

TYPE II APPLICATION (LAND USE) -- 2018

File #: DR218-0002

TYPES - PLEASE CHECK ONE:

- Design review (checked)
Tentative Plan for Partition
Tentative Plan for Subdivision
Type II Major Modification
Variance
Other: (Explain)

APPLICANT INFORMATION:

APPLICANT: George Fox University
ADDRESS: 414 N. Meridian St
EMAIL ADDRESS: dschutter@georgefox.edu
PHONE: 503-554-2014 MOBILE: 503-476-4256 FAX: 503-554-2009
OWNER (if different from above): PHONE: 503-595-2509
ADDRESS:
ENGINEER/SURVEYOR: Soderstrom Architects - Att: Andrew Burke PHONE: 503-595-2509
ADDRESS: 1200 NW Naito Parkway Suite 410, Portland OR 97209

GENERAL INFORMATION:

PROJECT NAME: Villa Road Student Residence Hall PROJECT LOCATION: 619 Villa Rd.
PROJECT DESCRIPTION/USE: Student Residence Hall aka Dormitory PROJECT VALUATION: \$5,223,500
MAP/TAX LOT NO. (i.e. 3200AB-400): 3217CD-5900-04501 ZONE: 1 SITE SIZE: 30000 SQ. FT. ACRE
COMP PLAN DESIGNATION: TOPOGRAPHY:
CURRENT USE: George Fox University
SURROUNDING USES:
NORTH: Geroge Fox University SOUTH: Geroge Fox University
EAST: Villa Road / R-2 WEST: Geroge Fox University

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 Review p. 12
Partition Tentative Plat p. 14
Subdivision Tentative Plat p. 17
Variance Checklist p. 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.

Dan Schutter 3/9/18
Applicant Signature Date

Clyde Thomas 3/9/18
Owner Signature Date

Dan Schutter
Print Name

Clyde Thomas
Print Name

Attachments: General Information, Fee Schedule, Criteria, Checklists

RECEIVED

MAR 12 2018

RECEIVED

APR 27 2018

Initial: _____

DESIGN REVIEW CRITERIA RESPONSE

TYPE 2 – MINOR DESIGN REVIEW

For

STUDENT RESIDENCE HALL

617 VILLA ROAD

Newberg, Oregon

Tax Lot: 3217CD-4601

DR218-0002

March 8, 2018

REVISED April 19, 2018



GEORGE FOX
UNIVERSITY

414 N. Meridian Street
Newberg, OR 97132-2697

Contact: Dan Schutter
Associate Director, Physical Plant
503.554.2014
dschutter@georgefox.edu

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Project Description

The proposed project involves the construction of a new 165-bed Student residence hall and the required site work. The project is located in an Institutional (I) zone and Institutional Overlay (IO) Subdistrict on the east edge of the George Fox University campus on the west side of Villa Road about 100 ft. north of E. North Street. Site work includes new sidewalks and plaza on the west side of the proposed building that will connect it with three existing Student Residence Halls located to the west and south of the proposed site. The existing infrastructure surrounding the proposed site, including adjacent parking, Villa Road frontage sidewalks, the fire access road to the west of the proposed structure, and the trash enclosure west of the adjacent Residence Hall (Brandt Residence Hall) will remain unchanged. Bicycle parking will be added in the plaza area to the west side of the proposed building and a trash enclosure (to the west), and the addition of bicycle parking. Exterior lighting only on the west side of the proposed building and will be similar to the lighting outside the adjacent residence halls to the west and south.

The proposed building consists of 81 double-bed rooms and 3 single occupancy bedrooms, director's apartment and office (first floor), a student lounge and seminar room on the first floor, four laundry rooms (one on each floor), three kitchenettes and smaller lounges (second, third and fourth floors), and 8 hall restroom, two on each floor. Mechanical spaces will be housed in a partial basement in the center of the building.

Because of the reduction of Student Housing to make room for the Student Activity Center currently under construction and the addition of several parking lots in the past couple of years (reference DR2-17-005), no additional parking spaces are needed for this proposed development. Vehicle and pedestrian access to the proposed building will be from existing parking lots and sidewalks located adjacent to the site to the north, west, and south. These and the existing circulation routes will not change.



Type II Design Review 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.

Response: The proposed residence hall is a four-story 48,300 sq. ft. structure. The four main floors consist of two wings of single- and double-bed room. The center of the first floor has two building entries (one north and one south), apartment and office for the building director, and laundry services for the floor. The second and third floors have their own study, lounge, kitchenette, and laundry rooms. The building also has a partial basement that houses mechanical and electrical equipment as well as space dedicated for storage.

Vertical circulation is handled by exit stairways at the end of each wing, a central stairway connecting the common spaces, a separate stairway with basement access, and an elevator for ADA access to all three floors and the basement.

The residence hall is a three-story brick building with a shingle gabled roof to match the form and materiality of the adjacent buildings on campus. The design bridges the model of traditional university buildings with a modern aesthetic.

The proposed building site is about 160 ft x 200 ft (32,000 sq. ft. or $\frac{3}{4}$ acres) and currently the location of a 2 story house that will be moved across campus (reference DR118-002). This site is within and situated on the east edge the greater consolidated 68 acre George Fox Campus.

Surrounding the building will be existing trees and new landscaping being provided by George Fox University Plant Services, to match the rest of the university campus.

Exterior lighting will be provide to meet illumination for pedestrian paths and security. Only the exterior area lights on the west side of the building and over 100 ft. from the nearest property line will be altered from the existing conditions and other existing area lights in the parking lot to the north of the proposed site will not be altered. Low wattage wall mounted LED lights will be located on the building near entrances but will not exceed 0.5 ft. candles at the nearest property line. An area lighting photometric model is included as E600.

(2) Parking and on-site circulation. Parking areas shall meet the requirements of § 15.440.010. Parking studies may be required to determine if adequate parking and circulation are provided for uses not specifically identified in § 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: The proposed new Residence Hall is designed for 165 beds and will bring the total number of beds on campus up to 1463. With this addition the total campus required parking will be 1481 per the formula shown in the table in Appendix A1 – Parking Spaces Required. The table in Appendix A1 also shows the updated FTE for Spring 2018 and other current parking formula variables.

The proposed development is situated between Brandt Residence hall and the adjacent Brandt Parking lot to the south and the Fulton Street Parking lot to the north. The existing parking spaces along the south side of the Fulton Street parking lot will be eliminated to allow room for Fire truck access to the proposed building and the 4 existing ADA parking spaces will be moved kiddy corner to the west edge of the Fulton Street parking lot. This results in a net loss of 15 parking spaces. Appendix A2 table – Parking Spaces Provided lists the parking spaces provided for all parking lots in the main campus area, including the changes describe above.

The total number of on-campus parking spaces will be 1488, providing a surplus of 7 spaces. This includes 61 ADA parking spaces providing a ratio of 23.7 spaces per ADA space, well above the code requirement for 1 space per 40.

22 bicycle parking spaces are required for the 88-unit residence hall (one parking space per dwelling unit, 15.440.110). These bicycle parking spaces will be provided in the plaza area west of the proposed building and will be located within 50 feet of the nearest building entrance. The GFU campus standard "ribbon" rack per appendix C will be utilized to provide this bicycle parking.

Circulation will be provided by sidewalks connecting to the campus areas west of the proposed building and the existing service lane that snakes along the west of the building that provides fire truck access to the adjacent and the proposed residence hall.

(3) Setbacks and general requirements. The proposal shall comply with §§ 15.415.010 through 15.415.060 dealing with height restrictions and public access; and §§ 15.410.010 through 15.405.040 dealing with setbacks, coverage, vision clearance, and yard requirements.

Response: The proposed building considered an accessory building per email from Cheryl dated is about 50 feet in height, within the allowable 45 feet height limit in an Institutional Overlay Subdistrict, per 15.348.060.A. The building is located 25 feet north of North Street ,45 feet 10 inches west of Villa Road, and 22 feet 11 inches east of the service lane to the west, meeting the 15 foot setback requirement in 15.348.060.B.1.

The proposed building is located on tax lot 3217CD-5900 but for Planning Code compliance the entire East Campus is considered a contiguous property. See section 7, Zoning District Compliance. The consolidated Campus area is about 68 acres and more or less bounded by Fulton Street on the north, Villa Road on the east, Hwy 99W on the south, and Meridian Street on the west. The nearest property line for this proposed development is Villa Rd. to the east of the proposed building as described above. Other property lines are over 400 ft. distance from the proposed building.

Compliance with vision clearance is demonstrated by the 50 foot by 50 foot triangle on the attached site plan drawing.

The proposed parking lot improvement utilizes the existing landscaping strip along vacated E. North Street, maintaining an interior width greater than five feet, per 15.420.010.B.3.b.

(4) Landscaping requirements. The proposal shall comply with § 15.420.010 dealing with landscape requirements and landscape screening.

Response: Roughly 20,000 total square feet around all four sides of the building will be re-landscaped following construction of the roughly 12,000 sq. ft. building. This area comprises over 50% of the immediate site area, exceeding the requirements per 15.420.010. See attached site plan for more information.

As many existing trees will be maintained as possible, and the remaining landscape area will be improved to match the existing landscaping and the rest of campus. The plan is to leave the existing street trees along Villa road undisturbed but also add trees in the 25 ft. setback distance between the sidewalk and the proposed build because the trees between the sidewalk and the curb are directly under the overhead power and franchise utility lines and will be trimmed by the utility company before they reach mature height.

A landscaped strip between 20 and 25 ft. wide will be provided between the north side of the proposed building and the existing adjacent parking lot drive aisle. This parking lot drive aisle will be widened to 40 ft. (including sidewalk) to allow fire truck and ladder truck access along the entire north side of the building. The existing landscape islands on the north side of the parking lot drive aisle are 8 ft. wide and provide an almost continuous landscaped strip along the north edge of the parking lot drive aisle. The 20 ft. wide landscaped strip between the building and the parking lot along with the landscape islands on the north side of the parking lot drive aisle easily exceeds the requirement for 25 square feet of landscaping per parking space per 15.420.010.B.3.a. The balance of the existing parking lot on the north side of the proposed building has landscaped stripes of between 15 and 25 ft. between parking aisles and meeting the 5 foot interior width minimum requirement per 15.420.010.B.3.f.

Reference the attached landscaping plan for more detail on the location and types of landscaping that is planned for this project. And note that all landscaped areas will have an automatic programmable irrigation system supplied from an existing 2 inch irrigation meter located on the Villa road side and approximately 150 ft. south of the proposed building site.

(5) Signs. Signs shall comply with § 15.435.010 et seq. dealing with signs.

Response: A standard “blue bar” sign with the building name and street address will be located in front (south side) of the proposed building. This sign is in accordance with the University standard and complies with 15.348.060.F and 15.435.060 regarding Minor Freestanding Signs. See attached sign elevation shown in Appendix D.

(6) Manufactured home, mobile home and RV parks. Manufactured home, mobile home, and recreational vehicle parks shall also comply with the standards listed in §§ 15.445.050 et seq., in addition to the other criteria listed in this section.

Response: These elements are not present in this project.

(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 §§ 15.304.010 through 15.328.040. 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.

Response: The proposed use (dormitory) is permitted in an Institutional zone per 15.305.020 – Zoning Use Table and Chapter 15.348 – Institutional Overlay Subdistrict.

The proposed building is located on tax lot 3217CD-5900 but for Planning Code compliance the entire George Fox Campus is considered a contiguous property lot based on the following Declaration of Deed of Restrictions, Yamhill County Records:

No. 200818891 dated 11/20/2008 for the East Campus area

No. 201306260 dated 4/26/2013 for the main campus area

No. 201504818 dated 4/14/2015 to combine East and Main Campus areas

No. 200719037 dated 8/24/2007 for vacation of the Sherman Street ROW

This 68 acre area is more less bounded by Fulton Street on the north, Villa Road on the east, Hwy 99W on the south, and Meridian Street on the west.

(8) Sub-district compliance. Properties located within sub-districts shall comply with the provisions of those sub-districts located in §§ 15.340.010 through 15.348.060.

Response: The proposed residence hall project site is completely within Institutional zone and is not in or adjacent to any other sub-district zones.

(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: The existing fire access lane was designed for pedestrian as well as vehicular traffic as evidenced by its materiality and lack of curb where it meets the sidewalk. A section of the fire access lane is concrete rather than asphalt. The sidewalk for the proposed residence hall connects to this section of concrete allowing for a direct connection between the proposed residence hall and the two adjacent residence halls and the rest of the university campus to the west.

Reference attached site development plan C2.0 showing the new (relocated) ADA parking spaces and accessible route between the proposed building and the ADA parking spaces and the Villa Road public ROW. Note that the building site is fairly flat and the entrance to the proposed building is level with the existing grade and therefore no ramps are required.

Reference attached Site development Plan A1.0 showing location of a new trash enclosure on the north side of the proposed building and adjacent to the parking lot drive aisle. There are other trash enclosures at adjacent building and near this proposed project. The new enclosure will have similar screen construction and landscaping as need to enclose and secure the trash dumpsters.

All other surrounding areas are fully developed.

