criteria that the applicant must meet for a minor variance request. The applicable criteria are that:

1. No variance shall be approved by the DRC which will allow an increase in the number of dwelling units on a parcel greater than that permitted by the applicable zoning district, or which will permit the reduction in area of any lot created after the adoption of the ordinance codified in this chapter; and
2. All major variance criteria outlined in WMC 17.81.020.B shall be met.. The DRC shall also consider whether or not the requested minor variance is necessary due to the unique physical characteristics of the existing site configuration, building, and/or use and consistent with the intent of applicable standard to which the minor variance is sought.

Finding 43: The subject parcel has been accurately surveyed and is 0.93 acres in size 40,510.8 Sq Ft). The minimum lot size within the LDR-6 zoning district is 6,000 sq ft per lot, which permits a density of approximately 7.26 units per acre. As proposed, all lots that will be created will meet the minimum lot size, and will permit development at or below a density of 7.26 units per acre. As such, the requested variance will not allow an increase in the number of dwelling units greater than that permitted by the applicable zoning district or permit the reduction in area of any lot.

Finding 44: The second applicable criterion is that the applicant must additionally meet the criteria of approval for major variances under WMC 17.81.020(B). These criteria are:

1. That such variance is necessary, because of special circumstances or conditions relating to the size, shape, topography, location, or surroundings of the subject property, to provide it with use, rights, and privileges, permitted to other properties in the vicinity and in the zone in which the subject property is located;
2. That the granting of such variance will not be materially detrimental to the public welfare or injurious to the property or improvements in the vicinity and zone in which the subject property is situated;
3. If such permit for variance is denied, no reapplication shall be made within one year from the date of denial;
4. An approved variance will go with or be assigned to the subject property and shall not be transferable to another property; and
5. No use variance shall be granted except for lawfully created pre-existing uses in accordance with WMC 17.60.

Finding 45: The first criteria of approval for a variance is that the request must be demonstrated to be required because of special circumstances or conditions relating to the size, shape, topography, location, or surroundings of the subject property in order to provide it with the use, rights, and privileges permitted to other properties in the vicinity.

The subject parcel is generally flat, within an established subdivision, with a lot width of approximately 204.85 feet, and a lot depth of 209.88 feet. With a minimum lot width in the LDR-6 zoning district of sixty (60) feet, subdivision of the property without the requested 10% variance would result in lots 1, 2, and 3 of the proposed subdivision to be wider, however would leave only 24.85 feet available to provide adequate access to the rear lots (lots 4, 5, and six of the proposed subdivision).

This would not permit the applicant to provide adequate access to the rear lots, and would not allow the new lots to meet the minimum street frontage for lots 3, 4, and 5.

In effect, refusing to permit the requested minor variance would prevent the applicant and property owner from developing the lot at a density consistent with other properties within the LDR-6 zoning district and would grant them the same rights enjoyed by some of their neighbors. Based on the Development Review Committee's review of the proposed variance, this meets this standard.

Finding 46: The second criteria of approval for a variance is that the variance must be found to not be materially detrimental to the public welfare or injurious to the property or improvements in the vicinity and zone in which the subject property is situated.

The proposed subdivision will permit the construction of six (6) single family residences (or equivalent permitted development) located within the LDR-6 zoning district. The construction of additional residences may lead to additional, minor impacts to property and/or improvements in the vicinity and zoning district that the subject property is situated, however such impacts will be mitigated by conformance to the city's municipal code and engineering standards, as well as providing additional mitigation in the form of impact fees for transportation, parks & recreation, fire, and school services. These potential minor impacts are not a specific result of the proposed variance, but rather are typical of any development of the scale and density proposed.

Following preliminary review, and for these reasons, the DRC has determined that the requested variance will not be materially detrimental to the public welfare or injurious to the property or improvements in the vicinity and zone in which the subject property is situated, as the development will address and mitigate its potential impacts to the surrounding zoning district in the vicinity, and will meet city code and/or civil improvements.

Finding 47: The third criteria of approval for a variance is that If the permit for variance is denied, no reapplication shall be made within one year from the date of denial.

The city's development review committee is recommending approval of the requested variance with conditions as listed within this report. Should there hearing examiner determine that this recommendation was made in error, the applicant shall not be permitted to reapply for a lot width variance within one year from the date of formal denial.

Finding 48: The fourth criteria of approval for a variance is that an approved variance will go with or be assigned to the subject property and shall not be transferable to another property.

Should the requested variance be approved, it will be assigned to lots 1, 2, and 3 of the proposed subdivision, and shall not be transferable to any other lots, whether a part of the proposed subdivision, or outside of this development proposal. A condition of approval has been added that the applicant must add a note on the face of the final plat that e. A ten percent (10%) lot width variance has been assigned to parcels one, two, and three as drawn. The approved variance is not transferable to another parcel and/or property. (*See Condition #1e*)

Finding 49: The fifth criteria of approval for a variance is that no use variance shall be granted except for lawfully created pre-existing uses in accordance with WMC 17.60.

No use variance has been requested. This criterion is not applicable.

Conclusion: As conditioned, the requested variance can meet the criteria of approval for a minor variance under WMC 17.81.180(B).

Fire Safety

All buildings must be constructed in accordance with WA Building and Fire Codes. Plan revisions and building plans must be submitted directly to Clark-Cowlitz Fire Rescue (CCFR) for fire review.

Finding 50: Clark-Cowlitz Fire Rescue provides the City of Woodland with fire and life safety services, including the review and approval of all land use and building permits for consistency with the 2018 Washington State Fire Code as adopted under WMC 14.32.005 and as amended under WMC Chapter 14.32.

Applicants submitted their proposed subdivision to CCFR for preliminary review of the subdivision on July 7th, 2023. This submission was generally consistent with the application materials provided to the City for review. CCFR completed their review on August 22nd, 2023 and Mike Lackey, CCFR's Deputy Fire Marshal reviewing this project, provided the applicant with substantive comments for them to address prior to approval of the proposed subdivision. Substantive comments included the following:

- That the proposed driveway(s) to the three proposed rear lots (lots 4, 5, and 6) did not meet the minimum 20 foot clear width roadway to meet appendix D of the Fire Code, and that any required access road with a dead end longer than 150 feet required and approved turn-around;
- That the three rear lots would be considered flag lots and be required to be sprinklered, and that plans for these sprinkler systems would require additional review and/or permitting by CCFR; and
- That the partial hammerhead turnarounds located on the three rear lots did not meet the standards within appendix D of the 2018 Washington State Fire Code.

As the project did not meet the International Fire Code, CCFR requested that the applicant make the necessary modifications to address their concerns and resubmit the revised plans for fire and life safety review. A condition of approval has been added that a note be added to the final plat stating the lots four, five, and six of the proposed subdivision require the installation of a fire suppression system (sprinklers) for every structure associated with those lots. (*See Condition #1.f*)

Finding 51: On September 15th, 2023 Windsor Engineers, on behalf of the applicant, resubmitted a modified site plan/preliminary plat demonstrating that they had addressed the comments provided to them by CCFR following the first review.

To address the comments, the applicant proposed shifting the access driveway to 'lot 4' of the proposed subdivision to the western edge of the development and making other general modifications to the layout to accommodate the necessary changes.

The proposed modifications does not significantly modify the physical dimensions of the lots, or its conformance to the property development standards under WMC 17.16.070, and does not increase the intensity of the proposed development in a meaningful way, the DRC is recommending that the hearing examiner approve the subdivision with a condition that the final plat should reflect the changes to the lot layout as shown on 'exhibit 15,' the modified planset addressing CCFR's comments. (*See Condition #12a*)

Finding 52: Building construction plans shall be submitted to CCFR separately, along with any fire alarm and/or fire sprinkler alterations. (*See Condition #8*)

Conclusion: As conditioned, the proposal can comply with Fire Code.

Building

Finding 53: All Geotech recommendations and requirements will be required to be implemented into the design of the structure additions. *(See Condition #9)*

Finding 54: As shown on the preliminary site plan, the proposed Minimum 5-foot side yard setbacks shown on site plan are ok. A condition of approval has been added that Any reductions of side yard setback to less than 5-feet will require IRC Sec 302 Fire-Resistant Construction code requirements to be met. *(See Condition #10)*

Conclusion: As conditioned, the proposal can comply with the Building Code.

Agency Comments:

Finding 55: Chris Bailey, representing the Confederated Tribes of Grand Ronde, submitted a comment requesting that a cultural resource investigation be undertaken prior to the project activities, and that an Inadvertant Discovery Plan (IDP) be put in place. Additionally, Mr. Bailey requested that any cultural resources discovered during construction be reported to local tribes and the Washington State Department of Archeology and Historic Preservation (DAHP) immediately.

The property in question has been previously disturbed, and the City has no record that any cultural resources have been found on the site. The City recognizes that the property is mapped as having a high risk of archaeological and/or cultural resources being discovered on the site, however recognizes that the proposed scale of the development, and the previous disturbance of the ground minimizes the likelihood of archaeological discovery as a result of this development action. Because of these factors, the City has determined that while a full cultural resource report is not required for this project, an Inadvertant Discovery Plan (IDP) meeting the requirements established by the Washington Department of Archaeology and Historic Preservation should be prepared and provided to the City and all interested tribes prior to any ground disturbing activities commencing. This should include the methods that will be utilized by the applicant and/or their hired contractors should any archaeological and/or cultural resources be found during the course of construction. *(See Condition # 11)*

Preliminary Subdivision Approval | WMC 19.10.070

Finding 56: The applicant submitted a preliminary subdivision application. Per WMC 16.08.310, after approval of the preliminary plat and prior to the beginning of construction and installation of improvements or performance bonding or other assurance in lieu thereof, the subdivider's engineer shall submit to the public works director detailed construction plans for all required improvements and applications for necessary permits. Such plans shall conform to the specifications set forth in Section 16.18.050. Upon the public works director's approval of the construction plans, and prior to submission of the final plat, the subdivider shall proceed to construct and install required improvements to completion, unless the performance bonding or other option set forth in Chapter 16.12 is accepted.

A condition of approval has been added that detailed construction drawings for the proposed road, drainage and utility facilities shall be submitted to the City's Public Works Department for review and approval prior to construction of subdivision improvements. (*See Conditions #2*)

Finding 57: Per WMC 16.10.010, the applicant is responsible for preparing a final plat and any required supplemental materials required under WMC Chapter 16.10 following approval of the preliminary plat and the detailed construction plans. A condition of approval has been added that the applicant shall have a final plat drawn up by a licensed surveyor on a sheet of mylar, or alternative material approved by the community development department. (*See Conditions #12, 13, and 14*)

Conclusion: The preliminary site plan can be approved with conditions.

III. COMPREHENSIVE PLAN REVIEW

Finding 58: The City of Woodland Comprehensive plan is meant to guide the long term growth of the City and outline specific goals and policies that meant to facilitate responsible and consistent growth, and reflect the City and community's interests.

Finding 59: WMC 16.08.160(A) requires the City to review the proposed preliminary plat's conformance to the goals, policies, objectives, and land use map of the Woodland comprehensive plan in location, timing of improvements, and design.

The subject property has a residential comprehensive plan designation as shown on the City of Woodland's Comprehensive Plan map. Subdivision of the property for future residential development is consistent with this comprehensive plan designation.

Finding 60: The 2016 Woodland Comprehensive plan includes ten individual elements that address a variety of topics and concerns, however not every element is relevant to the proposed subdivision. Following review, the following elements have been identified

as being relevant to the proposed development, and a review of the goals and policies can be found below:

- Public Involvement (PI);
- Land Use (LU); and
- Housing (H);

Finding 61: Public Involvement (PI) The public involvement element of the comprehensive plan generally encourages public involvement within the land use process. Goal P1 states that the government should continue to ensure that citizens have full opportunity to be heard and participate in city government affairs. Policies within the public involvement element include policies designed to ensure that opportunities are provided for public involvement in comprehensive planning processes and other community actions, policies encouraging cooperation with outside agencies, and policies intended to encourage city participation with local events and traditions.

Notice of the pending preliminary subdivision and minor variance application has been provided consistent with WMC 19.06.010, and a comment period for written comments has concluded, with the formal notice period running through the end of the scheduled public hearing being ongoing. Additionally, staff has provided outside agencies with an opportunity for cooperation through both the application routing and SEPA processes as required by code. These efforts demonstrate consistency with policy PI 2, which asks the city to coordinate with agencies providing social services in the city, and policy PI3, which asks the city to use local resources to encourage local involvement in community actions.

As demonstrated above, the DRC has concluded that the proposed preliminary subdivision has gone through a process consistent with the goals and policies of the comprehensive plan's public involvement element.

Finding 62: Land Use (LU) The land use element of the comprehensive plan generally guides the city in its implementation of land use regulations and considers the general distribution and location of land uses to ensure that land is developed in a manner that acknowledges the appropriate intensity and density of a proposed development for the subject area. Goals found within the land use element include goals designed to protect and enhance the character and long-term stability of the city and goals designed to encourage the protection and preservation of significant historic, archeological, and cultural resources. Policies found within the land use element generally outline a variety of standards the City should implement when looking at land use and subdivision within the city, standards that in most cases have been integrated within the City's development code. The preliminary subdivision application is generally consistent with the goals, and associated policies, found within the housing element of the City of Woodland Comprehensive Plan, as shown below:

- **Goal # LU1** “Protect and enhance the character and long-term stability of the city through current standards for land development and subdivision.
 - **Staff Finding:** *The applicant is proposing a five (5) lot subdivision in an establish residential neighborhood. As conditioned within this report, the applicant will design and construct all required civil improvements to the City’s standards, as well as pay their share of the cost of all required improvements necessary to address additional impacts associated with the proposed preliminary subdivision. In general, this finding demonstrates consistency with the above stated goal of the comprehensive plan.*
- **Goal # LU2** “Encourage the protection and preservation of significant historic, archaeological, architectural, aesthetic, and cultural resources.”
 - **Staff Finding:** *As the property has not been identified as being a significant historic, archaeological, or otherwise protected site, this goal is generally not relevant to the proposed development. An inadvertent discover plan will be put in place to ensure the protection of any historical or cultural resources found over the course of the construction.*

As such, the preliminary subdivision, as conditioned, will be generally consistent with the Land Use (LU) element of the City of Woodland Comprehensive Plan.

Finding 63: Housing (H) The housing element of the comprehensive plan generally guides the city in its efforts in maintaining an enhancing our existing neighborhoods, as well as accommodating future growth, and considers opportunities to preserve existing residential neighborhoods, identifying infill opportunities, and the scale of future developments.

The preliminary subdivision application is generally consistent with the goals, and associated policies, found within the housing element of the City of Woodland Comprehensive Plan, as shown below:

- **Goal # H1** “Strive to ensure fair and equal access to housing for all people throughout the city regardless of race, color, national or ethnic origin, religion, creed, age, sex, marital status, or disability.”
 - **Staff Finding:** *The applicant is required to meet State and Federal Fair Housing and Anti-Discrimination regulations during the sale, rental, and/or transfer of the child lots. This will ensure consistency with the above stated goal.*
- **Goal # H2** “Achieve a well-balanced and well-organized combination of open space, commercial, industrial, recreation, and public uses served by a convenient and efficient transportation network while protecting the fabric and character of residential neighborhoods.”
 - **Staff Finding:** *The applicant is proposing a six-lot subdivision within an existing residential neighborhood. The proposed subdivision is consistent*

both with the subject property's residential comprehensive plan designation, and the low-density residential zoning district it is located within, and is serviced by the existing transportation network. This is generally consistent with the fabric and character of the existing residential neighborhood, and demonstrates consistency with the above stated goal of the comprehensive plan.

- **Goal # H3** "Promote desirable neighborhoods that support property values by fostering the maintenance and improvement of the physical condition of the existing housing stock and neighborhoods in the city."
 - **Staff Finding:** *The proposed subdivision will provide public facility improvements servicing the area (including the construction of sidewalks, curb, and gutter; repair to ½ street frontage on Washington Street, and implementation of stormwater management systems for on-site stormwater, which is consistent with Policy H3.3.*

The applicant is proposing the redevelopment of a 0.93 acre lot, which includes the demolition of an existing single family home. City records does not include the original building permit associated with the existing home, though a re-roofing permit in May of 1986, so it can be assumed the property was constructed prior to that date. There is only one additional permit on file, which is a mechanical permit to install a furnace. Based on these records, staff can surmise that few major improvements have been completed since the home's construction in 1945, and as such the property would likely require extensive remediation prior to re-occupation, should redevelopment be denied, which is consistent with policy # H3.4 which instructs that City (among other things), to "... use redevelopment only selectively to upgrade badly deteriorated areas." This finding demonstrates consistency with the above-stated goal of the comprehensive plan.

- **Goal # H4** "Provide for a variety of housing types and densities, and a range of affordable housing."
 - **Staff Finding:** *Applicant is subdividing the subject property in order to construct five (5) new single-family homes on smaller, potentially more affordable parcels of land, consistent with the City's goal to provide a variety of housing tops and ranges of affordability.*
- **Goal # H5** "Strive to create neighborhoods which enhance residential quality of life by providing adequate buffers from noise, odors, and other environmental stresses."
 - **Staff Finding:** *The proposed subdivision is located within an existing residential neighborhood and is located a considerable distance from uses and/or improvements likely to cause untoward noise, odors, and other environmental stresses. New development that may intrude within these buffers will be required to meet the city's municipal code, specifically*

WMC Chapter 17.48, which regulates the performance standards a business has to meet regarding noise, odor, and other potential nuisances. This finding demonstrates consistency with the above stated goal of the comprehensive plan.

- Goal # H6 "Locate housing in areas with compatible surrounding uses and where residents are able to access needed amenities."
 - **Staff Finding:** The proposed subdivision is located approximately 2,000 feet from the local middle school, 2,250 feet from an existing retail center (including a grocery store, gas station, and several restaurants), and in close general proximity to other needed amenities. Surrounding uses, which are generally residential in nature, and generally compatible with the proposed residential uses. This finding demonstrates consistency with the above stated goal of the comprehensive plan.

As such, the preliminary subdivision, as conditioned, will be generally consistent with the Land Use (LU) element of the City of Woodland Comprehensive Plan.

Conclusion: The preliminary subdivision application, as conditioned, is consistent with the City of Woodland's Comprehensive Plan.

IV. ENVIRONMENTAL REVIEW

The lead agency for this proposal has determined that it does not have a probable significant adverse impact on the environment. An environmental impact statement (EIS) is not required under RCW 43.21C.030(2)(c). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public on request. This Determination of Non-significance (DNS) is issued after using the optional DNS process in WAC 197-11-355. There is no further comment period on the DNS.

V. RECOMMENDATIONS

Per WMC 19.08.030, staff recommend that above application for a Preliminary Subdivision be **APPROVED WITH CONDITIONS**, by the City of Woodland's Hearing Examiner based on the criteria and standards outlined in Woodland Municipal Code (WMC). See **Section V** for conditions of approval.

Per WMC 19.08.030, staff recommend that above application for a Minor Variance be **APPROVED WITH CONDITIONS** by the City of Woodland's Hearing Examiner based on the

criteria and standards outlined in Woodland Municipal Code (WMC). See **Section V** for conditions of approval.

V. CONDITIONS OF APPROVAL

1. The following notes shall be placed on the final plat prior to submission for final plat approval:
 - a. The following impact fees shall be calculated and paid prior to the issuance of any building permit associated with this property, unless expressly exempted by WMC:
 - Fire Impact Fees
 - Park, Recreation, Open Space Impact Fees
 - School Impact Fees
 - Transportation Impact FeesAll estimates and/or rates provided by the City are subject to change by the City Council prior to final building permit issuance, and should be considered to be for informational purposes only.
 - b. The property owner acknowledges responsibility to replace the existing utility line(s) as required to provide adequate utility connection(s) to each lot. This shall be determined by the City once the existing utilities are exposed based on the condition of the water and sewer lines. The applicant shall consult with the city as needed to ensure any required replacement meets the City's standards.
 - c. The property owner acknowledges that finalization of any relevant plat and/or subdivision does not permit, on its own, construction of any use permitted under WMC 17.16.020, and further development of the subject properties shall require further land use and/or building permits based on the specific proposal(s).
 - d. Development on all lots shall be reviewed at the time of building permit approval to determine if they meet the following:
 - Front yard setback in feet: 25
 - Rear yard setback in feet: 15
 - Interior side yard setback in feet: 5
 - Street side yard setback in feet: 15
 - Maximum building height in feet: 30
 - Maximum lot coverage: 50 percent
 - Required off-street parking spaces: 2
 - e. A ten percent (10%) lot width variance has been assigned to parcels one, two, and three as drawn. The approved variance is not transferable to another parcel and/or property.
 - f. Per the International Fire Code, as adopted within WMC Chapter 14.32, any structures constructed on lots four, five, and six as shown on this plat shall required the installation of individual fire suppression systems.

2. Detailed construction drawings for the proposed road, drainage and utility facilities shall be submitted to the City's Public Works Department for review and approval prior to construction of subdivision improvements. Final construction drawings for the required civil improvements shall demonstrate:
 - a. Final civil plans shall demonstrate that the applicant will provide half street improvements meeting the city's engineering standards and WMC along the entire frontage of the subject lot.
 - b. All improvements in the public right-of-way shall be completed in accordance with City of Woodland standards per Title 12.
 - c. Proposed utilities will be constructed in accordance with applicable WMC.
 - d. Comply with water supply backflow and cross-connections requirements of WMC 13.28.
3. A final stormwater TIR and stormwater design demonstrating compliance with WMC Chapter 15.12 and the City of Woodland's engineering standards shall be provided alongside the applicant's civil review application for detailed review. The submitted final TIR shall address all comments regarding the Stormwater Plans and Preliminary TIR.
4. Dedication of easements and/or right of way shall comply with the city's engineering standards and WMC. Any documents prepared to be filed with the County assessor's office shall be provided to the city for review prior to recording, and a copy of the filed documentation shall be provided to City for the city's records. The following dedications and/or easements shall be required prior to recording of the final plat and should be identified on the final plat submitted for review (unless otherwise noted):
 - a. Dedication of a 10-foot strip along the Washington Frontage for right of way purposes;
 - b. Filing of an access easement that permits access along the shared driveway to the residents of both 'Lots 5 and 6.'
5. Include a Construction SWPPP report as well as an erosion control plan with the final engineering submittal.
6. Apply for a fill and grade permit.
7. Property owner/developer is responsible for payment of all relevant sewer and water assessments and fees based on the size of service and approve fee resolution at the time of connection.
8. Building construction and underground plans shall be submitted to CCFR separately, along with any fire alarm and/or fire sprinkler alterations.
9. All Geotech report recommendations and requirements will be required to be implemented into the design of the structures.
10. An Inadvertant Discovery Plan (IDP) meeting the requirements established by the Washington Department of Archaeology and Historic Preservation should be prepared and provided to the City and all interested tribes prior to any ground disturbing activities commencing. The plan should include the methods utilized to ensure any archaeological and/or cultural resources found during construction are reported promptly to the Department of Archaeological and Historic Preservation, and all interested tribes.

11. Any reductions of side yard setback to less than 5-feet will require IRC Sec 302 Fire-Resistant Construction code requirements to be met
12. Following approval of the preliminary plat and detailed construction (civil) drawings, the applicant and/or owner is responsible for preparing a final plat drawn by a licensed land surveyor on mylar, or an alternative approved material. The final plat, as well as all supplemental materials, shall be submitted to the City of Woodland Community Development Department along with a final plat application and any relevant fees due. At a minimum, the final plat shall comply with the standards and requirements of WMC 16.18.070. Additionally, the final plat shall include the following modifications prior to submittal for City approval:
 - a. The final plat shall reflect the modifications made in response to Clark-Cowlitz Fire Rescue's preliminary comments, as drawn within the updated site plan/preliminary plat dated 10/04/2023.
13. Once final approval is given to print the final plat, signatures on three copies of the plat, shall be collected in the following order:
 - a. The owners in fee simple;
 - b. Notary public in and for the state;
 - c. Professional land surveyor registered in the state;
 - d. Public Works Director;
 - e. Cowlitz County treasurer;
 - f. Cowlitz County AuditorThree signed copies of the final plat must be submitted to staff for review and approval.
14. The plat shall be filed with the County Auditor and shall not be deemed approved until so filed. A copy of the approved subdivision plat (after recorded) shall be submitted to the Community Development Department.
15. A general condition of Cowlitz County is that all newly created lots must indicate the addresses for all lots on the face of the plat. Please contact Public Works for address assignment as part of the final plat process.

VI. APPEAL PROCEDURE

As per WMC 17.81.150 and 19.08.030, In cases where the examiner's jurisdictional authority is to render a decision, the decision of the examiner shall be final and conclusive unless appealed by a party of record. Final decisions may be appealed only if, within twenty-one calendar days after written notice of the decision is sent, a written appeal is filed in the superior court with jurisdiction, either Clark County or Cowlitz County, pursuant to Chapter 36.70C RCW or applicable state law.

Staff Contact: Travis Goddard, Community Development Director
City of Woodland
P.O. Box 9
230 Davidson Ave

Woodland, WA 98661
goddardt@ci.woodland.wa.us


VII. NEXT STEPS

If there is no appeal to the decision, the applicant may move forward to develop the site.

- Submit final civil plans addressing the conditions above. Include Woodland standard details for water, sewer, erosion control, etc. as required to support the civil design when you submit drawings for final civil approval.
 - a. The details can be found at www.ci.woodland.wa.us/departments/public-works/standards.php.
 - b. Submit final civil plans to: https://woodlandwa.seamlessdocs.com/f/civil_review
- Once civil plans are approved:
 - a. Upload approved plans to Clark County Fire and Rescue for electronic signature: www.clarkfr.org. Print the plans once signed.
 - b. Contact Public Works to arrange for signature: 360-225-7999. Then, bring plans signed by Clark County Fire and Rescue to Public Works for signature.
 - c. Provide a .pdf to Public Works of signed plan set.
- Submit building, grading, and sign permits online: www.ci.woodland.wa.us/documents/
 - a. Contact Elissa Brenatano, Permit Technician, for assistance: 360-225-7299.
 - b. Pay any outstanding professional consulting services per Woodland Municipal Code, Ordinance 1097.
- Schedule a pre-construction meeting before beginning any construction activities. Contact Public Works at 360-225-7999 to schedule.
- Install all required civil improvements, or provide a bond approved by the Public Works Department, prior to finalizing the plat.
- Submit one full-sized and one copy of reduced size (11" x 17") as-built drawings. In addition, submit a CD/thumb drive containing the as-built drawings in AutoCAD and pdf formats prior to applying for final occupancy.

