RECEIVED
DEC 0 9 2014
Planning Dept.

RESIDENTIAL SITE PLAN APPLICATION (townhouses, apts., etc.)

City of Rochester, New Hampshire

Date: December 9, 2014 [office use only. fee paid ____ amount $_____ date paid _____]

Property information

Tax map #: 239 ; Lot #('s): 30 ; Zoning district: R-2

Property address/location: 66 Rochester Hill Road

Name of project (if applicable): Indian Ridge

Size of site: 6.959 acres; overlay zoning district(s)? Conservation

Property owner

Name (include name of individual): Raaf-Mitchell Anchor Club Real Estate of Rochester NH LLC

Mailing address: 323 South Road, Brentwood, NH 03833

Telephone #: _____ Fax #: _____

Applicant/developer (if different from property owner)

Name (include name of individual): Quantum Real Estate Group, LLC

Mailing address: c/o Tritech Engineering Corp., 755 Central Ave., Dover, NH 03820

Telephone #: (603) 834-0262 Fax #: _____

Engineer/designer

Name (include name of individual): Robert J. Stowell Tritech Engineering Corporation

Mailing address: 755 Central Avenue, Dover, NH 03820

Telephone #: (603) 742-8107 Fax #: (603) 742=3830

Email address: rjs@tritecheng.com Professional license #: 9903 PE 884 LLS

Proposed use

The applicant is not bound by information on bedrooms and ownership arrangement unless that is a condition of approval.

Total number of proposed dwelling units: 40 ; number of existing dwelling units: 0

Proposed bedrooms/unit: 2 & 3 bedrooms ; total number of proposed bedrooms: 100 +/-

(continued *Residential Site Plan* application Tax Map: 239 Lot: 30)

New building(s)? 9 addition(s)/modifications to existing building(s)? N/A

Townhouses/rowhouses: 40 flats: 0 duplexes: 0 freestanding detached units: 0

Proposed ownership - leasehold: X fee simple conveyance: ____ condominiums: ____

Utility information

City water? yes X no ___; How far is City water from the site? At the site

City sewer? yes X no ___; How far is City sewer from the site? At the site

If City water, what are the estimated total daily needs? 6,720 gallons per day

Where will stormwater be discharged? Railroad at the east end of the property after on-site treatment and retention.

Other information

parking spaces: existing: 12 total proposed: 109; Are there pertinent covenants? NO

Describe existing conditions/use (vacant land?): Unoccupied 1600 sq. ft. veterinarian clinic with associated parking.

Check any that are proposed: variance ____; special exception ____; conditional use X

Wetlands: Is any fill proposed? X ; area to be filled: 2,950 sq ft buffer impact? X

Proposed *post-development* disposition of site (should total 100%)		
	Square footage	% overall site
Building footprint(s) – give for each building	25,600	8.5%
Parking and vehicle circulation	54,940	18.0%
Planted/landscaped areas (excluding drainage)	90,870	30.0%
Natural/undisturbed areas (excluding wetlands)	35,063	11.5%
Wetlands	92,151	30.0%
Other – drainage structures, outside storage, etc.	4,498	2.0%

Comments

Please feel free to add any comments, additional information, or requests for waivers here:

(continued *Residential Site Plan* application Tax Map: 239 Lot: 30)

Submission of application

This application must be signed by the property owner, applicant/developer (if different from property owner), *and/or* the agent.

I(we) hereby submit this Site Plan application to the City of Rochester Planning Board pursuant to the City of Rochester Site Plan Regulations and attest that to the best of my knowledge all of the information on this application form and in the accompanying application materials and documentation is true and accurate. As applicant/developer (if different from property owner)/as agent, I attest that I am duly authorized to act in this capacity.

Signature of property owner: Jennifer Raef

Date: 10/29/14

Signature of applicant/developer: _____

Date: _____

Signature of agent: _____, PRESIDENT

Date: 12/09/2014

Authorization to enter subject property

I hereby authorize members of the Rochester Planning Board, Zoning Board of Adjustment, Conservation Commission, Planning Department, and other pertinent City departments, boards and agencies to enter my property for the purpose of evaluating this application including performing any appropriate inspections during the application phase, review phase, post-approval phase, construction phase, and occupancy phase. This authorization applies specifically to those particular individuals legitimately involved in evaluating, reviewing, or inspecting this specific application/project. It is understood that these individuals must use all reasonable care, courtesy, and diligence when entering the property.

Signature of property owner: Jennifer Raef

Date: 10/29/14

Application for Conditional Use

Conditional Uses and Buffer Reductions
Section 42.19 - Conservation Overlay District
City of Rochester, NH

RECEIVED
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Date: December 9, 2014

Property information

Tax map #: 239; Lot #('s): 30; Zoning district: R-2

Property address/location: 66 Rochester Hill Road

Name of project (if applicable): Indian Ridge

Property owner

Name (include name of individual): Raaf-Mitchell Anchor Club Real Estate of Rochester NH LLC

Mailing address: 323 South Road, Brentwood, NH 03833

Telephone #: _____ Fax _____

Applicant/developer (if different from property owner)

Name (include name of individual): Quantum Real Estate Group, LLC

Mailing address: c/o Tritech Engineering Corp, 755 Central Ave., Dover, NH 03820

Telephone #: (603) 834-0262 Fax #: _____

Engineer/designer

Name (include name of individual): Robert J. Stowell
Tritech Engineering Corporation

Mailing address: 755 Central Avenue, Dover, NH 03820

Telephone #: (603) 742-8107 Fax #: (603) 742-3830

Email address: rjs@tritecheng.com Professional license #: 9903

Proposed Project

Please describe the proposed project: Development of 40 multi-family units in a townhouse style with drives, parking, and associated infrastructure. A gravity sewer is proposed that will travel through the Conservation Overlay District to the sewer at the railroad tracks.

Please describe the existing conditions: Unoccupied 1600 sq. ft. veterinarian clinic with associated parking

(continued *Conditional Use* application Tax Map: 239 Lot: 30)

Please fill in **one of the next two sections – for either Conditional Uses or Buffer Reductions**

Conditional Uses

For Conditional Uses only, justify the proposal in terms of each of the criteria below (in accordance with subsection 42.19 (i) (1) (A)). All four criteria must be satisfied.

(i) The proposed construction is essential to the productive use of land not in the COD.

The proposed gravity sewer that will temporarily impact the Conservation Overlay District is essential to the use of the land; to construct the gravity sewer system, the sewer line must flow down slope through the Conservation Overlay District to the existing sewer.

(ii) Design and construction methods will be such as to minimize impact upon the wetlands and will include restoration of the site consistent with the permitted use.

The proposed design will impact a narrow swath of wetlands during sewer pipe construction. The area will be restored to original grade upon completion of construction. The impact will be temporary.

(iii) There is no feasible alternative route on land controlled by the applicant that does not cross the CO District nor has less detrimental impact on the wetlands. Nothing in this Section shall limit the applicant from exploring alternatives with abutting property owners.

There are no feasible alternative routes on land controlled by the Applicant that does not cross the Conservation Overlay District nor has less detrimental impact on wetlands.

(iv) Economic advantage is not the sole reason for the proposed location of work.

Economic advantage is not the reason for the proposed location of the sewer. A gravity sewer must flow down hill to the existing sewer. Topography is the reason for the proposed location of the work.

(Buffer Reductions on next page)

(continued *Conditional Use* application Tax Map: 239 Lot: 30)

Buffer Reductions

For Buffer Reductions only, justify the proposal in terms of each of the criteria below (in accordance with subsection 42.19 (i) (2) (B)). All four criteria must be satisfied.

(i) The structure for which the exception is sought cannot feasibly, after consideration of all reasonable alternatives, be constructed on a portion or portions of the lot, which lie outside the CO district, ***or*** the application of the CO district eliminates greater than 50% of the buildable area located on the parcel ***or*** in the judgment of the Planning Board, the proposed site layout would result in a significantly higher quality design.

(ii) The proposed structure and use must be consistent with the purpose and intent of Section 42.19 and provisions must be made to ensure that drainage from the structure will not adversely impact any wetlands.

(iii) There shall be no impervious areas for parking within the reduced buffer for which the Conditional Use Approval is sought.

(iv) The maximum building coverage is limited to 50% of the outer half of the buffer zone, as shown in the diagram below.

(v) Best management practices must be demonstrated to the satisfaction of the Planning Board.

Submission of application

This application must be signed by the property owner, applicant/developer (if different from property owner), *and/or* the agent.

I(we) hereby submit this Conditional Use application to the City of Rochester Conservation Commission and Planning Board pursuant to the City of Rochester Zoning Ordinance and attest that to the best of my knowledge all of the information on this application form and in the accompanying application materials and documentation is true and accurate. As applicant/developer (if different from property owner)/as agent, I attest that I am duly authorized to act in this capacity.

Signature of property owner: Jennifer Raaf

Date: 10/29/14

Signature of applicant/developer: _____

Date: _____

Signature of agent: _____, PRESIDENT

Date: 12/09/2014

Authorization to enter subject property

I hereby authorize members of the Rochester Conservation Commission and Planning Board, and other pertinent City departments, boards and agencies to enter my property for the purpose of evaluating this application including performing any appropriate inspections. This authorization applies specifically to those particular individuals legitimately involved in evaluating, reviewing, or inspecting this specific application/project. It is understood that these individuals must use all reasonable care, courtesy, and diligence when entering the property. (It is not necessary to sign this provision if a Planning Board application has been submitted.)

Signature of property owner: Jennifer Raaf

Date: 10/29/14

SITE DEVELOPMENT PLANS

INDIAN RIDGE

MAP #239 LOT 30

66 ROCHESTER HILL ROAD
NH ROUTE 108
ROCHESTER, NEW HAMPSHIRE

PREPARED FOR

quantum real estate group, llc

DEC 0 9 2014

LIST OF PLANS

T-1 - TITLE SHEET
T-2 - VICINITY PLAN
EX-1 - EXISTING CONDITIONS PLAN
DE-1 - DEMOLITION PLAN
SP-1 - GENERAL SITE PLAN - OVERALL 1" = 60'
SP-2 - GENERAL SITE PLAN - SHEET-1 1" = 30'
SP-3 - GENERAL SITE PLAN - SHEET-2 1" = 30'
SP-4 - SITE DEVELOPMENT PLAN - SHEET-1 1" = 30'
SP-5 - SITE DEVELOPMENT PLAN - SHEET-2 1" = 30'
SP-6 - SITE GRADING PLAN - SHEET-1 1" = 30'
SP-7 - SITE GRADING PLAN - SHEET-2 1" = 30'
C-1 - PLAN & PROFILE - SQUIRE LANE
C-2 - CONSTRUCTION DETAILS
C-3 - CONSTRUCTION DETAILS
C-4 - CONSTRUCTION DETAILS
C-5 - CONSTRUCTION SEWER DETAILS
C-6 - STANDARD SEWER DETAILS
LA-1 - LANDSCAPING PLAN
LA-2 - LANDSCAPING PLAN

TRITECH
DEC - 9 2014
ISSUED

PREPARED BY

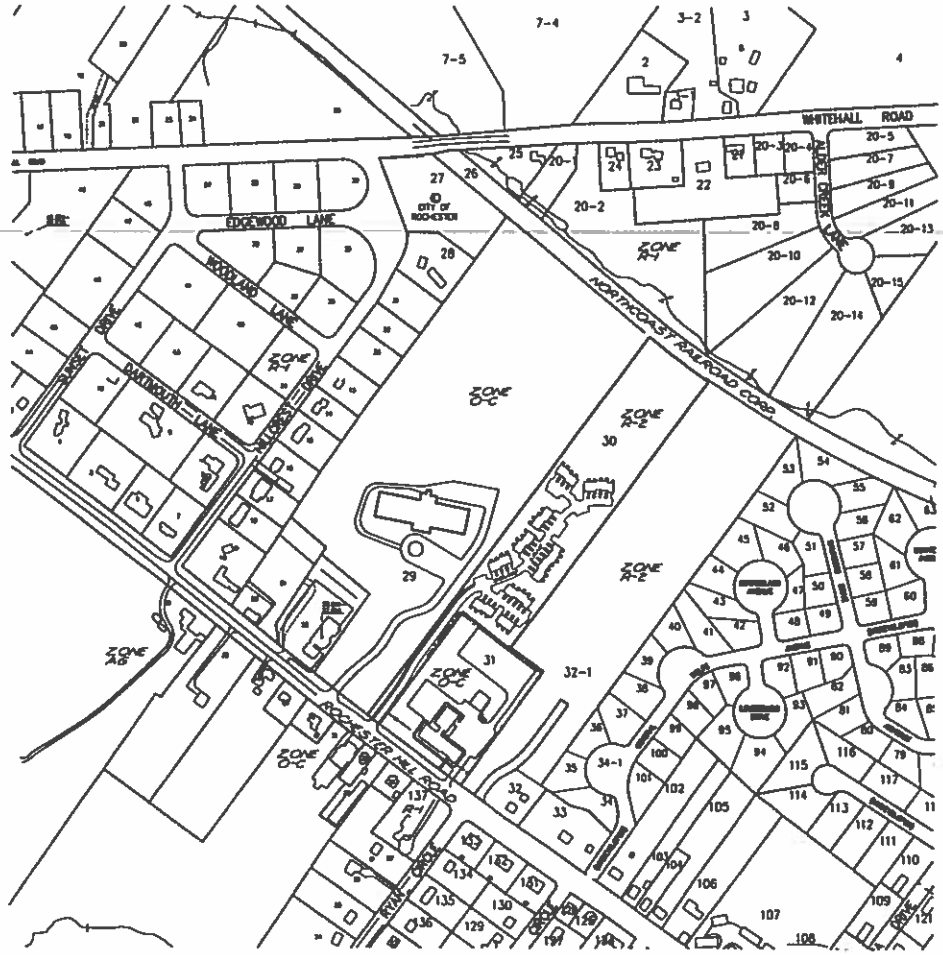
TRITECH
ENGINEERING CORPORATION

TRITECH
ENGINEERING CORPORATION

REVISIONS
DATE DESCRIPTION

TITLE SHEET
INDIAN RIDGE
66 ROCHESTER HILL ROAD
ROCHESTER, NEW HAMPSHIRE
DECEMBER 9, 2014 JOB No. 14110

SHEET No. T-1



MAP - LOT	OWNER-ADDRESS
27-3	HERBERT C. CLARK REVOCABLE TRUST 43 ROCHESTER HILL ROAD ROCHESTER, NH
2.39-20-10	RANDALL A. & RACHEL L. SPAYD 15 ALDER CREEK LANE ROCHESTER, NH
2.39-20-12	RICHARD & ANDREA TYLER 9 ALDER CREEK LANE ROCHESTER, NH
2.39-18	NH NORTHCOAST CORP. P.O. BOX 429 OSSIPEE, NH
2.39-29	SUN HEALTHCARE GROUP 92 ROCHESTER HILL ROAD ROCHESTER, NH
2.39-3	US GOVERNMENT 69 JACKSON ROAD AYER, MA
2.39-32-1	WESTRIDGE BUILDING & DEVELOPMENT P.O. BOX 843 AYE, NH

