Development Services

From Concept to Construction

Phone: 503-823-7300 Email: bds@portlandoregon.gov 1900 SW 4th Ave, Portland, OR 97201
More Contact Info (http://www.portlandoregon.gov//bds/article/519984)

APPEAL SUMMARY

Status: Decision Rendered - Held over from 14512 (1/11/17) for more information

Appeal ID: 14737	**Project Address:** 2014 NE Multnomah St
Hearing Date: 3/8/17	**Appellant Name:** Martha Williams, PE
Case No.: P-004	**Appellant Phone:** 5039466690
Appeal Type: Plumbing	**Plans Examiner/Inspector:** Chuck Luttman
Project Type: lur	**Stories:** 8 **Occupancy:** R-2 **Construction Type:** 1-B
Building/Business Name: Sullivan's Gulch	**Fire Sprinklers:** Yes - Through Out
Appeal Involves: Erection of a new structure,Reconsideration of appeal	**LUR or Permit Application No.:** 15-215564-CO
Plan Submitted Option: pdf [File 1]	**Proposed use:** Mixed Use

APPEAL INFORMATION SHEET

Appeal item 1

Code Section	Oregon Plumbing Specialty Code - Storm Drainage 1101.5.3.2
Requires	Oregon Plumbing Specialty Code requires that no drywell shall be located closer than 5 feet (1524 mm) of a property line nor closer than 10 feet (3048mm) to a building unless approved by the building official.
Proposed Design	The applicant is proposing the use of a drywell system to be installed underneath the building structure for several reasons, see 'Reason for Alternate' section for more information. A drywell located under the structure has been taken into account by the Geotechnical engineer per attached documents. The drywell system proposed for the building was sized to infiltrate the 100-year storm. The sizing of the drywell systems was done using HydroCAD®. The un-factored field infiltration rate of 4 in/hr was used for calculations per the geotechnical engineer's recommendations, see attached memorandum. The drywell system will be tested at the time of installation to verify infiltration capacity. Feasibility of on-site infiltration: The feasibility of the drywell system location is based on infiltration testing, maintenance, structural design and strength of soils. Drywells will be setback a minimum of 5 feet from all footings and located on the north side of the property. Additionally, the drywells will be deep and will be discharging stormwater below an elevation of 120 ft (NAVD 88) which is 18.6-28.6 feet below the bottom of the footings, as recommended by the geotechnical engineer, see attached memorandum. The infiltration rate of the deep soils will prevent saturation of the shallow soils directly underneath the buildings. See attachments for supporting data on the effectiveness of infiltration for the site. Reconsideration Text:

The drywell system proposed for the building was sized to infiltrate the 100-year storm and the water collected in foundation drains around the building. The sizing of the drywell systems was done using HydroCAD®. The un-factored field infiltration rate of 4 in/hr was used for calculations per the geotechnical engineer's recommendations, see attached memorandum. Groundwater flow is estimated to be 300 gal/day maximum. The drywell system will be tested at the time of installation to verify infiltration capacity.

A drywell system located under the structure has been taken into account by the Geotechnical engineer, structural engineer and rammed aggregate pier designer per attached documents. Drywells will be setback a minimum of 5 feet hortizontally from all footings and located on the north side of the property. Additionally, the drywells will be deep and will be discharging stormwater below a survey elevation of 120 ft (NAVD 88) which is 18.6-28.6 feet below the bottom of the footings, as recommended by the geotechnical engineer, see attached memorandum. The perforated sections of the drywell will begin approximately 44.0' below the street elevation of NE Multnomah Street.

Reason for alternative

The applicant proposes the drywell system to be installed underneath the building structure due to space limitations on the site (e.g. the vertical construction consumes the property footprint from zero lot line to zero lot line) preventing location of drywells in accordance with the OPSC. It is also the applicant's belief that the use of drywells is a superior system to other types of retention and treatment-only facilities as it altogether eliminates discharge of the 25-year and 100-year storm to the combined storm/sanitary sewer line at SE Multnomah St. Since the discharge to the drywells is roof area and pedestal paving, no mechanical pre-treatment or accompanying maintenance is required. The proposed system will have minimal sediment loads compared to vehicular traffic areas. There is also precedent from the city for approval of this scenario for the above stated reasons.

Mitigation of Maintenance and Overflow Concerns:
• The drywell will have an accessible, bolt down manhole rim located in open vehicle drive aisles to allow for maintenance as required by Oregon Department of Environmental Quality (ODEQ). Maintenance will be performed in the same manner as if the drywell was located outside the building. The applicant has confirmed with a local company (River City Environmental Inc.) that a vacuum truck can reach lengths up to 300 feet for drywell maintenance. The drywells will be maintained by a professional management company who will follow the county recorded operations and maintenance plan for the drywells.

Mitigation of Soil Bearing Concerns
• The strength of the soils will not be affected by the infiltration of stormwater runoff as explained in the attached memo from GRI dated November 7, 2016.

Reconsideration Text:
See attached Private Operations and Maintenance Plan.
Mitigation of Soil Bearing Concerns
• The strength of the soils will not be affected by the infiltration of stormwater runoff as explained in the attached memo from GRI dated February 10, 2017; and in attached memo from KGA Structural Engineers dated December 8, 2016; and in attached memo from Atlas Geotechnical dated December 8, 2016.

APPEAL DECISION

Drywell System located beneath the building: Granted as proposed

The Administrative Appeal Board finds that the information submitted by the appellant demonstrates that the approved modifications or alternate methods are consistent with the intent of the code; do not lessen health,

safety, accessibility, life, fire safety or structural requirements; and that special conditions unique to this project make strict application of those code sections impractical.

Pursuant to City Code Chapter 25.07, you may appeal this decision to the Plumbing Code Board of Appeal within 180 calendar days of the date this decision is published. For information on the appeals process and costs, including forms, appeal fee, payment methods and fee waivers, go to www.portlandoregon.gov/bds/appealsinfo, call (503) 823-7300 or come in to the Development Services Center.

GRI
9750 SW Nimbus Avenue
Beaverton, OR 97008-7172
p | 503-641-3478 f | 503-644-8034

MEMORANDUM

To: Brett McCoy / PHK Development, Inc.

Date: February 10, 2017

GRI Project No.: 5647-A

From: Michael Reed, PE, GE; and Jason Bock, PE

Re: Drywell Infiltration Design
Sullivan's Gulch Apartments – Parcel 1
SE 21st Avenue and SE Multnomah Street
Portland, Oregon

GRI previously completed a geotechnical investigation for the Sullivan's Gulch Apartments, which is summarized in our December 2, 2014, revised August 10, 2015, geotechnical report, titled "Geotechnical Investigation, Sullivan's Gulch Apartments, NE Multnomah Street and NE 21st Avenue, Portland, Oregon." The project architect, Hacker, Inc., subsequently requested that we provide additional consultation to assist with design of a stormwater infiltration system for the project.

DRYWELL INFILTRATION DESIGN

Based on discussions with Hacker, we understand the project team would like to add drywells under the proposed building for disposal of on-site stormwater. Based on our review of the available geotechnical information for the site, it is our opinion that drywells are appropriate for the site if the following recommendations are incorporated into the design. Drywells should be designed using an un-factored field infiltration rate of 4 in/hr. At the time of construction, additional infiltration testing should be completed to verify this rate. Depending on the rates determined at the time of construction, the number of required drywells could potentially change. Drywells should be designed to infiltrate all water below elevation 120 ft (NAVD 88) within the dense sands with trace to some silt. Because the drywells are to be located under the structure, which will be supported on engineered aggregate piers, consideration should be given to sequencing of the construction. During construction of drywells within similar soils, it is common for significant caving to occur. As a result, we recommend the drywells be installed prior to installation of the engineered aggregate piers to avoid compromising the piers. To limit impacts to the adjacent aggregate piers and slope stability, drywells should be setback a minimum of 5 ft from all footings and located north of gridline P-8. Because of the depth and location of groundwater injection recommended above, no changes to the global minimum factor of safety were estimated in the slope stability modeling.

LIMITATIONS

This memorandum has been prepared to aid in the design of a stormwater infiltration feature for this project. The test results provided in this memorandum are based on the data obtained from the test pits completed as part of our geotechnical report. In the performance of subsurface investigations, specific

information is obtained at specific locations at specific times. However, it is acknowledged that variations in soil conditions may exist between exploration locations. This memorandum does not reflect any variations that may occur between these locations.

Submitted for GRI,

Renews 12/2018

Michael W. Reed, PE, GE
Principal

Jason D. Bock, PE
Project Engineer

This document has been submitted electronically.

5647-A INFILTRATION MEMO

APPEAL ITEM 1

KRAMER GEHLEN & ASSOCIATES, INC.
400 Columbia Street
Suite 240
Vancouver, WA
98660-3413

360-693-1621
503-289-2661

December 8, 2016

Mr. Matthew Sugarbaker
Hacker
733 SW Oak Street, Suite 100
Portland, OR 97205

RE: Sullivan's Gulch, Portland, Oregon
Drywells
KGA Project No. 14-209

Dear Matt,

I have reviewed the memos from Michael Reed at GRI and Doug Schwarm at Atlas Geotechnical regarding the installation of drywells at the foundation of the above-referenced project. Copies of the memos are attached to this correspondence.

Based on the memos from GRI and Atlas Geotechnical the drywells will not adversely affect the rammed aggregate pier foundation design and therefore the structural foundation design is not adversely affected.

I trust the above information is satisfactory for your needs. If you have any questions, please call our office.

Sincerely,

Bryan Green, P.E.
Kramer Gehlen & Associates, Inc.

APPEAL ITEM 1

Memorandum

Project: Sullivans Gulch Multifamily Development

Subject: Drywell stormwater disposal near rammed aggregate piers

Date: 8 December 2016

Concurrence

We understand from GRI's recent memorandum that drywells will be installed beneath the planned basement slab. The recommended drywell design parameters are:

1. Tip elevation 120.00 feet or deeper
2. North of Gridline P-8.
3. More than 5 feet from all foundation perimeters.
4. Installed before installing rammed aggregate piers.

We concur with GRI's design recommendations and conclude that the planned drywell installation will not have adverse effect on the rammed aggregate pier design.

Please call Doug Schwarm at 808-282-8314 if there are any questions.

