

Friendsview University Village Phase 2 Type II SDR and Variance Application

Date: August 2020
Revised October 2020

Submitted to: City of Newberg
414 E 1st Street
Newberg, OR 97132

Applicant: Friendsview Manor, Inc.
1301 Fulton Street
Newberg, OR 97132

AKS Job Number: 3199



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Exhibit F: Traffic Impact Analysis Update Memo

Exhibit G: Preliminary Stormwater Report

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Submitted to:	City of Newberg 414 E 1 st Street Newberg, OR 97132
Applicant:	Friendsview Manor, Inc. 1301 Fulton Street Newberg, OR 97132
Applicant's Consultant:	AKS Engineering & Forestry, LLC 12965 SW Herman Road, Suite 100 Tualatin, OR 97062
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Site Location:	1001 Fulton Street, Newberg, Oregon Located east of the vacated portion of N Center Street, north of Fulton Street, south and west of vacated E Cherry Street.
Yamhill County Assessor's Map:	3 2 17CB Tax Lots 200 and 500
Site Size:	±1.85 acres
Land Use District:	Institutional (I)

I. Executive Summary

Friendsview Manor, Inc. is submitting applications for a Type II Site Design Review and Variance for a continuing care facility. The proposed project is a single building of ±170,000 square feet, five stories, 96 living units, and a basement level parking garage. The proposed use of this building will be as independent living units, a type of group care facility. Phase 2 of University Village will involve the demolition of seven single-family detached residences and three single-family attached residences. The proposed construction will be oriented to the south towards Fulton Street.

Phase 2 Friendsview University Village is the second of possibly four final phases of an addition to the Friendsview Manor Campus. A Master Plan (DR2-15-009) was approved for a concept of the entire project on February 26, 2016. The Concept Master Plan approval is valid for up to 10 years.

Following completion of Phase I of Friendsview University Village (DR2-15-010/VAR-15-002), several applications were required in order to prepare for Phase 2:

- Vacation of adjacent N Center Street (VAC19-0001). Application was made on August 23, 2019. The vacation was approved by Newberg City Council Ordinance 2019-2854 on December 9, 2019, with an effective date of January 8, 2020.
- A Type I Zone Change application (MISC120-0024) to convert existing R-2 zoning adjacent to the site to Institutional zoning. Application was made on April 30, 2020, and approved on June 19, 2020, with an effective date of July 3, 2020.
- A Type I Lot consolidation (PLC20-0005) in order to consolidate the Phase 2 project site. Application was made on April 30, 2020 and approved on June 26, 2020, with an effective date of July 10, 2020.
- A Type I Property Line Adjustment (ADJP20-0001) to move the recently vacated property along the N Center Street centerline west. Application was made on April 30, 2020 and approved on July 8, 2020, with an effective date of July 22, 2020.TL

With the submission and approval of the previous applications, these current applications may be considered. The Applicant (Friendsview Manor, Inc.) requests Site Design Review approval of Friendsview University Village Phase 2 and a variance to allow for greater than a 50-foot maximum height adjacent to and within 100 feet of Fulton Street. Below are the relevant City of Newberg Municipal Code (NMC) requirements and a description of how this request will meet the applicable criteria. These applications include the City forms, written materials, and preliminary plans necessary for City staff to review and determine compliance with the applicable approval criteria. The evidence is substantial and supports the City's approval of the application.

II. Site Description/Setting

The subject site is located north of Fulton Street, east of recently vacated N Center Street, and south and west of vacated E Cherry Street and abuts the Friendsview Retirement Community. The subject site is a ±1.85-acre collection of consolidated parcels with generally flat topography and is currently occupied by 13 single-family residences, composed of seven detached and three attached duplexes. North and east of the site is Friendsview University Village Phase 1 and Friendsview Manor, respectively. West of the site is the future location of Friendsview University Village Phase 3. George Fox University is located to the south of the site across Fulton Street.

III. Applicable Review Criteria

NEWBERG MUNICIPAL CODE

Title 15 DEVELOPMENT CODE

Chapter 15.100 LAND USE PROCESSES AND PROCEDURES

Article I. Procedure Types and Determination of Proper Procedures

15.100.030 Type II procedure.

A. Type II development actions shall be decided by the director.

B. Type II actions include, but are not limited to:

1. Site design review.

2. Variances.

Response: The Applicant is proposing Phase 2 of the University Village portion of the Friendsview Manor Campus involving Site Design Review and a building height variance and is, therefore, a Type II procedure. It is understood that the Type II procedure requirements listed in this section apply to this application.

C. The applicant shall provide notice pursuant to the requirements of NMC 15.100.200 et seq.

Article IV. Notice

15.100.200 Compliance required.

Notice on all Type I through Type IV actions, including appeals, shall be conducted in accordance with this article.

15.100.210 Mailed Notice

Mailed notice shall be provided as follows:

B. Type II and Type III Actions. The applicant shall provide public notice to:

1. The owner of the site for which the application is made; and

2. Owners of property within 500 feet of the entire site for which the application is made. The list shall be compiled from the most recent property tax assessment roll. For purposes of review, this requirement shall be deemed met when the applicant can provide an affidavit or other certification that such notice was deposited in the mail or personally delivered.

3. To the owner of a public use airport, subject to the provisions of ORS 215.416 or 227.175.

C. The director may request that the applicant provide notice to people other than those required in this section if the director believes they are affected or otherwise represent an interest that may be affected by the proposed development. This includes, but is not limited to, neighborhood associations, other governmental agencies, or other parties the director believes may be affected by the decision.

D. The director shall provide the applicant with the following information regarding the mailing of notice:

1. The latest date by which the notice must be mailed;

2. An affidavit of mailing (to be signed and returned) certifying that the notice was mailed, acknowledging that a failure to mail the notice in a timely manner constitutes an agreement by the applicant to defer the 120-day process limit and acknowledging that failure to mail will result in the automatic postponement of a decision on the application; and
3. A sample notice.

Response: The Applicant will provide notice to the site owner, property owners within 500 feet of the entire site, and to public use airport operators within 5,000 feet of the site per ORS 215.416 and NMC 15.100.200. No other individuals or agencies requiring special notice have been identified. A mailing list and an affidavit of mailing will be submitted to the City when they are completed. A sample notice for approval has been included with this application. These criteria are met or will be met when applicable.

- E. The notice of a Type II and Type III development application shall be reasonably calculated to give actual notice and shall:
 1. Set forth the street address or other easily understood geographical reference to the subject property;
 2. List, by commonly used citation, the applicable criteria for the decision;
 3. Include the name and phone number of a local government contact person, the telephone number where additional information may be obtained and where information may be examined;
 4. Explain the nature of the application and the proposed use or uses which could be authorized;
 5. State that a copy of the application, all documents and evidence relied upon by the applicant and applicable criteria are available for inspection at no cost and will be provided at a reasonable cost.
- F. Prior to mailing or posting any notice required by this code, the applicant shall submit a copy of the notice to the director.
- G. The applicant shall mail the notice for Type II actions at least 14 days before a decision is rendered. The applicant shall file with the director an affidavit of mailing as identified in subsection (D) of this section within two business days after notice is mailed.

Response: The sample notice and mailing list are attached to this application as Exhibit E. Following the director's approval, the notices will be mailed to property owners and posted on the site. These criteria are met or will be met at a later date.

- 15.100.220 Additional notice procedures of Type II development applications.
In addition to the requirements of NMC 15.100.210, mailed notice for development actions shall also contain the following:
- A. Provide a 14-day period from the date of mailing for the submission of written comments prior to the decision;
 - B. State that issues that may provide a basis for appeal must be raised in writing during the comment period;

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- C. State that issues must be raised with sufficient specificity to enable the local government to respond to the issue;
 - D. State the place, date and time that comments are due;
 - E. State that notice of the decision, including an explanation of appeal rights, will be provided to any person who submits comments under subsection (A) of this section;
 - F. Briefly summarize the local decision-making process.
- 15.100.260 Procedure for posted notice for Type II and III procedures.
- A. **Posted Notice Required.** Posted notice is required for all Type II and III procedures. The notice shall be posted on the subject property by the applicant.
 - B. **Notice Information Provided by City.** The director shall provide the applicant with the following information regarding the posting of notice:
 - 1. The number of notices required;
 - 2. The latest date by which the notice must be posted;
 - 3. An affidavit of posting (to be signed and returned) certifying that the notice was posted on site, acknowledging that a failure to post the notice in a timely manner constitutes an agreement by the applicant to defer the 120-day process limit and acknowledging that failure to post will result in the automatic postponement of a decision on the application; and
 - 4. A sample notice.
 - C. **Submission of Notice.** Prior to posting any notice required by this section, the applicant shall submit a copy of the notice to the director for review.
 - D. **Size, Number and Location Requirements.** A waterproof notice which measures a minimum of two feet by three feet shall be placed on each frontage of the site. If a frontage is over 600 feet long, a notice is required for each 600 feet, or fraction of 600 feet. If possible, notices shall be posted within 10 feet of a street lot line and shall be visible to pedestrians and motorists in clear view from a public right-of-way. Notices shall not be posted in a public right-of-way or on trees.
 - E. **Contents of Notice.** The posted notice shall only contain the following information: planning action number, brief description of the proposal, phone number and address for contact at the Newberg planning and building department.
 - F. **Standards and Timing, Type II Actions.** The applicant shall post the notice at least 14 days before a decision is rendered. The applicant shall file with the director an affidavit of posting as identified in subsection (B) of this section within two business days after notice is posted.
 - H. **Removal of Notice.** The applicant shall not remove the notice before the final decision. All posted notice shall be removed by the applicant within 10 days following the date of the final decision on the request.
 - I. **Failure to Post Notice.** The failure of the posted notice to remain on the property shall not invalidate the proceedings. Failure by the

applicant to post a notice and affirm that the posting was completed in conformance with the code shall result in:

1. Postponement of a decision until the mailing requirements have been met; or
2. Postponement of the hearing to the next regularly scheduled meeting or to such other meeting as may be available for the hearing; or
3. The entire process being invalidated; or
4. Denial of the application.

Response: Exhibit E includes draft notice materials which meet the requirements of this section. The posted notice requirements for Type II procedures listed in this section apply to this application. As stated above, the Applicant will provide notice as required, including the required affidavit. The criteria are or will be met upon completion.

Division 15.200 Land Use Applications

Chapter 15.215 VARIANCE PROCEDURES

15.215.030 Application.

The property owner desiring a variance shall file an application with the director on a form prescribed by the director, which shall include the following data:

- A. Statement of the precise nature of the variance requested and the practical difficulty or unnecessary physical hardship inconsistent with the objectives of the Newberg comprehensive plan and code, which would result from a strict or literal interpretation and enforcement of a specified regulation of this code, together with any other data pertinent to the findings prerequisite to the granting of a variance prescribed in this chapter.
- B. When a requested variance is for aesthetic reasons, as they relate to the front yard, fences or walls, on the basis of a substitute plan of equal aesthetic value, a statement of the precise nature of the variance requested shall be submitted.
- C. An accurate scale drawing of the site and any adjacent property affected, showing all existing and proposed locations of streets, property lines, uses, structures, driveways, pedestrian walks, off-street parking and off-street loading facilities and landscaped areas.

Response: The information required is provided as part of this narrative, scale drawings, and other application materials. These criteria are addressed within this narrative and are met.

15.215.040 Type II variance criteria.

The Type II procedure shall be used to process a variance request. The hearing body shall grant the variance if the following criteria are satisfied:

- A. That strict or literal interpretation and enforcement of the specified regulation would result in practical difficulty or unnecessary physical hardship inconsistent with the objectives of this code.

Response: The applicant calculated the building's height using the "Alternative Building Height" definition described in NMC 15.415.020(E). The proposed building is compliant with the

75-foot maximum height limitation of the Institutional district. The building is proposed to be 63 feet and 10 inches in overall height. The building is 57 feet and 5¼ inches in height, as measured to the average height between the eaves and the peak of the roof ridges, per the “Building height” definition (NMC 15.05.030).

An analysis of the portions of the building which require a height variance is included in the attached materials on Sheet A9 of the Architectural Elevations (Exhibit A). The portions of the building which require a variance are small upper portions of the fifth floor on the western and eastern wings of the facility extending ±13 feet into the building, as these areas encroach over the height setback: a line 45° from a point 20 feet in height above the property line at the Fulton Street right-of-way. These areas represent 21 percent of the building’s height along these wings, approximately half (52.9 percent) of the total length of the building, and only 7.6 percent of the building’s depth. Without a variance, this small segment extending into the height setback area would have to be eliminated, removing approximately half of the upper floor on these wings of the building.

The Institutional district allows for a much greater height overall, but due to this site’s proximity to Fulton Street and the shallowness of the site, full development at the maximum allowed height is not possible for much of the site and enforcement of the height setback would create a situation where the same number of units could not be built without a much taller portion to the rear of the site (along former E Cherry Street) and a much shorter portion along Fulton Street. Land south of the site is zoned Institutional and the primary use is as George Fox University’s athletic center and associated parking. Granting the height variance creates no significant impacts to the properties to the south.

Strict interpretation of this code would mandate a less attractive building to house the same number of units in a structure composed of vastly different heights inside and outside of the height setback area. Friendsview Retirement Community is a not-for-profit organization leveraging economies of scale to provide excellent service to its growing and active community. At its final stage, the University Village will be ±191 units. This building is proposed to provide a large portion of those units, at 96 total. This is possible only through the conscientious development of the site with an appropriately planned and massed building. Granting the variance will allow development of the site with a building of appropriate height for the area and district.

- B. That there are exceptional or extraordinary circumstances or conditions applicable to the property involved or to the intended use of the property which do not apply generally to other properties classified in the same zoning district.
- C. That strict or literal interpretation and enforcement of the specified regulation would deprive the applicant of privileges enjoyed by the owners of other properties classified in the same zoning district.

Response: This property has an exceptional condition, as it is very shallow due to the surrounding former streets and historic land use patterns. The vacation of those streets has made development of this site feasible; however, the height setback for which the Applicant has requested variance still prevents the site from being developed to its full, reasonable

capacity. Where normal block lengths are usually 250 to 300 feet in length, the block between E Cherry Street and Fulton Street is only 200 feet. A 100-foot setback from Fulton Street eliminates much of the site for development at heights enjoyed by larger lots or those located further from public rights-of-way throughout the Institutional district. A strict or literal interpretation and enforcement of the height restrictions within a setback from adjacent rights-of-way would deprive the Applicant of privileges enjoyed by other owners of Institutionally-zoned properties, which are generally much larger and unaffected by close public rights-of-way. Granting the variance will allow development of the site consistent with other unrestricted areas of the Institutional district.

- D. That the granting of the variance will not constitute a grant of special privilege inconsistent with the limitations on other properties classified in the same zoning district.
- E. That the granting of the variance will not be detrimental to the public health, safety or welfare or materially injurious to properties or improvements in the vicinity.

Response: Granting the variance would not constitute a grant of special privilege, as it applies only to a small portion of the building (approximately half of the building’s length along Fulton Street and less than 8 percent of its depth) and is limited in scope. The Institutional district as a whole has many sites which are largely unaffected by street setbacks and narrow dimensions created by previous land use patterns in the area. For these reasons, development of this site would be impeded by a strict or literal interpretation of the Newberg Municipal Code.

Granting the variance will have no impact on the public health, safety, or welfare, or be materially injurious to nearby properties. The properties which could be considered as directly affected by the granting of this variance are located on the south side of Fulton Street and are also Institutional uses, providing various needs for George Fox University. Nearby single-family residential uses are also largely owned by George Fox University or Friendsview Manor and will eventually be converted to Institutional uses. The allowance for an increased height of the front portions of the building will not prevent solar access by neighboring properties due to its setback, location, and the modest final height of the building related to the maximum height of the district. The granting of this variance is not detrimental to the neighborhood as nearby affected properties, including those adjacent to or across from the area with a greater height, are not materially injured.

Chapter 15.220 SITE DESIGN REVIEW

15.220.020 Site design review applicability.

- A. **Applicability of Requirements.** Site design review shall be required prior to issuance of building permits or commencement of work for all improvements noted below. Site design review permits shall be processed as either Type I or Type II, as noted below.
 - 2. **Type II.**
 - a. Any new development or remodel which is not specifically identified within subsection (A)(1) of this section.

Response: The proposed new institutional construction is greater than 1,000 square feet and is otherwise not listed as a Type I review; therefore, a Type II Site Design Review is required.

- B. **Development in Accord with Plans.** Construction, site development, and landscaping shall be carried out in substantial accord with the plans, drawings, sketches, and other documents approved as part of a final decision on a site design review.
- C. **Site Design Review Time Limit.** An approved site design review plan intended to be constructed in a single phase shall be valid for one year from the date of the notice of final decision. A building permit must be acquired within this time period or the design review approval shall terminate. The director under a Type I procedure may grant an extension for up to six months if the applicant files a request in writing prior to the expiration of the approval and demonstrates compliance with the following:
 - 1. The land use designation of the property has not been changed since the initial design review approval; and
 - 2. The applicable standards in this code which applied to the project have not changed.

Response: The Site Design Review time limits, as stated above for a Type II procedure, are applicable to this application. The Applicant will conduct all construction in accordance with the applicable codes and requirements. These criteria are met.

- D. **Phased Design Review Approval.** If a site plan is approved to be constructed in phases, completion of each phase shall extend the expiration of the original design review approval by 12 months from the date of its expiration. Prior to the expiration of each phase, the applicant may apply for an extension to the phase which is about to expire through subsection (C) of this section. The extension of a phase under subsection (C) of this section shall also extend any subsequent phases. The total number of extensions shall not extend the original design review approval more than five years from its original approval date. An applicant with a project containing two or more phases may elect to submit a master site development plan, with the following options:
 - 1. The applicant may provide all of the detailed information for a Type II site design review approval, per the requirements of NMC 15.220.030(B), for all phases of the project. Once the master site development plan is approved:
 - a. Each subsequent phase of development is permitted outright upon a showing that the proposed phase is being constructed in substantial compliance with the approved plan. This review of substantial compliance will be undertaken by means of a Type I procedure. A phase of development will be considered to be within substantial compliance if the actual characteristics of the project, e.g., total gross square feet of development, employees, vehicle trips, parking spaces, are within five percent of those projected in the approved master site development plan; providing, that the project still is in compliance with all applicable development standards in effect at the

time of the approval, or existing applicable development standards, if these are less stringent than the standards in effect at the time of approval. In lieu of minor modifications by the five percent rule established above, the applicant may request minor adjustments through the administrative adjustment provisions in NMC 15.210.010 et seq.

- b. If at the time of construction a subsequent phase of development is not in substantial compliance with the approved plan as defined above, the proposed changes will be subject to review by means of a Type II procedure, including any necessary variances to the applicable development standards in effect at the time of the new application. Those aspects of the phase which do not vary from the approved plan will be reviewed under the provisions of subsection (D)(1)(a) of this section, and not subject to the review required in this subsection.
2. Institutions and other large developments that anticipate significant development over time, but cannot provide detailed information about future projects or phases of development in advance, can develop a concept master site development plan which addresses generic site development and design elements including but not limited to general architectural standards and materials, landscaping standards and materials, on-site vehicular and pedestrian circulation, institutional sign program, and baseline traffic and parking studies and improvement programs. The applicant will be required to undergo Type II site design review, per the requirements of NMC 15.220.030(B), for each project or phase of development at the time of construction, including demonstration of substantial compliance with the generic development and design elements contained within the approved concept master site development plan. The more detailed and comprehensive the generic elements in the concept master site development plan are, the more reduced is the scope of discretionary review at the time of actual construction of a project or phase of development. For purposes of this subsection, “substantial compliance” will be defined as noted in subsection (D)(1)(a) of this section.
3. An applicant that submits a concept master site development plan which meets the requirements of subsection (D)(2) of this section may at the same time submit a master site development plan for one or more of the initial phases contained in the concept master site development plan, which are described in sufficient detail to receive complete design review approval in advance, under the provisions of subsection (D)(1) of this section. The concept master site development plan and master site development plan will be filed as separate applications but reviewed concurrently.
4. The approval(s) granted in this section shall be in effect as follows:

- a. Once a master site development plan has been approved, completion of each phase shall extend the expiration of the original site design review approval by 12 months from the date of its expiration. Prior to the expiration of each phase, the applicant may apply for an extension to the phase which is about to expire through subsection (C) of this section. The extension of a phase under subsection (C) of this section shall also extend to any subsequent phases. The total number of extensions shall not extend the original site design review approval by more than five years from its original approval date.
- b. Institutions submitting a concept master site development plan shall be held to the same requirement provided in subsection (D)(2)(a) of this section, unless the plan specifically includes an expiration date. In no case shall a concept master site development plan cover a period exceeding 10 years.

Response: This application seeks approval for Phase 2 of four planned phases of the Friendsview University Village expansion. A Friendsview Concept Master Plan was approved on February 26, 2016. This application for an institutional facility is in accordance with that Master Plan and these requirements. Application for Site Design Review for Phase 2 of the project is submitted in accordance with NMC 15.220.020 (D)(2) above. The criteria, where applicable, are met.

15.220.030 Site design review requirements.

B. Type II. The following information is required to be submitted with all Type II applications for site design review:

- 1. Site Development Plan. A site development plan shall be to scale and shall indicate the following as appropriate to the nature of the use:
 - a. Access to site from adjacent right-of-way, streets and arterials;
 - b. Parking and circulation areas;
 - c. Location and design of buildings and signs;
 - d. Orientation of windows and doors;
 - e. Entrances and exits;
 - f. Private and shared outdoor recreation spaces;
 - g. Pedestrian circulation;
 - h. Outdoor play areas;
 - i. Service areas for uses such as mail delivery, trash disposal, above-ground utilities, loading and delivery;
 - j. Areas to be landscaped;
 - k. Exterior lighting;

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- l. Special provisions for handicapped persons;
 - m. Other site elements and spaces which will assist in the evaluation of site development;
 - n. Proposed grading, slopes, and proposed drainage;
 - o. Location and access to utilities including hydrant locations; and
 - p. Streets, driveways, and sidewalks.
2. Site Analysis Diagram. A site analysis diagram shall be to scale and shall indicate the following characteristics on the site and within 100 feet of the site:
 - a. Relationship of adjacent lands;
 - b. Location of species of trees greater than four inches in diameter at four feet above ground level;
 - c. Existing and proposed topography;
 - d. Natural drainage and proposed drainage and grading;
 - e. Natural features and structures having a visual or other significant relationship with the site.
 3. Architectural Drawings. Architectural drawings shall be prepared which identify floor plans and elevations.
 4. Landscape Plan. The landscape plan shall indicate:
 - a. The size, species and approximate locations of plant materials to be retained or placed on the site together with a statement which indicates the mature size and canopy shape of all plant materials;
 - b. Proposed site contouring; and
 - c. A calculation of the percentage of the site to be landscaped.
 5. Special Needs for Handicapped. Where appropriate, the design review plan shall indicate compliance with handicapped accessibility requirements including, but not limited to, the location of handicapped parking spaces, the location of accessible routes from the entrance to the public way, and ramps for wheelchairs.
 6. Existing Features and Natural Landscape. The plans shall indicate existing landscaping and existing grades. Existing trees or other features intended to be preserved or removed shall be indicated on the plans.
 7. Drives, Parking and Circulation. Proposed vehicular and pedestrian circulation, parking spaces, parking aisles, and the location and number of access points shall be indicated on the plans. Dimensions shall be provided on the plans for parking aisles, back-up areas, and other items as appropriate.
 8. Drainage. The direction and location of on- and off-site drainage shall be indicated on the plans. This shall include, but not be limited to, site drainage, parking lot drainage, size

and location of storm drain lines, and any retention or detention facilities necessary for the project.

9. **Buffering and Screening.** Buffering and screening of areas, structures and facilities for storage, machinery and equipment, services (mail, refuse, utility wires, and the like), loading and parking and similar accessory areas and structures shall be shown on the plans.
10. **Signs and Graphics.** The location, colors, materials, and lighting of all exterior signs, graphics or other informational or directional features shall be shown on the plans.
11. **Exterior Lighting.** Exterior lighting within the design review plan shall be indicated on the plans. The direction of the lighting, size and type of fixtures, and an indication of the amount of lighting shall be shown on the plans.
12. **Trash and Refuse Storage.** All trash or refuse storage areas, along with appropriate screening, shall be indicated on the plans. Refuse storage areas must be constructed of brick, concrete block or other similar products as approved by the director.
13. **Roadways and Utilities.** The proposed plans shall indicate any public improvements that will be constructed as part of the project, including, but not limited to, roadway and utility improvements.

Response: The Applicant has submitted preliminary development plans (Exhibit A) which include the information required by NMC 15.220.030, B (1) – (13), including scaled Site Development, Architectural, Landscaping, Parking, Lighting, and other plans and civil construction drawings with the required details listed. Any signage plans will be submitted under separate application. These criteria are met.

14. **Traffic Study.** A traffic study shall be submitted for any project that generates in excess of 40 trips per p.m. peak hour. This requirement may be waived by the director when a determination is made that a previous traffic study adequately addresses the proposal and/or when off-site and frontage improvements have already been completed which adequately mitigate any traffic impacts and/or the proposed use is not in a location which is adjacent to an intersection which is functioning at a poor level of service. A traffic study may be required by the director for projects below 40 trips per p.m. peak hour where the use is located immediately adjacent to an intersection functioning at a poor level of service. The traffic study shall be conducted according to the City of Newberg design standards.

Response: Attached as required is a Traffic Impact Analysis update memo (Exhibit F) which meets the listed requirements and studies the impact the development may have on surrounding traffic corridors. The original Traffic Impact Analysis was created in 2015 using figures from the Institute of Transportation Engineers (ITE) Trip Generation Manual 8th Edition. The ITE Trip Generation Handbook, Trip Generation Rates – 10th Edition indicates that this type of facility (Category ITE 252 – “Senior Adult Housing – Attached”), with 96 units, is estimated to generate a similar number of p.m. peak hour trips as the

original 2015 report. Since there are no changes in the unit trip generation rates or the total number of units planned through all four phases of University Village, an updated or new Traffic Impact Analysis is not warranted. This memo, prepared by a registered engineer, is attached as Exhibit F. This criterion is met.

15.220.030 Site design review requirements.

B. Type II. The following criteria are required to be met in order to approve a Type II design review request:

1. Design Compatibility. The proposed design review request incorporates an architectural design which is compatible with and/or superior to existing or proposed uses and structures in the surrounding area. This shall include, but not be limited to, building architecture, materials, colors, roof design, landscape design, and signage.

Response: The proposed building is similar or superior to and is therefore compatible with surrounding structures on the Friendsview campus to the east and north. The building will be five stories in height, with pitched gable and hipped roofs. Building materials will be similar to the surrounding structures with primary elements of the building being constructed with a brick base on the exterior of the first floor and cementitious lap and panel siding along the upper floors of the building. Signage will be submitted as part of a separate land use application. Architectural, lighting, and landscape design for the Phase 2 building is compliant with City requirements and preliminary plans for approval are attached (Exhibit A). These criteria are met.

2. Parking and On-Site Circulation. Parking areas shall meet the requirements of NMC 15.440.010. Parking studies may be required to determine if adequate parking and circulation are provided for uses not specifically identified in NMC 15.440.010. Provisions shall be made to provide efficient and adequate on-site circulation without using the public streets as part of the parking lot circulation pattern. Parking areas shall be designed so that vehicles can efficiently enter and exit the public streets with a minimum impact on the functioning of the public street.

Response: Friendsview University Village Phase 2 will provide 96 units of independent living units within a continuing care retirement community. 96 units of this type require at least 96 parking spaces; 106 parking spaces will be provided within an underground parking garage. The parking plans attached as part of Exhibit A demonstrate that the project provides adequate on-site parking and circulation for residents and does not use public streets as part of a parking lot circulation pattern. Because of the proposed layout of the parking lot under the Phase 2 building, vehicles can efficiently enter and exit the underground parking facility from public streets with a minimum impact on the functioning of the public street. These criteria have been satisfied.

3. Setbacks and General Requirements. The proposal shall comply with NMC 15.415.010 through 15.415.060 dealing with height restrictions and public access; and NMC 15.405.010 through 15.405.040 and 15.410.010 through

15.410.070 dealing with setbacks, coverage, vision clearance, and yard requirements.

Response: The specific criteria are addressed later within this narrative. The proposed project, with variance approval, will meet each of the criteria listed in the above requirement.

The Institutional zone requires a 25-foot front setback, 10-foot interior setback, and a 25-foot setback from properties zoned residential. The zone does not have a lot coverage limit. These requirements have been met.

The maximum height within the zone is 75 feet. Within 50 feet of an interior property line abutting the R-2 district, that height is limited to 30 feet. The building height is less than the maximum height of the district and the building is within 50 feet of an interior property line abutting an R-2 district.

Within 100 feet of a property line abutting a public street or railroad right-of-way, that maximum height is reduced to 50 feet. The Applicant has requested a variance to this height requirement.

The proposed Phase 2 building meets the 10-foot interior setback following the Friendsview campus lot consolidation (located on the east side of the site along former E Cherry Street) and the 25-foot required setback from Fulton Street. The building also meets the 25-foot setback from residential zoning (located on the west side of the former N Center Street at its closest). After granting of the variance, these criteria are or will be met.

4. Landscaping Requirements. The proposal shall comply with NMC 15.420.010 dealing with landscape requirements and landscape screening.

Response: The landscape plan complies with NMC 15.420.010. That section is reviewed in its entirety later within this report. The criterion is met.

5. Signs. Signs shall comply with NMC 15.435.010 et seq. dealing with signs.

Response: This criterion is not applicable. Signs are not proposed as part of this application.

7. Zoning District Compliance. The proposed use shall be listed as a permitted or conditionally permitted use in the zoning district in which it is located as found in NMC 15.305.010 through 15.336.020. Through this site review process, the director may make a determination that a use is determined to be similar to those listed in the applicable zoning district, if it is not already specifically listed. In this case, the director shall make a finding that the use shall not have any different or more detrimental effects upon the adjoining neighborhood area than those specifically listed.

8. Subdistrict Compliance. Properties located within subdistricts shall comply with the provisions of those subdistricts located in NMC 15.340.010 through 15.348.060.

Response: The site for Phase 2 is located within the Institutional district. The proposed use for the building is as a continuing care retirement home. This use is permitted within the

Institutional district. There is no applicable subdistrict for the site. These provisions have been satisfied.

9. **Alternative Circulation, Roadway Frontage Improvements and Utility Improvements.** Where applicable, new developments shall provide for access for vehicles and pedestrians to adjacent properties which are currently developed or will be developed in the future. This may be accomplished through the provision of local public streets or private access and utility easements. At the time of development of a parcel, provisions shall be made to develop the adjacent street frontage in accordance with city street standards and the standards contained in the transportation plan. At the discretion of the city, these improvements may be deferred through use of a deferred improvement agreement or other form of security.

Response: Phase 2 of University Village will be served by a number of existing utilities within Fulton Street and the surrounding former rights-of-way.

Water: There is an existing 6-inch water line within Fulton Street that loops through the property under former E Cherry Street and former N Center Street. Connection will be made within the Fulton Street right-of-way. Because existing water lines are already within public rights-of-way or within a 15-foot wide easement under former vacated streets that now serve the Friendsview campus, no additional water lines will be needed. The project will receive Systems Development Charge credits for the previously existing connections—13 single-family residences with 11 water meters.

Sewer: There is an existing 8-inch sewer line within Fulton Street and a 6-inch line within the former E Cherry Street and Friendsview Manor driveway. Connection will be made at the existing 6-inch lateral within the former E Cherry Street. Because existing sewer lines are already installed within the vacated streets that now serve the Friendsview campus, no additional sewer lines will be needed. The sewer lines within vacated rights-of-way will be privately owned and maintained. The project will receive SDC credits for the previously existing connections—13 single-family residences with a total of 247 plumbing fixtures.

Stormwater: As part of Phase 1 of University Village, a new 8-inch stormwater line was installed within former N Center Street. This drainage line connects to an existing 8-inch line within Fulton Street. Stormwater discharge will be directed to the existing 8-inch stormwater line at two points within the Friendsview Manor driveway, near the former E Cherry Street intersection and the Fulton Street intersection. The stormwater design utilizes the Low Impact Development Approach (LIDA) for water quality and quantity control of the net new impervious areas within Phase 2.

Street/Frontage Improvements: Access to the proposed structure will be through a pedestrian plaza entrance on Fulton Street, a circular driveway located at the rear (north) of the structure, and through the underground garage accessed from Fulton Street.

Frontage improvements were required adjacent to the site along Fulton Street per the Friendsview University Village Concept Master Plan approved in 2016. These improvements include dedication of additional right-of-way, installation of a 5-foot-wide

sidewalk and a 5½ -foot-wide planter strip along Fulton Street. Commercial driveway retrofits of the former Center Street/Fulton Street intersection and the Friendsview Manor driveway/Fulton Street intersection will also be completed to City of Newberg standards. These requirements are satisfied.

10. **Traffic Study Improvements.** If a traffic study is required, improvements identified in the traffic study shall be implemented as required by the director.

Response: The Applicant has provided a memo to address the current unit count and the build-out of the Concept Master Plan. Per Exhibit F, no traffic improvements are required. This criterion is met.

15.220.060 **Additional requirements for multifamily residential projects.**

The purpose of this section is to ensure that residential projects containing three or more units meet minimum standards for good design, provide a healthy and attractive environment for those who live there, and are compatible with surrounding development. As part of the site design review process, an applicant for a new multifamily residential project must demonstrate that some of the following site and building design elements, each of which has a point value, have been incorporated into the design of the project. At least 14 points are required for attached single-family projects of any size and smaller multifamily projects with six or fewer units and at least 20 points are required for multifamily projects with seven or more units. For more information and illustrations of each element, refer to the Newberg Residential Development Design Guidelines (July 1997).

Response: The proposed building has more than seven units; therefore, 20 points are required. Eligible points for the project are documented below and exceed the minimum points required.

A. **Site Design Elements.**

1. **Consolidate green space to increase visual impact and functional utility.** This applies to larger projects which collectively have a significant amount of open space areas which can be consolidated into children’s play areas, gardens, and/or dog-walking areas (three points).

Response: Landscaping is being consolidated into a central courtyard green space at the front of the building. A similar space will line the building between it and the driveway pull-in at the north side of the building. These open areas will serve the residents and visitors of Phase 2 of University Village. This criterion is met, and this project is eligible for three points for green space consolidation.

2. **Preserve existing natural features, including topography, water features, and/or native vegetation (three points).**

Response: The site was previously 11 separately owned lots developed as seven detached and three attached single-family residences. As a result, the site lacks any significant existing natural features, has generally flat urban topography, no water features, and no native vegetation. Eight trees are being proposed for preservation along the eastern edge of the site. This criterion is met, and this project is eligible for three points for preservation.

-
3. Use the front setback to build a street edge by orienting building(s) toward the street with a relatively shallow front yard (12 to 15 feet for two-story buildings) to create a more “pedestrian-friendly” environment (three points).

Response: The proposed project has an attractive building front and courtyard oriented towards Fulton Street. The west and east segments of the building are 33 feet from the sidewalk, which is an appropriate distance given the landscaping and height of the building. The area between the entrance and Fulton Street will be developed into a pedestrian plaza for residents of the Friendsview campus. The proposed setbacks, landscaping, and amenities create a pedestrian-friendly environment and qualify the project for three points.

4. Place parking lots to the sides and/or back of projects so that front yard areas can be used for landscaping and other “pedestrian-friendly” amenities (three points).

Response: The parking lot for the proposed structure is located entirely within an underground parking garage. The yard areas of the lot can be used for other purposes such as open space and pedestrian-friendly amenities as a result. This criterion is met, and this project is eligible for three points for the location of parking areas.

5. Create “outdoor” rooms in larger projects by grouping buildings to create well-defined outdoor spaces (two points).

Response: Landscaping is largely being consolidated into a central courtyard green space at the front of the building. Areas for outdoor use are provided throughout the property, within the central courtyard and private balconies. There is also an outdoor common use area at the north of the building that will serve residents. These open areas will serve the residents and visitors of Phase 2 of University Village. This criterion is met, and this project is eligible for two points for defining outdoor spaces.

6. Provide good-quality landscaping. Provide coordinated site landscaping sufficient to give the site its own distinctive character, including the preservation of existing landscaping and use of native species (two points).

Response: As previously stated, landscaping will be provided in such a method to provide open areas of green space and distinctive character for the site. Many of the species selected for landscaping are native species. Larger tree specimens along the eastern property line will be preserved. Care has been taken to select tree and plant species consistent with the area. This criterion is met, and this project is eligible for two points for good-quality landscaping.

7. Landscape at the edges of parking lots to minimize visual impacts upon the street and surrounding properties (two points).

Response: The parking lot, as an underground facility, is not landscaped.

8. Use street trees and vegetative screens at the front property line to soften visual impacts from the street and provide shade (one point).

Response: Street trees will be provided per NMC 15.420.010(B)(4). Other vegetative screening is provided between the building and the front property line per the Landscaping Plans (Exhibit A) and to the requirements of Newberg Municipal Code. This provision is satisfied, and the project qualifies for one point for street trees and vegetative screening.

9. Use site furnishings to enhance open space. Provide communal amenities such as benches, playground equipment, and fountains to enhance the outdoor environment (one point).

Response: Common outdoor open spaces to the north and south of the central portion of the building will be furnished. The proposed seating, firepit, and functional and decorative planters will enhance the outdoor environment and encourage use by residents and visitors. This criterion is met, and the project is eligible for one point for enhanced open space furnishings.

10. Keep fences neighborly by keeping them low, placing them back from the sidewalk, and using compatible building materials (one point).

Response: No fencing is proposed as part of this project.

11. Use entry accents such as distinctive building or paving materials to mark major entries to multifamily buildings or to individual units (one point).

Response: The site and building will be accented to distinctly emphasize the entry points. This project is qualified for one point for entry accents.

12. Use appropriate outdoor lighting which enhances the nighttime safety and security of pedestrians without causing glare in nearby buildings (one point).

Response: As shown in Exhibit A, all outdoor lighting has been selected and located as to enhance nighttime safety and security of pedestrians without causing light trespass or glare in nearby buildings. The lighting consists of downcast or recessed fixtures and, therefore, is appropriate for the site, consistent with criteria, and eligible for one point.

B. Building Design Elements.

1. Orient buildings toward the street. For attached single-family and smaller multifamily projects, this means orienting individual entries and porches to the street. In larger projects with internal circulation and grounds, this means that at least 10 percent of the units should have main entries which face the street rather than be oriented toward the interior (three points).

Response: The Friendsview University Village Phase 2 building has two primary entries, one oriented towards Fulton Street at the south side of the property and one oriented towards the internal Friendsview driveway (formerly E Cherry Street). This provision is met, and the project is eligible for three points for building design.

2. Respect the scale and patterns of nearby buildings by reflecting the architectural styles, building details, materials, and scale of existing buildings (three points).

Response: The proposed building is similar or superior to, and, therefore, compatible with, surrounding structures on the Friendsview campus to the east and north. The building will be five stories in height, with pitched gable and hipped roofs. Building materials will be similar to the surrounding construction with primary elements of the building being constructed with a brick base on the exterior of the first floor and cementitious lap and panel siding along the upper floors of the building. Signage will be submitted as part of a separate land use application. Architectural, lighting, and landscape design for the Phase 2 building is compliant with City requirements, and preliminary plans for approval are attached. These criteria are met, and the design is eligible for three points for building design.

3. Break up large buildings into bays by varying planes at least every 50 feet (three points).

Response: While the Phase 2 building is large, it is broken up into three major portions with no plane of the building greater than 50 feet in length. The project proposes variations in color, balconies, building materials, projections and recesses, and form in order to break up large surfaces horizontally and vertically. This requirement is met, and the project is eligible for three points for building design.

4. Provide variation in repeated units in both single-family attached and large multifamily projects so that these projects have recognizable identities. Elements such as color; porches, balconies, and windows; railings; and building materials and form, either alone or in combination, can be used to create this variety (three points).

Response: As this project consists of a singular building, these provisions are not applicable.

5. **Building Materials.** Use some or all of the following materials in new buildings: wood or wood-like siding applied horizontally or vertically as board and batten; shingles, as roofing, or on upper portions of exterior walls and gable ends; brick at the base of walls and chimneys; wood or wood-like sash windows; and wood or wood-like trim (one point for each material described above).

Response: The building is proposed to use a variety of materials including brick at the base of the building's walls, shingle roofing, wood-like siding applied horizontally to the middle floors of the building, and plank siding applied to the upper portions of the building. The project will also incorporate wood-like trim and siding along gable-ends. The project is eligible for a point for each variety of material chosen, for five total points. This criterion is met.

6. Incorporate architectural elements of one of the city's historical styles (Queen Anne, Dutch colonial revival, colonial revival, or bungalow style) into the design to reinforce the city's cultural identity. Typical design elements which should be considered include, but are not limited to, "crippled hip" roofs, Palladian-style windows, roof eave brackets, dormer windows, and decorative trim boards (two points).

Response: The Applicant has not proposed to incorporate any specific historical architectural elements or styles in the building design. The project features an architectural style which is attractive and compatible with surrounding buildings and neighborhoods.

7. Keep car shelters secondary to the building by placing them to the side or back of units and/or using architectural designs, materials, and landscaping to buffer visual impacts from the street (two points).

Response: This project completely obscures vehicle parking from the street level by providing parking spaces underground. This criterion is met, and this project is eligible for two points for obscuring parking.

8. Provide a front porch at every main entry as this is both compatible with the city's historic building pattern and helps to create an attractive, "pedestrian-friendly" streetscape (two points).

Response: The main, southern entry at the front of the building has a porch style which both fits in with the City's historic building patterns and helps to create a pedestrian-friendly streetscape. The rear, northern entry also has a porch-style entry. This project qualifies for two points for providing a front-porch type entry.

9. Use sloped roofs at a pitch of 3:12 or steeper. Gable and hip roof forms are preferable (two points).

Response: All portions of the roof have a pitch of 4:12. The roof structure also consists solely of gable and hipped roofs. These criteria are met, and this project is, therefore, eligible for two points.

Division 15.300 Zoning Districts

Chapter 15.302 DISTRICTS AND THEIR AMENDMENT

15.302.010 Establishment and designation of use districts and subdistricts.

In order to classify, regulate, restrict and segregate the uses of lands and buildings, to regulate and restrict the height and size of buildings, to regulate the area of yards and other open spaces about buildings, and to regulate the density of population, the following classes of use districts and subdistricts are established:

A. Use Districts.

10. I institutional district.

15.302.032 Purposes of each zoning district.

- O. I Institutional District. The I institutional district is intended to support and promote institutional uses. The district provides for the establishment and growth of large institutional campuses as well as accessory and compatible uses. The institutional district is intended to be consistent with the public/quasi-public (PQ) designation of the comprehensive plan.

Response: The subject property is located within the Institutional district. This application is for a 96-unit independent living apartment building, a type of group care home. This use is permitted and consistent with surrounding uses in the Institutional district and within the Public/Quasi-Public Comprehensive Plan designation. The criteria are met.

Chapter 15.303 USE CATEGORIES

15.303.315 Group care facility category.

- A. Characteristics. The group care facility category includes licensed facilities that provide residential care alone or in conjunction with treatment or training or a combination thereof for 16 or more individuals who need not be related. Staff persons required to meet licensing requirements shall not be counted in the number of facility residents, and need not be related to each other or to any resident of the residential facility.
- B. Accessory Uses. Personal service uses, recreational facilities, dining facilities, or retail sales for use of tenants, employees, or tenant visitors.
- C. Examples. Nursing homes, continuing care retirement facilities, addiction treatment centers, sanitariums.
- D. Exclusions. Residential care homes, residential care facilities, and prisons are separate use categories. Assisted living facilities are classified as multiple-family dwellings.

Response: The proposed use is a continuing care retirement home, a type of group care facility, a permitted use within the Institutional district. These criteria are met.

Chapter 15.305 ZONING USE TABLE

15.305.020 Zoning use table – Use districts.

Newberg Development Code – Zoning Use Table

#	Use	I	Notes and Special Use Standards
310	Institutional Care and Housing		
315	Group care facility (16+ people)	P	
Key: P: Permitted use S: Special use – Use requires a special use permit C: Conditional use – Requires a conditional use permit X: Prohibited use (#): See notes for limitations			

Response: The Applicant has proposed a continuing care retirement facility, a type of group care facility. Per the Zoning Use Table and NMC 15.305.020, group care facilities are permitted within the Institutional district. This criterion is met.

Division 15.400 Development Standards

Chapter 15.405 LOT REQUIREMENTS

15.405.010 Lot area – Lot areas per dwelling unit.

- A. In the following districts, each lot or development site shall have an area as shown below except as otherwise permitted by this code:
 - 5. Institutional districts shall have a minimum size of five contiguous acres in order to create a large enough campus to support institutional uses; however, additions to the district may be made in increments of any size.

Response: The proposed site is ±1.85 acres in size but is already included within the Institutional district. The site is part of the Friendsview campus—an area of over 21 acres. This criterion is met.

- 15.405.030 Lot dimensions and frontage.
- A. Width. Widths of lots shall conform to the standards of this code.
 - B. Depth to Width Ratio. Each lot and parcel shall have an average depth between the front and rear lines of not more than two and one-half times the average width between the side lines. Depths of lots shall conform to the standards of this code. Development of lots under 15,000 square feet are exempt from the lot depth to width ratio requirement.
 - C. Area. Lot sizes shall conform to standards set forth in this code. Lot area calculations shall not include area contained in public or private streets as defined by this code.
 - D. Frontage.
 - 1. No lot or development site shall have less than the following lot frontage standards:
 - a. Each lot or development site shall have either frontage on a public street for a distance of at least 25 feet or have access to a public street through an easement that is at least 25 feet wide. No new private streets, as defined in NMC 15.05.030, shall be created to provide frontage or access except as allowed by NMC 15.240.020(L)(2).
 - 2. The above standards apply with the following exceptions:
 - a. Legally created lots of record in existence prior to the effective date of the ordinance codified in this code.
 - b. Lots or development sites which, as a process of their creation, were approved with sub-standard widths in accordance with provisions of this code.
 - c. Existing private streets may not be used for new dwelling units, except private streets that were created prior to March 1, 1999, including paving to fire access roads standards and installation of necessary utilities, and private streets allowed in the airport residential and airport industrial districts.

Response: The lot dimensions and frontage of the site conform to the standards for the Institutional district as outlined within the Newberg Municipal Code.

- 15.405.040 Lot coverage and parking coverage requirements.
- A. Purpose. The lot coverage and parking coverage requirements below are intended to:
 - 1. Limit the amount of impervious surface and storm drain runoff on residential lots.
 - 2. Provide open space and recreational space on the same lot for occupants of that lot.

3. Limit the bulk of residential development to that appropriate in the applicable zone.

C. All other districts and uses not listed in subsection (B) of this section shall not be limited as to lot coverage and parking coverage except as otherwise required by this code.

Response: The proposed project conforms to the Institutional zoning district requirements for lot coverage and parking coverage. These criteria are satisfied.

Chapter 15.410 YARD SETBACK REQUIREMENTS

15.410.010 General yard regulations.

- A. No yard or open space provided around any building for the purpose of complying with the provisions of this code shall be considered as providing a yard or open space for any other building.
- B. No yard or open space on adjoining property shall be considered as providing required yard or open space for another lot or development site under the provisions of this code.
- C. No front yards provided around any building for the purpose of complying with the regulations of this code shall be used for public or private parking areas or garages, or other accessory buildings, except as specifically provided elsewhere in this code.
- D. When the common property line separating two or more contiguous lots is covered by a building or a permitted group of buildings with respect to such common property line or lines does not fully conform to the required yard spaces on each side of such common property line or lines, such lots shall constitute a single development site and the yards as required by this code shall then not apply to such common property lines.

Response: Despite being part of the same campus, the proposed facility does not count any yards or open space of adjoining properties or buildings. Parking has not been proposed within any yard or open space. Former properties on the site have been consolidated, and the proposed building is composed of a single development site. These criteria have been satisfied.

15.410.020 Front yard setback.

D. Institutional and Community Facility. All lots or development sites in the I and CF district shall have a front yard of 25 feet. Outdoor activity facilities, such as pools, basketball courts, tennis courts, or baseball diamonds, including any accessory structures and uses, are not permitted within the required setback.

Response: The proposed building provides a 25-foot setback for the front of the building, located on Fulton Street. The Fulton Street entrance involves an ADA ramp for access. While this ramp is within the front setback of the building, the height of the structure is less than three-and-a-half feet and the structure is permitted per NMC 15.410.070(C)(3). No prohibited facilities or structures have been proposed within the required front setback. These criteria are met.

15.410.030 Interior yard setback.

D. Institutional and Community Facility. All lots or development sites in the I and CF district shall have interior yards of not less than 10

feet, except outdoor activity facilities, such as pools, basketball courts, tennis courts, or baseball diamonds, including any accessory structures and uses, shall have an interior yard setback of 25 feet when abutting a residential district.

Response: This site, situated between Fulton Street and the vacated Center and E Cherry Streets, provides greater than the required 10-foot setback amount from all side and rear lot lines. The Applicant also does not propose any of the listed accessory structures or facilities within any setback areas adjacent to a residential district. These provisions have been met.

- 15.410.040 Setback and yard restrictions as to schools, churches, public buildings.
- A. Building Setback. No buildings shall be erected, used or maintained for a school, church or public or semi-public building or use, institution or similar use under the regulations of this code unless such building is removed at least 25 feet from every boundary line of any property included in any residential district.
 - B. Required Yard. No required front or interior yard of the lot on which such building or use is located shall be used for play or parking purposes.

Response: The building is adjacent to an R-2 zone at the southwest corner, across the recently vacated N Center Street. The setback in this location is greater than the required 25 feet. No play or parking purposes have been proposed within any required yard area. These criteria are satisfied.

- 15.410.060 Vision clearance setback.
- The following vision clearance standards shall apply in all zones (see Appendix A, Figure 9).
- A. At the intersection of two streets, including private streets, a triangle formed by the intersection of the curb lines, each leg of the vision clearance triangle shall be a minimum of 50 feet in length.
 - B. At the intersection of a private drive and a street, a triangle formed by the intersection of the curb lines, each leg of the vision clearance triangle shall be a minimum of 25 feet in length.
 - C. Vision clearance triangles shall be kept free of all visual obstructions from two and one-half feet to nine feet above the curb line. Where curbs are absent, the edge of the asphalt or future curb location shall be used as a guide, whichever provides the greatest amount of vision clearance.

Response: The proposed building is set back from street and driveway intersections a satisfactory distance. The building is set back from the former street intersections of Center and Fulton Streets, former E Cherry Street and the Friendsview Manor private driveway, and the private driveway and Fulton Street. Vision clearance triangles are shown on the attached Preliminary Site Plan. These criteria are met.

- 15.410.070 Yard exceptions and permitted intrusions into required yard setbacks.
- The following intrusions may project into required yards to the extent and under the conditions and limitations indicated:

-
- A. Depressed Areas. In any district, open work fences, hedges, guard railings or other landscaping or architectural devices for safety protection around depressed ramps, stairs or retaining walls may be located in required yards; provided, that such devices are not more than three and one-half feet in height.
 - B. Accessory Buildings. In front yards on through lots, where a through lot has a depth of not more than 140 feet, accessory buildings may be located in one of the required front yards; provided, that every portion of such accessory building is not less than 10 feet from the nearest street line.
 - C. Projecting Building Features. The following building features may project into the required front yard no more than five feet and into the required interior yards no more than two feet; provided, that such projections are no closer than three feet to any interior lot line:
 1. Eaves, cornices, belt courses, sills, awnings, buttresses or other similar features.
 2. Chimneys and fireplaces, provided they do not exceed eight feet in width.
 3. Porches, platforms or landings which do not extend above the level of the first floor of the building.
 4. Mechanical structures (heat pumps, air conditioners, emergency generators and pumps).
 - D. Fences and Walls.
 2. In any commercial or industrial district, a fence or wall shall be permitted to be placed at the property line or within a yard setback as follows:
 - a. Not to exceed eight feet in height. Located or maintained in any interior yard except where the requirements of vision clearance apply. For purposes of fencing only, lots that are corner lots or through lots may select one of the street frontages as a front yard and all other yards shall be considered as interior yards, allowing the placement of an eight-foot fence on the property line.
 - b. Not to exceed four feet in height. Located or maintained within all other front yards.
 3. If chain link (wire-woven) fences are used, they are manufactured of corrosion-proof materials of at least 11-1/2 gauge.
 4. The requirements of vision clearance shall apply to the placement of fences.
 - E. Parking and Service Drives (Also Refer to NMC 15.440.010 through 15.440.080).
 4. In the I district, public or private parking areas or parking spaces may be no closer to a front property line than 20 feet, and no closer to an interior property line than five feet.

Response: The University Village Phase 2 project has not proposed prohibited building protrusions, depressions, fences, walls, accessory buildings, or parking areas within any of the

property's required yards. The project will have some pedestrian patio areas and steps within the building's setback areas, including an ADA accessibility ramp, but these do not exceed the height of the first floor of the building. The driveway ramp leading to the underground parking area is protected by landscaping planters no greater than three-and-a-half feet in height. These provisions are satisfied.

Chapter 15.415 BUILDING AND SITE DESIGN STANDARDS

15.415.020 Building height limitation.

D. Institutional. The maximum height of any building or structure will be 75 feet except as follows:

1. Within 50 feet of an interior property line abutting a C-1, R-1, R-2 or R-P district, no main building may exceed 30 feet.
3. Within 100 feet of a property line abutting a public street or railroad right-of-way, or within 100 feet of property lines abutting parcels with an R-1, R-2, R-3, R-P, C-1, C-2, C-3, M-1, M-2, or M-3 zoning designation, no main building may exceed 50 feet in height.
4. To utilize the maximum permitted height standard, at least 80 percent of the building's ground coverage must be beyond the setback area designated in subsection (D)(3) of this section. The maximum encroachment may not exceed 25 feet.

Response: The applicant has addressed building height using the Alternative Building Height Standard in Subsection E below.

E. Alternative Building Height Standard. As an alternative to the building height standards above, any project may elect to use the following standard (see Figure 24 in Appendix A). To meet this standard:

1. Each point on the building must be no more than 20 feet higher than the ground level at all points on the property lines, plus one vertical foot for each horizontal foot of distance from that property line; and
2. Each point on the building must be no more than 20 feet higher than the ground level at a point directly north on a property line, plus one vertical foot for each two horizontal feet of distance between those points. This second limit does not apply if the property directly to the north is a right-of-way, parking lot, protected natural resource, or similar unbuildable property.

Penalty: See NMC 15.05.120.

Response: The Applicant calculated the building's height using the Alternative Building Height Standards listed in NMC 15.415.020(E). The proposed building will require a variance to meet the strict interpretation of the Institutional maximum height standards along Fulton Street. Please see the Applicant's response to NMC 15.215 above. These criteria are met.

15.415.030 Building height exemptions.

Roof structures and architectural features for the housing of elevators, stairways, tanks, ventilating fans and similar equipment

required to operate and maintain the building, fire or parapet walls, skylights, towers, flagpoles, chimneys, smokestacks, wireless masts, TV antennas, steeples and similar structures may be erected above the height limits prescribed in this code; provided, that no roof structure, feature or any other device above the prescribed height limit shall be allowed or used for the purpose of providing additional floor space. Further, no roof structure or architectural feature under this exemption shall be erected more than 18 feet above the height of the main building, whether such structure is attached to it or freestanding, nor shall any such structure or feature exceed the height limits of the airport overlay subdistrict.

Response: A stairway roof is proposed within an area of restricted height. These structures are exempt from building height restrictions. This area is not used for the purpose of providing additional floor space and is not more than 18 feet above the height of the main building. These requirements are met.

15.415.040 Public access required.

No building or structure shall be erected or altered except on a lot fronting or abutting on a public street or having access to a public street over a private street or easement of record approved in accordance with provisions contained in this code. New private streets may not be created to provide access except as allowed under NMC 15.332.020(B)(24), 15.336.020(B)(8), and in the M-4 zone. Existing private streets may not be used for access for new dwelling units, except as allowed under NMC 15.405.030. No building or structure shall be erected or altered without provisions for access roadways as required in the Oregon Fire Code, as adopted by the city.

Response: The proposed site is abutting a public street and is surrounded by former public streets, now private driveways. These criteria are satisfied.

Chapter 15.420 LANDSCAPING AND OUTDOOR AREAS

15.420.010 Required minimum standards.

A. Private and Shared Outdoor Recreation Areas in Residential Developments.

1. Private Areas. Each ground-level living unit in a residential development subject to a design review plan approval shall have an accessible outdoor private space of not less than 48 square feet in area. The area shall be enclosed, screened or otherwise designed to provide increased privacy for unit residents, their guests and neighbors.

Response: Useable outdoor area is shown on the attached plans (Sheet A11 – Exhibit A). Each unit, including those on the ground floor, has a private outdoor area greater than 48 square feet, ranging from 92 to 278 square feet provided as an outdoor patio per unit. Ground-level living unit private outdoor areas are screened by a number of shrub plantings for increased privacy in these areas. These provisions are satisfied.

2. Individual and Shared Areas. Usable outdoor recreation space shall be provided for the individual and/or shared use of residents and their guests in any duplex or multifamily residential development, as follows:

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- a. One- or two-bedroom units: 200 square feet per unit.
 - b. Three- or more bedroom units: 300 square feet per unit.
 - c. Storage areas are required in residential developments. Convenient areas shall be provided in residential developments for the storage of articles such as bicycles, barbecues, luggage, outdoor furniture, and the like. These shall be entirely enclosed.

Response: Shared outdoor areas are provided on the ground level as part of two outdoor seating areas and surrounding landscaping and walkways. These shared areas total $\pm 21,509$ square feet, greater than the 19,200 square feet required by the provided unit bedroom count (96 1-bedroom and 2-bedroom units). Enclosed storage areas are provided on the perimeter of the underground parking area. These criteria are met.

B. Required Landscaped Area. The following landscape requirements are established for all developments except single-family dwellings:

- 1. A minimum of 15 percent of the lot area shall be landscaped; provided, however, that computation of this minimum may include areas landscaped under subsection (B)(3) of this section. Development in the C-3 (central business district) zoning district and M-4 (large lot industrial) zoning district is exempt from the 15 percent landscape area requirement of this section. Additional landscaping requirements in the C-4 district are described in NMC 15.352.040(K). In the AI airport industrial district, only a five percent landscaping standard is required with the goal of “softening” the buildings and making the development “green” with plants, where possible. The existence of the runway, taxiway, and approach open areas already provide generally for the 15 percent requirement. Developments in the AI airport industrial district with a public street frontage shall have said minimum landscaping between the front property line and the front of the building.
- 2. All areas subject to the final design review plan and not otherwise improved shall be landscaped.

Response: Approximately 30,814 square feet, or ± 39.7 percent of the site area, is proposed to be landscaped, greater than the minimum 15 percent in the above criteria. All areas of the site not covered by a structure or other hard-surface improvement are proposed to be covered by landscaping. These criteria are satisfied.

- 3. The following landscape requirements shall apply to the parking and loading areas:
 - a. A parking or loading area providing 10 or more spaces shall be improved with defined landscaped areas totaling no less than 25 square feet per parking space.
 - b. A parking, loading area, or drive aisle which runs adjacent to a property line shall be separate from any lot line adjacent to a street by a landscaped strip

at least 10 feet in interior width or the width of the required yard, whichever is greater, and any other lot line by a landscaped strip of at least five feet in interior width. See subsections (B)(3)(c) and (d) of this section for material to plant within landscape strips.

- c. A landscaped strip separating a parking area, loading area, or drive aisle from a street shall contain street trees spaced as appropriate to the species, not to exceed 50 feet apart on average, and a combination of shrubs and ground cover, or lawn. This landscaping shall provide partial screening of these areas from the street.
- d. A landscaped strip separating a parking area, loading area, or drive aisle from an interior lot line shall contain any combination of trees, shrubs, ground cover or lawn. Plant material shall be selected from at least two different plant material groups (example: trees and shrubs, or lawn and shrubs, or lawn and trees and shrubs).
- e. Landscaping in a parking or loading area shall be located in defined landscaped areas which are uniformly distributed throughout the parking or loading area.
- f. Landscaping areas in a parking lot, service drive or loading area shall have an interior width of not less than five feet.
- g. All multifamily, institutional, commercial, or industrial parking areas, service drives, or loading zones which abut a residential district shall be enclosed with a 75 percent opaque, site-obscuring fence, wall or evergreen hedge along and immediately adjacent to any interior property line which abuts the residential district. Landscape plantings must be large enough to provide the required minimum screening requirement within 12 months after initial installation. Adequate provisions shall be maintained to protect walls, fences or plant materials from being damaged by vehicles using said parking areas.
- h. An island of landscaped area shall be located to separate blocks of parking spaces. At a minimum, one deciduous shade tree per seven parking spaces shall be planted to create a partial tree canopy over and around the parking area. No more than seven parking spaces may be grouped together without an island separation unless otherwise approved by the director based on the following alternative standards:
 - i. Provision of a continuous landscaped strip, with a five-foot minimum width, which runs perpendicular to the row of parking spaces (see Appendix A, Figure 13).

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- ii. Provision of tree planting landscape islands, each of which is at least 16 square feet in size, and spaced no more than 50 feet apart on average, within areas proposed for back-to-back parking (see Appendix A, Figure 14).

Response: Because the University Village Phase 2 building is providing an underground parking garage, the above parking lot landscaping provisions do not apply. The parking garage has a service drive leading to surface level on Fulton Street. The above ground areas of the service drive are proposed to be buffered with greater than 5 feet of landscaping. Plantings within this area will not abut a residential district and must conform to vision clearance regulations; therefore, they will not feature a sight-obscuring fence or screening plantings. The above provisions are satisfied.

- 4. Trees, Shrubs and Ground Covers. The species of street trees required under this section shall conform to those authorized by the city council through resolution. The director shall have the responsibility for preparing and updating the street tree species list which shall be adopted in resolution form by the city council.
 - a. Arterial and minor arterial street trees shall have spacing of approximately 50 feet on center. These trees shall have a minimum two-inch caliper tree trunk or stalk at a measurement of two feet up from the base and shall be balled and burlapped or boxed.
 - b. Collector and local street trees shall be spaced approximately 35 to 40 feet on center. These trees shall have a minimum of a one and one-half or one and three-fourths inch tree trunk or stalk and shall be balled and burlapped or boxed.

Response: Fulton Street is classified as a major collector. Street tree plantings will meet the requirements of collector streets and trees will be placed ± 30 feet apart, on-center, where they will not interfere with vision clearance. The plantings will have trunks greater than 1½ inches in diameter and will be balled and burlapped. These criteria are met.

- c. Accent Trees. Accent trees are trees such as flowering cherry, flowering plum, crab-apple, Hawthorne and the like. These trees shall have a minimum one and one-half inch caliper tree trunk or stalk and shall be at least eight to 10 feet in height. These trees may be planted bare root or balled and burlapped. The spacing of these trees should be approximately 25 to 30 feet on center.

Response: Instances of accent trees on the property, as designated on the Landscaping Plans (Exhibit A), will meet the minimum trunk diameter of 1½ inches and eight feet in height. The trees will be spaced ± 25 to 30 feet apart, on-center. These provisions are satisfied.

- d. All broad-leaved evergreen shrubs and deciduous shrubs shall have a minimum height of 12 to 15 inches and shall be balled and burlapped or come from a two-gallon can. Gallon-can size shrubs will not be allowed except in ground covers. Larger

sizes of shrubs may be required in special areas and locations as specified by the design review board. Spacing of these shrubs shall be typical for the variety, three to eight feet, and shall be identified on the landscape planting plan.

Response: All shrub plantings shown on the Landscaping Plans (Exhibit A) have a minimum height of 12 to 15 inches and are balled and burlapped or come from at least a 2-gallon container. Plantings are proposed to be grouped and spaced 3 to 8 feet from each other. These criteria are met.

e. **Ground Cover Plant Material.** Ground cover plant material such as greening juniper, cotoneaster, minor Bowles, English ivy, hypericum and the like shall be one of the following sizes in specified spacing for that size:

Gallon cans	3 feet on center
4" containers	2 feet on center
2-1/4" containers	18" on center
Rooted cuttings	12" on center

Response: Ground cover for University Village Phase 2 is shown on the required Landscaping Plans (Exhibit A). The landscaping is shown to be planted in groupings and distances appropriate to the species and planting size. These criteria are satisfied.

5. Automatic, underground irrigation systems shall be provided for all areas required to be planted by this section. The director shall retain the flexibility to allow a combination of irrigated and nonirrigated areas. Landscaping material used within nonirrigated areas must consist of drought-resistant varieties. Provision must be made for alternative irrigation during the first year after initial installation to provide sufficient moisture for plant establishment.

6. Required landscaping shall be continuously maintained.

Response: All plantings for the proposed structure will be irrigated and continuously maintained as shown within the Landscaping Plans (Exhibit A). These provisions are met.

7. Maximum height of tree species shall be considered when planting under overhead utility lines.

8. Landscaping requirements and standards for parking and loading areas (subsection (B)(3) of this section) will apply to development proposals unless the institution has addressed the requirements and standards by an approved site development master plan. With an approved site development master plan, the landscape requirements will be reviewed through an administrative Type I review process.

Response: These sections of the Newberg Municipal Code are not applicable. All utilities along Fulton Street will be undergrounded, per code requirements; therefore, street trees will not interfere with overhead power lines. Parking and loading areas are also underground and will not feature any landscaping within islands or along parking aisles.

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- C. Installation of Landscaping. All landscaping required by these provisions shall be installed prior to the issuance of occupancy permits, unless security equal to 110 percent of the cost of the landscaping as determined by the director is filed with the city, insuring such installation within six months of occupancy. A security – cash, certified check, time certificates of deposit, assignment of a savings account, bond or such other assurance of completion as shall meet with the approval of the city attorney – shall satisfy the security requirements. If the installation of the landscaping is not completed within the six-month period, or within an extension of time authorized by the director, the security may be used by the city to complete the installation. Upon completion of the installation, any portion of the remaining security deposited with the city shall be returned to the applicant.

Response: Proposed landscaping will be installed prior to occupancy. These criteria are or will be met.

15.420.020 Landscaping and amenities in public rights-of-way.

The following standards are intended to create attractive streetscapes and inviting pedestrian spaces. A review body may require any of the following landscaping and amenities to be placed in abutting public rights-of-way as part of multifamily, commercial, industrial, or institutional design reviews, or for subdivisions and planned unit developments. In addition, any entity improving existing rights-of-way should consider including these elements in the project. A decision to include any amenity shall be based on comprehensive plan guidelines, pedestrian volumes in the area, and the nature of surrounding development.

- A. Pedestrian Space Landscaping. Pedestrian spaces shall include all sidewalks and medians used for pedestrian refuge. Spaces near sidewalks shall provide plant material for cooling and dust control, and street furniture for comfort and safety, such as benches, waste receptacles and pedestrian-scale lighting. These spaces should be designed for short-term as well as long-term use. Elements of pedestrian spaces shall not obstruct sightlines and shall adhere to any other required city safety measures. Medians used for pedestrian refuge shall be designed for short-term use only with plant material for cooling and dust control, and pedestrian-scale lighting. The design of these spaces shall facilitate safe pedestrian crossing with lighting and accent paving to delineate a safe crossing zone visually clear to motorists and pedestrians alike.

Response: The University Village Phase 2 project will include well-landscaped pedestrian spaces which do not obstruct sightlines or create safety issues. This landscaping will facilitate safe pedestrian crossing of the facility’s parking driveway. These provisions are met.

1. Street trees planted in pedestrian spaces shall be planted according to NMC 15.420.010(B)(4).

Response: As previously stated, street trees have been proposed and will be planted according to NMC 15.420.010. This criterion is satisfied.

2. Pedestrian spaces shall have low (two and one-half feet) shrubs and ground covers for safety purposes, enhancing visibility and discouraging criminal activity.

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- a. Plantings shall be 90 percent evergreen year-round, provide seasonal interest with fall color or blooms, and at maturity maintain growth within the planting area (refer to plant material matrix below).
 - b. Plant placement shall also adhere to clear sight line requirements as well as any other relevant city safety measures.

Response: The proposed ground cover and shrub plantings around pedestrian spaces will be low to encourage visibility, enhance safety, and discourage crime. These plantings will be 90 percent evergreen year-round, provide seasonal interest, and provide clear sight lines. These criteria are met.

- 3. Pedestrian-scale lighting shall be installed along sidewalks and in medians used for pedestrian refuge.
 - a. Pole lights as well as bollard lighting may be specified; however, the amount and type of pedestrian activity during evening hours, e.g., transit stops, nighttime service districts, shall ultimately determine the type of fixture chosen.
 - b. Luminaire styles shall match the area/district theme of existing luminaires and shall not conflict with existing building or roadway lights causing glare.
 - c. Lighting heights and styles shall be chosen to prevent glare and to designate a clear and safe path and limit opportunities for vandalism (see Appendix A, Figure 17, Typical Pedestrian Space Layouts).
 - d. Lighting shall be placed near the curb to provide maximum illumination for spaces furthest from building illumination. Spacing shall correspond to that of the street trees to prevent tree foliage from blocking light.

Response: Lighting has been chosen to be appropriate to the site. Walkways on the site are proposed to be lit by bollards, while other areas of the site will be lit by pole fixtures or building-mounted lights. Luminaire styles will be in keeping with the established styles of the surrounding campus and will not cause glare or conflict with existing building or roadway lighting. Lighting heights have been carefully designed to prevent glare and light trespass while also maximizing on-site lighting for safety and security. The proposed lighting meets these provisions of Newberg Municipal Code.

- 4. Street furniture such as benches and waste receptacles shall be provided for spaces near sidewalks only.
 - a. Furniture should be sited in areas with the heaviest pedestrian activity, such as downtown, shopping districts, and shopping centers.
 - b. Benches should be arranged to facilitate conversation between individuals with L-shaped arrangements and should face the area focal point,

such as shops, fountains, plazas, and should divert attention away from nearby traffic.

5. Paving and curb cuts shall facilitate safe pedestrian crossing and meet all ADA requirements for accessibility.

Response: As demonstrated by the submitted plans, there are two separate seating areas adjacent to routes of heaviest pedestrian activity. These groupings of furniture are arranged to facilitate conversation and comfortable use of the site, including focal points such as the facility's fire pit. All paving, curb cuts, and walkways on and adjacent to the site will meet Americans with Disabilities (ADA) requirements for accessibility. These criteria are satisfied.

B. **Planting Strip Landscaping.** All planting strips shall be landscaped. Planting strips provide a physical and psychological buffer for pedestrians from traffic with plant material that reduces heat and dust, creating a more comfortable pedestrian environment. Planting strips shall have different arrangements and combinations of plant materials according to the frequency of on-street parking (see Appendix A, Figures 18 and 19).

1. Planting strips which do not have adjacent parking shall have a combination of ground covers, low (two and one-half feet) shrubs and trees. Planting strips adjacent to frequently used on-street parking, as defined by city staff, shall only have trees protected by tree grates, and planting strips adjacent to infrequently used on-street parking shall be planted with ground cover as well as trees (see Appendix A, Figures 18 and 19, Typical Planting Strip Layouts). District themes or corridor themes linking individual districts should be followed utilizing a unifying plant characteristic, e.g., bloom color, habit, or fall color. When specifying thematic plant material, monocultures should be avoided, particularly those species susceptible to disease.

Response: The required planting strip is proposed to be landscaped in order to reduce dust and heat, provide a physical and psychological buffer, and create a comfortable pedestrian environment. Parking is not currently permitted along this section of Fulton Street, therefore, the plantings proposed are street trees and low ground cover such as the proposed privet honeysuckle. Sidewalk protection is proposed through root barriers, as shown in Exhibit A. These provisions are met.

2. Street trees shall be provided in all planting strips as provided in NMC 15.420.010(B)(4).
 - a. Planting strips without adjacent parking or with infrequent adjacent parking shall have street trees in conjunction with ground covers and/or shrubs.
 - b. Planting strips with adjacent parking used frequently shall have only street trees protected by tree grates.

Response: Proposed street trees will be installed in planting strips per NMC 15.420.010(B)(4). Due to parking being provided under the building, no planting strips will be adjacent to parking areas. These criteria are satisfied.

3. Shrubs and ground covers shall be provided in planting strips without adjacent parking with low (two and one-half feet) planting masses to enhance visibility, discourage criminal activity, and provide a physical as well as psychological buffer from passing traffic.
 - a. Plantings shall be 90 percent evergreen year-round, provide seasonal interest with fall color or blooms and at maturity maintain growth within the planting area.
 - b. Ground cover able to endure infrequent foot traffic shall be used in combination with street trees for planting strips with adjacent occasional parking (refer to plant material matrix below).
 - c. All plant placement shall adhere to clear sight line requirements as well as any other relevant city safety measures.

Response: Proposed shrubs and ground cover will be planted within planting strips without adjacent parking in low planting masses to encourage visibility, discourage criminal activity, and provide a buffer from passing traffic. The shrub plantings will be 90 percent evergreen year-round, provide seasonal interest, maintain growth in the planting area, and adhere to clear sight line requirements. Ground cover plantings will endure infrequent foot traffic and will adhere to clear sight line requirements. These provisions are met.

- C. **Maintenance.** All landscapes shall be maintained for the duration of the planting to encourage health of plant material as well as public health and safety. All street trees and shrubs shall be pruned to maintain health and structure of the plant material for public safety purposes.

Response: Following planting, all proposed landscaping will be maintained to encourage plant health and protect public health and safety. This criterion is and will be met.

Chapter 15.425 EXTERIOR LIGHTING

15.425.010 Purpose.

The purpose of this chapter is to regulate the placement, orientation, distribution patterns, and fixture types of on-site outdoor lighting. The intent of this section is to provide minimum lighting standards that promote safety, utility, and security, prevent glare on public roadways, and protect the privacy of residents.

15.425.020 Applicability and exemptions.

- A. **Applicability.** Outdoor lighting shall be required for safety and personal security in areas of assembly, parking, and traverse, as part of multifamily residential, commercial, industrial, public, recreational and institutional uses. The applicant for any Type I or Type II development permit shall submit, as part of the site plan, evidence that the proposed outdoor lighting plan will comply with this section. This information shall contain but not be limited to the following:
 1. The location, height, make, model, lamp type, wattage, and proposed cutoff angle of each outdoor lighting fixture.

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2. Additional information the director may determine is necessary, including but not limited to illuminance level profiles, hours of business operation, and percentage of site dedicated to parking and access.
 3. If any portion of the site is used after dark for outdoor parking, assembly or traverse, an illumination plan for these areas is required. The plan must address safety and personal security.

Response: An Exterior Lighting Plan has been provided as part of Exhibit A. The location, heights, makes, models, lamp type, wattage, and cutoff angle are provided. Because the parking area is contained within an underground parking garage and is not visible from the street, these plans are not included within the provided Lighting Plan. These criteria are met.

B. Exemptions. The following uses shall be exempt from the provisions of this section:

1. Public street and airport lighting.
2. Circus, fair, carnival, or outdoor governmentally sponsored event or festival lighting.
3. Construction or emergency lighting, provided such lighting is discontinued immediately upon completion of the construction work or abatement of the emergency necessitating said lighting.
4. Temporary Lighting. In addition to the lighting otherwise permitted in this code, a lot may contain temporary lighting during events as listed below:
 - a. Grand Opening Event. A grand opening is an event of up to 30 days in duration within 30 days of issuance of a certificate of occupancy for a new or remodeled structure, or within 30 days of change of business or ownership. No lot may have more than one grand opening event per calendar year. The applicant shall notify the city in writing of the beginning and ending dates prior to the grand opening event.
 - b. Other Events. A lot may have two other events per calendar year. The events may not be more than eight consecutive days in duration, nor less than 30 days apart.
5. Lighting activated by motion sensor devices.
6. Nonconforming lighting in place as of September 5, 2000. Replacement of nonconforming lighting is subject to the requirements of NMC 15.205.010 through 15.205.100.
7. Light Trespass onto Industrial Properties. The lighting trespass standards of NMC 15.425.040 do not apply where the light trespass would be onto an industrially zoned property.

Response: The listed exemptions do not apply to the proposed lighting for the site. These provisions do not apply.

15.425.030 Alternative materials and methods of construction, installation, or operation.

The provisions of this section are not intended to prevent the use of any design, material, or methods of installation or operation not specifically prescribed by this section, provided any such alternate has been approved by the director. Alternatives must be an approximate equivalent to the applicable specific requirement of this section and must comply with all other applicable standards in this section.

Response: Because LED fixtures are not listed within the Table of Shielding Requirements, this section is applicable. The fixtures proposed will be full-cutoff fixtures, meaning that no direct uplight will be emitted above the horizontal. This requirement is satisfied.

15.425.040 Requirements.

A. General Requirements – All Zoning Districts.

1. Low-level light fixtures include exterior lights which are installed between ground level and six feet tall. Low-level light fixtures are considered nonintrusive and are unrestricted by this code.

Response: The majority of the proposed lighting fixtures on-site will be LED bollard lights (designated on the plan as Z2). These fixtures are 42 inches in height and are mainly used to light the walkways and sidewalks surrounding the site to the north and west. These low-level light fixtures are unregulated by this lighting code.

2. Medium-level light fixtures include exterior lights which are installed between six feet and 15 feet above ground level. Medium-level light fixtures must either comply with the shielding requirements of subsection (B) of this section, or the applicant shall show that light trespass from a property has been designed not to exceed one-half foot-candle at the property line.

3. High-level light fixtures include exterior lights which are installed 15 feet or more above ground level. High-level light fixtures must comply with the shielding requirements of subsection (B) of this section, and light trespass from a property may not exceed one-half foot-candle at the property line.

Response: The attached Exterior Site Lighting Plan (Exhibit A) demonstrates that fixtures mounted on the building and pole fixtures at the rear of the building will not cause light trespass at nearby property lines.

B. Table of Shielding Requirements.

Fixture Lamp Type	Shielded
Low/high pressure sodium, mercury vapor, metal halide and fluorescent over 50 watts	Fully
Incandescent over 160 watts	Fully
Incandescent 160 watts or less	None
Fossil fuel	None
Any light source of 50 watts or less	None
Other sources	As approved by NMC 15.425.030

Note: "Incandescent" includes tungsten-halogen (quartz) lamps.

Response: The selected lighting fixture types are not listed within the Table of Shielding Requirements and are, therefore, subject to the standards of NMC 15.425.030.

Chapter 15.430 UNDERGROUND UTILITY INSTALLATION

15.430.010 Underground utility installation.

- A. All new utility lines, including but not limited to electric, communication, natural gas, and cable television transmission lines, shall be placed underground. This does not include surface-mounted transformers, connections boxes, meter cabinets, service cabinets, temporary facilities during construction, and high-capacity electric lines operating at 50,000 volts or above.
- B. Existing utility lines shall be placed underground when they are relocated, or when an addition or remodel requiring a Type II design review is proposed, or when a developed area is annexed to the city.
- C. The director may make exceptions to the requirement to underground utilities based on one or more of the following criteria:
 1. The cost of undergrounding the utility is extraordinarily expensive.
 2. There are physical factors that make undergrounding extraordinarily difficult.
 3. Existing utility facilities in the area are primarily overhead and are unlikely to be changed.

Response: The Applicant has proposed a project which requires a Type II design review and has, therefore, proposed to underground all utilities adjacent to and serving the site. These criteria are met.

Chapter 15.440 OFF-STREET PARKING, BICYCLE PARKING, AND PRIVATE WALKWAYS

Article I. Off-Street Parking Requirements

15.440.010 Required off-street parking.

- A. Off-street parking shall be provided on the development site for all R-1, C-1, M-1, M-2 and M-3 zones. In all other zones, except the C-3 zoning district where an in-lieu-fee is paid for required parking, the required parking shall be on the development site or within 400 feet of the development site which the parking is required to serve. All required parking must be under the same ownership as the development site served except through special covenant agreements as approved by the city attorney, which bind the parking to the development site.

Response: The proposed project is within the Institutional (I) zoning district. As such, no in-lieu-fee is required for the project's parking. The parking area is provided underneath the proposed building; therefore, the parking will be under the same ownership as the development site.

- D. All commercial, office, or industrial developments that have more than 20 off-street parking spaces and that have designated employee parking must provide at least one preferential carpool/vanpool parking space. The preferential carpool/vanpool parking space(s) must be located close to a building entrance.

Penalty: See NMC 15.05.120.

Response: The University Village parking area is not proposed to provide designated employee parking. These criteria are not applicable.

15.440.020 Parking area and service drive design.

- A. All public or private parking areas, parking spaces, or garages shall be designed, laid out and constructed in accordance with the minimum standards as set forth in NMC 15.440.070.

Response: All parking areas, spaces, and garages have been designed, laid out, and will be constructed in accordance with the minimum standards of NMC 15.440.070. Those provisions are addressed later within this report. This requirement is satisfied.

- B. Groups of three or more parking spaces, except those in conjunction with single-family or two-family dwellings on a single lot, shall be served by a service drive so that no backward movement or other maneuvering of a vehicle within a street, other than an alley, will be required. Service drives shall be designed and constructed to facilitate the flow of traffic, provide maximum safety in traffic access and egress and maximum safety of pedestrian and vehicular traffic on the site, but in no case shall two-way and one-way service drives be less than 20 feet and 12 feet, respectively. Service drives shall be improved in accordance with the minimum standards as set forth in NMC 15.440.060.

Response: The parking area is provided as a grouping of 106 parking spaces provided within an underground garage and with access provided by a single 21.5-foot-wide service drive leading to Fulton Street. No backing or other maneuvering movements on a public street will be needed. The service drive will provide maximum safety in traffic access and egress, facilitate the flow of traffic, and provide for the safety of both pedestrians and vehicular traffic on the site. These criteria are satisfied.

- C. Gates. A private drive or private street serving as primary access to more than one dwelling unit shall not be gated to limit access, except as approved by variance.

Penalty: See NMC 15.05.120.

Response: The underground parking area does not serve as primary access to the building, which is available from the street and via the driveway loop at the north of the building. A security gate to control access to the below-grade parking garage is planned at the entrance to the parking facility. The roll-up door will provide airflow while a card/keypad access will offer residents and visitors quick access into the facility. The garage ramp will provide 44'-

9" of queueing space between the access control gate and the edge of the right-of-way. This driveway length will accommodate two vehicles waiting for entry to the garage and prevent vehicles from overhanging the sidewalk and street. This criterion is met.

15.440.030 Parking spaces required.

Use	Minimum Parking Spaces Required
Institutional Type	
Continuing care retirement community not including nursing care	1 space per living unit

Notes:

- * “1-E” refers to fraternities, sororities, cooperatives and dormitories that require one parking space for each three occupants for whom sleeping facilities are provided.
- ** “3.-G(1)” refers to establishments or enterprises of a recreational or an entertainment nature (spectator type, e.g., auditoriums, assembly halls, theaters, stadiums, places of public assembly) that require one parking space for each four seats.

Penalty: See NMC 15.05.120.

Response: The proposed parking garage will provide 106 parking spaces for 96 living units. This criterion is met.

15.440.060 Parking area and service drive improvements.

All public or private parking areas, outdoor vehicle sales areas, and service drives shall be improved according to the following:

- A. All parking areas and service drives shall have surfacing of asphaltic concrete or Portland cement concrete or other hard surfacing such as brick or concrete pavers. Other durable and dust-free surfacing materials may be approved by the director for infrequently used parking areas. All parking areas and service drives shall be graded so as not to drain stormwater over the public sidewalk or onto any abutting public or private property.

Response: The proposed parking area and service drive will be surfaced with cement concrete. Because the areas are underground, no stormwater will be drained to any abutting public sidewalk or property. These provisions are satisfied.

- B. All parking areas shall be designed not to encroach on public streets, alleys, and other rights-of-way. Parking areas shall not be placed in the area between the curb and sidewalk or, if there is no sidewalk, in the public right-of-way between the curb and the property line. The director may issue a permit for exceptions for unusual circumstances where the design maintains safety and aesthetics.

Response: The parking area is designed to be wholly contained within the property boundaries underneath the proposed building; therefore, the parking areas will not encroach on public streets, alleys, or other rights-of-way. No parking areas have been proposed between the curb and sidewalk or between the public right-of-way. These criteria are met.

-
- C. All parking areas, except those required in conjunction with a single-family or two-family dwelling, shall provide a substantial bumper which will prevent cars from encroachment on abutting private and public property.

Response: Because of the proposed parking garage construction, no encroachment is possible on abutting private and public properties. This requirement is met.

- D. All parking areas, including service drives, except those required in conjunction with single-family or two-family dwellings, shall be screened in accordance with NMC 15.420.010(B).

Response: The parking area will not be visible from any adjacent rights-of-way or properties, therefore screening the parking area in accordance with NMC 15.420.010(B). This provision is satisfied.

- E. Any lights provided to illuminate any public or private parking area or vehicle sales area shall be so arranged as to reflect the light away from any abutting or adjacent residential district.

Response: Lighting illuminating the parking area will not be visible from any abutting or adjacent residential district. This criterion is met.

- F. All service drives and parking spaces shall be substantially marked and comply with NMC 15.440.070.

Response: The service drive and all parking spaces and loading areas will be substantially marked and visible to comply with NMC 15.440.070 as outlined below. This criterion is satisfied.

- G. Parking areas for residential uses shall not be located in a required front yard, except as follows:

1. Attached or detached single-family or two-family: parking is authorized in a front yard on a service drive which provides access to an improved parking area outside the front yard.
2. Three- or four-family: parking is authorized in a front yard on a service drive which is adjacent to a door at least seven feet wide intended and used for entrance of a vehicle (see Appendix A, Figure 12).

Response: The proposed parking is not located within a required front yard. This criterion is met.

- H. A reduction in size of the parking stall may be allowed for up to a maximum of 30 percent of the total number of spaces to allow for compact cars. For high turnover uses, such as convenience stores or fast-food restaurants, at the discretion of the director, all stalls will be required to be full-sized.

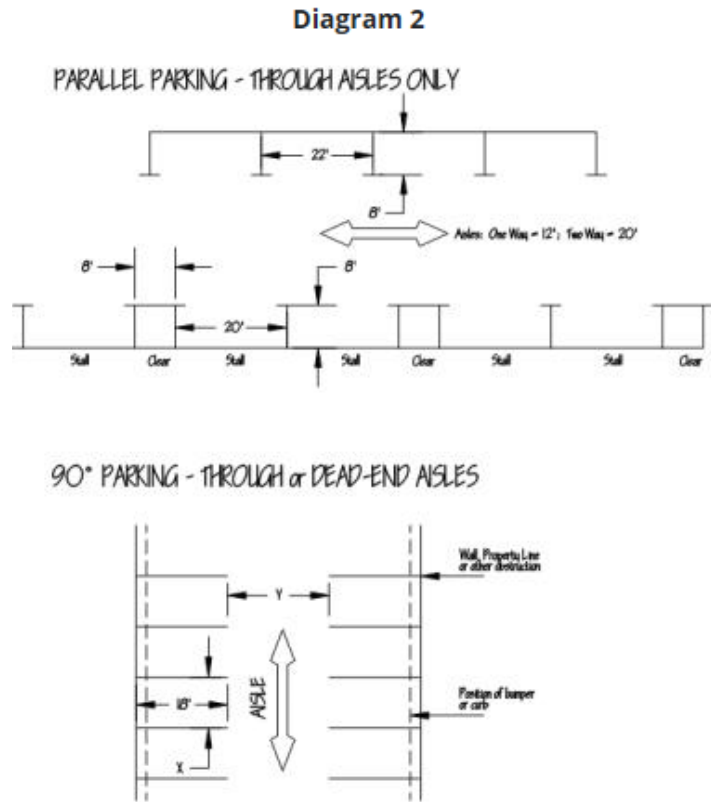
Penalty: See NMC 15.05.120.

Response: No reduced-size parking stalls have been proposed. This provision is not applicable.

15.440.070

Parking tables and diagrams.

The following tables provide the minimum dimensions of public or private parking areas:



Notes:

1. Bumpers must be installed where paved areas abut street right-of-way (except at driveways).
2. No stalls shall be such that cars must back over the property line to enter or leave stall.
3. Stalls must be clearly marked and the markings must be maintained in good condition.
4. The sketches show typical situations to illustrate the required standards. For further information or advice, contact the community development department at 537-1210.

Table of Dimensions (In Feet)

Stall Width with Corresponding Aisle Width						
Stall Width = X	9	9.5	10	10.5	11	12
Aisle Width = Y	24	24	22	22	20	20

Response: No angle nor compact parking spaces have been proposed within the parking area. The parking spaces provided meet the required dimensions for stalls of 9.5 feet in width and between 18 and 20 feet in depth. Parking aisles are 24 feet in width. No paved areas will

abut a street right-of-way. No stalls will be located near a property line. Parking spaces will be clearly marked, and the markings maintained in good condition. These requirements are satisfied.

Article II. Bicycle Parking

15.440.090 Purpose.

Cycling is a healthy activity for travel and recreation. In addition, by maximizing bicycle travel, the community can reduce negative effects of automobile travel, such as congestion and pollution. To maximize bicycle travel, developments must provide effective support facilities. At a minimum, developments need to provide a secure place for employees, customers, and residents to park their bicycles.

Response: The required bicycle parking will be provided per Newberg Municipal Code requirements. These facilities will allow bicycle parking for employees, residents, and visitors to the Friendsview campus.

15.440.100 Facility requirements.

Bicycle parking facilities shall be provided for the uses shown in the following table. Fractional space requirements shall be rounded up to the next whole number.

Use	Minimum Number of Bicycle Parking Spaces Required
New commercial, industrial, office, and institutional developments, including additions that total 4,000 square feet or more	One bicycle parking space for every 10,000 square feet of gross floor area. In C-4 districts, two bicycle parking spaces, or one per 5,000 square feet of building area, must be provided, whichever is greater

Response: For this institutional use within the Institutional zoning district, one bicycle parking space is required for every 10,000 square feet of gross floor area. Therefore, 17 bicycle parking spaces are required and 18 will be provided. This requirement has been met.

15.440.110 Design.

- A. Bicycle parking facilities shall consist of one or more of the following:
 1. A firmly secured loop, bar, rack, or similar facility that accommodates locking the bicycle frame and both wheels using a cable or U-shaped lock.
 2. An enclosed locker.
 3. A designated area within the ground floor of a building, garage, or storage area. Such area shall be clearly designated for bicycle parking.
 4. Other facility designs approved by the director.
- B. All bicycle parking spaces shall be at least six feet long and two and one-half feet wide. Spaces shall not obstruct pedestrian travel.
- C. All spaces shall be located within 50 feet of a building entrance of the development.

-
- D. Required bicycle parking facilities may be located in the public right-of-way adjacent to a development subject to approval of the authority responsible for maintenance of that right-of-way.

Response: Attached development plans (Exhibit A) demonstrate that bicycle parking is provided within 50 feet of several entrances to the building. Secured bicycle parking facilities will be provided within 50 feet of the north building entrance as well as within the garage parking area. The provided spaces will be 6 feet long by 2½ feet in width and not obstruct pedestrian travel. No bicycle parking facilities are proposed within a public right-of-way. These criteria are satisfied.

Article III. Private Walkways

15.440.120 Purpose.

Sidewalks and private walkways are part of the city’s transportation system. Requiring their construction is part of the city’s plan to encourage multimodal travel and to reduce reliance on the automobile. Considerable funds have and will be expended to install sidewalks along the streets in the city. Yet there is little point to this expense if it is not possible for people to walk from the sidewalk to the developments along each side. The following requirements are intended to provide safe and convenient paths for employees, customers, and residents to walk from public sidewalks to development entrances, and to walk between buildings on larger sites.

15.440.130 Where required.

Private walkways shall be constructed as part of any development requiring Type II design review, including mobile home parks. In addition, they may be required as part of conditional use permits or planned unit developments. In the airport industrial (AI) district and residential (AR) district, on-site walks are not required in aircraft operations areas, such as parking aprons, taxiways, and runways.

15.440.140 Private walkway design.

- A. All required private walkways shall meet the applicable building code and Americans with Disabilities Act requirements.
- B. Required private walkways shall be a minimum of four feet wide.
- C. Required private walkways shall be constructed of portland cement concrete or brick.
- D. Crosswalks crossing service drives shall, at a minimum, be painted on the asphalt or clearly marked with contrasting paving materials or humps/raised crossings. If painted striping is used, it should consist of thermoplastic striping or similar type of durable application.
- E. At a minimum, required private walkways shall connect each main pedestrian building entrance to each abutting public street and to each other.
- F. The review body may require on-site walks to connect to development on adjoining sites.
- G. The review body may modify these requirements where, in its opinion, the development provides adequate on-site pedestrian circulation, or where lot dimensions, existing building layout, or topography preclude compliance with these standards.

Response: The proposed retirement apartment building will feature private walkways. Private walkways are provided on the north and west boundaries of the project site, adjoining sidewalks along Fulton Street and former N Center and E Cherry Streets. These private walkways lead to building entrances on the northern portions of the building. The walkways proposed will meet the applicable building code and ADA requirements for access, be a minimum of 4 feet in width, be constructed of concrete cement, be clearly marked with a contrasting construction material, and connect each building entrance with a public street and sidewalk. These provisions are met.

Division 15.500 PUBLIC IMPROVEMENT STANDARDS

Chapter 15.505 PUBLIC IMPROVEMENTS STANDARDS

15.505.020 Applicability.

The provision and utilization of public facilities and services within the City of Newberg shall apply to all land developments in accordance with this chapter. No development shall be approved unless the following improvements are provided for prior to occupancy or operation, unless future provision is assured in accordance with NMC 15.505.030(E).

- A. Public Works Design and Construction Standards. The design and construction of all improvements within existing and proposed rights-of-way and easements, all improvements to be maintained by the city, and all improvements for which city approval is required shall comply with the requirements of the most recently adopted Newberg public works design and construction standards.
- B. Street Improvements. All projects subject to a Type II design review, partition, or subdivision approval must construct street improvements necessary to serve the development.
- C. Water. All developments, lots, and parcels within the City of Newberg shall be served by the municipal water system as specified in Chapter 13.15 NMC.
- D. Wastewater. All developments, lots, and parcels within the City of Newberg shall be served by the municipal wastewater system as specified in Chapter 13.10 NMC.
- E. Stormwater. All developments, lots, and parcels within the City of Newberg shall manage stormwater runoff as specified in Chapters 13.20 and 13.25 NMC.
- F. Utility Easements. Utility easements shall be provided as necessary and required by the review body to provide needed facilities for present or future development of the area.
- G. City Approval of Public Improvements Required. No building permit may be issued until all required public facility improvements are in place and approved by the director, or are otherwise bonded for in a manner approved by the review authority, in conformance with the provisions of this code and the Newberg Public Works Design and Construction Standards.

Response: All needed utilities are available for the project and ready for connection. These utilities are currently located within a public right-of-way, vacated former rights-of-way, or easements as required by previous University Village approvals. Any connection to or

additional needed and constructed public improvements will meet all applicable City standards. These criteria are satisfied.

15.505.030 Street standards.

A. Purpose. The purpose of this section is to:

1. Provide for safe, efficient, and convenient multi-modal transportation within the City of Newberg.
2. Provide adequate access to all proposed and anticipated developments in the City of Newberg. For purposes of this section, “adequate access” means direct routes of travel between destinations; such destinations may include residential neighborhoods, parks, schools, shopping areas, and employment centers.
3. Provide adequate area in all public rights-of-way for sidewalks, wastewater and water lines, stormwater facilities, natural gas lines, power lines, and other utilities commonly and appropriately placed in such rights-of-way. For purposes of this section, “adequate area” means space sufficient to provide all required public services to standards defined in this code and in the Newberg public works design and construction standards.

B. Applicability. The provisions of this section apply to:

1. The creation, dedication, and/or construction of all public streets, bike facilities, or pedestrian facilities in all subdivisions, partitions, or other developments in the City of Newberg.
2. The extension or widening of existing public street rights-of-way, easements, or street improvements including those which may be proposed by an individual or the city, or which may be required by the city in association with other development approvals.
3. The construction or modification of any utilities, pedestrian facilities, or bike facilities in public rights-of-way or easements.
4. The designation of planter strips. Street trees are required subject to Chapter 15.420 NMC.
5. Developments outside the city that tie into or take access from city streets.

Response: The project proposed involves dedication of additional street right-of-way and the construction of code-compliant planter strips, ADA crossings, and sidewalks. These sections of the Newberg Municipal Code apply.

E. Improvements to Existing Streets.

1. All projects subject to partition, subdivision, or Type II design review approval shall dedicate right-of-way sufficient to improve the street to the width specified in subsection (G) of this section.
2. All projects subject to partition, subdivision, or Type II design review approval must construct a minimum of a three-quarter street improvement to all existing streets

adjacent to, within, or necessary to serve the development. The director may waive or modify this requirement where the applicant demonstrates that the condition of existing streets to serve the development meets city standards and is in satisfactory condition to handle the projected traffic loads from the development. Where a development has frontage on both sides of an existing street, full street improvements are required.

3. In lieu of the street improvement requirements outlined in NMC 15.505.040(B), the review authority may elect to accept from the applicant monies to be placed in a fund dedicated to the future reconstruction of the subject street(s). The amount of money deposited with the city shall be 100 percent of the estimated cost of the required street improvements (including any associated utility improvements), and 10 percent of the estimated cost for inflation. Cost estimates used for this purpose shall be based on preliminary design of the constructed street provided by the applicant's engineer and shall be approved by the director.

- F. Improvements Relating to Impacts. Improvements required as a condition of development approval shall be roughly proportional to the impact of the development on public facilities and services. The review body must make findings in the development approval that indicate how the required improvements are roughly proportional to the impact. Development may not occur until required transportation facilities are in place or guaranteed, in conformance with the provisions of this code. If required transportation facilities cannot be put in place or be guaranteed, then the review body shall deny the requested land use application.

Response: The proposed project requires a Type II Site Design Review. Due to the vacation of N Center Street and E Cherry Streets, the proposed project is adjacent only to Fulton Street. No needed improvements have been identified for the curb-to-curb section of Fulton Street; however, roughly proportional impacts required as a condition of development approval will be installed within the adjacent right-of-way per the street classification typical cross-section within the City of Newberg Transportation System Plan. These provisions are or will be met.

- G. Street Width and Design Standards.

1. Design Standards. All streets shall conform with the standards contained in Table 15.505.030(G). Where a range of values is listed, the director shall determine the width based on a consideration of the total street section width needed, existing street widths, and existing development patterns. Preference shall be given to the higher value. Where values may be modified by the director, the overall width shall be determined using the standards under subsections (G)(2) through (10) of this section.

Table 15.505.030(G) Street Design Standards

Type of Street	Right-of-Way Width	Curb-to-curb Pavement Width	Motor Vehicle Travel Lanes	Median Type	Striped Bike Lane (Both Sides)	On-Street Parking
Collectors						
Major	57-80 feet	36 feet	2 lanes	None*	Yes	No*

* May be modified with approval of the director. Modification will change overall curb-to-curb and right-of-way width. Where a center turn lane is not required, a landscaped median shall be provided instead, with turning pockets as necessary to preserve roadway functions.

Response: Fulton Street is classified as a major collector. The current right-of-way width of Fulton Street is ±50 feet. The existing pavement width is ±34 feet. The minimum right-of-way for this street classification is 60 feet for the typical section per the City of Newberg Transportation System Plan.

Per NMC 12.05.090, street improvements are required if the value of construction is greater than \$30,000. The value of this construction is greater, and, therefore, street improvements are required. The City has stated that widening the existing curb-to-curb width will not be required (Pre-Application Notes – Exhibit B). Per those notes, however, the Applicant will dedicate additional right-of-way along Fulton Street and construct the required cross-sectional elements behind the curb. These elements include a 5.5-foot planter strip, a 5-foot sidewalk, ADA ramps at the N Center Street intersection and at the existing Friendsview driveway, as well as a 1-foot space from back of walk to the edge of the right-of-way.

These provisions are or will be met upon construction.

2. **Motor Vehicle Travel Lanes.** Collector and arterial streets shall have a minimum width of 12 feet.

Response: The travel lanes provided on Fulton Street are 12 feet in width or greater. No additional action by the Applicant is required.

3. **Bike Lanes.** Striped bike lanes shall be a minimum of six feet wide. Bike lanes shall be provided where shown in the Newberg transportation system plan.

Response: Fulton Street currently does not have any striped bicycle lanes provided. Instead, bicycles share vehicle travel lanes. This criterion does not apply.

4. **Parking Lanes.** Where on-street parking is allowed on collector and arterial streets, the parking lane shall be a minimum of eight feet wide.

Response: On-street parking is not permitted on this section of Fulton Street. This criterion is not applicable.

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5. Center Turn Lanes. Where a center turn lane is provided, it shall be a minimum of 12 feet wide.

Response: Fulton Street does not provide center turn lanes adjacent to the project site. This criterion does not apply.

7. Sidewalks. Sidewalks shall be provided on both sides of all public streets. Minimum width is five feet.
8. Planter Strips. Except where infeasible, a planter strip shall be provided between the sidewalk and the curb line, with a minimum width of five feet. This strip shall be landscaped in accordance with the standards in NMC 15.420.020. Curb-side sidewalks may be allowed on limited residential streets. Where curb-side sidewalks are allowed, the following shall be provided:
 - a. Additional reinforcement is done to the sidewalk section at corners.
 - b. Sidewalk width is six feet.

Response: Current sidewalks adjacent to the project site do not meet this criterion and are only 4 feet in width. The project includes a relocation and replacement of sidewalks which are only 4 feet in width and not separated from the curb by a 5-foot planter strip. The new sidewalks and planter strips will meet the City requirements. These provisions are met.

9. Slope Easements. Slope easements shall be provided adjacent to the street where required to maintain the stability of the street.

Response: No areas of needed slope easements have been identified; therefore, none have been proposed. This criterion is satisfied.

10. Intersections and Street Design. The street design standards in the Newberg public works design and construction standards shall apply to all public streets, alleys, bike facilities, and sidewalks in the city.

Response: Needed improvements will comply with all applicable City of Newberg regulations for street design and sidewalks. Additional right-of-way will be dedicated along Fulton Street with new 5-foot sidewalks and ADA ramps; code-compliant intersections will be constructed per Sheet C6 of the attached Drainage and Grading Plans (Exhibit A). This criterion is met.

R. Vehicular Access Standards.

1. Purpose. The purpose of these standards is to manage vehicle access to maintain traffic flow, safety, roadway capacity, and efficiency. They help to maintain an adequate level of service consistent with the functional classification of the street. Major roadways, including arterials and collectors, serve as the primary system for moving people and goods within and through the city. Access is limited and managed on these roads to promote efficient through movement. Local streets and alleys provide access to individual properties. Access is managed on these roads to maintain safe maneuvering of vehicles in and out of properties and to allow safe through movements. If vehicular

access and circulation are not properly designed, these roadways will be unable to accommodate the needs of development and serve their transportation function.

2. Access Spacing Standards. Public street intersection and driveway spacing shall follow the standards in Table 15.505.R below. The Oregon Department of Transportation (ODOT) has jurisdiction of some roadways within the Newberg city limits, and ODOT access standards will apply on those roadways.

Table 15.505.R. Access Spacing Standards

Roadway Functional Classification	Area ¹	Minimum Public Street Intersection Spacing (Feet) ²	Driveway Setback from Intersecting Street ³
Major collector	All	400	150

- 1 “Urban” refers to intersections inside the city urban growth boundary outside the central business district (C-3 zone).
 “CBD” refers to intersections within the central business district (C-3 zone).
 “All” refers to all intersections within the Newberg urban growth boundary.
- 2 Measured centerline to centerline.
- 3 The setback is based on the higher classification of the intersecting streets. Measured from the curb line of the intersecting street to the beginning of the driveway, excluding flares. If the driveway setback listed above would preclude a lot from having at least one driveway, including shared driveways or driveways on adjoining streets, one driveway is allowed as far from the intersection as possible.

Response: The project involves two driveways, one located on the north end of the site which leads to vacated E Cherry Street, and one located on the south end of the project site, leading from Fulton Street to the underground parking area.

The through-driveway located on the northern portion of the site is not located near any public street (Fulton Street).

The southern driveway is ±247 feet from the intersection of N Center Street. This is greater than the required 150 feet of separation required by NMC Table 15.505.R above. These criteria are met.

3. Properties with Multiple Frontages. Where a property has frontage on more than one street, access shall be limited to the street with the lesser classification.

Response: The site no longer has frontage on multiple streets, and only has frontage on Fulton Street. This criterion is not applicable.

4. Driveways. More than one driveway is permitted on a lot accessed from either a minor collector or local street as long as there is at least 40 feet of lot frontage separating each driveway approach. More than one driveway is permitted on

a lot accessed from a major collector as long as there is at least 100 feet of lot frontage separating each driveway approach.

Response: The property is located adjacent to Fulton Street, a public road designated as a major collector. Access will be gained from a single driveway leading to an underground parking garage from Fulton Street. Another circular driveway on the northern portion of the property accesses a private street (former E Cherry Street). These criteria are met.

6. Closure of Existing Accesses. Existing accesses that are not used as part of development or redevelopment of a property shall be closed and replaced with curbing, sidewalks, and landscaping, as appropriate.

Response: Because each single-family detached and attached residence had a private driveway leading to Fulton, N Center, or E Cherry Streets, there are a number of existing accesses which will be closed. Development of the site will include construction of curbing, sidewalks, landscaping, and other means of providing confirmable closure of the previous accesses. This provision is satisfied.

- T. Street Trees. Street trees shall be provided for all projects subject to Type II design review, partition, or subdivision. Street trees shall be installed in accordance with the provisions of NMC 15.420.010(B)(4).

Response: Street trees will be provided in accordance with the provisions of NMC 15.420.010 (B)(4). These trees are shown within the attached Landscaping Plans (Exhibit A). This criterion is met.

- U. Street Lights. All developments shall include underground electric service, light standards, wiring and lamps for street lights according to the specifications and standards of the Newberg public works design and construction standards. The developer shall install all such facilities and make the necessary arrangements with the serving electric utility as approved by the city. Upon the city's acceptance of the public improvements associated with the development, the street lighting system, exclusive of utility-owned service lines, shall be and become property of the city unless otherwise designated by the city through agreement with a private utility.

Response: Currently three street lights are provided by the overhead utilities adjacent to the project site along Fulton Street. These street lights will require replacement which meets the City's lighting standards. This requirement is satisfied.

15.505.040 Public utility standards.

- A. Purpose. The purpose of this section is to provide adequate services and facilities appropriate to the scale and type of development.
- B. Applicability. This section applies to all development where installation, extension or improvement of water, wastewater, or private utilities is required to serve the development or use of the subject property.
- C. General Standards.
 1. The design and construction of all improvements within existing and proposed rights-of-way and easements, all improvements to be maintained by the city, and all

improvements for which city approval is required shall conform to the Newberg public works design and construction standards and require a public improvements permit.

2. The location, design, installation and maintenance of all utility lines and facilities shall be carried out with minimum feasible disturbances of soil and site. Installation of all proposed public and private utilities shall be coordinated by the developer and be approved by the city to ensure the orderly extension of such utilities within public right-of-way and easements.

Response: Proposed utility plans have been discussed with the City of Newberg and submitted as part of this application. All applicable standards have been met.

D. Standards for Water Improvements. All development that has a need for water service shall install the facilities pursuant to the requirements of the city and all of the following standards. Installation of such facilities shall be coordinated with the extension or improvement of necessary wastewater and stormwater facilities, as applicable.

1. All developments shall be required to be linked to existing water facilities adequately sized to serve their intended area by the construction of water distribution lines, reservoirs and pumping stations which connect to such water service facilities. All necessary easements required for the construction of these facilities shall be obtained by the developer and granted to the city pursuant to the requirements of the city.
2. Specific location, size and capacity of such facilities will be subject to the approval of the director with reference to the applicable water master plan. All water facilities shall conform with city pressure zones and shall be looped where necessary to provide adequate pressure and fire flows during peak demand at every point within the system in the development to which the water facilities will be connected. Installation costs shall remain entirely the developer's responsibility.
3. The design of the water facilities shall take into account provisions for the future extension beyond the development to serve adjacent properties, which, in the judgment of the city, cannot be feasibly served otherwise.
4. Design, construction and material standards shall be as specified by the director for the construction of such public water facilities in the city.

Response: The proposed project will obtain water via a connection to the existing 6-inch line within the Fulton Street right-of-way. Fire flow testing has been completed for the site. A fire hydrant connection, 6-inch fire sprinkler connection, and separate 4-inch water service connection are proposed. These connections meet or will meet the City of Newberg's standards upon their completion.

E. Standards for Wastewater Improvements. All development that has a need for wastewater services shall install the facilities pursuant to the

requirements of the city and all of the following standards. Installation of such facilities shall be coordinated with the extension or improvement of necessary water services and stormwater facilities, as applicable.

1. All septic tank systems and on-site sewage systems are prohibited. Existing septic systems must be abandoned or removed in accordance with Yamhill County standards.
2. All properties shall be provided with gravity service to the city wastewater system, except for lots that have unique topographic or other natural features that make gravity wastewater extension impractical as determined by the director. Where gravity service is impractical, the developer shall provide all necessary pumps/lift stations and other improvements, as determined by the director.
3. All developments shall be required to be linked to existing wastewater collection facilities adequately sized to serve their intended area by the construction of wastewater lines which connect to existing adequately sized wastewater facilities. All necessary easements required for the construction of these facilities shall be obtained by the developer and granted to the city pursuant to the requirements of the city.
4. Specific location, size and capacity of wastewater facilities will be subject to the approval of the director with reference to the applicable wastewater master plan. All wastewater facilities shall be sized to provide adequate capacity during peak flows from the entire area potentially served by such facilities. Installation costs shall remain entirely the developer's responsibility.
5. Temporary wastewater service facilities, including pumping stations, will be permitted only if the director approves the temporary facilities, and the developer provides for all facilities that are necessary for transition to permanent facilities.
6. The design of the wastewater facilities shall take into account provisions for the future extension beyond the development to serve upstream properties, which, in the judgment of the city, cannot be feasibly served otherwise.
7. Design, construction and material standards shall be as specified by the director for the construction of such wastewater facilities in the city.

Response: The proposed project will connect to an existing 8-inch sanitary main at the northeast corner of the site. Because the project includes a kitchen facility, a grease-interceptor has been proposed prior to connection to the sanitary sewer main line. A number of sanitary services which were previously connected to single-family residences will be abandoned within the surrounding former and current rights-of-way. These provisions are or will be satisfied upon completed construction.

- F. **Easements.** Easements for public and private utilities shall be provided as deemed necessary by the city, special districts, and utility companies. Easements for special purpose uses shall be of a width

deemed appropriate by the responsible agency. Such easements shall be recorded on easement forms approved by the city and designated on the final plat of all subdivisions and partitions. Minimum required easement width and locations are as provided in the Newberg public works design and construction standards.

Response: No easements are needed as part of this application. Necessary easements on the site have been established through previous land use actions. This criterion does not apply.

15.505.050 Stormwater system standards.

- A. Purpose. The purpose of this section is to provide for the drainage of surface water from all development; to minimize erosion; and to reduce degradation of water quality due to sediments and pollutants in stormwater runoff.
- B. Applicability. The provisions of this section apply to all developments subject to site development review or land division review and to the reconstruction or expansion of such developments that increases the flow or changes the point of discharge to the city stormwater system. Additionally, the provisions of this section shall apply to all drainage facilities that impact any public storm drain system, public right-of-way or public easement, including but not limited to off-street parking and loading areas.

Response: The project will require connection to stormwater utilities. There is an existing 8-inch stormwater line within the Friendsview driveway east of the property and the former E Cherry Street right-of-way north of the site. Connections to this line will be made at the northeast and southeast corners of the site. These criteria are met.

- C. General Requirement. All stormwater runoff shall be conveyed to a public storm wastewater or natural drainage channel having adequate capacity to carry the flow without overflowing or otherwise causing damage to public and/or private property. The developer shall pay all costs associated with designing and constructing the facilities necessary to meet this requirement.
- D. Plan for Stormwater and Erosion Control. No construction of any facilities in a development included in subsection (B) of this section shall be permitted until an engineer registered in the State of Oregon prepares a stormwater report and erosion control plan for the project. This plan shall contain at a minimum:
 - 1. The methods to be used to minimize the amount of runoff, sedimentation, and pollution created from the development both during and after construction.
 - 2. Plans for the construction of stormwater facilities and any other facilities that depict line sizes, profiles, construction specifications, and other such information as is necessary for the city to review the adequacy of the stormwater plans.
 - 3. Design calculations shall be submitted for all drainage facilities. These drainage calculations shall be included in the stormwater report and shall be stamped by a licensed professional engineer in the State of Oregon. Peak design discharges shall be computed based upon the design criteria outlined in the public works design and construction standards for the city.

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- E. **Development Standards.** Development subject to this section shall be planned, designed, constructed, and maintained in compliance with the Newberg public works design and construction standards.

Response: The site currently features ±41,741 square feet of impervious surface. Phase 2 of University Village proposes to increase this amount to ±51,222 square feet. The City of Newberg *Public Works Design and Construction Standards* requires that all net new impervious area created must be treated and detained. Thus, two stormwater treatment planters are proposed, with each ±280-square foot treating ±4,670 square feet of impervious surface.

The proposed stormwater planters are located within the north courtyard (west and east). These areas comprise ±323 square feet and ±280 square feet, respectively, greater than the required six percent increase.

A Preliminary Stormwater Report is attached to this report as Exhibit G. Plans depicting stormwater facilities, site grading, and erosion control are attached to this narrative as part of Exhibit A. These documents and calculations were prepared by an engineer registered within the State of Oregon. The facilities have been planned and designed in accordance with the standards of the City of Newberg. The constructed facilities will also be maintained in accordance with the City's standards. These provisions have been or will be met upon completion of construction.

Friendsview University Village – Concept Master Plan Conditions of Approval

A. CONCEPT MASTER PLAN

The following conditions must be addressed in future phases:

1. **Concept master plan phases:** The concept master plan shows a four-phase development. Parts of the master plan are aspirational, as they depend on future property purchases, conversion of the zoning on those purchases to Institutional, and vacation of both the Cherry Street and Center Street rights-of-way. Each phase of the concept master plan will still require a type 2 design review application before it is built (similar to the design review application for Phase 1 that has been submitted), along with any associated variance or adjustment applications. The traffic study encompassed all four of the phases, however, so if the future phases of the development do not increase the number of trips beyond what is anticipated in the concept master plan then a new traffic study will not be required for future phases. The concept master plan approval expires in 10 years.

Response: These Type II Site Design Review and Variance applications are for Phase 2 of Friendsview University Village. Needed applications for zoning changes, vacation of rights-of-way, and lot consolidation and property line adjustments have been submitted prior to this application. A letter reviewing the need to amend the 2015 Traffic Impact Analysis has been submitted with this application. The Concept Master Plan was approved on February 26, 2016; therefore this Master Plan is still effective. These criteria are met.

