

SEPTEMBER 6, 2016  
(REVISED: JANUARY 13, 2017)



The map shows the proposed site for the Wakefield Sewerage Treatment Plant, indicated by a box labeled "SITE". The site is located near the intersection of Wakefield St and Old Milton Rd. Other roads shown include RT-11, Pauls Way, Old Milton Rd, Milton Rd, Wakefield St, Chestnut Hill Rd, and Eastern Ave. The map also shows the Wakefield River and various hills, including Wakefield Hill. A north arrow is located in the top right corner.

CERTIFIED BY: Notary (Seph Greighton) DATE: 4/21/15

**THE CITY OF ROCHESTER PLANNING DEPARTMENT AT (603) 335-1338**

3. TIGHE AND BOND ASSUMES NO RESPONSIBILITY FOR ANY ISSUES LEGAL OR OTHERWISE, RESULTING FROM CHANGES MADE TO THESE DRAWINGS WITHOUT WRITTEN AUTHORIZATION OF TIGHE AND BOND.





43°-19'-28"N  
70°-58'-40"W

THE PROJECT CONSISTS OF THE CONSTRUCTION OF A RESIDENTIAL DEVELOPMENT WITH ASSOCIATED PARKING, ROAD, DRAINAGE, UTILITIES, AND LANDSCAPING CONSISTENT WITH THE CITY OF ROCHESTER'S MASTER PLAN.

**THE TOTAL AREA TO BE DISTURBED IS APPROXIMATELY ±4.1 ACRES.**

BASED ON SITE SPECIFIC SOIL SURVEY CONDUCTED BY NHSC, INC. THE SITE CONSISTS OF WELL TO POORLY DRAINED SOILS WITH HYDROLOGIC SOIL GROUPS B, C, AND D.

THE STORM WATER RUNOFF WILL BE DISCHARGED VIA OVERLAND FLOW TO UNNAMED WETLAND WHICH ULTIMATELY FLOWS TO THE COCHECO RIVER.

1. ORANGE SNOW FENCE IS TO BE PLACED ALONG THE LIMITS OF CLEARING PRIOR TO ANY ONSITE CUTTING/ACTIVITY.
2. CUT AND CLEAR TREES.
3. CONSTRUCT TEMPORARY AND PERMANENT SEDIMENT, EROSION AND DETENTION CONTROL FACILITIES. EROSION, SEDIMENT AND DETENTION MEASURES SHALL BE INSTALLED PRIOR TO ANY EARTH MOVING OPERATIONS THAT WILL INFLUENCE STORMWATER RUNOFF SUCH AS:
  - NEW CONSTRUCTION
  - DEVELOPMENT OF BORROW PIT AREAS
  - DISPOSAL OF SEDIMENT SPOIL, STUMP AND OTHER SOLID WASTE
  - FLOOD PLAIN EXCAVATION WORK
  - STREAM CHANNEL MODIFICATIONS
  - CONTROL OF DUST
  - CONSTRUCTION OF ACCESS AND HAUL ROAD
  - NEARNESS OF CONSTRUCTION SITE TO RECEIVING WATERS
  - CONSTRUCTION DURING LATE WINTER AND EARLY SPRING
4. ALL PERMANENT DITCHES, SWALES, DETENTION, RETENTION AND SEDIMENTATION BASINS TO BE STABILIZED USING THE VEGETATIVE AND NON-STRUCTURAL BMPs PRIOR TO DIRECTING RUNOFF TO THEM.
5. CLEAR AND DISPOSE OF DEBRIS.
6. CONSTRUCT TEMPORARY CULVERTS AND DIVERSION CHANNELS AS REQUIRED.
7. GRADE AND GRAVEL ROADWAYS AND PARKING AREAS - ALL ROADS AND PARKING AREA SHALL BE STABILIZED IMMEDIATELY AFTER THEIR CONSTRUCTION.
8. BEGIN PERMANENT AND TEMPORARY SEEDING AND MULCHING. ALL CUT AND FILL SLOPES SHALL BE SEEDDED AND MULCHED IMMEDIATELY AFTER THEIR CONSTRUCTION.
9. DAILY, OR AS REQUIRED, CONSTRUCT TEMPORARY BERMS, DRAINS, DITCHES, SILT FENCES, SEDIMENT TRAPS, ETC., MULCH AND SEED AS REQUIRED.
10. FINISH PAVING ALL ROADWAYS AND PARKING LOTS.
11. INSPECT AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES.
12. COMPLETE PERMANENT SEEDING AND LANDSCAPING.
13. REMOVE TRAPPED SEDIMENTS FROM COLLECTOR DEVICES AS APPROPRIATE AND THEN REMOVE TEMPORARY EROSION CONTROL MEASURES.

**NOTE: THE CONSTRUCTION SEQUENCE MUST LIMIT THE DURATION AND AREA OF DISTURBANCE.**

1. ALL EROSION CONTROL MEASURES AND PRACTICES SHALL CONFORM TO THE "NEW HAMPSHIRE STORMWATER MANUAL VOLUME 3: EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION" PREPARED BY THE NHDES.
2. CONTRACTOR SHALL INSTALL TEMPORARY EROSION CONTROL BARRIERS, INCLUDING HAY BALE, SILT FENCES, SILT SOCKS AND SILT SOCKS, AS SHOWN IN THESE DRAWINGS AS THE FIRST ORDER OF WORK.
3. SILT SACK INLET PROTECTION SHALL BE INSTALLED IN ALL EXISTING AND PROPOSED CATCH BASIN INLETS WITHIN THE WORK LIMITS AND BE MAINTAINED FOR THE DURATION OF THE PROJECT.
4. PERIMETER CONTROLS INCLUDING SILT FENCES, HAY BALE BARRIERS, AND/OR SILT SOCKS SHALL MAINTAINED FOR THE DURATION OF THE PROJECT UNTIL NON-PAVED AREAS HAVE BEEN STABILIZED.
5. THE CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF ALL TEMPORARY EROSION CONTROL DEVICES UPON COMPLETION OF CONSTRUCTION.
6. ALL DISTURBED AREAS NOT OTHERWISE BEING TREATED SHALL RECEIVE 6" LOAM, SEED, AND FERTILIZER.
7. INSPECT ALL INLET PROTECTION AND PERIMETER CONTROLS WEEKLY AND AFTER EACH RAIN STORM OF 0.25 INCH OR GREATER. REPAIR/MODIFY PROTECTION AS NECESSARY TO MAXIMIZE EFFICIENCY OF FILTER. REPLACE ALL FILTERS WHEN SEDIMENT IS 1/3 THE FILTER HEIGHT.
8. CONSTRUCT EROSION CONTROL BLANKETS ON ALL SLOPES STEEPER THAN 3:1.

