



Town of Hopkinton Planning Department

330 Main Street, Hopkinton NH 03229-2627 - (603) 746-8243 - planzone@hopkinton-nh.gov

HOPKINTON PLANNING BOARD PUBLIC NOTICE – AGENDA AUGUST 10, 2021

Notice is hereby given that the **Hopkinton Planning Board** will meet on Tuesday, August 10, 2021, at 6:00 PM in the Hopkinton Town Hall, 330 Main Street, Hopkinton and via Zoom through the website: <https://us06web.zoom.us/j/98763598862> or by dialing the following phone #: 1-929-205-6099 and using Meeting ID: 987 6359 8862. The Planning Board will review and take action on the following:

I. Call to Order

II. Review of Meeting Minutes and Notice of Decision of June 8 and July 13, 2021.

III. Conceptual Consultations.

IV. Applications/Public Hearings (Determine Complete, Public Hearing, Deliberation and Action on Application).

#2021-21 T.F. Bernier, Inc. Lot Line Adjustment between Lot 51 owned by John H. Lynch Irrevocable Trust of 2012 and Lot 52 owned by Rix Family Trust of 2016, referenced on Tax Map 240, located off Gould Hill Road, R-2 district.

#2021-20 Baystone Properties, LLC Site Plan Review, Architectural Design Review, and Condominium Subdivision for the construction of 12 attached, townhouse-style, residential units at 71 Cedar Street, Tax Map 102, Lot 35, VR-1 district.

V. Other Business.

- a) Discussion on zoning amendments for 2021
- b) Report on Master Plan update.
- c) Any other business to legally come before the meeting.

VI. Adjournment (Next regular meeting on Tuesday, September 14, 2021).

The Planning Board reserves the right to adjourn the meeting/public hearing at 9:30 PM. All agenda items will be rescheduled for the Planning Board's next scheduled meeting/public hearing.

Application #2021-21

T. F. BERNIER, INC.

Lot Line Adjustment – Lynch and Rix.



Town of Hopkinton Planning Department

330 Main Street, Hopkinton NH 03229-2627 - (603) 746-8243 -planzone@hopkinton-nh.gov

Date: July 29, 2021
To: Planning Board
From: Karen Robertson, Planning Director
Re: T. F. Bernier, Inc. – Lot Line Adjustment (PB #2021-21)

The Applicant is seeking a Lot Line Adjustment (LLA) between property owned by John H. Lynch Irrevocable Trust of 2012, known as Lot 51, and the abutting property owned by the Rix Family Trust of 2016, known as Lot 52. The proposed LLA will allow for the conveyance of .007 acres (321 SF) of lot area with fourteen feet (14') of frontage from the Rix property to be transferred and combined with the existing +/-155-acre Lynch property. The subject properties are off Gould Hill Road in the R-2, Medium Density Residential zoning district.

Following the LLA, the Lynch property (Lot 51) will contain +/-155-acres with 750 feet of contiguous frontage, and the Rix property (Lot 52) will contain 23.7 acres with 762 feet of contiguous frontage along Gould Hill Road.

The Applicant is requesting waivers from the following: Subdivision Regulations 3.3.1(b) natural features, 3.3.1(c) contours, 3.3.1(d) surveyed exterior lines, 3.3.1(h) soil locations, 3.3.2(a) property lines in feet and decimals, and Zoning Ordinance 12.4 delineation of wetlands.

To better understand the size of the properties, I have included an aerial showing the lots. Note: The aerial does not exclude that area of the Lynch property that, in March 2021, was annexed to Lot 49.

Planning Board Motions:

1. Acceptance Motion: I move that the request of T. F. Bernier, Inc. (PB #2021-21) for a Lot Line Adjustment be ACCEPTED as complete and for consideration.
2. Lot Line Adjustment Motion: I move that the request of T. F. Bernier, Inc. (PB #2021-21) for a Lot Line Adjustment be APPROVED / APPROVED WITH THE FOLLOWING CONDITIONS / TABLED / DENIED.



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LYNCH

RIX

Lot line to
be adjusted



T.F. BERNIER, INC.
Land Surveyors~Designers~Consultants

50 Pleasant Street, P.O. Box 3464
Concord, NH 03302-3464

①
Environmental Permitting
State and Local Permitting
Land Surveying
Aerial Mapping
Aerial Photography

Tel. (603) 224-4148
Fax (603) 224-0507

July 14, 2021

Bruce Ellsworth, Chair
Hopkinton Planning Board
330 Main Street
Hopkinton, NH 03229

RE: Application for Lot Line Adjustment
Land of John H. Lynch Irrevocable Trust of 2012 and Rix Family Trust of 2016
Assessors Map 240 Lots 51 & 52

Dear Chair Ellsworth and Members of the Board:

Please find enclosed the application for a Lot Line Adjustment between Lot 51 and 52. The lot lines between the two parcels will be adjusted such that an area of 321 square feet will be transferred from Lot 52 to Lot 51. There are no new lots proposed and there is no new development proposed. Lot 52 will be approximately 23.7 acres and Lot 51 will be 155 acres after the adjustment. State subdivision approval is not required.

As a part of this application, we are requesting waivers of the following subdivision checklist items:

- Natural features, water bodies, tree lines, vegetation, topography etc.
- Contours.
- Surveyed exterior property lines.
- Wetlands.
- Soils locations.
- Location and dimensions of property lines in feet and decimals.

Reason for waiver requests: The lot line adjustment is fairly simple, no new lots are created, no development is proposed and the lots are both quite large after the adjustment. A portion of the lots was surveyed in the area of the adjustment. The remaining boundaries of the lots are from plans of record and deed descriptions or Town GIS information.

Thank you for your time and consideration of this request. If you have any questions or need additional information, please give us a call.

Sincerely,
T.F. BERNIER, INC.


Timothy F. Bernier, PLS LLS CWS
President

enclosures

cc: file 663-01



Town of Hopkinton

330 Main Street • Hopkinton, New Hampshire 03229 • www.hopkinton-nh.gov

Tel: 603-746-3170

Fax: 603-746-3049

PLANNING BOARD APPLICATION

- ☐ Site Plan Review ☐ Architectural Design Review (Commercial/Industrial - ZO Section IV-A)
☐ Preliminary Review (SD Section II) ☐ Subdivision ☒ Lot Line Adjustment/Annexation
☐ Conditional Use Permit (ZO Section III) ☐ Special Use Permit (ZO Section VIII)

PROJECT LOCATION: Gould Hill Road **MAP/LOT:** 240 / 51 240 / 52 **ZONE:** R-2

APPLICANT: T.F. Bernier, Inc - Timothy Bernier

Address: P.O. Box 3464 **City:** Concord **State:** NH **Zip:** 03302

Phone: 603-224-4148 **Email:** tim@tfbinc.com

OWNER(s)

Name: Rix Family Trust of 2016, Erica and Robert Rix Trustees

Address: 248 Gould Hill Road **City:** Hopkinton **State:** NH **Zip:** 03229

Phone: **Email:**

Name: John H. Lynch Irrevocable Trust of 2012, Susan E. Upton Lynch & William G Steele, Jr CPA-Trustees

Address: 2 Watchtower Road **City:** Hopkinton **State:** NH **Zip:** 03229

Phone: **Email:**

PROFESSIONALS (engineer, architect, surveyor, attorney, wetland/soil scientist, etc.):

Name: Same as Applicant

Address: **City:** **State:** **Zip:**

Phone: **Email:**

Name:

Address: **City:** **State:** **Zip:**

Phone: **Email:**

☒ Residential ☐ Recreational ☐ Agricultural ☐ Institutional ☐ Commercial/Industrial ☐ Accessory

☐ Public Water ☐ Public Sewer ☐ Well ☐ Septic

Lots/units proposed: **Existing Building Area:** **Proposed Building Area:**

% Open Space: (Note: Building Area refers to gross area)

Application Submission Requirements:

Original and ten (10) copies of the application, along with all supporting document(s), including reductions of the final plan(s) to no more than 11" x 17".

- ☒ Narrative description of proposal (include existing conditions and all related improvements).
- ☒ Application checklist.
- ☐ Planning Board/Zoning Board of Adjustment Minutes of Conceptual, Preliminary Review, or approval.
- ☒ Property deed and existing/proposed easements, covenants, and restrictions.
- ☒ Tax Map of subject parcel and abutting properties.
- ☒ Waiver(s) request from provisions of the Subdivision and/or Site Plan Regulations.

PLANNING BOARD APPLICATION

- ☐ Test Pit Data, Storm Water Management Plan, Traffic, School, Environmental and Fiscal Impact Analyses, and Phasing Plan (when applicable).
- ☒ Abutters List as defined by RSA 672:3 – Include Tax Map, Lot Number, Name and Mailing Addresses. If abutting property is under a condominium or other collective form of ownership, the term "abutter" means the officers of the collective or association. If abutting property is under a manufactured housing park form of ownership, the term "abutter" includes the manufactured housing park owner and the tenants who own the manufactured housing.
- ☒ Mailing labels – Include Applicant, Owner, Architect, Soil/Wetland Scientists, Abutters, and holders of Conservation/Preservation restrictions or easements.
- ☒ Four (4) paper prints of the plan(s) at full scale.
- ☒ Appropriate Filing Fee: (Non-refundable) Made payable to Town of Hopkinton
- | | |
|--------------------------------------|---|
| Major Subdivision | \$500.00 Application Fee, \$100.00 per Lot/Unit |
| Minor Subdivision | \$250.00 Application Fee, \$100.00 per Lot/Unit |
| Lot Line Adjustment/Annexation | \$100.00 Application Fee |
| Site Plan Review | \$300.00 Application Fee, \$100.00 per Unit (Res./Non-Res.) |
| Site Plan Review Change of Use | \$150.00 Application Fee |
| Conditional Use Permit | \$500.00 Application Fee (Wireless Telecommunications) |
| Public Notice Mailing | \$ 10.00 per Address (Owner, Applicant, Agent, Abutter) x21= \$210.00 |
| Newspaper Notice | \$ 75.00 |
| | Total= \$385.00 |
- ☐ Conditional Use Permit (Wireless Telecommunications): If application is for Conditional Use Permit, please attach a detailed explanation of compliance with Section 3.10 of the Hopkinton Zoning Ordinance, along with an explanation of compliance with the Site Plan Review Regulations of the Town of Hopkinton.

Final Submission Requirements (after Planning Board action):

- ☐ Four (4) paper prints of the final plan set at full scale.
- ☐ Mylar(s) – The Merrimack County Registry of Deeds requires that the UPPER LEFT-HAND CORNER, INSIDE THE BORDER, of the plat to be RESERVED for recording information entered by the Registry - No smaller than 7" long X 1" wide.
- ☐ PDF of the final plan set, including architectural and site photographs - emailed or thumb drive.
- ☐ Recording Fees: (Separate Checks) Made payable to Merrimack County Registry of Deeds
- | | |
|---------------------|-------------------------------|
| Recording Fee | \$ 26.00 per Page (22" x 34") |
| LCHIP Fee | \$ 25.00 per Document |

I represent to the best of my knowledge and belief that this application is being submitted in accordance with applicable regulations and ordinances of the Town of Hopkinton. I also understand that submittal of this application shall be deemed as granting permission for the Planning Board members and their designees to enter onto the property for purposes of inspections and review. Permission to visit the property extends from the date an application is submitted until approved work or construction is complete and any or all of the financial guarantees, if any, have been returned to the applicant, or until the application is formally denied. Furthermore, I agree that the proposed project will be performed in accordance with this application, the attached plans and specifications, and the regulations and ordinances of the Town of Hopkinton.

Applicant's Signature: [Signature] Date: 7/15/21

Owner's Signature(s): [Signature] Date: 7/15/2021

Application Filed: <u>7/15/21</u>	Fees: <u>\$385</u> ✓ <u>13092</u>	Office Use: _____
Notice(s) Posted/Mailed: _____	Complete/Consideration: _____	Application #: _____
Meeting(s)/Hearing(s): _____	Approved/Denied: _____	Conditions MCRD Filing: _____
MCRD Document #: _____		

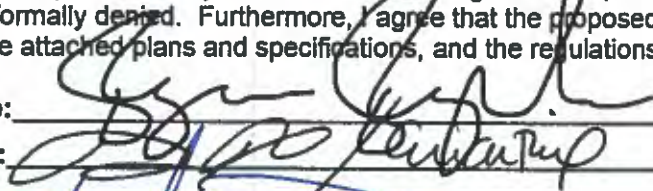
PLANNING BOARD APPLICATION


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I represent to the best of my knowledge and belief that this application is being submitted in accordance with applicable regulations and ordinances of the Town of Hopkinton. I also understand that submittal of this application shall be deemed as granting permission for the Planning Board members and their designees to enter onto the property for purposes of inspections and review. Permission to visit the property extends from the date an application is submitted until approved work or construction is complete and any or all of the financial guarantees, if any, have been returned to the applicant, or until the application is formally denied. Furthermore, I agree that the proposed project will be performed in accordance with this application, the attached plans and specifications, and the regulations and ordinances of the Town of Hopkinton.

Owner's Signature:  Date: 7/15/21

Owner's Signature(s):  Date: 7/15/21

Applicant's Signature:  Date: 7/15/21

Office Use:

Application Filed: _____ Fees: _____ Application #: _____

Notice(s) Posted/Mailed: _____ Complete/Consideration: _____

Meeting(s)/Hearing(s): _____

Approved/Denied: _____ ☐ Conditions MCRD Filing: _____

MCRD Document #: _____

Return To:

Mr. & Mrs. Robert Rix, Trustees
Rix Family Trust
248 Gould Hill Road
Hopkinton, NH 03229

WARRANTY DEED

Transfer Tax: \$5250

KNOW ALL MEN BY THESE PRESENTS, That, Peter N. Martin of 106 North Main Street, Newport, NH 03773 and Mark W. Martin of 73 West Shore Road, Munsonville, NH 03457 and Lee J. Martin of P. O. Box 317, Henniker, NH 03242 and Peter N. Martin as Trustee of the Philip C. and Gloria W. Martin Revocable Family Trust of 2016, with a mailing address of 106 North Main Street, Newport, NH 03773, for consideration paid grants to Erica C. Rix and Robert D. Rix, Trustees of the Rix Family Trust of 2016, under trust dated March 11, 2016, with a mailing address of 32 Dwinell Drive, Concord, NH 03301, with WARRANTY COVENANTS:

Two (2) certain tracts or parcels of land situate in Hopkinton, County of Merrimack and State of New Hampshire, bounded and described as follows:

TRACT 1:

A certain tract of land situated on the easterly side of Gould Hill Road in Hopkinton, County of Merrimack and State of New Hampshire, bounded and described as follows:

Beginning at a stone wall on the easterly line of Gould Hill Road, said stone wall being on the southerly line of land now or formerly of one Gage; thence running

southeasterly by said stone wall a distance of eighteen hundred fifty (1,850) feet, more or less to a stone bound at land now or formerly of Tyrus C. Houston and Eveline M. Houston; thence turning and running southerly by land now or formerly of Tyrus C. Houston and Eveline M. Houston a distance of five hundred (500) feet to a stone bound; thence turning and running westerly by land now or formerly of Tyrus C. Houston and Eveline M. Houston a distance of sixteen hundred (1,600) feet to a stone bound on the easterly line of said Gould Hill Road; thence turning and running northerly by the easterly line of said Gould Hill Road a distance of seven hundred (700) feet to the bound begun at.

TRACT 2:

A certain lot or parcel of land situated in Hopkinton in the County of Merrimack and State of New Hampshire and bounded and described as follows:

Beginning at a stone marker on the easterly side of Gould Hill Road at the southwesterly corner of the land now or formerly of Philip C. and Gloria F. Martin and running along the boundary of said Gould Hill Road and land of Houston a distance of seventy-six (76) feet to a stone marker; thence running due east approximately three hundred fifty (350) feet to a stone wall on this bound intersecting the boundary line of land of Martin; thence running westerly in a northerly direction along last named bound to the point of beginning.

Meaning and intending to describe and convey the same premises as conveyed to Peter N. Martin, Mark W. Martin, Lee J. Martin and Peter N. Martin, Trustee of the Philip C. & Gloria W. Martin Revocable Family Trust of 2008 by virtue of the will of Gloria W. Martin, see 5th Circuit-Probate Division-Newport, Case #320-2015-ET-392. See also deed to Philip C. Martin and Gloria F. Martin dated January 15, 1964 recorded in the Merrimack County Registry of Deeds at Book 934, Page 61 and a deed to Philip Clarence Martin and Gloria Frances Martin dated March 21, 1961 recorded in the Merrimack County Registry of Deeds at Book 876, Page 305. Philip C. Martin died on December 7, 2012, see Merrimack County Probate Court Docket No. 317-2013-ET-8.

This is not the homestead of the Grantors or their spouses.

Pursuant to New Hampshire RSA 564-A:7 II: (1) The undersigned Trustee, Peter N. Martin, as trustee of the Philip C. and Gloria W. Martin Revocable Family Trust of 2008 as Grantor under trust dated May 22, 2008 has full and absolute power in said trust agreement to execute, sign and deliver any deed or instrument necessary to sell and convey any interest in real estate and improvements thereon held in said trust and no purchaser or third party shall be bound to inquire whether the Trustee has

Warranty Deed

Peter N. Martin, Mark W. Martin, Lee J. Martin, and Philip C. & Gloria W. Martin Rev. Family Trust of 2008 to


Rix Family Trust


Page 2 of 3

said power or is properly exercising said power or to see to the application of any trust asset paid to the Trustee for a conveyance thereof. (2) The Trustee has received all necessary or desirable direction from the beneficiaries of the trust agreement. (3) The trust agreement is a trust as defined by New Hampshire RSA 564-A:1 I. The trust has not been revoked and is still in full force and effect.

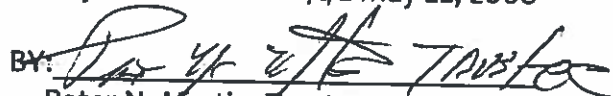
Executed this 28 day of June, 2019.


Peter N. Martin


Mark W. Martin


Lee J. Martin

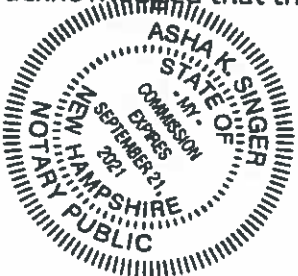
Philip C. and Gloria W. Martin Revocable Family Trust of 2008 u/t/d May 22, 2008


BY: 
Peter N. Martin, Trustee

MCRD

State of New Hampshire
County of Merrimack; ss:

Personally appeared the above named Peter N. Martin, Mark W. Martin, Lee J. Martin and Peter N. Martin, as Trustee of the Philip C. and Gloria W. Martin Revocable Family Trust of 2008, before me this 28 day of June, 2019 known to be the persons whose names are subscribed to the foregoing instrument and acknowledged that they executed the same for the purposes therein contained.




Notary Public/Justice of the Peace
My Commission Expires:

Return to:
McLane Middleton, Professional Association
RAW/ cem 59370
P.O. Box 326
Manchester, NH 03105

WARRANTY DEED

I, **JOHN H. LYNCH**, a married individual with a mailing address of 2 Watchtower Road, Hopkinton, New Hampshire 03229, grant to **SUSAN E. UPTON LYNCH and WILLIAM G. STEELE, JR., CPA, Trustees of THE JOHN H. LYNCH IRREVOCABLE TRUST OF 2012**, a New Hampshire trust u/d/t dated December 15, 2012, with a mailing address of 2 Watchtower Road, Hopkinton, New Hampshire 03229, with **WARRANTY COVENANTS**:

A certain parcel, with the improvements thereon, located in The Town of Hopkinton, County of Merrimack, State of New Hampshire, described as follows:

Tract I:

That portion of a certain property, located in The Town of Hopkinton, County of Merrimack, State of New Hampshire, and known as the Gage Place, which is situated westerly of the highway leading from Hopkinton Village to Tyler Station, but

EXCEPTING from the said Premises conveyed a parcel of land situated on said highway surrounding the buildings which are situated thereon, being ten (10) acres, more or less, which ten acre parcel is bounded and described as follows:

Beginning on the southerly side of the lane leading to the woodland on the westerly side of the road from Hopkinton Village to Tyler Station at the corner of the wall on the south side of said lane; westerly along this wall about five hundred and fifty (550) feet to the easterly side of an opening in that wall; thence southerly in a straight line to a point in the south line of said property at a point approximately five hundred four (504) feet west of the above-mentioned highway; easterly along said wall about five hundred four (504) feet to the highway; northerly along said highway to the point of beginning.

Said premises are shown on a plan entitled, "TYPE MAP OF THE BRIER HILL FARM WOODLOT, JULY, 1916," filed in the Registry of Deeds as Map #750, the said granted premises being bounded and hatched in red on said plan.

The above parcel is believed but not warranted to be further described as follows:

A certain tract or parcel of land with all improvements and appurtenances situate on the east side of Gould Hill Road and westerly of Briar Hill Road in the Town of Hopkinton, County of Merrimack, and State of New Hampshire, as shown on a plan entitled, "THE GOULD HILL TRUST, WILLIAM G. STEELE, JR., TRUSTEE", prepared by Bristol, Sweet & Associates, Inc., dated September 22, 1999, recorded as Plan #14886 in the Merrimack County Registry of Deeds (the "Plan"), which tract or parcel is more particularly bounded and described as follows:

Beginning at an intersection of two stone walls at an iron rod on the easterly sideline of Gould Hill Road at the westernmost corner of the within premises and the northwesterly corner of land now or formerly of Philip C. and Gloria F. Martin;

running in a northerly directly along a stone wall and the easterly sideline of Gould Hill Road a distance of 986.5 feet, more or less, to an iron pipe at an intersection of stone walls at land now or formerly of Arnold C. & Alice R. Coda, (shown as Tax Lot #240-50 on the Plan), which iron pipe is North 11° 33' 55" East a distance of 983.17 feet from the previously mentioned iron rod;

turning and running in an easterly direction along a stone wall and said Coda land a distance of 431.0 feet, more or less, to an iron pipe at an intersection of stone walls and a barbed wire fence, which iron pipe is North 87° 44' 23" East a distance of 430.88 feet from the previously mentioned iron pipe;

turning and running along land now or formerly of Erik Leadbeater, (shown as Tax Lot #240-49 on the Plan), North 88° 00' 35" East a distance of 1071.76 feet to a 1" iron rod at the beginning of a barbed wire fence;

turning and running still along said Leadbeater land North 07° 11' 20" West a distance of 713.15 feet to an iron rod set in a drill hole at the end of a stone wall at the end of the barbed wire fence;

continuing along the stone wall and land of Leadbeater North 09° 22' 17" West a distance of 153.76 feet to an iron rod set in a drill hole in the stone wall at land now or formerly of Walter W. Dwyer Jr. 1998 Trust, (shown as Tax Lot #241-43 on the Plan);

turning and running along said Dwyer Trust land North 49° 02' 30" East a distance of 448.94 feet to an iron rod at a bend in a barbed wire fence;

turning and running still along said Dwyer Trust land, North 80° 55' 36" East a distance of 757.50 feet to a drill hole at the end of a stone wall near a corner of barbed wire fences, at land now or formerly of Mary H. Small, (shown as Tax Lot #241-38.2 on the Plan);

turning and running along said Small land South 16° 39' 06" East a distance of 898.18 feet to a drill hole at the end of a stone wall;

continuing along the stone wall and said Small land a distance of 469.60 feet to a drill hole in the stone wall, which drill hole is South 16° 40' 35" East, and a distance of 469.60 feet from the next previously mentioned drill hole;

continuing along the stone wall and land now or formerly of David L. & Judith Poole, (shown as Tax Lot #241-38.1 on the Plan) a distance of 541.50 feet to a drill hole at the end of the stone wall, which drill hole is South 16° 24' 19" East, and a distance of 541.46 feet from the next previously mentioned drill hole;

continuing in a southeasterly direction along said Poole land South 16° 36' 36" East, a distance of 82.47 feet to a drill hole at the end of a stone wall;

continuing in a southeasterly direction along the stone wall and said Poole land a distance of 257.10 feet, more or less, to a drill hole in the stone wall, which drill hole is South 16° 20' 41" East, a distance of 256.98 feet from the next previously mentioned drill hole;

continuing in a southeasterly direction along the stone wall and said Poole land a distance of 288.90 feet, more or less, to a drill hole at an intersection of stone walls, which drill hole is South 16° 40' 26" East, a distance of 287.63 feet from the next previously mentioned drill hole;

turning and running in an easterly direction along a stone wall and said Poole land a distance of 392.30 feet, more or less, to a drill hole 3.85 feet easterly of a corner of stone walls at the westerly sideline of Briar Hill Road, which drill hole is North 83° 41' 42" East, a distance of 392.31 feet from the next previously mentioned drill hole;

turning and running South 01° 05' 05" West, a distance of 45.39 feet along the westerly sideline of Briar Hill Road to a disk set in a drill hole at an intersection of stone walls at land now or formerly of Sandra Schneider, (shown as Tax Lot #249-5 on the Plan);

turning and running in a westerly direction along a stone wall and said Schneider land a distance of 558.50 feet, more or less, to an iron pipe in a gap in the stone wall 1.86 feet westerly of the end of the stone wall, which iron pipe is

South 83° 26' 17" West, a distance of 557.61 feet from the disk referred to in the previous course;

turning and running still along said Schneider land South 06° 37' 11" East, a distance of 1123.91 feet to an iron rod in a stone pile on a stone wall at land now or formerly of Donald & Sandra P. Saxon, (shown as Tax Lot #249-4 on the Plan);

turning and running along a stone wall and said Saxon land North 63° 16' 34" West, a distance of 225.14 feet to a point at an intersection of stone walls at land now or formerly of Robert A. & Nancy N. Sweatt, (shown as Tax Lot #239-22 on the Plan);

turning and running in a westerly direction along the stone wall and said Robert Sweatt land a distance of 559.60 feet, more or less, to a drill hole at an intersection of stone walls at land now or formerly of Dana L. & Alice Sweatt, (shown as Tax Lot #239-21 on the Plan), which drill hole is North 86° 26' 54" West, a distance of 559.33 feet from the next previously mentioned point of intersection of stone walls;

turning and running along said Dana Sweatt land North 65° 05' 14" West, a distance of 690.41 feet to an iron rod in a drill hole at the end of a stone wall at land now or formerly of Martha Houston Jones Revocable Trust of 1997, (shown as Tax Lot #240-54 on the Plan);

continuing in a northwesterly direction along the stone wall and said Jones Trust land a distance of 323.80 feet, more or less, to a drill hole at an intersection of the stone wall and a row of stones, which drill hole is North 66° 21' 18" West, a distance of 319.37 feet from the last mentioned iron rod;

continuing in a northwesterly direction along the stone wall and said Jones Trust land a distance of 909.90 feet, more or less, to a drill hole at the end of the stone wall, which drill hole is North 64° 01' 06" West, a distance of 901.84 feet from the next previously mentioned drill hole;

continuing in a northwesterly direction along said Jones Trust land a distance of 300.40 feet, more or less, to an iron pipe at the end of a stone wall at land now or formerly of Philip C. & Gloria F. Martin, (shown as Tax Lot #240-52 on the Plan), which iron pipe is North 63° 47' 13" West, a distance of 300.30 feet from the last mentioned drill hole;

continuing in a northwesterly direction along the stone wall and said Martin land a distance of 648.20 feet, more or less, to the point of beginning, which point is North 68° 12' 49" West, a distance of 647.78 feet from the last mentioned iron pipe.

Tract II:

A certain tract of land with the improvements situated thereon located on the northeasterly side of Gould Hill Road, in the Town of Hopkinton, County of Merrimack, State of New Hampshire, and more particularly bounded and described as follows:

Commencing at a point marking the intersection of stone walls, which said point is 323 feet, more or less, northeasterly from the northeasterly line of the Gould Hill Road, so-called;

running northeasterly along a stone wall and the southeasterly line of land now or formerly of Concord Kitchen Corporation (said land being formerly owned by one Shreve and by one Sweatt) and by land formerly of one Loverin, to a stake and stones marking the line of land now or formerly of one Hopkins, of one Sanborn and of one Loverin;

running southeasterly along line of land now or formerly of Hopkins, Sanborn and Loverin and land now or formerly of the Gage heirs (said latter land being formerly owned by the Stephen Sibley heirs) to a stake and stones at corner of land of said Gage heirs (formerly Sibley heirs);

running southwesterly along line of said land of said Gage heirs to an intersection of stone walls which said intersection is 439 feet, more or less, northeasterly from the northeasterly line of said Gould Hill Road;

running northwesterly along land now or formerly of George L. Butterfield, Jr. and Ann S. Butterfield, 475 feet, 4 inches, more or less, to an iron pipe driven in the ground, said iron pipe lying within the right of way hereinafter described;

continuing in the same direction 40 feet, more or less, to another iron pin driven in the ground, said iron pin marking the northeasterly corner of said right of way hereinafter described;

continuing in the same direction along other land of said Butterfields 580 feet, 8 inches, more or less to the point of beginning.

TOGETHER WITH a RIGHT OF WAY 50 feet in width leading from Gould Hill Road to the above described land, said right of way being bounded and described as follows:

Commencing at an iron pipe driven into the ground on the northeasterly line of Gould Hill Road, which said iron pin is 540 feet, 8 inches southeasterly from the northwesterly corner of land of said Butterfields and the southwesterly corner of land of Concord Kitchen Corporation, said corners joining on the northeasterly line of said Gould Hill Road;

running northeasterly through said Butterfields land to an iron pipe driven in the ground and referred to as the northeasterly corner of said right of way in the above described land;

running southeasterly 40 feet to an iron pipe driven in the ground; and referred to as lying within said right of way in the above described land;

continuing southeasterly an additional ten feet (10') to a point which is the southeasterly corner of said right of way;

running southwesterly 50 feet from and parallel to the first line described in this right of way, to the northeasterly line of Gould Hill Road;

running northwesterly along said Gould Hill Road 10 feet to an iron pipe;

continuing northwesterly along said Gould Hill Road 40 feet to the point of beginning.

The Premises are conveyed together with all appurtenant rights and easements.

These premises are conveyed subject to the restriction that only a single-family residence may be constructed on the premises conveyed herein. This restriction shall run with the land and bind future grantees or successors in interest.

SUBJECT TO and TOGETHER WITH all reservations, restrictions and/or covenants, easements, liens, encumbrances and mortgages of record, if any, insofar as the same may now be in force and applicable.

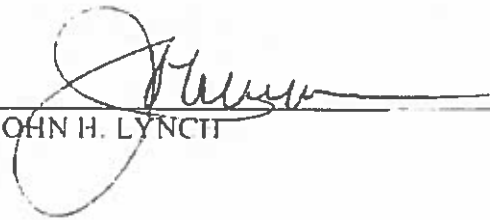
MEANING AND INTENDING to describe and convey the same property conveyed to John H. Lynch by deed of John H. Lynch and Susan E. Upton Lynch as Trustees of The John H. Lynch Trust, of near or even date and recorded herewith.

This instrument was prepared from information supplied by the Grantor herein and no independent title search has been conducted.

This transfer is exempt from transfer tax pursuant to RSA 78-B:2, IX.

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Signed this 31st day of August, 2020.

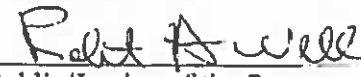


JOHN H. LYNCH

STATE OF NEW HAMPSHIRE
COUNTY OF MERRIMACK

This instrument was acknowledged before me on the 31st day of August, 2020, by
John H. Lynch.

(seal)



Notary Public/Justice of the Peace
Printed Name:
My Commission Expires:

ROBERT A. WELLS, Notary Public
My Commission Expires January 08, 2021





T.F. BERNIER, INC.
Land Surveyors~Designers~Consultants

50 Pleasant Street, P.O. Box 3464
Concord, NH 03302-3464

Environmental Permitting
State and Local Permitting
Land Surveying
Aerial Mapping
Aerial Photography

Tel. (603) 224-4148
Fax (603) 224-0507

Abutters List
John H. Lynch Irrevocable Trust of 2012 &
Rix Family Trust of 2016
Lot Line Adjustment Application
Assessors Map 240 Lot 51 & 52
Gould Hill Road
Hopkinton, NH

<u>MAP</u>	<u>LOT</u>	<u>OWNER</u>
240	51	John H. Lynch Irrevocable Trust of 2012 2 Watchtower Road Hopkinton, NH 03229
240	52	Rix Family Trust of 2016 248 Gould Hill Road Hopkinton, NH 03229
239	21	Virginia L. Pastuszczyk Timothy D. Sweatt 373 Old Stagecoach Road Contoocook, NH 03229
239	22	Five Rivers Conservation Trust 10 Ferry Street Suite 311A Concord, NH 03301
240	26	Neola D. Crathern Trust 163 Gould Hill Road Contoocook, NH 03229
240	27	Richard A. Newcombe Trust & Sally T. Newcombe Trust 221 Gould Hill Road Contoocook, NH 03229
240	28	Karen L Whiteknact Rev. Living Trust 239 Gould Hill Road Hopkinton, NH 03229
240	29	Alison Josefiak Christopher Navarro 257 Gould Hill Road Contoocook, NH 03229

240	30	Thomas R. & Hilary A. Chapman 283 Gould Hill Road Contoocook, NH 03229
240	31	Bradford W. & Ann McClane Kuster 331 Gould Hill Road Contoocook, NH 03229
240	32	Jane D. W. & Frederic Bradstreet P.O. Box 149 333 Gould Hill Road Contoocook, NH 03229
240	36	Irvin D. Gordon 63 Roberts Road Hopkinton, NH 03229
240	49	April Dunn 59 Blaze Hill Road Hopkinton, NH 03229
240	54	Richard Jones Irrevocable Trust 18 Green Street Newport, NH 03773
241	38-1	Kirk Hemphill 831 Briar Hill Road Contoocook, NH 03229
241	38-2	R and J Case Trust 1030 Briar Hill Road Hopkinton, NH 03229
241	43	Jeanne C. Dwyer GST Exempt Trust P.O. Box 600 Concord, NH 03302
249	4	Kurt K. & Betsey F. Rhynhart 675 Briar Hill Road Hopkinton, NH 03229
249	5	The Viking Trust 745 Briar Hill Road Contoocook, NH 03229
249	8	S. Wayne & Elizabeth A. Clarke 812 Briar Hill Road Hopkinton, NH 03229

Professional Consultant

Timothy F. Bernier LLS, CWS
T. F. Bernier, Inc.
PO Box 3464
Concord, NH 03302-3464

TOWN OF HOPKINTON, NH

SUBDIVISION CHECKLIST

Applicants shall use the General Principal and Design and Construction Standards (Section IV, Subdivision Regulations) when designing and laying out a subdivision. These principles and requirements shall be construed as the minimum requirements. The Planning Board may require higher standards in individual cases or may waive certain requirements for good cause.

Submittal Material

- ☒ An application, either signed by all the current owner(s) of the property, or signed by an individual authorized by the owner(s) to act as their agent. NOTE: A letter must be submitted with the application authorizing the individual to act as agent on the owner(s) behalf when the agent signs the application.
- ☒ The appropriate application fee.
- ☒ A deed showing property description and ownership.
- ☒ List of the current abutters to the property including those property owners located across street, brook or stream from the property being subdivided. Please include the name, address and profession of the professionals responsible for the preparation of the subdivision plans.
- ☒ One (1) set of addressed mailing labels of abutters, applicant, engineer, architect, soil or wetland scientist, land surveyor, and holder of conservation preservation, or agricultural preservation restrictions or easements.
- NA ☐ Copies of any approvals or permits required from state and federal agencies.
- ☒ Written request for any waivers from the Subdivision Regulations, if any.
- NA ☐ A copy of any variances or special exceptions which have been granted by the Zoning Board of Adjustment.
- ☒ Four (4) copies of the subdivision plat which contains all the information outlined in the Subdivision Regulations.
- ☒ Eleven (11) copies of the application, along with all supporting document(s), including reductions of the plan(s) reduced to no more than 11" x 17".

General Information

- ☒ A subdivision shall be shown at a scale of not less than one inch equals one hundred feet (1"=100') or at a greater detail as directed by the Planning Board.
- ☒ Plans shall be presented on sheets sized at 22" x 34". Recordable drawings must conform to the requirements of the Merrimack County Registry of Deeds.
- ☒ Title of plat and Name and address of the owner and that of agent, if any.
- ☒ Date the plan was prepared and the date of all revisions.
- ☒ North arrow, bar scale and Tax Map/Lot references.
- ☒ Name, address, seal, and signature of the licensed surveyor, engineer, and certified soils or wetland scientist.

Design and Sketch Plan

- ☒ A vicinity sketch showing location of property in relation to surrounding streets systems and other pertinent features.

TOWN OF HOPKINTON, NH
SUBDIVISION CHECKLIST

- (partial)WR ☐ A sketch of the site showing existing natural features, including watercourses, waterbodies, tree lines, and other significant vegetation cover, topographic features and any other features that are significant to the site design.
- WR ☐ Contours at intervals not exceed five feet (5') with spot elevations provided when the grade is less than five percent (5%).
- (partial) WR ☐ Surveyed exterior property lines showing their bearings and distances and showing monumentation locations.
- (partial) WR ☐ Location and dimensions of uplands and wetlands as certified by a certified soils or wetland scientist.
- ☒ Lines and right-of-way of existing abutting streets.
- NA ☐ Location, elevation, and layout of existing and proposed catch basins and other surface drainage features.
- ☒ Location and size of all utilities serving the site.
- (partial) WR ☐ Soils location and types.
- ☐ Any other features that would fully explain the concept of the proposal, existing conditions, and future development.

Subdivision Plan

- (partial)WR ☐ Location and dimensions of all boundary lines of the property to be expressed in feet and decimals of a foot.
- ☒ Location and width of existing and proposed streets and easements, alleys, and other public ways, easements and proposed street rights-of-ways.
- WR ☒ Building setbacks lines, including location and setback dimensions of existing structures within 50-feet of the parcel to be subdivided.
- ☒ Location, dimensions, and areas of all proposed or existing lots (calculated in acreage and square feet).
- NA ☐ Location and dimensions of all property proposed to be set aside for a park or playground use, public or private reservation, with designation of the purpose and conditions, if any, of dedication or reservation.
- NA ☐ Location of all parcels of land proposed to be dedicated to public or common use and the covenants, conditions of such dedications, and a copy of such private deed declarations, covenants or restrictions.
- (partial)WR ☐ Location, bearing and lengths of all lines; and sufficient data to be able to reproduce such lines upon the ground; and location of all proposed monuments.
- ☒ Statement as to the proposed use of all lots, sites, or other realty (whether single-family, two-family, etc.) and all other uses proposed.
- NA ☐ Lots consecutively numbered or lettered in alphabetical order.
- NA ☐ Location and explanation of proposed drainage easements and any other site easements, if any.
- ☒ Form of approval by the Planning Board.

TOWN OF HOPKINTON, NH
SUBDIVISION CHECKLIST

Construction Plan

- NA
- ☐ Profiles plotted with the same horizontal scale as the plans and a horizontal to vertical scale ratio of 5 to 1 respectively showing existing and proposed elevations along center lines of all roads. Where a proposed road intersects an existing road or roads, the elevation along the center line of the existing road or roads within one hundred (100) feet of the intersection, shall be shown. Curve data of all horizontal curves, lengths of tangents, central angles and stationing of all streets shall be shown. Vertical curve data, percent grade and elevation shall be shown on the profiles.
 - ☐ Plans and profiles showing the locations and typical cross-section of street pavements including curbs and gutters, sidewalks, drainage easements, rights-of-way, manholes, and catch basins; the locations of street trees, street lighting standards, and street signs; the location, size and invert elevations of existing and proposed sanitary sewers, storm water drains, and fire hydrants, showing connection to any existing or proposed utility systems; and exact location and size of all water or other underground utilities or structures.
 - ☐ Location, size, elevation, and other appropriate description of any existing facilities or utilities, including, but not limited to, existing streets, septic disposal facilities, sewers, drains, water mains, wells, easements, water bodies, streams, and other pertinent features, such as surface drainage areas, swamps, buildings, at the point of connection to proposed facilities and utilities within the subdivision. The water elevations of adjoining lakes or streams at the date of the survey, and the approximate high and low water elevations of such lakes or streams.
 - ☐ Topography at the same scale as the sketch plat with a contour interval of two (2) feet, in the area of new roadway construction, referred to sea-level datum. All datum provided shall be referenced to U.S. Coast and Geodetic Survey datum, where practical, and should be so noted on the plat.
 - ☐ Cross sections at a minimum of one hundred (100) foot intervals, all cross pipes and at other critical locations drawn at a scale of 1" = 10 feet.

Additional Information

In order to evaluate the subdivision proposal, the applicant is expected to supply or the Planning Board may specifically require the following information, as appropriate:

- ☐ Draft of any protective covenants or easements.
- ☐ Warranty deeds conveying to the Town Streets, right-of-way, and any sites for public use in fee simple, free from all encumbrances, unless waived by the Planning Board.
- ☐ Calculations specifying the quantity of storm water run-off and a statement from applicant's engineer certifying the adequacy of the proposed drainage facility to handle such run-off.
- ☐ Calculations on the type and quantity of sanitary waste generated and a statement from the engineer or licensed designer certifying that the proposed facilities will adequately handle the projected effluent.
- ☐ Traffic Impact Analysis, Fiscal Impact Analysis, School Impact Analysis, Environmental Impact Analysis and/or Community Services Impact Assessment.
- ☐ Necessary State and local permits.

Performance Guarantees

Except in the case of a subdivision in which each lot is on an existing Town road, before the plat is signed by the Chairperson of the Planning Board, all applicants shall be required to submit to the Planning Board the following:

TOWN OF HOPKINTON, NH
SUBDIVISION CHECKLIST

NA

☐

Cash, irrevocable letter of credit or passbook (in the name of the Town) issued by a Banking Institution doing business in New Hampshire, in the amount approved by the Planning Board and deposited with the Board of Selectmen.

☐

The performance guarantee shall comply with all statutory requirements and be satisfactory to the Board of Selectmen as to form, sufficiency, and manner of execution. The amount of the performance guarantee shall be in the amount representing 100% of the cost of completion of the streets, the installation of utilities, and other proposed facilities. Upon partial completion of the subdivision improvements and inspected by the Town's Consultant Engineer, the Board of Selectmen may authorize in writing a prorated reduction in the performance guarantee relating to the remaining cost to complete.

☐

The entity responsible for the constructing of the roadway and utilities shall provide the Town with cash, irrevocable letter of credit, or passbook (in the name of the Town) issued by a Banking Institution doing business in New Hampshire to cover the cost of inspection services. As a minimum this security shall be \$3.00/foot of roadway to be constructed plus ten percent (10%). Ten percent of the total construction observation costs shall be retained by the Town of Hopkinton to cover administrative costs.

MAP 240 LOT 30
THOMAS R. CHAPMAN
HILARY A. CHAPMAN
283 GOULD HILL ROAD
CONCORD, NH 03301
BOOK 3095 PAGE 1529

MAP 240 LOT 29
ALISON JOSEFIK &
CHRISTOPHER NAVARRO
257 GOULD HILL ROAD
CONTOOCOOK, NH 03229
BOOK 3690 PAGE 1591

PSNH 9C 45
MCT CO 33 36
W/TRANSFORMER

PLANNING BOARD APPROVAL BLOCK

APPROVED TOWN OF HOPKINTON, PLANNING BOARD

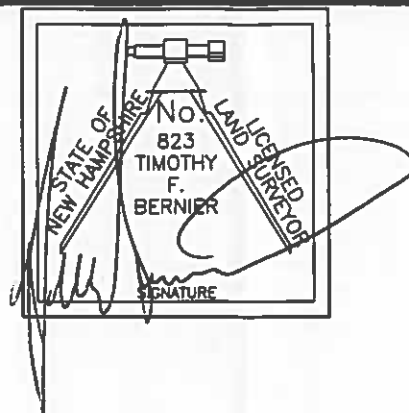
CHAIRPERSON _____

DATE _____

ROAD

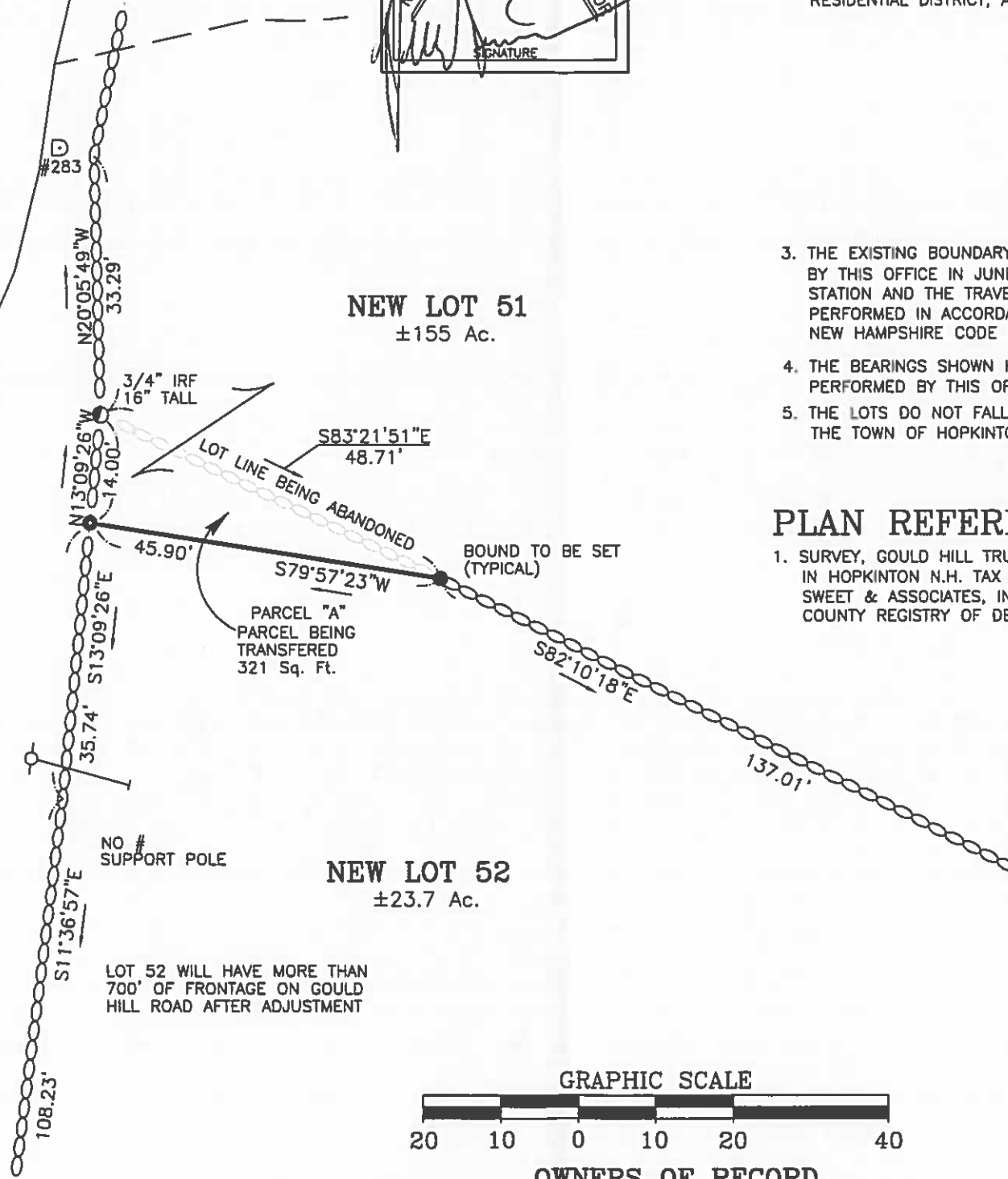
HILL

GOULD



NEW LOT 51
±155 Ac.

NEW LOT 52
±23.7 Ac.



NOTES:

1. THE PURPOSE OF THIS PLAN IS TO SUBDIVIDE 321 SQUARE FEET FROM LOT 52 AND ANNEX THE SAME AREA TO LOT 51. BOTH LOTS ARE SHOWN ON ASSESSORS MAP 240.
2. THE AREA OF THE PARCELS SHOWN HEREON ARE LOCATED IN THE "R-2" MEDIUM DENSITY RESIDENTIAL DISTRICT, AND ARE SUBJECT TO THE FOLLOWING DIMENSIONAL RESTRICTIONS:

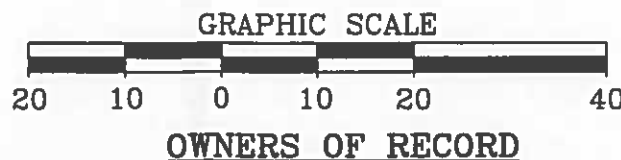
DISTRICT: R-2
MINIMUM LOT SIZE: 80,000 S.F. (UPLAND)
MINIMUM FRONTAGE: 250'
MINIMUM DEPTH: 140'
BUILDING SETBACKS
FRONT: 40'
SIDE: 20'
REAR: 40'
MAXIMUM BUILDING HEIGHT: 35'

3. THE EXISTING BOUNDARY LINES SHOWN HEREON ARE FROM PLAN REFERENCE #1, A FIELD SURVEY PERFORMED BY THIS OFFICE IN JUNE 2021, AND RECORD DEEDS. THE FIELD SURVEY WAS PERFORMED USING A TOTAL STATION AND THE TRAVERSE HAS AN ERROR OF CLOSURE OF ONE PART IN 15,000 OR BETTER. THE SURVEY WAS PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF A STANDARD PROPERTY SURVEY AS DEFINED IN THE NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES LAR 500.
4. THE BEARINGS SHOWN HEREON ARE REFERENCED TO NAD 83/11 NH STATE PLANE, BASED ON GPS OBSERVATIONS PERFORMED BY THIS OFFICE IN JUNE 2021
5. THE LOTS DO NOT FALL IN THE 100 YEAR FLOOD ZONE AS SHOWN ON THE FLOOD INSURANCE RATE MAP FOR THE TOWN OF HOPKINTON, MAP NO. 33013C510E, WITH EFFECTIVE DATE 4/19/2010.

PLAN REFERENCE

1. SURVEY, GOULD HILL TRUST. WILLIAM G. STEELE, JR TRUSTEE. GOULD HILL ROAD & BRIAR HILL ROAD IN HOPKINTON N.H. TAX MAP 240-51. SCALE: 1"=200', DATE: 9/22/1999. PREPARED BY BRISTOL, SWEET & ASSOCIATES, INC OF NORTH SUTTON, NEW HAMPSHIRE AND RECORDED AT THE MERRIMACK COUNTY REGISTRY OF DEEDS AS PLAN #14886.

LOT LINE ADJUSTMENT BETWEEN LOTS 51 & 52 ON TAX MAP 240 GOULD HILL ROAD HOPKINTON, NEW HAMPSHIRE SCALE: 1"=20' DATE: JULY 2021



MAP 240 LOT 51
JOHN H. LYNCH IRREVOCABLE TRUST OF 2012
SUSAN E. UPTON LYNCH &
WILLIAM G. STEELE, JR. CPA-TRUSTEES
2 WATCHTOWER ROAD
HOPKINTON, NH 03229
BOOK 3696 PAGE 1739

MAP 240 LOT 52
RIX FAMILY TRUST OF 2016
ERICA C. RIX TRUSTEE
ROBERT D. RIX TRUSTEE
248 GOULD HILL ROAD
HOPKINTON, NH 03229
BOOK 3636 PAGE 72



T. F. BERNIER, INC.
Land Surveyors - Designers - Consultants

50 PLEASANT STREET - P.O. BOX 3464
CONCORD, NEW HAMPSHIRE 03302-3464
Tel:(603)224-4148 - Fax:(603)224-0507

DESIGNED BY	DRAWN BY	CHECKED BY	F.B.	PG.	JOB #
TFB	TFB				663-01
DRAWING NAME					

Application #2021-20

BAYSTONE PROPERTIES LLC

**Site Plan Review, Architectural Design Review,
Condominium Subdivision**

- ☐ Waiver(s) request from provisions of the Subdivision and/or Site Plan Regulations.

PLANNING BOARD APPLICATION

- ☒ Test Pit Data, Storm Water Management Plan, Traffic, School, Environmental and Fiscal Impact Analyses, and Phasing Plan (when applicable).
- ☒ Abutters List as defined by RSA 672:3 – Include Tax Map, Lot Number, Name and Mailing Addresses. If abutting property is under a condominium or other collective form of ownership, the term "abutter" means the officers of the collective or association. If abutting property is under a manufactured housing park form of ownership, the term "abutter" includes the manufactured housing park owner and the tenants who own the manufactured housing.
- ☒ Mailing labels – Include Applicant, Owner, Architect, Soil/Wetland Scientists, Abutters, and holders of Conservation/Preservation restrictions or easements.
- ☒ Four (4) paper prints of the plan(s) at full scale.
- ☒ Appropriate Filing Fee: (Non-refundable) Made payable to Town of Hopkinton
 - Major Subdivision\$500.00 Application Fee, \$100.00 per Lot/Unit
 - Minor Subdivision\$250.00 Application Fee, \$100.00 per Lot/Unit
 - Lot Line Adjustment/Annexation\$100.00 Application Fee
 - Site Plan Review\$300.00 Application Fee, \$100.00 per Unit (Res./Non-Res.)
 - Site Plan Review Change of Use\$150.00 Application Fee
 - Conditional Use Permit\$500.00 Application Fee (Wireless Telecommunications)
 - Public Notice Mailing\$ 10.00 per Address (Owner, Applicant, Agent, Abutter)
 - Newspaper Notice\$ 75.00
- ☐ Conditional Use Permit (Wireless Telecommunications): If application is for Conditional Use Permit, please attach a detailed explanation of compliance with Section 3.10 of the Hopkinton Zoning Ordinance, along with an explanation of compliance with the Site Plan Review Regulations of the Town of Hopkinton.

Final Submission Requirements (after Planning Board action):

- ☐ Four (4) paper prints of the final plan set at full scale.
- ☐ Mylar(s) – The Merrimack County Registry of Deeds requires that the UPPER LEFT-HAND CORNER, INSIDE THE BORDER, of the plat to be RESERVED for recording information entered by the Registry - No smaller than 7" long X 1" wide.
- ☐ PDF of the final plan set, including architectural and site photographs - emailed or thumb drive.
- ☐ Recording Fees: (Separate Checks) Made payable to Merrimack County Registry of Deeds
 - Recording Fee.....\$ 26.00 per Page (22" x 34")
 - LCHIP Fee.....\$ 25.00 per Document

I represent to the best of my knowledge and belief that this application is being submitted in accordance with applicable regulations and ordinances of the Town of Hopkinton. I also understand that submittal of this application shall be deemed as granting permission for the Planning Board members and their designees to enter onto the property for purposes of inspections and review. Permission to visit the property extends from the date an application is submitted until approved work or construction is complete and any or all of the financial guarantees, if any, have been returned to the applicant, or until the application is formally denied. Furthermore, I agree that the proposed project will be performed in accordance with this application, the attached plans and specifications, and the regulations and ordinances of the Town of Hopkinton.

Applicant's Signature: _____ Date: 6/21/21

Owner's Signature(s): _____ Date: 6/21/21

Office Use:	
Application Filed: _____	Fees: _____ Application #: _____
Notice(s) Posted/Mailed: _____	Complete/Consideration: _____
Meeting(s)/Hearing(s): _____	
Approved/Denied: _____	<input type="checkbox"/> Conditions MCRD Filing: _____
MCRD Document #: _____	

Town of Hopkinton, NH
Site Plan Review Checklist

In cases where not all items are applicable, draw a line through the items that are not applicable. **All requests for waivers must be in writing with the application.**

ALL APPLICATIONS

- ☒ 1. Ten (10) copies of completed application, all associated documentation and checklist;
- ☒ 2. List of names and addresses of abutters and use of abutting properties, identified with location of the structures and access roads;
- ☒ 3. One (1) set of address mailing labels of abutters, applicant, engineer, architect, soil scientist, wetland scientist, land surveyor, and any holders of conservation preservation, or agricultural preservation restrictions or easements;
- ☒ 4. The appropriate fee;
- ☒ 5. Site plan: 24" by 36" sheet size maximum, scale not less than 1" = 100', match lines where needed, date, title, graphic scale, north arrow, location map, legend, name & address of developer/applicant, designer/engineer, and owner of record;
- ☒ 6. Four (4) prints of each plan sheet at full scale and one (1) reduction of each plan reduced to no more than 11" x 17";
- ☒ 7. All existing and proposed easements;
- ☒ 8. Site plan showing boundaries, existing natural features including watercourses & water bodies, trees & other vegetation, topographical features, and other pertinent features that should be considered in the site design process;
- ☒ 9. Plan of all buildings depicting their type, size, and location (setbacks);
- ☒ 10. Location of off-street parking and loading spaces with a layout or the parking indicated;
- ☒ 11. The location, width, curbing and type of access ways and egress ways (driveways), plus streets and sidewalks within and around site;
- ☒ 12. Location, size, and design of proposed signs and advertising or instructional devices;
- ☒ 13. Location and type of lighting for all outdoor facilities, including direction and area of illumination;
- ☒ 14. Right-of-way lines of all existing adjoining streets;
- ☒ 15. Location and type of Water supply & sewage disposal facilities;
- ☒ 16. Zoning districts and boundaries for site and within 1000 feet of site;
- ☒ 17. 100 year flood elevation line, where applicable;
- ☒ 18. An elevation view or photograph of all buildings indicating their height, width and surface treatment;
- ☒ 19. Landscaping plan showing required details described within the Site Plan Review Regulations, and
- ☒ 20. Other required exhibits or data in order to adequately evaluate the proposal

Town of Hopkinton, NH
Site Plan Review Checklist

PROJECTS REQUIRING NEW OR ADDITIONAL BUILDINGS OR CHANGES TO THE EXTERIOR DIMENSIONS OF EXISTING OR CHANGES TO EXISTING CONTOURS AND FINISHED GRADE ELEVATIONS, INCLUDING TYPE, EXTENT, AND LOCATION OF LANDSCAPING, PARKING AND OPEN SPACE AREAS SHALL SUBMIT THE FOLLOWING IN ADDITION TO ABOVE:

- ☐ 1. Reproducible mylar, to be retained by the Planning Board at its option;
- ☒ 2. Plan of all buildings with their type, size, location (setbacks) and elevation of first floor indicated: (assume permanent onsite elevation);
- ☒ 3. The size and proposed location of water supply and sewage facilities and provision for future expansion of sewage and water facilities, and all distances from existing water and sewage facilities on the site and on abutting properties to a distance of 200 feet;
- ☒ 4. The location, elevation and layout of catch basins and other surface drainage features;
- ☒ 5. Existing and proposed contours and finished grade elevations – all contours shall be a minimum of 2-foot intervals;
- ☒ 6. The type, extent and location of existing and proposed landscaping and open space areas indicating what existing landscaping and open space areas will be retained;
- ☒ 7. The size and location of all public service connections – gas, power, telephone, fire alarm, (overhead or underground);
- ☒ 8. Surveyed property lines showing their angles, distances, radius, lengths of arcs, control angles, along property lines and monument locations and names of all abutters;
- ☒ 9. If a subdivision, the lines and names of all proposed streets, lanes, ways, or easements intended to be dedicated for public use shall be indicated and all Subdivision Regulations shall apply, and
- ☒ 10. Erosion and sedimentation control plan.

TOWN OF HOPKINTON, NH
ARCHITECTURAL DESIGN REVIEW CHECKLIST

Planning Board approval of an Application for Architectural Design Review shall be required prior to the issuance of a building permit for the following activities (check as applicable):

- ☒ New building construction to be used for non-residential or multi-family purposes; or
To be submitted after Planning Board approval
- ☐ Additions or alterations to buildings used for non-residential or multi-family purposes which increase or decrease the square footage of the building; or
- ☐ Renovation, rehabilitation or reconfiguration of building exteriors where such buildings are used for non-residential or multi-family purposes.

The **Performance Criteria** is intended to encourage building architecture that is complementary to the community. It is intended that the criteria be administered with flexibility and consistency in order to allow for responsive, creative and innovative architectural designs. The criteria is not intended to dictate specific building styles, or to mandate historical preservation, restoration or replication.

In order to approve an Application for Architectural Design Review, the Planning Board shall find that the application demonstrates substantial conformity with the following Performance Criteria:

- (a) The proposed building design is consistent with the purposes of the Architectural Design Review Ordinance.
- (b) The proposed building design demonstrates sensitivity towards and is complementary to, the architectural heritage of Hopkinton.

☐ **Building Orientation:** How a building is positioned or located on a site can complement or detract from the site and/or the architectural character of the surrounding area. The orientation of proposed buildings should take into consideration building setbacks, spacing between buildings, alignment of building(s), open spaces, access and circulation areas, as may be evidenced in the development pattern of the surrounding area or as determined to be appropriate by the Planning Board; and

☐ **Building Scale and Proportion:** Building elevations, scale, massing and the proportional relationship between structures can complement or detract from the architectural character of the surrounding area. Building designs should be compatible with or provide a harmonious transition from adjacent sites. The scale and proportion of proposed buildings should take into consideration the scale and proportion of surrounding buildings, as evidenced in the development pattern of the surrounding area, and should also take into consideration natural features, historically significant buildings or features and surrounding land uses. Visual conflicts between properties should be minimized; and

☐ **Roofline:** Rooflines can provide visual interest and help to reduce the mass of a building. Traditional roofline types such as gabled, hipped, and gambrel that are evidenced in Hopkinton's architectural heritage are strongly encouraged. Type, shape, pitch and direction of roofs should be considered in the design. Flat roofs are strongly discouraged; and

☐ **Massing:** The physical bulk or mass of buildings, particularly larger or elongated ones, can either enhance or detract from the architectural character of the community. Structures should be carefully designed to break up their mass into smaller visual components providing human scale, variation and depth; and

☐ **Architectural Features and Details:** Architectural features and details such as cornices, columns, corner trim, doorways, entrances, windows/trim, awnings, dormers, porches, etc., can provide or enhance visual interest, provide a pedestrian scale and help mitigate negative effects of building mass. Architectural features and details should be considered in every building design. Traditional features should be considered in every building design. Traditional features and details associated with Hopkinton's architectural heritage are strongly encouraged; and

☐ **Materials, Texture and Color:** Exterior building materials, texture and colors should be treated as significant design elements that help define the appearance of a structure and create visual interest. The use of

TOWN OF HOPKINTON, NH
ARCHITECTURAL DESIGN REVIEW CHECKLIST

traditional materials that are consistent with Hopkinton's vernacular or indigenous architecture, or materials having the same visual effect, are strongly encouraged. Consideration should be given to the materials, textures and colors used in the neighborhood; and

☐ **Building Facade:** Facades for new or renovated structures should provide visual interest from all visually accessible sides. Windows, doorways and architectural detailing and patterns should complement the building form and historical context. Facades should be designed to establish a complementary relationship with other site considerations such as pedestrian scale and orientation, signage, landscaping and lighting; and

☐ **Building Renovation or Addition:** Where an existing building has features that are consistent with the Performance Criteria, proposed renovations or additions should be designed to respect the proportions, patterns, detailing, materials, etc., of the original building. Where the existing building does not have features that are consistent with the Performance Criteria, the owner/applicant is encouraged to upgrade the structure to meet the Performance Criteria; and

☐ **Signs:** Signs should be designed to meet the needs of individual uses while complementing the building, the site and its surroundings. The design of building-mounted signs should complement, not detract from the architectural features of the building. Signs should be scaled to the architectural elements that surround it. Consideration should be given to sign form, color, lighting and materials that are compatible with the building and its surroundings; and

☐ **Gateways and Scenic Resources:** Some places in Hopkinton contribute to the landscape character of the community because of their location and scenic qualities. Many such properties and approaches acts as gateways, providing first impressions and reinforcing Hopkinton's sense of place. Consideration should be given towards complementing these resources through the careful citing of new buildings, and the application of the Performance Criteria; and

☐ **Design Continuity:** Each building design, from the simple to the complex, requires the coordination of multiple design elements such as architectural style, form, massing, materials, detailing, etc. The proposed building design shall demonstrate coordination of design elements and an overall design continuity.