Date: 10/9/2023

Signature: _____



Travis Goddard, Community Development Director

cc: Applicant

Planning Commission

Parties of Record
File
Website
Mayor
City Administrator

ATTACHMENTS
A. Site Plan

Attachment A

Site Plan

City of
City
City
City
City

ATTACHMENT A
Site Plan

SITE PLAN REVIEW

FOR

438 HOMESTEAD

438 WASHINGTON STREET, WOODLAND, WA 98674

PREPARED FOR:

HOMESTEAD, LLC

P.O. BOX 255

YACOLT, WA 98675

CONTACT: ROGER FOLEY

PHONE: (360) 901-0056

EMAIL: ROGER.FOLEY505@GMAIL.COM

PREPARED BY:

WINDSOR ENGINEERS

CONTACT: DAN KOISTINEN

PHONE: (360) 852-4971

EMAIL: DKOISTINEN@WINDSORENGINEERS.COM

PREPARED BY:



WINDSOR ENGINEERS

Ridgefield, WA
Duluth + Minneapolis, MN
www.windsorengineers.com

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PROJECT NUMBER: 21035.1



CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE CITY OF WOODLAND ENGINEERING STANDARDS FOR CONSTRUCTION

PARCEL INFORMATION:
PARCEL NUMBERS: 50339
LOT SIZE: 0.93 AC
ZONING RESIDENTIAL (LDR-6)

LEGAL DESCRIPTION:
IN THE HANS KRAFT D.L.C. IN THE SW 1/4 OF TH SW 1/4 OF SECTION 24
T. 5 N., R. 1 W., W.M.
CITY OF WOODLAND,
COWLITZ COUNTY, WASHINGTON

BASIS OF BEARING:
N 89° 58' 05" E ALONG THE SOUTH LINE OF R.O.S. 35-61

VERTICAL DATUM:
NAVD 88 BASED ON WSDOT MON. 4081
EL = 30.07

CITY OF WOODLAND

230 DAVIDSON AVE
PO BOX 9
WOODLAND, WA 98674

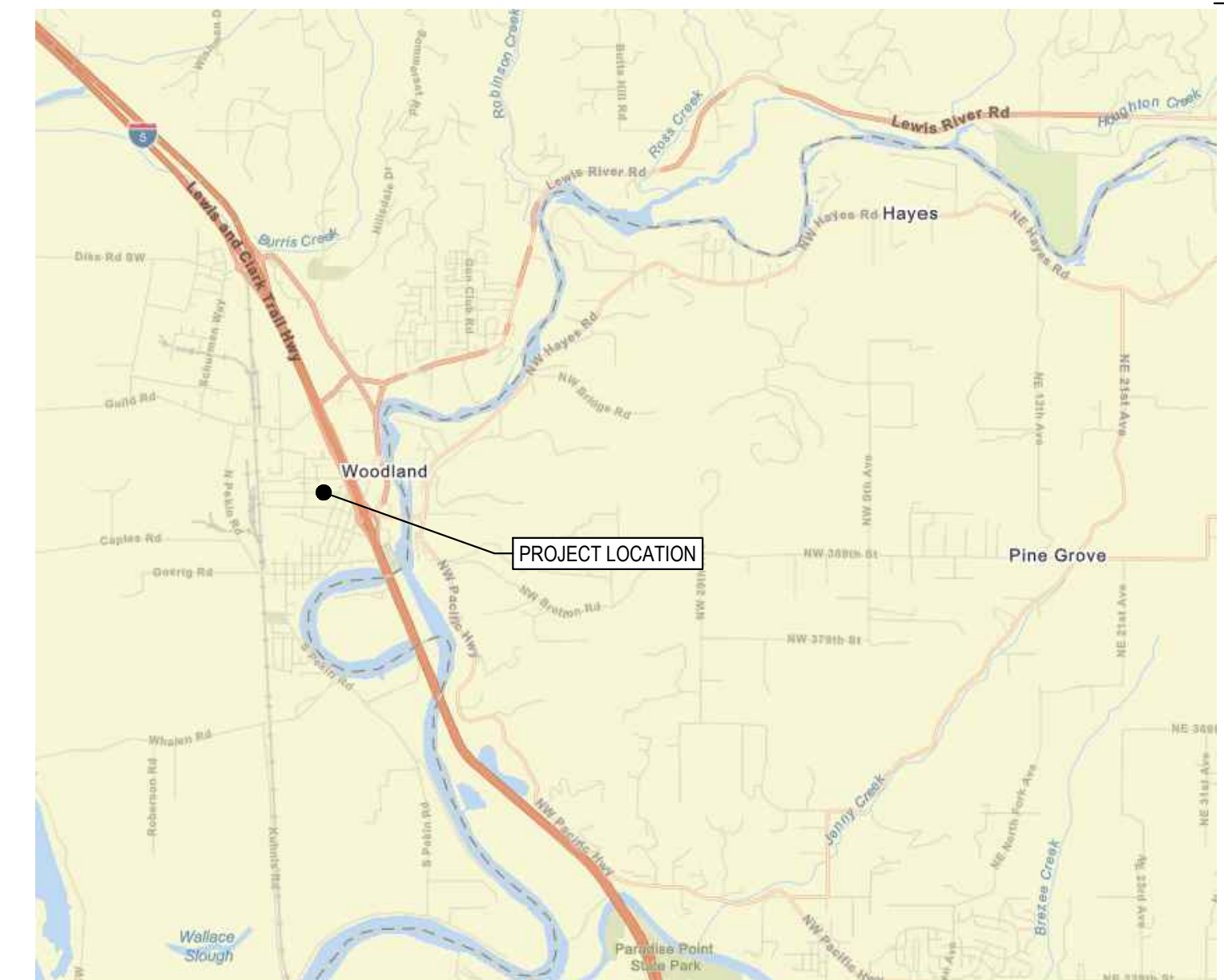
PHONE:
360-225-8281

CITY OF WOODLAND PERSONNEL

TRAVIS GODDARD - COMMUNITY DEVELOPMENT
TRACY COLEMAN - PUBLIC WORKS DIRECTOR
DEBI CLER - BUILDING OFFICIAL
MARK NELSON - ENGINEERING
KATHRYN MYKLEBUST - ENGINEERING AIDE
MIKE JACKSON - DIVISION FIRE CHIEF

SHEET INDEX

- G000 COVER SHEET
- G002 CIVIL NOTES AND ABBREVIATIONS
- G003 LEGENDS
- C000 EXISTING CONDITIONS
- C001 DEMOLITION PLAN
- C105 SITE PLAN
- C106 COMPOSITE UTILITY PLAN
- C107 FIRE RESPONSE PLAN
- C110 EROSION CONTROL PLAN
- C130 GRADING PLAN
- C390 STORMWATER PLAN
- C601 EROSION CONTROL DETAILS
- C602 SITE DETAILS
- C603 STORMWATER DETAILS
- C604 UTILITY DETAILS
- C605 SITE DETAILS



VICINITY MAP
NOT TO SCALE

UTILITY	JURISDICTION	PHONE NUMBER
WATER	CITY OF WOODLAND	360-225-8281
SEWER	CITY OF WOODLAND	360-225-8281
WASTE SERVICES	CITY OF WOODLAND	360-225-8281
POWER	COWLITZ PUD	360-423-2210
INTERNET	COMCAST	800-934-6489

City of Woodland
Public Works Department
PO Box 9
236 Ste B Davidson
Woodland, WA 98674
www.ci.woodland.wa.us

(360) 225-7999
(360) 225-7476 fax

**Plans reviewed for compliance with
City Standards and Policies**

Permit Number: SPR-23-XXX

Recommended for Approval:

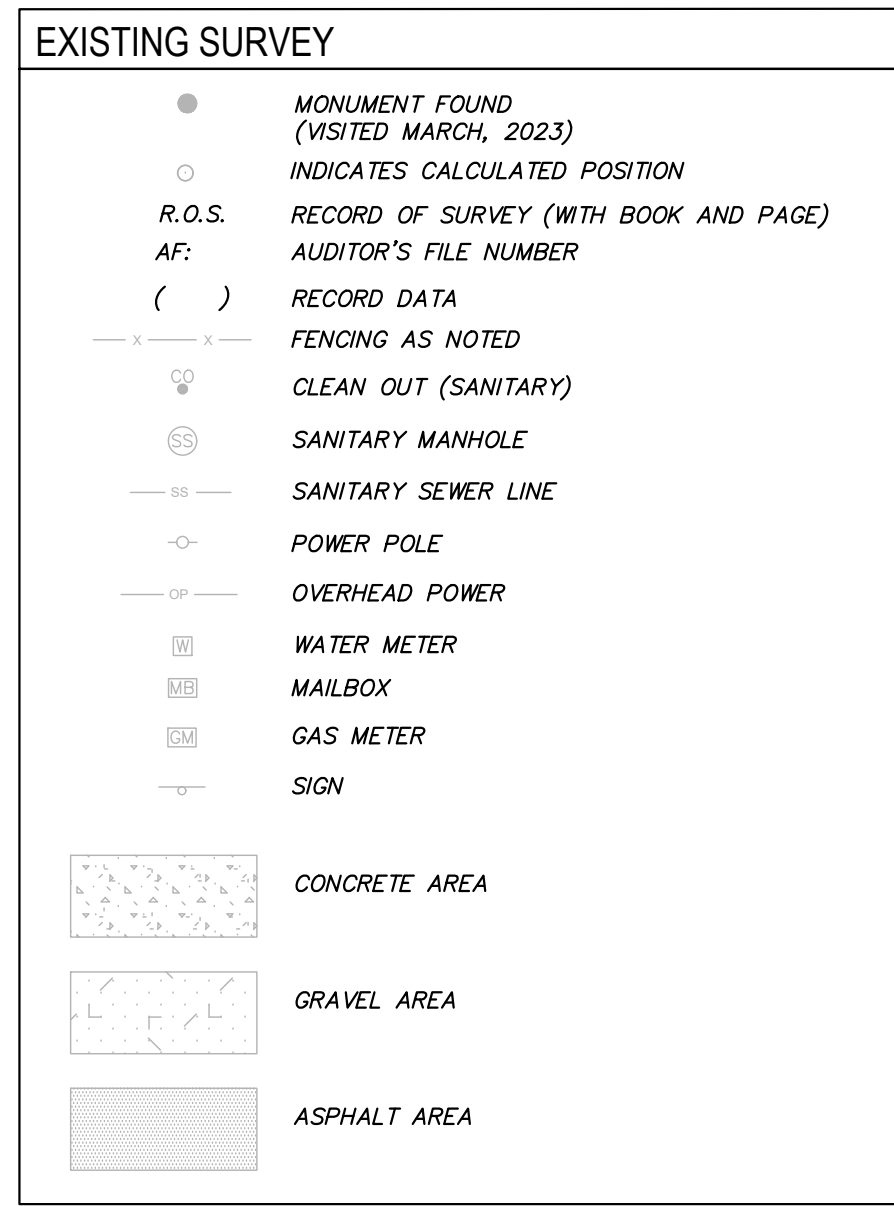
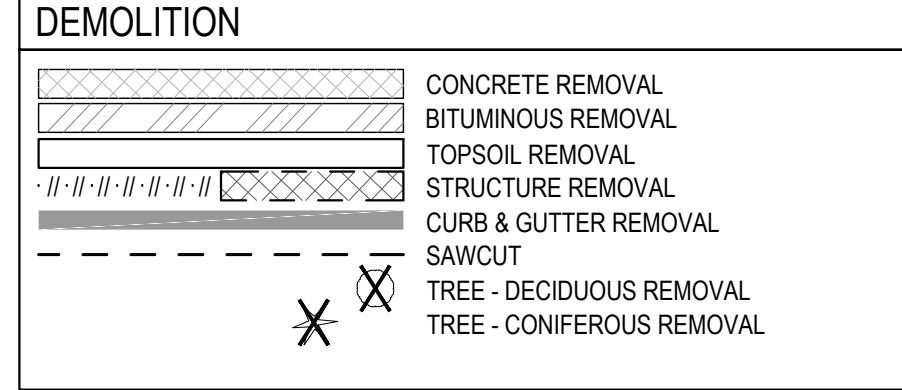
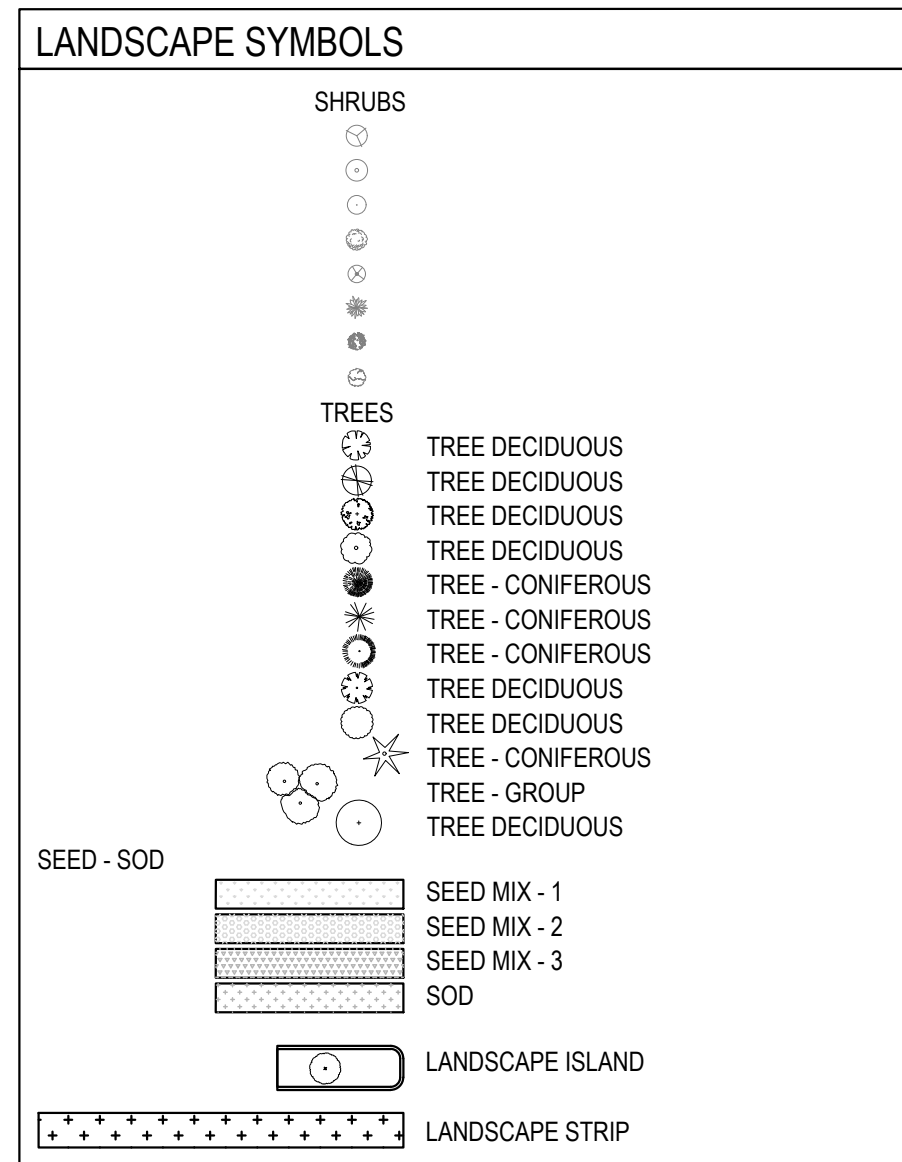
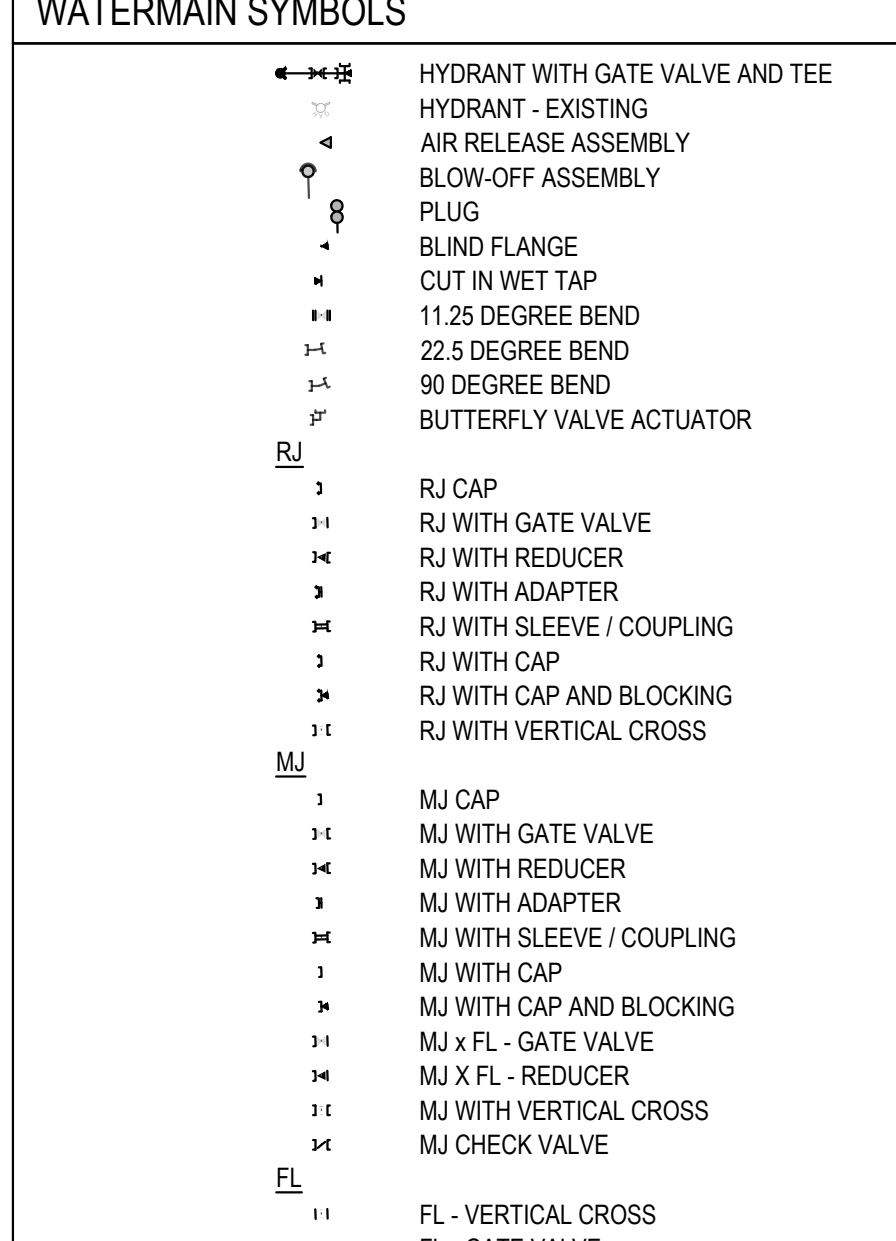
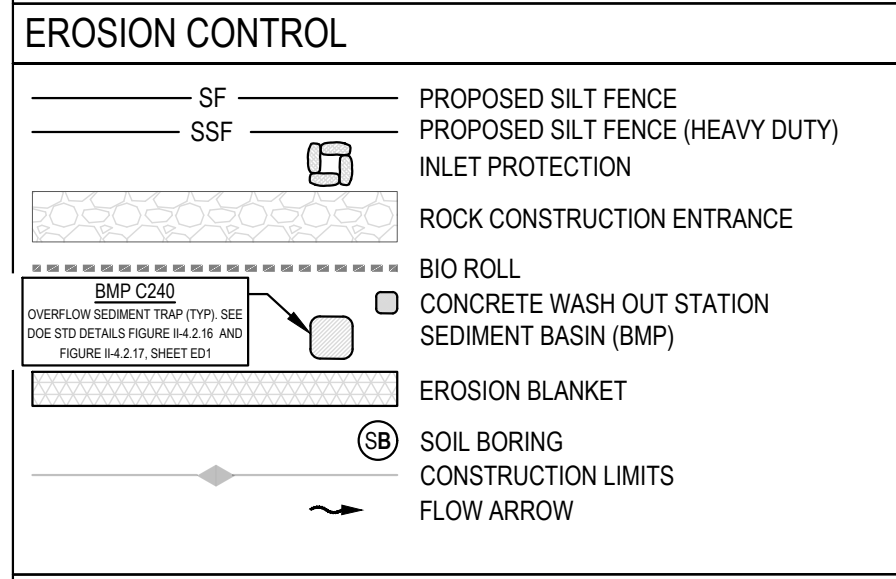
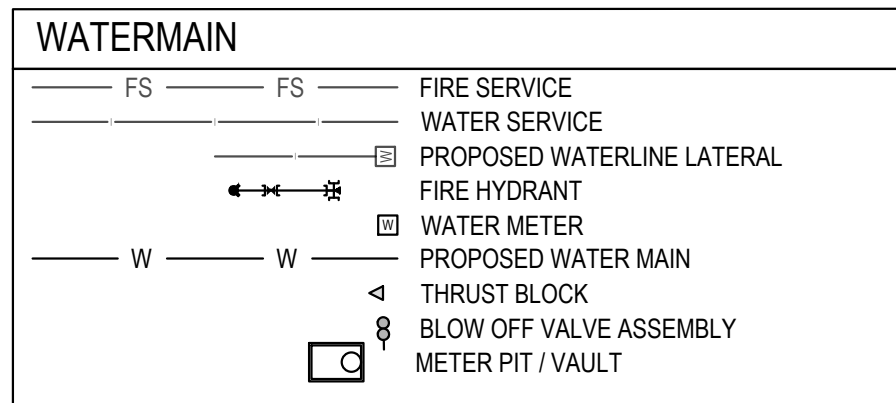
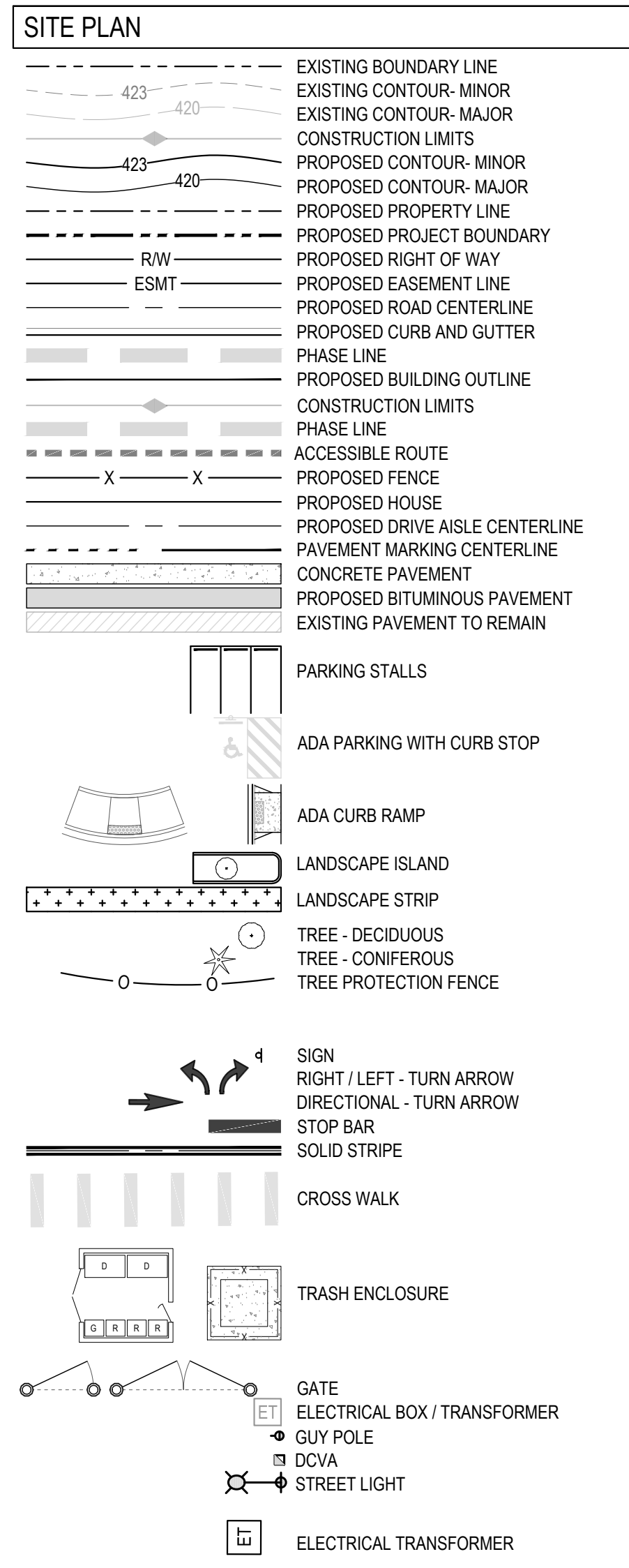
PUBLIC WORKS DIRECTOR	DATE
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Improvement Summary:

STREET IMPROVEMENTS	207	LF
WATER MAIN FOOTAGE	N/A	LF
SEWER MAIN FOOTAGE	N/A	LF
SEPTIC SYSTEM DECOMMISSIONED	1	EA
TRENCHING WITHIN CITY RIGHT-OF-WAY	237	LF
TOTAL IMPERVIOUS SURFACE	20,694	SF
PRIVATE IMPERVIOUS SURFACE	0.438	AC
GRADING:	CUT -50	CY
	FILL -50	CY

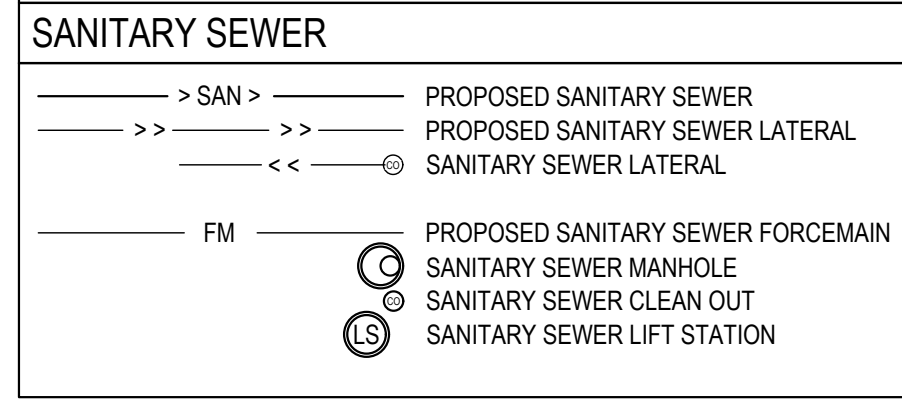
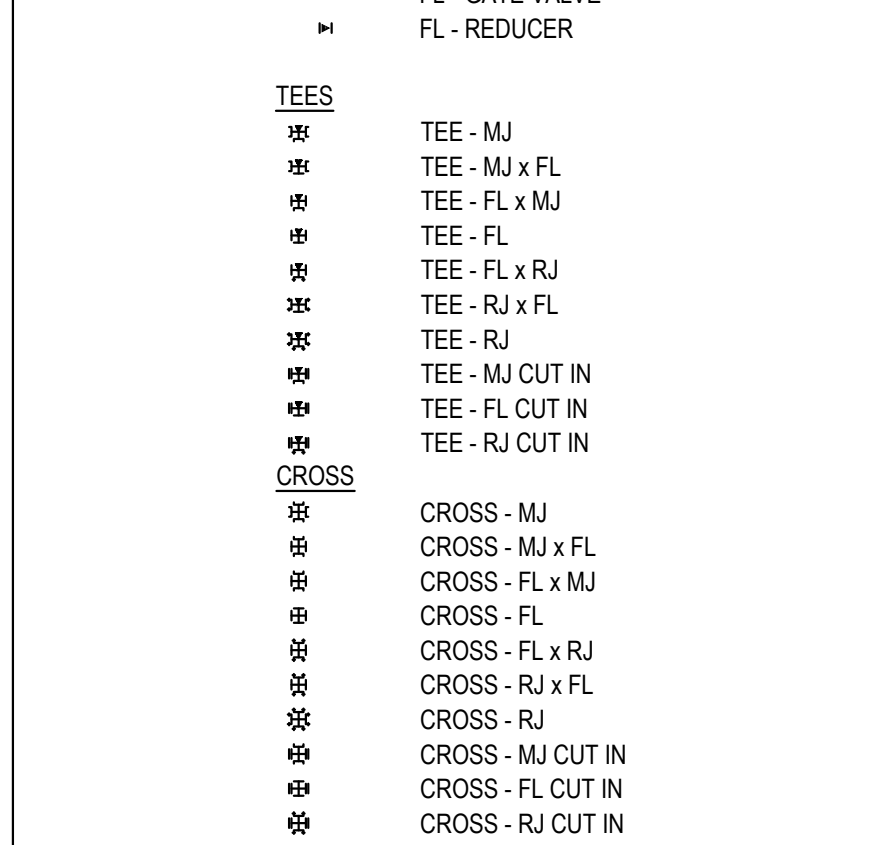
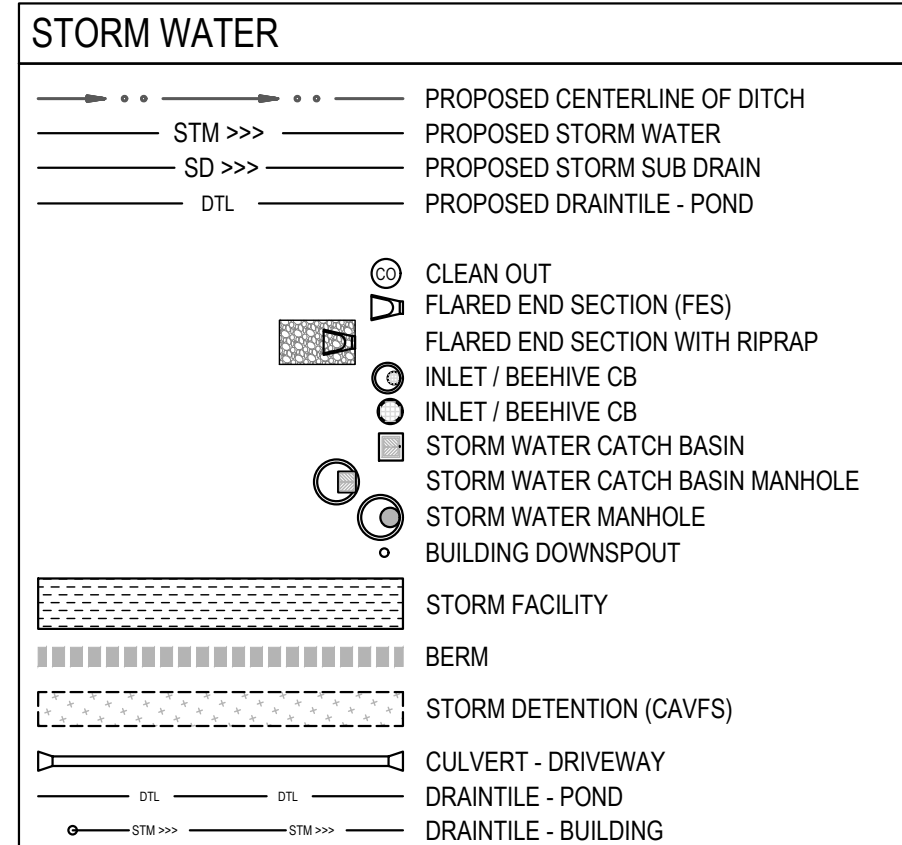
REVISIONS:

NO.	DESCRIPTION	DATE



GENERAL ABBREVIATIONS

(E)	EXISTING
C	CONCRETE
CB	CATCH BASIN
CL	CENTERLINE
CNS	COMPACTED NATIVE SOIL
CO	CLEAN OUT
CR	CURB RETURN
D	DIRT / DRAINAGE
FG	FINISHED GRADE
FH	FIRE HYDRANT
FL	FLOW LINE
FM	FORCE MAIN
G	NATURAL GAS (LOW PRESSURE)
GB	GRADE BREAK
HP	HIGH POINT
LF	LINEAR FOOT
LP	LOW POINT
MG	NATURAL GAS (MEDIUM PRESSURE)
MG	MATCH EXISTING GRADE
MH	MANHOLE
NS	NATIVE SOIL
NTS	NOT TO SCALE
P	PAVEMENT
PC	POINT OF CURVATURE
POC	POINT OF CONNECTION
POS	POINT OF SERVICE
PP	POWER POLE
PT	POINT OF TANGENCY
R	RADIUS
ROW	RIGHT OF WAY
S	SLOPE / SANITARY
SAN	SEWER SEWER
SSMH	SANITARY MANHOLE
STA	STATION
STM	STORM DRAIN
STMH	STORM MANHOLE
TBD	TO BE DETERMINED
TBL	TO BE RELOCATED BY RESPECTIVE UTILITY
TBR	TO BE REMOVED BY CONTRACTOR
TC	TOP OF CURB
TOE	TOE OF BANK
TOP	TOP OF BANK
TP	TELEPHONE POLE
U	UNDERGROUND
VIP	VERIFY IN FIELD PRIOR TO CONSTRUCTION
W	WATER MAIN

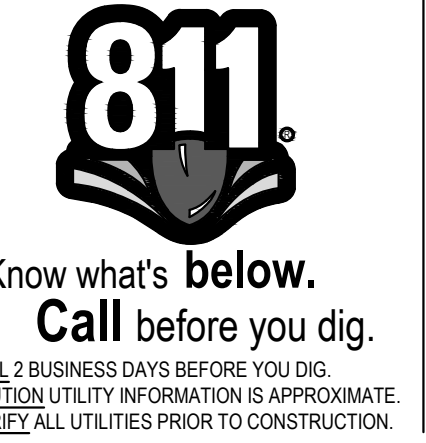
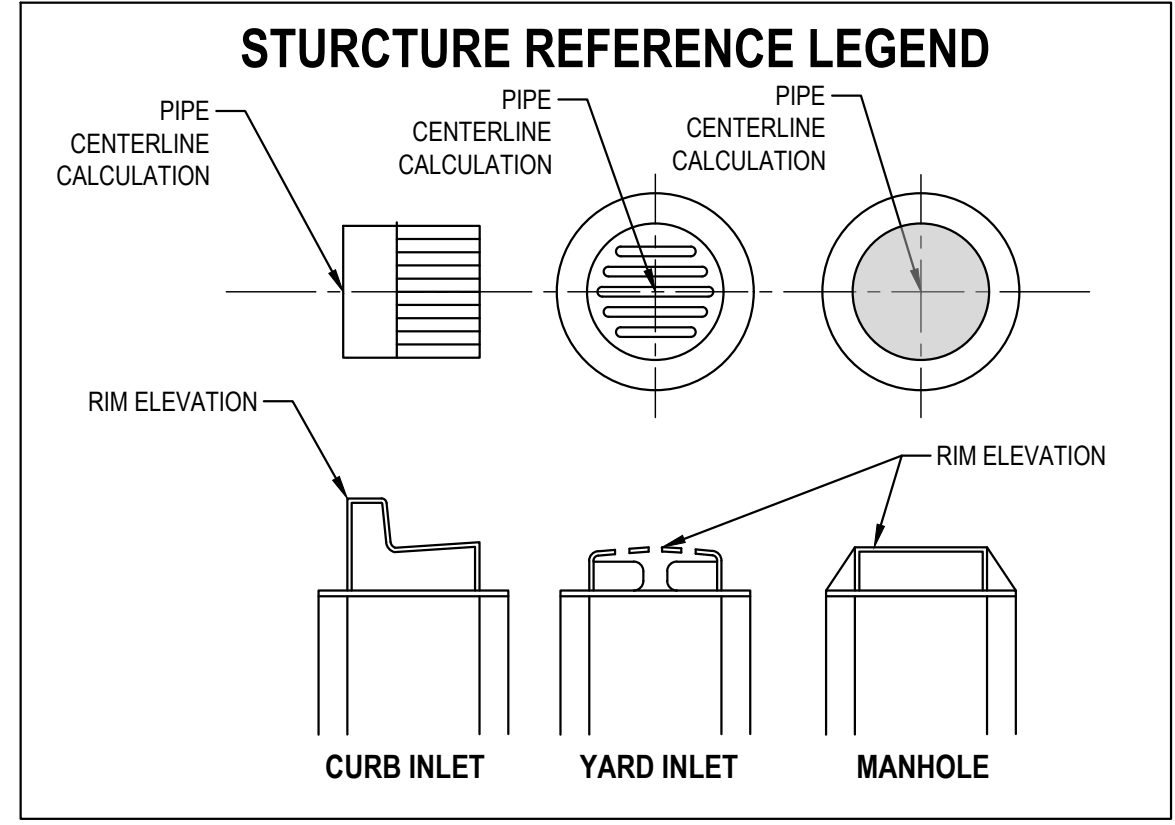


SITE - ABBREVIATIONS

FFE	FIRST FLOOR FINISH ELEVATION
LLE	LOWER LEVEL FINISH ELEVATION
WO	WALKOUT
LO	LOOKOUT

GRADING LEGEND / ABBREVIATIONS

TC: 391.49
FL: 390.99
TW: 391.49
BW: 380.99
GB: GRADE BREAK
LP: LOW POINT
HP: HIGH POINT
FC: FLUSH CURB
MG: MATCH GRADE
FL: FLOWLINE
SW: SIDEWALK
TC: TOP OF CURB
FG: FINISH GRADE (DEFAULT- IF NOT LABELED)



Revisions:

LINE IS 1" ON FULL SCALE DRAWING

Ridgefield, WA
Duluth + Minneapolis, MN
www.windsorengineers.com

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438 HOMESTEAD
438 WASHINGTON STREET, WOODLAND, WA 98674

SITE PLAN REVIEW
Project No: 21035.1
Issue Date: 10/4/2023

LEGENDS

G003

Project Manager: DCK
Drawn by: CKJ/OK
Checked by: JTW

ISSUED FOR SITE PLAN REVIEW

SURVEY REFERENCES

BOOK 3, PAGE 159 (MRS. IDA E. PARENTS ACRE TRACTS)
 BOOK 11, PAGE 28 (PLAT OF BRIERWOOD ADDITION NO. 1)
 BOOK 2, PAGE 153 (1978 SURVEY BY OLSON)
 BOOK 3, PAGE 65 (1978 SURVEY BY HAGEDORN)
 BOOK 5, PAGE 231 (1986 SHORT PLAT BY GERMUNSON)
 BOOK 12, PAGE 52 (1993 SURVEY BY SPURLOCK)
 BOOK 12, PAGE 55 (1999 SHORT PLAT BY SWART)
 BOOK 14, PAGE 13 (2005 SHORT PLAT BY MURSELL)
 BOOK 14, PAGE 112 (2006 SHORT PLAT BY BLUHM)
 BOOK 18, PAGE 58 (2021 SHORT PLAT BY MARTILA)

DEED REFERENCES

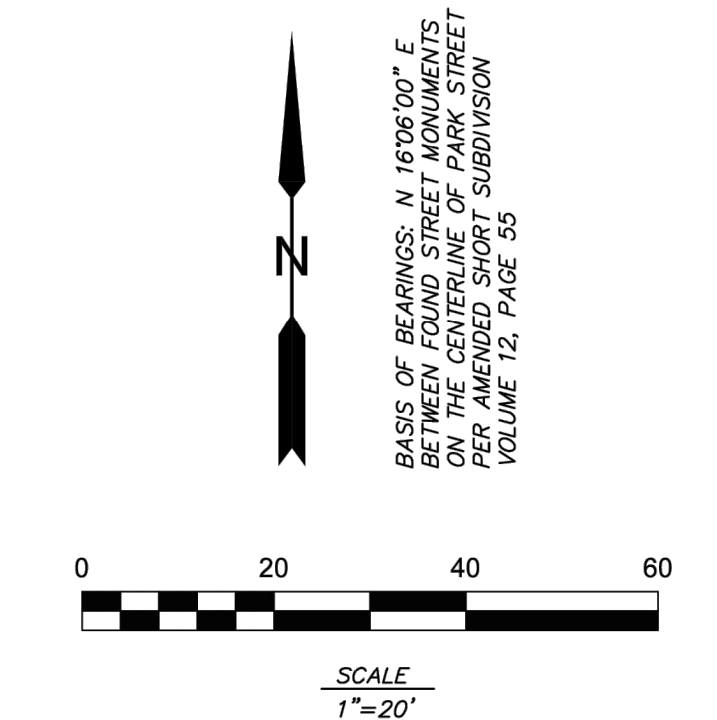
AF: 3725899 (BRUNSON TO BRUNSON & HOMESTEAD DEVELOPMENT, LLC)

NARRATIVE / PROCEDURE

THE PURPOSE OF THIS SURVEY WAS TO PROVIDE AN EXISTING CONDITIONS / TOPOGRAPHIC SURVEY FOR ELWOOD HOLDINGS, LLC. FIELD SURVEYS CONSISTED OF A COMBINATION OF GPS OBSERVATIONS AND RANDOM TRAVERSE METHODS ALONG WITH RADIAL TIES, USING A 5-SECOND TRIMBLE S6 TOTAL STATION INSTRUMENT AND ELECTRONIC DATA COLLECTOR. RADIAL TIES WERE MADE TO EXISTING PROPERTY CORNER MONUMENTS AS SHOWN.

**EXISTING CONDITIONS SURVEY
for
ELWOOD HOLDINGS, LLC**

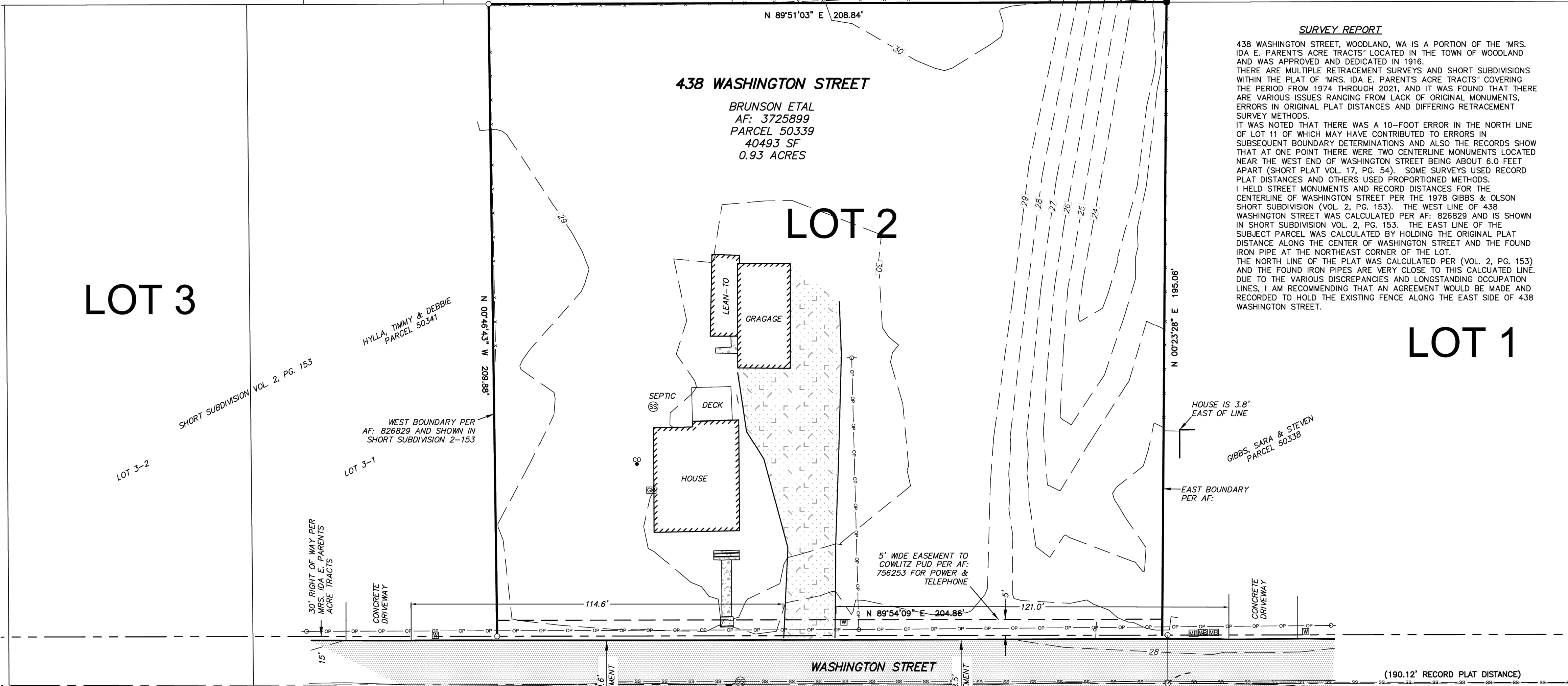
A PORTION OF LOT 2 OF
 MRS. IDA E. PARENT'S ACRE TRACTS
 IN THE TOWN OF WOODLAND, WASHINGTON
 IN A PORTION OF THE S&M BOZARTH D.L.C.
 IN SECTION 24, T5N, R1W, W.M.
 COWLITZ COUNTY, WA



- LEGEND**
- MONUMENT FOUND (VISITED MARCH, 2023)
 - INDICATES CALCULATED POSITION
 - R.O.S. RECORD OF SURVEY (WITH BOOK AND PAGE)
 - AF: AUDITOR'S FILE NUMBER
 - () RECORD DATA
 - x-x-x- FENCING AS NOTED
 - ☼ CLEAN OUT (SANITARY)
 - ⊗ SANITARY MANHOLE
 - ss- SANITARY SEWER LINE
 - o- POWER POLE
 - o- OVERHEAD POWER
 - ⊠ WATER METER
 - ⊠ MAILBOX
 - ⊠ GAS METER
 - v- SIGN
 - ▨ CONCRETE AREA
 - ▨ GRAVEL AREA
 - ▨ ASPHALT AREA

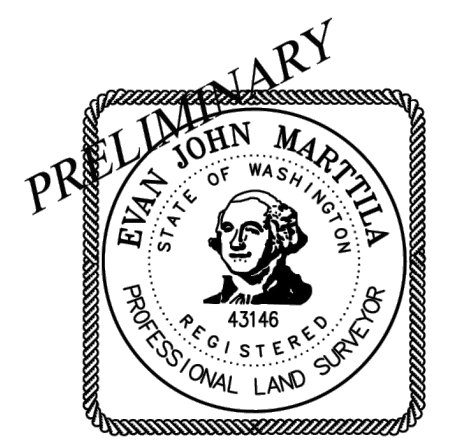
SURVEY REPORT

438 WASHINGTON STREET, WOODLAND, WA IS A PORTION OF THE 'MRS. IDA E. PARENT'S ACRE TRACTS' LOCATED IN THE TOWN OF WOODLAND AND WAS APPROVED AND DEDICATED IN 1916. THERE ARE MULTIPLE RETRACEMENT SURVEYS AND SHORT SUBDIVISIONS WITHIN THE PLAT OF 'MRS. IDA E. PARENTS ACRE TRACTS' COVERING THE PERIOD FROM 1974 THROUGH 2021, AND IT WAS FOUND THAT THERE ARE VARIOUS ISSUES RANGING FROM LACK OF ORIGINAL MONUMENTS, ERRORS IN ORIGINAL PLAT DISTANCES AND DIFFERING RETRACEMENT SURVEY METHODS. IT WAS NOTED THAT THERE WAS A 10-FOOT ERROR IN THE NORTH LINE OF LOT 11 OF WHICH MAY HAVE CONTRIBUTED TO ERRORS IN SUBSEQUENT BOUNDARY DETERMINATIONS AND ALSO THE RECORDS SHOW THAT AT ONE POINT THERE WERE TWO CENTERLINE MONUMENTS LOCATED NEAR THE WEST END OF WASHINGTON STREET BEING ABOUT 6.0 FEET APART (SHORT PLAT VOL. 17, PG. 54). SOME SURVEYS USED RECORD PLAT DISTANCES AND OTHERS USED PROPORTIONED METHODS. I HELD STREET MONUMENTS AND RECORD DISTANCES FOR THE CENTERLINE OF WASHINGTON STREET PER THE 1978 GIBBS & OLSON SHORT SUBDIVISION (VOL. 2, PG. 153). THE WEST LINE OF 438 WASHINGTON STREET WAS CALCULATED PER AF: 826829 AND IS SHOWN IN SHORT SUBDIVISION VOL. 2, PG. 153. THE EAST LINE OF THE SUBJECT PARCEL WAS CALCULATED BY HOLDING THE ORIGINAL PLAT DISTANCE ALONG THE CENTER OF WASHINGTON STREET AND THE FOUND IRON PIPE AT THE NORTHEAST CORNER OF THE LOT. THE NORTH LINE OF THE PLAT WAS CALCULATED PER (VOL. 2, PG. 153) AND THE FOUND IRON PIPES ARE VERY CLOSE TO THIS CALCULATED LINE. DUE TO THE VARIOUS DISCREPANCIES AND LONGSTANDING OCCUPATION LINES, I AM RECOMMENDING THAT AN AGREEMENT WOULD BE MADE AND RECORDED TO HOLD THE EXISTING FENCE ALONG THE EAST SIDE OF 438 WASHINGTON STREET.



GENERAL NOTES

- 1). DATE OF SURVEY: MARCH 11-17, 2023
- 2). CONTOUR INTERVAL SHOWN IS 1.0'
- 3). BOUNDARY INFORMATION FROM MRS. IDA E. PARENTS ACRE TRACTS AND AMENDED SHORT SUBDIVISION BOOK 12, PAGE 55.
- 4). SOME OR ALL OF THE UNDERGROUND UTILITIES SHOWN HEREON WERE LOCATED FROM FIELD TIES TO SURFACE UTILITIES. NORTHERN LAND SURVEYING LLC MAKES NO WARRANTIES TO ANY UNDERGROUND UTILITIES WHETHER SHOWN HEREON OR NOT.
- 5). HORIZONTAL DATUM: DRAWING COORDINATES ARE ON A LOCAL COORDINATE SYSTEM. BASIS OF BEARINGS IS BASED ON FOUND STREET MONUMENTS ON THE CENTERLINE OF PARK STREET PER AMENDED SHORT SUBDIVISION BOOK 12, PAGE 55.
- 6). VERTICAL DATUM: NAVD 88, PER WSDOT BENCHMARK NO. 4081. FOUND STAINLESS STEEL ROD IN LANDSCAPE ON THE SOUTH SIDE OF THE SOUTH ENTRANCE TO RODEWAY INN. PUBLISHED ELEVATION= 30.066 FEET.



07/28/2023

C000

EXISTING CONDITIONS

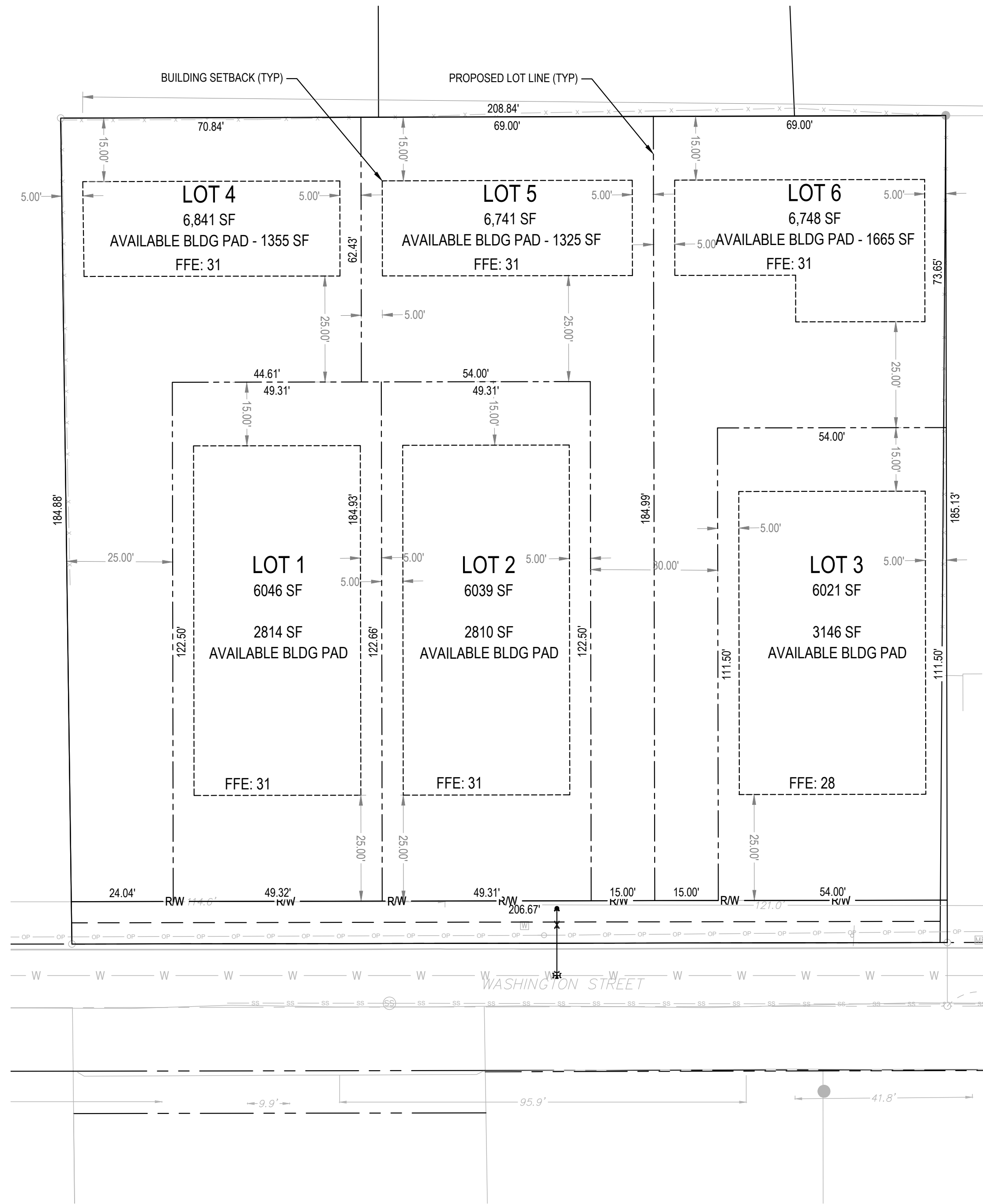
NORTHERN LAND SURVEYING LLC P.O. Box 2017 Battle Ground, WA 98604 360.553.5992	EXISTING CONDITIONS SURVEY for ELWOOD HOLDINGS, LLC		
	Drawn By: DWU Checked By: EJM	Date: 07/28/2023 Scale: 1"=20'	Job No. 2591 Sheet: 1 OF 1

ISSUED FOR SITE PLAN REVIEW

PLOT DATE: 10/20/2023 10:25 AM - FILE: C:\Users\DanK\OneDrive - Windsor Engineers\05 - Projects\2021\1035.1 - 438 Homestead\02 - Drawings\01 - Working\01 - Analysis\1035.1_PHL_BPRD.rvt

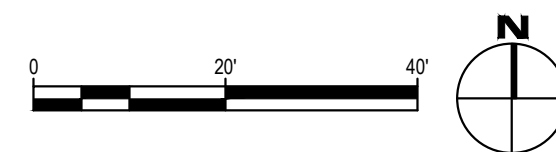
NOTES:

1. SEE SHEETS G002 AND G003, CIVIL NOTES, LEGENDS AND ABBREVIATIONS.
2. SIDEWALK PER CITY OF WOODLAND DETAIL T-01.
3. CURB AND GUTTER PER CITY OF WOODLAND DETAIL T-01.
4. STREET FRONTAGE IMPROVEMENTS PER CITY OF WOODLAND DETAIL T-27.
5. DRIVEWAY APPROACH PER CITY OF WOODLAND DETAIL T-05.
6. STREET SECTION PER CITY OF WOODLAND DETAIL T-27.
7. MAXIMUM LOT COVERAGE: 50%
8. INTERIOR LOT SET BACKS:
 REAR - 15 FEET
 SIDE - 5 FEET
 FRONT - 25 FEET



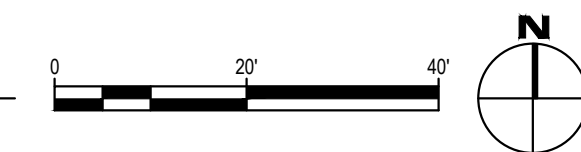
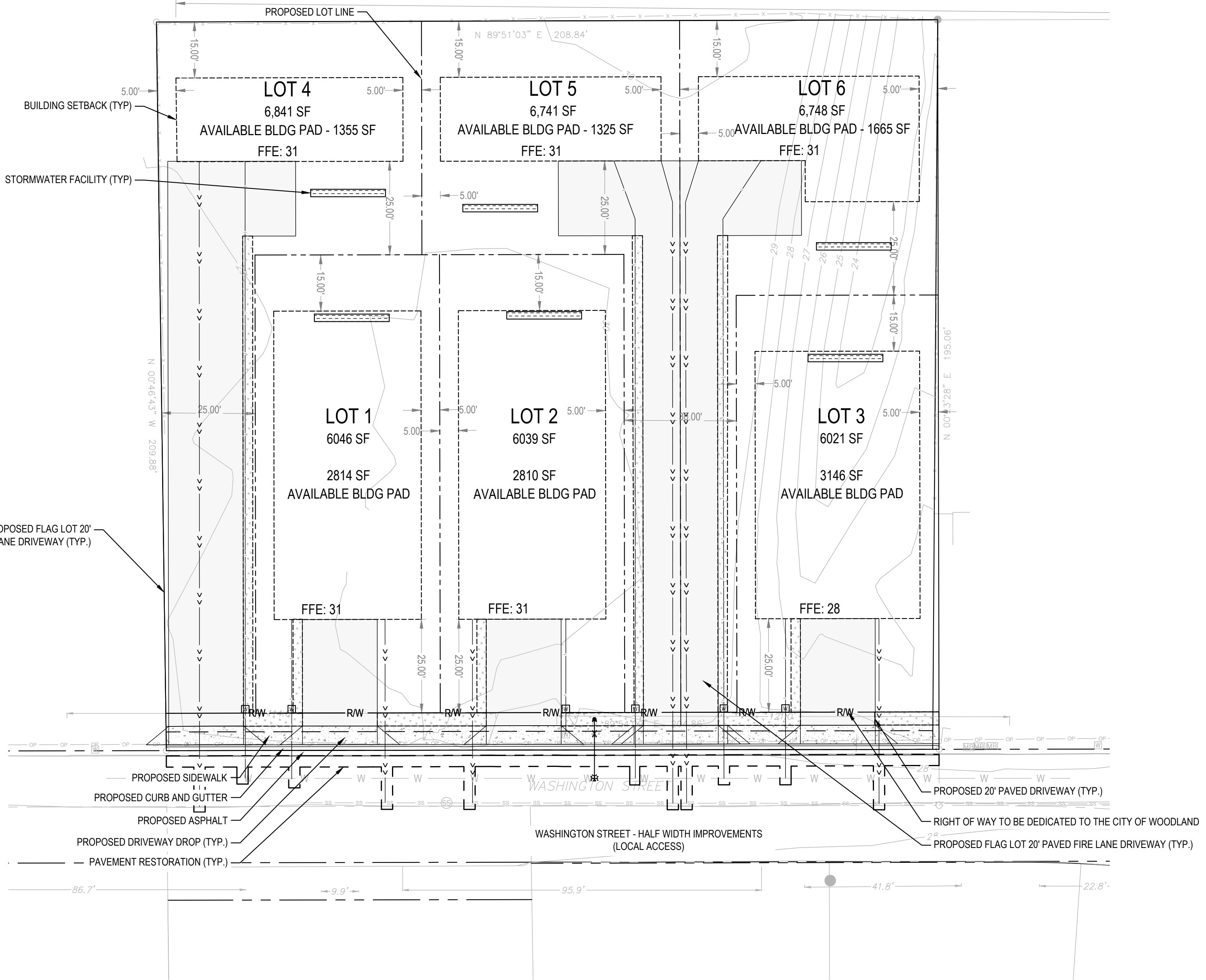
PLAT MAP

SCALE: 1" = 20'



SITE PLAN

SCALE: 1" = 20'



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 VERIFY ALL UTILITIES PRIOR TO CONSTRUCTION.