1. AN AREA SHALL BE CONSIDERED STABLE WHEN ONE OF THE FOLLOWING HAS OCCURRED:

- A. BASE COURSE GRAVELS HAVE BEEN 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 AS STONE OR RIPRAP HAS BEEN INSTALLED
  - D. EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
2. WINTER STABILIZATION PRACTICES:
  - A. ALL PROPOSED POST-DEVELOPMENT VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATED GROWTH BY NOVEMBER 15TH, OR WHICH ARE DISTURBED AFTER NOVEMBER 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 ANCHOR NETTING, ELSEWHERE.
  - B. ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITION.
  - C. AFTER NOVEMBER 15TH, INCOMPLETE ROAD SURFACES SHALL BE PROTECTED WITH A MINIMUM OF 3-INCHES OF CRUSHED GRAVEL PER MHDOT ITEM 304.3, OR IF CONSTRUCTION IS TO CONTINUE THROUGH THE WINTER SEASON BE CLEARED OF ANY ACCUMULATED SNOW AFTER STOCKPILES AND DISTURBED AREAS, WHERE CONSTRUCTION ACTIVITY SHALL BE INITIATED ON ALL LOAM STOCKPILES.
3. STABILIZATION SHALL BE INITIATED ON ALL LOAM STOCKPILES AND DISTURBED AREAS, WHERE CONSTRUCTION ACTIVITY SHALL NOT OCCUR FOR MORE THAN TWENTY-ONE (21) CALENDAR DAYS BY THE FOURTEENTH (14TH) DAY AFTER CONSTRUCTION ACTIVITY HAS PERMANENTLY OR TEMPORARILY CEASED IN THAT AREA. STABILIZATION MEASURES TO BE USED INCLUDE:
  - A. TEMPORARY SEEDING
  - B. MULCHING
4. WHEN CONSTRUCTION ACTIVITY PERMANENTLY OR TEMPORARILY CEASES WITHIN 100 FEET OF NEARBY SURFACE WATERS OR DELINEATED WETLANDS, THE AREA SHALL BE STABILIZED WITHIN SEVEN (7) DAYS OR PRIOR TO A RAIN EVENT. ONCE CONSTRUCTION ACTIVITY CEASES PERMANENTLY IN AN THESE AREAS, SILT FENCES AND HAY BALE BARRIERS AND ANY EARTH/DIKES SHALL BE REMOVED ONCE PERMANENT MEASURES ARE ESTABLISHED.
5. DURING CONSTRUCTION, RUNOFF WILL BE DIVERTED AROUND THE SITE WITH EARTH DIKES, PIPING OR STABILIZED CHANNELS WHERE POSSIBLE. SHEET RUNOFF FROM THE SITE WILL BE FILTERED THROUGH HAY BALE BARRIERS AND SILT FENCES OR SILT SOCKS. ALL STORM DRAIN BASIN INLETS SHALL BE PROVIDED WITH FLARED END SECTIONS AND TRASH RACKS. THE SITE SHALL BE STABILIZED FOR THE WINTER BY NOVEMBER 15.

1. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTROL DUST THROUGHOUT THE CONSTRUCTION PERIOD.
2. DUST CONTROL METHODS SHALL INCLUDE, BUT BE NOT LIMITED TO SPRINKLING WATER ON EXPOSED AREAS, COVERING LOADED DUMP TRUCKS LEAVING THE SITE, AND TEMPORARY MULCHING.
3. DUST CONTROL MEASURES SHALL BE UTILIZED SO AS TO PREVENT THE MIGRATION OF DUST FROM THE SITE TO ADJACENT AREAS INCLUDING BUT NOT LIMITED TO ROUTE 11 (FARMINGTON ROAD).

1. LOCATE STOCKPILES A MINIMUM OF 50 FEET AWAY FROM CATCH BASINS, SWALES, AND CULVERTS. ALL STOCKPILES SHOULD BE SURROUNDED WITH TEMPORARY EROSION CONTROL MEASURES PRIOR TO THE ONSET OF PRECIPITATION.

2. PERIMETER BARRIERS SHOULD BE MAINTAINED AT ALL TIMES, AND ADJUSTED AS NEEDED TO ACCOMMODATE THE DELIVERY AND REMOVAL OF MATERIALS FROM THE STOCKPILE. THE INTEGRITY OF THE BARRIER SHOULD BE INSPECTED AT THE END OF EACH RAINFALL DAY.

3. PROTECT ALL STOCKPILES FROM STORMWATER RUN-OFF USING TEMPORARY EROSION CONTROL MEASURES SUCH AS BERMS, SILT SOCK, OR OTHER APPROVED PRACTICE TO PREVENT MIGRATION OF MATERIAL BEYOND THE IMMEDIATE CONFINES OF THE STOCKPILES.

**THE CONTRACTOR SHALL CONSTRUCT STABILIZED CONSTRUCTION ENTRANCES PRIOR TO ANY EXCAVATION ACTIVITIES.**

A. SEEDBED PREPARATION:  
APPLY FERTILIZER AT THE RATE OF 600 POUNDS PER ACRE OF 10-10-10. APPLY LIMESTONE (EQUIVALENT TO 50 PERCENT CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF THREE (3) TONS PER ACRE.

B. SEEDING

1. UTILIZE ANNUAL RYE GRASS AT A RATE OF 40 LBS/ACRE.
2. WHERE THE SOIL HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS, LOOSEN SOIL TO A DEPTH OF TWO (2) INCHES BEFORE APPLYING FERTILIZER, LIME AND SEED.
4. APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, OR HYDROSEEDER (SLURRY INCLUDING SEED AND FERTILIZER). HYDROSEEDINGS, WHICH INCLUDE MULCH, MAY BE LEFT ON SOIL SURFACE. SEEDING RATES MUST BE INCREASED 10% WHEN HYDROSEEDING.

C. MAINTENANCE

1. TEMPORARY SEEDING SHALL BE PERIODICALLY INSPECTED. AT A MINIMUM, 95% OF THE SOIL SURFACE SHOULD BE COVERED BY VEGETATION. IF ANY EVIDENCE OF EROSION OR SEDIMENTATION IS APPARENT, REPAIRS SHALL BE MADE AND OTHER TEMPORARY MEASURES USED IN THE INTERIM (MULCH, FILTER BARRIERS CHECK DAMS, ETC.).

5. VEGETATIVE PRACTICE

A. FOR PERMANENT MEASURES AND PLANTINGS.

1. LIMESTONE SHALL BE THOROUGHLY INCORPORATED INTO THE LOAM LAYER AT A RATE OF THREE (3) TONS PER ACRE IN ORDER TO PROVIDE A PH VALUE OF 5.5 TO 6.5.
2. FERTILIZER SHALL BE SPREAD ON THE TOP LAYER OF LOAM AND WORKED INTO THE SURFACE. FERTILIZER APPLICATION RATE SHALL BE 800 POUNDS PER ACRE OF 10-20-20 FERTILIZER.
3. SOIL CONDITIONERS AND FERTILIZER SHALL BE APPLIED AT THE RECOMMENDED RATES AND SHALL BE THOROUGHLY WORKED INTO THE LOAM. LOAM SHALL BE RAKED UNTIL THE SURFACE IS FINELY PULVERIZED, SMOOTH AND EVEN, AND THEN COMPACTED TO AN EVEN SURFACE CONFORMING TO THE REQUIRED LINES AND GRADES WITH APPROVED ROLLERS WEIGHING BETWEEN 4-1/2 POUNDS AND 5-1/2 POUNDS PER INCH OF WIDTH.
4. SEED SHALL BE SOWN AT THE RATE SHOWN BELOW. SOWING SHALL BE DONE ON A CALM, DRY DAY, PREFERABLY BY MACHINE, BUT IF BY HAND, ONLY BY EXPERIENCED WORKMEN, IMMEDIATELY BEFORE SEEDING. THE SOIL SHALL BE LIGHTLY RAKED. 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 INTO THE SOIL TO A DEPTH NOT OVER 1/4 INCH AND ROLLED WITH A HAND ROLLER WEIGHING NOT OVER 100 POUNDS PER LINEAR FOOT OF WIDTH.

6. HAY MULCH SHALL BE APPLIED IMMEDIATELY AFTER SEEDING AS INDICATED ABOVE.

7. 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 RESEED, AND ALL NOXIOUS WEEDS REMOVED.

