City of Auburn, Maine
Office Economic and Community Development
www.auburnmaine.gov | 60 Court Street
Auburn, Maine 04210
207.333.6601

PLANNING BOARD AGENDA

Auburn City Hall, Council Chambers 2nd Floor

Tuesday, July 11, 2017 - 6:00PM

1. **ROLL CALL:**

2. **MINUTES:** Approval request of the June 13, 2017 meeting minutes.

3. **NEW BUSINESS and PUBLIC HEARING:**

   A. Major Subdivision (13 residential lots) – Woodbury Heights Phase III (PID: 110-009) at 113 Woodbury Road and Danville Corner Road, pursuant to Chapter 60, Division 4 Subdivision; Sections 1359 Subdivision and 1362 Major Final Subdivision Plan of the Auburn Code of Ordinances.

   B. Planning Board initiated text amendment to allow dog kennels in the Agricultural and Resource Protection (AGRP) pursuant to Chapter 60, Sec. 60-145 (b) of the Auburn Code of Ordinances.

4. **OLD BUSINESS:**

   A. None

5. **MISCELLANEOUS:**

   A. Discussion of Proposed Zoning Changes by Lewiston-Auburn Airport Board.

   B. Discussion of Planning Board Initiated Text Amendment for Livestock.

   C. Discussion of Ag Study & Crossroads Proposal.

6. **PUBLIC COMMENT:**

7. **AJOURNMENT:**

Next Planning Board Meeting is on August 8, 2017

City of Auburn, Maine
Office of Economic and Community Development
60 Court Street, Auburn, Maine 04210
www.auburnmaine.gov 207.333.6601

PLANNING BOARD STAFF REPORT

To: Auburn Planning Board

From: Zach Mosher, City Planner

Re: Woodbury Heights Final Subdivision- Phase 3

Date: July 11, 2017

I. **PROPOSAL**- George Bouchles, Surveyor and agent for Mr. Reggie Bouffard and Mr. Gary McFarland, is seeking approval for a major subdivision of thirteen additional residential lots (lots 10-22), located on Danville Corner Road in the city of Auburn pursuant to Chapter 60, Division 4 Subdivision; Sections 1359 and 1362, Major Final Subdivision of the Auburn Code of Ordinances. The developers propose to subdivide a portion of a 57 acre parcel of land located on the Danville Corner Rd. and Woodbury Rd (PID: 110-009) for a total of 22 lots for the project. The entire parcel is located in the Low Density Rural Residential District.

A preliminary major subdivision submission was reviewed by the Planning Board at their June 13th meeting. At that meeting, the Planning Board approved a waiver request but added a condition that a year round, emergency access road be constructed at the end of the proposed cul-de-sac street that would connect to Woodbury Road. The condition resulted from concern over the number of homes that would have only one means of ingress and egress and for the ability of emergency services to have access to the subdivision. Furthermore, there was mention that municipal services including trash pickup and school bus pickup/dropoff are better delivered on a thru street.

The applicant is now asking the Planning Board to reconsider the waiver request for the cul-de-sac street without the added condition of an emergency access road. The applicant will present their request at the July 11 Planning Board meeting.

a. **Transportation** - The subdivision proposes the construction of a new public street to serve 11 new interior lots of the subdivision and will be accessed from Danville Corner Rd. The new road is being proposed as a public street with a cul-de-sac and will be constructed to public street standards. Chapter 46, Sec. 46-180 (3) Design and Construction Standards of the Code of Ordinances requires that any cul-de-sac be no longer than 600 ft. in length.

The developer is proposing a cul-de-sac street 1,450 ft. in length, accessed from Danville Corners Road, which will require a waiver from the Planning Board. Phases I & II of Woodbury Heights both reserved a 60 ft right of way along Woodbury and Danville Corner Roads that could serve the interior of the subdivision. In Phase I and II there was discussion by the Planning Board about the need to improve Woodbury Road and it was the Department of Public Service's opinion that it's the City's responsibility to maintain it. The applicant has estimated that the plan will result in 39 new peak hour trips, which does not meet the threshold of 100 peak hour trips for a traffic movement permit. Limiting access to Danville Corner Road helps to allow the lots without adding additional traffic to the substandard Woodbury Hill Road. The Fire Department has determined that the road meets their requirements without the emergency access point and Public Works does not want to maintain it.

b. **Environmental** – An underground petroleum product line intersects the 57 acre parcel and includes a 100 ft. easement. There is one fairly large wetland on the parcel as well as several small drainageways associated with the wetland. The Stormwater Management Plan for Woodbury Heights is in accordance with the MDEP Chapter 500 rules. The subdivision plan will yield approx 57,000 sq. ft. of new impervious roadway surface and approx. 114,000 sq. ft. of total developed area. It is proposed that the developers will use forested and meadow buffers to meet required treatment for stormwater quality standards.

II. **DEPARTMENT REVIEW**- The Plan Review Committee reviewed the plan on May 17th and June 21st2017.

a. Police- No comments were received from Police.
b. Auburn Water and Sewer District- No services in this area and no concerns.
c. Fire Department- After the June 21st Plan Review Committee meeting the Fire Department issued a letter stating that cul-de-sac street meets their standards without the emergency access point and included standards for the Planning Board requested emergency access road at the end of the cul-de-sac street if it was required.
d. Public Services – Scott Holland added that the city would not maintain the proposed emergency access road. (Update with what Scott submits at the meeting)
e. Lewiston Auburn Airport- The LA Airport Manager is requesting a note placed on the plans to that effect, and a note stating that no structures be constructed over 50 feet in heightNo new information from the Airport Manager.

f. Economic & Community Development -
   - Indicated that the proposed cul-de-sac street name of "Mountain View Drive" needs approval by the City Addressing Officer.
   - Also indicated that the new lot addresses need to be determined.
   - The cul-de-sac length waiver from 600' to 1450' will help to minimze impacts to Woodbury Hill Road.

III. PLANNING BOARD ACTION- Planning Board is being asked to reconsider the waiver request without the condition of the emergency access road. The waiver reconsideration request is discussed later in section III, D of this report.

The Planning Board is also being asked to review this **Final Subdivision Plan** application using Division 4 Subdivsion Chapter 60- Sections 1359 Subdivsion Guidelines, 1362 Final Subdivision Plan and 1365, General Requirements of the Auburn Code of Ordinances.

A. 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); (**The proposal meets Chapter 500 stormwater standards.)**

(2) Has sufficient water available for the reasonably foreseeable needs of the subdivision; **(Private wells serve existing homes and C&R well drilling opines that there is adequate water for the additional lots.**)

(3) Will not cause an unreasonable burden on an existing water supply, if one is to be utilized; (**Private wells serve existing homes and C&R well drilling opines that there is adequate water for the additional lots.**)

(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. (**The proposal meets Chapter 500 stormwater standards and Erosion and Sediment Control BMPs will be followed during construction.**)

(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; (**The cul-de-sac length waiver and not requiring access to Woodbury Road helps achieve this outcome.)**

(6) Will provide for adequate sewage waste disposal; **(Test pits are shown on the plans and each lot has been shown to have soils suitable for wastewater 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; (**Municipal services are adequate.)**

(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; (**The project takes advantage of mountain views and does not impact 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; **(Applicant submitted a waiver request for length of cul-de-sac road and otherwise meets the requirements.)**

(10) Is funded by a subdivider has adequate financial and technical capacity to meet the standards of this section; **(The applicant has demonstrated the ability and capacity to deliver high end homes in the earlier phases of the development and has submitted a letter from Androscoggin Bank confirming their borrowing capacity.)**

(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; **(The development has added substantial value and will continue to do so.)**

(12) Has provisions for on-site landscaping that are adequate to screen neighboring properties from unsightly features of the development; **(The lots are rural lots and will be landscaped adequately as existing lots have been.)**

(13) Will not create a fire hazard and has provided adequate access to the site for emergency vehicles; **(The proposed road provides adequate access and the homes will meet code requirements.)**

(14) Will not, alone or in conjunction with existing activities, adversely affect the quality or quantity of groundwater; **(The proposal meets Chapter 500 stormwater standards and Erosion and Sediment Control BMPs will be followed during construction. Wastewater disposal will comply with State Requirements.)**

(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. **(The project is not located in a great pond watershed.)**

B. Sec. 60-1362.—Major subdivision final plan.

2. The planning board shall, within 30 days after the public hearing on a final plan, conditionally approve, approve, approve with conditions, or disapprove the final plan. Any such decision of the planning board shall include findings of fact, and any approval with conditions or disapproval shall be accompanied by the reasons therefore in writing.

3. In reviewing a subdivision, the planning board shall consider previous subdivision of the same applicant, subdivider or principals of such application. If the developer has failed to complete the public improvements shown on an approved plan to the satisfaction of the planning board, then this shall constitute conclusive evidence of technical capabilities of the applicant or developer to comply with the terms of this chapter or to complete work required by a plan.

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. **(The proposal conforms to the comprehensive plan and will meet 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. **(The proposal meets this requirement.)**

(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. (**The proposal meets this requirement.)**

The Staff's finds that the Major Subdivision Final Plan Application submitted for Woodbury Heights meets the criteria set forth in Section 60-1365.

D. **Waiver Request** – The applicant is asking the Planning Board to reconsider the waiver request without the condition of an emergency access road. B&M Developers included a waiver request at the June 13th meeting for the length of the public cul-de-sac street as part of the Major Preliminary Subdivision Plan pursuant to Chapter 60, Sec. 60-1366 of the Auburn Code of Ordinances. Cul-de-sac streets over 600 ft. in length are subject to Planning Board approval, per Chapter 46, Sec. 46-180 (3). Should the Planning Board agree to reconsider the applicant's request, the staff is still recommending the approval of this waiver request without the emergency access road based on the following findings:

1) The waiver meets the purpose and objective of Staff Approvals and Waivers, Chapter 60, Sec. 60-1366

2. Granting the waiver request will reduce new traffic to Woodbury Road, an existing substandard public road/right-of-way.

3) Granting the waiver request will not compromise public safety.

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IV.STAFF RECOMMENDATION OF FINAL SUBDIVSION PLAN

The Staff recommends APPROVAL of the 13 residential lots Final Subdivision with the finding that it meets the requirements of Chapter 60, Sections 1359, 1362 and 1365 of the Auburn Code of Ordinances. (titles)

Should the Planning Board approve this request, the approval will be subject to the following conditions:

1) No development activity until any bonding or inspection fees is determined by the Auburn Engineering Department.
2) The applicant shall secure approval from the tax assessor for a lot numbering sequence to ensure compatibility with the existing tax system. The numbering system will not be construed to indicate anything more than identification of parcels for taxation purposes.
3) A note shall be added to the plan stating, "Lots 11-22 of Phase III are located within an Area of Approach for Aircraft to the Lewiston Auburn Airport."

Zach Mosher
City Planner

C: File

AUBURN FIRE DEPARTMENT

550 Minot Avenue
Auburn ME 04210
(207)333-6633/Fax (207)784-3283

Timothy Allen
Deputy Chief
Auburn Fire Department
550 Minot Avenue
Auburn, ME 04210

June 21, 2017

RE: Woodbury Heights Phase 3

To: Zach Mosher

In regards to the questions which were brought up today regarding the new road in the Woodbuty Heights Phase 3, I have made the following determinations regarding access for fire apparatus:

1. Fire department access roads shall have an unobstructed width of not less than 20 ft (6.1 m). NFPA 1: 18.2.3.4.1.1, Edition 2006. Road width is 24 feet, so **Road width is sufficient**.
2. Fire department access roads shall have an unobstructed vertical clearance of not less than 13 ft 6 in. (4.1 m). NFPA 1:18.2.3.4.1.2, Edition 2006. **There are none.**
3. The angle of approach and departure for any means of fire department access road shall not exceed 1 ft drop in 20 ft (0.3 m drop in 6 m) or the design limitations of the fire apparatus of the fire department, and shall be subject to approval by the AHJ. NFPA 1:182.3.4.6.2, Edition 2006. **Road meets FD needs.**
4. Fire department access roads connecting to roadways shall be provided with curb cuts extending at least 2 ft (0.61 m) beyond each edge of the fire lane. NFPA 1:18.2.3.4.6.3, Edition 2006. **Not Applicable**
5. **Dead Ends**. Dead-end fire department access roads in excess of 150 ft (46 m) in length shall be provided with approved provisions for the fire apparatus to turn around. NFPA 1:18.2.3.4.4, Edition 2006
    a. The cul-d-sac at the end of the road has a 62 foot outside radius and we require a minimum 44.2 foot outside radius. **OS Radius is sufficient**.
    b. The cul-d-sac at the end of the road has a 37 foot inside radius and we require a minimum 25.4 foot inside radius. **IS Radius is sufficient**.
    c. The cul-d-sac at the end of the road has a 50 foot centerline radius and we require a minimum 39 foot centerline radius. **Centerline Radius is sufficient**.
6. 1400 feet is an acceptable length for a hose lay for a supply line in a rural water situation. No significant elevation loss or gain to interfere with water supply hydraulic needs.

Respectfully submitted,

Timothy Allen
Deputy Chief

From:Scott Holland
Sent:Friday, June 30, 2017 10:41 AM
To: Zach Mosher
Cc: Doug Greene
Subject:RE: emergency access road - WH

Hi Zach, Public Services is not for the Emergency access road at the Woodbury Heights. If it were to be constructed we would not be responsible for the Winter Maintenance especially where we would have to open and close a gate to get through it.

Thanks

"WOODBURY HEIGHTS SUBDIVISION - PHASE 3"
A RESIDENTIAL SUBDIVISION

SUBDIVISION APPLICATION

PREPARED FOR
B&M DEVELOPERS, INC.

DATED: May 10, 2017

CADmaster

586 Park Avenue - Auburn, Maine 04210
office - 207-689-3232 cell - 207-240-5567
e-mail - gsb@cadmasterr.com

Land Surveying and Septic Design

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(in order of presentation)

CADmaster
CAD Drafting, Land Surveying and Septic Design
191 Madison Street – Auburn, ME 04210
office - 207-689-3232 cell-207-240-5567
e-mail – gsb@cadmasterr.com

May 10, 2017

Auburn Planning Board
City of Auburn
60 Court Street
Auburn, Maine 04210

RE: "Woodbury Heights - Phase 3" – 13 Lot Residential Subdivision
Danville Corner Road
Auburn, Maine
Major Subdivision Application

Dear Planning Board Members:

On behalf of Mr. Gary McFarland & Mr. Reggie Bouffard, please find attached an application for a Major Subdivision Application and supportive documentation for review and approvals of a thirteen (13) lot residential subdivision to be located on the Danville Corner Road in the City of Auburn. Lots 2 and 3 as shown on the included plan sets was previously approved in Phase 1 of "Woodbury Heights". The Lot configurations for these two (2) lots is proposed to be modified as part of this final Phase.

Briefly, Mr. McFarland and Mr. Bouffard c/o B&M Developers, Inc. propose to subdivide a portion of a 57.39 acre parcel of land they jointly own located on the Danville Corner Road and the Woodbury Road (municipal tax map no. 110, lot no. 9), into thirteen (13) residential house lots. The proposed development parcels will be divided into thirteen (13) lots ranging in size from 1.19 acres to 5.11. The proposed subdivision will require the construction of a new road, to be known as Mountain View Drive which will be accessed from the Danville Corner Road. The proposed road will be approximately 1,450 feet in length with a cul-d-sac turn-around at the end of the proposed road.

All lots will be serviced by on-site drilled wells and subsurface waste water disposal system.

I trust the following information will be sufficient for review and approval of the enclosed Subdivision Application.

I look forward to meeting with the Board at its next regularly scheduled meeting to discuss the enclosed application.

Respectfully submitted,
CADmaster Drafting, Land
Surveying and Septic Design

George Bouchles, PLS 2295, LSE 338

Development Review Application

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

PROJECT NAME: Woodbury Heights - Phase 3

PROPOSED DEVELOPMENT ADDRESS: Danville Corner Road

PARCEL ID#: Map 110, Portion of Lot 009

REVIEW TYPE:

Site Plan ☐	Site Plan Amendment ☐
Subdivision ☒	Subdivision Amendment ☐

PROJECT DESCRIPTION: B&M Developers, Inc. is proposing to create a 13 Lot Residential Subdivison to be located off the Danville Corner Road. Each lot will be serviced by on-site individual Subsurface Waste Water Disposal System and Drilled Wells. A new road will be constructed to municipal specifications.

CONTACT INFORMATION:

Applicant: B&M Developers, Inc.
Name: Gary McFarland, Reggie Bouffard
Address: Danville Corner Rd. Auburn, ME
Zip Code: 04210
Work #: 783-6224
Cell #: 576-0573 (Gary)
Fax #: 783-4994
Home #: n/a
Email: bmhouse@al.com

Property Owner: B&M Developers, Inc.
Name:Gary McFarland, Reggie Bouffard
Address:Danville Corner Rd. Auburn, ME
Zip Code: 04210
Work #: 783-6224
Cell #: 576-0669 (Reggie)
Fax #: 783-4994
Home #: n/a
Email: rkbouffard@aol.com

Project Representative
Name: George Bouchles, PLS 2295
Address: 586 Park Avenue - Auburn, ME
Zip Code: 04210
Work #: 786-3232
Cell #: 240-5567
Fax #: 786-3232
Home #: n/a
Email: gsb@cadmasterr.com

Other professional representatives for the project (surveyors, engineers, etc.),
Name: Vaughn Smith, C.S.S. # 290
Address:1006 Hallowell Rd.-West Gardiner
Zip Code: 04345
Work #: 724-5635
Cell #: 441-3887
Fax #: n/a
Home #: n/a
Email:s

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	48,443 sq. ft.
Proposed Total Impervious Area	48,443 sq. ft.
Proposed Impervious Net Change	100 sq. ft.
Impervious surface ratio existing	0 % of lot area
Impervious surface ratio proposed	3.4 % of lot area

BUILDING AREA/LOT COVERAGE

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

ZONING

Existing	Low Density Rural Res.
Proposed, if applicable	

LAND USE

Existing	Vacant
Proposed	Residential

RESIDENTIAL, IF APPLICABLE

Existing Number of Residential Units	none
Proposed Number of Residential Units	13
Subdivision, Proposed Number of Lots	13

PARKING SPACES

Existing Number of Parking Spaces	
Proposed Number of Parking Spaces	
Number of Handicapped Parking Spaces	
Proposed Total Parking Spaces	

ESTIMATED COST OF PROJECT $175,000

DELEGATED REVIEW AUTHORITY CHECKLIST

SITE LOCATION OF DEVELOPMENT AND STORMWATER MANAGEMENT

Existing Impervious Area	0 sq. ft.
Proposed Disturbed Area	2.4 acres sq. ft.
Proposed Impervious Area	1.0 acres 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 crated 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 _____ passenger car equivalents (PCE)
(Since July 1, 1997)

Total traffic estimated in the peak hour-proposed (Since July 1, 1997) 39 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 Low Density Rural Residence District zoning district.
2. Parcel Area: **31.98** acres / _____ square feet(sf).

Regulations	Required/Allowed	Provided
Min Lot Area	43,560 sq. ft.	/
Street Frontage	250 ft.	/
Min Front Yard	25 ft.	/
Min Rear Yard	25 ft.	/
Min Side Yard	15 ft.	/
Max. Building Height	35 ft.	/
Use Designation	Residential	/
Parking Requirement	1 space/ per N/A square feet of floor area	
Total Parking:	N/A	/
Overlay zoning districts (if any):	N/A	/ /
Urban impaired stream watershed?	YES/NO If yes, watershed name	N/A

DEVELOPMENT REVIEW APPLICATION SUBMISSION

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

1. 5 Full size plans and 10 smaller (no larger than 11" x 17") plans containing the information found in the attached sample plan checklist.
2. Application form that is completed and signed by the property owner or designated representative. (NOTE: All applications will be reviewed by staff and any incomplete application will be not be accepted until all deficiencies are corrected.
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 Citys 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 Ordiances

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:** May 10, 2017

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: WOODBURY HEIGHTS - Phase 3

PROPOSED DEVELOPMENT ADDRESS- _WOODBURY ROAD

PARCEL #:- Map 110, Portion of Lot 9

Required Information		Check Submitted		Applicable Ordinance	
Site Plan		Applicant	Staff	Lewiston	Auburn
	Owner's Names/Address	X			
	Names of Development	X			
	Professionally Prepared Plan	X			
	Tax Map or Street/Parcel Number	X			
	Zoning of Property	X			
	Distance to Property Lines	X			
	Boundaries of Abutting land	X			
	Show Setbacks, Yards and Buffers	X			
	Airport Area of Influence (Auburn only)	-			
	Parking Space Calcs	-			
	Drive Openings/Locations	-			
	Subdivision Restrictions	-			
	Proposed Use	-			
	PB/BOA/Other Restrictions	-			
	Fire Department Review	-			
	Open Space/Lot Coverage	-			
	Lot Layout (Lewiston only)	-			
	Existing Building (s)	-			
	Existing Streets, etc.	-			
	Existing Driveways, etc.	-			
	Proposed Building(s)	-			
	Proposed Driveways	-			
Landscape Plan		-			
	Greenspace Requirements	-			
	Setbacks to Parking	-			
	Buffer Requirements	-			
	Street Tree Requirements	-			
	Screened Dumpsters	-			
	Additional Design Guidelines	-			

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	Planting Schedule	=			
Stormwater & Erosion Control Plan		X			
	Compliance w/ chapter 500	X			
	Show Existing Surface Drainage	X			
	Direction of Flow	X			
	Location of Catch Basins, etc.	-			
	Drainage Calculations	X			
	Erosion Control Measures	X			
	Maine Construction General Permit	-			
	Bonding and Inspection Fees	-			
	Post-Construction Stormwater Plan	X			
	Inspection/monitoring requirements	-			
	Third Party Inspections (Lewiston only)	-			
Lighting Plan		-			
	Full cut-off fixtures	-			
	Meets Parking Lot Requirements	-			
Traffic Information		-			
	Access Management	-			
	Signage	-			
	PCE - Trips in Peak Hour	-			
	Vehicular Movements	-			
	Safety Concerns	-			
	Pedestrian Circulation	-			
	Police Traffic	-			
	Engineering Traffic	-			
Utility Plan		-			
	Water	-			
	Adequacy of Water Supply	-			
	Water main extension agreement	-			
	Sewer	-			
	Available city capacity	-			
	Electric	-			
	Natural Gas	-			
	Cable/Phone	X			
Natural Resources					
	Shoreland Zone	-			
	Flood Plain	-			
	Wetlands or Streams	X			
	Urban Impaired Stream	-			
	Phosphorus Check	-			
	Aquifer/Groundwater Protection	X			
	Applicable State Permits	-			
	No Name Pond Watershed (Lewiston only)	-			

	Lake Auburn Watershed (Auburn only)	-			
	Taylor Pond Watershed (Auburn only)	-			
Right Title or Interest		X			
	Verify				
	Document Existing Easements, Covenants, etc.	X			
Technical & Financial Capacity					
	Cost Est./Financial Capacity	X			
	Performance Guarantee	-			
State Subdivision Law					
	Verify/Check	X			
	Covenants/Deed Restrictions	-			
	Offers of Conveyance to City	-			
	Association Documents	-			
	Location of Proposed Streets & Sidewalks	X			
	Proposed Lot Lines, etc.	X			
	Data to Determine Lots, etc.	X			
	Subdivision Lots/Blocks	X			
	Specified Dedication of Land	-			
Additional Subdivision Standards					
	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		X			
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		X			

Bk 8997 Ps44 #16385
09-18-2014 @ 10:57a

Warranty Deed

Inez Buck of Auburn, Androscoggin County, Maine, **Nancy D. McNeill** of Portland, Cumberland County, Maine and **Judith D. Davis (f/k/a Judith D. Davis-Kovats)** of The Villages, Sumter County, Florida, for consideration paid, grant to **B & M Developers, Inc.**, a Maine corporation with a mailing address of 195 Center Street, Auburn, Androscoggin County, Maine, with **Warranty Covenants**, certain lots or parcels of land, with any buildings thereon, situated in Auburn, Androscoggin County, Maine, bounded and described as follows, to wit:

Parcel 1: A certain lot or parcel of land situated in said Auburn, and being all and the same premises conveyed to Sarah B. Martin and Jarius Martin by Daniel Guptil and Alpheus Rollins as will appear by their deed of warranty dated June 13, 1881, and recorded in the Androscoggin County Registry of Deeds in Book 103, Page 516.