WAIVER PROVISION

The Planning Board may grant waivers to the requirements of this Architectural Design Review Ordinance provided that a majority of the Planning Board finds that the criteria set forth in Section 15.8.3 of the Hopkinton Zoning Ordinance regarding "variances" have been satisfied.

In approving waivers, the Planning Board may impose such conditions, as it deems appropriate to substantially secure the objectives of the standards or requirements of the Architectural Design Review Ordinance.

A letter for any such waiver shall be submitted in writing by the applicant for Planning Board review. The letter shall state fully the grounds for the waiver and all of the facts relied upon by the applicant in support thereof.

Owner of Record

Tax Map 102 Lots 34 & 35

Baystone Properties, LLC

162 Barton Corner Road

Hopkinton, NH 03229

Property addresses: 49 & 71 Cedar Street

Abutters list**Tax Map 101 Lot 15**

Ernest & Matthew Thibodeau

35 Cedar Street

Contoocook, NH 03229

Tax Map 101 Lot 14.1 & 14.2

Cedar Street Properties, LLC

C/O Stephen Tate

P.O. Box 1253

Grantham, NH 03753

Property address: 27 & 29 Cedar Street

Tax Map 101 Lot 13

Scott & Brett Crathern

163 Gould Hill Road

Contoocook, NH 03229

Property address: 25 Cedar Street

Tax Map 102 Lot 46

United Methodist Church

P.O. Box 356

Contoocook, NH 03229

Property address: 24 & 28 Maple Street

Tax Map 104 Lot 45

Joshua Smith

115 North Main Street

Boscawen, NH 03303

Property address: 40 Maple Street

Tax Map 102 Lot 36

Glenn & Melissa Smart
81 Cedar Street
Contoocook, NH 03229

Tax Map 102 Lot 29

David Fisk
88 Cedar Street
Contoocook, NH 03229

Tax Map 102 Lot 30

Daniel & Janice Aranki
70 Cedar Street
Contoocook, NH 03229

Tax Map 102 Lot 31

Andris & Florence Serzans
60 Cedar Street
Contoocook, NH 03229

Tax Map 102 Lot 32

Charles & Anne Rotondi
54 Cedar Street
Contoocook, NH 03229

Tax Map 102 Lot 33

Robert MacNeil
50 Cedar Street
Contoocook, NH 03229

Tax Map 101 Lot 16

O'Rourke & Greenblott Holdings, LLC
P.O. Box 465
Hopkinton, NH 03229
Property Address: 44 Cedar Street

Tax Map 101 Lot 17

Town of Hopkinton
330 Main Street
Hopkinton, NH 03229

Professional

New Hampshire Land Consultants, PLLC
683C First NH Turnpike
Northwood, NH 03261

Bernie Temple, PE
P.O. Box 7
Gilmanton, NH 03837



Town of Hopkinton

Wastewater Department

330 Main Street, Hopkinton NH 03229-2627 (603) 746-8261 – watersewer@hopkinton-nh.gov

June 23, 2021

NH Land Consultants
683c First Nh Turnpike
Northwood NH, 03291

To whom it may concern,

After review of the proposed plans, I the Superintendent for the Hopkinton Wastewater Facility, see there to be no issues from a flow standpoint and the extra flow for this project would not hinder the process of the wastewater treatment plant. As expressed to Scott Frankiewicz via e-mail, the decision-making process is not up to me what soever and can not make a decision. If project is permitted by the town but will be inspecting all work that is in connection process to the Gravity line on Cedar St. The one concern I have is that there is an effluent line and a force main sewer line on Cedar St. and connection needs to be made in the Gravity Main.

Sincerely,

Samuel V. Currier

TES Environmental Consultants, LLC

June 18, 2021

Ref: TES JN 21-0049

Scott R. Frankiewicz, Owner
New Hampshire Land Consultants, PLLC
Gray Properties, LLC
683C First NH Turnpike (Rte. 4)
Northwood, NH 03261

Re: Environmental Services (Wetland Identification)
49 and 71 Cedar Street, Hopkinton (Contoocook), New Hampshire
Tax Map 102, Lots 34 and 35

Dear Mr. Frankiewicz:

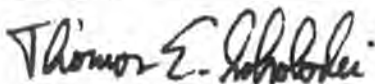
TES Environmental Consultants, L.L.C. (TES) has completed the site investigation that you requested on the above-referenced parcels in Hopkinton (Contoocook), New Hampshire. This investigation was completed on June 16, 2021 and consisted of an on-site review to determine if wetlands subject to local, state and/or federal jurisdiction were present on the property.

The wetland identification was performed according to the methodology presented in the Corps of Engineers Wetland Delineation Manual (Technical Report Y-87-1), January 1987 and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region, Version 2.0, January 2012, US Army Corps of Engineers. This methodology requires the presence of indicators for the three parameters: hydric soils, hydrophytic vegetation and evidence of hydrology at or near the surface for 14 days during the growing season.

I am pleased to report that no jurisdictional wetland areas were identified on or immediately adjacent to the parcel. All lower-lying areas on each parcel were closely examined, and all areas lack the required hydric soils, with soil colors of 2.5Y 5/4 or brighter in the 12-18 inch depth ranges. No evidence of wetland hydrology exists on the parcels. Some plant species that could exist in wetlands (hydrophytes) were observed, including sensitive fern (*Onoclea sensibilis*), horsetail (*Equisetum* spp.), jewelweed (*Impatiens capensis*) and buttercup (*Ranunculus acris*), but these species are also often found in uplands. Upland indicators including sugar maple (*Acer saccharum*) and Oriental bittersweet (*Celastrus orbiculatus*) were also present.

I hope that this information will be beneficial in the future land use on these parcels. If I can be of further assistance in this process, please let me know.

Sincerely,



Thomas E. Sokoloski
New Hampshire Certified Wetland Scientist #127



1494 Route 3A, Unit 1, Bow, New Hampshire 03304
Phone: 603-856-8925 E-Mail: tom@tesenviro.comcastbiz.net

6/18/2021

PROPOSED CONDOMINIUM SUBDIVISION PLAN FOR BAYSTONE PROPERTIES, LLC

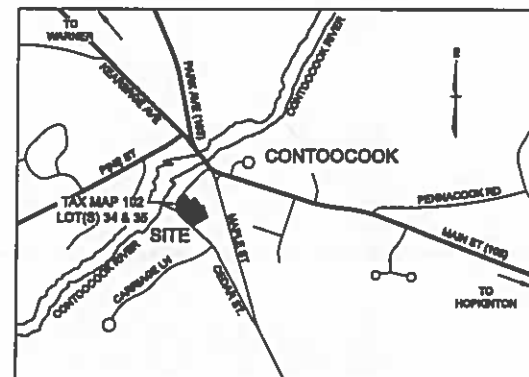
TAX MAP 102, LOT 35

PROJECT LOCATION:

71 CEDAR STREET, HOPKINTON, (CONTOOCOOK) NH
MERRIMACK CO.

NOTES:

1. THE PURPOSE OF THIS PLAN IS TO SHOW A CONDOMINIUM SUBDIVISION ON TAX MAP 102 LOT 35.
2. THE PROPERTY IS DESIGNATED AS TAX MAP 102, LOT 35.
3. THE AREA OF THE EXISTING LOT 35 IS 0.81 ACRES (30,780 SF.).
4. THE CURRENT OWNER FOR LOT 35, BAYSTONE PROPERTIES, LLC, 44 NORTH SHORE RD, DERRY NH 03038, LOT 35 BK 3691, PAGE 1784
5. THE ZONING DESIGNATION FOR THE PROPERTY IS VR-1 DISTRICT.
6. DIMENSIONAL REQUIREMENTS PROVIDED FOR ZONE VR-1 DISTRICT:
MIN. ROAD FRONTAGE = 50'
MIN. LOT SIZE = 15,000 SF. (0.34 ACRES)
MIN. ROAD SETBACK = 30'
MIN. SIDE SETBACK = 15'
MIN. REAR SETBACK = 40'
MAXIMUM STRUCTURE HEIGHT = 35'
SEPTIC SETBACK = 50'/75' HYDRO SOILS
OVERLAY DISTRICTS: (STEEP SLOPES, SOILS, WETLANDS, CONSERVATION)
7. NO WETLANDS WERE LOCATED ON SITE. THOMAS E. SOKOLOSKI, CERTIFIED WETLAND SCIENTIST VISITED THE SITE DETERMINING THERE WERE NO WETLANDS FOUND ON SITE.
8. THE EXISTING USE OF TM 102 LOT 35 IS A 2 CAR GARAGE.
9. THE PROPOSED USE OF TM 102 LOT 35 IS A CONDOMINIUM SUBDIVISION.
10. SEWER TO BE PROVIDED BY MUNICIPAL.
11. WATER TO BE PROVIDED BY MUNICIPAL.
12. THERE IS SUFFICIENT CAPACITY WITH BOTH WATER AND SEWER PER THE TOWN OF HOPKINTON.
13. RIGHT OF WAY WIDTH DETERMINED BY SURVEY, FIELD INVESTIGATION, RECORDED DEEDS AND PLANS OF REFERENCE.
14. ADJUTING PROPERTY INFORMATION PROVIDED BY A COMBINATION OF ON-LINE TAX MAP DATA AND DATA PROVIDED BY GRANVILLE.NH.USDA.
15. A COMPLETE PLAN SET WILL BE FILED AT THE TOWN OF HOPKINTON.
16. THE FEMA MAP NUMBER FOR THIS SITE IS 33013C0002E, EFFECTIVE DATE: APRIL 18, 2010. THE BASE FLOOD ELEVATION IN ZONE AE IS 383.562, 1% ANNUAL CHANCE FLOOD (100 YR FLOOD), ALSO KNOWN AS THE BASE FLOOD, IS THE FLOOD THAT HAS A 1% CHANCE OF BEING EQUALED OR EXCEEDED IN ANY GIVEN YEAR. A SMALL PORTION OF THE SITE RESIDES IN THIS ZONE. THE REMAINDER OF THE SITE IS WITHIN THE ZONE X, (AREAS OF 0.2% ANNUAL CHANCE OF FLOOD WITH DEPTHS LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE.
17. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL CONFORM TO TOWN OF HOPKINTON SUBDIVISION PLAN REGULATIONS AND THE LATEST EDITION OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
18. IF DURING CONSTRUCTION, IT BECOMES APPARENT THAT DEFICIENCIES EXIST IN THE APPROVED DESIGN DRAWINGS, THE OWNER SHALL BE REQUIRED TO CORRECT DEFICIENCIES TO MEET THE REQUIREMENTS OF THE REGULATIONS AT NO EXPENSE TO THE TOWN.
19. IF DURING CONSTRUCTION, IT BECOMES APPARENT THAT ADDITIONAL EROSION CONTROL MEASURES ARE REQUIRED TO STOP ANY EROSION ON THE CONSTRUCTION SITE DUE TO ACTUAL SITE CONDITIONS, THE OWNER SHALL BE REQUIRED TO INSTALL THE NECESSARY EROSION PROTECTION AT NO EXPENSE TO THE TOWN.
20. ELEVATIONS AND COORDINATES ARE BASED ON STATE PLANE COORDINATES FROM A SOLUTION GENERATED BY MGS OPUS ON APRIL 18, 2021 FROM DATA COLLECTED BY THIS OFFICE ON APRIL 17, 2021. THE OPUS SOLUTION IS BASED ON THE NAD 83 (2011) REF. FRAME AND THE NAVD 88.
21. NRCS SOILS DATA:
813A-CROGHAN LOAMY FINE SAND, 0 TO 8 PERCENT SLOPES, WOODED



LOCATION PLAN
SCALE: 1"=1,000'

SHEET INDEX

DWG	SHT NO.	DESCRIPTION
CVR	1 OF 16	COVER SHEET
ECP	2 OF 16	EXISTING CONDITIONS
PSP	3 OF 16	SITE LAYOUT PLAN
PCP	4 OF 16	PARKING & CIRCULATION PLAN
PGP	5 OF 16	GRADING, DRAINAGE & EROSION CONTROL PLAN
PUP	6 OF 16	UTILITY PLAN
PLSC	7 OF 16	LANDSCAPING PLAN
PLTP	8 OF 16	LIGHTING PLAN
DET-1	9 OF 16	SITE DETAILS
DET-2	10 OF 16	SEWER DETAILS
DET-3	11 OF 16	WATER DETAILS
DET-4	12 OF 16	DRAINAGE DETAILS-1
DET-5	13 OF 16	DRAINAGE DETAILS-2
DET-6	14 OF 16	LIGHTING/LANDSCAPE DETAILS
DET-7	15 OF 16	EROSION CONTROL NOTES & DETAILS - 1
DET-8	16 OF 16	EROSION CONTROL NOTES & DETAILS - 2

PROFESSIONAL CONSULTANTS LIST

SURVEYOR: NEW HAMPSHIRE LAND CONSULTANTS, PLLC.
683C FIRST NH TURNPIKE (RT.4)
NORTHWOOD, NH 03261 PH: (603) 942-9220

WETLAND/SOIL SCIENTIST: THOMAS E. SOKOLOSKI, CERTIFIED WETLAND SCIENTIST/SOIL SCIENTIST
YES ENVIRONMENTAL CONSULTANTS, LLC
1494 ROUTE 3A, UNIT 1
BOW, NEW HAMPSHIRE 03304 PH: (603) 858-8925

PROFESSIONAL ENGINEER: BERNIE TEMPLE, PE, CPESC
P.O. BOX 7
GILMINGTON IRON WORKS, NH 03837
PH: (603) 830-1008

DEVELOPER: BAYSTONE PROPERTIES, LLC
44 NORTH SHORE RD
DERRY NH, 03038



PLANNING BOARD APPROVAL:
HOPKINTON NH PLANNING BOARD

CHAIRMAN _____ DATE _____

OWNER/APPLICANT:

BAYSTONE PROPERTIES, LLC
(SHAUN GEARY)
44 NORTH SHORE RD,
DERRY NH, 03038
LOT 35 - BK 3691 PG 1784



CONTACT DIG SAFE 72 HOURS
PRIOR TO CONSTRUCTION

THE LOCATION OF ANY UTILITY INFORMATION SHOWN ON THIS PLAN IS APPROXIMATE. NEW HAMPSHIRE LAND CONSULTANTS, PLLC. MAKES NO CLAIM TO THE ACCURACY OR COMPLETENESS OF UTILITIES SHOWN. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ANY UTILITIES WHETHER THEY BE ABOVE OR BELOW GROUND. PRIOR TO ANY EXCAVATION ON SITE, THE CONTRACTOR SHALL CONTACT DIG SAFE AT 1-888-DIG-SAFE (1-888-344-7233).

NOTE:

ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL CONFORM TO THE TOWN OF HOPKINTON (CONTOOCOOK) REGULATIONS AND THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", LATEST EDITION.

INITIAL PLAN SET SUBMISSION DATE

JUNE 21, 2021

Latest revision date: _____

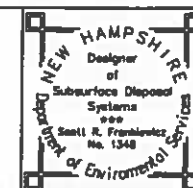
AGENCY APPROVALS

NHDES SUBDIVISION : _____



N.H. LAND
Consultants
SURVEYING • LAND PLANNING • REAL ESTATE
A VETERAN OWNED COMPANY

683C FIRST NH TURNPIKE, NORTHWOOD, NH 03261 PH: 603-942-9220 WEBSITE: NH.LANDCONSULTANTS.COM



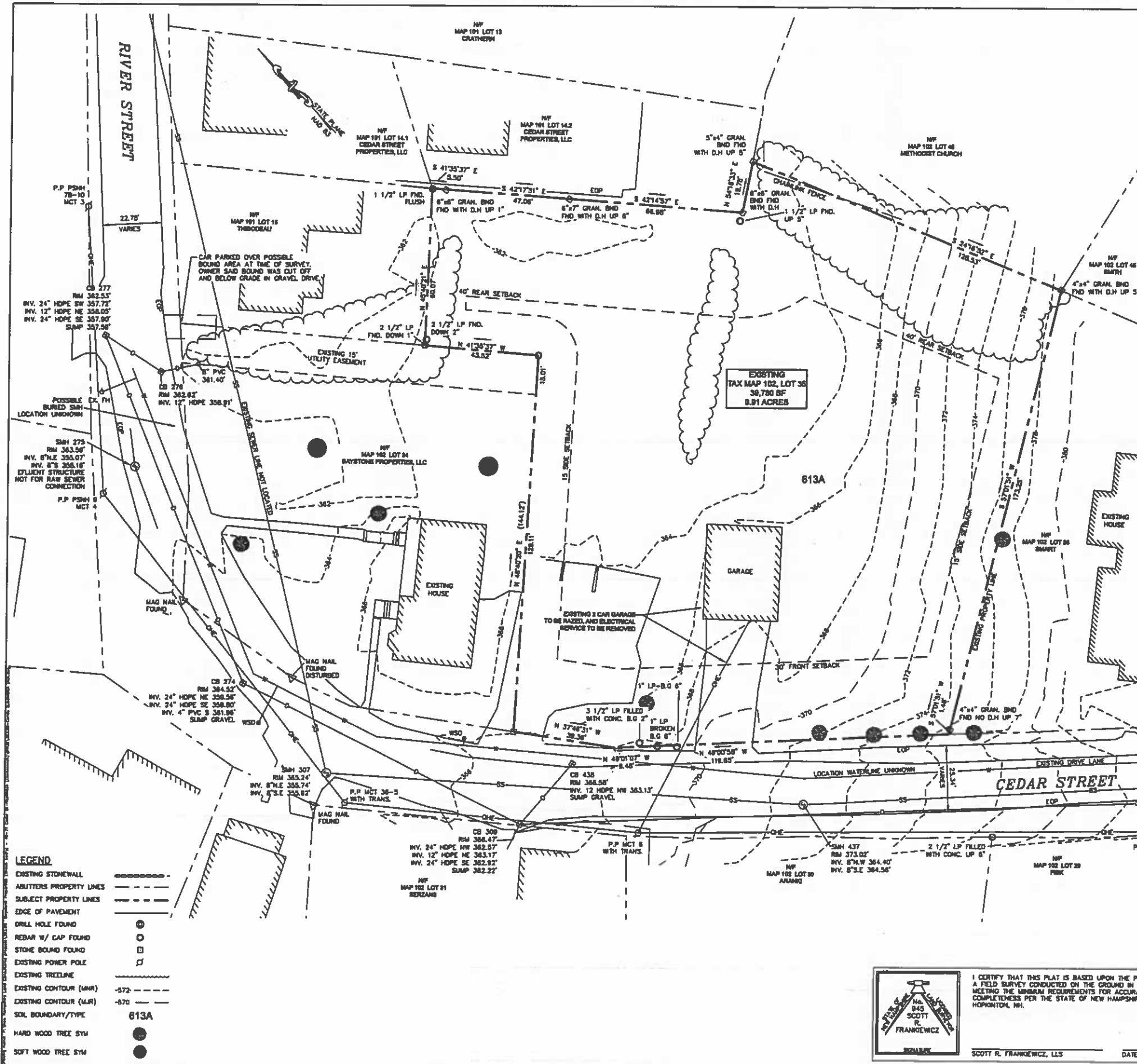
COVER SHEET
TAX MAP 102 LOT 35
CONDOMINIUM SUBDIVISION
71 CEDAR ST. HOPKINTON, (CONTOOCOOK) NH
OWNED BY
BAYSTONE PROPERTIES, LLC
44 NORTH SHORE ROAD, DERRY, NH 03038
LOT 35 - BOOK 3691 PAGE 1784

MERRIMACK CO.
JOB NO: 393.00
DATE: JUNE 21, 2021

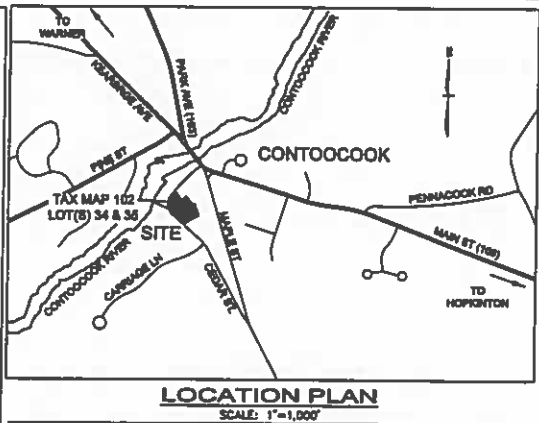
CVR

SHT. 1 of 16

REVISIONS			
NO.	DATE	DESCRIPTION	BY



- ADJUTERS LIST:**
- MAP 101 LOT 13
SCOTT & BRENDA CRATHERN
183 GOULD HILL RD.
CONTOCOCK, NH 03228
BOOK 3888 PAGE 1888
 - MAP 101 LOT 14-1
CEDAR STREET PROPERTIES, LLC
C/O STEVEN TATE
P.O. BOX 1283
GRANTHAM, NH 03228
BOOK 3888 PAGE 717
 - MAP 101 LOT 14-2
CEDAR STREET PROPERTIES, LLC
C/O STEVEN TATE
P.O. BOX 1283
GRANTHAM, NH 03228
BOOK 3888 PAGE 717
 - MAP 101 LOT 15
EARNEST A & MATTHEW S
THIBODEAU
31 CEDAR STREET
CONTOCOCK, NH 03228
BOOK 3888 PAGE 2301
 - MAP 102 LOT 35
DANIEL & JAMIE ARANG
70 CEDAR ST.
CONTOCOCK, NH 03228
BOOK 3818 PAGE 1730
 - MAP 102 LOT 36
ANDRES & FLORENCE BERGANS
80 CEDAR ST.
CONTOCOCK, NH 03228
 - MAP 102 LOT 38
GLEN R & MELISSA SMART
81 CEDAR ST.
CONTOCOCK, NH 03228
 - MAP 102 LOT 40
JOSHUA SMITH
115 N MAIN ST.
BORCHAMEN, NH 03309
BOOK 3491 PAGE 2886
 - MAP 102 LOT 40
UNITED METHODIST CHURCH
P.O. BOX 388
CONTOCOCK, NH 03229
 - MAP 102 LOT 39
DAVID B FRANK
80 CEDAR ST.
CONTOCOCK, NH 03229
BOOK 3818 PAGE 1088



- NOTES:**
- THE PURPOSE OF THIS PLAN IS TO SHOW A CONDOMINIUM SUBDIVISION ON TAX MAP 102 LOT 35.
 - THE PROPERTY IS DESIGNATED AS TAX MAP 102, LOT 35.
 - THE AREA OF THE EXISTING LOT 35 IS 0.91 ACRES (38,780 SF.).
 - THE CURRENT OWNER FOR LOT 35: BAYSTONE PROPERTIES, LLC
44 NORTH SHORE RD, DERRY NH 03038, LOT 35 BK 3891, PAGE 1784
 - THE ZONING DESIGNATION FOR THE PROPERTY IS VR-1 DISTRICT.
 - MINIMUM REQUIREMENTS PROVIDED FOR ZONE VR-1 DISTRICT:
MIN. ROAD FRONTAGE = 80'
MIN. LOT SIZE = 15,000 SF. (0.34 ACRES)
MIN. ROAD SETBACK = 30'
MIN. SIDE SETBACK = 15'
MIN. REAR SETBACK = 40'
MINIMUM STRUCTURE HEIGHT = 10'
SEPTIC SETBACK: (STEEP SLOPES, SOILS, WETLANDS, CONSERVATION)
OVERLAY DISTRICTS: (STEEP SLOPES, SOILS, WETLANDS, CONSERVATION)
 - NO WETLANDS WERE LOCATED ON SITE. THOMAS E. SOKOLOSKI, CERTIFIED WETLAND SCIENTIST VISITED THE SITE DETERMINING THERE WERE NO WETLANDS FOUND ON SITE.
 - THE EXISTING USE OF TAX MAP 102 LOT 35 IS A 2 CAR GARAGE.
 - THE PROPOSED USE OF TAX MAP 102 LOT 35 IS A CONDOMINIUM SUBDIVISION.
 - SEWER TO BE PROVIDED BY MUNICIPAL.
 - WATER TO BE PROVIDED BY MUNICIPAL.
 - THERE IS SUFFICIENT CAPACITY WITH BOTH WATER AND SEWER PER THE TOWN OF HOPKINTON.
 - RIGHT OF WAY WIDTH DETERMINED BY SURVEY, FIELD INVESTIGATION, RECORDED DEEDS AND PLANS OF REFERENCE.
 - ADJUTING PROPERTY INFORMATION PROVIDED BY A COMBINATION OF ON-LINE TAX MAP DATA AND DATA PROVIDED BY grantview.unh.edu.
 - A COMPLETE PLAN SET WILL BE FILED AT THE TOWN OF HOPKINTON.
 - THE FEMA MAP NUMBER FOR THIS SITE IS 3301300002E, EFFECTIVE DATE: APRIL 18, 2010. THE BASE FLOOD ELEVATION IN ZONE AE IS 363.50'. THE ANNUAL CHANCE FLOOD (100 YR FLOOD), ALSO KNOWN AS THE BASE FLOOD, IS THE FLOOD THAT HAS A 1% CHANCE OF BEING EQUALLED OR EXCEEDED IN ANY GIVEN YEAR. A SMALL PORTION OF THE SITE RESIDES IN THIS ZONE. THE REMAINDER OF THE SITE IS WITHIN THE ZONE X (AREAS OF 0.2% ANNUAL CHANCE OF FLOOD WITH DEPTHS LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE).
 - ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL CONFORM TO TOWN OF HOPKINTON SUBDIVISION PLAN REGULATIONS AND THE LATEST EDITION OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
 - IF DURING CONSTRUCTION, IT BECOMES APPARENT THAT DEFICIENCIES EXIST IN THE APPROVED DESIGN DRAWINGS, THE OWNER SHALL BE REQUIRED TO CORRECT DEFICIENCIES TO MEET THE REQUIREMENTS OF THE REGULATIONS AT NO EXPENSE TO THE TOWN.
 - IF DURING CONSTRUCTION, IT BECOMES APPARENT THAT ADDITIONAL EROSION CONTROL MEASURES ARE REQUIRED TO STOP ANY EROSION ON THE CONSTRUCTION SITE DUE TO ACTUAL SITE CONDITIONS, THE OWNER SHALL BE REQUIRED TO INSTALL THE NECESSARY EROSION PROTECTION AT NO EXPENSE TO THE TOWN.
 - ELEVATIONS AND COORDINATES ARE BASED ON STATE PLANE COORDINATES FROM A SOLUTION GENERATED BY NGS OPUS ON APRIL 18, 2021 FROM DATA COLLECTED BY THIS OFFICE ON APRIL 17, 2021. THE OPUS SOLUTION IS BASED ON THE NAD 83 (2011) REF. FRAME AND THE NAVD 83.
 - WREDS SOILS DATA:
613A-CROCHAM LOAMY FINE SAND, 0 TO 6 PERCENT SLOPES, WOODED

- PLAN REFERENCES:**
- M.C.R.D. PLAN #4312, RECORDED APRIL 12, 1978, TITLED: "CONTOCOCK UNITED METHODIST CHURCH, MINOR SUBDIVISION, CONTOCOCK, NH, MERRIMACK COUNTY", SCALE: 1"=20', DATED: APRIL 1978, PREPARED BY: ALLEN LEWIS (287), REGISTERED LAND SURVEYOR, APPROVED BY HOPKINTON PLANNING BOARD ON APRIL 10, 1978.
 - M.C.R.D. PLAN #8073, RECORDED NOV. 30, 1884, TITLED: "SUBDIVISION OF LAND OF REBE W. GEORGE IN CONTOCOCK-HOPKINTON, NH.", DATED: NOV. 18, 1883, SCALE: 1"=20', PREPARED BY: GILBERT C. CASTLE, SURVEYOR, APPROVED BY HOPKINTON PLANNING BOARD ON NOV. 20, 1884.
 - M.C.R.D. PLAN #14322, RECORDED MAY 11, 1988, TITLED: "LAND OF CHARLES S. ROTONDI, NEAR RIVER & CEDAR ST., PARTIAL BOUNDARY SURVEY, HOPKINTON, NH.", SCALE: 1"=20', DATED: MAY 4, 1988, PREPARED BY: HAN ARSDEN & SONS, LAND SURVEYORS, PLANNERS, AND BOUNDARY CONSULTANTS, CONCORD NH.
 - M.C.R.D. PLAN #15748, RECORDED JAN. 23, 2002, TITLED: "ANNE ROTONDI LOT 33, MAP 102, HOPKINTON, NH. PROPERTY SURVEY, SCALE: 1"=20', DATED: 1/23/2002, PREPARED BY: BOW MILLS LAND MANAGEMENT, LAND SURVEYORS, BOW NH, 03304.
 - M.C.R.D. PLAN #15889, RECORDED JULY 18, 2002, TITLED: "ANNE & CHARLES ROTONDI, LOT 34 & 35, MAP 102, CEDAR & RIVER STREETS, HOPKINTON NH, PROPERTY SURVEY", PREPARED BY: BOW MILLS LAND MANAGEMENT, LAND SURVEYORS, PLANNERS & BOUNDARY CONSULTANTS, BOW NH, DATED: 6/21/2002, SCALE: 1"=20'.

REVISIONS		DESCRIPTION	DATE
NO.	DATE	DESCRIPTION	

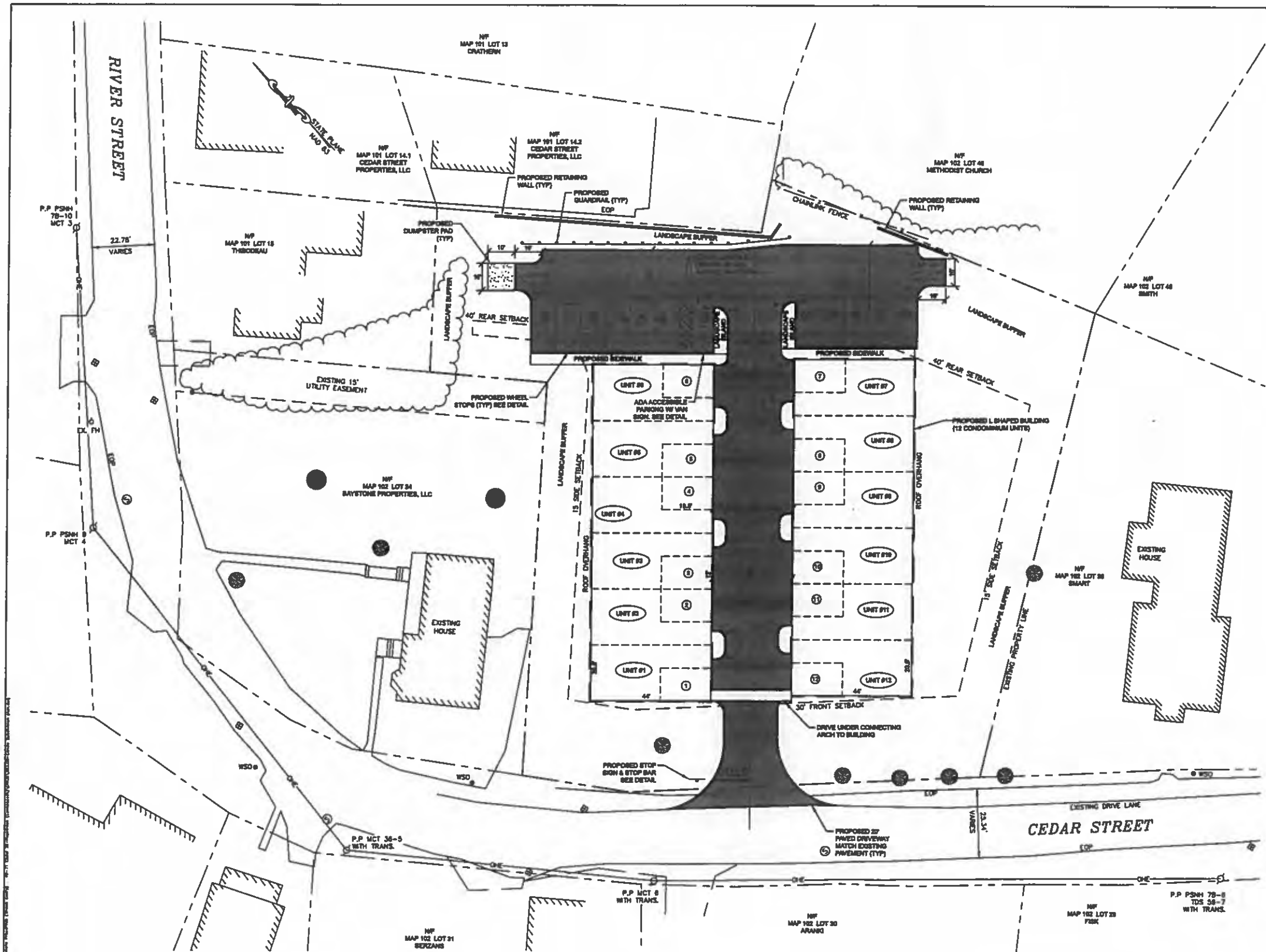


N.H. LAND Consultants
SURVEYING-LAND PLANNING-REAL ESTATE
A Veteran Owned Company

EXISTING CONDITIONS PLAN
TAX MAP 102 LOT 35
CONDOMINIUM SUBDIVISION
71 CEDAR ST. HOPKINTON, (CONTOCOCK) NH
OWNED BY
BAYSTONE PROPERTIES, LLC
44 NORTH SHORE ROAD, DERRY, NH 03038
LOT 35 - BOOK 3891 PAGE 1784

I CERTIFY THAT THIS PLAN IS BASED UPON THE PLAN REFERENCES AND A FIELD SURVEY CONDUCTED ON THE GROUND IN SPRING OF 2021, MEETING THE MINIMUM REQUIREMENTS FOR ACCURACY, 1:10,000 AND COMPLETENESS PER THE STATE OF NEW HAMPSHIRE AND THE TOWN OF HOPKINTON, NH.

SCOTT R. FRANKIEWICZ, LLS
DATE: _____



NOTES:

1. THE PURPOSE OF THIS PLAN IS TO SHOW A CONDOMINIUM SUBDIVISION ON TAX MAP 102 LOT 35.
2. THE PROPERTY IS DESIGNATED AS TAX MAP 102, LOT 35.
3. THE AREA OF THE EXISTING LOT 35 IS 0.91 ACRES (39,780 SF.)
4. THE CURRENT OWNER FOR LOT 35: BAYSTONE PROPERTIES, LLC, 44 NORTH SHORE RD, DERRY NH 03033, LOT 35 BK 3691, PAGE 1784
5. THE ZONING DESIGNATION FOR THE PROPERTY IS VH-1 DISTRICT.
6. DIMENSIONAL REQUIREMENTS PROVIDED FOR ZONE VH-1 DISTRICT:
MIN. ROAD FRONTAGE = 90'
MIN. LOT SIZE = 15,000 SF (0.34 ACRES)
MIN. ROAD SETBACK = 30'
MIN. SIDE SETBACK = 15'
MIN. REAR SETBACK = 40'
MAXIMUM STRUCTURE HEIGHT = 35'
SEPTIC SETBACK = 50'/75' HYDRIC SOILS
OVERLAY DISTRICTS: (STEEP SLOPES, SOILS, WETLANDS, CONSERVATION)
7. NO WETLANDS WERE LOCATED ON SITE. THOMAS E. SOKOLOSKI, CERTIFIED WETLAND SCIENTIST VISITED THE SITE DETERMINING THERE WERE NO WETLANDS FOUND ON SITE.
8. THE EXISTING USE OF TAX MAP 102 LOT 35 IS A 2 CAR GARAGE.
9. THE PROPOSED USE OF TAX MAP 102 LOT 35 IS A CONDOMINIUM SUBDIVISION.
10. SEWER TO BE PROVIDED BY MUNICIPAL.
11. WATER TO BE PROVIDED BY MUNICIPAL.
12. THERE IS SUFFICIENT CAPACITY WITH BOTH WATER AND SEWER PER THE TOWN OF HOPKINTON.
13. RIGHT OF WAY WIDTH DETERMINED BY SURVEY, FIELD INVESTIGATION, RECORDED DEEDS AND PLANS OF REFERENCE.
14. ADJUTING PROPERTY INFORMATION PROVIDED BY A COMBINATION OF ON-LINE TAX MAP DATA AND DATA PROVIDED BY GRANITHEX.UNITED.COM.
15. A COMPLETE PLAN SET WILL BE FILED AT THE TOWN OF HOPKINTON.
16. THE FEMA MAP NUMBER FOR THIS SITE IS 33013C0002E, EFFECTIVE DATE: APRIL 18, 2010. THE BASE FLOOD ELEVATION IN ZONE AE IS 363.502, 1% ANNUAL CHANCE FLOOD (100 YR FLOOD), ALSO KNOWN AS THE SPECIAL FLOOD, IS THE FLOOD THAT HAS A 1% CHANCE OF BEING EQUALLED OR EXCEEDED IN ANY GIVEN YEAR. A SMALL PORTION OF THE SITE RESIDES IN THIS ZONE. THE REMAINDER OF THE SITE IS WITHIN THE ZONE X, (AREAS OF 0.2% ANNUAL CHANCE OF FLOOD WITH DEPTHS LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE).
17. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL CONFORM TO TOWN OF HOPKINTON SUBDIVISION PLAN REGULATIONS AND THE LATEST EDITION OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
18. IF DURING CONSTRUCTION, IT BECOMES APPARENT THAT DEFICIENCIES EXIST IN THE APPROVED DESIGN DRAWINGS, THE OWNER SHALL BE REQUIRED TO CORRECT DEFICIENCIES TO MEET THE REQUIREMENTS OF THE REGULATIONS AT NO EXPENSE TO THE TOWN.
19. IF DURING CONSTRUCTION, IT BECOMES APPARENT THAT ADDITIONAL EROSION CONTROL MEASURES ARE REQUIRED TO STOP ANY EROSION ON THE CONSTRUCTION SITE DUE TO ACTUAL SITE CONDITIONS, THE OWNER SHALL BE REQUIRED TO INSTALL THE NECESSARY EROSION PROTECTION AT NO EXPENSE TO THE TOWN.
20. ELEVATIONS AND COORDINATES ARE BASED ON STATE PLANE COORDINATES FROM A SOLUTION GENERATED BY NGS OPUS ON APRIL 16, 2021 FROM DATA COLLECTED BY THIS OFFICE ON APRIL 17, 2021. THE OPUS SOLUTION IS BASED ON THE NAD 83 (2011) REF. FRAME AND THE NAVD 83.
21. NRCS SOILS DATA: 613A-DROGHDA LOAMY FINE SAND, 0 TO 8 PERCENT SLOPES, WOODED

PLAN REFERENCES:

1. M.C.R.D. PLAN #4312, RECORDED APRIL 12, 1978, TITLED: "CONTOODUCK UNITED METHODIST CHURCH, MINOR SUBDIVISION, CONTOODUCK, NH, MERRIMACK COUNTY", SCALE: 1"=20', DATED: APRIL, 1978, PREPARED BY: ALLEN LEWIS (287), REGISTERED LAND SURVEYOR, APPROVED BY HOPKINTON PLANNING BOARD ON APRIL 10, 1978.
2. M.C.R.D. PLAN #6073, RECORDED NOV. 30, 1984, TITLED: "SUBDIVISION OF LAND OF IRVINE W. GEORGE IN CONTOODUCK-HOPKINTON, NH.", DATED: NOV. 18, 1983, SCALE: 1"=20', PREPARED BY: GILBERT C. CASTLE, SURVEYOR, APPROVED BY HOPKINTON PLANNING BOARD ON NOV. 20, 1984.
3. M.C.R.D. PLAN #14322, RECORDED MAY 11, 1998, TITLED: "LAND OF CHARLES S. ROTONDI, NEAR RIVER & CEDAR ST., PARTIAL BOUNDARY SURVEY, HOPKINTON, NH, SCALE: 1"=20', DATED: MAY 4, 1998, PREPARED BY: H.H. ANDSEN & SONS, LAND SURVEYORS, PLANNERS, AND BOUNDARY CONSULTANTS, CONCORD NH.
4. M.C.R.D. PLAN #19749, RECORDED JAN. 25, 2002, TITLED: "ANNE ROTONDI LOT 32, MAP 102, HOPKINTON, NH, PROPERTY SURVEY, SCALE: 1"=20', DATED: 1/25/2002, PREPARED BY: BOW MILLS LAND MANAGEMENT, LAND SURVEYORS, BOW NH, 03304.
5. M.C.R.D. PLAN #15856, RECORDED JULY 18, 2002, TITLED: "ANNE & CHARLES ROTONDI, LOT 34 & 35, MAP 102, CEDAR & RIVER STREETS, HOPKINTON NH, PROPERTY SURVEY, PREPARED BY: BOW MILLS LAND MANAGEMENT, LAND SURVEYORS, PLANNERS & BOUNDARY CONSULTANTS, BOW NH, DATED: 6/21/2002, SCALE: 1"=20'.

LEGEND	
EXISTING STONEWALL	=====
ADJUTING PROPERTY LINES	-----
SUBJECT PROPERTY LINES	-----
EDGE OF PAVEMENT	-----
EXISTING FENCELINE	-----
EXISTING TREELINE	-----
EXISTING BLDG SETBACK	-----
EXISTING FENCE LINE	-----
DRILL HOLE FOUND	o
REBAR W/ CAP FOUND	o
STONE BOUND FOUND	o
WALL MOUNTED LIGHT FIXTURE CALLOUT	W1, W
PROPOSED CATCH BASIN	o
PROPOSED SEWER MANHOLE	o
PROPOSED SIGN	o

PLANNING BOARD APPROVAL:
HOPKINTON NH PLANNING BOARD

CHAIRMAN _____ DATE _____

REVISIONS

NO.	DATE	DESCRIPTION	BY

GRAPHIC SCALE

10 20 30

SCALE: 1"=20'

N.H. LAND Consultants
SURVEYING-LAND PLANNING-REAL ESTATE
A Vetrion Owned Company

SITE LAYOUT PLAN
TAX MAP 102 LOT 35
CONDOMINIUM SUBDIVISION
71 CEDAR ST. HOPKINTON, (CONTOODUCK) NH
OWNED BY
BAYSTONE PROPERTIES, LLC
44 NORTH SHORE ROAD, DERRY, NH 03039
LOT 35 - BOOK 3691 PAGE 1784

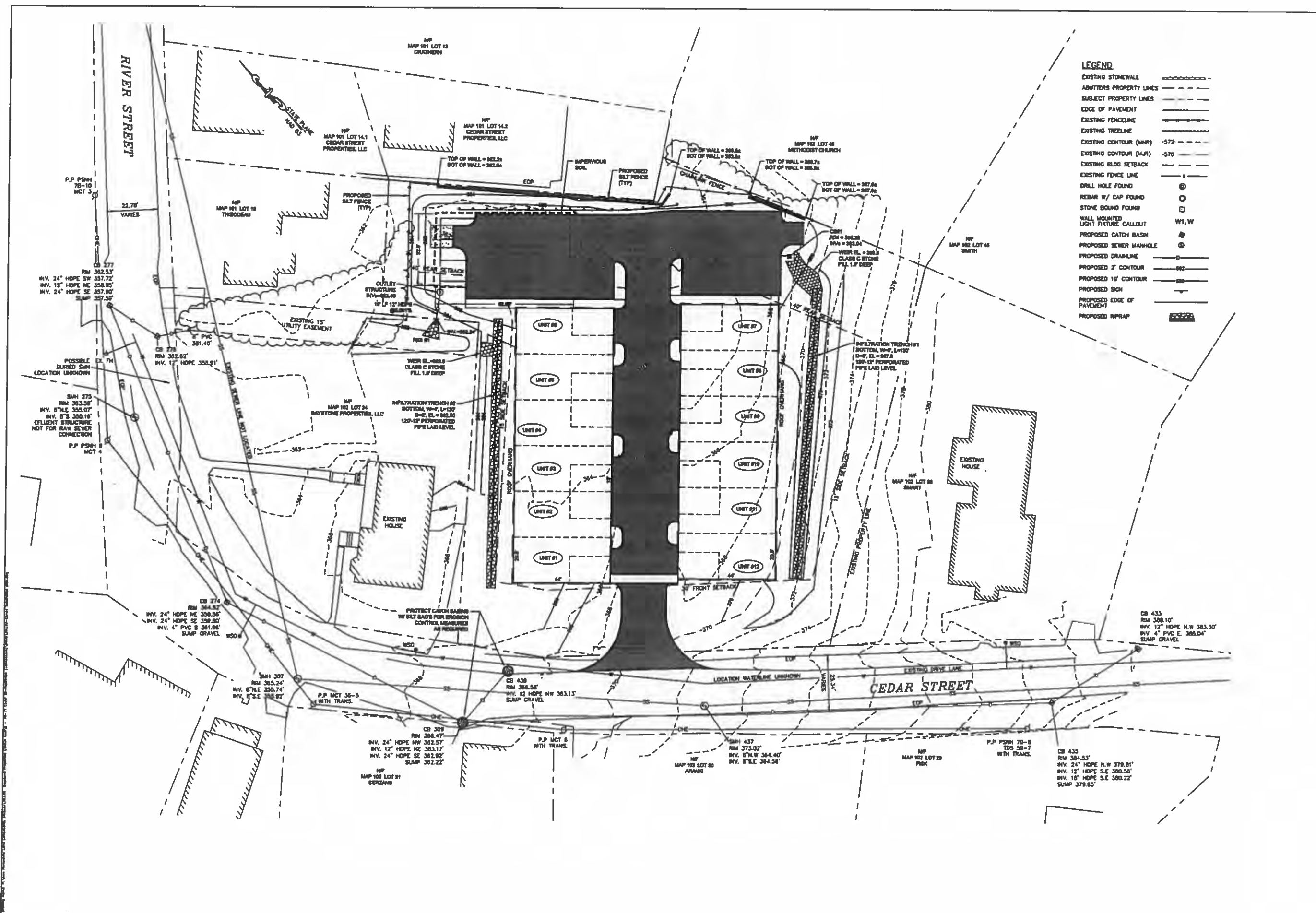
MERRIMACK CO.

JOB NO: 393.00

DATE: JUNE 21, 2021

PSP

SHT. 3 of 18



LEGEND

EXISTING STONEWALL	-----
ADJUTERS PROPERTY LINES	-----
SUBJECT PROPERTY LINES	-----
EDGE OF PAVEMENT	-----
EXISTING FENCELINE	-----
EXISTING TREELINE	-----
EXISTING CONTOUR (MNR)	-572-
EXISTING CONTOUR (MNR)	-570-
EXISTING BLDG SETBACK	-----
EXISTING FENCE LINE	-----
DRILL HOLE FOUND	⊙
REBAR W/ CAP FOUND	⊙
STONE BOUND FOUND	⊙
WALL MOUNTED LIGHT FIXTURE CALLOUT	W1, W
PROPOSED CATCH BASIN	⊙
PROPOSED SEWER MANHOLE	⊙
PROPOSED DRAINAGE	-----
PROPOSED 2' CONTOUR	-----
PROPOSED 10' CONTOUR	-----
PROPOSED SIGN	-----
PROPOSED EDGE OF PAVEMENT	-----
PROPOSED RIPRAP	-----

REVISIONS

NO.	DATE	DESCRIPTION	BY

GRAPHIC SCALE

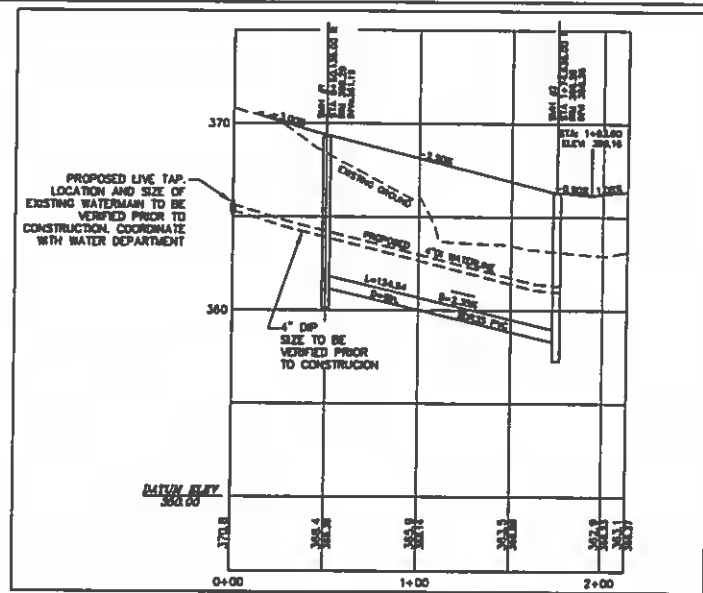
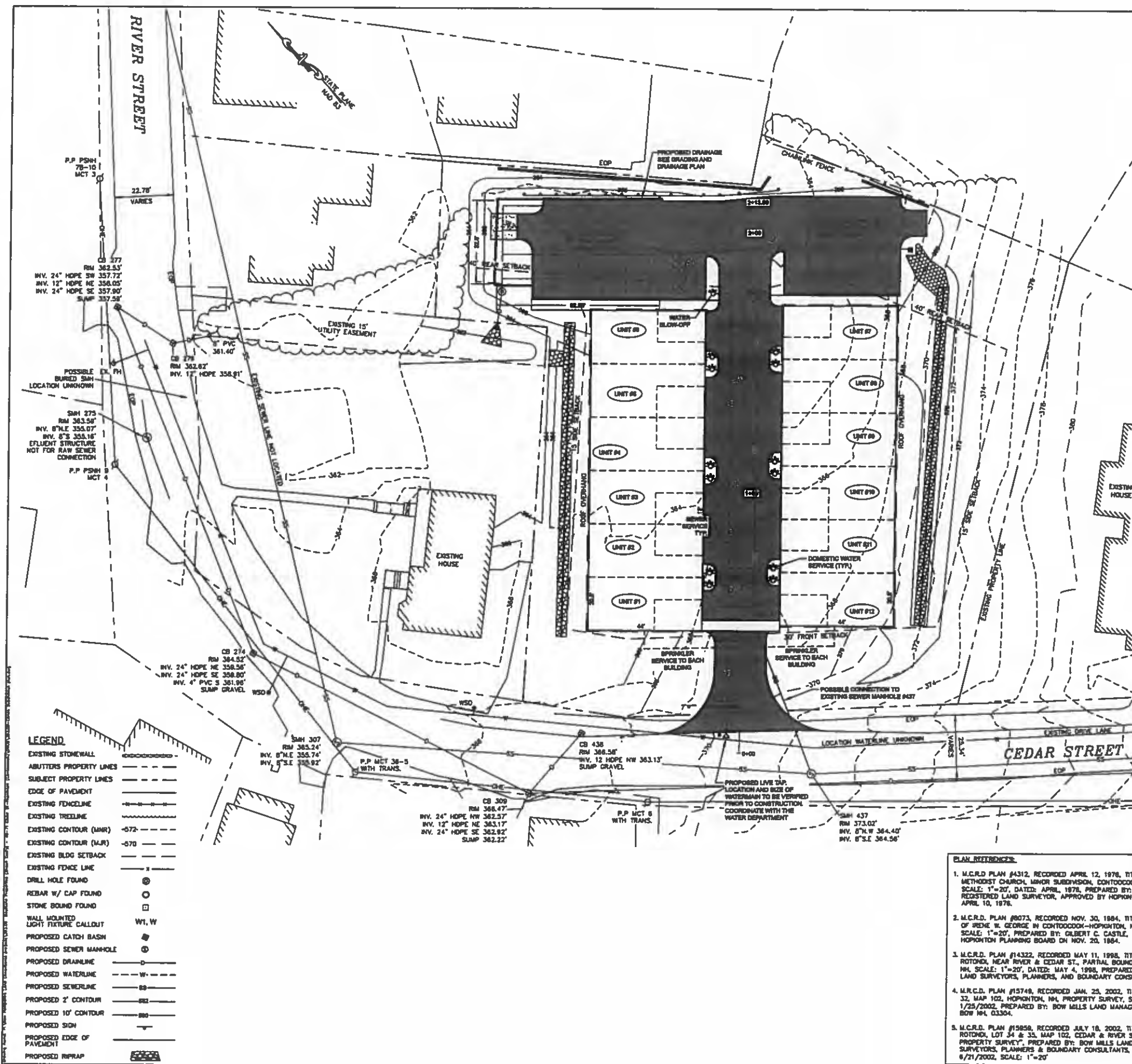
10 20 30

SCALE: 1"=20'

N.H. LAND Consultants
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A Veteran Owned Company

GRADING, DRAINAGE & EROSION CONTROL PLAN
TAX MAP 102 LOT 35
CONDOMINIUM SUBDIVISION
71 CEDAR ST. HOPKINTON, (CONTOODUCK) NH
OWNED BY
BAYSTONE PROPERTIES, LLC
44 NORTH SHORE ROAD, DERRY, NH 03038
LOT 35 - BOOK 3691 PAGE 1784

MERRIMACK CO.
JOB NO. 393.00
DATE: JUNE 21, 2021
PGP
SHT. 5 of 15



DRIVEWAY, WATER & SEWER PROFILE

REVISIONS		
NO.	DATE	DESCRIPTION



LEGEND	
EXISTING STONE WALL	-----
ADJUTERS PROPERTY LINES	-----
SUBJECT PROPERTY LINES	-----
EDGE OF PAVEMENT	-----
EXISTING FENCE LINE	-----
EXISTING TREELINE	-----
EXISTING CONTOUR (MNR)	-572-
EXISTING CONTOUR (MNR)	-570-
EXISTING BLDG SETBACK	-----
EXISTING FENCE LINE	-----
DRILL HOLE FOUND	○
REBAR W/ CAP FOUND	⊙
STONE BOUND FOUND	□
WALL MOUNTED LIGHT FIXTURE CALLOUT	W1, W
PROPOSED CATCH BASIN	⊙
PROPOSED SEWER MANHOLE	⊙
PROPOSED DRAINAGE	-----
PROPOSED WATERLINE	-----
PROPOSED SEWERLINE	-----
PROPOSED 2' CONTOUR	-----
PROPOSED 10' CONTOUR	-----
PROPOSED SIGN	-----
PROPOSED EDGE OF PAVEMENT	-----
PROPOSED RIPRAP	-----

PLAN REFERENCES:

1. M.C.R.D. PLAN #4312, RECORDED APRIL 12, 1978, TITLED: "CONTOODUCK UNITED METHODIST CHURCH, MINOR SUBDIVISION, CONTOODUCK, NH, MERRIMACK COUNTY", SCALE: 1"=20', DATED: APRIL, 1978, PREPARED BY: ALLEN LEWIS (287), REGISTERED LAND SURVEYOR, APPROVED BY HOPKINTON PLANNING BOARD ON APRIL 10, 1978.
2. M.C.R.D. PLAN #8073, RECORDED NOV. 30, 1884, TITLED: "SUBDIVISION OF LAND OF REBEK H. GEORGE IN CONTOODUCK-HOPKINTON, NH.", DATED: NOV. 18, 1883, SCALE: 1"=20', PREPARED BY: OLBERT C. CASTLE, SURVEYOR, APPROVED BY HOPKINTON PLANNING BOARD ON NOV. 20, 1884.
3. M.C.R.D. PLAN #14322, RECORDED MAY 11, 1998, TITLED: "LAND OF CHARLES S. ROTONDI, NEAR RIVER & CEDAR ST., PARTIAL BOUNDARY SURVEY, HOPKINTON, NH, SCALE: 1"=20', DATED: MAY 4, 1998, PREPARED BY: H.M. ANDSEN & SONS, LAND SURVEYORS, PLANNERS, AND BOUNDARY CONSULTANTS, CONCORD NH.
4. M.C.R.D. PLAN #15749, RECORDED JAN. 23, 2002, TITLED: "ANNE ROTONDI LOT 32, MAP 102, HOPKINTON, NH, PROPERTY SURVEY, SCALE: 1"=20', DATED: 1/25/2002, PREPARED BY: BOW MILLS LAND MANAGEMENT, LAND SURVEYORS, BOW NH, 03304.
5. M.C.R.D. PLAN #15859, RECORDED JULY 18, 2002, TITLED: "ANNE & CHARLES ROTONDI, LOT 34 & 35, MAP 102, CEDAR & RIVER STREETS, HOPKINTON NH, PROPERTY SURVEY", PREPARED BY: BOW MILLS LAND MANAGEMENT, LAND SURVEYORS, PLANNERS & BOUNDARY CONSULTANTS, BOW NH, DATED: 6/21/2002, SCALE: 1"=20'

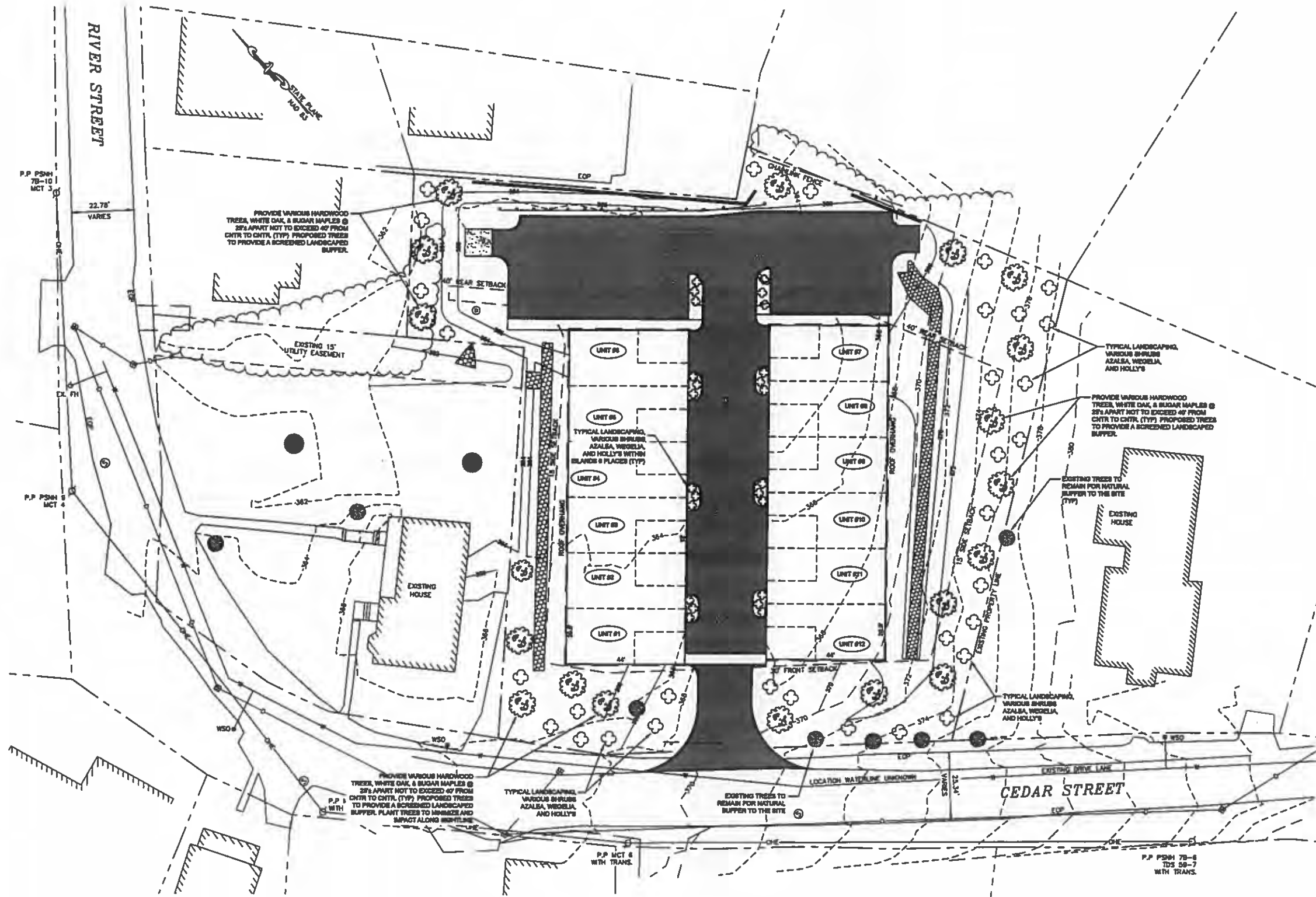
NOTES:

1. THE PURPOSE OF THIS PLAN IS TO SHOW A CONDOMINIUM SUBDIVISION ON TAX MAP 102 LOT 35.
2. THE PROPERTY IS DESIGNATED AS TAX MAP 102, LOT 35.
3. THE AREA OF THE EXISTING LOT 35 IS 0.81 ACRES (38,780 SF.).
4. THE CURRENT OWNER FOR LOT 35: BAYSTONE PROPERTIES, LLC 44 NORTH SHORE RD, DERRY NH 03038, LOT 35 BK 3691, PAGE 1784
5. THE ZONING DESIGNATION FOR THE PROPERTY IS VR-1 DISTRICT.
6. DIMENSIONAL REQUIREMENTS PROVIDED FOR ZONE VR-1 DISTRICT:
MIN. ROAD FRONTAGE = 80'
MIN. LOT SIZE = 15,000 SF (0.34 ACRES)
MIN. ROAD SETBACK = 30'
MIN. SIDE SETBACK = 15'
MIN. REAR SETBACK = 40'
MAXIMUM STRUCTURE HEIGHT = 35'
SEPTIC SETBACK = 50'/75' HYDRIC SOILS
OVERLAY DISTRICTS: (STEEP SLOPES, SOILS, WETLANDS, CONSERVATION)
7. NO WETLANDS WERE LOCATED ON SITE. THOMAS E. SOKOLOSKI, CERTIFIED WETLAND SCIENTIST VISITED THE SITE DETERMINING THERE WERE NO WETLANDS FOUND ON SITE.
8. THE EXISTING USE OF TM 102 LOT 35 IS A 2 CAR GARAGE.
9. THE PROPOSED USE OF TM 102 LOT 35 IS A CONDOMINIUM SUBDIVISION.
10. SEWER TO BE PROVIDED BY MUNICIPAL.
11. WATER TO BE PROVIDED BY MUNICIPAL.
12. THERE IS SUFFICIENT CAPACITY WITH BOTH WATER AND SEWER PER THE TOWN OF HOPKINTON.
13. RIGHT OF WAY WIDTH DETERMINED BY SURVEY, FIELD INVESTIGATION, RECORDED DEEDS AND PLANS OF REFERENCE.
14. ADJUTING PROPERTY INFORMATION PROVIDED BY A COMBINATION OF ON-LINE TAX MAP DATA AND DATA PROVIDED BY grm.mer-nh.com.
15. A COMPLETE PLAN SET WILL BE FILED AT THE TOWN OF HOPKINTON.
16. THE FEMA MAP NUMBER FOR THIS SITE IS 3301000502E, EFFECTIVE DATE: APRIL 18, 2010. THE BASE FLOOD ELEVATION IN ZONE AE IS 363.504, 1% ANNUAL CHANCE FLOOD (100 YR FLOOD), ALSO KNOWN AS THE BASE FLOOD, IS THE FLOOD THAT HAS A 1% CHANCE OF BEING EQUALLED OR EXCEEDED IN ANY GIVEN YEAR. A SMALL PORTION OF THE SITE RESIDES IN THIS ZONE. THE REMAINDER OF THE SITE IS WITHIN THE ZONE X, (AREAS OF 0.2% ANNUAL CHANCE OF FLOOD WITH DEPTHS LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE).
17. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL CONFORM TO TOWN OF HOPKINTON SUBDIVISION PLAN REGULATIONS AND THE LATEST EDITION OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
18. IF DURING CONSTRUCTION, IT BECOMES APPARENT THAT DEFICIENCIES EXIST IN THE APPROVED DESIGN DRAWINGS, THE OWNER SHALL BE REQUIRED TO CORRECT DEFICIENCIES TO MEET THE REQUIREMENTS OF THE REGULATIONS AT NO EXPENSE TO THE TOWN.
19. IF DURING CONSTRUCTION, IT BECOMES APPARENT THAT ADDITIONAL EROSION CONTROL MEASURES ARE REQUIRED TO STOP ANY EROSION ON THE CONSTRUCTION SITE DUE TO ACTUAL SITE CONDITIONS, THE OWNER SHALL BE REQUIRED TO INSTALL THE NECESSARY EROSION PROTECTION AT NO EXPENSE TO THE TOWN.
20. ELEVATIONS AND COORDINATES ARE BASED ON STATE PLANE COORDINATES FROM A SOLUTION GENERATED BY NGS OPUS ON APRIL 18, 2021 FROM DATA COLLECTED BY THIS OFFICE ON APRIL 17, 2021. THE OPUS SOLUTION IS BASED ON THE NAD 83 (2011) REF. FRAME AND THE NAD 83.
21. NRCS SOILS DATA: 613A-CROGHAN LOAMY FINE SAND, 0 TO 8 PERCENT SLOPES, WOODED

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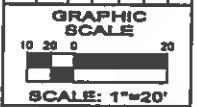
UTILITY PLAN
TAX MAP 102 LOT 35
CONDOMINIUM SUBDIVISION

OWNED BY
BAYSTONE PROPERTIES, LLC
44 NORTH SHORE ROAD, DERRY, NH 03038
LOT 35 - BOOK 3691 PAGE 1784



LEGEND		
EXISTING STONEWALL	-----	
ADJUTERS PROPERTY LINES	-----	
SUBJECT PROPERTY LINES	-----	
EDGE OF PAVEMENT	-----	
EXISTING FENCELINE	-----	
EXISTING TREELINE	-----	
EXISTING CONTOUR (MNR)	-572-	
EXISTING CONTOUR (MNR)	-570-	
EXISTING BLDG SETBACK	-----	
EXISTING FENCE LINE	-----	
DRILL HOLE FOUND	○	
REBAR W/ CAP FOUND	□	
STONE BOUND FOUND	□	
WALL MOUNTED LIGHT FIXTURE CALLOUT	W1, W	
PROPOSED CATCH BASIN	○	
PROPOSED SEWER MANHOLE	○	
PROPOSED 2' CONTOUR	-572-	
PROPOSED 10' CONTOUR	-570-	
PROPOSED SIGN	-----	
PROPOSED EDGE OF PAVEMENT	-----	
PROPOSED RIPRAP	-----	
PROPOSED LANDSCAPING VARIOUS SHRUBS	○	
PROPOSED LANDSCAPING TREES	○	

REVISIONS		
NO.	DATE	DESCRIPTION



N.H. LAND Consultants
SURVEYING-LAND PLANNING-REAL ESTATE
A Vetrion Owned Company

LANDSCAPE PLAN
TAX MAP 102 LOT 35
CONDOMINIUM SUBDIVISION
71 CEDAR ST. HOPKINTON, (CONTOOCOOK) NH
OWNED BY
BAYSTONE PROPERTIES, LLC
44 NORTH SHORE ROAD, DERRY, NH 03035
LOT 35 - BOOK 3681 PAGE 1784

MERRIMACK CO.
JOB NO: 393.00
DATE: JUNE 21, 2021

PLSC
SHT. 7 of 16

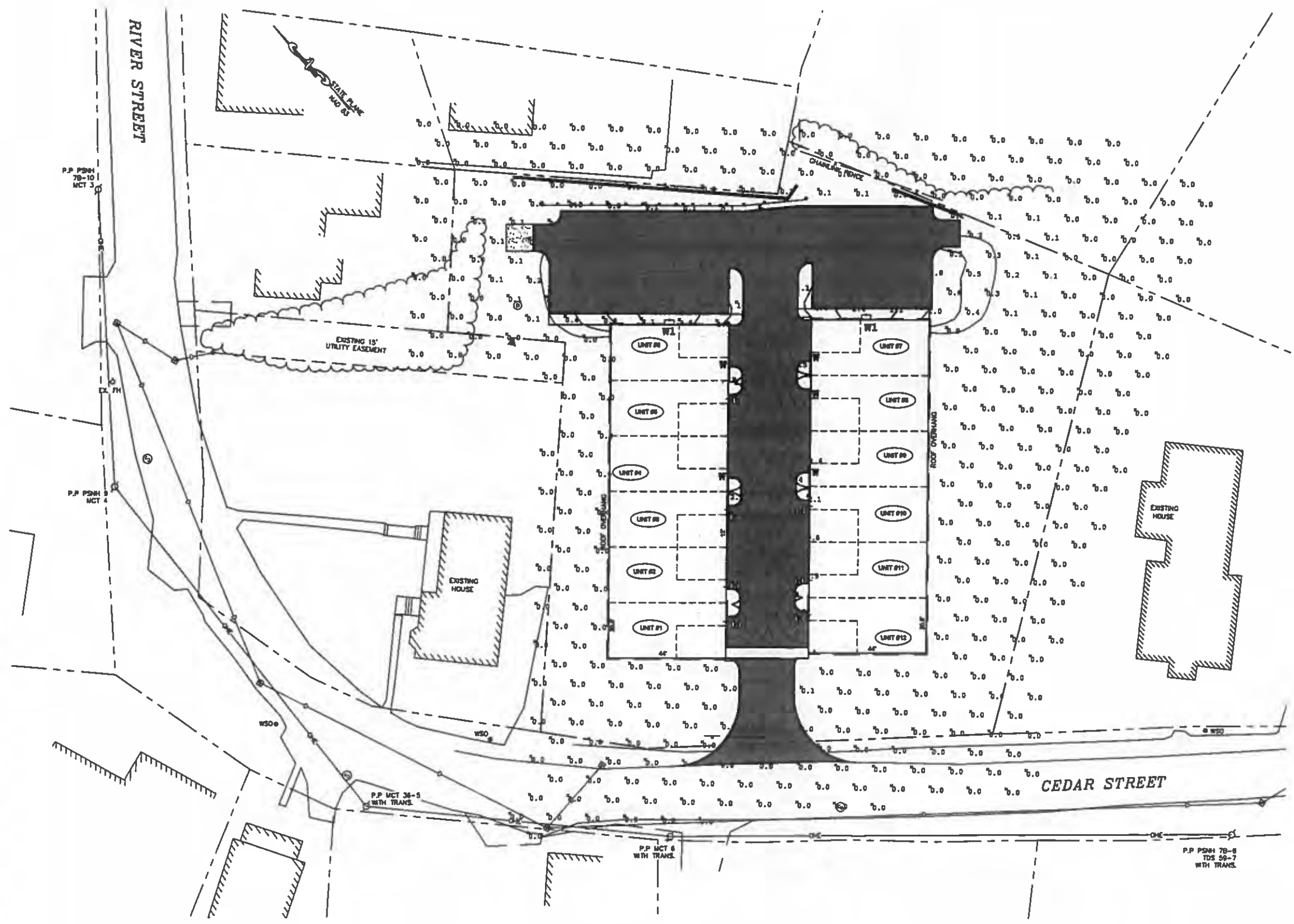
PLANNING BOARD APPROVAL:
HOPKINTON NH PLANNING BOARD

CHAIRMAN _____ DATE _____

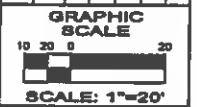
MAINTENANCE
ALL LANDSCAPE SHALL RECEIVE REGULAR MAINTENANCE AND UPKEEP. SEVERELY INJURED, DISEASED, OR DEAD PLANT MATERIALS MUST BE REPLACED IN KIND IN PERPETUITY (AVOID REPLACING LANDSCAPE MATERIALS IN THE PERIOD FROM NOVEMBER TO MARCH). BEST MANAGEMENT PRACTICES TO MINIMIZE ENVIRONMENTAL IMPACTS, INCLUDING THE USE OF LOW PHOSPHORUS FERTILIZER AND SLOW RELEASE NITROGEN, IF THE OWNERSHIP OF THE SITE IS CONVEYED TO A NEW PROPERTY OWNER, THE NEW OWNER SHALL BE RESPONSIBLE FOR MAINTAINING ALL LANDSCAPING WITH THE APPROVED FINAL LANDSCAPING PLAN.

PLANT LIST
PROPOSED LANDSCAPING VARIOUS SHRUBS
(AZALEAS) NH NATIVE DECIDUOUS (HEDERA) DENSE DECIDUOUS SHRUB (HOLLY) VARIOUS SPECIES OF HOLLY
PROPOSED LANDSCAPING HARDWOOD TREES
(SUGAR MAPLES) (WHITE OAK) (BOTH WHITE OAK & SUGAR MAPLES ARE NH NATIVE TREES)

Luminaire Schedule				
Symbol	Qty	Label	Arrangement	Description
⊙	12	W	SINGLE	66411/ WALL MTD 10' AFG
⊞	2	W1	SINGLE	ISS-SALB-740-U-SL3/ WALL MTD 15' AFG

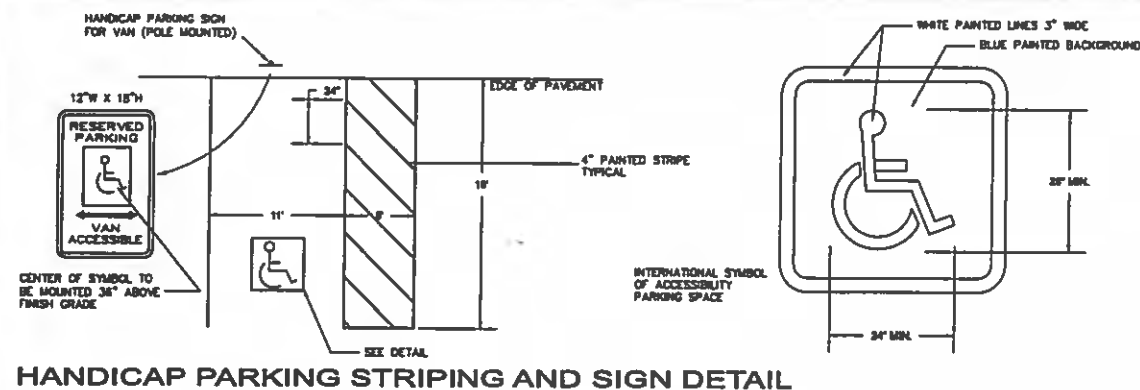


REVISIONS			
NO.	DATE	DESCRIPTION	BY



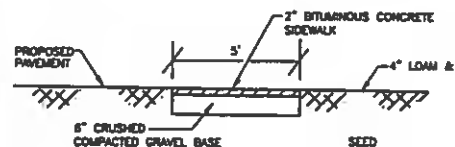
N.H. LAND Consultants
SURVEYING • LAND PLANNING • REAL ESTATE
A Veteran Owned Company

LIGHTING PLAN
TAX MAP 102 LOT 35
CONDOMINIUM SUBDIVISION
71 CEDAR ST. HOPKINTON, (CONTOOCOOK) NH
OWNED BY
BAYSTONE PROPERTIES, LLC
44 NORTH SHORE ROAD, DERRY, NH 03035
LOT 35 - BOOK 3691 PAGE 1784



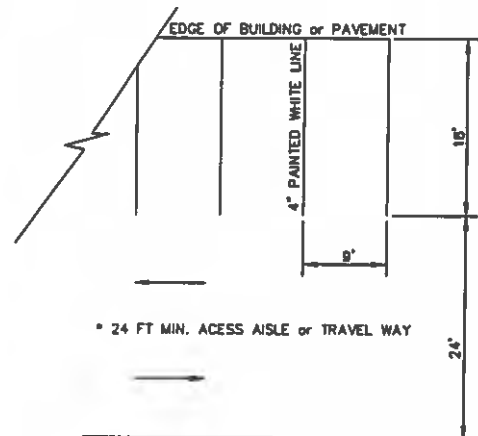
HANDICAP PARKING STRIPING AND SIGN DETAIL

NOT TO SCALE



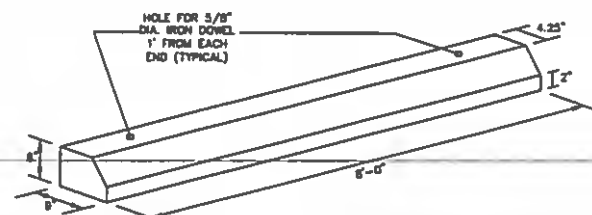
BITUMINOUS CONCRETE SIDEWALK DETAIL

NOT TO SCALE



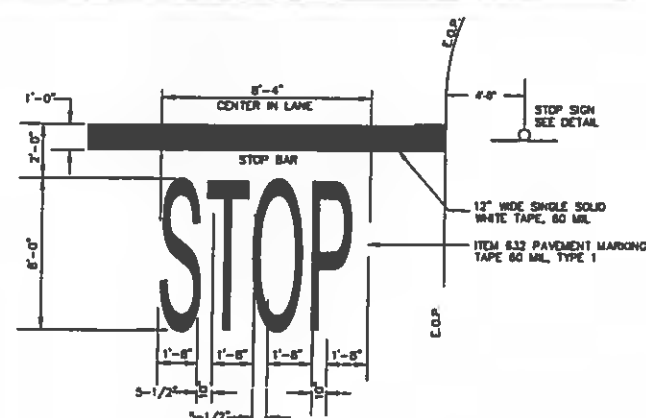
90° PARKING SPACE DETAIL

NOT TO SCALE



CONCRETE PARKING CURB STOP DETAIL

NOT TO SCALE

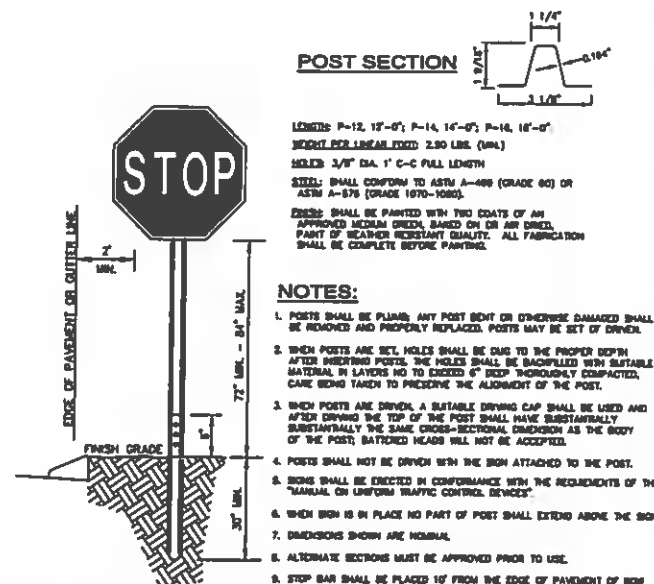


STOP BAR DETAIL

NOT TO SCALE

SIGN SUMMARY		
QUANTITY	DESCRIPTION	SIZE/REMARKS
R7-BP (1 EA)	VAN ACCESSIBLE R7-BP	NEW SIGN WITH POST
R7-B (1 EA)	RESERVED PARKING R7-B	NEW SIGN WITH POST

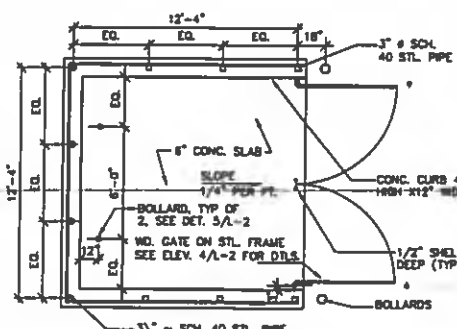
TRAFFIC SIGN POST IN GRADE



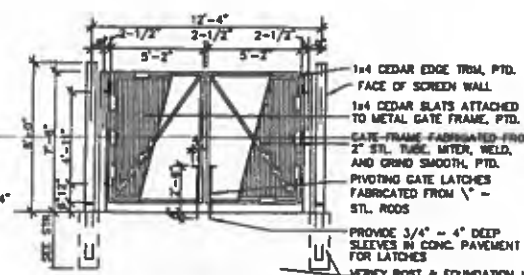
NOT TO SCALE

NOTES:

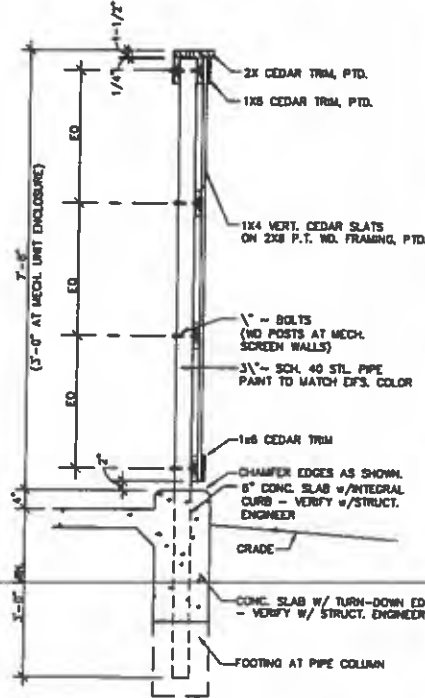
1. POSTS SHALL BE PLUMB. ANY POST BENT OR OTHERWISE DAMAGED SHALL BE REMOVED AND PROPERLY REPLACED. POSTS MAY BE SET OF DRIVEN.
2. WHEN POSTS ARE SET, HOLES SHALL BE DUG TO THE PROPER DEPTH. AFTER INSERTING POSTS, THE HOLES SHALL BE BACKFILLED WITH SUFFICIENT MATERIAL IN LAYERS NO TO EXCEED 6\"/>



PLAN VIEW



ELEVATION VIEW



SECTION OF TRASH ENCLOSURE WALL

NOT TO SCALE

REVISIONS		BY
NO.	DATE	DESCRIPTION

SCALE AS SHOWN

N.H. LAND Consultants
SURVEYING-LAND PLANNING-REAL ESTATE
A Veteran Owned Company

SITE DETAILS
TAX MAP 102 LOT 35
CONDOMINIUM SUBDIVISION
71 CEDAR ST. HOPKINTON, (CONTOOCOOK) NH
OWNED BY
BAYSTONE PROPERTIES, LLC
44 NORTH SHORE ROAD, DERRY, NH 03038
LOT 35 - BOOK 3691 PAGE 178-4

MERRIMACK CO.
JOB NO: 399.00
DATE: JUNE 21, 2021

DET-1
SHT. 9 of 18

MANHOLE TESTING PER NHDES ENR-WO 704.12

- (1) THE MANHOLE VACUUM TEST SHALL BE IN ACCORDANCE WITH ASTM C1244 AND CONFORM TO THE FOLLOWING:
 - (A) THE INITIAL VACUUM GAUGE TEST PRESSURE SHALL BE 10 INCHES HG. AND
 - (B) THE MINIMUM ACCEPTABLE TEST HOLD TIME FOR A 1-INCH HG PRESSURE DROP TO 9 INCHES HG SHALL BE:
 - A. NOT LESS THAN 2 MINUTES FOR MANHOLES LESS THAN 10 FEET DEEP IN DEPTH;
 - B. NOT LESS THAN 2.5 MINUTES FOR MANHOLES 10 TO 15 FEET DEEP; AND
 - C. NOT LESS THAN 3 MINUTES FOR MANHOLES MORE THAN 15 FEET DEEP.
- (2) THE MANHOLE SHALL BE REPAIRED AND RETESTED IF THE TEST HOLD TIMES FAIL TO ACHIEVE THE ACCEPTANCE LIMITS SPECIFIED ABOVE.
- (3) FOLLOWING COMPLETION OF THE LEAKAGE TEST, THE FRAME AND COVER SHALL BE PLACED ON THE TOP OF THE MANHOLE OR SOME OTHER MEANS USED TO PREVENT ACCIDENTAL ENTRY BY UNAUTHORIZED PERSONS, CHILDREN, OR ANIMALS, UNTIL THE CONTRACTOR IS READY TO MAKE FINAL ADJUSTMENT TO GRADE.

MINIMUM SIZE PIPE FOR HOUSE SERVICE SHALL BE SIX INCHES.

PIPE AND JOINT MATERIALS

A. PLASTIC PIPE

1. PVC SEWER PIPE AND FITTINGS SHALL CONFORM TO ASTM D2412 (SDR 35 MINIMUM). METHODS OF SHIPPING AND STORAGE ON SITE SHALL BE SUCH AS TO AVOID INJURY TO THE PIPE. DAMAGED PIPE SHALL BE REJECTED AND REMOVED FROM THE JOB SITE.
2. ALL FITTINGS SHALL BE INJECTION MOLDED FITTINGS. FABRICATED FITTINGS ARE NOT ALLOWED EXCEPT AS PERMITTED BY THE TOWN ENGINEER.
3. JOINTS FOR PVC PIPE SHALL BE OIL RESISTANT COMPRESSION RINGS OF ELASTOMER CONFORMING TO ASTM D3312. MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION SHALL BE FOLLOWED. SOLVENT CEMENT JOINTS SHALL NOT BE PERMITTED.
4. DUCTILE IRON PIPE

DUCTILE IRON PIPE SHALL CONFORM TO ANWA C151/A21.50 & A21.51. PIPE SHALL HAVE EITHER THE RUBBER-RING TYPE, PUSH-ON JOINT, OR STANDARD MECHANICAL JOINT.

5. FORCE MAIN

HOPE FORCE MAIN SEWER PIPE SHALL CONFORM WITH ASTM D3035. PVC FORCE MAIN PIPE SHALL CONFORM WITH ASTM D2241 OR ASTM D1785. FORCE MAIN CLEANOUT VALVES AND FITTINGS SHALL BE INSTALLED IN MANHOLES MEETING THE REQUIREMENTS OF ENR-WO 704.12 TO 704.17.

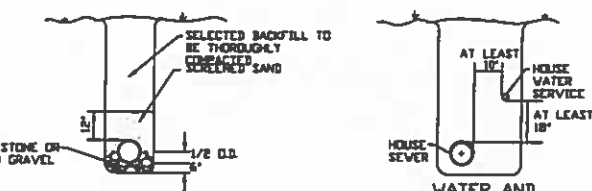
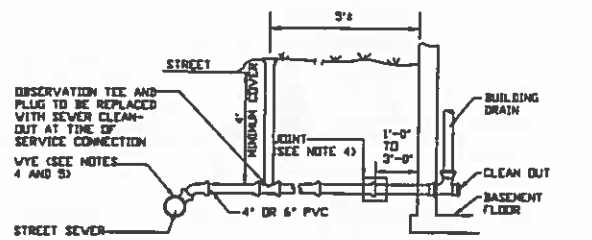
GRAVITY SEWER PIPE TESTING PER ENR-WO 704.08

- (1) ALL NEW GRAVITY SEWERS SHALL BE TESTED FOR WATER TIGHTNESS BY THE USE OF LOW-PRESSURE AIR TESTS.
- (2) LOW-PRESSURE AIR TESTING SHALL BE IN CONFORMANCE WITH:
 - A. ASTM F1417 "STANDARD TEST METHOD FOR INSTALLATION ACCEPTANCE OF PLASTIC GRAVITY SEWER LINES USING LOW-PRESSURE AIR"; OR
 - B. UN-BELL PVC PIPE ASSOCIATION UNI-B-8, "LOW-PRESSURE AIR TESTING OF INSTALLED SEWER PIPE"
- (3) ALL NEW GRAVITY SEWERS SHALL BE CLEANED AND VISUALLY INSPECTED USING A LAMP TEST AND BY INTRODUCING WATER TO DETERMINE THAT THERE IS NO STANDING WATER IN THE SEWER; AND TRUE TO LINE AND GRADE FOLLOWING INSTALLATION AND PRIOR USE.
- (4) ALL PLASTIC SEWER PIPE SHALL VISUALLY INSPECTED AND DEFLECTION TESTED NOT LESS THAN 30 DAYS NOR MORE THAN 90 DAYS FOLLOWING THE INSTALLATION.
- (5) THE MAXIMUM ALLOWABLE DEFLECTION OF FLEXIBLE SEWER PIPE SHALL BE 5 PERCENT OF AVERAGE INSIDE DIAMETER. A RIGID BALL OR MANHOLE WITH A DIAMETER OF AT LEAST 95% OF THE AVERAGE INSIDE PIPE DIAMETER SHALL BE USED FOR TESTING PIPE DEFLECTION. THE DEFLECTION TEST SHALL BE CONDUCTED WITHOUT MECHANICAL PULLING DEVICES.

FORCE MAIN

FORCE MAINS SHALL BE TESTED IN ACCORDANCE WITH SECTION 5 OF ANWA C800 "INSTALLATION OF CAST IRON WATER MAINS AND THEIR APPURTENANCES", STANDARD IN EFFECT WHEN THE TEST IS CONDUCTED, AT A PRESSURE EQUAL TO THE GREATER OF 100 PERCENT OF THE DESIGN OPERATING TOTAL DYNAMIC HEAD OR AT LEAST 100 PSI.

REFERENCE: "STANDARDS OF DESIGN AND CONSTRUCTION FOR SEWERAGE AND WASTE WATER TREATMENT FACILITIES", DEPT OF ENVIRONMENTAL SERVICES, DWMG-700



TRENCH CROSS-SECTION
WATER AND SEWER IN SAME TRENCH
NOT TO SCALE

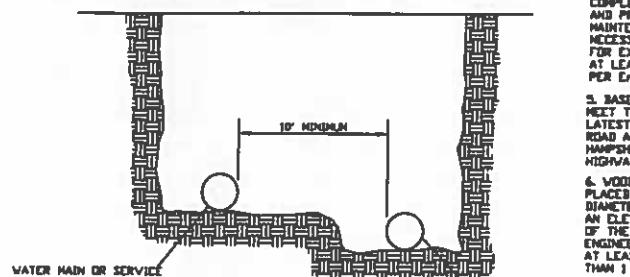
SEWER TRENCH NOTES:

1. ORDERED EXCAVATION OF UNSUITABLE MATERIAL BELOW GRADE, RE-FILL WITH BEDDING MATERIAL. SEE ALSO NOTE 7.

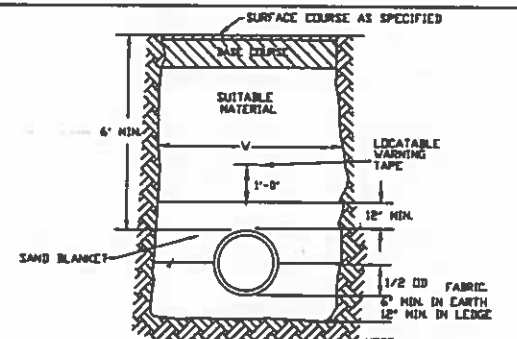
BEDDING PER ENR-WO 704.12(a) SAND FILL FREE FROM CLAY, LOAM, ORGANIC MATTER AND HEETING ASTM C33-02 STONE SIZE NO. 67.

100% PASSING 3/4" INCH SCREEN	1 INCH SCREEN
80-100% PASSING 3/8" INCH SCREEN	3/4" INCH SCREEN
50-80% PASSING 3/8" INCH SCREEN	3/8" INCH SCREEN
20-50% PASSING 3/8" INCH SCREEN	3/4" INCH SCREEN
10-20% PASSING 3/8" INCH SCREEN	3/8" INCH SCREEN
5-10% PASSING 3/8" INCH SCREEN	3/4" INCH SCREEN
FINENESS MODULUS	2.0-3.1
2. SAND BLANKET: ENR-WO 704.12(b) SAND SHALL CONSIST OF INERT NATURAL SAND CONFORMING TO THE ASTM STANDARD SPECIFICATIONS FOR CONCRETE (OTHER) AGGREGATES, DESIGNATION C33 AS FOLLOWS:

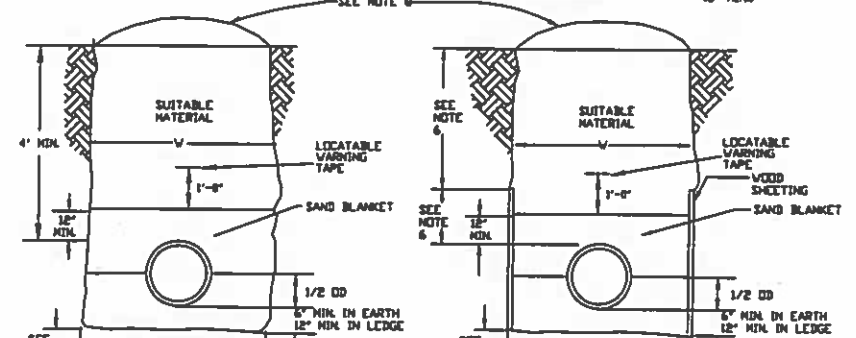
100% PASSING 3/4" INCH SCREEN	3/4" INCH SCREEN
80-100% PASSING 3/8" INCH SCREEN	3/8" INCH SCREEN
50-80% PASSING 3/8" INCH SCREEN	3/4" INCH SCREEN
20-50% PASSING 3/8" INCH SCREEN	3/8" INCH SCREEN
10-20% PASSING 3/8" INCH SCREEN	3/4" INCH SCREEN
FINENESS MODULUS	2.0-3.1
3. FILTER FABRIC SHALL BE INSTALLED ABOVE PIPE - MIN 140N OR EQUAL



PARALLEL INSTALLATION
WATER MAIN / SEWER MAIN SEPARATION
NOT TO SCALE



FOR CONSTRUCTION IN ROADS, ROAD SHOULDER & WALK-WAYS



TYPICAL SANITARY SEWER TRENCH DETAIL
NOT TO SCALE

4. SUITABLE MATERIAL: TRENCH BACKFILL MATERIAL SHALL CONFORM WITH ENR-WO 704.12 (a). IN ROADS, ROAD SHOULDERS, WALK-WAYS AND TRAVELED WAYS, SUITABLE MATERIAL FOR TRENCH BACKFILL SHALL BE THE NATURAL MATERIAL EXCAVATED DURING THE COURSE OF CONSTRUCTION, BUT SHALL EXCLUDE BEDROCK, PIECES OF PAVEMENT, ORGANIC MATTER, TOP SOIL, ALL VET OR SOFT MUCK, PEAT OR CLAY, ALL EXCAVATED LEDGE MATERIAL, AND ALL ROCKS OVER SIX INCHES IN LARGEST DIMENSION, OR ANY MATERIAL WHICH, AS DETERMINED BY THE ENGINEER, WILL NOT PROVIDE SUFFICIENT SUPPORT OR MAINTAIN THE COMPLETED CONSTRUCTION IN A STABLE CONDITION.
5. BASE COURSE, IF ORDERED BY THE ENGINEER, SHALL MEET THE REQUIREMENTS OF DIVISION 300 OF THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OF THE STATE OF NEW HAMPSHIRE, DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS.
6. WOOD SHEETING, IF REQUIRED, WHERE SHEETING IS PLACED ALONGSIDE THE PIPE AND EXTENDS BELOW MID-DIAMETER, IT SHALL BE CUT OFF AND LEFT IN PLACE TO AN ELEVATION NOT LESS THAN 1 FOOT ABOVE THE TOP OF THE PIPE, WHERE SHEETING IS ORDERED BY THE ENGINEER TO BE LEFT IN PLACE, IT SHALL BE CUT OFF AT LEAST 3 FEET BELOW FINISHED GRADE, BUT NOT LESS THAN 1 FOOT ABOVE THE TOP OF THE PIPE.

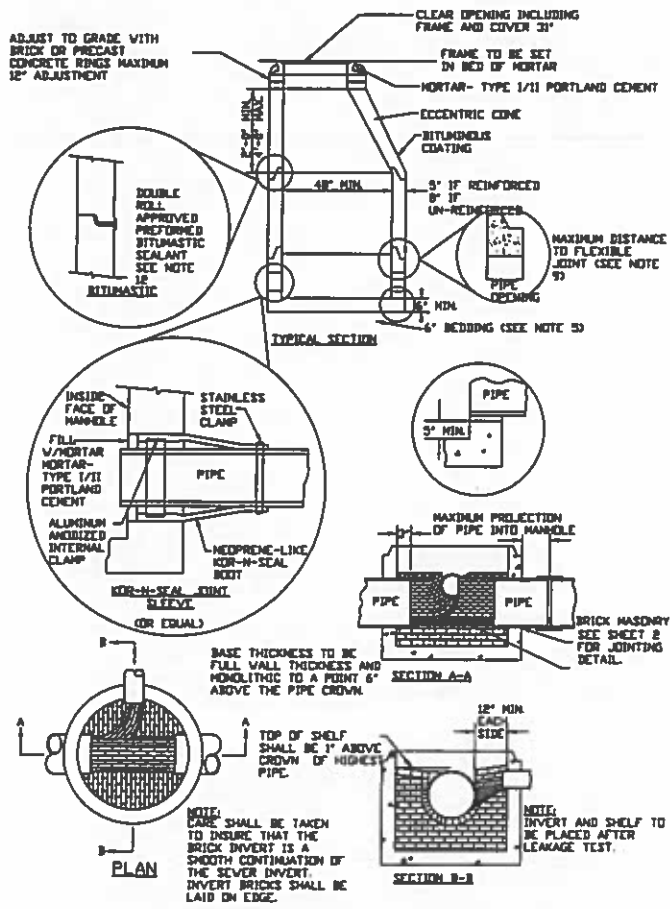
7. V = MAXIMUM ALLOWABLE TRENCH WIDTH TO A PLANE 18 INCHES ABOVE THE PIPE. FOR PIPES 15 INCHES NOMINAL DIAMETER OR LESS, V SHALL BE NO MORE THAN 24 INCHES; FOR PIPES GREATER THAN 15 INCHES NOMINAL DIAMETER, V SHALL BE 24 INCHES PLUS PIPE O.D. V SHALL ALSO BE THE PAYMENT WIDTH FOR LEDGE EXCAVATION AND FOR ORDERED EXCAVATION BELOW GRADE.
8. FOR CROSS COUNTRY CONSTRUCTION, BACKFILL OR FILL SHALL BE MOUND TO A HEIGHT OF 6 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
9. NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES DESIGN STANDARDS REQUIRE 10 FT. SEPARATION BETWEEN WATER AND SEWER. HOWEVER, SEVERAL CONSTRUCTION REVEAL OR EXPOSE A WATERLINE MAIN OR APPROXIMATELY PARALLEL, AND LESS THAN 10 FT. SEPARATION FROM THE PROPOSED SEWER INSTALLATION AND WHERE IT IS NOT PRACTICABLE TO RELOCATE THE SEWER, THE FOLLOWING METHODS OF PROTECTION MUST BE EMPLOYED.

- A. SEWER PIPE SHALL BE CLASS SE DUCTILE IRON PIPE.
- B. JOINTS SHALL BE PRESSURE TESTED WITH ZERO LEAKAGE AT 25 POUNDS PER SQUARE INCH OR GRAVITY SEWERS, AND 1-1/2 TIMES WORKING PRESSURE FOR FORCE MAINS.
10. WHERE WATERLINES AND SEWER LINES CROSS THEY CROSS AS PERPENDICULAR AS POSSIBLE AND THE WATER MAIN SHALL CROSS AT LEAST 18" INCHES ABOVE THE SEWER. FURTHER, THE SEWER JOINTS SHALL BE LOCATED AT LEAST 9 FEET HORIZONTALLY FROM THE WATERMAIN SEWER JOINTS. SEWER JOINTS SHALL BE PRESSURE TESTED WITH ZERO LEAKAGE AT 25 POUNDS PER SQUARE INCH FOR GRAVITY SEWERS, AND AT 1-1/2 TIMES WORKING PRESSURE FOR FORCE MAINS.
11. ALL SEWERS AT 9 PERCENT OR GREATER SLOPE SHALL HAVE TRENCH BARS INSTALLED.
12. UNLESS OTHERWISE NOTED ALL GRANULAR MATERIAL SHALL BE PLACED IN 12" LIFTS AND COMPACTED TO 95% OF THE MODIFIED PROCTOR TEST.

SEWER MANHOLE COVER NOTES:

1. CONTACT SURFACES OF COVERS AND FRAMES SHALL BE MACHINED AT THE FOUNDRY TO PREVENT ROCKING OF COVERS IN ANY ORIENTATION.
2. CASTINGS SHALL BE EQUAL TO CLASS 30, CONFORMING TO ASTM A48.
3. WHERE MANHOLE TOPS ARE TO BE FLOODED BY WATER THEY WILL HAVE A WATER TIGHT COVER.
4. FRAMES AND COVERS: MANHOLE FRAMES AND COVERS SHALL BE OF HEAVY DUTY DESIGN AND PROVIDE A 30 INCH CLEAR OPENING, A 3 INCH MINIMUM HEIGHT WORD "SEWER" FOR SEWERS OR "DRAIN" FOR DRAINS SHALL BE PLAINLY CAST INTO THE CENTER OF EACH COVER. MANHOLE COVERS SHALL HAVE NON-PENETRATION PICK HOLES.
5. FRAMES AND COVERS SHALL BE MEDIAN MODEL R-1975 OR APPROVED EQUAL.
6. CASTINGS SHALL CONFORM WITH ASTM A48/A49 PER ENR-WO 704.13 (a)(b).

SEWER MANHOLE COVER
NOT TO SCALE



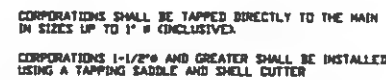
SANITARY SEWER MANHOLE
NOT TO SCALE

NO.	DATE	REVISIONS	
		DESCRIPTION	BY

SCALE AS SHOWN

N.H. LAND Consultants
SURVEYING-LAND PLANNING-REAL ESTATE
A Veteran Owned Company

SEWER DETAILS
TAX MAP 102 LOT 35
CONDOMINIUM SUBDIVISION
71 CEDAR ST. HOPKINTON, (CONTOOCOOK) NH
OWNED BY
BAYSTONE PROPERTIES, LLC
44 NORTH SHORE ROAD, DERRY, NH 03035
LOT 35 - BOOK 3681 PAGE 1784
MERRIMACK CO.
JOB NO: 393.00
DATE: JUNE 21, 2021
DET-2
SHT. 10 of 18



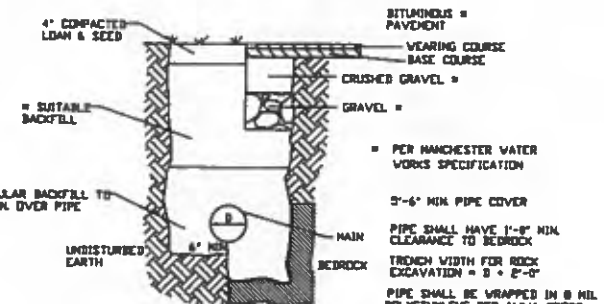
NOT TO SCALE

SIZE	TYPE	HORIZONTAL DISTANCE		VERTICAL DISTANCE
		IN SHOE	IN BLOCK	
4"	1" TIE BRANCH	7'-0"	7'-0"	7'-0"
	1/2" BLOCK	7'-0"	7'-0"	7'-0"
	1/2" SHOE	7'-0"	7'-0"	7'-0"
	1/2" TIE BLOCK IN LINE	7'-0"	7'-0"	7'-0"
	1/2" TIE BLOCK IN LINE	7'-0"	7'-0"	7'-0"
6"	1" TIE BRANCH	7'-0"	7'-0"	7'-0"
	1/2" BLOCK	7'-0"	7'-0"	7'-0"
	1/2" SHOE	7'-0"	7'-0"	7'-0"
	1/2" TIE BLOCK IN LINE	7'-0"	7'-0"	7'-0"
	1/2" TIE BLOCK IN LINE	7'-0"	7'-0"	7'-0"
8"	1" TIE BRANCH	7'-0"	7'-0"	7'-0"
	1/2" BLOCK	7'-0"	7'-0"	7'-0"
	1/2" SHOE	7'-0"	7'-0"	7'-0"
	1/2" TIE BLOCK IN LINE	7'-0"	7'-0"	7'-0"
	1/2" TIE BLOCK IN LINE	7'-0"	7'-0"	7'-0"

NOTES:
1. POLYBOND BREAKER SHALL BE BETWEEN CONCRETE AND DUCTILE IRON PIPE.
2. FULL ACCESS TO ALL JOINTS INCLUDING ALL NUTS AND BOLTS SHALL BE MAINTAINED.



THRUST BLOCK DETAIL



TYPICAL WATER LINE TRENCH DETAIL
NOT TO SCALE



THRUST BLOCK DETAIL

[illegible]

**SCALE
AS SHOWN**



**N.H. LAND
Consultants**
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A Veteran Owned Company

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 TEL: 206-461-1111 FAX: 206-461-1112
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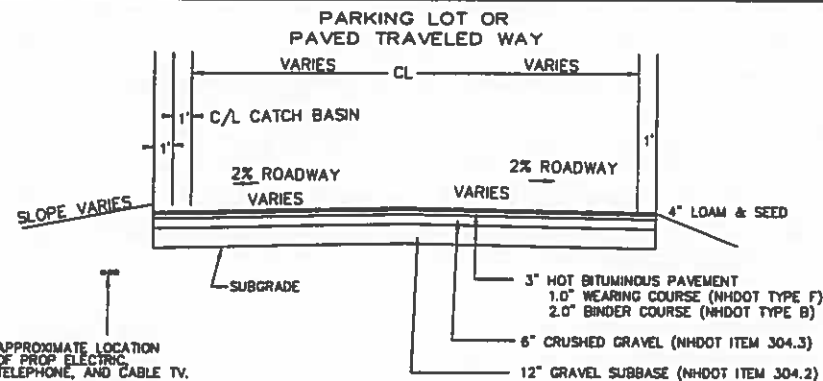
WATER DETAILS
TAX MAP 102 LOT 35
CONDOMINIUM SUBDIVISION
71 CEDAR ST. HOPKINTON, (CONTOCOOK) NH
OWNED BY
BAYSTONE PROPERTIES, LLC
44 NORTH SHORE ROAD, DERRY, NH 03038
LOT 35 - BOOK 3691 PAGE 1784

MERRIMACK CO.
JOB NO: 393.00
DATE: JUNE 21, 2021

DET-3
SHT. 11 of 18

GENERAL NOTES

1. MINIMUM ACCEPTABLE STANDARDS FOR ALL CONSTRUCTION MATERIALS AND METHODS SHALL BE IN ACCORDANCE WITH THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION (NH DOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION, (AND ALL SUBSEQUENT AMENDMENTS) AND THE TOWN OF EPSOM REGULATIONS. DRAINAGE DESIGN IS BASED ON THE "STORMWATER MANAGEMENT AND EROSION AND SEDIMENT CONTROL HANDBOOK VOLUME I".
2. ALL ELEVATIONS AND LOCATIONS OF EXISTING UTILITY AND DRAINAGE STRUCTURES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO UTILIZATION OF DESIGN ELEVATIONS ON THIS PLAN.
3. BACKFILL OF TRENCHES AND ALL PAVED AREAS SHALL BE COMPACTED IN ACCORDANCE WITH NH DOT-STANDARD SPECIFICATIONS-SECTION 304.
4. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES AND SHALL PROVIDE ALL NECESSARY CONTINUOUS BARRIERS OF SUFFICIENT TYPE, SIZE AND STRENGTH TO PREVENT ACCESS TO ALL OPEN EXCAVATIONS AT THE COMPLETION OF EACH DAYS WORK.
5. ALL ELEVATIONS ARE BASED ON U.S.G.S. DATUM.
6. THE CONTRACTOR SHALL BE AWARE OF HIS RESPONSIBILITY TO CONTACT "DIG SAFE" AT 111 SOL BEDFORD STREET, BURLINGTON, MA (1-888-344-7233) AT LEAST 72 WORKING HOURS PRIOR TO THE START OF ANY EXCAVATION.
7. SHORING AND STABILIZING OF TRENCH SIDEWALLS DURING EXCAVATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
8. ALL WORK ADJACENT TO EXISTING CEDAR STREET SHALL BE PERFORMED IN WITH THE STREET OPENING REQUIREMENTS OF THE TOWN OF HOPKINTON AND NH DOT STANDARD SPECIFICATIONS.
9. ALL CULVERTS, DRAINAGE STRUCTURES AND ROAD CONSTRUCTION SHALL BE SUBJECT TO PARTIAL AND FINAL INSPECTION PRIOR TO ACCEPTANCE BY THE TOWN. THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING AND COORDINATING INSPECTION BY THE TOWN ENGINEER.
10. UTILITY PLANS SHALL BE SUBMITTED TO THE TOWN ENGINEER FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
11. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF 4" TOPSOIL AND SEED OVER ALL DISTURBED UNPAVED AREAS UNLESS OTHERWISE SPECIFIED.
12. END SECTIONS, (FLARED ENDS) SHALL COMPLY WITH NH DOT STANDARD SPECIFICATIONS, HIGHWAY DESIGN MANUAL, PLATES 5 & 6, OF STANDARD 11 DATED 1979 AND ALL SUBSEQUENT AMENDMENTS.
13. ALL DRIVEWAY GRADING IS SUBJECT TO DEPARTMENT OF PUBLIC WORKS REVIEW PRIOR TO DRIVEWAY CONSTRUCTION ON INDIVIDUAL LOTS. DRIVEWAY CULVERTS, LOCATED OUTSIDE OF THE TOWN'S RIGHT OF WAY, MAY BE NECESSARY DEPENDING ON THE ACTUAL PROPOSED LOT DEVELOPMENT.
14. ALL PAYMENT MARKERS SHOWN CONFORM TO THE LATEST EDITION OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION STANDARDS PLANS FOR ROAD AND BRIDGE CONSTRUCTION.

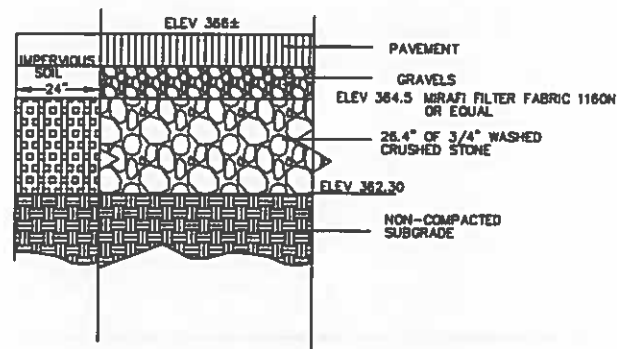
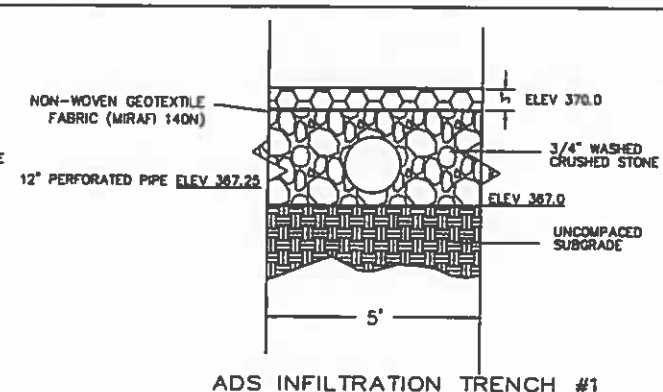
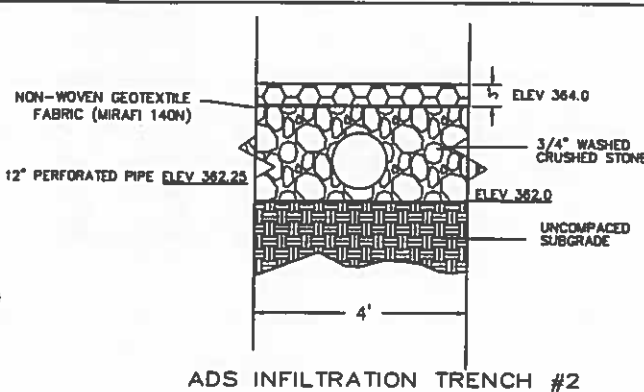


APPROXIMATE LOCATION OF PROP. ELECTRIC, TELEPHONE, AND CABLE TV.

NOTES:

1. ALL ROADWAY CONSTRUCTION MATERIALS AND METHODS SHALL BE IN ACCORDANCE WITH THE LATEST N.H.D.O.T. SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2010 INCLUDING SUBSEQUENT AMENDMENTS AND EDITIONS.
2. PROVIDE 4" (MIN.) COMPACTED LOAM AND SEED ON ALL SIDE SLOPES AND DRAINAGE SWALES UNLESS OTHERWISE NOTED.
3. ALL LEDGE AND ROCK SHALL BE REMOVED TO 6" BELOW SUBGRADE.
4. ROADWAY UNDERDRAIN SHALL BE PROVIDED IN ALL CUT SECTIONS (AT SIDE WITH CUT) AND WHERE SEASONAL HIGH WATER IS WITHIN FOUR (4) FEET OF FINISHED GRADE IN ALL OTHER AREAS. UNDERDRAIN SHALL HAVE A MINIMUM OF FOUR (4) FEET OF COVER.

TYPICAL ROADWAY SECTION
NOT TO SCALE



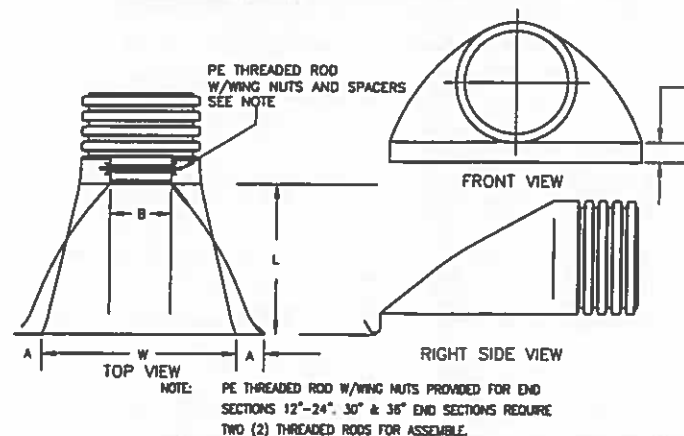
ADS INFILTRATION SYSTEM DETAIL

NOTES:

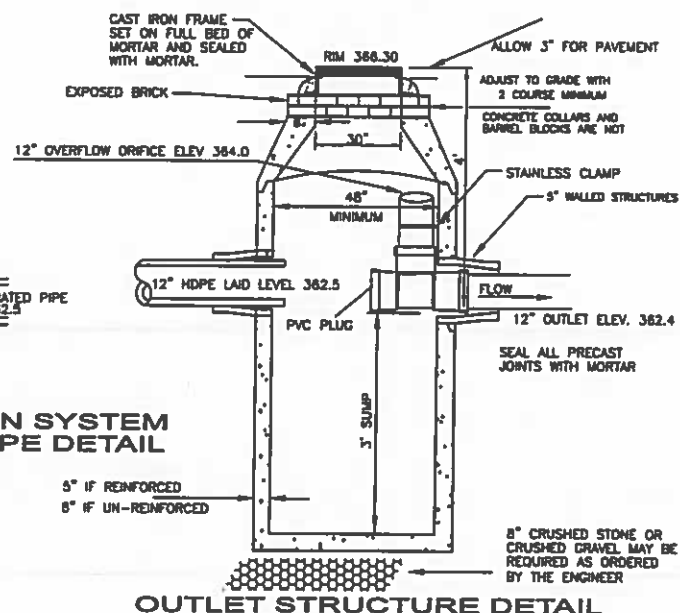
1. IMPERVIOUS CORE AND POND LINER SOIL SAMPLES AND SIEVE ANALYSES TO BE SUBMITTED FOR APPROVAL PRIOR TO CONSTRUCTION. IMPERVIOUS SOILS TO MEET THE FOLLOWING CRITERIA. SOIL SHALL HAVE NO ORGANIC MATTER OR FROZEN MATERIAL AND NO STONES LARGER THAN 2/3 OF THE MAXIMUM LIFT SIZE. STONES AROUND ANY STRUCTURES AND/OR CONDUITS SHALL NOT EXCEED 3 INCHES. FILL MATERIAL SHALL HAVE THE FOLLOWING GRADATION:

SEIVE SIZE	% PASSING
#4	85 - 100
#40	80 - 90
#100	40 - 60
#200	25 - 45

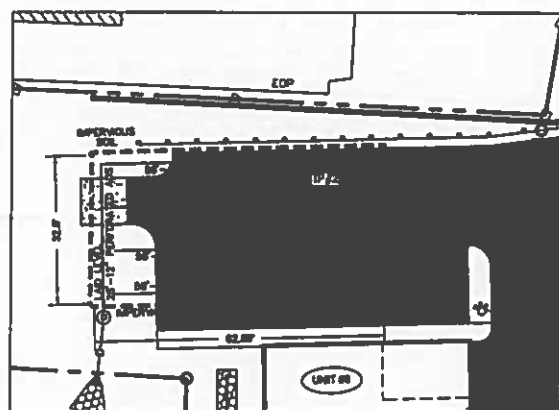
2. THE CONTRACTOR SHALL USE CARE NOT TO OVER EXCAVATE AND DISTURB THE EXISTING SOIL AT THE BERM AND OUTLET PIPE AREAS.
3. IMPERVIOUS SOIL SHALL BE INSTALLED WITHIN THE LIMITS SHOWN ALONG THE BERM AREA. THE SOIL SHALL BE KEYED 12" INTO THE BOTTOM OF THE POND AND SHALL BE PLACED IN LIFTS NOT EXCEEDING 6" AND COMPACTED TO A MINIMUM 95% OF THE WET WEIGHT AS DETERMINED BY MODIFIED TESTING (ASTM 1557).
4. AT THE IMPERVIOUS DAM AREA, THE DAM SHALL BE KEYED INTO TO BOTTOM AND SIDES OF THE TRENCH A MINIMUM OF 2". THE IMPERVIOUS SOIL SHALL BE PLACED IN LIFTS NOT EXCEEDING 6" AND COMPACTED TO A MINIMUM 95% OF THE WET WEIGHT AS DETERMINED BY MODIFIED TESTING (ASTM 1557).



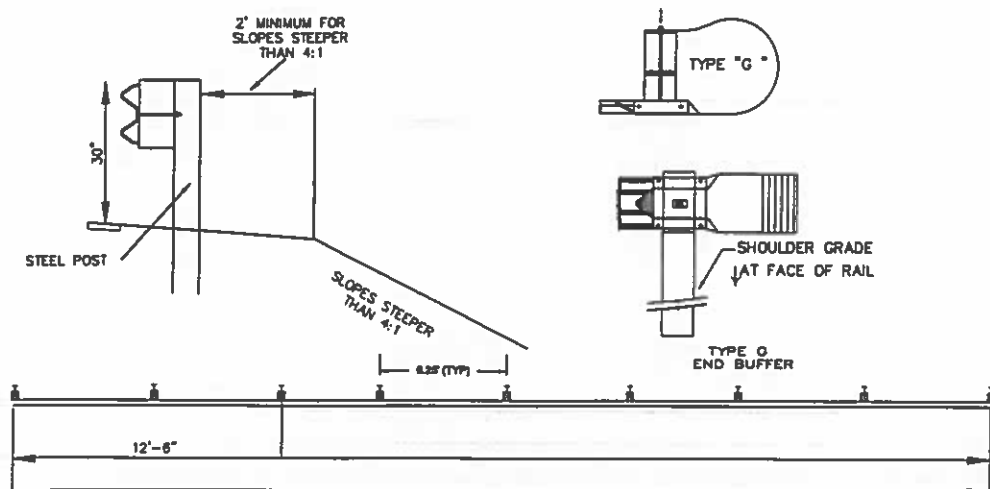
ADS INFILTRATION SYSTEM PERFORATED PIPE DETAIL



OUTLET STRUCTURE DETAIL



ADS INFILTRATION SYSTEM PLAN VIEW



SAMPLE GUARDRAIL INSTALLATION LAYOUT
NOT TO SCALE

PART #	PIPE SIZE	A	B (MAX)	H	L
1210NP	12 IN	6.50 IN	10.00 IN	6.50 IN	25.00 IN
1510NP	15 IN	6.50 IN	10.00 IN	6.50 IN	25.00 IN
1810NP	18 IN	7.50 IN	15.00 IN	6.50 IN	32.00 IN
2410NP	24 IN	7.50 IN	18.00 IN	6.50 IN	36.00 IN
3015NP	30 IN	7.50 IN	12.00 IN	8.60 IN	58.00 IN
3615NP	36 IN	7.50 IN	25.00 IN	8.60 IN	58.00 IN

ADS
ADVANCED DRAINAGE SYSTEMS, INC.

DESCRIPTION	LENGTH L	INVERT WIDTH W	END WIDTH We	STONE D50	DEPTH OF STONE - D
FTS 1	5'	3'	10'	6"	1.5'

RIP-RAP SPECIFICATIONS
NOT TO SCALE

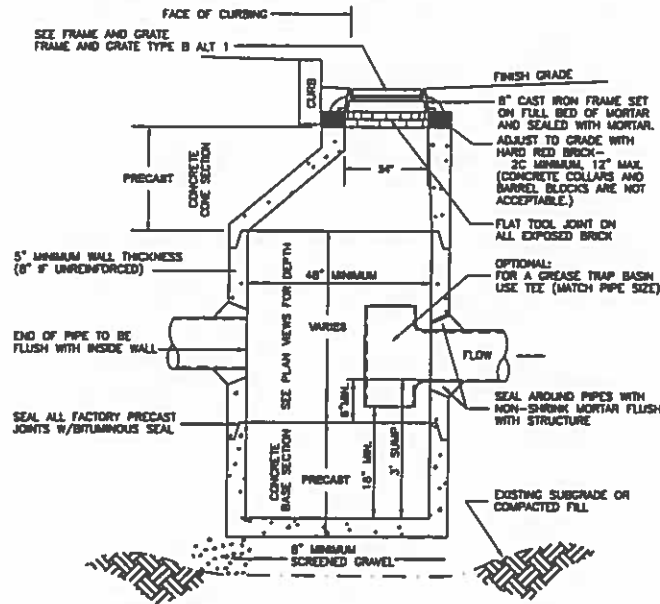
NO.	DATE	DESCRIPTION	BY

SCALE
AS SHOWN

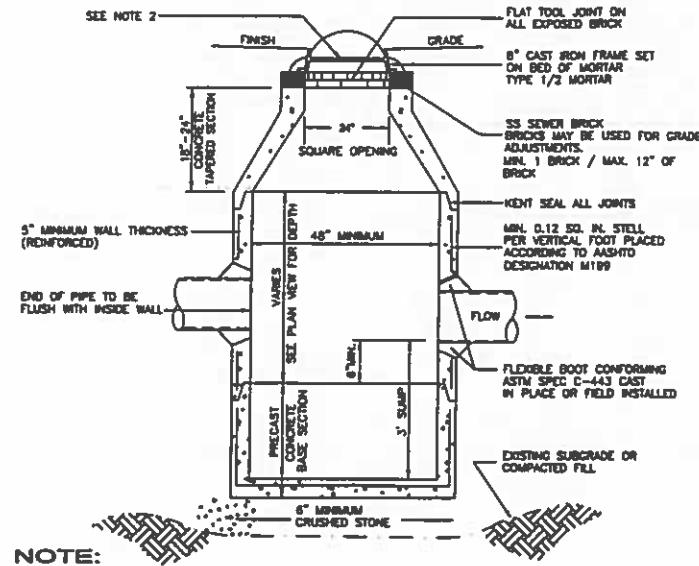
N.H. LAND
Consultants
SURVEYING-LAND PLANNING-REAL ESTATE
A Vetrone Owned Company

DRAINAGE DETAILS-1
TAX MAP 102 LOT 35
CONDOMINIUM SUBDIVISION
71 CEDAR ST. HOPKINTON, (CONTOOCOOK) NH
OWNED BY
BAYSTONE PROPERTIES, LLC
44 NORTH SHORE ROAD, DERRY, NH 03039
LOT 35 - BOOK 3691 PAGE 1784

MERRIMACK CO.
JOB NO: 393.00
DATE: JUNE 21, 2021
DET-4
SHT. 12 OF 18

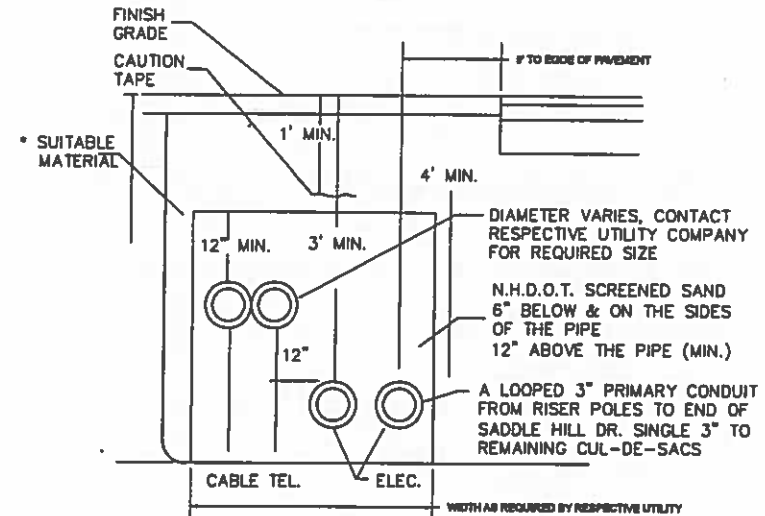


CATCH BASIN WITH HOOD (CB #3)
NOT TO SCALE



1. ALL PRECAST SECTIONS SHALL CONFORM TO ASTM C-478. CATCH BASIN STRUCTURE SHALL BE CAPABLE OF AASHTO H-20 LOADING WITHOUT FAILURE.
2. USE MHODT TYPE B ALT-1 BICYCLE SAFE IN ALL PAVED AREAS, DITCH GRATES IN ALL SWALES
3. POLYETHYLENE INSERT LINERS ARE TO BE INSTALLED ON ALL NEW CATCH BASINS

CATCH BASIN
SINGLE PIPE SYSTEM NOT TO SCALE

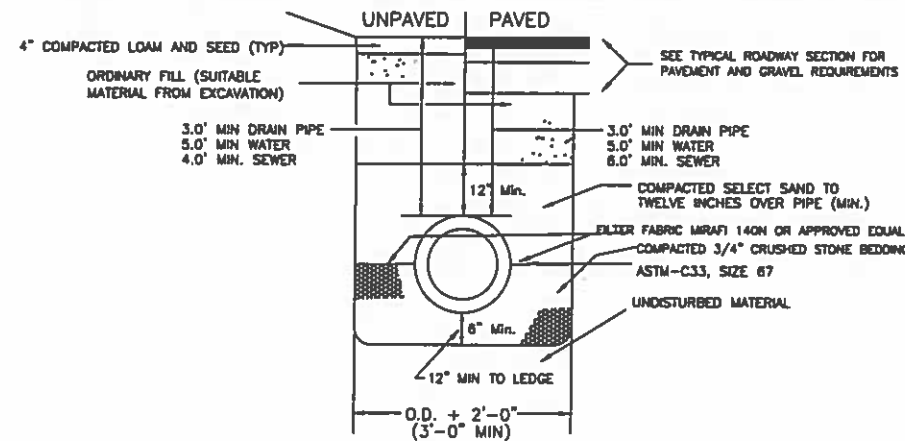


- * SUITABLE MATERIAL: IN ROADS, ROAD SHOULDERS, WALKWAYS AND TRAVELED WAYS, SUITABLE MATERIAL FOR TRENCH BACK FILL SHALL BE THE NATURAL MATERIAL EXCAVATED DURING THE COURSE OF CONSTRUCTION, BUT SHALL EXCLUDE DEBRIS, PIECES OF PAVEMENT, ORGANIC MATTER, TOP SOIL, ALL WET OR SOFT MUCK, PEAT OR CLAY, ALL EXCAVATED LEDGE MATERIAL AND ALL ROCKS OVER SIX INCHES IN THE LARGEST DIMENSION, OR ANY MATERIAL, WHICH, AS DETERMINED BY THE TOWN ENGINEERS, WILL NOT PROVIDE SUFFICIENT SUPPORT OR MAINTAIN THE COMPLETED CONSTRUCTION IN A STABLE CONDITION. SUITABLE MATERIAL SHALL BE PLACED IN 6" LIFTS AND THOROUGHLY COMPACTED.