2. **Fire Department:** The entire complex must meet requirements of the Oregon Fire Code, including access and water supply. The current drawings do not meet access requirements in Phase 3; the Fire Dept. needs ladder truck access and a turnaround. Show FDCs and hydrants for each phase of development.

Response: Phase 2 of Friendsview University Village meets the requirements of Oregon Fire Code for access, water supply, and other needs. Further details will be provided as part of the Phase 2 construction documents. Fire Department Connections and hydrants are shown on the appropriate plans (Exhibit A). This requirement is satisfied.

3. **ODOT Rail:**

- a. A continuous fence will be needed to separate the development from the tracks to restrict trespassing on railroad property and for the safety of the public. This includes no gates or access to the railroad property. A railroad fencing detail is attached.
- b. For improved safety at the Meridian St. crossing, all accesses shall be removed off Meridian St. for Friendsview University Village development and access shall be from Fulton St. Access in close proximity to a crossing can be a hazard. This will improve the safety of the crossing. This will need future review by ODOT Rail when further construction details are available.
- c. Any roadway improvements, sidewalk improvements, including ADA ramps, truncated domes, etc, on Meridian St and/or Meridian and Fulton intersection will need to have further review by ODOT Rail. This could lead to a ODOT Crossing Order which requires the public authority (City of Newberg) to file a ODOT Crossing Application for the improvements. See link to ODOT Rail Crossing Safety page with crossing application. <http://www.oregon.gov/ODOT/RAIL/Pages/crosssafe.aspx>.
- d. There are also other permits and such which may be needed from the railroad in addition to a ODOT Crossing Order as described in #5. Please be conscious there is a difference between a Crossing Order from ODOT and permits from the railroad. If there are any further changes from what is currently being reviewed, ODOT Rail will need to review the development again.

Response: Phase 2 of University Village is not adjacent to the stated railroad property or crossings. These criteria are not applicable for this Phase of development.

4. **Landscaping:** Add trees and shrubs to the landscaping buffer along the shared property lines of the single-family homes to partially obscure the view of the Friendsview buildings and to break up their mass.

Response: This phase of Friendsview University Village does not directly abut any single-family homes. A single-family residence is currently located to the west at the northwest corner of N Center and Fulton Streets. Because of the positioning of these properties along a former right-of-way and the need to maintain vision clearance areas, buffering landscaping would not be appropriate.

Appropriate landscaping has been proposed to obscure the Friendsview building and break up the building's mass. Please refer to the Landscaping Plans (Exhibit A). This provision has been satisfied.

5. **Public Works:**

- a. **General:** For all utilities, detailed construction plans are required, and utilities serving more than one tax lot must have recorded easements granting the appropriate rights to each parcel. As conditioned:

submit construction plans for review and approval, submit easements for review, and record approved easements.

- b. No construction of, or connection to, any existing or proposed public utility/improvements will be permitted until all plans are approved and all necessary permits have been obtained.
- c. All survey monuments on the subject site or that may be subject to disturbance within the construction area, or the construction of any off-site improvements shall be adequately referenced and protected prior to commencement of any construction activity. If the survey monuments are disturbed, moved, relocated or destroyed as a result of any construction, the project shall, at its cost, retain the services of a registered professional land surveyor in the State of Oregon to restore the monument to its original condition and file the necessary surveys as required by Oregon State law. A copy of any recorded survey shall be submitted to Staff.

Response: Construction plans will be provided prior to permitting. Survey monuments will be preserved or replaced as needed and no construction of utilities or connection to will be completed until properly reviewed, approved, and permitted. These requirements are currently met or will be met prior to construction.

- d. **Water:** Submit construction plans for review and approval at each future phase.
 - 1. Existing Water line services to be abandoned at the main line.
 - 2. Fire flow and domestic water flow calculations shall be submitted to the Engineering Services Department for the proposed development that conform to the City Building Division, and Fire Marshal requirements indicating that minimum fire flow and domestic flow service pressure and flows are available to the entire development. If required to provide fire and domestic water flow, upsize existing water line.
 - 3. Utilities serving more than one lot shall have appropriate easements recorded.
 - 4. Waterline shall remain public and within a 15' public utility easement along Center St, Cherry St, and the Friendsview property.

Response: Existing water services are proposed to be abandoned at the main line. Fire flow and domestic water flow calculations have been submitted to the Newberg Engineering Services Department for approval. These calculations meet all City Building Division and Fire Marshal requirements. As provided through previous applications, all water utilities which were previously located within street rights-of-way are now located within 15 foot public utility easements. Construction plans will be submitted which meet these requirements.

- e. **Sewer:** Submit construction plans for review and approval at each future phase.
 - 1. At the time that lots are consolidated and Center Street is vacated, all sanitary sewer within the development shall be privately owned and maintained. Applicant shall install

manholes at the private to public transitions near the Fulton Street Right of Way.

2. All new restaurants/commercial kitchens employing an oil or grease process shall install an approved oil/grease trap before discharging to the waste water system per Newberg Municipal Code section 13.10.080.
3. Sewer flow calculations shall be submitted verifying sufficient capacity in onsite and offsite sewer facilities. If necessary to provide sanitary sewer service, upsize sewer pipes.
4. Utilities serving more than one lot shall have appropriate easements recorded.
5. In accordance with Newberg Municipal Code this design review does increase the impacts to the public wastewater system and is therefore not exempt from sanitary SDC charges.

Response: Existing sanitary sewer installations are currently privately owned, as required. A manhole will be installed within the former E Cherry Street right-of-way. An oil/grease trap will be installed to intercept oil and grease from the facility entering the wastewater system. Sufficient sewer capacity will be provided. Construction plans with the proposed sanitary sewer lines will meet all the listed requirements.

- f. Stormwater: Submit construction plans for review and approval at each future phase.
 1. At full build-out of the concept master plan, all onsite stormwater systems shall be privately owned and maintained.
 2. Approval of this project is conditioned on the applicant meeting the city's stormwater code (ordinance No. 2021-2754) and the engineering standards manual.
 3. Submit a final engineer's storm water report per the City of Newberg Engineering Design Standards Manual.
 4. Utilities serving more than one tax lot shall have appropriate easements recorded.
 5. A DEQ 1200-C permit is required for erosion control. Applicant shall submit to the City a copy of the approved DEQ 1200-C permit prior to grading.

Response: Stormwater needs have been calculated and facilities proposed to meet the needs of the University Village Phase 2 site. Upon construction, utilities will serve only one tax lot. Necessary permitting, such as a valid Department of Environmental Quality (DEQ) 1200-C permit, will be obtained prior to grading. These requirements will be met with future construction plans.

- g. Streets/frontage improvements: Submit construction plans for review and approval at each phase, submit easements for review, and record approved easement.
 1. As part of phase one, 5' curbside sidewalk shall be installed along the west side of Center Street, from Fulton Street to the northern end of Center Street, in order to provide a direct

pedestrian access to Fulton Street. A continuous sidewalk to Fulton Street is necessary for pedestrian safety, due to the impact of the phase one development. The Center Street right-of-way is narrow, and is not wide enough to construct a 5' sidewalk behind the existing curb. In order to construct the 5' curbside sidewalk either: 1) dedication of Right-of-Way or an easement is necessary from Tax Lot 1000; or 2) if Right-of-Way or an easement is not provided, relocation of the existing curb to provide for a 5' sidewalk is required. It is anticipated that Center Street will be vacated in a future phase of the development, at which time the sidewalk will become a private walkway. The City will not require the curbside sidewalk along Center Street to be replaced with a setback sidewalk at a future phase.

Response: The necessary improvements for Phase 1 have been completed and a request for the vacation of Center Street has been submitted. This condition has been satisfied.

2. As part of phase two, the 4' sidewalks along the Fulton Street frontage shall be replaced with 5' minimum sidewalks with minimum 4.5' landscaped planter strips. Dedicate Right-of-Way as necessary along the Fulton Street frontage to accommodate.

Response: The required improvements are demonstrated within the attached plans (Exhibit A). The proposed 5-foot wide sidewalks and 5½-foot planter strips meet the current standards of the City of Newberg: 5 feet in width. Right-of-way will be dedicated along the Fulton Street frontage to accommodate the required improvements. This condition is met.

3. As part of phase two, a standard commercial driveway shall be installed at the existing Center Street intersection with Fulton Street. A minimum 10' wide concrete apron/sidewalk shall be installed at the existing Friendsview driveway, separating the public road from the private drive.

Response: Improvements have been proposed as part of Phase 2 of University Village to satisfy this condition. A 10-foot wide apron/pedestrian crossing has been proposed at the northern end of the intersection of the former Center and Fulton Streets, as well as at the intersection of the Friendsview Manor driveway and Fulton Street. This condition is satisfied.

4. As part of phase four, frontage improvements along the frontage of phase four improvements are required including 5' sidewalk and minimum 4.5' landscaped planter strip along Fulton Street and Meridian Street. Dedicate Right-of-Way as necessary.

Response: Conditions for future phases will be addressed by future applications. This condition does not apply to this application.

5. Easements shall be maintained for public utility systems maintenance, including a standard turnaround per Engineering Standard Detail #529.

Response: Easements for public utilities, such as water, within the former rights-of-way have been provided. This condition has been satisfied.

-
6. The development will require substantial heavy construction traffic. Developer shall be responsible for the repair and replacement of any off-site city infrastructure, including streets, which are damaged by construction activities.

Response: The Applicant will document existing conditions on-site prior to construction and will repair or replace any damage caused by construction on the site. This condition is met.

7. Overhead utility lines currently exist and loop from Fulton Street, North to Cherry Street, East to the existing Friendsview property, and South to Fulton Street. At full build-out of the concept master plan, all overhead lines shall be placed underground, per Newberg Development Code section 15.430.010.

Response: The overhead utility lines adjacent to the site will be undergrounded as part of this project. For Phase 2 of the Friendsview University Village project, the applicable utilities will be undergrounded, satisfying this condition of approval.

8. Transportation SDC's - In accordance with Newberg Municipal Code this design review does increase the impacts to the public transportation system and is therefore not exempt from transportation SDC charges.

Response: The appropriate Transportation SDCs will be calculated and paid for the Friendsview University Village Phase 2 project at the time of building permit issuance. This condition of approval will be met at the time of building permit issuance.

IV. Conclusion

The required findings have been made, and this written narrative and accompanying documentation demonstrate that the application is consistent with the applicable provisions of the City of Newberg Development Code. The evidence in the record is substantial and supports approval of the application. Therefore, the Applicant respectfully requests that the City approve these applications for Site Design Review and Variance.

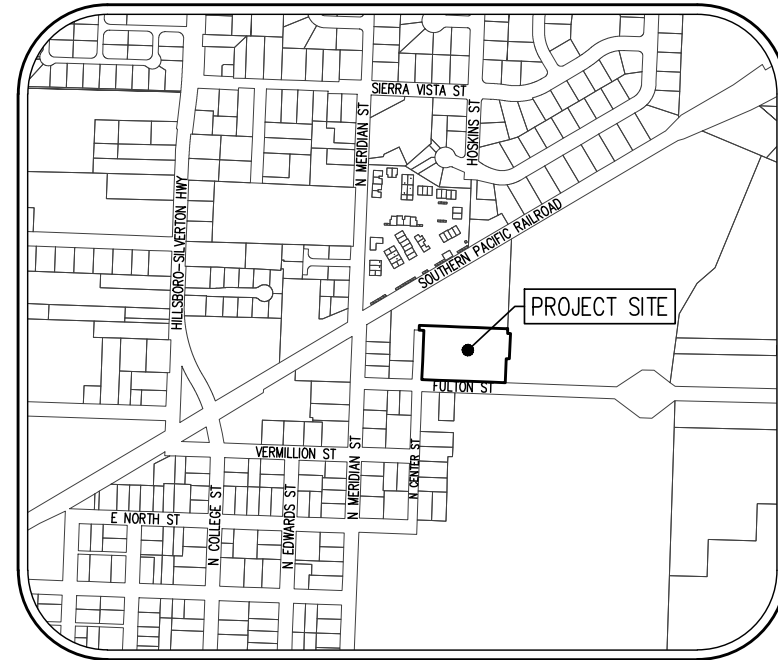
Exhibit A: Development Plans

FRIENDSVIEW UNIVERSITY VILLAGE PHASE 2

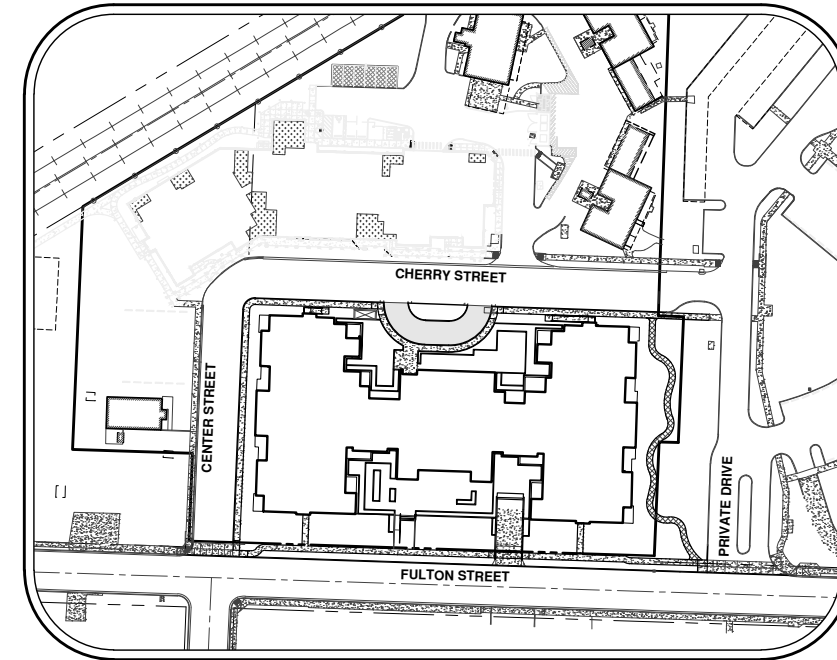
1001 FULTON STREET NEWBERG OREGON

100% DESIGN DEVELOPMENT SET

LRS
ARCHITECTS
720 NW Davis 503.221.1121
Suite 300 503.221.2077
Portland OR 97209 www.lrsarchitects.com



VICINITY MAP
NTS



SITE MAP
NTS

CONSULTANT:

AKS
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aks-eng.com
ENGINEERING • SURVEYING • NATURAL RESOURCES
FORESTRY • PLANNING • LANDSCAPE ARCHITECTURE

PROJECT NUMBER: 217304

**University Village
Phase II**
1001 Fulton Street,
Newberg OR 97132



SHEET TITLE:
**COVER SHEET
WITH VICINITY,
SITE MAP, AND
LEGEND**

DRAWN BY:
DATE ISSUED: 10/02/2020

SHEET: **C1**

SHEET SET

GENERAL SHEETS

- C1 COVER SHEET WITH VICINITY, SITE MAP, AND LEGEND
- C2 PRELIMINARY SITE PLAN
- C3 EXISTING CONDITIONS PLAN
- C4 PRELIMINARY DEMOLITION PLAN
- C5 PRELIMINARY EROSION AND SEDIMENTATION CONTROL PLAN
- C6 PRELIMINARY GRADING PLAN
- C7 PRELIMINARY COMPOSITE UTILITY PLAN

LANDSCAPING PLANS

- L100 EXISTING TREE INVENTORY AND PROTECTION PLAN
- L300 LANDSCAPE SITE MATERIALS PLAN
- L301 NORTH COURTYARD MATERIALS PLAN ENLARGEMENT
- L302 SOUTH COURTYARD MATERIALS PLAN ENLARGEMENT
- L500 SITE PLANTING PLAN
- L501 NORTH COURTYARD PLANTING PLAN ENLARGEMENT
- L502 SOUTH COURTYARD PLANTING PLAN ENLARGEMENT
- L600 IRRIGATION PLAN
- L701 LANDSCAPE CONSTRUCTION DETAILS
- L702 PLANTING DETAILS
- L703 IRRIGATION DETAILS

ARCHITECTURAL SHEETS

- A1 BICYCLE PARKING PLANS
- A2 BASEMENT FLOOR PLAN
- A3 LEVEL 1 FLOOR PLAN
- A4 LEVELS 2-4 FLOOR PLANS
- A5 LEVEL 5 FLOOR PLAN
- A6 COLORED EXTERIOR ELEVATIONS
- A7 COLORED EXTERIOR ELEVATIONS
- A8 COLORED EXTERIOR ELEVATIONS
- A9 BUILDING HEIGHT ANALYSIS AT FULTON
- A10 BUILDING HEIGHT ANALYSIS AT CENTER STREET
- A11 USEABLE OUTDOOR AREA
- A12 EXTERIOR MATERIALS BOARD
- A13 GARAGE ENTRY PLAN
- E1 ELECTRICAL SITE LIGHTING

ARCHITECT

MICHELLE RAE
LRS ARCHITECTS
720 NW DAVIS, SUITE 300
PORTLAND, OR 97209
P: (503) 221-1121
E: MREA@LRSARCHITECTS.COM

LANDSCAPING:

SHAPIRO DIDWAY LANDSCAPE ARCHITECTURE
CONTACT: NATE OTANI
1204 SE WATER AVE, SUITE 21
PORTLAND, OR 97214
P: (503) 232-0520
E: NATE@SHAPIRODIDWAY.COM

CIVIL ENGINEERING/SURVEYING/PLANNING:

AKS ENGINEERING & FORESTRY, LLC
CONTACT: MIMI DOUKAS, AICP, RLA
12965 SW HERMAN ROAD, SUITE 100
TUALATIN, OR 97062
P: (503) 563-6151
E: MIMID@AKS-ENG.COM

PROPERTY DESCRIPTION

TAX LOTS 1500,1600,2600 YAMHILL COUNTY TAX MAP 3S
2W 17CB, LOCATED IN THE NORTHWEST ¼ OF THE SOUTH
WEST ¼ OF SECTION 17, TOWNSHIP 3 SOUTH, RANGE 2
WEST, WILLAMETTE MERIDIAN, CITY OF NEWBERG, YAMHILL
COUNTY, OREGON.

EXISTING LAND USE

EXISTING SINGLE FAMILY RESIDENCES

PROJECT PURPOSE

CONSTRUCTION OF CONTINUING CARE FACILITY

VERTICAL DATUM

VERTICAL DATUM: ELEVATIONS ARE BASED ON CITY
OF NEWBERG BENCHMARK NO. 89 WITH A NAVD 88
ELEVATION OF 202.05 FEET.






NOTICE TO EXCAVATORS:

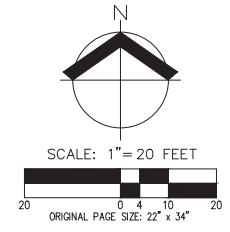
OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON
UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR
952-001-0010 THROUGH OAR 952-001-0090. YOU MAY OBTAIN COPIES
OF THESE RULES FROM THE CENTER BY CALLING 503-232-1987. IF YOU
HAVE ANY QUESTIONS ABOUT THE RULES, YOU MAY CONTACT THE
CENTER. YOU MUST NOTIFY THE CENTER AT LEAST TWO BUSINESS DAYS
BUT NOT MORE THAN TEN BUSINESS DAYS, BEFORE COMMENCING AN
EXCAVATION. CALL 503-246-6699.

LEGEND

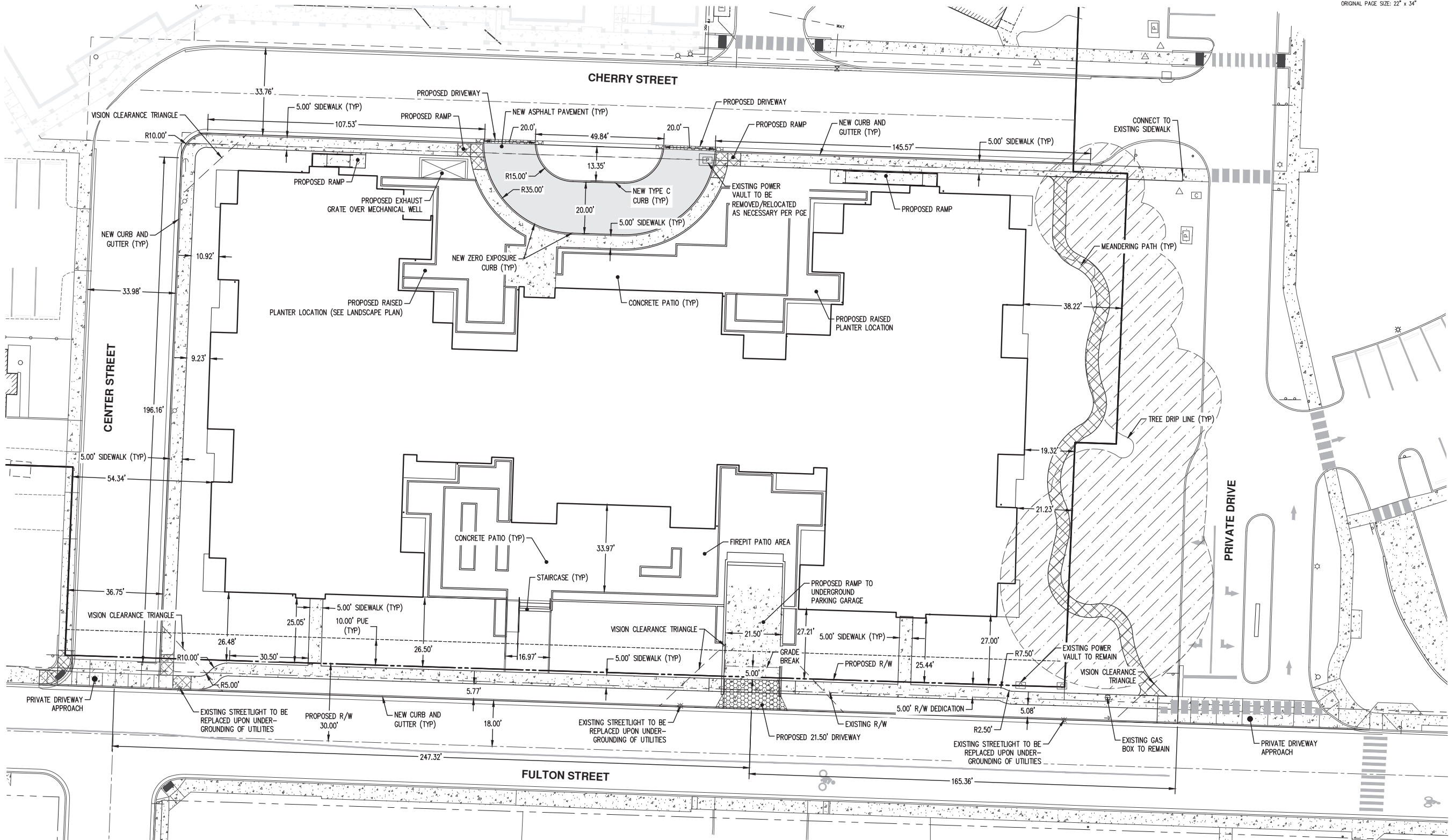
EXISTING		PROPOSED	
DECIDUOUS TREE		STORM SEWER CLEAN OUT	
CONIFEROUS TREE		STORM SEWER CATCH BASIN	
FIRE HYDRANT		STORM SEWER AREA DRAIN	
WATER BLOWOFF		STORM SEWER MANHOLE	
WATER METER		GAS METER	
WATER VALVE		GAS VALVE	
DOUBLE CHECK VALVE		GUY WIRE ANCHOR	
AIR RELEASE VALVE		POWER POLE	
SANITARY SEWER CLEAN OUT		POWER VAULT	
SANITARY SEWER MANHOLE		POWER JUNCTION BOX	
SIGN		POWER PEDESTAL	
STREET LIGHT		COMMUNICATIONS VAULT	
MAILBOX		COMMUNICATIONS JUNCTION BOX	
		COMMUNICATIONS RISER	
EXISTING		PROPOSED	
RIGHT-OF-WAY LINE			
BOUNDARY LINE			
PROPERTY LINE			
CENTERLINE			
DITCH			
CURB			
EDGE OF PAVEMENT			
EASEMENT			
FENCE LINE			
GRAVEL EDGE			
POWER LINE			
OVERHEAD WIRE			
COMMUNICATIONS LINE			
FIBER OPTIC LINE			
GAS LINE			
STORM SEWER LINE			
SANITARY SEWER LINE			
WATER LINE			

LEGEND

-  NEW AC PAVEMENT
-  NEW PEDESTRIAN PATH
-  NEW CONCRETE
-  EXISTING CONCRETE TO REMAIN
-  EXISTING AC TO REMAIN



PRELIMINARY CONSTRUCTION
 REGISTERED PROFESSIONAL ENGINEER
 CIVIL ENGINEER
 STATE OF OREGON
 LICENSE NO. 45208
 DATE: 12/31/20



CONSULTANT:

AKS
 AKS ENGINEERING & FORESTRY, LLC
 12965 SW HERMAN RD STE 100
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 aks-eng.com

ENGINEERING • SURVEYING • NATURAL RESOURCES
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PROJECT NUMBER: 217304

University Village Phase II
 1001 Fulton Street,
 Newberg OR 97132



SHEET TITLE:
PRELIMINARY SITE PLAN

DRAWN BY:
DATE ISSUED: 10/02/2020

SHEET: C2

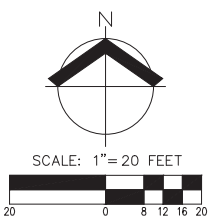
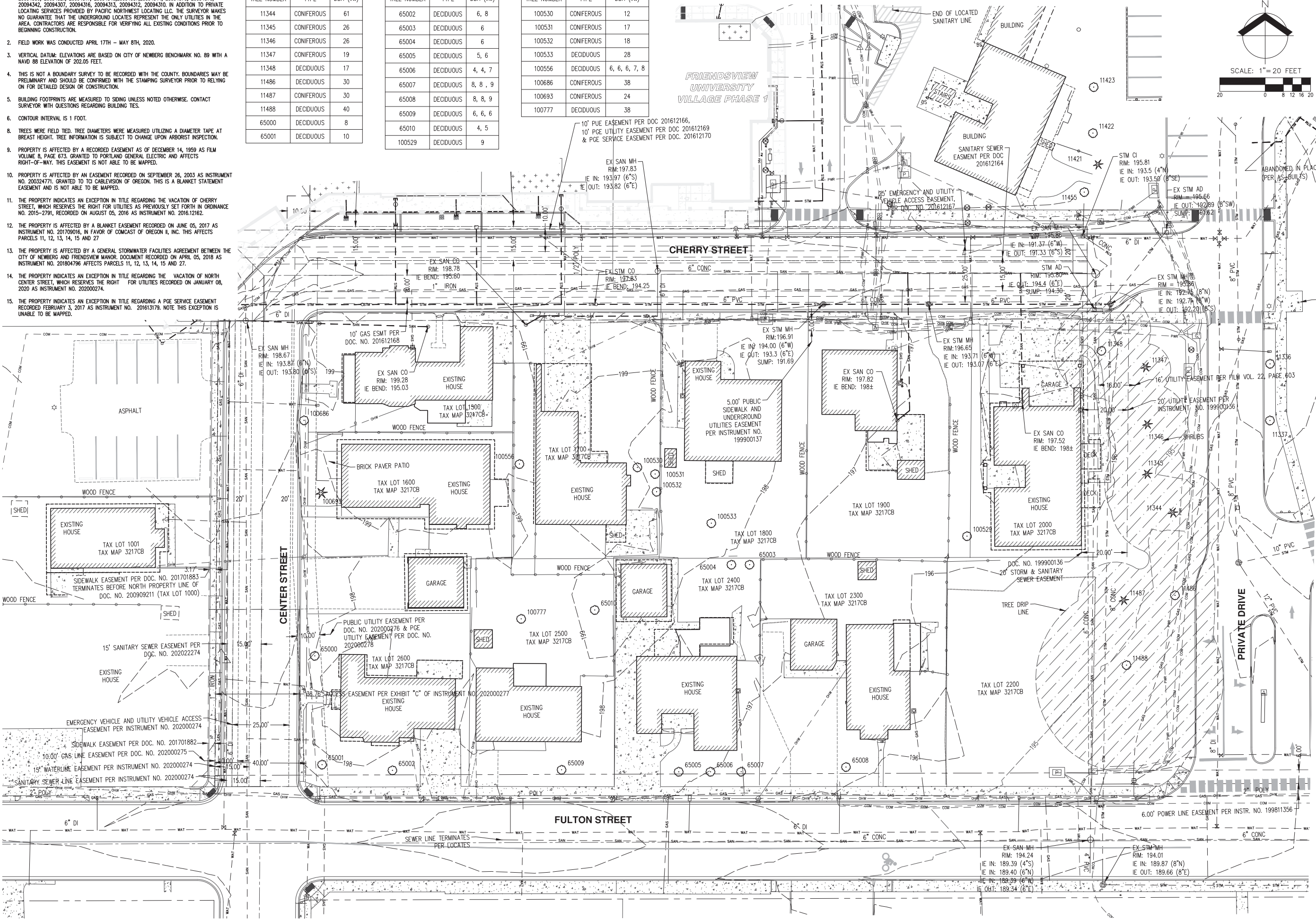
NOTES:

- UTILITIES SHOWN ARE BASED ON UNDERGROUND UTILITY LOCATE MARKINGS AS PROVIDED BY OTHERS. PROVIDED PER UTILITY LOCATE TICKET NUMBERS 20094370, 20094348, 20094362, 20094346, 20094321, 20094317, 20094346, 20094337, 20094344, 20094373, 20094375, 20094342, 20094307, 20094316, 20094313, 20094312, 20094310. IN ADDITION TO PRIVATE LOCATING SERVICES PROVIDED BY PACIFIC NORTHWEST LOCATING LLC, THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND LOCATES REPRESENT THE ONLY UTILITIES IN THE AREA. CONTRACTORS ARE RESPONSIBLE FOR VERIFYING ALL EXISTING CONDITIONS PRIOR TO BEGINNING CONSTRUCTION.
- FIELD WORK WAS CONDUCTED APRIL 17TH - MAY 8TH, 2020.
- VERTICAL DATUM: ELEVATIONS ARE BASED ON CITY OF NEWBERG BENCHMARK NO. 89 WITH A NAVD 88 ELEVATION OF 202.05 FEET.
- THIS IS NOT A BOUNDARY SURVEY TO BE RECORDED WITH THE COUNTY. BOUNDARIES MAY BE PRELIMINARY AND SHOULD BE CONFIRMED WITH THE STAMPING SURVEYOR PRIOR TO RELYING ON FOR DETAILED DESIGN OR CONSTRUCTION.
- BUILDING FOOTPRINTS ARE MEASURED TO SIDING UNLESS NOTED OTHERWISE. CONTACT SURVEYOR WITH QUESTIONS REGARDING BUILDING TIES.
- CONTOUR INTERVAL IS 1 FOOT.
- TREES WERE FIELD TIED. TREE DIAMETERS WERE MEASURED UTILIZING A DIAMETER TAPE AT BREAST HEIGHT. TREE INFORMATION IS SUBJECT TO CHANGE UPON ARBORIST INSPECTION.
- PROPERTY IS AFFECTED BY A RECORDED EASEMENT AS OF DECEMBER 14, 1959 AS FILM VOLUME 8, PAGE 673. GRANTED TO PORTLAND GENERAL ELECTRIC AND AFFECTS RIGHT-OF-WAY. THIS EASEMENT IS NOT ABLE TO BE MAPPED.
- PROPERTY IS AFFECTED BY AN EASEMENT RECORDED ON SEPTEMBER 26, 2003 AS INSTRUMENT NO. 200324771. GRANTED TO TCI CABLEVISION OF OREGON. THIS IS A BLANKET STATEMENT EASEMENT AND IS NOT ABLE TO BE MAPPED.
- THE PROPERTY INDICATES AN EXCEPTION IN TITLE REGARDING THE VACATION OF CHERRY STREET, WHICH RESERVES THE RIGHT FOR UTILITIES AS PREVIOUSLY SET FORTH IN ORDINANCE NO. 2015-2791, RECORDED ON AUGUST 05, 2016 AS INSTRUMENT NO. 201612162.
- THE PROPERTY IS AFFECTED BY A BLANKET EASEMENT RECORDED ON JUNE 05, 2017 AS INSTRUMENT NO. 201709016, IN FAVOR OF COMCAST OF OREGON II, INC. THIS AFFECTS PARCELS 11, 12, 13, 14, 15 AND 27.
- THE PROPERTY IS AFFECTED BY A GENERAL STORMWATER FACILITIES AGREEMENT BETWEEN THE CITY OF NEWBERG AND FRIENDSVIEW MANOR, DOCUMENT RECORDED ON APRIL 05, 2018 AS INSTRUMENT NO. 201804796 AFFECTS PARCELS 11, 12, 13, 14, 15 AND 27.
- THE PROPERTY INDICATES AN EXCEPTION IN TITLE REGARDING THE VACATION OF NORTH CENTER STREET, WHICH RESERVES THE RIGHT FOR UTILITIES RECORDED ON JANUARY 08, 2020 AS INSTRUMENT NO. 202000274.
- THE PROPERTY INDICATES AN EXCEPTION IN TITLE REGARDING A PGE SERVICE EASEMENT RECORDED FEBRUARY 3, 2017 AS INSTRUMENT NO. 201613179. NOTE THIS EXCEPTION IS UNABLE TO BE MAPPED.

TREE TABLE		
TREE NUMBER	TYPE	DBH (IN.)
11344	CONIFEROUS	61
11345	CONIFEROUS	26
11346	CONIFEROUS	19
11347	CONIFEROUS	26
11348	DECIDUOUS	17
11486	DECIDUOUS	30
11487	CONIFEROUS	30
11488	DECIDUOUS	40
65000	DECIDUOUS	8
65001	DECIDUOUS	10

TREE TABLE		
TREE NUMBER	TYPE	DBH (IN.)
65002	DECIDUOUS	6, 8
65003	DECIDUOUS	6
65004	DECIDUOUS	6
65005	DECIDUOUS	5, 6
65006	DECIDUOUS	4, 4, 7
65007	DECIDUOUS	8, 8, 9
65008	DECIDUOUS	8, 8, 9
65009	DECIDUOUS	6, 6, 6
65010	DECIDUOUS	4, 5
100529	DECIDUOUS	9

TREE TABLE		
TREE NUMBER	TYPE	DBH (IN.)
100530	CONIFEROUS	12
100531	CONIFEROUS	17
100532	CONIFEROUS	18
100533	DECIDUOUS	28
100556	DECIDUOUS	6, 6, 6, 7, 8
100686	CONIFEROUS	38
100693	CONIFEROUS	24
100777	DECIDUOUS	38



LRS ARCHITECTS
 720 NW Davis 503.221.1121
 Suite 300 503.221.2077
 Portland OR 97209 www.lrsarchitects.com

**PRELIMINARY
NOT FOR
CONSTRUCTION**

REGISTERED PROFESSIONAL LAND SURVEYOR
 GREGORY J. WHITE
 LICENSE NO. 12527
 NIPIC WHITE
 503.221.1121
 REVIEWS: 6/30/22

CONSULTANT:

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PROJECT NUMBER: 217304

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






SHEET TITLE:
**EXISTING
CONDITIONS PLAN**

DRAWN BY:
 DATE ISSUED: 10/02/2020

SHEET: **C3**

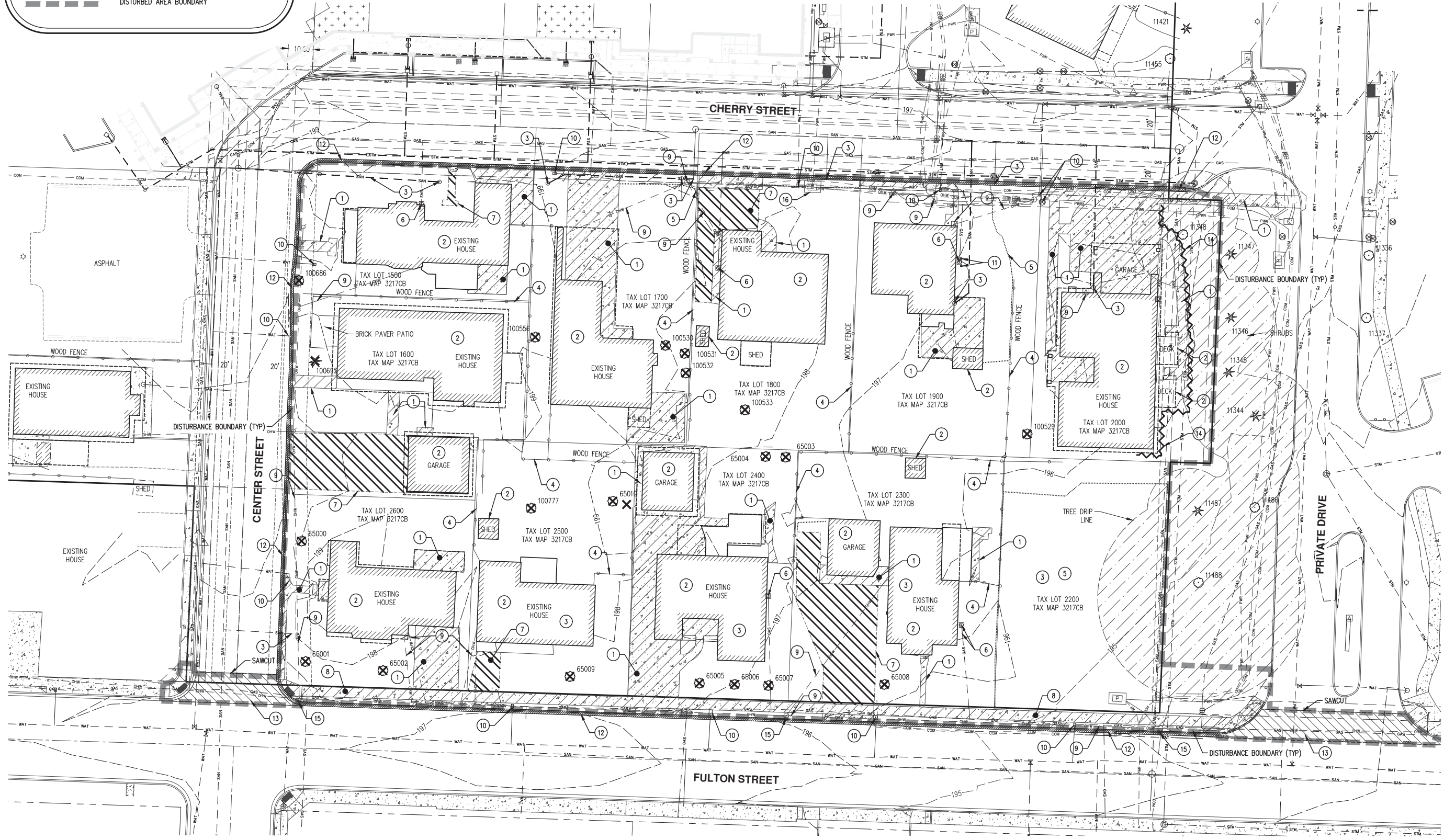
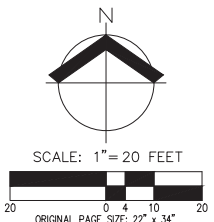
LEGEND

-  EXISTING CURB AND GUTTER TO BE REMOVED
-  EXISTING AC TO BE REMOVED
-  EXISTING PCC TO BE REMOVED
-  EXISTING AC TO REMAIN
-  EXISTING TREE TO REMAIN
-  EXISTING TREE TO BE REMOVED
-  DISTURBED AREA BOUNDARY

TREE TABLE			
TREE NUMBER	TYPE	DBH (IN.)	PRESERVE/REMOVE
11344	CONIFEROUS	61	PRESERVE
11345	CONIFEROUS	26	PRESERVE
11346	CONIFEROUS	26	PRESERVE
11347	CONIFEROUS	19	PRESERVE
11348	DECIDUOUS	17	PRESERVE
11486	DECIDUOUS	30	PRESERVE
11487	CONIFEROUS	30	PRESERVE
11488	DECIDUOUS	40	PRESERVE

- (X) KEYED DEMOLITION NOTES:
1. REMOVE EXISTING CONCRETE AND DISPOSE OF OFF-SITE.
 2. REMOVE EXISTING STRUCTURE AND DISPOSE OF OFF-SITE.
 3. ABANDON EXISTING SANITARY CLEANOUT & LATERAL PER CITY OF NEWBERG. SOME LATERAL LOCATIONS MAY BE UNKNOWN.
 4. REMOVE EXISTING FENCE AND DISPOSE OF OFF-SITE.
 5. REMOVE EXISTING GRAVEL AS NECESSARY IN LANDSCAPE AREAS.
 6. ABANDON EXISTING GAS METER/LINE. CONTRACTOR TO COORDINATE WITH NORTHWEST NATURAL.
 7. REMOVE EXISTING PAVEMENT AND DISPOSE OF OFF-SITE.
 8. REMOVE EXISTING SIDEWALK AND RAMPS AND DISPOSE OF OFF-SITE.
 9. ABANDON EXISTING POWER SERVICE AND/OR STRUCTURE. CONTRACTOR TO COORDINATE WITH PGE REGARDING REMOVAL OF ANY EXISTING OVERHEAD WIRES, TRANSFORMERS, AND STRUCTURES. ANY POWER TO REMAIN TO BE UNDERGROUNDED.

10. ABANDON EXISTING WATER SERVICE. CONTRACTOR TO COORDINATE WITH CITY WATER DEPARTMENT.
11. REMOVE EXISTING POSTS AND DISPOSE OF OFF-SITE.
12. REMOVE EXISTING CURB AND DISPOSE OF OFF-SITE.
13. REMOVE EXISTING ASPHALT FOR FUTURE DRIVEWAY APPROACH.
14. INSTALL TREE PROTECTION FENCE PRIOR TO DEMOLITION OF EXISTING STRUCTURES. TREE PROTECTION TO REMAIN THROUGH CONSTRUCTION. ALL WORK PERFORMED WITHIN TREE DRIP LINE TO BE COORDINATED AND OVERSEEN BY AKS ARBORIST. TREES SHOWN TO BE REMOVED TO BE DISPOSED OF OFF-SITE.
15. REPLACE EXISTING STREET LIGHT PER CITY OF NEWBERG STANDARDS FOLLOWING UNDERGROUNDING OF OVERHEAD POWER AND REMOVAL OF POWER POLES.
16. REMOVE/RELOCATE EXISTING POWER VAULT AS NECESSARY PER PGE.



LRS ARCHITECTS
 720 NW Davis 503.221.1121
 Suite 300 503.221.2077
 Portland OR 97209 www.lrsarchitects.com

REGISTERED PROFESSIONAL ARCHITECT
PRELIMINARY CONSTRUCTION NOT FOR PERMIT
 RENEVA DATE: 12/31/20

CONSULTANT:

AKS
 AKS ENGINEERING & FORESTRY, LLC
 12965 SW HERMAN RD STE 100
 TUALATIN, OR 97062
 P: 503.563.6151
 F: 503.563.6152
 aks-eng.com

ENGINEERING • SURVEYING • NATURAL RESOURCES
 FORESTRY • PLANNING • LANDSCAPE ARCHITECTURE

PROJECT NUMBER: 217304

University Village Phase II
 1001 Fulton Street,
 Newberg OR 97132

Friendsview
 RETIREMENT COMMUNITY

SHEET TITLE:
PRELIMINARY DEMOLITION PLAN

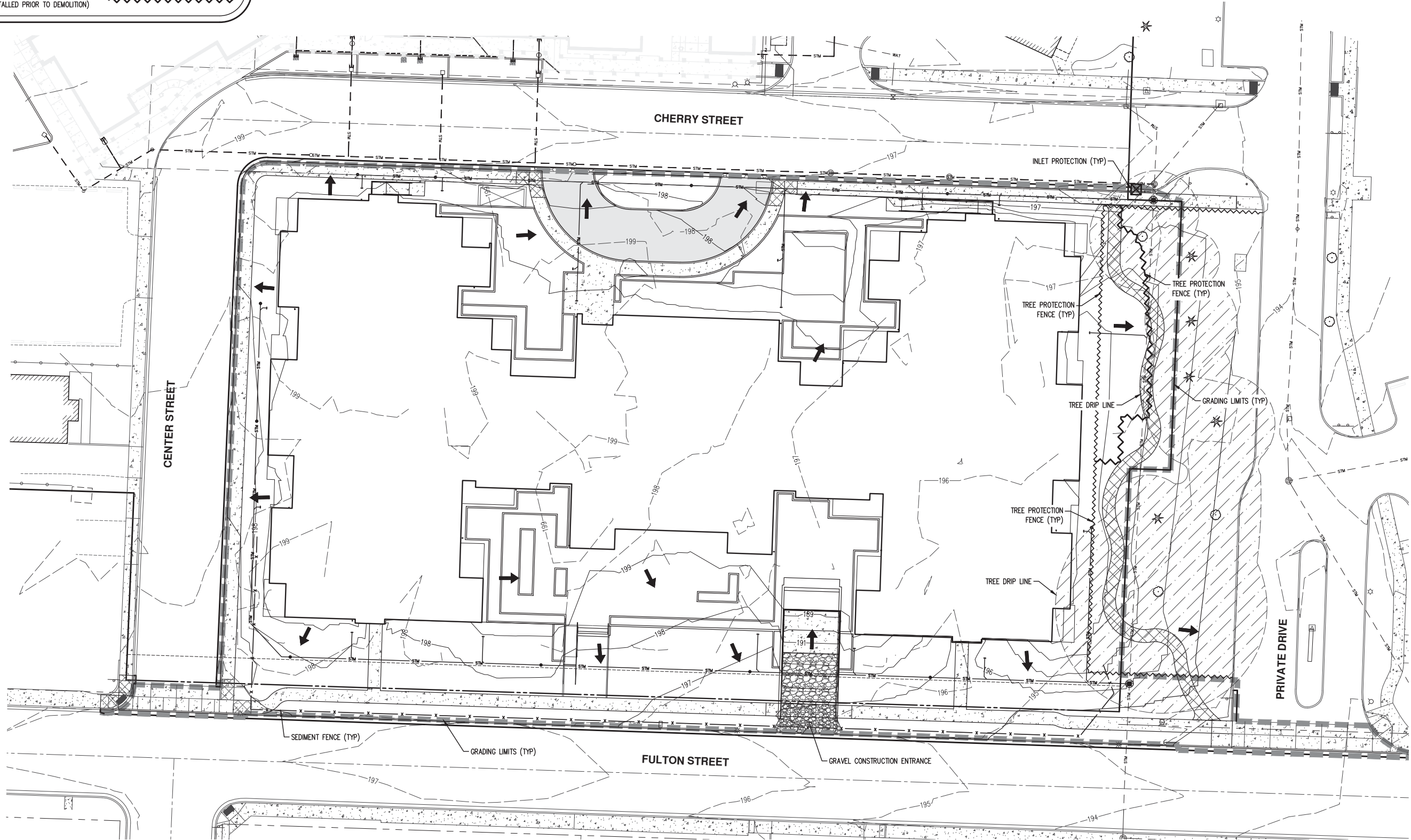
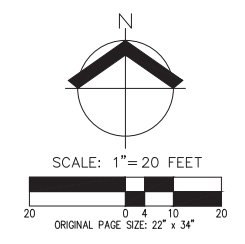
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DATE ISSUED: 10/02/2020

SHEET: C4

LEGEND

- EXISTING GROUND CONTOUR (1 FT) 350
- EXISTING GROUND CONTOUR (5 FT) 350
- FINISHED GRADE CONTOUR (1 FT) 345
- FINISHED GRADE CONTOUR (5 FT) 345
- SEDIMENT FENCE (TO BE INSTALLED PRIOR TO GRADING)
- INLET PROTECTION (TYP) PER DETAIL
- DRAINAGE FLOW DIRECTION
- GRAVEL CONSTRUCTION ENTRANCE
- GRADING LIMITS
- TREE PROTECTION FENCE (TO BE INSTALLED FOLLOWING DEMOLITION)
- TREE PROTECTION FENCE (TO BE INSTALLED PRIOR TO DEMOLITION)

NOTE:
ALL WORK WITHIN TREE DRIP LINE TO BE COORDINATED AND OVERSEEN BY AKS ARBORIST.



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**University Village
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SHEET TITLE:
**PRELIMINARY
EROSION AND
SEDIMENTATION
CONTROL PLAN**

DRAWN BY:
DATE ISSUED: 10/02/2020

SHEET: **C5**



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PROJECT NUMBER: 217304

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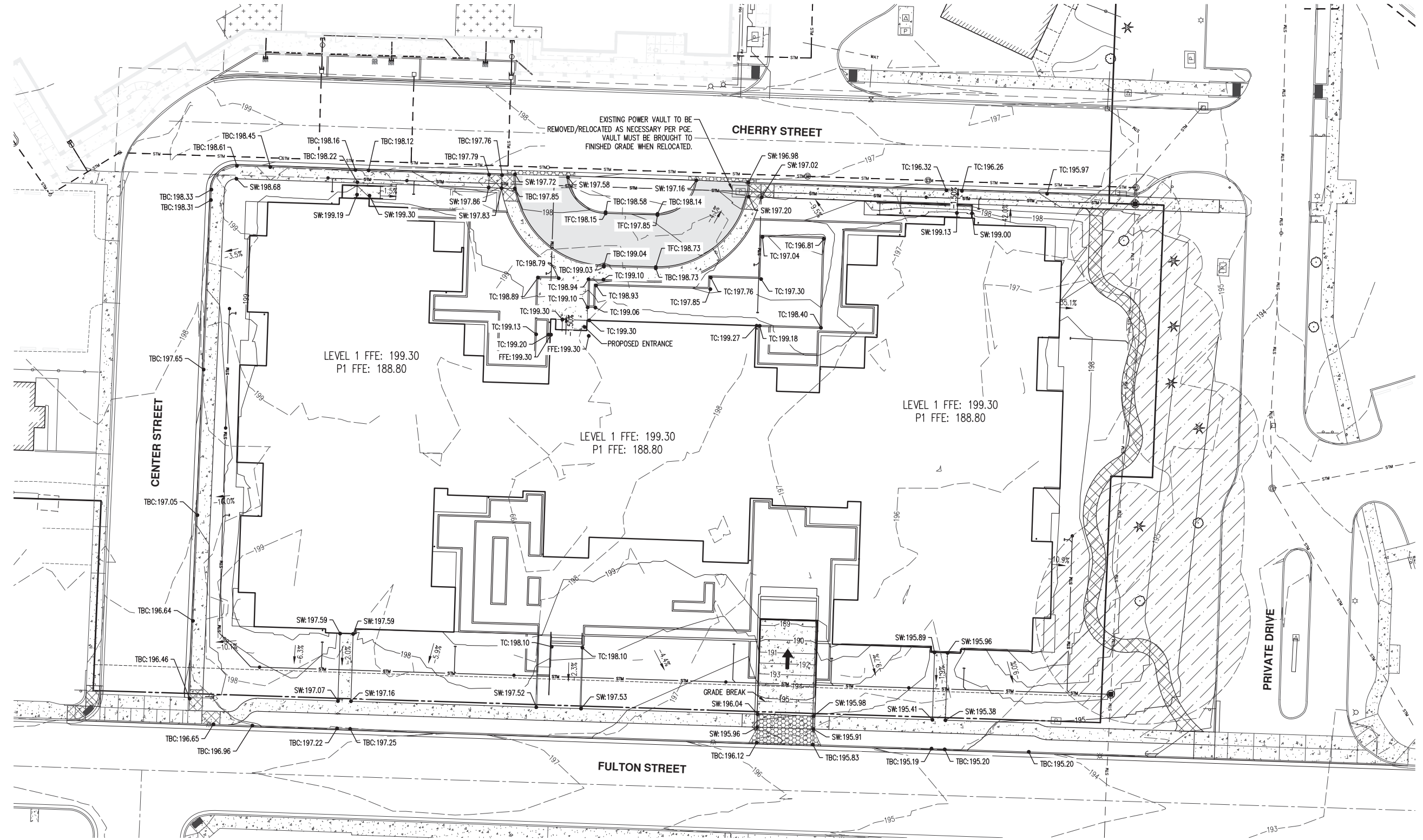
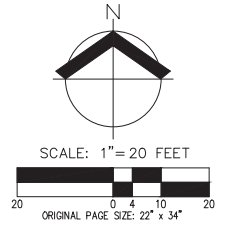


SHEET TITLE:
PRELIMINARY GRADING PLAN

DRAWN BY:
 DATE ISSUED: 10/02/2020

SHEET: **C6**

LEGEND	
EXISTING GROUND CONTOUR (1 FT)	---
EXISTING GROUND CONTOUR (5 FT)	----- 350
FINISHED GRADE CONTOUR (1 FT)	_____ 345
FINISHED GRADE CONTOUR (5 FT)	----- 345
SIDEWALK	SW:100
TOP OF CONCRETE	TC:100
TOP FACE OF CURB	TFC:100
TOP BACK OF CURB	TBC:100
FINISHED FLOOR ELEVATION	FFE:100





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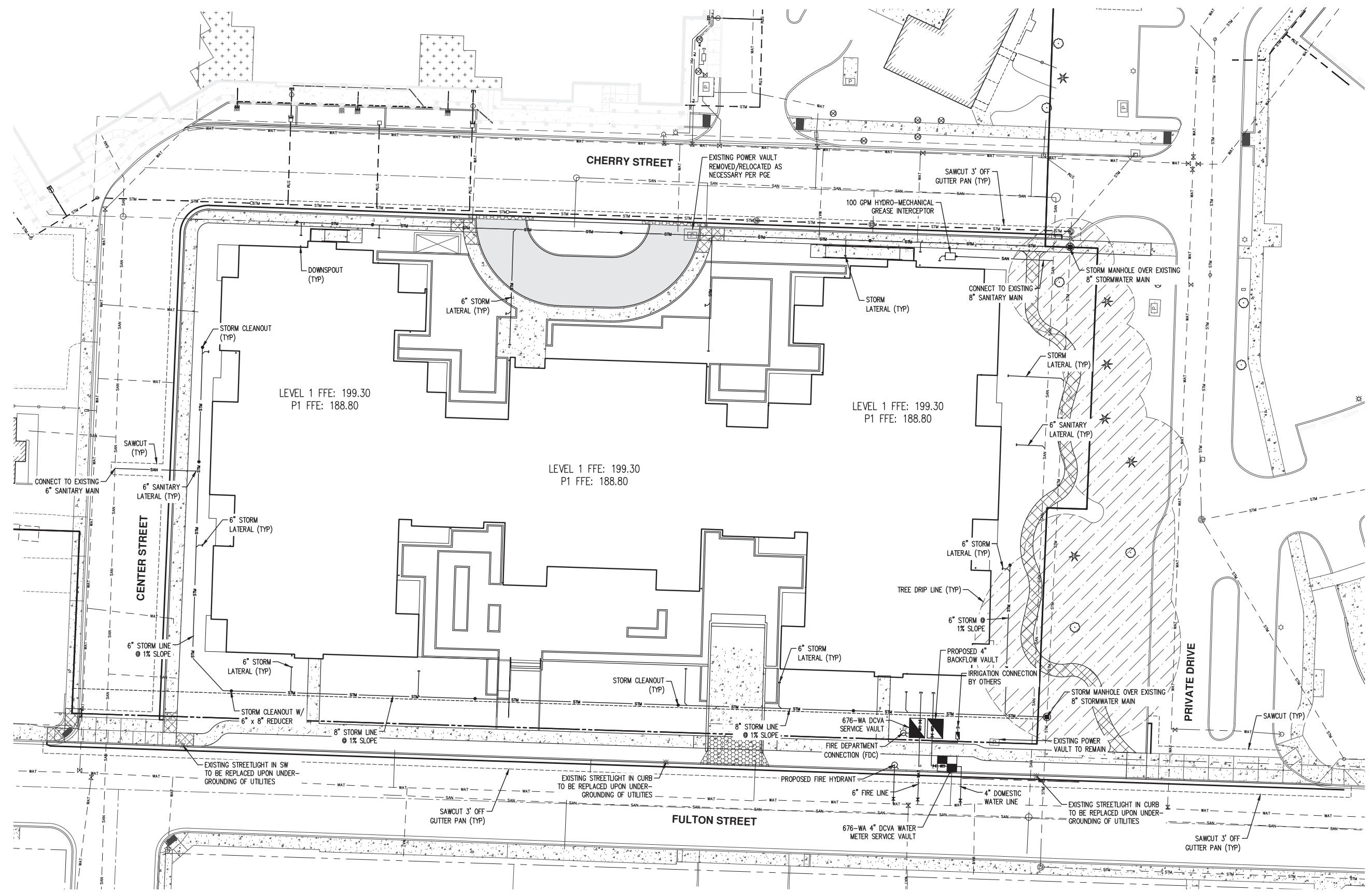
PROJECT NUMBER: 217304
**University Village
 Phase II**
 1001 Fulton Street,
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SHEET TITLE:
**PRELIMINARY
 COMPOSITE
 UTILITY PLAN**

DRAWN BY:
 DATE ISSUED: 10/02/2020

SHEET: **C7**



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CONSULTANT:
SHAPIRO / DIDWAY
 1204 SE Water Ave
 Portland, Oregon 97214
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 www.shapirodidway.com

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**University
 Village Phase II
 (Building #1)**

1001 Fulton Street,
 Newberg, OR 97132

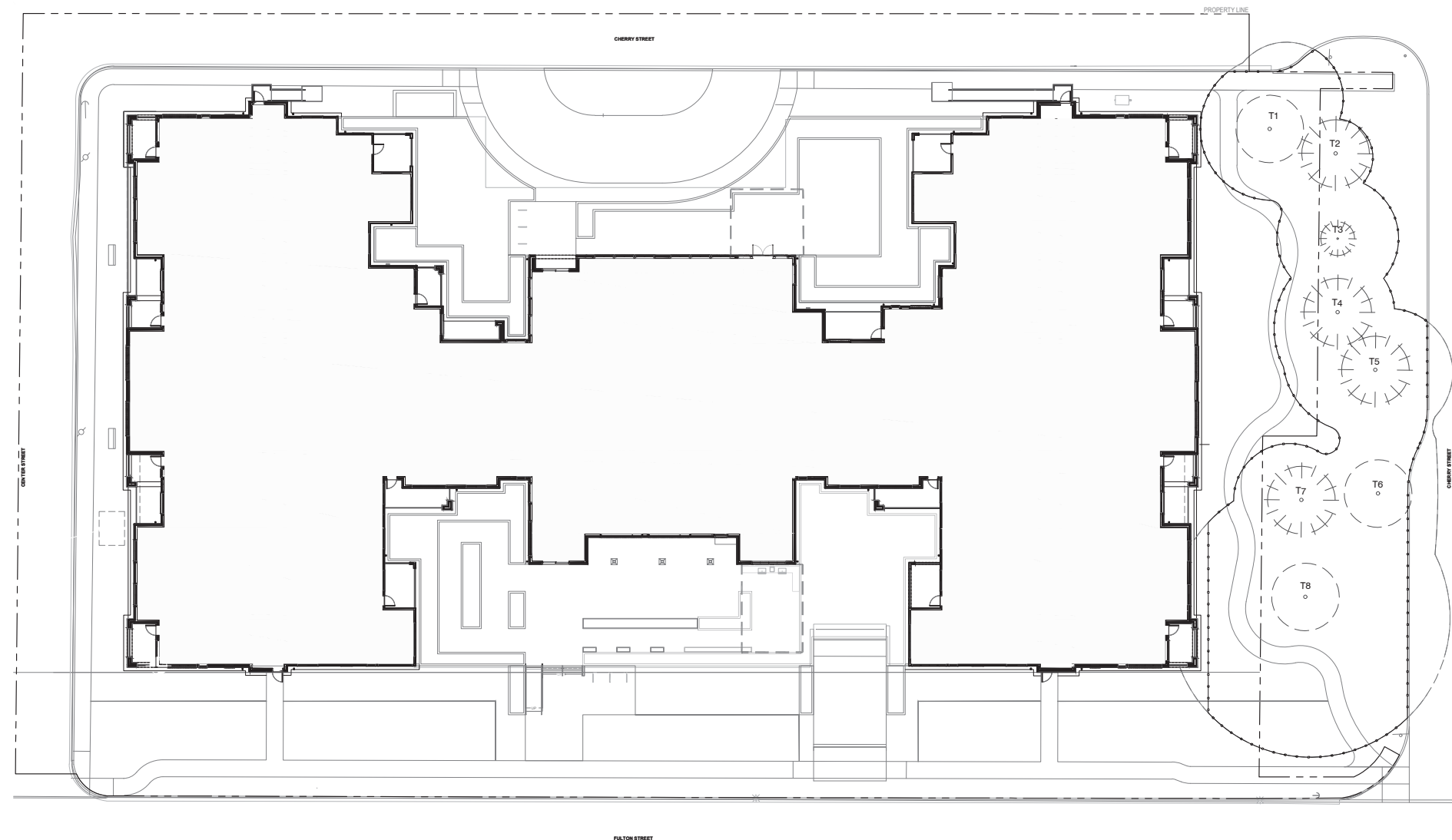
Friendsview
 RETIREMENT COMMUNITY

SHEET TITLE:
**EXISTING TREE
 INVENTORY
 AND
 PROTECTION
 PLAN**

KEY PLAN:



DRAWN BY:
 DATE CREATED:



TREES LEGEND

- DECIDUOUS TREE TO REMAIN
- EVERGREEN TREE TO REMAIN
- TREE ROOTZONE
- TREE PROTECTION FENCING. REFER TO EXISTING TREE PROTECTION DETAIL 19/L701

TREE PROTECTION NOTES

- PROTECT ALL TREES INDICATED TO REMAIN, INCLUDING BARK AND ROOT ZONES.
- CONSULT CITY FORESTER FOR PRESCRIBED PROTECTION REQUIREMENTS FOR EXISTING STREET TREES.
- INSTALL FENCING PER EXISTING TREE OR TREE PROTECTION PLAN.
- WORK WITHIN THE TREE PROTECTION ZONE SHALL BE REVIEWED AND APPROVED BY PROJECT ARBORIST.
- EXCAVATION WITHIN THE TREE PROTECTION ZONE SHALL BE PERFORMED WITH HANDHELD TOOLS OR AIR SPADE. EXCAVATE THE MINIMUM AMOUNT NECESSARY TO ACCOMPLISH PURPOSE FOR EXCAVATION.
- THE FOLLOWING IS PROHIBITED WITHIN THE ROOT PROTECTION ZONE OF EACH TREE OR OUTSIDE THE LIMITS OF THE DEVELOPMENT IMPACT AREA: GROUND DISTURBANCE OR CONSTRUCTION ACTIVITY INCLUDING VEHICLE OR EQUIPMENT ACCESS (BUT EXCLUDING ACCESS ON EXISTING STREETS OR DRIVEWAYS); STORAGE OF EQUIPMENT OR MATERIALS INCLUDING SOIL, TEMPORARY OR PERMANENT STOCKPILING, PROPOSED BUILDINGS, IMPERVIOUS SURFACES, UNDERGROUND UTILITIES, EXCAVATION OR FILL, TRENCHING OR OTHER WORK ACTIVITIES.
- PROTECTIVE FENCE SHALL BE INSTALLED BEFORE ANY GROUND DISTURBING ACTIVITIES INCLUDING CLEARING AND GRADING, OR CONSTRUCTION STARTS; AND SHALL REMAIN IN PLACE UNTIL FINAL INSPECTION.
- SIGNAHS DESIGNATING THE PROTECTION ZONE AND PENALTIES FOR VIOLATIONS SHALL BE SECURED IN A PROMINENT LOCATION ON EACH PROTECTION FENCE.
- TREE PROTECTION ZONE SHALL REMAIN FREE OF ALL CHEMICALLY INJURIOUS MATERIALS AND LIQUIDS.

TREE PRESERVATION LEGEND						
EXISTING TREES TO BE PROTECTED/REMOVED						
TREE NUMBER	TYPE	SPECIES	DBH (IN.)	PROTECT	REMOVE	
T1	DECIDUOUS	Maple (Acer sp.)	23	X		
T2	EVICONIFER	Douglas Fir (Pseudotsuga menziesii)	19	X		
T3	EVICONIFER	Pine (Pinus sp.)	26	X		
T4	EVICONIFER	Pine (Pinus sp.)	26	X		
T5	EVICONIFER	Giant Sequoia (Sequoiadendron giganteum)	61	X		
T6	DECIDUOUS	California Black Oak (Quercus kelloggii)	27	X		
T7	EVICONIFER	Pine (Pinus sp.)	30	X		
T8	DECIDUOUS	California Black Oak (Quercus kelloggii)	40	X		

1 EXISTING TREE INVENTORY AND PROTECTION PLAN



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**University
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 (Building #1)**

1001 Fulton Street,
 Newberg, OR 97132

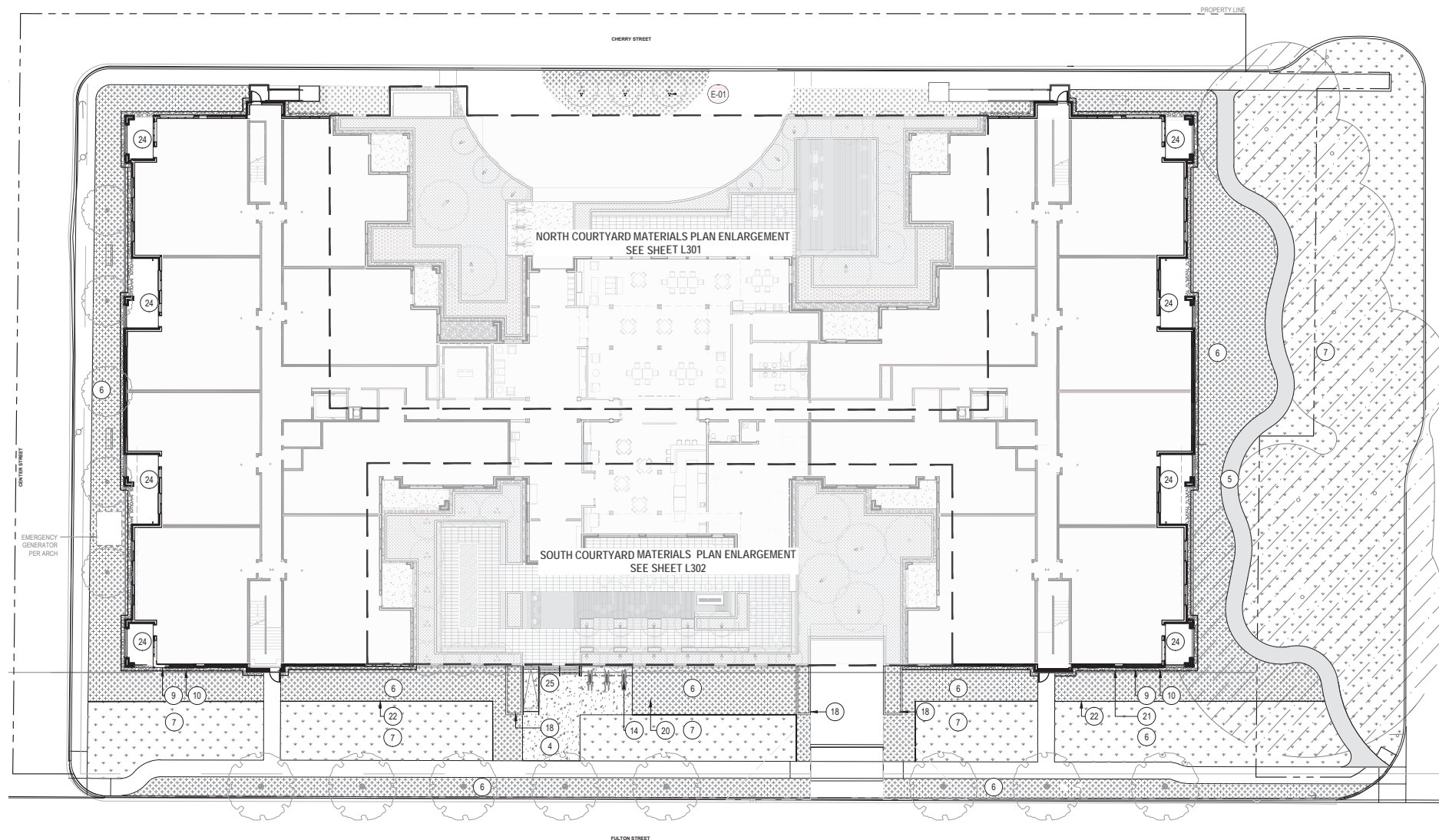
Friendsview
 RETIREMENT COMMUNITY

SHEET TITLE:
**LANDSCAPE
 SITE
 MATERIALS
 PLAN**

KEY PLAN:



DRAWN BY:
 DATE CREATED:

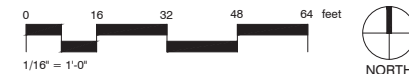


REFERENCE NOTES SCHEDULE - ON SITE

SYMBOL	DESCRIPTION
4	CONCRETE SURFACING, TYP.
5	ASPHALT SURFACING
6	PLANTING AREA, TYP.
7	TURF AREA, TYP.
9	DECORATIVE STONE MAINTENANCE EDGE
10	METAL EDGE RESTRAINT, TYP.
14	BIKE RACK, TYP.
18	RAISED CONCRETE PLANTER
20	CONCRETE EDGE BAND
21	METAL EDGE RESTRAINT, TYP.
22	SHOVEL CUT EDGE, TYP.
24	UNIT PATIO
25	ENTRY STAIRCASE AND RAMP W/ HANDRAILS
SYMBOL	ELECTRICAL DESCRIPTION
E-01	LOW VOLTAGE UPLIGHT, TYP.

REFERENCE NOTES SCHEDULE - RIGHT OF WAY

SYMBOL	DESCRIPTION
6	PLANTING AREA, TYP.



1 LANDSCAPE SITE MATERIALS PLAN

SHEET:
L300
 50% DD SET
 07.30.20

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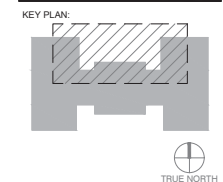
PROJECT NUMBER: 217304

**University
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 (Building #1)**

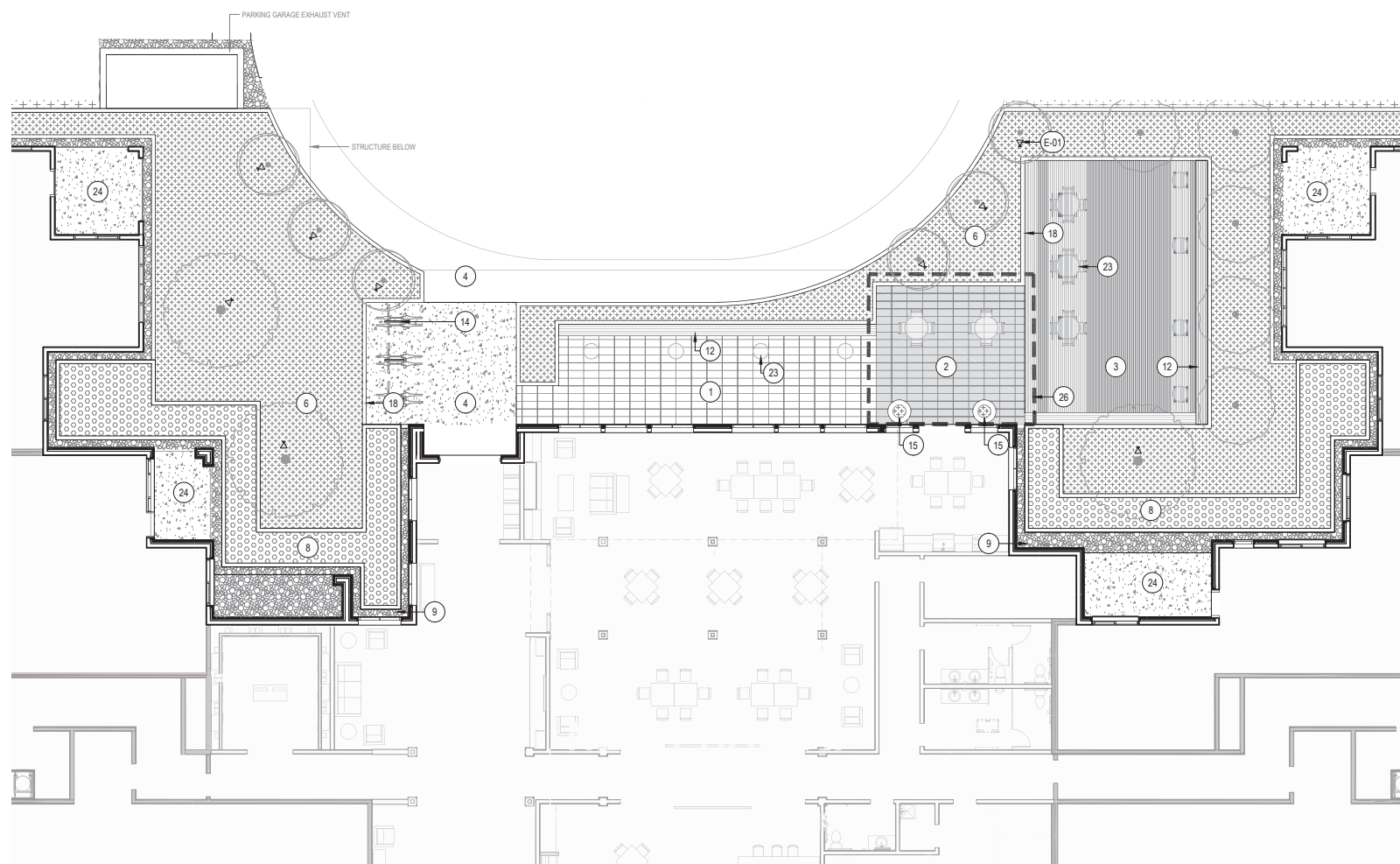
1001 Fulton Street,
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Friendsview
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SHEET TITLE:
**NORTH
 COURTYARD
 MATERIALS
 PLAN
 ENLARGEMENT**



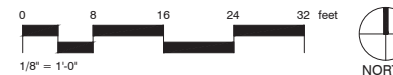
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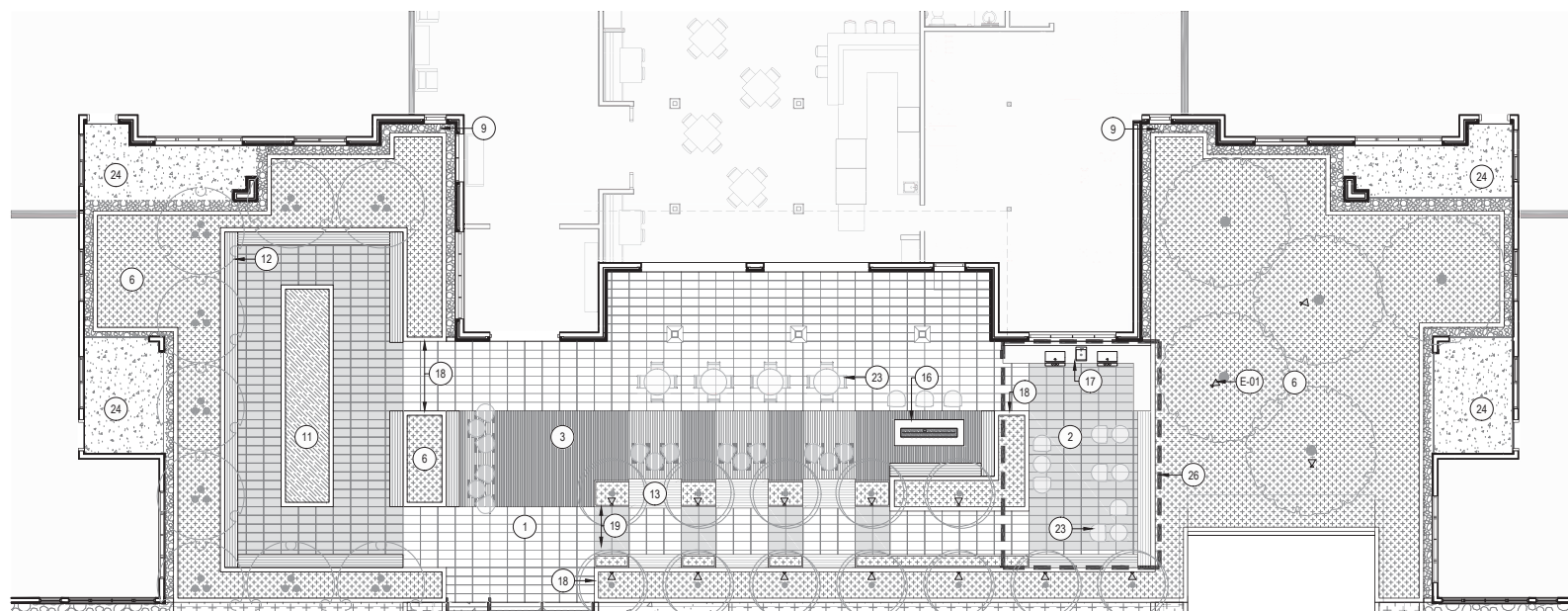
REFERENCE NOTES SCHEDULE - NORTH COURTYARD

SYMBOL	DESCRIPTION
(1)	PEDESTAL PAVER - TYPE I, TYP. INSTALLATION TYPE: PEDESTAL SUPPORT SYSTEM
(2)	PEDESTAL PAVER - TYPE II, TYP. INSTALLATION TYPE: PEDESTAL SUPPORT SYSTEM
(3)	COMPOSITE DECKING INSTALLATION TYPE: PEDESTAL SUPPORT SYSTEM
(4)	CONCRETE SURFACING, TYP.
(6)	PLANTING AREA, TYP.
(8)	STORMWATER FACILITY PLANTING AREA, TYP.
(9)	DECORATIVE STONE MAINTENANCE EDGE
(12)	BUILT-IN COMPOSITE DECKING BENCH, TYP.
(14)	BIKE RACK, TYP.
(16)	DECORATIVE PLANTER W/ ORNAMETAL SEASONAL PLANTINGS
(18)	RAISED CONCRETE PLANTER
(23)	SITE FURNISHING, TYP. SHOWN FOR REFERENCE ONLY
(24)	UNIT PATIO
(26)	OVERHEAD STRUCTURE
SYMBOL	ELECTRICAL DESCRIPTION
(E-01)	LOW VOLTAGE UPLIGHT, TYP.

1 NORTH COURTYARD MATERIALS PLAN ENLARGEMENT



PRELIMINARY
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 CONSTRUCTION



REFERENCE NOTES SCHEDULE - SOUTH COURTYARD

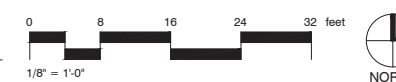
SYMBOL	DESCRIPTION
①	PEDESTAL PAVER - TYPE I, TYP. INSTALLATION TYPE: PEDESTAL SUPPORT SYSTEM
②	PEDESTAL PAVER - TYPE II, TYP. INSTALLATION TYPE: PEDESTAL SUPPORT SYSTEM
③	COMPOSITE DECKING INSTALLATION TYPE: PEDESTAL SUPPORT SYSTEM
④	CONCRETE SURFACING, TYP.
⑤	PLANTING AREA, TYP.
⑥	DECORATIVE STONE MAINTENANCE EDGE
⑪	GAME AREA/COURT
⑫	BUILT-IN COMPOSITE DECKING BENCH, TYP.
⑬	BUILT-IN COMPOSITE DECKING BENCH - DOUBLE SIDED, TYP.
⑮	FIRE TABLE
⑰	OUTDOOR KITCHEN
⑱	RAISED CONCRETE PLANTER
⑲	RAISED STEEL PLANTER, TYP.
⑳	SITE FURNISHING, TYP. SHOWN FOR REFERENCE ONLY
㉔	UNIT PATIO
㉖	OVERHEAD STRUCTURE
SYMBOL	ELECTRICAL DESCRIPTION
E-01	LOW VOLTAGE UPLIGHT, TYP.

CONSULTANT:
SHAPIRO / DIDWAY
 1204 SE Water Ave
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 P: 503.232.0520
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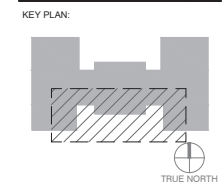
PROJECT NUMBER: 217304
University Village Phase II (Building #1)
 1001 Fulton Street,
 Newberg, OR 97132

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① SOUTH COURTYARD MATERIALS PLAN ENLARGEMENT



SHEET TITLE:
SOUTH COURTYARD MATERIALS PLAN ENLARGEMENT



DRAWN BY:
 DATE CREATED:

SHEET:
L302
 50% DD SET
 07.30.20

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CONSULTANT:

SHAPIRO / DIDWAY
1204 SE Water Ave
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PROJECT NUMBER: 217304

**University
Village Phase II
(Building #1)**

1001 Fulton Street,
Newberg, OR 97132

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SHEET TITLE:
**SITE PLANTING
PLAN**

KEY PLAN:



DRAWN BY:
DATE CREATED:

LANDSCAPE AREA:

LOT AREA OF DISTURBANCE:	77,557 SF
LANDSCAPE AREA:	30,814 SF
LOT LANDSCAPE PERCENTAGE:	39.7%

PLANTING NOTES:

- DO NOT WILLFULLY PROCEED WITH PLANTING OPERATIONS WHEN IT IS OBVIOUS THAT UNKNOWN OBSTRUCTIONS AND GRADE DIFFERENCES EXIST THAT MAY NOT HAVE BEEN KNOWN DURING DESIGN PROCESS. BRING SUCH CONDITIONS IMMEDIATELY TO ATTENTION OF OWNER'S AUTHORIZED REPRESENTATIVE FOR RESOLUTION. ASSUME FULL RESPONSIBILITY FOR COSTS INCURRED AND REQUIRED MODIFICATIONS DUE TO LACK OF PROVIDING SUCH NOTIFICATION.
- ENSURE THAT FINISH GRADE ELEVATIONS OF PLANTING AREAS ARE SET AT THE PROPER ELEVATIONS RELATIVE TO PAVING FINISH SURFACE ELEVATIONS. UTILITY COVERS AND CURBS: SHRUBS PLANTING AREAS AT 2" BELOW AND LAWN 1" BELOW ADJACENT GRADE. NOTIFY OWNER OF ANY DISCREPANCIES.
- ASSURE POSITIVE DRAINAGE IN ALL PLANTING AREAS TO DRAIN AWAY FROM BUILDING, 2% MINIMUM.
- QUANTITIES GIVEN FOR PLANT MATERIALS SPECIFIED FOR "ON CENTER" SPACING ARE SHOWN FOR CONVENIENCE ONLY AND ARE SUBORDINATE TO THE SPACING GIVEN, VERIFY AND SUPPLY SUFFICIENT NUMBER OF PLANTS TO FULLY SPACING REQUIREMENTS.
- EXACT LOCATIONS OF PLANT MATERIALS TO BE APPROVED BY THE LANDSCAPE ARCHITECT IN THE FIELD. STAGE ALL PLANT MATERIAL ON SITE PER PLAN, IN THE PLANT CONTAINERS. LARGER TREES MAY BE CENTER MARKED BY PAINTING OR STAKES. NOTIFY LANDSCAPE ARCHITECT OF PLACEMENT 48 HOURS PRIOR TO REQUIRED INSPECTION BY LANDSCAPE ARCHITECT. LANDSCAPE ARCHITECT RESERVES THE RIGHT TO ADJUST PLANT PLACEMENT WHILE STILL IN THE CONTAINERS, AT NO ADDITIONAL COST TO THE OWNER, BEFORE GIVING APPROVAL TO THE FINAL LOCATION FOR PLANTING.
- PLANTING SHALL NOT BE PERFORMED PRIOR TO THE FOLLOWING APPROVAL BY THE OWNERS AUTHORIZED REPRESENTATIVE:
 - OPERATIONAL IRRIGATION SYSTEM PROVIDING HEAD TO HEAD COVERAGE.
 - DECOMPACTION AND PRE-PLANTING SOIL AMENDMENTS ARE COMPLETE.
- IF CONFLICTS ARISE BETWEEN ACTUAL SIZE OF PLANTING AREAS ON-SITE AND THOSE AREAS INDICATED ON DRAWINGS, NOTIFY THE OWNERS AUTHORIZED REPRESENTATIVE PRIOR TO INSTALLATION.
 - ALL EXPOSED SOIL PLANTING AREAS TO RECEIVE A 3-INCH DEEP LAYER OF LANDSCAPE ARCHITECT APPROVED MULCH.
 - PROVIDE ROOT CONTROL BARRIERS FOR ALL TREES PLANTED WITHIN 5' OF A HARDSCAPE EDGE OF PAVING. REFER TO PLANTING DETAILS FOR ADDITIONAL INFORMATION.
 - INSTALL PLANT MATERIAL WITH ITS BEST SIDE FACING PREDOMINATE VIEW OF PUBLIC.
 - PROVIDE THE PROPER SETBACK BETWEEN UTILITIES AND TREES - CONTACT CITY INSPECTOR FOR REQUIRED SETBACKS IN THE CASE THAT THE DRAWINGS ARE NOT CLEAR.
 - PROVIDE A 4 FT. DIAMETER MULCH CIRCLE AROUND ALL TREES PLANTED IN LAWN AREAS UNLESS NOTED OTHERWISE.
 - PLANT SUBSTITUTIONS DUE TO AVAILABILITY, SHALL BE SUBMITTED IN WRITING TO LANDSCAPE ARCHITECT FOR APPROVAL.
- ALL PLANTING WITHIN THE RIGHT OF WAY SHALL MEET THE LOCAL JURISDICTION REQUIREMENTS, PLANTING STANDARDS, AND SITE VISION TRIANGLE CLEARANCE STANDARDS. CLEAR AND GRUB ALL INVASIVE VEGETATION. VERIFY ACTION FOR ALL NON-INVASIVE VEGETATION WITH LANDSCAPE ARCHITECT UNLESS OTHERWISE NOTED IN PLANS.

PLANT SCHEDULE - ON SITE

TREES	CODE	BOTANICAL / COMMON NAME	CONT.	GAL.	SIZE
●	CK	CORNUS KOUSA X NUTTALLI 'KN4-43' STARLIGHT KOUSA DOGWOOD	8 & B	2" GAL	12-15' H
●	LA	LAGERSTROMIA X NATCHEZ WHITE CRAPE MYRTLE MULTI-TRUNK • MULTI-STEM • LIMBED-UP 7 FT	8 & B	MULTI-TRUNK	12-14' H
SHRUBS	CODE	BOTANICAL / COMMON NAME	SIZE	HT.	
●	VM	ACER CIRCINATUM VINE MAPLE U-25A MULTI-STEM U-25A LIMBED-UP 5 FT	25 GAL	8-10 FT.	
●	CS	CAMELLIA SASANQUA 'GREEN 02-004' TM OCTOBER MAGIC WHITE SH-SH CAMELLIA	5 GAL		
●	CT	CHOISYA TERMINATA 'AZTEC PEARL' MEXICAN ORANGE	5 GAL		
●	CI	CISTUS X AGUILARI 'MACULATUS' ROCKROSE	5 GAL		
●	IL	ILEX X MESERVEAE 'CASTLE WALL' CASTLE WALL HOLLY	5 GAL		
●	RL	RHOODODENDRON DORA AMATEIS LOW WHITE RHOODODENDRON	5 GAL		
●	TB	ROSMARINUS OFFICINALIS 'TUSCAN BLUE' TUSCAN BLUE ROSEMARY	5 GAL		
●	SR	SARCOCOCCA RUSCIFOLIA FRAGRANT SARCOCOCCA	5 GAL		
GRASSES	CODE	BOTANICAL / COMMON NAME	SIZE	HT.	
●	CA	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER' FEATHER REED GRASS	3 GAL		

SHRUB AREAS

CODE	BOTANICAL / COMMON NAME	CONT.
■	AU ARCTOSTAPHYLOS UVA-URSI KINNICKINICK	1 GAL
■	LO LONICERA PILEATA PRIVET HONEYSUCKLE	5 GAL
■	RO ROSA X 'NDASCHNEE' WHITE GROUNDCOVER ROSE	3 GAL

ORNAMENTAL GRASS AREAS

CODE	BOTANICAL / COMMON NAME	CONT.
■	PEAL PENNISETUM ALOPECUROIDES 'HAMELN' HAMELN DWARF FOUNTAIN GRASS	2 GAL

GROUND COVERS

CODE	BOTANICAL / COMMON NAME	CONT.
■	ARUV ARCTOSTAPHYLOS UVA-URSI 'MASSACHUSETTS' MASSACHUSETTS MANZANITA	1 GAL
■	LMI LIRIOPE MUSCARI 'BIG BLUE' BIG BLUE LILYTURF	1 GAL

SEEDED LAWN

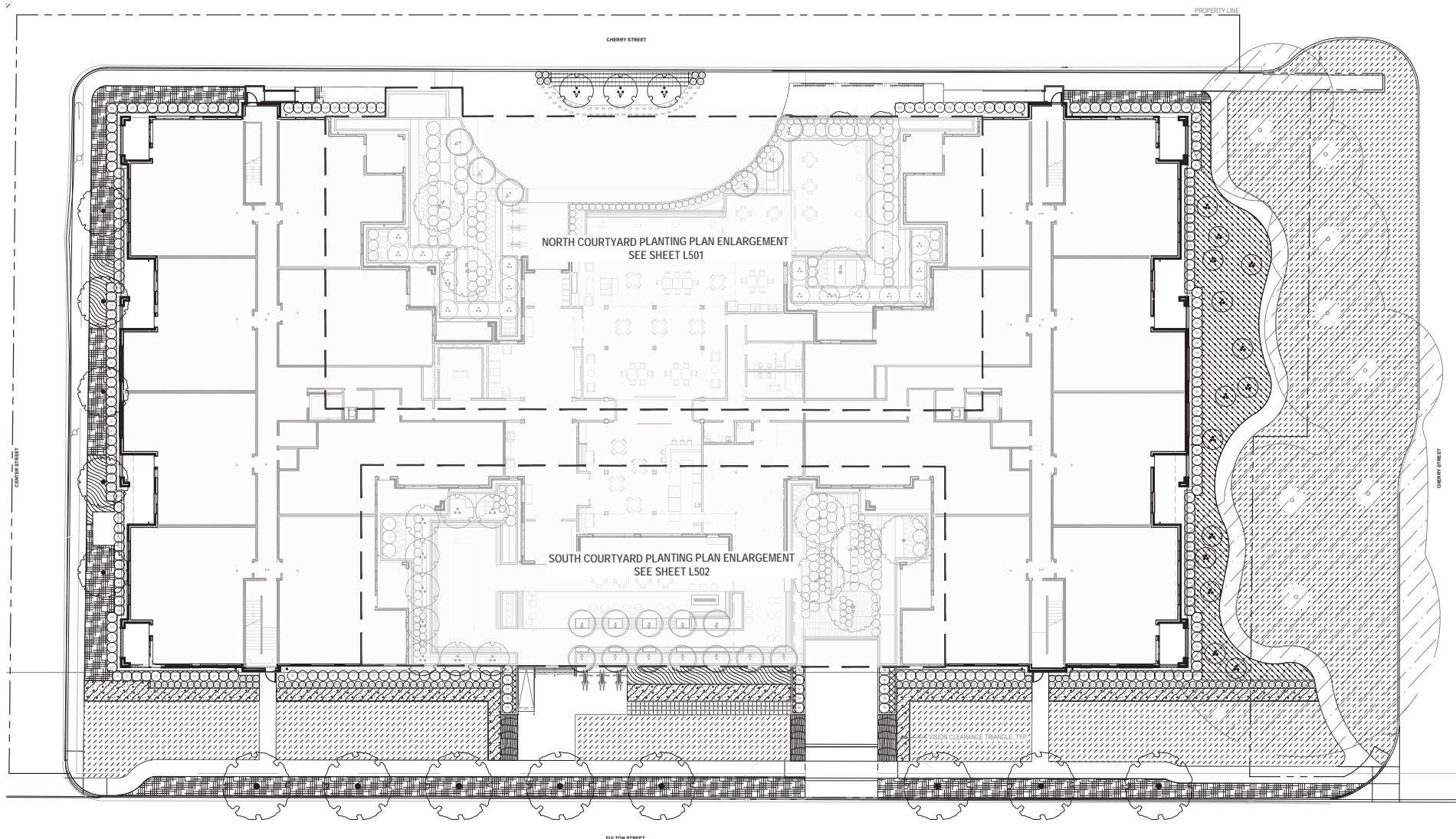
CODE	BOTANICAL / COMMON NAME	CONT.
■	LAWN LAWN	HYDROSEED
	SUNMARK SEED NORTHWEST PREMIUM BLEND 10# PER 1,000 SF	

PLANT MIX SCHEDULE - ON SITE

■	PLANT GROUP A RIS TENAX OREGON IRIS PENNISETUM ALOPECUROIDES 'HAMELN' / HAMELN DWARF FOUNTAIN GRASS	1 GAL 35% @ 12" oc 2 GAL 65% @ 18" oc
■	PLANT GROUP B CISTUS X AGUILARI 'MACULATUS' / ROCKROSE RIS TENAX OREGON IRIS PENNISETUM ALOPECUROIDES 'HAMELN' / HAMELN DWARF FOUNTAIN GRASS	5 GAL 40% @ 36" oc 1 GAL 10% @ 12" oc 2 GAL 50% @ 18" oc
■	PLANT GROUP C ARCTOSTAPHYLOS UVA-URSI 'MASSACHUSETTS' / MASSACHUSETTS MANZANITA DESCHAMPSIA CESPIIOSA / TUFTED HAIR GRASS GALLTHERIA SHALLON / SALAL PICKSTICHM MANTUM / WESTERN SWORD FERN RIBES SANGUINEUM / RED FLOWERING CURRANT VACCINIUM OVATUM / EVERGREEN HUCKLEBERRY	1 GAL 15% @ 15" oc 1 GAL 10% @ 18" oc 1 GAL 35% @ 18" oc 2 GAL 25% @ 24" oc 5 GAL 10% @ 36" oc 5 GAL 10% @ 36" oc

PLANT SCHEDULE - RIGHT OF WAY

TREES	CODE	BOTANICAL / COMMON NAME	CONT.
●	ZS	ZELKOVA SERRATA 'GREEN VASE' / GREEN VASE SAWLEAF ZELKOVA	8 & B
SHRUB AREAS	CODE	BOTANICAL / COMMON NAME	CONT.
■	LO	LONICERA PILEATA / PRIVET HONEYSUCKLE	5 GAL



1 SITE PLANTING PLAN



SHEET:
L500
50% DD SET
07.30.20

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CONSULTANT:
SHAPIRO / DIDWAY
 1204 SE Water Ave
 Portland, Oregon 97214
 T. 503.252.0520
 www.shapirodidway.com

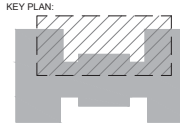
PROJECT NUMBER: 217304

**University
 Village Phase II
 (Building #1)**

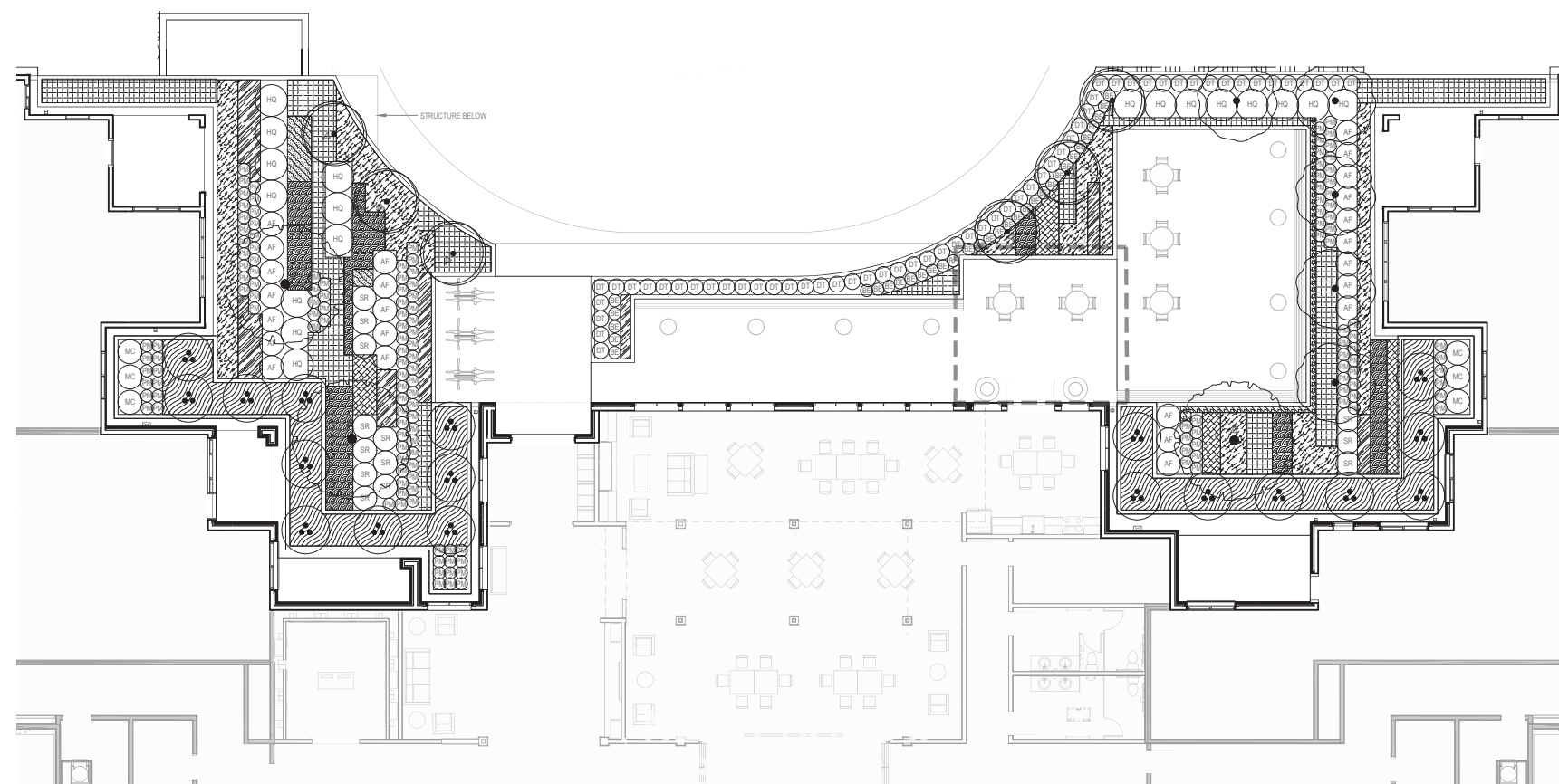
1001 Fulton Street,
 Newberg, OR 97132

Friendsview
 RETIREMENT COMMUNITY

SHEET TITLE:
**NORTH
 COURTYARD
 PLANTING
 PLAN
 ENLARGEMENT**

KEY PLAN:

 TRUE NORTH

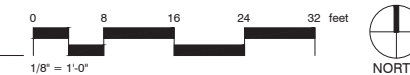
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PLANT SCHEDULE - NORTH COURTYARD

TREES	CODE	BOTANICAL / COMMON NAME	CONT.	CAL.	SIZE
	AG	ACER GRISEBUM PAPERBARK MAPLE	25 GAL	MULTI-TRUNK	10'-12' H
	AP	ACER PALMATUM 'SEIRYU' SEIRYU JAPANESE MAPLE	25 GAL	2' CAL.	8-10' H
	CK	CORNUS KOUSA X NUTTALLII 'N44-43' STARLIGHT KOUSA DOGWOOD	8 & 8	2' CAL.	12-15' H
SHRUBS	CODE	BOTANICAL / COMMON NAME	SIZE	HT.	
	VM	ACER CIRCINATUM VINE MAPLE U-25AA MULTI-STEM U-25AA LIMB-CULPS FT	25 GAL	8-10 FT.	
	BE	BERGENIA X 'BRESSINGHAM WHITE' BRESSINGHAM WHITE BERGENIA	3 GAL		
	AF	CORNUS SERICEA 'ARCTIC FIRE' ARCTIC FIRE DOGWOOD	5 GAL		
	DT	DAPHNE X TRANSATLANTICA 'ALBA EVERBLOOM' EVERBLOOM DAPHNE	3 GAL		
	HQ	HYDRANGEA QUERCIFOLIA 'PEE WEE' OAKLEAF HYDRANGEA	5 GAL		
	MC	MYRICA CALIFORNICA PACIFIC WAX MYRTLE	3 GAL		
	PM	POLYSTICHUM MUNITUM WESTERN SWORD FERN	3 GAL		
	SR	SARCOCOCCA RUSCIFOLIA FRAGRANT SARCOCOCCA	5 GAL		
GROUND COVERS	CODE	BOTANICAL / COMMON NAME	CONT.		
	CAMO	CAREX MORROWII 'TEMNOLEPUS' SILK TASSEL' JAPANESE SEDGE	1 GAL		
	GAIL	GAULTHERIA SHALLON SALAL	1 GAL		
	HAWO	HAKONECHLOA MACISA JAPANESE FOREST GRASS	1 GAL		
	HEIP	HELLEBORUS X 'IVORY PRINCE' IVORY PRINCE HELLEBORE	1 GAL		
	IRIS	IRIS SIBIRICA 'WHITE SWIRLS' WHITE SWIRLS SIBIRIAN IRIS	1 GAL		
	LIMU	LIRIOPE MUSCARI 'BIG BLUE' BIG BLUE LILYTURF	1 GAL		
	OXOR	OXALIS OREGANA REDWOOD SORREL	4POT		
STORMWATER	CODE	BOTANICAL / COMMON NAME	CONT.		
	JUPA	JUNCUS PATENS CALIFORNIA GRAY RUSH	1 GAL		

1 NORTH COURTYARD PLANTING PLAN ENLARGEMENT



SHEET:
L501
 50% DD SET
 07.30.20

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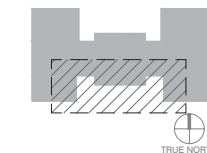
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1001 Fulton Street,
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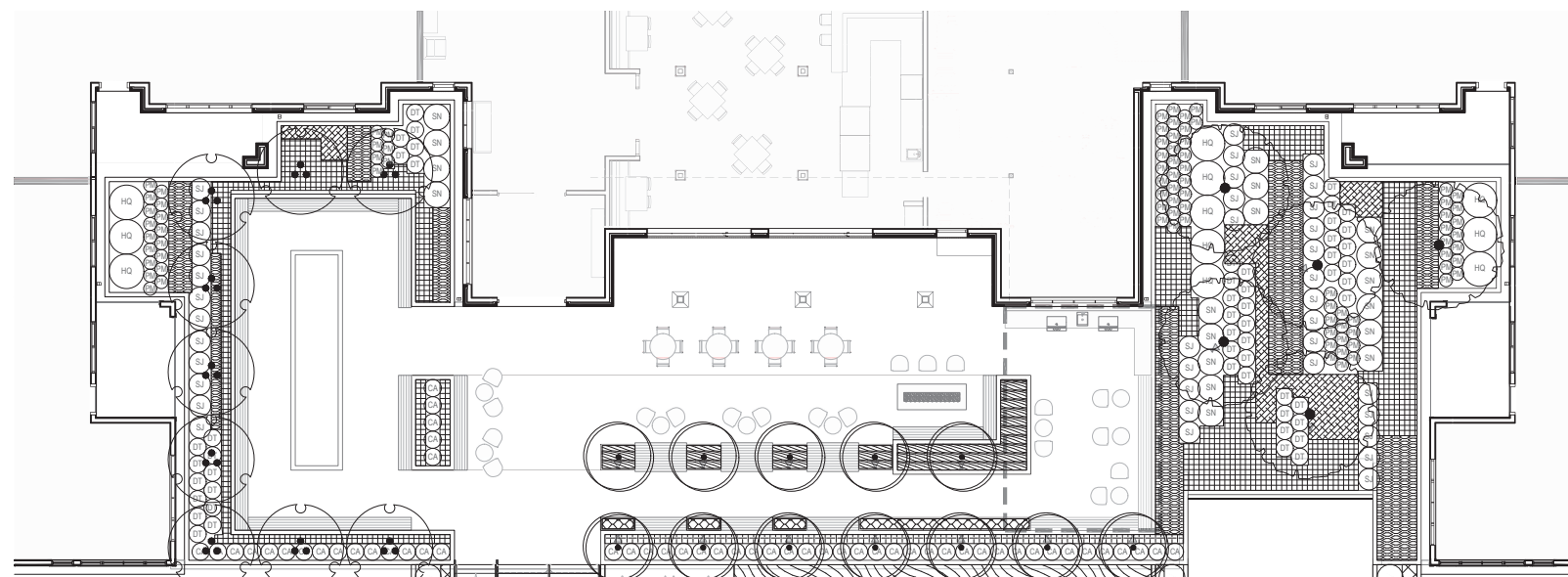
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SHEET TITLE:
**SOUTH
 COURTYARD
 PLANTING
 PLAN
 ENLARGEMENT**

KEY PLAN:



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 DATE CREATED:

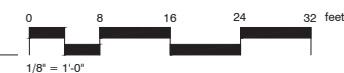


PLANT SCHEDULE - SOUTH COURTYARD

TREES	CODE	BOTANICAL / COMMON NAME	CONT	CAL	SIZE
AP	AP	ACER PALMATUM 'SERVU' SERVU JAPANESE MAPLE	25 GAL	2" CAL	8-10' H
CK	CK	CORNUS KOUSA X 'NUTTALLI' 'KNA-43' STARLIGHT KOUSA DOGWOOD	8 & B	2" CAL	12-15' H
LA	LA	LAGERSTROEMIA X 'NATCHEZ' MULTI-TRUNK WHITE CRAPE MYRTLE - LIMBED-UP 7 FT	8 & B	MULTI-TRUNK	12-14' H
SHRUBS	CODE	BOTANICAL / COMMON NAME	SIZE	HT.	
DT	DT	DAPHNE X TRANSATLANTICA 'ALBA EVERBLOOM' EVERBLOOM DAPHNE	3 GAL		
HQ	HQ	HYDRANGEA QUERCIFOLIA 'PEE WEE' OAKLEAF HYDRANGEA	5 GAL		
PM	PM	POLYSTICHUM MUNITUM WESTERN SWORD FERN	3 GAL		
SJ	SJ	SPIRAEA JAPONICA 'GOLDMOUND' GOLDMOUND SPIRAEA	5 GAL		
SN	SN	SPIRAEA NIPPONICA 'SNOWMOUND' SNOWMOUND SPIRAEA	5 GAL		
GRASSES	CODE	BOTANICAL / COMMON NAME	SIZE	HT.	
CA	CA	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER' FEATHER REED GRASS	3 GAL		
SHRUB AREAS	CODE	BOTANICAL / COMMON NAME	CONT	SPACING	
TJ	TJ	TRACHELOSPERMUM JASMINOIDES STAR JASMINE	3 GAL	24" o.c.	
GROUND COVERS	CODE	BOTANICAL / COMMON NAME	CONT	SPACING	
ARUV	ARUV	ARCTOSTAPHYLOS (VA.) 'LBS' 'MASSACHUSETTS' MASSACHUSETTS MANZANITA	1 GAL	15" o.c.	
DECE	DECE	DESCHAMPSIA DESERTOSA TUFTED HAIR GRASS	1 GAL	18" o.c.	
GAIL	GAIL	GAULTHERIA SHALLON SALAL	1 GAL	18" o.c.	
LMU	LMU	LIRIOPE MUSCARI 'BIG BLUE' BIG BLUE LILYTURF	1 GAL	12" o.c.	

PLANT MIX SCHEDULE - SOUTH COURTYARD

PLANT GROUP A	CONT	SPACING
IRIS TENAX / OREGON IRIS	1 GAL	36" @ 12" o.c.
PENNISETUM ALOPECUROIDES 'HAMELV' / HAMELV DWARF FOUNTAIN GRASS	2 GAL	65" @ 18" o.c.



