



**US Army Corps
of Engineers**®
New England District
696 Virginia Road
Concord, MA 01742-2751

15 - DAY PUBLIC NOTICE

Comment Period Begins: August 11, 2015
Comment Period Ends: August 26, 2015
File Number: NAE-2011-00862
In Reply Refer To: Richard Kristoff
Phone: (978) 318-8171
E-mail: Richard.C.Kristoff@usace.army.mil

The District Engineer has received a permit application to conduct work in waters of the United States from Elmer A Pease of PD Associates, LLC at 68 River Bend Way, Manchester, New Hampshire 03103. This work is proposed in multiple non section 10 wetlands located southwest of the intersection of Old Manchester and Scribner Roads in Raymond, New Hampshire. The site coordinates are: Latitude 43.027698 Longitude 71.198567.

The work involves mixed use development to include three retail buildings totalling 154,200 square feet and 771 parking spaces, a 7,500 square foot restaurant with 100 parking spaces, a 100 room hotel with 150 parking spaces, two 6 story residential buildings, and a clubhouse with 192 multi-family condominiums with 424 parking spaces. Associated infrastructure for the development will be constructed as well. The development will impact roughly 4.3 acres of wetlands.

The work is shown on the attached plans entitled "GRANITE MEADOWS TAX MAP 22 LOT 9 OLD MANCHESTER ROAD – RAYMOND, NEW HAMPSHIRE," on 18 sheets, and dated "December 5, 2008" and on the mitigation plan entitled "WETLAND MITIGATION PLAN PREPARED FOR: GRANITE MEADOWS TAX MAP 27 LOTS 9 & 10 RAYMOND, NEW HAMPSHIRE" on 1 sheet, with a revision date of "12/18/2013."

This project is to be located within an abandoned gravel pit that has manmade wetlands from excavation into the water table. Impacts have been minimized to the one naturally occurring wetland (Wetland 1) along Scribner Road to the greatest extent practicable. The proposed compensatory mitigation includes 4.84 acres of restoration to a wetland which is a backwater of the Lamprey River within floodplains. The restoration site is adjacent to a high functioning wetland complex. The mitigation will also include the preservation of the 6 acre site associated with the restoration.

AUTHORITY

Permits are required pursuant to:

- Section 10 of the Rivers and Harbors Act of 1899
 Section 404 of the Clean Water Act
 Section 103 of the Marine Protection, Research and Sanctuaries Act.

The decision whether to issue a permit will be based on an evaluation of the probable impact of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which may reasonably accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered, including the cumulative effects thereof; among those are: conservation, economics, aesthetics, general

environmental concerns, wetlands, cultural value, fish and wildlife values, flood hazards, flood plain value, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food production and, in general, the needs and welfare of the people.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Where the activity involves the discharge of dredged or fill material into waters of the United States or the transportation of dredged material for the purpose of disposing it in ocean waters, the evaluation of the impact of the activity in the public interest will also include application of the guidelines promulgated by the Administrator, U.S Environmental Protection Agency, under authority of Section 404(b) of the Clean Water Act, and/or Section 103 of the Marine Protection Research and Sanctuaries Act of 1972, as amended.

NATIONAL HISTORIC PRESERVATION ACT

Based on his initial review, the District Engineer has determined that little likelihood exists for the proposed work to impinge upon properties with cultural or Native American significance, or listed in, or eligible for listing in, the National Register of Historic Places. Therefore, no further consideration of the requirements of Section 106 of the National Historic Preservation Act of 1966, as amended, is necessary. This determination is based upon one or more of the following:

- a. The permit area has been extensively modified by previous work.
- b. The permit area has been recently created.
- c. The proposed activity is of limited nature and scope.
- d. Review of the latest published version of the National Register shows that no presence of registered properties listed as being eligible for inclusion therein are in the permit area or general vicinity.
- e. Coordination with the State Historic Preservation Officer and/or Tribal Historic Preservation Officer(s)

ENDANGERED SPECIES CONSULTATION

The United States Fish & Wildlife Service's Information for Planning and Conservation (IPaC) online tool lists the Small Whorled Pagonia as a potential species to be present at or near the site. The Pagonia prefers a mature forest with moist soils, and open understory, and a thick layer of duff like substance. As this site is a former gravel pit, a mature forest with a suitable layer of soil does not exist and therefore it is found as to be unsuitable habitat for the Pagonia. It is not expected that this project will have an effect on any other endangered or threatened species.

IPaC also listed the northern long-eared bat. As this site is a former gravel pit its relatively young forest is not expected to hold long-eared bat habitat. However, further consultation with the United States Fish & Wildlife Service will be conducted.

CENAE-R
FILE NO. NAE-2011-00862

The New England District, Army Corps of Engineers has reviewed the list of species protected under the Endangered Species Act of 1973, as amended, which might occur at the project site. It is our preliminary determination that the proposed activity for which authorization is being sought is designed, situated or will be operated/used in such a manner that it is not likely to adversely affect any Federally listed endangered or threatened species or their designated critical habitat. By this Public Notice, we are requesting that the appropriate Federal Agency concur with our determination.

The following authorizations have been applied for, or have been, or will be obtained:


- Permit, License or Assent from State.
- Permit from Local Wetland Agency or Conservation Commission.
- Water Quality Certification in accordance with Section 401 of the Clean Water Act.

In order to properly evaluate the proposal, we are seeking public comment. Anyone wishing to comment is encouraged to do so. Comments should be submitted in writing by the above date. If you have any questions, please contact Richard Kristoff at (978) 318-8171, (800) 343-4789 or (800) 362-4367, if calling from within Massachusetts.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider the application. Requests for a public hearing shall specifically state the reasons for holding a public hearing. The Corps holds public hearings for the purpose of obtaining public comments when that is the best means for understanding a wide variety of concerns from a diverse segment of the public.

The initial determinations made herein will be reviewed in light of facts submitted in response to this notice. All comments will be considered a matter of public record. Copies of letters of objection will be forwarded to the applicant who will normally be requested to contact objectors directly in an effort to reach an understanding.

THIS NOTICE IS NOT AN AUTHORIZATION TO DO ANY WORK.


Frank J. Delguidice
Chief, Permits and Enforcement Branch
Regulatory Division

If you would prefer not to continue receiving Public Notices by email, please contact Ms. Tina Chaisson at (978) 318-8058 or e-mail her at bettina.m.chaisson@usace.army.mil. You may also check here () and return this portion of the Public Notice to: Bettina Chaisson, Regulatory Division, U.S. Army Corps of Engineers, 696 Virginia Road, Concord, MA 01742-2751.

NAME: _____
ADDRESS: _____
PHONE: _____

SITE PLAN GRANITE MEADOWS

EXIT 4

TAX MAP 22 LOT 9

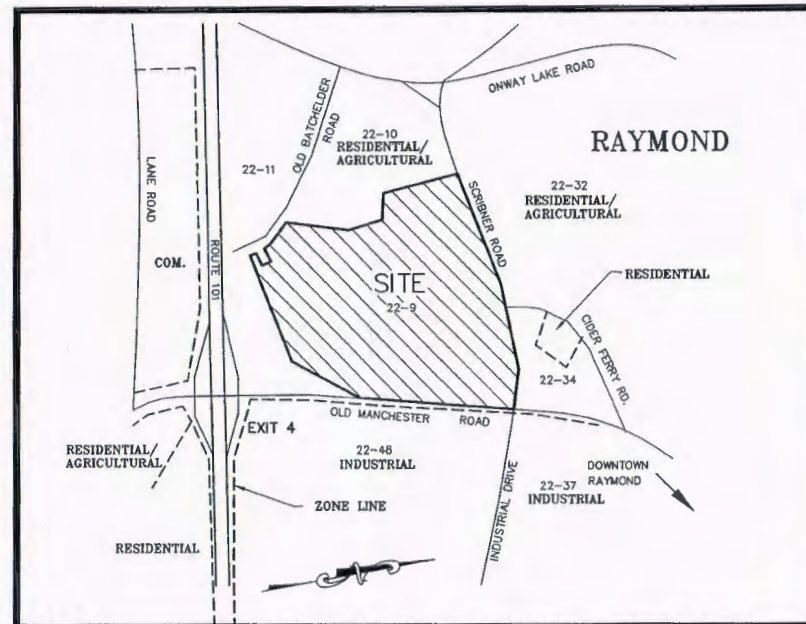
OLD MANCHESTER ROAD – RAYMOND, NEW HAMPSHIRE

DECEMBER 5, 2008
REVISED: MARCH 14, 2012
PROJECT NO. 08-0716-1

SHEET TITLE

SHEET No.

EXISTING CONDITIONS PLAN	1
OVERVIEW LAYOUT PLAN	2
WETLAND IMPACTS PLAN	3
SITE PLAN	4&5
CONDOMINIUM PLAN	6
PHASING PLAN	7
GRADING & DRAINAGE PLAN	8&9
UTILITY PLAN	10&11
EROSION CONTROL PLAN	12&13
RETAIL ENTRANCE DRIVE PROFILES	14
RESIDENTIAL ENTRANCE DRIVE PROFILES	15
SIGHT DISTANCE PLANS AND PROFILES	16-18



NH ROUTE 101 (EXIT 4) VICINITY
MAP SCALE = 1"=500'

OWNER:
GRANITE MEADOWS, LLC
2 GAYTHORNE ROAD
METHUEN, MASSACHUSETTS 01844

PREPARED FOR:
PD ASSOCIATES, LLC
15 DARTMOUTH DRIVE, SUITE 201
AUBURN, NEW HAMPSHIRE 03032

PREPARED BY:
WOODLAND DESIGN GROUP, INC.
5 DARTMOUTH DRIVE, SUITE 301
AUBURN, NEW HAMPSHIRE 03032
(603) 641-9500(PH)
(603) 641-9550(FAX)

OFF-SITE IMPROVEMENTS

SCRIBNER ROAD IMPROVEMENTS	OS1&OS2
OLD MANCHESTER RD IMPROVEMENTS	OS3
SCRIBNER ROAD PROFILE	OS4
SCRIBNER ROAD CROSS-SECTIONS	OS5-OS7

DETAILS

CONSTRUCTION DETAILS	C1-C8
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PERMITS / APPROVALS

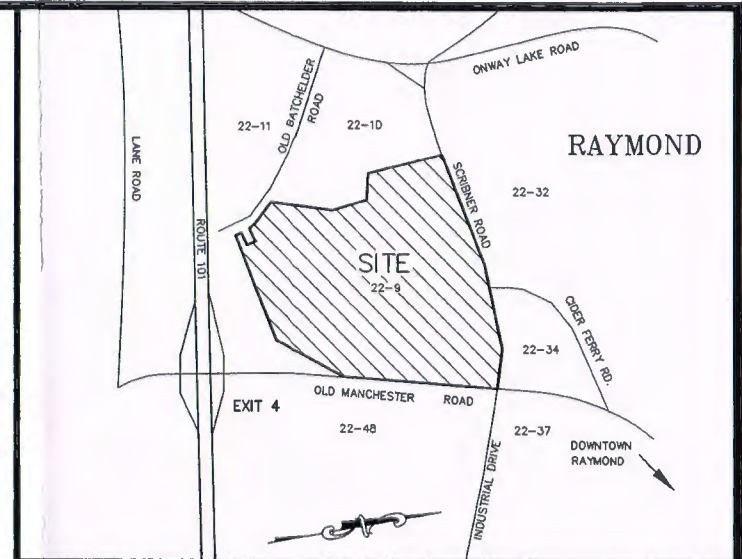
	DATE SUBMITTED	DATE APPROVED	APPROVAL #
TOWN OF RAYMOND - SITE PLAN			
N.H.D.E.S. WETLANDS PERMIT			
N.H.D.E.S. - ALTERATION OF TERRAIN PERMIT			
N.H.D.E.S. SEWER DISCHARGE PERMIT			
TOWN OF RAYMOND DRIVEWAY PERMIT			



5 Dartmouth Drive, Suite 301, Auburn, NH 03032
Inc.
Civil Engineering - Land Planning - Transportation Engineering
Phone 603-641-9500 Fax 603-641-9550

SOILS LEGEND

- 12A - HINCKLEY FINE SANDY LOAM 0-3% SLOPES
- 43D - CANTON GRAVELLY FINE SANDY LOAM 3-8% SLOPES
- 97 - GREENWOOD AND OSSIPPEE SOILS, PONDED
- 298 - PITS, SAND AND GRAVEL
- 395 - CHOCORUA MUCKY PEAT



LOCATION PLAN
SCALE: 1" = 400'

PLAN REFERENCES

1. "SUBDIVISION PLAN FOR LAND IN ROCKINGHAM COUNTY, RAYMOND, N.H. KNOWN AS GRANITE MEADOWS LOCATED ON TAX MAP 5, LOT 52A AND OWNED BY: CDFA, 14 DIXON AVE. SUITE 102, CONCORD, NH 03301" DATED JUNE 1998, SCALE: 1"=100' DESIGNED BY: MAGUIRE GROUP; SHEET 2 OF 20 RECORDED R.C.R.D. PLAN NO. D-30451.
2. "A SURVEY & PLAT OF PROPERTY PREPARED FOR PIKE INDUSTRIES, INC. SITUATED IN THE TOWN OF RAYMOND, N.H." PREPARED BY: R.S.L. LAYOUT & DESIGN, INC. DATED: NOVEMBER 30, 1989, SCALE: 1"=100'. RECORDED R.C.R.D. PLAN NO. D-19986.
3. "SHEET 1 OF 2, A SURVEY AND PLAT OF A REVISED SUBDIVISION PREPARED FOR PIKE INDUSTRIES INC. SITUATED IN THE TOWN OF RAYMOND N.H." PREPARED BY R.S.L. LAYOUT & DESIGN INC. DATED: NOV. 17, 1987, SCALE: 1"=100'. RECORDED R.C.R.D. PLAN NO. D-17579.
4. "AS-BUILT PLANS; SHEET NO. 64, 66, 67 & 68 OF 628, R.O.W. PLANS-ROUTE 101, RAYMOND, N.H.", DEPT. OF TRANSPORTATION, PROJECT NO. P-7959-D, FEDERAL AID PROJECT NO. FFD-018-2 (51).

NOTES

1. THE PURPOSE OF THIS PLAN IS TO SHOW EXISTING CONDITIONS AS OF MAY 10, 2006.
2. PARCEL IS IDENTIFIED AS TAX MAP 22 LOT 9 ON THE TOWN OF RAYMOND TAX MAPS.
3. OWNER OF PARCEL IS: GRANITE MEADOWS, LLC
2 GAYTHORNE ROAD
METHUEN, MASSACHUSETTS
4. TOTAL AREA OF PARCEL IS 1,703,972 S.F. OR 39.118 ACRES.

CERTIFICATION OF BOUNDARY PRECISION
I HEREBY CERTIFY THAT THIS PLAN IS THE RESULT OF AN ACTUAL FIELD SURVEY MADE ON THE GROUND WITH A MAXIMUM ERROR OF CLOSURE OF 1 PART IN 10,000 ON ALL PROPERTY LINES WITHIN AND BORDERING THE SUBJECT PROPERTY.

WEST ENVIRONMENTAL, INC. PERFORMED THE WETLAND MAPPING SHOWN ACCORDING TO THE TECHNICAL CRITERIA OF THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL (TECHNICAL REPORT Y-87-1, JANUARY 1987)



LEGEND

- EDGE OF DELINEATED WETLANDS
- SCS SOIL LINE
- EDGE OF PAVEMENT
- DRAIN LINE
- OVERHEAD UTILITIES
- TREELINE
- STONE WALL
- TWO FOOT CONTOUR
- TEN FOOT CONTOUR
- UTILITY POLE
- DRAINAGE CATCH BASIN
- SIGN
- IRON PIPE
- STONE BOUND
- DRILL HOLE
- GUARDRAIL

REVISIONS	DATE	DESCRIPTION
	5/20/2011	REVISED PER NHDES AOT

IN ASSOCIATION:

EARL SANDFORD
SURVEYING AND ENGINEERING
TEL: (603) 472-2265 FAX: (603) 472-6604
597 NEW BOSTON ROAD, BEDFORD, NH 03110
BOUNDARY SURVEYS - SUBDIVISIONS - SITE PLANS - STRUCTURAL - SURVEY DESIGNS

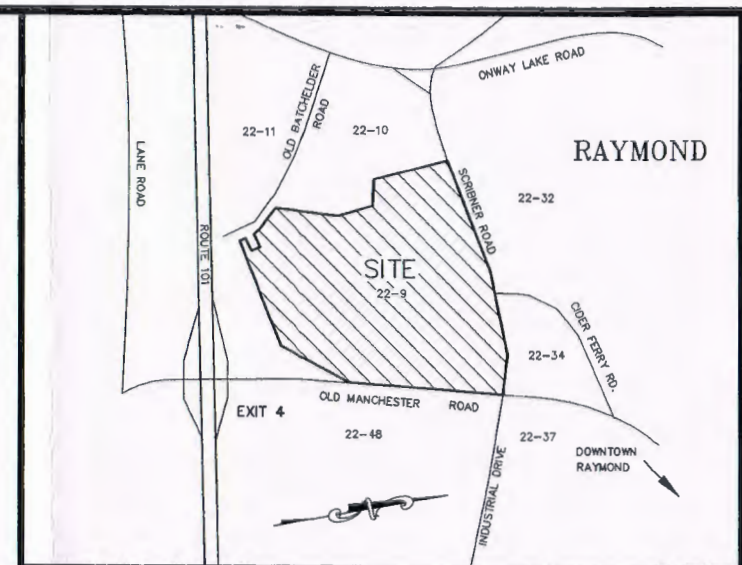
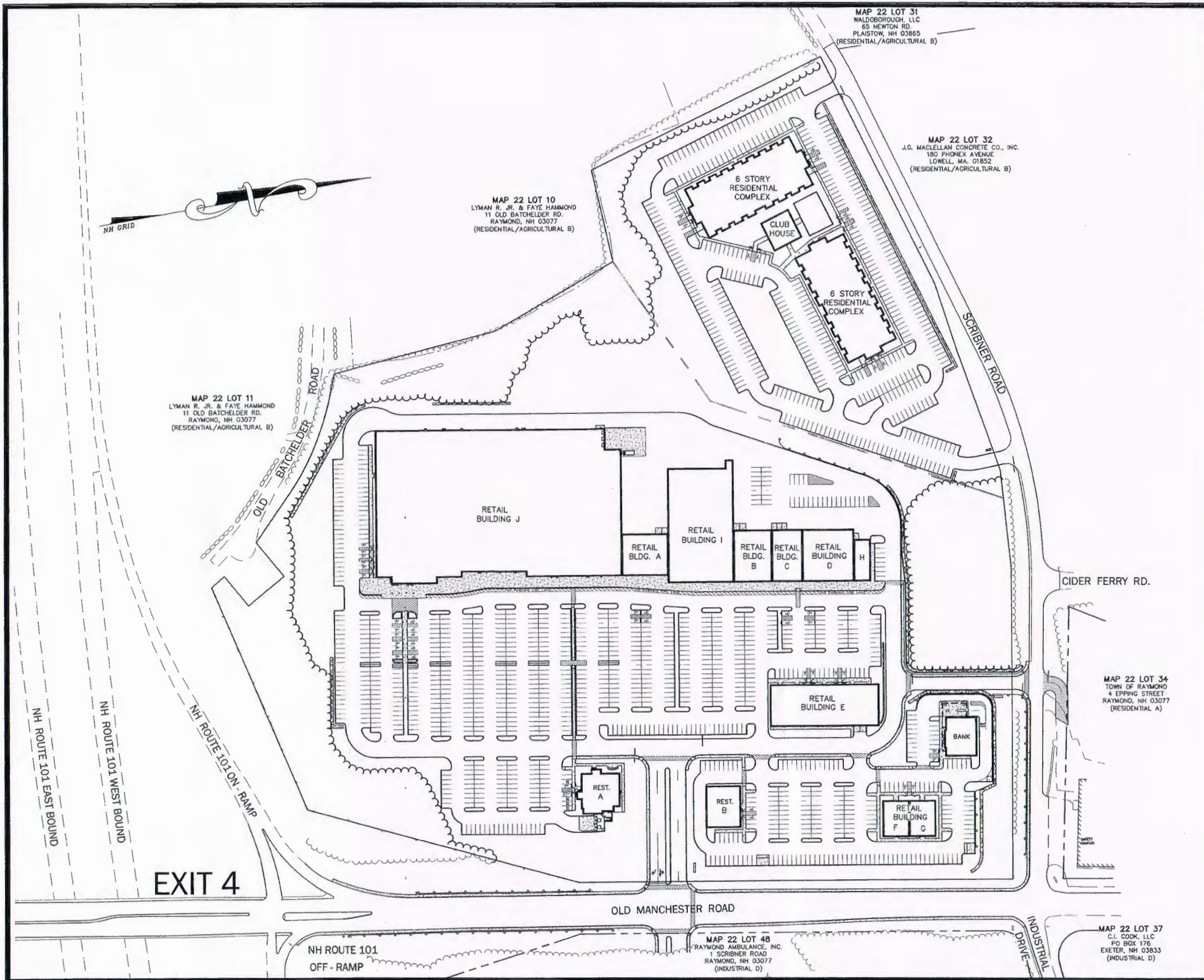
EXISTING CONDITIONS PLAN PREPARED FOR;
GRANITE MEADOWS
TAX MAP 22 LOT 9
OLD MANCHESTER ROAD - RAYMOND, NEW HAMPSHIRE

PREPARED FOR:
PD ASSOCIATES, LLC
15 DARTMOUTH DRIVE, SUITE #201
AUBURN, NH 03032

SCALE: 1"=100' DATE: DECEMBER 5, 2008
100 0 50 100 200 400
SCALE IN FEET

Woodland Design Group
5 Dartmouth Drive, Suite 301, Auburn, NH 03032
Civil Engineering Land Planning Transportation Engineering
Phone 603-641-9500 Fax 603-641-9550

PROJECT NO. 08-0716-1



LOCATION PLAN
SCALE: 1" = 400'