CITY OF PORTLAND
Stormwater Management Manual

FORM 2

OPERATIONS & MAINTENANCE FORM

PRIVATE STORMWATER MANAGEMENT FACILITIES

☐ This O&M Form supercedes document number _____

(for official county use only)

PROJECT NAME Sullivan's Gulch Condominiums

PERMIT INFORMATION

Permit # 2015-215564-000-00-CO

Permit Submittal Date 8/10/2015

SITE INFORMATION *(include all parcels)*

R# (6 Digits) 181985, 181986, 181987, 316806

Site Address 1115 NE 21st Ave & 2014, 2028, 2034 NE Multnomah St

City / State / Zip Portland / OR / 97214

Preparation Date: 8/6/2015 Revised: 12/12/16

OWNER INFORMATION (ALL LEGAL OWNERS)

Name (1) Sullivan's Gulch Group, LLC

Name (2) _____

Address *(Mailing)* 3330 NW Yeon Ave, Suite 210

City / State / Zip Portland / OR / 97210

O&M PREPARER INFORMATION

Name Kristian McCombs, EIT

Address *(Mailing)* 117 SE Taylor St, Ste 001

City / State / Zip Portland / OR / 97214

Phone *(area code required)* 503-314-6949

Email kristian.mccombs@hdgpdx.com

Site Legal Description:

HOLLADAY PK & 1ST ADD, BLOCK A, LOT 20, 21, 22. SECTION 35 IN IE, TL 11800 1.59 ACRES

Responsible Party for Maintenance *(check one)*

☐ Homeowners Association ■ Property Owner

☐ Property Management Company ☐ Tenant

☐ Other (describe) _____
(not Contractor or Consultant)

Contact Information for Responsible Party

Contact Name Seth Henderson

Contact Organization Sullivan's Gulch Group, LLC

Phone *(area code required)* 503-248-9373

Email: shenderson@phkinc.com

Maintenance Practices and Schedule

These operation and maintenance practices are required in accordance with Portland City Code, Chapter 17.38.

The requirements are based on the current version of the *City of Portland Stormwater Management Manual* on the date of permit submittal.

For the **Simplified Approach,** please attach the current O&M Specifications for each facility type from the *Stormwater Management Manual*, Chapter 3.3.1.

For the **Presumptive and Performance Approaches,** please attach the approved, site specific O&M Plan per the *Stormwater Management Manual,* Chapter 3.3.2.

OPERATIONS & MAINTENANCE FORM

PRIVATE STORMWATER MANAGEMENT FACILITIES

SITE PLAN

Provide a site plan sketch in the area provided below, or attach a scaled site plan to this submittal that includes all of the information required as shown in Appendix D6 on page D.6-1, in Operations & Maintenance Form Instructions, Site Plan.

STEP 1 – COMPLETE THE FOLLOWING TABLE

Stormwater Facility Type (Chapter 2)	Stormwater Facility Size (sf)	Drainage is from Roof or Lot?	Impervious Area Treated (sf)	Discharge Point
Drywell	(5) 48" Dia x 20' deep	Roof & Courtyard	30,770	Infiltrated on site
Sedimentation Manhole	(1) 48" Dia x 10' deep	Roof & Courtyard	30,770	Infiltrated on site
Totals			30,770	

Maintaining the stormwater management facility or facilities listed above shown on the following (or attached) site plan is a required condition of building permit approval for the identified property. Property owners are required to operate and maintain facilities in accordance with the O&M plan on file with the City of Portland. This requirement is binding on all current and future owners of the property. Failure to comply with the O&M plan can trigger an enforcement action, including penalties. The O&M plan may be modified by written consent of current owners and written approval of the Bureau of Environmental Services.

STEP 2 – REQUIRED SITE PLAN

(insert or draw here, or attach separate sheet)

■ I Have Attached a Site Plan

OPERATIONS & MAINTENANCE FORM

PRIVATE STORMWATER MANAGEMENT FACILITIES

SIGNATURE AND ACKNOWLEDGEMENT

By signing below, the owner accepts and agrees to the terms and conditions contained in this O&M Form and in any document executed by filer and recorded with it. The owner further acknowledges that this documentation has been prepared on their behalf and that they are responsible for the quality and completeness of the O&M Plan. Any failure to comply with the terms of these plans may result in enforcement actions by BES requiring the property owner to restore the stormwater facilities to a functional state as approved under original requirements.

The owner also accepts that the City requires property owners to submit and record, with the County, complete and accurate O&Ms enforceable under City Code 17.38 and that substantial changes to the O&M require City approval prior to County recording. A revised O&M must state that it supersedes a previous O&M (with cited county document number; See Page 1).

THIS PAGE MUST BE SIGNED IN THE PRESENCE OF A NOTARY.

_____ _____

Property Owner or Authorized Representative (1) Signature | *Property Owner or Authorized Representative (2) Signature*

NOTARY SIGNATURE AND STAMP

☐ INDIVIDUAL Acknowledgement

This acknowledgement is intended for property owned by individuals or trusts.

STATE of OREGON county of: _____

This instrument was acknowledged before me on: *(date)* _____

By: *(owner 1)* _____

By: *(owner 2)* _____

Notary Signature _____

My Commission Expires _____

Notary Seal:

OR

☐ CORPORATE Acknowledgement

This acknowledgement is intended for corporation, government agencies, school districts, or other formal entities

STATE of OREGON county of: _____

This instrument was acknowledged before me on: *(date)* _____

By: *(representative)* _____

As: *(Title)* _____

Of: *(Corporation)* _____

Notary Signature _____

My Commission Expires _____

Notary Seal:

Stormwater Management Facilities

Private Operations and Maintenance Plan

Sullivan's Gulch

Prepared by:

Humber Design Group, Inc.

117 SE Taylor St. Suite 202
Portland, OR 97214
(P) 503-946-6690

Date: February 2, 2015
Revised: August 7, 2015
Revised: November 16, 2015
Revised: November 23, 2016
Revised: December 12, 2016

Site O&M Responsible Party

The facility is to be maintained by property owner Sullivan's Gulch Group, LLC, contact Seth Henderson 503-248-9373.

Onsite Stormwater System Description

All stormwater runoff generated on-site is managed with Drywell's and Sedimentation Manhole system. Sedimentation Manhole is a large manhole that allows pollutants to settle out as stormwater collects in the large sump then flows out of an elbowed pipe to the Drywell. The Drywell is a large perforated manhole where stormwater infiltrates through washed, crushed stone or gravel wrapped in filter fabric.

Table 1 –Facility Description Table

Facility Name	Type	Facility Size (sf)	Source	Impervious Area Managed (sf)	Discharge Point
Drywell #1-5	Drywell	(5) 48" Dia. X 10' deep	Roof & Courtyard	30,770	Infiltration
SDMH #1	Sedimentation Manhole	(1) 48" Dia. X 10' deep	Roof & Courtyard	30,770	Infiltration

Inspection & Maintenance Schedule

All stormwater facilities must be inspected at least:

- Quarterly for the first 2 years
- Twice a year thereafter
- Within 48 hours of major rainfall events (more than 1 inch of rain over a 24-hour period)

Inspection & Maintenance Procedures

The following items shall be inspected and maintained as stated:

Area Drains and Piped Storm System

- Sediment shall be removed biannually.
- Debris shall be removed from inlets and outlets quarterly.
- Quarterly inspection for clogging shall be performed.
- Grates shall be tamper-proof.
- Repair/seal cracks. Replace when repair is insufficient

Drywells and Soakage Trenches

- Clean gutters, rain drains, and silt traps twice a year.
- Repair/seal cracks. Replace when repair is insufficient.
- Prevent large root systems from damaging subsurface structural components.
- Remove sediment and debris from all accessible components to prevent ponding.
- Ponding/lack of infiltration may require decommissioning and replacement. Consult with the City prior to subgrade work.
- In case of malfunction or overflow, use vacuum truck with sufficient hose length to remove stormwater.

Water Quality Manholes

- Install elbow or T on outlet if elbow or T is missing from sedimentation manhole.
- If hand pull is stuck, remove rust, dirt, and oils from the pull handle and valve. Remove items blocking the valve and pull handle. Do not use any solvents or chemicals in water quality manholes.
- Remove sediment, oil, and debris from catch basins when 1/3 full and from gutters, inlets, outlets and pipes to maintain at least 50% conveyance capacity at all times.
- Remove oil, sediment, and debris when sediment is 30% of the capacity or oil is 1 inch deep.
- Repair with grout or City-approved material or replace when cracks are 1 inch wide or more.
- Prevent large root systems from damaging subsurface structural components.

Vectors

Stormwater facilities shall not harbor mosquito larvae or rats that pose a threat to public health or that undermine the facility structure. Monitor standing water for small wiggling sticks perpendicular to the water's surface. Note holes/burrows in and around facilities. Call Multnomah County Vector Control at 503-988-3464 for immediate assistance to eradicate vectors. Record the time/date, weather, and site conditions when vector activity is observed.

Best Management Practices (BMPs)

BMPs prevent pollutants from mixing with stormwater. Typical nonstructural control measures include raking and removing leaves, street sweeping, vacuum sweeping, and limited and controlled application of pesticides, herbicides, and fertilizers.

Spill Prevention

Spill prevention measures shall be exercised when handling substances that can contaminate stormwater. Virtually all sites, including residential and commercial, present dangers from spills. It is important to exercise caution when handling substances that can contaminate stormwater. Activities that pose the chance of hazardous material spills shall not take place near collection facilities.

- The proper authority and the property owner shall be contacted immediately if a spill is observed.
- A spill kit shall be kept near spill-prone operations and refreshed annually.
- Employees shall be trained on spill control measures.
- Shut-off valves shall be tested quarterly.
- Releases of pollutants shall be corrected within 12 hours.

Access

Access shall be maintained for all facilities so O&M can be performed as regularly scheduled.

Inspection and Maintenance Logs

The facility owner shall keep a log to record all inspection and maintenance activities (see Sample Log). Record date, description, and contractor (if applicable) for all inspections and any maintenance or repairs preformed. Keep work orders and invoices on file and make available upon request of the City inspector.

Inspection Log – Record the date and the personnel who conducted the site inspection. Record the infiltration rate if greater than 48 hours, a description of any and all spills and vector issues, sediment & oil depth, the percentage of vegetation coverage (desirable and undesirable), and the condition of the system components every quarter for the first 2 years of operation and twice a year after a major storm event thereafter.

Pollution Prevention - All sites shall implement BMPs to prevent hazardous wastes, litter, or excessive oil and sediment from contaminating stormwater. Contact Spill Prevention & Citizen Response at 503-823-7180 for immediate assistance with responding to spills. Record time/date, weather, and site conditions if site activities are found to contaminate stormwater.

Vectors (mosquitoes and rodents) - Stormwater facilities shall not harbor mosquito larvae or rats that pose a threat to public health or that undermine the facility structure. Monitor standing water for small wiggling sticks perpendicular to the water's surface. Note holes/burrows in and around facilities. Call Multnomah County Vector Control at 503-988-3464 for immediate assistance with eradicating vectors. Record time/date, weather, and site conditions when vector activity is observed.

Depth of Sediment & Oil – Take and record measurement at catch basins, conveyance systems, inlets, outlets and within the facility itself. Compare to capacity thresholds defined in the *Stormwater Management Manual* Section 3.2.4, Summary of Thresholds for Maintenance, or the site-specific O&M Plan.

Percent Vegetation Coverage – Record percent cover of desirable, dead, and invasive vegetation.

Condition of Structural Components – Record type and size of missing or broken components (i.e., width of cracks and/or extent of settling).

Maintenance:
Record date, description, and contractor (if applicable) for all structural repairs, landscape maintenance, and facility cleanout activities.