Revisions:

No.	Description	Date

LINE IS 1" ON FULL SCALE DRAWING



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Project No: 21035.1

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SITE PLAN

Project Manager: DCK
 Drawn by: CKJ/OK
 Checked by: TWT

C105

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GENERAL UTILITY SHEET NOTES:

1. MARK CURB AND GUTTER WITH A "W" OR "S" TO SHOW LOCATION OF UTILITY SERVICE LINE CROSSINGS.
2. SEE DETAIL SHEETS FOR CONSTRUCTION DETAILS
3. STORMWATER DETAILS - SHEET C603.
SANITARY SEWER DETAILS - SHEET C604
WATER DETAILS - SHEET C604.
4. SEE SHEET G002 AND G003, CIVIL NOTES, LEGENDS AND ABBREVIATIONS.
5. MAINTAIN 18" MIN. VERTICAL SEPARATION AND 10' MIN. HORIZONTAL SEPARATION BETWEEN WATER UTILITY AND SANITARY SEWER (TYP.)
6. SERVICE LATERAL CONSTRUCTION: SERVICE LATERAL CONNECTIONS AND PIPING WITHIN PUBLIC SANITARY SEWER EASEMENTS SHALL BE CONSTRUCTED TO PUBLIC STANDARDS. CONSTRUCTION SERVICES INSPECTIONS REQUIRED.
7. CONTRACTOR TO VERIFY LOCATIONS OF EXISTING UTILITIES USING POT HOLING OR OTHER EQUIVALENT METHODS.
8. ALL SEWER LATERALS ARE PRIVATE BETWEEN THE PROPERTY LINE AND BUILDING

KEYNOTES:

STORM 300

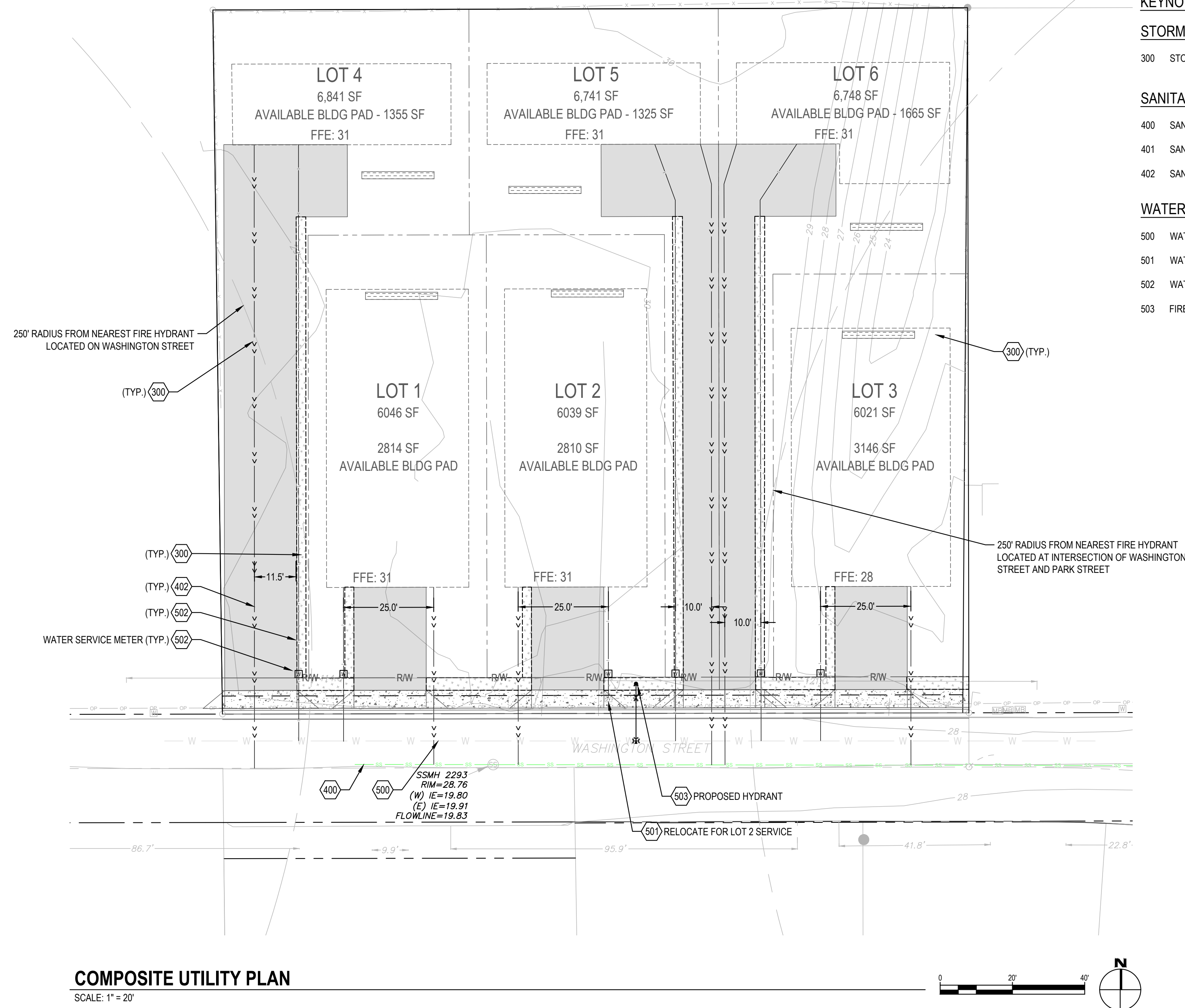
300 STORM WATER FACILITY - SEE SHEET C390

SANITARY 400

400 SANITARY SEWER PIPE (EXISTING MAIN LINE) - 8"
401 SANITARY SEWER MANHOLE (EXISTING MH)
402 SANITARY SEWER SERVICE (PROPOSED) - 4"

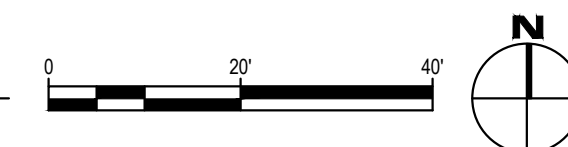
WATER 500

500 WATERMAIN PIPE (EXISTING MAIN LINE - EXACT LOCATION UNKNOWN) - 6"
501 WATER METER (EXISTING) - RELOCATE TO EDGE OF RIGHT OF WAY
502 WATER SERVICE (PROPOSED) - 1" WITH 3' MINIMUM DEPTH.
503 FIRE HYDRANT (PROPOSED)



COMPOSITE UTILITY PLAN

SCALE: 1" = 20'



PLOT DATE: 10/4/2023 3:47 PM - FILE: C:\Users\DanK\OneDrive - Windsor Engineers\02_Drawings\01_Working\04_Final\Sheets\21035.1_PFI_UTIL_PLAN.dwg



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Project Manager: DCK
Drawn by: CKJ/OK
Checked by: JTW

COMPOSITE UTILITY PLAN

C106

ISSUED FOR SITE PLAN REVIEW

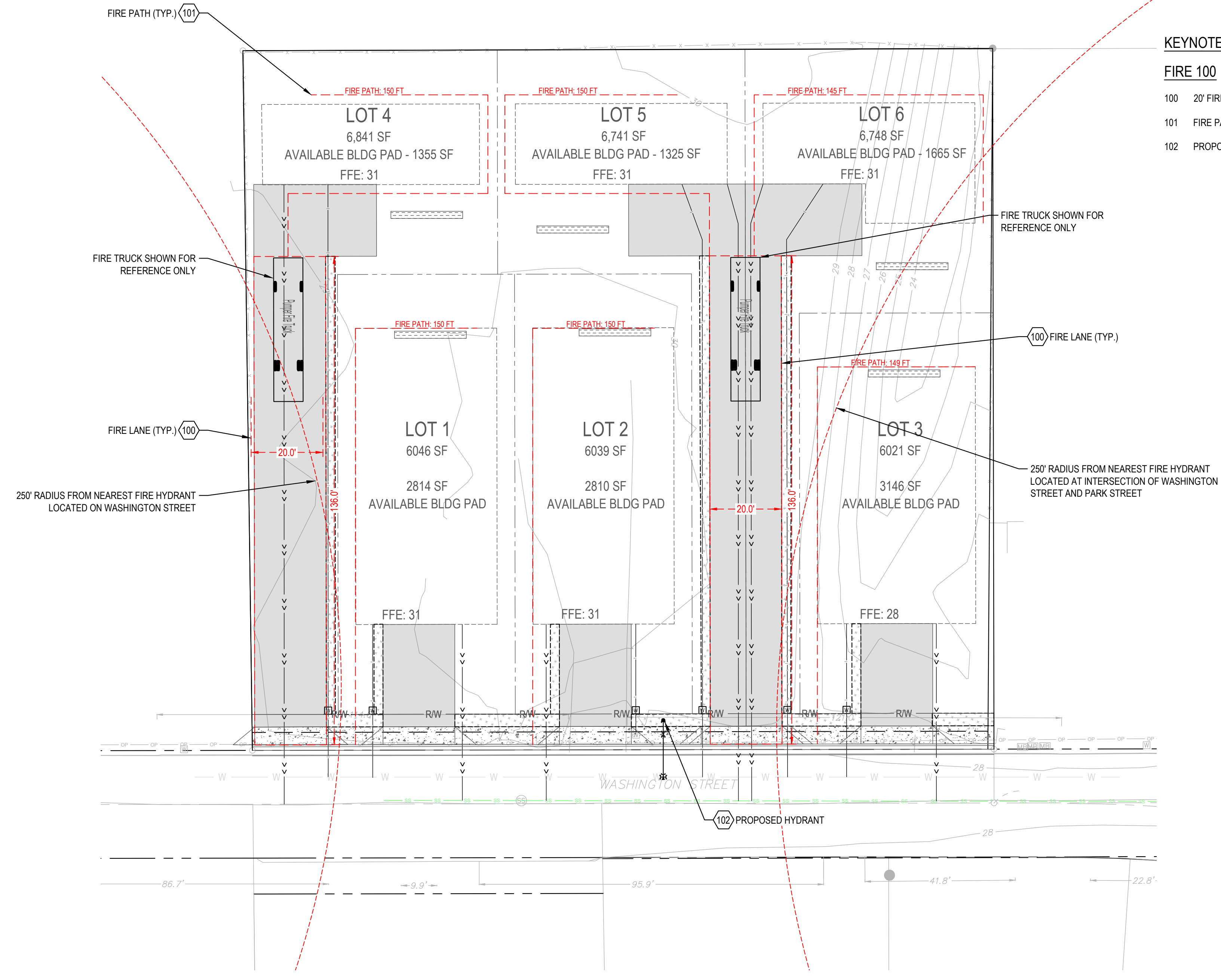
GENERAL UTILITY SHEET NOTES:

1. MARK CURB AND GUTTER WITH A "W" OR "S" TO SHOW LOCATION OF UTILITY SERVICE LINE CROSSINGS.
2. SEE DETAIL SHEETS FOR CONSTRUCTION DETAILS
3. SEE SHEET G002 AND G003, CIVIL NOTES, LEGENDS AND ABBREVIATIONS.

KEYNOTES:

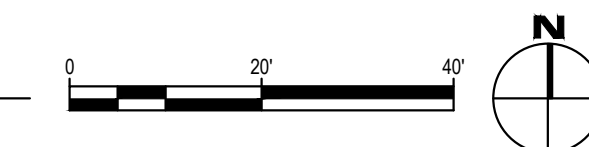
FIRE 100

- 100 20' FIRE LANE
- 101 FIRE PATH - 150' OR SHORTER
- 102 PROPOSED HYDRANT



FIRE RESPONSE PLAN

SCALE: 1" = 20'



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FIRE RESPONSE PLAN

Project Manager: DCK
Drawn by: CKJ/QK
Checked by: JTW

C107

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NOTES:

1. SEE SHEETS G002 AND G003, CIVIL NOTES, LEGENDS AND ABBREVIATIONS.
2. SEE SHEET C601, WOODLAND GENERAL EROSION NOTES DETAIL E-03
3. BMP C105 - CONSTRUCTION ENTRANCE PER CITY OF WOODLAND DETAIL E-05
 - 3.1. LENGTH MODIFIED FROM STANDARD DETAIL DUE TO SITE SIZE. LENGTH MODIFIED TO 50 FT.
 - 3.2. A WHEEL WASH PER CITY OF WOODLAND DETAIL E-06 OR STREET SWEEPING PER STANDARD SET BY THE CITY OF WOODLAND MAY BE REQUIRED IF TRACKING OCCURS DUE TO MODIFIED CONSTRUCTION ENTRANCE.
4. BMP C 233 - SILT FENCE PER CITY OF WOODLAND DETAIL E-20
5. BMP C120/121 - TEMPORARY/PERMANENT SEEDING AND MULCHING, FOLLOW WASHINGTON DEPARTMENT OF ECOLOGY STANDARDS
6. BMP C220 STORM DRAIN INLET PROTECTION PER CITY OF WOODLAND DETAIL E-16 & E-17

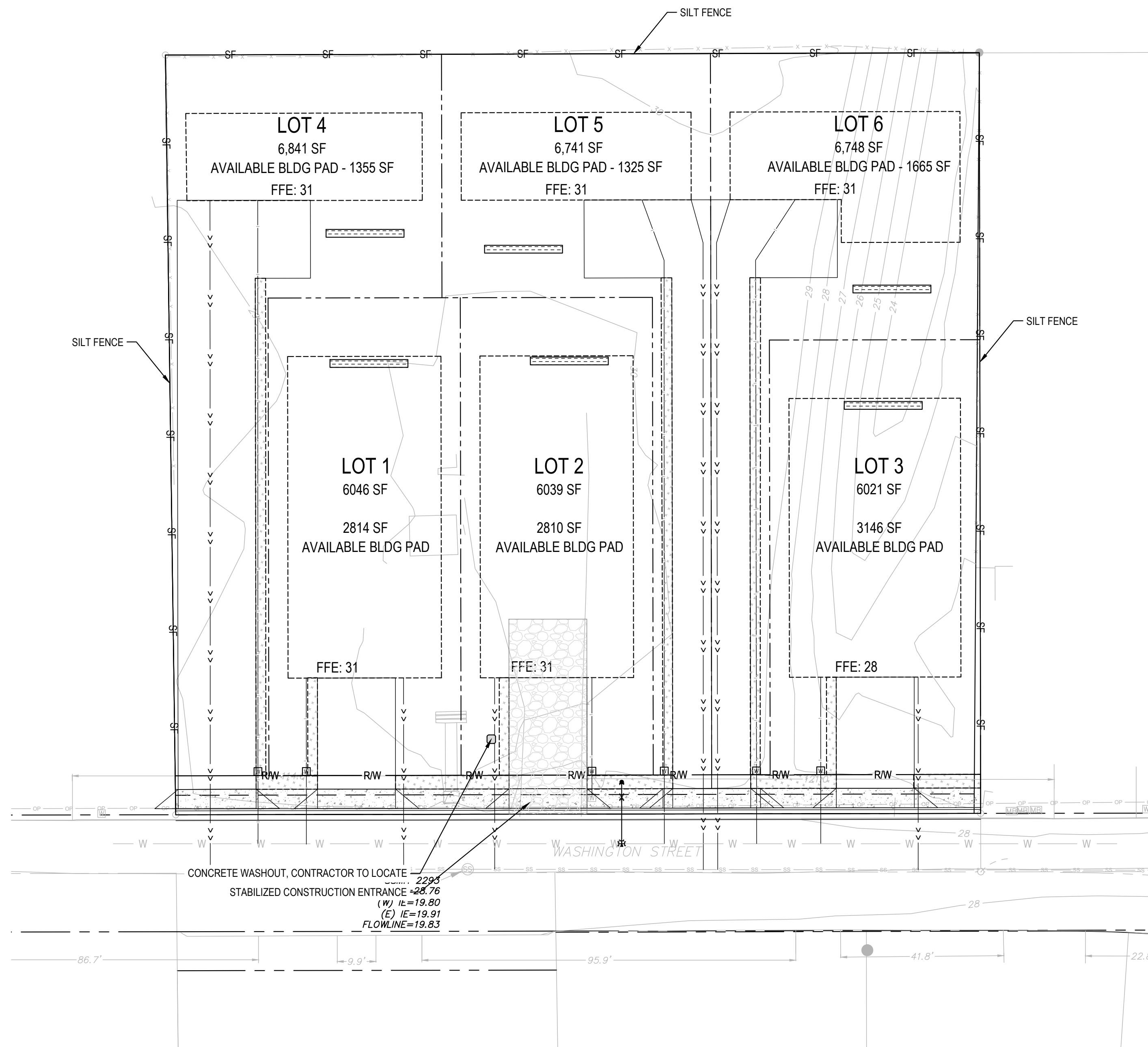
SITE STABILIZATION

THE PROJECT CESCL IS SOLELY RESPONSIBLE FOR SELECTION, INSTALLATION, AND MAINTENANCE OF THE CHOSEN BMPs.

SITE STABILIZATION TO OCCUR DURING AND AFTER CONSTRUCTION. TO PREVENT EROSION, EXPOSED AND UNWORKED SOILS SHALL NOT REMAIN UNWORKED AND EXPOSED FOR MORE THAN THE TIME PERIODS DESCRIBED IN THE TABLE BELOW. SOILS MUST BE STABILIZED AT THE END OF THE SHIFT BEFORE A HOLIDAY OR WEEKEND IF NEEDED BASED ON THE WEATHER FORECAST. THIS APPLIES TO ALL SOILS WITHIN THE SITE, REGARDLESS OF FINAL GRADE OR NOT. EXPOSED AND UNWORKED SOILS SHALL BE STABILIZED THROUGHOUT THE LIFE OF THE PROJECT BY APPLICATION OF BMP C120/C121 SEEDING AND MULCHING. A TOTAL LIST OF POSSIBLE BMPs FOR STABILIZATION INCLUDE THE FOLLOWING BUT OTHER BMPs NOT INCLUDED ON THIS LIST MAY BE CHOSEN BY THE PROJECT CESCL AS APPROPRIATE.

- BMP C120: TEMP. AND PERMANENT SEEDING
- BMP C121: MULCHING
- BMP C122: NETS AND BLANKETS
- BMP C123: PLASTIC COVERING
- BMP C125: TOPSOILING
- BMP C130: SURFACE ROUGHENING

AFTER CONSTRUCTION IS COMPLETE, THE ENTIRE SITE SHALL BE PERMANENTLY STABILIZED. PERMANENT STABILIZATION CAN BE COMPLETED BY ANY COMBINATION OF THE ABOVE OR OTHER APPROPRIATE METHODS AS CHOSEN BY THE PROJECT CESCL.



EROSION CONTROL PLAN

SCALE: 1" = 20'

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EROSION CONTROL PLAN

C110

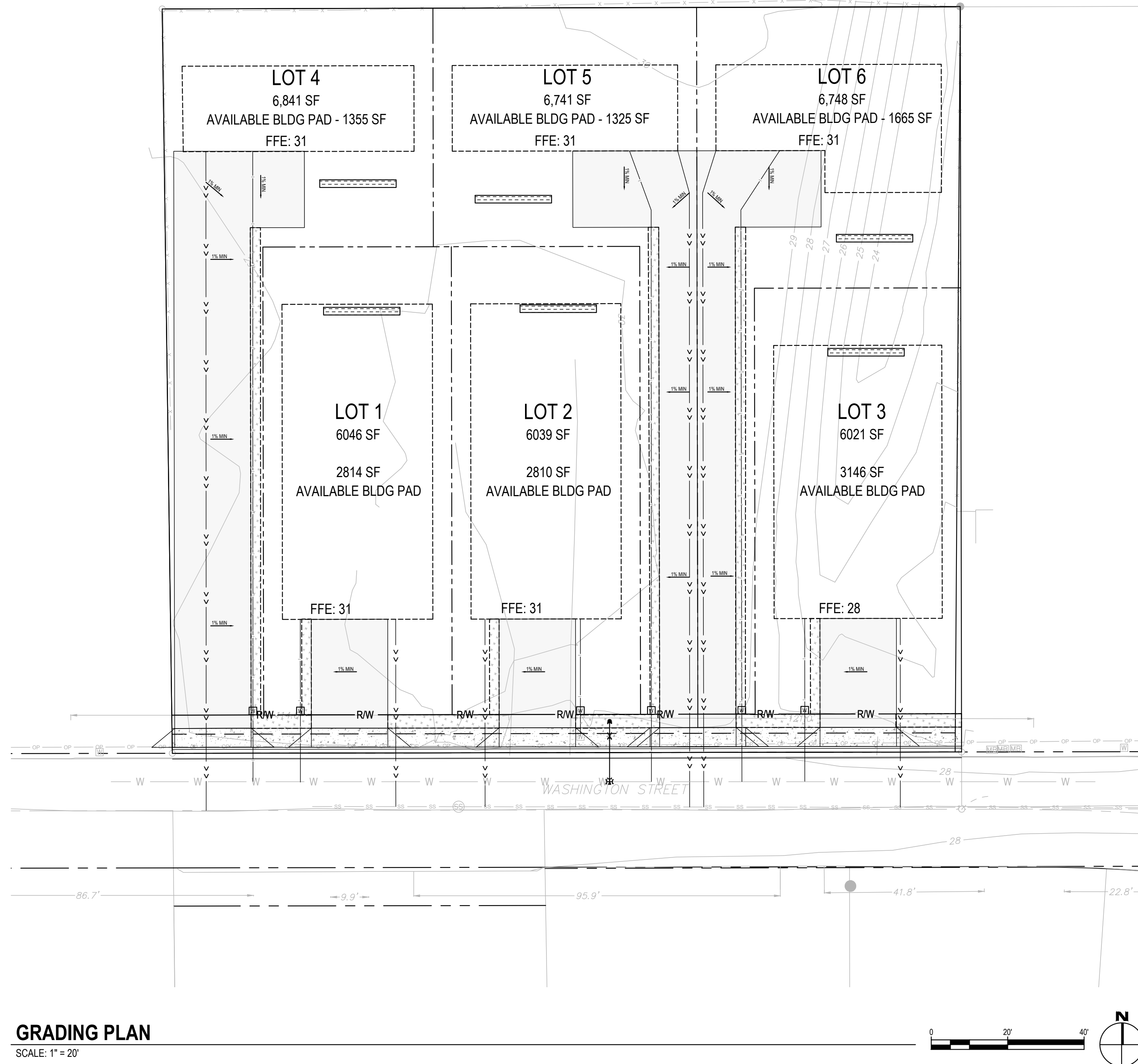
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GENERAL SHEET NOTES:

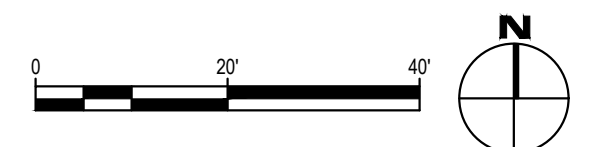
- A. CITY OF WOODLAND CODE - WMC
- B. "WASHINGTON STATE DEPARTMENT OF ECOLOGY STORMWATER MANAGEMENT MANUAL FOR WESTERN WASHINGTON" LATEST EDITION. AVAILABLE ON THE WASHINGTON DOE WEBSITE.
- C. ALL SOILS SHALL BE AMENDED TO MEET THE STANDARD SET BY BMP T5.13 POST CONSTRUCTION SOIL QUALITY AND DEPTH
- D. SHOULD ANY ITEM OF ARCHAEOLOGICAL INTEREST (VMC 20.710.090) BE FOUND DURING DEVELOPMENT, YOU ARE REQUIRED TO STOP WORK AND NOTIFY THE PLANNING CASE MANAGER IN DEVELOPMENT REVIEW SERVICES AT (360) 487-7800, AND THE WASHINGTON STATE OFFICE OF ARCHAEOLOGY AND HISTORIC PRESERVATION AT (360) 753-4011 IMMEDIATELY. FAILURE TO DO SO COULD RESULT IN A FELONY CONVICTION.
- E. ANY PUBLIC, OR PRIVATE, CURB, GUTTER, SIDEWALK, OR ASPHALT DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED TO CITY OF WOODLAND STANDARDS.
- F. IF ANY FILL IS PROPOSED WITHIN CURRENT, OR FUTURE, RIGHT-OF-WAY THE CONTRACTOR SHALL PLACE SUCH FILL IN ACCORDANCE WITH WMC.
- G. THE PROPOSED STORMWATER FACILITY MUST REMAIN OFFLINE UNTIL THE PROJECT IS COMPLETE AND VEGETATION THROUGHOUT THE SITE HAS BEEN ESTABLISHED. IF AT ANY TIME THE FACILITY BECOMES INUNDATED WITH SEDIMENT FILLED RUNOFF, THE TOP 2" OF MATERIAL MUST BE REMOVED AND REPLACED PRIOR TO PROJECT COMPLETION.
- H. LOTS BE GRADED AT TIME OF HOME CONSTRUCTION AND BE SUBJECT TO INDIVIDUAL PERMITTING.

GRADING NOTES

- 1. NO GRADING WITHIN 2' OF ADJACENT PARCELS PER IBC.
- 2. STRIP ORGANICS PER GEOTECH REPORT.
- 3. FINISH GRADE CONTOURS ARE TO TOP OF FINISHED SURFACE IN IMPERVIOUS AREAS AND TOP OF REPLACED STRIPPINGS IN PERVIOUS AREAS.
- 4. STRIPPINGS TO REMAIN ON SITE AND BE REDISTRIBUTED OVER LANDSCAPE AREAS AFTER ALL GRADING ACTIVITIES ARE COMPLETED. CONTRACTOR SHALL BE RESPONSIBLE FOR HAUL-OFF EXCESS MATERIAL.
- 5. CUT AND FILL QUANTITIES ARE BASED ON GENERAL SITE GRADING ESTABLISHED FROM THE STRIPPED GRADE TO THE FINISHED PROPOSED SUBGRADE AND TRENCH SPOILS. THESE VOLUMES DO NOT TAKE INTO ACCOUNT ANY UNKNOWN SOIL DEPOSITS OR OVER-EXCAVATION OF NON-ORGANIC MATERIALS THAT ARE DISCOVERED ON SITE. NOR WET WEATHER CONDITIONS. CONTRACTOR SHALL BE RESPONSIBLE TO PRODUCE INDEPENDENT GRADING VOLUMES AS WELL AS ACCOUNT FOR OBSERVATION OF MEASURES DIRECTED WITHIN THE GEOTECHNICAL REPORT OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER DURING THE COURSE OF CONSTRUCTION.
- 6. SITE SLOPES ARE 2% OR LESS
- 7. IMPORTED FILL AND COMPACTION PER GEOTECH REPORT
- 8. EXCAVATION NEAR FOUNDATION - EXCAVATION NEAR FOUNDATIONS. EXCAVATION FOR ANY PURPOSE SHALL NOT REDUCE LATERAL SUPPORT FROM ANY FOUNDATION OR ADJACENT FOUNDATION WITHOUT FIRST UNDERPINNING OR PROTECTING THE FOUNDATION AGAINST DETRIMENTAL LATERAL OR VERTICAL MOVEMENT, OR BOTH.
- 9. SITE GRADING - THE GROUND IMMEDIATELY ADJACENT TO THE FOUNDATION SHALL BE SLOPED AWAY FROM THE BUILDING AT A SLOPE OF NOT LESS THAN ONE UNIT VERTICAL IN 20 UNITS HORIZONTAL (5-PERCENT SLOPE) FOR A MINIMUM OF 10 FEET MEASURED PERPENDICULAR TO THE FACE OF THE WALL. IF PHYSICAL OBSTRUCTIONS OR LOT LINES PROHIBIT 10 FEET OF HORIZONTAL DISTANCE, A 5-PERCENT SLOPE SHALL BE PROVIDED TO AN APPROVED ALTERNATIVE METHOD OF DIVERTING WATER AWAY FROM THE FOUNDATION. SWALES USED FOR THIS PURPOSE SHALL BE SLOPED A MINIMUM OF 2 PERCENT WHERE LOCATED WITHIN 10 FEET OF THE BUILDING FOUNDATION. IMPERVIOUS SURFACES WITHIN 10 FEET OF THE BUILDING FOUNDATION SHALL BE SLOPED A MINIMUM OF 2 PERCENT AWAY FROM THE BUILDING.
- 10. EXCEPTION: WHERE CLIMATIC OR SOILS CONDITIONS WARRANT, THE SLOPE OF THE GROUND AWAY FROM THE BUILDING SHALL BE PERMITTED TO BE REDUCED TO NOT LESS THAN ONE VERTICAL IN 48 UNITS HORIZONTAL (2-PERCENT SLOPE).
- 11. THE PROCEDURE USED TO ESTABLISH THE FINAL GROUND LEVEL ADJACENT TO THE FOUNDATION SHALL ACCOUNT FOR ADDITIONAL SETTLEMENT OF THE BACKFILL



GRADING PLAN
SCALE: 1" = 20'



