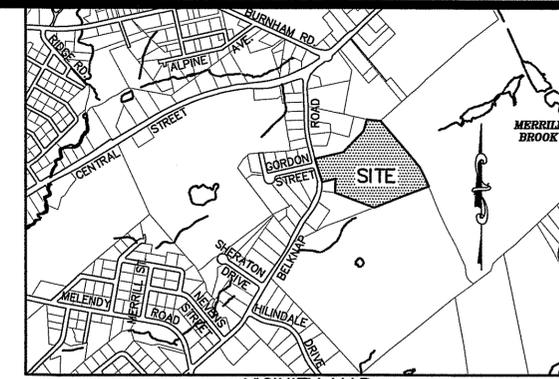


VICINITY PLAN
NOT TO SCALE



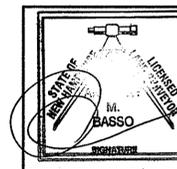
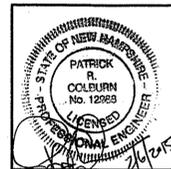
VICINITY MAP
SCALE: 1" = 1,000'

RESIDENTIAL SITE PLAN COBBLESTONE VILLAGE

137 BELKNAP ROAD
MAP 184; LOT 27
HUDSON, NEW HAMPSHIRE

OWNER & APPLICANT:
DEER CREEK DEVELOPMENT, LLC
25 FLAGSTONE DRIVE
HUDSON, NEW HAMPSHIRE 03051

PREPARED BY:
KEACH-NORDSTROM ASSOCIATES, INC.
10 COMMERCE PARK NORTH, SUITE 3
BEDFORD, NEW HAMPSHIRE 03110
(603) 627-2881



KMA KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

SHEET TITLE

MASTER PLAN
EXISTING CONDITIONS PLAN
REMOVALS/DEMOLITION PLAN
RESIDENTIAL SITE LAYOUT PLAN
GRADING & DRAINAGE PLAN
EROSION CONTROL PLAN
UTILITY PLAN
LANDSCAPE PLAN
LIGHTING PLAN
ROADWAY PROFILES
SIGHT DISTANCE PLAN & PROFILE
CONSTRUCTION DETAILS

SHEET No.

1
2 & 3
4 & 5
6 & 7
8 & 9
10 & 11
12 & 13
14 & 15
16 & 17
18 & 19
20
21 - 28

JANUARY 23, 2015

PROJECT NO. 14-0721-1

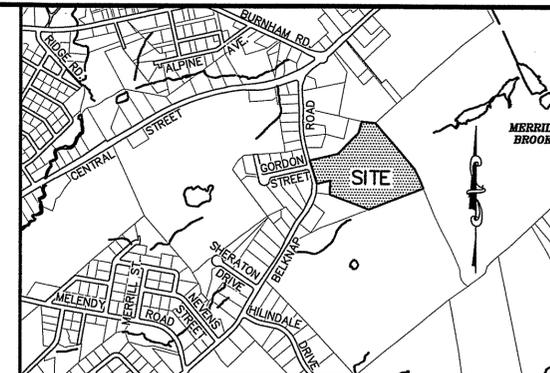
REFERENCE PLANS:

- "LOT LINE RELOCATION PLAN - MAP 184/LOTS 26 & 27, 141 & 137 BELKNAP ROAD, HUDSON, NEW HAMPSHIRE," SCALE: 1"=50', DATED: JANUARY 20, 2014, PREPARED BY: MAYNARD & PAQUETTE ENGINEERING ASSOCIATES, LLC.
- "BOUNDARY PLAN: LOT 20-27, DORIS & LOUIS PASKALI, BELKNAP ROAD, HUDSON, N.H.," SCALE: 1"=50', DATED: 16 DEC. 1983, WITH REVISIONS THROUGH 1-6-84, PREPARED BY: GEORGE F. KELLER INC. H.C.R.D. PLAN NO. 27773.
- "SUBDIVISION PLAN MAP 20/LOT 1, CLARK SUBDIVISION, BELKNAP ROAD, HUDSON, NEW HAMPSHIRE," SCALE: 1"=100', DATED: AUGUST 26, 1994, WITH REVISIONS THROUGH 9-22-95, PREPARED BY: MAYNARD & PAQUETTE, INC. H.C.R.D. PLAN NO. 27671.
- "GORDON HEIGHTS REVISED, FINAL SUBDIVISION, PLAN OF LAND, OWNED BY: EMILE A. CHAGNON, JR., HUDSON, N.H.," SCALE: 1"=50', DATED: MARCH 17, 1975, PREPARED BY: AMHERST SURVEY ASSOCIATES, INC. H.C.R.D. PLAN. NO. 10188.
- "TAX MAP 184/LOT 23, BOUNDARY PLAN, 149 BELKNAP ROAD, HUDSON, NH," SCALE: 1"=40', DATED: MARCH 8, 2010, WITH REVISIONS THROUGH 3/18/10, PREPARED BY: M.J. GRAINGER ENGINEERING, INC. H.C.R.D. PLAN NO. 36717.

GENERAL NOTES:

- THE PURPOSE OF THIS PLAN IS TO DEPICT AN OVERVIEW OF A PROPOSED ELDERLY, AGE RESTRICTED, HOUSING DEVELOPMENT ON TAX MAP 184; LOT 27 CONSISTING OF 28 UNITS, COMMUNITY BUILDING, ACCESS DRIVES, PARKING AND ASSOCIATED SITE IMPROVEMENTS AS SHOWN HEREON.
- REFERENCE THIS PARCEL AS HUDSON ASSESSOR'S MAP 184; LOT 27.
- AREA OF SUBJECT PARCEL = 662,803 SF, OR 15.215 ACRES.
- THE SUBJECT PARCEL IS LOCATED IN THE RESIDENTIAL 2 (R-2) AND THE GENERAL (G) ZONING DISTRICTS AND IS SUBJECT TO THE FOLLOWING ZONING REQUIREMENTS:

RESIDENTIAL (R-2):		GENERAL (G):	
MINIMUM LOT REQUIREMENTS:		MINIMUM LOT REQUIREMENTS:	
- LOT AREA	43,560 SF	- LOT AREA	43,560 SF
- LOT FRONTAGE	120 FT (LOCAL)	- LOT FRONTAGE	150 FT (LOCAL)
- LOT FRONTAGE	150 FT (COLLECTOR)	- LOT FRONTAGE	150 FT (COLLECTOR)
MINIMUM BUILDING SETBACKS:		MINIMUM BUILDING SETBACKS:	
- FRONT	30 FT (LOCAL)	- FRONT	30 FT (LOCAL)
- FRONT	50 FT (COLLECTOR)	- FRONT	50 FT (COLLECTOR)
- SIDE	15 FT	- SIDE	15 FT
- REAR	15 FT	- REAR	15 FT
- OWNER OF RECORD: DEER CREEK DEVELOPMENT, LLC, 25 FLAGSTONE DRIVE, HUDSON, NH 03051, BK. 8480, PG. 777.
- EXAMINATION OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAPS (FIRM) FOR THE TOWN OF HUDSON, NEW HAMPSHIRE, HILLSBOROUGH COUNTY, MAP NUMBER 33011C0518D, PANEL NUMBER S18 OF 701, EFFECTIVE DATE: SEPTEMBER 25, 2009 INDICATES THAT THE SUBJECT PARCEL IS NOT LOCATED WITHIN A FLOOD HAZARD AREA.
- BENCHMARKS SET AS NOTED, BASED ON NGVD 1929.



VICINITY MAP
SCALE: 1" = 1,000'

NOTES: (CONTINUED)

- THE LOCATION OF ANY UNDERGROUND UTILITY INFORMATION SHOWN ON THIS PLAN IS APPROXIMATE. KEACH-NORDSTROM ASSOCIATES, INC. MAKES NO CLAIM TO THE ACCURACY OR COMPLETENESS OF UTILITIES SHOWN. PRIOR TO ANY EXCAVATION ON SITE THE CONTRACTOR SHALL CONTACT DIG SAFE AT 811.
 - BOUNDARY INFORMATION SHOWN HEREON IS BASED ON A FIELD SURVEY PERFORMED BY THIS OFFICE IN SEPTEMBER 2014.
 - TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED IN PART ON A FIELD SURVEY PERFORMED BY THIS OFFICE IN SEPTEMBER 2014 AND IN PART OF ADDITIONAL FIELD DATA PROVIDED TO KEACH-NORDSTROM ASSOCIATES BY THE OWNER.
 - HORIZONTAL DATUM IS NAD83. VERTICAL DATUM IS NGVD 1929.
 - WETLAND MAPPING WAS PERFORMED BY SCHAUER ENVIRONMENTAL CONSULTANTS, LLC ON AUGUST 12, 2014 AND FIELD LOCATED BY THIS OFFICE.
 - THE SITE-SPECIFIC SOIL MAPPING WAS PERFORMED BY SCHAUER ENVIRONMENTAL CONSULTANTS, LLC. ON OCTOBER 17, 2014.
 - SUBJECT PARCEL IS SERVICED BY MUNICIPAL WATER AND SEWER.
 - PROPOSED USE: ELDERLY, AGE RESTRICTED
 - ALLOWABLE DENSITY:
- | TOTAL LOT AREA | WETLAND AREA | AREA >25% SLOPE | BUILDABLE AREA | FRONTAGE |
|----------------------------|--------------------------|-------------------------|----------------------------|----------|
| 662,803 SF
15.215 ACRES | 91,248 SF
2.095 ACRES | 9,284 SF
0.213 ACRES | 562,271 SF
12.908 ACRES | 264.65' |
- MAXIMUM DENSITY OF HOMES = 1 BEDROOM/10,000 SF OF BUILDABLE LAND = 562,271 SF/10,000 = 56 BEDROOMS
= 56 BEDROOMS/2 BEDROOMS PER HOME = 28 HOMES
 - PROPOSED DENSITY OF HOMES = 28 HOMES (2 BEDROOMS EACH)
 21. TOTAL BUILDING COVERAGE = 58,968 SF
PERCENT BUILDING COVERAGE = 58,968 SF/662,803 SF = 8.9%
AVERAGE BUILDING COVERAGE PER UNIT = 58,968 SF/28 UNITS = 2106 SF
 18. PERMITS REQUIRED:
- NHDES ALTERATION OF TERRAIN PENDING
- NHDES SEWER CONNECTION PERMIT PENDING
- NPDES NOTICE OF INTENT REQUIRED PRIOR TO CONSTRUCTION
 19. WAIVERS REQUESTED:
- HTC 275-9C - NOISE STUDY
- HTC 275-9D - FISCAL IMPACT STUDY
 20. WINTER ROAD MAINTENANCE SHALL BE CONDUCTED WITH LIMITED SALT USE. SNOW STORAGE SHALL BE ALONG BOTH SIDES OF THE ROADWAY AND IN THE MIDDLE OF THE CUL-DE-SAC. IF THESE AREAS BECOME FULL, SNOW SHALL BE TRUCKED OFF SITE ACCORDING TO ALL FEDERAL, STATE, AND LOCAL REGULATIONS.
 21. A CAP FEE IN THE AMOUNT OF \$459.36 PER NEW RESIDENTIAL UNIT IS TO BE PAID PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY FOR EACH UNIT.
 22. AN IMPACT FEE IN THE AMOUNT OF \$3,578.00 (SCHOOLS) AND \$124.00 (LIBRARY) PER NEW RESIDENTIAL UNIT IS TO BE PAID PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY FOR EACH UNIT.
 23. A RECREATION CONTRIBUTION IN THE AMOUNT OF \$400 PER RESIDENTIAL UNIT SHALL BE PAID PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY FOR EACH UNIT.
 24. AN OFFSITE ROADWAY IMPROVEMENT CONTRIBUTION, EXCLUSIVE TO THE IMPROVEMENTS OF BELKNAP ROAD, OF \$500 PER RESIDENTIAL UNIT SHALL BE PAID PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY FOR EACH UNIT.
 25. THIS LOT DEVELOPMENT IS SUBJECT TO A SEWER BETTERMENT FEE IN THE AMOUNT OF \$36,132.72, PAYABLE TO THE TOWN OF HUDSON SEWER UTILITY. THIS FEE IS IN ADDITION TO ALL OTHER APPLICABLE SEWER ASSESSMENT FEES CHARGED PER UNIT.
 26. ONSITE DRAINAGE SYSTEM SHALL BE CONSTRUCTED AND MAINTAINED IN COMPLIANCE WITH LOCAL AND NHDES REQUIREMENTS FOR SUCH SYSTEMS.
 27. CONSTRUCTION ACTIVITIES SHALL BE LIMITED TO THE HOURS BETWEEN 7:00 AM AND 7:00 PM, MONDAY THROUGH SATURDAY. CONSTRUCTION ACTIVITIES SHALL BE PROHIBITED ON SUNDAYS.
 28. IF LOT DEVELOPMENT INVOLVES BLASTING AND/OR RAMMING OF BEDROCK MATERIALS, SAID ACTIVITIES SHALL BE LIMITED TO THE HOURS BETWEEN 7:00 AM AND 5:00 PM, MONDAY THROUGH FRIDAY ONLY.
 29. THE ROAD NAME SHALL BE POSTED AT THE BEGINNING OF THE ROAD FOR CERTIFICATION OF OCCUPANCY SIGN OFF BY THE HUDSON FIRE DEPARTMENT.
 30. ALL SITE IDENTIFICATION SIGNS SHALL BE INSTALLED IN ACCORDANCE WITH ARTICLE XII OF THE HUDSON ZONING ORDINANCE AND APPROVED BY THE TOWN ZONING ADMINISTRATOR.
 31. GREEN SPACE: 35% REQUIRED, 81% PROPOSED
 32. PROPER EROSION AND SEDIMENT CONTROLS SHALL BE INSTALLED PRIOR TO CLEARING AND EXCAVATION. THE CONTROLS SHALL BE MAINTAINED IN GOOD WORKING ORDER UNTIL COMPLETION OF CONSTRUCTION. THE TOWN OF HUDSON RESERVES THE RIGHT TO REQUIRE ADDITIONAL EROSION CONTROL MEASURES DURING CONSTRUCTION, IF NECESSARY.
 33. AFTER THE ISSUANCE OF THE FOUNDATION PERMIT FOR EACH OF THE STRUCTURES INCLUDED IN THIS SITE PLAN AND PRIOR TO THE ISSUANCE OF EACH FRAMING PERMIT, THE APPLICANT SHALL SUBMIT TO THE HUDSON COMMUNITY DEVELOPMENT DEPARTMENT FOUNDATION "AS-BUILT" PLANS ON A TRANSPARENT AND TO THE SAME SCALE AS THE APPROVED SITE PLAN. EACH FOUNDATION "AS-BUILT" PLAN SHALL INCLUDE ALL STRUCTURAL DIMENSIONS AND LOT LINE SETBACK MEASUREMENTS TO THE FOUNDATION AND BE STAMPED BY A LICENSED LAND SURVEYOR. ANY DISCREPANCY BETWEEN THE APPROVED SITE PLAN AND FOUNDATION "AS-BUILT" PLAN SHALL BE DOCUMENTED BY THE APPLICANT AND BE PART OF THE FOUNDATION "AS-BUILT" SUBMISSION.
 34. PRIOR TO THE ISSUANCE OF A FINAL CERTIFICATE OF OCCUPANCY, A L.L.S. CERTIFIED "AS-BUILT" SITE PLAN SHALL BE PROVIDED TO THE TOWN OF HUDSON COMMUNITY DEVELOPMENT DEPARTMENT, CONFIRMING THAT THE SITE CONFORMS WITH THE RECORD SITE PLAN.
 35. SHEET 1 SHALL BE RECORDED AT THE HILLSBOROUGH COUNTY REGISTRY OF DEEDS AND A FULL PLAN SET IS LOCATED AT THE HUDSON PLANNING OFFICE.

LEGEND

- STONE BOUND FOUND
- IRON PIN FOUND
- DRILL HOLE
- BUTTER LINE
- PROPERTY LINE
- WETLAND
- CHAIN LINK FENCE
- BARBED WIRE FENCE
- TREELINE
- RETAINING WALL
- EDGE OF PAVEMENT
- EDGE OF GRAVEL
- STONEWALL
- BUILDING SETBACK
- EASEMENT
- ZONE LINE
- PROPOSED EDGE OF PAVEMENT
- PROPOSED BITUMINOUS CURB

**MASTER PLAN
COBBLESTONE VILLAGE**

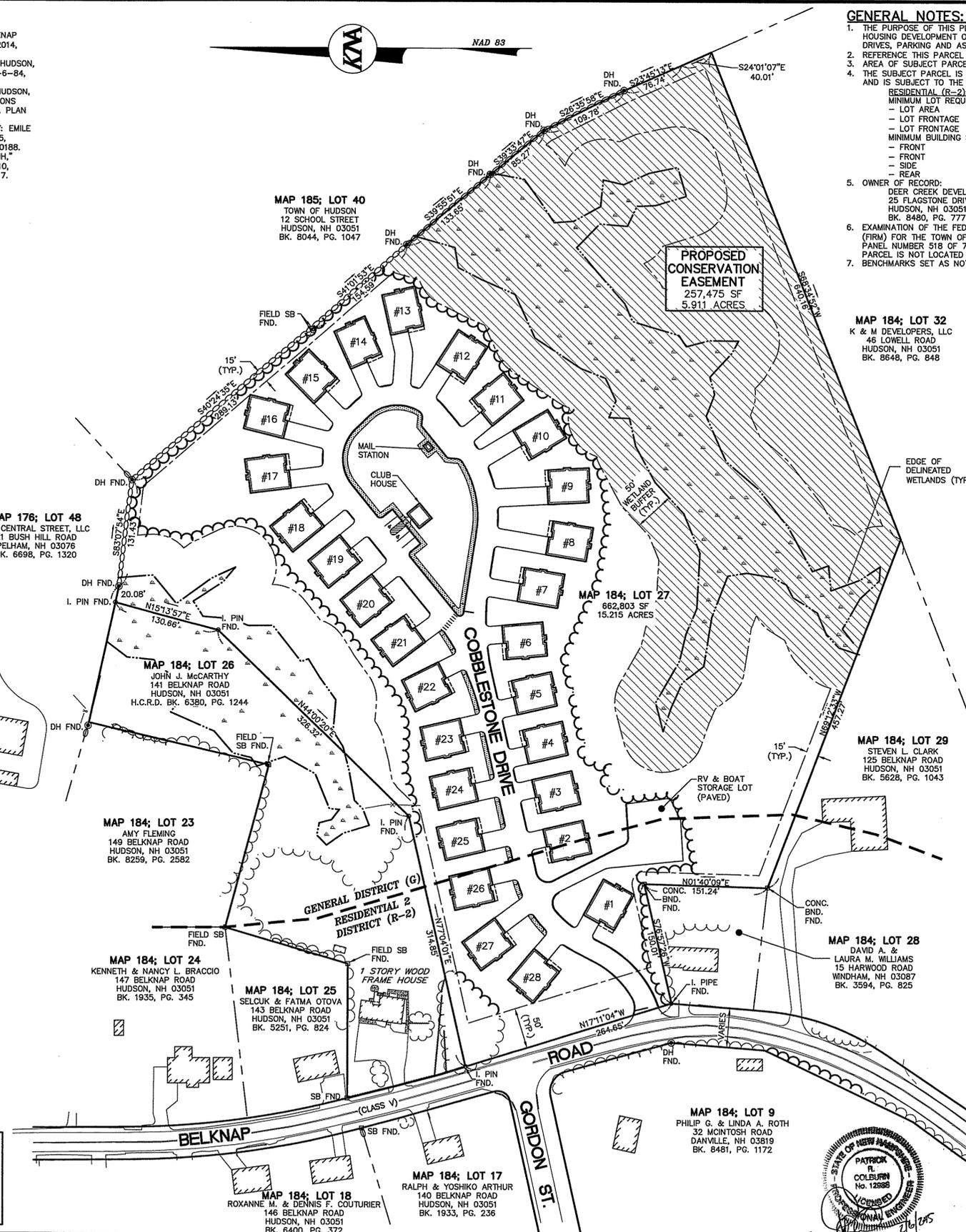
MAP 184; LOT 27
137 BELKNAP ROAD
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD: DEER CREEK DEVELOPMENT, LLC 25 FLAGSTONE DRIVE HUDSON, NH 03051 H.C.R.D. BK. 8480, PG. 777	APPLICANT: DEER CREEK DEVELOPMENT, LLC 25 FLAGSTONE DRIVE HUDSON, NH 03051
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KMA KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

REVISIONS			
No.	DATE	DESCRIPTION	BY

DATE: JANUARY 23, 2015 SCALE: 1" = 80'
PROJECT NO: 14-0721-1 SHEET 1 OF 28



OWNER MAP 184; LOT 27

SIGNATURE: *[Signature]*
FOR DEER CREEK DEVELOPMENT, LLC

DATE: 2/19/15

NPDES NOTE

THIS PROJECT DISTURBS IN EXCESS OF 1-ACRE OF LAND. THEREFORE IT WILL BE REQUIRED TO OBTAIN NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT COVERAGE AS ISSUED BY THE ENVIRONMENTAL PROTECTION AGENCY (EPA). THE OWNER/DEVELOPER AND "OPERATOR" (GENERAL CONTRACTOR) SHALL EACH BE REQUIRED TO PREPARE AND SUBMIT A NOTICE OF INTENT (NOI) TO THE EPA PRIOR TO THE START OF CONSTRUCTION AND SHALL BE RESPONSIBLE FOR THE PREPARATION AND IMPLEMENTATION OF A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) MEETING THE REQUIREMENTS OF THE CURRENT CONSTRUCTION GENERAL PERMIT.

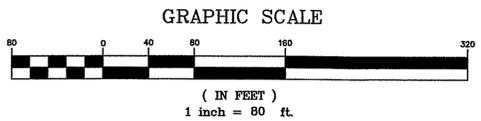
PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL

APPROVED BY THE HUDSON, NH PLANNING BOARD
DATE OF MEETING: _____

SIGNATURE _____ DATE _____

SIGNATURE _____ DATE _____

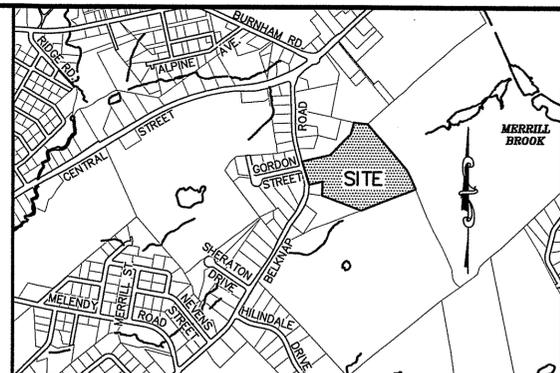
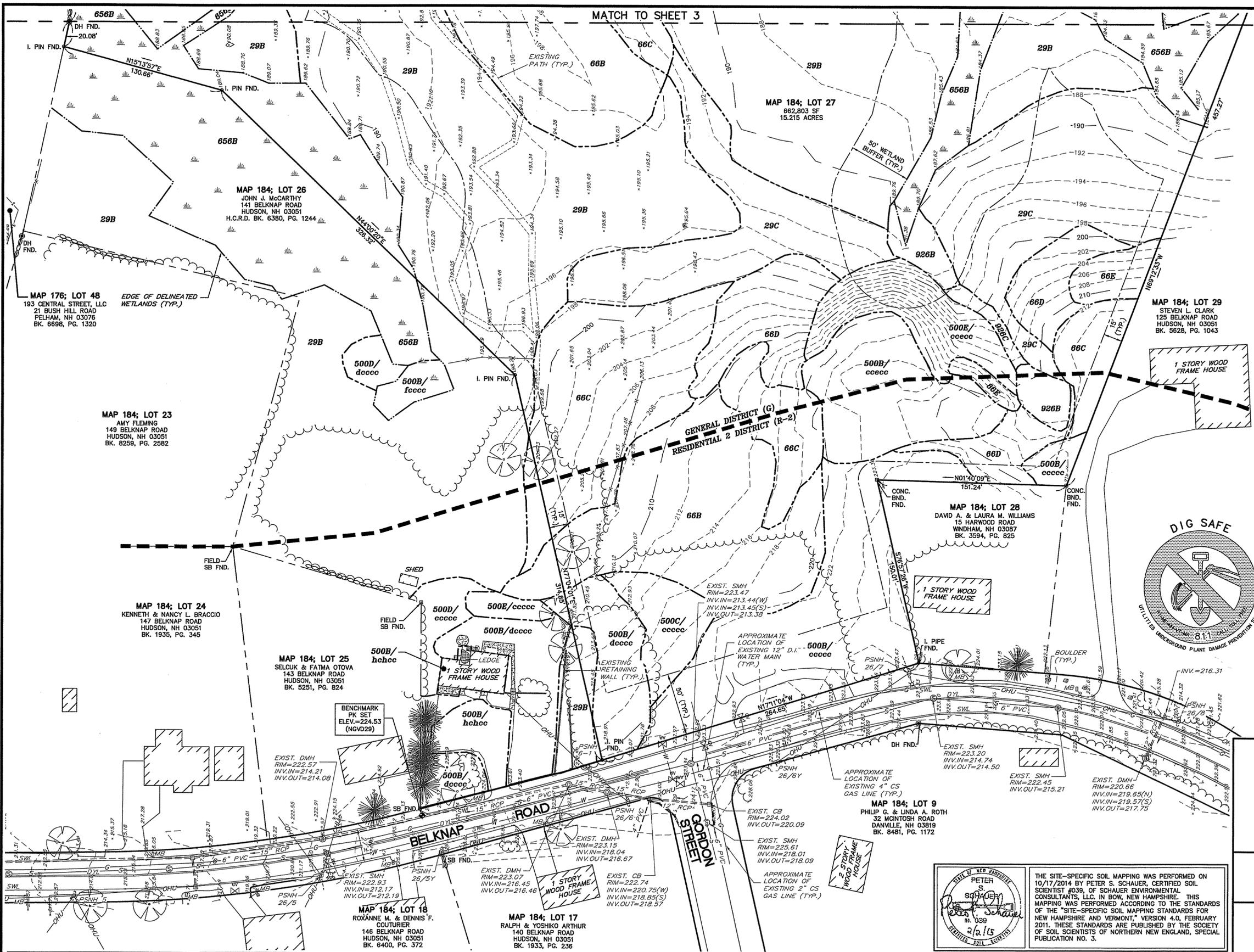
SITE PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN ACHIEVES FINAL APPROVAL.



PETER S. SCHAUER, CERTIFIED WETLAND SCIENTIST #48, OF SCHAUER ENVIRONMENTAL CONSULTANTS, L.L.C. OF BOW, NH PERFORMED THE WETLAND MAPPING ON AUGUST 12, 2014 ACCORDING TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL 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 PLAN AND THE SURVEY UPON WHICH IT IS BASED WAS MADE ON THE GROUND UNDER MY DIRECTION AND SUPERVISION IN SEPTEMBER 2014 IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE STATE OF NEW HAMPSHIRE AND THE CITY/TOWN WITHIN WHICH IT IS LOCATED WITH A TRAVERSE ERROR OF CLOSURE BETTER THAN 1 PART IN 10,000. THE SURVEY PERFORMED IS CLASSIFIED AS AN URBAN STANDARD SURVEY, (CATEGORY 1, CONDITION 1) AS DEFINED IN THE NEW HAMPSHIRE LAND SURVEYORS ASSOCIATION ETHICS AND STANDARDS.

[Signature]
DATE: 2/19/15



VICINITY MAP
SCALE: 1" = 1,000'



SEE SHEET 3 FOR NOTES, REFERENCE PLANS AND SITE SPECIFIC SOIL MAP UNIT KEY

LEGEND

STONE BOUND FOUND	ABUTTER LINE
IRON PIN FOUND	PROPERTY LINE
DRILL HOLE	WETLAND
UTILITY POLE	CHAIN LINK FENCE
SIGN	BARBED WIRE FENCE
LIGHT	OVERHEAD UTILITIES
GAS VALVE	GAS LINE
WATER VALVE	WATER LINE
HYDRANT	SEWER LINE
WATER SHUT OFF	DRAINAGE LINE
SEWER MANHOLE	TREELINE
DRAINAGE MANHOLE	RETAINING WALL
CATCH BASIN	EDGE OF PAVEMENT
BUILDING SETBACK	EDGE OF GRAVEL
EASEMENT	10' CONTOUR
ZONE LINE	2' CONTOUR
	STONEWALL
	SITE SPECIFIC SOIL LINE

**EXISTING CONDITIONS PLAN
COBBLESTONE VILLAGE**

MAP 184; LOT 27
137 BELKNAP ROAD
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD:
DEER CREEK DEVELOPMENT, LLC
25 FLAGSTONE DRIVE
HUDSON, NH 03051
H.C.R.D. BK. 8480, PG. 777

APPLICANT:
DEER CREEK DEVELOPMENT, LLC
25 FLAGSTONE DRIVE
HUDSON, NH 03051

KMA KEACH-NORDSTROM ASSOCIATES, INC.
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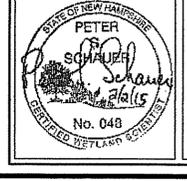
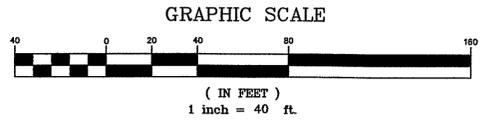
PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL

APPROVED BY THE HUDSON, NH PLANNING BOARD
DATE OF MEETING:

SIGNATURE _____ DATE _____

SIGNATURE _____ DATE _____

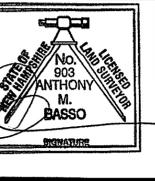
SITE PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN ACHIEVES FINAL APPROVAL.



PETER S. SCHAUER, CERTIFIED WETLAND SCIENTIST #48, OF SCHAUER ENVIRONMENTAL CONSULTANTS, L.L.C. OF BOW, NH PERFORMED THE WETLAND MAPPING ON AUGUST 12, 2014 ACCORDING TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL AND THE REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHEASTERN AND NORTHEAST REGION, VERSION 2.0, JANUARY 2012, US ARMY CORPS OF ENGINEERS.

THIS PLAN AND THE SURVEY UPON WHICH IT IS BASED WAS MADE ON THE GROUND UNDER MY DIRECTION AND SUPERVISION IN SEPTEMBER 2014 IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE STATE OF NEW HAMPSHIRE AND THE CITY/TOWN WITHIN WHICH IT IS LOCATED WITH A TRAVERSE ERROR OF CLOSURE BETTER THAN 1 PART IN 10,000. THE SURVEY PERFORMED IS CLASSIFIED AS AN URBAN STANDARD SURVEY, (CATEGORY 1, CONDITION 1) AS DEFINED IN THE NEW HAMPSHIRE LAND SURVEYORS ASSOCIATION ETHICS AND STANDARDS.

DATE: 2/15



REVISIONS

No.	DATE	DESCRIPTION	BY

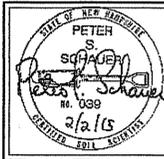
DATE: JANUARY 23, 2015 SCALE: 1" = 40'
PROJECT NO: 14-0721-1 SHEET 2 OF 28

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SITE SPECIFIC SOIL MAP UNIT KEY

SYMBOL	MAP UNIT	SLOPE CLASS	DRAINAGE CLASS	HYDRO. GROUP
29B	WOODBIDGE FINE SANDY LOAM	0-8%	MODERATELY WELL	C
29C	WOODBIDGE FINE SANDY LOAM	8-15%	MODERATELY WELL	C
66B	PAXTON FINE SANDY LOAM	0-8%	WELL	C
66C	PAXTON FINE SANDY LOAM	8-15%	WELL	C
66D	PAXTON FINE SANDY LOAM	15-25%	WELL	C
66E	PAXTON FINE SANDY LOAM	25%+	WELL	C
86E	HOLLIS FINE SANDY LOAM	25%+	WELL	D
500B/ccecc	UDORTHTS, LOAMY	0-8%	WELL	C
500C/ccecc	UDORTHTS, LOAMY	8-15%	WELL	C
500D/ccecc	UDORTHTS, LOAMY	15-25%	WELL	C
500E/ccecc	UDORTHTS, LOAMY	25%+	WELL	C
500B/fcecc	UDORTHTS, LOAMY	0-8%	WELL	C
500E/fcecc	UDORTHTS, LOAMY	25%+	WELL	C
500B/dcecc	UDORTHTS, LOAMY	0-8%	MODERATELY WELL	C
500D/dcecc	UDORTHTS, LOAMY	15-25%	MODERATELY WELL	C
500B/hchcc	UDORTHTS, LOAMY	0-8%	POORLY	C
500D/hchcc	UDORTHTS, LOAMY	8-15%	POORLY	C
926B	RIDGEBURY FINE SANDY LOAM	0-8%	POORLY	C
926C	RIDGEBURY (SPD)	0-8%	SOMEWHAT POORLY	C
926D	RIDGEBURY (SPD)	8-15%	SOMEWHAT POORLY	C

THIS MAP PRODUCT IS WITHIN THE TECHNICAL STANDARDS OF THE NATIONAL COOPERATIVE SOILS SURVEY. IT IS A SPECIAL PURPOSE PRODUCT, PRODUCED BY A CERTIFIED SOIL SCIENTIST, AND IS NOT A PRODUCT OF THE USDA NATURAL RESOURCES CONSERVATION SERVICE. THERE IS A NARRATIVE REPORT THAT ACCOMPANIES THIS MAP AND MAP KEY.

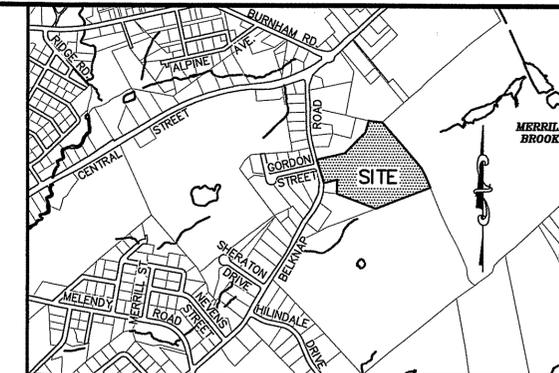


THE SITE-SPECIFIC SOIL MAPPING WAS PERFORMED ON 10/17/2014 BY PETER S. SCHAUER, CERTIFIED SOIL SCIENTIST #039, OF SCHAUER ENVIRONMENTAL CONSULTANTS, LLC, IN BOW, NEW HAMPSHIRE. THIS MAPPING WAS PERFORMED ACCORDING TO THE STANDARDS OF THE "SITE-SPECIFIC SOIL MAPPING STANDARDS FOR NEW HAMPSHIRE AND VERMONT," VERSION 4.0, FEBRUARY 2011. THESE STANDARDS ARE PUBLISHED BY THE SOCIETY OF SOIL SCIENTISTS OF NORTHERN NEW ENGLAND, SPECIAL PUBLICATION NO. 3.

MAP 185; LOT 40
TOWN OF HUDSON
12 SCHOOL STREET
HUDSON, NH 03051
BK. 8044, PG. 1047

REFERENCE PLANS:

1. LOT LINE RELOCATION PLAN - MAP 184/LOTS 26 & 27, 141 & 137 BELKNAP ROAD, HUDSON, NEW HAMPSHIRE. SCALE: 1"=50'. DATED: JANUARY 20, 2014. PREPARED BY: MAYNARD & PAQUETTE ENGINEERING ASSOCIATES, LLC.
2. "BOUNDARY PLAN: LOT 20-27, DORIS & LOUIS PASKALI, BELKNAP ROAD, HUDSON, N.H.," SCALE: 1"=50', DATED: 16 DEC. 1983, WITH REVISIONS THROUGH 1-6-84. PREPARED BY: GEORGE F. KELLER INC. H.C.R.D. PLAN NO. 27773.
3. "SUBDIVISION PLAN MAP 20/LOT 1, CLARK SUBDIVISION, BELKNAP ROAD, HUDSON, NEW HAMPSHIRE," SCALE: 1"=100', DATED: AUGUST 26, 1994, WITH REVISIONS THROUGH 9-22-95, PREPARED BY: MAYNARD & PAQUETTE, INC. H.C.R.D. PLAN NO. 27671.
4. "GORDON HEIGHTS REVISED, FINAL SUBDIVISION, PLAN OF LAND, OWNED BY: EMILE A. CHAGNON, JR., HUDSON, N.H.," SCALE: 1"=50', DATED: MARCH 17, 1975. PREPARED BY: AMHERST SURVEYING ASSOCIATES, INC. H.C.R.D. PLAN NO. 10188.
5. "TAX MAP 184/LOT 23, BOUNDARY PLAN, 149 BELKNAP ROAD, HUDSON, NH," SCALE: 1"=40', DATED: MARCH 8, 2010, WITH REVISIONS THROUGH 3/18/10, PREPARED BY: M.J. GRAINGER ENGINEERING, INC. H.C.R.D. PLAN NO. 36717.