8. THE CONTRACTOR SHALL PROTECT AND MAINTAIN THE SEEDING AREAS UNTIL ACCEPTED.

9. A GRASS SEED MIXTURE CONTAINING THE FOLLOWING SEED REQUIREMENTS SHALL BE APPLIED AT THE INDICATED RATE:

CREEPING RED FESCUE	50 LBS/ACRE
KENTUCKY BLUEGRASS	100 LBS/ACRE
PERENNIAL RYE GRASS	50 LBS/ACRE

IN NO CASE SHALL THE WEED CONTENT EXCEED ONE (1) PERCENT BY WEIGHT. ALL SEED SHALL COMPLY WITH STATE AND FEDERAL SEED LAWS. SEEDING SHALL BE DONE NO LATER THAN SEPTEMBER 15. IN NO CASE SHALL SEEDING TAKE PLACE OVER SNOW.

10. DORMANT SEEDING (SEPTEMBER 15 TO FIRST SNOWFALL)  
FOLLOW PERMANENT MEASURES SLOPE, LIME, FERTILIZER AND GRADING REQUIREMENTS, APPLY SEED MIXTURE AT TWICE THE INDICATED RATE. APPLY MULCH AS INDICATED FOR PERMANENT MEASURES.

THE FOLLOWING ARE THE ONLY NON-STORMWATER DISCHARGES ALLOWED. ALL OTHER NON-STORMWATER DISCHARGES ARE PROHIBITED ON SITE.

- A. THE CONCRETE DELIVERY TRUCKS SHALL, WHENEVER POSSIBLE, USE WASHOUT FACILITIES AT THEIR OWN PLANT OR DISPATCH FACILITY.
- B. IF IT IS NECESSARY, SITE CONTRACTOR SHALL DESIGNATE SPECIFIC WASHOUT AREAS AND DESIGN FACILITIES TO HANDLE ANTICIPATED WASHOUT WATER.
- C. CONTRACTOR SHALL LOCATE WASHOUT AREAS AT LEAST 150 FEET AWAY FROM STORM DRAINS, SWALES AND SURFACE WATERS OR DELINEATED WETLANDS.
- D. INSPECT WASHOUT FACILITIES DAILY TO DETECT LEAKS OR TEARS AND TO IDENTIFY WHEN MATERIALS NEED TO BE REMOVED.

1. DISCHARGES FROM FIRE-FIGHTING ACTIVITIES  
2. FIRE HYDRANT FLUSHINGS  
3. WATERS USED TO WASH VEHICLES WHERE DETERGENTS ARE NOT USED  
4. WATER USED TO CONTROL DUST  
5. PORTABLE WATER TNC. UNCONTAMINATED WATER LINE FLUSHINGS  
6. ROUTINE EXTERNAL BUILDING WASH DOWN - NO DETERGENTS  
7. PAVEMENT WASH WATERS - NO SPILLS OR DETERGENTS  
8. UNCONTAMINATED AIR CONDITIONING/COMPRESSOR CONDENSATE  
9. UNCONTAMINATED GROUND WATER OR SPRING WATER  
10. POTABLE WATER OR FOOTING DRAINS - NOT CONTAMINATED  
11. UNCONTAMINATED EXCAVATION DEWATERING  
12. LANDSCAPE IRRIGATION

WASTE MATERIALS

- A. ALL WASTE MATERIALS SHALL BE COLLECTED AND STORED IN SECURELY LIDDED RECEPTACLES. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE SHALL BE DEPOSITED IN A DUMPSTER.
- B. NO CONSTRUCTION WASTE MATERIALS SHALL BE BURIED ON SITE.
- C. ALL PERSONNEL SHALL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL BY THE SUPERINTENDENT.

HAZARDOUS WASTE

- A. ALL HAZARDOUS WASTE MATERIALS SHALL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATION OR BY THE MANUFACTURER.
- B. SITE PERSONNEL SHALL BE INSTRUCTED IN THESE PRACTICES BY THE SUPERINTENDENT.

SANITARY WASTE

- A. ALL SANITARY WASTE SHALL BE COLLECTED FROM THE PORTABLE UNITS A MINIMUM OF ONCE PER WEEK BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR.

CONTRACTOR SHALL BE FAMILIAR WITH SPILL PREVENTION MEASURES REQUIRED BY LOCAL, STATE AND FEDERAL AGENCIES. AT A MINIMUM, CONTRACTOR SHALL FOLLOW THE BEST MANAGEMENT SPILL PREVENTION PRACTICES OUTLINED BELOW.

THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT SHALL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES DURING CONSTRUCTION TO STORMWATER RUNOFF:

A. GOOD HOUSEKEEPING:

THE FOLLOWING GOOD HOUSEKEEPING PRACTICES SHALL BE FOLLOWED ON SITE DURING THE CONSTRUCTION PROJECT:

1. ONLY SUFFICIENT AMOUNTS OF PRODUCTS TO DO THE JOB SHALL BE STORED ON SITE.
2. ALL MATERIALS STORED ON SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR PROPER (ORIGINAL IF POSSIBLE) CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE.
3. MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL SHALL BE FOLLOWED.
4. THE SITE SUPERINTENDENT SHALL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS.
5. SUBSTANCES SHALL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.
6. WHENEVER POSSIBLE ALL OF A PRODUCT SHALL BE USED UP BEFORE DISPOSING OF THE CONTAINER.

B. HAZARDOUS PRODUCTS:

THE FOLLOWING PRACTICES SHALL BE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS:

1. PRODUCTS SHALL BE KEPT IN THEIR ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE.
2. ORIGINAL LABELS AND MATERIAL SAFETY DATA SHALL BE RETAINED FOR IMPORTANT PRODUCT INFORMATION.
3. SURPLUS PRODUCT THAT MUST BE DISPOSED OF SHALL BE DISCARDED ACCORDING TO THE MANUFACTURER'S RECOMMENDED METHODS OF DISPOSAL.

C. PRODUCT SPECIFICATION PRACTICES

THE FOLLOWING PRODUCT SPECIFIC PRACTICES SHALL BE FOLLOWED ON SITE:

1. PETROLEUM PRODUCTS:
  - a. ALL ON SITE VEHICLES SHALL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE LEAKAGE.
  - b. PETROLEUM PRODUCTS SHALL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT BASED SUBSTANCES USED ON SITE SHALL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.
2. FERTILIZERS:

- a. FERTILIZERS USED SHALL BE APPLIED ONLY IN THE MINIMUM AMOUNTS DIRECTED BY THE SPECIFICATIONS.
  - b. ONCE APPLIED FERTILIZER SHALL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORMWATER. STORAGE SHALL BE IN A COVERED SHED OR ENCLOSED TRAILERS, THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER SHALL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.
3. PAINTS:
  - a. ALL CONTAINERS SHALL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE.
  - b. EXCESS PAINT SHALL NOT BE DISCHARGED TO THE STORM SEWER SYSTEM.
  - c. EXCESS PAINT SHALL BE DISPOSED OF PROPERLY ACCORDING TO MANUFACTURER'S INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.
- D. SPILL CONTROL PRACTICES  
IN ADDITION TO GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS SECTION, THE FOLLOWING PRACTICES SHALL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:
  1. MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP SHALL BE CLEARLY POSTED AND SITE PERSONNEL SHALL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.
  2. MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP SHALL BE KEPT IN THE MATERIAL STORAGE AREA OR SITE. EQUIPMENT AND MATERIALS SHALL INCLUDE BUT NOT BE LIMITED TO BROOMS, DUSTPANS, MOPS, RAGS, GLOVES, GOGGLES, KITTY LITTER, SAND, SAWDUST AND PLASTIC OR METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE.
  3. ALL SPILLS SHALL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.
  4. THE SPILL AREA SHALL BE KEPT WELL VENTILATED AND PERSONNEL SHALL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.
  5. SPILLS OF TOXIC OR HAZARDOUS MATERIAL SHALL BE REPORTED TO THE APPROPRIATE LOCAL, STATE OR FEDERAL AGENCIES AS REQUIRED.
  6. THE SITE SUPERINTENDENT RESPONSIBLE FOR DAY-TO-DAY SITE OPERATIONS SHALL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR.
- E. VEHICLE FUELING AND MAINTENANCE PRACTICE:
  1. CONTRACTOR SHALL MAKE AN EFFORT TO PERFORM EQUIPMENT/VEHICLE FUELING AND MAINTENANCE AT AN OFF-SITE FACILITY.
  2. CONTRACTOR SHALL PROVIDE AN ON-SITE FUELING AND MAINTENANCE AREA THAT IS CLEAN AND DRY.
  3. IF POSSIBLE THE CONTRACTOR SHALL KEEP AREA COVERED.
  4. CONTRACTOR SHALL KEEP A SPILL KIT AT THE FUELING AND MAINTENANCE AREA.
  5. CONTRACTOR SHALL VEHICLES SHALL BE INSPECTED REGULARLY FOR LEAKS AND DAMAGE.
  6. CONTRACTOR SHALL USE DRIP PANS, DRIP CLOTHS, OR ABSORBENT PADS WHEN REPLACING SPENT FLUID.

THIS PROJECT EXCEEDS ONE (1) ACRE OF DISTURBANCE AND THUS REQUIRES A SWPPP. THE SWPPP SHALL BE PREPARED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE FAMILIAR WITH THE SWPPP AND KEEP AN UPDATED COPY OF THE SWPPP ONSITE AT ALL TIMES.

THE FOLLOWING REPRESENTS THE GENERAL OBSERVATION AND REPORTING PRACTICES THAT SHALL BE FOLLOWED AS PART OF THIS PROJECT.

1. OBSERVATIONS OF THE PROJECT FOR COMPLIANCE WITH THE SWPPP SHALL BE MADE BY THE CONTRACTOR AT LEAST ONCE A WEEK OR WITHIN 24 HOURS OF A STORM 0.25 INCHES OR GREATER.
2. AN OBSERVATION REPORT SHALL BE MADE AFTER EACH OBSERVATION AND DISTRIBUTED TO THE ENGINEER, THE OWNER, AND THE CONTRACTOR.
3. A REPRESENTATIVE OF THE SITE CONTRACTOR, SHALL BE RESPONSIBLE FOR MAINTENANCE AND REPAIR ACTIVITIES.
4. IF A REPAIR IS NECESSARY, IT SHALL BE INITIATED WITHIN 24 HOURS OF REPORT.

IF MORE THAN 5000 CUBIC YARDS ARE TO BE BLASTED A BLASTING PLAN SHALL BE PROVIDED. BLASTING PLAN SHALL INCLUDE:

- A. LOCATION AND IDENTIFICATION OF DRINKING WATER WELLS LOCATED WITHIN 2000 FEET OF THE PROPOSED BLASTING ACTIVITIES.
- B. A GROUNDWATER QUALITY SAMPLING PROGRAM, APPROVED BY NHDES PRIOR TO INITIATING BLASTING, TO MONITOR FOR NITRATE AND NITRITE EITHER IN THE DRINKING WATER SUPPLY WELLS OR IN OTHER WELLS THAT ARE REPRESENTATIVE OF THE DRINKING WATER SUPPLY WELLS IN THE AREA.
1. THE GROUNDWATER SAMPLING PROGRAM MUST BE IMPLEMENTED ONCE APPROVED BY NHDES.
2. THE FOLLOWING BEST MANAGEMENT PROCEDURES FOR BLASTING SHALL BE COMPLIED WITH:
- C. LOADING PRACTICES.
- THE FOLLOWING BASTHOLE LOADING PRACTICES TO MINIMIZE ENVIRONMENTAL EFFECTS SHALL BE FOLLOWED:
1. DRILLING LOGS SHALL BE MAINTAINED BY THE DRILLER AND COMMUNICATED DIRECTLY TO THE BLASTER. THE LOGS SHALL INDICATE DEPTHS AND LENGTHS OF VOIDS, CAVITIES, AND FAULT ZONES OR OTHER WEAK ZONES ENCOUNTERED AS WELL AS GROUNDWATER CONDITIONS.