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GRADING PLAN

C130

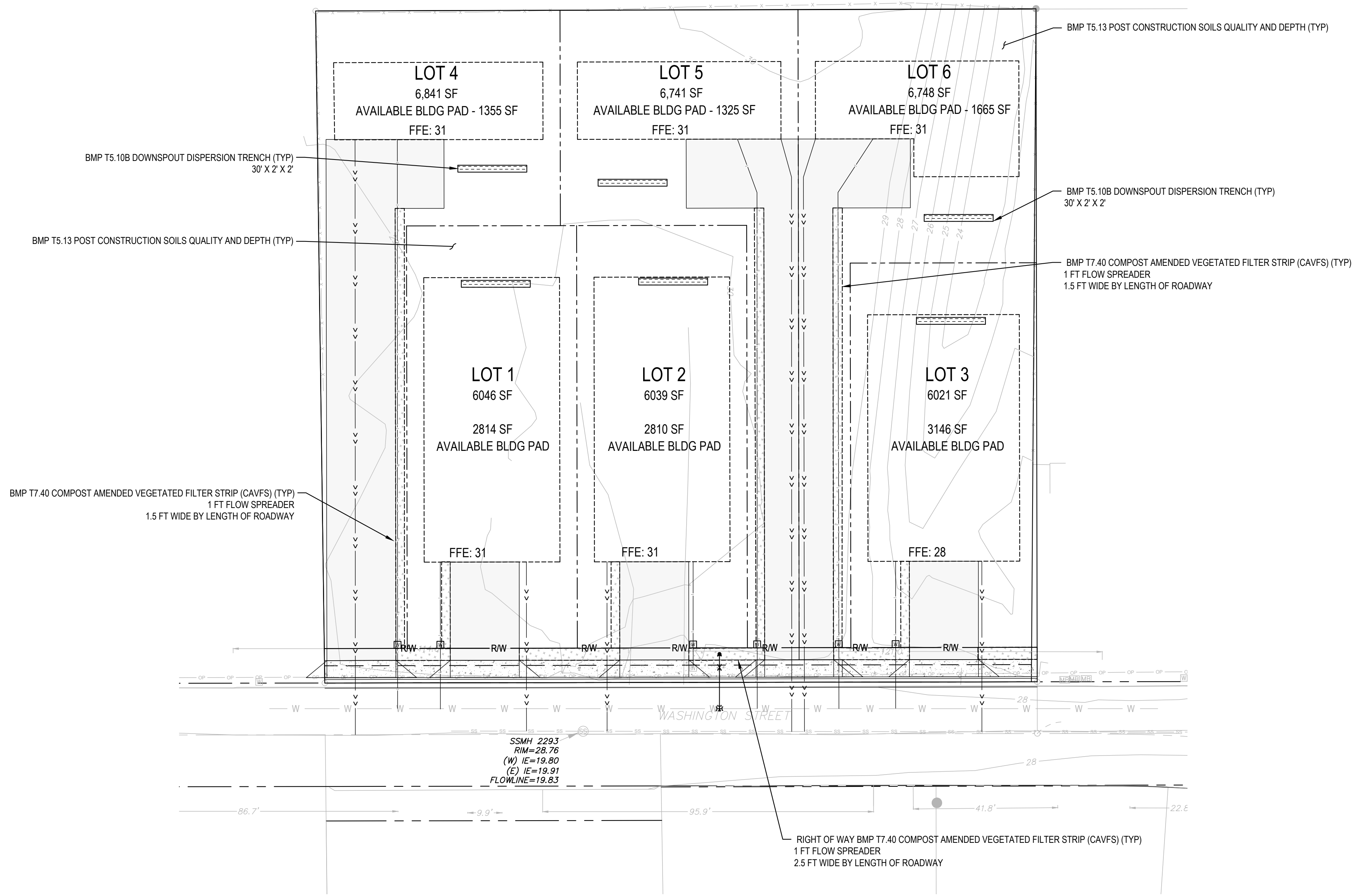
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811
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STORMWATER KEYNOTES:

- A. STORMWATER FACILITIES THAT ARE PRIVATELY OWNED AND SHALL BE MAINTAINED BY THE LANDOWNER
- B. ALL INFILTRATION SHALL BE AT LEAST 10 FEET FROM ANY STRUCTURE, PROPERTY LINE, OR SENSITIVE AREA (EXCEPT SLOPES OVER 40%)



STORMWATER PLAN
SCALE: 1" = 20'

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STORMWATER PLAN

C390

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GENERAL EROSION PREVENTION & SEDIMENT CONTROL NOTES

1. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN PLACE AND IN WORKING CONDITION PRIOR TO ANY LAND DISTURBING ACTIVITY CAUSED BY CLEARING OR GRADING. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE APPROVED BY THE CITY ENGINEER, SPECIALIST PRIOR TO THE COMMENCEMENT OF WORK. THE CONTRACTOR SHALL CALL FOR AN ON-SITE INSPECTOR WHEN EROSION AND SEDIMENT CONTROL MEASURES ARE IN PLACE AND PRIOR TO COMMENCEMENT OF WORK.
2. THE EROSION AND SEDIMENT CONTROL MEASURES SHALL BE SITED, DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS IN THE CITY OF WOODLAND GENERAL ORDINANCES AND THE WASHINGTON STATE DEPARTMENT OF ECOLOGY EROSION CONTROL MANUAL FOR NEVERN REVISIONS, WHICH THE CONTRACTOR SHALL NOT ALLOW SEDIMENT OR SOILS TO ENTER NEW OR EXISTING PIPES, CATCH BASINS OR WELLDOWN SYSTEMS.
3. THE DEVELOPER IS RESPONSIBLE FOR MAINTAINING EROSION PREVENTION AND SEDIMENT CONTROL MEASURES DURING AND AFTER INSTALLATION OF ALL UTILITY WORK ASSOCIATED WITH UTILITY TRENCHES.
4. PRIOR TO ANY SITE EXCAVATION, ALL STORM DRAINAGE INLETS SHALL BE PROTECTED DOWN SLOPE FROM ANY DISTURBED OR CONSTRUCTION AREAS PER THE STANDARD DETAILS TO PREVENT SEDIMENT FROM ENTERING THE STORM DRAINAGE SYSTEM PRIOR TO PERMANENT STABILIZATION OF THE DISTURBED AREAS. CLEAN THE FILTER FABRIC AS NECESSARY TO MAINTAIN DRAINAGE. REMOVE FILTER AND CLEAN CATCH BASINS FOLLOWING COMPLETION OF SITEWORK.
5. THE CONTRACTOR SHALL NOT ALLOW SEDIMENT OR SOILS TO ENTER NEW OR EXISTING PIPES, CATCH BASINS OR WELLDOWN SYSTEMS.
6. NEWLY CONSTRUCTED OR MODIFIED INLETS AND CATCH BASINS ARE TO BE PROTECTED IMMEDIATELY UPON INSTALLATION.
7. TEMPORARY SEEDING AND MULCHING OF FULL SLOPES AND DIVERSION DIKES SHALL BE COMPLETED WITHIN ONE WEEK AFTER ROAD GRADING.
8. ALL EXPOSED AND UNWORKED SOILS SHALL BE STABILIZED BY THE APPROPRIATE BEST MANAGEMENT PRACTICES (BMPs). DURING THE PERIOD FROM OCTOBER 1 TO APRIL 30 NO SOIL SHALL BE EXPOSED FOR MORE THAN TWO (2) DAYS. FROM MAY 1 TO SEPTEMBER 30 NO SOIL SHALL BE EXPOSED FOR MORE THAN SEVEN (7) DAYS.
9. MATERIAL STOCKPILES ARE TO BE PROTECTED BY THE FOLLOWING MEANS:
TEMPORARY: COVER PILES WITH TAPPS OR PLASTIC OR PILED WITH CONCRETE BLOCKS, LIMBER OR TREES.
PERMANENT: COVER PILES WITH TAPPS OR PLASTIC OR PILED WITH CONCRETE BLOCKS AROUND PILES ARE TO BE SURROUNDED WITH EROSION CONTROL. FILTER FABRIC FENCES UNTIL SOIL SURFACE IS STABILIZED WITH VEGETATION.
10. THE CONTRACTOR SHALL MAINTAIN ON SITE A WRITTEN ONLY LOG OF EROSION CONTROL, BMP MAINTENANCE.
11. IF THE CITY INSPECTOR OR ENGINEER(S) HAS EVIDENCE OF POOR CONSTRUCTION PRACTICES OR IMPROPER EROSION PREVENTION BMPs, CITATIONS AND/OR A STOP WORK ORDER SHALL BE ISSUED UNTIL PROPER MEASURES HAVE BEEN TAKEN AND APPROVED BY THE CITY OF WOODLAND. IF THE BMP APPLIED TO A SITE ARE INSUFFICIENT TO PREVENT SEDIMENT FROM REACHING WATER BODIES, ADJACENT PROPERTIES, OR PUBLIC RIGHTS-OF-WAY, THEN THE PUBLIC WORKS DIRECTOR SHALL REQUIRE ADDITIONAL BMPs.
12. PROTECTION OF ADJACENT PROPERTIES, ROADS AND STREETS
PROVIDE A 12-INCH DEEP PAD OF CRUSHED ROCK FOR A DISTANCE OF 150 FEET INTO THE SITE FOR ALL ACCESS POINTS UTILIZED BY CONSTRUCTION EQUIPMENT AND TRUCKS. WORK ON THE PAD SHALL BE A MINIMUM OF 20 FEET. ALL TRUCKS LEAVING THE SITE SHALL SPREAD CRUSHED ROCK ACROSS THE PAD. ACCUMULATED SOIL SHALL BE PERIODICALLY REMOVED, OR ADDITIONAL ROCK SHALL BE PLACED UPON THE PAD SURFACE. ROCK SHALL BE CLEAN 4 INCH TO 8 INCH QUARRY SPALLS. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM TRUCKS ONTO ROADS OR INTO STORM DRAINAGE MUST BE REMOVED IMMEDIATELY.
13. PREVENT SWEEPING AND SHOULDERING IS REQUIRED. WASHING THE PAVEMENT INTO THE STORM SYSTEM IS NOT PERMITTED.
14. IF SITES WITH SLOPES THAT ARE 4% OR GREATER OF EXPOSED SOIL, AND LENGTH MAY BE REQUIRED TO 80 FEET. SINGLE FAMILY LOT ENTRANCES MAY HAVE THE PAVEMENT LENGTH REDUCED TO 30 FEET. IF CONSTRUCTION OCCURS SIMULTANEOUSLY ON ADJACENT LOTS WITH THE SAME OWNER DURING CONSTRUCTION, ONE LOT ENTRANCE MAY BE USED FOR THE ADJACENT LOTS.
15. INSTALL SEDIMENT FENCE IN ACCORDANCE WITH THIS DETAIL SHEET PRIOR TO BUILDING CONSTRUCTION AND/OR EXCAVATION TO PREVENT SILT INTRUSION UPON ADJACENT LOTS. IF CONSTRUCTION OCCURS SIMULTANEOUSLY ON ADJACENT LOTS AND THE LOTS HAVE THE SAME OWNER DURING CONSTRUCTION, THE SILT FENCE ALONG THE COMMON LOT LINE MAY BE ELIMINATED.
16. CONSTRUCTION ROADS AND PARKING AREAS SHALL BE STABILIZED WHEREVER THEY ARE CONSTRUCTED, WHETHER PERMANENT OR TEMPORARY, FOR THE USE OF CONSTRUCTION TRAFFIC.
MAINTENANCE OF SEDIMENT CONTROL BARRIERS
17. MAINTAIN AND REMOVE ALL SEDIMENT CONTROLS AS SPECIFIED IN THE STANDARD DETAILS. THE CONTRACTOR SHALL REMOVE ALL ACCUMULATED SEDIMENT FROM THE CATCH BASINS, DRYWELLS, UTILITY TRENCHES AND STORM PIPES PRIOR TO ACCEPTANCE BY THE CITY.
18. SEDIMENT CONTROL BARRIERS SHALL BE INSPECTED WEEKLY AND AFTER ANY STORM EVENT. PROHIBITED: THE INSPECTION FREQUENCY FOR STABILIZED, BAKING SITES SHALL BE ONCE EVERY TWO WEEKS OR MORE FREQUENTLY AS DETERMINED BY THE LOCAL PERMITTING AUTHORITY BASED ON THE LEVEL OF SOIL STABILITY AND POTENTIAL FOR ADVERSE ENVIRONMENTAL IMPACTS.
19. ALL TEMPORARY EROSION PREVENTION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER SITE STABILIZATION IS ACHIEVED OR AFTER TEMPORARY BARRIERS ARE NO LONGER NEEDED. TRAPPED SEDIMENT SHALL BE REMOVED OR STABILIZED ON SITE. DISTURBED SOIL AREAS RESULTING FROM REMOVAL SHALL BE PERMANENTLY STABILIZED.
20. DUST CONTROL
A. AREAS SUBJECT TO SURFACE AND AIR MOVEMENT OF DUST ONE OR MORE OF THE FOLLOWING PREVENTATIVE MEASURES SHALL BE TAKEN FOR DUST CONTROL:
1. MINIMIZE THE PERIOD OF SOIL EXPOSURE THROUGH THE USE OF TEMPORARY GROUND COVER AND OTHER TEMPORARY STABILIZATION PRACTICES.
2. SPRINKLE THE SITE WITH WATER UNTIL THE SURFACE IS WET.
3. SPRAY EXPOSED SOIL AREAS WITH A DUST SUPPRESSANT. NOTE: USE OF PETROLEUM PRODUCTS OR POTENTIALLY HAZARDOUS MATERIALS ARE PROHIBITED.
TEMPORARY SEEDING
21. EXPOSED SURFACES THAT WILL NOT BE BROUGHT TO FINAL GRADE OR GIVEN A PERMANENT COVER TREATMENT WITHIN 30 DAYS OF THE EXPOSURE SHALL HAVE SEED MIX AND MULCH APPLIED TO PROTECT THE SOIL. MULCH SHALL BE APPLIED TO PROTECT THE SOIL. SEED MIX SHALL BE CHECKED REGULARLY TO ASSURE AS SOON AS SUCH AREAS ARE ESTABLISHED.
22. APPLY AN APPROVED TEMPORARY SEEDING MIXTURE TO THE PREPARED SEED BED AT A RATE OF 100 LBS/ACRE. NOTE: "HYDRASEEDING" APPLICATIONS WITH APPROVED SEED-MULCH-FERTILIZER MIXTURES MAY ALSO BE USED.

EROSION PREVENTION AND SEDIMENT CONTROL

APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	E-03
PUBLIC WORKS DIRECTOR	DATE				

STABILIZED CONSTRUCTION ENTRANCE

EXISTING ROAD
R - 25' MIN
INSTALL DRIVEWAY
CULVERT IF THERE IS A ROADSIDE DITCH PRESENT
4" - 8" QUARRY SPALLS
GEOTEXTILE
12" MIN THICKNESS
PROVIDE FULL WIDTH OF INGRESS/EGRESS AREA

DRIVEWAYS SHALL BE PAVED TO THE EDGE OF R-O-W PRIOR TO INSTALLATION OF THE CONSTRUCTION ENTRANCE TO AVOID DAMAGING THE ROADWAY

IT IS RECOMMENDED THAT THE ENTRANCE BE CROWNED SO THAT RUNOFF DRAINS OFF THE PAD

AS REQUIRED PER DETAIL E-03

NOTES:

1. IF THE ENTRANCE SITS ON A SLOPE, PLACE A FILTER FABRIC FENCE DOWN GRADIENT.
2. TOP DRESS THE PAD WITH CLEAN 3" MINUS ROCK WHEN THE CONSTRUCTION ENTRANCE BECOMES CLOGGED WITH SEDIMENTS.
3. ANY SEDIMENT CARRIED FROM THE SITE ONTO THE STREET SHALL BE CLEANED UP IMMEDIATELY.
4. IF EQUIPMENT TRAVELS EXTENSIVELY ON UNSTABILIZED ROADS ON THE SITE, A TIRE AND VEHICLE UNDERCARRIAGE WASH NEAR THE ENTRANCE WILL BE NEEDED. PERFORM WASHING ON CRUSHED ROCK. WASH WATER WILL REQUIRE TREATMENT IN A SEDIMENT POND OR TRAP.

MAINTENANCE STANDARDS:

1. SILT FENCES AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
2. IF CONCENTRATED FLOWS ARE EVIDENT UPHILL OF THE FENCE, THEY MUST BE INTERCEPTED AND CONVEYED TO A SEDIMENT POND.
3. IT IS IMPORTANT TO CHECK THE UPHILL SIDE OF THE FENCE FOR SIGNS OF THE FENCE CLOGGING AND ACTING AS A BARRIER TO FLOW AND THEN CAUSING CHANNELIZATION OF FLOWS PARALLEL TO THE FENCE. IF THIS OCCURS, REPLACE THE FENCE OR REMOVE THE TRAPPED SEDIMENT.
4. SEDIMENT DEPOSITS SHALL EITHER BE REMOVED WHEN THE DEPOSIT REACHES APPROXIMATELY ONE-THIRD THE HEIGHT OF THE SILT FENCE, OR A SECOND SILT FENCE SHALL BE INSTALLED.
5. IF THE FILTER FABRIC (GEOTEXTILE) HAS DETEIORATED DUE TO ULTRAVIOLET BREAKDOWN, IT SHALL BE REPLACED.

EROSION PREVENTION AND SEDIMENT CONTROL

APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	E-05
PUBLIC WORKS DIRECTOR	DATE				

SILT FENCE

JOINTS IN FILTER FABRIC SHALL BE SPICED AT POSTS. USE STAPLES, WIRE RINGS SHOWN IN POCKETS, OR EQUIVALENT TO ATTACH FABRIC TO POSTS

2" x 2" BY 14 GAUGE WIRE OR EQUIVALENT, IF STANDARD STRENGTH FABRIC IS USED

2" MIN 3" MAX

2" SCHEDULE 40

1-1/2" SCHEDULE 40 FOR SPRAYERS

2% SLOPE

5:1 SLOPE

1:1 SLOPE

5:1 SLOPE

2% SLOPE

WASH WHEEL PLAN

15' 15' 20' 15' 50'

ELEVATION VIEW

SECTION A-A

WATER LEVEL

1:1 SLOPE

5' 12' 3'

NOTES:

1. FILTER FABRIC FENCES SHALL BE INSTALLED ALONG CONTOUR WHENEVER POSSIBLE.
2. POST SPACING MAY BE INCREASED TO 8' IF WIRE BACKING IS USED.

MAINTENANCE STANDARDS:

1. SILT FENCES AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
2. IF CONCENTRATED FLOWS ARE EVIDENT UPHILL OF THE FENCE, THEY MUST BE INTERCEPTED AND CONVEYED TO A SEDIMENT POND.
3. IT IS IMPORTANT TO CHECK THE UPHILL SIDE OF THE FENCE FOR SIGNS OF THE FENCE CLOGGING AND ACTING AS A BARRIER TO FLOW AND THEN CAUSING CHANNELIZATION OF FLOWS PARALLEL TO THE FENCE. IF THIS OCCURS, REPLACE THE FENCE OR REMOVE THE TRAPPED SEDIMENT.
4. SEDIMENT DEPOSITS SHALL EITHER BE REMOVED WHEN THE DEPOSIT REACHES APPROXIMATELY ONE-THIRD THE HEIGHT OF THE SILT FENCE, OR A SECOND SILT FENCE SHALL BE INSTALLED.
5. IF THE FILTER FABRIC (GEOTEXTILE) HAS DETEIORATED DUE TO ULTRAVIOLET BREAKDOWN, IT SHALL BE REPLACED.

EROSION PREVENTION AND SEDIMENT CONTROL

APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	E-20
PUBLIC WORKS DIRECTOR	DATE				

WHEEL WASH

2" SCHEDULE 40

1-1/2" SCHEDULE 40 FOR SPRAYERS

2% SLOPE

5:1 SLOPE

1:1 SLOPE

5:1 SLOPE

2% SLOPE

WASH WHEEL PLAN

15' 15' 20' 15' 50'

ELEVATION VIEW

SECTION A-A

WATER LEVEL

1:1 SLOPE

5' 12' 3'

NOTES:

1. ASPHALT CONSTRUCTION ENTRANCE 6" ASPHALT TREATED BASE (ATB).
2. 3" TRASH PUMP WITH FLOATS ON THE SUCTION HOSE.
3. MIDPOINT SPRAY NOZZLES, IF NEEDED.
4. 6" SEWER PIPE WITH BUTTERFLY VALVES, BOTTOM ONE IS A DRAIN. LOCATE TOP PIPE'S INVERT 1' ABOVE BOTTOM OF WHEEL WASH.
5. 8' X 8' SUMP WITH 5' OF CATCH, BUILD SO CAN BE CLEANED WITH TRACKHOE.
6. 6" ASPHALT CURB ON THE LOW ROAD SIDE TO DIRECT WATER BACK TO POND.
7. 6" SLEEVE UNDER ROAD.
8. BALL VALVES.
9. 15' ATB APRON TO PROTECT GROUND FROM SPLASHING WATER.

EROSION PREVENTION AND SEDIMENT CONTROL

APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	E-06
PUBLIC WORKS DIRECTOR	DATE				

INLET PROTECTION (1 OF 2)

BIO-FILTER BAGS OR STRAW WATTLES MAY BE USED SHORT TERM WITH UTILITY WORK AND WITH PHASING OF DEVELOPMENT

CATCH BASIN

AREA DRAIN

6" BAG OVERLAP

DITCH INLET

DITCH BOTTOM

NOTES:

1. ADDITIONAL MEASURES MUST BE CONSIDERED DEPENDING ON SOIL TYPE.
2. BIO-FILTER BAGS SHOULD BE STAKED WHERE APPLICABLE USING (2) 1" x 2" WOODEN STAKES OR APPROVED EQUAL PER BAG.
3. STRAW WATTLES MUST BE STABILIZED BY ATTACHING WIRE CLIPS TO THE CATCH BASIN PER MANUFACTURER SPECIFICATIONS.
4. INLET PROTECTION MUST BE REGULARLY INSPECTED BY THE EROSION CONTROL INDIVIDUAL TO INSURE PROPER PLACEMENT/FUNCTION AND MAINTENANCE.

EROSION PREVENTION AND SEDIMENT CONTROL

APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	E-16
PUBLIC WORKS DIRECTOR	DATE				

INLET PROTECTION (2 OF 2)

BACK OF CURB

CURB INLET

36" WIDE FILTER MAT

PLAN VIEW

FILTER FABRIC

CURB INLET

NOTES:

1. USE FILTER MAT SEDIMENT BARRIER WHEN CURB INLET IS LOCATED IN GENTLY SLOPING STREET, WITH MINIMAL NEED, WHERE WATER CAN FILTER AND ALLOW SEDIMENT TO SEPARATE FROM RUNOFF.
2. BARRIER SHALL ALLOW FOR OVERFLOW FROM SEVERE STORM EVENT.
3. INSPECT BARRIERS AND REMOVE SEDIMENT AFTER EACH STORM EVENT. SEDIMENT MUST BE REMOVED FROM THE TRAVELED WAY IMMEDIATELY.

EROSION PREVENTION AND SEDIMENT CONTROL

APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	E-17
PUBLIC WORKS DIRECTOR	DATE				

Concrete Washout Sign Detail (or equivalent)

Straw bale

Staples (2 per bale)

Wood or metal stakes (2 per bale)

10 mil plastic lining

Binding wire

Native material (optional)

Plywood

1200 mm x 610 mm painted white

Wood post (89 mm x 89 mm x 2.4 m)

Lag screws (12.5 mm)

CONCRETE WASHOUT SIGN

Black letters 150 mm height

915 mm

915 mm

50 mm

200 mm

3.05 mm dia. steel wire

Staple Detail

Notes:

1. Actual layout determined in the field.
2. The concrete washout sign shall be installed within 10 m of the temporary concrete washout facility.

Figure II-4.1.7b Concrete Washout Area

Revised June 2015

DEPARTMENT OF ECOLOGY
State of Washington

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VERIFY ALL UTILITIES PRIOR TO CONSTRUCTION.

Revisions:

1				
2				
3				
4				
5				

LINE IS 1" ON FULL SCALE DRAWING

WINDSOR ENGINEERS

Ridgefield, WA
Duluth + Minneapolis, MN
www.windsorengineers.com

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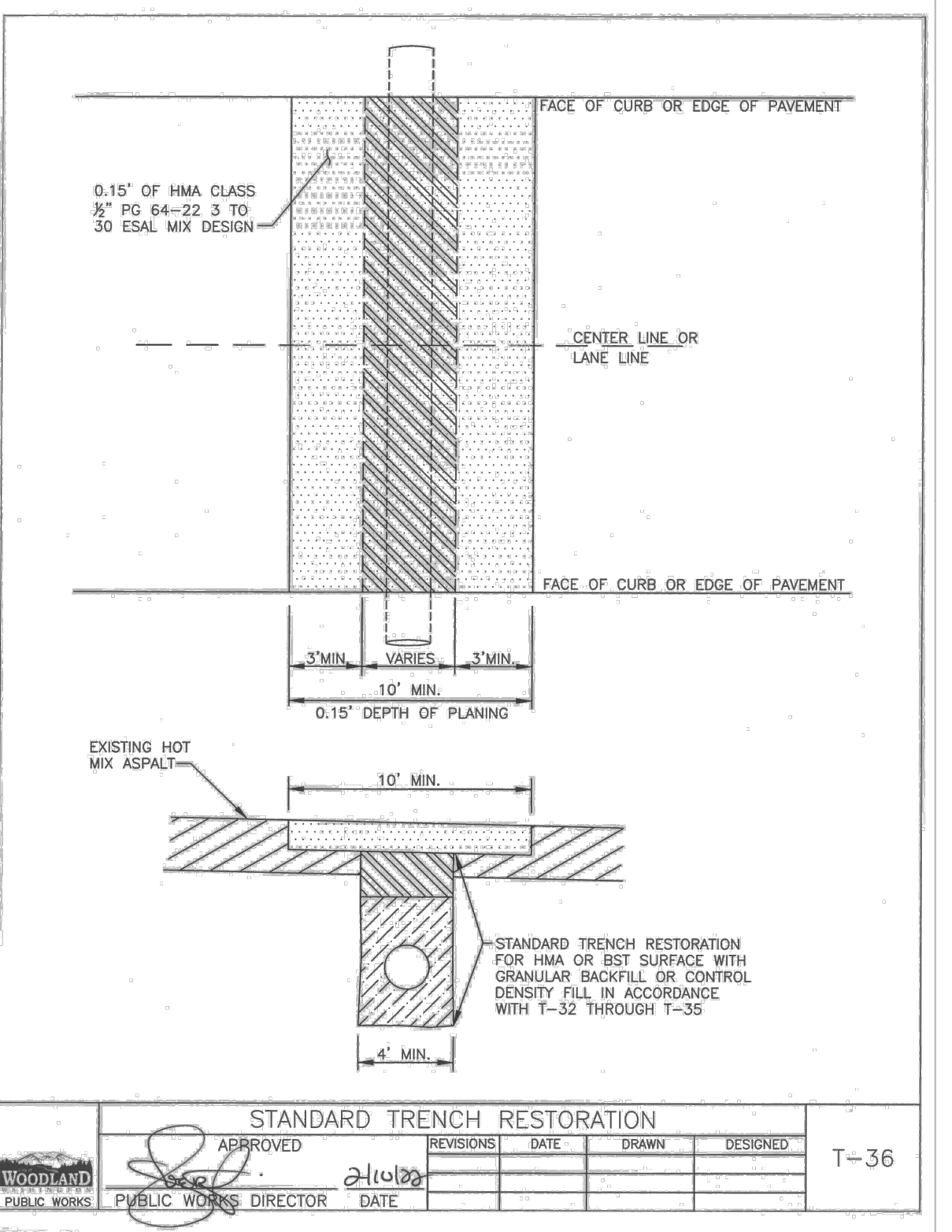
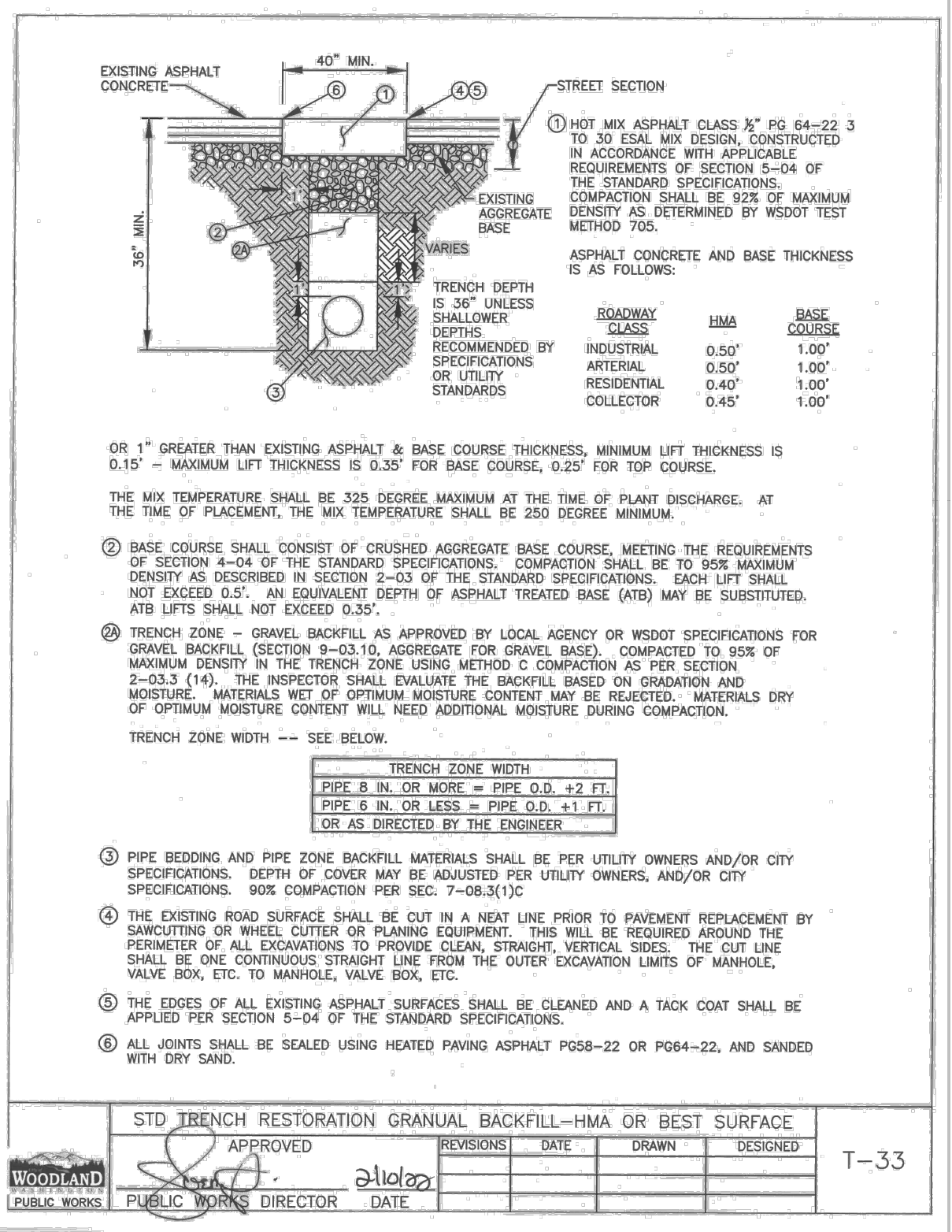
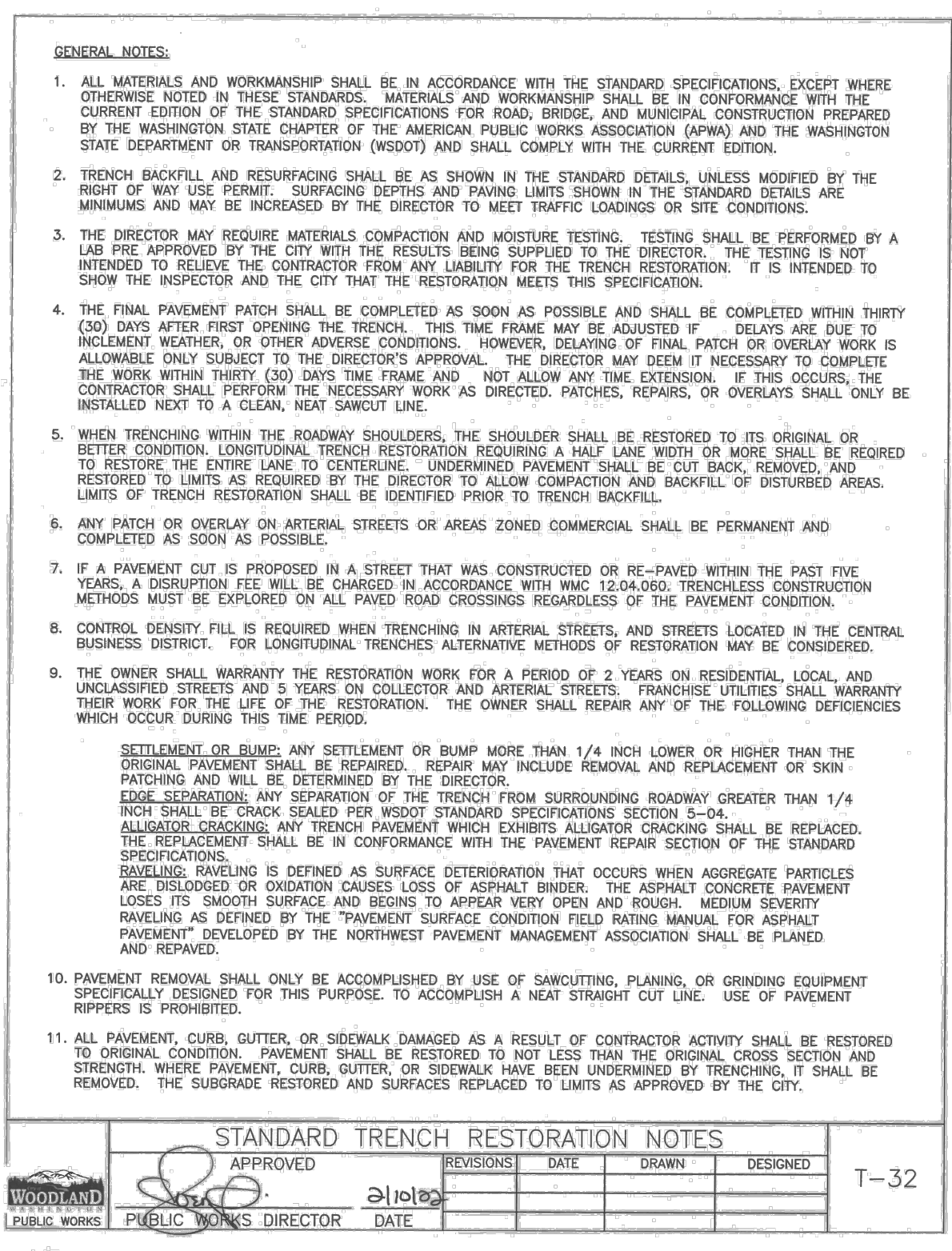
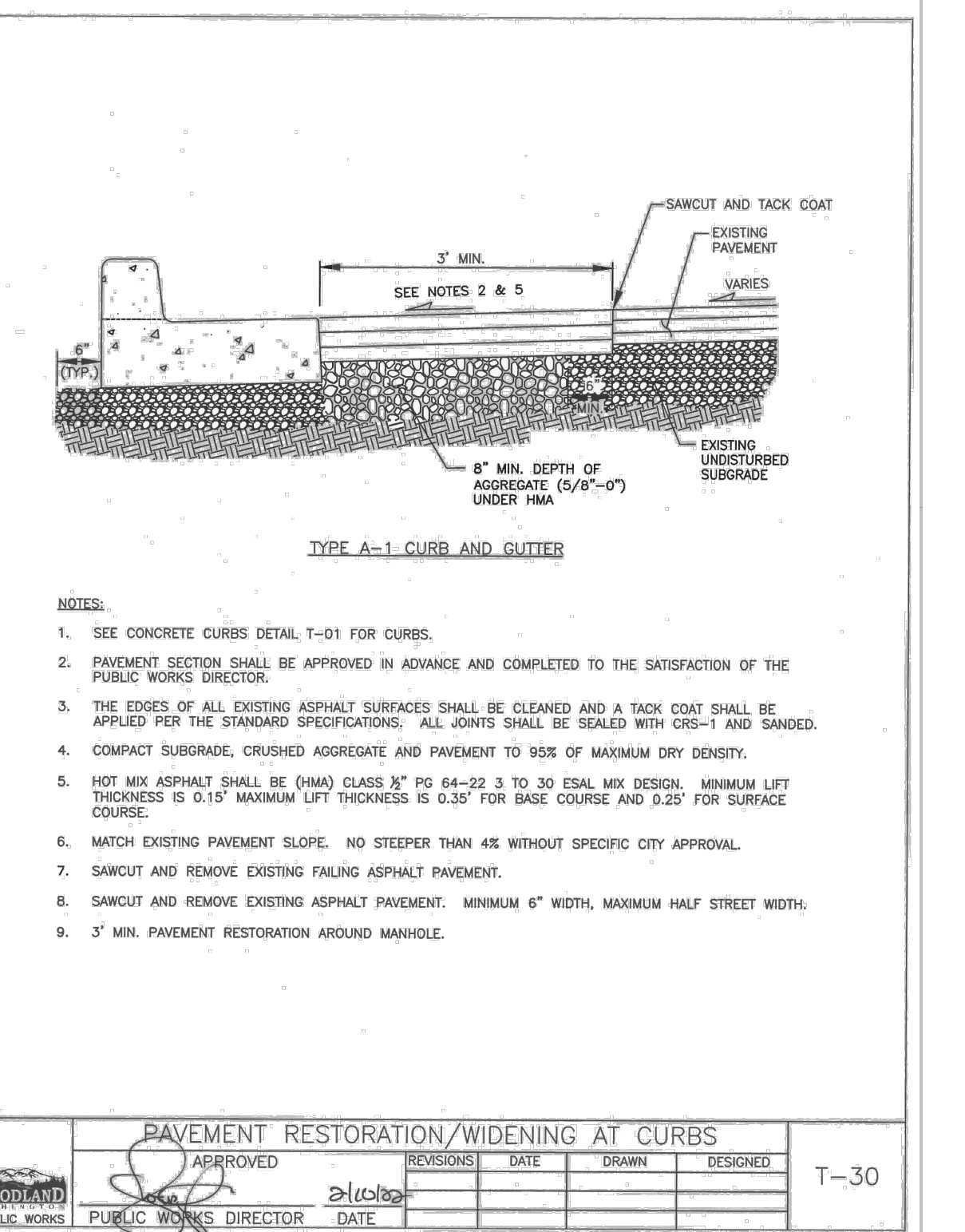
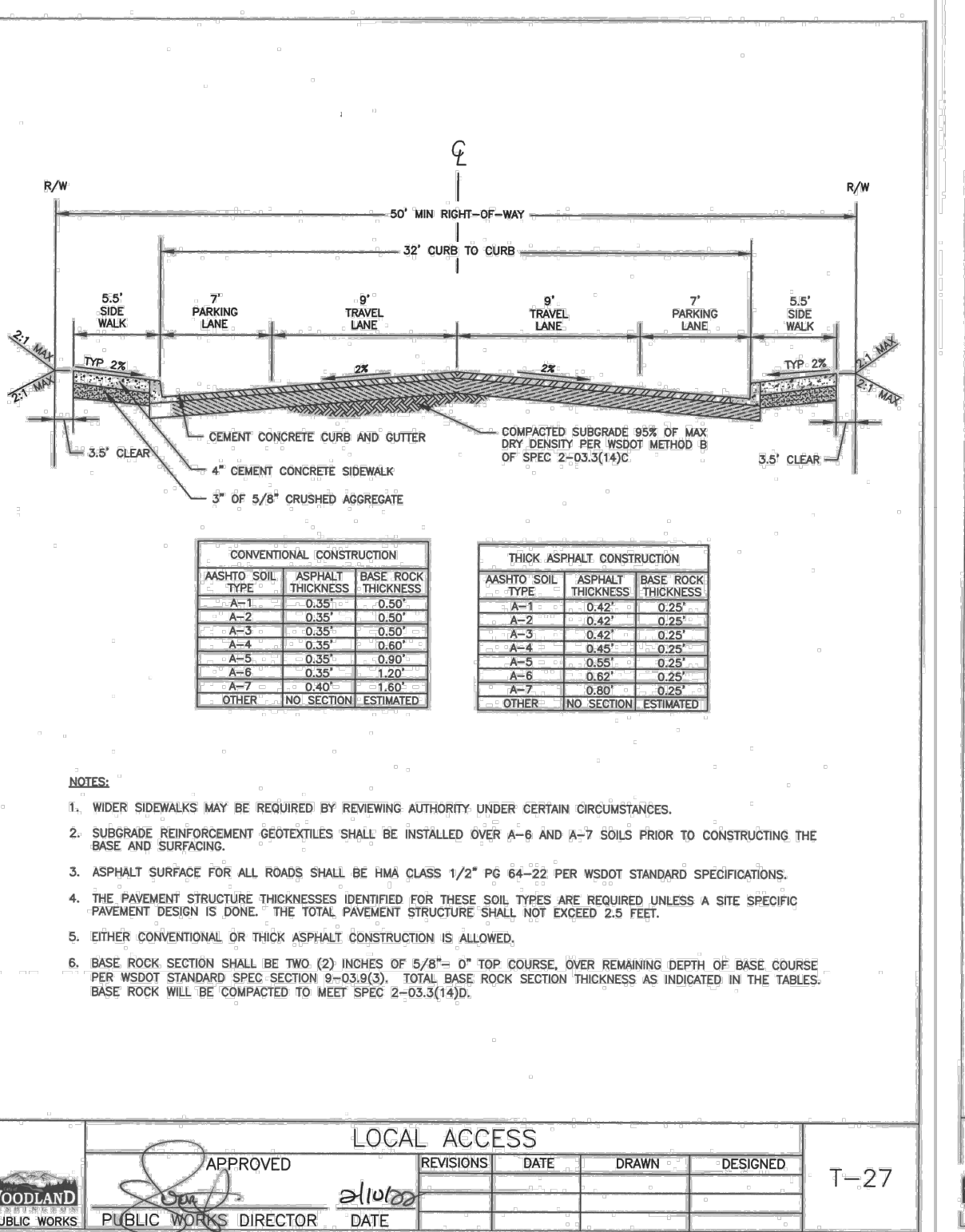
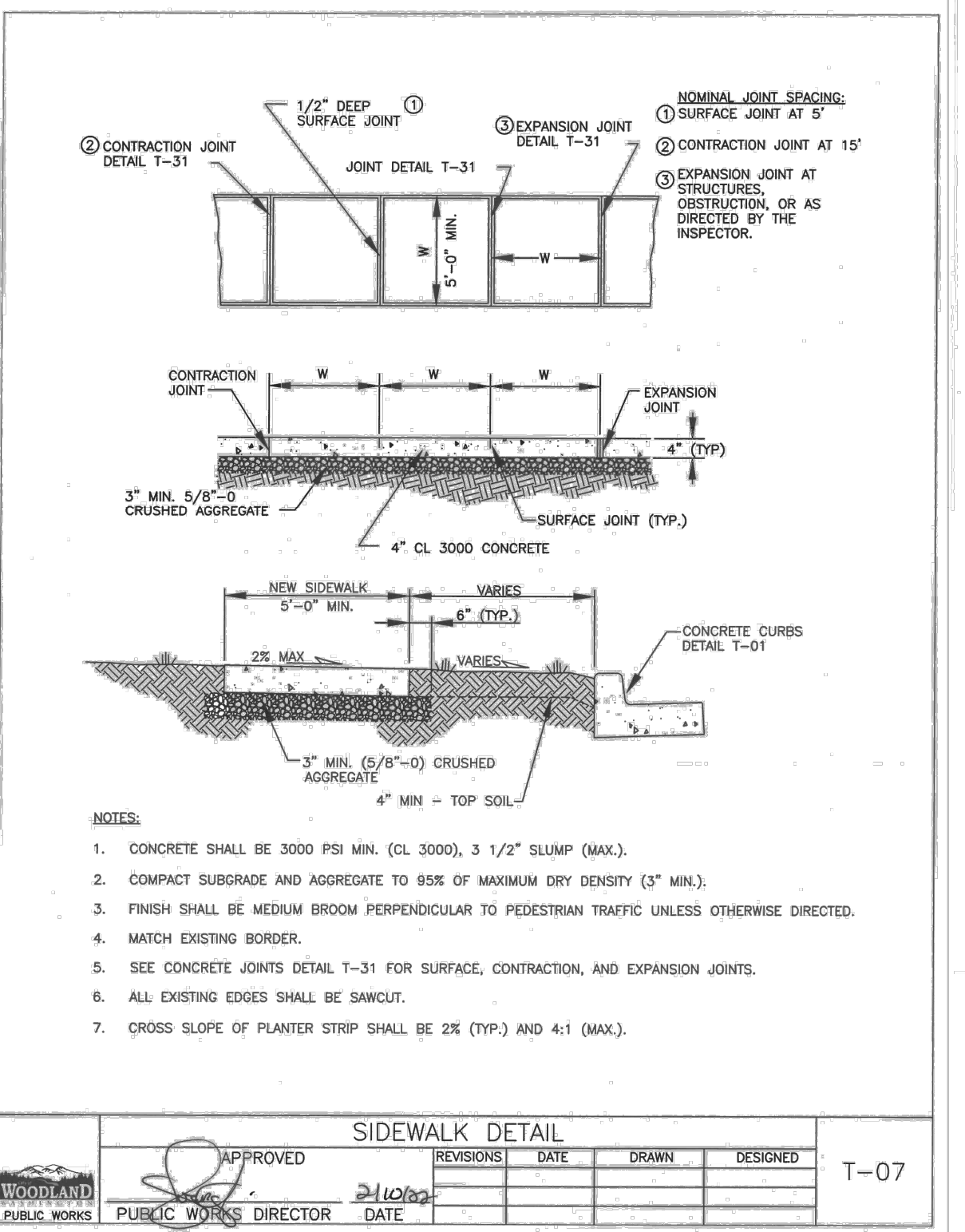
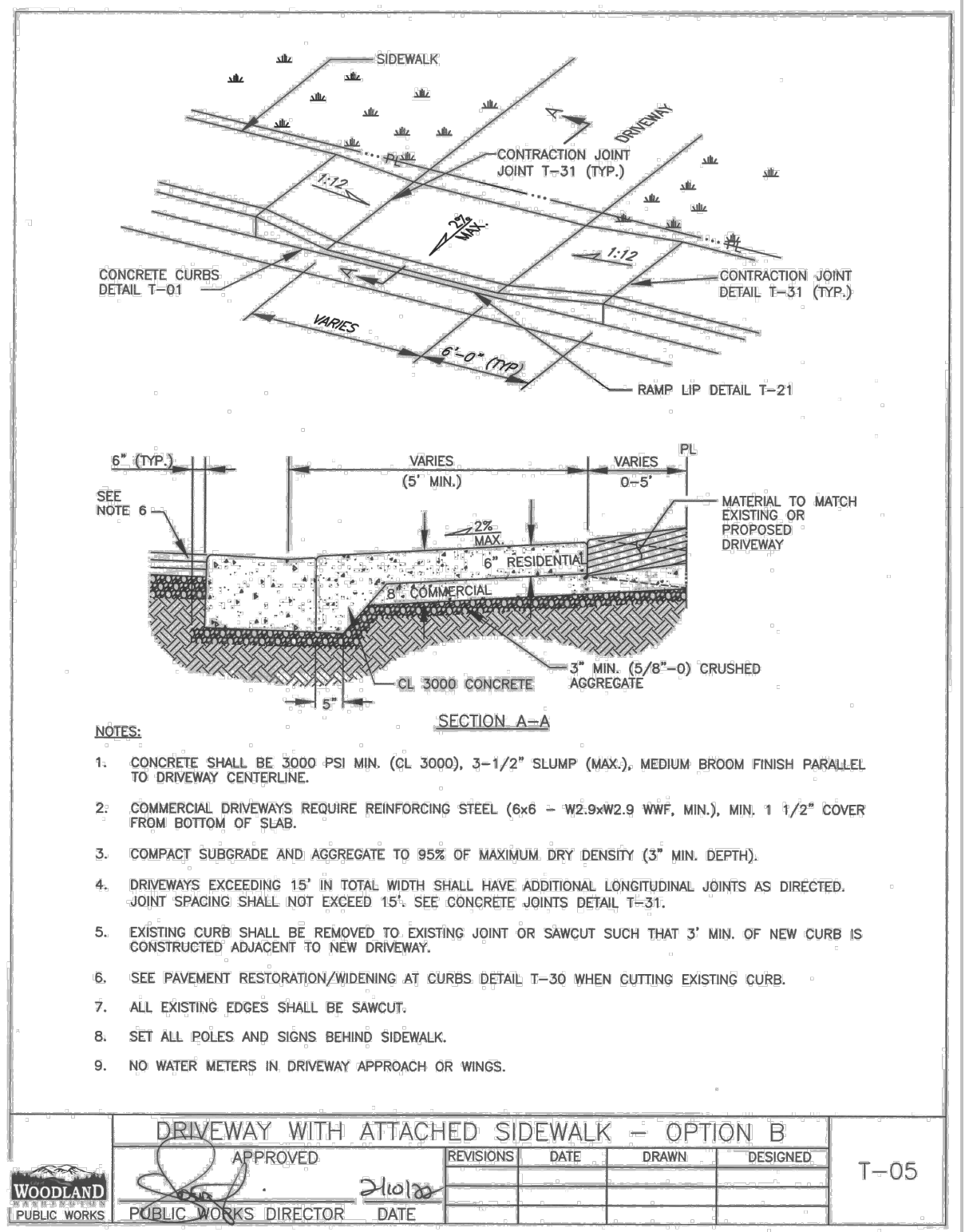
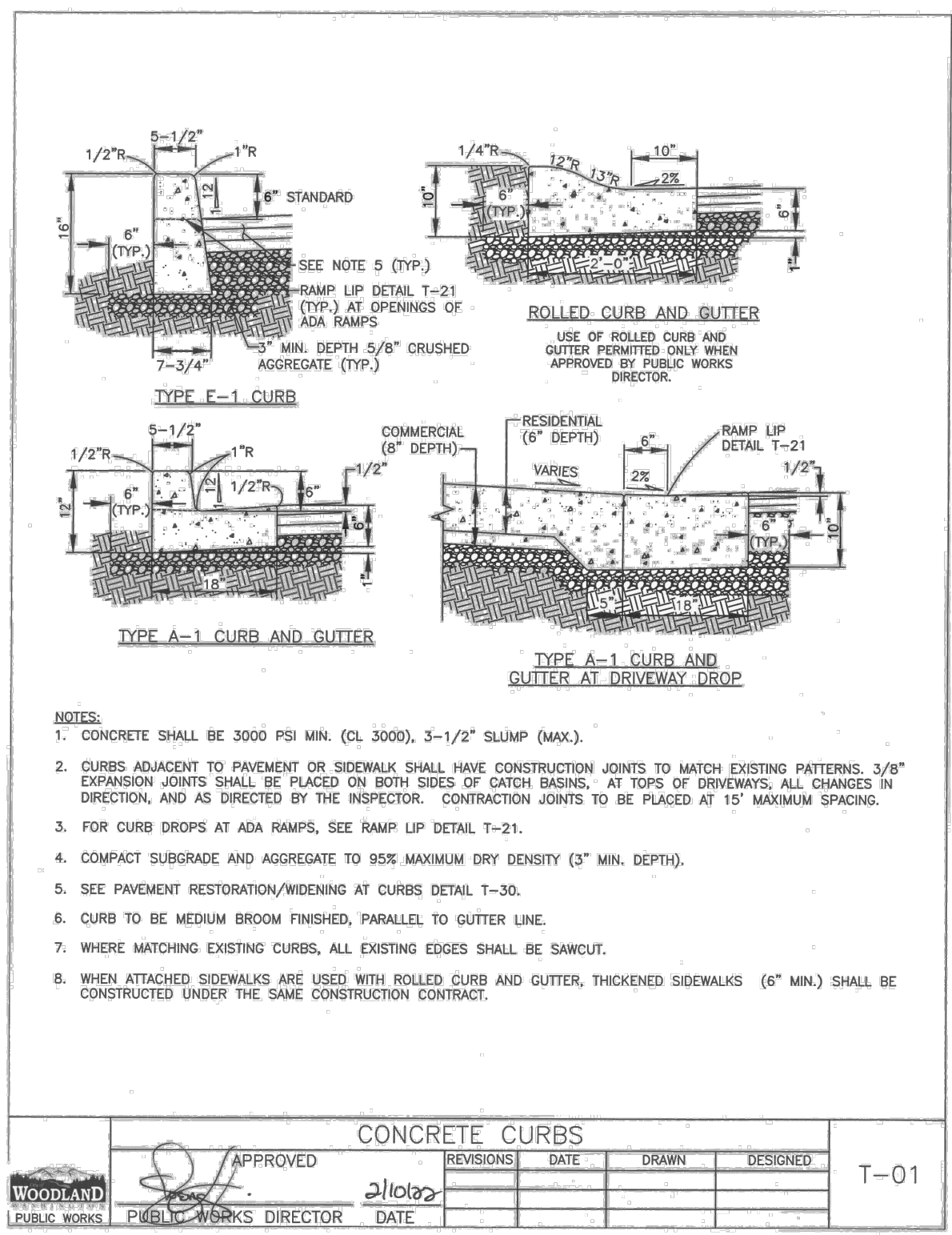
SITE PLAN REVIEW
Project No: 21035.1
Issue Date: 10/4/2023

EROSION CONTROL DETAILS

Project Manager: DCK
Drawn by: CKJOK
Checked by: TWT

C601

ISSUED FOR SITE PLAN REVIEW



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Revisions:

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PRELIMINARY

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SITE PLAN REVIEW

Project No: 21035.1
Issue Date: 10/4/2023

SITE DETAILS

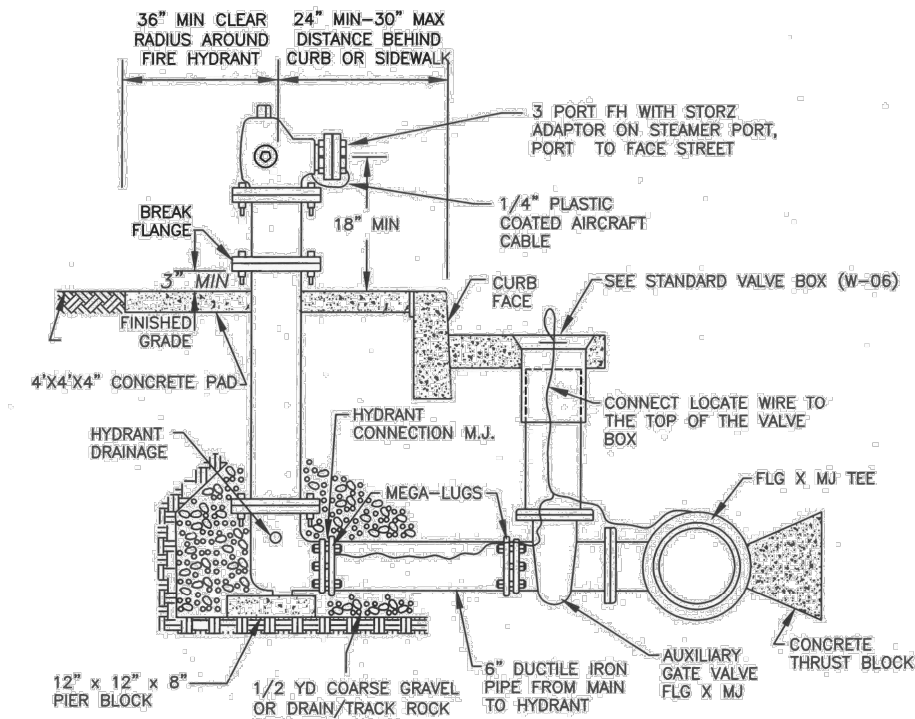
Project Manager: DCK
Drawn by: CKJ/OK
Checked by: TWT

C602

ISSUED FOR SITE PLAN REVIEW

GENERAL NOTES FOR STORM SEWERS

1. ALL MATERIALS AND INSTALLATION OF STORM SEWERS AND DRAINAGE SYSTEMS SHALL BE IN CONFORMANCE WITH THE REQUIREMENTS IN THE CITY OF WOODLAND'S LATEST VERSION OF STANDARD DETAILS, THE PUBLIC WORKS ENGINEERING STANDARDS, AND THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION (APWA) AND THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION, WHERE THE CITY OF WOODLAND REQUIREMENTS SHALL TAKE PRECEDENCE. WHEREVER THE STANDARD SPECIFICATIONS REFER TO THE OWNER AS EITHER THE "STATE" OR "SECRETARY" OR WHEN REFERENCE IS MADE TO THE DEPARTMENT OF TRANSPORTATION IT SHALL BE UNDERSTOOD THAT THE STANDARD SPECIFICATIONS SHOULD READ THE "CITY".
2. ALL STORM SEWER AND DRAINAGE SYSTEM CONSTRUCTION IS SUBJECT TO INSPECTION AND APPROVAL BY THE CITY OF WOODLAND'S PUBLIC WORKS DEPARTMENT. THE CONTRACTOR SHALL NOTIFY THE PUBLIC WORKS OFFICE (360) 225-7999 AT LEAST 48 HOURS PRIOR TO THE START OF ANY CONSTRUCTION. THE CITY MAY REQUIRE THAT A PRECONSTRUCTION CONFERENCE BE HELD.
3. THE CONTRACTOR IS REQUIRED TO NOTIFY ALL UTILITIES 48 HOURS PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR MAY CONTACT THE UTILITY NOTIFICATION CENTER BY DIALING 811 IN LIEU OF CONTACTING INDIVIDUAL UTILITIES.
4. IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER AND/OR CONTRACTOR TO PROCURE AND COMPLY WITH THE PROVISIONS OF ALL APPLICABLE PERMITS, EASEMENTS, LICENSES AND CERTIFICATES IN CONJUNCTION WITH THE CONSTRUCTION OF STORM SEWERS AND DRAINAGE SYSTEMS. COMPLIANCE SHALL BE AT ALL LEVELS: FEDERAL, STATE, AND CITY, RELATING TO THE PERFORMANCE OF THIS WORK. THE CONTRACTOR SHALL OBTAIN A STREET CUT PERMIT FOR WORK WITHIN THE PUBLIC RIGHT-OF-WAY.
5. THE CONTRACTOR SHALL OBTAIN AND SUBMIT AN APPROVED TRAFFIC CONTROL PLAN PRIOR TO BEGINNING CONSTRUCTION. THE PLAN SHALL BE APPROVED BY THE PUBLIC WORKS DIRECTOR.
6. ALL EROSION CONTROL BEST MANAGEMENT PRACTICES (BMPs) SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE EROSION CONTROL PLAN AND EROSION CONTROL DETAILS, PRIOR TO START OF ANY CONSTRUCTION OR LAND DISTURBING ACTIVITY.
7. THE DEVELOPER OR CONTRACTOR SHALL OBTAIN ALL OFFSITE CONSTRUCTION EASEMENTS PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL VERIFY THAT ALL OFFSITE UTILITIES EASEMENTS HAVE BEEN OBTAINED BY THE OWNER PRIOR TO THE COMMENCEMENT OF ANY OFFSITE CONSTRUCTION.
8. THE CONTRACTOR IS TO VERIFY AND REPORT ANY DISCREPANCIES IMMEDIATELY TO THE ENGINEER. ITEMS TO VERIFY INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:
 - INVERT AND TOP ELEVATIONS OF EXISTING STORM SEWERS
 - CENTERLINE AND TOP OF CURB ELEVATIONS
9. WATER QUALITY DEVICES WILL BE INSTALLED AND FUNCTIONING PRIOR TO COMMENCING WITH INSTALLATION OF PAVEMENT FOR ALL AREAS DRAINING INTO THE WATER QUALITY SYSTEM. VEGETATION IN BIO-FILTRATION SWALE AND POND SYSTEMS SHALL BE ESTABLISHED AND MECHANICAL DEVICES AND FILTER MEDIA SHALL BE INSTALLED. SWALES AND FILTER STRIPS WILL BE SEEDED WITH AN APPROVED SEED MIX. PER THE WESTERN WASHINGTON MANUAL, TURF IS ALLOWED FOR VEGETATED FILTERS PROVIDED THE TURF AREA IS OVERSEEDDED WITH THE EQUIVALENT GRASS SEED MIX.
10. ALL CATCH BASINS SHALL BE STENCILED: "PROTECT STREAMS" OR "PROTECT GROUNDWATER."
11. ROOF DOWNSPOUT RUNOFF MUST BE RETAINED ON EACH SPECIFIC SITE. DOWNSPOUTS SHALL NOT DRAIN TO THE STREET OR ANY ADJACENT PROPERTIES UNLESS SPECIFIC APPROVAL HAS BEEN SHOWN ON APPROVED CIVIL ENGINEERING PLANS.
12. THE CONTRACTOR WILL PROVIDE A TELEVISION REPORT, TAPE, AND TABULAR AS-BUILT OF ALL PUBLIC STORM MAINS AND LATERALS PRIOR TO PAVING. THIS INFORMATION WILL BE SUBMITTED TO THE CITY INSPECTOR FOR REVIEW. APPROVAL AND ACCEPTANCE OF THE TV INSPECTION WILL BE BASED UPON MANUFACTURING AND INSTALLATION DEFECTS, AS WELL AS DEBRIS IN THE LINES. FINAL ACCEPTANCE AND CONSTRUCTION OF STORM SEWERS ARE SUBJECT TO INSPECTION AND TESTING IN ACCORDANCE WITH SECTIONS 1-05.11, 1-05.12, AND 7-04.3 OF THE STANDARD SPECIFICATIONS.