VICINITY MAP
SCALE: 1" = 1,000'

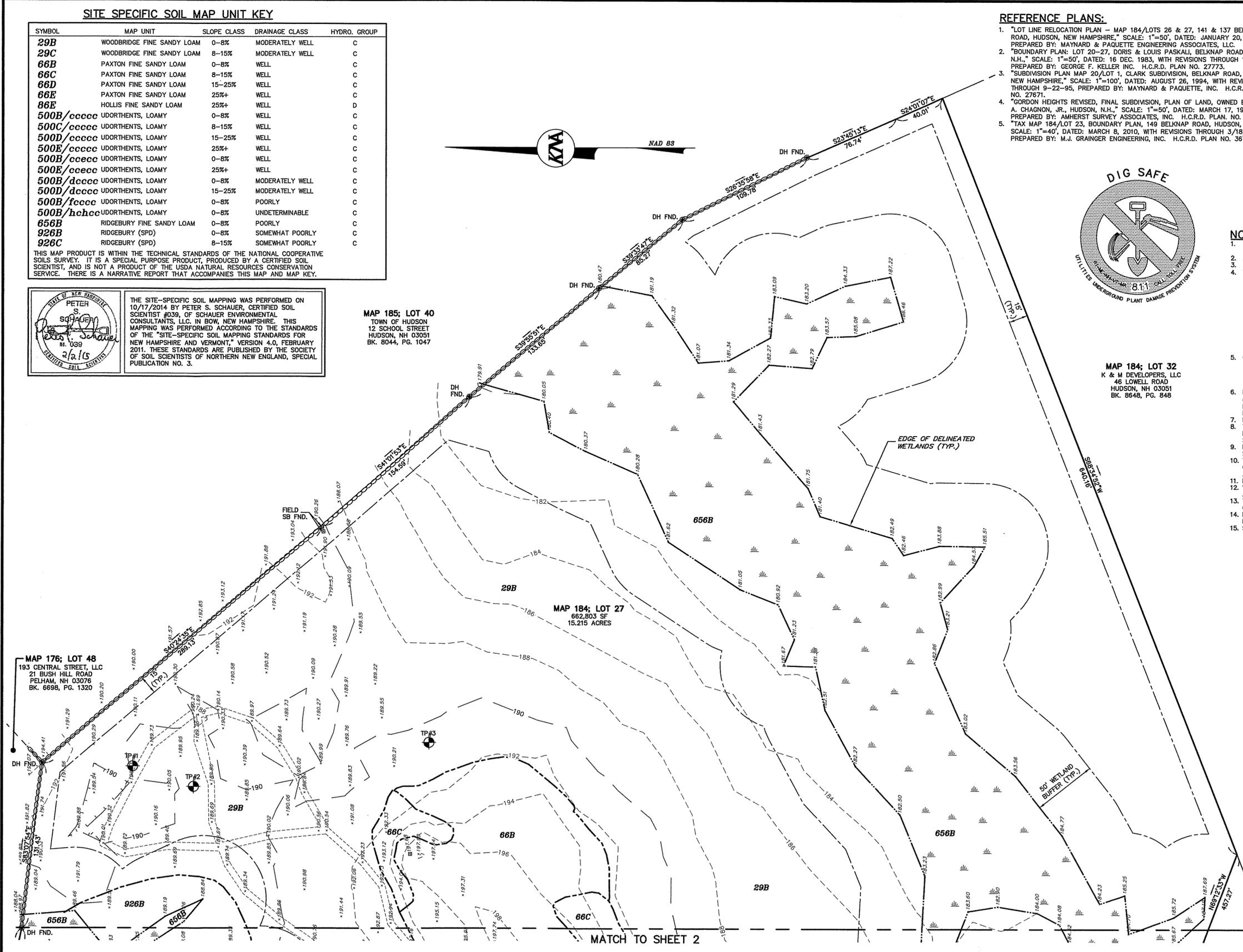
NOTES:

1. THE PURPOSE OF THIS PLAN IS TO SHOW THE EXISTING CONDITIONS OF TAX MAP 184; LOT 27 OF THE TOWN OF HUDSON TAX ASSESSORS MAPS.
2. REFERENCE THIS PARCEL AS HUDSON ASSESSOR'S MAP 184; LOT 27.
3. AREA OF SUBJECT PARCEL = 662,803 SF, OR 15.215 ACRES.
4. THE SUBJECT PARCEL IS LOCATED IN THE RESIDENTIAL 2 (R-2) AND THE GENERAL (G) ZONING DISTRICTS AND IS SUBJECT TO THE FOLLOWING ZONING REQUIREMENTS:

RESIDENTIAL (R-2):	GENERAL (G):
MINIMUM LOT REQUIREMENTS:	MINIMUM LOT REQUIREMENTS:
- LOT AREA 43,560 SF	- LOT AREA 43,560 SF
- LOT FRONTAGE 120 FT (LOCAL)	- LOT FRONTAGE 150 FT (LOCAL)
- LOT FRONTAGE 150 FT (COLLECTOR)	- LOT FRONTAGE 150 FT (COLLECTOR)
MINIMUM BUILDING SETBACKS:	MINIMUM BUILDING SETBACKS:
- FRONT 30 FT (LOCAL)	- FRONT 30 FT (LOCAL)
- FRONT 50 FT (COLLECTOR)	- FRONT 50 FT (COLLECTOR)
- SIDE 15 FT	- SIDE 15 FT
- REAR 15 FT	- REAR 15 FT
5. OWNER OF RECORD: DEER CREEK DEVELOPMENT, LLC, 25 FLAGSTONE DRIVE, HUDSON, NH 03051, BK. 8480, PG. 777.
6. EXAMINATION OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAPS (FIRM) FOR THE TOWN OF HUDSON, NEW HAMPSHIRE, HILLSBOROUGH COUNTY, MAP NUMBER 3301C0518D, PANEL NUMBER 518 OF 701, EFFECTIVE DATE: SEPTEMBER 25, 2009 INDICATES THAT THE SUBJECT PARCEL IS NOT LOCATED WITHIN A FLOOD HAZARD AREA.
7. BENCHMARKS SET AS NOTED, BASED ON NGVD 1929.
8. THE LOCATION OF ANY UNDERGROUND UTILITY INFORMATION SHOWN ON THIS PLAN IS APPROXIMATE. KEACH-NORDSTROM ASSOCIATES, INC. MAKES NO CLAIM TO THE ACCURACY OR COMPLETENESS OF UTILITIES SHOWN. PRIOR TO ANY EXCAVATION ON SITE THE CONTRACTOR SHALL CONTACT DIG SAFE AT 811.
9. BOUNDARY INFORMATION SHOWN HEREON IS BASED ON A FIELD SURVEY PERFORMED BY THIS OFFICE IN SEPTEMBER 2014.
10. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED IN PART ON A FIELD SURVEY PERFORMED BY THIS OFFICE IN SEPTEMBER 2014 AND IN PART ON ADDITIONAL FIELD DATA PROVIDED TO KEACH-NORDSTROM ASSOCIATES BY THE OWNER.
11. HORIZONTAL DATUM IS NAD83. VERTICAL DATUM IS NGVD 1929.
12. WETLAND MAPPING WAS PERFORMED BY SCHAUER ENVIRONMENTAL CONSULTANTS, LLC ON AUGUST 12, 2014 AND FIELD LOCATED BY THIS OFFICE IN SEPTEMBER 2014.
13. THE SITE-SPECIFIC SOIL MAPPING WAS PERFORMED BY SCHAUER ENVIRONMENTAL CONSULTANTS, LLC ON OCTOBER 17, 2014.
14. EASEMENTS, RIGHTS AND RESTRICTIONS SHOWN OR IDENTIFIED HEREON ARE THOSE FOUND DURING RESEARCH PERFORMED AT THE HILLSBOROUGH COUNTY REGISTRY OF DEEDS.
15. SUBJECT PARCEL IS SERVICED BY MUNICIPAL WATER AND SEWER.



MAP 184; LOT 32
K & M DEVELOPERS, LLC
46 LOWELL ROAD
HUDSON, NH 03051
BK. 8648, PG. 848



LEGEND

STONE BOUND FOUND	ABUTTER LINE
IRON PIN FOUND	PROPERTY LINE
DRILL HOLE	WETLAND
UTILITY POLE	CHAIN LINK FENCE
SIGN	BARBED WIRE FENCE
LIGHT	OVERHEAD UTILITIES
GAS VALVE	OHU
WATER VALVE	GAS LINE
HYDRANT	WATER LINE
WATER SHUT OFF	SEWER LINE
SEWER MANHOLE	DRAINAGE LINE
DRAINAGE MANHOLE	TREELINE
CATCH BASIN	RETAINING WALL
BUILDING SETBACK	EDGE OF PAVEMENT
EASEMENT	EDGE OF GRAVEL
ZONE LINE	10' CONTOUR
SITE SPECIFIC SOIL LINE	2' CONTOUR
	STONEWALL

**EXISTING CONDITIONS PLAN
COBBLESTONE VILLAGE**

MAP 184; LOT 27
137 BELKNAP ROAD
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD:
DEER CREEK DEVELOPMENT, LLC
25 FLAGSTONE DRIVE
HUDSON, NH 03051
H.C.R.D. BK. 8480, PG. 777

APPLICANT:
DEER CREEK DEVELOPMENT, LLC
25 FLAGSTONE DRIVE
HUDSON, NH 03051

KM KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

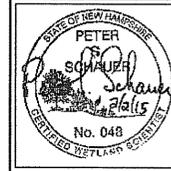
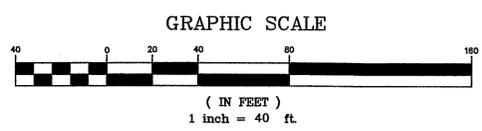
PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

APPROVED BY THE HUDSON, NH PLANNING BOARD
DATE OF MEETING: _____

SIGNATURE _____ DATE _____

SIGNATURE _____ DATE _____

SITE PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN ACHIEVES FINAL APPROVAL.



PETER S. SCHAUER, CERTIFIED WETLAND SCIENTIST #48, OF SCHAUER ENVIRONMENTAL CONSULTANTS, L.L.C. OF BOW, NH PERFORMED THE WETLAND MAPPING ON AUGUST 12, 2014 ACCORDING TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL 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 PLAN AND THE SURVEY UPON WHICH IT IS BASED WAS MADE ON THE GROUND UNDER MY DIRECTION AND SUPERVISION IN SEPTEMBER 2014 IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE STATE OF NEW HAMPSHIRE AND THE CITY/TOWN WITHIN WHICH IT IS LOCATED WITH A TRAVERSE ERROR OF CLOSURE BETTER THAN 1 PART IN 10,000. THE SURVEY PERFORMED IS CLASSIFIED AS AN URBAN STANDARD SURVEY, (CATEGORY 1, CONDITION 1) AS DEFINED IN THE NEW HAMPSHIRE LAND SURVEYORS ASSOCIATION ETHICS AND STANDARDS.



REVISIONS

No.	DATE	DESCRIPTION	BY

DATE: JANUARY 23, 2015 SCALE: 1" = 40'
PROJECT NO: 14-0721-1 SHEET 3 OF 28

MATCH TO SHEET 5

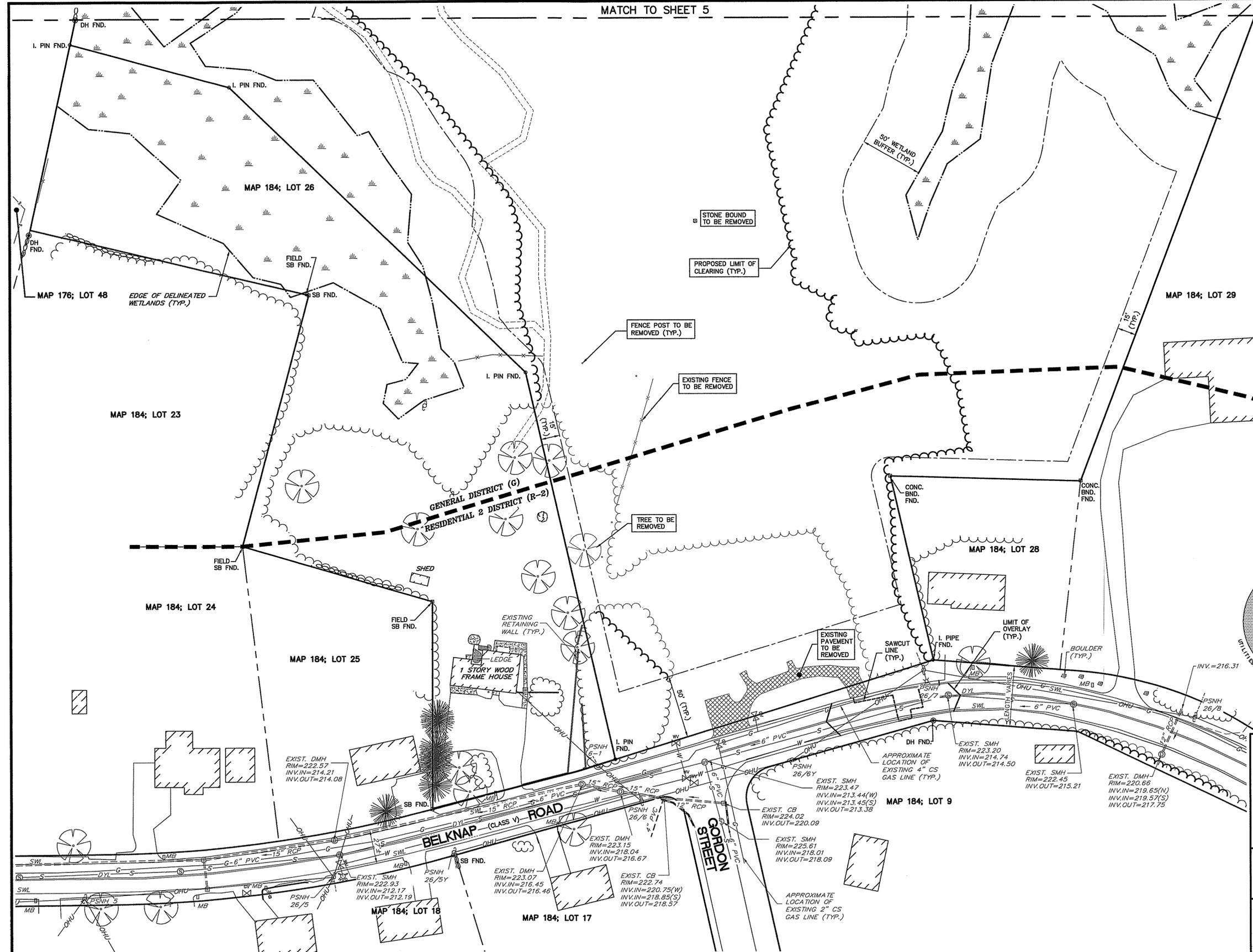
GENERAL NOTES:

1. THE PURPOSE OF THIS PLAN IS TO SHOW EXISTING FEATURES ON SITE TO BE REMOVED, SALVAGED OR REPLACED.
2. ITEMS TO BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH THE TOWN OF HUDSON REQUIREMENTS.
3. ALL EXISTING PAVEMENT AND GRAVEL WITHIN THE CROSS HATCHED AREA IS TO BE REMOVED DURING THE DEMOLITION PHASE OF THE PROJECT. EXCESS MATERIAL FROM THESE AREAS SHALL BE APPROPRIATELY DISPOSED OF OFFSITE.
4. THE CONTRACTOR SHALL CONTROL ALL DUST GENERATED DURING THE REMOVAL PHASE AND CONSTRUCTION PHASE SO THAT NO DUST LEAVES THE SITE.
5. ANY MONUMENTS DISTURBED DURING CONSTRUCTION, WHICH AREN'T CALLED OUT FOR REMOVAL, SHALL BE RESET BY A NEW HAMPSHIRE LICENSED LAND SURVEYOR AT THE SITE CONTRACTORS EXPENSE.



LEGEND

- STONE BOUND FOUND
- IRON PIN FOUND
- ⊙ DRILL HOLE
- ⊕ UTILITY POLE
- ⊙ SIGN
- ⊙ LIGHT
- ⊙ GAS VALVE
- ⊙ WATER VALVE
- ⊙ HYDRANT
- ⊙ WATER SHUT OFF
- ⊙ SEWER MANHOLE
- ⊙ DRAINAGE MANHOLE
- ⊙ CATCH BASIN
- ⊙ BUILDING SETBACK
- ⊙ EASEMENT
- ⊙ ZONE LINE
- ⊙ ABUTTER LINE
- ⊙ PROPERTY LINE
- ⊙ WETLAND
- ⊙ CHAIN LINK FENCE
- ⊙ BARBED WIRE FENCE
- ⊙ OVERHEAD UTILITIES
- ⊙ GAS LINE
- ⊙ WATER LINE
- ⊙ SEWER LINE
- ⊙ DRAINAGE LINE
- ⊙ TREELINE
- ⊙ RETAINING WALL
- ⊙ EDGE OF PAVEMENT
- ⊙ EDGE OF GRAVEL
- ⊙ STONEWALL
- ⊙ PAVEMENT/PATH TO BE REMOVED



**REMOVALS/DEMOLITION PLAN
COBBLESTONE VILLAGE**

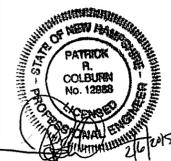
MAP 184; LOT 27
137 BELKNAP ROAD
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD:
DEER CREEK DEVELOPMENT, LLC
25 FLAGSTONE DRIVE
HUDSON, NH 03051
H.C.R.D. BK. 8480, PG. 777

APPLICANT:
DEER CREEK DEVELOPMENT, LLC
25 FLAGSTONE DRIVE
HUDSON, NH 03051

KMA KEACH-NORDSTROM ASSOCIATES, INC.

Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881



REVISIONS			
No.	DATE	DESCRIPTION	BY

DATE: JANUARY 23, 2015 SCALE: 1" = 40'
PROJECT NO: 14-0721-1 SHEET 4 OF 28

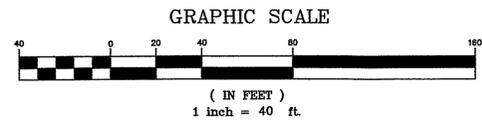
PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

APPROVED BY THE HUDSON, NH PLANNING BOARD
DATE OF MEETING: _____

SIGNATURE _____ DATE _____

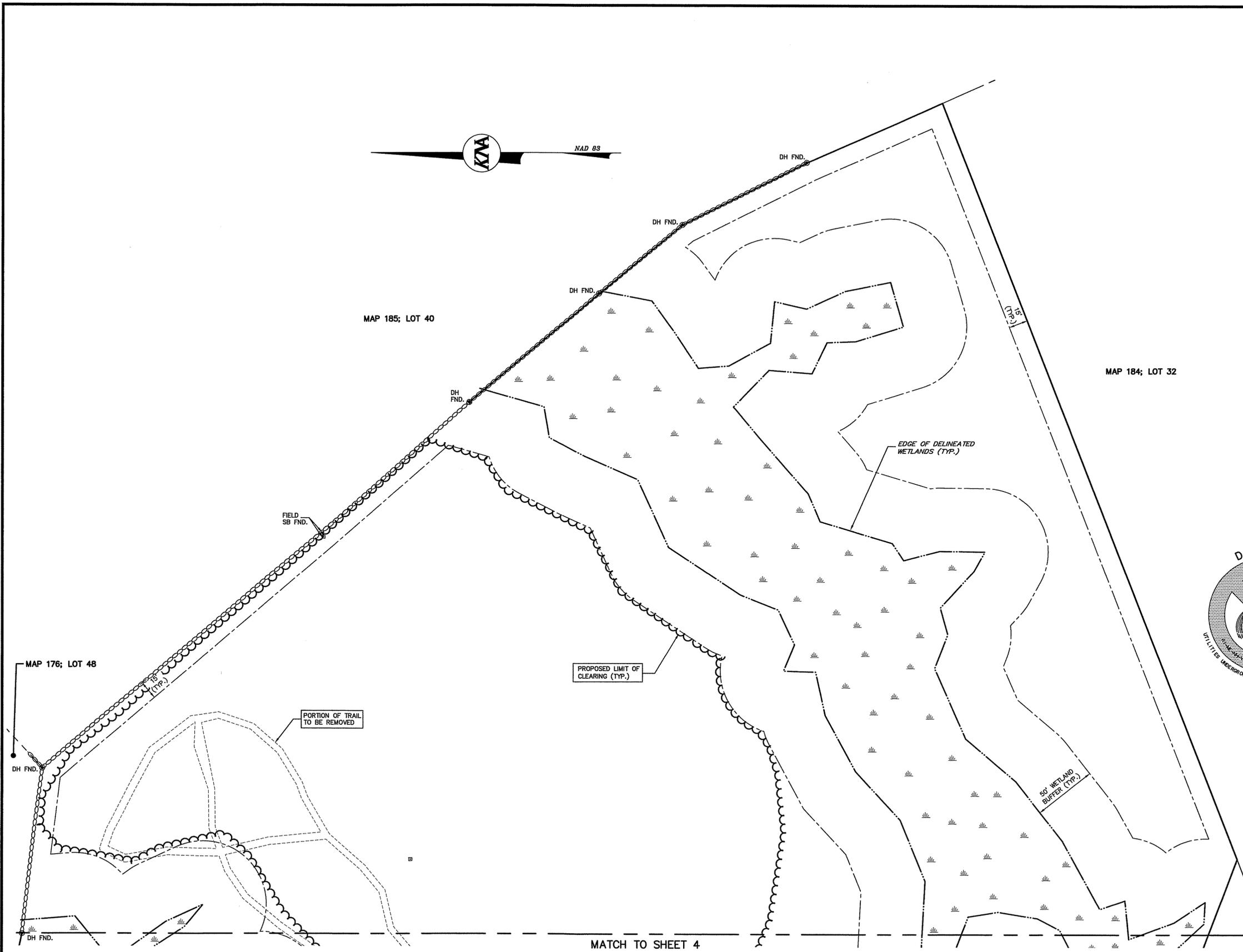
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SITE PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN ACHIEVES FINAL APPROVAL.



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SEE SHEET 4 NOTES



- LEGEND**
- STONE BOUND FOUND
 - IRON PIN FOUND
 - DRILL HOLE
 - UTILITY POLE
 - SIGN
 - LIGHT
 - GAS VALVE
 - WATER VALVE
 - HYDRANT
 - WATER SHUT OFF
 - SEWER MANHOLE
 - DRAINAGE MANHOLE
 - CATCH BASIN
 - BUILDING SETBACK
 - EASEMENT
 - ZONE LINE
 - ABUTTER LINE
 - PROPERTY LINE
 - WETLAND
 - CHAIN LINK FENCE
 - BARBED WIRE FENCE
 - OVERHEAD UTILITIES
 - GAS LINE
 - WATER LINE
 - SEWER LINE
 - DRAINAGE LINE
 - TREELINE
 - RETAINING WALL
 - EDGE OF PAVEMENT
 - EDGE OF GRAVEL
 - STONEWALL
 - PAVEMENT/PATH TO BE REMOVED



REMOVALS/DEMOLITION PLAN
COBBLESTONE VILLAGE

MAP 184; LOT 27
 137 BELKNAP ROAD
 HUDSON, NEW HAMPSHIRE
 HILLSBOROUGH COUNTY

OWNER OF RECORD: DEER CREEK DEVELOPMENT, LLC 25 FLAGSTONE DRIVE HUDSON, NH 03051 H.C.R.D. BK. 8480, PG. 777	APPLICANT: DEER CREEK DEVELOPMENT, LLC 25 FLAGSTONE DRIVE HUDSON, NH 03051
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KM KEACH-NORDSTROM ASSOCIATES, INC.
 Civil Engineering Land Surveying Landscape Architecture
 10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

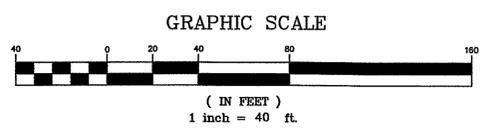
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 DATE OF MEETING: _____

SIGNATURE _____ DATE _____

SIGNATURE _____ DATE _____

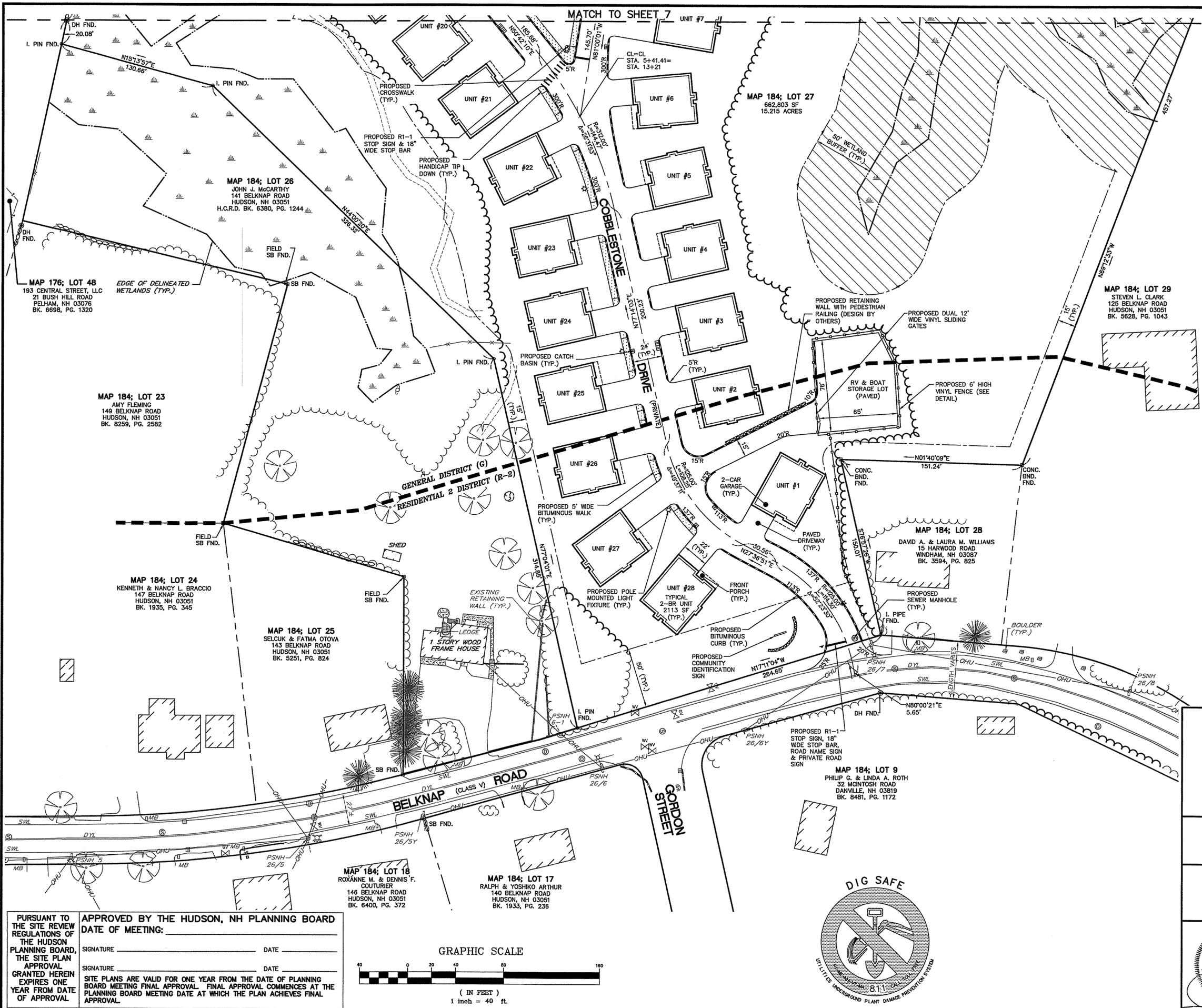
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REVISIONS			
No.	DATE	DESCRIPTION	BY

DATE: JANUARY 23, 2015 SCALE: 1" = 40'
 PROJECT NO: 14-0721-1 SHEET 5 OF 28

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VICINITY MAP
SCALE: 1" = 1,000'



SEE SHEET 1 FOR REFERENCE
PLANS & GENERAL NOTES

LEGEND

- STONE BOUND FOUND
- IRON PIN FOUND
- DRILL HOLE
- UTILITY POLE
- SIGN
- LIGHT
- GAS VALVE
- WATER VALVE
- HYDRANT
- WATER SHUT OFF
- SEWER MANHOLE
- DRAINAGE MANHOLE
- CATCH BASIN
- BUILDING SETBACK
- EASEMENT
- ZONE LINE
- ABUTTER LINE
- PROPERTY LINE
- WETLAND
- CHAIN LINK FENCE
- BARBED WIRE FENCE
- OVERHEAD UTILITIES
- TREELINE
- RETAINING WALL
- EDGE OF PAVEMENT
- EDGE OF GRAVEL
- STONEWALL
- PROPOSED EDGE OF PAVEMENT
- PROPOSED BITUMINOUS CURB
- PROPOSED CHAIN LINK FENCE
- PROPOSED VINYL FENCE
- PROPOSED CONSERVATION EASEMENT

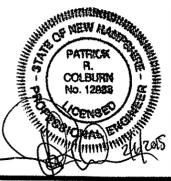
RESIDENTIAL SITE LAYOUT PLAN
COBBLESTONE VILLAGE

MAP 184; LOT 27
137 BELKNAP ROAD
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD:
DEER CREEK DEVELOPMENT, LLC
25 FLAGSTONE DRIVE
HUDSON, NH 03051
H.C.R.D. BK. 8480, PG. 777

APPLICANT:
DEER CREEK DEVELOPMENT, LLC
25 FLAGSTONE DRIVE
HUDSON, NH 03051

KM KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881



REVISIONS			
No.	DATE	DESCRIPTION	BY

DATE: JANUARY 23, 2015 SCALE: 1" = 40'
PROJECT NO: 14-0721-1 SHEET 6 OF 28

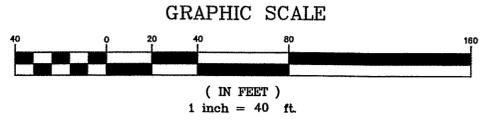
PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL

APPROVED BY THE HUDSON, NH PLANNING BOARD
DATE OF MEETING: _____

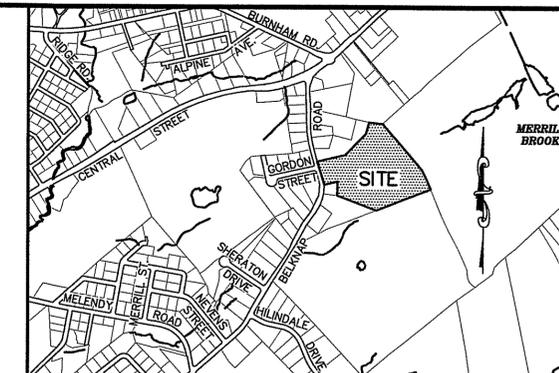
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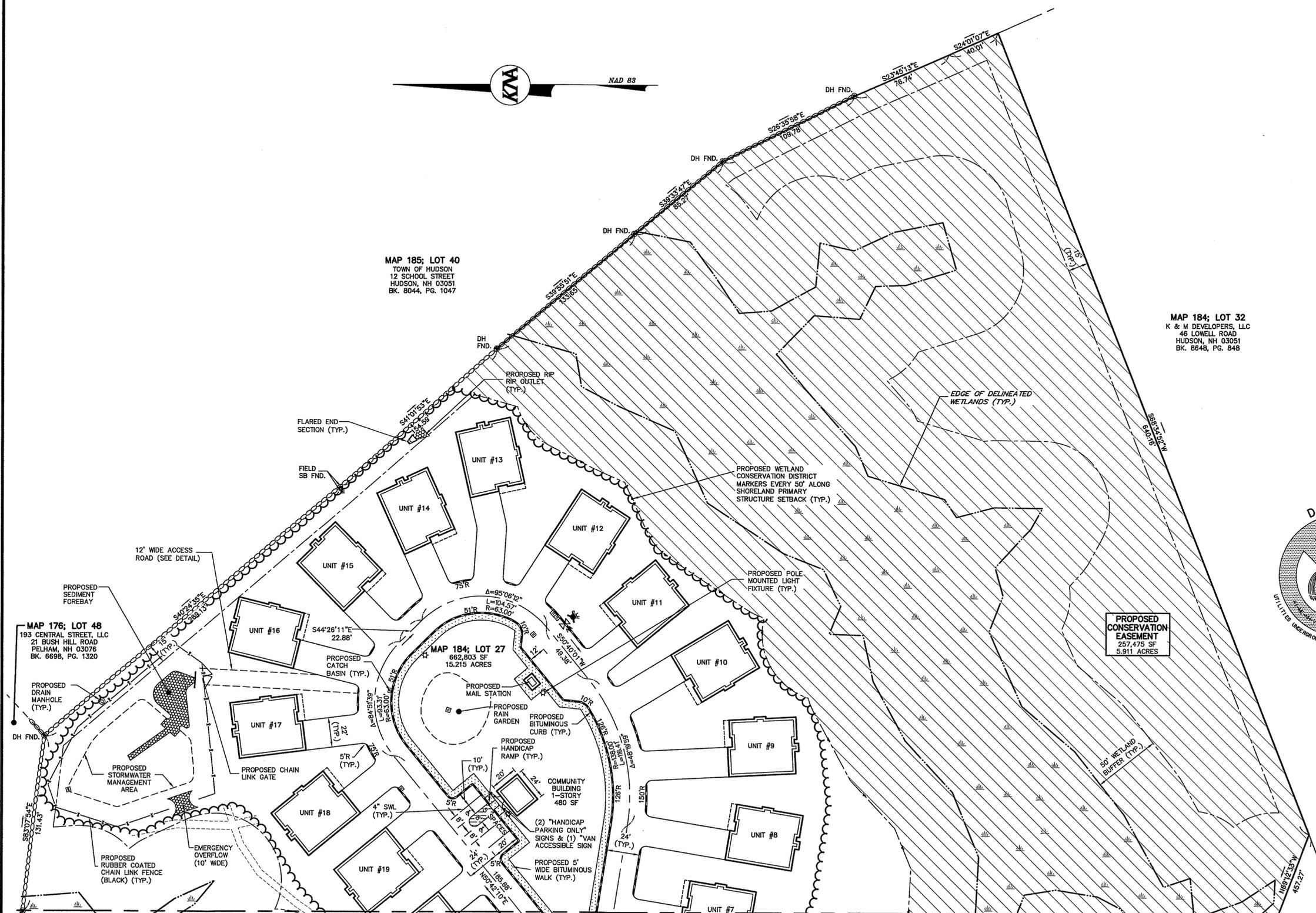


VICINITY MAP
SCALE: 1" = 1,000'

