

Mansfield Drive Subdivision

STAFF REPORT

March 27, 2019

SITE: Mansfield Drive – Map 147/Lot 24 – SB# 05-18

ZONING: R-1

PURPOSE OF PLAN: to subdivide one lot into eight residential building lots and create Mansfield Drive, part of which is an existing Right of Way.

PLAN UNDER REVIEW: Subdivision Plan Mansfield Drive & Derry Lane, Hudson, NH, prepared by Maynard & Paquette Engineering Associates, LLC, 31 Quincy Street, Nashua, NH 03060, dated March 1, 2018, last revised March 20, 2019, received March 22, 2019, and consisting of 11 Sheets and Notes 1-21.

ATTACHMENTS:

- A. Subdivision Application
- B. Memo from Town Engineer, Elvis Dhima to Town Planner, Brian Groth, dated March 22, 2019.

WAIVER REQUESTS:

- 1. §276.1.B.3 – location of revision block

STAFF COMMENTS:

This plan proposes an eight (8) lot subdivision and the establishment of Mansfield Drive. A portion of the Mansfield Drive Right-of-Way already exists as a “paper street” off of Derry Lane. Public sewer and water will be brought to the development through an existing easement from Berkley Drive.

This application has undergone three rounds of reviews by the consulting engineer (Fuss & O’Neill) and the Town Engineer. The applicant has substantially complied with the engineers’ comments with a few minor exceptions. These exceptions can be addressed with a condition of approval that requires the Town Engineer’s final approval. Last, the revision block should be updated to reflect the most recent round of revisions.

During the Board’s October 24, 2018 meeting which discussed the plan on a conceptual level, the issues of road width and sidewalks were discussed. Staff believes the current plans reflect the desire of the Board and Town Staff, with a 24 foot wide road and a 5 foot sidewalk. Since the regulations currently require a 28 foot wide road, an additional Planning Board action is required, which is included in the DRAFT MOTIONS section of this report.

Should the Board wish to approve the plan, it is recommended that active substantial development be defined. Staff suggests that active and substantial development has occurred when:

- A. Tree clearing within dedicated right of way
- B. Stump removal within dedicated right of way
- C. Top soil removal within the dedicated right of way
- D. Construction entrance installation
- E. Erosion control in place
- F. Rough grading of the proposed road envelope

APPLICATION TRACKING:

- 21 MARCH 2018 – Subdivision Application submitted.
- 9 APRIL 2018 – CLD/Fuss & O’Neill comments received.
- 28 SEPTEMBER 2018 – Subdivision Plan resubmitted for conceptual review.
- 22 OCTOBER 2018 - CLD/Fuss & O’Neill comments received.
- 24 OCTOBER 2018 – Conceptual Review hearing scheduled.
- 1 MARCH 2019 – Subdivision Application revised 2/20/19 submitted.
- 19 MARCH 2019 - CLD/Fuss & O’Neill comments received.
- 22 MARCH 2019 – Revised plan set submitted.
- 27 MARCH 2019 – Public Hearing Scheduled.

RECOMMENDED ACTION: Staff recommends application acceptance, conduct of the public hearing, and consideration of subdivision approval in accordance with the below DRAFT MOTIONS. In the event that the Board determines more time is needed to review the application, a motion for deferment is provided after the draft acceptance motion.

DRAFT MOTIONS

DRAFT MOTION TO ACCEPT:

I move to accept the Subdivision/Site Plan application for Mansfield Drive Subdivision, Map 147/Lot 024.

Motion by: _____ Second: _____ Carried/Failed: _____

DRAFT MOTION TO DEFER:

I move to defer the further consider of the Subdivision/Site Plan application for Mansfield Drive Subdivision, Map 147/Lot 024 to a date specific, the April 10, 2019 Planning Board meeting.

Motion by: _____ Second: _____ Carried/Failed: _____

WAIVER REQUESTS:

- 1. §276.1.B.3 – location of revision block

I move to grant the requested waiver of §276.1.B.3 – Location of revision block on the testimony of the Applicant’s representative, and in accordance with the language included in the submitted Waiver Request Form for said waiver.

Motion by: _____ Second: _____ Carried/Failed: _____

SPECIAL MOTION:

I move to waive the provisions of §276.1.B.3 and §289-28.B.(2) that require a 28 foot wide roadway, to allow for a 24 foot wide roadway.

Motion by: _____ Second: _____ Carried/Failed: _____

DRAFT MOTION to APPROVE:

I move to approve the subdivision/site plan entitled: Proposed Site Plan for Marco Plante, Tax Map 206 Lot 1, by Beals Associates and S&H Land Services, with cover sheet dated July 20, 2018, last revised on August 30, 2018, consisting of Sheets 1 - 12 and Notes 1 – 9 on Sheet 1 of 12 subject to the following stipulations:

- 1. All stipulations of approval shall be incorporated into the Notice of Decision, which shall be recorded at the HCRD, together with the Plan.
- 2. A cost allocation procedure (CAP) amount of \$5,813 per residential lot shall be paid prior to the issuance of a Certificate of Occupancy for the new house lot.
- 3. All monumentation shall be set or bonded for prior to the Planning Board endorsing the Plan-of-Record.
- 4. Approval of this plan shall be subject to final review and approval by the Town Engineer.
- 5. Construction activities involving the proposed undeveloped lots shall be limited to the hours between 7:00 A.M. and 7:00 P.M., Monday through Saturday. No exterior construction activities shall occur on Sunday.
- 6. Active and substantial development will have occurred when:
 - A. Tree clearing within dedicated right of way
 - B. Stump removal within dedicated right of way
 - C. Top soil removal within the dedicated right of way
 - D. Construction entrance installation
 - E. Erosion control in place
 - F. Rough grading of the proposed road envelope

Motion by: _____ Second: _____ Carried/Failed: _____.

Roadway Width Regulation Amendment Pre-Hearing Review

STAFF REPORT

March 27, 2019

PURPOSE:

To consider changing the required roadway width for cul-de-sacs from 28 feet to 24 feet. Should the Board wish to, a motion should be made to move the amendment to a public hearing, date certain.

NOTE: The referenced illustrations will be revised to reflect any changes approved by the Planning Board.

PROPOSED AMENDMENT: (Proposed amendment indicated by strikethrough text for wording to be deleted and bold text for wording to be added.)

ARTICLE III General Requirements

§ 289-18. Streets.

B. Cul-de-sac roads.²

- (1) RIGHT-OF-WAY and pavement widths. Culs-de-sac, or deadend streets, designated to be permanently closed at one end, shall have a RIGHT-OF-WAY width not less than 50 feet leading up to the turnaround. The pavement width leading up to the turnaround shall be ~~28~~ **24** feet. The pavement width for the turnaround shall be ~~28~~ **24** feet.
- (2) Cul-de-sac roadway length. A cul-de-sac STREET shall not exceed 1,000 feet in length, and shall measure from the center point of the outside edge of the cul-de-sac turnaround to the point of intersection at the center line of an intersecting street. Said intersecting STREET shall have, at minimum, two intersections with other streets, leading to a collector/arterial STREET or limited-ACCESS HIGHWAY.

² Editor's Note: The Typical Offset Cul-De-Sac illustration and the Typical Straight Cul-DeSac illustration are included as attachments to this chapter.

ARTICLE VI

§289-28. Requirements

- B. The paved roadway shall have a minimum width in accordance with the type of street, as defined in § 289-3, as follows:

- (1) Major streets, collector streets and commercial streets shall be paved a minimum of 36 feet or wider where the PLANNING BOARD determines that the nature and/or intensity of the proposed use would require a wider pavement.
- (2) Residential streets, service streets and access streets **of 1,000 feet in length or less** shall be paved ~~28~~ **24 feet wide. Residential streets, service streets and access streets greater than 1,000 feet in length shall be paved 28 feet wide.**

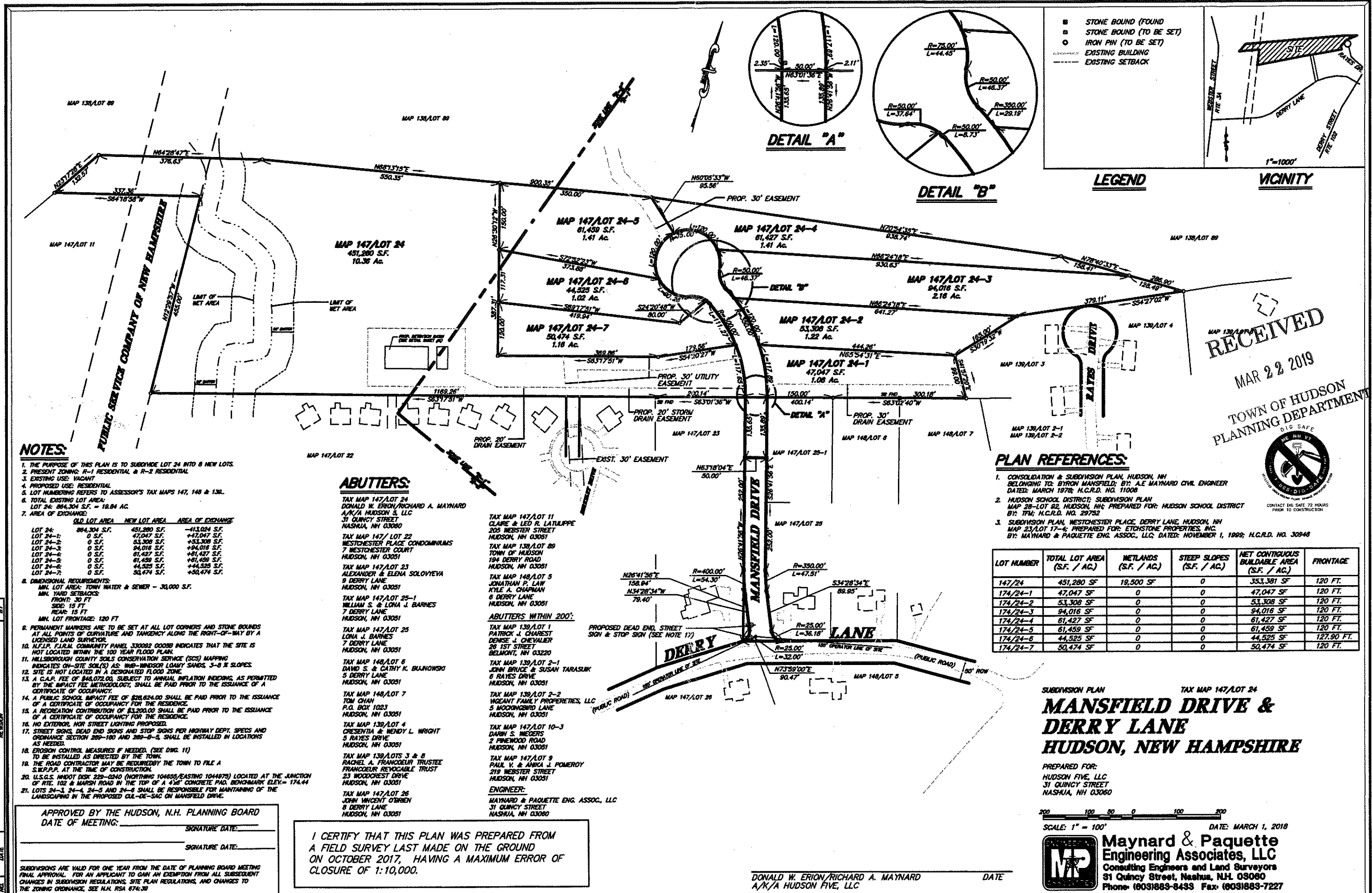
DRAFT MOTIONS:

I move to continue the pre-hearing review of the proposed amendments to the Hudson's Land Use Regulations, date specific, to the April 24, 2019 meeting.

Motion: _____ Second: _____ Carried/Failed:_____.

I move to schedule a public hearing on April 24, 2019, regarding the proposed amendments to the Hudson Land Use Regulations.

Motion: _____ Second: _____ Carried/Failed:_____.



- STONE BOUND (FOUND)
- STONE BOUND (TO BE SET)
- IRON PIN (TO BE SET)
- ▨ EXISTING BUILDING
- EXISTING SETBACK

LEGEND

VICINITY

RECEIVED
 MAR 22 2019
 TOWN OF HUDSON
 PLANNING DEPARTMENT



NOTES:

1. THE PURPOSE OF THIS PLAN IS TO SUBDIVIDE LOT 24 INTO 8 NEW LOTS.
 2. PRESENT ZONING: R-1 RESIDENTIAL & R-2 RESIDENTIAL
 3. EXISTING USE: VACANT
 4. PROPOSED USE: RESIDENTIAL
 5. LOT NUMBERING REFERS TO ASSESSOR'S TAX MAPS 147, 148 & 136.
 6. TOTAL EXISTING LOT AREA:
 LOT 24: 864,304 S.F. = 19.84 AC.
 7. AREA OF EXCHANGE:
- | LOT | OLD LOT AREA | NEW LOT AREA | AREA OF EXCHANGE |
|----------|--------------|--------------|------------------|
| LOT 24 | 864,304 S.F. | 451,280 S.F. | -413,024 S.F. |
| LOT 24-1 | 0 S.F. | 47,047 S.F. | +47,047 S.F. |
| LOT 24-2 | 0 S.F. | 53,308 S.F. | +53,308 S.F. |
| LOT 24-3 | 0 S.F. | 94,016 S.F. | +94,016 S.F. |
| LOT 24-4 | 0 S.F. | 61,427 S.F. | +61,427 S.F. |
| LOT 24-5 | 0 S.F. | 61,459 S.F. | +61,459 S.F. |
| LOT 24-6 | 0 S.F. | 44,525 S.F. | +44,525 S.F. |
| LOT 24-7 | 0 S.F. | 50,474 S.F. | +50,474 S.F. |
8. DIMENSIONAL REQUIREMENTS:
 MIN. LOT AREA: TOWN WATER & SEWER - 30,000 S.F.
 MIN. YARD SETBACKS:
 FRONT: 30 FT
 SIDE: 15 FT
 REAR: 15 FT
 MIN. LOT FRONTAGE: 120 FT
 9. PERMANENT MARKERS ARE TO BE SET AT ALL LOT CORNERS AND STONE BOUNDS AT ALL POINTS OF CURVATURE AND TANGENCY ALONG THE RIGHT-OF-WAY BY A LICENSED LAND SURVEYOR.
 10. H.P.L.P. F.L.R.M. COMMUNITY PANEL 330082 0008B INDICATES THAT THE SITE IS NOT LOCATED WITHIN THE 100 YEAR FLOOD PLAIN.
 11. HILLSBOROUGH COUNTY SOILS CONSERVATION SERVICE (SCS) MAPPING INDICATES ON-SITE SOIL(S) AS: MWS-MINOR LOAMY SANDS, 3-8% SLOPES.
 12. SITE IS NOT LOCATED IN A DESIGNATED FLOOD ZONE.
 13. A C.A.P. FEE OF \$48,072.00, SUBJECT TO ANNUAL INFLATION INDEXING, AS PERMITTED BY THE IMPACT FEE METHODOLOGY, SHALL BE PAID PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
 14. A PUBLIC SCHOOL IMPACT FEE OF \$28,624.00 SHALL BE PAID PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY FOR THE RESIDENCE.
 15. A RECREATION CONTRIBUTION OF \$3,200.00 SHALL BE PAID PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY FOR THE RESIDENCE.
 16. NO EXTERIOR, NOR STREET LIGHTING PROPOSED.
 17. STREET SIGNS, DEAD END SIGNS AND STOP SIGNS PER HIGHWAY DEPT. SPECS AND ORDINANCE SECTION 289-180 AND 289-8-3, SHALL BE INSTALLED IN LOCATIONS AS NEEDED.
 18. EROSION CONTROL MEASURES IF NEEDED, (SEE DWG. 11) TO BE INSTALLED AS DIRECTED BY THE TOWN.
 19. THE ROAD CONTRACTOR MAY BE REQUIRED BY THE TOWN TO FILE A S.W.P.P. AT THE TIME OF CONSTRUCTION.
 20. U.S.G.S. 1:25,000 DATUM 225-0240 (NORTHING 104655/EASTING 1044875) LOCATED AT THE JUNCTION OF RTE. 102 & MARSH ROAD BY THE TOP OF A 4" CONCRETE PAD, BENCHMARK ELEV. = 174.44
 21. LOTS 24-3, 24-4, 24-5 AND 24-6 SHALL BE RESPONSIBLE FOR MAINTAINING OF THE LANDSCAPING IN THE PROPOSED CUL-DE-SAC ON MANSFIELD DRIVE.