SAMPLE LOG FORM

Date: _____ Time: _____ Initial: _____
Work preformed by:_____
Work preformed: _____
Details: _____
_____

Date: _____ Time: _____ Initial: _____
Work preformed by:_____
Work preformed: _____
Details: _____
_____

Date: _____ Time: _____ Initial: _____
Work preformed by:_____
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Details: _____
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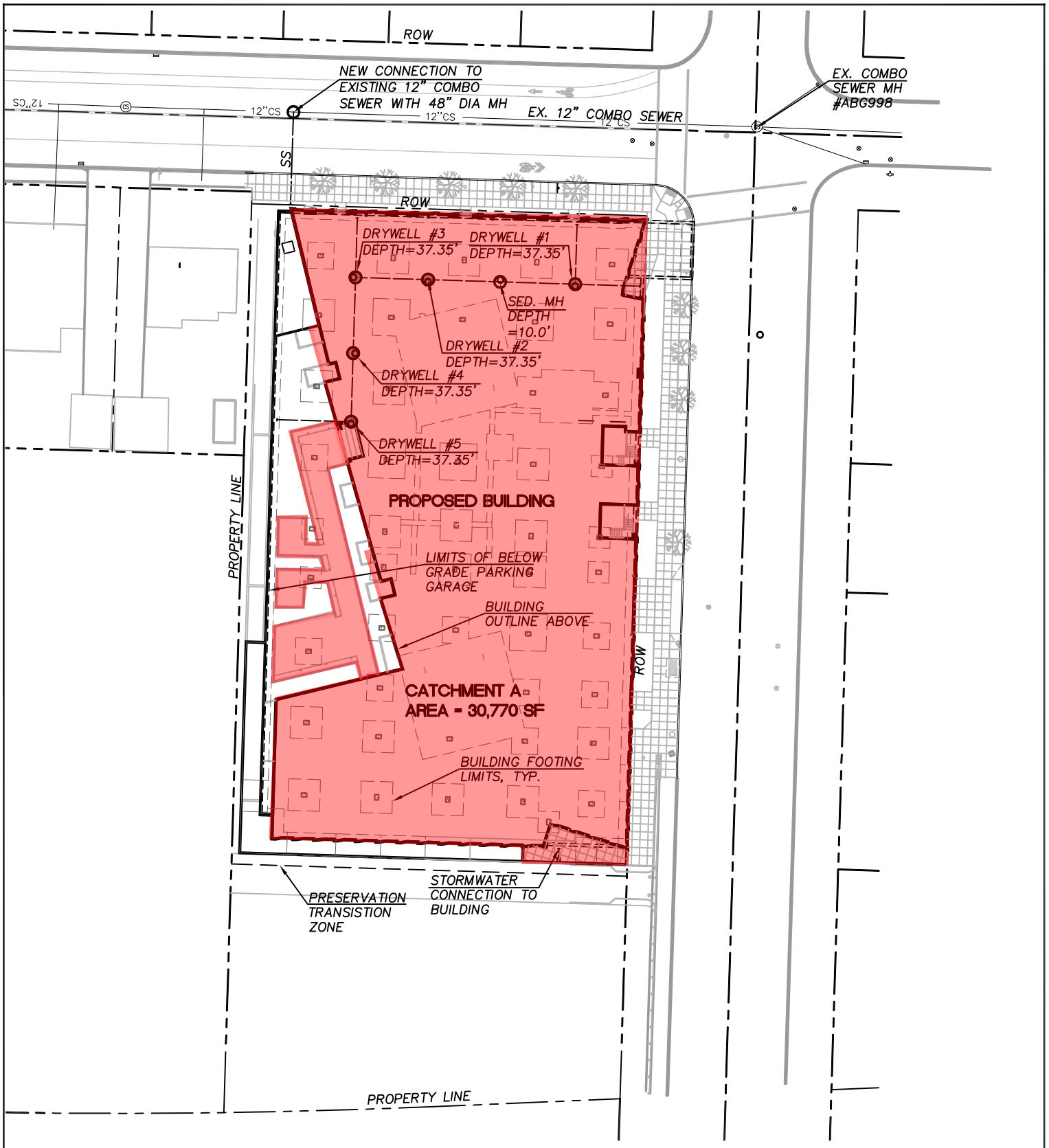


SEDIMENTATION MANHOLE

DRYWELL

CATCHMENT ID (SF)

GRAPHIC SCALE

0 50 100

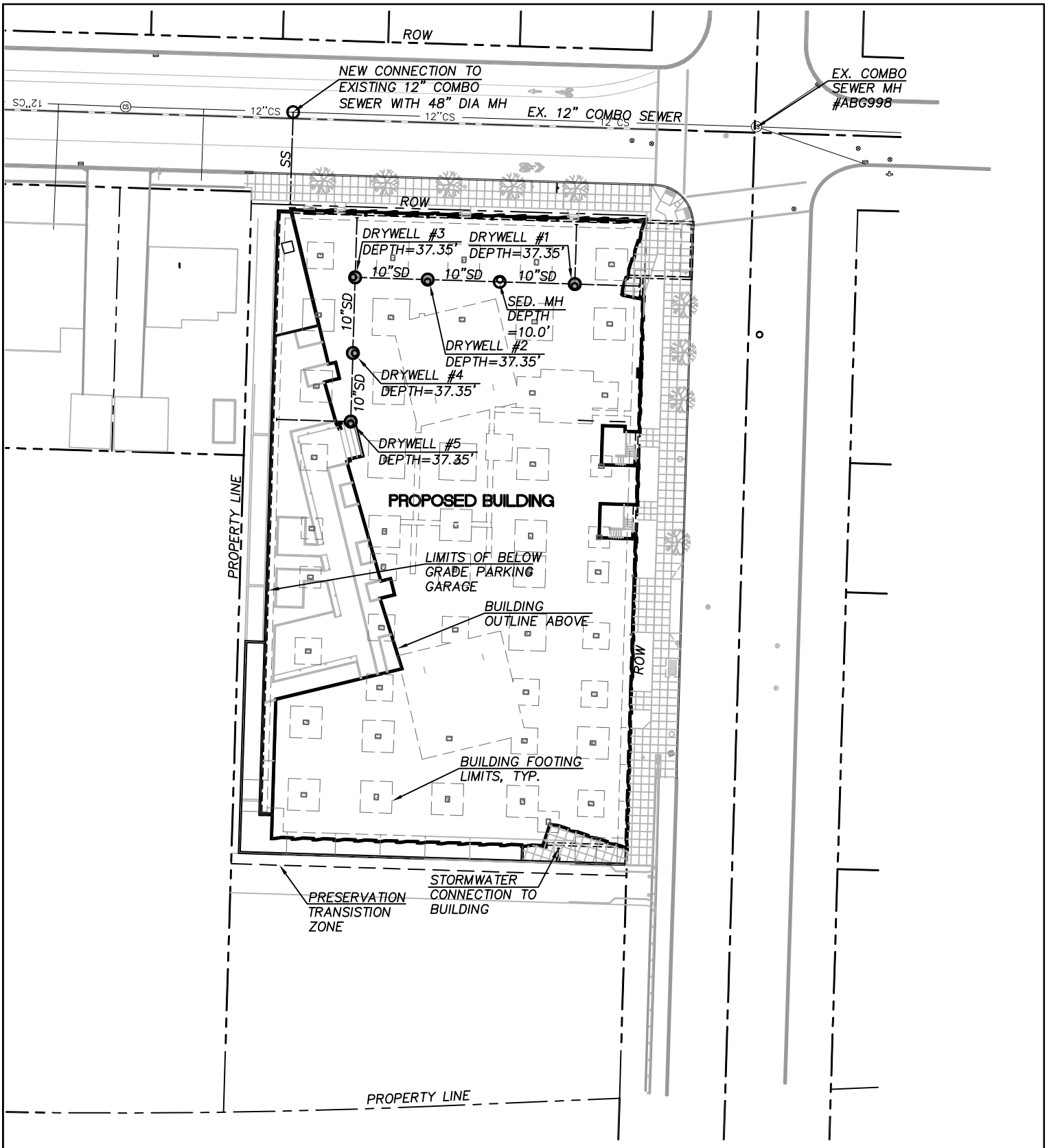
1 inch = 50 ft.

O+M SITE PLAN

SULLIVAN'S GULCH CONDOMINIUMS

PROJECT NO.:	THA001
DRAWN BY:	KAM
DESIGN BY:	KAM
REVIEWED BY:	
DATE:	2016-12-12

Humber Design Group, Inc.
117 SE Taylor Street
Suite 202
Portland, OR 97214
(503) 946-6690
www.hdgpdx.com



SEDIMENTATION MANHOLE

DRYWELL

GRAPHIC SCALE

0 50 100

1 inch = 50 ft.

APPEAL ITEM 1

DRYWELL LOCATION EXHIBIT

SULLIVAN'S GULCH CONDOMINIUMS

PROJECT NO.:	THA001
DRAWN BY:	KAM
DESIGN BY:	KAM
REVIEWED BY:	
DATE:	2016-12-09

Humber Design Group, Inc.
117 SE Taylor Street
Suite 202
Portland, OR 97214
(503) 946-9690
www.hdgpdx.com