TRITECH
DEC - 9 2014
ISSUED

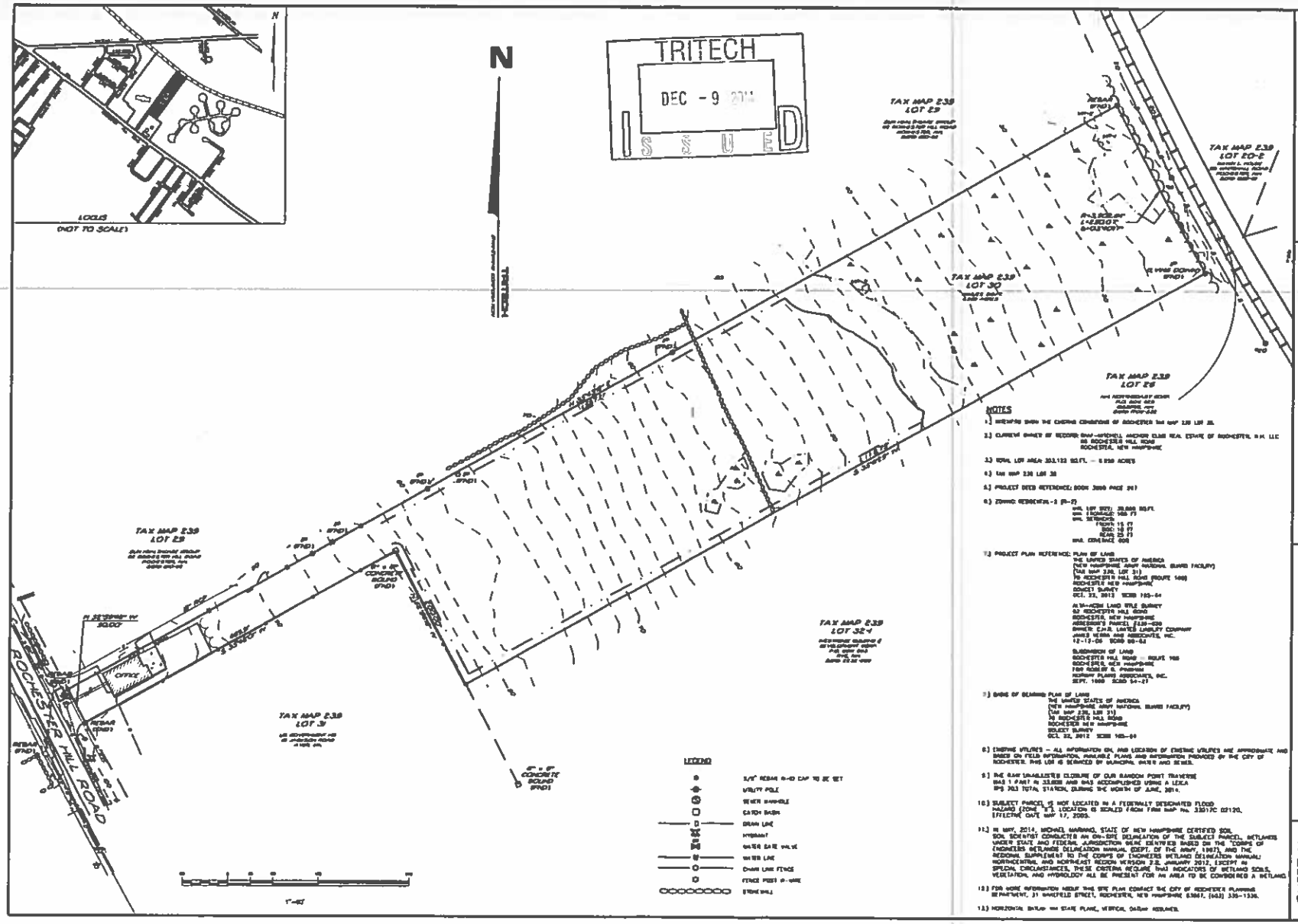
1" = 200'

TRITECH
ENGINEERING CORPORATION

REVISIONS
DATE: DESCRIPTION:

VICINITY PLAN
INDIAN RIDGE
66 ROCHESTER HILL ROAD
ROCHESTER, NEW HAMPSHIRE
DECEMBER 9, 2014 JOB NO. 14110
SCALE: 1" = 200'

SHEET NO. T-2



NOTES

1.) BREWSTER SHOW THE EXISTING CONDITIONS OF ROCHESTER TAX MAP 239 LOT 30.

2.) CURRENT OWNER OF RECORD: BAR-MITCHELL ANCHOR CLUB REAL ESTATE OF ROCHESTER N.H. LLC
66 ROCHESTER HILL ROAD
ROCHESTER, NEW HAMPSHIRE

3.) TOTAL LOT AREA: 253,123 SQ.FT. – 5.8100 ACRES

4.) TAX MAP 239 LOT 30

5.) PROJECT DEED REFERENCE: BOOK 3000 PAGE 241

6.) ZONING: RESIDENTIAL-2 (R-2)
MIN. LOT SIZE: 30,000 SQ.FT.
MIN. FRONTAGE: 150 FT
MIN. SETBACKS:
FRONT: 15 FT
SIDE: 10 FT
REAR: 25 FT
MAX. COVERAGE: 50%

7.) PROJECT PLAN REFERENCE: PLAN OF LAND
THE UNITED STATES OF AMERICA
(NEW HAMPSHIRE ARMY NATIONAL GUARD FACILITY)
(TAX MAP 239, LOT 31)
90 ROCHESTER HILL ROAD (ROUTE 108)
ROCHESTER NEW HAMPSHIRE
SURVEY BY:
OCT. 22, 2013 SCALE 1:40-64

ALTA-ACSM LAND TITLE SURVEY
62 ROCHESTER HILL ROAD
ROCHESTER, NEW HAMPSHIRE
ASSESSOR'S PARCEL 238-30
OWNER: C.H.R. LIMITED LIABILITY COMPANY
JONES MEDINA AND ASSOCIATES, INC.
12-12-00 SCALE 1:40-63

SUBDIVISION OF LAND
ROCHESTER HILL ROAD – ROUTE 108
ROCHESTER, NEW HAMPSHIRE
FOR ROBERT G. PHERSON
HORNBY PLANNING CONSULTANTS, INC.
SEPT. 1988 SCALE 1:1-21

8.) BASIS OF BEARING PLAN OF LAND
THE UNITED STATES OF AMERICA
(NEW HAMPSHIRE ARMY NATIONAL GUARD FACILITY)
(TAX MAP 239, LOT 31)
90 ROCHESTER HILL ROAD
ROCHESTER NEW HAMPSHIRE
SURVEY BY:
OCT. 22, 2013 SCALE 1:40-64

9.) EXISTING UTILITIES – ALL INFORMATION ON, AND LOCATION OF EXISTING UTILITIES ARE APPROXIMATE AND BASED ON FIELD INFORMATION, AVAILABLE PLANS AND INFORMATION PROVIDED BY THE CITY OF ROCHESTER. THIS LOT IS SERVICED BY MUNICIPAL WATER AND SEWER.

10.) THE RAW UNADJUSTED CLOSURE OF OUR RANDOM POINT TRAVERSE WAS 1 FOOT IN 33,000 AND WAS ACCOMPLISHED USING A LEICA TPS 303 TOTAL STATION, DURING THE MONTH OF JUNE, 2014.

11.) SUBJECT PARCEL IS NOT LOCATED IN A FEDERALLY DESIGNATED FLOOD HAZARD ZONE. S.S. LOCATION IS SCALED FROM FIRM MAP No. 33017C 02120, EFFECTIVE DATE MAY 17, 2005.

12.) IN MAY, 2014, MICHAEL MARANO, STATE OF NEW HAMPSHIRE CERTIFIED SOIL SCIENTIST CONDUCTED AN ON-SITE DELINEATION OF THE SUBJECT PARCEL. WETLANDS UNDER STATE AND FEDERAL JURISDICTION WERE IDENTIFIED BASED ON THE "CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL (DEPT. OF THE ARMY, 1987) AND THE REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION VERSION 2.0, JANUARY 2012. EXCEPT IN SPECIAL CIRCUMSTANCES, THESE CRITERIA REQUIRE THAT INDICATORS OF WETLAND SOILS, VEGETATION, AND HYDROLOGY ALL BE PRESENT FOR AN AREA TO BE CONSIDERED A WETLAND.

13.) FOR MORE INFORMATION NEEDS THIS SITE PLAN CONTACT THE CITY OF ROCHESTER'S PLANNING DEPARTMENT, 31 WAKEFIELD STREET, ROCHESTER, NEW HAMPSHIRE 03867, (603) 335-1338.

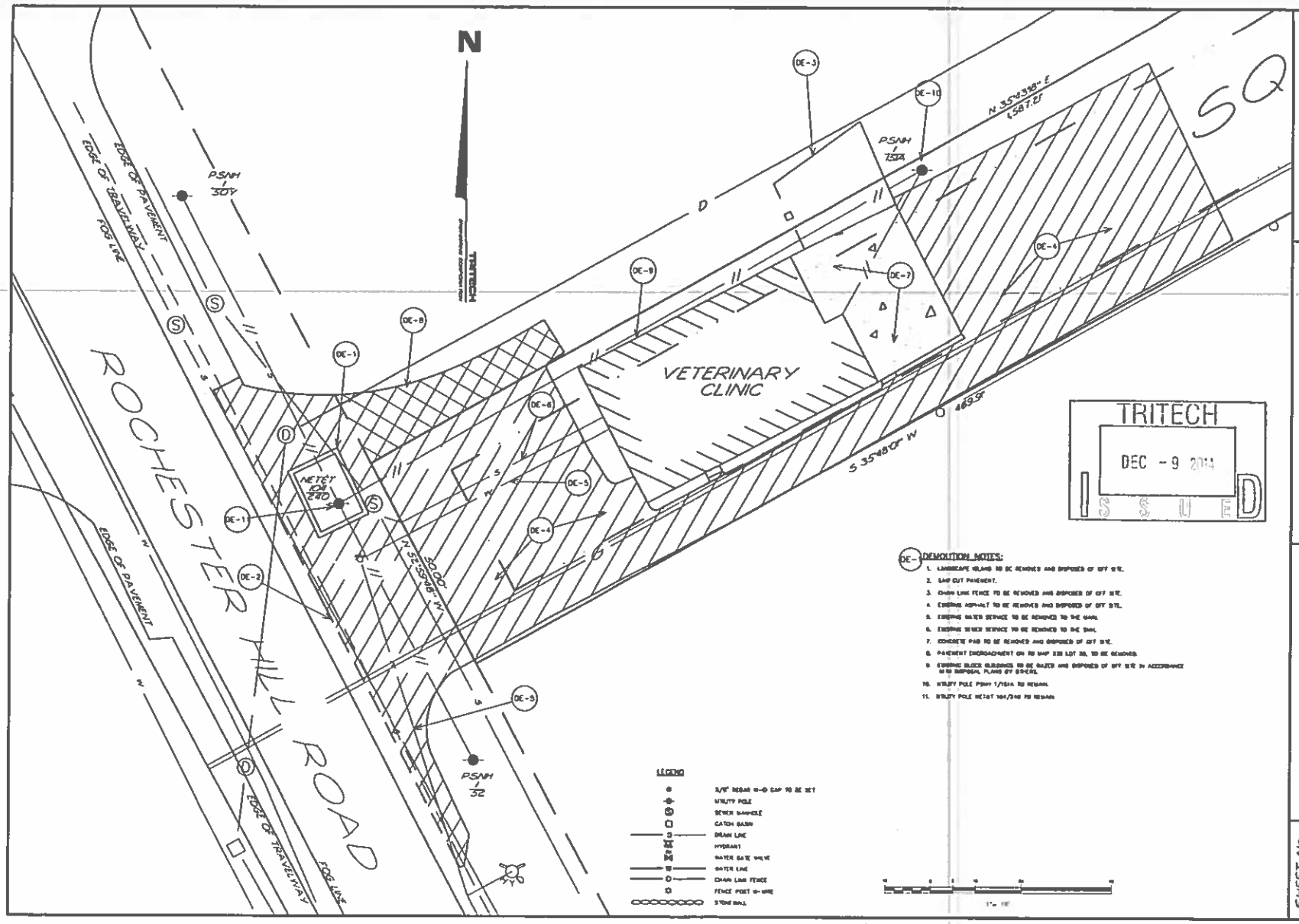
14.) HORIZONTAL DATUM IS NH STATE PLANE, VERTICAL DATUM ASSUMED.

TRITECH
ENGINEERING CORPORATION
700 CENTRAL AVENUE
DOVER, NEW HAMPSHIRE 03820
TELEPHONE (603) 749-9757
FAX (603) 749-9860

REVISIONS
DATE | DESCRIPTION

EXISTING CONDITIONS PLAN
INDIAN RIDGE
66 ROCHESTER HILL ROAD
ROCHESTER, NEW HAMPSHIRE
DECEMBER 9, 2014
JOB No. 04200
SCALE: 1" = 40'

SHEET No.
EX-1



DE- DEMOLITION NOTES:

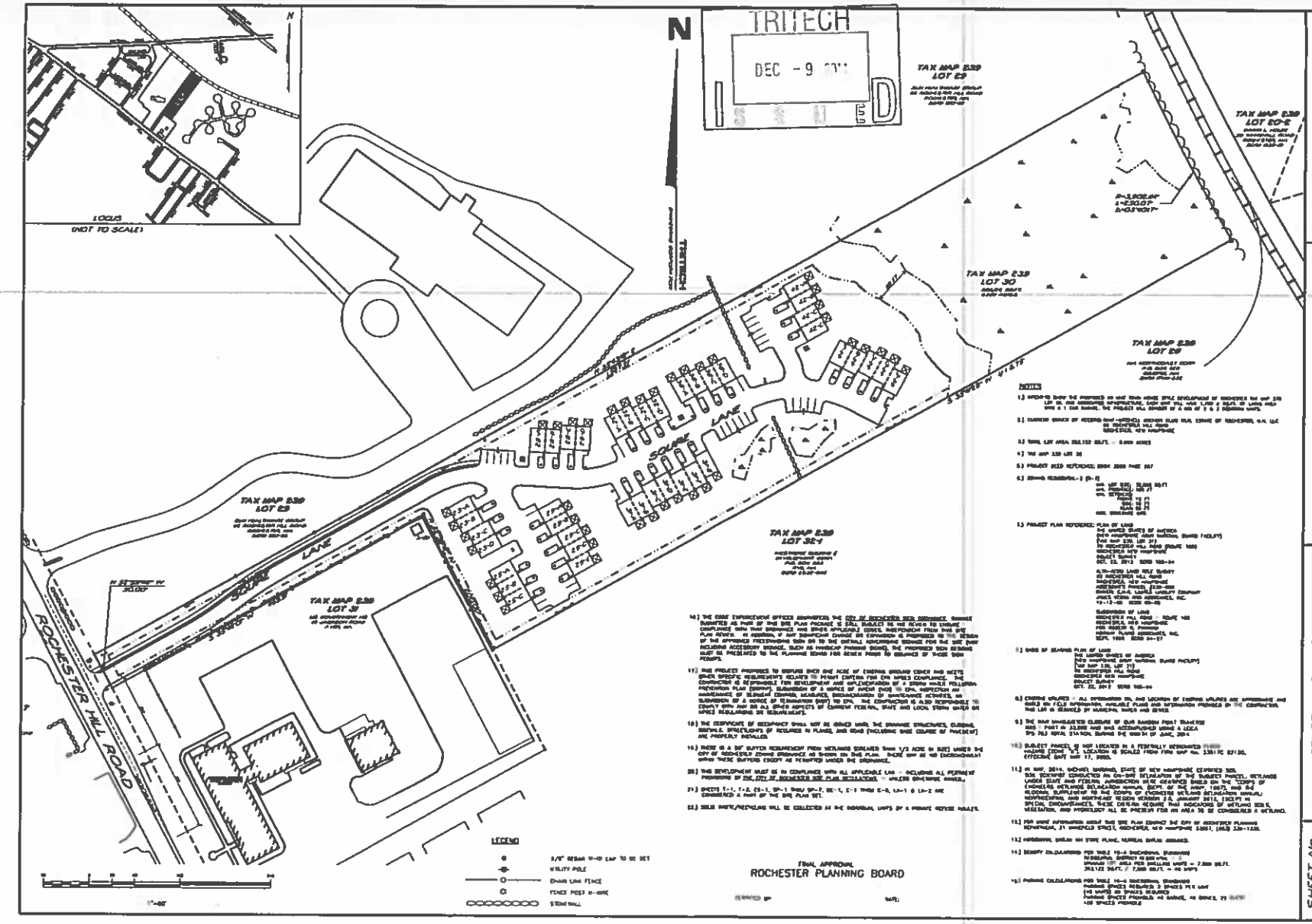
1. LANDSCAPE MULCH TO BE REMOVED AND DISPOSED OF OFF SITE.
2. SAW CUT PAVEMENT.
3. CHAIN LINK FENCE TO BE REMOVED AND DISPOSED OF OFF SITE.
4. EXISTING ASPHALT TO BE REMOVED AND DISPOSED OF OFF SITE.
5. EXISTING WATER SERVICE TO BE REMOVED TO THE MAIN.
6. EXISTING SEWER SERVICE TO BE REMOVED TO THE MAIN.
7. CONCRETE PAD TO BE REMOVED AND DISPOSED OF OFF SITE.
8. PAVEMENT ENCROACHMENT ON TAX MAP 238 LOT 30, TO BE REMOVED.
9. EXISTING BLOCK BUILDINGS TO BE RAZED AND DISPOSED OF OFF SITE IN ACCORDANCE WITH DISPOSAL PLANS BY OTHERS.
10. UTILITY POLE PSNH 1/15A TO REMAIN.
11. UTILITY POLE NETEL 104/240 TO REMAIN.