ABUTERS:

- TAX MAP 147/LOT 24**
 DONALD W. ERION/RICHARD A. MAYNARD
 A/K/A HUDSON 5, LLC
 31 QUINCY STREET
 NASHUA, NH 03060
- TAX MAP 147/ LOT 22**
 WESTCHESTER PLACE CONDOMINIUMS
 7 WESTCHESTER COURT
 HUDSON, NH 03051
- TAX MAP 147/LOT 23**
 ALEXANDER & ELENA SOLOVIEVA
 9 DERRY LANE
 HUDSON, NH 03051
- TAX MAP 147/LOT 25-1**
 LONA J. BARNES
 7 DERRY LANE
 HUDSON, NH 03051
- TAX MAP 147/LOT 25**
 LONA J. BARNES
 7 DERRY LANE
 HUDSON, NH 03051
- TAX MAP 148/LOT 6**
 DAVID S. & CATHY K. BLANOWSKI
 5 DERRY LANE
 HUDSON, NH 03051
- TAX MAP 148/LOT 7**
 TOM CHAN
 P.O. BOX 1023
 HUDSON, NH 03051
- TAX MAP 139/LOT 4**
 CRESSENTIA & MENDY L. WRIGHT
 5 RAYES DRIVE
 HUDSON, NH 03051
- TAX MAP 139/LOTS 3 & 8**
 RACHEL A. FRANCOEUR TRUSTEE
 FRANCOEUR REVOCABLE TRUST
 23 WOODCREST DRIVE
 HUDSON, NH 03051
- TAX MAP 147/LOT 26**
 JOHN VINCENT O'BRIEN
 8 DERRY LANE
 HUDSON, NH 03051
- TAX MAP 147/LOT 11**
 CLARE & LEO R. LATULIPPE
 205 WEBSTER STREET
 HUDSON, NH 03051
- TAX MAP 139/LOT 89**
 TOWN OF HUDSON
 194 DERRY ROAD
 HUDSON, NH 03051
- TAX MAP 148/LOT 5**
 JONATHAN P. LAW
 KYLE A. CHAPMAN
 6 DERRY LANE
 HUDSON, NH 03051
- ABUTERS WITHIN 200':**
- TAX MAP 139/LOT 1**
 PATRICK J. CHAREST
 DENISE J. CHEVALIER
 26 1ST STREET
 BELMONT, NH 03220
- TAX MAP 139/LOT 2-1**
 JOHN BRUCE & SUSAN TARASUK
 6 RAYES DRIVE
 HUDSON, NH 03051
- TAX MAP 139/LOT 2-2**
 WEGANT FAMILY PROPERTIES, LLC
 5 WOODCREST LANE
 HUDSON, NH 03051
- TAX MAP 147/LOT 10-3**
 DARRIN S. WEGERS
 2 PINWOOD ROAD
 HUDSON, NH 03051
- TAX MAP 147/LOT 9**
 PAUL V. & ANIKA J. POMEROY
 219 WEBSTER STREET
 HUDSON, NH 03051
- ENGINEER:**
 MAYNARD & PAQUETTE ENG. ASSOC., LLC
 31 QUINCY STREET
 NASHUA, NH 03060

PLAN REFERENCES:

1. CONSOLIDATION & SUBDIVISION PLAN, HUDSON, NH BELONGING TO: BYRON MANSFIELD; BY: A.E. MAYNARD CIVIL ENGINEER DATED: MARCH 1976; H.C.R.D. NO. 11008
2. HUDSON SCHOOL DISTRICT; SUBDIVISION PLAN MAP 28-LOT 82, HUDSON, NH; PREPARED FOR: HUDSON SCHOOL DISTRICT BY: TFM; H.C.R.D. NO. 29752
3. SUBDIVISION PLAN, WESTCHESTER PLACE, DERRY LANE, HUDSON, NH MAP 23/LOT 17-4; PREPARED FOR: ETCHSTONE PROPERTIES, INC. BY: MAYNARD & PAQUETTE ENG. ASSOC., LLC; DATED: NOVEMBER 1, 1999; H.C.R.D. NO. 30948

LOT NUMBER	TOTAL LOT AREA (S.F. / AC.)	WETLANDS (S.F. / AC.)	STEEP SLOPES (S.F. / AC.)	NET CONTIGUOUS BUILDABLE AREA (S.F. / AC.)	FRONTAGE
147/24	451,280 SF / 10.36 AC.	19,500 SF / 0.45 AC.	0	353,361 SF / 8.05 AC.	120 FT.
174/24-1	47,047 SF / 1.08 AC.	0	0	47,047 SF / 1.08 AC.	120 FT.
174/24-2	53,308 SF / 1.22 AC.	0	0	53,308 SF / 1.22 AC.	120 FT.
174/24-3	94,016 SF / 2.16 AC.	0	0	94,016 SF / 2.16 AC.	120 FT.
174/24-4	61,427 SF / 1.41 AC.	0	0	61,427 SF / 1.41 AC.	120 FT.
174/24-5	61,459 SF / 1.41 AC.	0	0	61,459 SF / 1.41 AC.	120 FT.
174/24-6	44,525 SF / 1.02 AC.	0	0	44,525 SF / 1.02 AC.	127.90 FT.
174/24-7	50,474 SF / 1.16 AC.	0	0	50,474 SF / 1.16 AC.	120 FT.

SUBDIVISION PLAN
MANSFIELD DRIVE & DERRY LANE
 HUDSON, NEW HAMPSHIRE

PREPARED FOR:
 HUDSON FIVE, LLC
 31 QUINCY STREET
 NASHUA, NH 03060

SCALE: 1" = 100' DATE: MARCH 1, 2018

MP **Maynard & Paquette Engineering Associates, LLC**
 Consulting Engineers and Land Surveyors
 31 Quincy Street, Nashua, NH 03060
 Phone: (603)883-8433 Fax: (603)883-7227

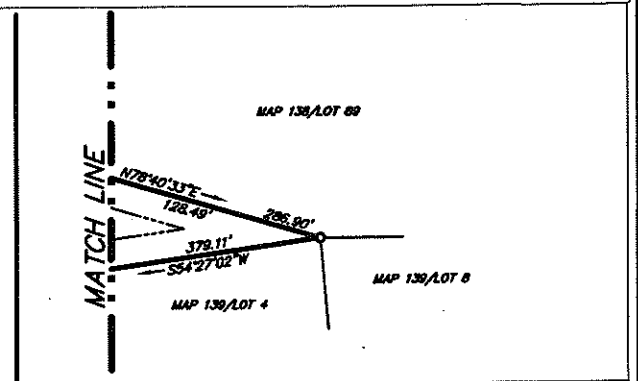
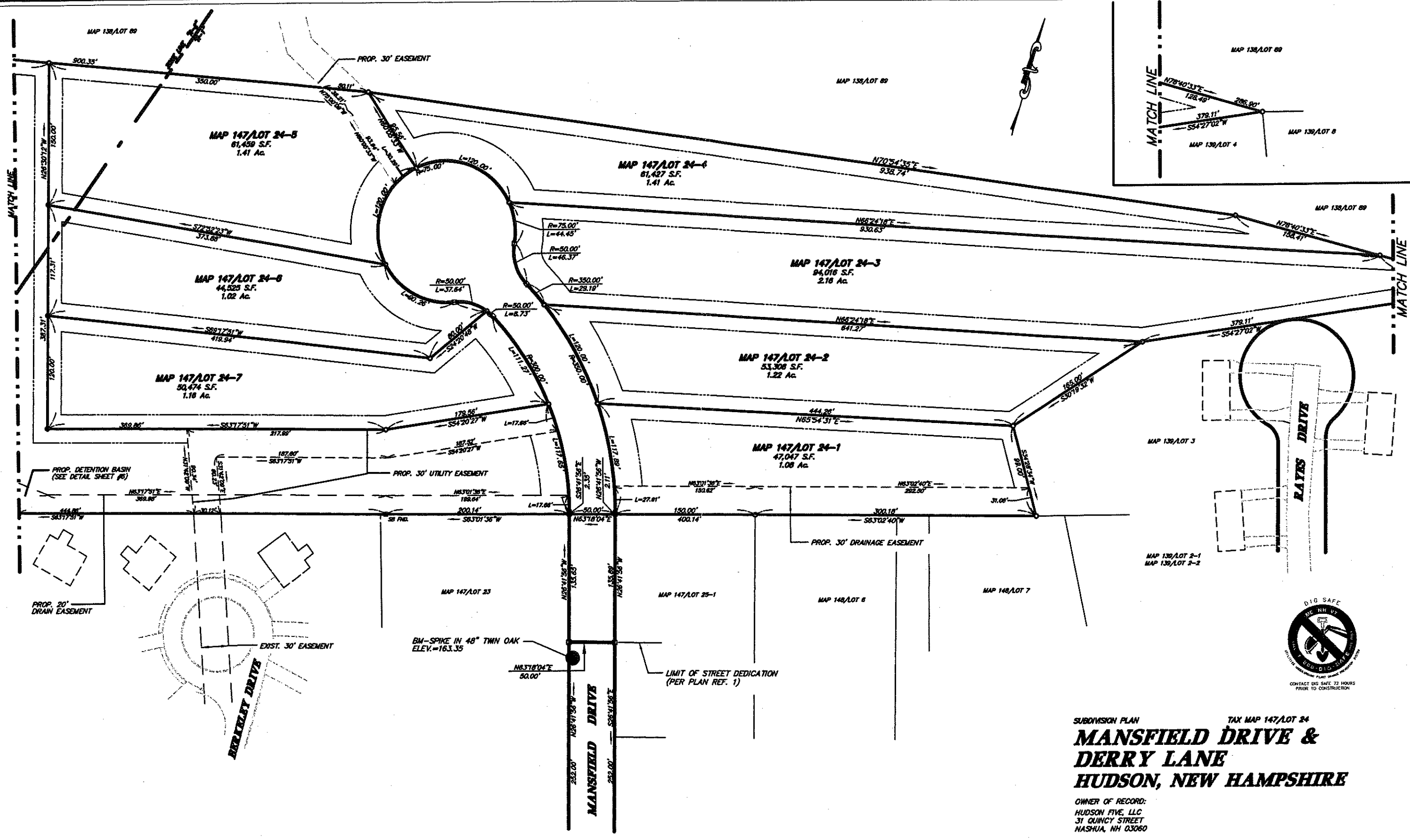
APPROVED BY THE HUDSON, N.H. PLANNING BOARD
 DATE OF MEETING: _____ SIGNATURE DATE: _____
 _____ SIGNATURE DATE: _____

I CERTIFY THAT THIS PLAN WAS PREPARED FROM A FIELD SURVEY LAST MADE ON THE GROUND ON OCTOBER 2017, HAVING A MAXIMUM ERROR OF CLOSURE OF 1:10,000.

DONALD W. ERION/RICHARD A. MAYNARD DATE
 A/K/A HUDSON FIVE, LLC

KPM	APB	2	D	12253
DESIGNED	DRAWN	CHECKED	APPROVED	BOOK & FILE

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 MAYNARD & PAQUETTE ENGINEERING ASSOCIATES, LLC



APB	APB	APB	APB	APB	APB
REVISIONS PER TOWN OF HUDSON COMMENTS DATE 10/20/2018	REVISIONS PER TOWN OF HUDSON COMMENTS DATE 10/20/2018	REVISIONS PER TOWN OF HUDSON COMMENTS DATE 10/20/2018	REVISIONS PER TOWN OF HUDSON COMMENTS DATE 10/20/2018	REVISIONS PER TOWN OF HUDSON COMMENTS DATE 10/20/2018	REVISIONS PER TOWN OF HUDSON COMMENTS DATE 10/20/2018
1	2	3	4	5	6
DATE	DATE	DATE	DATE	DATE	DATE

APPROVED BY THE HUDSON, N.H. PLANNING BOARD
 DATE OF MEETING: _____
 SIGNATURE DATE: _____
 SIGNATURE DATE: _____
 SUBDIVISIONS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FOR AN APPLICANT TO GAIN AN EXEMPTION FROM ALL SUBSEQUENT CHANGES IN SUBDIVISION REGULATIONS, SITE PLAN REGULATIONS, AND CHANGES TO THE ZONING ORDINANCE, SEE N.H. RSA 674:39

I CERTIFY THAT THIS PLAN WAS PREPARED FROM A FIELD SURVEY LAST MADE ON THE GROUND ON OCTOBER 2017, HAVING A MAXIMUM ERROR OF CLOSURE OF 1:10,000.

SUBDIVISION PLAN TAX MAP 147/LOT 24
MANSFIELD DRIVE & DERRY LANE
HUDSON, NEW HAMPSHIRE

OWNER OF RECORD:
 HUDSON FIVE, LLC
 31 QUINCY STREET
 NASHUA, NH 03060

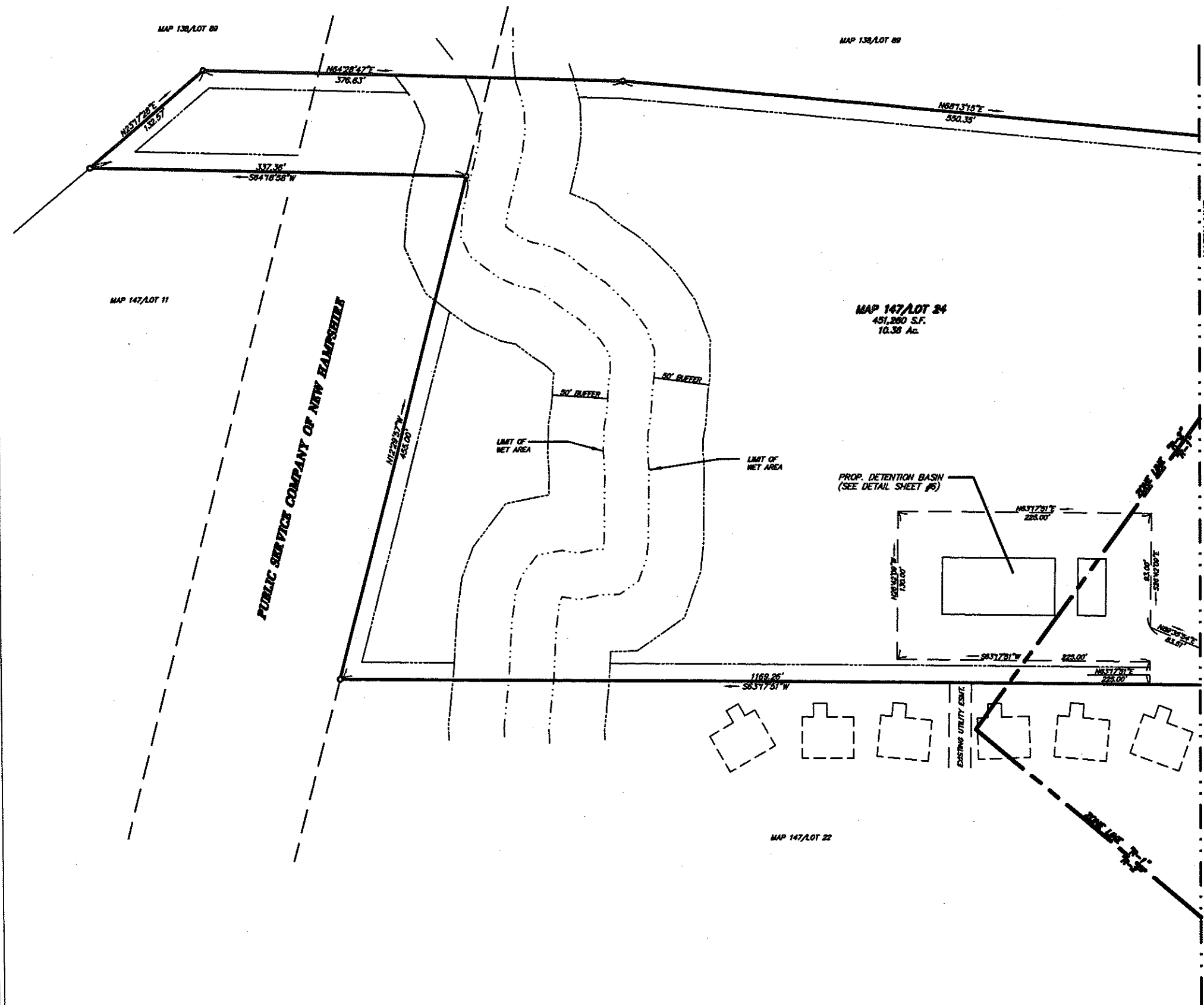
SCALE: 1" = 50' DATE: MARCH 1, 2018

Maynard Paquette
 Engineering Associates, LLC
 Consulting Engineers and Land Surveyors
 31 Quincy Street, Nashua, N.H. 03060
 Phone: (603)863-8433 Fax: (603)863-7227