All dry utilities for this project located between the Villa Road ROW and the building will be located underground but the existing overhead utilities along the west side of Villa Road will be left overhead. The applicant, Dan Schutter discussed this with Rick Schiedler, the PGE Service and Design Project Manager, and it is his opinion that undergrounding a short section of the 12 kv feeder along Villa Road will be very expensive and impractical.

(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 proposed project will generate 31 Peak PM hour trips and 345 daily trips. This is based on 48,300 sq. ft. of gross building area, a student to gross area factor of 338, and a PM peak traffic generation of .21 trips and a daily trip generation of 2.38 trips per student from the ITE manual. Reference Appendix B1 Kittelson Study dated January 17, 2012.

The Kittelson methodology has been accepted and approved by the City for estimating trip generation on all projects since Stevens Center was constructed in 2000 and including over

200,000 sq. feet of new building development since then. The first Kittelson Study report was dated February 2, 2000 and was updated on January 17, 2012. The applicant feels this methodology is the only reasonable approach because any ITE land use code other than University (code 550) is not applicable for this proposed development.

The Kittelson methodology provides rationale for determining the number of students generated by a proposed development based on the gross building area of the development. This is done by comparing the historical record for total building gross area to the concurrent number of Full Time Equivalent (FTE) students. The most recent statistics for building gross area and number of FTE students are shown in Appendix B2. The current 5 year average is 338 GFA / Student FTE ratio. Based on this ratio the Proposed 48,300 sq. ft. project will generate 143 additional students. And according to the ITE manual 143 students will generate 31 PM peak trips. Appendix B3 shows the cumulative Building Gross Area from 1950 to present.

Kittelson Methodology for calculating number of students

$$48,300 \text{ gross sq ft} / 338 \text{ sq ft per student} = 143 \text{ students}$$

ITE Methodology for calculating peak traffic generation

$$143 \text{ students} \times 0.21 \text{ peak PM trip per student} = 31 \text{ trip generated}$$

APPENDIX A1

Required Parking Spaces Spring Semester 2018 FTE Current FTE for Newberg Campus Only Newberg Code Section 15.440.030		
Description	Calculation	Parking Spaces
Full Time Equivalent Students (1)	2644 / 3	882
Accessory Buildings		
[1-E] Fraternities, dorms, etc (Available beds)	1298 / 6	217
ditto New Dormatory (2)	165 / 6	28
[3-G(a)] Auditoriums, etc. (3)		
Bauman (1140 seats)	} shared parking (4)	265
Miller Gym (1800 seats)		
Stoffer Stadium (2114 seats)		
Baseball Stadium (150 seats)		
Softball Stadium (150 seats)		
Wood-Mar Theater	240 / 8 =	30
Additional Spaces Required per Street Vacation Ordinance No. 9-2520		59
TOTAL REQUIRED PARKING SPACES		1481
TOTAL PARKING SPACES PROVIDED		1488

No. of Surplus Spaces 7

Note (1) based on Spring 2018 FTE

Note (2) net increase of 165 beds.

Note (3) seating capacity of bleachers is based on 24 inches per person per
Code section 15.440.030

Note (4) Shared parking agreement based on design review approvals DR2-12-011, DR2-14-010, &
DR1-16-013.

No major events shall be held at Bauman Auditorium, Miller Gymnasium, the baseball stadium or
the softball stadium at the same time that a major event is held at Stoffer Stadium (the football
stadium). A major event is defined as an event such as a football game, track meet or
Commencement ceremony which has the potential to fill the bleachers or spectator seats and bring
visitors to the campus.

APPENXIX A2
 GEORGE FOX UNIVERSITY
 NEWBERG CAMPUS
 PARKING LOT CAPACITY
 April 2, 2018

	Previous Project Total Spaces	Current Project Total Spaces	Includes Handicap Spaces
Wood-Mar (414 N. Meridian St.)	34	34	
Hoover (412 N. Meridian St.)	58	58	4
Stevens Center (330 N. Meridian St.)	87	87	4
River Street House (1009 E. Sheridan)	18	18	1
River Street (East side of Presidents Office)	2	2	0
Development Office (206 N. Meridian)	16	16	0
Winters Apartments (201 & 205 N. River)	34	34	1
Pennington Dorm (310 N. River St.)	81	81	1
Pennington / Commons (Lollypop)	41	41	2
Hester House (212 N. River)	12	12	0
Woodward House (200 N. River)	5	5	1
Weesner House (206 N. Carlton)	19	19	1
Parker Duplex (1204 & 1206 E. Sheridan)	4	4	0
Millage Duplex (1113 & 1115 E. Hancock St.)	2	2	0
Fox Hole (1110 E. Sheridan)	2	2	0
Financial Affairs / HR Office (215 N. River)	1	1	1
Pennington House (1000 E. Sheridan)	2	2	0
Video Center (903 E. North)	4	4	0
Humanities House (605 N. Center)	5	5	1
Event Services (1003 E. North)	0	0	0
Lemons Center – North Street Parallel Parking	10	10	0
Newlin Apartments (1007 E. North)	6	6	0
Ross / Bauman (1009 E. North St.)(incl. Kroeker house)	201	201	6
Art Annex (1010 E. North)	3	3	0
Minthorn (1016 E. North St.)	20	20	1
Tennis Courts (Carlton Way)	8	8	0
MLRC (Carlton Way)	4	4	0
Edwards Dorm (400 Carlton Way)	4	4	2
Weesner Village (208, 210, and 212 Carlton Way)	28	28	0
Circle Drive (1200 E. Fulton St.)	8	8	0
Fulton St. Lot (formerly Wheeler lot - 1504 E. Fulton St.)	282	267	1 10
Munn House (1314 E. North)	0	0	0
East Campus	76	76	3
Lewis Apartments (1404 E. Sherman)	12	12	0
East Sherman Street on-street parking	11	11	0
Macy (1308 E. Sherman)	27	27	0
Sutton / Hobson (1307 E. Sherman)	11	11	1
Kershner House (1400 E. Sherman)	0	0	0
Woolman Apartments (1114 E. Hancock)	15	15	1
Fry House (1210 E. Sheridan)	2	2	0
Plant Services (1101 N. Villa Rd.)	31	87	3
Wilder House (1415 Portland Rd.)	12	12	0
Schomberg House (608 N. Meridian)	1	1	0
Gail House (1314 E. Sherman St.)	0	0	0
Roberts Academic Complex main lot (old Hospital)	98	98	6
Roberts Academic Complex North / Brandt Res Hall	105	105	5
Student Activity center and Roberts back lot	45	45	6
TOTAL PARKING SPACES	1447	1488	61

handicap to total ratio (must be <40) 23.7

Note: Fire Lane and relocated handicap parking reduces lot capacity by 15 parking spaces.
 handicap parking spaces remains unchanged

EXHIBIT B1



KITTELSON & ASSOCIATES, INC.

TRANSPORTATION ENGINEERING / PLANNING

610 SW Alder Street, Suite 700, Portland, OR 97205 P 503.228.5230 F 503.278.8169

January 17, 2012

Project #: 12169.0

Mr. Dan Schutter
George Fox University
11011 N. Villa Road
Newberg, OR 97132

RE: Systems Development Charge Update for George Fox University

Dear Mr. Schutter,

In response to your request, Kittelson & Associates, Inc. has reviewed the existing transportation systems development charge (SDC) schedule for the City of Newberg as well as the current proposed update to the SDC schedule. The purpose of this letter is to present and update the method previously developed by Kittelson & Associates, Inc. (KAI) for estimating SDCs for new building developments at George Fox University.

TRIP GENERATION FOR GEORGE FOX UNIVERSITY

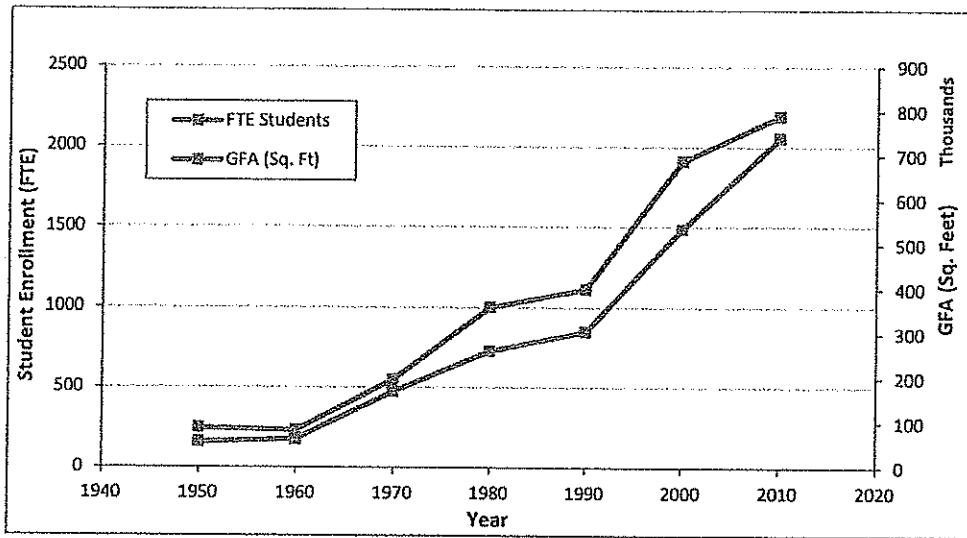
Due to the complex nature of university campuses, it is often difficult to estimate the number of trips generated by a new building facility. Taking such complexities into account, the Institute of Transportation Engineers (ITE) publishes a standard reference manual, *Trip Generation* (currently in its 8th Edition, Reference 1), which provides guidance on estimating trip generation for new developments. The manual states that, for universities, "...the number of students may be a more reliable independent variable on which to establish trip generation rates." These trip generation rates can then be applied as per the requirements outlined by the City of Newberg in order to determine representative SDCs.

Student Enrollment Data

Kittelston & Associates, Inc. previously developed a model for George Fox University to estimate trip generation and SDCs by establishing a relationship between building size (gross floor area) and student enrollment (measured in full time equivalent students). The strong correlation between these variables was illustrated in a February 2000 letter previously provided to you. This model has been updated as described herein through use of the historical data provided by George Fox

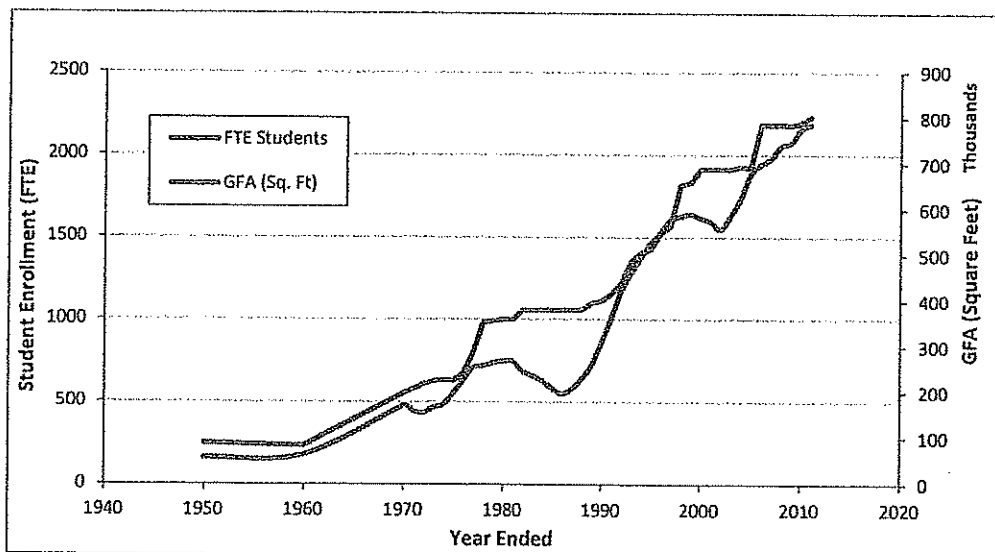
University staff—department for building infrastructure and student enrollment—for the years 1950 to 2011. This relationship is demonstrated in the following figure:

Figure 1: Historical Trends of Student Enrollment vs. Building Area by Decade



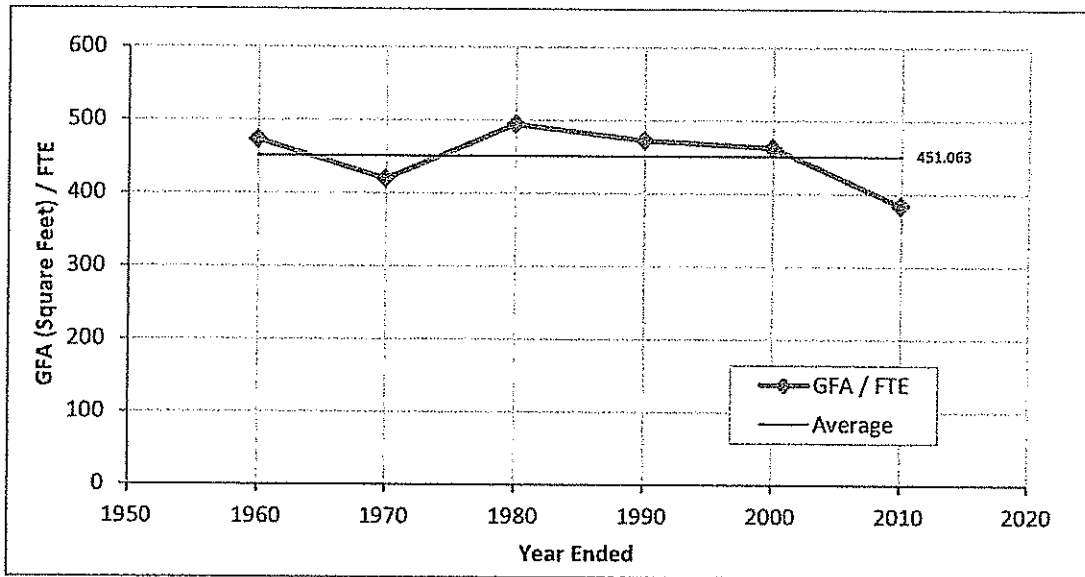
From Figure 1, it is evident that there is a correlation between enrollment and gross floor area of all buildings with the data aggregated by decade. An annual review of the data illustrates a similar correlation, except throughout a period in the 1980's—per conversations with George Fox University staff, this period was affected by a change in regional economics that affected the ability of students to attend the college (and other colleges regionally).

