

Supplemental Information for West Shore Landing Apartments Preliminary Development Review

**Submitted To:
City of Auburn**

**Prepared For:
River's Edge Apartments, LLC
155 Center Street, Bldg. G, Box 6
Auburn, ME 04210**

Prepared By:



December 6, 2019



December 6, 2019

Evan G. Cyr
City of Auburn Planning Board
60 Court St. Auburn, ME 04210

RE: Development Review Application, West Shore Landing Apartments (North River Rd.)
Tax Map 27, Lot 101

Dear Evan & Board Members:

On behalf of our Client, Tim Millett of River's Edge Apartments, LLC, please accept the following documents and supporting material to be reviewed and approved by the Board. As you may be aware, an incomplete Development Review Application regarding this project was submitted to the Board last month for preliminary review. These documents build upon the previous submission and addresses both Staff and Board comments regarding the previous submission.

SurveyWorks, Inc. has been retained by River's Edge Apartments, LLC to act as their agent and to provide all necessary information and documentation required for review of this application by the Board. We look forward to the opportunity to present this application and supporting material to you at the next scheduled meeting.

Sincerely yours,

A handwritten signature in blue ink, appearing to read 'Jimmy Courbron', is written over a light blue horizontal line.

Jimmy Courbron, PLS
Senior Project Manager
SurveyWorks, Inc.

Table of Contents

1. Development Review Application & Checklist
2. Replies to Board & Staff Comments
3. Exhibits
 - a. Existing Zoning Map & District
 - b. Future Land Use Map & District
 - c. Future Land Use Map W/ Proposed Buildings
 - d. Base Flood Elevation over Site Plan
 - e. May-June, 2019 Existing Conditions
 - f. December 2019 Existing Conditions
4. Pictures
5. Stormwater Report
6. Site Plan
7. Grading & Drainage Plan
8. Stormwater & Erosion Control Plan & Notes
9. Utility Plan
10. Lighting Plan
11. Landscape Plan



Development Review Application

City of Auburn Planning and Permitting Department
City of Lewiston Department of Planning and Code Enforcement



PROJECT NAME: West Shore Landing Apartments

PROPOSED DEVELOPMENT ADDRESS: North River Rd.

PARCEL ID#: 271-101

REVIEW TYPE: Site Plan ☒ Site Plan Amendment ☐
 Subdivision ☐ Subdivision Amendment ☐

PROJECT DESCRIPTION: Applicant Proposes to construct three twelve-unit apartment buildings and associated parking, driveways, landscaping, utilities, & other site improvements on the subject parcel. The subject parcel is located in the General Business (GB) District and is partially located in the floodplain immediately adjacent to the Andros. River.

CONTACT INFORMATION:

Applicant River's Edge Apartments, LLC.

Name: Tim Millett
Address: 155 Center St. Bldg. G. Box 6
Zip Code Auburn, ME 04210
Work #: (207) 783-6339
Cell #: (207) 754-6332
Fax #:
Home #:
Email: tamillett@gmail.com

Project Representative

SurveyWorks, Inc.

Name: Jimmy C. Courbron, PLS
Address: 7 Cobblestone Dr. Suite 4
Zip Code Turner, ME 04282
Work #: (207) 200-1678
Cell #: (207) 212-4478
Fax #:
Home #:
Email: jim@surveyworksinc.com

Property Owner

Name: Same as Applicant
Address:
Zip Code
Work #:
Cell #:
Fax #:
Home #:
Email:

Other professional representatives for the project (surveyors, engineers, etc.),

Name: Dirigo Architectural Eng. (Zach Quinn)
Address: 7 Cobblestone Dr. Suite 2
Zip Code Turner, ME 04282
Work #: (207) 225-3040 (ext. 3)
Cell #: (207) 751-1046
Fax #:
Home #:
Email: zquinn@dirigoae.com

PROJECT DATA

The following information is required where applicable, in order complete the application

IMPERVIOUS SURFACE AREA/RATIO

Existing Total Impervious Area	0	sq. ft.
Proposed Total Paved Area	23,324	sq. ft.
Proposed Total Impervious Area	36,811	sq. ft.
Proposed Impervious Net Change	36,811	sq. ft.
Impervious surface ratio existing	0	% of lot area
Impervious surface ratio proposed	37.2	% of lot area

BUILDING AREA/LOT

COVERAGE

Existing Building Footprint	0	sq. ft.
Proposed Building Footprint	13,486	sq. ft.
Proposed Building Footprint Net change	13,486	sq. ft.
Existing Total Building Floor Area	13,486	sq. ft.
Proposed Total Building Floor Area	N/A	sq. ft.
Proposed Building Floor Area Net Change	N/A	sq. ft.
New Building	Yes	(yes or no)
Building Area/Lot coverage existing	0%	% of lot area
Building Area/Lot coverage proposed	13.6	% of lot area

ZONING

Existing	GB, Floodplain, Shoreland
Proposed, if applicable	N/A (same)

LAND USE

Existing	undeveloped
Proposed	Residential / multi-family

RESIDENTIAL, IF APPLICABLE

Existing Number of Residential Units	0
Proposed Number of Residential Units	36
Subdivision, Proposed Number of Lots	1

PARKING SPACES

Existing Number of Parking Spaces	0
Proposed Number of Parking Spaces	51
Number of Handicapped Parking Spaces	3
Proposed Total Parking Spaces	54

ESTIMATED COST OF PROJECT

\$4,213,000

DELEGATED REVIEW AUTHORITY CHECKLIST

SITE LOCATION OF DEVELOPMENT AND STORMWATER MANAGEMENT

Existing Impervious Area	6,000	sq. ft.
Proposed Disturbed Area	65,525	sq. ft.
Proposed Impervious Area	38,176	sq. ft.

1. If the proposed disturbance is greater than one acre, then the applicant shall apply for a Maine Construction General Permit (MCGP) with MDEP.
2. If the proposed impervious area is greater than one acre including any impervious area created since 11/16/05, then the applicant shall apply for a MDEP Stormwater Management Permit, Chapter 500, with the City.
3. If total impervious area (including structures, pavement, etc) is greater than 3 acres since 1971 but less than 7 acres, then the applicant shall apply for a Site Location of Development Permit with the City. If more than 7 acres then the application shall be made to MDEP unless determined otherwise.
4. If the development is a subdivision of more than 20 acres but less than 100 acres then the applicant shall apply for a Site Location of Development Permit with the City. If more than 100 acres then the application shall be made to MDEP unless determined otherwise.

TRAFFIC ESTIMATE

Total traffic estimated in the peak hour-existing (Since July 1, 1997)	N/A	passenger car equivalents (PCE)
---	-----	---------------------------------

Total traffic estimated in the peak hour-proposed (Since July 1, 1997) N/A passenger car equivalents (PCE)
If the proposed increase in traffic exceeds 100 one-way trips in the peak hour then a traffic movement permit will be required.

Zoning Summary

1. Property is located in the GB / Flood Plain / Shoreland zoning district.

2. Parcel Area: 2.27 acres / 98,917+/- square feet(sf).

Regulations

Required/Allowed

Provided

Min Lot Area	<u>30,000 sf</u>	/	<u>98,917</u>
Street Frontage	<u>300'</u>	/	<u>533.99</u>
Min Front Yard	<u>25'</u>	/	<u>>25'</u>
Min Rear Yard	<u>25'</u>	/	<u>>25'</u>
Min Side Yard	<u>25'</u>	/	<u>>25'</u>
Max. Building Height	<u>35'</u>	/	<u>34.0'</u>
Use Designation	<u>Multi Family</u>	/	<u>Multi Family</u>
Parking Requirement	<u>4 space/ per square feet of floor area</u>		<u>(1.5 spaces per unit)</u>
Total Parking:	<u>1.5 x 32 = 54</u>	/	<u>55 (Proposed)</u>
Overlay zoning districts(if any):	<u>Flood Plain</u>	/	<u>Shoreland</u>
Urban impaired stream watershed?	<u>YES/NO If yes, watershed name <u>No</u></u>		

DEVELOPMENT REVIEW APPLICATION SUBMISSION

Submissions shall include fifteen (15) complete packets containing the following materials:

1. Full size plans containing the information found in the attached sample plan checklist.
2. Application form that is completed and signed.
3. Cover letter stating the nature of the project.
4. All written submittals including evidence of right, title and interest.
5. Copy of the checklist completed for the proposal listing the material contained in the submitted application.

Refer to the application checklist for a detailed list of submittal requirements.

L/A's development review process and requirements have been made similar for convenience and to encourage development. Each City's ordinances are available online at their prospective websites:

Auburn: www.auburnmaine.org under City Departments/ Planning and Permitting/Land Use Division/Zoning Ordinance

Lewiston: <http://www.ci.lewiston.me.us/clerk/ordinances.htm> Refer to Appendix A of the Code of Ordinances

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, I certify that the City's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

This application is for development review only; a Performance Guarantee, Inspection Fee, Building Permit Application and other associated fees and permits will be required prior to construction.

Signature of Applicant:

Date:

December 6, 2019



Development Review Checklist

City of Auburn Planning and Permitting Department
City of Lewiston Department of Planning and Code Enforcement



**THE FOLLOWING INFORMATION IS REQUIRED WHERE APPLICABLE TO BE
SUBMITTED FOR AN APPLICATION TO BE COMPLETE**

PROJECT NAME: The Homes on Delly Drive (subdivision)

PROPOSED DEVELOPMENT ADDRESS and PARCEL #: 301 Stevens Mill Rd. (217-048)

Required Information		Check Submitted		Applicable Ordinance	
		Applicant	Staff	Lewiston	Auburn
Site Plan (Subdivision Plan)					
	Owner's Names/Address	✓			
	Names of Development	✓			
	Professionally Prepared Plan	✓			
	Tax Map or Street/Parcel Number	✓			
	Zoning of Property	✓			
	Distance to Property Lines	✓			
	Boundaries of Abutting land	✓			
	Show Setbacks, Yards and Buffers	✓			
	Airport Area of Influence (Auburn only)	N/A			
	Parking Space Calcs	N/A			
	Drive Openings/Locations	✓			
	Subdivision Restrictions	✓			
	Proposed Use	✓			
	PB/BOA/Other Restrictions	T.B.D.			
	Fire Department Review	✓			
	Open Space/Lot Coverage	✓			
	Lot Layout (Lewiston only)	N/A			
	Existing Building (s)				
	Existing Streets, etc.				
	Existing Driveways, etc.				
	Proposed Building(s)				
	Proposed Driveways				
Landscape Plan		N/A			
	Greenspace Requirements				
	Setbacks to Parking				
	Buffer Requirements				
	Street Tree Requirements				
	Screened Dumpsters				
	Additional Design Guidelines				
	Planting Schedule				

Required Information		Check Submitted		Applicable Ordinance	
		Applicant	Staff	Lewiston	Auburn
Site Plan					
Stormwater & Erosion Control Plan		N/A			
	Compliance w/ chapter 500				
	Show Existing Surface Drainage				
	Direction of Flow				
	Location of Catch Basins, etc.				
	Drainage Calculations				
	Erosion Control Measures				
	Maine Construction General Permit				
	Bonding and Inspection Fees				
	Post-Construction Stormwater Plan				
	Inspection/monitoring requirements				
	Third Party Inspections (Lewiston only)				
Lighting Plan		N/A			
	Full cut-off fixtures				
	Meets Parking Lot Requirements				
Traffic Information		N/A			
	Access Management				
	Signage				
	PCE - Trips in Peak Hour				
	Vehicular Movements				
	Safety Concerns				
	Pedestrian Circulation				
	Police Traffic				
	Engineering Traffic				
Utility Plan		N/A			
	Water				
	Adequacy of Water Supply				
	Water main extension agreement				
	Sewer				
	Available city capacity				
	Electric				
	Natural Gas				
	Cable/Phone				
Natural Resources					
	Shoreland Zone	None			
	Flood Plain	As Mapped			
	Wetlands or Streams	As Mapped			
	Urban Impaired Stream	None			
	Phosphorus Check	N/A			
	Aquifer/Groundwater Protection	?			
	Applicable State Permits	None Needed			

Required Information		Check Submitted		Applicable Ordinance	
		Applicant	Staff	Lewiston	Auburn
Site Plan					
	No Name Pond Watershed (Lewiston only)	N/A			
	Lake Auburn Watershed (Auburn only)	N/A			
	Taylor Pond Watershed (Auburn only)	N/A			
Right Title or Interest		✓			
	Verify				
	Document Existing Easements, Covenants, etc.				
Technical & Financial Capacity		✓			
	Cost Est./Financial Capacity				
	Performance Guarantee				
State Subdivision Law					
	Verify/Check	✓			
	Covenants/Deed Restrictions	T.B.D.			
	Offers of Conveyance to City	N/A			
	Association Documents	T.B.D.			
	Location of Proposed Streets & Sidewalks	N/A			
	Proposed Lot Lines, etc.	✓			
	Data to Determine Lots, etc.	✓			
	Subdivision Lots/Blocks	✓			
	Specified Dedication of Land	N/A			
Additional Subdivision Standards		N/A			
	Single-Family Cluster (Lewiston only)				
	Multi-Unit Residential Development (Lewiston only)				
	Mobile Home Parks				
	Private Commercial or Industrial Subdivisions (Lewiston only)				
	PUD (Auburn only)				
A JPEG or PDF of the proposed site plan		✓			
Final sets of the approved plans shall be submitted digitally to the City, on a CD or DVD, in AutoCAD format R 14 or greater, along with PDF images of the plans for archiving					



City of Auburn, Maine

Office of Economic and Community Development

60 Court Street, Auburn, Maine 04210

www.auburnmaine.gov 207.333.6601

November 14, 2019

Applicant:

Tim Millett
155 Center Street Bldg. G. Box 6
Auburn, ME 04210

Agent:

SurveyWorks, Inc.
C/O Jimmy C. Courbron
7 Cobblestone Drive, Suite 4
Turner, ME 04282

Re: Proposed 3, 12-Unit Apartment Buildings and Associated Parking, Driveways, Landscaping, Utilities, and Other Site Improvements Located on North River Road (PID 271-101), in the Shoreland Zone and General Business Zoning Districts.

Dear Mr. Courbron,

[SWI Replies to comments/questions are in blue - November 15, 2019](#)

This letter is to notify you that your application, on behalf of Tim Millett, for Preliminary Subdivision approval of 3, 12-unit apartment buildings on North River Road was tabled by the Auburn Planning Board at their November 12, 2019 meeting. The Planning Board requested the following items be submitted/addressed before moving forward with the Preliminary Plan:

- a. *Sec. 60-1367. – Recreation Area/Open Space Standards in the City Ordinance requires, as part of a subdivision proposal, recreation and open space which is “adequate to meet the reasonably foreseeable needs of the residents of the subdivision.” The Planning Board felt that the proposed boat launch does not address this ordinance provision and recommends coming up with an alternative proposal to meet the recreation area/open space standards required under Sec. 60-1367 of the Ordinance.*

[Please see the attached In-Lieu-Fee Offer Letter. We have a meeting with the Parks & Rec. Committee December 11 to discuss this offer in more detail.](#)

- b. Several sections of the Shoreland Zone, Floodplain and Subdivision Ordinance have provisions for stormwater management and vegetation removal. Before moving forward with a Preliminary Plan approval, the Planning Board requested information be submitted on how stormwater will be handled at the project, and if any further vegetation is proposed for removal and/or restoration.

[All stormwater required to be treated will be done so on-site with the use of two Underdrain Soil Filters. Please refer to the attached Stormwater Report and plans for more details regarding how stormwater will be treated. The stormwater plans and report have been revised per City engineer comments. No further vegetation is proposed for removal. Please see the attached, updated Existing Conditions Plan detailing the current extents of fill, clearing and a small area to be restored to its natural state.](#)

- c. The Planning Board is looking for further information regarding the floodplain and the floodway and how the proposed project is sited in relation. They had questions regarding what has been submitted and/or approved by FEMA, and what would be further needed to ensure compliance with NFIP. To be more specific, we recommend a survey be completed for the property including a delineation of the “normal” high water mark, the riverine floodway, and the AE floodplain, and then demonstrate or describe how the fill and landscape would need to be engineered to mitigate impacts of future flood events.

Our Existing Conditions Survey and Sketch Plan, provided to everyone in our last application and submitted on October 3 delineates the existing 100-year floodplain. The “normal” high water mark and the riverine floodway are also marked on the existing conditions plan provided. Please see the attached Exhibit 3e demonstrating so.

Please see the attached Stormwater & Erosion Control Plan for a detailed description on how future flood events will be mitigated. Primarily, all structures will be elevated above the Base Flood Elevation (≈ 176.8 , NAVD88). All buildings will be elevated at least 7.75 feet above the BFE and will be protected from flooding events by 290 feet of large-block, Genest concrete retaining wall or similar and an embankment stabilized by an erosion control blanket and grass seed mix.

No permits are required from FEMA at this time, but will be required prior to the issuance of a building permit. This will be in the form of an LOMR-F (Letter based on fill).



- d. The Planning Board had questions about the fill placed at the site, the number of cubic yards, the pre-fill landscape, the type of fill used, and what additional land stabilization would be needed to construct the proposed buildings. Planning Staff can provide information based on the Fill Permit Application that was applied for, the Applicant may be able to elaborate more on this.

A description of the Pre-fill landscape can be found in Section 3 of the previous submission. It is as follows: The North River Road site is an East-Northeast gently sloping site that is bordered to the West by North River Road, to the North by land owned by the City of Auburn, to the East by the Androscoggin River, and to the South by land owned by a refrigeration equipment repair company. The parcel across North River Road is steeply sloped and owned by an apartment rental company. The westerly third of the subject lot that borders the road has been cleared for power lines and is a mix of grasses and invasive species such as multi-floral rose and japanese knotweed. The remaining upland portion of the site is predominantly mixed deciduous/coniferous growth that has a thick understory in the areas that haven't been plagued by ATV activity and illegal campsites. The seventy-five-foot setback from the protected natural resource (75' setback) transects this area. Soils in the upland portion of the site are a mix of fill material and ablation till.

Also included in the previous submission and of interest was a preliminary geotechnical report provided by a professional engineer. Per the engineer: "In general, the soils encountered at the site are relatively dense and stable. Some minor settlement will likely occur during the fill placement at the site, but it will happen immediately and before the foundations for the buildings are constructed. Based on the size/usage of the proposed buildings, we anticipate that the imported fill and native soils will be able to support the new buildings using conventional spread footings."

An updated Existing Conditions Plan is attached hereto depicting the extents of fill brought to the site. The fill brought to the site is a generally granular, sub-base material. A final geotechnical report will be provided



City of Auburn, Maine

Office of Economic and Community Development

60 Court Street, Auburn, Maine 04210

www.auburnmaine.gov 207.333.6601

once a final grading plan and foundation loading are determined. Approximately 6,500 yards of fill has been brought to the site. Below is a cut/fill report:

Volumes by Triangulation (Prisms)

Thu Dec 5 18:07:00 2019

Existing Surface: C:\OneDrive\SurveyWorks, Inc\SWI Shared Files - Documents\Projects\2018\18-4036\Survey Data\Surface XML\190724 Surface.tin

Final Surface: C:\OneDrive\SurveyWorks, Inc\SWI Shared Files - Documents\Projects\2018\18-4036\Survey Data\Surface XML\18-4036-191205-EC.tin

Cut volume: 19,490.2 C.F.

Fill volume: 176,259.7 C.F. = 6,528 Cubic Yards

Average Cut Depth: 0.64 feet

Average Fill Depth: 3.37 feet

Cut to Fill ratio: 0.11

Import Volume: 5,806.3 C.Y.

Elevation Change To Reach Balance: -1.892

Volume Change Per .1 ft: 306.8 C.Y.

Cut (C.Y.) / Area (acres): 379.58

Fill (C.Y.) / Area (acres): 3432.71

Max Cut: 2.500 at 2939152.397,466084.459

Max Fill: 15.138 at 2939163.505,466293.113

e. Can the Applicant provide current photos of the site, including the area proposed for the boat launch? Photos were provided in the last submission. Please see new photos of site provided in Section 4 of the attached documents.

- f. Can the Applicant provide current photos of the area across the street and the surrounding area so the Planning Board can visualize the Abutters concerns and "character of the neighborhood" considerations? It would be useful to note the height of the bluff across from the project site and where the proposed finished roof lines would be in relation to that.

See Section 4 of the attached documents. The character of the neighborhood is a mix of multi-family units and commercial business. The closest abutter & structure is a truck refrigeration repair shop, and the apartments on the hill are the River's Edge Apartments. The top of the bluff is at an elevation of approximately 216 feet. The proposed roof peak elevation would be approximately 224 feet.

- g. The Planning Board had questions about how the buildings will be sited in relation to the Future Land Use Map. For example, will any of the structures be located in the Resource Protection area as designated by the Comprehensive Plan Future Land Use Map?

Please see the attached Exhibit 3C. Please note that the Future Land Use Map conflicts with the current General Business District zone for this area. As stated in the Comprehensive Plan, "...the RP District on the Future Land Use Plan map is only conceptual,".

- h. The Planning Board wanted clarification on the density calculations in relation to lot size (i.e. 2+ acres or 3+ acres), as well as a possible calculation for the density called for in the future land use designation as Limited Business Commercial for conformance with the Comprehensive Plan. This was questioned in context of "split zoned" land, and how this would work in relation to the site.

Density calculations were all based on the proposed, 2.85-acre lot (excluding the 25,00 S.F. of reserved land). The Limited Business Development District allows for both existing and new residential uses at a density of up to 10-12 units per acres. $2.85 \text{ acres} \times 12 = 34.2 \text{ units}$.

What will the composition of the apartments be, market rate, tax subsidized? What is the actual bedroom count for the total number of units?

The apartments will be market rate. There will be 21 one-bedroom apartments and 15 two-bedroom apartments for a total of 51 bedrooms.

The Planning Board requested the Complete Streets report as it pertains to North River Road. Planning Staff will obtain the report and an opinion from the Engineering Department. The Planning Board was questioning whether or not a project of this magnitude was considered when developing the Complete Streets report for this portion of North River Road and what sort of calculations in terms of future development were incorporated into that study. **The Complete Streets Study classifies the North River Road as a "Rural Road" (p.26) in a rural zone, with naturalistic landscaping with no parking, transit, bikeway, walkway or curb. As a Minor Arterial the target speed is 45mph.**

- i. Is the Applicant willing to share any proposed major changes to abutting properties in the area? The Planning Board realizes this is not a requirement but would be helpful for the deliberations.
- j. There are also a number of questions/comments on Page 10 of the Staff Report prepared for the Planning Board, dated November 12, 2019 that the Board recommends be discussed/addressed as part of the new submission.

Responses to staff comments were already provided, but are attached hereto.

~ Jimmy Courbron, PLS

- k. Any other items discussed/questioned during the Planning Boards deliberations on November 12, 2019. The meeting video is available on YouTube.

Should you have any questions, please do not hesitate to contact me.

Sincerely,



Megan Norwood, City Planner II
C: File

To: Auburn Planning Board
From: Megan Norwood, City Planner II
Re: North River Road (PID 271-101), Proposed 3, 12-Unit Apartment Buildings and associated parking, driveways, landscaping, utilities, & other site improvements in the General Business Zoning District.
Date: November 12, 2019

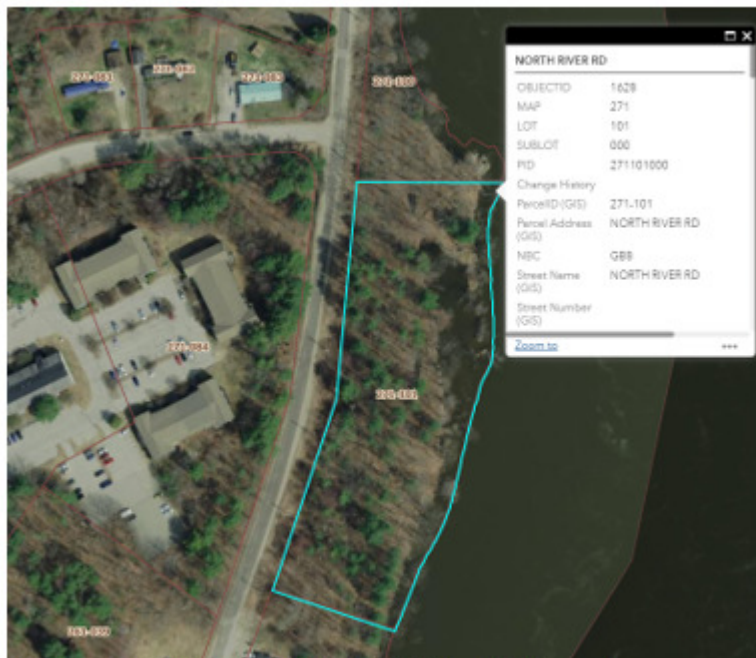


Figure 1: North River Road (PID: 271-101) Aerial Photography

I. PROPOSAL – SurveyWorks, Inc. on behalf of Tim Millett is seeking **Preliminary** Subdivision approval pursuant to Chapter 60, Article XVI Division 4, Subdivision, Sec. 60-1359 of the Auburn Code of Ordinances. Final Subdivision review will be scheduled for the December meeting.

The proposal is for the construction of 3, 12-unit apartment buildings for a total of 36 units and associated parking, driveways, landscaping, utilities and other site improvements on North River Road (See Figure 1). The parcel on North River Road is located in the General Business Zoning District which reverts back to the Multifamily Suburban (MFS) District for unit density. For Multifamily buildings, the density is 10,000 square feet for the first dwelling unit and 2,000 square feet for

each additional dwelling unit but caps multifamily housing at 17 units per acre. With a 98,917 square foot lot size (2.27 acres), the math allows for up to 38 units (2.27 acres x 17 units allowed per acre).

The General Business Zoning District (Sec. 60-500(3)(d)) allows for more than one principal building to be erected on a lot, provided that the building meets all of the yard requirements and the buildings are separated by a distance equivalent to the height of the higher building or 30 feet, whichever is greater. *All three buildings are proposed to be taller than 30 feet and they are each separated from each other by at least 30 feet.*

The Multifamily Suburban (MFS) Zoning District requires that not less than 50% of the net acreage be devoted to green area. Green space can include patios, whether paved or not, pedestrian walks, and landscaping within parking lots, but not off-street parking spaces, driveways, or common roads. The net acreage can include all land contained within the project except dedicated streets or streets ROW shown on the City's adopted master development plan or proposed to be included within a reasonable amount of time. *Half of the 2.27 acres would be 1.14 acres of green space required to satisfy this standard. The Applicant has shown on the plan that 1.43 acres of green space has been provided as part of the*

remaining lawn and wooded area after subtracting out the total square footage of the proposed buildings/decks/patios and paved/concrete areas.

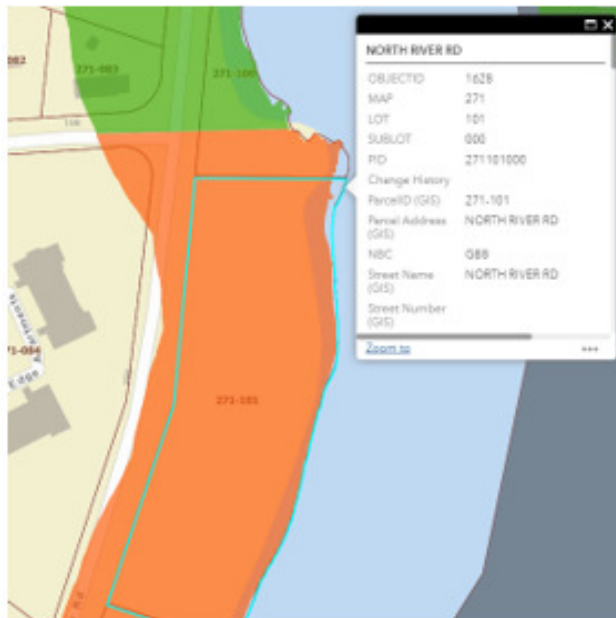


Figure 2: Subject Parcel (Shoreland Zone)

The parcel is also located within the General Development Shoreland Zone which has standards regulating new construction. The most applicable requirements are bulleted here:

Sec. 60-992. – Principal and Accessory Structures.

The orange area on the map to the left (Figure 2) is the General Development Shoreland Zone area.

- Per Subsection (a): General Development areas require a 25-foot setback from the normal high-water line. *The buildings are located outside of the 25-Foot setback from the normal high-water line. For clarification purposes, Planning Staff would recommend delineating the 25-foot setback and normal high-water line on the final plan.*

Our limit of disturbance to the river is defined as a 25' setback from the top of bank OR the edge of the floodway, whichever is first. This line is shown on both the Existing Conditions Plan and

the Sketch Plan as a setback linetype. I will insure that this buffer line is more visible on our November 18 submission plans. Please see the attached Sketch Plan for a depiction of the leading edge of this buffer.

- Per Subsection (b): Principal structures cannot exceed 35 feet in height.

The Applicant has noted in the application that the maximum height will be 34.9 feet. However, on the Sketch Plan it shows the building height as 39.3 feet. Where a fill permit was issued for the site before any building permits were applied for, we recommend measuring the building height from the current site elevation to the peak of the proposed roof. If the buildings are greater than 35 feet, we recommend the Applicant look to change the roofline to accommodate the City building height requirements which may include: less steep roof pitch, saltbox design or even a flat roof. The Shoreland Zoning standards define the "height of a structure" to be "the vertical distance between the mean original (prior to construction) grade at the downhill side of the structure and the highest point of the structure, excluding chimneys, steeples, antennas, and similar appurtenances that have no floor area.

Per DEP Chapter 1000, Sec.9A:

A. Official Shoreland Zoning Map. The areas to which this Ordinance is applicable are hereby divided into the following districts as shown on the Official Shoreland Zoning Map(s) which is (are) made a part of this Ordinance:

- (1) Resource Protection
- (2) Limited Residential
- (3) Limited Commercial
- (4) General Development I

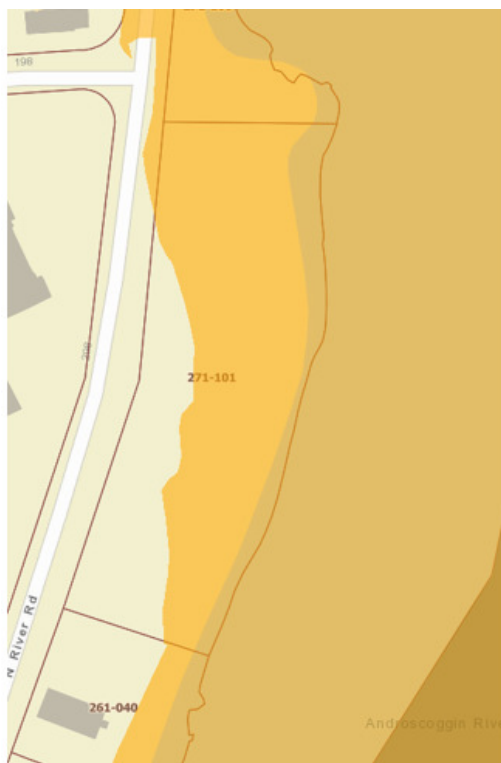


Figure 3: Subject Parcel (Floodplain)

- (5) General Development II
- (6) Commercial Fisheries/Maritime Activities;

Per DEP Chapter 1000, Sec.15B(2):

Principal or accessory structures and expansions of existing structures which are permitted in the Resource Protection, Limited Residential, Limited Commercial, and Stream Protection Districts, shall not exceed thirty-five (35) feet in height. This provision shall not apply to structures such as transmission towers, windmills, antennas, and similar structures having no floor area.

As such, and assuming that the City's General Business District was created in model of DEP's General Development Districts, the 35-foot height restriction does not apply. Instead, the City's Multifamily Suburban District Height restriction of 45 feet should apply, given the proposed use.

Per Subsection (c): The lowest floor elevation or openings of all buildings and structures need to be elevated in accordance with the floodplain overlay. *The floodplain regulations require buildings located in the AE floodplain (yellow area on map to the left in Figure 3) be elevated 1 foot above the base flood elevation (BFE). The BFE is 176.80 feet, the buildings are proposed to have a finished floor elevation (FFE) of 185 feet.*

- Per Subsection (d): The total footprint of all structures, parking lots and other non-vegetated surfaces within the Shoreland Zone cannot exceed 20% of the lot or a portion thereof, *except* in General Development areas adjacent to rivers that do not flow to great ponds classified GPA, where the lot coverage cannot exceed 70%. *This lot is located in a General Development district. The proposed non-vegetated area (parking/buildings) is 36,811 square feet. The lot is 2.27 acres or 98,881 square feet. To stay under the 70% lot coverage threshold, the maximum area that could be covered by structures, parking lots and other non-vegetated surfaces would be 69,216 square feet. At the proposed 36,811 square feet, they are under this requirement.*
- Per Subsection (e): Retaining walls that are not necessary for erosion control shall meet the structure setback requirement, except for low retaining walls and associated fill provided a number of conditions are met. *The retaining wall does appear to be located within 25 feet of the normal high-water line. However, as discussed above, Planning Staff recommends the normal high-water line be delineated on the plan.*

Please see the attached sketch plan for a depiction of the normal high-water line. The proposed retaining wall is set back more than 25 feet from the normal high-water line.

Sec. 60-997. – Parking Areas.

- Per Subsection (a): Parking areas are required to meet the same shoreline setback as structures. *The shoreline setback for structures is 25 feet, the parking areas appear to meet this requirement. However, as discussed above, Planning Staff would recommend delineating the 25-foot setback and normal high-water line on the final plan.*
- Per Subsection (b): Parking areas are required to be adequately sized for the proposed use and designed to prevent stormwater runoff from flowing directly into a water body, tributary stream or wetland, and where feasible, to retain runoff on-site. *The parking areas are adequately sized in accordance with the Access Management and Parking/Circulation Standards (see discussion below). More detailed stormwater plans are forthcoming.*
- Per Subsection (c): The two considerations for determining the size of parking facilities is that a typical parking space is approximately 10 feet wide by 20 feet long and that the internal travel aisles are approximately 20 feet wide. *The parking and circulation standards require parking spaces to be 9 feet wide by 18 feet long and the internal travel distance aisles to be 20 feet wide. Where the shoreland zoning section of the ordinance says "approximately" Planning Staff would*

defer to the Access Management and Parking/Circulation Standards to be the most applicable and they meet those requirements (see discussion below).

Sec. 60-998. – Roads and Driveways.

- Per Subsection (1): Roads and driveways are required to be setback at least 75 feet from the normal high-water line of other water bodies, tributary streams, or the upland edge of a wetland *unless no reasonable alternative exists as determined by the Planning Board*. If that determination is made, then the setback shall be no less than 50 feet upon clear showing by the applicant that the appropriate techniques will be used to prevent sedimentation of the water body, tributary stream or wetland (examples are included in the ordinance). *The driveway proposed to access this development appears to be located more than 75-feet from the normal high-water line. However, as discussed above, Planning Staff recommends the normal high-water line and the setbacks be delineated on the final plan. Furthermore, the General Development Shoreland Zoning District allows for a 25-foot setback for structures and as discussed above and Sec. 60-997(a)) requires the same for parking areas.*
- Per Subsection (4): Roads and driveway banks cannot be steeper than a slope of two horizontal to one vertical, and shall be graded and stabilized in accordance with the provisions for erosion and sedimentation control discussed in the clearing/removal of vegetation for activities other than timber harvesting section of the ordinance. *More information is required beyond the Sketch Plan to be able to make this determination. However, a retaining wall will be used to aid in site stabilization and flood protection.*

Please refer to the Stormwater & Erosion Control Plan. All proposed banks are no steeper than 2:1.

