Town of Kittery Planning Board Meeting September 12, 2019

ITEM 3 – Old Post Road / Bridge Street – Cluster Residential Development – Preliminary Plan Review

Accept or deny application. Schedule a Site Walk and Public Hearing. Owner MAC Properties Bridge Street, LLC and applicant Silver Holdings, LLC request consideration of a three (30 building, 11-unit cluster residential development on 3.02+- acre parcel on Old Post Road / Bridge Street (Tax Map 3 Lot 77A) in the Residential – Urban (R-U) Zone. Agent is Shawn Tobey, P.E. Hoyle, Tanner Associates, Inc.

PROJECT TRACKING

REQ'D	ACTION	ACTION COMMENTS			
YES	Sketch Plan Acceptance/Approval	7/11/2019 Meeting	APPROVED		
YES	Site Visit	To be scheduled	PENDING		
YES	Preliminary Plan Review Completeness/Acceptance	Scheduled for 9/12/2019 Meeting	PENDING		
YES	Public Hearing				
YES	Preliminary Plan Approval				
YES	Final Plan Review and Decision				

Applicant: Prior to the signing of the approved Plan any Conditions of Approval related to the Findings of Fact along with waivers and variances (by the BOA) must be placed on the Final Plan and, when applicable, recorded at the York County Registry of Deeds. PLACE THE MAP AND LOT NUMBER IN 1/4" HIGH LETTERS AT LOWER RIGHT BORDER OF ALL PLAN SHEETS. As per Section 16.4.4.L - Grading/Construction Final Plan Required. - Grading or construction of roads, grading of land or lots, or construction of buildings is prohibited until the original copy of the approved final plan endorsed has been duly recorded in the York County registry of deeds when applicable.

Background

This is now at the preliminary plan acceptance review stage. The proposed cluster residential development located on 3.02+- acre parcel off of Old Post Road and Bridge Street in the Residential – Urban (R-U) Zone. The applicant is proposing the construction of three (3) residential buildings, each three stories high. The residential buildings will contain a total of eleven (11) dwelling units with 22 total parking spaces located within the ground floor garages of each unit.

The existing property contains woods and ledge. There are no wetlands located on site.

Staff Review

As the Board will see from the site development plans all of the zoning requirements of the Residential – Urban (R-U) Zone will be met. At three stories high, the proposed buildings will comply with the 35-foot height limit. There are Cluster Residential Development standards that will need to be met as detailed below, including the calculations for Net Residential Acreage and Net Residential Density.

Cluster Residential Development Requirements

1. The proposed development must comply with requirements of ARTICLE XI Cluster Residential Development of Title 16.

Per 16.3.2.4.D, (3) (a) [1] there is no minimum lot size for cluster subdivision in the R-U zone with the condition that there is a minimum principal building separation as required by the Fire Chief, but not less

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than 15 feet. Staff assumes that these will be attached single-family dwellings (townhouses) with condominium ownership on one lot.

The developer must take into consideration, where applicable, points (1) - (5) of Section 16.8.11.6.I. that concern building orientation, utility installation, recreation, buffering, and development setbacks. These standards will be evaluated later during preliminary plan review.

Net Residential Acreage (NRA) / Density

2. Per 16.7.8.1 and 8.2 the land area needs to be determined for the site. In looking at the required deductions, most would not apply but exposed bedrock does apply. Update: The exposed ledge has been calculated at 17,600+- sf and netted out of the NRA calculation.

Parking Requirements / Access

- 3. Per 16.8.9.4, two (2) spaces are required per dwelling unit. The parking requirement of a minimum of 22 spaces will be met. Each unit will have two (2) garage parking spaces at ground level.
- 4. A 22-foot wide driveway will be constructed at a 10% maximum slope to access the site from Old Post Road. Update: The proposed 11 units would result in an Average Daily Trip (ADT) count of 110 per the Institute of Transportation Engineers (ITE) publication "Trip Generation, 7th Edition" (ITE, 2003). According to Section 16.8.4.3. G, the proposed roadway would fall under the Private Streets classification, and would be subject to the design and construction standards for streets and pedestrian ways as a Minor Street. The standards require a 20' of pavement with a 5' sidewalk and 2/8 feet wide walk side /opp. side paved shoulders and 2' gravel shoulders. The proposed roadway is shown as 22 feet wide with no sidewalk and 2' shoulders. A turnaround is also required and none is shown on the plan. However, Section 16.3.2.4.D Standards states that the design and performance standards in Chapters 16.8 and 16.9 may be modified by cluster residential development. The Board will need to consider and discuss the road / sidewalk design standards with the applicant during the preliminary plan review process.

Open Space

5. Per 16.8.11.6.E, the open space requirement of a minimum of 50% of the total area will be met with 57% proposed. The open space is proposed for owner recreation and permanently dedicated to protect its natural condition. Update: According the applicant, approximately 72.5% of the total site will be kept in open space. The site plan delineates the areas of open space indicating which portions are common and which are reserved.

<u>Utilities / Site Improvements</u>

6. The plans show general information regarding utilities that will be available to the site development. Proposed water, sewer, underground electric and telecom services serve the project from Bridge Street. Update: The proposed development will be serviced by the Kittery Water District for water service and Town of Kittery Sewer Department for sewer service. Letters of evaluation from both are attached. The locations of the underground electric and telephone lines are shown on plans.

Confirmation of Submittal Content

The application package appears to satisfy the submittal content required by the code.

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The plans and supplemental materials have been evaluated at a Technical Review Committee meeting on August 27th. The Fire Chief's comment memorandum is attached. David Rich, Commissioner of Public Works and Jessa Kellogg, Stormwater Coordinator have also provided a memorandum (attached) from that meeting for the Board's consideration as this project moves through the preliminary plan review process.

The plans and supplemental materials are also being reviewed by CMA Engineers.

Recommendation

Staff recommends that the Board accept the preliminary site plan application as complete and schedule a site walk and public hearing.

Move to accept the cluster residential preliminary plan – major subdivision, dated June 20, 2019 as prepared by Hoyle, Tanner & Associates, Inc., for owner MAC Properties Bridge Street, LLC and applicant Silver Holdings, LLC for a three (3) building, 11-unit cluster residential development on 3.02+- acre parcel on Old Post Road / Bridge Street (Tax Map 3 Lot 77A) in the Residential – Urban (R-U) Zone as complete.

Move to schedule a site visit on {date and time} for the cluster residential preliminary plan – major subdivision, dated June 20, 2019 as prepared by Hoyle, Tanner & Associates, Inc., for owner MAC Properties Bridge Street, LLC and applicant Silver Holdings, LLC for a three (3) building, 11-unit cluster residential development on 3.02+- acre parcel on Old Post Road / Bridge Street (Tax Map 3 Lot 77A) in the Residential – Urban (R-U) Zone.

Move to schedule a public hearing on {date} for the cluster residential preliminary plan – major subdivision, dated June 20, 2019 as prepared by Hoyle, Tanner & Associates, Inc., for owner MAC Properties Bridge Street, LLC and applicant Silver Holdings, LLC for a three (3) building, 11-unit cluster residential development on 3.02+- acre parcel on Old Post Road / Bridge Street (Tax Map 3 Lot 77A) in the Residential – Urban (R-U) Zone

August 22, 2019

Adam Causey, AICP Town of Kittery 200 Rogers Road Kittery, ME 03904

Re: Cluster Development
Plan Review Application

Old Post Road Kittery, ME 03904 Tax Map Lot 3-77A

Dear Mr. Causey,

Hoyle, Tanner Associates, Inc.

> Pease International Tradeport 100 International Drive, Suite 360 Portsmouth, New Hampshire 03801 603-431-2520 603-431-8067 fax www.hoyletanner.com

On behalf of Silver Holdings, LLC, Hoyle, Tanner and Associates is pleased to submit this application for a Cluster Development Plan Review. The proposed development is located on Tax Map 3, Lot 77A, in the Town of Kittery, Maine. The development proposes the construction of three (3) residential buildings each three and a half stories with a total of 11 dwelling units. Each unit will have a two (2) car garage on the lower level with additional parking in front of the garage to accommodate any guests. The development will construct a 22-foot-wide private driveway at a 10% maximum slope to access the proposed residential buildings. The design also includes the construction of supporting utilities, drainage infrastructure, landscaping and lighting. A central stormwater pond will provide a reduction in stormwater runoff rates for the 2-year and 25-year design storms per the Town of Kittery Land Use and Development Code.

A Maine Department of Environmental Protection Permit by Rule (PBR) is required for the project because it will result in more than 1 acre of disturbance. The project will construct less than 1 acre of new impervious cover and developed area will be less than 3 acres; therefore, further stormwater permitting is not required.

The cluster development application requires the applicant to address the following findings (Title 16.10.8.3.4) in writing during the Preliminary Plan application. See below for the cluster development requirements and the responses.

A. The development Conforms to Local Ordinances

The proposed development meets all required ordinances set forth by the Town, as well as, all criteria set forth for a cluster development. The criteria include the maintenance of greater than 50% open space and providing open space greater than 30% of the net residential acreage. The proposed development will cluster the buildings and parking at the center of the site while maintaining the natural woods and site features that surround the perimeter of the parcel. Approximately 72.5% of the total site area will remain open space. Open space will be used for owner recreation and will preserve its natural condition. Please refer to the Site Plan, sheet C5, for detailed calculations of compliance with the Town of Kittery regulations, Title 16: Land Use and Development Code and the Cluster Residential Development standards (16.8.11).

B. Freshwater Wetlands Identified

The site was reviewed by Joseph Noel C.S.S and it was determined that there are no wetlands present on the existing site.

C. River, Stream or Book Identified

The site was reviewed by Joseph Noel C.S.S and it was determined that there are no rivers, streams or brooks present on the site.

D. Water Supply Sufficient

The proposed development will be serviced by the Town of Kittery Water District. A letter from the Kittery Water District stated that the Water District has adequate water to supply the proposed development. A copy of this letter is included in the application package.

E. Municipal Water Supply Available

The proposed development will be serviced by the Town of Kittery Water District. A letter from the Kittery Water District stated that the Water District has adequate water to supply the proposed development. A copy of this letter is included in the application package.

F. Sewage Disposal Adequate

The proposed development will be serviced by the Town of Kittery Sewer Department. A letter from the Superintendent of Sewer Services stated that they have adequate capacity to accept the estimated flow from the proposed development. A copy of this letter is included in the application package.

G. Municipal Solid Waste Disposal Available

Municipal solid waste disposal for the proposed development will be served by a central dumpster that will be contracted through a professional waste disposal company.

H. Water Body Quality and Shoreland Protected

The proposed development is not located within 250 feet of any wetlands or waterbodies.

Groundwater Protected

The proposed development will be served by municipal water and will not draw from the groundwater supply. The proposed stormwater systems do not include any infiltration devices that would adversely affect the groundwater in the surrounding area.

J. Floor Areas Identified and Development Conditioned

The proposed development is not located within a designated flood zone. Please refer to the Federal Emergency Management Administration (FEMA) Flood Insurance Rate Map (FIRM) located in the Drainage Narrative for reference.

K. Stormwater Managed

The stormwater management design was conducted per the Town of Kittery regulations, Title 16: Land Use and Development Code (16.8.8.1 Stormwater Drainage) and analyzes the 2-year and 25-year design storms. The proposed development will reduce the stormwater runoff flow rates at each design point for both the 2-year and 25-year design storms per the Town of Kittery Land Use Regulations.

L. Erosion Controlled

An erosion control plan and details were prepared and are included in the site development plans. The plans detail erosion control measures during construction and post construction. Erosion control measures include a stabilized construction entrance, silt socks, inlets protection, stone check dams, rip-rap level spreaders and erosion control matting.

M. Traffic Managed

The proposed development is anticipated to generate minimal traffic on Old Post Road and the surrounding intersections based on the proposed 11 dwelling units. The proposed driveway entrance provides a sight distance greater than the required 250 feet of sight distance for a 25 mph roadway.

N. Water and Air Pollution Minimized

The proposed development will not generate water or air pollutants.

O. Aesthetic and Natural Values Protected

The proposed development was clustered at a central location on the site to minimize the disturbance to the existing vegetation. There are no historic sites or significant wildlife habitats located onsite. The proposed buildings have been designed to match the architecture of the surrounding coastal area.

P. Developer is Financially and Technically Capable

The developer will provide proof of finical capacity prior to obtaining a building permit. For the project the developer has hired a professional civil and structural engineer as well as an architect to manage all aspects of technical design.

Items Q-T do not apply to the project.

We trust that these responses have thoroughly addressed all cluster development requirements. Please do not hesitate to contact our office with any additional questions or comments regarding this project.

Sincerely,

HOYLE, TANNER & ASSOCIATES, INC.

Shawn M. Tobey, P.E.

Shrum Tobey

Project Manager



TOWN OF KITTERY MAINE TOWN PLANNING AND DEVELOPMENT DEPARTMENT

200 Rogers Road, Kittery, Maine 03904 PHONE: (207) 475-1323 Fax: (207) 439-6806 www.kittery.org

CLUSTER DEVELOPMENT PLAN REVIEW

FEES I	FOR REVIEW: Application Fee Paid:				Map #: 3 Lot #: 77A						
X \$50	0. 00 <u>PLUS</u>	\$ <u>1050.00</u>				Zones: Base R-U					
_	0.00/LOT OR	Date: 8/22/19					Overlay(s) N/A				
	VELLING UNIT	Review Escrow Fee Paid:									
		\$					Physical OI	ld Post	Road Kittery ME 03904		
		Date:					Address: Old Post Road, Kittery, ME 03904				
DDODED	atv.	Owner's Name: Phone:		MAC Prop	perties Bridge Street,	LLC			209 Gosport Road		
	/APPLICANT			N/A			Owner's Mailing Address:		Portsmouth, NH		
(print cl	1ATION* learly)	Emo	ail:	N/A							
*Applicar	nt must also wner's signed	Applicant's Name:		Silver Holdings LLC, C/O: William Wh					1 City Center		
authoriza behalf.	tion to act on their	Phone:		(617) 767-1897			Applicant's Mailin Address:		Portland ME 04101		
a citati		Email:		wjwharff@gmail.com							
APPLICA	NT'S	Name:		Shawn Tobey, P.E.			Name of Business Hoyle, Ta		Hoyle, Tanner & Assoc	ciates, Inc.	
AGENT		Phone:		(603) 431-2520, ext 29		9	Mailing Address		100 International Drive, Suite 360 Portsmouth, NH 03801		
INFORM (print cl		Fax:		(603) 431-8067							
		Email:		stobey@hoyletanner.co		om					
N	Existing Use(s):	The	Site is unde	evelope	d and is most	ly w	ooded with s	catter	ed outcroppings of ledge.		
PROJECT DESCRIPTION	Number of Propo	roposed 11 Dwellin		g Units Subdivision Nar		ame	TBD				
r desc	Proposed Road Name: N/A - Private Driveway										
JEC	(A separate application is required and approval received from Policy					n Pul	blic Safety/DPV				
PRO	Ownership: (check)		k) Fee- Simple X Condominium		4	(chock)		Total Development	X Landscaping		
								Other	X Road		
			Articl	e XI, Cha	pter 8 – Cluster	Resid	dential and Clus	ster Mi	xed-Use Development		
ADDITIONAL SUBMITTAL INFORMATION	To begin Preliminary Plan Review for Cluster Development, the Applicant must have received Sketch Plan acceptance through Planning Board action, including all requirements for Sketch Plan submittal as described in Title 16.8.11.5. As part of the preliminary plan review, sketch plan review submittal information must be attached to this plan application, including documentation of Planning Board action on the sketch plan. All other requirements as outlined in Article XI, Chapter 8 must be addressed at the Preliminary Plan Review level and included herein.										
	To begin Final Plan Review for Cluster Development, the Applicant must have received Preliminary Plan approval through Planning Board action.										
AD	Throughout plan review, it is the responsibility of the Applicant/Agent to provide information as required in Chapter 16.8 Design and Performance Standards-Built Environment, Chapter 16.9 Design and Performance Standards-Natural Environment and Chapter 16.10 Development Plan Application and Review, and other requirements as referenced.										

Title 16.7.4.1:		In granting modifications or waivers, the Planning Board must require such conditions as will, in its judgment, substantially meet the objectives of the requirements so waived or modified.					
	Ordinance Section	Describe why this request is being made.					
	EXAMPLE 16.32.560 (B)- OFFSTREET PARKING.	***EXAMPLE*** Requesting a waiver of this ordinance since the proposed professional offices have a written agreement with the abutting Church owned property to share parking.					
VERS							
WAI							
REQUESTED WAIVERS							
REQI							

ABUTTER NOTIFICATION

16.10.5.1.1. Preliminary Plan Application Filing and Completeness Review. The application must be accompanied by a Plan and the required fee together with a certification the applicant has notified abutters by mail of the filing of the Plan application for approval.

<u>Submitted Applications must include a list of the names and addresses of the abutters and date notification mailed.</u>

The abutter Notice of Filing must include the owner/applicant name, address and description of the proposed project.

Applications will not be accepted without submittal of all plan requirements as specified herein, and without a complete, signed application page (page 5).

Updated: March 2013 Page 2 of 7

Minimum Plan Submission Requirements (Title 16.10.5.2) **15 COPIES OF THIS APPLICATION** 15 COPIES OF THE PLAN - 5 OF WHICH MUST BE 24"X 36" 1 PDF OF THE SITE PLAN SHOWING GPS COORDINATES Prior to starting the review process, the Planning Board will decide Indicate required landscaping including: ■ Type of plant material ■ Plant/Tree sizes whether sufficient information has been provided and will vote to ■ Placement ■ Irrigation systems DETERMINE COMPLETENESS/ACCEPTANCE. The applicant is responsible to clearly describe the project. The following Show natural and historical topography: requirements must be addressed, and noted if not applicable. ☐ Rock walls ☐ Railroad beds ■ The location of all natural features or site elements to be preserved. ■ No less than 11" X 17" (reduced) or greater than 24" X 36" (full) Provide a locus map showing the property in relation to surrounding roads, within 2,000 feet of any property line of the development. Scale size: ■ Under 10 acres: no greater than 1" = 30' Provide a vicinity map and aerial photograph at a scale not more than 400 feet □ 10 + acres: 1" = 50' to the inch showing the relation to other properties and geographic features Title block: ■ All the area within five hundred (500) feet of the boundary line of the ■ Applicant's name and address proposed development including roads, geographic features, natural resources ■ Name of preparer of plans with professional information and professional (wetlands, etc.), historic sites, applicable comprehensive plan features such as proposed park locations, land uses, Zones and other features; ■ Parcel's tax map identification (map – lot) ■ Any smaller area between the tract and all existing streets, provided any ■ Date of plan preparation part of such a street used as part of the perimeter for the vicinity map is at least five hundred (500) feet from any boundary of the proposed development. Boundary survey performed and sealed by licensed surveyor: ■ Identify all existing boundary markers Show the locations of any: ■ Show all proposed boundary monuments (per ordinance) □ Parks ■ Open space Conservation easement **Provide orientation:** Identify and locate each: ■ Arrow showing true north and magnetic declination Rights-of-way □ Easements ☐ Street alignments ■ Parcel Owners and map and lot ■ Graphic scale ☐ All intersecting property lines within 50 feet of the parcel. ■ Deed docket and page numbers ■ Signature blocks Include plans, profiles and typical sections of all roads and other paved ways, Show location and description of: including all relevant street data. ■ All structures ■ Floor plans ■ Intersections or ■ Distance to nearest intersection ■ Elevations of principle structures ■ Driveways onsite ■ Distance to nearest driveway ■ All structures and accesses within 100 feet ■ Sight visibility lines Show parcel data: Show all existing and proposed lighting ■ Total parcel area ■ Rights-of-way area □ Wetlands area ☐ Map of all street lighting, attached lighting, and area lighting ■ Area to be disturbed ■ Length of street frontage ☐ Location of lighted signs ■ Photo-metrics map ■ Wetland setbacks ■ Building setback lines ☐ All parcels of land proposed to be dedicated to public use and the conditions ☐ Indicate the **location of any permanently installed machinery** likely to of such dedication cause appreciable noise at the lot lines. Indicate how the existing ground will change by showing: Provide description of these materials stored on the property: ■ Existing contours ■ Proposed contours ■ % grade ☐ Hazardous ☐ Toxic ☐ Raw Waste ■ Finished grades ■ Proposed slopes ■ Finished floor elevations Indicate the location and dimensions of (existing and proposed): ■ Show names and addresses of all owners of record on abutting parcels and ■ Curbs □ Driveways ■ Sidewalks the assessor's map and lot numbers. **■** Fences ■ Retaining walls □ Other artificial features ■ Label all zoning districts abutting the property boundaries. Show parking calculations and parking spaces on the site plan and: ☐ Existing parking, if applicable ☐ proposed parking spaces ■ Show locations of natural physical features such as water bodies, ☐ Handicapped spaces watercourses, forest cover, and ledge outcroppings. Copies of State and Local permit applications: Show the locations of existing and proposed utilities and identify which utilities ☐ Notice of Intent ☐ NRPA ☐ Permit by Rule are to be privately owned/ municipally owned: ☐ all other applicable permits ■ Overhead Electric ■ underground electric ■ Water mains □ Wells ☐ Gas mains ☐ Cable TV ☐ Sewer mains ☐ Test pits ☐ Septic tanks ■ Copy of FIRM Map showing proposed parcel boundary. ☐ Leach fields ☐ Storm drain lines ☐ Catch basins ☐ Culverts ■ Gutters ■ Stormwater storage basins □ Rain gardens PRIOR TO A SITE WALK, TEMPORARY MARKERS MUST BE ■ Nearest fire hydrant ADEQUATELY PLACED THAT ENABLE THE PLANNING BOARD TO

SUBMITTALS THE TOWN PLANNER DEEMS SUFFICIENTLY LACKING IN CONTENT WILL NOT BE SCHEDULED FOR PLANNING BOARD REVIEW.

READILY LOCATE AND APPRAISE THE LAYOUT OF THE DEVELOPMENT.

Updated: March 2013 Page 3 of 7

Plan Findings of Fact

The following Findings (Title 16.10.8.3.4) must be sufficiently addressed in writing by the applicant/agent and submitted to the Planning Department with the Preliminary Plan application. These Findings must be updated as necessary during the review process, and the Plan must be in compliance with these Findings prior to Final Plan approval by the Planning Board.

- A. **Development Conforms to Local Ordinances** The proposed development conforms to a duly adopted comprehensive plan as per adopted provisions in the Town Code, zoning ordinance, subdivision regulation or ordinance, development plan or land use plan, if any. In making this determination, the municipal reviewing authority may interpret these ordinances and plans.
- **B.** *Freshwater Wetlands Identified* All freshwater wetlands within the project area have been identified on any maps submitted as part of the application, regardless of the size of these wetlands.
- c. **River, Stream or Brook Identified** Any river, stream or brook within or abutting the proposed project area has been identified on any maps submitted as part of the application. For purposes of this section, "river, stream or brook" has the same meaning as in 38 M.R.S. §480-B, Subsection 9.
- D. Water Supply Sufficient The proposed development has sufficient water available for the reasonably foreseeable needs of the development.
- E. **Municipal Water Supply Available** The proposed development will not cause an unreasonable burden on an existing water supply, if one is to be used.
- F. **Sewage Disposal Adequate** The proposed development will provide for adequate sewage waste disposal and will not cause an unreasonable burden on municipal services if they are utilized.
- G. Municipal Solid Waste Disposal Available The proposed development will not cause an unreasonable burden on the municipality's ability to dispose of solid waste, if municipal services are to be used.
- H. Water Body Quality and Shoreline Protected Whenever situated entirely or partially within two hundred fifty (250) feet of any wetland, the proposed development will not adversely affect the quality of that body of water or unreasonably affect the shoreline of that body of water.
- I. Groundwater Protected The proposed development will not, alone or in conjunction with existing activities, adversely affect the quality or quantity of groundwater.
- J. Flood Areas Identified and Development Conditioned

 All flood-prone areas within the project area have been identified on maps submitted as part of the application based on the Federal Emergency Management Agency's Flood Boundary and Floodway Maps and Flood Insurance Rate Maps, and information presented by the applicant. If the proposed development, or any part of it, is in such an area, the applicant must determine the one hundred (100) year flood elevation and flood hazard boundaries within the project area. The proposed plan must include a condition of plan approval requiring that principal structures in the development will be constructed with their lowest floor, including the basement, at least one foot above the one hundred (100) year flood elevation.
- K. Stormwater Managed The proposed development will provide for adequate stormwater management.
- **L. Erosion Controlled** The proposed development will not cause unreasonable soil erosion or a reduction in the land's capacity to hold water so that a dangerous or unhealthy condition results.
- M. Traffic Managed The proposed development will:
 - 1. Not cause unreasonable highway or public road congestion or unsafe conditions with respect to the use of the highways or public roads existing or proposed; and
 - 2. Provide adequate traffic circulation, both on-site and off-site.
- N. Water and Air Pollution Minimized The proposed development will not result in undue water or air pollution. In making this determination, the following must be considered:
 - 1. Elevation of the land above sea level and its relation to the floodplains;
 - 2. Nature of soils and sub-soils and their ability to adequately support waste disposal;
 - 3. Slope of the land and its effect on effluents;
 - 4. Availability of streams for disposal of effluents;
 - 5. Applicable state and local health and water resource rules and regulations; and
 - 6. Safe transportation, disposal and storage of hazardous materials.

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VICINITY MAP

PROPOSED 11-UNIT CLUSTER RESIDENTIAL DEVELOPMENT PROJECT OLD POST ROAD KITTERY, ME 03904

APPLICANT:

SILVER HOLDINGS, LLC **1 CITY CENTER** PORTLAND, ME 04101

Hoyle, Tanner

Associates, Inc. Tradepoi 100 International Dr. #360, Portsmouth, NH 03801

Tel (603) 431-2520 Fax (603) 431-8067 Web: www.hoyletanner.com © Copyright 2019 Hoyle, Tanner & Associates, Inc.