Figure 2: Historical Trends of Student Enrollment vs. Building Area by Year



The relationship between building gross square footage versus student enrollment numbers can further be highlighted in the ratio between building size (measured as gross floor area, in square feet) and student enrollment. This has been calculated and summarized by decade in the figure following:

Figure 3: Gross Floor Area (Square Feet) vs. Student Enrollment by Decade



As shown in Figure 3, the University provides an average of approximately 450 square feet of gross building space for each student enrolled. This rate has fluctuated between 385 and 500 square feet per student over the past six decades, with a more recent decline that is attributed to an atypical influx of students caused by the economic downturn.

Based on the above review, it is clear that student enrollment and overall building area historically have remained very closely correlated. Therefore, the number of trips that can be expected from a proposed new development within the university campus can be estimated by applying the relationships above to estimate the increase in number of students associated with a proposed increase in building/facilities area. Using the identified average distribution of one student per 450 square feet, building size can thus be used as a proxy to estimate the number of trips generated by additional campus facilities. The use of student population for trip generation estimates aligns with best practice suggested by ITE, based on surveys conducted at other universities.

Student Trip Generation Rate

For University/College land use (ITE Land Use 550), ITE suggests the use of an average rate of 2.38 trips generated per student on a weekday, and a rate of 0.21 trips per student during both the weekday a.m. and p.m. peak periods¹. Particular emphasis has been made stating that *“the trip generation for weekend time periods varied considerably; therefore, caution should be used when applying weekend statistics.”*

SYSTEM DEVELOPMENT CHARGES FOR GEORGE FOX UNIVERSITY

Under the requirements established by the City of Newberg, transportation system development charges (SDCs) are calculated using the following formula:

$$SDC = Unit * ITE Trip Rate * Trip Length * Linked Trip * \$296.00$$

For University developments, *Unit* is measured in FTE students, *ITE Trip Rate* is taken as 2.38 daily trips per FTE student, and *Trip Length* and *Linked Trip* are both taken as 1.0 (Reference 2). Using the relationship established earlier, SDCs can now also be expressed as a function of the GFA of new facilities:


$$\begin{aligned} SDC &= \frac{Trips}{Student} * \frac{Students}{GFA} * GFA * \$296.00 \\ &= 2.38 * \frac{GFA}{450} * \$296.00 \end{aligned}$$

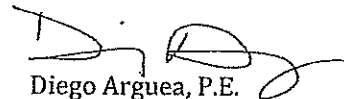
As such, the gross floor area (measured in square feet) of a new facility to be constructed can be used as a proxy to calculate required system development charges. For example, if George Fox University were to add a new classroom complex of 100,000 square feet, the applicable SDCs would be estimated to be \$156,551.11.

¹ Average daily trip rates in ITE's Trip Generation Manual are based upon studies with an average of 3,002 students, which is similar to GFU's 3,519 students for the 2011-2012 school year.

We trust that this provides you with the information you need for estimating trips and System Development Charges for all future developments on your campus. Please feel free to contact us if you have any further questions.

Sincerely,
KITTELSON & ASSOCIATES, INC.


Chris Brehmer, P.E.
Principal Engineer


Diego Arguea, P.E.
Engineer

REFERENCES

1. Institute of Transportation Engineers (ITE). *Trip Generation, 8th Edition*. 2008.
2. <http://www.newbergoregon.gov/engineering/system-development-charge-inflation-increase>. City of Newberg website: accessed on January 17, 2012.

ATTACHMENT: SYSTEM DEVELOPMENT CHARGE INFLATION INCREASE

APPENDIX B2

George Fox University
 Newberg Campus
 Student FTE and GFA:FTE Ratio

Year	Student FTE	GFA sq. ft.	Ratio	5 yr average Ratio
1950	157	88086	561	
1960	175	82791	473	
1970	472	197932	419	
1971	441	206432	468	
1972	431	218124	506	
1973	463	224320	484	
1974	482	226032	469	
1975	550	225032	409	
1976	601	240682	400	
1977	643	287318	447	
1978	710	353633	498	
1979	715	355889	498	450
1980	727	359630	495	468
1981	734	359630	490	485
1982	690	381162	552	507
1983	673	381162	566	520
1984	630	381162	605	542
1985	585	381162	652	573
1986	546	381162	698	615
1987	569	381162	670	638
1988	626	381162	609	647
1989	727	395974	545	635
1990	847	400574	473	599
1991	992	415672	419	543
1992	1164	439452	378	485
1993	1291	487592	378	438
1994	1382	505904	366	403
1995	1474	513959	349	378
1996	1522	549833	361	366
1997	1569	563413	359	363
1998	1601	653992	409	369
1999	1614	659381	409	377
2000	1487	688473	463	400
2001	1460	689473	472	422
2002	1421	689473	485	448
2003	1525	689473	452	456
2004	1590	690673	434	461
2005	1737	692096	398	449
2006	1807	786446	435	441
2007	1860	786346	423	429
2008	1898	786346	414	421
2009	1897	785146	414	417
2010	2055	789326	384	414
2011	2033	803326	395	406
2012	2106	827876	393	400
2013	2305	827876	359	389
2014	2503	827876	331	372
2015	2629	872496	332	362
2016	2754	902159	328	349
2017	2754	938917	341	338

APPENDIX B3

George Fox University
 Newberg Campus
 Building Gross Area (sq. footage)

Year	Building		Sq. Ft.	Cum sq. ft
1950	Brougher	1008 E North St.	3488	3488
1950	Dining Hall	409 Carlton Way	5210	8698
1950	Edwards House		4000	12698
1950	Hester Gym	1200 E Fulton St	17194	29892
1950	Hoover	412 N Meridian St.	10370	40262
1950	Library	415 Carlton Way	3768	44030
1950	Maintenance	1010 E. North St.	1700	45730
1950	Minthorn	419 Carlton Way	7200	52930
1950	Music Hall		4160	57090
1950	Vet Houses		12000	69090
1950	Woodmar	414 N Meridian St	18996	88086
1954	Hoover	412 N Meridian St.	-10370	77716
1958	Student Union Building	409 Carlton Way	3155	80871
1960	Maintenance	1010 E. North St.	1920	82791
1961	Shambaugh Library	415 Carlton Way	17906	100697
1962	Library	415 Carlton Way	-3768	96929
1962	Pennington Hall	310 N River St	23578	120507
1962	SUB Addition	409 Carlton Way	1332	121839
1962	Vet Houses		-12000	109839
1962	Weesner Village	308 / 310 / 312 Carlton Way	7941	117780
1962	Brougher Addition	1008 E North St.	1300	119080
1964	Edwards Dorm	400 Carlton Way	21253	140333
1965	Heacock Commons	409 Carlton Way	14312	154645
1966	Calder Center	1000 E North St.	18250	172895
1966	WWII Dining Hall	409 Carlton Way	-2000	170895
1968	Hobson Dorm	1306 E Sherman St	13945	184840
1968	Maintenance Addition	1010 E. North St.	2880	187720
1968	Old Maintenance Building Razed	1010 E. North St.	-1700	186020
1968	SUB Addition	409 Carlton Way	7812	193832
1969	Edwards House Razed		-4000	189832
1969	Kershner House	1400 E. Sherman St.	1500	191332
1969	Sherman Arms Apartments		3500	194832
1970	Newlin Apartments	1007 E North St.	3100	197932
1971	Winters Apartments	201 & 205 N River St	8500	206432
1972	Woolman Apartments	1114 E Hancock St	11692	218124
1973	Lemon House	617 Villa Rd.	2400	220524
1973	Maintenance Addition	1010 E. North St.	1696	222220
1973	North Street House	1003 E. North St.	1300	223520
1973	Security House	214 Carlton Way	800	224320
1974	Hester Gym Addition	1200 E Fulton St	800	225120
1974	Little Red School House	1012 E. Fulton St.	912	226032
1975	International House	314 N. Meridian St.	1400	227432
1975	Lemon House sold	617 Villa Rd.	-2400	225032
1976	Lewis Apartments	1404 E Sherman St	13500	238532
1976	Schaad House	915 E. Sheridan St.	2150	240682
1977	Hoover Academic Building	412 N Meridian St.	21226	261908
1977	Macy Sutton Dorm	1308 & 1307 E Sherman St	32780	294688
1977	Razed WWII buildings		-7370	287318
1978	Heacock Commons Addition	409 Carlton Way	2772	290090
1978	Ross Fine Arts Center (Remodel Hester Gym)	1009 E North St	8694	298784
1978	SUB Addition	409 Carlton Way	3258	302042