1 SOUTH COURTYARD PLANTING PLAN ENLARGEMENT

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	PSI
①	HUNTER MP CORNER PROS-06-PRS40-CV TURF ROTATOR, 8" POP-UP WITH FACTORY INSTALLED CHECK VALVE. PRESSURE REGULATED TO 40 PSI, MP ROTATOR NOZZLE ON PRS40 BODY. T-TURQUOISE ADJ ARC 45-105.	40
②	HUNTER MP STRIP PROS-06-PRS40-CV TURF ROTATOR, 8" POP-UP WITH FACTORY INSTALLED CHECK VALVE. PRESSURE REGULATED TO 40 PSI, MP ROTATOR NOZZLE ON PRS40 BODY. LST-IVORY LEFT STRIP, SST-BROWN SIDE STRIP, RST-COPPER RIGHT STRIP.	40
③	HUNTER MP1000 PROS-06-PRS40-CV TURF ROTATOR, 8" POP-UP WITH CHECK VALVE, PRESSURE REGULATED TO 40 PSI, MP ROTATOR NOZZLE ON PRS40 BODY. M-MAROON ADJ ARC 90 TO 210, L-LIGHT BLUE 210 TO 270 ARC, O-OLIVE 360 ARC.	40
④	HUNTER MP2000 PROS-06-PRS40-CV TURF ROTATOR, 8" POP-UP WITH FACTORY INSTALLED CHECK VALVE. PRESSURE REGULATED TO 40 PSI, MP ROTATOR NOZZLE ON PRS40 BODY. K-BLACK ADJ ARC 90-210, G-GREEN ADJ ARC 210-270, R-RED 360 ARC.	40
⑤	HUNTER MP3000 PROS-06-PRS40-CV TURF ROTATOR, 8" POP-UP WITH FACTORY INSTALLED CHECK VALVE. PRESSURE REGULATED TO 40 PSI, MP ROTATOR NOZZLE ON PRS40 BODY. B-BLUE ADJ ARC 90-210, Y-YELLOW ADJ ARC 210-270, A-GRAY 360 ARC.	40
⑥	HUNTER MP3800 PROS-06-PRS40-CV TURF ROTATOR, 6.0" POP-UP WITH FACTORY INSTALLED CHECK VALVE. PRESSURE REGULATED TO 40 PSI, MP ROTATOR NOZZLE ON PRS40 BODY. L-LIGHT BROWN ADJUSTABLE ARC, 90-210.	40
⑦	HUNTER MP3850 PROS-06-PRS40-CV TURF ROTATOR, 6.0" POP-UP WITH CHECK VALVE, PRESSURE REGULATED TO 40 PSI, MP ROTATOR NOZZLE ON PRS40 BODY. ADJ-ORANGE AND GRAY (ARC 90-210), 350-LIME GREEN AND GRAY (ARC 360)	40
⑧	HUNTER MP815 PROS-06-PRS40-CV TURF ROTATOR, 8" POP-UP WITH CHECK VALVE, PRESSURE REGULATED TO 40 PSI, MP ROTATOR NOZZLE ON PRS40 BODY. M-MAROON AND GRAY ADJ ARC 90 TO 210, L-LIGHT BLUE AND GRAY 210 TO 270 ARC, O-OLIVE AND GRAY 360 ARC.	40
⑨	HUNTER MP CORNER PROS-12-PRS40-CV SHRUB ROTATOR, 1/2" POP-UP WITH FACTORY INSTALLED CHECK VALVE. PRESSURE REGULATED TO 40 PSI, MP ROTATOR NOZZLE. T-TURQUOISE ADJ ARC 45-105 ON PRS40 BODY.	40
⑩	HUNTER MP STRIP PROS-12-PRS40-CV SHRUB ROTATOR, 1/2" POP-UP WITH FACTORY INSTALLED CHECK VALVE. PRESSURE REGULATED TO 40 PSI, MP ROTATOR NOZZLE. LST-IVORY LEFT STRIP, SST-BROWN SIDE STRIP, RST-COPPER RIGHT STRIP, ON PRS40 BODY.	40
⑪	HUNTER MP1000 PROS-12-PRS40-CV SHRUB ROTATOR, 1/2" POP-UP WITH CHECK VALVE, PRESSURE REGULATED TO 40 PSI, MP ROTATOR NOZZLE. M-MAROON ADJ ARC 90 TO 210, L-LIGHT BLUE 210 TO 270 ARC, O-OLIVE 360 ARC ON PRS40 BODY.	40
⑫	HUNTER MP2000 PROS-12-PRS40-CV SHRUB ROTATOR, 1/2" POP-UP WITH CHECK VALVE, PRESSURE REGULATED TO 40 PSI, MP ROTATOR NOZZLE. K-BLACK ADJ ARC 90-210, G-GREEN ADJ ARC 210-270, R-RED 360 ARC ON PRS40 BODY.	40
⑬	HUNTER MP3000 PROS-12-PRS40-CV SHRUB ROTATOR, 1/2" POP-UP WITH CHECK VALVE, PRESSURE REGULATED TO 40 PSI, MP ROTATOR NOZZLE. B-BLUE ADJ ARC 90-210, Y-YELLOW ADJ ARC 210-270, A-GRAY 360 ARC ON PRS40 BODY.	40
⑭	HUNTER MP3800 PROS-12-PRS40-CV SHRUB ROTATOR, 12.0" POP-UP WITH FACTORY INSTALLED CHECK VALVE. PRESSURE REGULATED TO 40 PSI, MP ROTATOR NOZZLE. L-LIGHT BROWN, ADJUSTABLE ARC, 90-210, ON PRS40 BODY.	40
⑮	HUNTER MP3850 PROS-12-PRS40-CV SHRUB ROTATOR, 12.0" POP-UP WITH CHECK VALVE, PRESSURE REGULATED TO 40 PSI, MP ROTATOR NOZZLE. L-LIGHT BROWN, ADJUSTABLE ARC, 90-210, ON PRS40 BODY.	40
⑯	HUNTER MP815 PROS-12-PRS40-CV SHRUB ROTATOR, 1/2" POP-UP WITH CHECK VALVE, PRESSURE REGULATED TO 40 PSI, MP ROTATOR NOZZLE. M-MAROON AND GRAY ADJ ARC 90 TO 210, L-LIGHT BLUE AND GRAY 210 TO 270 ARC, O-OLIVE AND GRAY 360 ARC ON PRS40 BODY.	40
⑰	HUNTER PROS-PR30-04-CV-MSBN MULTI-STREAM BUBBLER, 4" POP-UP, FACTORY INSTALLED DRAIN CHECK VALVE. 25-25GPM, 50+0.5GPM, 10+1.0GPM, 20+2.0GPM.	30
⑱	HUNTER RZW-18 18" LONG RZW WITH INSTALLED 25GPM OR 50GPM BUBBLER OPTIONS, 1/2" SWING JOINT FOR CONNECTION TO 1/2" PIPE	30
⑲	MANUFACTURER/MODEL/DESCRIPTION	
⑳	HUNTER ICZ-10-40 DRIP CONTROL ZONE KIT. 1" ICV GLOBE VALVE WITH 1" HY100 FILTER SYSTEM. PRESSURE REGULATION: 40PSI. FLOW RANGE: 2 GPM TO 20 GPM. 150 MESH STAINLESS STEEL SCREEN.	
㉑	NETAFIM T150V NETAFIM T150V. 1/2" MANUAL FLUSH VALVE, BARBED INSERT. INSTALL IN 1/2" BOX, WITH ADEQUATE BLANK OR "COBRA" TUBING TO EXTEND VALVE OUT OF VALVE BOX. 1.7MM FITS TECHLINE. HCXVR, HCXVR-RWRWP, CV, DL, RW AND RWP DRINK LINES, AND PE IRRIGATION HOSE.	
㉒	AREA TO RECEIVE DRIFLINE HUNTER HDL-04-CV HDL-04-12-CV HUNTER DRIFLINE W/ 0.4 GPH EMITTERS AT 12" O.C. CHECK VALVE, DARK BROWN TUBING WITH TAN STRIPING. DRIFLINE LATERALS SPACED AT 12" APART, WITH EMITTERS OFFSET FOR TRIANGULAR PATTERN. INSTALL WITH HUNTER PLD BARBED OR PLD-LOC FITTINGS.	
㉓	AREA TO RECEIVE DRIFLINE HUNTER HDL-09-12-CV HDL-09-12-CV HUNTER DRIFLINE W/ 0.9 GPH EMITTERS AT 12" O.C. CHECK VALVE, DARK BROWN TUBING WITH BLACK STRIPING. DRIFLINE LATERALS SPACED AT 12" APART, WITH EMITTERS OFFSET FOR TRIANGULAR PATTERN. INSTALL WITH HUNTER PLD BARBED OR PLD-LOC FITTINGS.	
㉔	MANUFACTURER/MODEL/DESCRIPTION	
㉕	HUNTER ICV-G 1", 1-1/2", 2", AND 3" PLASTIC ELECTRIC REMOTE CONTROL VALVE, GLOBE CONFIGURATION, WITH NPT THREADED INLET/OUTLET, FOR COMMERCIAL/MUNICIPAL USE.	
㉖	HUNTER CV-G 1", 1-1/2", 2", AND 3" PLASTIC ELECTRIC MASTER VALVE, GLOBE CONFIGURATION, WITH NPT THREADED INLET/OUTLET, FOR COMMERCIAL/MUNICIPAL USE.	
㉗	ZURN 350XL DOUBLE CHECK VALVE ASSEMBLY W/ EZ3WAY INSERT.	
㉘	HUNTER PHC-2400 W/ ENABLED. FULL-FUNCTIONING CONTROLLER WITH TOUCHSCREEN, 24 STATION FIXED CONTROLLER, 120 VAC, INDOOR MODEL.	
㉙	HUNTER HC-200-FLOW 2" FOR USE WITH HYDRAWISE ENABLED CONTROLLER TO MONITOR FLOW AND PROVIDE SYSTEM ALERTS. ALSO FUNCTIONS AS STAND ALONE FLOW TOTALIZER/SUB METER ON ANY RESIDENTIAL OR COMMERCIAL IRRIGATION SYSTEM.	
㉚	POINT OF CONNECTION 1-1/2" AVAILABLE WATER PRESSURE IS CURRENTLY UNKNOWN	


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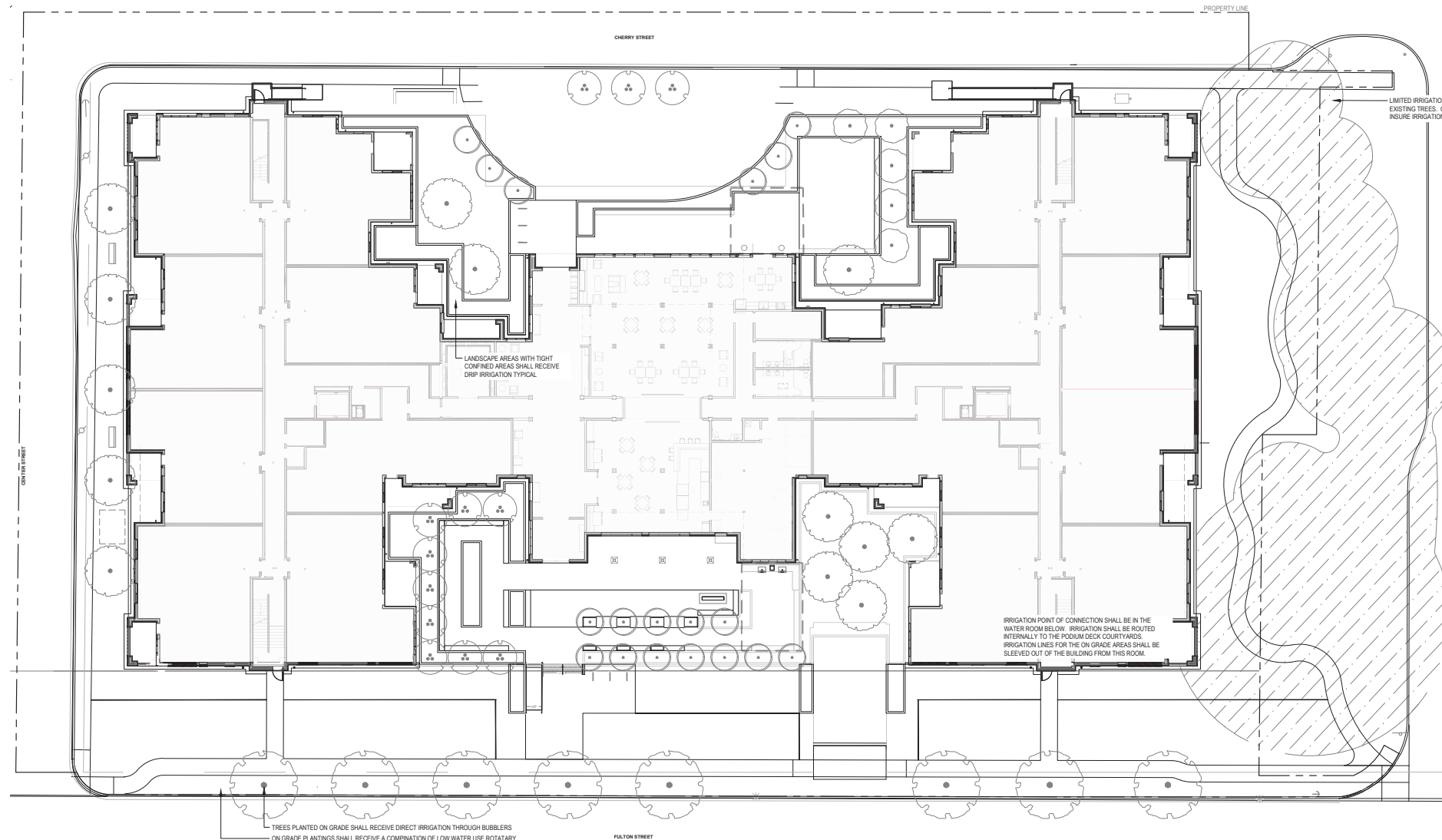
CONSULTANT:
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PROJECT NUMBER: 217304
**University
Village Phase II
(Building #1)**
1001 Fulton Street,
Newberg, OR 97132

FRIENDSVIEW
RETIREMENT COMMUNITY

SHEET TITLE:
**IRRIGATION
PLAN**

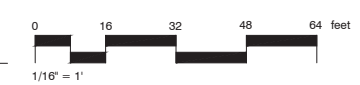
KEY PLAN:

DRAWN BY:
DATE CREATED:



1 IRRIGATION PLAN

- GENERAL IRRIGATION NOTES:
- ALL PLANTED AREAS TO BE IRRIGATED. WITH A PERMANENT AUTOMATIC IRRIGATION SYSTEM.
 - IRRIGATION ZONES SHALL BE BROKEN UP INTO HYDROZONES BASED ON VEGETATION TYPE, PLANTING AREA, AND MICROCLIMATE.
 - PLAN IS DIAGRAMMATIC. STAKE ALL VALVE BOX LOCATIONS FOR APPROVAL. SET VALVE BOXES SQUARE TO ADJACENT BUILDING, CURB, OR PAVING.
 - ALL PIPE UNDER BUILDINGS, ROADS, WALKS, PARKING AREAS OR OTHER PAVED SURFACES SHALL BE SLEEVED, WHETHER SHOWN OR NOT. SLEEVES SHALL MINIMUM 4" DIAMETER, OR AS INDICATED. SLEEVING MAY BE INCLUDED FOR FUTURE WORK.
 - ALL PIPE OR EQUIPMENT SHOWN IN PAVING ADJACENT AND PARALLEL TO PLANTED AREAS IS INTENDED TO BE PLACED IN THAT AREA WHERE POSSIBLE. ALL MATERIAL TO BE INSTALLED ON OWNERS PROPERTY.
 - MAKE ANY AND ALL REQUIRED ADJUSTMENTS TO THE IRRIGATION PLAN TO ASSURE COMPLETE AND ADEQUATE COVERAGE WITH MINIMUM OVERSPRAY.
 - SEE PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION.
 - PROVIDE GATE VALVES AT POINTS OF CONNECTION GATE VALVES SHALL BE INSTALLED AT MINIMUM 12" DEPTH.
 - LATERAL LINE SHALL HAVE 18" OF COVER, AND MAIN LINES 24". 36" MAXIMUM COVER UNDER ROADWAYS.
 - REFER TO PLANTING AND LAYOUT PLANS FOR EXACT LAYOUT. INTENT IS THAT ALL NEW PLANTINGS RECEIVE ADEQUATE WATER.
 - VERIFY STATIC PRESSURE AT POC AT COMMENCEMENT OF CONTRACT. PROVIDE POC PSI SUBMITTAL TO LANDSCAPE ARCHITECT PRIOR TO BEGINNING WORK.
 - BACKFLOW INSTALLATION SHALL CONFORM TO LOCAL CODES FOR ASSEMBLY INSTALLATION REQUIREMENTS.
 - PROTECT AND PRESERVE SLAB MEMBRANE ON ROOF AND/OR IN PLANTERS.

PIPE SIZE	GPM
3/8"	0-7
1"	7-12
1 1/4"	12-22
1 1/2"	22-32
2"	32-52
2 1/2"	52-76
3"	76-118



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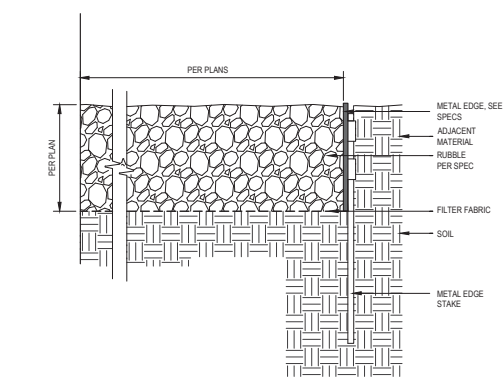
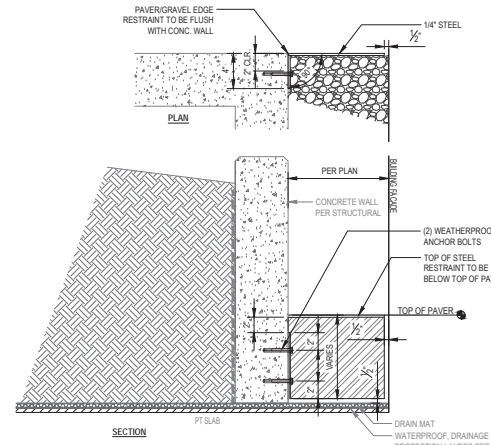
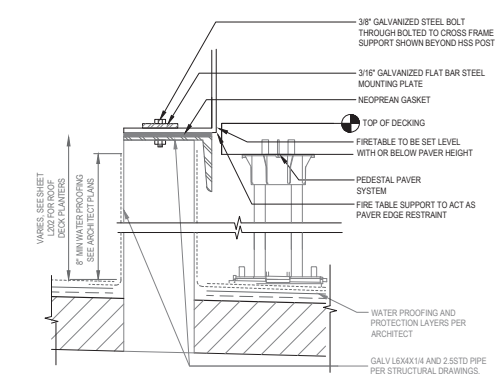
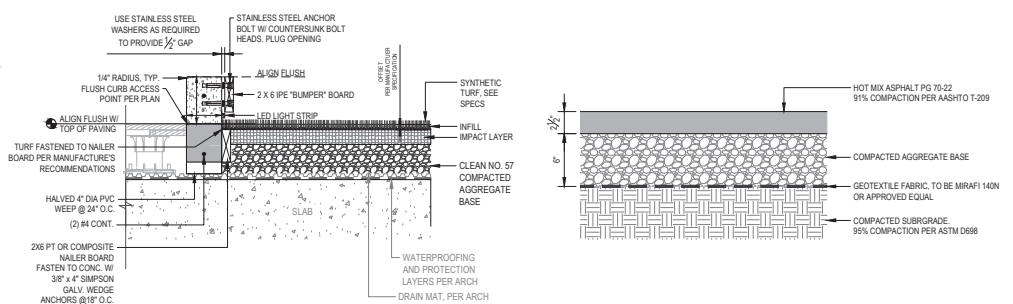
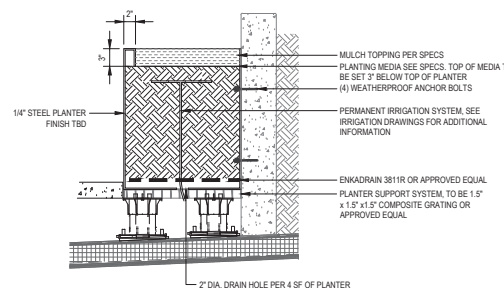
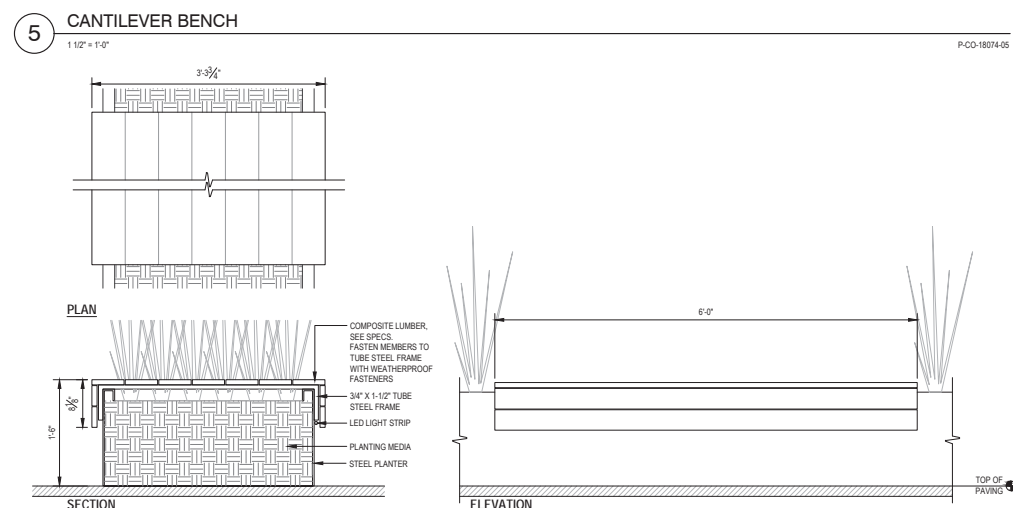
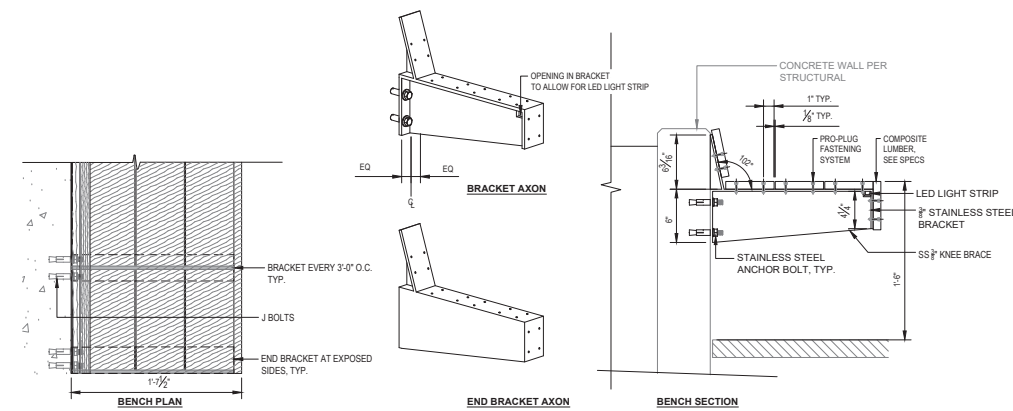
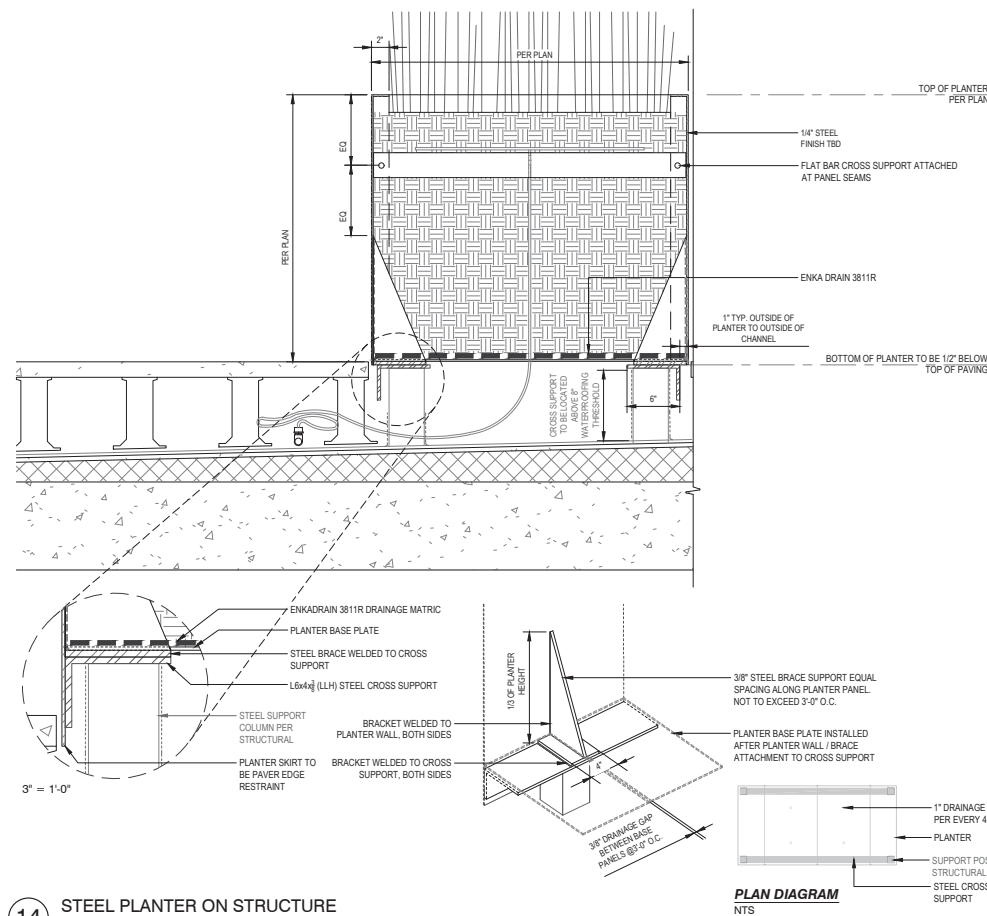
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 Newberg, OR 97132

Friendsview
 RETIREMENT COMMUNITY

SHEET TITLE:
**LANDSCAPE
 CONSTRUCTION
 DETAILS**

DRAWN BY:
 DATE CREATED:

SHEET:
L701
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 07.30.20



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Friendsview
RETIREMENT COMMUNITY

SHEET TITLE:
**PLANTING
DETAILS**

DRAWN BY:
DATE CREATED:

SHEET:

L702
50% DD SET
07.30.20

LRS Architects, Inc. ©2020

TREE PROTECTION NOTES

- OWNER SHALL RETAIN A CERTIFIED ARBORIST. ALL REFERENCES WITHIN THIS DOCUMENT REFER TO THE OWNER'S CERTIFIED ARBORIST.
- ALL TREES WILL NEED TO BE EVALUATED AND TAGGED FOR PRESERVATION OR DEMOLITION BY THE OWNER'S CERTIFIED ARBORIST.
- THE PROJECT ARCHITECT AND OWNER'S CERTIFIED ARBORIST SHALL BE NOTIFIED IF ANY DISCREPANCIES ARE FOUND WITH THE TREES IDENTIFIED ON THIS PLAN AND ACTUAL CONDITIONS.

FENCING PROTECTION ZONE

ALL ZONES

- PROTECTIVE FENCING SHALL BE PROVIDED AND MAINTAINED AT THE DRIP LINE OF EACH TREE OR GROUP OF TREES AT THE DRIP LINE. ORANGE OR GREEN PVC WEB FENCING MAY BE USED ONLY AS APPROVED BY THE CITY AND OWNER. ZONE C FENCING BEYOND THE DRIP LINE IS NOT REQUIRED BUT IS RECOMMENDED WHERE POSSIBLE.
- THE APPROVAL OF THE OWNER'S CERTIFIED ARBORIST IS REQUIRED FOR USE/ACCESS WITHIN ZONES.
- SURFACE PROTECTION MEASURES REQUIRED SUCH AS WOOD PLANKING OR STEEL PLATES UNDER BACKHOE STABILIZERS PLACED ANYWHERE WITHIN ZONES.
- BARK MULCH REQUIRED AT 6"-8" DEPTH KEPT 12 INCHES CLEAR OF TRUNK.
- NO MATERIALS, EQUIPMENT, SPILL, OR WASTE OR WASHOUT / WASTEWATER I.E. CEMENT MAY BE DEPOSITED, STORED, OR PARKED WITHIN THE TREE PROTECTION ZONE C AT ALL TIMES.
- PROVIDING SEASONAL WATERING AS NEEDED TO MAINTAIN HEALTH AND VIGOR OF PLANTS TO REMAIN. THIS INCLUDES PROVIDING WATER SUPPLY, PIPING AND HOSES, AND APPLICATION MATERIALS AND THE LABOR REQUIRED TO PROVIDE PROPER WATER APPLICATION.

TRENCHING / EXCAVATION

ZONE A (CRITICAL ROOT ZONE)

(CRZ IS DETERMINED BY TRUNK DIAMETER MEASURED AT CHEST HEIGHT (DBH) AND CRZ IS EQUAL TO 1-FOOT RADIUS FOR EVERY 1" DIAMETER OF TREE)

- NO DISTURBANCE ALLOWED WITHOUT SITE-SPECIFIC INSPECTION AND APPROVAL OF METHODS TO MINIMIZE ROOT DAMAGE
- SEVERANCE OF ROOTS LARGER THAN 2 INCHES IN DIAMETER REQUIRES THE OWNER'S CERTIFIED ARBORIST APPROVAL.
- TUNNELING REQUIRED TO INSTALL LINES 3 FEET BELOW GRADE OR DEEPER
- ALL NON-PAVED SURFACES IN ZONE SUBJECT TO IMPACT (COMPACTION) BY CONSTRUCTION ACTIVITIES SHALL BE PROTECTED WITH THE ABOVE STATED OPTIONS FOR SURFACE PROTECTION MEASURES.

ZONE B (ORIPLINE)

(DEFINED AS MAXIMUM WIDTH OF BRANCH EXTENSION ON TREE)

- OPERATION OF HEAVY EQUIPMENT AND/OR STOCKPILING OF MATERIALS SUBJECT TO THE OWNER'S CERTIFIED ARBORIST APPROVAL.
- MAINTAIN 2/3 OR MORE OF ZONE IN UNDISTURBED CONDITION.
- WHEN TRENCHING FOR UTILITIES WITHIN ZONE B, HAND DIG OR TUNNEL AROUND ROOTS WHENEVER POSSIBLE. CUT ALL ROOTS CLEANLY WITH SHARP PRUNERS OR SAWS. IF ROOTS OVER 2" DIA ARE ENCOUNTERED, NOTIFY OWNER'S AUTHORIZED REPRESENTATIVE FOR INSPECTION AND APPROVAL PRIOR TO PROCEEDING. ROOT PRUNE AND REMEDY ONLY AS DIRECTED BY THE OWNER'S CERTIFIED ARBORIST.
- AIR OR WATER SPRAYING, OR BORING MAY BE REQUIRED BY IN ZONE A OR ZONE B IF CONDITIONS WARRANT.
- FOR INSTALLATION OF SILT FENCING, DO NOT TRENCH IN ZONE A OR ZONE B. INSTEAD SECURE TOE OF FENCING WITH DRAIN ROCK OR SUITABLE SOIL AND MONITOR/MAINTAIN FENCING AS NECESSARY TO PREVENT EROSION.
- ALL NON-PAVED SURFACES IN ZONE SUBJECT TO IMPACT (COMPACTION) BY CONSTRUCTION ACTIVITIES SHALL BE PROTECTED WITH THE ABOVE STATED OPTIONS FOR SURFACE PROTECTION MEASURES.

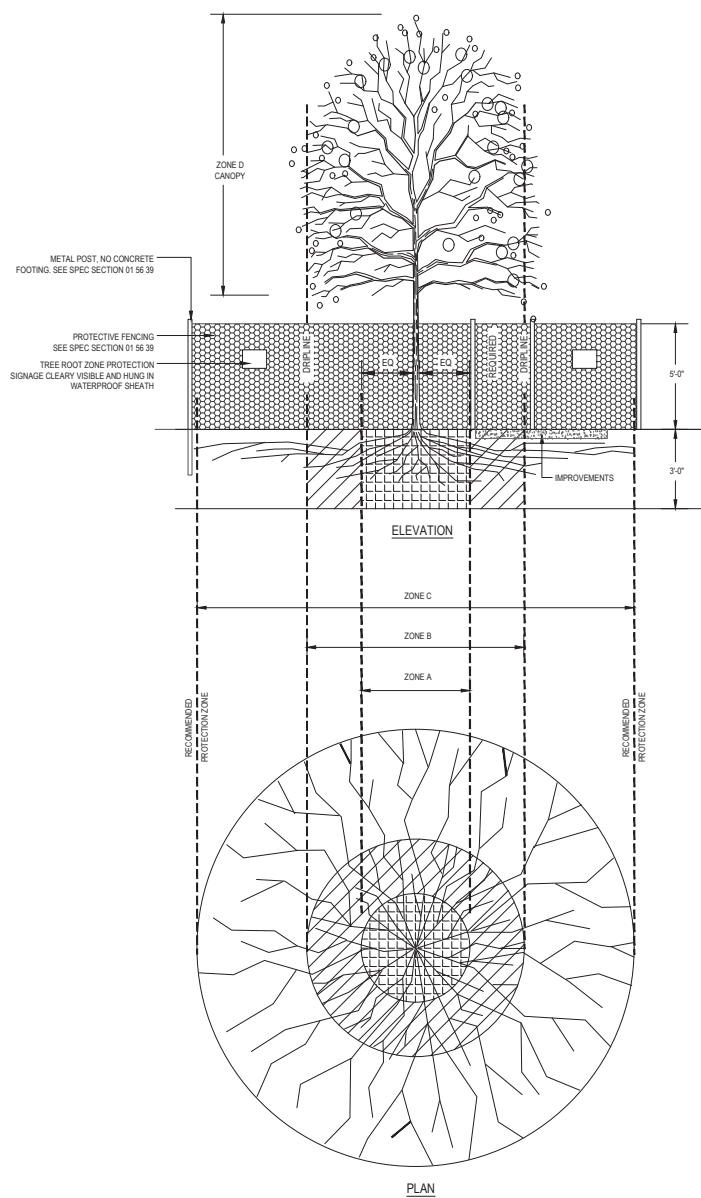
ZONE C (ASSORBING ROOT ZONE)

(ARZ IS DETERMINED BY TRUNK DIAMETER MEASURED AT CHEST HEIGHT (DBH) AND ARZ IS EQUAL TO 2-FOOT RADIUS FOR EVERY 1" DIAMETER OF TREE)

- OPERATION OF HEAVY EQUIPMENT AND/OR STOCKPILING OF MATERIALS SUBJECT TO OWNER'S AUTHORIZED REPRESENTATIVE APPROVAL.
- TRENCHING WITH HEAVY EQUIPMENT ALLOWED AS FOLLOWS:
 - MINIMIZE TRENCH WIDTH
 - MAINTAIN 2/3 OR MORE OF ZONE IN UNDISTURBED CONDITION
 - OR AS SPECIFIED BY THE OWNER'S CERTIFIED ARBORIST
- ALL NON-PAVED SURFACES IN ZONE SUBJECT TO IMPACT (COMPACTION) BY CONSTRUCTION ACTIVITIES SHALL BE PROTECTED WITH THE ABOVE STATED OPTIONS FOR SURFACE PROTECTION MEASURES.

ZONE D (CANOPY)

- OVERHEAD BRANCHING LIKELY TO BE DAMAGED BY EQUIPMENT OPERATION SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S CERTIFIED ARBORIST. OVERHEAD PREVENTIVE MEASURES (PRUNING OR TIE-BACK OF BRANCHES) AS APPROVED BY THE OWNER'S CERTIFIED ARBORIST SHALL BE PROPERLY EXECUTED BEFORE COMMENCEMENT OF THE CONSTRUCTION ACTIVITIES.
- WASH OFF FOLIAGE WHICH BECOMES SOILED DURING CONSTRUCTION.



19 EXISTING TREE PROTECTION

3/8" = 1'-0"

GENERAL SITE NOTES:

- ALL WORK WITHIN THE PUBLIC RIGHT OF WAY UNDER SEPARATE PERMIT. SHOWN FOR REFERENCE ONLY. REFER TO APPROVED RIGHT OF WAY DRAWINGS PRIOR TO CONSTRUCTION.
- REFERENCE CIVIL AND ARCHITECTURAL DRAWINGS FOR ADDITIONAL SITEWORK INFORMATION.

PLANTING NOTES:

DO NOT WILLFULLY PROCEED WITH PLANTING OPERATIONS WHEN IT IS OBVIOUS THAT UNKNOWN OBSTRUCTIONS AND GRADE DIFFERENCES EXIST THAT MAY NOT HAVE BEEN KNOWN DURING DESIGN PROCESS. BRING SUCH CONDITIONS IMMEDIATELY TO ATTENTION OF OWNER'S AUTHORIZED REPRESENTATIVE FOR RESOLUTION. ASSUME FULL RESPONSIBILITY FOR COSTS INCURRED AND REQUIRED MODIFICATIONS DUE TO LACK OF PROVIDING SUCH NOTIFICATION.

ENSURE THAT FINISH GRADE ELEVATIONS OF PLANTING AREAS ARE SET AT THE PROPER ELEVATIONS RELATIVE TO PAVING FINISH SURFACE ELEVATIONS, UTILITY COVERS AND CURBS. SHRUBS PLANTING AREAS AT 2" BELOW AND LAWN 1" BELOW ADJACENT GRADE. NOTIFY OWNER OF ANY DISCREPANCIES.

ASSURE POSITIVE DRAINAGE IN ALL PLANTING AREAS TO DRAIN AWAY FROM BUILDING, 2% MINIMUM.

PLANT MATERIAL, I.E. TREES, SHRUBS, VINES, ESPALIERS AND GROUNDCOVERS, MUST BE APPROVED BY OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO INSTALLATION. PLANT MATERIAL INSTALLED WITHOUT OWNER'S AUTHORIZED REPRESENTATIVE'S APPROVAL MAY BE SUBJECT TO REMOVAL AND REPLACEMENT WITH RELATED COSTS BORNE BY CONTRACTOR.

FINAL LOCATIONS OF PLANT MATERIALS ARE SUBJECT TO APPROVAL OF THE OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO INSTALLATION. PERFORM THE FOLLOWING BEFORE BEGINNING PLANTING PIT EXCAVATION:

- SHRUBS - PLACE ACTUAL PLANT CONTAINERS ON-SITE IN "FINAL" LOCATIONS.
- TREES - CHALK OR STAKE CENTER OF TREE.

PLANTING SHALL NOT BE PERFORMED UNTIL PRE-PLANTING SOIL AMENDMENTS ARE COMPLETE AND APPROVED BY THE OWNER'S REPRESENTATIVE.

IF CONFLICTS ARISE BETWEEN ACTUAL SIZE OF PLANTING AREAS ON-SITE AND THOSE AREAS INDICATED ON DRAWINGS, CONTACT OWNER'S AUTHORIZED REPRESENTATIVE FOR RESOLUTION. FAILURE TO MAKE SUCH CONFLICTS KNOWN TO OWNER'S AUTHORIZED REPRESENTATIVE IN A TIMELY FASHION MAY RESULT IN CONTRACTOR'S LIABILITY TO RELOCATE PLANT MATERIALS OR AT WORST CASE, BECOME UNABLE TO CHARGE OWNER FOR PLANT MATERIAL ALREADY PLANTED.

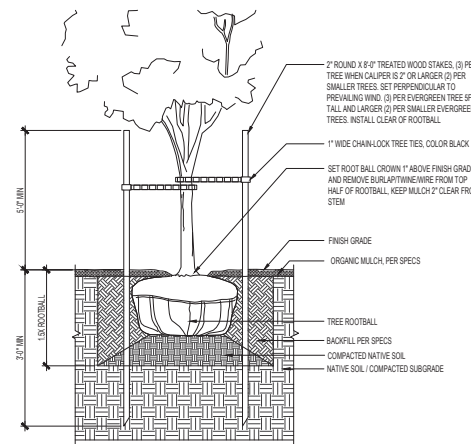
SHRUB AND GROUNDCOVER AREAS TO RECEIVE A 2-INCH DEEP LAYER MULCH TO BE SUBMITTED FOR APPROVAL FROM LANDSCAPE ARCHITECT.

AN AUTOMATIC IRRIGATION SYSTEM IS TO BE INSTALLED WITHIN ALL PLANTING AREAS PROVIDING HEAD TO HEAD COVERAGE.

PROVIDE ROOT CONTROL BARRIERS FOR ALL TREES PLANTED WITHIN 5' OF A HARDSCAPE EDGE SUCH AS PAVING, WALLS, STEPS, ETC. REFER TO PLANTING DETAILS FOR ADDITIONAL INFORMATION.

INSTALL PLANT MATERIAL WITH ITS BEST SIDE FACING PREDOMINATE VIEW OF PUBLIC.

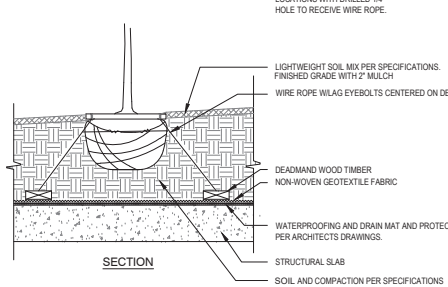
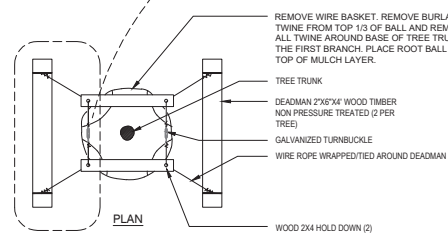
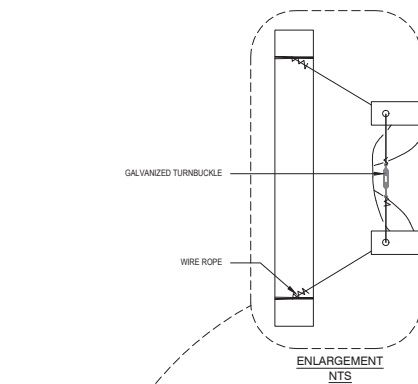
PROVIDE THE PROPER SETBACK BETWEEN UTILITIES AND TREES - CONTACT CITY INSPECTOR FOR REQUIRED SETBACKS IN THE CASE THAT THE DRAWINGS ARE NOT CLEAR.



5 TREE PLANTING ON GRADE

NTS

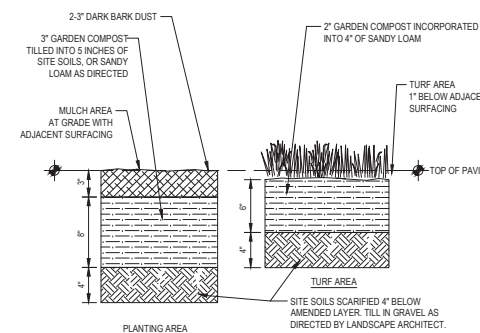
DETAIL-FILE



7 TREE PLANTING ON STRUCTURE

1" = 1'-0"

DETAIL-FILE



NOTES:

- ALL SOIL AREAS DISTURBED OR COMPACTION DURING CONSTRUCTION AND NOT COVERED BY BUILDINGS SHALL BE AMENDED AS DESCRIBED.
- SUBSOIL SHALL BE SCARIFIED (TILLED) 4" BELOW AMENDMENT LAYER. EXCEPT WHERE SCARIFICATION WOULD DAMAGE TREE ROOTS OR AS DETERMINED BY LANDSCAPE ARCHITECT OR ARBORIST.
- PLANTING AREAS SHALL HAVE COMPOST TILLED TO A DEPTH OF 8" INTO EXISTING OR SPECIFIED SOILS.
- TURF AREAS SHALL HAVE COMPOST AND SANDY LOAM TILLED TO A DEPTH OF 6".
- PLANTING BEDS SHALL RECEIVE 3" OF DARK BARK DUST.

8 SOIL AMENDMENT AND DEPTH

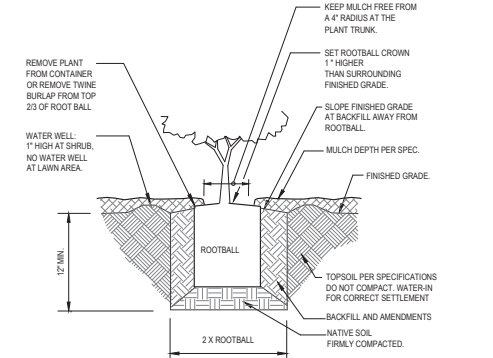
1 1/2" = 1'-0"

DETAIL-FILE

1 PLANTING BACKFILL SOIL AMENDMENT

1" = 1'-0"

3/29/10-01

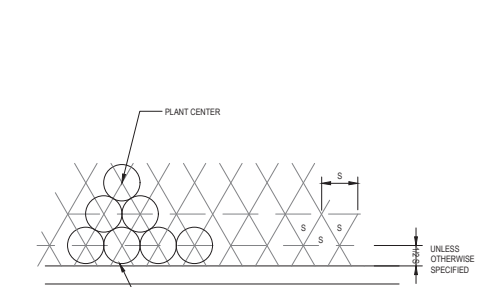


NOTE: CHECK ROOTBALL FOR PRESENCE OF ROOT FLARE AT BASE OF TRUNK. REMOVE EXCESS SOIL OVER ROOT FLARE AND ADJUST DEPTH OF PLANTING HOLE TO ACCOMMODATE REDUCED ROOTBALL DEPTH IF NEEDED. ROOT FLARE MUST BE VISIBLE ABOVE MULCH/SOIL/ROOTBALL.

2 SHRUB PLANTING

1" = 1'-0"

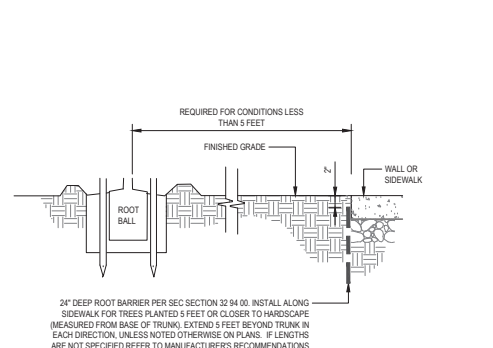
3/29/13-01



3 GROUNDCOVER SPACING

1/2" = 1'-0"

3/29/13-01



4 TREE ROOT BARRIER

1" = 1'-0"

P-CO-18074-02

PRELIMINARY
NOT FOR
CONSTRUCTION

CONSULTANT:

SHAPIRO / DIDWAY
1204 SE Water Ave
Portland, Oregon 97214
T. 503.252.0520
www.shapirodidway.com

PROJECT NUMBER: 217304

**University
Village Phase II
(Building #1)**

1001 Fulton Street,
Newberg, OR 97132

Friendsview
RETIREMENT COMMUNITY

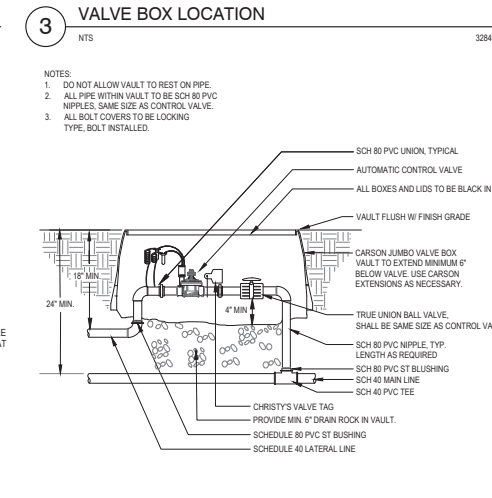
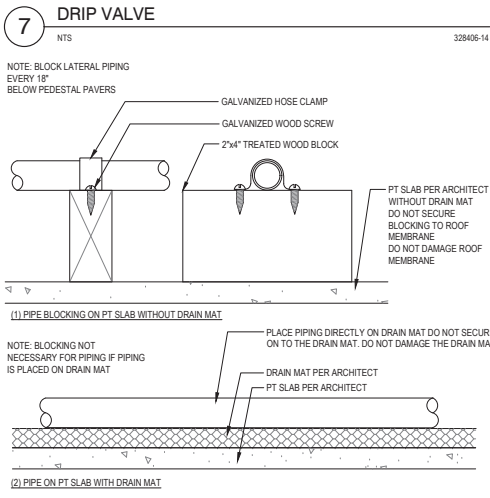
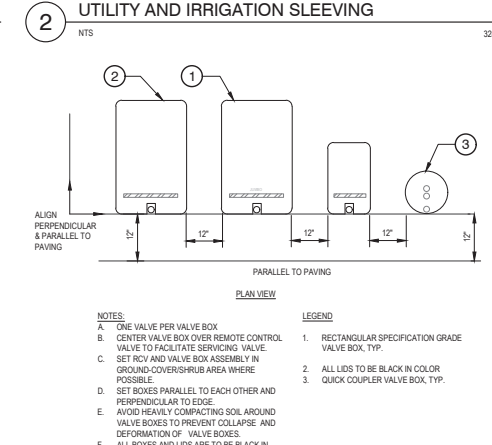
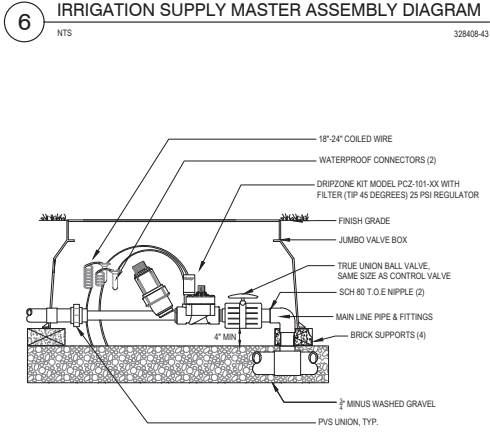
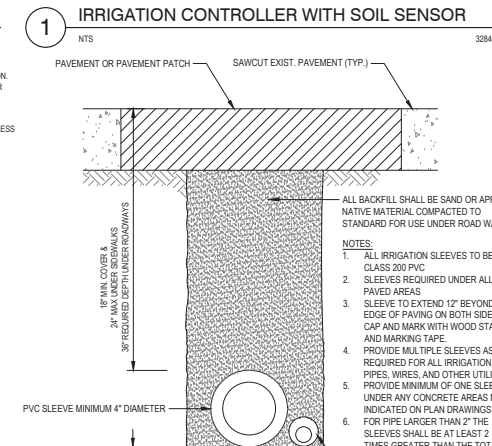
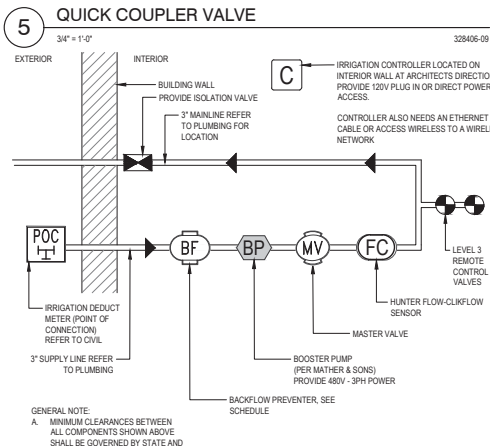
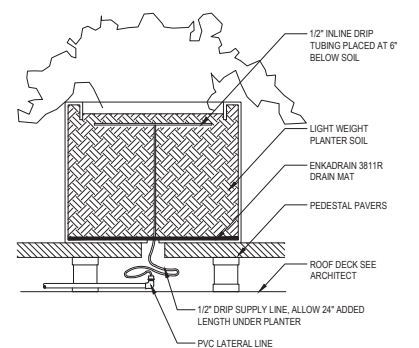
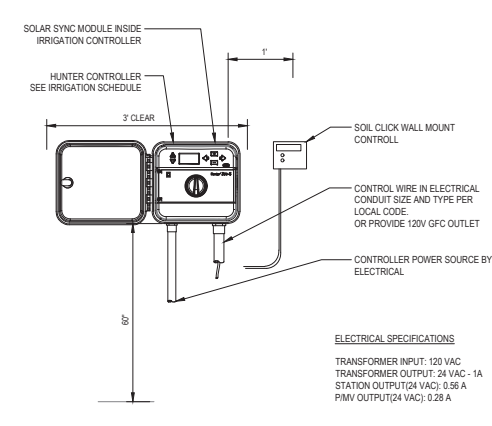
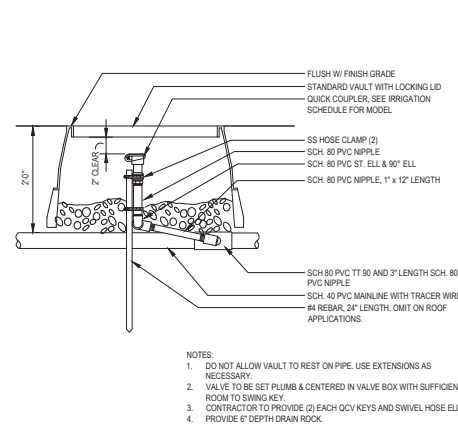
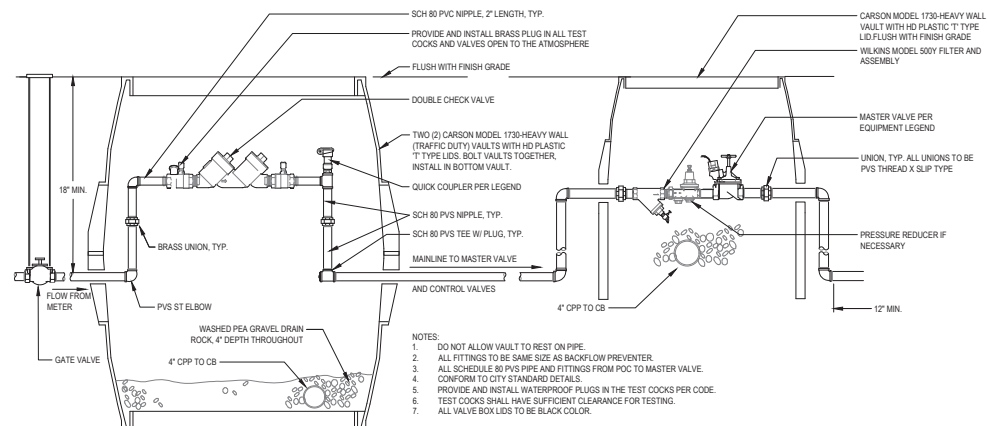
SHEET TITLE:
**IRRIGATION
DETAILS**

DRAWN BY:
DATE CREATED:

SHEET:

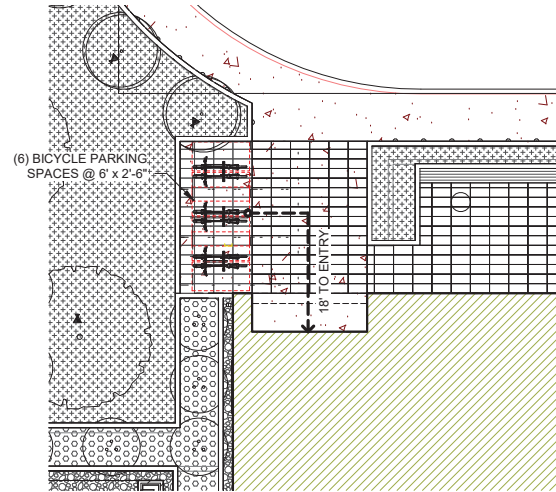
L703
50% DD SET
07.30.20

LRS Architects, Inc. ©2020

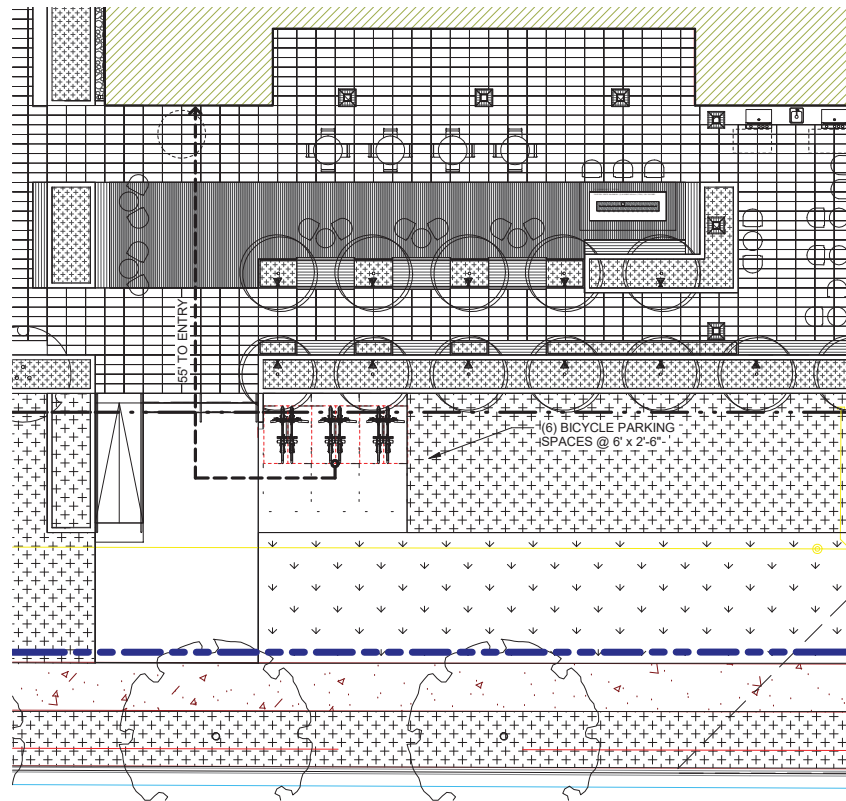


DESIGN REVIEW SUBMITTAL

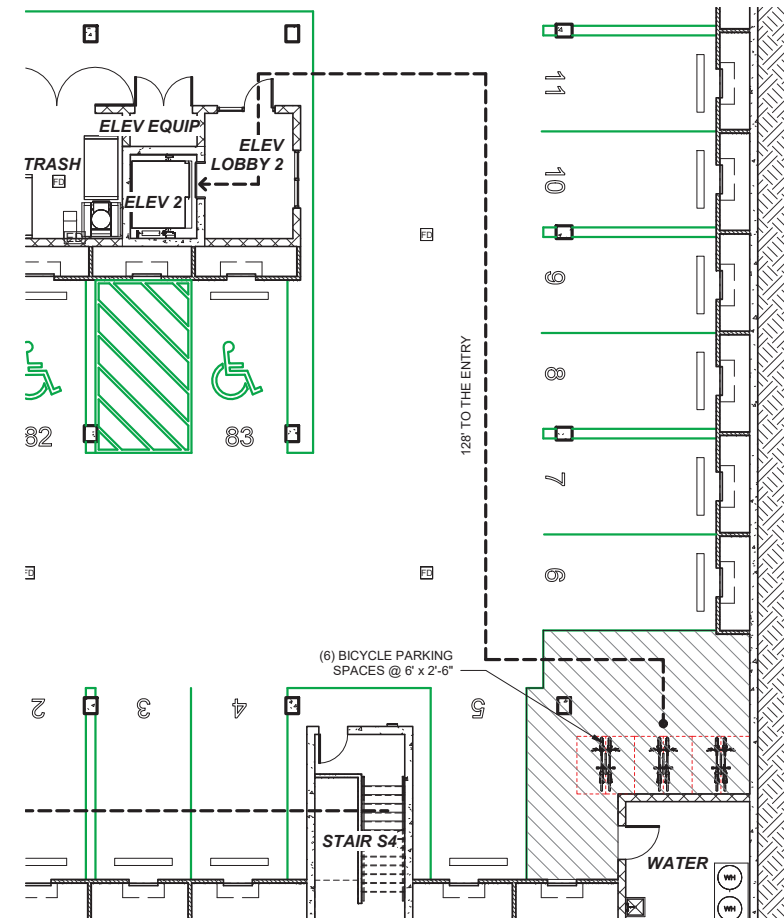
ENLARGED SITE PLANS



1. ENLARGED SITE PLAN AT NORTH ENTRY



2. ENLARGED SITE PLAN AT SOUTH ENTRY



3. ENLARGED BASEMENT FLOOR PLAN

HUNTCO Bike racks, lockers, benches and architectural site furnishings since 1980.

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EMAIL Sales@huntco.com WEB Huntco.com TWITTER @HuntcoSupply

MAA P.O. Box 10385 Portland, OR 97296-0385

SITE FURNISHINGS Tradition & Innovation

THE ARC

The Arc rack, a sleek, modern curve that won't overwhelm other architectural elements.

CONSTRUCTION/MATERIAL

- 1.50" Steel Tubing
- 4" Steel Flanges

DIMENSIONS

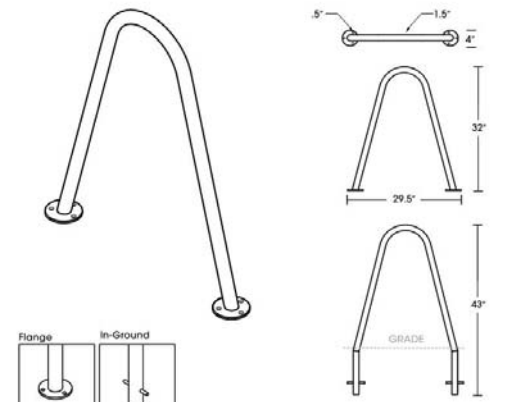
- 29.5" Length
- 4" Width
- 32" Height

MOUNTING OPTIONS

- Flange Mount (Shown)
- (6) 5" Mounting Holes
- In-Ground
- 11" Leg Extensions

FINISH OPTIONS

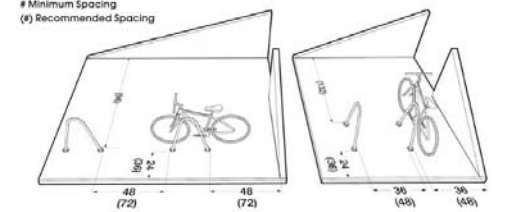
- T304 Stainless Steel
- #4 Satin Finish
- Hot Dipped Galvanized
- Powder Coating
- Thermoplastic Coating



RECOMMENDED LAYOUT

NOTES:

- "Bike" is 70"
- # Minimum Spacing
- (4) Recommended Spacing



CONTRACTOR: _____

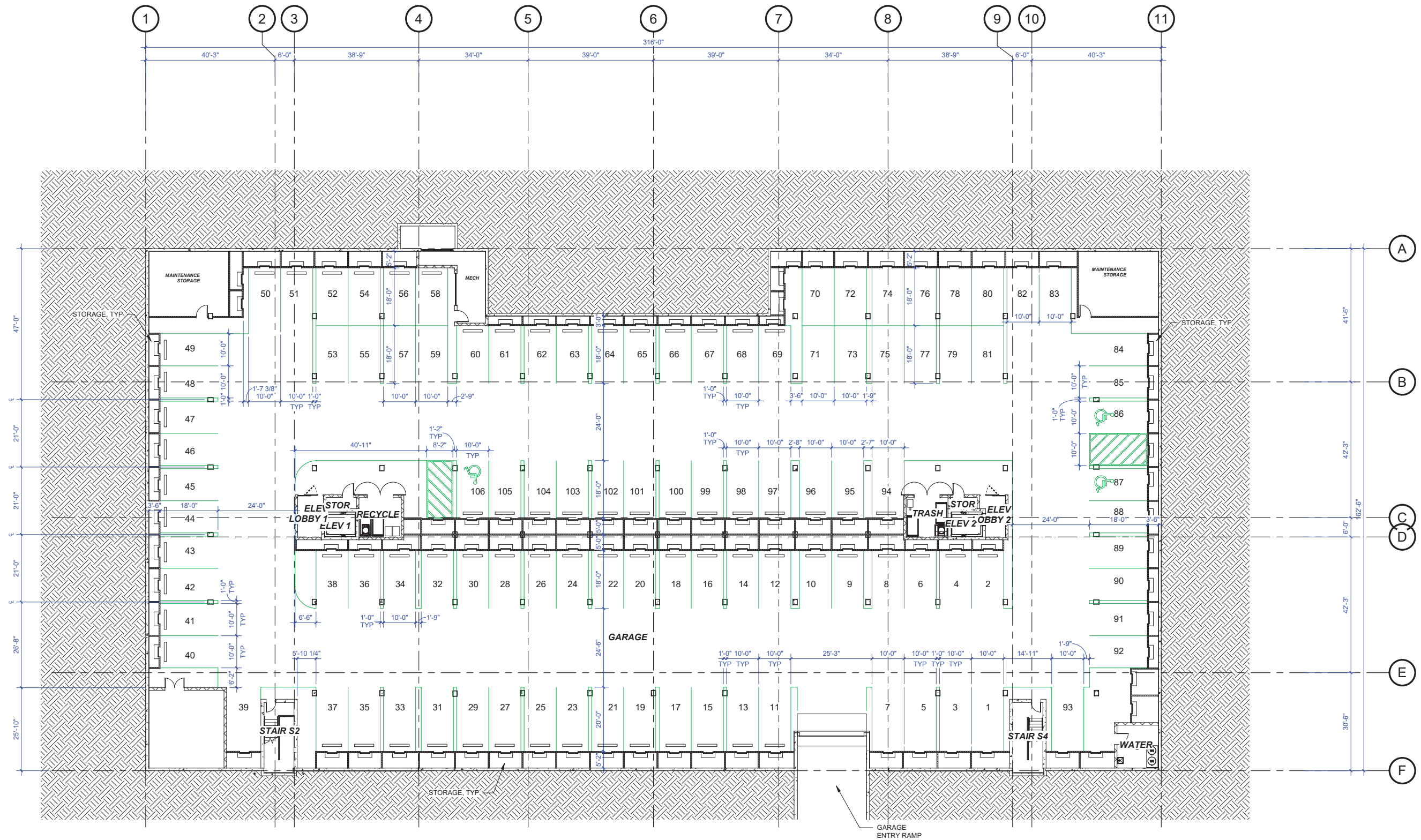
JOB: _____

NOTES: _____

Manufactured in the Pacific Northwest



SCALE: 1" = 10'-0"



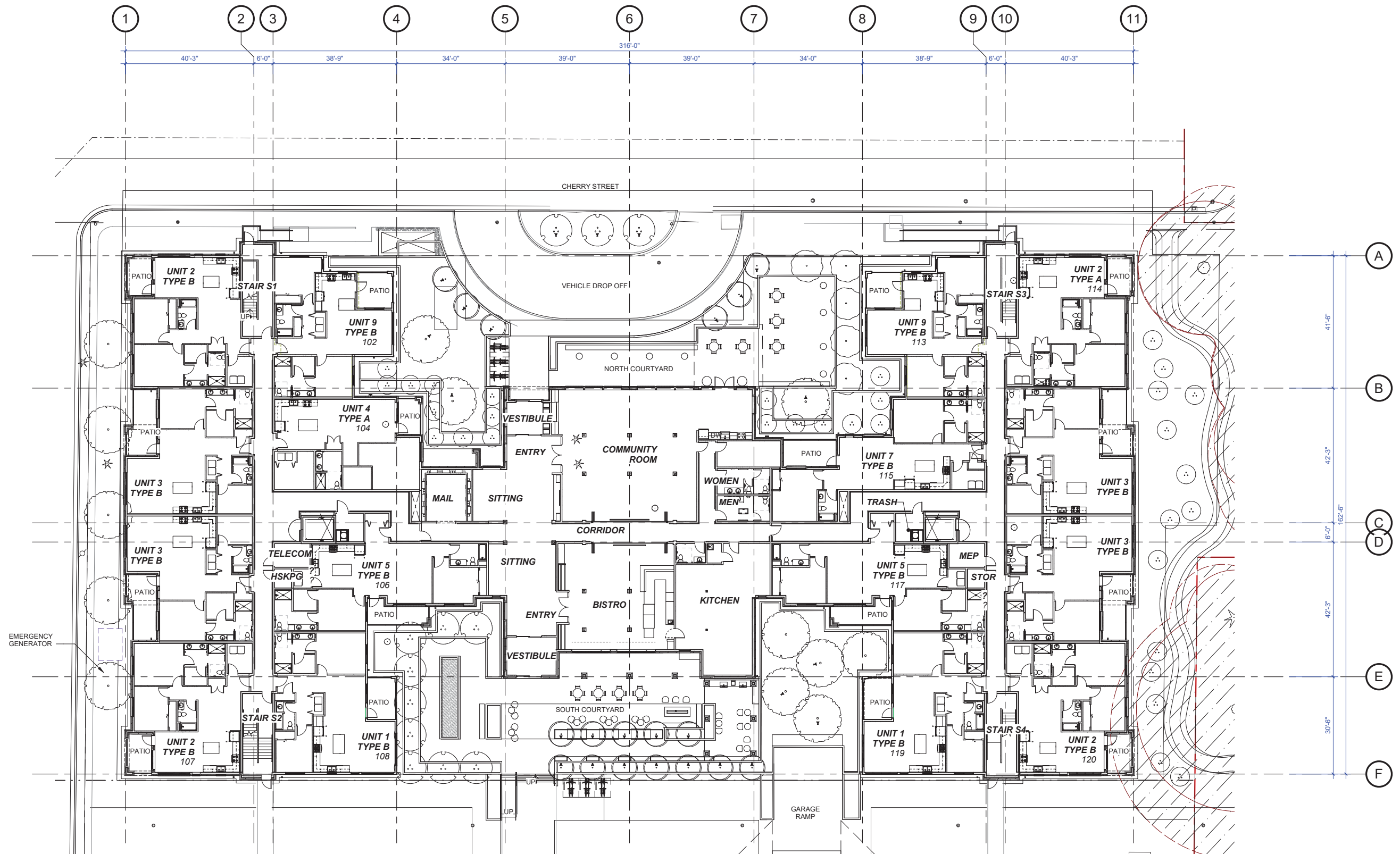
BASEMENT OVERALL FLOOR PLAN



SCALE: 1/16" = 1'-0"

DESIGN REVIEW SUBMITTAL

LEVEL 1 FLOOR PLAN



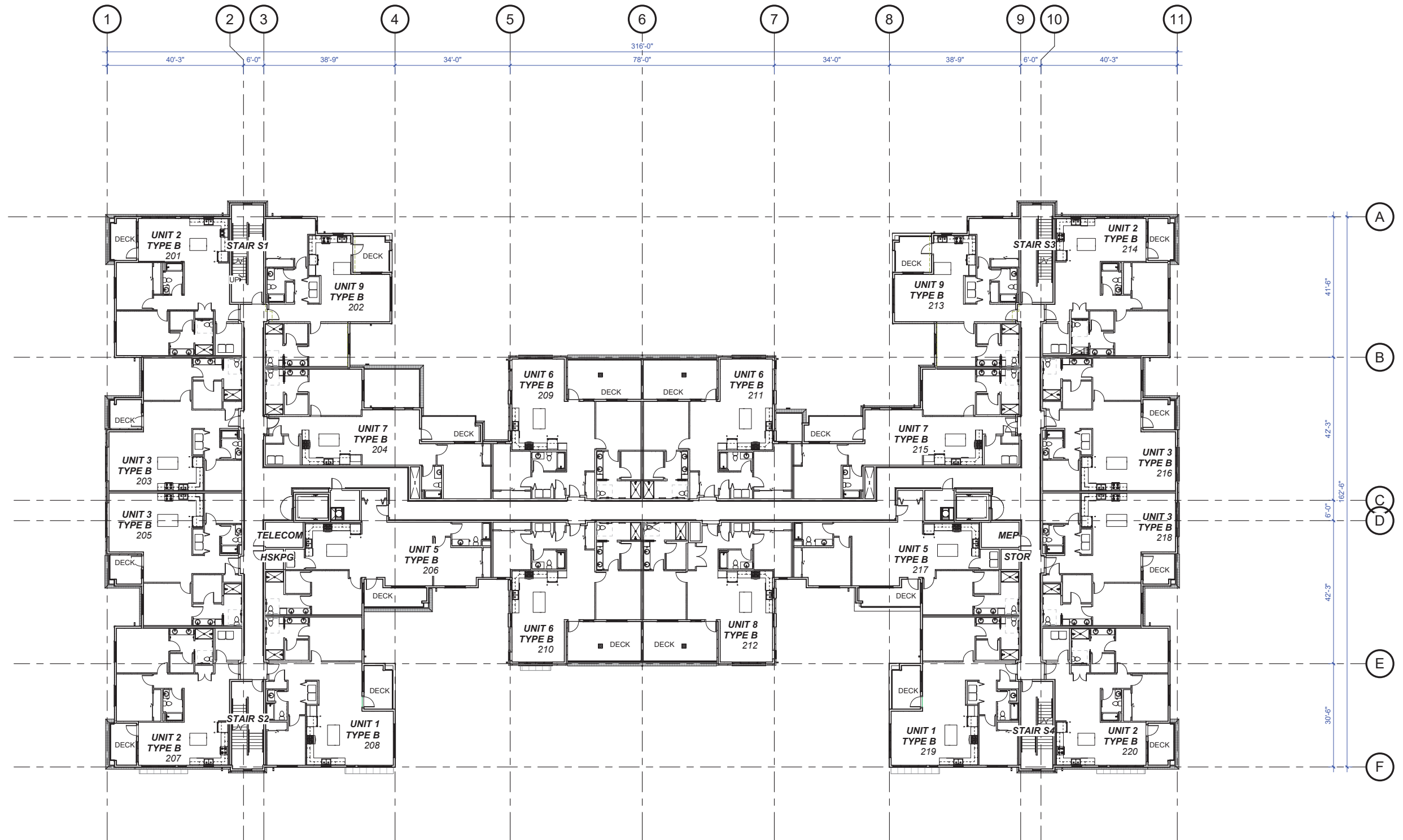
LEVEL 1 FLOOR PLAN



SCALE: 1/16" = 1'-0"

DESIGN REVIEW SUBMITTAL

LEVELS 2-4 FLOOR PLANS



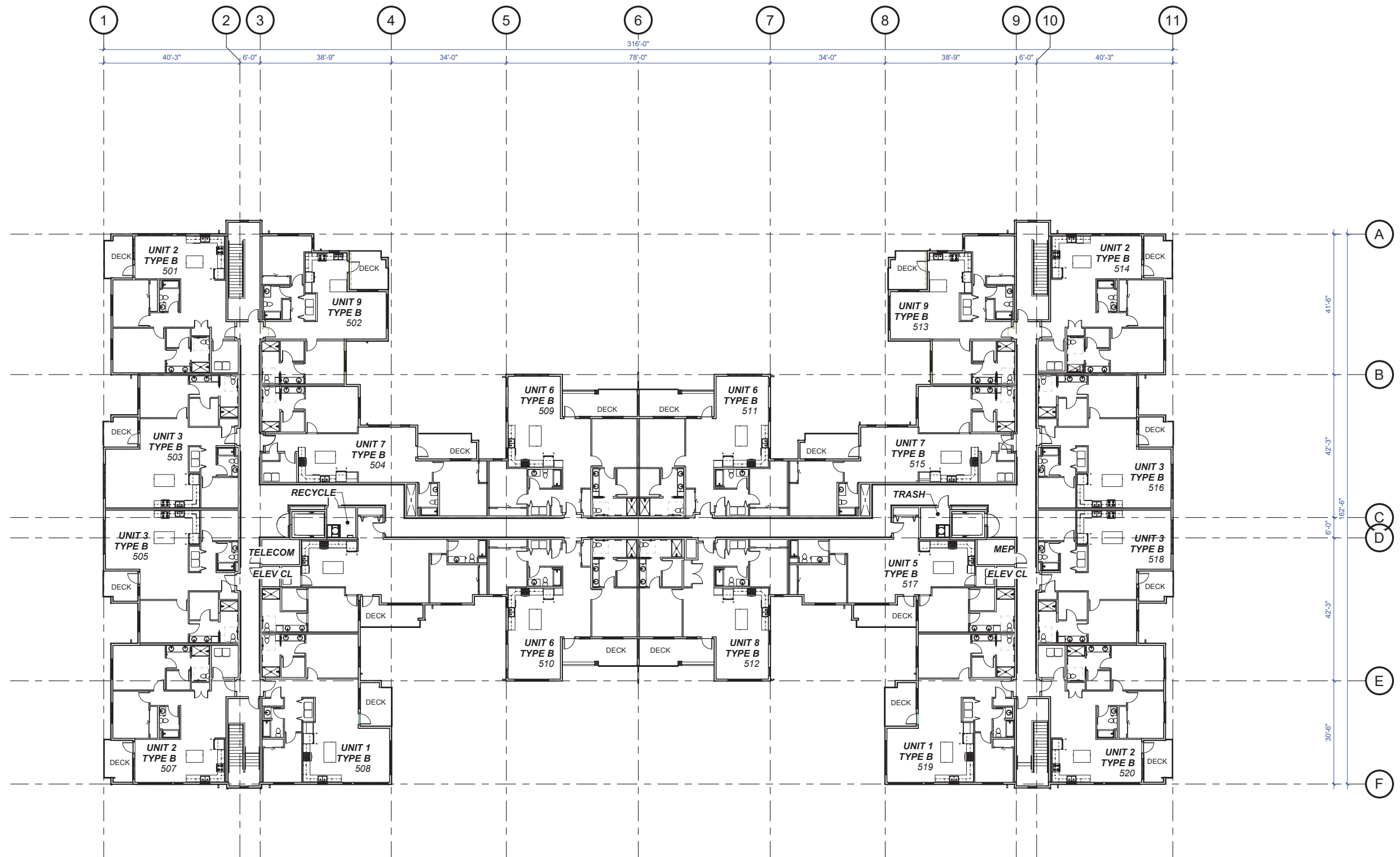
LEVELS 2-4 OVERALL FLOOR PLANS



SCALE: 1/16" = 1'-0"

DESIGN REVIEW SUBMITTAL

LEVEL 5 FLOOR PLAN



LEVEL 5 OVERALL FLOOR PLAN



SCALE: 1/16" = 1'-0"



1. PARTIAL SOUTH ELEVATION 1

SCALE: 3/32" = 1'-0"



2. PARTIAL SOUTH ELEVATION 2

SCALE: 3/32" = 1'-0"



3. OVERALL WEST ELEVATION

SCALE: 3/32" = 1'-0"

SCALE: 3/32" = 1'-0"

KEYNOTES

- 505 BRICK FINISH PER WALL TYPE SCHEDULE
- 506 VINYL WINDOW, SEE WINDOW TYPES, TYP
- 509 DOWNSPOUT



1. PARTIAL NORTH ELEVATION 1

SCALE: 3/32" = 1'-0"



2. PARTIAL NORTH ELEVATION 2

SCALE: 3/32" = 1'-0"



3. OVERALL EAST ELEVATION

SCALE: 3/32" = 1'-0"

SCALE: 3/32" = 1'-0"

KEYNOTES

- 506 VINYL WINDOW, SEE WINDOW TYPES, TYP
- 507 CEMENTITIOUS TRIM, RUSTIC
- 509 DOWNSPOUT



1. SECTOR A - EAST ELEVATION

SCALE: 3/32" = 1'-0"



2. SECTOR B - WEST ELEVATION

SCALE: 3/32" = 1'-0"



3. SECTOR B - EAST ELEVATION

SCALE: 3/32" = 1'-0"



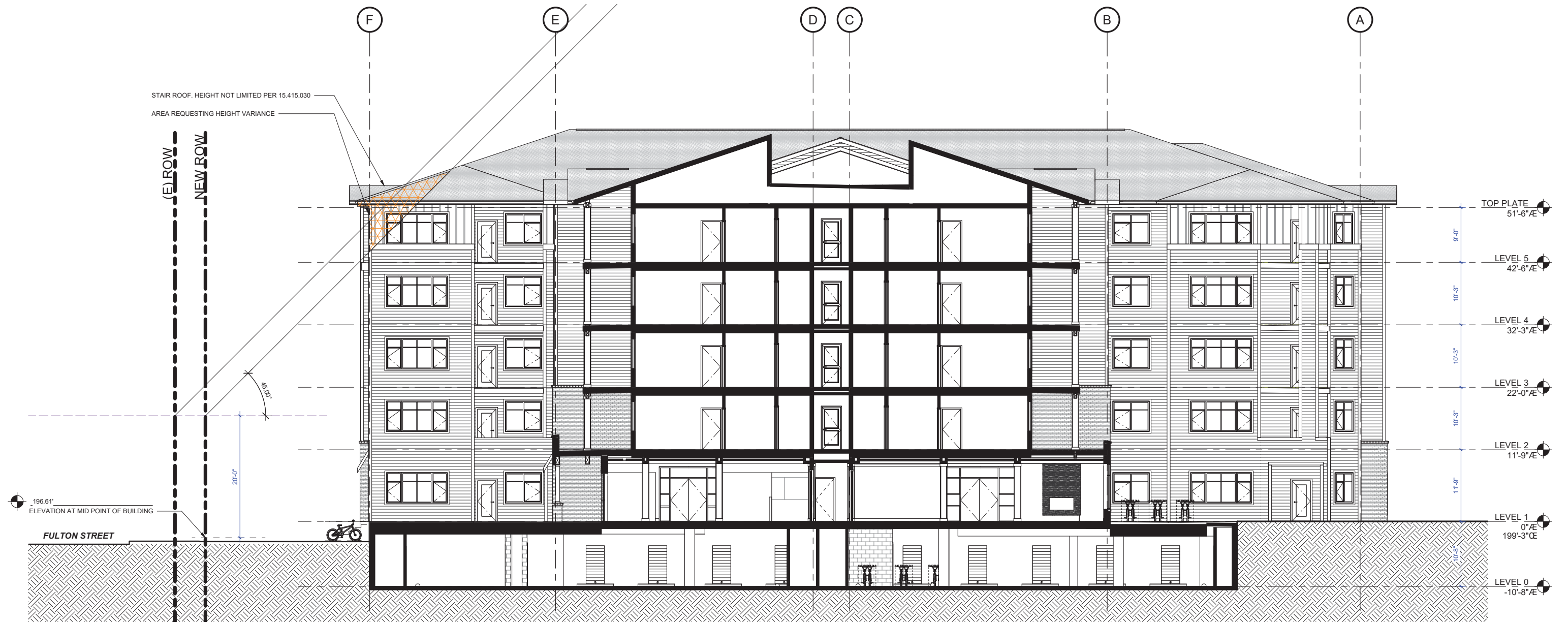
4. SECTOR C - WEST ELEVATION

SCALE: 3/32" = 1'-0"

SCALE: 3/32" = 1'-0"

DESIGN REVIEW SUBMITTAL

HEIGHT ANALYSIS

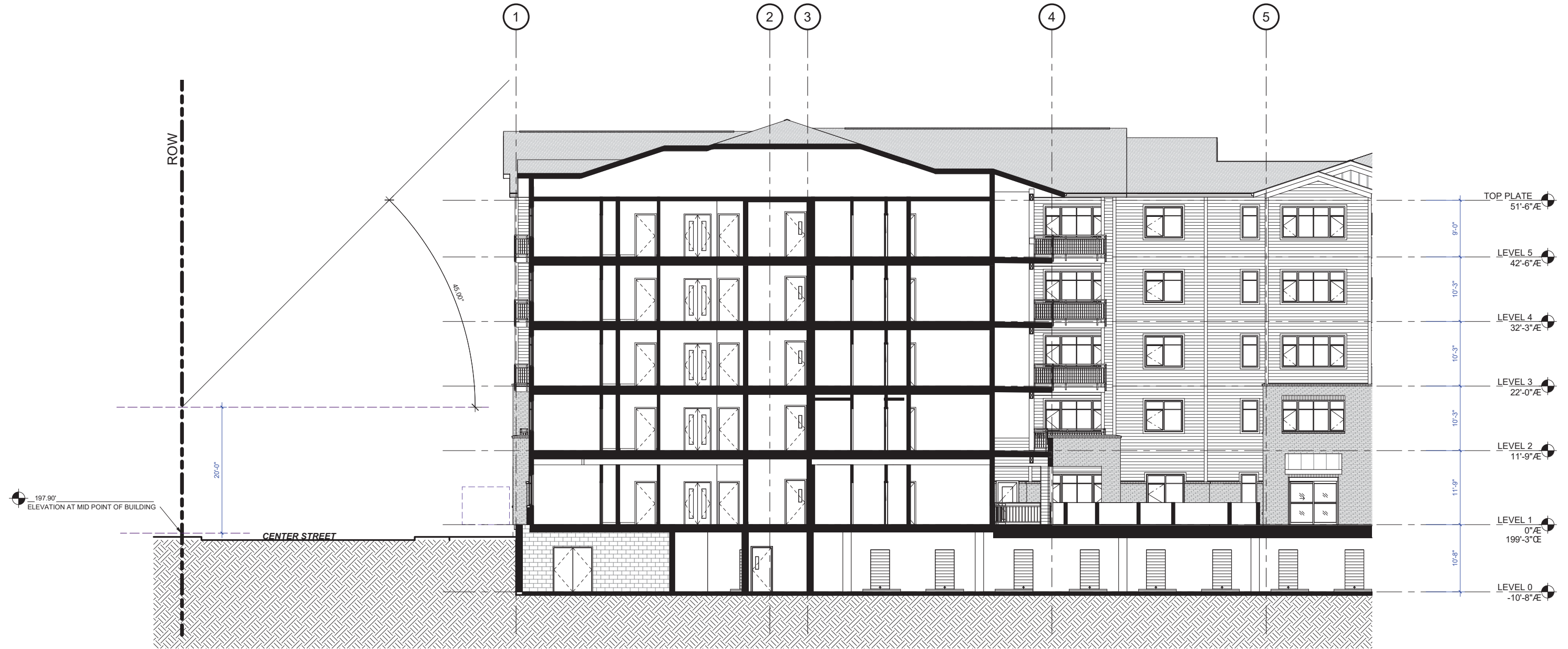


15.415.020 Building height limitation

E. **Alternative Building Height Standard.** As an alternative to the **building height** standards above, any project may elect to use the following standard (see Figure 24 in Appendix A). To meet this standard:

1. Each point on the **building** must be no more than 20 feet higher than the ground level at all points on the property lines, plus one vertical foot for each horizontal foot of distance from that property line; and
2. Each point on the **building** must be no more than 20 feet higher than the ground level at a point directly north on a property line, plus one vertical foot for each two horizontal feet of distance between those points. This second limit does not apply if the property directly to the north is a **right-of-way**, **parking lot**, protected natural resource, or similar unbuildable property.

F. **Buildings** within the **airport** overlay subdistrict are subject to the height limits of that subdistrict. [Ord. 2730 § 1 (Exh. A (4)), 10-18-10; Ord. 2720 § 1(10), 11-2-09; Ord. 2647, 6-5-06; Ord. 2564, 4-15-02; Ord. 2550, 5-21-01; Ord. 2451, 12-2-96. Code 2001 § 151.536.]



1. ALTERNATE BUILDING HEIGHT SECTION AT CENTER

SCALE: 1/8" = 1'-0"

15.415.020 Building height limitation

E. Alternative Building Height Standard. As an alternative to the building height standards above, any project may elect to use the following standard (see Figure 24 in Appendix A). To meet this standard:

1. Each point on the building must be no more than 20 feet higher than the ground level at all points on the property lines, plus one vertical foot for each horizontal foot of distance from that property line; and
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F. Buildings within the airport overlay subdistrict are subject to the height limits of that subdistrict. [Ord. 2730 § 1 (Exh. A (4)), 10-18-10; Ord. 2720 § 1(10), 11-2-09; Ord. 2647, 6-5-06; Ord. 2564, 4-15-02; Ord. 2550, 5-21-01; Ord. 2451, 12-2-96. Code 2001 § 151.536.]

SCALE: 1/8" = 1'-0"

DESIGN REVIEW SUBMITTAL

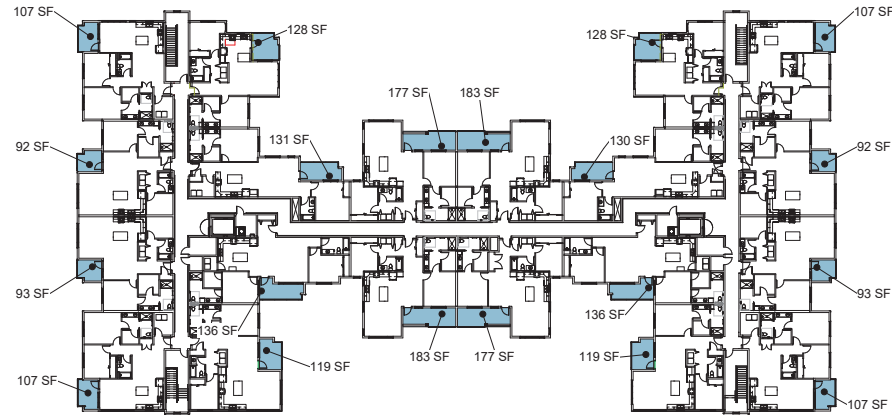
USABLE OUTDOOR AREA

Area Schedule (Usable Private Outdoor Area)

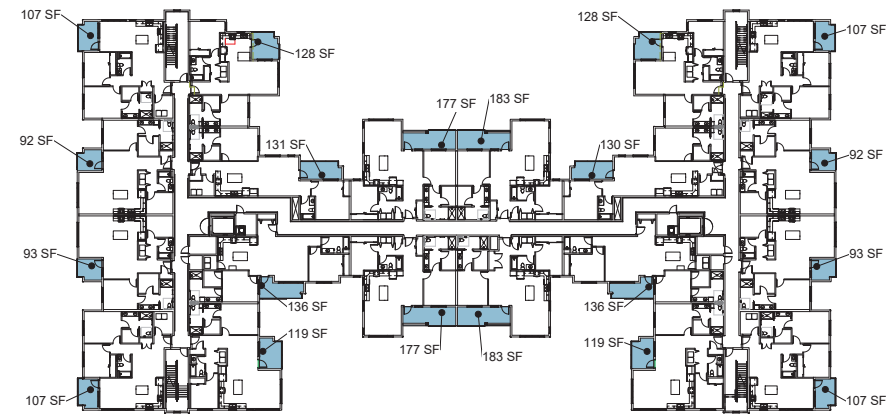
15,420,010 A USABLE PRIVATE OUTDOOR AREAS
48 SF / UNIT x 16 UNITS = 788 SF REQUIRED.
2,236 SF PRIVATE OUTDOOR AREA PROVIDED
(AREA INCLUDES GROUND FLOOR PATIOS ONLY)

Area Schedule (Usable Public Outdoor area)

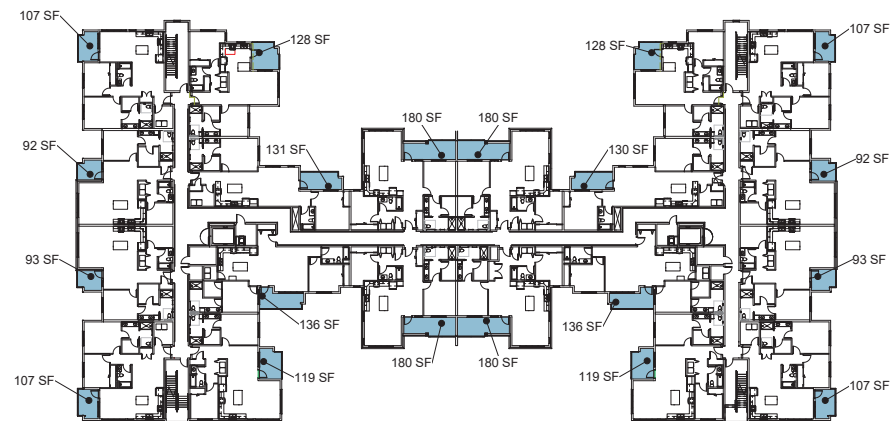
15,420,010 B USABLE PUBLIC OUTDOOR AREAS
1 BED AND 2 BED - 200 SF/ UNIT
3 BED AND UP - 300 SF/ UNIT
96 1-BED AND 2-BED UNITS X 200 SF =
19,200 SF USABLE OUTDOOR AREA REQUIRED
21,509 SF PUBLIC OUTDOOR AREA PROVIDED



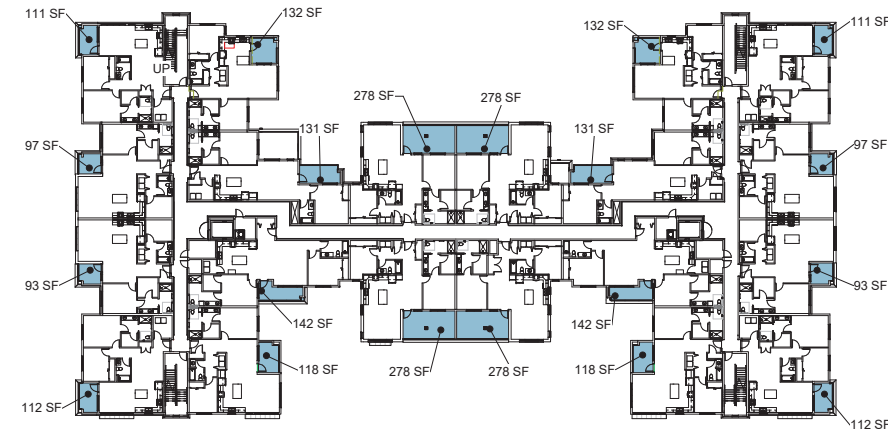
5. LEVEL 5 USABLE OUTDOOR AREA



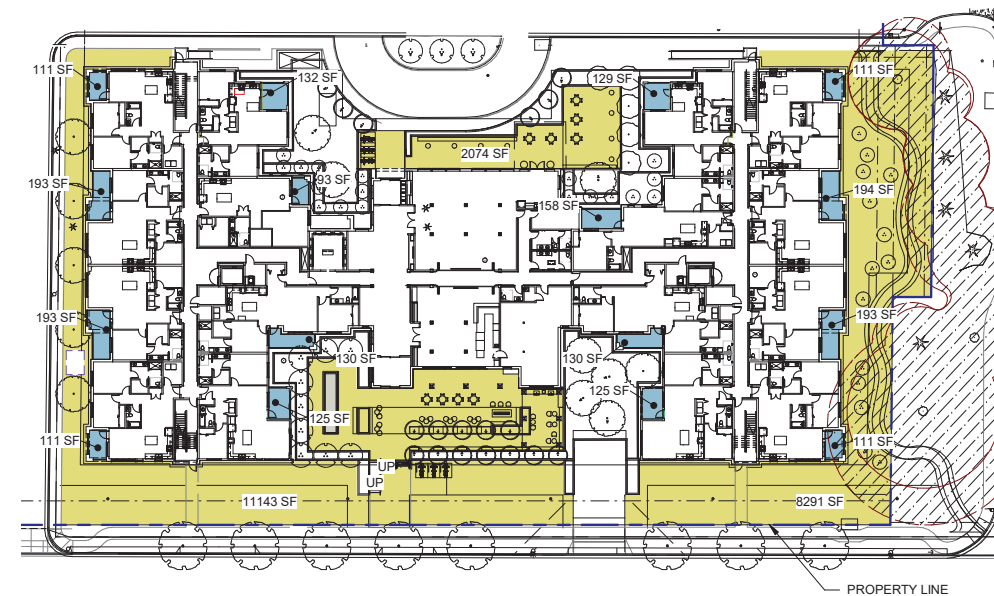
4. LEVEL 4 USABLE OUTDOOR AREA



3. LEVEL 3 USABLE OUTDOOR AREA



2. LEVEL 2 USABLE OUTDOOR AREA



1. LEVEL 1 USABLE OUTDOOR AREA

OUTDOOR AREA

- PRIVATE OUTDOOR AREA
- PUBLIC OUTDOOR AREA



SCALE: 1" = 40'-0"



1. COMPOSITION SHINGLE ROOFING SYSTEM
MANUFACTURER: CERTAINTEED
COLOR: BLACK WALNUT



2. ALUMINUM RAILING SYSTEM
FINISH: PRE-FINISHED, BLACK ANODIZED



3. FIBER CEMENT SIDING SYSTEM
STYLE: 7-1/4" LAP SIDING
TEXTURE: RUSTIC / SELECT CEDAR MILL
COLOR: BENJAMIN MOORE PAINT: HC-83, GRANT BEIGE



4. FIBER CEMENT SIDING SYSTEM
STYLE: 2" BOARD AND BATTEN
TEXTURE: SMOOTH TEXTURE / SELECT CEDAR MILL
COLOR: BENJAMIN MOORE PAINT: HC-89, NORTHAMPTON PUTTY



5. FIBER CEMENT SIDING SYSTEM
STYLE: 7-1/4" LAP SIDING
TEXTURE: RUSTIC / SELECT CEDAR MILL
COLOR: BENJAMIN MOORE PAINT: HC-89, NORTHAMPTON PUTTY



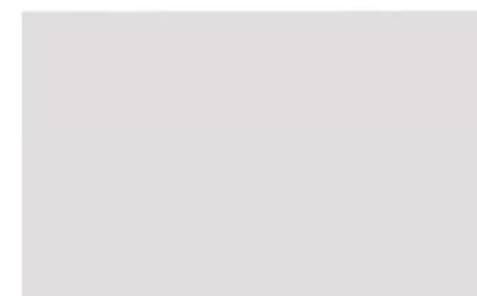
6. FIBER CEMENT TRIM
TEXTURE: SMOOTH TEXTURE
COLOR: SHERWIN WILLIAMS PAINT: 7511, GREEK VILLA



7. FIBER CEMENT SIDING SYSTEM
STYLE: 7-1/4" LAP SIDING
TEXTURE: RUSTIC / SELECT CEDAR MILL
COLOR: BENJAMIN MOORE PAINT: HC-100, GLOUCESTER SAGE



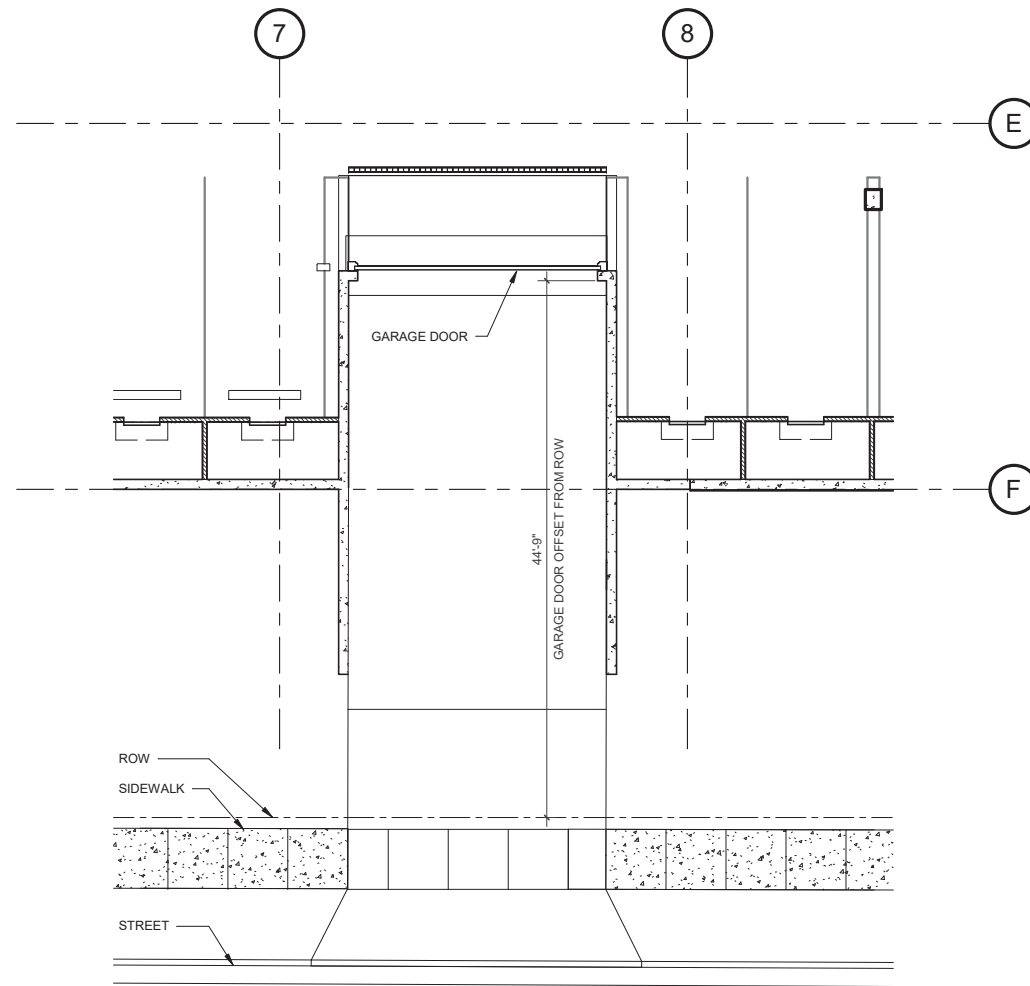
8. BRICK
STYLE: NORMAN, 3-1/2"x2-1/2"x11-1/2"
TEXTURE: PACIFIC CLAY PRODUCTS, INC., "VELOUR."
COLOR: PACIFIC CLAY PRODUCTS, INC., "ROYAL SALTILLO."



9. ALUMINUM STOREFRONT SYSTEM
FINISH: CLEAR ANODIZED

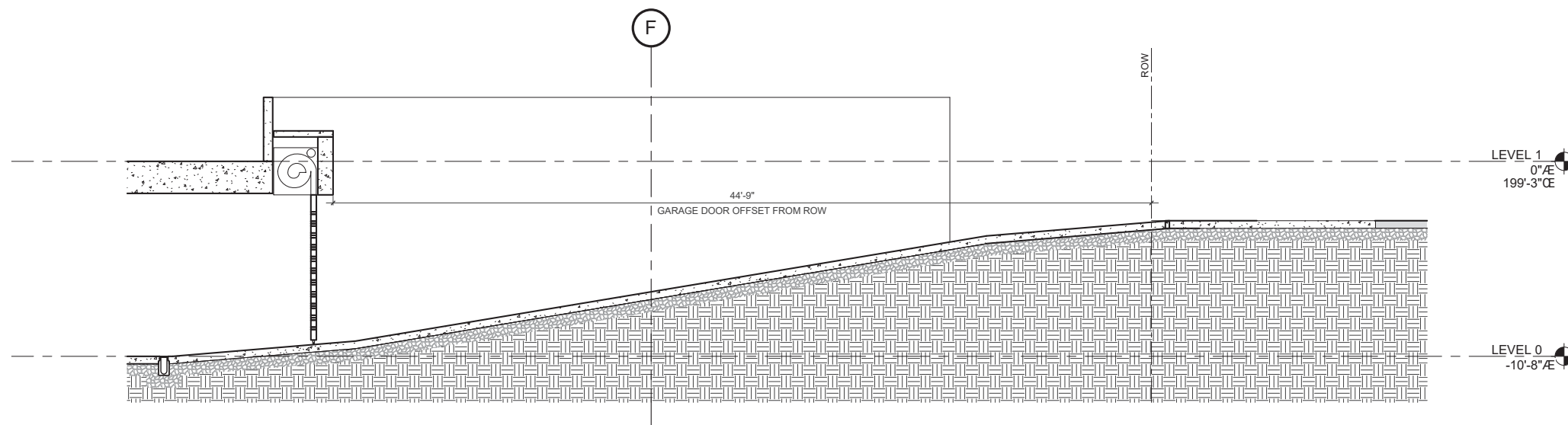


10. STANDING METAL SEAM ROOFING SYSTEM
FINISH: DURATECH 5000, WEATHERED COPPER



1. LUR - GARAGE ENTRY PLAN


SCALE: 1/8" = 1'-0"



2. LUR - GARAGE ENTRY SECTION

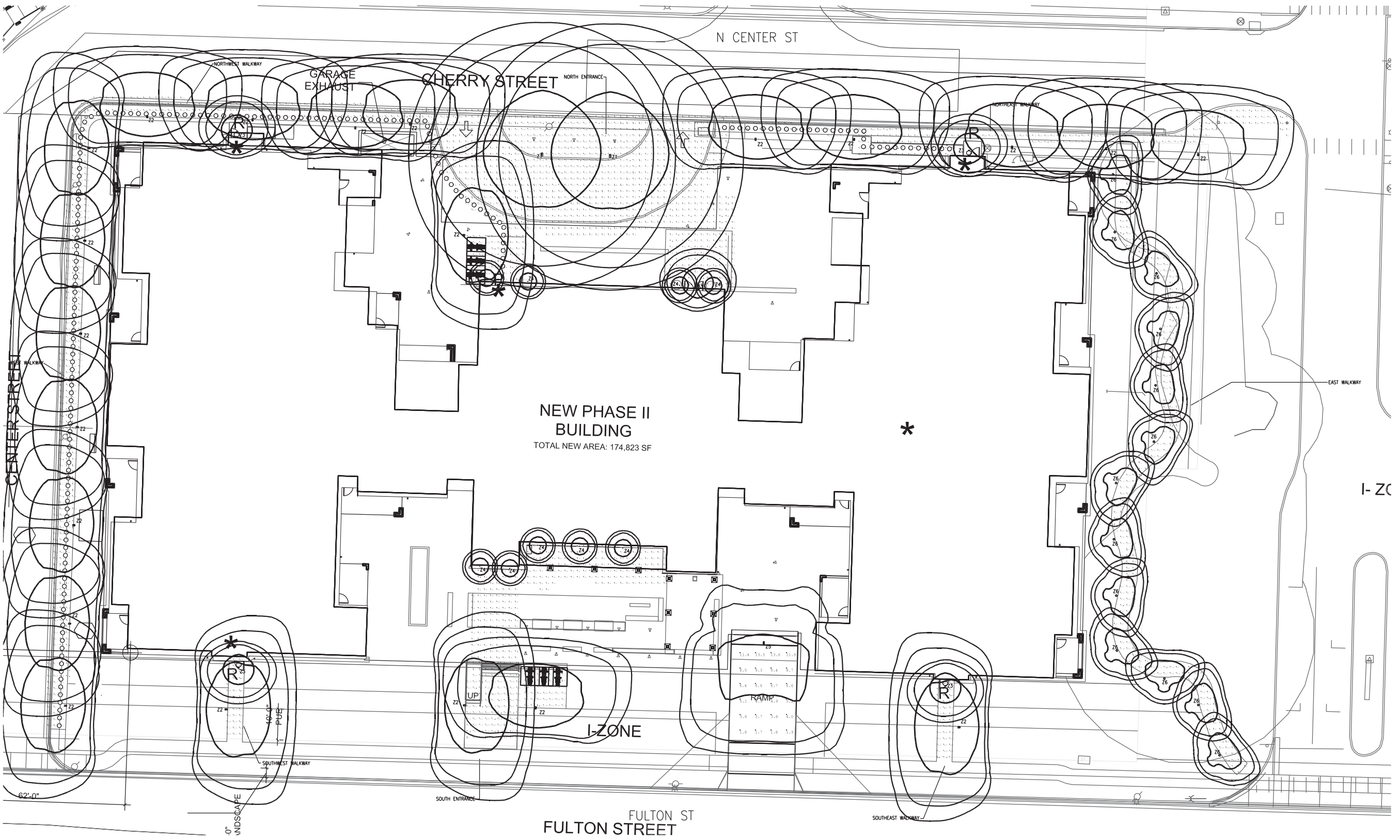
SCALE: 1/4" = 1'-0"

PRELIMINARY
 NOT FOR
 CONSTRUCTION

CONSULTANT:

MAZZETTI
 121 SW Solmon St., Suite 1000
 Portland, OR 97204-2918
 Tel: 503.620.3232
 www.mazzetti.com
 Project Number: 185-072

PROJECT NUMBER: 217304

**University Village
 Phase II**
 1001 Fulton Street,
 Newberg OR 97132



**NEW PHASE II
 BUILDING**
 TOTAL NEW AREA: 174,823 SF

I-ZONE

**FULTON ST
 FULTON STREET**

A ELECTRICAL SITE LIGHTING

E1.00LU SCALE: 1/16" = 1'-0"

STATISTICS - FOOT CANDLE CALCS					
Description	Avg	Max	Min	Avg/Min	Max/Min
ENTRANCE NORTH	7.48	17.80	0.00	29.33	12.45
EAST WALKWAY	7.44	15.30	1.30	5.72	11.77
NORTHEAST WALKWAY	9.22	17.60	0.70	13.17	25.14
NORTHWEST WALKWAY	13.04	25.80	7.40	1.84	3.49
SOUTHEAST WALKWAY	16.00	21.10	9.90	1.62	2.13
SOUTH ENTRANCE	8.78	16.30	1.00	5.49	10.19
SOUTHWEST WALKWAY	14.65	19.90	9.00	1.63	2.21
WEST WALKWAY	13.19	18.70	8.80	1.50	2.13

LUMINAIRE SCHEDULE									
FIXTURE DESIGNATION	DESCRIPTION	LUMINAIRE WATTS	CCT	LUMEN OUTPUT	VOLTS	MOUNTING	MANUFACTURER	CATALOG NUMBER	COMMENTS
21	LED AREA LIGHT	171	4000K	16413	UNV	POLE	CREE	AREA-EDG	TYPE V, 525MA DISTRIBUTION, 12' TALL
22	LED AREA LIGHT	101	4000K	8750	UNV	POLE	CREE	AREA-EDG	TYPE 3MP, 525MA DISTRIBUTION, 8' TALL
23	LED WALLPACK	19	3000K	1345	UNV	WALL MOUNTED	WAC	HAWK WP-LED2	
24	LED WALL SCONCE	6	4000K	500	120	WALL MOUNTED	HINKLEY	MST	PROVIDE G/10 LED BULB
25	LED WALLPACK	72	4000K	6475	UNV	WALL MOUNTED	CREE	XSPW	TYPE 4ME DISTRIBUTION
26	LED BOLLARD	22	4000K	1388	UNV	42" BOLLARD	CREE	PKW-EDG	TYPE 3M DISTRIBUTION

SHEET TITLE:

DRAWN BY: Author
 DATE ISSUED: 05/01/20

SHEET: **E1.00LU**
 100% SCHEMATIC DESIGN SET
 4/23/20

j:\info_8_23am_14 August_18\Portland\Projects\18185-072 - Filings\04 Design\03 CAD Link\E1.00LU ELECTRICAL LIGHTING LAND USE.dwg

OSQ Series

OSQ™ LED Area/Flood Luminaire featuring Cree TrueWhite® Technology – Medium

Rev. Date: V25 03/31/2020

Product Description

The OSQ™ Area/Flood luminaire blends extreme optical control, advanced thermal management and modern, clean aesthetics. Built to last, the housing is rugged cast aluminum with an integral, weathertight LED driver compartment. Versatile mounting configurations offer simple installation. Its slim, low-profile design minimizes wind load requirements and blends seamlessly into the site providing even, quality illumination. The 'B' Input power designator is a suitable upgrade for HID applications up to 250 Watt, and the 'K' Input power designator is a suitable upgrade for HID applications up to 400 Watt.

Applications: Parking lots, walkways, campuses, car dealerships, office complexes, tunnels, underpasses, and internal roadways

Performance Summary

Utilizes Cree TrueWhite® Technology on 5000K Luminaires

NanoOptic® Precision Delivery Grid™ optic

Assembled in the U.S.A. of U.S. and imported parts

Initial Delivered Lumens: Up to 17,291

Efficacy: Up to 136 LPW

CRI: Minimum 70 CRI (3000K, 4000K & 5700K); 90 CRI (5000K)

CCT: 3000K, 4000K, 5000K, 5700K

Limited Warranty*: 10 years on luminaire; 10 years on Colorfast DeltaGuard® finish; up to 5 years for Synapse® accessories; 1 year on luminaire accessories

* See <http://creelighting.com/warranty> for warranty terms. For Synapse accessories, consult Synapse spec sheets for details on warranty terms.

Ordering Information

Fully assembled luminaire is composed of two components that must be ordered separately:

Example: **Mount:** OSQ-B-AASV + **Luminaire:** OSQ-A-NM-2ME-B-40K-UL-SV

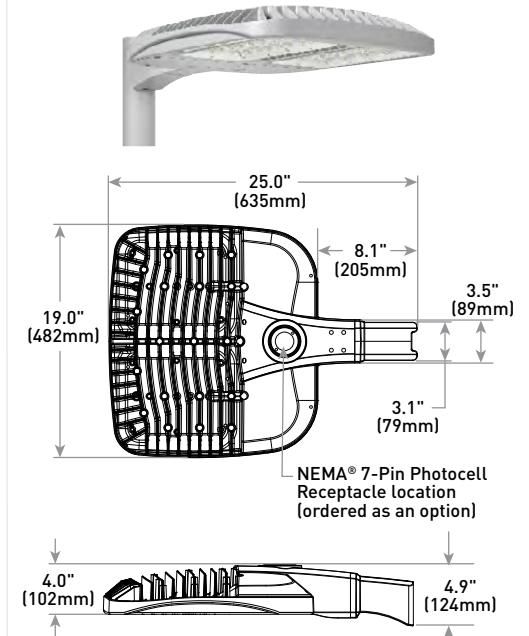
Mount (Luminaire must be ordered separately)*	
OSQ-	
OSQ-B-AA Adjustable Arm OSQ-DA Direct Arm OSQ-M-TSP Transportation Mount (stainless steel; do not specify color) OSQ-TM Trunnion Mount	Color Options: SV Silver BK Black BZ Bronze WH White

* Reference EPA and pole configuration suitability data beginning on page 9

Luminaire (Mount must be ordered separately)									
OSQ	A	NM							
Product	Version	Mounting	Optic	Input Power Designator	CCT	Voltage	Color Options	Options	
OSQ	A	NM No Mount	Asymmetric 2ME* Type II 4ME* Type IV Medium 3ME* Type III Medium Symmetric 5ME Type V Medium 25D 25° Flood 40D 40° Flood 5SH Type V Short 60D 60° Flood WSN Wide Sign 15D 15° Flood	B 86W K 130W Z 53W	30K 3000K, 70 CRI 40K 4000K, 70 CRI 50K 5000K, 90 CRI 57K 5700K, 70 CRI	UL Universal 120-277V UH Universal 347-480V - Available with B & K Input Power Designators only	BK Black BZ Bronze SV Silver WH White	PML Programmable Multi-Level, up to 40' Mounting Height - Refer to PML spec sheet for details - Intended for downlight applications at 0° tilt PML2 Programmable Multi-Level, 10-30' Mounting Height - Refer to PML spec sheet for details - Intended for downlight applications at 0° tilt Q9/Q6/Q5/Q4/Q3/Q2/Q1 Field Adjustable Output - Must select Q9, Q6, Q5, Q4, Q3, Q2, or Q1 - Offers full range adjustability - Refer to pages 11-12 for power and lumen values - Available with B & K Input Power Designators only - Not available with PML or PML2 options	R NEMA® 7-Pin Photocell Receptacle - 7-pin receptacle per ANSI C136.41 - Intended for downlight applications with maximum 45° tilt - Factory connected 0-10V dim leads - 18" [457mm] seven-conductor cord exits luminaire - Requires photocell or shorting cap by others RL Rotate Left - LED and optic are rotated to the left - Refer to RR/RL configuration diagram on page 13 for optic directionality RR Rotate Right - LED and optic are rotated to the right - Refer to RR/RL configuration diagram on page 13 for optic directionality

* Available with Backlight Shield when ordered with field-installed accessory (see table above)

DA Mount



Weight

28.9 lbs. [13.1kg]



US: creelighting.com (800) 236-6800

Canada: creelighting-canada.com (800) 473-1234

CREE LIGHTING

Product Specifications

CREE TRUEWHITE® TECHNOLOGY

A revolutionary way to generate high-quality white light, Cree TrueWhite® Technology is a patented approach that delivers an exclusive combination of 90+ CRI, beautiful light characteristics and lifelong color consistency, all while maintaining high luminous efficacy – a true no compromise solution.

CONSTRUCTION & MATERIALS


- Slim, low profile design minimizes wind load requirements
- Luminaire housing is rugged die cast aluminum with an integral, weathertight LED driver compartment and high-performance heat sink
- Convenient interlocking mounting method on direct arm mount. Mounting adaptor is rugged die cast aluminum and mounts to 3" (76mm) or larger square or round pole, secured by two 5/16-18 UNC bolts spaced on 2" (51mm) centers
- Mounting for the adjustable arm mount adaptor is rugged die cast aluminum and mounts to 2" (51mm) IP, 2.375" (60mm) O.D. tenon
- Adjustable arm mount can be adjusted 180° in 2.5° increments
- Transportation mount is constructed of 316 stainless steel and mounts to surface with (4) 3/8" fasteners by others
- Trunnion mount is constructed of A500 and A1011 steel and is adjustable from 0-180° in 15° degree increments. Trunnion mount secures to surface with (1) 3/4" bolt or (2) 1/2" or 3/8" bolts
- Includes 18" (340mm) 18/5 or 16/5 cord exiting the luminaire. When ordered with R option, 18" (340mm) 18/7 or 16/7 cord is provided
- Designed for uplight and downlight applications
- Exclusive Colorfast DeltaGuard® finish features an E-Coat epoxy primer with an ultra-durable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Silver, bronze, black, and white are available
- **Weight:** OSQ-DA: 28.9 lbs. (13.1kg); OSQ-B-AA: 28.4 lbs. (12.9kg); OSQ-M-TSP: 42 lbs. (19.1kg); OSQ-TM: 32.6 lbs. (14.8kg)

ELECTRICAL SYSTEM

- **Input Voltage:** 120-277V or 347-480V, 50/60Hz, Class 1 drivers
- **Power Factor:** > 0.9 at full load
- **Total Harmonic Distortion:** < 20% at full load
- Integral 10kV surge suppression protection standard
- When code dictates fusing, a slow blow fuse or type C/D breaker should be used to address inrush current
- Consult factory if in-luminaire fusing is required
- Designed with 0-10V dimming capabilities. Controls by others
- Refer to Dimming spec sheet for details
- **Maximum 10V Source Current:** 1.0mA

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations
- Enclosure rated IP66 per IEC 60529 when ordered without R option
- Consult factory for CE Certified products
- Certified to ANSI C136.31-2001, 3G bridge and overpass vibration standards with AA, DA, TM, and TSP mounts
- ANSI C136.2 10kV surge protection, tested in accordance with IEEE/ANSI C62.41.2
- Meets FCC Part 15, Subpart B, Class A limits for conducted and radiated emissions
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- Meets Buy American requirements within ARRA
- DLC and DLC Premium qualified versions available with 70 CRI. Some exceptions apply. Please refer to <https://www.designlights.org/search/> for most current information
- RoHS compliant. Consult factory for additional details
- Dark Sky Friendly, IDA Approved when ordered with 30K CCT and direct or transportation mounts only. Please refer to <https://www.darksky.org/our-work/lighting/lighting-for-industry/fsa/fsa-products/> for most current information

 **CA RESIDENTS WARNING:** Cancer and Reproductive Harm – www.p65warnings.ca.gov

Product Specifications

SYNAPSE® SIMPLYSNAP INTELLIGENT CONTROL

The Synapse SimplySNAP platform is a highly intuitive connected lighting solution featuring zone dimming, motion sensing, and daylight harvesting with utility-grade power monitoring and support of up to 1000 nodes per gateway. The system features a reliable and robust self-healing mesh network with a browser-based interface that runs on smartphones, tablets, and PCs. The Twist-Lock Lighting Controller (TL7-B2) and Site Controller (SS450-002) take the OSQ Series to a new performance plateau, providing extreme energy productivity, code compliance and a better light experience.

Electrical Data*

Input Power Designator	System Watts 120-480V	Total Current (A)					
		120V	208V	240V	277V	347V	480V
B	86	0.73	0.43	0.37	0.32	0.25	0.19
K	130	1.09	0.65	0.56	0.49	0.38	0.28
Z	53**	0.46	0.26	0.22	0.19	N/A	N/A

* Electrical data at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-277V or 347-480V +/- 10%
** Available with UL voltage only

OSQ Series Ambient Adjusted Lumen Maintenance¹

Ambient	Optic	Initial LMF	25K hr Reported ² LMF	50K hr Reported ² LMF	75K hr Reported ² LMF	100K hr Reported ² LMF
5°C (41°F)	Asymmetric	1.04	1.03	1.01	0.99	0.97
	Symmetric	1.05	1.04	1.03	1.03	1.02
10°C (50°F)	Asymmetric	1.03	1.02	1.00	0.98	0.96
	Symmetric	1.04	1.03	1.02	1.01	1.00
15°C (59°F)	Asymmetric	1.02	1.01	0.99	0.97	0.95
	Symmetric	1.02	1.02	1.01	1.00	0.99
20°C (68°F)	Asymmetric	1.01	1.00	0.98	0.96	0.94
	Symmetric	1.01	1.01	1.00	0.99	0.98
25°C (77°F)	Asymmetric	1.00	0.99	0.97	0.95	0.93
	Symmetric	1.00	0.99	0.98	0.98	0.97

¹ Lumen maintenance values at 25°C (77°F) are calculated per IES TM-21 based on IES LM-80 report data for the LED package and in-situ luminaire testing. Luminaire ambient temperature factors [LATF] have been applied to all lumen maintenance factors. Please refer to the [Temperature Zone Reference Document](#) for outdoor average nighttime ambient conditions.

² In accordance with IES TM-21, Reported values represent interpolated values based on time durations that are up to 6x the tested duration in the IES LM-80 report for the LED.