IN CROSS-COUNTRY CONSTRUCTION, SUITABLE MATERIAL SHALL BE DESCRIBED AS ABOVE, EXCEPT THAT THE TOWN ENGINEERS MAY PERMIT THE USE OF TOP SOIL, LOAM, OR PEAT, IF SATISFIED THE COMPLETED CONSTRUCTION WILL BE ENTIRELY STABLE AND PROVIDED THAT THE EASY ACCESS TO THE STRUCTURES FOR MAINTENANCE AND POSSIBLY RECONSTRUCTION, WHEN NECESSARY WILL BE PRESERVED SUITABLE MATERIAL SHALL BE PLACED IN 12" LIFTS AND THOROUGHLY COMPACTED.

- NOTES:
1. UTILITIES SHALL BE INSTALLED ACCORDING TO THE RESPECTIVE UTILITY COMPANY STANDARDS AND SPECIFICATIONS.
 2. ALL ABOVE GRADE UTILITIES MUST BE PLACED OUT OF THE R.O.W. AND IN AREAS THAT WILL NOT CONFLICT WITH THE ROADWAY DRAINAGE SYSTEM. PLACEMENT OF TRANSFORMERS CANNOT CONFLICT WITH THE INSTALLATION OF R.O.W. AND PROPERTY CORNER MONUMENTS.

UNDERGROUND UTILITIES TRENCH
NOT TO SCALE



- NOTES:
1. ALL DRAIN PIPE SHALL BE ADS N-12 CORRUGATED PLASTIC PIPE (CPP), HPDE OR APPROVED EQUAL
 2. SELECT SAND TO 12" ABOVE PIPE SHALL BE AS FOLLOWS:
A. 100% PASSING A 1/2 INCH SIEVE
B. 15%(MAX) PASSING A NO. 200 SIEVE
C. FREE FROM ORGANIC MATERIALS
 3. ALL WATER PIPE TO BE CLASS 52 DUCTILE IRON.
 4. ALL SEWER TO BE SDR 35 PVC.

DRAIN PIPE TRENCH
NOT TO SCALE

REVISIONS		NO.	DATE	DESCRIPTION	BY

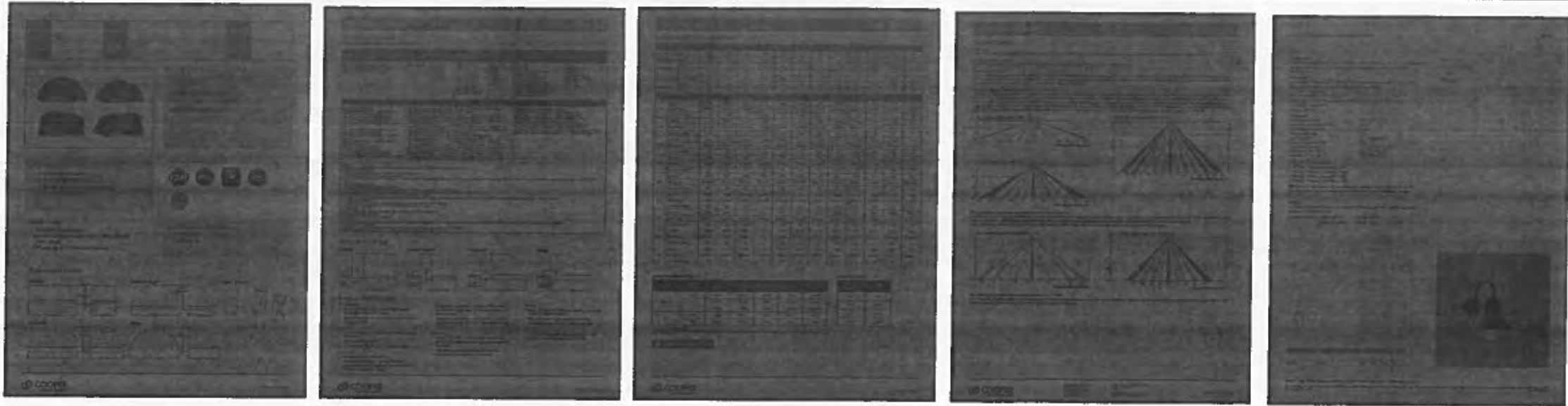
SCALE
AS SHOWN

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Consultants**
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A Veteran Owned Company

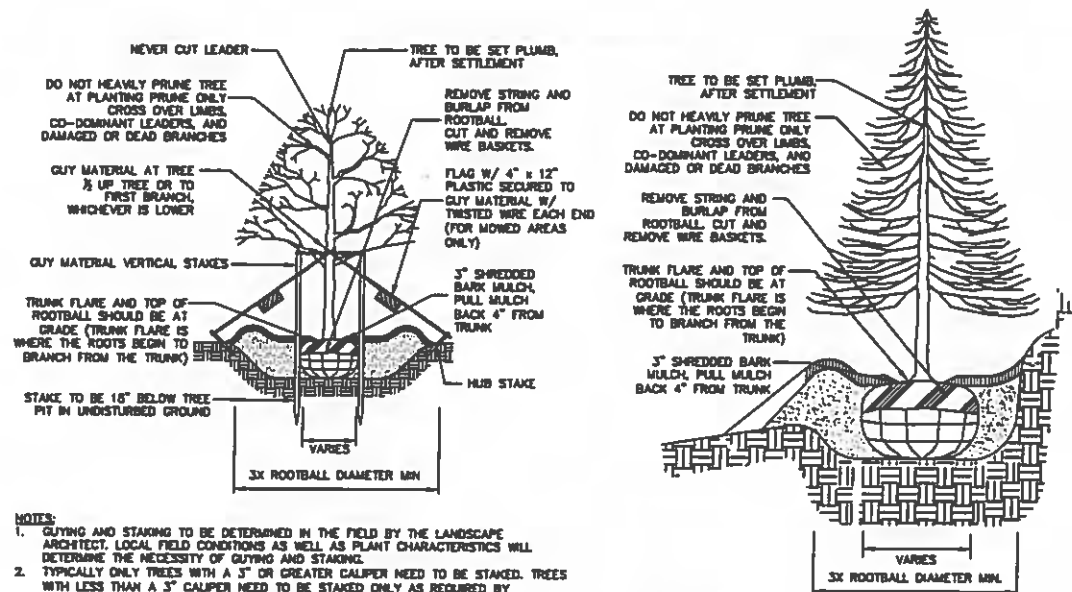
DRAINAGE DETAILS - 2
TAX MAP 102 LOT 35
CONDOMINIUM SUBDIVISION
71 CEDAR ST. HOPKINTON, (CONTOOCOOK) NH
OWNED BY
BAYSTONE PROPERTIES, LLC
44 NORTH SHORE ROAD, DERRY, NH 03038
LOT 35 - BOOK 3591 PAGE 1784

MERRIMACK CO.
JOB NO: 393.00
DATE: JUNE 21, 2021

DET- 5
SHT. 13 of 18



Luminaire Schedule				
Symbol	Qty	Label	Arrangement	Description
⊖	12	W	SINGLE	66411/ WALL MTD 10' AFG
⊖	2	W1	SINGLE	ISS-BALB-740-U-SL3/ WALL MTD 15' AFG



- NOTES:
1. GUYING AND STAKING TO BE DETERMINED IN THE FIELD BY THE LANDSCAPE ARCHITECT. LOCAL FIELD CONDITIONS AS WELL AS PLANT CHARACTERISTICS WILL DETERMINE THE NECESSITY OF GUYING AND STAKING.
 2. TYPICALLY ONLY TREES WITH A 3\"/>

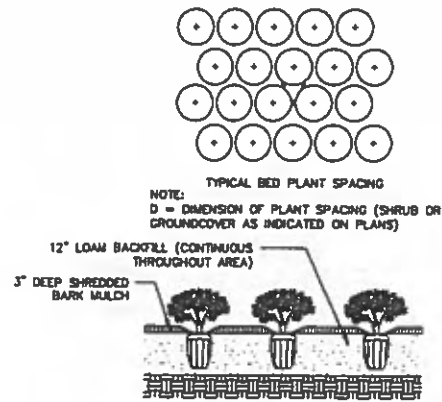
- NOTES:
1. DO NOT STAKE EVERGREEN TREES.
 2. LOAM FOR BACKFILLING SHALL BE AMENDED AS REQUIRED BY LANDSCAPE ARCHITECT.
 3. TAMP BACKFILL SOIL AROUND ROOTBALL FIRMLY TO MINIMIZE ROOTBALL SHIFT.

DECIDUOUS TREE PLANTING

EVERGREEN TREE PLANTING

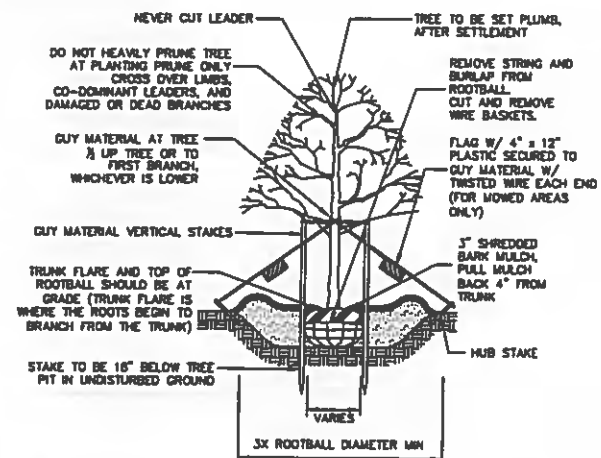
LANDSCAPING NOTES:

BN = Betula nigra/HERITAGE RIVER BIRCH @ 8-10' B&B TOTAL = 3
TC = Tsuga Canadensis/CANADIAN HEMLOCK @ 8-7' B&B TOTAL = 19
PR = Pinus resinosa/RED PINE @ 7-8' B&B TOTAL = 10



TYPICAL PERENNIAL DETAIL

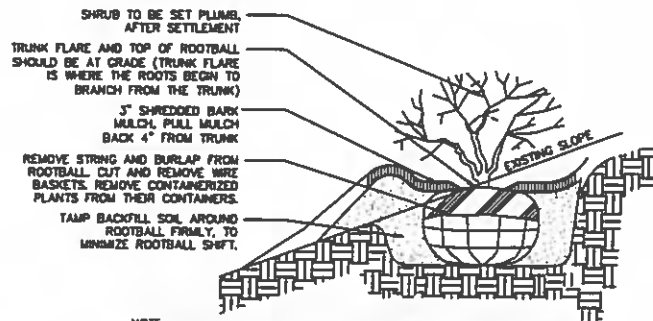
NOT TO SCALE



- NOTES:
1. GUYING AND STAKING TO BE DETERMINED IN THE FIELD BY THE LANDSCAPE ARCHITECT. LOCAL FIELD CONDITIONS AS WELL AS PLANT CHARACTERISTICS WILL DETERMINE THE NECESSITY OF GUYING AND STAKING.
 2. TYPICALLY ONLY TREES WITH A 3\"/>
 3. ONLY WRAP TREE TRUNKS AS REQUIRED BY LANDSCAPE ARCHITECT.
 4. TREE SHALL BE SET PLUMB, AFTER SETTLEMENT.
 5. LOAM FOR BACKFILLING SHALL BE AMENDED AS REQUIRED BY LANDSCAPE ARCHITECT.
 6. CITY TREES PLANTED ON PRIVATE PROPERTY, ADJACENT TO A PUBLIC RIGHT-OF-WAY, NEED TO BE PLANTED A MINIMUM OF 5 FEET FROM THE EDGE OF THE CITY SIDEWALK.

DECIDUOUS TREE PLANTING DETAIL

NOT TO SCALE



- NOTE:
1. DO NOT HEAVILY PRUNE SHRUB AT PLANTING. PRUNE ONLY CROSSOVER LIMBS AND DAMAGED OR DEAD BRANCHES.
 2. BACKFILL WITH LOAM, AMEND AS REQUIRED BY LANDSCAPE ARCHITECT.
 3. SHRUBS & GROUNDCOVER PLANTED ADJACENT TO CITY SIDEWALKS NEED TO BE PLACED SO THE PLANTS, AT THEIR MATURE HEIGHT & WIDTH, WILL NOT ENROACH INTO THE CITY'S SIDEWALK.

TYPICAL SHRUB PLANTING DETAIL

NOT TO SCALE

REVISIONS		
NO.	DATE	DESCRIPTION

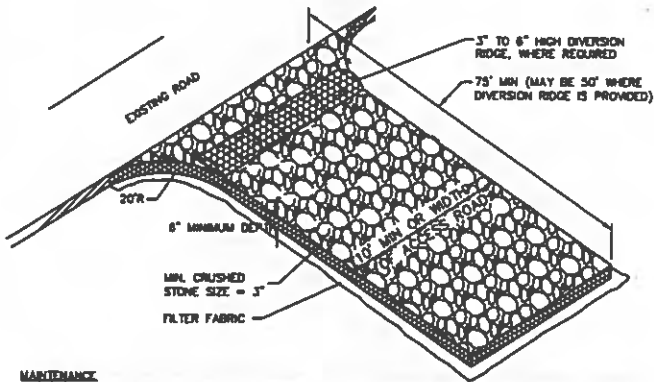
SCALE
AS SHOWN

N.H. LAND Consultants
SUNSHINE LAND PLANNING-REAL ESTATE
A Veteran Owned Company

LIGHTING / LANDSCAPE DETAILS
TAX MAP 102 LOT 35
CONDOMINIUM SUBDIVISION
71 CEDAR ST. HOPKINTON, (CONTOOCOOK) NH
OWNED BY
BAYSTONE PROPERTIES, LLC
44 NORTH SHORE ROAD, DERRY, NH 03038
LOT 35 - BOOK 3691 PAGE 1784

MERRIMACK CO.
JOB NO: 393.00
DATE: JUNE 21, 2021

DET-6
SHT. 14 of 18



- MAINTENANCE**
1. THE EXIT SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. WHEN THE CONTROL PAD BECOMES DEFECTIVE, THE STONE SHALL BE REMOVED ALONG WITH THE COLLECTED SOIL MATERIAL, REGRADED ON SITE, AND STABILIZED. THE ENTRANCE SHALL THEN BE RECONSTRUCTED.
 2. THE CONTRACTOR SHALL SWEEP THE PAVEMENT AT EXITS WHENEVER SOIL MATERIALS ARE TRACKED ONTO THE ADJACENT PAVEMENT OR TRAVELED WAY.
 3. WHEN WHEEL WASHING IS REQUIRED, IT SHALL BE CONDUCTED ON AN AREA STABILIZED WITH AGGREGATE, WHICH DRAINS INTO AN APPROVED SEDIMENT-TRAPPING DEVICE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING STORM DRAINS, DITCHES, OR WATERWAYS.
- CONSTRUCTION SPECIFICATIONS**
4. ONLY CONSTRUCTION TRAFFIC LEAVING THE SITE IS REQUIRED TO USE THE TEMPORARY STABILIZED EXIT. CONSIDER PROVIDING A SEPARATE, UNPROTECTED, ENTRANCE FOR TRAFFIC ENTERING THE SITE. THIS WILL INCREASE THE LONGEVITY OF THE STABILIZED EXIT BY ELIMINATING HEAVY LOADS ENTERING THE SITE AND REDUCING THE TOTAL TRAFFIC OVER THE DEVICE.
 5. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AND REPAIR AND/OR MAINTENANCE OF ANY MEASURES USED TO TRAP SEDIMENT.
 6. STONE FOR A TEMPORARY CONSTRUCTION EXIT SHALL BE 3 INCH STONE, RECLAIMED STONE, OR RECYCLED CONCRETE EQUIVALENT.
 7. THE MINIMUM LENGTH OF THE PAD SHALL BE 75 FEET, EXCEPT THAT THE MINIMUM LENGTH MAY BE REDUCED TO 50 FEET IF A 3-INCH TO 8-INCH HIGH BERM IS INSTALLED AT THE ENTRANCE OF THE PROJECT SITE.
 8. THE THICKNESS OF THE STONE FOR THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 8 INCHES.
 9. THE WIDTH OF THE ENTRANCE SHALL NOT BE LESS THAN THE FULL WIDTH OF THE EXIT OR 10 FEET, WHICHEVER IS GREATER.
 10. GEOTEXTILE FILTER CLOTH SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING THE STONE.
 11. ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARD THE CONSTRUCTION EXIT SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A BERM WITH 2:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE.

TEMPORARY CONSTRUCTION EXIT

NOT TO SCALE

CONSTRUCTION SEQUENCES:

- NOTE: - ALL EROSION CONTROL SHALL BE INSPECTED WEEKLY AND AFTER EVERY 2" OF RAINFALL.**
- MAXIMUM AREA TO BE DISTURBED AT ONE TIME IS 5 ACRES.
1. PRIOR TO CONSTRUCTION INSTALL FABRIC SILTATION FENCING AS SHOWN ON PLAN. CONSTRUCT TEMPORARY STABILIZED ENTRANCE, AND INSTALL OTHER APPROPRIATE SEDIMENT AND EROSION CONTROL.
 2. CUT AND CLEAR ALL VEGETATION AND STUMPS FROM CUT SLOPES, PONDS, AND SWALE AREAS. MAKE EXISTING BUILDINGS ALL MATERIAL TO BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.
 3. COMPLETE TEMPORARY SEDIMENT BASINS AT POND LOCATIONS. BASINS AND SWALES MUST BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM. CONSTRUCT BERM AND SWALES TO DIRECT STORMWATER TO BASINS. SEDIMENT BASINS LOCATED WITHIN PROPOSED INFILTRATION AREAS ARE TO BE CONSTRUCTED A MINIMUM OF 1' ABOVE THE FINAL BASIN FLOOR ELEVATION.
 4. AN AREA IS CONSIDERED STABLE IF:
 - A) BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
 - B) A MINIMUM OF 80% VEGETATED GROWTH HAS BEEN ESTABLISHED;
 - C) A MINIMUM OF 3" OF NON-DISSOLVE MATERIAL SUCH AS STONE, OR RFP-RAP HAS BEEN INSTALLED; OR
 - D) EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
 5. CUT AND CLEAR ALL VEGETATION AND STUMPS FROM AREAS TO BE DISTURBED FOR THE CONSTRUCTION OF THE PROPOSED ROADWAY.
 6. REMOVE TOPSOIL AND OTHER ORGANIC MATERIALS FROM AREAS TO BE DISTURBED. ALL SUCH TOPSOIL REMOVED SHALL BE STOCKPILED FOR LATER USE. ALL STOCKPILES SHALL BE SEEDED AND MULCHED TO PREVENT LOSS DUE TO EROSION, AND ENCLOSED WITH FABRIC 3:1 FENCE. WHEN CONSTRUCTION ACTIVITIES ARE TEMPORARILY CEASED FOR MORE THAN 21 DAYS, PERMANENTLY CEASED, OR SHUT DOWN FOR WINTER, THE CONTRACTOR SHALL LEAVE NO SLOPES STEEPER THAN 3:1 AND SHALL IMPLEMENT TEMPORARY LOADING, SEEDING AND MULCHING. WHERE CONSTRUCTION ACTIVITIES HAVE BEEN SUSPENDED OUTSIDE THE GROWING SEASON ALL EXPOSED SOIL SHALL BE STABILIZED BY MULCHING, AND ALL SLOPES GREATER THAN 3:1 SHALL BE STABILIZED WITH NETTING AND PAVING.
 7. CONSTRUCT, CUT, AND FILL SLOPES. ALL CUT AND FILL SLOPES TO BE STABILIZED IMMEDIATELY AFTER CONSTRUCTION. ALL SLOPES GREATER THAN 3:1 TO BE STABILIZED WITH JUTE MATTING. ALL CUT AND FILL SLOPES SHALL BE SEEDED AND LOADED WITHIN 72 HOURS OF ACHIEVING FRESH GRADE.
 8. CONSTRUCT STORM DRAINAGE, AND OTHER UNDERGROUND UTILITIES. ALL SHALLOWS TO BE PROTECTED WITH TEMPORARY EROSION CONTROL MEASURES. SMALL ALL CATCH BASIN OPENINGS TO BE PROTECTED WITH BLOCK AND GRIND. INLET BERM FILTERS AS SHOWN. SEDIMENT TRAPS AND/OR BASINS SHOULD BE USED UNTIL BASINS/PONDS ARE STABILIZED.
 9. BERM TOP SOIL, SEEDING AND MULCHING IMMEDIATELY AFTER COMPLETION OF EMBANKMENTS. TEMPORARY EROSION CONTROL / DIVERSION CHANNELS SHALL BE IMPLEMENTED WHERE REQUIRED TO PREVENT EROSION OF EMBANKMENTS. ANY EROSION OCCURRING SHALL BE REPAIRED IMMEDIATELY UPON DISCOVERY.
 10. FRESH GRADING & PAVING. ALL ROADWAYS AND PARKING LOTS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FRESH GRADE.
 11. ALL PAVED AREAS TO BE COMPLETED BY OCTOBER 15. ALL LANDSCAPED AREAS TO BE STABILIZED BY OCTOBER 15th, WITH JUTE MATTING AND SEED.
 12. COMPLETE PERMANENT SEEDING AND MULCHING OF ALL DISTURBED AREAS. ALL TEMPORARY EROSION CONTROL MEASURES TO REMAIN IN PLACE UNTIL A FULL VEGETATIVE COVER HAS BEEN ESTABLISHED ON ALL DISTURBED AREAS.
 13. Silt fences and hay bale barriers to be removed once the site has stabilized.

- MAINTENANCE REQUIREMENTS**
1. TEMPORARY SEEDING SHALL BE INSPECTED WEEKLY AND AFTER ANY RAINFALL EXCEEDING 1/4 INCH IN 24 HOURS ON ACTIVE CONSTRUCTION SITES. TEMPORARY SEEDING SHALL ALSO BE INSPECTED JUST PRIOR TO SEPTEMBER 15, TO ASCERTAIN WHETHER ADDITIONAL SEEDING IS REQUIRED TO PROVIDE STABILIZATION OVER THE WINTER PERIOD.
 2. BASED ON INSPECTION, AREAS SHALL BE RESEEDED TO ACHIEVE FULL STABILIZATION OF EXPOSED SOILS. IF IT IS TOO LATE IN THE PLANTING SEASON TO APPLY ADDITIONAL SEED, THEN OTHER TEMPORARY STABILIZATION MEASURES SHALL BE IMPLEMENTED.
 3. AT A MINIMUM, 85% OF THE SOIL SURFACE SHALL BE COVERED BY VEGETATION.
 4. IF ANY EVIDENCE OF EROSION OR SEDIMENTATION IS APPARENT, REPAIRS SHALL BE MADE AND AREAS SHALL BE RESEEDED, WITH OTHER TEMPORARY MEASURES (E.G., MULCH) USED TO PROVIDE EROSION PROTECTION DURING THE PERIOD OF VEGETATION ESTABLISHMENT.
- SPECIFICATIONS**
- SILT PREPARATION:**
5. INSTALL NEEDED EROSION AND SEDIMENT CONTROL MEASURES SUCH AS SILTATION BARRIERS, DIVERSIONS, AND SEDIMENT TRAPS.
 6. GRADE AS NEEDED FOR THE ACCESS OF EQUIPMENT FOR SEEDING PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING.
 7. RUNOFF SHALL BE DIVERTED FROM THE SEEDING AREA.
 8. ON SLOPES 4:1 OR STEEPER, THE FINAL PREPARATION SHALL INCLUDE CREATING HORIZONTAL GROOVES PERPENDICULAR TO THE DIRECTION OF THE SLOPE TO CATCH SEED AND REDUCE RUNOFF.
- SEEDING PREPARATION:**
9. STONES AND TRASH SHALL BE REMOVED SO AS NOT TO INTERFERE WITH THE SEEDING AREA.
 10. WHERE THE SOIL HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS, LOOSEN SOIL TO A DEPTH OF 2 INCHES BEFORE APPLYING FERTILIZER, LIME AND SEED.
 11. IF APPLICABLE, FERTILIZER AND ORGANIC SOIL AMENDMENTS SHALL BE APPLIED DURING THE GROWING SEASON.
 - APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TESTING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 1000 POUNDS PER ACRE OR 13.8 POUNDS PER 1,000 SQUARE FEET OF LOW PHOSPHATE FERTILIZER (N-P205-K2O) OR EQUIVALENT. APPLY LIMESTONE (EQUIVALENT TO 50 PERCENT CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF 3 TONS PER ACRE (136 LB. PER 1,000 SQUARE FEET).
 - FERTILIZER SHALL BE RESTRICTED TO A LOW PHOSPHATE, SLOW RELEASED NITROGEN FERTILIZER WHEN APPLIED TO AREAS BETWEEN 25 FEET AND 250 FEET FROM A SURFACE WATER BODY. NO FERTILIZER EXCEPT LIMESTONE SHALL BE APPLIED WITHIN 25 FEET OF A SURFACE WATER BODY. THESE LIMITATIONS ARE REQUIREMENTS FOR ANY WATER BODY PROTECTED BY THE COMPREHENSIVE SHORELAND PROTECTION ACT.

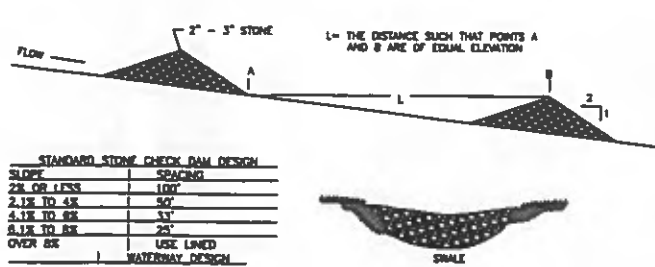
- SEEDING**
12. SELECT SEED FROM RECOMMENDATIONS IN TABLE 4-1.
 13. APPLY SEED UNIFORMLY BY HAND, CYCLOPE SEEDER, DRILL, CULTIPACKER TYPE SEEDER OR HYDROSEEDER (SLURRY INCLUDING SEED AND FERTILIZER). SEEDING DEPTH IS FROM 1/4" TO 1/2" INCH. HYDROSEEDING THAT INCLUDES MULCH MAY BE LEFT ON SOIL SURFACE. SEEDING RATES MUST BE INCREASED TO 2% WHEN HYDROSEEDING.
 14. TEMPORARY SEEDING SHALL TYPICALLY OCCUR PRIOR TO SEPTEMBER 15th.
 15. AREAS SEEDING BETWEEN MAY 15th AND AUGUST 15th SHALL BE COVERED WITH HAY OR STRAW MULCH, ACCORDING TO THE "TEMPORARY AND PERMANENT MULCHING" PRACTICE.
 16. VEGETATED GROWTH COVERING AT LEAST 85% OF THE DISTURBED AREA SHALL BE ACHIEVED PRIOR TO OCTOBER 15th. IF THIS CONDITION IS NOT ACHIEVED, IMPLEMENT OTHER TEMPORARY STABILIZATION MEASURES FOR OVERWINTER PROTECTION.

TABLE 4-1. SEEDING RECOMMENDATIONS FOR TEMPORARY VEGETATION

SPECIES	PER ACRE BUSHELS (84) OR POUNDS (LBS)	REMARKS
WINTER RYE	2 BU. OR 112 LBS.	2.5 LBS. BEST FOR FALL SEEDING. SEED FROM AUGUST 15 TO SEPTEMBER 15 FOR BEST COVER. SEED TO A DEPTH OF 1 INCH.
OATS	2 LBS.	2.5 BU. OR 80 LBS. BEST FOR SPRING SEEDING. SEED NO LATER THAN MAY 15 FOR SUMMER PROTECTION. SEED TO A DEPTH OF 1 INCH.
ANNUAL RYEGRASS	40 LBS.	1 LB. GROWS QUICKLY, BUT IS OF SHORT DURATION. USE WHERE APPEARANCES ARE IMPORTANT. SEED EARLY SPRING AND/OR BETWEEN AUGUST 15 AND SEPTEMBER 15. COVER THE SEED WITH NO MORE THAN 0.25 INCH OF SOIL.
PERENNIAL RYEGRASS	30 LBS.	0.7 LB. LONGER LASTING THAN ANNUAL RYEGRASS. SEED BETWEEN APRIL 1 AND JUNE 1 AND/OR BETWEEN AUGUST 15 AND SEPTEMBER 15. MULCHING WILL ALLOW SEEDING THROUGHOUT THE GROWING SEASON. SEED TO A DEPTH OF APPROXIMATELY 0.5 INCH.

TEMPORARY VEGETATION

14. REMOVE ACCUMULATIONS OF SEDIMENT FROM DRAINAGE STRUCTURES, SEDIMENT BASINS AND DEEP SWALS ALL AREAS TO BE LOADED & MAINTAINED NECESSARY UPON COMPLETION OF PROJECT.
15. THE MAXIMUM AMOUNT OF AREA ALLOWED TO BE DISTURBED & UNSTABILIZED AT ONE TIME IS 1.5 ACRES. ALL AREAS SHALL BE STABILIZED WITHIN 45 DAYS FROM INITIAL DISTURBANCE.
16. WINTER CONSTRUCTION NOTES:
 - A) DURING WINTER CONDITIONS, THE MAXIMUM ALLOWABLE DISTURBED AREA SHALL BE 0.5 ACRES.
 - B) ALL PROPOSED VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15th, OR WHICH ARE DISTURBED AFTER OCTOBER 15th, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING. ELSEWHERE, THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.
 - C) ALL DITCHES AND SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15th, OR WHICH ARE DISTURBED AFTER OCTOBER 15th, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.
 - D) AFTER OCTOBER 15th, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL, PER N.H.D.O.T. ITEM 304.3.

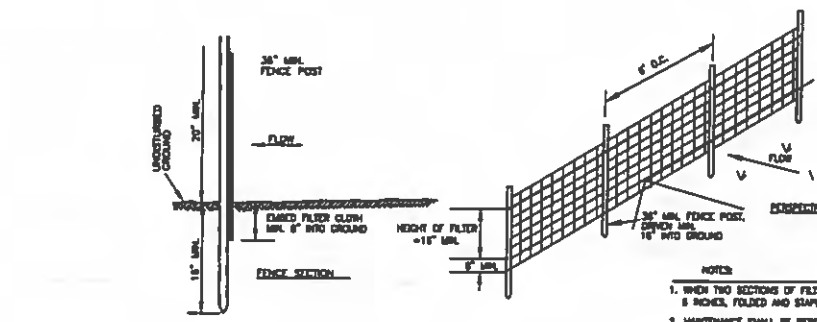
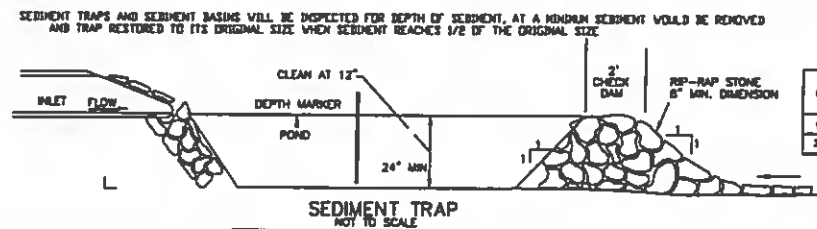


- CONSIDERATIONS**
1. THIS PRACTICE IS INTENDED FOR USE IN AREAS OF CONCENTRATED FLOW, BUT MUST NOT BE USED IN STREAM CHANNELS (WHETHER PERENNIAL OR INTERMITTENT).
 2. THE CHECK DAM MAY BE LEFT IN PLACE PERMANENTLY TO AVOID UNNECESSARY DISTURBANCE OF THE SOIL ON REMOVAL, BUT ONLY IF THE PROJECT DESIGN HAS ACCOUNTED FOR THEIR HYDRAULIC PERFORMANCE AND CONSTRUCTION PLANS CALL FOR THEM TO BE RETAINED.
 3. IF IT IS NECESSARY TO REMOVE A STONE CHECK DAM FROM A GRASSLINED CHANNEL THAT WILL BE MOVED, CARE SHALL BE TAKEN TO ENSURE THAT ALL STONES ARE REMOVED. THIS INCLUDES STONE THAT HAS WASHED DOWNSTREAM.
- MAINTENANCE REQUIREMENTS**
4. CHECK DAMS SHALL BE INSPECTED AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL AND NECESSARY REPAIRS SHALL BE MADE IMMEDIATELY.
 5. INSPECTIONS SHALL VERIFY THAT THE CENTER OF THE DAM IS LOWER THAN THE EDGES.
 6. EROSION CAUSED BY HIGH FLOWS AROUND THE EDGES OF THE DAM MUST BE CORRECTED IMMEDIATELY.
 7. IF EVIDENCE OF SILTATION IN THE WATER IS APPARENT DOWNSTREAM FROM THE CHECK DAM, THE CHECK DAM SHALL BE INSPECTED AND ADJUSTED IMMEDIATELY.
 8. CHECK DAMS SHALL BE CHECKED FOR SEDIMENT ACCUMULATION AFTER EACH SIGNIFICANT RAINFALL. SEDIMENT SHALL BE REMOVED WHEN IT REACHES ONE HALF OF THE ORIGINAL HEIGHT OR BEFORE.

- SPECIFICATIONS**
9. CHECK DAMS SHALL BE INSTALLED BEFORE RUNOFF IS DIRECTED TO THE SWALE OR DRAINAGE DITCH.
 10. THE MAXIMUM CONTRIBUTING DRAINAGE AREA TO THE DAM SHALL BE LESS THAN ONE ACRE.
 11. THE MAXIMUM HEIGHT OF THE DAM SHALL BE 2 FEET.
 12. THE CENTER OF THE DAM SHALL BE AT LEAST 6 INCHES LOWER THAN THE OUTER EDGES.
 13. THE MAXIMUM SPACING BETWEEN THE DAMS SHALL BE SUCH THAT THE TIE OF THE UPSTREAM DAM IS AT THE SAME ELEVATION AS THE OVERFLOW ELEVATION OF THE DOWNSTREAM DAM.
 14. STONE CHECK DAMS SHALL BE CONSTRUCTED OF A WELL-GRADED ANGULAR 2-INCH TO 3-INCH STONE. 3/4-INCH STONE ON THE UPGRADIENT FACE IS RECOMMENDED FOR BETTER FILTERING.
 15. IF PROVIDED BY DESIGN AND CONSTRUCTION PLANS, LEAVE THE DAM IN PLACE PERMANENTLY.
 16. TEMPORARY STRUCTURES SHALL BE REMOVED ONCE THE SWALE OR DITCH HAS BEEN STABILIZED:
 - IN TEMPORARY DITCHES AND SWALES, CHECK DAMS SHALL BE REMOVED AND THE DITCH FILLED IN WHEN IT IS NO LONGER NEEDED.
 - IN PERMANENT STRUCTURES, CHECK DAMS SHALL BE REMOVED WHEN A PERMANENT LINING HAS BEEN ESTABLISHED. IF THE PERMANENT LINING IS VEGETATION, THEN THE CHECK DAM SHALL BE RETAINED UNTIL THE GRASS HAS MATURED TO PROTECT THE DITCH OR SWALE. THE AREA BENEATH THE CHECK DAM MUST BE SEEDED AND MULCHED IMMEDIATELY AFTER REMOVAL.

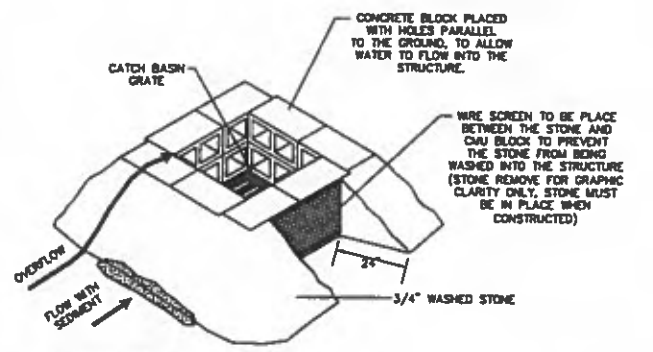
TEMPORARY STONE CHECK DAMS

NOT TO SCALE



TEMPROARY FABRIC SILTATION FENCE

NOT TO SCALE



- MAINTENANCE REQUIREMENTS**
1. INLET BARRIERS SHALL BE INSPECTED BEFORE AND AFTER EACH RAIN EVENT AND REPAIRED AS NEEDED.
 2. SEDIMENT SHALL BE REMOVED AND THE STORM DRAIN SEDIMENT BARRIER RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE BARRIER. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
 3. THE BARRIERS SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
 4. ALL CATCH BASINS AND STORM DRAIN INLETS MUST BE CLEARED AT THE END OF CONSTRUCTION AND AFTER THE SITE HAS BEEN FULLY STABILIZED.
- SPECIFICATIONS**
5. THE MAXIMUM CONTRIBUTING DRAINAGE AREA TO THE TRAP SHALL BE LESS THAN ONE ACRE.
 6. THE INLET PROTECTION DEVICE SHALL BE CONSTRUCTED IN A MANNER THAT WILL FACILITATE CLEAN-OUT AND DISPOSAL OF TRAPPED SEDIMENTS AND MINIMIZE INTERFERENCE WITH CONSTRUCTION ACTIVITIES.
 7. ANY RESULANT PONDING OF STORMWATER MUST NOT CAUSE EXCESSIVE INCONVENIENCE OR DAMAGE TO ADJACENT AREAS OR STRUCTURES.
 8. THE BLOCKS SHALL BE PLACED LENGTHWISE IN A SINGLE ROW AROUND THE PERIMETER OF THE INLET.
 9. THE BLOCK ENDS SHALL ABUT ONE ANOTHER.
 10. THE HEIGHT OF THE BARRIER CAN BE VARIED, DEPENDING ON DESIGN NEEDS, BY STACKING COMBINATIONS OF 4-INCH, 8-INCH AND 12-INCH WIDE BLOCKS. THE BARRIER OF BLOCKS AND GRAVEL FILTER SHALL BE A MINIMUM OF 12 INCHES HIGH AND NO MORE THAN 24 INCHES HIGH.
 11. A HARDWARE CLOTH OR WIRE MESH SHALL BE PLACED OVER THE OPENINGS OF THE CONCRETE BLOCKS AND EXTEND AT LEAST 12 INCHES AROUND THE OPENING TO PREVENT AGGREGATE FROM BEING TRANSPORTED THROUGH THE OPENINGS IN THE BLOCKS. HARDWARE CLOTH OR COMPARABLE WIRE MESH WITH 1/2-INCH OPENINGS SHALL BE USED.
 12. THE GRAVEL FILTER SHALL BE CLEAN COARSE AGGREGATE.
 13. THE GRAVEL SHALL BE PLACED AGAINST THE WIRE AND ALONG THE OUTSIDE EDGES OF THE BLOCKS TO THE TOP OF THE BLOCK BARRIER.
 14. IF THE STONE FILTER BECOMES CLOGGED WITH SEDIMENT SO THAT IT NO LONGER ADEQUATELY PERFORMS ITS FUNCTION, THE STONE MUST BE PULLED AWAY FROM THE BLOCKS, CLEARED AND REPLACED.
- MANUFACTURED SEDIMENT BARRIERS**
15. MANUFACTURED SEDIMENT BARRIERS ARE NOW AVAILABLE THAT COULD BE FUNCTIONALLY EQUIVALENT TO THE BARRIERS LISTED ABOVE. THESE MEASURES ARE ACCEPTABLE AS LONG AS THEY ARE INSTALLED, USED, AND MAINTAINED AS SPECIFIED BY THE VENDOR OR MANUFACTURER, AND PREVENT SEDIMENT FROM ENTERING THE STORM DRAIN SYSTEM. IF SUCH PRODUCTS FAIL TO PERFORM THE REQUIRED SEDIMENT TRAPPING FUNCTION, THEY SHALL BE REMOVED AND REPLACED WITH AN EFFECTIVE ALTERNATIVE BARRIER.

TEMPORARY STORM DRAIN INLET PROTECTION

NOT TO SCALE

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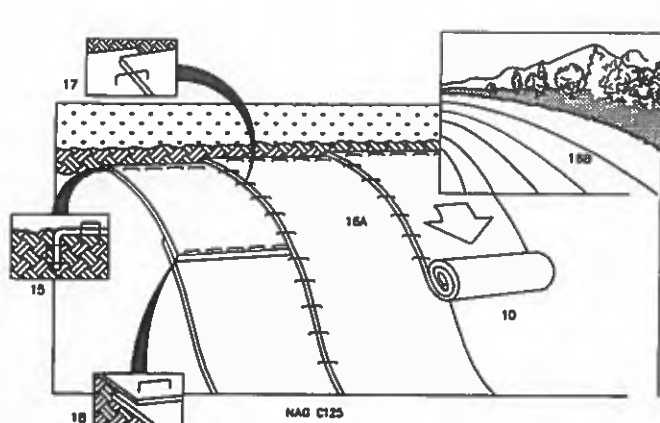
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N.H. LAND Consultants
SURVEYING-LAND PLANNING-REAL ESTATE
A Veteran Owned Company

EROSION CONTROL NOTES & DETAILS - 1
TAX MAP 102 LOT 35
CONDOMINIUM SUBDIVISION
71 CEDAR ST. HOPKINTON, (CONTOOCOOK) NH
OWNED BY
BAYSTONE PROPERTIES, LLC
44 NORTH SHORE ROAD, DERRY, NH 03038
LOT 35 - BOOK 3691 PAGE 1764

MERRIMACK CO.
JOB NO: 393.00
DATE: JUNE 21, 2021

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SHT. 15 of 18



- CONSIDERATIONS**
1. DURING THE GROWING SEASON (APRIL 15 - SEPTEMBER 15) USE MATS OR MULCH AND NETTING ON SLOPES 15% OR GREATER AND ANY DISTURBED SOIL WITHIN 100 FEET OF LAKES, STREAMS AND WETLANDS.
 2. DURING THE LATE FALL AND WINTER (SEPTEMBER 15 - APRIL 15) USE HEAVY GRADE MATS ON ALL AREAS NOTED ABOVE PLUS USE LIGHTER GRADE MATS OR MULCH AND NETTING ON SLOPES GREATER THAN 8% THERE MAY BE CASES WHERE MATS WILL BE NEEDED ON SLOPES FLATTER THAN 8% DEPENDING ON SITE CONDITIONS AND THE LENGTH OF THE SLOPE.

3. INSTALL MATS AND STAPLE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

MAINTENANCE REQUIREMENTS

4. ALL BLANKET AND MATS SHOULD BE INSPECTED WEEKLY DURING THE CONSTRUCTION PERIOD, AND AFTER ANY RAINFALL EVENT EXCEEDING 1/2 INCH IN A 24-HOUR PERIOD.

5. ANY FAILURE SHOULD BE REPAIRED IMMEDIATELY. IF WASHOUT OF THE SLOPE, DISPLACEMENT OF THE MAT, OR DAMAGE TO THE MAT OCCURS, THE AFFECTED SLOPE SHALL BE REPAIRED AND RESEEDED, AND THE AFFECTED AREA OF MAT SHALL BE RE-INSTALLED OR REPLACED.

SPECIFICATIONS

6. GRADE AND SHAPE AREA OF INSTALLATION.

7. REMOVE ALL ROCKS, CLODS, TRASH, VEGETATIVE OR OTHER OBSTRUCTIONS SO THAT THE INSTALLED BLANKETS WILL HAVE DIRECT CONTACT WITH THE SOIL.

8. PREPARE SEEDBED BY LOOSENING 2-3 INCHES OF TOPSOIL ABOVE FINAL GRADE.

9. INCORPORATE AMENDMENTS, SUCH AS LIME AND FERTILIZER, INTO SOIL ACCORDING TO SOIL TEST AND THE SEEDING PLAN.

SEEDING

10. SEED AREA BEFORE BLANKET INSTALLATION FOR EROSION CONTROL AND RE-VEGETATION. SEEDING AFTER MAT INSTALLATION IS OFTEN SPECIFIED FOR TURF REINFORCEMENT APPLICATION. WHEN SEEDING PRIOR TO BLANKET INSTALLATION, ALL CHECK SLOTS AND OTHER AREAS DISTURBED DURING INSTALLATION MUST BE RESEEDED.

11. WHERE SOIL FILLING IS SPECIFIED, SEED THE MATTING AND THE ENTIRE DISTURBED AREA AFTER INSTALLATION AND PRIOR TO FILLING THE MAT WITH SOIL.

INSTALLING AND ANCHORING BLANKETS

12. BLANKETS SHALL BE INSTALLED AND ANCHORED PER THE MANUFACTURER'S SPECIFICATIONS.

13. ENSURE COMPLETE CONTACT OF THE PROTECTION MATTING WITH THE SOIL.

INSTALLATION ON SLOPES

14. BLANKETS SHALL BE INSTALLED ON SLOPES PER THE MANUFACTURER'S SPECIFICATIONS. IF THE MANUFACTURER'S INSTRUCTIONS DIFFER FROM THOSE LISTED BELOW, THE MANUFACTURER'S INSTRUCTIONS SHOULD BE FOLLOWED.

15. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.

16. ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE.

17. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 6" OVERLAP.

18. WHEN BLANKETS MUST BE SPACED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY 6" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART.

TEMPORARY EROSION CONTROL BLANKET ON SLOPES

NOT TO SCALE

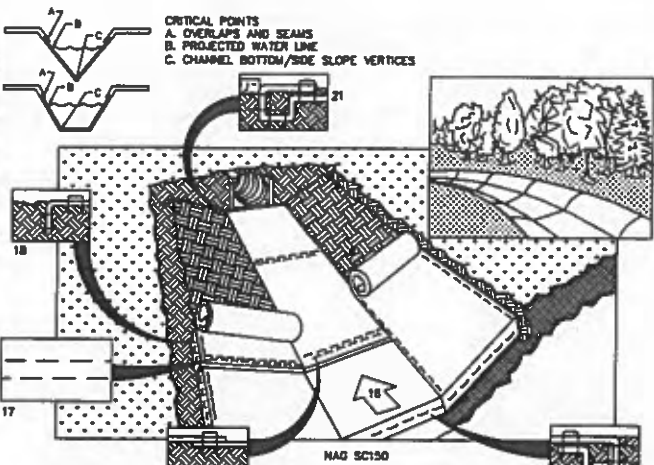
TEMPORARY EROSION CONTROL BLANKETS NHFG WILDLIFE FRIENDLY REQUIREMENTS

CONSIDERATIONS

1. THE ELIMINATION OF PLASTIC OR "BIODEGRADABLE PLASTIC" EROSION CONTROL NETTING IS REQUIRED AS THESE ARE KNOWN SOURCE OF ENTRAPMENT AND MORTALITY TO PROTECTED SNAKES AND TURTLES.

2. SEVERAL "WILDLIFE FRIENDLY" OPTIONS SUCH AS WOVEN ORGANIC MATERIAL (E.G., COCO MATTING) OR THE USE OF EROSION CONTROL BEEM GRAY.

3. ACCEPTABLE MATERIALS INCLUDE NORTH AMERICAN GREEN C125BN OR EAST COAST EROSION CONTROL BLANKET ECC-28 BOTH ARE BIODEGRADABLE WITH A COCONUT FIBER MATRIX AND JUTE NETTING.



CONSIDERATIONS

1. DURING THE GROWING SEASON (APRIL 15 - SEPTEMBER 15) USE MATS OR MULCH AND NETTING ON THE BASE OF GRASSED WATERWAYS.
2. DURING THE LATE FALL AND WINTER (SEPTEMBER 15 - APRIL 15) USE HEAVY GRADE MATS ON SIDE SLOPES OF GRASSED WATERWAYS.

3. INSTALL MATS AND STAPLE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

MAINTENANCE REQUIREMENTS

4. ALL BLANKET AND MATS SHOULD BE INSPECTED WEEKLY DURING THE CONSTRUCTION PERIOD, AND AFTER ANY RAINFALL EVENT EXCEEDING 1/2 INCH IN A 24-HOUR PERIOD.

5. ANY FAILURE SHOULD BE REPAIRED IMMEDIATELY. IF WASHOUT OF THE SLOPE, DISPLACEMENT OF THE MAT, OR DAMAGE TO THE MAT OCCURS, THE AFFECTED SLOPE SHALL BE REPAIRED AND RESEEDED, AND THE AFFECTED AREA OF MAT SHALL BE RE-INSTALLED OR REPLACED.

SPECIFICATIONS

6. GRADE AND SHAPE AREA OF INSTALLATION.

7. REMOVE ALL ROCKS, CLODS, TRASH, VEGETATIVE OR OTHER OBSTRUCTIONS SO THAT THE INSTALLED BLANKETS WILL HAVE DIRECT CONTACT WITH THE SOIL.

8. PREPARE SEEDBED BY LOOSENING 2-3 INCHES OF TOPSOIL ABOVE FINAL GRADE.

9. INCORPORATE AMENDMENTS, SUCH AS LIME AND FERTILIZER, INTO SOIL ACCORDING TO SOIL TEST AND THE SEEDING PLAN.

SEEDING

10. SEED AREA BEFORE BLANKET INSTALLATION FOR EROSION CONTROL AND RE-VEGETATION. SEEDING AFTER MAT INSTALLATION IS OFTEN SPECIFIED FOR TURF REINFORCEMENT APPLICATION. WHEN SEEDING PRIOR TO BLANKET INSTALLATION, ALL CHECK SLOTS AND OTHER AREAS DISTURBED DURING INSTALLATION MUST BE RESEEDED.

11. WHERE SOIL FILLING IS SPECIFIED, SEED THE MATTING AND THE ENTIRE DISTURBED AREA AFTER INSTALLATION AND PRIOR TO FILLING THE MAT WITH SOIL.

INSTALLING AND ANCHORING BLANKETS

12. BLANKETS SHALL BE INSTALLED AND ANCHORED PER THE MANUFACTURER'S SPECIFICATIONS.

13. ENSURE COMPLETE CONTACT OF THE PROTECTION MATTING WITH THE SOIL.

INSTALLATION IN CHANNELS

14. BLANKETS SHALL BE INSTALLED IN CHANNELS PER THE MANUFACTURER'S SPECIFICATIONS. IF THE MANUFACTURER'S INSTRUCTIONS DIFFER FROM THOSE LISTED BELOW, THE MANUFACTURER'S INSTRUCTIONS SHOULD BE FOLLOWED.

15. BEGIN AT THE OUTLET OF THE CHANNEL BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.

16. ROLL CENTER BLANKET IN DIRECTION OF THE INLET END OF THE CHANNEL.

17. PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH A 6" OVERLAP. USE A DOUBLE ROW OF STAGGERED STAPLES 4" APART TO SECURE BLANKETS.

18. FULL LENGTH EDGE OF BLANKETS AT TOP OF SIDE SLOPES MUST BE ANCHORED IN 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.

19. BLANKETS ON SIDE SLOPES MUST BE OVERLAPPED 4" OVER THE CENTER BLANKET AND STAPLED.

20. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT INTERVALS. USE A ROW OF STAPLES 4" APART OVER ENTIRE WIDTH OF THE CHANNEL. PLACE A SECOND ROW 4" BELOW THE FIRST ROW IN A STAGGERED PATTERN.

21. THE TERMINAL END OF THE BLANKETS MUST BE ANCHORED IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.

TEMPORARY EROSION CONTROL BLANKET FOR CHANNELS

NOT TO SCALE

TEMPORARY & PERMANENT MULCHING

CONSIDERATIONS

1. WITHIN 100 FEET OF STREAMS, WETLANDS AND IN LAKE WATERSHEDS, TEMPORARY MULCH SHOULD BE APPLIED WITHIN 7 DAYS OF EXPOSING SOIL OR PRIOR TO ANY STORM EVENT.
2. AREAS THAT HAVE BEEN TEMPORARILY OR PERMANENTLY SEEDED SHOULD BE MULCHED IMMEDIATELY FOLLOWING SEEDING.
3. AREAS THAT CANNOT BE SEEDED WITHIN THE GROWING SEASON SHOULD BE MULCHED FOR OVER-WINTER PROTECTION. THE AREA SHOULD BE SEEDED AT THE BEGINNING OF THE NEXT GROWING SEASON.
4. MULCH ANCHORING SHOULD BE USED ON SLOPES WITH GRADIENTS GREATER THAN 5% IN LATE FALL (PAST SEPTEMBER 15), AND OVER-WINTER (SEPTEMBER 15 - MAY 15).
5. PERMANENT MULCH CAN BE USED IN CONJUNCTION WITH TREE, SHRUB, VINE, AND GRASS COVER PLANTINGS.

MAINTENANCE REQUIREMENTS

6. ALL TEMPORARY MULCHES MUST BE INSPECTED PERIODICALLY AND IN PARTICULAR AFTER RAINSTORMS, TO CHECK FOR RILL EROSION OR DISPLACEMENT OF THE MULCH. IF LESS THAN 50% OF THE SOIL SURFACE IS COVERED BY MULCH, ADDITIONAL MULCH SHOULD BE IMMEDIATELY APPLIED. NETS MUST BE INSPECTED AFTER RAIN EVENTS FOR DISLOCATION OR FAILURE. IF WASHOUTS OR BREAKAGES OCCUR, REPAIR ANY DAMAGE TO THE SLOPE AND RE-INSTALL OR REPLACE NETTING AS NECESSARY. INSPECTIONS SHOULD TAKE PLACE UNTIL GRASSES ARE FULLY ESTABLISHED (SOIL SURFACE UNIFORMLY COVERED WITH HEALTHY STAND OF GRASS).

7. EROSION CONTROL MIX MULCH USED FOR TEMPORARY STABILIZATION SHOULD BE LEFT IN PLACE. VEGETATION ADDS STABILITY AND SHOULD BE PROMOTED.

8. WHERE PERMANENT MULCH IS USED IN CONJUNCTION WITH ORNAMENTAL PLANTINGS, INSPECT PERIODICALLY THROUGHOUT THE YEAR TO DETERMINE IF MULCH IS MAINTAINING COVERAGE OF THE SOIL SURFACE. REPAIR AS NEEDED.

9. PERMANENT MULCHED AREAS SHOULD BE INSPECTED AT LEAST ANNUALLY, AND AFTER EACH LARGE RAINFALL (2.5 INCHES OR MORE IN A 24-HOUR PERIOD). ANY REQUIRED REPAIRS SHOULD BE MADE IMMEDIATELY. WHERE EROSION CONTROL MIX HAS BEEN USED, PLACE ADDITIONAL MIX ON TOP OF THE MULCH TO MAINTAIN THE RECOMMENDED THICKNESS. WHEN THE MULCH IS DECOMPOSED, CLOTTED WITH SEDIMENT, CRACKED OR INEFFECTIVE, IT MUST BE REPLACED OR REPAIRED.

10. IF THE MULCH NEEDS TO BE REMOVED, SPREAD IT OUT INTO THE LANDSCAPE.

RECOMMENDATIONS

11. APPLY MULCH PRIOR TO A STORM EVENT. THIS IS APPLICABLE IN EXTREMELY SENSITIVE AREAS SUCH AS WITHIN 100 FEET OF LAKES, POND, RIVERS, STREAMS, AND WETLANDS. IT WILL BE NECESSARY TO CLOSELY MONITOR WEATHER PREDICTIONS TO HAVE ADEQUATE WARNING OF SIGNIFICANT STORMS.

12. MULCHING SHOULD BE COMPLETED WITHIN THE FOLLOWING SPECIFIED TIME PERIODS FROM ORIGINAL SOIL EXPOSURE:

- WITHIN 100 FEET OF RIVERS AND STREAMS, WETLANDS, AND IN LAKE AND POND WATERSHEDS, THE TIME PERIOD SHOULD BE NO GREATER THAN 7 DAYS. THIS 7-DAY LIMIT SHOULD BE REDUCED FURTHER DURING WET WEATHER PERIODS.
- IN OTHER AREAS, THE TIME PERIOD CAN RANGE FROM 14 TO 30 DAYS, THE LENGTH OF TIME VARYING WITH SITE CONDITIONS (SOIL ERODIBILITY, SEASON OF YEAR, EXTENT OF DISTURBANCE, PROXIMITY TO SENSITIVE RESOURCES) AND THE POTENTIAL IMPACT OF EROSION ON ADJACENT AREAS. OTHER STATE OR LOCAL RESTRICTIONS MAY ALSO APPLY.

13. THE CHOICE OF MATERIALS FOR MULCHING SHOULD BE BASED ON SITE CONDITIONS, SOILS, SLOPE, FLOW CONDITIONS, AND TIME OF YEAR.

MAT OR STRAW MULCHES

14. ORGANIC MULCHES INCLUDING HAY AND STRAW SHOULD BE AIR-DRIED, FREE OF UNDESIRABLE SEEDS AND COARSE MATERIAL.

15. APPLICATION RATE SHOULD BE 2 BALES (75-80 POUNDS) PER 1000 SQUARE FEET OR 1.5 TO 2 TONS (90-100 BALES) PER ACRE TO COVER 75 TO 90 % OF THE GROUND SURFACE.

16. HAY OR STRAW MULCH SHOULD BE ANCHORED TO PREVENT DISPLACEMENT BY WIND OR FLOWING WATER, USING ONE OF THE FOLLOWING METHODS:

- NETTING: INSTALL JUTE, WOOD FIBER, OR BIODEGRADABLE PLASTIC NETTING OVER HAY OR STRAW TO ANCHOR IT TO THE SOIL SURFACE. INSTALL NETTING MATERIAL ACCORDING TO MANUFACTURER'S RECOMMENDATION. NETTING SHOULD BE USED JOINTLY WITH MULCH. MULCH CAN BECOME ENTANGLED IN THE MATERIALS.
- TACKIFIER: APPLY POLYMER OR ORGANIC TACKIFIER TO ANCHOR HAY OR STRAW MULCH. APPLICATION RATES VARY BY MANUFACTURER. TYPICALLY 40-80 LBS/ACRE FOR POLYMER MATERIAL, AND 80-120 LBS/ACRE FOR ORGANIC MATERIAL. LIQUID MULCH BINDERS ARE ALSO TYPICALLY APPLIED HEAVIER AT EDGES, IN VALLEYS, AND AT CRESTS THAN OTHER AREAS.

17. WHEN MULCH IS APPLIED TO PROVIDE PROTECTION OVER WINTER (PAST THE GROWING SEASON), IT SHOULD BE APPLIED TO A DEPTH OF FOUR INCHES (150-200 POUNDS PER 1000 SQUARE FEET, OR DOUBLE STANDARD APPLICATION RATES). SEEDING CANNOT GENERALLY BE EXPECTED TO GROW UP THROUGH THIS DEPTH OF MULCH AND WILL BE SMOTHERED. IF VEGETATION IS DESIRED, THE MULCH WILL NEED TO BE REMOVED IN THE SPRINGTIME AND THE AREA RESEED AND MULCHED.

WOOD CHIPS OR BARK

18. WOOD CHIPS OR BARK SHOULD BE APPLIED AT A THICKNESS OF 2 TO 8 INCHES.

19. WOOD CHIPS OR BARK SHOULD BE APPLIED AT A RATE OF 10 TO 20 TONS PER ACRE OR 480 TO 920 POUNDS PER 1,000 SQUARE FEET.

EROSION CONTROL MIX

20. EROSION CONTROL MIX CAN BE MANUFACTURED ON OR OFF THE PROJECT SITE. IT MUST CONSIST PRIMARILY OF ORGANIC MATERIAL, SEPARATED AT THE POINT OF GENERATION, AND MAY INCLUDE SHREDDED BARK, STRAW, GRASSHOPS, COMPOSTED BARK, OR ACCEPTABLE MANUFACTURED PRODUCTS. WOOD AND BARK CHIPS, GROUND CONSTRUCTION DEBRIS OR RECYCLED WOOD PRODUCTS WILL NOT BE ACCEPTABLE AS THE ORGANIC COMPONENT OF THE MIX.