TRITECH
ENGINEERING CORPORATION

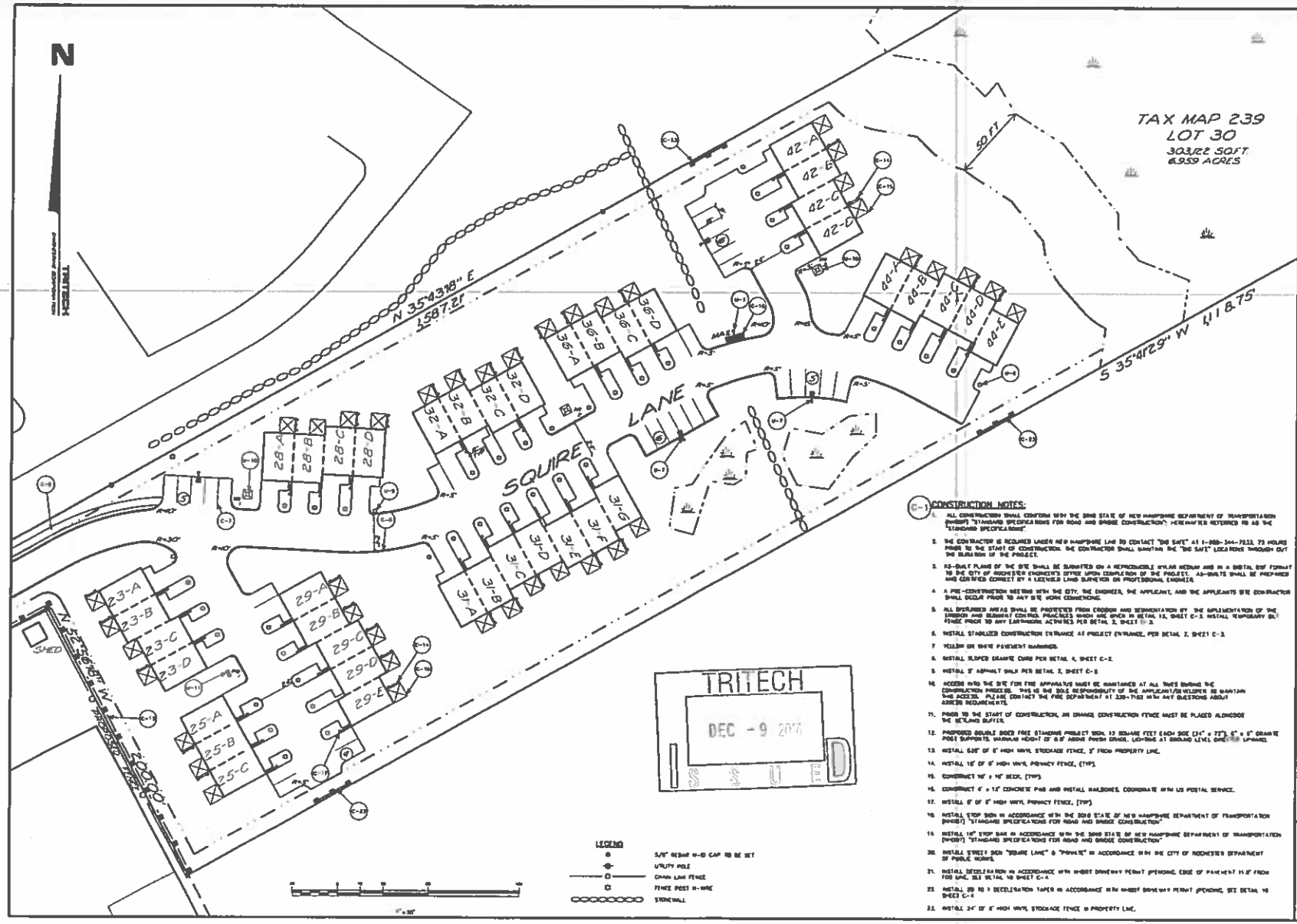
REVISIONS
DATE DESCRIPTION

DEMOLITION PLAN
INDIAN RIDGE
66 ROCHESTER HILL ROAD
ROCHESTER, NEW HAMPSHIRE
DECEMBER 9, 2014 JOB NO. 14110
SCALE: 1" = 10'

SHEET NO. DE-1


TRITECH
DEC - 9
N
LOCUS
(NOT TO SCALE)
TAX MAP 239
LOT 29
TAX MAP 239
LOT 20-E
TAX MAP 239
LOT 30
TAX MAP 239
LOT 28
TAX MAP 239
LOT 29
TAX MAP 239
LOT 31
TAX MAP 239
LOT 31-1
SQUARE LANE
ROCHESTER HILL ROAD
LEGEND
5/8" REBAR 18" LAP TO BE SET
UTILITY POLE
CHAIN LINK FENCE
FENCE POST 6" WIDE
STONEWALL
FINAL APPROVAL
ROCHESTER PLANNING BOARD
NOTES
TRITECH
ENGINEERING CORPORATION
REVISIONS
DATE
DESCRIPTION
GENERAL SITE PLAN
INDIAN RIDGE
66 ROCHESTER HILL ROAD
ROCHESTER, NEW HAMPSHIRE
DECEMBER 9, 2014
JOB No. 14110
SCALE: 1" = 60'
SHEET No.
SP-1

SHEET No.
SP-2
GENERAL SITE PLAN
INDIAN RIDGE
66 ROCHESTER HILL ROAD
ROCHESTER, NEW HAMPSHIRE
DECEMBER 9, 2014
JOB No. 14110
SCALE 1" = 30'
TRITECH
ENGINEERING CORPORATION
REVISIONS
DATE
DESCRIPTION
N
CONCRETE PAD
EDGE OF PAVEMENT
SHED
PROPOSED FENCE
SQUIRE LANE
ROCHESTER HILL ROAD
LEGEND



CONSTRUCTION NOTES:

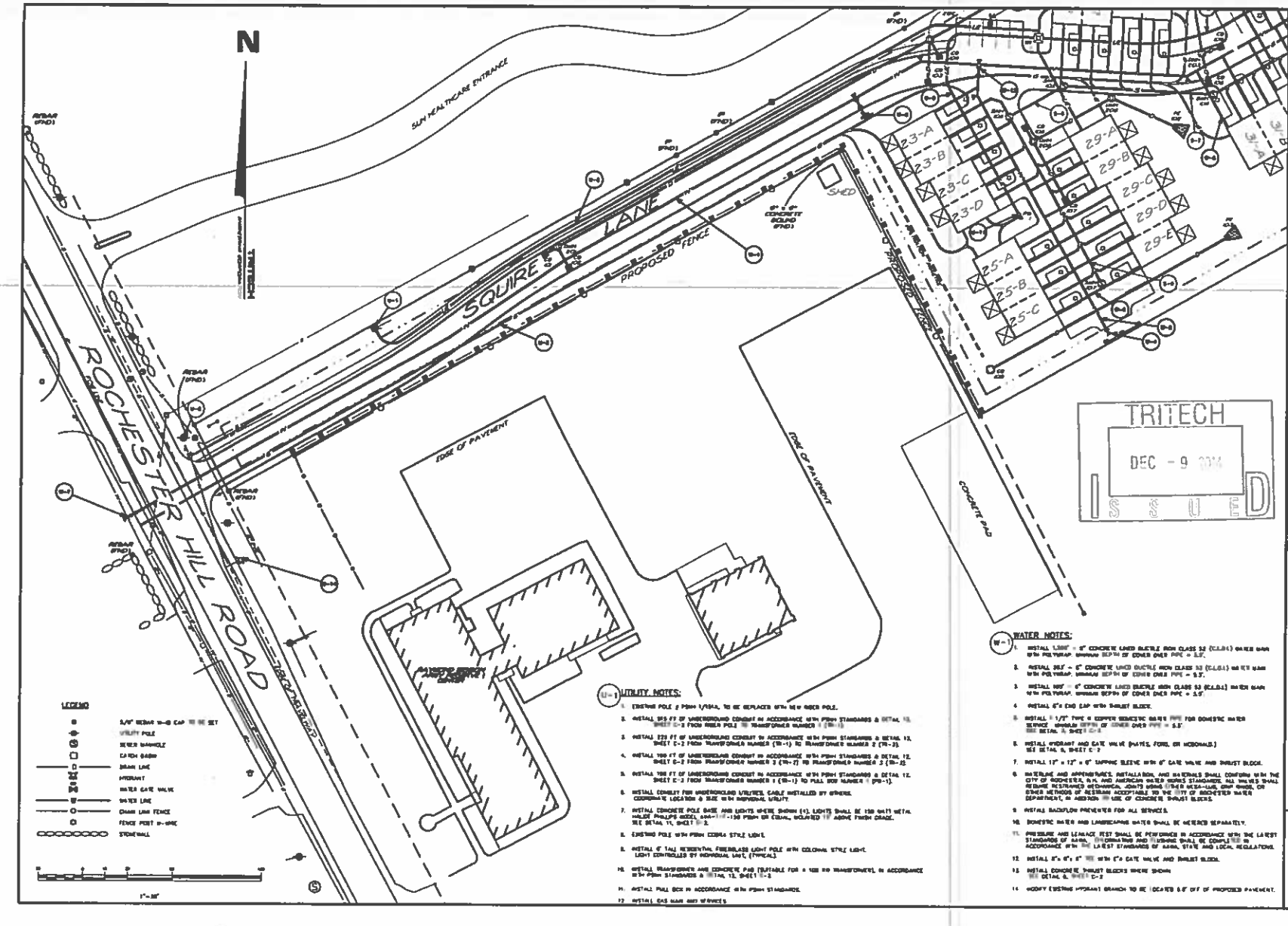
1. ALL CONSTRUCTION SHALL CONFORM WITH THE 2016 STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION (NHDOT) "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", HEREINAFTER REFERRED TO AS THE "STANDARD SPECIFICATIONS".
2. THE CONTRACTOR IS REQUIRED UNDER NEW HAMPSHIRE LAW TO CONTACT "DIG SAFE" AT 1-888-344-7233, 72 HOURS PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL MAINTAIN THE "DIG SAFE" LOCATIONS THROUGH OUT THE DURATION OF THE PROJECT.
3. AS-BUILT PLANS OF THE SITE SHALL BE SUBMITTED ON A REPRODUCIBLE MYLAR MEDIUM AND IN A DIGITAL DWG FORMAT TO THE CITY OF ROCHESTER ENGINEER'S OFFICE UPON COMPLETION OF THE PROJECT. AS-BUILTS SHALL BE PREPARED AND CERTIFIED CORRECT BY A LICENSED LAND SURVEYOR OR PROFESSIONAL ENGINEER.
4. A PRE-CONSTRUCTION MEETING WITH THE CITY, THE ENGINEER, THE APPLICANT, AND THE APPLICANT'S SITE CONTRACTOR SHALL OCCUR PRIOR TO ANY SITE WORK COMMENCING.
5. ALL DISTURBED AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION BY THE IMPLEMENTATION OF THE EROSION AND SEDIMENT CONTROL PRACTICES SHOWN AND NOTED IN DETAIL 13, SHEET C-3. INSTALL TEMPORARY SILT FENCE PRIOR TO ANY EARTHWORK ACTIVITIES PER DETAIL 2, SHEET C-3.
6. INSTALL STABILIZED CONSTRUCTION ENTRANCE AT PROJECT ENTRANCE, PER DETAIL 7, SHEET C-3.
7. YELLOW ON WHITE PAVEMENT MARKINGS.
8. INSTALL SLOPED GRANITE CURB PER DETAIL 4, SHEET C-2.
9. INSTALL 5" ASPHALT WALK PER DETAIL 2, SHEET C-2.
10. ACCESS INTO THE SITE FOR FIRE APPARATUS MUST BE MAINTAINED AT ALL TIMES DURING THE CONSTRUCTION PROCESS. THIS IS THE SOLE RESPONSIBILITY OF THE APPLICANT/DEVELOPER TO MAINTAIN THE ACCESS. PLEASE CONTACT THE FIRE DEPARTMENT AT 330-7123 WITH ANY QUESTIONS ABOUT ACCESS REQUIREMENTS.
11. PRIOR TO THE START OF CONSTRUCTION, AN ORANGE CONSTRUCTION FENCE MUST BE PLACED ALONGSIDE THE WETLAND BUFFER.
12. PROPOSED DOUBLE SIDED FREE STANDING PROJECT SIGN: 12 SQUARE FEET EACH SIDE (3'-0" x 7'-0"), 6" x 6" ORANGE POST SUPPORTS, MAXIMUM HEIGHT OF 6.0' ABOVE FINISH GRADE. LIGHTING AT GROUND LEVEL ONLY [illegible] UPWARDS.
13. INSTALL 620' OF 6' HIGH VINYL STOCKADE FENCE, 3' FROM PROPERTY LINE.
14. INSTALL 18' OF 6' HIGH VINYL PRIVACY FENCE, (TYP).
15. CONSTRUCT 16' x 16' DECK, (TYP).
16. CONSTRUCT 6' x 12' CONCRETE PAD AND INSTALL MAILBOXES. COORDINATE WITH US POSTAL SERVICE.
17. INSTALL 6' OF 6' HIGH VINYL PRIVACY FENCE, (TYP).
18. INSTALL STOP SIGN IN ACCORDANCE WITH THE 2016 STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION (NHDOT) "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION".
19. INSTALL 10" STOP BAR IN ACCORDANCE WITH THE 2016 STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION (NHDOT) "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION".
20. INSTALL STREET SIGN "SQUIRE LANE" & "PRIVATE" IN ACCORDANCE WITH THE CITY OF ROCHESTER DEPARTMENT OF PUBLIC WORKS.
21. INSTALL DECELERATION IN ACCORDANCE WITH NHDOT DRIVEWAY PERMIT (PENDING, EDGE OF PAVEMENT 11.0' FROM FOG LINE. SEE DETAIL 10 SHEET C-4.
22. INSTALL 20 TO 1 DECELERATION TAPER IN ACCORDANCE WITH NHDOT DRIVEWAY PERMIT (PENDING, SEE DETAIL 10 SHEET C-4.
23. INSTALL 24' OF 6' HIGH VINYL STOCKADE FENCE @ PROPERTY LINE.