Accessories

Field-Installed

Backlight Shield	Hand-Held Remote	Bird Spikes	Shorting Cap
OSQ-BLSMF - Front facing optics OSQ-BLSMR - Rotated optics	XA-SENSREM - For successful implementation of the programmable multi-level option, a minimum of one hand-held remote is required	OSQ-MED-BRDSPK	XA-XLSHRT

Synapse Wireless Control Accessories

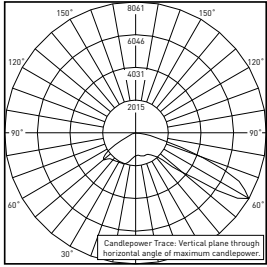
Twist-Lock Lighting Controller TL7-B2 - Suitable for 120-277V (UL) voltage only - Requires NEMA/ANSI C136.41 7-Pin Dimming Receptacle - Not for use with PML or Q options - Provides On/Off switching, dimming, power metering, digital sensor input, and status monitoring of luminaires - Refer to TL7-B2 spec sheet for details SimplySNAP Central Base Station CBSSW-450-002 - Includes On-Site Controller (SS450-002) and 5-button switch - Indoor and Outdoor rated - Refer to CBSSW-450-002 spec sheet for details Synapse Wireless Sensor WSN-DPM - Motion and light sensor - Control multiple zones - Refer to WSN-DPM spec sheet for details	SimplySNAP On-Site Controller SS450-002 - Verizon® LTE-enabled - Designed for indoor applications - Refer to SS450-002 spec sheet for details Building Management System (BMS) Gateway BMS-GW-002 - Required for BACnet integration - Refer to BMS-GW-002 spec sheet for details Outdoor Antennas (Optional, for increased range, 8dB gain) KIT-ANT420SM - Kit includes antenna, 20' cable and bracket KIT-ANT360 - Kit includes antenna, 30' cable and bracket KIT-ANT600 - Kit includes antenna, 50' cable and bracket - Refer to Outdoor antenna spec sheet for details
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

OSQ™ LED Area/Flood Luminaire featuring Cree TrueWhite® Technology – Medium

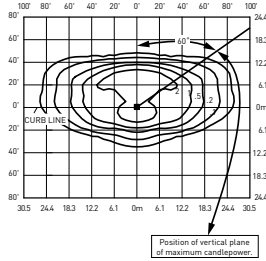
Photometry

All published luminaire photometric testing performed to IES LM-79-08 standards. To obtain an IES file specific to your project consult: <https://creelighting.com/products/outdoor/area/osq-series>

2ME



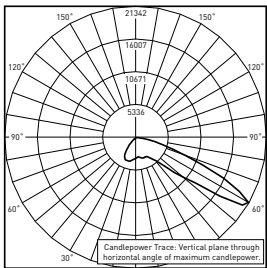
RESTL Test Report #: PL08877-001A
OSQ-A-**-2ME-B-30K-UL
Initial Delivered Lumens: 10,381



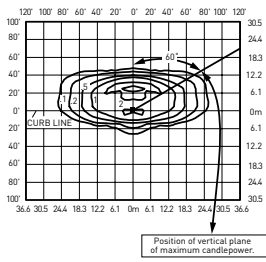
OSQ-A-**-2ME-B-40K-UL
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 11,424
Initial FC at grade

Type II Medium Distribution								
Input Power Designator	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
B	10,738	B2 U0 G2	11,424	B2 U0 G2	9,350	B2 U0 G2	11,648	B2 U0 G2
K	16,022	B3 U0 G3	16,959	B3 U0 G3	14,000	B3 U0 G2	17,291	B3 U0 G3
Z	6,481	B2 U0 G1	6,896	B2 U0 G1	5,750	B1 U0 G1	7,031	B2 U0 G1

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>. Valid with no tilt



CESTL Test Report #: PL07700-001A
OSQ-A-**-2ME-U-57K-UL w/OSQ-BLSLF
Initial Delivered Lumens: 22,822



OSQ-A-**-2ME-B-40K-UL w/OSQ-BLSMF
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 8,779
Initial FC at grade

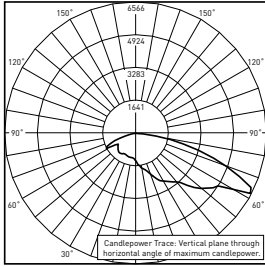
Type II Medium w/BLS Distribution								
Input Power Designator	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	BUG Ratings** Per TM 15 11	Initial Delivered Lumens*	BUG Ratings** Per TM 15 11	Initial Delivered Lumens*	BUG Ratings** Per TM 15 11	Initial Delivered Lumens*	BUG Ratings** Per TM 15 11
B	8,251	B2 U0 G2	8,779	B2 U0 G2	7,200	B1 U0 G1	8,950	B2 U0 G2
K	12,312	B2 U0 G2	13,032	B2 U0 G2	10,750	B2 U0 G2	13,286	B2 U0 G2
Z	4,980	B1 U0 G1	5,299	B1 U0 G1	4,420	B1 U0 G1	5,402	B1 U0 G1

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>. Valid with no tilt

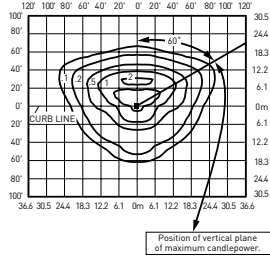
Photometry

All published luminaire photometric testing performed to IES LM-79-08 standards. To obtain an IES file specific to your project consult: <https://creelighting.com/products/outdoor/area/osq-series>

3ME



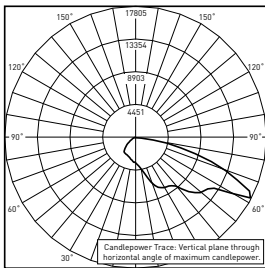
RESTL Test Report #: PL08876-001A
OSQ-A--3ME-B-30K-UL**
Initial Delivered Lumens: 10,421



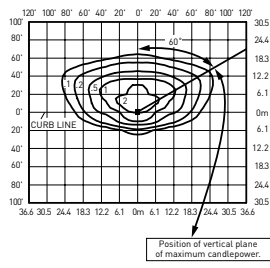
OSQ-A--3ME-B-40K-UL**
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 11,424
 Initial FC at grade

Type III Medium Distribution								
Input Power Designator	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
B	10,738	B3 U0 G3	11,424	B3 U0 G3	9,350	B2 U0 G2	11,648	B3 U0 G3
K	16,022	B3 U0 G3	16,959	B3 U0 G3	14,000	B3 U0 G3	17,291	B3 U0 G3
Z	6,481	B2 U0 G2	6,896	B2 U0 G2	5,750	B2 U0 G2	7,031	B2 U0 G2

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
 ** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>. Valid with no tilt



CESTL Test Report #: PL07699-001A
OSQ-A--3ME-U-57K-UL w/OSQ-BLSLF**
Initial Delivered Lumens: 23,601



OSQ-A--3ME-B-40K-UL w/OSQ-BLSMF**
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 9,019
 Initial FC at grade

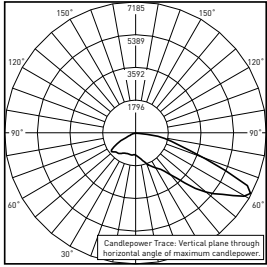
Type III Medium w/BLS Distribution								
Input Power Designator	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
B	8,477	B1 U0 G2	9,019	B1 U0 G2	7,400	B1 U0 G2	9,196	B1 U0 G2
K	12,649	B2 U0 G2	13,389	B2 U0 G2	11,050	B2 U0 G2	13,650	B2 U0 G2
Z	5,117	B1 U0 G1	5,444	B1 U0 G1	4,540	B1 U0 G1	5,551	B1 U0 G1

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
 ** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>. Valid with no tilt

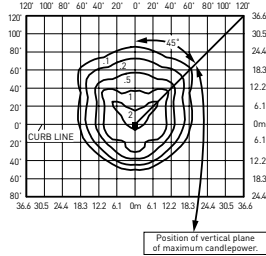
Photometry

All published luminaire photometric testing performed to IES LM-79-08 standards. To obtain an IES file specific to your project consult: <https://creelighting.com/products/outdoor/area/osq-series>

4ME



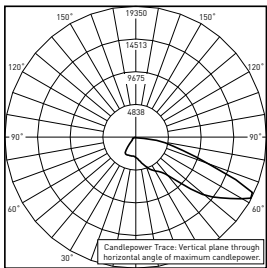
RESTL Test Report #: PL08878-001A
OSQ-A-**-4ME-B-30K-UL
Initial Delivered Lumens: 10,230



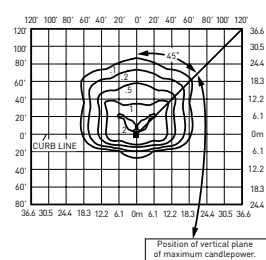
OSQ-A-**-4ME-B-40K-UL
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 11,424
Initial FC at grade

Type IV Medium Distribution								
Input Power Designator	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
B	10,738	B2 U0 G2	11,424	B2 U0 G2	9,350	B2 U0 G2	11,648	B2 U0 G2
K	16,022	B3 U0 G3	16,959	B3 U0 G3	14,000	B3 U0 G3	17,291	B3 U0 G3
Z	6,481	B2 U0 G2	6,896	B2 U0 G2	5,750	B2 U0 G1	7,031	B2 U0 G2

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>. Valid with no tilt



CESTL Test Report #: PL07692-001A
OSQ-A-**-4ME-U-57K-UL w/OSQ-BLSLF
Initial Delivered Lumens: 22,793



OSQ-A-**-4ME-B-40K-UL w/OSQ-BLSMF
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 8,779
Initial FC at grade

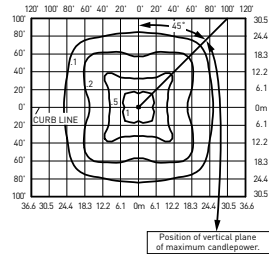
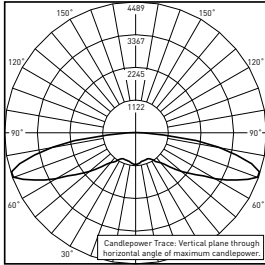
Type IV Medium w/BLS Distribution								
Input Power Designator	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
B	8,251	B1 U0 G2	8,779	B1 U0 G2	7,200	B1 U0 G2	8,950	B1 U0 G2
K	12,312	B2 U0 G2	13,032	B2 U0 G2	10,750	B2 U0 G2	13,286	B2 U0 G2
Z	4,980	B1 U0 G1	5,299	B1 U0 G1	4,420	B1 U0 G1	5,402	B1 U0 G1

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>. Valid with no tilt

Photometry

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5ME



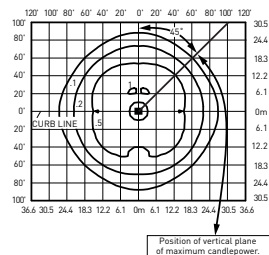
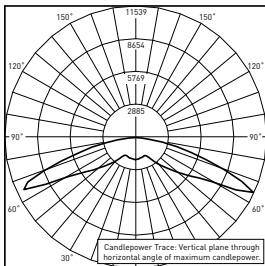
RECTL Test Report #: PL08534-001B
OSQ-A-**-5ME-B-40K-UL
Initial Delivered Lumens: 10,519

OSQ-A-**-5ME-B-40K-UL
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 10,867
Initial FC at grade

Type V Medium Distribution								
Input Power Designator	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
B	10,232	B4 U0 G3	10,867	B4 U0 G3	10,000	B4 U0 G3	11,056	B4 U0 G3
K	15,063	B4 U0 G4	15,999	B4 U0 G4	14,925	B4 U0 G4	16,277	B4 U0 G4
Z	5,257	B3 U0 G3	6,086	B3 U0 G3	6,175	B3 U0 G3	6,192	B3 U0 G3

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>. Valid with no tilt

55H



CESTL Test Report #: PL10754-001A
OSQ-A-**-55H-U-40K-UL
Initial Delivered Lumens: 25,679

OSQ-A-**-55H-B-40K-UL
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 11,478
Initial FC at grade

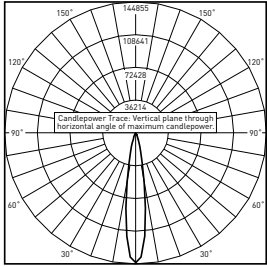
Type V Short Distribution								
Input Power Designator	3000K (70 CRI)		4000K (70 CRI)		5000K (90 CRI)		5700K (70 CRI)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
B	10,806	B4 U0 G2	11,478	B4 U0 G2	10,575	B4 U0 G2	11,678	B4 U0 G2
K	15,909	B4 U0 G3	16,897	B4 U0 G3	15,800	B4 U0 G3	17,191	B4 U0 G3
Z	5,552	B3 U0 G1	6,428	B3 U0 G2	6,525	B3 U0 G2	6,539	B3 U0 G2

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>. Valid with no tilt

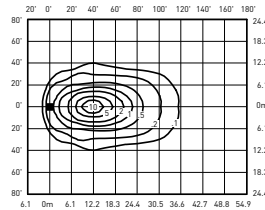
Photometry

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15D



CESTL Test Report #: PL07689-001A
OSQ-A-**-15D-U-30K-UL
Initial Delivered Lumens: 23,254



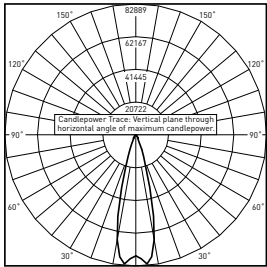
OSQ-A-**-15D-B-40K-UL
Mounting Height: 25' (7.6m) A.F.G., 60° Tilt
Initial Delivered Lumens: 11,478
Initial FC at grade

15° Flood Distribution

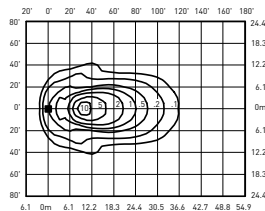
Input Power Designator	3000K (70 CRI)	4000K (70 CRI)	5000K (90CRI)	5700K (70 CRI)
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
B	10,806	11,478	10,575	11,678
K	15,909	16,897	15,800	17,191
Z	5,552	6,428	6,525	6,539

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>. Valid with no tilt

25D



CESTL Test Report #: PL07696-001A
OSQ-A-**-25D-U-30K-UL
Initial Delivered Lumens: 23,265



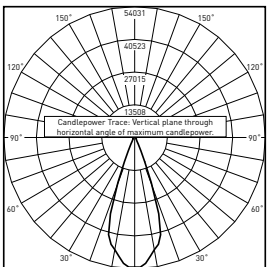
OSQ-A-**-25D-B-40K-UL
Mounting Height: 25' (7.6m) A.F.G., 60° Tilt
Initial Delivered Lumens: 11,478
Initial FC at grade

25° Flood Distribution

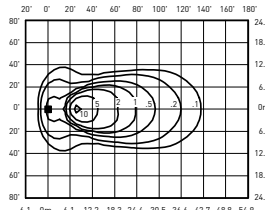
Input Power Designator	3000K (70 CRI)	4000K (70 CRI)	5000K (90CRI)	5700K (70 CRI)
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
B	10,806	11,478	10,575	11,678
K	15,909	16,897	15,800	17,191
Z	5,552	6,428	6,525	6,539

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>. Valid with no tilt

40D



CESTL Test Report #: PL07697-001A
OSQ-A-**-40D-U-30K-UL
Initial Delivered Lumens: 22,943



OSQ-A-**-40D-B-40K-UL
Mounting Height: 25' (7.6m) A.F.G., 60° Tilt
Initial Delivered Lumens: 11,478
Initial FC at grade

40° Flood Distribution

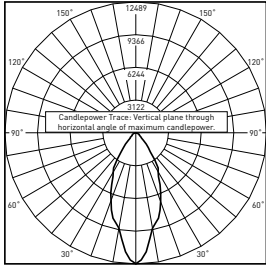
Input Power Designator	3000K (70 CRI)	4000K (70 CRI)	5000K (90 CRI)	5700K (70 CRI)
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
B	10,806	11,478	10,575	11,678
K	15,909	16,897	15,800	17,191
Z	5,552	6,428	6,525	6,539

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>. Valid with no tilt

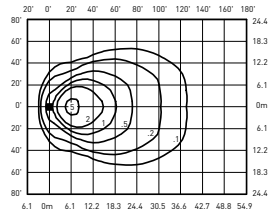
Photometry

All published luminaire photometric testing performed to IES LM-79-08 standards. To obtain an IES file specific to your project consult: <https://creelighting.com/products/outdoor/area/osq-series>

60D



CESTL Test Report #: PL08100-001B
OSQ-A-**-60D-B-30K-UL
Initial Delivered Lumens: 10,079

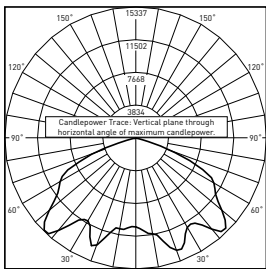


OSQ-A-**-60D-B-40K-UL
Mounting Height: 25' (7.6m) A.F.G., 60° Tilt
Initial Delivered Lumens: 11,478
Initial FC at grade

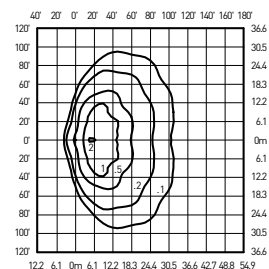
60° Flood Distribution				
Input Power Designator	3000K (70 CRI)	4000K (70 CRI)	5000K (90 CRI)	5700K (70 CRI)
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
B	10,806	11,478	10,575	11,678
K	15,909	16,897	15,800	17,191
Z	5,552	6,428	6,525	6,539

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>. Valid with no tilt

WSN



CESTL Test Report #: PL07695-001A
OSQ-A-**-WSN-U-30K-UL
Initial Delivered Lumens: 23,116










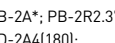



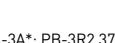
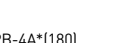



OSQ-A-**-WSN-B-40K-UL
Mounting Height: 25' (7.6m) A.F.G., 60° Tilt
Initial Delivered Lumens: 11,478
Initial FC at grade

Wide Sign Distribution				
Input Power Designator	3000K (70 CRI)	4000K (70 CRI)	5000K (90 CRI)	5700K (70 CRI)
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
B	10,806	11,478	10,575	11,678
K	15,909	16,897	15,800	17,191
Z	5,552	6,428	6,525	6,539

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>. Valid with no tilt

Luminaire EPA

Adjustable Arm Mount – OSQ-B-AA Weight: 28.4 lbs. (12.9kg)							
Single	2 @ 180°	2 @ 90°	3 @ 90°	3 @ 120°	3 @ 180°	4 @ 180°	4 @ 90°
Tenon Configuration (0° -80° Tilt); If used with Cree Lighting tenons, please add tenon EPA with Luminaire EPA							
							
PB-1A*; PT-1; PW-1A3**	PB-2A*; PB-2R2.375; PD-2A4(180); PT-2(180); PW-2A3**	PB-2A*; PD-2A4(90); PT-2(90)	PB-3A*; PD-3A4(90); PT-3(90)	PB-3A*; PT-3(120)	PB-3A*; PB-3R2.375	PB-4A*(180)	PB-4A*(90); PB-4R2.375; PD-4A4(90); PT-4(90)
0° Tilt							
0.74	1.48	1.19	1.93	1.63	3.33	4.66	2.38
10° Tilt							
0.75	1.48	1.49	2.23	2.15	4.22	5.84	2.98
20° Tilt							
1.12	1.48	1.86	2.60	2.85	5.31	7.32	3.72
30° Tilt							
1.46	1.48	2.20	2.94	3.56	6.34	8.68	4.40
45° Tilt							
1.96	1.96	2.69	3.43	4.54	7.83	10.68	5.38
60° Tilt							
2.33	2.33	3.07	3.81	5.11	8.94	12.16	6.14
70° Tilt							
2.49	2.49	3.23	3.97	5.11	9.43	12.80	6.46
80° Tilt							
2.58	2.58	3.32	4.06	5.11	9.71	13.16	6.64
Tenon Configuration (90° Tilt); If used with Cree Lighting tenons, please add tenon EPA with Luminaire EPA							
							
PB-1A*; PT-1; PW-1A3**	PB-2A*; PB-2R2.375; PD-2A4(180); PT-2(180); PW-2A3**	PB-2A*	PB-3A*	PB-3A*; PT-3(120)	PB-3A*; PB-3R2.375	PB-4A*(180)	PB-4A*(90); PB-4R2.375
90° Tilt							
2.61	2.61	4.44	6.05	5.11	9.79	13.28	10.39

* Specify pole size: 3 [3"], 4 [4"], 5 [5"], or 6 [6"] for single, double or triple luminaire orientation or 4 [4"], 5 [5"], or 6 [6"] for quad luminaire orientation
 ** These EPA values must be multiplied by the following ratio: Fixture Mounting Height/Total Pole Height. Specify pole size: 3 [3"], 4 [4"], 5 [5"], or 6 [6"]

Tenon EPA







Part Number	EPA
PB-1A*	None
PB-2A*	0.82
PB-3A*	1.52
PB-4A*(180)	2.22
PB-4A*(90)	1.11
PB-2R2.375	0.92
PB-3R2.375	1.62
PB-4R2.375	2.32
PD Series Tenons	0.09
PT Series Tenons	0.10
PW-1A3**	0.47
PW-2A3**	0.94
WM-2	0.08
WM-4	0.25
WM-DM	None

* Specify pole size: 3 [3"], 4 [4"], 5 [5"], or 6 [6"] for single, double or triple luminaire orientation or 4 [4"], 5 [5"], or 6 [6"] for quad luminaire orientation
 ** These EPA values must be multiplied by the following ratio: Fixture Mounting Height/Total Pole Height. Specify pole size: 3 [3"], 4 [4"], 5 [5"], or 6 [6"]

Tenons and Brackets* (must specify color)	
<p>Square Internal Mount Vertical Tenons (Steel) - Mounts to 3-6" (76-152mm) square aluminum or steel poles</p> <p>PB-1A* – Single PB-4A*(90) – 90° Quad PB-2A* – 180° Twin PB-4A*(180) – 180° Quad PB-3A* – 180° Triple</p>	<p>Round External Mount Vertical Tenons (Steel) - Mounts to 2.375" (60mm) O.D. round aluminum or steel poles or tenons</p> <p>PB-2R2.375 – Twin PB-4R2.375 – Quad PB-3R2.375 – Triple</p>
<p>Square Internal Mount Horizontal Tenons (Aluminum) - Mounts to 4" (102mm) square aluminum or steel poles</p> <p>PD-2A4(90) – 90° Twin PD-3A4(90) – 90° Triple PD-2A4(180) – 180° Twin PD-4A4(90) – 90° Quad</p>	<p>Round External Mount Horizontal Tenons (Aluminum) - Mounts to 2.375" (60mm) O.D. round aluminum or steel poles or tenons</p> <p>- Mounts to square pole with PB-1A* tenon</p> <p>PT-1 – Single (Vertical) PT-3(90) – 90° Triple PT-2(90) – 90° Twin PT-3(120) – 120° Triple PT-2(180) – 180° Twin PT-4(90) – 90° Quad</p>
<p>Wall Mount Brackets - Mounts to wall or roof</p> <p>WM-2 – Horizontal for OSQ-B-AA mount WM-4 – L-Shape for OSQ-B-AA mount WM-DM – Plate for OSQ-DA mount</p>	<p>Mid-Pole Bracket - Mounts to square pole</p> <p>PW-1A3** – Single PW-2A3** – Double</p>
<p>Ground Mount Post - For ground-mounted flood luminaires</p> <p>PGM-1 - for OSQ-B-AA mount</p>	

* Refer to the [Bracket and Tenons spec sheet](#) for more details

Luminaire EPA

Direct Arm Mount – OSQ-DA Weight: 28.9 lbs. (13.1kg)					
Single	2 @ 180°	2 @ 90°	3 @ 90°	3 @ 120°	4 @ 90°
					
0.74	1.48	1.19	1.93	1.63	2.38

Direct Mount Configurations

Compatibility with OSQ-DA Direct Mount Bracket					
Input Power Designator	2 @ 90°	2 @ 180°	3 @ 90°	3 @ 120°	4 @ 90°
3" Square					
B, K & Z	N/A	✓	N/A	N/A	N/A
3" Round					
B, K & Z	N/A	✓	N/A	N/A	N/A
4" Square					
B, K & Z	✓	✓	✓	N/A	✓
4" Round					
B, K & Z	✓	✓	✓	✓	✓
5" Square					
B, K & Z	✓	✓	✓	N/A	✓
5" Round					
B, K & Z	✓	✓	✓	✓	✓
6" + Square					
B, K & Z	✓	✓	✓	N/A	✓
6" + Round					
B, K & Z	✓	✓	✓	✓	✓

Luminaire EPA

Trunnion Mount – OSQ-TM Weight: 32.6 lbs. (14.8kg)	
Single	
0° Tilt	
0.75	
15° Tilt	
0.99	
30° Tilt	
1.57	
45° Tilt	
2.07	
60° Tilt	
2.46	
75° Tilt	
2.67	
90° Tilt	
2.33	

Field Adjustable Output (Q9/Q6/Q5/Q4/Q3/Q2/Q1) Option Description:

The Field Adjustable Output option enables the OSQ area luminaires to be tuned to the exact needs of a particular application through multiple levels of adjustment. When ordered with the Q option, the luminaire will be shipped from the factory at the selected Q setting and will be fully adjustable between the nine settings.

Q Option Power & Lumen Data – Designator B

Q Option Setting	CCT/CRI	System Watts	Lumen Values						Optics Qualified on DLC QPL	
			120-480V	Asymmetric	5ME	5SH & Floods	2ME w/ BLS	3ME w/ BLS	4ME w/BLS	Standard
Q9 (Full Power)	30K (70 CRI)	86	10,738	10,232	10,806	8,251	8,477	8,251	5ME	2ME, 3ME, 4ME, 5SH, 15D, 25D, 40D, 60D, WSN
	40K (70 CRI)		11,424	10,867	11,478	8,779	9,019	8,779	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	50K (90 CRI)		9,350	10,000	10,575	7,200	7,400	7,200	TBD	TBD
	57K (70 CRI)		11,648	11,056	11,678	8,950	9,196	8,950	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
Q6	30K (70 CRI)	77	9,449	9,004	9,509	7,261	7,460	7,261	5ME	2ME, 3ME, 4ME, 5SH, 15D, 25D, 40D, 60D, WSN
	40K (70 CRI)		10,053	9,563	10,101	7,726	7,937	7,726	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	50K (90 CRI)		8,350	8,950	9,450	6,425	6,600	6,425	TBD	TBD
	57K (70 CRI)		10,250	9,729	10,277	7,876	8,092	7,876	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
Q5	30K (70 CRI)	72	8,913	8,492	8,969	6,848	7,036	6,848	5ME	2ME, 3ME, 4ME, 5SH, 15D, 25D, 40D, 60D, WSN
	40K (70 CRI)		9,482	9,020	9,527	7,287	7,486	7,287	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	50K (90 CRI)		7,525	8,050	8,525	5,775	5,950	5,775	TBD	TBD
	57K (70 CRI)		9,668	9,176	9,693	7,429	7,633	7,429	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
Q4	30K (70 CRI)	62	7,731	7,367	7,780	5,941	6,103	5,941	5ME	2ME, 3ME, 4ME, 5SH, 15D, 25D, 40D, 60D, WSN
	40K (70 CRI)		8,225	7,824	8,264	6,321	6,494	6,321	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	50K (90 CRI)		6,575	7,025	7,425	5,050	5,175	5,050	TBD	TBD
	57K (70 CRI)		8,387	7,960	8,408	6,444	6,621	6,444	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
Q3	30K (70 CRI)	53	6,550	6,241	6,592	5,033	5,171	5,033	5ME	2ME, 3ME, 4ME, 5SH, 15D, 25D, 40D, 60D, WSN
	40K (70 CRI)		6,969	6,629	7,002	5,355	5,502	5,355	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	50K (90 CRI)		5,575	5,975	6,325	4,290	4,410	4,290	TBD	TBD
	57K (70 CRI)		7,105	6,744	7,124	5,460	5,610	5,460	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
Q2	30K (70 CRI)	45	5,476	5,218	5,511	4,208	4,323	4,208	5ME	2ME, 3ME, 4ME, 5SH, 15D, 25D, 40D, 60D, WSN
	40K (70 CRI)		5,826	5,542	5,854	4,477	4,600	4,477	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	50K (90 CRI)		4,550	4,890	5,175	3,500	3,590	3,500	TBD	TBD
	57K (70 CRI)		5,940	5,639	5,956	4,565	4,690	4,565	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
Q1	30K (70 CRI)	34	4,188	3,990	4,214	3,218	3,306	3,218	5ME	2ME, 3ME, 4ME, 5SH, 15D, 25D, 40D, 60D, WSN
	40K (70 CRI)		4,455	4,238	4,476	3,424	3,517	3,424	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	50K (90 CRI)		3,500	3,770	3,980	2,690	2,760	2,690	TBD	TBD
	57K (70 CRI)		4,543	4,312	4,554	3,491	3,586	3,491	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN

Field Adjustable Output (Q9/Q6/Q5/Q4/Q3/Q2/Q1) Option Description:

The Field Adjustable Output option enables the OSQ area luminaires to be tuned to the exact needs of a particular application through multiple levels of adjustment. When ordered with the Q option, the luminaire will be shipped from the factory at the selected Q setting and will be fully adjustable between the nine settings.

Q Option Power & Lumen Data – Designator K

Q Option Setting	CCT/CRI	System Watts	Lumen Values						Optics Qualified on DLC QPL	
			120-480V	Asymmetric	5ME	5SH & Floods	2ME w/BLS	3ME w/BLS	4ME w/BLS	Standard
Q9 (Full Power)	30K (70 CRI)	130	16,022	15,063	15,909	12,312	12,649	12,312	5ME	2ME, 3ME, 4ME, 5SH, 15D, 25D, 40D, 60D, WSN
	40K (70 CRI)		16,959	15,999	16,897	13,032	13,389	13,032	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	50K (90 CRI)		14,000	14,925	15,800	10,750	11,050	10,750	TBD	TBD
	57K (70 CRI)		17,291	16,277	17,191	13,286	13,650	13,286	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
Q6	30K (70 CRI)	117	14,099	13,255	14,000	10,835	11,131	10,835	5ME	2ME, 3ME, 4ME, 5SH, 15D, 25D, 40D, 60D, WSN
	40K (70 CRI)		14,924	14,079	14,869	11,468	11,782	11,468	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	50K (90 CRI)		12,500	13,350	14,100	9,600	9,875	9,600	TBD	TBD
	57K (70 CRI)		15,216	14,324	15,128	11,692	12,012	11,692	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
Q5	30K (70 CRI)	110	13,298	12,502	13,204	10,219	10,499	10,219	5ME	2ME, 3ME, 4ME, 5SH, 15D, 25D, 40D, 60D, WSN
	40K (70 CRI)		14,076	13,279	14,025	10,817	11,113	10,817	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	50K (90 CRI)		11,250	12,050	12,725	8,650	8,900	8,650	TBD	TBD
	57K (70 CRI)		14,352	13,510	14,269	11,027	11,330	11,027	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
Q4	30K (70 CRI)	93	11,536	10,845	11,454	8,865	9,107	8,865	5ME	2ME, 3ME, 4ME, 5SH, 15D, 25D, 40D, 60D, WSN
	40K (70 CRI)		12,210	11,519	12,166	9,383	9,640	9,383	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	50K (90 CRI)		9,825	10,525	11,100	7,550	7,750	7,550	TBD	TBD
	57K (70 CRI)		12,450	11,719	12,378	9,566	9,828	9,566	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
Q3	30K (70 CRI)	80	9,773	9,188	9,704	7,510	7,716	7,510	5ME	2ME, 3ME, 4ME, 5SH, 15D, 25D, 40D, 60D, WSN
	40K (70 CRI)		10,345	9,759	10,307	7,950	8,167	7,950	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	50K (90 CRI)		8,350	8,950	9,475	6,425	6,600	6,425	TBD	TBD
	57K (70 CRI)		10,548	9,929	10,487	8,104	8,327	8,104	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
Q2	30K (70 CRI)	67	8,171	7,682	8,114	6,279	6,451	6,279	5ME	2ME, 3ME, 4ME, 5SH, 15D, 25D, 40D, 60D, WSN
	40K (70 CRI)		8,649	8,159	8,617	6,646	6,828	6,646	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	50K (90 CRI)		6,825	7,325	7,725	5,250	5,375	5,250	TBD	TBD
	57K (70 CRI)		8,818	8,301	8,767	6,776	6,962	6,776	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
Q1	30K (70 CRI)	51	6,249	5,875	6,205	4,802	4,933	4,802	5ME	2ME, 3ME, 4ME, 5SH, 15D, 25D, 40D, 60D, WSN
	40K (70 CRI)		6,614	6,240	6,590	5,082	5,222	5,082	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN
	50K (90 CRI)		5,250	5,650	5,975	4,030	4,150	4,030	TBD	TBD
	57K (70 CRI)		6,743	6,348	6,704	5,182	5,324	5,182	N/A	2ME, 3ME, 4ME, 5ME, 5SH, 15D, 25D, 40D, 60D, WSN

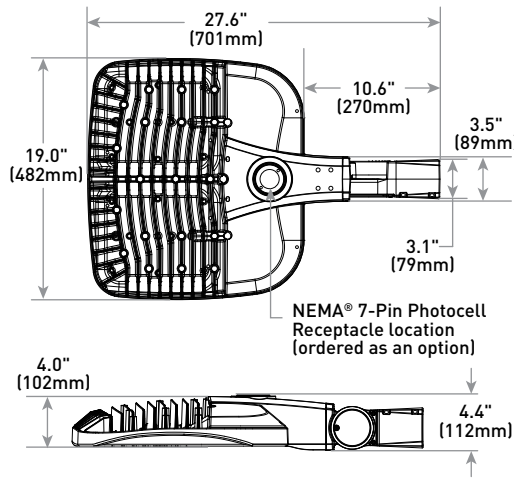
OSQ™ LED Area/Flood Luminaire featuring Cree TrueWhite® Technology – Medium

AA Mount

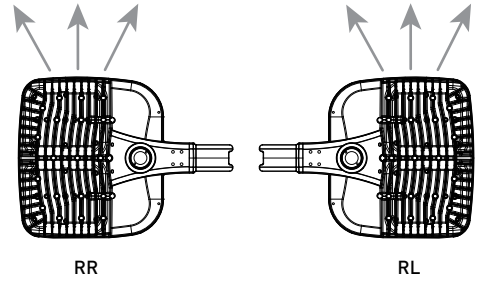


Weight

28.4 lbs. (12.9kg)



RR/RL Configuration



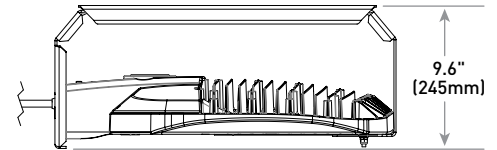
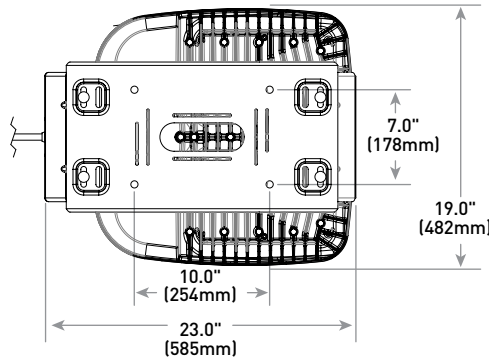
TSP Mount



Weight

42.0 lbs. (19.1kg)

OSQ Large luminaire shown.



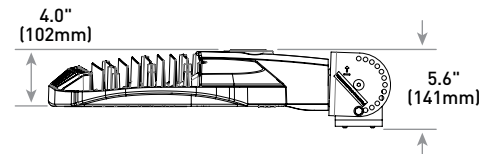
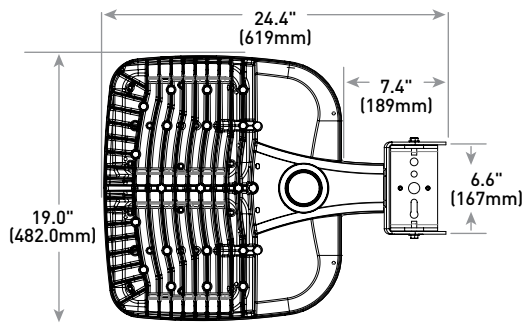
TM Mount



Weight

32.6 lbs. (14.8kg)

OSQ Large luminaire shown.



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CREE ⇄ **LIGHTING**

A COMPANY OF IDEAL INDUSTRIES, INC.

THE EDGE® Series

LED Area Luminaire – Round

Rev. Date: V6 04/13/2020

Product Description

The THE EDGE® Series has a slim, low profile design. Its rugged cast aluminum housing minimizes wind load requirements and features an integral, weathertight LED driver compartment, spun vented cover, high performance aluminum heat sinks and leaf/debris guard.

Applications: Auto Dealerships, parking lots, campuses, facade lighting and general site lighting applications

Performance Summary

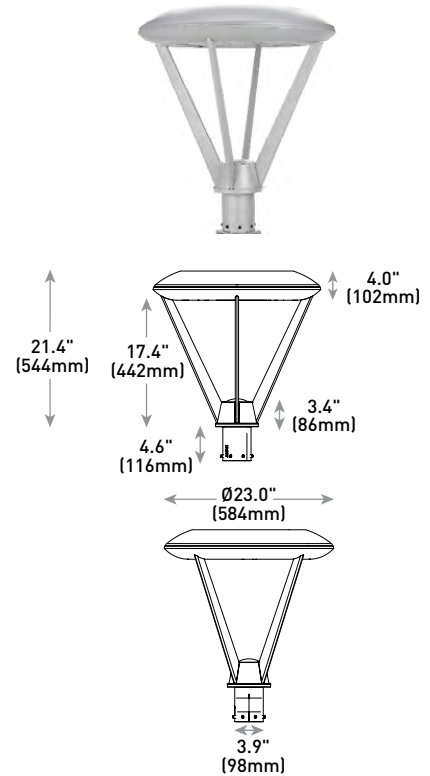
Patented NanoOptic® Product Technology
Assembled in the U.S.A. of U.S. and imported parts
CRI: Minimum 70 CRI
CCT: 4000K (+/- 300K), 5700K (+/- 500K) standard
Limited Warranty*: 10 years on luminaire/10 years on Colorfast DeltaGuard® finish

* See <http://creelighting.com/warranty> for warranty terms

Accessories

Field-Installed	
Bird Spikes XA-BRDSPK	Backlight Control Shields XA-20BLS-4 - Four-pack - Unpainted stainless steel

R3 Mount



LED Count (x10)	Weight
04	33.8 lbs. (15.3kg)
06	35.2 lbs. (15.9kg)
08	37.0 lbs. (16.8kg)
10	40.7 lbs. (18.5kg)
12	42.4 lbs. (19.3kg)

R4/R5 Mount - see page 14 for weight & dimensions

Ordering Information

Example: ARE-EDR-2M-R3-12-E-UL-SV-350

ARE-EDR	Product	Optic	Mounting*	LED Count (x10)	Series	Voltage	Color Options	Drive Current	Options
	ARE-EDR	2M Type II Medium	R3 Spider, Center Tenon, 2-3/8" to 3" OD	04** 06** 08** 10 12	E	UL Universal 120-277V UH Universal 347-480V	BK Black BZ Bronze SV Silver WH White	350 350mA 525 525mA 700 700mA - Available with 40-60 LEDs	DIM 0-10V Dimming - Control by others - Refer to Dimming spec sheet for details - Can't exceed specified drive current HL Hi/Low (Dual Circuit Input) - Refer to HL spec sheet for details - Sensor not included P Photocell - Available with UL voltage only 40K 4000K Color Temperature - Minimum 70 CRI - Color temperature per luminaire
		3MP Type III Medium w/Partial BLS	R4 Spider, Center Direct, 4" Square						
		2MB Type II Medium w/BLS	R5 Spider, Center Direct, 5" Round						
		4M Type IV Medium							
		2MP Type II Medium w/Partial BLS							
		4MB Type IV Medium w/BLS							
		3M Type III Medium							
		3MB Type III Medium w/BLS							
		5M Type V Medium							
		5S Type V Short							

* Reference EPA and pole configuration suitability data beginning on page 14

** Consists of multiple 20 LED light bars. 40, 60, and 80 LED units use blanks as needed in place of populated light bars



Product Specifications

CONSTRUCTION & MATERIALS

- Slim, low profile, minimizing wind load requirements
- Luminaire sides are rugged die cast aluminum with integral, weathertight LED driver compartment, spun vented cover, and high performance aluminum heat sinks
- R3 spider mount hub slip-fits over a 2.375" (60mm) to 3" (76mm) O.D. steel or aluminum tenon or pole and secures with eight set screws
- R4 spider mount fits directly inside 4" (102mm) square pole and secures to pole with four set screws
- R5 spider mount fits directly inside of a 5" (127mm) round pole to provide a clean hardware-less outer appearance
- Includes leaf/debris guard
- Exclusive Colorfast DeltaGuard® finish features an E-Coat epoxy primer with an ultra-durable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Black, bronze, silver, and white are available
- **Weight:** See Dimensions and Weight charts on pages 1 and 14

ELECTRICAL SYSTEM

- **Input Voltage:** 120-277V or 347-480V, 50/60Hz, Class 1 drivers
- **Power Factor:** > 0.9 at full load
- **Total Harmonic Distortion:** < 20% at full load
- **10V Source Current:** 40-80 LEDs: 0.15mA; 100-120 LEDs: 0.30mA
- Integral 10kV surge suppression protection standard
- When code dictates fusing, a slow blow fuse or type C/D breaker should be used to address inrush current
- Consult factory if in-luminaire fusing is required

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations
- Meets FCC Part 15, Subpart B, Class A limits for conducted and radiated emissions
- Enclosure meets IP66 requirements per IEC 60529 when ordered without P option
- Certified to ANSI C136.31-2001, 1.5G normal vibration standards when ordered with R3, R4 and R5 mounts
- ANSI C136.2 10kV surge protection, tested in accordance with IEEE/ANSI C62.41.2
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- DLC qualified with select SKUs. Refer to <https://www.designlights.org/search/> for most current information
- Meets Buy American requirements within ARRA
- **CA RESIDENTS WARNING:** Cancer and Reproductive Harm – www.p65warnings.ca.gov

Electrical Data*							
LED Count (x10)	System Watts 120-480V	Total Current (A)					
		120V	208V	240V	277V	347V	480V
350mA							
04	46	0.36	0.23	0.21	0.20	0.15	0.12
06	66	0.52	0.31	0.28	0.26	0.20	0.15
08	90	0.75	0.44	0.38	0.34	0.26	0.20
10	110	0.92	0.53	0.47	0.41	0.32	0.24
12	130	1.10	0.63	0.55	0.48	0.38	0.28
525mA							
04	70	0.58	0.34	0.31	0.28	0.21	0.16
06	101	0.84	0.49	0.43	0.38	0.30	0.22
08	133	1.13	0.66	0.58	0.51	0.39	0.28
10	171	1.43	0.83	0.74	0.66	0.50	0.38
12	202	1.69	0.98	0.86	0.77	0.59	0.44
700mA							
04	93	0.78	0.46	0.40	0.36	0.27	0.20
06	134	1.14	0.65	0.57	0.50	0.39	0.29

* Electrical data at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-277V or 347-480V +/- 10%

THE EDGE® Series Ambient Adjusted Lumen Maintenance ¹					
Ambient	Initial LMF	25K hr Reported ² LMF	50K hr Reported ² LMF	75K hr Estimated ³ LMF	100K hr Estimated ³ LMF
5°C (41°F)	1.04	1.01	0.99	0.98	0.96
10°C (50°F)	1.03	1.00	0.98	0.97	0.95
15°C (59°F)	1.02	0.99	0.97	0.96	0.94
20°C (68°F)	1.01	0.98	0.96	0.95	0.93
25°C (77°F)	1.00	0.97	0.95	0.94	0.92

¹ Lumen maintenance values at 25°C (77°F) are calculated per IES TM-21 based on IES LM-80 report data for the LED package and in-situ luminaire testing. Luminaire ambient temperature factors (LATF) have been applied to all lumen maintenance factors. Please refer to the [Temperature Zone Reference Document](#) for outdoor average nighttime ambient conditions.

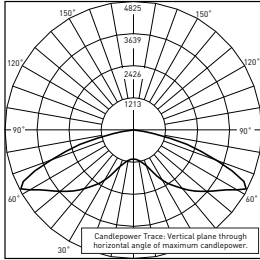
² In accordance with IES TM-21, Reported values represent interpolated values based on time durations that are up to 6x the tested duration in the IES LM-80 report for the LED.

³ Estimated values are calculated and represent time durations that exceed the 6x test duration of the LED.

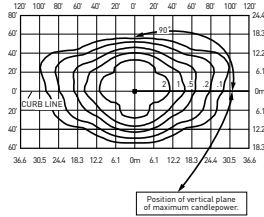
Photometry

All published luminaire photometric testing performed to IES LM-79-08 standards. To obtain an IES file specific to your project consult: <http://creelighting.com/products/outdoor/area/cree-edge-series-1>

2M



RESTL Test Report #: PL10270-004B
 ARE-EDG-2M-**-06-E-UL-525-40K
 Initial Delivered Lumens: 10,053



ARE-EDR-2M-**-10-E-UL-525-40K
 Mounting Height: 25' (7.6m) A.F.G.
 Initial Delivered Lumens: 17,504
 Initial FC at grade

Type II Medium Distribution				
LED Count (x10)	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
350mA				
04	5,003	B1 U0 G1	5,102	B1 U0 G1
06	7,418	B2 U0 G2	7,565	B2 U0 G2
08	9,891	B2 U0 G2	10,087	B2 U0 G2
10	12,334	B2 U0 G2	12,578	B2 U0 G2
12	14,801	B3 U0 G3	15,094	B3 U0 G3
525mA				
04	7,099	B2 U0 G2	7,248	B2 U0 G2
06	10,527	B2 U0 G2	10,748	B2 U0 G2
08	14,037	B3 U0 G3	14,331	B3 U0 G3
10	17,504	B3 U0 G3	17,870	B3 U0 G3
12	21,004	B3 U0 G3	21,444	B3 U0 G3
700mA				
04	8,379	B2 U0 G2	8,549	B2 U0 G2
06	12,425	B2 U0 G2	12,678	B2 U0 G2

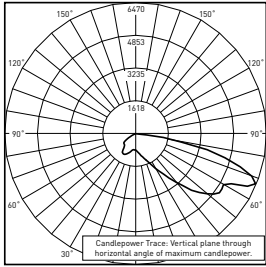
* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>

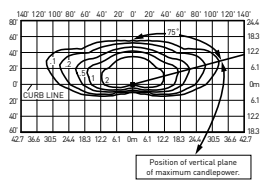
Photometry

All published luminaire photometric testing performed to IES LM-79-08 standards. To obtain an IES file specific to your project consult: <http://creelighting.com/products/outdoor/area/cree-edge-series-1>

2MB



RESTL Test Report #: PL10023-003B
ARE-EDG-2MB--06-E-UL-525-40K**
Initial Delivered Lumens: 7,784



ARE-EDR-2MB--10-E-UL-525-40K**
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 13,185
Initial FC at grade

Type II Medium Distribution w/BLS				
LED Count (x10)	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
350mA				
04	3,768	B1 U0 G1	3,843	B1 U0 G1
06	5,588	B1 U0 G1	5,698	B1 U0 G1
08	7,450	B1 U0 G2	7,598	B1 U0 G2
10	9,291	B1 U0 G2	9,475	B1 U0 G2
12	11,149	B1 U0 G2	11,370	B1 U0 G2
525mA				
04	5,348	B1 U0 G1	5,460	B1 U0 G1
06	7,930	B1 U0 G2	8,096	B1 U0 G2
08	10,573	B1 U0 G2	10,794	B1 U0 G2
10	13,185	B1 U0 G2	13,461	B1 U0 G2
12	15,821	B2 U0 G2	16,153	B2 U0 G3
700mA				
04	6,311	B1 U0 G1	6,440	B1 U0 G1
06	9,359	B1 U0 G2	9,549	B1 U0 G2

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

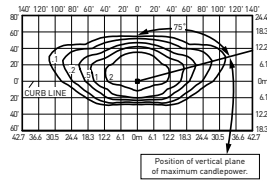
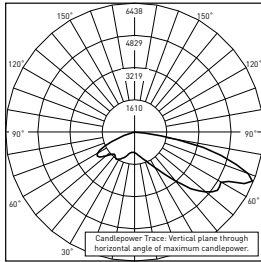
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>

THE EDGE® LED Area Luminaire – Round

Photometry

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2MP



RESTL Test Report #: PL10097-001B
 ARE-EDG-2MP-**-06-E-UL-525-40K
 Initial Delivered Lumens: 9,149

ARE-EDR-2MP-**-10-E-UL-525-40K
 Mounting Height: 25' (7.6m) A.F.G.
 Initial Delivered Lumens: 15,458
 Initial FC at grade

Type II Medium Distribution w/Partial BLS				
LED Count (x10)	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
350mA				
04	4,418	B1 U0 G1	4,505	B1 U0 G1
06	6,551	B2 U0 G1	6,681	B2 U0 G1
08	8,735	B2 U0 G2	8,908	B2 U0 G2
10	10,892	B2 U0 G2	11,108	B2 U0 G2
12	13,071	B2 U0 G2	13,330	B2 U0 G2
525mA				
04	6,270	B1 U0 G1	6,401	B2 U0 G1
06	9,297	B2 U0 G2	9,492	B2 U0 G2
08	12,396	B2 U0 G2	12,656	B2 U0 G2
10	15,458	B2 U0 G3	15,782	B2 U0 G3
12	18,549	B3 U0 G3	18,938	B3 U0 G3
700mA				
04	7,400	B2 U0 G2	7,550	B2 U0 G2
06	10,973	B2 U0 G2	11,196	B2 U0 G2

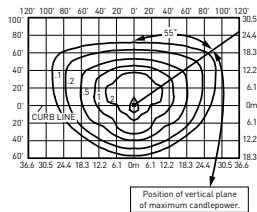
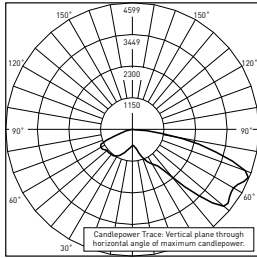
* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>

Photometry

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3M



RESTL Test Report #: PL09405-001A
ARE-EDG-3M--06-E-UL-525-40K**
Initial Delivered Lumens: 9,460

ARE-EDR-3M--10-E-UL-525-40K**
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 16,594
Initial FC at grade

Type III Medium Distribution				
LED Count (x10)	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
350mA				
04	4,743	B1 U0 G1	4,837	B1 U0 G1
06	7,033	B2 U0 G2	7,172	B2 U0 G2
08	9,377	B2 U0 G2	9,563	B2 U0 G2
10	11,693	B3 U0 G3	11,925	B3 U0 G3
12	14,032	B3 U0 G3	14,310	B3 U0 G3
525mA				
04	6,731	B2 U0 G2	6,872	B2 U0 G2
06	9,981	B3 U0 G3	10,190	B3 U0 G3
08	13,307	B3 U0 G3	13,586	B3 U0 G3
10	16,594	B3 U0 G3	16,942	B3 U0 G3
12	19,913	B3 U0 G3	20,330	B3 U0 G3
700mA				
04	7,944	B2 U0 G2	8,105	B2 U0 G2
06	11,779	B3 U0 G3	12,019	B3 U0 G3

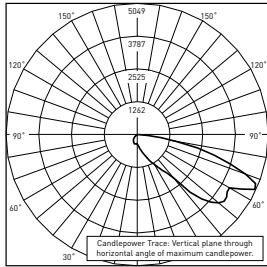
* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>

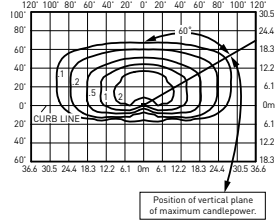
Photometry

All published luminaire photometric testing performed to IES LM-79-08 standards. To obtain an IES file specific to your project consult: <http://creelighting.com/products/outdoor/area/cree-edge-series-1>

3MB



RESTL Test Report #: PL10023-001B
ARE-EDG-3MB--06-E-UL-525-40K**
Initial Delivered Lumens: 7,602



ARE-EDR-3MB--10-E-UL-525-40K**
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 12,275
Initial FC at grade

Type III Medium Distribution w/BLS				
LED Count (x10)	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
350mA				
04	3,508	B1 U0 G1	3,578	B1 U0 G1
06	5,202	B1 U0 G2	5,305	B1 U0 G2
08	6,936	B1 U0 G2	7,074	B1 U0 G2
10	8,650	B1 U0 G2	8,821	B1 U0 G2
12	10,380	B1 U0 G3	10,585	B1 U0 G3
525mA				
04	4,979	B1 U0 G2	5,083	B1 U0 G2
06	7,383	B1 U0 G2	7,538	B1 U0 G2
08	9,844	B1 U0 G2	10,050	B1 U0 G3
10	12,275	B1 U0 G3	12,532	B1 U0 G3
12	14,730	B2 U0 G3	15,039	B2 U0 G3
700mA				
04	5,876	B1 U0 G2	5,996	B1 U0 G2
06	8,714	B1 U0 G2	8,891	B1 U0 G2

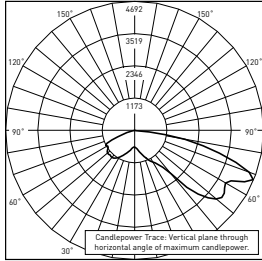
* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

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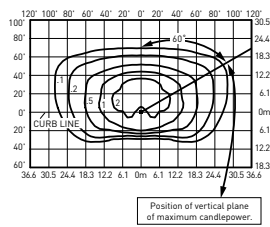
Photometry

All published luminaire photometric testing performed to IES LM-79-08 standards. To obtain an IES file specific to your project consult: <http://creelighting.com/products/outdoor/area/cree-edge-series-1>

3MP



RESTL Test Report #: PL10097-002B
ARE-EDG-3MP--06-E-UL-525-40K**
Initial Delivered Lumens: 8,670



ARE-EDR-3MP--10-E-UL-525-40K**
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 14,548
Initial FC at grade

Type III Medium Distribution w/Partial BLS				
LED Count (x10)	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
350mA				
04	4,158	B1 U0 G1	4,240	B1 U0 G1
06	6,166	B1 U0 G2	6,288	B1 U0 G2
08	8,221	B2 U0 G2	8,384	B2 U0 G2
10	10,252	B2 U0 G2	10,455	B2 U0 G3
12	12,302	B2 U0 G3	12,546	B2 U0 G3
525mA				
04	5,901	B1 U0 G2	6,024	B1 U0 G2
06	8,750	B2 U0 G2	8,933	B2 U0 G2
08	11,667	B2 U0 G3	11,911	B2 U0 G3
10	14,548	B3 U0 G3	14,853	B3 U0 G3
12	17,458	B3 U0 G3	17,824	B3 U0 G3
700mA				
04	6,964	B2 U0 G2	7,106	B2 U0 G2
06	10,327	B2 U0 G2	10,537	B2 U0 G3

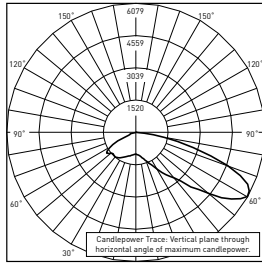
* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>

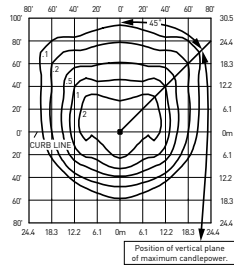
Photometry

All published luminaire photometric testing performed to IES LM-79-08 standards. To obtain an IES file specific to your project consult: <http://creelighting.com/products/outdoor/area/cree-edge-series-1>

4M



RESTL Test Report #: PL10270-001B
 ARE-EDG-4M-**-06-E-UL-525-40K
 Initial Delivered Lumens: 10,483



ARE-EDR-4M-**-10-E-UL-525-40K
 Mounting Height: 25' (7.6m) A.F.G.
 Initial Delivered Lumens: 17,504
 Initial FC at grade

Type IV Medium Distribution				
LED Count (x10)	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
350mA				
04	5,003	B2 U0 G1	5,102	B2 U0 G1
06	7,418	B2 U0 G2	7,565	B2 U0 G2
08	9,891	B2 U0 G2	10,087	B2 U0 G2
10	12,334	B3 U0 G3	12,578	B3 U0 G3
12	14,801	B3 U0 G3	15,094	B3 U0 G3
525mA				
04	7,099	B2 U0 G2	7,248	B2 U0 G2
06	10,527	B2 U0 G2	10,748	B2 U0 G2
08	14,037	B3 U0 G3	14,331	B3 U0 G3
10	17,504	B3 U0 G3	17,870	B3 U0 G3
12	21,004	B3 U0 G3	21,444	B3 U0 G3
700mA				
04	8,379	B2 U0 G2	8,549	B2 U0 G2
06	12,425	B3 U0 G3	12,678	B3 U0 G3

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

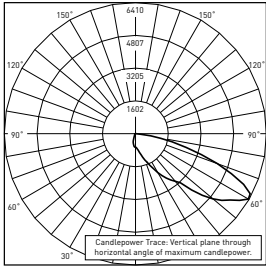
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THE EDGE® LED Area Luminaire – Round

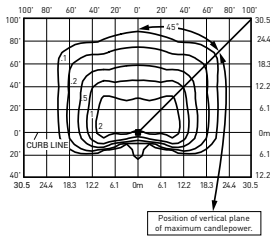
Photometry

All published luminaire photometric testing performed to IES LM-79-08 standards. To obtain an IES file specific to your project consult: <http://creelighting.com/products/outdoor/area/cree-edge-series-1>

4MB



RESTL Test Report #: PL01023-002B
 ARE-EDG-4MB-**-06-E-UL-525-40K
 Initial Delivered Lumens: 7,985



ARE-EDR-4MB-**-10-E-UL-525-40K
 Mounting Height: 25' (7.6m) A.F.G.
 Initial Delivered Lumens: 13,185
 Initial FC at grade

Type IV Medium Distribution w/BLS				
LED Count (x10)	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
350mA				
04	3,768	B1 U0 G1	3,843	B1 U0 G1
06	5,588	B1 U0 G1	5,698	B1 U0 G2
08	7,450	B1 U0 G2	7,598	B1 U0 G2
10	9,291	B1 U0 G2	9,475	B1 U0 G2
12	11,149	B1 U0 G2	11,370	B1 U0 G2
525mA				
04	5,348	B1 U0 G1	5,460	B1 U0 G1
06	7,930	B1 U0 G2	8,096	B1 U0 G2
08	10,573	B1 U0 G2	10,794	B1 U0 G2
10	13,185	B1 U0 G2	13,461	B1 U0 G2
12	15,821	B2 U0 G3	16,153	B2 U0 G3
700mA				
04	6,311	B1 U0 G2	6,440	B1 U0 G2
06	9,359	B1 U0 G2	9,549	B1 U0 G2

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

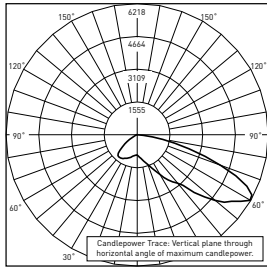
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THE EDGE® LED Area Luminaire – Round

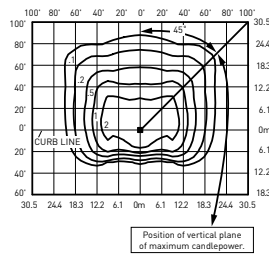
Photometry

All published luminaire photometric testing performed to IES LM-79-08 standards. To obtain an IES file specific to your project consult: <http://creelighting.com/products/outdoor/area/cree-edge-series-1>

4MP



RESTL Test Report #: PL10097-003B
 ARE-EDG-4MP-**-06-E-UL-525-40K
 Initial Delivered Lumens: 9,410



ARE-EDR-4MP-**-10-E-UL-525-40K
 Mounting Height: 25' (7.6m) A.F.G.
 Initial Delivered Lumens: 15,458
 Initial FC at grade

Type IV Medium Distribution w/Partial BLS				
LED Count (x10)	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
350mA				
04	4,418	B1 U0 G1	4,505	B1 U0 G1
06	6,551	B2 U0 G1	6,681	B2 U0 G1
08	8,735	B2 U0 G2	8,908	B2 U0 G2
10	10,892	B2 U0 G2	11,108	B2 U0 G2
12	13,071	B2 U0 G2	13,330	B2 U0 G2
525mA				
04	6,270	B2 U0 G1	6,401	B2 U0 G1
06	9,297	B2 U0 G2	9,492	B2 U0 G2
08	12,396	B2 U0 G2	12,656	B2 U0 G2
10	15,458	B3 U0 G2	15,782	B3 U0 G2
12	18,549	B3 U0 G2	18,938	B3 U0 G3
700mA				
04	7,400	B2 U0 G2	7,550	B2 U0 G2
06	10,973	B2 U0 G2	11,196	B2 U0 G2

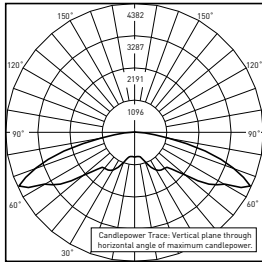
* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>

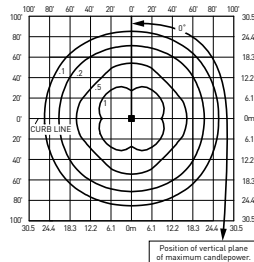
Photometry

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5M



RESTL Test Report #: PL09285-001
 ARE-EDG-5M-**-06-E-UL-700-40K
 Initial Delivered Lumens: 13,136



ARE-EDR-5M-**-06-E-UL-700-40K
 Mounting Height: 25' (7.6m) A.F.G.
 Initial Delivered Lumens: 13,070
 Initial FC at grade

Type V Medium Distribution				
LED Count (x10)	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
350mA				
04	5,262	B3 U0 G1	5,367	B3 U0 G1
06	7,804	B3 U0 G2	7,958	B3 U0 G2
08	10,405	B4 U0 G2	10,611	B4 U0 G2
10	12,975	B4 U0 G2	13,232	B4 U0 G2
12	15,570	B4 U0 G3	15,878	B4 U0 G3
525mA				
04	7,468	B3 U0 G2	7,625	B3 U0 G2
06	11,074	B4 U0 G2	11,306	B4 U0 G2
08	14,766	B4 U0 G2	15,075	B4 U0 G3
10	18,413	B4 U0 G3	18,799	B4 U0 G3
12	22,096	B5 U0 G3	22,558	B5 U0 G3
700mA				
04	8,814	B3 U0 G2	8,993	B3 U0 G2
06	13,070	B4 U0 G2	13,336	B4 U0 G2

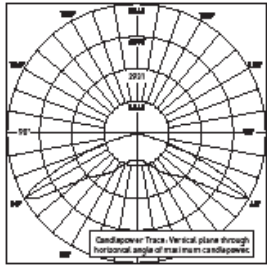
* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

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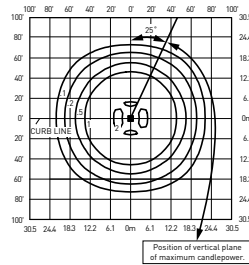
Photometry

All published luminaire photometric testing performed to IES LM-79-08 standards. To obtain an IES file specific to your project consult: <http://creelighting.com/products/outdoor/area/cree-edge-series-1>

55



RESTL Test Report #: PL09286-001A
 ARE-EDG-5S-**-06-E-UL-700-40K
 Initial Delivered Lumens: 14,123



ARE-EDR-5S-**-06-E-UL-700-40K
 Mounting Height: 25' (7.6m) A.F.G.
 Initial Delivered Lumens: 14,523
 Initial FC at grade

Type V Short Distribution				
LED Count (x10)	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
350mA				
04	5,847	B3 U0 G1	5,963	B3 U0 G1
06	8,671	B3 U0 G1	8,842	B3 U0 G1
08	11,561	B3 U0 G2	11,790	B3 U0 G2
10	14,416	B4 U0 G2	14,702	B4 U0 G2
12	17,300	B4 U0 G2	17,642	B4 U0 G2
525mA				
04	8,298	B3 U0 G1	8,472	B3 U0 G1
06	12,305	B3 U0 G2	12,563	B3 U0 G2
08	16,406	B4 U0 G2	16,750	B4 U0 G2
10	20,459	B4 U0 G2	20,887	B4 U0 G2
12	24,551	B4 U0 G2	25,065	B4 U0 G2
700mA				
04	9,793	B3 U0 G1	9,993	B3 U0 G2
06	14,523	B4 U0 G2	14,818	B4 U0 G2

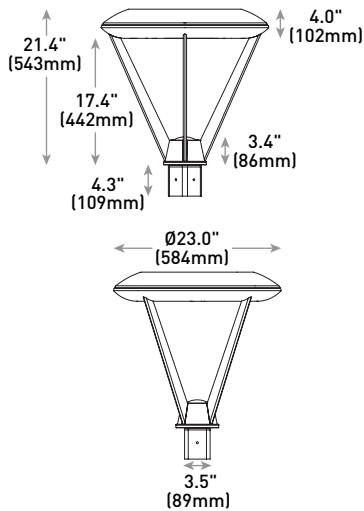
* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

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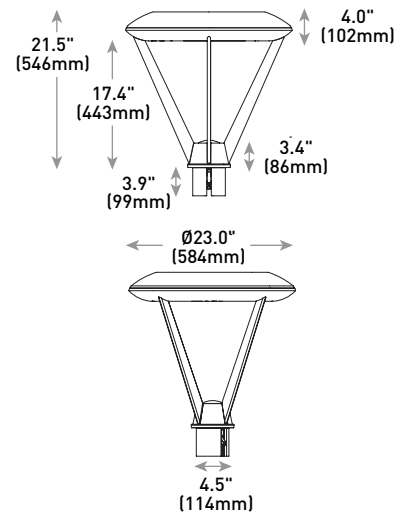
Luminaire EPA

Post Top Mount – ARE-EDR-R3/R4/R5		
LED Count (x10)	Single R3	Single R4/R5
04	1.81	1.67
06	1.81	1.67
08	1.81	1.67
10	1.81	1.67
12	1.81	1.67

R4 Mount



R5 Mount



LED Count (x10)	Weight
04	36.2 lbs. (16.4kg)
06	37.6 lbs. (17.0kg)
08	39.3 lbs. (17.8kg)
10	43.0 lbs. (19.5kg)
12	44.8 lbs. (20.3kg)

LED Count (x10)	Weight
04	33.3 lbs. (15.1kg)
06	34.6 lbs. (15.7kg)
08	36.4 lbs. (16.5kg)
10	40.1 lbs. (18.2kg)
12	41.9 lbs. (19.0kg)

THE EDGE® Series

LED Pathway Luminaire

Rev. Date: V7 02/17/2020

Product Description

Durable die-cast aluminum luminaire housing mounts directly to 4" (102mm) diameter pole (included) without visible mounting hardware for clean appearance. Pole mounts to rugged die cast aluminum internal flange secured by three 3/8" - 16x6" anchor bolts with 1-1/4" hook (provided). **Note:** T45 Torx 3/8" socket required for head installation. Top mounted LEDs for superior optical performance and light control.

Applications: Landscape, walk-ways and general site lighting

Performance Summary

Patented NanoOptic® Product Technology

Assembled in the U.S.A. of U.S. and imported parts

CRI: Minimum 70 CRI

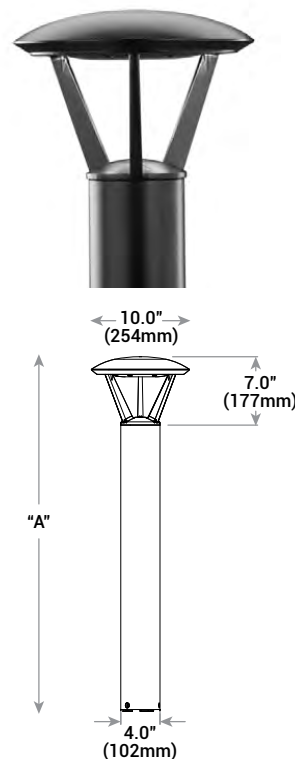
CCT: 4000K (+/- 300K), 5700K (+/- 500K) standard

Limited Warranty*: 10 years on luminaire/10 years on Colorfast DeltaGuard® finish

*See <http://creelighting.com/warranty> for warranty terms

Accessories

Field-Installed
Upgrade Kit - Used for replacement of existing bollards with a bolt hole circle of 5.75" [146mm] XA-XBP8RSV XA-XBP8RWH XA-XBP8RBK XA-XBP8RBZ



Model	Dim. "A"	Weight*
Landscape [P0]	13" [330mm]	12.7 lbs. (5.8kg)
Landscape [P1]	18" [457mm]	13.3 lbs. (6.0kg)
Pathway [P3]	36" [914mm]	17.9 lbs. (8.1kg)
Pathway [P4]	42" [1068mm]	18.6 lbs. (8.4kg)
Pedestrian [P8]	96" [2438mm]	28.4 lbs (12.9kg)

* Add 4.5 lbs. [2.0kg] for 347-480V

Ordering Information

Example: PWY-EDG-2M-P0-02-E-UL-SV-350

PWY-EDG	Optic	Mounting	LED Count (x9)	Series	Voltage	Color Options	Drive Current	Options
PWY-EDG	2M Type II Medium 3M Type III Medium 5M Type V Medium 5S Type V Short	P0 13" [330mm] landscape P1 18" [457mm] landscape P3 36" [914mm] pathway P4 42" [1067mm] pathway P8 96" [2438mm] pedestrian	02	E	UL Universal 120-277V UH* Universal 347-480V - Available with P3, P4, and P8 mounts only 12 120V - Available only with TL options 27 277V - Available only with TL options	BK Black BZ Bronze SV Silver WH White	350 350mA 525 525mA - Available with P1, P3, P4, and P8 mounts only	HL Hi/Low (Dual Circuit Input) - Available with UL voltage and 525mA driver current only - Must specify 525mA drive current - Refer to HL spec sheet for details - Sensor not included TL Two-Level (175/525 w/integrated sensor control) - Available with 12 or 27 voltages only - Must specify 525mA drive current - Refer to TL spec sheet for details TL2 Two-Level (0/350 w/integrated sensor control) - Available with 12 or 27 voltages only - Must specify 350mA drive current - Refer to TL spec sheet for details TL3 Two-Level (0/525 w/integrated sensor control) - Available with 12 or 27 voltages only - Must specify 525mA drive current - Refer to TL spec sheet for details WB Welded Base Plate - Standard on P8 mount option, available with P3 and P4 mount - Includes welded base cover 40K 4000K Color Temperature - Minimum 70 CRI - Color temperature per luminaire

* 347-480V utilizes magnetic step-down transformer. For input power for 347-480V, refer to the Electrical Data table



US: creelighting.com (800) 236-6800

Canada: creelighting-canada.com (800) 473-1234

CREE LIGHTING

Product Specifications

CONSTRUCTION & MATERIALS

- Durable die-cast aluminum luminaire housing mounts directly to 4" (102mm) diameter pole (included) without visible mounting hardware for clean appearance
- Pole mounts to rugged die cast aluminum internal flange secured by three 3/8"-16x6" anchor bolts with 1-1/4" hook (provided).
Note: T45 Torx 3/8" socket required for head installation
- Top mounted LEDs for superior optical performance and light control
- Open design, passive thermal management for superior lumen maintenance
- Exclusive Colorfast DeltaGuard® finish features an E-Coat epoxy primer with an ultradurable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Black, bronze, silver and white are available
- **Weight:** See Dimension and Weight Chart on pages 1 and 4

ELECTRICAL SYSTEM

- **Input Voltage:** 120-277V or 347-480V, 50/60Hz, Class 1 drivers
- **Power Factor:** > 0.9 at full load at 120V
- **Total Harmonic Distortion:** < 20% at full load at 120V
- Integral 10kV surge suppression protection standard
- When code dictates fusing, a slow blow fuse or type C/D breaker should be used to address inrush current
- Consult factory if in-luminaire fusing is required

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations
- ANSI C136.2 10kV surge protection, tested in accordance with IEEE/ANSI C62.41.2
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- Meets Buy American requirements within ARRA
- RoHS compliant. Consult factory for additional details
- **CA RESIDENTS WARNING:** Cancer and Reproductive Harm – www.p65warnings.ca.gov

Electrical Data*								
LED Count (x9)	System Watts 120-277V	System Watts 347-480V	Total Current (A)					
			120V	208V	240V	277V	347V	480V
350mA								
02	22	28	0.18	0.12	0.10	0.10	0.09	0.13
525mA								
02	34	40	0.29	0.19	0.17	0.15	0.12	0.13

* Electrical data at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-277V or 347-480V +/- 10%

THE EDGE® Series Ambient Adjusted Lumen Maintenance ¹					
Ambient	Initial LMF	25K hr Reported ² LMF	50K hr Reported ² LMF	75K hr Estimated ³ LMF	100K hr Estimated ³ LMF
5°C (41°F)	1.04	1.01	1.00	1.00	1.00
10°C (50°F)	1.03	1.00	0.99	0.99	0.99
15°C (59°F)	1.02	0.99	0.98	0.98	0.98
20°C (68°F)	1.01	0.98	0.97	0.97	0.96
25°C (77°F)	1.00	0.96	0.96	0.96	0.95

¹ Lumen maintenance values at 25°C (77°F) are calculated per IES TM-21 based on IES LM-80 report data for the LED package and in-situ luminaire testing. Luminaire ambient temperature factors (LATF) have been applied to all lumen maintenance factors. Please refer to the [Temperature Zone Reference Document](#) for outdoor average nighttime ambient conditions.

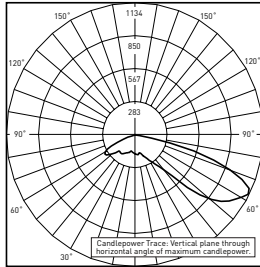
² In accordance with IES TM-21, Reported values represent interpolated values based on time durations that are up to 6x the tested duration in the IES LM-80 report for the LED.

³ Estimated values are calculated and represent time durations that exceed the 6x test duration of the LED.

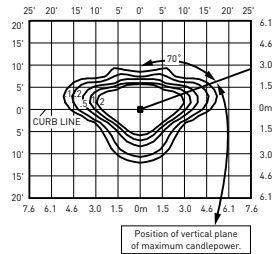
Photometry

All published luminaire photometric testing performed to IES LM-79-08 standards. To obtain an IES file specific to your project consult: <http://creelighting.com/products/outdoor/bollards-and-pathway/cree-edge-pathway>

2M



RESTL Test Report #: PL5758-001
 PWY-EDG-2M-**-02-E-UL-350-40K
 Initial Delivered Lumens: 1,549

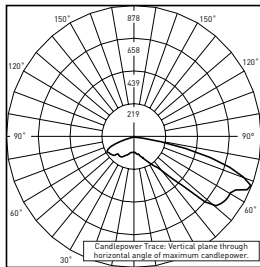


PWY-EDG-2M-**-02-E-UL-350-40K
 Mounting Height: 3' [0.9m] A.F.G.
 Initial Delivered Lumens: 1,565
 Initial FC at grade

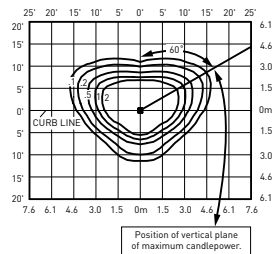
Type II Medium Distribution				
LED Count (x9)	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
350mA				
02	1,565	B1 U0 G1	1,625	B1 U0 G1
525mA				
02	2,191	B1 U0 G1	2,276	B1 U0 G1

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
 ** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>

3M



RESTL Test Report #: PL5698-001
 PWY-EDG-3M-**-02-E-UL-350-40K
 Initial Delivered Lumens: 1,470

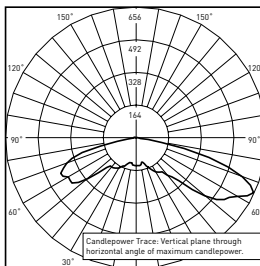


PWY-EDG-3M-**-02-E-UL-350-40K
 Mounting Height: 3' [0.9m] A.F.G.
 Initial Delivered Lumens: 1,389
 Initial FC at grade

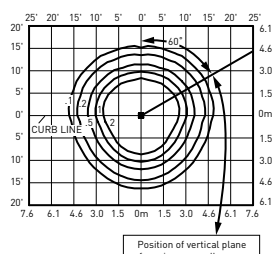
Type III Medium Distribution				
LED Count (x9)	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
350mA				
02	1,389	B1 U0 G1	1,442	B1 U0 G1
525mA				
02	1,944	B1 U0 G1	2,019	B1 U0 G1

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
 ** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>

5M



RESTL Test Report #: PL5798-001
 PWY-EDG-5M-**-02-E-UL-350-40K
 Initial Delivered Lumens: 1,780



PWY-EDG-5M-**-02-E-UL-350-40K
 Mounting Height: 3' [0.9m] A.F.G.
 Initial Delivered Lumens: 1,666
 Initial FC at grade

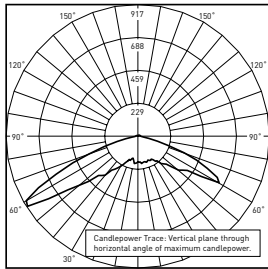
Type V Medium Distribution				
LED Count (x9)	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
350mA				
02	1,666	B1 U2 G1	1,730	B1 U2 G1
525mA				
02	2,333	B2 U2 G2	2,422	B2 U2 G2

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
 ** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>

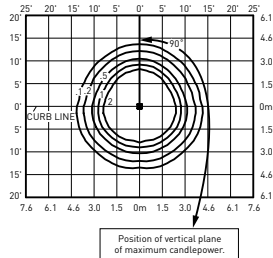
Photometry

All published luminaire photometric testing performed to IES LM-79-08 standards. To obtain an IES file specific to your project consult: <http://creelighting.com/products/outdoor/bollards-and-pathway/cree-edge-pathway>

55



RESTL Test Report #: PL5759-001
 PWY-EDG-5S-**-02-E-UL-350-40K
 Initial Delivered Lumens: 1,897



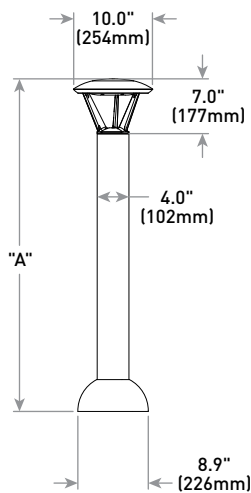
PWY-EDG-5S-**-02-E-UL-350-40K
 Mounting Height: 3' [0.9m] A.F.G.
 Initial Delivered Lumens: 1,868
 Initial FC at grade

Type V Short Distribution				
LED Count (x9)	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
350mA				
02	1,868	B1 U2 G1	1,940	B1 U2 G1
525mA				
02	2,615	B1 U2 G1	2,716	B1 U2 G1

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>

with Welded Base



Model	Dim. "A"	Weight*
Pathway (P3)	36" [914mm]	17.9 lbs. [8.1kg]
Pathway (P4)	42" [1068mm]	18.6 lbs. [8.4kg]
Pedestrian (P8)	96" [2438mm]	28.4 lbs [12.9kg]

* Add 4.5 lbs. [2.0kg] for 347-480V

XSP Series

XSPW™ LED Wall Mount Luminaire featuring Cree TrueWhite® Technology

Rev. Date: VersionB V4 02/25/2020

Product Description

The XSPW™ LED wall mount luminaire has a slim, low profile design intended for outdoor wall mounted applications. The rugged lightweight aluminum housing and mounting box are designed for installation over standard single gang J-Boxes and mud ring single gang J-Boxes. The luminaire allows for through-wired or conduit entry from the top, bottom, sides and rear. The housing design is intended specifically for LED technology including a weathertight LED driver compartment and thermal management. Optic design features industry-leading NanoOptic® Precision Delivery Grid™ system in multiple distributions.

Applications: General area and security lighting

Performance Summary

NanoOptic® Precision Delivery Grid™ optic

Assembled in the U.S.A. of U.S. and imported parts

CRI: Minimum 70 CRI (3000K, 4000K & 5700K); 90 CRI (5000K)

CCT: 3000K, 4000K, 5000K, 5700K

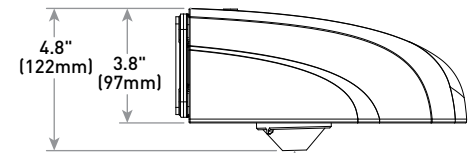
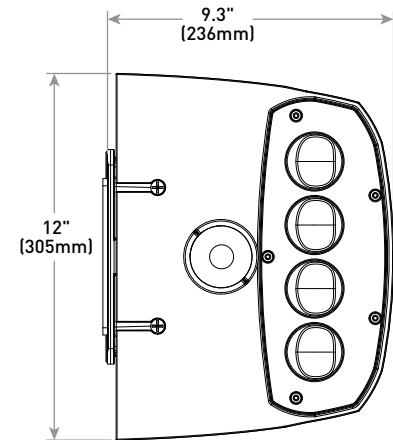
Limited Warranty[†]: 10 years on luminaire/10 years on Colorfast DeltaGuard® finish

[†] See <http://creelighting.com/warranty> for warranty terms

Accessories

Field-Installed	
Beauty Plate WM-PLT12** - 12" (305mm) Square WM-PLT14** - 14" (356mm) Square - Covers holes left by incumbent wall packs	Hand-Held Remote XA-SENSREM - For successful implementation of the programmable multi-level option, a minimum of one hand-held remote is required

** Must specify color



Multi-Level Sensor location (ordered as an option)

Lumen Package	Weight
2L, 4L, 6L	11.0 lbs. (5.0kg)
8L	11.8 lbs. (5.4kg)

Ordering Information

Example: XSPW-B-WM-2ME-2L-30K-UL-BK

XSPW	B	WM						
Product	Version	Mounting	Optic	Lumen Package*	CCT	Voltage	Color Options	Options
XSPW	B	WM Wall	2ME Type II Medium 3ME Type III Medium 4ME Type IV Medium	2L 2,490 lumens 4L 4,270 lumens 6L 6,100 lumens 8L 8,475 lumens	30K 3000K - 70 CRI 40K 4000K - 70 CRI 50K 5000K - 90 CRI 57K 5700K - 70 CRI	UL Universal 120-277V UH Universal 347-480V 34 347V - For use with P option only	BK Black BZ Bronze SV Silver WH White	ML Multi-Level - Refer to ML spec sheet for details - Available with UL voltage only P Button Photocell - Not available with ML or PML options - Available with UL and 34 voltages only PML Programmable Multi-Level - Refer to PML spec sheet for details - Available with UL voltage only

* Lumen Package selection codes identify approximate light output only. Actual lumen output levels may vary depending on CCT and optic selection. Refer to Initial Delivered Lumen tables for specific lumen values



CREE LIGHTING

US: creelighting.com (800) 236-6800

Canada: creelighting-canada.com (800) 473-1234

Product Specifications

CREE TRUEWHITE® TECHNOLOGY

A revolutionary way to generate high-quality white light, Cree TrueWhite® Technology is a patented approach that delivers an exclusive combination of 90+ CRI, beautiful light characteristics and lifelong color consistency, all while maintaining high luminous efficacy – a true no compromise solution.

CONSTRUCTION & MATERIALS

- Slim, low profile design
- Luminaire housing specifically designed for LED applications with advanced LED thermal management and driver
- Luminaire mounting box designed for installation over standard single gang J-Boxes and mud ring single gang J-Boxes
- Luminaire can also be direct mounted to a wall and surface wired
- Secures to wall with four 3/16" (5mm) screws (by others)
- Conduit entry from top, bottom, sides, and rear
- Exclusive Colorfast DeltaGuard® finish features an E-coat epoxy primer with an ultra-durable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Silver, black, white and bronze are available
- **Weight:** 2L, 4L, 6L - 11.0 lbs. (5.0kg); 8L - 11.8 lbs. (5.4kg)

ELECTRICAL SYSTEM

- **Input Voltage:** 120-277V or 347-480V, 50/60Hz
- **Power Factor:** > 0.9 at full load
- **Total Harmonic Distortion:** < 20% at full load
- Integral 10kV surge suppression protection standard
- When code dictates fusing, a slow blow fuse or type C/D breaker should be used to address inrush current
- Designed with 0-10V dimming capabilities. Controls by others
- **10V Source Current:** 0.15 mA
- Refer to [Dimming spec sheet](#) for details
- **Operating Temperature Range:** -40°C - +50°C (-40°F - +122°F)

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations
- Designed for downlight applications only
- Enclosure rated IP66 per IEC 60598
- ANSI C136.2 10kV surge protection, tested in accordance with IEEE/ANSI C62.41.2
- Meets FCC Part 15, Subpart B, Class A limits for conducted and radiated emissions
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- Meets Buy American requirements within ARRA
- RoHS compliant. Consult factory for additional details
- Dark Sky Friendly, IDA Approved when ordered with 30K CCT. Please refer to <https://www.darksky.org/our-work/lighting/lighting-for-industry/fsa/fsa-products/> for most current information
- DLC and DLC Premium qualified versions available. Please refer to <https://www.designlights.org/search/> for most current information
- **CA RESIDENTS WARNING:** Cancer and Reproductive Harm – www.p65warnings.ca.gov

Electrical Data*									
Lumen Package	CCT/CRI	System Watts	Efficacy	Total Current (A)					
				120V	208V	240V	277V	347V	480V
2L	30K/70 CRI	20	125	0.17	0.10	0.08	0.07	0.06	0.05
	40K/70 CRI	19	131	0.16	0.09	0.08	0.07	0.06	0.04
	50K/90 CRI	24	104	0.20	0.11	0.10	0.08	0.07	0.05
	57K/70 CRI	19	131	0.16	0.09	0.08	0.07	0.06	0.04
4L	30K/70 CRI	33	129	0.28	0.16	0.14	0.13	0.10	0.07
	40K/70 CRI	31	138	0.27	0.15	0.13	0.12	0.09	0.07
	50K/90 CRI	40	107	0.34	0.20	0.17	0.16	0.12	0.09
	57K/70 CRI	31	138	0.26	0.15	0.13	0.12	0.09	0.07
6L	30K/70 CRI	51	120	0.43	0.25	0.22	0.19	0.14	0.11
	40K/70 CRI	47	130	0.40	0.23	0.20	0.18	0.14	0.10
	50K/90 CRI	60	102	0.51	0.29	0.25	0.23	0.17	0.13
	57K/70 CRI	47	130	0.40	0.23	0.20	0.17	0.14	0.10
8L	30K/70 CRI	77	110	0.65	0.38	0.32	0.28	0.22	0.16
	40K/70 CRI	72	118	0.61	0.35	0.31	0.27	0.21	0.15
	50K/90 CRI	78	89	0.66	0.37	0.33	0.29	0.22	0.16
	57K/70 CRI	71	119	0.60	0.35	0.30	0.26	0.20	0.15

* Electrical data at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-277V or 347-480V +/- 10%

XSPW Series Ambient Adjusted Lumen Maintenance Factors ¹					
Ambient	Initial LMF	25K hr Reported ² LMF	50K hr Reported ² LMF	75K hr Estimated ³ LMF	100K hr Estimated ³ LMF
5°C (41°F)	1.03	0.98	0.96	0.94	0.92
10°C (50°F)	1.03	0.98	0.96	0.94	0.92
15°C (59°F)	1.02	0.97	0.95	0.93	0.92
20°C (68°F)	1.01	0.96	0.95	0.93	0.91
25°C (77°F)	1.00	0.96	0.94	0.92	0.90
30°C (86°F)	0.99	0.95	0.93	0.91	0.89
35°C (95°F)	0.98	0.94	0.92	0.90	0.88
40°C (104°F)	0.97	0.93	0.91	0.89	0.87

¹ Lumen maintenance values at 25°C (77°F) are calculated per IES TM-21 based on IES LM-80 report data for the LED package and in-situ luminaire testing. Luminaire ambient temperature factors (LATF) have been applied to all lumen maintenance factors. Please refer to the [Temperature Zone Reference Document](#) for outdoor average nighttime ambient conditions.

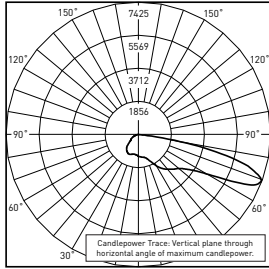
² In accordance with IES TM-21, Reported values represent interpolated values based on time durations that are up to 6x the tested duration in the IES LM-80 report for the LED.

³ Estimated values are calculated and represent time durations that exceed the 6x test duration of the LED.

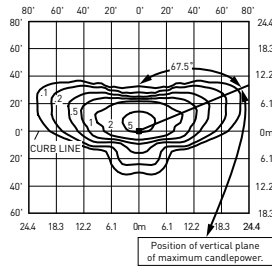
Photometry

All published luminaire photometric testing performed to IES LM-79-08 standards. To obtain an IES file specific to your project consult: <http://creelighting.com/products/outdoor/wall-mount/xsp-series-wall>

2ME



CESTL Test Report #: PL12798-001A
 XSPW-B-**-2ME-8L-40K-UL
 Initial Delivered Lumens: 8,622

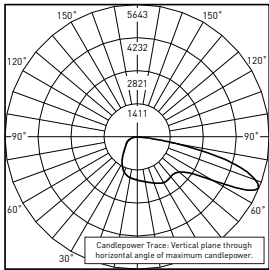


XSPW-B-**-2ME-8L-40K-UL
 Mounting Height: 15' (4.6) A.F.G.
 Initial Delivered Lumens: 8,475
 Initial FC at grade

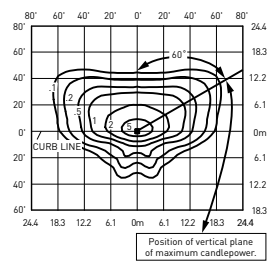
Type II Medium Distribution								
Lumen Package	3000K		4000K		5000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
2L	2,490	B1 U0 G1	2,490	B1 U0 G1	2,490	B1 U0 G1	2,490	B1 U0 G1
4L	4,270	B1 U0 G1	4,270	B1 U0 G1	4,270	B1 U0 G1	4,270	B1 U0 G1
6L	6,100	B1 U0 G2	6,100	B1 U0 G2	6,100	B1 U0 G2	6,100	B1 U0 G2
8L	8,475	B2 U0 G2	8,475	B2 U0 G2	6,925	B1 U0 G2	8,475	B2 U0 G2

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
 ** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>

3ME



CESTL Test Report #: PL12366-007A
 XSPW-B-**-3ME-8L-40K-UL
 Initial Delivered Lumens: 8,543



XSPW-B-**-3ME-8L-40K-UL
 Mounting Height: 15' (4.6m) A.F.G.
 Initial Delivered Lumens: 8,475
 Initial FC at grade

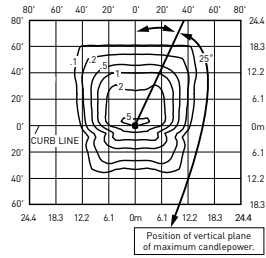
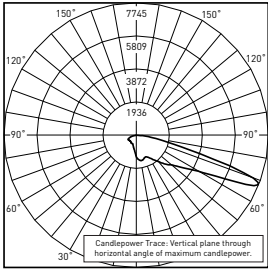
Type III Medium Distribution								
Lumen Package	3000K		4000K		5000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
2L	2,490	B1 U0 G1	2,490	B1 U0 G1	2,490	B1 U0 G1	2,490	B1 U0 G1
4L	4,270	B1 U0 G1	4,270	B1 U0 G1	4,270	B1 U0 G1	4,270	B1 U0 G1
6L	6,100	B1 U0 G2	6,100	B1 U0 G2	6,100	B1 U0 G2	6,100	B1 U0 G2
8L	8,475	B2 U0 G2	8,475	B2 U0 G2	6,925	B1 U0 G2	8,475	B2 U0 G2

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
 ** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>

Photometry

All published luminaire photometric testing performed to IES LM-79-08 standards. To obtain an IES file specific to your project consult: <http://creelighting.com/products/outdoor/wall-mount/xsp-series-wall>

4ME



RESTL Test Report #: PL14415-001A
 XSPW-B-**-4ME-8L-40K-UL
 Initial Delivered Lumens: 8,763

XSPW-B-**-4ME-8L-40K-UL
 Mounting Height: 15' (4.6m) A.F.G.
 Initial Delivered Lumens: 8,475
 Initial FC at grade

Type IV Medium Distribution								
Lumen Package	3000K		4000K		5000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
2L	2,490	B1 U0 G1	2,490	B1 U0 G1	2,490	B1 U0 G1	2,490	B1 U0 G1
4L	4,270	B1 U0 G1	4,270	B1 U0 G1	4,270	B1 U0 G1	4,270	B1 U0 G1
6L	6,100	B1 U0 G2	6,100	B1 U0 G2	6,100	B1 U0 G2	6,100	B1 U0 G2
8L	8,475	B1 U0 G2	8,475	B1 U0 G2	6,925	B1 U0 G2	8,475	B1 U0 G2

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
 ** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>

CR Series

CR6™ LED Downlight - 6" (152mm)

Product Description

The CR6™ LED downlight delivers up to 800 lumens of exceptional 90+ CRI light while achieving up to 67 lumens per watt. This breakthrough performance is achieved by combining the high efficacy and high-quality light of Cree TrueWhite® Technology. The CR6 is available in warm and cool color temperatures, and has a variety of trim options. It easily installs into most standard six-inch recessed IC or non-IC housings.

Applications: New construction or upgrade for residential and commercial lighting

Performance Summary

Utilizes Cree TrueWhite® Technology
Initial Delivered Lumens: 625, 800 lumens
Input Power: 9.5, 12 watts
CRI: 90
CCT: 2700K, 3000K, 3500K, 4000K
Limited Warranty*: 5 years
Lifetime: Designed to last 50,000 hours
Dimming: Dimmable to 5%*

* See <http://lighting.cree.com/warranty> for warranty terms

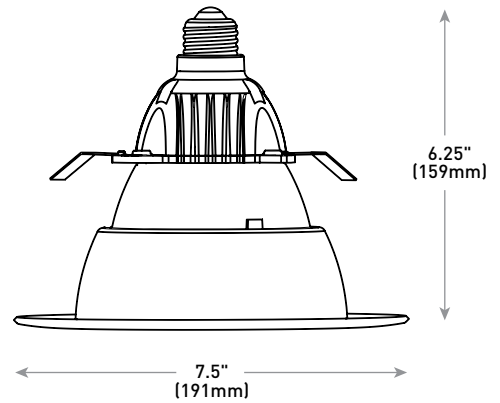
* Reference <http://lighting.cree.com/products/indoor/retrofit-downlights/cr-series-1> for recommended dimmers

Housings & Accessories

Reference Housing & Accessory documents for more details.

Trims & Reflectors	
CT6A - Diffuse anodized finish reflector	CT6AB - Black diffuse anodized finish reflector
CT6AW - Wheat diffuse anodized finish reflector	CT6BB - Flat black reflector and trim

Housings	
Edison Base Housing	GU24 Base Surface Mount Housing
RC - New Construction	SC6-GU24 - Textured white finish
RR6 - Retrofit	SC6-GU24 US - Textured white finish, U.S. Manufactured
C6 - Recessed "Pan" Conversion Kit	SC6-BL-GU24 - Textured black finish
GU24 Base Housing	GU24 Base Ceiling Mount Housing
RC6-GU24 - New Construction	SC6-CM-GU24 - Textured white finish
H6-GU24 - Architectural	SC6-CM-GU24 US - Textured white finish, U.S. Manufactured
RR6-GU24 - Retrofit	SC6-CM-BL-GU24 - Textured black finish
C6-GU24 - Recessed "Pan" Conversion Kit	GU24 Base Wall Mount Housing
C6-120V-LSA - Hard Wire Recessed "Pan" Conversion Kit	SC6-WM-GU24 - Textured white finish
	SC6-WM-BL-GU24 - Textured black finish



Ordering Information

Example: CR6-625L-27K-12-E26

CR	6			12	
Series	Size	Initial Delivered Lumens	CCT	Voltage	Base Type
CR	6 6" (152mm)	625L 9.5W, 625 Lumens - 66 LPW 800L 12W, 800 Lumens - 67 LPW	27K 2700K 30K 3000K 35K 3500K 40K 4000K	12 120 Volts	E26 Edison Base GU24 GU24 Base (Title 24 Compliant)



Rev. Date: V3 10/03/2018



Product Specifications

CREE TRUEWHITE® TECHNOLOGY

A revolutionary way to generate high-quality white light, Cree TrueWhite® Technology is a patented approach that delivers an exclusive combination of 90+ CRI, beautiful light characteristics, and lifelong color consistency, all while maintaining high luminous efficacy – a true no compromise solution.

CONSTRUCTION & MATERIALS

- Durable upper housing protects LEDs, driver and power supply. Adjustable flip clips resist heat while providing retention for flush ceiling fit
- Thermal management system uses both upper housing and lower reflector to conduct heat away from LEDs and transfer it to the plenum space for optimal performance. LED junction temperatures stay below specified maximum even when installed in insulated ceilings
- Suitable for insulated and non-insulated ceilings
- One-piece aluminum lower reflector redirects light while also conducting heat away from LEDs. It creates a comfortable visual transition from the lens to the ceiling plane and easily accommodates CT6 snap-in trims

OPTICAL SYSTEM

- Unique combination of reflective and refractive optical components achieves a uniform, comfortable appearance while eliminating pixelation and color fringing. This ensures smooth light patterns are projected with no hot spots and minimal striations
- Components work together to optimize distribution, balancing the delivery of high illuminance levels on horizontal surfaces with an ideal amount of light on walls and vertical surfaces. This increases the perception of spaciousness
- Diffusing polycarbonate lens shields direct view of LEDs while lower reflector balances brightness of lens with the ceiling to create a low-glare high angle appearance

ELECTRICAL SYSTEM

- Integral, high-efficiency driver and power supply
- **Power Factor:** > 0.9
- **Total Harmonic Distortion:** < 20%
- **Input Voltage:** 120V, 60Hz
- **Dimming:** Dimmable to 5% with most incandescent dimmers. Reference <http://lighting.cree.com/products/indoor/retrofit-downlights/cr-series-1> for recommended dimmers for recommended dimmers
- **Operating Temperature Range:** 0°C - +35°C (32°F - +95°F)

REGULATORY & VOLUNTARY QUALIFICATIONS

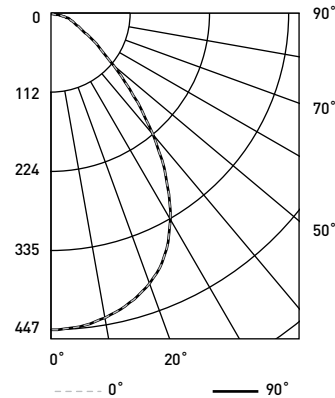
- ENERGY STAR® qualified. Please refer to http://www.energystar.gov/certified-products/certified-products?c=products.pr_find_es_products&s=mega for most current information
- cULus Classified
- Suitable for wet locations for covered ceilings only
- Exceeds California Title-24 high efficacy luminaire requirements Please refer to <http://www.appliances.energy.ca.gov/AdvancedSearch.aspx> for most current information
- Meets FCC Part 15 standards for conducted and radiated emissions
- **CA RESIDENTS WARNING:** Cancer and Reproductive Harm – www.p65warnings.ca.gov

Photometry

CR6-800L-27K-12-E26 BASED ON ONSPEX REPORT #: 2444322

CR6-625L: MULTIPLY BY 0.78

Luminaire photometry has been conducted by a NVLAP accredited testing laboratory in accordance with IESNA LM-79-08. IESNA LM-79-08 specifies the entire luminaire as the source resulting in a luminaire efficiency of 100%.



Average Luminance Table (cd/m²)

Vertical Angle	Horizontal Angle		
	0°	45°	90°
	45°	17,630	18,200
55°	10,723	10,960	11,192
65°	7,339	7,378	7,499
75°	7,252	7,279	7,384
85°	4,818	4,996	5,477

Coefficients Of Utilization – Zonal Cavity Method

RC %:	80			
RW %:	70	50	30	10
RCR: 0	119	119	119	119
1	111	107	104	101
2	103	96	91	86
3	96	87	80	75
4	89	79	71	66
5	83	72	64	59
6	77	66	58	53
7	72	60	53	47
8	68	56	48	43
9	64	52	44	39
10	60	48	41	36

Effective Floor Cavity Reflectance: 20%

Zonal Lumen Summary

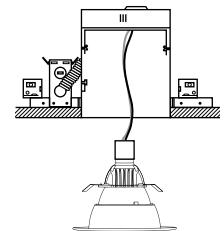
Zone	Lumens	% Lamp	Luminaire
0-30	335	N/A	42.5%
0-40	513	N/A	65.0%
0-60	716	N/A	90.8%
0-90	789	N/A	100.0%

Reference <http://lighting.cree.com/products/indoor/retrofit-downlights/cr-series-1> for detailed photometric data

Installation

- Designed to easily install in standard 6" (152mm) downlight housings with minimum housing height of 6.5" (165mm) and diameter of 5.75" - 6.5" (146mm - 165mm)
- Quick install system utilizes a unique retention feature. Simply attach socket to CR6. Move light to ready position and slide into housing

NOTE: Reference <http://lighting.cree.com/products/indoor/retrofit-downlights/cr-series-1> for detailed installation instructions



CR6™ LED Downlight - 6" (152mm)

Application Reference

Open Space					
Spacing	Lumens	Wattage	LPW	w/ft ²	Average FC
4 x 4	625	9.5	66	0.60	36
6 x 6				0.28	18
8 x 8				0.15	10
10 x 10				0.10	7
4 x 4	800	12	67	0.76	47
6 x 6				0.35	22
8 x 8				0.19	13
10 x 10				0.13	8

10' Ceiling, 80/50/20 Reflectances, 2.5 workplane. LLF: 1.0 Initial. Open Space: 50' x 40' x 10'

Corridor					
Spacing	Lumens	Wattage	LPW	w/ft ²	Average FC
4' on Center	625	9.5	66	0.40	13
6' on Center				0.27	9
8' on Center				0.20	7
10' on Center				0.17	6
4' on Center	800	12	67	0.51	17
6' on Center				0.34	11
8' on Center				0.25	8
10' on Center				0.21	7

10' Ceiling, 80/50/20 Reflectances, Light levels on the ground. LLF: 1.0 Initial. Corridor: 6' Wide x 100' Long

Exhibit B:
City of Newberg Type II Site Design Review &
Variance Application Form



TYPE II APPLICATION (LAND USE) -- 2020

File #: _____

TYPES – PLEASE CHECK ONE:

- Design review
- Tentative Plan for Partition
- Tentative Plan for Subdivision

- Type II Major Modification
- Variance _____
- Other: (Explain) _____

APPLICANT INFORMATION:

APPLICANT: AKS Engineering & Forestry, LLC - Mimi Doukas, AICP, RLA
 ADDRESS: 12965 SW Herman Road, Suite 100, Tualatin, OR 97062
 EMAIL ADDRESS: mimid@aks-eng.com
 PHONE: 503.563.6151 MOBILE: _____ FAX: 503.563.6152
 OWNER (if different from above): Friendsview Retirement Community - Todd Engle PHONE: Please contact Applicant
 ADDRESS: 1301 Fulton St., Newberg, OR 97132
 ENGINEER/SURVEYOR: AKS Engineering & Forestry - Steve Roper, PE PHONE: 503.563.6151
 ADDRESS: 12965 SW Herman Road, Suite 100, Tualatin, OR 97062

GENERAL INFORMATION:

PROJECT NAME: Friendsview University Village P2 PROJECT LOCATION: NE corner of Center & Fulton
 PROJECT VALUATION: \$34,272,808
 PROJECT DESCRIPTION/USE: Group Care Facility Independent Living Units
 MAP/TAX LOT NO. (i.e. 3200AB-400): 3 2 17CB-1500, 1600, and 26 ZONE: I SITE SIZE: ±1.85 SQ. FT. ACRE
 COMP PLAN DESIGNATION: PQ (Public-Quasi Public) TOPOGRAPHY: Flat, previously developed urban land
 CURRENT USE: Single-family residences
 SURROUNDING USES:
 NORTH: Friendsview University Village P1, Railroad (I, R-3) SOUTH: George Fox University (I)
 EAST: Friendsview Manor (I) WEST: Single-family residences (I, M-2 / R-2)


SPECIFIC PROJECT CRITERIA AND REQUIREMENTS ARE ATTACHED


General Checklist: Fees Public Notice Information Current Title Report Written Criteria Response Owner Signature

For detailed checklists, applicable criteria for the written criteria response, and number of copies per application type, turn to:

Design Reviewp. 12
 Partition Tentative Platp. 14
 Subdivision Tentative Platp. 17
 Variance Checklistp. 20

The above statements and information herein contained are in all respects true, complete, and correct to the best of my knowledge and belief. Tentative plans must substantially conform to all standards, regulations, and procedures officially adopted by the City of Newberg. All owners must sign the application or submit letters of consent. Incomplete or missing information may delay the approval process.


 Applicant Signature _____ Date 6/12/20
 Mimi Doukas
 Print Name _____


 Owner Signature _____ Date _____
 Todd Engle
 Print Name _____

Digitally signed by Todd Engle
 DN: cn=US, o=Friendsview Retirement Community, cn=+Todd Engle,
 @tengle@friendsview.org
 Reason: I attest to the accuracy and integrity of this document
 Location: your signing location here
 Date: 2020.06.11 08:55:24
 Email Reader Version: 01.0.0

Attachments: General Information, Fee Schedule, Criteria, Checklists

GENERAL INFORMATION

Type II Development Permit Process

Overview: Type II Permit applications are reviewed administratively using a process in which City staff apply clear and objective standards that do not allow limited discretion. Notice is provided to property owners within 500 ft of the site so that they may provide input into the process. The noticing comment period is limited to 14 days in which written comments may be filed. The applicant or any person that comments in writing is able to appeal the staff decision to the Planning Commission. During the 14 day notice period, anyone may request that a Type II Subdivision decision be converted to a Type III process and that a hearing be held before the Planning Commission. Type II Decisions may take from 30 to 120 days.

Type II Permits Include:

- Design review for commercial, industrial and multi-family projects
- Manufactured home parks and mobile home parks.
- Partitions
- Subdivisions except those meeting the criteria in NDC § 15.235.030(A)
- Variances

Pre-Application Conference:

Please call to schedule a time for a pre-application meeting (optional) prior to submitting an application. The (Development Review Meetings) or pre-application meetings are held every Wednesday. This meeting provides the opportunity to get advance information from Planning, Engineering, and Building divisions all at once. It is likely to save you time and effort later. The non-refundable pre-application conference fee is \$105, payable prior to the conference.

Submit Type II Application

- ◆ Pay fees
- ◆ Complete application form(s)
- ◆ Submit plans and other required information

Processing

- ◆ Staff will perform a completeness check of the application and notify applicant of any information that is missing or incomplete. Processing time 0 to 30 days.
- ◆ Staff will route the application to affected agencies and City departments Processing time 14 to 20 days
- ◆ Applicant will provide copies of mailed and posted notices to the City for review, mail the approved notice to property owners within 500 ft. of the site, post the site, and provide staff with an affidavit verifying that the notice was mailed and posted. Processing Time: 14 to 20 days.
- ◆ Subdivision Conversion to Type III Review. During the 14 day comment period, anyone may request that a subdivision application be converted to a Type III review process. If this occurs, the subdivision will be reviewed by the Planning Commission at their next available meeting. Processing Time: 30 to 60 days.
- ◆ If all comments are addressed and no changes are required, then an approval letter is sent to the applicant and those providing comment. Processing Time: 14 to 20 days.

GENERAL INFORMATION

Type II Development Permit Process

Appeals

If the applicant, or another party providing written comments within the noticing period, is dissatisfied with the decision; then an appeal must be filed within 14 calendar days of the issuance of the decision. Appeals of Type II decisions proceed to the Planning Commission and are processed as a Type III decision.

Partition and Subdivision Plats

The applicant must submit final improvement plans and a final partition or subdivision plat within two years of the date of preliminary plat approval. Final plats are processed under a Type I decision.

Building Permits

The applicant may submit building permit applications concurrently with submission of other development applications; however, no building permits will be issued until the appeal period has expired on pending development applications

Helpful Hints:

Questions?

Information is free! Please do not hesitate to call (503) 537-1240 prior to submitting the application.

Partial Applications

Please do not submit partial applications. If the application, plans, and fee are not submitted together; processing will be delayed and the application may not be accepted for review.

Face-to-Face

It is best to submit an application in person. That way you can receive immediate feedback if there is missing information or suggestions for improvements.

NEWBERG PERMIT CENTER FEE SCHEDULE Effective Date: April 1, 2020

5% Technology fee will be added to total fees (resolution No. 2016-3268)

PRE-APPLICATION REVIEW	\$100
TYPE I (ADMINISTRATIVE REVIEW)	
ANY TYPE I ACTION NOT SPECIFICALLY LISTED IN THIS SECTION	\$179
PROPERTY CONSOLIDATION	\$179
CODE ADJUSTMENT	\$448
DESIGN REVIEW - TYPE I (DUPLEX OR COM. /IND. MINOR ADDITION REVIEW)	0.3% OF PROJECT VALUE, \$448 MINIMUM
MINOR MODIFICATION OR EXTENSION OF TYPE I DECISION	\$179
MAJOR MODIFICATION OF TYPE I DECISION	50% OF ORIGINAL FEE
PARTITION FINAL PLAT	\$898 + \$79 PER PARCEL
PROPERTY LINE ADJUSTMENT	\$898
SIGN REVIEW	\$80 PLUS \$1.00 PER SQ. FT. OF SIGN FACE
SUBDIVISION, PUD, OR CONDOMINIUM FINAL PLAT	\$1800 + \$79 PER LOT OR UNIT
TYPE II (LAND USE DECISION)	
ANY TYPE II ACTION NOT SPECIFICALLY LISTED IN THIS SECTION	\$898
MINOR MODIFICATION OR EXTENSION OF TYPE II DECISION	\$179
MAJOR MODIFICATION OF TYPE II DECISION	50% OF ORIGINAL FEE
DESIGN REVIEW (INCLUDING MOBILE/MANUFACTURED HOME PARKS)	0.6% OF TOTAL PROJECT COST, \$898 MINIMUM*
PARTITION PRELIMINARY PLAT	\$898 PLUS \$79 PER PARCEL
SUBDIVISION PRELIMINARY PLAT	\$1800 PLUS \$79 PER LOT
VARIANCE	\$898
TYPE III (QUASI-JUDICIAL REVIEW)	
ANY TYPE III ACTION NOT SPECIFICALLY LISTED IN THIS SECTION	\$1907
ANNEXATION	\$2507 PLUS \$240 PER ACRE
COMPREHENSIVE PLAN AMENDMENT (SITE SPECIFIC)	\$2350
CONDITIONAL USE PERMIT	\$1907
MINOR MODIFICATION OR EXTENSION OF TYPE III DECISION	\$179
MAJOR MODIFICATION OF TYPE III DECISION	50% OF ORIGINAL FEE
HISTORIC LANDMARK ESTABLISHMENT OR MODIFICATION	\$0
HISTORIC LANDMARK ELIMINATION	\$2186
SUBDIVISION PRELIMINARY PLAT	\$1800 PLUS \$79 PER LOT
PLANNED UNIT DEVELOPMENT	\$3808+\$79 PER LOT OR UNIT
ZONING AMENDMENT (SITE SPECIFIC)	\$2375
TYPE IV (LEGISLATIVE AMENDMENTS)	
COMPREHENSIVE PLAN TEXT AMENDMENT OR LARGE SCALE MAP REVISION	\$2702
DEVELOPMENT CODE TEXT AMENDMENT OR LARGE SCALE MAP REVISION	\$2702
APPEALS	
TYPE I OR II APPEAL TO PLANNING COMMISSION	\$516
TYPE I OR II APPEAL TO CITY COUNCIL	\$935
TYPE III APPEAL TO CITY COUNCIL	\$1097
TYPE I ADJUSTMENTS OR TYPE II VARIANCES (THAT ARE NOT DESIGNED TO REGULATE THE PHYSICAL CHARACTERISTICS OF A USE PERMITTED OUTRIGHT)	\$290
EXHIBITOR LICENSE FEE APPEAL TO THE CITY COUNCI	50% OF EXIBITOR LICENSE FEE

OTHER FEES

TECHNOLOGY FEE (This fee will be added to all Planning, Engineering and Building Fees, does not apply to SDC fees) 5% OF TOTAL	
EXPEDITED LAND DIVISION	\$6690 + \$79 PER LOT OR UNIT
URBAN GROWTH BOUNDARY AMENDMENT	\$4276
VACATION OF PUBLIC RIGHT-OF-WAY	\$1774
FEE-IN-LIEU OF PARKING PROGRAM	\$13,000 PER VEHICLE SPACE
BIKE RACK COST SHARING PROGRAM	\$100 PER RACK

LICENSE FEES

GENERAL BUSINESS	\$50
HOME OCCUPATION	\$25
PEDDLER/SOLICITOR/STREET VENDOR	No fee (Business License fee only)
EXHIBITOR	\$132
TEMPORARY MERCHANT	\$108/45 days or \$355/perpetual

ADDITIONAL LAND USE REVIEW FEES - ENGINEERING DEPARTMENT

Planning Review, Partition, Subdivision & PUD's (Type 11/111 Application) - \$291.75 - 19 lots, Plus \$12.97 per lot over 20 lots
 Final Plat Review, Partition and subdivision\$291.75 Plus\$7.33 per lot or parcel

Development review for public improvements on Commercial, Industrial, Multifamily Developments & Institutional zones
\$408.01 1st Acre \$233.06 Additional acre

ADOPTION AND REVISION HISTORY:
 Adopted by: Resolution 98-2122, July 6, 1998
 Amended by: Resolution 99-2214, December 8, 1999
 Resolution 2000-2265, October 2, 2000
 Resolution 2001-2318, November 19, 2001
 Executive Order January 2, 2007 (Reso. 99-2210)
 Executive Order October 24, 2008
 Executive Order, December 16, 2002 pursuant to Resolution 99-2210

Executive Order, January 22, 2002 pursuant to Resolution 99-2210
 Resolution 2004-2466, November 3, 2003
 Resolution 2007-2752, December 3, 2007
 Executive Order November 29, 2011(2011-32)
 Executive Order October 24, 2012(2012-34)
 Resolution 2014-3140, May 19, 2014
 Executive Order April 1, 2015 (2015-42)
 Resolution 2016-3268, April 18, 2016

Resolution 2017-3361 March 2017
 Resolution 2018-3443 March 2018
 Resolution 2019-3539 March 2019
 Resolution 2020-3646 March 2020

§15.220.050 - TYPE II DESIGN REVIEW CRITERIA

Type II Site Design Review applies to the following activities:

- Any new development or remodel which is not specifically identified within Newberg Development Code § 15.220.020(A)(1).
- Telecommunication facilities.