- Per Subsection (5): Road and driveway grades shall be no greater than 10% except for segments of less than 200 feet. *More information is required beyond the Sketch Plan to be able to make this determination.*

Please refer to the Preliminary Site Plan. Proposed road and driveway grades do not exceed or even approach a slope of 10%.

- Per Subsection (6): To prevent road and driveway surface drainage from directly entering water bodies, they must be designed, constructed and maintained to empty onto an unscarified buffer strip at least 50 feet plus two times the average slope. *More information is required to be able to make this determination, however, it does appear that stormwater from the parking areas and buildings is proposed to be directed into one of two proposed wet ponds.*

Please refer to the Stormwater & Erosion Control Plan

Sec. 60-999. – Stormwater Runoff.

- Per Subsection (a): All new construction and development is required to minimize stormwater runoff from the site in excess of natural predevelopment conditions. Where possible, existing natural runoff control features, such as berms, swales, terraces and wooded areas, shall be retained in order to reduce runoff and encourage infiltration of stormwaters. *A natural berm along the river has been maintained.*
- Per Subsection (b): Stormwater runoff control systems are required to be maintained as necessary to ensure proper functioning. *Planning Staff recommends this be included as a condition of approval, since these are proposed to be rental apartments and not condominiums, there likely will not be Homeowners Association documents to include this in, it will be the responsibility of the Owner to ensure the property is maintained.*

Sec. 60-1004. – Clearing or Removal of Vegetation for Activities Other than Timber Harvesting.

Clearing has already taken place at the site which was reviewed administratively by Staff. Planning Staff recommends the Applicant submit further information on additional clearing, if any is proposed to take

place for the construction of the buildings/parking areas. In addition, a Floodplain Fill Permit was already issued for the site on June 24, 2019.

Notes have been added to the site plan to restrict clearing in the River Setback/Buffer Area. The Limits of Clearing/Disturbance has already been delineated on-site by a siltation barrier. This Siltation Barrier is depicted on the site plan and the attached Sketch Plan.

Sec. 60-1005. – Erosion and Sedimentation Control Standards. *More information is required beyond the Sketch Plan to be able to make this determination.*

[Please refer to the Stormwater & Erosion Control Plan](#)

Sec. 60-1006. – Soils. All land uses are required to be located on soils in or upon which the proposed uses or structures can be established without causing adverse environmental impacts, including severe erosion, mass soil movement, improper drainage, and water pollution whether during or after construction. *The application materials include preliminary geotechnical information, including 7 soil boring logs at various locations throughout the site including proposed building locations and parking lots/driveways.*

Other applicable standards are (Article V) Off-Street Parking and Loading, (Article X) Access Management Standards, (Article XII, Division 2) Floodplain Overlay District and (Article XVI, Division 4) the Subdivision Standards. The applicable sections are bulleted below:

Article V, Sec. 60-607: Off-Street Parking and Loading

- Per Section (2): An effective area of 9 feet by 18 feet in dimension. *Where this is a sketch plan, parking stall dimensions are not shown on the plan. Using a scale, they exceed the 9x18 requirement. For clarification, Planning Staff recommends the size of a typical parking stall be shown on the plan.*

[All parking stalls are of the dimension of 9x18, as depicted on the Site Plan](#)

- Per Section (4): At least 20 feet in width for interior driveways and ingress and egress points serving parking areas. *Where this is a sketch plan, measurements for interior driveway/ingress/egress points are not shown on the plan, however, by scaling, it does appear they exceed this requirement. For clarification, Planning Staff recommends the size of the aisle width be shown on the plan.*

[Aisle widths are depicted on the Site Plan.](#)

- Per Section (11): Requires exterior lighting provided in parking/loading areas to be arranged and shielded so that it is deflected away from adjacent properties used for residential purposes and from any public way. *Planning Staff recommends the Planning Board require information on lighting be shown on the final plan.*

[Please refer to the Lighting Plan](#)

- Per Section (12): All uses with over 5 parking and/or loading spaces are required to meet the following standards:
 - All access drives, parking, loading and service spaces are required to meet four standards:
 - All access drives, parking, loading and service spaces shall be graded and surfaced with a solid paving material that is impermeable to water and so as to be dust free and properly drained. Materials which satisfy these criteria include: Bituminous pavement, concrete, geotextiles and brick or cobblestone or other paving block provided that it is mortared. *The Applicant plans to use pavement for the walkways and parking spaces.*

- Parking/loading spaces shall be suitably marked by painted lines or other appropriate markings. *The Applicants are showing marked lines for the parking spaces on the Sketch Plan.*
- A substantial bumper of concrete, masonry, steel or heavy timber or a curb of similar material or an earthen berm shall be placed at the head of each parking or loading stall that abuts a structure, rear or side setback or property line, sidewalk, street ROW, or landscaped area to prevent vehicles from rolling into such areas. *Curbing is shown along the paved walkways and in between the proposed buildings. There is an area along the side of the parking lot with 12 stalls that does not appear to show curbing. The parking area would be considered along the side setback. Curbing is also not shown between the 27 spaces in the front of the parking area and the 10-foot landscape area abutting North River Road. The required curbing has been added to the Site Plan. Please see the attached sketch plan depicting additional curbing locations.*
- Parking cannot be placed nearer than 10 feet from the street ROW line, the area between the parking area and the street ROW line is required to be landscaped. *A landscaped area is proposed between the ROW line and North River Road that meets this requirement.*
- Per Section (14): No portion of any entrance or exit driveway serving a residential use or building shall be closer than 50 feet from the nearest public street intersection unless prevented by dimensional or physical difficulties. *The closest intersection to this property is Northern Road. The proposed curb-cut is 280-300 feet away from Northern Road.*
- Per Section (15): On lots where 1 entrance and exit driveway or curb-cut is constructed, the curb-cut shall not exceed 32 feet in width. Where 2 or more driveways or curb-cuts are constructed, the curb-cuts shall not exceed 20 feet in width. *The curb-cuts do appear to exceed 20 feet in width based on the plan. They each appear to be about 24 feet. Planning Staff recommends the width of the curb-cuts be discussed with the Fire Prevention Officer as additional width may help with truck turning radius and circulation at the site. If so, Planning Staff recommends the Applicant request a waiver for the December Planning Board meeting. In addition to the recommendation from the Fire Prevention Officer, another basis for granting the waiver could be that the parcel could be split into a number of different parcels, each with their own curb-cut. With this development, they are only proposing the two curb-cuts.*
As of 11/7/19, a letter dated Nov. 7 has been sent to David O'Connell, Fire Prevention Officer, requesting a recommendation to the Planning Board regarding the proposed width of the entrances. A copy of this letter will be provided in our Nov. 18 submission, along with a copy of Mr. O'Connell's response if acquired.

Sec. 60-608. – Parking Requirements. The minimum number of parking spaces required for a multifamily land use is 1 ½ spaces per dwelling unit. *With the proposed 36 dwelling units, the number of parking spaces required is 54. They have provided 54 parking spaces, including 3 handicapped spaces.*

Article X, Sec. 60-608: Access Management Standards

Sec. 60-799. – Safe Sight Distance.

- *The area in front of a majority of the parcel is 25MPH. About 360 feet from the Northern Avenue intersection, the speed limit changes from 25MPH to 35MPH. For a 25MPH road, the minimum sight distance is 250 feet. For a 35MPH road, the minimum sight distance is 350 feet. Planning Staff recommends the Applicant show the sight distance between the two proposed curb cuts and Northern Avenue on the plan or in the final application materials.*

Please see the attached Sight Distance Sketch/Report. This report will be added to the final application or its findings noted on the Site Plan. Proposed sight distance conditions for both cars and trucks substantially exceed minimum requirements.

Sec. 60-800. – Curb Cut and Driveway Spacing.

- *As stated above, the area in front of a majority of the parcel is 25MPH. About 360 feet from the Northern Avenue intersection, the speed limit changes from 25MPH to 35MPH. For a 25MPH road, the minimum spacing between curb cuts and driveways is 105 feet. On a 35MPH road it is 150 feet. The separation between the two curb cuts is 285.94 feet. They exceed this requirement. While not shown on the plan, it does appear the last curb cut is more than 150 feet from Northern Avenue. The Applicant should verify this information in the final application materials.*

The spacing between Northern Avenue and the nearest proposed curb cut is over 330'. This will be noted and/or depicted on the final site plan.

Sec. 60-801. – Number of Driveways per Lot. There are three standards that govern the maximum number of driveways on a particular site depending on the type of traffic generated.

- *Per Section (2): No medium or high-volume traffic generator shall have more than one two-way access or two one-way accesses in total onto a single roadway. According to the Applicant, the proposed use will generate 288 trips per day. The two access points are two-way. As discussed above with a recommendation from the Fire Prevention Officer and the possibility of having a number of curb-cuts, we would recommend the Applicant submit a waiver request for the driveways.*

A waiver request for the two two-way access driveways will be submitted with the final application.

Article XII, Division 2: Floodplain Overlay District

Sec. 60-893.5 – 60-896. – Requirements for Flood Hazard Development Permit. *This section lists out the requirements and criteria for a Flood Hazard Development Permit which is required to be reviewed by Planning Staff.*

Sec. 60-897. – Development Standards.

- *Per Section (B): All new and replacement water supply systems are required to be designed to minimize or eliminate infiltration of flood waters into the systems. A new public water line is proposed to serve this development. Auburn Water/Sewer has the capacity to serve this development and will review the design of the system.*
- *Per Section (C): All new and replacement sanitary sewage systems shall be designed and located to minimize or eliminate infiltration of flood waters into the system and discharges from the system into flood waters. As discussed above, a new sewer system will be installed for this development. Auburn Water/Sewer will review the design of the system before installation.*
- *Per Section (D): On site waste disposal systems are required to be located and constructed to avoid impairment to them or contamination from them during floods. The dumpster appears to be located at the back of one of the parking lots in front of the proposed retaining wall, screened and above the BFE.*
We are currently searching for a better location for the dumpster.
- *Per Section (F): All new construction or substantial improvement of any residential structure located within the AE Flood Zone shall have the lowest floor (including the basement) elevated to at least one foot above the BFE. As discussed above, the BFE is 176.80 feet and the finished floor elevation of the structures is 185 feet.*

Sec. 60-898. – Certificate of Compliance. No land can be occupied or used until a certificate of compliance is issued by the Planning Department subject to the three conditions listed in the ordinance. *Planning Staff recommends this be required as a Condition of Approval.*

Sec. 60-899. – Review of Subdivisions and Development Proposals. There are 5 standards that the Planning Board needs to consider for proposals in the floodplain. They are listed below under “Planning Board Action.”

Article XVI, Division 4: Major Subdivision

Sec. 60-1361. – Major Preliminary Subdivision.

- Per Section (F): When granting preliminary approval of the preliminary plan, the Planning Board is required to state the conditions of such approval, if any, with respect to:
 - The specific changes which it will require in the final plan;
 - The character and extent of the required improvements for which waivers may have been requested and which in its opinion may be waived without jeopardy to the public health, safety and general welfare.

Planning Staff recommends the Planning Board review the bulleted items in this Staff Report and use those items as a reference point for the changes required in the final plan as well as potential waivers (site circulation/curb-cuts).

Sec. 60-1367. – Recreation area/open space standards. *Below are the standards in the Subdivision ordinance pertaining to recreation area and open space. Based on the requirements in Section (A), this development would be required to designate 4 acres of recreational open space to have 36 units. Where this is not feasible, the Applicant is proposing to dedicate a portion of the parcel to the City to be used as a boat launch. Sections (B-L) discuss the process to be able to accept the contribution. City Staff will be meeting with the Parks & Recreation Board on Wednesday, November 13th to bring back a recommendation to the Planning Board on the dedication of the boat launch, open space proposed at the site as well as a potential public easement for the trail along the riverfront. The Planning Board will have to review this information at the December Planning Board meeting.*

We are certainly open to a trail along the river if it connects to another existing or dedicated trail. We do not believe conveying a trail easement that dead-ends on/within the property is desirable to anyone, especially Public Safety.

- Per Sections (A-L): (A) Every developer of a residential subdivision shall include as part of a subdivision proposal a provision for recreational and open space which is adequate to meet the reasonably foreseeable needs of the residents of the subdivision. The standard established by the city to satisfy this purpose is an area of not less than 43,560 contiguous square feet or one acre of land for the first 10 lots or units. The amount of land required is increased at a rate of 5,000 square feet per unit for each unit over 10 acres. The standard notes in Sec. 60-1365 shall be used as a guideline by the planning board and may be varied for low impact developments.

(B) In any case in which the developer chooses to develop in total or in part land area that could be used to satisfy the recreational land dedication for units/house lots of it is not feasible to dedicate rights and land to meet the requirements due to topography, location or other limiting factors or if the developer can satisfy the planning board that a dedication of land is not required for recreational and open space needs, the developer may contribute to the city, or to a condominium or homeowners' association, a fee-in-lieu amount in cash which is essentially equivalent to the value which such dedicated land rights in the area where the proposed subdivision is located would have had. This fee will be capped at and based on the average market value of similarly zoned land in the immediate area of the proposed development at the time of final subdivision approval as determined by the city tax assessor.

(C) In reviewing the amount of money requested, the board shall review the adequacy of existing facilities available to the inhabitants of the subdivision, improvements that may be needed by the existing facilities to make them adequate for the additional impact being created by the added units and any other factors which may influence the need for land dedication for a fee-in-lieu of.

(D) A developer may choose to use both the land dedication provision and fee-in-lieu of land dedication provision in conjunction with each other. Any fee-in-lieu of amount of money used with a land dedication shall be used to develop, enlarge or enhance this recreational facility.

(E) In determining the adequacy of land dedication and/or fee-in-lieu of land dedication, the board shall assess the projected needs of the inhabitants of the subdivision. If the planning board determines that full land dedication is necessary, then they may require such land dedication with no fee-in-lieu of land dedication.

(F) In the situation when a fee-in-lieu of land dedication is supplied by the developer, then the developer may choose to request what uses or equipment the money will be used for. The planning board shall request an assessment of the developer's desires from the parks and recreation advisory board and if they agree with the developer, then all monies received will be earmarked for the purposes so chosen.

(G) The proposal for land dedication may be in the form of a deed of a parcel of land within or contiguous to the subdivision, or contiguous to an existing public recreational facility within reasonable proximity of the subdivision. The planning board shall use the recreational/open space district map, made a part of the ordinance as a guide. Alternatively, the land dedication may be part of a condominium or homeowners' association or proposed in any other form acceptable to the planning board provided it serves the needs of the residents of the subdivision.

(H) The planning board may decline to accept a proposed dedication of rights in land to serve the recreational needs of the residents of the subdivision in any case in which it determines that the public expense of maintaining the same would unduly burdensome compared to the recreational benefit which would be conferred or where the planning board determined that such recreational needs can more efficiently be served by applying a cash contribution from the developer to enlarge or enhance an existing recreational facility.

(I) All funds contributed to the parks and recreation open space dedication will be allocated to the development of facilities located within zones as shown on the recreational/open space district map, made a part of this chapter, unless the planning board and/or developer have determined that a contribution to a facility which lies outside the zoned area would better serve the needs of the subdivision. Such funds shall be used within a five-year period. Funds not used after five years shall be returned to the developer with interest. The interest amount shall be the average of yearly interest rates established by local banks. If for unforeseen reasons monies accumulated are not used as previously agreed upon within the five-year period, the recreation advisory board may request the planning board to reallocate the funds for other recreational uses. Notice to the developer shall be given and input from the developer shall be used to determine whether or not these monies may be reallocated.

(J) Before making any final determination about the recreational needs of the subdivision's residents, or how they can best be met, the planning board shall solicit input from the parks and recreation advisory board and shall carefully consider any recommendations in this regard which it received in response.

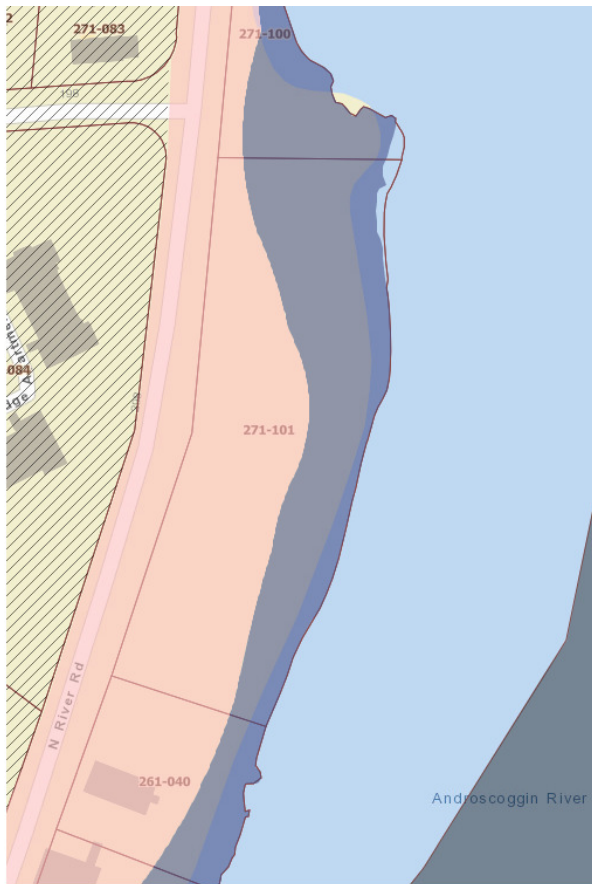


Figure 4: Subject Parcel (Comprehensive Plan Designation)

(K) If a project is either proposed to be phased in, is a part of a unified development or is developed by the same developers on adjacent land to previously developed land, it shall be considered as one development and will be required to participate in the recreation open space dedication.

(L) The approval by the planning board of a residential subdivision plan shall not be deemed to constitute an acceptance by the city of any open space shown on such plan. The planning board may also require the filing of a written agreement between the developer and the city covering future deed and title, dedication and provisions for the costs of grading, developing, equipping and maintaining recreation areas.

Comprehensive Plan Considerations:

The Comprehensive Plan has this area designated as a Limited Business Development District (LBD) (pink area on the map to the left) the plan also shows a strip along the Androscoggin as Resource Protection (purple area on the map to the left). The objective of the LBD district includes allowing

existing and new multifamily housing at a density of up to 10-12 units per acre. The development standards for the LBD district are required to assure that new development is done in a manner that results in well designed, attractive projects that minimize the potential for undesirable impacts.

The Resource Protection area is limited to natural resource and open space uses and the development standards state that all new development and paved surfaces except for roads, trails and facilities for access to the water, should be set back from the water body or wetland and a green buffer maintained along the edge of the resource. The Applicant proposes to leave the 25-foot Shoreland Zone setback undisturbed. In addition, it is important to point out that as referenced in other projects, the language in the Comprehensive Plan that the Future Land Use Plan is not a zoning map. It is intended to show, in a general sense, the desired pattern of future land use and development.

I. DEPARTMENT REVIEW –

- a. **Police** – The Police Department would be looking for pedestrian and traffic impacts or potential impacts to be considered for a multi-unit facility being constructed on a road with little to no shoulder or sidewalks to accommodate additional pedestrian and bike traffic. Also, wonder what impact the intersection of Center and Cross St. might see, if any. This can be a difficult intersection at high traffic times of day when making a left hand turn onto Center St. This would certainly not be the only road with similar problems on Center St but again, how much additional traffic will this project generate.

Attached is data from turning movement counts for North River Rd at the intersection with Center Street from 2018, as provided by AVCOG. Maine DOT lists the traffic count on North River Rd. from Center St. to Cross St. as having a 2017 AADT of 1,420 and from Cross St. to Northern Ave. as having a 2017 AADT of 879. As you can see from the AVCOG study, the peak hour of traffic coming off of North River Rd onto Center St. is at 12PM to 1PM with 107 vehicles. We believe that the proposed 32 units would not substantially change the traffic load at this intersection. For example, of the 54 parking spaces dedicated to these 36 units, if 35 of the vehicles occupying these spaces left the premises between 7AM and 8PM, turned left onto North River Road and continued to the Center St. intersection, than 35 turning movements could be added to the AVCOG hourly total for this timeframe of 71, creating a new hourly total of 106, which does not exceed the peak hour. Additionally, it can be assumed that some of these vehicles will turn right onto Cross St to head North on Center Street. It is unlikely that more than 35 vehicles will leave the premises within the same hour, or that a residential use will substantially contribute to the lunchtime peak hour turning movements for either intersection. Is PD asking for a traffic study specific to this project? Per the City's Development Review Application, a traffic movement permit is only required if the proposed traffic increase exceeds 100 one-way trips in the peak hour. This project will not exceed or even approach an increase of 100 one-way trips in a peak hour.

Is there an opportunity here to work with the developer under city ordinance Sec. 60-1367-**Recreation area/open space standards**-to establish a pedestrian path along the rivers edge that would bring pedestrians and bike traffic closer if not all the way to the intersection of Center St and North River Rd where there is already established crossings and sidewalks?

The nearest existing sidewalk is over 2,300 feet away from the subject parcel. This route would be southbound along North River Road and up Cross St. to Center Street. The nearest sidewalk on North River Road is over 2,600 feet away, about 200' northerly of the intersection with Center Street. Constructing half a mile of sidewalk would be cost-prohibitive to this project.

- b. *Auburn Water and Sewer* – I reviewed the Development Review Application submitted for the River's Edge Apartments, LLC dated 10/3/2019. After the review I have the following comments.
Sewer: There currently is no public sewer in the area of the proposed apartments. The proposal includes the installation of a gravity sewer main on North River Road and a pump Station and Force main that will connect to the public sewer on Northern. The District has sufficient capacity to serve this proposed development but we will not accept ownership of the proposed gravity line, pump station or force main. The development will be subject to connection fees based off the size of the water meters installed at each building.
Water: The District has sufficient capacity to serve this proposed development with both domestic water and fire protection.
- c. *Fire Department* – No comments.
- d. *Engineering* – I will need to wait until the stormwater submittal for review to comment on any issues. North River Road is surface paved and will be under moratorium for 5 years, but that shouldn't affect the development because they already have stubs for water and sewer. The possible sewer force main will have to go up Northern Avenue under a Utility Location Permit. They would be required to either put it in the roadway where they have to pave it back in new where they trench, or deep and off the edge of road not to interfere with possible future roadway closed drainage pipes/structures.
- e. *Public Services* – No Comments.
- f. *Economic and Community Development* – This submission is a preliminary plan/sketch plan. It affords the Planning Board the opportunity to provide feedback and ask questions about the

proposal without the requirement to make a final ruling at the same meeting. The Applicant will take the Planning Boards recommendations and bring them back for the December meeting. As discussed throughout the Staff Report, there are some items in the ordinance that Planning Staff feels need further explanation.

- *Recommend the 25-foot stream setback and normal high-water mark for the building, parking areas and retaining wall be delineated on the final plan.*
Will do.
- *Review the building height to ensure it complies with the ordinance requirements as discussed in the Staff Report.*
Done, buildings will be under the minimum height of 45' and will be noted on the Final Site Plan
- *Recommend that the size of a "typical parking stall" be shown on the plan per Sec. 60-607(2).*
Will do.
- *Recommend the size of the width for the interior driveways as well as the ingress/egress points be shown on the plan per Sec. 60-607(4).*
Will do.
- *It appears that the two proposed curb-cuts exceed 20 feet in width (Sec. 60-607(15)), recommend requesting a waiver from this and the Applicant consult with the Fire Prevention Officer as discussed in the Staff Report.*
A letter to the Fire Prevention Officer requesting their input has been sent. A waiver request will be made a part of our final submission.
- *The two access points proposed are both two-way, recommend requesting a waiver from Sec. 60-801(3) to have them remain two-way access points as well as consulting with the Fire Prevention Officer as discussed in the Staff Report.*
A letter to the Fire Prevention Officer requesting their input has been sent. A waiver request will be made a part of our final submission.
- *Recommend the site distance be shown on the plan or in the application materials for the area between the two curb cuts and Northern Avenue per Sec. 60-799.*
Done. See attached.
- *Further information on proposed parking lot lighting should be submitted to ensure it is deflected away from adjacent properties and North River Road (Sec. 60-607(11)).*
A lighting plan will be provided as part of our final submission.
- *The Planning Board should determine if additional curbing is needed along the side setback and in between the 27 spaces in the front of the parking area and 10-foot landscaped area abutting North River Road (Sec. 60-607(12)).*
Additional curbing will be added to the final site plan. Please see the attached sketch.
- *Additional information should be provided on the slope of the road/driveway banks as well as the road/driveway grades and surface drainage to ensure they meet Sec. 60-998(1&4), Sec. 60-998(5) and Sec. 60-998(6) of the Ordinance.*
These will be depicted on the final erosion control plan and grading and utility plan.
- *Additional information is forthcoming regarding stormwater, Planning Staff recommends this be submitted to ensure compliance with the standards discussed above especially Sec. 60-999(a) which requires stormwater runoff be minimized.*
Stormwater report submitted for City Engineer's review on Friday, November 8.
- *Additional information will need to be submitted regarding clearing/removing of vegetation per Sec. 60-1004, if applicable. Is any more clearing going to take place on the site?*
Additional grading and filling and clearing of stumps will take place on site, particularly to the North end of the site, but will stay out of the previously delineated river setback/buffer area. Please see the attached sketch. Our intention to submit a new fill permit to the City and General Construction Permit and Permit by Rule (PBR) to DEP will be demonstrated in our final application.

- *The Applicant will have to show they meet the erosion and Sedimentation Control standards per Sec. 60-1005.*

Will do on the final Erosion and Sedimentation Control Plan.

- *Further details are forthcoming on the dedication of the boat launch, open space and a potential public easement to use the riverfront trail. Planning Staff will be attending a meeting with the Parks & Recreation Board on November 13th to get their recommendation to bring back to the Planning Board for the December meeting.*

Recommended Conditions of Final Approval for December to keep in mind:

- A Certificate of Compliance per Section 60-898 shall be issued by the Planning and Development Department before the start of construction.
- Stormwater runoff control systems shall be maintained to ensure proper functioning in accordance with Sec. 60-999(b) of the City Code of Ordinances.
- An approved Flood Hazard Development Permit per Secs. 60-893.5-60-896 shall be issued by Planning Staff before the start of construction.
- Water/Sewer shall review the design of the sewer and water systems before installation and construction per Sec. 60-897(b)(c).

Suggested Waivers for the Applicant to Submit in December:

One of the suggested waivers discussed in the Staff Report applies to the Parking and Circulation Standards. Sec. 60-607(17) allows for the relaxation of the requirements of that section of the ordinance as long as they are reviewed by the Planning Board under Site Plan review. While this project is not being reviewed as a Site Plan, it is being reviewed under Subdivision by the Planning Board which is a more stringent review process than Site Plan.

- Sec. 60-607 (15) On lots where one entrance and exit driveway or curb-cut is constructed, the curb-cut shall not exceed 32 feet in width. Where two or more driveways or curb-cuts are constructed, the curb-cuts shall not exceed 20 feet in width. For automotive service stations, the curb cut widths may be increased to 32 feet for each driveway or access but shall not exceed two driveways. These widths may be increased up to a maximum of 44 feet on arterial roads if required by the city engineering department or the state department of transportation.

Waiver to allow for two, 24-foot curb-cuts.

The other suggested waiver discussed in the Staff Report applies to the Access Management Standards. Sec. 60-806 allows for a developer or owner of property subject to the access management standards to request a modification to the standards. Requests are required to be made to the Planning Board and may be allowed upon a demonstration of need by the Applicant provided the Planning Board makes a finding that the objectives of access management have been satisfied.

- Sec. 60-801. – Number of Driveways Per Lot. The maximum number of driveways to a particular site shall be governed by the following:
 - (1) No low volume traffic generator, including single-family dwellings and duplexes, shall have more than one two-way access onto a single roadway.
 - No medium or high volume traffic generator shall have more than one two-way access or two one-way accesses in total onto a single roadway.
 - All driveways shall comply with the spacing requirements.

Waiver to allow for two, two-way access points onto a single roadway.

II. PLANNING BOARD ACTION –

Sec. 60-1359. – Subdivision Guidelines. When reviewing any subdivision for approval, the planning board shall consider the following criteria, and before granting either approval or denial, shall determine that the proposed subdivision:

- (1) Will not result in undue water, air or noise pollution. In making this determination it shall at least consider:
 - (a) The elevation of land above sea level and its relation to the floodplains, the nature of soils and subsoils and their ability to adequately support waste disposal;
 - (b) The slope of the land and its effect on effluents;
 - (c) The availability of streams for disposal of effluents; and
 - (d) The applicable state and local health and water resources regulations, including stormwater management requirements in accordance with section 60-1301(14);
- (2) Has sufficient water available for the reasonably foreseeable needs of the subdivision;
- (3) Will not cause an unreasonable burden on an existing water supply, if one is to be utilized;
- (4) Will not cause unreasonable soil erosion or reduction in the capacity of the land to hold water so that a dangerous or unhealthy condition may result;
- (5) Will not cause unreasonable highway or public road congestion or unsafe conditions with respect to use of the highways or public roads existing or proposed;
- (6) Will provide for adequate sewage waste disposal;
- (7) Will not cause an unreasonable burden on the ability of a municipality to dispose of solid waste and sewage if municipal services are to be utilized;
- (8) Will not have an undue adverse effect on the scenic or natural beauty of the area, aesthetics, historic sites or rare and irreplaceable natural areas;
- (9) Is in conformance with a duly adopted subdivision regulation or ordinance, comprehensive plan, development plan, or land use plan, if any;
- (10) Is funded by a subdivider which has adequate financial and technical capacity to meet the standards of this section;
- (11) Will not adversely affect the character of the surrounding neighborhood and will not tend to depreciate the value of property adjoining the neighboring property under application;
- (12) Has provisions for on-site landscaping that are adequate to screen neighboring properties from unsightly features of the development;
- (13) Will not create a fire hazard and has provided adequate access to the site for emergency vehicles;
- (14) Will not, alone or in conjunction with existing activities, adversely affect the quality or quantity of groundwater;
- (15) Does not have long-term cumulative effects of the proposed subdivision will that unreasonably increase a great pond phosphorus concentration during the construction phase and life of the proposed subdivision.

C. Sec. 60-1365. General Requirements.

In reviewing applications for the subdivision of land, the board shall consider the following general requirements. In all instances the burden of proof shall be upon the persons proposing the subdivision.

- (1) *Subdivision plan shall conform to the comprehensive plan.* Any proposed subdivision shall be in conformity with the comprehensive plan of the city and with the provisions of all pertinent state and local codes and ordinances.
- (2) *Preservation of natural and historic features.* The board may require that a proposed subdivision design include a landscape plan that will show the preservation of existing trees and vegetation, graded contours, streams and the preservation of scenic, historic or environmentally desirable areas. The street and lot layout shall be adapted to the topography. Extensive grading and filling shall be avoided as far as possible.
- (3) *Lots.* a. The lot size, width, depth, shape and orientation and the minimum building setback lines shall be appropriate for the location of the subdivision and for the type of development and use contemplated. b. Depth and width of properties reserved or laid out for all purposes shall be adequate to provide for off-street parking and service facilities for vehicles required by the type of use and development contemplated. c. No

personal shall make a subdivision within the city unless all lots of the proposed subdivision have frontage, as regulated by the zoning ordinance, upon a way granting legal access.

Sec. 60-899. – Review of Subdivisions and Development Proposals (Floodplain).

The Planning Board shall, **when reviewing subdivisions and other proposed developments that require review under other federal law, state law or local ordinances or regulations** and all projects on five or more disturbed acres, or in the case of manufactured home parks divided into two or more lots, assure that:

- (a) All such proposals are consistent with the need to minimize flood damage.
- (b) All public utilities and facilities, such as sewer, gas, electrical and water systems are located and constructed to minimize or eliminate flood damages.
- (c) Adequate drainage is provided so as to reduce exposure to flood hazards.
- (d) All proposals include base flood elevations, flood boundaries, and, in riverine floodplain, floodway data. These determinations shall be based on engineering practices recognized by the Federal Emergency Management Agency.
- (e) Any proposed development plan must include a condition of plan approval requiring that structures on any lot in the development having any portion of its land within a special flood hazard area, are to be constructed in accordance with section 60-897 of this division. Such requirement will be included in any deed, lease, purchase and sale agreement, or document transferring or expressing an intent to transfer any interest in real estate or structure, including but not limited to a time-share interest. The condition shall clearly articulate that the municipality may enforce any violation of the construction requirement and that fact shall also be included in the deed or any other document previously described. The construction requirement shall also be clearly stated on any map, plat or plan to be signed by the planning board or local reviewing authority as part of the approval process.

III. STAFF RECOMMENDATIONS – When granting preliminary approval to the preliminary plan, the Planning Board needs to state the conditions of such approval, if any, with respect to:

- (1) The specific changes which it will require in the final plan;
- (2) The character and extent of the required improvements for which waivers may have been requested and which in its opinion may be waived without jeopardy to the public health, safety and general welfare.

Planning Staff recommends the Planning Board discuss the items bulleted above and make a ruling on the preliminary plan which should include the specific changes the Planning Board would like to require for the final plan.

Suggested Motion: *I will make a motion to approve the preliminary plan to construct 3, 12-unit apartment buildings on North River Road (PID 271-101) in the General Business, Shoreland Zoning Districts contingent upon the following items being included in the final plan:*

- *Recommend the 25-foot stream setback and normal high-water mark for the building, parking areas and retaining wall be delineated on the final plan.*
- *Review the building height to ensure it complies with the ordinance requirements as discussed in the Staff Report.*
- *Recommend that the size of a “typical parking stall” be shown on the plan per Sec. 60-607(2).*
- *Recommend the size of the width for the interior driveways as well as the ingress/egress points be shown on the plan per Sec. 60-607(4).*
- *It appears that the two proposed curb-cuts exceed 20 feet in width (Sec. 60-607(15)), recommend requesting a waiver from this and the Applicant consult with the Fire Prevention Officer as discussed in the Staff Report.*

- *The two access points proposed are both two-way, recommend requesting a waiver from Sec. 60-801(3) to have them remain two-way access points as well as consulting with the Fire Prevention Officer as discussed in the Staff Report.*
- *Recommend the site distance be shown on the plan or in the application materials for the area between the two curb cuts and Northern Avenue per Sec. 60-799.*
- *Further information on proposed parking lot lighting should be submitted to ensure it is deflected away from adjacent properties and North River Road (Sec. 60-607(11)).*
- *The Planning Board should determine if additional curbing is needed along the side setback and in between the 27 spaces in the front of the parking area and 10-foot landscaped area abutting North River Road (Sec. 60-607(12)).*
- *Additional information should be provided on the slope of the road/driveway banks as well as the road/driveway grades and surface drainage to ensure they meet Sec. 60-998(1&4), Sec. 60-998(5) and Sec. 60-998(6) of the Ordinance.*
- *Additional information is forthcoming regarding stormwater, Planning Staff recommends this be submitted to ensure compliance with the standards discussed above especially Sec. 60-999(a) which requires stormwater runoff be minimized.*
- *Additional information will need to be submitted regarding clearing/removing of vegetation per Sec. 60-1004, if applicable. Is any more clearing going to take place on the site?*
- *The Applicant will have to show they meet the erosion and Sedimentation Control standards per Sec. 60-1005.*
- *Further details are forthcoming on the dedication of the boat launch, open space and a potential public easement to use the riverfront trail. Planning Staff will be attending a meeting with the Parks & Recreation Board on November 13th to get their recommendation to bring back to the Planning Board for the December meeting.*
- *Any other items discussed during the Planning Boards deliberations.*

Megan Norwood

Megan Norwood
City Planner II



December 2, 2019

Megan Norwood
City Planner II
60 Court St.
Auburn, ME 04210

RE: River's Edge Apartments Offer of Fee-in-Lieu of land dedication

Dear Megan:

On behalf of our Client, Tim Millett of River's Edge Apartments, LLC, we would like to offer to the City and to the Parks and Recreation Committee a fee in lieu of land dedication in an amount of \$34,000.00, to be used as the Committee sees fit. This is an amount exactly equivalent to the price paid per acre for the subject parcel - for four acres minus the open space/green space already reserved within the proposed project. In addition to the proposed 1.43 acres of open space dedicated within the project area, we will also commit to building and maintaining a private foot path from the apartment buildings to the river's edge and along the existing woods road within the subject parcel.