Also a certain other parcel of land situated in said Auburn containing thirty (30) acres, more or less, and being all and the same premises described in a certain deed of quitclaim from Samuel A. Robinson to Jarius Martin dated June 11, 1881, and recorded in said Registry in Book 102, Page 205, and which parcel is also described in another deed from Joseph F. Hammond, Administrator with the Will annexed of the Estate of Clarissa A. Smith to said Jarius Martin dated June 13, 1881, and recorded in said Registry in Book 104, Page 254, to all of which deeds and their respective records, reference is hereby made for a further description and identification of the premises hereby conveyed.

MAINE REAL ESTATE
TRANSFER TAX PAID

Parcel 2: A certain lot or parcel of land abutting the northerly line of Woodbury Hill Road (also referred to as Woodbury Road and Old Danville Road) in the City of Auburn, County of Androscoggin, State of Maine, more particularly described as follows:

All of the following described land which lies northerly of said Woodbury Hill Road as now laid out:

The land described in a deed from Shirley D. Schneider to Gilman R. Drinkwater et al. dated August 27, 1974, recorded in the Androscoggin County Registry of Deeds in Book 1121, Page 82.

Parcel 3: A certain lot or parcel of land being essentially triangular in shape and located on the northwesterly side of the Woodbury Road in Auburn, County of Androscoggin, State of Maine, and being also described as Lot 15 on Tax Map 2C on the Assessor's maps.

For source of title to the above described premises, reference should be made to (a) a Release Deed of Distribution from Nancy D. McNeill and Judith D. Davis-Kovats, Co-Personal Representatives of the Estate of Ruth A. Davis to Nancy D. McNeill and Judith D. Davis-Kovats as tenants in common dated March 9, 1995 and recorded in said Registry in Book 3393, Page 111; (b) a Release Deed from Roy C. Buck and Inez D.

Buck to Roy C. Buck, Inez D. Buck, Nancy D. McNeill and Judith D. Davis-Kovats, the latter two as Co-Personal Representatives of the Estate of Ruth A. Davis dated February 8, 1995 recorded in said Registry in Book 3384, Page 143; and (c) a Warranty Deed from Ruth S. Drinkwater to Ruth A. Davis, Inez D. Buck and Roy C. Buck dated November 10, 1992 recorded in said Registry in Book 2952, Page 348. In addition to the above, Roy Buck died on May 14, 1999 evidenced by Inheritance Tax Discharge recorded in said Registry in Book 4363, Pages 8 and 9, and Ruth Davis died on September 3, 1994, whose probate is on file in the Androscoggin County Registry of Probate under Docket #94-427.

In Witness Whereof, the Grantors have set their hands and seals effective this 15th day of September, 2014.

K. Alexander Visbaras
Witness

Inez Buck
Inez Buck

AS TO BOTH
Witness

Nancy D. McNeill
Nancy D. McNeill

Robert F. LeBlanc
Witness

Judith D. Davis
Judith D. Davis

State of Florida
County of Sumter, SS.

September 12, 2014

Then personally appeared the above-named **Judith D. Davis (f/k/a Judith D. Davis-Kovats)** and acknowledged the foregoing instrument to be her free act and deed.

VICKI K. BRESLIN
Notary Public - State of Florida
My Comm. Expires Oct 20, 2017
Commission # FF 031327
Bonded Through National Notary Assn.

VICKI K BRESLIN
Notary Public - State of Florida
My Comm. Expires Oct 20, 2017
Commission # FF 031327
Bonded Through National Notary Assn.

Before me,

Vicki K Breslin
Notary Public: Vicki K Breslin
My Commission Expires: Oct 20, 2017

State of Maine
Androscoggin, SS.

September 15, 2014

Then personally appeared the above-named **Inez Buck** and **Nancy D. McNeill** and acknowledged the foregoing instrument to be their free act and deed.

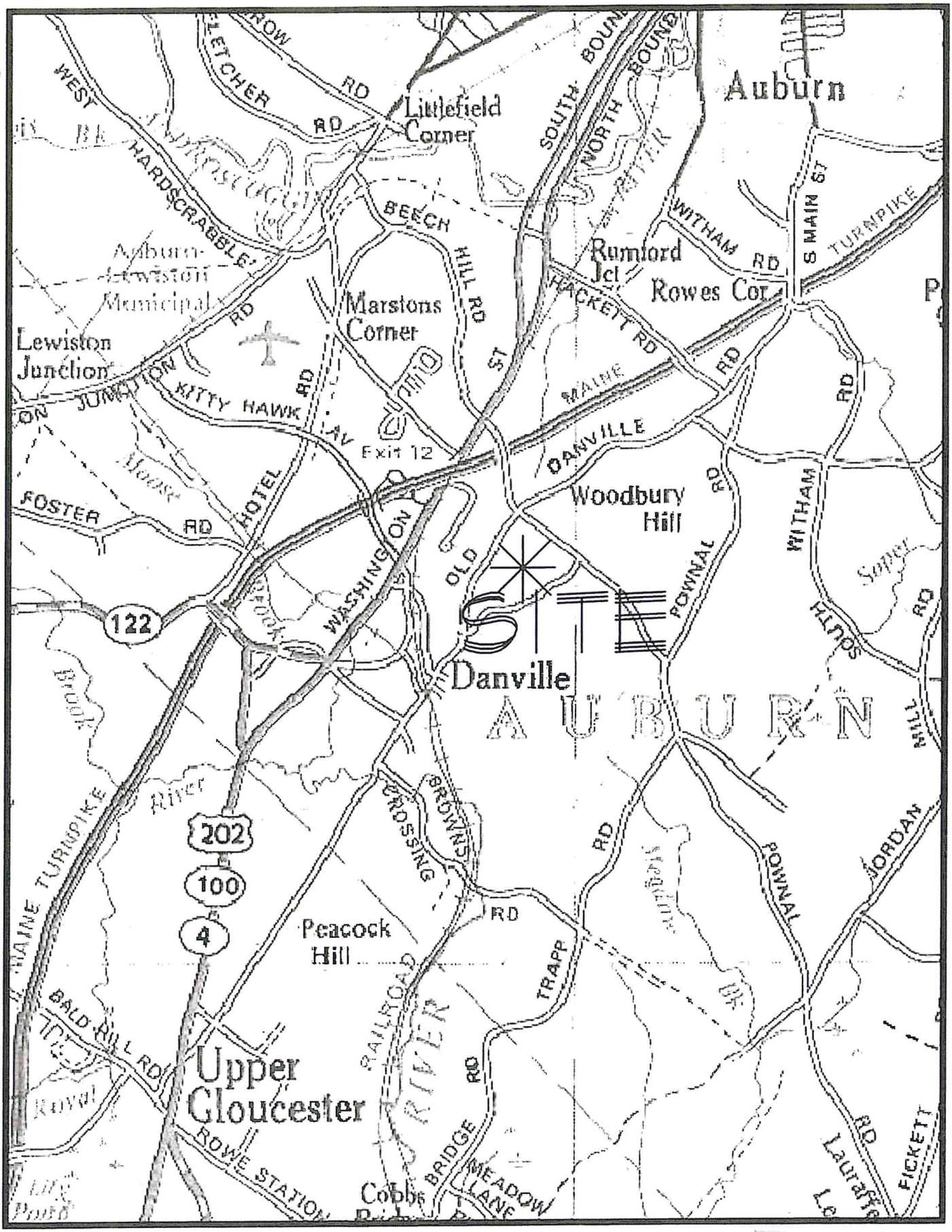
Before me,

K. Alexander Visbaras
K. Alexander Visbaras, Attorney-At-Law

:odh: I:\Clients\B&M Builders\113 Woodbury Road Auburn\Deed

ANDROSCOGGIN COUNTY
TINA M CHOUINARD
REGISTER OF DEEDS

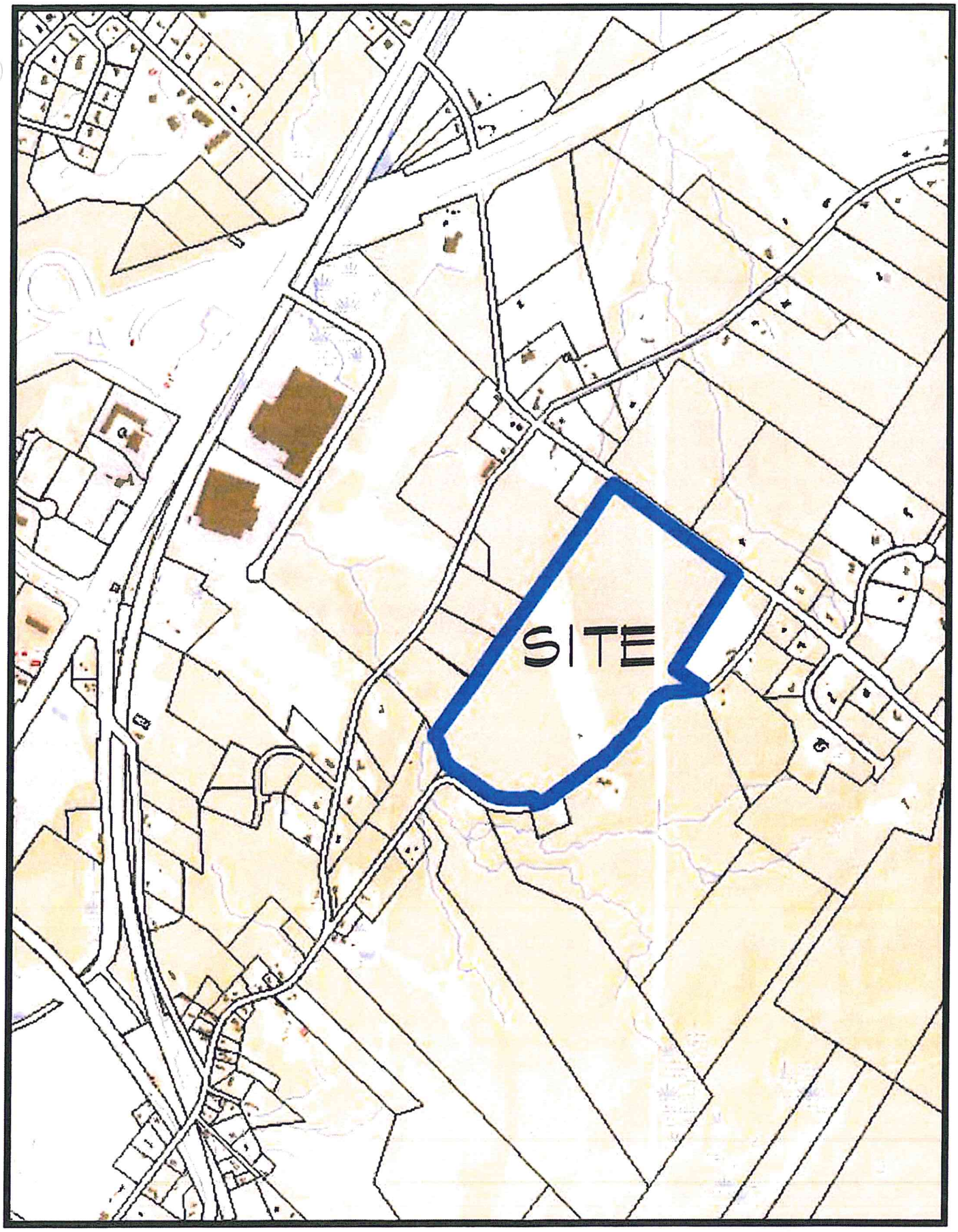
LOCATION MAP



SOURCE : DELORME "MAINE ATLAS & GAZETTEER"
(NOT TO SCALE)

prepared by
CADmaster Drafting
& Septic Design

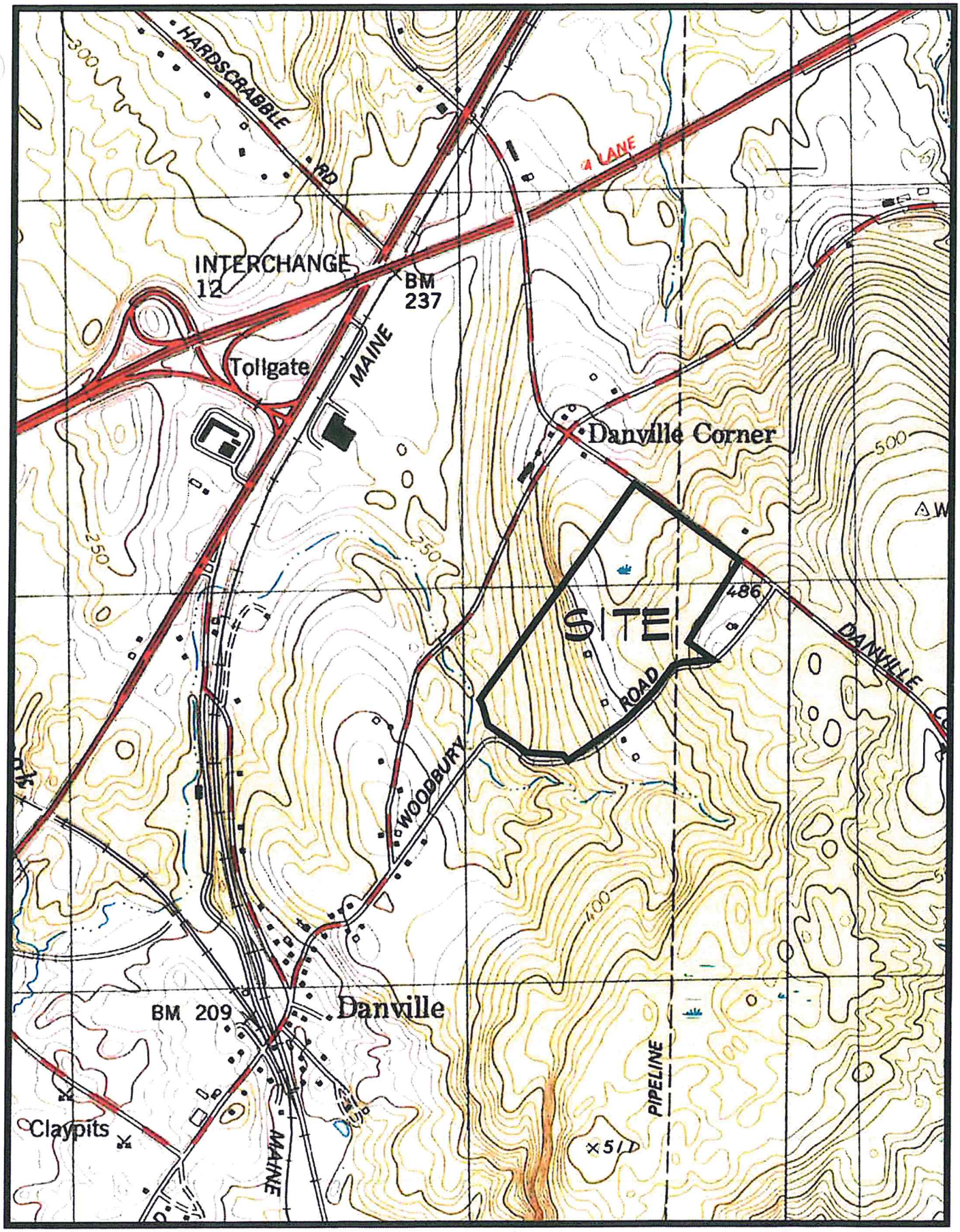
TAX MAP



SCALE : NOT TO SCALE
SOURCE : CITY OF AUBURN TAX MAP NO. 110

prepared by
CADmaster Drafting
& Septic Design

U.S.G.S. CONTOUR MAP



NOT TO SCALE
SOURCE : AUBURN
(7.5 MINUTE QUADRANGLES)

prepared by
CADmaster Drafting
& Septic Design

MAP SCALE 1" = 500'

250 0 500 1000

FEET

METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0317E

FIRM

FLOOD INSURANCE RATE MAP

ANDROSCOGGIN COUNTY, MAINE (ALL JURISDICTIONS)

PANEL 317 OF 470

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
AUBURN, CITY OF	230001	0317	E

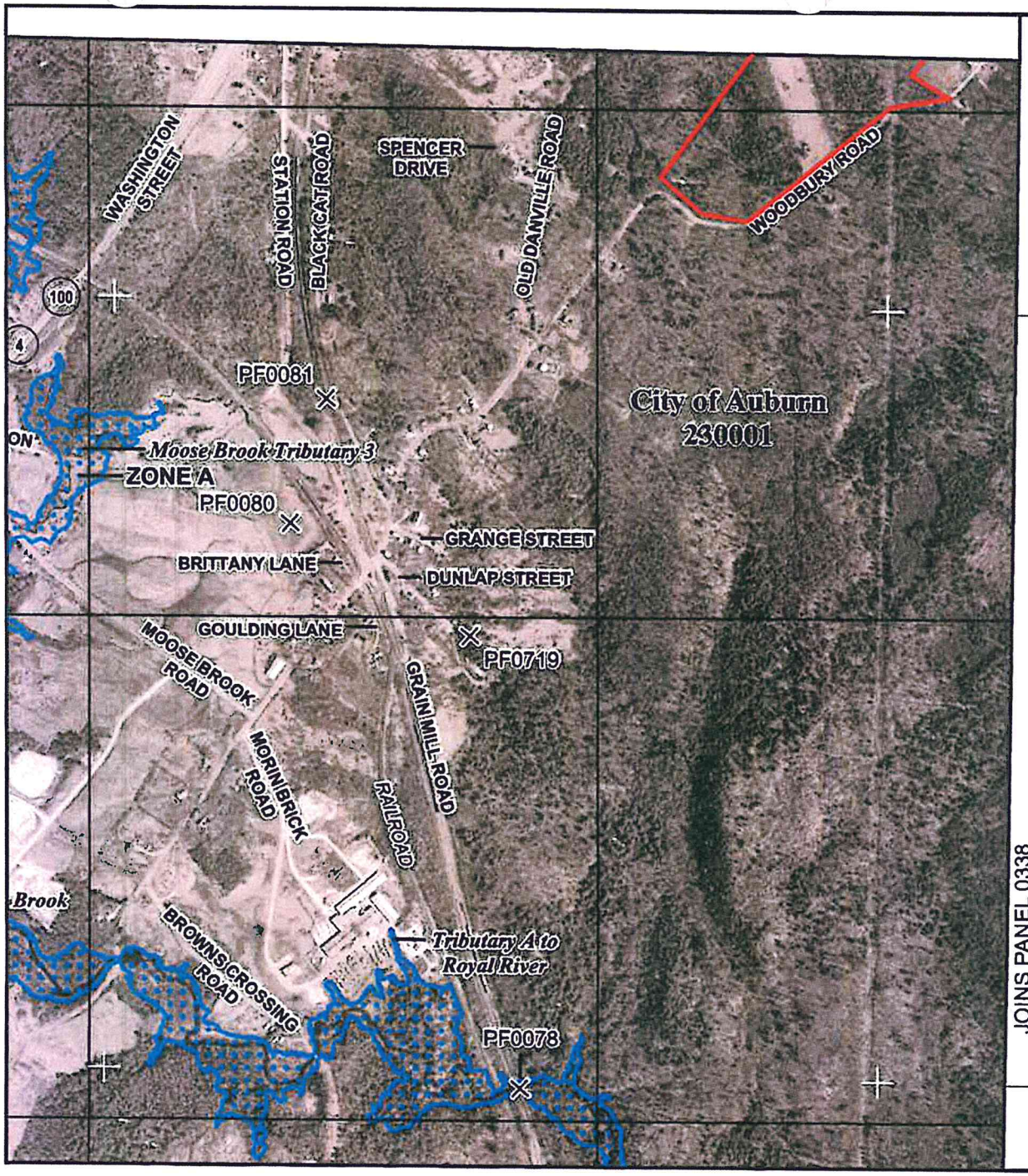
Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
23001C0317E

EFFECTIVE DATE
JULY 8, 2013

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov



MAP SCALE 1" = 1000'

500 0 1000 2000

FEET

METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0320E

FIRM

FLOOD INSURANCE RATE MAP

ANDROSCOGGIN COUNTY, MAINE (ALL JURISDICTIONS)

PANEL 320 OF 470

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
AUBURN, CITY OF	230001	0320	E

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
23001C0320E

EFFECTIVE DATE
JULY 8, 2013

Federal Emergency Management Agency

SOILS MAP

SCALE : N.T.S.
SOURCE :WEB SOILS SURVEY
ANDROSCOGGIN COUNTY

prepared by
CADmaster Drafting
& Septic Design

Contact Us | Subscribe | Archived Soil Surveys | Soil Survey Status | Glossary | Preferences | Link | Logout | Help

Area of Interest (AOI) | Soil Map | Soil Data Explorer | Download Soils Data | Shopping Cart (Free)

View Soil Information By Use: All Uses | Printable Version | Add to Shopping Cart

Intro to Soils | Suitabilities and Limitations for Use | Soil Properties and Qualities | Ecological Site Assessment | Soil Reports

Printable Version Options

Report Options

Title: Component Legend; Androscoggin and Sagadahoc Counties, Maine

Subtitle (optional):

Area of Interest Name: (none defined)

Custom Subtitle:

Search

Soil Reports

Open All | Close All

AOI Inventory

- Component Description (Nontechnical)
- Component Legend
  - View Description | View Soil Report
  - Options
    - Include Minor Soils
  - View Description | View Soil Report
- DescripciÃ³n de la Unidad de Mapa
- DescripciÃ³n de la Unidad de Mapa (Breve, Generada)
- Map Unit Description
- Map Unit Description (Brief)
- Map Unit Description (Brief, Generated)
- Selected Soil Interpretation Description and Criteria Summary
- Selected Soil Interpretations
- Survey Area Data Summary
- Survey Area Map Unit Symbols and Names

Building Site Development

Construction Materials

Disaster Recovery Planning

Land Classifications

Land Management

Recreational Development

Sanitary Facilities

Soil Chemical Properties

Soil Erosion

Soil Physical Properties

Soil Qualities and Features

Vegetative Productivity

Waste Management

Water Features

Water Management

Soil Map

Identify

Layer	Attribute Name	Attribute Value
Location	Latitude, Longitude	44.03011°, -70.26053°
Area of Interest (AOI)	Area (acres)	427.7
Soil Map Unit Polygons	Map Unit Name	Belgrade very fine sandy loam, 8 to 15 percent slopes
	Map Unit Symbol	BgC
	Map Unit Key	284818
	Soil Survey Area Symbol	ME606
	National Map Unit Symbol	9kcp
Aerial Photography	Date(s) Photographed	Jun 20, 2010—Aug 29, 2010

Report — Component Legend

Androscoggin and Sagadahoc Counties, Maine

Map unit symbol and name	Map unit acres	Pct. of map unit	Component name	Component kind	Pct. slope Low	RV	High
BgB—Belgrade very fine sandy loam, 2 to 8 percent slopes	9,084						
		85	Belgrade	Series	2.0	5.0	8.0
BgC—Belgrade very fine sandy loam, 8 to 15 percent slopes	2,816						
		85	Belgrade	Series	8.0	12.0	15.0
BuB2—Buxton silt loam, 0 to 8 percent slopes, eroded	20,042						
		86	Buxton	Series	3.0	6.0	8.0
BuC2—Buxton silt loam, 8 to 15 percent slopes, eroded	10,334						
		85	Buxton	Series	8.0	12.0	15.0

CfB—Charlton fine sandy loam, 0 to 8 percent slopes	5,457	89	Charlton	Series	3.0	6.0	8.0
CfC2—Charlton fine sandy loam, 8 to 15 percent slopes, eroded	4,772	85	Charlton	Series	8.0	12.0	15.0
ChC—Charlton very stony fine sandy loam, 8 to 15 percent slopes	35,167	86	Charlton	Series	8.0	12.0	15.0
ChD—Charlton very stony fine sandy loam, 15 to 25 percent slopes	8,031	85	Charlton	Series	15.0	20.0	25.0
HfC2—Hartland very fine sandy loam, 8 to 15 percent slopes, eroded	6,767	85	Hartland	Series	8.0	12.0	15.0
HfD2—Hartland very fine sandy loam, 15 to 25 percent slopes, eroded	2,371	85	Hartland	Series	15.0	20.0	25.0
HrB—Hollis fine sandy loam, 0 to 8 percent slopes	9,660	85	Hollis	Series	0.0	4.0	8.0
HrC—Hollis fine sandy loam, 8 to 15 percent slopes	38,819	83	Hollis	Series	8.0	12.0	15.0
HrD—Hollis fine sandy loam, 15 to 45 percent slopes	6,967	85	Hollis	Series	15.0	30.0	45.0
HsB—Hollis very rocky fine sandy loam, 0 to 8 percent slopes	4,783	85	Hollis	Series	0.0	4.0	8.0
HsC—Hollis very rocky fine sandy loam, 8 to 15 percent slopes	35,936	85	Hollis	Series	8.0	12.0	15.0
HsD—Hollis very rocky fine sandy loam, 15 to 45 percent slopes	11,029	85	Hollis	Series	15.0	30.0	45.0
Le—Leicester very stony fine sandy loam	12,008	85	Leicester	Series	0.0	1.0	2.0
Lk—Charles silt loam, 0 to 2 percent slopes, occasionally flooded	5,729	85	Charles	Series	0.0	1.0	2.0
Md—Made land, loamy materials	1,348	91	Made land	Miscellaneous area	0.0	18.0	35.0
MkC2—Merrimac fine sandy loam, 8 to 15 percent slopes, eroded	1,263	85	Merrimac	Series	8.0	12.0	15.0
NgB—Ninigret fine sandy loam, 0 to 8 percent slopes	15,653	85	Ninigret	Series	0.0	4.0	8.0
ScA—Scantic silt loam, 0 to 3 percent slopes	26,473	85	Scantic	Series	0.0	2.0	3.0
SxB—Sutton loam, 0 to 8 percent slopes	7,362	85	Sutton	Series	0.0	4.0	8.0
SyB—Sutton very stony	26,343						

loam, 0 to 8 percent slopes							
		85	Sutton	Series	0.0	4.0	8.0
SyC—Sutton very stony loam, 8 to 15 percent slopes	4,026						
		85	Sutton	Series	8.0	12.0	15.0

Description — Component Legend

Component Legend

This report presents general information about the map units and map unit components in the selected area. It shows map unit symbols and names and the components in each map unit. It also shows the percent of the components in the map units, the kind of component, and the slope range of each component.