21. COMPOSITION OF THE EROSION CONTROL MIX SHOULD BE AS FOLLOWS:

- EROSION CONTROL MIX SHOULD CONTAIN A WELL-GRADED Mixture OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER. EROSION CONTROL MIX MUST BE FREE OF TOXIC, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH. THE MIX COMPOSITION SHOULD MEET THE FOLLOWING STANDARDS:
- THE ORGANIC CONTENT SHOULD BE BETWEEN 25 AND 85% DRY WEIGHT BASIS.
- PARTICLE SIZE BY WEIGHT SHOULD BE: 10% PASSING A #10 SCREEN, 50% TO 100% PASSING A 1/8" SCREEN, 70% TO 100% PASSING A 0.75" SCREEN, AND A MAXIMUM OF 30% TO 75% PASSING A 0.25" SCREEN.
- THE ORGANIC PORTION SHOULD BE FREE OF FIBERS AND LONGWEARS.
- THE MIX SHOULD NOT CONTAIN SEEDS, CLAYS OR FINE SANDS.
- SOLUBLE SALT CONTENT SHOULD BE < 4.0 MGD/100L.
- THE PH SHOULD BE BETWEEN 5.0 AND 8.0.

22. THE BARRIER MUST BE PLACED ALONG A RELATIVELY LEVEL CONTOUR. IT MAY BE NECESSARY TO CUT TALL GRASSES OR WOODY VEGETATION TO AVOID CREATING VOIDS AND BRIDGES THAT WOULD SHIELD FIBES TO WASH UNDER THE BARRIER THROUGH THE GRASS BLADES OR PLANT STEMS.

23. THE BARRIER MUST BE A MINIMUM OF 12" HIGH, AS MEASURED ON THE UPHILL SIDE OF THE BARRIER, AND A MINIMUM OF TWO FEET WIDE.

WINTER CONSTRUCTION NOTES

1. ALL PROPOSED VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCT. 15TH, OR WHICH ARE DISTURBED AFTER OCT. 15TH, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING ELSEWHERE. THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.

2. ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCT. 15TH, OR WHICH ARE DISTURBED AFTER OCT. 15TH, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.

3. AFTER OCTOBER 15TH, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL PER NHDOT ITEM 304.3.

GN-4: VEGETATION STABILIZATION NOTES

ALL VEGETATION STABILIZATION SHALL BE IN ACCORDANCE WITH USDA NRCS "VEGETATING NEW HAMPSHIRE SAND AND GRAVEL PITTS", IN ADDITION TOO "BEST MANAGEMENT PRACTICES FOR ROUTINE ROADWAY MAINTENANCE ACTIVITIES IN NEW HAMPSHIRE", LATEST EDITIONS.

PARK SEED TYPE 18 SHALL NORMALLY BE USED ON LOAM AREAS. THIS SEED MIXTURE SHALL CONFORM TO TABLE 1 UNLESS AMENDED BY THE PROJECT ENGINEER TO SUIT ACTUAL FIELD CONDITIONS.

KIND OF SEED	TABLE 1		POUNDS/ACRE
	MINIMUM PURITY (%)	MINIMUM GERMINATION (%)	
CREeping FESCUE	98	85	40
PERENNIAL RYEGRASS	98	85	50
KENTUCKY BLUEGRASS	97	85	25
REDTOP	95	80	5
		TOTAL	120

SLOPE SEED TYPE 44 SHALL NORMALLY BE USED FOR ALL SLOPE WORK, and SHALL CONFORM TO TABLE 2 UNLESS AMENDED BY THE DESIGN ENGINEER TO SUIT ACTUAL FIELD CONDITIONS.

KIND OF SEED	TABLE 2		POUNDS/ACRE
	MINIMUM PURITY (%)	MINIMUM GERMINATION (%)	
CREeping RED FESCUE	98	85	35
PERENNIAL RYEGRASS	98	85	30
REDTOP	95	80	5
ALBUKE CLOVER	97	80	5
BIRDFOOT TREFOIL	98	80	5
		TOTAL	80

SEEDING SEASON:

1. SEEDBED PREPARATION
 - A. ALL AREAS TO BE SEEDED SHALL BE A REASONABLY FIRM, BUT FRAGILE.
 - B. SURFACE and SEEPAGE WATER SHOULD BE DRAINED OR DIVERTED FROM THE SITE TO PREVENT DROWNING OR WINTER KILLING.
 - C. THE SEEDBED SHOULD BE LEFT IN A REASONABLY FIRM and SMOOTH CONDITION, FOLLOWING SEEDING OPERATIONS.
 - D. ALL AREAS TO BE SEEDED SHALL MEET THE SPECIFIED GRADES, AS SPECIFIED ON THE APPROVED PLAN.
 - E. ALL VEGETATION SHALL BE INSPECTED ANNUALLY FOR UNHEALTHY or DEAD AREAS. ANY and ALL SUCH AREAS ARE TO BE REPAIRED or REPLACED IN KIND.

2. ESTABLISHING A STAND
 - A. LIME AND FERTILIZER SHOULD BE APPLIED PRIOR TO OR AT THE TIME OF SEEDING AND INCORPORATED INTO THE SOIL. KINDS AND AMOUNTS OF LIME AND FERTILIZER SHOULD BE BASED ON EVALUATION OF SOIL TESTS. WHEN A SOIL TEST IS NOT AVAILABLE, THE FOLLOWING MINIMUM AMOUNTS SHOULD BE APPLIED:
 - AGRICULTURAL LIMESTONE: 2 TONS PER ACRE OR 0.09 LBS. PER SQ. FT.
 - NITROGEN (N): 80 LBS. PER ACRE OR 1.1 LBS. PER 1000 SQ. FT.
 - PHOSPHATE (P2O5): 100 LBS. PER ACRE OR 2.2 LBS. PER 1000 SQ. FT.
 - POTASH (K2O): 100 LBS. PER ACRE OR 2.2 LBS. PER 1000 SQ. FT.
 (NOTE: THIS IS THE EQUIVALENT OF 800 LBS. PER ACRE OF 10-20-20 FERTILIZER OR 1,000 LBS. PER ACRE OF 6-10-10)
 - B. SEED SHOULD BE SPREAD UNIFORMLY BY THE METHOD MOST APPROPRIATE FOR THE SITE. METHODS INCLUDE BROADCASTING, DRILLING, AND HYDROSEEDING. WHERE BROADCASTING IS USED, COVER SEED WITH 0.25 INCH O SOIL OR LESS, BY CULTIPACKING OR RAKING.

3. MULCH
 - A. HAY, STRAW, OR OTHER MULCH, WHEN NEEDED, SHOULD BE APPLIED IMMEDIATELY AFTER SEEDING.
 - B. MULCH WILL BE HELD IN PLACE USING TECHNIQUES FROM THE "BEST MANAGEMENT PRACTICE FOR MULCHING", AS SHOWN IN "STORMWATER MANAGEMENT AND SEDIMENTATION CONTROL HANDBOOK FOR URBAN AND DEVELOPING AREAS IN NEW HAMPSHIRE".

4. MAINTENANCE TO ESTABLISH A STAND
 - A. PLANTED AREAS SHOULD BE PROTECTED FROM DAMAGE BY FIRE, GRAZING, TRAFFIC, AND DENSE WEED GROWTH.
 - B. FERTILIZATION WILL BE PERFORMED ANNUALLY IN ACCORDANCE WITH NOTE 2A.
 - C. IN WATERWAYS, CHANNELS, OR SWALES WHERE UNIFORM FLOW CONDITIONS ARE ANTICIPATED, OCCASIONAL MOWING or TRIMMING WILL BE PERFORMED ANNUALLY TO CONTROL GROWTH.
 - D. ALL VEGETATION SHOULD BE INSPECTED REGULARLY and AFTER EVERY MAJOR RAIN EVENT (≥ 0.754 IN). DAMAGED AREAS SHOULD BE REPAIRED AND RE-VEGETATED IMMEDIATELY.

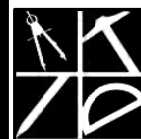
NO.	DATE	REVISIONS	
		DESCRIPTION	BY

SCALE
AS SHOWN

**N.H. LAND
Consultants**
SURVEYING - LAND PLANNING - REAL ESTATE
A Veteran Owned Company

EROSION CONTROL NOTES & DETAILS - 2
TAX MAP 102 LOT 35
CONDOMINIUM SUBDIVISION
71 CEDAR ST. HOPKINTON, (CONTOOCOOK) NH
OWNED BY
BAYSTONE PROPERTIES, LLC
44 NORTH SHORE ROAD, DERRY, NH 03038
LOT 35 - BOOK 3681 PAGE 1784

MERRIMACK CO.
JOB NO: 393.00
DATE: JUNE 21, 2021
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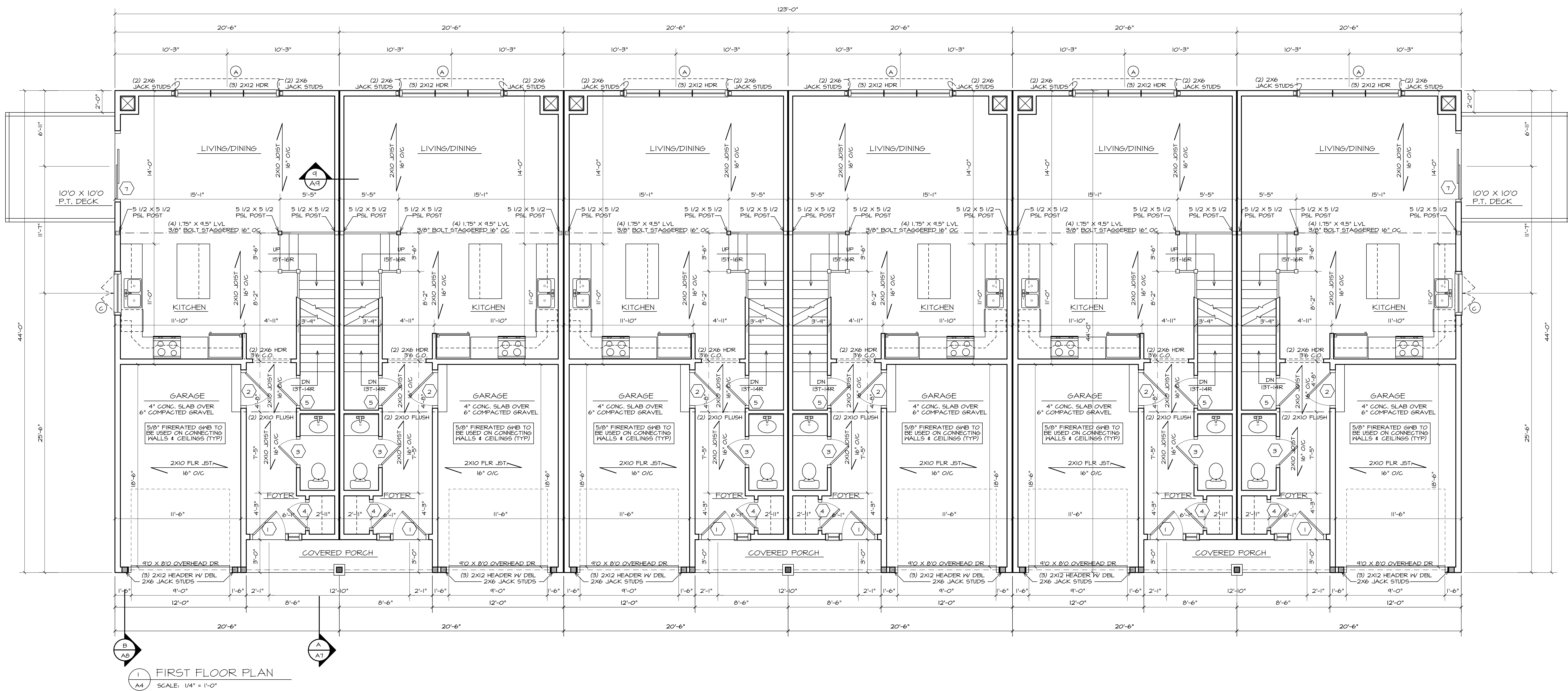
<div> <div>  Alternative Designs Inc. </div> <div>21-256</div> </div>	RIGHT UNIT		LEFT UNIT	
	FIRST FLOOR	656 S.F.	FIRST FLOOR	656 S.F.
	SECOND FLOOR	876 S.F.	SECOND FLOOR	876 S.F.
	TOTAL	1532 S.F.	TOTAL	1532 S.F.

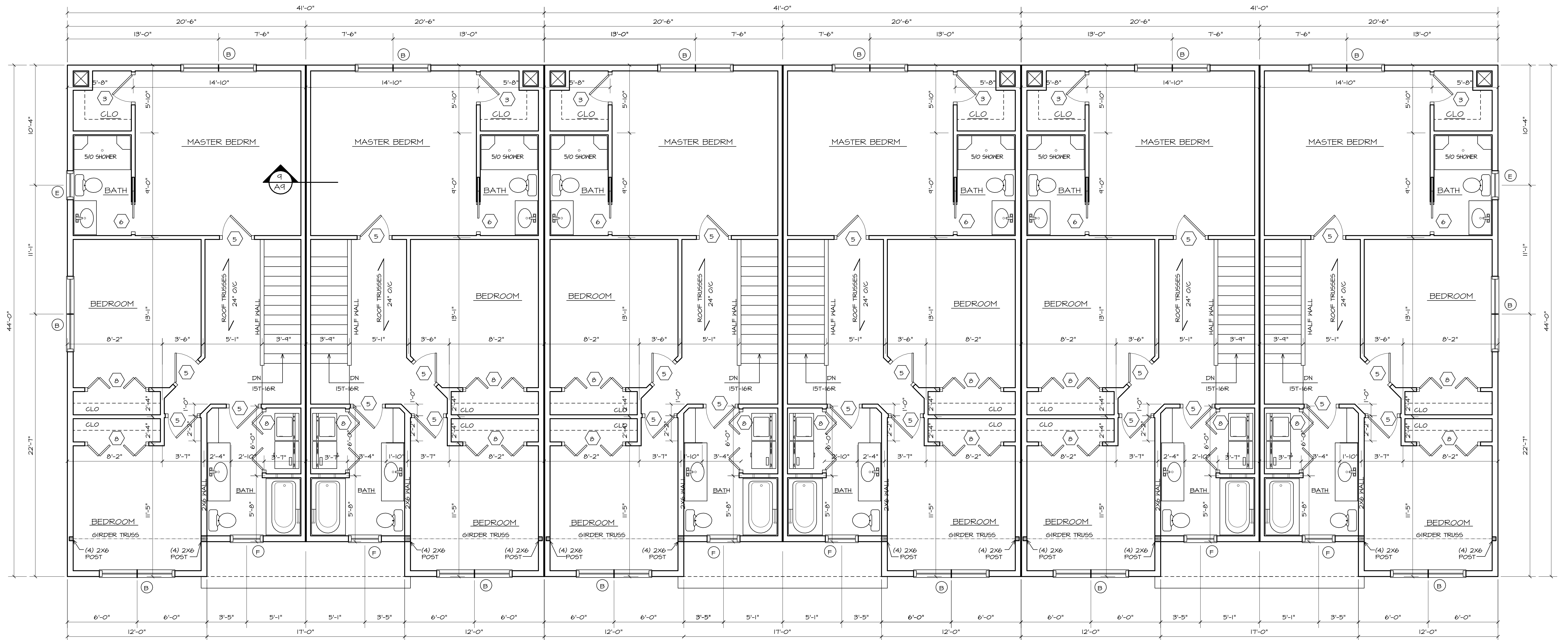


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FRONT ELEVATION

SCALE: 1/4" = 1'-0"





1 SECOND FLOOR PLAN
A5 SCALE: 1/4" = 1'-0"

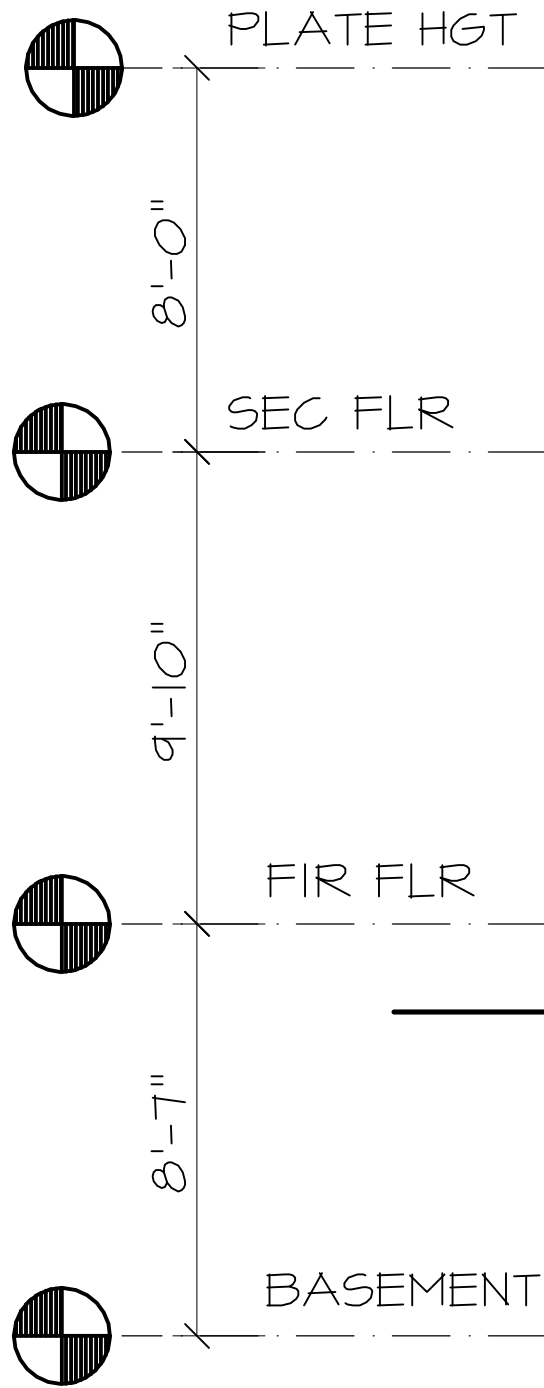
LEFT UNIT	
FIRST FLOOR	656 S.F.
SECOND FLOOR	876 S.F.
TOTAL	1532 S.F.

RIGHT UNIT	
FIRST FLOOR	656 S.F.
SECOND FLOOR	876 S.F.
TOTAL	1532 S.F.



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FRONT ELEVATION
SCALE: 1/4" = 1'-0"

2015 INTERNATIONAL RESIDENTIAL CODE

- CODE:**
 - ALL CONSTRUCTION SHALL FOLLOW LOCAL STATE BUILDING CODE, MANUFACTURES' SPECIFICATIONS, AND WELL KNOWN INDUSTRY STANDARDS. IF ANY QUESTIONS SHALL ARISE, THE DESIGNER OR ENGINEER ON RECORD SHALL BE CONTACTED.
 - INTERNATIONAL RESIDENTIAL CODE 2015 (IRC 2015) AND THE REFERENCED STANDARDS INCLUDED THEREIN. AHJ = AUTHORITY HAVING JURISDICTION.
 - NUMBER OF UNITS: X (1 OR 2)
 - NUMBER OF STORIES: X (MAX. 3)

- DESIGN LOADS:**
 - UNIFORM FLOOR LIVE LOAD (NON-BEDROOM):
 - NON -BEDROOM 40PSF
 - BEDROOM 30PSF
 - ATTIC 20PSF
 - UNIFORM FLOOR DEAD LOAD: 10PSF
 - ROOF SNOW LOAD (AHJ):
 - GROUND SNOW LOAD: X PSF (TOWN, STATE SPECIFIC)
 - DEAD LOAD: 10 PSF
 - WIND DESIGN:
 - EXPOSURE CATEGORY B (A-D, R301.2.1.4) (B IS NORMAL)
 - WIND SPEED ZONE (AHJ) 120 (90 - 120, MOST OF NORTHERN AND WESTERN NH AND WESTERN MA=90, CENTRAL AND SOUTH NH AND MA = 100, NH COAST, BOSTON AND SOUTH = 110, CAPE COD AND ISLANDS = 120, R301.2.4)
 - TOPOGRAPHIC EFFECTS (AHJ): NO (YES/NO)

- SEISMIC
 - DESIGN CATEGORY (AHJ) (A-E, R301.2.2), (C FOR MOST OF SOUTH AND CENTRAL NH AND B FOR MA)
- DAMAGE:
 - WEATHERING: SEVERE (CONCRETE) (R301.2(3))
 - TERMITE INFESTATION PROBABILITY: SLIGHT (NORTHERN NH), MODERATE (SOUTHERN NH), HEAVY (MA)
- DESIGN FROST DEPTH OF 4 FEET BELOW FINISHED GRADE (4' IS TYPICAL; VERIFY AS NEEDED WITH AHJ)
- WINTER DESIGN TEMP: NH: 0 DEG. F., MA 10 DEG. F. (PER 301.2(1))
- FLOOD HAZARD (AHJ): NO

- GENERAL NOTES:**
 - THESE DRAWINGS REPRESENT AN OVERALL DESIGN CONCEPT. THEY ARE PREPARED WITH THE INTENT TO DEMONSTRATE THE OVERALL DESIGN ARRANGEMENT AND METHODS OF ASSEMBLY TO THE VARIOUS COMPONENTS. THE DRAWINGS DO NOT INDICATE EXTENSIVE DETAILS. THE CONTRACTOR SHALL HAVE REVIEWED THESE PLANS, SEEN THE SUBJECT PROPERTY, AND BE CAPABLE OF EXECUTING THE DETAIL WORK AS NECESSARY TO ACHIEVE THE INTENDED RESULT, IN A MANNER CONSISTENT WITH QUALITY WORKMANSHIP WITHIN THE REGION.
 - ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE NATIONAL STATE AND LOCAL CODES, REGULATIONS AND FHA/VA MPS.
 - CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AT SITE BEFORE BEGINNING CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO ALTERNATIVE DESIGNS INC. FOR JUSTIFICATION AND OR CORRECTION BEFORE PROCEEDING WITH WORK.

- THE OWNER AND CONTRACTOR SHALL HOLD HARMLESS THE DESIGNER FROM AND AGAINST ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES (INCLUDING LEGAL FEES) ARISING OUT OF OR RESULTING FROM THE PERFORMANCE OF THE WORK BY THE CONTRACTOR.
- ALL DIMENSIONS SHOULD BE READ OR CALCULATED AND NEVER SCALED.
- ALL DIMENSIONS AND CONDITIONS MUST BE VERIFIED IN THE FIELD BY THE CONTRACTOR. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGNER OR STRUCTURAL ENGINEER BEFORE PROCEEDING.
- IN THE EVENT OF A CONFLICT BETWEEN PLANS, SPECIFICATIONS, AND DETAILS, THE DESIGNER OR STRUCTURAL ENGINEER SHALL BE NOTIFIED IMMEDIATELY FOR CONSULTATION. IF CONDITIONS AT THE SITE ARE DIFFERENT THAN SHOWN, THE DESIGNER OR STRUCTURAL ENGINEER SHALL BE NOTIFIED BEFORE ANY WORK IS PROCEEDED WITH.
- ALTERNATIVE DESIGN ASSUMES NO LIABILITY AS A RESULT OF ANY CHANGES OR NON CONFORMANCE WITH THESE PLANS EXCEPT UPON THE WRITTEN APPROVAL OF THE DESIGNER OR ENGINEER ON RECORD.
- ALTERNATIVE DESIGN ASSUMES NO LIABILITY FOR WORK PERFORMED WITHOUT AN ACCEPTABLE PROGRAM OF TESTING AND INSPECTION AS APPROVED BY THE ENGINEER ON RECORD.
- REPRODUCTION OF DESIGNER PLANS AND STRUCTURAL DRAWINGS FOR SHOP DRAWINGS IS NOT PERMITTED.
- SECTIONS, DETAILS, NOTES, METHODS, OR MATERIALS SHOWN AND/OR NOTED ON ANY PLAN, SECTION, OR ELEVATION SHALL APPLY TO ALL OTHER SIMILAR LOCATIONS UNLESS NOTED OTHERWISE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SHORING AND BRACING REQUIRED DURING CONSTRUCTION. TEMPORARY SUPPORTS REQUIRED FOR STABILITY DURING ALL INTERMEDIATE STAGES OF CONSTRUCTION SHALL BE REMOVED AFTER CONSTRUCTION AND ARE THE RESPONSIBILITY OF THE CONTRACTOR.



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RIDGEVIEW CONSTRUCTION

NEW DUPLEX TO BE BUILT IN:

RAYMOND, NH

Contractor to check & verify all dimensions & structural members before construction. All construction shall be in strict compliance with the State of New Hampshire or Massachusetts Building Codes, whichever applicable.

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FOUNDATIONS:

- FOUNDATIONS CONSIST OF CONTINUOUS FOOTINGS ASSUMED TO BEAR ON COMPACTED STRUCTURAL FILL PLACED ON UNDISTURBED NATURAL SOIL HAVING AN ASSUMED ALLOWABLE BEARING PRESSURE OF 2,500 PSF (TO BE VERIFIED BY BUILDER). IF THE SOIL AT BEARING DEPTH IS DISTURBED OR THE ACTUAL ALLOWABLE BEARING PRESSURE IS LESS THAN 2,500 PSF, THEN A QUALIFIED GEOTECHNICAL ENGINEER SHALL BE CONSULTED.
- UNLESS OTHERWISE NOTED, FOOTINGS SHALL BE CENTERED UNDER SUPPORTED MEMBERS.
- THE BOTTOM PERIMETER FOUNDATIONS SHALL BE DESIGN FROST DEPTH BELOW FINISHED GRADE.
- THE BOTTOM 3 INCHES OF FOOTING EXCAVATIONS SHALL BE FINISHED BY HAND SHOVEL.
- FINISH EXTERIOR GRADE SHALL BE AT LEAST 8" BELOW TOP OF FOUNDATION WALL.
- PLACE BACKFILL SIMULTANEOUSLY ON BOTH SIDES OF WALLS TO THE GRADES INDICATED.
- UNBRACED/UNBALANCED FOUNDATION WALLS: MAXIMUM UNBALANCED FILL: 24" WITHOUT DESIGN/ENGINEER INPUT/APPROVAL. (EXAMPLE GARAGE SLAB ON GRADE WHERE BACKFILL WILL BE MORE THAN 24" BELOW TOP OF SLAB) (SEE R404.I.3) (ENGINEER DESIGN REQUIRED WHEN >48")
- WE RECOMMEND THAT WALKOUT AND KNEEWALL STYLE BASEMENTS BE REVIEWED. (IE. WHENEVER PERIMETER FOUNDATION WALLS ARE NOT FULL HEIGHT). PROVIDE FORMWORK FOR ALL FOOTINGS, WALLS, AND PIERS. EARTH FORMED FOUNDATIONS ARE NOT ALLOWED.
- SUB -SOIL SHALL HAVE 3/4 " MAXIMUM AGGREGATE WITHIN 12" OF SLAB ON GRADE
- ANCHOR BOLTS: 1/2" X 9" (MIN. 7" EMBEDMENT) @ 4' OC AND BETWEEN 6-12" OF EACH END. (R403.I.6)
- DAMP PROOFING ALWAYS REQUIRED BELOW GRADE WHEN INTERIOR SPACE IS CREATED (PER R406)
- WATERPROOFING REQUIRED WHEN INTERIOR SPACE CREATED AND HIGH WATER TABLE OR OTHER CONDITIONS. (PER R406)

CONCRETE:

- CONCRETE SHALL BE A MIX DESIGNED FOR ULTIMATE STRENGTH IN ACCORDANCE WITH ACI 211.I TO ACHIEVE THE DESIRED COMPRESSIVE STRENGTH. STANDARD MINIMUM 3,000 PSI FOR FOOTINGS AND INTERIOR FLOOR, 3,500 PSI FOR WALLS AND GARAGE SLAB. (R402.2)
- CONCRETE SHALL NOT BE CAST IN WATER OR ON FROZEN GROUND. CONCRETE SHALL NOT BE EXPOSED TO WATER (I.E. RAIN) DURING SETTING PERIOD.
- CONCRETE FLOORS SHALL BE PLACED OVER MIN. 4" THICK POROUS LAYER (SUCH AS CRUSHED STONE) WITH DRAINAGE AND APPROVED VAPOR BARRIER. (R405.2.2)
- TOP OF FOUNDATION WALLS AND SLABS SHALL BE SMOOTH AND LEVEL.
- NO PIPE GREATER THAN 4" DIAMETER WITH APPROPRIATE SLEEVE SHALL PASS THROUGH CONCRETE WITHOUT ENGINEER APPROVAL. PIPE SLEEVES SHALL BE PROVIDED AND SPACED A MINIMUM THREE DIAMETERS APART.
- KEYS SHALL BE 2"x4", WITH BEVELED SIDES, UNLESS OTHERWISE NOTED
- CONSTRUCTION JOINTS SHALL BE FORMED WITH A KEY, AND REINFORCING SHALL BE LAPPED TO DEVELOP THE FULL TENSION CAPACITY OF THE (SMALLER) BAR.
- EXPOSED CONCRETE SHALL BE RUBBED IMMEDIATELY AFTER REMOVAL OF FORMS AND SNAP TIES REMOVED TO FLUSH.
- OPENINGS IN CONCRETE WALLS SHALL BE LOCATED, SIZED, AND REINFORCED (WITH THE EXCEPTION OF SMALL OPENINGS AND/OR SLEEVES OF A SIZE THAT WILL NOT DISPLACE OR INTERRUPT THE CONTINUITY OF THE REINFORCING) AS SHOWN ON RESPECTIVE DETAILS. ANY ALTERATIONS REQUIRE APPROVAL OF THE STRUCTURAL ENGINEER.
- DO NOT BACKFILL FOUNDATION WALLS UNTIL THE CONCRETE HAS BEEN IN PLACE FOR SEVEN (7) DAYS AND ATTAINED 75% OF ITS DESIGN COMPRESSIVE STRENGTH, AND FLOOR DIAPHRAGMS ARE IN PLACE. (R404.I.7)

REINFORCING STEEL:

- REINFORCING STEEL SHALL BE NEW STEEL BAR, FREE FROM LOOSE RUST AND SCALE, AND CONFORMING TO ASTM A615, GR 60.
- STANDARD MINIMUM FOUNDATION FOOTING: 16" WIDE X 8" HIGH WITH NO REINFORCING.
- STANDARD MINIMUM VERTICAL FOUNDATION WALL REINFORCING FOR COMMON CONDITIONS:

WALL HEIGHT	MAX. BACKFILL	WALL THICKNESS	HORIZONTAL REINFORCING (R404.I.2)	VERTICAL * REINFORCING
8'	7'	8"	1 #4 WITHIN 12" OF TOP AND 1 #4 AT MID -HEIGHT	#6 @ 36" OC *
9'	8'	10"	1 #4 WITHIN 12" OF TOP AND #4 BARS AT THIRD HEIGHTS	#6 @ 30" OC *
10'	9'	10"	1 #4 WITHIN 12" OF TOP AND #4 BARS AT THIRD HEIGHTS	#6 @ 30" OC **

- TABLE ABOVE ASSUMES BEST SOIL CLASS GW, GP, SN AND SP.
- * AT 8' AND 9' WALLS, VERTICAL REINFORCING NOT REQUIRED IF 75% DESIGN COMPRESSIVE STRENGTH AND 7 DAYS BEFORE BACKFILL IS ATTAINED
- ** AT 10' WALLS, ADDITIONAL ENGINEERING REQUIRED IF BACKFILLED BEFORE 75% DESIGN COMPRESSIVE STRENGTH IS ATTAINED
- FLATWORK: WELDED WIRE FABRIC (WWF 6"x6" X NO. 10) RECOMMENDED IN ALL FLATWORK. IT SHALL CONFORM TO ASTM A105. LAP TWO SQUARES AT JOINTS AND TIE AT 3'-0" O.C. FURNISH WWF IN FLAT SHEETS.
 - PLAN CONTROL JOINTS AT 10-12' OC BOTH DIRECTIONS. WWF MUST NOT CROSS CONTROL JOINTS.
 - DECOUPLE FLATWORK FROM WALLS.
 - WELDED WIRE FABRIC SHALL BE SUPPORTED ON CONCRETE BRICKS SP. AT 24" OC EACH DIRECTION ON GRADE. WELDED WIRE FABRIC SHALL BE SUPPORTED ON ELEVATED DECK WITH CONTINUOUS BOLSTERS LOCATED OVER JOISTS AND BEAMS.
 - CLEAR CONCRETE COVER OVER BARS SHALL BE IN ACCORDANCE WITH ACI 318.
 - ACCESSORIES SHALL HAVE UPTURNED LEGS AND BE PLASTIC- DIPPED AFTER FABRICATION. ACCESSORIES FOR REINFORCING SHALL BE IN ACCORDANCE WITH THE MOST CURRENT ACI EDITION.
 - LAP REINFORCING TO DEVELOP THE FULL TENSION CAPACITY OF THE (SMALLER) BAR.

- NO BARS SHALL BE CUT OR OMITTED IN THE FIELD BECAUSE OF SLEEVES, DUCT OPENINGS, OR RECESSES. BARS MAY BE MOVED ASIDE WITHOUT CHANGE IN LEVEL WITH THE PRIOR APPROVAL OF STRUCTURAL ENGINEER.
- ANCHOR BOLT MATERIAL SHALL CONFORM TO ASTM A36, A307, OR BETTER, AND MEET IRC 2015 CODE.

WOOD:

- WORK SHALL BE IN ACCORDANCE WITH THE AMERICAN WOOD COUNCIL, ANSI/AF&PA, "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION 2012 (NDS)" INCLUDING "DESIGN VALUES FOR WOOD CONSTRUCTION", NATIONAL FOREST PROTECTION ASSOCIATION.
- ALL LUMBER SHALL BE NEW AND STRAIGHT AS DESCRIBED IN "STANDARD GRADING RULES FOR NORTHEASTERN LUMBER" BY NORTHEASTERN LUMBER MANUFACTURERS ASSOCIATION.
- NEW WOOD FOR STRUCTURAL USE SHALL HAVE A MOISTURE CONTENT AS SPECIFIED IN THE "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION."
- FRAMING FOR WALLS AND JOISTS SHALL BE SPRUCEPINE -FIR NO. 1/NO. 2 OR BETTER. UNLESS NOTED OTHERWISE, DIMENSIONAL LUMBER REPRESENTS NOMINAL SIZES.
- SHEATHING PANELS SHALL BE MARKED WITH THE AMERICAN PLYWOOD ASSOCIATION (APA) TRADEMARK AND SHALL MEET THE LATEST US PRODUCT STANDARD PS 1 OR APA PRP -108 PERFORMANCE STANDARDS.
- ALL WALL SHEATHING PANELS SHALL BE NOMINAL 1/2" THICK APA RATED , UNLESS OTHERWISE NOTED, FASTEN WITH 8D COMMON NAIL SPACED AT 6" OC AT PANEL PERIMETER SUPPORTED EDGES AND 12" OC AT INTERIOR INTERMEDIATE SUPPORTS (FIELD). 1 -3/8" MIN. FASTENER PENETRATION. LAY WALL WITH REQUIREMENTS OF IRC 604.
- ALL ROOF SHEATHING PANELS SHALL BE 5/8" THICK UNLESS NOTED OTHERWISE, C -D EXTERIOR GRADE, APA RATED EXPOSURE 1 MEETING DOC PS1 OR PS2. FASTEN WITH 8D COMMON NAILS SPACED AT 6" OC AT PANEL PERIMETER SUPPORTED EDGES AND 6" OC AT INTERIOR INTERMEDIATE SUPPORTS (FIELD). 1 -3/8" MIN. FASTENER PENETRATION. LAY ROOF SHEATHING WITH LONG DIMENSION PERPENDICULAR TO SUPPORT MEMBERS.
- WOOD TO STEEL AND WOOD TO WOOD BOLTED CONNECTORS SHALL BE MADE WITH ASTM A307 BOLTS WITH FLAT WASHERS. BOLT HOLES IN WOOD SHALL BE 1/32" LARGER THAN THE BOLT. WOOD NAILERS SHALL BE FASTENED WITH 3/8" DIA. BOLTS STAGGERED AT 20" OC UNLESS OTHERWISE NOTED.
- FASTENING SCHEDULE (SEE ALSO R602.3(I)):
 - PLATE TO STUD, DIRECT: 2 - 16D
 - STUD TO PLATE, TO NAIL: 4 - 8D
- WOOD IN CONTACT WITH SOIL, MOISTURE, WEATHER, CONCRETE, OR MASONRY SHALL BE PRESSURE TREATED SOUTHERN PINE NO. 2, OR BETTER AND APPROVED FOR THE APPLICATION.
- BRACING: THE PERMANENT LATERAL BRACING SYSTEM INCLUDES PLYWOOD, WALL AND ROOF SHEATHING WITH FASTENING AND LAYOUT AS DEFINED BY: SECTION 602. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING AS REQUIRED TO Laterally SUPPORT THE STRUCTURE DURING CONSTRUCTION.
- ENGINEERED LUMBER (LVL, ETC.) SHALL MATCH MANUFACTURER AND SERIES LISTED OR APPROVED EQUIVALENT. PROVIDE LATERAL SUPPORT AT ALL BEARING POINTS AND ALONG COMPRESSION EDGES AT INTERVALS OF 24" OC, OR CLOSER.
- MINIMUM SECTION WIDTH = 1-3/4", 3-1/2", 5-1/4" AND 7" MEMBERS MAY BE COMBINATIONS OF 1-3/4" MEMBERS. FOLLOW MANUFACTURER'S GUIDELINES FOR MULTIPLE MEMBER CONNECTIONS AND FOR SIDE LOADED BEAMS.
- WOOD CONSTRUCTION CONNECTORS SHALL BE MANUFACTURED BY SIMPSON STRONG-TIE CO., INC., OR APPROVED EQUAL, AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, INCLUDING FASTENERS.
- ALL FLUSH FRAMING TO HAVE APPROPRIATELY SIZED METAL JOIST HANGERS.
- LATERAL RESTRAINT REQUIRED AT ENDS OF FLOOR FRAMING SOLID BLOCK OF SAME MATERIAL (R502.7)
- BRIDGING OR CONT. 1X3 BRACE NAILED TO UNDERSIDE OF FLOOR FRAMING REQUIRED AT 8' INTERVALS (R502.7.I)
- HEADERS: DEFAULT (MAX. 48" SPAN UNLESS POINT LOAD FROM ABOVE OR LATERAL BRACING REQUIREMENTS. SEE R.502.5) :
 - INTERIOR: (2) 2x8
 - EXTERIOR: (2) 2X10 (WITH 2-1/2" RIGID FOAM INSULATION).HEADERS: DEFAULT (MAX. 72" SPAN) 3-2X12 FOR 2 FLOORS CEILING AND ROOF
- WIND BRACING: PROVIDE DIAGONAL WIND BRACING AT ALL OUTSIDE CORNERS. AT CORNERS WITH LESS THAN 48" OF PANEL WALL, USE ALTERNATE BRACING PANELS IN ACCORDANCE WITH R602.10.6.2. (GENERAL REFERENCE: R602)
- RAFTER/CEILING JOIST HEEL CONNECTIONS (VAULTED CL65 @ 1/3) TABLE R802.5.(4)

PRE -ENGINEERED WOOD TRUSSES:

- ALL PRE-ENGINEERED WOOD TRUSSES SHALL CONFORM TO ANSI/TPII -2002 "NATIONAL DESIGN STANDARDS FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION."
- THE MANUFACTURER OF THE PRE -ENGINEERED TRUSSES SHALL BE A TRUSS PLATE INSTITUTE (TPI) CERTIFIED PLANT. PROOF OF CERTIFICATION SHALL BE SUBMITTED TO THE DESIGNER/ENGINEER PRIOR TO FABRICATION OF THE WOOD TRUSSES.
- THE CONTRACTOR SHALL ENSURE PROPER HANDLING, BRACING, AND LATERAL RESTRAINT IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. ALL TEMPORARY AND PERMANENT TRUSS BRACING (INDIVIDUAL AND OVERALL) SHALL BE DESIGNED BY THE TRUSS MANUFACTURER AND INSTALLED BY THE CONTRACTOR. ALL PERMANENT TRUSS BRACING/LATERAL RESTRAINT REQUIREMENTS AND LOCATIONS SHALL BE DETAILED AND SUBMITTED PRIOR TO CONSTRUCTION TO THE ENGINEER OF RECORD BY THE TRUSS MANUFACTURER. ALTERNATIVELY, THE TRUSS DESIGNER MAY DESIGN ALL TRUSSES SUCH THAT NO PERMANENT LATERAL RESTRAINT IS REQUIRED.

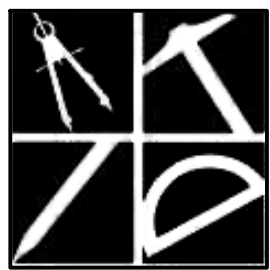
- ALL ROOF TRUSSES SHALL BE DESIGN FOR THE FOLLOWING UNIFORM LOADS WITH 5/2"OR 3/2"MAX BEARING. COORDINATE TRUSS BEARING WITH BEARING WALL FRAMING WIDTH:
 - SNOW LIVE LOAD: GROUND SNOW LOAD X 0.7= XX PSF
 - BOTTOM CHORD LIVE LOAD (ATTIC): 20 PSF
 - TOP CHORD DEAD LOAD: 10 PSF
 - BOTTOM CHORD DEAD LOAD: 10 PSF
- TRUSS SHALL BE DESIGNED FOR AN UNBALANCED UNIFORM SNOW LOADING AS WELL AS ANY DRIFTED VALLEY SNOW LOADING CONDITIONS, AND WIND LOADING AS SPECIFIED IN THE PROJECT BUILDING CODE.
- PRE-ENGINEERED ROOF TRUSSES TO BE APPROVED BY THE STRUCTURAL ENGINEER. TRUSS SHOP DRAWINGS SHALL BE DESIGNED, STAMPED, AND SUBMITTED BY A LICENSED PROFESSIONAL ENGINEER QUALIFIED TO PERFORM THE WORK IN THE STATE WHERE THE PROJECT IS LOCATED. SUBMITTAL SHALL INCLUDE ALL LOADING COMBINATIONS, A FULL REPORT FOR EACH TRUSS, AND TEMPORARY AND PERMANENT LATERAL TRUSS RESTRAINT LAYOUT AND DETAILS.
- THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL VENTS, STACKS, RISERS, DRAINS, ETC. BEFORE TRUSSES ARE FIXED IN PLACE.
- ALL TRUSSES SHALL HAVE HURRICANE CLIPS INSTALLED AT EACH END OF EACH TRUSS IN ORDER TO PREVENT LIFT.
- ALL TRUSS TO TRUSS CONNECTION DESIGNS ARE RESPONSIBILITY OF THE TRUSS MANUFACTURER.
- ALL TEMPORARY AND PERMANENT TRUSS BRACING (INDIVIDUAL AND OVERALL) IS THE RESPONSIBILITY OF THE TRUSS DESIGNER. BRACING AND LATERAL TRUSS RESTRAINT (INCLUDING DETAILS) SHALL BE SHOWN ON TRUSS DESIGN DRAWINGS AND TRUSS ERECTION DRAWINGS.

MASONRY:

- CONCRETE MASONRY UNITS (CMU) SHALL BE NOMINAL THICKNESS UNLESS NOTED OTHERWISE.
- MASONRY CONSTRUCTION SHALL CONFORM TO BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES (ACI 530/ASCE 5/TMS 402)
- SPECIFIED MASONRY COMPRESSIVE STRENGTH, F'M = 1500PSI.
- HOLLOW LOAD BEARING CMU SHALL HAVE THE FOLLOWING PROPERTIES: ASTM C90, TYPE I, GRADE N-1 (NORMAL WEIGHT) WITH A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI ACCORDING TO ASTM C140, OVEN DRY WEIGHT OVER 125PCF AND MAXIMUM MOISTURE ABSORPTION OF 13PCF.
- MORTAR SHALL BE ASTM C270, TYPE S WITH 28 DAY COMPRESSIVE STRENGTH OF 2000PSI. MIX MORTAR MATERIALS TO PRODUCE MORTAR CUBES HAVING A 2000PSI COMPRESSIVE STRENGTH WHEN TESTED IN ACCORDANCE WITH COMPRESSIVE STRENGTH TEST ASTM C780.
- GROUT SHALL BE ASTM C476, FINE GROUT WITH MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 2000PSI.
- VERTICAL AND HORIZONTAL DEFORMED REINFORCEMENT SHALL BE ASTM A615 GR 60 AND HORIZONTAL JOINT REINFORCEMENT SHALL BE ASTM A82, GALVANIZED ACCORDING TO ASTM A641 CLASS 1 AS SPECIFIED.
- PRISM TESTS ACCORDING TO ASTM E446 ARE REQUIRED PRIOR TO WORK.
- GROUT CMU SOLID AT EXPANSION ANCHOR LOCATIONS.
- CORES AND BOND BEAMS WITH REINFORCING SHALL BE FILLED SOLIDLY WITH GROUT. FILLING SUCH CORES AND BOND BEAMS WITH MORTAR IS STRICTLY PROHIBITED. IN ADDITION, CARE SHALL BE EXERCISED IN KEEPING CORES FREE FROM MORTAR DROPPINGS.
- MINIMUM REINFORCING REQUIREMENTS FOR REINFORCED CMU WALLS SHALL CONFORM TO THE SCHEDULE SHOWN ON THE CONTRACT DRAWINGS AND THE APPLICABLE BUILDING CODE REQUIREMENTS.
- GROUT SHALL BE PLACED USING LOW OR HIGH LIFT GROUTING PROCEDURES CONFORMING TO ACI/ASCE. TERMINATE GROUT POURS 1-1/2" BELOW TOP COURSE OF PLACEMENT. REINFORCING SHALL BE SPLICED A MINIMUM OF 40 BAR DIAMETERS.
- VERTICAL REINFORCING SHALL BE SECURELY HELD IN PROPER ALIGNMENT AND POSITION DURING GROUTING OPERATIONS BY USING "REBAR POSITIONERS," AS MANUFACTURED BY WIRE BOND OR APPROVED EQUIVALENT. THE PRODUCT, IN ADDITION, SHALL ALLOW FOR GUIDING THE SPLICED REINFORCING DROPPED FROM THE TOP OF THE LIFT.
- MASONRY SHALL BE BRACED DURING CONSTRUCTION. BRACE SPACING SHALL NOT EXCEED TEN TIMES THE WALL THICKNESS BUT NOT LESS THAN THE PROCEDURES LISTED UNDER NCMA-TEK T2
- PROVIDE FULL HEIGHT VERTICAL REINFORCEMENT AT EACH SIDE OF CONTROL JOINTS, WINDOWS, DOORS, AND WALL OPENINGS, AT ALL ENDS OF WALLS AND CORNERS. REINFORCING SHALL BE GROUTED SOLID AND MATCH THE DIAMETER OF THE TYPICAL WALL REINFORCING.

FIRE RESISTANT CONSTRUCTION

- FOLLOW SECTION 302. A FEW COMMON CRITICAL LOCATIONS FOLLOW:
 - GARAGE/RESIDENCE OR GARAGE/ATTIC SEPARATION 5/8" TYPE X GYPSUM DRYWALL AT GARAGE SIDE WHEN ADJACENT TO LIVING SPACE. 5/8" TYPE X DRYWALL REQUIRED AT CEILING WHEN LIVING SPACE ABOVE. (TABLE R302.6)
 - ENCLOSED ACCESSIBLE SPACE UNDER STAIRS REQUIRES MIN. 1/2" GYPSUM (R302.7)
 - FIREBLOCKING IS REQUIRED TO ISOLATE EACH FLOOR LEVEL. 2X BLOCKING AND " GYPSUM AND FIBERGLASS/MINERAL WOOL IF SECURE ARE ALL ACCEPTABLE (R302.II.)
- DUPLEX/2 FAMILY STANDARD SEPARATION IS 5/8" TYPE X BOTH SIDES. (R302.3)



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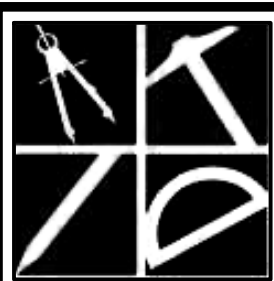
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WINDOW SCHEDULE				
MARK	QTY	MODEL NUMBER	RSO	NOTES
A		(3)244DH3049		MULLED DH W/ TRANSOM
B		(2)244DH3049		MULLION
C		CN235		DBL. CSMT
D		(3)244DH3049		MULLED DBL HUNG
E		244DH2036		DBL. HUNG
F		244DH2436		DBL. HUNG

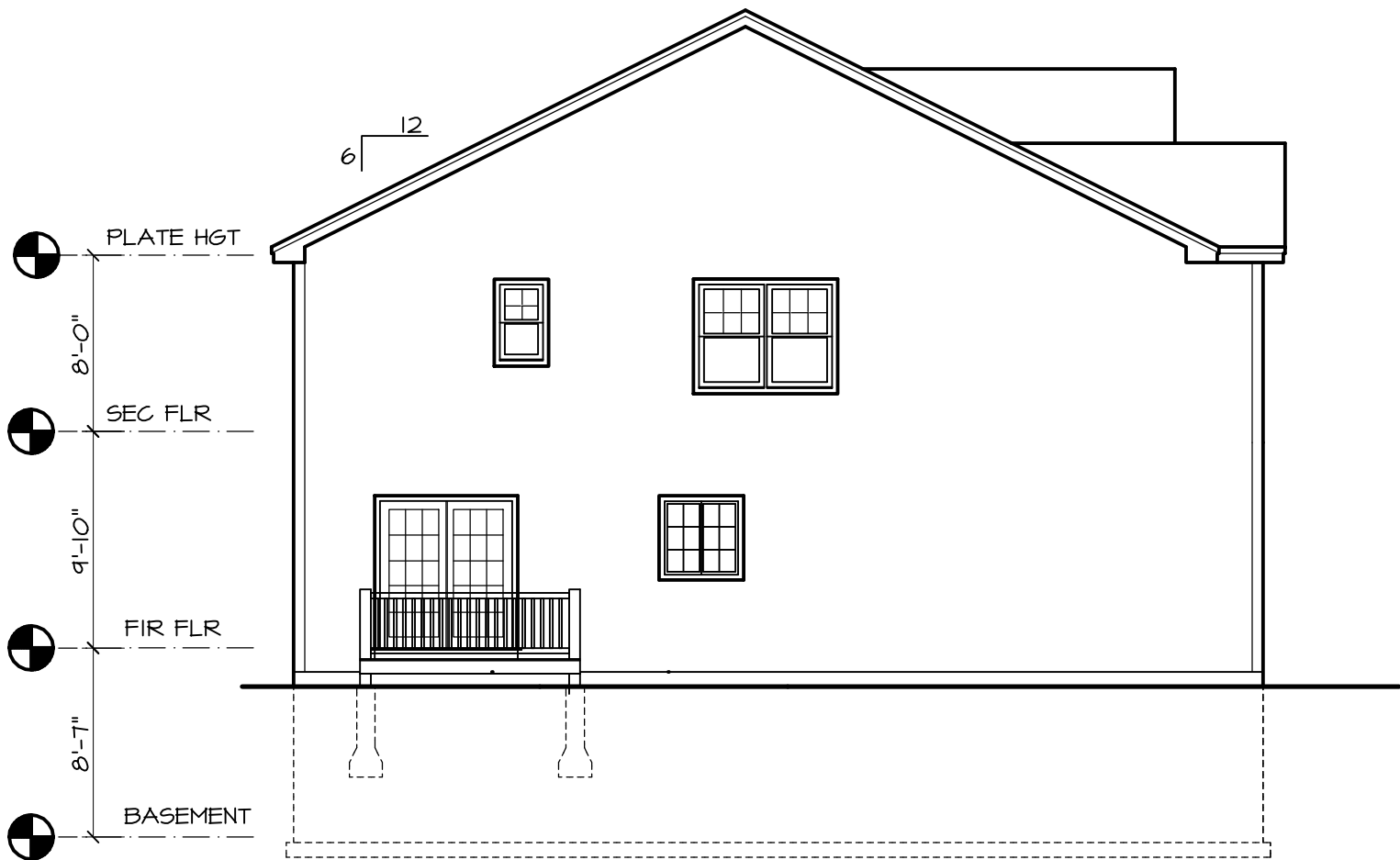
- NOTES:
1. RSO TO BE DETERMINED BY WINDOW MANUFACTURER.
 2. BEDROOM WINDOWS TO MEET EGRESS
 3. IN ACCORDANCE WITH I.R.C.(2015)-R312.2 , WHERE THE OPENING OF AN OPERABLE WINDOW IS MORE THAN 72" ABOVE THE EXT. FINISHED GRADE OR EXT. DECK BELOW, THE LOWEST PART OF THE CLEAR OPENING IS TO BE A MIN. OF 24" ABV. THE FIN. FLR.
 4. WINDOWS ARE BASED ON ANDERSEN 200 SERIES TILT-WASH MODEL NUMBERS

DOOR SCHEDULE				
MARK	QTY	SIZE	RSO	NOTES
1		3'0 X 6'8		EXT. DOOR W/ SINGLE SDLT
2		3'0 X 6'8		FIRE RATED
3		2'4 X 6'8		INTERIOR
4		3'0 X 6'8		BIFOLD
5		2'6 X 6'8		INTERIOR
6		2'4 X 6'8		POCKET DR
7		6'0 X 6'8		SLIDING PATIO DR
8		5'0 X 6'8		BIFOLD
9		2'0 X 6'6		INTERIOR
10		3'0 X 6'8		9-LITE
11		2'8 X 6'8		STL INSUL.

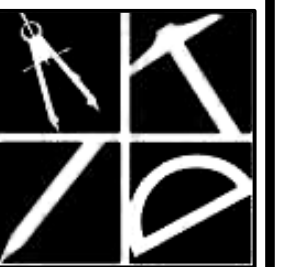
RSO TO BE DETERMINED BY DOOR MANUFACTURER.



1 REAR ELEVATION
A3 SCALE: 1/8" = 1'-0"



2 TYPICAL SIDE ELEVATION
A3 SCALE: 1/8" = 1'-0"



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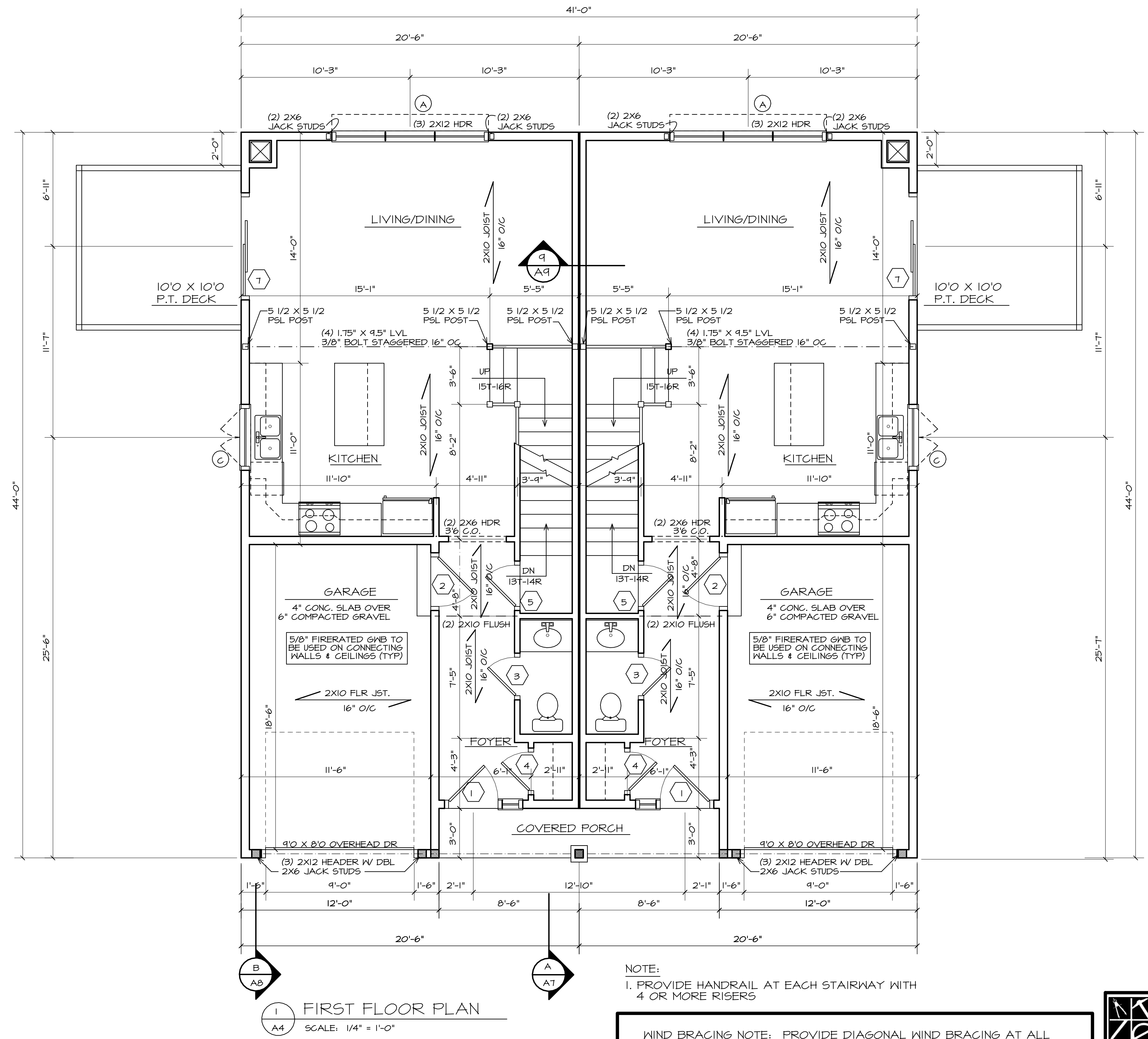
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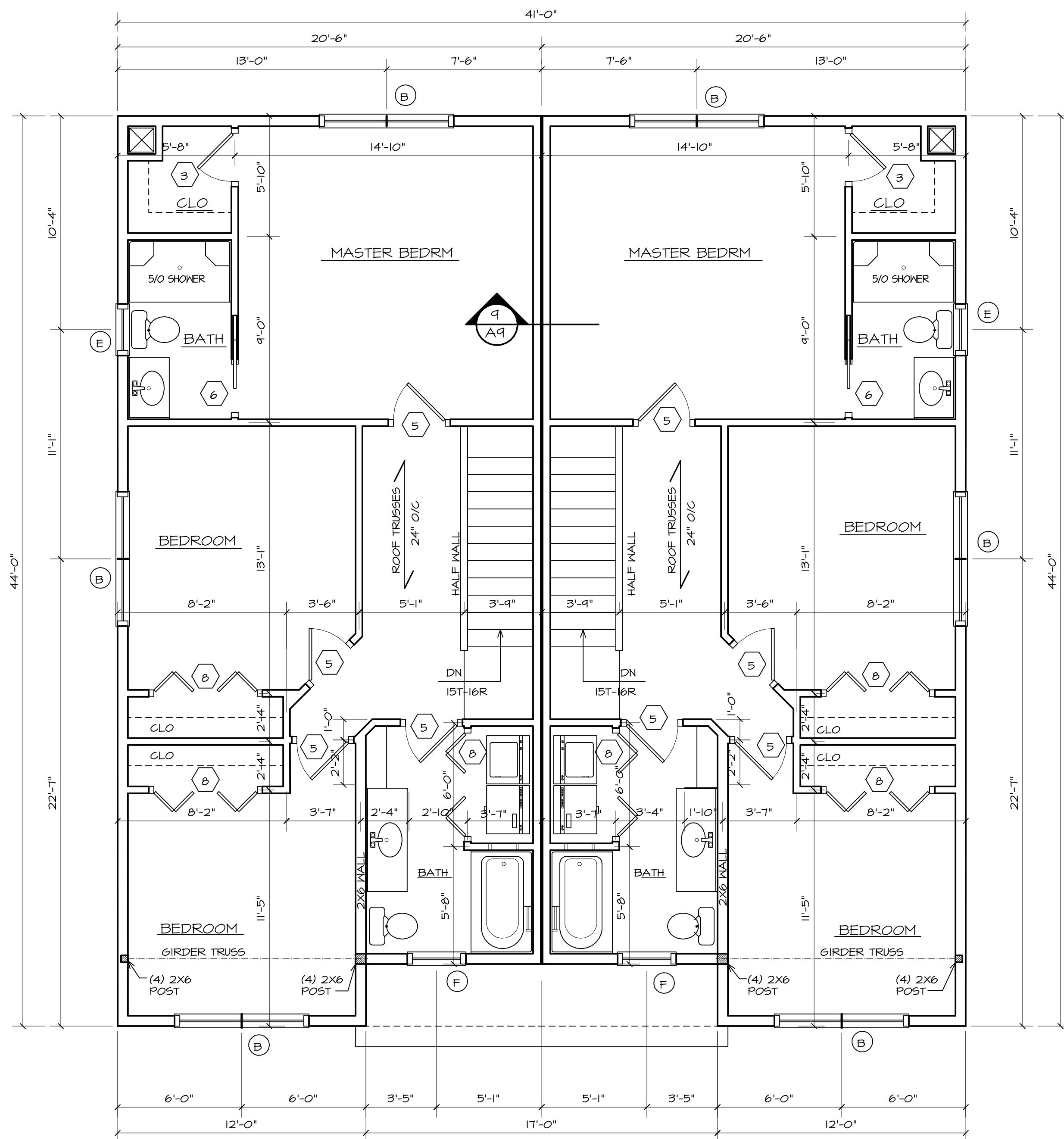
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A4

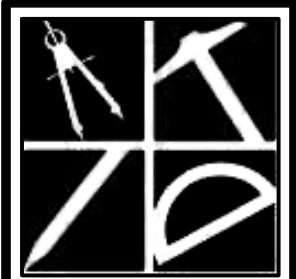


NOTE:
1. PROVIDE HANDRAIL AT EACH STAIRWAY WITH
4 OR MORE RISERS

WIND BRACING NOTE: PROVIDE DIAGONAL WIND BRACING AT ALL
OUTSIDE CORNERS. AT CORNERS WITH LESS THAN 48" OF PANEL
WALL, USE ALTERNATE BRACING PANELS IN ACCORDANCE WITH
INTERNATIONAL BUILDING CODE FIGURE R602.10.6.2



NOTE:
USE TRIPLE 2X6 TOP PLATE ON SECOND
FLOOR BEARING WALLS FOR ROOF TRUSSES



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A5

1 SECOND FLOOR PLAN
A5 SCALE: 1/4" = 1'-0"

NOTE:
1. PROVIDE HANDRAIL AT EACH STAIRWAY WITH
4 OR MORE RISERS

WIND BRACING NOTE: PROVIDE DIAGONAL WIND BRACING AT ALL
OUTSIDE CORNERS. AT CORNERS WITH LESS THAN 48" OF PANEL
WALL, USE ALTERNATE BRACING PANELS IN ACCORDANCE WITH
INTERNATIONAL BUILDING CODE FIGURE R602.10.6.2



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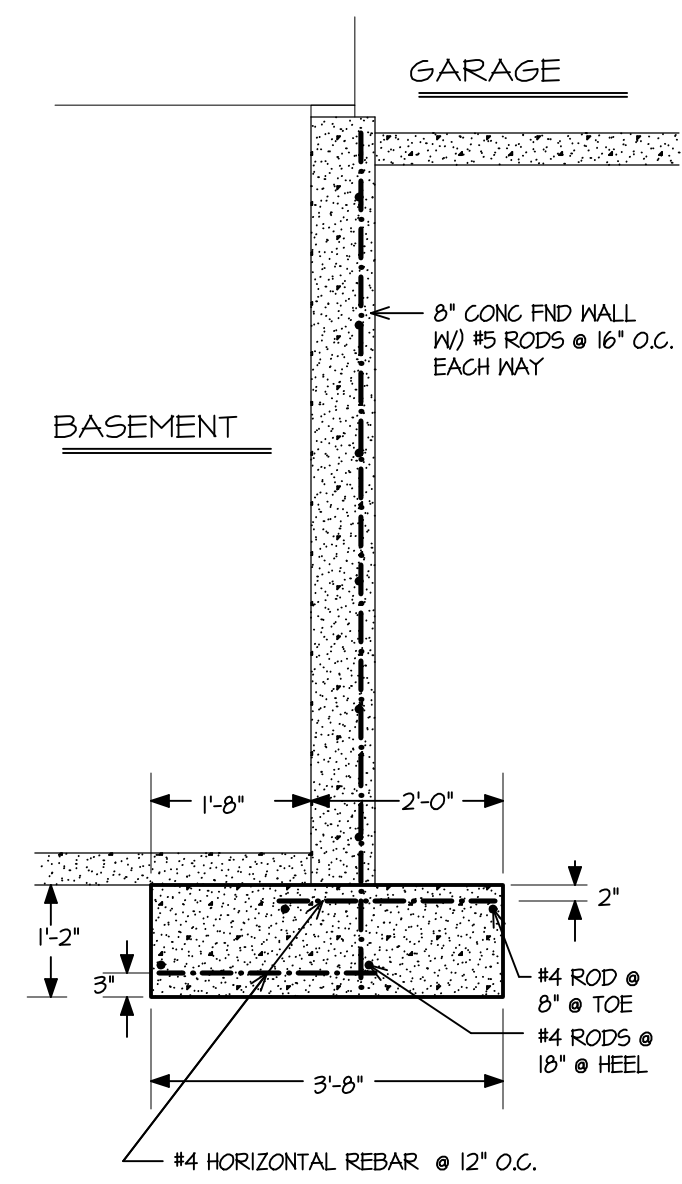
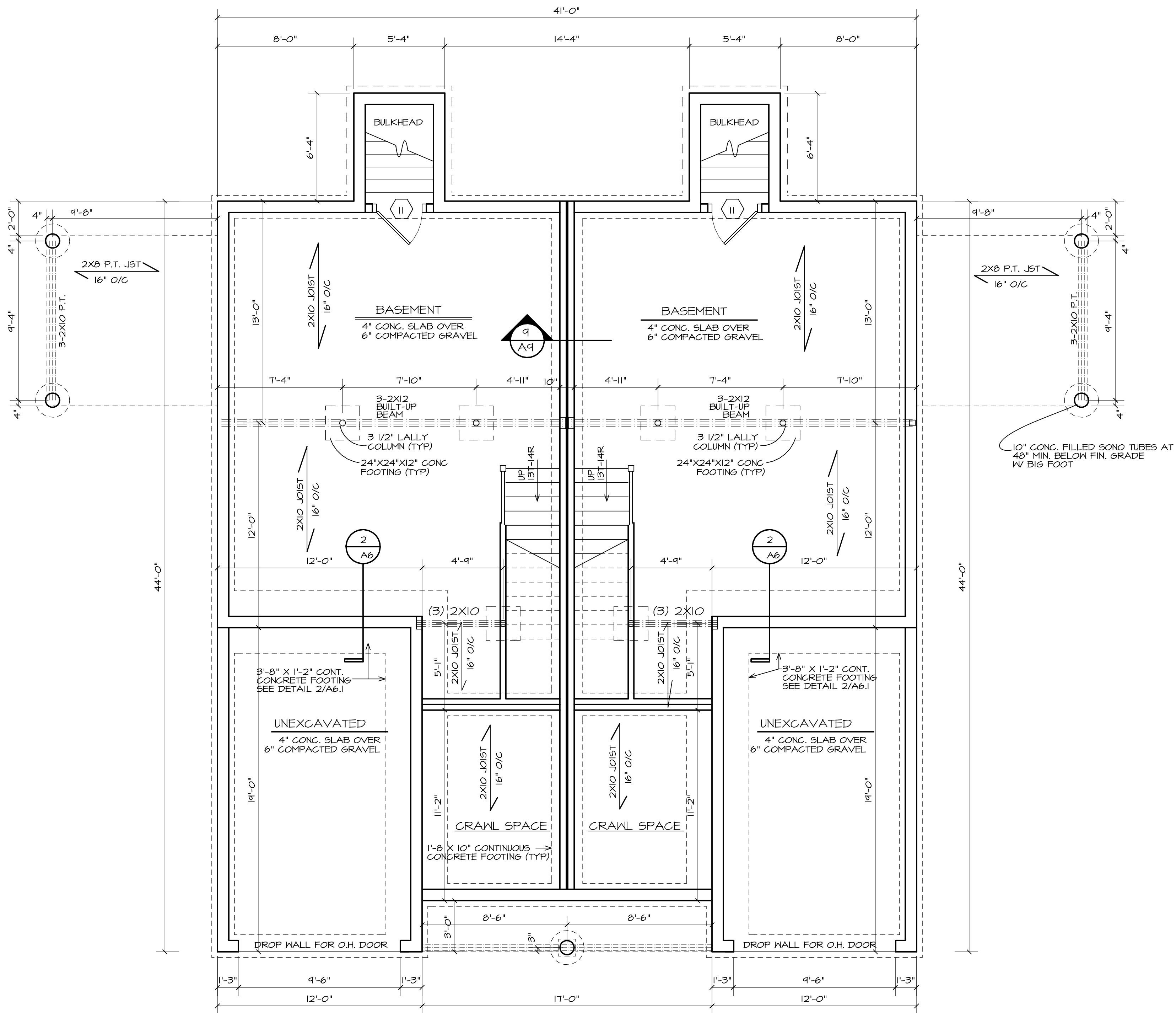
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2 FOUNDATION DETAIL
A6 SCALE: 1/2" = 1'-0"

GENERAL NOTES

CONC BULKHEAD SIZE AND LOCATION
TO BE DETERMINED BY SITE CONDITIONS
AND/OR CONTRACTOR

WALKOUTS AS PER SITE CONDITIONS
AND CONTRACTOR

STEEL SASH WINDOW SIZES AND LOCATIONS
TO BE DETERMINED BY CONTRACTOR

NOTE: SEE DRAWING A2 FOR CONCRETE NOTES AND ADDITIONAL INFORMATION

GENERAL NOTES

- A. R-38 FIBERGLASS BATT INSULATION (TYPICAL)

B. ROOF TRUSS (AS DESIGNED BY OTHERS);
PLYWOOD SHEATHING, 15# BUILDING PAPER, & 235# ASPHALT
SHINGLES W/ ICE SHIELD AT RAFTER TAILS AND VALLEYS.