TRITECH
ENGINEERING CORPORATION

REVISIONS
DATE: DESCRIPTION:

GENERAL SITE PLAN
INDIAN RIDGE
66 ROCHESTER HILL ROAD
ROCHESTER, NEW HAMPSHIRE
DECEMBER 9, 2014
JOB No. 14110
SCALE: 1" = 30'

SHEET No.
SP-3



UTILITY NOTES:

1. EXISTING POLE # FROM 1/1914, TO BE REPLACED WITH NEW WOOD POLE.
2. INSTALL 395 FT OF UNDERGROUND CONDUIT IN ACCORDANCE WITH PSNH STANDARDS & DETAIL 12, SHEET C-2 FROM NEW POLE TO TRANSFORMER NUMBER 1 (TR-1).
3. INSTALL 229 FT OF UNDERGROUND CONDUIT IN ACCORDANCE WITH PSNH STANDARDS & DETAIL 12, SHEET C-2 FROM TRANSFORMER NUMBER (TR-1) TO TRANSFORMER NUMBER 2 (TR-2).
4. INSTALL 190 FT OF UNDERGROUND CONDUIT IN ACCORDANCE WITH PSNH STANDARDS & DETAIL 12, SHEET C-2 FROM TRANSFORMER NUMBER 3 (TR-7) TO TRANSFORMER NUMBER 3 (TR-3).
5. INSTALL 190 FT OF UNDERGROUND CONDUIT IN ACCORDANCE WITH PSNH STANDARDS & DETAIL 12, SHEET C-2 FROM TRANSFORMER NUMBER 1 (TR-1) TO PULL BOX NUMBER 1 (PB-1).
6. INSTALL CONDUIT FOR UNDERGROUND UTILITIES, CABLE INSTALLED BY OTHERS. COORDINATE LOCATION & SIZE WITH INDIVIDUAL UTILITY.
7. INSTALL CONCRETE POLE BASE AND LIGHTS WHERE SHOWN (1). LIGHTS SHALL BE 150 WATT METAL HALIDE PHILLIPS MODEL [illegible]-150 PSMH OR EQUAL, MOUNTED [illegible] ABOVE FINISH GRADE. SEE DETAIL 11, SHEET [illegible].
8. EXISTING POLE WITH PSNH COBRA STYLE LIGHT.
9. INSTALL 6' TALL RESIDENTIAL FIBERGLASS LIGHT POLE WITH COLONIAL STYLE LIGHT. LIGHT CONTROLLED BY INDIVIDUAL UNIT. (TYPICAL).
10. INSTALL TRANSFORMER AND CONCRETE PAD (SUITABLE FOR A 100 KVA TRANSFORMER), IN ACCORDANCE WITH PSNH STANDARDS & DETAIL 12, SHEET [illegible].
11. INSTALL PULL BOX IN ACCORDANCE WITH PSNH STANDARDS.
12. INSTALL GAS MAIN AND SERVICES.

WATER NOTES:

1. INSTALL 1,300' ± 6" CONCRETE LINED DUCTILE IRON CLASS 52 (C.L.D.I.) WATER MAIN WITH POLYWRAP. MINIMUM DEPTH OF COVER OVER PIPE = 5.5'.
2. INSTALL 265' ± 6" CONCRETE LINED DUCTILE IRON CLASS 52 (C.L.D.I.) WATER MAIN WITH POLYWRAP. MINIMUM DEPTH OF COVER OVER PIPE = 5.5'.
3. INSTALL 100' ± 6" CONCRETE LINED DUCTILE IRON CLASS 52 (C.L.D.I.) WATER MAIN WITH POLYWRAP. MINIMUM DEPTH OF COVER OVER PIPE = 5.5'.
4. INSTALL 6" x END CAP WITH THRUST BLOCK.
5. INSTALL 1 1/2" TYPE K COPPER DOMESTIC WATER PIPE FOR DOMESTIC WATER SERVICE. MINIMUM DEPTH OF COVER OVER PIPE = 5.5'. SEE DETAIL 5, SHEET C-1.
6. INSTALL HYDRANT AND GATE VALVE (MATCH, FORD, OR MUELLER.) SEE DETAIL 6, SHEET C-1.
7. INSTALL 12" x 12" x 6" TAPPING SLEEVE WITH 6" GATE VALVE AND THRUST BLOCK.
8. MATERIALS AND APPURTENANCES, INSTALLATION, AND MATERIALS SHALL CONFORM WITH THE CITY OF ROCHESTER, N.H. AND AMERICAN WATER WORKS STANDARDS. ALL VALVES SHALL RETAINER RESTRAINED MECHANICAL JOINTS USING [illegible] MEGA-LUG, GRIP RINGS, OR OTHER METHODS OF RESTRAINT ACCEPTABLE TO THE CITY OF ROCHESTER WATER DEPARTMENT, IN ADDITION TO USE OF CONCRETE THRUST BLOCKS.
9. INSTALL BACKFLOW PREVENTER FOR ALL SERVICES.
10. DOMESTIC WATER AND LANDSCAPING WATER SHALL BE METERED SEPARATELY.
11. PRESSURE AND LEAKAGE TEST SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST STANDARDS OF AWWA. DISINFECTING AND FLUSHING SHALL BE COMPLETED IN ACCORDANCE WITH THE LATEST STANDARDS OF AWWA, STATE AND LOCAL REGULATIONS.
12. INSTALL 8" x 6" x 6" TEE WITH 6" x 6" GATE VALVE AND THRUST BLOCK.
13. INSTALL CONCRETE THRUST BLOCKS WHERE SHOWN. SEE DETAIL 8, SHEET C-2.
14. MODIFY EXISTING HYDRANT BRANCH TO BE LOCATED 5.0' OFF OF PROPOSED PAVEMENT.

TRITECH
DEC - 9 2014
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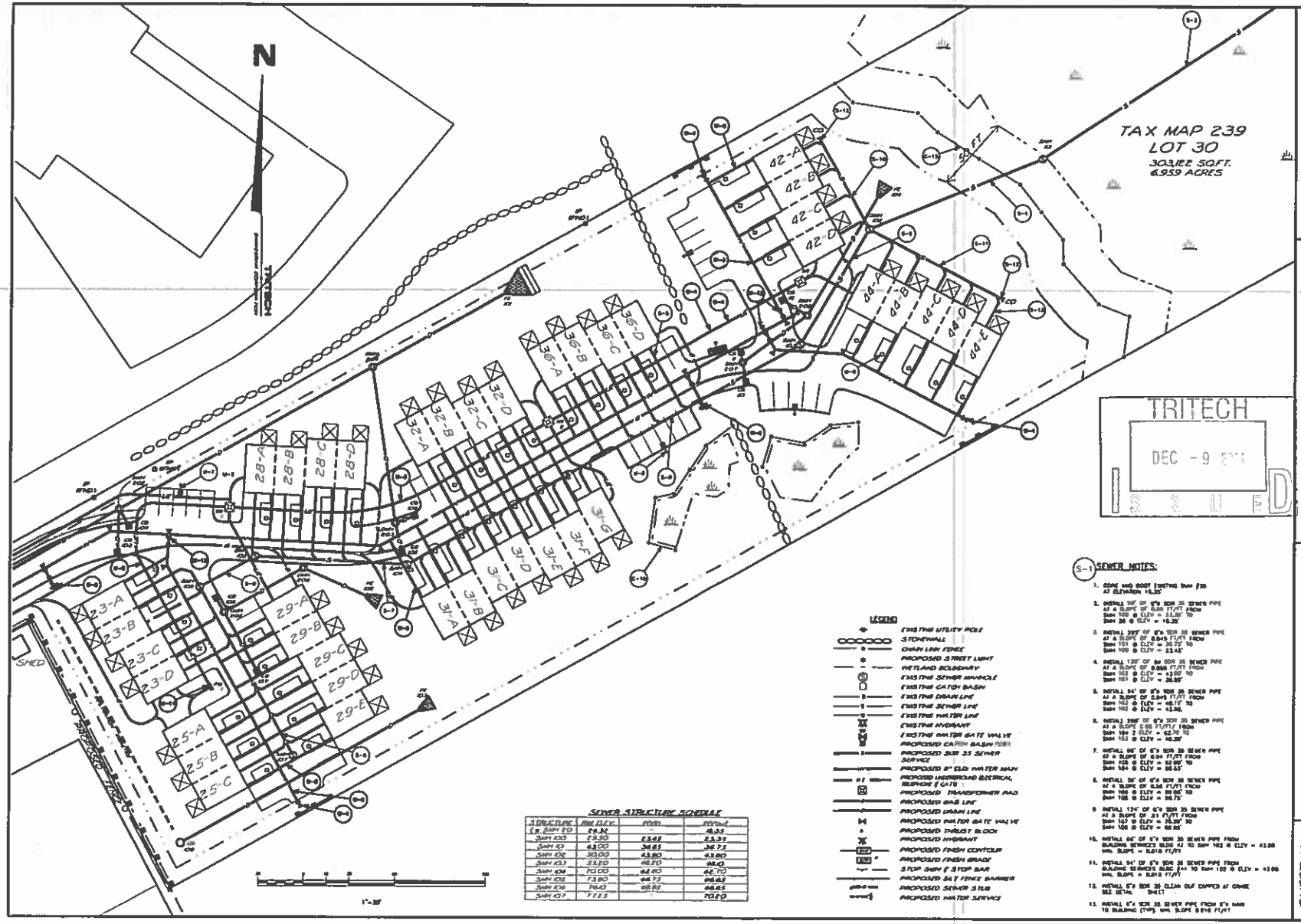
TRITECH
ENGINEERING CORPORATION

THE CENTRAL JUNCTION
DOVER, NEW HAMPSHIRE 03820
TELEPHONE 603 749 9727
FAX 603 749 9860

REVISIONS	
DATE	DESCRIPTION

SITE DEVELOPMENT PLAN
INDIAN RIDGE
66 ROCHESTER HILL ROAD
ROCHESTER, NEW HAMPSHIRE
DECEMBER 9, 2014 JOB NO. 14110
SCALE: 1" = 30'

SHEET NO. **SP-4**



TRITECH
DEC - 9 2011
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SEWER STRUCTURE SCHEDULE

STRUCTURE (± SHM ID)	RIM ELEV.	INVERT	INVERT
	49.36	-	46.55
SMH 100	49.30	43.48	43.39
SMH 101	48.00	34.45	34.75
SMH 102	30.00	43.80	43.80
SMH 103	55.20	46.20	46.20
SMH 104	70.00	62.90	62.70
SMH 105	73.80	66.75	66.65
SMH 106	74.0	66.85	66.65
SMH 107	77.85		70.20

LEGEND

- EXISTING UTILITY POLE
- STONEWALL
- CHAIN LINK FENCE
- PROPOSED STREET LIGHT
- WETLAND BOUNDARY
- EXISTING SEWER MANHOLE
- EXISTING CATCH BASIN
- EXISTING DRAIN LINE
- EXISTING SEWER LINE
- EXISTING WATER LINE
- EXISTING HYDRANT
- EXISTING WATER GATE VALVE
- PROPOSED CATCH BASIN
- PROPOSED SCH 35 SEWER SERVICE
- PROPOSED 8" CLD WATER MAIN
- PROPOSED UNDERGROUND ELECTRICAL, TELEPHONE & CATV
- PROPOSED TRANSFORMER PAD
- PROPOSED GAS LINE
- PROPOSED DRAIN LINE
- PROPOSED WATER GATE VALVE
- PROPOSED THRUST BLOCK
- PROPOSED HYDRANT
- PROPOSED FINISH CONTOUR
- PROPOSED FINISH GRADE
- STOP SIGN & STOP BAR
- PROPOSED SAT FENCE BARRIER
- PROPOSED SEWER STUB
- PROPOSED WATER SERVICE

S-1 SEWER NOTES:

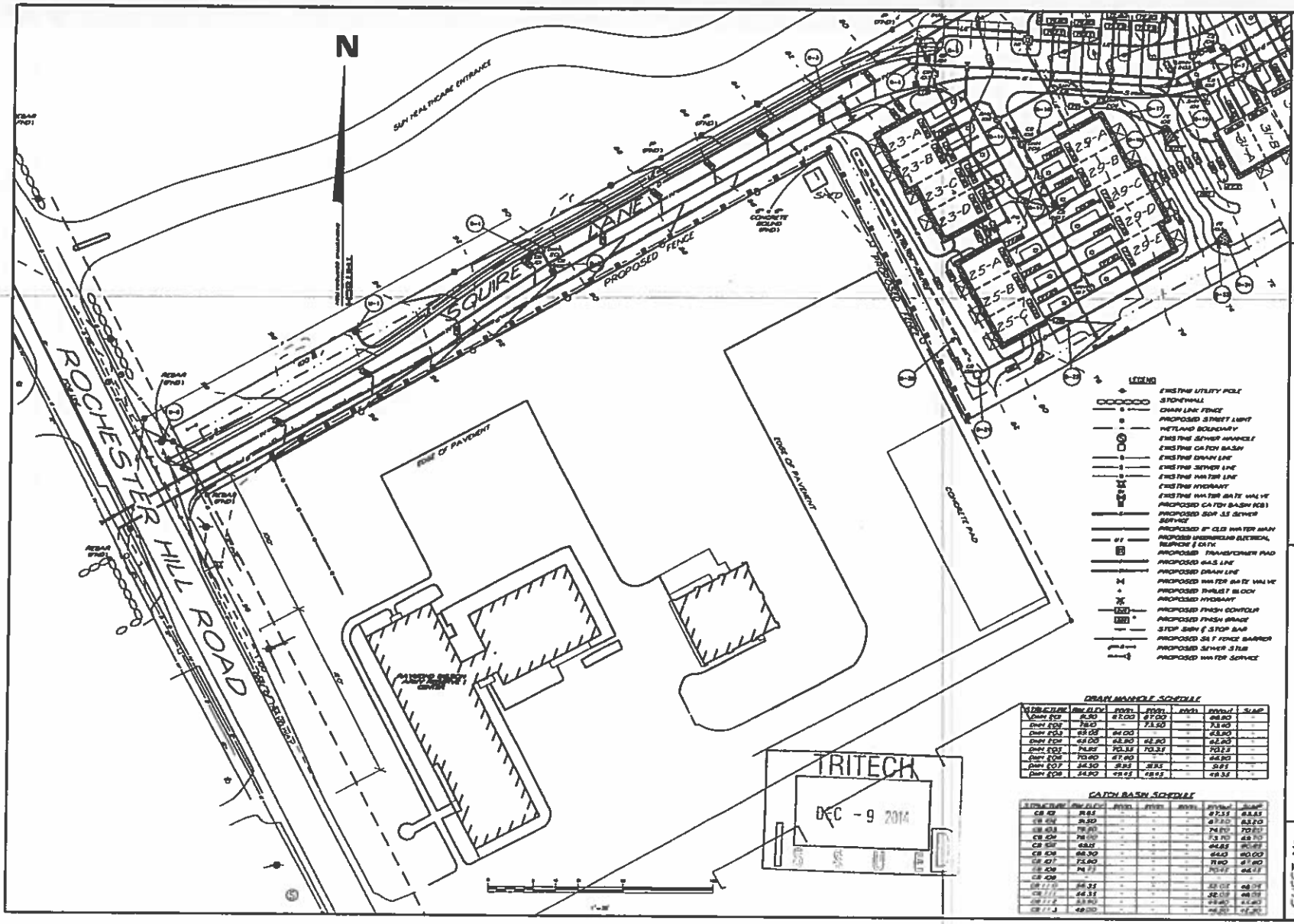
1. CORE AND SOCKET EXISTING SMH #39 AT ELEVATION 41.55'
2. INSTALL 50' OF 6"x SDR 35 SEWER PIPE AT a SLOPE OF 0.50 FT/FT FROM SMH 100 @ ELEV = 43.30' TO SMH 39 @ ELEV = 45.26'
3. INSTALL 207' OF 6"x SDR 35 SEWER PIPE AT a SLOPE OF 0.045 FT/FT FROM SMH 101 @ ELEV = 38.75' TO SMH 100 @ ELEV = 33.45'
4. INSTALL 139' OF 6" SDR 35 SEWER PIPE AT a SLOPE OF 0.006 FT/FT FROM SMH 102 @ ELEV = 43.80' TO SMH 101 @ ELEV = 38.85'
5. INSTALL 54' OF 6"x SDR 35 SEWER PIPE AT a SLOPE OF 0.045 FT/FT FROM SMH 103 @ ELEV = 46.17' TO SMH 102 @ ELEV = 43.80
6. INSTALL 208' OF 6"x SDR 35 SEWER PIPE AT a SLOPE 0.05 FT/FT FROM SMH 104 2 ELEV = 62.70' TO SMH 103 @ ELEV = 46.20'
7. INSTALL 96' OF 6"x SDR 35 SEWER PIPE AT a SLOPE OF 0.04 FT/FT FROM SMH 105 @ ELEV = 63.80' TO SMH 104 @ ELEV = 66.55'
8. INSTALL 30' OF 6"x SDR 35 SEWER PIPE AT a SLOPE OF 0.04 FT/FT FROM SMH 106 @ ELEV = 66.85' TO SMH 105 @ ELEV = 66.75'
9. INSTALL 124' OF 6"x SDR 35 SEWER PIPE AT a SLOPE OF 0.01 FT/FT FROM SMH 107 @ ELEV = 70.20' TO SMH 106 @ ELEV = 66.85
10. INSTALL 66' OF 6"x SDR 35 SEWER PIPE FROM BUILDING SERVICES BLDG #4 TO SMH 102 @ ELEV = 43.80 MIN. SLOPE = 0.010 FT/FT
11. INSTALL 94' OF 6"x SDR 35 SEWER PIPE FROM BUILDING SERVICES BLDG #4 TO SMH 102 @ ELEV = 43.80 MIN. SLOPE = 0.010 FT/FT
12. INSTALL 6"x SDR 35 CLEAN OUT CAPPED AT GRADE SEE DETAIL D-11
13. INSTALL 6"x SDR 35 SEWER PIPE FROM 6"x WYE TO BUILDING (TYP) MIN. SLOPE 0.010 FT/FT