CADmaster
191 Madison Street - Auburn, ME 04210
office - 207-689-3232 cell-207-240-5567
e-mail - gsb@cadmasterr.com
CAD Drafting, Land Surveying and Septic Design

May 10, 2017

Mr. Gary McFarland
Mr. Reggie Bouffard
B&M Developers, Inc.
Danville Corner Road
Auburn, Maine 04210

RE: Preliminary Soils Investigation Report
"Woodbury Heights - Phase 3"
(13 Lot Residential Subdivision)
Danville Corner Road - Auburn, Maine

Dear Mr. McFarland & Mr. Bouffard:

At your request, preliminary Site/Soils Investigations were performed on thirteen (13) lots of a proposed thirteen (13) lot subdivision you propose to create from a 31.98 acre parcel of land you own on the Danville Road in the City of Auburn, Maine. The portion of the property you propose to subdivide is shown on a plan entitled "Subdivison Plan - Woodbury Heights - Phase 3" prepared by George S. Bouchles, PLS 2295 and depicts thirteen (13) proposed residential house lots ranging in area from 1.15 acres to 5.11 acres.

The purpose of the preliminary investigation was to determine suitability for on-site Subsurface Waste Water Disposal Systems to accommodate a four (4) bedroom single family dwelling on each of the lots in accordance with the current ***Maine Subsurface Waste Water Disposal Rules*** (SWWDR), dated January 1, 1998, and as amended.

Date of Investigation: April 4, 2017

Method of Investigation: Dutch Auger test pits

Method of Ground Control: Test pits were located in relationship to boundary information observed in the field and boundary information as shown on the above referenced plan as well as existing survey control stations in relationship to proposed lot lines also shown on the above referenced plan.

Findings: The site is, for the most part, partially tree covered with a mix of hardwood and softwood remaining after recent logging operations. The terrain is generally sloping down from the Danville Corner Road and then levels off in a field.

Test pit results for the proposed thirteen (13) lots tested indicate the underlying Parent Material to be of a "Basal Glacial Till" type material, and designated as 3C & 3D, soils as defined in the current SWWDR referred to above.

Soil textures for these test pits consisted of approximately 1 to 2 inches of humus containing decaying leaves, twigs and sticks at the surface. The next 4 to 6 inches consisted of a brown to light brown fine sandy loam textured soils with roots present and angular rocks were observed. The next 10 to 20 inches consisted of a light yellowish brown fine sandy loam textured soils with roots present and angular rock fragments observed. The remainder of the profile consisted of a light yellowish brown to light olive gray fine sandy loam textured soil with no roots visible, angular rock fragments were still present with the soil textures being firm and difficult to excavate.

Pit depths were limited to 12 inches below the observed seasonal high water table or to refusal.

Recommendations: It is my recommendation that, based upon results of the test pits evaluated and site conditions observed, there is suitable soils and sufficient area for the five (5) new single-family dwelling sites proposed.

Test Pit Summary

Test Pit no.	Preliminary Soil	Mottling	Restrictive Layer	Bedrock/ Refusal	System Type	Size Recomm.
2	3 D	-13"	-15"	none	Enviro-Septic	10x50
3	3 C	-15"	-17"	none	Enviro-Septic	10x50
12	3 C	-15"	-17"	none	Enviro-Septic	10x50
13	3 D	-14"	-16"	none	Enviro-Septic	10x50
14	3 D	-13"	-15"	none	Enviro-Septic	10x50
15	3 C	-16"	-18"	none	Enviro-Septic	10x50
16	3 D	-13"	-15"	none	Enviro-Septic	10x50
17	3 C	-17"	-19"	none	Enviro-Septic	10x50
18	3 C	-17"	-19"	none	Enviro-Septic	10x50
19	3 C	-17"	-19"	none	Enviro-Septic	10x50
20	3 C	-17"	-19"	none	Enviro-Septic	10x50
21	3 D	-13"	-15"	none	Enviro-Septic	10x50
22	3 D	-12"	-14"	none	Enviro-Septic	10x50

The site and soils information contained within this report is preliminary and intended for the purpose of review and planning purposes only. Prior to the issuance of any municipal permits, a full site and soils evaluation of each lot will be required, and a complete design of the proposed subsurface waste water disposal system and location must be delineated on the State supplied HHE-200 soils design forms.

I trust the enclosed information will satisfy your immediate needs. Should you have any questions, feel free to give me a call.

Respectfully yours,
CADmaster Drafting & Septic Design

George S. Bouchles, LSE 338

VAUGHN SMITH ASSOCIATES
Septic Design • Wetland Analysis • Soil Mapping

January 7, 2015

B & M Developers, Inc.
195 Center Street
Auburn, ME 04210

RE: Wetland Delineation Report, Danville Corner Road and Woodbury Road, Auburn, Maine

Dear Sirs:

Per your request, the wetland/upland boundary was delineated at the above mentioned property, and plotted on to a plan by surveyor George Bouchles. There is one fairly large wetland that bisects the parcel and several small "fingers" of wetland associated with small drainageways. Overall, the subject parcel slopes moderately from the eastern corner, near the junction of Danville Corner Road and Woodbury Road, to the westerly and southwesterly boundaries. The soils on this site consist of a moderate textured glacial till with a hardpan. Thus, surface water infiltrates the surface runs laterally and breaks out in the lower slopes and drainageways.

Near the middle of the subject parcel, there is a natural "saddle", where the slopes are gentle or have a slight depression. This area collects surface water and creates a forested wetland. This wetland starts near a culvert off Woodbury Road and runs to across the property and ends near the northernly corner of the property as drainageways that run down and split off a former skidder trail. Just off Woodbury Road and behind a field, the wetland has mature trees and pit and mound topography. As it moves toward Danville Corner Road, it spills over the gentle slopes and divides into smaller, defined drainageways that collect and exit in the northwest corner at the end of the property. From the mature stand of Maple, Hemlock, Birch and Pine it transitions to alder Maple, Dogwood, winterberry and ferns associated with the drainageways.

The other wetlands on the property are small narrow fingers of forested wetlands that extend from the southerly property line and run upslope in small drainageways.

Plant species observed within these wetlands include and are not limited to: Cinnamon Fern (Osmunda c.), Sensitive Fern (Onoclea sensibilis), Bullrush (Juncus sp.), Carex sp.(crinita and lurida noted), Sphagnum sp., Scirpus sp., Aster sp., Gray and yellow Birch, Speckled Alder, Poplar sp., Red Maple, White Pine, and Hemlock.

This wetland delineation was conducted in the month of December under some mild winter conditions. The hydrophytic vegetation was not as evident but still present and observable. The hydrology and soils observations were typical. Hence, there may be some slight inaccuracies in the wetland/upland boundary but well within a reasonable tolerance. Again, please refer to plan prepared by George Bouchles.

I hope this information is sufficient for your current needs, please feel free to contact me for further assistance.

Respectfully submitted,
VAUGHN SMITH ASSOCIATES

Vaughn L. Smith
C.S.S. #290

C&R Pump and Well
301 Litchfield Road
Bowdoin ME 04287

February 9, 2015

Reference: Woodbury Heights Subdivision
113 Woodbury Road
Auburn ME

On behalf of Bouffard McFarland Builders, based on previous wells drilled in the area, we feel that there is an adequate supply of potable water that is reasonably accessible at the above mentioned location.

Bret Bowley
President
C&R Well and Pump

Androscoggin

February 9, 2015

City of Auburn
Attn: Planning Board
60 Court Street
Auburn, ME 04210

To Whom It May Concern:

I am writing to inform you that B & M Developers, Inc. has the borrowing capacity through our financial institution to complete Phase I and Phase II of the project under consideration at Woodbury Heights. Should you have any questions, please contact me directly at 207-376-3604 or via email at tfrautten@androscogginbank.com.

Respectfully,

Travis J. Frautten
Assistant Vice President

CES INC

WOODBURY HEIGHTS
STORMWATER MANAGEMENT NARRATIVE
AUBURN, MAINE

STORMWATER MANAGEMENT NARRATIVE

This Stormwater Management Plan is for the Woodbury Heights Subdivision and is in accordance with the Maine Department of Environmental Protection (MDEP) Chapter 500 rules. This project will create a total of approximately 57,071 square feet of new impervious roadway surface and 114,544 square feet of total developed area. As the development is a subdivision road project, it is defined as a linear project and is therefore only required to treat 75% of new impervious and 50% of disturbed area for that portion. We are proposing to utilize buffers to provide the required treatment for the project.

BASIC STANDARD SUBMISSION

Information is provided as required for the Basic Standard Submission, which addressed both temporary and permanent erosion and sedimentation controls.

A. Narrative. The proposed construction will require the implementation of temporary and permanent erosion control measures. These measures will be implemented in accordance with the Maine Erosion and Sediment Control Best Management Practices (BMPs) Manual, prior to removal of any on-site vegetation or disturbance of any on-site soil. The general erosion and sediment control specifications and details, as provided within this section, are intended to describe measures to be used by contractors working on the site to maintain compliance with the standards established in the BMPs. These standards include information on temporary and permanent erosion control measures, rates of seeding and applied mulch, slope and soil stabilization, effect of construction schedule, and other details.

   The proposed location and use of erosion control measures on-site are shown on the plan and profile sheets included in this application submission. There are no known existing erosion control concerns with the site. Implementation of proper erosion control measures will be required by site contractors to confine sediment and debris within the limit of soil disturbance. Proper use and maintenance of erosion control measures will provide protection against off-site transport of sediment and discharge of sediment to undisturbed areas of the development.

B. Completion Date. The schedule for the completion of the roadway is expected to be during the Summer and Fall of 2017.

C. Site Features. For site features please refer to the enclosed plan.

D. Temporary and Permanent Erosion Control Measures. For temporary and permanent erosion control measures please refer to the enclosed plan.

E. Limits of Disturbed Areas. Areas of disturbance will be limited to the proposed work shown on the enclosed plan.

F. Design Drawings and Specifications. For design drawings please refer to the enclosed plan. The following specifications will be utilized by the site contractor during construction of the project.

EROSION CONTROL PLAN SPECIFICATIONS

A. General

1. All work and measures will be as per the Maine Erosion and Sediment Control BMPs manual.
2. The following specifications will be employed.

B. Prior to Construction

1. Prior to any soil disturbance, hay bale barriers will be installed around downstream catch basins to prevent sediment from entering the storm drain system.

C. During Construction

1. Exposed soil surfaces will be treated immediately if they are to remain ungraded more than 30 days, or if they are at final grades.
2. Drainage ways, either designed or incidental, will have filter barriers installed.
3. All work and materials necessary to minimize sediment loss from the site will be provided.
4. All erosion control measures will be inspected and repaired after every rainfall greater than ½-inch and at least daily during rain events lasting longer than 24 hours.

D. Post Construction

1. Erosion control measures will be maintained until permanent soil stabilization has been achieved with a growth of vegetation greater than 90%.

SOIL PROTECTION AND EROSION CONTROL

PART 1 - GENERAL

1.01 Description of Work

A. Provide and maintain devices to control erosion, siltation, sedimentation, and dust that occur during construction operations. Undertake every reasonable precaution and do whatever is necessary to avoid erosion of soil and to prevent silting of wetland areas and drainage ditches.

B. Provide measures to control dust caused whether on or off the project site.

C. Deficiencies in erosion control measures indicated by failures or erosion will be corrected as soon as reasonably possible by providing additional measures or different techniques to correct the situation and prevent subsequent erosion.

D. Exposure of soils on embankments, excavations, and graded areas will be kept as short as possible. Initiate seeding and other erosion control practices as soon as reasonably possible.

E. Install erosion control measures in any ditch, swale, or channel before water is allowed to flow in the waterway.

1.02 Quality Assurance

A. Conform to all requirements of applicable Federal, State and local permits and conform to the recommendations of the Maine Erosion and Sediment Control BMPs (see Part B below) whether the measures are specifically noted herein, or not.

B. Standards: Maine Erosion and Sediment Control BMPs Manual, hereinafter called Erosion Control Handbook.

PART 2 - PRODUCTS

2.01 Materials: Use the following materials to implement and construct erosion control measures.

A. Hay Bale: Rectangular shaped bales of hay or straw weighting at least 40 pounds per bale; free from noxious weed seeds and rough or woody materials.

B. Mulch: Type and use as specified by the Erosion Control Handbook
   1. Long fibered hay or straw in dry condition and which are relatively free of weeds and foreign matter detrimental to plant life.
   2. Mulch netting: Plastic or nylon mesh netting with approximate openings of ¼-inch to 1-inch.

C. Permanent Seeding: Cut and fill slopes and disturbed areas will be stabilized as follows:
   1. Four inches of loam will be spread over disturbed areas and smoothed to a uniform surface.
   2. In lieu of tests, agricultural limestone will be spread at the rate of three tons per acre. 10-20-20 fertilizer will follow at the rate of 800 lbs. per acre. These two soil additives will be incorporated into the soil prior to seeding.
   3. Following seed bed preparation, back slopes will be seeded to a mixture of 83% creeping red fescue, and 17% rye grass. Seeding rate is 3 lbs. per 1,000 square feet. Lawn quality sod may be substituted for seed.
   4. Hay mulch at the rate of 90 lbs. per 1,000 square feet of a hydro-application of asphalt, wood, or paper fiber will be applied following seeding. A suitable binder such as curason or terrtack will be used on hay mulch for wind control.
   5. If final seeding of the disturbed areas is not completed by September 15th of the year of the construction, then on that date these areas will be graded and a cover crop of rye at the rate of 112 lbs/acre or 3 lbs/1,000 sq. ft. will be applied. The rye seeding will be preceded by an application of 3 tons of lime and 800 lbs. of 10-20-20 fertilizer or its equivalent and covered by a layer of jute mat to aide in stabilization.

PART 3 - EXECUTION

3.01 Construction

A. Hay Bales:
   1. Install as directed by Erosion Control Handbook, and stake with required stakes.

B. Mulch:
   1. Undertake after each area has been properly prepared.
   2. When seed for erosion control is sown prior to placing the mulch, place mulch on the seeded areas within 48 hours after seeding.
   3. Blowing chopped mulch will be permitted.
   4. Hay mulch should cover the ground enough to shade it, but the mulch should not be so thick that a person standing cannot see the ground through the mulch.
   5. Remove matted mulch or bunches.

C. Temporary Erosion Control Matting (where necessary):
   1. Surface Preparation:
      a. Conform to grades for slopes and ditches shown of the drawings.
      b. Finish to a smooth and even condition with all debris, roots, stones, and lumps raked out and removed.
      c. Loosen soil surface to permit bedding of the matting.
      d. Unless otherwise directed, apply seed prior to placement.

   2. Installation:
      a. Place strips lengthwise in the direction of the flow of water.
      b. Where strips are laid parallel or meet as in a tee, overlap at least four inches.
      c. Overlap ends at least six inches in a shingle fashion.
      d. The up-slope end of each strip of the matting will be turned down and buried to a depth of not less than six inches with the soil firmly tamped against it.
      e. Build check slots at right angles to the direction of the flow of water. Space so that one check slot or one end occurs within each 50 feet of slope length. Construct by placing a tight fold of the matting at least six inches vertically into the ground, and tamp the same as up-slope ends.
      f. Bury edges of matting around the edges of the catch basins and other structures.
      g. Where determined by the Engineers, additional seed will be spread over matting, particularly at those locations disturbed by building the slots. Matting will then be pressed onto the ground with a light lawn roller or by other satisfactory means.
      h. Drive staples vertically into the ground flush with the surface.
      i. On slopes flatter than 4:1, space staples not more than three feet and one row, alternately spaced, down the center.
      j. On grades 4:1 or steeper, place in the same three rows, but spaced two feet apart.

k. On all overlapping or butting edges, double the number of staples, with the spacing halved; all ends of the matting and all required check slots will likewise have staples spaced every foot.

D. Permanent Seeding:
   1. Seed with appropriate seeds and application rates as noted in Section 2.01D.
   2. Mulch areas where seeding has been applied. Do not mulch seeded areas where matting will be immediately installed.

E. Topsoil Storage:
   1. Topsoil which is stockpiled on the site for use in loam applications will be placed out of natural drainages, in piles that have side slopes of 2:1 to 1.5:1.
   2. A trench (depth as required) will be constructed around the base of the pile to prevent eroding soil from washing into drainages.

F. Dust Control: Utilize the application of sprinkled water to reduce the emission of airborne soil particulates from the Project site.

G. Temporary Berms: Construct temporary barriers along the toe of embankments using side drains as necessary.

H. Temporary Basins: Construct temporary sedimentation basins adequate to avoid siltation of surface water bodies.

I. Other Temporary Measures:
   1. Type and use will be as specified in the Erosion Control Handbook.

J. Winter Stabilization Notes
   1. At this time, it is not expected that significant soil disturbance will occur during winter months or periods of heavy icing. If construction is performed during these times, the following construction practices will be followed.
      a. All disturbed areas not stabilized with stone or other measures will have approved erosion control matting installed and be dormant seeded.
      b. No frozen soil material or material containing significant snow or ice will be used for fill material.
      c. All material stockpiles will have silt fence and/or hay bales installed downgradient of piles.
      d. Follow general erosion control notes described previously wherever possible and as conditions permit.

3.02 Maintenance

A. Inspect erosion control practices immediately after each rainfall greater than ½-inch and at least daily during rainfall lasting longer than 24 hours or snowmelt for damage. Provide maintenance and make appropriate repairs or replacement.

B. Remove silt from around hay bales when it has reached one foot above grade or prior to expected heavy runoff or siltation.

C. Repair matting if any staples become loosened or raised, or if any matting becomes loose, torn, or undermined, make satisfactory repairs immediately.

3.03 Removal of Temporary Erosion Control

A. Remove temporary materials and devices when permanent soil stabilization has been substantially achieved. For vegetated areas, substantially complete means 95% vegetated cover has been established.

B. Level and grade to the extent required to present a sightly appearance and to prevent any obstruction of the flow of water or any other interference with the operation of or access to the permanent works.

C. Remove unsuitable materials from site and dispose of in a lawful manner.

The following Maintenance Plan will be employed for this project. The owner(s) or their assigns will be responsible for all maintenance. Erosion control measures for this site were designed by:

Sean Thies, P.E.
CES, Inc.
465 South Main Street
Brewer, Maine 04412
(207) 989-4824
sthies@ces-maine.com

A Pre- and Post-Construction Maintenance Plan for the stormwater management system and erosion control measures are included in this section.

MAINTENANCE PLAN

The MDEP's Stormwater Management for Maine: Best Management Practices (2006), and the MDEP's Chapter 500: Stormwater Management were used as guidelines in the development of this Maintenance Plan. General maintenance requirements are listed below.

A. DURING CONSTRUCTION

The general contractor will be responsible for the inspection and maintenance of all stormwater management system components during construction.

Inspection: Inspection of disturbed and impervious areas, erosion control measures, materials' storage areas that are exposed to precipitation, and locations where vehicles enter or exit the site will be performed at least once a week as well as before and after a storm event, and prior to completing permanent stabilization measures. Inspections shall be conducted by a person with knowledge of erosion and stormwater control, including the standards and conditions in the permit.

Maintenance: All erosion control measures will be kept in effective operating condition until areas are permanently stabilized. If BMPs need to be maintained or modified, additional BMPs are necessary, or other corrective action is needed, implementation will be completed within 7 calendar days and prior to any rainfall event.

Documentation: A log shall be kept summarizing the inspections and any corrective action taken. A copy of the log is provided at the end of this section, and is titled, Construction Inspection Log.

B. POST-CONSTRUCTION

The owner(s) or their assigns will be responsible for the inspection and maintenance of all stormwater management system components.

Inspection and Corrective Action

1. Vegetated Areas: Inspections and maintenance of vegetated areas will be performed early in the growing season or after significant rainfall to identify any erosion problems. Areas where erosion is evident will be covered with an appropriate lining, or erosive flows will be diverted to an area able to handle the flows. Any bare areas or areas with sparse growth will be replanted.
2. Ditches, Swales, and Culverts: Inspections and maintenance of ditches, culverts, and swales will be performed in the Spring, late Fall, and after rain events greater than 1-inch in depth to remove any obstructions to flow, to remove any accumulated sediments within the structures, and to repair any erosion of channel linings, check dams, inlet protection, or outlet protection. Vegetated ditches and swales must be mowed no more than twice per year and cut no less than 6-inch in height.
3. Roadways: All roadways shall be swept at least once per year.
4. Documentation: A log will be kept summarizing the inspections, maintenance, and any corrective action taken. A copy of the log is provided at the end of this section, and is titled, BMP Inspection Log.

CES INC

WOODBURY HEIGHTS SUBDIVISION
LOG OF INSPECTIONS DURING CONSTRUCTION

Inspection Date	Inspector (Name and Qualifications)	Major Observations	Work Performed

Notes

1) Major Observations include the operation and maintenance of erosion and sedimentation controls, materials storage areas, and vehicle access points to the parcel. Major Observations must include BMPs that need maintenance, BMPs that failed to operate as designed or proved inadequate for particular locations, and locations(s) where additional BMPs are needed. For each BMP requiring maintenance, BMP needing replacement, and location needing additional BMPs, note in the log the corrective action taken and when it was taken.
2) Work Performed will include a description of the corrective action taken, the date the corrective action was taken, and the name and qualifications of the person taking the corrective actions
3) The log must be made accessible to MDEP staff and a copy must be provided upon request.
4) The permittee shall retain a copy of the log for a period of at least three years from the completion of permanent stabilization.

CES INC

WOODBURY HEIGHTS SUBDIVISION
BMP INSPECTION LOG

Date	Inspector (Name and Qualifications)	ID Number	BMP Structure	Work Performed	Comments

Notes

1) If a maintenance task requires the clean-out of any sediments or debris, indicate where the sediment and debris was disposed after removal.
2) BMP structures shall be numbered sequentially and located on attached site map.
3) The log must be made accessible to MDEP staff and a copy must be provided upon request.
4) The permittee shall retain a copy of the log for a period of at least five years from the completion of permanent stabilization.