Attached is a quick sketch depicting the proposed open space within the project area as well as the private foot path.

We believe that this offer is in compliance with the open space standards of Section 60-1367 of the City's Subdivision Ordinance. Thank you for your assistance with this matter. Let me know if I can provide you or the Committee with any more information.

Sincerely yours,

Jimmy Courbron, PLS
Senior Project Manager
SurveyWorks, Inc.



November 7, 2019

David O'Connell – Fire Prevention Officer
City of Auburn Fire Department
Central Fire, 550 Minot Avenue
Auburn, ME 04210

RE: Waiver Request - River's Edge Apartments (North River Road)

Dear Mr. O'Connell,

On behalf of our Client, Tim Millett of River's Edge Apartments, LLC, we respectfully request a recommendation from the Fire Prevention Officer to have the Planning Board waive §15 of the City of Auburn's Code of Ordinance, Article V, Sec. 60-607: Off-Street Parking and Loading to allow for two, 24-foot curb cuts. Specifically, this section states:

Where two or more driveways or curb-cuts are constructed, the curb cuts shall not exceed 20 feet in width.

We will also be seeking a waiver to Sec. 60-801 to allow for two, two-way access points onto a single roadway.

We have recently submitted a Development Review Application for the construction of three twelve-unit apartment buildings off of the East side of North River Road. Attached you will find a copy of the Sketch Plan that has been submitted to the City of Auburn's Economic and Community Development Department. This sketch depicts two 24-foot-wide entrance and exit driveways on to/off of North River Road. These entrances are spaced over 250 feet apart and allow for car sight distances that easily exceed the minimum sight distance of 350' for the posted speed limit of 35 mph. Truck sight distances also easily exceed the 580' requirement.

It is our belief that the additional driveway width allows for greater emergency vehicle turning radius and circulation at this site. Furthermore, this site could easily be subdivided in such a manner to create three driveway entrances spaced 150' apart.

The Economic & Community Development Department staff has also recommended that the Planning Board grant such a waiver.

Thank you for your time and attention to this matter. Please let me know if you have any questions or concerns, or if we can provide you with anything else.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Jimmy C. Courbron'.

Jimmy C. Courbron, PLS
Senior Project Manager
SurveyWorks, Inc.

Jimmy Courbron

From: David O'Connell <doconnell@auburnmaine.gov>
Sent: Thursday, November 21, 2019 3:17 PM
To: Jimmy Courbron
Cc: Megan Norwood
Subject: RE: River's Edge Apartments (North River Road)

Mr. Courbron,

After reviewing the provided documentation, I do not have any reservations with your clients request for the 24' curb cuts. If you refer to **NFPA 1 (Edition 2018)** you will find that there is a minimum 20' fire department access road(s) requirement (**NFPA 1: 18.2.3.5.1.1**), as well as a minimum curb cut extending at least 2' beyond each edge of the access road (**NFPA 1: 18.2.3.5.3.3**). With these to code requirements I feel you would meet the 24' opens that you are requesting. Please let me know if you require anything further.

*****Note-** NFPA 1: 18.2.3.1.2 Fire department access roads shall consist of roadways, fire lanes, parking lot lanes, or a combination thereof.

Thank you,

David N O'Connell CEO CFI-I C-ECT MIAAI
Fire Prevention Officer, Auburn Fire Dept., City of Auburn
550 Minot Ave | Auburn, Maine 04210 | 207.333.6633 X6

*The City of Auburn is subject to statutes relating to public records.
E-mail sent or received by City employees are subject to these laws.
Senders and receivers of City e-mail should presume that messages are subject to release.*

From: Jimmy Courbron <jim@surveyworksinc.com>
Sent: Thursday, November 21, 2019 9:59 AM
To: David O'Connell <doconnell@auburnmaine.gov>
Cc: Megan Norwood <mnorwood@auburnmaine.gov>
Subject: FW: River's Edge Apartments (North River Road)

Mr, O'Connell,
Please see attached. Let me know if I can provide you any more information. Thank you for your time.

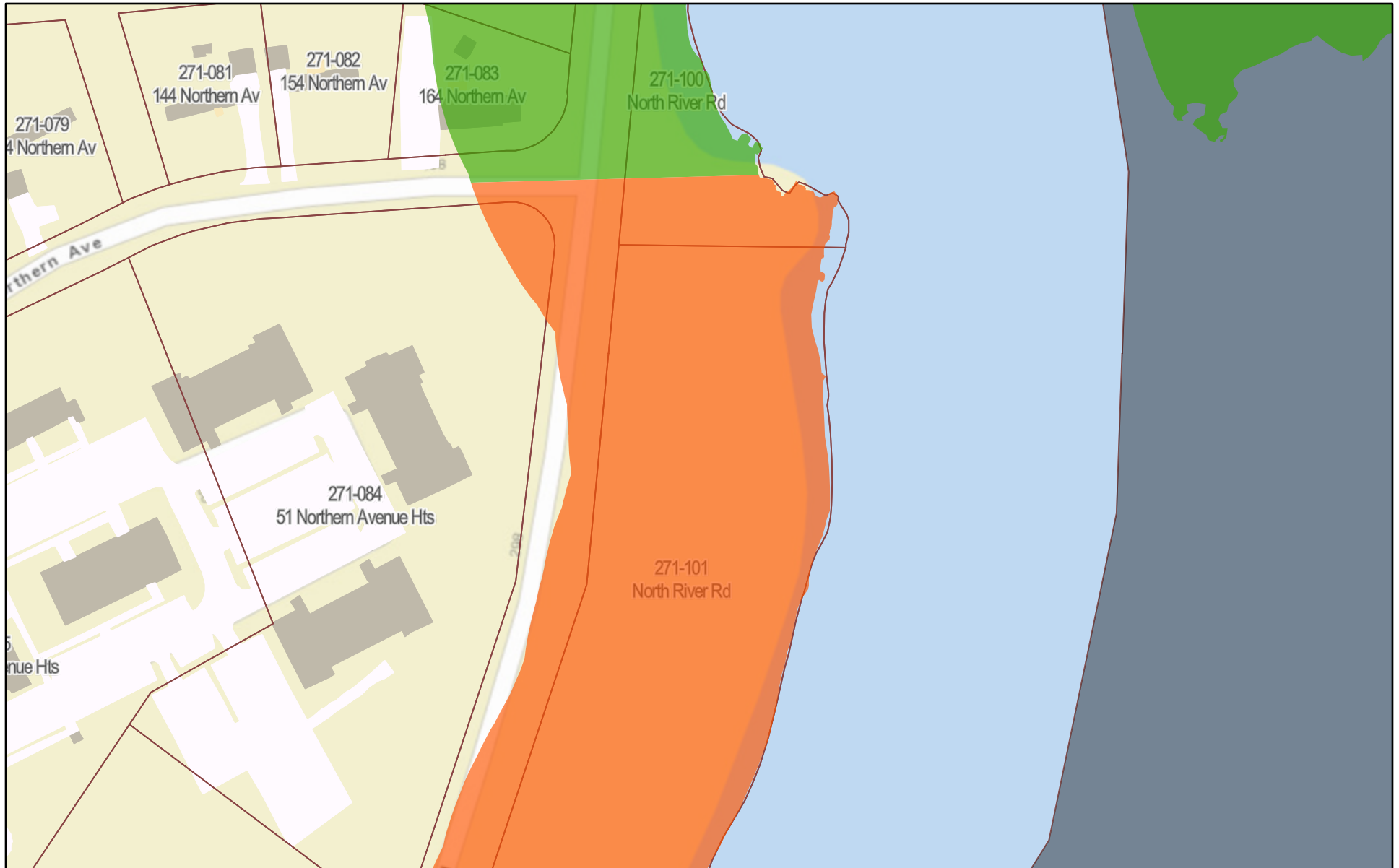
Regards,

Jimmy Courbron, PLS

From: Jimmy Courbron
Sent: Thursday, November 7, 2019 2:12 PM
To: doconnell@auburnmaine.gov
Cc: Eric Cousens <ECousens@auburnmaine.gov>
Subject: River's Edge Apartments (North River Road)

Mr. O'Connell,

Auburn Parcel Map



11/15/2019, 3:54:26 PM

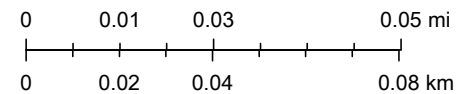
ShorelandZoning

250' Shoreland Zoning

General Development

Parcels_Public_2018 - Assessing Data

1:2,257



City of Lewiston, Maine, Esri, HERE, Garmin, INCREMENT P, NGA, USGS

City of Auburn

City of Lewiston, Maine, Esri, HERE, Garmin, INCREMENT P, NGA, USGS | Maine GeoLibrary | GlobeExplorer, Walnut Creek, CA | COA, Assessing Department | Unknown source, unknown date. |

DIVISION 12. - GENERAL BUSINESS DISTRICT

Sec. 60-498. - Purpose.

This district is intended to include commercial uses serving both the city and the region, together with normal accessory uses compatible with a cohesive and attractive shopping and office area.

(Ord. of 9-21-2009, § 3.62A)

Sec. 60-499. - Use regulation.

(a) *Permitted uses.* The following uses are permitted:

- (1) Residential dwelling uses permitted in the Multifamily Suburban District (MFS) (division 9 of article IV of this chapter).
- (2) Grocery stores and supermarkets.
- (3) Clothing stores.
- (4) Furniture stores.
- (5) Department stores.
- (6) Specialty shops.
- (7) Hotels and motels.
- (8) Funeral homes and mortuaries.
- (9) Child day care centers.
- (10) Medical and dental clinics.
- (11) Wholesale bakeries.
- (12) Retail laundries and dry cleaners, but not plants.
- (13) Banks, business and professional offices.
- (14) Public transportation passenger offices.
- (15) Governmental offices.
- (16) Municipal, civic or public service buildings and other utility facilities.
- (17) Warehouses, wholesale offices, salesrooms and showrooms.
- (18) Restaurants, bars, dining rooms or lunchrooms, but not to include drive-in and carry-out restaurants.
- (19) Halls, private clubs and lodges, bowling alleys, ice and roller skating rinks, indoor theaters and similar places of indoor amusement or recreation.
- (20) Animal hospitals and pet shops, but no kennels.
- (21) Business equipment repair and business services.

- (22) Radio and television studios.
 - (23) Printing shops, but not publishing plants.
 - (24) Retail, service, office and commercial uses similar to the foregoing.
 - (25) Carwashes.
 - (26) Accessory uses, building and structures.
 - (27) Shelters for abused persons.
 - (28) Greenhouses and lawn maintenance services.
 - (29) Temporary outdoor places of amusement.
 - (30) Churches and temples.
 - (31) Adult use and medical marijuana stores subject to the requirements of chapter 11, article 14 of the City of Auburn Ordinances.
 - (32) Marijuana cultivation accessory to a licensed retail store on the same property.
- (b) *Special exception uses.* The following uses are permitted as special exceptions after approval by the planning board in accordance with division 3 of article XVI of this chapter:
- (1) Automobile filling stations.
 - (2) Automobile repair and service stations.
 - (3) Automobile and marine sales lots and sales and service agencies.
 - (4) Automobile and marine paint and body repair shops.
 - (5) Hospitals, care homes, boardinghouses and lodginghouses.
 - (6) Research or philanthropic institutions.
 - (7) Outdoor theaters.
 - (8) Drive-in or carry-out restaurants.
 - (9) Commercial parks.
 - (10) Sales, rental and service agencies for mobile homes, farm equipment, trucks and trailers, and machine equipment.
 - (11) Light industrial plants which will not create a nuisance by noise, vibration, smoke, odor or appearance.
 - (12) Off-street parking as a commercial or municipal use provided that such parking is limited to occupants of buildings located within 500 feet of such parking area whether or not within the same district. The planning board may impose conditions regarding fencing and screening, drainage, ingress and egress, signs and lighting, and total capacity of the parking area as it deems necessary to protect the character of the neighborhood.
 - (13) Trucking terminals and similar nonprocessing storage and distribution uses, except bulk storage of chemicals, petroleum products and other flammable, explosive or noxious

materials.

- (14) Convenience stores.
- (15) Research, experimental and testing laboratories.
- (16) Landscape services.
- (17) Any new building of 5,000 square feet or more or any existing building which proposes a use permitted under subsection (a) of this section which will occupy an area of 5,000 square feet or more.
- (18) Automotive towing and storage.
- (19) Major retail development provided that it meets the conditions noted in section 60-45(g).
- (20) Outpatient addiction treatment clinics.
- (21) Adaptive reuse of structures of community significance.

(Ord. of 9-21-2009, § 3.62B; Ord. No. 11-11072016, 11-21-2016; Ord. No. 05-04032017, § 2, 4-24-2017; Ord. No. 05-05202019, 6-3-2019)

Sec. 60-500. - Dimensional regulations.

All structures in this district, except as noted, shall be subject to the following dimensional regulations:

- (1) *Minimum lot width and depth.* No building used for commercial or office uses shall be constructed on a lot having less than 10,000 square feet minimum lot area and measuring 100 feet in width. No lot shall be less than 100 feet in depth. Buildings used for residential uses shall have the same minimum lot area, width and depth as provided for buildings in the Multifamily Suburban District (MFS), section 60-307(1).
- (2) *Density.* Not more than 30 percent of the total lot area shall be covered by buildings used for commercial or office uses. The density of residential uses shall be the same as that required for buildings in the Multifamily Suburban District (MFS), section 60-30(2).
- (3) *Yard requirements.*
 - a. *Rear.* There shall be behind every building a rear yard having a minimum depth of 35 feet or 35 percent of the average depth of the lot, whichever is less.
 - b. *Side.* There shall be a distance of five feet between any side property line, plus the side yard setback shall be increased one foot for every two feet or part thereof increase in street frontage over 60 feet to a maximum of 25 feet for side yard setback.
 - c. *Front.* There shall be in front of every building a front yard having a minimum depth of 25 feet or 25 percent of the average depth of the lot, whichever is less. No front yard need to be any deeper than the average depth off front yards on the

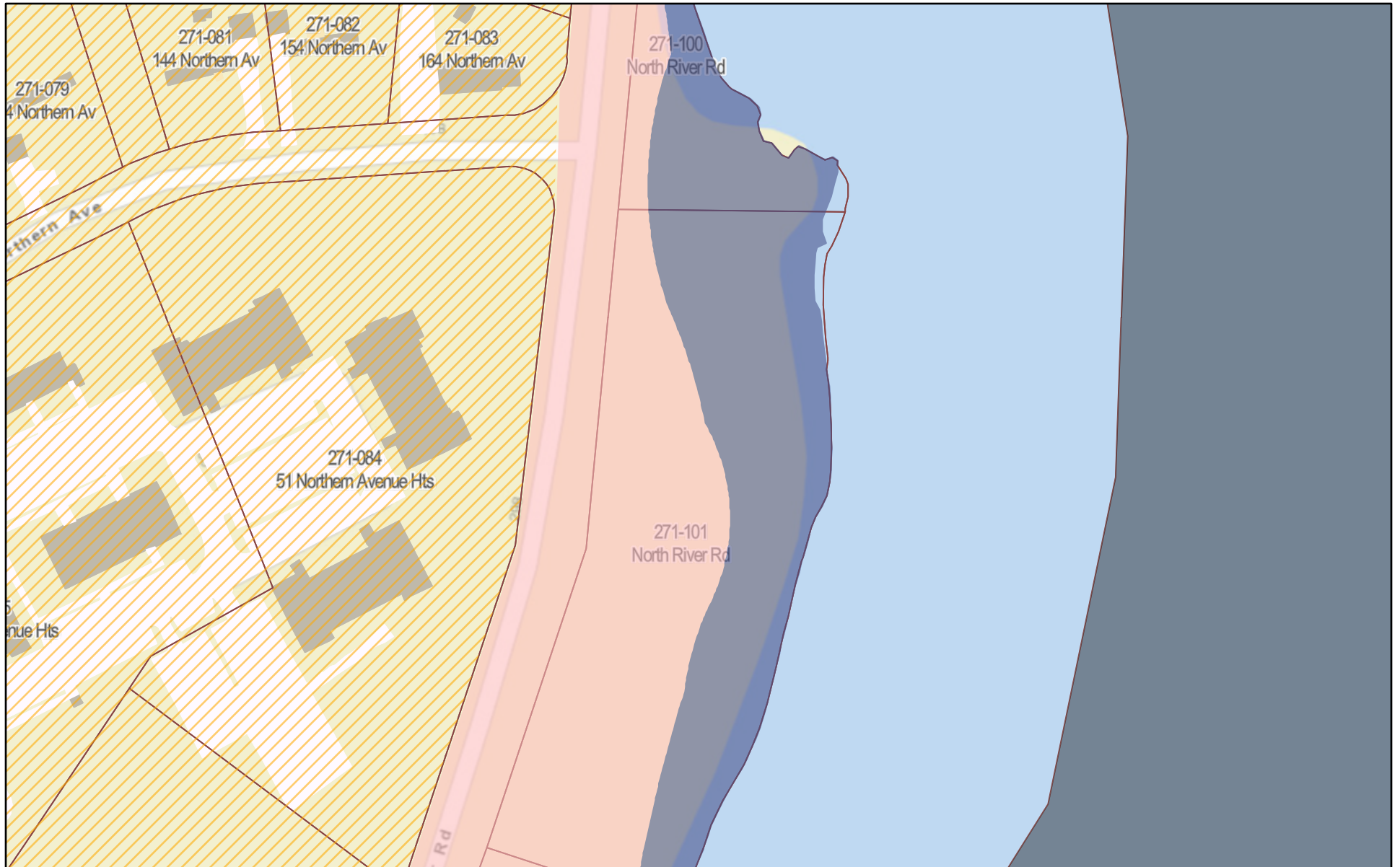
lots next thereto on either side. A vacant lot or a lot occupied by a building with a front yard more than 25 feet shall be considered as having a front yard of 25 feet.

- d. *Principal buildings.* More than one principal building may be erected on a lot, provided that the building meet all yard setback requirements and are separated by a distance equivalent to the height of the higher building or 30 feet, whichever is greater.
 - e. *Railroad tracks.* Where the principal use requires access to a railroad, the yard requirements are disregarded for the side of the building adjacent to the railroad trackage. The engineering requisites for a safe and properly designed siding and building setback acceptable to the railroad shall take precedence.
 - f. *Open and unbuilt spaces.* Any yard, space or area required to be kept open and unbuilt on may be used, if otherwise lawful for outdoor storage and display of articles, supplies and materials. Such outdoor storage and display shall occupy no more than 20 percent of the lot with display areas not to exceed one-quarter of the total allowable area. Storage and display areas shall be clearly identified on the land in a fixed location. Storage areas shall be screened from the view of an abutting residential district or use and from the street by an evergreen tree line planted in staggered rows having the base of the trees not more than ten feet apart or by a solid fence not less than six feet in height.
- (4) *Height.* No permitted structure shall exceed four stories or 45 feet in height. Religious buildings, municipal buildings or buildings listed by the state historic preservations commis- sion may have a steeple, cupola or tower to a maximum height of 90 feet, if said structure is limited to 15 percent of the footprint of the principal building. In the airport approach zone, Federal Aviation Administration regulations shall apply. Accessory structures, including windmills, that are necessary for the operation of an allowed principal use may exceed the above maximum height requirements, provided that the front yard, rear yard and each of the side yards shall be increased by one foot for each foot in height in excess of the yard required pursuant to this section. In the airport approach zone, Federal Aviation Administration regulations shall apply.
- (5) *Off-street parking.* Off-street parking and loading spaces shall be provided in accordance with the requirements for specific uses as set forth in articles V through XI of this chapter.

(Ord. of 9-21-2009, § 3.62C; Ord. of 3-22-2010)

Secs. 60-501—60-523. - Reserved.

Auburn Parcel Map



11/15/2019, 3:47:51 PM

Comp Plan - Future Land Use

MeDRD - Medium Density Residential Development

LBD - Limited Business Development District

RP - Resource Protection

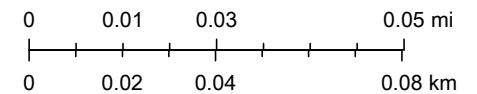
Parcels_Public_2018 - Assessing Data

City of Lewiston, Maine, Esri, HERE, Garmin, INCREMENT P, NGA, USGS

City of Auburn

City of Lewiston, Maine, Esri, HERE, Garmin, INCREMENT P, NGA, USGS | Maine GeoLibrary | GlobeExplorer, Walnut Creek, CA | COA, Assessing Department | Unknown source, unknown date. |

1:2,257



2.3 and 2.5). In addition to nonresidential activity the General Business Development District should allow for both existing and new residential use at a density of up to 12-18 units per acre.

Allowed Uses – The following general types of uses should be allowed in the General Business Development District:

- retail uses including large-scale uses (>100,000 square feet)
- personal and business services
- business and professional offices
- medical facilities and clinics
- restaurants
- hotel, motels, inns, and bed & breakfast establishments
- residential uses (including townhouses and multi-family housing)
- community services and government uses
- research, light manufacturing, assembly, and wholesale uses
- truck terminals and distribution uses
- contractors and similar activities
- motor vehicle and equipment sales
- motor vehicle service and repair
- recreational and entertainment uses and facilities

Development Standards –

The City's development standards for the General Business Development District should provide property owners and developers flexibility in the use and development of the property. The standards should include provisions to manage the amount and location of vehicular access to the site, minimize stormwater runoff and other potential environmental impacts, require an attractive treatment along the boundary between the lot and the street, and provide for the buffering of adjacent residential districts.

Limited Business Development District (LBD)

Objective – Allow for the development and redevelopment of small and moderate scale nonresidential uses in areas that have good vehicle access and are served or can be served by public water and sewerage (see Figures 2.3, 2.4, and 2.5). Since these districts are often located adjacent to existing residential neighborhoods or residentially zoned areas, the allowed uses and development standards are intended to assure that activity within these districts have minimal adverse impact on the adjacent residential areas. In addition to nonresidential activity, the Limited Business Development District should allow for both existing and new residential uses at a density of up to 10-12 units per acre.

Allowed Uses – The following general types of uses should be allowed in the Limited Business Development District:

- small and moderate size retail uses (<40,000 square feet)
- personal and business services
- business and professional offices
- restaurants excluding drive-thru service
- hotel, motels, inns, and bed & breakfast establishments
- residential uses (including single and two-family, townhouses, and multi-family housing)
- community services and government uses
- small and moderate size (<20,000 square feet) fully-enclosed research, light manufacturing, assembly, and wholesale uses
- contractors and similar activities
- motor vehicle service
- motor vehicle sales limited to a subordinate or accessory use where the principal use is motor vehicle service
- recreational uses and facilities

Development Standards – The focus of the City’s development standards for the Limited Business Development District should be on assuring that new development or redevelopment/expansion of existing uses is done in a manner the results in well designed, attractive projects that minimize the potential for undesirable impacts. To ensure that redevelopment/conversion of residential buildings to nonresidential uses is compatible with the design and character of the community, these projects should require site plan review. The review standards should include provisions to manage the amount and location of vehicular access to the site, minimize stormwater runoff and other potential environmental impacts, require an attractive treatment along the boundary between the lot and the street, and provide for the buffering of adjacent residential districts. Multifamily housing and townhouse style development should be allowed at a density of up to 10-12 units per acre, while single and two-family housing should be allowed at a density of up to 6-8 units per acre. Conversion of older single family units to duplexes is encouraged, as well as the full utilization of all established units within multi-unit buildings, provided that the building will be renovated and meet the City’s requirements for residential units, including the provision of appropriate parking and green space.

Minot Avenue Planned Commercial Development District (PCD)

Objective – Improve the visual environment of the outer portion of the Minot Avenue commercial corridor while accommodating a wide range of nonresidential uses (see Figures 2.3 and 2.6). Essentially this designation is the same as the Limited Business Development designation with the addition of enhanced development and design standards to allow this area to evolve into an attractive gateway to the City.

J. OTHER LAND USE POLICIES

PURPOSE

Most of the City's policies with respect to land use and development are set out in Chapter 2. Future Land Use Plan. This section supplements and augments the policies contained in the Future Land Use Plan.

POLICIES

1. MANUFACTURED HOUSING AND MOBILE HOME PARKS

The City's Zoning Ordinance currently addresses the treatment of manufactured housing and mobile home parks in accordance with state law. This Plan proposes that the City maintain its current treatment of manufactured housing and mobile home parks. The following summarizes the City's treatment of manufactured housing:

- Manufactured housing units that meet all federal, state, and municipal codes may be used as single family residences on individual lots in all residential districts.
- Mobile home developments, including mobile home parks, are allowed in the current Rural Residence (RR) and Suburban Residence (SR) Districts.
- Manufactured housing units that meet the state definition may be used as single family residences on individual lots in the designated Manufactured Housing Overlay (MHO) District.

The intention is that the Manufactured Housing Overlay District will remain as currently identified, and that the references to the RR and SR Districts will be updated to the new residential development districts that are comparable with these zones.

2. SHORELAND ZONING

The City is in the process of updating its Shoreland Zoning requirements to conform to state law. The revised zoning is based upon establishing a separate Resource Protection (RP) District and maintaining a Shoreland Overlay District. The Resource Protection District will include all areas required to be zoned RP by state requirements, including undeveloped 100-Year floodplains along streams and rivers, and areas adjacent to freshwater wetlands with high-moderate habitat value. The RP District is discussed in the Future Land Use Plan (Chapter 2). The depiction of the RP District on the Future Land Use Plan map is only conceptual, pending the adoption of the detailed shoreland zoning update. The Shoreland Overlay District includes

all areas subject to shoreland zoning under state law. It establishes water body setback requirements and performance standards, and is being updated to reflect current state requirements.

3. RURAL RESIDENTIAL ROAD STRIPS

The City has historically zoned narrow strips of land along some rural roads for low density residential development. These strips represent a compromise between the City's goal of limiting residential development in rural areas, and existing conditions along these rural roads. As part of the development of the Future Land Use Plan (see Chapter 2), the City conducted a comprehensive review of where residential strips should and should not be created based upon the following set of criteria. The considerations outlined below apply sequentially – first to identify where strips are appropriate based on current land use patterns, and then to work through where residential strips are inappropriate based on a variety of considerations.

Consideration #1 – Established Residential Pattern

A residential strip **may be provided** along a rural road where there is an established pattern of residential uses along the road. An established residential pattern means at least 6-8 homes per half mile counting both sides of the road. In general, both sides of a road should have a residential strip unless there is a significant reason not to allow residential development based on the following considerations.

Consideration #2 – Reserve Area Adjacency

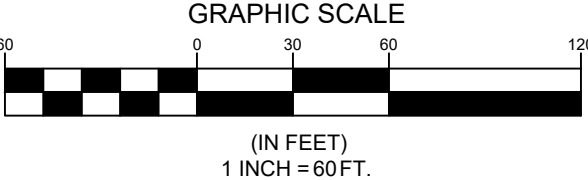
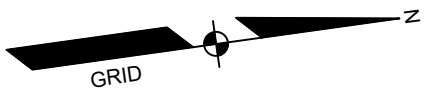
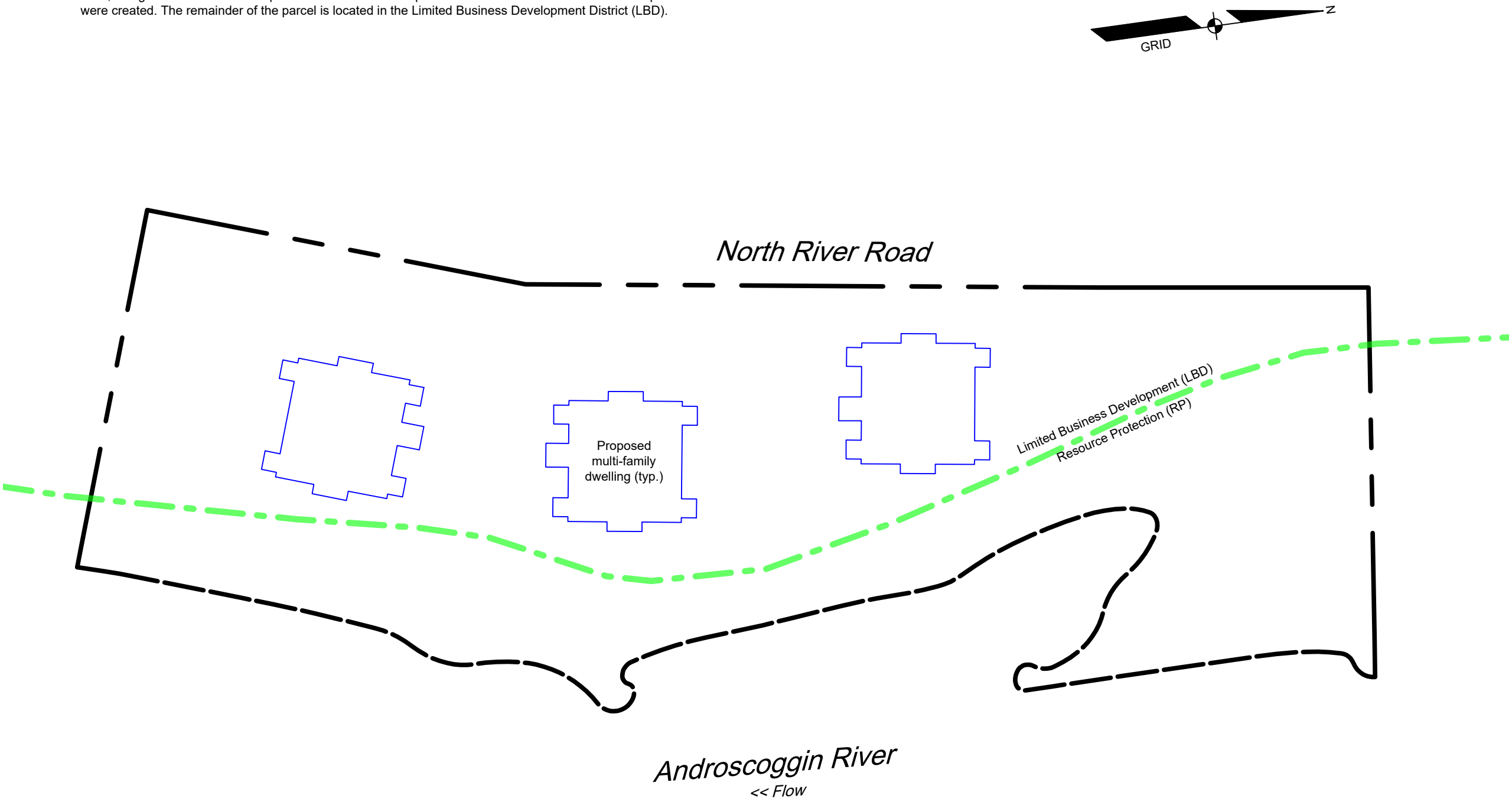
A residential strip **should not be provided** along a rural road if the area adjacent to the road is a “reserve area” where the objective is to maintain the land as undeveloped to allow for its conversion to a different use in the foreseeable future. There should be some realistic expectation that something will occur that will change the desired land use for the area in the future.

Consideration #3 – Natural Resource Adjacency

A residential strip **should not be provided** along a rural road if the area adjacent to the road has significant natural resource value. Areas with significant natural value include areas that are zoned Resource Protection or are high value wetlands, 100 Year floodplains, significant wildlife habitats, and areas with steep slopes (>25%).

General Notes:

- 1. The purpose of this exhibit is to show future zoning in the vicinity of the proposed development.
- 2. The Resource Protection (RP) is shown based on the Flood Insurance Rate Map for the City of Auburn, Androscoggin County, State of Maine, Community-Panel Number 2300010006C last revised October 18, 1995, being the effective flood map at the time that the Comprehensive Plan and Future Land Use Maps were created. The remainder of the parcel is located in the Limited Business Development District (LBD).



Revised	by	✓	Note
11/15/19	DJH	JCC	Issued for municipal review
SWI SURVEYWORKS, INC. LAND USE CONSULTANTS www.surveyworksinc.com 1 (207) 200-1678 7 Cobblestone Drive, Suite 4, Turner, ME 04282			

Future Land Use Map w/ Proposed Buildings

River's Edge Apartments
North River Road
Auburn, Maine

Prepared for
River's Edge Apartments, LLC
155 Center Street
Auburn, ME 04210

Project #18-4036
Date: 11/15/2019
Scale: 1" = 60'
Sheet No. 1 OF 1

Sheet Size: 11" X 17"

GENERAL NOTES:

- BOUNDARY AND EXISTING CONDITIONS INFORMATION WERE TAKEN FROM A PLAN ENTITLED "EXISTING CONDITIONS AND BOUNDARY SURVEY PLAN" DATED JUNE 29TH, 2019, PREPARED BY SURVEYWORKS, INC.
- ALL BOOK AND PAGE NUMBERS REFER TO THE ANDROSCOGGIN COUNTY REGISTRY OF DEEDS, UNLESS OTHERWISE NOTED.
- THE RECORD OWNER OF THE SUBJECT PARCEL IS RIVER'S EDGE APARTMENTS, LLC BY A DEED DATED MAY 21, 2019 AND RECORDED IN BOOK 10089, PAGE 185.
- THE SUBJECT PARCEL IS SHOWN ON THE CITY OF AUBURN'S TAX MAP 271 AS LOT 101 AND IS LOCATED IN THE GENERAL BUSINESS DISTRICT, THE FLOODPLAIN OVERLAY DISTRICT & THE SHORELAND ZONE OVERLAY DISTRICT. THE GENERAL BUSINESS DISTRICT REFERENCES THE MULTIFAMILY SUBURBAN DISTRICT FOR RESIDENTIAL USES.
- SPACE AND BULK STANDARDS FOR THE MULTIFAMILY SUBURBAN DISTRICT ARE AS FOLLOWS:
MIN. LOT SIZE: 10,000 FT²
MIN. FRONTAGE: 100'
MIN. LOT DEPTH: 125'
MIN. FRONT YARD: 25'
MIN. SIDE YARD: 25'
MIN. REAR YARD (FROM RIVER): 25'
MIN. SETBACK FROM RIVER: 25'
MAX. BUILDING HEIGHT: 35' (PER SHORELAND ZONE OVERLAY DISTRICT)
MAX. BUILDING COVERAGE: 30%
- TOTAL AREA OF THE SUBJECT PARCEL IS 98,917 SQUARE FEET OR 2.85 ACRES.
- BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED ON AN ON THE GROUND SURVEY PERFORMED BY SURVEYWORKS, INC. IN MAY OF 2019.
- A PORTION OF THE SUBJECT PARCEL IS LOCATED WITHIN ZONE AE, A SPECIAL FLOOD HAZARD AREA WITH BASE FLOOD ELEVATION (BFE), AS DELINEATED ON THE FLOOD INSURANCE RATE MAP FOR THE CITY OF AUBURN, ANDROSCOGGIN COUNTY, COMMUNITY-PANEL NUMBER 23001C0326E, HAVING AN EFFECTIVE DATE OF JULY 8, 2013. THE REMAINDER OF THE SUBJECT PARCEL IS LOCATED WITHIN ZONE X, AREAS OF MINIMAL FLOOD HAZARD. ALL FLOOD ZONES SHOWN ARE BASED ON AN ON THE GROUND TOPOGRAPHIC SURVEY (SEE NOTE 7). THE FLOODWAY BOUNDARY IS SHOWN BASED ON SHAPEFILES OBTAINED FROM THE FEMA FLOOD MAP SERVICE CENTER.