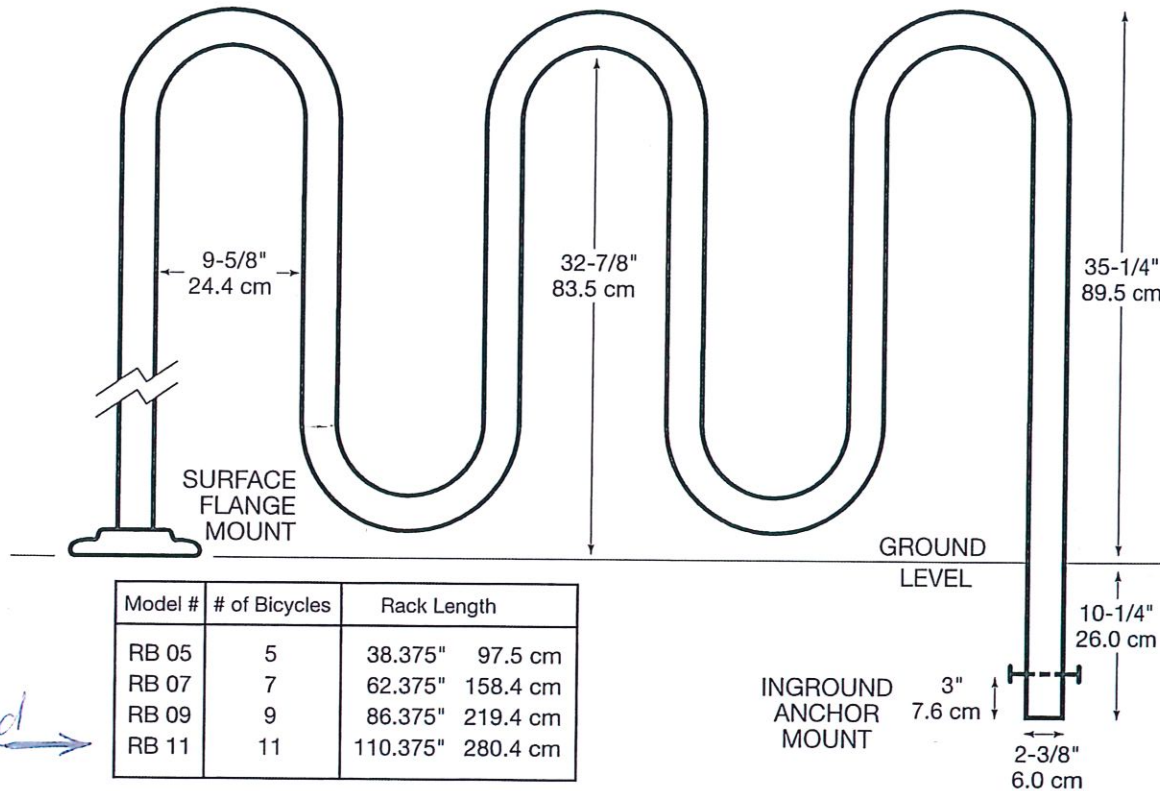
Year	Building		Sq. Ft.	Cum sq. ft
1978	Wheeler Sports Center	1200 E Fulton St	51591	353633
1979	Video Center	903 E. North St.	2256	355889
1980	Carey Dorm	306 Carlton Way	6491	362380
1980	Maintenance Offices	1010 E. North St.	420	362800
1980	Sold Woolman Apartments	1114 E Hancock St	-11692	351108
1980	Weesner House	206 Carlton Way	4000	355108
1980	Wheeler Addition	1200 E Fulton St	4522	359630
1982	Bauman Auditorium	1009 E North St	21532	381162
1989	Library Addition	415 Carlton Way	14812	395974
1990	Presidents Office (River St House)	1009 E. Sheridan St.	3600	399574
1990	Vermillion Street House	914 E. Vermillion St.	1000	400574
1991	Business and Econ Offices	1000 E. Sherman St.	2239	402813
1991	Cole House	300 N. Meridian St.	2865	405678
1991	River Street House	309 N. River St.	1803	407481
1991	Willcuts Dorm	304 Carlton Way	8191	415672
1992	Beebe Dorm	302 Carlton Way	8751	424423
1992	Center Street House	605 N. Center St.	1865	426288
1992	Fry House	1210 E. Sheridan St.	1200	427488
1992	Gully House	212 Carlton Way	2638	430126
1992	Foxhole (moore House)	1010 E. Sheridan St.	2086	432212
1992	McGrew House	1209 E. Hancock St.	2320	434532
1992	Parker House	1204/1206 E. Sheridan St.	2000	436532
1992	Sherman Street House	1014 / 1016 E. Sherman St.	2920	439452
1993	Beals House	1109 E. Hancock St.	1514	440966
1993	EHS	414 N Meridian St	40256	481222
1993	Heacock Commons Remodel	409 Carlton Way	2358	483580
1993	Hester House	212 N. River St.	1470	485050
1993	Hoskins House	214 N. River St.	2542	487592
1994	Barclay House	1313 E. North St.	3750	491342
1994	Munn House	1314 E. North St.	2000	493342
1994	SUB North Addition	409 Carlton Way	870	494212
1994	Woolman Apartments	1114 E Hancock St	11692	505904
1995	Advancement Office	206 N. Meridian St.	2515	508419
1995	Lemon House (Villa Rd House)	617 Villa Rd.	2400	510819
1995	Prayer Chapel	316 /Carlton Way	640	511459
1995	Woodward House	200 N. River St.	2500	513959
1996	Calder Remodel / Lemmons Center	1000 E North St.	-378	513581
1996	Campbell House	216 N. Meridian St.	1364	514945
1996	Gilmore House	911 E. Sheridan St.	1450	516395
1996	Schultz House (Sheridan St House)	214 N. Meridian St.	1200	517595
1996	University Hall	1500 E Fulton St	32238	549833
1997	Armstrong House	211 N. Center St.	2149	551982
1997	Financial Affairs / HR	215 N. River St.	3947	555929
1997	Hancock Street House	1108 E. hancock St.	3104	559033
1997	Holman House	310 N. Meridian St.	1630	560663
1997	Pennington House	1000 E. Sheridan St.	2750	563413
1998	Hamblet House (Chapman House)	1200 E. Hancock St.	1800	565213
1998	Plant Services	1101 Villa Road	34300	599513
1998	Schomburg House	608 N. Meridian St.	1280	600793
1998	Becker House (rental)	709 Villa Rd	1200	601993
1998	Portland Center	Tigard, OR	50000	651993
1998	Wilder House	1415 Portland Rd.	1999	653992
1999	Anderson House	211 N. Center St.	2477	656469
1999	Art Annex (remodel old plant services building)	1010 E. North St.	-1888	654581
1999	Kelsey House	610 N Center St,	1200	655781
1999	Parrish House	610 N. Center St.	1200	656981
1999	University fund Office	207 N. Meridian	1200	658181
1999	Villa Road House	1109 Villa Rd.	1200	659381
2000	Fell House	1216 E. Hancock St.	1350	660731
2000	Gilroy House	313 N. River St.	1200	661931

Year	Building		Sq. Ft.	Cum sq. ft
2000	Klaus House	1218 E Hancock St.	1409	663340
2000	Razed Cole House	300 N. Meridian St.	-2865	660475
2000	Removed Business and Econ Offices	1000 E. Sherman St.	-2239	658236
2000	Removed Gilmore House	911 E. Sheridan St.	-1450	656786
2000	Removed Gilroy House	313 N. River St.	-1200	655586
2000	Removed Holman House	310 N. Meridian St.	-1630	653956
2000	Removed River Street House	309 N. River St.	-1803	652153
2000	Removed Schaad House	915 E. Sheridan St.	-2150	650003
2000	Removed Sherman Street House	1014 / 1016 E. Sherman St.	-2920	647083
2000	Smiley House (Riley House)	1212 E Hancock St.	1500	648583
2000	Stevens Center	330 N. Meridian St.	39890	688473
2001	Cooley House	713 Villa Rd.	1000	689473
2004	1710 Center Street	1710 Center St	1200	690673
2004	Gail Building	1314 E Sherman St	2500	693173
2005	1710 Center Street	1710 Center St	-1200	691973
2005	Cooley House (Demolished)	713 Villa Rd.	-1000	690973
2005	Klaus House (Demolished)	1218 E Hancock St.	-1409	689564
2005	Fulton St House (Kroeker House)	1000 Fulton St	2532	692096
2006	North Street House	1400 North Street	2287	694383
2006	Wilhite House	1419 North Street	2320	696703
2006	Wright house	515 Villa Rd	1743	698446
2006	Lyda House	607 Villa Rd	2400	700846
2006	Fulton St. House	1508 E Fulton St	-1200	699646
2006	Hoover Addition	412 N Meridian St.	14000	713646
2006	Hospital Property	501 Villa Rd	36000	749646
2006	LeShana Hall	1504 E Fulton St	38000	787646
2006	Stinky House	1417 North ST	1200	788846
2006	Stinky House (domolished)	1417 North ST	-1200	787646
2006	Removed Fulton St. House	1508 E Fulton St	-1200	786446
2007	Razed Art Annex	1003 E. North St.	-1300	785146
2007	Baker House	1105 Villa RD	1200	786346
2009	Villa Road House-(Dexter)-(Demolished)	1109 Villa Rd.	-1200	785146
2010	Gail House Basement	1314 E Sherman St	2400	787546
2010	RSTC Building	1013 Crestview DR	1780	789326
2011	Villa Academic building PT program	501 Villa Rd.	14000	803326
2012	Duke Athletic Center	1140 Fulton St.	12550	815876
2012	Stoffer Stadium	1150 fulton St.	12000	827876
2012	Demo Skyles house	1112 Fulton St.	-900	826976
2015	Brandt Res hall	1605 E. North St.	40800	867776
2015	Demo Lyda House	607 Villa Rd	2400	870176
2015	Demo Wilhite house	1419 North Street	2320	872496
2016	Canyon Common	1400 E. North St.		872496
2016	Demo North St. house	1400 North Street	-2287	870209
2016	Demo Munn house	1314 E. North St.	-2000	868209
2016	Millage Duplex student house	1113 & 1115 E. Hancock St.	1550	869759
2016	Hamilton house	414 N. Meridian St.	1500	871259
2016	Demo Little Red School house	1012 E. Fulton St.	-912	870347
2016	Tiny house	615 N. Center St.	900	871247
2016	Costume shop storage	616 N. Center St.	912	872159
2016	Canyon Commons	1400 E. North St.	30000	902159
2017	Hodgin House	1200 E. Sheridan St.	2100	904259
2017	Student Activity Center	1400 E. Sherman St.	48738	952997
2017	Demo Gail house	1314 E Sherman St	-4900	948097
2017	Demo Kershner house	1400 E. Sherman St.	-1500	946597
2017	Demo Lewis 3 and 4	1404 E. Sherman St.	-7680	938917
2018	New Res Hall	1619 Villa Rd.	48300	987217

APPENDIX C

The Original Ribbon® Rack—IDSA National Design Award Winner

PERMANENT DESIGN COLLECTION—MUSEUM OF MODERN ART



Specifications

All standard units made from ASTM A53/A500 SCHD 40 steel pipe (2.375" OD X .154 wall), hydraulically bent with a mandril, hot-dipped galvanized after fabrication.

The RIBBON® RACK is available in ASTM A312 SCHEDULE 40 TP 304 stainless steel, satin #4 finish—optional and extra.

Installation Methods

Inground Anchor Mount—standard

Surface Flange Mount—optional and extra

General Information

RIBBON and the Brandir International Inc. logo are trademarks of Brandir International Inc., used exclusively by AAA RIBBON RACK CO.

Delivery time: Six weeks or sooner from receipt of order.

Important Considerations

Colors: (Painting/Coating)—Painting or coating the rack will result in a maintenance problem, as no coating will withstand the abuse of the bicycles. Powder coating cannot be maintained; an enamel finish will chip.

AAA RIBBON RACK CO. has the best solution where color is essential.

Please contact us to find out how to achieve an appropriate color with a minimum of maintenance.

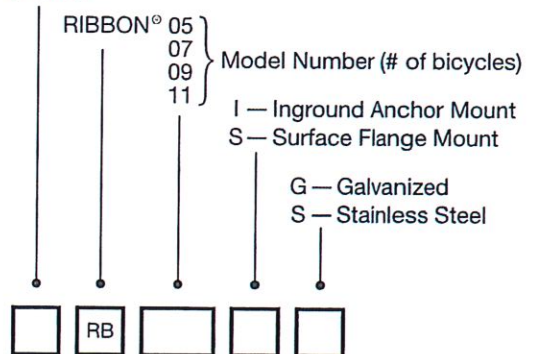
Materials: Steel tubing or aluminum are not suitable materials for a bicycle rack. Pre-galvanized material will flake and crack during manufacture. AAA RIBBON RACK CO. uses heavy-duty steel pipe, hot-dipped galvanized after fabrication to provide security and durability.

Manufacture: Hydraulic bending with a mandril, as used by AAA RIBBON RACK CO., insures smooth and aesthetic curves on the Ribbon® Rack. Press bending leaves an indentation; other methods flatten outer curves and crimp inner curves.

Specifying / Estimating / Ordering

Please use the following notations:

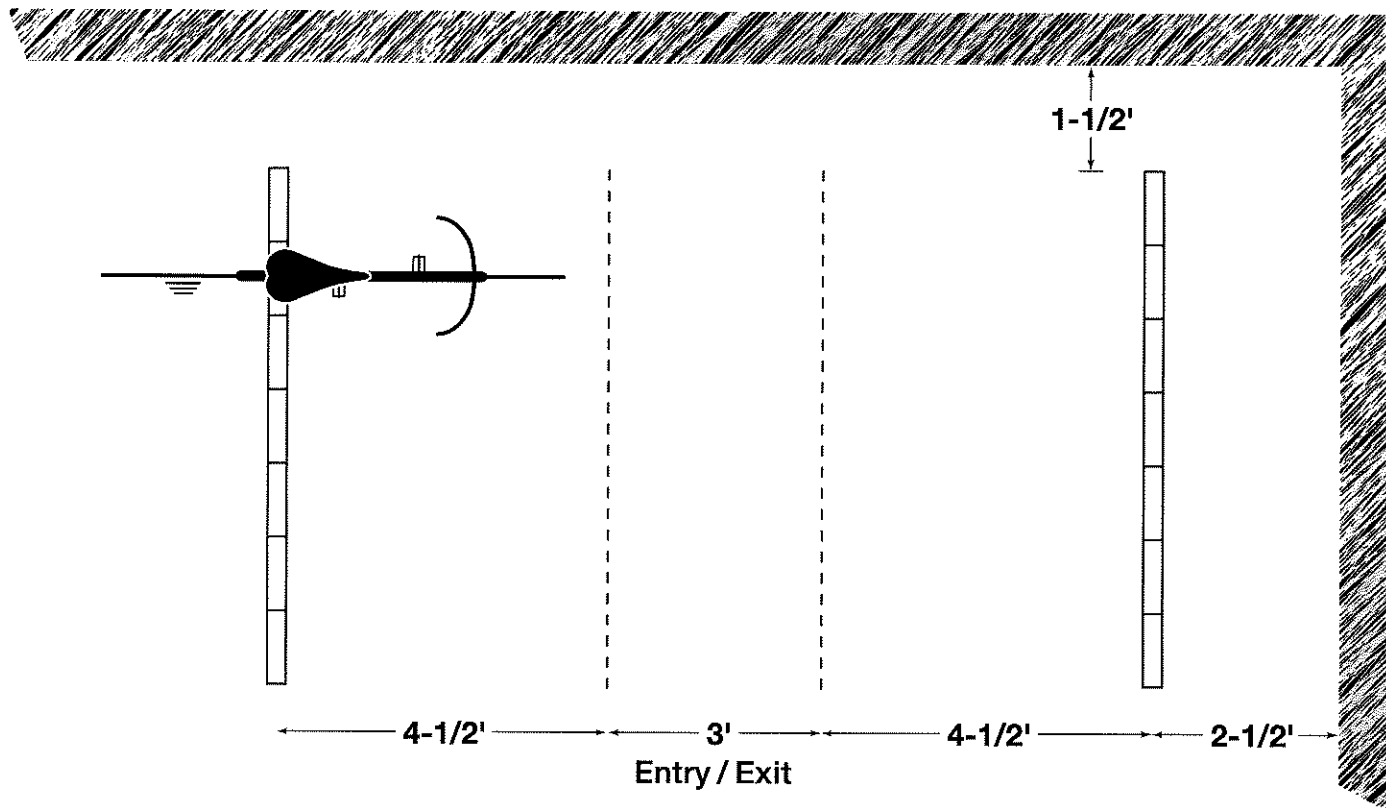
Quantity



AAA RIBBON BIKE RACK CO.
 Division of:
 BRANDIR INTERNATIONAL, INC.
 521 Fifth Avenue, 17th Floor
 New York NY 10175-1799 USA
 Phone: 800-849-3488
 Email: info@ribbonrack.com
 Web: ribbonrack.com

The Original Ribbon® Rack—IDSA National Design Award Winner

PERMANENT DESIGN COLLECTION—MUSEUM OF MODERN ART



Ribbon® Rack Clearances

If mounting the rack parallel to a wall, be sure to leave a minimum of 2-1/2 feet from the wall and 4-1/2 feet on the other side of the rack for bicycles.