NOTES:
1. THE PURPOSE OF THIS PLAN IS TO SHOW THE OVERALL SITE PLAN LAYOUT

REVISIONS	DATE	DESCRIPTION

OVERVIEW LAYOUT PLAN PREPARED FOR:
GRANITE MEADOWS
TAX MAP 22 LOT 9
OLD MANCHESTER ROAD - RAYMOND, NEW HAMPSHIRE

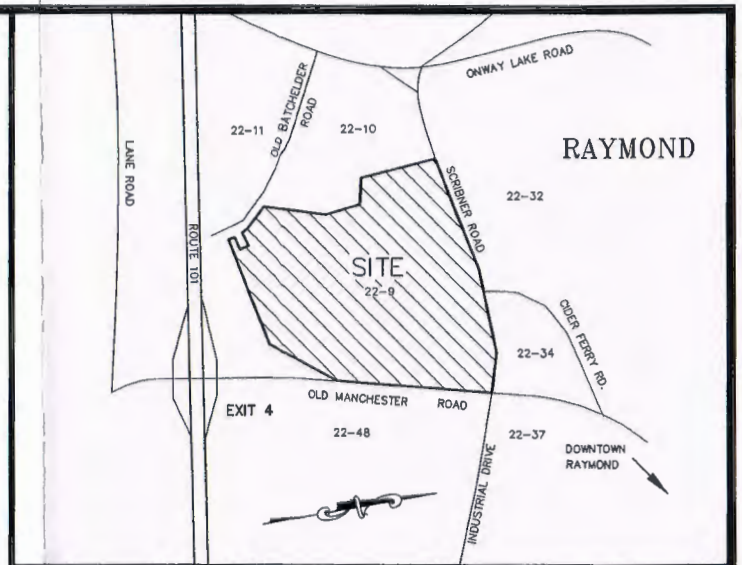
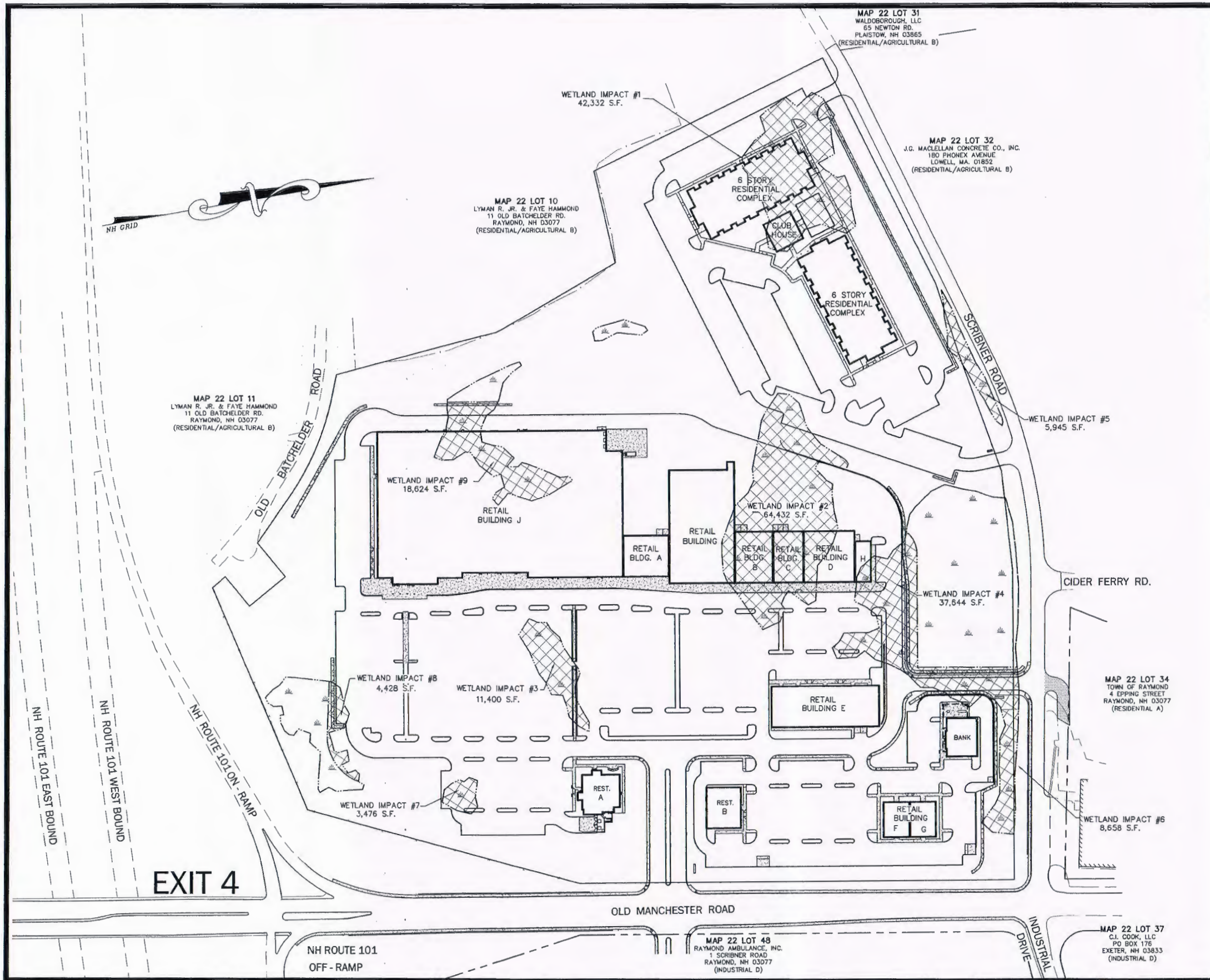
PREPARED FOR:
PD ASSOCIATES, LLC
5 DARTMOUTH DRIVE, SUITE #301
AUBURN, NH 03032
SCALE: 1"=100'
DATE: DECEMBER 5, 2008

SCALE IN FEET

PROJECT NO. 08-0718-1

Woodland Design Group
5 Dartmouth Drive, Suite 301, Auburn, NH 03032
Civil Engineering - Land Planning - Transportation Engineering
Phone 603-641-9500 Fax 603-641-9550

SHEET NO. 2 OF 18



- NOTES:**
1. THE PURPOSE OF THIS PLAN IS TO SHOW ALL OF THE WETLAND IMPACTS ON MAP 22 LOT 9.
 2. THE TOTAL PROPOSED WETLAND IMPACT IS 188,631 SF OR 4.33 ACRES.
 3. SEE WETLAND PERMIT APPLICATION FOR CLASSIFICATION AND TYPE OF WETLANDS ON SITE.

- WETLAND IMPACTS**
- WETLAND IMPACT #1 = 42,332 S.F.
 - WETLAND IMPACT #2 = 64,432 S.F.
 - WETLAND IMPACT #3 = 11,400 S.F.
 - WETLAND IMPACT #4 = 37,644 S.F.
 - WETLAND IMPACT #5 = 5,945 S.F.
 - WETLAND IMPACT #6 = 8,658 S.F.
 - WETLAND IMPACT #7 = 3,476 S.F.
 - WETLAND IMPACT #8 = 4,428 S.F.
 - WETLAND IMPACT #9 = 18,624 S.F.

WETLANDS IMPACTS PLAN PREPARED FOR:
GRANITE MEADOWS
TAX MAP 22 LOT 9
OLD MANCHESTER ROAD - RAYMOND, NEW HAMPSHIRE

REVISIONS	DATE	DESCRIPTION

PREPARED FOR:
PD ASSOCIATES, LLC
5 DARTMOUTH DRIVE, SUITE #301
AUBURN, NH 03032

SCALE: 1"=100'

DATE: DECEMBER 5, 2008

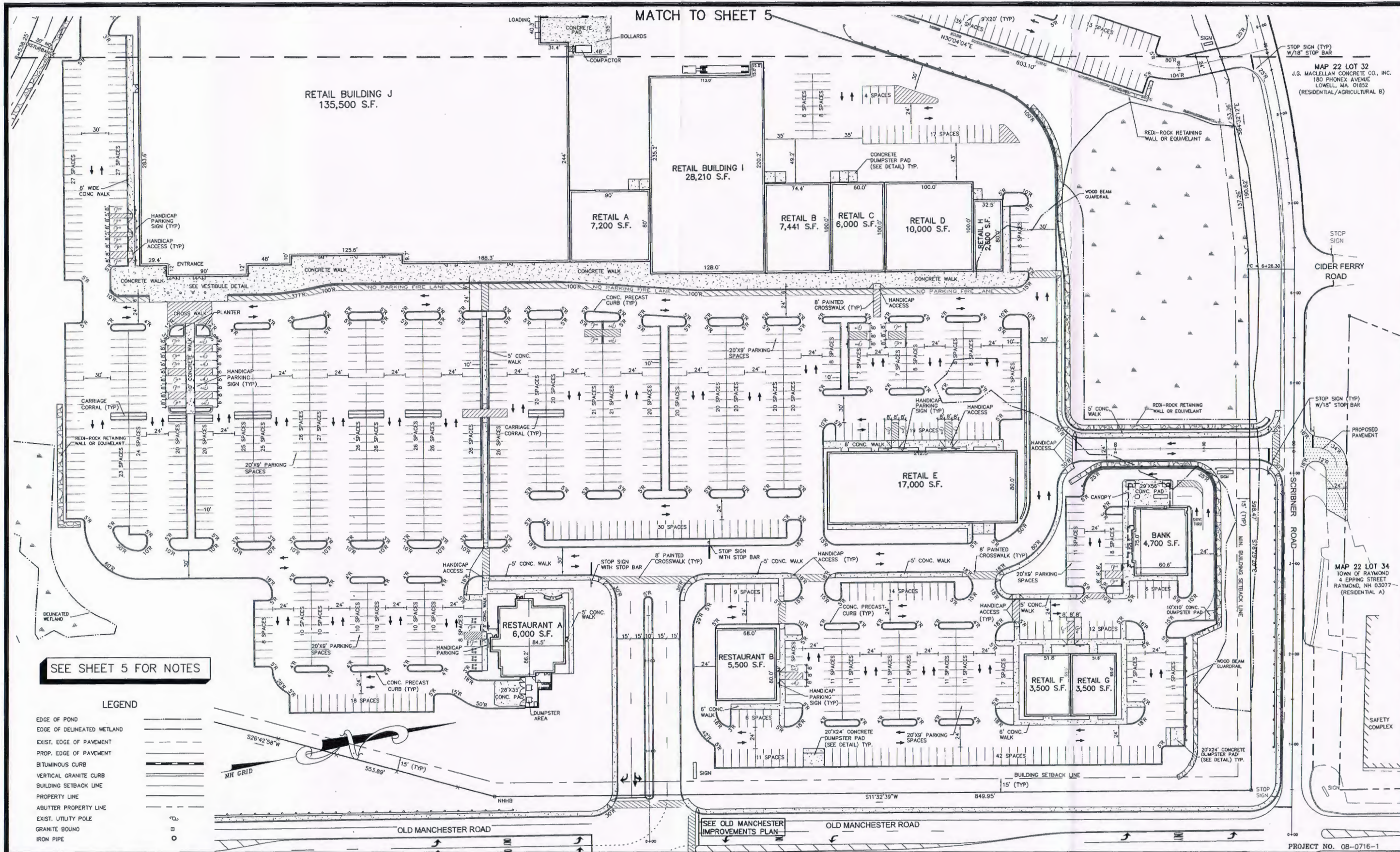
SCALE IN FEET

PROJECT NO. 08-0716-1

Woodland Design Group
5 Dartmouth Drive, Suite 301, Auburn, NH 03032
Civil Engineering - Land Planning - Transportation Engineering
Phone 603-641-9500 Fax 603-641-9550

SHEET NO. 3 OF 18

MATCH TO SHEET 5



MAP 22 LOT 32
J.G. MACLELLAN CONCRETE CO., INC.
180 PHOENIX AVENUE
LOWELL, MA. 01852
(RESIDENTIAL/AGRICULTURAL B)

MAP 22 LOT 34
TOWN OF RAYMOND
4 EPPING STREET
RAYMOND, NH 03077
(RESIDENTIAL A)

SEE SHEET 5 FOR NOTES

LEGEND

EDGE OF POND	---
EDGE OF DELINEATED WETLAND	---
EXIST. EDGE OF PAVEMENT	---
PROP. EDGE OF PAVEMENT	---
BITUMINOUS CURB	---
VERTICAL GRANITE CURB	---
BUILDING SETBACK LINE	---
PROPERTY LINE	---
ABUTTER PROPERTY LINE	---
EXIST. UTILITY POLE	---
GRANITE BOUND	---
IRON PIPE	---

REVISIONS

DATE	DESCRIPTION

SITE PLAN PREPARED FOR:
GRANITE MEADOWS
TAX MAP 22 LOT 9
OLD MANCHESTER ROAD - RAYMOND, NEW HAMPSHIRE

PREPARED FOR:
PD ASSOCIATES, LLC
5 DARTMOUTH DRIVE, SUITE #301
AUBURN, NH 03032
SCALE: 1" = 50'
DATE: DECEMBER 5, 2008

SCALE IN FEET

Woodland Design Group
5 Dartmouth Drive, Suite 301, Auburn, NH 03032
Civil Engineering Land Planning Transportation Engineering
Phone 603-641-9500 Fax 603-641-9550

PROJECT NO. 08-0716-1

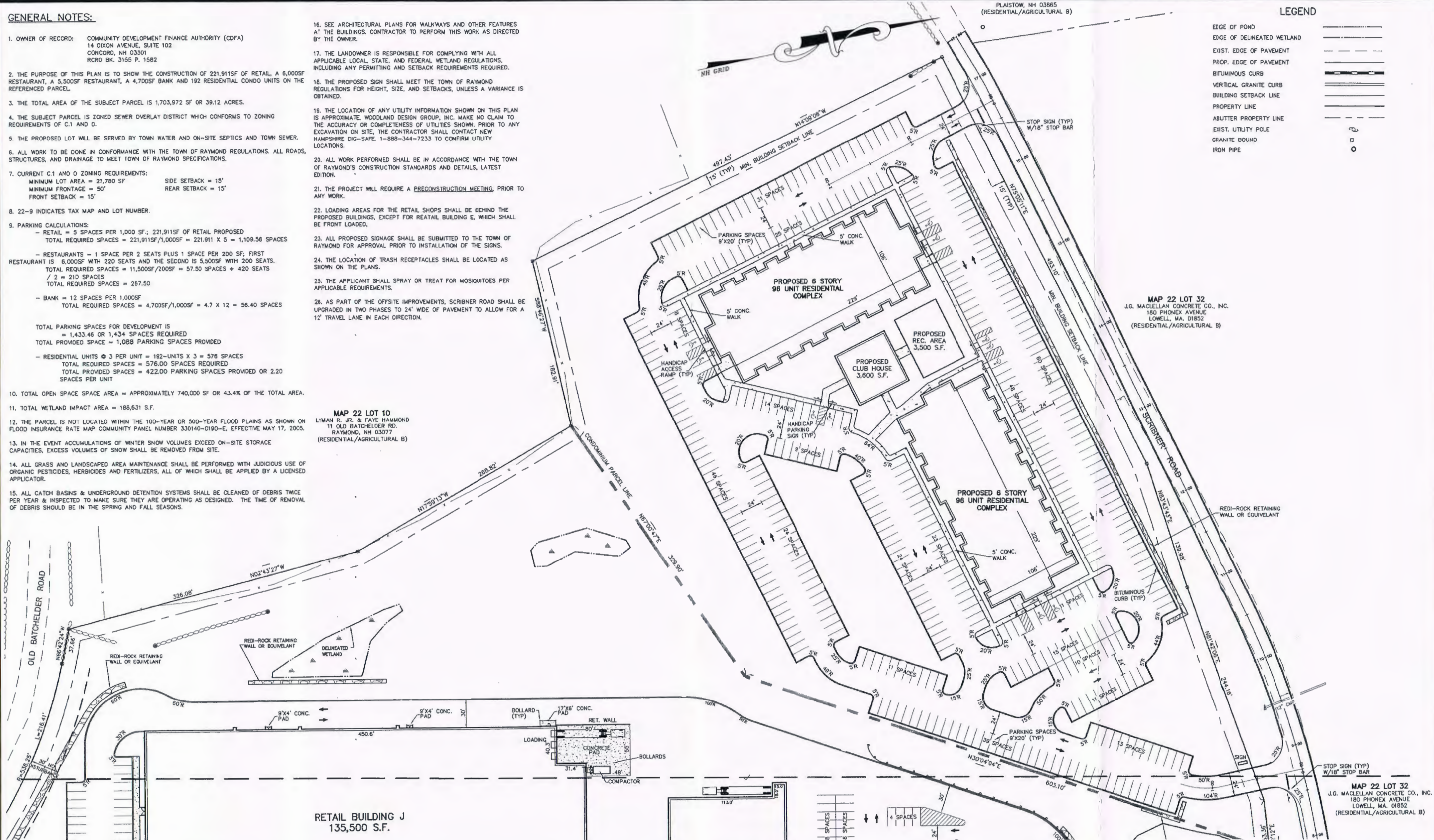
GENERAL NOTES:

- OWNER OF RECORD: COMMUNITY DEVELOPMENT FINANCE AUTHORITY (CDFA)
14 OXON AVENUE, SUITE 102
CONCORD, NH 03301
RCRD BK. 3155 P. 1582
- THE PURPOSE OF THIS PLAN IS TO SHOW THE CONSTRUCTION OF 221,911SF OF RETAIL, A 6,000SF RESTAURANT, A 5,500SF RESTAURANT, A 4,700SF BANK AND 192 RESIDENTIAL CONDO UNITS ON THE REFERENCED PARCEL.
- THE TOTAL AREA OF THE SUBJECT PARCEL IS 1,703,972 SF OR 39.12 ACRES.
- THE SUBJECT PARCEL IS ZONED SEWER OVERLAY DISTRICT WHICH CONFORMS TO ZONING REQUIREMENTS OF C.1 AND O.
- THE PROPOSED LOT WILL BE SERVED BY TOWN WATER AND ON-SITE SEPTICS AND TOWN SEWER.
- ALL WORK TO BE DONE IN CONFORMANCE WITH THE TOWN OF RAYMOND REGULATIONS. ALL ROADS, STRUCTURES, AND DRAINAGE TO MEET TOWN OF RAYMOND SPECIFICATIONS.
- CURRENT C.1 AND O ZONING REQUIREMENTS:
MINIMUM LOT AREA = 21,780 SF SIDE SETBACK = 15'
MINIMUM FRONTAGE = 50' REAR SETBACK = 15'
FRONT SETBACK = 15'
- 22-9 INDICATES TAX MAP AND LOT NUMBER.
- PARKING CALCULATIONS:
- RETAIL = 5 SPACES PER 1,000 SF; 221,911SF OF RETAIL PROPOSED
TOTAL REQUIRED SPACES = 221,911SF/1,000SF = 221.911 X 5 = 1,109.56 SPACES
- RESTAURANTS = 1 SPACE PER 2 SEATS PLUS 1 SPACE PER 200 SF; FIRST RESTAURANT IS 6,000SF WITH 220 SEATS AND THE SECOND IS 5,500SF WITH 200 SEATS.
TOTAL REQUIRED SPACES = 11,500SF/200SF = 57.50 SPACES + 420 SEATS / 2 = 210 SPACES
TOTAL REQUIRED SPACES = 267.50
- BANK = 12 SPACES PER 1,000SF
TOTAL REQUIRED SPACES = 4,700SF/1,000SF = 4.7 X 12 = 56.40 SPACES

TOTAL PARKING SPACES FOR DEVELOPMENT IS = 1,433.46 OR 1,434 SPACES REQUIRED
TOTAL PROVIDED SPACE = 1,088 PARKING SPACES PROVIDED
- RESIDENTIAL UNITS @ 3 PER UNIT = 192-UNITS X 3 = 576 SPACES
TOTAL REQUIRED SPACES = 576.00 SPACES REQUIRED
TOTAL PROVIDED SPACES = 422.00 PARKING SPACES PROVIDED OR 2.20 SPACES PER UNIT
- TOTAL OPEN SPACE SPACE AREA = APPROXIMATELY 740,000 SF OR 43.4% OF THE TOTAL AREA.
- TOTAL WETLAND IMPACT AREA = 188,631 S.F.
- THE PARCEL IS NOT LOCATED WITHIN THE 100-YEAR OR 500-YEAR FLOOD PLAINS AS SHOWN ON FLOOD INSURANCE RATE MAP COMMUNITY PANEL NUMBER 330140-0190-E, EFFECTIVE MAY 17, 2005.
- IN THE EVENT ACCUMULATIONS OF WINTER SNOW VOLUMES EXCEED ON-SITE STORAGE CAPACITIES, EXCESS VOLUMES OF SNOW SHALL BE REMOVED FROM SITE.
- ALL GRASS AND LANDSCAPED AREA MAINTENANCE SHALL BE PERFORMED WITH JUDICIOUS USE OF ORGANIC PESTICIDES, HERBICIDES AND FERTILIZERS, ALL OF WHICH SHALL BE APPLIED BY A LICENSED APPLICATOR.
- ALL CATCH BASINS & UNDERGROUND DETENTION SYSTEMS SHALL BE CLEANED OF DEBRIS TWICE PER YEAR & INSPECTED TO MAKE SURE THEY ARE OPERATING AS DESIGNED. THE TIME OF REMOVAL OF DEBRIS SHOULD BE IN THE SPRING AND FALL SEASONS.