SEE SHEET 1 FOR REFERENCE
PLANS & GENERAL NOTES

MAP 185; LOT 40
TOWN OF HUDSON
12 SCHOOL STREET
HUDSON, NH 03051
BK. 8044, PG. 1047

MAP 184; LOT 32
K & M DEVELOPERS, LLC
46 LOWELL ROAD
HUDSON, NH 03051
BK. 8648, PG. 848



LEGEND

- STONE BOUND FOUND
- IRON PIN FOUND
- DRILL HOLE
- UTILITY POLE
- SIGN
- LIGHT
- GAS VALVE
- WATER VALVE
- HYDRANT
- WATER SHUT OFF
- SEWER MANHOLE
- DRAINAGE MANHOLE
- CATCH BASIN
- BUILDING SETBACK
- EASEMENT
- ZONE LINE
- ABUTTER LINE
- PROPERTY LINE
- WETLAND
- CHAIN LINK FENCE
- BARBED WIRE FENCE
- OVERHEAD UTILITIES
- TREELINE
- RETAINING WALL
- EDGE OF PAVEMENT
- EDGE OF GRAVEL
- STONEWALL
- PROPOSED EDGE OF PAVEMENT
- PROPOSED BITUMINOUS CURB
- PROPOSED CHAIN LINK FENCE
- PROPOSED VINYL FENCE



PROPOSED CONSERVATION EASEMENT
257,475 SF
5.911 ACRES

MAP 176; LOT 48
193 CENTRAL STREET, LLC
21 BUSH HILL ROAD
PELHAM, NH 03076
BK. 6698, PG. 1320

MAP 184; LOT 27
862,803 SF
15.215 ACRES

MATCH TO SHEET 6

RESIDENTIAL SITE LAYOUT PLAN
COBBLESTONE VILLAGE

MAP 184; LOT 27
137 BELKNAP ROAD
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

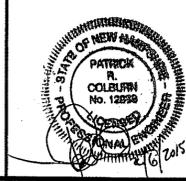
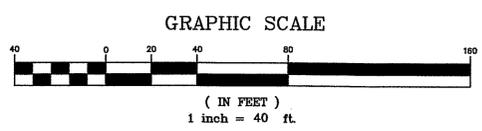
OWNER OF RECORD:
DEER CREEK DEVELOPMENT, LLC
25 FLAGSTONE DRIVE
HUDSON, NH 03051
H.C.R.D. BK. 8480, PG. 777

APPLICANT:
DEER CREEK DEVELOPMENT, LLC
25 FLAGSTONE DRIVE
HUDSON, NH 03051

KM KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL

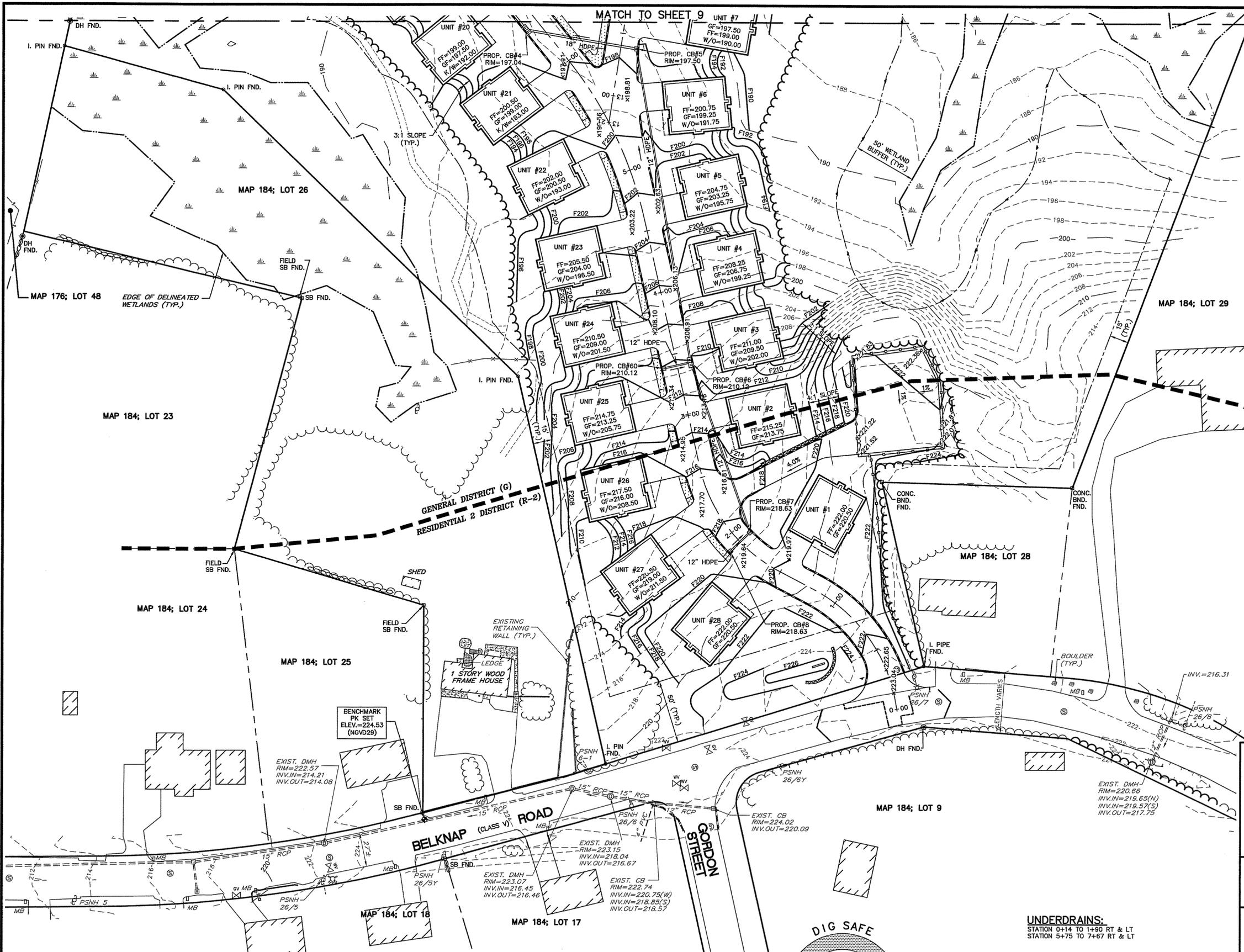
APPROVED BY THE HUDSON, NH PLANNING BOARD
DATE OF MEETING: _____
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REVISIONS			
No.	DATE	DESCRIPTION	BY

DATE: JANUARY 23, 2015 SCALE: 1" = 40'
PROJECT NO: 14-0721-1 SHEET 7 OF 28

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- CONSTRUCTION NOTES:**
- ALL WORK SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS OF THE TOWN OF HUDSON, AND SHALL BE BUILT IN A WORKMANLIKE MANNER IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, STATE OF NEW HAMPSHIRE, DEPARTMENT OF TRANSPORTATION, APPROVED AND ADOPTED 2010 ARE HEREBY INCORPORATED BY REFERENCE.
 - ROAD AND DRAINAGE CONSTRUCTION SHALL CONFORM TO THE TYPICAL SECTIONS AND DETAILS SHOWN ON THE PLANS, AND SHALL MEET THE REQUIREMENTS AND SPECIFICATIONS FOR ROAD CONSTRUCTION, PUBLIC WORKS DEPARTMENT, HUDSON, NEW HAMPSHIRE. CATCH BASIN FRAME AND GRATES SHALL BE TYPE B, AND HAVE 3' SUMPS UNLESS OTHERWISE NOTED.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATION, SIZE AND ELEVATION OF ALL EXISTING UTILITIES, SHOWN OR NOT SHOWN ON THESE PLANS, PRIOR TO THE START OF ANY CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION, AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING "DIG SAFE" AT 811 AT LEAST 72 HOURS BEFORE DIGGING.
 - ALL DRAINAGE PIPE SHALL BE FURNISHED AND INSTALLED WITH FLEXIBLE GASKETS. JOINTS SHALL BE MADE WITH OIL RESISTANT COMPRESSION RINGS OF AN ELASTOMERIC MATERIAL CONFORMING TO ASTM C-443. MANUFACTURER'S INSTALLATION INSTRUCTIONS SHALL BE FOLLOWED.



BUILDING NOMENCLATURE:
 FF = FIRST FLOOR
 GF = GARAGE FLOOR
 W/O = WALK OUT BASEMENT
 K/W = KNEE WALL

LEGEND

□	STONE BOUND FOUND	---	ABUTTER LINE
○	IRON PIN FOUND	---	PROPERTY LINE
●	DRILL HOLE	---	WETLAND
+	UTILITY POLE	---	CHAIN LINK FENCE
*	SIGN	---	BARBED WIRE FENCE
△	LIGHT	---	DRAINAGE LINE
▽	GAS VALVE	---	TREELINE
◇	WATER VALVE	---	RETAINING WALL
⊕	HYDRANT	---	EDGE OF PAVEMENT
⊖	WATER SHUT OFF	---	EDGE OF GRAVEL
⊙	SEWER MANHOLE	---	10' CONTOUR
⊚	DRAINAGE MANHOLE	---	2' CONTOUR
⊛	CATCH BASIN	---	STONEWALL
⊜	BUILDING SETBACK	---	PROPOSED EDGE OF PAVEMENT
⊝	EASEMENT	---	PROPOSED BITUMINOUS CURB
⊞	ZONE LINE	---	PROPOSED CHAIN LINK FENCE
⊟	SITE SPECIFIC SOIL LINE	---	PROPOSED VINYL FENCE
		---	PROPOSED 2' CONTOUR
		---	PROPOSED DRAINAGE LINE

GRADING AND DRAINAGE PLAN
COBBLESTONE VILLAGE

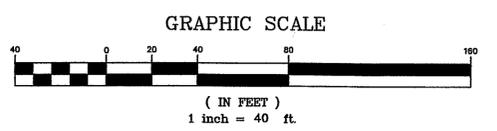
MAP 184; LOT 27
 137 BELKNAP ROAD
 HUDSON, NEW HAMPSHIRE
 HILLSBOROUGH COUNTY

OWNER OF RECORD: DEER CREEK DEVELOPMENT, LLC 25 FLAGSTONE DRIVE HUDSON, NH 03051 H.C.R.D. BK. 8480, PG. 777	APPLICANT: DEER CREEK DEVELOPMENT, LLC 25 FLAGSTONE DRIVE HUDSON, NH 03051
--	--

UNDERDRAINS:
 STATION 0+14 TO 1+90 RT & LT
 STATION 5+75 TO 7+67 RT & LT

NPDES NOTE

THIS PROJECT DISTURBS IN EXCESS OF 1-ACRE OF LAND. THEREFORE IT WILL BE REQUIRED TO OBTAIN NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT COVERAGE AS ISSUED BY THE ENVIRONMENTAL PROTECTION AGENCY (EPA). THE OWNER/DEVELOPER AND "OPERATOR" (GENERAL CONTRACTOR) SHALL EACH BE REQUIRED TO PREPARE AND SUBMIT A NOTICE OF INTENT (NOI) TO THE EPA PRIOR TO THE START OF CONSTRUCTION AND SHALL BE RESPONSIBLE FOR THE PREPARATION AND IMPLEMENTATION OF A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) MEETING THE REQUIREMENTS OF THE CURRENT CONSTRUCTION GENERAL PERMIT.



PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL

APPROVED BY THE HUDSON, NH PLANNING BOARD
 DATE OF MEETING: _____
 SIGNATURE _____ DATE _____
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 Civil Engineering Land Surveying Landscape Architecture
 10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

REVISIONS			
No.	DATE	DESCRIPTION	BY

DATE: JANUARY 23, 2015 SCALE: 1" = 40'
 PROJECT NO: 14-0721-1 SHEET 8 OF 28

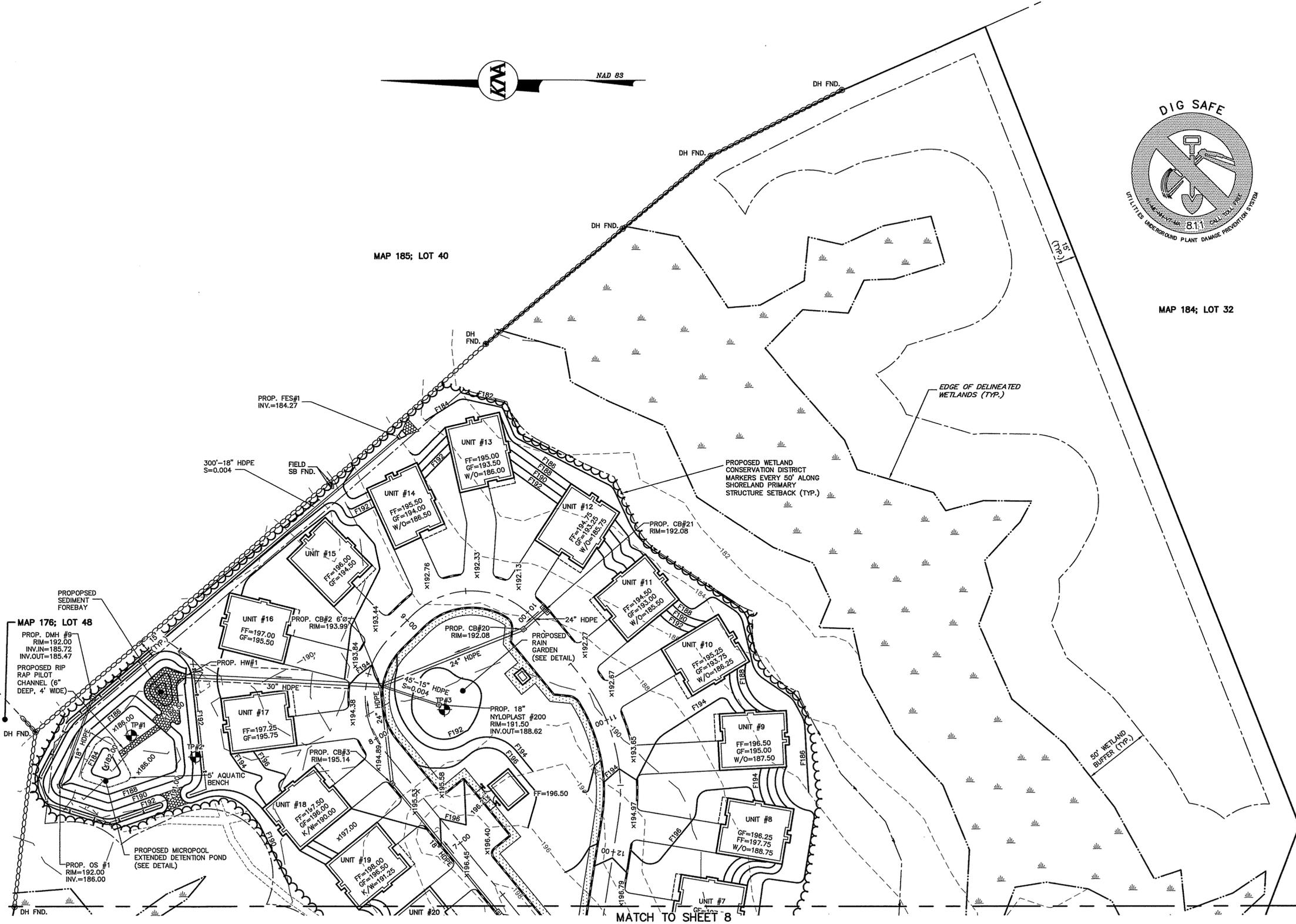
SEE SHEET 8 FOR NOTES

LOAM & SEED ALL DISTURBED AREAS



MAP 185; LOT 40

MAP 184; LOT 32



LEGEND

STONE BOUND FOUND	---	ABUTTER LINE
IRON PIN FOUND	---	PROPERTY LINE
DRILL HOLE	---	WETLAND
UTILITY POLE	---	CHAIN LINK FENCE
SIGN	---	BARBED WIRE FENCE
LIGHT	---	DRAINAGE LINE
GAS VALVE	---	TREELINE
WATER VALVE	---	RETAINING WALL
HYDRANT	---	EDGE OF PAVEMENT
WATER SHUT OFF	---	EDGE OF GRAVEL
SEWER MANHOLE	---	10' CONTOUR
DRAINAGE MANHOLE	---	2' CONTOUR
CATCH BASIN	---	STONEWALL
BUILDING SETBACK	---	PROPOSED EDGE OF PAVEMENT
EASEMENT	---	PROPOSED BITUMINOUS CURB
ZONE LINE	---	PROPOSED CHAIN LINK FENCE
SITE SPECIFIC SOIL LINE	---	PROPOSED VINYL FENCE
	---	PROPOSED 2' CONTOUR
	---	PROPOSED DRAINAGE LINE

**GRADING AND DRAINAGE PLAN
COBBLESTONE VILLAGE**

MAP 184; LOT 27
137 BELKNAP ROAD
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD:
DEER CREEK DEVELOPMENT, LLC
25 FLAGSTONE DRIVE
HUDSON, NH 03051
H.C.R.D. BK. 8480, PG. 777

APPLICANT:
DEER CREEK DEVELOPMENT, LLC
25 FLAGSTONE DRIVE
HUDSON, NH 03051



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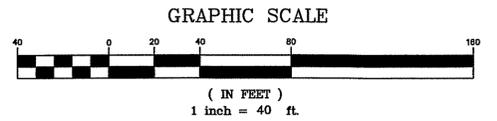
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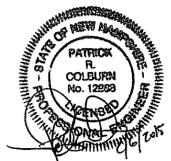
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UNDERDRAINS:
STATION 0+14 TO 1+90 RT & LT
STATION 5+75 TO 7+67 RT & LT

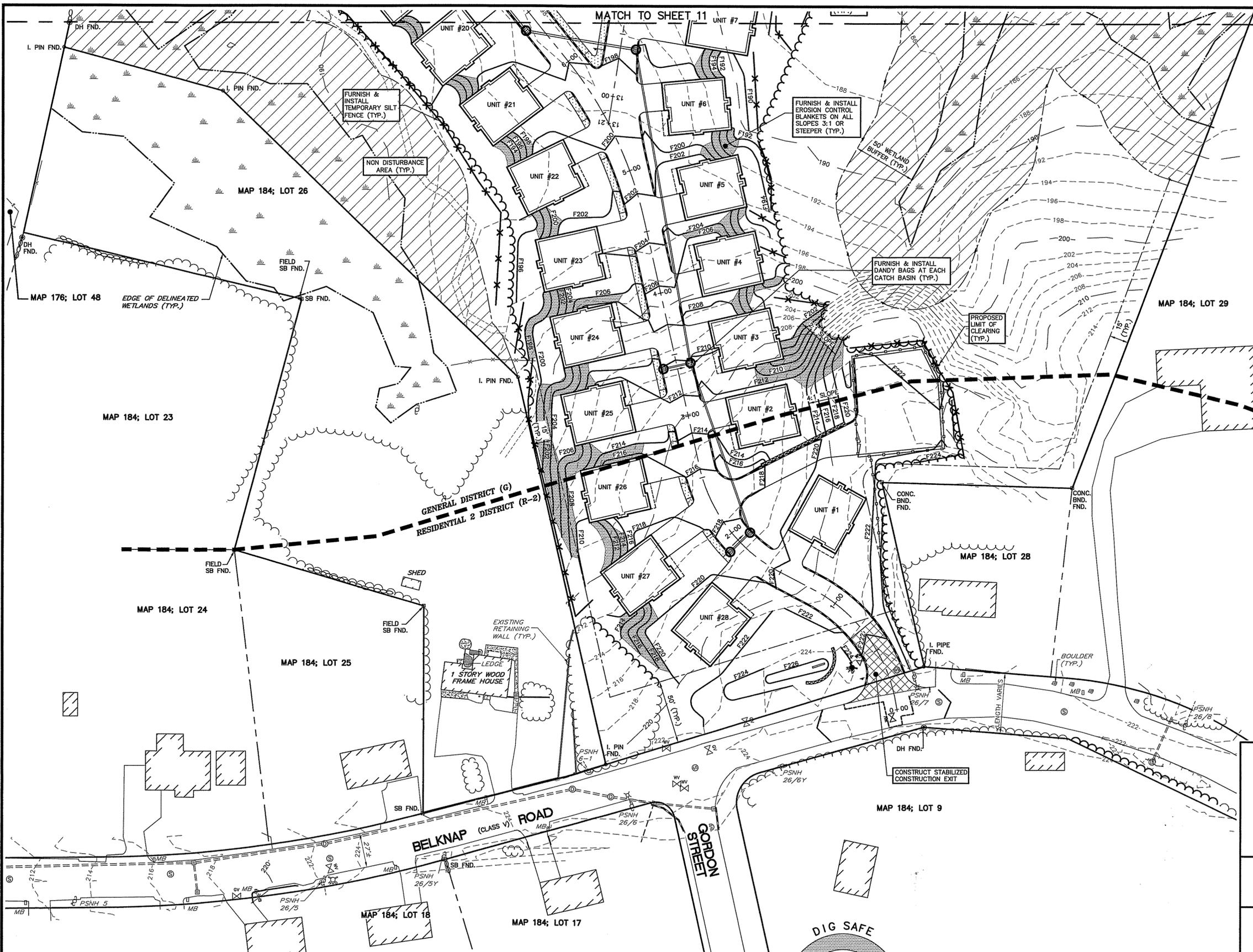
NPDES NOTE
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REVISIONS			
No.	DATE	DESCRIPTION	BY

DATE: JANUARY 23, 2015 SCALE: 1" = 40'
PROJECT NO: 14-0721-1 SHEET 9 OF 28

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- CONSTRUCTION NOTES:**
1. THE PURPOSE OF THIS PLAN IS TO DEPICT THE REQUIRED ONSITE TEMPORARY CONSTRUCTION EROSION CONTROL MEASURES AS WELL AS THE PERMANENT EROSION CONTROL MEASURES.
 2. ALL MEASURES IN THE PLAN SHALL MEET AS A MINIMUM THE BEST MANAGEMENT PRACTICES SET FORTH IN THE "STORMWATER MANAGEMENT AND EROSION AND SEDIMENT CONTROL HANDBOOK FOR URBAN AND DEVELOPING AREAS IN NEW HAMPSHIRE," ROCKINGHAM COUNTY CONSERVATION DISTRICT, NH DEPARTMENT OF ENVIRONMENTAL SERVICES, SOIL CONSERVATION SERVICE (NOW THE NATURAL RESOURCES CONSERVATION SERVICE), AUGUST 2010, AS AMENDED FROM TIME TO TIME.
 3. WHENEVER PRACTICAL, NATURAL VEGETATION SHALL BE RETAINED, PROTECTED OR SUPPLEMENTED. THE STRIPPING OF VEGETATION SHALL BE DONE IN A MANNER THAT MINIMIZES SOIL EROSION.
 4. APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO LAND DISTURBANCE.
 5. THE AREA OF DISTURBANCE SHALL BE KEPT TO A MINIMUM. DISTURBED AREAS REMAINING IDLE FOR MORE THAN 30 DAYS SHALL BE STABILIZED.
 6. MEASURES SHALL BE TAKEN TO CONTROL EROSION WITHIN THE PROJECT AREA. SEDIMENT IN RUNOFF WATER SHALL BE TRAPPED AND RETAINED WITHIN THE PROJECT AREA USING APPROVED MEASURES. WETLAND AREAS AND SURFACE WATERS SHALL BE PROTECTED FROM SEDIMENT.
 7. OFFSITE SURFACE WATER AND RUNOFF FROM UNDISTURBED AREAS SHALL BE DIVERTED AWAY FROM DISTURBED AREAS WHERE FEASIBLE OR CARRIED NON-EROSIVELY THROUGH THE PROJECT AREA. INTEGRITY OF DOWNSTREAM DRAINAGE SYSTEMS SHALL BE MAINTAINED.
 8. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED IN FUNCTIONING CONDITION UNTIL FINAL SITE STABILIZATION IS ACCOMPLISHED.
 9. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED AFTER FINAL SITE STABILIZATION. TRAPPED SEDIMENT AND OTHER DISTURBED SOIL AREAS RESULTING FROM THE REMOVAL OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED WITHIN 30 DAYS UNLESS CONDITIONS DICTATE OTHERWISE.
 10. THE TOWN OF HUDSON SHALL RESERVE THE RIGHT TO REQUIRE FURTHER EROSION CONTROL PRACTICES DURING CONSTRUCTION SHOULD THEY FIND IT NECESSARY.
 11. SNOW ACCUMULATED DURING THE WINTER CONSTRUCTION CONDITIONS SHOULD BE STORED IN THE STAGING & STOCKPILE AREA, SURROUNDED BY SILT FENCE.



EROSION & SEDIMENT CONTROL LEGEND

	PERMANENT OUTLET PROTECTION APRON (RIP RAP)
	TEMPORARY DANDY BAGS AT ALL CATCH BASINS
	TEMPORARY SILT FENCE
	LIMITS OF CLEARING
	STABILIZED CONSTRUCTION EXIT
	NON DISTURBANCE AREA
	STAGING AND STOCKPILE AREA
	EROSION CONTROL BLANKETS

**EROSION CONTROL PLAN
COBBLESTONE VILLAGE**

MAP 184; LOT 27
137 BELKNAP ROAD
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD: DEER CREEK DEVELOPMENT, LLC 25 FLAGSTONE DRIVE HUDSON, NH 03051 H.C.R.D. BK. 8480, PG. 777	APPLICANT: DEER CREEK DEVELOPMENT, LLC 25 FLAGSTONE DRIVE HUDSON, NH 03051
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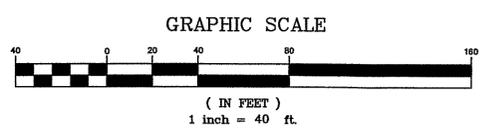
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NPDES NOTE

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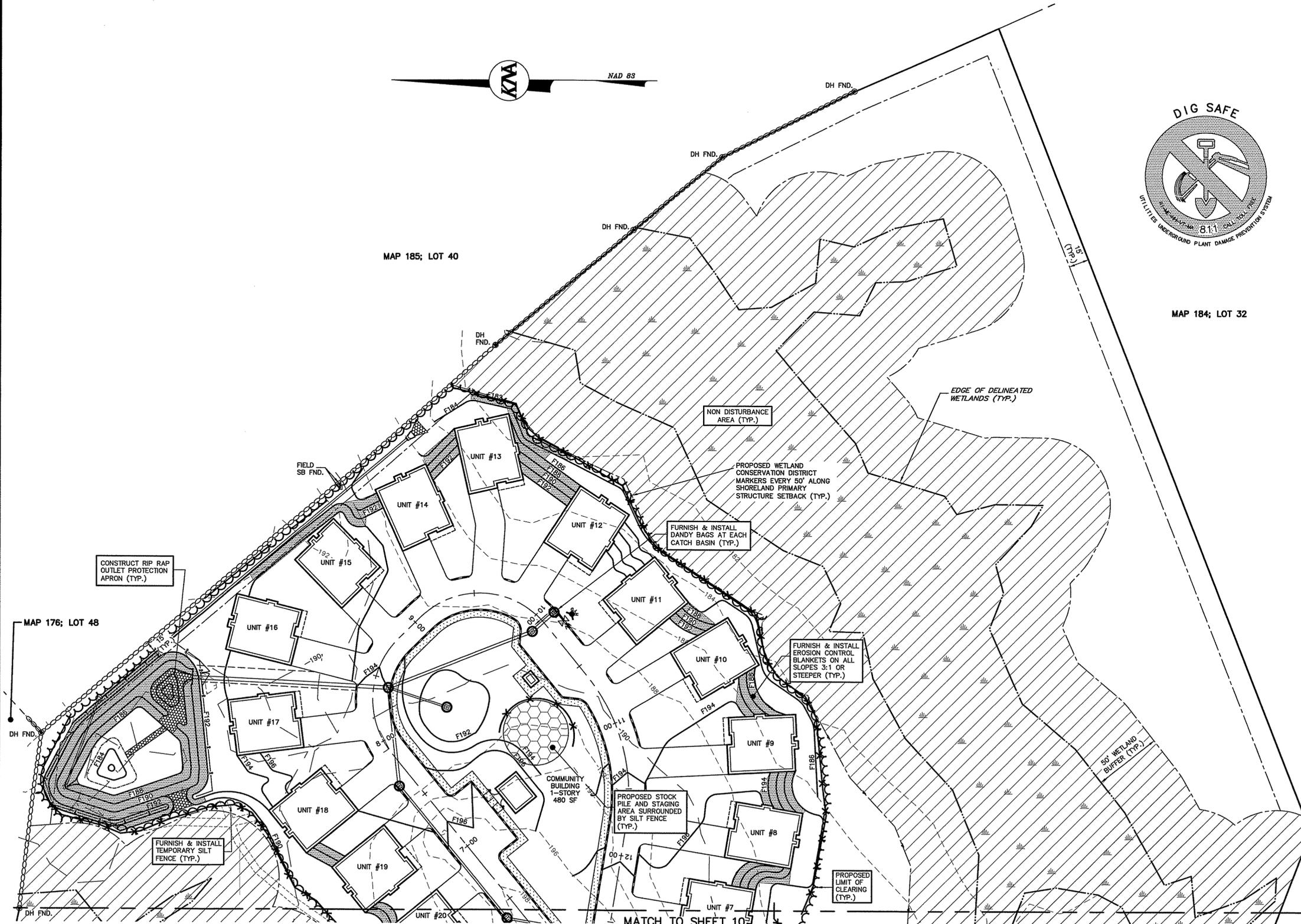
SEE SHEET 10 FOR NOTES

LOAM & SEED ALL DISTURBED AREAS



MAP 185; LOT 40

MAP 184; LOT 32



EROSION & SEDIMENT CONTROL LEGEND

- PERMANENT OUTLET PROTECTION APRON (RIP RAP)
- TEMPORARY DANDY BAGS AT ALL CATCH BASINS
- TEMPORARY SILT FENCE
- LIMITS OF CLEARING
- STABILIZED CONSTRUCTION EXIT
- NON DISTURBANCE AREA
- STAGING AND STOCKPILE AREA
- EROSION CONTROL BLANKETS

**EROSION CONTROL PLAN
COBBLESTONE VILLAGE**

MAP 184; LOT 27
137 BELKNAP ROAD
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

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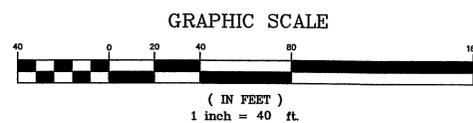


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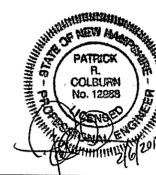
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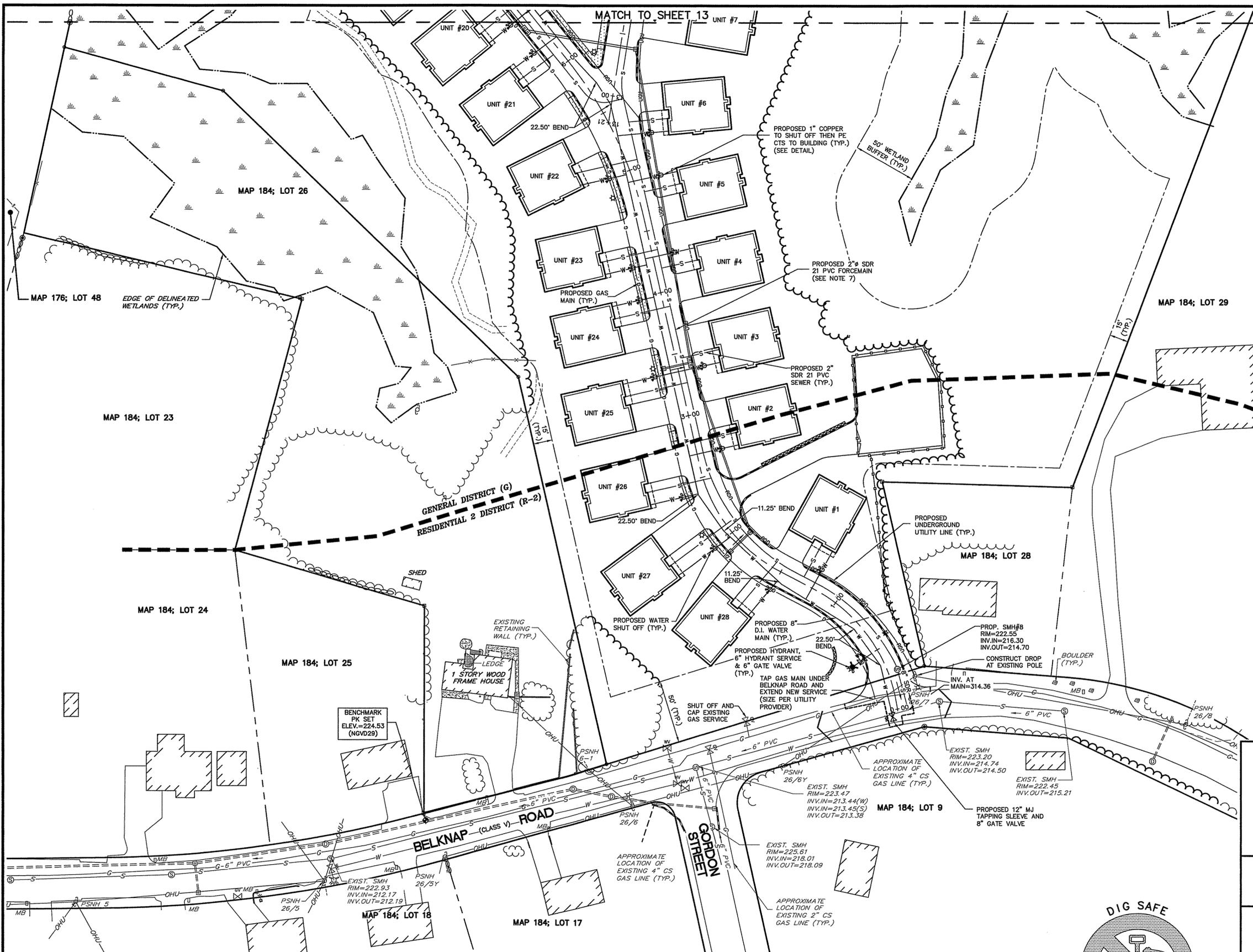


MATCH TO SHEET 13

- CONSTRUCTION NOTES:**
- ALL WORK SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS OF THE TOWN OF HUDSON, AND SHALL BE BUILT IN A WORKMANLIKE MANNER IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, STATE OF NEW HAMPSHIRE, DEPARTMENT OF TRANSPORTATION, APPROVED AND ADOPTED 2010 ARE HEREBY INCORPORATED BY REFERENCE.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATION, SIZE AND ELEVATION OF ALL EXISTING UTILITIES, SHOWN OR NOT SHOWN ON THESE PLANS, PRIOR TO THE START OF ANY CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION, AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING "DIG SAFE" AT 811 AT LEAST 72 HOURS BEFORE DIGGING.
 - ALL NEW HYDRANTS IN THE TOWN OF HUDSON SHALL BE METROPOLITAN M-94 WITH VALVES THAT OPEN LEFT (COUNTER CLOCKWISE).
 - FINAL LAYOUT AND DESIGN OF UNDERGROUND CONDUIT (ELECTRIC, CABLE) AND GAS SHALL BE SUPPLIED BY LOCAL UTILITY INCLUDING LOCATIONS OF PULL BOXES AND TRANSFORMER PADS.
 - WATERMAIN SHALL BECOME THE PROPERTY OF THE TOWN OF HUDSON WATER UTILITY FOLLOWING INSTALLATION. THE ONSITE SEWER SHALL REMAIN PRIVATE.
 - THE PROPOSED SEWER SYSTEM CONSISTS OF INDIVIDUAL GRINDER PUMP SYSTEMS WITHIN EACH UNIT THAT EACH PUMP TO A COMMUNITY FORCEMAIN UNDER COBBLESTONE DRIVE. SYSTEM WAS LAID OUT BY AFFORDABLE SEWER SOLUTIONS. FINAL DESIGN SHALL BE REVIEWED AND APPROVED BY TOWN ENGINEER PRIOR TO CONSTRUCTION.