TRITECH
ENGINEERING CORPORATION
799 CENTRAL AVENUE
DOVER, NEW HAMPSHIRE 03820
TELEPHONE 603 749-9717
FAX 603 749-9951

REVISIONS
DATE: DESCRIPTION:

SITE DEVELOPMENT PLAN
INDIAN RIDGE
66 ROCHESTER HILL ROAD
ROCHESTER, NEW HAMPSHIRE
DECEMBER 9, 2011
JOB No. 14110
SCALE 1" = 30'

SHEET No.
SP-5



DRAIN MANHOLE SCHEDULE

STRUCTURE	RIM ELEV	INVEL	INVEL	INVEL	INVout	SUMP
DMH 100	91.90	82.00	87.00	-	86.90	-
DMH 102	78.10	-	73.50	-	73.10	-
DMH 103	65.08	64.00	-	-	63.90	-
DMH 104	65.00	63.90	62.90	-	62.23	-
DMH 105	74.85	70.35	70.35	-	70.23	-
DMH 106	70.60	67.90	-	-	66.90	-
DMH 107	54.90	53.5	53.5	-	51.1	-
DMH 108	54.90	49.45	49.45	-	49.34	-

CATCH BASIN SCHEDULE

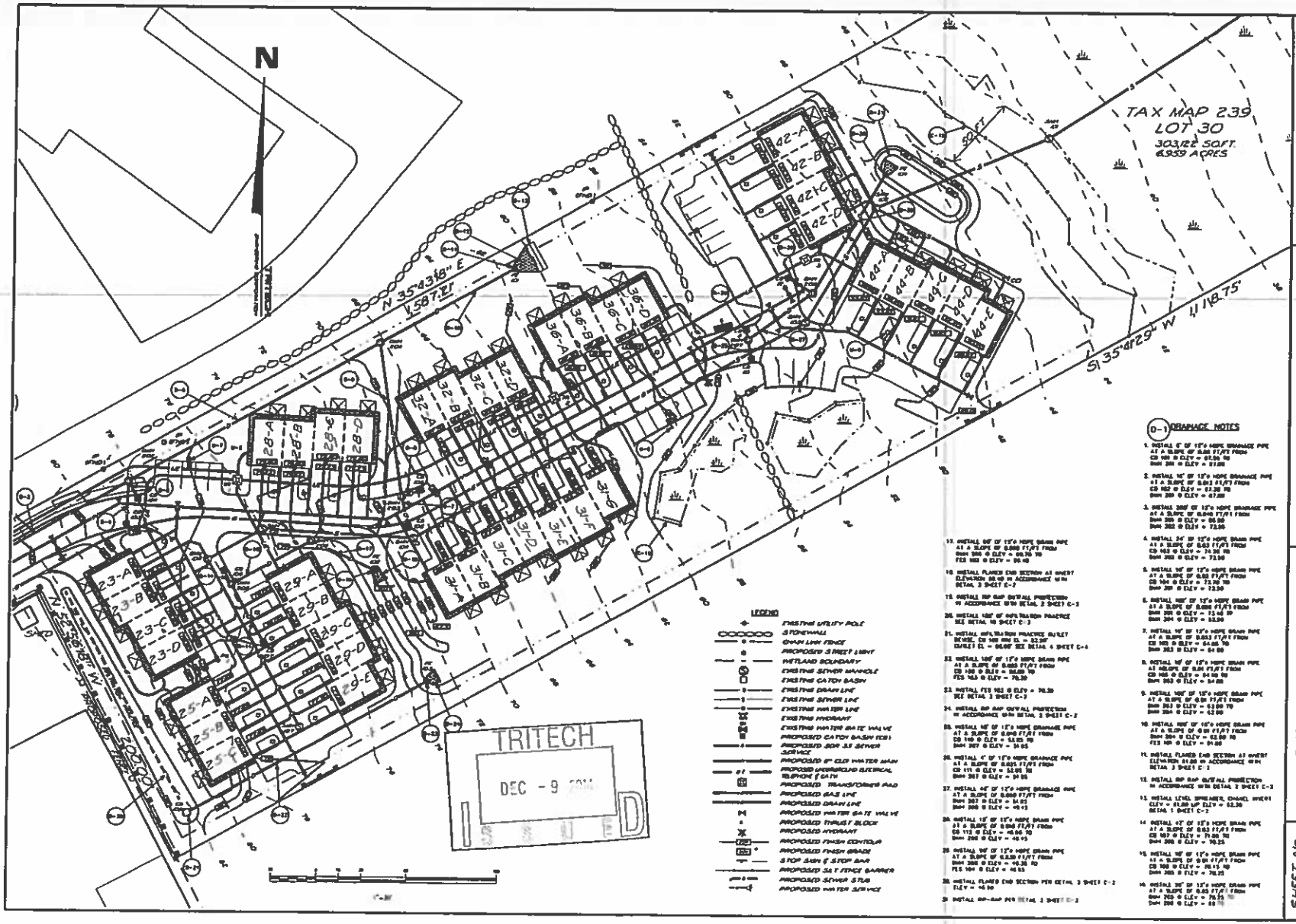
STRUCTURE	RIM ELEV	INVEL	INVEL	INVEL	INVout	SUMP
CB 101	78.61	-	-	-	67.55	63.55
CB 102	76.50	-	-	-	67.10	63.10
CB 103	78.80	-	-	-	74.10	70.10
CB 104	78.80	-	-	-	73.10	69.10
CB 105	68.0	-	-	-	64.85	60.85
CB 106	66.30	-	-	-	64.0	60.00
CB 107	75.60	-	-	-	71.60	67.60
CB 108	74.73	-	-	-	70.43	66.43
CB 109		-	-	-		
CB 110	56.35	-	-	-	52.05	48.05
CB 111	66.35	-	-	-	62.05	58.05
CB 112	53.90	-	-	-	49.60	45.60
CB 113	49.00	-	-	-	44.80	40.80

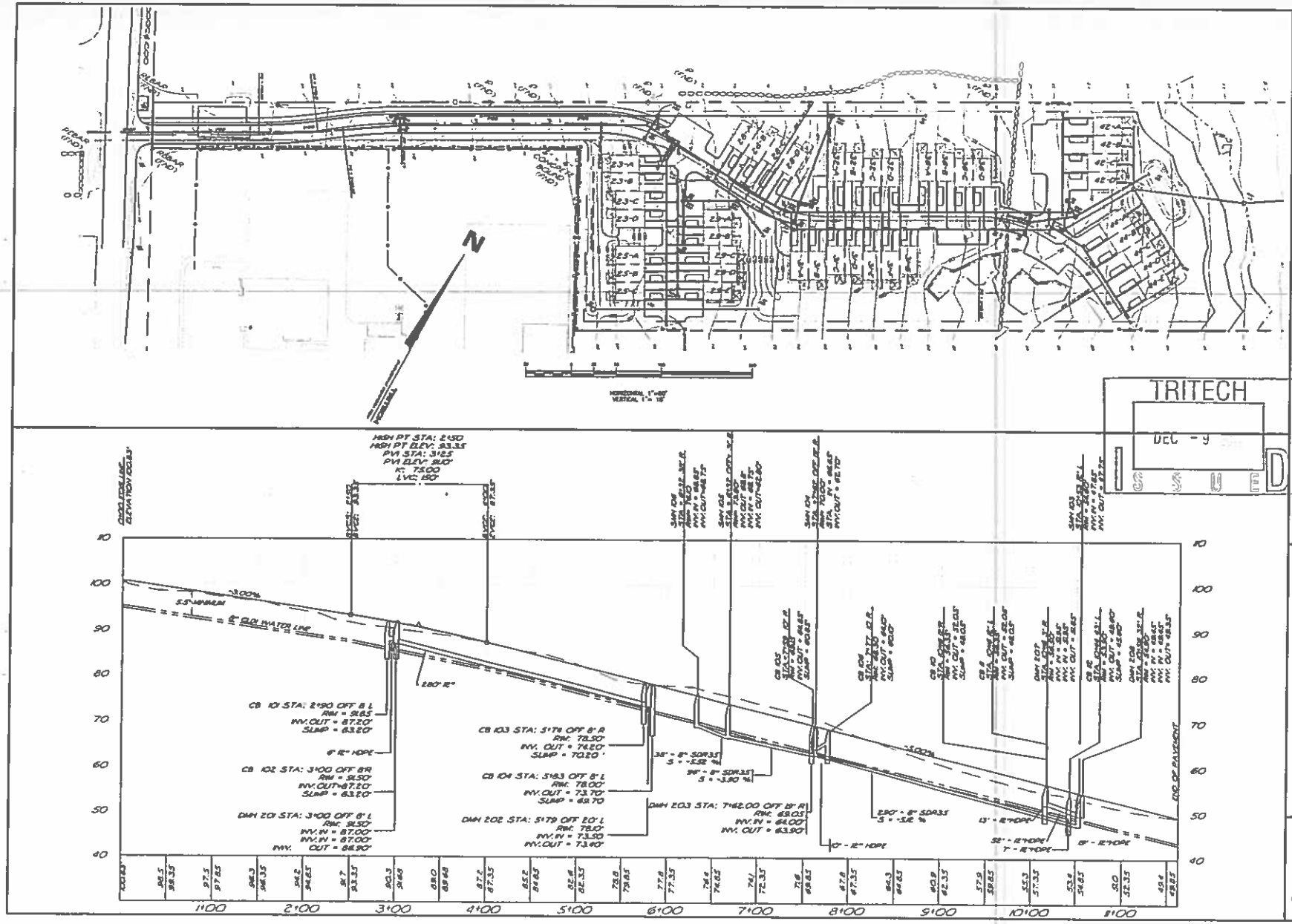
TRITECH
ENGINEERING CORPORATION

REVISIONS
DATE: DESCRIPTION:

SITE GRADING PLAN
INDIAN RIDGE
66 ROCHESTER HILL ROAD
ROCHESTER, NEW HAMPSHIRE
DECEMBER 9, 2014
JOB No. 14110
SCALE: 1" = 30'

SHEET No.
SP-6


N
TAX MAP 239
LOT 30
303122 SQFT.
6.959 ACRES
N 35°43'18" E
1,587.27'
S 35°42'29" W
1,118.75'
N 52°36'18" W
23-A
23-B
23-C
23-D
25-A
25-B
25-C
28-A
28-B
28-C
28-D
29-A
29-B
29-C
29-D
29-E
31-A
31-B
31-C
31-D
31-E
31-F
32-A
32-B
32-C
32-D
36-A
36-B
36-C
36-D
42-A
42-B
42-C
42-D
44-A
44-B
44-C
44-D
TRITECH
DEC - 9
ISSUED
LEGEND
EXISTING UTILITY POLE
STONEWALL
CHAIN LINK FENCE
PROPOSED STREET LIGHT
WETLAND BOUNDARY
EXISTING SEWER MANHOLE
EXISTING CATCH BASIN
EXISTING DRAIN LINE
EXISTING SEWER LINE
EXISTING WATER LINE
EXISTING HYDRANT
EXISTING WATER GATE VALVE
PROPOSED CATCH BASIN TYPE I
PROPOSED SDR 35 SEWER SERVICE
PROPOSED 8" CLD WATER MAIN
PROPOSED UNDERGROUND ELECTRICAL TELEPHONE & CATV
PROPOSED TRANSFORMER PAD
PROPOSED GAS LINE
PROPOSED DRAIN LINE
PROPOSED WATER GATE VALVE
PROPOSED THRUST BLOCK
PROPOSED HYDRANT
PROPOSED FINISH CONTOUR
PROPOSED FINISH GRADE
STOP SIGN & STOP BAR
PROPOSED SILT FENCE BARRIER
PROPOSED SEWER STUB
PROPOSED WATER SERVICE
D-1 DRAINAGE NOTES
TRITECH
ENGINEERING CORPORATION
REVISIONS
DATE:
DESCRIPTION:
SITE GRADING PLAN
INDIAN RIDGE
66 ROCHESTER HILL ROAD
ROCHESTER, NEW HAMPSHIRE
DECEMBER 9, 2014
JOB No. 14110
SCALE: 1" = 30'
SHEET No.
SP-7



TRITECH

DEC - 9

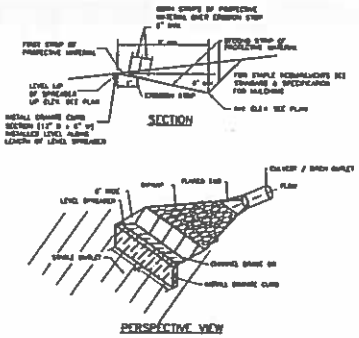
ISSUED

TRITECH
ENGINEERING CORPORATION

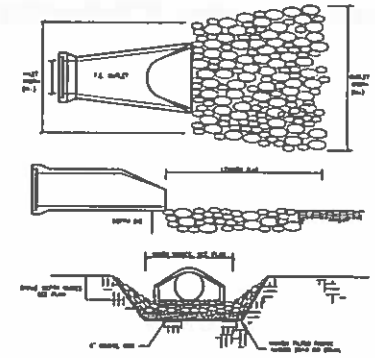
REVISIONS
DATE DESCRIPTION

ROAD PLAN & PROFILE
INDIAN RIDGE
PROPOSED SQUIRE LANE
66 ROCHESTER HILL ROAD
ROCHESTER, NH
DECEMBER 9, 2014 JOB No. NHD
SCALE: 1" = 50'