- SEE ARCHITECTURAL PLANS FOR WALKWAYS AND OTHER FEATURES AT THE BUILDINGS. CONTRACTOR TO PERFORM THIS WORK AS DIRECTED BY THE OWNER.
- THE LANDOWNER IS RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL WETLAND REGULATIONS, INCLUDING ANY PERMITTING AND SETBACK REQUIREMENTS REQUIRED.
- THE PROPOSED SIGN SHALL MEET THE TOWN OF RAYMOND REGULATIONS FOR HEIGHT, SIZE, AND SETBACKS, UNLESS A VARIANCE IS OBTAINED.
- THE LOCATION OF ANY UTILITY INFORMATION SHOWN ON THIS PLAN IS APPROXIMATE. WOODLAND DESIGN GROUP, INC. MAKE NO CLAIM TO THE ACCURACY OR COMPLETENESS OF UTILITIES SHOWN. PRIOR TO ANY EXCAVATION ON SITE, THE CONTRACTOR SHALL CONTACT NEW HAMPSHIRE DIG-SAFE. 1-888-344-7233 TO CONFIRM UTILITY LOCATIONS.
- ALL WORK PERFORMED SHALL BE IN ACCORDANCE WITH THE TOWN OF RAYMOND'S CONSTRUCTION STANDARDS AND DETAILS, LATEST EDITION.
- THE PROJECT WILL REQUIRE A PRECONSTRUCTION MEETING, PRIOR TO ANY WORK.
- LOADING AREAS FOR THE RETAIL SHOPS SHALL BE BEHIND THE PROPOSED BUILDINGS, EXCEPT FOR RETAIL BUILDING E, WHICH SHALL BE FRONT LOADED.
- ALL PROPOSED SIGNAGE SHALL BE SUBMITTED TO THE TOWN OF RAYMOND FOR APPROVAL PRIOR TO INSTALLATION OF THE SIGNS.
- THE LOCATION OF TRASH RECEPTACLES SHALL BE LOCATED AS SHOWN ON THE PLANS.
- THE APPLICANT SHALL SPRAY OR TREAT FOR MOSQUITOES PER APPLICABLE REQUIREMENTS.
- AS PART OF THE OFFSITE IMPROVEMENTS, SCRIBNER ROAD SHALL BE UPGRADED IN TWO PHASES TO 24' WDE OF PAVEMENT TO ALLOW FOR A 12' TRAVEL LANE IN EACH DIRECTION.

MAP 22 LOT 10
LYMAN R. JR. & FAYE HAMMOND
11 OLD BATCHELDER RD.
RAYMOND, NH 03077
(RESIDENTIAL/AGRICULTURAL B)



LEGEND

EDGE OF POND	---
EDGE OF DELINEATED WETLAND	---
EXIST. EDGE OF PAVEMENT	---
PROP. EDGE OF PAVEMENT	---
BITUMINOUS CURB	---
VERTICAL GRANITE CURB	---
BUILDING SETBACK LINE	---
PROPERTY LINE	---
ABUTTER PROPERTY LINE	---
EXIST. UTILITY POLE	○
GRANITE BOUND	○
IRON PIPE	○

MAP 22 LOT 32
J.G. MACLELLAN CONCRETE CO., INC.
180 PHONEX AVENUE
LOWELL, MA. 01852
(RESIDENTIAL/AGRICULTURAL B)

MAP 22 LOT 32
J.G. MACLELLAN CONCRETE CO., INC.
180 PHONEX AVENUE
LOWELL, MA. 01852
(RESIDENTIAL/AGRICULTURAL B)

MATCH TO SHEET 4

REVISIONS

DATE	DESCRIPTION

SITE PLAN PREPARED FOR:
GRANITE MEADOWS
TAX MAP 22 LOT 9
OLD MANCHESTER ROAD - RAYMOND, NEW HAMPSHIRE

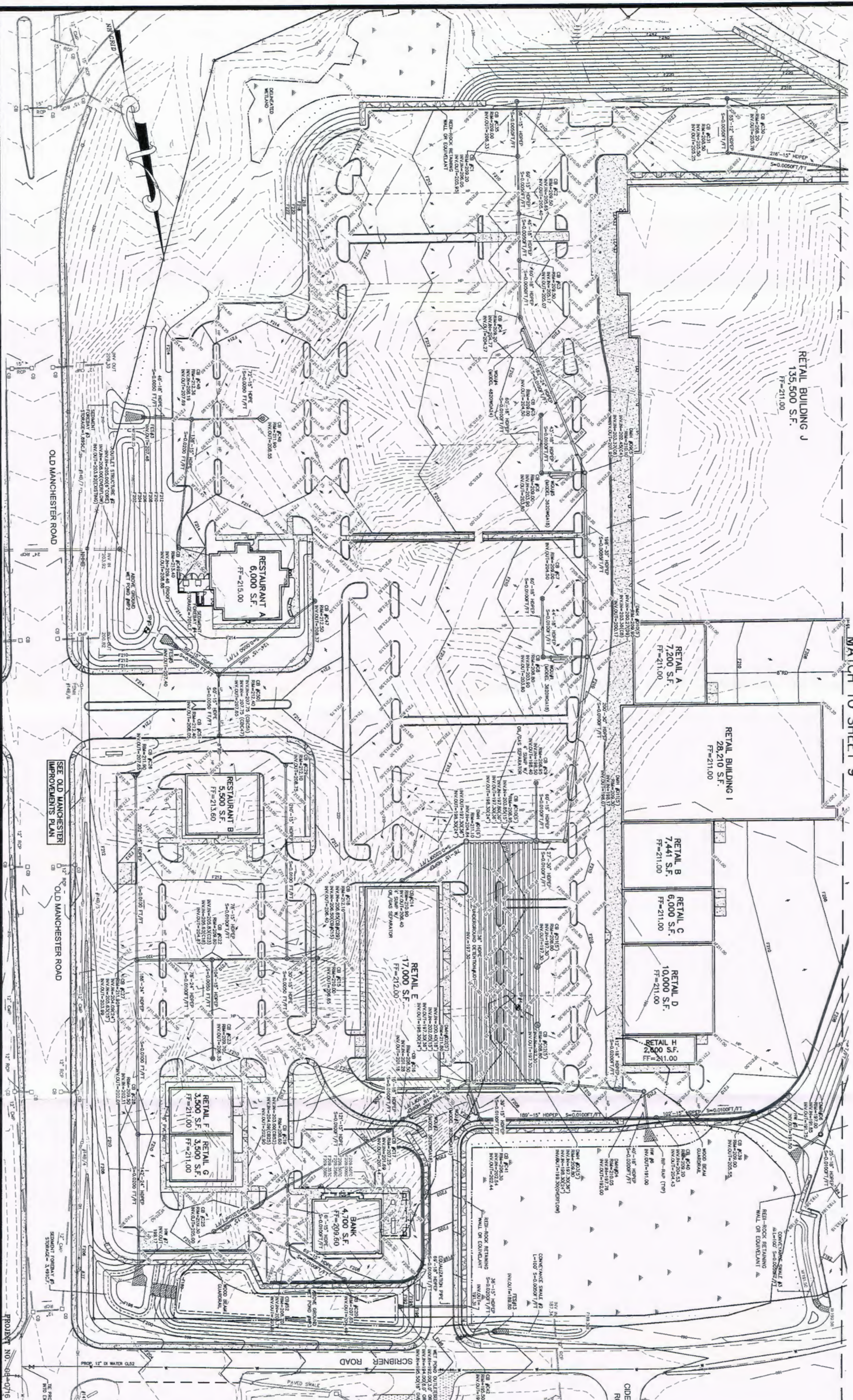
PREPARED FOR:
PD ASSOCIATES, LLC
5 DARTMOUTH DRIVE, SUITE #301
AUBURN, NH 03032
SCALE: 1" = 50' DATE: DECEMBER 5, 2008

SCALE IN FEET

Woodland Design Group
5 Dartmouth Drive, Suite 301, Auburn, NH 03032
Civil Engineering - Land Planning - Transportation Engineering
Phone 603-641-9500 Fax 603-641-9550

SHEET NO. 5 OF 18

PROJECT NO. 08-0716-1



RETAIL BUILDING J
135,500 S.F.
FF=211.00

RETAIL A
7,200 S.F.
FF=211.00

RETAIL BUILDING I
28,210 S.F.
FF=211.00

RETAIL B
7,441 S.F.
FF=211.00

RETAIL C
6,000 S.F.
FF=211.00

RETAIL D
10,000 S.F.
FF=211.00

RETAIL H
2,500 S.F.
FF=211.00

RETAIL E
17,000 S.F.
FF=212.00

RETAIL F
3,500 S.F.
FF=211.00

RETAIL G
3,500 S.F.
FF=211.00

BANK
4,700 S.F.
FF=209.50

RESTAURANT A
6,000 S.F.
FF=215.00

RESTAURANT B
5,500 S.F.
FF=213.50

GRADING & DRAINAGE PLAN PREPARED FOR:

GRANITE MEADOWS

TAX MAP 22 LOT 9

OLD MANCHESTER ROAD - RAYMOND, NEW HAMPSHIRE

PREPARED FOR:
PD ASSOCIATES, LLC
5 DARTMOUTH DRIVE, SUITE #301
AUBURN, NH 03032

DATE: DECEMBER 5, 2008



WOODLAND
Design Group

5 Dunsmuir Drive, Suite 201, Auburn, NH 03032
Tel: 603.641.5559
Fax: 603.641.5558
Lead: Tomaszewski
Transposition: Engle

SHEET NO. 8 OF 18

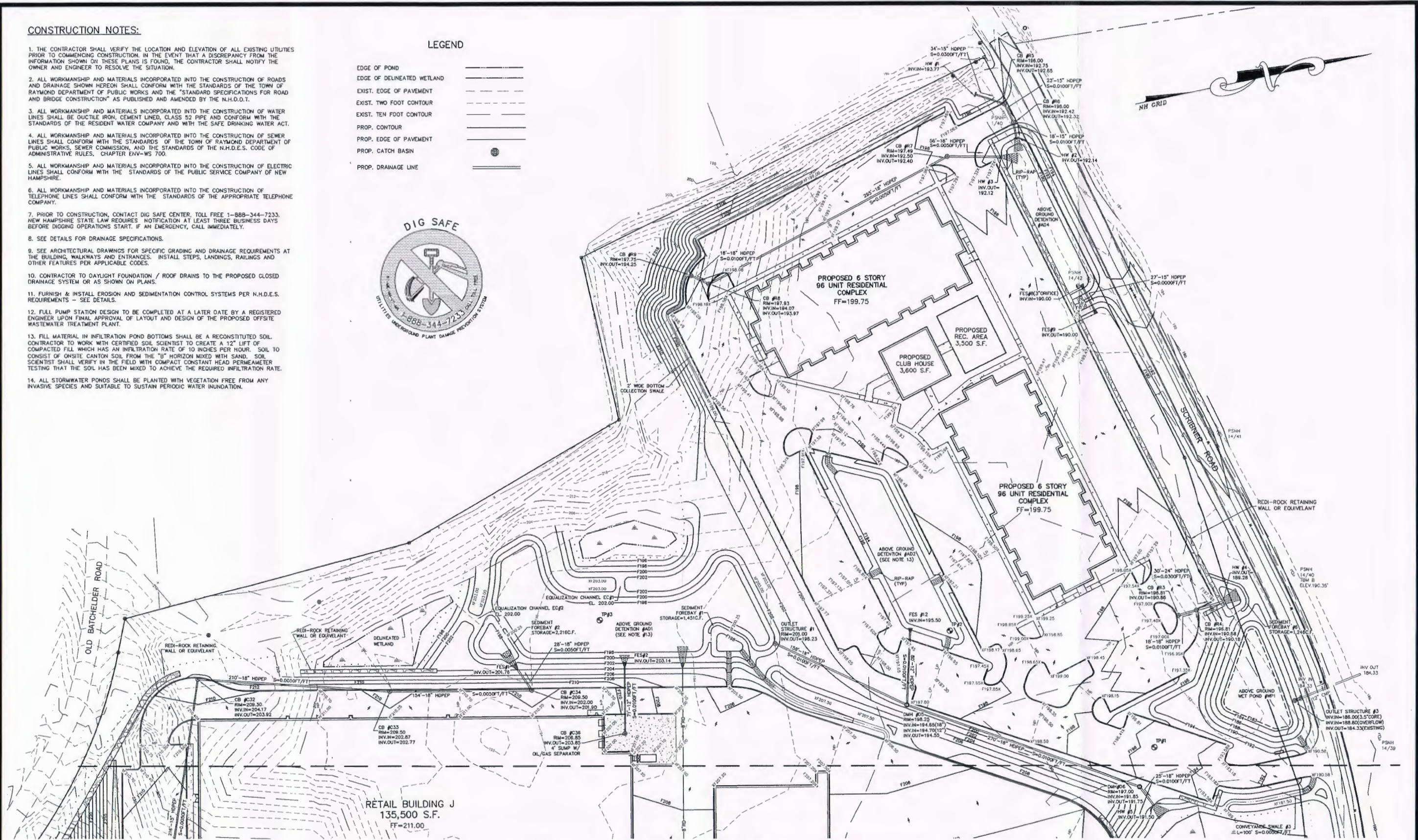
REVISIONS	DATE	DESCRIPTION
1	5/26/11	REVISIONS PER INHES LOT REVIEW COMMENTS
2	3/14/12	REVISIONS PER INHES LOT REVIEW COMMENTS

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION. IN THE EVENT THAT A DISCREPANCY FROM THE INFORMATION SHOWN ON THESE PLANS IS FOUND, THE CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEER TO RESOLVE THE SITUATION.
2. ALL WORKMANSHIP AND MATERIALS INCORPORATED INTO THE CONSTRUCTION OF ROADS AND DRAINAGE SHOWN HEREON SHALL CONFORM WITH THE STANDARDS OF THE TOWN OF RAYMOND DEPARTMENT OF PUBLIC WORKS AND THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" AS PUBLISHED AND AMENDED BY THE N.H.D.O.T.
3. ALL WORKMANSHIP AND MATERIALS INCORPORATED INTO THE CONSTRUCTION OF WATER LINES SHALL BE DUCTILE IRON, CEMENT LINED, CLASS 52 PIPE AND CONFORM WITH THE STANDARDS OF THE RESIDENT WATER COMPANY AND WITH THE SAFE DRINKING WATER ACT.
4. ALL WORKMANSHIP AND MATERIALS INCORPORATED INTO THE CONSTRUCTION OF SEWER LINES SHALL CONFORM WITH THE STANDARDS OF THE TOWN OF RAYMOND DEPARTMENT OF PUBLIC WORKS, SEWER COMMISSION, AND THE STANDARDS OF THE N.H.D.E.S. CODE OF ADMINISTRATIVE RULES, CHAPTER ENV-W5 700.
5. ALL WORKMANSHIP AND MATERIALS INCORPORATED INTO THE CONSTRUCTION OF ELECTRIC LINES SHALL CONFORM WITH THE STANDARDS OF THE PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE.
6. ALL WORKMANSHIP AND MATERIALS INCORPORATED INTO THE CONSTRUCTION OF TELEPHONE LINES SHALL CONFORM WITH THE STANDARDS OF THE APPROPRIATE TELEPHONE COMPANY.
7. PRIOR TO CONSTRUCTION, CONTACT DIG SAFE CENTER, TOLL FREE 1-888-344-7233. NEW HAMPSHIRE STATE LAW REQUIRES NOTIFICATION AT LEAST THREE BUSINESS DAYS BEFORE DIGGING OPERATIONS START. IF AN EMERGENCY, CALL IMMEDIATELY.
8. SEE DETAILS FOR DRAINAGE SPECIFICATIONS.
9. SEE ARCHITECTURAL DRAWINGS FOR SPECIFIC GRADING AND DRAINAGE REQUIREMENTS AT THE BUILDING, WALKWAYS AND ENTRANCES. INSTALL STEPS, LANDINGS, RAILINGS AND OTHER FEATURES PER APPLICABLE CODES.
10. CONTRACTOR TO DAYLIGHT FOUNDATION / ROOF DRAINS TO THE PROPOSED CLOSED DRAINAGE SYSTEM OR AS SHOWN ON PLANS.
11. FURNISH & INSTALL EROSION AND SEDIMENTATION CONTROL SYSTEMS PER N.H.D.E.S. REQUIREMENTS - SEE DETAILS.
12. FULL PUMP STATION DESIGN TO BE COMPLETED AT A LATER DATE BY A REGISTERED ENGINEER UPON FINAL APPROVAL OF LAYOUT AND DESIGN OF THE PROPOSED OFFSITE WASTEWATER TREATMENT PLANT.
13. FILL MATERIAL IN INFILTRATION POND BOTTOMS SHALL BE A RECONSTITUTED SOIL. CONTRACTOR TO WORK WITH CERTIFIED SOIL SCIENTIST TO CREATE A 12" LIFT OF COMPACTED FILL WHICH HAS AN INFILTRATION RATE OF 10 INCHES PER HOUR. SOIL TO CONSIST OF ONSITE CANTON SOIL FROM THE "D" HORIZON MIXED WITH SAND. SOIL SCIENTIST SHALL VERIFY IN THE FIELD WITH COMPACT CONSTANT HEAD PERMEAMETER TESTING THAT THE SOIL HAS BEEN MIXED TO ACHIEVE THE REQUIRED INFILTRATION RATE.
14. ALL STORMWATER PONDS SHALL BE PLANTED WITH VEGETATION FREE FROM ANY INVASIVE SPECIES AND SUITABLE TO SUSTAIN PERIODIC WATER INUNDATION.

LEGEND

- EDGE OF POND
- EDGE OF DELINEATED WETLAND
- EXIST. EDGE OF PAVEMENT
- EXIST. TWO FOOT CONTOUR
- EXIST. TEN FOOT CONTOUR
- PROP. CONTOUR
- PROP. EDGE OF PAVEMENT
- PROP. CATCH BASIN
- PROP. DRAINAGE LINE



MATCH TO SHEET 8

PROJECT NO. 08-0716-1

REVISIONS	
DATE	DESCRIPTION
5/20/11	REVISIONS PER NHDES ADT
3/14/12	REVISIONS PER NHDES ADT REVIEW COMMENTS

GRADING & DRAINAGE PLAN PREPARED FOR:
GRANITE MEADOWS
 TAX MAP 22 LOT 9
 OLD MANCHESTER ROAD - RAYMOND, NEW HAMPSHIRE

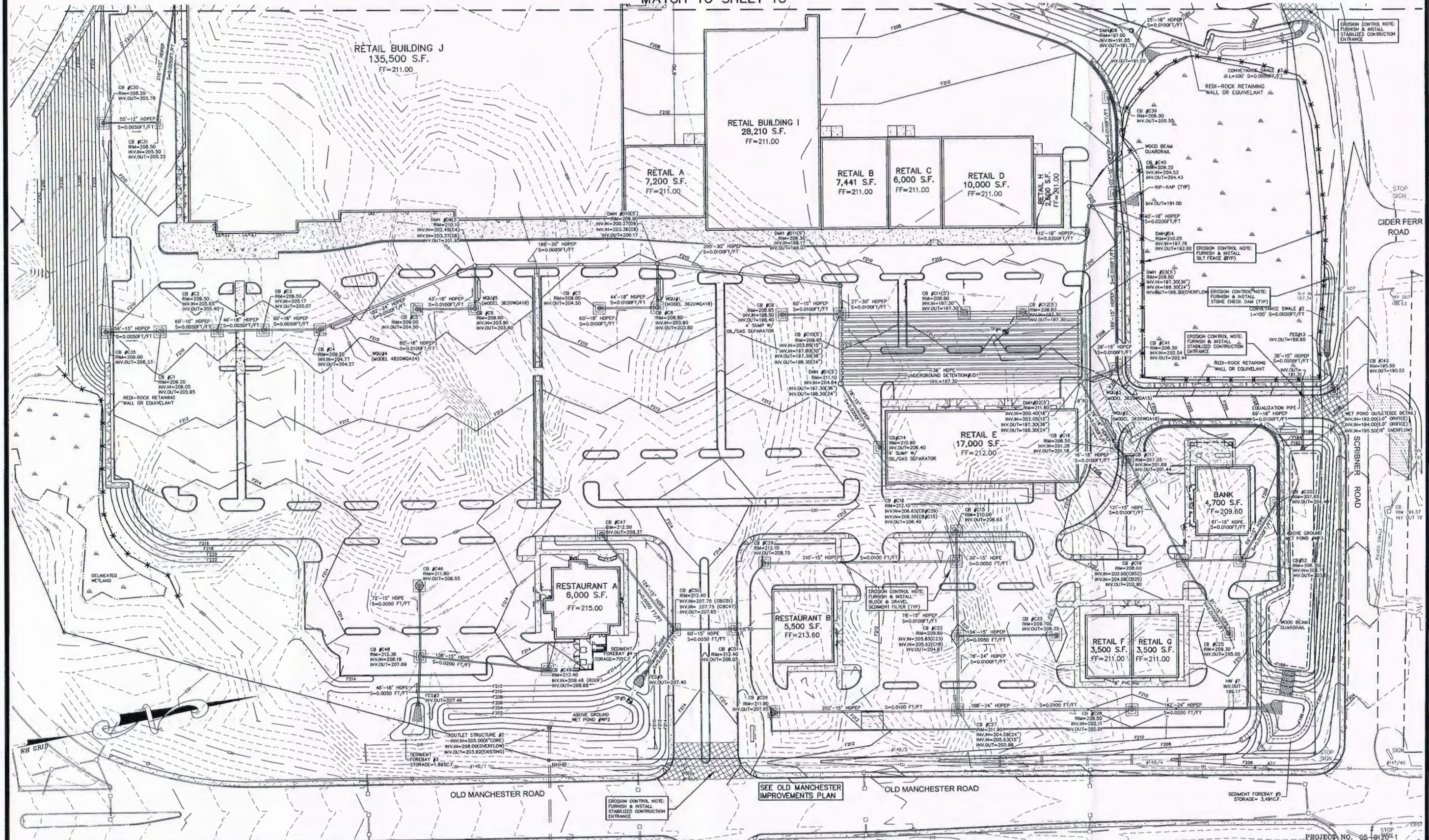
PREPARED FOR:
PD ASSOCIATES, LLC
 5 DARTMOUTH DRIVE, SUITE #301
 AUBURN, NH 03032

SCALE: 1" = 50'
 DATE: DECEMBER 5, 2008

SCALE IN FEET

Woodland Design Group
 5 Dartmouth Drive, Suite 301, Auburn, NH 03032
 Inc.
 Civil Engineering Land Planning Transportation Engineering
 Phone 603-641-9500 Fax 603-641-9550

MATCH TO SHEET 13



REVISIONS	
DATE	DESCRIPTION
5/20/11	REVISIONS PER NHDES ADT
3/14/12	REVISIONS PER NHDES ADT REVIEW COMMENTS

EROSION CONTROL PLAN PREPARED FOR:
GRANITE MEADOWS
 TAX MAP 22 LOT 9
 OLD MANCHESTER ROAD – RAYMOND, NEW HAMPSHIRE

PREPARED FOR:
 PD ASSOCIATES, LLC
 5 DARTMOUTH DRIVE, SUITE #301
 AUBURN, NH 03032

SCALE: 1" = 50'