- LEGEND**
- STONE BOUND FOUND
 - IRON PIN FOUND
 - DRILL HOLE
 - UTILITY POLE
 - SIGN
 - LIGHT
 - GAS VALVE
 - WATER VALVE
 - HYDRANT
 - WATER SHUT OFF
 - SEWER MANHOLE
 - DRAINAGE MANHOLE
 - CATCH BASIN
 - BUILDING SETBACK
 - EASEMENT
 - ZONE LINE
 - ABUTTER LINE
 - PROPERTY LINE
 - WETLAND
 - CHAIN LINK FENCE
 - BARBED WIRE FENCE
 - OHU OVERHEAD UTILITIES
 - G GAS LINE
 - W WATER LINE
 - S SEWER LINE
 - D DRAINAGE LINE
 - TREELINE
 - RETAINING WALL
 - EDGE OF PAVEMENT
 - EDGE OF GRAVEL
 - STONEWALL
 - PROPOSED EDGE OF PAVEMENT
 - PROPOSED BITUMINOUS CURB
 - PROPOSED DRAINAGE LINE
 - UGU PROPOSED UNDERGROUND UTILITIES
 - G PROPOSED GAS LINE
 - W PROPOSED WATER LINE
 - S PROPOSED SEWER LINE
 - FM PROPOSED FORCEMAIN



**UTILITY PLAN
COBBLESTONE VILLAGE**

MAP 184; LOT 27
137 BELKNAP ROAD
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD:
DEER CREEK DEVELOPMENT, LLC
25 FLAGSTONE DRIVE
HUDSON, NH 03051
H.C.R.D. BK. 8480, PG. 777

APPLICANT:
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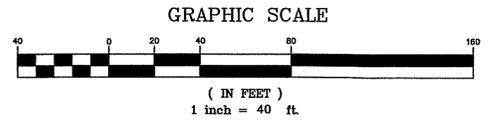
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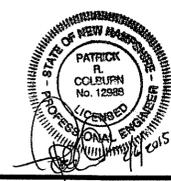
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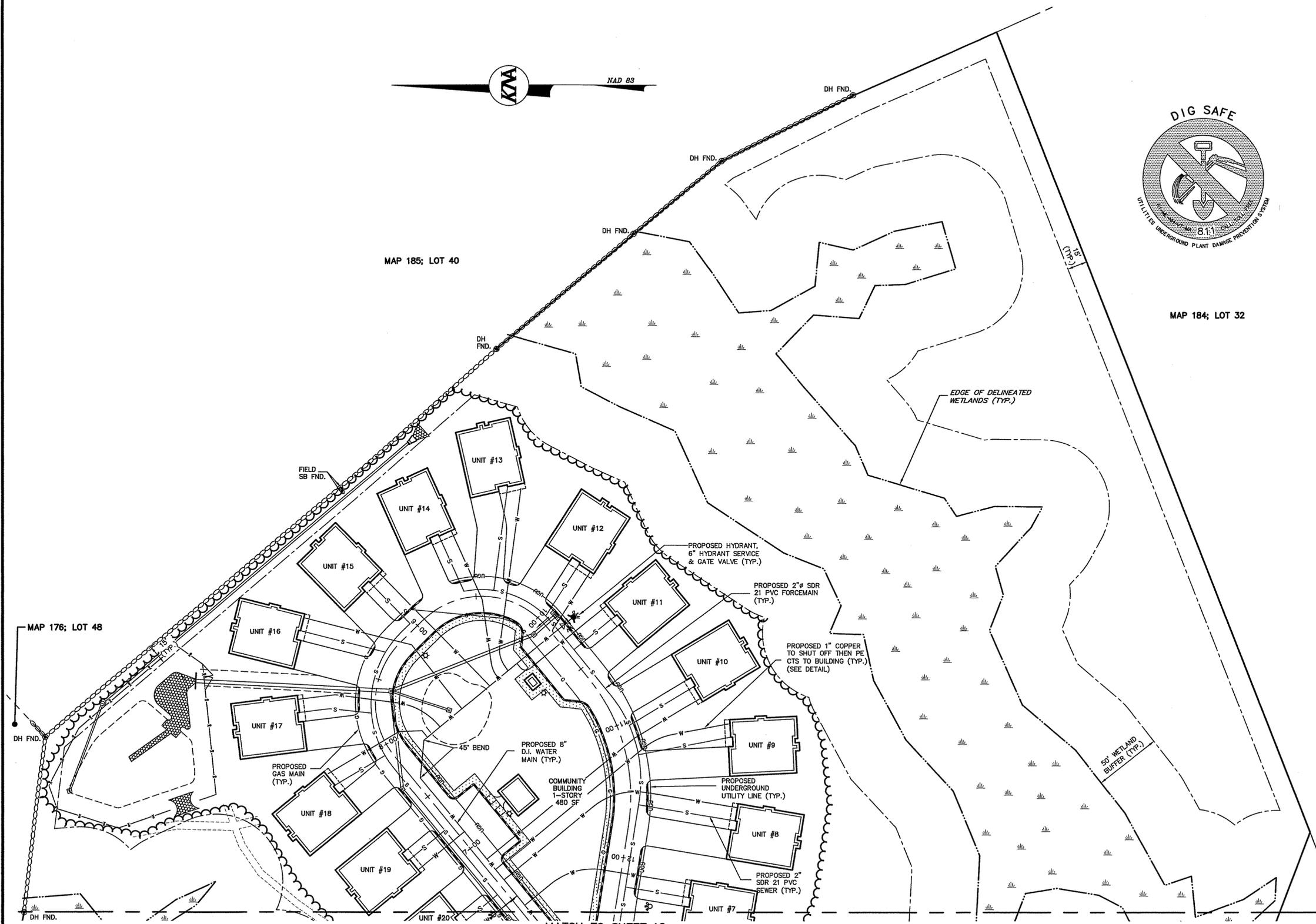
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DATE: JANUARY 23, 2015 SCALE: 1" = 40'
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SEE SHEET 12 FOR NOTES



LEGEND

- STONE BOUND FOUND
- IRON PIN FOUND
- DRILL HOLE
- UTILITY POLE
- SIGN
- LIGHT
- GAS VALVE
- WATER VALVE
- HYDRANT
- WATER SHUT OFF
- SEWER MANHOLE
- DRAINAGE MANHOLE
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**UTILITY PLAN
COBBLESTONE VILLAGE**

MAP 184; LOT 27
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HUDSON, NEW HAMPSHIRE
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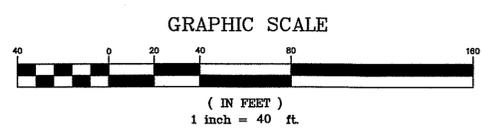
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PROJECT NO: 14-0721-1 SHEET 13 OF 28

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LANDSCAPE NOTES:

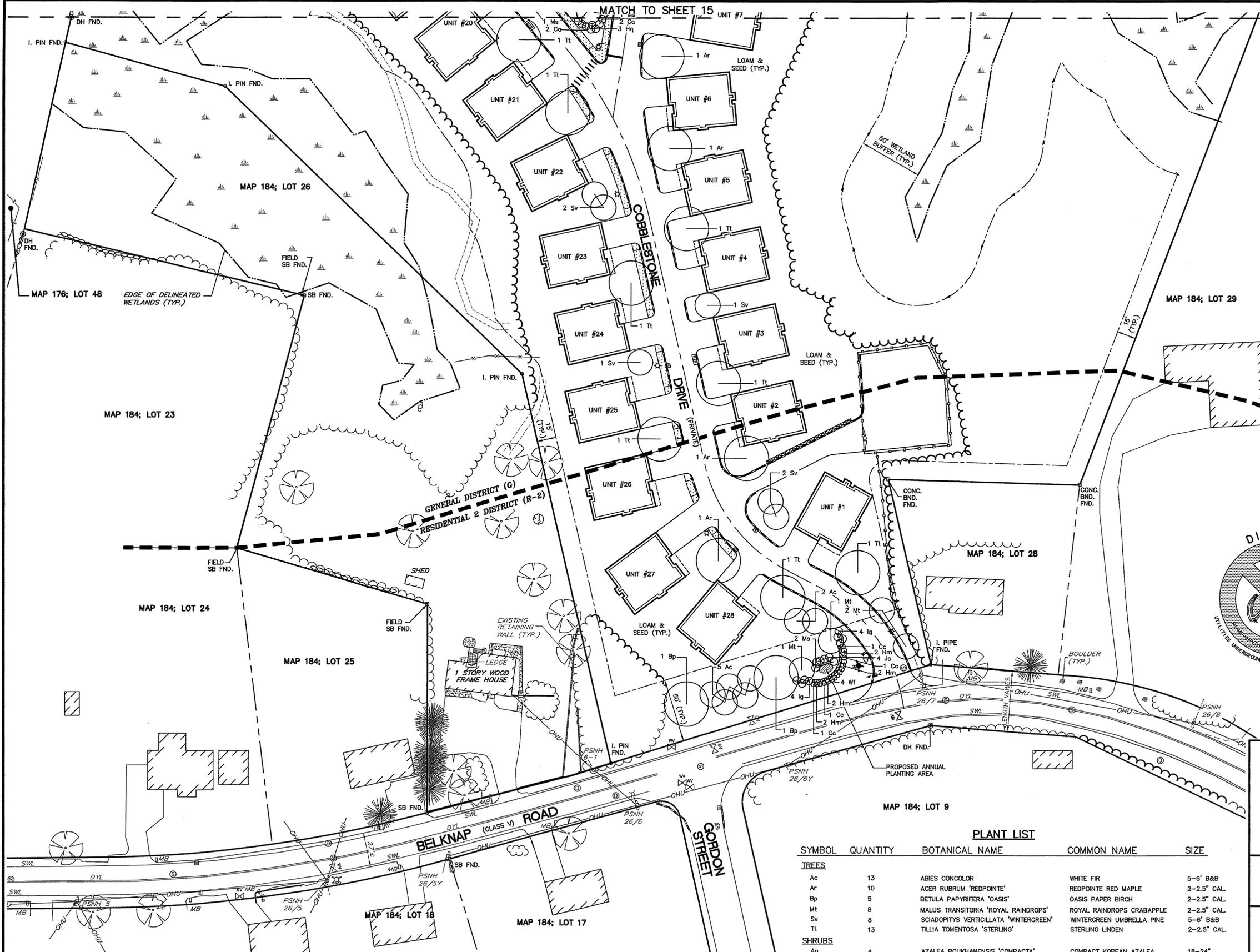
1. ALL PLANT MATERIALS USED SHALL BE NURSERY STOCK AND SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR FROM DATE OF INSTALLATION. ANY MATERIAL WHICH DIES OR DOES NOT SHOWN HEALTHY APPEARANCE WITHIN THIS TIME SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE, WITH SAME WARRANTY REQUIREMENTS AS THE ORIGINAL WARRANTIES TYPICALLY DO NOT COVER LOSS DUE TO INSECT INFESTATION OR MECHANICAL DAMAGE (I.E. SNOW STORAGE).
2. IF THE SOIL CONDITIONS ARE EXTREMELY SANDY, ALL TREES SHALL HAVE A 6" LAYER OF COMPACTED TOPSOIL PLACED IN THE BASE OF THE PLANT PIT AS A MOISTURE RETENTION LAYER. THE PLANT PIT SIDEWALLS SHALL BE OVER EXCAVATED BY AN ADDITIONAL 12" BEYOND THE NORMAL OUTSIDE RADIUS OF THE HOLE. A TOPSOIL MIXTURE SHALL BE USED TO BACKFILL THE HOLE AS FOLLOWS: ORGANIC TOPSOIL, AMENDED WITH 10% WOOD ASH, 10% MANURE, 30% PEATMOSS AND A GRANULAR HYDROGEL TO ABSORB AND RETAIN WATER.
3. PLANTING BEDS AND SAUCERS SHALL RECEIVE A 4" MINIMUM THICKNESS OF PINE/HEMLOCK BARK MULCH OVER A 5oz. POLYPROPYLENE WEED CONTROL FABRIC.
4. PAVEMENT AND ROAD BASE MATERIAL ENCOUNTERED IN ANY LAWN OR PLANTING BED SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SUITABLE AMENDED SOIL INSTALLED AS SPECIFIED IN THE TURF ESTABLISHMENT SCHEDULE.

NOTES FOR PLANTING AQUATIC BENCHES:

1. FOR THE PLANTING OF THE AQUATIC BENCHES, THE CONTRACTOR SHALL USE THE EMERGENT WETLAND MIX AS PROVIDED BY STONEY RIDGE ENVIRONMENTAL, OR APPROVED EQUAL.
2. THIS SEED MIX SHALL BE APPLIED AT A RATE OF 1 LB./3,000 SF AND CONSISTS OF THE FOLLOWING:
 SCIRPUS ATROVIRENS (GREEN BULRUSH)
 SPARGANIUM AMERICANUM (EASTERN BUR-REED)
 SPARGANIUM EURYCARPON (GIANT BUR-REED)
 PONTEDERIA CORDATA (PICKERELWEED)
 PELTANDRA VIRGINICA (ARROW ARUM)
 SAGITTARIA LATIFOLIA (ARROWHEAD)
 IRIS VERSICOLOR (BLUEFLAG)
 LEERSIA ORYZOIDES (RICE-CUT GRASS)
 GLYCERIA CANADENSIS (RATTLESNAKE GRASS)
 ASCLEPIAS INCARNATA (SWAMP MILKWEED)
 BIDENS CERNUA (NODDING BEGGARS-TICKS)
3. AQUATIC BENCH IS TO REMAIN IN A NATURAL STATE AND SHALL NOT BE MOWED.

LEGEND

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- EDGE OF PAVEMENT
- EDGE OF GRAVEL
- STONEWALL
- PROPOSED EDGE OF PAVEMENT
- PROPOSED BITUMINOUS CURB
- PROPOSED CHAIN LINK FENCE
- PROPOSED VINYL FENCE



PLANT LIST

SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE
TREES				
Ac	13	ABIES CONCOLOR	WHITE FIR	5-6" B&B
Ar	10	ACER RUBRUM 'REDPOINTE'	REDPOINTE RED MAPLE	2-2.5" CAL
Bp	5	BETULA PAPIRIFERA 'OASIS'	OASIS PAPER BIRCH	2-2.5" CAL
Mt	8	MALUS TRANSITORIA 'ROYAL RAINDROPS'	ROYAL RAINDROPS GRABAPPLE	2-2.5" CAL
Sv	8	SCIADOPITYS VERTICILLATA 'WINTERGREEN'	WINTERGREEN UMBRELLA PINE	5-6" B&B
Tt	13	TILIA TOMENTOSA 'STERLING'	STERLING LINDEN	2-2.5" CAL
SHRUBS				
Ap	4	AZALEA POUKHANENSIS 'COMPACTA'	COMPACT KOREAN AZALEA	18-24"
Ca	6	CORNUS ALBA 'IVORY HALO'	IVORY HALO DOGWOOD	2.5-3" B&B
Cc	4	CARYOPTERIS CLANDONENSIS 'DARK KNIGHT'	DARK KNIGHT SPIREA	15-18"
Hm	8	HYDRANGEA MACROPHYLLA 'SISTER THERESA'	SISTER THERESA HYDRANGEA	18-24"
Hq	3	HYDRANGEA QUERCIFOLIA 'SNOW QUEEN'	SNOW QUEEN OAKLEAF HYDRANGEA	2-2.5"
Ig	9	ILEX GLABRA 'COMPACTA'	COMPACT INKBERRY	2-2.5"
Jh	6	JUNIPERUS HORIZONTALIS 'BAR HARBOR'	BAR HARBOR JUNIPER	18-24"
Js	4	JUNIPERUS SCOPULORUM 'WICHITA BLUE'	WICHITA BLUE JUNIPER	4-5" B&B
Wf	4	WEIGELA FLORIDA 'DARK HORSE'	DARK HORSE WEIGELA	18-24"
PERENNIALS				
Ms	4	MISCANTHUS SINENSIS 'CABARET'	CABARET SILVER GRASS	#3

**LANDSCAPE PLAN
COBBLESTONE VILLAGE**

MAP 184; LOT 27
137 BELKNAP ROAD
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF MAP RECORD:
DEERCREEK DEVELOPMENT, LLC.
25 FLAGSTONE DRIVE
HUDSON, NH 03051
H.C.R.D. BK. 8480, PG. 777

APPLICANT:
DEERCREEK DEVELOPMENT, LLC.
25 FLAGSTONE DRIVE
HUDSON, NH 03051



KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881



REVISIONS

No.	DATE	DESCRIPTION	BY

DATE: JANUARY 23, 2015 SCALE: 1" = 40'
PROJECT NO: 14-0721-1 SHEET 14 OF 28

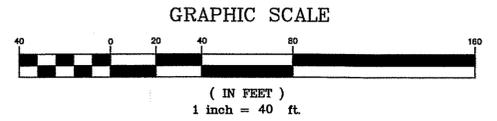
PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

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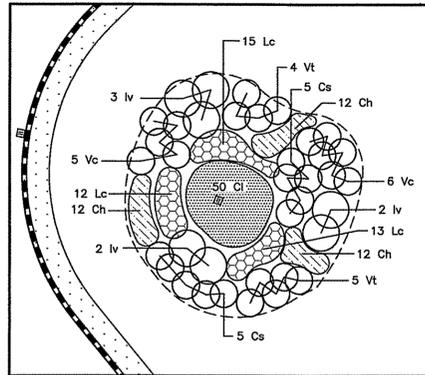
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RAIN GARDEN PLANT LIST

SYMBOL	QTY	BOTANICAL NAME	COMMON NAME	SIZE
SHRUBS				
Iv	7	ILEX VERTICILLATA	COMMON WINTERBERRY	12-18"
Cs	10	CORNUS SERICEA 'ALLEMAN'S COMPACTA'	ALLEMAN'S COMPACT RED-OSIER DOGWOOD	18-24"
Vc	11	VACCINIUM CORYMBOSUM	HIGHBUSH BLUEBERRY	18-24"
Vt	9	VIBURNUM TRILOBUM 'COMPACTA'	AMERICAN CRANBERRY COMPACT VIBURNUM	18-24"
PERENNIALS				
Ch	36	CHELONE 'HOT LIPS'	HOT LIPS TURTLEHEAD	1 QT.
Cl	50	CHASMANTHIUM LATIFOLIUM	NORTHERN SEA OATS	1 QT.
Lc	40	LOBELIA CARDINALIS	CARDINAL FLOWER	1 QT.



RAIN GARDEN DETAIL
SCALE: 1" = 20'

SEE SHEET 14 FOR PLANT LIST & NOTES



COMMUNITY BUILDING LANDSCAPE CALCULATIONS

REQUIRED PARKING LOT INTERIOR LANDSCAPE AREA
 PROPOSED PARKING AREA PAVED: 2,376 SF
 10% REQUIRED LANDSCAPE AREA: 238 SF
 PROVIDED LANDSCAPE AREA: 18,135 SF

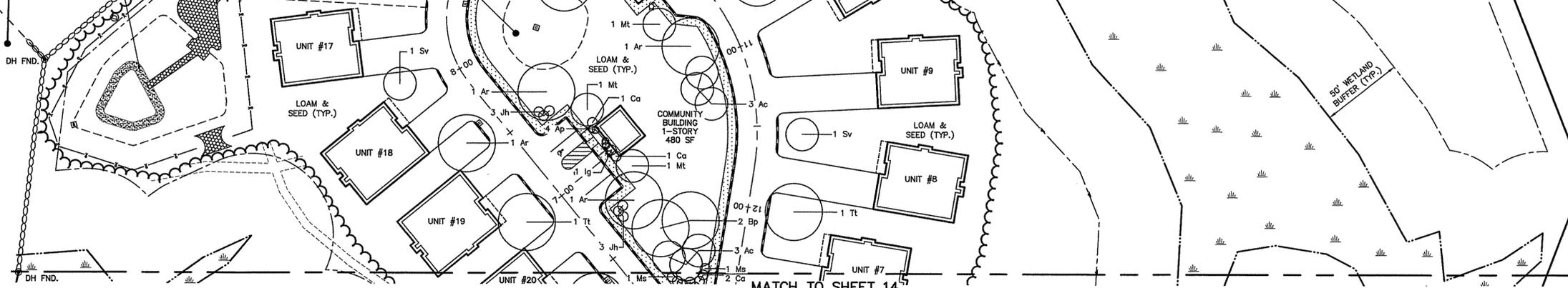
REQUIRED PARKING LOT SHADE TREES AND SHRUBS
 PROPOSED PAVED AREA: 2,376 SF
 SHADE TREES REQUIRED (2,376/1,600): 2 TREES REQUIRED, OR (OR 1 PER 5 PARKING SPACES) 1 TREES REQUIRED
 SHADE TREES PROVIDED: 2 TREES PROPOSED
 SHRUBS REQUIRED (2,376/200): 12 SHRUBS REQUIRED, OR (OR 1.6 x 5 PARKING SPACES) 8 SHRUBS REQUIRED
 SHRUBS PROVIDED: 13 SHRUBS PROPOSED

MAP 184; LOT 32

MAP 185; LOT 40

MAP 176; LOT 48

PROPOSED AQUATIC BENCH (SEE NOTES FOR PLANTING AQUATIC BENCHES ON SHEET 14)



LEGEND

- STONE BOUND FOUND
- IRON PIN FOUND
- DRILL HOLE
- UTILITY POLE
- SIGN
- LIGHT
- GAS VALVE
- WATER VALVE
- HYDRANT
- WATER SHUT OFF
- SEWER MANHOLE
- DRAINAGE MANHOLE
- CATCH BASIN
- BUILDING SETBACK
- EASEMENT
- ZONE LINE
- ABUTTER LINE
- PROPERTY LINE
- WETLAND
- CHAIN LINK FENCE
- BARBED WIRE FENCE
- OVERHEAD UTILITIES
- TREELINE
- RETAINING WALL
- EDGE OF PAVEMENT
- EDGE OF GRAVEL
- STONEWALL
- PROPOSED EDGE OF PAVEMENT
- PROPOSED BITUMINOUS CURB
- PROPOSED CHAIN LINK FENCE
- PROPOSED VINYL FENCE



**LANDSCAPE PLAN
COBBLESTONE VILLAGE**

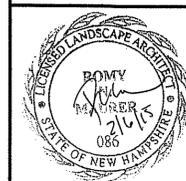
MAP 184; LOT 27
 137 BELKNAP ROAD
 HUDSON, NEW HAMPSHIRE
 HILLSBOROUGH COUNTY

OWNER OF MAP RECORD:
 DEERCREEK DEVELOPMENT, LLC.
 25 FLAGSTONE DRIVE
 HUDSON, NH 03051
 H.C.R.D. BK. 8480, PG. 777

APPLICANT:
 DEERCREEK DEVELOPMENT, LLC.
 25 FLAGSTONE DRIVE
 HUDSON, NH 03051



10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

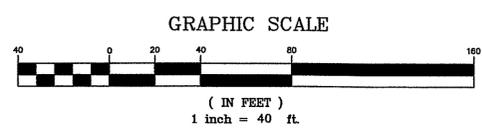


REVISIONS			
No.	DATE	DESCRIPTION	BY

DATE: JANUARY 23, 2015 SCALE: 1" = 40'
 PROJECT NO: 14-0721-1 SHEET 15 OF 28

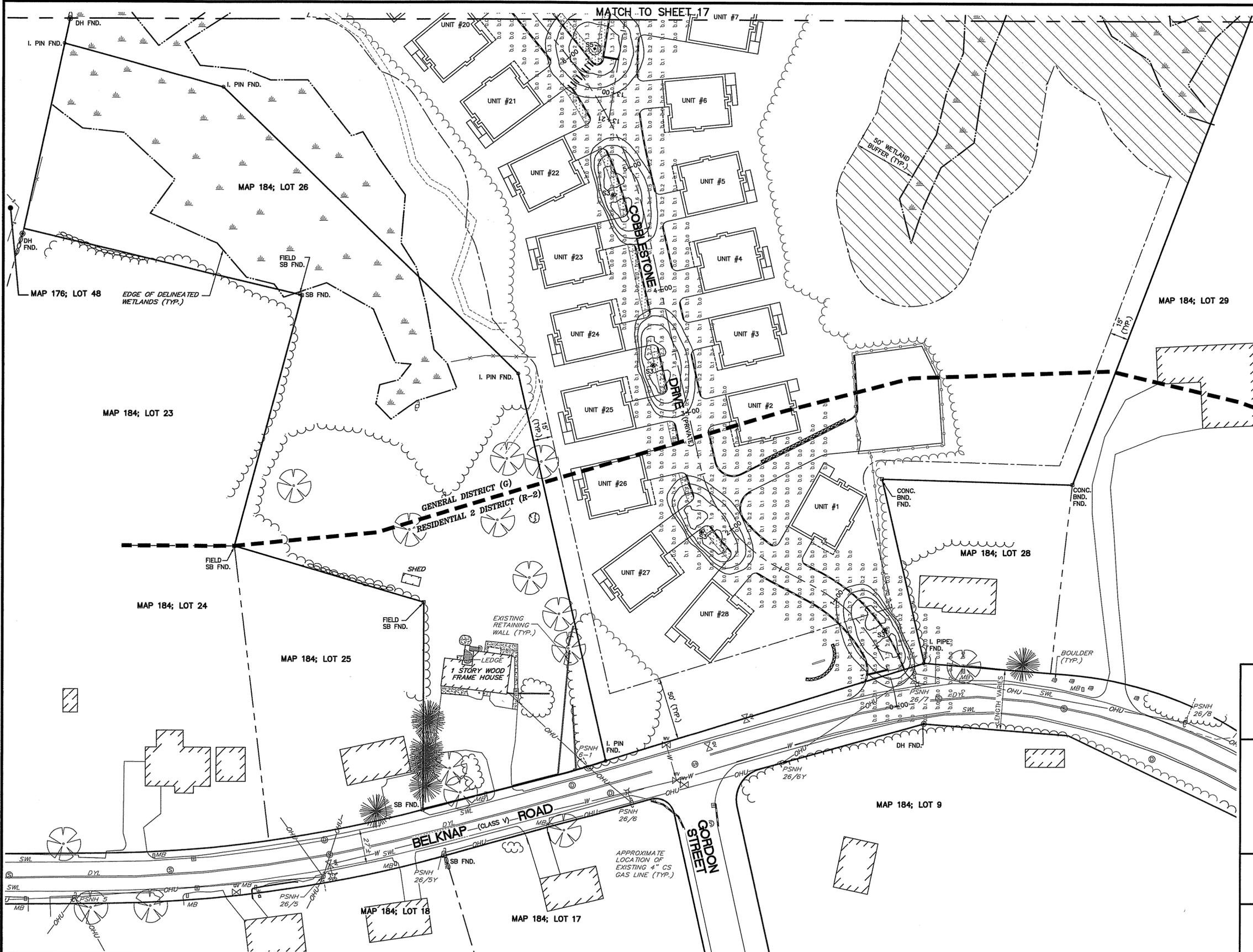
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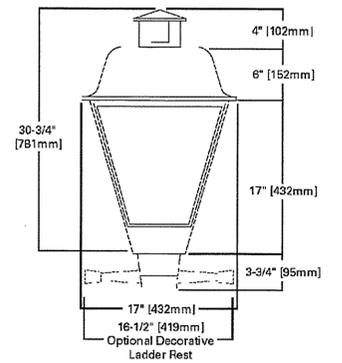


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MATCH TO SHEET 17



- LIGHTING NOTES:**
1. ALL FIXTURES ARE FULL CUTOFF.
 2. ALL FIXTURES SHALL BE MOUNTED 12' ABOVE FINISHED GROUND.
 3. INSTALLATION IN ACCORDANCE WITH LOCAL JURISDICTION.



TRADITIONAIRE LED DOWNLIGHT
NOT TO SCALE



CHARRON
INCORPORATED
P.O. BOX 4550
MANCHESTER, NH 03106
(603) 624-4827
FAX (603) 624-9764

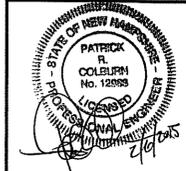
**LIGHTING PLAN
COBBLESTONE VILLAGE**

MAP 184; LOT 27
137 BELKNAP ROAD
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

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HUDSON, NH 03051
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25 FLAGSTONE DRIVE
HUDSON, NH 03051

KM KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881



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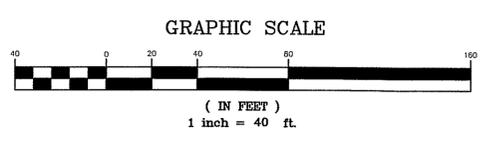
DATE: JANUARY 23, 2015 SCALE: 1" = 40'
PROJECT NO: 14-0721-1 SHEET 16 OF 28

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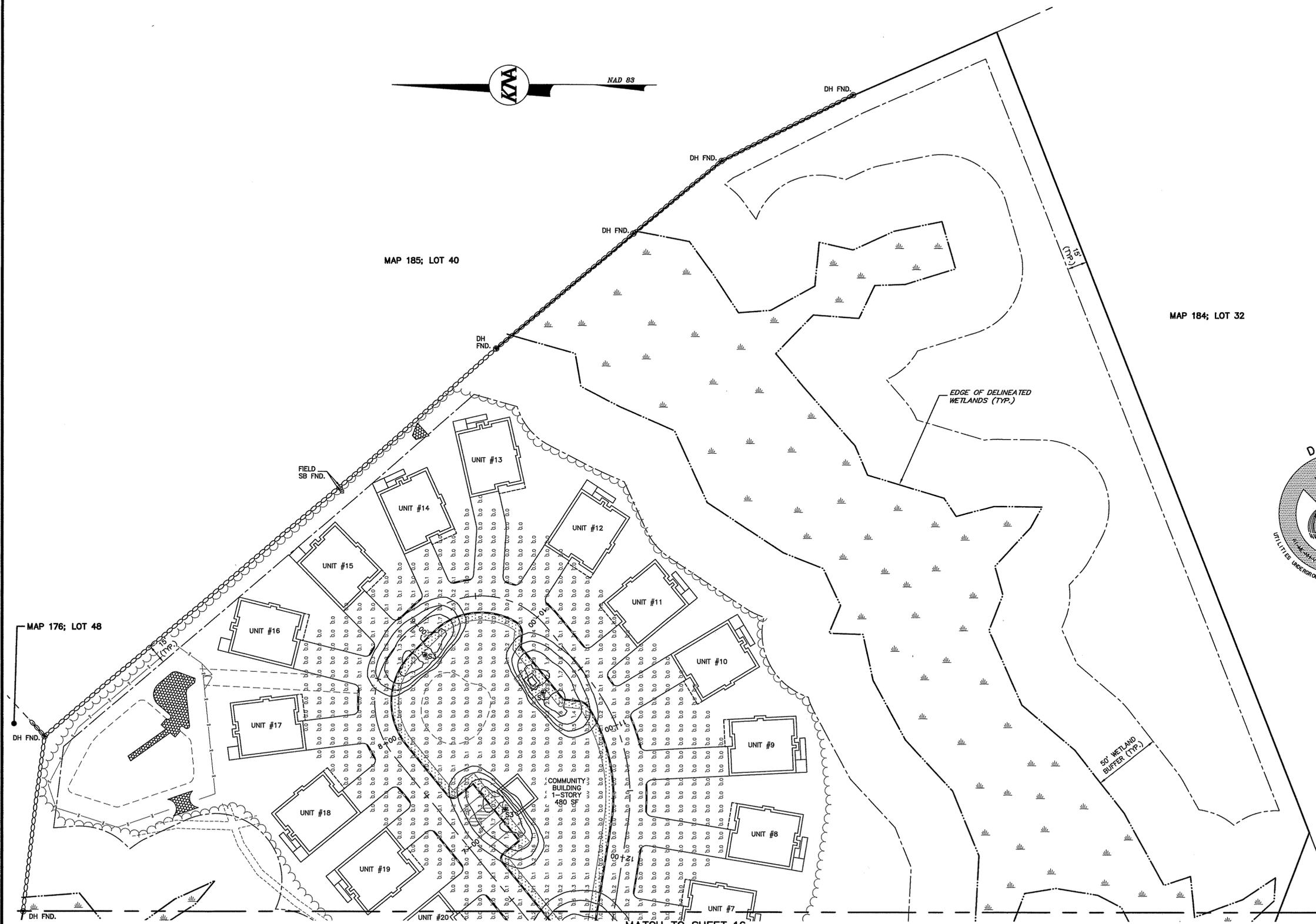


LUMINAIRE SCHEDULE

SYMBOL	QTY	LABEL	ARRANGEMENT	DESCRIPTION
⊠	7	S3	SINGLE	UTLDB02LEDEUSL3/ 12' POLE
⊠	1	S5	SINGLE	UTLDB02LEDEUSWQ/ 12' POLE

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SEE SHEET 16 FOR LUMINAIRE SCHEDULE & NOTES



CHARRON
INCORPORATED
P.O. BOX 4550
MANCHESTER, NH 03103
(603) 624-4827
FAX (603) 624-6764

LIGHTING PLAN
COBBLESTONE VILLAGE

MAP 184; LOT 27
137 BELKNAP ROAD
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD:
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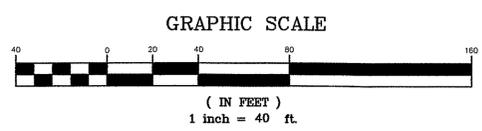
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LUMINAIRE SCHEDULE

SYMBOL	QTY	LABEL	ARRANGEMENT	DESCRIPTION
☐	7	S3	SINGLE	UTLDB02LEU5L3/ 12' POLE
☐	1	S5	SINGLE	UTLDB02LEU5WQ/ 12' POLE

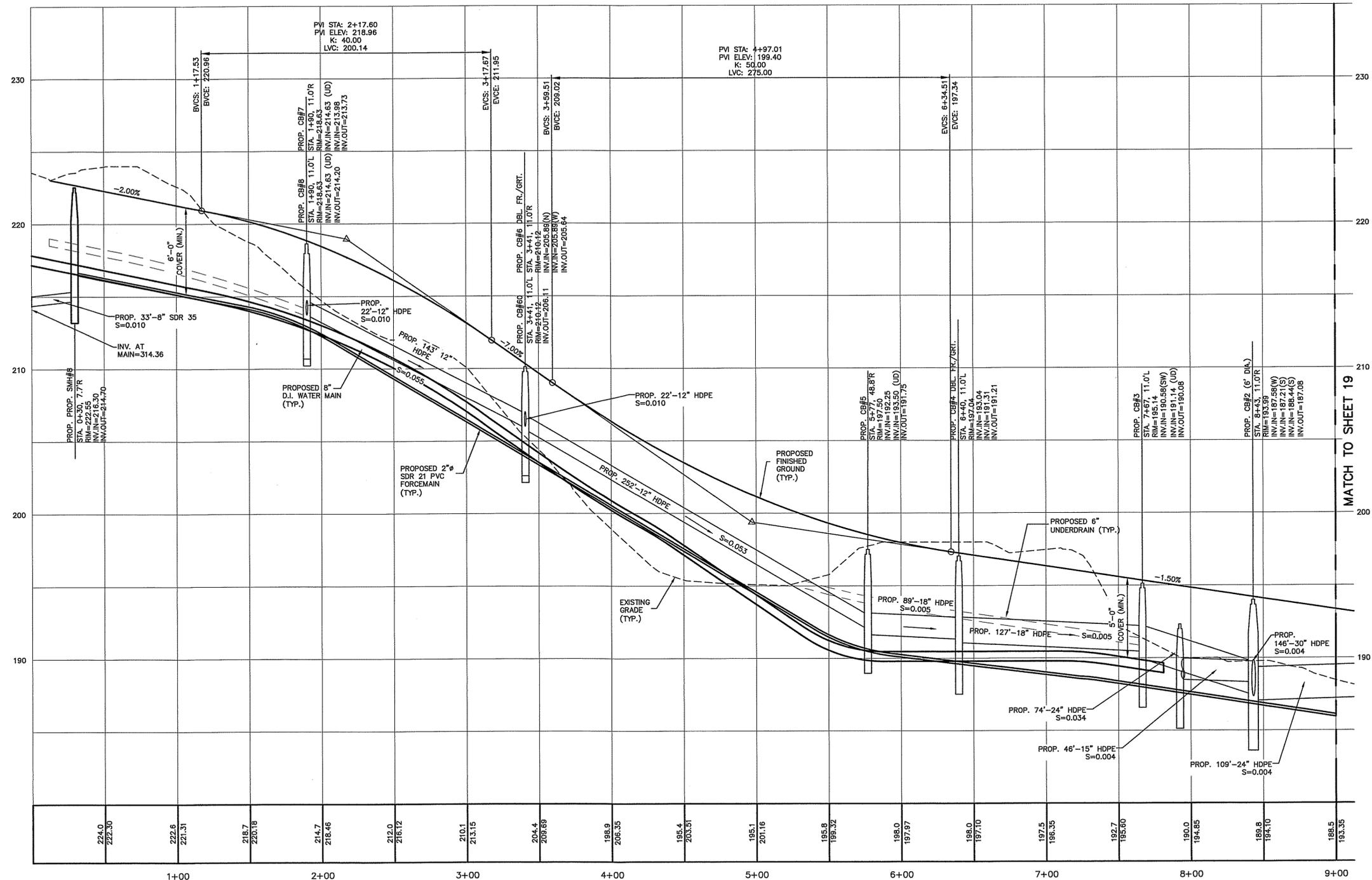
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No.	DATE	DESCRIPTION	BY

DATE: JANUARY 23, 2015
PROJECT NO: 14-0721-1

SCALE: 1" = 40'
SHEET 17 OF 28

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COBBLESTONE DRIVE ROADWAY PROFILE
 SCALE: 1" = 40' HORIZ.
 1" = 4' VERT.