The following development activities are exempt from Type II standards:

- Replacement of an existing item such as a roof, floor, door, window or siding.
- Plumbing and/or mechanical alterations which are completely internal to an existing structure.

Provide a written response that specifies how your project meets the following criteria:

- (1) *Design Compatibility. The proposed design review request incorporates an architectural design which is compatible with and/or superior to existing or proposed uses and structures in the surrounding area. This shall include, but not be limited to, building architecture, materials, colors, roof design, landscape design, and signage.*
- (2) *Parking and On-Site Circulation. Parking areas shall meet the requirements of NMC 15.440.010. Parking studies may be required to determine if adequate parking and circulation are provided for uses not specifically identified in NMC 15.440.010. Provisions shall be made to provide efficient and adequate on-site circulation without using the public streets as part of the parking lot circulation pattern. Parking areas shall be designed so that vehicles can efficiently enter and exit the public streets with a minimum impact on the functioning of the public street.*
- (3) *Setbacks and General Requirements. The proposal shall comply with NMC 15.415.010 through 15.415.060 dealing with height restrictions and public access; and NMC 15.405.010 through 15.405.040 and 15.410.010 through 15.410.070 dealing with setbacks, coverage, vision clearance, and yard requirements*
- (4) *Landscaping Requirements. The proposal shall comply with NMC 15.420.010 dealing with landscape requirements and landscape screening.*
- (5) *Signs. Signs shall comply with NMC 15.435.010 et seq. dealing with signs.*
- (6) *Manufactured Dwelling, Mobile Home and RV Parks. Manufactured dwelling and mobile home parks shall also comply with the standards listed in NMC 15.445.075 through 15.445.100 in addition to the other clear and objective criteria listed in this section. RV parks also shall comply with NMC 15.445.170 in addition to the other criteria listed in this section.*
- (7) *Zoning District Compliance. The proposed use shall be listed as a permitted or conditionally permitted use in the zoning district in which it is located as found in NMC 15.305.010 through 15.336.020. Through this site review process, the director may make a determination that a use is determined to be similar to those listed in the applicable zoning district, if it is not already specifically listed. In this case, the director shall make a finding that the use shall not have any different or more detrimental effects upon the adjoining neighborhood area than those specifically listed.*
- (8) *Sub district Compliance. Properties located within subdistricts shall comply with the provisions of those subdistricts located in NMC 15.340.010 through 15.348.060.*
- (9) *Alternative Circulation, Roadway Frontage Improvements and Utility Improvements. Where applicable, new developments shall provide for access for vehicles and pedestrians to adjacent properties which are currently developed or will be developed in the future. This may be accomplished through the provision of local public streets or private access and utility easements. At the time of development of a parcel, provisions shall be made to develop the adjacent street frontage in accordance with city street standards and the standards contained in the transportation plan. At the discretion of the city, these improvements may be deferred through use of a deferred improvement agreement or other form of security.*
- (10) *Traffic Study Improvements. If a traffic study is required, improvements identified in the traffic study shall be implemented as required by the director. [Ord. 2763 § 1 (Exh. A § 7), 9-16-13; Ord. 2747 § 1 (Exh. A § 5), 9-6-11; Ord. 2451, 12-2-96. Code 2001 § 151.194.]*

DESIGN REVIEW CHECKLIST

The following items must be submitted with each application. Incomplete applications will not be processed. Incomplete or missing information may delay the review process. Check with the Planning Division regarding additional requirements for your project.

✓✓ **FEES**

✓✓ **PUBLIC NOTICE INFORMATION** – Draft of mailer notice and sign; mailing list of all properties within 500’.

✓✓ **CURRENT TITLE REPORT** (within 60 days old)

✓✓ **SUBMIT one original and three copies 8-1/2" x 11" or 11" x 17" reproducible document together with 20 copies of the following information. In addition, submit two (2) full size copies of all plans.**

✓✓ **WRITTEN CRITERIA RESPONSE** – Address the criteria listed on page 12.

✓✓ **SITE DEVELOPMENT PLAN.** Make sure the plans are prepared so that they are at least 8 ½ x 11 inches in size and the scale is standard, being 10, 20, 30, 40, 50, 100 or multiples of 100 to the inch (such as 1":10', 1":20' or other multiples of 10). Include the following information in the plan set (information may be shown on multiple pages):

- ✓✓ **Existing Site Features:** Show existing landscaping, grades, slopes, wetlands and structures on the site and for areas within 100' of the site. Indicate items to be preserved and removed.
- ✓✓ **Drainage & Grading:** Show the direction and location of on and off-site drainage on the plans. This shall include site drainage, parking lot drainage, size and location of storm drain lines, and any retention or detention facilities necessary for the project. Provide an engineered grading plan if necessary. A preliminary storm water report is required (see Public works Design and Construction standards).
- ✓✓ **Utilities:** Show the location of and access to all public and private utilities, including sewer, water, storm water and any overhead utilities.
- ✓✓ **Public Improvements:** Indicate any public improvements that will be constructed as part of the project, including sidewalks, roadways, and utilities.
- ✓✓ **Access, Parking, and Circulation:** Show proposed vehicular and pedestrian circulation, parking spaces, parking aisles, and the location and number of access points from adjacent streets. Provide dimensions for parking aisles, back-up areas, and other items as appropriate. Indicate where required bicycle parking will be provided on the site along with the dimensions of the parking spaces.
- ✓✓ **Site Features:** Indicate the location and design of all on-site buildings and other facilities such as mail delivery, trash disposal, above ground utilities, loading areas, and outdoor recreation areas. Include appropriate buffering and screening as required by the code.
- ✓✓ **Exterior Lighting Plan:** Show all exterior lighting, including the direction of the lighting, size and type of fixtures, and an indication of the amount of lighting using foot candles for analysis.
- ✓✓ **Landscape Plan:** Include a comprehensive plan that indicates the size, species and locations of all planned landscaping for the site. The landscape plan should have a legend that indicates the common and botanical names of plants, quantity and spacing, size (caliper, height, or container size), planned landscaping materials, and description of the irrigation system. Include a calculation of the percentage of landscaped area.
- ✓✓ **ADA Plan Compliance:** Indicate compliance with any applicable ADA provisions, including the location of accessible parking spaces, accessible routes from the entrance to the public way, and ramps for wheelchairs.
- ✓✓ **Architectural Drawings:** Provide floor plans and elevations for all planned structures.
- N/A **Signs and Graphics:** Show the location, size, colors, materials, and lighting of all exterior signs, graphics or other informational or directional features if applicable.
- N/A **Other:** Show any other site elements which will assist in the evaluation of the site and the project.

✓✓ **TRAFFIC STUDY**

A traffic study shall be submitted for any project that generates in excess of forty (40) trips per p.m. peak hour. This requirement may be waived by the Director when a determination is made that a previous traffic study adequately addresses the proposal and/or when off-site and frontage improvements have already been completed which adequately mitigate any traffic impacts and/or the proposed use is not in a location which is adjacent to an intersection which is functioning at a poor level of service. A traffic study may be required by the

Director for projects below forty (40) trips per p.m. peak hour where the use is located immediately adjacent to an intersection functioning at a poor level of service.

§ 15.215.040 - TYPE II VARIANCE CRITERIA

DEFINITION: A variance is an exception to provisions of this code where strict or literal interpretation of the ordinances contained herein would result in practical difficulty and unnecessary physical hardship.

GENERAL REQUIREMENTS: Variances may be used to allow modification to specific standards contained in this code if the approval authority finds the applicant has satisfactorily documented compliance with the approval criteria. If a variance request is approved, the approval authority may attach conditions to the final decision in order to mitigate adverse impacts which might result from the approval.

The following regulations may not be varied:

- The uses permitted in the land use district.
- Definitions.
- Restrictions on the use or development that contain the word “prohibited.”
- Signs.

Provide a written response that specifies how your project meets the following criteria:

- (A) That strict or literal interpretation and enforcement of the specified regulation would result in practical difficulty or unnecessary physical hardship inconsistent with the objectives of this code.
- (B) That there are exceptional or extraordinary circumstances or conditions applicable to the property involved or to the intended use of the property which do not apply generally to other properties classified in the same zoning district.
- (C) That strict or literal interpretation and enforcement of the specified regulation would deprive the applicant of privileges enjoyed by the owners of other properties classified in the same zoning district.
- (D) That the granting of the variance will not constitute a grant of special privilege inconsistent with the limitations on other properties classified in the same zoning district.
- (E) That the granting of the variance will not be detrimental to the public health, safety or welfare or materially injurious to properties or improvements in the vicinity.

Have you met the criteria for a variance? Use these questions to help you determine whether your application meets the above criteria.

- 1) What code requirement and code section applies to the proposed variance (i.e: setback, lot coverage, height, etc.)?
- 2) What is the reason for the variance?
- 3) What difficulty or hardship would result from complying with the standard in the code?
- 4) How is your situation unique or exceptional and how is this different from other properties that have the same zoning (i.e: unusual lot shape, steep topography, stream on the property, etc.)?
- 5) What type of impacts would granting the variance have on the neighboring properties?
- 6) Are you aware of any concerns previously voiced by the neighbors and if so what are they?
- 7) What can you offer to minimize or mitigate the requested variance (i.e: landscaping, screening, public improvements, etc.)?

VARIANCE CHECKLIST

The following information shall be submitted with each application. Incomplete applications will not be processed. Incomplete or missing information may delay the review process. Check with the Planning Division staff regarding additional requirements for your project.

FEES

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WRITTEN CRITERIA RESPONSE – Address the criteria listed on page 19.

WRITTEN STATEMENT – Prepare a written statement of the precise nature of the variance that is being requested and the reason that you cannot meet the applicable code requirement.

SITE PLAN. Make sure the plans are prepared so that they are at least 8 ½ x 11 inches in size and the scale is standard, being 10, 20, 30, 40, 50, 100 or multiples of 100 to the inch. Include the following information in the plan set (information may be shown on multiple pages):

- All existing and proposed streets
- Property lines and any easements
- Existing and proposed uses, structures, driveways and sidewalks
- Off-street parking and loading areas
- Landscaping
- Any other information that helps illustrate the proposal

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SITE PLAN. Make sure the plans are prepared so that they are at least 8 ½ x 11 inches in size and the scale is standard, being 10, 20, 30, 40, 50, 100 or multiples of 100 to the inch. Include the following information in the plan set (information may be shown on multiple pages):

- All existing and proposed streets
- Property lines and any easements
- Existing and proposed uses, structures, driveways and sidewalks
- Off-street parking and loading areas
- Landscaping
- Any other information that helps illustrate the proposal

City of Newberg

Pre-application meeting notes:

Friendsview University Village – Phase 2

1301 E Fulton St.

4/15/20

Planning Notes

- Background:
 - Concept Master Plan was approved on 2/26/2016
 - Abuts R-2 and R-3 zoning
- Application process:
 - Type I Zone Change per 15.348.C (Conversion)
 - Type I Property Line Adjustment per 15.230.010
 - Design Review: Type II required per 15.220.020- Concept master plan previously approved in February 2016 is good for up to 10 years.
 - Variance for height per 15.415.020

Zoning: Use and Special Districts

Zoning: Most of the site is zoned Institutional with an Institutional Overlay. Part of the site is zoned R-2, with an Institutional overlay zone.

Use: Friendsview is a continuous care retirement facility, and independent living units are allowed as part of that use. Collectively, the use fits under the group care facility category. This category and use are allowed in the Institutional zone.

Zoning Conversion:

- 15.348.C.: properties can convert to the institutional district designation when the following applies:
 - a. The property contains or will be converted to an institutional use; and
 - b. The property is adjacent to the existing institutional boundary; and
 - c. The property meets either of the following locational factors:
 - i. In areas west of Hess Creek, more than 80 percent of the block is owned by the institution.
 - ii. The subject site is 100 percent owned by the institution and bounded on three sides by the institution; or when the subject site and abutting parcels on two sides of the site are owned by the institution and the third side of the site abuts the IO zone boundary.
 - Process:
 - a. Submit a title report showing ownership of the property by the institution.
 - b. Provide a map and legal description showing where the property is located.
 - c. Provide information and a description of how the institution meets the requirements of subsection (C)(1) of this section.

- **Variance needed (Type II)** - site abuts R-2 zoning. Typically a 75 ft. height max, however:
 - Within 50 feet of an interior property line abutting R-2, no main building may exceed 30 feet in height.
 - Limited to 50 feet within 100 feet of a public street, railroad right of way, or R-2 zone site.
- **PLA:** Center Street was already vacated. A PLA is needed because the City didn't receive copies of the recording for the vacation. We need A PLA for the property line that runs down the center of Center Street.

Development Standards: Institutional zone

Density: No set density limit

Setbacks: 25 foot front setback, 10 foot interior setbacks for buildings. Accessory structures and uses must have a 25 foot building setback from any R-2 residential property line. Parking setbacks are 20 feet from front property lines, 5 feet from sides.

Lot coverage: No lot coverage limit for buildings.

Building height: 75 foot max, but limited to 30 feet within 50 feet of an R-2 zoned property interior lot line. Limited to 50 feet within 100 feet of a public street, railroad right of way, or R-2 zone site.

Design compatibility: Architectural compatibility with nearby buildings- will be reviewed when Type II Design Review application is submitted.

Design standards: Design compatibility plus the multifamily design standards- will be reviewed when Type II Design Review application is submitted.

Lot standards: Access to a public street.

Parking: 1 parking space per unit. Visitor parking not required but recommended. 1 bike parking space per 10,000 sf of floor area.

On-site circulation: Walkway from each building to the public sidewalk

Landscaping: Minimum 15% of site must be landscaped. Irrigation required (unless drought tolerant, with watering plan). Parking lot landscaping if surface parking (currently underground parking proposed). Usable outdoor recreation space (200 sf per 1-2 BR unit, 300 sf per 3 BR unit). Ground floor units: min. 48 sf of private outdoor area.

- **Per conditions from approved design review:** Add trees and shrubs to the landscaping buffer along the shared property lines of the single-family homes to partially obscure the view of the Friendsview buildings, and to break up their mass.

Trash enclosures: Masonry walls, buffered from view off-site if new or additional trash enclosure proposed.

Exterior lighting: light trespass limited to 0.5 foot-candles at the property line.

Conceptual Plan: The proposal must comply with the previously approved conceptual plan (DR2-15-009).

Fees:

- Planning: land use decision application fees
- Building: permit fees
- Engineering: erosion control permit, public improvement permit
- System development charges (city/school dist./park dist.)

Planning application checklist: In each application form

Questions

1. **A variance will be required because the lot abuts the R-2 Zone.**
2. **You can submit all of the applications at once, but you should recognize in your application materials that the zone change and lot line adjustment applications need to be processed first and issued decisions and through the appeal period before we can issue the Design Review decision.**

Engineering Notes

Street: Fulton Street is a Major Collector in the City Transportation System Plan (TSP). Information regarding street cross-section for a Major Collector can be seen below.

Roadway	Functional Classification	Existing Right-of-way	Existing Pavement Width	Minimum Right-of-way	Minimum Pavement Width	Typical Cross-Section (per Transportation System Plan)
Fulton Street	Major Collector (57-feet to 80-feet)	Appears to be +/- 50-feet based on City GIS mapping	Appears to be +/-34-feet based on City GIS mapping	60-feet For typical section per TSP.	36-feet	<ul style="list-style-type: none"> • 1-foot from back of walk to right-of-way • 5-foot sidewalk • 5.5-foot planter* • 0.5-foot curb • 6-foot bike lane • 12-foot travel lane • 12-foot travel lane • 6-foot bike lane • 0.5-foot curb • 5.5-foot planter* • 5-foot sidewalk • 1-foot from back of walk to right-of-way

*5-foot minimum per NMC 15.505.030(G)(8)

If the value of construction of a building, or an addition to a dwelling or business structure, is \$30,000 or more, street improvements can be required, see NMC 12.05.090.

The existing curb-to-curb width won't be required to be widened, but the applicant will be required to dedicate additional right-of-way along the property frontage to build the required cross-sectional elements behind the curb i.e. 5.5-foot planter, 5-foot sidewalk, and 1-foot from back of walk to right-of-way.

Traffic Study – Applicant will need to address the original traffic study and provide comment on how what's being proposed is consistent with the previous land-use decision. Originally Phase 2 had 76 units, what's being proposed is 92 units. An updated traffic study will need to be provided.

Conditions of approval for DR2-15-009 Concept Master Plan/ DR2-15-010 Phase 1 Design Review/ VAR-15-002 include conditions that as part of phase 2:

- *A standard commercial driveway shall be installed at the existing N Center intersection with Fulton. **Note: This will trigger ADA ramp upgrades.*
- *A minimum 10-foot wide concrete approval/sidewalk shall be installed at the existing Friendsview driveway, separating the public road from the private drive. **Note: This will trigger ADA ramp upgrades.*
- *The 4-foot sidewalks along the Fulton Street frontage shall be replaced with 5-foot minimum sidewalks with 4.5-foot minimum planter strips. **Note: City standard is a 5.5-foot planter strip, which is what will be required.*
- *Dedicate right-of-way as necessary along the Fulton Street frontage to accommodate the 5-foot minimum sidewalks with 4.5-foot minimum planter strips. **Note: City standard is a 5.5-foot planter strip, which is what will be required.*

Wastewater: From the City's online GIS utility map, there is a 6-inch wastewater line that runs around the site. A wastewater analysis will be needed to verify sufficient capacity in existing onsite and offsite wastewater facilities are adequate for the proposed development. The analysis will need to include downstream lines to at least the Hess Creek trunk line.

*Conditions of approval for DR2-15-009 Concept Master Plan/ DR2-15-010 Phase 1 Design Review/ VAR-15-002 include a condition that at the time that lots are consolidated and N Center Street is vacated, all wastewater (sanitary sewer) within the development shall be privately owned and maintained. New manholes required at the private to public transitions near the Fulton Street right-of-way. **Note: It is assumed this will be happening in Phase 2, per pre-application meeting lot consolidation was confirmed to be occurring.*

All new restaurants/commercial kitchens employing an oil or grease process shall install an approved oil/grease trap before discharging to the wastewater system per NMC 13.10.080.

Water: From the City's online GIS utility map, there is a 6-inch water line that runs around the site. Fire flow testing will be required to verify adequate water supply is available to the property.

Conditions of approval for DR2-15-009 Concept Master Plan/ DR2-15-010 Phase 1 Design Review/ VAR-15-002 include a condition that the water line remain public and be within a 15-foot public utility easement along Cherry Street (vacated), N Center Street (proposed to be vacated) and within the Friendsview property.

Existing water service lines to be removed are to be abandoned at the public main line.

Stormwater: From the City's online GIS utility map, there is an existing 8 inch stormwater lines that runs through the east side of the property.

If more than 500 square feet of new impervious area is created, stormwater treatment will be required. Water quality and detention need to be provided per the Public Works Design and Construction Standards, Section 4. A Stormwater Report describing existing and proposed drainage will need to include a downstream analysis.

Conditions of approval for DR2-15-009 Concept Master Plan/ DR2-15-010 Phase 1 Design Review/ VAR-15-002 include a condition that at full build-out of the concept master plan, all onsite stormwater systems shall be privately owned and maintained.

Erosion and Sedimentation Control (ESC): A DEQ 1200-C permit will be required for the proposed onsite improvements.

Other Utilities: There are existing overhead lines that run along Fulton and Center. Any new connection to the property will need to be undergrounded. Existing overhead utilities required to be placed underground when relocated or for an addition or remodel requiring a Type II design review. See NMC 15.430.010 for exception provisions.

Conditions of approval for DR2-15-009 Concept Master Plan/ DR2-15-010 Phase 1 Design Review/ VAR-15-002 include a condition that at full build-out of the concept master plan, all overhead lines shall be placed underground.

All developments shall include underground electric service, light standards, wiring and lamps for street lights according to the specifications and standards of the Newberg public works design and construction standards. See NMC 15.505.30(U). In areas where street lights exist a street lighting analysis is needed to determine if existing lighting meets City standards.

SDC Credits

Please note on the plans all existing SDC creditable items i.e. existing water service meters, existing fixture unit counts, and existing impervious surface areas. Detailed documentation/enumeration of units will be required to issue SDC credits.

Permitting

The public improvement permit must be obtained prior to building permits being issued.

General Comment: The engineering pre-application notes provided are preliminary based on the information provided by the applicant and may not cover all of the development issues or requirements for the project. When a complete application is received and a full review is conducted, it may be

determined that additional requirements to meet the Municipal Code or the Public Works Design and Construction Standards exist.

The Engineering Department also administers/assigns System Development Charges (SDCs) for the following utilities:

- Transportation System Development Charge
- Water System Development Charge
- Wastewater System Development Charge
- Stormwater System Development Charge
- Non-Potable System Development Charge

***ALL SDC FEES ARE APPROXIMATE (rounded to the nearest \$50) AND SUBJECT TO CHANGE – See City’s Current Fees for exact costs.**

***Transportation SDC** – Transportation SDC are based on the land use and the associated trip rate.

- $SDC = \text{Unit} \times \text{ITE Trip Rate} \times 1.68 \times \$3,750$

***Water SDC** – Water SDCs are based on the meter size.

- 5/8” – 3/4” Meter \$5,450
- 1” Meter \$9,250
- 1.25” Meter \$13,600
- 2” Meter \$17,950

***Wastewater SDC** – Wastewater SDCs are based on fixture units which are defined in the Uniform Plumbing Code.

- For the first 18 fixture units \$6,750
- Per each fixture unit over 18 \$400

***Stormwater SDC** – Stormwater SDCs are based on net new impervious surface areas on the property.

- Single Family 1 EDU (Equivalent Dwelling Unit) = \$400
- Other Than Single Family Impervious Area/2877 = #EDU) x \$400

***Non-Potable SDC** – Water SDCs are based on the meter size.

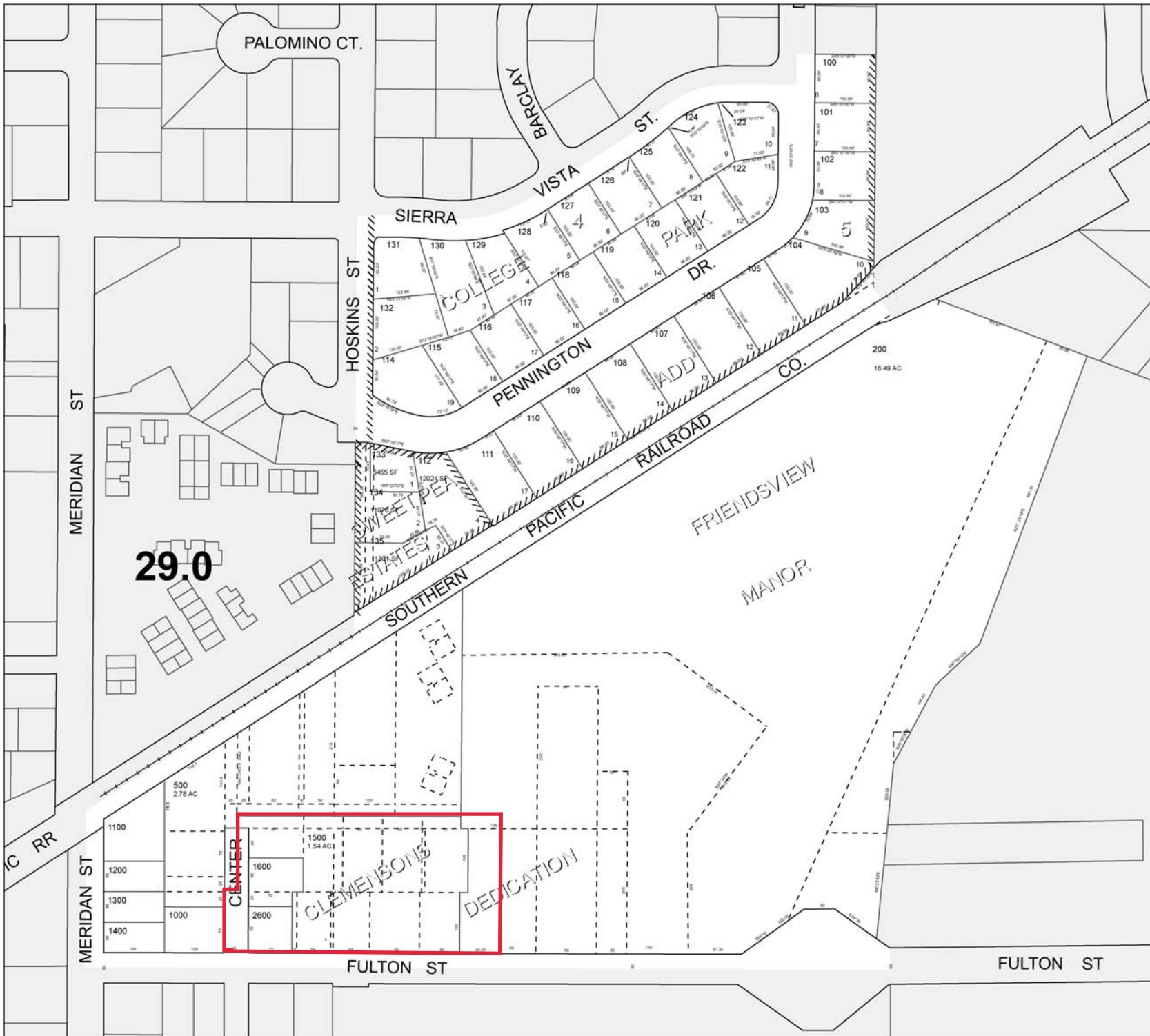
- 3/4” Meter \$3,600
- 1” Meter \$6,100
- 1.25” Meter \$8,900
- 1.5” Meter \$11,800

Exhibit C: Yamhill County Assessor's Map



ASSESSMENT & TAX
CARTOGRAPHY

N.W. 1/4 S.W. 1/4 SEC. 17 T. 3S. R. 2W. W.M.
YAMHILL COUNTY OREGON
1" = 100'



CANCELLED TAXLOTS:

- 2601
- 2100
- 400
- 300
- 290
- 113
- 91101
- 91102
- 91201
- 91202
- 92103
- 92104
- 92203
- 92204
- 93105
- 93106
- 93205
- 93206
- 1700
- 1800
- 1900
- 2000
- 2200
- 2300
- 2400
- 2500
- 600
- 700
- 800
- 900

DATE PRINTED: 12/14/2018

This product is for Assessment and Taxation (A&T) purposes only and has not been prepared or is suitable for legal, engineering, surveying or any purposes other than assessment and taxation.

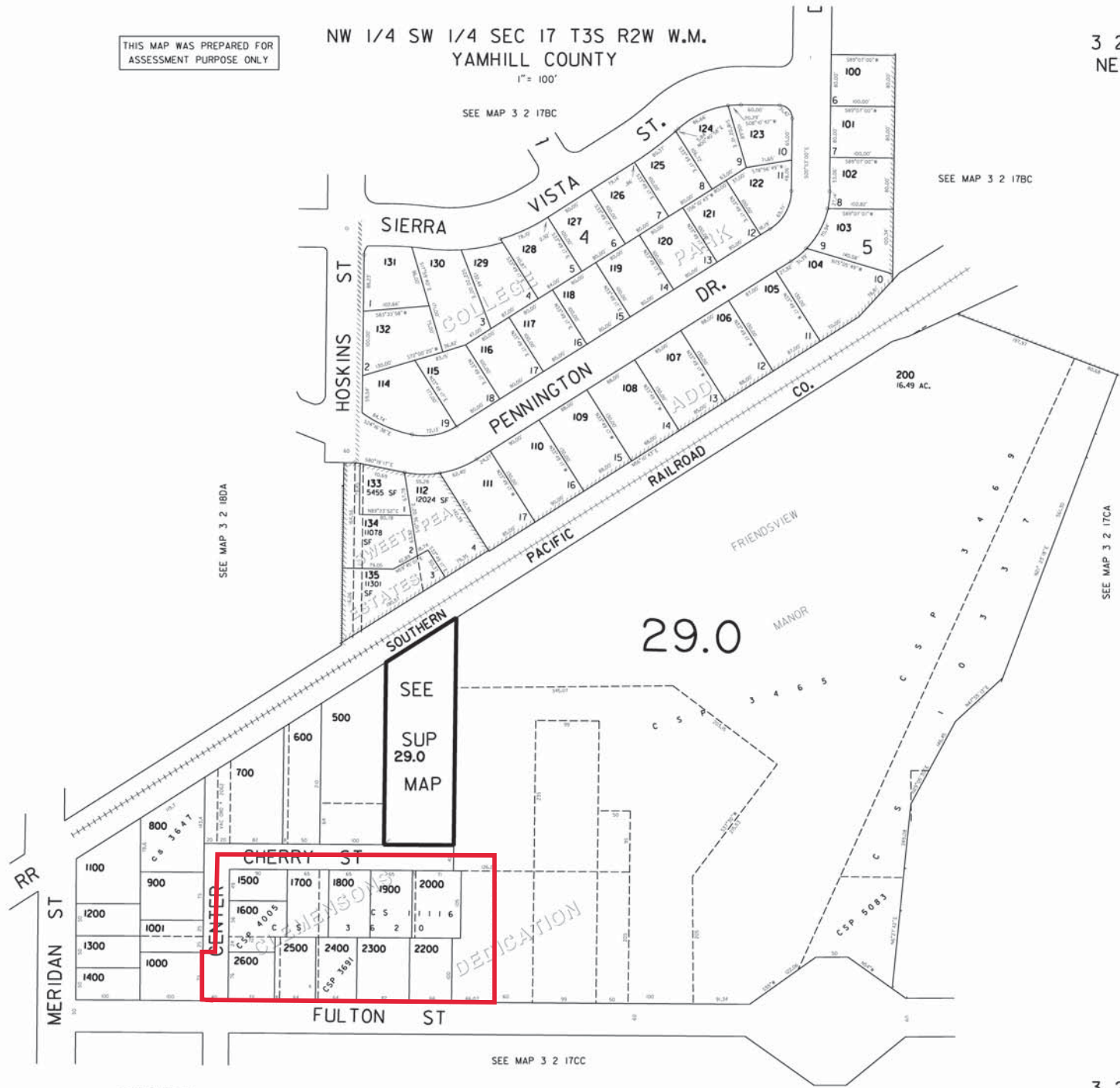
THIS MAP WAS PREPARED FOR
ASSESSMENT PURPOSE ONLY

NW 1/4 SW 1/4 SEC 17 T3S R2W W.M.
YAMHILL COUNTY

1" = 100'

3 2 17CB
NEWBERG

CANCELLED
113
290
300
400
2100
2601



REVISED 2-11-04 BH

SEE MAP 3 2 17CC

3 2 17CB

Exhibit D: Ownership Information & Title Reports



First American

First American Title Insurance Company

775 NE Evans Street
McMinnville, OR 97128
Phn - (503)376-7363
Fax - (866)800-7294

YAMHILL COUNTY TITLE UNIT
FAX (866)800-7294

Title Officer: Clayton Carter
(503)376-7363
ctcarter@firstam.com

Supplemental
LOT BOOK SERVICE

Friendsview Manor
1301 E. Fulton Street
Newberg, OR 97132

Order No.: 1039-3470486
September 01, 2020

Attn: Dave Hampton
Phone No.: (503)554-7522 - Fax No.:
Email:

Re:

Fee: \$750.00

We have searched our Tract Indices as to the following described property:

The land referred to in this report is described in Exhibit A attached hereto.

and as of May 21, 2020 at 8:00 a.m.

We find that the last deed of record runs to

Friendsview Manor, Inc. (as to Parcels 1-28)
Friendsview Manor, Inc., an Oregon non-profit public benefit corporation (as to Parcel 29)
Friendsview Manor, an Oregon nonprofit corporation (as to Parcel 30)
Friendsview Manor, an Oregon non-profit corporation (as to Parcel 31)

We find the following apparent encumbrances within ten (10) years prior to the effective date hereof:

1. Taxes for the fiscal year 2020-2021 a lien due, but not yet payable.
2. City liens, if any, of the City of Newberg.
3. Taxes for the current fiscal year are reduced by reason of Veterans Exemption. If the exempt status is terminated under the statute prior to July 1, said property will be taxed at 100% of the assessed value.

(Affects Parcels 1-10)

4. The rights of the public in and to that portion of the premises herein described lying within the limits of streets, roads and highways.
5. Easement, including terms and provisions contained therein:
Recording Information: December 14, 1959 as Film Volume 8, Page 673, Deed and Mortgage Records
In Favor of: Portland General Electric Company, a corporation of Oregon, its successors and assigns
For: right-of-way
(Affects Parcel 5)

6. Easement, including terms and provisions contained therein:
Recording Information: May 14, 1962 in Film Volume 22, Page 603, Deed and Mortgage Records
In Favor of: the City of Newberg, a municipal corporation of Yamhill County, State of Oregon

(Affects Parcel 18)

7. Easement, including terms and provisions contained therein:
Recording Information: June 07, 1977 in Film Volume 120, Page 1510, Deed and Mortgage Records
In Favor of: City of Newberg, Oregon, a municipal corporation

(Affects Parcel 30)

8. Easement, including terms and provisions contained therein:
Recording Information: June 07, 1977 as Film Volume 120, Page 1513, Deed and Mortgage Records
In Favor of: the City of Newberg, Oregon

(Affects Parcels 1, 4, 5 and 10)

9. An easement reserved in a deed, including the terms and provisions thereof;
Recorded: June 20, 1977
Recording Information: Film Volume 121, Page 093, Deed and Mortgage Records
From: Martha Stevahn
To: Raymond T. Mattson and Elda L. Mattson, husband and wife

(Affects Parcel 30)

10. Easement, including terms and provisions contained therein:
Recording Information: September 20, 1977 in Film Volume 123, Page 752, Deed and Mortgage Records
In Favor of: the City of Newberg, Oregon

(Affects Parcel 30)

11. Easement, including terms and provisions contained therein:
Recording Information: June 14, 1978 in Film Volume 130, Page 156, Deed and Mortgage Records
In Favor of: George Fox College

(Affects Parcel 4)
12. Reservation of utilities in vacated street area and the right to maintain the same as set forth in Ordinance No. 2062, a copy of which was Recorded August 27, 1981, Film Volume 163, Page 1407, Deed and Mortgage Records.
(Affects Parcel 13)
13. Restrictive Covenant to Waive Remonstrance, pertaining to street improvements including the terms and provisions thereof
Recorded: December 28, 1989 in Film Volume 239, Page 0801, Deed and Mortgage Records

(Affects Parcel 30)
14. Roadway Easement and Maintenance Agreement and the terms and conditions thereof:
First Party: Lorrin M. White
Recording Information: November 16, 1990 in Film Volume 249, Page 1579, Deed and Mortgage Records

(Affects Parcel 30)
15. Easement as shown on the recorded plat/partition 90-50
For: Open space

(Affects Parcel 30)
16. Easement, including terms and provisions contained therein:
Recording Information: July 22, 1996 as Instrument No. 199611985, Deed and Mortgage Records
In Favor of: George Fox University
For: storm and sanitary sewers
(Affects Parcels 1, 4 and 10)
17. Easement, including terms and provisions contained therein:
Recording Information: January 23, 1997 as Instrument No. 199701195, Deed and Mortgage Records
In Favor of: George Fox University
For: sanitary sewer line
(Affects Parcel 4)
18. Easement, including terms and provisions contained therein:
Recording Information: June 17, 1998, Instrument No. 199811356, Deed and Mortgage Records
In Favor of: Portland General Electric Company("PGE"), an Oregon corporation

(Affects Parcels 1, 6, 7, 8 and 9)

19. Easement, including terms and provisions contained therein:
Recording Information: January 05, 1999, Instrument No. 199900136, Deed and Mortgage Records
In Favor of: City of Newberg, a municipal corporation
For: storm sewer and sanitary sewer lines
(Affects Parcel 18)
20. Easement, including terms and provisions contained therein:
Recording Information: January 05, 1999, Instrument No. 199900137, Deed and Mortgage Records
In Favor of: City of Newberg, a municipal corporation
For: public sidewalk and underground utilities
(Affects Parcels 17, 18, and 19)
21. Easement, including terms and provisions contained therein:
Recording Information: September 26, 2003 as Instrument No. 200324771, Deed and Mortgage Records
In Favor of: TCI Cablevision of Oregon

(Affects Parcels 1-10)
22. A Contract of Payment in Lieu of Completion of Public Improvements and the terms and conditions thereof:
Vendor/Seller: Friendsview Manor
Vendee/Purchaser: City of Newberg, an Oregon municipal corporation
Recorded: November 01, 2004
Recording Information: Instrument No. 200422239, Deed and Mortgage Records

(Affects Parcels 1-9)
23. Easement, including terms and provisions contained therein:
Recording Information: April 04, 2008, Instrument No. 20080589, Deed and Mortgage Records
In Favor of: Comcast of Oregon II, Inc.

(Affects Parcels 1-9)
24. Easement, including terms and provisions contained therein:
Recording Information: August 06, 2015, Instrument No. 201512372, Deed and Mortgage Records
In Favor of: Comcast of Oregon II, Inc.
- The above described document does not contain a sufficient legal description to clearly identify the subject property. We are basing the affected parcels only upon the tax assessor map as of the date of this report.
(Affects Parcels 1-9)
25. Declaration of Deed Restriction recorded September 23, 2015 as Instrument No. 201515118, Deed and Mortgage Records.
(Affects Parcels 17-26)

26. Declaration of Deed Restriction recorded September 23, 2015 as Instrument No. 201515119, Deed and Mortgage Records.
(Affects Parcels 11-16 and 27)
27. Reservation of utilities in vacated Cherry Street area and the right to maintain the same as set forth in Ordinance No. 2015-2791, a copy of which was Recorded August 05, 2016 as Instrument No. 201612162, Deed and Mortgage Records.
(Affects Parcels 11-13, 17-22 and 27)
28. Public Water Easement, including terms and provisions contained therein:
Recording Information: August 05, 2016 as Instrument No. 201612163, Deed and Mortgage Records
In Favor of: the City of Newberg, a municipal corporation

(Affects Parcels 11, 12, 13, 14 and 27)
29. Public Sanitary Sewer Easement, including terms and provisions contained therein:
Recording Information: August 05, 2016 as Instrument No. 201612164, Deed and Mortgage Records
In Favor of: the City of Newberg, a municipal corporation

(Affects Parcels 11, 12, 13, 14, 17, 18, 19, 20, 21, 22 and 27)
30. Public Sidewalk Easement, including terms and provisions contained therein:
Recording Information: August 05, 2016 as Instrument No. 201612165, Deed and Mortgage Records
In Favor of: the City of Newberg, a municipal corporation

(Affects Parcels 14, 15, 16 and 31)
31. Public Utilities Easement, including terms and provisions contained therein:
Recording Information: August 05, 2016 as Instrument No. 201612166, Deed and Mortgage Records
In Favor of: the City of Newberg, a municipal corporation

(Affects Parcels 11, 12, 13, 22 and 27)
32. Emergency and Utility Vehicle Access Easement, including terms and provisions contained therein:
Recording Information: August 05, 2016 as Instrument No. 201612167, Deed and Mortgage Records
In Favor of: the City of Newberg, a municipal corporation

(Affects Parcels 11, 12, 13, 14, 17, 18, 19, 20, 21, 22 and 27)
33. Gas Easement, including terms and provisions contained therein:
Recording Information: August 05, 2016 as Instrument No. 201612168, Deed and Mortgage Records
In Favor of: the City of Newberg, a municipal corporation

(Affects Parcels 14, 17, 18, 19, 20, 21 and 22)

34. PGE Utility Easement, including terms and provisions contained therein:
Recording Information: August 05, 2016 as Instrument No. 201612169, Deed
and Mortgage Records
In Favor of: the City of Newberg, a municipal corporation

(Affects Parcels 11, 12, 13, 14, 22 and 27)
35. PGE Service Easement, including terms and provisions contained therein:
Recording Information: August 05, 2016 as Instrument No. 201612170, Deed
and Mortgage Records
In Favor of: Portland General Electric Company

(Affects Parcels 11, 12, 13, 22 and 27)
36. PGE Service Easement, including terms and provisions contained therein:
Recording Information: August 23, 2016 as Instrument No. 201613179, Deed
and Mortgage Records
In Favor of: Portland General Electric Company
37. Public Sidewalk Easement, including terms and provisions contained therein:
Recording Information: February 03, 2017 as Instrument No. 201701883, Deed
and Mortgage Records
In Favor of: the City of Newberg, a municipal corporation

(Affects Parcels 14, 15 and 16)
38. Easement, including terms and provisions contained therein:
Recording Information: June 05, 2017 as Instrument No. 201709016, Deed and
Mortgage Records
In Favor of: Comcast of Oregon II, Inc.

(Affects Parcels 11, 12, 13 and 14)
39. Agreement to Maintain Private Stormwater Facilities and the terms and conditions thereof:
Between: the City of Newberg, a municipal corporation of the State
of Oregon
And: Friendsview Manor
Recording Information: April 05, 2018 as Instrument No. 201804796, Deed and
Mortgage Records

(Affects Parcels 11, 12, 13, 14, 15 and 27)
40. Reservation of utilities in vacated North Center Street area and the right to maintain the same as set
forth in Ordinance No. 2019-2854, a copy of which was
Recorded January 07, 2020 as Instrument No. 202000265, Deed and Mortgage Records.
41. Access and Utility Easement, including terms and provisions contained therein:
Recording Information: January 08, 2020 as Instrument No. 202000274, Deed
and Mortgage Records
In Favor of: the City of Newberg, a municipal corporation

(Affects Parcels 14, 15, 16, 22, 28, 29 and 31)

42. Utility Easement, including terms and provisions contained therein:
Recording Information: January 08, 2020 as Instrument No. 202000275, Deed and Mortgage Records
In Favor of: NW Natural Gas Company

(Affects Parcels 14, 15, 16 and 31)
43. Utility Easement, including terms and provisions contained therein:
Recording Information: January 08, 2020 as Instrument No. 202000276, Deed and Mortgage Records
In Favor of: Frontier Communications Northwest, Inc.

(Affects Parcels 22, 28 and 29)
44. Access, Parking and Utility Easement, including terms and provisions contained therein:
Recording Information: January 08, 2020 as Instrument No. 202000277, Deed and Mortgage Records
In Favor of: Helen R. Cadd, trustee under the Cadd Living Trust, dated May 18, 1995

(Affects Parcels 28 and 31)
45. PGE Utility Easement, including terms and provisions contained therein:
Recording Information: January 08, 2020 as Instrument No. 202000278, Deed and Mortgage Records
In Favor of: Portland General Electric Company, an Oregon corporation

(Affects Parcels 22, 28 and 29)
46. Deed of Trust and the terms and conditions thereof.
Grantor/Trustor: Friendsview Manor, dba Friendsview Retirement Community, an Oregon nonprofit corporation
Grantee/Beneficiary: U.S. Bank National Association, a national banking association
Trustee: First American Title Insurance Company of Oregon
Amount: \$42,140,000.00
Dated: August 01, 2016
Recorded: August 04, 2016
Recording Information: Instrument No. 201612003, Deed and Mortgage Records

(Affects this and other property)
(Affects Parcels 1 through 27)
47. Unrecorded leases or periodic tenancies, if any.

NOTE: Taxes for the year 2019-2020 PAID IN FULL

Tax Amount: \$141,421.68
Map No.: R3217CB-00200
Property ID: 35152
Tax Code No.: 29.0

NOTE: Taxes for the year 2019-2020 PAID IN FULL

Tax Amount: \$83,270.99

Map No.: R3217CB-00500
Property ID: 35232
Tax Code No.: 29.0

NOTE: Taxes for the year 2019-2020 PAID IN FULL

Tax Amount: \$22,281.69
Map No.: R3217CB-01500
Property ID: 35394
Tax Code No.: 29.0

NOTE: Taxes for the year 2019-2020 PAID IN FULL

Tax Amount: \$3,238.94
Map No.: R3217CB-01600
Property ID: 35410
Tax Code No.: 29.0

NOTE: Taxes for the year 2019-2020 PAID IN FULL

Tax Amount: \$1,804.25
Map No.: R3217CB-02600
Property ID: 35624
Tax Code No.: 29.0

NOTE: Taxes for the year 2019-2020 PAID IN FULL

Tax Amount: \$773.35
Map No.: R3217CA-02706
Property ID: 482509
Tax Code No.: 29.0

We have also searched our General Index for Judgments and State and Federal Liens against the Grantee(s) named above and find:

NONE

NOTE: Supplemental to bring current, reflect 2020-21 taxes not yet payable

We find the following unpaid taxes and city liens:

THIS IS NOT a title report since no examination has been made of the title to the above described property. Our search for apparent encumbrances was limited to our Tract Indices, and therefore above listings do not include additional matters which might have been disclosed by an examination of the record title. We assume no liability in connection with this Lot Book Service and will not be responsible for errors or omissions therein. The charge for this service will not include supplemental reports, rechecks or other services.

Exhibit "A"

Real property in the County of YAMHILL, State of Oregon, described as follows:

PARCEL 1:

BEGINNING AT A POINT ON THE NORTH LINE OF FULTON STREET, 348 FEET EAST OF THE INTERSECTION OF THE EAST LINE OF EAST STREET WITH THE NORTH LINE OF SAID FULTON STREET IN THE CITY OF NEWBERG IN YAMHILL COUNTY, OREGON, SAID POINT BEING ALSO ON THE WEST LINE OF TRACT PLATTED AS HAZEL DELL; THENCE NORTH ALONG THE WEST LINE OF SAID HAZEL DELL 205 FEET TO THE TRUE POINT OF BEGINNING; THENCE CONTINUING NORTH ALONG THE WEST LINE OF SAID HAZEL DELL 387.29 FEET, MORE OR LESS, TO THE SOUTHERLY LINE OF THE SOUTHERN PACIFIC RAILROAD RIGHT OF WAY; THENCE NORTH 57°19'23.8" EAST ALONG THE SOUTHERLY LINE OF SAID RIGHT OF WAY 797.42 FEET; THENCE NORTH 70°00'26" EAST ALONG THE SOUTHERLY LINE OF SAID RIGHT OF WAY 82 FEET; THENCE NORTH 64°25'17.3" EAST ALONG THE SOUTHERLY LINE OF SAID RIGHT OF WAY 38.50 FEET; THENCE SOUTH 69°45'03.2" EAST 197.97 FEET; THENCE SOUTH 24°50'01.0" WEST 1103.79 FEET, MORE OR LESS, TO THE NORTH LINE OF SAID FULTON STREET; THENCE WEST ALONG THE NORTH LINE OF SAID FULTON STREET 233.37 FEET TO THE SOUTHEAST CORNER OF TRACT CONVEYED TO LOU C. MERRIAM AND WIFE BY DEED RECORDED MAY 3, 1944 IN BOOK 124, PAGE 356, DEED RECORDS; THENCE NORTH ALONG THE EAST LINE OF SAID MERRIAM TRACT 300 FEET; THENCE WEST 50 FEET TO THE EAST LINE OF TRACT CONVEYED TO CHARLES C. HAWORTH AND WIFE BY DEED RECORDED OCTOBER 13, 1948 IN BOOK 150, PAGE 691, DEED RECORDS; THENCE NORTH ALONG THE EAST LINE OF SAID HAWORTH TRACT 140 FEET TO THE NORTHEAST CORNER OF SAID HAWORTH, TRACT; THENCE WEST ALONG THE NORTH LINE OF SAID HAWORTH TRACT 99 FEET; THENCE SOUTH ALONG THE WEST LINE OF SAID HAWORTH TRACT 235 FEET TO THE NORTHEAST CORNER OF TRACT CONVEYED TO ROY P. CLARK AND WIFE BY DEED RECORDED MAY 6, 1947 IN BOOK 142, PAGE 466, DEED RECORDS; THENCE WEST ALONG THE NORTH LINE OF SAID CLARK TRACT 126.07 FEET, MORE OR LESS, TO THE POINT OF BEGINNING.

EXCEPTING THEREFROM THAT PORTION CONVEYED TO THE CITY OF NEWBERG, A MUNICIPAL CORPORATION, BY DEED RECORDED FEBRUARY 21, 1968 IN FILM VOLUME 66, PAGE 80 DEED AND MORTGAGE RECORDS.

PARCEL 2:

BEGINNING AT A POINT ON THE NORTH LINE OF FULTON STREET, 573.07 FEET EAST OF THE INTERSECTION OF THE EAST LINE OF EAST STREET WITH THE NORTH LINE OF SAID FULTON STREET IN THE CITY OF NEWBERG, YAMHILL COUNTY, OREGON; THENCE NORTH 205 FEET TO THE TRUE POINT OF BEGINNING; THENCE NORTH 235 FEET; THENCE WEST 99 FEET; THENCE SOUTH 235 FEET; THENCE EAST 99 FEET TO THE TRUE POINT OF BEGINNING.

PARCEL 3:

BEGINNING AT A POINT ON THE NORTH LINE OF FULTON STREET, 623.07 FEET EAST OF THE INTERSECTION OF THE EAST LINE OF EAST STREET WITH THE NORTH LINE OF SAID FULTON STREET IN THE CITY OF NEWBERG IN YAMHILL COUNTY, OREGON; THENCE NORTH 205 FEET TO THE TRUE POINT OF BEGINNING; THENCE NORTH 95 FEET; THENCE WEST 50 FEET TO THE EAST LINE OF TRACT CONVEYED TO CHARLES C. HAWORTH AND BERTHA M. HAWORTH, BY DEED RECORDED OCTOBER 13, 1948 IN BOOK 150, PAGE 691, DEED RECORDS OF YAMHILL COUNTY, OREGON; THENCE SOUTH ALONG THE EAST LINE OF SAID HAWORTH TRACT, 95 FEET; THENCE EAST 50 FEET TO THE POINT OF BEGINNING.

PARCEL 4:

BEING A PORTION OF THE EAST PART OF THE DANIEL C. DESKINS DONATION LAND CLAIM NO. 54 IN SECTION 17, TOWNSHIP 3 SOUTH, RANGE 2 WEST OF THE WILLAMETTE MERIDIAN IN YAMHILL COUNTY, SAID PORTION BEING DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE EAST LINE OF A CERTAIN TRACT OF LAND CONVEYED TO FRIENDSVIEW MANOR BY DEED RECORDED AUGUST 14, 1959 IN FILM VOLUME 6, PAGE 856, DEED AND MORTGAGE RECORDS, SAID POINT BEING SOUTH 984.7 FEET AND WEST 819.8 FEET FROM THE NORTHEAST CORNER OF SAID DESKINS DONATION LAND CLAIM; THENCE NORTH ALONG THE EAST LINE OF SAID FRIENDSVIEW MANOR TRACT; NORTH 24°50' EAST A DISTANCE OF 776.35 FEET TO THE SOUTHWEST CORNER OF A CERTAIN TRACT OF LAND CONVEYED TO GLADYS A. GREER BY DEED RECORDED APRIL 9, 1953 IN BOOK 169, PAGE 373, DEED RECORDS; THENCE SOUTH 69°45' EAST 87.30 FEET ALONG THE SOUTH LINE OF SAID GREER TRACT TO A POINT; THENCE SOUTH 21°22' WEST 560.90 FEET ALONG A FENCE TO THE NORTH LINE OF A CERTAIN TRACT OF LAND CONVEYED TO V.E. POOLE AND ALICE B. POOLE BY DEED RECORDED MARCH 2, 1942 IN BOOK 119, PAGE 311, DEED RECORDS; THENCE WEST 88.84 FEET TO THE NORTHWEST CORNER OF SAID POOLE TRACT; THENCE SOUTH 00°20' WEST 152.00 FEET ALONG THE WEST LINE OF SAID POOLE TRACT TO A POINT; THENCE WEST 113.88 FEET TO THE NORTHWEST CORNER OF A CERTAIN TRACT OF LAND CONVEYED BY MINNIE B. OWEN BY DEED RECORDED JULY 11, 1960 IN FILM VOLUME 11, PAGE 798, DEED AND MORTGAGE RECORDS, SAID POINT BEING THE POINT OF BEGINNING.

EXCEPTING THEREFROM THAT PORTION CONVEYED TO GEORGE FOX COLLEGE BY DEED RECORDED APRIL 28, 1995 IN INSTRUMENT NO. 199505215, DEED AND MORTGAGE RECORDS.

PARCEL 5:

PART OF THE DANIEL C. DESKINS DONATION LAND CLAIM NO. 54 IN TOWNSHIP 3 SOUTH, RANGE 2 WEST OF THE WILLAMETTE MERIDIAN IN YAMHILL COUNTY, OREGON, DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT SOUTH 00°20' WEST 1038.60 FEET AND WEST 709.50 FEET FROM THE NORTHEAST CORNER OF SAID CLAIM, SAID POINT BEING ALSO THE NORTHWEST CORNER OF BLOCK 2 OF BENSONS ADDITION TO NEWBERG IN YAMHILL COUNTY, OREGON; THENCE SOUTH 00°20' WEST PARALLEL TO THE EAST LINE OF SAID CLAIM 177.23 FEET; THENCE WEST 215.52 FEET TO AN IRON PIPE SET FOR THE INITIAL POINT OF THE PLAT OF HAZEL DELL; THENCE NORTH 24°50' EAST ALONG THE EAST LINE OF SAID HAZEL DELL 267.66 FEET, MORE OR LESS, TO A POINT THAT IS NORTH 00°20' EAST 66 FEET AND WEST 104.79 FEET FROM THE POINT OF BEGINNING; THENCE EAST 104.79 FEET; THENCE SOUTH 00°20' WEST 66 FEET TO THE POINT OF BEGINNING.

EXCEPTING THEREFROM THAT PORTION CONVEYED TO CITY OF NEWBERG, A MUNICIPAL CORPORATION, BY DEED RECORDED FEBRUARY 21, 1968 IN FILM VOLUME 66, PAGE 180, DEED AND MORTGAGE RECORDS.

ALSO EXCEPTING THEREFROM THAT PORTION CONVEYED TO GEORGE FOX COLLEGE BY DEED RECORDED APRIL 28, 1995 IN INSTRUMENT NO. 199505215, DEED AND MORTGAGE RECORDS.

PARCEL 6:

BEGINNING AT A POINT ON THE NORTH LINE OF FULTON STREET 348 FEET EAST OF THE INTERSECTION OF THE EAST LINE OF EAST STREET WITH THE NORTH LINE OF SAID FULTON STREET, IN THE CITY OF NEWBERG, YAMHILL COUNTY, OREGON, SAID POINT OF BEGINNING ALSO BEING THE SOUTHEAST CORNER OF THAT CERTAIN TRACT OF LAND CONVEYED TO HARLAN T. JONES AND WIFE BY DEED RECORDED FEBRUARY 19, 1942 IN BOOK 119, PAGE 267, DEED RECORDS; THENCE NORTH PARALLEL WITH THE EAST LINE OF SAID EAST STREET ALONG THE WEST LINE OF A TRACT PLATTED AS HAZEL DELL, NOW VACATED, 205 FEET TO THE SOUTHERLY BOUNDARY LINE OF THAT CERTAIN TRACT OF LAND CONVEYED TO FRIENDSVIEW MANOR, AN OREGON CORPORATION, BY DEED

RECORDED AUGUST 14, 1959 IN FILM VOLUME 6, PAGE 856, DEED AND MORTGAGE RECORDS; THENCE EAST ALONG SAID SOUTHERLY BOUNDARY LINE 66.07 FEET TO THE NORTHWEST CORNER OF A CERTAIN TRACT OF LAND CONVEYED TO AMOS G. JONES BY DEED RECORDED APRIL 4, 1952 IN BOOK 165, PAGE 193, DEED RECORDS; THENCE SOUTH ALONG THE WEST LINE OF SAID AMOS G. JONES TRACT, SAID LINE BEING PARALLEL WITH THE EAST LINE OR SAID EAST STREET 205 FEET TO THE NORTH LINE OF SAID FULTON STREET; THENCE WEST ALONG THE NORTH LINE OF SAID FULTON STREET 66.07 FEET TO THE POINT OF BEGINNING.

EXCEPTING THEREFROM THAT PORTION OF SAID PREMISES CONVEYED BY ROY P. CLARK AND WIFE TO FRANK L. HILL AND WIFE BY DEED RECORDED JUNE 11, 1947 IN BOOK 143, PAGE 246, DEED RECORDS, DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT 348 FEET EAST AND 100 FEET NORTH OF THE INTERSECTION OF THE EAST LINE OF EAST STREET WITH THE NORTH LINE OF FULTON STREET IN THE CITY OF NEWBERG, IN YAMHILL COUNTY, OREGON; THENCE NORTH 105 FEET PARALLEL WITH THE EAST LINE AT EAST STREET TO THE SOUTH LINE OF SAID CHERRY STREET; THENCE EAST FOLLOWING THE SOUTH LINE OF SAID CHERRY STREET 16 FEET; THENCE SOUTH PARALLEL WITH THE EAST LINE OF SAID EAST STREET 105 FEET; AND THENCE WEST 16 FEET TO THE POINT OF BEGINNING.

PARCEL 7:

BEGINNING AT A POINT ON THE NORTH LINE OF FULTON STREET, 623.07 FEET EAST OF THE INTERSECTION OF THE EAST LINE OF NORTH CENTER STREET, FORMERLY KNOWN AS EAST STREET WITH THE NORTH LINE OR SAID FULTON STREET IN THE CITY OF NEWBERG, YAMHILL COUNTY, OREGON; THENCE NORTH 205 FEET; THENCE WEST 50 FEET TO THE EAST LINE OF TRACT CONVEYED TO CHARLES C. HAWORTH AND BERTHA M. HAWORTH BY DEED RECORDED OCTOBER 13, 1948 IN BOOK 150, PAGE 691, DEED RECORDS OF YAMHILL COUNTY, OREGON; THENCE SOUTH ALONG THE EAST LINE OF SAID HAWORTH TRACT 205 FEET; THENCE EAST 50 FEET TO THE POINT OF BEGINNING.

PARCEL 8:

BEGINNING ON THE NORTH LINE OF FULTON STREET 573.07 FEET EAST OF THE INTERSECTION OF THE EAST LINE OF NORTH CENTER STREET (FORMERLY EAST STREET) WITH THE NORTH LINE OF FULTON STREET IN THE CITY OF NEWBERG, YAMHILL COUNTY, OREGON; THENCE NORTH 205 FEET; THENCE WEST 99 FEET; THENCE SOUTH 205 FEET; THENCE EAST 99 FEET TO THE TRUE POINT OF BEGINNING.

PARCEL 9:

THE EAST 60 FEET OF THE FOLLOWING DESCRIBED REAL PROPERTY, TO-WIT: BEGINNING AT THE NORTH LINE OF FULTON STREET, 348 FEET EAST OF THE INTERSECTION OF THE EAST LINE OF EAST STREET WITH THE NORTH LINE OF SAID FULTON STREET IN THE CITY OF NEWBERG IN YAMHILL COUNTY, OREGON; THENCE NORTH PARALLEL WITH THE EAST LINE OF SAID EAST STREET, 205 FEET TO THE SOUTH LINE OF SAID CHERRY STREET; THENCE EAST FOLLOWING THE SOUTH LINE OF SAID CHERRY STREET, 126.07 FEET; THENCE SOUTH PARALLEL WITH THE EAST LINE OF SAID EAST STREET 205 FEET TO THE NORTH LINE OF SAID FULTON STREET AND THENCE WEST FOLLOWING THE NORTH LINE OF SAID FULTON STREET, 135.07 FEET TO THE POINT OF BEGINNING.

PARCEL 10:

TRACT A:

PART OF THE DANIEL D. DESKINS DONATION LAND CLAIM NO. 54 IN SECTION 17, TOWNSHIP 3 SOUTH, RANGE 2 WEST OF THE WILLAMETTE MERIDIAN, YAMHILL COUNTY, OREGON, DESCRIBED AS FOLLOWS:

COMMENCING AT A POINT SOUTH 00°20'00" WEST 1038.60 FEET AND WEST 709.50 FEET FROM THE NORTHEAST CORNER OF SAID CLAIM NO. 54, A POINT ON THE EAST LINE OF A CERTAIN TRACT OF LAND CONVEYED TO FRIENDSVIEW MANOR BY DEED RECORDED AUGUST 14, 1959 IN BOOK 11, PAGE 1698, DEED RECORDS, SAID POINT ALSO BEING A 5/8" IRON ROD FROM THE NORTHWEST CORNER OF BLOCK 2 OF BENSONS ADDITION TO NEWBERG, IN YAMHILL COUNTY, OREGON; THENCE NORTH 00°20'00" EAST 66.18 FEET TO A 5/8" IRON ROD; THENCE SOUTH 88°37'29" EAST 8.97 FEET, TO THE SOUTHWEST CORNER OF A CERTAIN TRACT OF LAND CONVEYED TO GEORGE FOX COLLEGE BY DEED RECORDED MARCH 5, 1965 IN BOOK 43, PAGE 711, DEED RECORDS, SAID POINT BEING A 5/8" IRON ROD; THENCE NORTH 00°38'15" EAST 100.00 FEET ALONG THE WEST LINE OR SAID TRACT CONVEYED TO GEORGE FOX COLLEGE TO A 5/8" IRON ROD, SAID POINT BEING THE POINT OF BEGINNING; THENCE NORTH 00°38'15" EAST 52.14 FEET TO A 5/8" IRON ROD, SAID POINT BEING THE NORTHWEST CORNER OF SAID TRACT CONVEYED TO GEORGE FOX COLLEGE; THENCE SOUTH 89°57'08" EAST 28.41 FEET ALONG THE NORTH LINE OF SAID TRACT, TO A 5/8" IRON ROD; THENCE SOUTH 29°05'30" WEST 59.64 FEET TO THE POINT OF BEGINNING.

TRACT B:

PART OF THE DANIEL D. DESKINS DONATION LAND CLAIM #54 IN SECTION 17, TOWNSHIP 3 SOUTH, RANGE 2 WEST OF THE WILLAMETTE MERIDIAN IN YAMHILL COUNTY, OREGON, DESCRIBED AS FOLLOWS:

COMMENCING SOUTH 00°19'59" WEST 349.33 FEET AND NORTH 69°45'03" WEST 210.00 FEET FROM THE NORTHEAST CORNER OF SAID CLAIM #54; THENCE NORTH 69°45'03" WEST 190.90 FEET TO A 5/8" IRON ROD ON THE SOUTHERLY LINE OF PARTITION PLAT NO. 90-50, SAID POINT BEING THE POINT OF BEGINNING; THENCE NORTH 69°45'03" WEST 80.68 FEET TO A 5/8" IRON ROD FOUND ON THE SOUTHERLY LINE OF PARTITION PLAT NO. 90-50; THENCE SOUTH 23°33'42" WEST 94.31 FEET TO A 5/8" IRON ROD; THENCE SOUTH 71°23'23" EAST 86.45 FEET TO A 5/8" IRON ROD FOUND FOR THE NORTHEAST CORNER OF A CERTAIN TRACT OF LAND CONVEYED TO FRIENDSVIEW MANOR BY DEED RECORDED JANUARY 30, 1962, IN DEED BOOK 20, PAGE 928, DEED RECORDS; THENCE NORTH 20°04'19" EAST 91.68 FEET TO THE POINT OF BEGINNING.

PARCEL 11:

A PART OF THE DANIEL D. DESKINS DONATION LAND CLAIM NO. 54 IN SECTION 17, TOWNSHIP 3 SOUTH, RANGE 2 WEST OF THE WILLAMETTE MERIDIAN IN YAMHILL COUNTY, OREGON, DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT 245 FEET NORTH AND 140 FEET EAST OF THE INTERSECTION OF THE EAST LINE OF EAST STREET WITH THE NORTH LINE OF FULTON STREET IN THE CITY OF NEWBERG; THENCE EAST 100 FEET; THENCE NORTH PARALLEL TO THE WEST LINE OF HAZEL DELL TO THE SOUTHERLY BOUNDARY OF THE SOUTHERN PACIFIC RAILROAD RIGHT OF WAY; THENCE SOUTH 57°08' WEST ALONG THE SOUTHERLY LINE OF SAID RIGHT OF WAY TO THE MOST NORTHERLY CORNER OF A TRACT CONVEYED BY JOHN ILLIG TO EDWARD H. BENFORD BY DEED RECORDED SEPTEMBER 27, 1884 IN BOOK 90, PAGE 625, DEED RECORDS; THENCE SOUTH 205.34 FEET TO THE PLACE OF BEGINNING.

TOGETHER WITH THAT PORTION OF VACATED CHERRY STREET, INURRING THERETO, BY ORDINANCE NO. 2015-2791 AND RECORDED AUGUST 5, 2016 AS INSTRUMENT NO. 201612162, DEED AND MORTGAGE RECORDS.

PARCEL 12:

TRACT A:

BEING A PART OF THE DONATION LAND CLAIM OF DANIEL D. DESKINS, CLAIM NO. 54, NOTIFICATION NO. 1475 IN SECTION 17, TOWNSHIP 3 SOUTH, RANGE 2 WEST OF THE WILLAMETTE MERIDIAN IN YAMHILL COUNTY, OREGON, AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT A POINT ON THE EAST LINE OF CENTER STREET, 245 FEET NORTH OF THE NORTH LINE OF FULTON STREET AS PLATTED AND DEDICATED BY CHRISTINE CLEMENSON AND J.C. CLEMENSON, HER HUSBAND, IN THE CITY OF NEWBERG, YAMHILL COUNTY, OREGON, AND RUNNING THENCE EAST 90 FEET TO A POINT WHICH MARKED THE BEGINNING POINT OF THE TRACT HEREIN CONVEYED; THENCE NORTH TO THE SOUTHERN PACIFIC RAILROAD RIGHT OF WAY ALONG A LINE PARALLEL WITH AND 90 FEET EAST OF THE EAST LINE OF CENTER STREET; THENCE IN A NORTHEASTERLY DIRECTION ALONG SAID RIGHT OF WAY TO A POINT IN THE EAST LINE OF A TRACT OF LAND CONVEYED BY JOHN ILLIG TO EMILY BINFORD AND EDWARD M. BINFORD, BY DEED DATED JUNE 30, 1924, RECORDED SEPTEMBER 27, 1924, IN BOOK 90, PAGE 625, DEED RECORDS OF YAMHILL COUNTY, OREGON; THENCE SOUTH ABOUT 210 FEET TO THE SOUTHEAST CORNER OF THE LATTER DESCRIBED TRACT; THENCE WEST 50 FEET TO THE PLACE OF BEGINNING.

TOGETHER WITH THAT PORTION OF VACATED CHERRY STREET, INURRING THERETO, BY ORDINANCE NO. 2015-2791 AND RECORDED AUGUST 5, 2016 AS INSTRUMENT NO. 201612162, DEED AND MORTGAGE RECORDS.

TRACT B:

BEING A PART OF THE DONATION LAND CLAIM OF DANIEL D. DESKINS, CLAIM NO. 54, NOTIFICATION NO. 1475 IN SECTION 17, TOWNSHIP 3 SOUTH, RANGE 2 WEST OF THE WILLAMETTE MERIDIAN IN YAMHILL COUNTY, OREGON, AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT A POINT ON THE EAST LINE OF NORTH CENTER STREET (FORMERLY EAST STREET) 245 FEET NORTH OF THE NORTH LINE OF FULTON STREET AS PLATTED AND DEDICATED BY CHRISTINE CLEMENSON AND J.C. CLEMENSON, HER HUSBAND, IN THE CITY OF NEWBERG, YAMHILL COUNTY, OREGON, AND RUNNING THENCE EAST 82 FEET TO THE TRUE PLACE OF BEGINNING; THENCE EAST 8 FEET; THENCE NORTH PARALLEL WITH THE EAST LINE OF SAID NORTH CENTER STREET TO THE SOUTH LINE OF THE SOUTHERN PACIFIC RAILROAD RIGHT OF WAY; THENCE SOUTHWESTERLY ALONG THE SOUTH LINE OF SAID RIGHT OF WAY TO A POINT DIRECTLY NORTH OF THE TRUE POINT OF BEGINNING; THENCE SOUTH PARALLEL WITH THE EAST LINE OF SAID NORTH CENTER STREET TO THE TRUE PLACE OF BEGINNING.

TOGETHER WITH THAT PORTION OF CHERRY STREET VACATED BY ORDINANCE NO. 2015-2791 AND RECORDED AUGUST 5, 2016 AS INSTRUMENT NO. 201612162, DEED AND MORTGAGE RECORDS.

PARCEL 13:

TRACT A:

BEING A PART OF THE DONATION LAND CLAIM OF DANIEL D. DESKINS, CLAIM NO. 54, NOTIFICATION NO. 1475, IN TOWNSHIP 3 SOUTH, RANGE 2 WEST OF THE WILLAMETTE MERIDIAN, IN YAMHILL COUNTY, OREGON, AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT A POINT ON THE EAST LINE OF NORTH CENTER STREET (FORMERLY EAST STREET) 245 FEET NORTH OF THE NORTH LINE OF FULTON STREET AS PLATTED AND DEDICATED BY CHRISTINE CLEMENSON AND J.C. CLEMENSON, HER HUSBAND, IN THE CITY OF NEWBERG, YAMHILL COUNTY, OREGON; AND RUNNING THENCE EAST 82 FEET; THENCE NORTH PARALLEL WITH THE EAST LINE OF NORTH CENTER STREET (FORMERLY EAST STREET) TO THE SOUTH LINE OF THE SOUTHERN PACIFIC RAILROAD RIGHT OF WAY; THENCE SOUTHWESTERLY ALONG THE SOUTH LINE OF SAID RIGHT OF WAY TO THE EAST LINE OF NORTH CENTER STREET (FORMERLY EAST STREET); THENCE SOUTH ALONG THE EAST LINE OF NORTH CENTER STREET (FORMERLY EAST STREET); 120 FEET, MORE OR LESS, TO THE PLACE OF BEGINNING.

TOGETHER WITH THAT PORTION OF THE VACATED CENTER STREET INURING THERETO BY VACATION ORDINANCE NO. 2062 RECORDED ON AUGUST 27, 1981 IN FILM VOLUME 163, PAGE 1407, YAMHILL COUNTY RECORDS.

TOGETHER WITH THAT PORTION OF CHERRY STREET VACATED BY ORDINANCE NO. 2015-2791 AND RECORDED AUGUST 5, 2016 AS INSTRUMENT NO. 201612162, DEED AND MORTGAGE RECORDS.

TRACT B:

THE WEST 1/2 OF THAT CERTAIN VACATED STREET AS PER VACATION ORDINANCE NO. 2062 DATED AUGUST 3, 1981, CITY OF NEWBERG, YAMHILL COUNTY, OREGON, AND AS RECORDED AUGUST 27, 1981 IN FILM VOLUME 163, PAGE 1407-1408, DEED RECORDS OF YAMHILL COUNTY, OREGON.

TOGETHER WITH THAT PORTION OF CHERRY STREET VACATED BY ORDINANCE NO. 2015-2791 AND RECORDED AUGUST 5, 2016 AS INSTRUMENT NO. 201612162, DEED AND MORTGAGE RECORDS.

PARCEL 14:

BEING A PART OF THE DANIEL D. DESKINS DONATION LAND CLAIM AND PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING ON THE WEST LINE OF EAST STREET AND 100 FEET NORTH OF THE NORTH LINE OF FULTON STREET IN THE CITY OF NEWBERG, YAMHILL COUNTY, OREGON; AND RUNNING THENCE WEST 100 FEET; THENCE NORTH TO THE SOUTH LINE OF SOUTHERN PACIFIC RAILROAD RIGHT OF WAY; THENCE EASTERLY ALONG SAID RAILROAD RIGHT OF WAY TO THE WEST LINE OF SAID EAST STREET; THENCE SOUTH ALONG THE WEST LINE OF SAID EAST STREET TO THE PLACE OF BEGINNING. EXCEPTING THEREFROM THE SOUTH 103 FEET AS CONVEYED TO LEANDER A. CROCKETT ET UX BY DEED RECORDED FEBRUARY 24, 1951, IN BOOK 160, PAGE 678, DEED RECORDS.

TOGETHER WITH THAT PORTION OF VACATED CHERRY STREET, INURRING THERETO, BY ORDINANCE NO. 2015-2791 AND RECORDED AUGUST 5, 2016 AS INSTRUMENT NO. 201612162, DEED AND MORTGAGE RECORDS.

TOGETHER WITH THAT PORTION OF VACATED CENTER STREET (FORMERLY EAST STREET), INURRING THERETO, BY ORDINANCE 2019-2854 AND RECORDED JANUARY 7, 2020, AS INSTRUMENT NO. 202000265, DEED AND MORTGAGE RECORDS.

PARCEL 15:

BEING A PART OF THE DANIEL D. DESKINS DONATION LAND CLAIM AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

THE NORTH 75 FEET OF THE FOLLOWING DESCRIBED TRACT OF LAND, TO WIT:

BEGINNING AT A POINT ON THE WEST LINE OF EAST STREET, NOW NORTH CENTER STREET, AND 100 FEET NORTH OF THE NORTH LINE OF FULTON STREET, IN THE CITY OF NEWBERG, YAMHILL COUNTY, OREGON; AND RUNNING THENCE WEST 100 FEET; THENCE NORTH 103 FEET; THENCE EAST 100 FEET TO THE WEST LINE OF SAID EAST STREET; THENCE SOUTH ALONG THE WEST LINE OF SAID EAST STREET TO THE PLACE OF BEGINNING.

TOGETHER WITH THAT PORTION OF VACATED CENTER STREET (FORMERLY EAST STREET), INURRING THERETO, BY ORDINANCE 2019-2854 AND RECORDED JANUARY 7, 2020, AS INSTRUMENT NO. 202000265, DEED AND MORTGAGE RECORDS.

PARCEL 16:

BEGINNING AT A POINT ON THE WEST LINE OF EAST STREET (NOW NORTH CENTER STREET) IN SECTION 17, TOWNSHIP 3 SOUTH, RANGE 2 WEST IN THE CITY OF NEWBERG, YAMHILL COUNTY, OREGON, SAID POINT BEING 128 FEET NORTH OF THE NORTH LINE OF FULTON STREET, SAID POINT

ALSO BEING THE SOUTHEAST CORNER OF THAT CERTAIN TRACT OF LAND CONVEYED TO IVAN L ADAMS, ET UX, BY DEED RECORDED JULY 2, 1976 IN FILM VOLUME 113, PAGE 419, DEED AND MORTGAGE RECORDS; THENCE WEST ALONG THE SOUTH LINE OF SAID ADAMS TRACT 100 FEET; THENCE SOUTH 50 FEET; THENCE EAST 100 FEET TO THE WEST LINE OF SAID NORTH CENTER STREET; THENCE NORTH 50 FEET TO THE PLACE OF BEGINNING.

TOGETHER WITH THAT PORTION OF VACATED CENTER STREET (FORMERLY EAST STREET), INURRING THERETO, BY ORDINANCE 2019-2854 AND RECORDED JANUARY 7, 2020, AS INSTRUMENT NO. 202000265, DEED AND MORTGAGE RECORDS.

PARCEL 17:

BEGINNING AT POINT 290 FEET EAST OF THE INTERSECTION OF THE SOUTH LINE OF CHERRY STREET WITH THE EAST LINE OF EAST STREET (NOW NORTH CENTER STREET) IN THE CITY OF NEWBERG, YAMHILL COUNTY, OREGON; THENCE EAST ALONG THE SOUTH LINE OF CHERRY STREET AND THE SAME EXTENDED A DISTANCE OF 73 FEET, MORE OR LESS, TO THE NORTHEAST CORNER OF THAT CERTAIN TRACT CONVEYED TO FRANK L. HILL AND BELVA E. HILL BY DEED RECORDED IN BOOK 143, PAGE 246, DEED RECORDS; THENCE SOUTH ALONG THE EAST LINE OF THE HILL TRACT, 105 FEET TO THE SOUTHEAST CORNER THEREOF; THENCE WEST 72 FEET, MORE OR LESS, TO THE SOUTHWEST CORNER OF THAT CERTAIN TRACT CONVEYED TO FRANK AND BELVA E. HILL BY DEED RECORDED IN BOOK 108, PAGE 232, DEED RECORDS; THENCE NORTH ALONG THE WEST LINE OF THE HILL TRACT, 105 FEET TO THE PLACE OF BEGINNING.

TOGETHER WITH THAT PORTION OF VACATED CHERRY STREET, INURRING THERETO, BY ORDINANCE NO. 2015-2791 AND RECORDED AUGUST 5, 2016 AS INSTRUMENT NO. 201612162, DEED AND MORTGAGE RECORDS.

PARCEL 18:

BEGINNING AT A POINT ON THE SOUTH LINE OF CHERRY STREET IN THE CITY OF NEWBERG, IN YAMHILL COUNTY, OREGON, SAID POINT BEING SOUTH 0°34' WEST 20 FEET AND NORTH 89°59' EAST 310 FEET FROM THE INTERSECTION OF THE CENTER LINES OF CHERRY STREET AND CENTER STREET IN SAID CITY OF NEWBERG; THENCE SOUTH 00°34' WEST 105 FEET; THENCE SOUTH 89°59' WEST 5 FEET; THENCE NORTH 00°34' EAST 105 FEET; THENCE NORTH 89°59' EAST 5 FEET TO THE PLACE OF BEGINNING.

TOGETHER WITH THAT PORTION OF VACATED CHERRY STREET, INURRING THERETO, BY ORDINANCE NO. 2015-2791 AND RECORDED AUGUST 5, 2016 AS INSTRUMENT NO. 201612162, DEED AND MORTGAGE RECORDS.

PARCEL 19:

BEGINNING AT A POINT ON THE SOUTH LINE OF CHERRY STREET IN THE CITY OF NEWBERG, IN YAMHILL COUNTY, OREGON, SAID POINT BEING SOUTH 00°34' WEST 20 FEET AND NORTH 89°59' EAST 240 FEET FROM THE INTERSECTION OF THE CENTER LINES OF CHERRY AND CENTER STREETS IN SAID CITY OF NEWBERG; THENCE SOUTH 00°34' WEST 105 FEET; THENCE NORTH 89°59' EAST 70 FEET; THENCE NORTH 00°34' EAST 105 FEET; THENCE SOUTH 89°59' WEST 70 FEET TO THE PLACE OF BEGINNING.

EXCEPTING THEREFROM THE EAST 5 FEET.

TOGETHER WITH THAT PORTION OF VACATED CHERRY STREET, INURRING THERETO, BY ORDINANCE NO. 2015-2791 AND RECORDED AUGUST 5, 2016 AS INSTRUMENT NO. 201612162, DEED AND MORTGAGE RECORDS.

PARCEL 20:

BEGINNING AT A POINT ON THE SOUTH LINE OF CHERRY STREET N THE CITY OF NEWBERG IN YAMHILL COUNTY, OREGON, SAID POINT BEING SOUTH 00°34' WEST 20 FEET AND NORTH 89°59' EAST 175 FEET FROM THE INTERSECTION OF THE CENTER LINE OF CHERRY AND CENTER STREETS IN SAID CITY OF NEWBERG; THENCE NORTH 89°59' EAST ALONG THE SOUTH LINE OF CHERRY STREET, 65 FEET; THENCE SOUTH 00°34' WEST 105 FEET; THENCE SOUTH 89°59' WEST 65 FEET; THENCE NORTH 00°34' EAST 105 FEET TO THE PLACE OF BEGINNING.

TOGETHER WITH THAT PORTION OF VACATED CHERRY STREET, INURRING THERETO, BY ORDINANCE NO. 2015-2791 AND RECORDED AUGUST 5, 2016 AS INSTRUMENT NO. 201612162, DEED AND MORTGAGE RECORDS.

PARCEL 21:

BEGINNING AT A POINT ON THE SOUTH LINE OF CHERRY STREET IN THE CITY OF NEWBERG, IN YAMHILL COUNTY, OREGON, SAID POINT BEING SOUTH 00°34' WEST 20 FEET AND NORTH 89°59' EAST 175 FEET FROM THE INTERSECTION OF THE CENTERLINES OF CHERRY AND CENTER STREETS IN SAID CITY OF NEWBERG; THENCE SOUTH 00°34' WEST 105 FEET; THENCE SOUTH 89°59' WEST 65 FEET; THENCE NORTH 00°34' EAST 105 FEET; THENCE NORTH 89°59' EAST 65 FEET TO THE PLACE OF BEGINNING.

TOGETHER WITH THAT PORTION OF VACATED CHERRY STREET, INURRING THERETO, BY ORDINANCE NO. 2015-2791 AND RECORDED AUGUST 5, 2016 AS INSTRUMENT NO. 201612162, DEED AND MORTGAGE RECORDS.

PARCEL 22:

BEGINNING AT A POINT 1069.45 FEET SOUTH AND 1769.57 FEET WEST FROM THE NORTHEAST CORNER OF THE DANIEL D. DESKINS DONATION LAND CLAIM NO. 54 IN TOWNSHIP 3 SOUTH, RANGE 2 WEST OF THE WILLAMETTE MERIDIAN IN YAMHILL COUNTY, OREGON, SAID BEGINNING POINT ALSO BEING NORTH 00°34' EAST 181.0 FEET FROM THE CENTER OF FULTON STREET IN THE CITY OF NEWBERG; THENCE NORTH 00°34' EAST 49.0 FEET TO AN IRON PIPE; THENCE NORTH 89°59' EAST 90 FEET TO AN IRON PIPE; THENCE SOUTH 00°34' WEST 49.0 FEET TO AN IRON PIPE; THENCE SOUTH 89°59' WEST 90.0 FEET TO AN IRON PIPE AT THE POINT OF BEGINNING.

TOGETHER WITH THAT PORTION OF VACATED CHERRY STREET, INURRING THERETO, BY ORDINANCE NO. 2015-2791 AND RECORDED AUGUST 5, 2016 AS INSTRUMENT NO. 201612162, DEED AND MORTGAGE RECORDS.

TOGETHER WITH THAT PORTION OF VACATED CENTER STREET (FORMERLY EAST STREET), INURRING THERETO, BY ORDINANCE 2019-2854 AND RECORDED JANUARY 7, 2020, AS INSTRUMENT NO. 202000265, DEED AND MORTGAGE RECORDS.

PARCEL 23:

A PART OF THE DANIEL D. DESKINS DONATION LAND CLAIM NO. 54 IN TOWNSHIP 3 SOUTH, RANGE 2 WEST OF THE WILLAMETTE MERIDIAN IN YAMHILL COUNTY, OREGON, DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE NORTH LINE OF FULTON STREET, 282 FEET EAST OF THE EAST LINE OF EAST STREET IN NEWBERG, YAMHILL COUNTY, OREGON; THENCE EAST 66 FEET ALONG THE NORTH LINE OF FULTON STREET; THENCE NORTH 100 FEET; THENCE WEST 66 FEET; THENCE SOUTH 100 FEET TO THE PLACE OF BEGINNING.

PARCEL 24:

PART OF THE DANIEL D. DESKINS DONATION LAND CLAIM NO. 54 IN TOWNSHIP 3 SOUTH, RANGE 2 WEST OF THE WILLAMETTE MERIDIAN IN YAMHILL COUNTY, OREGON, DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE NORTH LINE OF FULTON STREET 200 FEET EAST OF THE EAST LINE OF EAST STREET IN NEWBERG; THENCE EAST 82 FEET; THENCE NORTH 100 FEET; THENCE WEST 82 FEET; THENCE SOUTH 100 FEET TO THE PLACE OF BEGINNING.

PARCEL 25:

A TRACT OF LAND LOCATED IN SECTION 17, TOWNSHIP 3 SOUTH, RANGE 2 WEST OF THE WILLAMETTE MERIDIAN IN YAMHILL COUNTY, OREGON, DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE NORTH LINE OF FULTON STREET AND 136 FEET EAST OF THE EAST LINE OF CENTER STREET; THENCE NORTH 100 FEET; THENCE EAST 64 FEET; THENCE SOUTH 100 FEET; THENCE WEST 64 FEET TO THE POINT OF BEGINNING.

PARCEL 26:

A TRACT OF LAND LOCATED IN SECTION 17, TOWNSHIP 3 SOUTH, RANGE 2 WEST OF THE WILLAMETTE MERIDIAN IN YAMHILL COUNTY, OREGON, DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE NORTH LINE OF FULTON STREET AND 72 FEET EAST OF THE EAST LINE OF CENTER STREET; THENCE NORTH 100 FEET; THENCE EAST 64 FEET; THENCE SOUTH 100 FEET. THENCE WEST 64 FEET TO THE POINT OF BEGINNING.

PARCEL 27:

BEGINNING AT THE INTITIAL POINT OF FRIENDSVIEW VILLAGE CONDOMINIUM, NOW TERMINATED, SAID INTITIAL POINT BEING NORTH 06° 11' 56 EAST 1495.71 FEET FROM THE SOUTHWEST CORNER OF SECTION 17, TOWNSHIP 3 SOUTH, RANGE 2 WEST, OF THE WILLAMETTE MERIDIAN, YAMHILL COUNTY, OREGON, SAID POINT ALSO BEING THE SOUTHEAST CORNER OF THAT TRACT CONVEYED TO WILLIAM L SALTER AND WIFE BY DEED RECORDED JULY 16, 1959 IN FILM VOLUME 6, PAGE 310, DEED AND MORTGAGE RECORDS, WHICH POINT IS 245 FEET NORTH AND 240 FEET EAST OF THE INTERSECTION OF THE EAST LINE OF EAST STREET (NOW CENTER STREET) WITH THE NORTH LINE OF FULTON STREET IN THE CITY OF NEWBERG; THENCE NORTH 0° 15' 48" EAST ALONG THE EAST LINE OF SAID SALTER TRACT 278.25 FEET TO THE SOUTHERLY LINE OF THE SOUTHERN PACIFIC RAILROAD RIGHT OF WAY; THENCE NORTH 57° 08' 48" EAST ALONG SAID SOUTHERLY RIGHT OF WAY LINE 129.74 FEET TO A POINT ON THE WEST LINE OF THAT TRACT PLATTED AS HAZELDELL; THENCE SOUTH 0° 15' WEST ALONG SAID WEST LINE 348.60 FEET TO A POINT ON THE NORTH LINE OF CHERRY STREET; THENCE SOUTH 89° 59' WEST ALONG SAID NORTH LINE 108.75 FEET TO THE POINT OF BEGINNING.

TOGETHER WITH THAT PORTION OF CHERRY STREET VACATED BY ORDINANCE NO. 2015-2791 AND RECORDED AUGUST 5, 2016 AS INSTRUMENT NO. 201612162, DEED AND MORTGAGE RECORDS.

PARCEL 28:

PART OF THE D. D. DESKINS DONATION LAND CLAIM #54 IN TOWNSHIP 3 SOUTH, RANGE 2 WEST OF THE WILLAMETTE MERIDIAN IN YAMHILL COUNTY, OREGON, DESCRIBED AS FOLLOWS:

BEGINNING 25 FEET NORTH OF THE SOUTHWEST CORNER OF LAND CONVEYED TO JOHN ILLIG BY DEED RECORDED SEPTEMBER 24, 1904 IN BOOK 47, PAGE 002, DEED RECORDS; THENCE NORTH ALONG THE WEST LINE OF SAID TRACT 100 FEET; THENCE EAST PARALLEL WITH THE SOUTH LINE OF SAID TRACT 80 FEET; THENCE SOUTH PARALLEL WITH THE WEST LINE OF SAID TRACT 100 FEET;

THENCE WEST 80 FEET TO THE PLACE OF BEGINNING.

SAVE AND EXCEPT THAT PORTION CONVEYED TO CHESTER E. HANVILLE AND DORIS T. HANVILLE IN DEED RECORDED JULY 22, 1965 IN FILM VOLUME 46, PAGE 834; AND THAT PORTION CONVEYED TO MAURICE G. CHANDLER AND ELLOUISE CHANDLER IN DEED RECORDED JUNE 14, 1972 IN FILM VOLUME 89, PAGE 1928.

TOGETHER WITH THAT PORTION OF VACATED CENTER STREET (FORMERLY EAST STREET), INURRING THERETO, BY ORDINANCE 2019-2854 AND RECORDED JANUARY 7, 2020, AS INSTRUMENT NO. 202000265, DEED AND MORTGAGE RECORDS.

PARCEL 29:

TRACT A:

BEGINNING AT AN IRON PIPE SET 1125.45 FEET SOUTH AND 1770.12 FEET WEST FROM THE NORTHEAST CORNER OF THE DANIEL D. DESKINS DONATION LAND CLAIM NO. 54 IN SECTION 17, TOWNSHIP 3 SOUTH, RANGE 2 WEST OF THE WILLAMETTE MERIDIAN IN YAMHILL COUNTY, OREGON, SAID BEGINNING POINT ALSO BEING NORTH 00°34' EAST 125.0 FEET FROM THE CENTER OF FULTON STREET, CITY OF NEWBERG; THENCE NORTH 00°34' EAST 56 FEET TO AN IRON PIPE; THENCE NORTH 89°59' EAST 90 FEET TO AN IRON PIPE; THENCE SOUTH 00°34' WEST, 56 FEET TO AN IRON PIPE; THENCE SOUTH 89°59' WEST, 90 FEET TO THE POINT OF BEGINNING.

TOGETHER WITH THAT PORTION OF VACATED CENTER STREET (FORMERLY EAST STREET), INURRING THERETO, BY ORDINANCE 2019-2854 AND RECORDED JANUARY 7, 2020, AS INSTRUMENT NO. 202000265, DEED AND MORTGAGE RECORDS.

TRACT B:

A TRACT OF LAND IN SECTION 17, TOWNSHIP 3 SOUTH, RANGE 2 WEST OF THE WILLAMETTE MERIDIAN IN YAMHILL COUNTY, OREGON, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

THE NORTH 24 FEET OF THE FOLLOWING DESCRIBED TRACT OF LAND:

PART OF THE D.D. DESKINS DONATION LAND CLAIM NO. 54 IN SECTION 17, TOWNSHIP 3 SOUTH, RANGE 2 WEST OF THE WILLAMETTE MERIDIAN IN YAMHILL COUNTY, OREGON, DESCRIBED AS FOLLOWS:

BEGINNING 25 FEET NORTH OF THE SOUTHWEST CORNER OF LAND CONVEYED TO JOHN ILLIG BY DEED RECORDED SEPTEMBER 24, 1904 IN BOOK 47, PAGE 2, DEED RECORDS; THENCE NORTH ALONG THE WEST LINE OF SAID TRACT, 100 FEET; THENCE EAST PARALLEL WITH THE SOUTH LINE OF SAID TRACT, 80 FEET; THENCE SOUTH PARALLEL WITH THE WEST LINE OF SAID TRACT, 100 FEET; THENCE WEST 80 FEET TO THE PLACE OF BEGINNING.

SAVE AND EXCEPTING THEREFROM THE EASTERLY 8 FEET THEREOF CONVEYED TO CHESTER E. HANVILLE AND DORIS T. HANVILLE, HUSBAND AND WIFE, BY DEED RECORDED JULY 22, 1965 IN FILM VOLUME 46, PAGE 834, DEED AND MORTGAGE RECORDS.

TOGETHER WITH THAT PORTION OF VACATED CENTER STREET (FORMERLY EAST STREET), INURRING THERETO, BY ORDINANCE 2019-2854 AND RECORDED JANUARY 7, 2020, AS INSTRUMENT NO. 202000265, DEED AND MORTGAGE RECORDS.

PARCEL 30:

PARCEL 3 OF PARTITION PLAT 90-50, RECORDED NOVEMBER 16, 1990 IN FILM 3, PAGE 56 AND 57,

YAMHILL COUNTY RECORDS, AND FURTHER DESCRIBED AS FOLLOWS:

A TRACT OF LAND IN SECTION 17, TOWNSHIP 3 SOUTH, RANGE 2 WEST, YAMHILL COUNTY, OREGON, BEING PART OF THAT TRACT OF LAND DESCRIBED TO LORRIN WHITE IN DEED OF TRUST RECORDED IN FILM VOLUME 122, PAGE 872, YAMHILL COUNTY, DEED RECORDS, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF THE D.D. DESKINS DONATION LAND CLAIM; THENCE SOUTH 00° 20' WEST 349.33 FEET ALONG THE EAST LINE OF SAID CLAIM TO THE SOUTHEAST CORNER OF THE MARTHA STEVAHN TRACT; THENCE NORTH 69° 45' WEST 198.13 FEET ALONG THE SOUTH LINE OF SAID, STEVAHN TRACT TO THE SOUTHEAST CORNER OF SAID WHITE TRACT; THENCE CONTINUING NORTH 69° 45' WEST 126.64 FEET TO AN IRON ROD ON THE SOUTH LINE OF SAID WHITE TRACT; THENCE NORTH 38° 57' EAST 107.84 FEET TO AN IRON ROD; THENCE NORTH 34° 45' 02" WEST 60.30 FEET TO AN IRON ROD AND THE TRUE POINT OF BEGINNING; THENCE NORTH 51° 44' 07" WEST, 168.82 FEET TO AN IRON ROD AT AN ANGLE POINT IN THE NORTH LINE OF SAID WHITE TRACT; THENCE SOUTH 59° 58' 10" WEST 40.00 FEET TO AN ANGLE POINT IN SAID NORTH LINE; THENCE SOUTH 64° 25' 20" WEST 220.50 FEET TO THE MOST WESTERLY CORNER OF SAID WHITE TRACT; THENCE SOUTH 69° 45' EAST 289.58 FEET ALONG THE SOUTH LINE OF SAID WHITE TRACT; THENCE NORTH 40° 24' 08" EAST 145.65 FEET TO THE TRUE POINT OF BEGINNING.

TOGETHER WITH AN EASEMENT DESCRIBED IN FILM VOLUME 249, PAGE 1579, DEED AND MORTGAGE RECORDS, AND ALSO SHOWN ON PARTITION PLAT 90-50 RECORDED NOVEMBER 16, 1990.

PARCEL 31:

A TRACT OF LAND LOCATED IN THE SOUTHWEST ONE-QUARTER OF SECTION 17, TOWNSHIP 3 SOUTH, RANGE 2 WEST, WILLAMETTE MERIDIAN, CITY OF NEWBERG, YAMHILL COUNTY, OREGON, AND THE CENTERLINE BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

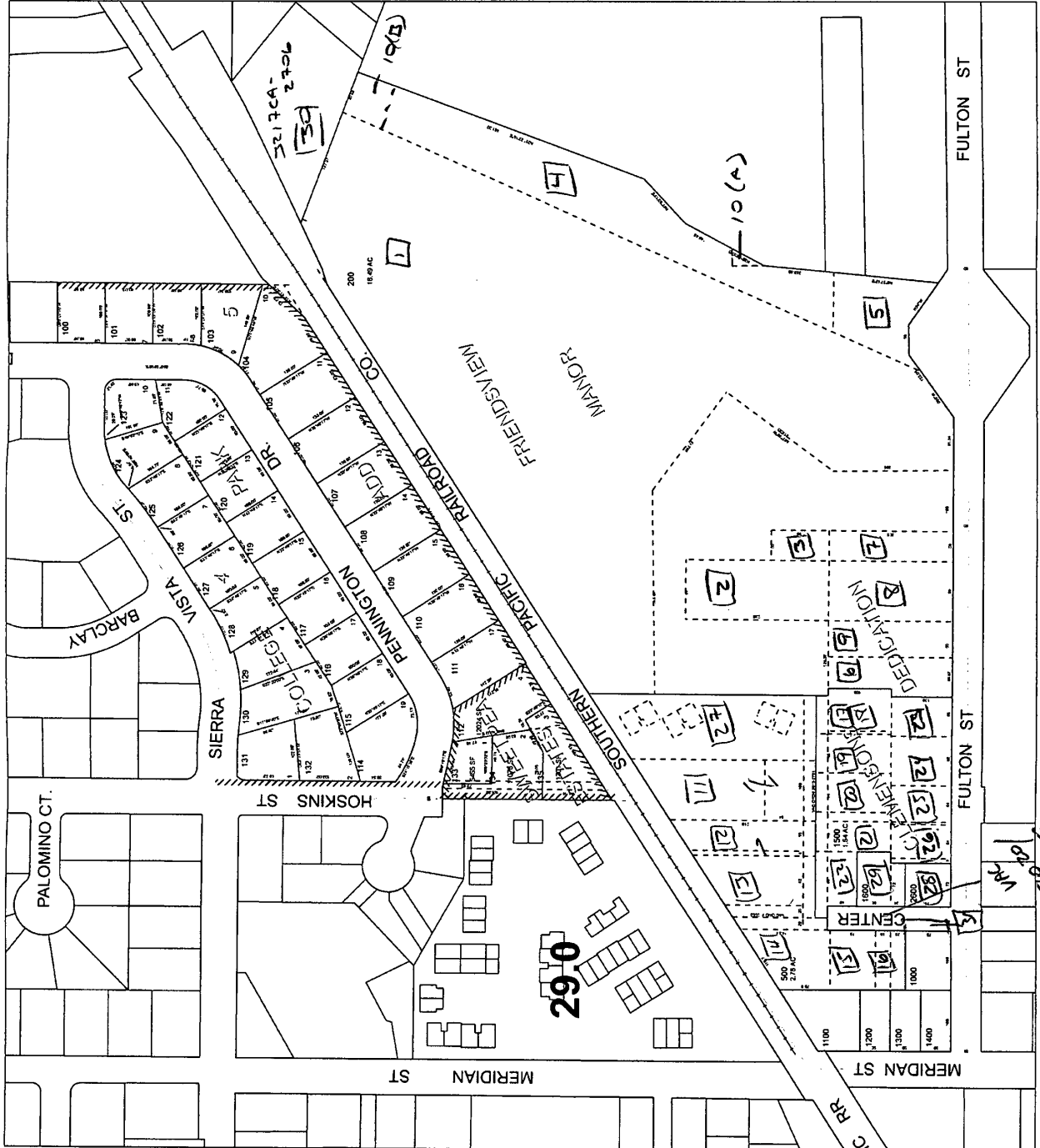
COMMENCING AT THE NORTHEASTERLY CORNER OF THE PLAT OF "FRIENDSVIEW VILLAGE CONDOMINIUM"; THENCE ALONG THE EASTERLY LINE OF SAID PLAT AND THE SOUTHERLY EXTENSION THEROF, SOUTH 01° 56' 13" WEST 591.79 FEET TO THE NORTH RIGHT-OF-WAY LINE OF FULTON STREET (25.00 FEET FROM CENTERLINE); THENCE ALONG SAID NORTH RIGHT-OF-WAY LINE NORTH 88° 10' 31" WEST 364.86 FEET TO THE CENTERLINE OF CENTER STREET VACATION ORDINANCE NO. 2019-2854, AND THE POINT OF BEGINNING; THENCE CONTINUING ALONG SAID NORTH RIGHT-OF-WAY LINE, NORTH 88° 10' 31" WEST 20.00 FEET TO WEST LINE OF SAID CENTER STREET VACATION; THENCE ALONG SAID WEST LINE, NORTH 02° 24' 50" EAST 78.08 FEET TO THE NORTHEAST CORNER OF DOCUMENT NUMBER 200909211; THENCE ALONG THE EASTERLY EXTENSION OF THE NORTH LINE OF SAID DEED, SOUTH 88° 10' 50" EAST 20.00 FEET TO SAID CENTERLINE; THENCE ALONG SAID CENTERLINE, SOUTH 02° 24' 50" WEST 78.09 FEET TO THE POINT OF BEGINNING.

3 2 17CB



ASSESSMENT & TAX
CARTOGRAPHY

N.W. 1/4 S.W. 1/4 SEC. 17 T. 3S. R. 2W. W.M.
YAMHILL COUNTY OREGON
1" = 100'



CANCELLED TAILOTS:

2601
2600
400
300
200
100
113
91101
91102
91202
92103
92104
92204
93105
93106
93206
1700
1800
1900
2000
2200
2400
2500
700
800
900

DATE PRINTED: 12/14/2018
This product is for Assessment and Taxation (A&T) purposes only and has not been prepared or is suitable for legal, engineering, or surveying purposes other than assessment and taxation.

3 2 17CB

Exhibit E:
Sample Public Notice & Mailing Information



Community Development Department

P.O. Box 970 ▪ 414 E First Street ▪ Newberg, Oregon 97132

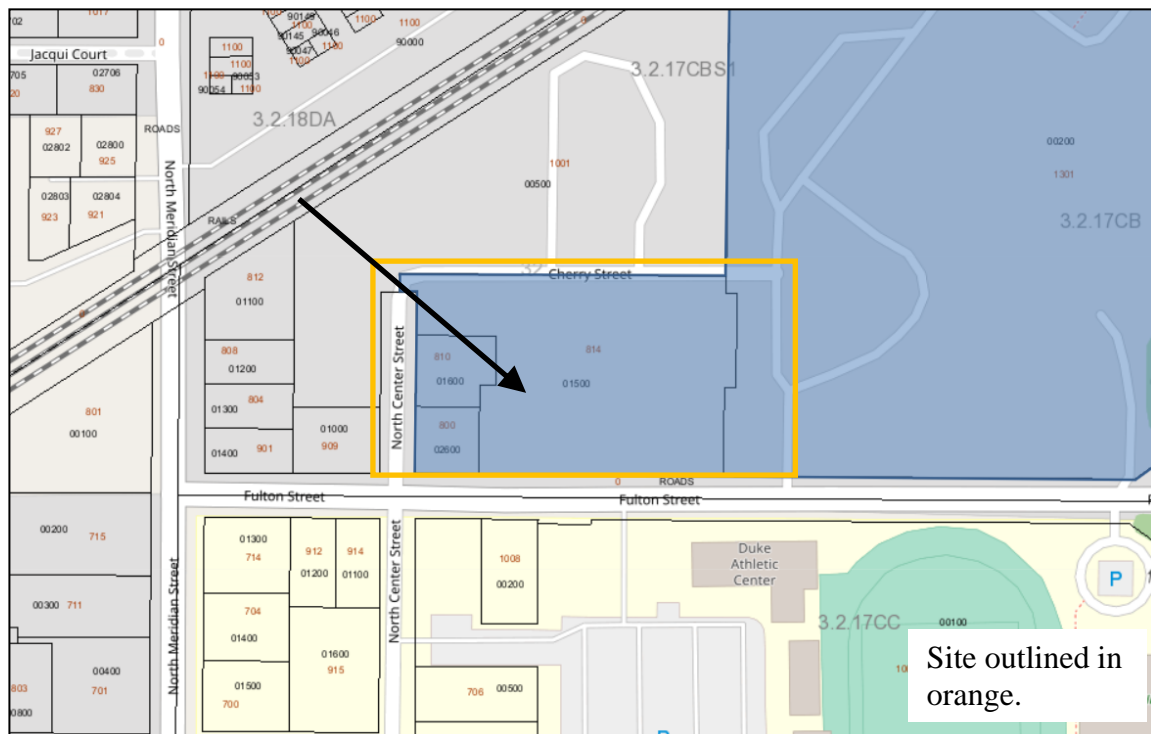
503-537-1240. Fax 503-537-1272 www.newbergoregon.gov

WE WANT YOUR COMMENTS ON A PROPOSED NEW DEVELOPMENT IN YOUR NEIGHBORHOOD

A property owner in your neighborhood has submitted an application to the City of Newberg to construct a new independent living community for Friendsview Retirement Community. The subject property is located along Fulton Street west of Meridian Street in Newberg. You are invited to take part in the City's review of this project by sending in your written comments. The applicable criteria used to make a decision on this application are found in Newberg Development Code 15.215.040 and 15.220.050(B). For more details about giving comments, please see the back of this sheet.

The development would include a 96-unit Independent Living building, a type of Group Care Facility. The project would involve a 130,000 square foot, five story building with a basement level parking garage. Off-site work will include new sidewalks and landscaping planter strips.

APPLICANT: Friendsview Manor, Inc.
APPLICANT'S CONSULTANT: AKS Engineering & Forestry, LLC – Mimi Doukas, AICP, RLA
TELEPHONE: (503) 563-6151
EMAIL: MimiD@aks-eng.com
PROPERTY OWNER: Friendsview Manor, Inc.
LOCATION: 814 N. Center Street
TAX LOT NUMBER: Yamhill County Tax Map 3 2 17CB Tax Lots 200, 1500, 1600, and 2600



Working Together For A Better Community-Serious About Service"

T:\jobs\3100-3199\3199 Friends View - Newberg\Planning\DR-Variance\Application Materials\Exhibits\3199 20200814 Sample Public Notice.doc

We are mailing you information about this project because you own land within 500 feet of the proposed new project. We invite you to send any written comments for or against the proposal within 14 days from the date this notice is mailed.

If you mail your comments to the City, please put the following information on the outside of the envelope:

Written Comments: File No. **XX**
City of Newberg
Community Development Department
PO Box 970
Newberg, OR 97132

You can look over all the information about this project or drop comments off at Newberg City Hall, 414 E. First Street. You can also buy copies of the information for a cost of 25 cents a page. If you have any questions about the project, you can call the Newberg Planning Division at 503-537-1240.

All written comments must be turned in by 4:30 p.m. on **enter date two weeks from date you mailed notice**. Any issue which might be raised in an appeal of this case to the Land Use Board of Appeals (LUBA) must be submitted to the City in writing before this date. You must include enough detail to enable the decision maker an opportunity to respond. The applicable criteria used to make a decision on this application for design review approval are found in Newberg Development Code 15.220.050(B).

The Community Development Director will make a decision at the end of a 14-day comment period. If you send in written comments about this project, you will be sent information about any decision made by the City relating to this project.

Date Mailed: **Date notice is mailed**

Land Use Notice

FILE # _____

PROPOSAL: New independent living community for Friendsview Retirement Community.