C. 2X6 COLLAR TIES AT 32" O/C (TYPICAL)

D. 2X6 CEILING JOISTS AT 16" O/C

E. METAL DRIP EDGE AND FASCIA
VENTED VINYL SOFFIT

F. 2X6 STUDS 16" O/C, R-21 FIBERGLASS BATT INSULATION
IN BETWEEN, 7/16" OSB SHEATHING & EXTERIOR SIDING W/
"TYVEK" OR EQUAL (OPTIONAL) AND 1/2" GYP. BD. ON THE INTERIOR.

G. 2-2X6 TOP PLATES AND 1-2X6 SHOE (BOTTOM PLATE)
PRESSURE TREATED USED AT CONTACT WITH CONCRETE

H. 2X10 FLOOR JOISTS 12/16" O/C (UNLESS OTHERWISE NOTED ON PLANS)
WITH 3/4" T&G SUBFLOOR (GLUED & NAILED) R-30 FIBERGLASS
BATT INSULATION AT FIRST FLOOR ONLY.
- J. 8" CONCRETE FOUNDATION WALL WITH 1-2X6 PRESSURE TREATED
SILL PLATE W/ SILL SEALER; ANCHOR BOLTS @ 4'-0" O.C. (TYPICAL)

K. 4" CONCRETE SLAB FLOOR W/ MIN. 6" COMPACTED GRAVEL

L. 8" CONCRETE FROST WALL TO BE 60" MIN. BELOW FINISHED GRADE

M. 1'-4" X 8" CONTINUOUS CONCRETE FOOTING (TYPICAL)

N. 3-2X12 BUILT-UP BEAM OVER 3 1/2" DIAM. STEEL LALLY COLUMN
WITH TOP AND BOTTOM END PLATES, OVER 24"X24"X12" CONCRETE FOOTINGS.

O. 1X3 STRAPPING AT 16" O/C & 1/2" GYP. BD. (TYPICAL)

P. 3-2X12 STAIR STRINGERS

Q. CONTINUOUS RIDGE VENT

R. 2X6 STUD WALL @ 16" O.C.

S. HURRICANE CLIPS AND FRAMING ANCHORS AS REQ'D.

T. 2" RIGID INSULATION INSIDE FACE OF CONCRETE WALL TO TOP OF SLAB

DESIGN LOADS

LIVE LOAD AT LIVING SPACES: 40 PSF
LIVE LOAD AT SLEEPING SPACES: 30 PSF
GROUND SNOW LOAD: 60 PSF

FRAMER TO INSTALL DOUBLE FLOOR JOISTS UNDER ALL
PARALLEL BEARING WALLS

PROVIDE 1X4 CROSS BRIDGING AT MID POINT OF SPAN OR
8'-0" O.C. MAXIMUM IN ALL FLOORS.

WHERE PREENGINEERED FLOOR OR ROOF TRUSSES ARE USED,
TRUSS MANUFACTURER MUST PROVIDE SHOP DRAWINGS WHICH
BEAR SEAL OF REGISTERED ENGINEER IN STATE IN WHICH WORK
IS TO BE PERFORMED.

ALL LUMBER MUST BE NO. 2 OR BETTER, SPRUCE - PINE - FIR.

PROVIDE MOISTURE VAPOR RETARDERS IN ALL FRAMED WALLS, FLOORS AND
ROOF/CEILINGS IN ACCORDANCE WITH I.R.C. SECTIONS R-506.2.3 AND R102.1

ATTIC ACCESS (MIN 22" X 30") LOCATION TO BE DETERMINED BY CONTRACTOR



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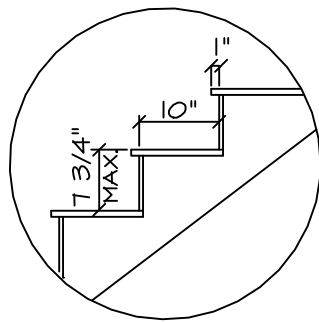
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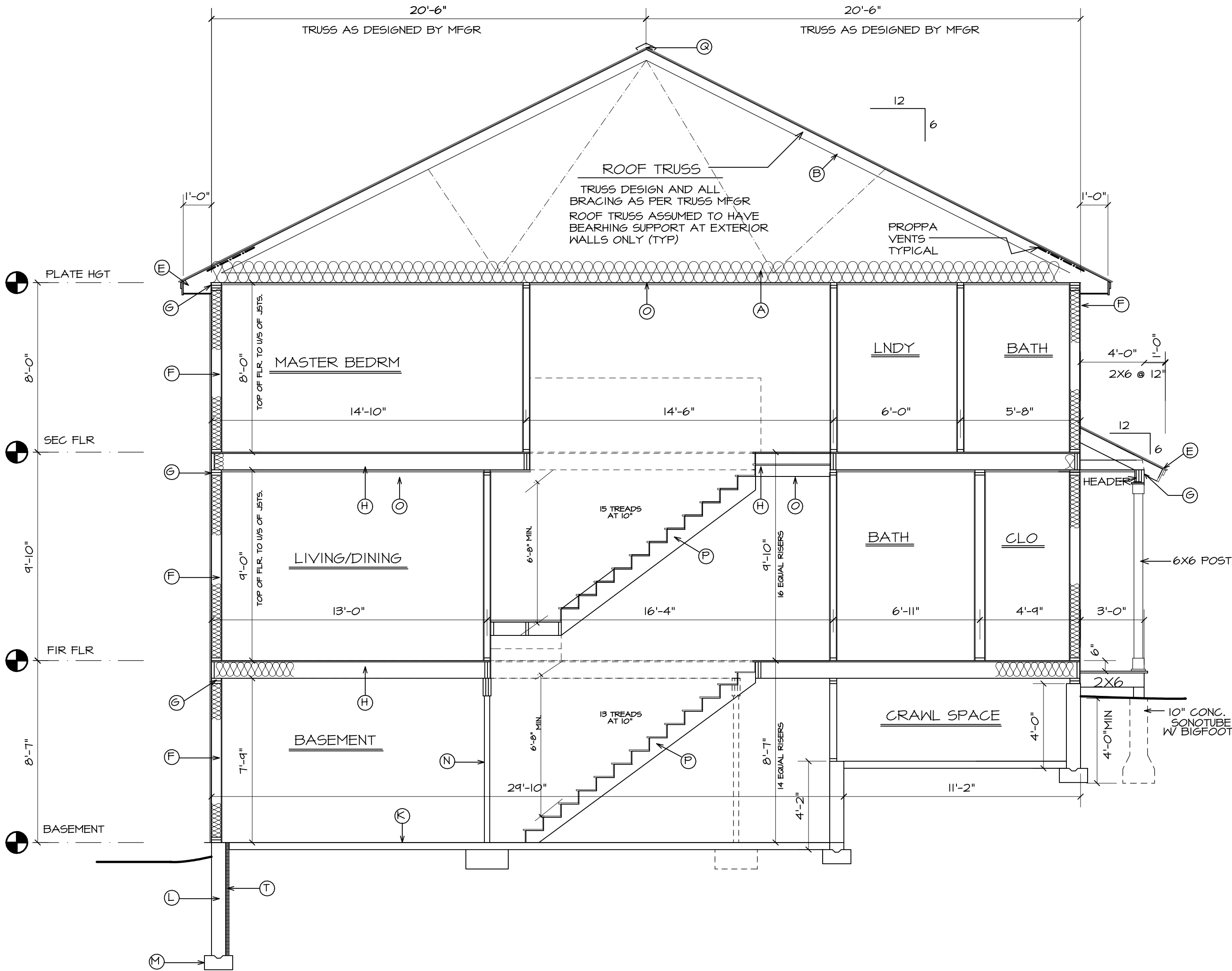
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STAIR CODE

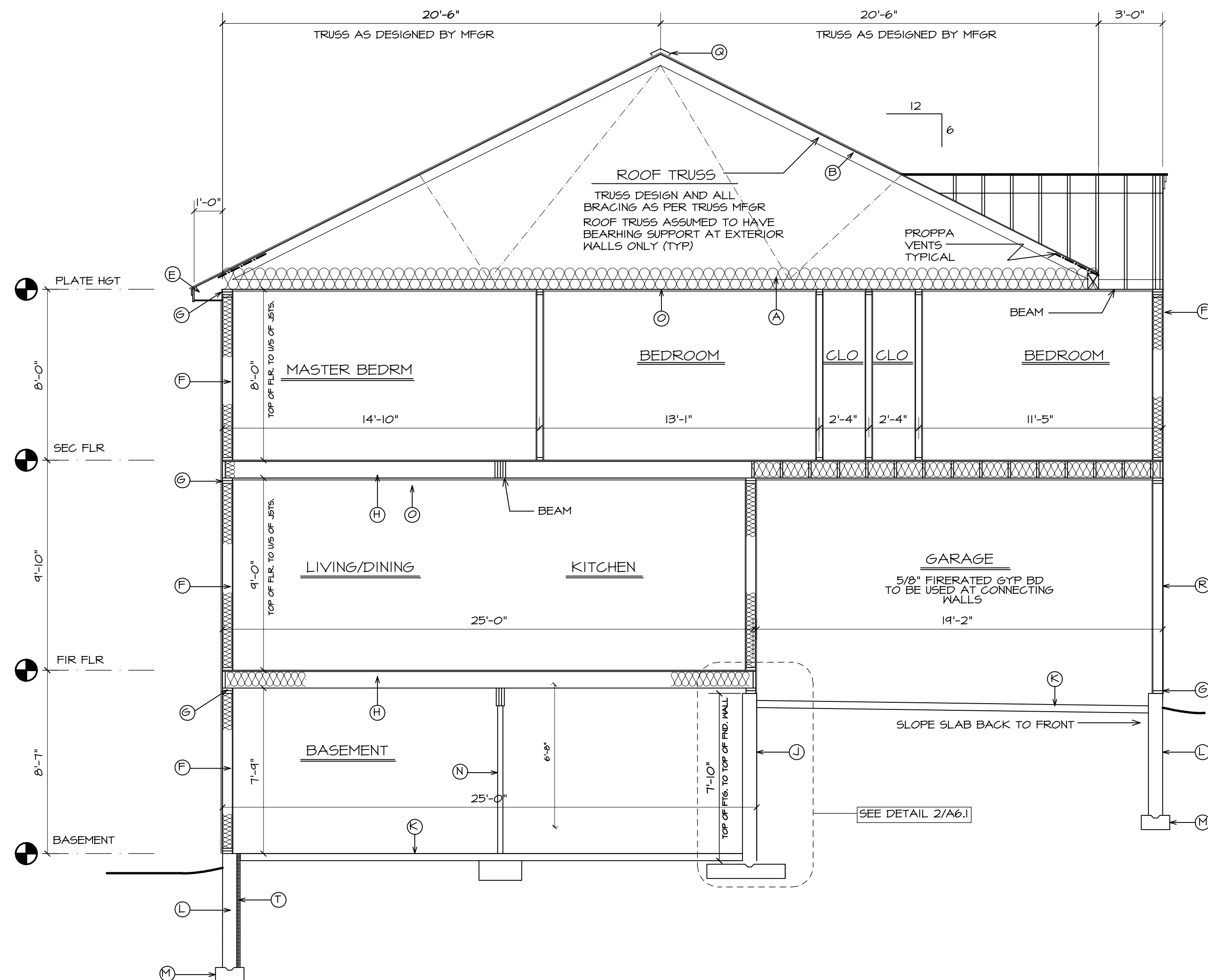
NOT TO SCALE



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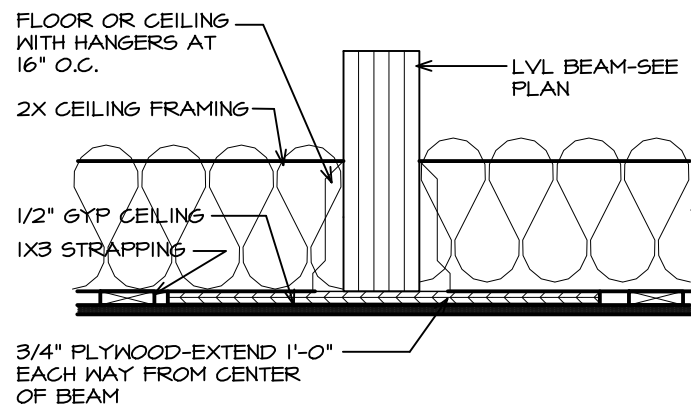
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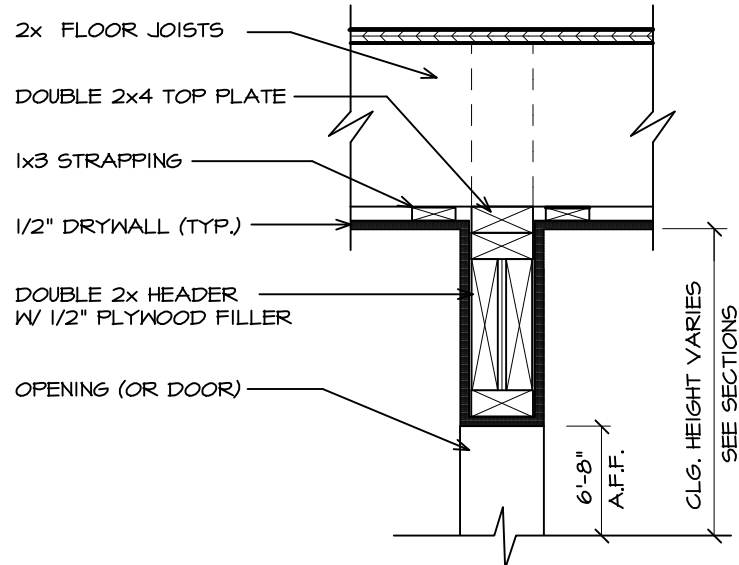
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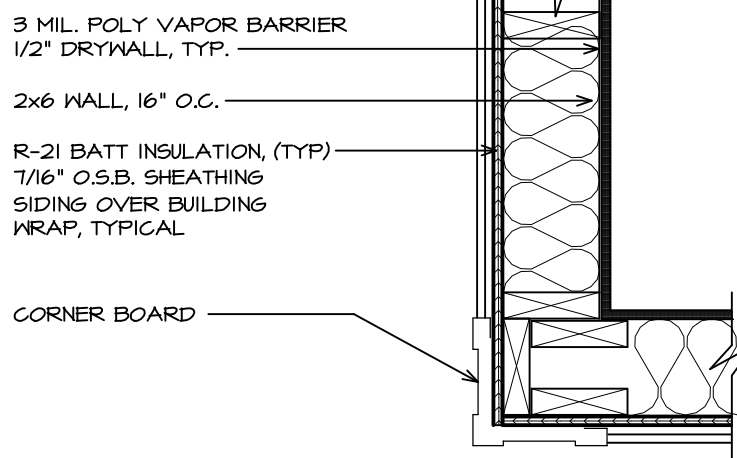
A8



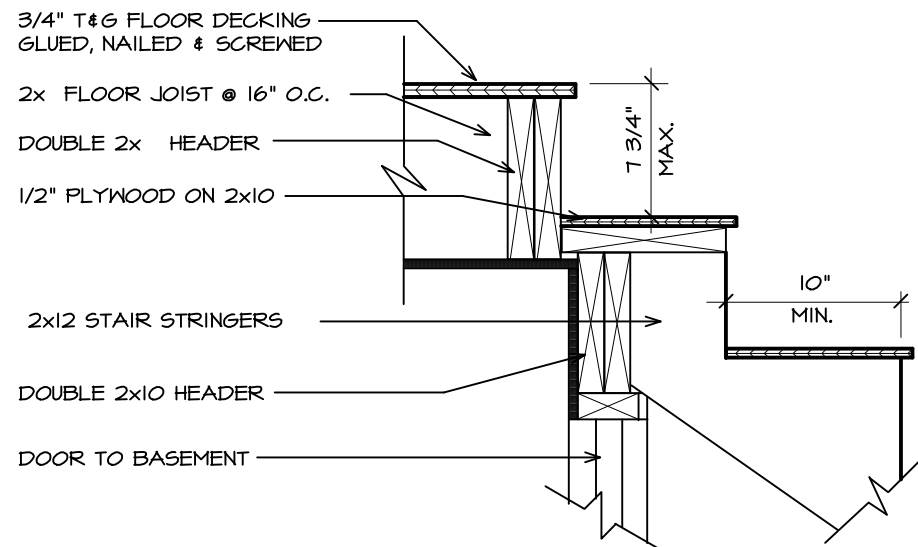
1 LVL FLUSH BEAM
A9 SCALE: 3/4" = 1'-0"



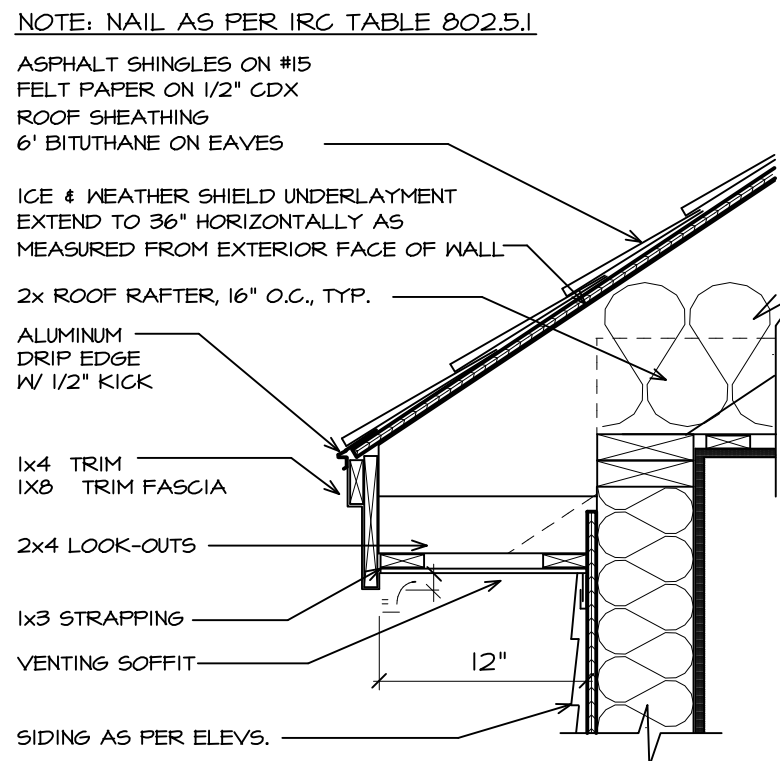
2 INTERIOR HEADER DTL.
A9 SCALE: 3/4" = 1'-0"



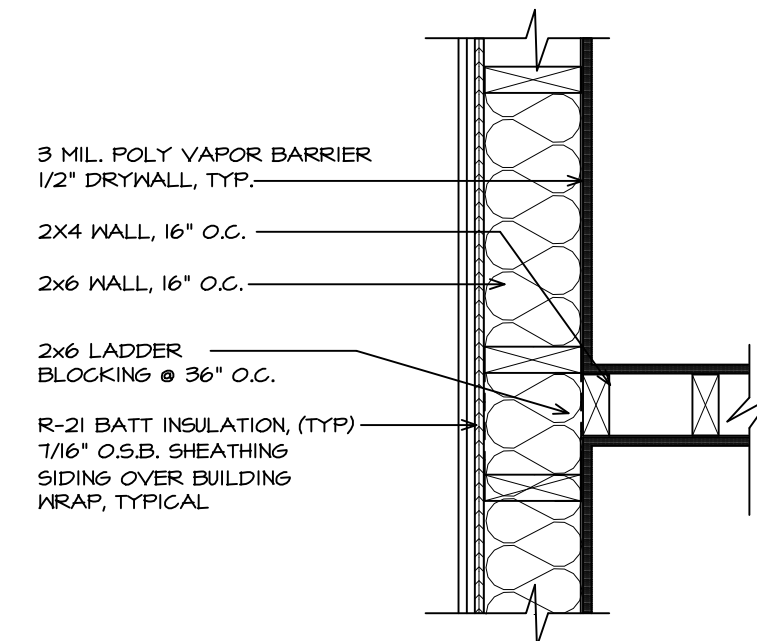
3 CORNER DETAIL
A9 SCALE: 3/4" = 1'-0"



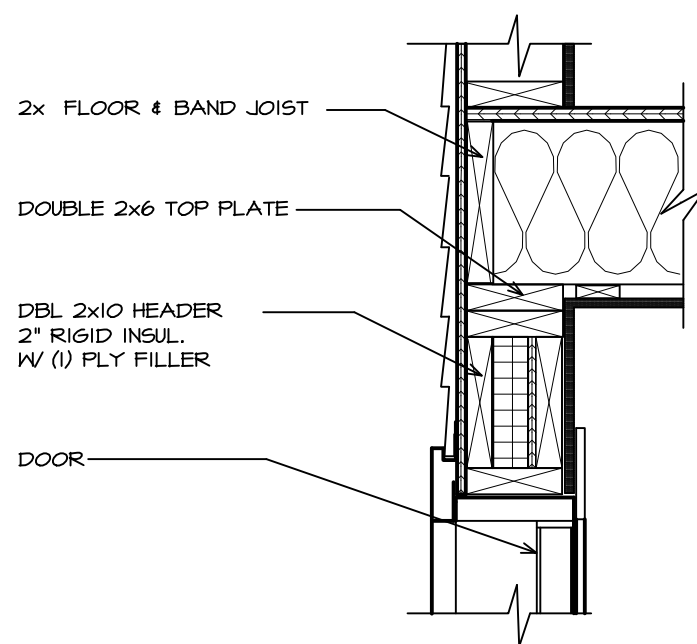
4 STAIR OVER HEADER
A9 SCALE: 3/4" = 1'-0"



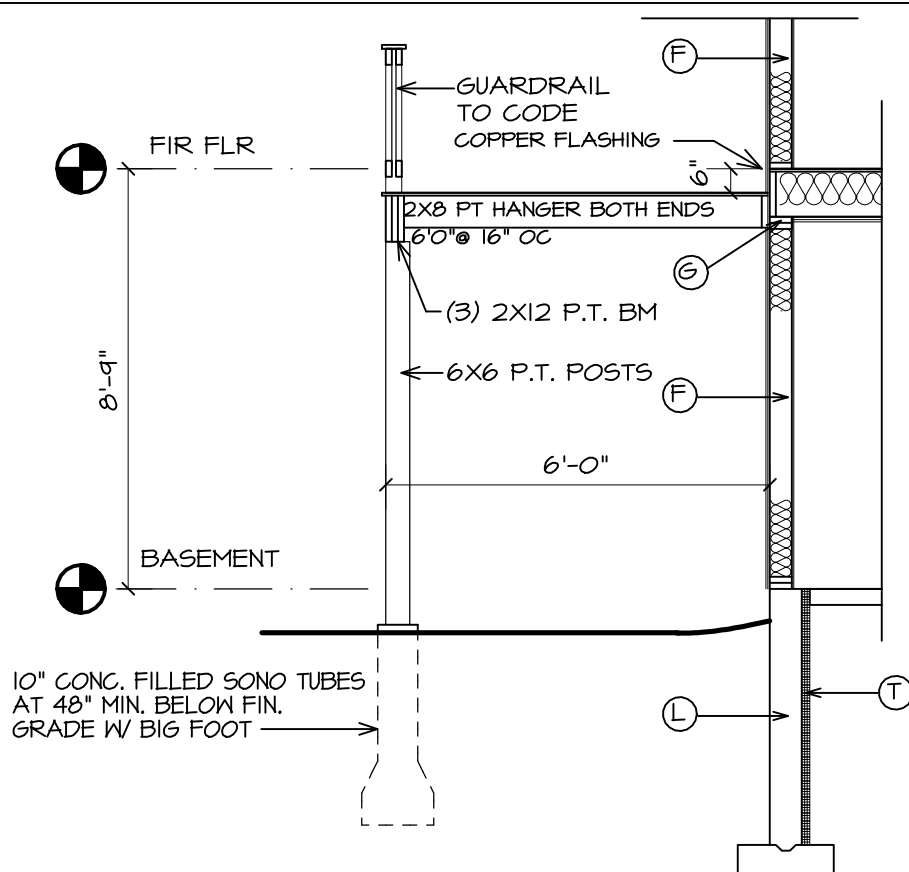
5 SOFFIT DETAIL (LOW EAVE)
A9 SCALE: 3/4" = 1'-0"



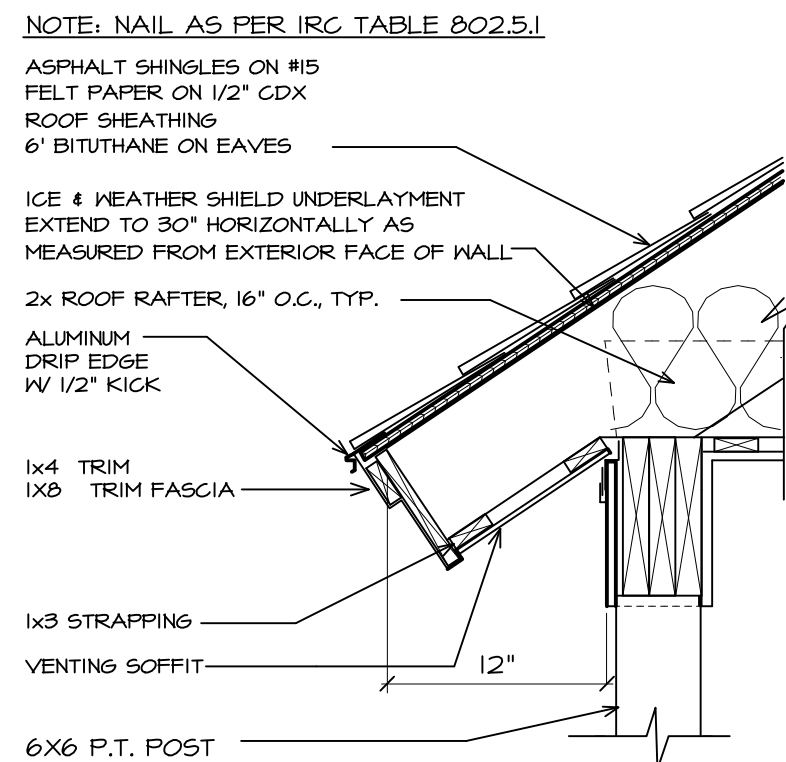
6 INT. WALL TO EXT. WALL
A9 SCALE: 3/4" = 1'-0"



7 EXT. DOOR HEADER DTL
A9 SCALE: 3/4" = 1'-0"



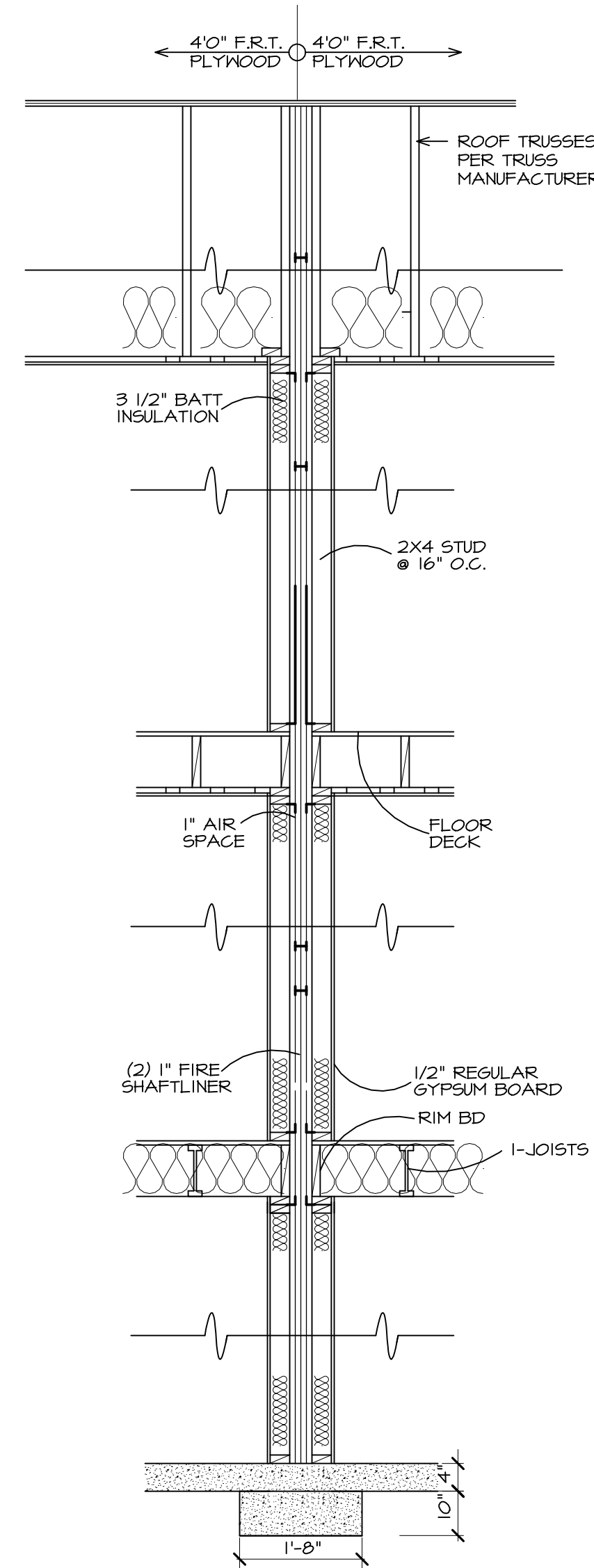
8 DECK TO HOUSE DETAIL
A9 SCALE: 3/4" = 1'-0"



9 FRONT PORCH OVERHANG
A9 SCALE: 3/4" = 1'-0"

PARTY WALL SPECIFICATIONS

GA FILE NO. ASH 1002
FIRE RATED - 2 HR
STC RATING 60 TO 64
UL DESIGN U373



NOTE: NO PLUMBING OR MECHANICAL EQUIPMENT, DUCTS OR VENTS IN CAVITIES OF COMMON WALLS. ELECTRICAL CONNECTIONS SHALL BE THROUGH APPROVED METHODS FOR MAINTAINING FIRE RESISTANCE RATINGS OF COMMON WALLS. ALL PENETRATIONS TO BE FIRE-STOPPED WITH FIRERATED CAULKING OR FIRERATED INSULATION

NOTE: COMMON WALL TO BE CONTINUOUS FROM FOUNDATION TO UNDERSIDE OF ROOF SHEATHING

NOTES:

4'-0" FIRERATED SHEATHING TO BE USED ON BOTH SIDES OF ROOF JOINTS

10 TYPICAL PARTY WALL DETAIL
A9 SCALE: 1/2" = 1'-0"



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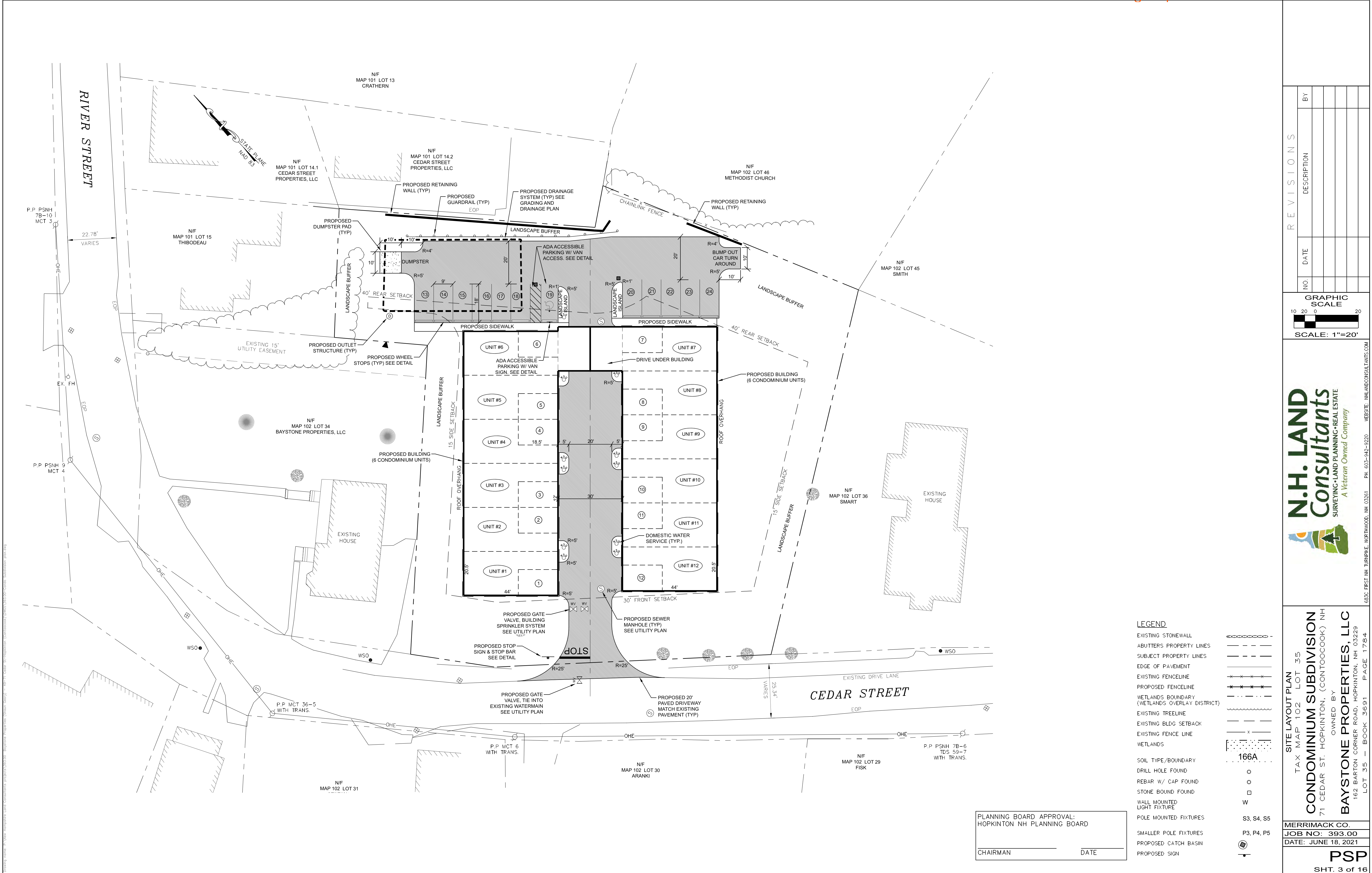
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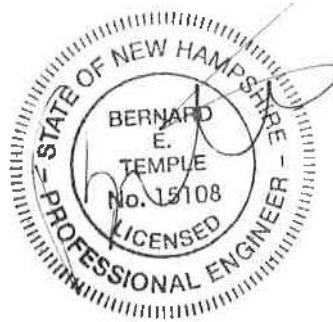


DRAINAGE REPORT

A CONDOMINIUM SUBDIVISION PLAN

Tax Map 102 Lots 34 & 35
Hopkinton, NH

June 16, 2021



Prepared For:

Baystone Properties LLC.
126 Barton Corner Road
Hopkinton NH 03229

Prepared By:

Bernie Temple, P.E.
Po Box 7,
Gilmanton I W, NH 03837
Phone: 603-630-1008

A Condominium Site Plan
Tax Map 102 Lots 34 & 35
Hopkinton, NH

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Post development 2, 10, 25, 50-year	
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A Condominium Site Plan
Tax Map 102 Lots 34 & 35
Hopkinton, NH

Introduction

This proposed project is located on Map 102, Lots 34 & 35 of the Hopkinton NH tax maps. The two parcels will be combined to provide a .91-acre lot with frontage along Cedar Street. It is located in the VR-1 Village Residential district of Hopkinton. The project consists of the construction of a 2- 5500sf-6-unit condominium buildings with associated utilities and site improvements. Drainage from the developed area will be routed through one underground infiltration system, with roof drains directed to infiltration trenches on each side of the building. The site will be provided with municipal sewer and water.

Existing Conditions

The property is .91 acres as noted above and currently has a garage building on the lot as well as out buildings attached to the existing home. The lot has been subdivided to provide the .91 acres, the garage and out buildings will be razed providing buildable area. The site is moderately sloped with drainage flowing from South to North and ending up in the Cedar Street drainage closed drainage system. There site is primarily grass with small isolated areas of woods. The NRCS web soils maps indicate that the one soil is present and is classified as a 613A Croghan Loamy Fine Sand This soil complex is a well-drained class "A" soil.

Proposed development

As noted above the project consists of the construction of a 2- 5500sf-6-unit condominium buildings with associated utilities and site improvements. The site has been designed with open drainage sheeting the site to a closed drainage system within the parking lot. The drainage will be directed to three deep sump catch basins for sediment removal and to one oil water separator catch basin number 3 before entering an underground infiltration system. The exterior roof systems will be directed to two infiltration trenches on each side of the building. There is no change proposed to the existing drainage patterns. Most of the site is designed to drain to the one underground system which will outlet toward the Cedar Street closed drainage system. Because of the favorable soil conditions, the infiltration trenches and underground system is designed to retain peak stormwater flows and to infiltrate the water quality volume into the underlying soils. The onsite soils are provided from the most recent NRCS Webb Soil Survey 613A Croghan Loamy Fine Sand This soil complex is a well-drained class "A" soil. The infiltration rate for the soil as shown SSSNNE special publication No. 5 Ksat values for NH soils is 20 inches per hour this rate is then used at 50% or 10 inches per hour for design purposes. The drainage system is designed to mitigate any increase in stormwater runoff as a result from the site development per local regulations.

A Condominium Site Plan
Tax Map 102 Lots 34 & 35
Hopkinton, NH

Design methodology

The drainage analysis in this study was completed using HydroCad Version 10.1, a stormwater modeling program utilizing TR-20 and TR-55 methodology. This program performs both the hydrologic computations for determination of runoff flows, and the hydraulic calculations for pipe, ditch, and pond design. Calculations were performed for 10,25 and checked for flooding for the 50-year return frequency storms in accordance with Town regulations. Rainfall information is provided from the most recent Extreme Precipitation Tables provided from the Northeast Regional Climate Center. The following design parameters were used:

Rainfall distribution: Type III
AMC: 2
Extreme Precipitation Estimates
2-year storm rainfall: 2.80 inches
10-year storm rainfall: 4.08 inches
25-year storm rainfall: 5.06 inches
50-year storm rainfall: 5.96 inches

Design analysis

The drainage improvements designed for the proposed project have been designed to conform to Municipal requirements. The proposed underground drainage system is designed to mitigate peak runoff rates such that post-development flows are equal to or less than pre-development flows. The design analysis therefore includes outputs for the 10,25 and checked for the 50-year event.

The drainage calculations are included in the appendix of this report. Peak runoff rates of the pre-development and post-development runoff rates are summarized in the following table:

Storm event / Sub-basin	Pre-development (cfs)	Phase 1 Post- development (cfs)
<u>10-year</u>		
1S/1L	.19	.15
<u>25-year</u>		
1S/1L	.65	.19

A Condominium Site Plan
Tax Map 102 Lots 34 & 35
Hopkinton, NH

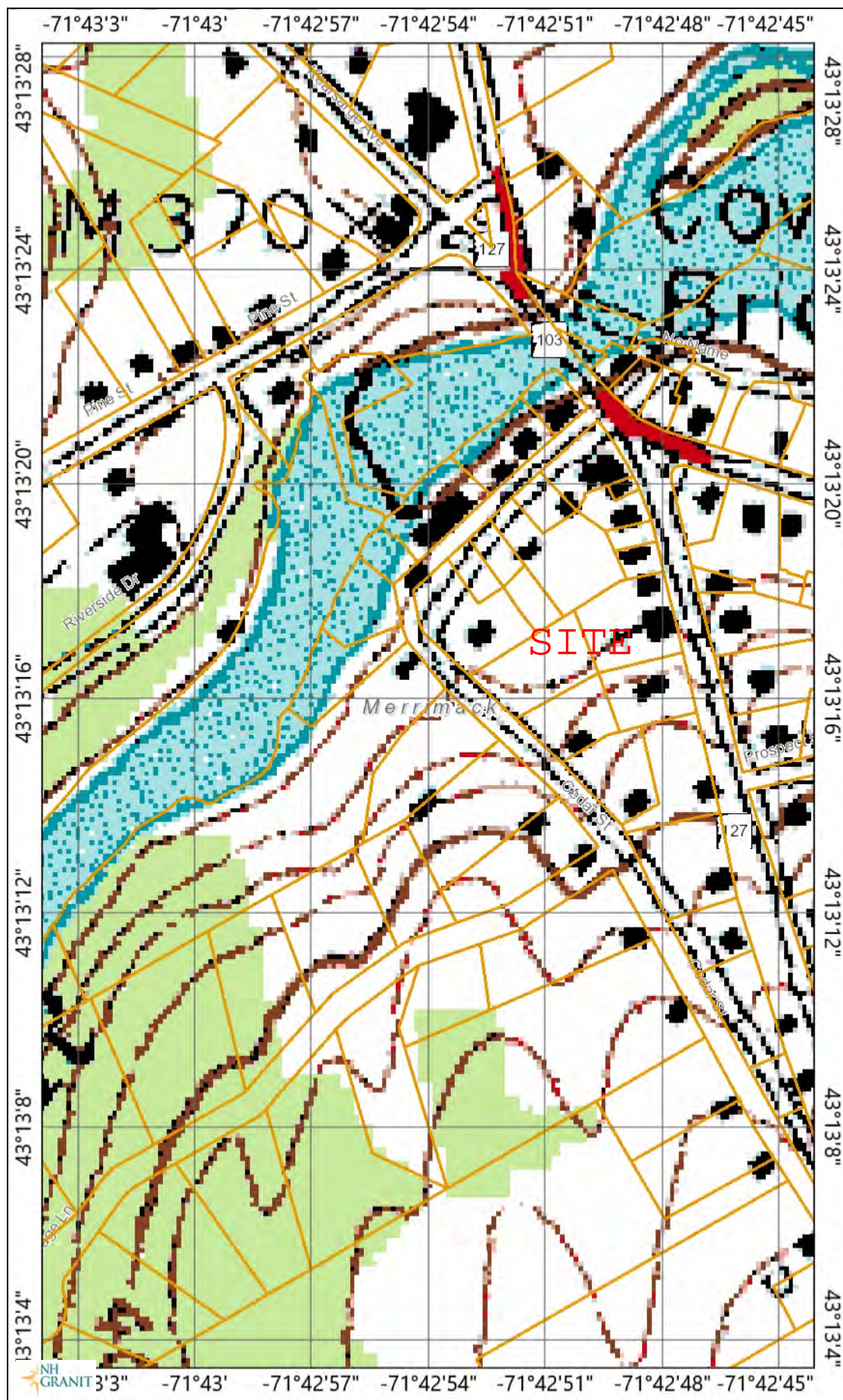
50-year		
1S/1L	1.40	.66

The calculations show that there is a decrease in peak runoff rates for the storm events analyzed. Therefore, there will be no effect on downstream drainage patterns.

A Condominium Site Plan
Tax Map 102 Lots 34 & 35
Hopkinton, NH

USGS

Map by NH GRANIT



Legend

Parcels

Parcel Polygons

Attributes for Additional Lines

State

County

City/Town

Map Scale

1: 3,247

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Map Generated: 6/16/2021

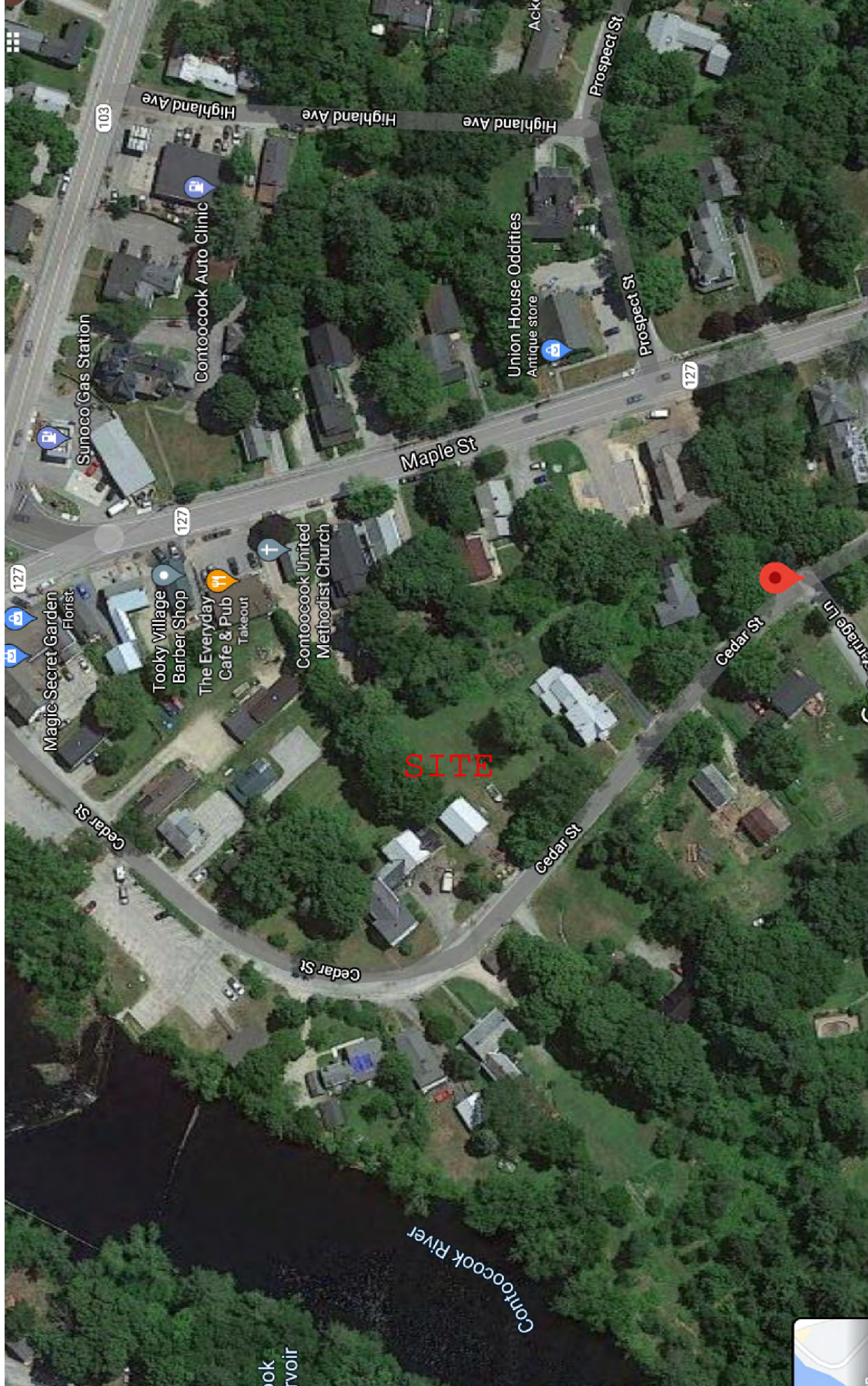


Notes



A Condominium Site Plan
Tax Map 102 Lots 34 & 35
Hopkinton, NH

USGS



A Condominium Site Plan
Tax Map 102 Lots 34 & 35
Hopkinton, NH

USGS



United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for Merrimack and Belknap Counties, New Hampshire



Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map



Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
459C	Metacomet fine sandy loam, 8 to 15 percent slopes, very stony	1.9	26.1%
613A	Croghan loamy fine sand, 0 to 8 percent slopes, wooded	5.5	73.9%
Totals for Area of Interest		7.4	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the

Custom Soil Resource Report

development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Merrimack and Belknap Counties, New Hampshire

459C—Metacomet fine sandy loam, 8 to 15 percent slopes, very stony

Map Unit Setting

National map unit symbol: 9dpq
Elevation: 250 to 2,940 feet
Mean annual precipitation: 40 to 50 inches
Mean annual air temperature: 37 to 46 degrees F
Frost-free period: 90 to 135 days
Farmland classification: Farmland of local importance

Map Unit Composition

Metacomet and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Metacomet

Setting

Landform: Hillslopes
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Basal melt-out till derived from granite, gneiss, or schist

Typical profile

Oe - 0 to 1 inches: slightly decomposed plant material
H1 - 1 to 9 inches: fine sandy loam
H2 - 9 to 34 inches: fine sandy loam
H3 - 34 to 65 inches: sandy loam

Properties and qualities

Slope: 8 to 15 percent
Surface area covered with cobbles, stones or boulders: 1.6 percent
Depth to restrictive feature: 20 to 36 inches to densic material
Drainage class: Moderately well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.60 in/hr)
Depth to water table: About 18 to 30 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 4.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Pillsbury

Percent of map unit: 4 percent
Landform: Ground moraines
Down-slope shape: Linear

Custom Soil Resource Report

Across-slope shape: Convex
Hydric soil rating: Yes

Chichester

Percent of map unit: 4 percent
Landform: Hillslopes
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Skerry

Percent of map unit: 3 percent
Landform: Hillslopes
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Henniker

Percent of map unit: 3 percent
Landform: Hills
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Peacham

Percent of map unit: 3 percent
Landform: Depressions
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Gilmanton

Percent of map unit: 3 percent
Landform: Hillslopes
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

613A—Croghan loamy fine sand, 0 to 8 percent slopes, wooded

Map Unit Setting

National map unit symbol: 2wqp0
Elevation: 150 to 2,300 feet
Mean annual precipitation: 40 to 55 inches
Mean annual air temperature: 37 to 46 degrees F
Frost-free period: 90 to 135 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Croghan and similar soils: 85 percent
Minor components: 15 percent

Custom Soil Resource Report

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Croghan

Setting

Landform: Marine terraces, outwash deltas
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope, base slope
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Sandy glaciofluvial deposits

Typical profile

Oa - 0 to 4 inches: highly decomposed plant material
E - 4 to 6 inches: loamy fine sand
Bs - 6 to 17 inches: loamy fine sand
BC - 17 to 30 inches: fine sand
C - 30 to 65 inches: sand

Properties and qualities

Slope: 0 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(1.42 to 14.17 in/hr)
Depth to water table: About 18 to 30 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water capacity: Low (about 4.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Colton

Percent of map unit: 5 percent
Landform: Marine terraces, outwash deltas
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Crest
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Adams

Percent of map unit: 5 percent
Landform: Marine terraces, outwash deltas
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Crest
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Custom Soil Resource Report

Naumburg

Percent of map unit: 3 percent

Landform: Marine terraces, outwash deltas

Landform position (two-dimensional): Footslope, toeslope

Landform position (three-dimensional): Base slope

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

Nicholville

Percent of map unit: 2 percent

Landform: Marine terraces, outwash deltas

Landform position (two-dimensional): Backslope, footslope

Landform position (three-dimensional): Side slope, base slope

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

Custom Soil Resource Report

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Custom Soil Resource Report Map—Hydrologic Soil Group



Custom Soil Resource Report

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

Soil Rating Polygons





 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Lines


 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Points






 A
 A/D
 B
 B/D

 C
 C/D
 D
 Not rated or not available

Water Features

 Streams and Canals

Transportation

 Rails
 Interstate Highways
 US Routes
 Major Roads
 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Merrimack and Belknap Counties, New Hampshire
 Survey Area Data: Version 25, May 29, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 31, 2019—Aug 29, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

MAP LEGEND

MAP INFORMATION

imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
459C	Metacomet fine sandy loam, 8 to 15 percent slopes, very stony	C	1.9	26.1%
613A	Croghan loamy fine sand, 0 to 8 percent slopes, wooded	A	5.5	73.9%
Totals for Area of Interest			7.4	100.0%

Rating Options—Hydrologic Soil Group*Aggregation Method:* Dominant Condition*Component Percent Cutoff:* None Specified*Tie-break Rule:* Higher

A Condominium Site Plan
Tax Map 102 Lots 34 & 35
Hopkinton, NH

EXTREME PRECIPITATION TABLE

Extreme Precipitation Tables

Northeast Regional Climate Center

Data represents point estimates calculated from partial duration series. All precipitation amounts are displayed in inches.

Smoothing	Yes
State	New Hampshire
Location	
Longitude	71.714 degrees West
Latitude	43.220 degrees North
Elevation	0 feet
Date/Time	Fri, 21 May 2021 06:58:17 -0400

Extreme Precipitation Estimates

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.26	0.40	0.50	0.65	0.82	1.03	1yr	0.70	0.98	1.19	1.49	1.88	2.37	2.55	1yr	2.09	2.45	2.90	3.60	4.12	1yr
2yr	0.31	0.48	0.60	0.79	0.99	1.25	2yr	0.86	1.15	1.44	1.80	2.25	2.80	3.13	2yr	2.48	3.01	3.50	4.18	4.77	2yr
5yr	0.37	0.58	0.72	0.97	1.24	1.57	5yr	1.07	1.44	1.82	2.26	2.81	3.47	3.96	5yr	3.07	3.81	4.40	5.18	5.87	5yr
10yr	0.42	0.66	0.83	1.13	1.47	1.87	10yr	1.27	1.71	2.17	2.70	3.33	4.08	4.73	10yr	3.61	4.55	5.24	6.09	6.87	10yr
25yr	0.50	0.79	1.00	1.38	1.83	2.36	25yr	1.58	2.15	2.74	3.40	4.17	5.06	6.00	25yr	4.47	5.77	6.61	7.56	8.47	25yr
50yr	0.56	0.91	1.16	1.62	2.18	2.81	50yr	1.88	2.56	3.27	4.05	4.94	5.96	7.18	50yr	5.27	6.91	7.88	8.90	9.91	50yr
100yr	0.64	1.04	1.34	1.89	2.58	3.35	100yr	2.23	3.04	3.90	4.83	5.86	7.02	8.60	100yr	6.21	8.27	9.39	10.49	11.61	100yr
200yr	0.74	1.20	1.55	2.22	3.06	3.99	200yr	2.64	3.63	4.65	5.74	6.94	8.27	10.31	200yr	7.32	9.91	11.21	12.37	13.60	200yr
500yr	0.88	1.45	1.89	2.74	3.84	5.03	500yr	3.31	4.57	5.87	7.22	8.70	10.30	13.10	500yr	9.12	12.60	14.16	15.39	16.79	500yr

Lower Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.24	0.37	0.45	0.60	0.74	0.90	1yr	0.64	0.88	0.98	1.29	1.57	1.91	2.32	1yr	1.69	2.23	2.59	3.13	3.61	1yr
2yr	0.30	0.47	0.58	0.78	0.96	1.15	2yr	0.83	1.12	1.31	1.73	2.22	2.70	3.00	2yr	2.39	2.89	3.35	4.00	4.61	2yr
5yr	0.34	0.52	0.65	0.89	1.13	1.35	5yr	0.98	1.32	1.54	2.00	2.57	3.17	3.60	5yr	2.81	3.46	3.95	4.74	5.43	5yr
10yr	0.37	0.58	0.71	1.00	1.29	1.51	10yr	1.11	1.48	1.73	2.24	2.86	3.55	4.12	10yr	3.14	3.97	4.47	5.34	6.08	10yr
25yr	0.42	0.65	0.80	1.15	1.51	1.76	25yr	1.30	1.72	2.03	2.59	3.29	4.14	4.92	25yr	3.66	4.73	5.25	6.29	7.10	25yr
50yr	0.47	0.71	0.89	1.27	1.71	1.97	50yr	1.48	1.92	2.28	2.91	3.67	4.65	5.62	50yr	4.12	5.40	5.92	7.12	7.60	50yr
100yr	0.51	0.78	0.97	1.41	1.93	2.19	100yr	1.67	2.14	2.56	3.27	4.10	5.24	6.42	100yr	4.64	6.17	6.69	8.07	8.44	100yr
200yr	0.57	0.85	1.08	1.56	2.18	2.44	200yr	1.88	2.39	2.87	3.68	4.59	5.89	7.34	200yr	5.21	7.06	7.55	9.18	9.34	200yr
500yr	0.65	0.96	1.24	1.80	2.56	2.81	500yr	2.21	2.75	3.37	4.33	5.34	6.87	8.77	500yr	6.08	8.43	8.80	10.90	10.66	500yr

Upper Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.29	0.45	0.55	0.74	0.91	1.11	1yr	0.78	1.08	1.21	1.60	1.97	2.58	2.82	1yr	2.29	2.71	3.24	3.99	4.52	1yr
2yr	0.33	0.51	0.63	0.85	1.05	1.25	2yr	0.91	1.22	1.42	1.84	2.36	2.93	3.29	2yr	2.60	3.16	3.67	4.37	5.02	2yr
5yr	0.41	0.64	0.79	1.08	1.38	1.61	5yr	1.19	1.57	1.81	2.32	2.94	3.80	4.35	5yr	3.36	4.19	4.90	5.61	6.36	5yr
10yr	0.50	0.76	0.95	1.32	1.71	1.96	10yr	1.47	1.92	2.19	2.77	3.49	4.68	5.42	10yr	4.15	5.22	6.12	6.81	7.67	10yr
25yr	0.64	0.97	1.20	1.72	2.26	2.56	25yr	1.95	2.50	2.84	3.49	4.37	6.12	7.25	25yr	5.42	6.97	8.22	8.79	9.85	25yr
50yr	0.77	1.17	1.45	2.09	2.81	3.14	50yr	2.43	3.07	3.46	4.17	5.19	7.51	9.04	50yr	6.64	8.70	10.27	10.66	12.39	50yr
100yr	0.93	1.41	1.76	2.54	3.49	3.85	100yr	3.01	3.77	4.21	4.97	6.15	9.22	11.29	100yr	8.16	10.86	12.81	12.95	15.12	100yr
200yr	1.13	1.69	2.15	3.11	4.34	4.73	200yr	3.74	4.62	5.13	5.92	7.31	11.32	14.09	200yr	10.02	13.55	16.04	15.71	18.46	200yr
500yr	1.46	2.18	2.80	4.07	5.79	6.21	500yr	5.00	6.07	6.67	7.48	9.18	14.89	18.92	500yr	13.17	18.19	21.61	20.28	24.05	500yr

A Condominium Site Plan
Tax Map 102 Lots 34 & 35
Hopkinton, NH

BMP Worksheets



INFILTRATION PRACTICE CRITERIA (Env-Wq 1508.06)

ADS SYSTEM

Enter the type of infiltration practice (e.g., basin, trench) and the node name in the drainage analysis, if applicable.