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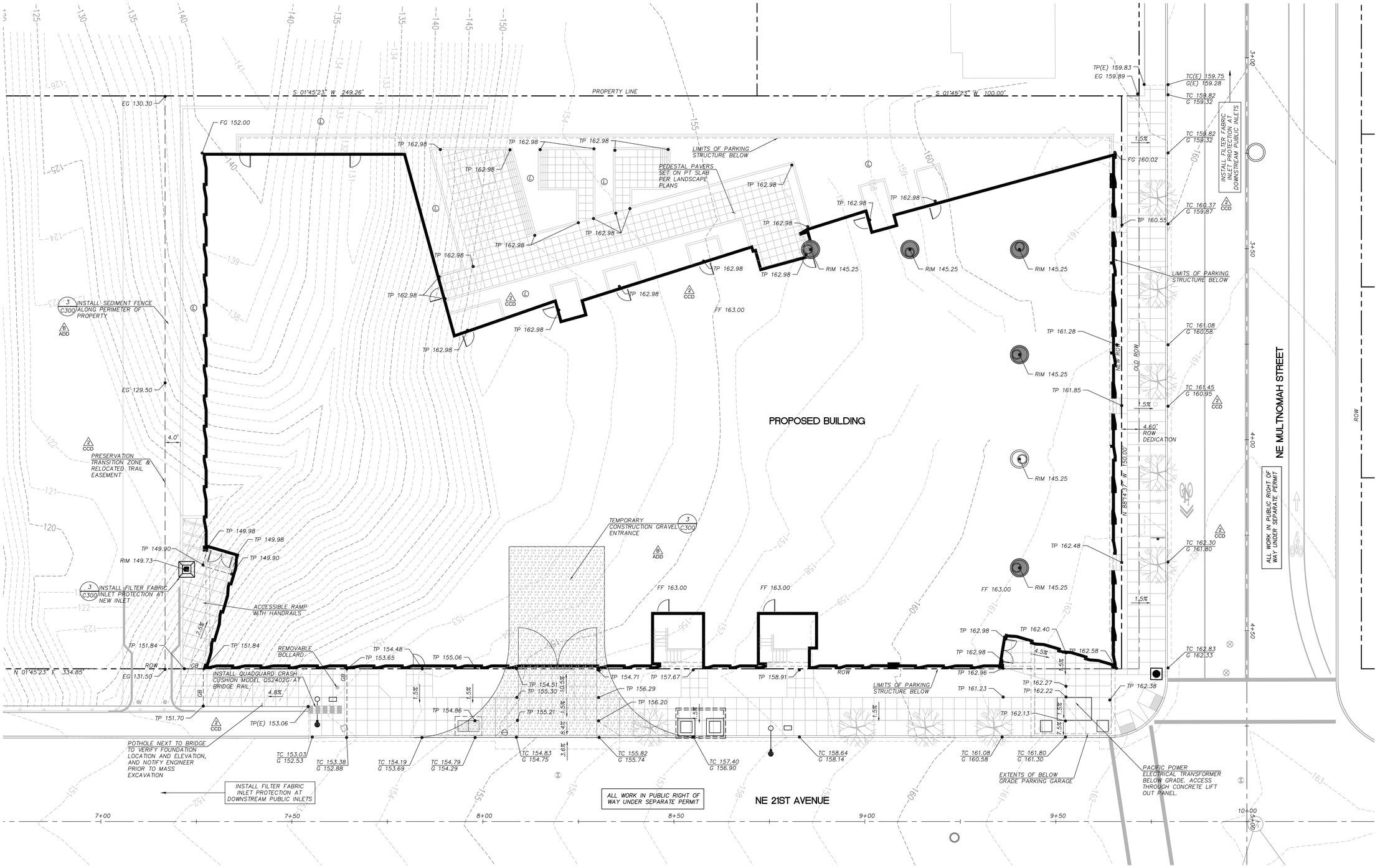
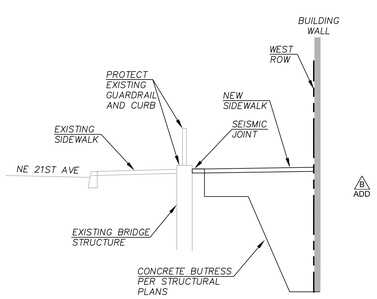




1 **SECTION**
SCALE: 1"=5'

SHEET LEGEND

ITEM	DESCRIPTION	REFERENCE
	STORMWATER FLOW THROUGH PLANTER	1 C300
	RETAINING WALL	PER STRUCTURAL PLANS
160	EXISTING CONTOUR	
TC XXX.XX	GRADE AT TOP OF CURB	
TP XXX.XX	GRADE AT TOP OF PAVEMENT	
FF XX.XX	FINISH FLOOR ELEVATION	
FG XXX.XX	FINISHED GRADE	
TW XXX.XX	GRADE AT TOP OF WALL	
EG XXX.XX	EXISTING GRADE	
WIER XXX.XX	ELEVATION AT OVERFLOW WIER	
(E)	EXISTING	
GB	GRADE BREAK	
X.X%	SLOPE ARROW	
	FILTER FABRIC INLET PROTECTION	3 C300

SHEET LEGEND (CONTINUED)

ITEM	DESCRIPTION	REFERENCE
B ADD	TEMPORARY GRAVEL CONSTRUCTION ENTRANCE	7 C300
	SEDIMENT FENCE	4 C300
L	LANDSCAPING	SEE LANDSCAPING PLANS

SHEET NOTES

1. ALL WORK IN THE PUBLIC RIGHT-OF-WAY UNDER SEPARATE PUBLIC WORKS PERMIT.
2. INSTALL SEDIMENT FENCE PER DETAIL 4/C300 ALONG PERIMETER OF SITE PRIOR TO START OF CONSTRUCTION. FENCE SHALL BE PLACED ON PROPERTY SIDE OF ROW LINE.

EMERGENCY EROSION CONTROL CONTACT

NAME: IAN DAILEY
PHONE: OFFICE: 503-226-9825 CELL: 971-400-6603

1 CCD
B ADD

GRAPHIC SCALE
0 10 20
1 inch = 10 ft.

ARCHITECTS
HACKER
733 SW Oak, Portland, OR 97205

CONSULTANT
phk development
Humber Design Group, Inc.
117 SE Taylor Street
Suite 001
Portland, OR 97214
(503) 946-8690
www.hdgpdx.com

STAMP
REGISTERED PROFESSIONAL ENGINEER
76,071
OREGON
JULY 12, 2005
MARTHA S. WILLIAMS
EXPIRES 6-30-2018

REVISION NO.	DATE
ADD A	8/28/2015
ADD B	11/16/2015
CCD 1	03/28/2016
CCD 2	07/29/2016

KEY PLAN - (NTS)

SGG MULTNOMAH

SULLIVAN'S GULCH GROUP MULTIFAMILY DEVELOPMENT

ISSUANCE
CONFROM SET

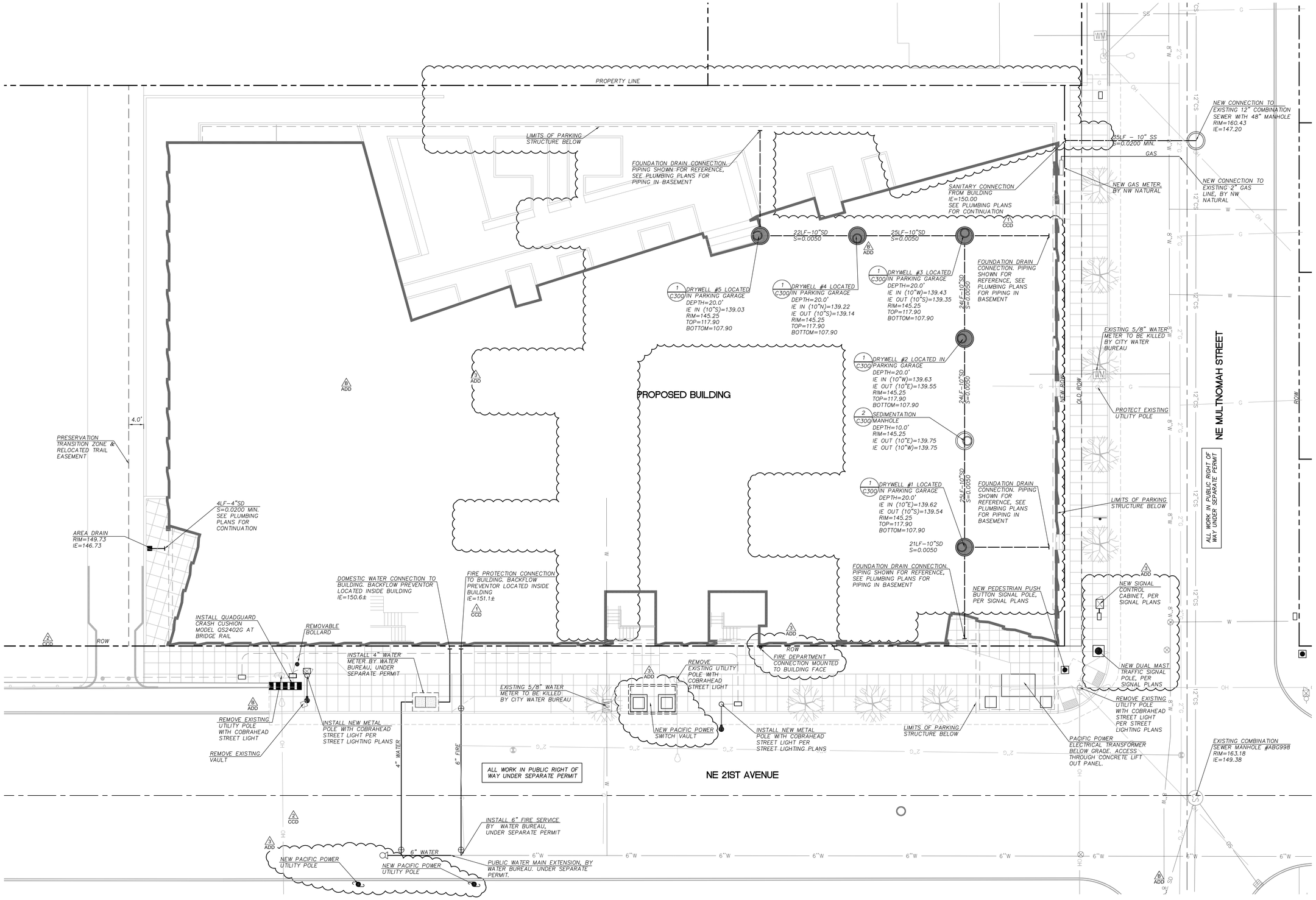
PROJECT NUMBER
1418

DATE
1/16/2017

SCALE
1"=10'

DRAWING TITLE
PAVING, GRADING, AND EROSION CONTROL PLAN

SHEET NUMBER
C100



SHEET LEGEND

ITEM	DESCRIPTION	REFERENCE
	DRYWELL	1 C300
3 ADD	SEDIMENTATION MANHOLE	2 C300
■	AREA DRAIN	5 C300

SHEET NOTES

1. ALL DOMESTIC WATER AND FIRE PROTECTION WORK IN THE PUBLIC RIGHT OF WAY BY PORTLAND WATER BUREAU AT OWNER'S EXPENSE. CONTRACTOR TO COORDINATE WORK WITH PORTLAND WATER BUREAU.
2. ROUTE ALL STORM DRAINS AND FOUNDATION DRAIN PIPING TO DRYWELL SYSTEM. (3 ADD)
3. INSTALL DRYWELL #1 AND TEST PER DETAIL 1/C300 PRIOR TO INSTALLING ADDITIONAL DRYWELLS.

GRAPHIC SCALE
0 10 20
1 inch = 10 ft.