  2. EXPLOSIVE PRODUCTS SHALL BE MANAGED ON-SITE SO THAT THEY ARE EITHER USED IN THE BOREHOLE, RETURNED TO THE DELIVERY VEHICLE, OR PLACED IN SECURE CONTAINERS FOR OFF-SITE DISPOSAL.
  3. SPILLAGE AROUND THE BOREHOLE SHALL EITHER BE PLACED IN THE BOREHOLE OR CLEANED UP AND RETURNED TO AN APPROPRIATE VEHICLE FOR HANDLING OR PLACEMENT IN SECURED CONTAINERS FOR OFF-SITE DISPOSAL.
  4. LOADED EXPLOSIVES SHALL BE DETONATED AS SOON AS POSSIBLE AND SHALL NOT BE LEFT IN THE BASTHOLHS OVERNIGHT, UNLESS WEATHER OR OTHER SAFETY CONCERNS REASONABLY DICTATE THAT DETONATION SHOULD BE POSTPONED.
  5. LOADING EQUIPMENT SHALL BE CLEANED IN AN AREA WHERE WASTEWATER CAN BE PROPERLY CONTAINED AND HANDLED IN A MANNER THAT PREVENTS RELEASE OF CONTAMINANTS TO THE ENVIRONMENT.
  6. EXPLOSIVES SHALL BE LOADED TO MAINTAIN GOOD CONTINUITY IN THE COLUMN LOAD TO PROMOTE COMPLETE DETONATION. INDUSTRY ACCEPTED LOADING PRACTICES FOR PRIMING, STEMMING, DECKING AND COLUMN RISE NEED TO BE ATTENDED TO.
- D. EXPLOSIVE SELECTION
- THE FOLLOWING BMPS SHALL BE FOLLOWED TO REDUCE THE POTENTIAL FOR GROUNDWATER CONTAMINATION WHEN EXPLOSIVES ARE USED:
1. EXPLOSIVE PRODUCTS SHALL BE SELECTED THAT ARE APPROPRIATE FOR SITE CONDITIONS AND SAFE BLAST EXECUTION.
  2. EXPLOSIVE PRODUCTS SHALL BE SELECTED THAT HAVE THE APPROPRIATE WATER RESISTANCE FOR THE SITE CONDITIONS PRESENT TO MINIMIZE THE POTENTIAL FOR HAZARDOUS EFFECT OF THE PRODUCT UPON GROUNDWATER.
- E. PREVENTION OF MISFIRES. APPROPRIATE PRACTICES SHALL BE DEVELOPED AND IMPLEMENTED TO PREVENT MISFIRES.
- F. MUCK PILE MANAGEMENT
- MUCK PILES (THE BLASTED PIECES OF ROCK) AND ROCK PILES SHALL BE MANAGED IN A MANNER TO REDUCE THE POTENTIAL FOR CONTAMINATION BY IMPLEMENTING THE FOLLOWING MEASURES:
1. REMOVE THE MUCK PILE FROM THE BLAST AREA AS SOON AS POSSIBLE.
  2. MANAGE THE INTERACTION OF BLASTED ROCK PILES AND STORMWATER TO PREVENT CONTAMINATION OF WATER SUPPLY WELLS OR SURFACE WATER.
- G. SPILL PREVENTION MEASURES AND SPILL MITIGATION
- SPILL PREVENTION AND SPILL MITIGATION MEASURES SHALL BE IMPLEMENTED TO PREVENT THE RELEASE OF FUEL AND OTHER RELATED SUBSTANCES TO THE ENVIRONMENT. THE MEASURES SHALL INCLUDE AT A MINIMUM:
1. THE FUEL STORAGE REQUIREMENTS SHALL INCLUDE:
    - a. STORAGE OF REGULATED SUBSTANCES ON AN IMPERVIOUS SURFACE;
    - b. SECURE STORAGE AREAS AGAINST UNAUTHORIZED ENTRY;
    - c. LABEL REGULATED CONTAINERS CLEARLY AND VISIBLY;
    - d. INSPECT STORAGE AREAS WEEKLY;
    - e. COVER REGULATED CONTAINERS IN OUTSIDE STORAGE AREAS;
    - f. WHEREVER POSSIBLE, KEEP REGULATED CONTAINERS THAT ARE STORED OUTSIDE MORE THAN 50 FEET FROM SURFACE WATER AND STORM DRAINS, 75 FEET FROM PRIVATE WELLS, AND 400 FEET FROM PUBLIC WELLS; AND
    - g. SECONDARY CONTAINMENT IS REQUIRED FOR CONTAINERS CONTAINING REGULATED SUBSTANCES STORED OUTSIDE, EXCEPT FOR ON PREMISE USE HEATING FUEL TANKS, OR ABOVEGROUND OR UNDERGROUND STORAGE TANKS OTHERWISE REGULATED.
  2. THE FUEL HANDLING REQUIREMENTS SHALL INCLUDE:
    - a. EXCEPT WHEN IN USE, KEEP CONTAINERS CONTAINING REGULATED SUBSTANCES CLOSED AND SEALED;
    - b. PLACE DRIP PANS UNDER SPIGOTS, VALVES, AND PUMPS;
    - c. HAVE SPILL CONTROL AND CONTAINMENT EQUIPMENT READILY AVAILABLE IN ALL WORK AREAS;
    - d. USE FUNNELS AND DRIP PANS WHEN TRANSFERRING REGULATED SUBSTANCES; AND
    - e. PERFORM TRANSFERS OF REGULATED SUBSTANCES OVER AN IMPERVIOUS SURFACE.
  3. THE TRAINING OF ON-SITE EMPLOYEES AND THE ON-SITE POSTING OF RELEASE RESPONSE INFORMATION DESCRIBING WHAT TO DO IN THE EVENT OF A SPILL OF REGULATED SUBSTANCES.
  4. FUELING AND MAINTENANCE OF EXCAVATION, EARTHMOVING AND OTHER CONSTRUCTION RELATED EQUIPMENT SHALL COMPLY WITH THE REGULATIONS OF THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES THESE REQUIREMENTS ARE SUMMARIZED IN 408-DWGB-22-6 BEST MANAGEMENT PRACTICES FOR FUELING AND MAINTENANCE OF EXCAVATION AND EARTHMOVING EQUIPMENT OR ITS SUCCESSOR DOCUMENT. SEE <https://dps.nh.gov/organization/commissioner/pdp/factsheets/dwgb/docuements/dwgb-22-6.pdf>