DATE: 08/22/2019

FIGURE: SCALE:

1"=400'

Pease

International

Tradeport



Town of Kittery, Maine Fire Department

3 Gorges Road Kittery, Maine 03904 Tel (207) 439-2262 Chief David O'Brien firechief@kitteryme.org

MEMORANDUM

03 September 2019

Subj: Proposed Old Post Road 11-Unit Cluster Development

I have conducted a review of the subject site plan proposal for Tax Map Lot 3-77A. The following are my comments:

- a. The plan presents a combination of a 10% grade over the distance until the sharp left turn with a 20' radius. This grade is higher than the allowed standards and presents access issues for emergency vehicles during winter months.
- b. The 20' radius of the turns entering the access to Building 3 and to Buildings 1 and 2 do not easily allow access by Fire Department apparatus. This issue combined with the 10% grade presents access issues for emergency vehicles.
- c. Trees located is front of the three buildings need to be removed.
- d. An adequate sized "hammerhead" turn around needs to be provided.
- e. All buildings are required to have fire suppression systems installed; including sprinklers, monitored alarm systems and KNOX box keyed entry systems.

Fire Chief, CFOIII



TOWN OF KITTERY

Department of Public Works 200 Rogers Road, Kittery, ME 03904

Telephone: 207-439-0333 Fax: 207-439-6816

MEMORANDUM

To:

Jamie Steffen, Town Planner

From:

David Rich, Public Works Commissioner Jessa Kellogg, Stormwater Coordinator

Subject:

Old Post Road/Bridge Street Planning Board review

Subject:

September 5, 2019

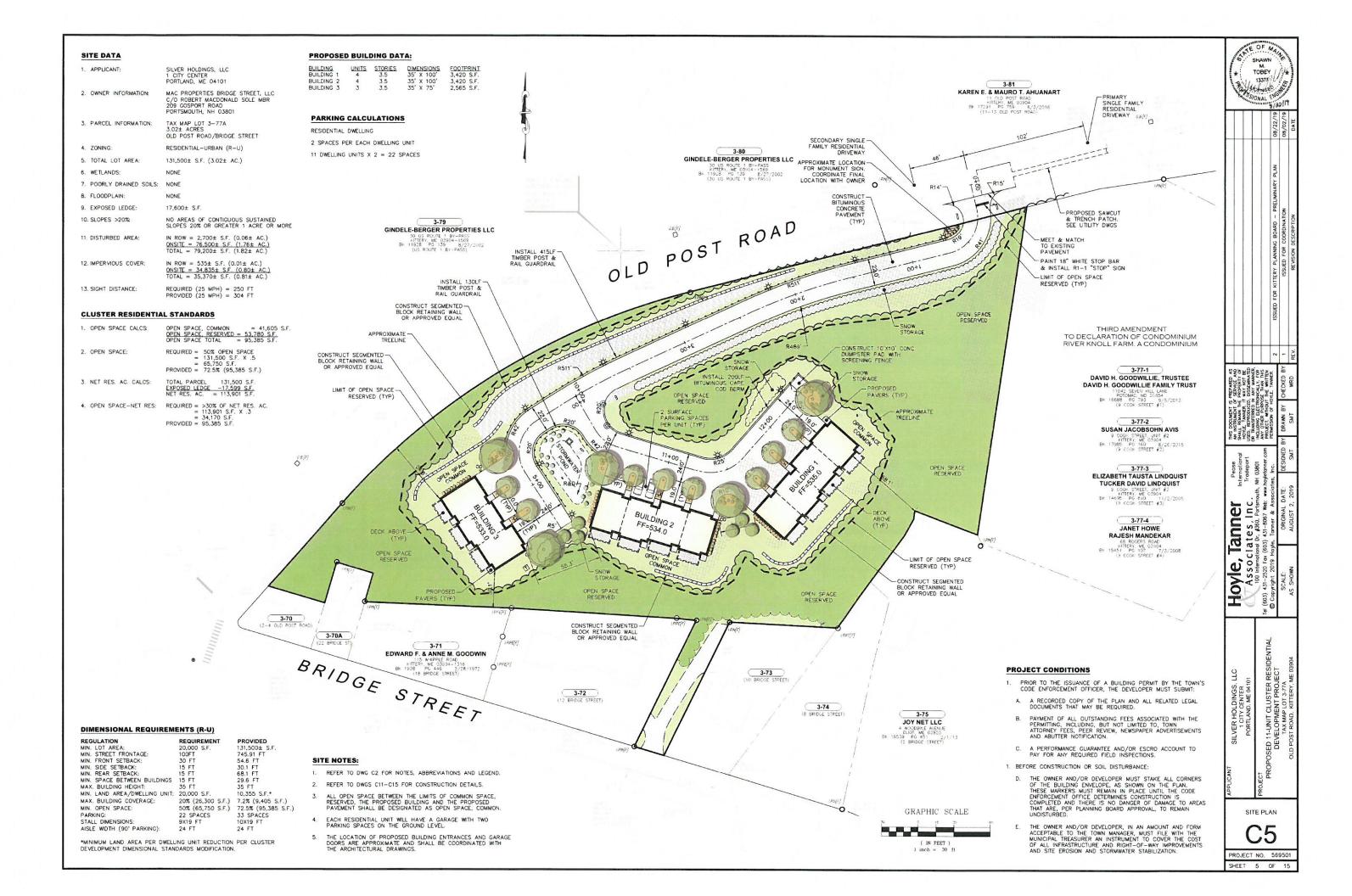
Upon review of the preliminary plan Public Works staff have the following comments.

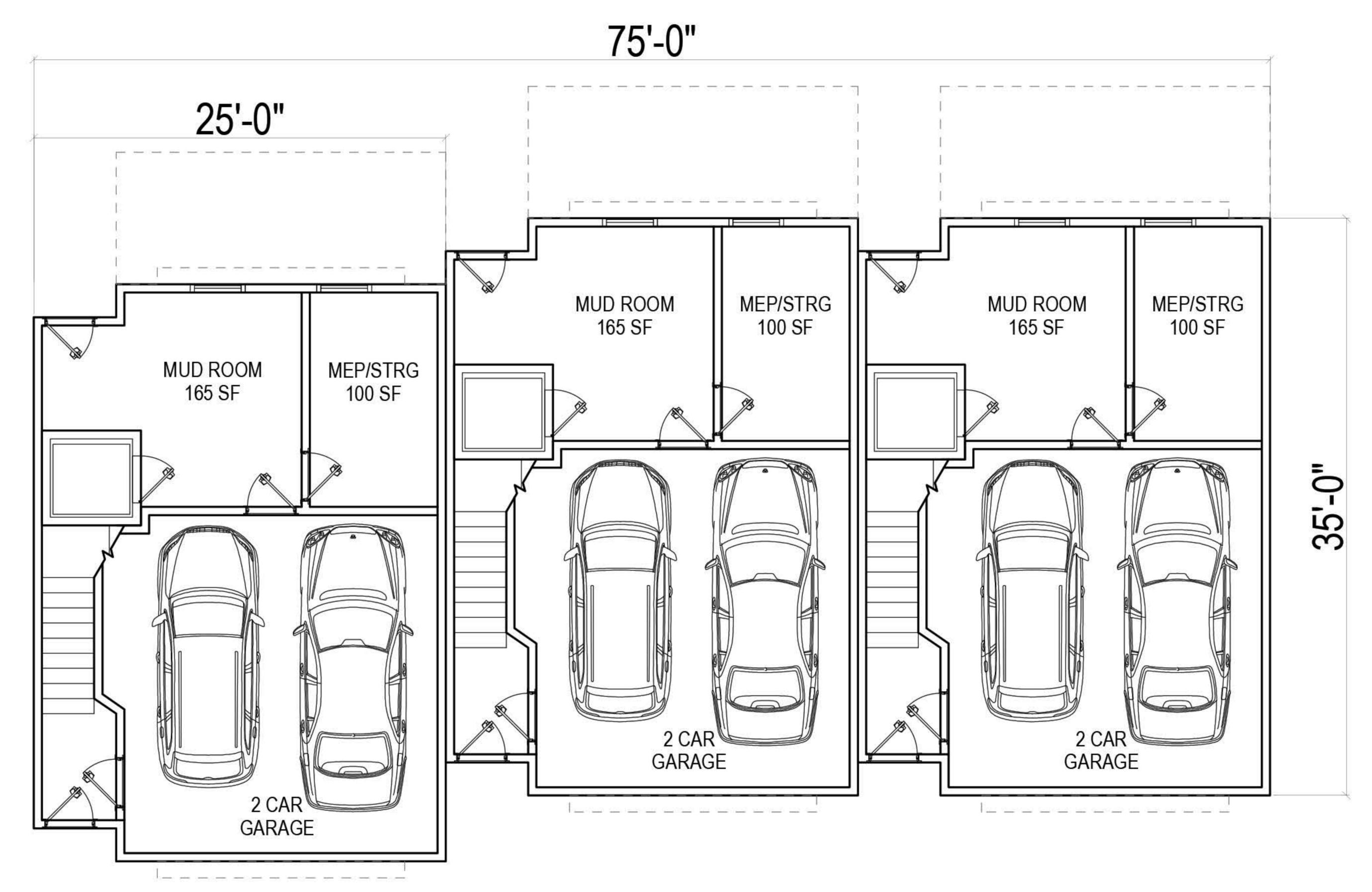
There is existing stormwater drainage infrastructure on Old Post Road. It appears there may need to be a catch basin installed on either side of the proposed road entrance and ensure that the existing drainage piping can handle the volume of stormwater discharging from this site.

A minimum 5-foot sidewalk on the private right of way and 6-foot sidewalk along the entire frontage of Old Post Road is required per Title 16.8 Table 1 Design and Construction Standards for Streets and Pedestrianways. Table 1 also addresses maximum allowed longitudinal street gradients. The preliminary plan appears to show a stretch of 10% grade and the code is restricted 8%. The preliminary plan does not show any sidewalks and no waiver for either of these standards appears to be requested. The applicant should address these concerns and Public Works would like to see a sidewalk installed at a minimum along the length of Old Post Road from the private right way entrance to the Bridge Street crosswalk to enhance connectivity.

The applicant should be made aware that there is a five-year moratorium on road entrance permits for newly paved public right of ways. Old Post Road was paved in 2017 and any road entrance conditions of approval would need to include repaving the entire width of the road the entire distance of Old Post Road to Bridge Street and be guaranteed against failure for the remainder of the existing moratorium.

Per Title 16.8.8.2 this development will require a post-construction stormwater management plan to include annual inspections of stormwater infrastructure and annual reports of these inspections and any required maintenance to both the Town of Kittery and Maine Department of Environmental Protection.