		Have you reviewed Env-Wq 1508.06(a) to ensure that infiltration is allowed?	← yes
0.41	ac	A = Area draining to the practice	
0.41	ac	A _i = Impervious area draining to the practice	
1.00	decimal	I = Percent impervious area draining to the practice, in decimal form	
0.95	unitless	R _v = Runoff coefficient = 0.05 + (0.9 x I)	
0.39	ac-in	WQV = 1" x R _v x A	
1,414	cf	WQV conversion (ac-in x 43,560 sf/ac x 1ft/12")	
353	cf	25% x WQV (check calc for sediment forebay volume)	
deep sump hooded cb		Method of pretreatment? (not required for clean or roof runoff)	
	cf	V _{SED} = Sediment forebay volume, if used for pretreatment	≥ 25%WQV
1,516	cf	V = Volume ¹ (attach a stage-storage table)	≥ WQV
2,000	sf	A _{SA} = Surface area of the bottom of the pond	
10.00	iph	K _{sat} _{DESIGN} = Design infiltration rate ²	
0.8	hours	T _{DRAIN} = Drain time = V / (A _{SA} * I _{DESIGN})	< 72-hrs
362.30	feet	E _{BTM} = Elevation of the bottom of the basin	
359.50	feet	E _{SHWT} = Elevation of SHWT (if none found, enter the lowest elevation of the test pit)	
359.00	feet	E _{ROCK} = Elevation of bedrock (if none found, enter the lowest elevation of the test pit)	
2.80	feet	D _{SHWT} = Separation from SHWT	≥ * ³
3.3	feet	D _{ROCK} = Separation from bedrock	≥ * ³
	ft	D _{amend} = Depth of amended soil, if applicable due high infiltration rate	≥ 24"
	ft	D _T = Depth of trench, if trench proposed	4 - 10 ft
	Yes/No	If a trench or underground system is proposed, has observation well been provided?	← yes
		If a trench is proposed, does material meet Env-Wq 1508.06(k)(2) requirements. ⁴	← yes
	Yes/No	If a basin is proposed, Is the perimeter curvilinear, and basin floor flat?	← yes
	:1	If a basin is proposed, pond side slopes.	≥ 3:1
363.29	ft	Peak elevation of the 10-year storm event (infiltration can be used in analysis)	
364.14	ft	Peak elevation of the 50-year storm event (infiltration can be used in analysis)	
366.00	ft	Elevation of the top of the practice (if a basin, this is the elevation of the berm)	
YES		10 peak elevation ≤ Elevation of the top of the trench? ⁵	← yes
YES		If a basin is proposed, 50-year peak elevation ≤ Elevation of berm?	← yes

1. Volume below the lowest invert of the outlet structure and excludes forebay volume
2. K_{sat}_{DESIGN} includes a factor of safety. See Env-Wq 1504.14 for requirements for determining the infiltr. rate
3. 1' separation if treatment not required; 4' for treatment in GPAs & WSIPAs; & 3' in all other areas.
4. Clean, washed well graded diameter of 1.5 to 3 inches above the in-situ soil.
5. If 50-year peak elevation exceeds top of trench, the overflow must be routed in HydroCAD as secondary discharge.

Designer's Notes: _____

POST

Prepared by HP

HydroCAD® 10.10-4a s/n 11004 © 2020 HydroCAD Software Solutions LLC

Type III 24-hr 50-YR Rainfall=5.96"

Printed 6/16/2021

Page 1

Stage-Discharge for Pond 12P: ug storage for roof

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
362.30	0.00	0.00	0.00	364.95	4.15	0.47	3.69
362.35	0.46	0.46	0.00	365.00	4.25	0.47	3.78
362.40	0.46	0.46	0.00	365.05	4.34	0.47	3.88
362.45	0.46	0.46	0.00	365.10	4.43	0.47	3.97
362.50	0.47	0.47	0.00	365.15	4.52	0.47	4.06
362.55	0.47	0.47	0.00	365.20	4.61	0.47	4.14
362.60	0.47	0.47	0.00	365.25	4.69	0.47	4.23
362.65	0.47	0.47	0.00	365.30	4.78	0.47	4.31
362.70	0.47	0.47	0.00	365.35	4.86	0.47	4.39
362.75	0.47	0.47	0.00	365.40	4.94	0.47	4.47
362.80	0.47	0.47	0.00	365.45	5.02	0.47	4.55
362.85	0.47	0.47	0.00	365.50	5.10	0.47	4.63
362.90	0.47	0.47	0.00	365.55	5.17	0.47	4.71
362.95	0.47	0.47	0.00	365.60	5.25	0.47	4.78
363.00	0.47	0.47	0.00	365.65	5.32	0.47	4.86
363.05	0.47	0.47	0.00	365.70	5.40	0.47	4.93
363.10	0.47	0.47	0.00	365.75	5.47	0.47	5.00
363.15	0.47	0.47	0.00	365.80	5.54	0.47	5.07
363.20	0.47	0.47	0.00	365.85	5.61	0.47	5.14
363.25	0.47	0.47	0.00	365.90	5.68	0.47	5.21
363.30	0.47	0.47	0.00	365.95	5.75	0.47	5.28
363.35	0.47	0.47	0.00	366.00	5.81	0.47	5.35
363.40	0.47	0.47	0.00	366.05	5.88	0.47	5.41
363.45	0.47	0.47	0.00	366.10	5.95	0.47	5.48
363.50	0.47	0.47	0.00	366.15	6.01	0.47	5.55
363.55	0.47	0.47	0.00	366.20	6.08	0.47	5.61
363.60	0.47	0.47	0.00	366.25	6.14	0.47	5.67
363.65	0.47	0.47	0.00	366.30	6.20	0.47	5.74
363.70	0.47	0.47	0.00	366.35	6.26	0.47	5.80
363.75	0.47	0.47	0.00	366.40	6.32	0.47	5.86
363.80	0.47	0.47	0.00	366.45	6.39	0.47	5.92
363.85	0.47	0.47	0.00	366.50	6.45	0.47	5.98
363.90	0.47	0.47	0.00				
363.95	0.47	0.47	0.00				
364.00	0.47	0.47	0.00				
364.05	0.58	0.47	0.11				
364.10	0.79	0.47	0.32				
364.15	1.06	0.47	0.60				
364.20	1.38	0.47	0.92				
364.25	1.75	0.47	1.28				
364.30	2.15	0.47	1.69				
364.35	2.59	0.47	2.13				
364.40	2.86	0.47	2.39				
364.45	3.00	0.47	2.54				
364.50	3.14	0.47	2.67				
364.55	3.27	0.47	2.80				
364.60	3.40	0.47	2.93				
364.65	3.51	0.47	3.05				
364.70	3.63	0.47	3.16				
364.75	3.74	0.47	3.28				
364.80	3.85	0.47	3.38				
364.85	3.95	0.47	3.49				
364.90	4.05	0.47	3.59				

Baystone Properties, LLC
49 & 71 Cedar Street
Contoocook, NH
Date: 5-15-21

Test Pit #1

0-12"	Topsoil 10 YR 3/3 – Dark Brown
12-28"	Sand Granular/Friable 7.5 YR 5/6 – Strong Brown
28-40"	Sand Granular/Loose 2.5 Y 5/6 – Light Olive Brown

ESHWT = 28"

Roots to 28"

No ledge observed

Water observed @40"

Perc Rate 2 min./inch

Test Pit #2

0-12"	Topsoil 10 YR 3/3 – Dark Brown
12-30"	Sand Granular/Friable 7.5 YR 5/6 – Strong Brown
30-72"	Loamy Sand Granular/Firm 2.5 YR 5/6 - Light Olive Brown

ESHWT = 30"

Roots to 30"

No ledge observed

Water observed @72"

Perc Rate 2 min./inch

A Condominium Site Plan
Tax Map 102 Lots 34 & 35
Hopkinton, NH

Rip-rap apron calculations

RIPRAP CALCULATIONS

DESIGN STORM: 25 YEARS

DATE: 06/16/21 REVISED:

PROJECT NAME: SITE PLAN

LOCATION: HOPKINTON NH

JOB NO.

VARIABLES:

Q = DISCHARGE FROM OUTLET

Do = PIPE DIAMETER

Tw = TAIL WATER

La = LENGTH OF RIPRAP

Wi = WIDTH OF RIPRAP AT OUTLET

We = WIDTH OF RIPRAP DOWNSTREAM FROM OUTLET

d50 = RIPRAP SIZE

EQUATIONS:

FOR $Tw < 1/2 Do$

$$La = (1.8Q/Do^{1.5}) + 7Do$$

$$Wi = 3Do$$

$$We = Do + La$$

$$d50 = (0.02Q^{1.33})/(Tw)(Do)$$

FOR $Tw \geq 1/2 Do$

$$La = (3Q)/(Do^{1.5})$$

$$Wi = 3Do$$

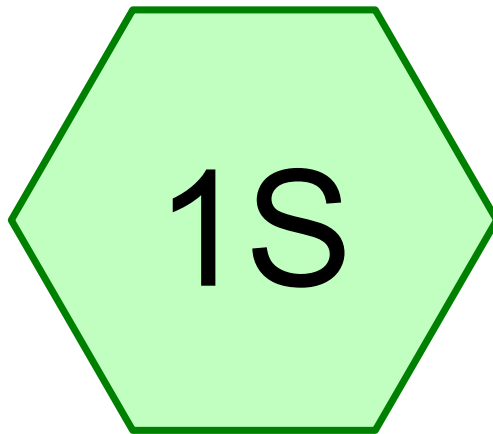
$$We = Do + 0.4La$$

$$d50 = (0.02Q^{1.33})/(Tw)(Do)$$

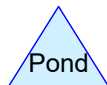
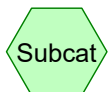
OUTLET	Q CFS	Do FEET	Tw FEET	La FEET	Wi FEET	We FEET	d50 INCHES
FES 1	0.51	1.00	0.10	7.92	3.00	8.92	0.98
			0.20	#DIV/0!	0.00	#DIV/0!	#DIV/0!
			0.10	#DIV/0!	0.00	#DIV/0!	#DIV/0!

A Condominium Site Plan
Tax Map 102 Lots 34 & 35
Hopkinton, NH

Pre-Drainage analysis output
Pre-development 10, 25, 50-year



EXISTING



PRE

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Page 2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.295	39	>75% Grass cover, Good, HSG A (1S)
0.184	98	Paved parking, HSG A (1S)
0.096	98	Roofs, HSG A (1S)
0.167	30	Woods, Good, HSG A (1S)
1.742	48	TOTAL AREA

PRE

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Page 3

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
1.742	HSG A	1S
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
0.000	Other	
1.742		TOTAL AREA

PRE

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Type III 24-hr 10-YR Rainfall=4.08"

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Summary for Subcatchment 1S: EXISTING

Runoff = 0.19 cfs @ 12.36 hrs, Volume= 0.035 af, Depth> 0.24"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-YR Rainfall=4.08"

Area (sf)	CN	Description
4,185	98	Roofs, HSG A
4,530	98	Paved parking, HSG A
7,270	30	Woods, Good, HSG A
56,423	39	>75% Grass cover, Good, HSG A
3,468	98	Paved parking, HSG A
75,876	48	Weighted Average
63,693		83.94% Pervious Area
12,183		16.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.2	40	0.0600	0.21		Sheet Flow, Grass: Short n= 0.150 P2= 2.80"
3.3	400	0.0850	2.04		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
6.5	440	Total			

PRE

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Type III 24-hr 25-YR Rainfall=5.06"

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Summary for Subcatchment 1S: EXISTING

Runoff = 0.65 cfs @ 12.16 hrs, Volume= 0.077 af, Depth> 0.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YR Rainfall=5.06"

Area (sf)	CN	Description
4,185	98	Roofs, HSG A
4,530	98	Paved parking, HSG A
7,270	30	Woods, Good, HSG A
56,423	39	>75% Grass cover, Good, HSG A
3,468	98	Paved parking, HSG A
75,876	48	Weighted Average
63,693		83.94% Pervious Area
12,183		16.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.2	40	0.0600	0.21		Sheet Flow, Grass: Short n= 0.150 P2= 2.80"
3.3	400	0.0850	2.04		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
6.5	440	Total			

PRE

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Type III 24-hr 50-YR Rainfall=5.96"

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Summary for Subcatchment 1S: EXISTING

Runoff = 1.40 cfs @ 12.12 hrs, Volume= 0.126 af, Depth> 0.87"

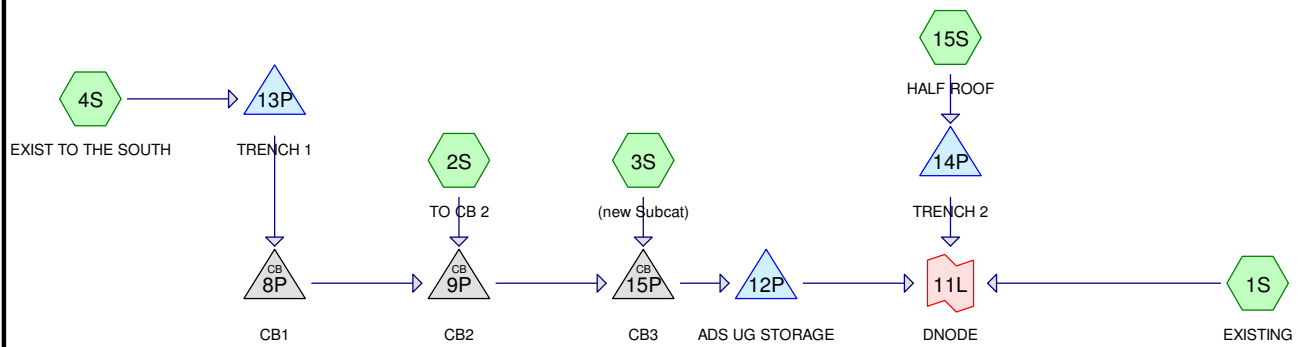
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-YR Rainfall=5.96"

Area (sf)	CN	Description
4,185	98	Roofs, HSG A
4,530	98	Paved parking, HSG A
7,270	30	Woods, Good, HSG A
56,423	39	>75% Grass cover, Good, HSG A
3,468	98	Paved parking, HSG A
75,876	48	Weighted Average
63,693		83.94% Pervious Area
12,183		16.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.2	40	0.0600	0.21		Sheet Flow, Grass: Short n= 0.150 P2= 2.80"
3.3	400	0.0850	2.04		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
6.5	440	Total			

A Condominium Site Plan
Tax Map 102 Lots 34 & 35
Hopkinton, NH

**Post-Drainage analysis output
Post development 10, 25, 50-year**



POST

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Page 2

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
42,200	39	>75% Grass cover, Good, HSG A (1S, 4S, 15S)
4,149	98	Paved parking, HSG A (1S, 4S, 15S)
25,164	98	Roofs, HSG A (1S, 2S, 3S, 4S, 15S)
4,363	30	Woods, Good, HSG A (1S, 4S)
75,876	61	TOTAL AREA

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Page 3

Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
75,876	HSG A	1S, 2S, 3S, 4S, 15S
0	HSG B	
0	HSG C	
0	HSG D	
0	Other	
75,876		TOTAL AREA

POST

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Type III 24-hr 10-YR Rainfall=4.08"

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Summary for Subcatchment 1S: EXISTING

Runoff = 0.15 cfs @ 12.09 hrs, Volume= 557 cf, Depth> 0.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-YR Rainfall=4.08"

Area (sf)	CN	Description
1,385	98	Roofs, HSG A
340	98	Paved parking, HSG A
2,591	30	Woods, Good, HSG A
14,087	39	>75% Grass cover, Good, HSG A
18,403		Weighted Average
16,678	38	90.63% Pervious Area
1,725	98	9.37% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.9	50	0.0550	0.21		Sheet Flow, Grass: Short n= 0.150 P2= 2.90"
0.7	183	0.0900	4.50		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
4.6	233	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment 2S: TO CB 2

Runoff = 0.79 cfs @ 12.09 hrs, Volume= 2,640 cf, Depth> 3.58"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-YR Rainfall=4.08"

Area (sf)	CN	Description
8,850	98	Roofs, HSG A
8,850	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment 3S: (new Subcat)

Runoff = 0.80 cfs @ 12.09 hrs, Volume= 2,678 cf, Depth> 3.58"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-YR Rainfall=4.08"

POST

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Type III 24-hr 10-YR Rainfall=4.08"

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Area (sf)	CN	Description
8,979	98	Roofs, HSG A
8,979	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment 4S: EXIST TO THE SOUTH

Runoff = 0.56 cfs @ 12.09 hrs, Volume= 1,935 cf, Depth> 0.76"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-YR Rainfall=4.08"

Area (sf)	CN	Description
22,564	39	>75% Grass cover, Good, HSG A
3,468	98	Paved parking, HSG A
1,772	30	Woods, Good, HSG A
2,790	98	Roofs, HSG A
30,594		Weighted Average
24,336	38	79.55% Pervious Area
6,258	98	20.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment 15S: HALF ROOF

Runoff = 0.31 cfs @ 12.09 hrs, Volume= 1,061 cf, Depth> 1.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-YR Rainfall=4.08"

Area (sf)	CN	Description
5,549	39	>75% Grass cover, Good, HSG A
3,160	98	Roofs, HSG A
341	98	Paved parking, HSG A
9,050		Weighted Average
5,549	39	61.31% Pervious Area
3,501	98	38.69% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

POST

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Type III 24-hr 10-YR Rainfall=4.08"

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Summary for Pond 8P: CB1

Inflow Area = 30,594 sf, 20.45% Impervious, Inflow Depth = 0.00" for 10-YR event
 Inflow = 0.00 cfs @ 5.00 hrs, Volume= 0 cf
 Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min
 Primary = 0.00 cfs @ 5.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 363.22' @ 12.69 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	363.04'	12.0" Round Culvert L= 51.0' Ke= 0.500 Inlet / Outlet Invert= 363.04' / 362.79' S= 0.0049 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=363.04' TW=362.75' (Dynamic Tailwater)
 ↑**1=Culvert** (Controls 0.00 cfs)

Summary for Pond 9P: CB2

Inflow Area = 39,444 sf, 38.30% Impervious, Inflow Depth > 0.80" for 10-YR event
 Inflow = 0.79 cfs @ 12.09 hrs, Volume= 2,640 cf
 Outflow = 0.79 cfs @ 12.09 hrs, Volume= 2,640 cf, Atten= 0%, Lag= 0.0 min
 Primary = 0.79 cfs @ 12.09 hrs, Volume= 2,640 cf

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 363.46' @ 12.12 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	362.69'	12.0" Round Culvert L= 38.0' Ke= 0.500 Inlet / Outlet Invert= 362.69' / 362.50' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.53 cfs @ 12.09 hrs HW=363.42' TW=363.36' (Dynamic Tailwater)
 ↑**1=Culvert** (Outlet Controls 0.53 cfs @ 1.21 fps)

Summary for Pond 12P: ADS UG STORAGE

Inflow Area = 48,423 sf, 49.74% Impervious, Inflow Depth > 1.32" for 10-YR event
 Inflow = 1.59 cfs @ 12.09 hrs, Volume= 5,318 cf
 Outflow = 0.47 cfs @ 12.00 hrs, Volume= 5,321 cf, Atten= 71%, Lag= 0.0 min
 Discarded = 0.47 cfs @ 12.00 hrs, Volume= 5,321 cf
 Primary = 0.00 cfs @ 5.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 363.29' @ 12.41 hrs Surf.Area= 2,013 sf Storage= 915 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 9.0 min (745.4 - 736.5)

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Type III 24-hr 10-YR Rainfall=4.08"

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Volume	Invert	Avail.Storage	Storage Description
#1	362.30'	1,669 cf	Custom Stage Data (Prismatic) Listed below (Recalc) 4,400 cf Overall - 228 cf Embedded = 4,172 cf x 40.0% Voids
#2	362.50'	228 cf	12.0" Round Pipe Storage Inside #1 L= 290.0'
#3	362.50'	50 cf	4.00'D x 4.00'H Vertical Cone/Cylinder
		1,947 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
362.30	2,000	0	0
364.50	2,000	4,400	4,400

Device	Routing	Invert	Outlet Devices
#1	Discarded	362.30'	10.000 in/hr Exfiltration over Surface area
#2	Device 3	364.00'	12.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Primary	362.40'	12.0" Round Culvert L= 16.0' Ke= 0.500 Inlet / Outlet Invert= 362.40' / 362.24' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Discarded OutFlow Max=0.47 cfs @ 12.00 hrs HW=362.50' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 0.47 cfs)**Primary OutFlow** Max=0.00 cfs @ 5.00 hrs HW=362.30' TW=0.00' (Dynamic Tailwater)↑**3=Culvert** (Controls 0.00 cfs)↑**2=Orifice/Grate** (Controls 0.00 cfs)**Summary for Pond 13P: TRENCH 1**

Inflow Area = 30,594 sf, 20.45% Impervious, Inflow Depth > 0.76" for 10-YR event
 Inflow = 0.56 cfs @ 12.09 hrs, Volume= 1,935 cf
 Outflow = 0.18 cfs @ 12.66 hrs, Volume= 1,941 cf, Atten= 68%, Lag= 34.1 min
 Discarded = 0.18 cfs @ 12.66 hrs, Volume= 1,941 cf
 Primary = 0.00 cfs @ 5.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 367.92' @ 12.38 hrs Surf.Area= 772 sf Storage= 312 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 7.7 min (753.7 - 746.0)

Volume	Invert	Avail.Storage	Storage Description
#1	367.00'	780 cf	5.00'W x 130.00'L x 3.00'H Prismatic 1,950 cf Overall x 40.0% Voids
#2	367.25'	102 cf	12.0" Round Pipe Storage L= 130.0'
		882 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Discarded	367.00'	10.000 in/hr Exfiltration over Surface area
#2	Primary	369.50'	4.0' long x 4.0' breadth Broad-Crested Rectangular Weir

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Type III 24-hr 10-YR Rainfall=4.08"

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Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00
 2.50 3.00 3.50 4.00 4.50 5.00 5.50
 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68
 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Discarded OutFlow Max=0.18 cfs @ 12.66 hrs HW=367.75' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 0.18 cfs)**Primary OutFlow** Max=0.00 cfs @ 5.00 hrs HW=367.00' TW=363.04' (Dynamic Tailwater)↑**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)**Summary for Pond 14P: TRENCH 2**

Inflow Area = 9,050 sf, 38.69% Impervious, Inflow Depth > 1.41" for 10-YR event
 Inflow = 0.31 cfs @ 12.09 hrs, Volume= 1,061 cf
 Outflow = 0.14 cfs @ 12.28 hrs, Volume= 1,062 cf, Atten= 57%, Lag= 11.4 min
 Discarded = 0.14 cfs @ 12.28 hrs, Volume= 1,062 cf
 Primary = 0.00 cfs @ 5.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 362.52' @ 12.28 hrs Surf.Area= 586 sf Storage= 120 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 3.7 min (744.4 - 740.7)

Volume	Invert	Avail.Storage	Storage Description
#1	362.00'	384 cf	4.00'W x 120.00'L x 2.00'H Prismatoid 960 cf Overall x 40.0% Voids
#2	362.25'	94 cf	12.0" Round Pipe Storage L= 120.0'
		478 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Discarded	362.00'	10.000 in/hr Exfiltration over Surface area
#2	Primary	363.50'	4.0' long x 4.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Discarded OutFlow Max=0.14 cfs @ 12.28 hrs HW=362.52' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 0.14 cfs)**Primary OutFlow** Max=0.00 cfs @ 5.00 hrs HW=362.00' TW=0.00' (Dynamic Tailwater)↑**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

POST

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Type III 24-hr 10-YR Rainfall=4.08"

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Summary for Pond 15P: CB3

Inflow Area = 48,423 sf, 49.74% Impervious, Inflow Depth > 1.32" for 10-YR event
Inflow = 1.59 cfs @ 12.09 hrs, Volume= 5,318 cf
Outflow = 1.59 cfs @ 12.09 hrs, Volume= 5,318 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.59 cfs @ 12.09 hrs, Volume= 5,318 cf

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 363.38' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	362.50'	12.0" Round Culvert L= 7.0' Ke= 0.500 Inlet / Outlet Invert= 362.50' / 362.50' S= 0.0000 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.55 cfs @ 12.09 hrs HW=363.36' TW=362.80' (Dynamic Tailwater)
↑**1=Culvert** (Barrel Controls 1.55 cfs @ 2.88 fps)

Summary for Link 11L: DNODE

Inflow Area = 75,876 sf, 38.63% Impervious, Inflow Depth > 0.09" for 10-YR event
Inflow = 0.15 cfs @ 12.09 hrs, Volume= 557 cf
Primary = 0.15 cfs @ 12.09 hrs, Volume= 557 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

POST

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Type III 24-hr 25-YR Rainfall=5.06"

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Summary for Subcatchment 1S: EXISTING

Runoff = 0.19 cfs @ 12.09 hrs, Volume= 841 cf, Depth> 0.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YR Rainfall=5.06"

Area (sf)	CN	Description
1,385	98	Roofs, HSG A
340	98	Paved parking, HSG A
2,591	30	Woods, Good, HSG A
14,087	39	>75% Grass cover, Good, HSG A
18,403		Weighted Average
16,678	38	90.63% Pervious Area
1,725	98	9.37% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.9	50	0.0550	0.21		Sheet Flow, Grass: Short n= 0.150 P2= 2.90"
0.7	183	0.0900	4.50		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
4.6	233	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment 2S: TO CB 2

Runoff = 0.98 cfs @ 12.09 hrs, Volume= 3,299 cf, Depth> 4.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YR Rainfall=5.06"

Area (sf)	CN	Description
8,850	98	Roofs, HSG A
8,850	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment 3S: (new Subcat)

Runoff = 1.00 cfs @ 12.09 hrs, Volume= 3,347 cf, Depth> 4.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YR Rainfall=5.06"

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Type III 24-hr 25-YR Rainfall=5.06"

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Area (sf)	CN	Description
8,979	98	Roofs, HSG A
8,979	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment 4S: EXIST TO THE SOUTH

Runoff = 0.69 cfs @ 12.09 hrs, Volume= 2,650 cf, Depth> 1.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YR Rainfall=5.06"

Area (sf)	CN	Description
22,564	39	>75% Grass cover, Good, HSG A
3,468	98	Paved parking, HSG A
1,772	30	Woods, Good, HSG A
2,790	98	Roofs, HSG A
30,594		Weighted Average
24,336	38	79.55% Pervious Area
6,258	98	20.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment 15S: HALF ROOF

Runoff = 0.39 cfs @ 12.09 hrs, Volume= 1,383 cf, Depth> 1.83"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YR Rainfall=5.06"

Area (sf)	CN	Description
5,549	39	>75% Grass cover, Good, HSG A
3,160	98	Roofs, HSG A
341	98	Paved parking, HSG A
9,050		Weighted Average
5,549	39	61.31% Pervious Area
3,501	98	38.69% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

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Type III 24-hr 25-YR Rainfall=5.06"

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Summary for Pond 8P: CB1

Inflow Area = 30,594 sf, 20.45% Impervious, Inflow Depth = 0.00" for 25-YR event
 Inflow = 0.00 cfs @ 5.00 hrs, Volume= 0 cf
 Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min
 Primary = 0.00 cfs @ 5.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 363.33' @ 13.18 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	363.04'	12.0" Round Culvert L= 51.0' Ke= 0.500 Inlet / Outlet Invert= 363.04' / 362.79' S= 0.0049 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=363.04' TW=362.76' (Dynamic Tailwater)
 ↑**1=Culvert** (Controls 0.00 cfs)

Summary for Pond 9P: CB2

Inflow Area = 39,444 sf, 38.30% Impervious, Inflow Depth > 1.00" for 25-YR event
 Inflow = 0.98 cfs @ 12.09 hrs, Volume= 3,299 cf
 Outflow = 0.98 cfs @ 12.09 hrs, Volume= 3,299 cf, Atten= 0%, Lag= 0.0 min
 Primary = 0.98 cfs @ 12.09 hrs, Volume= 3,299 cf

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 363.90' @ 12.56 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	362.69'	12.0" Round Culvert L= 38.0' Ke= 0.500 Inlet / Outlet Invert= 362.69' / 362.50' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.60 cfs @ 12.09 hrs HW=363.54' TW=363.49' (Dynamic Tailwater)
 ↑**1=Culvert** (Outlet Controls 0.60 cfs @ 1.14 fps)

Summary for Pond 12P: ADS UG STORAGE

Inflow Area = 48,423 sf, 49.74% Impervious, Inflow Depth > 1.65" for 25-YR event
 Inflow = 1.98 cfs @ 12.09 hrs, Volume= 6,646 cf
 Outflow = 0.47 cfs @ 11.95 hrs, Volume= 6,670 cf, Atten= 76%, Lag= 0.0 min
 Discarded = 0.47 cfs @ 11.95 hrs, Volume= 6,670 cf
 Primary = 0.00 cfs @ 5.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 363.89' @ 12.47 hrs Surf.Area= 2,013 sf Storage= 1,423 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 15.1 min (750.1 - 735.0)

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Type III 24-hr 25-YR Rainfall=5.06"

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Volume	Invert	Avail.Storage	Storage Description
#1	362.30'	1,669 cf	Custom Stage Data (Prismatic) Listed below (Recalc) 4,400 cf Overall - 228 cf Embedded = 4,172 cf x 40.0% Voids
#2	362.50'	228 cf	12.0" Round Pipe Storage Inside #1 L= 290.0'
#3	362.50'	50 cf	4.00'D x 4.00'H Vertical Cone/Cylinder
		1,947 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
362.30	2,000	0	0
364.50	2,000	4,400	4,400

Device	Routing	Invert	Outlet Devices
#1	Discarded	362.30'	10.000 in/hr Exfiltration over Surface area
#2	Device 3	364.00'	12.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Primary	362.40'	12.0" Round Culvert L= 16.0' Ke= 0.500 Inlet / Outlet Invert= 362.40' / 362.24' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Discarded OutFlow Max=0.47 cfs @ 11.95 hrs HW=362.54' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 0.47 cfs)**Primary OutFlow** Max=0.00 cfs @ 5.00 hrs HW=362.30' TW=0.00' (Dynamic Tailwater)↑**3=Culvert** (Controls 0.00 cfs)↑**2=Orifice/Grate** (Controls 0.00 cfs)**Summary for Pond 13P: TRENCH 1**

Inflow Area = 30,594 sf, 20.45% Impervious, Inflow Depth > 1.04" for 25-YR event
 Inflow = 0.69 cfs @ 12.09 hrs, Volume= 2,650 cf
 Outflow = 0.18 cfs @ 13.50 hrs, Volume= 2,654 cf, Atten= 74%, Lag= 84.7 min
 Discarded = 0.18 cfs @ 13.50 hrs, Volume= 2,654 cf
 Primary = 0.00 cfs @ 5.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 368.63' @ 12.53 hrs Surf.Area= 650 sf Storage= 526 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 16.3 min (774.1 - 757.8)

Volume	Invert	Avail.Storage	Storage Description
#1	367.00'	780 cf	5.00'W x 130.00'L x 3.00'H Prismatic 1,950 cf Overall x 40.0% Voids
#2	367.25'	102 cf	12.0" Round Pipe Storage L= 130.0'
		882 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Discarded	367.00'	10.000 in/hr Exfiltration over Surface area
#2	Primary	369.50'	4.0' long x 4.0' breadth Broad-Crested Rectangular Weir

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Type III 24-hr 25-YR Rainfall=5.06"

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Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00
 2.50 3.00 3.50 4.00 4.50 5.00 5.50
 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68
 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Discarded OutFlow Max=0.18 cfs @ 13.50 hrs HW=367.75' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 0.18 cfs)**Primary OutFlow** Max=0.00 cfs @ 5.00 hrs HW=367.00' TW=363.04' (Dynamic Tailwater)↑**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)**Summary for Pond 14P: TRENCH 2**

Inflow Area = 9,050 sf, 38.69% Impervious, Inflow Depth > 1.83" for 25-YR event
 Inflow = 0.39 cfs @ 12.09 hrs, Volume= 1,383 cf
 Outflow = 0.14 cfs @ 12.44 hrs, Volume= 1,385 cf, Atten= 64%, Lag= 21.0 min
 Discarded = 0.14 cfs @ 12.44 hrs, Volume= 1,385 cf
 Primary = 0.00 cfs @ 5.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 362.77' @ 12.35 hrs Surf.Area= 600 sf Storage= 197 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 6.3 min (752.0 - 745.8)

Volume	Invert	Avail.Storage	Storage Description
#1	362.00'	384 cf	4.00'W x 120.00'L x 2.00'H Prismatoid 960 cf Overall x 40.0% Voids
#2	362.25'	94 cf	12.0" Round Pipe Storage L= 120.0'
		478 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Discarded	362.00'	10.000 in/hr Exfiltration over Surface area
#2	Primary	363.50'	4.0' long x 4.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Discarded OutFlow Max=0.14 cfs @ 12.44 hrs HW=362.75' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 0.14 cfs)**Primary OutFlow** Max=0.00 cfs @ 5.00 hrs HW=362.00' TW=0.00' (Dynamic Tailwater)↑**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

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Type III 24-hr 25-YR Rainfall=5.06"

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Summary for Pond 15P: CB3

Inflow Area = 48,423 sf, 49.74% Impervious, Inflow Depth > 1.65" for 25-YR event
Inflow = 1.98 cfs @ 12.09 hrs, Volume= 6,646 cf
Outflow = 1.98 cfs @ 12.09 hrs, Volume= 6,646 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.98 cfs @ 12.09 hrs, Volume= 6,646 cf

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 363.90' @ 12.51 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	362.50'	12.0" Round Culvert L= 7.0' Ke= 0.500 Inlet / Outlet Invert= 362.50' / 362.50' S= 0.0000 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.93 cfs @ 12.09 hrs HW=363.49' TW=363.06' (Dynamic Tailwater)
↑ **1=Culvert** (Barrel Controls 1.93 cfs @ 3.08 fps)

Summary for Link 11L: DNODE

Inflow Area = 75,876 sf, 38.63% Impervious, Inflow Depth > 0.13" for 25-YR event
Inflow = 0.19 cfs @ 12.09 hrs, Volume= 841 cf
Primary = 0.19 cfs @ 12.09 hrs, Volume= 841 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

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Type III 24-hr 50-YR Rainfall=5.96"

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Summary for Subcatchment 1S: EXISTING

Runoff = 0.23 cfs @ 12.10 hrs, Volume= 1,196 cf, Depth> 0.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-YR Rainfall=5.96"

Area (sf)	CN	Description
1,385	98	Roofs, HSG A
340	98	Paved parking, HSG A
2,591	30	Woods, Good, HSG A
14,087	39	>75% Grass cover, Good, HSG A
18,403		Weighted Average
16,678	38	90.63% Pervious Area
1,725	98	9.37% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.9	50	0.0550	0.21		Sheet Flow, Grass: Short n= 0.150 P2= 2.90"
0.7	183	0.0900	4.50		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
4.6	233	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment 2S: TO CB 2

Runoff = 1.16 cfs @ 12.09 hrs, Volume= 3,903 cf, Depth> 5.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-YR Rainfall=5.96"

Area (sf)	CN	Description
8,850	98	Roofs, HSG A
8,850	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment 3S: (new Subcat)

Runoff = 1.18 cfs @ 12.09 hrs, Volume= 3,960 cf, Depth> 5.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-YR Rainfall=5.96"

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Type III 24-hr 50-YR Rainfall=5.96"

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Area (sf)	CN	Description
8,979	98	Roofs, HSG A
8,979	98	100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment 4S: EXIST TO THE SOUTH

Runoff = 0.83 cfs @ 12.09 hrs, Volume= 3,449 cf, Depth> 1.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-YR Rainfall=5.96"

Area (sf)	CN	Description
22,564	39	>75% Grass cover, Good, HSG A
3,468	98	Paved parking, HSG A
1,772	30	Woods, Good, HSG A
2,790	98	Roofs, HSG A
30,594		Weighted Average
24,336	38	79.55% Pervious Area
6,258	98	20.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment 15S: HALF ROOF

Runoff = 0.46 cfs @ 12.09 hrs, Volume= 1,712 cf, Depth> 2.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-Q, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50-YR Rainfall=5.96"

Area (sf)	CN	Description
5,549	39	>75% Grass cover, Good, HSG A
3,160	98	Roofs, HSG A
341	98	Paved parking, HSG A
9,050		Weighted Average
5,549	39	61.31% Pervious Area
3,501	98	38.69% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

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Type III 24-hr 50-YR Rainfall=5.96"

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Summary for Pond 8P: CB1

Inflow Area = 30,594 sf, 20.45% Impervious, Inflow Depth = 0.02" for 50-YR event
 Inflow = 0.12 cfs @ 12.48 hrs, Volume= 60 cf
 Outflow = 0.12 cfs @ 12.48 hrs, Volume= 60 cf, Atten= 0%, Lag= 0.0 min
 Primary = 0.12 cfs @ 12.48 hrs, Volume= 60 cf

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 364.19' @ 12.45 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	363.04'	12.0" Round Culvert L= 51.0' Ke= 0.500 Inlet / Outlet Invert= 363.04' / 362.79' S= 0.0049 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.53 cfs @ 12.48 hrs HW=364.18' TW=364.15' (Dynamic Tailwater)
 ↑**1=Culvert** (Outlet Controls 0.53 cfs @ 0.74 fps)

Summary for Pond 9P: CB2

Inflow Area = 39,444 sf, 38.30% Impervious, Inflow Depth > 1.21" for 50-YR event
 Inflow = 1.16 cfs @ 12.09 hrs, Volume= 3,963 cf
 Outflow = 1.16 cfs @ 12.09 hrs, Volume= 3,963 cf, Atten= 0%, Lag= 0.0 min
 Primary = 1.16 cfs @ 12.09 hrs, Volume= 3,963 cf

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 364.19' @ 12.38 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	362.69'	12.0" Round Culvert L= 38.0' Ke= 0.500 Inlet / Outlet Invert= 362.69' / 362.50' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.63 cfs @ 12.09 hrs HW=363.65' TW=363.60' (Dynamic Tailwater)
 ↑**1=Culvert** (Outlet Controls 0.63 cfs @ 1.04 fps)

Summary for Pond 12P: ADS UG STORAGE

Inflow Area = 48,423 sf, 49.74% Impervious, Inflow Depth > 1.96" for 50-YR event
 Inflow = 2.33 cfs @ 12.09 hrs, Volume= 7,923 cf
 Outflow = 0.98 cfs @ 12.31 hrs, Volume= 7,939 cf, Atten= 58%, Lag= 13.2 min
 Discarded = 0.47 cfs @ 11.90 hrs, Volume= 7,520 cf
 Primary = 0.51 cfs @ 12.31 hrs, Volume= 419 cf

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 364.14' @ 12.31 hrs Surf.Area= 2,013 sf Storage= 1,626 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 16.5 min (750.9 - 734.3)

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Type III 24-hr 50-YR Rainfall=5.96"

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Volume	Invert	Avail.Storage	Storage Description
#1	362.30'	1,669 cf	Custom Stage Data (Prismatic) Listed below (Recalc) 4,400 cf Overall - 228 cf Embedded = 4,172 cf x 40.0% Voids
#2	362.50'	228 cf	12.0" Round Pipe Storage Inside #1 L= 290.0'
#3	362.50'	50 cf	4.00'D x 4.00'H Vertical Cone/Cylinder
		1,947 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
362.30	2,000	0	0
364.50	2,000	4,400	4,400

Device	Routing	Invert	Outlet Devices
#1	Discarded	362.30'	10.000 in/hr Exfiltration over Surface area
#2	Device 3	364.00'	12.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Primary	362.40'	12.0" Round Culvert L= 16.0' Ke= 0.500 Inlet / Outlet Invert= 362.40' / 362.24' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Discarded OutFlow Max=0.47 cfs @ 11.90 hrs HW=362.55' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 0.47 cfs)**Primary OutFlow** Max=0.50 cfs @ 12.31 hrs HW=364.13' TW=0.00' (Dynamic Tailwater)↑**3=Culvert** (Passes 0.50 cfs of 4.20 cfs potential flow)↑**2=Orifice/Grate** (Weir Controls 0.50 cfs @ 1.20 fps)**Summary for Pond 13P: TRENCH 1**

Inflow Area = 30,594 sf, 20.45% Impervious, Inflow Depth > 1.35" for 50-YR event
 Inflow = 0.83 cfs @ 12.09 hrs, Volume= 3,449 cf
 Outflow = 0.27 cfs @ 12.48 hrs, Volume= 3,449 cf, Atten= 67%, Lag= 23.4 min
 Discarded = 0.18 cfs @ 12.04 hrs, Volume= 3,390 cf
 Primary = 0.12 cfs @ 12.48 hrs, Volume= 60 cf

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 369.55' @ 12.48 hrs Surf.Area= 650 sf Storage= 766 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 28.4 min (794.2 - 765.8)

Volume	Invert	Avail.Storage	Storage Description
#1	367.00'	780 cf	5.00'W x 130.00'L x 3.00'H Prismatic 1,950 cf Overall x 40.0% Voids
#2	367.25'	102 cf	12.0" Round Pipe Storage L= 130.0'
		882 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Discarded	367.00'	10.000 in/hr Exfiltration over Surface area
#2	Primary	369.50'	4.0' long x 4.0' breadth Broad-Crested Rectangular Weir

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Type III 24-hr 50-YR Rainfall=5.96"

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Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00
 2.50 3.00 3.50 4.00 4.50 5.00 5.50
 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68
 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Discarded OutFlow Max=0.18 cfs @ 12.04 hrs HW=367.72' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 0.18 cfs)**Primary OutFlow** Max=0.11 cfs @ 12.48 hrs HW=369.55' TW=364.18' (Dynamic Tailwater)↑**2=Broad-Crested Rectangular Weir** (Weir Controls 0.11 cfs @ 0.54 fps)**Summary for Pond 14P: TRENCH 2**

Inflow Area = 9,050 sf, 38.69% Impervious, Inflow Depth > 2.27" for 50-YR event
 Inflow = 0.46 cfs @ 12.09 hrs, Volume= 1,712 cf
 Outflow = 0.14 cfs @ 12.96 hrs, Volume= 1,715 cf, Atten= 70%, Lag= 52.3 min
 Discarded = 0.14 cfs @ 12.96 hrs, Volume= 1,715 cf
 Primary = 0.00 cfs @ 5.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 363.13' @ 12.47 hrs Surf.Area= 558 sf Storage= 305 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 10.9 min (760.5 - 749.6)

Volume	Invert	Avail.Storage	Storage Description
#1	362.00'	384 cf	4.00'W x 120.00'L x 2.00'H Prismatoid 960 cf Overall x 40.0% Voids
#2	362.25'	94 cf	12.0" Round Pipe Storage L= 120.0'
		478 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Discarded	362.00'	10.000 in/hr Exfiltration over Surface area
#2	Primary	363.50'	4.0' long x 4.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Discarded OutFlow Max=0.14 cfs @ 12.96 hrs HW=362.75' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 0.14 cfs)**Primary OutFlow** Max=0.00 cfs @ 5.00 hrs HW=362.00' TW=0.00' (Dynamic Tailwater)↑**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

POST

Prepared by HP

HydroCAD® 10.10-4a s/n 11004 © 2020 HydroCAD Software Solutions LLC

Type III 24-hr 50-YR Rainfall=5.96"

Printed 6/21/2021

Page 21

Summary for Pond 15P: CB3

Inflow Area = 48,423 sf, 49.74% Impervious, Inflow Depth > 1.96" for 50-YR event
Inflow = 2.33 cfs @ 12.09 hrs, Volume= 7,923 cf
Outflow = 2.33 cfs @ 12.09 hrs, Volume= 7,923 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.33 cfs @ 12.09 hrs, Volume= 7,923 cf

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 364.18' @ 12.34 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	362.50'	12.0" Round Culvert L= 7.0' Ke= 0.500 Inlet / Outlet Invert= 362.50' / 362.50' S= 0.0000 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=2.06 cfs @ 12.09 hrs HW=363.60' TW=363.31' (Dynamic Tailwater)
↑ **1=Culvert** (Inlet Controls 2.06 cfs @ 2.62 fps)

Summary for Link 11L: DNODE

Inflow Area = 75,876 sf, 38.63% Impervious, Inflow Depth > 0.26" for 50-YR event
Inflow = 0.66 cfs @ 12.30 hrs, Volume= 1,615 cf
Primary = 0.66 cfs @ 12.30 hrs, Volume= 1,615 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

A Condominium Site Plan
Tax Map 102 Lots 34 & 35
Hopkinton, NH

Operation and Maintenance

1.0 Intent of this Plan:

The intent of this plan is to insure that all drainage systems designed, constructed, and approved by the NH Department of Environmental Services Alteration of Terrain Bureau be properly maintained such that there is no detrimental effects, including obstructions, erosion, redirected flow patterns, or any other adverse condition caused by stormwater runoff.

2.0 Plan Coordinator and Responsibilities:

Plan Coordinator contact:
Baystone Properties LLC
126 Barton Corner Road
Hopkinton NH 03229

The Plan coordinator's duties include the following:

- Implement the Plan with the aid of support personnel;
- Oversee maintenance practices on the site;
- Conduct or provide for inspection and monitoring activities;
- Maintain records of maintenance activities; and
- Identify any deficiencies on the site and make sure they are corrected; and

To aid in the implementation of the plan, all personnel will ensure that all housekeeping and monitoring procedures are implemented and will ensure the integrity of the site drainage facilities.

3.0 Stormwater Management Controls

The following provides a list of recommendations and guidelines for managing the stormwater controls:

Landscaped Areas – Fertilizer Management

Function – Fertilizer management involves controlling the rate, timing and method of fertilizer application so that the nutrients are taken up by the plants thereby reducing the chance of polluting the surface and ground waters. Fertilizer management can be effective in reducing the amounts of phosphorus and nitrogen in runoff from landscaped areas, particularly lawns. Soil tests shall be conducted to determine fertilizer application rates.

Maintenance

- Have the soil tested by your landscaper or local Soil Conservation Service for nutrient requirements and follow the recommendations.
- Do not apply fertilizer to frozen ground.
- Clean up any fertilizer spills.
- Do not allow fertilizer to be broadcast into water bodies.

- When fertilizing a lawn, water thoroughly, but do not create a situation where water runs off the surface of the lawn.

Landscaped Areas – Litter Control

Function – Landscaped areas tend to filter debris and contaminants that may block drainage systems and pollute the surface and ground waters.

Maintenance

- Litter Control and lawn maintenance involves removing litter such as trash, leaves, lawn clippings, pet wastes, oil and chemicals from streets, parking lots, and lawns before materials are transported into surface waters.
- Litter control shall be implemented as part of the grounds maintenance program.

Deep Sump Catch basins & Drainage Pipes

Function – Culverts deep sump catch basin is to convey stormwater away from buildings, walkways, and parking areas and trap sediment within the deep sumps prior to entering the infiltration system.

Maintenance

Culverts and Deep Sump Catch basins shall be inspected semi-annually, or more often as needed, for accumulation of debris and structural integrity. Leaves and other debris shall be removed from the inlet and outlet and sumps to insure the functionality of drainage structures. Debris shall be disposed of on site where it will not concentrate back at the drainage structures or at a solid waste disposal facility.

- **Underground detention pond system.**

Step 1 Inspect inlet for sediment build up in manhole sump

- Check for standing water in system
- If sediment is at or above 3" clean out inlet manholes

De-icing Chemical Use and Storage

Function – Salt and sand is used for de-icing of walkways, parking lots and drives. Care shall be taken to prevent the over-application of salt for melting ice. Care shall be used with sanding in order to minimize sediment build up in manholes.

Maintenance

- Proper storage of salt is critical. Salt is highly water-soluble. Contamination of wetlands and other sensitive areas can occur when salt is stored in open areas. Salt piles shall be covered at all times if not stored in a shed. Runoff from stockpiles shall be contained to keep the runoff from entering the drainage system.

- When parking lots and walkways are free of snow and ice, they shall be swept clean. Disposal shall be in a solid waste disposal facility.

Grass Lined Conveyance Swales / Infiltration Ditches

Function – These swales promote sedimentation, filtration and infiltration of stormwater runoff.

Maintenance

- Periodically mow embankments (one to three times annually). Do not cut shorter than 4 inches.
- Inspect annually for erosion, sediment accumulation, vegetation loss and invasive species. Remove any accumulated sediment or debris.
- Repair any eroded areas, remove invasive species and dead vegetation, reseed as needed
- Ensure stone ditch if free of debris and sediment

4.0 Safety

Keep safety considerations at the forefront of inspection procedures at all times. Likely hazards should be anticipated and avoided. Never enter a confined space (outlet structure, manhole, etc) without proper training or equipment. A confined space should never be entered without at least one additional person present.

5.0 Inspection and Maintenance Procedures

Visual inspections of all areas of the site will be performed as needed throughout the year, but no less than once in the spring after snow melt-off, once in the fall, and after the end of a storm with rainfall amounts greater than one (1.0) inches. The inspection will be conducted by the Plan coordinator or designated personnel. The inspection will verify that the site drainage as shown on the plan is in good condition, and that there are no erosion problems developing on the slopes or the drainage systems. Any required repairs will be initiated as soon as possible.

6.0 Record Keeping

An Inspection and Maintenance Report will be prepared for each inspection performed throughout the year, but no less than once in the spring after snow melt-off, once in the fall. A copy of the report form to be completed is provided herein. Completed forms will be maintained at the facility, or with the Plan Coordinator.

All record keeping required by this I&M Plan shall be maintained by the responsible parties and made available upon request.

Should ownership of the property be transferred, the new owner(s) shall assume responsibility for this Plan.

Inspection & Maintenance Plan
Baystone Property LLC.
Hopkinton, NH

Inspection Report

General Information	
Facility Name:	Baystone Property
Location:	Hopkinton, NH
Date of Inspection	
Inspector's Name	

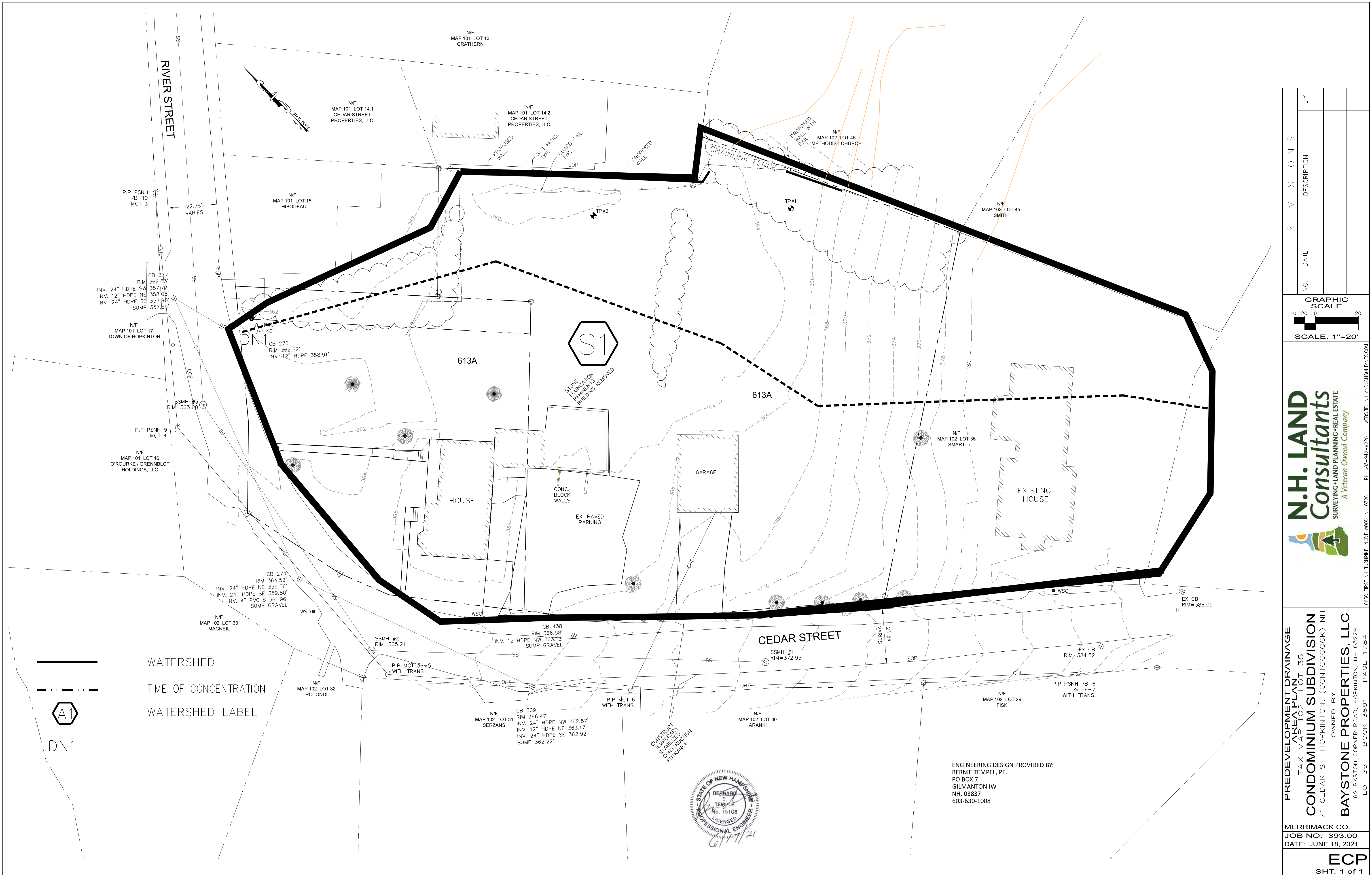
Overall Site Drainage Issues:

	Source	Adequate?	Maintenance Required?	Corrective Action needed and notes:
1	Are all slopes stable showing no signs of erosion?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
2	Are ditches, swales, culverts, inlets, and outlets flowing freely?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
3	Is there any sediment buildup in ditches, swales, or culverts?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
4	Are catch basin sumps clean of sediment buildup?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	Are detention basins functioning properly?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
6.	Underground infiltration basins functioning properly?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	Does the site drainage comply with the intent of the I&M Plan	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	

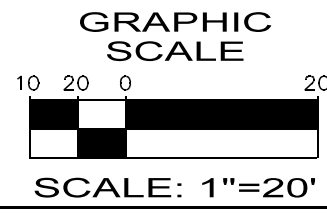
Describe any other issues requiring attention not described above:

A Condominium Site Plan
Tax Map 102 Lots 34 & 35
Hopkinton, NH

DRAINAGE AREA PLANS



REVISIONS			
NO.	DATE	DESCRIPTION	BY



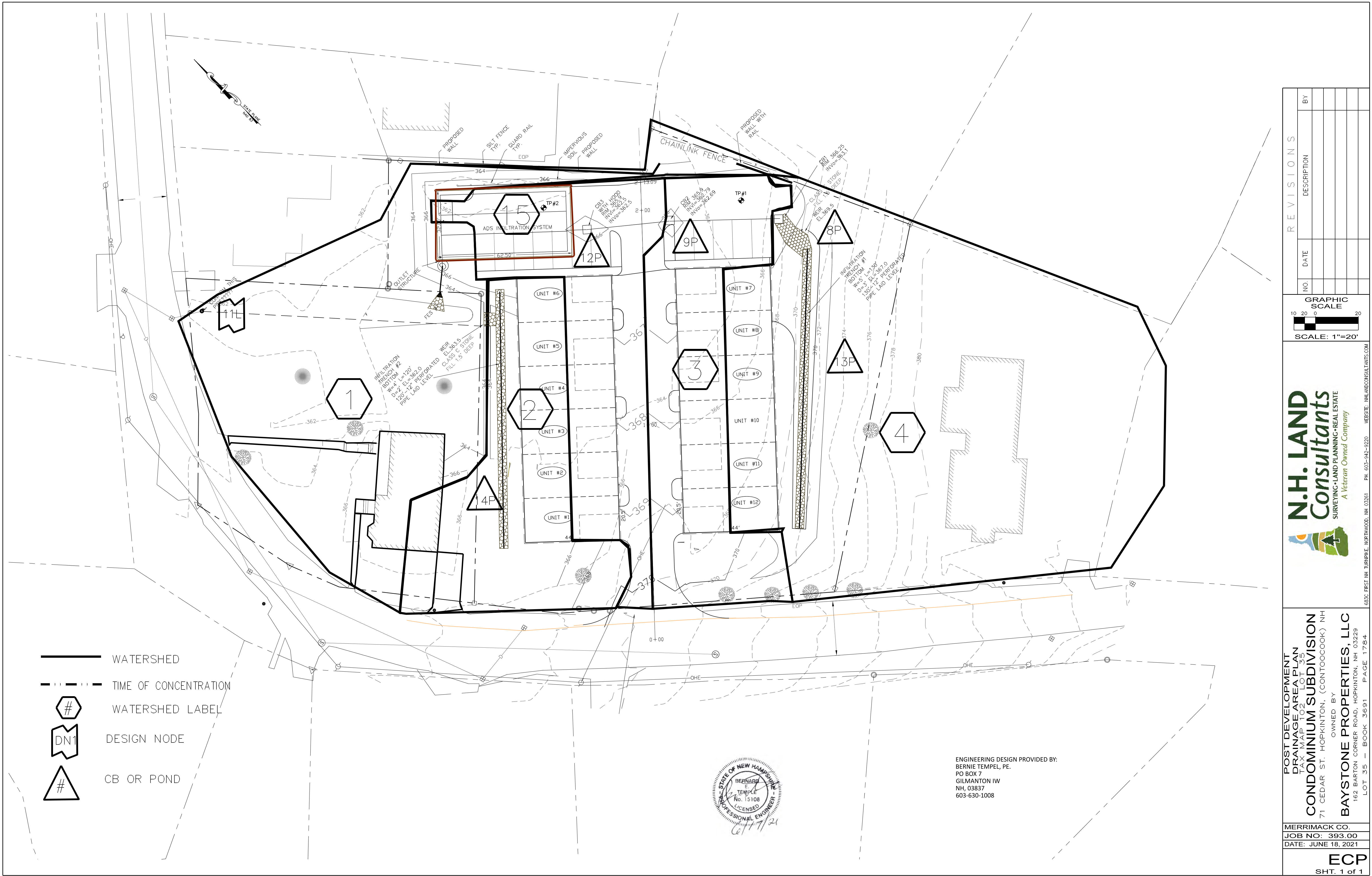
N.H. LAND Consultants
SURVEYING • LAND PLANNING • REAL ESTATE
A Veteran Owned Company

PREDEVELOPMENT DRAINAGE
AREA PLAN
TAX MAP 102 LOT 35
CONDOMINIUM SUBDIVISION
71 CEDAR ST. HOPKINTON, (CONTOOCOOK) NH
OWNED BY
BAYSTONE PROPERTIES, LLC
162 BARTON CORNER ROAD, HOPKINTON, NH 03229
LOT 35 — BOOK 3691 PAGE 1784

MERRIMACK CO.
JOB NO: 393.00
DATE: JUNE 18, 2021

ENGINEERING DESIGN PROVIDED BY:
BERNIE TEMPEL, PE.
PO BOX 7
GILMANTON IW
NH, 03837
603-630-1008





Other Business:

- Matt Moynihan, CNHRPC – Land Use Chapter *
- Zoning Amendments (Discussion)
- Comments, if any – Lynch Driveway Wetland Crossing.

*pending receipt of draft chapter from CNHRPC.

PROPOSED OBJECTIVES & RECOMMENDATIONS - EXISTING AND FUTURE LAND USE

OBJECTIVE 1:

Continue to support a mix of uses in the Harts Corner/West Hopkinton/Maple Street area

- Promote mixed-use development opportunities in the Commerce and Community Overlay District (CCOD) in West Hopkinton along NH127 (Maple Street) to the north of the US202/NH9/NH127 intersection. Support and promote the appropriate inclusion of multi-family housing as an element of future development proposals
- (1) Continue efforts to evaluate potential water/sewer service extensions on Maple Street. (2) Utilize the Harts' Corner and Exit 6 Tax Increment Financing (TIF) districts as appropriate to foster mixed use and commercial development and extend water/sewer service as necessary.
- Promote the availability and use of the Exit 6 Economic Revitalization Zone (ERZ).

OBJECTIVE 2:

Continue to support actions to revitalize Contoocook Village

- Continue to support mixed uses and appropriate densities in Contoocook Village.
- Review and update as appropriate the streetscape design recommendations included in 2000 Contoocook Village Charette. Consider future improvements to the Park Avenue/Pine Street and Fountain Square intersections.