STATE OF NEW HAMPSHIRE  
GREG M. MIKOLAITYS  
No. 6584  
LIC. IN ENG'G  
12/16/16

**Tenants In Common:**  
Robert Graham  
81 Lakeview Drive  
Nottingham, NH  
03290

Michael Anderson  
2637 E Atlantic Blvd #172  
Pompano Beach FL 33062-4939

**Rochester, New  
Hampshire**

L.	12/16/16	RESPONSE TO CITY COMMENTS
A	10/13/2016	City Review Comments
MARK	DATE	DESCRIPTION
PROJECT NO:		G-9693
DATE: 09/06/2016		
TITLE: G0693-G-002_EROSION-CONTROL-NOTES.d		
DRAWN BY:		ERC/KAM
CHECKED:		KAM
APPROVED:		BLM

### EROSION CONTROL NOTES

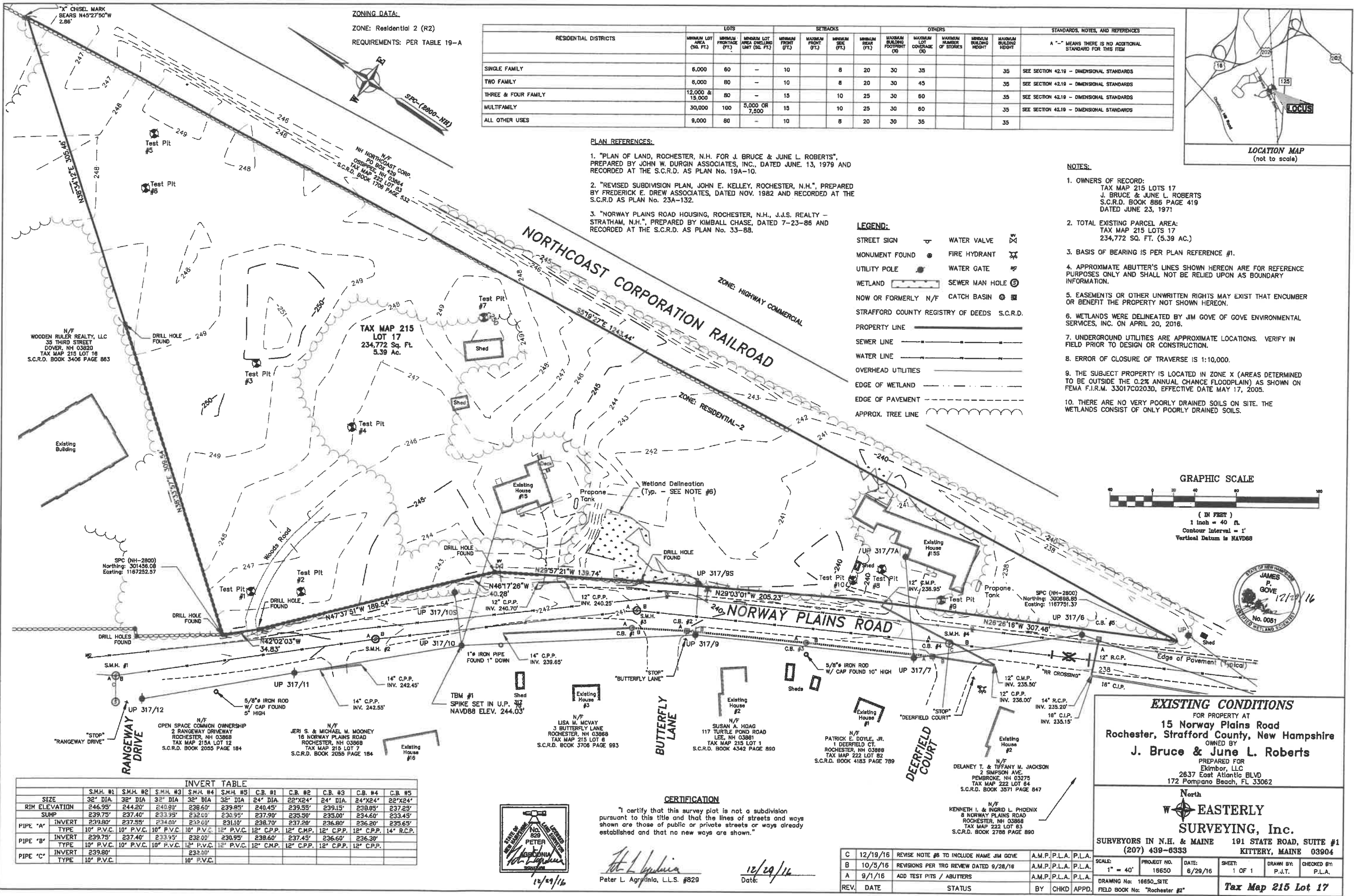
SCALE: AS SHOWN

**G-002**









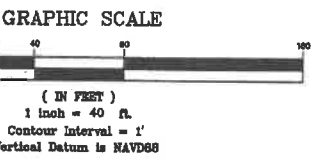
ZONING DATA:  
ZONE: Residential 2 (R2)  
REQUIREMENTS: PER TABLE 19-A

RESIDENTIAL DISTRICTS	LOTS		SETBACKS		OTHERS		STANDARDS, NOTES, AND REFERENCES	
	MINIMUM LOT AREA (SQ. FT.)	MINIMUM FRONTAGE (FT.)	MINIMUM LOT AREA (SQ. FT.)	MINIMUM FRONT (FT.)	MINIMUM SIDE (FT.)	MINIMUM REAR (FT.)	MINIMUM BUILDING FOOTPRINT (SQ. FT.)	MINIMUM BUILDING HEIGHT
SINGLE FAMILY	6,000	60	-	10	8	20	30	35
TWO FAMILY	6,000	80	-	10	8	20	30	45
THREE & FOUR FAMILY	12,000 & 15,000	80	-	15	10	25	30	60
MULTIFAMILY	30,000	100	5,000 OR 7,500	15	10	25	30	60
ALL OTHER USES	9,000	80	-	10	8	20	30	35

- PLAN REFERENCES:
- "PLAN OF LAND, ROCHESTER, N.H. FOR J. BRUCE & JUNE L. ROBERTS", PREPARED BY JOHN W. DURGIN ASSOCIATES, INC., DATED JUNE 13, 1979 AND RECORDED AT THE S.C.R.D. AS PLAN No. 19A-10.
  - "REVISED SUBDIVISION PLAN, JOHN E. KELLEY, ROCHESTER, N.H.", PREPARED BY FREDERICK E. DREW ASSOCIATES, DATED NOV. 1982 AND RECORDED AT THE S.C.R.D. AS PLAN No. 23A-132.
  - "NORWAY PLAINS ROAD HOUSING, ROCHESTER, N.H., J.J.S. REALTY - STRATHAM, N.H.", PREPARED BY KIMBALL CHASE, DATED 7-23-86 AND RECORDED AT THE S.C.R.D. AS PLAN No. 33-88.

- LEGEND:
- STREET SIGN
  - MONUMENT FOUND
  - UTILITY POLE
  - WETLAND
  - NOW OR FORMERLY N/F
  - STRAFFORD COUNTY REGISTRY OF DEEDS
  - PROPERTY LINE
  - SEWER LINE
  - WATER LINE
  - OVERHEAD UTILITIES
  - EDGE OF WETLAND
  - EDGE OF PAVEMENT
  - APPROX. TREE LINE
  - WATER VALVE
  - FIRE HYDRANT
  - WATER GATE
  - SEWER MAN HOLE
  - CATCH BASIN
  - S.C.R.D.

- NOTES:
- OWNERS OF RECORD:  
TAX MAP 215 LOTS 17  
J. BRUCE & JUNE L. ROBERTS  
S.C.R.D. BOOK 886 PAGE 419  
DATED JUNE 23, 1971
  - TOTAL EXISTING PARCEL AREA:  
TAX MAP 215 LOTS 17  
234,772 SQ. FT. (5.39 AC.)
  - BASIS OF BEARING IS PER PLAN REFERENCE #1.
  - APPROXIMATE ABUTTER'S LINES SHOWN HEREON ARE FOR REFERENCE PURPOSES ONLY AND SHALL NOT BE RELIED UPON AS BOUNDARY INFORMATION.
  - EASEMENTS OR OTHER UNWRITTEN RIGHTS MAY EXIST THAT ENCUMBER OR BENEFIT THE PROPERTY NOT SHOWN HEREON.
  - WETLANDS WERE DELINEATED BY JIM GOVE OF GOVE ENVIRONMENTAL SERVICES, INC. ON APRIL 20, 2016.
  - UNDERGROUND UTILITIES ARE APPROXIMATE LOCATIONS. VERIFY IN FIELD PRIOR TO DESIGN OR CONSTRUCTION.
  - ERROR OF CLOSURE OF TRAVERSE IS 1:10,000.
  - THE SUBJECT PROPERTY IS LOCATED IN ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS SHOWN ON FEMA F.I.R.M. 33017C0203D, EFFECTIVE DATE MAY 17, 2005.
  - THERE ARE NO VERY POORLY DRAINED SOILS ON SITE. THE WETLANDS CONSIST OF ONLY POORLY DRAINED SOILS.



**EXISTING CONDITIONS**  
FOR PROPERTY AT  
15 Norway Plains Road  
Rochester, Strafford County, New Hampshire  
OWNED BY  
**J. Bruce & June L. Roberts**  
PREPARED FOR  
Ekimbor, LLC  
2637 East Atlantic Blvd  
172 Pompano Beach, FL 33062

North  
**EASTERLY**  
**SURVEYING, Inc.**  
SURVEYORS IN N.H. & MAINE  
(207) 430-6333  
191 STATE ROAD, SUITE #1  
KITTERY, MAINE 03904

SCALE: 1" = 40'  
PROJECT NO. 18650  
DATE: 8/29/16  
SHEET: 1 OF 1  
DRAWN BY: P.J.T.  
CHECKED BY: P.L.A.

DRAWING No: 18650\_SITE  
FIELD BOOK No: "Rochester #2"

**Tax Map 215 Lot 17**

INVERT TABLE									
SIZE	S.M.H. #1	S.M.H. #2	S.M.H. #3	S.M.H. #4	S.M.H. #5	C.B. #1	C.B. #2	C.B. #3	C.B. #4
RIM ELEVATION	32" DIA	32" DIA	32" DIA	32" DIA	32" DIA	24" DIA	22"X24"	24" DIA	24"X24"
SUMP	246.95'	244.20'	240.80'	238.60'	239.65'	240.45'	239.55'	239.15'	238.05'
PIPE "A"	INVERT	239.75'	237.40'	233.95'	232.00'	230.95'	237.90'	235.30'	234.60'
PIPE "B"	INVERT	239.80'	237.55'	234.00'	232.00'	231.10'	238.70'	237.20'	236.90'
PIPE "C"	INVERT	239.75'	237.40'	233.95'	232.00'	230.95'	238.60'	237.45'	236.30'



**CERTIFICATION**  
I certify that this survey plot is not a subdivision pursuant to this title and that the lines of streets and ways shown are those of public or private streets or ways already established and that no new ways are shown.