If mounting the rack perpendicular to a wall, be sure to leave a minimum of 1-1/2 feet from the wall, as the end counts as a space.

Ribbon® Rack Placement Considerations

If racks are to be placed in parallel positions, be sure to allow 12 feet on center of spacing between the racks. This permits 4-1/2 feet clearance for bicycles on each rack, with a 3-foot common area in between for ingress and egress.

If racks are to be placed in a series, allow a minimum of 2 feet on center, end to end, to achieve maximum rack capacity. Please note: the racks can be placed 1 foot on center to achieve a “continuous” look, but this will result in a loss of one space, as the end position counts as a space.

Ribbon® Rack Painting Instructions

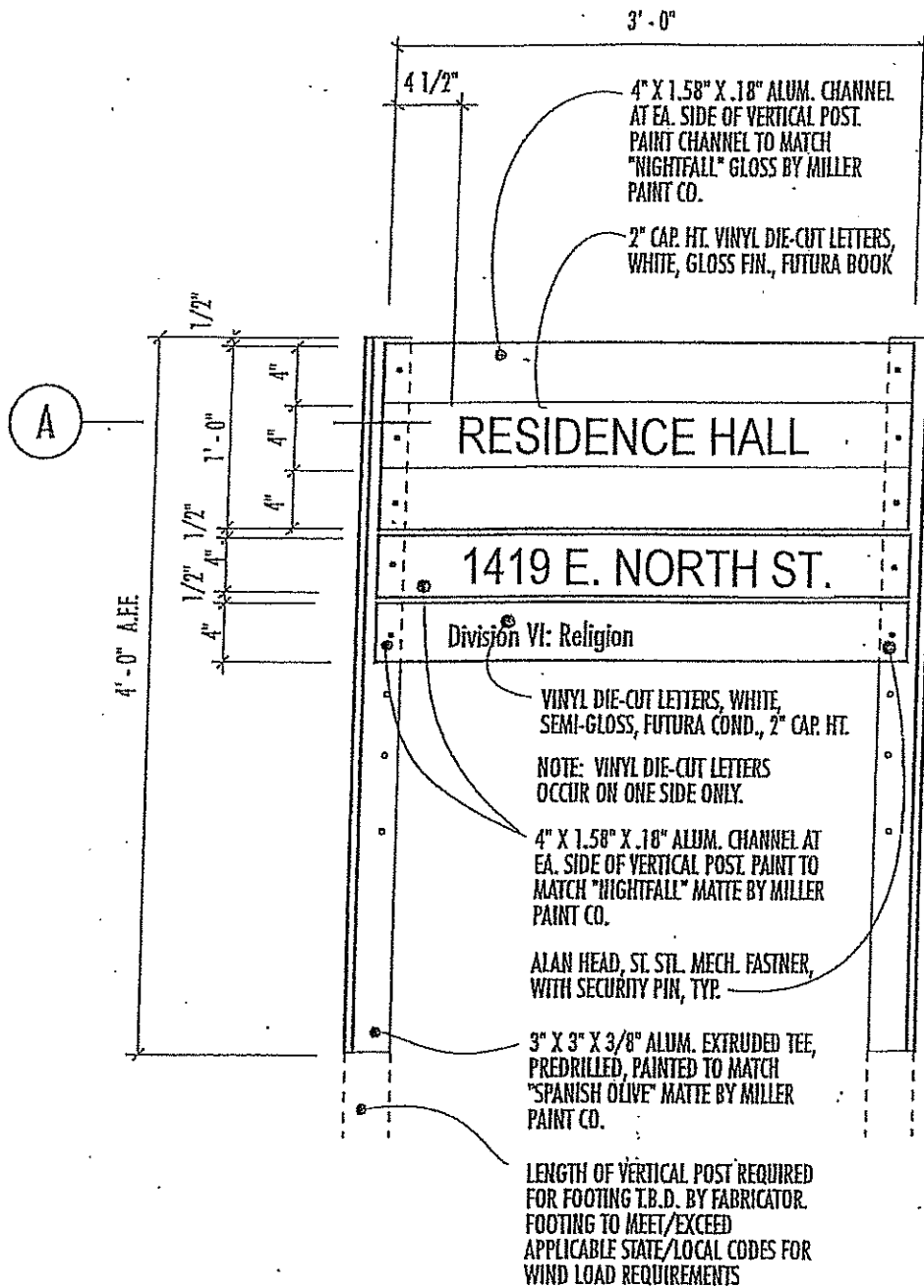
We recommend using an outdoor spray paint called Krylon. It is available in a wide variety of colors and can be found in just about any hardware store.

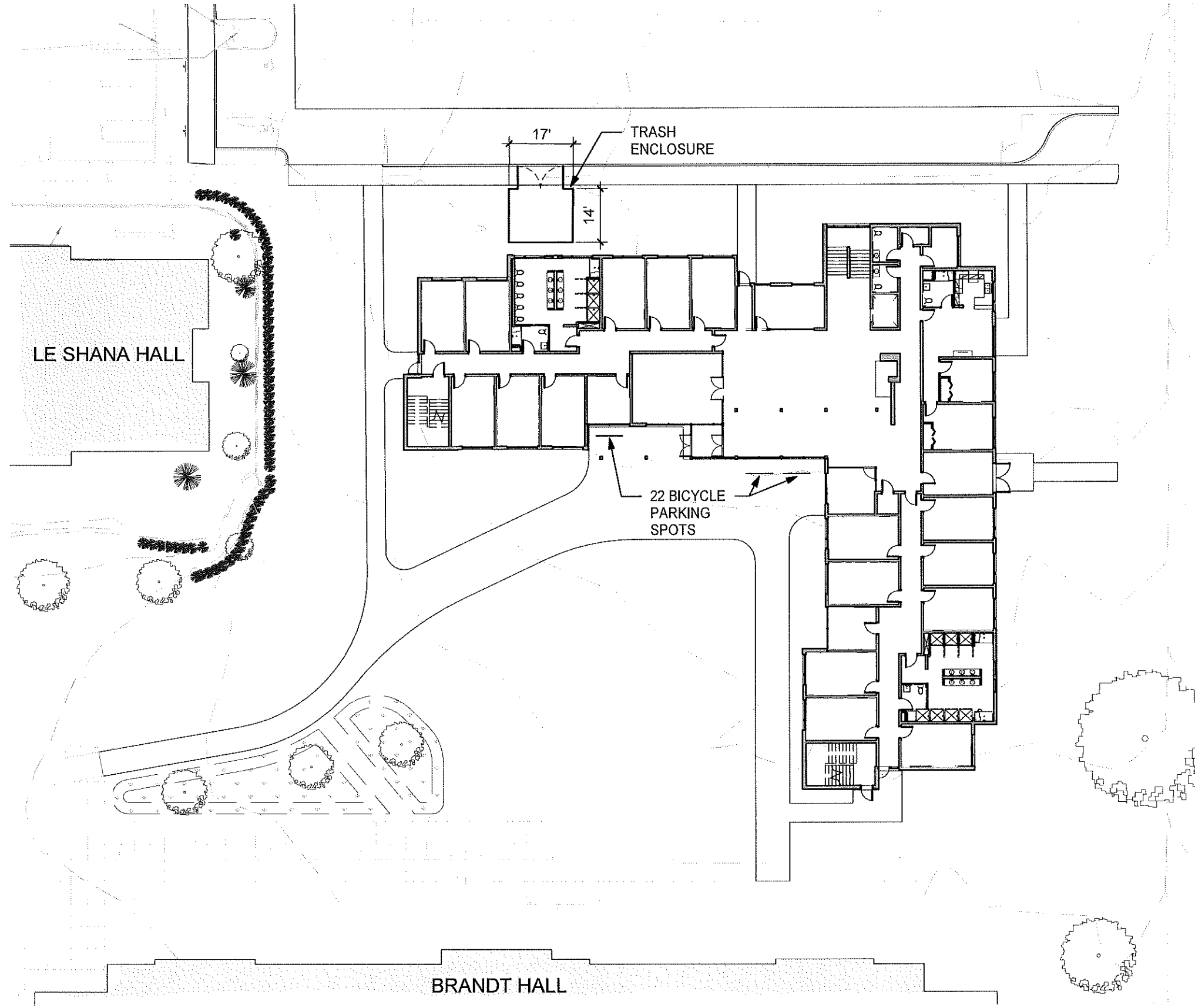
Clean surface to be painted with vinegar, removing all dirt and grime.

Rinse off, dry thoroughly and apply paint directly to galvanized surface. Using a spray paint will allow the top coat to be seamless with the previous coats. Maintain surface as needed.

A A A RIBBON BIKE RACK CO.
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521 Fifth Avenue, 17th Floor
New York NY 10175-1799 USA
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Web: ribbonrack.com

APPENDIX D





SITE PLAN

1" = 30'-0"