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ROADWAY PROFILE
COBBLESTONE VILLAGE

MAP 184; LOT 27
 137 BELKNAP ROAD
 HUDSON, NEW HAMPSHIRE
 HILLSBOROUGH COUNTY

OWNER OF RECORD: DEER CREEK DEVELOPMENT, LLC 25 FLAGSTONE DRIVE HUDSON, NH 03051 H.C.R.D. BK. 8480, PG. 777	APPLICANT: DEER CREEK DEVELOPMENT, LLC 25 FLAGSTONE DRIVE HUDSON, NH 03051
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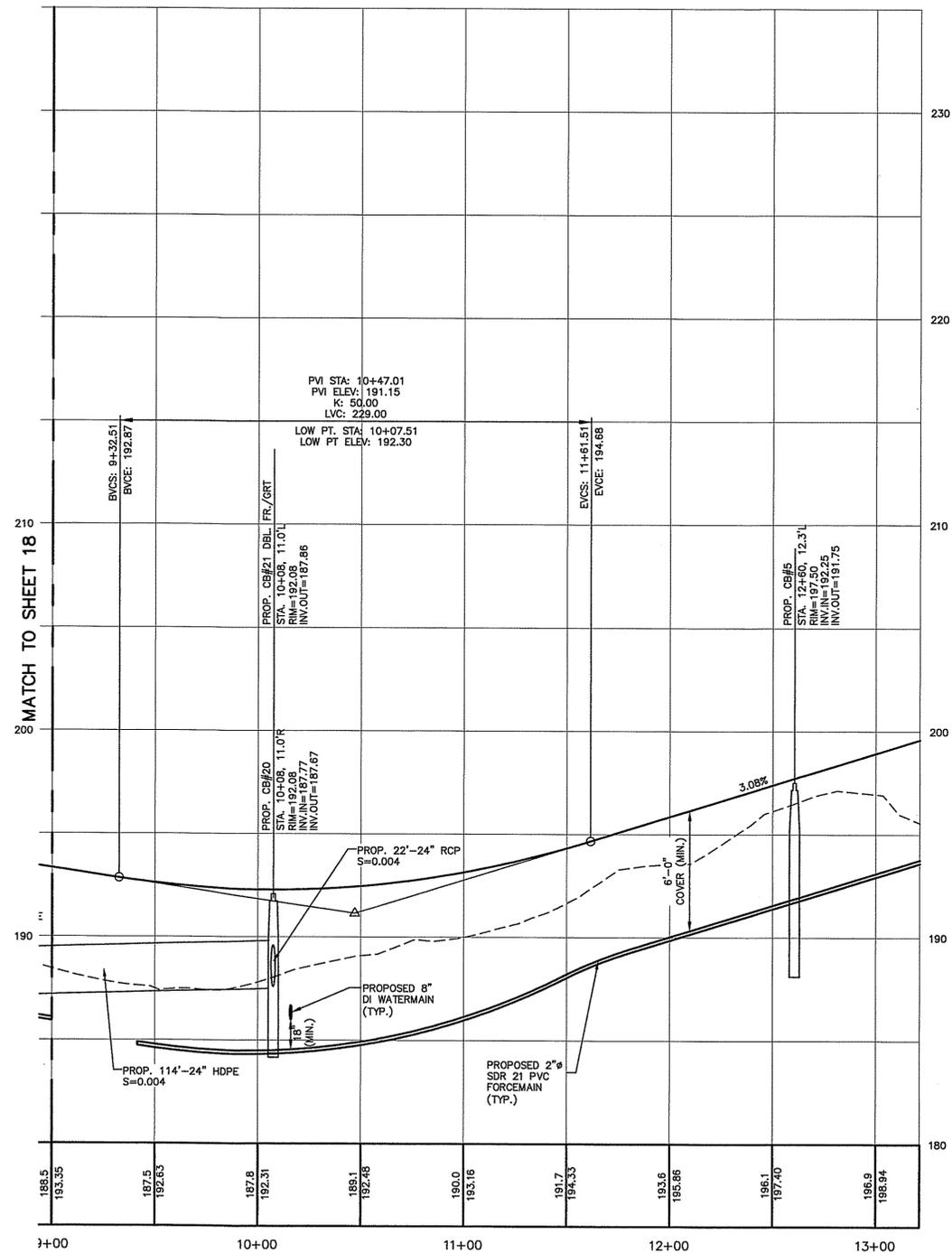


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 10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

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DATE: JANUARY 23, 2015 SCALE: 1" = 40'
 PROJECT NO: 14-0721-1 SHEET 18 OF 28

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COBBLESTONE DRIVE ROADWAY PROFILE
 SCALE: 1" = 40' HORIZ.
 1" = 4' VERT.

ROADWAY PROFILE
COBBLESTONE VILLAGE
 MAP 184; LOT 27
 137 BELKNAP ROAD
 HUDSON, NEW HAMPSHIRE
 HILLSBOROUGH COUNTY

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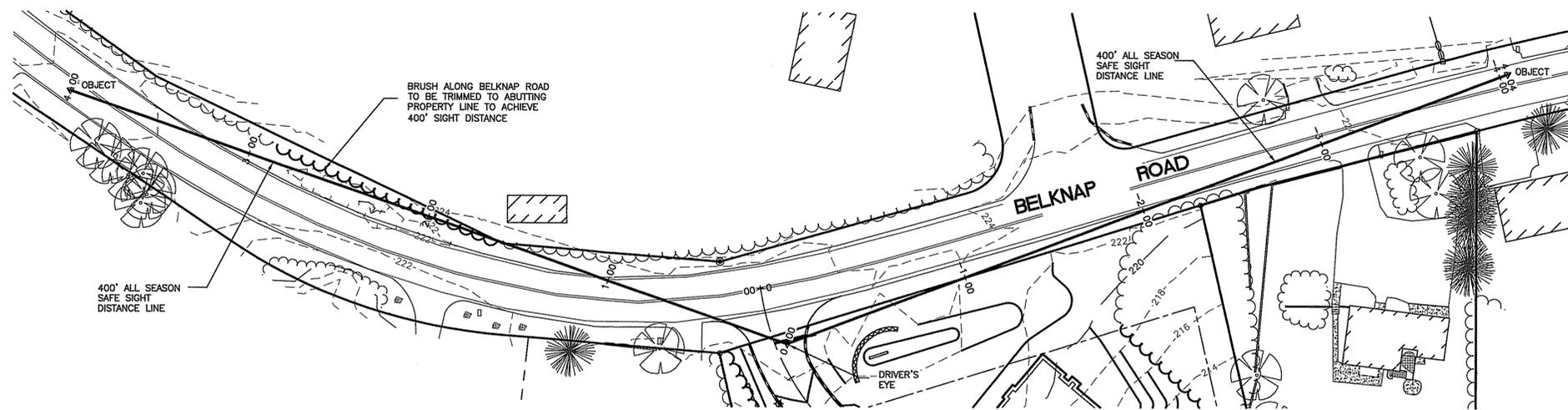
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DATE: JANUARY 23, 2015 SCALE: 1" = 40'
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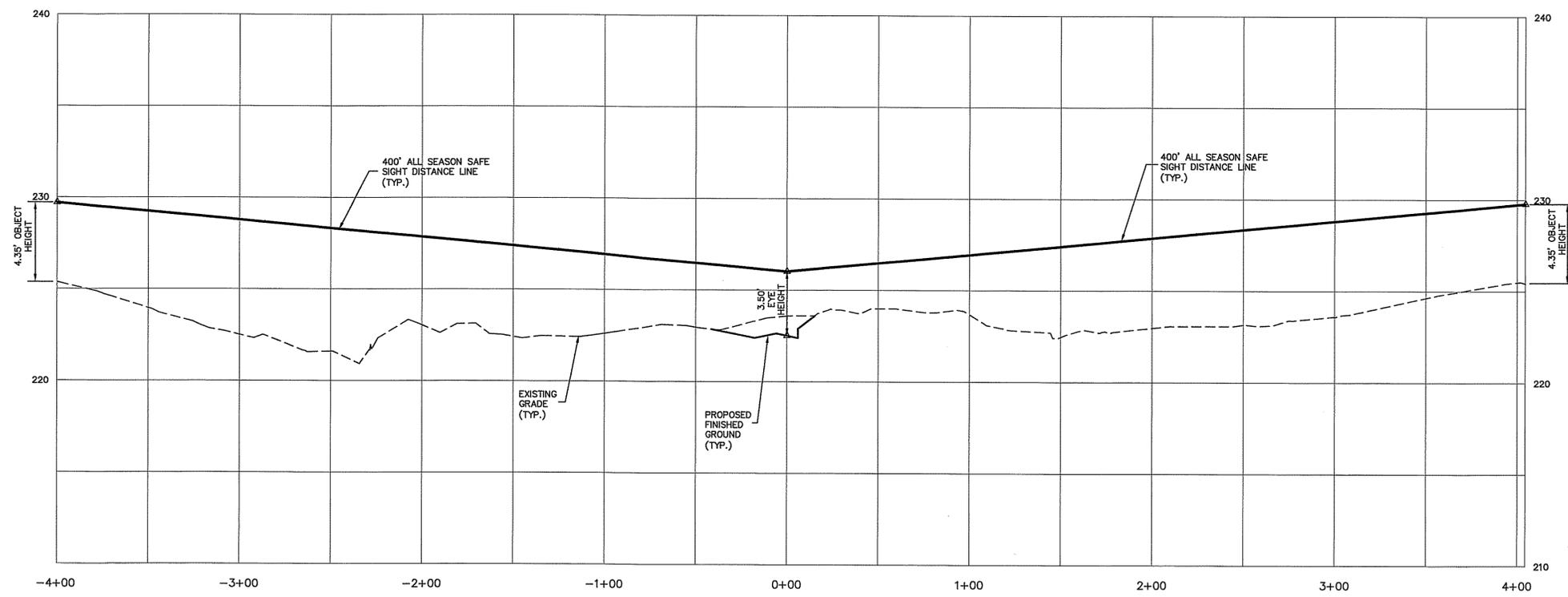
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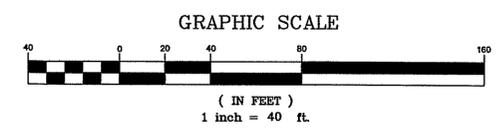




SIGHT DISTANCE PLAN
SCALE: 1" = 40'



SIGHT DISTANCE PROFILE
SCALE: 1" = 40' (HORIZ.)
1" = 4' (VERT.)



**SIGHT DISTANCE PLAN AND PROFILE
COBBLESTONE VILLAGE**

MAP 184; LOT 27
137 BELKNAP ROAD
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD: DEER CREEK DEVELOPMENT, LLC. 25 FLAGSTONE DRIVE HUDSON, NH 03051 H.C.R.D. BK. 8480, PG. 777	APPLICANT: DEER CREEK DEVELOPMENT, LLC. 25 FLAGSTONE DRIVE HUDSON, NH 03051
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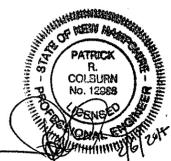
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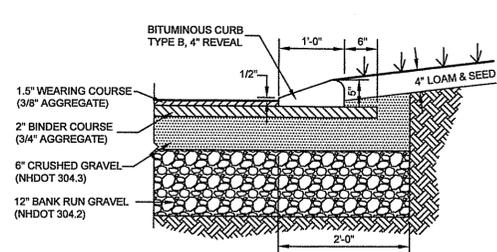
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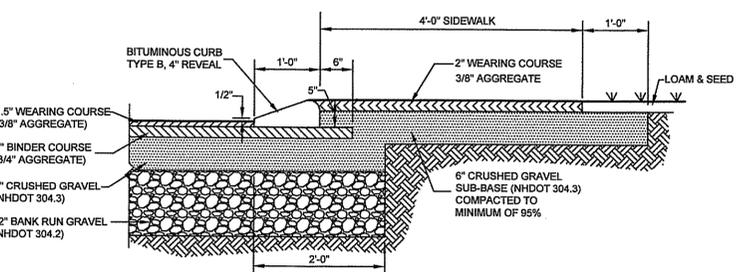
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PROJECT NO: 14-0721-1 SHEET 20 OF 28



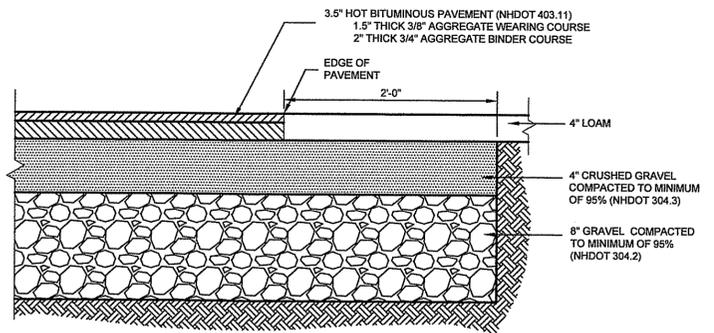
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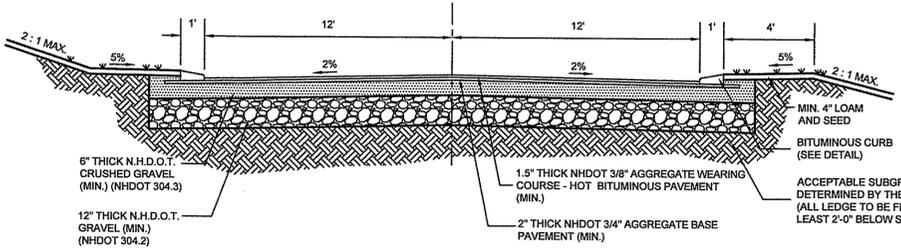
BITUMINOUS CURB TYPE B DETAIL
NOT TO SCALE
(MARCH 2008)



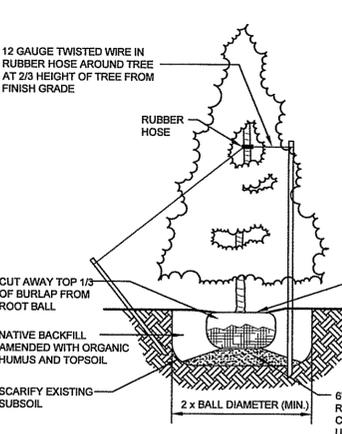
BITUMINOUS CURB TYPE B WITH BITUMINOUS SIDEWALK DETAIL
NOT TO SCALE
(MARCH 2008)



PARKING LOT SECTION
NOT TO SCALE
(MARCH 2008)



TYPICAL PRIVATE ROADWAY SECTION
NOT TO SCALE

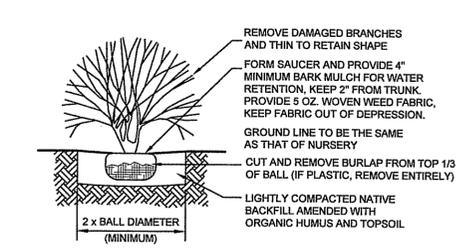


EVERGREEN TREE PLANTING DETAIL
NOT TO SCALE
(MARCH 2008)

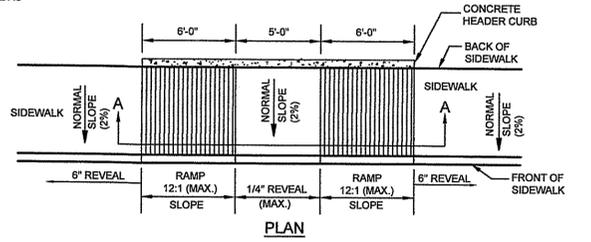
FOR TREES 5' IN HEIGHT OR GREATER
THREE (3) 12 GAUGE TWISTED WIRE RUBBER HOSE AROUND TREE AT 2/3 HEIGHT OF TREE FROM FINISH GRADE.
ATTACH TO TREE AT 1/2- 2/3 HEIGHT OF TREE ABOVE GRADE.
ANCHOR WITH 2" x 3" HARDWOOD STAKE BURIED BELOW GRADE AND CLEAR OF ROOT BALL.

FOR TREES LESS THAN 5' IN HEIGHT
THREE (3) 2" x 3" HARDWOOD STAKES AT 120" SPACING, MINIMUM 36" INTO GROUND. STAKE TO BE CLEAR OF ROOT BALL.
FORM SAUCER AND PROVIDE 4" MINIMUM BARK MULCH FOR WATER RETENTION, KEEP 2" FROM TRUNK. PROVIDE 5 OZ. WOVEN WEED FABRIC, KEEP FABRIC OUT OF DEPRESSION.

GROUND LINE TO BE THE SAME AS THAT OF NURSERY.



BALLED & BURLAP SHRUB PLANTING DETAIL
NOT TO SCALE
(MARCH 2008)



SECTION A-A

- NOTES:**
- A BROOM FINISH TRANSVERSE TO THE SLOPE OF THE RAMP AND SHALL BE USED ON PORTLAND CEMENT CONCRETE RAMPS.
 - MAINTAIN THE NORMAL PAVEMENT PROFILE THROUGHOUT THE RAMP AREA.
 - MAINTAIN A MAXIMUM 1/4" OF CURB REVEAL AT THE RAMP, SEE SECTION A-A.

SIDEWALK RAMP
NOT TO SCALE
(MARCH 2008)

TURF ESTABLISHMENT SCHEDULE

PURPOSE:
TO ESTABLISH AND MAINTAIN PERMANENT AND TEMPORARY TURF AREAS, RESTORE GROWTH TO EXISTING TURF AREAS DISTURBED DURING CONSTRUCTION AND CONTROL SOIL EROSION.

PREPARATION AND EXECUTION:

- RAKE THE SUBGRADE OF ALL AREAS TO BE LOAMED AND SEED TO REMOVE RUBBISH, STICKS, ROOTS AND STONES LARGER THAN 1 INCH.
- PLACE LOAM OVER AREAS TO BE SEED AND SPREAD.
- FINE GRADE SURFACE AND SUPPLEMENT WITH SUITABLE LOAM WHERE NEEDED TO CREATE A UNIFORM SURFACE ACCORDING TO THE FINISH GRADES INDICATED; TOP AND BOTTOM OF SLOPES SHALL BE ROUNDED. NO LOAM SHALL BE SPREAD IF THE SUBGRADE IS EXCESSIVELY WET OR FROZEN.
- APPLY LIME EVENLY OVER LOAM SURFACE AND THOROUGHLY INCORPORATE THEM INTO THE LOAM BY HEAVY RAKING TO AT LEAST ONE-HALF THE DEPTH OF THE LOAM.
- APPLY FERTILIZER AND MIX WITH THE UPPER 2 INCHES OF LOAM.
- DETERMINE APPROPRIATE MIXTURE FOR AREA TO BE SEED BASED ON EXAMINATION OF PROJECT PLANS. UNIFORMLY SPREAD THE SEED BY BROADCASTING OR HYDROSEEDING. IF BROADCASTING, LIGHTLY RAKE INTO THE PREPARED SURFACE AND ROLL. IF HYDROSEEDING, USE 4 TIMES THE RECOMMENDED RATE OF INOCULANT. AFTER SEED IS SPREAD, WATER THOROUGHLY WITH A FINE SPRAY.
- SEEDING FOR PERMANENT COVER SHALL OCCUR BETWEEN SEPTEMBER 15 AND OCTOBER 15 AND BETWEEN APRIL 15 AND JUNE 15. SEEDING SHALL NOT BE DONE DURING WINDY WEATHER, WHEN THE GROUND IS FROZEN OR EXCESSIVELY WET OR OTHERWISE UNTILLABLE.
- WITHIN 24 HOURS AFTER SEEDING OPERATION, UNIFORMLY MULCH THE AREA WITH HAY. ANCHOR MULCH ON ALL SLOPES EXCEEDING 3:1 USING MULCH NETTING INSTALLED IN ACCORDANCE WITH THE MANUFACTURER.
- PROTECT AND PREVENT AGAINST WASHOUTS, ANY WASHOUTS WHICH OCCUR SHALL BE PROMPTLY REGRADED AND RESEED.
- WHEN IT IS IMPRACTICAL TO ESTABLISH PERMANENT GROWTH ON DISTURBED EARTH BY OCTOBER 15, A TEMPORARY SEED MIXTURE SHALL BE USED. WHEN TEMPORARY SEEDING CANNOT ESTABLISH VISIBLE GROWTH, THE DISTURBED AREA SHALL BE COVERED WITH SIX INCHES OF MULCH FOR THE WINTER.

MAINTENANCE:

ALL SEEDING AREAS SHALL BE KEPT WATERED AND IN GOOD CONDITION. RESEED AS NECESSARY TO ESTABLISH HEALTHY UNIFORM GROWTH OVER THE ENTIRE SEEDING AREA. MAINTAIN SEEDING AREAS IN AN APPROVED CONDITION UNTIL FINAL ACCEPTANCE. MAINTENANCE SHALL INCLUDE REPAIRS FOR DAMAGE CAUSED BY EROSION.

APPLICATION RATES:

- LOAM SHALL BE APPLIED AT A MINIMUM COMPACTED THICKNESS OF 4 INCHES.
- LIME SHALL BE APPLIED AT A RATE OF 75 TO 100 POUNDS PER 1,000 S.F.
- FERTILIZER SHALL BE APPLIED AT A RATE OF 30 POUNDS PER 1,000 S.F.
- SEED MIXTURE FOR LAWN AREAS SHALL BE APPLIED AT A RATE OF AT LEAST 80 POUNDS PER ACRE OR 2 POUNDS PER 1,000 S.F.
- TEMPORARY SEED MIXTURE SHALL BE APPLIED AT A RATE OF 2 POUNDS PER 1,000 S.F.
- SEED MIXTURE FOR SLOPE AREAS SHALL BE APPLIED AT A RATE OF 80 POUNDS PER ACRE OR 2 POUNDS PER 1,000 S.F.
- SEED MIXTURE FOR STORMWATER MANAGEMENT AREAS SHALL BE APPLIED AT A RATE OF 70 POUNDS PER ACRE OR 1.6 POUNDS PER 1,000 S.F.
- MULCH SHALL BE APPLIED AT A RATE OF 90 POUNDS PER 1,000 S.F.

MATERIALS:

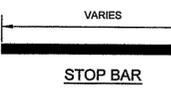
- LOAM USED FOR TOPSOIL SHALL BE FRIABLE, FERTILE, NATURAL FREE-DRAINING LOAM; FREE OF ROOTS, GRASS, STICKS, WEEDS, CLAY, SOIL LUMPS, DEBRIS AND STONES LARGER THAN 1 INCH IN ANY DIMENSION. SOIL SHALL NOT BE EXCESSIVELY ACID OR ALKALINE AND CONTAIN NO TOXIC MATERIALS.
- LIME SHALL BE GROUND LIMESTONE CONTAINING NO LESS THAN 95% CALCIUM AND MAGNESIUM CARBONATES.
- FERTILIZER SHALL BE 10-20-20 COMMERCIAL GRADE.
- SEED MIXTURE FOR LAWN AREAS SHALL BE 99% PURE LIVE SEED AND CONSIST OF THE FOLLOWING:
25% CREEPING RED FESCUE
25% KENTUCKY BLUEGRASS
25% REDTOP
25% MANHATTAN PERENNIAL RYEGRASS
- TEMPORARY SEEDING MIXTURE SHALL BE AN APPROVED CONSERVATION MIX OR CONSIST OF THE FOLLOWING:
15% BLACKWELL OR SHELTER SWITCHGRASS
30% NIAGRA OR KAW BIG BLUESTEM
30% GAMPER OR BLAZE LITTLESTEM
15% NE-27 OR BLAZE SAND LOVEGRASS
10% VIKING BIRDSFOOT TREFLOIL
- SEED MIXTURE FOR SLOPE AREAS SHALL BE 99% PURE LIVE SEED AND SHALL CONSIST OF THE FOLLOWING:
30% CREEPING RED FESCUE
40% PERENNIAL RYE GRASS
15% REDTOP
15% BIRDSFOOT TREFLOIL
*IN ADDITION TO THE MIX SPECIFIED ABOVE, CROWN VETCH SHALL BE USED ON ALL SLOPES STEEPER THAN 3:1. CROWN VETCH SHALL BE APPLIED AT A RATE OF 10 POUNDS PER ACRE AND INOCULUM SPECIFIC TO CROWN VETCH MUST BE USED.
- SEED MIXTURE FOR STORMWATER MANAGEMENT AREAS, INCLUDING DETENTION BASINS AND VEGETATED TREATMENT SWALES SHALL CONSIST OF THE FOLLOWING:
25% CREEPING RED FESCUE
15% SWITCH GRASS
15% FOX SEDGE
15% CREEPING BENTGRASS
10% FLATPEA
20% WILDFLOWER VARIETY
- HAY USED FOR MULCH SHALL CONSIST OF MOWED AND PROPERLY CURED GRASS OR LEGUME MOWINGS, FREE FROM WEEDS, TWIGS, DEBRIS OR OTHER DELETERIOUS MATERIAL AND ROT OR MOLD.



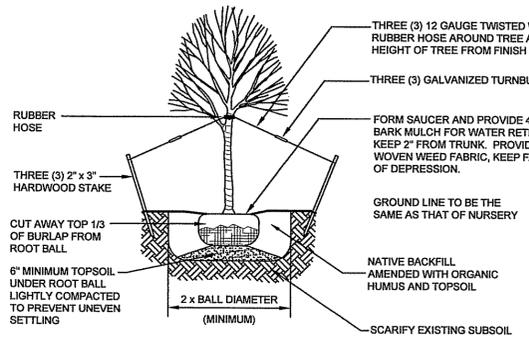
STOP SIGN DETAIL
NOT TO SCALE
(MARCH 2008)

TRAFFIC SIGN NOTES:

- ALL TRAFFIC SIGN FACES AND SHAPES SHALL CONFORM WITH THE MUTCD.
- ALL SIGN POST MOUNTS SHALL CONFORM WITH THE AASHTO AND NHDOT SPECIFICATIONS.



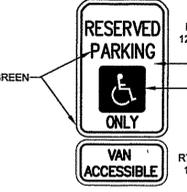
STOP BAR



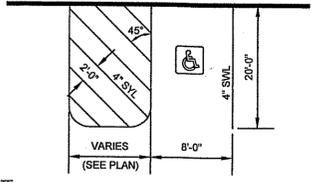
DECIDUOUS TREE PLANTING DETAIL
NOT TO SCALE
(MARCH 2008)



TYPICAL SIGN PLATE DETAILS
NOT TO SCALE



VAN ACCESSIBLE HANDICAP PARKING SIGN DETAIL
NOT TO SCALE
(MARCH 2008)



HANDICAP STRIPING DETAIL
NOT TO SCALE
(MARCH 2008)



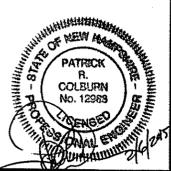
CONSTRUCTION DETAILS
COBBLESTONE VILLAGE

MAP 184; LOT 27
137 BELKNAP ROAD
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD:
DEER CREEK DEVELOPMENT, LLC
25 FLAGSTONE DRIVE
HUDSON, NH 03051
H.C.R.D. BK. 8480, PG. 777

APPLICANT:
DEER CREEK DEVELOPMENT, LLC
25 FLAGSTONE DRIVE
HUDSON, NH 03051

K/A KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881



REVISIONS			
No.	DATE	DESCRIPTION	BY

DATE: JANUARY 23, 2015 SCALE: AS SHOWN
PROJECT NO: 14-0721-1 SHEET 21 OF 28

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL

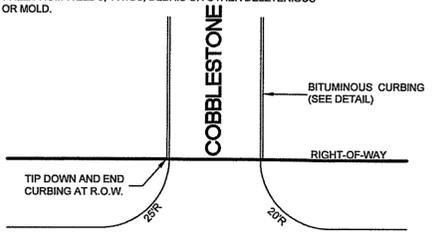
APPROVED BY THE HUDSON, NH PLANNING BOARD

DATE OF MEETING: _____

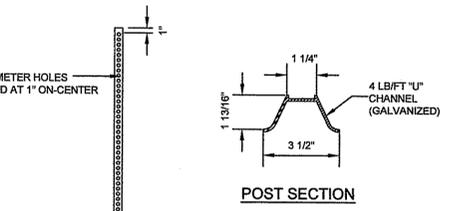
SIGNATURE _____ DATE _____

SIGNATURE _____ DATE _____

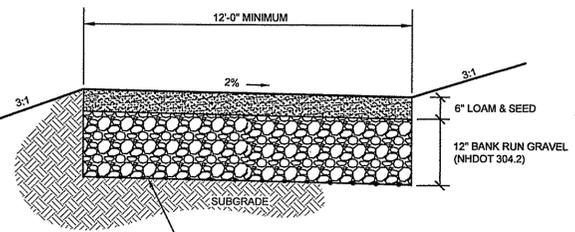
SITE PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN ACHIEVES FINAL APPROVAL.



END CURB AT RIGHT-OF-WAY DETAIL
NOT TO SCALE
(MARCH 2008)



STEEL SIGN POST DETAIL
NOT TO SCALE
(MARCH 2008)

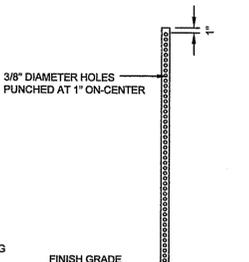


DRAINAGE ACCESS WAY DETAIL
NOT TO SCALE

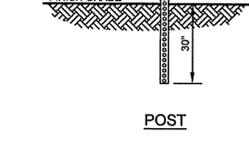
PRIVATE ROAD SIGN DETAIL
NOT TO SCALE



PRIVATE ROAD SIGN DETAIL
NOT TO SCALE

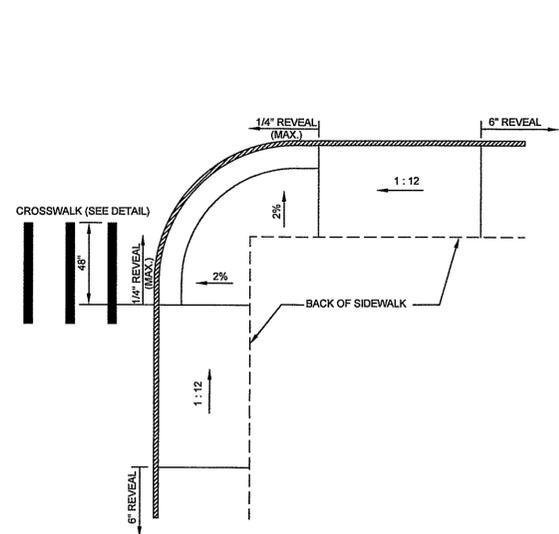


POST SECTION

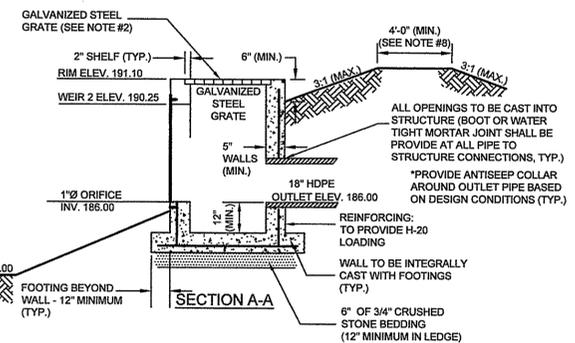
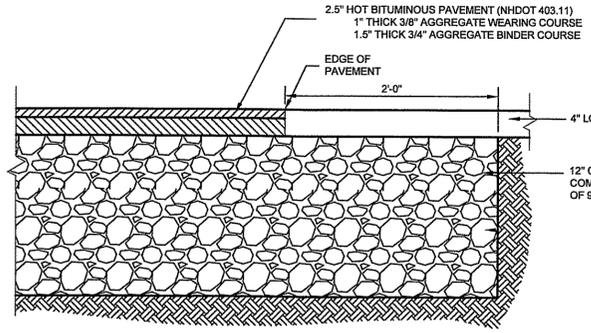


MOUNTING

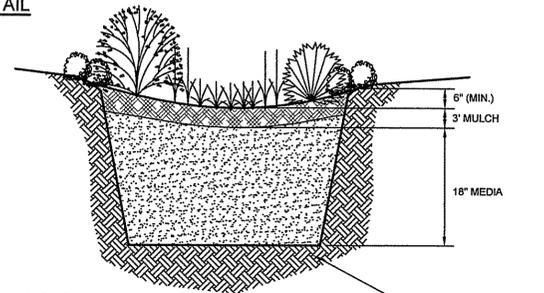
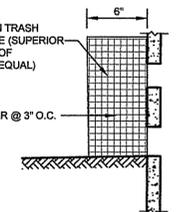
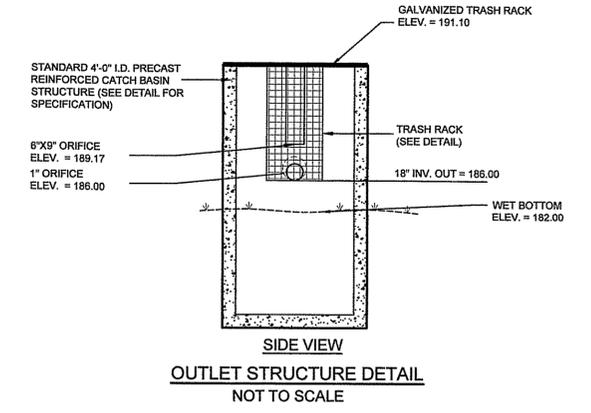
NOTE:
POST SHALL CONFORM TO NHDOT 615.2.5.3



- NOTES:**
- A BROOM FINISH TRANSVERSE TO THE SLOPE OF THE RAMP SHALL BE USED ON PORTLAND CEMENT CONCRETE RAMPS.
 - MAINTAIN THE NORMAL GUTTER PROFILE THROUGHOUT THE RAMP AREA.
 - INTERCEPT DRAINAGE ALONG THE CURB IN ADVANCE OF THE RAMP.
 - MAINTAIN A MAXIMUM 1/4" OF CURB REVEAL AT THE RAMP.



- NOTES**
- ALL CEMENT CONCRETE TO BE 4,000 PSI MINIMUM.
 - GALVANIZED STEEL GRATE SHALL BE BOLTED TO TOP OF STRUCTURE WITH 1/2" STAINLESS STEEL BOLTS AND THREADED INSERTS.
 - OUTLET PIPE SHALL NOT BE LESS THAN 15" DIAMETER AND SHALL BE SIZED FOR A 50-YEAR STORM.
 - ALL OPENINGS CAST IN AS REQUIRED. MINIMUM CONCRETE WEIR WIDTH SHALL BE 2'.
 - PRECAST REINFORCED CONCRETE STRUCTURE TO MEET ASTM C-478 DESIGNATION AND H-20 LOADING.
 - CONTROL WEIR SHALL BE SIZED TO MITIGATE DESIGN STORM AS REQUIRED BY THE REGULATIONS AND IN ACCORDANCE WITH THE APPROVED DRAINAGE CALCULATIONS. STAINLESS STEEL PLATE SHALL BE USED FOR CONTROL WEIRS LESS THAN 2' WIDE.
 - ALL STAINLESS STEEL SHALL BE GRADE 316.