Peter L. Agnolita, L.L.S. #829  
Date: 12/29/16

REV.	DATE	STATUS	BY	CHKD	APPD.
C	12/19/16	REVISE NOTE #8 TO INCLUDE NAME JIM GOVE	A.M.P.	P.L.A.	P.L.A.
B	10/5/16	REVISIONS PER TRG REVIEW DATED 9/28/16	A.M.P.	P.L.A.	P.L.A.
A	9/1/16	ADD TEST PITS / ABUTTERS	A.M.P.	P.L.A.	P.L.A.

Rochester, New  
Hampshire

SCALE: AS SHOWN

Last Saved: 10/10/2016  
 Plotted On: Nov 30, 2015 2:37pm By: kcm  
 Title & Bond: \s\projects\060659 - Rab Graham - General Proposals, Norway Plains Subdivision\Drawings - Figures\AutoCAD\Sheet Current Plan Sheets - 0653-Y-101.dwg



FINAL APPROVAL BY ROCHESTER PLANNING BOARD

CERTIFIED BY *[Signature]* DATE 4/21/17

**Tighe & Bond**  
www.tighebond.com



- SPECIAL NOTES:**
1. APPLICANT SHALL BE RESPONSIBLE FOR REMOVING AND PROPERLY DISPOSING OF SNOW IF IT EXCEEDS DESIGNATED SNOW STORAGE AREAS.
  2. REFUSE AND RECYCLING PICK UP SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER/ASSOCIATION. RECYCLING AND REFUSE BINS WILL BE PICKED UP AT EACH BUILDING BY A PRIVATE CONTRACTOR.
  3. PRIOR TO PLAN CERTIFICATION, THE APPLICANT SHALL PROVIDE A COPY OF THE MANAGEMENT AGREEMENT AND STORMWATER OPERATIONS AND MAINTENANCE PLAN TO THE PLANNING DEPARTMENT.

**NOTE:**  
SEE NOTES AND LEGEND SHEET (G-001) FOR ADDITIONAL LEGEND AND NOTE INFORMATION.

**NOTE:**  
LOOP ROAD, DESIGNED AS A PRIVATE ROAD, MUST REMAIN A PRIVATE ROAD.

**LEGEND**

	PROPERTY LINE
	SET BACK
	TREELINE
	WETLAND LIMIT
	PROPOSED FIRE HYDRANT (SEE SHEET C-103)
	PROPOSED UNDERGROUND PROPANE TANK (SEE SHEET C-103)
	PROPOSED SIGN
	CURB RADIUS
	SNOW STORAGE AREA
	PROPOSED LIGHT POLE (SEE SHEET E-101)

**NOTE:**  
CONTRACTOR SHALL COORDINATE WITH DPW FOR LOCATIONS OF "NO PARKING" SIGNS IN NORWAY PLAINS ROAD.

**Proposed Multi-family Development**

**Norway Plains Road Site Plans**

Tenants In Common:  
Robert Graham  
81 Lakeview Drive  
Nottingham, NH  
03290

Michael Anderson  
2637 E Atlantic Blvd #172  
Pompano Beach FL 33062-4939

Rochester, New Hampshire

1.	12/16/16	RESPONSE TO CITY COMMENTS
A	10/11/2016	City Review Comments
MARK	DATE	DESCRIPTION
PROJECT NO:	G-0693	
DATE:	09/06/2016	
FILE:	G0693-C-101.dwg	
DRAWN BY:	ERC/KAM	
CHECKED:	KAM	
APPROVED:	BLM	

**SITE PLAN**

SCALE: AS SHOWN

**C-101**

**DIMENSIONAL REQUIREMENTS**

	BUILDING TYPE	LOT AREA SQ FT	FRONTAGE	SETBACKS			BUILDING FOOTPRINT (%)	LOT COVERAGE	BUILDING HEIGHT	UNITS
				FRONT	SIDE	REAR				
REQUIRED	TOWNHOUSE	7,500 /UNIT MIN.	80' MIN.	15.0'	10.0'	25.0'	30% MAX.	60% MAX.	35' MAX.	4
LOT 17	TOWNHOUSE	218,112**	775'	50.0'	10.0'	25.0'	16%*	36%*	≤35'	4
REQUIRED	TWO FAMILY	9,000	80' MIN.	10.0'	8.0'	20.0'	30% MAX.	45% MAX.	35' MAX.	2
LOT 17-1	TWO FAMILY	16,660	142'	56.6'	17.4'	20.0'	9%	17%*	≤35'	2

\*ASSUMES 40' x 88' BUILDING FOOTPRINT  
\*\* 218,112 sf / 40 UNITS = 5452 sf/UNIT  
VARIANCE GRANTED FOR REDUCED LOT DENSITY ON AUGUST 10, 2016