- Promote the availability and use Contoocook Community Revitalization Tax Relief Incentive (RSA 79-e) and Contoocook Village Economic Revitalization Zone (ERZ).
- Expand the existing sidewalk networks in Contoocook and Hopkinton villages and promote pedestrian and bicycle transportation in the community.

OBJECTIVE 3: Support and promote appropriate commercial and mixed-use development in suitable areas of Hopkinton

- Examine options to modify permitted uses and zone boundaries within the Burnham-Intervale M-1 zone.
- Consider the adoption of the Commercial and Industrial Construction Exemption (NH RSA 72: 80-83) within select M-1 zone areas.
- Consider future zoning changes (Hopkinton Village Gateway) in the vicinity of the US202/Exit 4 Intersection in coordination with possible future improvements to the intersection.

OBJECTIVE 4:

Utilize incentives and simplify regulations to encourage their use as appropriate

- Simplify the application procedures for Conservation Subdivisions, notably the calculation of the base number of buildings and dwelling units.
- Consider the development of an open space ranking system that provides higher allowable densities when protecting more desirable open spaces.

- Encourage Conservation Subdivision developments that specifically address the issues of affordability by way of a variety of housing type. Consider the enhancement of density incentives specifically for developments that include smaller homes (two and three bedrooms); ranch style homes with one floor; sale of units to Hopkinton seniors who are downsizing; or first-time home buyers.
- Consider the development of incentives such as a reduced front setback for the incorporation of architectural standards in design



Town of Hopkinton Planning Department

330 Main Street, Hopkinton NH 03229-2627 - (603) 746-8243 - planzone@hopkinton-nh.gov

To: Hopkinton Planning Board
From: Karen Robertson, Planning Director
Date: July 29, 2021
Re: **Summary – Zoning Amendments for Discussion**

1. **Number of Dwelling-Units, Multi-Family** – Amend 4.4.7 and 8.5.2 to make consistent with Table of Uses 3.6.A and/or reconsider the total number of units permitted in a multi-family dwelling, including property density requirements under 3.6.A, 4.2, 4.3, 4.4.7, and 8.5.2.
2. **Noise Ordinance, Section V** – Update criteria and restrictions to make consistent with current industry standards. Adopted 1988
3. **Parking Requirements, Section VI** – Review and revise where needed so consistent with industry parking size, design requirements, and consistent with Site Plan Review Regulations, Section IX. For example, electric vehicle charging stations. Adopted 1988, amended 1994, 1995, 2001, 2002, 2003, and 2016.
4. **Conservation Subdivision, Section VIII** – Simplify formula and prioritize types of open space as an incentive. Consider the design standards and incentives offered in Section XIX.
5. **Wetlands Conservation District (Overlay), Section XII** – Add setback and in-field delineation requirements. Adopted 1988, amended 1994, 1999, and 2016.
6. **Growth Management and Innovative Land Use Control, Section XIII** – Consider how other communities address potential growth. The Ordinance cannot be based simply on believing that the Hopkinton is growing too fast or faster than surrounding towns. Hopkinton must demonstrate the lack of capacity to accommodate growth, such as *insufficient* infrastructure or *inadequate* municipal services. When reviewing, discuss Impact Fees, Off-Site Exaction Fees, and Phasing Standards. The Ordinance expires in 2022.
7. **Affordable Housing Innovative Land Use Control, Section XVI** – Amend to provide realistic housing opportunities. Consider promoting design standards and incentives offered in Section XIX to encourage developers to set aside a share of rental units or houses within the same development that is affordable to households of different incomes. Adopted 1988, Amended 1989, 1995, 2002, 2004, and 2015.
8. **Outdoor Lighting Ordinance, Section XVIII** – Update criteria and restrictions to ensure consistency with current lighting types and design standards. Adopted 2005, amended 2016.



T.F. BERNIER, INC.
Land Surveyors~Designers~Consultants

50 Pleasant Street, P.O. Box 3464
Concord, NH 03302-3464

#2021-8

Environmental Permitting
State and Local Permitting
Land Surveying
Aerial Mapping
Aerial Photography

Tel. (603) 224-4148
Fax (603) 224-0507

July 14, 2021

Dan Rinden, Chair
Hopkinton Zoning Board of Adjustment
330 Main Street
Hopkinton, NH 03229

For discussion should
PB wish to comment -
per 12.7.2. KR
Scheduled for ZBA 9/07/2021 Mtg.

RE: Application for Special Exception
Map 240 Lot 51
Gould Hill Road & Briar Hill Road
John H. Lynch Irrevocable Trust of 2012

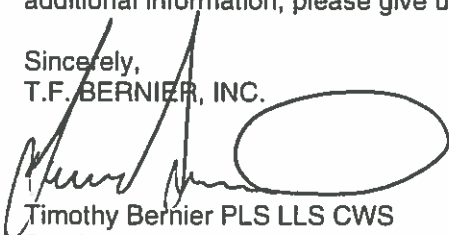
Dear Chair Rinden and Members of the Board:

Please find enclosed an application for a Special Exception to allow a driveway to be constructed through the Wetland Conservation Overlay District. This request is being submitted in accordance with Article 12 Section 7.2 of the Hopkinton Zoning Ordinance. The proposed driveway is being constructed over a portion of the existing access drive and will impact 510 square feet of the Wetland Conservation Overlay District.

Attached is a plan set prepared by this office showing the proposed project and the construction of the driveway.

Thank you for your time and consideration of this request. If you have any questions or need additional information, please give us a call.

Sincerely,
T.F. BERNIER, INC.



Timothy Bernier PLS LLS CWS
President

enclosures

cc: file 663-01



Town of Hopkinton

330 Main Street • Hopkinton, New Hampshire 03229 • www.hopkinton-nh.gov

Tel: 603-746-3170

Fax: 603-746-3049

HOPKINTON ZONING BOARD OF ADJUSTMENT APPLICATION FOR APPEAL

Brayshaw
\$265 CK 13097

Ten completed copies of the application with all supporting documentation must be submitted.

Name of Applicant: T. F. Bernier, Inc. - Timothy Bernier

Mailing Address: PO Box 3464 Concord NH 03302

Telephone (days): 603-224-4148

Name of Property Owner: John H. Lynch Trust, Susan Lynch & William Steele Trustees

Mailing Address: 2 Watchtower Road Hopkinton NH 03229

Telephone (days): 603-219-1347

Tax Map: 240 Lot: 51

Location of Property: Gould Hill & Briar Hill Roads

Zoning of property in question (circle one): R-1 (R-2) R-3 R-4 B-1 M-1 VR-1 VB-1 VM-1

Section of Hopkinton Zoning Ordinance under which your application was denied or you believe your proposal relates to: Section: IV Paragraph/Table: 4.2 Table of Dimensional Requirements

A copy of your denied Building/Use Application or administrative decision must be attached.

This application is for: ☐ Variance ☒ Special Exception ☐ Equitable Waiver ☐ Administrative Appeal

The undersigned hereby requests a Variance, Special Exception, Equitable Waiver, and Administrative Appeal to permit the following:

The construction of a driveway impacting 510 square feet of the Wetland Conservation
overlay district. The driveway will provide access to the upland building area.

NOTE: Additional information may be supplied on a separate sheet if the space provided is inadequate.

1. Hearing, Abutter, Notification Fees:

- Variance – \$100.00
 - Special Exception – \$100.00
 - Equitable Waiver – \$100.00
 - Administrative Appeal – \$100.00
 - Rehearing – \$100.00
 - Notification of each Owner, Applicant, Agent, Abutter – \$5.00
 - Published Notice – \$75.00
- 1=\$100.00
18=\$ 90.00
1=\$ 75.00
Total = \$265.00

2. List of names and mailing addresses of all abutters to the property as defined by NH RSA 672:3. Supply information on separate sheet. Abutter is any person whose property adjoins or is directly across the street or stream from the land under consideration.

3. **Attach location map showing exact location of property in relation to at least one prominent landmark (road junction, business, town building, etc.).** Include north arrow and label road names. Indicate with an X the location of the property in question.
4. **Attach site plan of property showing:** Boundaries and area of parcel; north point, scale, legend, and location, size and type of all existing and proposed buildings, uses, parking, signs, roadways, screening, etc. Map submitted to included one full-size and ten 11" x 17" or less.
5. **List provisions to be made for septic disposal, fire protection, water supply, parking, noise, smoke, surface drainage, etc.** Supply information on separate sheet.
6. **Letter of Authorization to allow an Agent or Attorney to represent Applicant, if applicable.**
7. **Copy of property deed of the subject property.**
8. **Any other pertinent information that you feel the Board may need to assist in their decision-making process.**

You must appear at the public hearing or be presented by an authorized agent or attorney for the Board to act on your application. The application will be terminated or tabled for failure to appear at a scheduled public hearing, without first providing written notification to the Planning Department.

You are fully responsible for researching and knowing any and all laws, which may be applicable and affect the outcome of the Board's decision on your application request. The Town of Hopkinton assumes no responsibility or liability relating to your failure to research and know all applicable laws including, but not limited to, state, federal and local laws, codes, land development regulations and comprehensive plan. The Town of Hopkinton strongly encourages all applicants to consider consulting an attorney regarding their application.

You are encouraged to review the attached Rules of Procedures used by the Board of Adjustment at the public hearing.

I/we being duly sworn, depose and say that I am/We are the owner(s)/lessee(s) of land included in the application and that the foregoing statements herein contained and attached, and information or attached exhibits thoroughly to the best of my/our ability represent the arguments on behalf of the application herewith submitted and that the statements and attached exhibits referred to are in all respect true and correct to the best of my/or knowledge and belief.

In addition, I/We understand this application must be filed with all pertinent information as it pertains to the requirements of the Town of Hopkinton Zoning Ordinance and all other information requested or required by the Zoning Board of Adjustment in order to be considered complete. I/We understand that this application will not be filed until all required information has been received, and do further understand that the Town of Hopkinton reserves the right to postpone this request until such time as the requirements are met.

Furthermore, I/We understand that I/We, our representative as stated on the application, should appear at the public hearing. If photographs, documents, maps or other materials are provided to the Board as evidence at the public hearing, said evidence will become property of the Town of Hopkinton and will remain on file for future reference.

Also, I/We recognize and understand that the public hearing before the Board of Adjustment regarding land development is considered quasi-judicial in nature. ***State and local law strictly prohibits applicants and/or interested parties from taking part in ex-parte communications with Board members in person, by phone, e-mail, or in writing before the application is discussed at a public hearing.***



Town of Hopkinton Planning Department

330 Main Street, Hopkinton NH 03229-2627 - (603) 746-8243 -planzone@hopkinton-nh.gov

BUILDING/USE APPLICATION

Completed application **must be returned to the Planning Office by 12 Noon on Friday**. The application must be accompanied by a check payable to the Town of Hopkinton. No refund will be made if the application is denied. More than one permit may be applied for using the same form; however, the permits being sought must apply to the same piece of property. For questions, please contact the Planning Department at (603) 746-8243 or email planzone@hopkinton-nh.gov.

Permit No. _____	Phasing Applicability: Permit _____ of _____	Subdivision: _____
Application Received _____/_____/_____	<input type="checkbox"/> Driveway Permit	<input type="checkbox"/> PUC Approval
By: _____ Fee: _____	<input type="checkbox"/> Septic Approval	<input type="checkbox"/> Floodplain
	<input type="checkbox"/> Fire/Life Safety	<input type="checkbox"/> ZBA/PB
		<input type="checkbox"/> Shoreland Protection
		<input type="checkbox"/> Code Enforcement
		<input type="checkbox"/> CVP Water Commission

Street Address	Gould Hill Road	Tax Map	240	Tax Lot	51	Zoning District	R2
<input type="checkbox"/> Demolition <input type="checkbox"/> Residential <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input type="checkbox"/> Accessory <input type="checkbox"/> Other _____							
Is Lot located in 100-year Flood Plain Area (Special Flood Hazard)? <input type="checkbox"/> Yes <input type="checkbox"/> No							
What is the Flood Insurance Rate Map (FIRM) Community Panel #:							
Is the portion of the property to be developed under a Current Land Use (CLU) Assessment? <input type="checkbox"/> Yes <input type="checkbox"/> No							
If yes, a new CLU map must be submitted to the Assessing Department (603-746-8258).							

Applicant's Name:	T. F. Bernier, Inc.	Owner's Name:	John H. Lynch Tr.,
Mailing Address:	PO Box 3464	Mailing Address:	Susan Lynch & Wm. Steele, Trustees
City/State/Zip:	Concord, NH 03302	City/State/Zip:	2 Watchtower Rd., Hopkinton, NH 03229
Phone (days):	603-224-4148	Phone (days):	603-219-1347
Email:		Email:	
Note: Please indicate whether you would prefer your PERMIT emailed or mailed (circle one).			

	Name of Contractor/License #	Address/City/State/Zip	Telephone
Architect			
General Contractor			
Electrical			
Plumbing			
Sewer/Septic			
Mechanical			
Sprinkler			
Fire Alarm			

DESCRIPTION

Construction of a driveway impacting 510 SF of the Wetland Conservation Overlay District. Driveway will provide access to the upland building area.

Value of Work: \$ _____



Town of Hopkinton Planning Department

330 Main Street, Hopkinton NH 03229-2627 - (603) 746-8243 - planzone@hopkinton-nh.gov

BUILDING/USE PERMIT DENIAL

Permit: 2021- Name of Applicant/Owner: T. F. Bernier, Inc.
Tax Map/Lot: 240/51 Street Address: Gould Hill Rd District: R2

Denied: Special Exception required – 12.7.2 Wetland Conservation Overlay District.

Karen Robertson
Karen Robertson
Planning Director

Date: 7/16/21

SECTION XII

WETLANDS CONSERVATION DISTRICT (OVERLAY)

12.6.5 Poorly Drained Soils: Soil series and land types commonly associated with wetlands, as described by the Soil Survey of Merrimack County, New Hampshire, include the following “poorly drained” soils:

Au Gres (AgA, AgB, AuB)	
Limerick variant (Lm)	
Ridgebury (RdA, RdB, RbA, RdB)	
Rumney (Ru)	

12.7 PERMITTED USES

12.7.1 General: Permitted uses are those uses which will not require the erection or construction of any structures or buildings, will not alter the natural surface configuration by the addition of fill or by dredging, and uses that otherwise are permitted by the Zoning Ordinance. Such uses may include the following:

- (a) Forestry and tree farming, using best management practices in order to protect streams from damage and to prevent sedimentation.
- (b) Cultivation and harvesting of crops according to recognized soil conservation practices, including the protection of wetlands from pollution caused by fertilizers, pesticides and herbicides used in such cultivation.
- (c) Wildlife refuges.
- (d) Parks and recreation uses consistent with the purpose and intent of this Ordinance.
- (e) Conservation areas and nature trails.
- (f) Open spaces as permitted or required by the Subdivision Regulations or the Zoning Ordinance.

12.7.2 Special Exceptions: Special exceptions may be granted by the Board of Adjustment, after proper public notice and public hearing, for undertaking the following uses in the Wetlands Conservation District when the application has been referred to the Planning Board and the Conservation Commission, for review and comment at least thirty (30) days prior to the hearing:

- (a) Streets, roads and other access ways and utility right-of-way easements, including power lines and pipe lines, if essential to the productive use of land not so zoned and if so located and constructed as to minimize any detrimental impact of such uses upon the wetlands.
- (b) Water impoundments.
- (c) The undertaking of a use not otherwise permitted in the Wetlands Conservation District, if it can be shown that such proposed use is not in conflict with the purposes and intentions listed in Paragraph 12.1 of this Section.

12.7.3 Special Provisions:

SPECIAL EXCEPTION

(Section XV)

In order to secure a variance, the Zoning Board of Adjustment must determine by law that your Special Exception request satisfies the following criteria of the Zoning Ordinance. **Please provide a written response along with any other supporting documentation for each of the following criteria.** Please note that all criteria must be satisfied and supported by the Zoning Board of Adjustment in order for a Special Exception to be granted. Should the space provided be inadequate, please attach additional pages to this application.

1. **Standards provided by this Ordinance for the particular use permitted by special exception.**

The request is being made in accordance with 12.7.2 Special Exceptions: to allow an "other access ways" pursuant to the Hopkinton Zoning Ordinance.

2. **No hazard to the public or adjacent property on account of potential fire, explosion or release of toxic materials.**

The proposed driveway will not produce or cause to be released any toxic materials, and presents no risk of fire or explosion.

3. **No detriment to property values in the vicinity or change in the essential characteristics of a residential neighborhood on account of the location or scale of buildings and other structures, parking areas, access ways, odor(s), smoke, gas, dust, or other pollutant, noise, glare, heat, vibration, or unsightly outdoor storage of equipment, vehicles or other materials.**

The proposal is to construct a new driveway over the historically used access. The crossing of the WCOD will occur at the location of the current crossing.

4. **No creation of a traffic safety hazard or a substantial increase in the level of traffic congestion in the vicinity.**

The driveway location was selected to provide safe sight distance. The construction of the driveway in the WCOD will not result in any traffic congestion.

5. **No excessive demand on municipal services, including, but not limited to, water, sewer, waste disposal, police and fire protection, and schools.**

The driveway is on private property and will be maintained by the land owner.

The driveway impact to the WCOD will not result in any requirement for municipal services of any kind

6. **No significant increase of storm water runoff onto adjacent property or streets.**

The crossings will be made with properly engineered culverts, designed to pass stormwater at its naturally occurring rate and will not either increase or decrease runoff from the property.

7. **An appropriate location for the proposed use.**

The driveway location was selected for safety first and then to minimize impact to the WCOD. This is consistent with state law and best environmental practice.

8. **Not affect adversely the health and safety of the residents and others in the area and not be detrimental to the use or development of adjacent or neighboring properties.**
The crossing will have no affect on residents or others in the area.

9. **In the public interest and in the spirit of the ordinance.**
The crossing provides safe and appropriate access to the upland, non-conservation areas of their property. all uses of this non conservation area will be consistent with all local and state ordinances and or regulations.



T.F. BERNIER, INC.
Land Surveyors~Designers~Consultants

50 Pleasant Street, P.O. Box 3464
Concord, NH 03302-3464

Environmental Permitting
State and Local Permitting
Land Surveying
Aerial Mapping
Aerial Photography

Tel. (603) 224-4148
Fax (603) 224-0507

Abutters List
John H. Lynch Irrevocable Trust of 2012
Zoning Special Exception
Assessors Map 240 Lot 51
Gould Hill Road & Briar Hill Road
Hopkinton, NH

<u>MAP</u>	<u>LOT</u>	<u>OWNER</u>
240	51	John H. Lynch Irrevocable Trust of 2012 2 Watchtower Road Hopkinton, NH 03229
239	21	Virginia L. Pastuszczak Timothy D. Sweatt 373 Old Stagecoach Road Contoocook, NH 03229
239	22	Five Rivers Conservation Trust 10 Ferry Street Suite 311A Concord, NH 03301
240	29	Alison Josefiak Christopher Navarro 257 Gould Hill Road Contoocook, NH 03229
240	30	Thomas R. & Hilary A. Chapman 283 Gould Hill Road Contoocook, NH 03229
240	31	Bradford W. & Ann McClane Kuster 331 Gould Hill Road Contoocook, NH 03229
240	32	Jane D. W. & Frederic Bradstreet P.O. Box 149 333 Gould Hill Road Contoocook, NH 03229
240	36	Irvin D. Gordon 63 Roberts Road Hopkinton, NH 03229

240	49	April Dunn 59 Blaze Hill Road Hopkinton, NH 03229
240	52	Rix Family Trust of 2016 248 Gould Hill Road Hopkinton, NH 03229
240	54	Richard Jones Irrevocable Trust 18 Green Street Newport, NH 03773
241	38-1	Kirk Hemphill 831 Briar Hill Road Contoocook NH 03229
241	38-2	R and J Case Trust 1030 Briar Hill Road Hopkinton, NH 03229
241	43	Jeanne C. Dwyer GST Exempt Trust P.O. Box 600 Concord, NH 03302
249	4	Kurt K. & Betsey F. Rhynhart 675 Briar Hill Road Hopkinton, NH 03229
249	5	The Viking Trust 745 Briar Hill Road Contoocook, NH 03229
249	8	S. Wayne & Elizabeth A. Clarke 812 Briar Hill Road Hopkinton, NH 03229

Professional Consultant

Timothy F Bernier, LLS, CWS
T F Bernier, Inc.
PO Box 3464
Concord NH 03302-3464

Return to:
McLane Middleton, Professional Association
RAW/ ccm 59370
P.O. Box 326
Manchester, NH 03105

WARRANTY DEED

I, **JOHN H. LYNCH**, a married individual with a mailing address of 2 Watchtower Road, Hopkinton, New Hampshire 03229, grant to **SUSAN E. UPTON LYNCH and WILLIAM G. STEELE, JR., CPA, Trustees of THE JOHN H. LYNCH IRREVOCABLE TRUST OF 2012**, a New Hampshire trust u/d/t dated December 15, 2012, with a mailing address of 2 Watchtower Road, Hopkinton, New Hampshire 03229, with **WARRANTY COVENANTS**:

A certain parcel, with the improvements thereon, located in The Town of Hopkinton, County of Merrimack, State of New Hampshire, described as follows:

Tract I:

That portion of a certain property, located in The Town of Hopkinton, County of Merrimack, State of New Hampshire, and known as the Gage Place, which is situated westerly of the highway leading from Hopkinton Village to Tyler Station, but

EXCEPTING from the said Premises conveyed a parcel of land situated on said highway surrounding the buildings which are situated thereon, being ten (10) acres, more or less, which ten acre parcel is bounded and described as follows:

Beginning on the southerly side of the lane leading to the woodland on the westerly side of the road from Hopkinton Village to Tyler Station at the corner of the wall on the south side of said lane; westerly along this wall about five hundred and fifty (550) feet to the easterly side of an opening in that wall; thence southerly in a straight line to a point in the south line of said property at a point approximately five hundred four (504) feet west of the above-mentioned highway; easterly along said wall about five hundred four (504) feet to the highway; northerly along said highway to the point of beginning.

Said premises are shown on a plan entitled, "TYPE MAP OF THE BRIER HILL FARM WOODLOT, JULY, 1916," filed in the Registry of Deeds as Map #750, the said granted premises being bounded and hatched in red on said plan.

The above parcel is believed but not warranted to be further described as follows:

A certain tract or parcel of land with all improvements and appurtenances situate on the east side of Gould Hill Road and westerly of Briar Hill Road in the Town of Hopkinton, County of Merrimack, and State of New Hampshire, as shown on a plan entitled, "THE GOULD HILL TRUST, WILLIAM G. STEELE, JR., TRUSTEE", prepared by Bristol, Sweet & Associates, Inc., dated September 22, 1999, recorded as Plan #14886 in the Merrimack County Registry of Deeds (the "Plan"), which tract or parcel is more particularly bounded and described as follows:

Beginning at an intersection of two stone walls at an iron rod on the easterly sideline of Gould Hill Road at the westernmost corner of the within premises and the northwesterly corner of land now or formerly of Philip C. and Gloria F. Martin;

running in a northerly directly along a stone wall and the easterly sideline of Gould Hill Road a distance of 986.5 feet, more or less, to an iron pipe at an intersection of stone walls at land now or formerly of Arnold C. & Alice R. Coda, (shown as Tax Lot #240-50 on the Plan), which iron pipe is North 11° 33' 55" East a distance of 983.17 feet from the previously mentioned iron rod;

turning and running in an easterly direction along a stone wall and said Coda land a distance of 431.0 feet, more or less, to an iron pipe at an intersection of stone walls and a barbed wire fence, which iron pipe is North 87° 44' 23" East a distance of 430.88 feet from the previously mentioned iron pipe;

turning and running along land now or formerly of Erik Leadbeater, (shown as Tax Lot #240-49 on the Plan), North 88° 00' 35" East a distance of 1071.76 feet to a 1" iron rod at the beginning of a barbed wire fence;

turning and running still along said Leadbeater land North 07° 11' 20" West a distance of 713.15 feet to an iron rod set in a drill hole at the end of a stone wall at the end of the barbed wire fence;

continuing along the stone wall and land of Leadbeater North 09° 22' 17" West a distance of 153.76 feet to an iron rod set in a drill hole in the stone wall at land now or formerly of Walter W. Dwyer Jr. 1998 Trust, (shown as Tax Lot #241-43 on the Plan);

turning and running along said Dwyer Trust land North 49° 02' 30" East a distance of 448.94 feet to an iron rod at a bend in a barbed wire fence;

turning and running still along said Dwyer Trust land, North 80° 55' 36" East a distance of 757.50 feet to a drill hole at the end of a stone wall near a corner of barbed wire fences, at land now or formerly of Mary H. Small, (shown as Tax Lot #241-38.2 on the Plan);

turning and running along said Small land South 16° 39' 06" East a distance of 898.18 feet to a drill hole at the end of a stone wall;

continuing along the stone wall and said Small land a distance of 469.60 feet to a drill hole in the stone wall, which drill hole is South 16° 40' 35" East, and a distance of 469.60 feet from the next previously mentioned drill hole;

continuing along the stone wall and land now or formerly of David L. & Judith Poole, (shown as Tax Lot #241-38.1 on the Plan) a distance of 541.50 feet to a drill hole at the end of the stone wall, which drill hole is South 16° 24' 19" East, and a distance of 541.46 feet from the next previously mentioned drill hole;

continuing in a southeasterly direction along said Poole land South 16° 36' 36" East, a distance of 82.47 feet to a drill hole at the end of a stone wall;

continuing in a southeasterly direction along the stone wall and said Poole land a distance of 257.10 feet, more or less, to a drill hole in the stone wall, which drill hole is South 16° 20' 41" East, a distance of 256.98 feet from the next previously mentioned drill hole;

continuing in a southeasterly direction along the stone wall and said Poole land a distance of 288.90 feet, more or less, to a drill hole at an intersection of stone walls, which drill hole is South 16° 40' 26" East, a distance of 287.63 feet from the next previously mentioned drill hole;

turning and running in an easterly direction along a stone wall and said Poole land a distance of 392.30 feet, more or less, to a drill hole 3.85 feet easterly of a corner of stone walls at the westerly sideline of Briar Hill Road, which drill hole is North 83° 41' 42" East, a distance of 392.31 feet from the next previously mentioned drill hole;

turning and running South 01° 05' 05" West, a distance of 45.39 feet along the westerly sideline of Briar Hill Road to a disk set in a drill hole at an intersection of stone walls at land now or formerly of Sandra Schneider, (shown as Tax Lot #249-5 on the Plan);

turning and running in a westerly direction along a stone wall and said Schneider land a distance of 558.50 feet, more or less, to an iron pipe in a gap in the stone wall 1.86 feet westerly of the end of the stone wall, which iron pipe is

South 83° 26' 17" West, a distance of 557.61 feet from the disk referred to in the previous course;

turning and running still along said Schneider land South 06° 37' 11" East, a distance of 1123.91 feet to an iron rod in a stone pile on a stone wall at land now or formerly of Donald & Sandra P. Saxon, (shown as Tax Lot #249-4 on the Plan);

turning and running along a stone wall and said Saxon land North 63° 16' 34" West, a distance of 225.14 feet to a point at an intersection of stone walls at land now or formerly of Robert A. & Nancy N. Sweatt, (shown as Tax Lot #239-22 on the Plan);

turning and running in a westerly direction along the stone wall and said Robert Sweatt land a distance of 559.60 feet, more or less, to a drill hole at an intersection of stone walls at land now or formerly of Dana L. & Alice Sweatt, (shown as Tax Lot #239-21 on the Plan), which drill hole is North 86° 26' 54" West, a distance of 559.33 feet from the next previously mentioned point of intersection of stone walls;

turning and running along said Dana Sweatt land North 65° 05' 14" West, a distance of 690.41 feet to an iron rod in a drill hole at the end of a stone wall at land now or formerly of Martha Houston Jones Revocable Trust of 1997, (shown as Tax Lot #240-54 on the Plan);

continuing in a northwesterly direction along the stone wall and said Jones Trust land a distance of 323.80 feet, more or less, to a drill hole at an intersection of the stone wall and a row of stones, which drill hole is North 66° 21' 18" West, a distance of 319.37 feet from the last mentioned iron rod;

continuing in a northwesterly direction along the stone wall and said Jones Trust land a distance of 909.90 feet, more or less, to a drill hole at the end of the stone wall, which drill hole is North 64° 01' 06" West, a distance of 901.84 feet from the next previously mentioned drill hole;

continuing in a northwesterly direction along said Jones Trust land a distance of 300.40 feet, more or less, to an iron pipe at the end of a stone wall at land now or formerly of Philip C. & Gloria F. Martin, (shown as Tax Lot #240-52 on the Plan), which iron pipe is North 63° 47' 13" West, a distance of 300.30 feet from the last mentioned drill hole;

continuing in a northwesterly direction along the stone wall and said Martin land a distance of 648.20 feet, more or less, to the point of beginning, which point is North 68° 12' 49" West, a distance of 647.78 feet from the last mentioned iron pipe.

Tract II:

A certain tract of land with the improvements situated thereon located on the northeasterly side of Gould Hill Road, in the Town of Hopkinton, County of Merrimack, State of New Hampshire, and more particularly bounded and described as follows:

Commencing at a point marking the intersection of stone walls, which said point is 323 feet, more or less, northeasterly from the northeasterly line of the Gould Hill Road, so-called;

running northeasterly along a stone wall and the southeasterly line of land now or formerly of Concord Kitchen Corporation (said land being formerly owned by one Shreve and by one Sweatt) and by land formerly of one Loverin, to a stake and stones marking the line of land now or formerly of one Hopkins, of one Sanborn and of one Loverin;

running southeasterly along line of land now or formerly of Hopkins, Sanborn and Loverin and land now or formerly of the Gage heirs (said latter land being formerly owned by the Stephen Sibley heirs) to a stake and stones at corner of land of said Gage heirs (formerly Sibley heirs);

running southwesterly along line of said land of said Gage heirs to an intersection of stone walls which said intersection is 439 feet, more or less, northeasterly from the northeasterly line of said Gould Hill Road;

running northwesterly along land now or formerly of George L. Butterfield, Jr. and Ann S. Butterfield, 475 feet, 4 inches, more or less, to an iron pipe driven in the ground, said iron pipe lying within the right of way hereinafter described;

continuing in the same direction 40 feet, more or less, to another iron pin driven in the ground, said iron pin marking the northeasterly corner of said right of way hereinafter described;

continuing in the same direction along other land of said Butterfields 580 feet, 8 inches, more or less to the point of beginning.

TOGETHER WITH a RIGHT OF WAY 50 feet in width leading from Gould Hill Road to the above described land, said right of way being bounded and described as follows:

Commencing at an iron pipe driven into the ground on the northeasterly line of Gould Hill Road, which said iron pin is 540 feet, 8 inches southeasterly from the northwesterly corner of land of said Butterfields and the southwesterly corner of land of Concord Kitchen Corporation, said corners joining on the northeasterly line of said Gould Hill Road;

running northeasterly through said Butterfields land to an iron pipe driven in the ground and referred to as the northeasterly corner of said right of way in the above described land;

running southeasterly 40 feet to an iron pipe driven in the ground; and referred to as lying within said right of way in the above described land;

continuing southeasterly an additional ten feet (10') to a point which is the southeasterly corner of said right of way;

running southwesterly 50 feet from and parallel to the first line described in this right of way, to the northeasterly line of Gould Hill Road;

running northwesterly along said Gould Hill Road 10 feet to an iron pipe;

continuing northwesterly along said Gould Hill Road 40 feet to the point of beginning.

The Premises are conveyed together with all appurtenant rights and easements.

These premises are conveyed subject to the restriction that only a single-family residence may be constructed on the premises conveyed herein. This restriction shall run with the land and bind future grantees or successors in interest.

SUBJECT TO and TOGETHER WITH all reservations, restrictions and/or covenants, easements, liens, encumbrances and mortgages of record, if any, insofar as the same may now be in force and applicable.

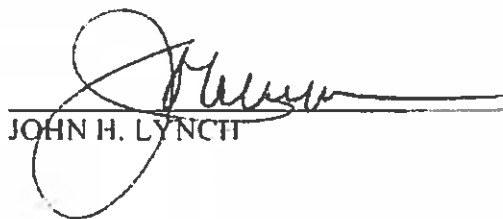
MEANING AND INTENDING to describe and convey the same property conveyed to John H. Lynch by deed of John H. Lynch and Susan E. Upton Lynch as Trustees of The John H. Lynch Trust, of near or even date and recorded herewith.

This instrument was prepared from information supplied by the Grantor herein and no independent title search has been conducted.

This transfer is exempt from transfer tax pursuant to RSA 78-B:2, IX.

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Signed this 31st day of August, 2020.

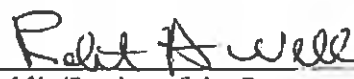


JOHN H. LYNCH

STATE OF NEW HAMPSHIRE
COUNTY OF MERRIMACK

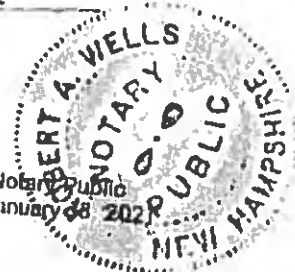
This instrument was acknowledged before me on the 31st day of August, 2020, by
John H. Lynch.

(seal)



Notary Public/Justice of the Peace
Printed Name:
My Commission Expires:

ROBERT A. WELLS, Notary Public
My Commission Expires January 28, 2022



MAP 240 LOT 36
IRVIN D. GORDON
33 ROBERTS ROAD
HOPKINTON, NH 03229
BOOK 3201 PAGE 1048

MAP 240 LOT 32
JANE D.W. BRADSTREET &
FREDERIC E. BRADSTREET, III
333 GOULD HILL ROAD
CONTOODUCK, NH 03229
BOOK 3453 PAGE 1501

MAP 240 LOT 31
BRADFORD W. &
ANN McLANE KUSTER
331 GOULD HILL ROAD
CONTOODUCK, NH 03229
BOOK 2081 PAGE 731

MAP 240 LOT 30
THOMAS R. CHAPMAN
HILARY A. CHAPMAN
283 GOULD HILL ROAD
CONCORD, NH 03301
BOOK 3095 PAGE 1529

MAP 240 LOT 29
ALISON JOSEPH &
CHRISTOPHER NAVARRO
257 GOULD HILL ROAD
CONTOODUCK, NH 03229
BOOK 3686 PAGE 1591

MAP 240 LOT 49
APRIL DUNN
593 BLAZE HILL RD
HOPKINTON, NH 03229
BOOK 3734 PAGE 1711

NEW LOT 51
±147.6 Ac

MAP 240 LOT 52
RIX FAMILY TRUST OF 2018
248 GOULD HILL ROAD
HOPKINTON, NH 03229
BOOK 3636 PAGE 72

ADDITIONAL ABUTTERS

MAP 241 LOT 43
JEANNE C. DWYER
CST EXEMPT TRUST
P.O. BOX 800
CONCORD, NH 03302
BOOK 2435 PAGE 983

MAP 241 LOT 38-1
KRIS McPHILL
831 BRIAR HILL ROAD
CONTOODUCK, NH 03229
BOOK 2931 PAGE 696

MAP 249 LOT 5
THE VIKING TRUST
745 BRIAR HILL ROAD
CONTOODUCK, NH 03229
BOOK 2831 PAGE 1648

MAP 239 LOT 22
FIVE RIVERS CONSERVATION TRUST
10 FERRY STREET SUITE 311A
CONCORD, NH 03301
BOOK 2594 PAGE 1528

MAP 240 LOT 54
RICHARD JONES IRREVOCABLE TRUST
9 HILLTOP DRIVE
SUNABEE, NH 03782
BOOK 3584 PAGE 2938

MAP 249 LOT 8
S. WAYNE CLARKE
ELIZABETH A. CLARK
812 BRIAR HILL ROAD
HOPKINTON, NH 03229
BOOK 2130 PAGE 343

MAP 249 LOT 4
KURT M. RYNNHART
BETSEY F. RYNNHART
675 BRIAR HILL ROAD
HOPKINTON, NH 03229
BOOK 2787 PAGE 1179

MAP 239 LOT 21
VIRGINIA L. PASTUSZCZAK
TIMOTHY D. SWEATT
373 OLD STACCOACH ROAD
CONTOODUCK, NH 03229
BOOK 752 PAGE 208

LEGEND

- ANGLE POINT
- IRON ROD TO BE SET
- DRILL HOLE SET
- IRON ROD FOUND
- IRON PIPE FOUND
- UTILITY POLE
- MAILBOX
- DECIDUOUS TREE WITH BARBED WIRE
- CONIFEROUS TREE WITH BARBED WIRE
- STONE PILE
- STONE WALL
- EDGE OF PAVEMENT
- OVERHEAD UTILITIES
- DELMARATED WETLAND
- IRON ROD FOUND
- IRON PIPE FOUND
- DRILL HOLE FOUND
- DRILL HOLE SET

SHEET INDEX

SHEET 1 SUBDIVISION PLAN
SHEET 2: PHOTOGRAPHIC PLAN
SHEET 3: DRIVEWAY PLAN
SHEET 1 IS TO BE RECORDED AT THE MERRIMACK COUNTY REGISTRY OF DEEDS. SHEET 2 WILL BE ON FILE WITH THE TOWN OF HOPKINTON.

PLANNING BOARD APPROVAL BLOCK

APPROVED TOWN OF HOPKINTON, PLANNING BOARD

CHAIRPERSON DATE

MAP 240 LOT 49

REMAINDER LOT 51
HELD FROM PLAN
REFERENCE #1

DRIVEWAY EASEMENT DETAIL

SCALE: 1"=40'

NOTES:

- THE PURPOSE OF THIS PLAN IS TO SUBDIVIDE MAP 240 LOT 51 INTO 3 NEW RESIDENTIAL LOTS. THE NEW LOTS WILL HAVE 250' OR MORE FRONTAGE ON GOULD HILL ROAD AND WILL BE SERVED BY ON SITE WELL AND SEPTIC SYSTEM.
- THE PARCELS SHOWN HEREON ARE LOCATED IN THE "R-4" RESIDENTIAL/AGRICULTURAL ZONING DISTRICT AND THE "R-2" MEDIUM DENSITY RESIDENTIAL DISTRICT, AND ARE SUBJECT TO THE FOLLOWING DIMENSIONAL RESTRICTIONS:

DISTRICT R-2	DISTRICT R-4
MINIMUM LOT SIZE: 80,000 S.F. (UPLAND)	MINIMUM LOT SIZE: 120,000 S.F. (UPLAND)
MINIMUM FRONTAGE: 250'	MINIMUM FRONTAGE: 300'
MINIMUM DEPTH: 140'	MINIMUM DEPTH: 200'
BUILDING SETBACKS: FRONT: 40' SIDE: 20' REAR: 40'	BUILDING SETBACKS: FRONT: 80' SIDE: 30' REAR: 60'
MAXIMUM BUILDING HEIGHT: 35'	MAXIMUM BUILDING HEIGHT: 35'
- THE EXISTING BOUNDARY LINES SHOWN HEREON ARE FROM PLAN REFERENCE #1, A FIELD SURVEY PERFORMED BY THIS OFFICE IN JUNE 2021, AND RECORD DEEDS. THE FIELD SURVEY WAS PERFORMED USING A TOTAL STATION AND THE TRVERSE HAS AN ERROR OF CLOSURE OF ONE PART IN 15,000 OR BETTER. THE SURVEY WAS PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF A STANDARD PROPERTY SURVEY AS DERIVED IN THE NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES LAM 500.
- THE BEARINGS SHOWN HEREON ARE REFERENCED TO NAD 83/11 NH STATE PLANE, BASED ON GPS OBSERVATIONS PERFORMED BY THIS OFFICE IN JUNE 2021.
- THE LOTS DO NOT FALL IN THE 100 YEAR FLOOD ZONE AS SHOWN ON THE FLOOD INSURANCE RATE MAP FOR THE TOWN OF HOPKINTON, MAP NO. 3301SCS10E, WITH EFFECTIVE DATE 4/19/2010.

PLAN REFERENCE

- SURVEY, GOULD HILL TRUST, WILLIAM G. STEELE, JR. TRUSTEE, GOULD HILL ROAD & BRIAR HILL ROAD IN HOPKINTON, NH. TAX MAP 240-51. SCALE: 1"=200'. DATE: 9/22/1999. PREPARED BY BRISTOL, SWEET & ASSOCIATES, INC. OF NORTH SUTTON, NEW HAMPSHIRE AND RECORDED AT THE MERRIMACK COUNTY REGISTRY OF DEEDS AS PLAN #14888.
- EXISTING RIGHT-OF-WAY PLAN OVER TAX MAP PARCEL 240-48, LAND OF JOHANN G. LINDEN, PREPARED FOR ROBERT SCOTT HOMES, HOPKINTON, NEW HAMPSHIRE. SCALE: 1"=50'. DATED: SEPTEMBER 22, 2003. PREPARED BY MERRIMACK LAND SERVICES INC. IN AMHERST NEW HAMPSHIRE AND RECORDED AT THE MERRIMACK COUNTY REGISTRY OF DEEDS AS PLAN #18951.
- LOT LINE ADJUSTMENT BETWEEN LOTS 51 & 52 ON TAX MAP 240 GOULD HILL ROAD HOPKINTON, NEW HAMPSHIRE. SCALE: 1"=20'. DATE: JULY 2021. PREPARED BY THIS OFFICE.

SUBDIVISION PLAN LAND OF

JOHN H. LYNCH IRREVOCABLE TRUST OF 2012

ASSESSORS MAP 240 LOT 51

GOULD HILL ROAD &
BRIAR HILL ROAD

HOPKINTON, NEW HAMPSHIRE

SCALE: 1"=100' DATE: JULY 2021

SHEET 1 OF 3

T. F. BERNIER, INC.
Land Surveyors - Designers - Consultants

50 PLEASANT STREET - P.O. BOX 3484
CONCORD, NEW HAMPSHIRE 03302-3484
Tel: (603) 224-4148 - Fax: (603) 224-0507

OWNERS OF RECORD

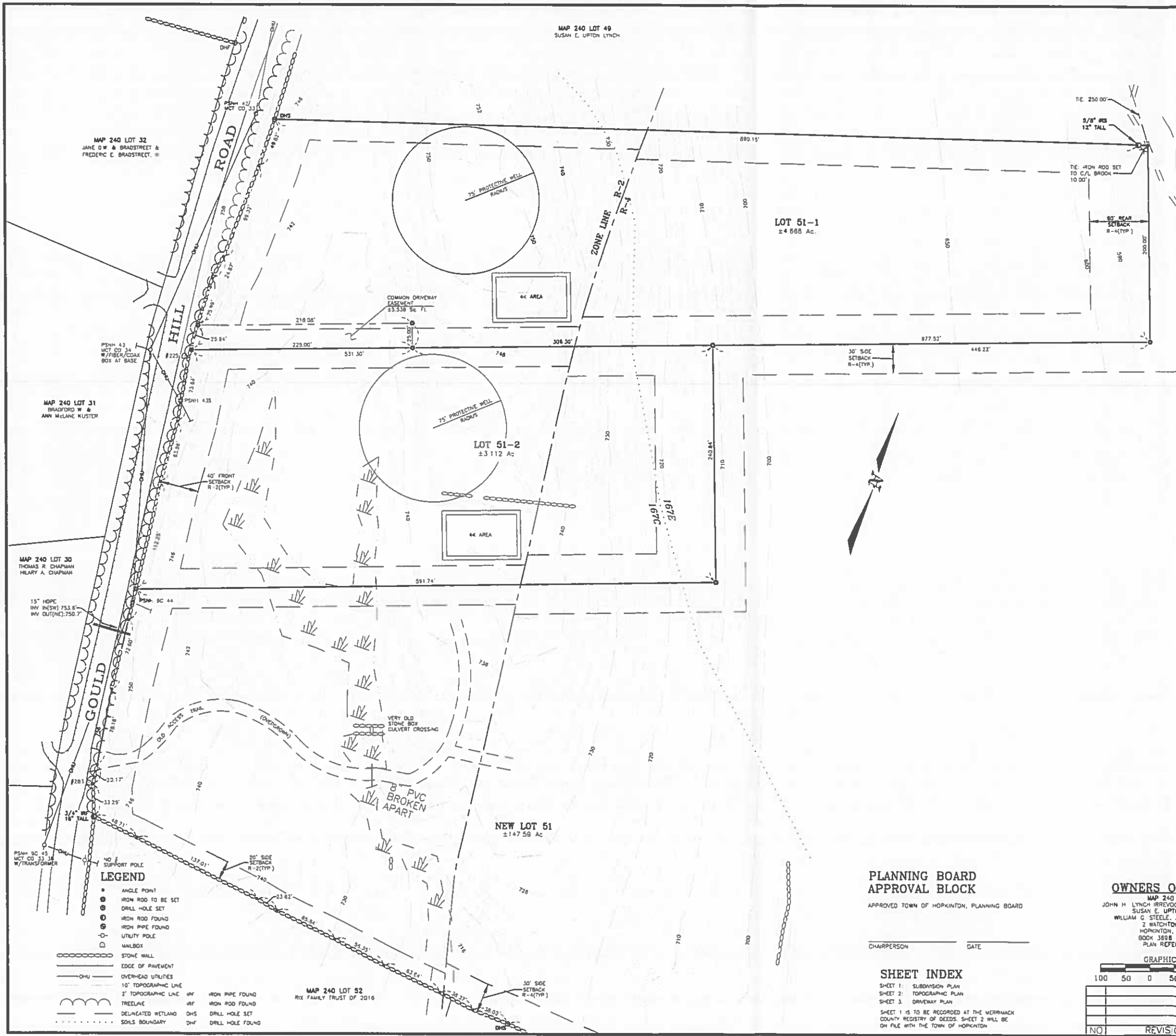
MAP 240 LOT 51
JOHN H. LYNCH IRREVOCABLE TRUST OF 2012
SUSAN E. UPTON LYNCH &
WILLIAM G. STEELE, JR. CPA-TRUSTEES
2 WATCHTOWER ROAD
HOPKINTON, NH 03229
BOOK 3686 PAGE 1739
PLAN REFERENCE #1

GRAPHIC SCALE
100 50 0 50 100 200

NO.	REVISION	DATE



DESIGNED BY: 179 DRAWN BY: 179, 180, JMC CHECKED BY: 179 F.B. PG. 224 JOB # 663-01



ADDITIONAL ABUTTERS

MAP 241 LOT 43 JEANNE C. DWYER CST EXEMPT TRUST	MAP 241 LOT 38-2 R AND J CASE TRUST
MAP 241 LOT 38-1 KRIS HENPHILL	MAP 249 LOT 8 S. WAYNE CLARKE ELIZABETH A. CLARK
MAP 249 LOT 5 THE VIKING TRUST	MAP 249 LOT 4 KURT K. RYHMAHRT BETSEY F. RYHMAHRT
MAP 239 LOT 22 FIVE RIVERS CONSERVATION TRUST	MAP 239 LOT 21 VIRGINIA L. PASTUSZCZAK TIMOTHY D. SWEAT
MAP 240 LOT 54 RICHARD JONES IRREVOCABLE TRUST	MAP 240 LOT 38 IRVIN D. GORDON
MAP 240 LOT 29 ALISON JOSEFIK & CHRISTOPHER NAVARRO	

NOTES

1. THE PURPOSE OF THIS PLAN IS TO SHOW THE TOPOGRAPHIC AND PHYSICAL FEATURES ON A PORTION OF LOT 51 AS SHOWN ON ASSESSORS MAP 240.
2. TOPOGRAPHIC INFORMATION SHOWN HEREON IS FROM A FIELD SURVEY PERFORMED BY THIS OFFICE IN JUNE 2021.
3. THE EXISTING BOUNDARY LINES SHOWN HEREON ARE FROM PLAN REFERENCE #1, A FIELD SURVEY PERFORMED BY THIS OFFICE IN JUNE 2021, AND RECORD DEEDS. THE FIELD SURVEY WAS PERFORMED USING A TOTAL STATION AND THE TRAVERSE HAS AN ERROR OF CLOSURE OF ONE PART IN 15,000 OR BETTER. THE SURVEY WAS PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF A STANDARD PROPERTY SURVEY AS DEFINED IN THE NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES LON 500.

SOIL DATA

FROM NRCS WB SOIL SURVEY
187C: CANTERBURY FINE SANDY LOAM, 8 TO 10 PERCENT SLOPES, VERY STONY
167E: CANTERBURY FINE SANDY LOAM, 25 TO 35 PERCENT SLOPES, VERY STONY

TOPOGRAPHIC PLAN
LAND OF
JOHN H. LYNCH IRREVACABLE
TRUST OF 2012

ASSESSORS MAP 240 LOT 51
GOULD HILL ROAD &
BRIAR HILL ROAD
HOPKINTON, NEW HAMPSHIRE
SCALE: 1"=50' DATE: JULY 2021
SHEET 2 OF 3

OWNERS OF RECORD

MAP 240 LOT 51
JOHN H. LYNCH IRREVOCABLE TRUST OF 2012
SUSAN E. UPTON LYNCH &
WILLIAM G. STEELE, JR. CPA-TRUSTEES
2 WATCHTOWER ROAD
HOPKINTON, NH 03229
BOOK 3898 PAGE 1739
PLAN REFERENCE #1

PLANNING BOARD
APPROVAL BLOCK

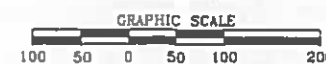
APPROVED TOWN OF HOPKINTON, PLANNING BOARD

CHAIRPERSON _____ DATE _____

SHEET INDEX

- SHEET 1: SUBDIVISION PLAN
- SHEET 2: TOPOGRAPHIC PLAN
- SHEET 3: DRIVEWAY PLAN

SHEET 1 IS TO BE RECORDED AT THE MERRIMACK COUNTY REGISTRY OF DEEDS. SHEET 2 WILL BE ON FILE WITH THE TOWN OF HOPKINTON.



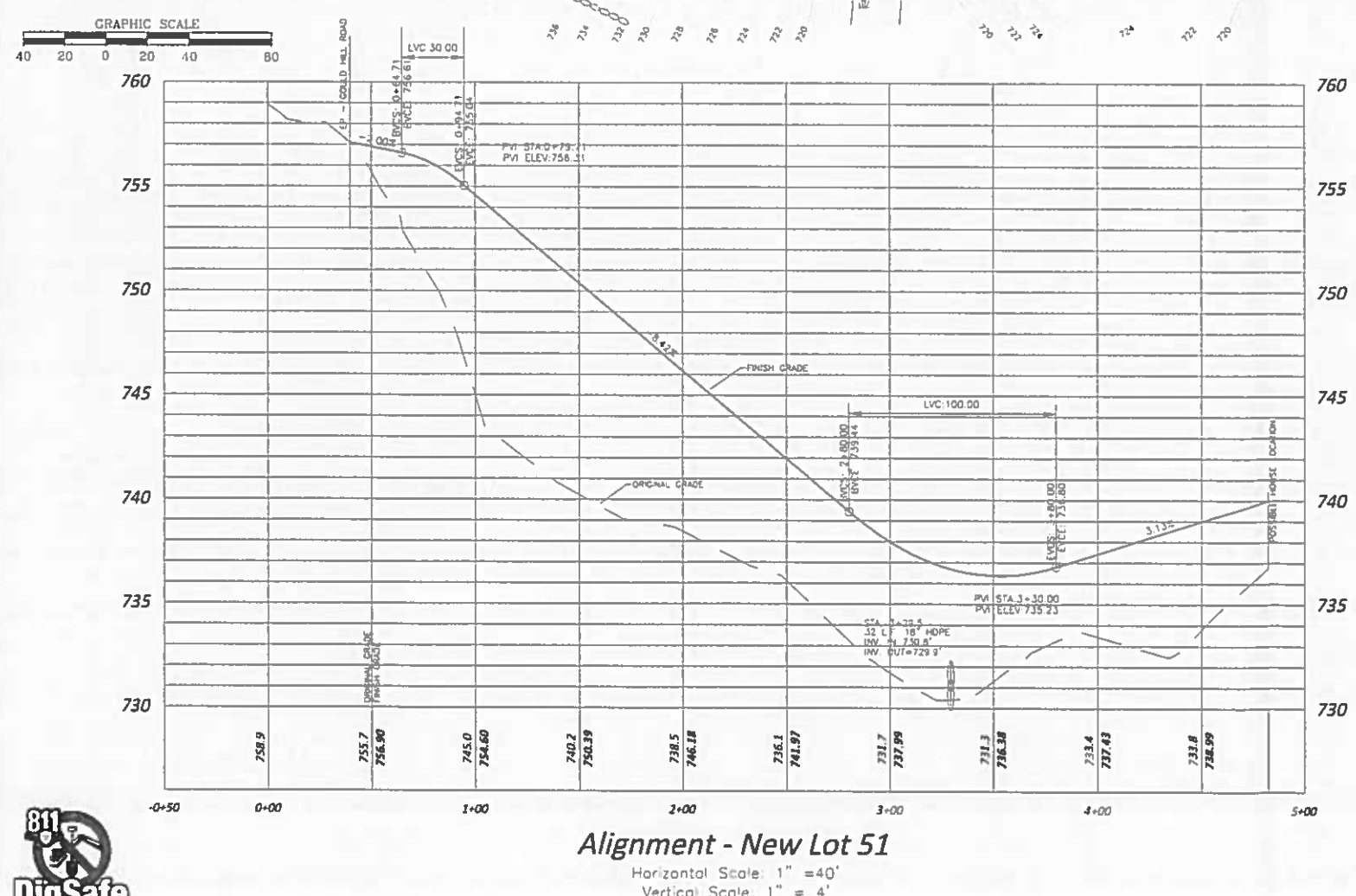
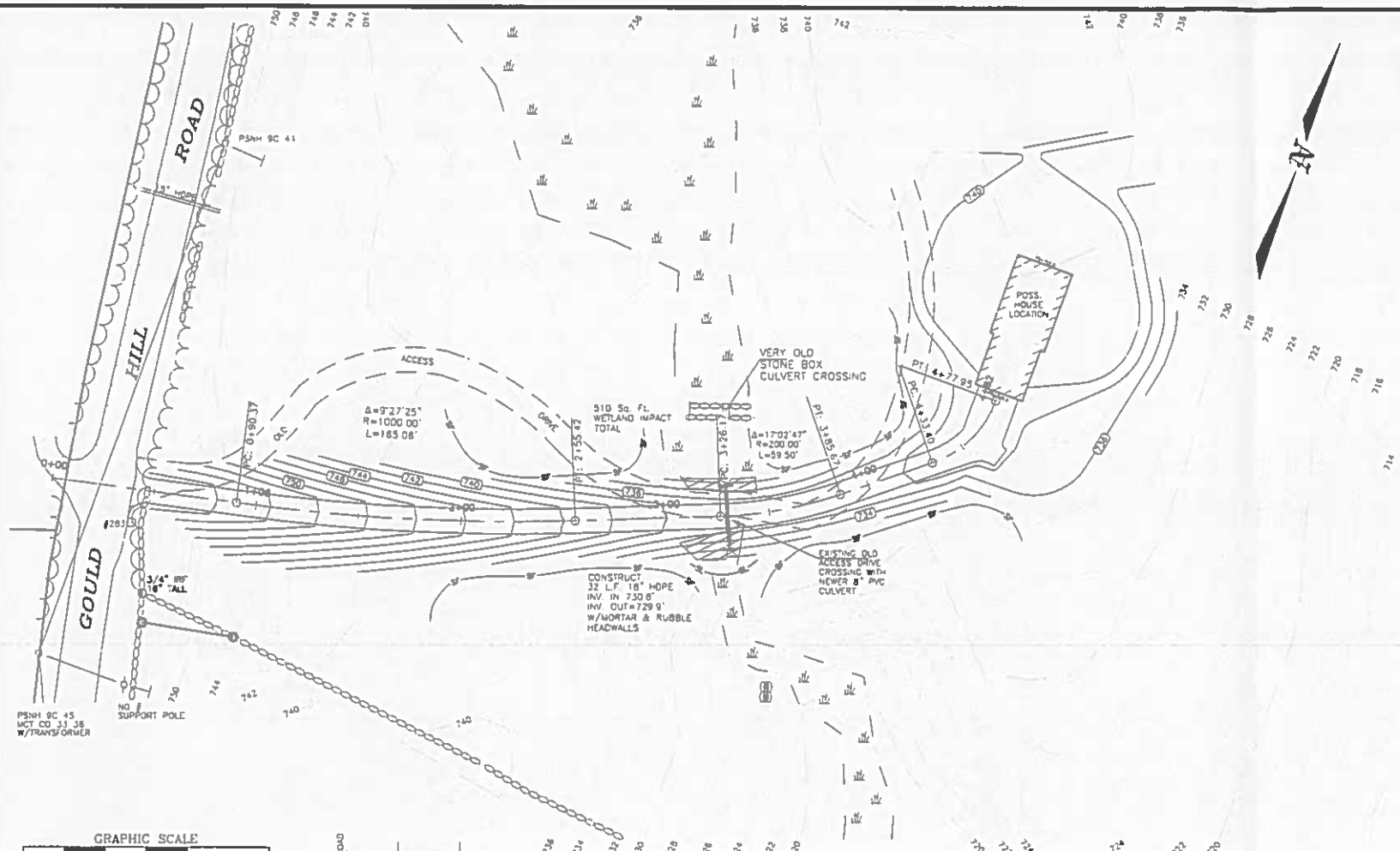
NO.	REVISION	DATE



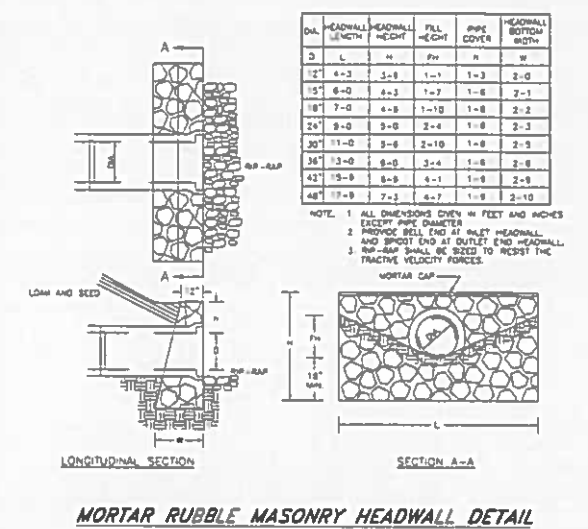
T. F. BERNIER, INC.
Land Surveyors - Designers - Consultants

50 PLEASANT STREET - P.O. BOX 3484
CONCORD, NEW HAMPSHIRE 03302-3484
Tel: (603) 224-4148 - Fax: (603) 224-0507

DESIGNED BY	DRAWN BY	CHECKED BY	FB	PC	JOB #
TFB	BRW_JRC	TFB	324	54	663-01
DRAWING NAME					



- LEGEND**
- ANGLE POINT
 - DRILL HOLE FOUND/SET
 - UTILITY POLE
 - PHOTO LABEL & DIRECTION
 - PROPOSED DRIVEWAY
 - PROPOSED GRADING
 - PROPOSED SALT LOC
 - PROPOSED SALT FENCE
 - EDGE OF WETLAND
 - SETBACK LINES
 - STONE WALL
 - EDGE OF PAVEMENT
 - 2' TOPOGRAPHIC LINE
 - 10' TOPOGRAPHIC LINE
 - TREELINE
 - WETLAND IMPACT



- NOTES:**
- THE AHEAD OF THIS PLAN IS TO SHOW THE PROPOSED WETLAND CROSSING FOR A NEW DRIVEWAY ON NEW LOT 51.
 - THE TOPOGRAPHIC INFORMATION SHOWN HEREON IS THE RESULT OF AN ACTUAL FIELD SURVEY MADE BY THIS OFFICE IN MAY 2021.
 - THE BASIS OF THE MEASUREMENTS SHOWN HEREON ARE HAD 62/71 BASED ON GPS OBSERVATIONS MADE BY THIS OFFICE IN APRIL 2018.
 - WETLANDS SHOWN HEREON WERE DETERMINED BY THE FIELD BY PHOTOGRAPHY & INTERVIEW CONDUCTED IN MAY AND JULY 2021 IN ACCORDANCE WITH 603:224-4:148.
 - THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING SOIL EROSION IN ALL AREAS OF THE DEVELOPMENT SITE. TEMPORARY EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF WORK AND SHALL REMAIN IN PLACE UNTIL VEGETATION IS WELL ESTABLISHED AND THE SITE IS STABILIZED.
 - ALL DISTURBED AREAS NOT INTENDED FOR TRAVEL SHALL BE GRADED, LEASED AND RESEED. SEE DETAIL SHEET 8 NOTED.
 - THE TOTAL AREA OF WETLAND TO BE FILLED IS 518 SQ. FT. THE LOCATION SHOWN FOR THE DRIVEWAY WAS SELECTED TO COMPLY WITH THE TOWN OF HOPKINTON REGULATIONS WHILE MINIMIZING WETLAND IMPACTS. IN ADDITION THE NORTH AND SOUTHSIDE OF THE DRIVEWAY HAS BEEN IMPROVED TO REDUCE IMPACTS TO THE WETLAND. CULVERTS HAVE BEEN DESIGNED TO MAINTAIN PROPER HYDROLOGICAL CONNECTIONS AND MAINTAINING THE RISK OF SEDIMENT TRANSPORT.
 - IF ANY SPOTTED TURTLES, WOOD TURTLES OR GLAUCOUS TURTLES ARE FOUND LIVING EGGS IN THE WORK AREA PLEASE CONTACT WILDLIFE OFFICIALS AT (603) 271-1730 OR 800H HOPKINTON AT (603) 271-1133 FOR FURTHER INSTRUCTIONS. SEE DETAIL SHEET 8 AND POLYPROPYLENE PHOTOGRAPHICALLY GRADATION CONTAINING ACTING 8 TO BE USED.

**PLANNING BOARD
APPROVAL BLOCK**

APPROVED TOWN OF HOPKINTON, PLANNING BOARD

CHAIRPERSON _____ DATE _____

DRIVEWAY CROSSING PLAN
LAND OF
**JOHN H. LYNCH IRREVOCABLE
TRUST OF 2012**
ASSESSORS MAP 240 LOT 51
GOULD HILL ROAD
HOPKINTON, NEW HAMPSHIRE
SCALE: 1"=40' DATE: JULY 2021
SHEET 3 OF 3

OWNERS OF RECORD
MAP 240 LOT 51
JOHN H. LYNCH IRREVOCABLE TRUST OF 2012
SUSAN E. LUTON LYNCH &
WILLIAM D. STEELE, JR. CPA-TRUSTEES
2 WATCHTOWER ROAD
HOPKINTON, NH 03229
BOOK 3896 PAGE 1739
PLAN REFERENCE #1



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			TFB	TFB	TFB	224	34	663-01