ARCHITECTS
HACKER
733 SW Oak, Portland, OR 97205

CONSULTANT
phk development
Humber Design Group, Inc.
117 SE Taylor Street
Suite 001
Portland, OR 97214
(503) 946-6690
www.hdgpdx.com

STAMP
REGISTERED PROFESSIONAL ENGINEER OREGON JULY 12, 2005 MARTHA S. WILLIAMS
EXPIRES 6-30-2018

REVISION NO.	DATE
ADD A	8/28/2015
ADD B	11/16/2015
CCD 1	03/28/2016
CCD 2	07/29/2016

KEY PLAN - (NTS)

SGG MULTNOMAH

SULLIVAN'S GULCH GROUP MULTIFAMILY DEVELOPMENT

ISSUANCE
CONFROM SET

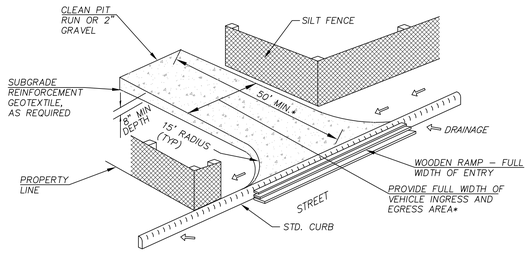
PROJECT NUMBER
1418

DATE
1/16/2017

SCALE
1"=10'

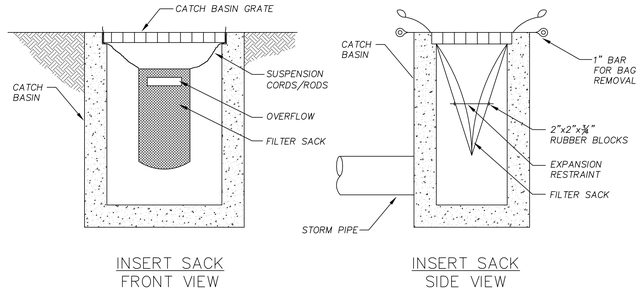
DRAWING TITLE
UTILITY PLAN

SHEET NUMBER
C200



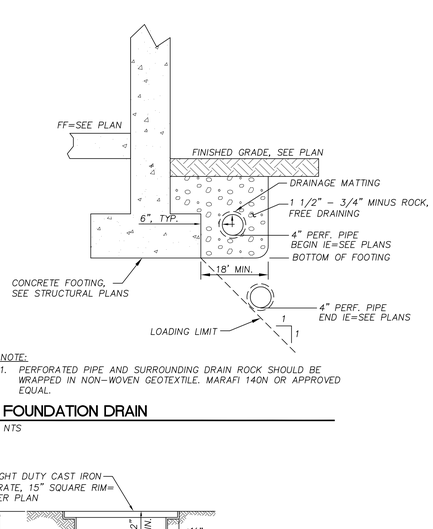
*20' MIN. FOR SINGLE FAMILY AND DUPLEX RESIDENTIAL

7 TEMPORARY GRAVEL CONSTRUCTION ENTRANCE
NTS



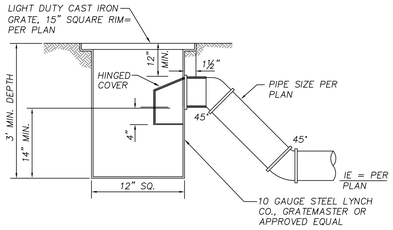
NOTE:
REPLACE BIOFILTER BAGS WITH INSERT SACKS AFTER THE FIRST LIFT OF PAVING.

3 FILTER FABRIC INLET PROTECTION
NTS



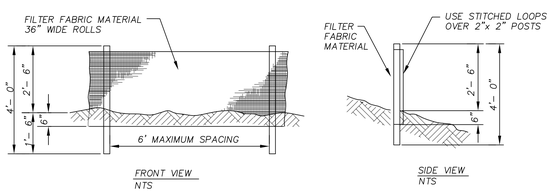
NOTE:
1. PERFORATED PIPE AND SURROUNDING DRAIN ROCK SHOULD BE WRAPPED IN NON–WOVEN GEOTEXTILE. MARAFI 140N OR APPROVED EQUAL.

6 FOUNDATION DRAIN
NTS



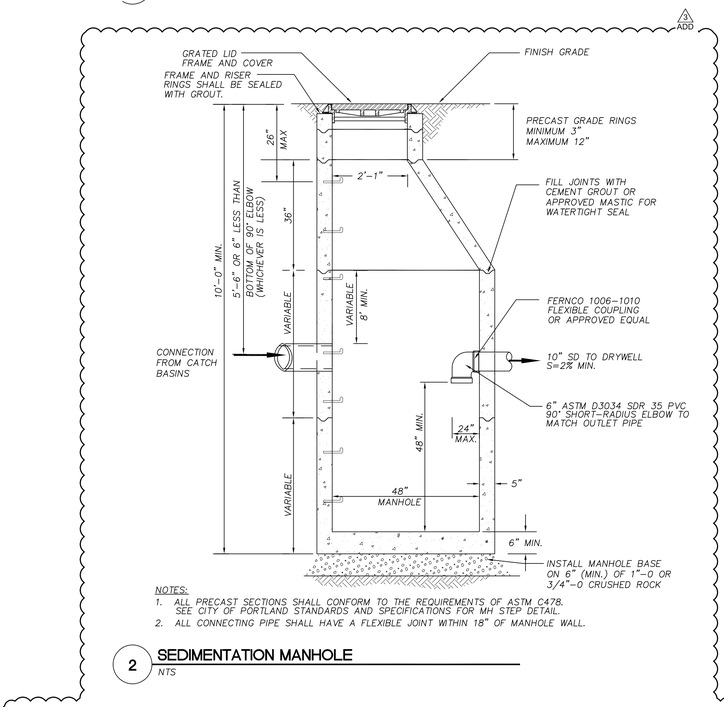
NOTES:
1. ALL STEEL WELDED CONSTRUCTION. COATED INSIDE AND OUT WITH ASPHALTUM PAINT.
2. TRAP TO INCLUDE CLEANOUT.

5 AREA DRAIN
NTS



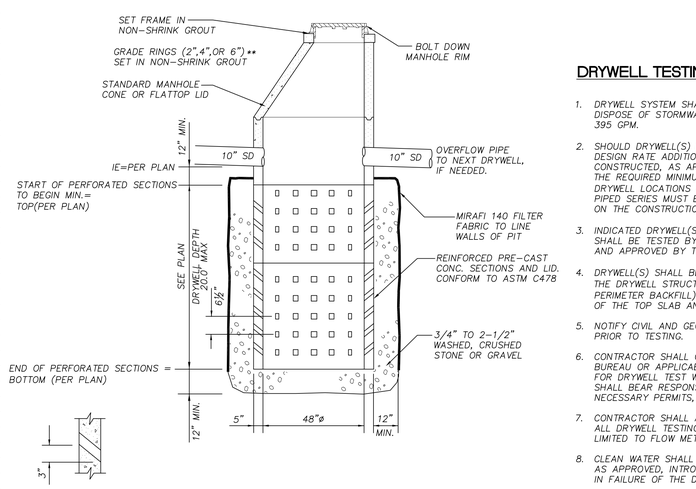
NOTES:
1. BURY BOTTOM OF FILTER FABRIC 6"
2. VERTICALLY BELOW FINISHED GRADE. 2"x 2" FIR, PINE OR STEEL
3. FENCE POSTS. STITCHED LOOPS TO BE INSTALLED DOWNHILL SIDE OF SLOPE.
4. COMPACT ALL AREAS OF FILTER FABRIC TRENCH.

4 SEDIMENT FENCE
NTS



NOTES:
1. ALL PRECAST SECTIONS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C478. SEE CITY OF PORTLAND STANDARDS AND SPECIFICATIONS FOR MH STEP DETAIL.
2. ALL CONNECTING PIPE SHALL HAVE A FLEXIBLE JOINT WITHIN 18" OF MANHOLE WALL.

2 SEDIMENTATION MANHOLE
NTS



DRYWELL TESTING NOTES

1. DRYWELL SYSTEM SHALL HAVE THE CAPACITY TO DISPOSE OF STORMWATER AT THE COMBINED RATE OF 395 GPM.
2. SHOULD DRYWELL(S) FAIL TO TEST AT THE MINIMUM DESIGN RATE ADDITIONAL DRYWELLS MAY BE CONSTRUCTED, AS APPROVED, IN ORDER TO ACHIEVE THE REQUIRED MINIMUM DISPOSAL RATE. ALTERNATIVE DRYWELL LOCATIONS AND/OR ADDITIONAL DRYWELLS IN PIPED SERIES MUST BE PRE–APPROVED AND IDENTIFIED ON THE CONSTRUCTION DRAWINGS.
3. INDICATED DRYWELL(S) (AS NOTED ABOVE IN NOTE#1) SHALL BE TESTED BY THE CONTRACTOR, AS DIRECTED AND APPROVED BY THE ENGINEER.
4. DRYWELL(S) SHALL BE TESTED AFTER CONSTRUCTION OF THE DRYWELL STRUCTURE (INCLUDING DRAIN ROCK AND PERIMETER BACKFILL) BUT PRIOR TO THE CONSTRUCTION OF THE TOP SLAB AND FINISH BACKFILL.
5. NOTIFY CIVIL AND GEOTECHNICAL ENGINEERS 5 DAYS PRIOR TO TESTING.
6. CONTRACTOR SHALL CONTACT CITY OF PORTLAND WATER BUREAU OR APPLICABLE WATER DISTRICT TO ARRANGE FOR DRYWELL TEST WATER SUPPLY. CONTRACTOR SHALL BEAR RESPONSIBILITY FOR SECURING ALL NECESSARY PERMITS, AUTHORIZATION AND ANY FEES.
7. CONTRACTOR SHALL ARRANGE FOR THE PROVISION OF ALL DRYWELL TESTING EQUIPMENT, INCLUDING BUT NOT LIMITED TO FLOW METER, PIPING, AND TRAFFIC CONTROL.
8. CLEAN WATER SHALL BE PROVIDED TO TEST DRYWELLS, AS APPROVED, INTRODUCTION OF SEDIMENT MAY RESULT IN FAILURE OF THE DRYWELL CAPACITY TEST.
9. PROVIDE CIVIL ENGINEER WITH RECORDED TEST DATA.