- A WETLAND DELINEATION WAS PERFORMED ON THIS PROJECT SITE BY SURVEYWORKS, INC. IN MAY OF 2019 AND BY JOSEPH NOEL IN AUGUST OF 2019. THIS WETLANDS DELINEATION CONFORMS TO THE STANDARDS AND METHODS OUTLINED IN THE 1987 WETLAND DELINEATION MANUAL AND NORTHEAST REGIONAL SUPPLEMENT AUTHORED AND PUBLISHED BY THE U.S. ARMY CORPS OF ENGINEERS. WETLAND FLAGS WERE LOCATED USING "FLOAT" SOLUTIONS AND ARE BELIEVED TO HAVE A HORIZONTAL ACCURACY OF 1 METER.
- THE DEPTH, SIZE, LOCATION, EXISTENCE OR NONEXISTENCE OF UNDERGROUND UTILITIES AND/OR STRUCTURES WERE NOT INVESTIGATED AS PART OF THIS SURVEY. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. OWNERS, CONTRACTORS, AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (CALL 811) AND FIELD VERIFY EXISTING UTILITIES PRIOR TO DIGGING OR BREAKING GROUND.
- NORTH RIVER ROAD IS CURRENTLY UNDER CONSTRUCTION. TOPOGRAPHIC INFORMATION ASSOCIATED WITH NORTH RIVER ROAD IS SHOWN BASED ON GRADE STAKES MARKED WITH PROPOSED FINISHED GRADE ELEVATIONS LOCATED ON AUGUST 15, 2019.
- PLAN ORIENTATION IS GRID NORTH, U.S. STATE PLANE COORDINATE SYSTEM, MAINE WEST ZONE (FIPS 1802), NAD83. ELEVATIONS DEPICTED HEREON ARE NAVD88, BASED ON DUAL-FREQUENCY GPS OBSERVATIONS. ALL COORDINATES GIVEN REFER TO THIS COORDINATE SYSTEM.

SITE TABULATIONS:

TOTAL AVERAGE WEEKDAY TRIPS:

- 3 - BUILDINGS
- 12 - UNITS PER BUILDING
- 8 - TRIPS PER DWELLING UNIT
- TOTAL TRIPS PER DAY = 288 TRIPS PER DAY

TOTAL REQUIRED PARKING SPOTS:

- 3 - BUILDINGS
- 12 - UNITS PER BUILDING
- 1.5 - SPACES PER DWELLING UNIT
- TOTAL PARKING SPACES REQUIRED = 54 SPACES (3 HANDICAPPED INCLUDED)

SITE CONDITIONS:

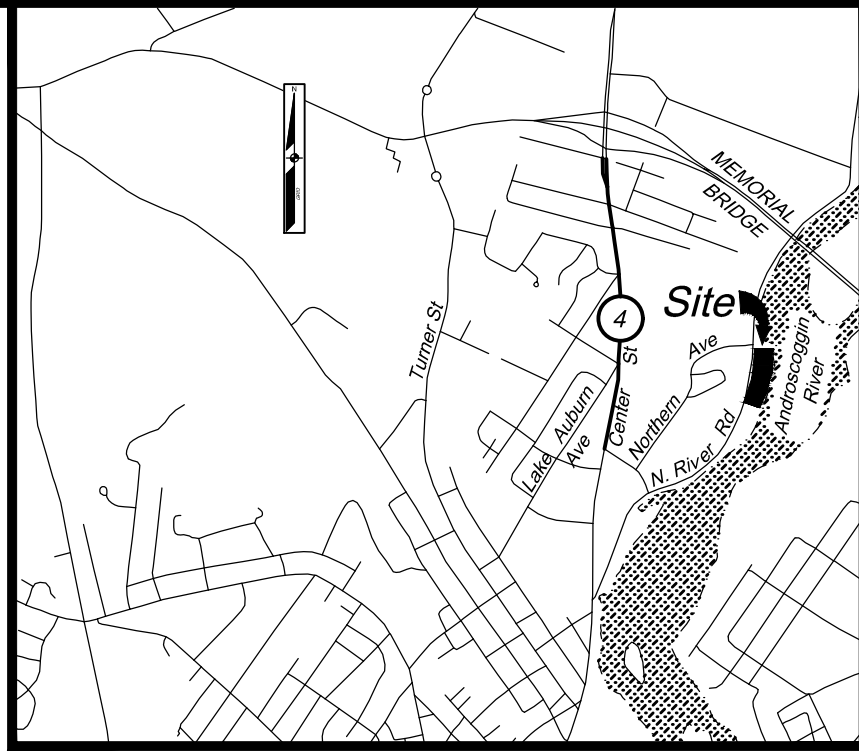
- EXISTING CONDITIONS:
- BUILDINGS - 0SF
 - PAVEMENT - 0SF
 - TOTAL IMPERVIOUS AREA - 6000SF
 - LAWN AND WOODED AREA - 99099SF = 2.275 ACRES

- PROPOSED CONDITIONS:
- BUILDINGS/DECKS/PATIOS - 44955SF EACH BUILDING
 - TOTAL - 13486SF
 - PAVED/CONCRETE - 23324SF
 - TOTAL IMPERVIOUS AREA = 36811SF

- LAWN AND WOODED AREA = 62288SF
- REQUIRED GREENSPACE = 1,1375 ACRES
- PROPOSED GREENSPACE = 1.43 ACRES

PARKING SPACES = 54 SPACES (3 HANDICAPPED INCLUDED)

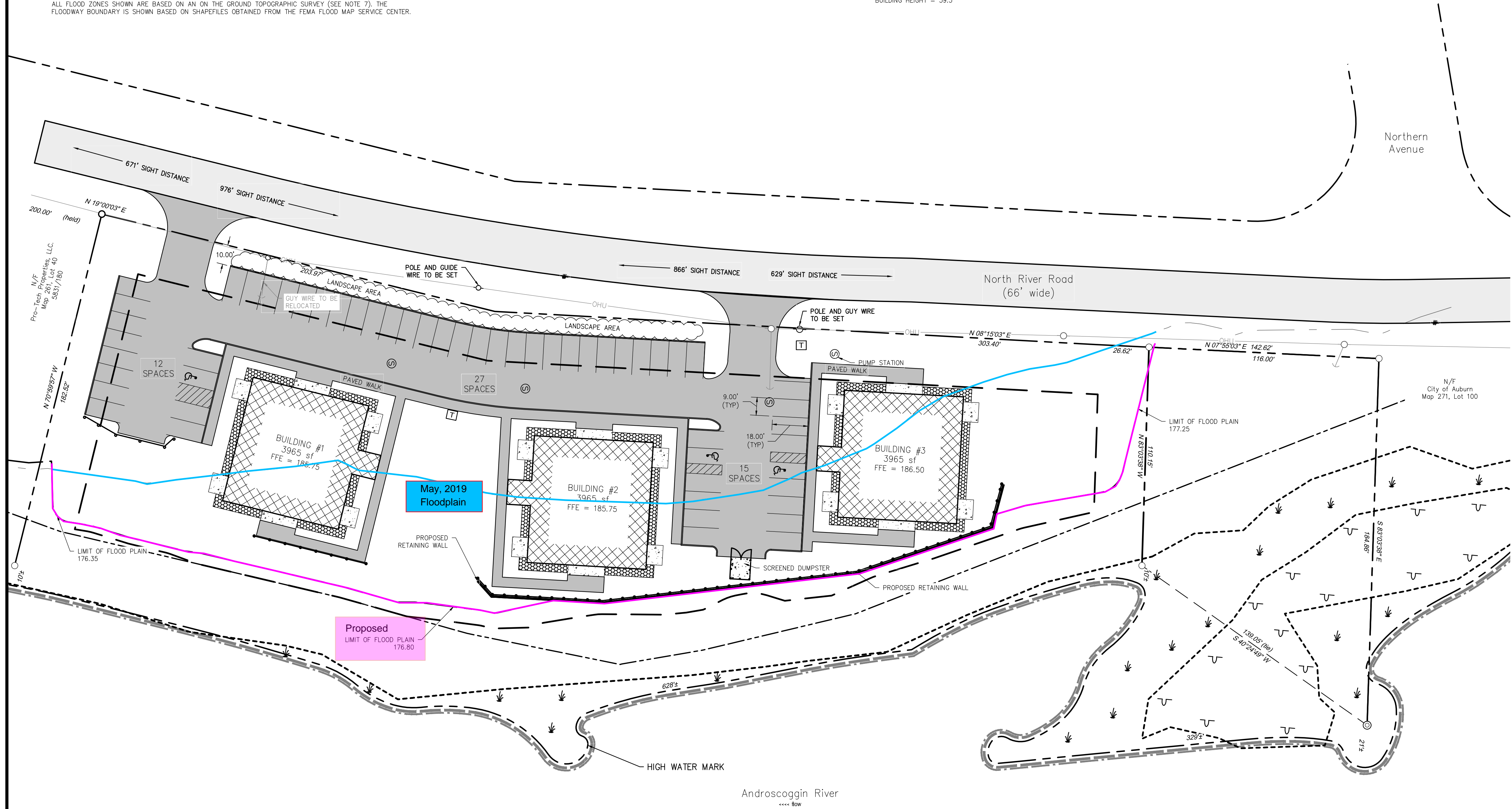
BUILDING HEIGHT = 39.3'



LOCATION MAP

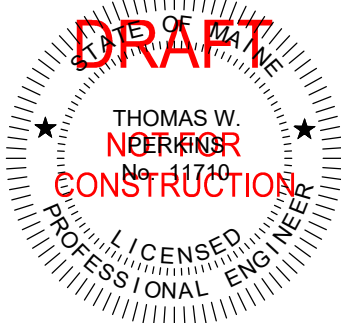
LEGEND:

- BOUNDARY LINE
- ABUTTER LINE
- FLOOD PLAIN
- SET BACK
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SPOT GRADE
- LANDSCAPE
- PROPOSED PAVEMENT
- PROPOSED PAVEMENT
- PROPOSED UTILITY POLE
- PROPOSED TRANSFORMER
- PROPOSED FENCE
- EXISTING OVERHEAD UTILITY
- EXISTING PAVEMENT
- EXISTING UTILITY POLE
- EXISTING GUY WIRE
- EXISTING BUILDING
- EXISTING RIPRAP



RIVERS EDGE APARTMENTS
NORTH RIVER ROAD, AUBURN, MAINE 04210
FOR
RIVERS EDGE APARTMENTS, LLC
155 CENTER STREET, AUBURN, MAINE 04210

SIGNED COPY OF DRAWING
ON FILE AT DIRIGO A/E
OFFICE



SITE PLAN

REV.	DATE	DESCRIPTION
0	9/30/19	ISSUED FOR REVIEW
1	11/16/19	PRELIMINARY PLAN REVIEW

DRAWN BY: ZTC CHECKED BY: TWP

DIRIGO
ARCHITECTURAL
ENGINEERING • CONSTRUCTION MANAGEMENT
7 COBBLESTONE WAY, SUITE 2
TURNER, MAINE 04282
PH: (207) 225-3040
WS: DIRIGOAE.COM

SCALE: 1" = 30'
DATE: 9/4/19
PROJECT: 19-015

SHEET NO.

C1.0

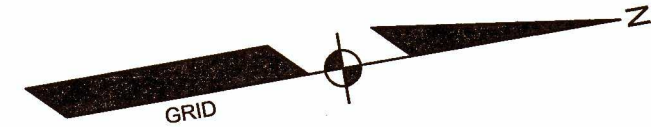
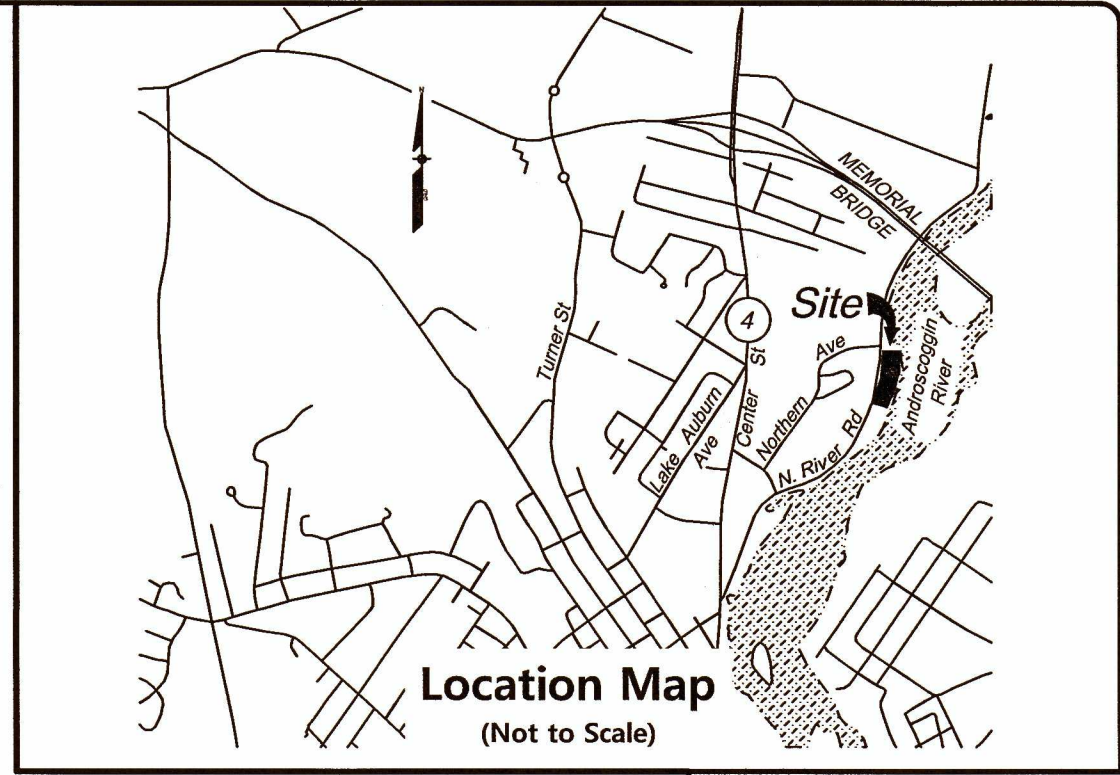
Legend:

- Existing
- Property Line/R.O.W.
 - Abutter Line/R.O.W.
 - Tie Line
 - Building Setback Line
 - Buffer Line
 - Floodplain
 - Floodway
 - Edge of Wetland
 - Edge of Pavement
 - Edge of Gravel
 - Edge of Water
 - Tree Line
 - Major Contour
 - Minor Contour
 - Overhead Utilities
 - Monument (as noted)
 - Iron Pipe/Rod (as noted.)
 - Drill Hole
 - 5/8" Rebar Set w/ Surveyor's Identification Cap Stamped "SWI 1126"
 - Wetlands
 - TP-1
 - Test Pit
 - Water Gate Valve
 - Hydrant
 - Utility Pole
 - Guy Wire
 - RipRap
 - Wetlands
 - Uplands

General Notes:

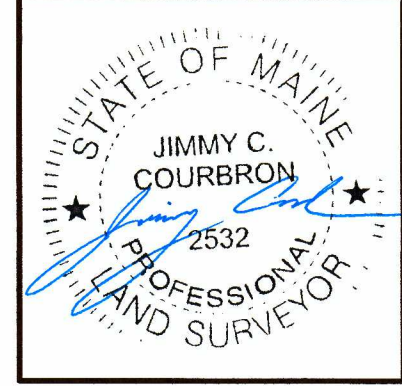
- The purpose of this plan is to depict the existing conditions of the subject parcel in May of 2019.
- All Book and Page numbers refer to the Androscoggin County Registry of Deeds, unless otherwise noted.
- The record owner of the subject parcel is River's Edge Apartments, LLC by a deed dated May 21, 2019 and recorded in Book 10089, Page 185.
- The subject parcel is shown on the City of Auburn's Tax Map 271 as Lot 101 and is located in the General Business District, the Floodplain Overlay District & the Shoreland Zone Overlay District. The General Business District references the Multifamily Suburban District for residential uses.
- Space and bulk standards for the Multifamily Suburban District are as follows:
 - Min. Lot Size: 10,000 ft²
 - Min. Frontage: 100'
 - Min. Lot Depth: 125'
 - Min. Front Yard: 25'
 - Min. Side Yard: 25'
 - Min. Rear Yard (from River): 25'
 - Min. Setback from River: 25'
 - Max. Building Height: 35' (Per Shoreland Zone Overlay District)
 - Max. Building Coverage: 30%
- Total area of the subject parcel is 123,958 square feet or 2.85 acres.
- Boundary and topographic information shown hereon is based on an on the ground survey performed by SurveyWorks, Inc. in May of 2019.
- Plan References:
 - A. "Property of Auburn Housing Associates between Northern Avenue Extension and North River Road" prepared by Vincent J.P. LeBlanc and dated January 17, 1975. Plan not recorded.
 - B. "Lewiston Falls Project Plan, Detail Map, Reservoir" prepared by Central Maine Power Company, dated March 26, 1999 and recorded in Plan Book 40 Page 136.

- Plan orientation is Grid North, U.S. State Plane Coordinate System, Maine West Zone (FIPS 1802), NAD83. Elevations depicted hereon are NAVD88, based on dual-frequency GPS observations. All coordinates given refer to this coordinate system.
- A portion of the subject parcel is located within Zone AE, a Special Flood Hazard Area With Base Flood Elevation (BFE), as delineated on the Flood Insurance Rate Map for the City of Auburn, Androscoggin County, Community-Panel Number 23001C0328E, having an Effective Date of July 8, 2013. The remainder of the subject parcel is located within Zone X, Areas of Minimal Flood Hazard. All flood zones shown are based on an on the ground topographic survey (see Note 7). The floodway boundary is shown based on shapefiles obtained from the FEMA Flood Map Service Center.
- A wetland delineation was performed on this project site by SurveyWorks, Inc. in May of 2019 and by Joseph Noel in August of 2019. This wetlands delineation conforms to the standards and methods outlined in the 1987 Wetland Delineation Manual and Northeast Regional Supplement authored and published by the U.S. Army Corps of Engineers. Wetland flags were located using "float" solutions and are believed to have a horizontal accuracy of 1 meter.
- The depth, size, location, existence or nonexistence of underground utilities and/or structures were not investigated as part of this survey. Utilities depicted hereon may not necessarily represent all existing utilities. Owners, contractors, and/or designers need to contact Dig-Safe Systems, Inc. (call 811) and field verify existing utilities prior to digging or breaking ground.
- This surveyor has made no independent search for easements of record, encumbrances, restrictive covenants, ownership title evidence or any other facts that an accurate and current title search may disclose.
- The subject parcel may be subject to rights granted to Central Maine Power Company by easement deed from Lake Auburn Ice Company dated August 6, 1923 and recorded in Book 364, Page 244. The location of this easement, as described, has not been retraced by this surveyor. This easement deed references a plan entitled, "Pole Location River Road, Auburn, June 1923. Androscoggin Electric Company, D.W.G.M. 526." Per Central Maine Power, they do not have a copy of this plan.
- The parcel shown on the City of Auburn Tax Map 271 as Lot 100 is presumed to be owned by the City of Auburn. However, no deed for this parcel has been provided by the City of Auburn as of the date of this plan.
- As shown on plan ref. 8B, this property is subject to flowage rights up to elevation 169.50 (NGVD29), which corresponds to elevation 168.89 (NAVD88).
- North River Road is currently under construction. Topographic information associated with North River Road is shown based on grade stakes marked with proposed finished grade elevations located on August 15, 2019.



STATE OF MAINE, Androscoggin County, SS
REGISTRY OF DEEDS

Received _____
At ____ h ____ m ____ M and recorded in
Plan Book _____, Page _____
Attest _____
Registrar



Rev.	Date	Drawn	Checked	Note
8/14/19	DJH	JCC	JCC	Updated to show existing sewer/water
8/16/19	DJH	JCC	JCC	Revised wetlands & topographic survey
9/11/19	DJH	JCC	JCC	Issued for Recording

SWI SURVEYWORKS, INC.
LAND USE CONSULTANTS
www.surveymaine.com
526 River Road, Greene, Maine 04236
This plan shall not be modified without written permission from SurveyWorks, Inc. SWI shall be at the user's sole risk and without liability to SurveyWorks, Inc.

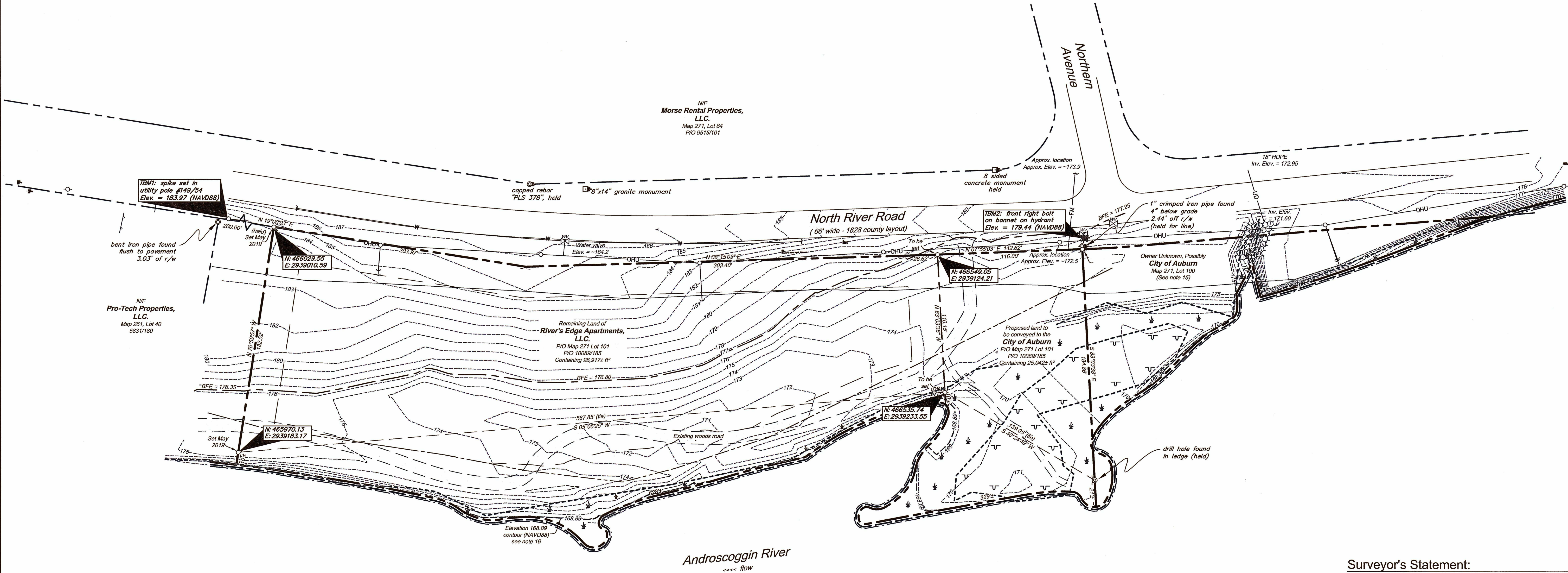
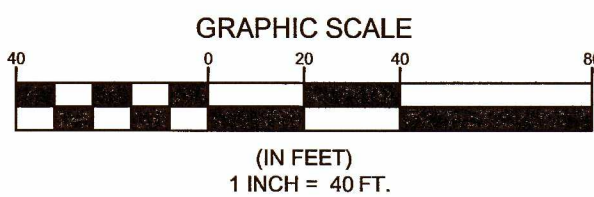
Existing Conditions and Boundary Survey Plan
of
River's Edge Apartments
North River Road
Auburn, Maine
for record owner
River's Edge Apartments, LLC
155 Center Street
Auburn, ME 0210

Project #18-4036
Date: 06/29/2019
Scale: 1" = 40'
Sheet No. 1 OF 1

Surveyor's Statement:

This survey was performed under my direct supervision and to the best of my knowledge and belief, it was done in accordance with Chapter 90, Part 1 (Professional Standards of Practice) and Part 2 (Technical Standards of Practice) of the Maine Board of Licensure for Professional Land Surveyors.

Jimmy C. Courbron, PLS Date _____

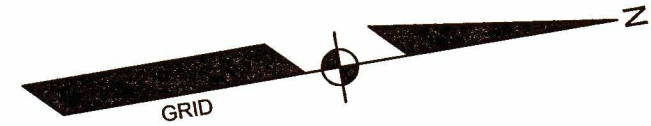
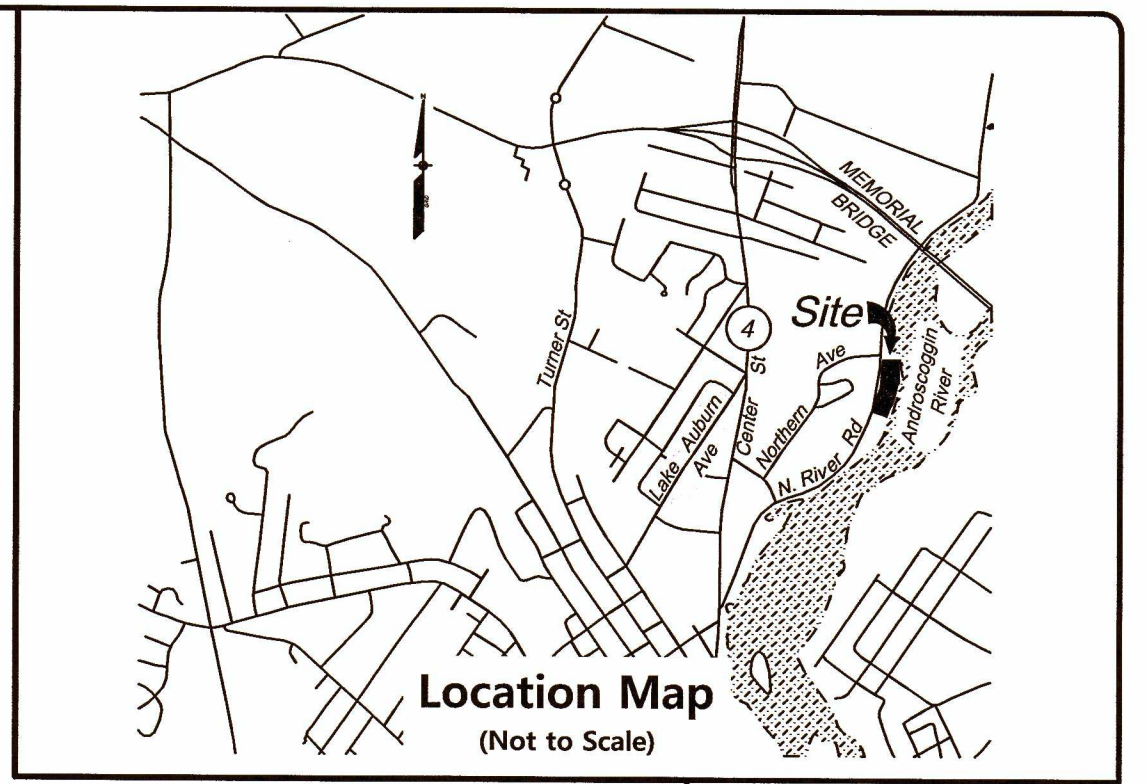


Legend:

- Existing
- Property Line/R.O.W.
 - Abutter Line/R.O.W.
 - Tie Line
 - Building Setback Line
 - Floodplain
 - Floodway
 - Edge of Wetland
 - Edge of Pavement
 - Edge of Gravel
 - Edge of Water / High Water Line
 - Tree Line
 - Major Contour
 - Minor Contour
 - Overhead Utilities
 - Monument (as noted)
 - Iron Pipe/Rod (as noted)
 - Drill Hole
 - 5/8" Rebar Set w/ Surveyor's Identification Cap Stamped "SWI 1126"
 - Wetlands
 - Test Pit
 - Water Gate Valve
 - Hydrant
 - Utility Pole
 - Guy Wire
 - RipRap
 - Wetlands
 - Uplands

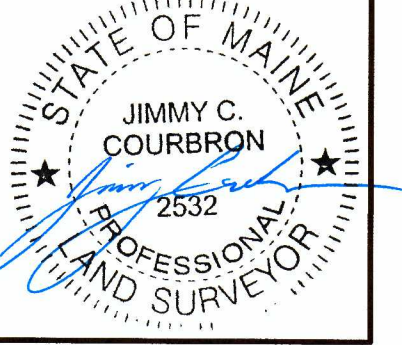
General Notes:

- The purpose of this plan is to depict the existing conditions of the subject parcel in May of 2019.
- All Book and Page numbers refer to the Androscoggin County Registry of Deeds, unless otherwise noted.
- The record owner of the subject parcel is River's Edge Apartments, LLC by a deed dated May 21, 2019 and recorded in Book 10089, Page 185.
- The subject parcel is shown on the City of Auburn's Tax Map 271 as Lot 101 and is located in the General Business District, the Floodplain Overlay District & the Shoreland Zone Overlay District. The General Business District references the Multifamily Suburban District for residential uses.
- Space and bulk standards for the Multifamily Suburban District are as follows:
 - Min. Lot Size: 10,000 ft²
 - Min. Frontage: 100'
 - Min. Lot Depth: 125'
 - Min. Front Yard: 25'
 - Min. Side Yard: 25'
 - Min. Rear Yard (from River): 25'
 - Min. Setback from River: 25'
 - Max. Building Height: 35' (Per Shoreland Zone Overlay District)
 - Max. Building Coverage: 30%
- Total area of the subject parcel is 123,958 square feet or 2.85 acres.
- Boundary and topographic information shown hereon is based on an on the ground survey performed by SurveyWorks, Inc. in May of 2019.
- Plan References:
 - A. "Property of Auburn Housing Associates between Northern Avenue Extension and North River Road" prepared by Vincent J.P. LeBlanc and dated January 17, 1975. Plan not recorded.
 - B. "Leviston Falls Project Plan, Detail Map, Reservoir" prepared by Central Maine Power Company, dated March 26, 1999 and recorded in Plan Book 40 Page 136.
- Plan orientation is Grid North, U.S. State Plane Coordinate System, Maine West Zone (FIPS 1802), NAD83. Elevations depicted hereon are NAVD88, based on dual-frequency GPS observations. All coordinates given refer to this coordinate system.
- A portion of the subject parcel is located within Zone AE, a Special Flood Hazard Area With Base Flood Elevation (BFE), as delineated on the Flood Insurance Rate Map for the City of Auburn, Androscoggin County, Community-Panel Number 23001C0326E, having an Effective Date of July 8, 2013. The remainder of the subject parcel is located within Zone X, Areas of Minimal Flood Hazard. All flood zones shown are based on an on the ground topographic survey (see Note 7). The floodway boundary is shown based on shapefiles obtained from the FEMA Flood Map Service Center.
- A wetland delineation was performed on this project site by SurveyWorks, Inc. in May of 2019 and by Joseph Noel in August of 2019. This wetland delineation conforms to the standards and methods outlined in the 1987 Wetland Delineation Manual and Northeast Regional Supplement authored and published by the U.S. Army Corps of Engineers. Wetland flags were located using "float" solutions and are believed to have a horizontal accuracy of 1 meter.
- The depth, size, location, existence or nonexistence of underground utilities and/or structures were not investigated as part of this survey. Utilities depicted hereon may not necessarily represent all existing utilities. Owners, contractors, and/or designers need to contact Dig-Safe Systems, Inc. (call 811) and field verify existing utilities prior to digging or breaking ground.
- This surveyor has made no independent search for easements of record, encumbrances, restrictive covenants, ownership title evidence or any other facts that an accurate and current title search may disclose.
- The subject parcel may be subject to rights granted to Central Maine Power Company by easement deed from Lake Auburn Ice Company dated August 6, 1923 and recorded in Book 364, Page 244. The location of this easement, as described, has not been retraced by this surveyor. This easement deed references a plan entitled, "Pole Location River Road, Auburn, June 1923, Androscoggin Electric Company, D.W.G.M. 528." Per Central Maine Power, they do not have a copy of this plan.
- The parcel shown on the City of Auburn Tax Map 271 as Lot 100 was tax-acquired by the City of Auburn. The parcel was formerly owned by the heirs of C.C. Wilson. See Deed Book 196, Page 242.
- As shown on plan ref. 88, this property is subject to flowage rights up to elevation 169.50 (NGVD29), which corresponds to elevation 168.89 (NAVD88).
- North River Road is currently under construction. Topographic information associated with North River Road is shown based on grade stakes marked with proposed finished grade elevations located on August 15, 2019.



STATE OF MAINE, Androscoggin County, SS
REGISTRY OF DEEDS

Received _____
At _____ h _____ m _____ M and recorded in
Plan Book _____, Page _____
Attest _____
Registrar



REV.	DATE	DRAWN	CHECKED	NOTE
12/05/19	DJH	JCC	JCC	Updated to show existing site topography
8/16/19	DJH	JCC	JCC	Revised wetlands & topographic survey
9/11/19	DJH	JCC	JCC	Issued for recording
11/15/19	JCC	JCC	JCC	Revised Ownership Info.

SWI SURVEYWORKS, INC.
LAND USE CONSULTANTS
www.surveyworksinc.com 1/207.946.4460
528 River Road, Greenville, Maine 04285

This plan shall not be modified without the written consent of SurveyWorks, Inc. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to SurveyWorks, Inc.

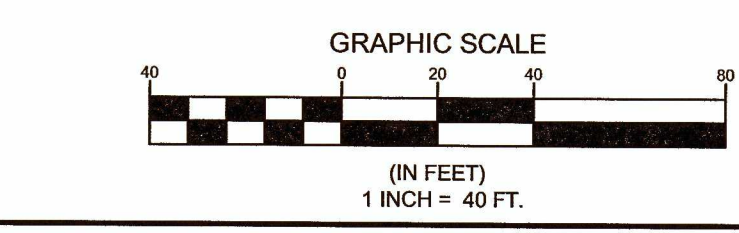
Existing Conditions and Boundary Survey Plan
of
West Shore Landing Apartments
North River Road
Auburn, Maine
for record owner
River's Edge Apartments, LLC
155 Center Street
Auburn, ME 04210

Project #18-4036
Date: 06/29/2019
Scale: 1" = 40'
Sheet No. 1 OF 1

Surveyor's Statement:

This survey was performed under my direct supervision and to the best of my knowledge and belief, it was done in accordance with Chapter 90, Part 1 (Professional Standards of Practice) and Part 2 (Technical Standards of Practice) of the Maine Board of Licensure for Professional Land Surveyors.