- NOTES:
1. IN GENERAL, FIRE HYDRANT LOCATIONS SHALL BE AS SHOWN ON THE PLANS AND SHALL CONFORM TO THIS DETAIL. FIRE HYDRANTS SHALL NOT BE SET UNTIL LOCATION AND DEPTH ARE APPROVED BY THE CITY OF WOODLAND PUBLIC WORKS DEPARTMENT.
 2. FIRE HYDRANT INSTALLATION SHALL BE APPROVED BY THE CITY OF WOODLAND PUBLIC WORKS DEPARTMENT PRIOR TO BACKFILLING.
 3. HYDRANT TO BE WATERLOSS WB67 CLASS 250.
 4. HYDRANT TO BE 5-1/4" COMMERCIAL W/ (2) 2-1/2" NST, (1) 4-1/2" NST THREADED PORT(S) WITH (1) 6" TWO LUG QUARTER TURN STORZ OR APPROVED EQUAL PUMPER PORT CONNECTION.
 5. THE FIRE HYDRANT SHALL BE INSTALLED SO THAT IT IS PLUMB IN ALL DIRECTIONS.
 6. FOUR (4) GUARD POSTS TO BE INSTALLED IN UNPROTECTED AREAS (4' RADIUS).
 7. FIRE HYDRANTS SHALL BE FACTORY PAINTED OR QUALITY FIELD PAINTED WITH RODDA SILICONE ALKYLID ENAMEL HEAVY DUTY GLOSS SAFETY YELLOW 7-32616-1 TO NEW CONDITION.
 8. HYDRANT STANDARD BURY IS 4' UNLESS OTHERWISE NOTED ON THE PLANS, OR WHEN BREAKAWAY JOINT IS INSTALLED 7" ABOVE FINISHED GRADE.
 9. ALL JOINTS SHALL BE RESTRAINED UTILIZING MECHANICAL RESTRAIN SYSTEMS. CONCRETE THRUST BLOCKS SHALL NOT BE ALLOWED.
 10. STORZ ADAPTOR ARE REQUIRED.
 11. INSTALL LOCATING WIRE AND CONNECT TO EXISTING WIRE IF PRESENT.

GENERAL NOTES FOR STORM SEWERS				
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED
		3-11-23		
PUBLIC WORKS DIRECTOR				

D-01

FIRE HYDRANT				
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED
		4/11/23		
PUBLIC WORKS DIRECTOR				

W-14



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Call before you dig.
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Revisions:

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LINE IS 1" ON FULL SCALE DRAWING



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438 WASHINGTON STREET, WOODLAND, WA 98674

SITE PLAN REVIEW
Project No: 21035.1
Issue Date: 10/4/2023

Project Manager: DCK
Drawn by: CKJ/OK
Checked by: TWT

STORMWATER DETAILS

C603

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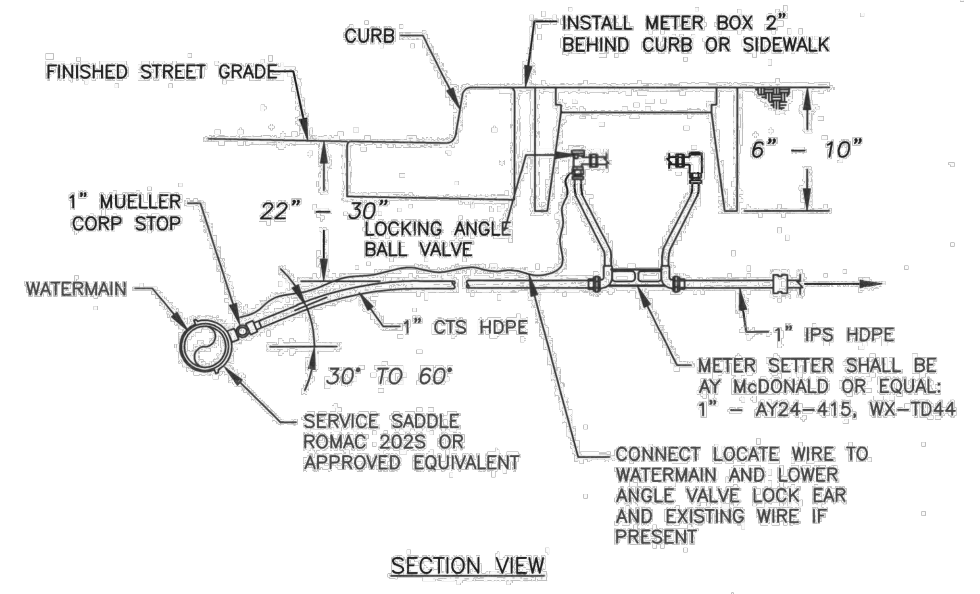
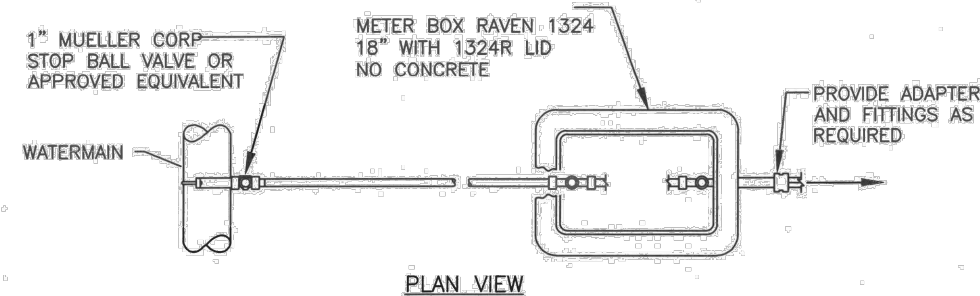
Plot Date: 10/4/2023 3:45 PM - File: C:\Users\Oak\OneDrive - Windsor Engineers\05 - Projects\2023\21035.1 - 438 Homestead\02 - Drawings\01 - Working\01 - Final\Sheets\21035.1_PFI_DTLS.dwg

GENERAL NOTES FOR WATER MAIN INSTALLATION

- ALL WORKMANSHIP AND MATERIAL SHALL BE IN ACCORDANCE WITH THE WSDOT/APWA STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION HEREIN IDENTIFIED AS THE "STANDARD SPECIFICATIONS" AND AWWA SPECIFICATIONS, EXCEPT AS MODIFIED BELOW OR BY CITY OF WOODLAND STANDARD DETAILS.
- A PRE-CONSTRUCTION MEETING SHALL BE HELD WITH CITY OF WOODLAND AT LEAST 48-HOURS PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE CONSTRUCTION SCHEDULES AND TRAFFIC CONTROL PLANS IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. PROPOSED EQUIVALENTS MUST BE SUBMITTED TO THE CITY OF WOODLAND FOR APPROVAL.
- THE CONTRACTOR SHALL NOTIFY THE CITY PUBLIC WORKS DEPARTMENT AT (360) 225-7999, 48-HOURS PRIOR TO LIVE TAPS OR OTHER CONNECTIONS TO EXISTING WATERMANS. WHERE CONNECTIONS REQUIRE SHUT-DOWN OF SERVICE, CONNECTION POINTS WILL BE EXPOSED FOR "FIELD VERIFICATION" BY CONTRACTOR AND CONNECTION DETAILS SHALL BE VERIFIED 48 HOURS PRIOR TO DISTRIBUTING SHUT-DOWN NOTICES.
- CALL UNDERGROUND LOCATE AT 811 A MINIMUM OF 48-HOURS PRIOR TO ANY EXCAVATIONS.
- UNLESS OTHERWISE ESTABLISHED IN WRITING BY THE CITY, ALL WATER MAINS SHALL BE STAKED FOR GRADES AND ALIGNMENT BY AN ENGINEERING OR SURVEYING FIRM CAPABLE OF PERFORMING SUCH WORK.
- EXISTING VALVES AND ANY VALVES INSTALLED DIRECTLY TO AND CONNECTED TO A PORTION OF ACTIVE WATER SYSTEM ARE TO BE OPERATED BY CITY OF WOODLAND REPRESENTATIVES ONLY.
- WATER MAINS SHALL BE PVC IN ACCORDANCE WITH AWWA C900, MINIMUM DR18 OR DUCTILE IRON PRESSURE CLASS 52 OR AS NOTED ON DRAWING. ALL MATERIAL IN SUBSTANTIAL CONTACT WITH DRINKING WATER MUST CONFORM TO AWWA/NSF STANDARD 61 AND BE LEAD FREE.
- ALL LINES SHALL BE CHLORINATED AND TESTED IN CONFORMANCE WITH THE STANDARD SPECIFICATIONS PRIOR TO USE.
- HARD COPY AND ELECTRONIC "AS-BUILT" DRAWINGS SHALL BE SUBMITTED TO CITY OF WOODLAND UPON COMPLETION OF THE WORK.
- ALL WATERMANS, FIRE HYDRANTS, BLOW OFF ASSEMBLIES, VACUUM BREAKERS, AND WATER SERVICES MUST HAVE LOCATE WIRE INSTALLED.
- ALL MECHANICAL JOINT FITTINGS SHALL BE RESTRAINED USING MJ FOLLOWER GLANDS, METALUGS, OR EQUAL.

GENERAL NOTES FOR WATER MAIN INSTALL

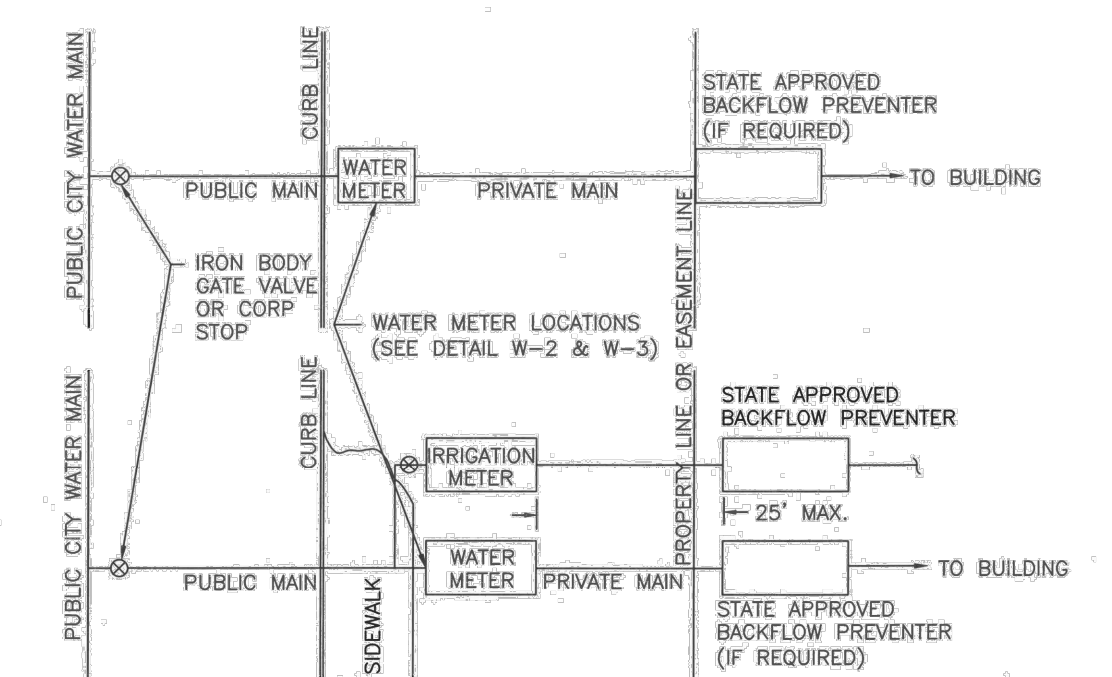
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PUBLIC WORKS DIRECTOR		DATE			



- NOTES:
- SERVICE LINES ON NEW WATERMANS SHALL BE PRESSURE TESTED UP TO THE LOCKING ANGLE BALL VALVE AS PART OF THE WATERMAIN TESTING.
 - METER BOXES SHALL HAVE A 4' WOOD STAKE WITH BLUE PAINT BEHIND THE BOX.
 - ALL DOMESTIC AND IRRIGATION METERS SHALL BE SUPPLIED, OWNED, AND INSTALLED BY THE CITY OF WOODLAND.

3/4" AND 1" WATER SERVICE

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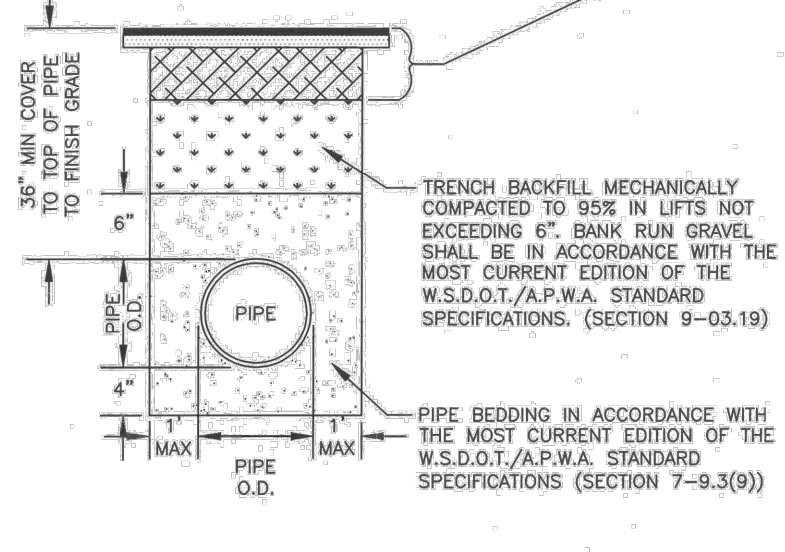


- NOTES:
- ALL NON-SINGLE FAMILY DOMESTIC SERVICES SHALL BE TAPPED SEPARATELY FROM ANY FIRE PROTECTION AND FIRE HYDRANT LEAD PIPING.
 - ALL IRRIGATION METERS SHALL BE PER APPROVED PLAN.
 - IRRIGATION METERS SHALL BE PLACED IN A STANDARD METER BOX WITH READER LID ACCORDING TO METER SIZE (SEE DETAIL W-02 & W-03).
 - EXCEPTIONS TO THESE REQUIREMENTS MAY BE SUBMITTED IN WRITING FOR REVIEW AND APPROVAL.
 - IRRIGATION METERS WILL BE READ DURING REGULAR BILLING CYCLES.

STANDARD METER LOCATIONS

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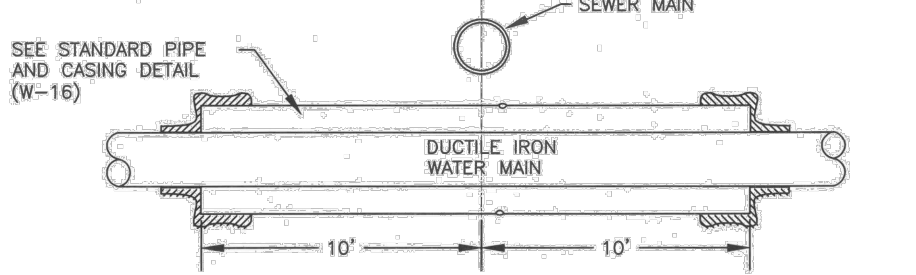
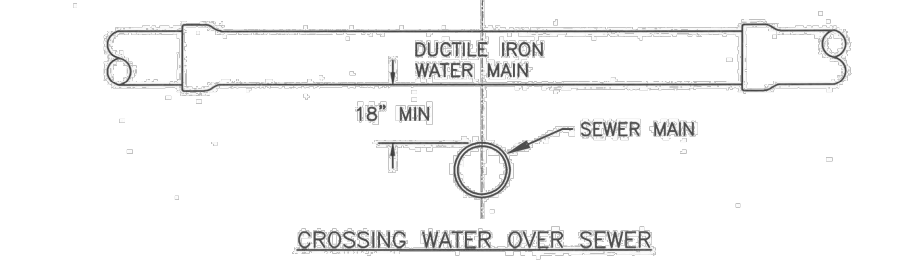
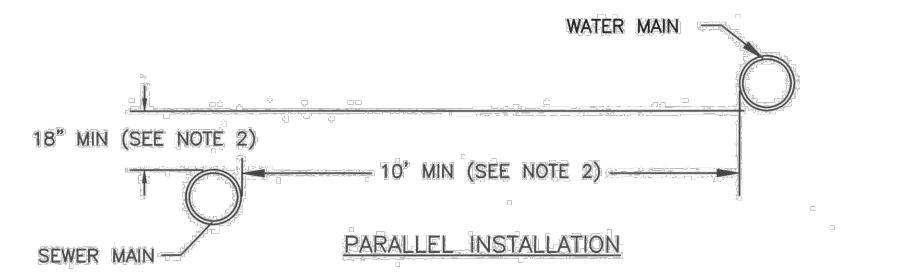
FOR THIS ZONE OF THE TRENCH SECTION, SEE CITY, COUNTY OR WSDOT RIGHT OF WAY PERMIT OR STANDARD STREET REPAIR DETAIL. FOR NON-PAVED SURFACES, MATCH EXISTING GRAVEL OR SEEDED LAWN, OR REFER TO APPROVED DRAWINGS.



- NOTE:
- CLEAN NATIVE MATERIAL MAY BE USED AS PIPE BEDDING AND TRENCH BACKFILL AS APPROVED BY CITY OF WOODLAND PUBLIC WORKS.

WATER PIPE TRENCH BEDDING & BACKFILL

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- NOTES:
- EXCEPTIONS SHALL BE APPROVED BY THE CITY OF WOODLAND IN WRITING.
 - WHERE MINIMUM CLEARANCES CANNOT BE MET, THE SEWER MAIN SHALL BE PLACED IN SEPARATE TRENCHES AND CONSTRUCTED OF MATERIALS EQUIVALENT TO THE CITY OF WOODLAND WATER MAIN STANDARDS, INCLUDING PRESSURE TESTING. ADEQUATE RESTRAINT SHALL BE PROVIDED TO ALLOW TESTING TO OCCUR.
 - ALL SEWER CROSSINGS OVER OR UNDER WATER MAINS SHALL MAXIMIZE THE JOINT SEPARATION BY USING THE LONGEST STANDARD LENGTH PIPE AVAILABLE FROM THE MANUFACTURER FOR BOTH THE WATER AND SEWER MAINS. BOTH PIPES SHALL BE CENTERED AT THE POINT OF CROSSING.
 - ALL SEWER CROSSING OVER WATER MAINS SHALL BE CONSTRUCTED OF MATERIALS EQUIVALENT TO THE CITY OF WOODLAND WATER MAIN STANDARDS, INCLUDING PRESSURE TESTING.

WATER AND SEWER SPACING

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GENERAL NOTES FOR SANITARY SEWER

ALL MATERIALS AND INSTALLATION OF SANITARY SEWERS SHALL BE IN CONFORMANCE WITH THE MOST CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION, HERINAFTER REFERRED TO AS THE "STANDARD SPECIFICATIONS" PREPARED BY THE WASHINGTON STATE CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION (APWA) AND THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION, EXCEPT AS NOTED HEREIN OR ON THE STANDARD PLANS. WHEREVER THE STANDARD SPECIFICATIONS REFER TO THE OWNER AS EITHER THE "STATE" OR "SECTORARY" OR WHEN REFERENCE IS MADE TO THE DEPARTMENT OF TRANSPORTATION IT SHALL BE UNDERSTOOD THAT THE STANDARD SPECIFICATIONS SHOULD READ THE "CITY".

ALL SANITARY SEWER CONSTRUCTION IS SUBJECT TO INSPECTION AND APPROVAL BY THE CITY OF WOODLAND PUBLIC WORKS DEPARTMENT. THE CONTRACTOR SHALL NOTIFY THE CITY AT (360) 225-7999 AT LEAST 48-HOURS PRIOR TO THE START OF CONSTRUCTION. A PRE-CONSTRUCTION CONFERENCE MAY BE REQUIRED.

THE CONTRACTOR IS REQUIRED TO NOTIFY ALL UTILITIES 48 HOURS PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR MUST CONTACT THE UNDERGROUND UTILITY NOTIFICATION CENTER "CALL BEFORE YOU DIG" AT (800) 424-5555 OR "811".

FINAL ACCEPTANCE OF SANITARY SEWERS ARE SUBJECT TO SECTIONS 1-05.11, 1-05.12, 7-17.3(2)(e), 7-17.3(2)(f), 7-17.3(2)(g) AND 7-17.3(2)(h) OF THE STANDARD SPECIFICATIONS. TELEVISION INSPECTION SHALL INCLUDE VOID OF ALL MANHOLES IN ADDITION TO THE PIPE. THE CONTRACTOR SHALL WARRANTY ALL WORK DONE UNDER CITY CONTRACT FOR A PERIOD OF TWO (2) YEARS AS PER OF THE CITY OF WOODLAND GENERAL PROVISIONS FOR MUNICIPAL CONSTRUCTION.

LOCAL VARIATIONS IN SLOPE (i.e. "BELLETS") MUST BE NO MORE THAN 1/2" MAXIMUM. VARIATIONS IN EXCESS OF THESE TOLERANCES MUST BE REPAIRED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE CITY.

ALL PIPE AND FITTINGS SHALL CONFORM TO THE FOLLOWING:

A. POLYVINYL CHLORIDE (PVC) SEWER PIPE 18" DIAMETER OR LESS SHALL CONFORM TO ASTM D3034, SDR 35. IT SHALL HAVE A MINIMUM PIPE STIFFNESS OF 46 PSI. PVC PIPE 18" DIAMETER SHALL CONFORM TO ASTM F 878. ALL PVC PIPE SHALL HAVE AN INTEGRAL BELL CASKETING JOINT WITH ELASTOMERIC GASKET AND SHALL BE FURNISHED IN 12'-1/2' FOOT LENGTHS.

B. DUCTILE IRON (DI) PIPE SHALL CONFORM TO ANSI A21.51 OR AWWA C151, WITH PUSH-ON JOINTS, CLASS 52, UNLESS OTHERWISE NOTED.

INSTALLATION OF PIPE AND MANHOLES SHALL CONFORM TO THE FOLLOWING:

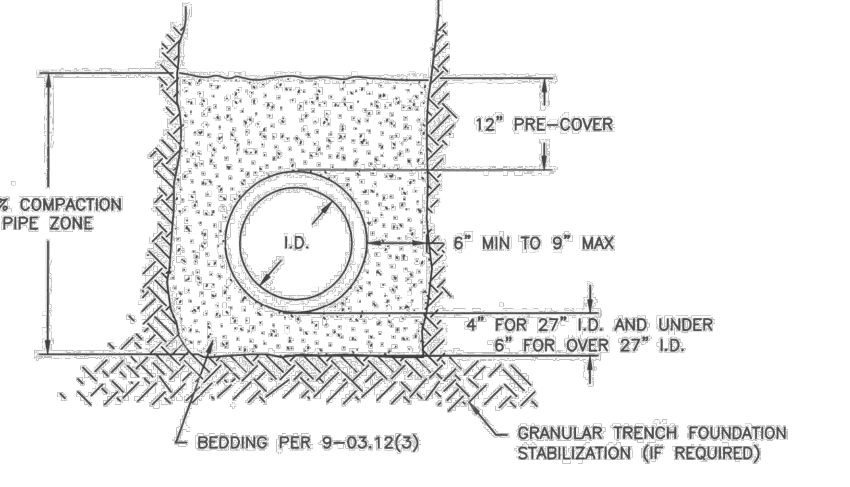
A. PIPE SHALL BE INSTALLED IN CONFORMANCE WITH PIPE DETAIL S-02 AND TRENCHING DETAIL S-03.

B. MANHOLES SHALL CONFORM WITH STANDARD DETAILS S-07 THROUGH S-14.

MANHOLES, CLEANOUTS, SERVICE LATERAL CONNECTIONS, TRENCH EXCAVATION, PIPE BEDDING AND STREET RESTORATION, AND APPURTENANCES SHALL CONFORM TO THE CITY OF WOODLAND STANDARD PLANS. THE WSDOT STANDARD DETAILS CONTAINED AND THE STANDARD PLANS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION.

THE CONTRACTOR SHALL COMPLY WITH THE PROVISIONS OF ALL PERMITS ISSUED OR EASEMENTS GRANTED TO THE CITY IN CONNECTION WITH THE CONSTRUCTION OF SANITARY SEWERS. THE CONTRACTOR SHALL OBTAIN A RIGHT-OF-WAY PERMIT FOR WORK WITHIN THE PUBLIC RIGHT-OF-WAY.

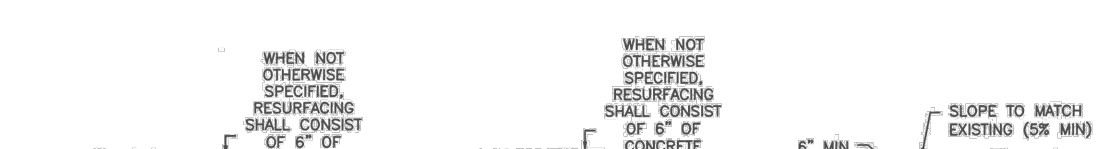
THE CONTRACTOR SHALL SUBMIT AN APPROVED TRAFFIC CONTROL PLAN. APPROVAL SHALL BE OBTAINED PRIOR TO BEGINNING CONSTRUCTION.