INSPECTION AND MAINTENANCE PLAN FOR STORMWATER MANAGEMENT STRUCTURES (BMPS)		
	INSPECTION SCHEDULE	**CORRECTIVE ACTIONS**
VEGETATED AREAS	Annually early Spring and after heavy rains	Inspect all slopes and embankments and replant areas of bare soil or with sparse growth
		Armor rill erosion areas with riprap or divert the runoff to a stable area
		Inspect and repair down-slope of all spreaders and turn-outs for erosion
		Mow vegetation as specified for the area
DITCHES, SWALES AND OPEN STORMWATER CHANNELS	Annually Spring and late Fall and after heavy rains	Remove obstructions, sediments or debris from ditches, swales and other open channels
		Repair any erosion of the ditch lining
		Mow vegetated ditches
		Remove woody vegetation growing through riprap
		Repair any slumping side slopes
		Repair riprap where underlying filter fabric or gravel is showing or if stones have dislodged.
CULVERTS	Spring and late Fall and after heavy rains	Remove accumulated sediments and debris at the inlet, outlet, or within the conduit
		Remove any obstruction to flow
		Repair any erosion damage at the culvert's inlet and outlet
CATCH BASINS	Annually in the Spring	Remove sediments and debris from the bottom of the basin and inlet grates
		Remove floating debris and oils (using oil absorptive pads) from any trap
ROADWAYS AND PARKING AREAS	Annually in the Spring or as needed	Clear and remove accumulated winter sand in parking lots and along roadways
		Sweep pavement to remove sediment
		Grade road shoulders and remove accumulated winter sand
		Grade gravel roads and gravel shoulders
		Clean-out the sediment within water bars or open-top culverts
		Ensure that stormwater runoff is not impeded by false ditches of sediment in the shoulder
RESOURCE AND TREATEMENT BUFFERS	Annually in the Spring	Inspect buffers for evidence of erosion, concentrated flow, or encroachment by development
		Manage the buffer's vegetation with the requirements in any deed restrictions
		Repair any sign of erosion within a buffer
		Inspect and repair down-slope of all spreaders and turn-outs for erosion
		Install more level spreaders, or ditch turn-outs if needed for a better distribution of flow
		Clean-out any accumulation of sediment within the spreader bays or turnout pools
		Mow non-wooded buffers no shorter than six inches and less than three times per year
WETPONDS AND DETENTION BASINS	Annually in Fall and after heavy rains	Inspect the embankments for settlement, slope erosion, piping, and slumping
		Mow the embankment to control woody vegetation
		Inspect the outlet structure for broken seals, obstructed orifices, and plugged trash racks
		Remove and dispose of sediments and debris within the control structure
		Repair any damage to trash racks or debris guards
		Replace any dislodged stone in riprap spillways
		Remove and dispose of accumulated sediments within the impoundment and forebay
FILTRATION AND INFILTRATION BASINS	Annually in the Spring and late Fall	Clean the basin of debris, sediment and hydrocarbons
		Provide for the removal and disposal of accumulated sediments within the basin
		Renew the basin media if it fails to drain within 72 hours after a one inch rainfall event
		Till, seed and mulch the basin if vegetation is sparse
		Repair riprap where underlying filter fabric or gravel is showing or where stones have dislodged
PROPRIETARY DEVICES	As specified by manufacturer	Contract with a third-party for inspection and maintenance
		Follow the manufacturer's plan for cleaning of devices
OTHER PRACTICES	As specified for devices	Contact the department for appropriate inspection and maintenance requirements for other drainage control and runoff treatment measures.

Housekeeping

1. Spill Prevention - During construction, controls will 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 will not be stored or handled in areas of the site draining to an infiltration area. Dikes, berms, sumps, and other forms of secondary containment 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 will be taken to ensure that activities do not result in noticeable erosion of soils or fugitive dust emissions during or after construction. Oil will not be used for dust control. Water will be used for dust control during construction. Operations during wet months that cause mud to be tracked off the site onto public roads will provide sweeping of the road areas at least once per week and prior to significant storm events.
4. Debris and Other Materials - Litter, construction debris, and chemicals exposed to stormwater will be prevented from becoming a pollutant source. The nature of this development will not cause problems related to debris and other materials.
5. Trench or Foundation De-Watering - If de-watering is necessary, the collected water will be removed from the ponded area and spread through natural wooded buffers or discharged into a construction sedimentation basin. The water will not be allowed to flow over disturbed areas to the site.

FLOODING STANDARD SUBMISSION

The project is proposing to treat the subdivision roadway wit roadside buffers. This will minimize impacts to the surrounding landscape and allow the stormwater runoff to enter the vegetated buffers in a natural manner. We are not proposing any detention from the roadway runoff, and instead allowing staggered arrival times by having roadway runoff sheet off outside the project area. This will stagger the arrival times and provide an overall runoff similar in Pre-and Post Development conditions. Curve number calculations were completed to compare Pre-and Post Development conditions. It was found that there is only a 0.8% increase from Pre-to Post development conditions. It is expected that the use of the buffers to return runoff to sheet flow in the wooded and meadow areas with sufficiently stagger arrival times to allow for similar runoff flows in Pre-and Post Development conditions. The curve number calculations are included at the end of this section for review.

$A_T := 58.85\ acre$ Total Development Area

Curve Numbers

$C_{NW} := 73$	Wooded Area, HSG C
$C_{NB} := 70$	Brush Area, Fair, HSG C
$C_{NG} := 74$	Grass Cover >75%, HSG C
$C_{NI} := 98$	Impervious Roof, Road, and Driveway Area

Pre-Development Areas

$A_{WPR} := 49.64\ acre$	Wooded Area, HSG C
$A_{BPR} := 9.21\ acre$	Brush Area, HSG C
$A_{GPR} := 0.00\ acre$	Grass Cover >75%, HSG C
$A_{IPR} := 0.00\ acre$	Impervious Roof, Road, and Driveway Area

Post-Development Areas

$A_{WPO} := 47.01\ acre$	Wooded Area, HSG C
$A_{BPO} := 9.21\ acre$	Brush Area, HSG C
$A_{GPO} := 1.32\ acre$	Grass Cover >75%, HSG C
$A_{IPO} := 1.31\ acre$	Impervious Roof, Road, and Driveway Area

Calculating the Weighted Curve Number for both Pre and Post Development

Pre-Development Curve Number

$$C_{WPR} := \frac{\left(A_{WPR} \cdot C_{NW} + A_{BPR} \cdot C_{NB} + A_{GPR} \cdot C_{NG} + A_{IPR} \cdot C_{NI}\right)}{A_T} \qquad C_{WPR} = 72.531$$

Post-Development Curve Number

$$C_{WPO} := \frac{\left(A_{WPO} \cdot C_{NW} + A_{BPO} \cdot C_{NB} + A_{GPO} \cdot C_{NG} + A_{IPO} \cdot C_{NI}\right)}{A_T} \qquad C_{WPO} = 73.109$$

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GENERAL STANDARD SUBMISSIONS

The proposed project is a roadway approximately 2,270 linear feet in length to serve residential lots between Danville Corner Road to Woodbury Road. The project will include the creation of approximately 57,071 square feet of new impervious area and approximately 57,473 square feet of vegetated area.

The entire project area is located west of the Danville Corner and Woodbury Road intersection. Stormwater runoff discharges to an unnamed stream that discharges to a tributary of Royal River. The Maine Department of Environmental Protection General Standards require the treatment of 75% of the impervious surface and 50% of the developed area resulting from the roadway development under the Chapter 500 Section 4.C(5)(c) linear portion exception of the General Standards. At this time, the project is proposing to utilize a combination of forested and meadow buffers to meet the stormwater quality standards. The following chart summarizes the treatment structure, area treated, and relationship with the total impervious and developed areas for the project.

PROJECT AREA	IMPERVIOUS AREA	DEVELOPED AREA
ROADWAY AREA	57,071 SF	114,544 SF

TREATMENT METHOD	SITE AREA TREATED	
	IMPERVIOUS	DEVELOPED
Forested Buffer	21,585 SF	33,764 SF
Meadow Buffer	6,803 SF	14,577 SF
Meadow Buffer	14,408 SF	30,855 SF
Total Area Treated	42,796 SF	79,196 SF
Percent Treated of Areas	**75.0%**	**69.1%**
Percent Required	**75%**	**50%**

A description of each treatment area is as follows.

a. Forested Buffer: A forested buffer adjacent to the downhill side of a two-lane road will be established on the westerly side of the proposed roadway. The forested buffer will receive stormwater runoff from both lanes of the roadway as sheet flow. The buffer was sized by Appendix F of Chapter 500, the Stormwater Management Rules, and are also found in table 5.6 of the *MDEP Stormwater BMPs Technical Design Manual*. For a Forested buffer, two travel lanes, a 55-foot flow path is required.

b. Meadow Buffer: A level lip spreader will be constructed to the west of the proposed roadway at approximately station 10+00. The buffer will receive stormwater runoff from portions of the proposed roadway and adjacent vegetated area. The drainage area is graded to collect runoff to the northwest of the roadway and deliver it to the level spreader.

The buffer was sized by the following calculation:

Impervious Area: 6,803 SF
Landscaped Area: 7,774 SF

Chapter 500 sizing to calculate the berm length is based on table 5.5 of the DEP Stormwater BMPs Technical Design Manual. For a meadow buffer, 0-8% slope, class C sandy loam soils, and 75-foot flow path through the buffer, the length of berm is calculated:

(100 FT/acre x 0.16 acres) + (30 FT/acre x 0.18 acres) = 20.97 FT
The berm length provided is 25 FT.

c. Meadow Buffer: A level lip spreader will be constructed to the west of the proposed roadway at approximately station 17+00. The buffer will receive stormwater runoff from portions of the proposed roadway and adjacent vegetated area. The drainage area is graded to collect runoff to the northwest of the roadway and deliver it to the level spreader. The buffer was sized by the following calculation:

Impervious Area: 14,408 SF
Landscaped Area: 16,446 SF

Chapter 500 sizing to calculate the berm length is based on table 5.5 of the DEP Stormwater BMPs Technical Design Manual. For a meadow buffer, 0-8% slope, class C sandy loam soils, and 75-foot flow path through the buffer, the length of berm is calculated:

(100 FT/acre x 0.33 acres) + (30 FT/acre x 0.38 acres) = 44.40 FT
The berm length provided is 45 FT.

The proposed stormwater quality control devices have been designed according to the standards outlined in the *Stormwater Management for Maine, Volume III BMP Manual*, January 2006 and revised July 2009. Construction and maintenance will be according to standards outlined in this manual.

Meadow buffer

DECLARATION OF RESTRICTIONS (Non-Wooded Meadow Buffer)

THIS DECLARATION OF RESTRICTIONS is made this _____day of _____, 20___, by _____, _____
(name) (street address)
_____, _____County, Maine,_____, (herein referred to as the
(city or town) (county) (zip code)
"Declarant"), pursuant to a permit received from the Maine Department of Environmental Protection under the Stormwater Management Law, to preserve a buffer area on a parcel of land near _____, _____ .
(road name) (known feature and/or town)

WHEREAS, the Declarant holds title to certain real property situated in _____, Maine
(town)
described in a deed from _____ to _____, dated
(name) (name of Declarant)
_____, 20____, and recorded in Book ____ Page ____ at the _____County Registry of Deeds, herein referred to as the "property"; and

WHEREAS, Declarant desires to place certain restrictions, under the terms and conditions herein, over a portion of said real property (hereinafter referred to as the "Restricted Buffer") described as follows: (Note: Insert description of restricted buffer location here)

WHEREAS, pursuant to the Stormwater Management Law, 38 M.R.S. Section 420-D and Chapter 500 of rules promulgated by the Maine Board of Environmental Protection ("Stormwater Management Rules"), Declarant has agreed to impose certain restrictions on the Restricted Buffer Area as more particularly set forth herein and has agreed that these restrictions may be enforced by the Maine Department of Environmental Protection or any successor (hereinafter the "MDEP"),

NOW, THEREFORE, the Declarant hereby declares that the Restricted Buffer Area is and shall forever be held, transferred, sold, conveyed, occupied and maintained subject to the conditions and restrictions set forth herein. The Restrictions shall run with the Restricted Buffer Area and shall be binding on all parties having any right, title or interest in and to the Restricted Buffer Area, or any portion thereof, and their heirs, personal representatives, successors, and assigns. Any present or future owner or occupant of the Restricted Buffer Area or any portion thereof, by the acceptance of a deed of conveyance of all or part of the Covenant Area or an instrument conveying any interest therein, whether or not the deed or instrument shall so express, shall be deemed to have accepted the Restricted Buffer Area subject to the Restrictions and shall agree to be bound by, to comply with and to be subject to each and every one of the Restrictions hereinafter set forth.

1. **Restrictions on Restricted Buffer Area**. Unless the owner of the Restricted Buffer Area, or any successors or assigns, obtains the prior written approval of the MDEP, the Restricted Buffer Area must remain undeveloped in perpetuity. To maintain the ability of the Restricted Buffer Area to filter and absorb stormwater, and to maintain compliance with the Stormwater Management Law and the permit issued thereunder to the Declarant, the use of the Restricted Buffer Area is hereinafter limited as follows.

   a. No soil, loam, peat, sand, gravel, concrete, rock or other mineral substance, refuse, trash, vehicle bodies or parts, rubbish, debris, junk waste, pollutants or other fill material will be placed, stored or dumped on the Restricted Buffer Area, nor may the topography or the natural mineral soil of the area be altered or manipulated in any way;

   b. A dense cover of grassy vegetation must be maintained over the Restricted Buffer Area, except that shrubs, trees and other woody vegetation may also be planted or allowed to grow in the area. The Restricted Buffer Area may not be maintained as a lawn or used as a pasture. If vegetation in the Restricted Buffer Area is mowed, it may be mown no more than two times per year.

   c. No building or other temporary or permanent structure may be constructed, placed or permitted to remain on the Restricted Buffer Area, except for a sign, utility pole or fence (whether constructed of wood, steel or other materials) and appurtenant equipment such as guys and guy anchors;

   d. No trucks, cars, dirt bikes, ATVs, bulldozers, backhoes, or other motorized vehicles or mechanical equipment may be permitted on the Restricted Buffer Area, except for vehicles used in mowing;

   e. Any level lip spreader directing flow to the Restricted Buffer Area must be regularly inspected and adequately maintained to preserve the function of the level spreader.

   Any activity on or use of the Restricted Buffer Area inconsistent with the purpose of these Restrictions is prohibited. Any future alterations or changes in use of the Restricted Buffer Area must receive prior approval in writing from the MDEP. The MDEP may approve such alterations and changes in use if such alterations and uses do not impede the stormwater control and treatment capability of the Restricted Buffer Area or if adequate and appropriate alternative means of stormwater control and treatment are provided.

2. **Enforcement**. The MDEP may enforce any of the Restrictions set forth in Section 1 above.

3. **Binding Effect**. The restrictions set forth herein shall be binding on any present or future owner of the Restricted Buffer Area. If the Restricted Buffer Area is at any time owned by more than one owner, each owner shall be bound by the foregoing restrictions to the extent that any of the Restricted Buffer Area is included within such owner's property.

4. **Amendment**. Any provision contained in this Declaration may be amended or revoked only by the recording of a written instrument or instruments specifying the amendment or the revocation signed by the owner or owners of the Restricted Buffer Area and by the MDEP.

5. **Effective Provisions of Declaration.** Each provision of this Declaration, and any agreement, promise, covenant and undertaking to comply with each provision of this Declaration, shall be deemed a land use restriction running with the land as a burden and upon the title to the Restricted Buffer Area.

6. **Severability**. Invalidity or unenforceability of any provision of this Declaration in whole or in part shall not affect the validity or enforceability of any other provision or any valid and enforceable part of a provision of this Declaration.

7. **Governing Law**. This Declaration shall be governed by and interpreted in accordance with the laws of the State of Maine.

_____
(NAME)

STATE OF MAINE, _____, County, dated _____, 20__ .
(County)

Personally appeared before me the above named _____, who swore to the truth of the foregoing to the best of (his/her) knowledge, information and belief and acknowledged the foregoing instrument to be (his/her) free act and deed.

_____
Notary Public

_____

Forested buffer, limited disturbance

DECLARATION OF RESTRICTIONS (Forested Buffer, Limited Disturbance)

THIS DECLARATION OF RESTRICTIONS is made this _____day of _____, 20___, by _____ , _____,
(name) (street address)
_____, _____County, Maine, _____, (herein referred to as the
(city or town) (county) (zip code)
"Declarant"), pursuant to a permit received from the Maine Department of Environmental Protection under the Stormwater Management Law, to preserve a buffer area on a parcel of land near _____,_____ .
(road name) (known feature and/or town)

WHEREAS, the Declarant holds title to certain real property situated in _____, Maine
(town)
described in a deed from_____ to _____dated
(name) (name of Declarant)
_____, 20____, and recorded in Book ____ Page ____ at the _____County Registry of Deeds, herein referred to as the "property"; and

WHEREAS, Declarant desires to place certain restrictions, under the terms and conditions herein, over a portion of said real property (hereinafter referred to as the "Restricted Buffer") described as follows: (Note: Insert description of restricted buffer area location here)

WHEREAS, pursuant to the Stormwater Management Law, 38 M.R.S. Section 420-D and Chapter 500 of rules promulgated by the Maine Board of Environmental Protection ("Stormwater Management Rules"), Declarant has agreed to impose certain restrictions on the Restricted Buffer Area as more particularly set forth herein and has agreed that these restrictions may be enforced by the Maine Department of Environmental Protection or any successor (hereinafter the "MDEP"),

NOW, THEREFORE, the Declarant hereby declares that the Restricted Buffer Area is and shall forever be held, transferred, sold, conveyed, occupied and maintained subject to the conditions and restrictions set forth herein. The Restrictions shall run with the Restricted Buffer Area and shall be binding on all parties having any right, title or interest in and to the Restricted Buffer Area, or any portion thereof, and their heirs, personal representatives, successors, and assigns. Any present or future owner or occupant of the Restricted Buffer Area or any portion thereof, by the acceptance of a deed of conveyance of all or part of the Covenant Area or an instrument conveying any interest therein, whether or not the deed or instrument shall so express, shall be deemed to have accepted the Restricted Buffer Area subject to the Restrictions and shall agree to be bound by, to comply with and to be subject to each and every one of the Restrictions hereinafter set forth.

1. **Restrictions on Restricted Buffer Area**. Unless the owner of the Restricted Buffer Area, or any successors or assigns, obtains the prior written approval of the MDEP, the Restricted Buffer Area must remain undeveloped in perpetuity. To maintain the ability of the Restricted Buffer Area to filter and

absorb stormwater, and to maintain compliance with the Stormwater Management Law and the permit issued thereunder to the Declarant, the use of the Restricted Buffer Area is hereinafter limited as follows.

a. No soil, loam, peat, sand, gravel, concrete, rock or other mineral substance, refuse, trash, vehicle bodies or parts, rubbish, debris, junk waste, pollutants or other fill material may be placed, stored or dumped on the Restricted Buffer Area, nor may the topography of the area be altered or manipulated in any way;

b. Any removal of trees or other vegetation within the Restricted Buffer Area must be limited to the following:

(i) No purposefully cleared openings may be created and an evenly distributed stand of trees and other vegetation must be maintained. An "evenly distributed stand of trees" is defined as maintaining a minimum rating score of 24 points in any 25 foot by 50 foot rectangle (1,250 square feet) area, as determined by the rating scheme in Table 11:

Table 11.
Point System for Determining an Evenly Distributed Stand of Trees

Diameter of tree at 4½ feet above ground level	Points
2 - 4 inches	1
4 - 8 inches	2
8 - 12 inches	4
>12 inches	8

Where existing trees and other vegetation result in a rating score less than 24 points, no trees may be cut or sprayed with biocides except for the normal maintenance of dead, windblown or damaged trees and for pruning of tree branches below a height of 12 feet provided two thirds of the tree's canopy is maintained;

(ii) No undergrowth, ground cover vegetation, leaf litter, organic duff layer or mineral soil may be disturbed except that one winding path, that is no wider than six feet and that does not provide a downhill channel for runoff, is allowed through the area;

c. No building or other temporary or permanent structure may be constructed, placed or permitted to remain on the Restricted Buffer Area, except for a sign, utility pole (whether constructed of wood, steel or other materials) and appurtenant equipment such as guys and guy anchors, or fence;

d. No trucks, cars, dirt bikes, ATVs, bulldozers, backhoes, or other motorized vehicles or mechanical equipment may be permitted on the Restricted Buffer Area;

e. Any level lip spreader directing flow to the Restricted Buffer Area must be regularly inspected and adequately maintained to preserve the function of the level spreader.

Any activity on or use of the Restricted Buffer Area inconsistent with the purpose of these Restrictions is prohibited. Any future alterations or changes in use of the Restricted Buffer Area must receive prior

approval in writing from the MDEP. The MDEP may approve such alterations and changes in use if such alterations and uses do not impede the stormwater control and treatment capability of the Restricted Buffer Area or if adequate and appropriate alternative means of stormwater control and treatment are provided.

2. **Enforcement**. The MDEP may enforce any of the Restrictions set forth in Section 1 above.

3. **Binding Effect**. The restrictions set forth herein shall be binding on any present or future owner of the Restricted Buffer Area. If the Restricted Buffer Area is at any time owned by more than one owner, each owner shall be bound by the foregoing restrictions to the extent that any of the Restricted Buffer Area is included within such owner's property.

4. **Amendment**. Any provision contained in this Declaration may be amended or revoked only by the recording of a written instrument or instruments specifying the amendment or the revocation signed by the owner or owners of the Restricted Buffer Area and by the MDEP.

5. **Effective Provisions of Declaration**. Each provision of this Declaration, and any agreement, promise, covenant and undertaking to comply with each provision of this Declaration, shall be deemed a land use restriction running with the land as a burden and upon the title to the Restricted Buffer Area.

6. **Severability**. Invalidity or unenforceability of any provision of this Declaration in whole or in part shall not affect the validity or enforceability of any other provision or any valid and enforceable part of a provision of this Declaration.

7. **Governing Law**. This Declaration shall be governed by and interpreted in accordance with the laws of the State of Maine.