DATE: DECEMBER 5, 2008

SCALE IN FEET

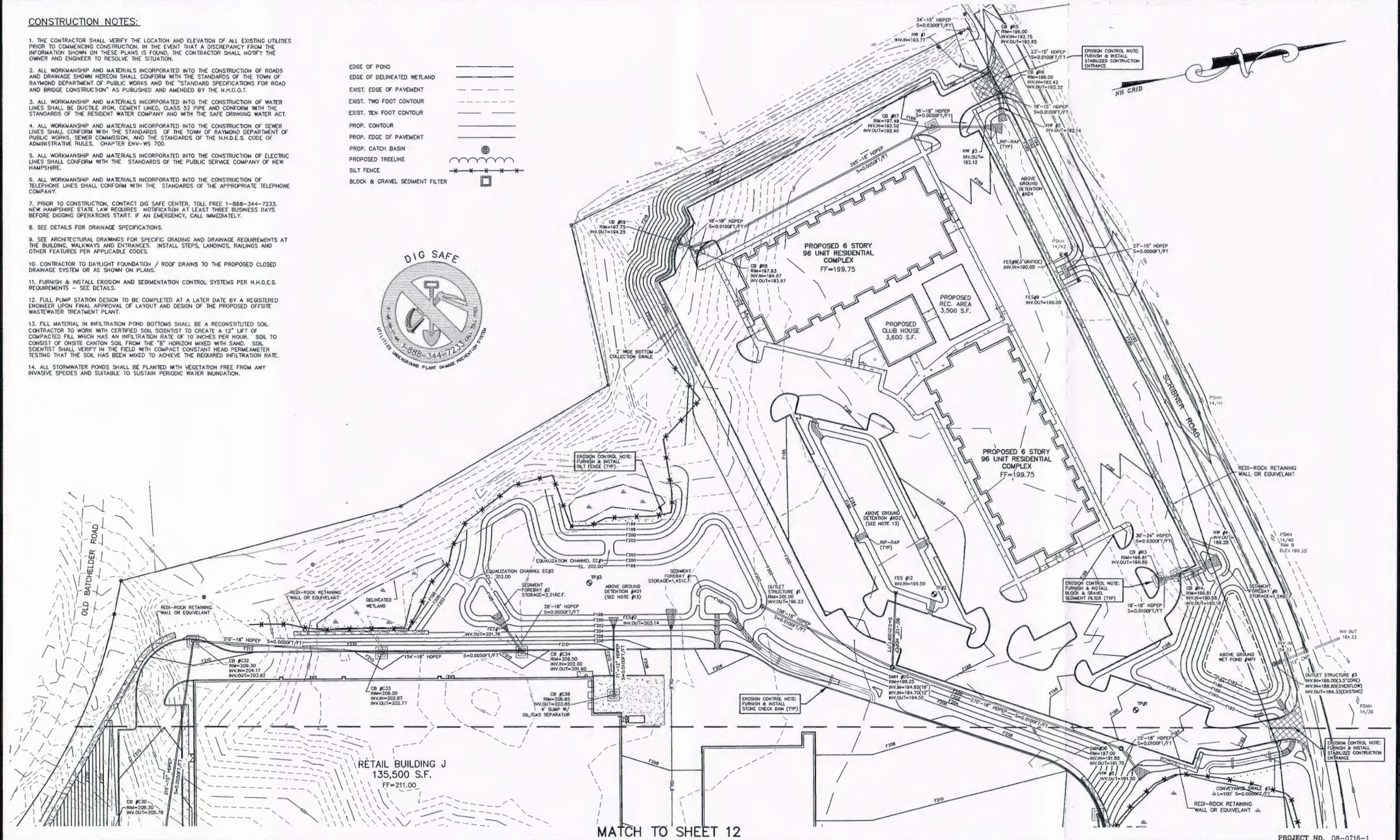
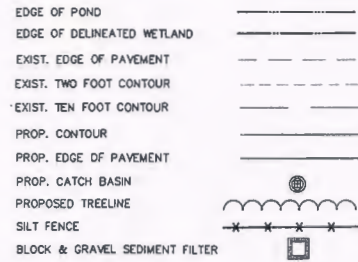
Woodland Design Group
 Inc.
 5 Dartmouth Drive, Suite 301, Auburn, NH 03032
 Civil Engineering - Land Planning - Transportation Engineering
 Phone 603-641-9500 Fax 603-641-9550

PROJECT NO. 05-0426-1

SHEET NO. 12 OF 18

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION. IN THE EVENT THAT A DISCREPANCY FROM THE INFORMATION SHOWN ON THESE PLANS IS FOUND, THE CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEER TO RESOLVE THE SITUATION.
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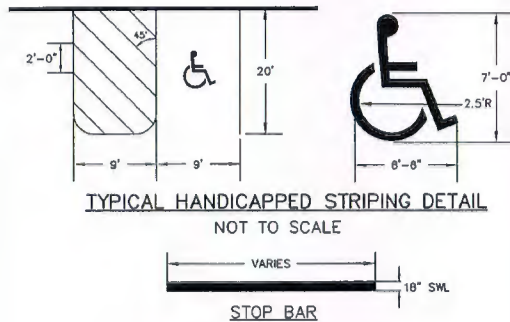
DATE	DESCRIPTION
5/20/11	REVISIONS PER NHDES AOT
3/14/12	REVISIONS PER NHDES AOT REVIEW COMMENTS

EROSION CONTROL PLAN PREPARED FOR:
GRANITE MEADOWS
 TAX MAP 22 LOT 9
 OLD MANCHESTER ROAD - RAYMOND, NEW HAMPSHIRE

PREPARED FOR:
 PD ASSOCIATES, LLC
 5 DARTMOUTH DRIVE, SUITE #301
 AUBURN, NH 03032
 SCALE: 1" = 50'
 DATE: DECEMBER 5, 2008

Woodland Design Group
 5 Dartmouth Drive, Suite 301, Auburn, NH 03012
 Inc.
 Civil Engineering Land Planning Transportation Engineering
 Phone 603-641-9500 Fax 603-641-9550
 SHEET NO. 13 OF 18

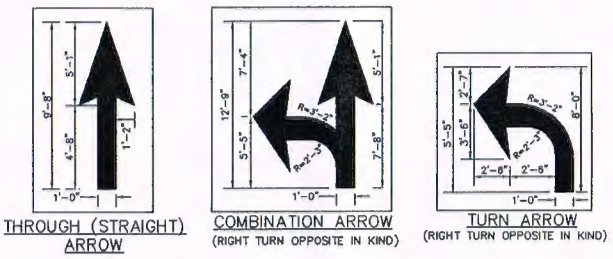
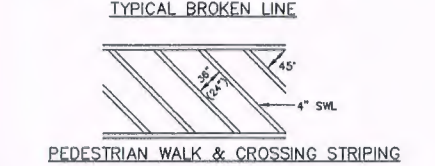
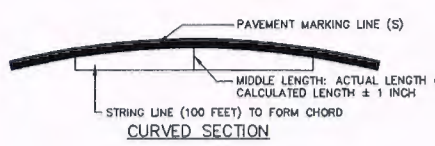
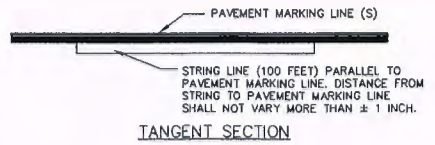
PROJECT NO. 08-0716-1



TYPICAL HANDICAPPED STRIPING DETAIL
NOT TO SCALE

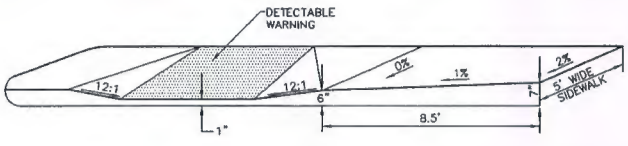
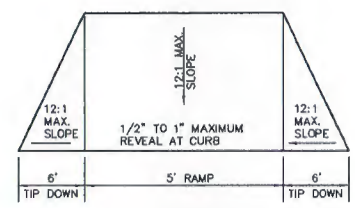
STOP BAR
VARIES

GENERAL NOTES:
ALL PAVEMENT MARKINGS SHALL BE IN CONFORMANCE WITH THESE STANDARDS AND THE CURRENT EDITION OF MUTCD.
WIDTH OF LINES SHALL VARY NO MORE THAN = 1/4 INCH FROM THAT SPECIFIED.
THE WET FILM THICKNESS OF A PAINTED LINE SHALL BE A MINIMUM OF 15 MILS THROUGHOUT THE ENTIRE WIDTH AND LENGTH OF LINE SPECIFIED.
OVERSPRAY SHALL BE KEPT TO AN ABSOLUTE MINIMUM.
BROKEN LINES SHALL BEGIN AND END WITH THE NEAREST FULL CYCLE OF BROKEN LINE. SOLID LONGITUDINAL LINES SHALL BEGIN AND END WITHIN + 2 INCHES OF A LAYOUT SYMBOL INDICATING THE END OF THE LINE, OR WITH A FULL CYCLE OF BROKEN LINE (IF APPROPRIATE).



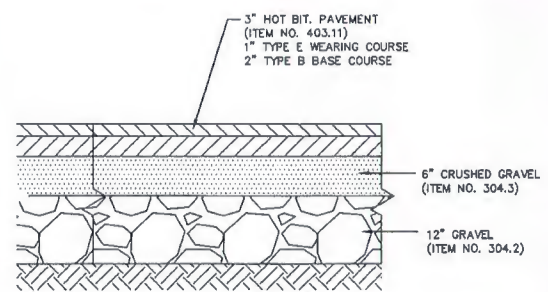
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TYPICAL PAVEMENT STRIPING DETAILS
NOT TO SCALE



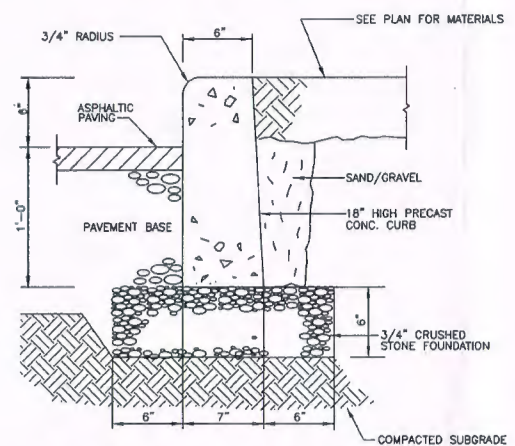
NOTES:
1. TEXTURED WALK SERVICE TO BE STAMPED CONCRETE, IN ACCORDANCE WITH A.D.A. REQUIREMENTS.
2. IN ORDER TO OBTAIN A 12:1 MAXIMUM SLOPE ON HANDICAP RAMP, PITCH SIDEWALK DOWN AT A 1% SLOPE FOR APPROXIMATELY 8.5 FEET.

TYPICAL HANDICAP CURB SIDEWALK RAMP
NOT TO SCALE

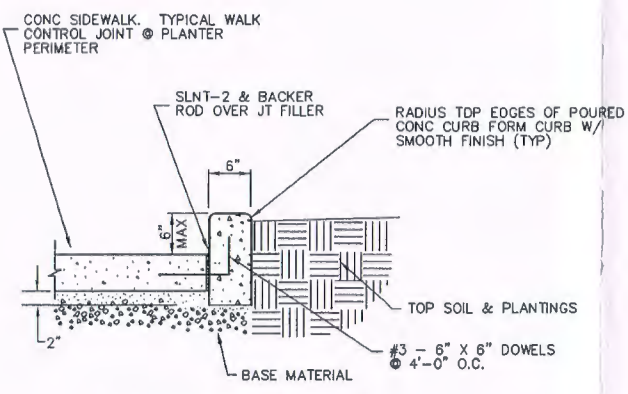


TYPICAL DRIVEWAY AND PARKING LOT SECTION
NOT TO SCALE

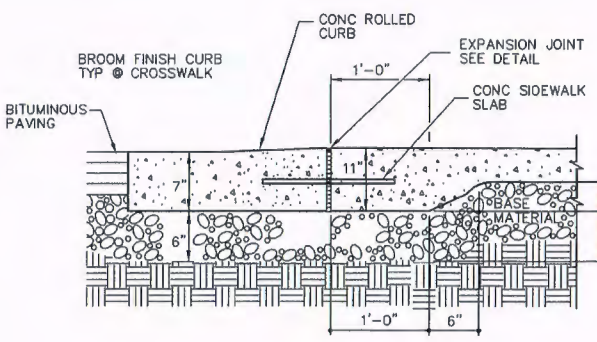
TYPICAL PAVEMENT STRIPING DETAILS
NOT TO SCALE



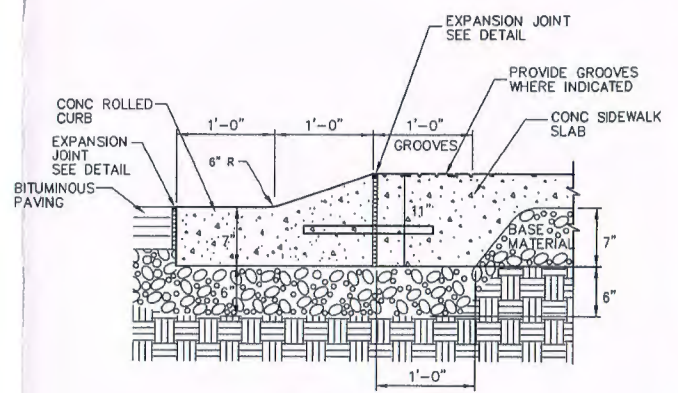
PRECAST CONCRETE CURB DETAIL
NOT TO SCALE



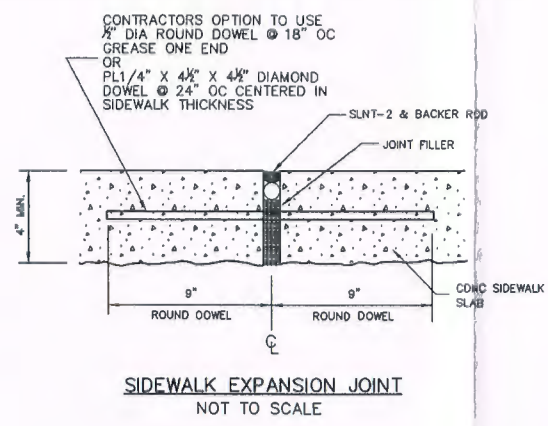
CONCRETE PLANTER CURB
NOT TO SCALE



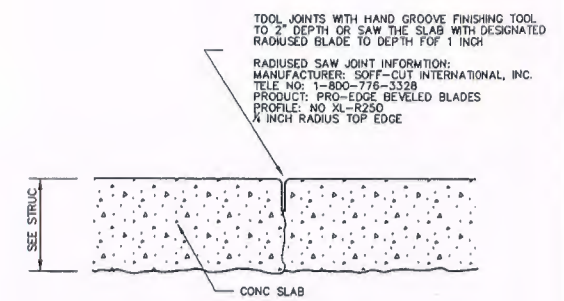
FLUSH CURB & WALK
NOT TO SCALE



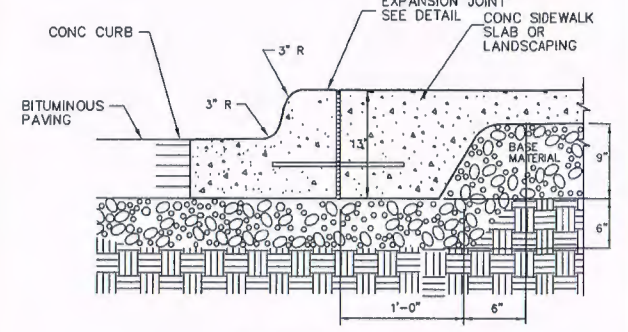
ROLLED CURB & WALK
NOT TO SCALE



SIDEWALK EXPANSION JOINT
NOT TO SCALE



CONTROL JOINT @ CROSSWALK
NOT TO SCALE



POURED IN PLACE CURB
NOT TO SCALE

REVISIONS	DATE	DESCRIPTION

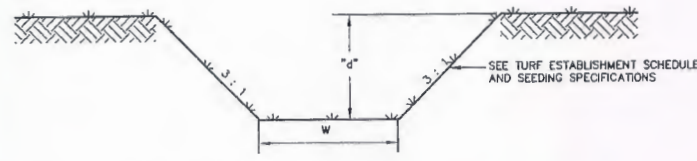
CONSTRUCTION DETAILS PREPARED FOR:
GRANITE MEADOWS
TAX MAP 22 LOT 9
OLD MANCHESTER ROAD - RAYMOND, NEW HAMPSHIRE

PREPARED FOR:
PD ASSOCIATES, LLC
5 DARTMOUTH DRIVE, SUITE #301
AUBURN, NH 03032
SCALE: AS SHOWN

DATE: DECEMBER 5, 2008

PROJECT NO. 08-0716-1

Woodland Design Group
5 Dartmouth Drive, Suite 301, Auburn, NH 03032
Civil Engineering - Land Planning - Transportation Engineering
Phone 603-641-9500 Fax 603-641-9550



LOCATION	PEAK FLOW	PEAK VELOCITY	SWALE WIDTH "w"	SWALE LENGTH	SWALE SLOPE	DEPTH "d"	PEAK DEPTH OF RUNOFF
TS #1	2.41cfs	0.60fps	6'	100'	0.005FT/FT	2.5'	0.53'
TS #2	0.96cfs	0.49fps	5'	100'	0.005FT/FT	2'	0.32'
TS #3	0.64cfs	0.29fps	5'	100'	0.005FT/FT	1.5'	0.31'
TS #4	1.86cfs	0.55fps	5'	100'	0.005FT/FT	1.0'	0.48'
TS #5	6.61cfs	0.99fps	6'	100'	0.005FT/FT	1.5'	0.78'

TYPICAL TREATMENT SWALE DETAIL
NOT TO SCALE

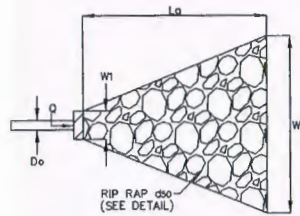
MAINTENANCE

TIMELY MAINTENANCE IS IMPORTANT TO KEEP THE VEGETATION IN THE SWALE IN GOOD CONDITION. MOWING SHOULD BE DONE FREQUENTLY ENOUGH TO KEEP THE VEGETATION IN VIGOROUS CONDITION AND TO CONTROL ENCROACHMENT OF WEEDS AND WOODY VEGETATION, HOWEVER IT SHOULD NOT BE MOWED TOO CLOSELY SO AS TO REDUCE THE FILTERING EFFECT. FERTILIZE ON AN "AS NEEDED" BASIS TO KEEP THE GRASS HEALTHY. OVER FERTILIZATION CAN RESULT IN THE SWALE BECOMING A SOURCE OF POLLUTION.

THE SWALE SHOULD BE INSPECTED PERIODICALLY AND AFTER EVERY MAJOR STORM TO DETERMINE THE CONDITION OF THE SWALE. RILLS AND DAMAGED AREAS SHOULD BE PROMPTLY REPAIRED AND RE-VEGETATED AS NECESSARY TO PREVENT FURTHER DETERIORATION.

MAINTENANCE

THE OUTLET PROTECTION SHOULD BE CHECKED AT LEAST ANNUALLY AND AFTER EVERY MAJOR STORM. IF THE RIPRAP HAS BEEN DISPLACED, UNDERMINED, OR DAMAGED, IT SHOULD BE REPAIRED IMMEDIATELY BEFORE FURTHER DAMAGE CAN TAKE PLACE. WOODY VEGETATION SHOULD BE REMOVED FROM THE ROCK RIPRAP ANNUALLY BECAUSE TREE ROOTS WILL EVENTUALLY DISLODGE THE ROCK RIPRAP. IF THE RIPRAP IS ON A CHANNEL BANK, THE STREAM SHOULD BE KEPT CLEAR OF OBSTRUCTIONS SUCH AS FALLEN TREES, DEBRIS, AND SEDIMENT BARS THAT MAY CHANGE FLOW PATTERNS WHICH COULD DAMAGE OR DISPLACE THE RIPRAP. REPAIRS MUST BE CARRIED OUT IMMEDIATELY TO AVOID ADDITIONAL DAMAGE TO THE RIPRAP.



OUTLET PROTECTION APRON DETAIL
NOT TO SCALE

CONSTRUCTION SPECIFICATIONS

- THE SUBGRADE FOR THE FILTER MATERIAL, GEOTEXTILE FABRIC, OR RIPRAP SHALL BE CLEARED AND GRUBBED TO REMOVE ALL ROOTS, VEGETATION, AND DEBRIS AND PREPARED TO THE LINES AND GRADES SHOWN ON THE PLANS.
- THE ROCK OR GRAVEL USED FOR FILTER OR RIPRAP SHALL CONFORM TO THE SPECIFIED GRADATION.
- GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF THE ROCK RIPRAP BY PLACING A CUSHION OF SAND AND GRAVEL OVER THE FABRIC. DAMAGED AREAS IN THE FABRIC SHALL BE REPAIRED BY PLACING A PIECE OF FABRIC OVER THE DAMAGED AREA OR 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.
- STONE FOR THE RIPRAP 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 DISPLACEMENT OF THE UNDERLYING MATERIALS. HAND PLACEMENT MAY BE REQUIRED TO PREVENT DAMAGE TO ANY PERMANENT STRUCTURES.
- STONES FOR RIPRAP SHALL BE ANGULAR OR SUBANGULAR. THE STONES SHOULD BE SHAPED SO THAT THE LEAST DIMENSION OF THE STONE FRAGMENT SHALL BE NOT LESS THAN ONE-THIRD OF THE GREATEST DIMENSION OF THE FRAGMENT. FLAT ROCKS SHALL NOT BE USED FOR RIPRAP.
- VOIDS IN THE ROCK RIPRAP SHOULD BE FILLED WITH SPALLS AND SMALLER ROCKS.