- NOTES:
- WHERE DIRECTED BY THE ENGINEER GRANULAR TRENCH FOUNDATION STABILIZATION SHALL BE PLACED PRIOR TO PLACEMENT OF THE BEDDING. SIZE AND DEPTH ARE DEPENDENT ON SOIL CONDITIONS.
 - BEDDING AND BACKFILL MATERIALS IN THE PIPE ZONE SHALL BE COMPACTED AS SPECIFIED PRIOR TO BACKFILLING THE REMAINDER OF THE TRENCH.
 - FOR ROCK AND OTHER INCOMPRESSIBLE MATERIALS, THE TRENCH SHALL BE OVER-EXCAVATED A MINIMUM OF 6" AND FILLED WITH GRANULAR MATERIALS AS DIRECTED BY THE ENGINEER.
 - BACKFILL AND COMPACTION ABOVE THE PIPE ZONE SHALL BE AS SHOWN IN TRENCHING DETAIL S-03.
 - PVC PIPE INSTALLATION SHALL CONFORM TO UNBELLS PLASTIC PIPE ASSOCIATION STANDARD SPEC. UNI-8-5 (LATEST EDITION) EXCEPT AS NOTED.
 - FINAL INSTALLATION TO BE TESTED PER SECTION 7-17.3 OF THE STANDARD SPECIFICATIONS.
 - ALTERNATIVE PRE-COVER MATERIALS ARE ALLOWABLE FROM PIPE CENTERLINE TO ONE FOOT ABOVE THE TOP OF PIPE. ALTERNATIVE PRE-COVER MATERIALS MUST BE PRE-APPROVED BY THE INSPECTOR AND MAY BE SAND, CRUSHER SCREENINGS, GRAVEL, OR OTHER CLEAN GRANULAR MATERIAL CONTAINING NO ROCK LARGER THAN 1-1/4" IN LENGTH.
 - APPROVAL FOR ALTERNATE MATERIALS WILL BE GRANTED UPON CONFIRMATION BY TEST OF ITS COMPLIANCE WITH THESE REQUIREMENTS. SUBMIT 50 LB SAMPLE FOR TESTING TO THE CITY INSPECTOR AND OBTAIN MATERIAL PRIOR TO STARTING PIPE INSTALLATION WORK. THE TEST REQUIRES A MINIMUM OF FIVE BUSINESS DAYS TO COMPLETE.
 - TRENCH WIDTH SHALL NOT EXCEED ONE AND ONE-HALF THE INSIDE DIAMETER OF THE PIPE PLUS 18" AT THE TOP OF THE PIPE ZONE. ANY SUBSIDENCE OF SURROUNDING PAVEMENT DUE TO TRENCHING SHALL BE EXCAVATED BEYOND ORIGINAL PAVEMENT OR TRENCH LIMITS AND REPAIRED TO SATISFACTION OF THE CITY OF WOODLAND.
 - NATIVE MATERIAL MAY BE USED, OUTSIDE OF THE ROAD PRISM FOR DUCTILE IRON IN LIEU OF IMPORTED MATERIAL FOR BEDDING SPECIFIED, PROVIDED THAT THE NATIVE MATERIAL CONFORMS TO SECTION 9-03.19 OF THE STANDARD SPECIFICATIONS, AND AS APPROVED BY THE CITY OF WOODLAND. THE CONTRACTOR SHALL SUBMIT A SAMPLE OF THE NATIVE MATERIAL TO THE CITY OF WOODLAND AT LEAST 72-HOURS PRIOR TO USE. THE CITY MAY APPROVE, REJECT, OR REQUIRE LABORATORY TESTING OF THE MATERIAL.

PIPE BEDDING

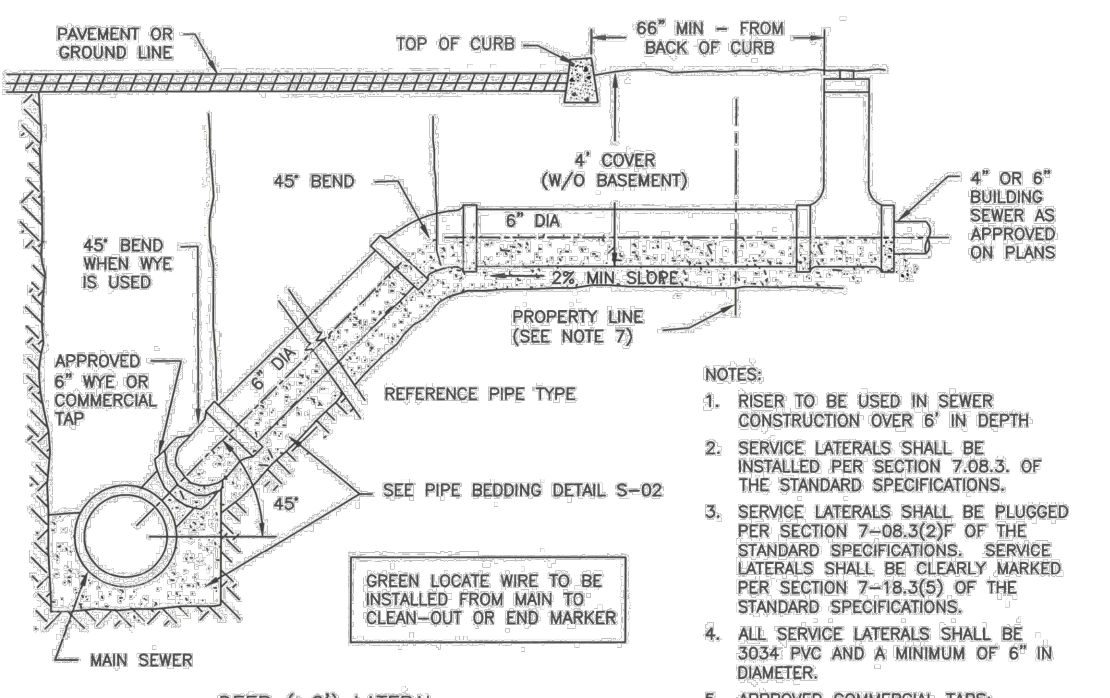
APPROVED	REVISIONS	DATE	DRAWN	DESIGNED	S-02
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- NOTES:
- FOR PIPE ZONE BEDDING, BACKFILL AND COMPACTION REQUIREMENTS, SEE PIPE BEDDING DETAIL S-02.
 - COMPACTION PERCENTAGES REFER TO RELATIVE DRY DENSITY AS DETERMINED BY STANDARD PROCTOR (ASTM D 698).
 - CONTRACTOR MAY USE UP TO 2-1/2" OF 5/8"-2 OR 3/4"-2 CRUSHED AGGREGATE IN LIEU OF 1-1/4"-2 BASE ROCK UNDER SURFACING FOR LEVELING COURSE.
 - ALL EXISTING PAVED SURFACES SHALL BE SAW CUT A MINIMUM OF 6" OUTSIDE OF EDGE OF TRENCH TO PROVIDE A NEAT STRAIGHT EDGE.
 - THE TOPS OF ALL EXISTING ASPHALT SURFACES SHALL BE CLEANED AND A TRUCK COAT SHALL BE APPLIED PER STD. SECTION 5-04.3(3). ALL JOINTS SHALL BE SEALED WITH ROCK AND SANDCO.
 - ALL BACKFILL SHALL BE MECHANICALLY COMPACTED IN LIFTS WHICH DO NOT EXCEED RATED CAPABILITY OF EQUIPMENT USED, BUT IN NO CASE EXCEED 12" LIFTS.
 - GRANULAR BACKFILL SHALL MEET REQUIREMENTS OF SECTION 9-03.10 UNLESS OTHERWISE SPECIFIED.

TRENCH: RESTORE, BACKFILL, BEDDING, SURFACING

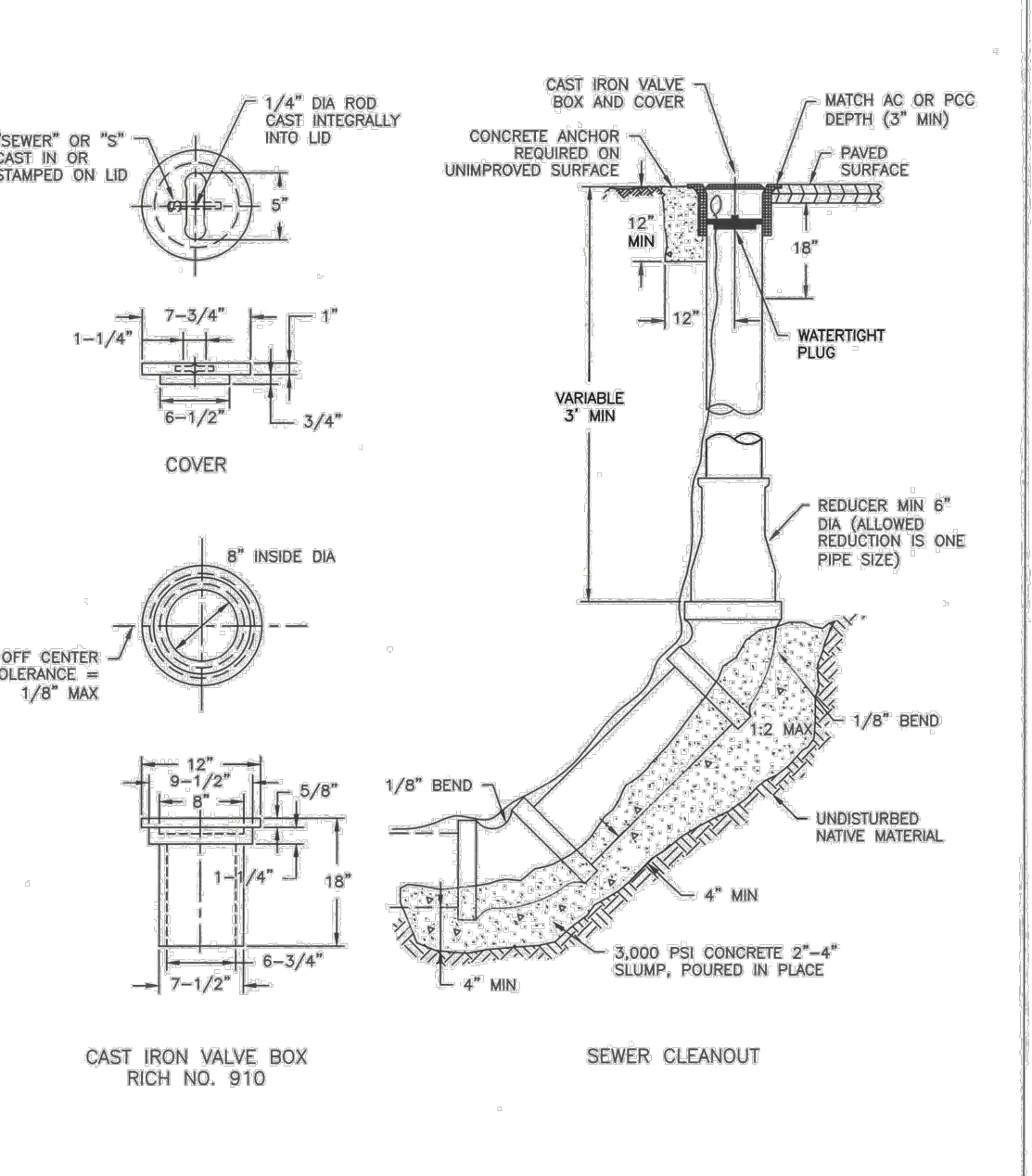
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PUBLIC WORKS DIRECTOR		DATE			



- NOTES:
- CONIGER TO BE USED IN SEWER RIGID TO EXCEED 6' IN DEPTH.
 - SERVICE LATERALS SHALL BE INSTALLED PER SECTION 7.08.3 OF THE STANDARD SPECIFICATIONS.
 - SERVICE LATERALS SHALL BE PLUMB PER SECTION 7-08.3(2)(F) OF THE STANDARD SPECIFICATIONS. SERVICE LATERALS SHALL BE CLEARLY MARKED PER SECTION 7-18.2(2) OF THE STANDARD SPECIFICATIONS.
 - ALL SERVICE LATERALS SHALL BE 3034 PVC AND A MINIMUM OF 6" IN DIAMETER.
 - APPROVED COMMERCIAL TAPS:
 - SEWER SADDLE
 - ROMAC STYLE "CB" SEWER SADDLE
 - "INSERVA" TREE
 - TRANSITIONS BETWEEN DISSIMILAR PIPE MATERIALS OR SIZES SHALL BE MADE WITH APPROVED ADAPTORS (FERNID, CALADOR, OR APPROVED EQUAL).
 - IN NEW SUBDIVISIONS AND OTHER CONSTRUCTION INVOLVING NEW ROADS, INSTALL LATERALS TO 6" BEHIND PROPERTY LINE FOR SEWERS IN STREET RIGHT-OF-WAY. INSTALL TWO WAY CLEANOUT BEHIND SIDEWALK.
 - FOLLOWING TAPPING OF MAINS FOR LATERALS, CONTRACTOR SHALL TRY THE MAIN TO VERIFY THAT THE TAP WAS PROPERLY MADE AND IS NOT PROTRUDING INTO THE PIPE. A VIDEO TAPE OR PHOTO OF THE TAP SHALL BE SUBMITTED TO THE CITY FOR APPROVAL OF THE TAP.

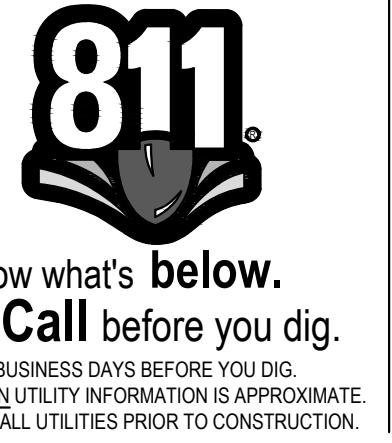
SERVICE LATERAL CONNECTIONS

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SEWER CLEANOUT

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Revisions:

LINE IS 1" ON FULL SCALE DRAWING



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438 HOMESTEAD
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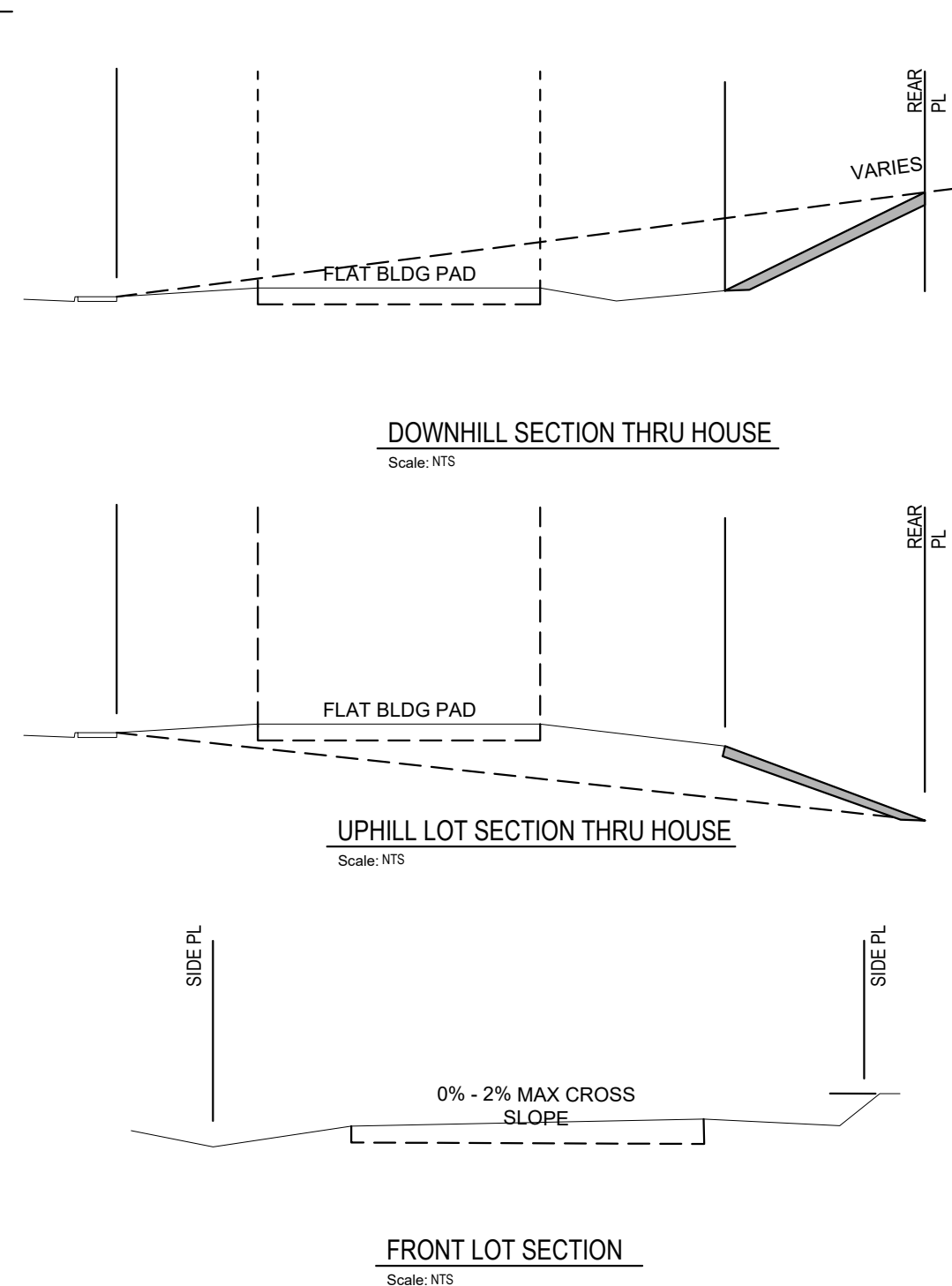
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UTILITY DETAILS

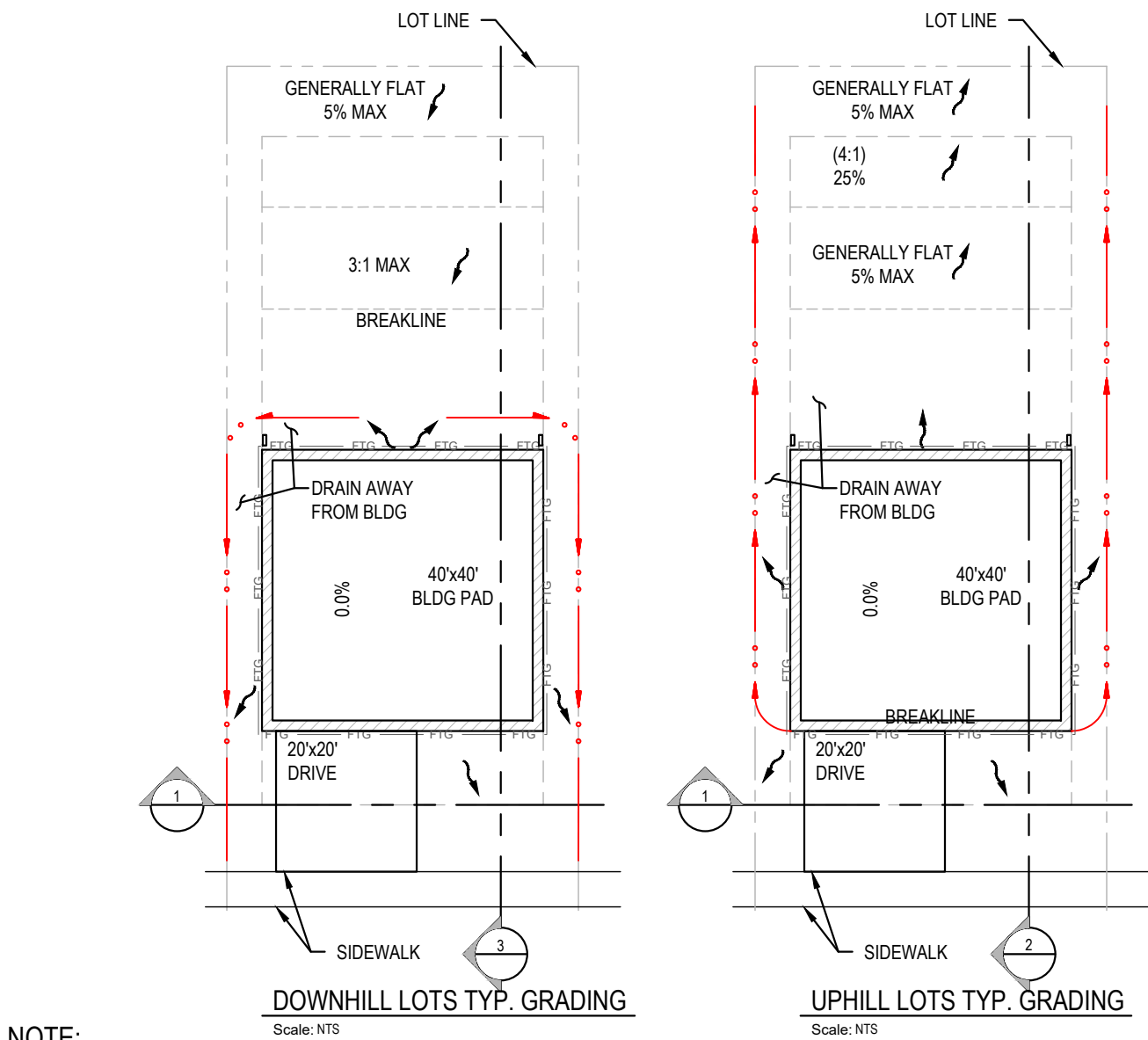
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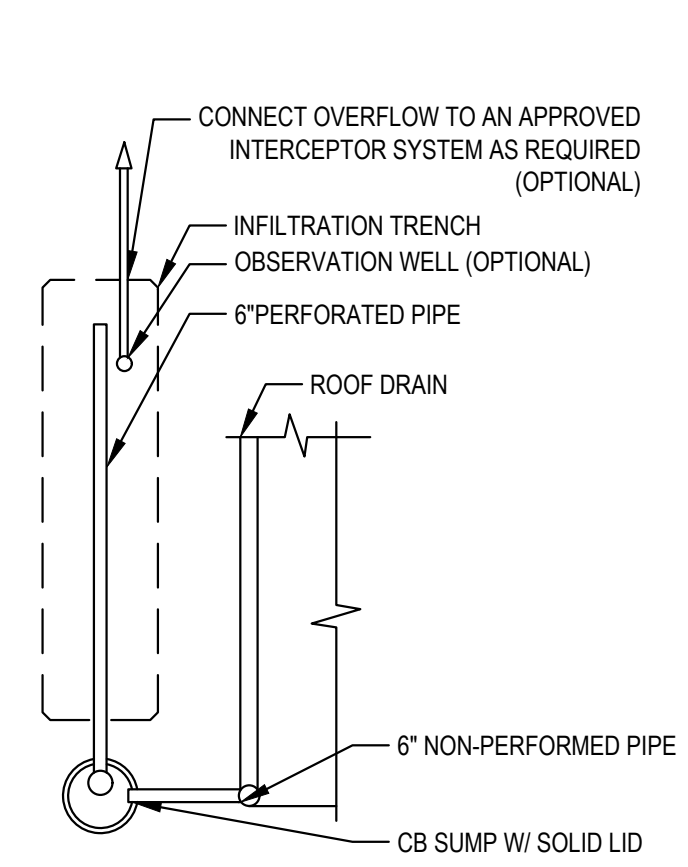
1 FINE GRADING DETAIL
SCALE = NTS



NOTE:
CONTRACTOR SHALL COMPLY WITH THE LOCAL AGENCY STANDARD NOTES FOR CONSTRUCTION SWPPP INCLUDING THE RECOMMENDED CONSTRUCTION SEQUENCE FOR EROSION CONTROL.
FINAL GRADING AND ANY RETAINING WALLS ARE TO BE CONSTRUCTED BY THE BUILDER.
BUILDER / CONTRACTOR IS RESPONSIBLE FOR PROPERLY GRADING LOTS TO AVOID PONDING OR DRAINAGE. 0.75% MINIMUM SLOPES IN GRASS AREAS.
PROVIDE POSITIVE DRAINAGE FROM BUILDING. SLOPE NOT LESS THAN 5% FOR A MINIMUM DISTANCE OF 10' (5' FALL IN 10'). SWALES WITHIN 10' OF BUILDING SHALL BE 2% MIN. IMPERVIOUS AREA SHOULD BE GRADED AWAY FROM THE BUILDING AT 2%.

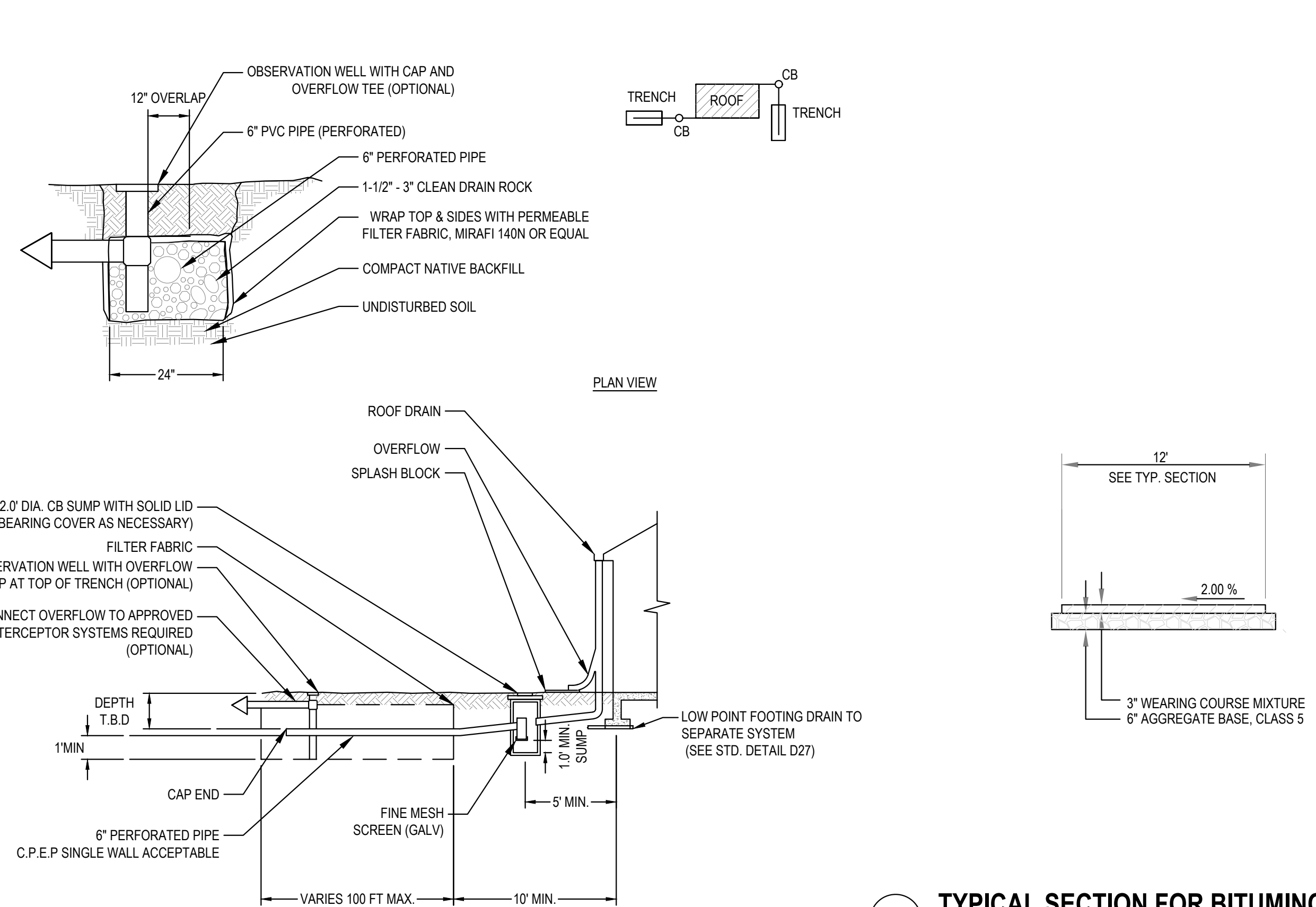
SLOPE OR WALL ZONE - REFER TO GEOTECHNICAL REPORT
1. TYPICAL SLOPES TO BE 3H:1V MAX FOR SLOPES THAT WILL BE MOVED (TYPICAL BACKYARDS)
2. VEGETATED PERMANENT SLOPES TO BE 2H:1V MAX SLOPE FOR 20' MAX HEIGHT WITH A 25' MIN STRUCTURE SETBACK. SURFACE WATER MUST BE COLLECTED AND DIRECTED AWAY FROM SLOPES STEEPER THAN 3H:1V.
3. RETAINING WALL BY DEFERRED SUBMITTAL. MECHANICAL STABILIZED EARTH (MSE) WALLS TO BE STONE TERRA, FLEX MSE, OR APPROVED EQUAL.

ABBREVIATIONS
ROW = RIGHT OF WAY
ESMT = EASEMENT
PL = PROPERTY LINE
ELEV = ELEVATION
SW = SIDEWALK
SB = SETBACK LINE
UE = UTILITY EASEMENT



- SECTION AA**
- TRENCH TO BE LOCATED 100' MIN. FROM SEPTIC DRAIN FIELD (WHERE APPLICABLE).
 - PER C.C.S.W.M BMP TS.10B.
 - TRENCH TO BE LOCATED 10' MIN. FROM ANY PROPERTY LINE.
 - TRENCH TO BE LOCATED 10' MIN. FROM BUILDING FOUNDATION.

2 INFILTRATION TRENCH DETAIL
SCALE = NTS



3 TYPICAL SECTION FOR BITUMINOUS DRIVEWAY
SCALE = NTS



Revisions:

NO.	DATE	DESCRIPTION

LINE IS 1" ON FULL SCALE DRAWING

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C605

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