1 DRYWELL
NTS

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733 SW Oak, Portland, OR 97205

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STAMP
REGISTERED PROFESSIONAL ENGINEER
76,071
OREGON
JULY 12, 2005
MARTHA S. WILLIAMS
EXPIRES 6–30–2018

REVISION NO.	DATE
ADD A	8/28/2015
ADD B	11/16/2015

KEY PLAN - (NTS)

SGG MULTNOMAH

SULLIVAN'S GULCH GROUP MULTIFAMILY DEVELOPMENT

ISSUANCE
CONFROM SET

PROJECT NUMBER
1418

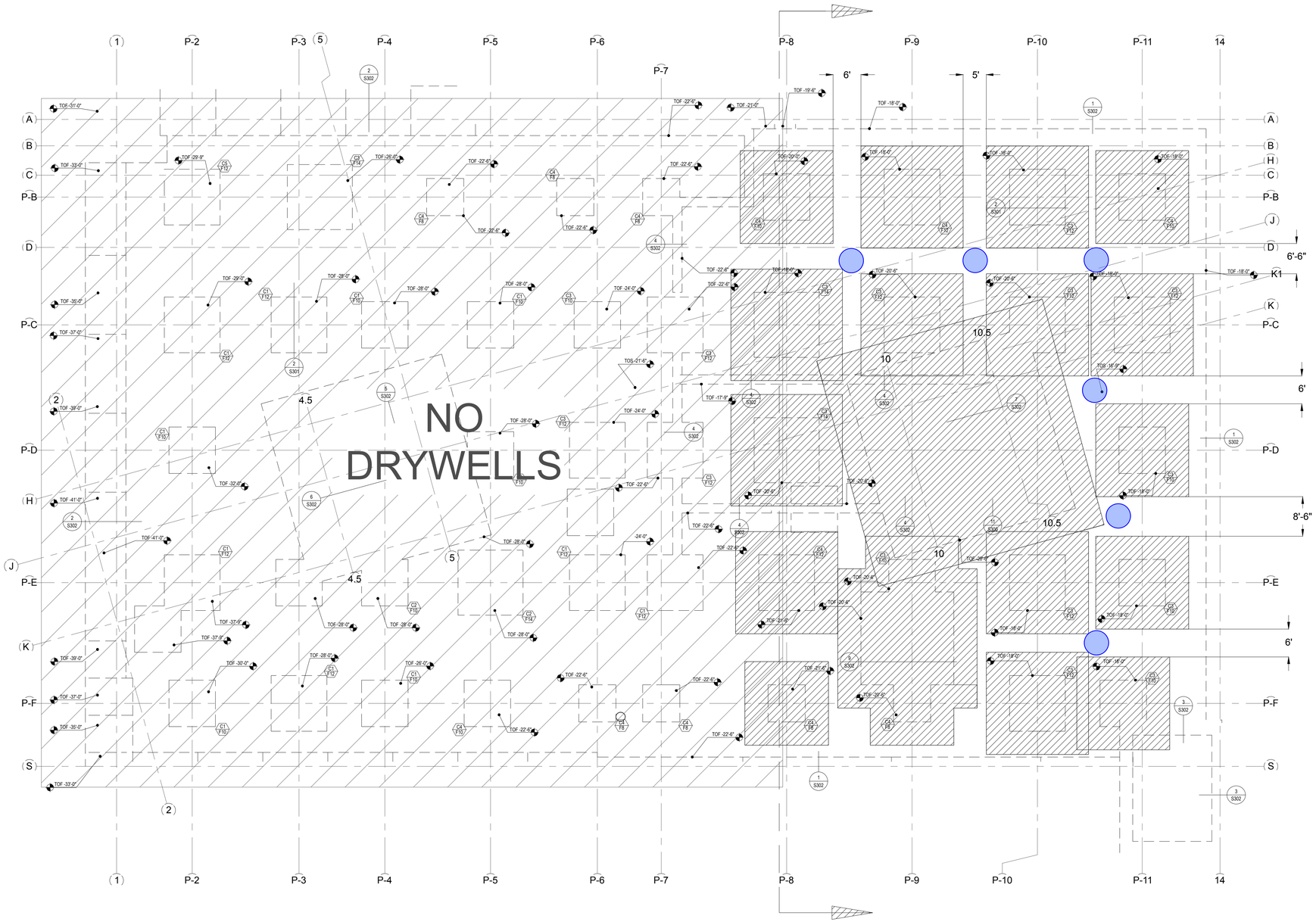
DATE
1/16/2017

SCALE
N/A

DRAWING TITLE
CIVIL DETAILS

SHEET NUMBER
C300

APPEAL ITEM 1



1. DRYWWELL BEFORE RAP
2. 5' MIN FROM FOOTINGS
3. NORTH OF P.8
4. TIP EL. 120'-00" OR DEEPER (SEE 7 DEC 16 DRYWELL PLAN)

1 / F200 **GROUND IMPROVEMENT PLAN**

1' = 10'-00"

ATLAS GEOTECHNICAL
ATLAS GEOTECHNICAL 831-600-7419
101 COOPER ST.
SANTA CRUZ, CA 95060 www.AtlasGeotechnical.com

phk development THA ARCHITECTURE INC

CONSULTANT

REGISTERED PROFESSIONAL ENGINEER
16-30424
OREGON
DEC. 1, 1992
DOUGLAS ROBERT SCHWARM

STAMP

REV.	DESCRIPTION	DATE
	-	-

KEY PLAN - (NTS)

PLAN NORTH

SULLIVAN'S GULCH

ISSUANCE

PROJECT NUMBER
00197-001

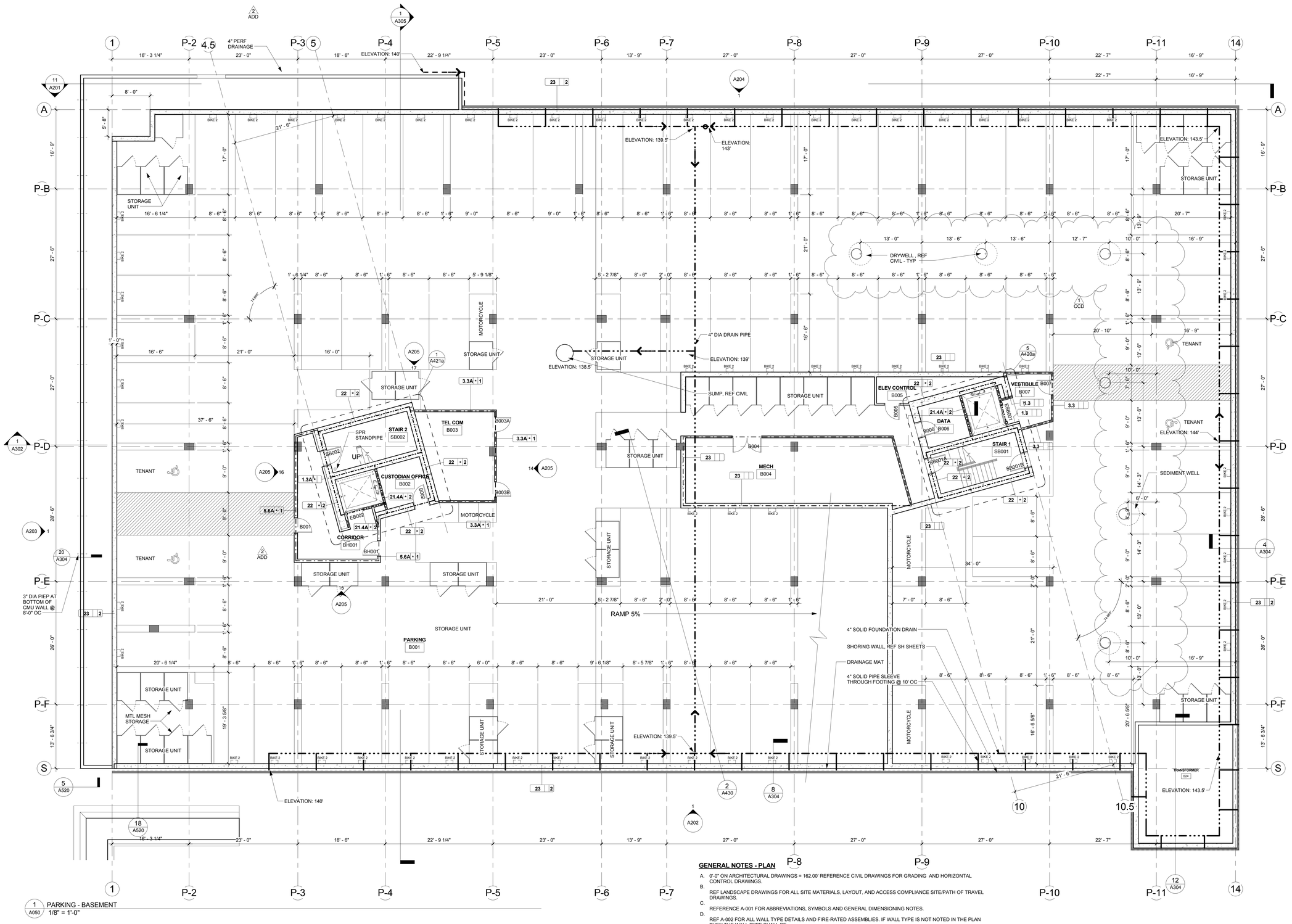
DATE
12/07/2016

SCALE
As indicated

DRAWING TITLE
GROUND IMPROVEMENT PLAN

SHEET NUMBER
EXHIBIT

APPEAL ITEM 1



1 A050 PARKING - BASEMENT
1/8" = 1'-0"

LEGEND - CODE SYMBOLS

- 1/2 HOUR FIRE RESISTANCE RATED SEPARATION
- 1 HOUR FIRE-RESISTANCE RATED SEPARATION
- 2 HOUR FIRE-RESISTANCE RATED SEPARATION

GENERAL NOTES - PLAN

A. 0'-0" ON ARCHITECTURAL DRAWINGS = 162.00' REFERENCE CIVIL DRAWINGS FOR GRADING AND HORIZONTAL CONTROL DRAWINGS.

B. REF LANDSCAPE DRAWINGS FOR ALL SITE MATERIALS, LAYOUT, AND ACCESS COMPLIANCE SITE/PATH OF TRAVEL DRAWINGS.

C. REFERENCE A-001 FOR ABBREVIATIONS, SYMBOLS AND GENERAL DIMENSIONING NOTES.

D. REF A-002 FOR ALL WALL TYPE DETAILS AND FIRE-RATED ASSEMBLIES. IF WALL TYPE IS NOT NOTED IN THE PLAN THEN THE WALL TYPE SHALL BE

E. REF A-002 SERIES DRAWINGS FOR TYPICAL METAL STUD FRAMING DETAILS AND GUIDELINES.

F. REF G-000 SERIES DRAWINGS FOR CODE SUMMARIES AND EXTENT OF FIRE-RATED CONSTRUCTION.

G. REF A-500 DRAWINGS FOR EXTERIOR ASSEMBLIES

H. REF A-600 SERIES DRAWINGS FOR EXTERIOR FRAME TYPES.

I. REF A-620 SERIES DRAWINGS FOR INTERIOR FRAME TYPES.

J. REF STRUCTURAL DRAWINGS FOR DIMENSIONS AND ELEVATIONS OF STRUCTURAL SLAB AND WALL ELEMENTS.

K. SIGNAGE TO BE PROVIDED INDICATING STAIRWAYS CONTINUES TO THE ROOF - PART OF DESIGN BUILD PACKAGE - DEFERRED.

L. SIGNAGE TO BE PROVIDED ON FIRE DEPARTMENT CONNECTION AND FIRE PUMP - PART OF DESIGN BUILD PACKAGE - DEFERRED.

M. ELEVATOR 2 IS TO BE ACCESSIBLE, ACCOMODATE A STRETCHER, AND BE CONNECTED TO EMERGENCY POWER.

ARCHITECTS
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733 SW Oak, Portland, OR 97205

CONSULTANT
phk development

STAMP
REGISTERED ARCHITECT WILLIAM C. BANN PORTLAND, OREGON 4608 STATE OF OREGON

REVISION NO.		DATE
	ADDENDA 1	8/19/2016
	ADDENDA 2	9/26/2016
	CCD1	12/8/2016

KEY PLAN - (NTS)