Jimmy C. Courbron, PLS
Date: 6/29/2019





Looking South from middle of site



South end of site looking East from N. River Rd.

South end of site



Looking northeast from South end of site



Looking southeast from middle of site

Looking East from middle of site



Looking northeast from middle of site





Looking east from N. River Rd. towards
northeast corner of site





Looking East, view of proposed lower
(northerly) entrance from street

Looking South from Northerly end of site



Boat Launch area



Northern Ave. Intersection









Gracelawn Apartments under construction





STORMWATER MANAGEMENT REPORT

River's Edge Apartments
Auburn, Maine

Survey Works, Inc have retained Terradyn Consultants, LLC to prepare the site stormwater management plan for a proposed site plan to construct three apartment buildings on the easterly side of North River Road, just south of the intersection with Northern Avenue and adjacent to the Androscoggin River. Survey Works, Inc is completing the site plans and application materials on behalf of the applicant, River's edge Apartments, LLC. The applicant is proposing to construct three approximately 4,500 SF apartment buildings served by public utilities, paved parking areas, and stormwater management infrastructure on the western portion of the site along North River Road. The proposed development will be located outside of the 25' setback from the riverbank and designed to be above the 100-year flood elevation. This summary describes the effect that the development is expected to have on stormwater runoff from the site and on downstream properties and waterbodies.

Development Summary	
Site Area	98,917 SF
Existing Developed	6,000 SF
Proposed Developed	65,525 SF
Proposed Impervious	38,176 SF

EXISTING PROJECT SITE

The project site, identified as lot 101 on Tax Map 271, is 2.27 acres in size and is located on the eastern side of North River Road in Auburn, Maine. The site is located in the City of Auburn General Business District and within the Flood Plain and Shoreland overlay zone. Residential and commercial uses surround the site. Overhead electric utilities and public water exist in North River Road.

The parcel is undeveloped forestland with wetlands mapped along the Androscoggin River. An existing gravel road/path enters the site from North River Road on the northern portion of the site and runs along the river. The existing developed area, which is considered impervious, is approximately 6,000 SF. Wetlands were mapped by Joseph Noel of South Berwick, ME in August 2019. The wetland delineation is included in Attachment 1. There is also a FEMA Flood Way defined along the Androscoggin River, and a FEMA defined base flood elevation of 176.8'. The FEMA Firm for this site is included in Attachment 2. The applicant previously submitted a Flood

Hazard Development Application for work within the flood zone, which was included with Survey Work's preliminary submission to the City. Work associated with the project will maintain a 25' setback from the riverbank. The site generally slopes from west to east towards the river. Runoff from the existing site drains directly to the Androscoggin River.

The Natural Resource Conservation Service (NRCS) identifies onsite soils as Adams loamy sand and Winooski silt loam. An excerpt of the NRCS Medium Intensity Soils Map is provided in Attachment 3.

PROPOSED PROJECT

The proposed project includes construction of three approximately 4,500 SF apartment buildings, parking areas, utilities and stormwater management infrastructure. The proposed developed area is approximately 65,525 SF, and the proposed impervious area is approximately 38,176 SF. The developed area will be above the 100-year flood elevation and setback at least 25' from the riverbank. The project is required to meet the City of Auburn Code of Ordinance Chapter 18 Article III Post Construction Stormwater Management requirements.

The stormwater management system for this project is designed to treat stormwater to Maine DEP Chapter 500 Basic and General Standards. Stormwater runoff from at least 95% of the impervious area and 80% of the developed area on site will be treated in approved BMPs. The site is directly tributary to the Androscoggin River, so the Flooding Standard is not applicable.

METHODOLOGY OF ANALYSIS - STORMWATER QUANTITY

A hydrologic analysis of the designed BMPs was conducted based upon the methodology contained in the USDA Soil Conservation Service's Technical Releases No. 20 and 55 (SCS TR-20 and TR-55). For Androscoggin County, Maine, a 24-hour SCS Type III storm distribution was used for the analysis using the following storm frequencies and rainfall amounts, per Maine DEP Chapter 500:

Storm Event	24-Hour Rainfall
2-Year Storm	3.0 inches
10-Year Storm	4.3 inches
25-Year Storm	5.4 inches

Land use, cover, delineation of watershed subcatchments, hydraulic flow paths, and hydrologic soil group (HSG) types were obtained using the following data:

1. Lewiston, Maine USGS 7.5 minute quadrangle maps.

2. NRCS Medium Intensity Soils Survey.
3. Aerial topographic survey with 2-foot contour intervals, made available by the State of Maine.
4. Boundary & Topographic Survey, prepared by Survey Works, Inc.
5. Field reconnaissance by Terradyn Consultants.

Runoff curve numbers, time of concentration, and travel time data were established based on methods outlined in the USDA TR-55 manual. A minimum time of concentration of 5 minutes was used in the models.

POST-DEVELOPMENT CONDITIONS

The proposed (post-development) condition includes the developed lot with approximately 38,176 SF of impervious area and 65,525 SF of developed area. Other areas of the site that will be disturbed as part of the project will be re-vegetated to a meadow condition mowed less than twice per year, so are not considered developed. Stormwater management is provided for stormwater runoff from the parking areas, buildings, and portions of the lawn through two underdrained soil filters (UDSF) and roof dripedge filter strips along each of the three buildings.

This project is tributary to the Androscoggin River so an analysis of peak flows leaving the site and a comparison to pre-development flow rates is not necessary. However, we did study the watersheds tributary to each of the two UDSFs to ensure the treatment measures are sized appropriately and will release stormwater in such a way to minimize erosion and sedimentation impacts.

A Post-development Treatment Map, showing treatment measures and their tributary sub-watersheds is provided in Attachment 4. The Post-development HydroCAD model of the two UDSFs is attached in Attachment 5.

Peak rates of runoff from the two UDSFs, computed for the proposed condition are as follows:

Post-Development Peak Rates of Runoff			
Peak Discharge (cfs)			
	2-Year	10-Year	25-Year
UDSF 1	0.03	0.14	0.97
UDSF 2	0.03	0.78	2.08

The Underdrained Soil Filters were also analyzed in the 100-year storm with the tailwater set at the base flood (100-year flood) elevation of 176.8'. This analysis was done to ensure the UDSFs will function in a flood event without overtopping the berms. These calculations are also included in Attachment 6.

STORMWATER QUALITY

The proposed project was designed to meet Maine DEP Chapter 500 requirements for stormwater treatment using approved BMP measures. Treatment must be provided for stormwater runoff from 95% of the proposed impervious areas and 80% of the proposed developed areas. Stormwater treatment will be provided by two underdrained soil filters and roof drip edge filters at each of the three buildings. The proposed project provides the following treatment percentages:

Treatment Calculations	
Proposed Developed Area	65,525 SF
Proposed Impervious Area	38,176 SF
Treatment Provided:	
Drip Edge Filters (total)	
Developed Treated	15,405 SF
Impervious Treated	13,485 SF
UDSF #1	
Developed Treated	14,720 SF
Impervious Treated	9,377 SF
UDSF #2	
Developed Treated	22,300 SF
Impervious Treated	14,500 SF
Treatment Amounts	
Total Developed Treated	52,425 SF
% Developed Treated (80% required)	80%
Total Impervious Treated	37,362 SF
% Impervious Treated (95% required)	98%

These treatment percentages are achieved by the following treatment measures:

Roof Dripline Filters:

The proposed building roof on each building pitches to all four sides, and the stormwater runoff from the majority of each roof will be captured in a roof dripline filter along the edge of the building. The roof dripline filter sizing calculations can be found in Attachment 6.

UDSFs:

The paved parking, walkways, and lawn areas were designed to direct stormwater toward two underdrained soil filters. Stormwater will flow overland and through closed drainage systems in the parking areas to the two UDSFs. The southern portion of the site will direct stormwater to UDSF #1, and the northern portion of the site will direct stormwater to UDSF #2. Design calculations for the UDSFs are included in Attachment 6. Each UDSF design calculation section attached include the following items:

1. BMP design calculations sheet
2. UDSF Peak Elevation Hydrograph & Pond Summary (from HydroCAD)
3. UDSF Hydrograph table (indicating drawdown time, from HydroCAD)
4. UDSF Summary in 100-year storm with 176.80 tailwater set (from HydroCAD)

UDSF #1 summary:

- 1.5" orifice applied to underdrain outlet
- Pond drains in approximately 36 hours
- Peak elevation in 25-year storm = 179.58'
- Peak elevation in 100-year storm with tailwater set (flooding) = 179.65'
- Berm elevation = 181.00'
- Pond drains in 24-48 hours and overflow structure can convey stormwater in normal conditions and flooding conditions without overtopping the berm

UDSF #2 summary:

- 1.5" orifice applied to underdrain outlet
- Pond drains in approximately 37 hours
- Peak elevation in 25-year storm = 178.64'
- Peak elevation in 100-year storm with tailwater set (flooding) = 178.69'
- Berm elevation = 180.00'
- Pond drains in 24-48 hours and overflow structure can convey stormwater in normal conditions and flooding conditions without overtopping the berm

EROSION & SEDIMENTATION CONTROL

A site-specific Erosion and Sediment Control Plan has been developed for the project with the goal of reducing erosion and sedimentation during and after construction. The plan utilizes perimeter sediment control during construction and rapid stabilization of denuded areas to reduce erosion and sedimentation. The Plan narrative and details are located directly on the project drawings (plan sheet SW-3) for convenient reference during construction.

The proposed project includes grading the site and raising the elevation of a portion of the development area to be above the 100-year flood elevation. This will result in the construction of a steep slope between the buildings and the river. This slope shall be constructed with

permanent erosion control mesh and re-vegetated with a meadow seed mix. This slope will be maintained as a meadow area, not lawn, and shall be mowed less than 2 times per year. A detail for the construction of this slope is provided on plan sheet SW-1.

INSPECTION & MAINTENANCE PLAN

Stormwater management and treatment measures require regular inspection and maintenance to maintain their effectiveness. A site-specific Inspection & Maintenance Plan of Stormwater Management Facilities for River's Edge Apartments is included in Attachment 7.

CONCLUSION

The proposed project will result in approximately 38,176 SF of impervious area and 65,525 SF of developed area on the site. Runoff patterns will remain similar to existing conditions and Stormwater BMPs will be constructed to provide water quality treatment and control peak flows leaving the developed area in order to protect downstream properties and waterbodies from the effects of increased development. Based on the results of this evaluation, the proposed project is not expected to cause flooding, erosion or other significant adverse effects downstream of the site. Proper implementation of the Erosion & Sedimentation Control Plan developed for the project is expected to ensure that the project will not cause flooding and/or erosion on or downstream of the project site.

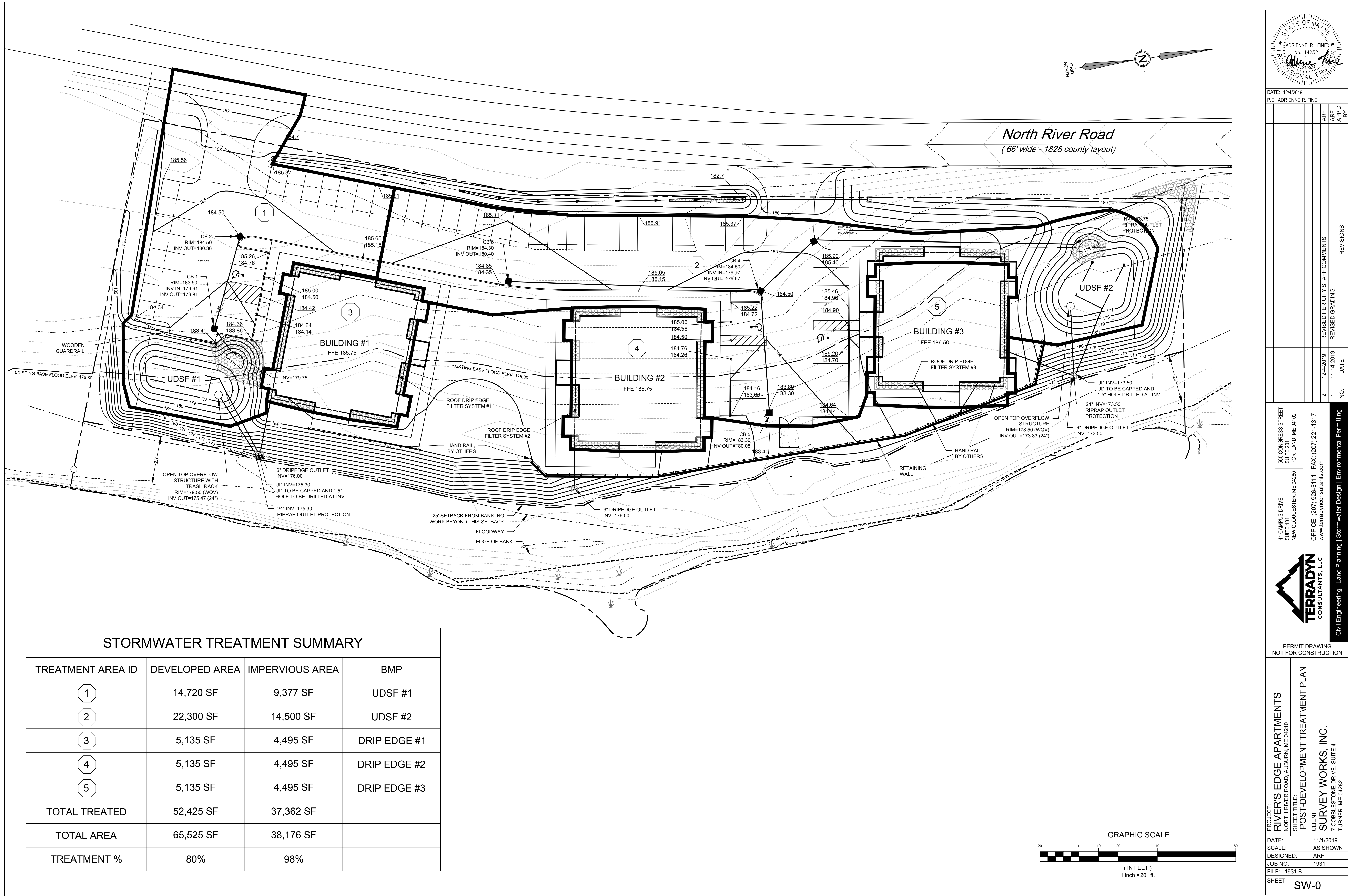
Prepared By:

Terradyn Consultants LLC

Attachments

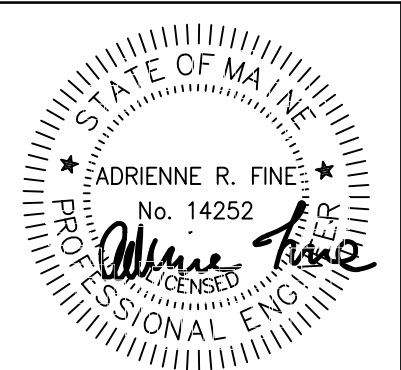
- 1 – Wetland Delineation
- 2 – FEMA FIRM Map
- 3 – Soils Report from NRCS
- 4 – Post-Development Stormwater Treatment Plan
- 5 – Post-Development HydroCAD Model for UDSFs
- 6 – BMP Sizing Calculations
- 7 – Inspection & Maintenance Plan of Stormwater Management Facilities





STORMWATER TREATMENT SUMMARY

TREATMENT AREA ID	DEVELOPED AREA	IMPERVIOUS AREA	BMP
1	14,720 SF	9,377 SF	UDSF #1
2	22,300 SF	14,500 SF	UDSF #2
3	5,135 SF	4,495 SF	DRIP EDGE #1
4	5,135 SF	4,495 SF	DRIP EDGE #2
5	5,135 SF	4,495 SF	DRIP EDGE #3
TOTAL TREATED	52,425 SF	37,362 SF	
TOTAL AREA	65,525 SF	38,176 SF	
TREATMENT %	80%	98%	



DATE: 12/4/2019
P.E.: ADRIENNE R. FINE

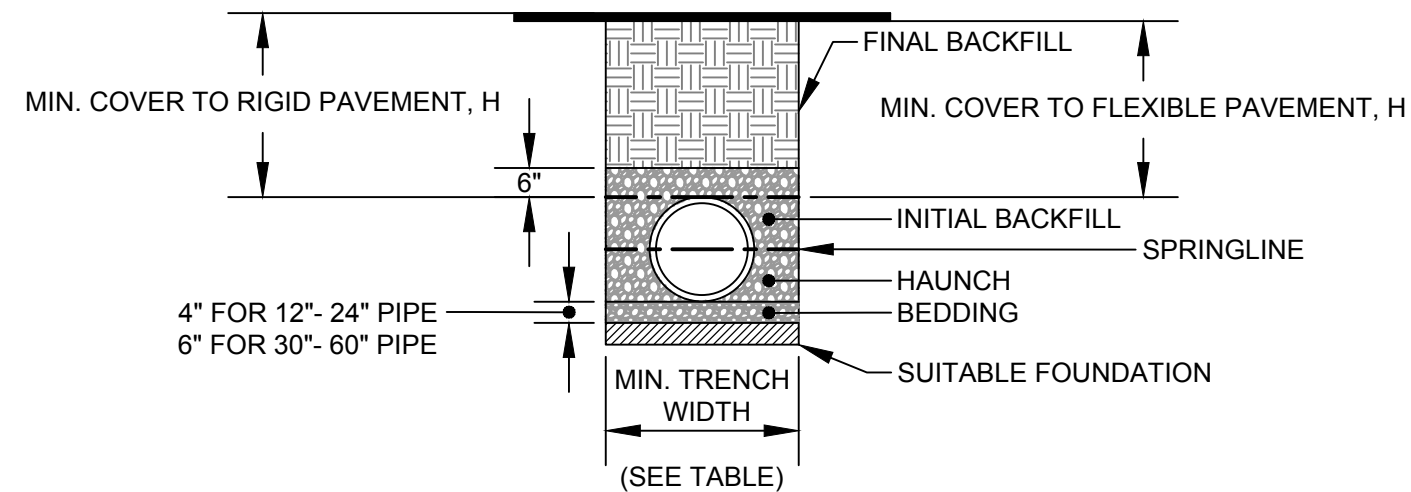
NO.	DATE	REVISIONS
1	11-14-2019	REVISED GRADING
2	12-4-2019	REVISED PER CITY STAFF COMMENTS

565 CONGRESS STREET
SUITE 201
PORTLAND, ME 04102
41 CAMPUS DRIVE
SUITE 101
NEW GLOUCESTER, ME 04260
OFFICE: (207) 926-5111 FAX: (207) 221-1317
www.terradyndesign.com



PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT: RIVER'S EDGE APARTMENTS NORTH RIVER ROAD, AUBURN, ME 04210	SHEET TITLE: POST-DEVELOPMENT TREATMENT PLAN	CLIENT: SURVEY WORKS, INC. 7 COBBLESTONE DRIVE, SUITE 4 TURNER, ME 04282
DATE: 11/1/2019	SCALE: AS SHOWN	DESIGNED: ARF
JOB NO: 1931	FILE: 1931 B	SHEET SW-0



- NOTES:
1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST EDITION
 2. MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.
 3. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER, AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.

PIPE DIAM.	MIN. TRENCH WIDTH
4"	21"
6"	23"
8"	26"
10"	28"
12"	30"
15"	34"
18"	39"
24"	48"
30"	56"
36"	64"
42"	72"
48"	80"
54"	88"
60"	96"

4. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I, II OR III. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4"-24" (100mm-600mm); 6" (150mm) FOR 30"-60" (750mm-900mm).
5. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I, II OR III IN THE PIPE ZONE EXTENDING NOT LESS THAN 8' ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.

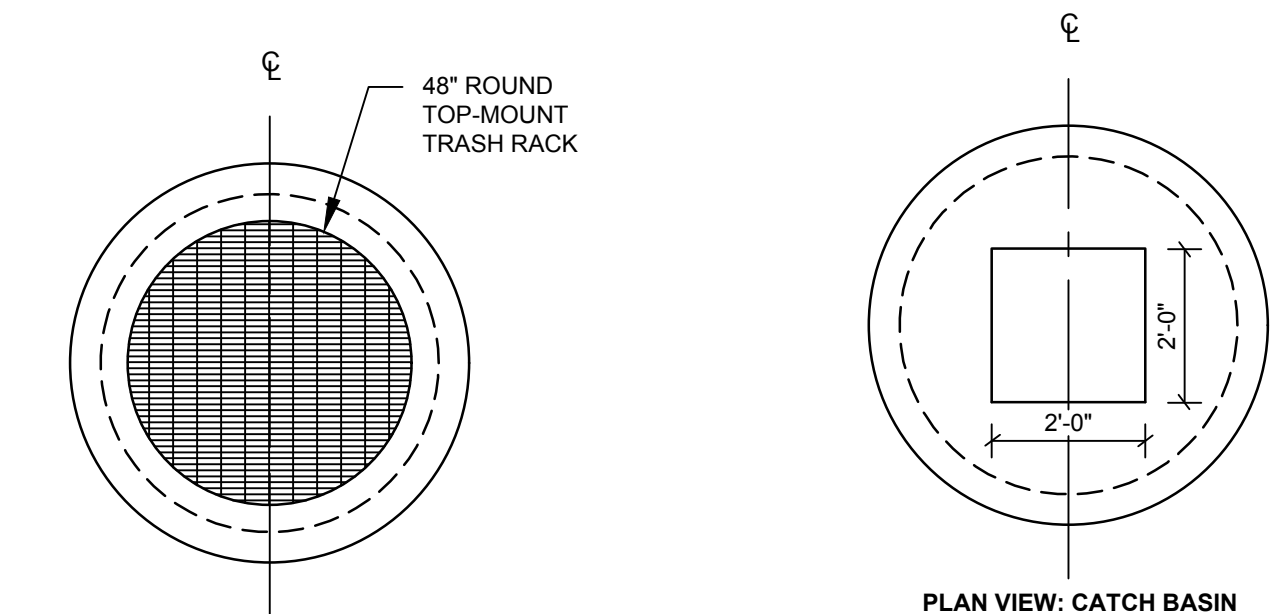
PIPE DIAM.	H-25	HEAVY CONSTRUCTION (75T AXLE LOAD) *
12" - 48"	12"	48"
54" - 60"	24"	60"

* VEHICLES IN EXCESS OF 75T MAY REQUIRE ADDITIONAL COVER

6. MINIMUM COVER: MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" UP TO 48" DIAMETER PIPE AND 24" OF COVER FOR 54"-60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.

TYPICAL TRENCH DETAIL

NOT TO SCALE



WHERE DEPTH OF COVER IS NOT SUFFICIENT TO USE CONCRETE OR TRUNCATED CONE, A FLAT TOP MAY BE USED.

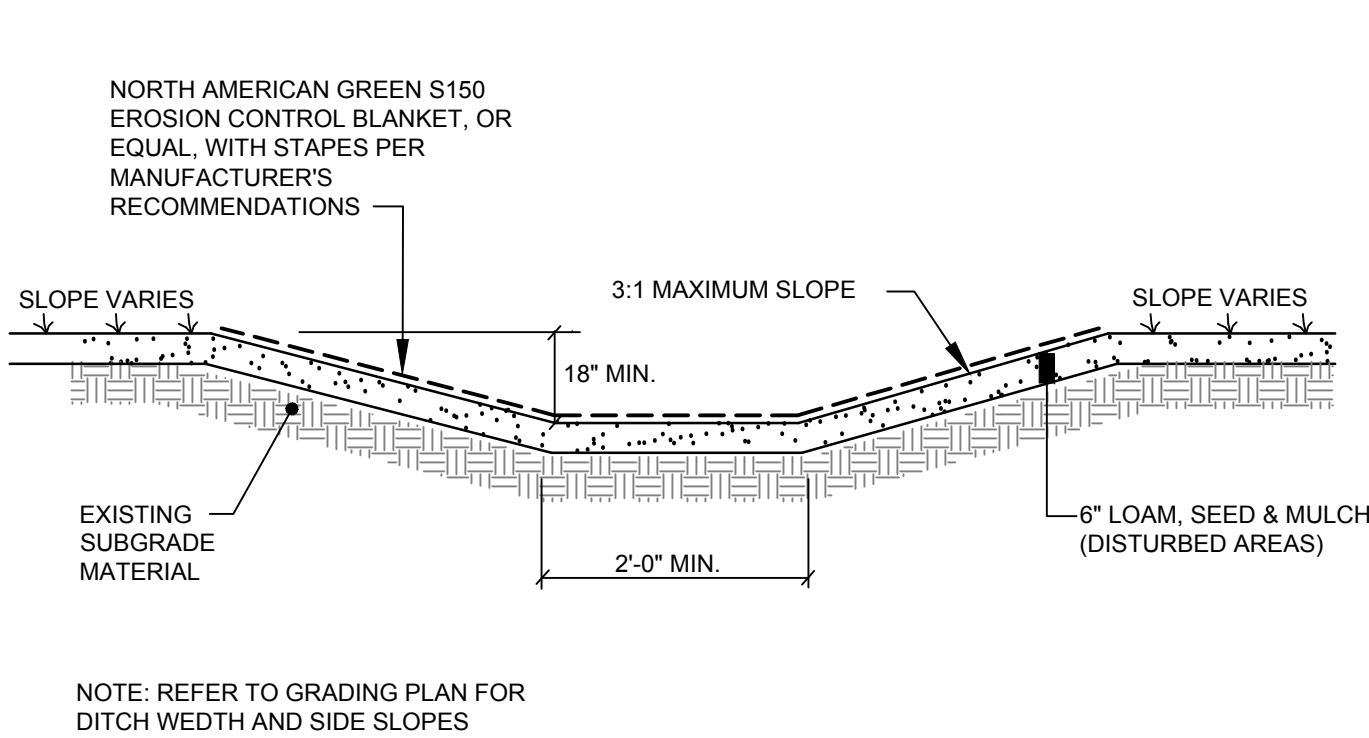
- NOTE: WHERE THE CATCH BASIN IS INSTALLED ADJACENT TO BITUMINOUS CONCRETE OF TYPE V SLOPED CURB, SET CENTERLINE OF CATCH BASIN FRAME 1'-6" OFF FACE OF CURB.
- EXTERIOR OF STRUCTURE SHALL BE TREATED WITH 2 COATS OF APPROVED DAMP PROOF MATERIAL.

DESIGN NOTES:

1. ALL CONCRETE TO HAVE A MIN. OF 4,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
2. DESIGN LOAD FOR H-20 WHEEL LOAD.
3. CATCH BASIN TO CONFORM TO ASTM-C478 SPECIFICATIONS.
4. REINFORCE TO 0.12 IN SQ./F..

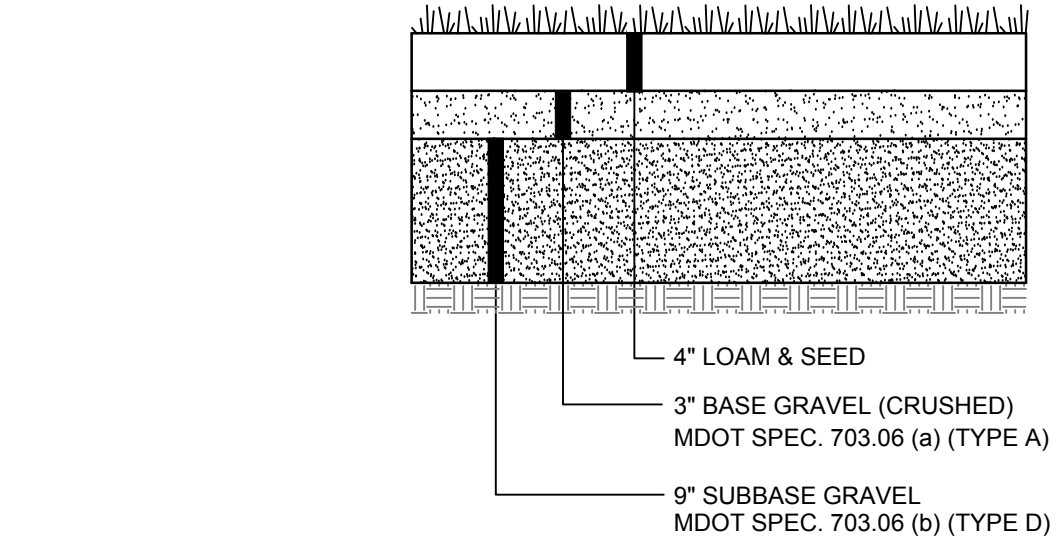
CATCH BASIN / OUTLET CONTROL STRUCTURE

NOT TO SCALE



GRASSED SWALE

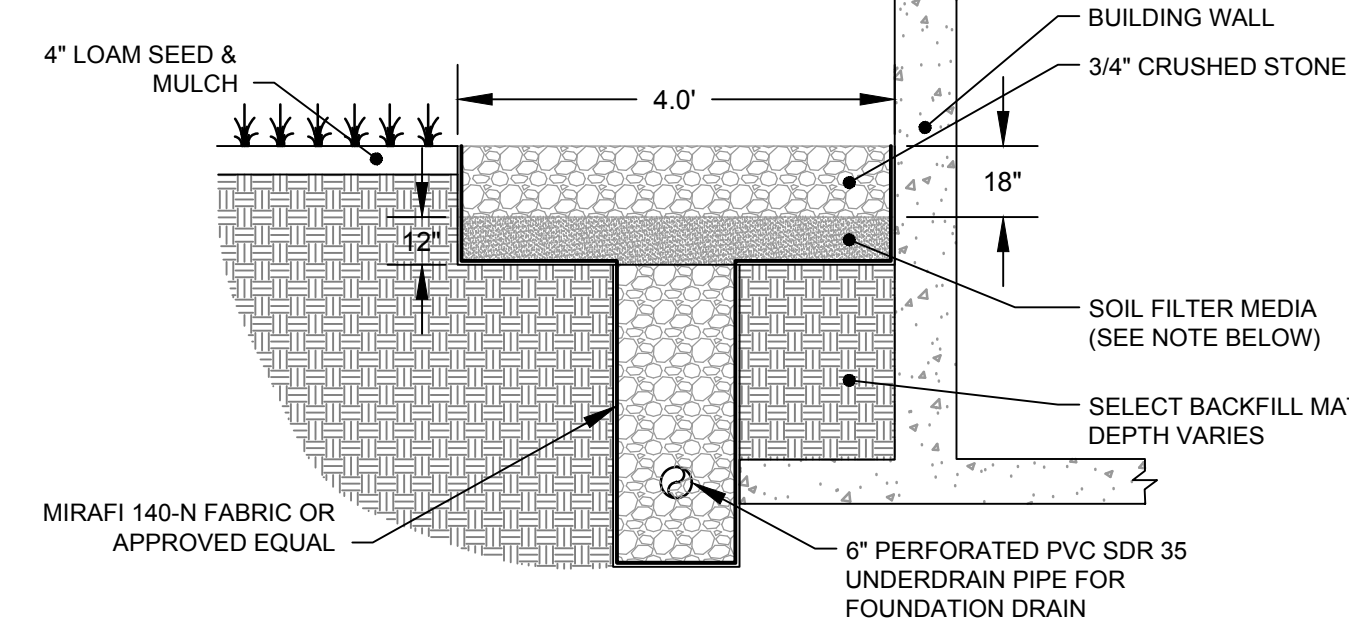
NOT TO SCALE



TYPICAL STABILIZED DETENTION BASIN ACCESS CROSS-SECTION

NOT TO SCALE

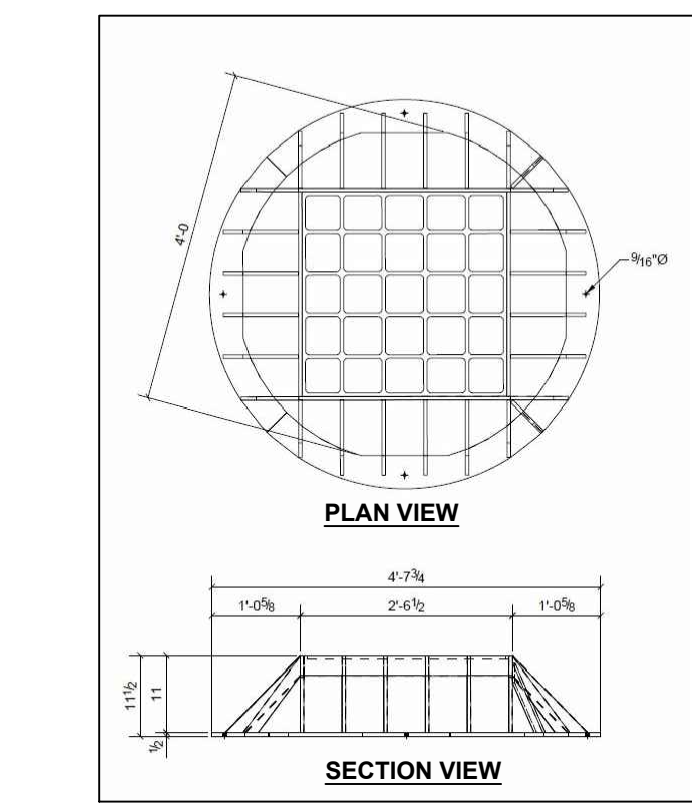
NOTE: THE BACKFILL FOR THE FOUNDATION MAY BE USED AS THE FILTER MEDIA AS LONG AS THE MATERIAL IS A MINERAL SOIL WITH BETWEEN 4% & 7% FINES (PASSING #200 SIEVE).



CONSTRUCTION INSPECTION NOTES: Inspections by a professional engineer shall consist of weekly visits to the site to inspect each the roof drip edge filter's underdrain construction, filter material placement, and overflow from initial ground disturbance to final stabilization of the filter.