FOR FURTHER INFORMATION, CONTACT:

City of Newberg
Community Development Department
414 E First Street
Phone: 503-537-1240

AA PROPERTY MANAGEMENT LLC
8551 SLEEPY HOLLOW RD NE
WOODBURN, OR 2017

AIRPARK PROPERTIES LLC
PO BOX 248
NEWBERG, OR 2017

ALLEN REVOCABLE LIVING TRUST
1709 ELDERBERRY CT
NEWBERG, OR 2017

APP KEVIN
1218 S PENNINGTON DR
NEWBERG, OR 2017

BAILEY PAUL L
1100 N MERIDIAN ST 46
NEWBERG, OR 2017

BAIRD SUSAN V
PO BOX 328
NEWBERG, OR 2017

BAKER BARBARA G
1855 N COLLEGE ST
NEWBERG, OR 2017

BARNES PATRICK
704 N MERIDIAN ST
NEWBERG, OR 2017

BARNETT KATHERINE V
1713 ELDERBERRY CT
NEWBERG, OR 2017

BAUGH DAVID L
1008 VILLA RD
NEWBERG, OR 2017

BAUGH GORDON D
1100 N MERIDIAN ST NO 28
NEWBERG, OR 2017

BERRY TYSON
1301 VILLA RD
NEWBERG, OR 2017

BERTAGNA REBECCA J
PO BOX 308
NEWBERG, OR 2017

BOLLINGER MARGARET REVOCABLE LIV
TRUST
PO BOX 3344
PORTLAND, OR 2017

BUCKLEY FAMILY TRUST
5124 E BURNSIDE ST
PORTLAND, OR 2017

CADD LIVING TRUST
909 E FULTON ST
NEWBERG, OR 2017

CAMMACK JANICE H
1011 PENNINGTON CT NO A
NEWBERG, OR 2017

CHAVEZ ALEJANDRO N (WROS)
1102 S PENNINGTON DR
NEWBERG, OR 2017

CITY OF NEWBERG
414 E 1ST ST
NEWBERG, OR

COOK GUENNET M
PO BOX 5565
BEAVERTON, OR 2017

COPELAND CARA J
1301 E FULTON
NEWBERG, OR 2017

COX ESTHER L
1100 N MERIDIAN ST NO 30
NEWBERG, OR 2017

DALE JASON E
PO BOX 248
NEWBERG, OR 2017

DAVIS BARBARA
1100 N MERIDIAN ST NO 35
NEWBERG, OR 2017

DAVIS JO ANN
808 N MERIDIAN ST
NEWBERG, OR 2017

DESKINS COMMONS HOUSING LLC
135 NE DUNN PL
MCMINNVILLE, OR 2017

DEXTER ROBERT L JR
801 VERMILLION ST
NEWBERG, OR 2017

DORAN MICHAEL J & BARBARA G
PO BOX 1015
NEWBERG, OR 2017

DORRELL RICK W & JILL M
1211 S PENNINGTON DR
NEWBERG, OR 2017

DULL DAVID A
1221 N PENNINGTON DR
NEWBERG, OR 2017

ECKERDT SHIRLEY
1219 VILLA RD
NEWBERG, OR 2017

EDMEADES DESIREE L
1222 S PENNINGTON DR
NEWBERG, OR 2017

EKLUND DAVID C & SHARON K
1200 SIERRA VISTA DR
NEWBERG, OR 2017

ELIAS ALFONSO
1305 VILLA RD
NEWBERG, OR 2017

EVANS KIMBERLIE A
1005 PENNINGTON CT
NEWBERG, OR 2017

FARROW GREGORY A & SHARON L
2014 TRUST
PO BOX 223
FORT DICK, CA 2017

FERRING CAROL
1100 N MERIDIAN ST UNIT 54
NEWBERG, OR 2017

FIELDHOUSE R RONALD
1100 N MERIDIAN ST #25
NEWBERG, OR 2017

FISHER JAMES L JR
23225 NE DILLON RD
NEWBERG, OR 2017

FISHER JAMES L JR
1100 W SHERIDAN ST
NEWBERG, OR 2017

FRANCIS ROBERT I & SHIRLEY A
1204 SIERRA VISTA DR
NEWBERG, OR 2017

FRANEY LENORA
1100 N MERIDIAN ST NO 33
NEWBERG, OR 2017

FRIENDSVIEW MANOR
1301 FULTON ST
NEWBERG, OR 2017

GEORGE FOX UNIVERSITY
414 N MERIDIAN ST
NEWBERG, OR 2017

GEORGE FOX UNIVERSITY
1008 FULTON ST
NEWBERG, OR 2017

GEORGE FOX UNIVERSITY
616 N CENTER ST
NEWBERG, OR 2017

GEORGE FOX UNIVERSITY
713 VILLA RD
NEWBERG, OR 2017

GEORGE FOX UNIVERSITY
422 N MERIDIAN ST
NEWBERG, OR 2017

GOODWIN STEVEN M SR
1701 CAROL ANN DR
NEWBERG, OR 2017

GORDON SAMANTHA C
1230 S PENNINGTON DR
NEWBERG, OR 2017

GRAGE CHRISTOPHER D
1223 S PENNINGTON DR
NEWBERG, OR 2017

GRANT SARA H
1214 VILLA RD
NEWBERG, OR 2017

GREEN DAVID M
1100 N MERIDIAN ST 32
NEWBERG, OR 2017

GREINER RICHARD S & SHERYL
1115 S PENNINGTON DR
NEWBERG, OR 2017

HANSEN KEITH D
1808 CAROL AVE
NEWBERG, OR 2017

HARMON MARILYN R
1100 N MERIDIAN ST NO 17
NEWBERG, OR 2017

HAZELDEN SPRINGBROOK INC
PO BOX 11
CENTER CITY, MN 2017

HELGESON RANDY L
1100 N MERIDIAN NO 13
NEWBERG, OR 2017

HUBBARD HAROLD EXEMPTION TRUST
1100 N MERIDIAN ST NO 6
NEWBERG, OR 2017

HUEFFED TODD
1100 N MERIDIAN ST UNIT 19
NEWBERG, OR 2017

JACKSON PAMELA J
1109 SIERRA VISTA DR
NEWBERG, OR 2017

JOHNSON JAY T & SHERRY D
1104 SIERRA VISTA DR
NEWBERG, OR 2017

JONES LIVING TRUST
PO BOX 3066
NEWBERG, OR 2017

KALENDA JOHN
706 N CENTER ST
NEWBERG, OR 2017

KELLEHER KATHRYN K
1100 N MERIDIAN ST APT 20
NEWBERG, OR 2017

KLIGEL ROBERT & MARY LIVING TRUST
1300 BARCLAY WY
NEWBERG, OR 2017

KRAMER RICHARD G & JO ANNE
1204 HOSKINS ST
NEWBERG, OR 2017

KUHN ORMA M
1100 N MERIDIAN ST UNIT 50
NEWBERG, OR 2017

KWDS LLC
PO BOX 145
WILSONVILLE, OR 2017

KWOK MICHAEL V
1300 VILLA RD
NEWBERG, OR 2017

LABER SUSAN D
1100 N MERIDIAN ST NO 45
NEWBERG, OR 2017

LACHMAN DONALD
35301 SW GEER RD
NEWBERG, OR 2017

LARSEN RIA
1100 N MERIDIAN ST 16
NEWBERG, OR 2017

LEAVITT CRAIG S
1100 N MERIDIAN ST NO 9
NEWBERG, OR 2017

LEVANEN LINDSEY 99%
1906 SE 25TH ST
BATTLE GROUND, WA 2017

LLOYD CARLETON H
915 VERMILLION ST
NEWBERG, OR 2017

MACKIE JUSTIN
1717 HAWORTH AVE
NEWBERG, OR 2017

MANNING DENNIS E
701 N MERIDIAN ST
NEWBERG, OR 2017

MARASCO FARKHONDEH
13293 24 AVE
SURREY, BC 2017
V4A 2G4

MARTIN BRET
23520 NE HYLAND DR
NEWBERG, OR 2017

MARTIN JUDITH M
10275 SW HAZELBROOK ST
TUALATIN, OR 2017

MARTINEZ FAMILY TRUST
3428 NIMBUS CT
ROCKLIN, CA 2017

MCCORMICK AMY
611 N MERIDIAN ST
NEWBERG, OR 2017

MCGANTY TIM
612 N CENTER ST
NEWBERG, OR 2017

MCKINNEY STEPHEN J
1100 N MERIDIAN ST NO 21
NEWBERG, OR 2017

MCMASTER MELODY
18445 NE RAINBOW LN
NEWBERG, OR 2017

MEYER ROBERT F
1212 SIERRA VISTA DR
NEWBERG, OR 2017

MILLER CAITLIN
1216 SIERRA VISTA DR
NEWBERG, OR 2017

MONTOYA JOHN
1100 N MERIDIAN ST NO 33
NEWBERG, OR 2017

MORALES DAWN L
1207 S PENNINGTON DR
NEWBERG, OR 2017

MYERS WILLIAM M
1208 SIERRA VISTA DR
NEWBERG, OR 2017

NEWBERG AREA HABITAT FOR
HUMANITY
PO BOX 118
NEWBERG, OR 2017

NORTH MERIDIAN LLC
901 N BRUTSCHER ST NO D355
NEWBERG, OR 2017

OLSON CHRISTINE
PO BOX 907
NEWBERG, OR 2017

OREGON STATE OF
535 NE 5TH ST
MCMINNVILLE, OR 2017

ORR LESLIE
4430 ROSE VALLEY RD
KELSO, WA 2017

PARK MARTHA E
804 N MERIDIAN ST NO 2
NEWBERG, OR 2017

PATTON CLAIRE E
1119 S PENNINGTON DR
NEWBERG, OR 2017

PAYTON BEVERLY TRUST
16380 NE CHEHALEM DR
NEWBERG, OR 2017

PENSCO TRUST COMPANY CUSTODIAN
FBO
PO BOX 173859
DENVER, CO 2017

PEREDA CONRADO
11980 NE WORDEN HILL RD
NEWBERG, OR 2017

PEREDA MARIA
615 N MERIDIAN ST
NEWBERG, OR 2017

PHILLIPS PHILIP G & NANCY G
1100 N MERIDIAN ST NO 40
NEWBERG, OR 2017

PHOENIX SCOTT R & CAROL M
1224 N PENNINGTON DR
NEWBERG, OR 2017

PUBLIC
535 NE 5TH ST
MCMINNVILLE, OR 2017

PUTNAM DEBRA
1100 N MERIDIAN ST UNIT 41
NEWBERG, OR 2017

RAYS INVESTMENTS LLC
810 SW VIEW CREST DR
DUNDEE, OR 2017

REDFIELD GREGORDY A
14710 SE CAROL AVE
MILWAUKIE, OR 2017

RHINE STEPHEN B
1215 S PENNINGTON DR
NEWBERG, OR 2017

RICH CARLA R
1303 VILLA RD
NEWBERG, OR 2017

RIGGAN MICHAEL D
912 FULTON ST
NEWBERG, OR 2017

RIGGS JOETTE
1100 N MERIDIAN ST NO 11
NEWBERG, OR 2017

RIZE JUSTINO G
925 N MERIDIAN ST
NEWBERG, OR 2017

ROBERTSONS ROLLIN E & NANCY J
914 FULTON ST
NEWBERG, OR 2017

SAMPLE FUSA Y
1226 S PENNINGTON DR
NEWBERG, OR 2017

SARGENT ROGER
26210 LANDSBURG RD SE
RAVENSDALE, WA 2017

SCHLITTENHART KATHLEEN E
1100 N MERIDIAN ST #39
NEWBERG, OR 2017

SCHWINKENDOR MARY A
1958 GABLE CT NE
KEIZER, OR 2017

SHULER TOM L
PO BOX 655
NEWBERG, OR 2017

SIMMONS JAMES H
1112 SIERRA VISTA DR
NEWBERG, OR 2017

SIMPSON LIVING TRUST
PO BOX 1373
DEPOE BAY, OR 2017

SMITH GARY L TRUST
1103 S PENNINGTON DR
NEWBERG, OR 2017

SMITH MEGAN E
726 ELLA CT
NEWBERG, OR 2017

SPAULDING OAKS HOMEOWNERS
ASSOCIATION
1100 N MERIDIAN ST
NEWBERG, OR 2017

STAHLNECKER DENNIS JR
921 N MERIDIAN ST
NEWBERG, OR 2017

STEINBORN BONNIE D REVOCABLE
TRUST
7785 SW FAIRWAY DR
WILSONVILLE, OR 2017

STEVENS VON T
912 VERMILLION ST
NEWBERG, OR 2017

STURGILL CONNIE L
1100 N MERIDIAN ST 36
NEWBERG, OR 2017

SUAREZ CAROL A
1100 N MERIDIAN ST NO 22
NEWBERG, OR 2017

SULLY PETER O
803 VERMILLION ST
NEWBERG, OR 2017

THIEME RANDALL E
1104 S PENNINGTON DR
NEWBERG, OR 2017

VEATCH BRETT A
PO BOX 24
NEWBERG, OR 2017

VEGA JORGE P
923 N MERIDIAN
NEWBERG, OR 2017

VEGA JUANA PINA
1208 HOSKINS ST
NEWBERG, OR 2017

WAIDE SANDRA K LIVING TRUST
1100 N MERIDIAN ST NO 18
NEWBERG, OR 2017

WALLACE MAY O TRUST
1855 N COLLEGE ST
NEWBERG, OR 2017

WEBB NANCY A
1100 N MERIDIAN ST NO 42
NEWBERG, OR 2017

WHITED FAMILY LIVING TRUST
1225 N PENNINGTON DR
NEWBERG, OR 2017

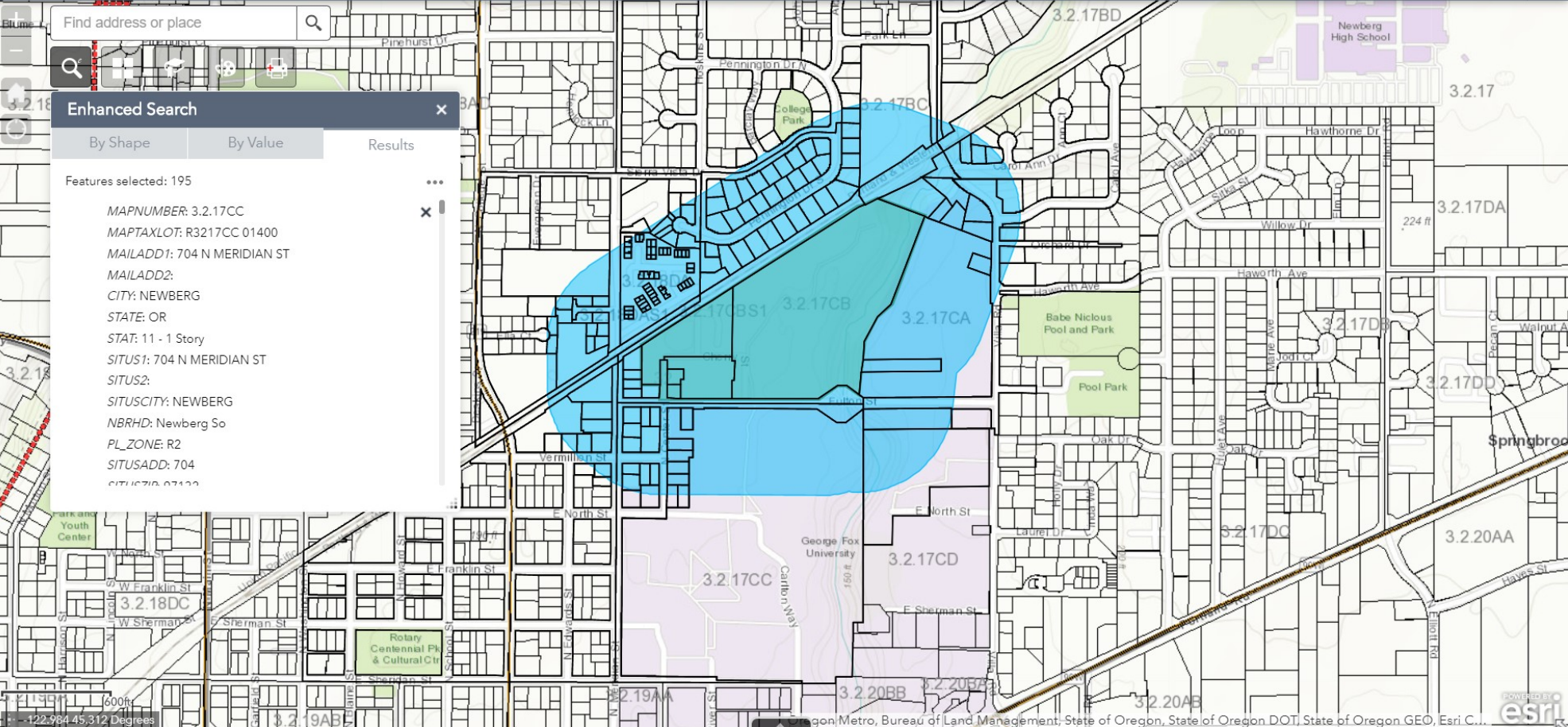
WILKINSON DOUGLAS C
1705 CAROL ANN DR
NEWBERG, OR 2017

WISER KAY J
1100 N MERIDIAN ST NO 15
NEWBERG, OR 2017

WOLHAUPTER-HAYES FAMILY LIVING
TRUST
PO BOX 10
AMITY, OR 2017

YOUNG DONNA M
1203 S PENNINGTON DR
NEWBERG, OR 2017

ZIEGENBEIN CYNTHIA L
1018 N COLLEGE ST
NEWBERG, OR 2017



MAPTAXLOT	OWNER 2	OWNER 1	OWNER 3	MAILADD1	MAILADD2	CITY	STATE	ZIP	SITUS2
R3217BC 00800			KWDS LLC	PO BOX 145		WILSONVILLE	OR	97070	1317 VILLA RD
R3217BC 00900			PUBLIC	535 NE 5TH ST		MCMINNVILLE	OR	97128	1209 SIERRA VISTA DR
R3217BC 00904			DULL DAVID A	1221 N PENNINGTON DR		NEWBERG	OR	97132	1221 N PENNINGTON DR
R3217BC 00905	WHITED RAYMOND M TRUSTEE	WHITED ELLEN L TRUSTEE	WHITED FAMILY LIVING TRUST	1225 N PENNINGTON DR		NEWBERG	OR	97132	1225 N PENNINGTON DR
R3217BC 00906			PHOENIX SCOTT R & CAROL M	1224 N PENNINGTON DR		NEWBERG	OR	97132	1224 N PENNINGTON DR
R3217BC 00915	KLIGEL ROBERT J TRUSTEE	KLIGEL MARY A TRUSTEE	KLIGEL ROBERT & MARY LIVING TRUST	1300 BARCLAY WY		NEWBERG	OR	97132	1300 BARCLAY WY
R3217BC 00916		JACKSON JAMES E	JACKSON PAMELA J	1109 SIERRA VISTA DR		NEWBERG	OR	97132	1109 SIERRA VISTA DR
R3217BD 00100			HAZELDEN SPRINGBROOK INC	PO BOX 11		CENTER CITY	MN	55012	1901 VILLA RD
R3217BD 02000		GOODWIN MARY K	GOODWIN STEVEN M SR	1701 CAROL ANN DR		NEWBERG	OR	97132	1701 CAROL ANN DR
R3217BD 02001		WILKINSON PAULINE J	WILKINSON DOUGLAS C	1705 CAROL ANN DR		NEWBERG	OR	97132	1705 CAROL ANN DR
R3217BD 02002	ALLEN MICHAEL A CO-TRUSTEE	ALLEN MARGARET S CO-TRUSTEE	ALLEN REVOCABLE LIVING TRUST	1709 ELDERBERRY CT		NEWBERG	OR	97132	1709 ELDERBERRY CT
R3217BD 02003		BARNETT CARLY M	BARNETT KATHERINE V	1713 ELDERBERRY CT		NEWBERG	OR	97132	1713 ELDERBERRY CT
R3217CA 00100		KWOK PATRICIA J	KWOK MICHAEL V	1300 VILLA RD		NEWBERG	OR	97132	1300 VILLA RD
R3217CA 00115			GRANT SARA H	1214 VILLA RD		NEWBERG	OR	97132	1800 CAROL AVE
R3217CA 00200			GRANT SARA H	1214 VILLA RD		NEWBERG	OR	97132	1214 VILLA RD
R3217CA 00900		HRYCIW MATTHEW P	HANSEN KEITH D	1808 CAROL AVE		NEWBERG	OR	97132	1118 VILLA RD
R3217CA 01000		MACKIE KELLYN J	MACKIE JUSTIN	1717 HAWORTH AVE		NEWBERG	OR	97132	1717 HAWORTH AVE
R3217CA 02700		ECKERDT GARY	ECKERDT SHIRLEY	1219 VILLA RD		NEWBERG	OR	97132	1219 VILLA RD
R3217CA 02701			BERRY TYSON	1301 VILLA RD		NEWBERG	OR	97132	1301 VILLA RD
R3217CA 02702		ELIAS JESSICA	ELIAS ALFONSO	1305 VILLA RD		NEWBERG	OR	97132	1305 VILLA RD
R3217CA 02704	MARTINEZ SALVADOR T TRUSTEE	MARTINEZ TERESA A TRUSTEE	MARTINEZ FAMILY TRUST	3428 NIMBUS CT		ROCKLIN	CA	95765	1309 VILLA RD
R3217CA 02705		RICH JACK D	RICH CARLA R	1303 VILLA RD		NEWBERG	OR	97132	1303 VILLA RD
R3217CA 02706			FRIENDSVIEW MANOR	1301 FULTON ST		NEWBERG	OR	97132	1315 VILLA RD
R3217CA 02800			GEORGE FOX UNIVERSITY	414 N MERIDIAN ST		NEWBERG	OR	97132	1109 VILLA RD
R3217CA 03002			GEORGE FOX UNIVERSITY	414 N MERIDIAN ST		NEWBERG	OR	97132	1109 VILLA RD
R3217CA 03200			GEORGE FOX UNIVERSITY	414 N MERIDIAN ST		NEWBERG	OR	97132	1109 VILLA RD
R3217CA 04000			GEORGE FOX UNIVERSITY	713 VILLA RD		NEWBERG	OR	97132	713 VILLA RD
R3217CB 00100	LEVANEN LEE &	LEVANEN LINDSAY 1%	LEVANEN LINDSEY 99%	1906 SE 25TH ST		BATTLE GROUND	WA	98604	1229 N PENNINGTON DR
R3217CB 00101		GORDON SPENCER M &	GORDON SAMANTHA C	1230 S PENNINGTON DR		NEWBERG	OR	97132	1230 S PENNINGTON DR
R3217CB 00102		SAMPLE DARRELL C	SAMPLE FUSA Y	1226 S PENNINGTON DR		NEWBERG	OR	97132	1226 S PENNINGTON DR
R3217CB 00103		EDMEADES ERNEST J	EDMEADES DESIREE L	1222 S PENNINGTON DR		NEWBERG	OR	97132	1222 S PENNINGTON DR
R3217CB 00104		APP DOREEN	APP KEVIN	1218 S PENNINGTON DR		NEWBERG	OR	97132	1218 S PENNINGTON DR
R3217CB 00105			SCHWINKENDOR MARY A	1958 GABLE CT NE		KEIZER	OR	97303	1214 S PENNINGTON DR
R3217CB 00106			RAYS INVESTMENTS LLC	810 SW VIEW CREST DR		DUNDEE	OR	97115	1210 S PENNINGTON DR
R3217CB 00107			BERTAGNA REBECCA J	PO BOX 308		NEWBERG	OR	97132	1206 S PENNINGTON DR
R3217CB 00108		MARTIN SERENA D	MARTIN BRET	23520 NE HYLAND DR		NEWBERG	OR	97132	1202 S PENNINGTON DR
R3217CB 00109			LACHMAN DONALD	35301 SW GEER RD		NEWBERG	OR	97132	1118 S PENNINGTON DR
R3217CB 00110		PAYTON BEVERLY K TRUSTEE FOR	PAYTON BEVERLY TRUST	16380 NE CHEHALEM DR		NEWBERG	OR	97132	1114 S PENNINGTON DR
R3217CB 00111	HAYES RICHARD L &	WOLHAUPTER JUDITH A TRUSTEES FOR	WOLHAUPTER-HAYES FAMILY LIVING TRUST	PO BOX 10		AMITY	OR	97101	
R3217CB 00112	JONES DARRELL L TRUSTEE	JONES RAE L TRUSTEE	JONES LIVING TRUST	PO BOX 3066		NEWBERG	OR	97132	
R3217CB 00114	SMITH GARY L TRUSTEE	HUBER KATHLEEN M TRUSTEE FOR	SMITH GARY L TRUST	1103 S PENNINGTON DR		NEWBERG	OR	97132	1103 S PENNINGTON DR
R3217CB 00115			VEATCH BRETT A	PO BOX 24		NEWBERG	OR	97132	1111 S PENNINGTON DR
R3217CB 00116			GREINER RICHARD S & SHERYL	1115 S PENNINGTON DR		NEWBERG	OR	97132	1115 S PENNINGTON DR
R3217CB 00117		BJURSTROM DONALD R &	PATTON CLAIRE E	1119 S PENNINGTON DR		NEWBERG	OR	97132	1119 S PENNINGTON DR
R3217CB 00118		YOUNG ROBERT A	YOUNG DONNA M	1203 S PENNINGTON DR		NEWBERG	OR	97132	1203 S PENNINGTON DR
R3217CB 00119			MORALES DAWN L	1207 S PENNINGTON DR		NEWBERG	OR	97132	1207 S PENNINGTON DR
R3217CB 00120			DORRELL RICK W & JILL M	1211 S PENNINGTON DR		NEWBERG	OR	97132	1211 S PENNINGTON DR
R3217CB 00121			RHINE STEPHEN B	1215 S PENNINGTON DR		NEWBERG	OR	97132	1215 S PENNINGTON DR
R3217CB 00122		GRAGE CAPRICE D	GRAGE CHRISTOPHER D	1223 S PENNINGTON DR		NEWBERG	OR	97132	1223 S PENNINGTON DR
R3217CB 00123		MILLER MAXIMILLIAN	MILLER CAITLIN	1216 SIERRA VISTA DR		NEWBERG	OR	97132	1216 SIERRA VISTA DR
R3217CB 00124			MEYER ROBERT F	1212 SIERRA VISTA DR		NEWBERG	OR	97132	1212 SIERRA VISTA DR
R3217CB 00125		MYERS JOANN E	MYERS WILLIAM M	1208 SIERRA VISTA DR		NEWBERG	OR	97132	1208 SIERRA VISTA DR
R3217CB 00126			FRANCIS ROBERT I & SHIRLEY A	1204 SIERRA VISTA DR		NEWBERG	OR	97132	1204 SIERRA VISTA DR
R3217CB 00127			EKLUND DAVID C & SHARON K	1200 SIERRA VISTA DR		NEWBERG	OR	97132	1200 SIERRA VISTA DR
R3217CB 00128		SIMMONS KATHERINE D	SIMMONS JAMES H	1112 SIERRA VISTA DR		NEWBERG	OR	97132	1112 SIERRA VISTA DR
R3217CB 00129			SHULER TOM L	PO BOX 655		NEWBERG	OR	97132	1108 SIERRA VISTA DR
R3217CB 00130			JOHNSON JAY T & SHERRY D	1104 SIERRA VISTA DR		NEWBERG	OR	97132	1104 SIERRA VISTA DR
R3217CB 00131			VEGA JUANA PINA	1208 HOSKINS ST		NEWBERG	OR	97132	1208 HOSKINS ST
R3217CB 00132			KRAMER RICHARD G & JO ANNE	1204 HOSKINS ST		NEWBERG	OR	97132	1204 HOSKINS ST

R3217CB 00133		THIEME RANDALL E	1104 S PENNINGTON DR	NEWBERG	OR	97132 1104 S PENNINGTON DR
R3217CB 00134	CHAVEZ HOMERO	CHAVEZ ALEJANDRO N (WROS)	1102 S PENNINGTON DR	NEWBERG	OR	97132
R3217CB 00135	BOLLINGER MARGARET TRUSTEE FOR	BOLLINGER MARGARET REVOCABLE LIV TRUST	PO BOX 3344	PORTLAND	OR	97208
R3217CB 00200		FRIENDSVIEW MANOR	1301 FULTON ST	NEWBERG	OR	97132
R3217CB 00500		FRIENDSVIEW MANOR	1301 FULTON ST	NEWBERG	OR	97132
R3217CB 01000	CADD HELEN R TRUSTEE &	CADD LIVING TRUST	909 E FULTON ST	NEWBERG	OR	97132
R3217CB 01100	COPELAND ANDY J	COPELAND CARA J	1301 E FULTON	NEWBERG	OR	97132
R3217CB 01200	DAVIS THOMAS E	DAVIS JO ANN	808 N MERIDIAN ST	NEWBERG	OR	97132
R3217CB 01300	PARK DAVID	PARK MARTHA E	804 N MERIDIAN ST NO 2	NEWBERG	OR	97132
R3217CB 01400		FRIENDSVIEW MANOR DBA	1301 FULTON ST	NEWBERG	OR	97132
R3217CB 01500		FRIENDSVIEW MANOR DBA	1301 E FULTON ST	NEWBERG	OR	97132
R3217CB 01600		FRIENDSVIEW MANOR DBA	1301 E FULTON ST	NEWBERG	OR	97132
R3217CB 02600		FRIENDSVIEW MANOR DBA	1301 FULTON ST	NEWBERG	OR	97132
R3217CC 00100		GEORGE FOX UNIVERSITY	422 N MERIDIAN ST	NEWBERG	OR	97132
R3217CC 00200		GEORGE FOX UNIVERSITY	1008 FULTON ST	NEWBERG	OR	97132
R3217CC 00500		KALENDA JOHN	706 N CENTER ST	NEWBERG	OR	97132
R3217CC 00600		GEORGE FOX UNIVERSITY	616 N CENTER ST	NEWBERG	OR	97132
R3217CC 00700	MCGANTY TERESA	MCGANTY TIM	612 N CENTER ST	NEWBERG	OR	97132
R3217CC 00800		GEORGE FOX UNIVERSITY	414 N MERIDIAN ST	NEWBERG	OR	97132
R3217CC 00900		GEORGE FOX UNIVERSITY	414 N MERIDIAN ST	NEWBERG	OR	97132
R3217CC 01000		GEORGE FOX UNIVERSITY	414 N MERIDIAN ST	NEWBERG	OR	97132
R3217CC 01100		ROBERTSONS ROLLIN E & NANCY J	914 FULTON ST	NEWBERG	OR	97132
R3217CC 01200	RIGGAN KAREN A	RIGGAN MICHAEL D	912 FULTON ST	NEWBERG	OR	97132
R3217CC 01300		GEORGE FOX UNIVERSITY	414 N MERIDIAN ST	NEWBERG	OR	97132
R3217CC 01400	BARNES ANNE	BARNES PATRICK	704 N MERIDIAN ST	NEWBERG	OR	97132
R3217CC 01500	ORR DAVID	ORR LESLIE	4430 ROSE VALLEY RD	KELSO	WA	98626
R3217CC 01600	LLOYD CONNIE B	LLOYD CARLETON H	915 VERMILLION ST	NEWBERG	OR	97132
R3217CC 01700		GEORGE FOX UNIVERSITY	414 N MERIDIAN ST	NEWBERG	OR	97132
R3217CC 01800		STEVENS VON T	912 VERMILLION ST	NEWBERG	OR	97132
R3217CC 01900		GEORGE FOX UNIVERSITY	414 N MERIDIAN ST	NEWBERG	OR	97132
R3217CC 02000		GEORGE FOX UNIVERSITY	414 N MERIDIAN ST	NEWBERG	OR	97132
R3217CC 02100		GEORGE FOX UNIVERSITY	414 N MERIDIAN ST	NEWBERG	OR	97132 903 E NORTH ST
R3217CC 02200		GEORGE FOX UNIVERSITY	414 N MERIDIAN ST	NEWBERG	OR	97132
R3217CD 04501		GEORGE FOX UNIVERSITY	414 N MERIDIAN ST	NEWBERG	OR	97132 709 VILLA RD
R3218DA 00100		NORTH MERIDIAN LLC	901 N BRUTSCHER ST NO D355	NEWBERG	OR	97132 1200 N MERIDIAN ST 19-24
R3218DA 00105		MARTIN JUDITH M	10275 SW HAZELBROOK	TUALATIN	OR	97062 1000 PENNINGTON DR B
R3218DA 00106		MCMASTER MELODY	18445 NE RAINBOW LN	NEWBERG	OR	97132 1221 HOSKINS ST A
R3218DA 00107		CAMMACK JANICE H	1011 PENNINGTON CT NO A	NEWBERG	OR	97132 1011 PENNINGTON CT
R3218DA 00108		NORTH MERIDIAN LLC	901 N BRUTSCHER ST NO D355	NEWBERG	OR	97132
R3218DA 00109	EVANS MICHAEL S &	EVANS KIMBERLIE A	1005 PENNINGTON CT	NEWBERG	OR	97132 1005 PENNINGTON CT
R3218DA 00110	COOK DANIEL B	COOK GUENNET M	PO BOX 5565	BEAVERTON	OR	97007 1000 PENNINGTON CT
R3218DA 00111		MARTIN JUDITH M	10275 SW HAZELBROOK ST	TUALATIN	OR	97062 1016 PENNINGTON DR A
R3218DA 00113		AA PROPERTY MANAGEMENT LLC	8551 SLEEPY HOLLOW RD NE	WOODBURN	OR	97071 1130 N MERIDIAN ST
R3218DA 00114		REDFIELD GREGORDY A	14710 SE CAROL AVE	MILWAUKIE	OR	97267 1003 PENNINGTON CT
R3218DA 02100		DESKINS COMMONS HOUSING LLC	135 NE DUNN PL	MCMINNVILLE	OR	97128
R3218DA 02300	ZIEGENBEIN KURT J	ZIEGENBEIN CYNTHIA L	1018 N COLLEGE ST	NEWBERG	OR	97132
R3218DA 02405		FISHER JAMES L JR	23225 NE DILLON RD	NEWBERG	OR	97132 725 ELLA CT
R3218DA 02406		FISHER JAMES L JR	1100 W SHERIDAN ST	NEWBERG	OR	97132
R3218DA 02505	SMITH BRIAN L &	SMITH MEGAN E	726 ELLA CT	NEWBERG	OR	97132 726 ELLA CT
R3218DA 02600		OREGON STATE OF	535 NE 5TH ST	MCMINNVILLE	OR	97128 730 N COLLEGE ST
R3218DA 02701	FISHER JACQUI L	FISHER JAMES L JR	23225 NE DILLON RD	NEWBERG	OR	97132
R3218DA 02702	FISHER JACQUI L	FISHER JAMES L JR	23225 NE DILLON RD	NEWBERG	OR	97132
R3218DA 02703	FISHER JACQUI L	FISHER JAMES L JR	23225 NE DILLON RD	NEWBERG	OR	97132 815 JACQUI CT
R3218DA 02704		BAIRD SUSAN V	PO BOX 328	NEWBERG	OR	97132 810 JACQUI CT
R3218DA 02705	FISHER JACQUI L	FISHER JAMES L JR	23225 NE DILLON RD	NEWBERG	OR	97132
R3218DA 02706	FISHER JACQUI L	FISHER JAMES L JR	23225 NE DILLON RD	NEWBERG	OR	97132
R3218DA 02800	SANCHEZ ROMUALDA G	RIZE JUSTINO G	925 N MERIDIAN ST	NEWBERG	OR	97132
R3218DA 02801		DORAN MICHAEL J & BARBARA G	PO BOX 1015	NEWBERG	OR	97132
R3218DA 02802		NEWBERG AREA HABITAT FOR HUMANITY	PO BOX 118	NEWBERG	OR	97132
R3218DA 02803	RODRIGUEZ TAVITA P	VEGA JORGE P	923 N MERIDIAN	NEWBERG	OR	97132

R3218DA 02804		STAHLNECKER DENNIS JR	921 N MERIDIAN ST	NEWBERG	OR	97132
R3218DA 90000		SPAULDING OAKS HOMEOWNERS ASSOCIATION	1100 N MERIDIAN ST	NEWBERG	OR	97132
R3218DA 90001		FRIENDSVIEW MANOR	1301 FULTON ST	NEWBERG	OR	97132 1100 N MERIDIAN ST 1
R3218DA 90002		FRIENDSVIEW MANOR	1301 FULTON ST	NEWBERG	OR	97132 1100 N MERIDIAN ST 2
R3218DA 90003		FRIENDSVIEW MANOR	1301 FULTON ST	NEWBERG	OR	97132 1100 N MERIDIAN ST 3
R3218DA 90004		FRIENDSVIEW MANOR	1301 FULTON ST	NEWBERG	OR	97132 1100 N MERIDIAN ST 4
R3218DA 90005		FRIENDSVIEW MANOR	1301 FULTON ST	NEWBERG	OR	97132 1100 N MERIDIAN ST 5
R3218DA 90006	HUBBARD GLEE TRUSTEE	HUBBARD HAROLD EXEMPTION TRUST	1100 N MERIDIAN ST NO 6	NEWBERG	OR	97132 1100 N MERIDIAN ST 6
R3218DA 90011		RIGGS JOETTE	1100 N MERIDIAN ST NO 11	NEWBERG	OR	97132 1100 N MERIDIAN ST 11
R3218DA 90016		LARSEN RIA	1100 N MERIDIAN ST 16	NEWBERG	OR	97132 1100 N MERIDIAN ST 16
R3218DA 90017		HARMON MARILYN R	1100 N MERIDIAN ST NO 17	NEWBERG	OR	97132 1100 N MERIDIAN ST 17
R3218DA 90018	WAIDE SANDRA K TRUSTEE	WAIDE SANDRA K LIVING TRUST	1100 N MERIDIAN ST NO 18	NEWBERG	OR	97132 1100 N MERIDIAN ST 18
R3218DA 90019		HUEFFED TODD	1100 N MERIDIAN ST UNIT 19	NEWBERG	OR	97132 1100 N MERIDIAN ST 19
R3218DA 90020		KELLEHER KATHRYN K	1100 N MERIDIAN ST APT 20	NEWBERG	OR	97132 1100 N MERIDIAN ST 20
R3218DA 90021	MCKINNEY PHYLLIS M	MCKINNEY STEPHEN J	1100 N MERIDIAN ST NO 21	NEWBERG	OR	97132 1100 N MERIDIAN ST 21
R3218DA 90022		SUAREZ CAROL A	1100 N MERIDIAN ST NO 22	NEWBERG	OR	97132 1100 N MERIDIAN ST 22
R3218DA 90023		FRIENDSVIEW MANOR INC	1301 E FULTON ST	NEWBERG	OR	97132 1100 N MERIDIAN ST 23
R3218DA 90024	WALLACE MAY O TRUSTEE FOR	WALLACE MAY O TRUST	1855 N COLLEGE ST	NEWBERG	OR	97132
R3218DA 90025	FIELDHOUSE MEREDITH	FIELDHOUSE R RONALD	1100 N MERIDIAN ST #25	NEWBERG	OR	97132
R3218DA 90026		FRIENDSVIEW MANOR	1301 FULTON ST	NEWBERG	OR	97132
R3218DA 90027		FRIENDSVIEW MANOR	1301 FULTON ST	NEWBERG	OR	97132
R3218DA 90028	BAUGH KATHERINE L	BAUGH GORDON D	1100 N MERIDIAN ST NO 28	NEWBERG	OR	97132
R3218DA 90029		FRIENDSVIEW MANOR	1301 FULTON ST	NEWBERG	OR	97132
R3218DA 90030		COX ESTHER L	1100 N MERIDIAN ST NO 30	NEWBERG	OR	97132
R3218DA 90031	STEINBORN BONNIE D TRUSTEE FOR	STEINBORN BONNIE D REVOCABLE TRUST	7785 SW FAIRWAY DR	WILSONVILLE	OR	97070
R3218DA 90032		GREEN DAVID M	1100 N MERIDIAN ST 32	NEWBERG	OR	97132
R3218DA 90033		MONTOYA JOHN	1100 N MERIDIAN ST NO 33	NEWBERG	OR	97132
R3218DA 90034		FRIENDSVIEW MANOR	1301 FULTON ST	NEWBERG	OR	97132
R3218DA 90035		DAVIS BARBARA	1100 N MERIDIAN ST NO 35	NEWBERG	OR	97132
R3218DA 90036		STURGILL CONNIE L	1100 N MERIDIAN ST 36	NEWBERG	OR	97132
R3218DA 90037	FARROW GREGORY A TRUSTEE	FARROW SHARON L TRUSTEE	FARROW GREGORY A & SHARON L 2014 TRUST	PO BOX 223	FORT DICK	CA 95538
R3218DA 90038			SIMPSON LIVING TRUST	PO BOX 1373	DEPOE BAY	OR 97341
R3218DA 90039			SCHLITTENHART KATHLEEN E	1100 N MERIDIAN ST #39	NEWBERG	OR 97132
R3218DA 90040			PHILLIPS PHILIP G & NANCY G	1100 N MERIDIAN ST NO 40	NEWBERG	OR 97132
R3218DA 90041			PUTNAM DEBRA	1100 N MERIDIAN ST UNIT 41	NEWBERG	OR 97132
R3218DA 90042			WEBB NANCY A	1100 N MERIDIAN ST NO 42	NEWBERG	OR 97132
R3218DA 90043	SARGENT LOUISE		SARGENT ROGER	26210 LANDSBURG RD SE	RAVENSDALE	WA 98051
R3218DA 90046	BAILEY APRIL L		BAILEY PAUL L	1100 N MERIDIAN ST 46	NEWBERG	OR 97132
R3218DA 90047	MARASCO DAVID &		MARASCO FARKHONDEH	13293 24 AVE	V4A 2G4 SURREY	BC
R3218DA 90050	KUHN JACK O JR		KUHN ORMA M	1100 N MERIDIAN ST UNIT 50	NEWBERG	OR 97132
R3218DA 90053			FRANEY LENORA	1100 N MERIDIAN ST NO 33	NEWBERG	OR 97132
R3218DA 90054			FERRING CAROL	1100 N MERIDIAN ST UNIT 54	NEWBERG	OR 97132
R3218DA 90107			FRIENDSVIEW MANOR	1301 FULTON ST	NEWBERG	OR 97132 1100 N MERIDIAN ST 7
R3218DA 90109	LEAVITT SUSAN L		LEAVITT CRAIG S	1100 N MERIDIAN ST NO 9	NEWBERG	OR 97132 1100 N MERIDIAN ST 9
R3218DA 90113			HELGESON RANDY L	1100 N MERIDIAN NO 13	NEWBERG	OR 97132 1100 N MERIDIAN ST 13
R3218DA 90115			WISER KAY J	1100 N MERIDIAN ST NO 15	NEWBERG	OR 97132 1100 N MERIDIAN ST 15
R3218DA 90145			LABER SUSAN D	1100 N MERIDIAN ST NO 45	NEWBERG	OR 97132
R3218DA 90149	FRIENDSVIEW MANOR DBA		FRIENDSVIEW RETIREMENT COMMUNITY	1301 FULTON ST	NEWBERG	OR 97132
R3218DA 90151			BAKER BARBARA G	1855 N COLLEGE ST	NEWBERG	OR 97132
R3218DA 90155	HOLVECK ROBERT K IRA		PENSCO TRUST COMPANY CUSTODIAN FBO	PO BOX 173859	DENVER	CO 80217
R3218DD 00100			NEWBERG AREA HABITAT FOR HUMANITY	PO BOX 118	NEWBERG	OR 97132
R3218DD 00200			DALE JASON E	PO BOX 248	NEWBERG	OR 97132
R3218DD 00300	PEREDA NABOR &	PEREDA MARIA &	PEREDA CONRADO	11980 NE WORDEN HILL RD	NEWBERG	OR 97132
R3218DD 00400		MANNING AILEEN E	MANNING DENNIS E	701 N MERIDIAN ST	NEWBERG	OR 97132
R3218DD 00500		OLSON MICAH	OLSON CHRISTINE	PO BOX 907	NEWBERG	OR 97132
R3218DD 00600			BAUGH DAVID L	1008 VILLA RD	NEWBERG	OR 97132 713 VERMILLION ST
R3218DD 00700	DEXTER KATHY L		DEXTER ROBERT L JR	801 VERMILLION ST	NEWBERG	OR 97132
R3218DD 00800			SULLY PETER O	803 VERMILLION ST	NEWBERG	OR 97132
R3218DD 04200		BUCKLEY CHARLES E & JULIA T TRUSTEES FOR	BUCKLEY FAMILY TRUST	5124 E BURNSIDE ST	PORTLAND	OR 97215
R3218DD 04700		MCCORMICK JONATHAN &	MCCORMICK AMY	611 N MERIDIAN ST	NEWBERG	OR 97132

R3218DD 04800	PEREDA CONRADO P &	PEREDA J NABOR	PEREDA MARIA	615 N MERIDIAN ST	NEWBERG	OR	97132
			CITY OF NEWBERG	414 E 1ST ST	NEWBERG	OR	
R3220 00300		ATTN: JERRY DALE	AIRPARK PROPERTIES LLC	PO BOX 248	NEWBERG	OR	97132

R3217BC RAILS
R3217BC ROADS
R3217BC ROADS
R3218DA RAILS
R3218DA ROADS
R3217CC ROADS
R3217CB RAILS
R3217CB ROADS
R3217CA ROADS
R3217BD RAILS
R3217BD ROADS
R3217BD ROADS
R3218DD RAILS
R3218DD ROADS

Exhibit F: Traffic Impact Analysis Update Memo

September 13, 2020

Dave Hampton
Friendsview Manor
1001 E. Fulton St.
Newberg, OR 97132



Re: University Village - Phase 2

Mr Hampton,

This report assess the need for an update of the original Traffic Impact Analysis (TIA) report dated October 8, 2015 for development approval of the proposed University Village Phase 2 project.

The 2015 TIA analyzed all four phases of the proposed project totaling 175 units and included the following intersections:

1. Fulton at Meridian
2. Fulton at Center
3. Fulton east Friendsview Manor Entrance
4. Fulton at Villa

For trip generation, the 2015 TIA used the Senior Adult Housing - Attached (ITE 252) category from the 8th Edition of the Trip Generation Manual published by the Institute of Transportation Engineers. In comparison with the current 10th Edition, the trip generation rates per unit for the AM and PM peak hour used in the 2015 study fall within the 10th Edition trip rate per unit range. The following table compares the 8th and 10th Edition trip values per living unit.

	Trip Rate Used in 2015 TIA (8th Edition)	10th Edition Trip Rate Range
AM Peak	0.13	0.07 - 0.64
PM Peak	0.16	0.06 - 0.53

Each phase involves construction of new units that displace some existing housing units. The net increase is used in the TIA. Since the 2015 TIA, the number of units per phase has been modified, however, the net total remains the same. See the following table for a summary comparing the net new units for each project phase:

Phase	2015 Plan	2020 Plan
1- Completed	38	38
2 - Proposed	76	83
3 - Future	38	31
4 - Future	23	23
TOTAL	175	175

The findings of the 2015 report determined that the additional traffic at full build-out would not cause the studied intersections to perform at levels below standards. As there is no changes in the unit trip generation rates or the total number of units planned through all four phases since the 2015 TIA, it is reasonable to conclude that the findings of the original TIA are still valid. Therefore a new or updated TIA is not warranted.

Sincerely,



Daniel Danicic, P.E.
ddanicic@atepinc.com
 Cell 503-476-7702



EXPIRES 12/31/21

Exhibit G: Preliminary Stormwater Report

Friendsview University Village Phase 2 Newberg, Oregon

Preliminary Stormwater Report

Date: August 2020

Client: LRS Architects
720 NW Davis Street, Suite 300
Portland, OR 97209

Engineering Contact: Steve Roper, PE
503-563-6151 | ropers@aks-eng.com

Prepared By: Drew Rommel

Engineering Firm: AKS Engineering & Forestry, LLC
12965 SW Herman Road
Suite 100
Tualatin, OR 97062

AKS Job Number: 3199

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Figure 1: Vicinity Map

Figure 2: Friendsview University Village Phasing Plan

Figure 3: Phase 2 Pre-Developed Basin Delineation Map

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Appendices

Appendix A: HydroCAD Reports for Phase 1 Pre-Developed Condition Storm Events

Appendix B: HydroCAD Reports for Phase 1 Post-Developed Condition Storm Events

Appendix C: NRCS Soil Resource Report

Appendix D: TR-55 Runoff Curve Numbers

Preliminary Stormwater Report
FRIENDSVIEW
UNIVERSITY VILLAGE PHASE 2
NEWBERG, OREGON

1.0 Purpose of Report

The purpose of this report is to analyze effects the proposed project will have on the existing stormwater conveyance system. Analysis includes documentation of the criteria, methodology, and informational sources used to design the final stormwater system. The results of the final hydraulic system are also presented.

2.0 Project Location/Description

The proposed Friendsview development (Phases I - IV) consists of 22 different tax lots (500,600, 700, 800, 804, 900, 1000, 1001, 1200, 1300, 1400, 1500, 1600, 1700, 1800, 1900, 2000, 2200, 2300, 2400, 2500, 2600, Yamhill County Assessor’s Map 3S 2W 17CB) and is located at the intersection of N Center Street and E Cherry Street, in Newberg Oregon.

The Friendsview project includes the development of single-family attached dwellings, consolidation of lots, vacation of existing right-of-way, curbs, sidewalks, landscaping, and associated underground utilities. Table 2-1 below outlines the work to be completed in each phase of the project.

Table 2-1: Friendsview Phased Summary of Work	
Phase	Summary of Work
Phase 1	<ul style="list-style-type: none"> • Consolidation of Tax Lots 800, 804, 900, 1001, 1300, & 1400 • Vacating of E Cherry Street • Construction of Building C (see Figure 2 – Phasing Plan) • Construction of four storm planters for stormwater treatment & detention
Phase 2	<ul style="list-style-type: none"> • Consolidation of Tax Lots 1500, 1600, 1700, 1800, 1900, 2000, 2200, 2300, 2400, 2500 & 2600 • Vacating of N Center Street • Construction of Building A (see Figure 2 – Phasing Plan) • Construction of storm planters for stormwater treatment & detention
Phase 3	<ul style="list-style-type: none"> • Construction of Building B (see Figure 2 – Phasing Plan)
Phase 4	<ul style="list-style-type: none"> • Consolidation of Tax Lots 1000 & 1200 • Construction of Building D (see Figure 2 – Phasing Plan)

The second phase of the Friendsview development, referred to in this report as University Village Phase 2, will encompass ±1.78 acres (Lots 1500, 1600, 1700, 1800, 1900, 2000, 2200, 2300, 2400, 2500, 2600



Yamhill County Assessor’s Map 3S 2W 17CB), and will include the construction of Building A (see Figure 2 – Phasing Plan for reference).

Stormwater management for Friendsview University Village Phase 2 is provided using Low Impact Development Approach (LIDA) flow-through planters. All stormwater treatment planters will be designed with outlet structures to release the post-developed site peak flow at or below the pre-developed rates, and will be designed according to the City of Newberg’s Public Works Standard Drawing 452.

3.0 Regulatory Design Criteria

Stormwater design criteria are dictated by the City of Newberg’s *Public Works Design and Construction Standards*, dated August 2015. Per Figure 4.4 below, the proposed development will create more than 2,877 square feet of net new impervious area and disturbs more than 1 acre. Table 3-1 below highlights the comparison of impervious area from pre- to post-developed conditions for Phase 2 and for the ultimate buildout of the Friendsview development.

4.6 Water Quantity and Quality Facilities

Figure 4.4 Storm water Quality & Quantity Design Flow Chart

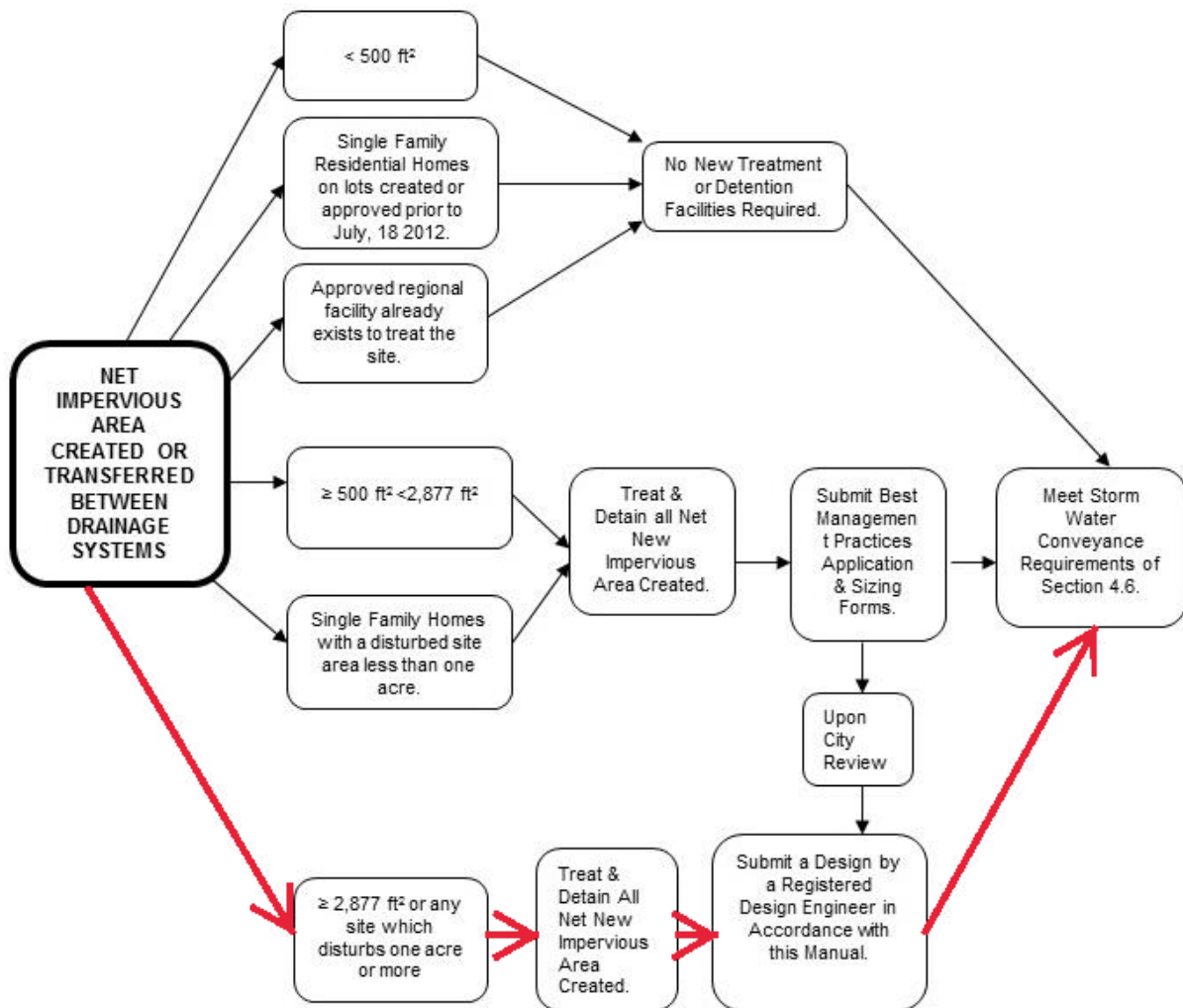


Table 3-1: Impervious Area Summary Table		
Phase	Existing Impervious Area (square feet)	Proposed Impervious Area (square feet)
Phase 2	± 41,741	± 51,222
Master Plan	± 143,832	± 151,879

Per City of Newberg standards, all net new impervious area created must be treated and detained. In accordance with City of Newberg *Public Works Design and Construction Standards*, the design of the proposed LIDA facilities was designed per city standards and checked against the *City of Portland Stormwater Management Manual*, dated August 2016, to ensure the design is adequate. Table 3-2 below highlights the required sizing of the LIDA facilities.

Table 3-2: LIDA Facility Sizing Table			
Facility	Impervious Area Routed to Facility (square feet)	Required Sizing (square feet)	Proposed Planter Size (square feet)
LIDA Planter 1 (NW)	± 4,670	± 280	± 323
LIDA Planter 2 (NE)	± 4,670	± 280	± 280

As shown in Table 3-2, the proposed planter sizes meet or exceed the minimum required by City of Newberg standards, and therefore provides more than adequate treatment area for the net new impervious area created in Phase 2 of the Friendsview Development.

3.1. Stormwater Quantity

Per City of Newberg’s *Public Works Design and Construction Standards*, it is required that the post-development runoff rates from the site do not exceed the pre-development runoff rates.

4.7.1.III Water Quantity Facility Design & Control Standards

Stormwater quantity on-site detention facilities shall be designed to capture runoff so the post-development runoff rates from the site do not exceed the pre-development runoff rates from the site, based on 24-hour storm events ranging from ½ of the 2-year return storm to the 25-year return storm. Specifically, the ½ of the 2, 2, 10, and 25-year post-development runoff rates will not exceed their respective ½ of the 2, 2, 10, and 25-year pre-development runoff rates...

Per City of Newberg standards, the proposed development will provide stormwater quantity management with LIDA flow-through planters. The proposed Phase 2 conveyance system and stormwater management facilities will be designed to detain the post-developed runoff rates from the site so they do not exceed the pre-developed rates. More information regarding pre- to post-developed runoff rates can be referenced in Appendices A & B.

3.2. Stormwater Quality

Based on the criteria outlined by the City of Newberg’s *Public Works Design and Construction Standards*, stormwater facilities are designed based on the following:

4.8.5. Water Quality Storm

The storm defines both volume and rate of runoff. The stormwater quality only facilities shall be designed for a dry weather storm event totaling 1.0 inches of precipitation falling in 24 hours with an average storm return period of 96 hours using Figure 4-3, rainfall distribution.

4.0 Design Methodology

The Santa Barbara Urban Hydrograph (SBUH) Method is used to analyze stormwater runoff from the site. This method utilizes the Natural Resource Conservation Service (NRCS) Type 1A 24-hour design storm. HydroCAD 10.0 computer software is used to model the existing hydrology and the stormwater facility hydraulics. Representative runoff curve numbers (CN) were obtained from the NRCS Urban Hydrology for Small Watersheds (Technical Release 55) and are attached as Appendix D.

5.0 Design Parameters

5.1. Design Storms

The stormwater analysis uses the 24-hour storm for the evaluation and design of the existing and proposed stormwater conveyance systems. As stated in section 4.5.1 of the City of Newberg’s *Public Works Design and Construction Standards*, the following 24-hour rainfall intensities were used as the design storm for each recurrence interval:

Table 5-1: Rainfall Intensities	
Recurrence Interval (Years)	Total Precipitation Depth (Inches)
½ 2-year	1.25
2-year	2.50
10-year	4.00
25-year	4.40

5.2. Pre-Developed Site Conditions

5.2.1. Site Topography

Existing on-site grades generally vary from ±2 to ±3 percent, with half the site draining toward Center Street and the other half draining towards the private drive to the east of the site. The site has a high point of ±199 feet in the northwest corner, and a low point of ±195 feet in the southeast corner. The site generally slopes toward the eastern property line, and existing runoff flows east along Fulton Street prior to discharging into Hess Creek.

5.2.2. Land Use

The existing site consists of residential properties with paved and gravel driveways, sidewalk areas, houses, sheds, and trees.

5.3. Soil Type

The soil beneath the project site and associated drainage basins are classified as various loams, according to the NRCS Soil Survey of Yamhill County area, Oregon. The following table outlines the ratings for the Hydrologic Soil Group types:

Table 5-2: Hydrologic Soil Group Ratings		
NRCS Map Unit Identification	NRCS Soil Classification	Hydrologic Soil Group Rating
2300A	Aloha Silt Loam	C/D

Additional information on these soil types is referenced in the NRCS Soil Resource Report attached as Appendix C.

5.4. Post-Developed Site Conditions

5.4.1. Site Topography

The on-site slopes will be modified with cuts and fills to accommodate the construction of the residential building, an underground parking garage, concrete patios, pathways, and LIDA flow-through planters. Post-developed stormwater runoff will generally maintain existing drainage patterns and will be routed to the stormwater planters at the southern side of the building abutting Fulton Street. See attached Figure 3: Post-Developed Basin Delineation Map, for reference.

5.4.2. Land Use

The post-developed site will consist of a multi-unit residential building, with associated paths, sidewalks, and underground utilities.

5.4.3. Post-Developed Input Parameters

The HydroCAD reports for all relevant storm events used in the pre-developed and post-developed analysis of the site can be referenced in the attached Appendices A and B. These reports include all design parameters (e.g. impervious/pervious surfaces, time of concentration, etc.) applied to model the post-developed hydrology of the site.

5.4.4. Description of Off-Site Contributing Basins

There are no major off-site contributory basins draining onto the subject site.

6.0 Stormwater Analyses

6.1. Stormwater Conduit Sizing and Inlet Spacing

The storm system pipes have been sized using Manning’s equation to convey the peak flows from the 25-year storm event. Complete storm pipe sizing calculations can be referenced in Appendix B.

6.2. Stormwater Quality Control Facility Design

6.2.1. LIDA Flow-Through Planters

To treat the runoff from the net new impervious surface, stormwater runoff from the site will be routed to two LIDA flow-through planters located along the north side of the building (see Figure 4: Post-Developed Basin Delineation Map). The LIDA flow-through planters have been designed and sized per City of Newberg standards and checked against the *City of Portland Stormwater Management Manual* to provide water quality treatment for the contributing impervious areas.

6.3. Stormwater Quantity Control Facility Design

The project will provide stormwater quantity management using LIDA flow-through planters. The LIDA facilities have been designed to provide detention to release the post-developed peak flows at or below

the pre-development rates. Table 6-1 below highlights the comparison of pre- and post-development flow rates:

Table 6-1: Peak Pre- and Post-Development Flow Comparison			
Recurrence Interval (Years)	Peak Pre-Development Flow (cubic feet per second)	Peak Post-Development Flow (cubic feet per second)	Peak Flow Increase or (Decrease) (cubic feet per second)
½ of 2	0.28	0.28	0.00
2	0.79	0.66	(0.13)
10	1.46	1.28	(0.18)
25	1.64	1.43	(0.21)

The capacity of the existing 8-inch pipe east of the site, and therefore of the proposed pipe connecting to it, is 1.31 cubic feet per second. While the capacity of the existing infrastructure limits the peak post-development flow that can be captured for both the 10-year and 25-year storm to 1.31 cubic feet per second, the overall post-development flow for the site is still limited to below the pre-developed rates (as seen in Table 6-1 above), and therefore meets the design requirements of the City of Newberg standards.

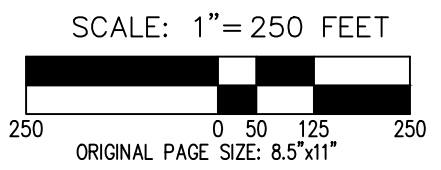
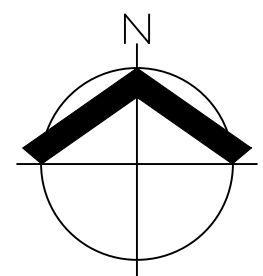
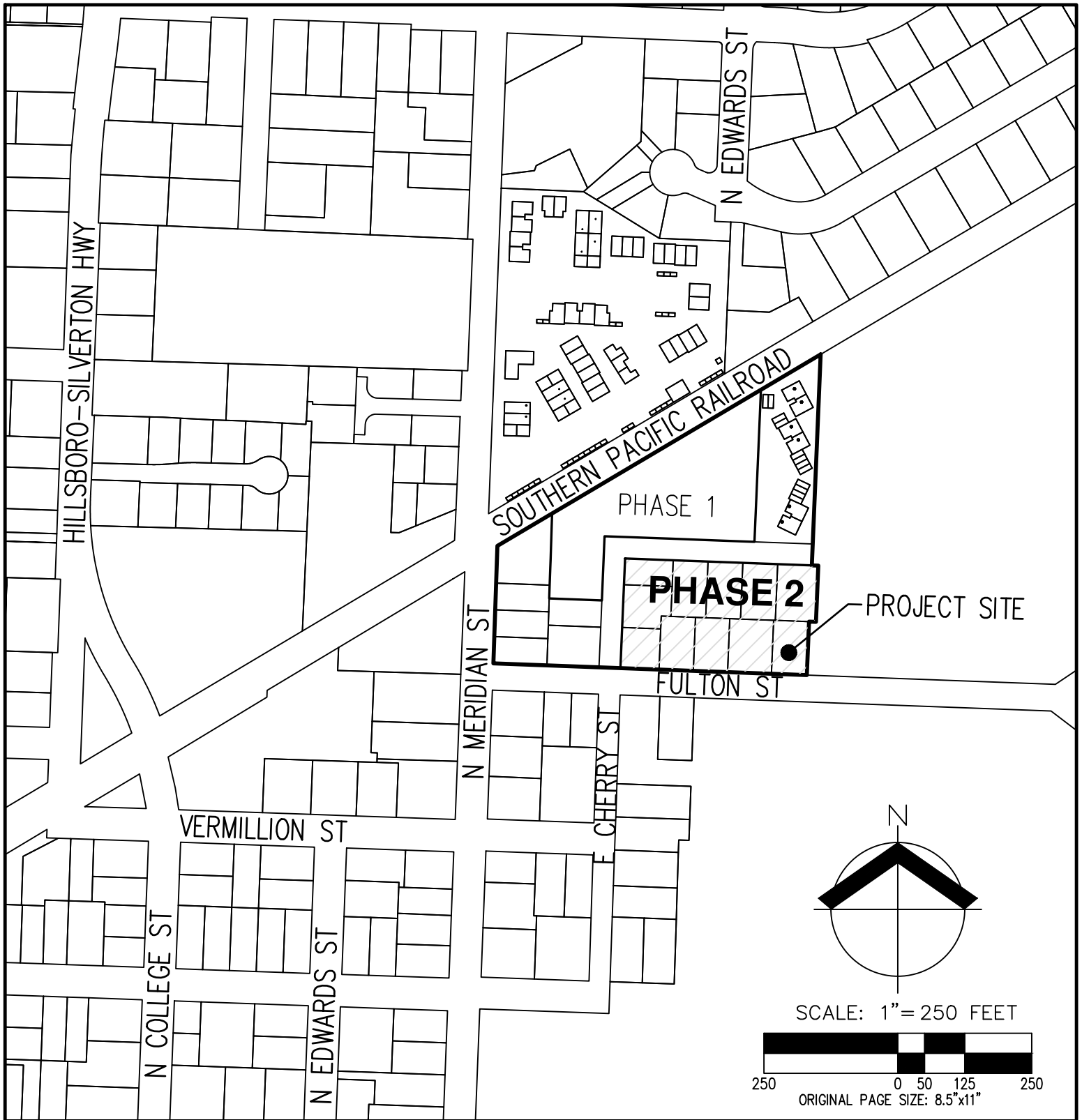
6.4. Downstream Analysis

Per City of Newberg requirements, the design engineer shall provide a stamped certification of investigation that stated the design engineer has conducted a visual investigation of the downstream system for at least one-quarter (1/4) mile downstream and that there are no observable downstream impacts to the conveyance system. This one-quarter mile downstream visual investigation was completed during Phase 1 of the Friendsview University Village development.

The existing public stormwater system located to the east of the site is 8 inches in diameter and flows south from E Cherry Street to Fulton Street at a slope of approximately 1.18 percent and has a capacity of 1.31 cubic feet per second. The 8-inch storm line then connects to an 8-inch line along Fulton Street before flowing east for approximately 260 feet and discharging into Hess Creek.

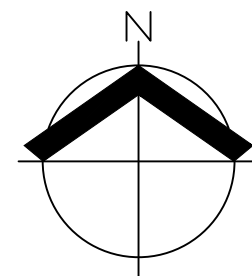
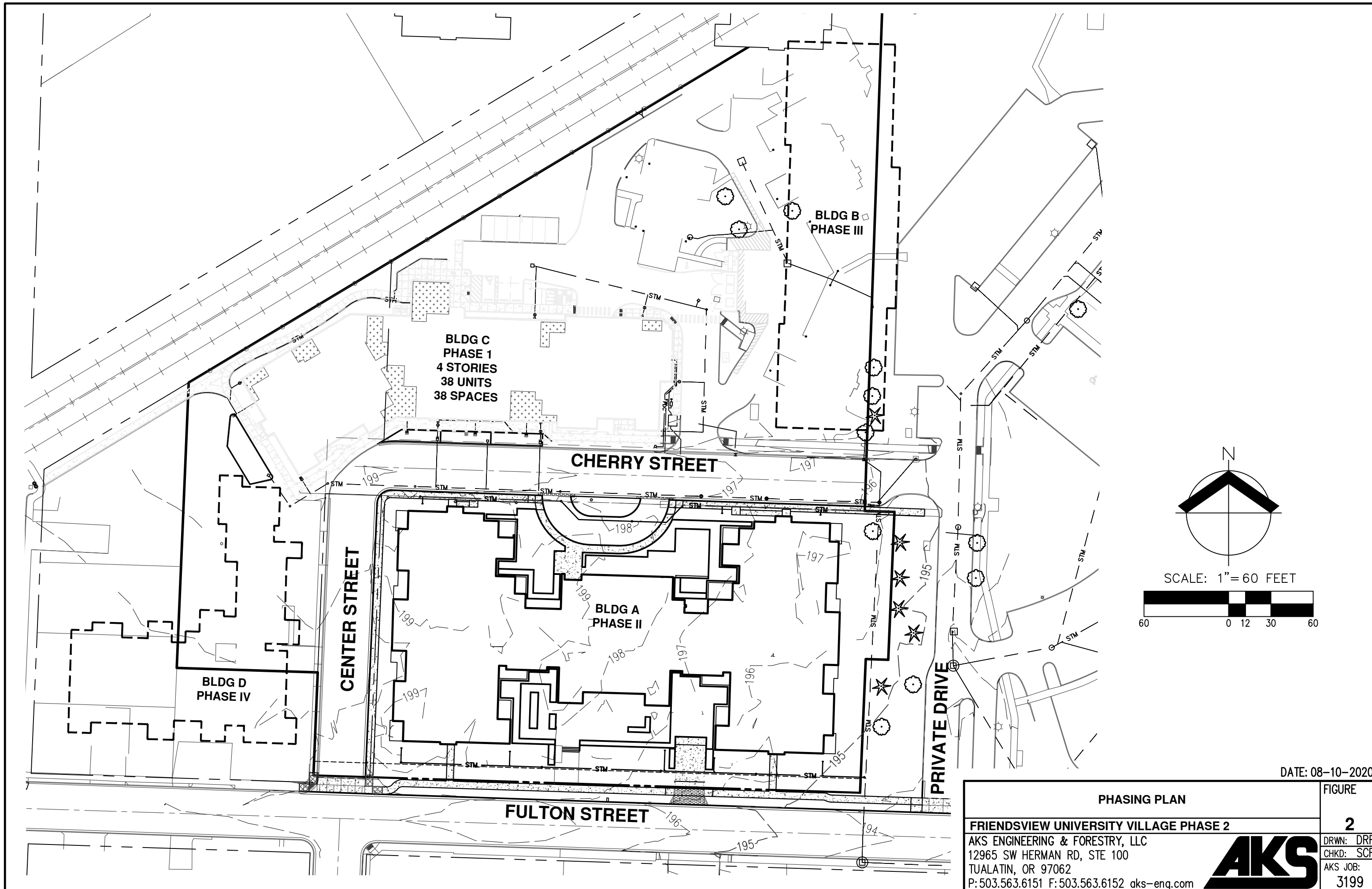
Accompanying the downstream analysis completed by AKS Engineering & Forestry, Hess Creek was also analyzed to confirm there are no observable impacts. Downstream of the site, Hess Creek flows through a dual, oversized corrugated metal pipe (CMP) culvert crossing beneath a gravel access road located on the campus of George Fox University. Further downstream, Hess Creek flows through another single oversized CMP culvert crossing beneath an asphalt access road. The one-quarter (1/4) mile downstream visual inspection was terminated where Hess Creek flows through a concrete box culvert beneath Pacific Highway West. At the time of the inspection, there was no evidence of overflowing at any culvert locations listed. Water levels at the time of inspection were well below the top of the stream bank, with freeboard of ±3 feet in most areas. There were no signs of flow restrictions, as the creek was free of debris and obstructions.

Though phase 2 of the Friendsview University Village development will create ±8,231 square feet of net new impervious area, stormwater will be detained with the use of flow through planters, in turn creating a net decrease in flows being released from the project site. Appendices A and B contain the complete HydroCAD analysis of pre- to post-developed conditions for the project.

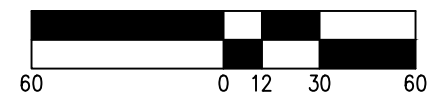


DATE: 08-10-2020

<p>FRIENDSVIEW UNIVERSITY VILLAGE PHASE 2 VICINITY MAP</p>	<p>FIGURE 1</p>
<p>AKS ENGINEERING & FORESTRY, LLC 12965 SW HERMAN RD, STE 100 TUALATIN, OR 97062 503.563.6151 WWW.AKS-ENG.COM</p>	 <p>DRWN: DRR CHKD: SCR AKS JOB: 3199</p>



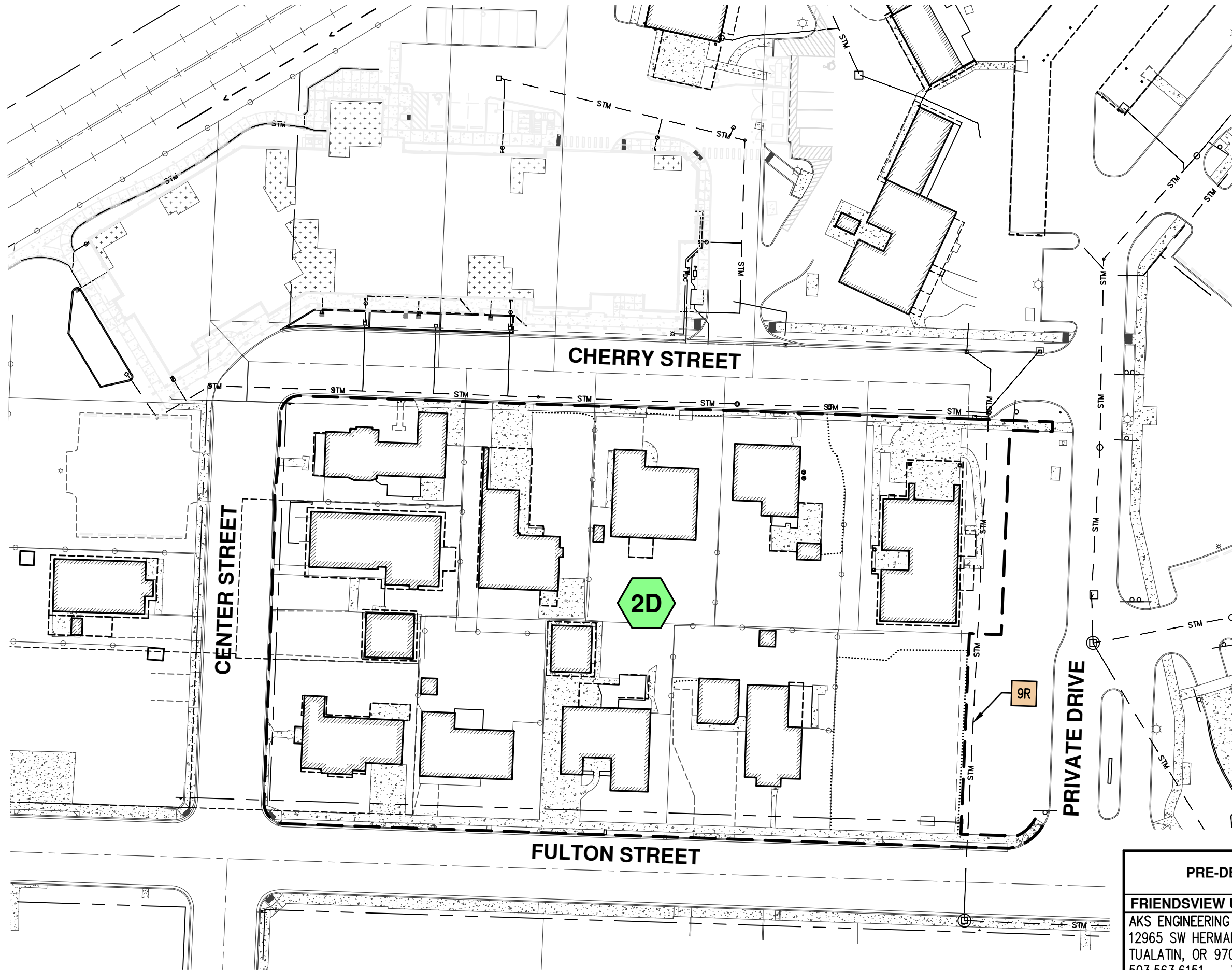
SCALE: 1" = 60 FEET





DATE: 08-10-2020

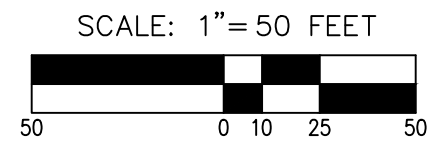
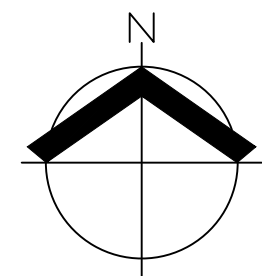
PHASING PLAN	FIGURE
FRIENDSVIEW UNIVERSITY VILLAGE PHASE 2	2
AKS ENGINEERING & FORESTRY, LLC 12965 SW HERMAN RD, STE 100 TUALATIN, OR 97062 P: 503.563.6151 F: 503.563.6152 aks-eng.com	DRWN: DRR CHKD: SCR AKS JOB: 3199





LEGEND

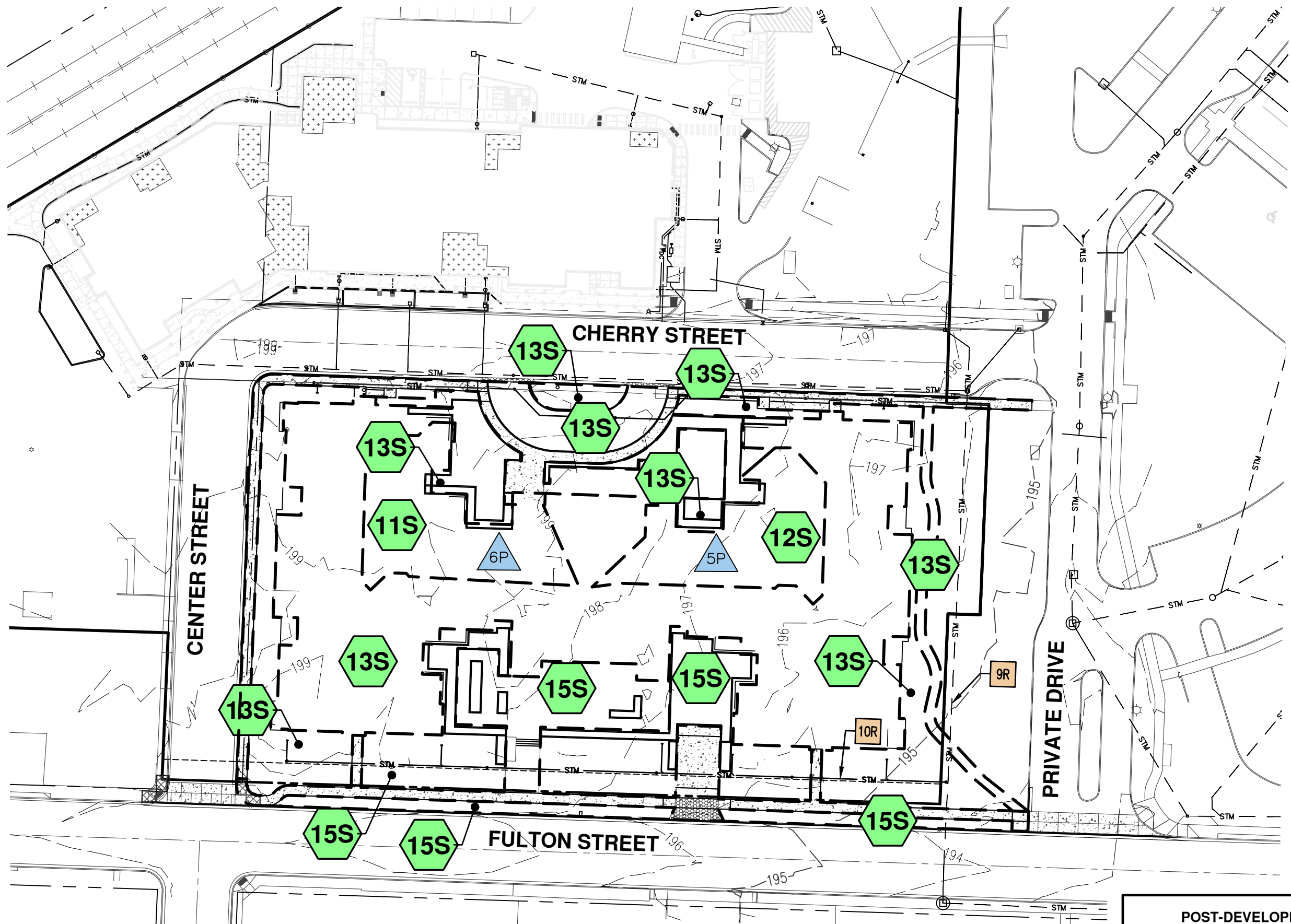
-  1S - SUBCATCHMENT
-  1R - STORMWATER MAIN






DATE: 08-10-2020

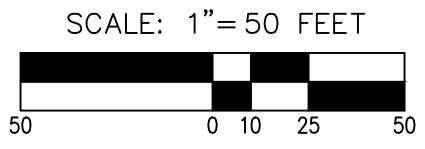
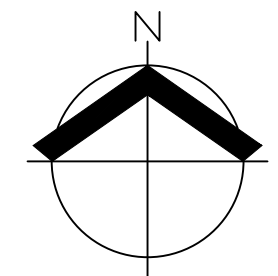
PRE-DEVELOPED BASIN DELINEATION MAP		FIGURE
FRIENDSVIEW UNIVERSITY VILLAGE PHASE 2		3
AKS ENGINEERING & FORESTRY, LLC 12965 SW HERMAN RD, STE 100 TUALATIN, OR 97062 503.563.6151 WWW.AKS-ENG.COM		DRWN: DRR CHKD: SCR AKS JOB: 3199





LEGEND

-  1S - SUBCATCHMENT
-  1P - STORMWATER FACILITY
-  1R - STORMWATER MAIN

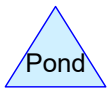
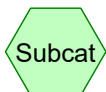
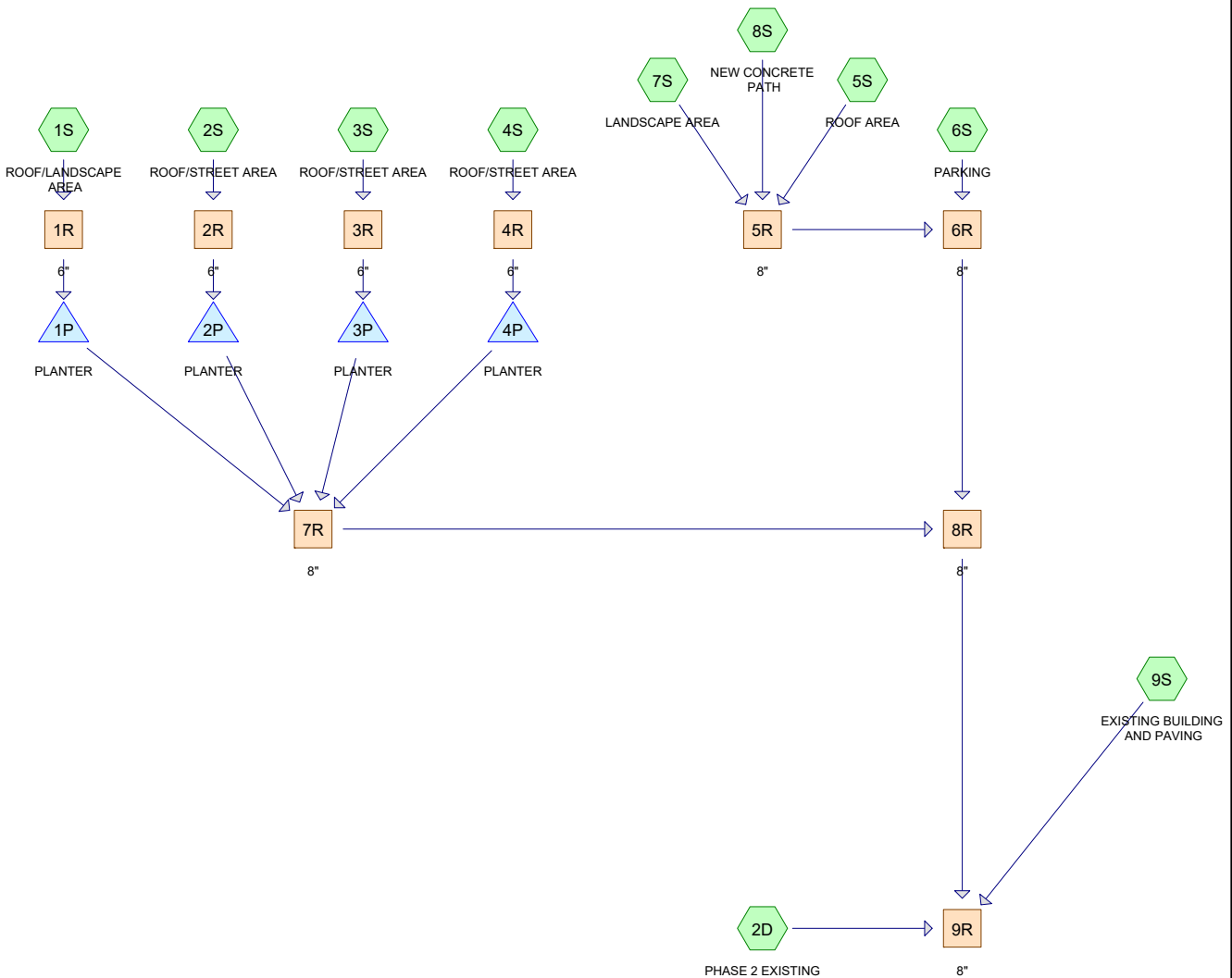


DATE: 08-10-2020

POST-DEVELOPED BASIN DELINEATION MAP		FIGURE
FRIENDSVIEW UNIVERSITY VILLAGE PHASE 2		4
AKS ENGINEERING & FORESTRY, LLC 12965 SW HERMAN RD, STE 100 TUALATIN, OR 97062 P: 503.563.6151 F: 503.563.6152 aks-eng.com		DRWN: DRR CHKD: SCR AKS JOB: 3199



**Appendix A: HydroCAD Reports for Phase 1
Pre-Developed Condition Storm Events
(25-Year Storm Event Analysis)**



Routing Diagram for 3199 PRE DEV
 Prepared by AKS Engineering & Forestry LLC, Printed 8/10/2020
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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.958	84	50-75% Grass cover, Fair, HSG D (2D)
0.099	80	>75% Grass cover, Good, HSG D (7S)
0.125	98	Concrete path (8S)
0.183	98	Existing Building and Paving (9S)
0.048	80	LANDSCAPING (1S)
0.261	98	Parking Area (6S)
0.052	98	Pavement (2S, 3S, 4S)
0.958	98	Pavement & roofs (2D)
0.596	98	Roof Area (1S, 2S, 3S, 4S, 5S)

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points

Runoff by SBUH method, Split Pervious/Imperv.

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: ROOF/LANDSCAPE	Runoff Area=11,794 sf 82.42% Impervious Runoff Depth>0.88" Tc=5.0 min CN=80/98 Runoff=0.06 cfs 0.020 af
Subcatchment 2D: PHASE 2 EXISTING	Runoff Area=83,492 sf 49.99% Impervious Runoff Depth>0.65" Tc=5.0 min CN=84/98 Runoff=0.28 cfs 0.104 af
Subcatchment 2S: ROOF/STREET AREA	Runoff Area=2,867 sf 100.00% Impervious Runoff Depth>1.03" Tc=5.0 min CN=0/98 Runoff=0.02 cfs 0.006 af
Subcatchment 3S: ROOF/STREET AREA	Runoff Area=1,964 sf 100.00% Impervious Runoff Depth>1.03" Tc=5.0 min CN=0/98 Runoff=0.01 cfs 0.004 af
Subcatchment 4S: ROOF/STREET AREA	Runoff Area=1,987 sf 100.00% Impervious Runoff Depth>1.03" Tc=5.0 min CN=0/98 Runoff=0.01 cfs 0.004 af
Subcatchment 5S: ROOF AREA	Runoff Area=11,691 sf 100.00% Impervious Runoff Depth>1.03" Tc=5.0 min CN=0/98 Runoff=0.07 cfs 0.023 af
Subcatchment 6S: PARKING	Runoff Area=11,368 sf 100.00% Impervious Runoff Depth>1.03" Tc=5.0 min CN=0/98 Runoff=0.07 cfs 0.022 af
Subcatchment 7S: LANDSCAPE AREA	Runoff Area=4,313 sf 0.00% Impervious Runoff Depth>0.17" Tc=5.0 min CN=80/0 Runoff=0.00 cfs 0.001 af
Subcatchment 8S: NEW CONCRETE PATH	Runoff Area=5,454 sf 100.00% Impervious Runoff Depth>1.03" Tc=5.0 min CN=0/98 Runoff=0.03 cfs 0.011 af
Subcatchment 9S: EXISTING BUILDING	Runoff Area=7,986 sf 100.00% Impervious Runoff Depth>1.03" Tc=5.0 min CN=0/98 Runoff=0.05 cfs 0.016 af
Reach 1R: 6"	Avg. Flow Depth=0.09' Max Vel=2.67 fps Inflow=0.06 cfs 0.020 af 6.0" Round Pipe n=0.013 L=18.0' S=0.0278 '/' Capacity=0.94 cfs Outflow=0.06 cfs 0.020 af
Reach 2R: 6"	Avg. Flow Depth=0.04' Max Vel=2.28 fps Inflow=0.02 cfs 0.006 af 6.0" Round Pipe n=0.013 L=10.0' S=0.0500 '/' Capacity=1.25 cfs Outflow=0.02 cfs 0.006 af
Reach 3R: 6"	Avg. Flow Depth=0.03' Max Vel=2.03 fps Inflow=0.01 cfs 0.004 af 6.0" Round Pipe n=0.013 L=10.0' S=0.0500 '/' Capacity=1.25 cfs Outflow=0.01 cfs 0.004 af
Reach 4R: 6"	Avg. Flow Depth=0.03' Max Vel=2.04 fps Inflow=0.01 cfs 0.004 af 6.0" Round Pipe n=0.013 L=10.0' S=0.0500 '/' Capacity=1.25 cfs Outflow=0.01 cfs 0.004 af
Reach 5R: 8"	Avg. Flow Depth=0.16' Max Vel=1.66 fps Inflow=0.11 cfs 0.035 af 8.0" Round Pipe n=0.013 L=126.2' S=0.0050 '/' Capacity=0.85 cfs Outflow=0.11 cfs 0.035 af
Reach 6R: 8"	Avg. Flow Depth=0.17' Max Vel=2.47 fps Inflow=0.18 cfs 0.058 af 8.0" Round Pipe n=0.013 L=132.6' S=0.0100 '/' Capacity=1.21 cfs Outflow=0.17 cfs 0.058 af

3199 PRE DEV

Type IA 24-hr 1/2 2 YEAR Rainfall=1.25"

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Reach 7R: 8"	Avg. Flow Depth=0.05' Max Vel=0.77 fps Inflow=0.01 cfs 0.003 af
8.0" Round Pipe n=0.013 L=265.0' S=0.0050 '/' Capacity=0.85 cfs Outflow=0.01 cfs 0.003 af	
Reach 8R: 8"	Avg. Flow Depth=0.20' Max Vel=1.92 fps Inflow=0.17 cfs 0.061 af
8.0" Round Pipe n=0.013 L=126.5' S=0.0050 '/' Capacity=0.85 cfs Outflow=0.17 cfs 0.061 af	
Reach 9R: 8"	Avg. Flow Depth=0.29' Max Vel=3.52 fps Inflow=0.51 cfs 0.181 af
8.0" Round Pipe n=0.013 L=255.0' S=0.0118 '/' Capacity=1.31 cfs Outflow=0.51 cfs 0.181 af	
Pond 1P: PLANTER	Peak Elev=198.51' Storage=724 cf Inflow=0.06 cfs 0.020 af Outflow=0.01 cfs 0.003 af
Pond 2P: PLANTER	Peak Elev=197.51' Storage=242 cf Inflow=0.02 cfs 0.006 af Outflow=0.00 cfs 0.000 af
Pond 3P: PLANTER	Peak Elev=197.19' Storage=169 cf Inflow=0.01 cfs 0.004 af Outflow=0.00 cfs 0.000 af
Pond 4P: PLANTER	Peak Elev=197.17' Storage=171 cf Inflow=0.01 cfs 0.004 af Outflow=0.00 cfs 0.000 af

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
 Runoff by SBUH method, Split Pervious/Imperv.
 Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: ROOF/LANDSCAPE	Runoff Area=11,794 sf 82.42% Impervious Runoff Depth>2.02" Tc=5.0 min CN=80/98 Runoff=0.14 cfs 0.046 af
Subcatchment 2D: PHASE 2 EXISTING	Runoff Area=83,492 sf 49.99% Impervious Runoff Depth>1.69" Tc=5.0 min CN=84/98 Runoff=0.79 cfs 0.270 af
Subcatchment 2S: ROOF/STREET AREA	Runoff Area=2,867 sf 100.00% Impervious Runoff Depth>2.27" Tc=5.0 min CN=0/98 Runoff=0.04 cfs 0.012 af
Subcatchment 3S: ROOF/STREET AREA	Runoff Area=1,964 sf 100.00% Impervious Runoff Depth>2.27" Tc=5.0 min CN=0/98 Runoff=0.03 cfs 0.009 af
Subcatchment 4S: ROOF/STREET AREA	Runoff Area=1,987 sf 100.00% Impervious Runoff Depth>2.27" Tc=5.0 min CN=0/98 Runoff=0.03 cfs 0.009 af
Subcatchment 5S: ROOF AREA	Runoff Area=11,691 sf 100.00% Impervious Runoff Depth>2.27" Tc=5.0 min CN=0/98 Runoff=0.15 cfs 0.051 af
Subcatchment 6S: PARKING	Runoff Area=11,368 sf 100.00% Impervious Runoff Depth>2.27" Tc=5.0 min CN=0/98 Runoff=0.15 cfs 0.049 af
Subcatchment 7S: LANDSCAPE AREA	Runoff Area=4,313 sf 0.00% Impervious Runoff Depth>0.89" Tc=5.0 min CN=80/0 Runoff=0.02 cfs 0.007 af
Subcatchment 8S: NEW CONCRETE PATH	Runoff Area=5,454 sf 100.00% Impervious Runoff Depth>2.27" Tc=5.0 min CN=0/98 Runoff=0.07 cfs 0.024 af
Subcatchment 9S: EXISTING BUILDING	Runoff Area=7,986 sf 100.00% Impervious Runoff Depth>2.27" Tc=5.0 min CN=0/98 Runoff=0.11 cfs 0.035 af
Reach 1R: 6"	Avg. Flow Depth=0.13' Max Vel=3.40 fps Inflow=0.14 cfs 0.046 af 6.0" Round Pipe n=0.013 L=18.0' S=0.0278 '/ Capacity=0.94 cfs Outflow=0.14 cfs 0.046 af
Reach 2R: 6"	Avg. Flow Depth=0.06' Max Vel=2.87 fps Inflow=0.04 cfs 0.012 af 6.0" Round Pipe n=0.013 L=10.0' S=0.0500 '/ Capacity=1.25 cfs Outflow=0.04 cfs 0.012 af
Reach 3R: 6"	Avg. Flow Depth=0.05' Max Vel=2.56 fps Inflow=0.03 cfs 0.009 af 6.0" Round Pipe n=0.013 L=10.0' S=0.0500 '/ Capacity=1.25 cfs Outflow=0.03 cfs 0.009 af
Reach 4R: 6"	Avg. Flow Depth=0.05' Max Vel=2.57 fps Inflow=0.03 cfs 0.009 af 6.0" Round Pipe n=0.013 L=10.0' S=0.0500 '/ Capacity=1.25 cfs Outflow=0.03 cfs 0.009 af
Reach 5R: 8"	Avg. Flow Depth=0.24' Max Vel=2.11 fps Inflow=0.24 cfs 0.082 af 8.0" Round Pipe n=0.013 L=126.2' S=0.0050 '/ Capacity=0.85 cfs Outflow=0.24 cfs 0.082 af
Reach 6R: 8"	Avg. Flow Depth=0.26' Max Vel=3.10 fps Inflow=0.39 cfs 0.131 af 8.0" Round Pipe n=0.013 L=132.6' S=0.0100 '/ Capacity=1.21 cfs Outflow=0.39 cfs 0.131 af

3199 PRE DEV

Type IA 24-hr 2 YEAR Rainfall=2.50"

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Reach 7R: 8"	Avg. Flow Depth=0.12' Max Vel=1.40 fps Inflow=0.06 cfs 0.041 af
8.0" Round Pipe n=0.013 L=265.0' S=0.0050 '/' Capacity=0.85 cfs Outflow=0.06 cfs 0.041 af	
Reach 8R: 8"	Avg. Flow Depth=0.32' Max Vel=2.39 fps Inflow=0.39 cfs 0.172 af
8.0" Round Pipe n=0.013 L=126.5' S=0.0050 '/' Capacity=0.85 cfs Outflow=0.39 cfs 0.171 af	
Reach 9R: 8"	Avg. Flow Depth=0.53' Max Vel=4.29 fps Inflow=1.28 cfs 0.476 af
8.0" Round Pipe n=0.013 L=255.0' S=0.0118 '/' Capacity=1.31 cfs Outflow=1.28 cfs 0.476 af	
Pond 1P: PLANTER	Peak Elev=198.54' Storage=748 cf Inflow=0.14 cfs 0.046 af Outflow=0.06 cfs 0.029 af
Pond 2P: PLANTER	Peak Elev=197.52' Storage=247 cf Inflow=0.04 cfs 0.012 af Outflow=0.01 cfs 0.007 af
Pond 3P: PLANTER	Peak Elev=197.51' Storage=259 cf Inflow=0.03 cfs 0.009 af Outflow=0.00 cfs 0.003 af
Pond 4P: PLANTER	Peak Elev=197.51' Storage=272 cf Inflow=0.03 cfs 0.009 af Outflow=0.00 cfs 0.002 af

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
 Runoff by SBUH method, Split Pervious/Imperv.
 Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: ROOF/LANDSCAPE	Runoff Area=11,794 sf 82.42% Impervious Runoff Depth>3.46" Tc=5.0 min CN=80/98 Runoff=0.23 cfs 0.078 af
Subcatchment 2D: PHASE 2 EXISTING	Runoff Area=83,492 sf 49.99% Impervious Runoff Depth>3.06" Tc=5.0 min CN=84/98 Runoff=1.46 cfs 0.489 af
Subcatchment 2S: ROOF/STREET AREA	Runoff Area=2,867 sf 100.00% Impervious Runoff Depth>3.76" Tc=5.0 min CN=0/98 Runoff=0.06 cfs 0.021 af
Subcatchment 3S: ROOF/STREET AREA	Runoff Area=1,964 sf 100.00% Impervious Runoff Depth>3.76" Tc=5.0 min CN=0/98 Runoff=0.04 cfs 0.014 af
Subcatchment 4S: ROOF/STREET AREA	Runoff Area=1,987 sf 100.00% Impervious Runoff Depth>3.76" Tc=5.0 min CN=0/98 Runoff=0.04 cfs 0.014 af
Subcatchment 5S: ROOF AREA	Runoff Area=11,691 sf 100.00% Impervious Runoff Depth>3.76" Tc=5.0 min CN=0/98 Runoff=0.25 cfs 0.084 af
Subcatchment 6S: PARKING	Runoff Area=11,368 sf 100.00% Impervious Runoff Depth>3.76" Tc=5.0 min CN=0/98 Runoff=0.25 cfs 0.082 af
Subcatchment 7S: LANDSCAPE AREA	Runoff Area=4,313 sf 0.00% Impervious Runoff Depth>2.04" Tc=5.0 min CN=80/0 Runoff=0.05 cfs 0.017 af
Subcatchment 8S: NEW CONCRETE PATH	Runoff Area=5,454 sf 100.00% Impervious Runoff Depth>3.76" Tc=5.0 min CN=0/98 Runoff=0.12 cfs 0.039 af
Subcatchment 9S: EXISTING BUILDING	Runoff Area=7,986 sf 100.00% Impervious Runoff Depth>3.76" Tc=5.0 min CN=0/98 Runoff=0.17 cfs 0.057 af
Reach 1R: 6"	Avg. Flow Depth=0.17' Max Vel=3.95 fps Inflow=0.23 cfs 0.078 af 6.0" Round Pipe n=0.013 L=18.0' S=0.0278 '/ Capacity=0.94 cfs Outflow=0.23 cfs 0.078 af
Reach 2R: 6"	Avg. Flow Depth=0.08' Max Vel=3.32 fps Inflow=0.06 cfs 0.021 af 6.0" Round Pipe n=0.013 L=10.0' S=0.0500 '/ Capacity=1.25 cfs Outflow=0.06 cfs 0.021 af
Reach 3R: 6"	Avg. Flow Depth=0.06' Max Vel=2.96 fps Inflow=0.04 cfs 0.014 af 6.0" Round Pipe n=0.013 L=10.0' S=0.0500 '/ Capacity=1.25 cfs Outflow=0.04 cfs 0.014 af
Reach 4R: 6"	Avg. Flow Depth=0.06' Max Vel=2.97 fps Inflow=0.04 cfs 0.014 af 6.0" Round Pipe n=0.013 L=10.0' S=0.0500 '/ Capacity=1.25 cfs Outflow=0.04 cfs 0.014 af
Reach 5R: 8"	Avg. Flow Depth=0.33' Max Vel=2.43 fps Inflow=0.42 cfs 0.140 af 8.0" Round Pipe n=0.013 L=126.2' S=0.0050 '/ Capacity=0.85 cfs Outflow=0.42 cfs 0.140 af
Reach 6R: 8"	Avg. Flow Depth=0.35' Max Vel=3.54 fps Inflow=0.66 cfs 0.222 af 8.0" Round Pipe n=0.013 L=132.6' S=0.0100 '/ Capacity=1.21 cfs Outflow=0.66 cfs 0.222 af

3199 PRE DEV

Type IA 24-hr 10 YEAR Rainfall=4.00"

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Reach 7R: 8"	Avg. Flow Depth=0.27'	Max Vel=2.21 fps	Inflow=0.29 cfs	0.092 af
8.0" Round Pipe n=0.013 L=265.0' S=0.0050 '/'	Capacity=0.85 cfs	Outflow=0.29 cfs	0.092 af	
Reach 8R: 8"	Avg. Flow Depth=0.67'	Max Vel=2.78 fps	Inflow=0.95 cfs	0.314 af
8.0" Round Pipe n=0.013 L=126.5' S=0.0050 '/'	Capacity=0.85 cfs	Outflow=0.91 cfs	0.314 af	
Reach 9R: 8"	Avg. Flow Depth=0.67'	Max Vel=4.20 fps	Inflow=2.52 cfs	0.860 af
8.0" Round Pipe n=0.013 L=255.0' S=0.0118 '/'	Capacity=1.31 cfs	Outflow=1.43 cfs	0.860 af	
Pond 1P: PLANTER	Peak Elev=198.60'	Storage=797 cf	Inflow=0.23 cfs	0.078 af
			Outflow=0.23 cfs	0.061 af
Pond 2P: PLANTER	Peak Elev=197.57'	Storage=259 cf	Inflow=0.06 cfs	0.021 af
			Outflow=0.06 cfs	0.015 af
Pond 3P: PLANTER	Peak Elev=197.53'	Storage=264 cf	Inflow=0.04 cfs	0.014 af
			Outflow=0.02 cfs	0.008 af
Pond 4P: PLANTER	Peak Elev=197.53'	Storage=277 cf	Inflow=0.04 cfs	0.014 af
			Outflow=0.02 cfs	0.008 af

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
 Runoff by SBUH method, Split Pervious/Imperv.
 Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: ROOF/LANDSCAPE	Runoff Area=11,794 sf 82.42% Impervious Runoff Depth>3.84" Tc=5.0 min CN=80/98 Runoff=0.26 cfs 0.087 af
Subcatchment 2D: PHASE 2 EXISTING	Runoff Area=83,492 sf 49.99% Impervious Runoff Depth>3.44" Tc=5.0 min CN=84/98 Runoff=1.64 cfs 0.549 af
Subcatchment 2S: ROOF/STREET AREA	Runoff Area=2,867 sf 100.00% Impervious Runoff Depth>4.16" Tc=5.0 min CN=0/98 Runoff=0.07 cfs 0.023 af
Subcatchment 3S: ROOF/STREET AREA	Runoff Area=1,964 sf 100.00% Impervious Runoff Depth>4.16" Tc=5.0 min CN=0/98 Runoff=0.05 cfs 0.016 af
Subcatchment 4S: ROOF/STREET AREA	Runoff Area=1,987 sf 100.00% Impervious Runoff Depth>4.16" Tc=5.0 min CN=0/98 Runoff=0.05 cfs 0.016 af
Subcatchment 5S: ROOF AREA	Runoff Area=11,691 sf 100.00% Impervious Runoff Depth>4.16" Tc=5.0 min CN=0/98 Runoff=0.28 cfs 0.093 af
Subcatchment 6S: PARKING	Runoff Area=11,368 sf 100.00% Impervious Runoff Depth>4.16" Tc=5.0 min CN=0/98 Runoff=0.27 cfs 0.090 af
Subcatchment 7S: LANDSCAPE AREA	Runoff Area=4,313 sf 0.00% Impervious Runoff Depth>2.37" Tc=5.0 min CN=80/0 Runoff=0.06 cfs 0.020 af
Subcatchment 8S: NEW CONCRETE PATH	Runoff Area=5,454 sf 100.00% Impervious Runoff Depth>4.16" Tc=5.0 min CN=0/98 Runoff=0.13 cfs 0.043 af
Subcatchment 9S: EXISTING BUILDING	Runoff Area=7,986 sf 100.00% Impervious Runoff Depth>4.16" Tc=5.0 min CN=0/98 Runoff=0.19 cfs 0.064 af
Reach 1R: 6"	Avg. Flow Depth=0.18' Max Vel=4.07 fps Inflow=0.26 cfs 0.087 af 6.0" Round Pipe n=0.013 L=18.0' S=0.0278 '/' Capacity=0.94 cfs Outflow=0.26 cfs 0.087 af
Reach 2R: 6"	Avg. Flow Depth=0.08' Max Vel=3.42 fps Inflow=0.07 cfs 0.023 af 6.0" Round Pipe n=0.013 L=10.0' S=0.0500 '/' Capacity=1.25 cfs Outflow=0.07 cfs 0.023 af
Reach 3R: 6"	Avg. Flow Depth=0.07' Max Vel=3.05 fps Inflow=0.05 cfs 0.016 af 6.0" Round Pipe n=0.013 L=10.0' S=0.0500 '/' Capacity=1.25 cfs Outflow=0.05 cfs 0.016 af
Reach 4R: 6"	Avg. Flow Depth=0.07' Max Vel=3.06 fps Inflow=0.05 cfs 0.016 af 6.0" Round Pipe n=0.013 L=10.0' S=0.0500 '/' Capacity=1.25 cfs Outflow=0.05 cfs 0.016 af
Reach 5R: 8"	Avg. Flow Depth=0.35' Max Vel=2.50 fps Inflow=0.46 cfs 0.156 af 8.0" Round Pipe n=0.013 L=126.2' S=0.0050 '/' Capacity=0.85 cfs Outflow=0.46 cfs 0.156 af
Reach 6R: 8"	Avg. Flow Depth=0.37' Max Vel=3.63 fps Inflow=0.73 cfs 0.246 af 8.0" Round Pipe n=0.013 L=132.6' S=0.0100 '/' Capacity=1.21 cfs Outflow=0.73 cfs 0.246 af

3199 PRE DEV

Type IA 24-hr 25 YEAR Rainfall=4.40"

Prepared by AKS Engineering & Forestry LLC

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Reach 7R: 8"	Avg. Flow Depth=0.28'	Max Vel=2.27 fps	Inflow=0.32 cfs	0.106 af
8.0" Round Pipe n=0.013 L=265.0' S=0.0050 '/'	Capacity=0.85 cfs	Outflow=0.32 cfs	0.106 af	
Reach 8R: 8"	Avg. Flow Depth=0.67'	Max Vel=2.78 fps	Inflow=1.05 cfs	0.352 af
8.0" Round Pipe n=0.013 L=126.5' S=0.0050 '/'	Capacity=0.85 cfs	Outflow=0.91 cfs	0.352 af	
Reach 9R: 8"	Avg. Flow Depth=0.67'	Max Vel=4.29 fps	Inflow=2.68 cfs	0.965 af
8.0" Round Pipe n=0.013 L=255.0' S=0.0118 '/'	Capacity=1.31 cfs	Outflow=1.33 cfs	0.964 af	
Pond 1P: PLANTER	Peak Elev=198.61'	Storage=803 cf	Inflow=0.26 cfs	0.087 af
			Outflow=0.26 cfs	0.070 af
Pond 2P: PLANTER	Peak Elev=197.57'	Storage=260 cf	Inflow=0.07 cfs	0.023 af
			Outflow=0.07 cfs	0.017 af
Pond 3P: PLANTER	Peak Elev=197.54'	Storage=267 cf	Inflow=0.05 cfs	0.016 af
			Outflow=0.03 cfs	0.010 af
Pond 4P: PLANTER	Peak Elev=197.54'	Storage=279 cf	Inflow=0.05 cfs	0.016 af
			Outflow=0.02 cfs	0.010 af

Summary for Subcatchment 1S: ROOF/LANDSCAPE AREA

Runoff = 0.26 cfs @ 7.91 hrs, Volume= 0.087 af, Depth> 3.84"

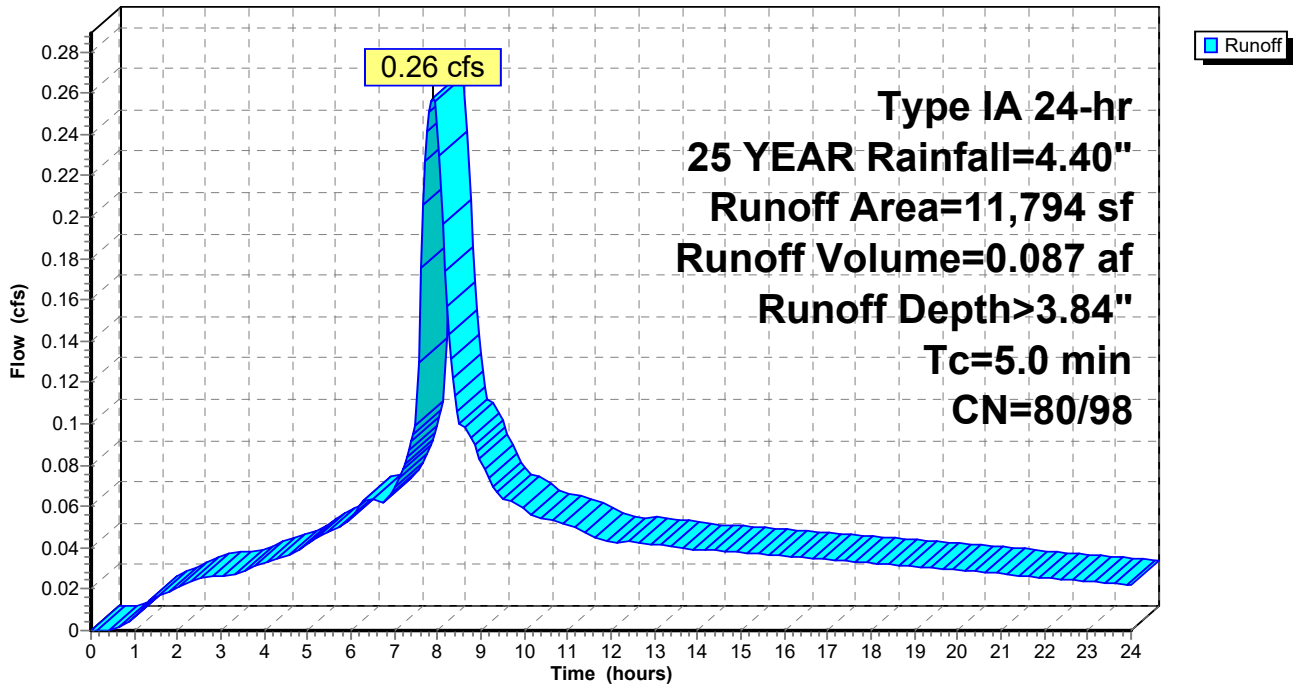
Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type IA 24-hr 25 YEAR Rainfall=4.40"

	Area (sf)	CN	Description
*	9,721	98	Roof Area
*	2,073	80	LANDSCAPING
	11,794	95	Weighted Average
	2,073		17.58% Pervious Area
	9,721		82.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 1S: ROOF/LANDSCAPE AREA

Hydrograph



Summary for Subcatchment 2D: PHASE 2 EXISTING

Runoff = 1.64 cfs @ 7.92 hrs, Volume= 0.549 af, Depth> 3.44"

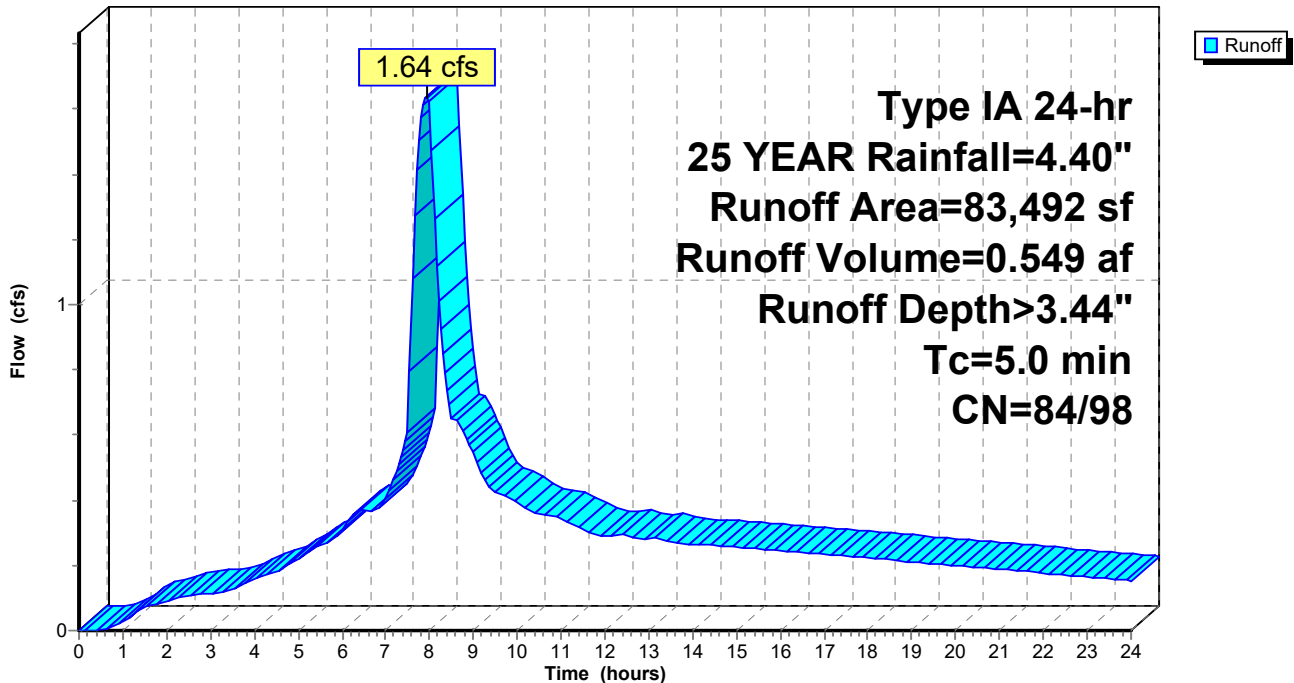
Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type IA 24-hr 25 YEAR Rainfall=4.40"

Area (sf)	CN	Description
41,751	84	50-75% Grass cover, Fair, HSG D
* 41,741	98	Pavement & roofs
83,492	91	Weighted Average
41,751		50.01% Pervious Area
41,741		49.99% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 2D: PHASE 2 EXISTING

Hydrograph



Summary for Subcatchment 2S: ROOF/STREET AREA

Runoff = 0.07 cfs @ 7.90 hrs, Volume= 0.023 af, Depth> 4.16"

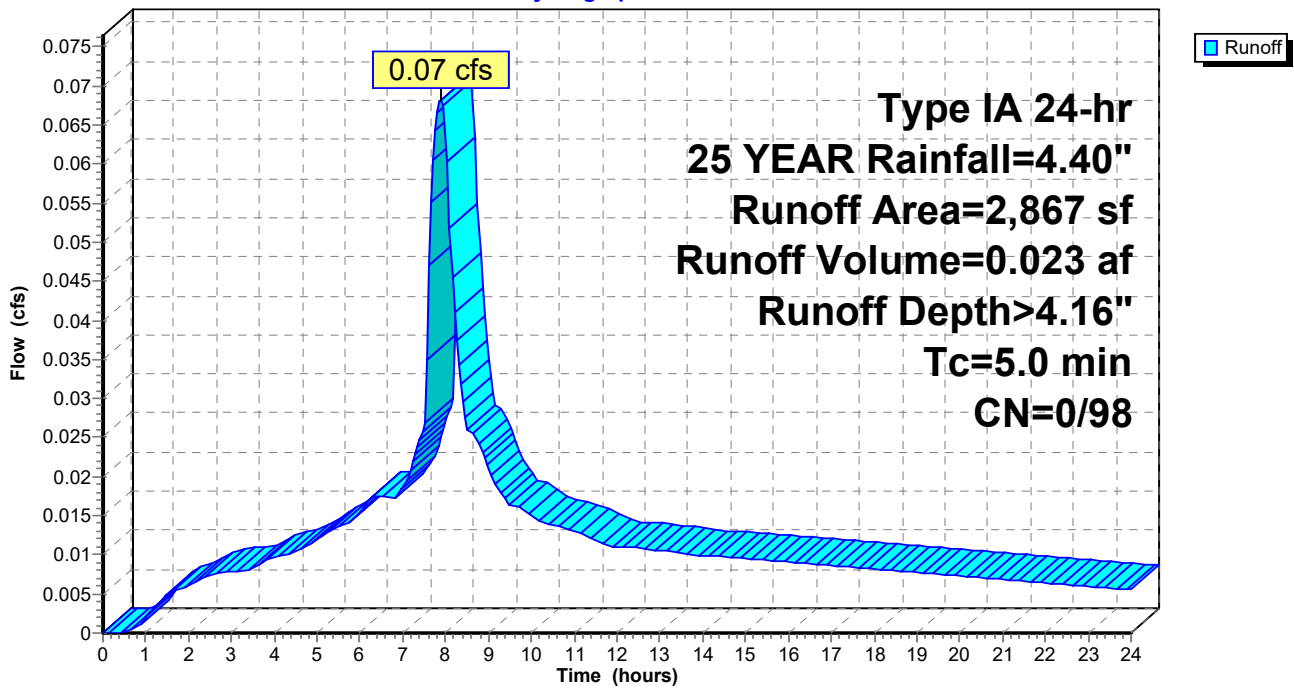
Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type IA 24-hr 25 YEAR Rainfall=4.40"

	Area (sf)	CN	Description
*	1,849	98	Roof Area
*	1,018	98	Pavement
	2,867	98	Weighted Average
	2,867		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 2S: ROOF/STREET AREA

Hydrograph



Summary for Subcatchment 3S: ROOF/STREET AREA

Runoff = 0.05 cfs @ 7.90 hrs, Volume= 0.016 af, Depth> 4.16"

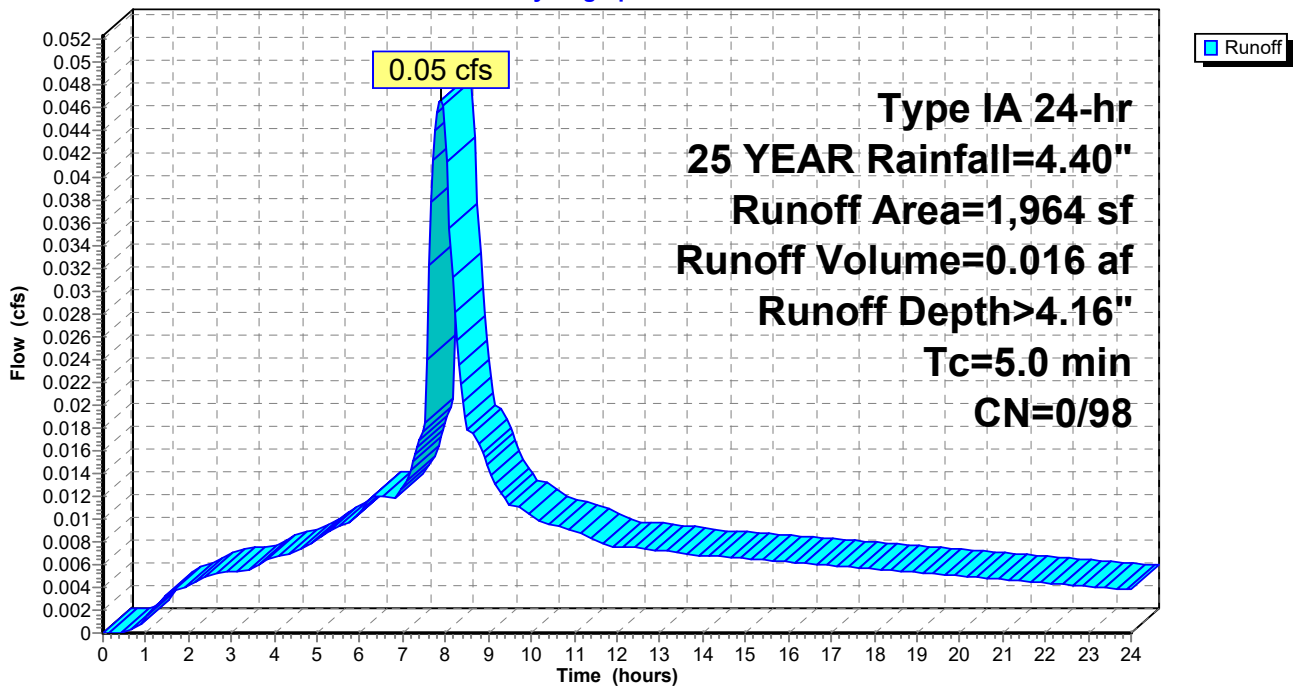
Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type IA 24-hr 25 YEAR Rainfall=4.40"

	Area (sf)	CN	Description
*	1,329	98	Roof Area
*	635	98	Pavement
	1,964	98	Weighted Average
	1,964		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 3S: ROOF/STREET AREA

Hydrograph



Summary for Subcatchment 4S: ROOF/STREET AREA

Runoff = 0.05 cfs @ 7.90 hrs, Volume= 0.016 af, Depth> 4.16"