TABLE 7-24 -- RECOMMENDED RIPRAP GRADATION RANGES

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

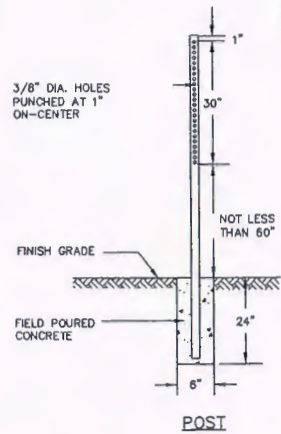
LOCATION	Lo	W1	W2	d50	DEPTH
FES 1	18'	5'	12'	6"	15"
FES 2	8'	3'	11'	3"	8"
FES 3	17'	5'	11'	3"	8"
FES 4	10'	4'	14'	3"	8"
FES 5	15'	4'	10'	3"	8"
FES 7	16'	6'	6'	3"	8"
FES 11	10'	5'	5'	3"	8"
FES 13	13'	5'	5'	3"	8"
HW 2	14'	5'	10'	3"	8"
HW 3	19'	5'	12'	6"	15"
HW 4	19'	6'	14'	6"	15"
HW 7	21'	6'	6'	6"	15"

*CHANNEL WIDTH

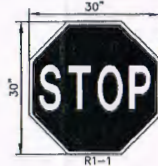
TRAFFIC SIGNS

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

3/8" DIA. HOLES PUNCHED AT 1" ON-CENTER



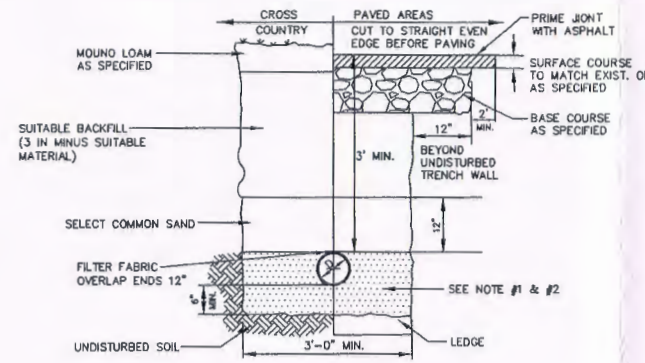
TYPICAL SIGN POST DETAIL
NOT TO SCALE



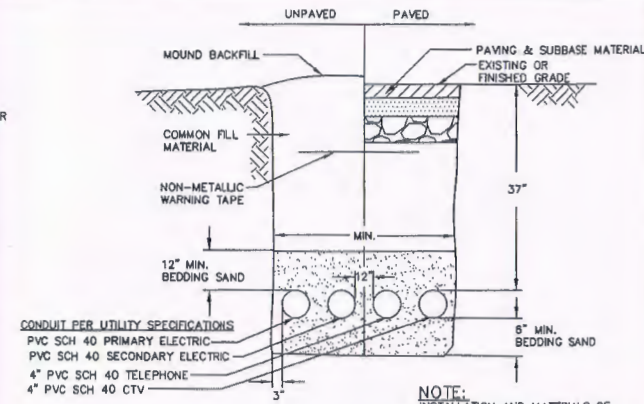
STOP SIGN DETAIL
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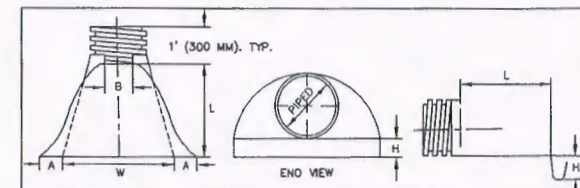
HANDICAPPED PARKING SIGN DETAIL
NOT TO SCALE



TYPICAL STORM DRAINAGE TRENCH DETAIL
NOT TO SCALE

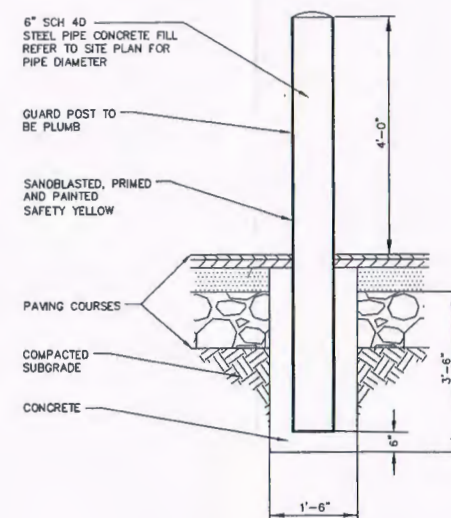


UTILITY TRENCH DETAIL
NOT TO SCALE

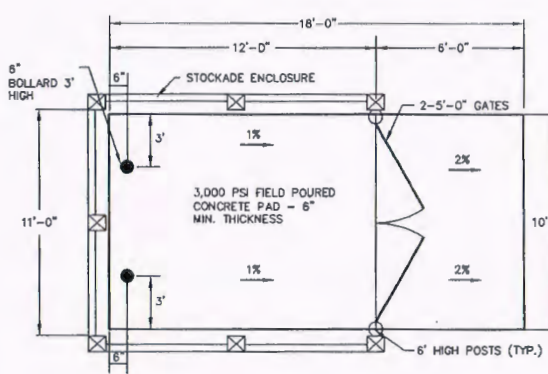


PIPE DIAMETER	PART No.	DIMENSIONS, INCHES (MM)					
		A ± 1 (25)	B MAX	H ± 1 (25)	L ± 1/2(13)	W ± 2 (50)	
12 (300.375)	1210 NP	6.5 (165)	10 (254)	6.5 (165)	25 (635)	29 (736)	
18 (450)	1810 NP	7.5 (190)	15 (380)	6.5 (168)	32 (812)	35 (890)	
24 (600)	2410 NP	7.5 (190)	18 (450)	6.5 (165)	36 (900)	45 (1140)	
30 (750)	3010 NP	10.5 (266)	NA	7.0 (178)	53 (1346)	68 (1735)	
36 (900)	3610 NP	10.5 (266)	NA	7.0 (178)	53 (1346)	68 (1725)	

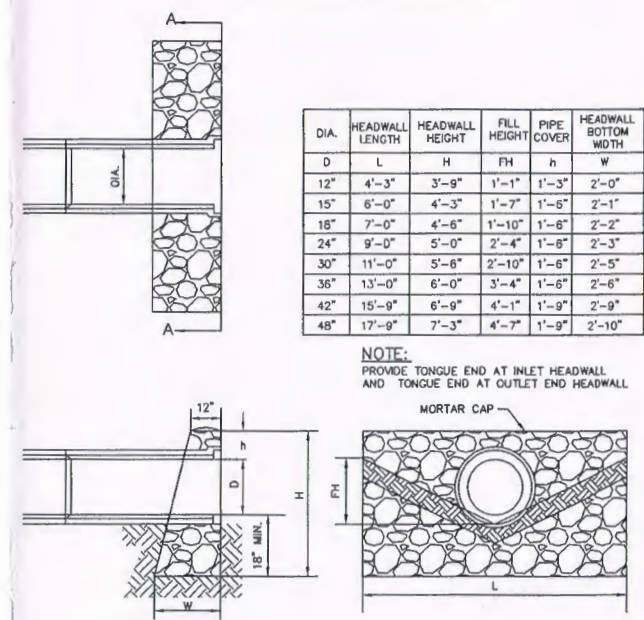
ADS END SECTION DETAIL



TYPICAL BOLLARD DETAIL
NOT TO SCALE



TYPICAL TRASH ENCLOSURE DETAIL
NOT TO SCALE



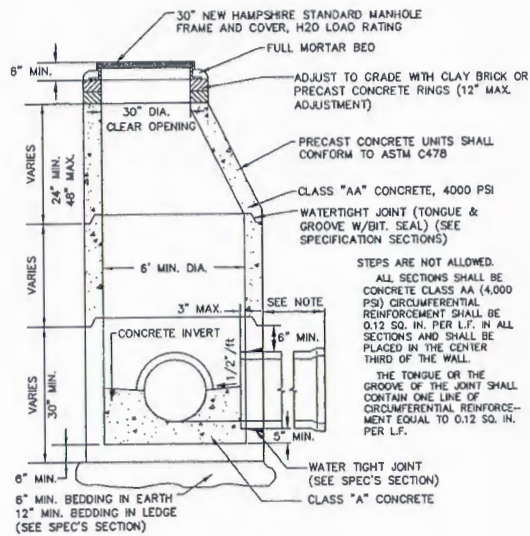
LONGITUDINAL SECTION SECTION A-A
MORTAR RUBBLE MASONRY HEADWALL DETAIL
NOT TO SCALE

REVISIONS	DATE	DESCRIPTION

CONSTRUCTION DETAILS PREPARED FOR:
GRANITE MEADOWS
TAX MAP 22 LOT 9
OLD MANCHESTER ROAD - RAYMOND, NEW HAMPSHIRE

PREPARED FOR:
PD ASSOCIATES, LLC
5 DARTMOUTH DRIVE, SUITE #301
AUBURN, NH 03032
SCALE: AS SHOWN
DATE: DECEMBER 5, 2008

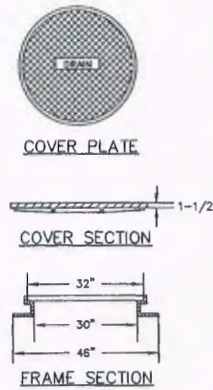
Woodland Design Group
3 Dartmouth Drive, Suite 301, Auburn, NH 03032
Civil Engineering Land Planning Transportation Engineering
Phone 603-441-9500 Fax 603-441-9556
PROJECT NO. 08-0716-1
SHEET NO. C2 OF C8



TYPE OF PIPE	SIZE MAX.	DIST. TO FIRST JOINT
R.C.P. & C.I.	ALL	49

MATERIALS & CONSTRUCTION TO NHDOT STANDARDS

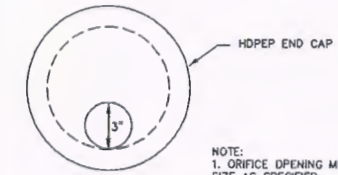
TYPICAL DRAIN MANHOLE DETAIL
NOT TO SCALE



NOTES:

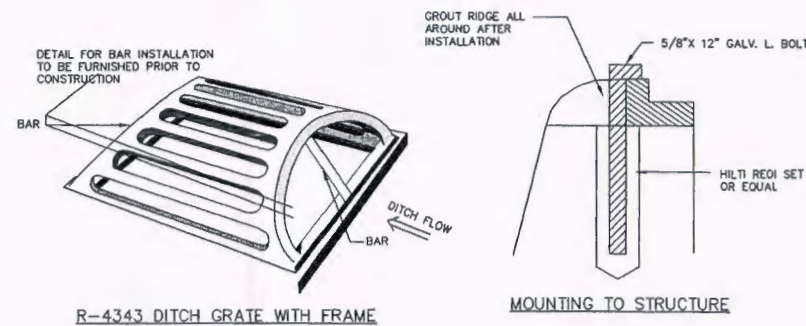
- CONTACT SURFACES OF COVERS AND FRAMES SHALL BE MACHINED AT THE FOUNDRY TO PREVENT ROCKING OF COVERS IN ANY ORIENTATION.
- CASTINGS SHALL BE EQUAL TO CLASS 30, CONFORMING TO ASTM A48.
- WHERE MANHOLE TOPS ARE TO BE FLOODED BY WATER THEY WILL HAVE A WATER TIGHT COVER.
- FRAMES AND COVERS: MANHOLE FRAMES AND COVERS SHALL BE OF HEAVY DUTY DESIGN AND PROVIDE A 30 INCH CLEAR OPENING. A 3 INCH (MINIMUM HEIGHT) WORD "SEWER" FOR SEWERS OR "DRAIN" FOR DRAINS SHALL BE PLAINLY CAST INTO THE CENTER OF EACH COVER. MANHOLE COVERS SHALL HAVE NON-PENETRATION PICK HOLES.

DRAIN MANHOLE FRAME AND COVER DETAIL
NOT TO SCALE



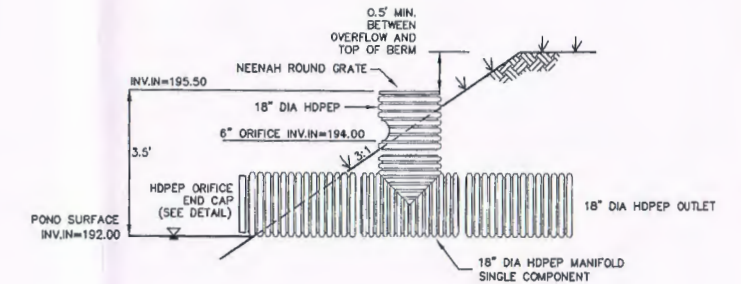
- NOTE:
1. ORIFICE OPENING MUST BE CUT TO EXACT SIZE AS SPECIFIED.
2. ALL OUTLETS WITH AN ORIFICE CAP MUST BE EQUIPPED WITH A TRASH RACK.

ORIFICE END CAP DETAIL
NOT TO SCALE

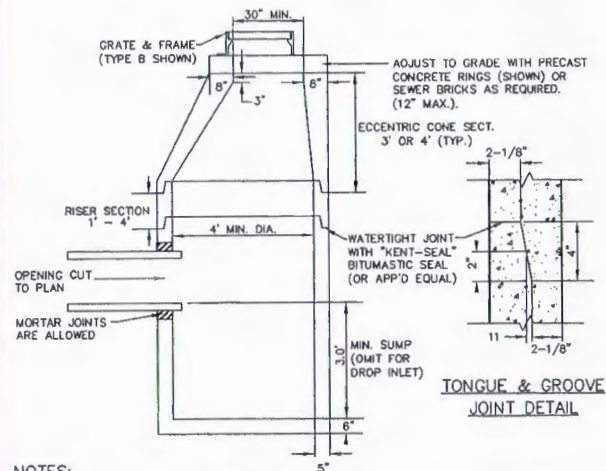


R-4343 DITCH GRATE WITH FRAME

MOUNTING TO STRUCTURE



WP3 - WET POND OUTLET DETAIL
NOT TO SCALE

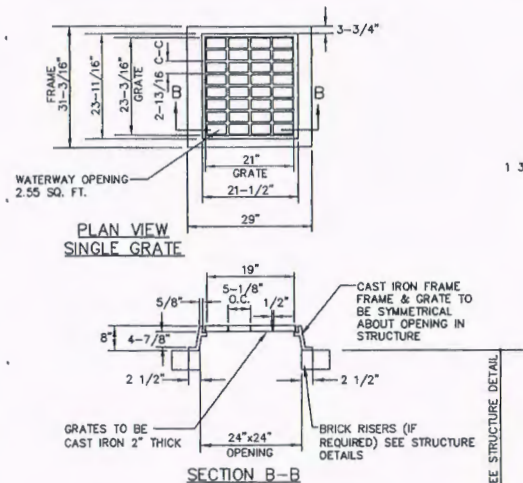


NOTES:

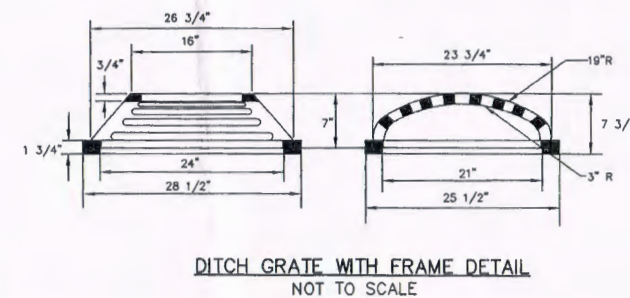
- ALL SECTIONS SHALL BE CONCRETE, CLASS AA, (4,000 PSI), CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQ. IN. PER L.F. IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.
- THE TONGUE OR GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQ. IN. PER L.F.
- RISERS OF 1'-4" MAY BE USED TO REACH THE DESIRED ELEVATION.
- STEPS ARE NOT ALLOWED.
- A 6" STONE BEDDING IS REQUIRED.
- BACKFILL AROUND STRUCTURE SHALL BE 3 IN MINUS SUITABLE MATERIAL.

MATERIALS & CONSTRUCTION TO NHDOT STANDARDS

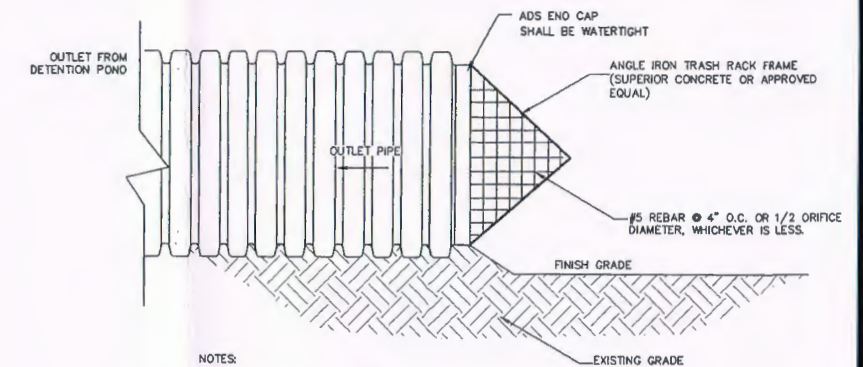
TYPICAL CATCH BASIN DETAIL
NOT TO SCALE



FRAME AND GRATE - TYPE B ALT 1
NOT TO SCALE



DITCH GRATE WITH FRAME DETAIL
NOT TO SCALE



NOTES:

- ALL POND OUTLETS ARE TO BE EQUIPPED WITH THE ABOVE SHOWN TRASH RACK.

TRASH RACK DETAIL
NOT TO SCALE

PROJECT NO. 08-0716-1

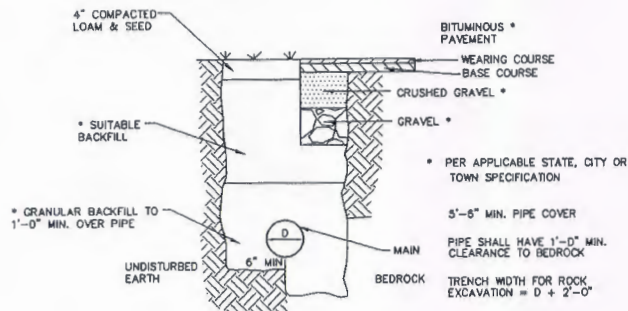
REVISIONS	DATE	DESCRIPTION
	3/14/2012	REVISED PER NHDES AOT REVIEW COMMENTS

CONSTRUCTION DETAILS PREPARED FOR:
GRANITE MEADOWS
TAX MAP 22 LOT 9
OLD MANCHESTER ROAD - RAYMOND, NEW HAMPSHIRE

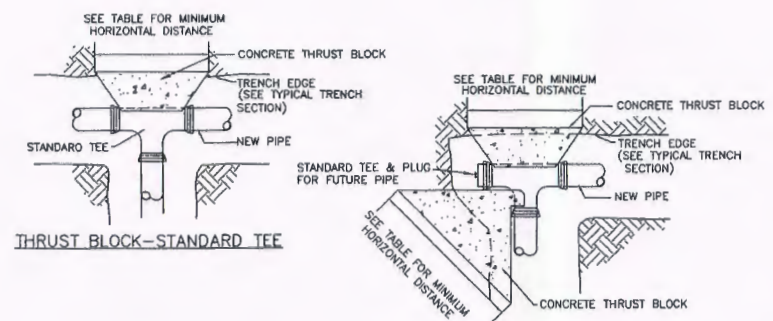
PREPARED FOR:
PD ASSOCIATES, LLC
5 DARTMOUTH DRIVE, SUITE #301
AUBURN, NH 03032
SCALE: AS SHOWN

DATE: DECEMBER 5, 2008

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SHEET NO. C3 OF C8



TYPICAL WATER LINE TRENCH DETAIL
NOT TO SCALE

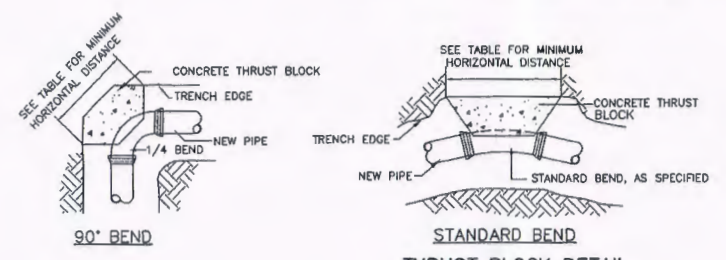


THRUST BLOCK-STANDARD TEE

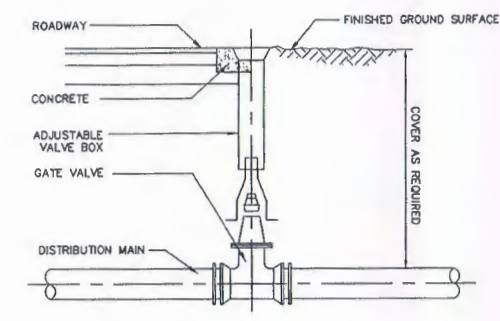
THRUST BLOCK-STANDARD TEE & PLUG

THRUST BLOCK TABLE

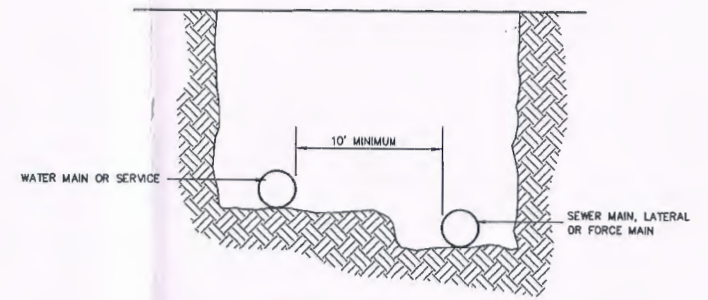
SIZE	TYPE	HORIZONTAL DISTANCE		VERTICAL DISTANCE
		IN SAND OR GRAVEL	IN ROCK	
4"	TEE BRANCH	2'-0"	2'-0"	2'-0"
	90° BEND	2'-0"	2'-0"	2'-0"
	45° BEND	2'-0"	2'-0"	2'-0"
6"	TEE BRANCH	2'-0"	2'-0"	2'-0"
	90° BEND	2'-0"	2'-0"	2'-0"
	45° BEND	2'-0"	2'-0"	2'-0"
8"	TEE BRANCH	2'-6"	2'-0"	2'-8"
	90° BEND	2'-6"	2'-0"	2'-8"
	45° BEND	2'-6"	2'-0"	2'-8"
10"	TEE BRANCH	3'-0"	2'-0"	3'-0"
	90° BEND	3'-0"	2'-0"	3'-0"
	45° BEND	2'-6"	2'-0"	2'-8"
12"	TEE BRANCH	4'-0"	2'-0"	3'-0"
	90° BEND	4'-0"	3'-0"	4'-0"
	45° BEND	3'-6"	2'-0"	3'-0"
16"	TEE BRANCH	4'-0"	3'-0"	4'-6"
	90° BEND	5'-0"	4'-0"	5'-0"
	45° BEND	4'-0"	3'-0"	4'-0"
20"	TEE BRANCH	5'-0"	3'-0"	4'-0"
	90° BEND	6'-0"	4'-0"	5'-0"
	45° BEND	4'-6"	3'-0"	4'-6"
	22 1/2° BEND OR LESS	2'-0"	3'-0"	3'-0"