- NOTE:**
- THIS SYSTEM SHALL NOT BE IN SERVICE UNTIL THE SPECIFIED PLANTINGS ARE INSTALLED AND THE CONTRIBUTING SURFACE AREA IS STABILIZED.
 - REFERENCE TYPICAL BIO-RETENTION POND MEDIA FOR COMPONENT MATERIAL.

TP #1
LOGGED BY JAN
DATE: 10/28/14
IMPERVIOUS LAYER: NONE
WATER ENCOUNTERED: NONE

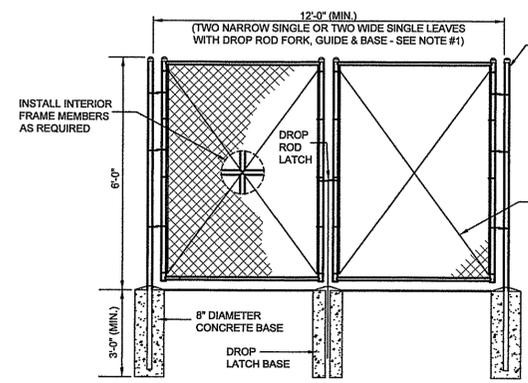
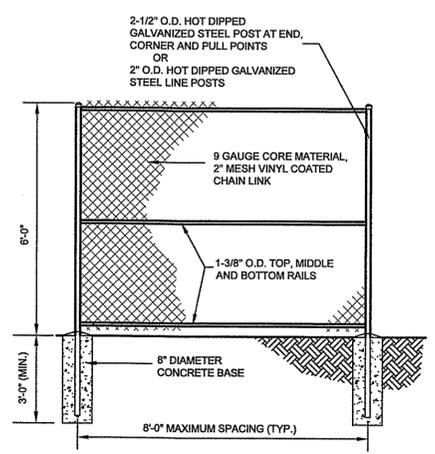
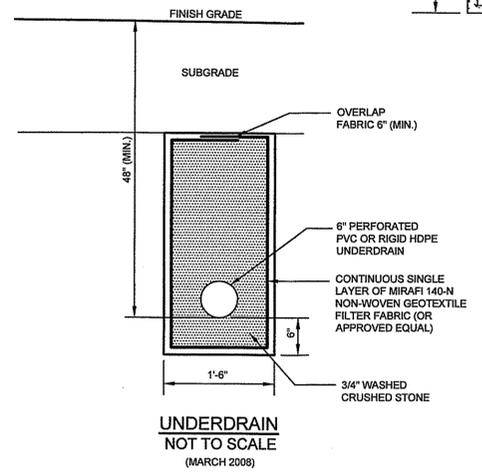
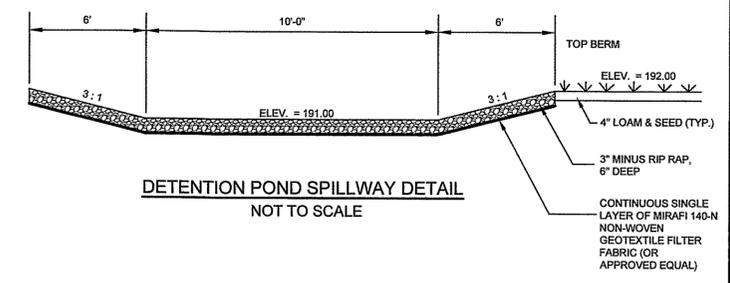
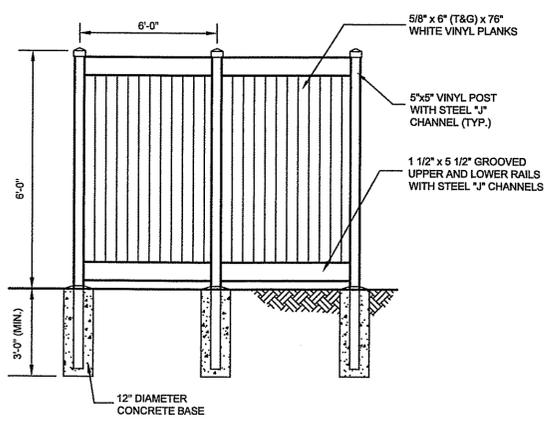
2"	O	FOREST MAT
0"	A	10YR 3/4, WEAK GRANULAR, FRIABLE LOAMY, MANY ROOTS
4"	B	10YR 6/6, WEAK GRANULAR, FRIABLE, FINE SANDY LOAM, COMMON ROOTS
22"	C-1	2.5Y 6/3, WEAK GRANULAR, FRIABLE, LOAMY SAND
36"	C-2	2.5Y 7/2, ANGULAR BLOCKY, FIRM, MOIST, CLAYEY SAND, COMMON DISTINCT FE CONC. (MOTTLES) THROUGHOUT
72"		BOTTOM OF HOLE

TP #2
LOGGED BY JAN
DATE: 10/28/14
IMPERVIOUS LAYER: 48"
WATER ENCOUNTERED: NONE

2"	O	FOREST MAT
0"	A	10YR 3/4, WEAK GRANULAR, FRIABLE LOAMY, MANY ROOTS
4"	B	10YR 6/6, WEAK GRANULAR, FRIABLE, FINE SANDY LOAM, COMMON ROOTS
18"	C-1	2.5Y 6/3, WEAK GRANULAR, FRIABLE, LOAMY SAND
28"	C-2	2.5Y 7/2, ANGULAR BLOCKY, FIRM, MOIST, CLAYEY SAND, COMMON DISTINCT FE CONC. (MOTTLES) @ 38"
38"		BOTTOM OF HOLE AT LEDGE

TP #3
LOGGED BY JAN
DATE: 10/28/14
IMPERVIOUS LAYER: NONE
WATER ENCOUNTERED: NONE

2"	O	FOREST MAT
0"	A	10YR 3/4, WEAK GRANULAR, FRIABLE LOAMY, MANY ROOTS
4"	B	10YR 6/6, WEAK GRANULAR, FRIABLE, FINE SANDY LOAM, COMMON ROOTS
20"	C-1	2.5Y 6/3, WEAK GRANULAR, FRIABLE, LOAMY SAND
36"	C-2	2.5Y 7/2, ANGULAR BLOCKY, FIRM, MOIST, CLAYEY SAND, COMMON DISTINCT FE CONC. (MOTTLES) THROUGHOUT
76"		BOTTOM OF HOLE



- NOTES:**
- REINFORCE THE GATE FRAME CORNERS WITH A MALLEABLE IRON OR PRESSED STEEL FITTING DESIGNED FOR THE PURPOSE OR SHOP WELD THE CORNERS. GRIND SMOOTH ALL WELDS AND PAINT WITH AN APPROVED ZINC RICH PAINT. FURNISH EACH GATE WITH THE NECESSARY HINGES, LATCH AND DROP ROD LOCKING DEVICE DESIGNED FOR THE TYPE OF GATE POSTS AND GATE USED ON THE PROJECT. PROVIDE POSITIVE TYPE LATCHING DEVICES WITH PROVISIONS FOR PAD LOCKING AT ALL GATES. PROVIDE KEEPERS TO RETAIN THE GATE IN THE OPEN POSITION.
 - APPROVED ALTERNATIVE GATE FRAMES CONSTRUCTED OF STEEL SECTIONS, OTHER THAN PIPE, MAY BE USED.
 - THE DESIGN OF THE CHAIN LINK HARDWARE MAY VARY FROM THE DETAILS SHOWN, HOWEVER, ALL HARDWARE AND MATERIALS USED IN A SINGLE INSTALLATION SHALL BE UNIFORM AND COMPATIBLE.

CONSTRUCTION DETAILS
COBBLESTONE VILLAGE

MAP 184; LOT 27
137 BELKNAP ROAD
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD: DEER CREEK DEVELOPMENT, LLC 25 FLAGSTONE DRIVE HUDSON, NH 03051 H.C.R.D. BK. 8480, PG. 777	APPLICANT: DEER CREEK DEVELOPMENT, LLC 25 FLAGSTONE DRIVE HUDSON, NH 03051
--	--

KMA KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

REVISIONS			
No.	DATE	DESCRIPTION	BY

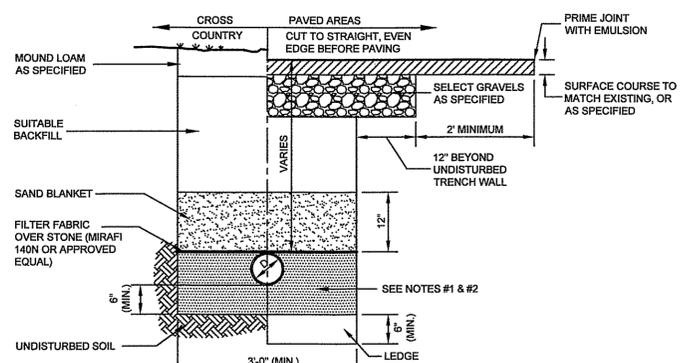
DATE: JANUARY 23, 2015 **SCALE:** AS SHOWN
PROJECT NO: 14-0721-1 **SHEET** 22 OF 28

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL

APPROVED BY THE HUDSON, NH PLANNING BOARD
DATE OF MEETING: _____

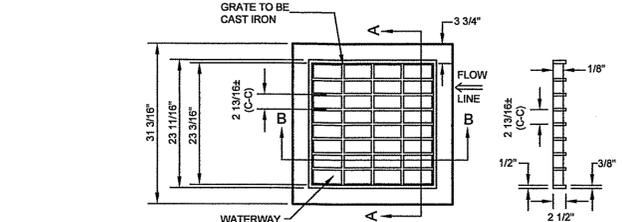
SIGNATURE _____ DATE _____
SIGNATURE _____ DATE _____

SITE PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN ACHIEVES FINAL APPROVAL.



STORM DRAINAGE TRENCH DETAIL
NOT TO SCALE
(MARCH 2008)

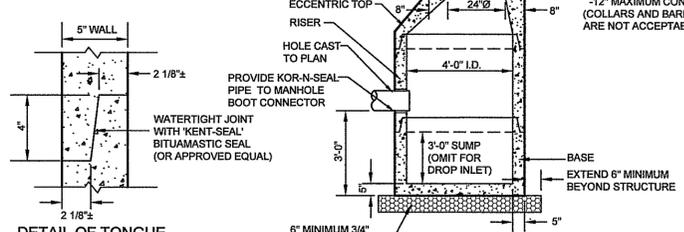
NOTES:
1. THOROUGHLY COMPACTED SCREENED GRAVEL FOR RCP PIPE. SCREENED GRAVEL TO EXTEND TO SELECT FILL LINE.
2. FOR HDPE OR PVC PIPE, BEDDING SHALL BE 3/4\"/>



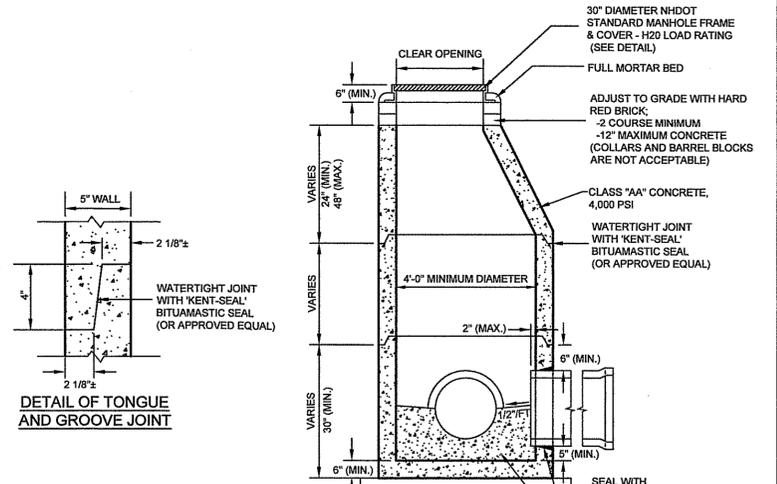
TYPE B FRAME & GRATE DETAIL
NOT TO SCALE
(MARCH 2008)

PLAN VIEW (DOUBLE GRATE)
54.78\"/>

NOTES:
1. ALL SECTIONS SHALL BE CONCRETE CLASS AA(4000 PSI). CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQUARE INCH PER LINEAR FOOT IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.
2. THE TONGUE OR GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQUARE INCH PER LINEAR FOOT.
3. RISER OF 1\", 2\", 3\"/>



PRECAST REINFORCED CATCH BASIN
NOT TO SCALE
(MARCH 2008)

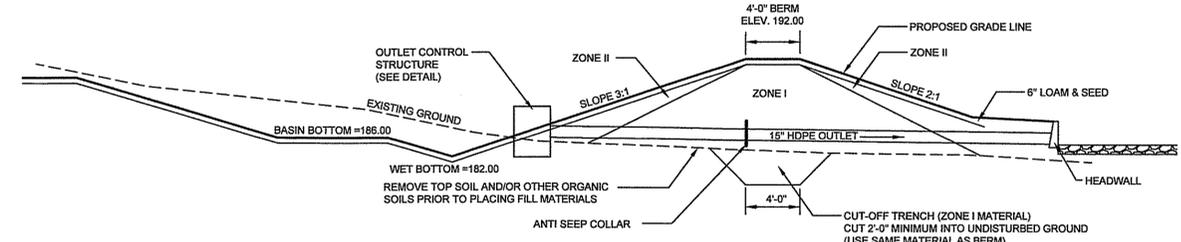


PRECAST REINFORCED DRAIN MANHOLE DETAIL
NOT TO SCALE
(MARCH 2008)

NOTES:
1. STEPS ARE NOT ALLOWED.
2. ALL SECTIONS SHALL BE CONCRETE CLASS AA (4,000 PSI). CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQ. IN. PER L.F. IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER OF THE WALL.
3. THE TONGUE OR THE GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQ. IN. PER L.F.
4. MATERIALS AND CONSTRUCTION TO NHDOT STANDARDS.

STORMWATER PONDS CONSTRUCTION SEQUENCE

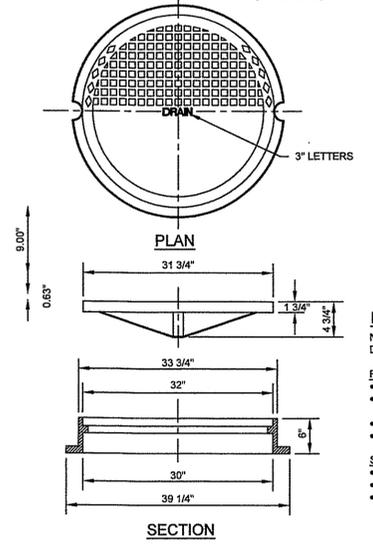
- CONTRACTOR TO NOTIFY DIG-SAFE 72 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- CUT AND CLEAR TREES AND BRUSH FROM CONSTRUCTION AREAS TO THE EXTENT NECESSARY. ALL BRANCHES, TOPS AND BRUSH TO BE PROPERLY DISPOSED OF BY CONTRACTOR.
- PRIOR TO GRUBBING OF CLEARED AREAS, ALL SITUATION BARRIERS DESIGNED FOR USE AS TEMPORARY EROSION CONTROL MEASURES SHALL BE INSTALLED AS CALLED FOR ON PROJECT PLANS.
- COMPLETE GRUBBING OPERATIONS. ALL STUMPS AND SIMILAR DEBRIS SHALL BE PROPERLY DISPOSED OF BY CONTRACTOR. ORGANIC MATERIAL SUITABLE FOR USE AS TOPSOIL SHALL BE STOCKPILED IN UPLAND AREAS. ALL STOCKPILES SHALL BE SEEDED WITH WINTER RYE AND, IF NECESSARY, SURROUNDED WITH HAY BALES IN ORDER TO PREVENT LOSS DUE TO EROSION.
- CONSTRUCT TEMPORARY CULVERTS AS NECESSARY TO FACILITATE CONSTRUCTION ACTIVITIES. ALL SUCH CROSSINGS SHALL BE PROTECTED WITH HAY BALE BARRIERS TO LIMIT EROSION.
- CONSTRUCT CUT-OFF TRENCH (PART OF ZONE I).
- CONSTRUCT OUTLET AND OVERFLOW STRUCTURE. CULVERT, ANTI SEEP COLLARS, HEADWALL, AND RIP RAP OUTLET PROTECTION AS SHOWN ON PLANS.
- CONSTRUCT ZONE I PORTION OF EARTH EMBANKMENT.
- CONSTRUCT ZONE II PORTION OF EARTH EMBANKMENT.
- APPLY TOPSOIL TO SLOPES AND OTHER AREAS DISTURBED BY CONSTRUCTION. TOPSOIL USED MAY BE NATIVE ORGANIC MATERIAL SCREENED SO AS TO BE FREE OF ROOTS, BRANCHES, STONES, AND OTHER DELETERIOUS MATERIALS. TOPSOIL SHALL BE APPLIED SO AS TO PROVIDE A MINIMUM OF A 4-INCH COMPACTED THICKNESS. UPON COMPLETION OF TOPSOILING, FINISHED SECTIONS ARE TO BE LIMED, SEEDED AND MULCHED. CONSTRUCTION PERSONNEL SHALL INSPECT COMPLETED SECTIONS OF WORK ON A REGULAR BASIS AND REMEDY ANY PROBLEM AREAS UNTIL A HEALTHY STAND OF GRASS HAS BECOME ESTABLISHED.
- MAINTAIN, REPAIR, AND REPLACE AS NECESSARY TEMPORARY EROSION CONTROL MEASURES UNTIL SUCH TIME AS THE ENTIRE CONSTRUCTION AREA HAS BEEN STABILIZED (A MINIMUM OF ONE WINTER SHALL HAVE PASSED).
- AFTER STABILIZATION, REMOVE AND SUITABLY DISPOSE OF TEMPORARY EROSION CONTROL MEASURES.
- MONITOR CONSTRUCTION ACTIVITIES TO INSURE CONSTRUCTION ACTIVITIES ARE BEING PERFORMED IN SUCH A WAY AS NOT TO ENDANGER THE INTEGRITY OF EARTH EMBANKMENTS, STORMWATER CONTROL STRUCTURE, CULVERT AND RIP RAP OUTLET PROTECTION.



TYPICAL CROSS SECTION DETENTION POND
NOT TO SCALE

MATERIAL TYPE/SPECIFICATIONS

- ZONE I**
WELL GRADED MIXTURE OF GRAVEL, SAND, SILT OR CLAY WITH MAX. 6-INCH SIZE STONE AND GRADEATION AS INDICATED BELOW. PLACE IN MAX. 12-INCH THICK LIFTS TO 95% OF MAX. DRY DENSITY IN ACCORDANCE WITH ASTM D1557. SCARIFY SURFACE PRIOR TO PLACING SUBSEQUENT LIFT. IN ADDITION, REMOVE ORGANIC SOILS.
- | SIEVE SIZE | PERCENT BY WEIGHT PASSING |
|------------|---------------------------|
| 6-INCH | 100 |
| NO. 4 | 50 TO 100 |
| NO. 40 | 30 TO 70 |
| NO. 200 | 20 TO 40 |
- ZONE II**
DRAINAGE LAYER: PLACE IN MAX. 12-INCH THICK LIFTS TO 95% OF MAX. DRY DENSITY IN ACCORDANCE WITH ASTM D1557.
- | SIEVE SIZE | PERCENT BY WEIGHT PASSING |
|------------|-----------------------------|
| 1-INCH | 100 |
| NO. 4 | 70-100 |
| NO. 200 | 0-12 (IN SAND PORTION ONLY) |

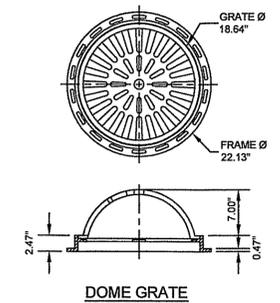


DRAIN MANHOLE FRAME AND COVER DETAIL
NOT TO SCALE
(MARCH 2008)

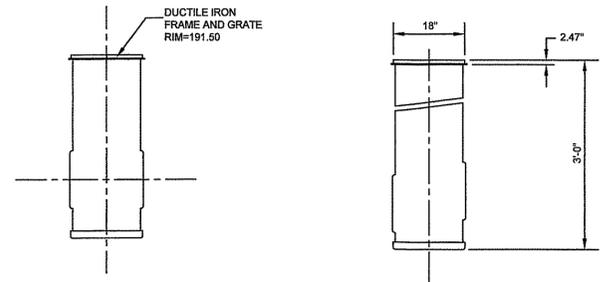
NOTES:
NEW HAMPSHIRE MAINTAINS A CLEAR OPENING DESIGNATION OF 30\"/>

FEATURES:
• 3\"/>

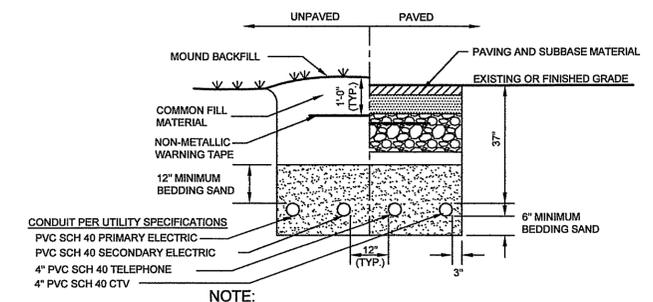
SPECIFICATIONS:
• FULLY MACHINED FRAME AND COVER
• H-20 LOAD RATED
• GRAY CAST IRON MEETS ASTM A48 CLASS 30



DOME GRATE
NOT TO SCALE



18\"/>



UTILITY TRENCH DETAIL
NOT TO SCALE
(MARCH 2008)

NOTE:
INSTALLATION AND MATERIALS OF UNDERGROUND UTILITIES SHALL CONFORM TO LOCAL UTILITY COMPANY SPECIFICATIONS.

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL

APPROVED BY THE HUDSON, NH PLANNING BOARD
DATE OF MEETING: _____

SIGNATURE _____ DATE _____

SIGNATURE _____ DATE _____

SITE PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN ACHIEVES FINAL APPROVAL.

CONSTRUCTION DETAILS
COBBLESTONE VILLAGE
MAP 184; LOT 27
137 BELKNAP ROAD
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD:
DEER CREEK DEVELOPMENT, LLC
25 FLAGSTONE DRIVE
HUDSON, NH 03051
H.C.R.D. BK. 8480, PG. 777

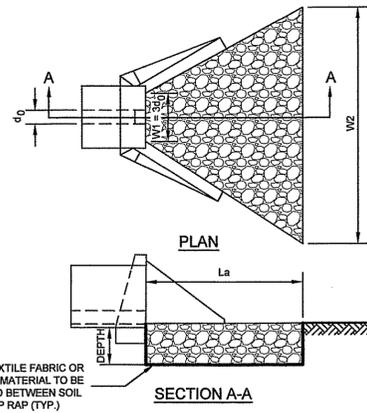
APPLICANT:
DEER CREEK DEVELOPMENT, LLC
25 FLAGSTONE DRIVE
HUDSON, NH 03051

KM KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

REVISIONS

No.	DATE	DESCRIPTION	BY

DATE: JANUARY 23, 2015 SCALE: AS SHOWN
PROJECT NO: 14-0721-1 SHEET 23 OF 28



PIPE OUTLET TO FLAT AREA WITH NO DEFINED CHANNEL
NOT TO SCALE
(MARCH 2008)

LOCATION	La	W1	W2	d50	DEPTH
PROP. HW#1	31'	8'	20'	4"	12"
PROP. HW#2	15'	5'	19'	6"	15"

TABLE 7-24 - RECOMMENDED RIP RAP GRADATION RANGES

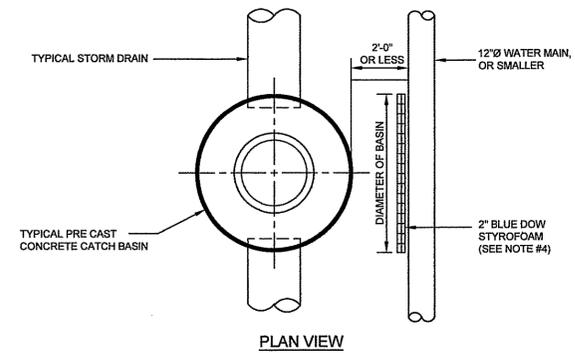
PERCENT OF WEIGHT SMALLER THAN THE GIVEN SIZE	SIZE OF STONE
100%	1.5 TO 2.0 d50
85%	1.3 TO 1.8 d50
50%	1.0 TO 1.5 d50
15%	0.3 TO 0.5 d50

CONSTRUCTION SPECIFICATIONS:

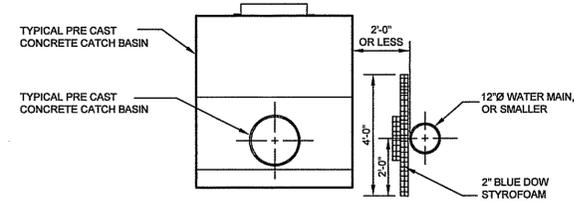
1. THE SUBGRADE FOR THE FILTER MATERIAL, GEOTEXTILE FABRIC AND RIP RAP SHALL BE PREPARED TO THE LINES AND GRADES SHOWN ON THE PLANS.
2. THE ROCK OR GRAVEL USED FOR FILTER OR RIP RAP SHALL CONFORM TO THE SPECIFIED GRADATION.
3. GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF THE ROCK RIP RAP. DAMAGED AREAS IN THE FABRIC SHALL BE REPAIRED BY PLACING A PIECE OF FABRIC OVER THE DAMAGED AREA OR BY COMPLETE REPLACEMENT OF THE FABRIC. ALL OVERLAPS REQUIRED FOR REPAIRS OR JOINING TWO PIECES OF FABRIC SHALL BE A MINIMUM OF 12 INCHES.
4. STONE FOR THE RIP RAP MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE STONE SIZES.

MAINTENANCE:

THE OUTLET PROTECTION SHOULD BE CHECKED AT LEAST ANNUALLY AND AFTER EVERY MAJOR RAIN EVENT. IF THE RIP RAP HAS BEEN DISPLACED, UNDERMINED OR DAMAGED, IT SHOULD BE REPAIRED IMMEDIATELY. THE CHANNEL IMMEDIATELY BELOW THE OUTLET SHOULD BE CHECKED TO SEE THAT EROSION IS NOT OCCURRING. THE DOWNSTREAM CHANNEL SHOULD BE KEPT CLEAR OF OBSTRUCTIONS SUCH AS FALLEN TREES, DEBRIS AND SEDIMENT THAT COULD CHANGE FLOW PATTERNS AND/OR TAILWATER DEPTHS ON THE PIPES. REPAIRS MUST BE CARRIED OUT IMMEDIATELY TO AVOID ADDITIONAL DAMAGE TO THE OUTLET PROTECTION APRON.



PLAN VIEW



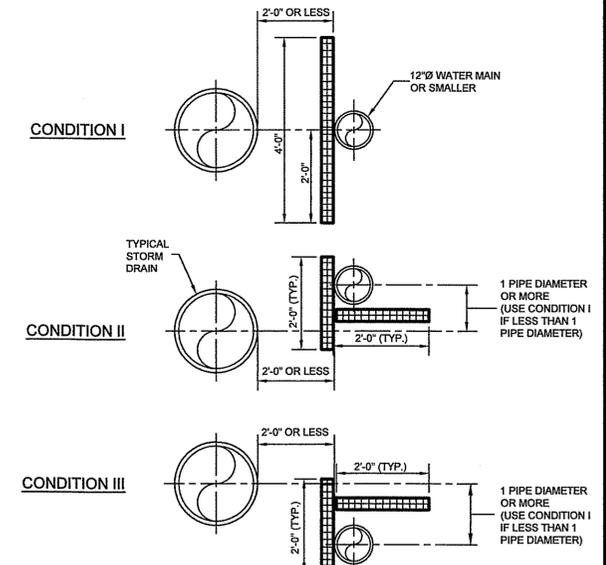
ELEVATION VIEW

NOTES:

1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5'-0" FROM TOP OF PIPE TO FINISH GRADE.
3. THE TOWN OF HUDSON RESERVES THE RIGHT TO MODIFY INSULATION REQUIREMENTS AS NECESSARY BASED ON FIELD CONDITIONS, ETC.
4. ALL BUTT JOINT SEAMS TO BE OVERLAPPED WITH 1'-0" PIECE OF INSULATION CENTERED OVER SEAM.

CATCH BASIN INSULATION DETAIL

(A-16)
NOT TO SCALE
(MARCH 2008)

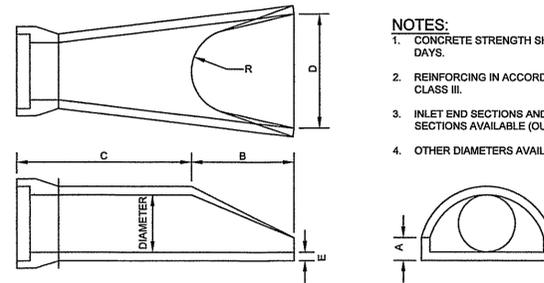


NOTES:

1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.
3. THE TOWN OF HUDSON 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' PIECE OF INSULATION CENTERED OVER SEAM.
5. [Symbol] - 1.5" (MIN) BLUE DOWEL STYROFOAM

STORM DRAIN / WATER MAIN PARALLEL RUNS - ELEVATION VIEW

(A-17)
NOT TO SCALE
(MAY 2010)

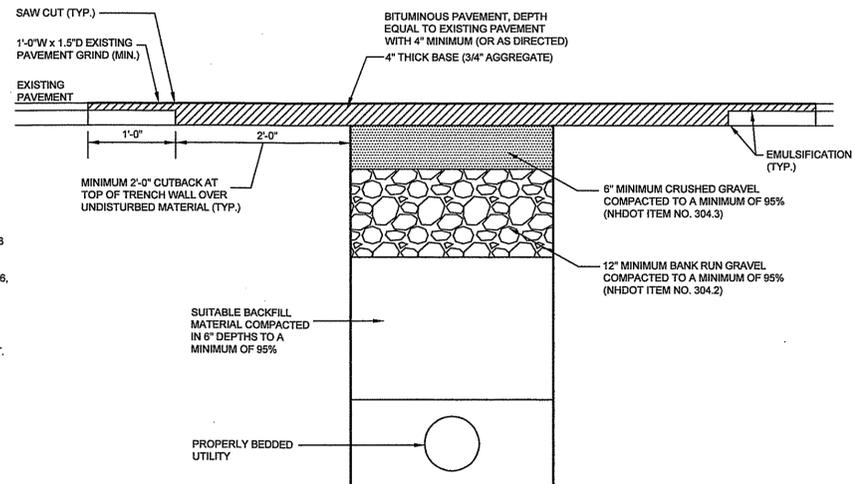


RCP FLARED END SECTION DETAIL
NOT TO SCALE
(MARCH 2008)

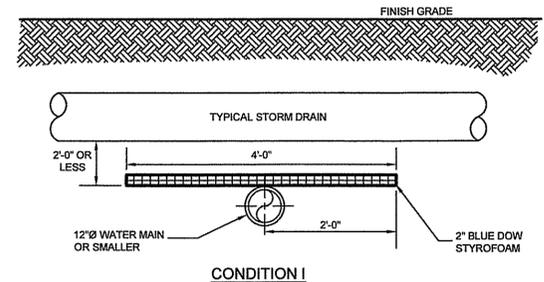
NOTES:

1. CONCRETE STRENGTH SHALL BE 4000 PSI AT 28 DAYS.
2. REINFORCING IN ACCORDANCE WITH ASTM C-76, CLASS III.
3. INLET END SECTIONS AND OUTLET END SECTIONS AVAILABLE (OUTLET SHOWN).
4. OTHER DIAMETERS AVAILABLE UPON REQUEST.

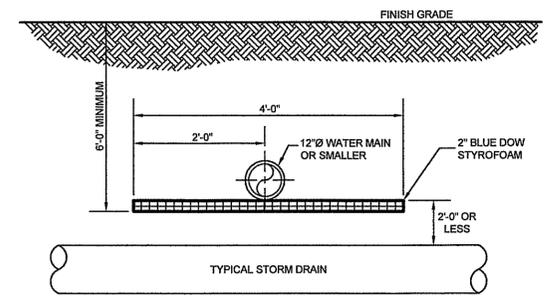
DIAMETER	A	B	C	D	E	R
12"	4"	2'-0"	4'-0 7/8"	2'-0"	2"	9"
15"	6"	2'-3"	3'-10"	2'-6"	2 1/4"	11"
18"	9"	2'-3"	3'-10"	3'-0"	2 1/2"	12"
21"	9"	2'-11"	3'-2"	3'-6"	2 3/4"	13"
24"	9 1/2"	3'-7 1/2"	2'-6"	4'-0"	3"	14"
30"	12"	4'-6"	1'-7 3/4"	5'-0"	3 1/2"	15"
36"	15"	5'-3"	2'-10 3/4"	6'-0"	4"	20"



PERMANENT PAVEMENT REPAIR
NOT TO SCALE
(MARCH 2008)



CONDITION I



CONDITION II

NOTES:

1. THE TOWN OF HUDSON RESERVES THE RIGHT TO MODIFY INSULATION REQUIREMENTS AS NECESSARY BASED ON FIELD CONDITIONS, ETC.
2. THE LENGTH OR WIDTH OF INSULATION SHALL EXTEND 1' STORM DRAIN PIPE DIAMETER BEYOND THE EDGE OF STORM DRAIN PIPE IN EACH DIRECTION OR A MINIMUM OF 2' BEYOND THE CENTERLINE OF THE STORM DRAIN PIPE, WHICHEVER IS GREATER.
3. ALL BUTT JOINT SEAMS TO BE OVERLAPPED WITH A 1' PIECE OF INSULATION CENTERED OVER SEAM.