NORTH

SGG MULTNOMAH

SULLIVAN'S GULCH GROUP MULTIFAMILY DEVELOPMENT

ISSUANCE
PERMIT SET

PROJECT NUMBER
1418

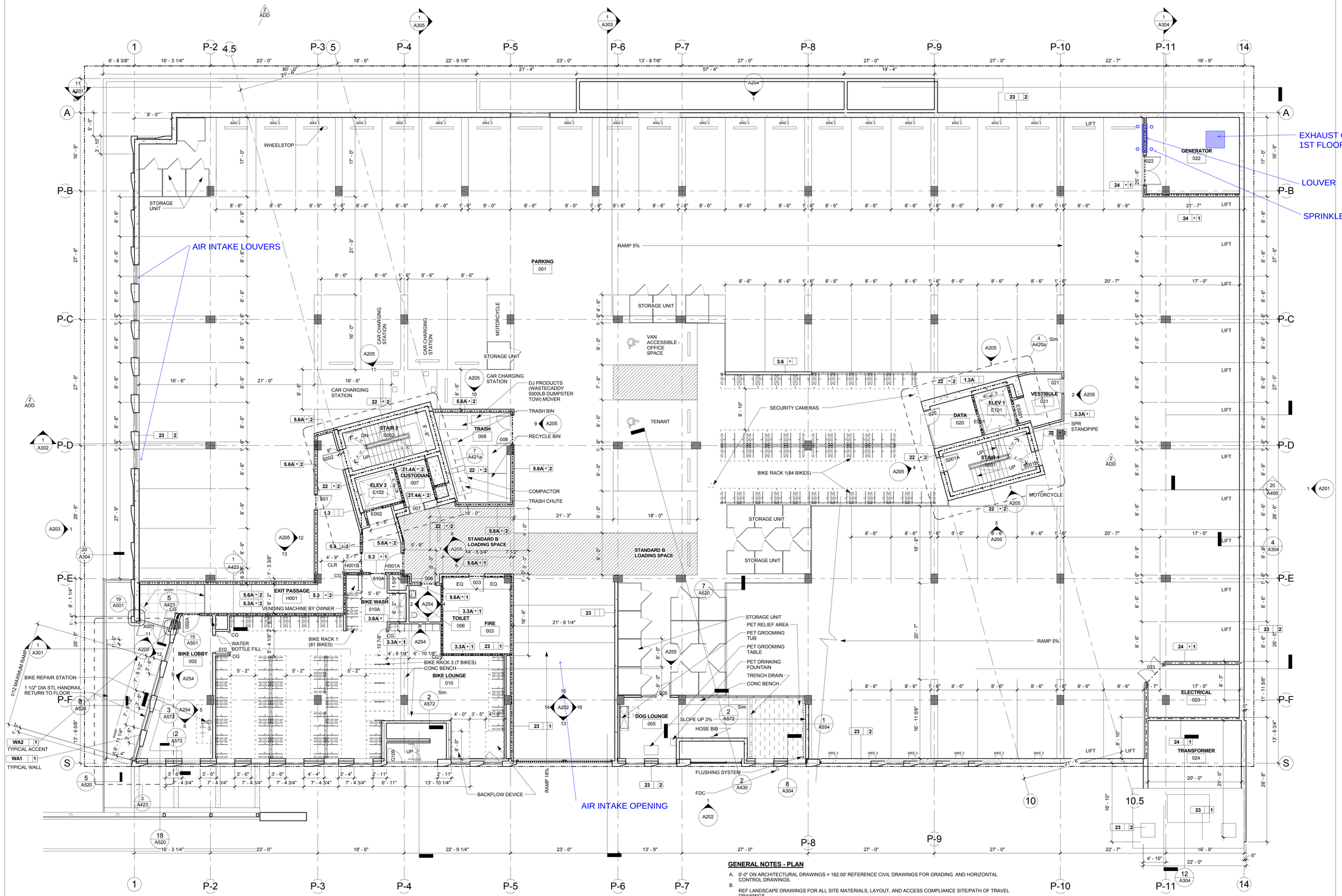
DATE
8/7/2015

SCALE
As indicated

DRAWING TITLE
PARKING BASEMENT

SHEET NUMBER
A050

APPEAL ITEM 2



1 A100 PARKING LEVEL
1/8" = 1'-0"

LEGEND - CODE SYMBOLS

- 1/2 HOUR FIRE RESISTANCE RATED SEPARATION
- 1 HOUR FIRE-RESISTANCE RATED SEPARATION
- 2 HOUR FIRE-RESISTANCE RATED SEPARATION

GENERAL NOTES - PLAN

A. 0'-0" ON ARCHITECTURAL DRAWINGS = 162.00' REFERENCE CIVIL DRAWINGS FOR GRADING AND HORIZONTAL CONTROL DRAWINGS.

B. REF LANDSCAPE DRAWINGS FOR ALL SITE MATERIALS, LAYOUT, AND ACCESS COMPLIANCE SITE/PATH OF TRAVEL DRAWINGS.

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F. REF G-000 SERIES DRAWINGS FOR CODE SUMMARIES AND EXTENT OF FIRE-RATED CONSTRUCTION.

G. REF A-500 DRAWINGS FOR EXTERIOR ASSEMBLIES

H. REF A-600 SERIES DRAWINGS FOR EXTERIOR FRAME TYPES.

I. REF A-620 SERIES DRAWINGS FOR INTERIOR FRAME TYPES.

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ARCHITECTS
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CONSULTANT
phk development

STAMP
REGISTERED ARCHITECT
WILLIAM C. BANN
PORTLAND, OREGON
4608
STATE OF OREGON

REVISION NO.	DATE
ADDENDA 1	8/19/2016
ADDENDA 2	9/26/2016

KEY PLAN - (NTS)

NORTH

SGG MULTNOMAH

SULLIVAN'S GULCH GROUP MULTIFAMILY DEVELOPMENT

ISSUANCE
PERMIT SET

PROJECT NUMBER
1418

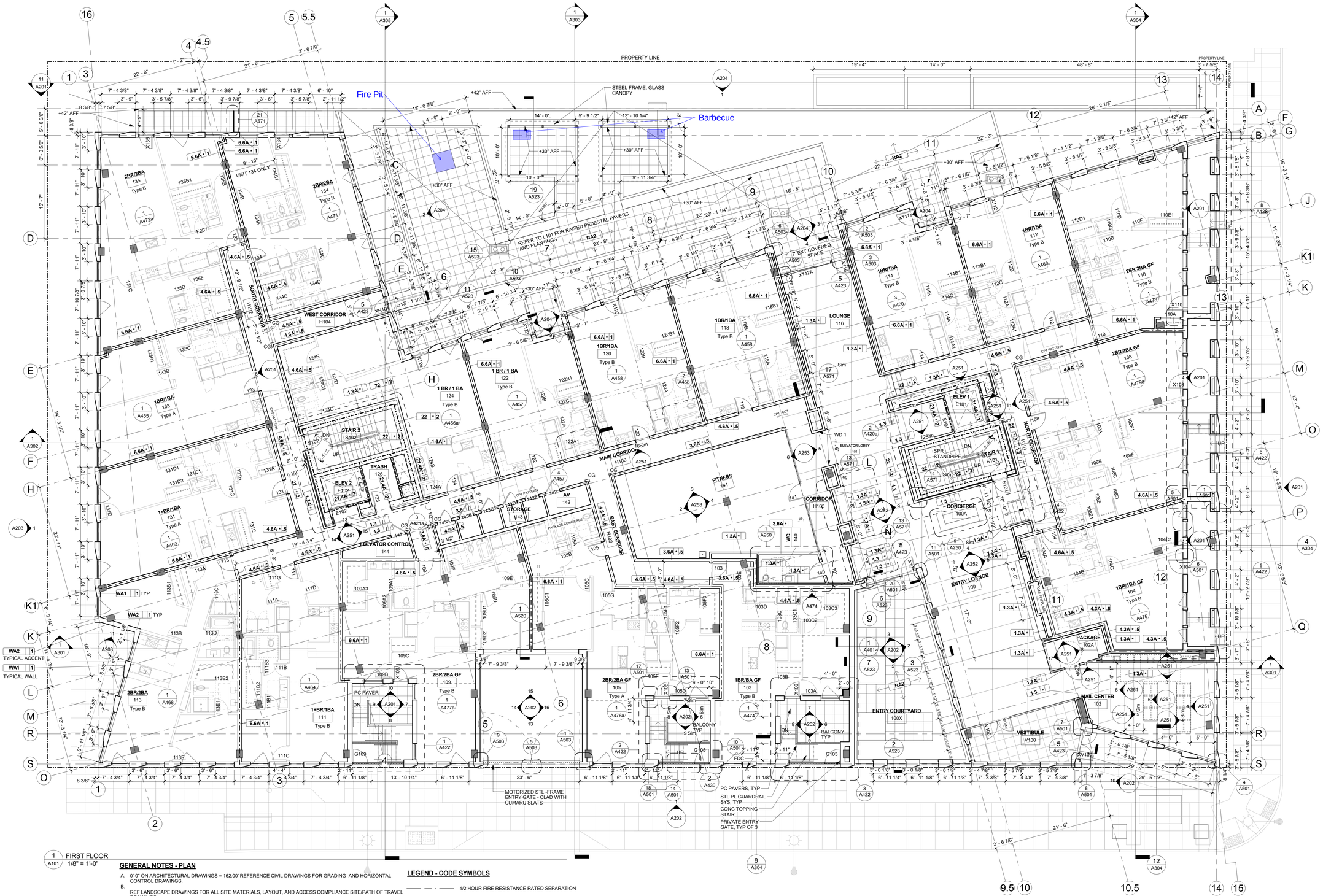
DATE
8/7/2015

SCALE
As indicated

DRAWING TITLE
PARKING LEVEL

SHEET NUMBER
A100

APPEAL ITEM 3



1 A101 FIRST FLOOR
1/8" = 1'-0"

GENERAL NOTES - PLAN

A. 0'-0" ON ARCHITECTURAL DRAWINGS = 162.00' REFERENCE CIVIL DRAWINGS FOR GRADING AND HORIZONTAL CONTROL DRAWINGS.

B. REF LANDSCAPE DRAWINGS FOR ALL SITE MATERIALS, LAYOUT, AND ACCESS COMPLIANCE SITE/PATH OF TRAVEL DRAWINGS.

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LEGEND - CODE SYMBOLS

1/2 HOUR FIRE RESISTANCE RATED SEPARATION

1 HOUR FIRE-RESISTANCE RATED SEPARATION

2 HOUR FIRE-RESISTANCE RATED SEPARATION

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CONSULTANT
phk development

STAMP
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WILLIAM C. BANN
PORTLAND, OREGON
4608
STATE OF OREGON

REVISION NO.	DATE
ADDENDA 1	8/19/2016

KEY PLAN - (NTS)