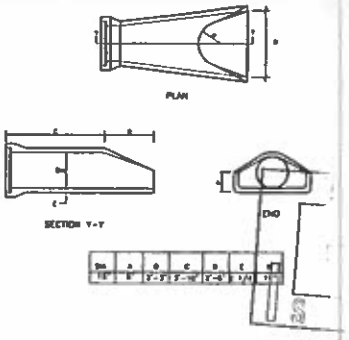
SHEET NO.
C-1



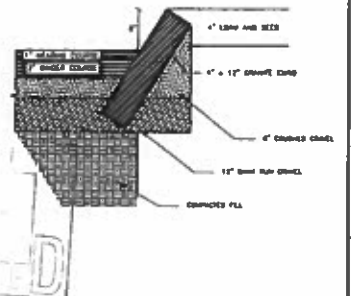
1 LEVEL SPREADER
NOT TO SCALE



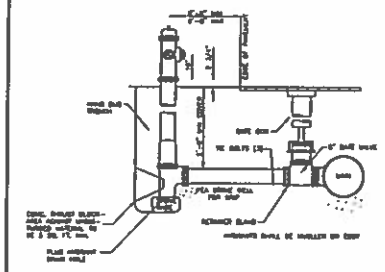
2 RIPRAP DETAIL
NOT TO SCALE



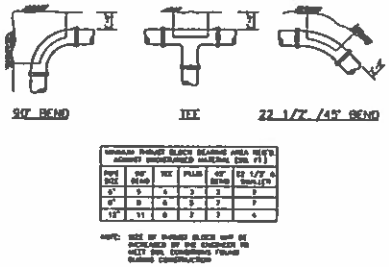
3 FLARED END SECTION
NOT TO SCALE



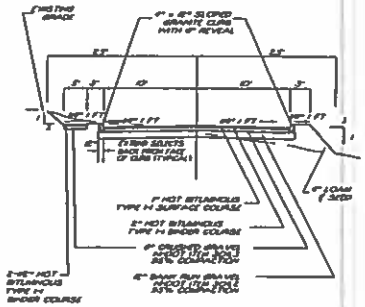
4 SLOPED GRANITE CURB SECTION
NOT TO SCALE



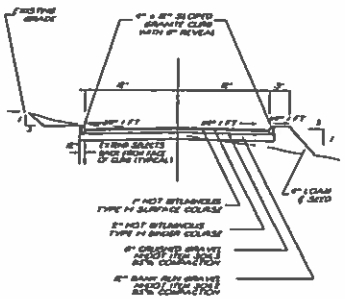
5 HYDRANT & VALVE DETAIL
NOT TO SCALE



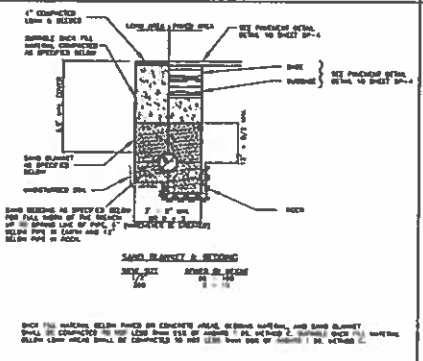
6 WATER MAIN THRUST BLOCK DETAILS
NOT TO SCALE



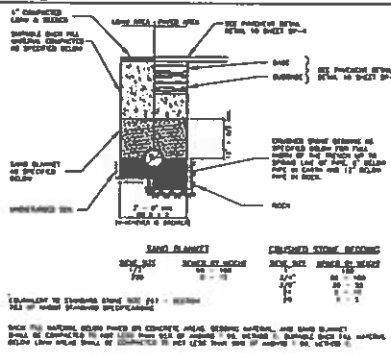
7 TYPICAL ROAD CROSS SECTION
NOT TO SCALE



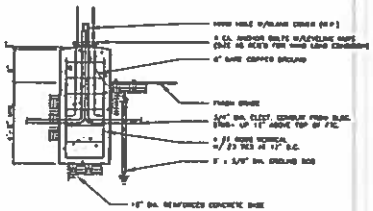
8 TYPICAL ROAD CROSS SECTION
NOT TO SCALE



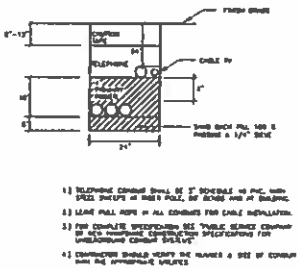
9 WATER LINE TRENCH
NOT TO SCALE



10 STORM DRAINAGE & SEWER PIPE TRENCH
NOT TO SCALE



11 SITE LIGHTING BASE
NOT TO SCALE



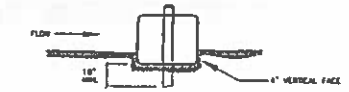
12 ELECTRICAL TRENCH
NOT TO SCALE

TRITECH
ENGINEERING CORPORATION

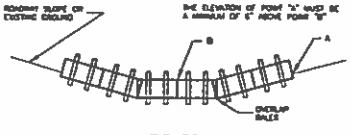
REVISIONS
DATE DESCRIPTION

CONSTRUCTION DETAILS
INDIAN RIDGE
66 ROCHESTER HILL ROAD
ROCHESTER, NEW HAMPSHIRE
DECEMBER 9, 2014
JOB NO. 14110

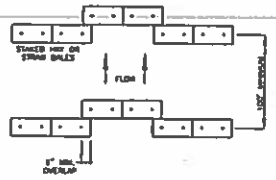
SHEET NO.
C-2



EMBEDDING DETAIL



ELEVATION

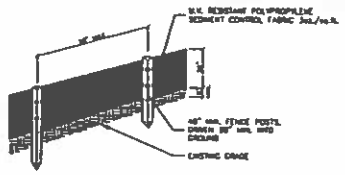


PLAN

CONSTRUCTION SPECIFICATIONS

1. BALES SHALL BE PLACED IN A ROW WITH CROSS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4".
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY STAKES OR REBARS DRIVEN THROUGH THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARDS PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER.
4. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED (AFTER EACH RAIN).
5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
6. REMOVE AND PROPERLY DISPOSE OF ALL SEDIMENT PRIOR TO REMOVING HAYBALES.

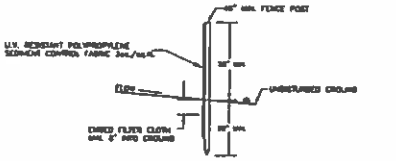
1 HAYBALE BARRIER – TREATMENT SWALE
NOT TO SCALE



PERSPECTIVE VIEW

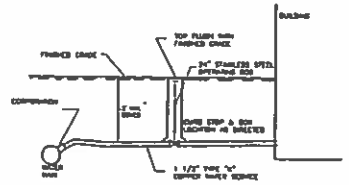
NOTES

1. THE CONTROL FABRIC SHALL MEET THE DESIGN CRITERIA FOR NEW HAMPSHIRE FABRICS FOR SILT FENCES, BY THE "STORMWATER MANAGEMENT AND EROSION AND SEDIMENT CONTROL HANDBOOK FOR URBAN AND DEVELOPING AREAS IN NEW HAMPSHIRE" PREPARED BY ROCKINGHAM COUNTY CONSERVATION DISTRICT, DATED AUGUST 1992.
2. THE FABRIC SHALL BE EMBEDDED A MINIMUM OF 8 INCHES BELOW THE GROUND AND THE SOIL COMPACTED OVER THE EMBEDDED FABRIC.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6 INCHES, FOLDED AND STAPLED.
4. FENCE POSTS SHALL BE A MINIMUM OF 30 INCHES LONG AND DRIVEN A MINIMUM OF 20 INCHES INTO THE GROUND. WOOD POSTS SHALL BE OF SOUND QUALITY HARDWOOD AND SHALL HAVE A MINIMUM CROSS SECTIONAL AREA OF 3.0 SQ.IN.
5. MAINTENANCE SHALL BE PERFORMED AS NEEDED TO PREVENT BULGES IN THE SILT FENCE DUE TO DEPOSITION OF SEDIMENT
6. REMOVE BY HAND AND PROPERLY DISPOSE OF ALL SEDIMENT PRIOR TO REMOVING FENCE.



SECTION

2 SILT FENCE
NOT TO SCALE



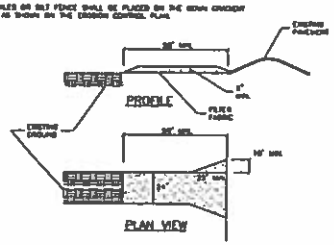
* USE 2" x 2" ROAD BOARD INSULATION OVER PIPE WHEN COVER REQUIREMENT CANNOT BE SATISFIED.

NOTES:

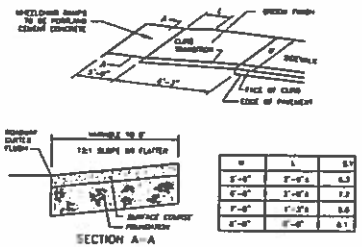
1.) SERVICE TO BE TYPE "K" COPPER OR EQUAL, APPROVED BY LOCAL AND STATE SPECIFICATIONS.

3 BUILDING WATER SERVICE
NOT TO SCALE

1. CURBS AND COMPACT ACCESS ROAD ENTRANCE AS NECESSARY PLACE FILTER FABRIC (WOVEN OR EQUAL) AND PLACE 2" OF 1" – 2" STONE TO MATCH GRADE OF EXISTING ROAD
2. PROVIDE NECESSARY SHIELD OR DIVERSION TO DIVERT DIRECT FLOW OF WATER OVER STONE AREA.
3. CONSTRUCTION ENTRANCE SHALL BE MAINTAINED AS NECESSARY TO REMOVE MUD FROM TIRES PRIOR TO ENTERING PUBLIC ROADS. A SHELL SHALL SHALL BE CONSTRUCTED ON THE DOWN GRADIENT SIDE TO PREVENT ANY SILT WASHED FROM THE STONE.
4. WATTLES OR SILT FENCE SHALL BE PLACED ON THE DOWN GRADIENT SIDE AS SHOWN ON THE EROSION CONTROL PLAN.



7 STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE



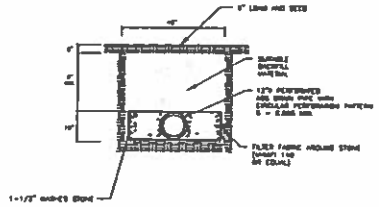
W	L	S.Y
5'-0"	5'-0"±	6.3
6'-0"	5'-0"±	7.2
7'-0"	1'-3"±	8.6
8'-0"	6'-0"	8.1

SECTION A–A

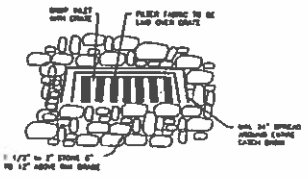
NOTES:

1. THE DIMENSIONS SHOWN AT PERMANENT CURB ARE FIXED DISTANCES.
2. RAMP CROSS SECTION TO BE SAME AS ADJACENT SIDEWALK I.E., DEPTH OF SURFACE AND FOUNDATION.
3. PORTLAND CEMENT CONCRETE RAMPS ARE TO BE REINFORCED BY BROOMING IN A DIRECTION PARALLEL TO THE LENGTH OF THE RAMP.
4. SIDEWALKS THAT CROSS DRIVEWAYS SHALL BE RAMPED TO MEET THE GRADE OF GRAVEL.
5. THESE DIMENSIONS ARE SUBJECT TO CHANGE IN THE FIELD IF EXISTING IMPROVEMENTS OR CONDITIONS WILL MAKE THE RAMP LOCATIONS IMPRACTICAL OR UNSAFE.

9 WHEEL CHAIR RAMP
NOT TO SCALE



10 INFILTRATION PRACTICE DETAIL (ID)
NOT TO SCALE



1 1/2" to 3" STONE 6" TO 12" ABOVE THE GRADE

GUIDELINES:
– A STONE AND WIRE MESH DROP INLET SEDIMENT BARRIER CAN BE USED WHERE HEAVY, CONCENTRATED FLOWS ARE EXPECTED. BECAUSE THIS STRUCTURE HAS NO MEANS FOR HANDLING OVERFLOWS, IT IS LIKELY TO CAUSE FLOODING, ESPECIALLY IF SEDIMENT IS NOT REMOVED REGULARLY. IT SHOULD ONLY BE USED WHERE RUNOFF CAN BE PONDED AND WHERE OVERFLOW WILL NOT ENDANGER FILL SLOPES OR DRAINED ON OVERFLOW WITH ERRATIC MOVEMENT ON CONSTRUCTION. IN AREAS WHERE PONDING WILL BE A PROBLEM, USE A STAKED SILT FENCE BARRIER ON ANY INLET BARRIER.

INSTALLATION
– PLACE WIRE MESH OR FILTER FABRIC ON THE CATCH BASIN SO THAT THE MESH EXTENDS A MINIMUM OF 18" BEYOND EACH SIDE OF THE INLET STRUCTURE. USE FILTER FABRIC ON IF NOT AVAILABLE USE HARDWARE CLOTH OR COMPARABLE WIRE MESH WITH 1/2" OPENINGS. – PLACE 1 1/2" TO 3" STONE OVER THE FABRIC OR MESH. THE DEPTH OF STONE SHOULD BE AT LEAST 6" TO 12" OVER THE ENTIRE INLET OPENING. EXTEND THE STONE BEYOND THE INLET AT LEAST 24" ON ALL SIDES.

MAINTENANCE:
– IF THE STONE FILTER BECOMES CLOGGED WITH SEDIMENT, THE STONES MUST BE PULLED AWAY FROM THE INLET. THE FABRIC AND STONE MUST BE CLEANED OR REPLACED.

11 CATCH BASIN PROTECTION
NOT TO SCALE

CRITICAL AREAS

Locations on the site that develop vegetation is to be removed and require immediate erosion control treatment. Special care should be taken where runoff enters outlets.

EROSION AND SEDIMENT CONTROL PRACTICES

Erosion and sediment control practices will include the use of permanent grass plantings and silt fence. All erosion and sediment control practices will be constructed and maintained according to the minimum standards and specifications contained in the "Erosion and Sediment Control Design Handbook Handbook for Developing Areas of New Hampshire."

A. Erosion and Sediment Control Measures

1. The erosion control procedures shall conform to Section 645 of the "Standard Specifications for Road and Bridge Construction" of the NH DOT, and the "New Hampshire Stormwater Manual".
2. During Construction and thereafter, erosion control measures are to be implemented as noted. The smallest practicable area of land should be exposed at any one time during development. The amount of exposed areas which are temporarily stabilized without permanent stabilization shall be limited to 5 acres.
3. During grading operations, heavy stone check dams at 50 foot intervals in drainage swales. Barriers are to be maintained and cleaned until disturbed areas are stabilized.
4. Any disturbed areas which are to be left temporarily, and which will be regraded later during construction shall be mulched and seeded with rye grass to prevent erosion.
5. Silt fences and other erosion control measures shall be inspected weekly and after every 0.25" rainfall event during the life of the project. All damaged silt fences shall be repaired. Sediment deposits shall periodically be removed.
6. Avoid the use of future open spaces (farm and wood areas) wherever possible during the construction. Construction traffic shall use the roadways of future roads and parking areas.
7. Topsoil required for the establishment of vegetation shall be stock piled in amounts necessary to complete finished grading of all exposed areas.
8. Areas to be filled shall be scarified, grubbed, and stripped of topsoil to remove trees, vegetation, roots or other substitutions material. Stumps shall be disposed by grinding or fill in an approved fashion.
9. All fills shall be placed and compacted to minimize erosion, slippage settlement, subsidence or other natural problems.
10. All fill shall be placed and compacted in layers not to exceed 9 inches in thickness.
11. Frozen material or soft, mucky or highly compressible material shall not be incorporated into fills.
12. Fill material shall not be placed on a frozen foundation subgrade.
13. Disturbed areas shall be graded immediately following finished grading.
14. Areas of exposed area that is temporarily stabilized without permanent stabilization for 3 years or less.
15. All areas not stabilized by Nov. 1st shall be protected by Erosion Control Blankets or mulched and mulched/seeded with winter rye or oats.
16. All finished areas must be seed and mulched within 3 days of final grading, permanently stabilized within 15 days of final grading or temporarily stabilized within 10 days of initial disturbance.
17. All stumps are to be stockpiled prior to shredding equal to these features.
18. All and and fill slopes shall be seeded immediately.
19. All roadways shall be stabilized within 72 hours of establishing final grade.
20. An 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-erosion material such as stone or mulch has been applied
    d.) Erosion control blankets have been properly installed.
21. Lot disturbance, either than that shown on the approved plans, shall not occur until after the roadway and underground drainage have been completed and stabilized.