BUILDING 1 FLOOR 1





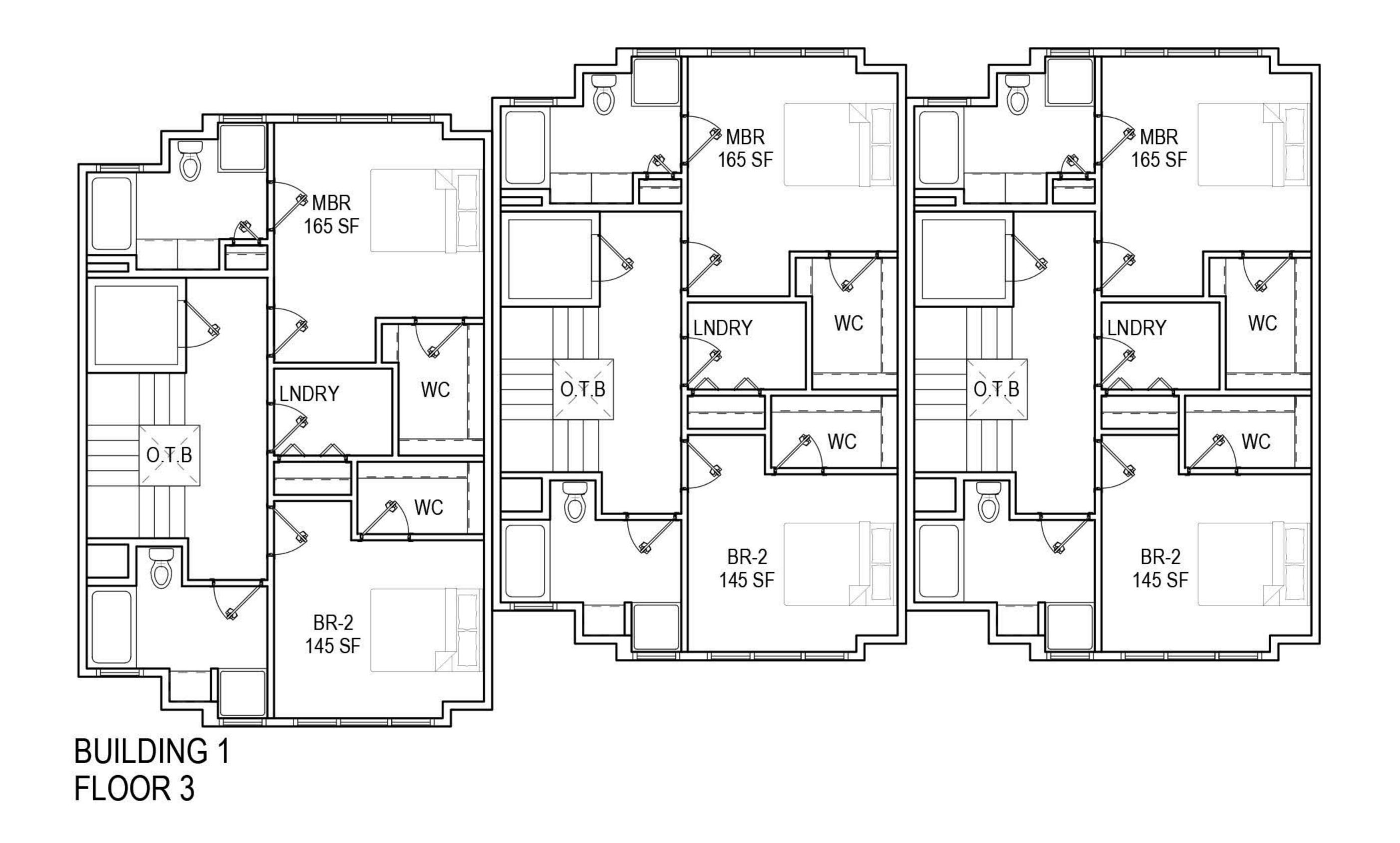








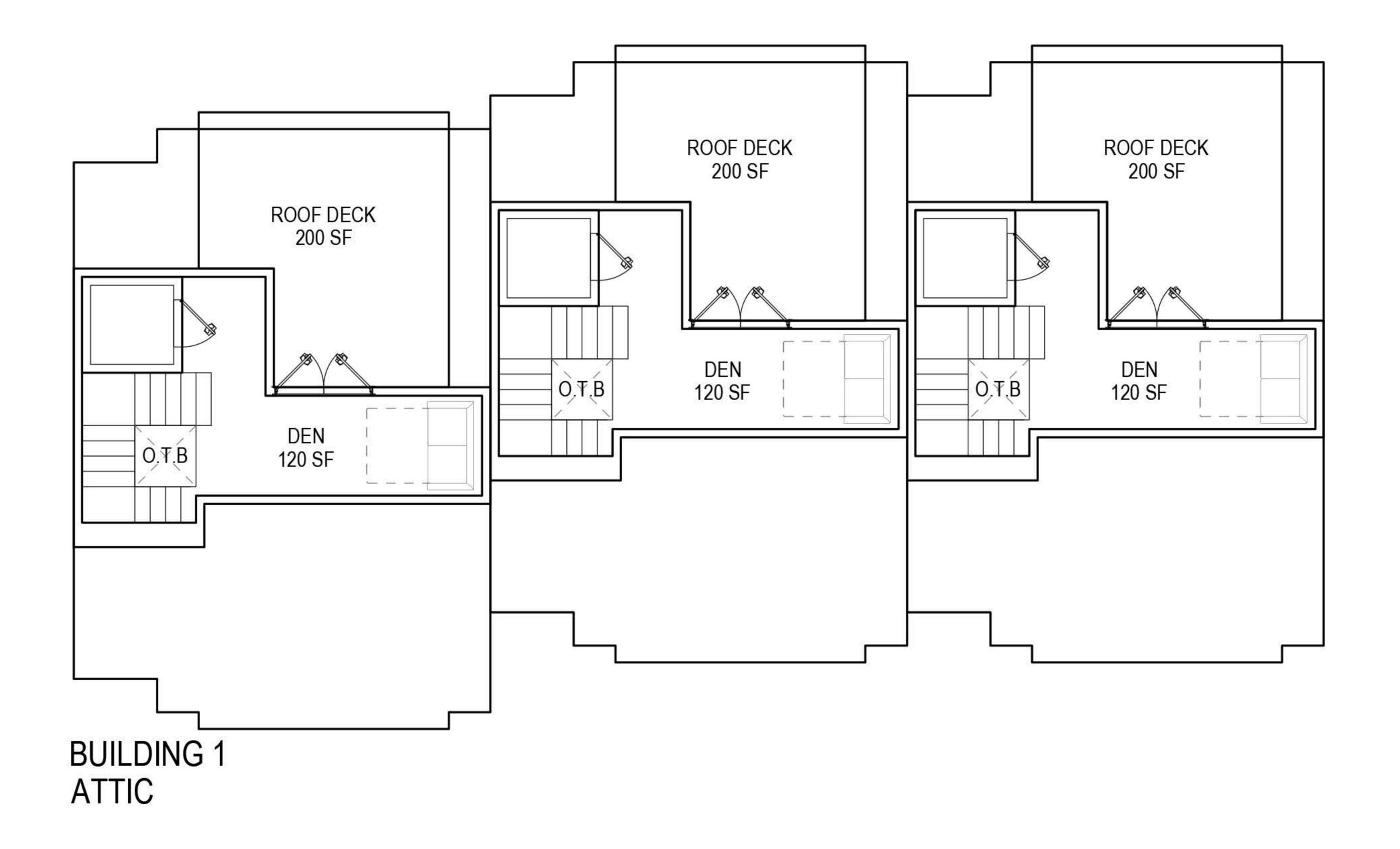


















35' Average Roof Height



Building 1 Front Elevation

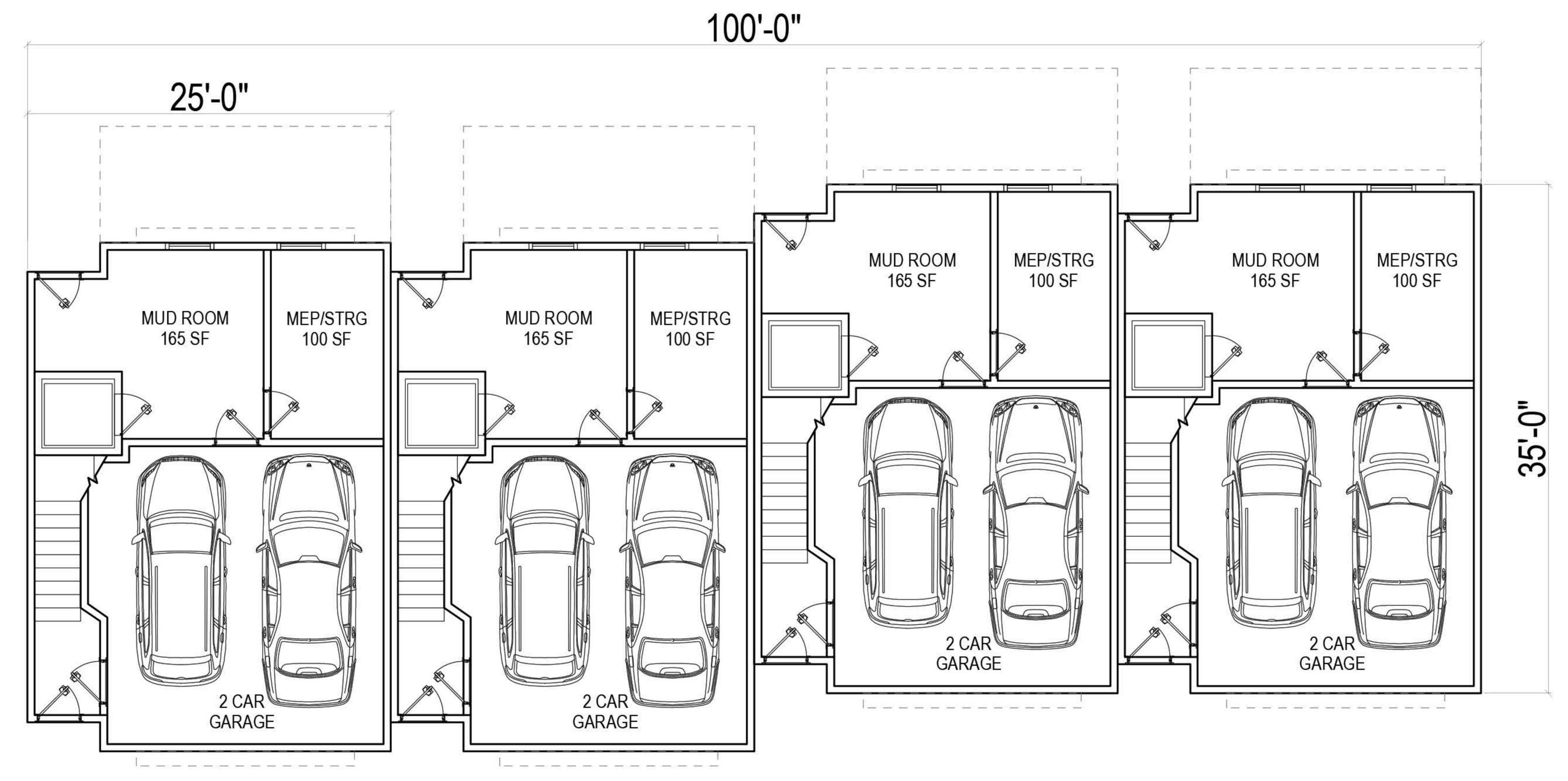




35' Average Roof Height



Building 1 Rear Elevation



BUILDING 2 FLOOR 1





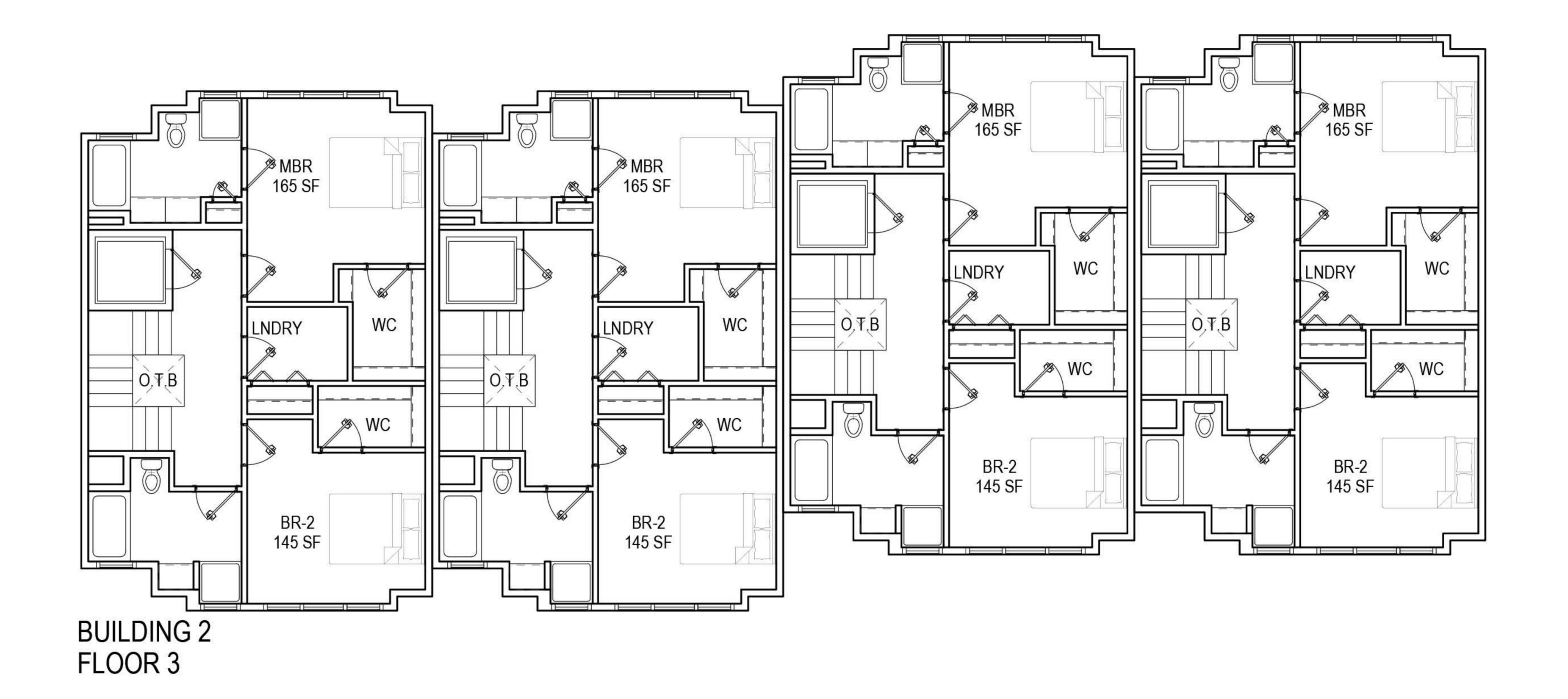


BUILDING 2 FLOOR 2





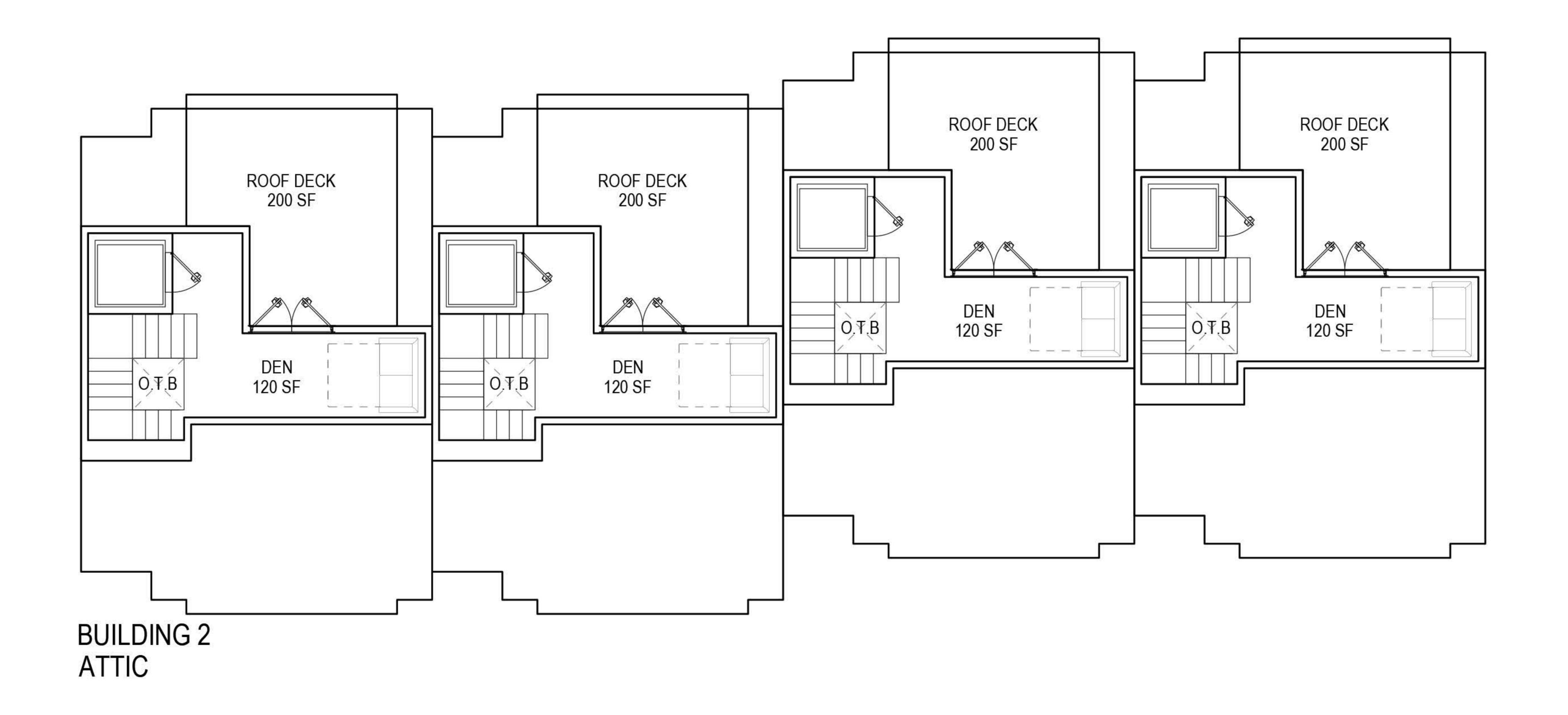




















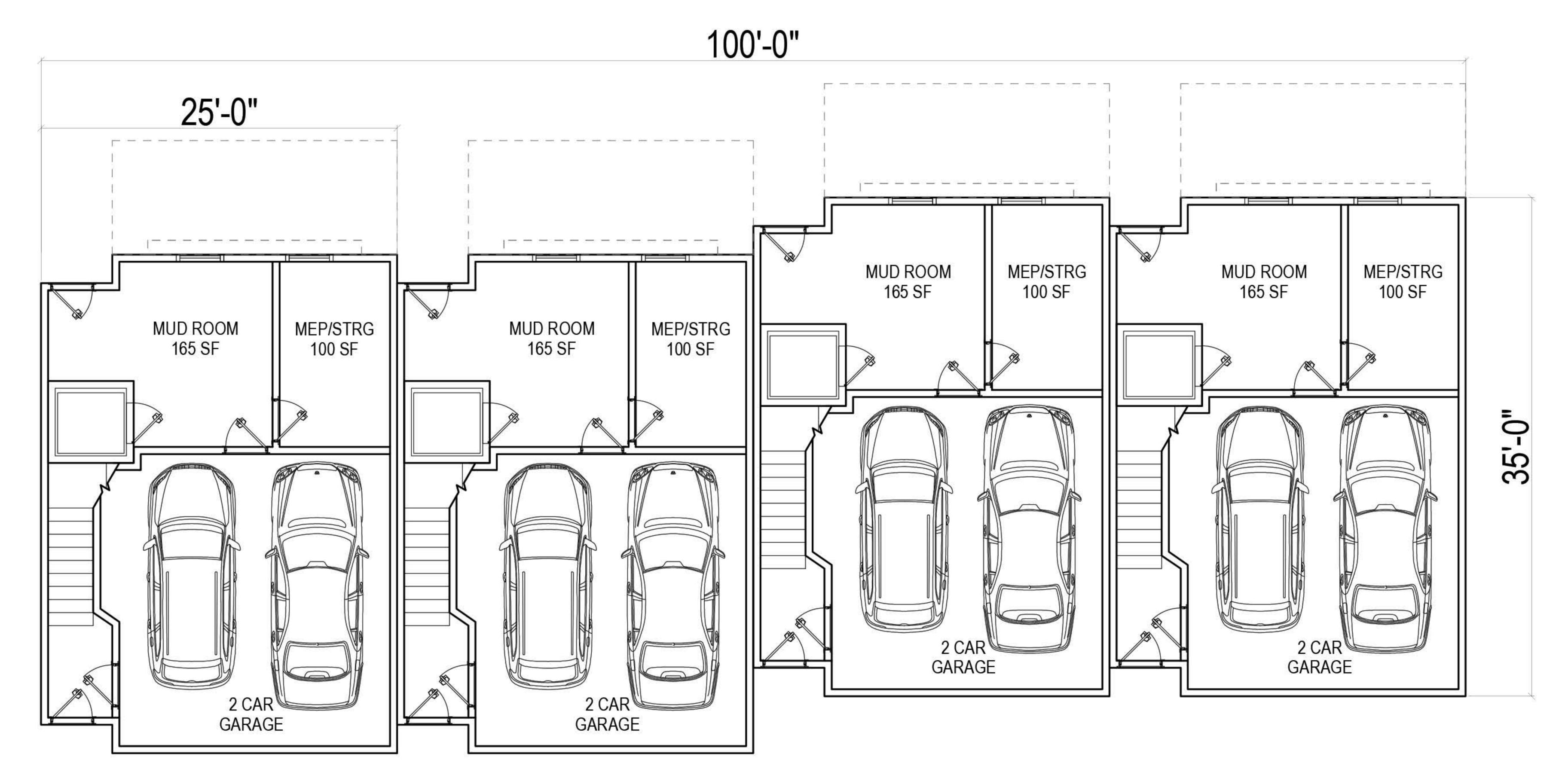
Building 2 North Elevation





35'A.R.H.

Building 2 Rear Elevation



BUILDING 3 FLOOR 1





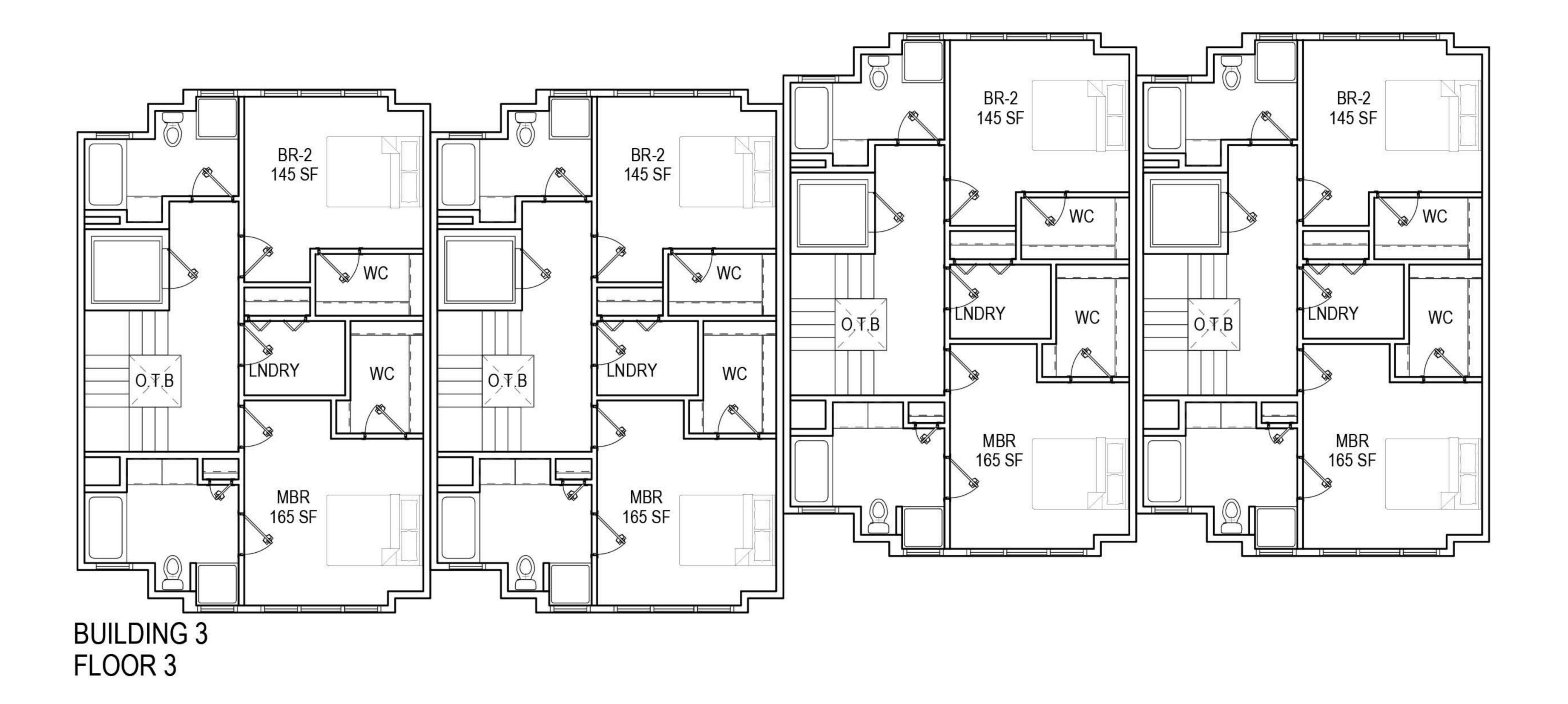








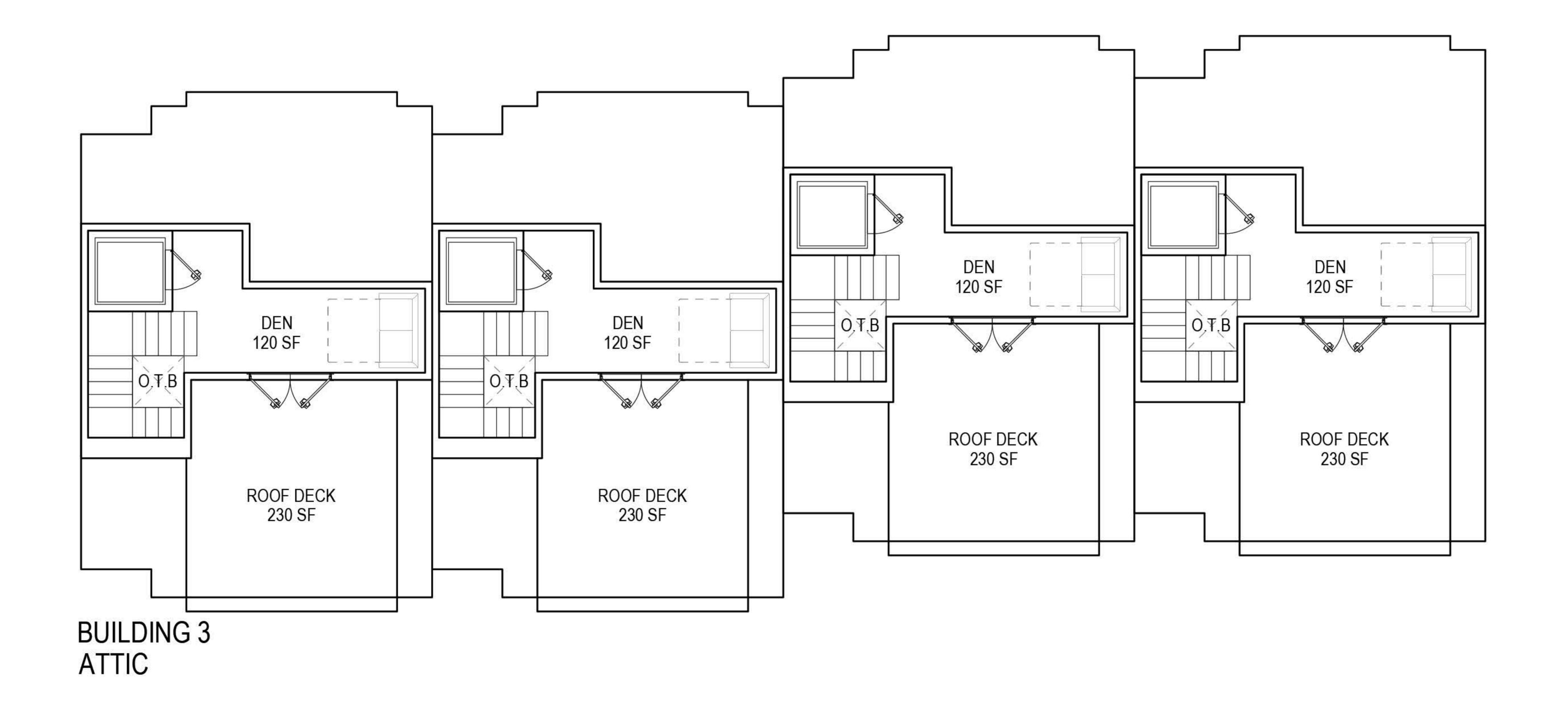










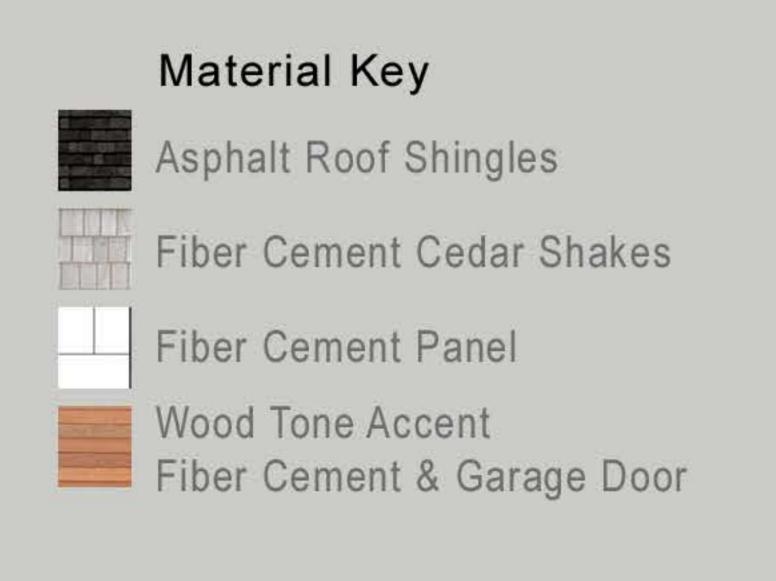












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35' A. R. H.



SITE DEVELOPMENT PLANS

FOR A

PROPOSED 11-UNIT CLUSTER RESIDENTIAL DEVELOPMENT PROJECT

OLD POST ROAD / BRIDGE STREET KITTERY, ME 03904

APPLICANT

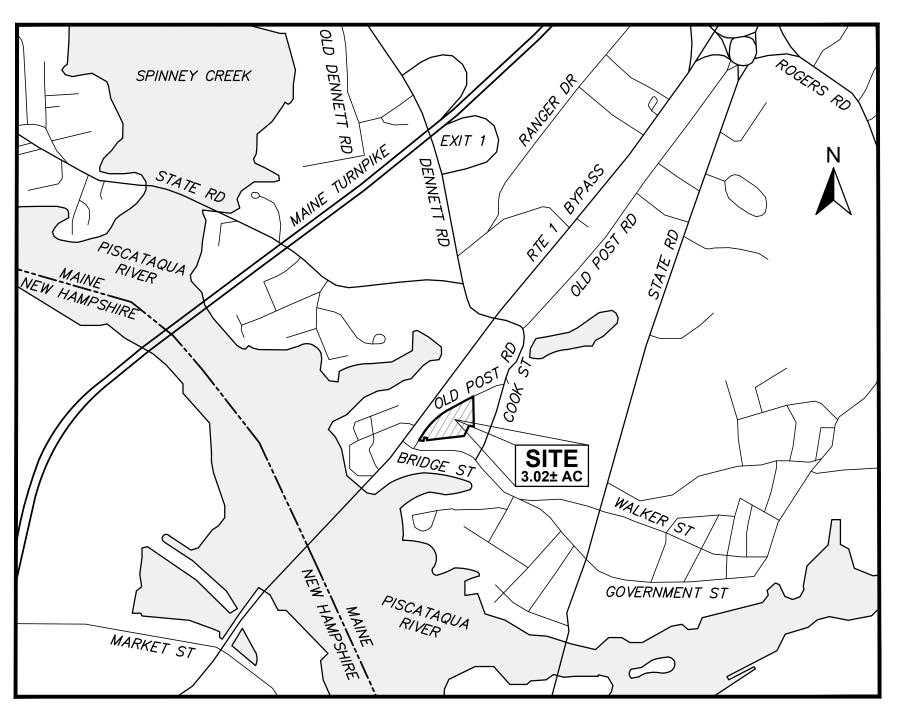
SILVER HOLDINGS, LLC 1 CITY CENTER PORTLAND, ME 04101

LAST REVISED: AUGUST 22, 2019

TOWN OF KITTERY, PLANNING BOARD DATE

LIST OF DRAWINGS

		711100
DWG#	SHEET#	DWG NAME
C1	1	TITLE SHEET
C2	2	NOTES, ABBREVIATIONS & LEGEND
C3	3	EXISTING CONDITIONS PLAN
C4	4	HIGH INTENSITY SOIL MAP
C5	5	SITE & LANDSCAPE PLAN
C6	6	GRADING, DRAINAGE & E.C. PLAN
C7	7	DRIVEWAY PROFILES
C8	8	UTILITY PLAN
C9	9	LIGHTING PLAN
C10	10	LANDSCAPING PLAN
C11	11	CONSTRUCTION DETAILS 1
C12	12	CONSTRUCTION DETAILS 2
C13	13	CONSTRUCTION DETAILS 3
C14	14	CONSTRUCTION DETAILS 4
C15	15	CONSTRUCTION DETAILS 5



LOCUS MAP

1" = 1000'

ISSUED FOR PLANNING BOARD REVIEW NOT FOR CONSTRUCTION

UTILITY CONTACTS:

KITTERY WATER DISTRICT

17 STATE ROAD KITTERY, ME 03904 CONTACT: MICHAEL ROGERS (207) 439-1128

WATER SERVICE:

FIRE DEPARTMENT:

KITTERY FIRE DEPARTMENT KITTERY SEWER DEPARTMENT 3 GORGES ROAD 18 DENNETT ROAD ROAD KITTERY, ME 03904 KITTERY. ME 03904 CONTACT: DAVID O'BRIEN CONTACT: TIM BABKIRK (207) 439-2262

SEWER SERVICE:

(207) 439-4646

STORMWATER / ROW:

KITTERY PUBLIC WORKS 200 ROGERS ROAD KITTERY, ME 03904 CONTACT: JESSA KELLOGG (207) 475-1321

ELECTRIC SERVICE:

CENTRAL MAINE POWER COMPANY 83 EDISON DRIVE AUGUSTA, ME 04330 CONTACT: VAN HOBGOOD (800) 750-4000

TELECOMMUNICATIONS: FAIRPOINT COMMUNICATIONS 1575 GREENLAND ROAD

GREENLAND, NH 03840

CONTACT: JOE CONSIDINE

(603) 427-5525

UNITIL ME GAS OPERATIONS PORTLAND, ME 04103 CONTACT: SCOTT CARPENTER (207) 541-2543

GAS SERVICE:

370 MERRIMACK STREET, SUITE 337

APPLICANT:

OWNER:

3.02± ACRES

SILVER HOLDINGS, LLC

209 GOSPORT ROAD PORTSMOUTH, NH 03801

TAX MAP LOT 3-77A

PROJECT TEAM:

CIVIL ENGINEER

PORTSMOUTH, NH 03801

ATTN: SHAWN TOBEY

LAWRENCE, MA 01843

ATTN: NICK GRIFFIN

(603) 431-2520

ARCHITECT

(978) 989-9900

CUBE3

HOYLE. TANNER & ASSOCIATES

100 INTERNATIONAL DRIVE, SUITE 360

MAC PROPERTIES BRIDGE STREET, LLC C/O ROBERT MACDONALD SOLE MBR

PARCEL INFORMATION:

OLD POST ROAD / BRIDGE STREET

376 RIVERSIDE INDUSTRIAL PARKWAY

CONTACT DIG SAFE 72 HOURS PRIOR TO CONSTRUCTION DIGSAFE.COM **DIAL 811**

FIELDSTONE LAND CONSULTANTS, PLLC

SURVEYOR

206 ELM STREET

(603) 672-5456

JOSEPH NOEL P.O. BOX 174

(207) 384-5587

MILFORD, NH 03055

SOIL MAPPING

ATTN: MICHAEL PLOOF

SOUTH BERWICK, ME 03908

CONTACT: JOSEPH NOEL

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THIS DOCUMENT IS PREPARED AS AN INSTRUMENT OF SERVICE AND SHALL REMAIN THE PROPERTY OF HOYLE, TANNER. IT MAY NOT BE USED, REPRODUCED, DISSEMINATED OR TRANSFERRED IN ANY MANNER, INCLUDING ELECTRONICALLY, FOR ANY OTHER PURPOSE THAN THIS PROJECT, WITHOUT THE WRITTEN PERMISSION OF HOYLE, TANNER.						BY DRAWN BY CHECKED BY	SMT
TEERINGE SERVICE TO THE PROPERTY OF THE PROPER							

TITLE SHEET

PROJECT NO. 569501 SHEET 1 OF 15

GENERAL NOTES:

- 1. THE BOUNDARY, SURFACE FEATURES AND TOPOGRAPHY ARE THE RESULT OF AN ON THE GROUND SURVEY CONDUCTED DURING THE MONTH OF JUNE AND JULY 2019 BY FIELDSTONE LAND CONSULTANTS,
- THE CLASS A HIGH INTENSITY SOIL SURVEY AND TEST PITS WERE PERFORMED BY JOSEPH NOEL ON JULY 25, 2019.
- 3. THIS PROJECT IS TO BE CONSTRUCTED TO THE TYPICAL SECTIONS AND DETAILS SHOWN ON THE PLANS. AND SHALL MEET THE APPLICABLE STANDARDS OF THE TOWN OF KITTERY, KITTERY WATER DISTRICT, KITTERY SEWER DEPARTMENT AND MAINE DEP.
- 4. THE UNDERGROUND UTILITIES SHOWN HAVE BEEN COMPILED IN PART FROM PLANS OF RECORD AND FIELD LOCATION. THE LOCATION OF UNDERGROUND UTILITIES SHOULD BE CONSIDERED APPROXIMATE.
- 5. THE CONTRACTOR SHALL VERIFY AND DETERMINE THE LOCATION, SIZE, AND ELEVATION OF ALL EXISTING UTILITIES, SHOWN OR NOT SHOWN ON THESE PLANS PRIOR TO THE START OF ANY CONSTRUCTION. THE CONTRACTOR SHALL LOCATE THE UTILITIES SHOWN AND THE POSSIBLE EXISTENCE OF OTHER UNDERGROUND UTILITIES BY PROVIDING OBSERVATION TEST PITS. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION SHALL BE AGREED TO BY THE ENGINEER BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT "DIGSAFE" (DIAL 811) AND THE TOWN OF KITTERY AT LEAST 72 HOURS BEFORE DIGGING.
- WRITTEN DIMENSIONS HAVE PRECEDENCE OVER SCALED DIMENSIONS. THE CONTRACTOR SHALL USE CAUTION WHEN SCALING REPRODUCED PLANS. IN CASE OF CONFLICT BETWEEN THIS PLAN SET AND ANY OTHER DRAWING AND OR SPECIFICATION. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY FOR CLARIFICATIONS.
- WHEN PREPARING THE EXISTING SITE FOR THE PROPOSED DEVELOPMENT, ALL MATERIALS REMOVED SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL GOVERNING AGENCIES.
- 8. THE CONTRACTOR SHALL PERFORM ALL THE CLEARING AND GRUBBING NECESSARY WITHIN THE CONSTRUCTION AREA, LIMITING THE AMOUNT OF CLEARING AND GRUBBING TO THE GREATEST EXTENT POSSIBLE.
- 9. CONTRACTOR SHALL MAKE EVERY ATTEMPT POSSIBLE TO SAVE EXISTING TREES AND MINIMIZE DAMAGE TO TREES ADJACENT TO CONSTRUCTION LIMITS DURING CONSTRUCTION.
- 10. THE CONSTRACTOR SHALL PROTECT AND MAINTAIN EXISTING BENCHMARKS AND BOUNDS. ALL BENCHMARKS AND BOUNDS DISTURBED BY THE CONTRACTOR SHALL BE RE-ESTABLISHED BY A MAINE REGISTERED LAND SURVEYOR AT NO EXPENSE TO THE OWNER.
- 11. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ANY EXCAVATION SAFEGUARDS, NECESSARY BARRICADES, POLICE DETAILS, ETC., FOR TRAFFIC CONTROL AND SITE SAFETY. ALL EXCAVATIONS SHALL BE THOROUGHLY SECURED ON A DAILY BASIS BY THE CONTRACTOR AT THE COMPLETION OF CONSTRUCTION OPERATIONS.
- 12. THE CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND FOR THE CONDITIONS OF THE SITE.
- 13. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE ALL WORK IS DONE IN ACCORDANCE WITH OSHA REQUIREMENTS.
- 14. ALL DEWATERING MUST BE EXECUTED IN ACCORDANCE WITH MAINE DOT STANDARD SPECIFICATIONS. REGULATIONS PROHIBIT DISCHARGING GROUNDWATER TO A SANITARY OR COMBINED SEWER WITHOUT PERMISSION.
- 15. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL PRODUCTS (PIPE, CASTINGS, STRUCTURES, ETC.) TO THE INSPECTING ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION AND INSTALLATION.
- 16. THE CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS, FEES. TEMPORARY UTILITIES AND COORDINATION WITH ALL AGENCIES IN OBTAINING ACCESS TO THE SITE AND PERFORMING ALL WORK REQUIRED FOR THIS PROJECT.
- 17. THE CONTRACTOR SHALL FILE AND OBTAIN A NPDES CONSTRUCTION GENERAL PERMIT PRIOR TO CONSTRUCTION.
- 18. THE CONTRACTOR IS RESPONSIBLE FOR THE PREPARATION OF THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) PRIOR TO CONSTRUCTION.
- 19. COORDINATE ALL WORK ADJACENT TO THE PROPOSED BUILDINGS WITH THE ARCHITECTURAL AND STRUCTURAL DRAWINGS.
- 20. ALL PAVEMENT MARKINGS AND SIGNS SHALL CONFORM TO THE LATEST EDITIONS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), AMERICANS WITH DISABILITIES (ADA) ACT, AND STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS.
- 21. ALL CURB SHALL BE BITUMINOUS BERM UNLESS OTHERWISE NOTED.
- 22. THE PROPOSED DRIVEWAY WILL BE A PRIVATE ROAD AND SHALL BE MAINTAINED BY THE PROPERTY OWNER.
- 23. THERE SHALL BE NO ONSITE SALT STORAGE.
- 24. ALL PROPOSED SITE FEATURES SHALL BE LAID OUT IN THE FIELD USING SURVEY EQUIPMENT. AN AUTOCAD FILE OF THE EXISTING AND PROPOSED FEATURES WITH CONTROL POINTS WILL BE PROVIDED TO THE CONTRACTOR FOR CONSTRUCTION LAYOUT. THE LIMIT OF WORK SHALL BE CLEARLY MARKED IN THE FIELD BEFORE ANY WORK IS TO BEGIN ONSITE.
- 25. SYMBOLS AND LINETYPES MAY BE EXAGGERATED FOR CLARITY ON THESE DRAWINGS DUE TO THE SCALE. THE CONTRACTOR SHALL ADJUST ACCORDINGLY DURING CONSTRUCTION LAYOUT.