NORTH

SGG MULTNOMAH

SULLIVAN'S GULCH GROUP MULTIFAMILY DEVELOPMENT

ISSUANCE
PERMIT SET

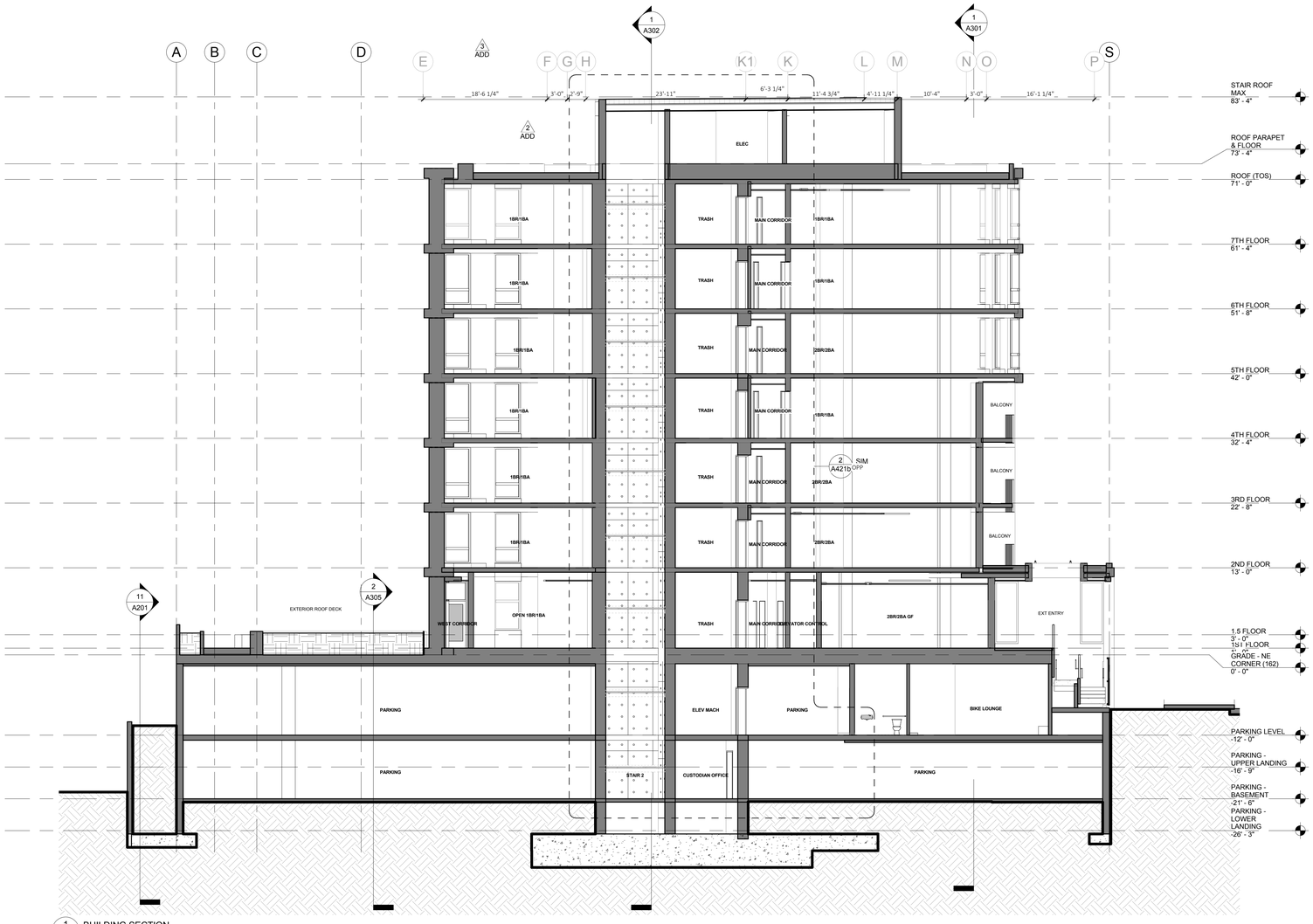
PROJECT NUMBER
1418

DATE
8/7/2015

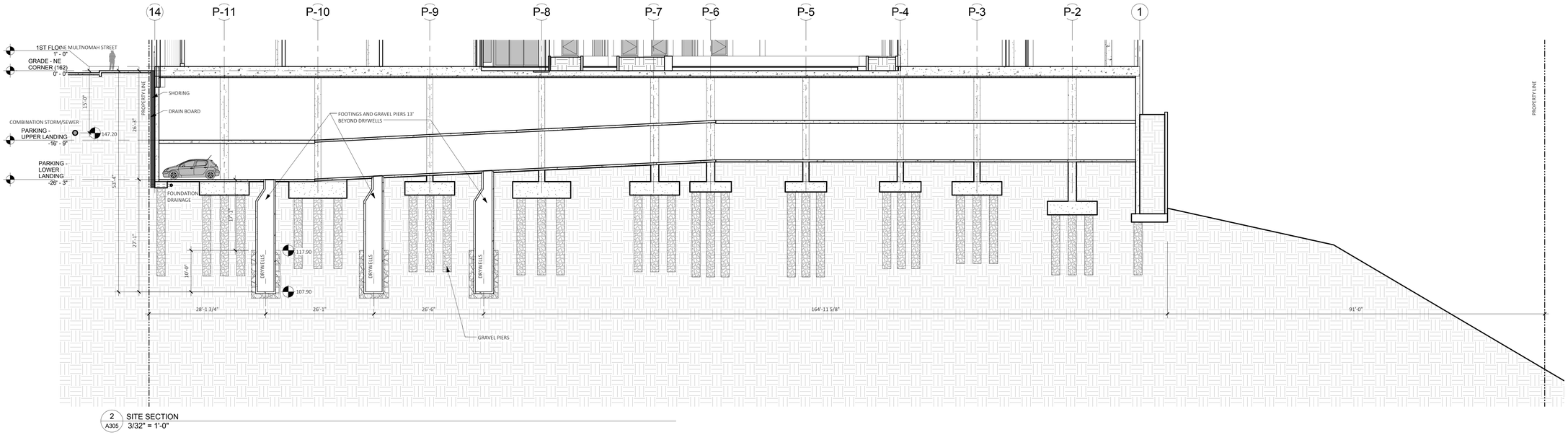
SCALE
As indicated

DRAWING TITLE
FIRST FLOOR PLAN

SHEET NUMBER
A101



1 A305 BUILDING SECTION
1/8" = 1'-0"



2 A305 SITE SECTION
3/32" = 1'-0"

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CONSULTANT
phk development

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WILLIAM C. BANN
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4608
STATE OF OREGON

REVISION NO.		DATE
	ADDENDA 2	9/26/2016
	ADDENDA 3	12/8/2016

KEY PLAN - (NTS)

SGG MULTNOMAH

SULLIVAN'S GULCH GROUP MULTIFAMILY DEVELOPMENT

ISSUANCE
CONFORM SET

PROJECT NUMBER
1418

DATE
1/16/2017

SCALE
As indicated

DRAWING TITLE
BUILDING SECTION

SHEET NUMBER
A305

ORIGINAL APPEAL

Development Services

From Concept to Construction

Phone: 503-823-7300 Email: bds@portlandoregon.gov 1900 SW 4th Ave, Portland, OR 97201
More Contact Info (http://www.portlandoregon.gov//bds/article/519984)

APPEAL SUMMARY

Status: Decision Rendered - Reconsideration of ID 14420

Appeal ID: 14512	**Project Address:** 2014 NE Multnomah St
Hearing Date: 1/25/17	**Appellant Name:** Martha Williams, PE
Case No.: P-005	**Appellant Phone:** 5039466690
Appeal Type: Plumbing	**Plans Examiner/Inspector:** Chuck Luttman
Project Type: commercial	**Stories:** 8 **Occupancy:** R2 **Construction Type:** 1B
Building/Business Name:	**Fire Sprinklers:** Yes - Through Out
Appeal Involves: Reconsideration of appeal	**LUR or Permit Application No.:** 15-215564-CO
Plan Submitted Option: pdf [File 1]	**Proposed use:** Mixed Use

APPEAL INFORMATION SHEET

Appeal item 1

Code Section	Oregon Plumbing Specialty Code - Storm Drainage 1101.5.3.2 and 2014 Portland Stormwater Management Manual - Chapter 2, Drywell Design Requirements, Setbacks Pg 2-88
Requires	Oregon Plumbing Specialty Code requires that no drywell shall be located closer than 5 feet (1524mm) of a property line nor closer than 10 feet (3048mm) to a building unless approved by the building official.
Proposed Design	The applicant is proposing the use of a drywell system to be installed underneath the building structure for several reasons, see 'Reason for Alternate' section for more information. A drywell located under the structure has been taken into account by the Geotechnical engineer per attached documents. The drywell system proposed for the building was sized to infiltrate the 100-year storm. The sizing of the drywell systems was done using HydroCAD®. The un-factored field infiltration rate of 4 in/hr was used for calculations per the geotechnical engineer's recommendations, see attached memorandum. The drywell system will be tested at the time of installation to verify infiltration capacity. Feasibility of on-site infiltration: The feasibility of the drywell system location is based on infiltration testing, maintenance, structural design and strength of soils. Drywells will be setback a minimum of 5 feet from all footings and located on the north side of the property. Additionally, the drywells will be deep and will be discharging stormwater below an elevation of 120 ft (NAVD 88) which is 18.6-28.6 feet below the bottom of the footings, as recommended by the geotechnical engineer, see attached memorandum. The infiltration rate of the deep soils will prevent saturation of the shallow soils directly underneath the buildings. See attachments for supporting data on the effectiveness of infiltration for the site.

Reason for alternative	The applicant proposes the drywell system to be installed underneath the building structure due to space limitations on the site (e.g. the vertical construction consumes the property footprint from zero lot line to zero lot line) preventing location of drywells in accordance with the OPSC. It is also the applicant's belief that the use of drywells is a superior system to other types of retention and treatment-only facilities as it altogether eliminates discharge of the 25-year and 100-year storm to the combined storm/sanitary sewer line at SE Multnomah St. Since the discharge to the drywells is roof area and pedestal paving, no mechanical pre-treatment or accompanying maintenance is required. The proposed system will have minimal sediment loads compared to vehicular traffic areas. There is also precedent from the city for approval of this scenario for the above stated reasons. Mitigation of Maintenance and Overflow Concerns: • The drywell will have an accessible, bolt down manhole rim located in open vehicle drive aisles to allow for maintenance as required by Oregon Department of Environmental Quality (ODEQ). Maintenance will be performed in the same manner as if the drywell was located outside the building. The applicant has confirmed with a local company (River City Environmental Inc.) that a vacuum truck can reach lengths up to 300 feet for drywell maintenance. The drywells will be maintained by a professional management company who will follow the county recorded operations and maintenance plan for the drywells. Mitigation of Soil Bearing Concerns • The strength of the soils will not be affected by the infiltration of stormwater runoff as explained in the attached memo from GRI dated November 7, 2016.

APPEAL DECISION

Drywell system located underneath the building: Hold for more information.

Appellant may contact Joe Blanco (503-823-2059) and Jason Butler-Brown (503-823-4936) for more information.