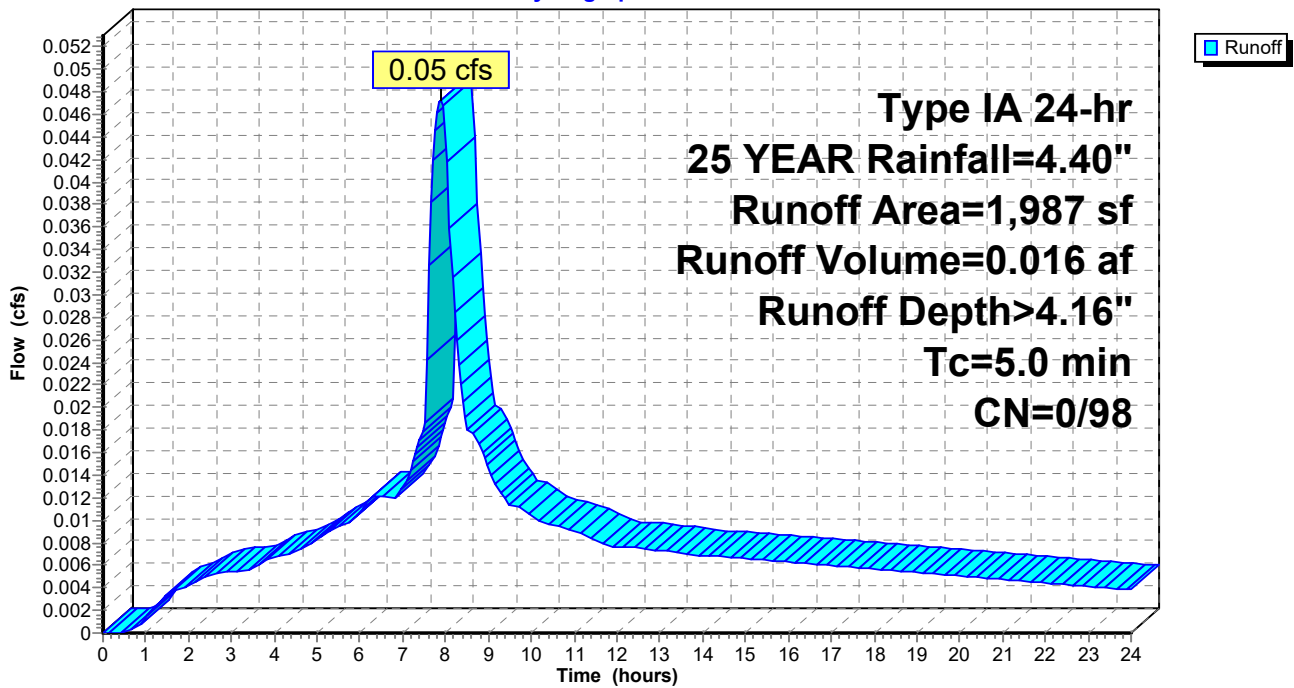
Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type IA 24-hr 25 YEAR Rainfall=4.40"

	Area (sf)	CN	Description
*	1,365	98	Roof Area
*	622	98	Pavement
	1,987	98	Weighted Average
	1,987		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 4S: ROOF/STREET AREA

Hydrograph



Summary for Subcatchment 5S: ROOF AREA

Runoff = 0.28 cfs @ 7.90 hrs, Volume= 0.093 af, Depth> 4.16"

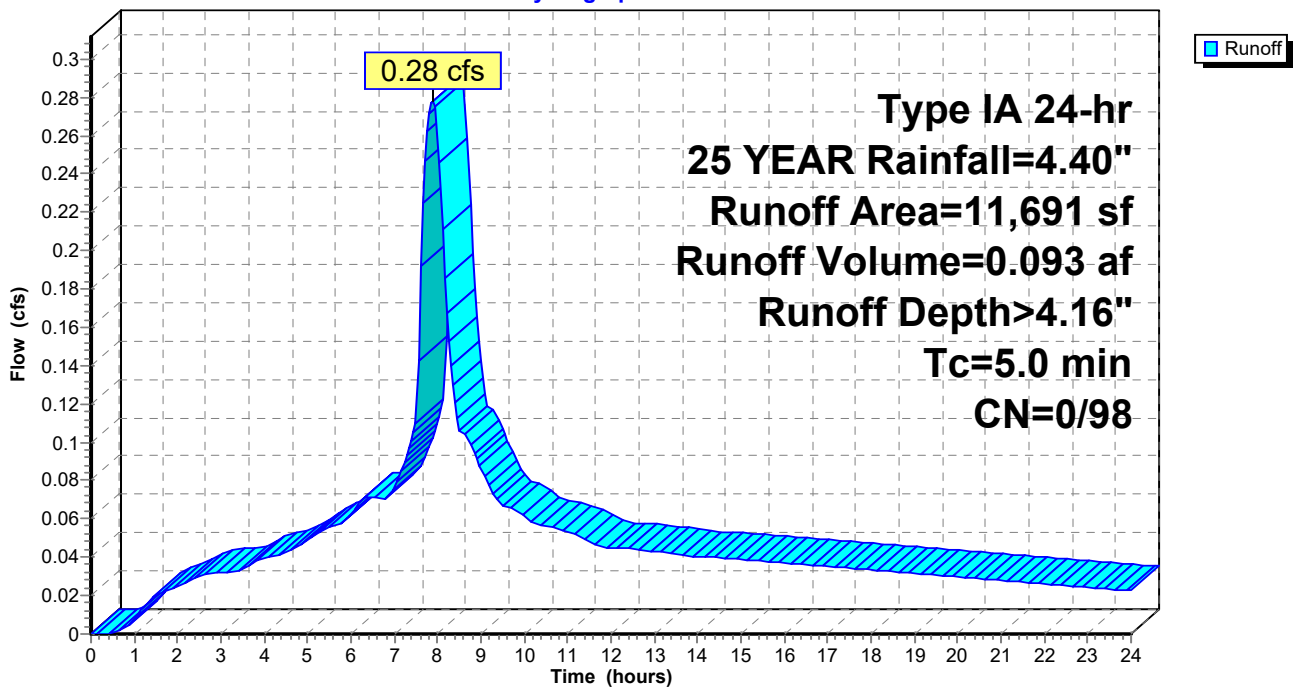
Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type IA 24-hr 25 YEAR Rainfall=4.40"

Area (sf)	CN	Description
* 11,691	98	Roof Area
11,691		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 5S: ROOF AREA

Hydrograph



Summary for Subcatchment 6S: PARKING

Runoff = 0.27 cfs @ 7.90 hrs, Volume= 0.090 af, Depth> 4.16"

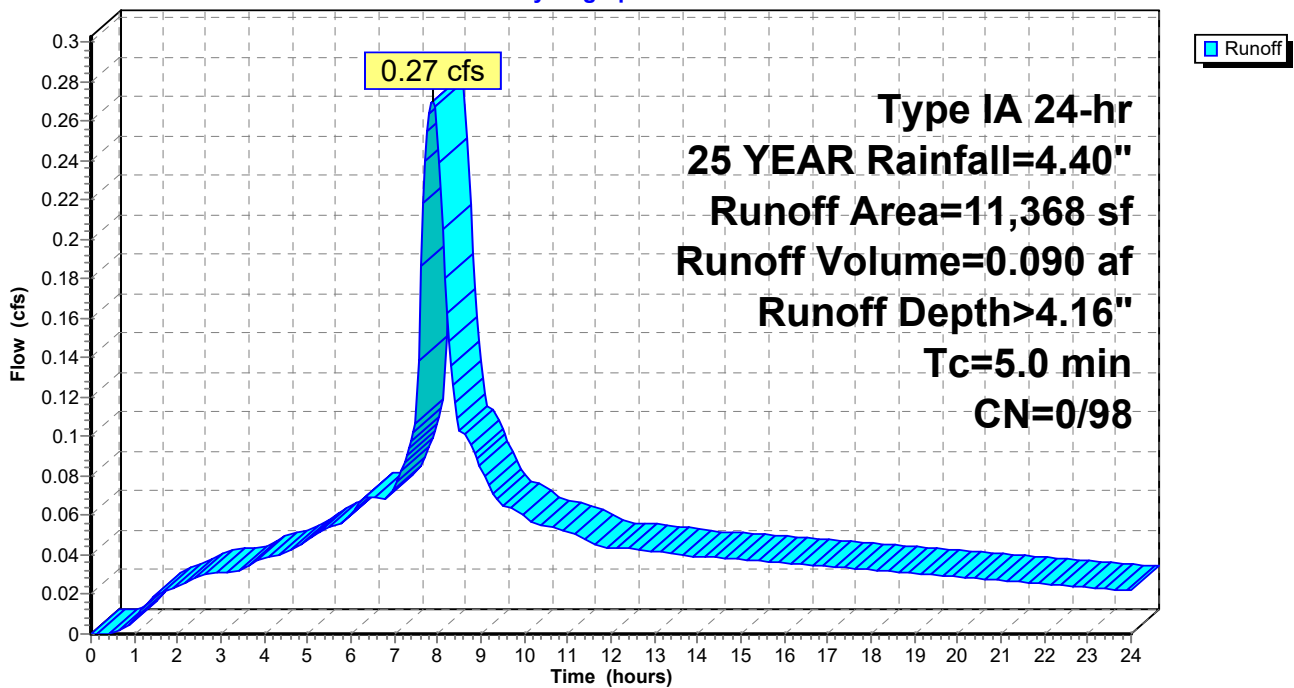
Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type IA 24-hr 25 YEAR Rainfall=4.40"

Area (sf)	CN	Description
* 11,368	98	Parking Area
11,368		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 6S: PARKING

Hydrograph



Summary for Subcatchment 7S: LANDSCAPE AREA

Runoff = 0.06 cfs @ 7.98 hrs, Volume= 0.020 af, Depth> 2.37"

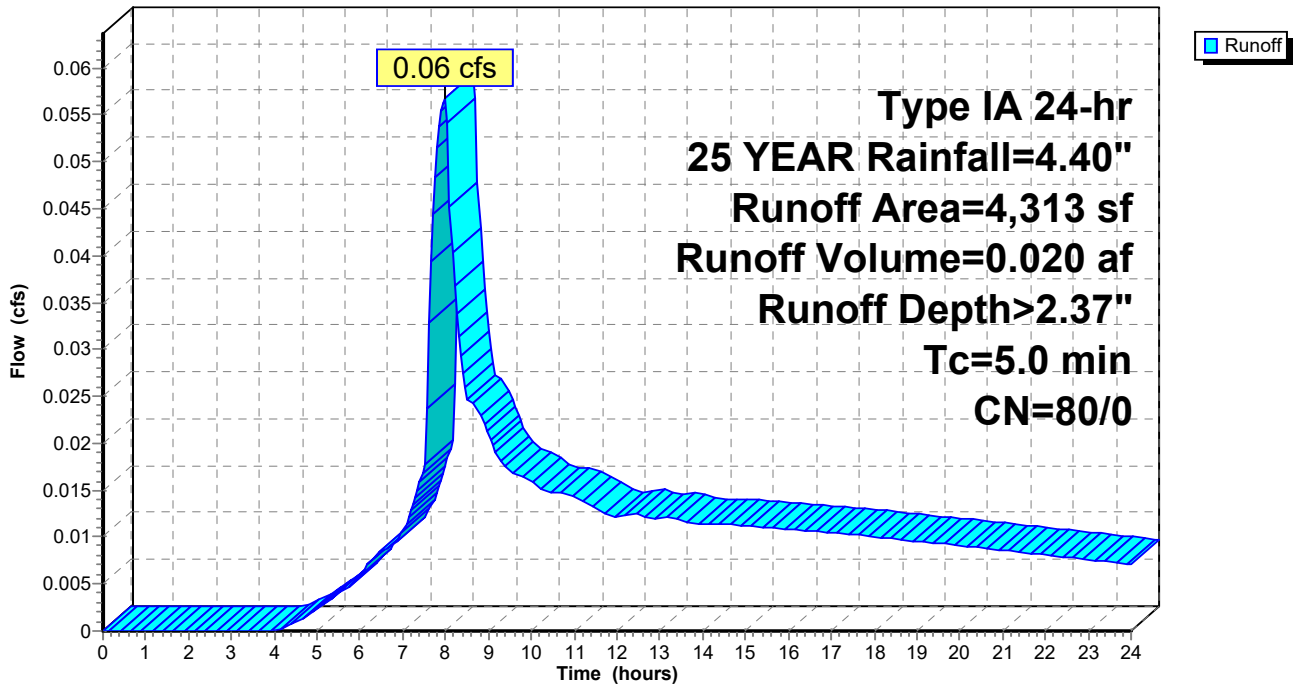
Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type IA 24-hr 25 YEAR Rainfall=4.40"

Area (sf)	CN	Description
4,313	80	>75% Grass cover, Good, HSG D
4,313		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 7S: LANDSCAPE AREA

Hydrograph



Summary for Subcatchment 8S: NEW CONCRETE PATH

Runoff = 0.13 cfs @ 7.90 hrs, Volume= 0.043 af, Depth> 4.16"

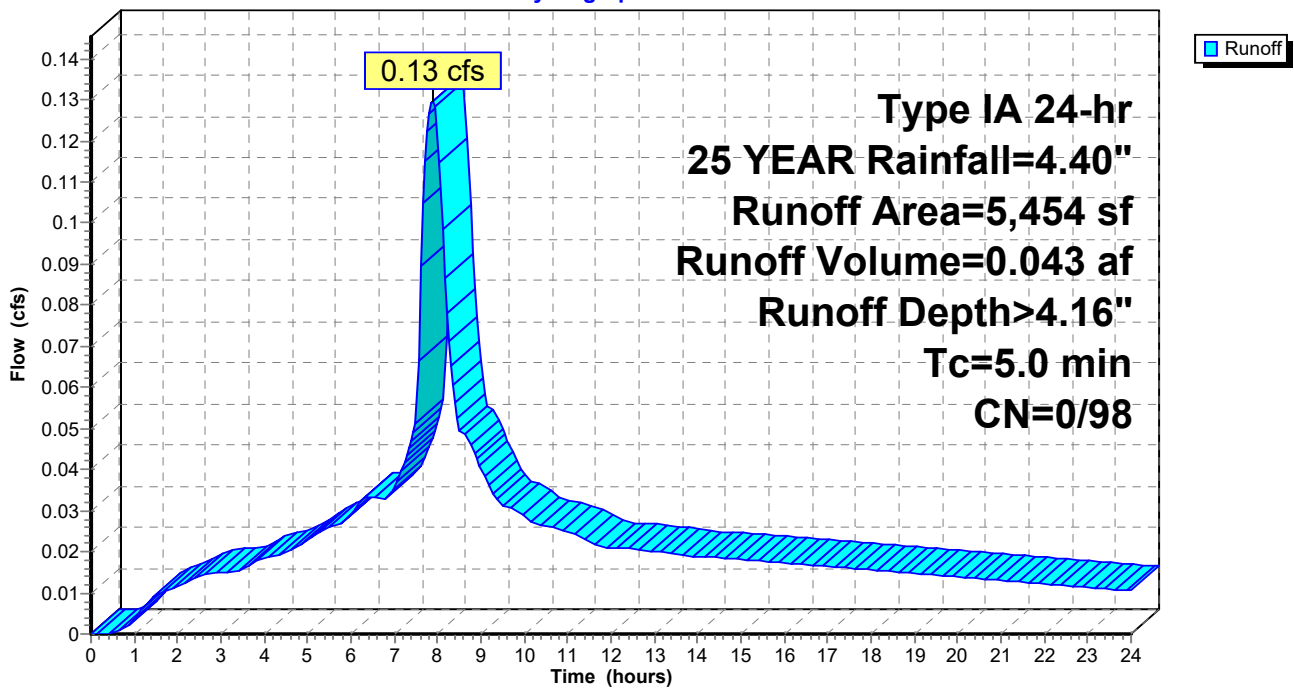
Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type IA 24-hr 25 YEAR Rainfall=4.40"

Area (sf)	CN	Description
* 5,454	98	Concrete path
5,454		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 8S: NEW CONCRETE PATH

Hydrograph



Summary for Subcatchment 9S: EXISTING BUILDING AND PAVING

Runoff = 0.19 cfs @ 7.90 hrs, Volume= 0.064 af, Depth> 4.16"

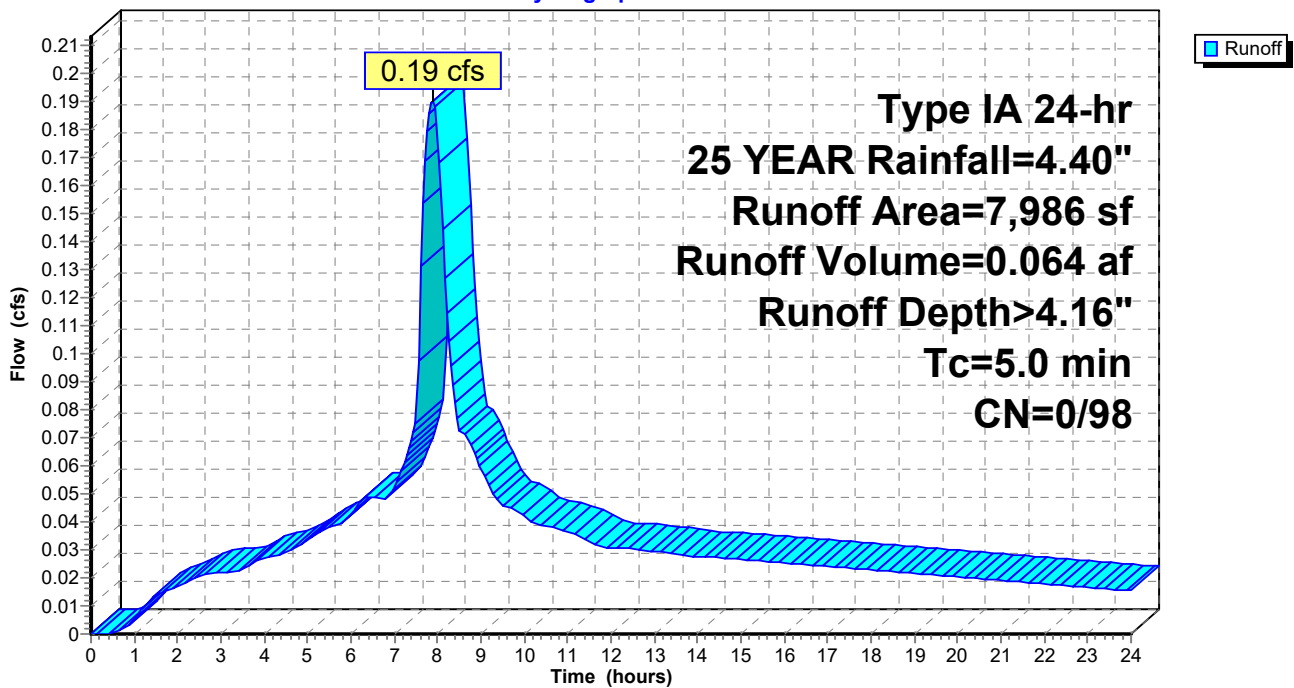
Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type IA 24-hr 25 YEAR Rainfall=4.40"

Area (sf)	CN	Description
* 7,986	98	Existing Building and Paving
7,986		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 9S: EXISTING BUILDING AND PAVING

Hydrograph



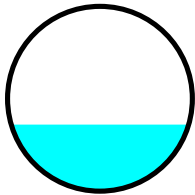
Summary for Reach 1R: 6"

Inflow Area = 0.271 ac, 82.42% Impervious, Inflow Depth > 3.84" for 25 YEAR event
 Inflow = 0.26 cfs @ 7.91 hrs, Volume= 0.087 af
 Outflow = 0.26 cfs @ 7.91 hrs, Volume= 0.087 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Max. Velocity= 4.07 fps, Min. Travel Time= 0.1 min
 Avg. Velocity = 2.35 fps, Avg. Travel Time= 0.1 min

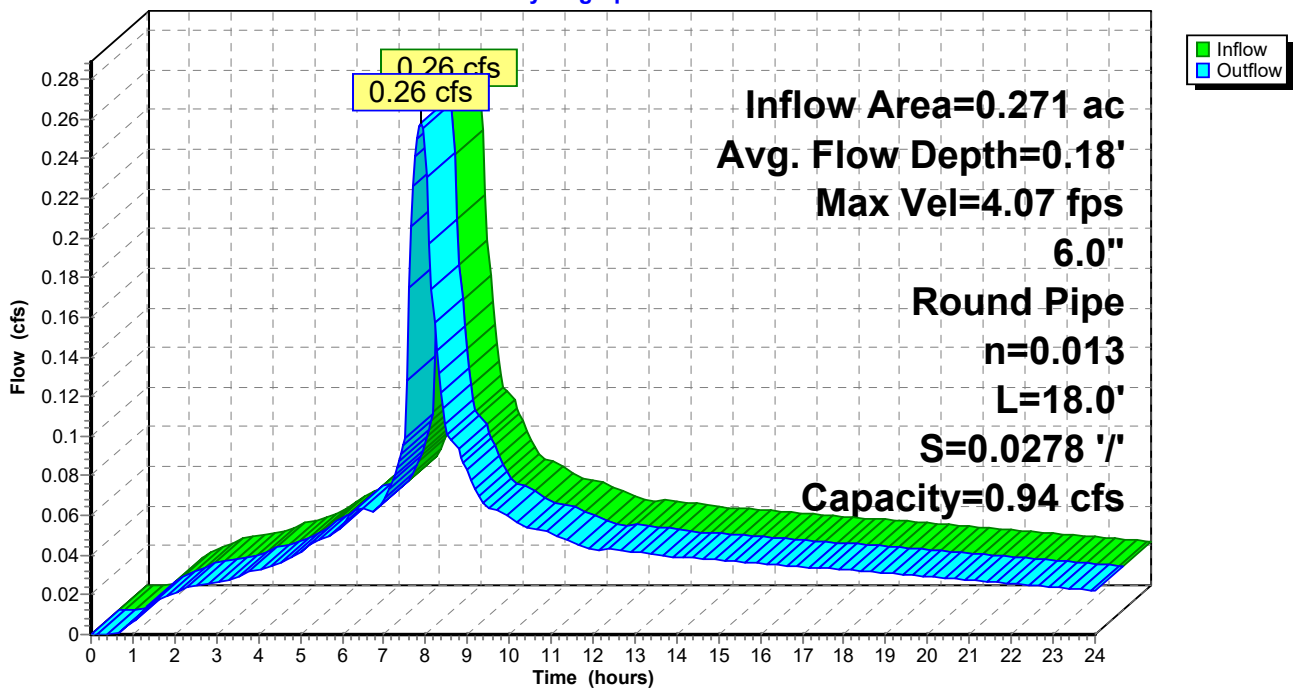
Peak Storage= 1 cf @ 7.91 hrs
 Average Depth at Peak Storage= 0.18'
 Bank-Full Depth= 0.50' Flow Area= 0.2 sf, Capacity= 0.94 cfs

6.0" Round Pipe
 n= 0.013 Corrugated PE, smooth interior
 Length= 18.0' Slope= 0.0278 '/
 Inlet Invert= 199.00', Outlet Invert= 198.50'



Reach 1R: 6"

Hydrograph



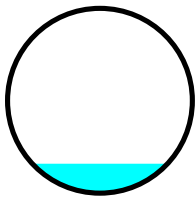
Summary for Reach 2R: 6"

Inflow Area = 0.066 ac, 100.00% Impervious, Inflow Depth > 4.16" for 25 YEAR event
 Inflow = 0.07 cfs @ 7.90 hrs, Volume= 0.023 af
 Outflow = 0.07 cfs @ 7.90 hrs, Volume= 0.023 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Max. Velocity= 3.42 fps, Min. Travel Time= 0.0 min
 Avg. Velocity = 1.93 fps, Avg. Travel Time= 0.1 min

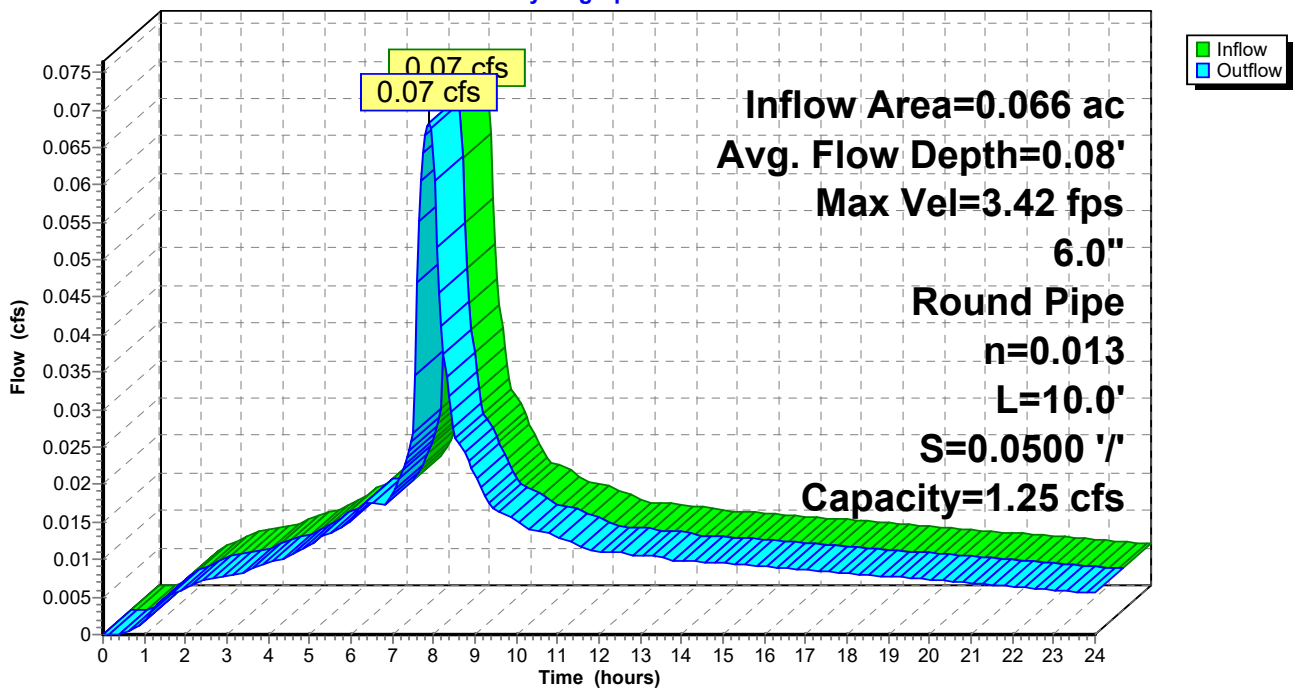
Peak Storage= 0 cf @ 7.90 hrs
 Average Depth at Peak Storage= 0.08'
 Bank-Full Depth= 0.50' Flow Area= 0.2 sf, Capacity= 1.25 cfs

6.0" Round Pipe
 n= 0.013 Corrugated PE, smooth interior
 Length= 10.0' Slope= 0.0500 '/
 Inlet Invert= 198.00', Outlet Invert= 197.50'



Reach 2R: 6"

Hydrograph



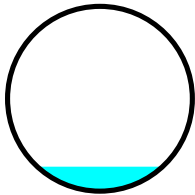
Summary for Reach 3R: 6"

Inflow Area = 0.045 ac, 100.00% Impervious, Inflow Depth > 4.16" for 25 YEAR event
 Inflow = 0.05 cfs @ 7.90 hrs, Volume= 0.016 af
 Outflow = 0.05 cfs @ 7.90 hrs, Volume= 0.016 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Max. Velocity= 3.05 fps, Min. Travel Time= 0.1 min
 Avg. Velocity = 1.72 fps, Avg. Travel Time= 0.1 min

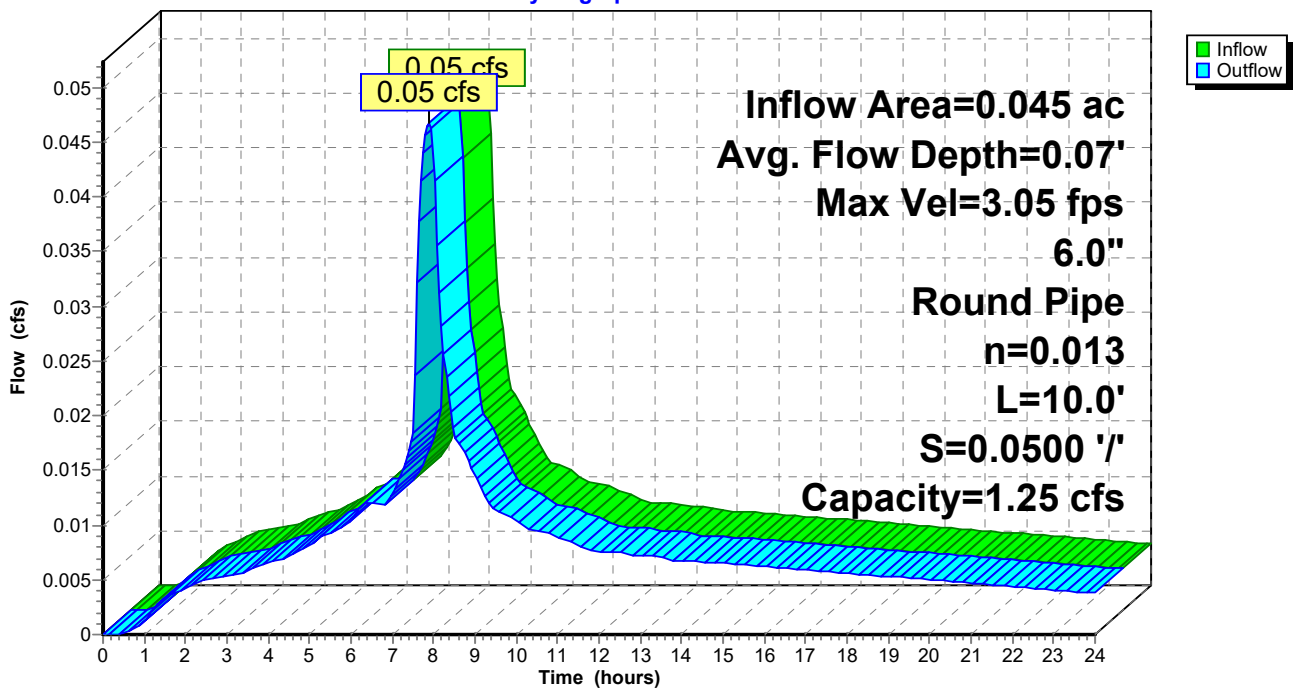
Peak Storage= 0 cf @ 7.90 hrs
 Average Depth at Peak Storage= 0.07'
 Bank-Full Depth= 0.50' Flow Area= 0.2 sf, Capacity= 1.25 cfs

6.0" Round Pipe
 n= 0.013 Corrugated PE, smooth interior
 Length= 10.0' Slope= 0.0500 '/
 Inlet Invert= 198.00', Outlet Invert= 197.50'



Reach 3R: 6"

Hydrograph



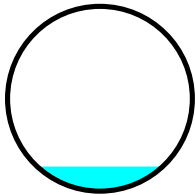
Summary for Reach 4R: 6"

Inflow Area = 0.046 ac, 100.00% Impervious, Inflow Depth > 4.16" for 25 YEAR event
 Inflow = 0.05 cfs @ 7.90 hrs, Volume= 0.016 af
 Outflow = 0.05 cfs @ 7.90 hrs, Volume= 0.016 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Max. Velocity= 3.06 fps, Min. Travel Time= 0.1 min
 Avg. Velocity = 1.73 fps, Avg. Travel Time= 0.1 min

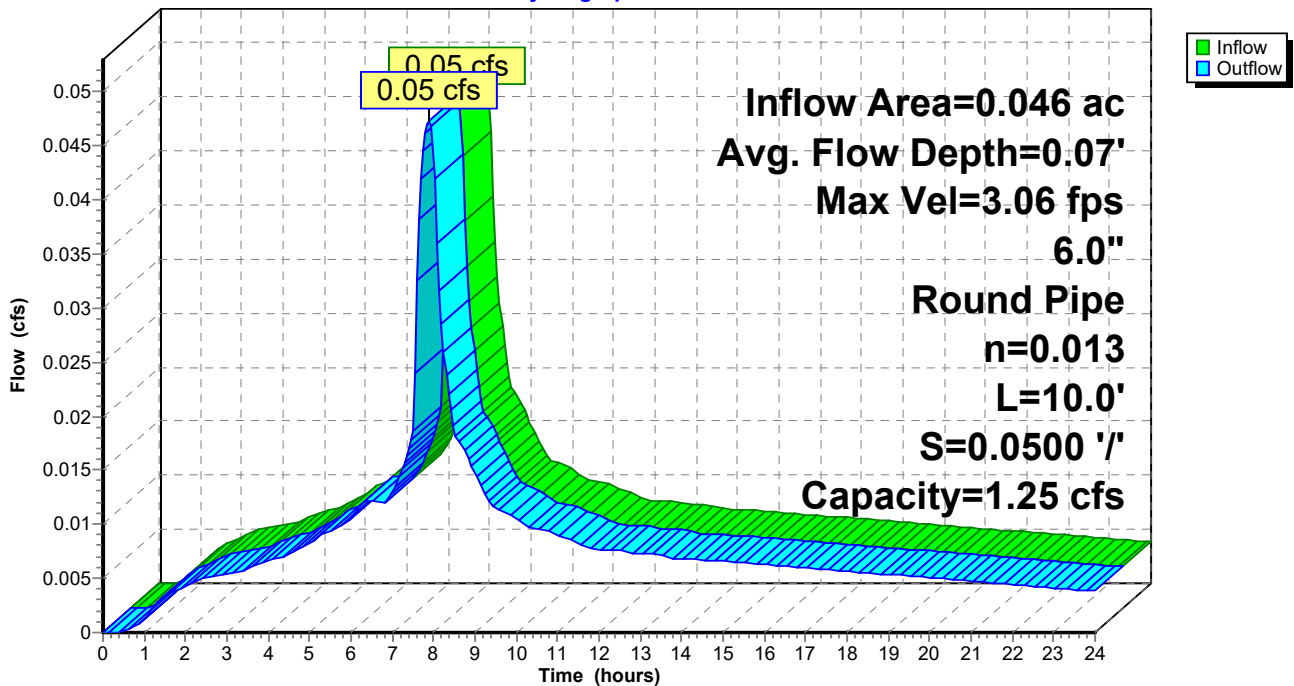
Peak Storage= 0 cf @ 7.90 hrs
 Average Depth at Peak Storage= 0.07'
 Bank-Full Depth= 0.50' Flow Area= 0.2 sf, Capacity= 1.25 cfs

6.0" Round Pipe
 n= 0.013 Corrugated PE, smooth interior
 Length= 10.0' Slope= 0.0500 '/
 Inlet Invert= 198.00', Outlet Invert= 197.50'



Reach 4R: 6"

Hydrograph



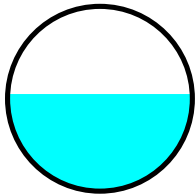
Summary for Reach 5R: 8"

Inflow Area = 0.493 ac, 79.90% Impervious, Inflow Depth > 3.80" for 25 YEAR event
 Inflow = 0.46 cfs @ 7.91 hrs, Volume= 0.156 af
 Outflow = 0.46 cfs @ 7.92 hrs, Volume= 0.156 af, Atten= 0%, Lag= 0.6 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Max. Velocity= 2.50 fps, Min. Travel Time= 0.8 min
 Avg. Velocity = 1.47 fps, Avg. Travel Time= 1.4 min

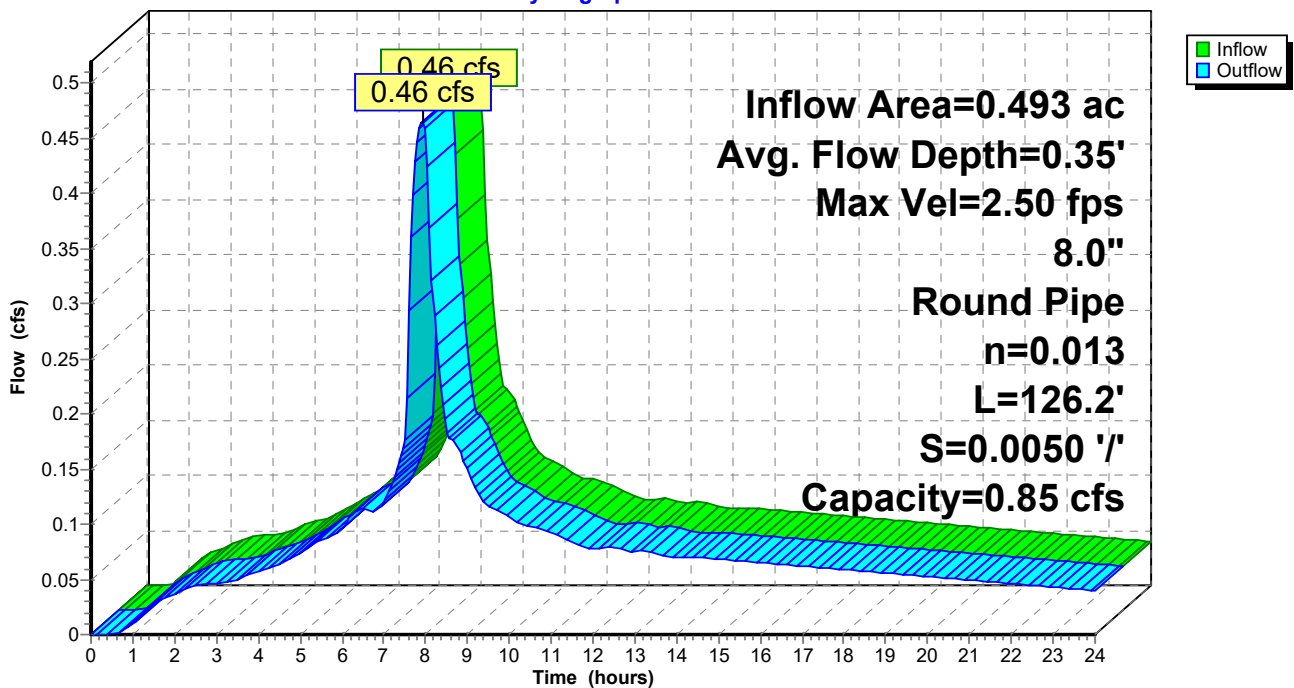
Peak Storage= 23 cf @ 7.92 hrs
 Average Depth at Peak Storage= 0.35'
 Bank-Full Depth= 0.67' Flow Area= 0.3 sf, Capacity= 0.85 cfs

8.0" Round Pipe
 n= 0.013 Corrugated PE, smooth interior
 Length= 126.2' Slope= 0.0050 '/'
 Inlet Invert= 196.12', Outlet Invert= 195.49'



Reach 5R: 8"

Hydrograph



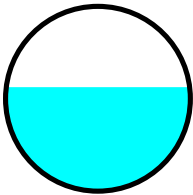
Summary for Reach 6R: 8"

Inflow Area = 0.754 ac, 86.86% Impervious, Inflow Depth > 3.92" for 25 YEAR event
 Inflow = 0.73 cfs @ 7.91 hrs, Volume= 0.246 af
 Outflow = 0.73 cfs @ 7.92 hrs, Volume= 0.246 af, Atten= 0%, Lag= 0.4 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Max. Velocity= 3.63 fps, Min. Travel Time= 0.6 min
 Avg. Velocity = 2.15 fps, Avg. Travel Time= 1.0 min

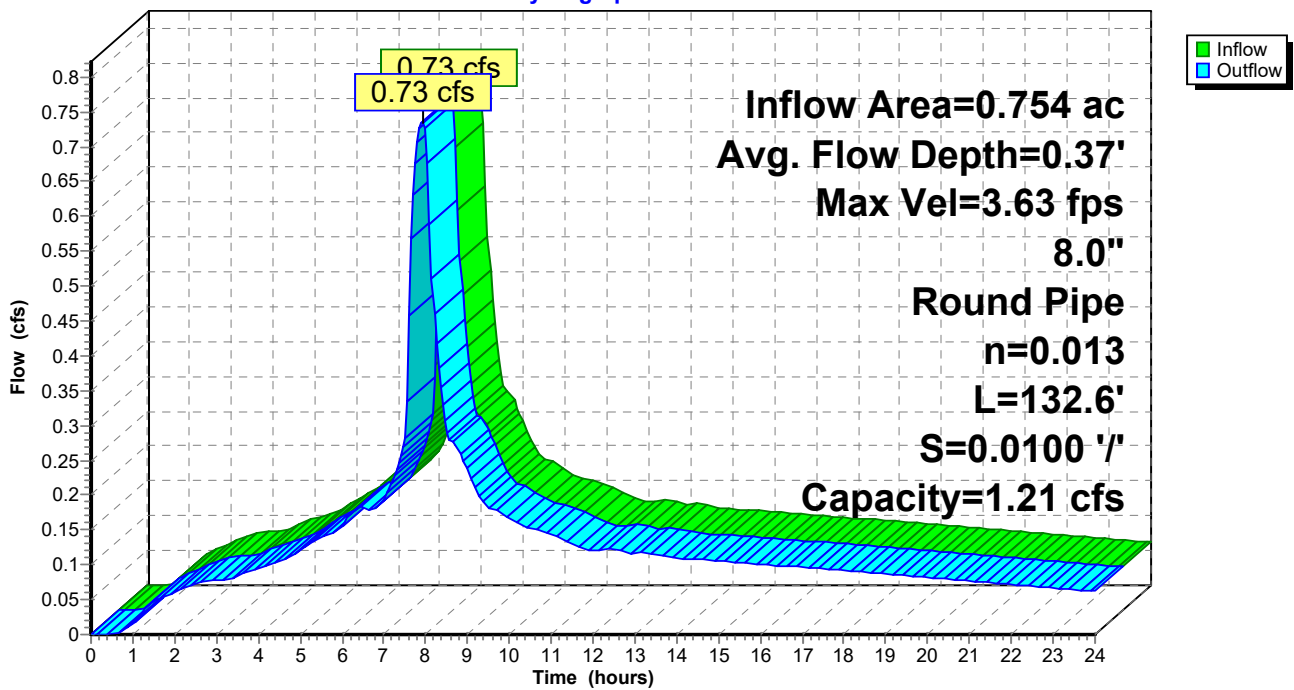
Peak Storage= 27 cf @ 7.92 hrs
 Average Depth at Peak Storage= 0.37'
 Bank-Full Depth= 0.67' Flow Area= 0.3 sf, Capacity= 1.21 cfs

8.0" Round Pipe
 n= 0.013 Corrugated PE, smooth interior
 Length= 132.6' Slope= 0.0100 '/
 Inlet Invert= 195.49', Outlet Invert= 194.16'



Reach 6R: 8"

Hydrograph



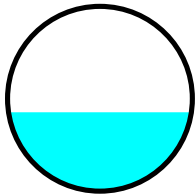
Summary for Reach 7R: 8"

Inflow Area = 0.427 ac, 88.86% Impervious, Inflow Depth > 2.99" for 25 YEAR event
 Inflow = 0.32 cfs @ 7.97 hrs, Volume= 0.106 af
 Outflow = 0.32 cfs @ 7.99 hrs, Volume= 0.106 af, Atten= 0%, Lag= 1.3 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Max. Velocity= 2.27 fps, Min. Travel Time= 1.9 min
 Avg. Velocity = 1.45 fps, Avg. Travel Time= 3.0 min

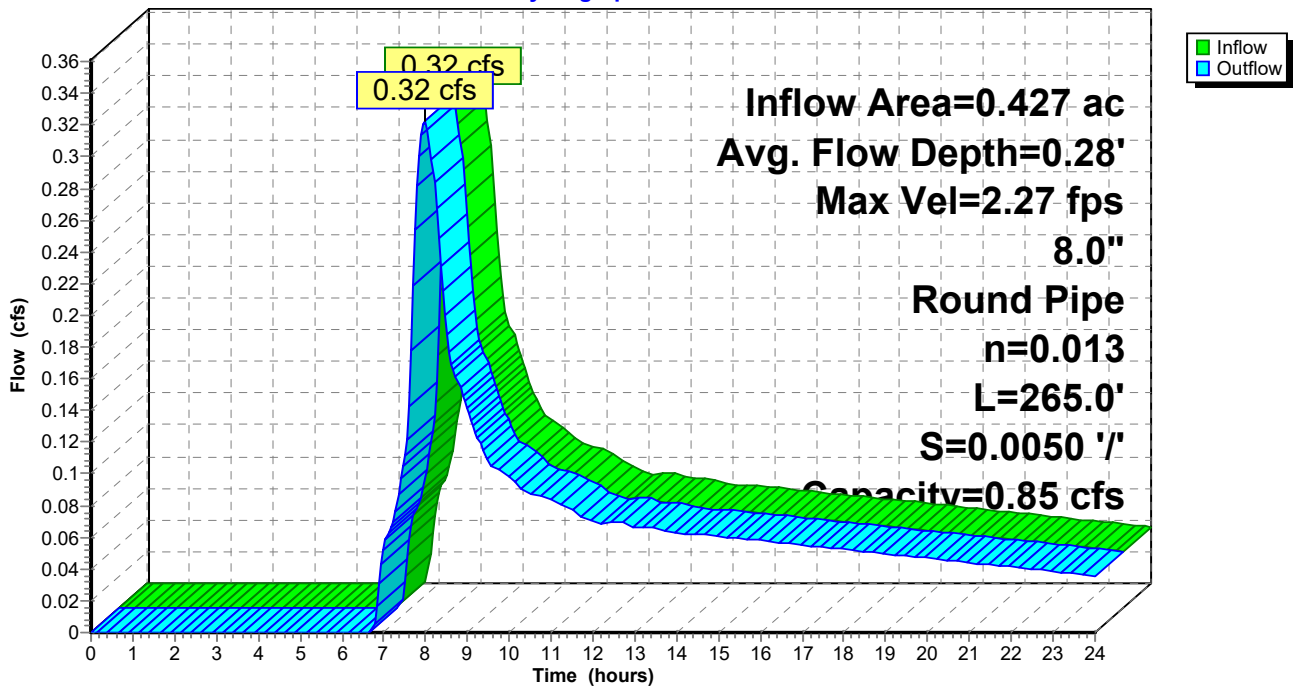
Peak Storage= 38 cf @ 7.99 hrs
 Average Depth at Peak Storage= 0.28'
 Bank-Full Depth= 0.67' Flow Area= 0.3 sf, Capacity= 0.85 cfs

8.0" Round Pipe
 n= 0.013 Corrugated PE, smooth interior
 Length= 265.0' Slope= 0.0050 '/'
 Inlet Invert= 195.20', Outlet Invert= 193.88'



Reach 7R: 8"

Hydrograph



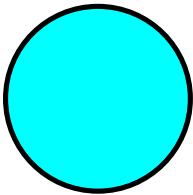
Summary for Reach 8R: 8"

Inflow Area = 1.181 ac, 87.59% Impervious, Inflow Depth > 3.58" for 25 YEAR event
 Inflow = 1.05 cfs @ 7.94 hrs, Volume= 0.352 af
 Outflow = 0.91 cfs @ 7.75 hrs, Volume= 0.352 af, Atten= 14%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Max. Velocity= 2.78 fps, Min. Travel Time= 0.8 min
 Avg. Velocity = 1.83 fps, Avg. Travel Time= 1.2 min

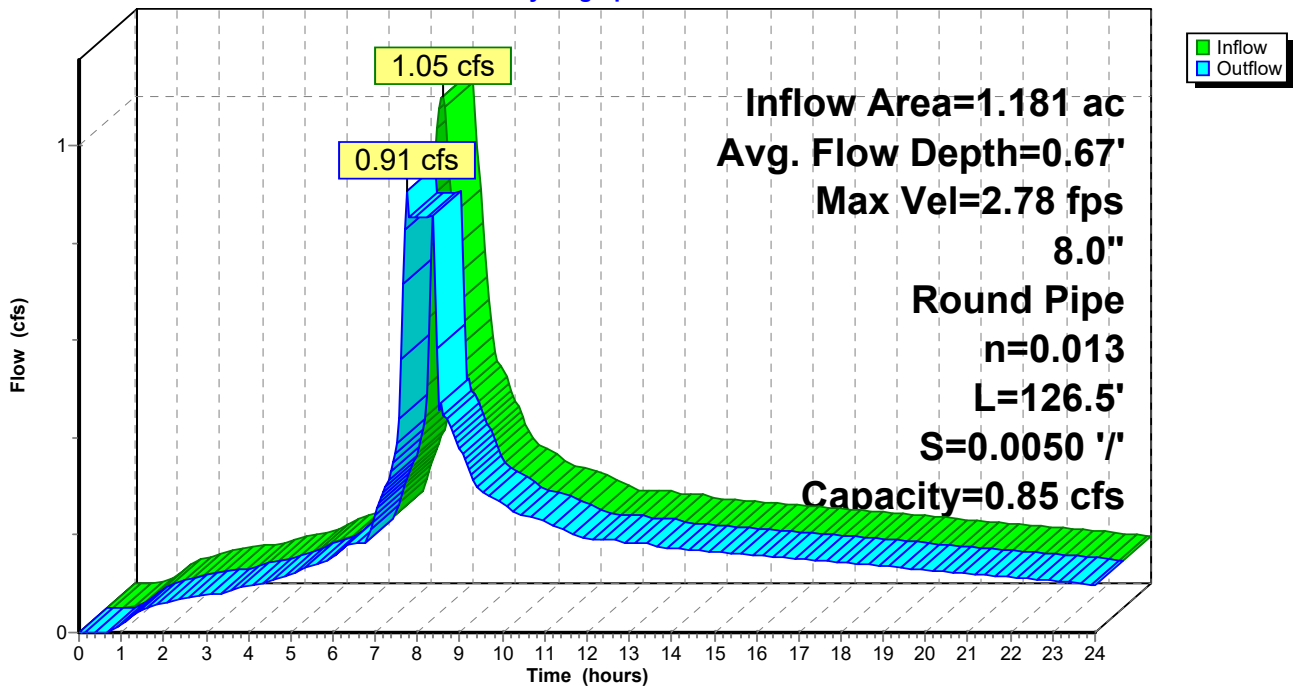
Peak Storage= 44 cf @ 7.80 hrs
 Average Depth at Peak Storage= 0.67'
 Bank-Full Depth= 0.67' Flow Area= 0.3 sf, Capacity= 0.85 cfs

8.0" Round Pipe
 n= 0.013 Corrugated PE, smooth interior
 Length= 126.5' Slope= 0.0050 '/'
 Inlet Invert= 193.88', Outlet Invert= 193.25'



Reach 8R: 8"

Hydrograph



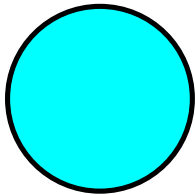
Summary for Reach 9R: 8"

Inflow Area = 3.281 ac, 66.32% Impervious, Inflow Depth > 3.53" for 25 YEAR event
 Inflow = 2.68 cfs @ 7.92 hrs, Volume= 0.965 af
 Outflow = 1.33 cfs @ 10.25 hrs, Volume= 0.964 af, Atten= 51%, Lag= 139.9 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Max. Velocity= 4.29 fps, Min. Travel Time= 1.0 min
 Avg. Velocity = 3.26 fps, Avg. Travel Time= 1.3 min

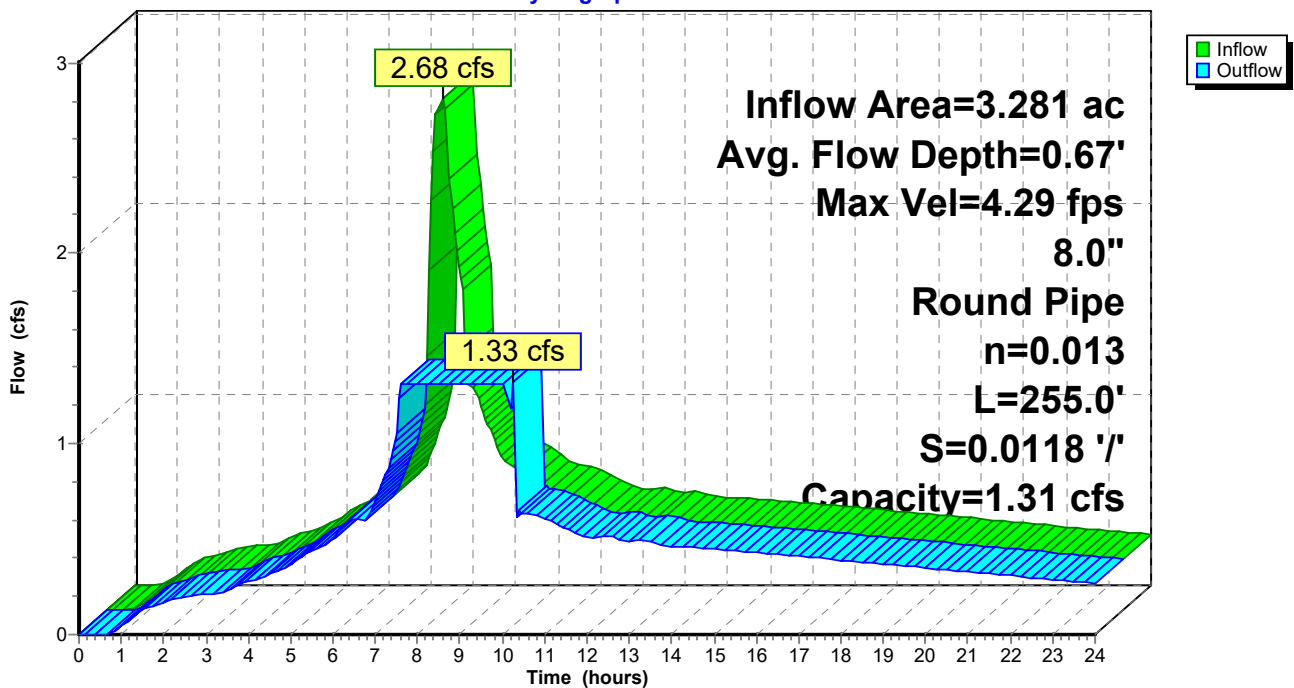
Peak Storage= 89 cf @ 7.60 hrs
 Average Depth at Peak Storage= 0.67'
 Bank-Full Depth= 0.67' Flow Area= 0.3 sf, Capacity= 1.31 cfs

8.0" Round Pipe
 n= 0.013
 Length= 255.0' Slope= 0.0118 '/'
 Inlet Invert= 193.05', Outlet Invert= 190.04'



Reach 9R: 8"

Hydrograph



Summary for Pond 1P: PLANTER

Inflow Area = 0.271 ac, 82.42% Impervious, Inflow Depth > 3.84" for 25 YEAR event
 Inflow = 0.26 cfs @ 7.91 hrs, Volume= 0.087 af
 Outflow = 0.26 cfs @ 7.98 hrs, Volume= 0.070 af, Atten= 1%, Lag= 4.2 min
 Primary = 0.26 cfs @ 7.98 hrs, Volume= 0.070 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Peak Elev= 198.61' @ 7.98 hrs Surf.Area= 2,370 sf Storage= 803 cf

Plug-Flow detention time= 227.8 min calculated for 0.070 af (80% of inflow)
 Center-of-Mass det. time= 99.0 min (770.5 - 671.5)

Volume	Invert	Avail.Storage	Storage Description
#1	195.50'	261 cf	1' Drain Rock (Prismatic) Listed below (Recalc) 790 cf Overall x 33.0% Voids
#2	196.50'	59 cf	1.5' Growing Medium (Prismatic) Listed below (Recalc) 1,185 cf Overall x 5.0% Voids
#3	198.00'	656 cf	Ponding Depth (Prismatic) Listed below (Recalc)
		976 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
195.50	790	0	0
196.50	790	790	790

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
196.50	790	0	0
198.00	790	1,185	1,185

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
198.00	790	0	0
198.83	790	656	656

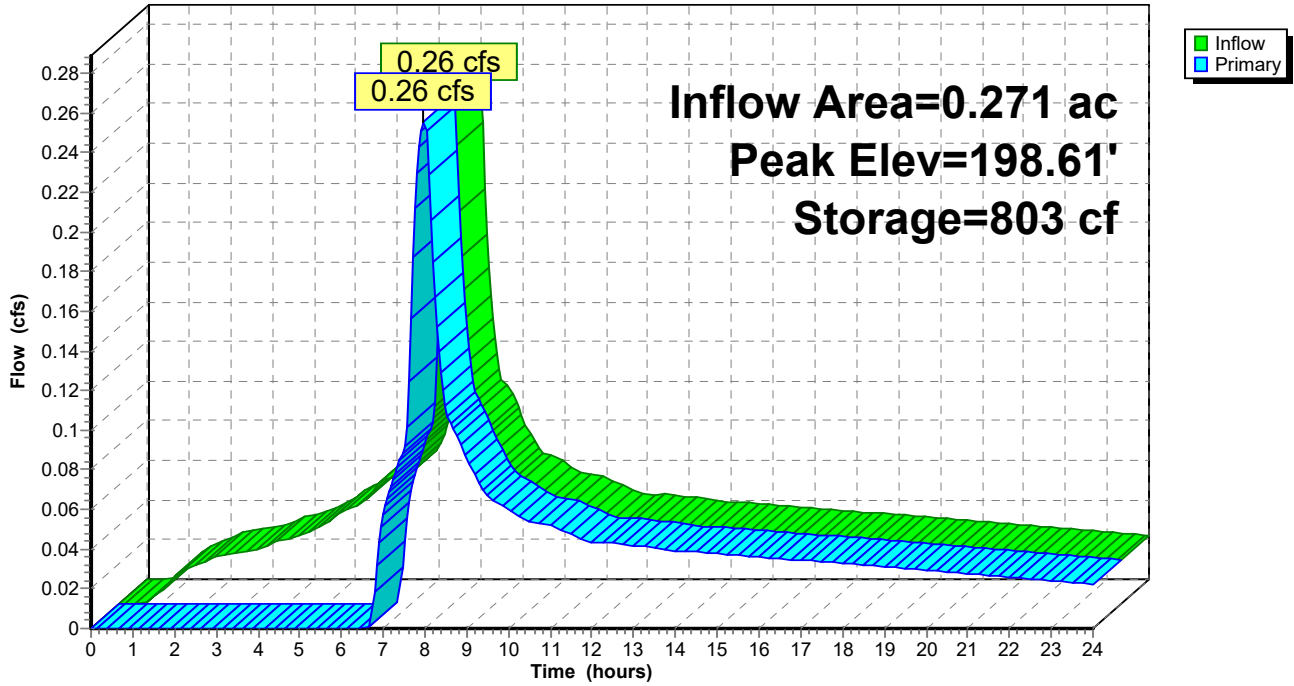
Device	Routing	Invert	Outlet Devices
#1	Primary	195.50'	8.0" Round Culvert L= 205.0' Ke= 0.500 Inlet / Outlet Invert= 195.50' / 194.46' S= 0.0051 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf
#2	Device 1	198.50'	8.0" Horiz. Orifice/Grate C= 0.610 Limited to weir flow at low heads

Primary OutFlow Max=0.25 cfs @ 7.98 hrs HW=198.61' TW=195.48' (Dynamic Tailwater)

- ↑1=Culvert (Passes 0.25 cfs of 1.40 cfs potential flow)
- ↑2=Orifice/Grate (Weir Controls 0.25 cfs @ 1.09 fps)

Pond 1P: PLANTER

Hydrograph



Summary for Pond 2P: PLANTER

Inflow Area = 0.066 ac, 100.00% Impervious, Inflow Depth > 4.16" for 25 YEAR event
 Inflow = 0.07 cfs @ 7.90 hrs, Volume= 0.023 af
 Outflow = 0.07 cfs @ 7.95 hrs, Volume= 0.017 af, Atten= 1%, Lag= 3.5 min
 Primary = 0.07 cfs @ 7.95 hrs, Volume= 0.017 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Peak Elev= 197.57' @ 7.95 hrs Surf.Area= 798 sf Storage= 260 cf

Plug-Flow detention time= 280.5 min calculated for 0.017 af (75% of inflow)
 Center-of-Mass det. time= 121.8 min (779.1 - 657.3)

Volume	Invert	Avail.Storage	Storage Description
#1	194.50'	88 cf	1' Drain Rock (Prismatic) Listed below (Recalc) 266 cf Overall x 33.0% Voids
#2	195.50'	20 cf	1.5' Growing Medium (Prismatic) Listed below (Recalc) 399 cf Overall x 5.0% Voids
#3	197.00'	221 cf	Ponding Depth (Prismatic) Listed below (Recalc)
		329 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
194.50	266	0	0
195.50	266	266	266

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
195.50	266	0	0
197.00	266	399	399

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
197.00	266	0	0
197.83	266	221	221

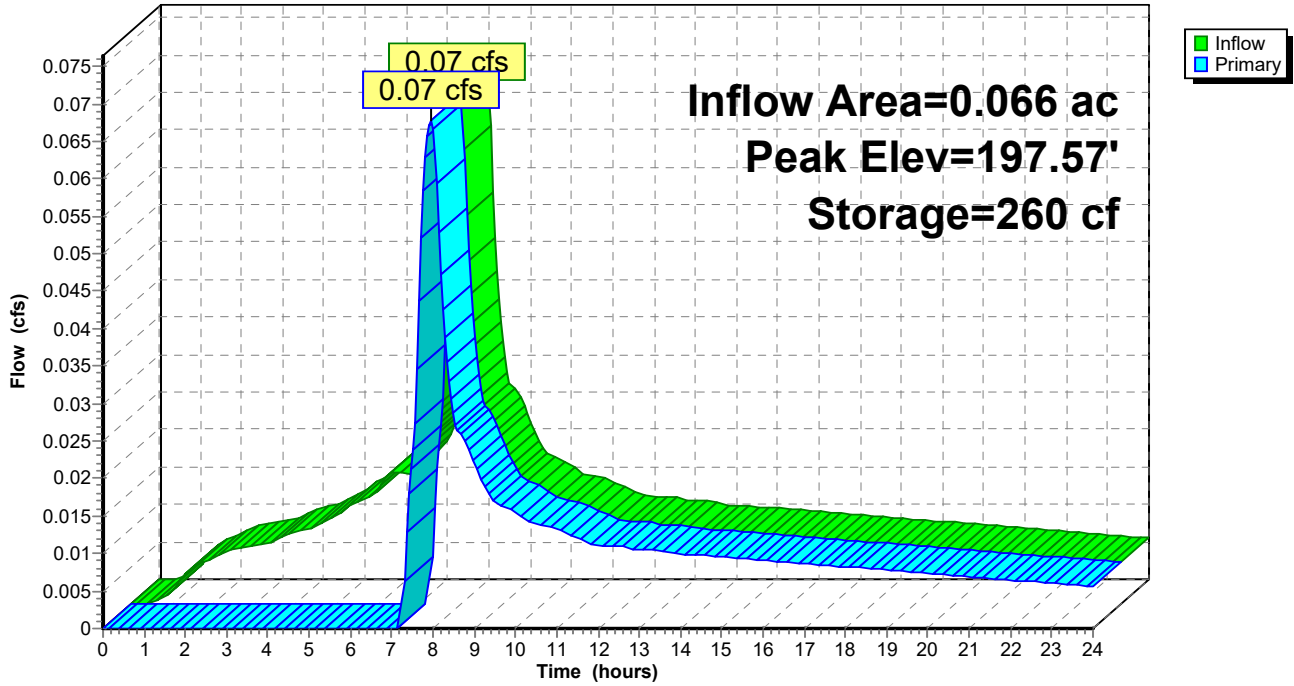
Device	Routing	Invert	Outlet Devices
#1	Device 2	197.50'	4.0" Horiz. Orifice/Grate C= 0.610 Limited to weir flow at low heads
#2	Primary	194.63'	4.0" Round Culvert L= 33.4' Ke= 0.500 Inlet / Outlet Invert= 194.63' / 194.46' S= 0.0051 '/' Cc= 0.900 n= 0.013, Flow Area= 0.09 sf

Primary OutFlow Max=0.07 cfs @ 7.95 hrs HW=197.57' TW=195.48' (Dynamic Tailwater)

↑ **2=Culvert** (Passes 0.07 cfs of 0.41 cfs potential flow)
 ↑ **1=Orifice/Grate** (Weir Controls 0.07 cfs @ 0.88 fps)

Pond 2P: PLANTER

Hydrograph



Summary for Pond 3P: PLANTER

Inflow Area = 0.045 ac, 100.00% Impervious, Inflow Depth > 4.16" for 25 YEAR event
 Inflow = 0.05 cfs @ 7.90 hrs, Volume= 0.016 af
 Outflow = 0.03 cfs @ 8.23 hrs, Volume= 0.010 af, Atten= 42%, Lag= 19.7 min
 Primary = 0.03 cfs @ 8.23 hrs, Volume= 0.010 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Peak Elev= 197.54' @ 8.23 hrs Surf.Area= 849 sf Storage= 267 cf

Plug-Flow detention time= 411.8 min calculated for 0.010 af (62% of inflow)
 Center-of-Mass det. time= 190.0 min (847.3 - 657.3)

Volume	Invert	Avail.Storage	Storage Description
#1	194.50'	93 cf	1' Drain Rock (Prismatic) Listed below (Recalc) 283 cf Overall x 33.0% Voids
#2	195.50'	21 cf	1.5' Growing Medium (Prismatic) Listed below (Recalc) 425 cf Overall x 5.0% Voids
#3	197.00'	235 cf	Ponding Depth (Prismatic) Listed below (Recalc)
		350 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
194.50	283	0	0
195.50	283	283	283

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
195.50	283	0	0
197.00	283	425	425

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
197.00	283	0	0
197.83	283	235	235

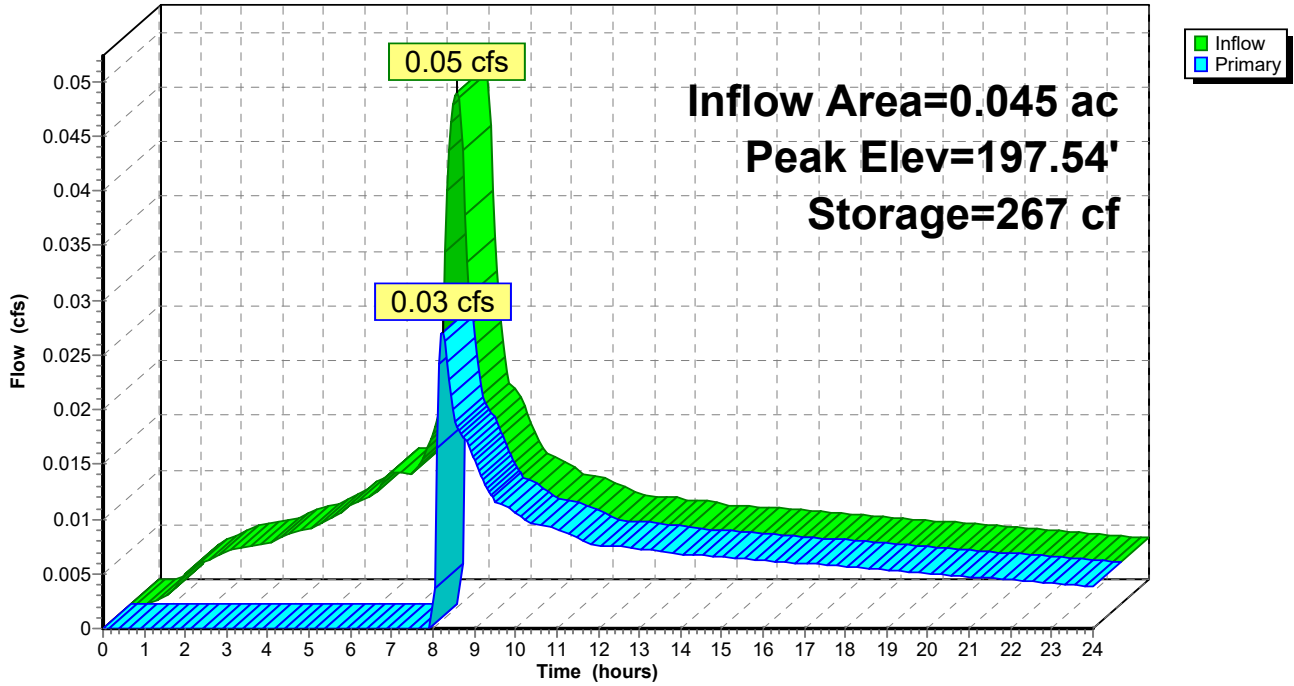
Device	Routing	Invert	Outlet Devices
#1	Device 2	197.50'	4.0" Horiz. Orifice/Grate C= 0.610 Limited to weir flow at low heads
#2	Primary	194.82'	4.0" Round Culvert L= 33.3' Ke= 0.500 Inlet / Outlet Invert= 194.82' / 194.65' S= 0.0051 '/' Cc= 0.900 n= 0.013, Flow Area= 0.09 sf

Primary OutFlow Max=0.03 cfs @ 8.23 hrs HW=197.54' TW=195.46' (Dynamic Tailwater)

↑ **2=Culvert** (Passes 0.03 cfs of 0.41 cfs potential flow)
 ↑ **1=Orifice/Grate** (Weir Controls 0.03 cfs @ 0.65 fps)

Pond 3P: PLANTER

Hydrograph



Summary for Pond 4P: PLANTER

Inflow Area = 0.046 ac, 100.00% Impervious, Inflow Depth > 4.16" for 25 YEAR event
 Inflow = 0.05 cfs @ 7.90 hrs, Volume= 0.016 af
 Outflow = 0.02 cfs @ 8.32 hrs, Volume= 0.010 af, Atten= 51%, Lag= 25.5 min
 Primary = 0.02 cfs @ 8.32 hrs, Volume= 0.010 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Peak Elev= 197.54' @ 8.32 hrs Surf.Area= 891 sf Storage= 279 cf

Plug-Flow detention time= 426.1 min calculated for 0.010 af (60% of inflow)
 Center-of-Mass det. time= 198.5 min (855.9 - 657.3)

Volume	Invert	Avail.Storage	Storage Description
#1	194.50'	98 cf	1' Drain Rock (Prismatic) Listed below (Recalc) 297 cf Overall x 33.0% Voids
#2	195.50'	22 cf	1.5' Growing Medium (Prismatic) Listed below (Recalc) 446 cf Overall x 5.0% Voids
#3	197.00'	247 cf	Ponding Depth (Prismatic) Listed below (Recalc)
		367 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
194.50	297	0	0
195.50	297	297	297

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
195.50	297	0	0
197.00	297	446	446

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
197.00	297	0	0
197.83	297	247	247

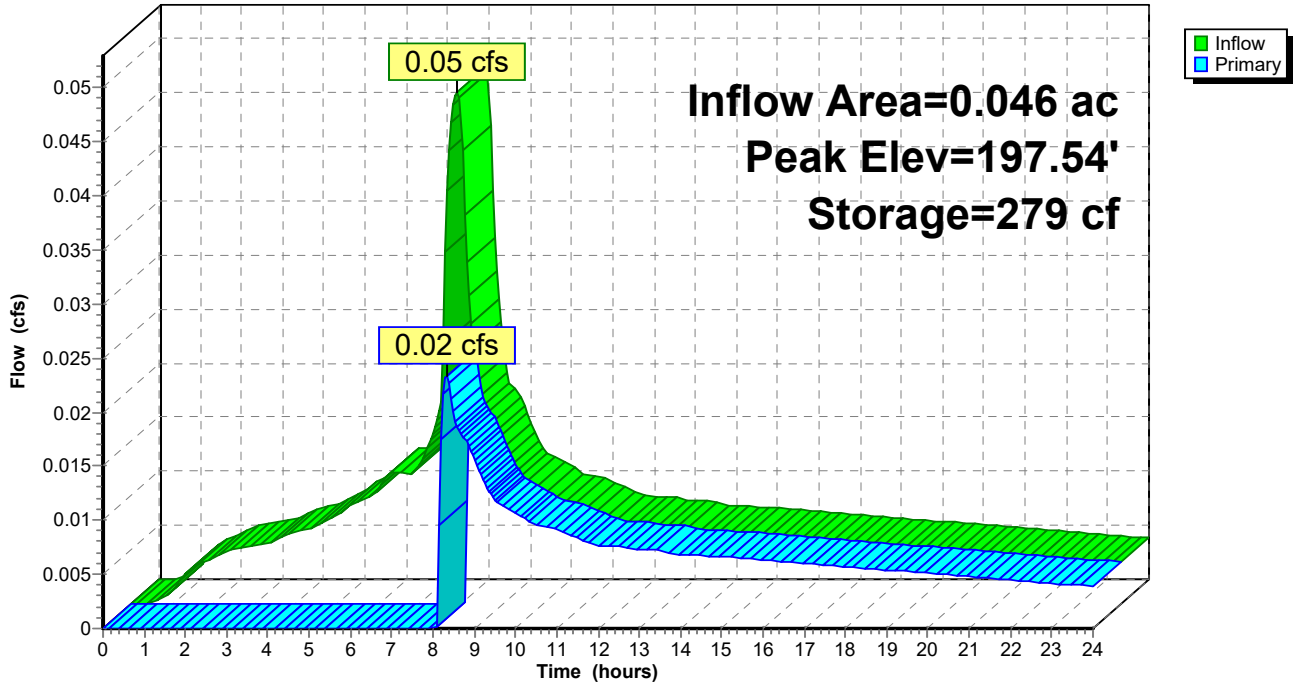
Device	Routing	Invert	Outlet Devices
#1	Device 2	197.50'	4.0" Horiz. Orifice/Grate C= 0.610 Limited to weir flow at low heads
#2	Primary	194.99'	4.0" Round Culvert L= 33.2' Ke= 0.500 Inlet / Outlet Invert= 194.99' / 194.82' S= 0.0051 '/' Cc= 0.900 n= 0.013, Flow Area= 0.09 sf

Primary OutFlow Max=0.02 cfs @ 8.32 hrs HW=197.54' TW=195.44' (Dynamic Tailwater)

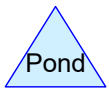
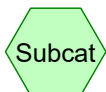
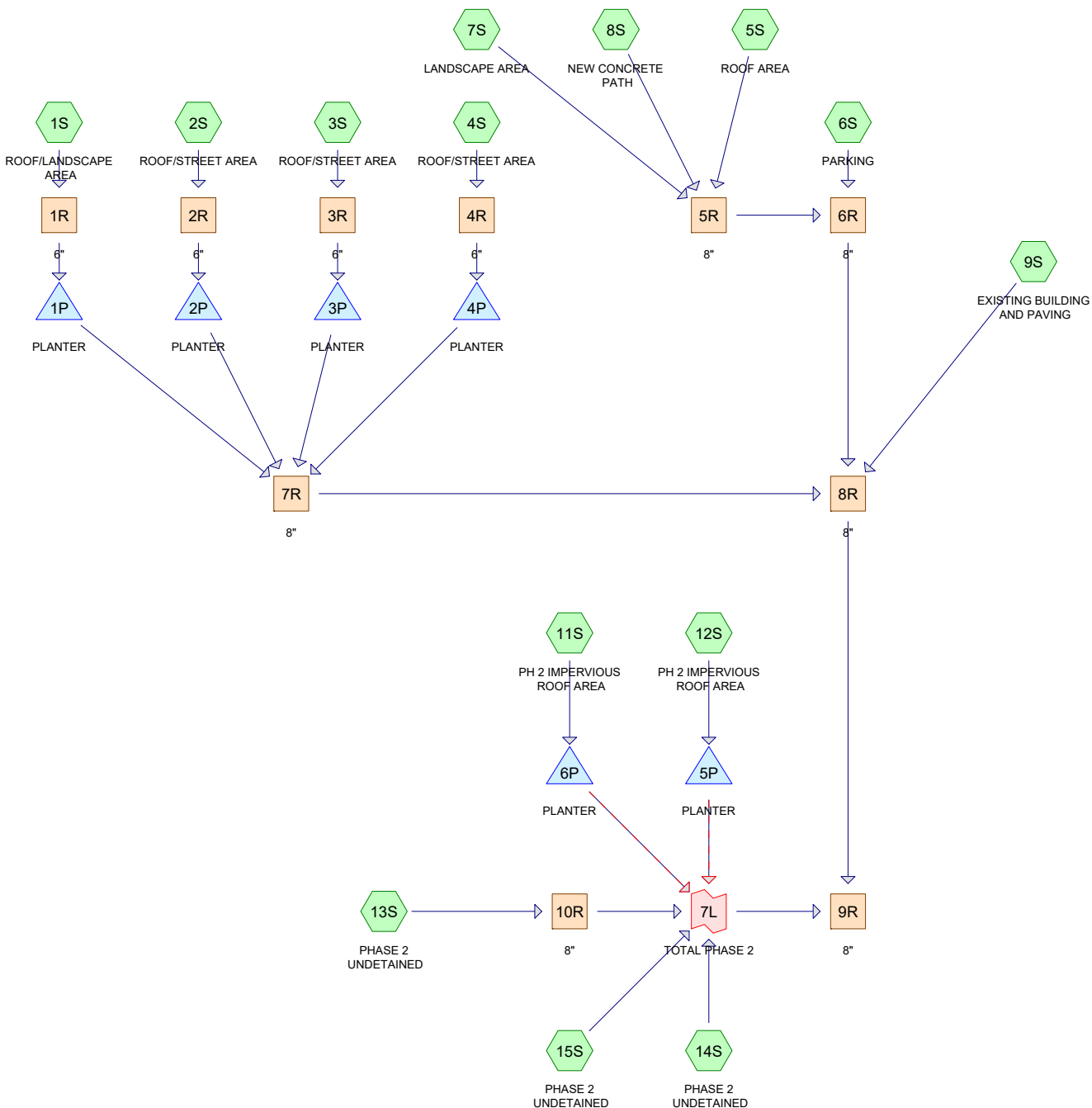
↑ **2=Culvert** (Passes 0.02 cfs of 0.41 cfs potential flow)
 ↑ **1=Orifice/Grate** (Weir Controls 0.02 cfs @ 0.62 fps)

Pond 4P: PLANTER

Hydrograph



**Appendix B: HydroCAD Reports for Phase 1
Post-Developed Condition Storm Events
(25-Year Storm Event Analysis)**



Routing Diagram for 3199 POST DEV
 Prepared by AKS Engineering & Forestry LLC, Printed 8/10/2020
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3199 POST DEV

Prepared by AKS Engineering & Forestry LLC

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.649	80	>75% Grass cover, Good, HSG D (7S, 13S, 15S)
0.125	98	Concrete path (8S)
0.183	98	Existing Building and Paving (9S)
0.048	80	LANDSCAPING (1S)
0.261	98	Parking Area (6S)
0.052	98	Pavement (2S, 3S, 4S)
0.214	98	Pavement & Roof areas (11S, 12S)
0.596	98	Roof Area (1S, 2S, 3S, 4S, 5S)
0.954	98	Roofs, HSG D (13S, 14S, 15S)

3199 POST DEV

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Type IA 24-hr 1/2 2 YEAR Rainfall=1.25"

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Page 1

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points

Runoff by SBUH method, Split Pervious/Imperv.

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: ROOF/LANDSCAPE	Runoff Area=11,794 sf 82.42% Impervious Runoff Depth>0.88" Tc=5.0 min CN=80/98 Runoff=0.06 cfs 0.020 af
Subcatchment 2S: ROOF/STREET AREA	Runoff Area=2,867 sf 100.00% Impervious Runoff Depth>1.03" Tc=5.0 min CN=0/98 Runoff=0.02 cfs 0.006 af
Subcatchment 3S: ROOF/STREET AREA	Runoff Area=1,964 sf 100.00% Impervious Runoff Depth>1.03" Tc=5.0 min CN=0/98 Runoff=0.01 cfs 0.004 af
Subcatchment 4S: ROOF/STREET AREA	Runoff Area=1,987 sf 100.00% Impervious Runoff Depth>1.03" Tc=5.0 min CN=0/98 Runoff=0.01 cfs 0.004 af
Subcatchment 5S: ROOF AREA	Runoff Area=11,691 sf 100.00% Impervious Runoff Depth>1.03" Tc=5.0 min CN=0/98 Runoff=0.07 cfs 0.023 af
Subcatchment 6S: PARKING	Runoff Area=11,368 sf 100.00% Impervious Runoff Depth>1.03" Tc=5.0 min CN=0/98 Runoff=0.07 cfs 0.022 af
Subcatchment 7S: LANDSCAPE AREA	Runoff Area=4,313 sf 0.00% Impervious Runoff Depth>0.17" Tc=5.0 min CN=80/0 Runoff=0.00 cfs 0.001 af
Subcatchment 8S: NEW CONCRETE PATH	Runoff Area=5,454 sf 100.00% Impervious Runoff Depth>1.03" Tc=5.0 min CN=0/98 Runoff=0.03 cfs 0.011 af
Subcatchment 9S: EXISTING BUILDING	Runoff Area=7,986 sf 100.00% Impervious Runoff Depth>1.03" Tc=5.0 min CN=0/98 Runoff=0.05 cfs 0.016 af
Subcatchment 11S: PH 2 IMPERVIOUS	Runoff Area=4,670 sf 100.00% Impervious Runoff Depth>1.03" Tc=5.0 min CN=0/98 Runoff=0.03 cfs 0.009 af
Subcatchment 12S: PH 2 IMPERVIOUS	Runoff Area=4,670 sf 100.00% Impervious Runoff Depth>1.03" Tc=5.0 min CN=0/98 Runoff=0.03 cfs 0.009 af
Subcatchment 13S: PHASE 2 UNDETAINED	Runoff Area=46,186 sf 63.66% Impervious Runoff Depth>0.72" Tc=5.0 min CN=80/98 Runoff=0.18 cfs 0.064 af
Subcatchment 14S: PHASE 2 UNDETAINED	Runoff Area=5,061 sf 100.00% Impervious Runoff Depth>1.03" Tc=5.0 min CN=0/98 Runoff=0.03 cfs 0.010 af
Subcatchment 15S: PHASE 2 UNDETAINED	Runoff Area=14,297 sf 49.72% Impervious Runoff Depth>0.60" Tc=10.0 min CN=80/98 Runoff=0.04 cfs 0.016 af

Reach 1R: 6" Avg. Flow Depth=0.09' Max Vel=2.67 fps Inflow=0.06 cfs 0.020 af
6.0" Round Pipe n=0.013 L=18.0' S=0.0278 '/ Capacity=0.94 cfs Outflow=0.06 cfs 0.020 af

Reach 2R: 6" Avg. Flow Depth=0.04' Max Vel=2.28 fps Inflow=0.02 cfs 0.006 af
6.0" Round Pipe n=0.013 L=10.0' S=0.0500 '/ Capacity=1.25 cfs Outflow=0.02 cfs 0.006 af

3199 POST DEV

Type IA 24-hr 1/2 2 YEAR Rainfall=1.25"

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Reach 3R: 6"	Avg. Flow Depth=0.03' Max Vel=2.03 fps Inflow=0.01 cfs 0.004 af
6.0" Round Pipe n=0.013 L=10.0' S=0.0500 '/'	Capacity=1.25 cfs Outflow=0.01 cfs 0.004 af
Reach 4R: 6"	Avg. Flow Depth=0.03' Max Vel=2.04 fps Inflow=0.01 cfs 0.004 af
6.0" Round Pipe n=0.013 L=10.0' S=0.0500 '/'	Capacity=1.25 cfs Outflow=0.01 cfs 0.004 af
Reach 5R: 8"	Avg. Flow Depth=0.16' Max Vel=1.66 fps Inflow=0.11 cfs 0.035 af
8.0" Round Pipe n=0.013 L=126.2' S=0.0050 '/'	Capacity=0.85 cfs Outflow=0.11 cfs 0.035 af
Reach 6R: 8"	Avg. Flow Depth=0.17' Max Vel=2.47 fps Inflow=0.18 cfs 0.058 af
8.0" Round Pipe n=0.013 L=132.6' S=0.0100 '/'	Capacity=1.21 cfs Outflow=0.17 cfs 0.058 af
Reach 7R: 8"	Avg. Flow Depth=0.05' Max Vel=0.77 fps Inflow=0.01 cfs 0.003 af
8.0" Round Pipe n=0.013 L=265.0' S=0.0050 '/'	Capacity=0.85 cfs Outflow=0.01 cfs 0.003 af
Reach 8R: 8"	Avg. Flow Depth=0.23' Max Vel=2.06 fps Inflow=0.22 cfs 0.077 af
8.0" Round Pipe n=0.013 L=126.5' S=0.0050 '/'	Capacity=0.85 cfs Outflow=0.22 cfs 0.077 af
Reach 9R: 8"	Avg. Flow Depth=0.29' Max Vel=3.51 fps Inflow=0.50 cfs 0.185 af
8.0" Round Pipe n=0.013 L=255.0' S=0.0118 '/'	Capacity=1.31 cfs Outflow=0.50 cfs 0.185 af
Reach 10R: 8"	Avg. Flow Depth=0.19' Max Vel=2.15 fps Inflow=0.18 cfs 0.064 af
8.0" Round Pipe n=0.013 L=1.5' S=0.0067 '/'	Capacity=0.99 cfs Outflow=0.18 cfs 0.064 af
Pond 1P: PLANTER	Peak Elev=198.51' Storage=724 cf Inflow=0.06 cfs 0.020 af
	Outflow=0.01 cfs 0.003 af
Pond 2P: PLANTER	Peak Elev=197.51' Storage=242 cf Inflow=0.02 cfs 0.006 af
	Outflow=0.00 cfs 0.000 af
Pond 3P: PLANTER	Peak Elev=197.19' Storage=169 cf Inflow=0.01 cfs 0.004 af
	Outflow=0.00 cfs 0.000 af
Pond 4P: PLANTER	Peak Elev=197.17' Storage=171 cf Inflow=0.01 cfs 0.004 af
	Outflow=0.00 cfs 0.000 af
Pond 5P: PLANTER	Peak Elev=196.81' Storage=29 cf Inflow=0.03 cfs 0.009 af
Primary=0.00 cfs 0.000 af	Secondary=0.01 cfs 0.009 af Outflow=0.01 cfs 0.009 af
Pond 6P: PLANTER	Peak Elev=196.71' Storage=23 cf Inflow=0.03 cfs 0.009 af
Primary=0.00 cfs 0.000 af	Secondary=0.01 cfs 0.009 af Outflow=0.01 cfs 0.009 af
Link 7L: TOTAL PHASE 2	Inflow=0.28 cfs 0.108 af
	Primary=0.28 cfs 0.108 af

3199 POST DEV

Type IA 24-hr 2 YEAR Rainfall=2.50"

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Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points

Runoff by SBUH method, Split Pervious/Imperv.

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: ROOF/LANDSCAPE	Runoff Area=11,794 sf 82.42% Impervious Runoff Depth>2.02" Tc=5.0 min CN=80/98 Runoff=0.14 cfs 0.046 af
Subcatchment 2S: ROOF/STREET AREA	Runoff Area=2,867 sf 100.00% Impervious Runoff Depth>2.27" Tc=5.0 min CN=0/98 Runoff=0.04 cfs 0.012 af
Subcatchment 3S: ROOF/STREET AREA	Runoff Area=1,964 sf 100.00% Impervious Runoff Depth>2.27" Tc=5.0 min CN=0/98 Runoff=0.03 cfs 0.009 af
Subcatchment 4S: ROOF/STREET AREA	Runoff Area=1,987 sf 100.00% Impervious Runoff Depth>2.27" Tc=5.0 min CN=0/98 Runoff=0.03 cfs 0.009 af
Subcatchment 5S: ROOF AREA	Runoff Area=11,691 sf 100.00% Impervious Runoff Depth>2.27" Tc=5.0 min CN=0/98 Runoff=0.15 cfs 0.051 af
Subcatchment 6S: PARKING	Runoff Area=11,368 sf 100.00% Impervious Runoff Depth>2.27" Tc=5.0 min CN=0/98 Runoff=0.15 cfs 0.049 af
Subcatchment 7S: LANDSCAPE AREA	Runoff Area=4,313 sf 0.00% Impervious Runoff Depth>0.89" Tc=5.0 min CN=80/0 Runoff=0.02 cfs 0.007 af
Subcatchment 8S: NEW CONCRETE PATH	Runoff Area=5,454 sf 100.00% Impervious Runoff Depth>2.27" Tc=5.0 min CN=0/98 Runoff=0.07 cfs 0.024 af
Subcatchment 9S: EXISTING BUILDING	Runoff Area=7,986 sf 100.00% Impervious Runoff Depth>2.27" Tc=5.0 min CN=0/98 Runoff=0.11 cfs 0.035 af
Subcatchment 11S: PH 2 IMPERVIOUS	Runoff Area=4,670 sf 100.00% Impervious Runoff Depth>2.27" Tc=5.0 min CN=0/98 Runoff=0.06 cfs 0.020 af
Subcatchment 12S: PH 2 IMPERVIOUS	Runoff Area=4,670 sf 100.00% Impervious Runoff Depth>2.27" Tc=5.0 min CN=0/98 Runoff=0.06 cfs 0.020 af
Subcatchment 13S: PHASE 2 UNDETAINED	Runoff Area=46,186 sf 63.66% Impervious Runoff Depth>1.77" Tc=5.0 min CN=80/98 Runoff=0.45 cfs 0.156 af
Subcatchment 14S: PHASE 2 UNDETAINED	Runoff Area=5,061 sf 100.00% Impervious Runoff Depth>2.27" Tc=5.0 min CN=0/98 Runoff=0.07 cfs 0.022 af
Subcatchment 15S: PHASE 2 UNDETAINED	Runoff Area=14,297 sf 49.72% Impervious Runoff Depth>1.57" Tc=10.0 min CN=80/98 Runoff=0.12 cfs 0.043 af
Reach 1R: 6"	Avg. Flow Depth=0.13' Max Vel=3.40 fps Inflow=0.14 cfs 0.046 af 6.0" Round Pipe n=0.013 L=18.0' S=0.0278 '/ Capacity=0.94 cfs Outflow=0.14 cfs 0.046 af
Reach 2R: 6"	Avg. Flow Depth=0.06' Max Vel=2.87 fps Inflow=0.04 cfs 0.012 af 6.0" Round Pipe n=0.013 L=10.0' S=0.0500 '/ Capacity=1.25 cfs Outflow=0.04 cfs 0.012 af

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Type IA 24-hr 2 YEAR Rainfall=2.50"

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Reach 3R: 6"	Avg. Flow Depth=0.05' Max Vel=2.56 fps Inflow=0.03 cfs 0.009 af
6.0" Round Pipe n=0.013 L=10.0' S=0.0500 '/' Capacity=1.25 cfs Outflow=0.03 cfs 0.009 af	
Reach 4R: 6"	Avg. Flow Depth=0.05' Max Vel=2.57 fps Inflow=0.03 cfs 0.009 af
6.0" Round Pipe n=0.013 L=10.0' S=0.0500 '/' Capacity=1.25 cfs Outflow=0.03 cfs 0.009 af	
Reach 5R: 8"	Avg. Flow Depth=0.24' Max Vel=2.11 fps Inflow=0.24 cfs 0.082 af
8.0" Round Pipe n=0.013 L=126.2' S=0.0050 '/' Capacity=0.85 cfs Outflow=0.24 cfs 0.082 af	
Reach 6R: 8"	Avg. Flow Depth=0.26' Max Vel=3.10 fps Inflow=0.39 cfs 0.131 af
8.0" Round Pipe n=0.013 L=132.6' S=0.0100 '/' Capacity=1.21 cfs Outflow=0.39 cfs 0.131 af	
Reach 7R: 8"	Avg. Flow Depth=0.12' Max Vel=1.40 fps Inflow=0.06 cfs 0.041 af
8.0" Round Pipe n=0.013 L=265.0' S=0.0050 '/' Capacity=0.85 cfs Outflow=0.06 cfs 0.041 af	
Reach 8R: 8"	Avg. Flow Depth=0.37' Max Vel=2.54 fps Inflow=0.50 cfs 0.206 af
8.0" Round Pipe n=0.013 L=126.5' S=0.0050 '/' Capacity=0.85 cfs Outflow=0.50 cfs 0.206 af	
Reach 9R: 8"	Avg. Flow Depth=0.49' Max Vel=4.25 fps Inflow=1.16 cfs 0.467 af
8.0" Round Pipe n=0.013 L=255.0' S=0.0118 '/' Capacity=1.31 cfs Outflow=1.16 cfs 0.467 af	
Reach 10R: 8"	Avg. Flow Depth=0.32' Max Vel=2.77 fps Inflow=0.45 cfs 0.156 af
8.0" Round Pipe n=0.013 L=1.5' S=0.0067 '/' Capacity=0.99 cfs Outflow=0.45 cfs 0.156 af	
Pond 1P: PLANTER	Peak Elev=198.54' Storage=748 cf Inflow=0.14 cfs 0.046 af Outflow=0.06 cfs 0.029 af
Pond 2P: PLANTER	Peak Elev=197.52' Storage=247 cf Inflow=0.04 cfs 0.012 af Outflow=0.01 cfs 0.007 af
Pond 3P: PLANTER	Peak Elev=197.51' Storage=259 cf Inflow=0.03 cfs 0.009 af Outflow=0.00 cfs 0.003 af
Pond 4P: PLANTER	Peak Elev=197.51' Storage=272 cf Inflow=0.03 cfs 0.009 af Outflow=0.00 cfs 0.002 af
Pond 5P: PLANTER	Peak Elev=198.98' Storage=113 cf Inflow=0.06 cfs 0.020 af Primary=0.00 cfs 0.000 af Secondary=0.03 cfs 0.020 af Outflow=0.03 cfs 0.020 af
Pond 6P: PLANTER	Peak Elev=197.51' Storage=107 cf Inflow=0.06 cfs 0.020 af Primary=0.00 cfs 0.000 af Secondary=0.03 cfs 0.020 af Outflow=0.03 cfs 0.020 af
Link 7L: TOTAL PHASE 2	Inflow=0.66 cfs 0.261 af Primary=0.66 cfs 0.261 af

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Type IA 24-hr 10 YEAR Rainfall=4.00"

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Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points

Runoff by SBUH method, Split Pervious/Imperv.

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: ROOF/LANDSCAPE	Runoff Area=11,794 sf 82.42% Impervious Runoff Depth>3.46" Tc=5.0 min CN=80/98 Runoff=0.23 cfs 0.078 af
Subcatchment 2S: ROOF/STREET AREA	Runoff Area=2,867 sf 100.00% Impervious Runoff Depth>3.76" Tc=5.0 min CN=0/98 Runoff=0.06 cfs 0.021 af
Subcatchment 3S: ROOF/STREET AREA	Runoff Area=1,964 sf 100.00% Impervious Runoff Depth>3.76" Tc=5.0 min CN=0/98 Runoff=0.04 cfs 0.014 af
Subcatchment 4S: ROOF/STREET AREA	Runoff Area=1,987 sf 100.00% Impervious Runoff Depth>3.76" Tc=5.0 min CN=0/98 Runoff=0.04 cfs 0.014 af
Subcatchment 5S: ROOF AREA	Runoff Area=11,691 sf 100.00% Impervious Runoff Depth>3.76" Tc=5.0 min CN=0/98 Runoff=0.25 cfs 0.084 af
Subcatchment 6S: PARKING	Runoff Area=11,368 sf 100.00% Impervious Runoff Depth>3.76" Tc=5.0 min CN=0/98 Runoff=0.25 cfs 0.082 af
Subcatchment 7S: LANDSCAPE AREA	Runoff Area=4,313 sf 0.00% Impervious Runoff Depth>2.04" Tc=5.0 min CN=80/0 Runoff=0.05 cfs 0.017 af
Subcatchment 8S: NEW CONCRETE PATH	Runoff Area=5,454 sf 100.00% Impervious Runoff Depth>3.76" Tc=5.0 min CN=0/98 Runoff=0.12 cfs 0.039 af
Subcatchment 9S: EXISTING BUILDING	Runoff Area=7,986 sf 100.00% Impervious Runoff Depth>3.76" Tc=5.0 min CN=0/98 Runoff=0.17 cfs 0.057 af
Subcatchment 11S: PH 2 IMPERVIOUS	Runoff Area=4,670 sf 100.00% Impervious Runoff Depth>3.76" Tc=5.0 min CN=0/98 Runoff=0.10 cfs 0.034 af
Subcatchment 12S: PH 2 IMPERVIOUS	Runoff Area=4,670 sf 100.00% Impervious Runoff Depth>3.76" Tc=5.0 min CN=0/98 Runoff=0.10 cfs 0.034 af
Subcatchment 13S: PHASE 2 UNDETAINED	Runoff Area=46,186 sf 63.66% Impervious Runoff Depth>3.13" Tc=5.0 min CN=80/98 Runoff=0.82 cfs 0.277 af
Subcatchment 14S: PHASE 2 UNDETAINED	Runoff Area=5,061 sf 100.00% Impervious Runoff Depth>3.76" Tc=5.0 min CN=0/98 Runoff=0.11 cfs 0.036 af
Subcatchment 15S: PHASE 2 UNDETAINED	Runoff Area=14,297 sf 49.72% Impervious Runoff Depth>2.89" Tc=10.0 min CN=80/98 Runoff=0.22 cfs 0.079 af

Reach 1R: 6" Avg. Flow Depth=0.17' Max Vel=3.95 fps Inflow=0.23 cfs 0.078 af
6.0" Round Pipe n=0.013 L=18.0' S=0.0278 '/ Capacity=0.94 cfs Outflow=0.23 cfs 0.078 af

Reach 2R: 6" Avg. Flow Depth=0.08' Max Vel=3.32 fps Inflow=0.06 cfs 0.021 af
6.0" Round Pipe n=0.013 L=10.0' S=0.0500 '/ Capacity=1.25 cfs Outflow=0.06 cfs 0.021 af

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Type IA 24-hr 10 YEAR Rainfall=4.00"

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Reach 3R: 6"	Avg. Flow Depth=0.06' Max Vel=2.96 fps Inflow=0.04 cfs 0.014 af 6.0" Round Pipe n=0.013 L=10.0' S=0.0500 '/ Capacity=1.25 cfs Outflow=0.04 cfs 0.014 af
Reach 4R: 6"	Avg. Flow Depth=0.06' Max Vel=2.97 fps Inflow=0.04 cfs 0.014 af 6.0" Round Pipe n=0.013 L=10.0' S=0.0500 '/ Capacity=1.25 cfs Outflow=0.04 cfs 0.014 af
Reach 5R: 8"	Avg. Flow Depth=0.33' Max Vel=2.43 fps Inflow=0.42 cfs 0.140 af 8.0" Round Pipe n=0.013 L=126.2' S=0.0050 '/ Capacity=0.85 cfs Outflow=0.42 cfs 0.140 af
Reach 6R: 8"	Avg. Flow Depth=0.35' Max Vel=3.54 fps Inflow=0.66 cfs 0.222 af 8.0" Round Pipe n=0.013 L=132.6' S=0.0100 '/ Capacity=1.21 cfs Outflow=0.66 cfs 0.222 af
Reach 7R: 8"	Avg. Flow Depth=0.27' Max Vel=2.21 fps Inflow=0.29 cfs 0.092 af 8.0" Round Pipe n=0.013 L=265.0' S=0.0050 '/ Capacity=0.85 cfs Outflow=0.29 cfs 0.092 af
Reach 8R: 8"	Avg. Flow Depth=0.67' Max Vel=2.78 fps Inflow=1.12 cfs 0.371 af 8.0" Round Pipe n=0.013 L=126.5' S=0.0050 '/ Capacity=0.85 cfs Outflow=0.89 cfs 0.371 af
Reach 9R: 8"	Avg. Flow Depth=0.67' Max Vel=4.28 fps Inflow=2.13 cfs 0.830 af 8.0" Round Pipe n=0.013 L=255.0' S=0.0118 '/ Capacity=1.31 cfs Outflow=1.40 cfs 0.829 af
Reach 10R: 8"	Avg. Flow Depth=0.46' Max Vel=3.16 fps Inflow=0.82 cfs 0.277 af 8.0" Round Pipe n=0.013 L=1.5' S=0.0067 '/ Capacity=0.99 cfs Outflow=0.82 cfs 0.277 af
Pond 1P: PLANTER	Peak Elev=198.60' Storage=797 cf Inflow=0.23 cfs 0.078 af Outflow=0.23 cfs 0.061 af
Pond 2P: PLANTER	Peak Elev=197.57' Storage=259 cf Inflow=0.06 cfs 0.021 af Outflow=0.06 cfs 0.015 af
Pond 3P: PLANTER	Peak Elev=197.53' Storage=264 cf Inflow=0.04 cfs 0.014 af Outflow=0.02 cfs 0.008 af
Pond 4P: PLANTER	Peak Elev=197.53' Storage=277 cf Inflow=0.04 cfs 0.014 af Outflow=0.02 cfs 0.008 af
Pond 5P: PLANTER	Peak Elev=199.42' Storage=231 cf Inflow=0.10 cfs 0.034 af Primary=0.00 cfs 0.000 af Secondary=0.04 cfs 0.033 af Outflow=0.04 cfs 0.033 af
Pond 6P: PLANTER	Peak Elev=199.04' Storage=144 cf Inflow=0.10 cfs 0.034 af Primary=0.05 cfs 0.002 af Secondary=0.04 cfs 0.032 af Outflow=0.10 cfs 0.034 af
Link 7L: TOTAL PHASE 2	Inflow=1.28 cfs 0.459 af Primary=1.28 cfs 0.459 af

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Type IA 24-hr 25 YEAR Rainfall=4.40"

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Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points

Runoff by SBUH method, Split Pervious/Imperv.