ROOF DRIPLINE FILTER BED

NOT TO SCALE

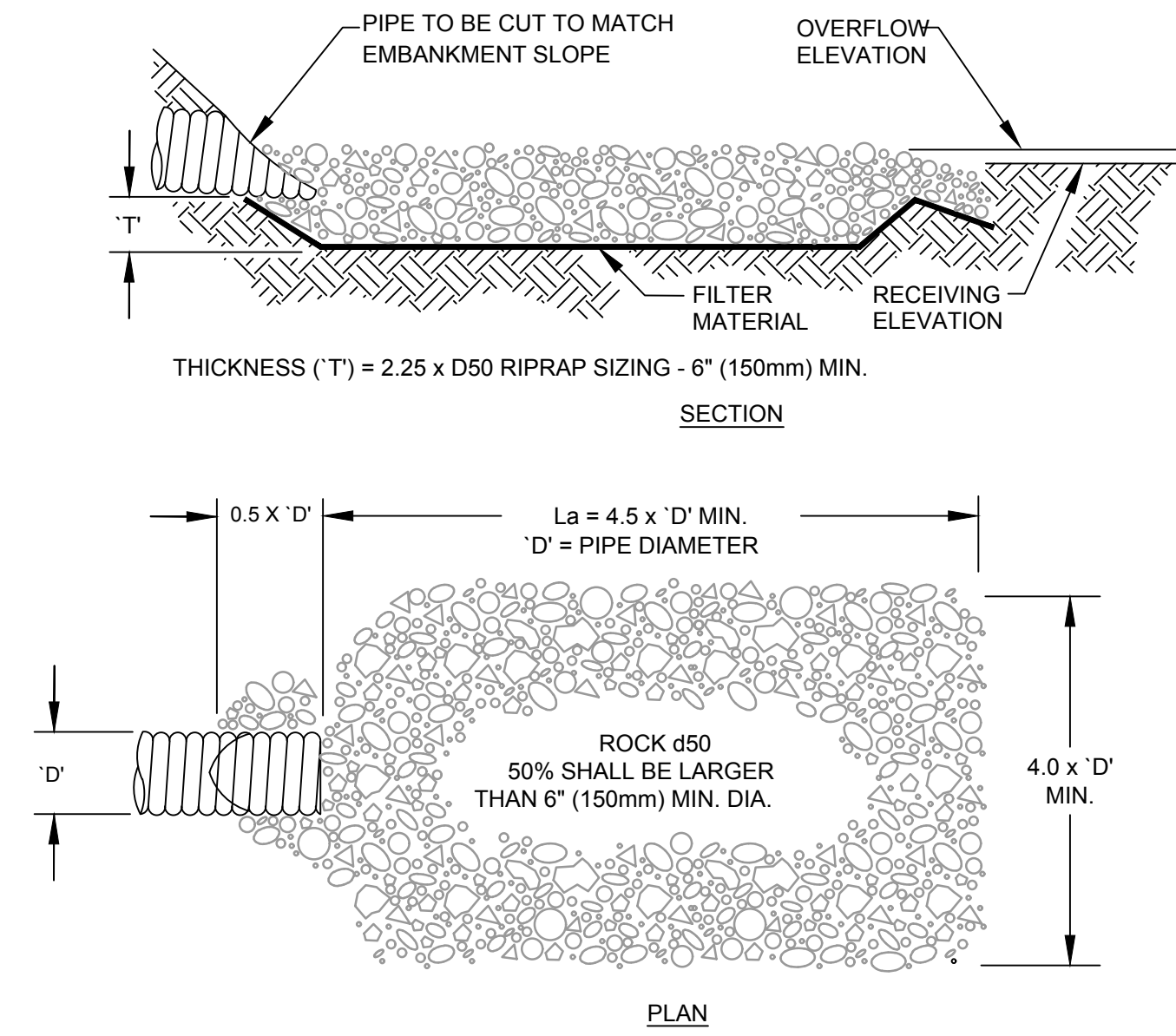


48" ROUND TOP-MOUNT TRASH RACK

NOT TO SCALE

NOTES:

1. TRASH RACK TO BE MOUNTED ON CATCH BASIN FOR OUTLET CONTROL STRUCTURES WITHIN THE UNDERDRAIN SOIL FILTERS.
2. 48" ROUND TOP-MOUNT TRASH RACK (ldr-48) MANUFACTURED BY TRASHRACKS, A DIVISION OF J.R. HOE, MIDDLESBORO, KY, OR APPROVED EQUAL.
3. MATERIAL: MILD STEEL (NO FINISH).



PIPE OUTLET PROTECTION SIZING TABLE

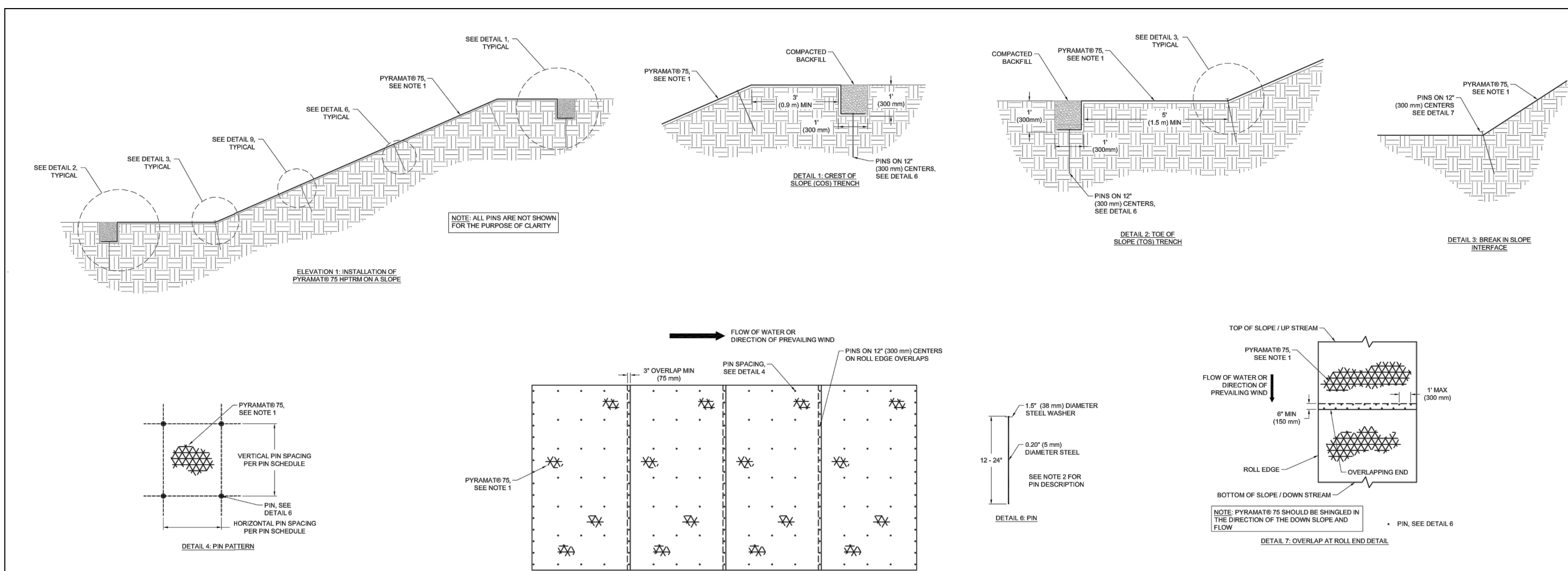
PIPE SIZE (IN)	RIP RAP SIZING (D50)	LENGTH (FT)	WIDTH (FT)
6	2.5	2.0	2.0
12	5	5.0	4.0
15	6	6.25	5.0
18	8	7.5	6.0
24	10	10.0	8.0
30	12	13.0	10.0
36	14	15.0	12.0

NOTES:

1. 'La' = LENGTH OF APRON. DISTANCE 'La' SHALL BE OF SUFFICIENT LENGTH TO DISSIPATE ENERGY.
2. APRON SHALL BE SET AT A ZERO GRADE AND ALIGNED STRAIGHT.
3. FILTER MATERIAL SHALL BE FILTER FABRIC (MIRAFI 600X OR APPROVED EQUAL) OR 6" (150mm) THICK MINIMUM GRADED GRAVEL LAYER.

PIPE OUTLET PROTECTION

NOT TO SCALE



GENERAL NOTES:

- BOUNDARY AND EXISTING CONDITIONS INFORMATION WERE TAKEN FROM A PLAN ENTITLED "EXISTING CONDITIONS AND BOUNDARY SURVEY PLAN" DATED JUNE 29TH, 2019, PREPARED BY SURVEY WORKS, INC.
- ALL BOOK AND PAGE NUMBERS REFER TO THE ANDROSCOGGIN COUNTY REGISTRY OF DEEDS, UNLESS OTHERWISE NOTED.
- THE RECORD OWNER OF THE SUBJECT PARCEL IS RIVER'S EDGE APARTMENTS, LLC BY A DEED DATED MAY 21, 2019 AND RECORDED IN BOOK 10089, PAGE 185.
- THE SUBJECT PARCEL IS SHOWN ON THE CITY OF AUBURN'S TAX MAP 271 AS LOT 101 AND IS LOCATED IN THE GENERAL BUSINESS DISTRICT, THE FLOODPLAIN OVERLAY DISTRICT & THE SHORELAND ZONE OVERLAY DISTRICT. THE GENERAL BUSINESS DISTRICT REFERENCES THE MULTIFAMILY SUBURBAN DISTRICT FOR RESIDENTIAL USES.
- SPACE AND BULK STANDARDS FOR THE MULTIFAMILY SUBURBAN DISTRICT ARE AS FOLLOWS:
MIN. LOT SIZE: 10,000 FT²
MIN. FRONTAGE: 100'
MIN. LOT DEPTH: 125'
MIN. FRONT YARD: 25'
MIN. SIDE YARD: 25'
MIN. REAR YARD (FROM RIVER): 25'
MIN. SETBACK FROM RIVER: 25'
MAX. BUILDING HEIGHT: 35' (PER SHORELAND ZONE OVERLAY DISTRICT)
MAX. BUILDING COVERAGE: 30%
- TOTAL AREA OF THE SUBJECT PARCEL IS 98,917 SQUARE FEET OR 2.85 ACRES.
- BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED ON AN ON THE GROUND SURVEY PERFORMED BY SURVEYWORKS, INC. IN MAY OF 2019.
- A PORTION OF THE SUBJECT PARCEL IS LOCATED WITHIN ZONE AE, A SPECIAL FLOOD HAZARD AREA WITH BASE FLOOD ELEVATION (BFE), AS DELINEATED ON THE FLOOD INSURANCE RATE MAP FOR THE CITY OF AUBURN, ANDROSCOGGIN COUNTY, COMMUNITY-PANEL NUMBER 23001C0326E, HAVING AN EFFECTIVE DATE OF JULY 8, 2013. THE REMAINDER OF THE SUBJECT PARCEL IS LOCATED WITHIN ZONE X, AREAS OF MINIMAL FLOOD HAZARD. ALL FLOOD ZONES SHOWN ARE BASED ON AN ON THE GROUND TOPOGRAPHIC SURVEY (SEE NOTE 7). THE FLOODWAY BOUNDARY IS SHOWN BASED ON SHAPEFILES OBTAINED FROM THE FEMA FLOOD MAP SERVICE CENTER.

- A WETLAND DELINEATION WAS PERFORMED ON THIS PROJECT SITE BY SURVEYWORKS, INC. IN MAY OF 2019 AND BY JOSEPH NOEL IN AUGUST OF 2019. THIS WETLANDS DELINEATION CONFORMS TO THE STANDARDS AND METHODS OUTLINED IN THE 1987 WETLAND DELINEATION MANUAL AND NORTHEAST REGIONAL SUPPLEMENT AUTHORED AND PUBLISHED BY THE U.S. ARMY CORPS OF ENGINEERS. WETLAND FLAGS WERE LOCATED USING "FLOAT" SOLUTIONS AND ARE BELIEVED TO HAVE A HORIZONTAL ACCURACY OF 1 METER.
- THE DEPTH, SIZE, LOCATION, EXISTENCE OR NONEXISTENCE OF UNDERGROUND UTILITIES AND/OR STRUCTURES WERE NOT INVESTIGATED AS PART OF THIS SURVEY. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. OWNERS, CONTRACTORS, AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (CALL 811) AND FIELD VERIFY EXISTING UTILITIES PRIOR TO DIGGING OR BREAKING GROUND.
- NORTH RIVER ROAD IS CURRENTLY UNDER CONSTRUCTION. TOPOGRAPHIC INFORMATION ASSOCIATED WITH NORTH RIVER ROAD IS SHOWN BASED ON GRADE STAKES MARKED WITH PROPOSED FINISHED GRADE ELEVATIONS LOCATED ON AUGUST 15, 2019.
- PLAN ORIENTATION IS GRID NORTH, U.S. STATE PLANE COORDINATE SYSTEM, MAINE WEST ZONE (FIPS 1802), NAD83. ELEVATIONS DEPICTED HEREON ARE NAVD88, BASED ON DUAL-FREQUENCY GPS OBSERVATIONS. ALL COORDINATES GIVEN REFER TO THIS COORDINATE SYSTEM.

SITE TABULATIONS:

TOTAL AVERAGE WEEKDAY TRIPS:

- 3 - BUILDINGS
- 12 - UNITS PER BUILDING
- 8 - TRIPS PER DWELLING UNIT
- TOTAL TRIPS PER DAY = 288 TRIPS PER DAY

TOTAL REQUIRED PARKING SPOTS:

- 3 - BUILDINGS
- 12 - UNITS PER BUILDING
- 1.5 - SPACES PER DWELLING UNIT
- TOTAL PARKING SPACES REQUIRED = 54 SPACES (3 HANDICAPPED INCLUDED)

SITE CONDITIONS:

- EXISTING CONDITIONS:
- BUILDINGS - 0SF
 - PAVEMENT - 0SF
 - TOTAL IMPERVIOUS AREA - 6000SF
 - LAWN AND WOODED AREA - 99099SF = 2.275 ACRES

- PROPOSED CONDITIONS:
- BUILDINGS/DECKS/PATIOS - 44955SF EACH BUILDING
 - TOTAL - 13486SF
 - PAVED/CONCRETE - 23324SF
 - TOTAL IMPERVIOUS AREA = 36811SF
 - LAWN AND WOODED AREA = 62288SF
 - REQUIRED GREENSPACE = 1,1375 ACRES
 - PROPOSED GREENSPACE = 1.43 ACRES

PARKING SPACES = 54 SPACES (3 HANDICAPPED INCLUDED)

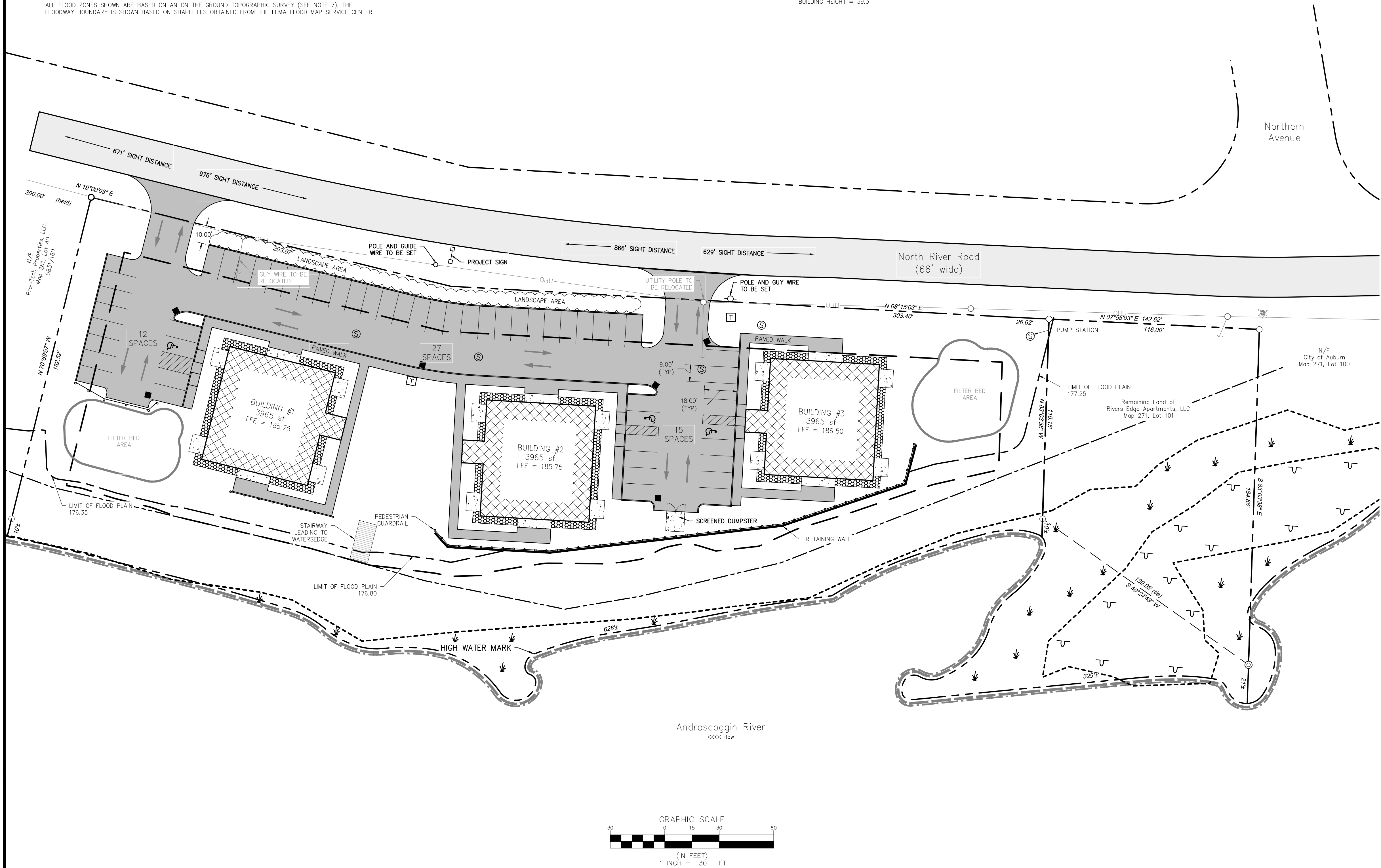
BUILDING HEIGHT = 39.3'



LOCATION MAP

LEGEND:

- BOUNDARY LINE
- ABUTTER LINE
- FLOOD PLAIN
- SET BACK
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SPOT GRADE
- LANDSCAPE
- PROPOSED PAVEMENT
- PROPOSED FENCE
- PROPOSED UTILITY POLE
- PROPOSED TRANSFORMER
- PROPOSED SEWER MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED RIPRAP
- PROPOSED BUILDING
- EXISTING OVERHEAD UTILITY
- EXISTING PAVEMENT
- EXISTING UTILITY POLE
- EXISTING GUY WIRE



WEST SHORE LANDING APARTMENTS

NORTH RIVER ROAD, AUBURN, MAINE 04210

FOR

RIVERS EDGE APARTMENTS, LLC

155 CENTER STREET, AUBURN, MAINE 04210

SIGNED COPY OF DRAWING
ON FILE AT DIRIGO A/E
OFFICE



SITE PLAN

REV.	DATE	DESCRIPTION
0	9/30/19	ISSUED FOR REVIEW
1	12/6/19	PRELIMINARY PLAN REVIEW

DIRIGO
ARCHITECTURAL
ENGINEERING • CONSTRUCTION MANAGEMENT
7 COBBLESTONE WAY, SUITE 2
TURNER, MAINE 04282

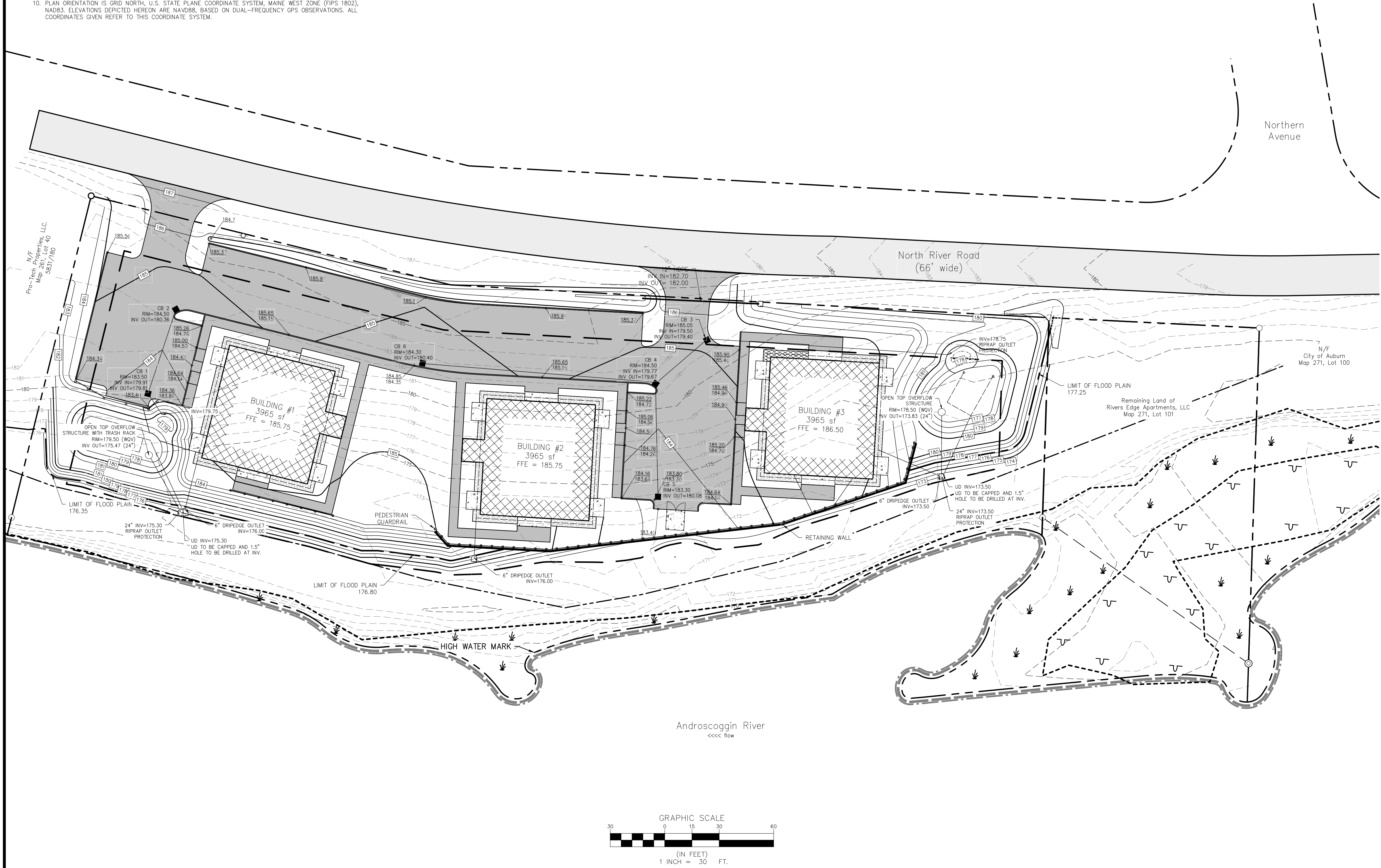
SCALE:	1" = 30'
DATE:	12/5/19
PROJECT:	19-015

SHEET NO.

C1.0

GENERAL NOTES:

- BOUNDARY AND EXISTING CONDITIONS INFORMATION WERE TAKEN FROM A PLAN ENTITLED "EXISTING CONDITIONS AND BOUNDARY SURVEY PLAN" DATED JUNE 29TH, 2019, PREPARED BY SURVEY WORKS, INC.
- ALL BOOK AND PAGE NUMBERS REFER TO THE ANDROSCOGGIN COUNTY REGISTRY OF DEEDS, UNLESS OTHERWISE NOTED.
- THE RECORD OWNER OF THE SUBJECT PARCEL IS RIVER'S EDGE APARTMENTS, LLC BY A DEED DATED MAY 21, 2019 AND RECORDED IN BOOK 10089, PAGE 185.
- THE SUBJECT PARCEL IS SHOWN ON THE CITY OF AUBURN'S TAX MAP 271 AS LOT 101 AND IS LOCATED IN THE GENERAL BUSINESS DISTRICT, THE FLOODPLAIN OVERLAY DISTRICT & THE SHORELAND ZONE OVERLAY DISTRICT. THE GENERAL BUSINESS DISTRICT REFERENCES THE MULTIFAMILY SUBURBAN DISTRICT FOR RESIDENTIAL USES.
- BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED ON AN ON THE GROUND SURVEY PERFORMED BY SURVEYWORKS, INC. IN MAY OF 2019.
- A PORTION OF THE SUBJECT PARCEL IS LOCATED WITHIN ZONE AE, A SPECIAL FLOOD HAZARD AREA WITH BASE FLOOD ELEVATION (BFE), AS DELINEATED ON THE FLOOD INSURANCE RATE MAP FOR THE CITY OF AUBURN, ANDROSCOGGIN COUNTY, COMMUNITY-PANEL NUMBER 23001C0326E, HAVING AN EFFECTIVE DATE OF JULY 8, 2013. THE REMAINDER OF THE SUBJECT PARCEL IS LOCATED WITHIN ZONE X, AREAS OF MINIMAL FLOOD HAZARD. ALL FLOOD ZONES SHOWN ARE BASED ON AN ON THE GROUND TOPOGRAPHIC SURVEY (SEE NOTE 7). THE FLOODWAY BOUNDARY IS SHOWN BASED ON SHAPEFILES OBTAINED FROM THE FEMA FLOOD MAP SERVICE CENTER.
- A WETLAND DELINEATION WAS PERFORMED ON THIS PROJECT SITE BY SURVEYWORKS, INC. IN MAY OF 2019 AND BY JOSEPH NOEL IN AUGUST OF 2019. THIS WETLANDS DELINEATION CONFORMS TO THE STANDARDS AND METHODS OUTLINED IN THE 1987 WETLAND DELINEATION MANUAL AND NORTHEAST REGIONAL SUPPLEMENT AUTHORED AND PUBLISHED BY THE U.S. ARMY CORPS OF ENGINEERS. WETLAND FLAGS WERE LOCATED USING "FLOAT" SOLUTIONS AND ARE BELIEVED TO HAVE A HORIZONTAL ACCURACY OF 1 METER.
- THE DEPTH, SIZE, LOCATION, EXISTENCE OR NONEXISTENCE OF UNDERGROUND UTILITIES AND/OR STRUCTURES WERE NOT INVESTIGATED AS PART OF THIS SURVEY. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. OWNERS, CONTRACTORS, AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (CALL 801) AND FIELD VERIFY EXISTING UTILITIES PRIOR TO DIGGING OR BREAKING GROUND.
- NORTH RIVER ROAD IS CURRENTLY UNDER CONSTRUCTION. TOPOGRAPHIC INFORMATION ASSOCIATED WITH NORTH RIVER ROAD IS SHOWN BASED ON GRADE STAKES MARKED WITH PROPOSED FINISHED GRADE ELEVATIONS LOCATED ON AUGUST 15, 2019.
- PLAN ORIENTATION IS GRID NORTH, U.S. STATE PLANE COORDINATE SYSTEM, MAINE WEST ZONE (FIPS 1802), NAD83. ELEVATIONS DEPICTED HEREON ARE NAVD83, BASED ON DUAL-FREQUENCY GPS OBSERVATIONS. ALL COORDINATES GIVEN REFER TO THIS COORDINATE SYSTEM.



LOCATION MAP

LEGEND:

- BOUNDARY LINE
- ABUTTER LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SPOT GRADE
- TREE LINE
- PROPOSED PAVEMENT
- PROPOSED BOLLARD
- PROPOSED TRANSFORMER
- PROPOSED CATCH BASIN
- PROPOSED FENCE
- EXISTING STORM DRAIN LINE
- EXISTING WATER LINE
- EXISTING SEWER LINE
- EXISTING OVERHEAD UTILITY
- EXISTING UNDERGROUND UTILITY
- EXISTING PAVEMENT
- EXISTING WATER VALVE
- EXISTING UTILITY POLE
- EXISTING GUY WIRE
- EXISTING BUILDING
- EXISTING RIPRAP

WEST SHORE LANDING APARTMENTS

NORTH RIVER ROAD, AUBURN, MAINE 04210

FOR

RIVERS EDGE APARTMENTS, LLC

155 CENTER STREET, AUBURN, MAINE 04210

SIGNED COPY OF DRAWING
ON FILE AT DIRIGO A/E
OFFICE



GRADING AND
DRAINAGE PLAN

REV.	DATE	DESCRIPTION
0	9/30/19	ISSUED FOR REVIEW
1	12/6/19	PRELIMINARY PLAN REVIEW

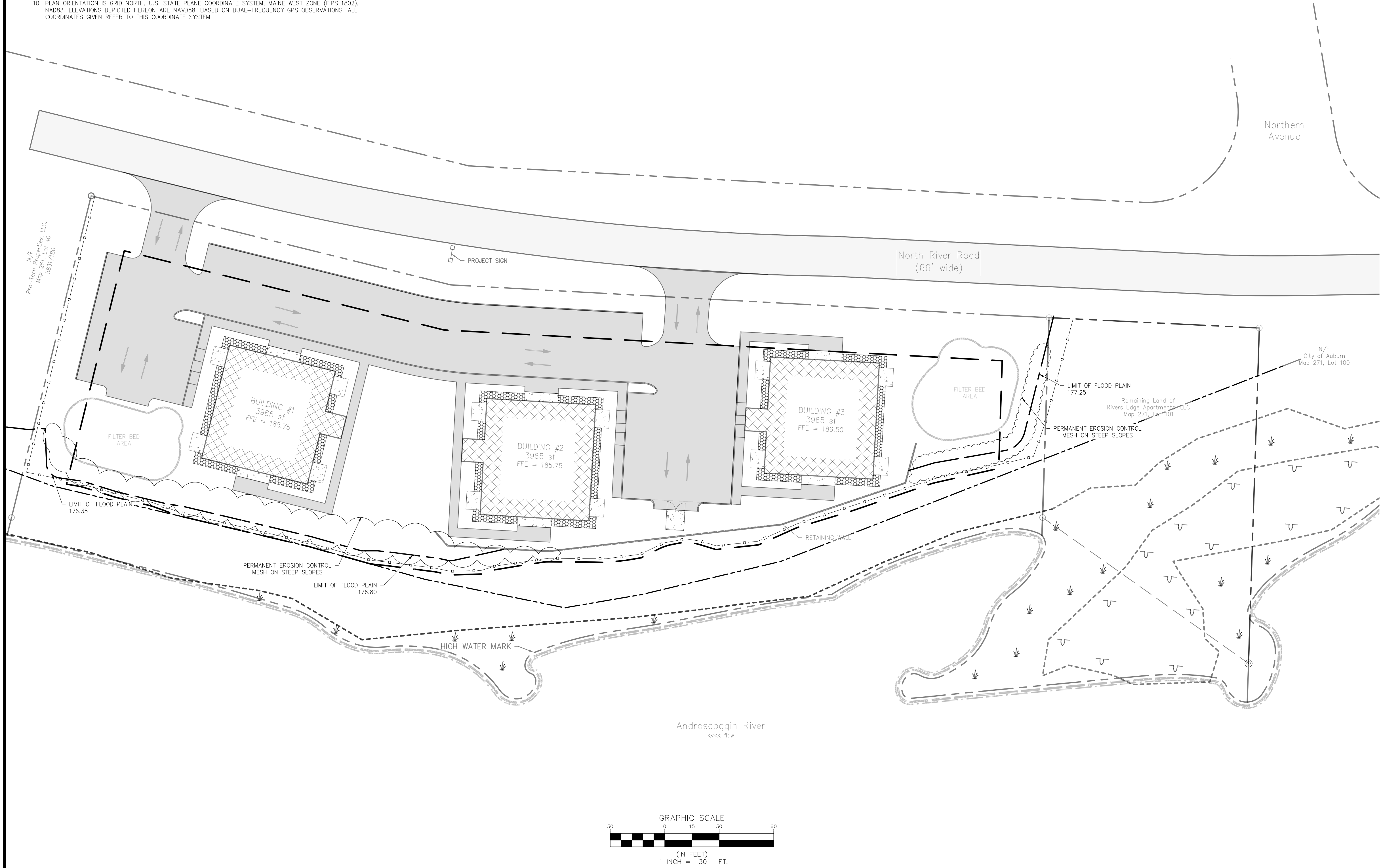
DIRIGO
ARCHITECTURAL
ENGINEERING • CONSTRUCTION MANAGEMENT
7 COBBLESTONE WAY, SUITE 2
TURNER, MAINE 04282

SCALE:	1" = 30'
DATE:	11/13/19
PROJECT:	19-015

SHEET NO.

C2.0

- GENERAL NOTES:
- BOUNDARY AND EXISTING CONDITIONS INFORMATION WERE TAKEN FROM A PLAN ENTITLED "EXISTING CONDITIONS AND BOUNDARY SURVEY PLAN" DATED JUNE 29TH, 2019, PREPARED BY SURVEYWORKS, INC.
 - ALL BOOK AND PAGE NUMBERS REFER TO THE ANDROSCOGGIN COUNTY REGISTRY OF DEEDS, UNLESS OTHERWISE NOTED.
 - THE RECORD OWNER OF THE SUBJECT PARCEL IS RIVER'S EDGE APARTMENTS, LLC BY A DEED DATED MAY 21, 2019 AND RECORDED IN BOOK 10089, PAGE 185.
 - THE SUBJECT PARCEL IS SHOWN ON THE CITY OF AUBURN'S TAX MAP 271 AS LOT 101 AND IS LOCATED IN THE GENERAL BUSINESS DISTRICT, THE FLOODPLAIN OVERLAY DISTRICT & THE SHORELAND ZONE OVERLAY DISTRICT. THE GENERAL BUSINESS DISTRICT REFERENCES THE MULTIFAMILY SUBURBAN DISTRICT FOR RESIDENTIAL USES.
 - BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED ON AN ON THE GROUND SURVEY PERFORMED BY SURVEYWORKS, INC. IN MAY OF 2019.
 - A PORTION OF THE SUBJECT PARCEL IS LOCATED WITHIN ZONE AE, A SPECIAL FLOOD HAZARD AREA WITH BASE FLOOD ELEVATION (BFE), AS DELINEATED ON THE FLOOD INSURANCE RATE MAP FOR THE CITY OF AUBURN, ANDROSCOGGIN COUNTY, COMMUNITY-PANEL NUMBER 23001C0326E, HAVING AN EFFECTIVE DATE OF JULY 8, 2013. THE REMAINDER OF THE SUBJECT PARCEL IS LOCATED WITHIN ZONE X, AREAS OF MINIMAL FLOOD HAZARD. ALL FLOOD ZONES SHOWN ARE BASED ON AN ON THE GROUND TOPOGRAPHIC SURVEY (SEE NOTE 7). THE FLOODWAY BOUNDARY IS SHOWN BASED ON SHAPEFILES OBTAINED FROM THE FEMA FLOOD MAP SERVICE CENTER.
 - A WETLAND DELINEATION WAS PERFORMED ON THIS PROJECT SITE BY SURVEYWORKS, INC. IN MAY OF 2019 AND BY JOSEPH NOEL IN AUGUST OF 2019. THIS WETLANDS DELINEATION CONFORMS TO THE STANDARDS AND METHODS OUTLINED IN THE 1987 WETLAND DELINEATION MANUAL AND NORTHEAST REGIONAL SUPPLEMENT AUTHORED AND PUBLISHED BY THE U.S. ARMY CORPS OF ENGINEERS. WETLAND FLAGS WERE LOCATED USING "FLOAT" SOLUTIONS AND ARE BELIEVED TO HAVE A HORIZONTAL ACCURACY OF 1 METER.
 - THE DEPTH, SIZE, LOCATION, EXISTENCE OR NONEXISTENCE OF UNDERGROUND UTILITIES AND/OR STRUCTURES WERE NOT INVESTIGATED AS PART OF THIS SURVEY. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. OWNERS, CONTRACTORS, AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (CALL 801) AND FIELD VERIFY EXISTING UTILITIES PRIOR TO DIGGING OR BREAKING GROUND.
 - NORTH RIVER ROAD IS CURRENTLY UNDER CONSTRUCTION. TOPOGRAPHIC INFORMATION ASSOCIATED WITH NORTH RIVER ROAD IS SHOWN BASED ON GRADE STAKES MARKED WITH PROPOSED FINISHED GRADE ELEVATIONS LOCATED ON AUGUST 15, 2019.
 - PLAN ORIENTATION IS GRID NORTH, U.S. STATE PLANE COORDINATE SYSTEM, MAINE WEST ZONE (FIPS 1802), NAD83. ELEVATIONS DEPICTED HEREON ARE NAVD83, BASED ON DUAL-FREQUENCY GPS OBSERVATIONS. ALL COORDINATES GIVEN REFER TO THIS COORDINATE SYSTEM.