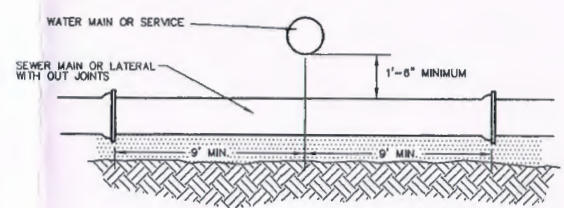
STANDARD BEND
THRUST BLOCK DETAIL
NOT TO SCALE



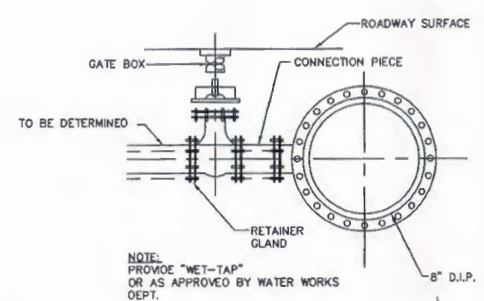
TYPICAL WATER & GAS GATE VALVE
NOT TO SCALE



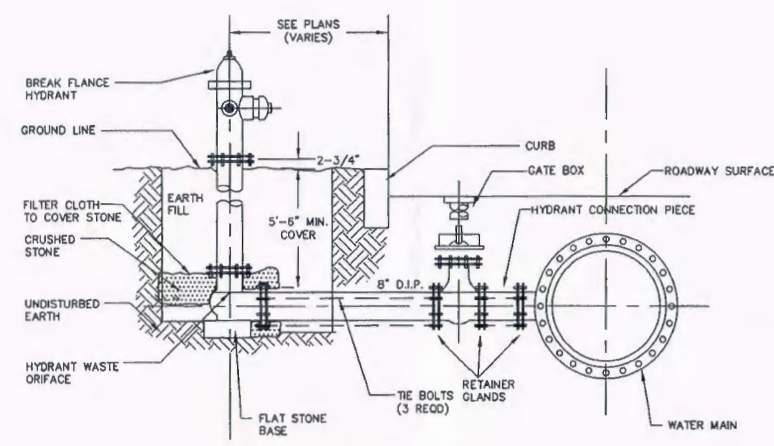
PARALLEL INSTALLATION



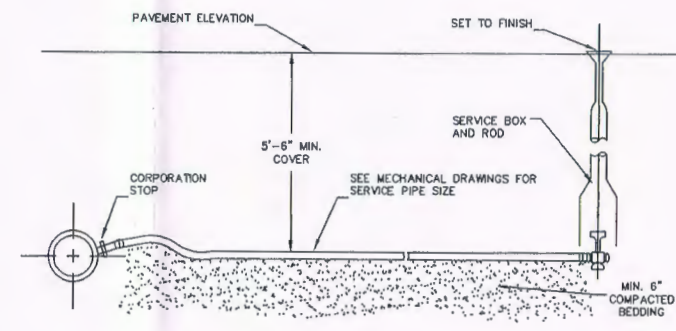
MAIN CROSSINGS
WATER PIPE/SEWER PIPE SEPARATION
NOT TO SCALE



TYPICAL WATER MAIN CONNECTION
NOT TO SCALE



TYPICAL HYDRANT INSTALLATION
NOT TO SCALE



TYPICAL WATER SERVICE CONNECTION
NOT TO SCALE

REVISIONS

DATE	DESCRIPTION

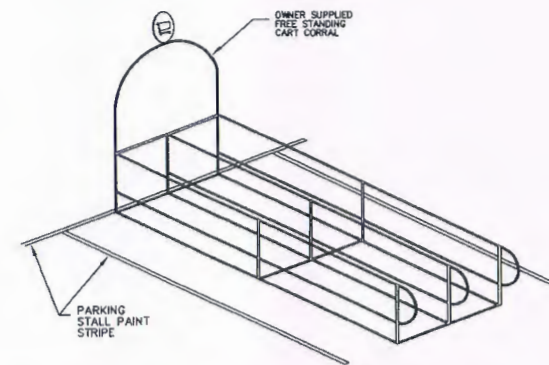
CONSTRUCTION DETAILS PREPARED FOR:
GRANITE MEADOWS
TAX MAP 22 LOT 9
OLD MANCHESTER ROAD - RAYMOND, NEW HAMPSHIRE

PREPARED FOR:
PD ASSOCIATES, LLC
5 DARTMOUTH DRIVE, SUITE #301
AUBURN, NH 03032
SCALE: AS SHOWN
DATE: DECEMBER 5, 2008

PROJECT NO. 08-0716-1

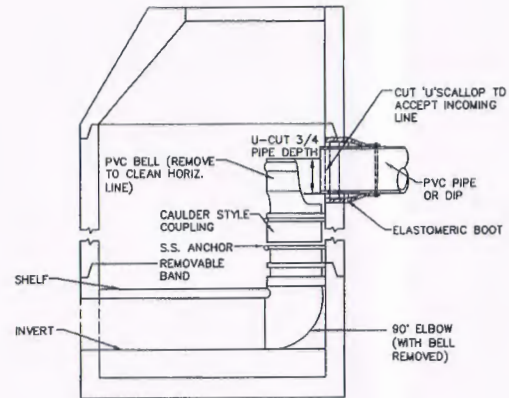
Woodland Design Group
5 Dartmouth Drive, Suite 301, Auburn, NH 03032
Civil Engineering Land Planning Transportation Engineering
Phone 603-641-9500 Fax 603-641-9550

SHEET NO. C4 OF C8

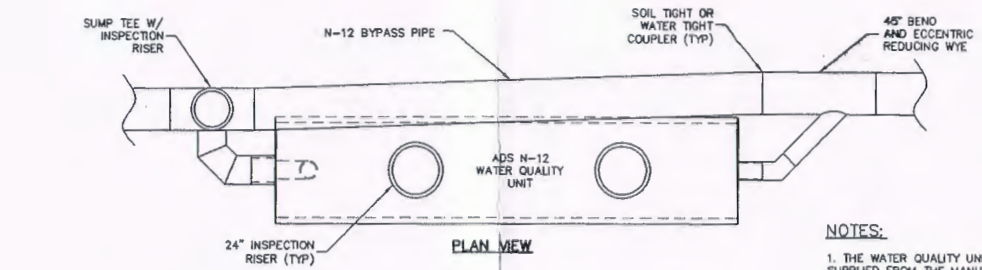


CART CORRAL - OWNER FURNISHED & INSTALLED
NOT TO SCALE

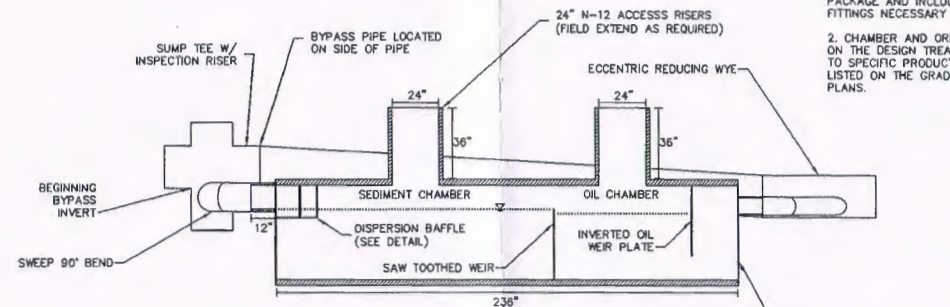
SIZE GUIDE:
1-8" or 10" DROP — 4'-0" DIA. M.H.
2-8" or 10" DROP — 5'-0" DIA. M.H.
1-12" — 1-15"



INSIDE DROP MANHOLE
NOT TO SCALE



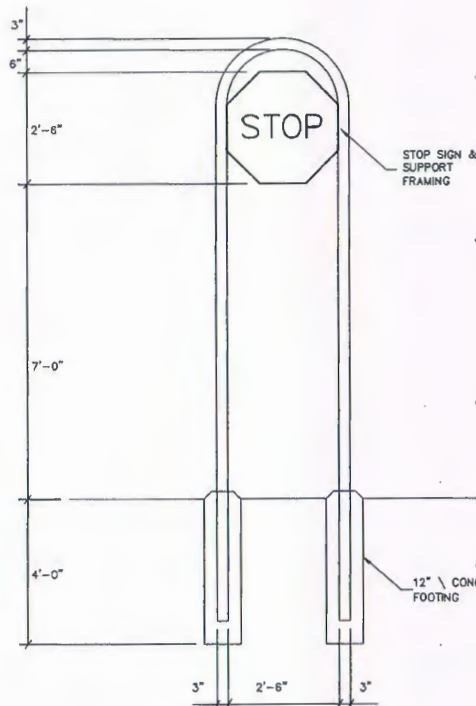
PLAN VIEW



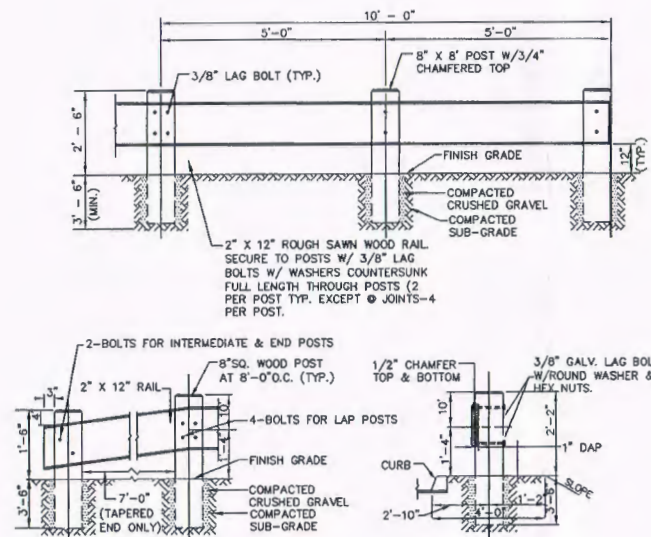
ELEVATION VIEW

ADS WATER QUALITY UNIT
NOT TO SCALE

- NOTES:**
1. THE WATER QUALITY UNIT (WQU) IS SUPPLIED FROM THE MANUFACTURER AS A PACKAGE AND INCLUDES ALL PIPING AND FITTINGS NECESSARY TO INSTALL THE SYSTEM.
 2. CHAMBER AND ORIFICE SIZES ARE BASED ON THE DESIGN TREATMENT FLOW. REFER TO SPECIFIC PRODUCT MODEL NUMBER AS LISTED ON THE GRADING AND DRAINAGE PLANS.

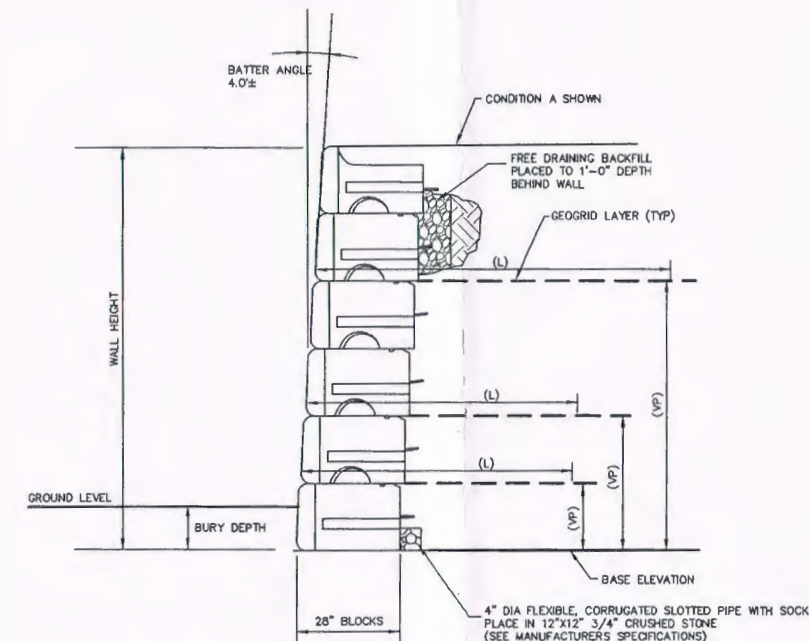


STOP SIGN
NOT TO SCALE



WOOD BEAM GUARD RAIL
NOT TO SCALE

NOTE:
ALL TIMBERS SHALL BE PRESSURED TREATED.
TYPE OF MATERIALS AND METHOD OF INSTALLATION SHALL BE IN ACCORDANCE WITH N.H. D.O.T. STANDARD SPECIFICATIONS.



NOTES

1. (VP) = VERTICAL PLACEMENT FOR GEOGRID LAYERS. MEASUREMENTS ARE FROM THE BASE ELEVATION.
2. (L) = LENGTH OF GEOGRID. MEASUREMENTS ARE FROM THE FRONT FACE OF THE BLOCK.

TYPICAL GEOGRID WALL
28" GEOCONNECTOR BLOCKS
NOT TO SCALE

REVISIONS	
DATE	DESCRIPTION
5/20/2011	REVISED PER NHDES AOT

CONSTRUCTION DETAILS PREPARED FOR:
GRANITE MEADOWS
TAX MAP 22 LOT 9
OLD MANCHESTER ROAD - RAYMOND, NEW HAMPSHIRE

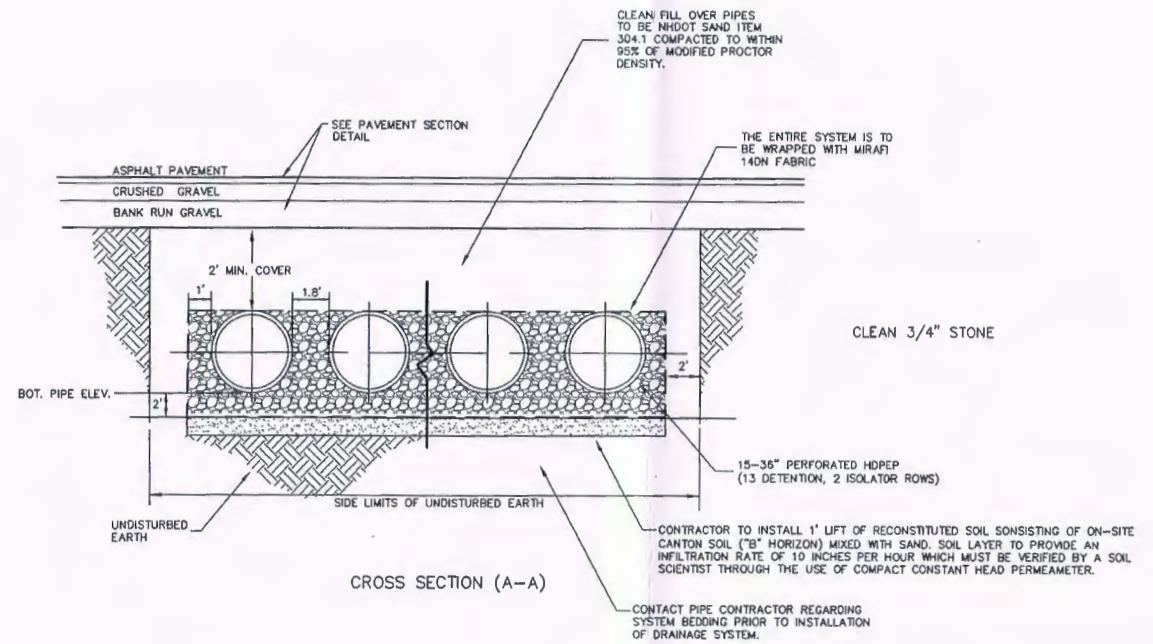
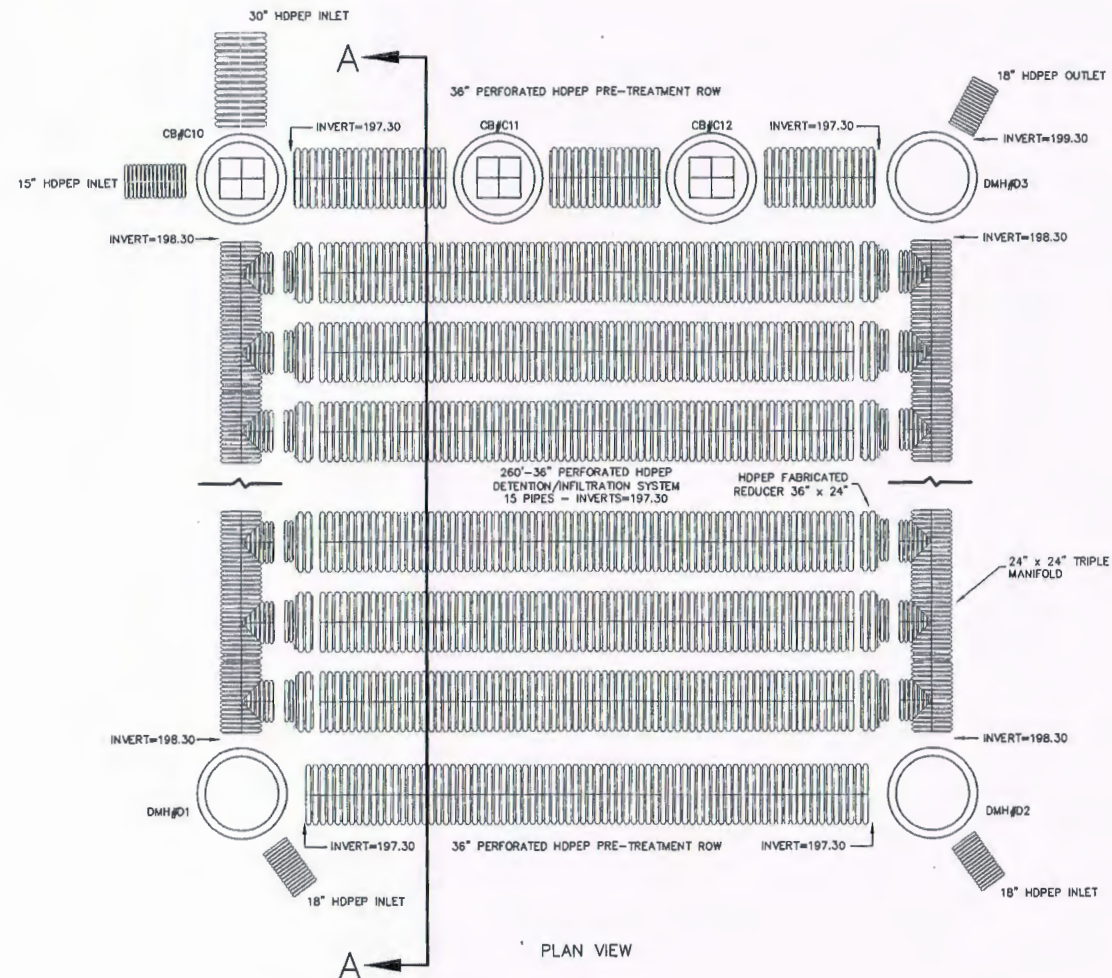
PREPARED FOR:
PD ASSOCIATES, LLC
15 DARTMOUTH DRIVE, SUITE #201
AUBURN, NH 03032
SCALE: AS SHOWN

DATE: DECEMBER 5, 2008

PROJECT NO. 08-0716-1

Woodland Design Group
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SHEET NO. C5 OF C8



UNDERGROUND INFILTRATION SYSTEM - UD1 DETAIL
NOT TO SCALE

REVISIONS	
DATE	DESCRIPTION
5/20/2011	REVISED PER NHDES AOT
3/14/2012	REVISED PER NHDES AOT REVIEW COMMENTS

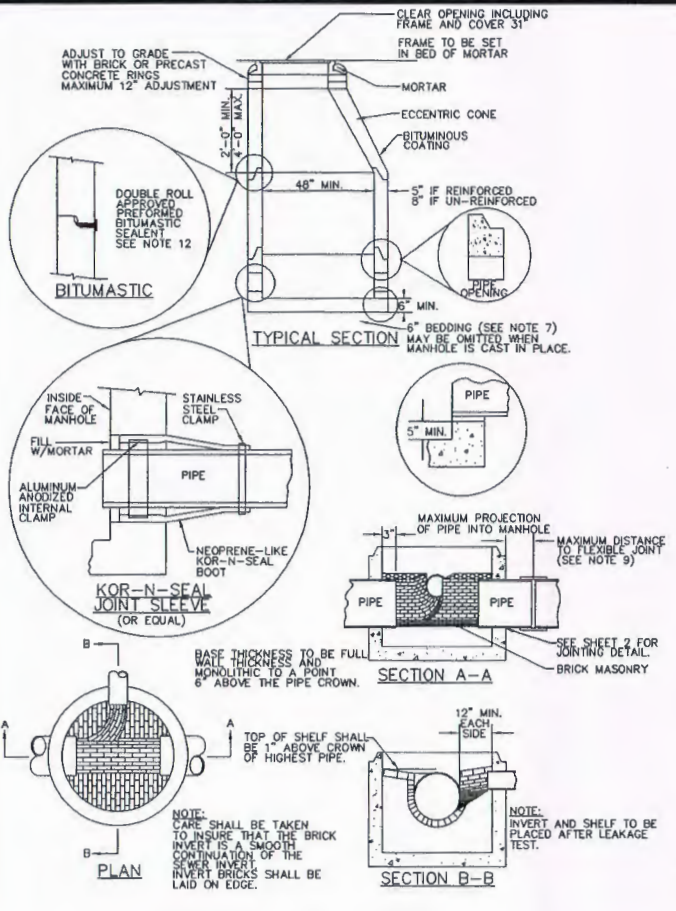
CONSTRUCTION DETAILS PREPARED FOR:
GRANITE MEADOWS
TAX MAP 22 LOT 9
OLD MANCHESTER ROAD - RAYMOND, NEW HAMPSHIRE