KPM	APB			2	12253
DESIGNED	DRAWN	CHECKED	APPROVED	REVISION	SHEET NUMBER

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 MAYNARD & PAQUETTE ENGINEERING ASSOCIATES, LLC
 DWG. NO. 2 OF 11



NO.	DATE	REVISIONS
1	11/28/2018	REVISIONS PER TOWN OF HUDSON COMMENTS
2	11/28/2018	REVISIONS PER TOWN OF HUDSON COMMENTS
3	2/20/2018	REVISIONS PER TOWN OF HUDSON COMMENTS

APPROVED BY THE HUDSON, N.H. PLANNING BOARD
 DATE OF MEETING: _____
 _____ SIGNATURE DATE: _____
 _____ SIGNATURE DATE: _____

I CERTIFY THAT THIS PLAN WAS PREPARED FROM
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 ON OCTOBER 2017, HAVING A MAXIMUM ERROR OF
 CLOSURE OF 1:10,000.

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 FINAL APPROVAL. FOR AN APPLICANT TO GAIN AN EXEMPTION FROM ALL SUBSEQUENT
 CHANGES IN SUBDIVISION REGULATIONS, SITE PLAN REGULATIONS, AND CHANGES TO
 THE ZONING ORDINANCE, SEE N.H. RSA 874:39



SUBDIVISION PLAN TAX MAP 147/LOT 24
**MANSFIELD DRIVE &
 DERRY LANE**
HUDSON, NEW HAMPSHIRE

OWNER OF RECORD:
 HUDSON FIVE, LLC
 31 QUINCY STREET
 NASHUA, NH 03060

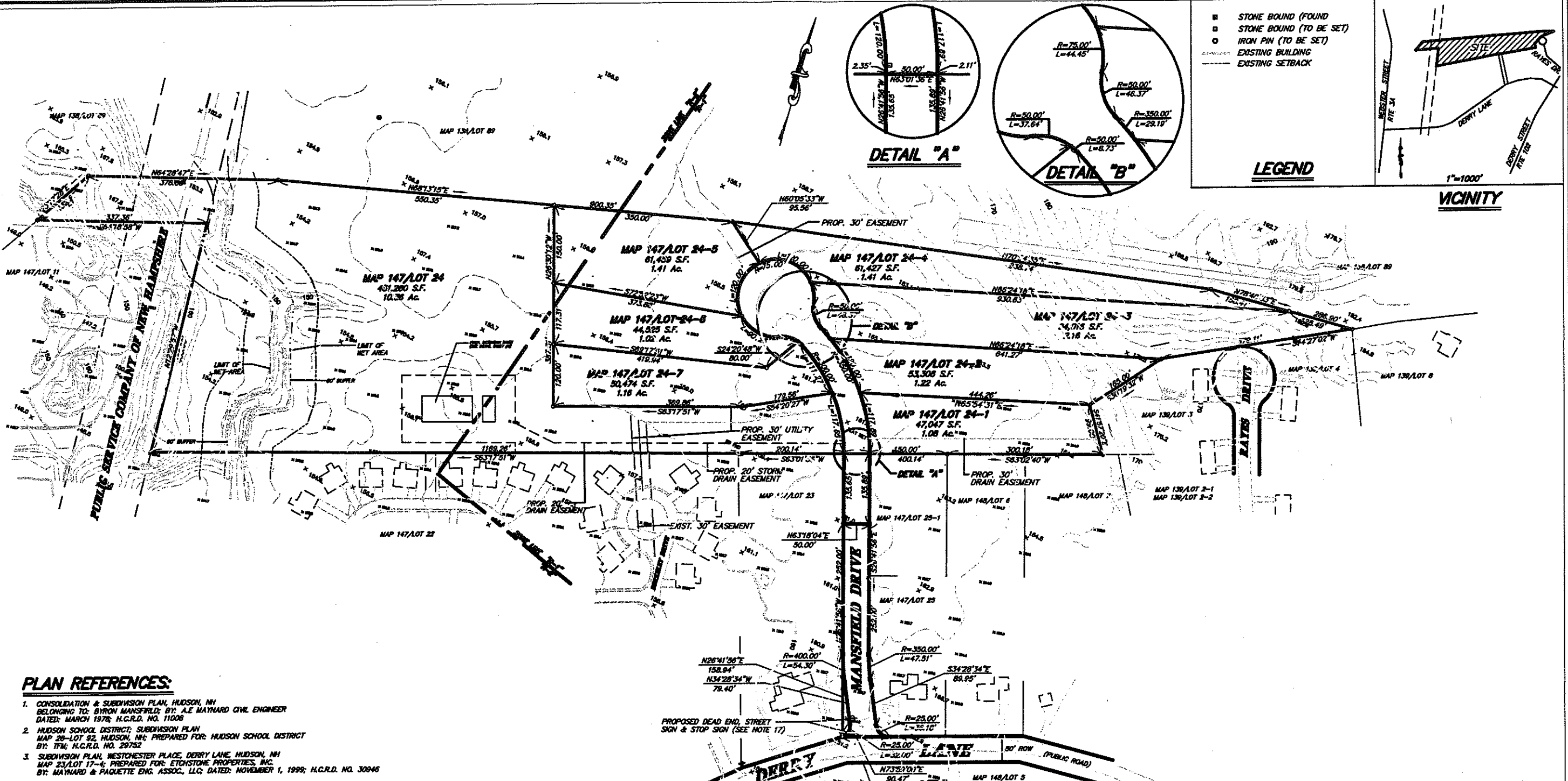
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Maynard & Paquette
Engineering Associates, LLC
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 31 Quincy Street, Nashua, NH 03060
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KPM	APB									12253
DESIGNED	DRAFTED	CHECKED	APPROVED	BOOK & FILE	REVISION	DATE	BY	NO.	JOB NUMBER	

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 MAYNARD & PAQUETTE ENGINEERING ASSOCIATES, LLC
 DWG. 3 OF 11



PLAN REFERENCES:

1. CONSOLIDATION & SUBDIVISION PLAN, HUDSON, NH BELONGING TO: SYRON MANSFIELD, BY: A.E. MAYNARD CIVIL ENGINEER DATED: MARCH 1978; H.C.R.D. NO. 11008
2. HUDSON SCHOOL DISTRICT, SUBDIVISION PLAN MAP 28-Lot 92, HUDSON, NH; PREPARED FOR: HUDSON SCHOOL DISTRICT BY: TFM; H.C.R.D. NO. 28732
3. SUBDIVISION PLAN, WESTCHESTER PLACE, DERRY LANE, HUDSON, NH MAP 23-Lot 17-4; PREPARED FOR: ETONSTONE PROPERTIES, INC. BY: MAYNARD & PAQUETTE ENG. ASSOC., LLC; DATED: NOVEMBER 1, 1998; H.C.R.D. NO. 30946

LOT NUMBER	TOTAL LOT AREA (S.F. / AC.)	WETLANDS (S.F. / AC.)	STEEP SLOPES (S.F. / AC.)	NET CONTIGUOUS BUILDABLE AREA (S.F. / AC.)	FRONTAGE
147/24	451,280 SF	19,500 SF	0	353,381 SF	120 FT.
174/24-1	47,047 SF	0	0	47,047 SF	120 FT.
174/24-2	53,308 SF	0	0	53,308 SF	120 FT.
174/24-3	94,016 SF	0	0	94,016 SF	120 FT.
174/24-4	61,427 SF	0	0	61,427 SF	120 FT.
174/24-5	61,459 SF	0	0	61,459 SF	120 FT.
174/24-6	44,525 SF	0	0	44,525 SF	127.90 FT.
174/24-7	50,474 SF	0	0	50,474 SF	120 FT.

APPROVED BY THE HUDSON, N.H. PLANNING BOARD
 DATE OF MEETING: _____
 SIGNATURE DATE: _____
 SIGNATURE DATE: _____

SUBDIVISIONS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FOR AN APPLICANT TO GAIN AN EXEMPTION FROM ALL SUBSEQUENT CHANGES IN SUBDIVISION REGULATIONS, SITE PLAN REGULATIONS, AND CHANGES TO THE ZONING ORDINANCE, SEE N.H. RSA 674:39

I CERTIFY THAT THIS PLAN WAS PREPARED FROM A FIELD SURVEY LAST MADE ON THE GROUND ON OCTOBER 2017, HAVING A MAXIMUM ERROR OF CLOSURE OF 1:10,000.

DONALD W. ERIC/RICHARD A. MAYNARD
 A/K/A HUDSON FIVE, LLC DATE _____

TOPOGRAPHY PLAN - TAX MAP 147/LOT 24
MANSFIELD DRIVE & DERRY LANE
HUDSON, NEW HAMPSHIRE

PREPARED FOR:
 HUDSON FIVE, LLC
 31 QUINCY STREET
 NASHUA, NH 03060

SCALE: 1" = 100'

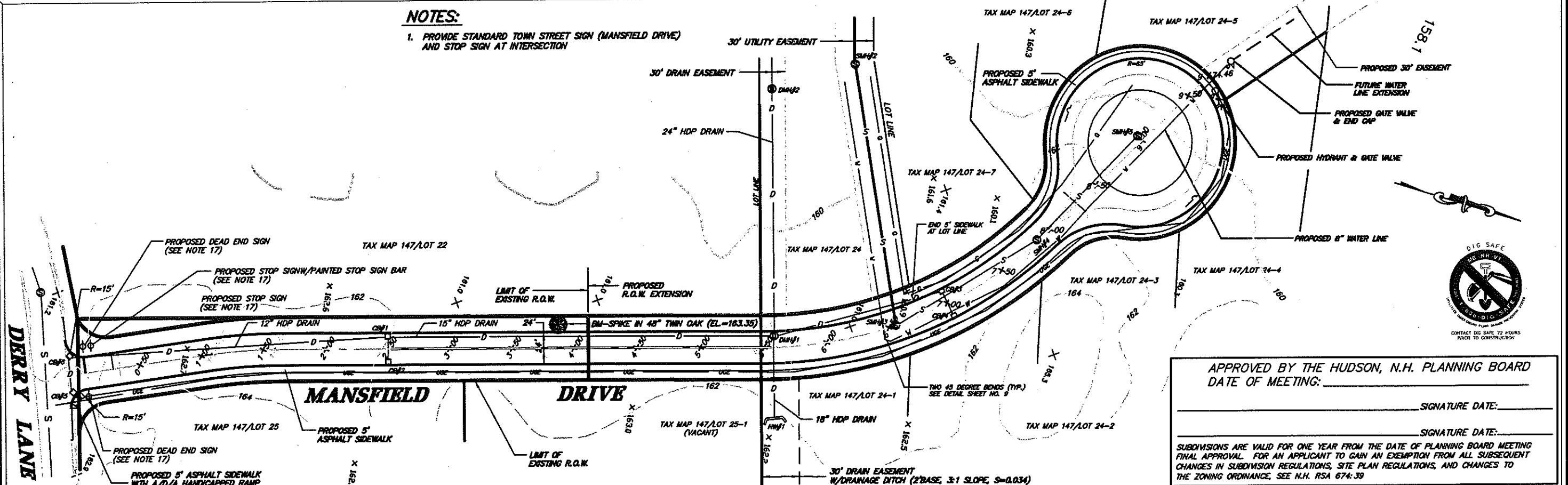
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 Consulting Engineers and Land Surveyors
 31 Quincy Street, Nashua, NH 03060
 Phone: (603)883-8433 Fax: (603)883-7227

NO.	DATE	BY	REVISIONS PER TOWN OF HUDSON COMMENTS DATED 10/30/2018
1	2/20/2019	APB	REVISED EASEMENTS/ADDED SPOT ELEVATIONS
2	11/2/2019	APB	REVISED EASEMENTS/ADDED SPOT ELEVATIONS
3	11/2/2019	APB	REVISED EASEMENTS/ADDED SPOT ELEVATIONS

NOTES:

1. PROVIDE STANDARD TOWN STREET SIGN (MANSFIELD DRIVE) AND STOP SIGN AT INTERSECTION

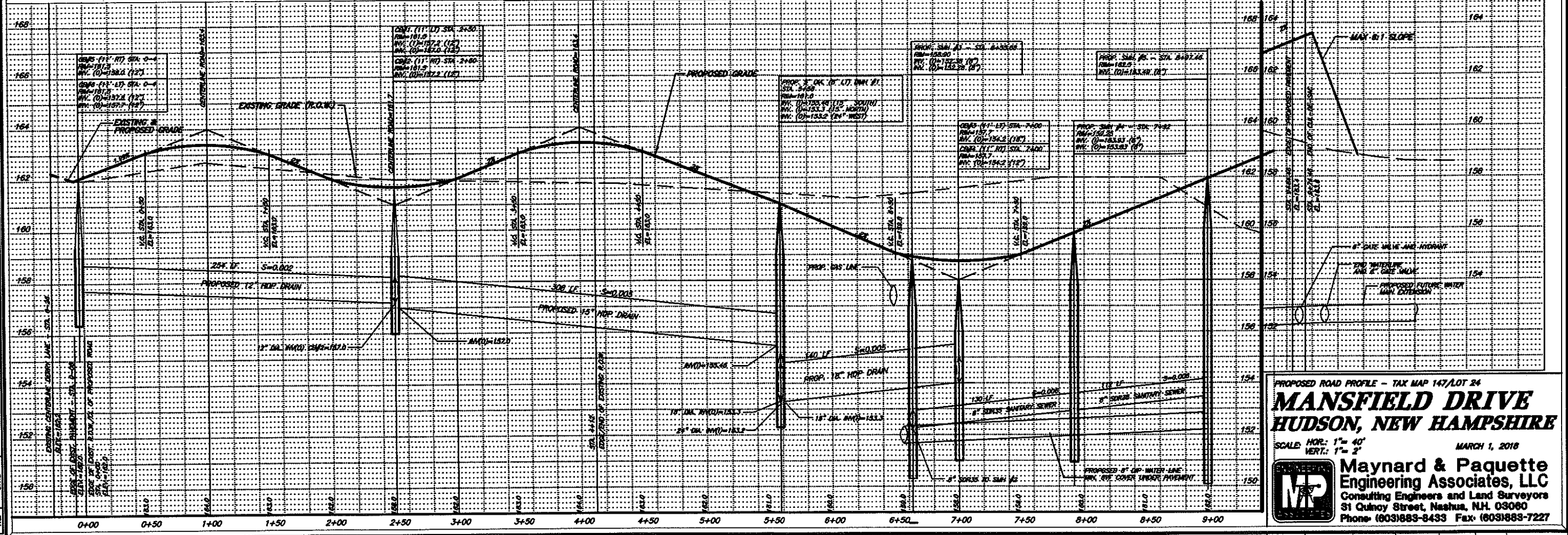


APPROVED BY THE HUDSON, N.H. PLANNING BOARD
DATE OF MEETING: _____

SIGNATURE DATE: _____

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SUBDIVISIONS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FOR AN APPLICANT TO GAIN AN EXEMPTION FROM ALL SUBSEQUENT CHANGES IN SUBDIVISION REGULATIONS, SITE PLAN REGULATIONS, AND CHANGES TO THE ZONING ORDINANCE, SEE N.H. RSA 674:39