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: ROOF/LANDSCAPE	Runoff Area=11,794 sf 82.42% Impervious Runoff Depth>3.84" Tc=5.0 min CN=80/98 Runoff=0.26 cfs 0.087 af
Subcatchment 2S: ROOF/STREET AREA	Runoff Area=2,867 sf 100.00% Impervious Runoff Depth>4.16" Tc=5.0 min CN=0/98 Runoff=0.07 cfs 0.023 af
Subcatchment 3S: ROOF/STREET AREA	Runoff Area=1,964 sf 100.00% Impervious Runoff Depth>4.16" Tc=5.0 min CN=0/98 Runoff=0.05 cfs 0.016 af
Subcatchment 4S: ROOF/STREET AREA	Runoff Area=1,987 sf 100.00% Impervious Runoff Depth>4.16" Tc=5.0 min CN=0/98 Runoff=0.05 cfs 0.016 af
Subcatchment 5S: ROOF AREA	Runoff Area=11,691 sf 100.00% Impervious Runoff Depth>4.16" Tc=5.0 min CN=0/98 Runoff=0.28 cfs 0.093 af
Subcatchment 6S: PARKING	Runoff Area=11,368 sf 100.00% Impervious Runoff Depth>4.16" Tc=5.0 min CN=0/98 Runoff=0.27 cfs 0.090 af
Subcatchment 7S: LANDSCAPE AREA	Runoff Area=4,313 sf 0.00% Impervious Runoff Depth>2.37" Tc=5.0 min CN=80/0 Runoff=0.06 cfs 0.020 af
Subcatchment 8S: NEW CONCRETE PATH	Runoff Area=5,454 sf 100.00% Impervious Runoff Depth>4.16" Tc=5.0 min CN=0/98 Runoff=0.13 cfs 0.043 af
Subcatchment 9S: EXISTING BUILDING	Runoff Area=7,986 sf 100.00% Impervious Runoff Depth>4.16" Tc=5.0 min CN=0/98 Runoff=0.19 cfs 0.064 af
Subcatchment 11S: PH 2 IMPERVIOUS	Runoff Area=4,670 sf 100.00% Impervious Runoff Depth>4.16" Tc=5.0 min CN=0/98 Runoff=0.11 cfs 0.037 af
Subcatchment 12S: PH 2 IMPERVIOUS	Runoff Area=4,670 sf 100.00% Impervious Runoff Depth>4.16" Tc=5.0 min CN=0/98 Runoff=0.11 cfs 0.037 af
Subcatchment 13S: PHASE 2 UNDETAINED	Runoff Area=46,186 sf 63.66% Impervious Runoff Depth>3.51" Tc=5.0 min CN=80/98 Runoff=0.92 cfs 0.310 af
Subcatchment 14S: PHASE 2 UNDETAINED	Runoff Area=5,061 sf 100.00% Impervious Runoff Depth>4.16" Tc=5.0 min CN=0/98 Runoff=0.12 cfs 0.040 af
Subcatchment 15S: PHASE 2 UNDETAINED	Runoff Area=14,297 sf 49.72% Impervious Runoff Depth>3.25" Tc=10.0 min CN=80/98 Runoff=0.25 cfs 0.089 af
Reach 1R: 6"	Avg. Flow Depth=0.18' Max Vel=4.07 fps Inflow=0.26 cfs 0.087 af 6.0" Round Pipe n=0.013 L=18.0' S=0.0278 '/ Capacity=0.94 cfs Outflow=0.26 cfs 0.087 af
Reach 2R: 6"	Avg. Flow Depth=0.08' Max Vel=3.42 fps Inflow=0.07 cfs 0.023 af 6.0" Round Pipe n=0.013 L=10.0' S=0.0500 '/ Capacity=1.25 cfs Outflow=0.07 cfs 0.023 af

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Type IA 24-hr 25 YEAR Rainfall=4.40"

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Reach 3R: 6"	Avg. Flow Depth=0.07' Max Vel=3.05 fps Inflow=0.05 cfs 0.016 af 6.0" Round Pipe n=0.013 L=10.0' S=0.0500 '/' Capacity=1.25 cfs Outflow=0.05 cfs 0.016 af
Reach 4R: 6"	Avg. Flow Depth=0.07' Max Vel=3.06 fps Inflow=0.05 cfs 0.016 af 6.0" Round Pipe n=0.013 L=10.0' S=0.0500 '/' Capacity=1.25 cfs Outflow=0.05 cfs 0.016 af
Reach 5R: 8"	Avg. Flow Depth=0.35' Max Vel=2.50 fps Inflow=0.46 cfs 0.156 af 8.0" Round Pipe n=0.013 L=126.2' S=0.0050 '/' Capacity=0.85 cfs Outflow=0.46 cfs 0.156 af
Reach 6R: 8"	Avg. Flow Depth=0.37' Max Vel=3.63 fps Inflow=0.73 cfs 0.246 af 8.0" Round Pipe n=0.013 L=132.6' S=0.0100 '/' Capacity=1.21 cfs Outflow=0.73 cfs 0.246 af
Reach 7R: 8"	Avg. Flow Depth=0.28' Max Vel=2.27 fps Inflow=0.32 cfs 0.106 af 8.0" Round Pipe n=0.013 L=265.0' S=0.0050 '/' Capacity=0.85 cfs Outflow=0.32 cfs 0.106 af
Reach 8R: 8"	Avg. Flow Depth=0.67' Max Vel=2.78 fps Inflow=1.24 cfs 0.416 af 8.0" Round Pipe n=0.013 L=126.5' S=0.0050 '/' Capacity=0.85 cfs Outflow=0.91 cfs 0.416 af
Reach 9R: 8"	Avg. Flow Depth=0.67' Max Vel=4.24 fps Inflow=2.28 cfs 0.927 af 8.0" Round Pipe n=0.013 L=255.0' S=0.0118 '/' Capacity=1.31 cfs Outflow=1.31 cfs 0.927 af
Reach 10R: 8"	Avg. Flow Depth=0.51' Max Vel=3.21 fps Inflow=0.92 cfs 0.310 af 8.0" Round Pipe n=0.013 L=1.5' S=0.0067 '/' Capacity=0.99 cfs Outflow=0.92 cfs 0.310 af
Pond 1P: PLANTER	Peak Elev=198.61' Storage=803 cf Inflow=0.26 cfs 0.087 af Outflow=0.26 cfs 0.070 af
Pond 2P: PLANTER	Peak Elev=197.57' Storage=260 cf Inflow=0.07 cfs 0.023 af Outflow=0.07 cfs 0.017 af
Pond 3P: PLANTER	Peak Elev=197.54' Storage=267 cf Inflow=0.05 cfs 0.016 af Outflow=0.03 cfs 0.010 af
Pond 4P: PLANTER	Peak Elev=197.54' Storage=279 cf Inflow=0.05 cfs 0.016 af Outflow=0.02 cfs 0.010 af
Pond 5P: PLANTER	Peak Elev=199.55' Storage=265 cf Inflow=0.11 cfs 0.037 af Primary=0.00 cfs 0.000 af Secondary=0.04 cfs 0.036 af Outflow=0.04 cfs 0.036 af
Pond 6P: PLANTER	Peak Elev=199.05' Storage=145 cf Inflow=0.11 cfs 0.037 af Primary=0.07 cfs 0.003 af Secondary=0.04 cfs 0.034 af Outflow=0.11 cfs 0.037 af
Link 7L: TOTAL PHASE 2	Inflow=1.43 cfs 0.512 af Primary=1.43 cfs 0.512 af

Summary for Subcatchment 1S: ROOF/LANDSCAPE AREA

Runoff = 0.26 cfs @ 7.91 hrs, Volume= 0.087 af, Depth> 3.84"

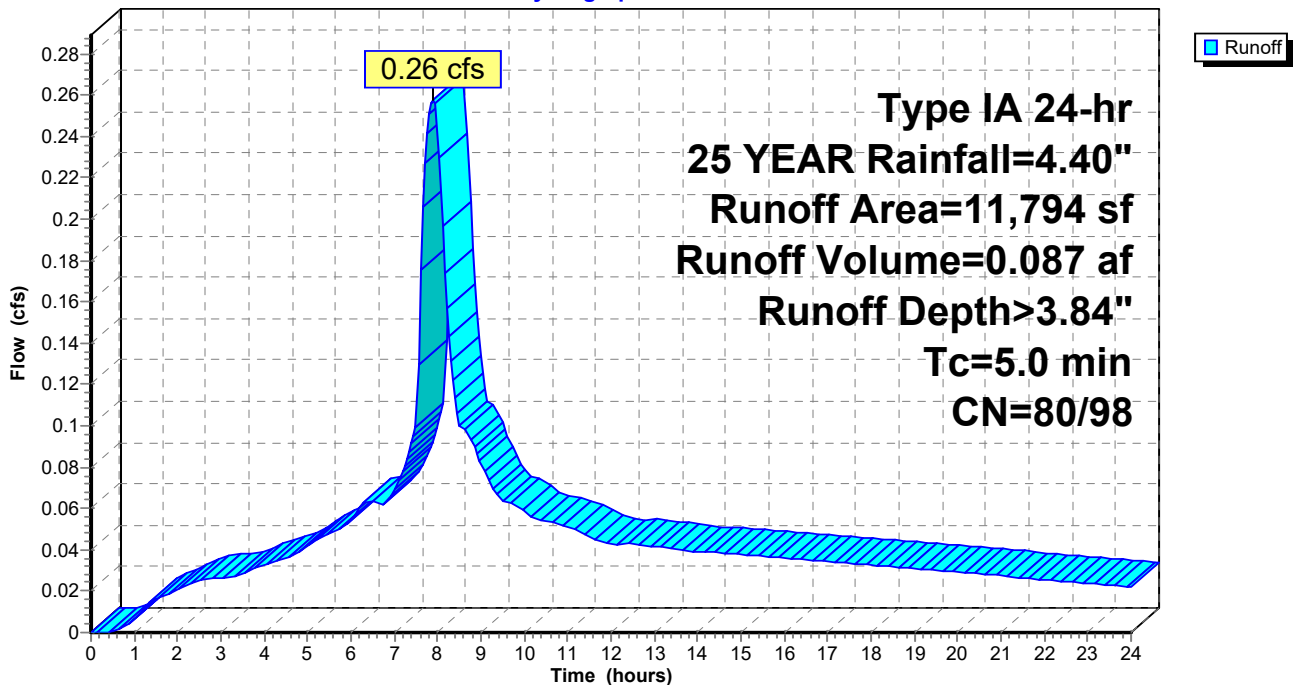
Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type IA 24-hr 25 YEAR Rainfall=4.40"

	Area (sf)	CN	Description
*	9,721	98	Roof Area
*	2,073	80	LANDSCAPING
	11,794	95	Weighted Average
	2,073		17.58% Pervious Area
	9,721		82.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 1S: ROOF/LANDSCAPE AREA

Hydrograph



Summary for Subcatchment 2S: ROOF/STREET AREA

Runoff = 0.07 cfs @ 7.90 hrs, Volume= 0.023 af, Depth> 4.16"

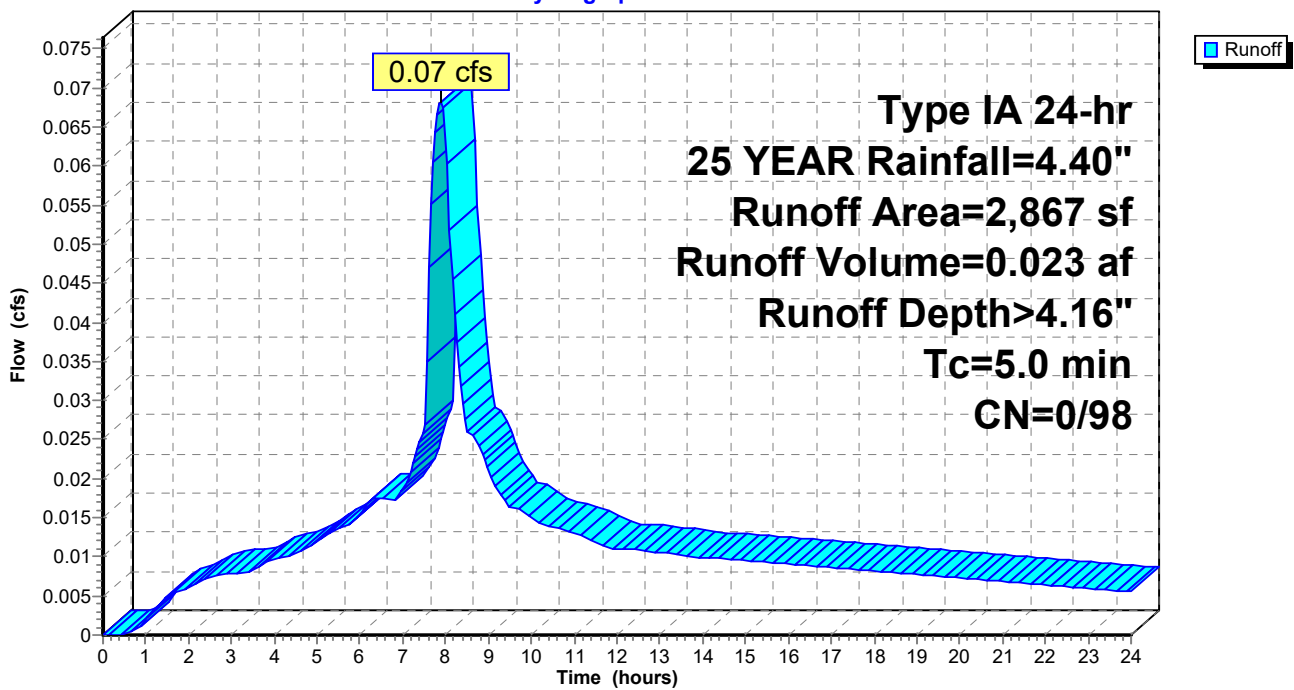
Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type IA 24-hr 25 YEAR Rainfall=4.40"

	Area (sf)	CN	Description
*	1,849	98	Roof Area
*	1,018	98	Pavement
	2,867	98	Weighted Average
	2,867		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 2S: ROOF/STREET AREA

Hydrograph



Summary for Subcatchment 3S: ROOF/STREET AREA

Runoff = 0.05 cfs @ 7.90 hrs, Volume= 0.016 af, Depth> 4.16"

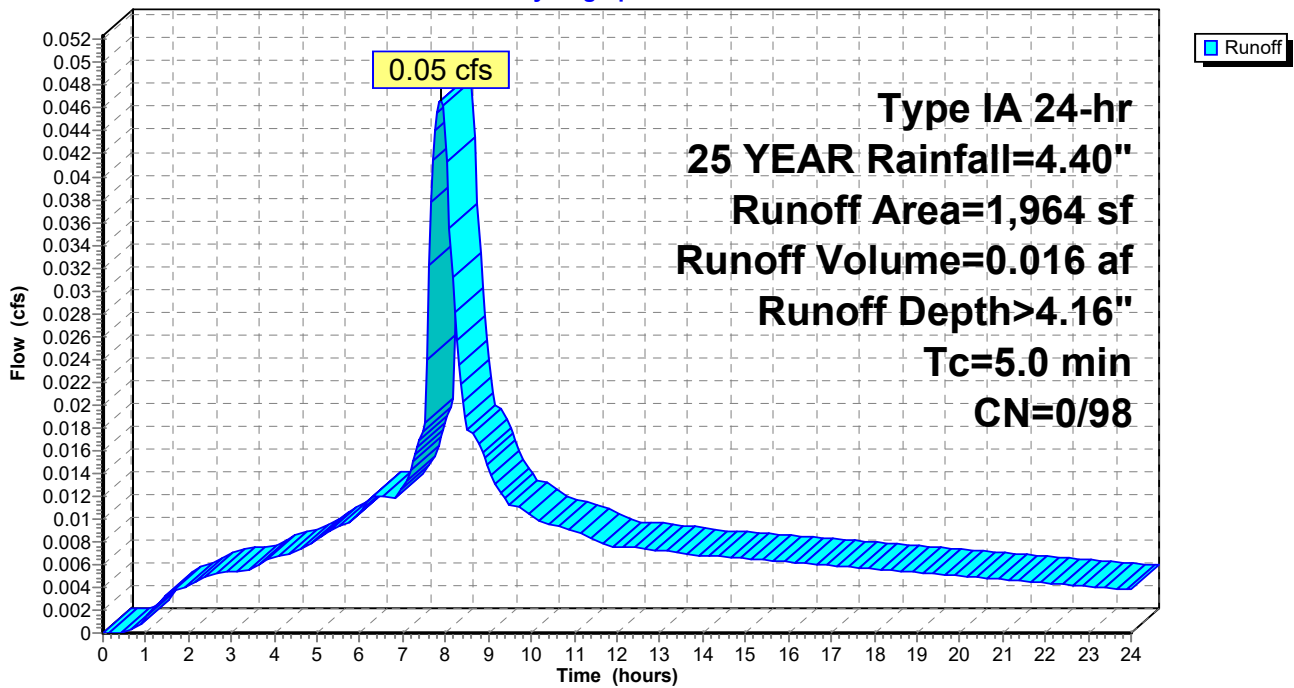
Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type IA 24-hr 25 YEAR Rainfall=4.40"

	Area (sf)	CN	Description
*	1,329	98	Roof Area
*	635	98	Pavement
	1,964	98	Weighted Average
	1,964		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 3S: ROOF/STREET AREA

Hydrograph



Summary for Subcatchment 4S: ROOF/STREET AREA

Runoff = 0.05 cfs @ 7.90 hrs, Volume= 0.016 af, Depth> 4.16"

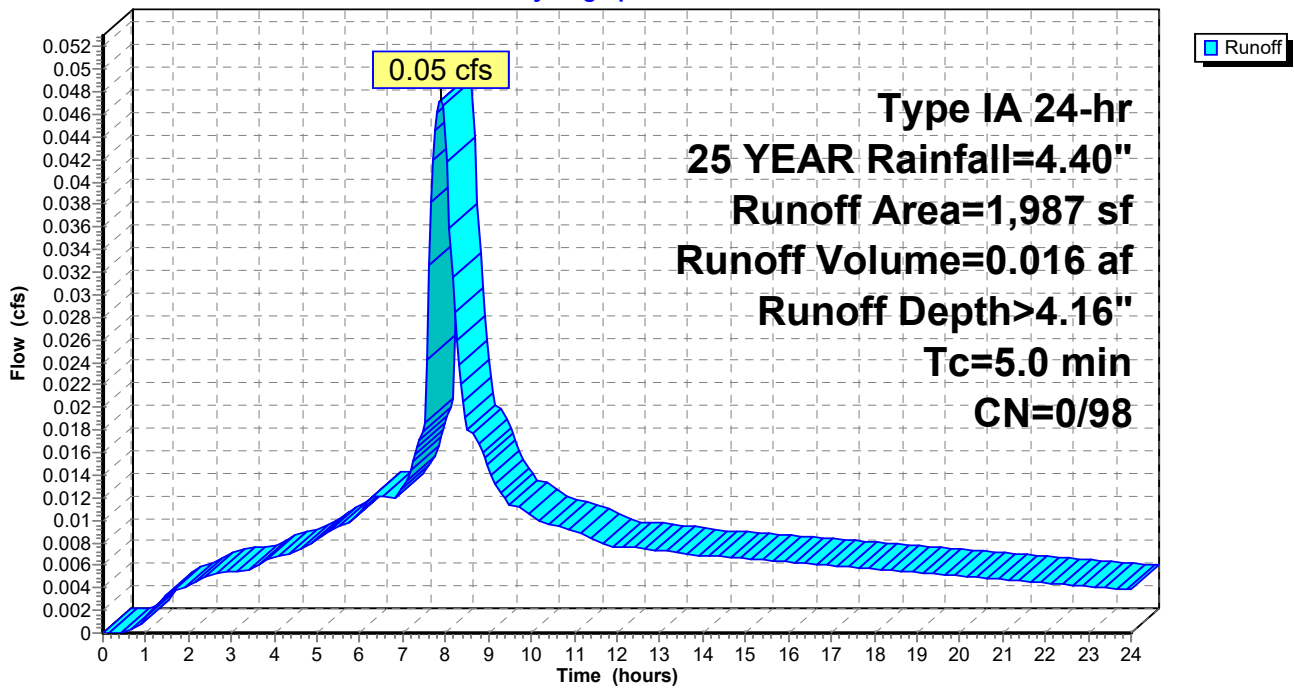
Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type IA 24-hr 25 YEAR Rainfall=4.40"

	Area (sf)	CN	Description
*	1,365	98	Roof Area
*	622	98	Pavement
	1,987	98	Weighted Average
	1,987		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 4S: ROOF/STREET AREA

Hydrograph



Summary for Subcatchment 5S: ROOF AREA

Runoff = 0.28 cfs @ 7.90 hrs, Volume= 0.093 af, Depth> 4.16"

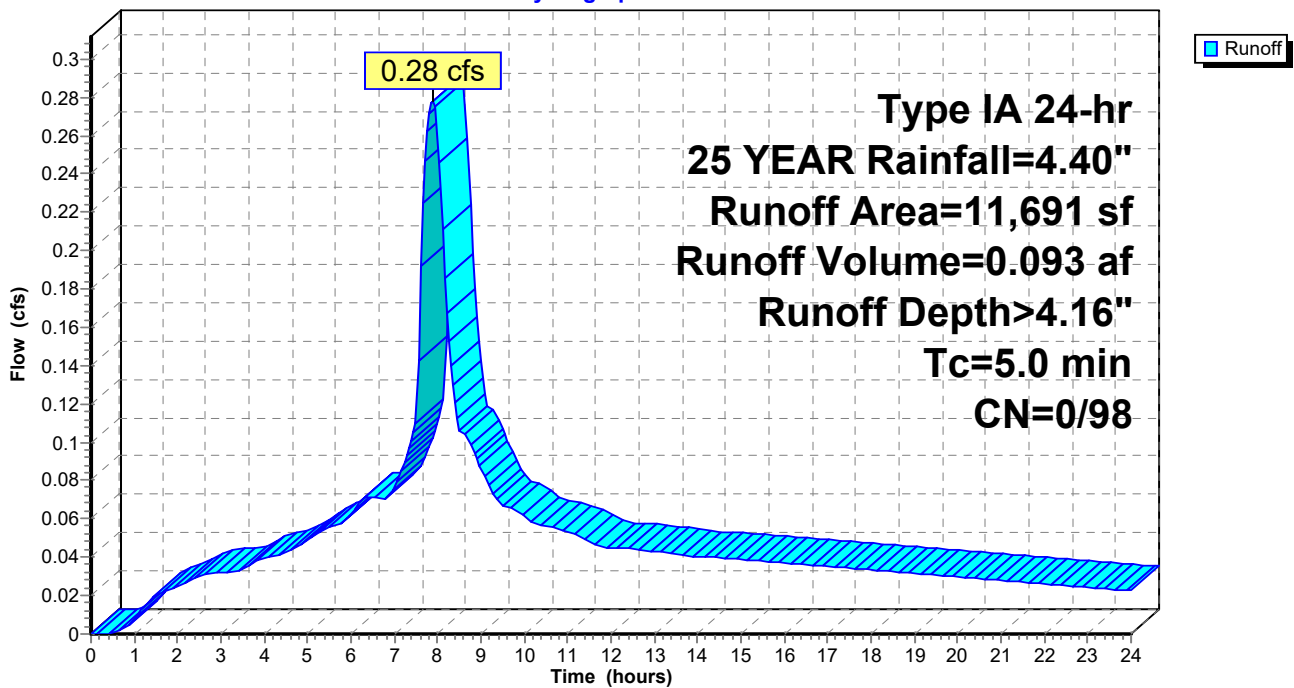
Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type IA 24-hr 25 YEAR Rainfall=4.40"

Area (sf)	CN	Description
* 11,691	98	Roof Area
11,691		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 5S: ROOF AREA

Hydrograph



Summary for Subcatchment 6S: PARKING

Runoff = 0.27 cfs @ 7.90 hrs, Volume= 0.090 af, Depth> 4.16"

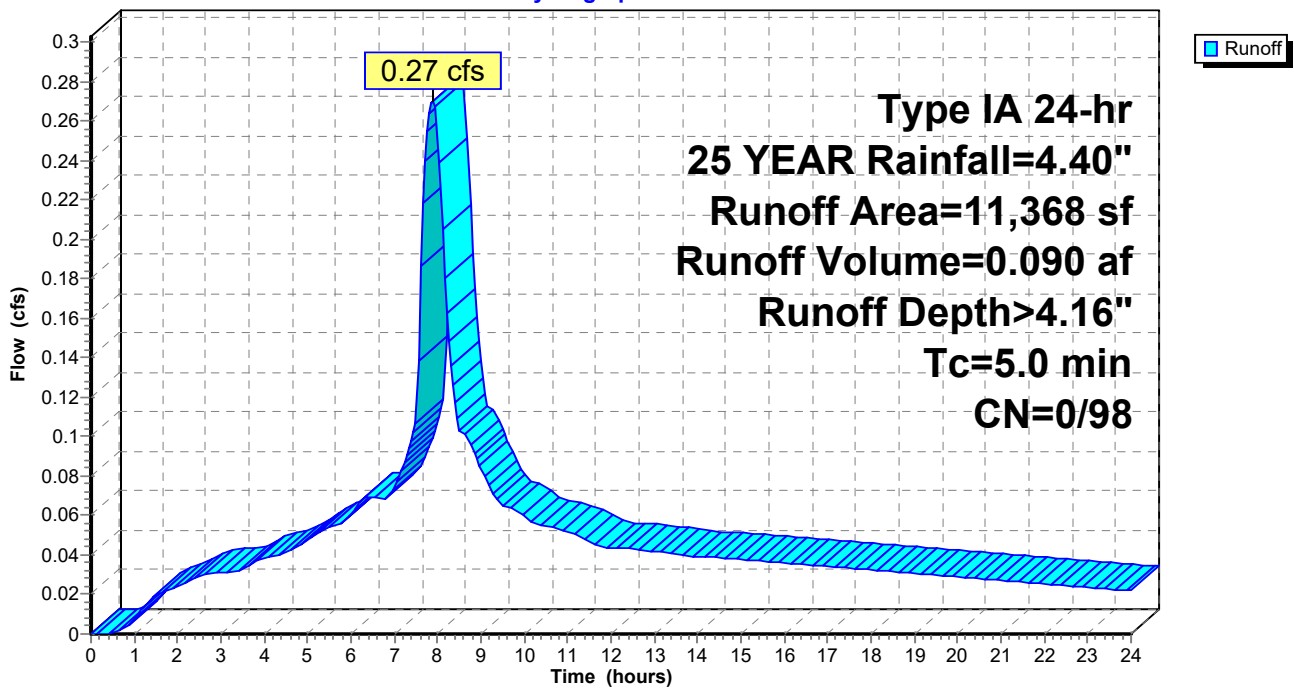
Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type IA 24-hr 25 YEAR Rainfall=4.40"

Area (sf)	CN	Description
* 11,368	98	Parking Area
11,368		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 6S: PARKING

Hydrograph



Summary for Subcatchment 7S: LANDSCAPE AREA

Runoff = 0.06 cfs @ 7.98 hrs, Volume= 0.020 af, Depth> 2.37"

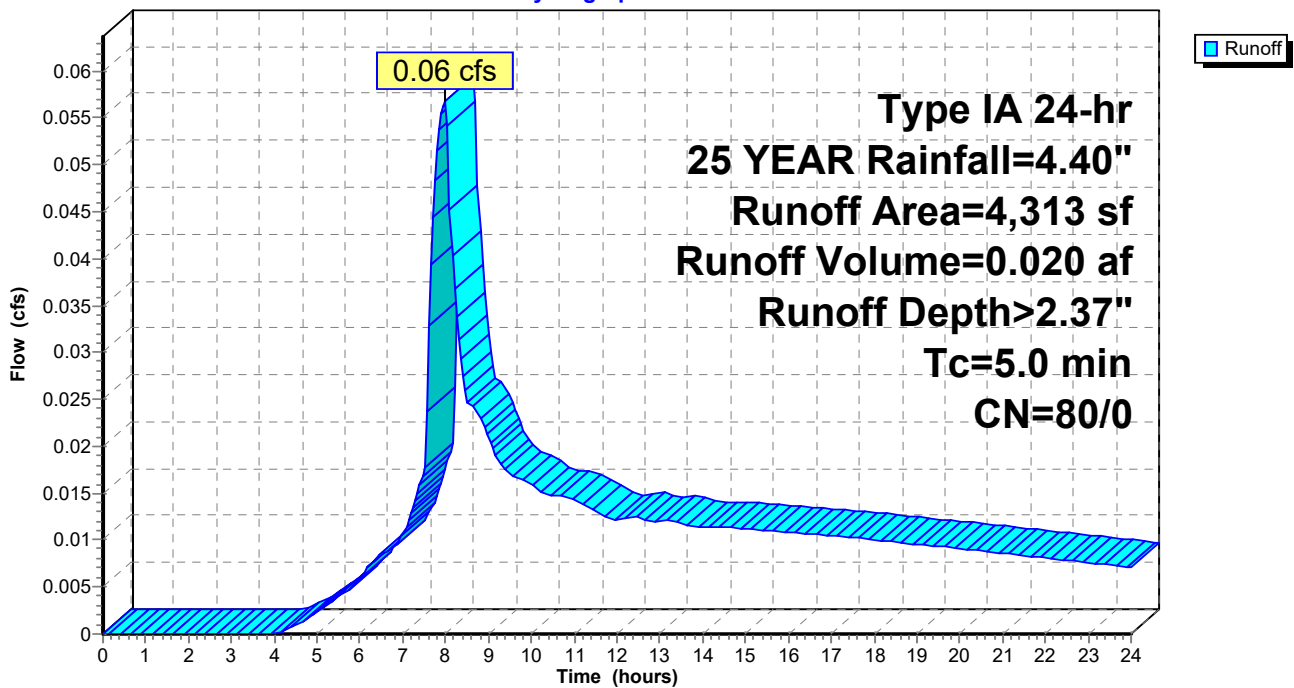
Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type IA 24-hr 25 YEAR Rainfall=4.40"

Area (sf)	CN	Description
4,313	80	>75% Grass cover, Good, HSG D
4,313		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 7S: LANDSCAPE AREA

Hydrograph



Summary for Subcatchment 8S: NEW CONCRETE PATH

Runoff = 0.13 cfs @ 7.90 hrs, Volume= 0.043 af, Depth> 4.16"

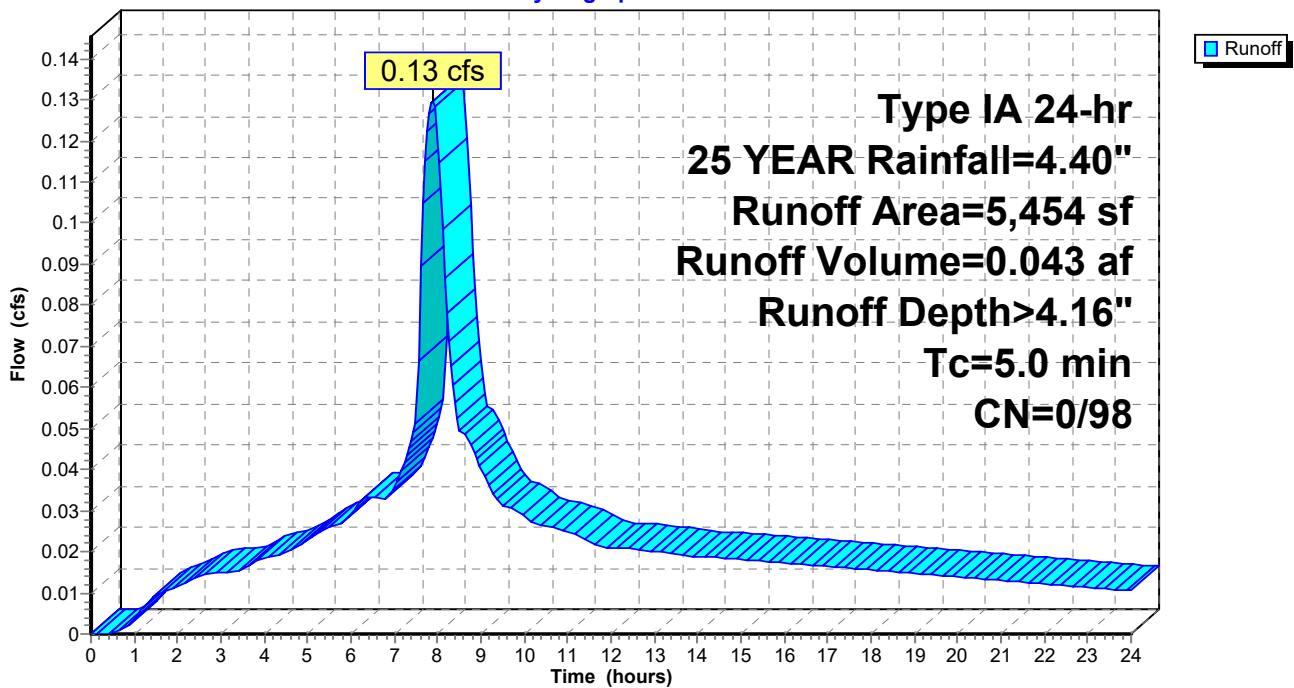
Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type IA 24-hr 25 YEAR Rainfall=4.40"

Area (sf)	CN	Description
* 5,454	98	Concrete path
5,454		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 8S: NEW CONCRETE PATH

Hydrograph



Summary for Subcatchment 9S: EXISTING BUILDING AND PAVING

Runoff = 0.19 cfs @ 7.90 hrs, Volume= 0.064 af, Depth> 4.16"

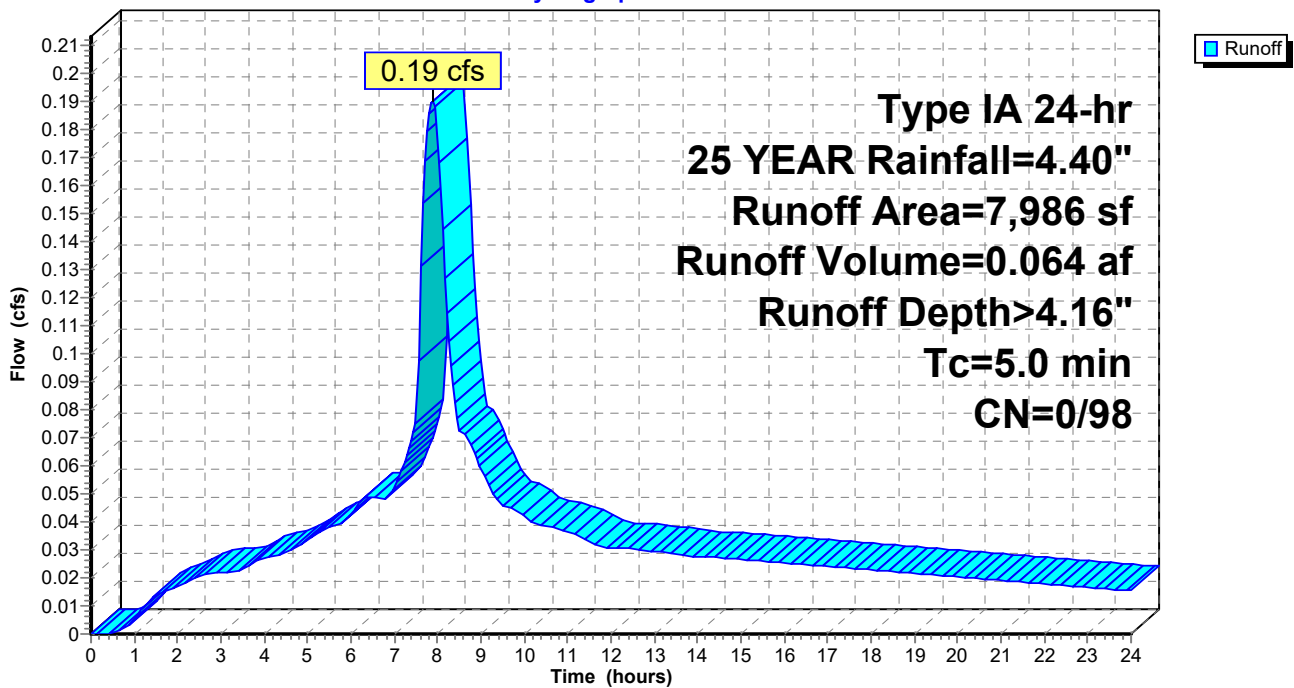
Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type IA 24-hr 25 YEAR Rainfall=4.40"

Area (sf)	CN	Description
* 7,986	98	Existing Building and Paving
7,986		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 9S: EXISTING BUILDING AND PAVING

Hydrograph



Summary for Subcatchment 11S: PH 2 IMPERVIOUS ROOF AREA

Runoff = 0.11 cfs @ 7.90 hrs, Volume= 0.037 af, Depth> 4.16"

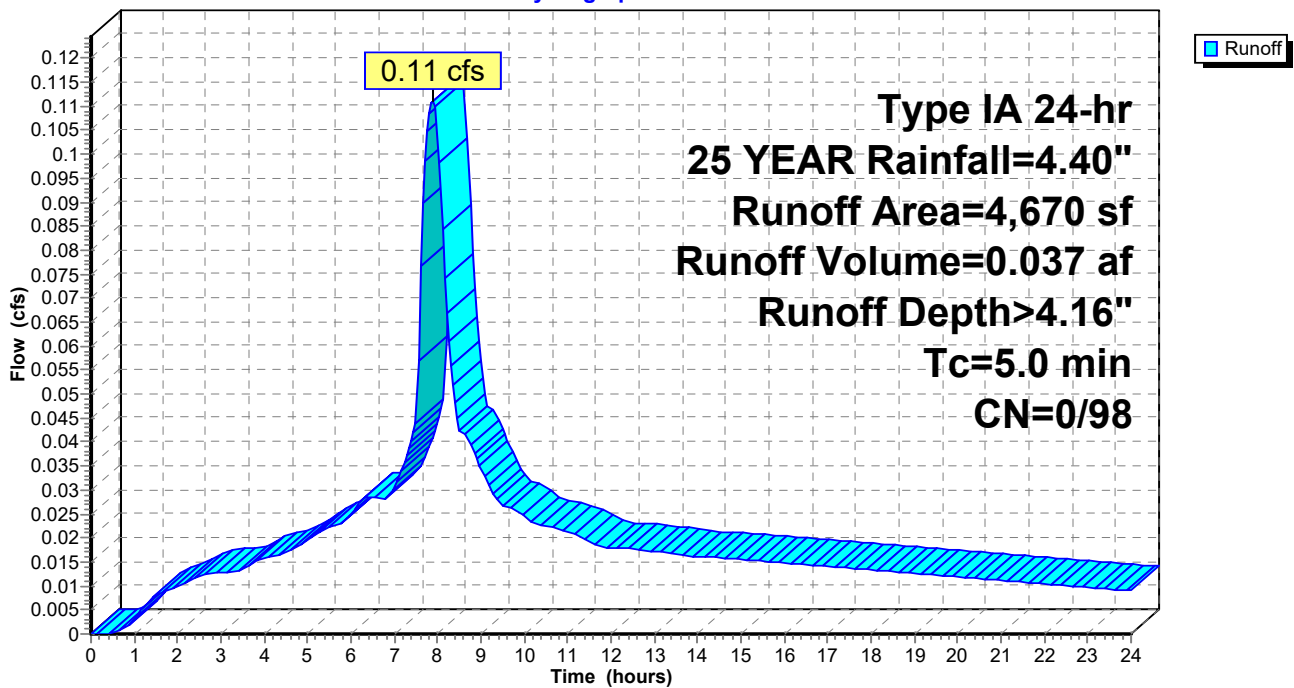
Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type IA 24-hr 25 YEAR Rainfall=4.40"

Area (sf)	CN	Description
* 4,670	98	Pavement & Roof areas
4,670		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 11S: PH 2 IMPERVIOUS ROOF AREA

Hydrograph



Summary for Subcatchment 12S: PH 2 IMPERVIOUS ROOF AREA

Runoff = 0.11 cfs @ 7.90 hrs, Volume= 0.037 af, Depth> 4.16"

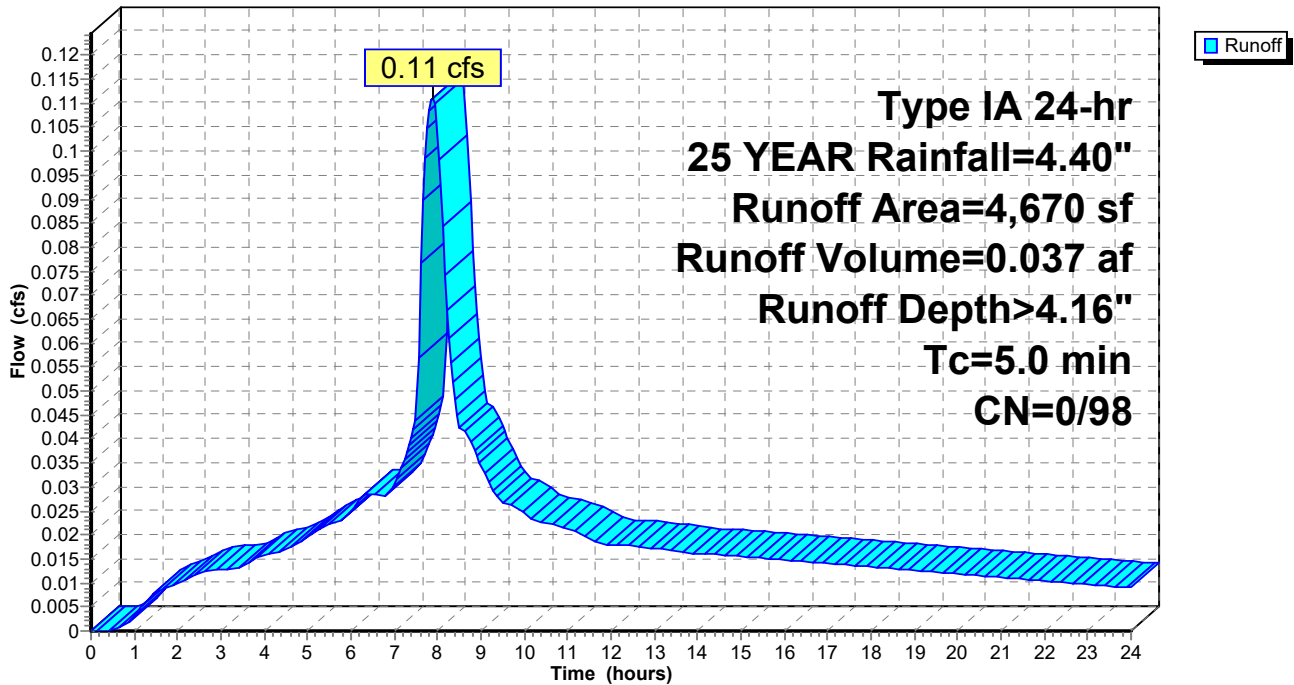
Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type IA 24-hr 25 YEAR Rainfall=4.40"

Area (sf)	CN	Description
* 4,670	98	Pavement & Roof areas
4,670		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 12S: PH 2 IMPERVIOUS ROOF AREA

Hydrograph



Summary for Subcatchment 13S: PHASE 2 UNDETAINED

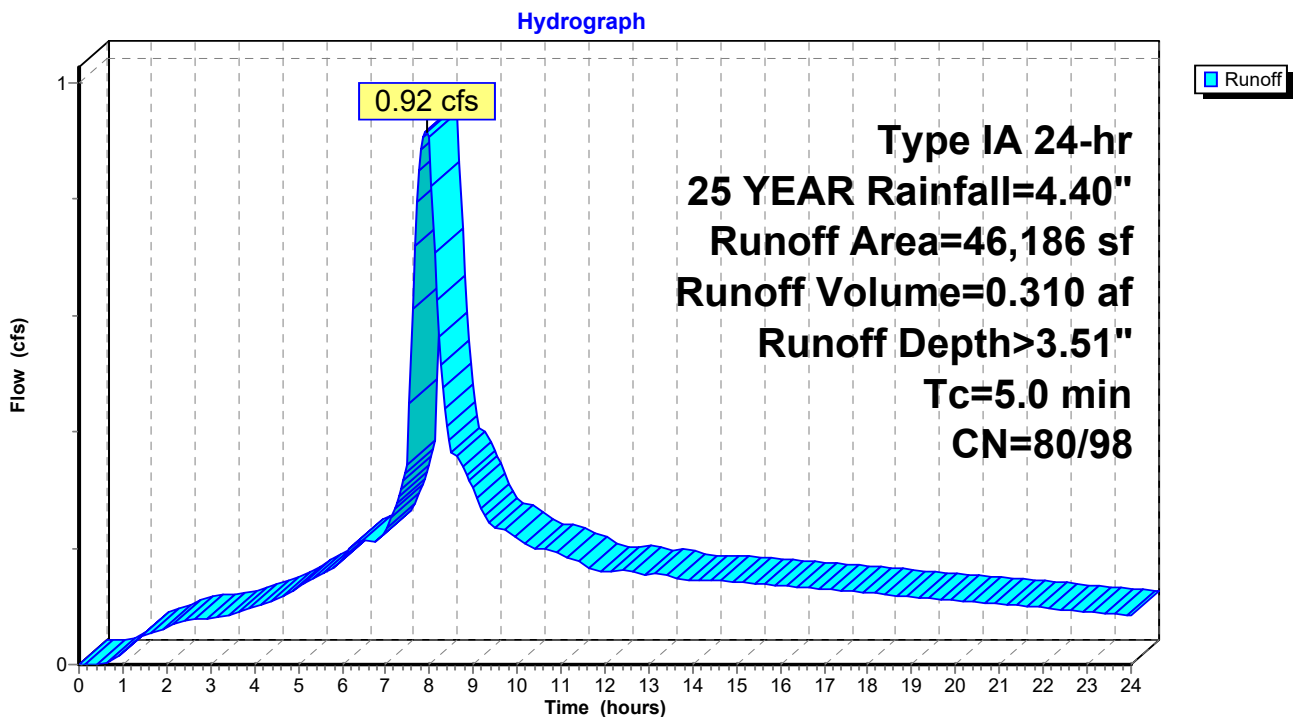
Runoff = 0.92 cfs @ 7.92 hrs, Volume= 0.310 af, Depth> 3.51"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type IA 24-hr 25 YEAR Rainfall=4.40"

Area (sf)	CN	Description
29,401	98	Roofs, HSG D
16,785	80	>75% Grass cover, Good, HSG D
46,186	91	Weighted Average
16,785		36.34% Pervious Area
29,401		63.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 13S: PHASE 2 UNDETAINED



Summary for Subcatchment 14S: PHASE 2 UNDETAINED

Runoff = 0.12 cfs @ 7.90 hrs, Volume= 0.040 af, Depth> 4.16"

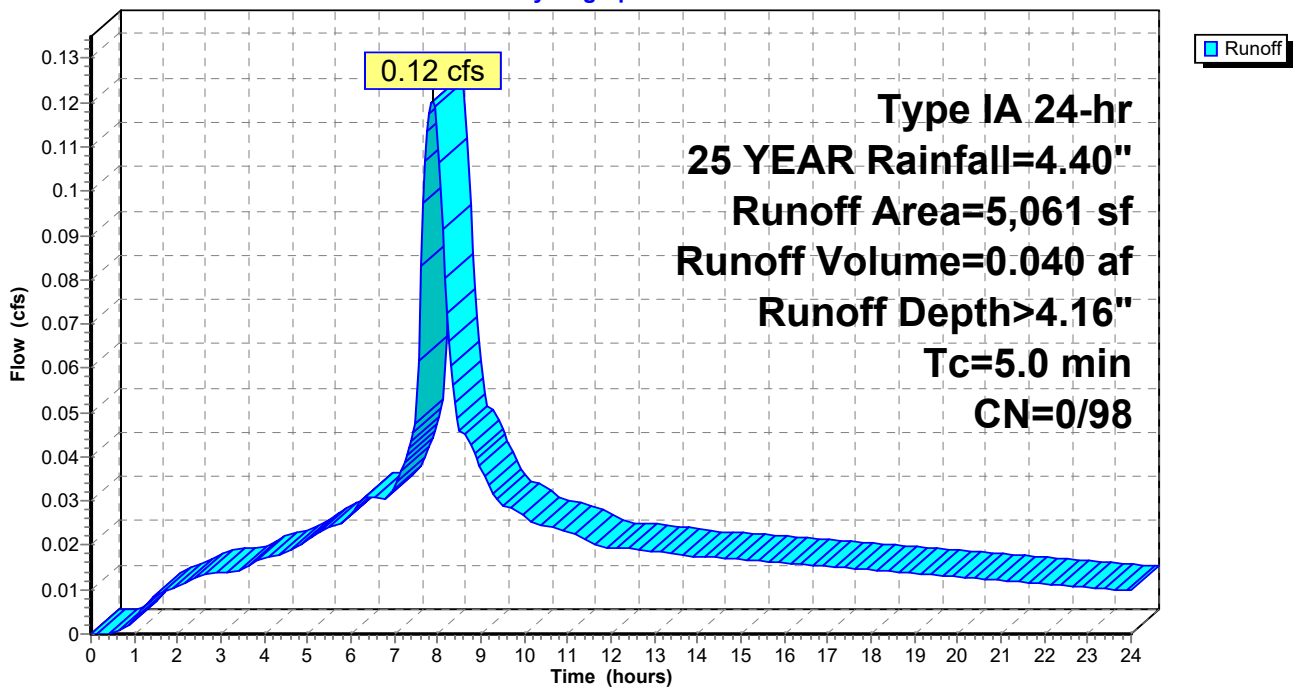
Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type IA 24-hr 25 YEAR Rainfall=4.40"

Area (sf)	CN	Description
5,061	98	Roofs, HSG D
5,061		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 14S: PHASE 2 UNDETAINED

Hydrograph



Summary for Subcatchment 15S: PHASE 2 UNDETAINED

Runoff = 0.25 cfs @ 7.98 hrs, Volume= 0.089 af, Depth> 3.25"

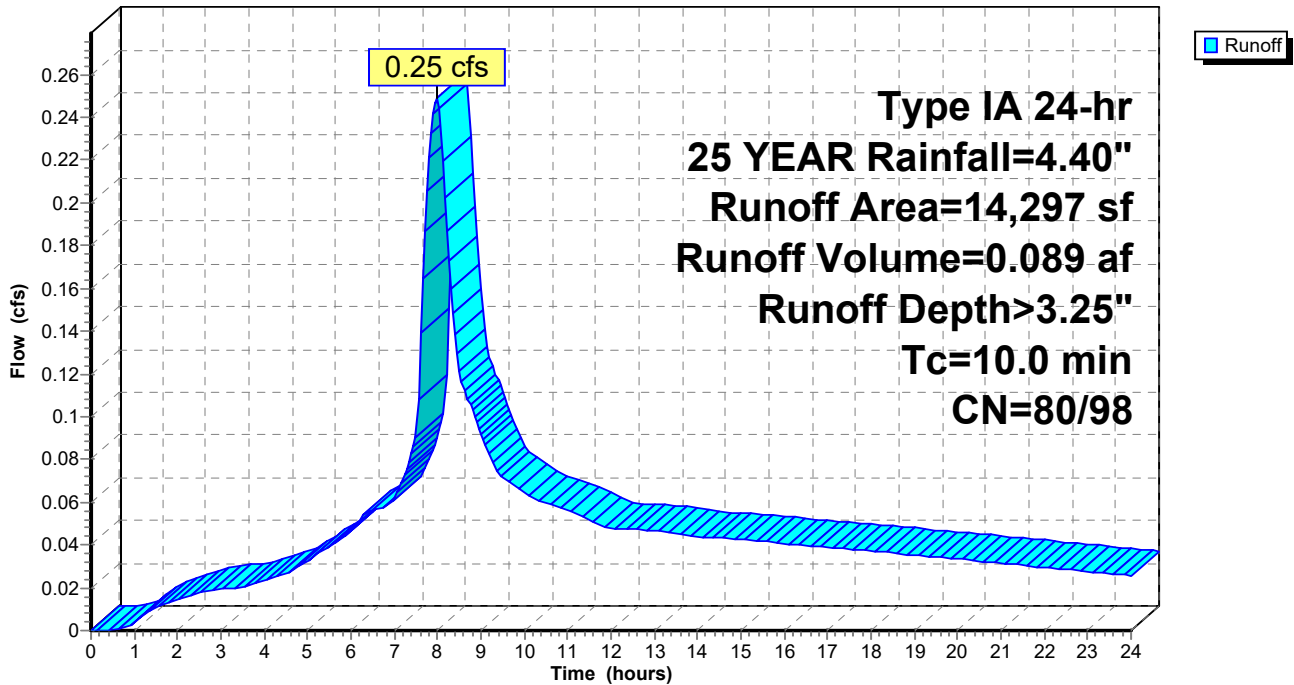
Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type IA 24-hr 25 YEAR Rainfall=4.40"

Area (sf)	CN	Description
7,108	98	Roofs, HSG D
7,189	80	>75% Grass cover, Good, HSG D
14,297	89	Weighted Average
7,189		50.28% Pervious Area
7,108		49.72% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					Direct Entry,

Subcatchment 15S: PHASE 2 UNDETAINED

Hydrograph



3199 POST DEV

Prepared by AKS Engineering & Forestry LLC

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Type IA 24-hr 25 YEAR Rainfall=4.40"

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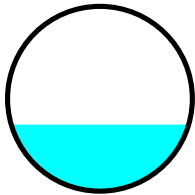
Summary for Reach 1R: 6"

Inflow Area = 0.271 ac, 82.42% Impervious, Inflow Depth > 3.84" for 25 YEAR event
Inflow = 0.26 cfs @ 7.91 hrs, Volume= 0.087 af
Outflow = 0.26 cfs @ 7.91 hrs, Volume= 0.087 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.07 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.35 fps, Avg. Travel Time= 0.1 min

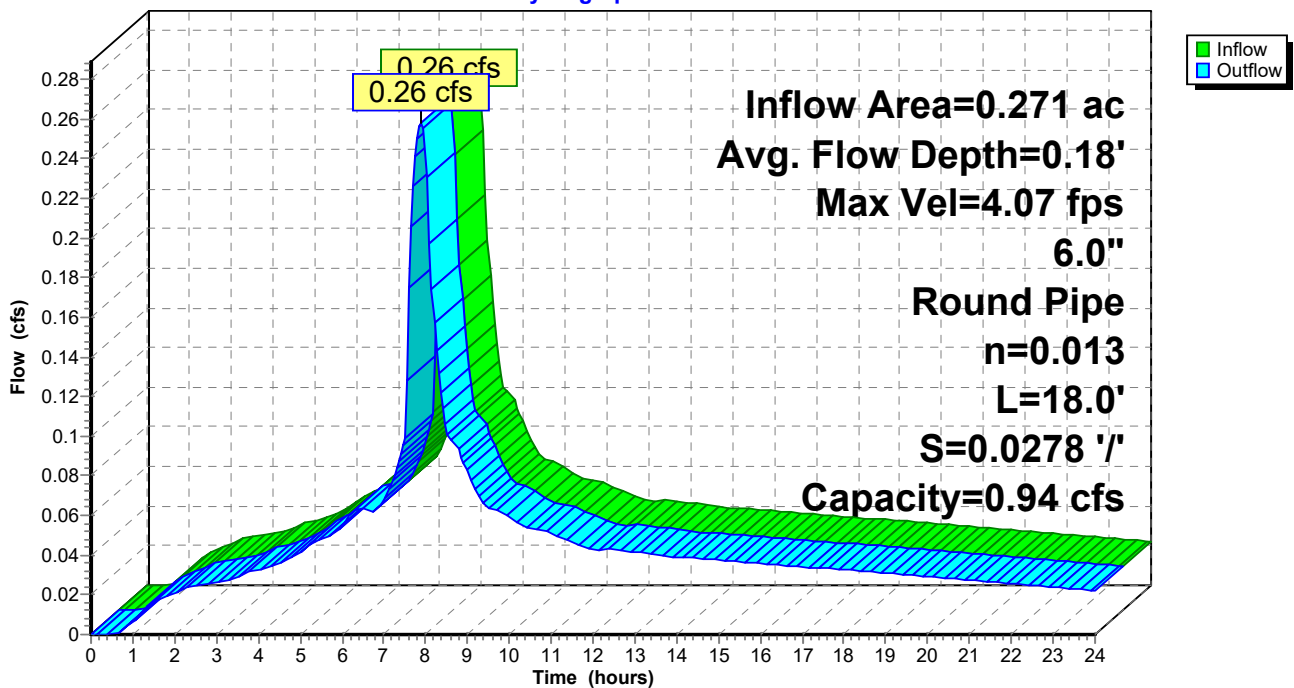
Peak Storage= 1 cf @ 7.91 hrs
Average Depth at Peak Storage= 0.18'
Bank-Full Depth= 0.50' Flow Area= 0.2 sf, Capacity= 0.94 cfs

6.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 18.0' Slope= 0.0278 '/
Inlet Invert= 199.00', Outlet Invert= 198.50'



Reach 1R: 6"

Hydrograph



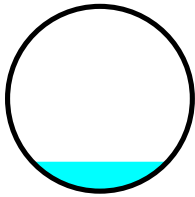
Summary for Reach 2R: 6"

Inflow Area = 0.066 ac, 100.00% Impervious, Inflow Depth > 4.16" for 25 YEAR event
 Inflow = 0.07 cfs @ 7.90 hrs, Volume= 0.023 af
 Outflow = 0.07 cfs @ 7.90 hrs, Volume= 0.023 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Max. Velocity= 3.42 fps, Min. Travel Time= 0.0 min
 Avg. Velocity = 1.93 fps, Avg. Travel Time= 0.1 min

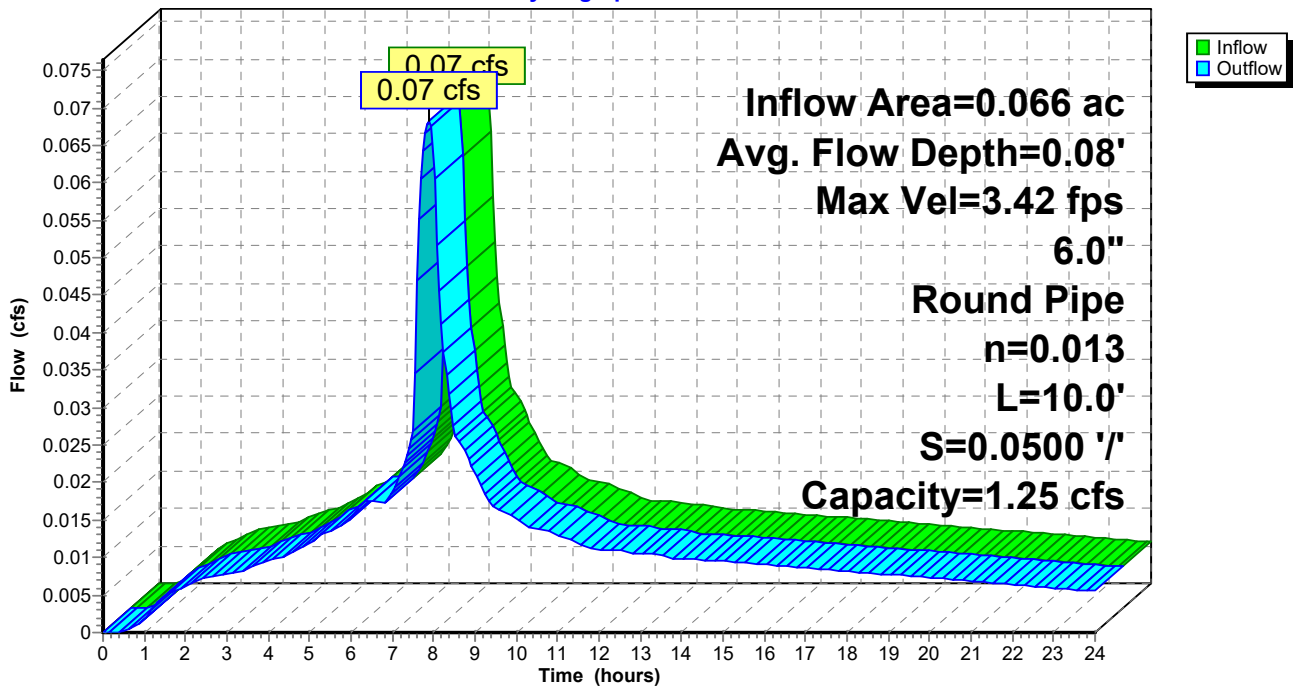
Peak Storage= 0 cf @ 7.90 hrs
 Average Depth at Peak Storage= 0.08'
 Bank-Full Depth= 0.50' Flow Area= 0.2 sf, Capacity= 1.25 cfs

6.0" Round Pipe
 n= 0.013 Corrugated PE, smooth interior
 Length= 10.0' Slope= 0.0500 '/
 Inlet Invert= 198.00', Outlet Invert= 197.50'



Reach 2R: 6"

Hydrograph



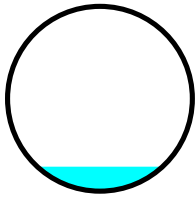
Summary for Reach 3R: 6"

Inflow Area = 0.045 ac, 100.00% Impervious, Inflow Depth > 4.16" for 25 YEAR event
 Inflow = 0.05 cfs @ 7.90 hrs, Volume= 0.016 af
 Outflow = 0.05 cfs @ 7.90 hrs, Volume= 0.016 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Max. Velocity= 3.05 fps, Min. Travel Time= 0.1 min
 Avg. Velocity = 1.72 fps, Avg. Travel Time= 0.1 min

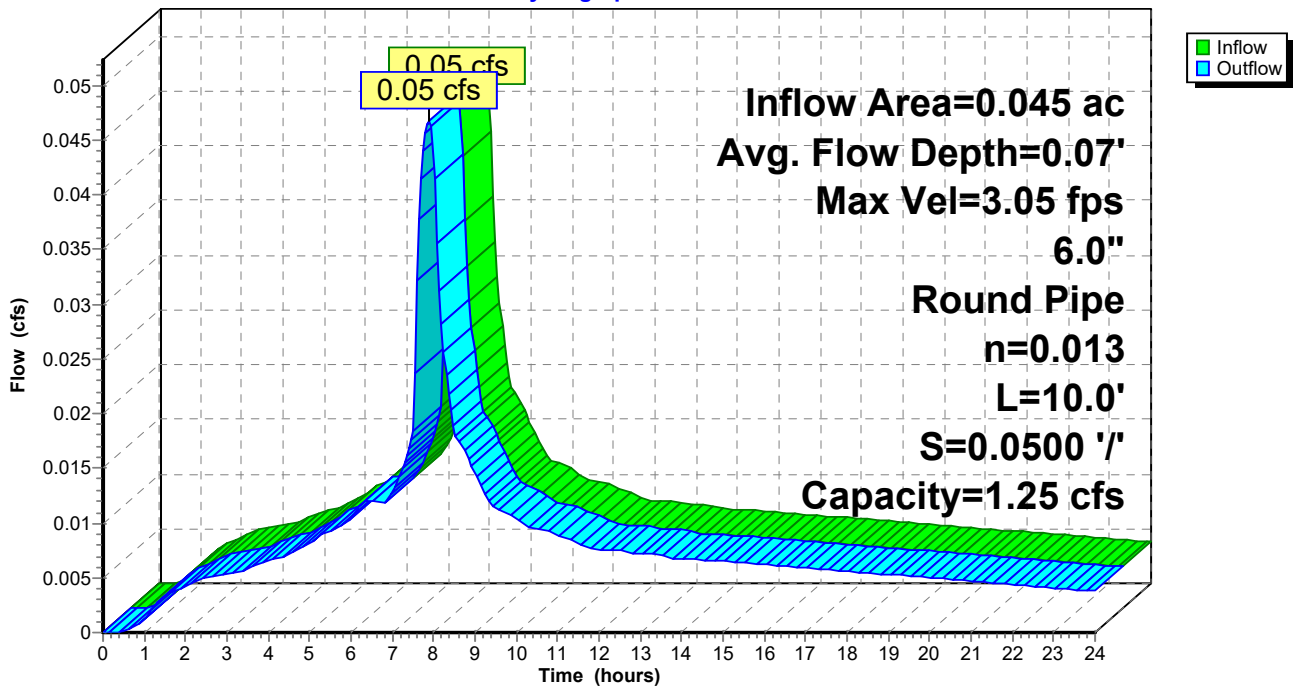
Peak Storage= 0 cf @ 7.90 hrs
 Average Depth at Peak Storage= 0.07'
 Bank-Full Depth= 0.50' Flow Area= 0.2 sf, Capacity= 1.25 cfs

6.0" Round Pipe
 n= 0.013 Corrugated PE, smooth interior
 Length= 10.0' Slope= 0.0500 '/
 Inlet Invert= 198.00', Outlet Invert= 197.50'



Reach 3R: 6"

Hydrograph



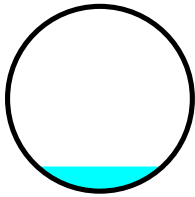
Summary for Reach 4R: 6"

Inflow Area = 0.046 ac, 100.00% Impervious, Inflow Depth > 4.16" for 25 YEAR event
 Inflow = 0.05 cfs @ 7.90 hrs, Volume= 0.016 af
 Outflow = 0.05 cfs @ 7.90 hrs, Volume= 0.016 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Max. Velocity= 3.06 fps, Min. Travel Time= 0.1 min
 Avg. Velocity = 1.73 fps, Avg. Travel Time= 0.1 min

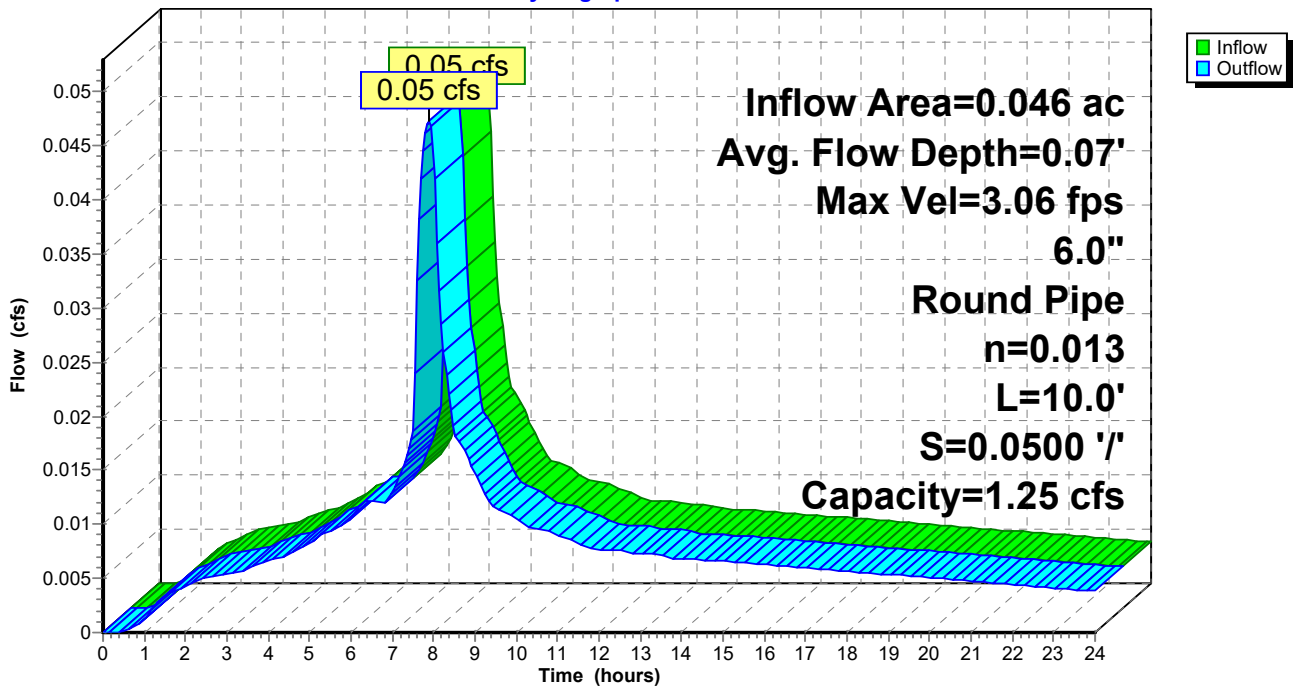
Peak Storage= 0 cf @ 7.90 hrs
 Average Depth at Peak Storage= 0.07'
 Bank-Full Depth= 0.50' Flow Area= 0.2 sf, Capacity= 1.25 cfs

6.0" Round Pipe
 n= 0.013 Corrugated PE, smooth interior
 Length= 10.0' Slope= 0.0500 '/
 Inlet Invert= 198.00', Outlet Invert= 197.50'



Reach 4R: 6"

Hydrograph



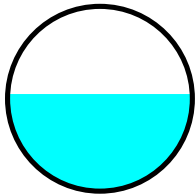
Summary for Reach 5R: 8"

Inflow Area = 0.493 ac, 79.90% Impervious, Inflow Depth > 3.80" for 25 YEAR event
 Inflow = 0.46 cfs @ 7.91 hrs, Volume= 0.156 af
 Outflow = 0.46 cfs @ 7.92 hrs, Volume= 0.156 af, Atten= 0%, Lag= 0.6 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Max. Velocity= 2.50 fps, Min. Travel Time= 0.8 min
 Avg. Velocity = 1.47 fps, Avg. Travel Time= 1.4 min

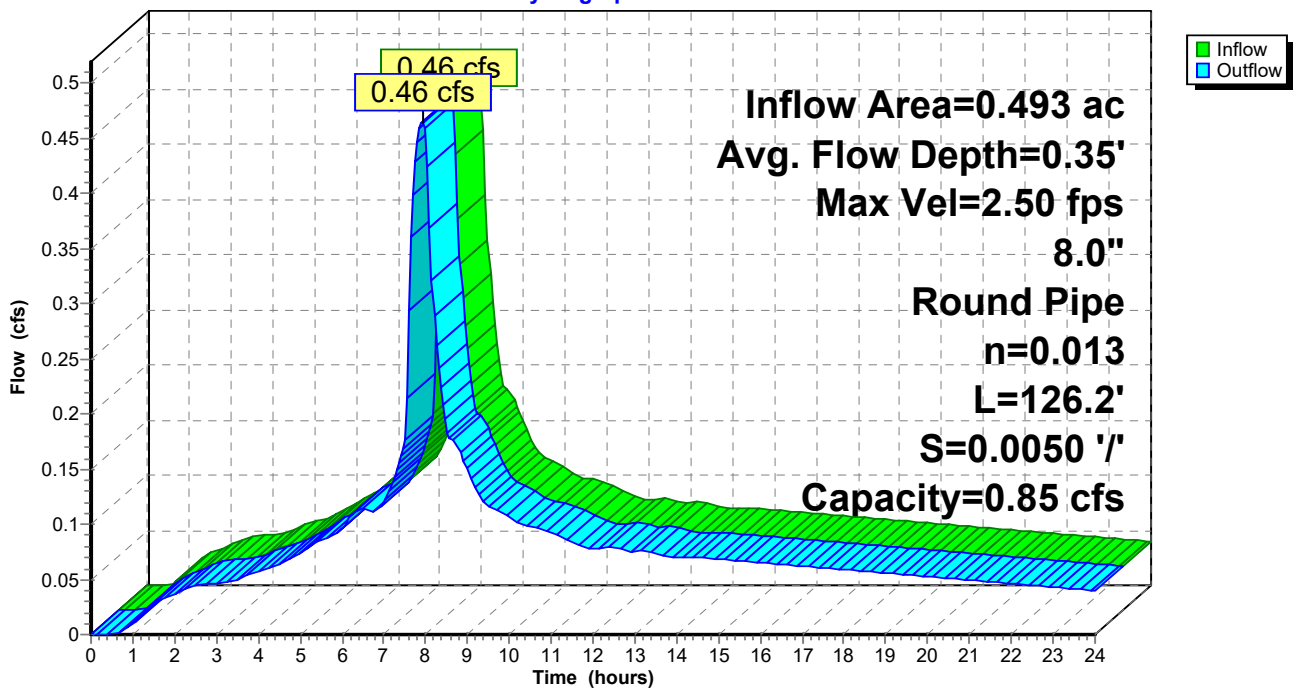
Peak Storage= 23 cf @ 7.92 hrs
 Average Depth at Peak Storage= 0.35'
 Bank-Full Depth= 0.67' Flow Area= 0.3 sf, Capacity= 0.85 cfs

8.0" Round Pipe
 n= 0.013 Corrugated PE, smooth interior
 Length= 126.2' Slope= 0.0050 '/'
 Inlet Invert= 196.12', Outlet Invert= 195.49'



Reach 5R: 8"

Hydrograph



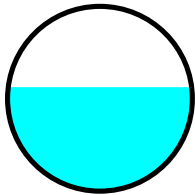
Summary for Reach 6R: 8"

Inflow Area = 0.754 ac, 86.86% Impervious, Inflow Depth > 3.92" for 25 YEAR event
 Inflow = 0.73 cfs @ 7.91 hrs, Volume= 0.246 af
 Outflow = 0.73 cfs @ 7.92 hrs, Volume= 0.246 af, Atten= 0%, Lag= 0.4 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Max. Velocity= 3.63 fps, Min. Travel Time= 0.6 min
 Avg. Velocity = 2.15 fps, Avg. Travel Time= 1.0 min

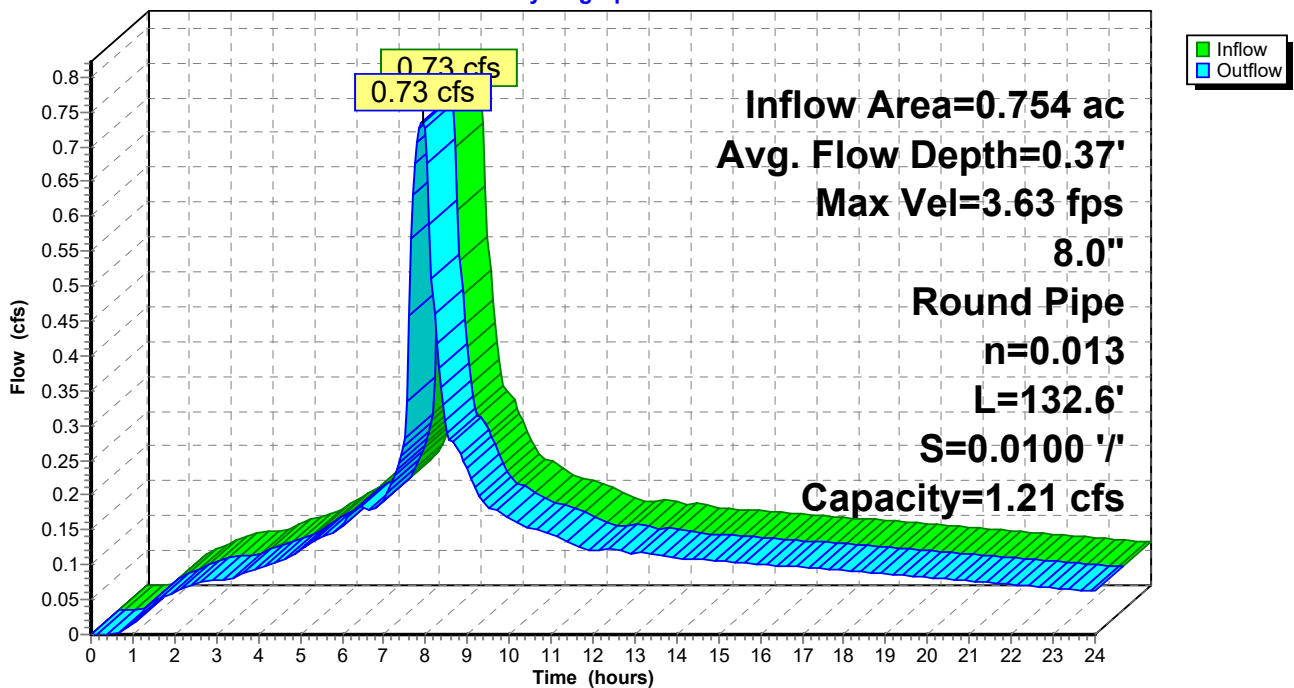
Peak Storage= 27 cf @ 7.92 hrs
 Average Depth at Peak Storage= 0.37'
 Bank-Full Depth= 0.67' Flow Area= 0.3 sf, Capacity= 1.21 cfs

8.0" Round Pipe
 n= 0.013 Corrugated PE, smooth interior
 Length= 132.6' Slope= 0.0100 '/
 Inlet Invert= 195.49', Outlet Invert= 194.16'



Reach 6R: 8"

Hydrograph



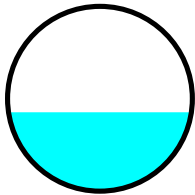
Summary for Reach 7R: 8"

Inflow Area = 0.427 ac, 88.86% Impervious, Inflow Depth > 2.99" for 25 YEAR event
 Inflow = 0.32 cfs @ 7.97 hrs, Volume= 0.106 af
 Outflow = 0.32 cfs @ 7.99 hrs, Volume= 0.106 af, Atten= 0%, Lag= 1.3 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Max. Velocity= 2.27 fps, Min. Travel Time= 1.9 min
 Avg. Velocity = 1.45 fps, Avg. Travel Time= 3.0 min

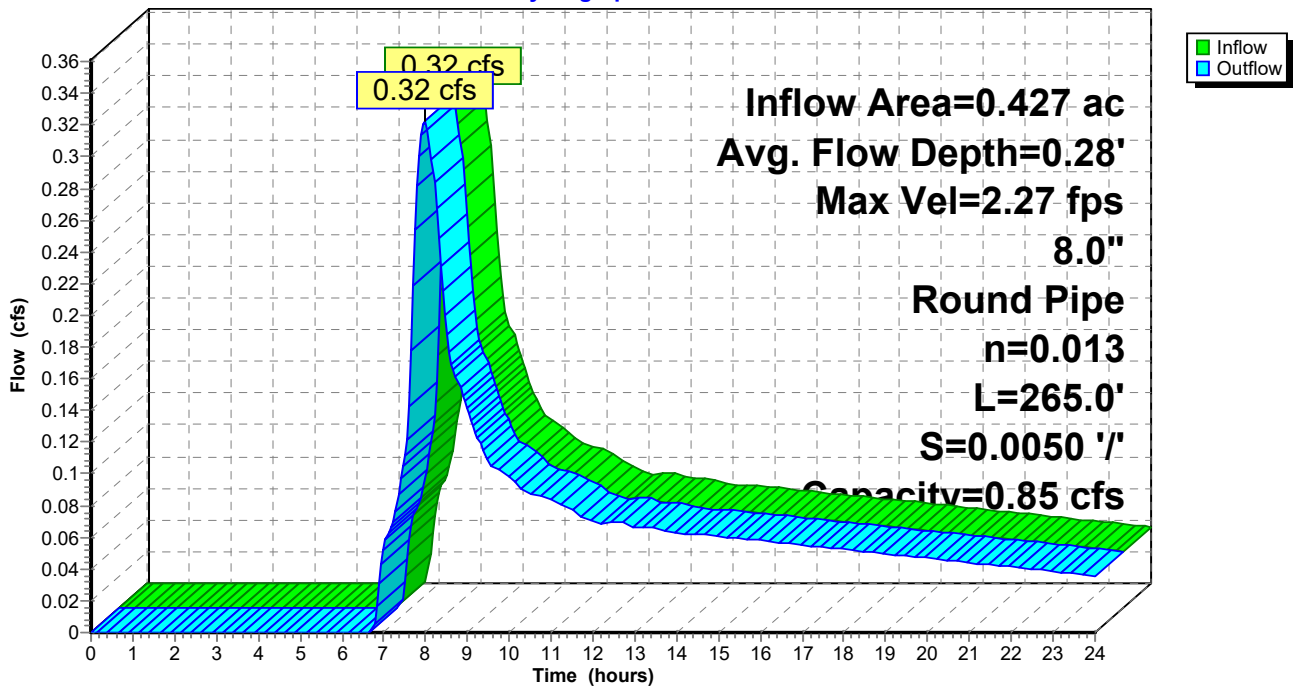
Peak Storage= 38 cf @ 7.99 hrs
 Average Depth at Peak Storage= 0.28'
 Bank-Full Depth= 0.67' Flow Area= 0.3 sf, Capacity= 0.85 cfs

8.0" Round Pipe
 n= 0.013 Corrugated PE, smooth interior
 Length= 265.0' Slope= 0.0050 '/'
 Inlet Invert= 195.20', Outlet Invert= 193.88'



Reach 7R: 8"

Hydrograph



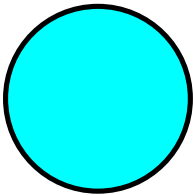
Summary for Reach 8R: 8"

Inflow Area = 1.364 ac, 89.25% Impervious, Inflow Depth > 3.66" for 25 YEAR event
 Inflow = 1.24 cfs @ 7.94 hrs, Volume= 0.416 af
 Outflow = 0.91 cfs @ 8.73 hrs, Volume= 0.416 af, Atten= 26%, Lag= 47.6 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Max. Velocity= 2.78 fps, Min. Travel Time= 0.8 min
 Avg. Velocity = 1.91 fps, Avg. Travel Time= 1.1 min

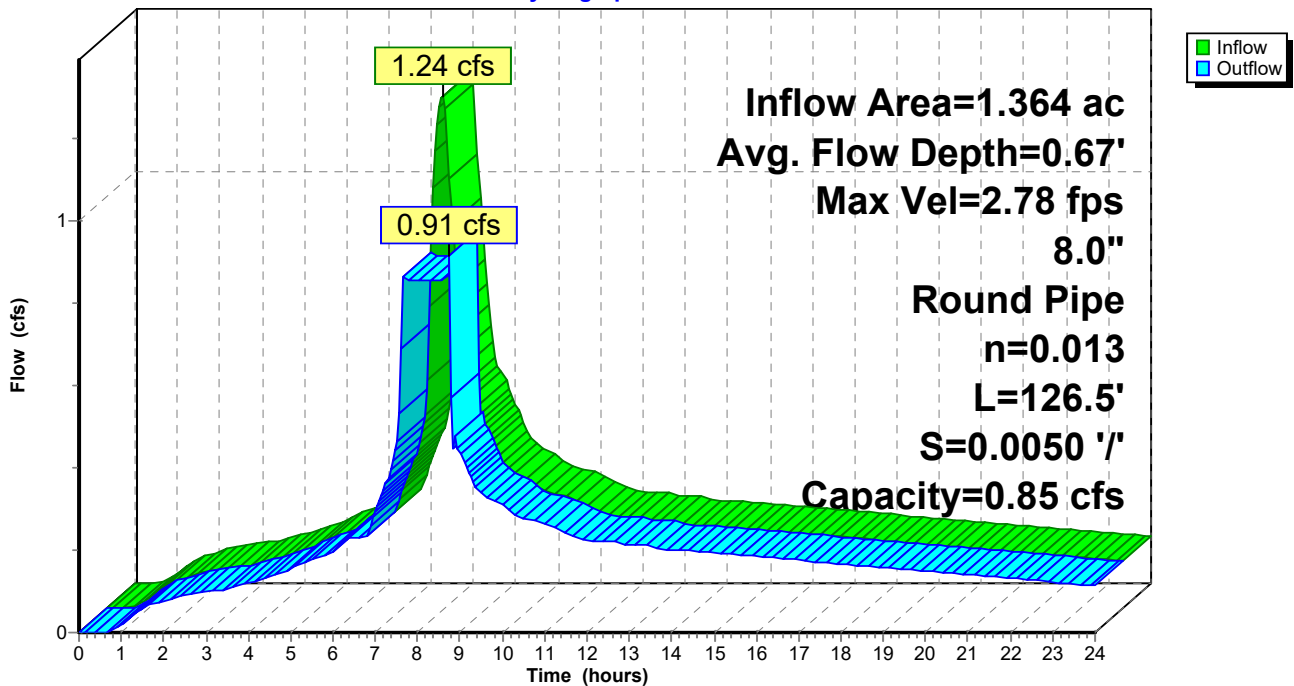
Peak Storage= 44 cf @ 7.70 hrs
 Average Depth at Peak Storage= 0.67'
 Bank-Full Depth= 0.67' Flow Area= 0.3 sf, Capacity= 0.85 cfs

8.0" Round Pipe
 n= 0.013 Corrugated PE, smooth interior
 Length= 126.5' Slope= 0.0050 '/'
 Inlet Invert= 193.88', Outlet Invert= 193.25'



Reach 8R: 8"

Hydrograph



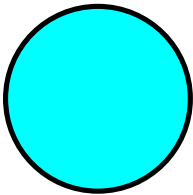
Summary for Reach 9R: 8"

Inflow Area = 3.083 ac, 77.40% Impervious, Inflow Depth > 3.61" for 25 YEAR event
 Inflow = 2.28 cfs @ 7.93 hrs, Volume= 0.927 af
 Outflow = 1.31 cfs @ 7.60 hrs, Volume= 0.927 af, Atten= 42%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Max. Velocity= 4.24 fps, Min. Travel Time= 1.0 min
 Avg. Velocity = 3.24 fps, Avg. Travel Time= 1.3 min

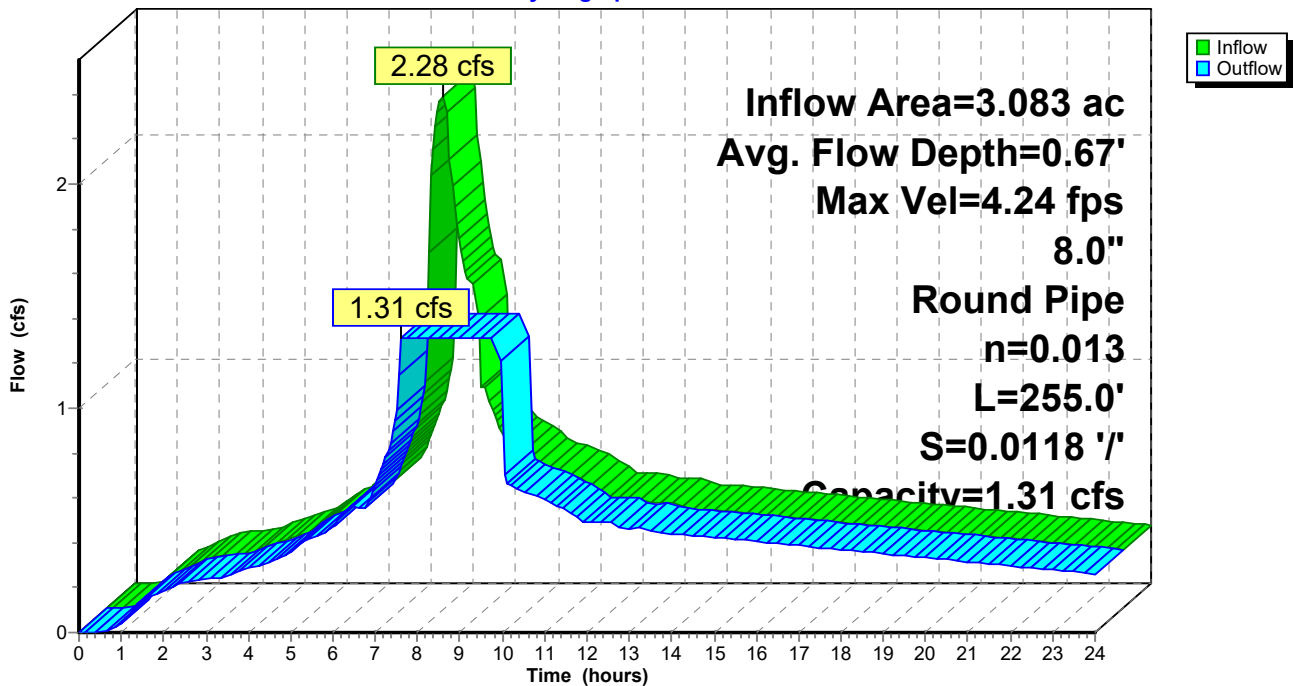
Peak Storage= 89 cf @ 7.60 hrs
 Average Depth at Peak Storage= 0.67'
 Bank-Full Depth= 0.67' Flow Area= 0.3 sf, Capacity= 1.31 cfs

8.0" Round Pipe
 n= 0.013
 Length= 255.0' Slope= 0.0118 '/'
 Inlet Invert= 193.05', Outlet Invert= 190.04'



Reach 9R: 8"

Hydrograph



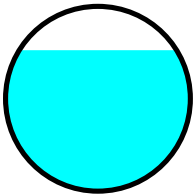
Summary for Reach 10R: 8"

Inflow Area = 1.060 ac, 63.66% Impervious, Inflow Depth > 3.51" for 25 YEAR event
 Inflow = 0.92 cfs @ 7.92 hrs, Volume= 0.310 af
 Outflow = 0.92 cfs @ 7.92 hrs, Volume= 0.310 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Max. Velocity= 3.21 fps, Min. Travel Time= 0.0 min
 Avg. Velocity = 1.98 fps, Avg. Travel Time= 0.0 min

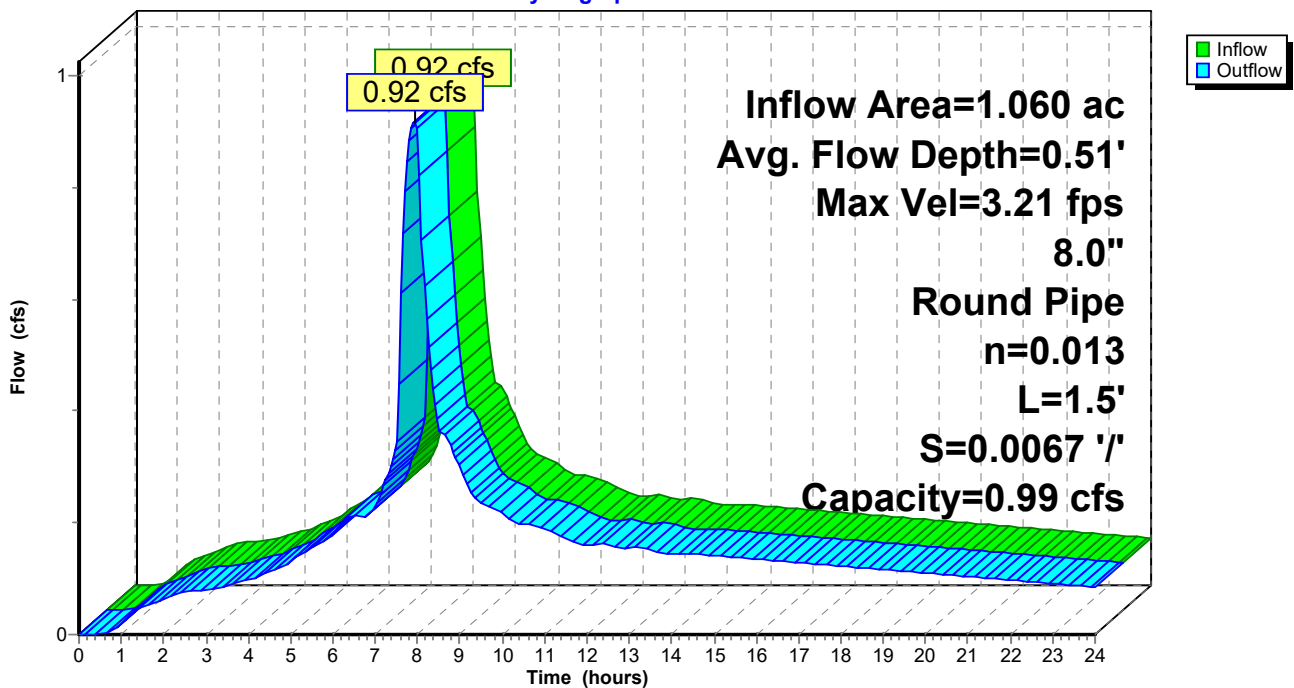
Peak Storage= 0 cf @ 7.92 hrs
 Average Depth at Peak Storage= 0.51'
 Bank-Full Depth= 0.67' Flow Area= 0.3 sf, Capacity= 0.99 cfs

8.0" Round Pipe
 n= 0.013
 Length= 1.5' Slope= 0.0067 '/'
 Inlet Invert= 191.07', Outlet Invert= 191.06'



Reach 10R: 8"

Hydrograph



Summary for Pond 1P: PLANTER

Inflow Area = 0.271 ac, 82.42% Impervious, Inflow Depth > 3.84" for 25 YEAR event
 Inflow = 0.26 cfs @ 7.91 hrs, Volume= 0.087 af
 Outflow = 0.26 cfs @ 7.98 hrs, Volume= 0.070 af, Atten= 1%, Lag= 4.2 min
 Primary = 0.26 cfs @ 7.98 hrs, Volume= 0.070 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Peak Elev= 198.61' @ 7.98 hrs Surf.Area= 2,370 sf Storage= 803 cf

Plug-Flow detention time= 227.8 min calculated for 0.070 af (80% of inflow)
 Center-of-Mass det. time= 99.0 min (770.5 - 671.5)

Volume	Invert	Avail.Storage	Storage Description
#1	195.50'	261 cf	1' Drain Rock (Prismatic) Listed below (Recalc) 790 cf Overall x 33.0% Voids
#2	196.50'	59 cf	1.5' Growing Medium (Prismatic) Listed below (Recalc) 1,185 cf Overall x 5.0% Voids
#3	198.00'	656 cf	Ponding Depth (Prismatic) Listed below (Recalc)
		976 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
195.50	790	0	0
196.50	790	790	790

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
196.50	790	0	0
198.00	790	1,185	1,185

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
198.00	790	0	0
198.83	790	656	656

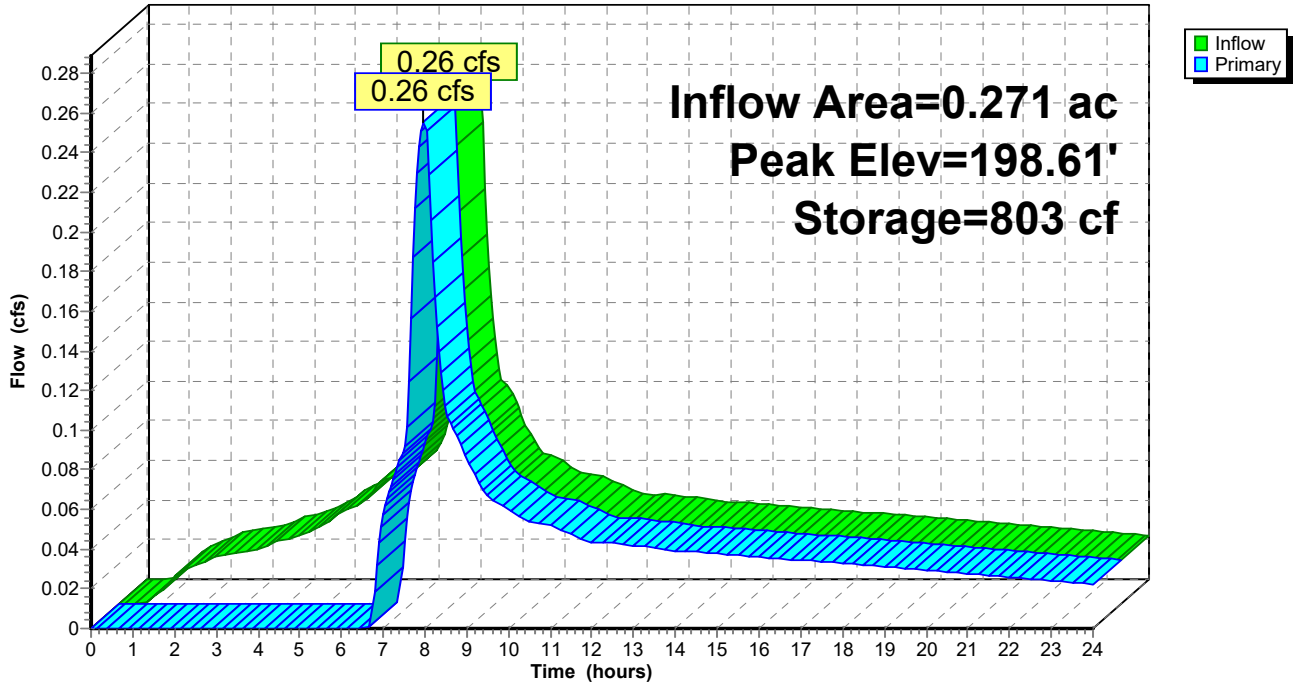
Device	Routing	Invert	Outlet Devices
#1	Primary	195.50'	8.0" Round Culvert L= 205.0' Ke= 0.500 Inlet / Outlet Invert= 195.50' / 194.46' S= 0.0051 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf
#2	Device 1	198.50'	8.0" Horiz. Orifice/Grate C= 0.610 Limited to weir flow at low heads

Primary OutFlow Max=0.25 cfs @ 7.98 hrs HW=198.61' TW=195.48' (Dynamic Tailwater)

- ↑1=Culvert (Passes 0.25 cfs of 1.40 cfs potential flow)
- ↑2=Orifice/Grate (Weir Controls 0.25 cfs @ 1.09 fps)

Pond 1P: PLANTER

Hydrograph



Summary for Pond 2P: PLANTER

Inflow Area = 0.066 ac, 100.00% Impervious, Inflow Depth > 4.16" for 25 YEAR event
 Inflow = 0.07 cfs @ 7.90 hrs, Volume= 0.023 af
 Outflow = 0.07 cfs @ 7.95 hrs, Volume= 0.017 af, Atten= 1%, Lag= 3.5 min
 Primary = 0.07 cfs @ 7.95 hrs, Volume= 0.017 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Peak Elev= 197.57' @ 7.95 hrs Surf.Area= 798 sf Storage= 260 cf

Plug-Flow detention time= 280.5 min calculated for 0.017 af (75% of inflow)
 Center-of-Mass det. time= 121.8 min (779.1 - 657.3)

Volume	Invert	Avail.Storage	Storage Description
#1	194.50'	88 cf	1' Drain Rock (Prismatic) Listed below (Recalc) 266 cf Overall x 33.0% Voids
#2	195.50'	20 cf	1.5' Growing Medium (Prismatic) Listed below (Recalc) 399 cf Overall x 5.0% Voids
#3	197.00'	221 cf	Ponding Depth (Prismatic) Listed below (Recalc)
		329 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
194.50	266	0	0
195.50	266	266	266

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
195.50	266	0	0
197.00	266	399	399

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
197.00	266	0	0
197.83	266	221	221

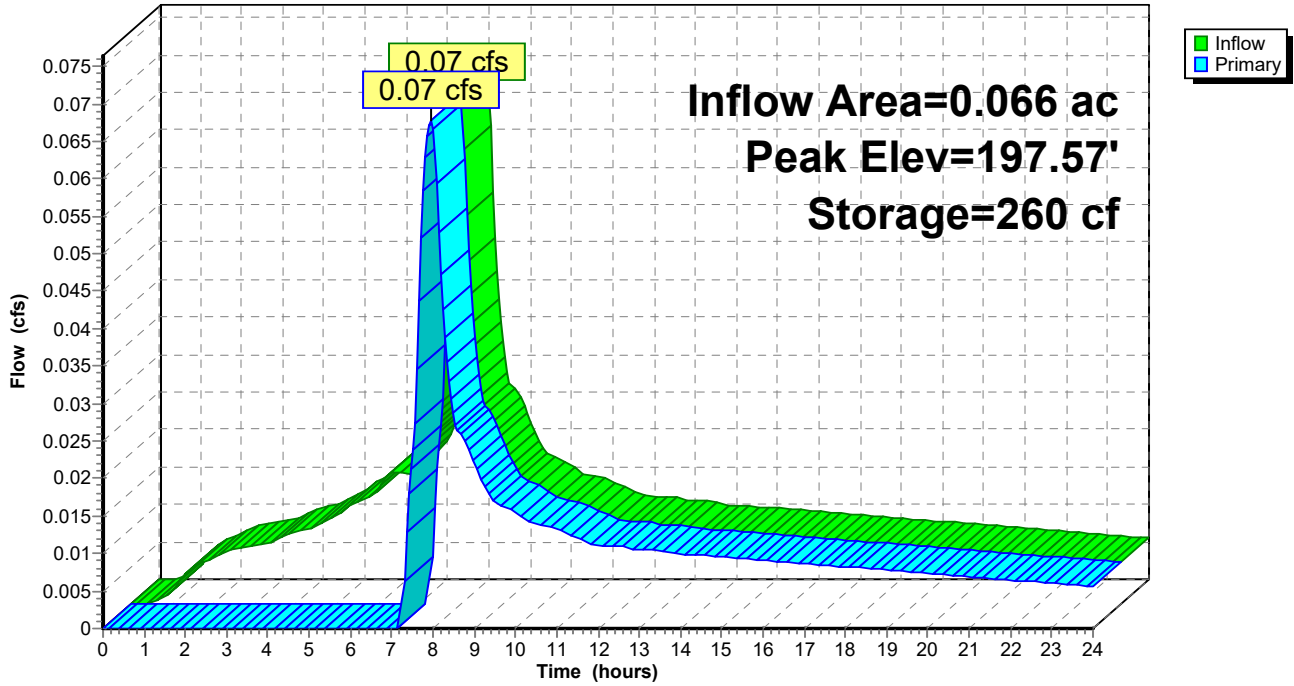
Device	Routing	Invert	Outlet Devices
#1	Device 2	197.50'	4.0" Horiz. Orifice/Grate C= 0.610 Limited to weir flow at low heads
#2	Primary	194.63'	4.0" Round Culvert L= 33.4' Ke= 0.500 Inlet / Outlet Invert= 194.63' / 194.46' S= 0.0051 '/' Cc= 0.900 n= 0.013, Flow Area= 0.09 sf

Primary OutFlow Max=0.07 cfs @ 7.95 hrs HW=197.57' TW=195.48' (Dynamic Tailwater)

↑ **2=Culvert** (Passes 0.07 cfs of 0.41 cfs potential flow)
 ↑ **1=Orifice/Grate** (Weir Controls 0.07 cfs @ 0.88 fps)

Pond 2P: PLANTER

Hydrograph



Summary for Pond 3P: PLANTER

Inflow Area = 0.045 ac, 100.00% Impervious, Inflow Depth > 4.16" for 25 YEAR event
 Inflow = 0.05 cfs @ 7.90 hrs, Volume= 0.016 af
 Outflow = 0.03 cfs @ 8.23 hrs, Volume= 0.010 af, Atten= 42%, Lag= 19.7 min
 Primary = 0.03 cfs @ 8.23 hrs, Volume= 0.010 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Peak Elev= 197.54' @ 8.23 hrs Surf.Area= 849 sf Storage= 267 cf

Plug-Flow detention time= 411.8 min calculated for 0.010 af (62% of inflow)
 Center-of-Mass det. time= 190.0 min (847.3 - 657.3)

Volume	Invert	Avail.Storage	Storage Description
#1	194.50'	93 cf	1' Drain Rock (Prismatic) Listed below (Recalc) 283 cf Overall x 33.0% Voids
#2	195.50'	21 cf	1.5' Growing Medium (Prismatic) Listed below (Recalc) 425 cf Overall x 5.0% Voids
#3	197.00'	235 cf	Ponding Depth (Prismatic) Listed below (Recalc)
		350 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
194.50	283	0	0
195.50	283	283	283

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
195.50	283	0	0
197.00	283	425	425

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
197.00	283	0	0
197.83	283	235	235

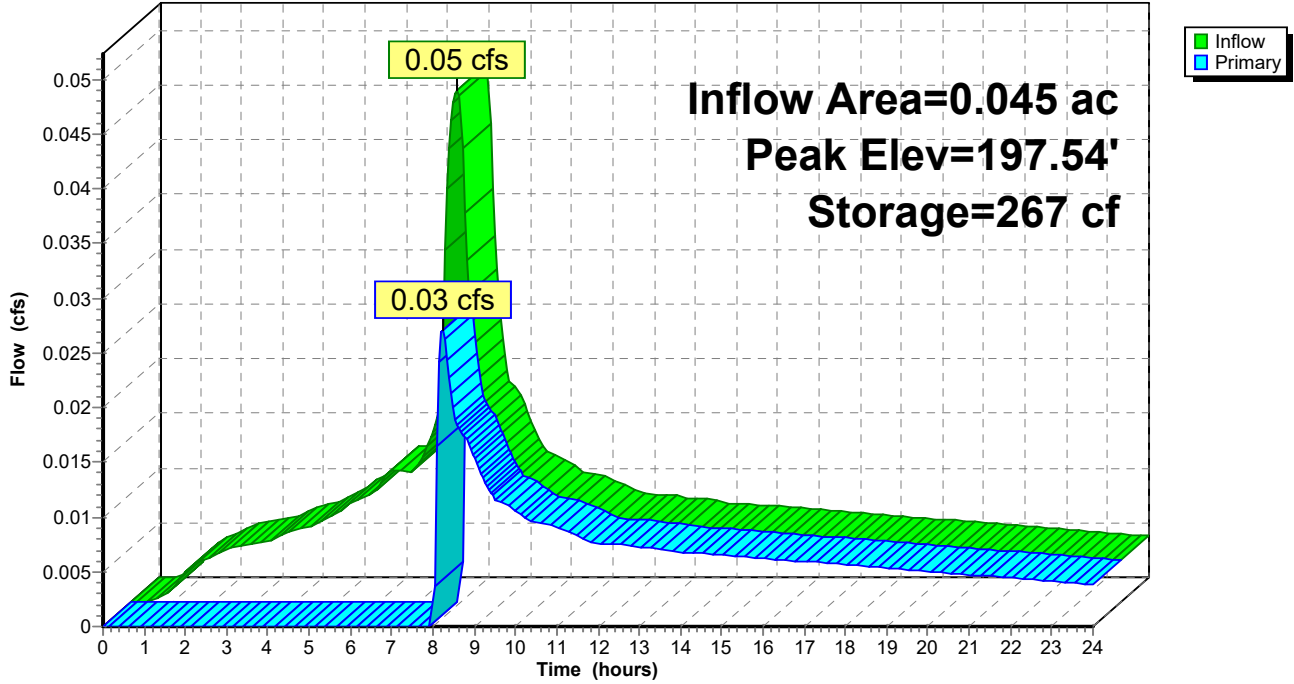
Device	Routing	Invert	Outlet Devices
#1	Device 2	197.50'	4.0" Horiz. Orifice/Grate C= 0.610 Limited to weir flow at low heads
#2	Primary	194.82'	4.0" Round Culvert L= 33.3' Ke= 0.500 Inlet / Outlet Invert= 194.82' / 194.65' S= 0.0051 '/' Cc= 0.900 n= 0.013, Flow Area= 0.09 sf

Primary OutFlow Max=0.03 cfs @ 8.23 hrs HW=197.54' TW=195.46' (Dynamic Tailwater)

↑ **2=Culvert** (Passes 0.03 cfs of 0.41 cfs potential flow)
 ↑ **1=Orifice/Grate** (Weir Controls 0.03 cfs @ 0.65 fps)

Pond 3P: PLANTER

Hydrograph



Summary for Pond 4P: PLANTER

Inflow Area = 0.046 ac, 100.00% Impervious, Inflow Depth > 4.16" for 25 YEAR event
 Inflow = 0.05 cfs @ 7.90 hrs, Volume= 0.016 af
 Outflow = 0.02 cfs @ 8.32 hrs, Volume= 0.010 af, Atten= 51%, Lag= 25.5 min
 Primary = 0.02 cfs @ 8.32 hrs, Volume= 0.010 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Peak Elev= 197.54' @ 8.32 hrs Surf.Area= 891 sf Storage= 279 cf

Plug-Flow detention time= 426.1 min calculated for 0.010 af (60% of inflow)
 Center-of-Mass det. time= 198.5 min (855.9 - 657.3)

Volume	Invert	Avail.Storage	Storage Description
#1	194.50'	98 cf	1' Drain Rock (Prismatic) Listed below (Recalc) 297 cf Overall x 33.0% Voids
#2	195.50'	22 cf	1.5' Growing Medium (Prismatic) Listed below (Recalc) 446 cf Overall x 5.0% Voids
#3	197.00'	247 cf	Ponding Depth (Prismatic) Listed below (Recalc)
		367 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
194.50	297	0	0
195.50	297	297	297

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
195.50	297	0	0
197.00	297	446	446

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
197.00	297	0	0
197.83	297	247	247

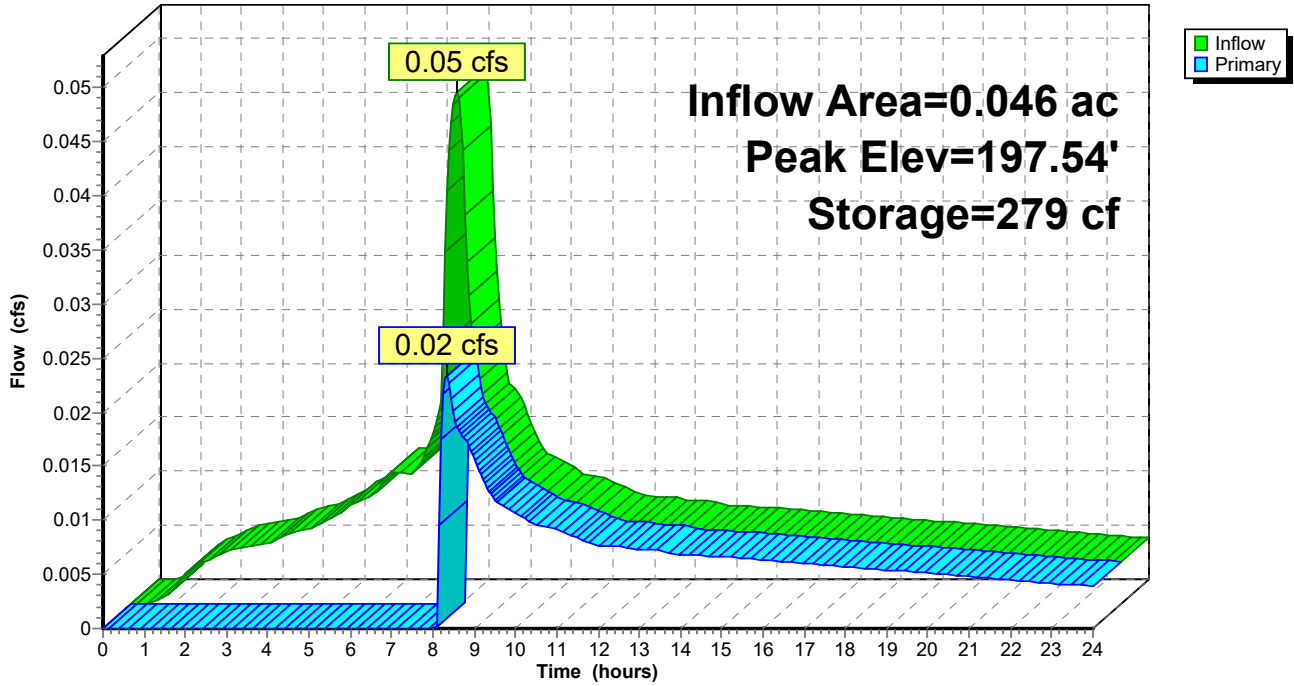
Device	Routing	Invert	Outlet Devices
#1	Device 2	197.50'	4.0" Horiz. Orifice/Grate C= 0.610 Limited to weir flow at low heads
#2	Primary	194.99'	4.0" Round Culvert L= 33.2' Ke= 0.500 Inlet / Outlet Invert= 194.99' / 194.82' S= 0.0051 '/' Cc= 0.900 n= 0.013, Flow Area= 0.09 sf

Primary OutFlow Max=0.02 cfs @ 8.32 hrs HW=197.54' TW=195.44' (Dynamic Tailwater)

- ↑ 2=Culvert (Passes 0.02 cfs of 0.41 cfs potential flow)
- ↑ 1=Orifice/Grate (Weir Controls 0.02 cfs @ 0.62 fps)

Pond 4P: PLANTER

Hydrograph



Summary for Pond 5P: PLANTER

Inflow Area = 0.107 ac, 100.00% Impervious, Inflow Depth > 4.16" for 25 YEAR event
 Inflow = 0.11 cfs @ 7.90 hrs, Volume= 0.037 af
 Outflow = 0.04 cfs @ 7.55 hrs, Volume= 0.036 af, Atten= 65%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.04 cfs @ 7.55 hrs, Volume= 0.036 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Peak Elev= 199.55' @ 8.80 hrs Surf.Area= 837 sf Storage= 265 cf

Plug-Flow detention time= 79.9 min calculated for 0.036 af (97% of inflow)
 Center-of-Mass det. time= 54.8 min (712.1 - 657.3)

Volume	Invert	Avail.Storage	Storage Description
#1	196.50'	92 cf	1' Drain Rock (Prismatic) Listed below (Recalc) 279 cf Overall x 33.0% Voids
#2	197.50'	21 cf	1.5' Growing Medium (Prismatic) Listed below (Recalc) 419 cf Overall x 5.0% Voids
#3	199.00'	371 cf	Ponding Depth (Prismatic) Listed below (Recalc)
		484 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
196.50	279	0	0
197.50	279	279	279

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
197.50	279	0	0
199.00	279	419	419

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
199.00	279	0	0
200.33	279	371	371

Device	Routing	Invert	Outlet Devices
#1	Primary	196.50'	8.0" Round Culvert L= 32.0' Ke= 0.500 Inlet / Outlet Invert= 196.50' / 196.34' S= 0.0050 1' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf
#2	Device 1	199.83'	6.0" Horiz. Orifice/Grate C= 0.620 Limited to weir flow at low heads
#3	Secondary	196.50'	2.000 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=196.50' TW=0.00' (Dynamic Tailwater)

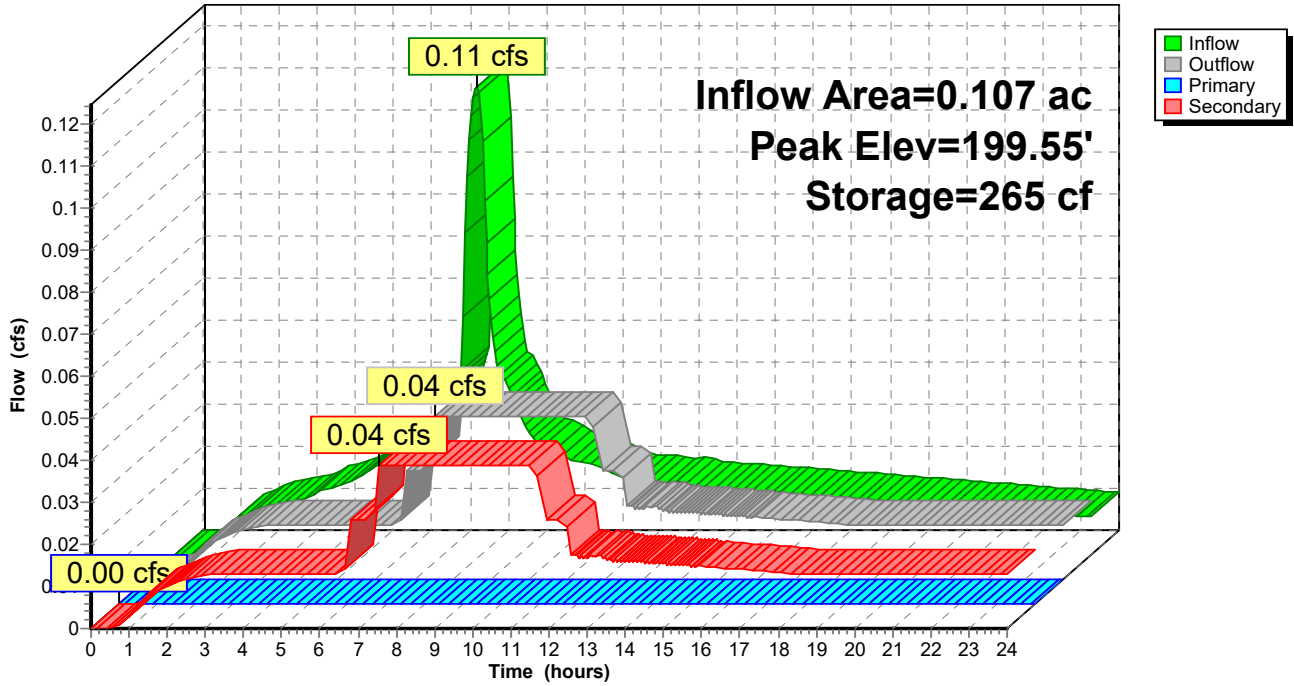
- ↑1=Culvert (Controls 0.00 cfs)
- ↑2=Orifice/Grate (Controls 0.00 cfs)

Secondary OutFlow Max=0.04 cfs @ 7.55 hrs HW=199.01' TW=0.00' (Dynamic Tailwater)

- ↑3=Exfiltration (Exfiltration Controls 0.04 cfs)

Pond 5P: PLANTER

Hydrograph



Summary for Pond 6P: PLANTER

Inflow Area = 0.107 ac, 100.00% Impervious, Inflow Depth > 4.16" for 25 YEAR event
 Inflow = 0.11 cfs @ 7.90 hrs, Volume= 0.037 af
 Outflow = 0.11 cfs @ 7.94 hrs, Volume= 0.037 af, Atten= 1%, Lag= 2.8 min
 Primary = 0.07 cfs @ 7.94 hrs, Volume= 0.003 af
 Secondary = 0.04 cfs @ 7.65 hrs, Volume= 0.034 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Peak Elev= 199.05' @ 7.94 hrs Surf.Area= 969 sf Storage= 145 cf

Plug-Flow detention time= 64.1 min calculated for 0.037 af (99% of inflow)
 Center-of-Mass det. time= 55.7 min (713.0 - 657.3)

Volume	Invert	Avail.Storage	Storage Description
#1	196.50'	107 cf	1' Drain Rock (Prismatic) Listed below (Recalc) 323 cf Overall x 33.0% Voids
#2	197.50'	24 cf	1.5' Growing Medium (Prismatic) Listed below (Recalc) 485 cf Overall x 5.0% Voids
#3	199.00'	430 cf	Ponding Depth (Prismatic) Listed below (Recalc)
		560 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
196.50	323	0	0
197.50	323	323	323

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
197.50	323	0	0
199.00	323	485	485

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
199.00	323	0	0
200.33	323	430	430

Device	Routing	Invert	Outlet Devices
#1	Primary	196.50'	8.0" Round Culvert L= 32.0' Ke= 0.500 Inlet / Outlet Invert= 196.50' / 196.34' S= 0.0050 1' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf
#2	Device 1	199.00'	8.0" Horiz. Orifice/Grate C= 0.620 Limited to weir flow at low heads
#3	Secondary	196.50'	2.000 in/hr Exfiltration over Surface area

Primary OutFlow Max=0.07 cfs @ 7.94 hrs HW=199.05' TW=0.00' (Dynamic Tailwater)

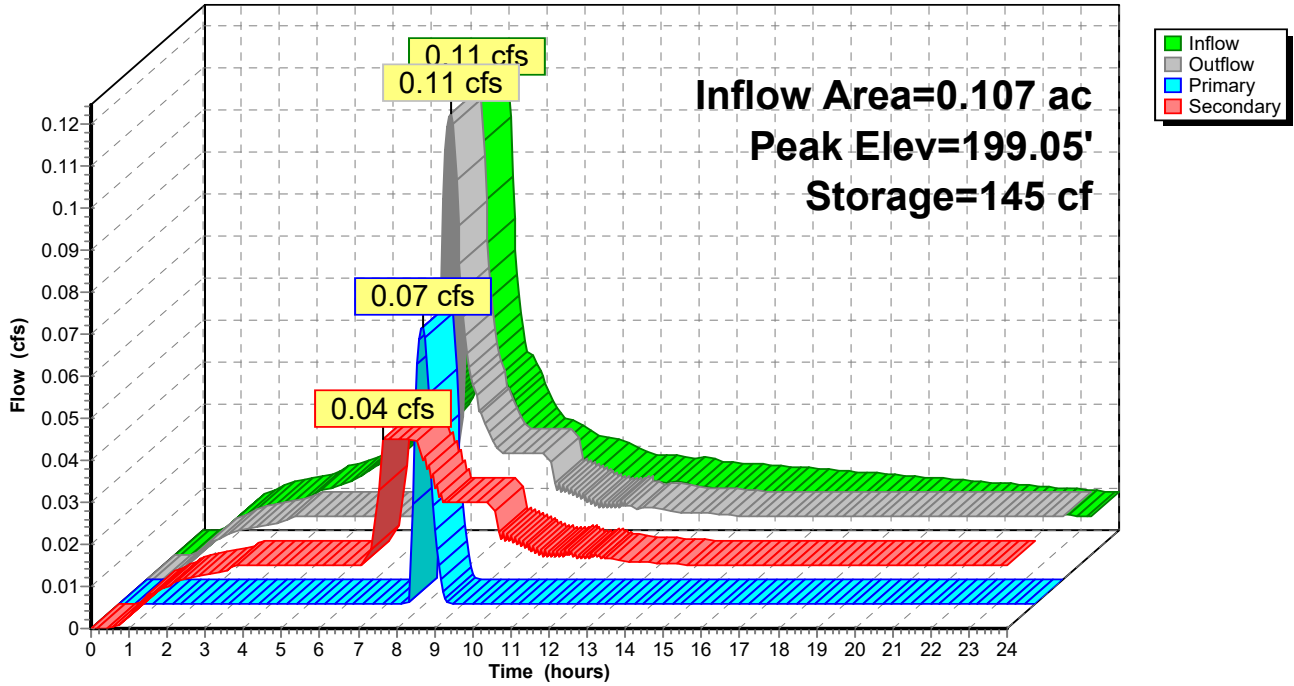
- ↑1=Culvert (Passes 0.07 cfs of 2.23 cfs potential flow)
- ↑2=Orifice/Grate (Weir Controls 0.07 cfs @ 0.69 fps)

Secondary OutFlow Max=0.04 cfs @ 7.65 hrs HW=199.00' TW=0.00' (Dynamic Tailwater)

- ↑3=Exfiltration (Exfiltration Controls 0.04 cfs)

Pond 6P: PLANTER

Hydrograph

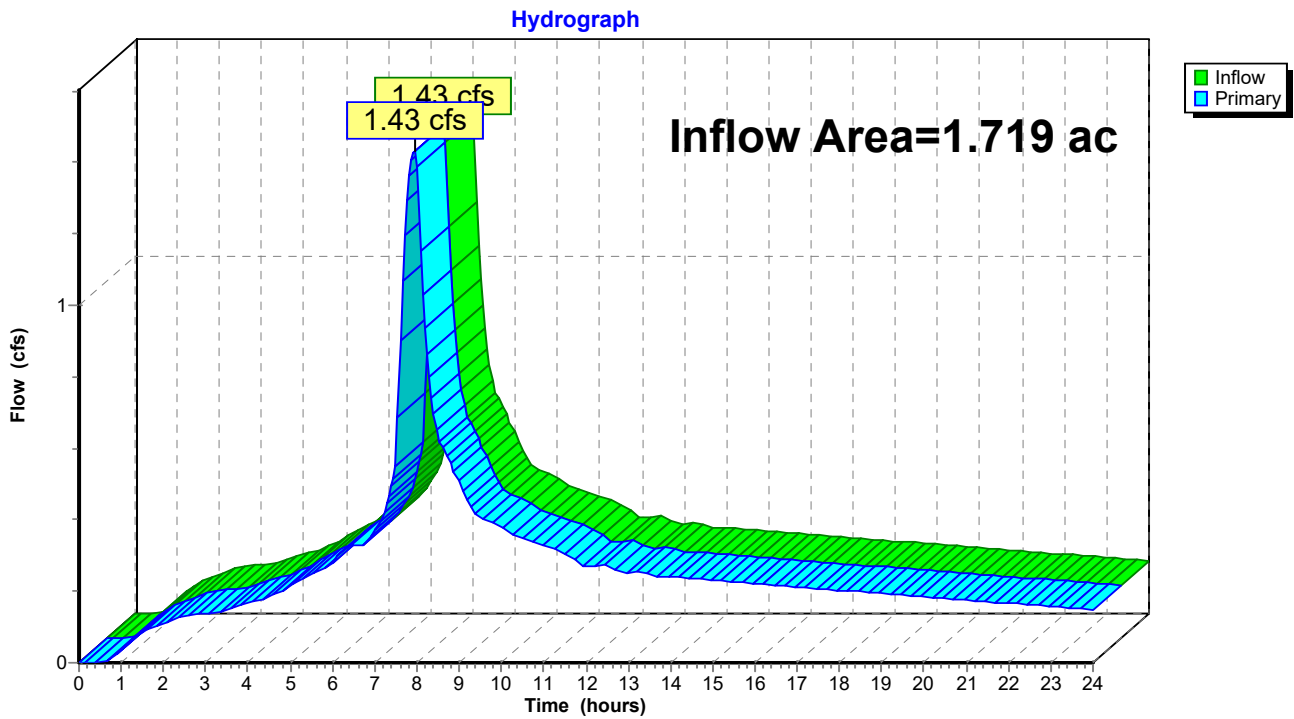


Summary for Link 7L: TOTAL PHASE 2

Inflow Area = 1.719 ac, 67.99% Impervious, Inflow Depth > 3.57" for 25 YEAR event
Inflow = 1.43 cfs @ 7.93 hrs, Volume= 0.512 af
Primary = 1.43 cfs @ 7.93 hrs, Volume= 0.512 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Link 7L: TOTAL PHASE 2

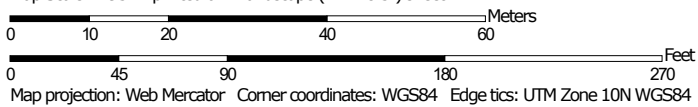


Appendix C: NRCS Soil Resource Report

Hydrologic Soil Group—Yamhill County, Oregon



Map Scale: 1:954 if printed on A landscape (11" x 8.5") sheet.



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

Soil Rating Polygons

 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Lines

 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Points

 A
 A/D
 B
 B/D

 C
 C/D
 D
 Not rated or not available


Water Features

 Streams and Canals

Transportation

 Rails
 Interstate Highways
 US Routes
 Major Roads
 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Yamhill County, Oregon
 Survey Area Data: Version 7, Sep 10, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 19, 2015—Sep 13, 2016

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
2300A	Aloha silt loam, 0 to 3 percent slopes	C/D	4.8	100.0%
Totals for Area of Interest			4.8	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Appendix D: TR-55 Runoff Curve Numbers

Table 2-2a Runoff curve numbers for urban areas ^{1/}

Cover description	Average percent impervious area ^{2/}	Curve numbers for hydrologic soil group			
		A	B	C	D
Fully developed urban areas (vegetation established)					
Open space (lawns, parks, golf courses, cemeteries, etc.) ^{3/} :					
Poor condition (grass cover < 50%)		68	79	86	89
Fair condition (grass cover 50% to 75%)		49	69	79	84
Good condition (grass cover > 75%)		39	61	74	80
Impervious areas:					
Paved parking lots, roofs, driveways, etc. (excluding right-of-way)		98	98	98	98
Streets and roads:					
Paved; curbs and storm sewers (excluding right-of-way)		98	98	98	98
Paved; open ditches (including right-of-way)		83	89	92	93
Gravel (including right-of-way)		76	85	89	91
Dirt (including right-of-way)		72	82	87	89
Western desert urban areas:					
Natural desert landscaping (pervious areas only) ^{4/}		63	77	85	88
Artificial desert landscaping (impervious weed barrier, desert shrub with 1- to 2-inch sand or gravel mulch and basin borders)		96	96	96	96
Urban districts:					
Commercial and business	85	89	92	94	95
Industrial	72	81	88	91	93
Residential districts by average lot size:					
1/8 acre or less (town houses)	65	77	85	90	92
1/4 acre	38	61	75	83	87
1/3 acre	30	57	72	81	86
1/2 acre	25	54	70	80	85
1 acre	20	51	68	79	84
2 acres	12	46	65	77	82
Developing urban areas					
Newly graded areas					
(pervious areas only, no vegetation) ^{5/}		77	86	91	94
Idle lands (CN's are determined using cover types similar to those in table 2-2c).					

¹ Average runoff condition, and $I_a = 0.2S$.

² The average percent impervious area shown was used to develop the composite CN's. Other assumptions are as follows: impervious areas are directly connected to the drainage system, impervious areas have a CN of 98, and pervious areas are considered equivalent to open space in good hydrologic condition. CN's for other combinations of conditions may be computed using figure 2-3 or 2-4.

³ CN's shown are equivalent to those of pasture. Composite CN's may be computed for other combinations of open space cover type.

⁴ Composite CN's for natural desert landscaping should be computed using figures 2-3 or 2-4 based on the impervious area percentage (CN = 98) and the pervious area CN. The pervious area CN's are assumed equivalent to desert shrub in poor hydrologic condition.

⁵ Composite CN's to use for the design of temporary measures during grading and construction should be computed using figure 2-3 or 2-4 based on the degree of development (impervious area percentage) and the CN's for the newly graded pervious areas.