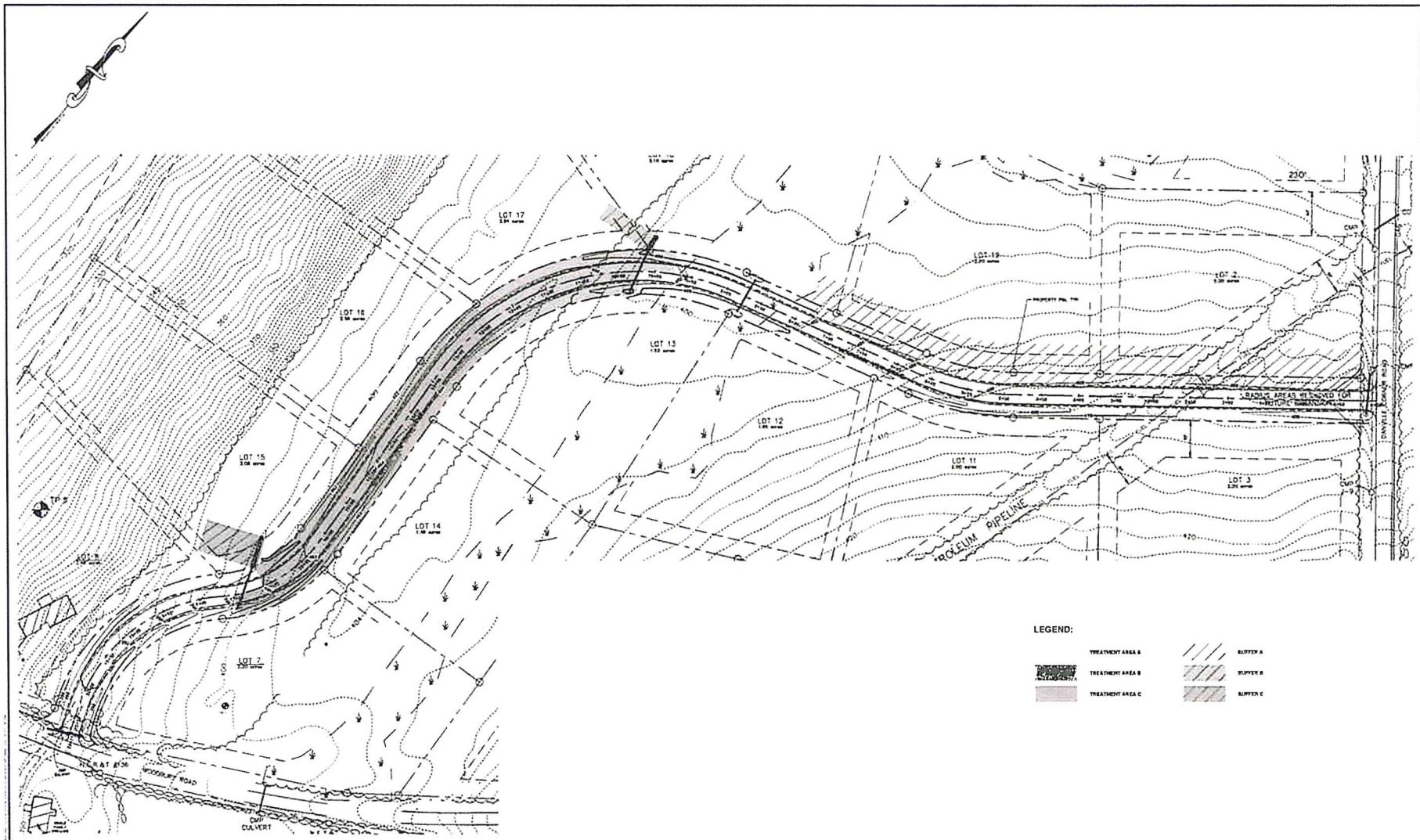
_____
(NAME)

STATE OF MAINE_____ County, _____, 20__.
(County) (date)

Personally appeared before me the above named _____, who swore to the truth of the foregoing to the best of (his/her) knowledge, information and belief and acknowledged the foregoing instrument to be (his/her) free act and deed.

_____
Notary Public

_____



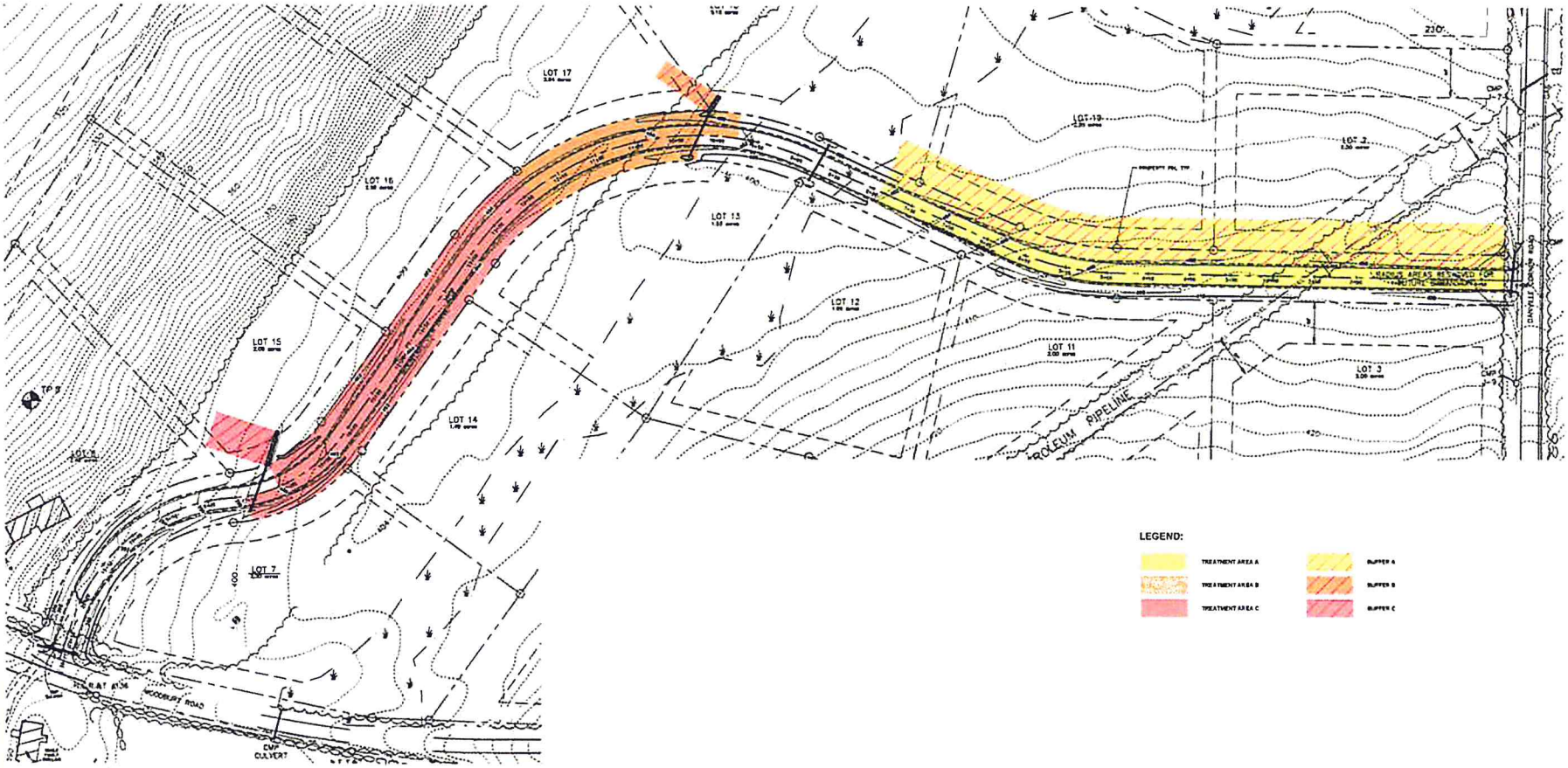
CES INC
Engineers • Environmental Scientists • Surveyors

BOUFFARD - MCFARLAND BUILDERS
AUBURN, MAINE

WOODBURY HEIGHTS
STORMWATER TREATMENT PLAN

NOT FOR CONSTRUCTION

C701



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BOUFFARD - MCFARLAND BUILDERS
AUBURN, MAINE

WOODBURY HEIGHTS
STORMWATER TREATMENT PLAN

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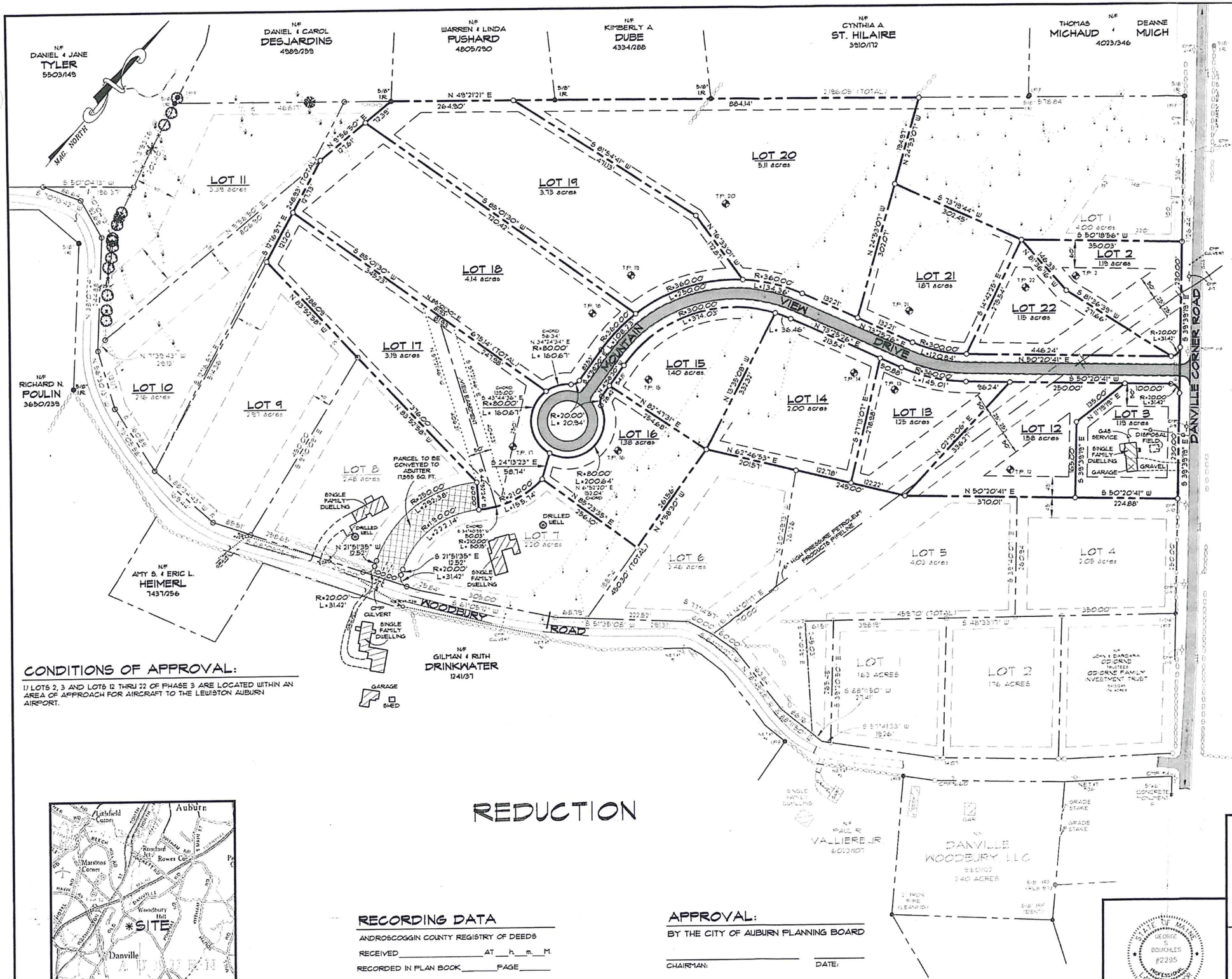
C701



CONDITIONS OF APPROVAL:

1) LOTS 2, 3 AND LOTS 12 THRU 22 OF PHASE 3 ARE LOCATED WITHIN AN AREA OF APPROACH FOR AIRCRAFT TO THE LEWISTON AUBURN AIRPORT.

LOCATION MAP
(NOT TO SCALE)

REDUCTION

RECORDING DATA

ANDROSCOGGIN COUNTY REGISTRY OF DEEDS

RECEIVED _____ AT ___h.___m.___M.

RECORDED IN PLAN BOOK _____ PAGE _____

ATTEST _____
REGISTRAR

APPROVAL:

BY THE CITY OF AUBURN PLANNING BOARD

_____ _____
CHAIRMAN: DATE:

NOTES:

1) ALL BEARINGS REFER TO MAGNETIC NORTH AS OBSERVED FEBRUARY 3, 1998, AND AS SHOWN ON AND ORIENTED TO A PLAN AS REFERRED TO IN NOTE 4 BELOW.

2) ALL BOOK AND PAGE NUMBERS REFER TO THE ANDROSCOGGIN COUNTY REGISTRY OF DEEDS.

3) TOTAL AREA OF PARCEL TO BE SUBDIVIDED = 31.38 ACRES. (LOTS 2, 3 AND LOTS 12 THRU 22 = 8.52 ACRES).

4) REFERENCE IS MADE TO THE FOLLOWING PLANS:
A) "STANDARD BOUNDARY SURVEY - NORWOOD SUBDIVISION" DATED AUGUST 10, 1999 BY CULLENBERG LAND SURVEYING, AND RECORDED AT SAID REGISTRY IN PLAN BOOK 40, PAGE 189.
B) "WOODBURY HEIGHTS" DATED FEBRUARY 10, 2015 BY CADMASTER LAND SURVEYING, AND RECORDED AT SAID REGISTRY IN PLAN BOOK 50, PAGE 197.
C) "WOODBURY HEIGHTS PHASE 2" DATED JUNE 18, 2015 BY CADMASTER LAND SURVEYING AND RECORDED AT SAID REGISTRY IN PLAN FILE BOOK 51, PAGE 48.
D) "MOUNTAIN VIEW ESTATES" DATED JULY 19, 2016 BY CADMASTER LAND SURVEYING AND RECORDED AT SAID REGISTRY IN PLAN FILE BOOK 51, PAGE 133.
E) "WOODBURY HEIGHTS - PHASE 2 AMENDMENT" DATED DECEMBER 9, 2016 BY CADMASTER LAND SURVEYING AND RECORDED AT SAID REGISTRY IN PLAN FILE BOOK 51, PAGE 167.

5) FOR INFORMATION REGARDING THE WOODBURY ROAD REFERENCE IS MADE TO THE CITY OF AUBURN'S COUNCIL RECORDS VOLUME 18, PAGE 246, DATED NOVEMBER 20, 1861. THIS ACTION BY THE COUNCIL WAS MADE TO OFFICIAL NAME CERTAIN ROADS WITHIN WARD FIVE. RESEARCH AT THE ABOVE REFERENCED REGISTRY, THE CITY OF AUBURN AND THE COUNTY COMMISSIONERS OFFICE INDICATED THE EXISTENCE OF THIS ROAD TO AT LEAST 1884. NO FORMAL DEFINITION FOR IT'S LOCATION AND WIDTH WAS FOUND. THE APPARENT RIGHT OF WAY OF THE WOODBURY ROAD WAS ESTABLISHED AS A THREE (3) ROD WIDE ROAD (49.5') UTILIZING EXISTING MONUMENTATION FOUND (I.E. STONEWALL, IRON PIPES OR RODS, ETC.) AND THE CENTERLINE OF THE EXISTING ROAD AS BEST AS PRACTIABLE.

6) THE PREMISES IS SHOWN ON THE CITY OF AUBURN'S MUNICIPAL TAX MAP NO. 110, LOT 9 AND IS CURRENT LOCATED WITHIN THE "LOW DENSITY RURAL RESIDENCE DISTRICT". DIMENSIONAL REQUIREMENTS FOR THIS ZONE ARE AS FOLLOWS:
A) MINIMUM LOT SIZE = 43,560 SQ. FT. (1 ACRE)
B) MINIMUM FRONTAGE = 250'
C) MINIMUM FRONT AND REAR YARD SETBACK = 25'
D) MINIMUM SIDE YARD SETBACK = 15'
F) MAXIMUM HEIGHTS = 35'

7) SOURCE DEED AND CURRENT OWNER: B&M DEVELOPERS, INC. - REFERENCE IS MADE TO A DEED FROM INEZ BUCK, NANCY McNEIL & JUDITH DAVIS-KOVATS TO B&M DEVELOPERS, INC. DATED SEPTEMBER 15, 2014, AND RECORDED AT SAID REGISTRY IN BOOK 8497, PAGE 44.

8) THE PREMISES IS SUBJECT TO A PETROLEUM PIPELINE EASEMENT CONVEYED TO BUCKEYE PIPE LINE TRANSPORTATION, LLC DATED JULY 19, 2011, AND RECORDED AT SAID REGISTRY IN BOOK 8234, PAGE 91. THE LOCATION OF THE PIPELINE, AS SHOWN ON THIS PLAN, IS APPROXIMATE BASED ON SIGNAGE LOCATED ALONG IT'S LENGTH AS IT PASSES THROUGH THIS PARCEL.

9) WETLANDS AS SHOWN ON THIS PLAN WERE DELINEATED BY VAUGHN SMITH ASSOCIATES, AND LOCATED WITH A TRIMBLE HAND HELD GPS (SUB METER) UNIT, AND ORIENTATED TO EXISTING PROPERTY INFORMATIONS AS SHOWN AND IS SUBJECT TO ERRORS TYPICALLY FOUND WITH THIS TYPE OF SURVEY LOCATION UNIT.

10) THIS PLAN WAS PREPARED UNDER THE DIRECT SUPERVISION OF GEORGE S BOUCHLES, PLS 2295.

LEGEND:

●	IRON PIPE OR ROD FOUND
○	IRON ROD WITH SURVEYOR'S I.D. CAP SET
ooooooooooooooo	STONE WALL
.....o.....	UTILITY POLE WITH OVERHEAD UTILITY LINE
——gas——	APPROXIMATE UNDERGROUND GAS LINE
N/F	NOW OR FORMERLY
628/24	BOOK AND PAGE NUMBER
	PROPERTY LINE
	BUILDING ENVELOPE AND SETBACK LINES
	SIGN (PIPELINE)
	APPROXIMATE TREE LINE
	HARDWOOD TREE WITH BARBED WIRE
	SOFTWOOD TREE WITH BARBED WIRE
	APPROXIMAGTE WETLAND BOUNDARY
	GRAVEL ROAD
	PAVED ROAD
	STORM WATER BUFFER
	APPROXIMATE TEST PIT AND NUMBER

SCALE : 1" = 100'

0 50' 100' 200' 300' 400'

STATE OF MAINE
GEORGE S BOUCHLES #2295
PROFESSIONAL LAND SURVEYOR

SUBDIVISION PLAN

WOODBURY HEIGHTS - PHASE 3

DANVILLE CORNER ROAD AUBURN, MAINE

ANDROSCOGGIN COUNTY

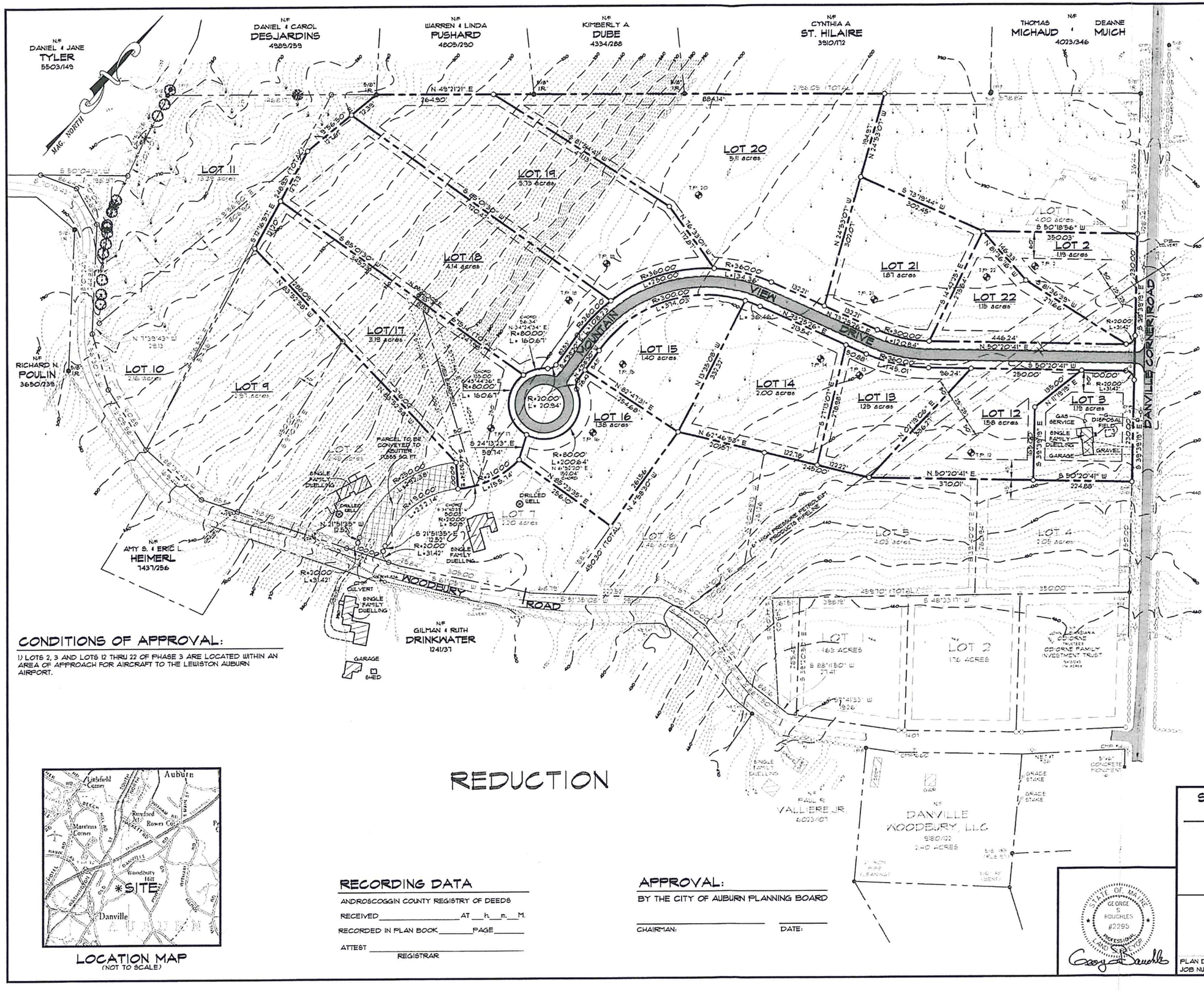
OWNERS OF RECORD AND PREPARED FOR

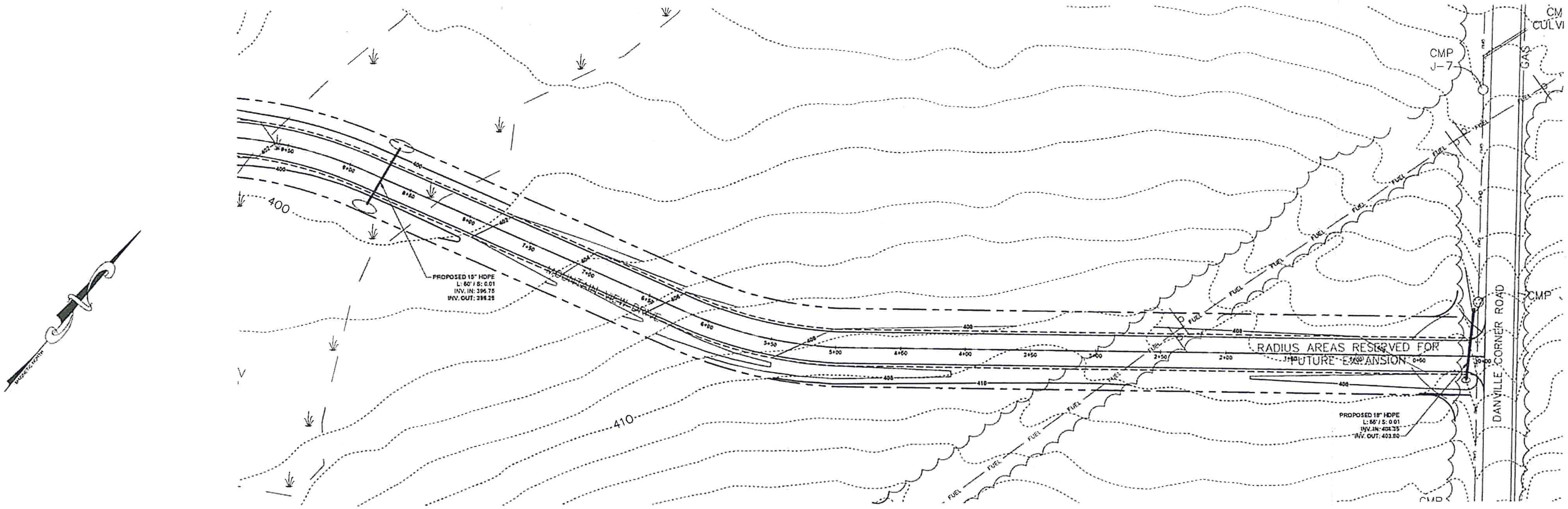
B&M DEVELOPERS, INC.