STORM DRAIN/WATER MAIN INTERSECTION RUNS - ELEVATION VIEW

(A-18)
NOT TO SCALE

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

APPROVED BY THE HUDSON, NH PLANNING BOARD
DATE OF MEETING: _____

SIGNATURE _____ DATE _____

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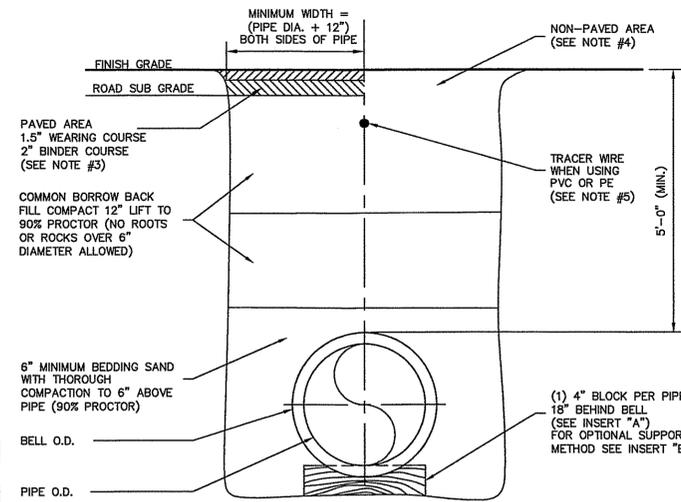
KM KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

REVISIONS

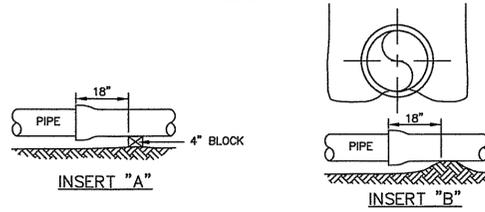
No.	DATE	DESCRIPTION	BY

DATE: JANUARY 23, 2015 SCALE: AS SHOWN
PROJECT NO: 14-0721-1 SHEET 24 OF 28

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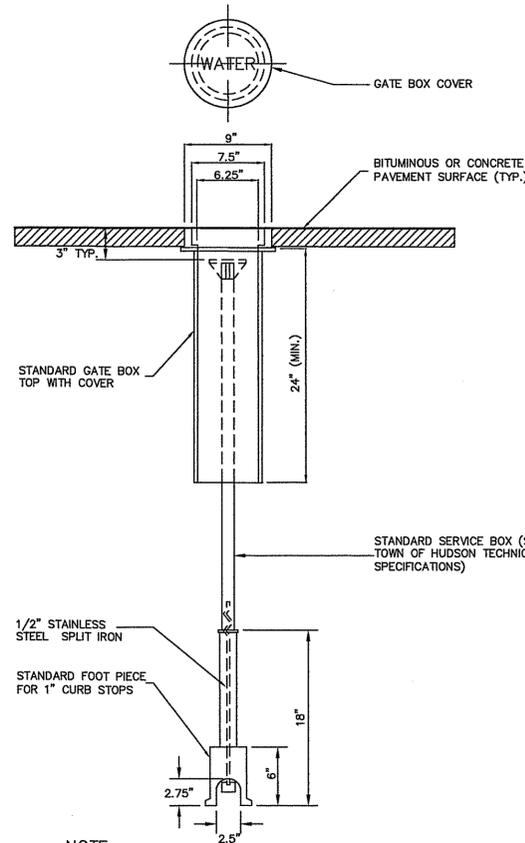


TYPICAL WATER LINE TRENCH DETAIL
NOT TO SCALE



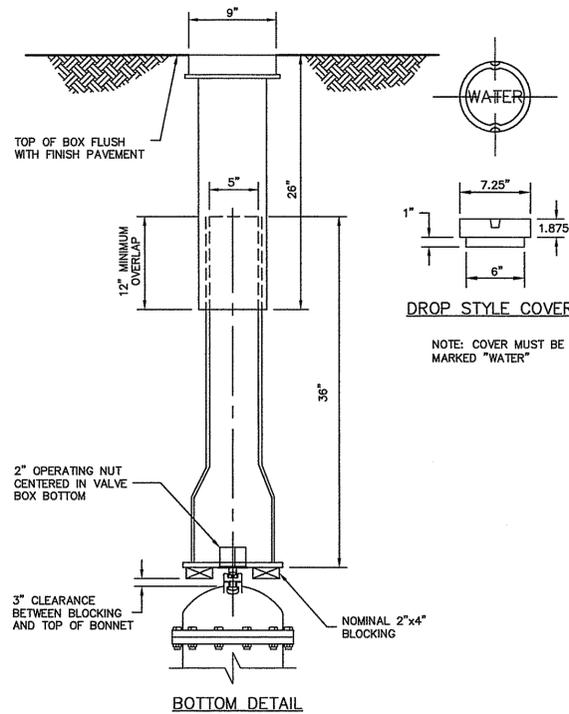
- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE, UNLESS INSULATION IS SPECIFIED.
 3. REQUIREMENTS FOR SUBBASE AND BASE MATERIAL TYPE ARE TO BE IN ACCORDANCE WITH LOCAL AUTHORITY HAVING LOCAL JURISDICTION IN PAVED AREAS.
 4. REQUIREMENTS FOR GRAVEL, LOAM AND/OR SEED ARE TO BE IN ACCORDANCE WITH LOCAL AUTHORITY HAVING LOCAL JURISDICTION IN NON-PAVED AREAS.
 5. 10 GAUGE TRACER WIRE AS MANUFACTURED BY BMS, DIVISION OF ALBESTAR CORP., AVON, MA OR EQUIVALENT.

OPTIONAL ONLY WHEN SOIL CONDITIONS ARE EQUAL TO 6\"/>



TYPICAL SERVICE BOX DETAIL IN PAVED AREAS
NOT TO SCALE

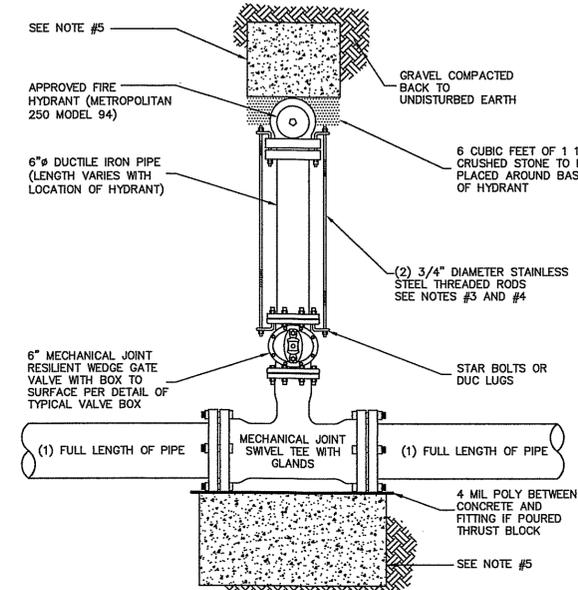
NOTE:
ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO THE TOWN OF HUDSON TECHNICAL SPECIFICATIONS.



TYPICAL VALVE BOX DETAIL
NOT TO SCALE

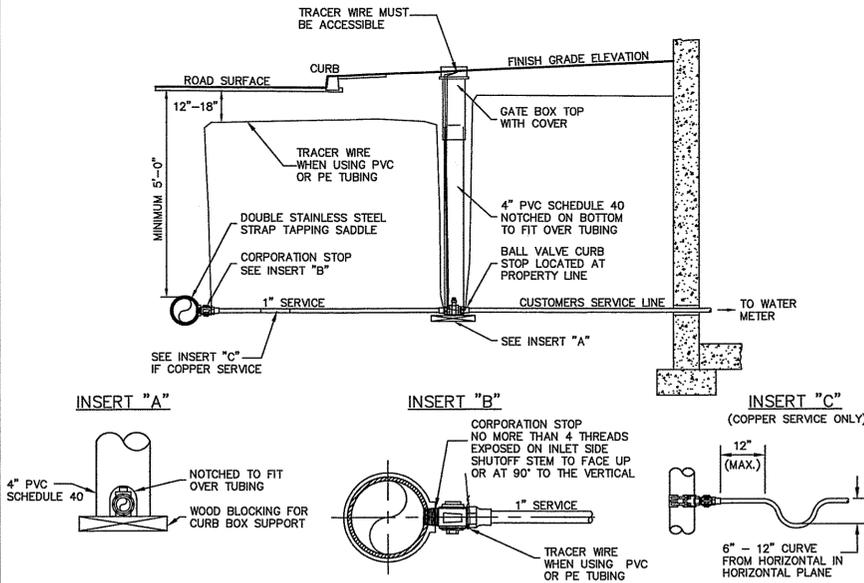
NOTES:

1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO THE TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.



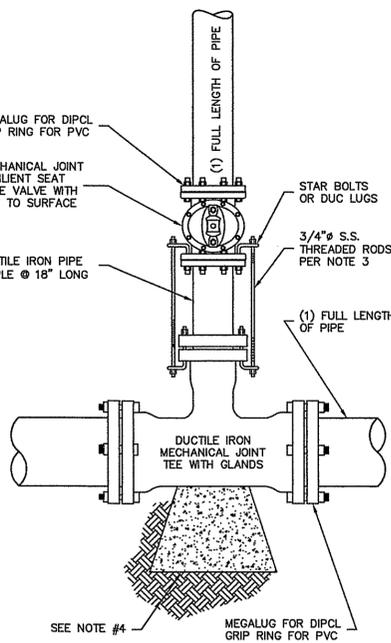
TYPICAL HYDRANT INSTALLATION
NOT TO SCALE

- NOTES:**
1. ALL MATERIAL AND INSTALLATION PROCEDURES WILL CONFORM TO THE TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTHS OF 5' FROM TOP OF PIPE TO FINISH GRADE.
 3. 3/4\"/>



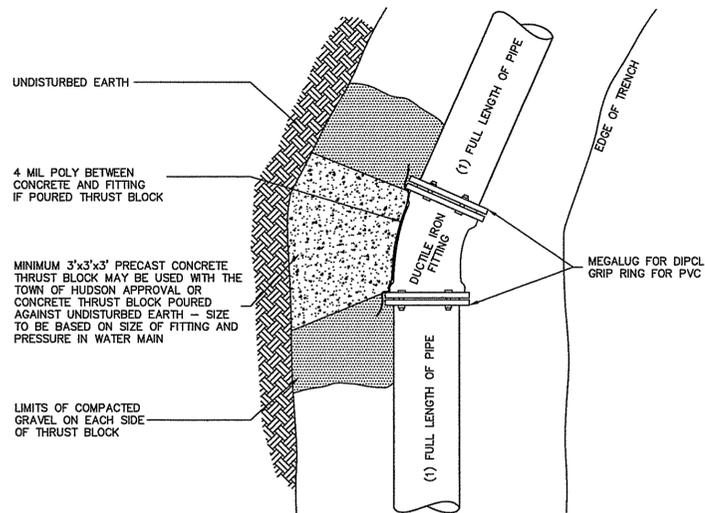
- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO THE TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.

TYPICAL 1\"/>



- NOTES:**
1. ALL MATERIAL AND INSTALLATION PROCEDURES WILL CONFORM TO THE TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTHS OF 5' FROM TOP OF PIPE TO FINISH GRADE.
 3. 3/4\"/>

TYPICAL TEE INSTALLATION
NOT TO SCALE



- NOTES:**
1. ALL MATERIAL AND INSTALLATION PROCEDURES WILL CONFORM TO THE TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTHS OF 5' FROM TOP OF PIPE TO FINISH GRADE.
 3. 3/4\"/>

TYPICAL THRUST BLOCK BEHIND FITTINGS INSTALLATION
NOT TO SCALE

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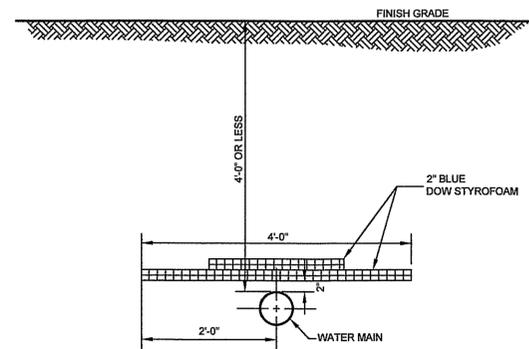
APPLICANT:
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REVISIONS			
No.	DATE	DESCRIPTION	BY

DATE: JANUARY 23, 2015 SCALE: AS SHOWN
PROJECT NO: 14-0721-1 SHEET 25 OF 28

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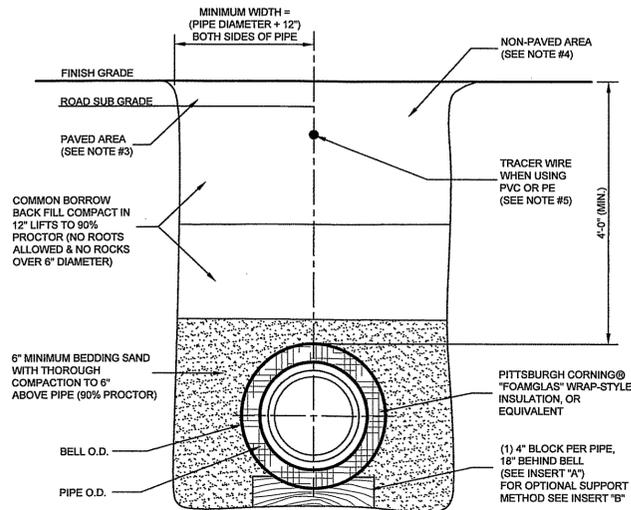


NOTES:

1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO TOWN OF HUDSON TECHNICAL SPECIFICATIONS.
2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5'-0" FROM TOP OF PIPE TO FINISH GRADE.
3. THE TOWN OF HUDSON RESERVES THE RIGHT TO MODIFY INSULATION REQUIREMENTS AS NECESSARY BASED ON FIELD CONDITIONS, ETC.
4. ALL BUTT JOINT SEAMS TO BE OVERLAPPED WITH 2" PIECE OF INSULATION CENTERED OVER SEAM.

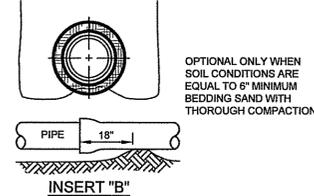
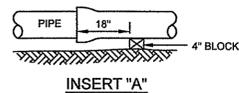
INSULATION DETAIL FOR LESS THAN 4'-0" OF COVER

(A-31)
NOT TO SCALE
(MARCH 2008)



NOTES:

1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO PENNICHUCK WATER WORKS, INC. TECHNICAL SPECIFICATIONS.
2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5'-0" FROM TOP OF PIPE TO FINISH GRADE.
3. REQUIREMENTS FOR SUBBASE AND BASE MATERIAL TYPE ARE TO BE IN ACCORDANCE WITH LOCAL AUTHORITY HAVING LOCAL JURISDICTION IN PAVED AREAS.
4. REQUIREMENTS FOR GRAVEL, LOAM AND/OR SEED ARE TO BE IN ACCORDANCE WITH LOCAL AUTHORITY HAVING LOCAL JURISDICTION IN NON-PAVED AREAS.
5. 10 GAUGE TRACER WIRE AS MANUFACTURED BY BMS, DIVISION OF ALBESTAR CORP., AVON, MA OR EQUIVALENT.
6. WRAP INSULATION TO EXTEND 5'-0" BEYOND CULVERT IN EACH DIRECTION.

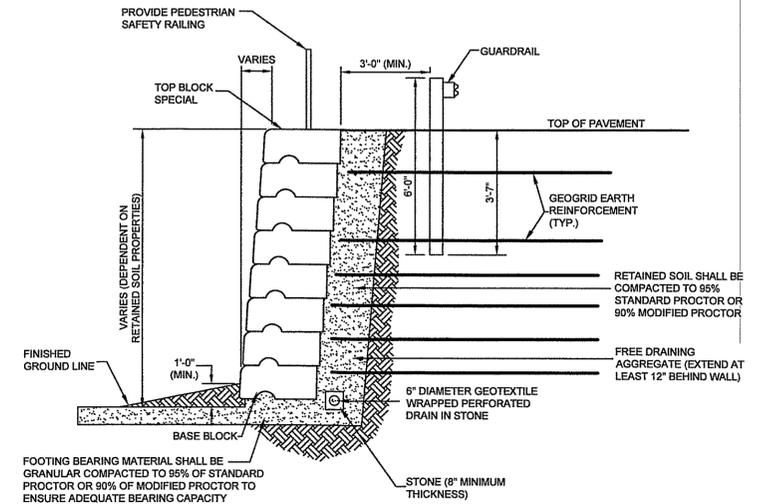


WRAP INSULATION DETAIL

(A-16A)
NOT TO SCALE
(JANUARY 2011)

WATER DISTRIBUTION SYSTEM NOTES

1. ALL DISTRIBUTION MATERIAL INCLUDING: MAINS, FITTINGS AND VALVES TO MEET APPLICABLE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES - BUREAU OF WATER SUPPLY ENGINEERING, DRINKING WATER AND GROUNDWATER BUREAU (DWGB), TOWN OF HUDSON WATER DEPARTMENT AND AMERICAN WATER WORKS ASSOCIATION (AWWA) STANDARDS.
2. ALL INSTALLATION OF MATERIAL CONFORMS TO APPLICABLE DWGB, TOWN OF HUDSON AND AWWA STANDARDS AND SPECIFICATIONS FOR WATER SYSTEMS.
3. ALL VALVES, TEES, BENDS AND THEIR RELATED JOINTS ARE PROPERLY RESTRAINED USING APPROVED "MEGA-LUG" OR APPROVED EQUAL, RETAINER KITS AT EACH JOINT.
4. ALL WATER MAIN AND APPURTENANCES SHALL BE APPROVED MATERIALS MANUFACTURED IN ACCORDANCE WITH CURRENT AWWA STANDARDS. ALL 8" AND 12" DIAMETER WATER MAIN AND APPURTENANCES SHALL BE AN APPROVED AWWA CLASS 52 CEMENT LINED DUCTILE IRON PIPE. PIPE SIZING IS AS SHOWN ON THE KEACH-NORDSTROM ASSOCIATES, INC. PLANS APPROVED BY THE TOWN PLANNING BOARD AND NHDWGB. FIRE HYDRANTS MEETING AWWA C-503 STANDARDS, OPEN LEFT AND TO BE INSTALLED AT LOCATIONS AS APPROVED BY THE HUDSON FIRE DEPARTMENT. ALL WATER MAIN AND SERVICE LINES TO BE INSTALLED WITH A MINIMUM OF 60" OF COVER AND SHALL BE PROPERLY SAND BEDDED, COMPACTED AND BACKFILLED WITH SUITABLE MATERIALS.
5. GATE VALVES SHALL BE INSTALLED AT LOCATIONS SHOWN ON THE APPROVED UTILITY PLANS. ALL GATE VALVES SHALL BE AWWA APPROVED, EPOXY COATED, RESILIENT WEDGE TYPE, BEING OPEN LEFT (COUNTER CLOCKWISE). VALVE BOXES SHALL BE AWWA APPROVED, SLIP TYPE WITH 36" BASE, 36" TOP AND COVER ARE A ONE-PIECE CAST COVER LABELED "WATER".
6. FIRE HYDRANTS SHALL BE TOWN OF HUDSON APPROVED, OPEN LEFT (CCW) INSTALLED AT LOCATION SHOWN ON THE PROJECT PLANS. DOMESTIC SERVICES SHALL HAVE SERVICE LINE SIZING BEING 2" DIAMETER COPPER TUBING BETWEEN MAIN AND CURB STOP, AND 2" PE-CCTS TUBING SIZE FROM STOP TO INSIDE HOME FOR THE FIRE SPRINKLER SERVICE, AND 1" PE-CCTS TUBING SIZE WITH A TEE FROM 2" FOR DOMESTIC WATER, USING BRASS COMPRESSION JOINTS FOR SERVICE FITTINGS AND CORPORATION STOPS, STAINLESS STEEL INSERTS ON HDPE PIPE, BALL VALVE SHUT OFFS AND ADJUSTABLE ERIE TYPE CURB BOXES. SERVICES SHALL BE RUN INTO EACH OF THE INDIVIDUAL HOMES FROM THE WATER MAINS.
7. SEPARATION OF WATER MAINS AND SEWER ARE IN ACCORDANCE WITH DWGB STANDARDS. ON PARALLEL INSTALLATION, WATER MAINS WERE LAID AT LEAST TEN FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED SEWER. IF LESS THAN TEN FEET, WATER MAIN LAID IN A SEPARATE TRENCH, OR ON AN UNDISTURBED EARTH SHELF LOCATED ON ONE SIDE OF THE SEWER AT SUCH AN ELEVATION THAT THE BOTTOM OF THE MAIN IS AT LEAST 18" ABOVE THE TOP OF THE SEWER WITH AT LEAST THREE FEET HORIZONTAL SEPARATION. AT CROSSINGS THERE IS A MINIMUM VERTICAL DISTANCE OF 18" BETWEEN THE WATER MAIN AND SEWER. WATER MAIN WITH A MINIMAL LAYING LENGTH OF 18 FEET IS TO BE USED AT ALL CROSSINGS, WITH BOTH JOINTS BEING LOCATED AS FAR FROM THE SEWER AS POSSIBLE.
8. ALL WATER MAINS SHALL BE FLUSHED, PRESSURE TESTED AND DISINFECTED IN ACCORDANCE WITH THE LATEST PROVISIONS OF AWWA C-650 AND C-651, PRIOR TO ACCEPTANCE. WRITTEN CERTIFICATION OF TESTING AND BACTERIOLOGICAL TEST RESULTS BY A THIRD PARTY CONTRACTOR SHALL BE PROVIDED.
9. A RECORD DRAWING OF WATER MAINS AND APPURTENANCES SHALL BE PROVIDED FOLLOWING INSTALLATION, IN ACCORDANCE WITH NHDWGB AND TOWN OF HUDSON STANDARDS.



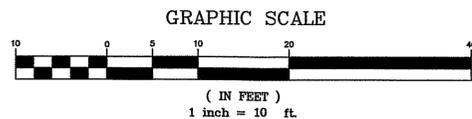
NOTES:

1. AS PERMISSIBLE, THE STRUCTURAL ENGINEER CHARGED WITH RETAINING WALL DESIGN SHALL SPECIFY SALT RESISTANT BLOCK CONSTRUCTION WHERE WALLS ARE TO BE CONSTRUCTED NEAR ROADWAYS OR PARKING AREAS.
2. RETAINING WALL DRAIN TO "DAYLIGHT" AT LOW POINT OR TIE TO DRAIN STRUCTURE AS SHOWN IN PLAN VIEW.
3. THE STAMPED SHOP DRAWINGS AND CALCULATIONS FOR THE ACTUAL RETAINING WALL MUST BE PROVIDED FOR REVIEW AND APPROVAL AT OR PRIOR TO THE PROJECT'S REQUIRED PRE CONSTRUCTION MEETING.
4. THE PROVIDED PLANS AND SUPPORTING CALCULATIONS MUST ADDRESS THE FOLLOWING CRITERIA:
 - a. DESIGN CALCULATIONS STAMPED BY QUALIFIED PE LICENSE IN NH
 - b. STABILITY CALCULATIONS (INCLUDING BEARING CAPACITY, GLOBAL STABILITY, OVERTURNING & SLIDING, IMPACT)
 - c. GEGRID PULLOUT AND OTHER PERTINENT DATA & ELEVATIONS
 - d. CONSTRUCTION INSTALLATION SPECIFICATION
 - e. LATERAL EARTH PRESSURE COEFFICIENT
 - f. SURCHARGE LOAD, EMBEDMENT DEPTH
 - g. BOTH A PLAN AND PROFILE OF EACH WALL SECTION

REDI-ROCK RETAINING WALL WITH PEDESTRIAN RAILING
(TO BE DESIGNED BY OTHERS)
NOT TO SCALE



WETLAND CONSERVATION DISTRICT
BOUNDARY MARKER
NOT TO SCALE
(MARCH 2010)



PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL

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REVISIONS			
No.	DATE	DESCRIPTION	BY

DATE: JANUARY 23, 2015
PROJECT NO: 14-0721-1
SCALE: AS SHOWN
SHEET 26 OF 28

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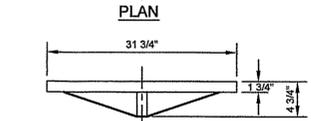
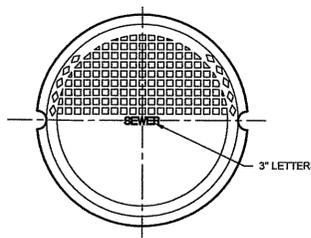
BEST MANAGEMENT PRACTICES FOR BLASTING

IF MORE THAN 5000 CUBIC YARDS ARE BLASTED: IDENTIFY DRINKING WATER WELLS LOCATED WITHIN 2000 FEET OF THE PROPOSED BLASTING ACTIVITIES. DEVELOP A GROUNDWATER QUALITY SAMPLING PROGRAM TO MONITOR FOR NITRATE AND NITRITE EITHER IN THE DRINKING WATER SUPPLY WELLS OR IN OTHER WELLS THAT ARE REPRESENTATIVE OF THE DRINKING WATER SUPPLY WELLS IN THE AREA. THE PLAN MUST INCLUDE PRE AND POST BLAST WATER QUALITY MONITORING AND BE APPROVED BY NHDES PRIOR TO INITIATING BLASTING. THE GROUNDWATER SAMPLING PROGRAM MUST BE IMPLEMENTED ONCE APPROVED BY NHDES.

BEST MANAGEMENT PRACTICES FOR BLASTING.

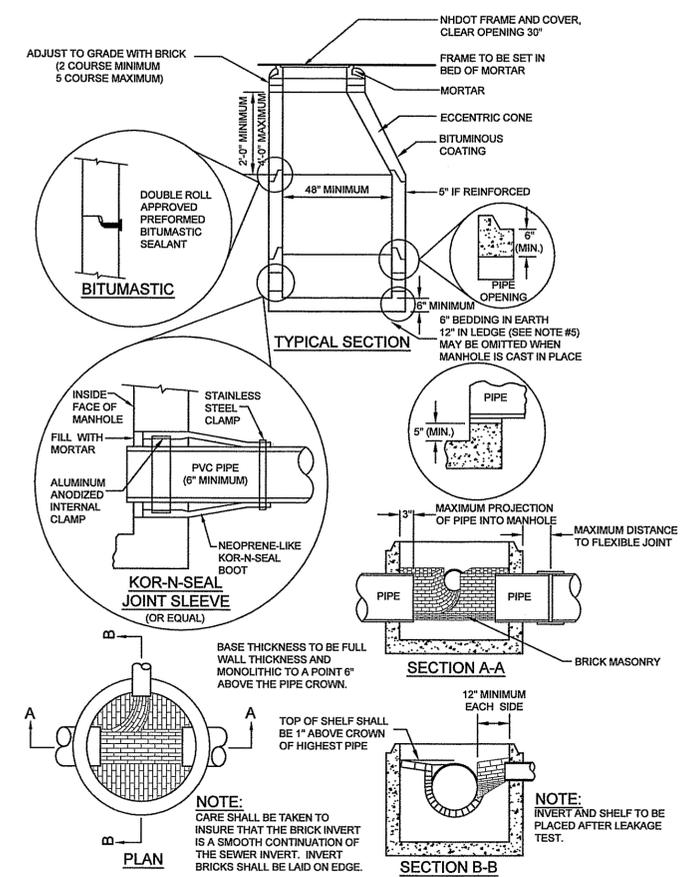
ALL ACTIVITIES RELATED TO BLASTING SHALL FOLLOW BEST MANAGEMENT PRACTICES (BMPs) TO PREVENT CONTAMINATION OF GROUNDWATER INCLUDING PREPARING, REVIEWING AND FOLLOWING AN APPROVED BLASTING PLAN; PROPER DRILLING, EXPLOSIVE HANDLING AND LOADING PROCEDURES; OBSERVING THE ENTIRE BLASTING PROCEDURES; EVALUATING BLASTING PERFORMANCE; AND HANDLING AND STORAGE OF BLASTED ROCK.

- (1) **LOADING PRACTICES.**
THE FOLLOWING BASTHOLE LOADING PRACTICES TO MINIMIZE ENVIRONMENTAL EFFECTS SHALL BE FOLLOWED:
 - (A) DRILLING LOGS SHALL BE MAINTAINED BY THE DRILLER AND COMMUNICATED DIRECTLY TO THE BLASTER. THE LOGS SHALL INDICATE DEPTHS AND LENGTHS OF VOIDS, CAVITIES, AND FAULT ZONES OR OTHER WEAK ZONES ENCOUNTERED AS WELL AS GROUNDWATER CONDITIONS.
 - (B) EXPLOSIVE PRODUCTS SHALL BE MANAGED ON SITE SO THAT THEY ARE EITHER USED IN THE BOREHOLE, RETURNED TO THE DELIVERY VEHICLE, OR PLACED IN SECURE CONTAINERS FOR OFF SITE DISPOSAL.
 - (C) SPILLAGE AROUND THE BOREHOLE SHALL EITHER BE PLACED IN THE BOREHOLE OR CLEANED UP AND RETURNED TO AN APPROPRIATE VEHICLE FOR HANDLING OR PLACEMENT IN SECURED CONTAINERS FOR OFF SITE DISPOSAL.
 - (D) LOADED EXPLOSIVES SHALL BE DETONATED AS SOON AS POSSIBLE AND SHALL NOT BE LEFT IN THE BASTHOLES OVERNIGHT, UNLESS WEATHER OR OTHER SAFETY CONCERNS REASONABLY DICTATE THAT DETONATION SHOULD BE POSTPONED.
 - (E) LOADING EQUIPMENT SHALL BE CLEANED IN AN AREA WHERE WASTEWATER CAN BE PROPERLY CONTAINED AND HANDLED IN A MANNER THAT PREVENTS RELEASE OF CONTAMINANTS TO THE ENVIRONMENT.
 - (F) EXPLOSIVES SHALL BE LOADED TO MAINTAIN GOOD CONTINUITY IN THE COLUMN LOAD TO PROMOTE COMPLETE DETONATION. INDUSTRY ACCEPTED LOADING PRACTICES FOR PRIMING, STEMMING, DECKING AND COLUMN RISE NEED TO BE ATTENDED TO.
- (2) **EXPLOSIVE SELECTION.**
THE FOLLOWING BMPs SHALL BE FOLLOWED TO REDUCE THE POTENTIAL FOR GROUNDWATER CONTAMINATION WHEN EXPLOSIVES ARE USED:
 - (A) EXPLOSIVE PRODUCTS SHALL BE SELECTED THAT ARE APPROPRIATE FOR SITE CONDITIONS AND SAFE BLAST EXECUTION.
 - (B) EXPLOSIVE PRODUCTS SHALL BE SELECTED THAT HAVE THE APPROPRIATE WATER RESISTANCE FOR THE SITE CONDITIONS PRESENT TO MINIMIZE THE POTENTIAL FOR HAZARDOUS EFFECT OF THE PRODUCT UPON GROUNDWATER.
- (3) **PREVENTION OF MISFIRES.**
APPROPRIATE PRACTICES SHALL BE DEVELOPED AND IMPLEMENTED TO PREVENT MISFIRES.
- (4) **MUCK PILE MANAGEMENT.**
MUCK PILES (THE BLASTED PIECES OF ROCK) AND ROCK PILES SHALL BE MANAGED IN A MANNER TO REDUCE THE POTENTIAL FOR CONTAMINATION BY IMPLEMENTING THE FOLLOWING MEASURES:
 - (A) REMOVE THE MUCK PILE FROM THE BLAST AREA AS SOON AS REASONABLY POSSIBLE.
 - (B) MANAGE THE INTERACTION OF ROCK PILES AND STORMWATER TO PREVENT CONTAMINATION OF WATER SUPPLY WELLS OR SURFACE WATER.
- (5) **SPILL PREVENTION MEASURES AND SPILL MITIGATION.**
PILL PREVENTION AND SPILL MITIGATION MEASURES SHALL BE IMPLEMENTED TO PREVENT THE RELEASE OF FUEL AND OTHER RELATED SUBSTANCES TO THE ENVIRONMENT. THE MEASURES SHALL INCLUDE AT A MINIMUM:
 - (A) THE FUEL STORAGE REQUIREMENTS SHALL INCLUDE:
 1. STORAGE OF REGULATED SUBSTANCES ON AN IMPERVIOUS SURFACE.
 2. SECURE STORAGE AREAS AGAINST UNAUTHORIZED ENTRY.
 3. LABEL REGULATED CONTAINERS CLEARLY AND VISIBLY.
 4. INSPECT STORAGE AREAS WEEKLY.
 5. COVER REGULATED CONTAINERS IN OUTSIDE STORAGE AREAS.
 6. WHEREVER POSSIBLE, KEEP REGULATED CONTAINERS THAT ARE STORED OUTSIDE MORE THAN 50 FEET FROM SURFACE WATER AND STORM DRAINS, 75 FEET FROM PRIVATE WELLS, AND 400 FEET FROM PUBLIC WELLS.
 7. SECONDARY CONTAINMENT IS REQUIRED FOR CONTAINERS CONTAINING REGULATED SUBSTANCES STORED OUTSIDE, EXCEPT FOR ON PREMISE USE HEATING FUEL TANKS, OR ABOVEGROUND OR UNDERGROUND STORAGE TANKS OTHERWISE REGULATED.
 - (B) THE FUEL HANDLING REQUIREMENTS SHALL INCLUDE:
 1. EXCEPT WHEN IN USE, KEEP CONTAINERS CONTAINING REGULATED SUBSTANCES CLOSED AND SEALED.
 2. PLACE DRIP PANS UNDER SPIGOTS, VALVES, AND PUMPS.
 3. HAVE SPILL CONTROL AND CONTAINMENT EQUIPMENT READILY AVAILABLE IN ALL WORK AREAS.
 4. USE FUNNELS AND DRIP PANS WHEN TRANSFERRING REGULATED SUBSTANCES.
 5. PERFORM TRANSFERS OF REGULATED SUBSTANCES OVER AN IMPERVIOUS SURFACE.
 - (C) THE TRAINING OF ON SITE EMPLOYEES AND THE ON SITE POSTING OF RELEASE RESPONSE INFORMATION DESCRIBING WHAT TO DO IN THE EVENT OF A SPILL OF REGULATED SUBSTANCES.
 - (D) FUELING AND MAINTENANCE OF EXCAVATION, EARTHMOVING AND OTHER CONSTRUCTION RELATED EQUIPMENT WILL COMPLY WITH THE REGULATIONS OF THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES [NOTE THESE REQUIREMENTS ARE SUMMARIZED IN WD-DWGB-22-6 BEST MANAGEMENT PRACTICES FOR FUELING AND MAINTENANCE OF EXCAVATION AND EARTHMOVING EQUIPMENT OR ITS SUCCESSOR DOCUMENT.