LOCATION MAP

LEGEND:

- | | |
|-----|------------------------------|
| --- | BOUNDARY LINE |
| --- | ABUTTER LINE |
| --- | EXISTING CONTOUR |
| --- | PROPOSED CONTOUR |
| --- | PROPOSED SPOT GRADE |
| --- | TREE LINE |
| --- | PROPOSED PAVEMENT |
| --- | PROPOSED BOLLARD |
| --- | PROPOSED TRANSFORMER |
| --- | PROPOSED FENCE |
| --- | EXISTING STORM DRAIN LINE |
| --- | EXISTING WATER LINE |
| --- | EXISTING SEWER LINE |
| --- | EXISTING OVERHEAD UTILITY |
| --- | EXISTING UNDERGROUND UTILITY |
| --- | EXISTING PAVEMENT |
| --- | EXISTING WATER VALVE |
| --- | EXISTING UTILITY POLE |
| --- | EXISTING GUY WIRE |
| --- | EXISTING BUILDING |
| --- | EXISTING RIPRAP |

WEST SHORE LANDING APARTMENTS

NORTH RIVER ROAD, AUBURN, MAINE 04210

FOR

RIVERS EDGE APARTMENTS, LLC

155 CENTER STREET, AUBURN, MAINE 04210

SIGNED COPY OF DRAWING
ON FILE AT DIRIGO AVE
OFFICE



EROSION CONTROL
PLAN

REV.	DATE	DESCRIPTION
0	9/30/19	ISSUED FOR REVIEW
1	12/6/19	PRELIMINARY PLAN REVIEW

DRAWN BY: ZTC CHECKED BY: TWP

DIRIGO
ARCHITECTURAL
ENGINEERING • CONSTRUCTION MANAGEMENT
7 COBBLESTONE WAY, SUITE 2
TURNER, MAINE 04282
PH: (207) 225-3040
WS.DIRISOAE.COM

SCALE: 1" = 30'
DATE: 11/13/19
PROJECT: 19-015

SHEET NO.

C2.1

- EROSION AND SEDIMENT CONTROL PLAN
- THIS PLAN HAS BEEN DEVELOPED AS A STRATEGY TO CONTROL SOIL EROSION AND SEDIMENTATION DURING AND AFTER CONSTRUCTION. THIS PLAN IS BASED ON THE STANDARDS AND SPECIFICATIONS FOR EROSION PREVENTION IN DEVELOPING AREAS AS CONTAINED IN THE LATEST REVISION OF TO THE 2016 MAINE EROSION AND SEDIMENT CONTROL BMP'S MANUAL FOR DESIGNERS AND ENGINEERS, AND THE LATEST REVISION TO THE 2014 MAINE EROSION AND SEDIMENT CONTROL FIELD GUIDE FOR CONTRACTORS. SEE MANUALS FOR ADDITIONAL INFORMATION AND DETAILS.
- THE PROPOSED LOCATIONS OF SILTATION AND EROSION CONTROL STRUCTURES ARE SHOWN ON THE SITE PLAN.
1. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE DONE IN ACCORDANCE WITH THE "MAINE EROSION AND SEDIMENT CONTROL BMP'S", DEPARTMENT OF ENVIRONMENTAL PROTECTION, LATEST REVISION.
 2. THOSE AREAS UNDERGOING ACTUAL CONSTRUCTION WILL BE LEFT IN AN UNTREATED OR UNVEGETATED CONDITION FOR 45 DAYS SHALL BE PERMANENTLY STABILIZED WITHIN 7 DAYS OF FINAL GRADING AND TEMPORARILY STABILIZED WITHIN 7 DAYS OF INITIAL DISTURBANCE OF THE SOIL. IF THE DISTURBANCE IS WITHIN 75 FEET OF A WETLAND OR WATERBODY, THE AREA SHALL BE STABILIZED WITHIN 2 DAYS OR PRIOR TO ANY STORM EVENT, WHICHEVER COMES FIRST.
 3. EXCAVATION AND EARTHWORK SHALL BE DONE SUCH THAT NO MORE THAN 1 ACRE OF THE SITE IS WITHOUT STABILIZATION AT ANY ONE TIME.
 4. EXPOSED AREA SHOULD BE LIMITED TO THAT WHICH CAN BE MULCHED IN ONE DAY.
 5. CONTINUATION OF EARTHWORK OPERATIONS ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED SUCH THAT NO MORE THAN ONE ACRE OF THE SITE IS WITHOUT EROSION CONTROL PROTECTION.
 6. SEDIMENT BARRIERS (EROSION CONTROL MIX, STONE CHAOK DAMS, STABILIZED CONSTRUCTION ENTRANCE, ETC.) SHOULD BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE OF THE CONTRIBUTING DRAINAGE AREA ABOVE THEM. THE CONTRACTOR SHALL MAINTAIN THE STABILIZED CONSTRUCTION ENTRANCE UNTIL ALL DISTURBED AREAS ARE STABILIZED.
 7. INSTALL EROSION CONTROL MIX AT TOE OF SLOPES TO FILTER SILT FROM RUNOFF. USE E.G. MIX DETAIL FOR PROPER INSTALLATION. EROSION CONTROL MIX WILL REMAIN IN PLACE PER NOTE #5. THE USE OF AN EROSION CONTROL MIX BERM IS PROHIBITED AT THE BASE OF SLOPES STEEPER THAN 8X OR WHERE THERE IS FLOWING WATER.
 8. ALL EROSION CONTROL STRUCTURES WILL BE INSPECTED, REPAIRED, AND/OR REPAIRED EVERY 7 DAYS AND IMMEDIATELY BEFORE ANY FOLLOWING ANY SIGNIFICANT RAINFALL (ONE INCH OR MORE IN A 24-HOUR PERIOD) OR SNOW MELT OR WHEN NO LONGER SERVICEABLE DUE TO SEDIMENT ACCUMULATION OR DECOMPOSITION. IF AN INSPECTION DETERMINES THAT A CORRECTIVE ACTION IS REQUIRED, THE ACTION OR REPAIR SHALL BE STARTED BY THE END OF THE NEXT WORKDAY AND COMPLETED WITHIN SEVEN DAYS OR BEFORE THE NEXT STORM EVENT. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE HALF THE HEIGHT OF THE BARRIER. SEDIMENT CONTROL DEVICES SHALL REMAIN IN PLACE AND BE MAINTAINED BY THE CONTRACTOR UNTIL AREAS UPSLOPE ARE STABILIZED BY TURF. EROSION CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS OF PERMANENT STABILIZATION. PERMANENT STABILIZATION IS 90% GRASS CATCH IN VEGETATED AREAS.
 - a. ALL CONSTRUCTION INSPECTIONS SHALL BE CONDUCTED BY SOMEONE WITH KNOWLEDGE OF EROSION AND STORMWATER CONTROL, INCLUDING THE STANDARDS AND CONDITIONS THE PERMIT.
 - b. CONSTRUCTION INSPECTIONS SHOULD INCLUDE ALL DISTURBED AND IMPERVIOUS AREAS, VEHICLE ACCESS POINTS IN ADDITION TO ESC MEASURES.
 - c. ALL INSPECTION FORMS AND DOCUMENTATION OF CORRECTIVE ACTIONS DURING CONSTRUCTION SHALL BE MAINTAINED FOR AT LEAST 3 YEARS.
 9. NO SLOPES, EITHER PERMANENT OR TEMPORARY, SHALL BE STEEPER THAN ONE TO ONE (1 TO 1).
 - a. FOR SLOPES OF UP TO THREE TO ONE (3 TO 1) STABILIZE WITH TEMPORARY VEGETATION.
 - b. FOR SLOPES OF UP TO TWO TO ONE (2 TO 1) STABILIZE WITH EROSION CONTROL MIX OR EROSION CONTROL BLANKET.
 - c. FOR SLOPES OF UP TO ONE TO ONE (1 TO 1) STABILIZE WITH RIP-RAP AS SHOWN IN DETAILS.
 10. IF FINAL SEEDING OF THE DISTURBED AREAS IS NOT COMPLETED 45 DAYS PRIOR TO THE FIRST KILLING FROST, USE TEMPORARY MULCHING (OORMANT SEEDING MAY BE ATTEMPTED AS WELL) TO PROTECT THE SITE AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD.
 11. TEMPORARY SEEDING OF DISTURBED AREAS THAT HAVE NOT BEEN FINAL GRADED SHALL BE COMPLETED BY AUG. 15 OR 45 DAYS PRIOR TO THE FIRST KILLING FROST (OCT. 1) TO PROTECT FROM SPRING RUNOFF PROBLEMS.
 12. DURING THE CONSTRUCTION PHASE, INTERCEPTED SEDIMENT WILL BE RETURNED TO THE SITE AND REGRADED ONTO OPEN AREAS. POST SEEDING SEDIMENT, IF ANY WILL BE DISPOSED OF IN AN ACCEPTABLE MANNER.
 13. REVEGETATION MEASURES WILL COMMENCE UPON COMPLETION OF CONSTRUCTION EXCEPT AS NOTED ABOVE. ALL DISTURBED AREAS NOT OTHERWISE STABILIZED WILL BE GRADED, SMOOTHED, AND PREPARED FOR FINAL SEEDING AS FOLLOWS:
 - a. FOUR INCHES OF LOAM WILL BE SPREAD OVER DISTURBED AREAS AND SMOOTHED TO A UNIFORM SURFACE.
 - b. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 800 POUNDS PER ACRE OR 184 POUNDS PER 1,000 SQUARE FEET USING 10-20-20 (N-P20-20-K20) OR EQUIVALENT. APPLY GROUND LIMESTONE (EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF 3 TONS PER ACRE (138 LB PER 1,000 SQ. FT.).
 - c. FOLLOWING SEED BED PREPARATION, DITCHES AND BACK SLOPES WILL BE SEED TO A MIXTURE OF 47% CREEPING RED FESCUE, 5% REDTOP, AND 48% TALL FESCUE. THE LAWN AREAS WILL BE SEED TO A PREMIUM TURF MIXTURE OF 44% KENTUCKY BLUEGRASS, 44% CREEPING RED FESCUE, AND 12% PERENNIAL RYEGRASS. SEEDING RATE IS 1.03 LBS PER 1,000 SQ. FT. LAWN QUALITY SOO MAY BE SUBSTITUTED FOR SEED. SEED MIX SHALL CONTAIN 10% ANNUAL RYE GRASS.
 - d. HAY MULCH AT THE RATE OF 70-90 LBS PER 1,000 SQUARE FEET OR A HYDRO-APPLICATION OF ASPHALT, WOOD OR PAPER FIBER SHALL BE APPLIED FOLLOWING SEEDING. A SUITABLE BINDER SUCH AS CURASOL, OR RMB PLUS WILL BE USED ON HAY MULCH FOR WIND CONTROL.
 14. ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS ONCE THE SITE IS STABILIZED WITH 90% GRASS CATCH IN VEGETATED AREAS. TEMPORARY EROSION AND SEDIMENT CONTROL BLANKET SHALL BE USED IN ALL DITCHES AND SWALES AS SHOWN IN DETAILS.
 15. WETLANDS WILL BE PROTECTED WITH EROSION CONTROL MIX OR SILT FENCE INSTALLED AT THE EDGE FOR THE WETLAND OR THE BOUNDARY OF WETLAND DISTURBANCE. ALL AREAS WITHIN 75 FEET OF A PROTECTED NATURAL RESOURCE MUST BE PROTECTED WITH A DOUBLE ROW OF SEDIMENT BARRIERS DURING WINTER CONSTRUCTION.
 16. ALL STORMWATER WILL BE PREVENTED FROM RUNNING ONTO STOCKPILES. SEDIMENT BARRIERS WILL BE INSTALLED DOWNGRADIENT OF ALL STOCKPILES.
 17. PERMANENT POST-CONSTRUCTION BMP'S (VEGETATED SWALES, WEY PONDS, ETC.) WILL NOT BE USED TO MANAGE FLOWS DURING CONSTRUCTION WITHOUT SPECIAL DRAINAGE AND/OR RESTORATION.

MULCH AND MULCH ANCHORING

MULCH		
LOCATION	MULCH	RATE (1000 S.F.)

PROTECTED AREA	STRAW OR HAY *	100 POUNDS
----------------	----------------	------------

WINDY AREAS	SHREDED OR CHOPPED CORNSTALKS	185-275 POUNDS
-------------	-------------------------------	----------------

	STRAW OR HAY (ANCHORED) *	100 POUNDS
--	---------------------------	------------

MODERATE TO HIGH VELOCITY AREAS OR STEEP SLOPES (GREATER THAN OR EQUAL TO 3:1)	JUTE MESH OR EXCLUSION MAT	AS REQUIRED
--	----------------------------	-------------

		AS REQUIRED
--	--	-------------

(GREATER THAN OR EQUAL TO 3:1)

* A HYDRO-APPLICATION OF WOOD, OR PAPER FIBER MAY BE APPLIED FOLLOWING SEEDING. A SUITABLE BINDER SUCH AS CURASOL, OR RMB PLUS SHALL BE USED ON HAY MULCH FOR WIND CONTROL.

MULCH ANCHORING

ANCHOR MULCH WITH PEG AND TWINE (1 SQ. YD./BLOCK); MULCH NETTING (AS PER MANUFACTURED); WOOD CELLULOSE FIBER (750 LBS/ACRE); USE OF A SEPARATED STRAIGHT DITCH. NETTING FOR SMALL AREAS AND ROAD DITCHES MAY BE PERMITTED.

Additional temporary seed mixture (for periods less than 12 months).

Season	Seed	Rate
--------	------	------

Summer (5/15 - 8/15)	Sudangrass Oats	40 lbs/acre 80 lbs/acre
----------------------	--------------------	----------------------------

Late Summer/Early Fall (8/15 - 9/15)	Perennial Ryegrass	40 lbs/acre
--------------------------------------	--------------------	-------------

Fall (9/15 - 11/1)	Winter Rye	112 lbs/acre
--------------------	------------	--------------

Winter (11/1 - 4/7)	Mulch w/ Dormant Seed	80 lbs/acre*
---------------------	-----------------------	--------------

Spring (4/1 - 7/1)	Oats	80 lbs/acre
--------------------	------	-------------

	Annual Ryegrass	40 lbs/acre
--	-----------------	-------------

*Seed Rate Only

18. MAINTENANCE:
IF AN INSPECTION DETERMINES THAT A CORRECTIVE ACTION IS REQUIRED, THE ACTION OR REPAIR SHALL BE STARTED BY THE END OF THE NEXT WORKDAY AND COMPLETED WITHIN SEVEN DAYS OR BEFORE THE NEXT STORM EVENT. MAINTENANCE MEASURES SHALL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION SEASON. ONCE A WEEK, BEFORE AND AFTER EACH RAINFALL, SNOW STORM OR PERIOD OF THAWING AND RUNOFF, THE SITE CONTRACTOR SHALL PERFORM A VISUAL INSPECTION OF ALL INSTALLED EROSION CONTROL MEASURES AS NEEDED TO INSURE THEIR CONTINUOUS FUNCTION. FOLLOWING THE TEMPORARY AND/OR FINAL SEEDING AND MULCHING, THE CONTRACTOR SHALL, IN THE SPRING, INSPECT AND REPAIR ANY DAMAGED AND/OR BARE SPOTS. AN ESTABLISHED VEGETATIVE COVER MEANS A MINIMUM OF 80 TO 90% OF AREAS VEGETATED WITH VIGOROUS GROWTH.

STABILIZATION SCHEDULE BEFORE WINTER:

SEPTEMBER 15	ALL DISTURBED AREAS MUST BE SEEDDED AND MULCHED. ALL SLOPES MUST BE STABILIZED, SEEDDED AND MULCHED. ALL GRASS LINED DITCHES AND CHANNELS MUST BE STABILIZED WITH MULCH OR AN EROSION CONTROL BLANKET.
--------------	--

OCTOBER 1	IF THE SLOPE IS STABILIZED WITH AN EROSION CONTROL BLANKET AND SEEDDED, ALL DISTURBED AREAS TO BE PROTECTED WITH AN ANNUAL GRASS MUST BE SEEDDED AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET AND MULCHED.
-----------	--

NOVEMBER 15	ALL STONE LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED. SLOPES THAT ARE COVERED WITH RIPRAP MUST BE CONSTRUCTED BY THAT DATE.
-------------	--

EROSION CONTROL DURING CONSTRUCTION

WINTER CONSTRUCTION

1. WINTER CONSTRUCTION PERIOD: OCTOBER 1 THROUGH APRIL 15

2. OVERWINTER STABILIZATION OF DITCHES AND CHANNELS:
ALL STONE-LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED BY NOVEMBER 15. ALL GRASS LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED BY SEPTEMBER 1. IF A DITCH OR CHANNEL IS NOT GRASS-LINED BY SEPTEMBER 1, THEN ONE OF THE FOLLOWING ACTIONS MUST BE TAKEN TO STABILIZE THE DITCH FOR LATE FALL AND WINTER.

A. INSTALL A SOD LINING IN THE DITCH:
A DITCH MUST BE LINED WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES: PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL, AND ANCHORING SOD AT THE BASE OF THE DITCH WITH JUTE OR PLASTIC MESH TO PREVENT THE SOD FROM SLIDING DURING FLOW CONDITIONS. SEE THE PERMANENT VEGETATION BMP SECTION.

B. INSTALL A STONE LINING IN THE DITCH:
A DITCH MUST BE LINED WITH STONE RIPRAP BY NOVEMBER 15. A REGISTERED PROFESSIONAL ENGINEER MUST BE SELECTED TO DETERMINE THE STONE SIZE AND LINING THICKNESS REQUIRED TO WITHSTAND THE ANTICIPATED FLOW VELOCITIES AND FLOW DEPTHS WITHIN THE DITCH. IF NECESSARY, THE CONTRACTOR WILL REGRADE THE DITCH PRIOR TO PLACING THE STONE LINING SO TO PREVENT THE STONE LINING FROM REDUCING THE DITCH'S CROSS-SECTIONAL AREA.

3. OVERWINTER STABILIZATION OF DISTURBED SLOPES:
ALL STONE-COVERED SLOPES MUST BE CONSTRUCTED AND STABILIZED BY NOVEMBER 15. ALL SLOPES TO BE VEGETATED MUST BE SEEDDED AND MULCHED BY SEPTEMBER 1. THE DEPARTMENT WILL CONSIDER ANY AREA HAVING A GRADE GREATER THAN 15X TO BE A SLOPE. IF A SLOPE TO BE VEGETATED IS NOT STABILIZED BY SEPTEMBER 1, THEN ONE OF THE FOLLOWING ACTIONS MUST BE TAKEN TO STABILIZE THE SLOPE FOR LATE FALL AND WINTER.

A. STABILIZE THE SOIL WITH TEMPORARY VEGETATION:
BY OCTOBER 1, SEED THE DISTURBED SOIL WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET, LIGHTLY MULCH THE SEEDDED SOIL WITH HAY OR STRAW AT 75 POUNDS PER 1000 SQUARE FEET, AND ANCHOR THE MULCH WITH PLASTIC NETTING. MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR FAILS TO COVER AT LEAST 75% OF THE DISTURBED SOIL BEFORE NOVEMBER 1, THEN MULCH THE AREA FOR OVER-WINTER PROTECTION AS DESCRIBED BELOW.

B. STABILIZE THE SOIL WITH EROSION CONTROL MIX:
EROSION CONTROL MIX MUST BE PROPERLY INSTALLED BY NOVEMBER 15. THE CONTRACTOR WILL NOT USE EROSION CONTROL MIX TO STABILIZE SLOPES HAVING GREATER THAN 20X (25:1V) OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE. SEE THE TEMPORARY MULCHING BMP SECTION.

C. STABILIZE THE SOIL WITH STONE RIPRAP:
GRADE A LAYER OF STONE RIPRAP ON THE SLOPE BY NOVEMBER 15. THE DEVELOPER'S OWNER WILL HIRE A REGISTERED PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE NEEDED FOR STABILITY ON THE SLOPE AND TO DESIGN A FILTER LAYER FOR UNDERNEATH THE RIPRAP. SEE THE RIPRAP SLOPE STABILIZATION BMP SECTION.

4. OVERWINTER STABILIZATION OF DISTURBED SOILS:
BY SEPTEMBER 15, ALL DISTURBED SOILS ON AREAS HAVING A SLOPE LESS THAN 15X MUST BE SEEDDED AND MULCHED. IF THE DISTURBED AREAS ARE NOT STABILIZED BY THIS DATE, THEN ONE OF THE FOLLOWING ACTIONS MUST BE TAKEN TO STABILIZE THE SOIL FOR LATE FALL AND WINTER.

A. STABILIZE THE SOIL WITH TEMPORARY VEGETATION:
BY OCTOBER 1, SEED THE DISTURBED SOIL WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET, LIGHTLY MULCH THE SEEDDED SOIL WITH HAY OR STRAW AT 75 POUNDS PER 1000 SQUARE FEET, AND ANCHOR THE MULCH WITH PLASTIC NETTING. MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR FAILS TO COVER AT LEAST 75% OF THE DISTURBED SOIL BEFORE NOVEMBER 1, THEN MULCH THE AREA FOR OVER-WINTER PROTECTION AS DESCRIBED BELOW.

B. STABILIZE THE SOIL WITH SOD:
THE DISTURBED SOIL MUST BE STABILIZED WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE CONTRACTOR PINNING THE SOD ONTO THE SLOPE WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL. THE CONTRACTOR WILL NOT USE LATE SEASON SOD INSTALLATION TO STABILIZE SLOPES HAVING A GRADE GREATER THAN 3.5X (3H:1V) OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.

C. STABILIZE THE SOIL WITH MULCH:
BY NOVEMBER 15, MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150 POUNDS PER 1000 SQUARE FEET ON THE AREA SO THAT NO SOIL IS VISIBLE THROUGH THE MULCH. IMMEDIATELY AFTER APPLYING THE MULCH, ANCHOR THE MULCH WITH PLASTIC NETTING TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SOIL.

5. DURING WINTER CONSTRUCTION PERIOD ALL SNOW SHALL BE REMOVED FROM AREAS OF SEEDING AND MULCHING PRIOR TO PLACEMENT.

6. AREAS WITHIN 100 FEET OF STREAMS THAT ARE NOT STABILIZED WITH VEGETATION BY DEC. 1 SHALL BE MULCHED AND ANCHORED WITH NETTING. IF WORK CONTINUES IN THIS AREA DURING THE WINTER, A DOUBLE LINE OF SEDIMENT BARRIERS MUST BE USED.

HOUSEKEEPING:

1. SPILL PREVENTION, CONTROLS MUST BE USED TO PREVENT POLLUTANTS FROM BEING DISCHARGED FROM MATERIALS ON SITE, INCLUDING STORAGE PRACTICES TO MINIMIZE EXPOSURE OF THE MATERIALS TO STORMWATER, AND APPROPRIATE SPILL PREVENTION, CONTAINMENT, AND RESPONSE PLANNING AND IMPLEMENTATION.

2. GROUNDWATER PROTECTION, DURING CONSTRUCTION, LIQUID PETROLEUM PRODUCTS AND OTHER HAZARDOUS MATERIALS WITH THE POTENTIAL TO CONTAMINATE GROUNDWATER MAY NOT BE STORED OR HANDLED IN AREAS OF THE SITE DRAINING TO AN INFILTRATION AREA. AN "INFILTRATION AREA" IS ANY AREA OF THE SITE THAT BY DESIGN OR AS A RESULT OF SOILS, TOPOGRAPHY, AND OTHER RELEVANT FACTORS ACCUMULATES RUNOFF THAT INFILTRATES INTO THE SOIL, DIKES, BERMS, SUMPS, AND OTHER FORMS OF SECONDARY CONTAMINANT THAT PREVENT DISCHARGE TO GROUNDWATER MAY BE USED TO ISOLATE PORTIONS OF THE SITE FOR THE PURPOSES OF STORAGE AND HANDLING OF THESE MATERIALS.

3. FUGITIVE SEDIMENT AND DUST, ACTIONS MUST BE TAKEN TO ENSURE THAT ACTIVITIES DO NOT RESULT IN NOTICEABLE EROSION OF SOILS OR FUGITIVE DUST EMISSIONS DURING OR AFTER CONSTRUCTION. OIL MAY NOT BE USED FOR DUST CONTROL. ANY OFFSITE TRACKING OF MUD OR SEDIMENT SHALL BE VACUUMED IMMEDIATELY AND PRIOR TO THE NEXT SIGNIFICANT STORM EVENT.

4. DEBRIS AND OTHER MATERIALS, LITTER, CONSTRUCTION DEBRIS, AND CHEMICALS EXPOSED TO STORMWATER MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE.

5. TRENCH OR FOUNDATION DE-WATERING, TRENCH DE-WATERING IS THE REMOVAL OF WATER FROM TRENCHES, FOUNDATIONS, COFFER DAMS, POND, AND OTHER AREAS WITHIN THE CONSTRUCTION AREA THAT RETAIN WATER AFTER EXCAVATION. IN MOST CASES THE COLLECTED WATER IS HEAVILY SILTED AND HINDERS CORRECT SAFE CONSTRUCTION PRACTICES. THE COLLECTED WATER MUST BE REMOVED FROM THE PONDING AREA, EITHER THROUGH GRAVITY OR PUMPING, AND MUST BE SPREAD THROUGH NATURAL, WOODEN BUFFERS OR REMOVED TO AREAS THAT ARE SPECIFICALLY DESIGNED TO COLLECT THE MAXIMUM AMOUNT OF SEDIMENT POSSIBLE, LIKE A COFFERDAM SEDIMENTATION BASIN AVOID ALLOWING THE WATER TO FLOW OVER DISTURBED AREAS OF THE SITE. EQUIVALENT MEASURES MAY BE TAKEN IF APPROVED BY THE DEPARTMENT.

6. NON-STORMWATER DISCHARGES, IDENTIFY AND PREVENT CONTAMINATION BY NON-STORMWATER DISCHARGES, WHERE ALLOWED NON-STORMWATER DISCHARGES EXIST, THEY MUST BE IDENTIFIED AND STEPS SHOULD BE TAKEN TO ENSURE THE IMPLEMENTATION OF APPROPRIATE POLLUTION PREVENTION MEASURES FOR THE NON-STORMWATER COMPONENT(S) OF THE DISCHARGE. AUTHORIZED NON-STORMWATER DISCHARGES ARE:

- DISCHARGES FROM FIREFIGHTING ACTIVITY;
- FIRE HYDRANT FLUSHINGS;
- VEHICLE WASHWATER IF DETERGENTS ARE NOT USED AND WASHING IS LIMITED TO THE EXTERIOR OF VEHICLES (ENGINE, UNDERCARRIAGE AND TRANSMISSION WASHING IS PROHIBITED);
- DUST CONTROL RUNOFF IN ACCORDANCE WITH PERMIT CONDITIONS AND APPENDIX (C)(3);
- ROUTINE EXTERNAL BUILDING WASHDOWN, BUILDING SURFACE PAINT REMOVAL, THAT DOES NOT INVOLVE DETERGENTS;
- PAVEMENT WASHWATER (WHERE SPILLS/LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE NOT OCCURRED, UNLESS ALL SPILLED MATERIAL HAD BEEN REMOVED) IF DETERGENTS ARE NOT USED;
- UNCONTAMINATED AIR CONDITIONING OR COMPRESSOR CONDENSATE;
- UNCONTAMINATED GROUNDWATER OR SPRING WATER;
- FOUNDATION OR FOOTER DRAIN-WATER WHERE FLOWS ARE NOT CONTAMINATED;
- UNCONTAMINATED EXCAVATION DEWATERING (SEE REQUIREMENTS IN APPENDIX C(5));
- POTABLE WATER SOURCES INCLUDING WATERLINE FLUSHINGS; AND
- LANDSCAPE IRRIGATION.

7. UNAUTHORIZED NON-STORMWATER DISCHARGES, THE DEPARTMENT'S APPROVAL UNDER THIS CHAPTER DOES NOT AUTHORIZE A DISCHARGE THAT IS MIXED WITH A SOURCE OF NON STORMWATER, OTHER THAN THOSE DISCHARGES IN COMPLIANCE WITH APPENDIX C (6). SPECIFICALLY, THE DEPARTMENTS APPROVAL DOES NOT AUTHORIZE DISCHARGES OF THE FOLLOWING:

- WASTEWATER FROM THE WASHOUT OR CLEANOUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS OR OTHER CONSTRUCTION MATERIALS;
- FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE;
- SOAPS, SOLVENTS, OR DETERGENTS USED IN VEHICLE AND EQUIPMENT WASHING; AND
- TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE.

8. ADDITIONAL REQUIREMENTS, ADDITIONAL REQUIREMENTS MAY BE APPLIED ON A SITE-SPECIFIC BASIS.

9. WASTE MANAGEMENT, WASTE MANAGEMENT SHALL BE IN ACCORDANCE WITH THE DEPARTMENT'S APPROVAL UNDER THIS CHAPTER DOES NOT AUTHORIZE A DISCHARGE THAT IS MIXED WITH A SOURCE OF NON STORMWATER, OTHER THAN THOSE DISCHARGES IN COMPLIANCE WITH APPENDIX C (6). SPECIFICALLY, THE DEPARTMENTS APPROVAL DOES NOT AUTHORIZE DISCHARGES OF THE FOLLOWING:

- WASTEWATER FROM THE WASHOUT OR CLEANOUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS OR OTHER CONSTRUCTION MATERIALS;
- FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE;
- SOAPS, SOLVENTS, OR DETERGENTS USED IN VEHICLE AND EQUIPMENT WASHING; AND
- TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE.

10. WASTE MANAGEMENT, WASTE MANAGEMENT SHALL BE IN ACCORDANCE WITH THE DEPARTMENT'S APPROVAL UNDER THIS CHAPTER DOES NOT AUTHORIZE A DISCHARGE THAT IS MIXED WITH A SOURCE OF NON STORMWATER, OTHER THAN THOSE DISCHARGES IN COMPLIANCE WITH APPENDIX C (6). SPECIFICALLY, THE DEPARTMENTS APPROVAL DOES NOT AUTHORIZE DISCHARGES OF THE FOLLOWING:

- WASTEWATER FROM THE WASHOUT OR CLEANOUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS OR OTHER CONSTRUCTION MATERIALS;
- FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE;
- SOAPS, SOLVENTS, OR DETERGENTS USED IN VEHICLE AND EQUIPMENT WASHING; AND
- TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE.

11. WASTE MANAGEMENT, WASTE MANAGEMENT SHALL BE IN ACCORDANCE WITH THE DEPARTMENT'S APPROVAL UNDER THIS CHAPTER DOES NOT AUTHORIZE A DISCHARGE THAT IS MIXED WITH A SOURCE OF NON STORMWATER, OTHER THAN THOSE DISCHARGES IN COMPLIANCE WITH APPENDIX C (6). SPECIFICALLY, THE DEPARTMENTS APPROVAL DOES NOT AUTHORIZE DISCHARGES OF THE FOLLOWING:

- WASTEWATER FROM THE WASHOUT OR CLEANOUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS OR OTHER CONSTRUCTION MATERIALS;
- FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE;
- SOAPS, SOLVENTS, OR DETERGENTS USED IN VEHICLE AND EQUIPMENT WASHING; AND
- TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE.

12. WASTE MANAGEMENT, WASTE MANAGEMENT SHALL BE IN ACCORDANCE WITH THE DEPARTMENT'S APPROVAL UNDER THIS CHAPTER DOES NOT AUTHORIZE A DISCHARGE THAT IS MIXED WITH A SOURCE OF NON STORMWATER, OTHER THAN THOSE DISCHARGES IN COMPLIANCE WITH APPENDIX C (6). SPECIFICALLY, THE DEPARTMENTS APPROVAL DOES NOT AUTHORIZE DISCHARGES OF THE FOLLOWING:

- WASTEWATER FROM THE WASHOUT OR CLEANOUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS OR OTHER CONSTRUCTION MATERIALS;
- FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE;
- SOAPS, SOLVENTS, OR DETERGENTS USED IN VEHICLE AND EQUIPMENT WASHING; AND
- TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE.

13. WASTE MANAGEMENT, WASTE MANAGEMENT SHALL BE IN ACCORDANCE WITH THE DEPARTMENT'S APPROVAL UNDER THIS CHAPTER DOES NOT AUTHORIZE A DISCHARGE THAT IS MIXED WITH A SOURCE OF NON STORMWATER, OTHER THAN THOSE DISCHARGES IN COMPLIANCE WITH APPENDIX C (6). SPECIFICALLY, THE DEPARTMENTS APPROVAL DOES NOT AUTHORIZE DISCHARGES OF THE FOLLOWING:

- WASTEWATER FROM THE WASHOUT OR CLEANOUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS OR OTHER CONSTRUCTION MATERIALS;
- FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE;
- SOAPS, SOLVENTS, OR DETERGENTS USED IN VEHICLE AND EQUIPMENT WASHING; AND
- TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE.

14. WASTE MANAGEMENT, WASTE MANAGEMENT SHALL BE IN ACCORDANCE WITH THE DEPARTMENT'S APPROVAL UNDER THIS CHAPTER DOES NOT AUTHORIZE A DISCHARGE THAT IS MIXED WITH A SOURCE OF NON STORMWATER, OTHER THAN THOSE DISCHARGES IN COMPLIANCE WITH APPENDIX C (6). SPECIFICALLY, THE DEPARTMENTS APPROVAL DOES NOT AUTHORIZE DISCHARGES OF THE FOLLOWING:

- WASTEWATER FROM THE WASHOUT OR CLEANOUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS OR OTHER CONSTRUCTION MATERIALS;
- FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE;
- SOAPS, SOLVENTS, OR DETERGENTS USED IN VEHICLE AND EQUIPMENT WASHING; AND
- TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE.

15. WASTE MANAGEMENT, WASTE MANAGEMENT SHALL BE IN ACCORDANCE WITH THE DEPARTMENT'S APPROVAL UNDER THIS CHAPTER DOES NOT AUTHORIZE A DISCHARGE THAT IS MIXED WITH A SOURCE OF NON STORMWATER, OTHER THAN THOSE DISCHARGES IN COMPLIANCE WITH APPENDIX C (6). SPECIFICALLY, THE DEPARTMENTS APPROVAL DOES NOT AUTHORIZE DISCHARGES OF THE FOLLOWING:

- WASTEWATER FROM THE WASHOUT OR CLEANOUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS OR OTHER CONSTRUCTION MATERIALS;
- FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE;
- SOAPS, SOLVENTS, OR DETERGENTS USED IN VEHICLE AND EQUIPMENT WASHING; AND
- TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE.

16. WASTE MANAGEMENT, WASTE MANAGEMENT SHALL BE IN ACCORDANCE WITH THE DEPARTMENT'S APPROVAL UNDER THIS CHAPTER DOES NOT AUTHORIZE A DISCHARGE THAT IS MIXED WITH A SOURCE OF NON STORMWATER, OTHER THAN THOSE DISCHARGES IN COMPLIANCE WITH APPENDIX C (6). SPECIFICALLY, THE DEPARTMENTS APPROVAL DOES NOT AUTHORIZE DISCHARGES OF THE FOLLOWING:

- WASTEWATER FROM THE WASHOUT OR CLEANOUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS OR OTHER CONSTRUCTION MATERIALS;
- FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE;
- SOAPS, SOLVENTS, OR DETERGENTS USED IN VEHICLE AND EQUIPMENT WASHING; AND
- TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE.