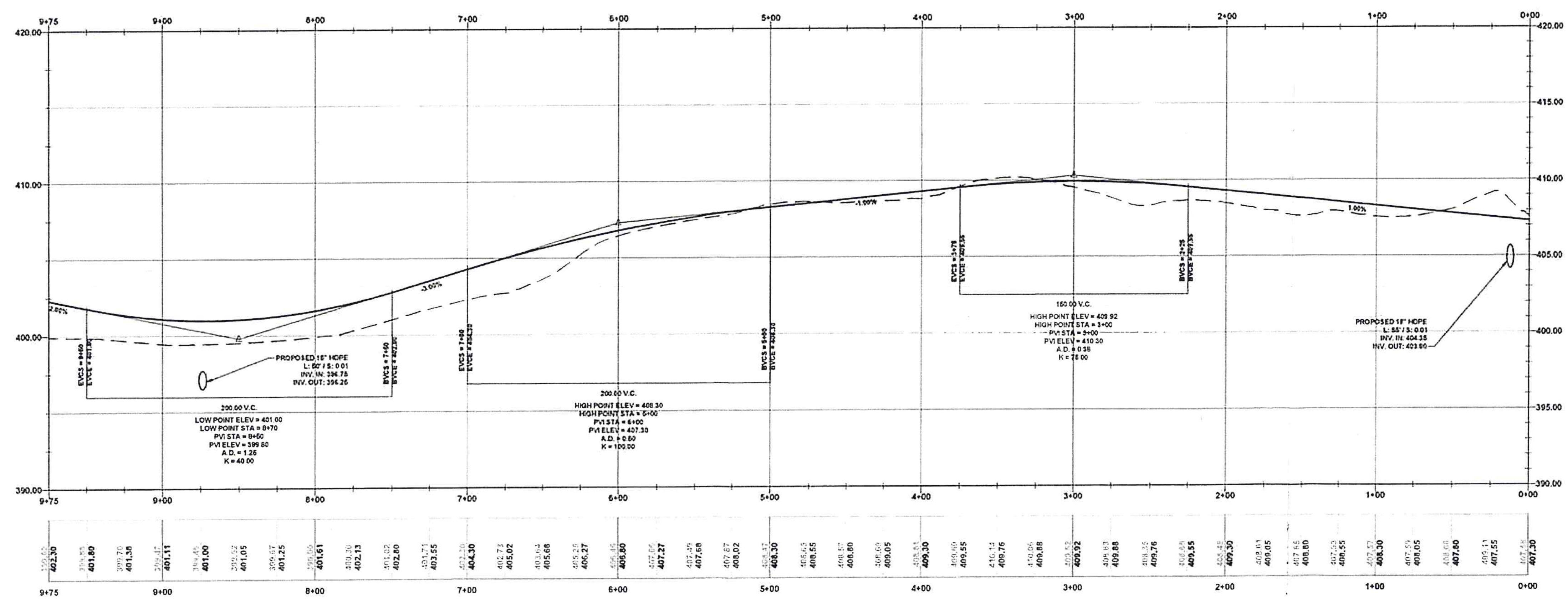
DANVILLE CORNER ROAD - AUBURN, MAINE 04210

prepared by
CADmaster Drafting,
Land Surveying & Septic Designs
191 Madison St - Auburn, ME 04210
tel/fax - 689-3232 cell- 240-5567

PLAN DATE: MAY 10, 2017 | SCALE: 1" = 100' | SHEET 1 OF 2
JOB NUMBER: 14-060 | CADD: 14-060PHASE3.DWG


N/F DANIEL & JANE TYLER 5503/149
N/F DANIEL & CAROL DESJARDINS 4888/259
N/F WARREN & LINDA PUSHARD 4805/290
N/F KIMBERLY A DUBE 4334/288
N/F CYNTHIA A ST. HILAIRE 3910/172
THOMAS MICHAUD & N/F DEANNE MUICH 4023/346
N/F RICHARD N. POULIN 3650/238
N/F AMY B. & ERIC L. HEIMERL 7437/256
N/F GILMAN & RUTH DRINKWATER 1241/37
N/F PAUL R. VALLIERE JR. 6055/107
N/F DANVILLE WOODBURY LLC 9180/122
MAG. NORTH
LOT 20 5.11 acres
LOT 19 3.73 acres
LOT 18 4.14 acres
LOT 17 3.18 acres
LOT 16 1.38 acres
LOT 15 1.40 acres
LOT 14 2.00 acres
LOT 13 1.25 acres
LOT 12 1.58 acres
LOT 11 13.25 acres
LOT 10 2.16 acres
LOT 9 2.91 acres
LOT 8 4.46 acres
LOT 7 2.20 acres
LOT 6 4.46 acres
LOT 5 4.05 acres
LOT 4 2.05 acres
LOT 21 1.87 acres
LOT 22 1.35 acres
LOT 1 4.00 acres
LOT 2 1.19 acres
LOT 3 1.19 acres
LOT 1 1.69 acres
LOT 2 1.76 acres
VIEW DRIVE
MOUNTAIN
WOODBURY ROAD
DANVILLE CORNER ROAD
PARCEL TO BE CONVEYED TO ABUTTER 7555 SQ. FT.
SINGLE FAMILY DWELLING
GARAGE
SHED
CULVERT
DRILLED WELL
GAS SERVICE
SEPTIC DISPOSAL FIELD
GRAVEL
6" HIGH PRESSURE PETROLEUM PRODUCTS PIPELINE
GRADE STAKE
5/8" CONCRETE MONUMENT
N 49°21'21" E 764.90'
N 76°23'01" W 1179.87'
N 24°53'01" W 1951.51'
N 13°25'26" E 1358.54'
N 50°20'41" E 446.24'
S 50°20'41" W 250.00'
N 67°46'58" E 2035.71'
N 13°25'26" W 332.31'
S 85°01'30" E 150.42'
S 78°18'41" W 307.45'
S 61°41'35" W 1926.
S 48°33'17" W 1400.
S 61°35'05" E 1500.
N 21°51'25" W 125.
S 21°51'35" E 125.2'
S 24°13'13" E 58.14'
N 85°23'35" E 286.10'
N 82°47'31" E 254.68'
N 85°23'35" W 1288.00'
N 71°59'43" W 781.3'
S 50°18'56" W 350.03'
N 81°36'16" W 146.23'
S 81°36'39" W 211.66'
S 14°42'25" E 238.24'
S 39°39'19" E 1300.00'
S 50°20'41" W 324.88'
N 50°20'41" E 370.01'
S 50°18'43" W 264.15'
S 85°01'30" W 340.23'
S 76°16'37" E 212.20'
S 85°01'30" E 110.42'
S 61°35'05" E 1500.
S 61°35'05" E 1500.
S 61°35'05" E 1500.





CES INC
Engineers • Environmental Scientists • Surveyors

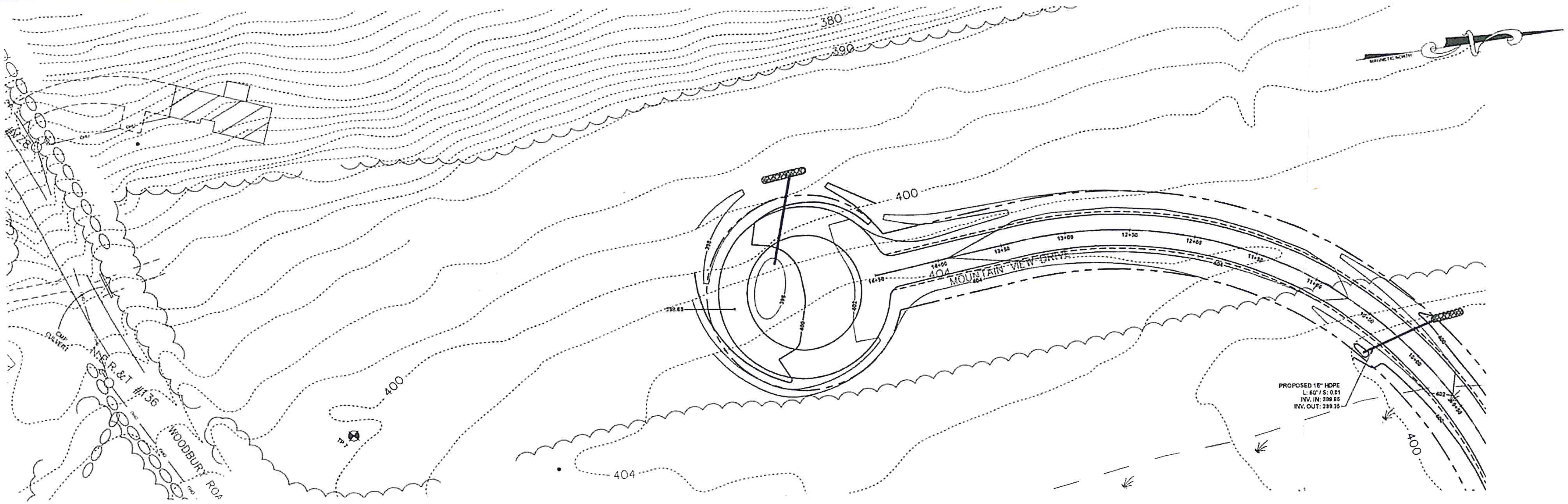
PROJECT TITLE
BOUFFARD - MCFARLAND BUILDERS
AUBURN, MAINE

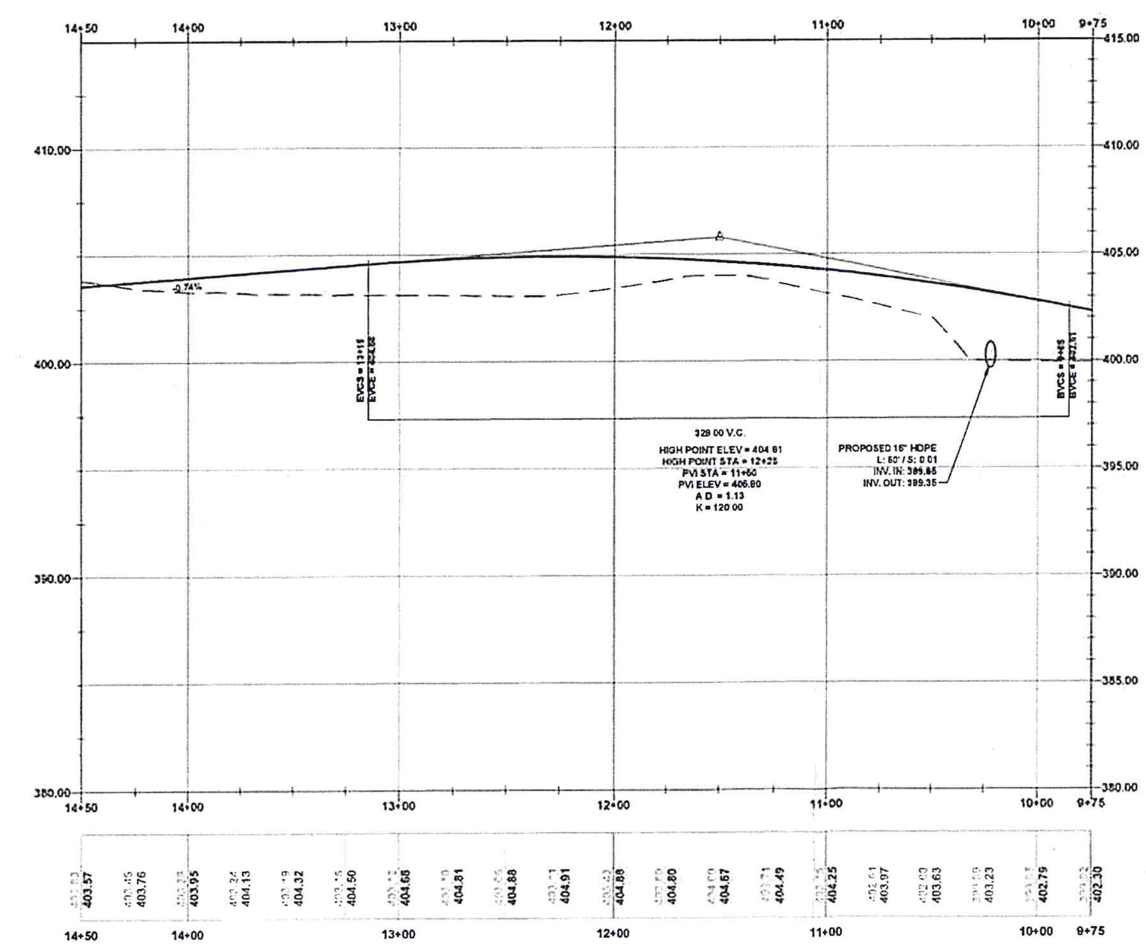
SHEET TITLE
WOODBURY HEIGHTS ROAD PLAN AND PROFILE STA: 0+00 TO 9+75

NOT FOR CONSTRUCTION

STATE OF MAINE
CHRISTOPHER E. MICHAUD
No. 12674
LICENSED PROFESSIONAL ENGINEER

SCALE	1"=40'
DATE	2017-03-07
DRAWN BY: WAB	CHECKED BY: CTM
DESIGNED BY: WAB	APPROVED BY: SMT
JOB NUMBER	10768.006
DRAWING NUMBER	C201





BOUFFARD - MCFARLAND BUILDERS
AUBURN, MAINE

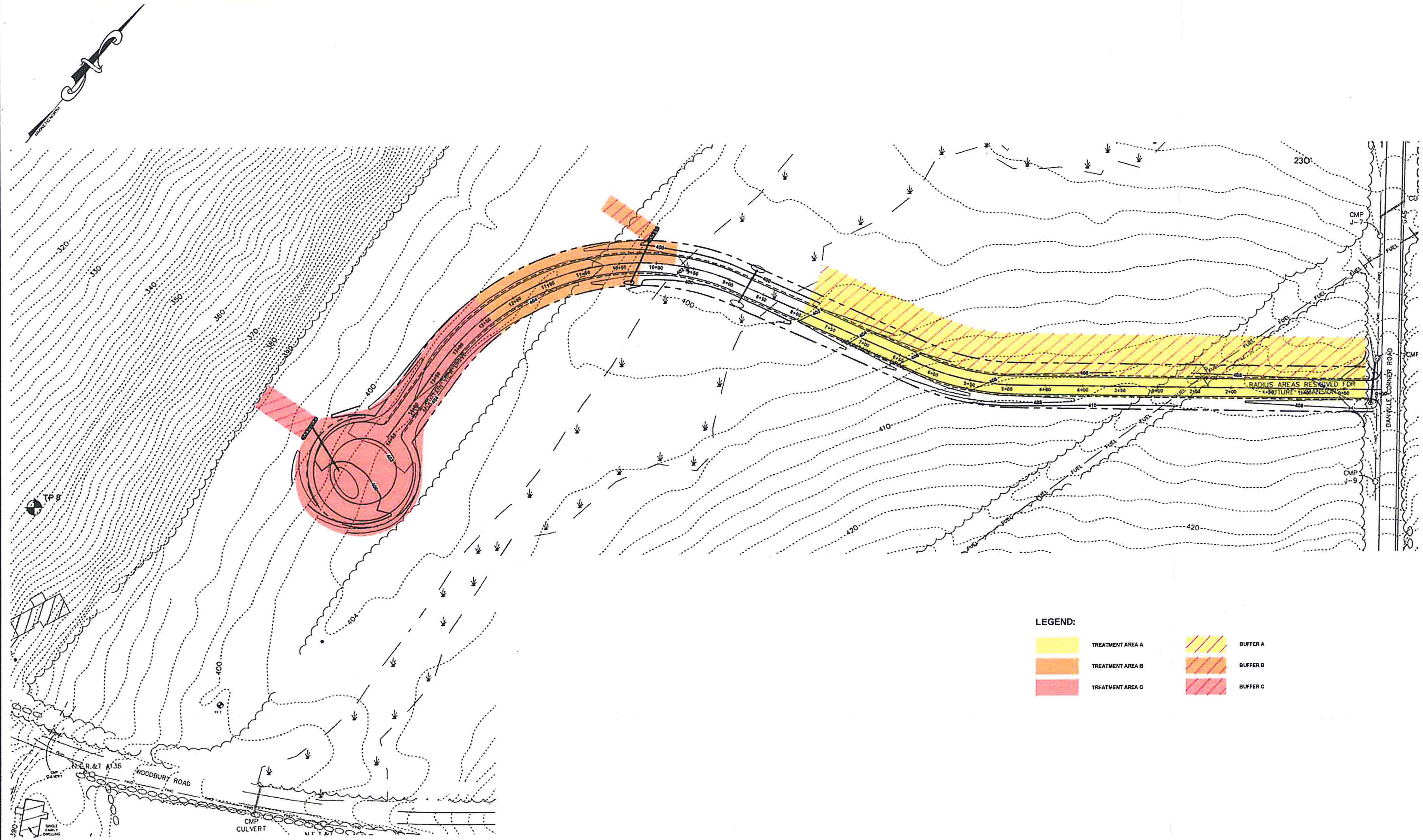
WOODBURY HEIGHTS
ROAD PLAN AND PROFILE
STA: 9+75 TO 20+77

NOT FOR CONSTRUCTION

STATE OF MAINE — CHRISTOPHER ... No. 12874 — LICENSED PROFESSIONAL ENGINEER

SCALE	1"=40'
DATE	2017-03-07
DRAWN BY	WAB
CHECKED BY	CTM
DESIGNED BY	WAB
APPROVED BY	SMT
JOB NUMBER	10768.006
DRAWING NUMBER	C202

CES INC
Engineers • Environmental Scientists • Surveyors



LEGEND:

TREATMENT AREA A	BUFFER A
TREATMENT AREA B	BUFFER B
TREATMENT AREA C	BUFFER C

CES INC
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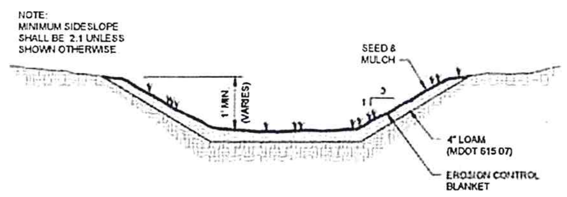
BOUFFARD - MCFARLAND BUILDERS
AUBURN, MAINE

WOODBURY HEIGHTS
STORMWATER TREATMENT PLAN

NOT FOR CONSTRUCTION

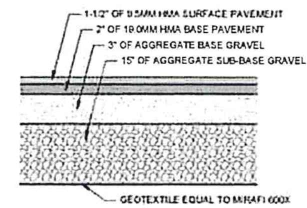
SCALE	1"=60'
DATE	2017-03-31
DRAWN BY	WAB
CHECKED BY	CTM
DESIGNED BY	WAB
APPROVED BY	SMT
JOB NUMBER	10786.006

C701



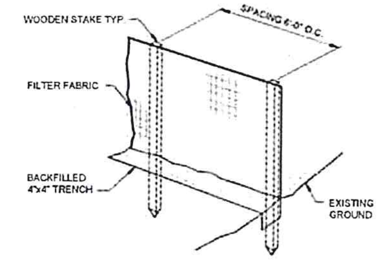
TYPICAL GRASS LINED DITCH DETAIL

N.T.S.



TYPICAL PAVEMENT BUILDUP DETAIL

N.T.S.



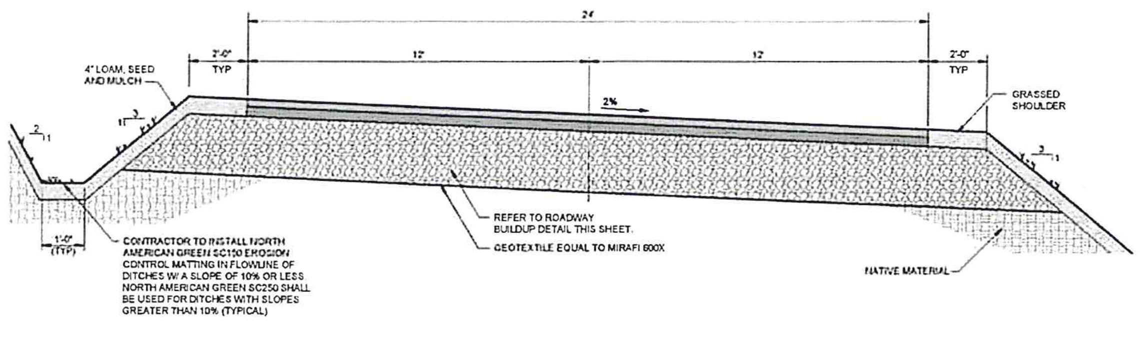
NOTES:
1. KEY FABRIC IN A 4"x4" TRENCH W/BACKFILL
2. SILT FENCE SHALL BE A 3' FENCE WITH A MINIMUM GRAB STRENGTH OF 120 LBS

SILT FENCE DETAIL

N.T.S.

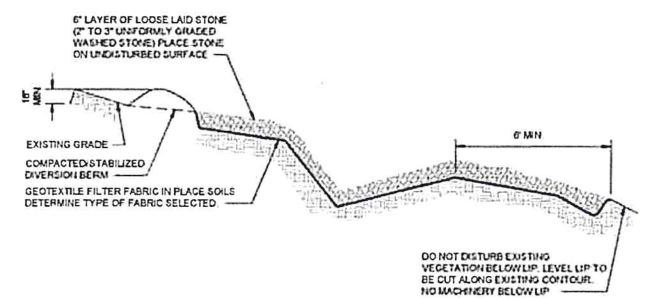
EROSION CONTROL NOTES

1. ALL SEDIMENTATION AND EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE MAINE EROSION AND SEDIMENTATION CONTROL BEST MANAGEMENT PRACTICES (BMPS), PUBLISHED BY THE BUREAU OF LAND AND WATER QUALITY, MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, LATEST EDITION
2. SILT FENCE WILL BE INSPECTED, REPLACED AND/OR REPAIRED IMMEDIATELY FOLLOWING ANY SIGNIFICANT RAINFALL OR SNOW MELT OR LOSS OF SERVICEABILITY DUE TO SEDIMENT ACCUMULATION. AT A MINIMUM, ALL EROSION CONTROL DEVICES WILL BE OBSERVED WEEKLY.
3. DURING THE CONSTRUCTION PHASE, INTERCEPTED SEDIMENT WILL BE RETURNED TO CONSTRUCTION SITE
4. SEDIMENT CONTROL DEVICES SHALL REMAIN IN PLACE AND BE MAINTAINED BY THE CONTRACTOR UNTIL AREAS UPSLOPE ARE STABILIZED BY A SUITABLE GROWTH OF GRASS. ONCE A SUITABLE GROWTH OF GRASS HAS BEEN OBTAINED, ALL TEMPORARY EROSION CONTROL ITEMS SHALL BE REMOVED BY THE CONTRACTOR. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THEY ARE REMOVED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED, SEEDED, AND MULCHED IMMEDIATELY.
5. ALL DISTURBED AREAS WILL BE SEEDED WITH 2.5 LBS. RED FESCUE AND 0.5 LBS. RYE GRASS PER 1,000 SQUARE FEET AND MULCHED AT A RATE OF 90 LBS. PER 1,000 SQUARE FEET OR EQUIVALENT APPLICATION OF SEED AND MULCH
6. A SUITABLE BINDER SUCH AS CURASOL OR TERRTACK WILL BE USED ON THE HAY MULCH FOR WIND CONTROL
7. IF FINAL SEEDING OF DISTURBED AREAS IS NOT COMPLETED BY SEPTEMBER 15th OF THE YEAR OF CONSTRUCTION, THEN ON THAT DATE THESE AREAS WILL BE GRADED AND SEEDED WITH WINTER RYE AT THE RATE OF 112 POUNDS PER ACRE OR 3 POUNDS PER 1000 SQUARE FEET. THE RYE SEEDING WILL BE PRECEDED BY AN APPLICATION OF 3 TONS OF LIME AND 800 LBS. OF 10-20-20 FERTILIZER OR ITS EQUIVALENT. MULCH WILL BE APPLIED AT A RATE OF 90 POUNDS PER 1000 SQUARE FEET.
8. IF THE RYE SEEDING CANNOT BE COMPLETED BY OCTOBER 1st OR IF THE RYE DOES NOT MAKE ADEQUATE GROWTH BY DECEMBER 1st, THEN ON THOSE DATES, HAY MULCH WILL BE APPLIED AT 150 POUNDS PER 1000 SQUARE FEET.
9. INTERIOR SILT FENCES ALONG CONTOUR DIVIDING FLAT AND STEEP SLOPES, AREAS WITH DIFFERENT DISTURBANCE SCHEDULES, AROUND TEMPORARY STOCKPILES OR IN OTHER UNSPECIFIED POSSIBLE CIRCUMSTANCES SHOULD BE CONSIDERED BY THE CONTRACTOR. THE INTENT OF SUCH INTERIOR SILT FENCES IS TO LIMIT SEDIMENT TRANSPORT WITHIN THE SITE TOWARD THE PROTECTED CATCH BASIN INLETS TO MINIMIZE SEDIMENT REMOVAL REQUIRED BY THE EROSION CONTROL NOTE 9 PROTECTIONS AND EXTEND LIFE OF SUCH DEVICES
10. THE CONTRACTOR SHALL PROVIDE A SEDIMENT BASIN FOR ALL WATER PUMPED FROM EXCAVATIONS. BASIN SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE "MAINE EROSION AND SEDIMENT HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES". THE CONTRACTOR SHALL SUBMIT FOR REVIEW/APPROVAL PRIOR TO BEGINNING ANY PROJECT WORK



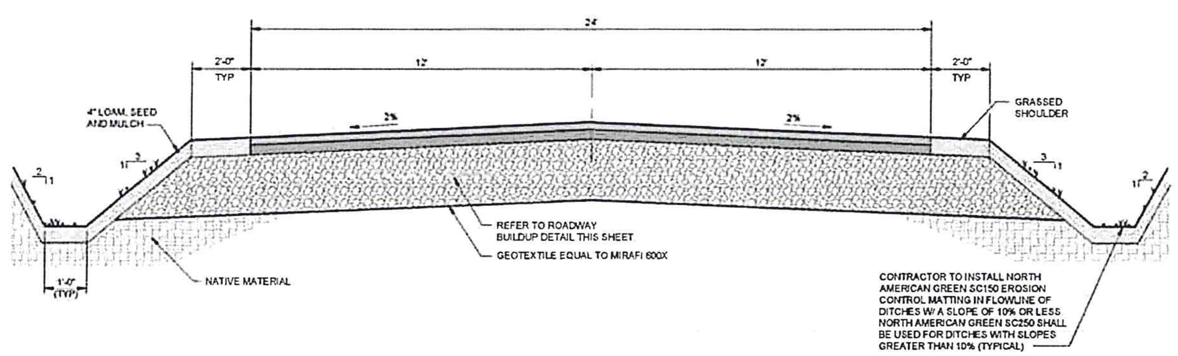
TYPICAL ROADWAY CROSS SECTION - STA: 0+00 TO 8+25

N.T.S.