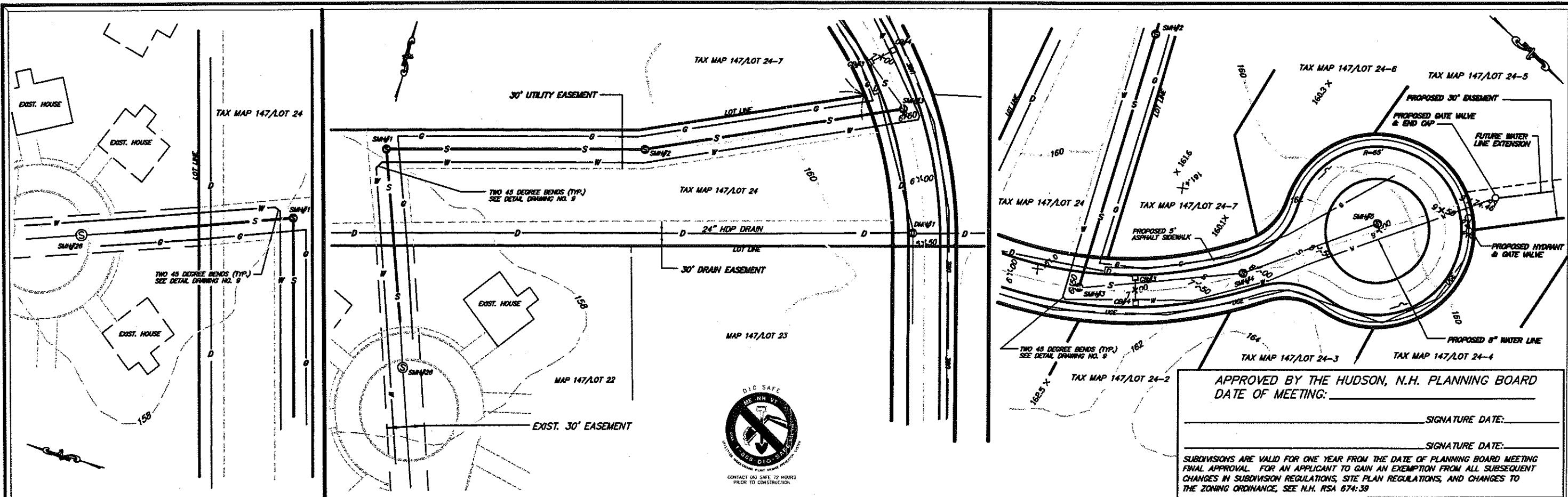


NO.	DATE	REVISION
1	3/20/2018	ADDED SIDEWALK AND ADDITIONAL SIGN
2	3/20/2018	REVISIONS PER TOWN OF HUDSON COMMENTS 10/20/2018
3	3/20/2018	REVISIONS PER TOWN OF HUDSON COMMENTS 10/20/2018
4	3/20/2018	REVISIONS PER TOWN OF HUDSON COMMENTS 10/20/2018
5	3/20/2018	REVISIONS PER TOWN OF HUDSON COMMENTS 10/20/2018
6	3/20/2018	REVISIONS PER TOWN OF HUDSON COMMENTS 10/20/2018
7	3/20/2018	REVISIONS PER TOWN OF HUDSON COMMENTS 10/20/2018
8	3/20/2018	REVISIONS PER TOWN OF HUDSON COMMENTS 10/20/2018
9	3/20/2018	REVISIONS PER TOWN OF HUDSON COMMENTS 10/20/2018
10	3/20/2018	REVISIONS PER TOWN OF HUDSON COMMENTS 10/20/2018

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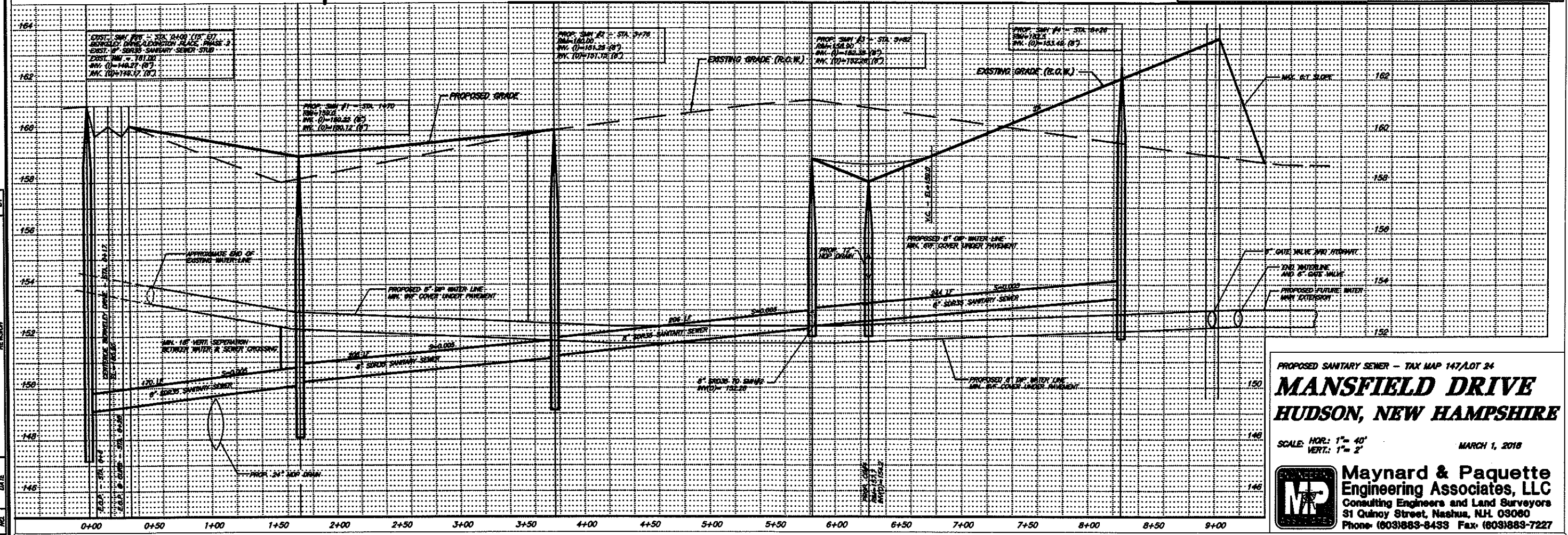
KPM	APB	RAM	2	D	12253
DESIGNED	DRAWN	CHECKED	APPROVED	REVISION	SHEET

5
OF 11



APPROVED BY THE HUDSON, N.H. PLANNING BOARD
 DATE OF MEETING: _____
 SIGNATURE DATE: _____
 SIGNATURE DATE: _____

SUBDIVISIONS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING
 FINAL APPROVAL FOR AN APPLICANT TO GAIN AN EXEMPTION FROM ALL SUBSEQUENT
 CHANGES IN SUBDIVISION REGULATIONS, SITE PLAN REGULATIONS, AND CHANGES TO
 THE ZONING ORDINANCE, SEE N.H. RSA 674:39



NO.	DATE	BY	REVISION
1	3/20/2018	APB	ISSUED PROPOSED WATER LINE - ADDED 45 DEGREE BENDS
2	3/20/2018	APB	REVISIONS PER TOWN OF HUDSON COMMENTS DATED 10/30/2018
3	3/20/2018	APB	REVISIONS PER TOWN OF HUDSON COMMENTS DATED 10/30/2018
4	11/1/2018	APB	REVISED EASEMENT AND INVERTS
5	8/27/2018	APB	REVISIONS PER OLD TOWN OF HUDSON REVIEW COMMENTS

PROPOSED SANITARY SEWER - TAX MAP 147/LOT 24
MANSFIELD DRIVE
HUDSON, NEW HAMPSHIRE

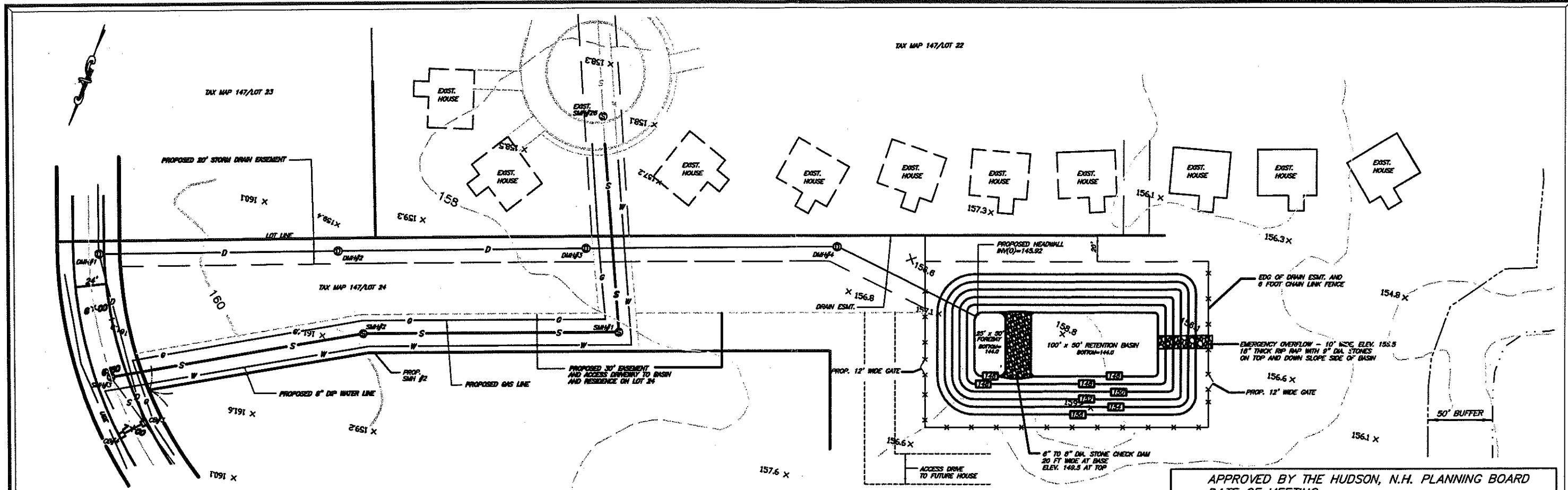
SCALE: HOR: 1" = 40'
 VERT: 1" = 2'

MARCH 1, 2018

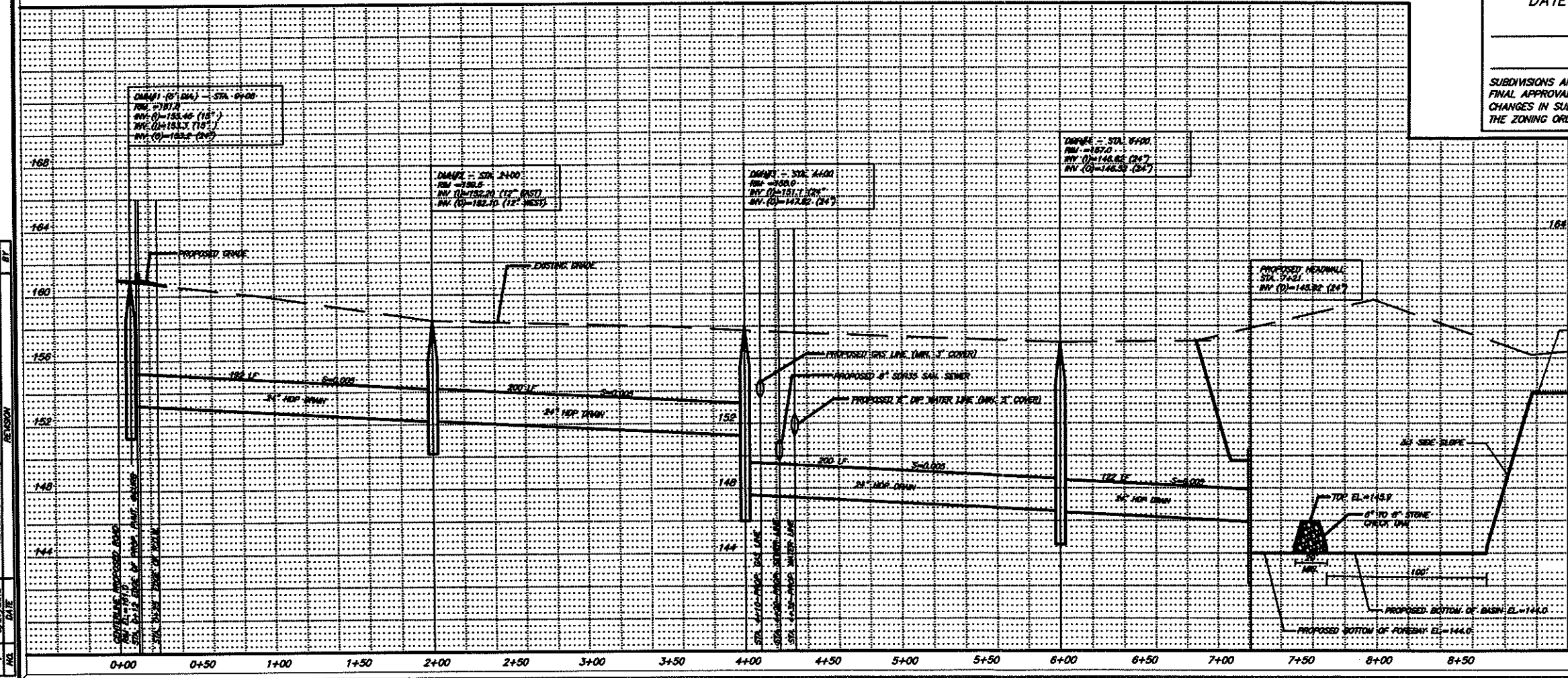
MP Maynard & Paquette
 Engineering Associates, LLC
 Consulting Engineers and Land Surveyors
 51 Quincy Street, Nashua, N.H. 03060
 Phone: (603)883-8433 Fax: (603)883-7227

KPM	APB	RAM	D	12253
DESIGNED	DRAWN	CHECKED	APPROVED	REVISION
				SIZE
				JOB NUMBER

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APPROVED BY THE HUDSON, N.H. PLANNING BOARD
 DATE OF MEETING: _____
 SIGNATURE DATE: _____
 SIGNATURE DATE: _____
 SUBDIVISIONS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING
 FINAL APPROVAL. FOR AN APPLICANT TO GAIN AN EXEMPTION FROM ALL SUBSEQUENT
 CHANGES IN SUBDIVISION REGULATIONS, SITE PLAN REGULATIONS, AND CHANGES TO
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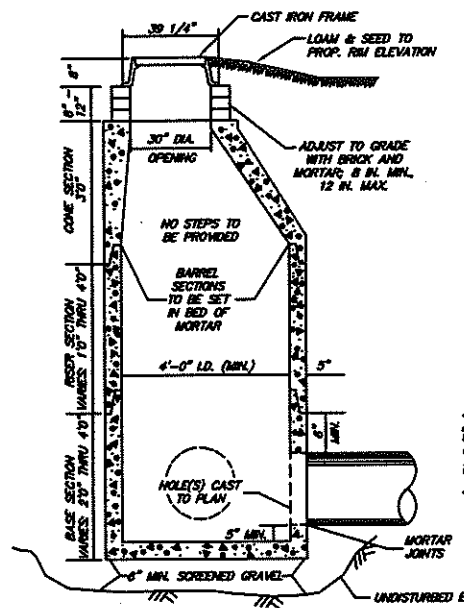
PROPOSED DRAINAGE/RETENTION BASIN - TAX MAP 147/LOT 24
MANSFIELD DRIVE
HUDSON, NEW HAMPSHIRE