DRAINAGE NOTES:

- THE STORM DRAINAGE SYSTEM SHALL BE CONSTRUCTED TO LINE AND GRADE AS SHOWN ON THE PLANS. ALL PIPE MATERIALS SHALL BE AS SPECIFIED ON THE PLANS. CONSTRUCTION METHODS SHALL CONFORM TO MAINE DOT STANDARD SPECIFICATIONS. CATCH BASINS AND DRAIN MANHOLES SHALL CONFORM TO SECTION 604.
- 2. ALL CATCH BASIN FRAMES AND GRATES SHALL NEENAH R-3472 OR APPROVED EQUAL.
- PROPOSED RIM ELEVATIONS OF DRAINAGE MANHOLES AND CATCH BASINS ARE APPROXIMATE. FINAL ELEVATIONS ARE TO BE SET FLUSH WITH FINISH GRADES.
- 4. THE CONTRACTOR SHALL CONFIRM THE EXISTING GRADES AT THE OUTLET ELEVATIONS FOR ALL STORMWATER PONDS PRIOR TO ANY POND CONSTRUCTION.
- THE CONTRACTOR SHALL CONFIRM THE ELEVATIONS FOR ALL DRAIN PIPE RUNS PRIOR TO ANY INSTALLATION.
- THE CONTRACTOR SHALL PROVIDE FOR THE HANDLING OF EXISTING FLOWS FROM SERVICE CONNECTIONS AND MAINLINE PIPES. THE EXISTING DRAINS MAY HAVE ACTIVE FLOW AND THE CONTRACTOR SHALL MAINTAIN CONTINUOUS FLOW WITHOUT RESTRICTIONS.
- THE CONTRACTOR SHALL STABILIZE ANY AND ALL DITCHES, SWALES AND PONDS PRIOR TO DIRECTING STORMWATER RUN-OFF TO THEM.
- WHEN CONNECTING NEW PIPES TO EXISTING STRUCTURES SUCH AS MANHOLES AND CATCH BASINS, THE STRUCTURE SHALL BE COMPLETELY CLEANED OUT. THE HOLE MADE IN THE STRUCTURE SHALL BE AS SMALL AS NECESSARY. THE STRUCTURE SHALL BE REPAIRED TO MATCH ITS ORIGINAL TYPE OF CONSTRUCTION. THE JOINT BETWEEN THE STRUCTURE AND THE PIPE SHALL BE MADE WATERTIGHT BY FILLING THE JOINT WITH MORTAR.
- THE CONTRACTOR SHALL CLEAN THE ENTIRE STORMWATER SYSTEM OF ALL SEDIMENT AND DEBRIS, WITHIN THE LIMIT OF WORK UPON COMPLETION OF CONSTRUCTION.
- 10. ALL DRAIN PIPES SHALL HAVE A MINIMUM GROUND COVER OF 3'. IF THE REQUIRED COVER CANNOT BE OBTAINED, THE PROPOSED PIPE SHALL BE REINFORCED CONCRETE PIPE (RCP) OR APPROVED EQUAL. INSTALL 4" OF RIGID INSULATION ABOVE THE DRAIN LINE IF 3' COVER CANNOT BE OBTAINED.
- 11. ALL PROPOSED CATCH BASINS SHALL BE DEEP SUMP CATCH BASINS WITH 3' SUMPS.
- 12. THE PROPOSED STORMWATER SYSTEM AND STORMWATER PONDS SHALL BE INSPECTED AT A MINIMUM IN THE SPRING AND FALL.
- 13. THE CONTRACTOR SHALL INSTALL PERIMETER FOOTING DRAINS AROUND ALL PROPOSED BUILDINGS. THE FOOTING DRAINS SHALL DRAIN TO DAYLIGHT OUTSIDE THE LIMITS OF PAVEMENT. SEE STRUCTURAL PLANS AND GEOTECHNICAL REPORT FOR PIPE SIZE AND INSTALLATION LOCATIONS.

EARTHWORK & GRADING NOTES:

- GRADE AWAY FROM BUILDING WALLS AT 2% MINIMUM (TYPICAL).
- PROVIDE UNIFORM SLOPE BETWEEN CONTOURS AND/OR SPOT

LINED WITH MARIFI 140N AND 12" OF BLAST ROCK.

- SPOT GRADES SHOWN ARE PAVEMENT ELEVATIONS AT THE CURBLINE UNLESS OTHERWISE NOTED.
- 4. EARTH SLOPES SHALL BE NO STEEPER THAN 1:1 (HORIZONTAL: VERTICAL) AND SHALL BE FLATTER WHERE SHOWN.
- 5. ALL 2:1 SLOPES SHALL BE LINED WITH NORTH AMERICAN GREEN SC150 OR APPROVED EQUAL. ALL SLOPES STEEPER THAN 2:1 SHALL BE
- THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL ROOTS AND STUMPS FOR TREES THAT ARE REMOVED.
- GENERAL FILL BEYOND PAVED AREAS SHALL BE FREE OF BRUSH RUBBISH, STUMPS, AND STONES LARGER THAN 8". FILL SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 8" IN THICKNESS. THE DRY DENSITY AFTER COMPACTION SHALL NOT BE LESS THAN 95% OF THE STANDARD PROCTOR TEST AND DONE IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM D698.
- AFTER THE AREAS TO BE TOPSOILED HAVE BEEN BROUGHT TO GRADE, THE SUBGRADE SHALL BE LOOSENED BY SCARIFYING TO A DEPTH OF AT LEAST 2" TO ENSURE BONDING OF THE TOPSOIL AND SUBSOIL.
- 9. FILL OR TOPSOIL SHALL NEITHER BE PLACED NOR COMPACTED WHILE IN A FROZEN OR MUDDY CONDITION OR WHILE SUBGRADE IS FROZEN.
- 10. FINISH PAVEMENT SURFACES AND LAWN AREAS SHALL BE FREE OF LOW SPOTS AND PONDING AREAS.
- 11. ALL AREAS DISTURBED BY THE CONTRACTOR'S OPERATIONS THAT DO NOT HAVE A SURFACE TREATMENT SPECIFICALLY SPECIFIED SHALL BE RESTORED TO A MINIMUM OF 4" OF SEEDED TOPSOIL, FERTILIZER, AND MULCH.
- 12. THE CONTRACTOR SHALL COORDINATE ALL LEDGE REMOVAL REQUIRED FOR THE PROJECT.
- 13. THE CONTRACTOR SHALL SUBMIT STAMPED RETAINING WALL DESIGN PLANS FROM THE WALL MANUFACTURER TO THE INSPECTING ENGINEER FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.

UTILITY NOTES:

THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES OWNING UTILITIES, EITHER OVERHEAD OR UNDERGROUND, WITHIN THE CONSTRUCTION AREA AND SHALL COORDINATE WITH THE UTILITY COMPANIES FOR RELOCATING AND/OR SUPPORTING THEIR UTILITIES IN ACCORDANCE WITH THE SPECIFICATIONS. THE CONTRACTOR IS RESPONSIBLE FOR ANY UTILITIES TO BE RELOCATED FOR THE PROPOSED DEVELOPMENT.

- THE CONTRACTOR SHALL MAINTAIN UTILITY SERVICES TO EXISTING FACILITIES AT ALL TIMES. IF ANY DISRUPTION MUST OCCUR. CONTRACTOR SHALL NOTIFY AND COORDINATE WITH FACILITY AT LEAST 72 HOURS IN ADVANCE.
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORATION OF EXISTING UTILITIES AND STRUCTURES DAMAGED OR REMOVED BY THE CONTRACTOR DURING THEIR OPERATIONS.
- 4. THE CONTRACTOR SHALL COORDINATE MATERIALS AND INSTALLATION SPECIFICATIONS WITH THE INDIVIDUAL UTILITY AGENCIES/COMPANIES, AND ARRANGE FOR ALL INSPECTIONS.
- 5. FINAL ELEVATIONS OF UTILITY STRUCTURES ARE TO BE SET FLUSH WITH FINISH GRADES. ADJUST ALL OTHER RIM ELEVATIONS OF MANHOLES, WATER GATES, GAS GATES, AND OTHER UTILITIES TO FINISHED GRADE WITHIN LIMITS OF WORK.
- DURING EXCAVATION, IT IS ANTICIPATED THAT EXISTING UTILITIES AND SEWERS WILL BE EXPOSED. THE CONTRACTOR SHALL PROVIDE PROTECTION AND SUPPORT OF THESE FACILITIES AND REPAIR ANY DAMAGE CAUSED BY THE WORK IN A MANNER SATISFACTORY TO THE OWNER.
- THE SEWER SYSTEM SHALL HAVE A MINIMUM GROUND COVER OF 4' WHEN CROSS COUNTRY AND A MINIMUM GROUND COVER OF 6' WHEN BENEATH PAVEMENT. IF THE REQUIRED MINIMUM AMOUNT OF COVER CANNOT BE OBTAINED, INSTALL 4" OF RIGID INSULATION ABOVE THE SEWER LINE.
- THE CONTRACTOR SHALL CONFIRM THE EXISTING SEWER MANHOLE TIE-IN INVERT AND THE ELEVATIONS FOR ALL SEWER PIPE RUNS PRIOR TO ANY INSTALLATION.
- THE PROPOSED WATER LINE CONFIGURATION SHOWN ON THESE PLANS IS BASED ON DUCTILE IRON PIPE WITH 45° BENDS. THE CONTRACTOR MAY SUBSTITUTE DUCTILE IRON PIPE FOR HDPE.
- 10. ALL ELECTRIC MATERIAL WORKMANSHIP SHALL CONFORM TO THE NATIONAL ELECTRIC CODE AS WELL AS STATE AND LOCAL CODES.
- 11. INSTALL NYLON PULL ROPES IN UNDERGROUND CONDUITS TO FACILITATE PULLING CABLES.
- 12. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL HANDHOLES, FITTINGS, CONNECTORS, COVER PLATES, AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED ON THESE DRAWINGS TO RENDER INSTALLATION OF UTILITIES COMPLETE AND OPERATIONAL.
- 13. THE EXACT LOCATION, NUMBER, TYPE, AND SIZE OF NEW UTILITY SERVICES AND CONDUITS SHALL BE DETERMINED BY THE UTILITY COMPANY.
- 14. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH ALL STATE AND LOCAL CODES.
- 20. CONTRACTOR TO COORDINATE UNDERGROUND ELECTRIC, INCLUDING BUT NOT LIMITED TO SIZE, LOCATION, MATERIAL, CONDUIT, AND HAND
- 21. ALL ON-SITE UTILITIES SHALL BE UNDERGROUND.
- 22. BACKFLOW PREVENTORS SHALL BE PROVIDED FOR WATER LINES.
- 23. EACH BUILDING SHALL BE EQUIPPED THROUGHOUT WITH AN APPROVED AUTOMATIC SPRINKLER SYSTEM.

CONSTRUCTION SEQUENCE:

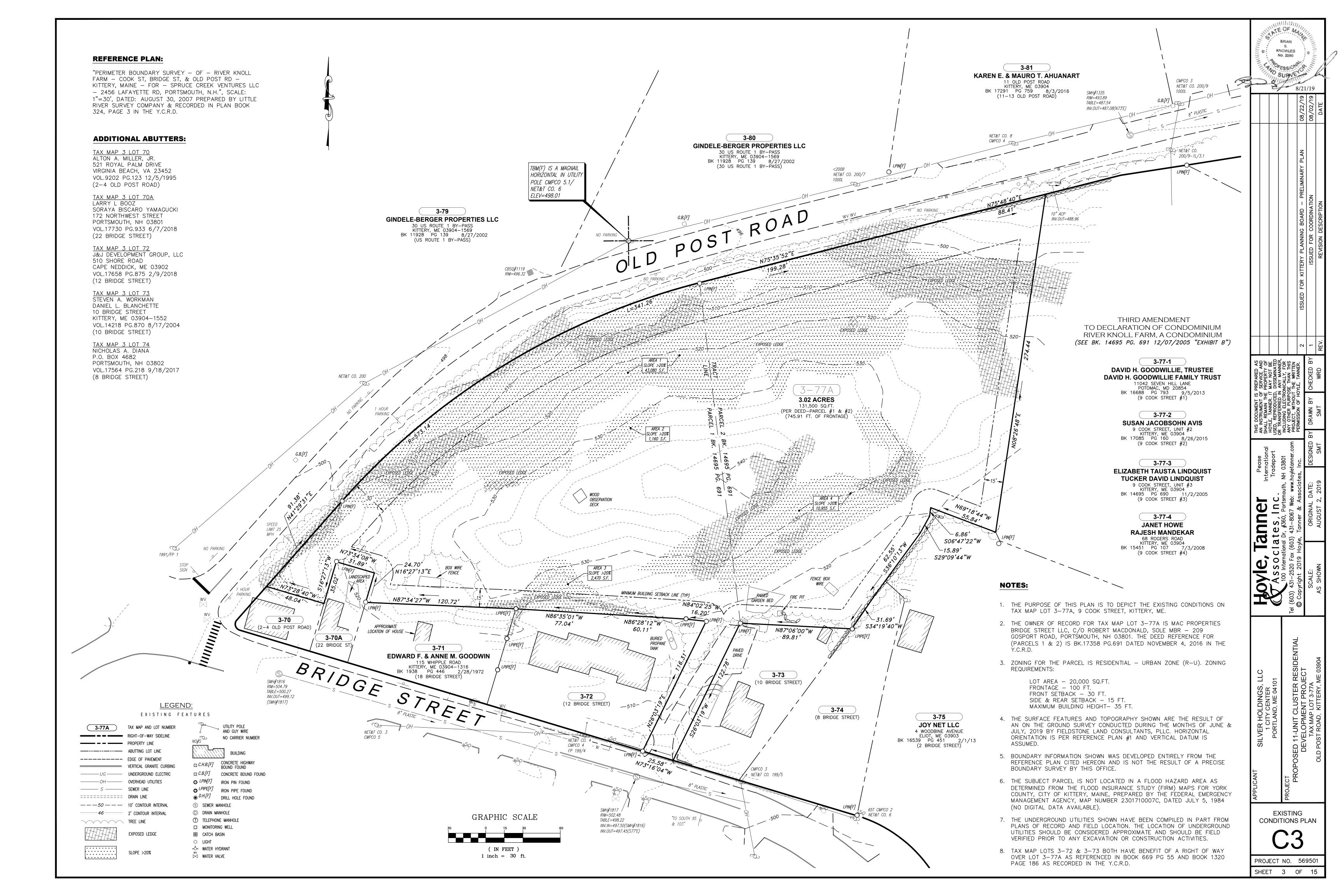
- INSTALL SILT SOCK AND CONSTRUCTION ENTRANCE AS SHOWN, PRIOR TO THE START OF ANY CONSTRUCTION.
- REMOVE AND DISPOSE OF EXISTING VEGETATION AS SHOWN.
- 3. STRIP THE TOPSOIL AND STOCKPILE ONSITE. CONSTRUCT A SILT SOCK PERIMETER AROUND ALL STOCKPILES.
- BLAST AND REMOVE LEDGE AS REQUIRED FOR THE ROADWAY, BUILDINGS AND UTILITIES.
- CONSTRUCT AND STABILIZE DRIVEWAY AND CUT AND FILL SLOPES. APPLY TEMPORARY (OR PERMANENT) SEED AND MULCH WITHIN 72 HOURS OF THEIR CONSTRUCTION.
- CONSTRUCT THE BUILDING FOOTINGS, FOUNDATION WALLS AND PLACE BACKFILL.
- 6. INSTALL ALL DRAINAGE, WATER, SEWER, ELECTRIC, TELECOM AND GAS UTILITIES.
- CONSTRUCT THE BUILDINGS.
- PLACE ROADWAY SELECTS AND INSTALL BINDER PAVING COURSE.
- 9. INSTALL BITUMINOUS BERM.
- 10. INSTALL LANDSCAPE PLANTINGS.
- 11. INSTALL SCREENED LOAM (4" MIN.) ON ALL DISTURBED SURFACES AND APPLY PERMANENT SEEDING.
- 12. INSTALL FINISH PAVEMENT AND SIGNAGE.
- 13. REMOVE TRAPPED SEDIMENT FROM COLLECTOR DEVICES AS APPROPRIATE AND THEN REMOVE TEMPORARY EROSION CONTROL MEASURES. CLEAN THE ENTIRE STORMWATER SYSTEM OF ALL SEDIMENT AND DEBRIS. WITHIN THE LIMIT OF WORK.