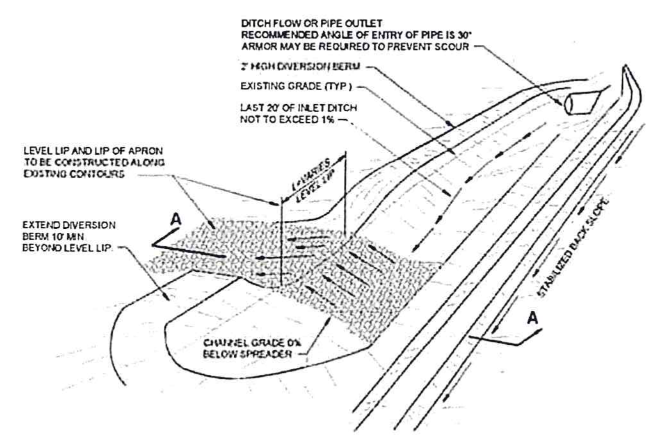
TYPICAL BUFFER LEVEL SPREADER SYSTEM - SECTION A-A

N.T.S.



TYPICAL ROADWAY CROSS SECTION - STA: 9+25 TO 14+50

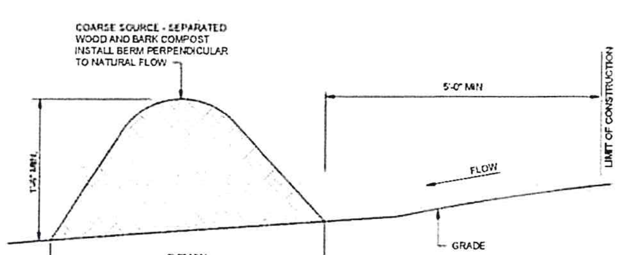
N.T.S.



1. SPREADERS SHALL BE INSTALLED WITH A LEVEL INSTRUMENT. CONSTRUCT LEVEL LIP TO 0% GRADE TO ENSURE UNIFORM SHEET FLOW. LEVEL SPREADER SHALL BE CONSTRUCTED ON UNDISTURBED SOIL (NOT FILL)
2. SELECT GEOTEXTILE FABRIC BASED ON UNDISTURBED SOILS (SANDS, SILTS, CLAYS, ETC.)
3. PLACE 6" LAYER OF UNIFORMLY GRADED STONE 2" TO 3" IN DIA. RAKE TO FORM SMOOTH UNIFORM SURFACE. DO NOT FILL VOIDS IN STONE.
4. THE INLET DITCH SHALL NOT EXCEED A 1% GRADE FOR AT LEAST 20 FEET BEFORE ENTERING THE SPREADER
5. STORM RUN-OFF CONVERTED TO SHEET FLOW ACROSS OUTLET APRON SHALL FLOW ONTO STABILIZED AREAS. RUN-OFF SHALL NOT BE RECONCENTRATED IMMEDIATELY BELOW THE POINT OF DISCHARGE
6. PERIODIC INSPECTION AND REQUIRED MAINTENANCE SHALL BE PROVIDED
7. CONSTRUCTION OF LEVEL LIP SPREADER SHALL BE FROM UPHILL SIDE ONLY. LEVEL LIP & AREA BELOW SPREADER SHALL BE AT EXISTING GRADES & UNDISTURBED BY EARTHWORK OR EQUIPMENT
8. CONSTRUCT SPREADER WITH LIP AT EXISTING ELEVATION AS SPECIFIED
9. DOWNGRADIENT RECEIVING AREA MUST BE NATURALLY WELL VEGETATED
10. DISCHARGE NOT PERMITTED WITHIN 25' OF A STREAM OR WETLAND. CONSULT DEP IF STRUCTURE MUST BE WITHIN 75' OF STREAM OR WATER BODY
11. REFER TO THE MAIBEC LUMBER SITE LOCATION OF DEVELOPMENT PERMIT APPLICATION MAJOR AMENDMENT FOR THE WIDTH OF THE LEVEL LIP SPREADERS AND REQUIRED FLOW THROUGH THE BUFFER

LEVEL LIP SPREADER DETAIL

NTS



EROSION CONTROL BERM DETAIL

N.T.S. (MAY BE USED AS AN ALTERNATE TO SILT FENCE)

CES INC
Engineers • Environmental Scientists • Surveyors

BOUFFARD - MCFARLAND BUILDERS
AUBURN, MAINE

WOODBURY HEIGHTS
SITE DETAILS

NOT FOR CONSTRUCTION

STATE OF MAINE
CHRISTOPHER T. MCNALLY
No. 12674
LICENSED PROFESSIONAL ENGINEER

SCALE	NTS
DATE	2017-05-09
DRAWN	WAB
CHECKED	CTM
DESIGNED	WAB
APPROVED	SMT
JOB NUMBER	10768.006

C501

City of Auburn, Maine
Office of Economic and Community Development
60 Court Street, Auburn, Maine 04210
www.auburnmaine.gov 207.333.6601

To: Planning Board, City of Auburn

From: Zach Mosher, City Planner

Date: July 11, 2017

RE: Continued Discussion of a Dog Kennel Text Amendment

At the June 13th Planning Board meeting, a text amendment to allow dog kennels in the Agricultural and Resource Protection (AGRP) was postponed. Staff wanted to re-convene and clarify a couple aspects of the text amendment and bring it back to the Planning Board in July.

Staff Comments:

1) Licensed dog kennels are a sensible and reasonable Special Exception use in the Auburn's more rural residential districts. Staff recommends limiting the use of dog kennels to the following 4 districts: Agricultural & Resource Protection District (AGRP), Low Density Country Residential District (LDCR), the Low Density Rural Residential district and Suburban Residential (SR). Staff also recommends continuing to require the minimum lot size of three acres or the zoning district minimum, whichever is greater.

2) The use of dog kennels does not constitute an agricultural use, that is, dog kennels do not require a long-term investment/use of Auburn's open agricultural land or natural resources.

3) Because dog kennels are not considered an agricultural use, staff recommends prohibiting the construction of any residential units accessory to a kennel in the AGRP district.

4) The larger issue of residential uses in the AGRP District will be given careful consideration as part of the Ag Study that will start this year and should not be modified at this time with the limited public input to date.

Staff Recommendation:

The Staff recommends APPROVAL of the text amendment with the following findings and conditions:

1) Allowing Dog Kennels in the AGRP district is a reasonable special exception use given its low-density, rural nature.
2) The review of Dog Kennels as a special exception in the AGRP district will allow adequate protection to surrounding areas from adverse impacts
3) The City of Auburn's Comprehensive Plan supports "…a broader range of rural uses" (Chapter 2, p. 108).

Conditions:

a. Minimum lot size of the zoning district or three acres, whichever is greater

b. No residential dwelling unit will be allowed as an accessory to the dog kennels use.

Crossroads Resource Center

7415 Humboldt Ave S / Minneapolis, Minnesota 55423 / 612.869.8664
kmeter@crcworks.org www.crcworks.org

Tools for Community Self-determination

April 12, 2017

Eric Cousens, Deputy Director
City of Auburn — Economic and Community Development Department
60 Court Street
Auburn, Maine 04210
(207) 333-6601 ext. 1154

Dear Mr. Cousens:

Along with my colleague Megan Phillips Goldenberg, I am very pleased to submit our proposal responding to the City of Auburn's RFP for Bid #2017-027, "Study to Support and Enhance Auburn's Agricultural and Resource Sector."

We are both inspired by Auburn's five-decade success in protecting farmland – something many cities never had the courage to do. We are even more impressed that the City is reaching out for additional expertise to assist as it adapts these protections to a new era in agriculture.

We understand there has been some concern in the community regarding bringing in outside consultants for what is often perceived as a local matter. We are able to respond to that challenge effectively. While there are certainly times when local expertise is best, we find this situation ripe for a neutral party who can accept all viewpoints fairly. We listen closely to all stakeholders without playing local favorites. We helped Colorado property owners see what they could gain by protecting farmland, and have long made the economic development case for integrating farms and towns. We tend to be more knowledgeable about agriculture than most consultants with economic expertise. Both of us have rural roots, and approach farmers as equals. We bring considerable experience in Maine, including in Auburn itself, and hold the highest level of national expertise. We bring seasoned insights from other communities, while understanding, appreciating, and building upon the unique assets of the Auburn community.

The attached proposal outlines our strategy for compiling information to help Auburn act to refine its protection of farmland. We consider this an action plan, not simply a study. Our proposal follows the City's requested activities, and we are ready to adjust our plan as needed as the Rural Lands discussion evolves. Results of our research will be digested into a concise form — a compelling written report that, we hope, will serve as a pragmatic document for Auburn for years to come.

Megan and I look forward to working with the City of Auburn on this important redefinition of agricultural land protection, helping renew the district's connection to the economy of the Auburn region.

Sincerely,

Kenneth A. Meter

Kenneth A. Meter, MPA
President

Cultivating Community Farm near Lisbon

Study to Support and Enhance Auburn's Agricultural and Resource Sector

Auburn, Maine — Bid # 2017-027

April 13, 2017

From:

Ken Meter, President

Crossroads Resource Center, Inc.

7415 Humboldt Ave. 5.

Minneapolis, Minnesota 55423

(612) 869-8664

and

Megan Phillips Goldenberg, Principal

New Growth Associates, LLC

9770 Macon Road

5aline, Michigan 48176

(906) 869-0372

Table of Contents

Company Profiles

Ken Meter, of Crossroads Resource Center, and **Megan Phillips Goldenberg**, of New Growth Associates, work in close partnership and will be the only firms working on this study, if the contract is awarded to them. Crossroads Resource Center will be the primary vendor and New Growth Associates will sub-contract with Crossroads Resource Center. Both firms have one principal, and each can bring in additional research and design advisers to support this study.

Crossroads Resource Center

CRC is an entrepreneurial nonprofit that has fostered local food system development in 126 regions in 39 states. Our primary focus has been to make the economic case for local foods by creating concise overviews of regional farm and food economies. By illustrating the financial conditions of the prevailing farm and food sectors, connecting this to health and social data, and focusing attention on farmers and others who are often marginalized, Crossroads Resource Center has created potent summaries that have sparked successful long-term approaches. Crossroads Resource Center also follows up solid research with consulting on practical, specially tailored implementation strategies that make use of our data, and help build community assets. Crossroads Resource Center also has a wealth of knowledge about community-level food activities across the U.S. Very likely no one has as much first-hand experience with local foods initiatives in diverse community settings.

Simply put, we are the most qualified food system analysts in the U.S., and have won national and international recognition for our efforts. More information about our activities, and a wealth of reports, can be found at our web site: http://www.crcworks.org. We are not aware of any other consultant or organization that has completed seven in-depth statewide food system assessments (Minnesota, Ohio, Indiana, South Carolina, Mississippi, Alaska, and Hawai'i), as Crossroads Resource Center has. New Growth Associates was a key partner in the four most recent studies, as well as many others.

New Growth Associates

Founded in 2010, New Growth Associates is a woman-owned company that brings together a small group of professionals in order to support evidence-based decision making for community and economic development projects, as well as to provide professional project management expertise and business consulting services. With particular interests in creating and supporting economic development opportunities for family farmers and increasing equitable healthy food access across communities, New Growth Associates is dedicated to providing sound analysis and professional project management to support informed decision making at all tiers of the food system in order to ensure long-term success. From enterprise analysis at the farm level to strategic policy planning and investment development at the state level, we leverage the expertise needed to grow new initiatives.

In partnership with Crossroads Resource Center, New Growth Associates brings seasoned experience producing feasibility studies in Colorado, Michigan, South Carolina, and Alaska with extensive background in survey development, economic impact analysis, academic research, quantitative methods, interviews, and food-based business and organization consulting.

Project Team

Kenneth A. Meter, MPA, President of Crossroads Resource Center, is one of the most experienced food system analysts in the US, integrating market analysis, business development, systems thinking, and social concerns. Meter holds 46 years of experience in inner-city and rural community capacity building, and has worked with several tribal organizations. His local economic analyses have promoted local food networks in 126 regions in 39 states and Manitoba. With Goldenberg, he developed a $9.85-milllion plan for local food investment for the state of South Carolina, and has completed similar studies for Hawai'i, Alaska, Mississippi, Indiana, Ohio, and Minnesota. He has developed strategic regional food plans for regions near Bridgton, Maine, Shreveport, Lafayette, Monroe, Fort Wayne, Denver, and in rural North Dakota, Virginia, and Washington State. Meter consulted with the USDA Agricultural Marketing Service and Colorado State University as part of a fourteen-person team of the best national experts that wrote a toolkit for measuring economic impacts of local food development. As coordinator of public process for the City of Minneapolis Sustainability Initiative, he guided over 85 residents in creating a 50-year vision for the city including sustainability measures. He served as an advisor for the USDA Community Food Projects including managing the proposal review panel. Meter taught microeconomics at the Harvard Kennedy School, the economic history of US agriculture at the University of Minnesota, and food policy at Metropolitan State University.

See Appendix A for Meter's résumé.

Megan Phillips Goldenberg, MS, principal at New Growth Associates and Associate of Crossroads Resource Center, brings seasoned experience producing feasibility studies, economic analysis, and policy recommendations in Colorado, South Carolina, Alaska, Mississippi, Hawai'i, Kansas, Maine, and Michigan, with extensive background in project management, survey development, economic impact analysis, academic research, quantitative methods, interviews, and food-based business and organization consulting. Megan is most interested in the intersections of public policy, food systems, and community development. She endeavors to work in an outreach and community building capacity in order to create and maintain a sense of place through better science and informed decision-making.

Goldenberg holds a Master's degree in Agricultural and Natural Resource Economics from Colorado State University. Her coursework emphasized Public Policy and Community Economic Development. Through her graduate research, Goldenberg worked with Be Local Northern Colorado, the Northern Colorado Regional Food System Assessment, Boulder County's Building Farmers Market Track program, and the Building Farmers in the West Beginning Farmer and Rancher Development Program. Prior to joining Crossroads as an Associate, Goldenberg worked for WPM Consulting in Boulder, Colorado as a Food Systems and Policy Associate. She consulted with the USDA Agricultural Marketing Service and Colorado State University to help write a toolkit for measuring economic impacts of local food development.

See Appendix B for Goldenberg's résumé.

Relevant Experience/Qualifications/References

Lakes Region, Maine (2016)
Meter and Goldenberg completed a local foods implementation plan for the **Lakes Region of Maine in 2016.** This study recommended that to grow community food production, it would be essential to **connect growers to community buyers** such as social groups and churches that sponsor community meals and would be loyal to local producers. Meter interviewed farmers and other stakeholders; **Goldenberg performed a respected survey of second-home owners.**

Meter, Ken & Goldenberg, Megan Phillips (2016). "Building Support for Community-Based Foods in the Lakes Region of Maine." Prepared for Cumberland County, Maine and the Town of Bridgton, Maine.
www.crcworks.org/melakes16.pdf

Lewiston-Auburn Food Hub (2015)
Meter participated in a previous study of the feasibility of **developing a regional food hub in Lewiston and Auburn.** Meter's unique contributions were: (a) to ensure that farmers at Cultivating Community made a strong presence in the study; and (b) to serve as the lead voice cautioning that the amount of food produced locally would not be sufficient to support a food hub at that time.

Karp, Karen & Meter, Ken *et al* (2015). "Lewiston-Auburn Regional Food Hub Feasibility Study." Produced in partnership with Karp Resources and Grow L+A.
www.crcworks.org/melewaub15.pdf

Suburban Denver Farmland Protection (2016)
Meter and Goldenberg collaborated on market analysis that informed county and city officials in a suburb of Denver, showing that the only buyers for farmland that would protect it for farms were the city and county themselves. This led to the **decision to purchase land at its development value and make it available to farmers at the agricultural value.** We helped bring stakeholders who initially disagreed with each other into a more collaborative discussion.

Meter, Ken (2016). "Market Study for Adams County — Special Ag District." Submitted to District Plan Process of Adams County and the City of Brighton. Produced in partnership with Logan Simpson Design Firm, Two Forks Collective, City of Brighton & County of Adams.
www.crcworks.org/coadamsPublicDraft160219.pdf

Nashville Food System Coordination (2017)
Meter and Goldenberg produced an **implementation plan for the metropolitan government of Nashville** that recommended hiring a community foods coordinator, building strong coordination across food system leaders, and increasing food production in low-income neighborhoods. Our work plan is now in the Mayor's budget process.

Meter, Ken & Goldenberg, Megan Phillips (2017). "Metro Nashville Food System Assessment." Produced for Metro Nashville (combined City and County government). www.crcworks.org/nashville17.pdf

Northeast Indiana Local Food Network (2016)
Meter collaborated with a Chicago economic development firm to create an implementation plan for the Northeast Indiana Local Food Network, commissioned by **11 local economic development organizations** and their regional umbrella, the **Northeast Indiana Regional Partnership.** This called for strengthening an existing network of farm and food businesses. Impact was to convince economic development officials to work more closely with farms (which had been viewed as separate from businesses) and low-income residents.

Meter, Ken (2016). "Northeast Indiana Local Food Network." Produced in partnership with the Northeast Indiana Regional Partnership and Manheim Solutions, Inc. www.crcworks.org/innetworks16.pdf

Making Small Farms into Big Business (2013)
Meter and Goldenberg produced an implementation plan for the State of South Carolina commissioned by that state's Department of Agriculture and Department of Commerce. The plan called for a $9.85-million investment in farm-level and regional infrastructure. One state legislator told the annual meeting of the Farm Bureau, "We finally have a road map for the future of agriculture in South Carolina."

Meter, Ken & Goldenberg, Megan Phillips (2013). South Carolina: Making Small Farms Big Business. Published in collaboration with the South Carolina Department of Commerce, the South Carolina Department of Agriculture, the Palmetto Agribusiness Council, South Carolina Farm Bureau, Coastal Conservation League, Carolina Farm Stewardship Association, and the Bank of South Carolina. More than 200,000 hits on the following link: www.crcworks.org/scfood.pdf

References

Tasha Kennard, Director
Metro Nashville Farmers' Market
901 Rosa Parks Boulevard
Nashville, Tennessee
Tasha.Kennard@Nashville.gov
(615) 880-2001 ext. 26

Kennard supervised the Nashville study

Jack Shuler, Executive Director
Palmetto Agribusiness Council
602 Meeting St # B
West Columbia, SC 29169
jshuler3@sc.rr.com
(803) 429-3462

Shuler supervised the South Carolina study

Rachel Bair, Director
Food Innovation Center
Kalamazoo Valley Community College
rbair@kvcc.edu
(734) 717-0050

Bair supervised a feasibility assessment performed by Goldenberg for a food hub in Kalamazoo

Proposal Summary

Background:
Rural Auburn has a unique Agricultural and Resource Protection (AGRP) zoning district, which has been in place since the early 1960s. It contains over 40% of the City's land area, or over 20,000 acres. The purpose and intent of the AGRP zoning regulations have been to manage development and to promote food, agricultural, timber, and natural resource production and uses. The AGRP zoning regulations have significantly restricted development for the past 50 years. Today, however, the nature and trends of farming and food production have drastically changed.

Values Statement:
Consultant's work will be guided by The City of Auburn Values Statement: The City of Auburn values its agricultural heritage, protects the natural beauty of its land, and promotes locally grown food, raising livestock, managing forests, and natural resource-based businesses.

Purpose:
The City of Auburn desires to strengthen its natural resource-based economy (farming, timber, food businesses, etc.) and to better integrate this sector into community planning and City-wide priorities.

Goals:
1. Gain an understanding of how rural agricultural, forestry, and natural resource producers and property owners are utilizing their land, what their future plans are, and find out if there are barriers to successful operations, through property owner interviews and surveys.

2. Build a broad community and stakeholder consensus on the future of Auburn's Rural Lands through an open public forum, and readily available study information.

3. Determine the economic and community development potential for Auburn's Rural Land, both at the local and regional level and implement policies and regulations that meet that potential and align with the Values Statement.

Geographic Scope:
City of Auburn, Maine, with surrounding communities and markets.

Activities:

1. Attend initial meetings with City of Auburn officials to set up study processes.
- Establish agreements on roles and responsibilities
- Set timeline for project
- Begin to plan public meetings
- Meet with Mayor
- Meet with Planning Staff to review history of Rural Lands and this project
- Meet with City legal staff to ascertain their view on the impacts of AGRP, legal constraints that would affect any future plans, and related issues

- Meet with GIS mapping specialists
- Identify relevant studies to be reviewed
- Identify specific experts to be consulted
- Establish survey and interview processes and timeline (especially to ensure farmers will not be surveyed during busy work seasons)
- Compile lists of people to interview and survey

2. Interview experts and stakeholders to gain background information on agricultural trends in the State of Maine and local farm and food initiatives.

- Maine Department of Agriculture, Forestry, and Conservation
- Maine Farmland Trust
- St. Mary's Nutrition Center
- Cultivating Community
- Somali Bantu Community Initiative
- Cooperative Development Institute
- Others as mutually agreed

3. Conduct an assessment and report on Auburn's existing Agricultural and Resource Protection district regulations, other local, state, or regional regulations, the impacts of these regulations whether intended or not, and rural economic and social conditions.

- Study Agricultural and Resource Protection regulations in depth
- Interview legal experts, farmers, and others regarding the efficacy and impacts of AGRP
- Compile current data on farm and food economy for Androscoggin County and surrounding region
- Compile health, demographic, and social data for Androscoggin County and surrounding region
- Interview state officials by telephone:
    - Maine Attorney General's office
    - Maine Department of Community and Economic Development
    - State Planning Office
    - Office of Policy and Management
    - Key farmers and food practitioners including those listed above
    - Others as mutually agreed
- Summarize findings into a concise document

4. Interview (one-on-one) at least 30 farmers, potential farmers, timber firms, food businesses, natural resource producers, property owners, and key stakeholders in or near the Rural Lands district. Ensure that divergent views are included.