SCALE: HOR: 1" = 40'
 VERT: 1" = 4'
 MARCH 1, 2018
Maynard & Paquette
 Engineering Associates, LLC
 Consulting Engineers and Land Surveyors
 31 Quinoy Street, Nashua, N.H. 03060
 Phone: (603)883-8433 Fax: (603)883-7227

NO.	DATE	REVISION	BY
1	3/20/2018	REVISIONS PER TOWN OF HUDSON COMMENTS DATED 3/27/2018	APB
2	3/27/2018	REVISIONS PER TOWN OF HUDSON COMMENTS DATED 10/20/2018	APB
3	11/29/2018	REVISED EASEMENTS AND ADJUSTMENTS	APB
4	11/29/2018	REVISIONS PER C.D./TOWN OF HUDSON REVIEW COMMENTS	APB
5	6/27/2018	REVISION	APB

KPM	APB	RAM	D	12253
DESIGNED	DRAWN	CHECKED	APPROVED	REVISION

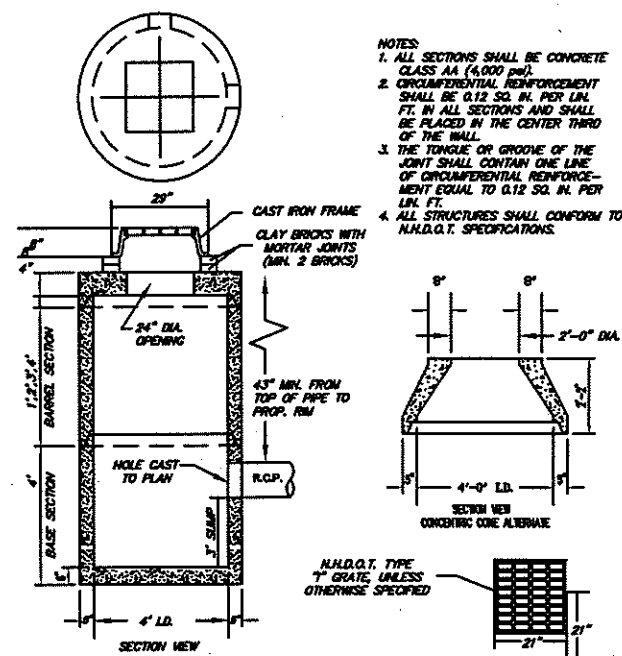
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 NO. 10



STORM DRAIN MANHOLE

N.T.S.

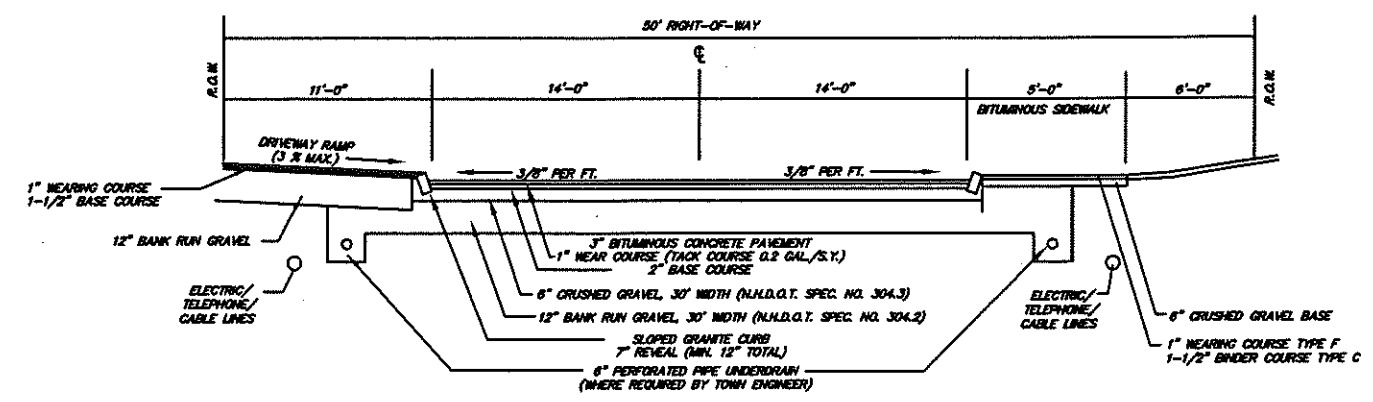
NOTES:
 1. ALL SECTIONS SHALL BE CONCRETE CLASS AA (4,000 PSI).
 2. CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQ. IN. PER LIN. FT. IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.
 3. THE TONGUE OR GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQ. IN. PER LIN. FT.
 4. ALL STRUCTURES SHALL CONFORM TO M.H.D.O.T. SPECIFICATIONS.



CATCH BASIN

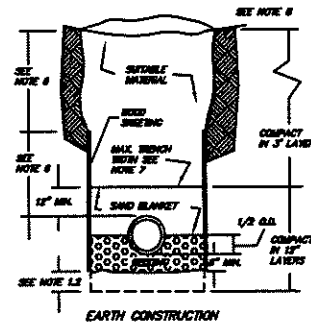
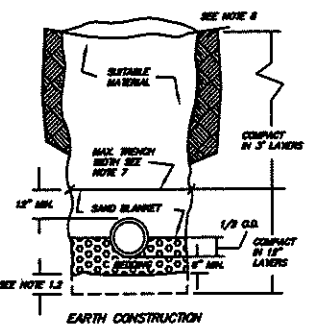
N.T.S.

NOTES:
 1. ALL SECTIONS SHALL BE CONCRETE CLASS AA (4,000 PSI).
 2. CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQ. IN. PER LIN. FT. IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.
 3. THE TONGUE OR GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQ. IN. PER LIN. FT.
 4. ALL STRUCTURES SHALL CONFORM TO M.H.D.O.T. SPECIFICATIONS.



ROADWAY CROSS SECTION

N.T.S.



NOTES: STANDARD TRENCH SECTION

1.0 GENERAL
 1.1 CONTRACTOR IS RESPONSIBLE TO OBTAIN ALL NECESSARY PERMITS FROM LOCAL AUTHORITIES IN CHARGE OF THE PUBLIC RIGHT OF WAY TO BE OBTAINED PRIOR TO START OF CONSTRUCTION.
 1.2 IF UNDESIRABLE LOAD BEARING MATERIAL EXISTS BELOW DESIGN TRENCH EXCAVATION GRADE, OVER EXCAVATION SHALL BE REPAIRED WITH BEARING GRADE MATERIAL AND INDETERMINATELY COMPACTED TO MEET DESIGN REQUIREMENTS.
 2.0 TRENCH AND PIPE INSTALLATION
 2.1 REFER TO PLANS FOR SIZE AND MATERIAL OF PIPE. THE PIPE SHALL BE INSTALLED AND GRADED IN ACCORDANCE WITH INSTALLATION SCHEDULES OF THE APPROPRIATE MANUFACTURER. IT SHALL BE COMPLETELY BEDDED ON A 4 INCH MINIMUM LAYER OF BEDDING SAND. AND/OR CRUSHED STONE PIPE FROM CLAY, LOAM, ORGANIC MATTER AND MIXING WITH COAL DUST. SEE ASH 607 FOR CRUSHED STONE TABLES.
 2.2 THE BEDDING MATERIAL SHALL THEN BE THOROUGHLY TAMPED BY MECHANICAL EQUIPMENT TO THE COMPACTED BEFORE PIPE PLACEMENT. AFTER THE PIPE HAS BEEN SET TO GRADE, ADDITIONAL BEDDING MATERIAL SHALL BE PLACED UP TO THE SPONGE LINE OF THE PIPE. CRUSHED STONE SHALL BE GENERALLY LIMITED TO A MINIMUM OF 18 INCHES ABOVE THE BEDDING UNDER THE LOWER QUADRANTS OF THE PIPE.
 3.0 MANHOLE
 3.1 AS SOON AS PRACTICABLE AFTER THE PIPE HAS BEEN LAID, JOINTS, PROPERLY BEADED (AND BEADED IF REQUIRED) AND RECESSED SHALL BE COVERED WITH BEADED BRICKS OR CONCRETE. EXPEDITIOUSLY.
 3.2 A SAND BLANKET SHALL BE COMPLETELY PLACED IN 6-INCH LAYERS TO A DEPTH OF 18 INCHES OVER THE CROWN OF THE PIPE. EACH LAYER SHALL BE THOROUGHLY COMPACTED WITH MECHANICAL EQUIPMENT WITH CARE TAKEN NOT TO DAMAGE THE PIPE. NEW BACKFILLING SHALL BE CONTINUED WITH SUITABLE MATERIAL IN LAYERS NOT TO EXCEED 3 FT. EXCEPT UNDER OTHERWISE REQUIRED BY PIPE CONTRACTOR STANDARDS AND THE UPPER LIMIT OF SUITABLE MATERIAL BACKFILL WILL BE IN ACCORDANCE WITH LOCATION OF TRENCH. REFER TO PLANS FOR CROSS-COUNTRY OR ROADWAY LOCATIONS. REFER TO TRENCH ROADWAY CROSS SECTION DETAIL WHERE REQUIRED.
 3.4 SETTLEMENT MARKING IN ROADWAY SHOULDERS, TRAILWAYS AND DRIVEWAYS FOR TRENCH BACKFILL SHALL BE MAINTAINED THROUGHOUT THE COURSE OF CONSTRUCTION. BUT SHALL EXCLUDE BENCH MARKS OF PERMANENT CHARACTER. ALL BENCH OR POINT MARKS OF CLAY, ALL EXCAVATED LINDER MATERIAL, AND ALL RODS OVER 3/4 INCH IN LARGEST DIMENSION OF AND NOT MATERIAL SHALL BE DETERMINED BY THE TOWN/CITY ENGINEER. WILL NOT PROVIDE SUPPORT OR BACKFILL TO MAINTAIN THE COMPLETED CONSTRUCTION IN A STABLE CONDITION.

STANDARD TRENCH SECTION

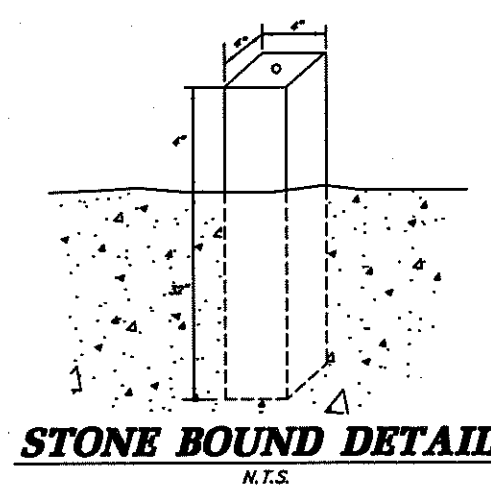
N.T.S.

APPROVED BY THE HUDSON, N.H. PLANNING BOARD
 DATE OF MEETING: _____

 SIGNATURE DATE: _____

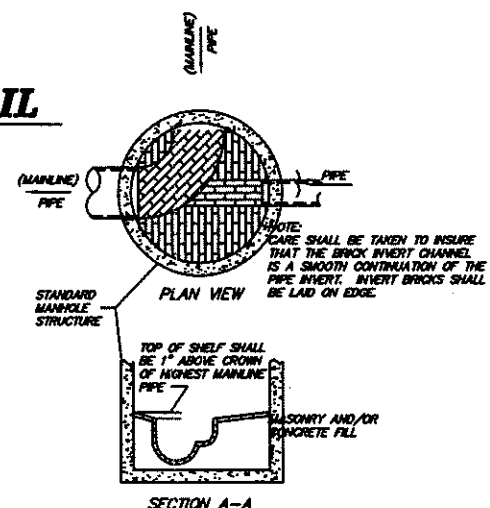
 SIGNATURE DATE: _____

SUBDIVISIONS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL FOR AN APPLICANT TO GAIN AN EXEMPTION FROM ALL SUBSEQUENT CHANGES IN SUBDIVISION REGULATIONS, SITE PLAN REGULATIONS, AND CHANGES TO THE ZONING ORDINANCE, SEE N.H. RSA 676:30



STONE BOUND DETAIL

N.T.S.

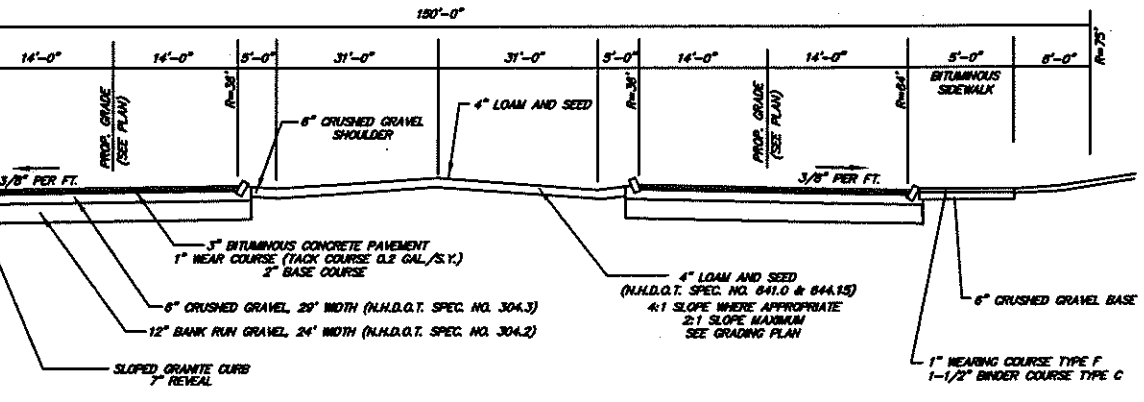


NOTES: STANDARD MANHOLE

1.0 INVERTS AND SHELVES: MANHOLES SHALL HAVE A BRICK PAVED SHELF AND INVERT CONSTRUCTED TO CONFORM TO THE SIZE OF PIPE AND FLOW AT CHANGES IN DIRECTION. THE INVERTS SHALL BE LAID OUT IN CURVES OF THE LONGEST RADIUS POSSIBLE TANGENT TO THE CENTER LINE OF THE SENDER PIPES. SHELVES SHALL BE CONSTRUCTED TO THE ELEVATION OF THE HIGHEST PIPE CROWN AND SLOPE TO DRAIN TOWARD THE FLOWING THROUGH CHANNEL. UNDERLAYMENT OF INVERT AND SHELF SHALL CONSIST OF BRICK MASONRY.

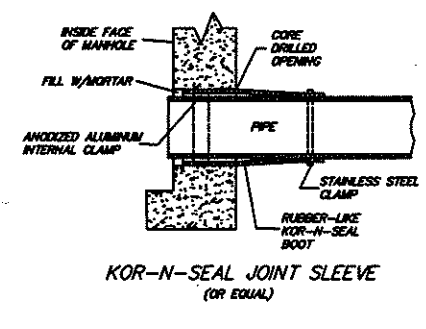
SANITARY MH INVERT CHANNEL AND PIPE SLEEVE

N.T.S.



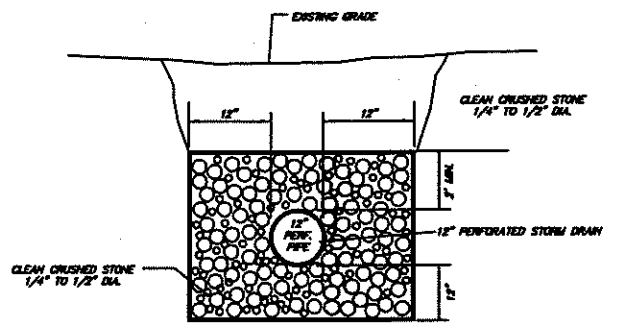
TYPICAL ROADWAY CROSS SECTION AT CUL-DE-SAC

N.T.S.