PREPARED FOR:
PD ASSOCIATES, LLC
15 DARTMOUTH DRIVE, SUITE #201
AUBURN, NH 03032
SCALE: AS SHOWN
DATE: DECEMBER 5, 2008

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SHEET NO. C6 OF C8



NOTES:

- IT IS THE INTENTION THAT THE MANHOLE, INCLUDING ALL COMPONENT PARTS, HAVE ADEQUATE SPACE, STRENGTH AND LEAKPROOF QUALITIES CONSIDERED NECESSARY FOR THE INTENDED SERVICE REQUIREMENTS AND CONFIGURATIONS SHALL BE AS SHOWN ON THE DRAWING. MANHOLES MAY BE AN ASSEMBLY OF PRECAST SECTIONS, WITH OR WITHOUT STEEL REINFORCEMENT, WITH ADEQUATE JOINTING, OR CONCRETE CAST MONOLITHICALLY IN PLACE WITH OR WITHOUT REINFORCEMENT. IN ANY APPROVED MANHOLE, THE COMPLETE STRUCTURE SHALL BE OF SUCH MATERIAL AND QUALITY AS TO WITHSTAND LOADS OF 8 TONS (H-20 LOADING) WITHOUT FAILURE AND PREVENT LEAKAGE IN EXCESS OF ONE GALLON PER DAY PER VERTICAL FOOT OF MANHOLE, CONTINUOUSLY FOR THE LIFE OF THE STRUCTURE. A PERIOD GENERALLY IN EXCESS OF 25 YEARS IS TO BE UNDERSTOOD IN BOTH CASES. MANHOLE STRUCTURES SHALL HAVE A LIFE IN EXCESS OF 25 YEARS.
- BARRELS AND CONE SECTIONS SHALL BE PRECAST REINFORCED OR NON-REINFORCED CONCRETE, OR FOUNDED IN PLACE REINFORCED OR NON-REINFORCED CONCRETE. PRECAST CONCRETE BARREL SECTIONS, CONES AND BASES SHALL CONFORM TO ASTM C478. ALL PRECAST SECTIONS AND BASES SHALL HAVE THE DATE OF MANUFACTURE AND THE NAME TRADEMARK OF THE MANUFACTURER IMPRESSED OR INDELIBLY MARKED ON THE SIDE WALL.
- ALL SEWERS, MANHOLES AND FORCEMAINS SHALL BE TESTED FOR WATER TIGHTNESS BY USE OF EITHER WATER OR LOW PRESSURE AIR TESTS. LOW PRESSURE AIR TESTS SHALL CONFORM TO ASTM C828.
- INVERTS AND SHELVES: MANHOLES SHALL HAVE A BRICK PAVED SHELF AND INVERT CONSTRUCTED TO CONFORM TO THE SIZE OF PIPE AND FLOW. AT CHANGES IN DIRECTION, THE INVERTS SHALL BE LAID OUT IN CURVES OF THE LONGEST RADIUS POSSIBLE TANGENT TO THE CENTER LINE OF THE SEWER PIPES. SHELVES SHALL BE CONSTRUCTED TO THE ELEVATION OF THE HIGHEST PIPE CROWN AND SLOPE TO DRAIN TOWARD THE FLOWING THROUGH CHANNEL. UNDERLAYMENT OF INVERT AND SHELF SHALL CONSIST OF BRICK MASONRY. INVERTS AND SHELVES SHALL BE PLACED AFTER TESTING ALL BRICK MASONRY FOR SHELF, INVERT AND GRADE ADJUSTMENT SHALL COMPLY WITH ASTM C32, CLAY OR SHALE FOR GRADE SS HAND BRICK.
- 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 #8 SIEVE
 WHERE ORDERED BY THE ENGINEER TO STABILIZE THE BASE, CRUSHED STONE 0.5 INCH TO 1.5 INCH SHALL BE USED.
- FLEXIBLE JOINT: A FLEXIBLE JOINT SHALL BE PROVIDED WITHIN THE FOLLOWING DISTANCES FROM MANHOLE JOINTS:
 - RCP CI PIPE - ALL SIZES - WITHIN 48"
 - PVC GREATER THAN 15" - WITHIN 60"
- SHALLOW MANHOLE: IN LIEU OF A CONE SECTION, WHEN MANHOLE DEPTH IS LESS THAN 6 FEET, A REINFORCED CONCRETE SLAB COVER MAY BE USED HAVING AN ECCENTRIC ENTRANCE OPENING AND CAPABLE OF SUPPORTING H-20 LOADS.
- HORIZONTAL JOINTS BETWEEN SECTIONS OF PRECAST CONCRETE BARRELS SHALL BE OF THE TYPE WHICH SHALL DEPEND FOR WATER TIGHTNESS UPON AN ELASTOMERIC OR MASTIC-LIKE SEALANT.
- PIPE TO MANHOLE JOINTS SHALL BE ELASTOMERIC, RUBBER SLEEVE WITH WATER TIGHT JOINTS AT THE MANHOLE OPENING AND OPENING SURFACES; CAST INTO THE WALL OR SECURED WITH STAINLESS STEEL CLAMPS. ELASTOMERIC SEALING RING CAST IN MANHOLE OPENING WITH SEAL FORMED ON THE SURFACE OF THE PIPE BY COMPRESSION OF THE RING AND NON-SHRINK GROUTED JOINTS WHERE WATER TIGHT BONDING TO THE MANHOLE AND PIPE CAN BE OBTAINED.
- FOR BITUMASTIC TYPE JOINTS THE AMOUNT OF SEALANT SHALL BE SUFFICIENT TO FILL AT LEAST 75% OF THE JOINT CAVITY APPROVED BITUMASTIC SEALANTS:
 - RAM - NEK
 - KENT SEAL NO. 2 DOUBLE ROLL
- MORTAR AND OTHER SEALANTS SHALL CONFORM TO ENV-WS 706.06 SECTION (K)(11) THRU (15)
- UNLESS OTHERWISE NOTED ALL GRANULAR MATERIAL SHALL BE PLACED IN 12" LIFTS AND COMPACTED TO 92% OF THE MODIFIED PROCTOR TEST.

SANITARY SEWER MANHOLE
NOT TO SCALE

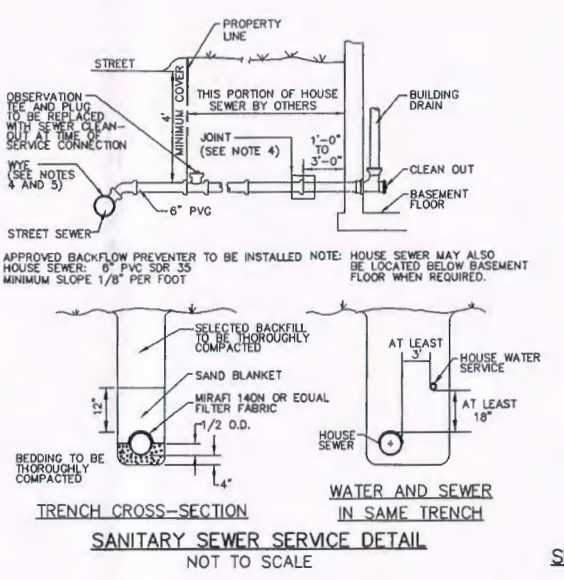
NOTES:

- MINIMUM SIZE PIPE FOR HOUSE SERVICE SHALL BE SIX INCHES MINIMUM SIZE FOR STREET SEWER LINES SHALL BE 8 INCHES.
- PIPE AND JOINT MATERIALS
 - PVC SEWER PIPE AND FITTINGS USED FOR GRAVITY SYSTEMS SHALL CONFORM TO ASTM D-3034 OR ASTM F679 (SDR 35 MINIMUM). JOINTS FOR PVC PIPE SHALL BE OIL RESISTANT COMPRESSION RINGS OF ELASTOMERIC MATERIAL CONFORMING TO ASTM D-3212, TYPE SHALL BE PUSH-ON, BELL AND SPIGOT. PVC PIPE USED FOR SEWER FORCEMAINS SHALL CONFORM TO ASTM D2241 OR D1784. FORCEMAINS SHALL BE DESIGNED TO WITHSTAND HYDROSTATIC PRESSURES OF AT LEAST 2 1/2 TIMES THE DESIGN TOTAL DYNAMIC HEAD.
 - PIPE AND JOINT MATERIALS
 - PIPE AND FITTINGS SHALL CONFORM TO THE FOLLOWING STANDARDS OF THE UNITED STATES OF AMERICA STANDARDS INSTITUTE:
 - A21.50 THICKNESS DESIGN OF DUCTILE IRON PIPE AND WITH ASTM A-536 DUCTILE IRON CASTINGS
 - A21.51 DUCTILE IRON PIPE, CENTRIFUGAL CAST IN METAL MOLDS OR SAND MOLDS FOR WATER OR OTHER LIQUIDS.
 - JOINTS SHALL BE OF MECHANICAL TYPE. JOINTS AND GASKETS SHALL CONFORM TO THE FOLLOWING STANDARDS OF THE UNITED STATES OF AMERICA STANDARDS INSTITUTE:
 - A21.11 RUBBER GASKET JOINTS FOR CAST IRON PRESSURE PIPE FITTINGS.
 - DAMAGED PIPE SHALL BE REJECTED AND REMOVED FROM THE JOB SITE.
 - JOINTS SHALL BE DEPENDENT UPON A NEOPRENE OR FROMELASTOMERIC GASKET FOR WATER TIGHTNESS. ALL JOINTS SHALL BE PROPERLY MATCHED WITH THE PIPE MATERIALS USED. WHERE DIFFERING MATERIALS ARE TO BE CONNECTED, AS AT THE STREET SEWER WYE OR AT THE FOUNDATION WALL, APPROPRIATE MANUFACTURED ADAPTERS SHALL BE USED.
 - WHERE WYE IS NOT AVAILABLE IN THE EXISTING STREET SEWER, AN APPROPRIATE CONNECTION SHALL BE MADE, FOLLOWING MANUFACTURERS INSTRUCTIONS USING A BOLTED CLAMPED OR EPOXY-CEMENTED SADDLE TAPPED INTO A SMOOTHLY DRILLED OR SAWN OPENING IN THE SEWER. THE PRACTICE OF BREAKING AN OPENING WITH A SLEDGE HAMMER, STUFFING CLOTH OR OTHER SUCH MATERIAL AROUND THE JOINT, OR APPLYING MORTAR TO HOLD THE CONNECTION, AND ANY OTHER SIMILAR CRUDE PRACTICES OR HEFTY IMPROVISATIONS WILL NOT BE PERMITTED. THE CONNECTION SHALL BE CONCRETE ENCASED AS SHOWN IN THE DETAIL.
 - PIPE INSTALLATION: THE PIPE SHALL BE HANDLED, PLACED AND JOINTED IN ACCORDANCE WITH INSTALLATION GUIDES OF THE APPROPRIATE MANUFACTURER. IT SHALL BE CAREFULLY BEDDED ON A 4 INCH LAYER OF CRUSHED STONE AND/OR GRAVEL AS SPECIFIED IN NOTE 10. BEDDING AND RE-FILL FOR A DEPTH OF 12 INCHES ABOVE THE TOP OF THE PIPE SHALL BE CAREFULLY AND THOROUGHLY TAMPED BY HAND OR WITH THE APPROPRIATE MECHANICAL DEVICES.

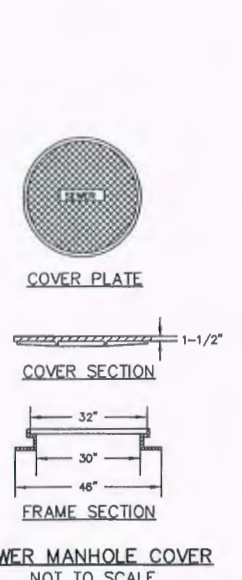
THE PIPE SHALL BE LAID AT A CONTINUOUS AND CONSTANT GRADE FROM THE STREET SEWER CONNECTION TO THE HOUSE FOUNDATION AT A GRADE OF NOT LESS THAN 1/8 INCH PER FOOT. PIPE JOINTS MUST BE MADE UNDER DRY CONDITIONS. IF WATER IS PRESENT, ALL NECESSARY STEPS SHALL BE TAKEN TO DEWATER THE TRENCH.

TESTING: THE COMPLETED HOUSE SEWER SHALL BE SUBJECTED TO A LEAKAGE TEST IN ANY OF THE FOLLOWING MANNERS: (PRIOR TO BACKFILLING)

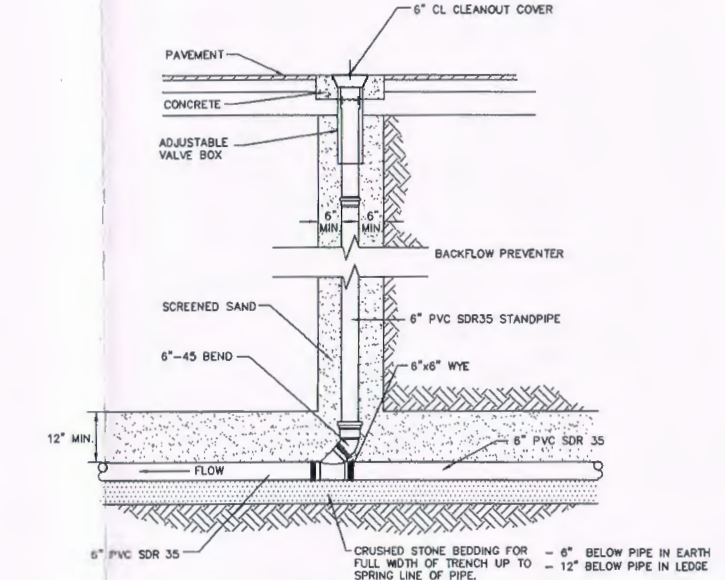
- AN OBSERVATION TEE SHALL BE INSTALLED AS SHOWN AND, WHEN READY FOR TESTING, AN INFLATABLE BLADDER OR PLUG SHALL BE INSERTED JUST UPSTREAM FROM THE OPENING IN THE TEE. AFTER INFLATION, WATER SHALL BE INTRODUCED INTO THE SYSTEM ABOVE THE PLUG TO A HEIGHT OF 5 FEET ABOVE THE LEVEL OF THE PLUG.
- THE PIPE SHALL BE LEFT EXPOSED AND LIBERALLY HOSED WITH WATER TO SIMULATE, AS NEARLY AS POSSIBLE, WET TRENCH CONDITIONS OR, IF THE TRENCH IS DRY, THE GROUND WATER SHALL BE PERMITTED TO RISE IN THE TRENCH OVER THE PIPE. INSPECTIONS FOR LEAKS SHALL BE MADE THROUGH THE CLEAN OUT WITH A FLASHLIGHT.
- DRY FLUORESCENCE DYE SHALL BE SPRINKLED INTO THE TRENCH OVER THE PIPE. IF THE TRENCH IS DRY, THE PIPE SHALL BE LIBERALLY HOSED WITH WATER, OR IF THE TRENCH IS WET, GROUND WATER SHALL BE PERMITTED TO RISE IN THE TRENCH OVER THE PIPE. OBSERVATION FOR LEAKS SHALL BE MADE IN THE FIRST DOWNSTREAM MANHOLE. LEAKAGE OBSERVED IN ANY OF THE ABOVE TESTS SHALL BE CAUSE FOR NON-ACCEPTANCE AND THE PIPE SHALL BE DUG-UP IF NECESSARY AND RE-LAID SO AS TO ASSURE WATER-TIGHTNESS.
- ILLEGAL CONNECTION: NOTHING BUT SANITARY WASTE FLOW FROM TOILETS, SINKS, LAUNDRY ETC. SHALL BE PERMITTED. ROOF LEADERS, FOOTING DRAINS OR SUMP PUMPS OR OTHER SIMILAR CONNECTIONS CARRYING RAIN WATER, DRAINAGE, OR GROUND WATER, SHALL NOT BE PERMITTED.
- WATER SERVICE SHOULD NOT BE LAID IN SAME TRENCH AS SEWER SERVICE. BUT WHEN NECESSARY, SHALL BE PLACED ABOVE AND TO ONE SIDE OF THE SEWER AS SHOWN.
- LOCATION: THE LOCATION OF THE WYE SHALL BE RECORDED AND FILED IN THE MUNICIPAL RECORDS. IN ADDITION, A FERROUS MATERIAL ROD OR PIPE SHALL BE PLACED OVER THE WYE TO AID IN LOCATING THE BURIED PIPE WITH A DIP NEEDLE OR PIPEFINDER.
- CHIMNEYS: NOT PERMITTED
- UNLESS OTHERWISE NOTED ALL GRANULAR MATERIAL SHALL BE PLACED IN 12" LIFTS AND COMPACTED TO 92% OF THE MODIFIED PROCTOR TEST.



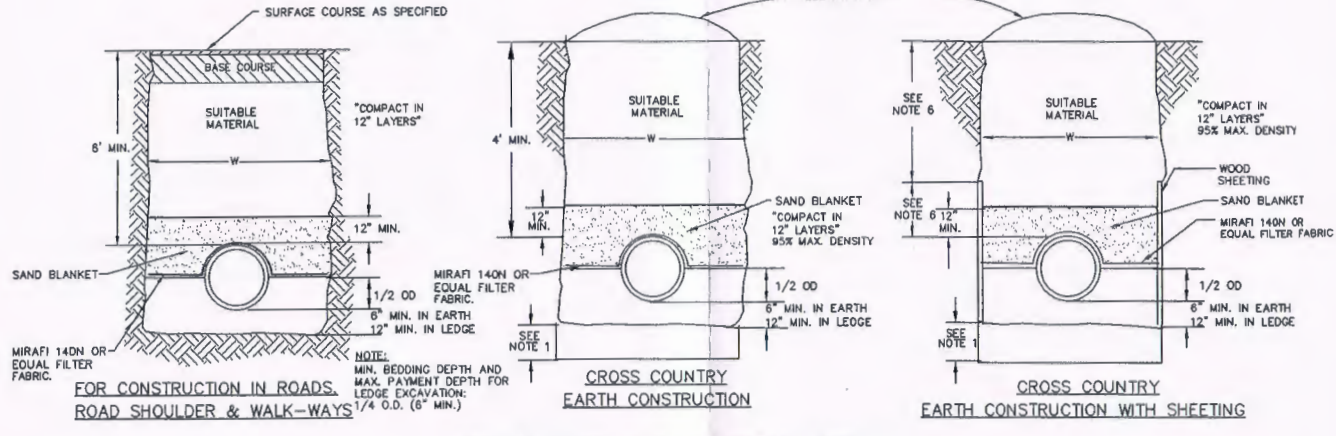
SANITARY SEWER SERVICE DETAIL
NOT TO SCALE



SEWER MANHOLE COVER
NOT TO SCALE



SEWER SERVICE CLEANOUT
NOT TO SCALE



TYPICAL SANITARY SEWER TRENCH DETAIL
NOT TO SCALE

NOTES:

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

BEDDING: CRUSHED STONE FREE FROM CLAY, LOAM, ORGANIC MATTER AND MEETING ASTM C33 STONE SIZE NO. 67.

 - 100% PASSING 1 INCH SCREEN
 - 90-100% PASSING 3/4 INCH SCREEN
 - 20-55% PASSING 3/8 INCH SCREEN
 - 0-10% PASSING #4 SIEVE
 - 0-5% PASSING #8 SIEVE
 WHERE ORDERED BY THE ENGINEER TO STABILIZE THE TRENCH BASE, GRADED CRUSHED STONE 1/2 INCH TO 1-1/2 INCH SHALL BE USED.
- SAND BLANKET: GRADED CLEAN SAND FREE FROM ORGANIC MATTER, SO THAT 90-100% PASSES A 1/2 INCH SIEVE AND NOT MORE THAN 15% WILL PASS A # 200 SIEVE. BLANKET MAY BE OMITTED FOR CAST-IRON DUCTILE IRON AND REINFORCED CONCRETE PIPE PROVIDED HOWEVER, THAT NO STONE LARGER THAN 2" IS IN CONTACT WITH THE PIPE.
- FILTER FABRIC SHALL BE INSTALLED ABOVE PIPE MIRAFI 140N OR EQUAL.
- SUITABLE MATERIAL: IN ROADS, ROAD SHOULDERS, WALK-WAYS AND TRAVELED WAYS, SUITABLE MATERIAL FOR TRENCH BACKFILL SHALL BE THE NATURAL MATERIAL EXCAVATED DURING THE COURSE OF CONSTRUCTION, BUT SHALL EXCLUDE DEBRIS, PIECES OF PAVEMENT, ORGANIC MATTER, TOP SOIL, ALL WET OR SOFT MUCK, PEAT OR CLAY. ALL EXCAVATED LEDE MATERIAL, AND ALL ROCKS OVER SIX INCHES IN LARGEST DIMENSION, OR ANY MATERIAL WHICH, AS DETERMINED BY THE ENGINEER, WILL NOT PROVIDE SUFFICIENT SUPPORT OR MAINTAIN THE COMPLETED CONSTRUCTION IN A STABLE CONDITION.