- Ascertain each person's history related to Rural Lands site
- Ascertain each person's goals for the future related to Rural Lands site
- Ascertain each person's sense of foreseen and unforeseen impacts of the AGRP
- Ascertain each person's understanding of potential opportunities for the AGRP
- Ascertain each person's understanding of obstacles to strengthening agricultural protection

5. Survey property owners and farmers.

- Create solid focus for each survey (farmers, property owners)

- Draft survey questions, review with City Planning staff
- Refine survey questions, post on an internet-based survey platform
- Work with City Planning staff to develop cover letter for Mayor to sign, inviting respondents to fill out survey, and write follow-up reminders
- Work with City Planning staff to publicize the survey to all recipients
- City will send invitation letter
- Consultants will administer survey
- City will send reminders
- Once survey is closed, Consultants will compile results and summarize key findings into a concise and readable report

6. Facilitate stakeholder and public meetings.

- Based on interview lists compiled and timeline established above, work with City staff who will schedule stakeholder meetings.
- Plan and lead 3 focus group meetings (farmers, property owners, timber firms, broader community members)
- Plan a public meeting to review initial findings of research and invite comment on proposed recommendations
- Lead this public meeting

7. Submit a preliminary report on the public meetings, interviews, and surveys.

- Write concise summary report outlining key findings from interviews, surveys, and public meetings
- Outline proposed recommendations

8. Explore the economic development possibilities of Auburn's Rural Lands and its potential to complement downtown living and development.

- Work with city staff to identify key community leaders, economic developers, other experts who should be interviewed regarding the potential for the Rural Lands district
- Interview these sources
- Review relevant studies from Auburn and other locations
- Draw economic development recommendations from these interviews and data compiled above
- Drawing upon quantitative and qualitative data compiled above, prepare draft of potential economic development plan for Rural Lands district

9. Prepare a preliminary report with alternatives for public consideration.

- Write concise preliminary report outlining key findings above with draft economic development recommendations
- Submit to City staff for review

10. Prepare a report with recommendations and implementation plan to overcome obstacles to Auburn's rural economy.

- Write concise report outlining key recommendations and implementation plan that overcomes obstacles to Auburn's rural economy
- Submit to City
- Post on City, Crossroads Resource Center, and New Growth Associates web sites

11. Provide an implementation plan for the long-term management of Auburn's Rural Lands.

- Write concise report outlining implementation plan for long-term management of Auburns' Rural Lands
- Submit to City
- Post on City, Crossroads Resource Center, and New Growth Associates web sites

City Staff will make the following contributions, as specified in RFP:

- Provide Project Oversight
- Assist consultants in obtaining data from city, county, and state officials
- Facilitate arrangements for and participate in public meetings
- Oversee a City website dedicated to the Rural Land Capability Study
- Indentify stakeholders for interviews
- Lead outreach for surveys including initial invitation to edit and follow up reminders.

Project Timeline

Note: It may be best to delay survey process and public meetings until Winter 2017/2018 to ensure farmer participation. The following timeline is a compromise to establish some momentum after the project is funded by City.

The basic assumption of our approach is that private meetings with landowners and farmers will be held before public meetings, in order to (a) assure all parties that their voices are heard; (b) foster a sense of collaboration rather than confrontation; and (c) for consultants to become familiar with the nuances of the issues prior to public meetings.

Since the City has not yet allocated funds for this project, all dates are contingent on that approval, in addition to professional commitments our team makes prior to that approval. This should be viewed as a sample timeline until we know when work can actually commence.

April 18, 2017
City of Auburn Opens Sealed Bids for #2017-027

April - May, 2017
City of Auburn considers whether to fund this project

June, 2017
Assuming City funds are approved, agreement is signed and work commences
Task 1: Initial meetings with City staff
Task 1: Prior studies reviewed
Task 4a: Initial property owner interviews held (15 interviews)

July, 2017
Tasks 1-2: Data compiled from public sources
Task 2: Telephone interviews with key stakeholders
Task 3: AGRP assessment completed

August, 2017
Task 5: Survey designed
Task 8: Research economic development opportunities

September, 2017
Task 5: Survey disseminated

October, 2017
Task 5: Survey results compiled

December, 2017
Task 4b: Farmer interviews held (15 interviews)
Task 6: Focus groups held

January, 2018
Task 6: Public Meeting held to review initial findings
Task 7: Write preliminary findings

February, 2018
Task 7: Complete preliminary report with research findings

March, 2018
Task 7: Staff reviews preliminary report

April, 2018
Task 9: Complete preliminary report overcoming obstacles
Task 10: Complete report on overcoming obstacles

May, 2018
Tasks 10-11: Complete final report with recommendations

Professional Fees & Budget

Meter and Phillips Goldenberg both bill at $100 per haur.

Proposed Budget

Task 1 8,000
Attend initial meetings with City of Auburn officials to set up study processes; begin property owner interviews.

Task 2 4,000
Interview experts and stakeholders to gain background information on agricultural trends in the State of Maine and local farm and food initiatives.

Task 3 1,500
Conduct an assessment and report on Auburn's existing Agricultural and Resource Protection district regulations, other local, state, or regional regulations, the impacts of these regulations whether intended or not, and rural economic and social conditions.

Task 4 4,000
Interview (one-on-one) at least 30 farmers, potential farmers, property owners, and key stakeholders in or near the Rural Lands district. Ensure that divergent views are included.

Task 5 3,000
Survey property owners and farmers.

Task 6 7,000
Facilitate stakeholder and public meetings.

Task 7 1,600
Submit a preliminary report on the public meetings, interviews, and surveys.

Task 8 1,400
Explore the economic development possibilities of Auburn's Rural Lands and its potential to complement downtown living and development.

Task 9 1,000
Prepare a preliminary report with alternatives for public consideration.

Task 10 6,450
Prepare a report with recommendations and implementation plan to overcome obstacles to Auburn's rural economy.

Task 11 1,000
Provide an implementation plan for the long-term management of Auburn's Rural Lands.

Travel time 1,500

Travel costs 10,245
$6,000+ of this will be spent in Auburn

Total **$50,695**

We have prepared our estimate based on the work plan developed by the City for the RFP. There may be ways to reduce costs, for example, by reducing the number of preliminary drafts to one, or by interviewing fewer people. Should the City wish to bring the budget down to a lower level for these or other reasons, we are fully prepared to reduce the Scope of Work accordingly.

Kenneth A. Meter, M.P.A.

7415 Humboldt Ave. S.
Minneapolis, Minnesota 55423
(612) 869-8664
kmeter@crcworks.org

CROSSROADS RESOURCE CENTER **Minneapolis, MN**

Since 1995 **President** *(Principal executive officer)*

- Managed entrepreneurial nonprofit with international impact.

Key accomplishments

- Recognized as the most experienced food-system analyst in the U.S., integrating market analysis, systems thinking, quantitative time-series data, and first-hand interviews.
- First proponent of local foods as an economic development strategy, since 1974.
- This analysis and consulting fostered 110 strong farm and food networks in 40 states across the U.S. and for Manitoba; serves as critical tool for local food system planning & investment. Published by Food First, University of Arizona, Northern Arizona University, University of Minnesota. Cited in *New York Times, Mother Jones*.
- National panel review manager, & advisor, USDA Community Food Projects (2003-09; 2017).
- Co-author of USDA-AMS Toolkit on economic impact analysis for local foods (2015).
- Critical review of economic impact methodologies, for Centers for Disease Control and Illinois Public Health Institute (2015).
- Consultant to Pennsylvania Association for Sustainable Agriculture (PASA) "Real Deal" project devising measures that protect integrity of marketing of "local" food (2014).
- Developed tracking methods for farm-to-school purchasing in South Carolina (2015).
- Made 500 presentations since January, 2007, including keynote covering U.S. farm economy at international conference on Agriculture in an Urbanizing Society at University of Wageningen, the Netherlands (2012); presentation on regional investment at Slow Food's Terra Madre in Torino, Italy (2006), sessions on sustainability planning and local foods at American Planning Association annual meeting (2011, 2016), International Economic Development Council (2013, 2014, 2015, 2017), and regular appearances at major national food conferences in U.S. (See *www.crcworks.org/presentations.pdf* for full list).
- Wrote six statewide assessments of food industries that deepened local implementation activities: $9.85 million local foods investment plan for South Carolina; also Alaska, Mississippi, Indiana, Ohio, & Minnesota. Often hired by state governments.
- Strategic consultant to food nodes, food hubs and food business clusters in 40 states.
- Served as consultant to private development firms, U.S. Department of Agriculture, Centers for Disease Control and Prevention, Environmental Protection Agency, American Planning Association, Indiana State Department of Health, Provincial Health Services of British Columbia, Blue Cross Blue Shield Minnesota Center for Prevention, Minnesota Pollution Control Agency, Leopold Center for Sustainable Agriculture, Stanford University, Ecotrust, Bioneers, J.W. McConnell Foundation, W.K. Kellogg Foundation, Northwest Area Foundation, etc.
- Served as global leader in planning and evaluation for systems initiatives. Published by American Evaluation Association, and Berghahn Press (UK).
- Facilitated business development in inner-city neighborhoods, including Latino Mercado.
- Created groundbreaking "Neighborhood Income Statement and Balance Sheet" studies.
- Holds international experience in 13 nations.
- Highly trusted in work with low-income, rural, ethnic and international communities.
- Served as contributing editor to *Journal of Agriculture, Food Systems and Community Development, 2011-2015*. Wrote regular column, "Metrics in the Field."
- Source for HBO, *New York Times, Wall Street Journal*.

Experience

UNIVERSITY OF MINNESOTA — **St. Paul, MN**

2003 - 2004 Visiting Faculty in Applied Economics

- Taught Economic History of U.S. Agriculture to undergraduate students.

HARVARD UNIVERSITY — **Cambridge, MA**

2002 Economics Instructor

- Taught Principles of Microeconomics to mid-career professionals in the graduate program in Public Administration, Kennedy School of Government.

INDEPENDENT JOURNALIST — **Minneapolis, MN**

2001-present Reporter covering urban poverty, regional and international agribusiness,
1979-1995 corporate financial news

- Investigative journalism, editing, photography, creative writing, book reviews, business management, fundraising, consulting, project administration and related work.
- Published by Reuters, Pacific News Service, St. Paul *Pioneer Press*, Minneapolis *Star Tribune*, *Chicago Tribune*, *Des Moines Register*, *Anchorage Daily News*, Madison *Capital Times*, *Ag-Week*, *Successful Farming*, *Catholic Rural Life*, *The Farmer*, *Corporate Report*, *Neighborhood Works*, *American Land Forum*, many others.
- Filed first-hand reports from Cuba, Japan, Philippines, Hungary, Czecboslovakia, Germany, France, Netherlands, Italy, Belgium, Portugal, Nicaragua.
- Taught European politics & society, local community studies at Metro State University.
- Taught reporting at University of Minnesota, 1991-1992.

Awards

- Public Service Fellow, Kennedy School of Government, Harvard University (1999).
- Finalist, Bush Foundation Leadership Fellowship (1999) — four-state competition.
- National Short-list Artist, "Artists & Communities: America Creates for the Millennium," Mid-Atlantic Arts Foundation (1999).
- Twin Cities Neighborhood and Community Press Association awards (1992, 1990) for "Best Feature," "Best Series," and "Best Investigative Report" for coverage of poverty.

Boards & Other Leadership

- Member, International Economic Development Council
- Member, American Evaluation Assoc. Systems Technical Interest Group (2005 - 2011).
- City of Richfield (Minnesota) Planning Commission, (1998-1999).
- President, Twin Cities Research Group (1997-1999).

Education

- MPA Harvard Kennedy School, public administration.
- MA Boston University, history.
- BA Swarthmore College, chemistry.

Other Skills & Activities

- Fluent Germau; moderate French; basic Spanish & Portuguese.
- Seveu of my poems were set to music by Minneapolis composer R.F. Palmer.
- Choral singer including chamber choir, Oratorio Society of Minnesota. Wrote concert program notes, theatrical narrations, translated Germau poetry (1991 to 2016).

Megan Phillips Goldenberg, M.S.
goldenbergme@gmail.com

EDUCATION

M.S., Agricultural and Natural Resource Economics, Colorado State University
2011
Emphasis: Community and Regional Economic Development, Public Policy
Cost Effective Promotion for Local Foods and Direct Markets with Dr. Dawn Thilmany
Applications and Impacts of Regional Import Substitution Ideals with Dr. Harvey Cutler
Food Access Issues on the Suburban/Urban Interface with Dr. Dawn Thilmany

B.A., Chemistry with Honors, Northern Michigan University, Marquette, Michigan
2007
Minors: Biology, Mathematics

PROFESSIONAL EXPERIENCES

Food Systems Consultant, New Growth Associates, Saline, Michigan
2010-Present
Own and manage food systems based program management and business development consulting firm
Develop financial projections and feasibility studies for entrepreneurs
Provide training and technical assistance for small business owners
Facilitate strategic planning and coalition development
Identify relevant grants and funding opportunities for grant seekers
Evaluate and review food and agriculture related projects for grantors

Food Systems Research Associate, Crossroads Resource Center, Minneapolis, Minnesota
2013-Present
Provide economic development content knowledge and research support
Develop, execute, and analyze community-based surveys
Conduct stakeholder interviews and facilitate community engagement
Write and review background statements and summary reports
Advise on financial analysis and proposal feasibility

Local Initiatives Specialist, Pittsfield Charter Township, Ann Arbor, Michigan
2014
Advised on agricultural preservation and viability initiatives
Managed all aspects of a second year, Michigan producer only, 42-booth farmers market
Solicited financial and in-kind donations to support community initiatives
Wrote and reviewed grants to develop new community initiatives

Agroecology Research Assistant, University of Michigan, Ann Arbor, Michigan
2014
Developed 10 research field sites on organic and alternative vegetable farms
Piloted and refined conventional agroecology laboratory techniques for alternative agriculture
Hired, trained, and supervised 2 new undergraduate students
Managed laboratory supply inventories and purchasing for an entirely new lab

Food Systems and Policy Associate, WPM Consulting, LLC, Boulder, Colorado
2010-2013

Designed and developed community-based research projects, including data collection, analysis and reporting for rural, suburban, and urban communities including metro Denver
Provided content knowledge, research support, and communication management for a 13-member, governor-appointed state food policy council and its three subcommittees
Facilitated partnerships with state departments, state and regional associations, city governments, businesses, universities, and national organizations
Planned and executed puhlic and private events for 10-100 attendees
Managed project contracts, timelines, and budgets during CEO's maternity leave
Supervised 5 policy interns and their projects

Co-Director and Co-Founder, The Growing Project, Fort Collins, Colorado
2008-2012

Supervised 3 project leaders, several interns, and 150 volunteers for a small, food-based nonprofit
Arranged agricultural education opportunities and workshops
Managed strategic, financial, and business planning
Facilitated stakeholder engagement and donor relationships

Graduate Assistant for Dr. Dawn Thilmany, Colorado State University, Fort Collins, Colorado
2008-2010

Evaluated effectiveness of outreach efforts and provided economic impact assessment for a "buy local" campaign
Contributed to the development of a web-based small farmers production and budget forecasting tool
Designed and managed direct market price reporting project with Colorado Farmers' Market Association and Colorado State University-Extension
Proposed business development curricula for small-scale agricultural producers under a three-year NIFA-funded Beginning Farmer Rancher Development Program Grant
Researched and investigated cost-effective marketing strategies targeted towards small agribusinesses and agritourism operations
Assisted with research-oriented grant writing efforts

VOLUNTEER EXPERIENCES

Local Food Summit Steering Committee, Slow Food Huron Valley
2014-present
Strategic Planning and Organizational Development, New Connecticut Farmers Alliance
2013
Policy Representative, Northeast Organic Farming Association of Rhode Island
2013
Network Development Team, Connecticut Food Systems Alliance
2013
Representative, Fort Collins Built Environment Working Group
2011-2012
Food Systems and Nutrition Chair, Colorado Built Environment Strategic Collaborative
2011-2012
Grants Evaluator, LiveWell Colorado
2011
Garden Manager, La Hesperia Biological Station, Esperie, Ecuador
2007

Teacher, Bruce Peru, Lima, Peru
2006

PUBLICATIONS

Refereed Journal Articles
Thilmany, D., M. Sullins, **M. Phillips**, and A. Gunter. 2011. *Cost Effective Promotion for Local Foods and Direct Markets: Evaluation of Colorado's Technical Assistance for Local Food Supply Chains.* Journal of Agribusiness. Spring 2011. 29: 23-40.

Phillips, M., D. Thilmany-McFadden, and M. Sullins. 2010. *How Effective is Social Networking for Direct Marketers?* Journal of Food Distribution Research. 41(1).

Client Publications
Thilmany McFadden, D., A. Bauman, R. Hill, B. Jablonski, S. Deller, A. Morales, K. Meter, **M.P. Goldenberg**, D. Swenson, D. Tropp, T. Schmit, D. Conner, and D. Hughes. 2015. *Economic Impacts of Local and Regional Food Systems.* USDA Agricultural Marketing Service: Washtington D.C. Preprint.

Lynch, J., K. Meter, G. Robles-Schrader, **M.P. Goldenberg**, E. Bassler, S. Chusid, and C. Jansen Austin. 2015. *Exploring Economic and Health Impacts of Local Food Procurement.* Illinois Public Health Institute: Chicago, IL.

Goldenberg, M.P. and V. Zilke. 2015. *Ypsilanti Farmers MarketHub: Planning for Micro-Distribution of Local Food to Increase Food Access.* Growing Hope: Ypsilanti, MI.

Snyder, B., L. Smith, K. Meter, **M.P. Goldenberg**, S. Miller, and R. Amsterdam. 2014. *The Real Deal: How Do We Define Local in a Meaningful and Measurable Way?* Pennsylvia Association for Sustainable Agriculture: Millheim, PA.

Meter, K. and **M.P. Goldenberg.** 2014. *Finding Food in Alaska.* Alaska Food Policy Council. Crossroads Resource Center: Minneapolis, MN.

Meter, K. and **M.P. Goldenberg**. 2013. *An Overview of Mississippi's Farm and Food Economy.* Mississippi Food Policy Council and Winrock International. Crossroads Resource Center: Minneapolis, MN.

Meter, K. and **M.P. Goldenberg**. 2013. *Making Small Farms into Big Business.* South Carolina Departments of Agriculture and Commerce. Crossroads Resource Center: Minneapolis, MN.

Moschetti, W.P. and **M. Phillips**. 2013. *Montezuma County's Food System Assessment: Consumers' Perspectives.* Montezuma County's Food System Assessment. WPM Consulting, LLC: Boulder, CO.

Moschetti, W.P. and **M. Phillips**. 2013. *Understanding the Food Environment, Policies, and Programs that Affect Healthy Food Access.* Northwest Colorado Community Food Assessment. WPM Consulting, LLC: Boulder, CO.

Moschetti, W.P. and **M. Phillips**. 2012. *Finding Money for Food and Agriculture Projects and Leaders in Colorado: A Feasibility Study.* Rocky Mountain Farmers' Union. WPM Consulting, LLC: Boulder, CO.

Moschetti, W.P. and **M. Phillips**. 2012. *Understanding Access to Healthy Foods for Food Insecure Populations in Chaffee County.* Chaffee County Food Assessment. WPM Consulting, LLC: Boulder, CO.

Sullins, M., M. Sloan, **M. Phillips**, and D. Thilmany. 2010. *Food Security and Access in Northern Colorado.* Northern Colorado Food Assessment. Colorado State University: Fort Collins, CO.

Powell, S., **M. Phillips**, and D. Thilmany. 2010. *A Closer Look at Farm Operators.* Northern Colorado Food Assessment. Colorado State University: Fort Collins, CO.

Web Publications

Phillips, M., D. Thilmany-McFadden. 2010. *Selling Local- Campaigns to Encourage Local Consumerism.* Economic Development Report 10-02, Colorado State University Extension, Department of Agricultural and Resource Economics, Fort Collins, CO.

Phillips, M., D. Thilmany-McFadden, and M. Sullins. 2010. *Possible Roles For Social Networking in Agritourism Development.* Agricultural Marketing Report 10-01, Colorado State University Extension, Department of Agricultural and Resource Economics, Fort Collins, CO.

Phillips, M., D. Thilmany McFadden, and M. Sullins. 2009. *Social Networking and Marketing for Colorado's Agricultural Producers.* Agricultural Marketing Report 09-05, Colorado State University Extension, Department of Agricultural and Resource Economics, Fort Collins, CO.

PRESENTATIONS

Invited Presentations

Phillips, M., W.P. Moschetti, and D. Thilmany-McFadden. *Food Environments and Access Issues in Colorado: A Case for Rethinking Food Deserts and How to Address Them.* Colorado Department of Health and Environment. Denver, CO, December 12th, 2011.

Phillips, M., D. Thilmany-McFadden, and M. Sullins. *Effectiveness of Social Networking for Direct Marketers.* Strategic Marketing Conference. Cornell University. Hyde Park, NY, November 1st, 2010.

Additional Presentations

Goldenberg, M.P. and V. Zilke. *Charming Consumers with the Perfect Message.* Local Food Summit. Ann Arbor, MI, February 15, 2015.

Goldenberg, M.P., K. Meter, and E. Kahler. *Systemic investments in local food systems at the state level.* Agriculture, Food, and Human Values Association Conference. Burlington, VT, June 20, 2014.

Phillips, M., W.P. Moschetti, M.T. Houghton, G. Nurse, and D. Thimany-McFadden. *Community Food Assessments and Healthy Food Access Beyond Urban Centers.* Community Food Security Coalition Conference. Oakland, CA, November 7th, 2011.

Phillips, M.E., W.P. Moschetti, M.T. Houghton, G. Nurse, and D. Thimany-McFadden. *Food Access Issues on the Suburban/Urban Interface- A Case for Rethinking Food Deserts and How to Address Them.* Public Health in the Rockies. Steamboat, CO, September 23rd, 2011.

Thilmany, D., M. Sullins, **M. Phillips**, and A. Gunter. *Cost Effective Promotion for Local Foods and Direct Markets: Evaluation of Colorado's Technical Assistance for Local Food Supply Chains.* Western Education and Research Activities Conference Presentation. LasVegas, NV, June, 2011.

Phillips, M., D. Thilmany McFadden, and H. Cutler. *Applications and Impacts of Regional Import Substitution Ideals.* North American Regional Science Conference. Denver, CO, November 13th, 2010.

Thilmany McFadden, D. *Public Health and Food Security in the Northern Colorado Region.* Poster session at the Northern Colorado Food System Assessment Open House. September, 2010. (with Livewell Colorado personnel, Martha Sullins, **Megan Phillips**, Sarah Powell and Melinda Sloan).

Thilmany McFadden, D. *Farm Production and Farmer Demographics in the Northern Colorado Region.* Poster session at the Northern Colorado Food System Assessment Open House. August 2010. (with Sarah Powell, **Megan Phillips** and Linda Hoffman).

Phillips, M. and D. Moxon. *Locavore Demand: A Consumer Choice Model for Local Beers.* Graduate Research Symposium. Colorado State University. Fort Collins, CO, February 5th, 2010.

Phillips, M., Thilmany, D., and M. Sullins. *How Effective is Social Networking for Direct Marketers?* Food Distribution Research Conference. Broomfield, CO. November 3rd, 2009.

Thilmany McFadden, D., M. Sullins, and **M. Phillips**. *Mitigating Risk in Agritourism Enterprises.* Risk Management Education Conference. Reno, NV. April, 2009.

Thilmany McFadden, D., M. Sullins and **M. Phillips**. *Cost Effective Marketing Plans and Resources.* Colorado Department of Agriculture Marketing your Food Product Workshop. Aurora, CO. April, 2009.

Thilmany McFadden, D., **M. Phillips**, and M. Sullins. *Branding Your Product & Strategic Positioning: Creating an Image for Your Operation.* Cortez Agritourism Workshop. Cortez, CO. January, 2009.

Thilmany McFadden, D., **M. Phillips,** and M. Sullins. *Branding Your Product & Strategic Positioning: Creating an Image for Your Operation.* Byers Agritourism Conference. January, 2009.