NOTES: MANHOLE DETAILS

1) ALL GASKETS, SEALANTS, MORTAR, ETC. SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
 2) FOR BITUMASTIC TYPE JOINTS THE AMOUNT OF SEALANT SHALL BE SUFFICIENT TO FILL AT LEAST 75% OF THE JOINT CAVITY.
 APPROVED BITUMASTIC SEALANTS:
 RAM-NEX
 KENT SEAL NO. 2
 3) PIPE TO MANHOLE JOINTS SHALL BE AS FOLLOWS:
 (A) ELASTOMERIC RUBBER SLEEVE WITH WATERTIGHT JOINTS AT THE MANHOLE OPENING AND PIPE SURFACES.
 (B) JOINTS AT THE MANHOLE MAY BE CAST INTO WALL OR SECURED WITH STAINLESS STEEL CLAMPS. JOINTS AT THE PIPE SHALL BE SECURED WITH STAINLESS STEEL CLAMPS.
 (C) ELASTOMERIC SEALING RING CAST IN THE MANHOLE OPENING WITH SEAL FORMED ON THE SURFACE OF THE PIPE BY COMPRESSION OF THE RING.
 (D) NON-SHRINK GROUTED JOINTS WHERE WATERTIGHT BONDING TO THE MANHOLE AND PIPE CAN BE OBTAINED.



PERFORATED STORM DRAIN

N.T.S.

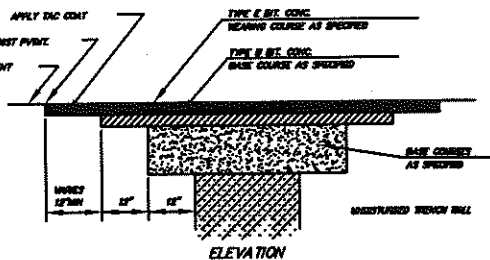
CONSTRUCTION DETAILS - TAX MAP 147/LOT 24
MANSFIELD DRIVE
HUDSON, NEW HAMPSHIRE

SCALE: N.T.S. MARCH 1, 2018

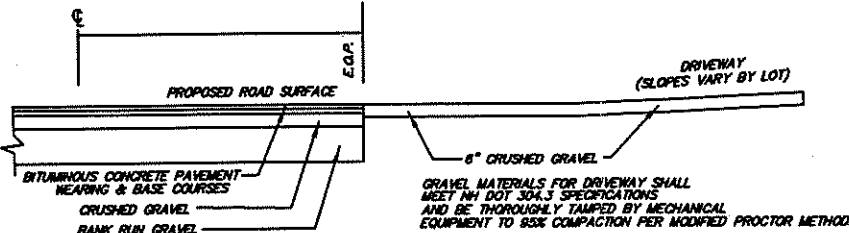
Maynard & Paquette
 Engineering Associates, LLC
 Consulting Engineers and Land Surveyors
 31 Conway Street, Nashua, N.H. 03060
 Phone: (603)883-8433 Fax: (603)883-7227

KPM	APB	RAM	3	D	12253
DESIGNED	DRAFTED	CHECKED	APPROVED	REVISION	SIZE

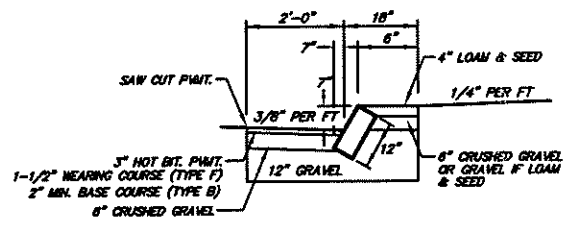
© COPYRIGHT, ALL RIGHTS RESERVED 2018
 MANSFIELD DRIVE TAX MAP 147/LOT 24
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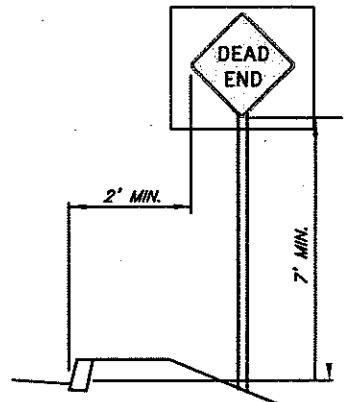
- NOTES: REFERENCE CONNECTION IN EXISTING PAVED PUBLIC ROY
- GENERAL
 - CONTRACTOR IS RESPONSIBLE TO MAKE ALL PROPER ADJUSTMENTS TO UTILITIES AND OBTAIN REQUIRED PERMITS FROM GOVERNMENTAL AGENCIES IN CHARGE OF THE PUBLIC RIGHT-OF-WAY TO BE OBTAINED PRIOR TO START OF CONSTRUCTION.
 - CUTTING AND REPAIRING PAVEMENT
 - PAVEMENT REPAIRS SHALL BE FINISHED.
 - PAVEMENT AHEAD OF THE EXCAVATION SHALL BE SAW CUT BEFORE BREAKING AND REPAIRING IT WITHIN THE EXCAVATION LIMITS.
 - SHOULDER AND PAVEMENT REPAIRS SHALL BE DONE SO AS TO PRODUCE CLEAN, IMPROVED SURFACES WITHOUT DAMAGE TO THE EXISTING PAVEMENT AND/OR UNDERDRYING BY WRENCH EXCAVATION.
 - WRENCH EXCAVATION
 - THE CONTRACTOR SHALL FURNISH, PUT IN PLACE, AND MAINTAIN SKEWERS AND BRACING AS REQUIRED TO SUPPORT THE SIDES OF THE EXCAVATION TO PREVENT LOSS OF BRACING WHICH COULD DAMAGE OR DELAY SIDE-OF-EXCAVATION ADJACENT STRUCTURES OR OTHER UNDERDRYING OF EXISTING PAVEMENT.
 - ALL APPROPRIATE STEPS SHALL BE TAKEN BY CONTRACTOR TO RETURN THE WRENCH.
 - PIPE INSTALLATION AND REPAIRS
 - REFER TO PLANS FOR SIZE AND MATERIAL OF PIPE AND STANDARD WRENCH SECTION DETAIL FOR BRACING.
 - BRACING
 - AS SOON AS FEASIBLE AFTER THE PIPE HAS BEEN LAID, JOISTS, PROPERLY BEDED (AND TESTED IF REQUIRED) SHOULDERING SHALL BE SHOWN AND THEREAFTER BE PROSECUTED THEREAFTER.
 - BRACING OF THE NUMBER OF THE WRENCH TO BE IN ACCORDANCE WITH THE STANDARD WRENCH SECTION DETAIL.
 - PAVEMENT REPLACEMENT



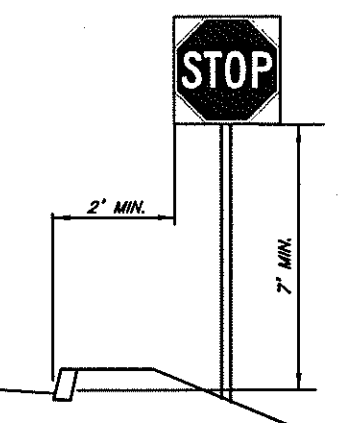
TYPICAL DRIVEWAY SECTION
N.T.S.



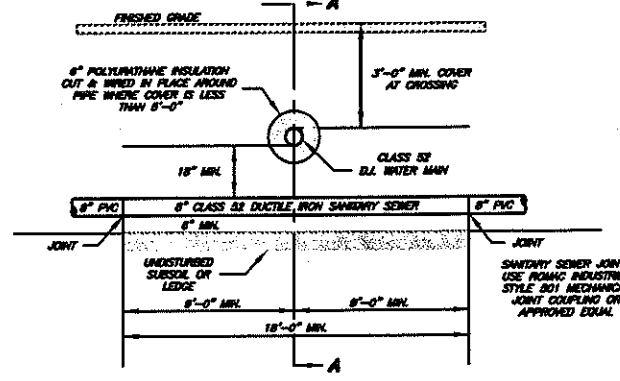
SLOPED GRANITE CURB DETAIL
N.T.S.



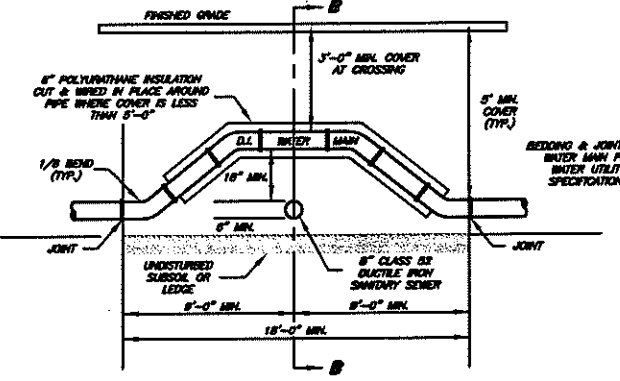
DO NOT ENTER SIGN DETAIL
N.T.S.



STOP SIGN DETAIL
N.T.S.



SECTION B-B

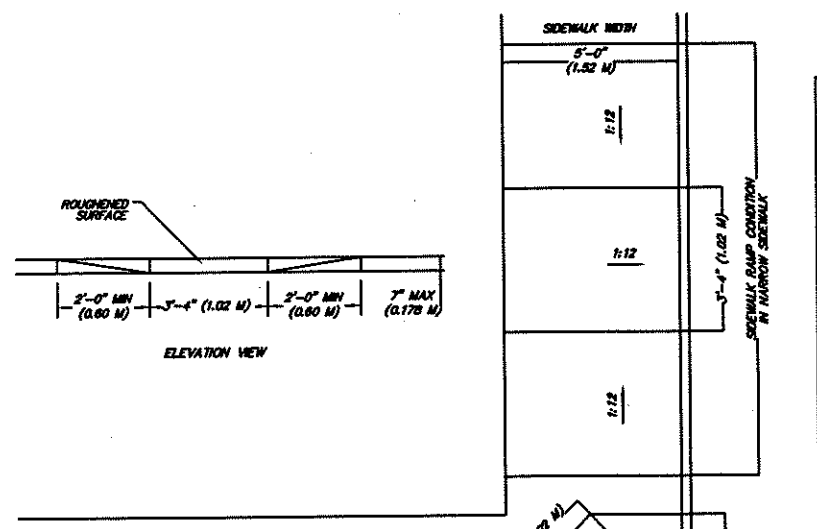


SECTION A-A

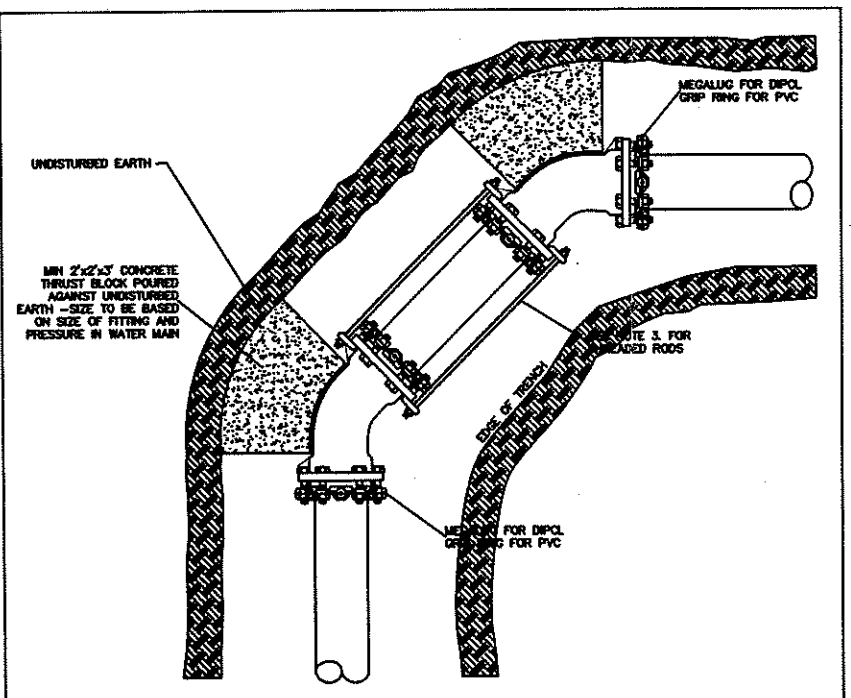
- NOTES:
- THE CONTRACTOR SHALL CONTACT "DIG SAFE" TO HAVE ALL EXISTING UTILITIES LOCATED AT LEAST 72 HOURS PRIOR TO CONSTRUCTION WITHIN A PUBLIC RIGHT-OF-WAY.
 - A 10 FOOT HORIZONTAL SEPARATION BETWEEN WATER LINE AND SANITARY SEWER LINE OR 18 INCH VERTICAL SEPARATION ON CROSSINGS ARE REQUIRED.
 - WHENEVER A SANITARY SEWER LINE CROSSES A WATER LINE WITHIN 18 INCHES OF VERTICAL ELEVATION, THE SEWER LINE SHALL BE CLASS III DUCTILE IRON PIPE FOR A MINIMUM DISTANCE OF 8 FEET EACH SIDE OF THE CROSSING. THE SEWER SHALL ALSO MEET THE REQUIREMENTS OF ENR-96 740.00(4)(2) WHICH STATES THAT THERE BE NO LOWERS AT 25 PSI AT THE WATER/SEWER CROSSING.
 - ALL CONSTRUCTION WITHIN THE PUBLIC RIGHT-OF-WAY SHALL CONFORM TO CURRENT CITY/TOWN SPECIFICATIONS.

SEWER-WATER CROSSING
N.T.S.

PAVEMENT PATCH DETAIL WITHOUT OVERLAY



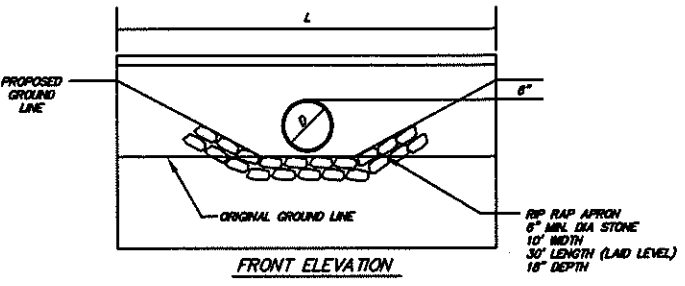
HANDICAPPED RAMP DETAIL
- N.T.S. -



- NOTES:
- ALL MATERIAL AND INSTALLATION PROCEDURES WILL CONFORM TO PERMITS, TECHNICAL SPECIFICATIONS.
 - ALL PIPE SHOULD HAVE A MINIMUM DEPTH 6'-0" FROM TOP OF PIPE TO FINISH GRADE.
 - 3/4" S.S. RODS SHALL BE USED IN CONJUNCTION WITH REQUIRED S.S. WELLS. RODS ARE TO BE ATTACHED TO FITTINGS WITH EITHER 10" FITTING OR WALLS - (2) 3/4" S.S. RODS & ANCHOR HARDWARE. 12" FITTING OR LARGER - (4) 3/4" S.S. RODS & ANCHOR HARDWARE.
 - MIN 2" x 2" CONCRETE THURST BLOCK POURED AGAINST UNDISTURBED EARTH - SEE TO BE BASED ON SIZE OF FITTING AND PRESSURE IN WATER MAIN.



DETAIL
TYP. 2-45' REMOS INSTALLATION
PENNICHUOK WATER WORKS, INC.
REV: 03-19 SCALE: N.T.S.



FIELD STONE MASONRY & CONCRETE HEADWALL
N.T.S.