IN CROSS-COUNTRY CONSTRUCTION, SUITABLE MATERIAL SHALL BE AS DESCRIBED ABOVE, EXCEPT THAT THE ENGINEER MAY PERMIT THE USE OF TOP SOIL, LOAM, MUCK OR PEAT, IF HE IS SATISFIED THAT THE COMPLETED CONSTRUCTION WILL BE ENTIRELY STABLE AND PROVIDED THAT EASY ACCESS TO THE SEWER FOR MAINTENANCE AND POSSIBLY RECONSTRUCTION, WHEN NECESSARY WILL BE PRESERVED.
- BASE COURSE, IF ORDERED BY THE ENGINEER, SHALL MEET THE REQUIREMENTS OF DIVISION 300 OF THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OF THE STATE OF NEW HAMPSHIRE, DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS.
- WOOD SHEETING, IF REQUIRED, WHERE SHEETING IS PLACED ALONGSIDE THE PIPE AND EXTENDS BELOW MID-DIAMETER, IT SHALL BE CUT OFF AND LEFT IN PLACE TO AN ELEVATION NOT LESS THAN 1 FOOT ABOVE THE TOP OF THE PIPE. WHERE SHEETING IS ORDERED BY THE ENGINEER TO BE LEFT IN PLACE, IT SHALL BE CUT OFF AT LEAST 3 FEET BELOW FINISHED GRADE, BUT NOT LESS THAN 1 FOOT ABOVE THE TOP OF THE PIPE.
- ALL SEWERS AT 8 PERCENT OR GREATER SLOPE SHALL HAVE TRENCH DAMS INSTALLED.
- UNLESS OTHERWISE NOTED ALL GRANULAR MATERIAL SHALL BE PLACED IN 12" LIFTS AND COMPACTED TO 92% OF THE MODIFIED PROCTOR TEST.

REVISIONS	DATE	DESCRIPTION

CONSTRUCTION DETAILS PREPARED FOR:
GRANITE MEADOWS
TAX MAP 22 LOT 9
OLD MANCHESTER ROAD - RAYMOND, NEW HAMPSHIRE

PREPARED FOR:
PD ASSOCIATES, LLC
5 DARTMOUTH DRIVE, SUITE #301
AUBURN, NH 03032
SCALE: AS SHOWN
DATE: DECEMBER 5, 2008

Woodland Design Group
5 Dartmouth Drive, Suite 301, Auburn, NH 03032
Civil Engineering Land Planning Transportation Engineering
Phone 603-641-9500 Fax 603-641-9550
PROJECT NO. 08-0716-1
SHEET NO. C7 OF C8

CONSTRUCTION SEQUENCE

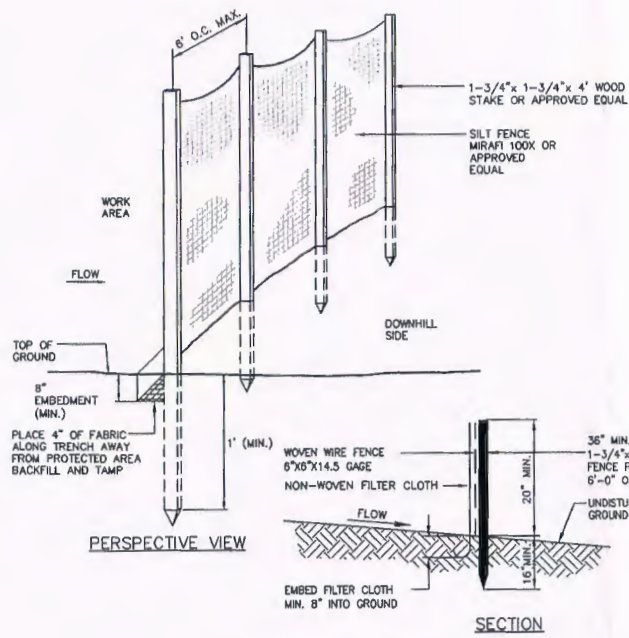
1. CONTRACTOR TO NOTIFY DIG-SAFE 72-HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. CUT AND CLEAR TREES AND BRUSH FROM CONSTRUCTION AREAS TO THE EXTENT NECESSARY. ALL BRANCHES, TOPS AND BRUSH TO BE PROPERLY DISPOSED OF BY CONTRACTOR.
3. PRIOR TO GRUBBING OF CLEARED AREAS, ALL SILTATION BARRIERS DESIGNED FOR USE AS TEMPORARY EROSION CONTROL MEASURES SHALL BE INSTALLED AS CALLED FOR ON PROJECT PLANS. INSTALL STABILIZED CONSTRUCTION ENTRANCES AT LOCATIONS OF CONSTRUCTION ACCESS AT LOCATION OF INTERSECTION WITH EXISTING PAVEMENT.
4. COMPLETE GRUBBING OPERATIONS. ALL STUMPS AND SIMILAR DEBRIS SHALL BE GROUND PROPERLY AND DISPOSED OF BY THE 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.
5. CONSTRUCT TEMPORARY CULVERTS AS NECESSARY TO FACILITATE CONSTRUCTION ACTIVITIES. ALL SUCH CROSSINGS SHALL BE PROTECTED WITH HAY BALE BARRIERS TO LIMIT EROSION.
6. CONSTRUCT CLOSED DRAINAGE SYSTEM, AND OTHER SUBSURFACE UTILITIES.
7. COMMENCE CONSTRUCTION OF DRIVEWAYS AND PARKING LOTS. PERFORM EXCAVATION ACTIVITIES REQUIRED TO ACHIEVE SUBGRADE ELEVATION. ALL EXCAVATED EMBANKMENTS, DITCHES, AND SWALES SHALL BE INSTALLED AND STABILIZED. ALL SWALES AND DITCHLINES SHALL BE PROTECTED FROM EROSION BY IMPLEMENTATION OF HAY BALE SILTATION FENCES AS SHOWN ON PROJECT PLANS. DIVERT STORMWATER RUNOFF THROUGH THE USE OF TEMPORARY CULVERTS, OR OTHER MEANS NECESSARY PRIOR TO THE COMPLETION OF A FUNCTIONAL STORM DRAINAGE SYSTEM. STORMWATER FLOWS ARE NOT TO BE DIRECTED TO INFILTRATION PONDS UNTIL CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED. SLOPES AND EMBANKMENTS SHALL BE STABILIZED BY TRACKING AND TEMPORARY SEEDING WITH WINTER RYE PRIOR TO TURF ESTABLISHMENT. ALL DITCHES AND SWALES SHALL ALSO BE STABILIZED PRIOR TO HAVING RUNOFF DIRECTED TO THEM.
8. 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.
9. PERFORM FINE GRADING OF DRIVEWAY AND PARKING LOT BASE MATERIALS, ALL AREAS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISH GRADE.
10. 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).
11. AFTER STABILIZATION REMOVE AND SUITABLY DISPOSE OF TEMPORARY EROSION CONTROL MEASURES. AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
 - A) BASE COURSE GRAVELS ARE INSTALLED IN AREAS TO BE PAVED
 - B) A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED
 - C) A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH STONE OR RIP-RAP HAS BEEN INSTALLED
 - D) EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED

EROSION CONTROL NOTES:

1. EXPOSED EARTHWORK SHALL BE CONFINED TO AS LIMITED AN AREA AS IS PRACTICAL AT ANY GIVEN TIME THROUGHOUT THE CONSTRUCTION SEQUENCE. AREAS DISTURBED BY CONSTRUCTION ACTIVITIES SHALL NOT BE LEFT UNSTABILIZED FOR A PERIOD EXCEEDING 15 DAYS.
2. TEMPORARY EROSION CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH PROJECT PLANS. IN ADDITION, SIMILAR MEASURES SHALL BE INSTALLED WHERE AND WHEN FIELD CONDITIONS, OR FIELD OPERATIONS OF THE INDIVIDUAL SITE CONTRACTOR MAY WARRANT. ALL TEMPORARY EROSION CONTROL MEASURES USED SHALL BE PERIODICALLY INSPECTED, CLEANED, MAINTAINED AND OTHERWISE KEPT IN AN EFFECTIVE OPERATIONAL MANNER THROUGHOUT THE CONSTRUCTION PERIOD.
3. ALL DISTURBED AREAS DESIGNATED TO TURF, SHALL RECEIVE A MINIMUM APPLICATION OF 4-INCHES OF LOAM (COMPACTED THICKNESS), PRIOR TO SEEDING AND MULCHING.
4. ALL SWALES AND DITCHLINES SHALL BE PERIODICALLY CLEANED OF DEPOSITED SEDIMENT SO AS TO MAINTAIN AN EFFECTIVE GRADE AND CROSS-SECTION.
5. BALED HAY USED FOR TEMPORARY EROSION CONTROL MEASURES SHALL BE DRY MOWINGS OF ACCEPTABLE HERBACEOUS GROWTH, FREE OF NOXIOUS WEEDS, DEBRIS, AND WOOD.
6. IN THE EVENT THAT DURING THE CONSTRUCTION OF ANY PORTION OF THIS PROJECT, A WINTER SHUTDOWN IS NECESSARY, THE CONTRACTOR SHALL STABILIZE ALL INCOMPLETE WORK AND PROVIDE FOR A SUITABLE METHOD OF DIVERTING RUNOFF IN ORDER TO ELIMINATE SHEET FLOW ACROSS FROZEN SURFACES.
 - A) ALL PROPOSED POST-DEVELOPMENT VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATED 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.
 - B) ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATED 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.
 - C) AFTER NOVEMBER 15TH, INCOMPLETE DRIVES OR PARKING SURFACES SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL PER NHDOT ITEM 304.3, OR IF CONSTRUCTION IS TO CONTINUE THROUGH THE WINTER SEASON BE CLEARED OF ANY ACCUMULATED SNOW AFTER EACH STORM EVENT.
7. DUST SHALL BE CONTROLLED BY THE USE OF WATER AS NECESSARY THROUGHOUT THE CONSTRUCTION PERIOD.
8. IN NO WAY ARE THOSE TEMPORARY EROSION CONTROL MEASURES INDICATED ON THESE PLANS TO BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR SHALL USE JUDGEMENT IN INSTALLING SUPPLEMENTARY EROSION CONTROL MEASURES WHERE AND WHEN SPECIFIC SITE CONDITIONS AND/OR CONSTRUCTION METHODOLOGIES MAY WARRANT.
9. ALL CONSTRUCTION WITHIN 100 FEET OF ANY WETLAND SHALL BE UNDERTAKEN WITH SPECIAL CARE TO AVOID EROSION AND SILTATION INTO THE WETLANDS.
10. STUMPS SHALL BE GROUND AND REMOVED FROM SITE.
11. ALL CUT AND FILL SLOPES SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISH GRADE.

SEEDING SPECIFICATIONS

1. SEED SHALL BE SPREAD UNIFORMLY BY BROADCASTING, DRILLING OR HYDROSEEDING, IF HYDROSEEDING, USE 4-TIMES THE RECOMMENDED RATE OF INOCULANT.
2. SEEDING FOR PERMANENT COVER SHALL OCCUR BETWEEN APRIL 15 AND OCTOBER 1. WHEN SEEDING BETWEEN MAY 15 AND SEPTEMBER 1, AREAS SEEDING SHALL BE MULCHED WITH HAY, STRAW OR OTHER ACCEPTABLE MATERIAL AT A RATE OF 2-TONS PER ACRE.
3. SEED MIXTURE FOR LAWN AREAS SHALL BE PER SECTION 644.22 "STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION", LATEST EDITION, AS PUBLISHED BY THE NHDOT.
4. ALL STEEP SLOPE AREAS (3:1 OR STEEPER) SHALL BE HYDROSEEDING AS PER SECTION 644.23 "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", LATEST EDITION, AS PUBLISHED BY THE NHDOT.



SILT FENCE DETAIL
NOT TO SCALE

CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

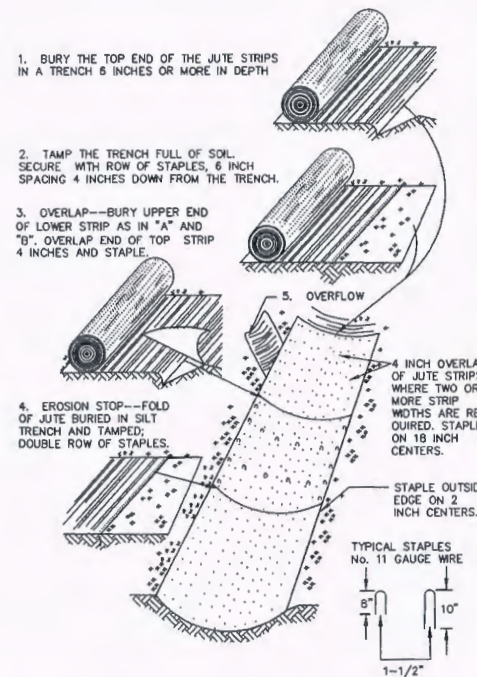
1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP, MID SECTION, AND BOTTOM.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6" INCHES, FOLDED AND STAPLED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

CONSTRUCTION SPECIFICATIONS

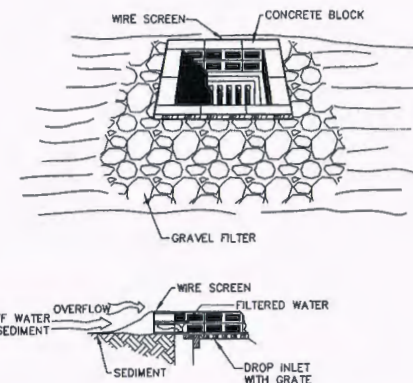
1. THE GEOTEXTILE FABRIC SHALL MEET THE DESIGN CRITERIA FOR SILT FENCES.
2. THE FABRIC SHALL BE EMBEDDED A MINIMUM OF 8 INCHES INTO THE GROUND AND THE SOIL COMPACTED OVER THE EMBEDDED FABRIC.
3. WOVEN WIRE FENCE SHALL BE FASTENED SECURELY TO THE FENCE POSTS WITH WIRE TIE OR STAPLES.
4. FILTER CLOTH SHALL BE FASTENED SECURELY TO THE WOVEN WIRE FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP, MID-SECTION, AND BOTTOM.
5. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED.
6. FENCE POSTS SHALL BE A MINIMUM OF 36 INCHES LONG AND DRIVEN A MINIMUM OF 18 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

1. 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.
2. 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.
3. 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.
4. 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.



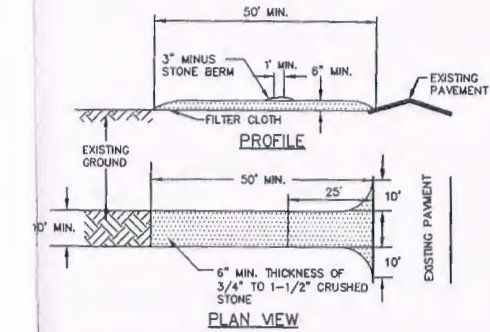
DETAIL FOR STABILIZING WITH JUTE MATTING
NOT TO SCALE



NOTES:

1. 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 ADJUTING. 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.
2. 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.
3. SEWER STONE OR OTHER CLEAN COARSE AGGREGATE SHOULD BE PLACED AGAINST THE BLOCK TO THE TOP OF THE BARRIER.

BLOCK & GRAVEL DROP INLET SEDIMENT FILTER
NOT TO SCALE



STABILIZED CONSTRUCTION ENTRANCE DETAIL
NOT TO SCALE

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. 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.

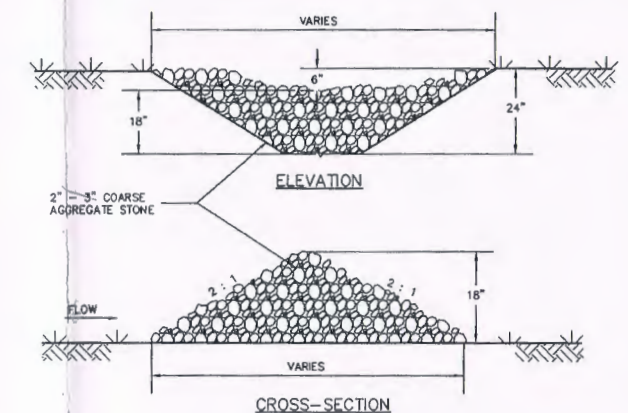
CONSTRUCTION SPECIFICATIONS

1. STONE FOR A STABILIZED CONSTRUCTION ENTRANCE SHALL BE 1 TO 2 INCH STONE, RECLAIMED STONE, OR RECYCLED CONCRETE EQUIVALENT.
2. 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.
3. THE THICKNESS OF THE STONE FOR THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 6 INCHES.
4. 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.
5. 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.
6. 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.
7. 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.
8. 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.

TURF ESTABLISHMENT SCHEDULE:

SEED BED PREPARATION:

1. PLACE 4-INCH (MINIMUM) COMPACTED THICKNESS OF CLEAN SUITABLE LOAM.
2. RAKE OUT LOAM TO FREE SOIL OF DEBRIS AND STONES GREATER THAN 1-INCH IN DIAMETER.
3. FINE GRADE SURFACE AND SUPPLEMENT WITH LOAM WHERE NEEDED TO CREATE A UNIFORM SURFACE.
4. APPLY AGRICULTURAL LIMESTONE AS PER SECTION 642 "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" LATEST EDITION, AS PUBLISHED BY THE NHDOT.
5. APPLY AGRICULTURAL FERTILIZER AS PER SECTION 643 "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" LATEST EDITION, AS PUBLISHED BY THE NHDOT.



STONE CHECK DAM DETAIL
NOT TO SCALE

REVISIONS	
DATE	DESCRIPTION
3/14/2012	REVISED PER NHDES AOT REVIEW COMMENTS

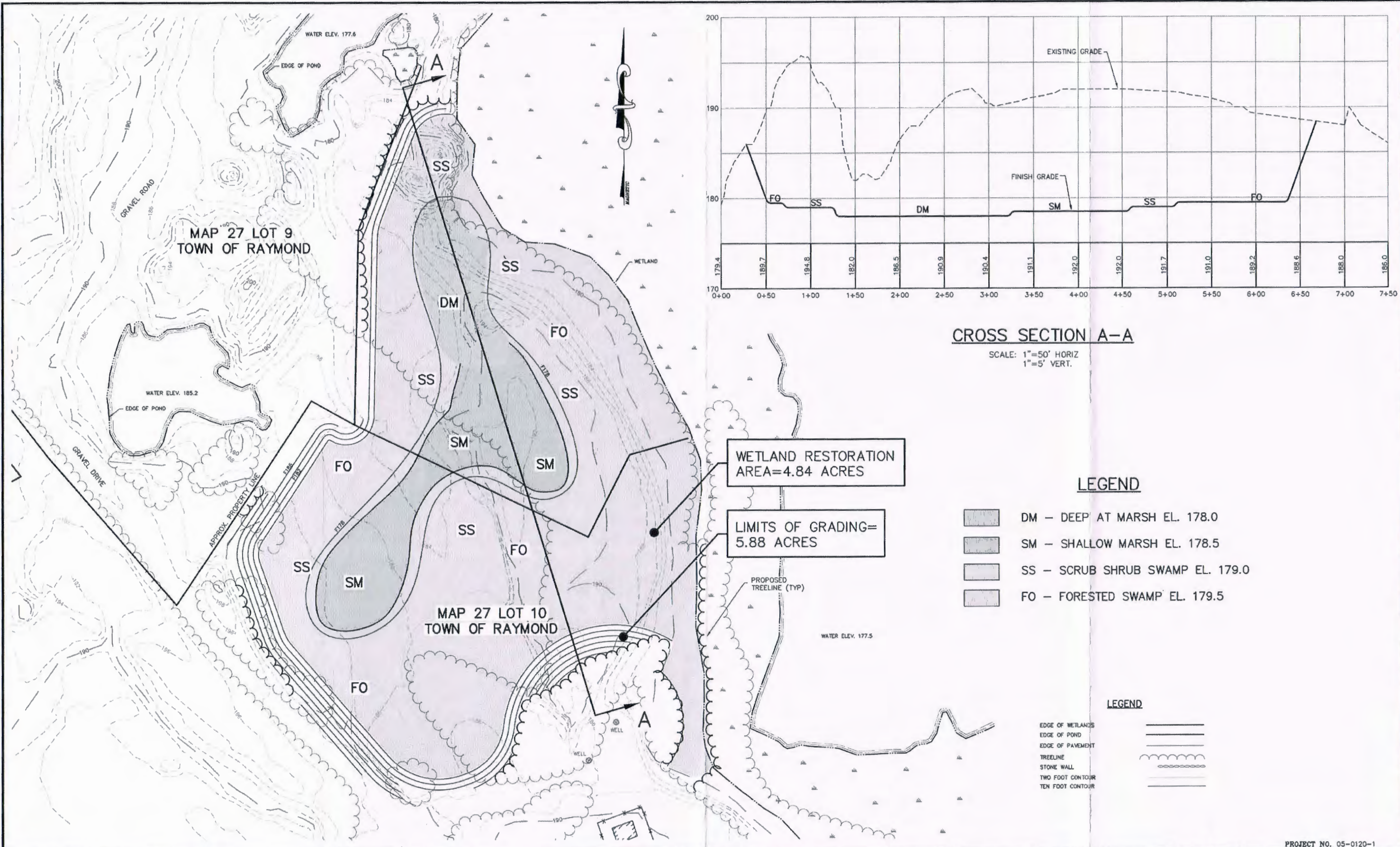
CONSTRUCTION DETAILS PREPARED FOR:
GRANITE MEADOWS
TAX MAP 22 LOT 9
OLD MANCHESTER ROAD - RAYMOND, NEW HAMPSHIRE

PREPARED FOR:
PD ASSOCIATES, LLC
5 DARTMOUTH DRIVE, SUITE #301
AUBURN, NH 03032
SCALE: AS SHOWN

DATE: DECEMBER 5, 2008

PROJECT NO. 08-D716-1

Woodland Design Group
5 Dartmouth Drive, Suite 301, Auburn, NH 03032
Civil Engineering - Land Planning - Transportation Engineering
Phone 603-641-9500 Fax 603-641-9550



REVISIONS	
DATE	DESCRIPTION
9/24/2013	REVISED WETLAND MITIGATION AREA
12/18/2013	REVISED TO PROVIDE WELL BUFFER

IN ASSOCIATION:

WEST ENVIRONMENTAL INC.

WETLAND MITIGATION PLAN PREPARED FOR:

GRANITE MEADOWS

TAX MAP 27 LOTS 9 & 10
RAYMOND, NEW HAMPSHIRE

PREPARED FOR:

PD ASSOCIATES, LLC
5 DARTMOUTH DRIVE, SUITE 301
AUBURN, NEW HAMPSHIRE

SCALE: 1"=50'

DATE: OCTOBER 16, 2007

SCALE IN FEET

PROJECT NO. 05-0120-1

Woodland Design Group

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