B. Vegetative Practice

All ground areas exposed as for construction will be regraded, loosened, seeded and mulched in the shortest practical time. All temporary and Permanent Seeding shall be completed prior to October 1st. Longer temporary erosion and sedimentation control measures as detailed in the plan as necessary until adequate stabilization has been secured.

A. Temporary Seeding & Hay Mulching

1. As soon after each step disturbed area reaches completion for longer than 30 days. All areas where construction is not completed within 30 days of the initial disturbance shall receive temporary seeding treatment.
2. Fertilizer shall be spread on the top layer of loam and worked into the surface. Fertilizer application rate shall be 300 pounds per acre of 10-20-20 fertilizer.
3. Lime shall be tilled into the top. (12 LBS. per acre.
4. Remove stones and trash that will interfere with seeding the area. Where feasible, fill the soil to a depth of about 3 inches to prepare a seedbed and add fertilizer into the soil. The seedbed should be left in a firm and smooth condition. The last tillage operation should be performed across the slope on contour.
5. If possible between May 15th and August 15th, hay mulch shall be applied immediately after seeding at a rate of 1.5 to 2 tons per acre and shall be held in place using appropriate techniques from the Erosion and Sediment Control Handbook.
6. The surface shall be watered and kept moist with a fine spray as required without washing away the soil, until grass is well established. Any areas which are not satisfactorily covered with grass shall be reseeded, and all washout areas repaired.

B. Permanent Seeding & Hay Mulching

1. All disturbed areas shall be treated (4") and limed. Lime shall be thoroughly incorporated into the top layer at a rate of 3 tons per acre.
2. Fertilizer shall be spread on the top layer of loam and worked into that surface. Fertilizer application rate shall be 300 pounds per acre of 10-20-20 fertilizer.
3. Seed shall be sod 60 lbs. per acre, 80% minimum "A" (80 lbs bid Kentucky, 20 lbs. creeping red fescue and 5 lbs. white Dutch clover = 40 lbs total.) The sod shall be lightly rolled immediately before seeding. One half the seed shall be sown in one direction and the other half at right angles to the original direction. It shall be lightly raked in to the soil to a depth not over 1/4 inch and rolled with hand roller weighing not over 100 pounds per linear foot of width.
4. Hay mulch shall be applied immediately after seeding at a rate of 1.5 to 2 tons per acre and shall be held in place using appropriate techniques from the Erosion and Sediment Control Handbook. The surface shall be watered and kept moist with a fine spray as required, without washing away the soil, until the grass is well established. Any areas which are not satisfactorily covered with grass shall be reseeded, and all washout areas repaired.

CONSTRUCTION SEQUENCE

1. Do not begin construction until all local, state and federal permits have been applied for and received, including preparing a Storm Water Pollution and Prevention Plan and filing and receiving an Environmental Protection Agency, Notice of Intent, General Permit.
2. Install silt fences and other control measures necessary to control erosion and prevent sediment contamination of wetlands prior to any earth moving activities.
3. Cut and remove trees, shrubs, saplings, brush, vines and other debris and rubbish as required for drainage construction.
4. Construct swales and infiltration area. Protect catch basins with hay filter fabric.
5. Cut and remove trees, shrubs, saplings, brush, vines and other debris and rubbish as required for subsurface site.
6. Construct roadway and utilities.
7. Loam and hay disturbed areas in accordance with vegetative practice and ground stabilization notes. Cut and fill slopes shall be seeded immediately after their construction.
8. All areas requiring topsoil shall be stockpiled prior to stripping topsoil to loam.
9. All cut and fill and finish grades must be stabilized within 72 hours of disturbance.
10. Install disturbed areas as necessary.

MAINTENANCE

During the progress of construction and/or until long term vegetation is established:

1. Sediment errors will be fertilized and reseeded as necessary to insure vegetative establishment.
2. The silt fence should be inspected after every significant rainfall.
3. The silt fence will be checked weekly and replaced when necessary until adequate vegetation is established.
4. The silt fence barriers will be checked regularly. Necessary repairs will be made to correct undermining or deterioration of the structures.

WINTER CONSTRUCTION NOTES

1. All proposed vegetated areas which do not exhibit a minimum of 85% vegetation growth by October 15th, or which are disturbed after October 15th, shall be stabilized by mulching and including erosion control blankets on slopes greater than 3:1, and seeding and placing 2 to 4 bales of mulch per acre, covered with anchored netting, elsewhere. The installation of erosion control blankets or mulch and netting shall not occur over accumulated snow or on frozen ground and shall be appropriate in advance of thaw or spring rains.
2. All shallow or swale areas do not exhibit a minimum of 85% vegetation growth by October 15th, or which are disturbed after October 15th, shall be stabilized temporarily with straw or erosion control blankets appropriate for the design flow conditions.
3. After November 15th, temporary road or parking surfaces, where work has stopped for the winter season, shall be protected with a minimum of 2 inches of crushed gravel per NHDOT Item 304.2.

12 EROSION AND SEDIMENT CONTROL NOTES

TRITECH
ENGINEERING CORPORATION

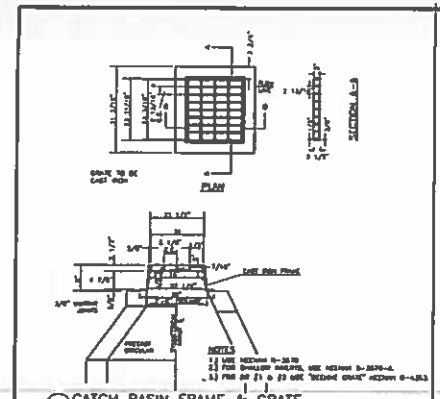
200 CENTRAL AVENUE
DOVER, NEW HAMPSHIRE 03820
TELEPHONE 603 749-9171
FAX 603 749-9002

REVISIONS
DATE: DESCRIPTION:

TRITECH
DEC - 9 2011

CONSTRUCTION DETAILS
INDIAN RIDGE
66 ROCHESTER HILL ROAD
ROCHESTER, NEW HAMPSHIRE
DECEMBER 9, 2011
JOB NO. 1411.0

SHEET NO.
C-3



1 CATCH BASIN FRAME & GRATE
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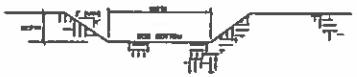

2 VEGETATED SWALE
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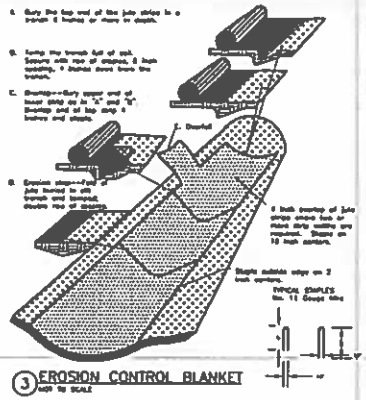

3 EROSION CONTROL BLANKET
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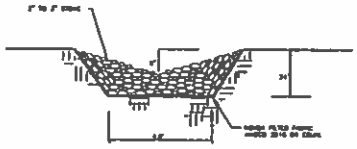
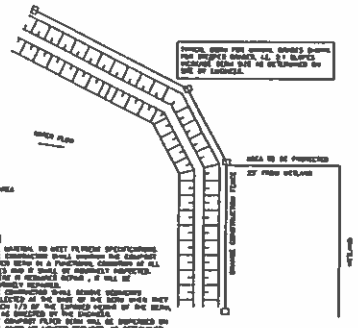
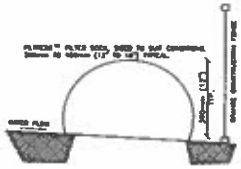
4
NOT TO SCALE



CONSTRUCTION SPECIFICATIONS

9 STONE CHECK DAM
NOT TO SCALE

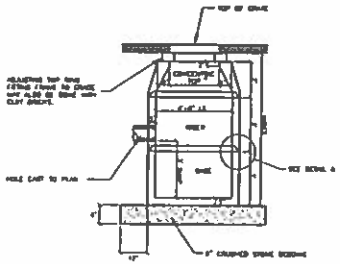




NOTES

6 FILTREXX SOCK - SILT FENCE

NOTES



12 CATCH BASIN
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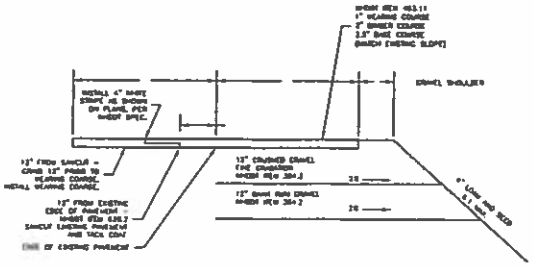


10 LANE EXPANSION DETAIL
NOT TO SCALE

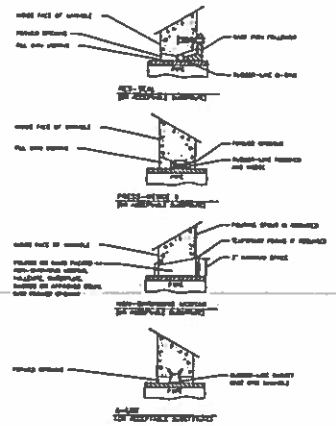
TRITECH
ENGINEERING CORPORATION

REVISIONS
DATE DESCRIPTION

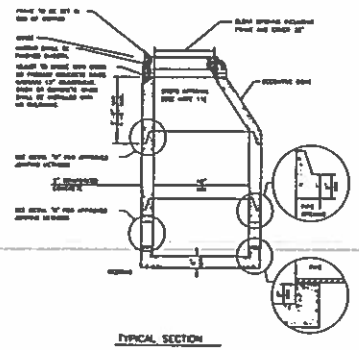
TRITECH
DEC -9

CONSTRUCTION DETAILS
INDIAN RIDGE
66 ROCHESTER HILL ROAD
ROCHESTER, NEW HAMPSHIRE
DECEMBER 9, 2014
JOB NO. 14110

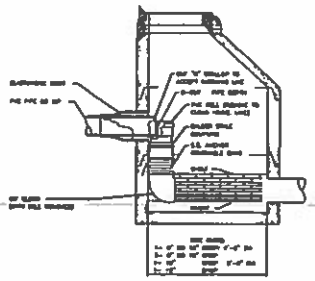
SHEET NO.
C-4



DETAIL "A" – PIPE TO MANHOLE JOINTS



TYPICAL SECTION



DROP INLET
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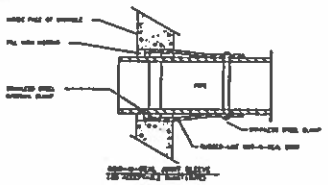

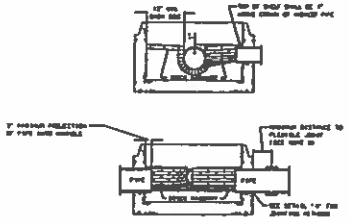

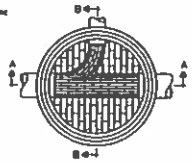

INVERT SECTION DETAIL
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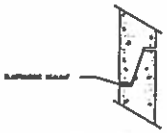


ELASTOMERIC SEALANT

DETAIL "B" – HORIZONTAL JOINTS

GENERAL NOTES

1) IT IS THE INTENTION THAT THE MANHOLE, INCLUDING ALL COMPONENT PARTS, HAVE ADEQUATE SPACE, STRENGTH AND LEAKPROOF QUALITIES CONSIDERED NECESSARY FOR THE INTENDED SERVICE. SPACE REQUIREMENTS AND CONFIGURATIONS, SHALL BE AS SHOWN ON THE DRAWING. MANHOLES SHALL BE AN ASSEMBLY OF PRECAST SECTIONS, WITH STEEL REINFORCEMENT, WITH REGULAR JOINTING, OR CONCRETE CAST MONOLITHICALLY IN PLACE WITH REINFORCEMENT. IN ANY APPROVED MANHOLE, THE COMPLETE STRUCTURE SHALL BE OF SUCH MATERIAL AND QUALITY AS TO WITHSTAND LOADS OF A TONS/M-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 NORM CASES.

2) BARRELS AND CONE SECTIONS SHALL BE PRECAST REINFORCED CONCRETE, OR POURED IN PLACE REINFORCED CONCRETE.

3) PRECAST CONCRETE BARREL SECTIONS, CONES AND BASES SHALL CONFORM TO ASTM C478.

4) LEAKAGE TEST SHALL BE PERFORMED IN ACCORDANCE WITH THE SPECIFICATIONS.

5) INVERTS AND SHELVES: MANHOLES SHALL HAVE A BRICK FORCED OR PRECAST CONCRETE SHELF AND INVERT, CONSTRUCTED TO CONFORM TO THE SIZE OF THE PIPE AND FLOW. AT CHANGES IN DIRECTIONS, 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 OR PRECAST CONCRETE.

6) FRAMES AND COVERS: MANHOLES FRAMES AND COVERS SHALL BE OF HEAVY DUTY DESIGN AND PROVIDE A 30-INCH CLEAR OPENING. A 2-INCH (MINIMUM HEIGHT) LETTER "S" FOR SEWERS AND "D" FOR DRAINS SHALL BE PLAINLY CAST INTO THE CENTER OF EACH COVER

7) BEDDING: SCREENED GRAVEL AND/OR CRUSHED STONE FREE FROM CLAY, LOAM, ORGANIC MATTER AND MEETING ASTM C33, SIZE NUMBER 67.
   - 100% PASSING 1 INCH SCREEN 0-10% PASSING #4 SIEVE
   - 90-100% PASSING INCH SCREEN 0-5% PASSING #8 SIEVE
   - 20-55% PASSING INCH SCREEN

   WHERE ORDERED BY THE ENGINEER TO STABILIZE THE BASE, SCREENED GRAVEL OR CRUSHED STONE INCH TO 1 INCH SHALL BE USED.

8) FLEXIBLE JOINT: A FLEXIBLE JOINT SHALL BE PROVIDED WITHIN THE FOLLOWING DISTANCES.

   RCP & CI PIPE – ALL SIZES – 48"

9) SHALLOW MANHOLES: 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.

10) MANHOLE STEPS MAY BE PERMITTED UPON REQUEST OF THE OWNER AS SECONDARY ADDITIONAL SAFETY FEATURE SUPPLEMENTARY TO THE PRIMARY PORTABLE LADDER EXPRY AND WHEN INSTALLED UNDER THE FOLLOWING CONDITIONS

   1. THE STEPS SHALL BE MANUFACTURED OF PLASTIC COATED STEEL. THEY SHALL BE SHAPED SO THEY CANNOT BE PULLED OUT OF THE CONCRETE WALL IN WHICH THEY ARE EMBEDDED.
   2. THE STEPS SHALL BE EMBEDDED IN THE CONCRETE OF THE MANUFACTURER DURING MANUFACTURE OR IMMEDIATELY FOLLOWING REMOVAL OF FORMS. DRILLING THE STEPS INTO MORTAR OR DRILLED OR CAST HOLES, WILL NOT BE ACCEPTABLE.
   3. THE STEPS SHALL BE OF THE DROP TYPE WITH A DEPRESSED SECTION FOR MANHOLE. APPROXIMATELY 14"X14" IN DIMENSION.

11) HORIZONTAL JOINTS BETWEEN SECTIONS OF PRECAST CONCRETE BARRELS SHALL BE OF A TYPE APPROVED BY THE ENGINEER, WHICH TYPE SHALL, IN GENERAL, DEPEND FOR WATERTIGHTNESS UPON AN ELASTOMERIC OR MASTIC-LIKE GASKET, APPROVED ELASTOMERIC SEALANTS ARE:

   RAM-NECK
   NEW SEAL NO.1
   EZ

12) PIPE TO MANHOLE JOINTS SHALL BE ONLY AS APPROVED BY THE ENGINEER AND IN GENERAL, WILL DEPEND FOR WATERTIGHTNESS UPON EITHER AN APPROVED NON-SHRINKING MORTAR OR ELASTOMERIC SEALANT.