George Fox University
New Residence Hall
 630 Villa Rd,
 Newberg, OR 97132

Project No: 17105
 Date: 03/12/18

Soderstrom Architects

1200 NW Naito Parkway, Suite 410
 Portland, OR 97209

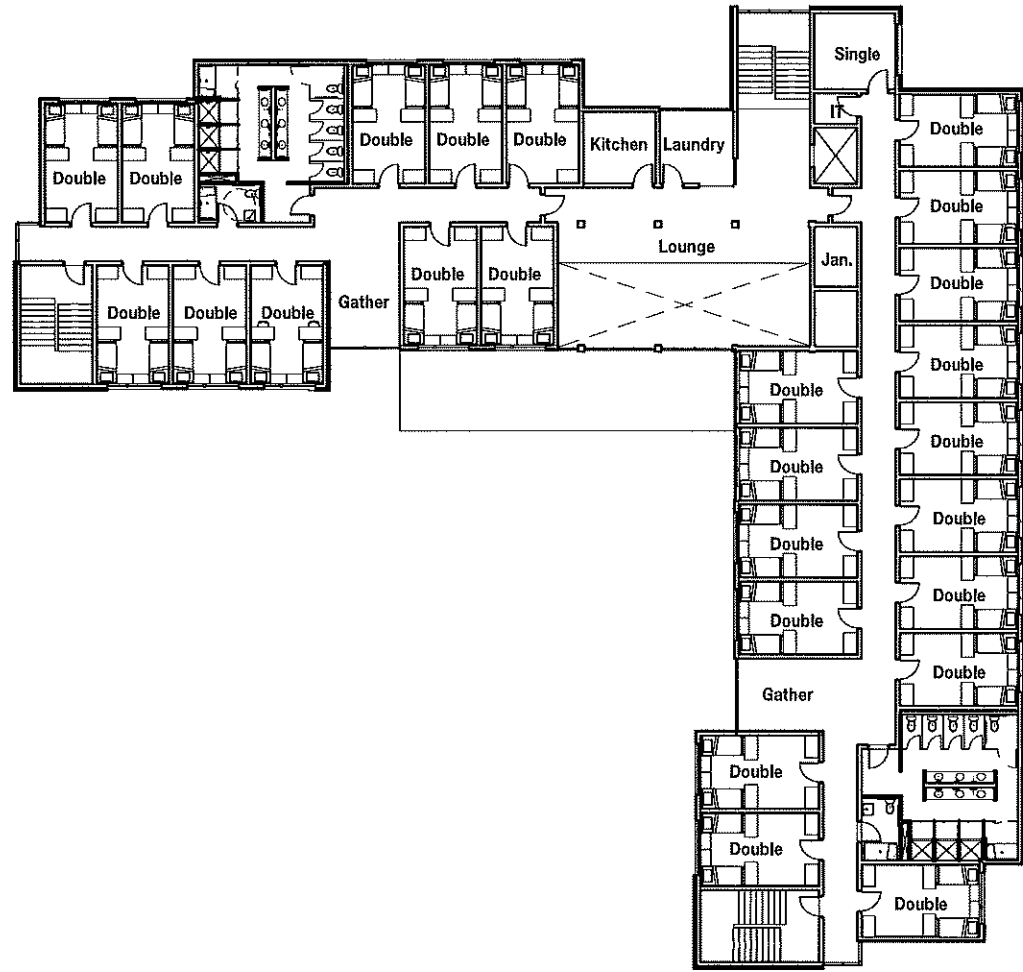
T 503-228-5617

F 503-227-8584

sdra.com

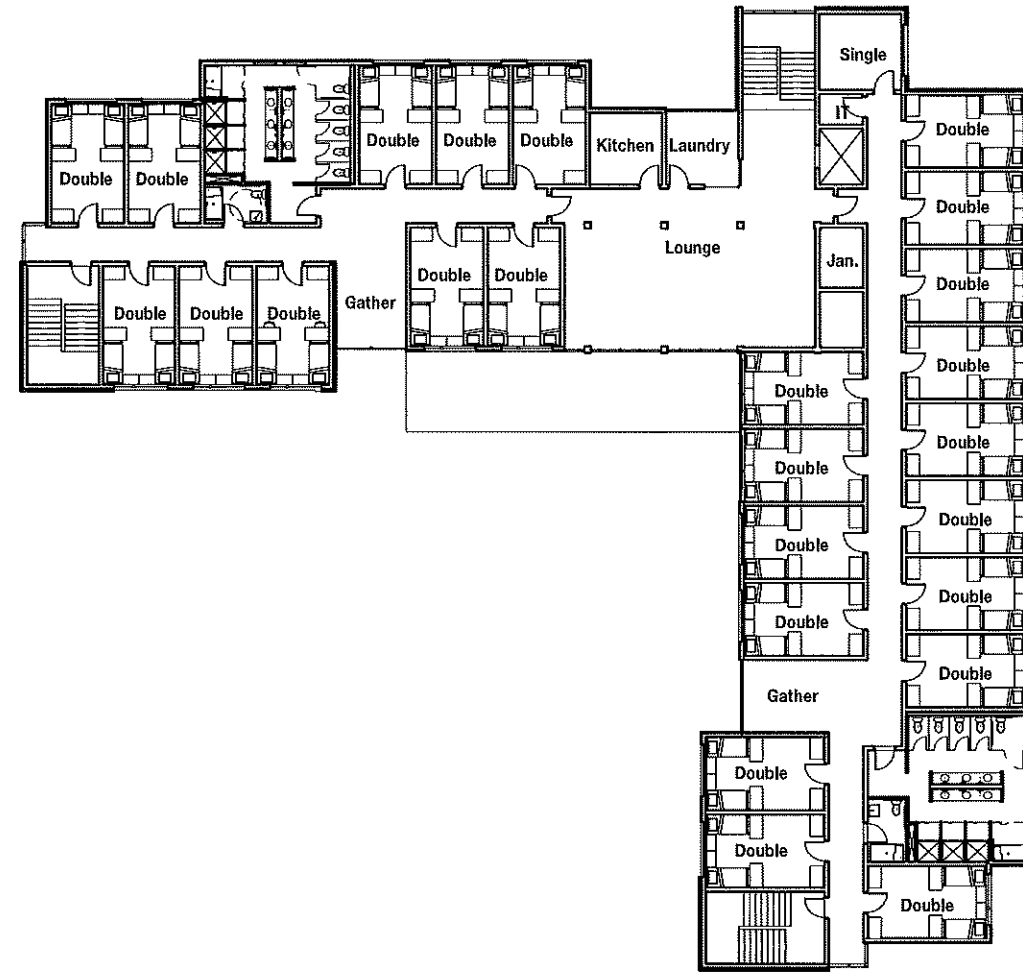
Sheet No

A1.0
 SITE PLAN



LEVEL 2 FLOOR PLAN

1" = 30'-0"



LEVEL 3/4 FLOOR PLAN

1" = 30'-0"



WEST ELEVATION

1" = 30'-0"



SOUTH ELEVATION

1" = 30'-0"



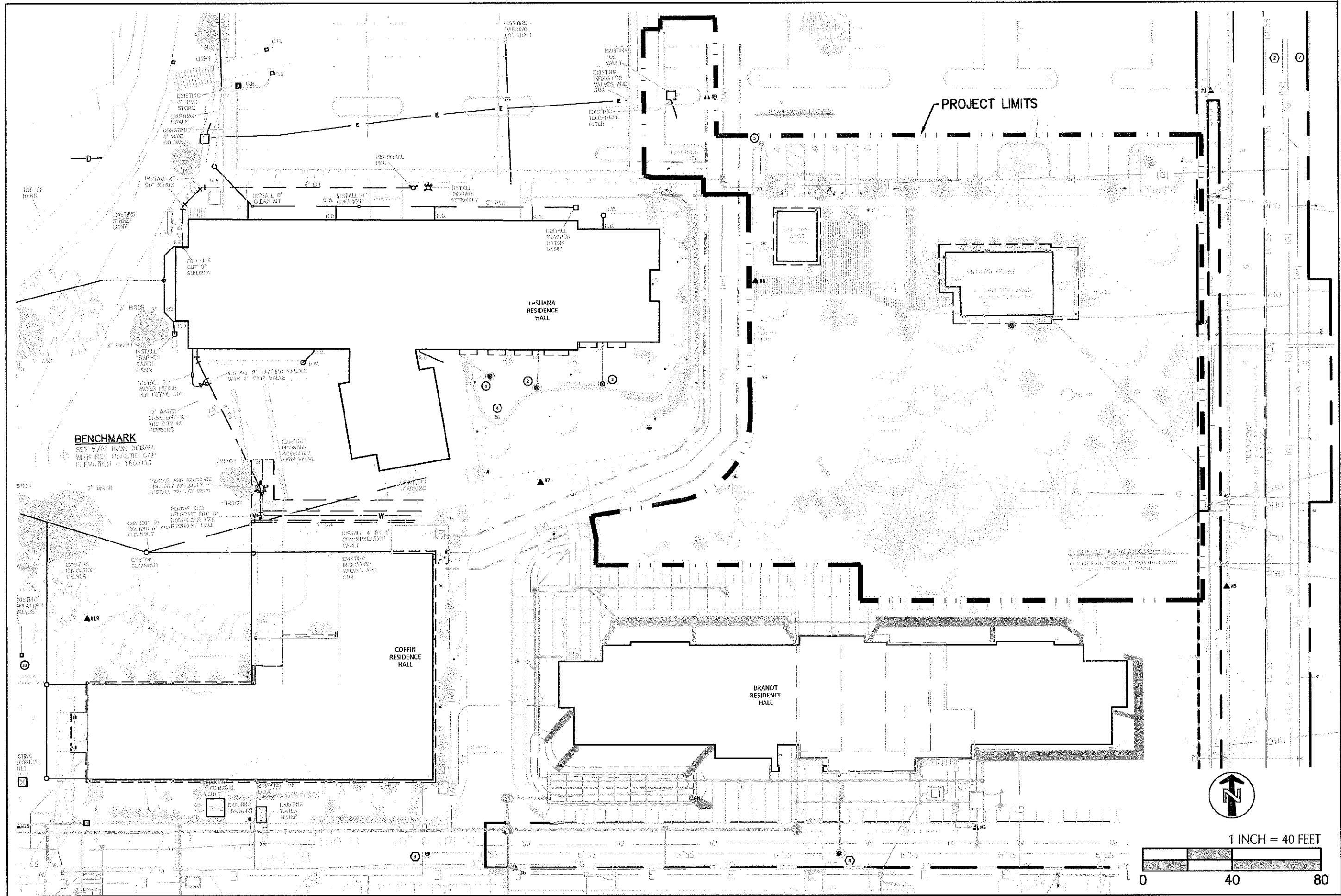
EAST ELEVATION

1" = 30'-0"



NORTH ELEVATION

1" = 30'-0"



Soderstrom
Architects

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sdra.com

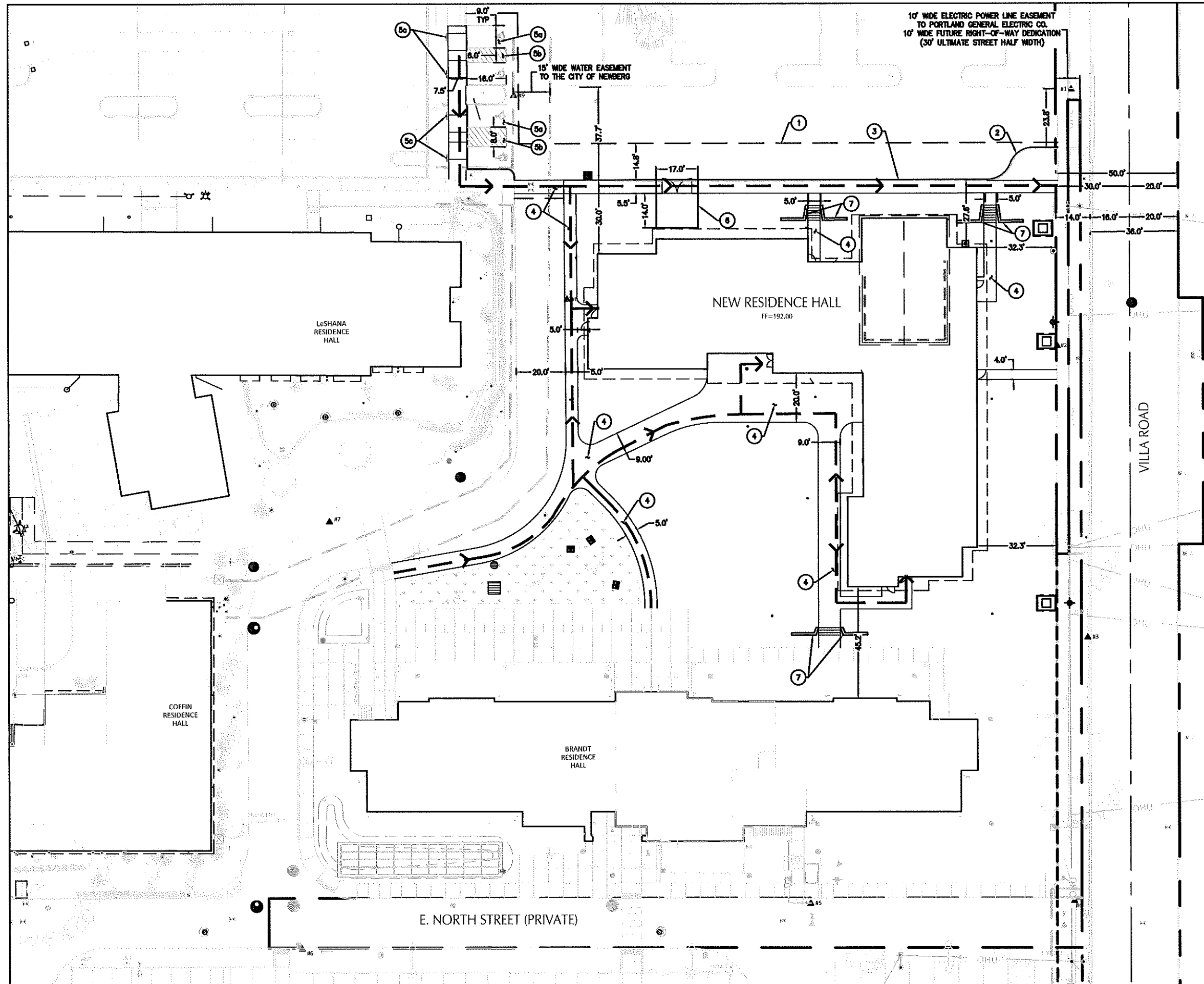
kpff

111 SW Fifth Ave., Suite 2500
Portland, OR 97204
P: 503.227.3251
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www.kpff.com

George Fox University
Residence Hall
630 Villa Rd,
Newberg, OR 97132

Project No: 17105
Date: 03/12/18

Sheet No
C1.0
Existing Conditions



SHEET NOTES

1. ALL DIMENSIONS ARE TO FACE OF CURB OR FACE OF WALL.
2. ALL SIDEWALK PAVEMENT JOINTS SHALL BE CONSTRUCTED PER DETAIL XX/XC.X.