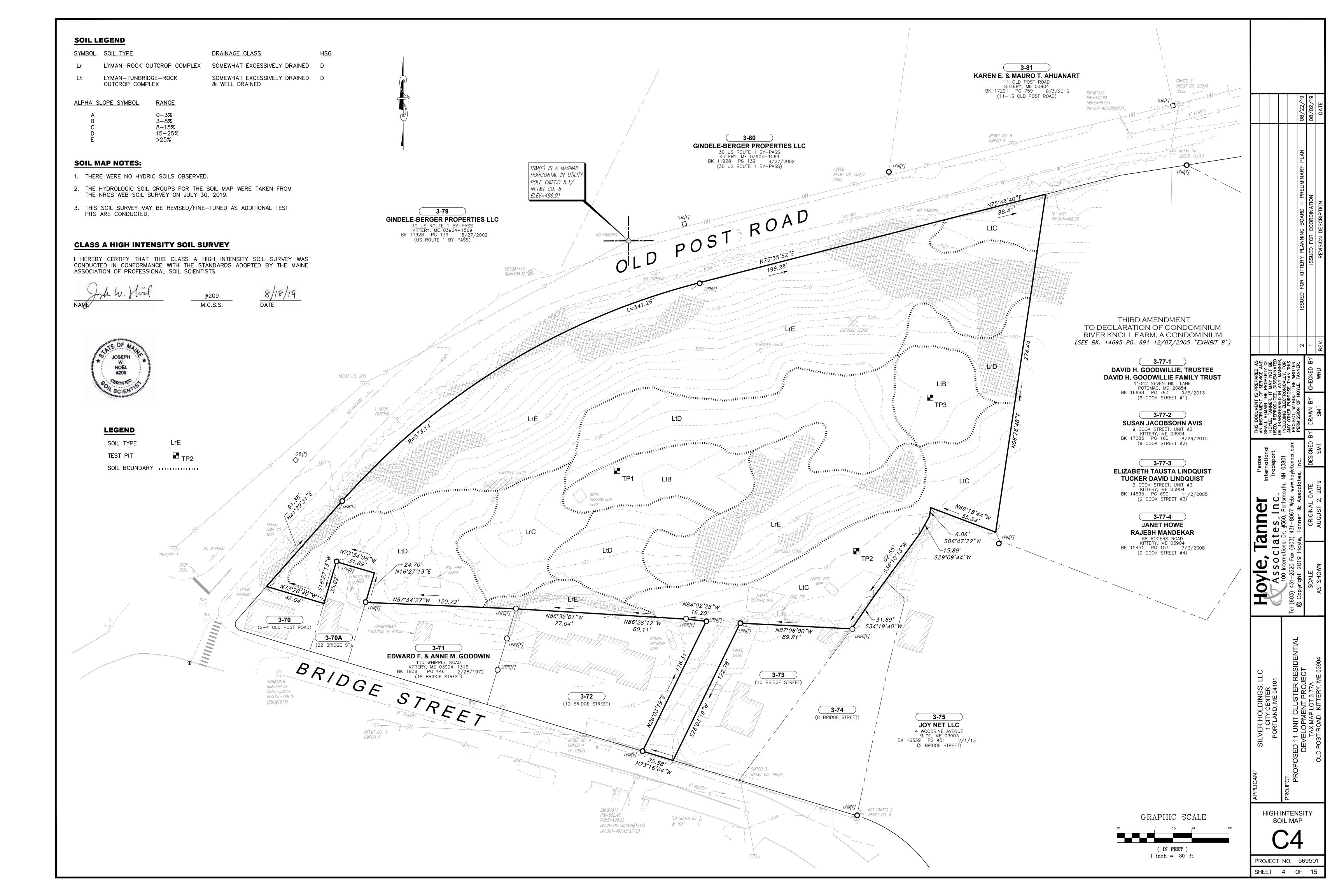
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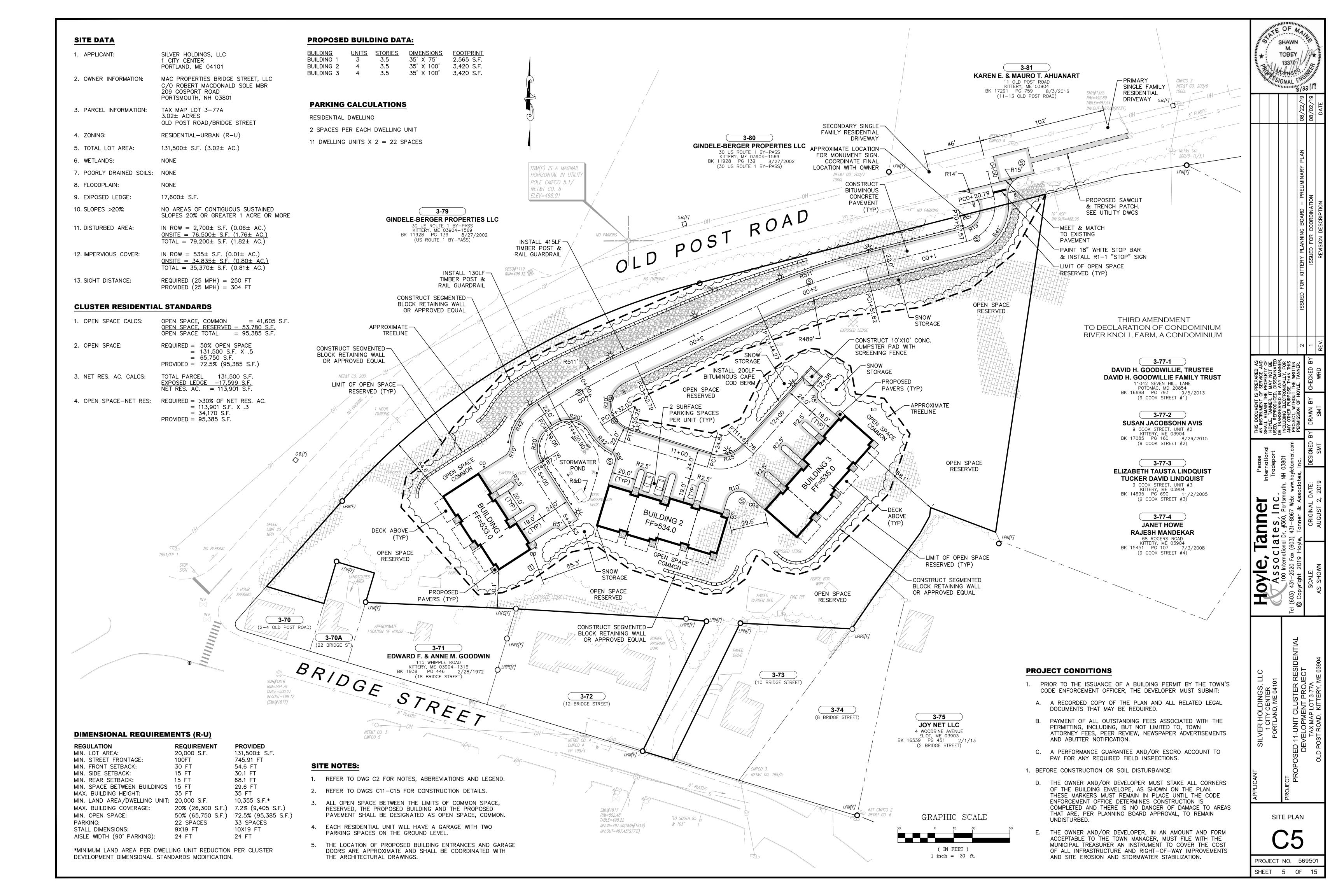
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		ASSOCI	100 Internation	Tel (603) 431-2520 Fax (60	© Copyright 2019 Hoyle, Tanner &	SCALE:	AS SHOWN
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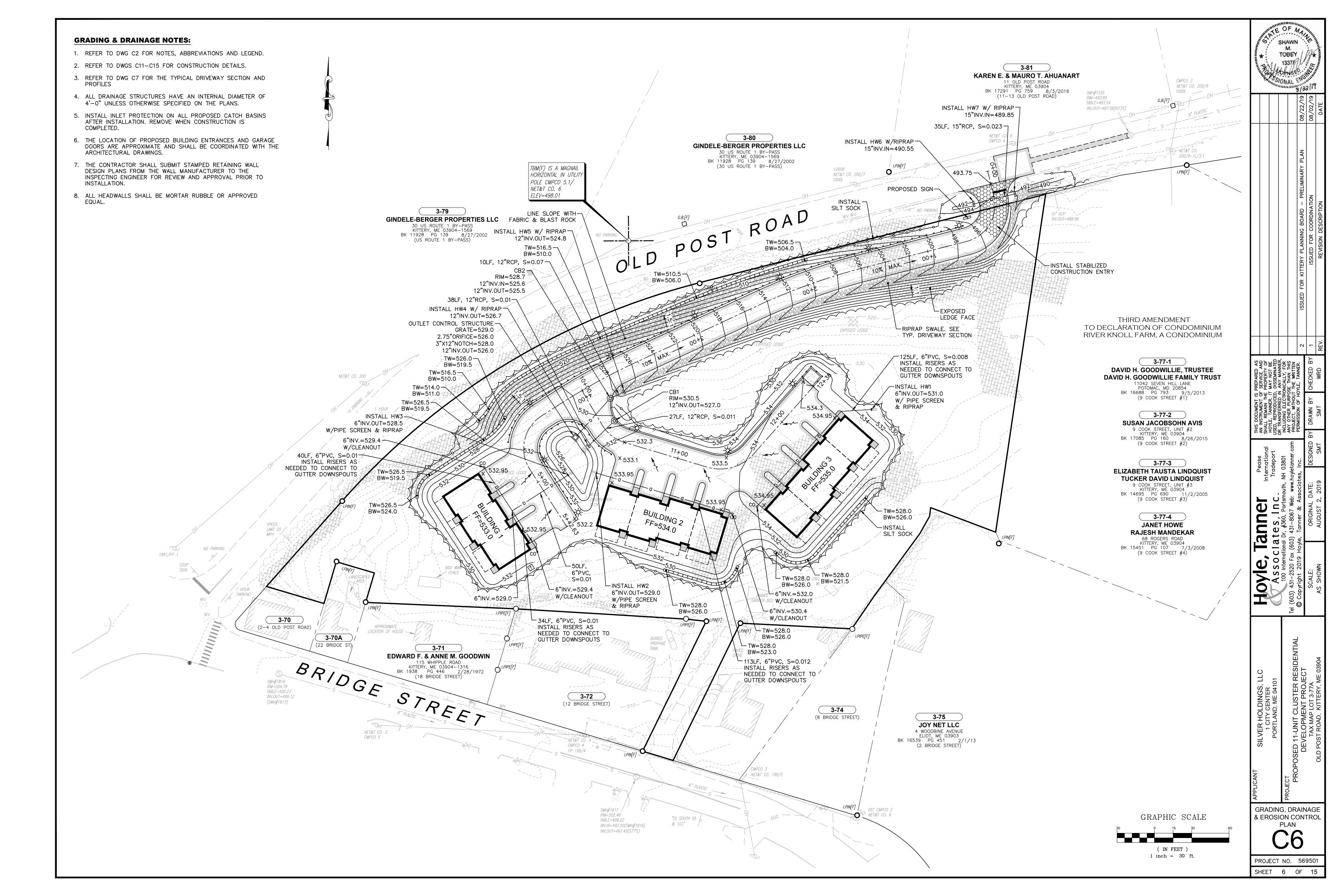
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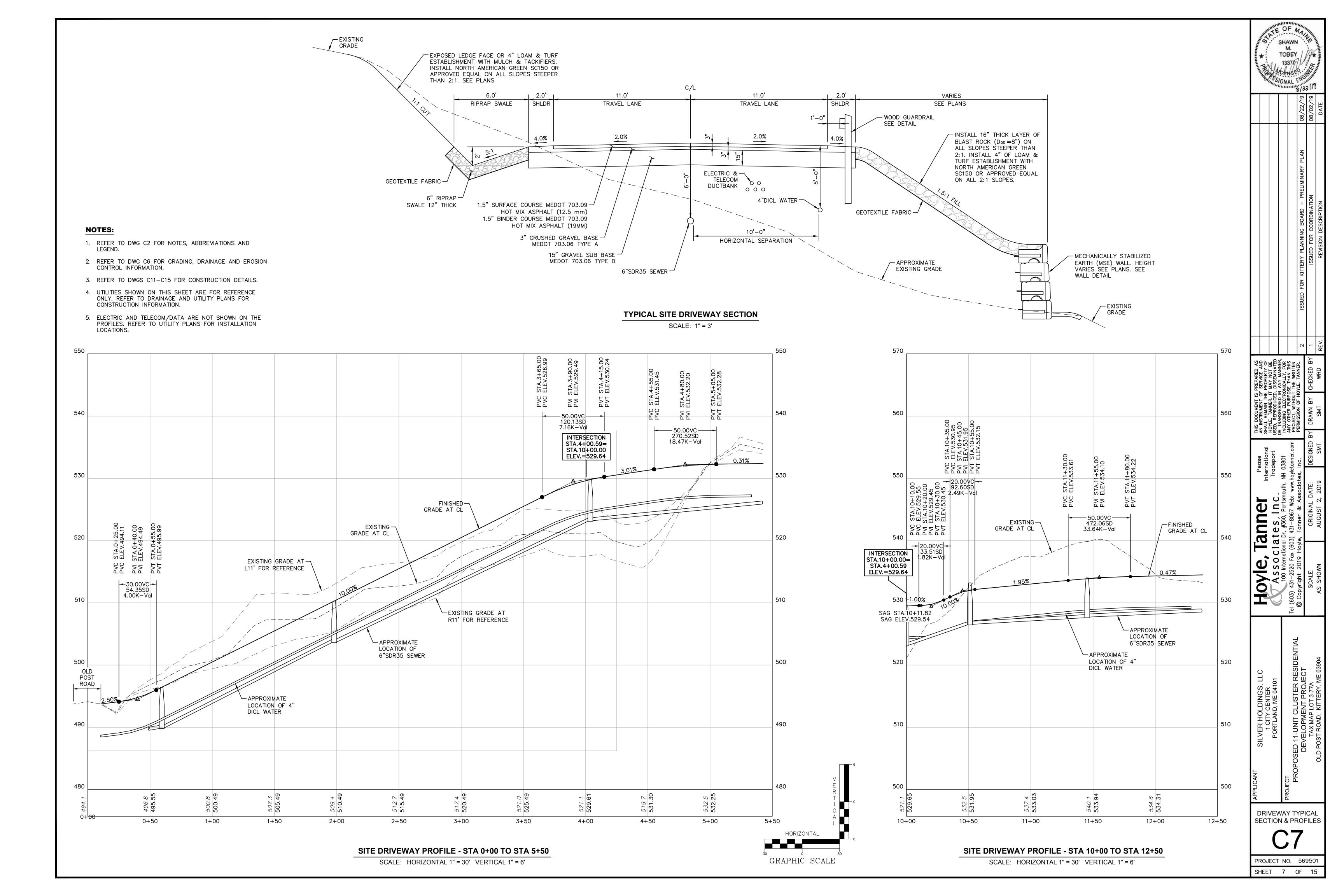
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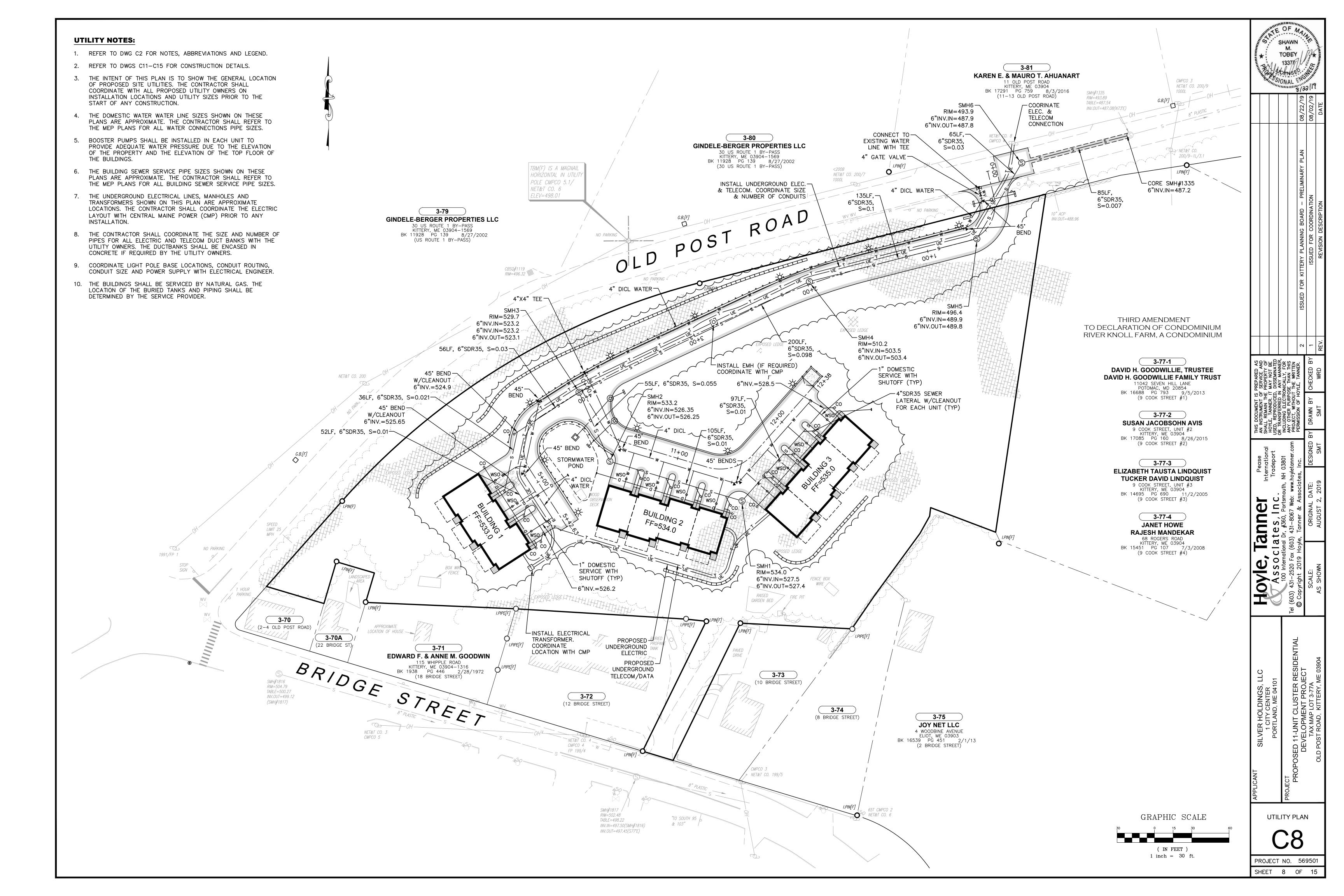


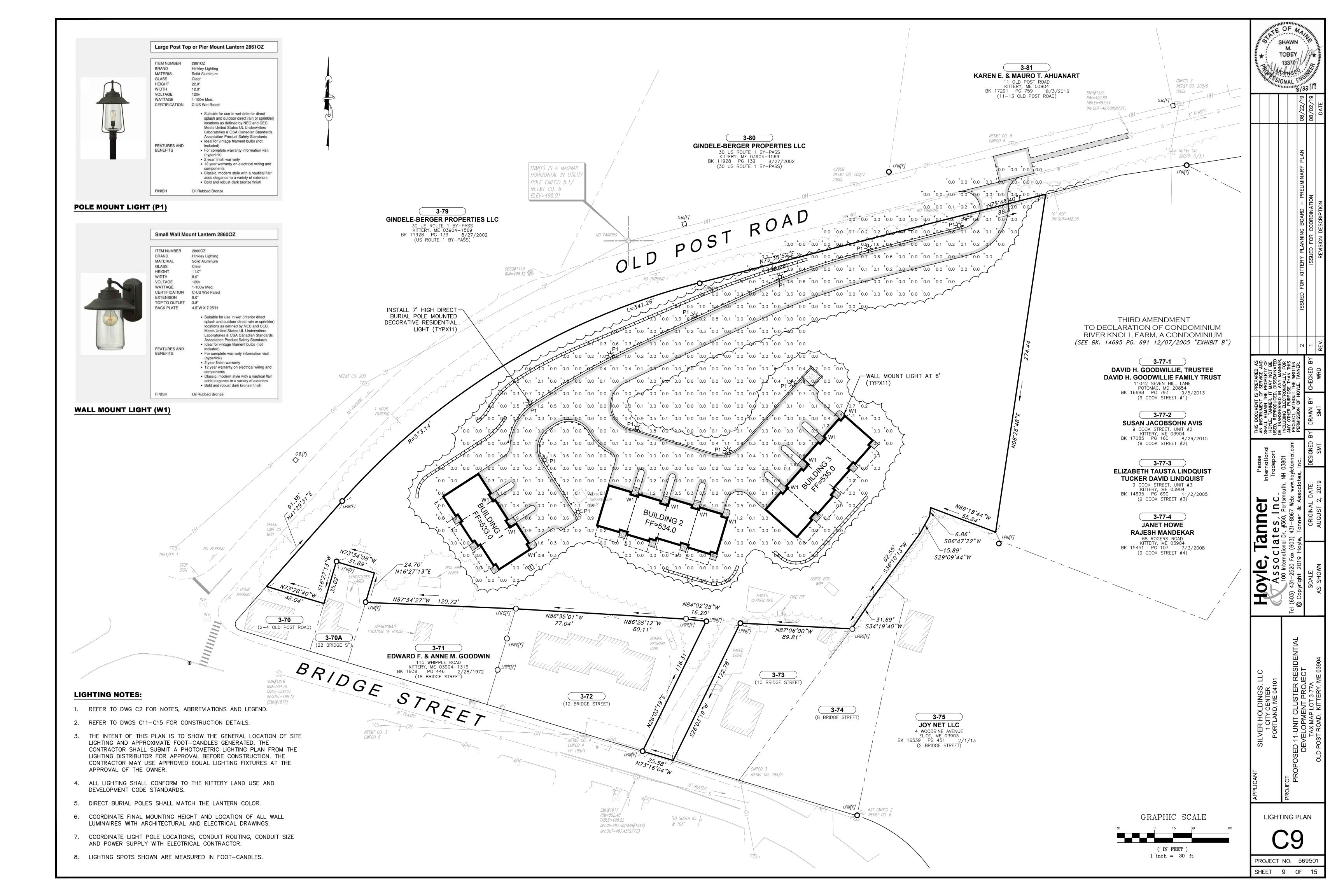


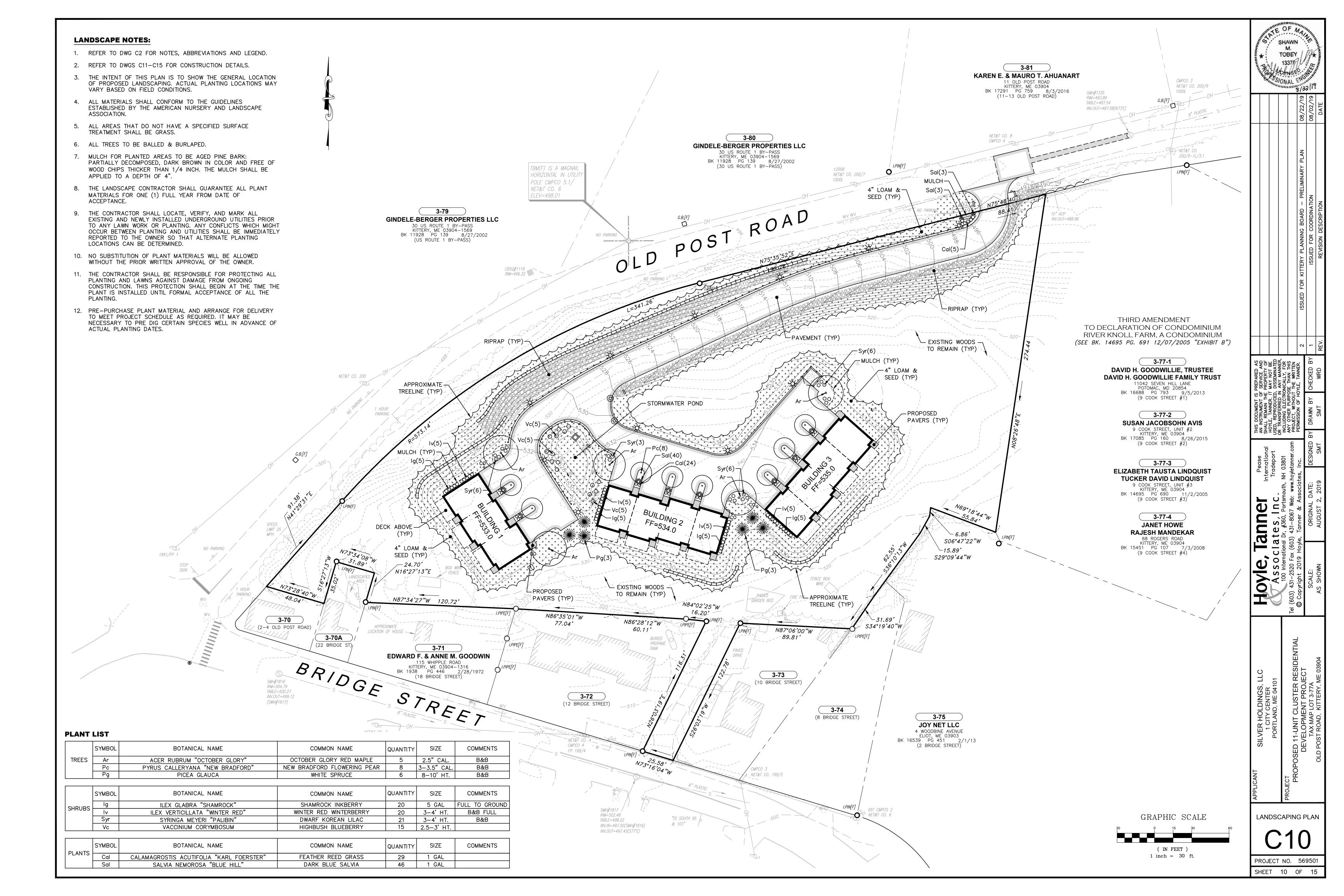








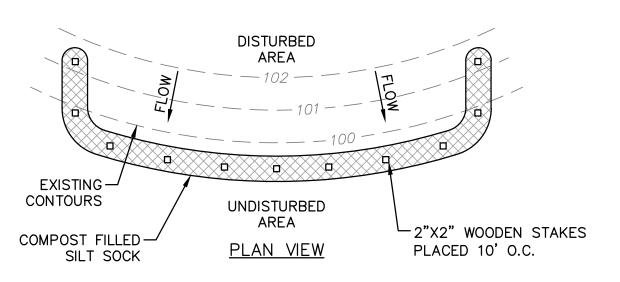


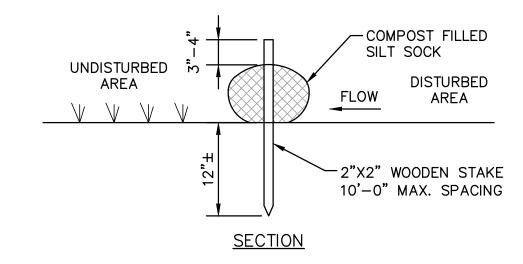


EROSION CONTROL NOTES:

- 1. POLLUTION PREVENTION. MINIMIZE DISTURBED AREAS AND PROTECT NATURAL DOWNGRADIENT BUFFER AREAS TO THE EXTENT PRACTICABLE. CONTROL STORMWATER VOLUME AND VELOCITY WITHIN THE SITE TO MINIMIZE SOIL EROSION. MINIMIZE THE DISTURBANCE OF STEEP SLOPES CONTROL STORMWATER DISCHARGES, INCLUDING BOTH PEAK FLOW RATES AND VOLUME, TO MINIMIZE EROSION AT OUTLETS. THE DISCHARGE MAY NOT RESULT IN EROSION OF ANY OPEN DRAINAGE CHANNELS, SWALES, STREAM CHANNELS OR STREAM BANKS, UPLAND, OR COASTAL OR FRESHWATER WETLANDS OFF THE PROJECT SITE. WHENEVER PRACTICABLE, NO DISTURBANCE ACTIVITIES SHOULD TAKE PLACE WITHIN 50 FEET OF ANY PROTECTED NATURAL RESOURCE. IF DISTURBANCE ACTIVITIES TAKE PLACE BETWEEN 30 FEET AND 50 FEET OF ANY PROTECTED NATURAL RESOURCE, AND STORMWATER DISCHARGES THROUGH THE DISTURBED AREAS TOWARD THE PROTECTED NATURAL RESOURCE, PERIMETER EROSION CONTROLS MUST BE DOUBLED. IF DISTURBANCE ACTIVITIES TAKE PLACE LESS THAN 30 FEET FROM ANY PROTECTED NATURAL RESOURCE, AND STORMWATER DISCHARGES THROUGH THE DISTURBED AREAS TOWARD THE PROTECTED NATURAL RESOURCE, PERIMETER EROSION CONTROLS MUST BE DOUBLED AND DISTURBED AREAS MUST BE TEMPORARILY OR PERMANENTLY STABILIZED WITHIN 7 DAYS.
- 2. <u>SEDIMENT BARRIERS.</u> PRIOR TO CONSTRUCTION, PROPERLY INSTALL SEDIMENT BARRIERS AT THE DOWNGRADIENT EDGE OF ANY AREA TO BE DISTURBED AND ADJACENT TO ANY DRAINAGE CHANNELS WITHIN THE DISTURBED AREA. SEDIMENT BARRIERS SHOULD BE INSTALLED DOWNGRADIENT OF SOIL OR SEDIMENT STOCKPILES AND STORMWATER PREVENTED FROM RUNNING ONTO THE STOCKPILE. MAINTAIN THE SEDIMENT BARRIERS BY REMOVING ACCUMULATED SEDIMENT, OR REMOVING AND REPLACING THE BARRIER, UNTIL THE DISTURBED AREA IS PERMANENTLY STABILIZED. WHERE A DISCHARGE TO A STORM DRAIN INLET OCCURS, IF THE STORM DRAIN CARRIES WATER DIRECTLY TO A SURFACE WATER AND YOU HAVE AUTHORITY TO ACCESS THE STORM DRAIN INLET, YOU MUST INSTALL AND MAINTAIN PROTECTION MEASURES THAT REMOVE SEDIMENT FROM THE DISCHARGE.
- 3. STABILIZED CONSTRUCTION ENTRANCE. PRIOR TO CONSTRUCTION, PROPERLY INSTALL A STABILIZED CONSTRUCTION ENTRANCE (SCE) AT ALL POINTS OF EGRESS FROM THE SITE. THE SCE IS A STABILIZED PAD OF AGGREGATE, UNDERLAIN BY A GEOTEXTILE FILTER FABRIC, USED TO PREVENT TRAFFIC FROM TRACKING MATERIAL AWAY FROM THE SITE ONTO PUBLIC ROWS. MAINTAIN THE SCE UNTIL ALL DISTURBED AREAS ARE STABILIZED.
- 4. TEMPORARY STABILIZATION. WITHIN 7 DAYS OF THE CESSATION OF CONSTRUCTION ACTIVITIES IN AN AREA THAT WILL NOT BE WORKED FOR MORE THAN 7 DAYS, STABILIZE ANY EXPOSED SOIL WITH MULCH, OR OTHER NON-ERODIBLE COVER. STABILIZE AREAS WITHIN 75 FEET OF A WETLAND OR WATERBODY WITHIN 48 HOURS OF THE INITIAL DISTURBANCE OF THE SOIL OR PRIOR TO ANY STORM EVENT, WHICHEVER COMES FIRST.
- 5. REMOVAL OF TEMPORARY MEASURES. REMOVE ANY TEMPORARY CONTROL MEASURES, SUCH AS SILT FENCE, WITHIN 30 DAYS AFTER PERMANENT STABILIZATION IS ATTAINED. REMOVE ANY ACCUMULATED SEDIMENTS AND STABILIZE.
- 6. <u>PERMANENT STABILIZATION.</u> IF THE AREA WILL NOT BE WORKED FOR MORE THAN ONE YEAR OR HAS BEEN BROUGHT TO FINAL GRADE, THEN PERMANENTLY STABILIZE THE AREA WITHIN 7 DAYS BY PLANTING VEGETATION, SEEDING, SOD, OR THROUGH THE USE OF PERMANENT MULCH, OR RIP-RAP, OR ROAD SUB-BASE. IF USING VEGETATION FOR STABILIZATION, SELECT THE PROPER VEGETATION FOR THE LIGHT, MOISTURE, AND SOIL CONDITIONS; AMEND AREAS OF DISTURBED SUBSOILS WITH TOPSOIL, COMPOST, OR FERTILIZERS; PROTECT SEEDED AREAS WITH MULCH OR, IF NECESSARY, EROSION CONTROL BLANKETS; AND SCHEDULE SODDING, PLANTING, AND SEEDING SO TO AVOID DIE-OFF FROM SUMMER DROUGHT AND FALL FROSTS. NEWLY SEEDED OR SODDED AREAS MUST BE PROTECTED FROM VEHICLE TRAFFIC, EXCESSIVE PEDESTRIAN TRAFFIC, AND CONCENTRATED RUNOFF UNTIL THE VEGETATION IS WELL-ESTABLISHED WITH 90% COVER BY HEALTHY VEGETATION. IF NECESSARY, AREAS MUST BE REWORKED AND RESTABILIZED IF GERMINATION IS SPARSE, PLANT COVERAGE IS SPOTTY, OR TOPSOIL EROSION IS EVIDENT. ONE OR MORE OF THE FOLLOWING MAY APPLY TO A PARTICULAR SITE.
- 7. SEEDED AREAS, FOR SEEDED AREAS, PERMANENT STABILIZATION MEANS A 90% COVER OF THE DISTURBED AREA WITH MATURE, HEALTHY PLANTS WITH NO EVIDENCE OF WASHING OR RILLING OF THE TOPSOIL.
 - A. SODDED AREAS. FOR SODDED AREAS, PERMANENT STABILIZATION MEANS THE COMPLETE BINDING OF THE SOD ROOTS INTO THE UNDERLYING SOIL WITH NO SLUMPING OF THE SOD OR DIE-OFF.
 - B. PERMANENT MULCH. FOR MULCHED AREAS, PERMANENT MULCHING MEANS TOTAL COVERAGE OF THE EXPOSED AREA WITH AN APPROVED MULCH MATERIAL. EROSION CONTROL MIX MAY BE USED AS MULCH FOR PERMANENT STABILIZATION ACCORDING TO THE APPROVED APPLICATION RATES AND LIMITATIONS.
 - C. RIP-RAP. FOR AREAS STABILIZED WITH RIP-RAP, PERMANENT STABILIZATION MEANS THAT SLOPES STABILIZED WITH RIP-RAP HAVE AN APPROPRIATE BACKING OF A WELL-GRADED GRAVEL OR APPROVED GEOTEXTILE TO PREVENT SOIL MOVEMENT FROM BEHIND THE RIP-RAP. STONE MUST BE SIZED APPROPRIATELY. IT IS RECOMMENDED THAT ANGULAR STONE BE USED.
 - D. AGRICULTURAL USE. FOR CONSTRUCTION PROJECTS ON LAND USED FOR AGRICULTURAL PURPOSES (E.G., PIPELINES ACROSS CROP LAND), PERMANENT STABILIZATION MAY BE ACCOMPLISHED BY RETURNING THE DISTURBED LAND TO AGRICULTURAL USE.
 - E. PAVED AREAS. FOR PAVED AREAS, PERMANENT STABILIZATION MEANS THE PLACEMENT OF THE COMPACTED GRAVEL SUB-BASE IS COMPLETED, PROVIDED IT IS FREE OF FINE MATERIALS THAT MAY RUNOFF WITH A RAIN EVENT
 - F. DITCHES, CHANNELS, AND SWALES. FOR OPEN CHANNELS, PERMANENT STABILIZATION MEANS THE CHANNEL IS STABILIZED WITH A 90% COVER OF HEALTHY VEGETATION, WITH A WELL-GRADED RIP-RAP LINING, TURF REINFORCEMENT MAT, OR WITH ANOTHER NON-EROSIVE LINING SUCH AS CONCRETE OR ASPHALT PAVEMENT. THERE MUST BE NO EVIDENCE OF SLUMPING OF THE CHANNEL LINING, UNDERCUTTING OF THE CHANNEL BANKS, OR DOWN-CUTTING OF THE CHANNEL.