TRITECH
ENGINEERING CORPORATION

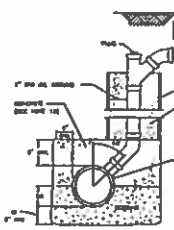
REVISIONS
DATE:
DESCRIPTION:

TRITECH
DEC -9

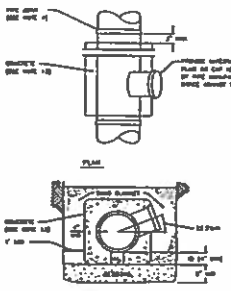
STANDARD SEWER DETAILS
INDIAN RIDGE
66 ROCHESTER HILL ROAD
ROCHESTER, NEW HAMPSHIRE
DECEMBER 9, 2014
JOB No. 14110

SHEET No.
C-5

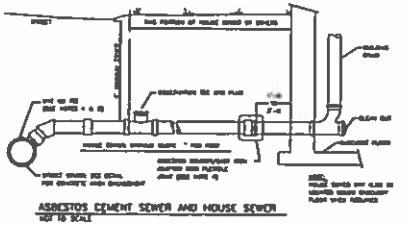
TRENCH CROSS-SECTION
NOT TO SCALE



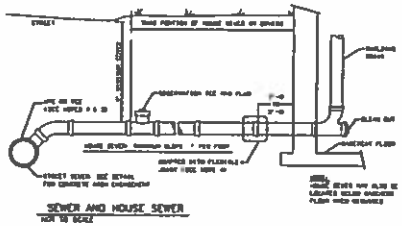
CHIMNEY - DRY HOLE 1:8
NOT TO SCALE



CONCRETE FULL ENCASEMENT
NOT TO SCALE



ASBESTOS CEMENT SEWER AND HOUSE SEWER
NOT TO SCALE



SEWER AND HOUSE SEWER
NOT TO SCALE

GENERAL NOTES

1) MINIMUM SIZE PIPE FOR HOUSE SERVICE SHALL BE FOUR INCHES.

2) PIPE AND JOINT MATERIALS:

A. PLASTIC SEWER PIPE

1. PIPE AND FITTINGS SHALL CONFORM TO THE FOLLOWING ASTM STANDARDS:

ASTM STANDARDS	SEWER PIPE MATERIAL	SIZES APPROVED
D3034	*PVC (SOLID WALL)	6" THROUGH 15" (SDR 35)
F679	PVC (SOLID WALL)	18" THROUGH 27" (T-1 & T-2)
F789	PVC (SOLID WALL)	4" THROUGH 18" (T-1 TO T-3)
F794	PVC (RIBBED WALL)	8" THROUGH 36"
D2680	*ABS (COMPOSITE WALL)	8" THROUGH 15"

*PVC: POLY VINYL CHLORIDE
*ABS: ACRYLONITRILE-BUTADIENE-STYRENE

2. JOINTS SEALS FOR PVC PIPE SHALL BE OIL RESISTANT COMPRESSION TYPE OF ELASTOMERIC MATERIAL CONFORMING TO ASTM D-3212 AND SHALL BE PUSH-ON BELL AND SPIGOT TYPE.

ABS TRUSS PIPE AND FITTINGS SHALL CONFORM TO ASTM D-2680. POLYMER COMPOUNDING SHALL BE TO ASTM D-1700 (CLASS 222).

JOINTS FOR ABS TRUSS PIPE SHALL BE CHEMICAL WELDED COUPLINGS PIPE BE IN ACCORDANCE WITH ASTM D-2680, FORMING A CHEMICAL WELDED JOINT.

B. DUCTILE-IRON PIPE, FITTINGS AND JOINTS.

1. DUCTILE IRON PIPE AND FITTINGS SHALL CONFORM TO THE FOLLOWING STANDARDS OF THE UNITED STATES OF AMERICA STANDARDS INSTITUTE:
A21.50 PROCESS DESIGN OF DUCTILE IRON PIPE AND SIZE ASTM A-536
---------- DUCTILE IRON CASTINGS.
A21.51 DUCTILE IRON PIPE, CENTRIFUGALLY CAST IN METAL MOLDS OR SAND-LINED MOLDS FOR WATER OR OTHER LIQUIDS.

2. JOINTS SHALL BE OF THE MECHANICAL OR PUSH-ON TYPE. JOINTS AND GASKETS SHALL CONFORM TO:
A21.11 RUBBER GASKETS JOINTS FOR CAST IRON PRESSURE PIPE & FITTINGS

3) DAMAGED PIPE SHALL BE REJECTED AND REMOVED FROM THE JOB SITE.

4) JOINTS SHALL BE REPOURED UPON A REPORTING OR ELASTOMERIC GASKET FOR WATER-TIGHTNESS. ALL JOINTS SHALL BE PROPERLY MARKED WITH THE PIPE MATERIALS USED. WHERE DIFFERING MATERIALS ARE TO BE CONNECTED, AS AT THE STREET SEWER TYE ON AT THE FOUNDATION WALL, APPROPRIATE MANUFACTURED ADAPTERS SHALL BE USED.

5) TEES AND WYES WHERE A TEE OR WYE IS NOT AVAILABLE IN THE EXISTING STREET SEWER, AN APPROPRIATE CONNECTION SHALL BE MADE, FOLLOWING MANUFACTURERS' INSTRUCTIONS USING A SADDLE, CLAMPED OR EPOXY-CEMENTED SADDLE TAPPED BAND A SUGGESTED DRILLED OR SAWN OPENING IN THE SEWER. THE PRACTICE OF INSERTING AN OPENING WITH A SLEEVE PRINTER, STUFFING CLOTH OR OTHER SUCH MATERIAL AROUND THE JOINT, OR APPLYING MORTAR TO HOLD THE CONNECTION, AND ANY OTHER SIMILAR CRUDE PRACTICE OR ANY OF ANOTHER APPROXIMATING THE, NOT BE PERMITTED. THE CONNECTION SHALL BE CONCRETE ENCASED AS SHOWN IN THE DETAIL UP TO AND INCLUDING 10" DIAMETER.

6) HOUSE SEWER INSTALLATION THE PIPE SHALL BE HANDLED, PLACED AND JOINED 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 DEPTH OF 12 INCHES ABOVE THE TOP OF THE PIPE SHALL BE CAREFULLY AND THOROUGHLY TAMPED BY HAND OR WITH APPROPRIATE MECHANICAL DEVICES.

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

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

A. 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

B. THE PIPE SHALL BE LEFT EXPOSED AND LOCALLY MOISTENED WITH WATER, TO SIMULATE, AS NEARLY AS POSSIBLE, WET TRENCH CONDITIONS OIL OF TRENCH IS WET, THE GROUND WATER SHALL BE PERMITTED TO RISE IN THE TRENCH OVER THE PIPE. INSPECTIONS FOR LEAKS SHALL BE MADE THROUGH THE CLEANOUT WITH A FLASHLIGHT.

C. ANY FLUORESCENT DYE SHALL BE SPRINKLED INTO THE TRENCH OVER THE PIPE. IF THE TRENCH IS DRY, THE PIPE SHALL BE LOCALLY MOISTENED WITH WATER, OR IF THE TRENCH IS WET, GROUND WATER SHALL BE PERMITTED TO RISE IN THE TRENCH OVER THE PIPE. DETERMINATION FOR LEAKS SHALL BE MADE IN THE FIRST DOWN-STREAM MANHOLE.

LEAKAGE DEFICIENCY IN ANY ONE OF THE ABOVE ALTERNATE TESTS SHALL BE CAUSE FOR NON-ACCEPTANCE AND THE PIPE SHALL BE DUG-UP IF NECESSARY AND RE-LAID SO AS TO INSURE WATER TIGHTNESS.

8) ILLEGAL CONNECTIONS INCLUDING BUT SANITARY WASTE FLOW FROM HOUSE TOILETS, SINKS, LAUNDRY ETC. SHALL BE PROHIBITED. ROOF LEADERS, FOUNDING DRAINS, SUMP PUMPS OR OTHER SIMILAR CONNECTIONS CARRYING RAIN WATER, DRAINAGE OR GROUND WATER SHALL NOT BE PERMITTED.

9) HOUSE WATER SERVICE SHALL NOT BE LAID IN SAME TRENCH AS SEWER SERVICE.

10) BEDDING: SCREENED GRAVEL AND/OR CRUSHED STONE FREE FROM CLAY, LOAM, ORGANIC MATERIAL AND MEETING ASTM C33-67.

1000 PASSING	1 INCH SCREEN
900-1000 PASSING	3/4 INCH SCREEN
300- 300 PASSING	3/8 INCH SCREEN
85- 100 PASSING	#4 SIEVE
60- 85 PASSING	#8 SIEVE

WHERE ORDERED BY THE ENGINEER TO STABILIZE THE TRENCH BASE. SCREENED GRAVEL OR CRUSHED STONE 1/2 INCH TO 1 1/2 INCH SHALL BE USED.

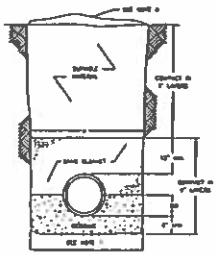
11) LOCATION: THE LOCATION OF THE TEE OR WYE SHALL BE RECORDED AND FILED IN THE MUNICIPAL RECORDS IN ADDITION, A FERROUS METAL ROD OR PIPE SHALL BE PLACED OVER THE TEE OR WYE AS DESCRIBED IN THE TYPICAL "CHIMNEY" DETAIL, TO AID IN LOCATING THE BURIED PIPE WITH A GIP METER OR PINPOINTER.

12) CONCRETE: CONCRETE SHALL CONFORM TO THE REQUIREMENTS FOR CLASS A (3000 PSI) CONCRETE OF THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS AS FOLLOWS

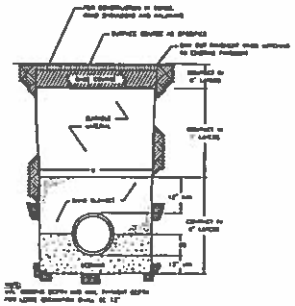
CEMENT: 6.0 BAGS PER CUBIC YARD
WATER: 5.75 GALLONS PER BAG CEMENT
MAXIMUM SIZE OF AGGREGATE: 1 INCH

13) CHIMNEYS: IF VERTICAL DROP AND SEWER IS GREATER THAN 4 FEET, A CHIMNEY SHALL BE CONSTRUCTED FOR THE HOUSE CONNECTION. CHIMNEY INSTALLATION AS RECOMMENDED BY THE PIPE MANUFACTURER MAY BE USED IF APPROVED BY THE ENGINEER.

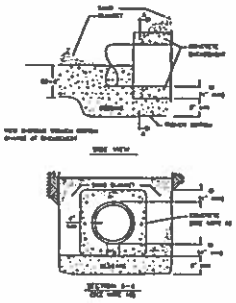
14) MINIMUM 4 10' HORIZONTAL SEPARATION BETWEEN SEWER LINES AND WATER LINES, AND AN 18" VERTICAL SEPARATION AT SEWER AND WATER CROSSINGS, WITH WATER OVER SEWER.



TYPICAL SECTION
NOT TO SCALE



LEDGE CONSTRUCTION
NOT TO SCALE



CONCRETE FULL ENCASEMENT
NOT TO SCALE

GENERAL NOTES

1) UNDERCUT EXCAVATION OF UNSUITABLE MATERIAL BELOW GRADE. REFILL WITH BEDDING MATERIAL, FOR TRENCH WIDTH SEE NOTE 7.

2) BEDDING: SCREENED GRAVEL AND/OR CRUSHED STONE FREE FROM CLAY, LOAM, ORGANIC MATTER AND MEETING ASTM C33 SIZE NO. 67.

1000 PASSING	1 INCH SCREEN
900-1000 PASSING	3/4 INCH SCREEN
300- 300 PASSING	3/8 INCH SCREEN
85- 100 PASSING	#4 SIEVE
60- 85 PASSING	#8 SIEVE

WHERE ORDERED BY THE ENGINEER TO STABILIZE THE TRENCH BASE. CRUSHED SCREENED GRAVEL OR CRUSHED STONE 1/2 INCH TO 1 1/2 INCH SHALL BE USED

3) SAND BLANKET: CLEAN SAND FREE FROM ORGANIC MATTER 90 GRADES THAT 900-1000 PASSES A 1/2 INCH SIEVE AND NOT MORE THAN 150 WILL PASS A #200 SIEVE. BLANKET MAY BE OMITTED FOR DUCTILE IRON AND REINFORCED CONCRETE PIPE PROVIDED THAT NO STONE LARGER THAN 1 INCHES IS IN CONTACT WITH THE PIPE.

4) SUITABLE MATERIAL: IN HIGHWAY, ROAD SHOULDERS, DRIVE-WAYS AND TRAVELED WAYS, SUITABLE MATERIAL FOR TRENCH BACKFILL SHALL BE THE NATURAL MATERIAL EXCAVATED DURING THE COURSE OF CONSTRUCTION, BUT SHALL EXCLUDE BOULDERS, PIECES OF PAVEMENT, ORGANIC MATTER, POP SOIL, ALL WET OR SOFT MUCK, PEAT OR CLAY. ALL EXCAVATED LEDGE MATERIAL, AND ALL ROCKS OVER SIX INCHES IN LARGEST DIMENSION OR ANY MATERIAL WHICH, AS DETERMINED BY THE ENGINEER, WILL NOT PROVIDE SUFFICIENT SUPPORT OR HINDERS THE COMPLETED CONSTRUCTION IN A SINGLE CONTAINER.

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.

5) SAND BEDDING, IF ORDERED BY THE ENGINEER, SHALL MEET THE REQUIREMENTS OF SUBSECTION 308 OF THE LARGEST EDITION OF THE:
STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OF THE STATE OF NEW HAMPSHIRE, DEPARTMENT OF TRANSPORTATION.

6) WOOD SHEETING, IF REQUIRED, WHICH 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 5 FEET BELOW FINISHED GRADE, BUT NOT LESS THAN 1 FOOT ABOVE THE TOP OF THE PIPE.

7) W= MAXIMUM ALLOWABLE TRENCH WIDTH TO A PLANE 12 INCHES ABOVE THE PIPE. FOR PIPES 15 INCHES NOMINAL DIAMETER OR LESS, W SHALL BE NO WIDER THAN 36 INCHES. FOR PIPES GREATER THAN 15 INCHES NOMINAL DIAMETER, W SHALL BE 24 INCHES PLUS PIPE O.D. W SHALL ALSO BE THE MINIMUM WIDTH FOR LEDGE EXCAVATION AND FOR UNDERCUT EXCAVATION BELOW GRADE.

8) FOR CROSS COUNTRY CONSTRUCTION, BACKFILL OR FILL SHALL BE MOUNDED TO A HEIGHT OF 6 INCHES ABOVE THE ORIGINAL GROUND SURFACE.

9) CONCRETE FOR ENCASEMENT SHALL CONFORM TO THE REQUIREMENTS FOR CLASS A (3000 LBS CONCRETE) OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS AS FOLLOWS:
CEMENT: 6.0 BAGS PER CUBIC YARD
WATER: 5.75 GALLONS PER BAG CEMENT
MAXIMUM SIZE OF AGGREGATE: 1 INCH

10) IF FULL ENCASEMENT IS REQUIRED, DEPTH OF CONCRETE BELOW PIPE SHALL BE 1/2 I.D. (4" MIN.) BLOCK SUPPORT SHALL BE SOLID CONCRETE BLOCKS.

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REVISIONS
DATE
DESCRIPTION:

TRITECH
DEC - 9

STANDARD SEWER DETAILS
INDIAN RIDGE
66 ROCHESTER HILL ROAD
ROCHESTER, NEW HAMPSHIRE
DECEMBER 9, 2014
JOB NO. 14110

SHEET NO.
C-6