(X) KEY NOTES

#	DESCRIPTION	DETAIL REF.
1	SAWCUT LINE	
2	STANDARD CURB	
3	MONOLITHIC CURB AND SIDEWALK	
4	CONCRETE SIDEWALK	
5a	ADA PARKING STALLS AND STRIPING	
5b	'NO PARKING' ZONE STRIPING	
5c	ADA PARKING SIGN	
6	TRASH ENCLOSURE. REFERENCE ARCHITECTURAL PLANS	
7	KEYSTONE RETAINING WALL	

SHEET LEGEND

	PROPERTY LINE	
	CONCRETE SIDEWALK	(X) 4
	STANDARD ASPHALT PAVEMENT	(X) 3
	STORMWATER BASIN	(X) 6
	ADA ACCESSIBLE ROUTE	

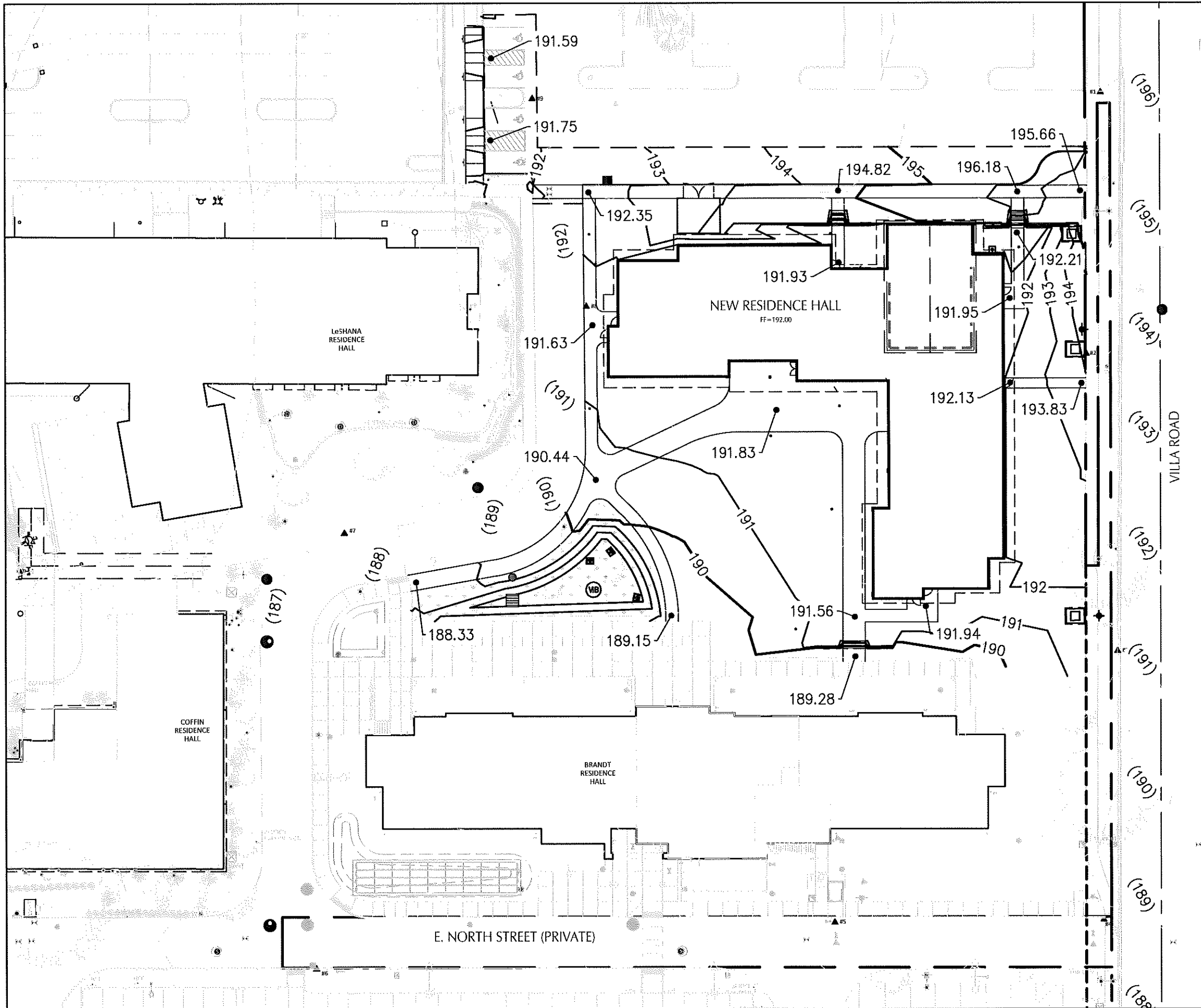
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George Fox University
Residence Hall
 630 Villa Rd,
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SHEET NOTES

1. SLOPES PROVIDED ON SLOPE ARROW ARE FOR REFERENCE ONLY.
2. LANDINGS ON ACCESSIBLE ROUTES SHALL NOT EXCEED 2% IN ANY DIRECTION.
3. ALL ACCESSIBLE ROUTES SHALL COMPLY WITH CURRENT ADA ACCESSIBILITY GUIDELINES FOR BUILDING AND FACILITIES (ADAAG).

(X) KEY NOTES

NOTE DESCRIPTION	DETAIL REF.
WB WATER QUALITY / DETENTION VEGETATED BASIN	

GRADING LABEL LEGEND

CALLOUT	DESCRIPTION
X.X%	GRADING SLOPE AND DIRECTION (DOWNHILL)
XX	SPOT ELEVATION
XXXX	DESCRIPTION LISTED BELOW. NO DESCRIPTION MEANS TP OR TG
BS	BOTTOM OF STEP
BW	BOTTOM OF WALL
EG	EXISTING GRADE
FF	FINISHED FLOOR
FL	FLOW LINE
G	GUTTER
HP	HIGH POINT
LP	LOW POINT
RM	RIM OF STRUCTURE
TC	TOP OF CURB
TG	TOP OF GROUND
TP	TOP OF PAVEMENT
TS	TOP OF STEP
TW	TOP WALL
(XXXX)	EXISTING GRADE (MATCH WHERE APPLICABLE)

SHEET LEGEND

	DRAINAGE FLOW DIRECTION
	GRADE BREAK
(189)	EX. CONTOUR MINOR
(190)	EX. CONTOUR MAJOR
189	CONTOUR MINOR (FG)
190	CONTOUR MAJOR (FG)

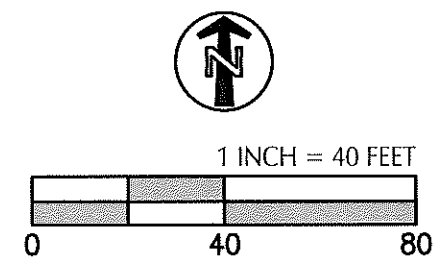
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 sdra.com

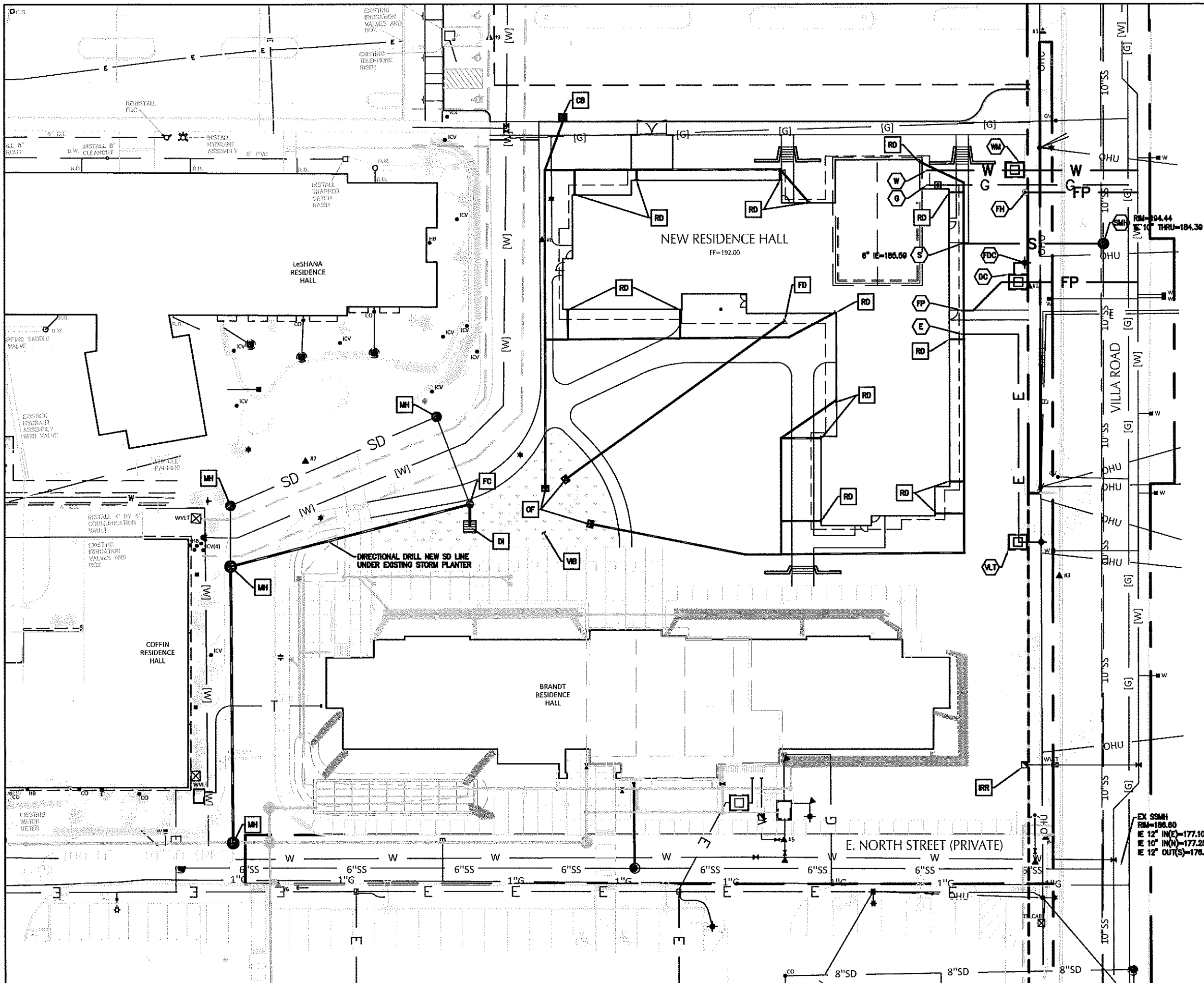


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George Fox University
Residence Hall
 630 Villa Rd.
 Newberg, OR 97132
 Project No: 17105
 Date: 03/12/18

Sheet No
C3.0
 Grading Plan





SHEET NOTES

- PIPE BEDDING AND BACKFILL FOR SANITARY SEWER LINES SHALL BE DONE PER CITY OF NEWBERG STD DWG 201A & 201B. PIPE BEDDING FOR WATER LINES SHALL BE PER CITY OF NEWBERG STD DWG 301.
- STRUCTURES LOCATIONS ARE BASED ON CENTER OF STRUCTURE UNLESS OTHERWISE NOTED.
- INSTALL TRUST BLOCK ON FIRE AND WATER LINES PER CITY OF NEWBERG STD DWG 308.
- CONTRACTOR TO VERIFY PIPE SERVICE SIZE, FDC LINE SIZE, AND NUMBER OF FDC PORTS WITH FINAL FIRE SPRINKLER DESIGN PRIOR TO CONSTRUCTION.
- ADJUST ALL EXISTING UTILITY LIDS TO FINISH GRADE.
- USE COMMERCIAL MANUFACTURED WYE FITTINGS FOR ALL BRANCH CONNECTIONS.
- CONTRACTOR SHALL VERIFY BUILDING UTILITY POC'S, ARCH/MEP/FIRE, BETWEEN CIVIL AND OTHER PLANS PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF DISCREPANCIES BETWEEN HORIZONTAL AND VERTICAL DIMENSIONS.
- ALL UTILITY SERVICE PIPING WITHIN 5-FT OF ANY BUILDING SHALL BE AN APPROVED MATERIAL OF THE UNIFORM BUILDING CODE.
- CONNECT PERIMETER FOUNDATION DRAIN TO BASEMENT LATERAL BELOW WITH CROSS TEE AND 6" DIA RISER PIPE. INSTALL A BACKFLOW PREVENTION VALVE IMMEDIATELY DOWNSTREAM.

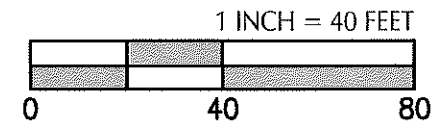
UTILITY KEY NOTES

NOTE	DESCRIPTION	DETAIL REF.
DC	DOUBLE CHECK VAULT	
E	CONNECT TO ELECTRICAL SYSTEM. SEE MECHANICAL PLANS FOR CONTINUATION	
FH	FIRE HYDRANT	
FDC	FIRE DEPARTMENT CONNECTION	
FP	CONNECT TO FIRE PROTECTION SYSTEM. SIZE AS NOTED. SEE PLUMBING PLANS FOR CONTINUATION	
G	CONNECT TO GAS METER. CONTRACTOR TO COORDINATE WITH GAS COMPANY. SEE PLUMBING PLANS FOR CONTINUATION	
IRR	EXISTING IRRIGATION METER	
S	CONNECT TO WASTE LINE. SEE PLUMBING PLANS FOR CONTINUATION. SIZE AS NOTED	
SMH	CONSTRUCT NEW MANHOLE OVER EXISTING X-INCH PUBLIC SEWER MAIN. CONTRACTOR SHALL POTHOLE TO VERIFY LOCATION AND INVERT PRIOR TO CONSTRUCTION. NEW CONNECTION TO BE INSIDE DROP CONNECTION PER CITY OF NEWBERG STD DWG 208	
VLT	ELECTRICAL TRANSFORMER VAULT	
W	CONNECT TO COLD WATER SYSTEM. SEE PLUMBING PLANS FOR CONTINUATION. SIZE AS NOTED	
WM	DOMESTIC WATER METER	

STORM KEY NOTES

NOTE	DESCRIPTION	DETAIL REF.
MH	MANHOLE	
FC	FLOW CONTROL INLET	
FD	FOUNDATION DRAIN CONNECTION. SEE PLUMBING PLANS FOR CONTINUATION	
DI	DITCH INLET OVERFLOW DRAIN	
RD	CONNECT TO STORM DRAIN/ROOF DRAIN. SEE PLUMBING PLANS FOR CONTINUATION. SIZE AND IE AS NOTED	
CB	CATCH BASIN	
VB	VEGETATED WATER QUALITY / DETENTION BASIN	
OF	OUTFALL	

EX SSMH
RM=186.60
IE 12" IN(C)=177.10
IE 10" IN(N)=177.25
IE 12" OUT(S)=176.90



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Project No: 17705
Date: 03/12/18

Sheet No
C4.0
Utility Plan



Project

Consultant

Revisions
No. Description Date



Source
Schematic Design

Date
03-07-18

Project Number
17105

Drawing Title

SITE PLAN
LANDSCAPE

Sheet No

SHEET NOTES

1. ARCHITECTURAL SITE PLAN SHOWN FOR REFERENCE ONLY. REFER TO CIVIL AND LANDSCAPE DRAWINGS FOR SPECIFIC SITE INFORMATION.