- 8. WINTER CONSTRUCTION. "WINTER CONSTRUCTION" IS CONSTRUCTION ACTIVITY PERFORMED DURING THE PERIOD FROM NOVEMBER 1 THROUGH APRIL 15. IF DISTURBED AREAS ARE NOT STABILIZED WITH PERMANENT MEASURES BY NOVEMBER 1 OR NEW SOIL DISTURBANCE OCCURS AFTER NOVEMBER 1, BUT BEFORE APRIL 15, THEN THESE AREAS MUST BE PROTECTED AND RUNOFF FROM THEM MUST BE CONTROLLED BY ADDITIONAL MEASURES AND RESTRICTIONS.
 - A. SITE STABILIZATION. FOR WINTER STABILIZATION, HAY MULCH IS APPLIED AT TWICE THE STANDARD TEMPORARY STABILIZATION RATE. AT THE END OF EACH CONSTRUCTION DAY, AREAS THAT HAVE BEEN BROUGHT TO FINAL GRADE MUST BE STABILIZED. MULCH MAY NOT BE SPREAD ON TOP OF SNOW.
 - B. SEDIMENT BARRIERS. ALL AREAS WITHIN 75 FEET OF A PROTECTED NATURAL RESOURCE MUST BE PROTECTED WITH A DOUBLE ROW OF SEDIMENT BARRIERS.
 - C. DITCH. ALL VEGETATED DITCH LINES THAT HAVE NOT BEEN STABILIZED BY NOVEMBER 1. OR WILL BE WORKED DURING THE WINTER CONSTRUCTION PERIOD, MUST BE STABILIZED WITH AN APPROPRIATE STONE LINING BACKED BY AN APPROPRIATE GRAVEL BED OR GEOTEXTILE UNLESS SPECIFICALLY RELEASED FROM THIS STANDARD BY THE DEPARTMENT.
 - D. SLOPES. MULCH NETTING MUST BE USED TO ANCHOR MULCH ON ALL SLOPES GREATER THAN 8% UNLESS EROSION CONTROL BLANKETS OR EROSION CONTROL MIX IS BEING USED ON THESE
- 9. STORMWATER CHANNELS. DITCHES, SWALES, AND OTHER OPEN STORMWATER CHANNELS MUST BE DESIGNED, CONSTRUCTED, AND STABILIZED USING MEASURES THAT ACHIEVE LONG-TERM EROSION CONTROL. DITCHES, SWALES AND OTHER OPEN STORMWATER CHANNELS MUST BE SIZED TO HANDLE, AT A MINIMUM, THE EXPECTED VOLUME RUN-OFF. EACH CHANNEL SHOULD BE CONSTRUCTED IN SECTIONS SO THAT THE SECTION'S GRADING, SHAPING, AND INSTALLATION OF THE PERMANENT LINING CAN BE COMPLETED THE SAME DAY. IF A CHANNEL'S FINAL GRADING OR LINING INSTALLATION MUST BE DELAYED, THEN DIVERSION BERMS MUST BE USED TO DIVERT STORMWATER AWAY FROM THE CHANNEL, PROPERLY-SPACED CHECK DAMS MUST BE INSTALLED IN THE CHANNEL TO SLOW THE WATER VELOCITY, AND A TEMPORARY LINING INSTALLED ALONG THE CHANNEL TO PREVENT SCOURING. PERMANENT STABILIZATION FOR CHANNELS IS ADDRESSED UNDER APPENDIX A(5)(G) ABOVE.
 - A. THE CHANNEL SHOULD RECEIVE ADEQUATE ROUTINE MAINTENANCE TO MAINTAIN CAPACITY AND PREVENT OR CORRECT ANY EROSION OF THE CHANNEL'S BOTTOM OR SIDE SLOPES.
 - B. WHEN THE WATERSHED DRAINING TO A DITCH OR SWALE IS LESS THAN 1 ACRE OF TOTAL DRAINAGE AND LESS THAN 1/4 ACRE OF IMPERVIOUS AREA. DIVERSION OF RUNOFF TO ADJACENT WOODED OR OTHERWISE VEGETATED BUFFER AREAS IS ENCOURAGED WHERE THE OPPORTUNITY EXISTS.
- 10. <u>SEDIMENT BASINS.</u> SEDIMENT BASINS MUST BE DESIGNED TO PROVIDE STORAGE FOR EITHER THE CALCULATED RUNOFF FROM A 2-YEAR, 24-HOUR STORM OR PROVIDE FOR 3,600 CUBIC FEET OF CAPACITY PER ACRE DRAINING TO THE BASIN. OUTLET STRUCTURES MUST DISCHARGE WATER FROM THE SURFACE OF THE BASIN WHENEVER POSSIBLE. EROSION CONTROLS AND VELOCITY DISSIPATION DEVICES MUST BE USED IF THE DISCHARGING WATERS ARE LIKELY TO CREATE EROSION. ACCUMULATED SEDIMENT MUST BE REMOVED AS NEEDED FROM THE BASIN TO MAINTAIN AT LEAST 1/2 OF THE DESIGN CAPACITY OF THE BASIN. THE USE OF CATIONIC TREATMENT CHEMICALS, SUCH AS POLYMERS, FLOCCULANTS, OR OTHER CHEMICALS THAT CONTAIN AN OVERALL POSITIVE CHARGE DESIGNED TO REDUCE TURBIDITY IN STORMWATER MUST RECEIVE PRIOR APPROVAL FROM THE DEPARTMENT. WHEN REQUESTING APPROVAL TO USE CATIONIC TREATMENT CHEMICALS, YOU MUST DESCRIBE APPROPRIATE CONTROLS AND IMPLEMENTATION PROCEDURES TO ENSURE THE USE WILL NOT LEAD TO A VIOLATION OF WATER QUALITY STANDARDS. IN ADDITION YOU MUST SPECIFY THE TYPE(S) OF SOIL LIKELY TO BE TREATED ON THE SITE, CHEMICALS TO BE USED AND HOW THEY ARE TO BE APPLIED AND IN WHAT QUANTITY, ANY MANUFACTURER'S RECOMMENDATIONS, AND ANY TRAINING HAD BY PERSONNEL WHO WILL HANDLE AND APPLY THE CHEMICALS.
- 11. ROADS. GRAVEL AND PAVED ROADS MUST BE DESIGNED AND CONSTRUCTED WITH CROWNS OR OTHER MEASURES, SUCH AS WATER BARS, TO ENSURE THAT STORMWATER IS DELIVERED IMMEDIATELY TO ADJACENT STABLE DITCHES, VEGETATED BUFFER AREAS, CATCH BASIN INLETS, OR STREET GUTTERS.
- 12. CULVERTS. CULVERTS MUST BE SIZED TO AVOID UNINTENDED FLOODING OF UPSTREAM AREAS OR FREQUENT OVERTOPPING OF ROADWAYS. CULVERT INLETS MUST BE PROTECTED WITH APPROPRIATE MATERIALS FOR THE EXPECTED ENTRANCE VELOCITY, AND PROTECTION MUST EXTEND AT LEAST AS HIGH AS THE EXPECTED MAXIMUM ELEVATION OF STORAGE BEHIND THE CULVERT. CULVERT OUTLET DESIGN MUST INCORPORATE MEASURES, SUCH AS APRONS, TO PREVENT SCOUR OF THE STREAM CHANNEL. OUTLET PROTECTION MEASURES MUST BE DESIGNED TO STAY WITHIN THE CHANNEL LIMITS. THE DESIGN MUST TAKE ACCOUNT OF TAILWATER DEPTH.
- 13. PARKING AREAS. PARKING AREAS MUST BE CONSTRUCTED TO ENSURE RUNOFF IS DELIVERED TO ADJACENT SWALES, CATCH BASINS, CURB GUTTERS, OR BUFFER AREAS WITHOUT ERODING AREAS DOWNSLOPE. THE PARKING AREA'S SUB-BASE COMPACTION AND GRADING MUST BE DONE TO ENSURE RUNOFF IS EVENLY DISTRIBUTED TO ADJACENT BUFFERS OR SIDE SLOPES. CATCH BASINS MUST BE LOCATED AND SET TO PROVIDE ENOUGH STORAGE DEPTH AT THE INLET TO ALLOW INFLOW OF PEAK RUNOFF RATES WITHOUT BY-PASS OF RUNOFF TO OTHER AREAS.
- 14. ADDITIONAL REQUIREMENTS. ADDITIONAL REQUIREMENTS MAY BE APPLIED ON A SITE-SPECIFIC BASIS.





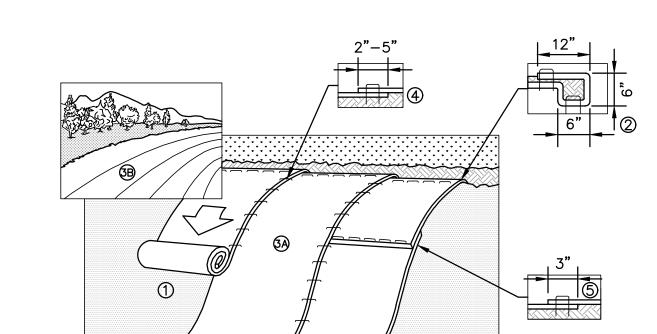
SILT SOCK NOTES:

SCALE: NONE

- 1. SILT SOCK SHALL BE INSTALLED BEFORE ANY EARTH REMOVAL OR EXCAVATION TAKES PLACE.
- 2. INSTALL SILT SOCK AROUND ALL MATERIAL STOCKPILES.

SILT SOCK EROSION CONTROL DETAIL

3. MAINTENANCE SHALL BE PERFORMED AS NEEDED, AND THE MATERIAL REMOVED WHEN "BULGES" DEVELOP. DO NOT DEPOSIT THE MATERIAL NEAR WETLANDS OR WATERCOURSES.

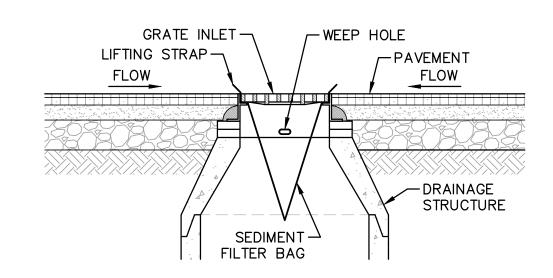


SLOPE PROTECTION INSTALLATION NOTES:

- PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
- 2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.
- ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
- 4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2"-5" OVERLAP DEPENDING ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.
- 5. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA. APPROXIMATELY 12"APART ACROSS ENTIRE BLANKET WIDTH
- IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.
- 7. INSTALL PRODUCT IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

SLOPE PROTECTION EROSION CONTROL MATTING DETAIL

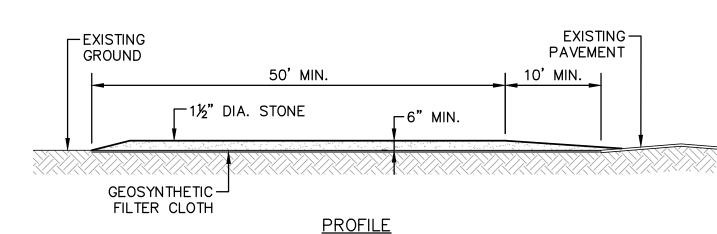
SCALE: NONE

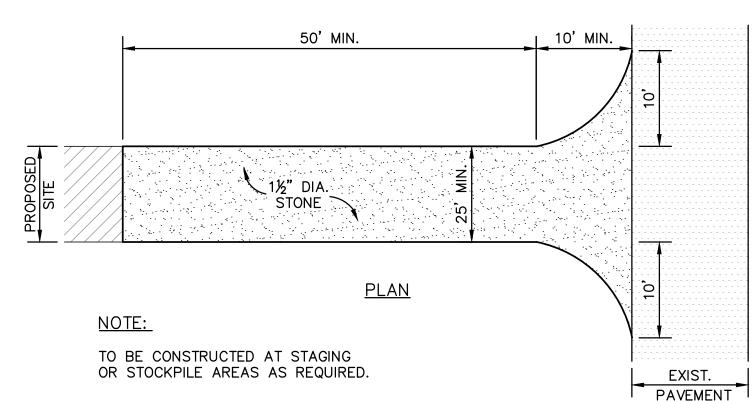


INLET PROTECTION NOTES:

- 1. THE SEDIMENT FILTER BAG SHALL BE DESIGNED FOR CATCH BASIN INLET PROTECTION. FILTER FABRIC IS NOT AN ACCEPTABLE SEDIMENT FILTER BAG.
- 2. REMOVE DRAINAGE INLET GRATE AND PLACE SEDIMENT FILTER BAG AROUND THE FRAME, REPLACE GRATE AND SEDIMENT FILTER BAG IN POSITION OR FOLLOW MANUFACTURER'S RECOMMENDATIONS. LIFTING STRAPS SHALL BE EXPOSED AND READY FOR MAINTENANCE PROCEDURES.
- 3. INSPECT SEDIMENT FILTER BAG WEEKLY AND AFTER EVERY RAINFALL EVENT.
- 4. REPLACE, CLEAN OR REMOVE SEDIMENT FILTER BAG AS DIRECTED.

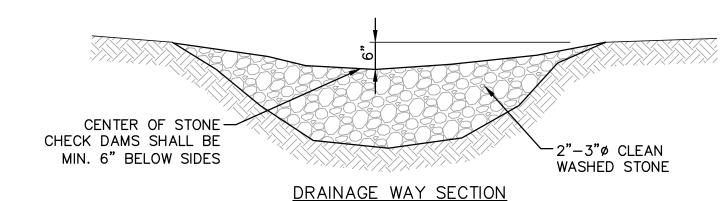


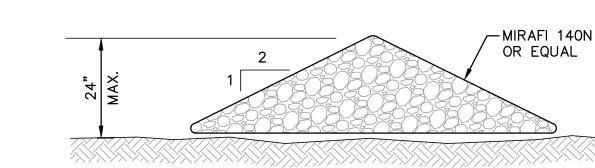


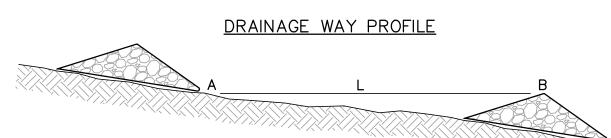


STABILIZED CONSTRUCTION ENTRY DETAIL

SCALE: NONE







NOTES:

- 1. THE CONTRACTOR SHALL USE STONE CHECK DAMS AS NEEDED FOR TEMPORARY EROSION CONTROL L = THE DISTANCE SUCH THAT THE DURING CONSTRUCTION.
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CHECK DAM SPACING

2. REMOVE CHECK DAMS AFTER SITE IS STABILIZED.



STONE CHECK DAM DETAIL (AS NEEDED)

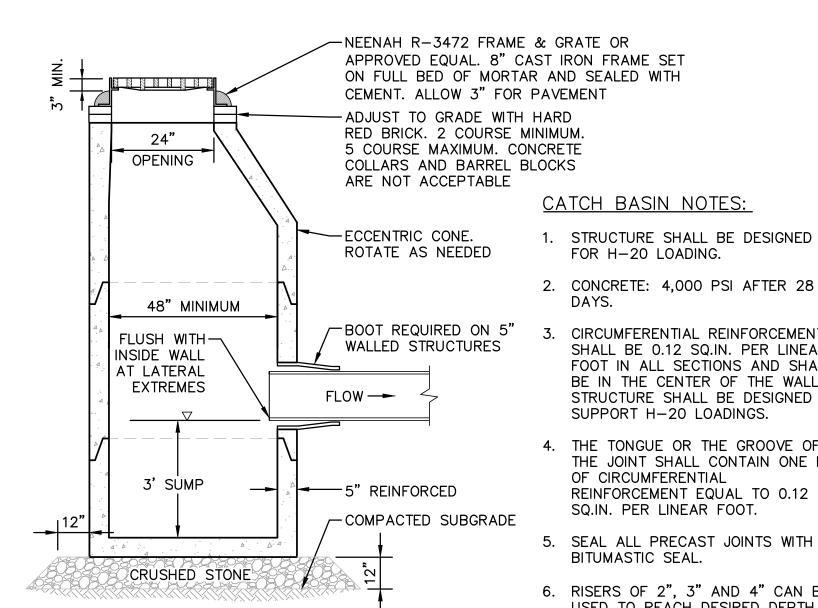
SCALE: NONE

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DETAILS 1

PROJECT NO. 569501 SHEET 11 OF 15



TYPICAL CATCH BASIN DETAIL

SCALE: NONE

CATCH BASIN NOTES: FOR H-20 LOADING.

1. STRUCTURE SHALL BE DESIGNED

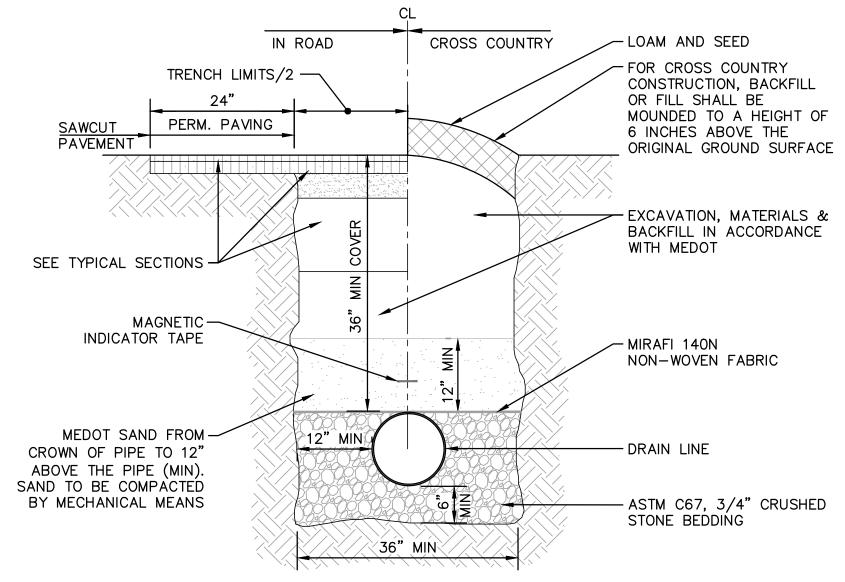
2. CONCRETE: 4,000 PSI AFTER 28 DAYS.

—BOOT REQUIRED ON 5" 3. CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQ.IN. PER LINEAR FOOT IN ALL SECTIONS AND SHALL BE IN THE CENTER OF THE WALL. STRUCTURE SHALL BE DESIGNED TO SUPPORT H-20 LOADINGS.

> 4. THE TONGUE OR THE GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQ.IN. PER LINEAR FOOT.

BITUMASTIC SEAL.

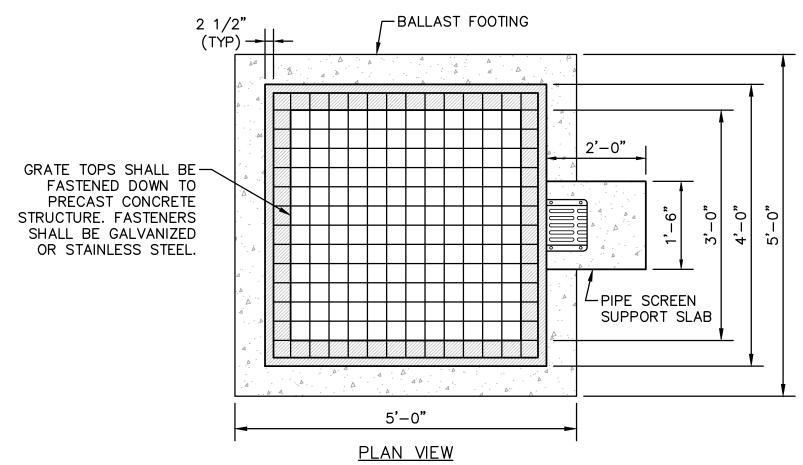
6. RISERS OF 2", 3" AND 4" CAN BE USED TO REACH DESIRED DEPTH. 12" MAXIMUM RISER HEIGHT.

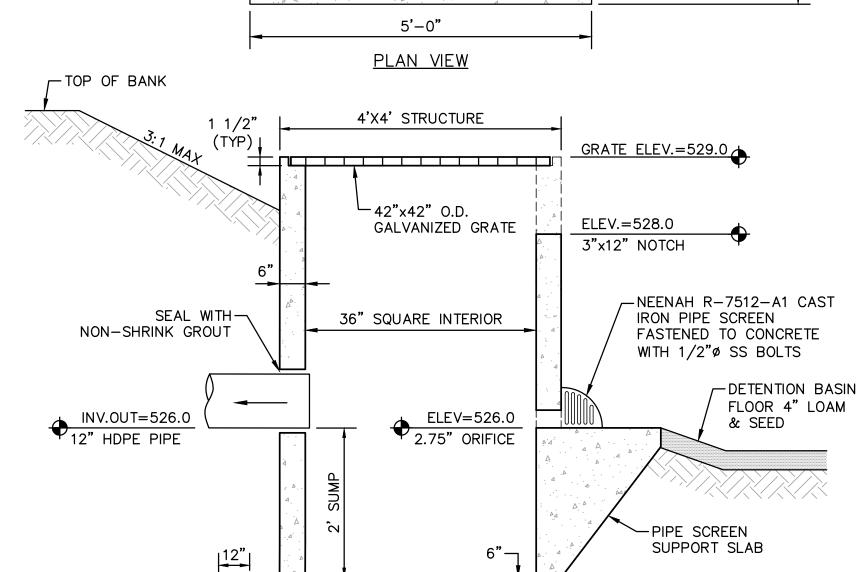




DRAIN TRENCH DETAIL

SCALE: NONE





3/4" CRUSHED STONE

<u>SECTION</u>

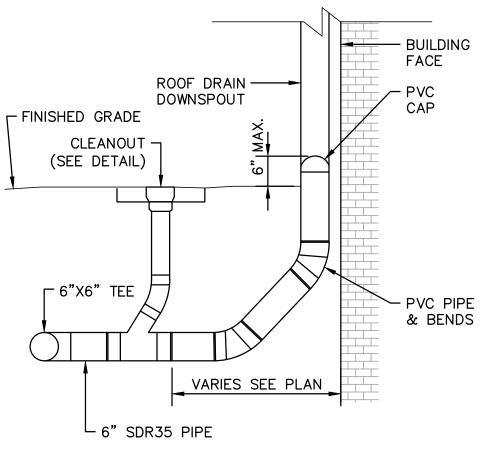


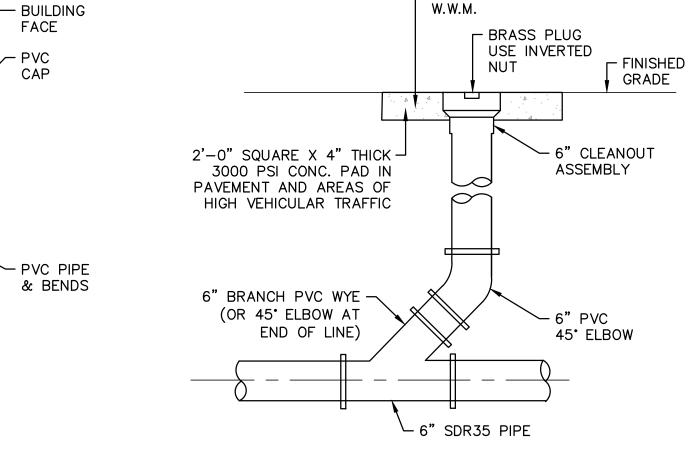
COMPACTED SUBGRADE -

- 1. ALL CEMENT CONCRETE TO BE 4000 PSI (MIN.).
- 2. GALVANIZED STEEL GRATE SHALL BE BOLTED TO TOP OF STRUCTURE.
- ALL OPENINGS SHALL BE CAST IN AS REQUIRED.
- 4. PRECAST REINFORCED CONCRETE STRUCTURE TO MEET ASTM C-478 DESIGNATION AND H-20 LOADING.