APPROVED BY THE HUDSON, N.H. PLANNING BOARD
DATE OF MEETING: _____

SIGNATURE DATE: _____



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CONSTRUCTION DETAILS - TAX MAP 147/LOT 24
MANSFIELD DRIVE
HUDSON, NEW HAMPSHIRE

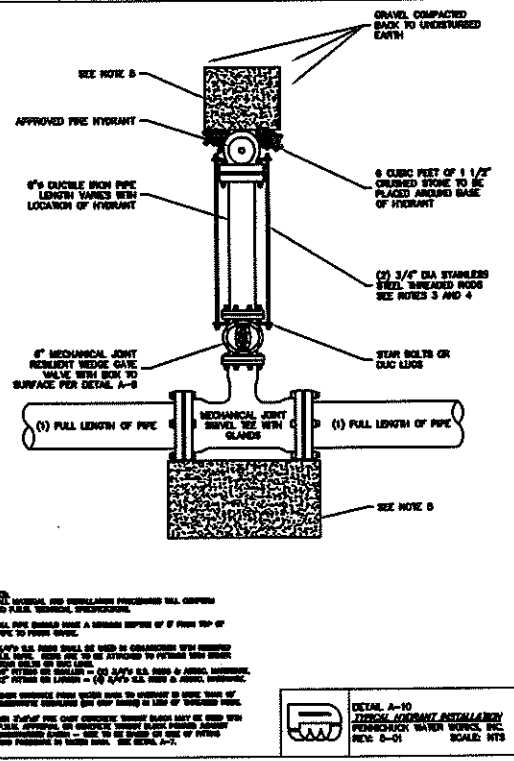
SCALE: N.T.S. MARCH 1, 2018

Maynard & Paquette
Engineering Associates, LLC
Consulting Engineers and Land Surveyors
31 Quincy Street, Nashua, NH 03060
Phone: (603)883-8433 Fax: (603)883-7227

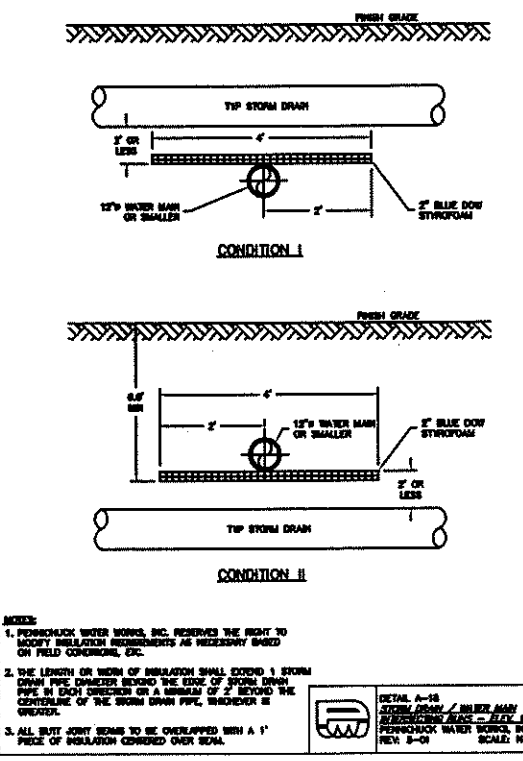
KPM	APB	RAM	D	12253
DESIGNED	DRAFTED	CHECKED	APPROVED	REVISION
			SIZE	JOB NUMBER

3/20/2018	ADDED HANDICAPPED RAMP & WATER LINE AS EXISTING AND DETAILS	APR
3/20/2018	REVISIONS PER TOWN ENGINEER COMMENTS DATED 10/20/2018	APR
10/27/2018	ADDED THURST BLOCK & DO NOT ENTER SIGN DETAILS	APR
	REVISION	BT

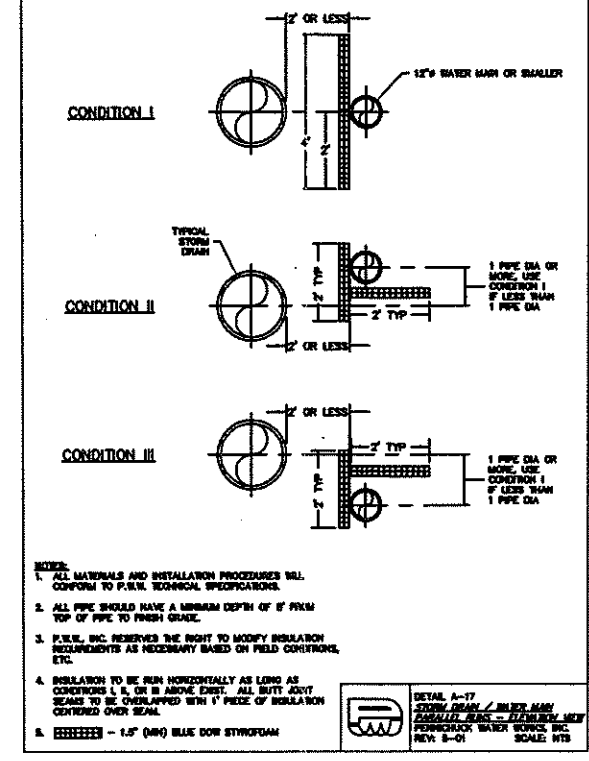
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MANSFIELD DRIVE & CONCRETE HEADWALL
FIELD STONE MASONRY & CONCRETE HEADWALL PERMITTED



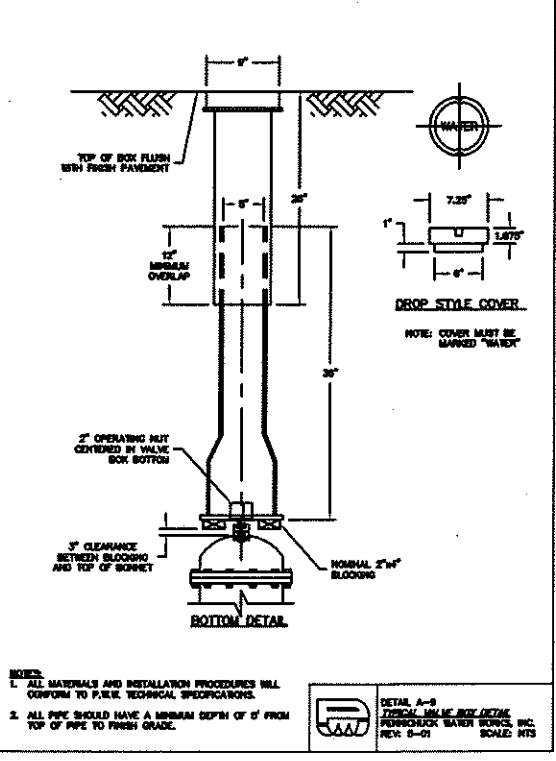
- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO P.E.N. TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 6" FROM TOP OF PIPE TO FINISH GRADE.
 3. APPROVED FIRE HYDRANT SHALL BE APPROVED BY THE FIRE DEPARTMENT. THE HYDRANT SHALL BE APPROVED TO PERFORM THE FUNCTION OF THE HYDRANT - (SEE STATE AND LOCAL ORDINANCES). THE HYDRANT SHALL BE APPROVED TO PERFORM THE FUNCTION OF THE HYDRANT - (SEE STATE AND LOCAL ORDINANCES).
 4. WHEN SERVICE ENTRIES ARE MADE TO THE METER, THE CROSSING MUST BE AT A RIGHT ANGLE TO THE WATER SERVICE.
 5. THE SERVICE ENTRIES TO THE METER SHALL BE APPROVED BY THE FIRE DEPARTMENT. THE HYDRANT SHALL BE APPROVED TO PERFORM THE FUNCTION OF THE HYDRANT - (SEE STATE AND LOCAL ORDINANCES).



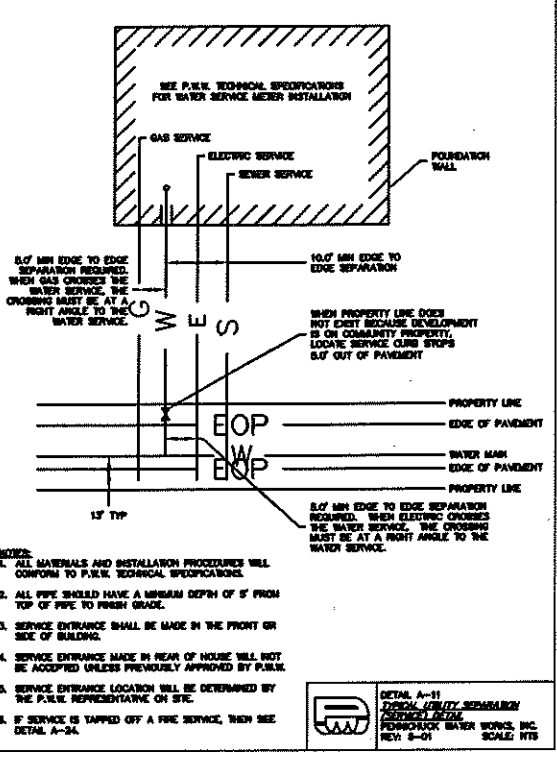
- NOTES:**
1. PERKINS & WATSON, INC. RESERVES THE RIGHT TO MODIFY INSULATION REQUIREMENTS AS NECESSARY BASED ON FIELD CONDITIONS, ETC.
 2. THE LENGTH OR WIDTH OF INSULATION SHALL COVER 1 STORM DRAIN PIPE DIAMETER BEYOND THE EDGE OF STORM DRAIN PIPE IN EACH DIRECTION OR A MINIMUM OF 2\"/>



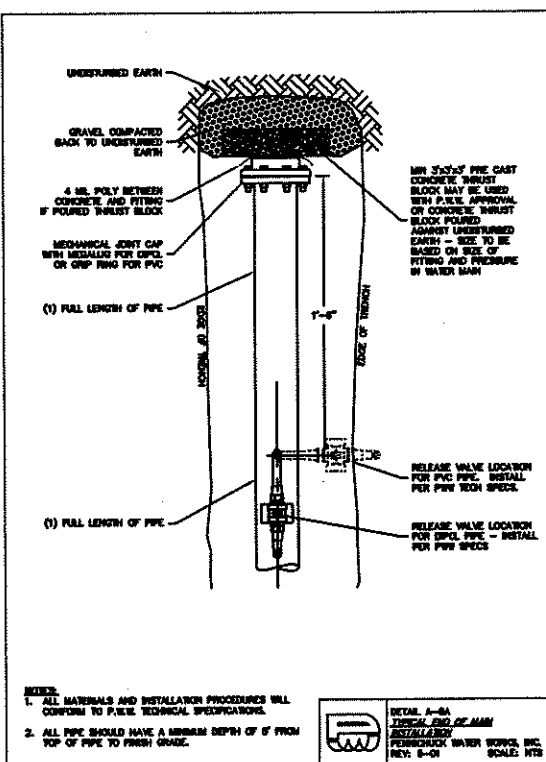
- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO P.E.N. TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 6" FROM TOP OF PIPE TO FINISH GRADE.
 3. PERKINS & WATSON, INC. RESERVES THE RIGHT TO MODIFY INSULATION REQUIREMENTS AS NECESSARY BASED ON FIELD CONDITIONS, ETC.
 4. INSULATION TO BE RUN HORIZONTALLY AS LONG AS CONDITIONS I, II, OR III ABOVE EXIST. ALL BUTT JOINT SEAMS TO BE OVERLAPPED WITH 1\"/>



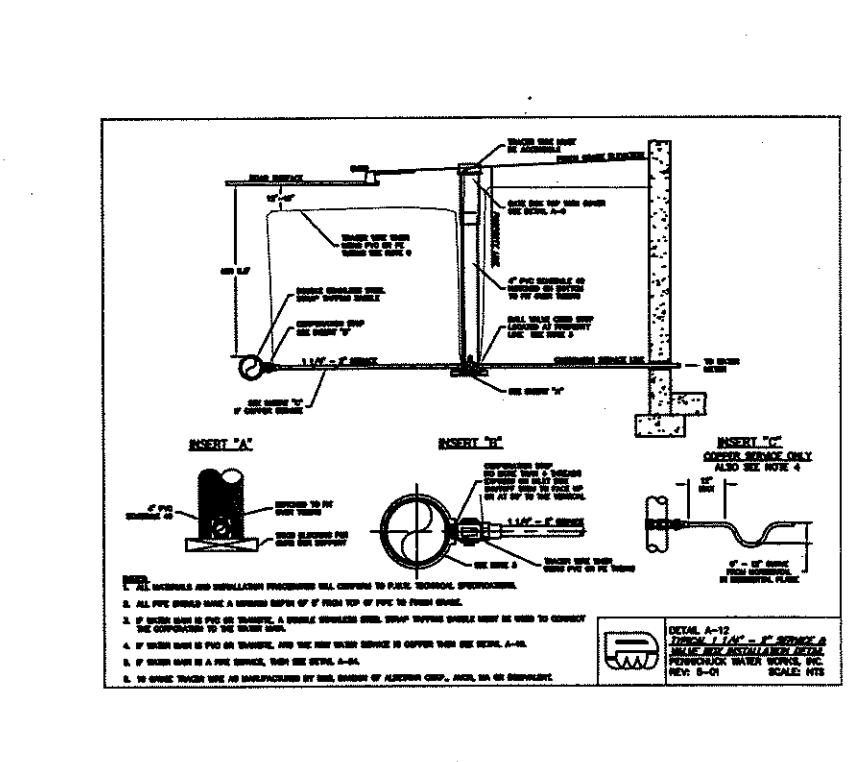
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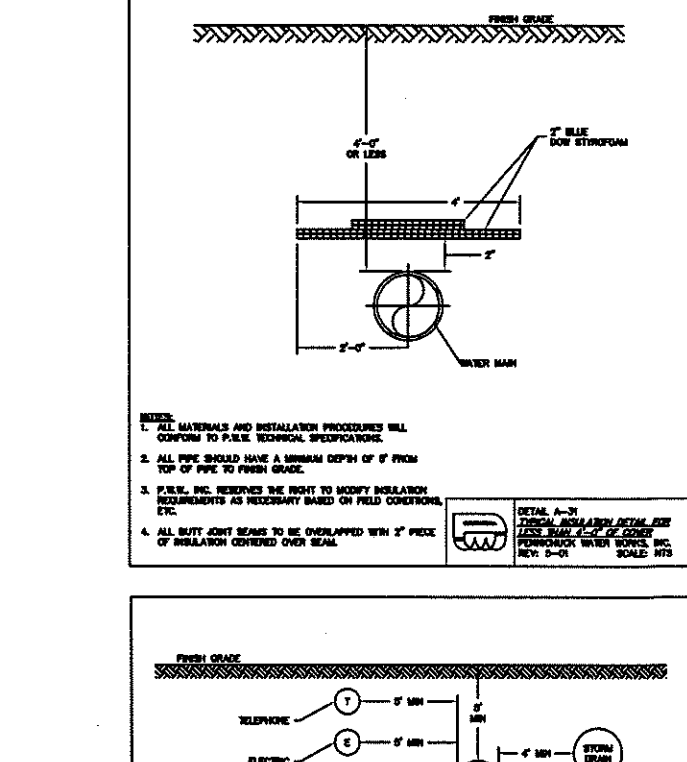
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 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 6" FROM TOP OF PIPE TO FINISH GRADE.
 3. SERVICE ENTRANCE SHALL BE MADE IN THE FRONT OR SIDE OF BUILDING.
 4. SERVICE ENTRANCE MADE IN REAR OF HOUSE WILL NOT BE ACCEPTED UNLESS PREVIOUSLY APPROVED BY P.E.N.
 5. SERVICE ENTRANCE LOCATION WILL BE DETERMINED BY THE P.E.N. REPRESENTATIVE ON SITE.
 6. IF SERVICE IS TAPPED OFF A FIRE SERVICE, THEN SEE DETAIL A-24.