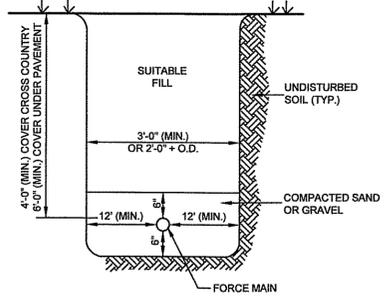
SEWER MANHOLE FRAME AND COVER DETAIL
NOT TO SCALE
(MARCH 2008)

- NOTES:**
NEW HAMPSHIRE MAINTAINS A CLEAR OPENING DESIGNATION OF 30" FOR ITS MANHOLE CASTINGS.
- FEATURES:**
- 3" LETTERING
 - COVERS MARKED SEWER
 - NONROCKING COVER
 - DIAMOND SURFACE DESIGN
- SPECIFICATIONS:**
- FULLY MACHINED FRAME AND COVER
 - H-20 LOAD RATED
 - GRAY CAST IRON MEETS ASTM A48 CLASS 30

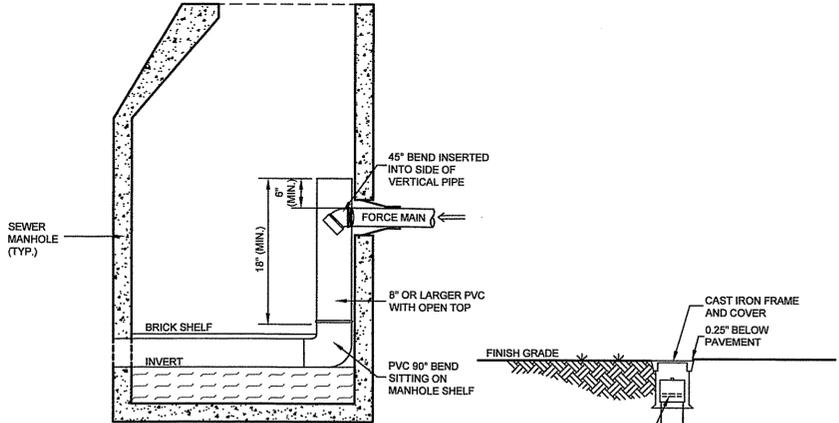


SANITARY SEWER MANHOLE
NOT TO SCALE
(MARCH 2008)

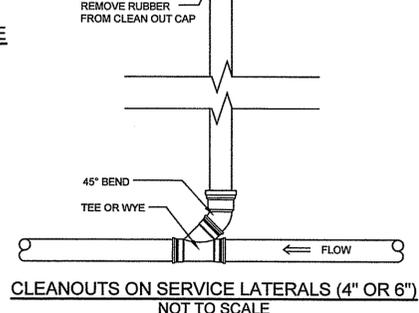
- SANITARY SEWER MANHOLE NOTES: (NHDES ENV WQ700 - 2008)**
1. ALL COMPONENT PARTS OF MANHOLE STRUCTURES SHALL HAVE THE STRENGTH, LEAK RESISTANCE AND SPACE NECESSARY FOR THE INTENDED SERVICE.
 2. MANHOLE STRUCTURES SHALL HAVE A LIFE EXPECTANCY IN EXCESS OF 25 YEARS.
 3. MANHOLE STRUCTURES SHALL BE DESIGNED TO WITHSTAND H-20 LOADING AND SHALL NOT LEAK IN EXCESS OF ONE GPD PER VERTICAL FOOT OF MANHOLE FOR THE LIFE OF THE STRUCTURE.
 4. BARRELS AND CONE SECTIONS SHALL BE CONSTRUCTED OF PRECAST REINFORCED CONCRETE AND SHALL CONFORM TO ASTM C478.
 5. BEDDING: CRUSHED STONE FREE FROM CLAY, LOAM, ORGANIC MATTER AND MEETING ASTM C33 100% PASSING 1 INCH SCREEN 90% PASSING 3/4 INCH SCREEN 20-55% PASSING 3/8 INCH SCREEN 0-10% PASSING #4 SIEVE 0-5% PASSING #6 SIEVE WHERE ORDERED BY THE ENGINEER TO STABILIZE THE BASE, CRUSHED STONE 1/2 INCH TO 1-1/2 INCH SHALL BE USED.
 6. BASE SECTIONS SHALL BE OF MONOLITHIC CONSTRUCTION TO A POINT AT LEAST 6 INCHES ABOVE THE CROWN OF THE INCOMING PIPE.
 7. HORIZONTAL JOINTS BETWEEN SECTIONS OF PRECAST CONCRETE BARRELS SHALL BE OF AN OVERLAPPING TYPE, SEALED FOR WATER-TIGHTNESS USING A DOUBLE ROW OF AN ELASTOMERIC OR MASTIC-LIKE SEALANT.
 8. PIPE TO MANHOLE JOINTS SHALL BE AS FOLLOWS:
 - A. ELASTOMERIC RUBBER SLEEVE WITH WATERTIGHT JOINTS AT THE MANHOLE OPENING AND PIPE SURFACES;
 - B. CAST INTO THE WALL OR 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; AND
 - D. NON-SHRINK GROUTED JOINTS WHERE WATERTIGHT BONDING TO THE MANHOLE AND PIPE CAN BE OBTAINED.
 9. MANHOLE CONE SECTIONS SHALL BE ECCENTRIC IN SHAPE.
 10. ALL PRECAST SECTIONS AND BASES SHALL HAVE THE DATE OF MANUFACTURE AND THE NAME OR TRADEMARK OF THE MANUFACTURER IMPRESSED OR IDEBLY MARKED ON THE INSIDE WALL.
 11. MANHOLES SHALL HAVE A BRICK PAVED SHELF AND INVERT CONSTRUCTED TO CONFORM TO THE SIZE OF PIPE AND FLOW. AT CHANGES IN DIRECTION, THE INVERTS SHALL BE LAID OUT IN CURVES OF THE LONGEST RADIUS POSSIBLE TANGENT TO THE CENTER LINE OF THE SEWER PIPES. SHELVES SHALL BE CONSTRUCTED TO THE ELEVATION OF THE HIGHEST PIPE CROWN AND SLOPED TO DRAIN TOWARD THE FLOWING THROUGH CHANNEL. UNDERLAYMENT OF INVERT AND SHELF SHALL CONSIST OF BRICK MASONRY. INVERTS AND SHELVES SHALL BE PLACED AFTER TESTING.
 12. MATERIALS OF CONSTRUCTION FOR MANHOLES SHALL BE AS FOLLOWS:
 - A. CONCRETE FOR CAST-IN-PLACE BASES OR COMPLETE MANHOLES SHALL CONFORM TO THE REQUIREMENTS FOR CLASS AA CONCRETE IN THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION";
 - B. REINFORCING FOR CAST-IN-PLACE CONCRETE SHALL BE STEEL OR STRUCTURAL FIBERS THAT CONFORM TO THE REQUIREMENTS OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION";
 - C. PRECAST CONCRETE BARREL SECTIONS, CONES AND BASES SHALL CONFORM TO ASTM C478-06;
 - D. THE MANHOLE FRAME AND COVER SHALL PROVIDE A 30-INCH DIAMETER CLEAR OPENING;
 - E. THE MANHOLE COVER SHALL HAVE THE WORD "SEWER" IN 3-INCH LETTERS CAST INTO THE TOP SURFACE;
 - F. THE CASTINGS SHALL BE OF EVEN-GRAINED CAST IRON, SMOOTH AND FREE FROM SCALE, LUMPS, BLISTERS, SAND HOLES AND DEFECTS;
 - G. CONTACT SURFACES OF COVERS AND FRAMES SHALL BE MACHINED AT THE FOUNDRY TO PREVENT ROCKING OF COVERS IN ANY ORIENTATION;
 - H. CASTINGS SHALL BE EQUAL TO CLASS 30, CONFORMING TO ASTM A48/48M-03;
 - I. BRICK MASONRY FOR SHELF, INVERT AND GRADE ADJUSTMENT SHALL COMPLY WITH ASTM C32-05, CLAY OR SHALE, FOR GRADE SS HARD BRICK;
 - J. MORTAR SHALL BE COMPOSED OF PORTLAND CEMENT AND SAND WITH OR WITHOUT HYDRATED LIME ADDITION;
 - K. PROPORTIONS IN MORTAR OF PARTS BY VOLUMES SHALL BE:
 1. 4.5 PARTS SAND AND 1.5 PARTS CEMENT; OR
 2. 4.5 PARTS SAND, ONE PART CEMENT AND 0.5 PARTS HYDRATED LIME;
 - L. CEMENT SHALL BE TYPE II PORTLAND CEMENT CONFORMING TO ASTM C150-05;
 - M. HYDRATED LIME SHALL BE TYPE S CONFORMING TO THE ASTM C207-06 "STANDARD SPECIFICATIONS FOR HYDRATED LIME FOR MASONRY PURPOSES";
 - N. SAND SHALL CONSIST OF INERT NATURAL SAND CONFORMING TO THE ASTM C33-03 "STANDARD SPECIFICATIONS FOR CONCRETE, FINE AGGREGATES";
 - O. CONCRETE FOR DROP SUPPORTS SHALL CONFORM TO THE REQUIREMENT FOR CLASS AAA CONCRETE OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION";
 - P. SUBJECT TO (Q) BELOW, A FLEXIBLE PIPE JOINT SHALL BE PROVIDED WITHIN THE FOLLOWING DISTANCES FROM ANY MANHOLE CONNECTION:
 1. WITHIN 48-INCHES FOR REINFORCED CONCRETE (RC) PIPE; AND
 2. WITHIN 60-INCHES FOR PVC PIPE LARGER THAN 15-INCH DIAMETER;
 - Q. NO FLEXIBLE JOINT SHALL BE REQUIRED FOR DI PIPE OR FOR PVC PIPE UP THROUGH 15-INCH DIAMETER; AND
 - R. WHEN MANHOLE DEPTH IS LESS THAN 6 FEET, A REINFORCED CONCRETE SLAB COVER MAY BE USED IN LIEU OF A CONE SECTION, PROVIDED THE SLAB HAS AN ECCENTRIC ENTRANCE OPENING AND IS CAPABLE OF SUPPORTING H-20 LOADS.
 13. **MANHOLE STEPS SHALL:**
 - A. BE PERMITTED ONLY AT THE REQUEST OF THE SYSTEM OWNER;
 - B. BE MANUFACTURED OF STAINLESS, PLASTIC-COVERED STEEL OR PLASTIC;
 - C. BE SHAPED SO THAT THEY CANNOT BE PULLED OUT OF THE CONCRETE WALL INTO WHICH THEY ARE SECURED;
 - D. MEET THE REQUIREMENTS OF ASTM C478-06 FOR LOAD CARRYING CAPACITY AND PULL-OUT RESISTANCE;
 - E. NOT BE SECURED WITH MORTAR;
 - F. BE APPROXIMATELY 14-INCHES BY 10-INCHES IN DIMENSION;
 - G. HAVE A DROP SECTION OR RAISED ABUTMENTS TO PREVENT SIDEWAYS SLIPPAGE OFF THE STEP; AND
 - H. HAVE NON-SKID SAFETY SERRATIONS ON THE FOOT CONTACT SURFACES.
 14. **MANHOLE TESTING:**
 - A. MANHOLES SHALL BE TESTED FOR LEAKAGE USING A VACUUM TEST.
 - B. THE MANHOLE VACUUM TEST SHALL CONFORM TO THE FOLLOWING:
 1. THE INITIAL VACUUM GAUGE TEST PRESSURE SHALL BE 10 INCHES Hg; AND
 2. THE MINIMUM ACCEPTABLE TEST HOLD TIME FOR A 1-INCH Hg PRESSURE DROP TO 9 INCH 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.
 - C. THE MANHOLE SHALL BE REPAIRED AND RETESTED IF THE TEST HOLD TIMES FAIL TO ACHIEVE THE ACCEPTANCE LIMITS SPECIFIED IN (B) ABOVE.
 - D. 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 ADJUSTMENTS TO GRADE.



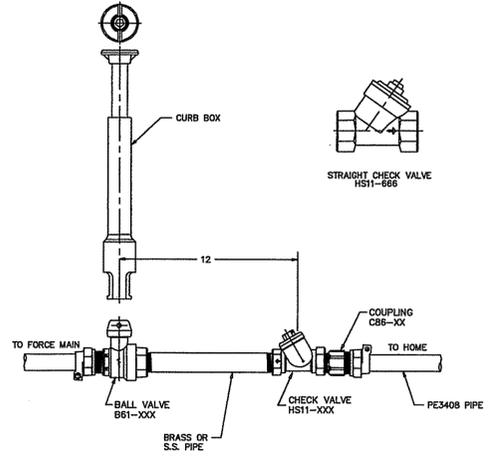
SEWER FORCE MAIN TRENCH DETAIL
NOT TO SCALE
(MARCH 2008)



FORCE MAIN CONNECTION TO SEWER MANHOLE
NOT TO SCALE
(MARCH 2008)



CLEANOUTS ON SERVICE LATERALS (4" OR 6")
NOT TO SCALE
(MARCH 2008)



SEWER CURB STOP AND CHECK VALVE
(TO BE DESIGNED BY OTHERS)
NOT TO SCALE

- SEWER FORCEMAIN CONSTRUCTION:**
1. PER ENV-WQ 704.04(g) ALL FORCEMAINS SHALL BE RATED TO WITHSTAND 2.5 TIMES DESIGN DYNAMIC HEAD.
 2. PER ENV-WQ 705.07(a) FORCEMAINS SHALL FLOW AT 3FPS OR GREATER FOR CONSTANT SPEED PUMPS AND PER ENV-WQ 705.07(b) FLOW AT 2FPS OR GREATER AT AVERAGE DAILY DESIGN FLOW FOR VARIABLE SPEED PUMPS.
 3. FORCEMAINS SHALL MEET TRENCH AND BEDDING REQUIREMENTS OF GRAVITY SEWERS.
 4. FORCEMAINS SHALL BE CONSTRUCTED FROM DUCTILE IRON, HIGH DENSITY POLYETHYLENE, OR PVC PER ENV-WQ 704.04(e).
 - PVC SHALL CONFORM TO ASTM D2241-05 OR ASTM D1785-05
 - HDPE SHALL CONFORM TO ASTM D3035-03a
 - DI SHALL BE CORROSION PROTECTED IN CORROSIIVE ENVIRONMENTS
 5. FORCEMAINS SHALL BE TESTED IN ACCORDANCE WITH SECTION 4 OF AWWA C600-05 AT 1.5 DESIGN DYNAMIC PRESSURE OR 100 PSI, WHICHEVER IS GREATER, PER ENV-WQ 704.08.

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

APPROVED BY THE HUDSON, NH PLANNING BOARD
DATE OF MEETING: _____

SIGNATURE _____ DATE _____

SIGNATURE _____ DATE _____

SITE PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN ACHIEVES FINAL APPROVAL.

CONSTRUCTION DETAILS
COBBLESTONE VILLAGE
MAP 184; LOT 27
137 BELKNAP ROAD
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD:
DEER CREEK DEVELOPMENT, LLC
25 FLAGSTONE DRIVE
HUDSON, NH 03051
H.C.R.D. BK. 8480, PG. 777

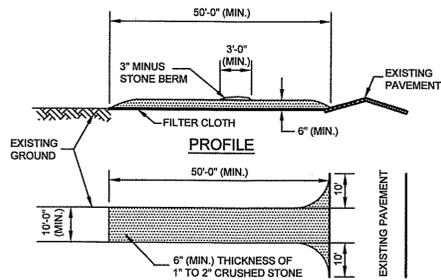
APPLICANT:
DEER CREEK DEVELOPMENT, LLC
25 FLAGSTONE DRIVE
HUDSON, NH 03051

KM KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

REVISIONS			
No.	DATE	DESCRIPTION	BY

DATE: JANUARY 23, 2015 SCALE: AS SHOWN
PROJECT NO: 14-0721-1 SHEET 27 OF 28

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STABILIZED CONSTRUCTION ENTRANCE DETAIL
NOT TO SCALE
(MARCH 2008)

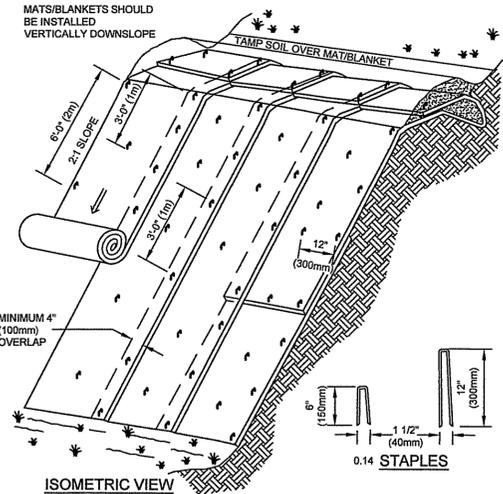
MAINTENANCE:

MUD AND SOIL PARTICLES WILL EVENTUALLY CLOG THE VOIDS IN THE GRAVEL AND THE EFFECTIVENESS OF THE GRAVEL PAD WILL NOT BE SATISFACTORY. WHEN THIS OCCURS, THE PAD SHOULD BE TOPDRESSED WITH NEW STONE OR COMPLETE REPLACEMENT OF THE PAD MAY BE NECESSARY WHEN THE PAD BECOMES COMPLETELY CLOGGED.

IF WASHING FACILITIES ARE USED, THE SEDIMENT TRAPS SHOULD BE CLEANED OUT AS OFTEN AS NECESSARY TO ASSURE THAT ADEQUATE TRAPPING EFFICIENCY AND STORAGE VOLUME IS AVAILABLE. VEGETATIVE FILTER STRIPS SHOULD BE MAINTAINED TO INSURE A VIGOROUS STAND OF VEGETATION AT ALL TIMES.

CONSTRUCTION SPECIFICATIONS:

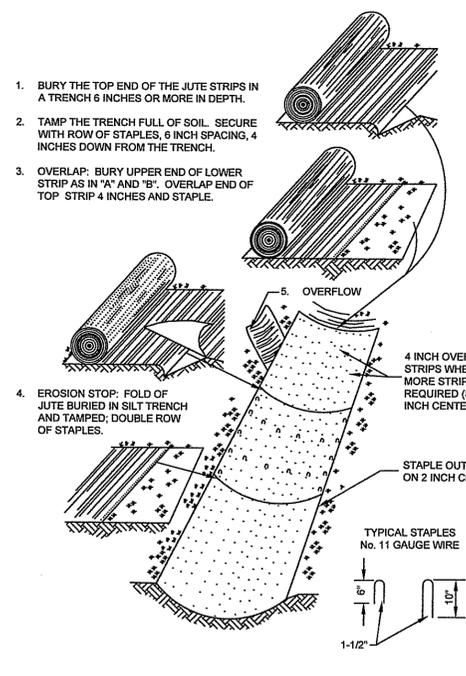
- STONE FOR A STABILIZED CONSTRUCTION ENTRANCE SHALL BE 1 TO 2 INCH STONE, RECLAIMED STONE OR RECYCLED CONCRETE EQUIVALENT.
- THE LENGTH OF THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 50 FEET, EXCEPT FOR A SINGLE RESIDENTIAL LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY.
- THE THICKNESS OF THE STONE FOR THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 6 INCHES.
- THE WIDTH OF THE ENTRANCE SHALL NOT BE LESS THAN THE FULL WIDTH OF THE ENTRANCE WHERE INGRESS OR EGRESS OCCURS OR 10 FEET, WHICH EVER IS GREATER.
- GEOTEXTILE FILTER CLOTH SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING THE STONE. FILTER CLOTH IS NOT REQUIRED FOR A SINGLE FAMILY RESIDENCE LOT.
- ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARD THE CONSTRUCTION ENTRANCE SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A BERM WITH 5:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE.
- 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 TOPDRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED PROMPTLY.
- WHEELS SHALL BE CLEANED TO REMOVE MUD PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.



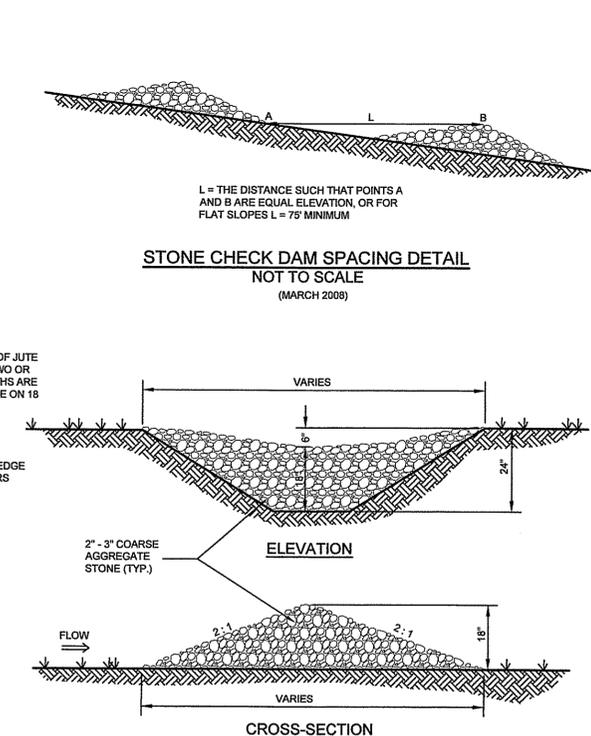
EROSION BLANKET DETAIL-SLOPE INSTALLATION
NOT TO SCALE
(MARCH 2008)

NOTES:

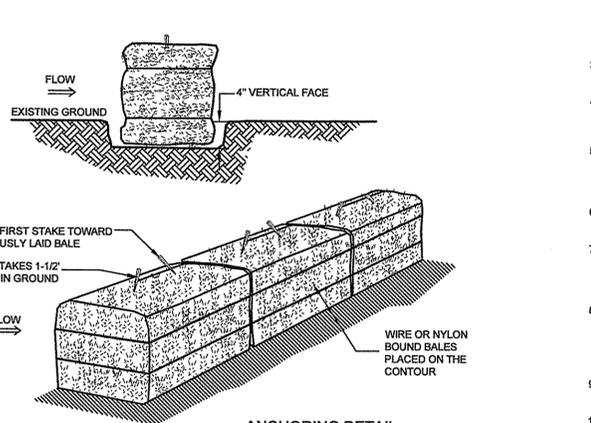
- SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS AND GRASS. MATS/BLANKETS SHALL HAVE GOOD SOIL CONTACT.
- APPLY PERMANENT SEEDING BEFORE PLACING BLANKETS.
- LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.



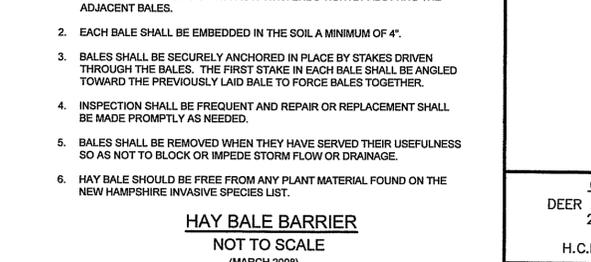
EROSION CONTROL BLANKETS - SWALE INSTALLATION
NOT TO SCALE
(MARCH 2008)



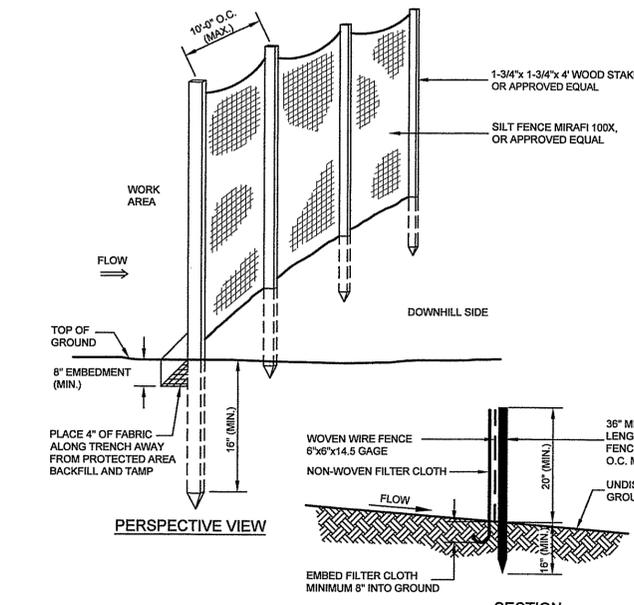
STONE CHECK DAM SPACING DETAIL
NOT TO SCALE
(MARCH 2008)



STONE CHECK DAM DETAIL
NOT TO SCALE
(MARCH 2008)



HAY BALE BARRIER
NOT TO SCALE
(MARCH 2008)



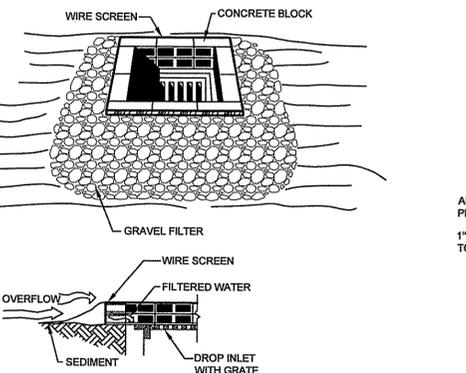
SILT FENCE DETAIL
NOT TO SCALE
(MARCH 2008)

CONSTRUCTION SPECIFICATIONS:

- THE GEOTEXTILE FABRIC SHALL MEET THE DESIGN CRITERIA FOR SILT FENCES.
- THE FABRIC SHALL BE EMBEDDED A MINIMUM OF 8 INCHES INTO THE GROUND AND THE SOIL COMPACTED OVER THE EMBEDDED FABRIC.
- WOVEN WIRE FENCE SHALL BE FASTENED SECURELY TO THE FENCE POSTS WITH WIRE OR STAPLES WHERE NOTED OR AS DIRECTED BY DESIGN ENGINEER.
- FILTER CLOTH SHALL BE FASTENED SECURELY TO THE WOVEN WIRE FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP, MIDSECTION AND BOTTOM.
- WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6 INCHES, FOLDED AND STAPLED.
- FENCE POSTS SHALL BE A MINIMUM OF 36 INCHES LONG AND DRIVEN A MINIMUM OF 16 INCHES INTO THE GROUND. WOOD POSTS SHALL BE OF SOUND QUALITY HARDWOOD AND SHALL HAVE A MINIMUM CROSS SECTIONAL AREA OF 3.0 SQUARE INCHES.
- MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

MAINTENANCE:

- SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS THAT ARE REQUIRED SHALL BE MADE IMMEDIATELY.
- IF THE FABRIC ON A SILT FENCE SHOULD DECOMPOSE OR BECOME INEFFECTIVE DURING THE EXPECTED LIFE OF THE FENCE, THE FABRIC SHALL BE REPLACED PROMPTLY.
- SEDIMENT DEPOSITS SHOULD BE INSPECTED AFTER EVERY STORM EVENT. THE DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
- SEDIMENT DEPOSITS THAT ARE REMOVED OR LEFT IN PLACE AFTER THE FABRIC HAS BEEN REMOVED SHALL BE GRADED TO CONFORM WITH THE EXISTING TOPOGRAPHY AND VEGETATED.



BLOCK & GRAVEL DROP INLET SEDIMENT FILTER
NOT TO SCALE
(MARCH 2008)

NOTES:

- CONCRETE BLOCKS SHOULD BE PLACED LENGTHWISE ON THEIR SIDES IN A SINGLE ROW AROUND THE PERIMETER OF THE INLET. THE ENDS OF EACH BLOCK SHOULD BE ABUTTING. THE HEIGHT OF THE BARRIER CAN BE VARIED DEPENDING ON THE DESIGN BY STACKING VARIOUS COMBINATIONS OF DIFFERENT SIZED BLOCKS. THE BARRIER SHOULD BE A MINIMUM OF 12 INCHES HIGH AND A MAXIMUM OF 24 INCHES HIGH.
- HARDWARE CLOTH OR WIRE MESH SHOULD BE PLACED OVER OPENINGS OF THE CONCRETE BLOCKS AND EXTENDED AT LEAST 12 INCHES AROUND THE OPENING TO PREVENT AGGREGATE FROM BEING TRANSPORTED THROUGH THE OPENINGS IN THE BLOCK.
- SEWER STONE OR OTHER CLEAN COARSE AGGREGATE SHOULD BE PLACED AGAINST THE BLOCK TO THE TOP OF THE BARRIER.

WINTER CONSTRUCTION NOTES:

- ALL PROPOSED POST-DEVELOPMENT 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 4:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE PLACEMENT 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.
- ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.
- AFTER NOVEMBER 15TH, INCOMPLETE ROAD OR PARKING SURFACES SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL PER NIDOT ITEM 304.3 OR, IF CONSTRUCTION IS TO CONTINUE THROUGH THE WINTER SEASON, BE CLEARED OF ANY ACCUMULATED SNOW AFTER EACH STORM EVENT.
- AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
 - BASE COURSE GRAVELS ARE INSTALLED IN AREAS TO BE PAVED;
 - A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
 - A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIP RAP HAS BEEN INSTALLED, OR
 - EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.

CONSTRUCTION SEQUENCE

- CONTRACTOR TO NOTIFY DIG-SAFE 72-HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- PRIOR TO GRUBBING OF CLEARED AREAS, ALL SILTATION BARRIERS DESIGNED FOR USE AS TEMPORARY EROSION CONTROL MEASURES SHALL BE INSTALLED AS CALLED FOR ON PROJECT PLANS. INSTALL STABILIZED CONSTRUCTION EXIT AT LOCATION OF CONSTRUCTION ACCESS AT INTERSECTION WITH EXISTING PAVEMENT.
- CUT AND CLEAR TREES AND BRUSH FROM CONSTRUCTION AREAS TO THE EXTENT NECESSARY. ALL BRANCHES, TOPS AND BRUSH TO BE PROPERLY DISPOSED OF BY CONTRACTOR.
- COMPLETE GRUBBING OPERATIONS UNDER THE ROADWAY AND SLOPE SECTIONS. ALL STUMPS AND SIMILAR DEBRIS SHALL BE PROPERLY DISPOSED OF BY CONTRACTOR. ORGANIC MATERIAL SUITABLE FOR USE AS TOPSOIL SHALL BE STOCKPILED IN UPLAND AREAS. ALL STOCKPILES SHALL BE SEED WITH WINTER RYE AND, IF NECESSARY, SURROUNDED WITH HAY BALES IN ORDER TO PREVENT LOSS DUE TO EROSION.
- CONSTRUCT TEMPORARY CULVERTS AS NECESSARY TO FACILITATE CONSTRUCTION ACTIVITIES. ALL SUCH CROSSINGS SHALL BE PROTECTED WITH HAY BALE BARRIERS TO LIMIT EROSION.
- STABILIZE ALL DITCHLINES AND PONDS PRIOR TO DIRECTING FLOW INTO THEM, CONSTRUCT DRAINAGE SYSTEM SEWER AND OTHER SUBSURFACE UTILITIES.
- COMMENCE CONSTRUCTION OF ROADWAY, PERFORM EXCAVATION ACTIVITIES REQUIRED TO ACHIEVE SUBGRADE ELEVATION. ALL EXCAVATED EMBANKMENTS, DITCHES, SWALES AND ROADWAY CROSS CULVERTS SHALL BE INSTALLED AND STABILIZED. ALL SWALES AND DITCHLINES SHALL BE PROTECTED FROM EROSION BY IMPLEMENTATION OF TEMPORARY STONE CHECK DAMS AS SHOWN ON PROJECT PLANS. DIVERT STORMWATER RUNOFF THROUGH THE USE OF TEMPORARY CULVERTS, OR OTHER MEANS NECESSARY PRIOR TO THE COMPLETIONS OF A FUNCTIONAL STORM DRAINAGE SYSTEM. SLOPES AND EMBANKMENTS SHALL BE STABILIZED BY TRACKING AND TEMPORARY SEEDING WITH WINTER RYE PRIOR TO TURF ESTABLISHMENT. ALL DITCHES AND SWALES SHALL BE STABILIZED PRIOR TO HAVING RUNOFF DIRECTED TO THEM.
- COMPLETE CONSTRUCTION OF ROADWAY EMBANKMENTS BY ADDING APPROPRIATE BASE MATERIALS GRADED TO PROPER ELEVATION. ALL CUT AND FILL SLOPES SHALL BE SEED/LOADED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
- APPLY TOPSOIL TO ROADWAY SLOPES AND OTHER AREAS DISTURBED BY CONSTRUCTION. TOPSOIL USED MAY BE NATIVE ORGANIC MATERIAL SCREENED SO AS TO BE FREE OF ROOTS, BRANCHES, STONES AND OTHER DELETERIOUS MATERIALS. TOPSOIL SHALL BE APPLIED SO AS TO PROVIDE A MINIMUM OF A 4-INCH COMPACTED THICKNESS. UPON COMPLETION OF TOPSOILING, FINISHED SECTIONS ARE TO BE LINED, SEED AND MULCHED. CONSTRUCTION PERSONNEL SHALL INSPECT COMPLETED SECTIONS OF WORK ON A REGULAR BASIS AND REMEDY ANY PROBLEM AREAS UNTIL A HEALTHY STAND OF GRASS HAS BECOME ESTABLISHED.
- PERFORM FINE GRADING OF ROADWAY BASE MATERIALS. ALL ROADWAYS AND PARKING LOTS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
- MAINTAIN, REPAIR AND REPLACE AS NECESSARY TEMPORARY EROSION CONTROL MEASURES UNTIL SUCH TIME AS THE ENTIRE CONSTRUCTION AREA HAS BEEN STABILIZED (A MINIMUM OF ONE WINTER SHALL HAVE PASSED).
- AFTER STABILIZATION, REMOVE AND SUITABLY DISPOSE OF TEMPORARY EROSION CONTROL MEASURES.
- MONITOR CONSTRUCTION ACTIVITIES FOR EACH UNIT TO INSURE CONSTRUCTION ACTIVITIES ARE BEING PERFORMED IN SUCH A WAY AS NOT TO ENDANGER THE INTEGRITY OF ROADWAY EMBANKMENTS, STORMWATER SYSTEMS AND UTILITIES. ALL DRIVEWAYS ACROSS DITCHLINES SHALL HAVE CULVERTS INSTALLED IN ACCORDANCE WITH LOCAL REQUIREMENTS.

EROSION CONTROL NOTES

- EXPOSED EARTHWORK SHALL BE CONFINED TO AS LIMITED AN AREA AS IS PRACTICAL AT ANY GIVEN TIME THROUGHOUT THE CONSTRUCTION SEQUENCE. AT NO TIME SHALL MORE THAN FIVE ACRES OF SITE AREA BE IN AN UNSTABLE CONDITION. NO GIVEN AREA OF THE SITE SHALL BE LEFT IN AN UNSTABILIZED CONDITION FOR A PERIOD OF TIME EXCEEDING FIVE CALENDAR DAYS.
- TEMPORARY EROSION CONTROL MEASURES SHALL BE INSTALLED IN STRICT ACCORDANCE WITH PROJECT PLANS. IN ADDITION, SIMILAR MEASURES SHALL BE INSTALLED WHERE AND WHEN THE FIELD CONDITION, OR FIELD OPERATION OF THE INDIVIDUAL SITE CONTRACTOR MAY WARRANT. ALL TEMPORARY EROSION CONTROL MEASURES USED SHALL BE INSPECTED WEEKLY AND AFTER EVERY 0.5" OF RAINFALL, CLEANED AND MAINTAINED AND OTHERWISE KEPT IN AN EFFECTIVE OPERATIONS MANNER THROUGHOUT THE CONSTRUCTION PERIOD.
- ALL DISTURBED AREAS DESIGNATED TO BE TURF SHALL RECEIVE A MINIMUM APPLICATION OF 4-INCHES OF LOAM (COMPACTED THICKNESS), PRIOR TO FINAL SEEDING AND MULCHING.
- ALL SWALES AND DITCHLINES SHALL BE PERIODICALLY CLEANED OF DEPOSITED SEDIMENT SO AS TO MAINTAIN AN EFFECTIVE GRADE AND CROSS SECTION. ALL SWALES AND DITCHLINES SHALL BE FULLY STABILIZED PRIOR TO HAVING STORMWATER DIRECTED TOWARDS THEM.
- IN THE EVENT THAT DURING CONSTRUCTION OF ANY PORTION OF THIS PROJECT, A WINTER SHUTDOWN IS NECESSARY, THE CONTRACTOR SHALL STABILIZE ALL INCOMPLETE WORK AND PROVIDE FOR SUITABLE METHODS OF DIVERTING RUNOFF IN ORDER TO ELIMINATE SHEET FLOW ACROSS FROZEN SURFACES.
- DUST SHALL BE CONTROLLED BY THE USE OF WATER AS NECESSARY THROUGHOUT THE CONSTRUCTION PERIOD.
- IN NO WAY ARE THOSE TEMPORARY EROSION CONTROL MEASURES INDICATED ON THESE PLANS TO BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR SHALL USE JUDGMENT IN INSTALLING SUPPLEMENTARY EROSION CONTROL MEASURES WHERE AND WHEN SPECIFIC SITE CONDITIONS AND/OR CONSTRUCTION METHODOLOGIES MAY WARRANT.
- AREAS HAVING FINISH GRADE SLOPES OF 3:1 OR STEEPER, SHALL BE STABILIZED WITH JUTE MATTING WHEN AND IF FIELD CONDITIONS WARRANT, OR IF SO ORDERED, JUTE MATTING INSTALLED TO CONFORM WITH THE RECOMMENDED BEST MANAGEMENT PRACTICES OUTLINED IN THE "STORMWATER MANAGEMENT AND EROSION AND SEDIMENT CONTROL HANDBOOK FOR URBAN AND DEVELOPING AREAS IN NEW HAMPSHIRE".
- THE DETENTION PONDS AND TREATMENT SWALES SHALL BE CONSTRUCTED PRIOR TO ANY EARTH MOVING ACTIVITIES THAT WILL INFLUENCE STORMWATER RUNOFF.
- ALL ROADWAYS AND PARKING AREAS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
- ALL CUT AND FILL SLOPES SHALL BE SEED AND MULCHED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.

CONSTRUCTION DETAILS
COBBLESTONE VILLAGE
MAP 184; LOT 27
137 BELKNAP ROAD
HUDSON, NEW HAMPSHIRE
HILLSBOROUGH COUNTY

OWNER OF RECORD: DEER CREEK DEVELOPMENT, LLC 25 FLAGSTONE DRIVE HUDSON, NH 03051 H.C.R.D. BK. 8480, PG. 777	APPLICANT: DEER CREEK DEVELOPMENT, LLC 25 FLAGSTONE DRIVE HUDSON, NH 03051
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REVISIONS			
No.	DATE	DESCRIPTION	BY

DATE: JANUARY 23, 2015 SCALE: AS SHOWN
PROJECT NO: 14-0721-1 SHEET 28 OF 28

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL

APPROVED BY THE HUDSON, NH PLANNING BOARD
DATE OF MEETING: _____

SIGNATURE _____ DATE _____
SIGNATURE _____ DATE _____

SITE PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN ACHIEVES FINAL APPROVAL.