OUTLET STRUCTURE AT DETENTION POND

SCALE: NONE



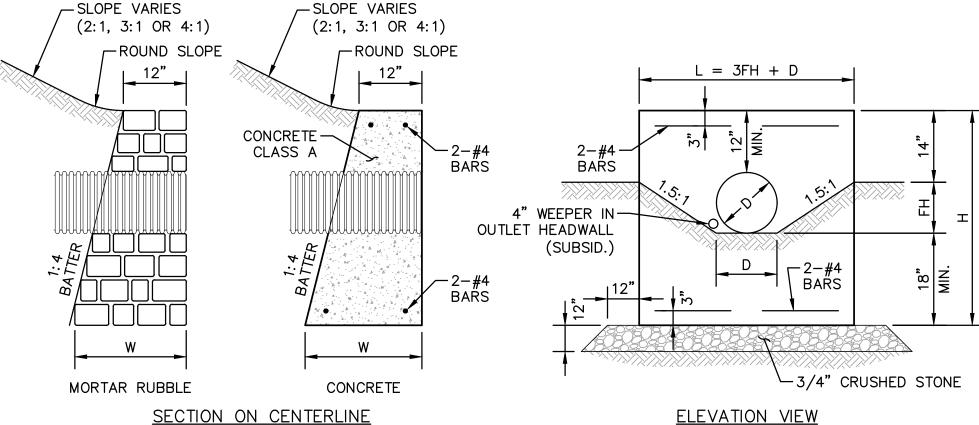


┌ 6"x6" W1.4xW1.4

ROOF DRAIN DETAIL

SCALE: NONE



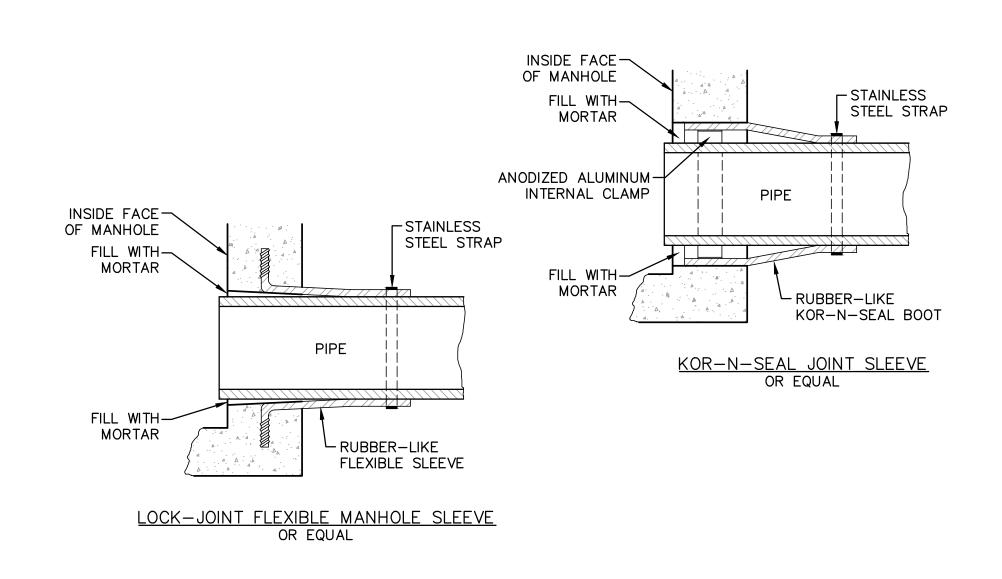


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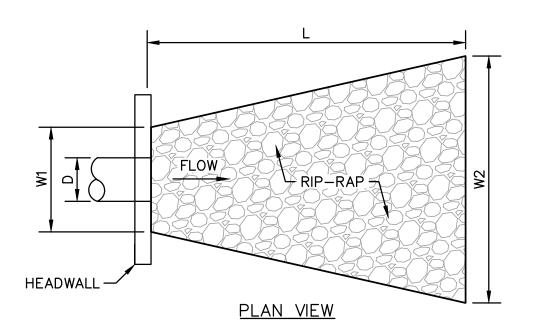
DIAMETER D INCHES	MASONRY PER FOOT OF WALL CU. YD	MASONRY PER STANDARD HEADER CU. YD	STEEL PER STANDARD HEADER LB.	LENGTH OF BARS	EXC. FOR 1' DEPTH CU. YD.	HEADER LENGTH L	HEADER HEIGHT H	FILL HEGHT FH	WIDTH AT BOTTOM OF HEADER W
12	0.186	0.61	9	3'-2"	0.789	3'-6"	3'-6"	0'-10"	0'-10½"
15	0.202	0.85	11	3–10	0.947	4-6	3-9	1-1	1-111/4
18	0.222	1.13	14	5-2	1.111	5-6	4-0	1-4	2-0

CONCRETE OR MORTAR RUBBLE HEADWALL DETAILS

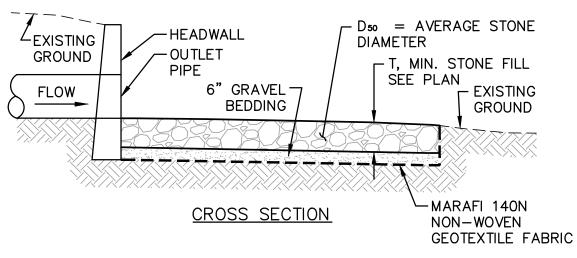
SCALE: NONE



TYPICAL PIPE TO MANHOLE DETAILS SCALE: NONE



TA	TABLE OF DIMENSIONS						
	D	W1	L	W2	Т	D50	
	(IN)	(FT)	(FT)	(FT)	(IN)	(IN)	
HW1	6	1.75	4	3.5	12	6	
HW2	6	1.75	4	3.5	12	6	
HW3	6	1.75	4	3.5	12	6	
HW4	12	3.5	6.5	6	12	6	
HW5	12	3.5	6.5	6	12	6	
HW7	15	3.75	15	10	12	6	



RIP-RAP NOTE ALL RIP-RAP SHALL BE PROTECTED F SEDIMENT RUI THE CONSTRU PROCESS. THI SHALL ENSUR RIP-RAP IS C FREE OF SEDI COMPLETION PROJECT.

STONE LINED OUTLET PROTECTION DETAIL

SCALE: NONE

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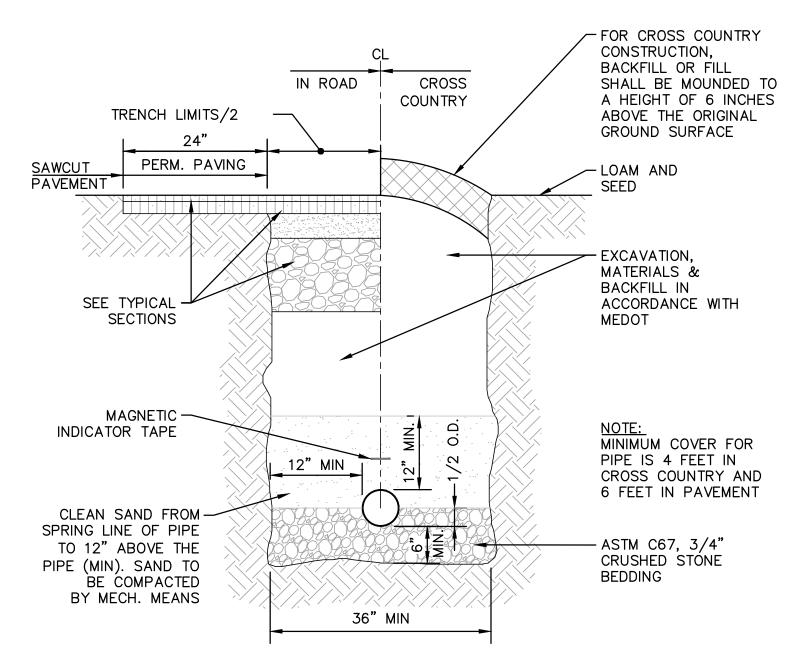
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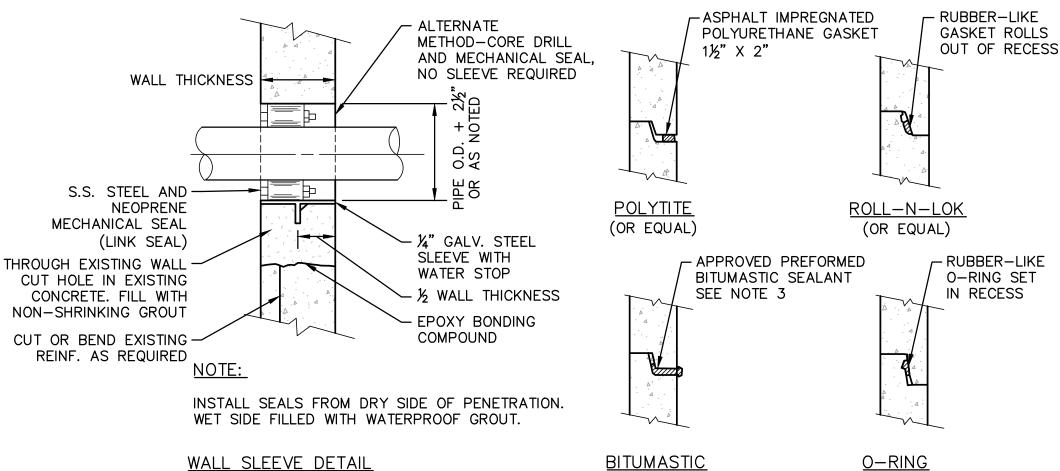
CONSTRUCTION **DETAILS 2**

PROJECT NO. 569501 SHEET 12 OF 15

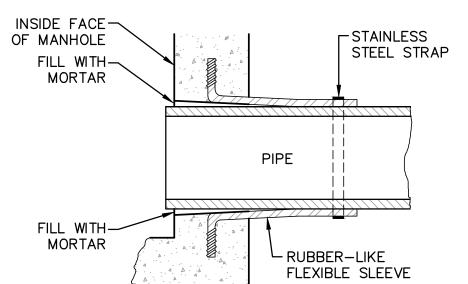


SEWER TRENCH DETAIL

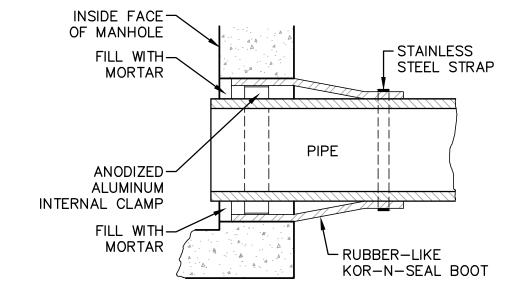
SCALE: NONE



WALL SLEEVE DETAIL



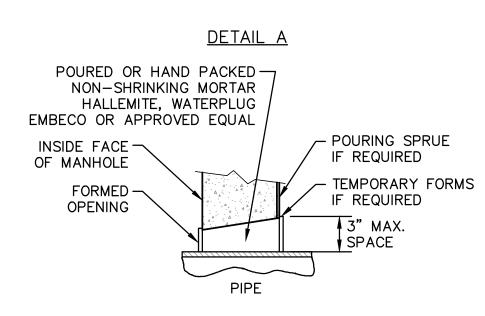
<u>LOCK-JOINT FLEXIBLE MANHOLE SLEEVE</u> OR EQUAL



KOR-N-SEAL JOINT SLEEVE OR EQUAL

NOTE:

ALL GASKETS AND SEALANTS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.



NON-SHRINKING MORTAR (SEE NOTE 4)

SLEEVE AND GASKET NOTES:

- HORIZONTAL JOINTS BETWEEN SECTIONS OF PRECAST CONCRETE BARRELS SHALL BE OF A TYPE APPROVED BY THE ENGINEER, WHICH TYPE SHALL, IN GENERAL, DEPEND FOR WATERTIGHTNESS UPON AN ELASTOMERIC OR MASTIC-LIKE GASKET.
- 2. PIPE TO MANHOLE JOINTS SHALL BE ONLY AS APPROVED BY THE ENGINEER AND IN GENERAL, WILL DEPEND FOR WATERTIGHTNESS UPON ELASTOMERIC SEALANT.
- 3. FOR BITUMASTIC TYPE JOINTS THE AMOUNT OF SEALANT SHALL BE SUFFICIENT TO FILL AT LEAST 75% OF THE JOINT CAVITY.
- 4. NON-SHRINKING MORTAR SHALL ONLY BE USED WHERE SPECIFICALLY APPROVED BY THE ENGINEER.

SEWER MANHOLE JOINT AND PIPE CONNECTION DETAILS

SCALE: NONE



STANDARD SANITARY SEWER BRICK INVERT DETAILS

SECTION A-A

- 36" FRAME AND COVER RATED FOR H-20 LOADINGS. COVER LABELED WITH "SEWER" ADJUST TO GRADE WITH-BRICK OR PRECAST FRAME TO BE SET CONCRETE RINGS MAX. 12" IN BED OF MORTAR **ADJUSTMENT** SEAL WITH "FLEX-SEAL UTILITY SEALANT" AS MANUFACTURED BY SEALING SYSTEMS, INC. OR Z ECCENTRIC CONE WATERPROOF COMPOUND PIPE SEE DETAILS FOR -OPENING APPROVED JOINTING 48" MIN. **METHODS** 5" REINFORCED SEE DETAILS FOR-APPROVED JOINTING METHODS -COMPACTED SUBGRADE TYPICAL SECTION

SEWER NOTES:

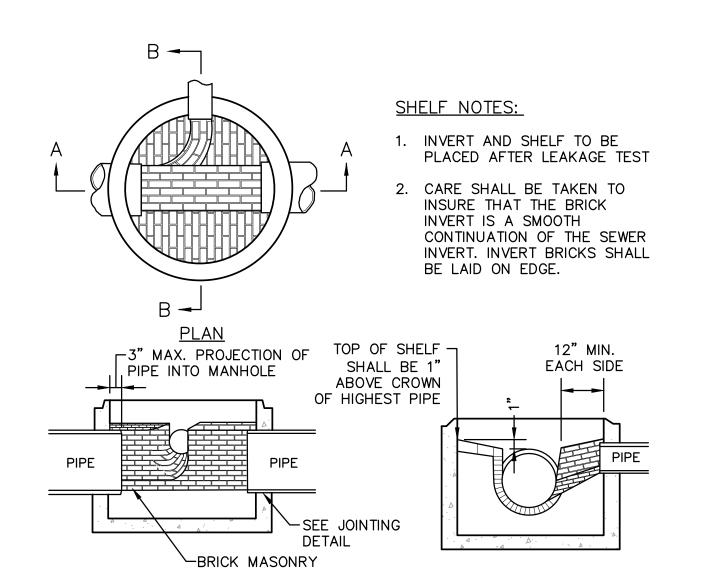
- MANHOLES: THE MANHOLE, INCLUDING ALL COMPONENT PARTS, SHALL HAVE ADEQUATE SPACE, STRENGTH AND LEAKPROOF QUALITIES CONSIDERED NECESSARY FOR THE INTENDED SERVICE SPACE REQUIREMENTS AND CONFIGURATIONS, SHALL BE SHOWN ON THE DRAWING. MANHOLES MAY BE AN ASSEMBLY OF PRECAST SECTIONS, WITH STEEL REINFORCEMENT, WITH ADEQUATE JOINTING. IN ANY APPROVED MANHOLE, THE COMPLETE STRUCTURE SHALL BE OF SUCH MATERIAL AND QUALITY AS TO WITHSTAND LOADS OF 8 TONS (H-20 LOADING) WITHOUT FAILURE AND PREVENT LEAKAGE IN EXCESS OF ONE GALLON PER DAY PER VERTICAL FOOT OF MANHOLE, CONTINUOUSLY FOR THE LIFE OF THE STRUCTURE. A PERIOD GENERALLY IN EXCESS OF 25 YEARS IS TO BE UNDERSTOOD IN BOTH CASES.
- 2. INVERTS AND SHELVES: MANHOLES SHALL HAVE A BRICK PAVED SHELF AND INVERT, CONSTRUCTED TO CONFORM TO THE SIZE OF PIPE AND FLOW. AT CHANGES IN DIRECTION, THE INVERTS SHALL BE LAID OUT IN CURVES OF THE LONGEST RADIUS POSSIBLE TANGENT TO THE CENTER LINE OF THE SEWER PIPES. SHELVES SHALL BE CONSTRUCTED TO THE ELEVATION OF THE HIGHEST PIPE CROWN AND SLOPE TO DRAIN TOWARD THE FLOWING THROUGH CHANNEL. UNDERLAYMENT OF INVERT AND SHELF SHALL CONSIST OF BRICK MASONRY.
- 3. SHALLOW MANHOLE: IN LIEU OF A CONE SECTION, WHEN MANHOLE DEPTH IS LESS THAN 6 FEET, A REINFORCED CONCRETE SLAB COVER SHALL BE USED, WHERE INDICATED, HAVING AN ECCENTRIC ENTRANCE OPENING AND CAPABLE OF SUPPORTING H-20 LOADS. SEE DETAILS.
- 4. RISER SECTION: THE RISER SECTION SHALL HAVE THE EXTERIOR WRAPPED WITH WRAPIDSEAL MANHOLE ENCAPSULATION SYSTEM AS MANUFACTURED BY CCI PIPE PROTECTION PRODUCTS OR APPROVED EQUAL.

MANHOLE NOTES:

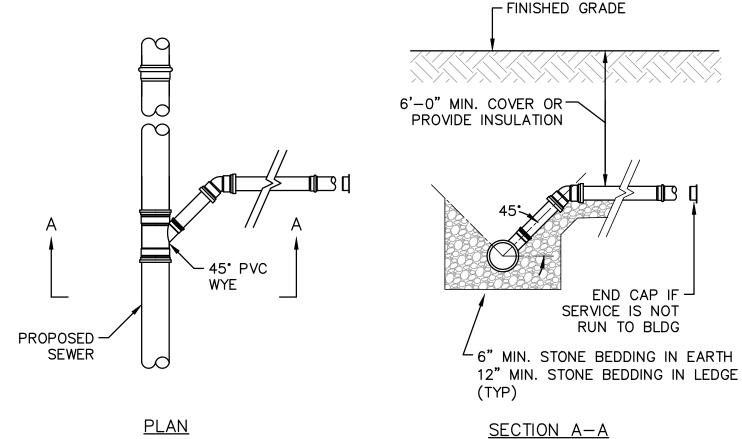
- 1. BASE SECTION TO BE FULL WALL THICKNESS AND MONOLITHIC TO A POINT 6" ABOVE THE PIPE CROWN.
- 2. THERE SHALL BE NO STEPS IN ANY OF THE SEWER MANHOLES

STANDARD SANITARY SEWER MANHOLE DETAIL

SCALE: NONE

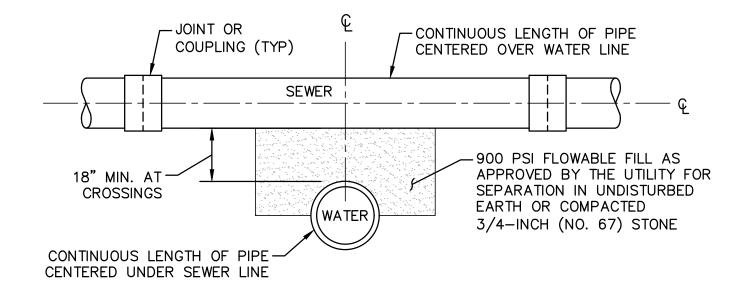


SECTION B-B

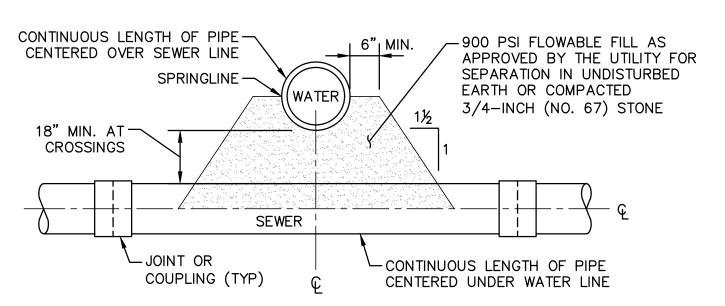


TYPICAL SEWER CONNECTION DETAIL

SCALE: NONE



WATER CROSSING UNDER SEWER



CROSSING NOTES:

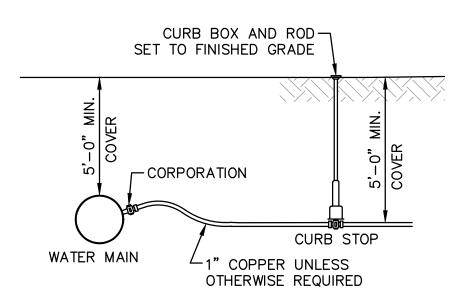
- 1. SEE PLAN AND PROFILE FOR CROSSING LOCATIONS.
- 2. IF A CONTINUOUS LENGTH OF PIPE CANNOT BE CENTERED AT THE CROSSING OR IF 18" VERTICAL SEPARATION CANNOT BE ACHIEVED, THE LOWER PIPE SHALL BE INCASED IN CONCRETE 10'-0" IN EACH DIRECTION (SEE DETAIL). THE CONCRETE IS SUBSIDIARY TO THE PIPE INSTALLATION. CONTACT ENGINEER FOR DIRECTION BEFORE PROCEEDING IF THIS SITUATION IS ENCOUNTERED.

WATER CROSSING OVER SEWER



WATER/SEWER PIPE CROSSING DETAIL

SCALE: NONE



SERVICE CONNECTION NOTES:

- 1. CORPORATIONS SHALL BE TAPPED DIRECTLY TO THE MAIN IN SIZES UP TO 1"ø.
- 2. CORPORATIONS 1½" AND GREATER SHALL BE INSTALLED USING A TAPPING SADDLE AND SHELL CUTTER.
- 3. CRIMPING OF WATER SERVICES AT CONFLICTS OR CROSSINGS SHALL NOT BE ALLOWED.



WATER SERVICE CONNECTION DETAIL

SCALE: NONE

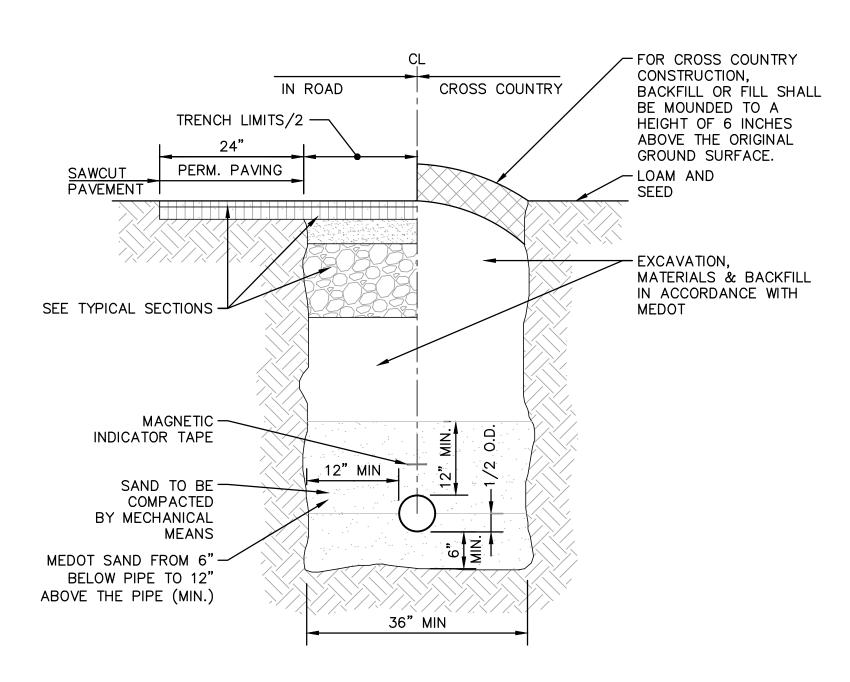
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CONSTRUCTION

DETAILS 3



WATERLINE TRENCH NOTES:

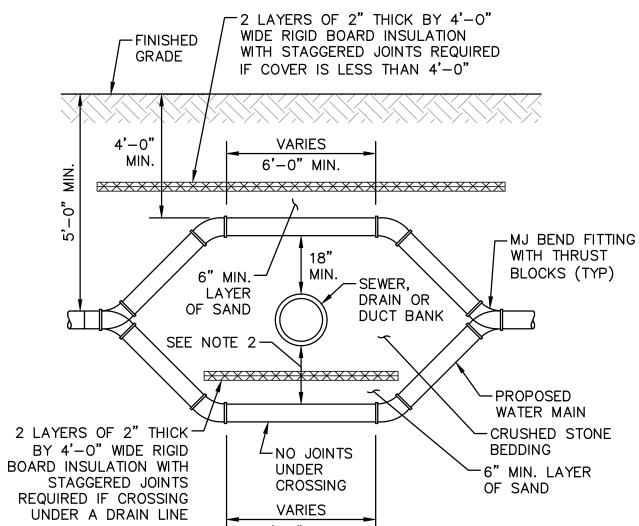
- 1. APPROVED MATERIAL: SHALL BE NATURAL MATERIAL EXCAVATED DURING THE COURSE OF CONSTRUCTION, BUT SHALL EXCLUDE DEBRIS, PIECES OF PAVEMENT, ORGANIC MATTER, TOPSOIL, CLUMPS MORE THAN 3" DIA., ALL EXCAVATED LEDGE ROCK, STUMPS OR ANY MATERIAL WHICH, AS DETERMINED BY THE ENGINEER, WILL NOT PROVIDE SUFFICIENT SUPPORT OR MAINTAIN THE COMPLETED CONSTRUCTION IN A STABLE CONDITION.
- 2. SEWER AND WATER PIPING RUNNING APPROXIMATELY PARALLEL MUST BE SEPARATED BY A HORIZONTAL DISTANCE OF TEN FEET MINIMUM.
- 3. WATER MAINS ARE TO HAVE A MINIMUM COVER OF 5'-0" FT.