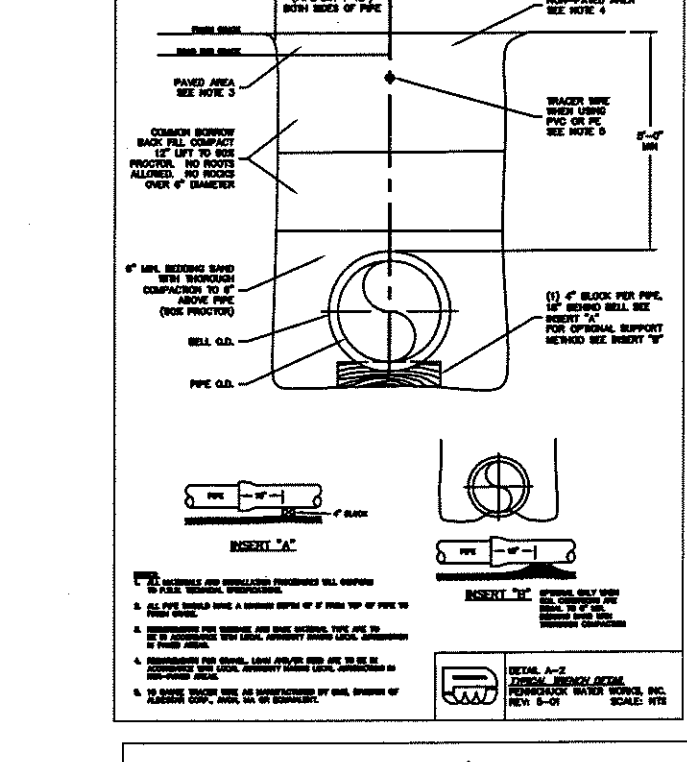
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 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 6" FROM TOP OF PIPE TO FINISH GRADE.
 3. IF SERVICE ENTRIES ARE MADE TO THE METER, THE CROSSING MUST BE AT A RIGHT ANGLE TO THE WATER SERVICE.
 4. IF SERVICE ENTRIES ARE MADE TO THE METER, THE CROSSING MUST BE AT A RIGHT ANGLE TO THE WATER SERVICE.
 5. TO SERVICE TRUCK USE AN UNAPPROVED BY THIS DIVISION OF ALBERTSON COP., A/C, OR UNAPPROVED.



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APPROVED BY THE HUDSON, N.H. PLANNING BOARD.
DATE OF MEETING: _____
SIGNATURE DATE: _____
SIGNATURE DATE: _____
SUBDIVISIONS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FOR AN APPLICANT TO GAIN AN EXEMPTION FROM ALL SUBSEQUENT CHANGES IN SUBDIVISION REGULATIONS, SITE PLAN REGULATIONS, AND CHANGES TO THE ZONING ORDINANCE, SEE N.H. RSA 674:39



CONSTRUCTION DETAILS - TAX MAP 147/LOT 24
MANSFIELD DRIVE
HUDSON, NEW HAMPSHIRE
SCALE: N.T.S. MARCH 1, 2018
Maynard & Paquette
Engineering Associates, LLC
Consulting Engineers and Land Surveyors
31 Quincy Street, Nashua, NH 03060
Phone: (603)883-8433 Fax: (603)883-7227

KPM	APB	RAM	D	12253
DESIGNED	DRAWN	CHECKED	APPROVED	REVISION

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 MAYNARD & PAQUETTE ENGINEERING ASSOCIATES, LLC
 31 QUINCY STREET, NASHUA, NH 03060
 DMC: MC 11

CONSTRUCTION NOTES

A. GENERAL
EROSION AND SEDIMENT CONTROL PRACTICES INCLUDE THE USE OF THE FOLLOWING:
STRAW BALE BARRIERS, SILT SCREEN FENCES, TEMPORARY SEDIMENTATION BASINS, PERMANENT DETENTION/SEDIMENTATION BASINS, GRASS AND/OR ROCK LINED SWALES, DIVERSIONS WITH LEVEL SPREADERS.

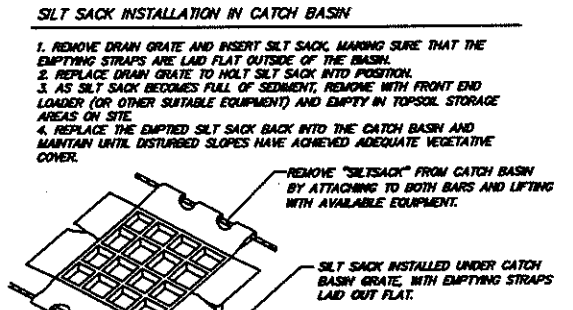
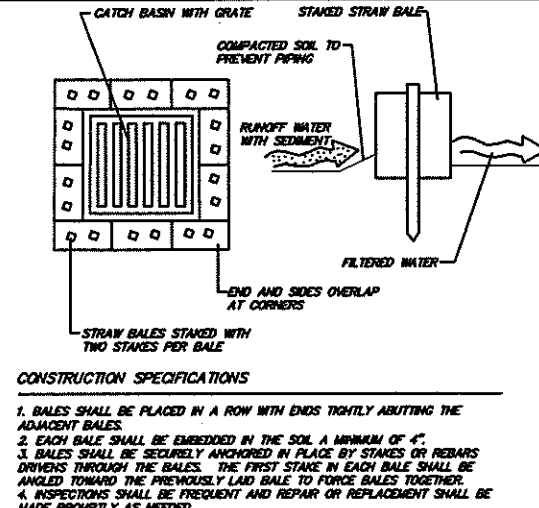
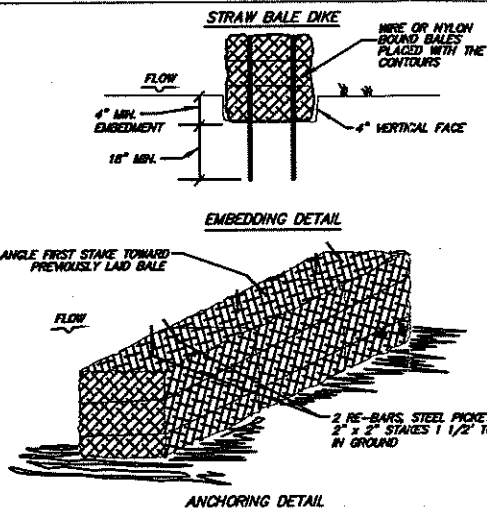
- 1. ALL PERMANENT AND TEMPORARY EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH "STORM WATER MANAGEMENT AND EROSION AND SEDIMENT CONTROL HANDBOOK FOR URBAN AND DEVELOPING AREAS OF NEW HAMPSHIRE, AUGUST 1992...
2. ALL CONSTRUCTION ACTIVITY SHALL BE DONE IN COMPLIANCE WITH THE EPA'S PHASE II STORM WATER REGULATIONS...
3. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
a. BASE COURSE GRAVELS HAVE BEEN INSTALLED...
b. A MINIMUM OF 60% VEGETATED GROWTH HAS BEEN ESTABLISHED...
c. A MINIMUM OF 3" OF NON-EROSIVE MATERIAL...
4. WINTER CONSTRUCTION:
a. ALL PROPOSED VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 60% VEGETATIVE GROWTH...
b. ALL TRENCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 60% VEGETATIVE GROWTH...
c. AFTER INCORPORATE ROAD AND/OR PAVING SURFACES...
5. THE SMALLEST PRACTICAL AREA OF LAND NECESSARY FOR ROAD AND LOT DEVELOPMENT SHALL BE EXERCISED AT ONE TIME...

D. MULCHING: MULCH SHOULD BE USED ON HIGHLY ERODIBLE SOILS, ON CRITICALLY ERODING AREAS, AND ON AREAS WHERE CONSERVATION OF MOISTURE WILL FACILITATE PLANT ESTABLISHMENT.

Table with columns: TYPE, RATE/100 S.F., USE AND COMMENTS. Rows include HAY OR STRAW, WOOD CHIPS/BARK, JUTE AND FIBROUS MATTING, CRUSHED STONE.

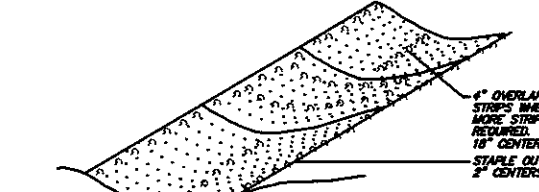
E. SOODING: SOODING IS DONE WHERE IT IS DESIRABLE TO RAPIDLY ESTABLISH COVER ON A DISTURBED AREA... SOODING ON AN AREA MAY BE SUBSTITUTED FOR PERMANENT SEEDING PROCEDURES ANYWHERE ON SITE...

D. MAINTENANCE
DURING THE PERIOD OF CONSTRUCTION AND/OR UNTIL LONG TERM VEGETATION IS ESTABLISHED,
1. SEEDING AREAS WILL BE FERTILIZED AND SEEDING AS NECESSARY TO INSURE VEGETATIVE ESTABLISHMENT...



- CONSTRUCTION SPECIFICATIONS
1. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ADJUTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4".
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY STAPLES OR REBARS DRIVEN THROUGH THE BALES...
4. INSPECTIONS SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPED STORM FLOW OR DRAINAGE.

- INSTALLATION NOTES
1. STRAW BALES MAY BE USED AROUND CATCH BASINS PRIOR TO THE BASE COAT PAVING OPERATIONS. STRAW BALES SHALL NOT BE USED AS A TEMPORARY EROSION CONTROL MEASURE FOR CATCH BASINS AFTER BASE COAT PAVING.
2. SILT SACKS MAY BE USED PRIOR TO FINAL PAVING AND MUST BE INSTALLED IN ALL CATCH BASINS AFTER FINAL PAVING. SILT SACKS TO BE MAINTAINED IN PLACE UNTIL ALL DISTURBED AREAS HAVE BEEN STABILIZED.



SITE MAINTENANCE AND INSPECTION PROGRAM

- 1. INSPECTIONS
THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES THROUGHOUT THE DURATION OF THE CONSTRUCTION PROJECT.
1. CLEANING OF CATCH BASINS TWICE PER YEAR OR MORE FREQUENTLY AS DICTATED BY QUARTERLY INSPECTIONS AND/OR AFTER SIGNIFICANT RAINFALL EVENTS.
2. CLEANING OF SEDIMENT OR DEBRIS FROM STORM WATER MANAGEMENT AREA INLETS TWICE PER YEAR OR MORE FREQUENTLY AS DICTATED BY QUARTERLY INSPECTIONS AND/OR AFTER SIGNIFICANT RAINFALL EVENTS.
3. FIELD SITE INSPECTIONS TO DETERMINE/IMPLEMENT NECESSARY REPAIR AND MAINTENANCE ACTIVITIES.

GOOD HOUSEKEEPING PRACTICES

- THE CONTRACTOR SHALL EMPLOY MEASURES AND PRACTICES TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS TO STORM WATER RUNOFF...
1. AN EFFORT SHALL BE MADE TO STORE ONLY ENOUGH PRODUCT REQUIRED FOR THIS SPECIFIC SITE.
2. ALL MATERIALS STORED ON SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR ORIGINAL CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER SUITABLE ENCLOSURE.

SPILL PREVENTION AND CLEANUP PRACTICES

- THE CONTRACTOR/OPERATOR SHALL BE RESPONSIBLE FOR THE SAFE HANDLING, USE AND DISPOSAL PROGRAM OF ALL HAZARDOUS MATERIALS FOR THE DURATION OF THIS PROJECT...
1. MANUFACTURERS RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND SITE PERSONNEL WILL BE MADE AWARE OF THESE PROCEDURES AND THE LOCATION OF THE CLEANUP SUPPLIES.
2. MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ON SITE.

MANSFIELD DRIVE & DERRY LANE HUDSON, NEW HAMPSHIRE

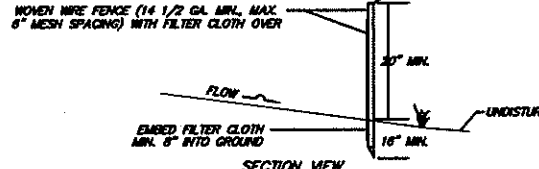
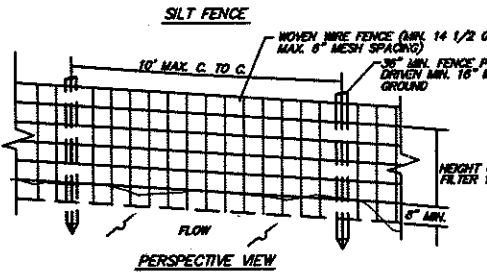
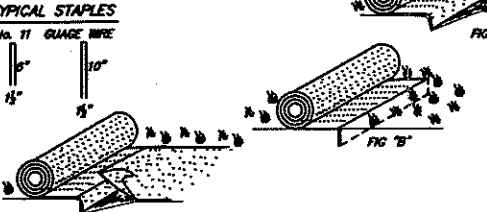
PREPARED FOR: HUDSON FIVE, LLC 31 QUINCY STREET NASHUA, NH 03060

SCALE: NONE DATE: MARCH 1, 2018

Maynard & Paquette Engineering Associates, LLC Consulting Engineers and Land Surveyors 51 Quincy Street, Nashua, NH 03060 Phone: (603)883-8433 Fax: (603)883-7227

DETAIL FOR STABILIZING WITH JUTE MATTING

- 1. BURY THE TOP ENDS OF THE JUTE STRIPS IN A TRENCH 8 INCHES OR MORE IN DEPTH.
2. TAMP THE TRENCH FULL OF SOIL. SECURE IT WITH A ROW OF STAPLES, 6 INCH SPACING, 4 INCHES DOWN FROM THE TRENCH.
3. OVERLAP AND BURY THE UPPER END OF THE LOWER STRIP AS IN FIGURES "A" AND "B." OVERLAP THE END OF THE TOP STRIP 4 INCHES AND STAPLE.
4. EROSION CONTROL WITH JUTE BURIED IN SILT TRENCH AND TAMPED; DOUBLE ROW OF STAPLES.



CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

- 1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIE OR STAPLES.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24 INCHES AT TOP AND MID-SECTION.
3. WHERE TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 8 INCHES AND FOLDED TOGETHER.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

INSTALLATION PROCEDURE

- 1. LAY OUT A SUITABLE FENCE LINE AND SET POSTS ALONG IT. ON SLOPES, ALIGN THE FENCE ALONG THE CONTOUR AS CLOSELY AS POSSIBLE. IN SMALL SWALES, CURVE THE FENCE LINE UPSTREAM AT THE SIDES TO DIRECT THE FLOW TOWARD THE MIDDLE OF THE FENCE.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24 INCHES AT TOP AND MID-SECTION.
3. TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED IN AMOUNTS NECESSARY TO COMPLETE FINISHED GRADING OF ALL EXPOSED AREAS.
4. AREAS TO BE FINISHED SHALL BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS, OR OTHER OBJECTIONABLE MATERIAL.

GENERAL SITE CONSTRUCTION SPECIFICATIONS

- 1. ALL GRADING OR DISTURBED AREAS, INCLUDING SLOPES, SHALL BE PROTECTED DURING CLEARING AND CONSTRUCTION, IN ACCORDANCE WITH THESE PLANS, UNTIL THEY ARE PERMANENTLY STABILIZED.
2. ALL SEDIMENT CONTROL PRACTICES AND MEASURES SHALL BE CONSTRUCTED, APPLIED, AND MAINTAINED IN ACCORDANCE WITH THESE PLANS.
3. TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED IN AMOUNTS NECESSARY TO COMPLETE FINISHED GRADING OF ALL EXPOSED AREAS.
4. AREAS TO BE FINISHED SHALL BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS, OR OTHER OBJECTIONABLE MATERIAL.

Table with columns: TYPE, LBS./ACRE, LBS./1000 S.F., USE. Rows include TALL FESCUE CREEPING RED FESCUE RED TOP TOTAL, CREEPING RED FESCUE KENTUCKY BLUEGRASS TOTAL.

Table with columns: KPW, APB, RAM, D, 12253. Rows include DESIGNED, DRAFTED, CHECKED, APPROVED, BOOK & PLOT, REVISION, SIZE, JOB NUMBER.