- AJ: ALBIZIA JULIBRISSEIN
- MA: FRUIT TREES
- AG: ABIES GRANDIS
- TH: TSUGA HETEROPHYLLA
- XN: XANTHOCYPRESS NOOTKATENSIS 'GLAUCO PENDULA'
- TP: THUJA PLICATA 'ZEBRINA'
- FP: FRAXINUS PENNSYLVANICA 'PATMORE'
- RP: FRANKLINIA PURSHIANA
- SS: STYPHNOLOBIUM JAPONICUM
- GB: GINKGO BILOBA 'PRINCETON SENTINEL'
- SG: SEQUOIA DENDRUM GIGANTEUM 'GLAUCO'

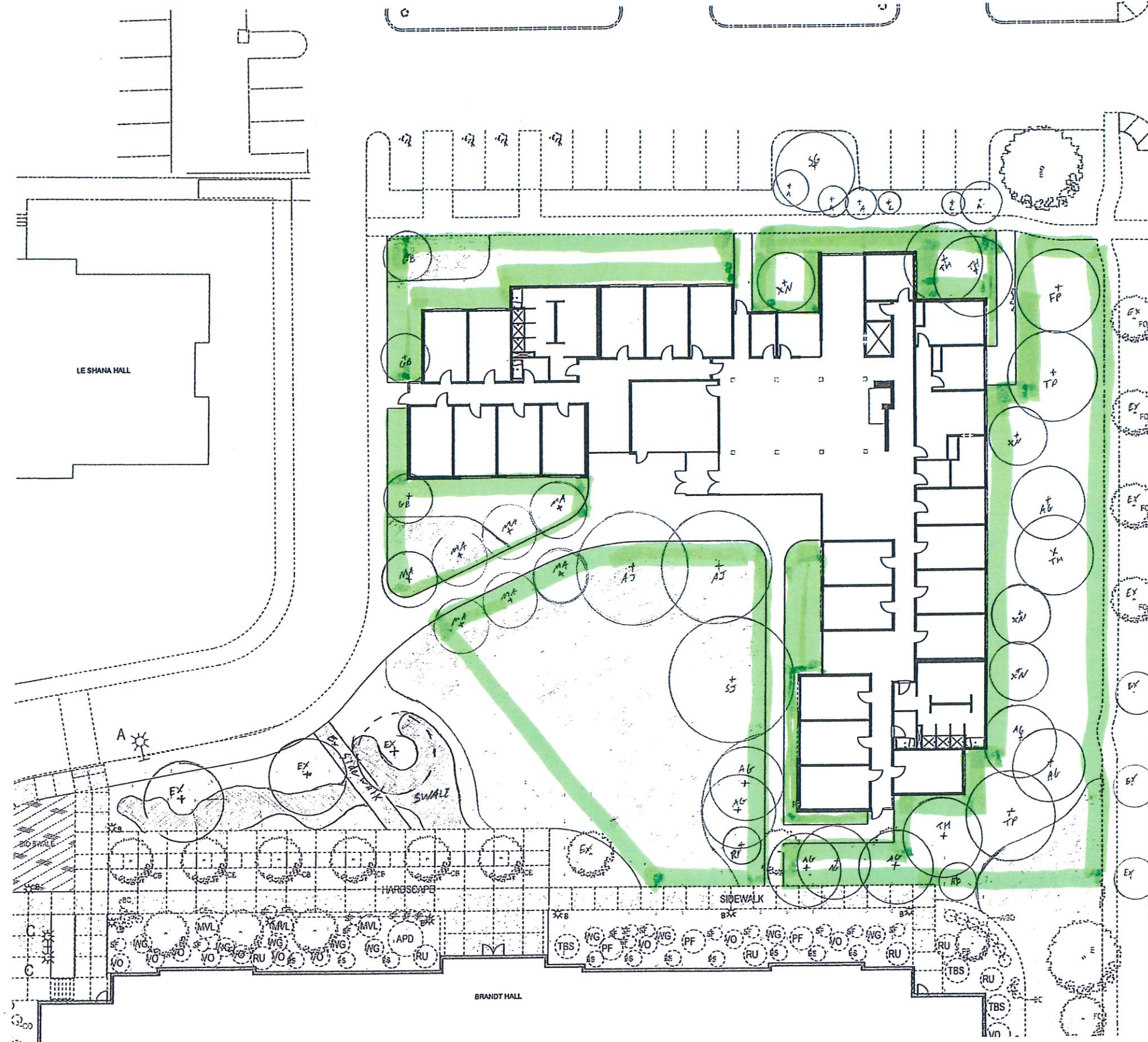
EX: EXISTING TREE

- A: ACER PALMATUM
- C: CAMELLIA

SWALE PLANTING

- SMILACINA RACEMOSA
- ATHYRIUM FILIX-FEMINA
- DILENTRA FORMOSA
- CAMASSIA QUAMASH
- DELPHINIUM TROLLIFOLIUM
- LILIUM PARDALINUM
- ACHLYS TRIPHYLLA
- ASARUM CAUDATUM
- ADIANTUM PEDATUM

28,072 SF IN
LANDSCAPING



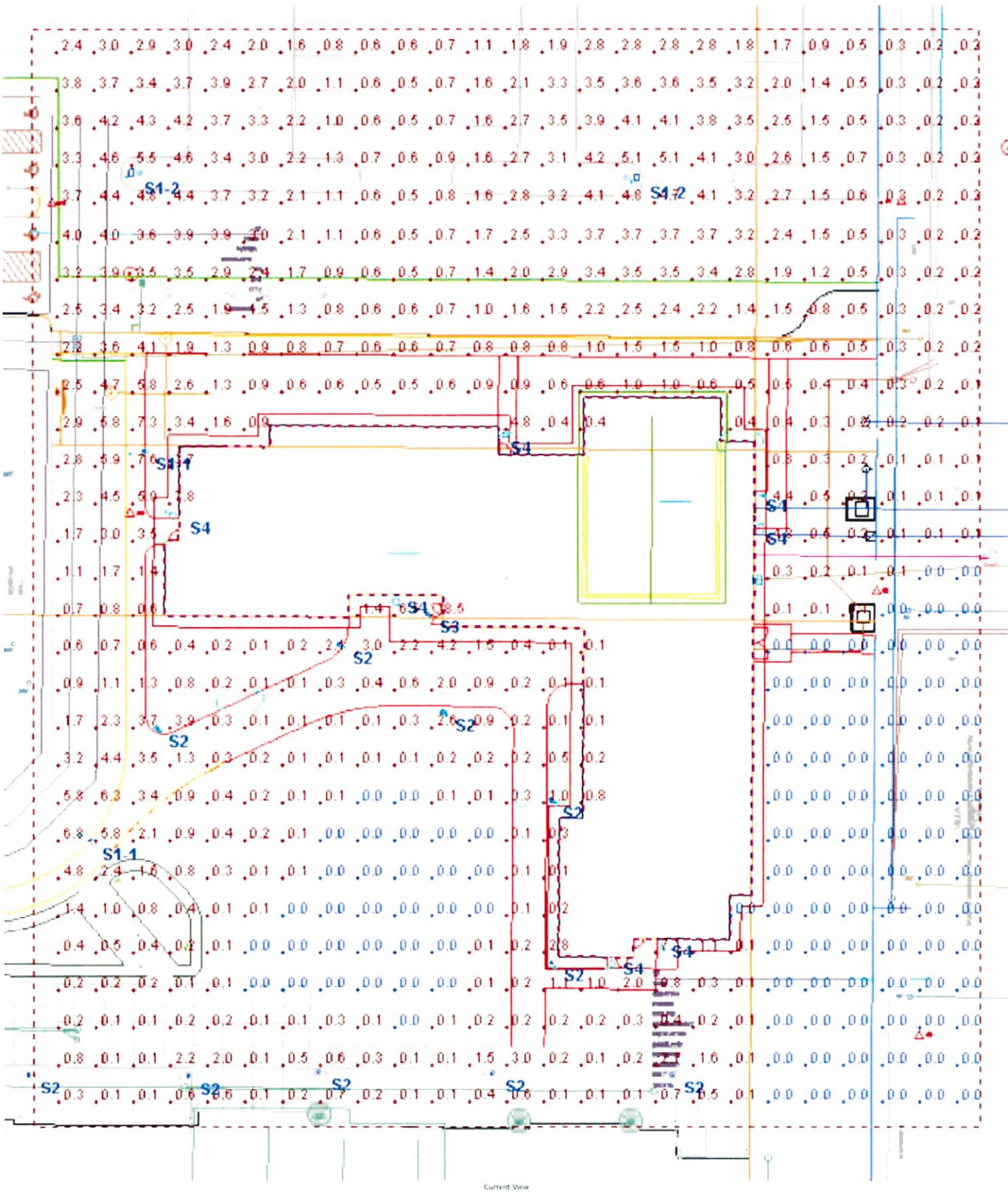
OVERALL SITE PLAN
1/2" = 1'-0"

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**GEORGE FOX UNIVERSITY
 RESIDENCE HALL**

Project Number: _____
 Date: 4/2/18
 Drawn By: JWS
 Design By: MEK
 Revision: _____ Date: _____

SITE
 PHOTOMETRICS
E600



Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Efficacy	Lumens Per Lamp	Light Loss Factor	Wattage
○	S2	11	ARCHITECTURAL AREA LIGHTING	CRM-CO-27LED-5100K	COMPACT ROUND-CONCRETE BOLALED; DIE CAST ALUMINUM HOUSING; CUTOFF LUMINOUS BLACK FINISH; DIMMABLE; DIMMER: 0-10V; Two 7W LED array; One prismatic lens in front of each LED array	27 CONSTANT CURRENT DIMMABLE 5100K	1	CRM-CO-27LED-80-IES	431	1	32.1
□	S1-1	2	Gen Ex	8-ALL315C2	WET HOUSING; LUMINOUS BLACK FINISH; DIMMABLE; DIMMER: 0-10V; Two 7W LED array; One prismatic lens in front of each LED array	Two 7W LED array	1	8-ALL315C2-IES	11767	1	154.71
□	S4	7	RAM LIGHTING, INC	ENTRA12	CAST FINISHED WHITE PAINTED METAL HOUSING; FORMED WHITE PAINTED METAL REAR REFLECTOR; MOLDED PLASTIC UPPER REFLECTOR WITH SPECULAR FINISH; 1 WHITE LENS; CLEAR PLASTIC WITH ONE 3x3 LED ARRAY; MOLDED CLEAR PLASTIC FRONT COVER WITH HOLOGRAPHIC LENSED SECTION AND WHITE PAINTED INTERIOR TOP, SIDE AND LOWER SECTIONS; SIDE AND UPPER FRONT EXTENSION SECTIONS ARE TEXTURED	NINE WHITE LIGHT EMITTING DIODES (LED) WITH 1 CLEAR LENS; HOLOGRAPHIC INTEGRAL PLASTIC LENS; VERTICAL BARE-UP POSITION	9	ENTRA12-IES	163	1	14.4
□	S1-2	2	RAM LIGHTING, INC	ARTI400PH-ED2	ARCHITECTURE FULL CUTOFF LUMINOUS DIE CAST ALUM HOUSING; REFLECTOR SYSTEM WITH HIGH SPECULAR PANELS; DIE CAST ALUM HOUSING AND LENS FRAME; CLEAR FLAT GLASS LENS	400 WATT CLEAR PHA ED2 LAMP; HOLOGRAPHIC REFLECTOR SYSTEM AT 4000 INITIAL LUMENS	1	400-400p-IES	40000	1	400
□	S3	1	RAM LIGHTING, INC	VALLEDH04-050	CAST METAL HOUSING; EXTRUDED FINISHED METAL HEAT SINK; 1 WHITE CIRCULAR BOARD WITH 121 LED; MOLDED IN-DEPTH REFLECTOR WITH 90% SPECULAR FINISH; CLEAR HOLOGRAPHIC PLASTIC GRIP LENS; IN EAST BROWN PAINTED METAL FRAME; LENS REGISTERED SIDE IN	ONE HOLOGRAPHIC AND TWENTY ONE LIGHT EMITTING DIODES (LED); VERTICAL BARE-UP POSITION; VALLED050 ACTUAL HOLOGRAPHIC MAX 90% SPECULAR FINISH; Industrial; Production; Manufacturing; Reception Site; Sports; Ambient; Low Rise; Camp location; Wet location	121	VALLEDH04-IES	41	1	51.2