-CONCRETE PATIO BLOCK WRAPPED IN POLYURETHANE PIPE & CAP -UNDISTURBED MATERIAL -#5 REBAR - VOLUME OF CONCRETE TO BE DETERMINED BY **ENGINEER** <u>VERTICAL BEND - SECTION</u> THRUST BLOCK SCHEDULE SQUARE FEET OF CONCRETE THRUST

BLOCKING BEARING ON UNDISTURBED MATERIAL HORIZONTAL BEND REACTION TYPE PIPE SIZE 1"-4" | 6" 8" 10**"** 0.89 | 2.19 | 3.92 | 5.57 | 8.62 0.65 | 1.55 | 2.76 | 4.19 | 6.09 0.48 | 1.19 | 2.12 | 3.01 | 4.66 0.25 | 0.60 | 1.08 | 1.54 | 2.37 0.13 | 0.30 | 0.54 | 0.77 | 1.19 OTHER TEST TEST PRESSURE TO BE 200 PSI PRESSURES MINIMUM AT LOW END OF THE FOR THE TEST SECTION. ABOVE SQUARE FEET OF CONCRETE REACTIONS

THRUST BOCK NOTES:

- 1. POUR THRUST BLOCKS AGAINST UNDISTURBED MATERIAL. WHERE TRENCH HAS BEEN DISTURBED, EXCAVATE LOOSE MATERIAL AND EXTEND THRUST BLOCK TO UNDISTURBED MATERIAL. NO JOINTS SHALL BE COVERED WITH CONCRETE
- 2. ON BENDS AND TEES, EXTEND THRUST BLOCKS FULL LENGTH OF FITTING.
- 3. PLACE CONCRETE PATIO BLOCKS IN FRONT OF ALL PLUGS BEFORE POURING THRUST BLOCK.
- 4. REQUIREMENTS OF THE ABOVE TABLE PRESUME MINIMUM SOIL BEARING OF 1 TON PER SQUARE FOOT AND MAY BE VARIED BY THE ENGINEER TO MEET OTHER CONDITIONS ENCOUNTERED.
- RETAINER GLANDS ARE REQUIRED FOR ALL MECHANICAL JOINTS. THESE GLANDS DO NOT REDUCE THE REQUIREMENTS FOR THRUST RESTRAINT.
- 6. ALL FITTINGS SHALL BE WRAPPED IN POLYETHYLENE OR BUILDING PAPER PRIOR TO INSTALLATION OF CONCRETE RESTRAINT.
- THREADED RODS SHALL BE ANSI A242 FY50 PIPE RESTRAINT NUTS TO MATCH AIWA C111. THREADED RODS AND NUTS TO BE FIELD COATED WITH BITUMINOUS PAINT.
- 8. THRUST RESTRAINT IS REQUIRED FOR ALL TEES, BENDS, REDUCERS, CAPS PLUGS, OR CROSSES.
- 9. INSTALL LIFT HOOKS INTO THRUST BLOCKS AT END CAPS AND PLUGS.
- 10. ALL WATERLINE CONSTRUCTION SHALL BE INSTALLED IN ACCORDANCE WITH THE KITTERY WATER DISTRICT SPECIFICATIONS



CROSSING NOTES:

SCALE: NONE

- 1. SEE PLAN AND PROFILE FOR CROSSING LOCATIONS.
- 2. DROP WATER LINE BELOW UTILITY CONFLICT WITH 4 MJ BEND FITTINGS.
- 3. VERTICAL SEPARATION BETWEEN WATER LINES, SEWER LINES AND ALL OTHER UTILITIES SHALL BE A MINIMUM OF 18".
- 4. COORDINATE WITH DETAIL 7/C13.

— WATER

MAIN

GATE VALVE DETAIL

SCALE: NONE

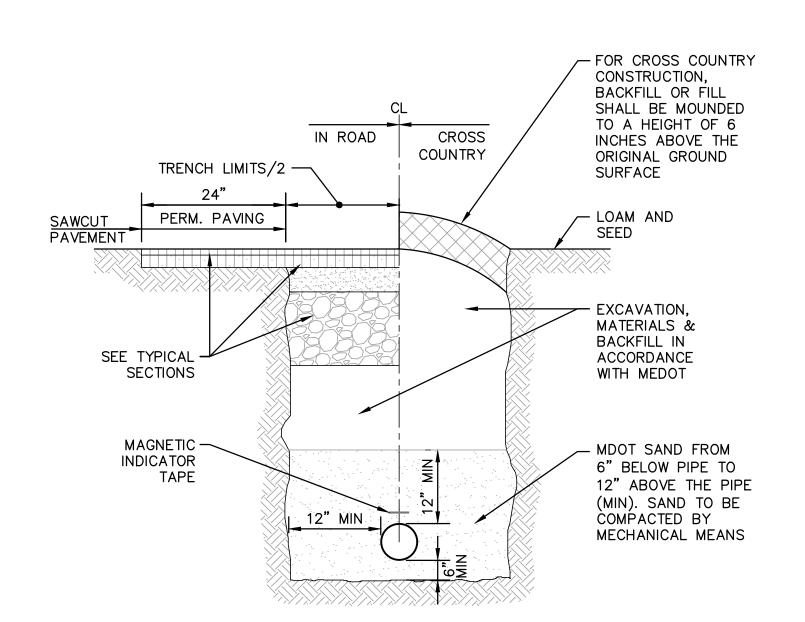
WATER LINE TRENCH DETAIL

SCALE: NONE

WATER LINE THRUST BLOCK DETAILS

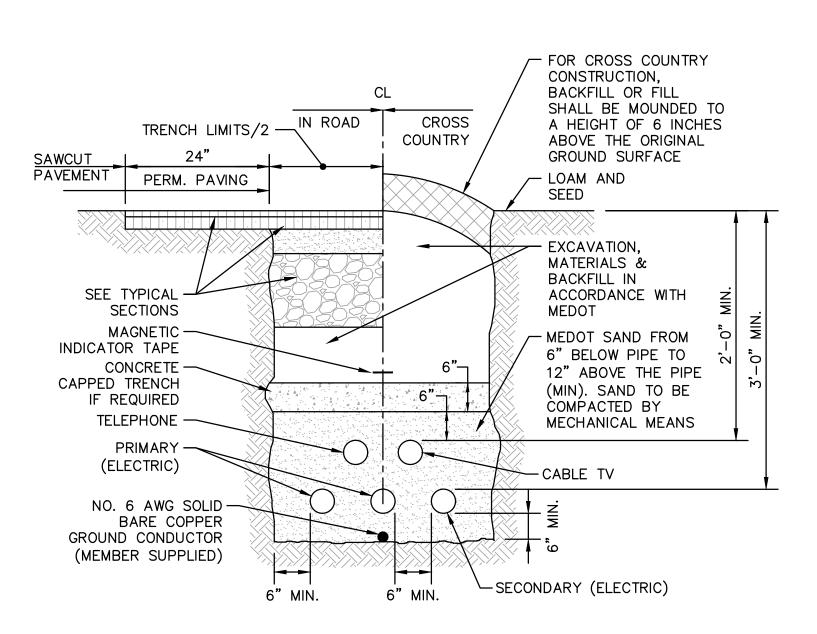


STANDARD BEND



TRENCH NOTES:

- 1. ELECTRICAL CONDUIT SHALL BE SCHEDULE 40 PVC AND SHALL CONFORM TO THE APPLICABLE SECTIONS OF NEMA TC-2-1990 AND BE UL LISTED.
- 2. ALL PVC CONDUIT JOINTS SHALL BE CEMENTED.
- 3. A SUITABLE PULL CABLE, CAPABLE OF 200 POUNDS OF PULL, MUST BE INSTALLED IN THE ELECTRICAL CONDUIT.
- 4. COORDINATE SIZE OF CONDUIT WITH OWNER.
- 5. DEPTH OF CONDUIT SHALL BE 36" TO INVERT.



12"

THRUST BLOCKING FOR OTHER

TEST PRESSURES IS DIRECTLY

PROPORTIONAL TO THE ABOVE

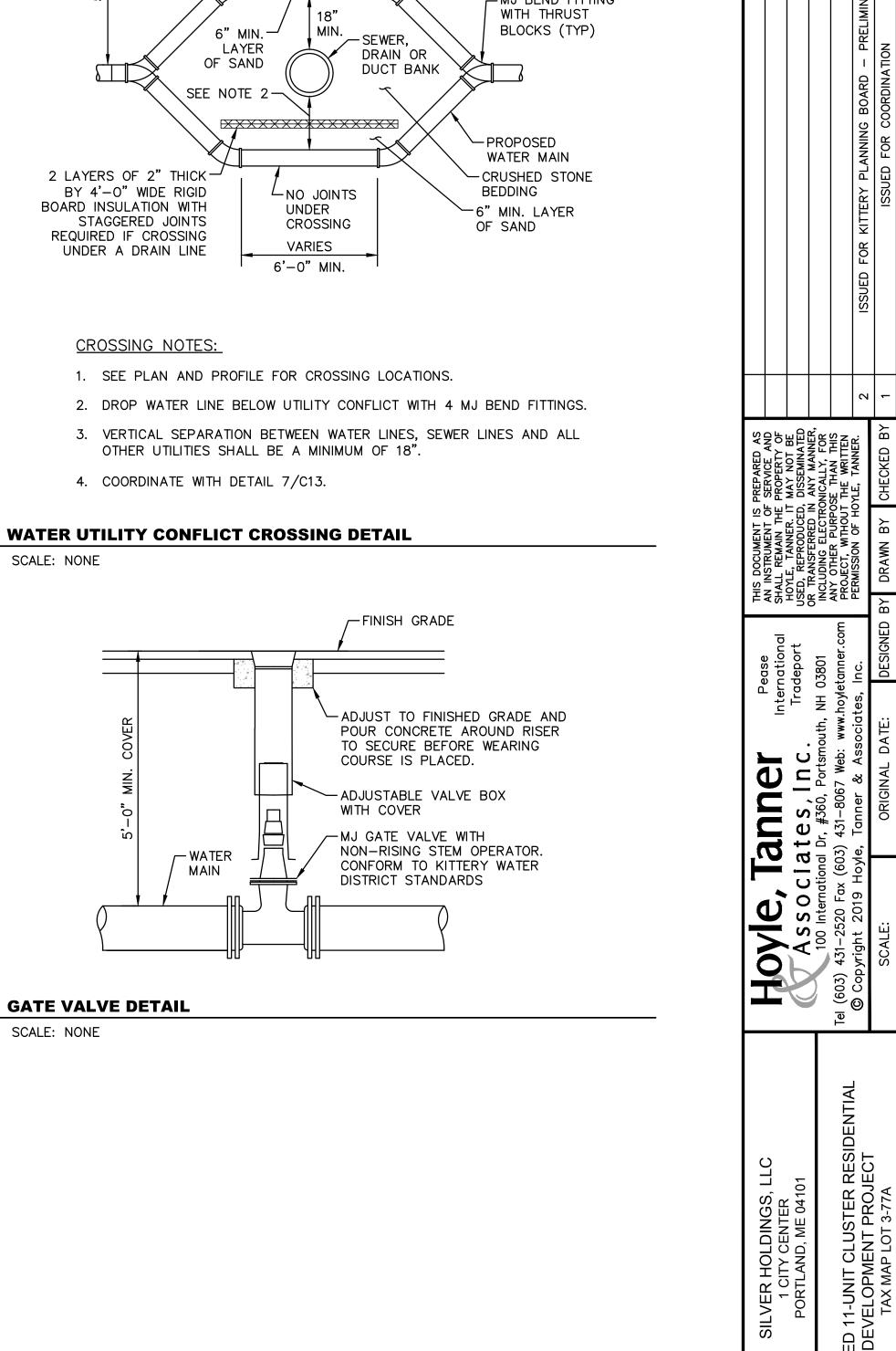
TRENCH NOTES:

- 1. COORDINATE TRENCH DETAIL WITH ALL UTILITY OWNERS.
- 2. ELECTRICAL CONDUIT SHALL BE SCHEDULE 40 PVC
- 3. ALL PVC CONDUIT JOINTS SHALL BE CEMENTED.
- 4. A SUITABLE PULL CABLE, CAPABLE OF 200 POUNDS OF PULL, MUST BE INSTALLED IN THE ELECTRICAL CONDUIT.
- 5. COORDINATE SIZE AND NUMBER OF CONDUIT WITH UTILITY OWNER.
- 6. DEPTH OF CONDUIT SHALL BE 36" TO INVERT.
- 7. TRENCH WIDTH AS REQUIRED TO MAINTAIN 6" MINIMUM SPACING BETWEEN ALL CONDUITS AND TRENCH SIDEWALLS.



PRIMARY CIRCUIT W/ TELEPHONE AND/OR CABLE TV ELEC. TRENCH

SCALE: NONE

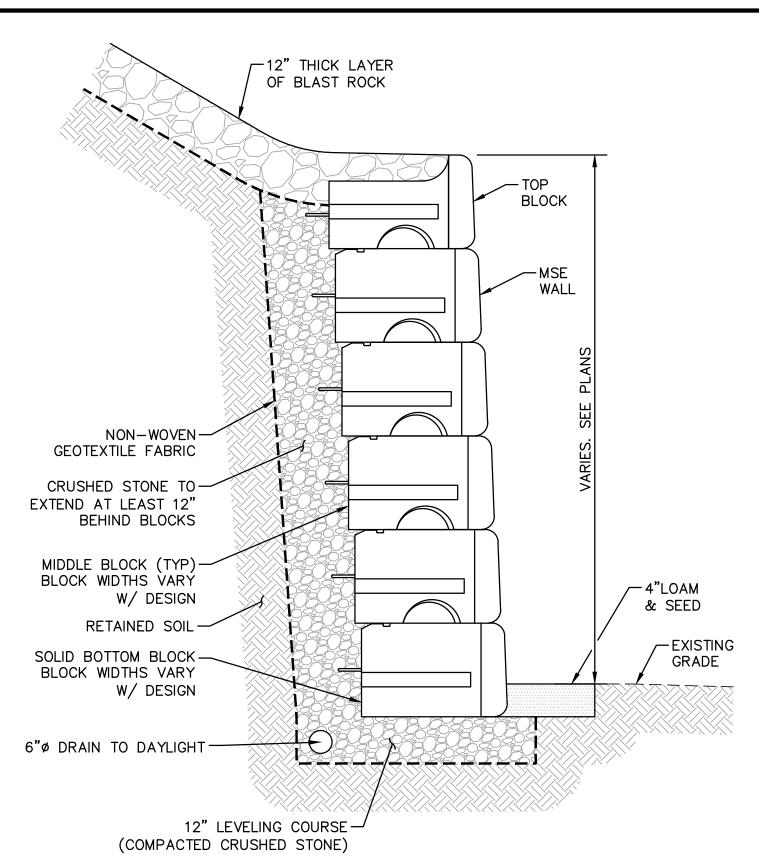


CONSTRUCTION **DETAILS 4**

TOBEY

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ELECTRICAL/GAS TRENCH DETAIL SCALE: NONE

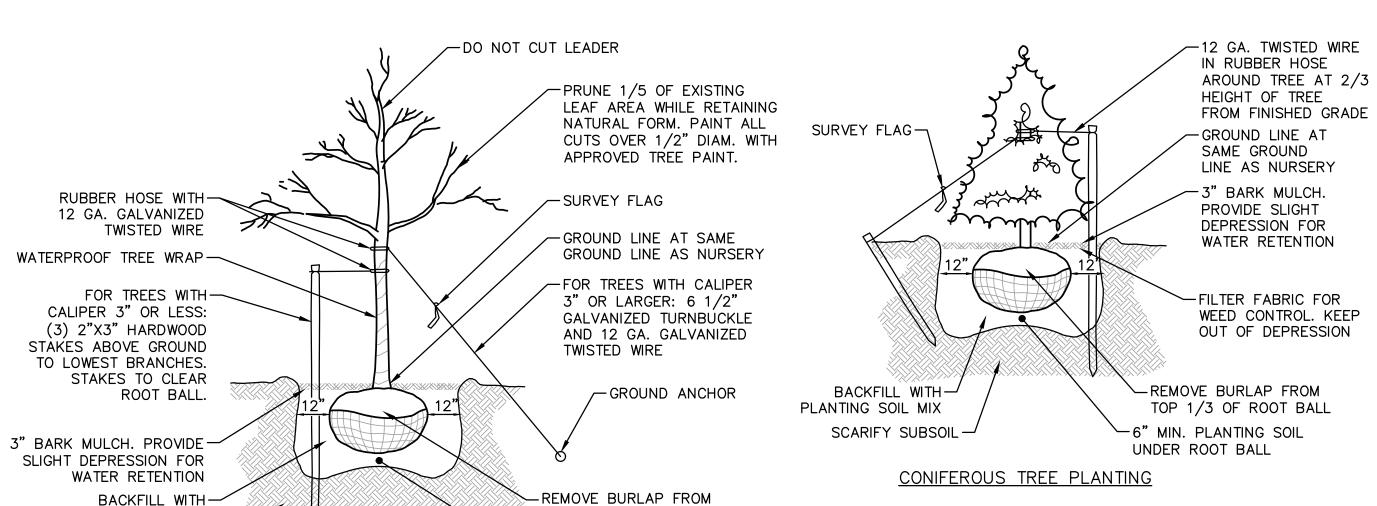


WALL NOTES:

- 1. THIS DETAIL IS FOR REFERENCE ONLY. DETERMINATION OF THE SUITABILITY AND/OR MANNER OF USE OF ANY DETAILS CONTAINED IN THIS DOCUMENT IS THE SOLE RESPONSIBILITY OF THE DESIGN ENGINEER OF RECORD. FINAL WALL DESIGNS, INCLUDING ALL CONSTRUCTION DETAILS, SHALL BE PREPARED BY A LICENSED PROFESSIONAL ENGINEER USING THE ACTUAL CONDITIONS OF THE PROPOSED SITE.
- 2. SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.

TYPICAL MSE GRAVITY BLOCK RETAINING WALL SECTION

SCALE: NONE



TOP 1/3 OF ROOT BALL

-6" MIN. PLANTING SOIL

UNDER ROOT BALL

FOR TREES 5' IN HEIGHT OR GREATER:

1. PROVIDE (3) 12 GA. GALVANIZED GUY WIRES @ 120 DEGREE SPACING WITH (6) 1/2" GALVANIZED TURNBUCKLE WIRE IN RUBBER HOSE AROUND

DECIDUOUS TREE PLANTING

- 2. ATTACH TO TREE @ 1/2-2/3 HEIGHT OF TREE ABOVE GRADE.
- 3. ANCHOR WITH 2"X3' HARDWOOD STAKE BURIED BELOW GRADE AND CLEAR OF ROOT BALL.

FOR TREES LESS THAN 5' IN HEIGHT:

1. PROVIDE (3) 2"X3' HARDWOOD STAKES @ 120 DEGREE SPACING, MIN. 36" IN GROUND AND CLEAR OF ROOT BALL.

-3" BARK MULCH. PROVIDE SLIGHT DEPRESSION FOR WATER RETENTION FILTER FABRIC FOR WEED CONTROL. KEEP OUT OF DEPRESSION -REMOVE BURLAP FROM

TYPICAL EQUIPMENT PAD & DUMPSTER PAD DETAIL

#4 BARS @ 12" O.C.

EACH WAY @ CTR.

-4,500 PSI CONCRETE

WITH 0.45 W/C RATIO

MEDOT 703.06 TYPE A

-6" THK. CRUSHED GRAVEL BASE

SEE PLANS

DUMPSTER VINYL FENCE DETAIL

└ GRAVEL SUBBASE

OR GRAVEL FILL

SCALE: NONE

PROPOSED 4" REVEAL -

REVEAL (FLUSH) AT

DUMPSTER PADS

SEED OR

PAVEMENT

SCALE: NONE

4" LOAM AND ¬

FOR EQUIPMENT & 0"

¾" CHAMFER

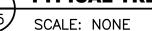
ALL EDGES

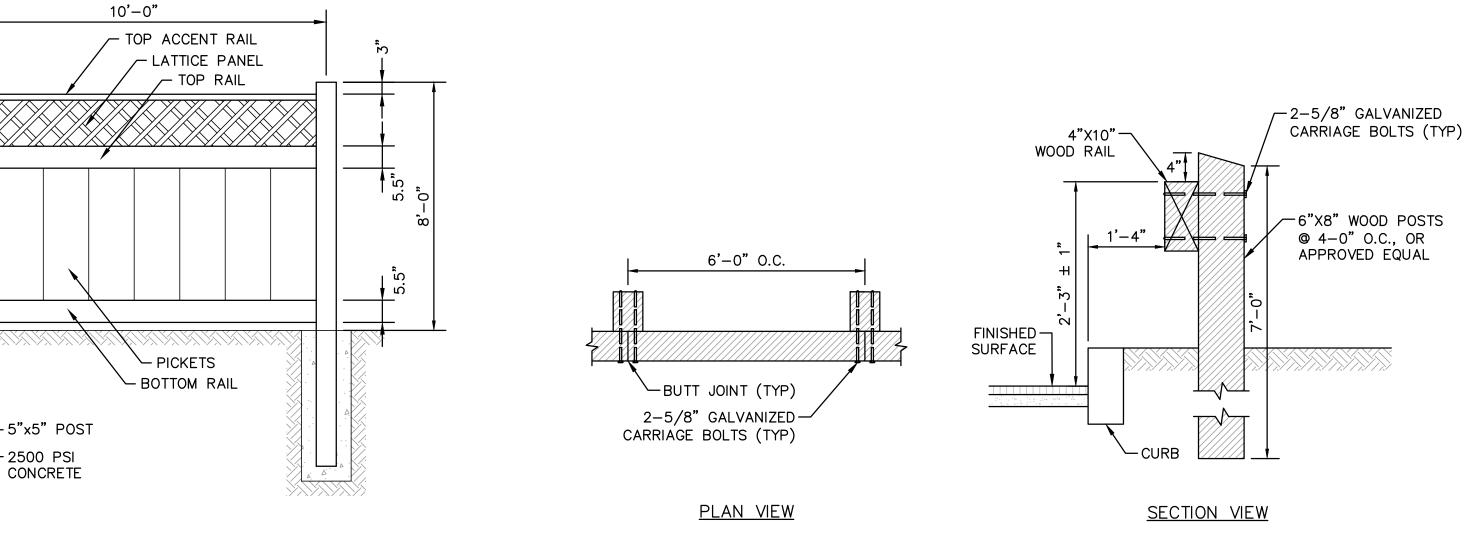
DO NOT CUT LEADER --SPRAY WITH WILT PROOF PER MANUFACTURER'S INSTRUCTIONS IF FOLIAGE IS PRESENT -2" SPACE WITH NO MULCH 6" TEMPORARY--3" BARK MULCH SAUCER BACKFILL WITH-PLANTING SOIL MIX SCARIFY SUBSOIL --REMOVE BURLAP FROM TOP 1/3 OF ROOT BALL

-6" MIN. PLANTING SOIL UNDER ROOT BALL SHRUB PLANTING

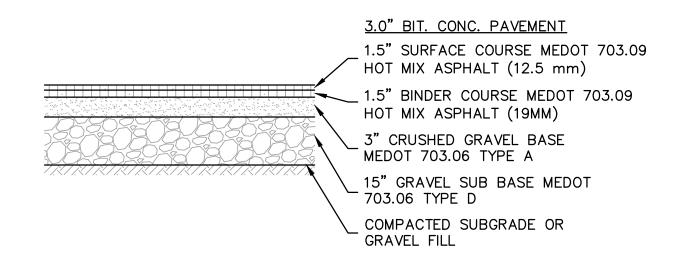
TYPICAL TREE PLANTING DETAILS

PLANTING SOIL MIX SCARIFY SUBSOIL





WOOD GUARDRAIL DETAIL SCALE: NONE



TYPICAL PAVEMENT SECTION

SCALE: NONE

TOBEY Tanner ciates, Inc. Hoyle, Associated the property of the property SILVER HOLDINGS, I 1 CITY CENTER PORTLAND, ME 0410 ED 11-UNIT ODEVELOPM TAX MAI

CONSTRUCTION **DETAILS 5**

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