17. WASTE MANAGEMENT, WASTE MANAGEMENT SHALL BE IN ACCORDANCE WITH THE DEPARTMENT'S APPROVAL UNDER THIS CHAPTER DOES NOT AUTHORIZE A DISCHARGE THAT IS MIXED WITH A SOURCE OF NON STORMWATER, OTHER THAN THOSE DISCHARGES IN COMPLIANCE WITH APPENDIX C (6). SPECIFICALLY, THE DEPARTMENTS APPROVAL DOES NOT AUTHORIZE DISCHARGES OF THE FOLLOWING:

- WASTEWATER FROM THE WASHOUT OR CLEANOUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS OR OTHER CONSTRUCTION MATERIALS;
- FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE;
- SOAPS, SOLVENTS, OR DETERGENTS USED IN VEHICLE AND EQUIPMENT WASHING; AND
- TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE.

18. WASTE MANAGEMENT, WASTE MANAGEMENT SHALL BE IN ACCORDANCE WITH THE DEPARTMENT'S APPROVAL UNDER THIS CHAPTER DOES NOT AUTHORIZE A DISCHARGE THAT IS MIXED WITH A SOURCE OF NON STORMWATER, OTHER THAN THOSE DISCHARGES IN COMPLIANCE WITH APPENDIX C (6). SPECIFICALLY, THE DEPARTMENTS APPROVAL DOES NOT AUTHORIZE DISCHARGES OF THE FOLLOWING:

- WASTEWATER FROM THE WASHOUT OR CLEANOUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS OR OTHER CONSTRUCTION MATERIALS;
- FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE;
- SOAPS, SOLVENTS, OR DETERGENTS USED IN VEHICLE AND EQUIPMENT WASHING; AND
- TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE.

19. WASTE MANAGEMENT, WASTE MANAGEMENT SHALL BE IN ACCORDANCE WITH THE DEPARTMENT'S APPROVAL UNDER THIS CHAPTER DOES NOT AUTHORIZE A DISCHARGE THAT IS MIXED WITH A SOURCE OF NON STORMWATER, OTHER THAN THOSE DISCHARGES IN COMPLIANCE WITH APPENDIX C (6). SPECIFICALLY, THE DEPARTMENTS APPROVAL DOES NOT AUTHORIZE DISCHARGES OF THE FOLLOWING:

- WASTEWATER FROM THE WASHOUT OR CLEANOUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS OR OTHER CONSTRUCTION MATERIALS;
- FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE;
- SOAPS, SOLVENTS, OR DETERGENTS USED IN VEHICLE AND EQUIPMENT WASHING; AND
- TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE.

20. WASTE MANAGEMENT, WASTE MANAGEMENT SHALL BE IN ACCORDANCE WITH THE DEPARTMENT'S APPROVAL UNDER THIS CHAPTER DOES NOT AUTHORIZE A DISCHARGE THAT IS MIXED WITH A SOURCE OF NON STORMWATER, OTHER THAN THOSE DISCHARGES IN COMPLIANCE WITH APPENDIX C (6). SPECIFICALLY, THE DEPARTMENTS APPROVAL DOES NOT AUTHORIZE DISCHARGES OF THE FOLLOWING:

- WASTEWATER FROM THE WASHOUT OR CLEANOUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS OR OTHER CONSTRUCTION MATERIALS;
- FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE;
- SOAPS, SOLVENTS, OR DETERGENTS USED IN VEHICLE AND EQUIPMENT WASHING; AND
- TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE.

21. WASTE MANAGEMENT, WASTE MANAGEMENT SHALL BE IN ACCORDANCE WITH THE DEPARTMENT'S APPROVAL UNDER THIS CHAPTER DOES NOT AUTHORIZE A DISCHARGE THAT IS MIXED WITH A SOURCE OF NON STORMWATER, OTHER THAN THOSE DISCHARGES IN COMPLIANCE WITH APPENDIX C (6). SPECIFICALLY, THE DEPARTMENTS APPROVAL DOES NOT AUTHORIZE DISCHARGES OF THE FOLLOWING:

- WASTEWATER FROM THE WASHOUT OR CLEANOUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS OR OTHER CONSTRUCTION MATERIALS;
- FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE;
- SOAPS, SOLVENTS, OR DETERGENTS USED IN VEHICLE AND EQUIPMENT WASHING; AND
- TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE.

22. WASTE MANAGEMENT, WASTE MANAGEMENT SHALL BE IN ACCORDANCE WITH THE DEPARTMENT'S APPROVAL UNDER THIS CHAPTER DOES NOT AUTHORIZE A DISCHARGE THAT IS MIXED WITH A SOURCE OF NON STORMWATER, OTHER THAN THOSE DISCHARGES IN COMPLIANCE WITH APPENDIX C (6). SPECIFICALLY, THE DEPARTMENTS APPROVAL DOES NOT AUTHORIZE DISCHARGES OF THE FOLLOWING:

- WASTEWATER FROM THE WASHOUT OR CLEANOUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS OR OTHER CONSTRUCTION MATERIALS;
- FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE;
- SOAPS, SOLVENTS, OR DETERGENTS USED IN VEHICLE AND EQUIPMENT WASHING; AND
- TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE.

23. WASTE MANAGEMENT, WASTE MANAGEMENT SHALL BE IN ACCORDANCE WITH THE DEPARTMENT'S APPROVAL UNDER THIS CHAPTER DOES NOT AUTHORIZE A DISCHARGE THAT IS MIXED WITH A SOURCE OF NON STORMWATER, OTHER THAN THOSE DISCHARGES IN COMPLIANCE WITH APPENDIX C (6). SPECIFICALLY, THE DEPARTMENTS APPROVAL DOES NOT AUTHORIZE DISCHARGES OF THE FOLLOWING:

- WASTEWATER FROM THE WASHOUT OR CLEANOUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS OR OTHER CONSTRUCTION MATERIALS;
- FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE;
- SOAPS, SOLVENTS, OR DETERGENTS USED IN VEHICLE AND EQUIPMENT WASHING; AND
- TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE.

24. WASTE MANAGEMENT, WASTE MANAGEMENT SHALL BE IN ACCORDANCE WITH THE DEPARTMENT'S APPROVAL UNDER THIS CHAPTER DOES NOT AUTHORIZE A DISCHARGE THAT IS MIXED WITH A SOURCE OF NON STORMWATER, OTHER THAN THOSE DISCHARGES IN COMPLIANCE WITH APPENDIX C (6). SPECIFICALLY, THE DEPARTMENTS APPROVAL DOES NOT AUTHORIZE DISCHARGES OF THE FOLLOWING:

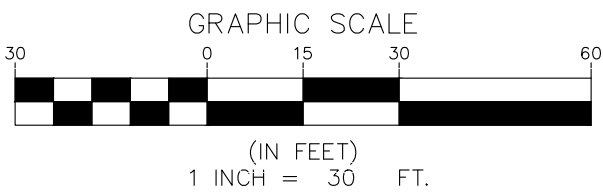
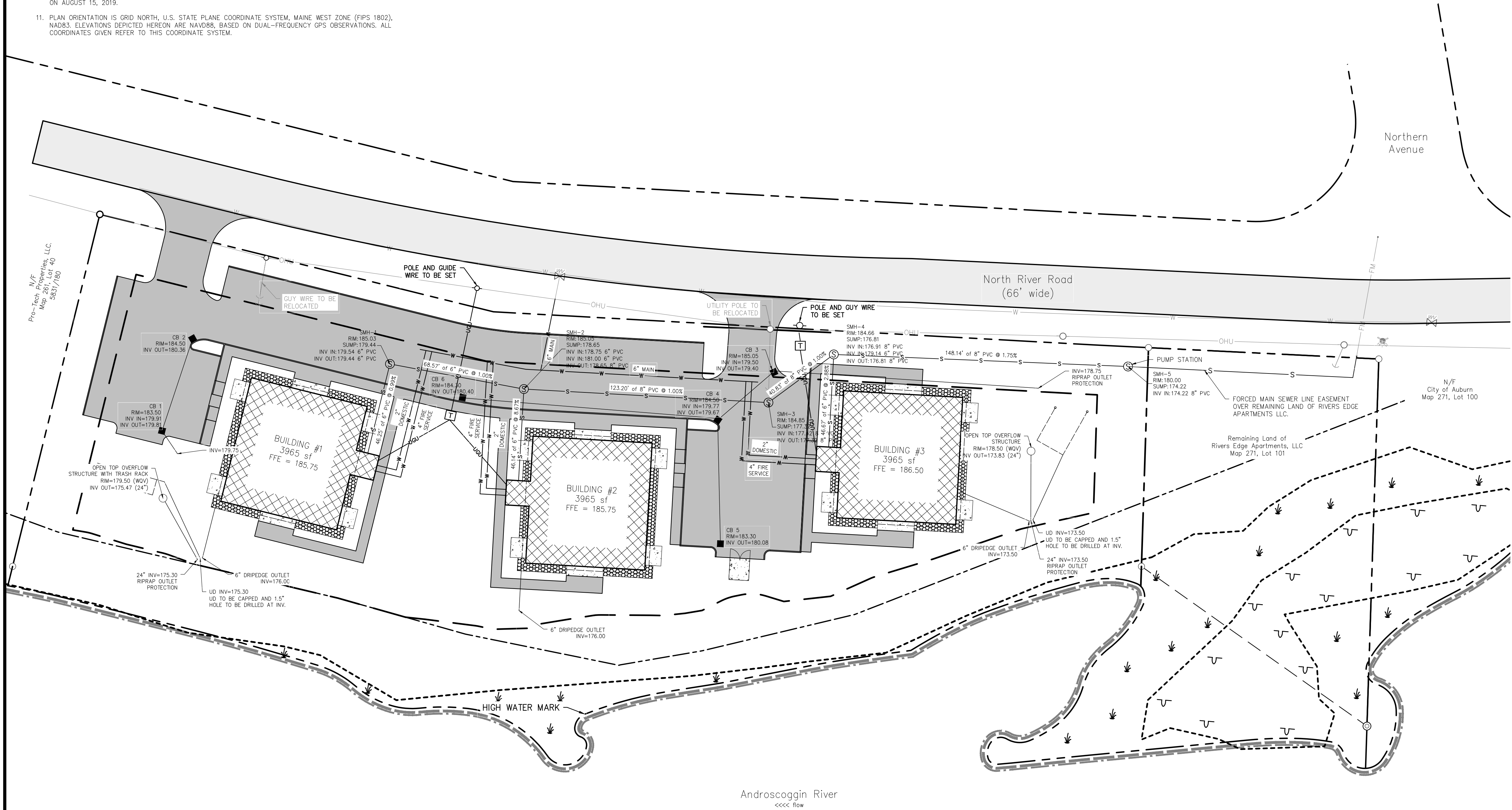
- WASTEWATER FROM THE WASHOUT OR CLEANOUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS OR OTHER CONSTRUCTION MATERIALS;
- FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE;
- SOAPS, SOLVENTS, OR DETERGENTS USED IN VEHICLE AND EQUIPMENT WASHING; AND
- TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE.

25. WASTE MANAGEMENT, WASTE MANAGEMENT SHALL BE IN ACCORDANCE WITH THE DEPARTMENT'S APPROVAL UNDER THIS CHAPTER DOES NOT AUTHORIZE A DISCHARGE THAT IS MIXED WITH A SOURCE OF NON STORMWATER, OTHER THAN THOSE DISCHARGES IN COMPLIANCE WITH APPENDIX C (6). SPECIFICALLY, THE DEPARTMENTS APPROVAL DOES NOT AUTHORIZE DISCHARGES OF THE FOLLOWING:

- WASTEWATER FROM THE WASHOUT OR CLEANOUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS OR OTHER CONSTRUCTION MATERIALS;
- FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE

GENERAL NOTES:

- BOUNDARY AND EXISTING CONDITIONS INFORMATION WERE TAKEN FROM A PLAN ENTITLED "EXISTING CONDITIONS AND BOUNDARY SURVEY PLAN" DATED JUNE 29TH, 2019, PREPARED BY SURVEYWORKS, INC.
- ALL BOOK AND PAGE NUMBERS REFER TO THE ANDROSCOGGIN COUNTY REGISTRY OF DEEDS, UNLESS OTHERWISE NOTED.
- THE RECORD OWNER OF THE SUBJECT PARCEL IS RIVER'S EDGE APARTMENTS, LLC BY A DEED DATED MAY 21, 2019 AND RECORDED IN BOOK 10089, PAGE 185.
- THE SUBJECT PARCEL IS SHOWN ON THE CITY OF AUBURN'S TAX MAP 271 AS LOT 101 AND IS LOCATED IN THE GENERAL BUSINESS DISTRICT, THE FLOODPLAIN OVERLAY DISTRICT & THE SHORELAND ZONE OVERLAY DISTRICT. THE GENERAL BUSINESS DISTRICT REFERENCES THE MULTIFAMILY SUBURBAN DISTRICT FOR RESIDENTIAL USES.
- TOTAL AREA OF THE SUBJECT PARCEL IS 98,917 SQUARE FEET OR 2.85 ACRES.
- BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED ON AN ON THE GROUND SURVEY PERFORMED BY SURVEYWORKS, INC. IN MAY OF 2019.
- A PORTION OF THE SUBJECT PARCEL IS LOCATED WITHIN ZONE AE, A SPECIAL FLOOD HAZARD AREA WITH BASE FLOOD ELEVATION (BFE), AS DELINEATED ON THE FLOOD INSURANCE RATE MAP FOR THE CITY OF AUBURN, ANDROSCOGGIN COUNTY, COMMUNITY-PANEL NUMBER 23001C0326E, HAVING AN EFFECTIVE DATE OF JULY 8, 2013. THE REMAINDER OF THE SUBJECT PARCEL IS LOCATED WITHIN ZONE X, AREAS OF MINIMAL FLOOD HAZARD. ALL FLOOD ZONES SHOWN ARE BASED ON AN ON THE GROUND TOPOGRAPHIC SURVEY (SEE NOTE 7). THE FLOODWAY BOUNDARY IS SHOWN BASED ON SHAPEFILES OBTAINED FROM THE FEMA FLOOD MAP SERVICE CENTER.
- A WETLAND DELINEATION WAS PERFORMED ON THIS PROJECT SITE BY SURVEYWORKS, INC. IN MAY OF 2019 AND BY JOSEPH NOEL IN AUGUST OF 2019. THIS WETLANDS DELINEATION CONFORMS TO THE STANDARDS AND METHODS OUTLINED IN THE 1987 WETLAND DELINEATION MANUAL AND NORTHEAST REGIONAL SUPPLEMENT AUTHORED AND PUBLISHED BY THE U.S. ARMY CORPS OF ENGINEERS. WETLAND FLAGS WERE LOCATED USING "FLOAT" SOLUTIONS AND ARE BELIEVED TO HAVE A HORIZONTAL ACCURACY OF 1 METER.
- THE DEPTH, SIZE, LOCATION, EXISTENCE OR NONEXISTENCE OF UNDERGROUND UTILITIES AND/OR STRUCTURES WERE NOT INVESTIGATED AS PART OF THIS SURVEY. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. OWNERS, CONTRACTORS, AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (CALL 811) AND FIELD VERIFY EXISTING UTILITIES PRIOR TO DIGGING OR BREAKING GROUND.
- NORTH RIVER ROAD IS CURRENTLY UNDER CONSTRUCTION. TOPOGRAPHIC INFORMATION ASSOCIATED WITH NORTH RIVER ROAD IS SHOWN BASED ON GRADE STAKES MARKED WITH PROPOSED FINISHED GRADE ELEVATIONS LOCATED ON AUGUST 15, 2019.
- PLAN ORIENTATION IS GRID NORTH, U.S. STATE PLANE COORDINATE SYSTEM, MAINE WEST ZONE, (TIPS 1802), NAD83. ELEVATIONS DEPICTED HEREON ARE NAVD83, BASED ON DUAL-FREQUENCY GPS OBSERVATIONS. ALL COORDINATES GIVEN REFER TO THIS COORDINATE SYSTEM.



LEGEND:

- BOUNDARY LINE
- ABUTTER LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SPOT GRADE
- TREE LINE
- PROPOSED PAVEMENT
- PROPOSED BOLLARD
- PROPOSED TRANSFORMER
- PROPOSED FENCE
- PROPOSED STORM DRAIN LINE
- PROPOSED WATER LINE
- PROPOSED SEWER LINE
- PROPOSED UNDERGROUND UTILITY
- PROPOSED BUILDING
- PROPOSED RIPRAP
- EXISTING STORM DRAIN LINE
- EXISTING WATER LINE
- EXISTING SEWER LINE
- EXISTING OVERHEAD UTILITY
- EXISTING UNDERGROUND UTILITY
- EXISTING PAVEMENT
- EXISTING WATER VALVE
- EXISTING UTILITY POLE
- EXISTING GUY WIRE

WEST SHORE LANDING APARTMENTS

NORTH RIVER ROAD, AUBURN, MAINE 04210

FOR

RIVERS EDGE APARTMENTS, LLC

155 CENTER STREET, AUBURN, MAINE 04210

SIGNED COPY OF DRAWING
ON FILE AT DIRIGO A/E
OFFICE



UTILITY PLAN

REV.	DATE	DESCRIPTION
0	9/30/19	ISSUED FOR REVIEW
1	12/6/19	PRELIMINARY PLAN REVIEW

DIRIGO
ARCHITECTURAL
ENGINEERING • CONSTRUCTION MANAGEMENT

7 COBBLESTONE WAY, SUITE 2
TURNER, MAINE 04282
PH: (207) 225-3040
WS.DIRIGOAE.COM

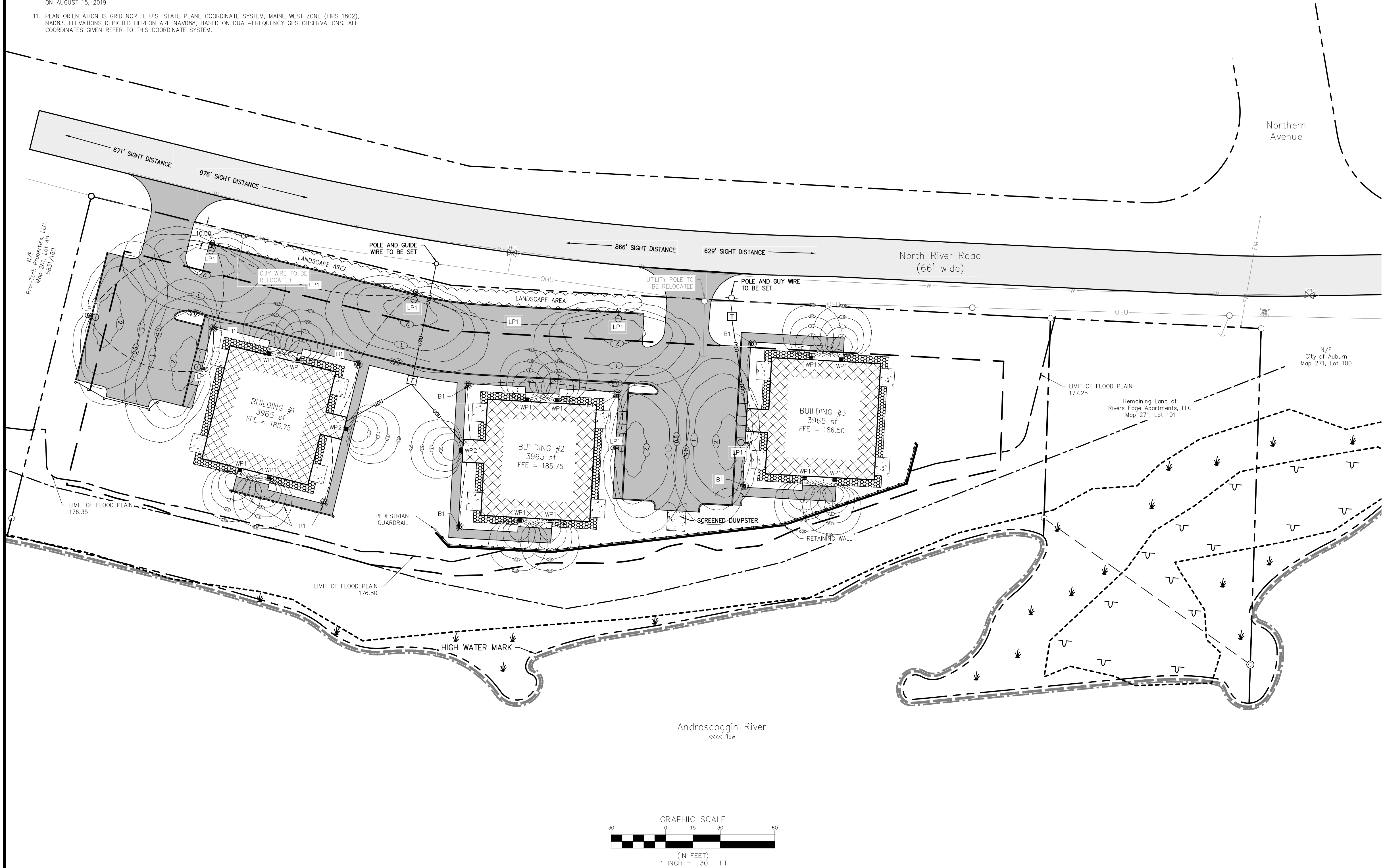
SCALE:	1" = 30'
DATE:	11/15/19
PROJECT:	19-015

SHEET NO.

C3.0

GENERAL NOTES:

- BOUNDARY AND EXISTING CONDITIONS INFORMATION WERE TAKEN FROM A PLAN ENTITLED "EXISTING CONDITIONS AND BOUNDARY SURVEY PLAN" DATED JUNE 29TH, 2019, PREPARED BY SURVEYWORKS, INC.
- ALL BOOK AND PAGE NUMBERS REFER TO THE ANDROSCOGGIN COUNTY REGISTRY OF DEEDS, UNLESS OTHERWISE NOTED.
- THE RECORD OWNER OF THE SUBJECT PARCEL IS RIVER'S EDGE APARTMENTS, LLC BY A DEED DATED MAY 21, 2019 AND RECORDED IN BOOK 10089, PAGE 185.
- THE SUBJECT PARCEL IS SHOWN ON THE CITY OF AUBURN'S TAX MAP 271 AS LOT 101 AND IS LOCATED IN THE GENERAL BUSINESS DISTRICT, THE FLOODPLAIN OVERLAY DISTRICT & THE SHORELAND ZONE OVERLAY DISTRICT. THE GENERAL BUSINESS DISTRICT REFERENCES THE MULTIFAMILY SUBURBAN DISTRICT FOR RESIDENTIAL USES.
- TOTAL AREA OF THE SUBJECT PARCEL IS 98,917 SQUARE FEET OR 2.85 ACRES.
- BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED ON AN ON THE GROUND SURVEY PERFORMED BY SURVEYWORKS, INC. IN MAY OF 2019.
- A PORTION OF THE SUBJECT PARCEL IS LOCATED WITHIN ZONE AE, A SPECIAL FLOOD HAZARD AREA WITH BASE FLOOD ELEVATION (BFE), AS DELINEATED ON THE FLOOD INSURANCE RATE MAP FOR THE CITY OF AUBURN, ANDROSCOGGIN COUNTY, COMMUNITY-PANEL NUMBER 23001C0326E, HAVING AN EFFECTIVE DATE OF JULY 8, 2013. THE REMAINDER OF THE SUBJECT PARCEL IS LOCATED WITHIN ZONE X, AREAS OF MINIMAL FLOOD HAZARD. ALL FLOOD ZONES SHOWN ARE BASED ON AN ON THE GROUND TOPOGRAPHIC SURVEY (SEE NOTE 7). THE FLOODWAY BOUNDARY IS SHOWN BASED ON SHAPEFILES OBTAINED FROM THE FEMA FLOOD MAP SERVICE CENTER.
- A WETLAND DELINEATION WAS PERFORMED ON THIS PROJECT SITE BY SURVEYWORKS, INC. IN MAY OF 2019 AND BY JOSEPH NOEL IN AUGUST OF 2019. THIS WETLANDS DELINEATION CONFORMS TO THE STANDARDS AND METHODS OUTLINED IN THE 1987 WETLAND DELINEATION MANUAL AND NORTHEAST REGIONAL SUPPLEMENT AUTHORED AND PUBLISHED BY THE U.S. ARMY CORPS OF ENGINEERS. WETLAND FLAGS WERE LOCATED USING "FLOAT" SOLUTIONS AND ARE BELIEVED TO HAVE A HORIZONTAL ACCURACY OF 1 METER.
- THE DEPTH, SIZE, LOCATION, EXISTENCE OR NONEXISTENCE OF UNDERGROUND UTILITIES AND/OR STRUCTURES WERE NOT INVESTIGATED AS PART OF THIS SURVEY. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. OWNERS, CONTRACTORS, AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (CALL 811) AND FIELD VERIFY EXISTING UTILITIES PRIOR TO DIGGING OR BREAKING GROUND.
- NORTH RIVER ROAD IS CURRENTLY UNDER CONSTRUCTION. TOPOGRAPHIC INFORMATION ASSOCIATED WITH NORTH RIVER ROAD IS SHOWN BASED ON GRADE STAKES MARKED WITH PROPOSED FINISHED GRADE ELEVATIONS LOCATED ON AUGUST 15, 2019.
- PLAN ORIENTATION IS GRID NORTH, U.S. STATE PLANE COORDINATE SYSTEM, MAINE WEST ZONE (TIPS 1802), NAD83. ELEVATIONS DEPICTED HEREON ARE NAVD83, BASED ON DUAL-FREQUENCY GPS OBSERVATIONS. ALL COORDINATES GIVEN REFER TO THIS COORDINATE SYSTEM.



LOCATION MAP

LEGEND:

- BOUNDARY LINE
- ABUTTER LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SPOT GRADE
- TREE LINE
- PROPOSED PAVEMENT
- PROPOSED BOLLARD
- PROPOSED TRANSFORMER
- PROPOSED FENCE
- EXISTING STORM DRAIN LINE
- EXISTING WATER LINE
- EXISTING SEWER LINE
- EXISTING OVERHEAD UTILITY
- EXISTING UNDERGROUND UTILITY
- EXISTING PAVEMENT
- EXISTING WATER VALVE
- EXISTING UTILITY POLE
- EXISTING GUY WIRE
- EXISTING BUILDING
- EXISTING RIPRAP

EXTERIOR LIGHTING SCHEDULE:

- WP1 WALL PAK
- WP2 WALL PAK
- B1 42" ILLUMINATED BOLLARD
- LP1 LIGHT POLE, SINGLE HEAD, 12' HT POLE
- LP2 LIGHT POLE, DOUBLE HEAD, 12' HT POLE

NOTES:

- ALL LIGHTING IS LED
- ALL LIGHTING IS CONTROLLED BY PHOTO CELL SET FOR DAWN TO DUSK

WEST SHORE LANDING APARTMENTS

NORTH RIVER ROAD, AUBURN, MAINE 04210

FOR

RIVERS EDGE APARTMENTS, LLC

155 CENTER STREET, AUBURN, MAINE 04210

SIGNED COPY OF DRAWING
ON FILE AT DIRIGO A/E
OFFICE



LIGHTING PLAN

REV.	DATE	DESCRIPTION
0	9/30/19	ISSUED FOR REVIEW
1	12/6/19	PRELIMINARY PLAN REVIEW

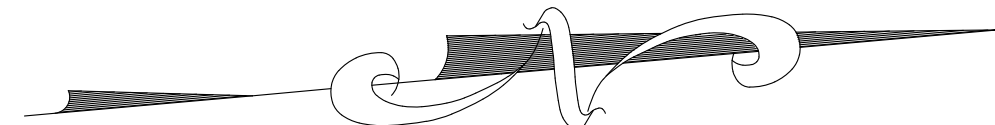
DIRIGO
ARCHITECTURAL
ENGINEERING • CONSTRUCTION MANAGEMENT
7 COBBLESTONE WAY, SUITE 2
TURNER, MAINE 04282

SCALE:	1" = 30'
DATE:	11/14/19
PROJECT:	19-015

SHEET NO.

C4.0

1. BOUNDARY AND EXISTING CONDITIONS INFORMATION WERE TAKEN FROM A PLAN ENTITLED "EXISTING CONDITIONS AND BOUNDARY SURVEY PLAN" DATED JUNE 29TH, 2019, PREPARED BY SURVEY WORKS, INC.
2. ALL BOOK AND PAGE NUMBERS REFER TO THE ANDROSCOGG COUNTY REGISTRY OF DEEDS, UNLESS OTHERWISE NOTED.
3. THE RECORD OWNER OF THE SUBJECT PARCEL IS RIVER'S EDGE APARTMENTS, LLC BY A DEED DATED MAY 21, 2019 AND RECORDED IN BOOK 10089, PAGE 185.
4. THE SUBJECT PARCEL IS SHOWN ON THE CITY OF AUBURN'S TAX MAP 271 AS LOT 101 AND IS LOCATED IN THE GENERAL BUSINESS DISTRICT, THE FLOODPLAIN OVERLAY DISTRICT & THE SHORELAND ZONE OVERLAY DISTRICT. THE GENERAL BUSINESS DISTRICT REFERENCES THE MULTIFAMILY SUBURBAN DISTRICT FOR RESIDENTIAL USES.
5. TOTAL AREA OF THE SUBJECT PARCEL IS 98,917 SQUARE FEET OR 2.85 ACRES.
6. BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED ON AN ON THE GROUND SURVEY PERFORMED BY SURVEYWORKS, INC. IN MAY OF 2019.
7. A PORTION OF THE SUBJECT PARCEL IS LOCATED WITHIN ZONE AE, A SPECIAL FLOOD HAZARD AREA WITH BASE FLOOD ELEVATION (BFE), AS DELINEATED ON THE FLOOD INSURANCE RATE MAP FOR THE CITY OF AUBURN, ANDROSCOGG COUNTY, COMMUNITY-PANEL NUMBER 2300100326, HAVING AN EFFECTIVE DATE OF JULY 8, 2019. THE REMAINDER OF THE SUBJECT PARCEL IS LOCATED WITHIN ZONE XA, AREAS OF MINIMAL FLOOD HAZARD. ALL FLOOD ZONES SHOWN ARE BASED ON AN ON THE GROUND TOPOGRAPHIC SURVEY (SEE NOTE 7). THE FLOODWAY BOUNDARY IS SHOWN BASED ON SHAPFILES OBTAINED FROM THE FEMA FLOOD MAP SERVICE CENTER.
8. A WETLAND DELINEATION WAS PERFORMED ON THIS PROJECT SITE BY SURVEYWORKS, INC. IN MAY OF 2019 AND BY JOSEPH NEEL IN AUGUST OF 2019. THIS WETLAND DELINEATION CONFORMS TO THE STANDARDS AND METHODS SET FORTH IN THE WETLANDS DELINEATION MANUAL, AND NORTHEAST REGIONAL SUPPLEMENT AUTHORED AND PUBLISHED BY THE U.S. ARMY CORPS OF ENGINEERS, WETLAND FLAGS WERE LOCATED USING "FLOAT" SOLUTIONS AND ARE BELIEVED TO HAVE A HORIZONTAL ACCURACY OF 1 METER.
9. THE DEPTH, SIZE, LOCATION, EXISTENCE OR NONEXISTENCE OF UNDERGROUND UTILITIES AND/OR STRUCTURES WERE NOT INVESTIGATED AS PART OF THIS SURVEY. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. OWNERS, CONTRACTORS, AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (CALL 811) AND FIELD VERIFY EXISTING UTILITIES PRIOR TO DIGGING OR BREAKING GROUND.
10. NORTH RIVER ROAD IS CURRENTLY UNDER CONSTRUCTION. TOPOGRAPHIC INFORMATION ASSOCIATED WITH NORTH RIVER ROAD IS SHOWN BASED ON GRADE STAKES MARKED WITH PROPOSED FINISHED GRADE ELEVATIONS LOCATED ON AUGUST 15, 2019.
11. PLAN ORIENTATION IS GRID NORTH, U.S. STATE PLANE, COORDINATE SYSTEM, MAINE WEST ZONE (FIPS 1802). NAD83. ELEVATIONS DEPICTED HEREON ARE NAVD83, BASED ON DUAL-FREQUENCY GPS OBSERVATIONS. ALL COORDINATES GIVEN REFER TO THIS COORDINATE SYSTEM.



	BOUNDARY LINE
	ABUTTER LINE
	EXPOSED CONTOUR
	PROPOSED CONTOUR
	PROPOSED SPOT GRADE
	TREE LINE
	PROPOSED PAVEMENT
	PROPOSED BOLLARD
	PROPOSED TRANSFORMER
	PROPOSED FENCE
	EXISTING STORM DRAIN LINE
	EXISTING WATER LINE
	EXISTING SEWER LINE
	EXISTING OVERHEAD UTILITY
	EXISTING UNDERGROUND UTILITY
	EXISTING PAVEMENT
	EXISTING WATER VALVE
	EXISTING UTILITY POLE
	EXISTING GUY WIRE
	EXISTING BUILDING
	EXISTING RIPRAP

RA= SUMAC (RHUS AROMATICA 'GRO-LOW'), #5 CONTAINER
JS= TAM JUNIPER (JUNIPERUS SABINA 'TAMARISCIFOLIA'), #5 CONTAINER
TC= GREENSPIRE LINDEN (TILIA CORDATA 'GREENSPIRE'), 3" CALIPER
PP= COLORADO GREEN SPRUCE (PICEA PUNGENS), 6'-8" HT
IA= HOLLY (ILEX AQUIFOLIUM), #5 CONTAINER
VS= SHASTA VIBURNUM (VIBURNUM PLICATUM VAR. TOMENTOSUM 'SHASTA'), 5'-6"
HT
TD= SPREADING YEW (TAXUS DENSIFORMIS), #5 CONTAINER
FO= NORTHERN GOLD FORSYTHIA (FORSYTHIA 'NORTHERN GOLD'), 3' HT
HP= HOSTA (HOSTA 'GUACAMOLE'), #2 CONTAINER

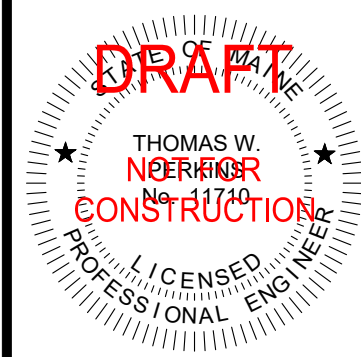
WEST SHORE LANDINGS APARTMENTS

NORTH RIVER ROAD, AUBURN, MAINE 04210

FOR

RIVERS EDGE APARTMENTS, LLC

SIGNED COPY OF DRAWING
ON FILE AT DIRIGO A/E
OFFICE



LANDSCAPE PLAN

REV.	DATE	DESCRIPTION
0	9/30/19	ISSUED FOR REVIEW
1	12/6/19	PRELIMINARY PLAN REVIEW
		CHECKED BY: TJC



מבוא

DIRIGO ARCHITECTURAL
ENGINEERING • CONSTRUCTION MANAGEMENT
7 COBBLESTONE WAY, SUITE 2
PH: (207) 225-3040
WWW.DIRIGOARCH.COM
FURNED, MAINE 04287

SCALE: 1" = 30'

DATE: 11/14/19

PROJECT:	19-015
----------	--------

SHEET NO.

C5.0