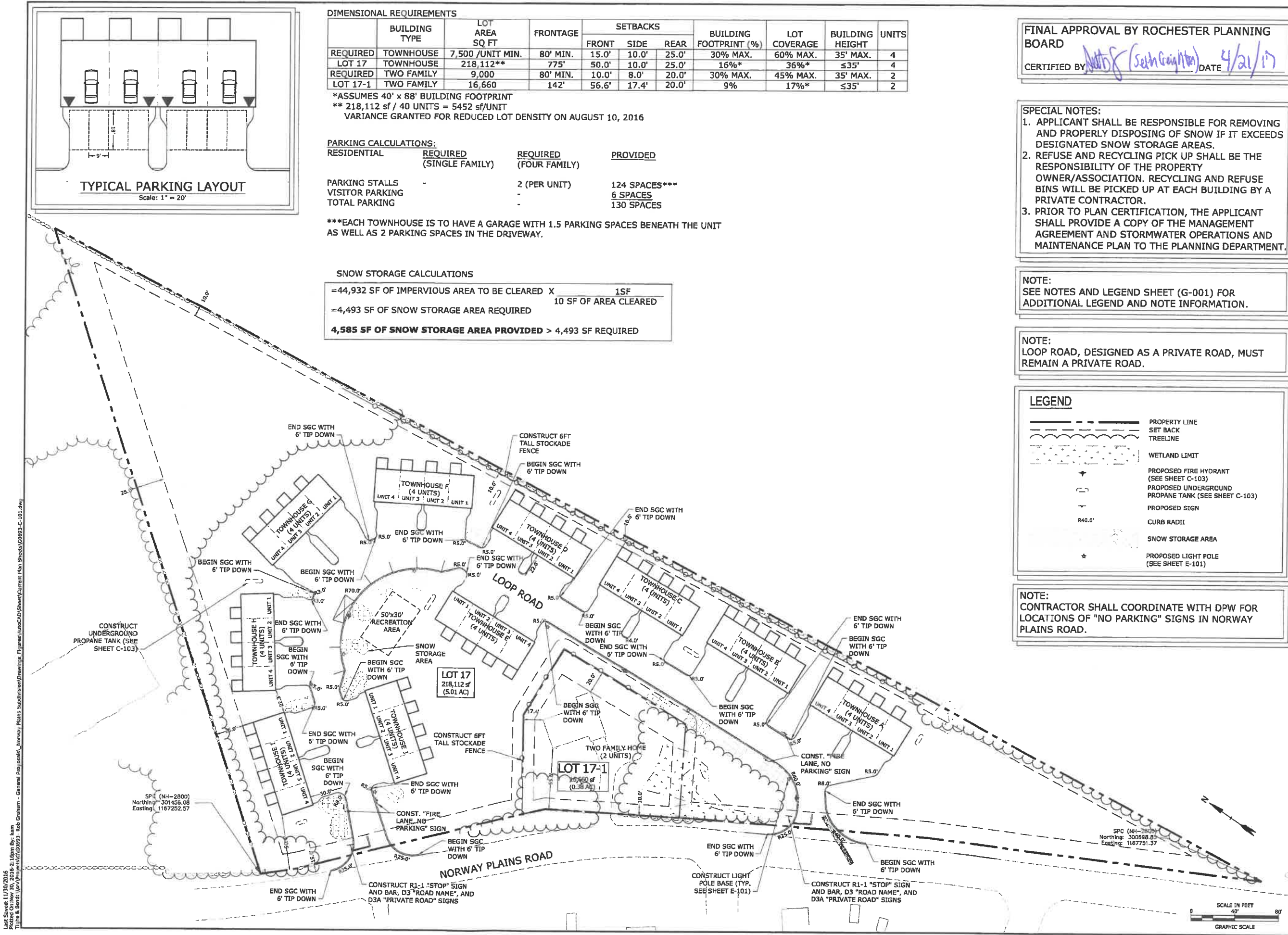
**PARKING CALCULATIONS:**

RESIDENTIAL	REQUIRED (SINGLE FAMILY)	REQUIRED (FOUR FAMILY)	PROVIDED
PARKING STALLS	-	2 (PER UNIT)	124 SPACES***
VISITOR PARKING	-	-	6 SPACES
TOTAL PARKING	-	-	130 SPACES

\*\*\*EACH TOWNHOUSE IS TO HAVE A GARAGE WITH 1.5 PARKING SPACES BENEATH THE UNIT AS WELL AS 2 PARKING SPACES IN THE DRIVEWAY.

**SNOW STORAGE CALCULATIONS**

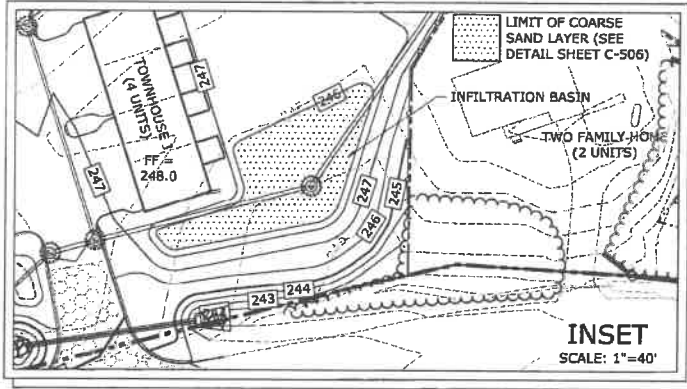
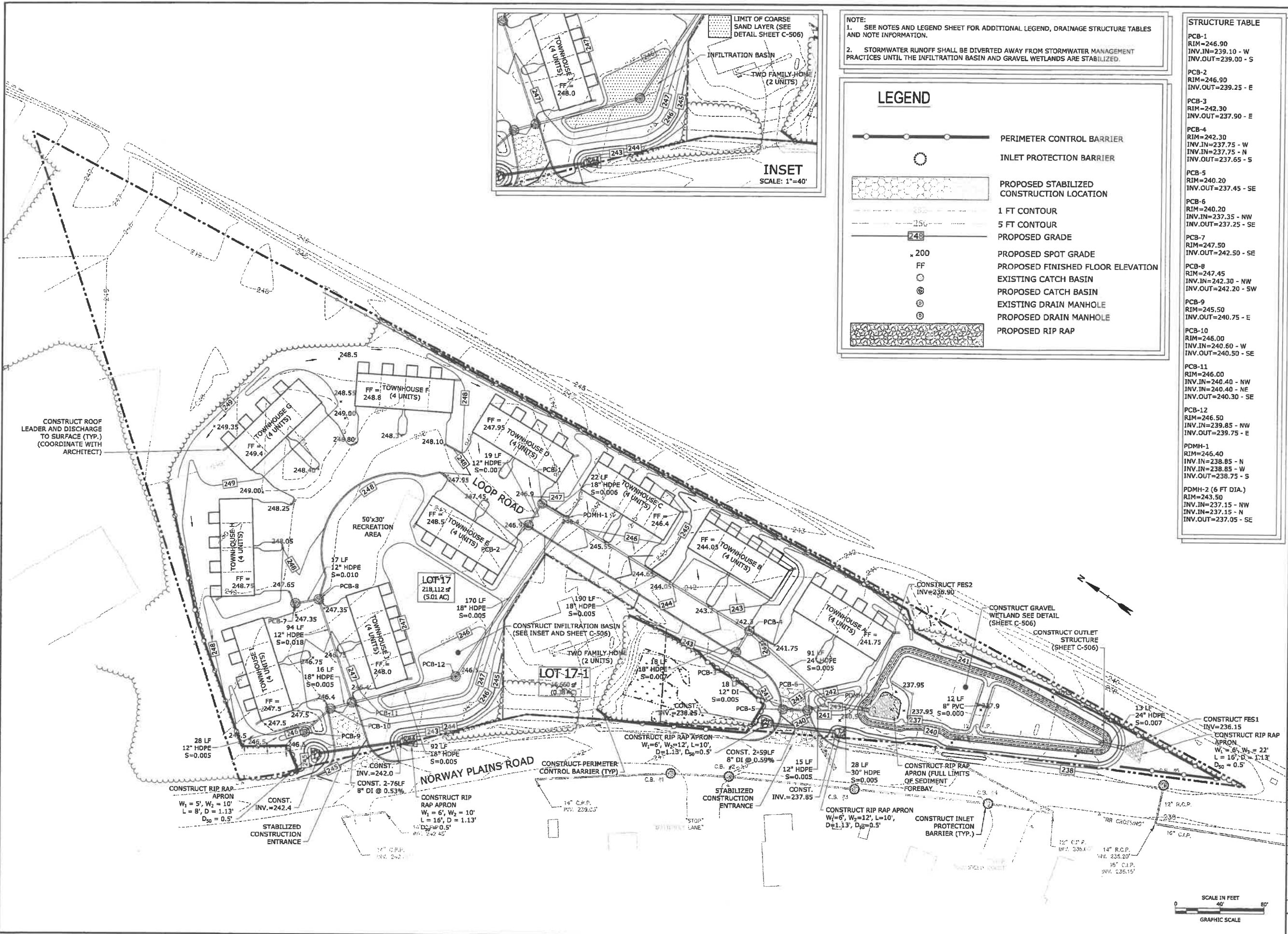
=44,932 SF OF IMPERVIOUS AREA TO BE CLEARED X 1SF  
10 SF OF AREA CLEARED  
=4,493 SF OF SNOW STORAGE AREA REQUIRED  
**4,585 SF OF SNOW STORAGE AREA PROVIDED > 4,493 SF REQUIRED**



Lot 17-1: 16,660 sf (0.38 AC)  
Lot 17: 218,112 sf (5.01 AC)  
SPC (NH-2800)  
Northing: 301458.08  
Easting: 1167252.57  
SPC (NH-2800)  
Northing: 300598.83  
Easting: 1167751.37  
Last Saved: 11/30/2016 2:21:54 PM  
User: R. Graham  
Project: Norway Plains Subdivision  
Drawing: General Proposal, Norway Plains Subdivision  
Current Plan Sheet: C0693-C-101.dwg  
Tighe & Bond, Inc. Project: C0693 - R. Graham



Lot 17, 218,112 sq. ft. (5.01 AC)  
Norway, Plains Subdivision, Drawing: Plaines/MapCAD/Sheet/Current/Plan Sheets/G0693-C-102.dwg  
Tighe & Bond: 1/10/2016, 2:07pm, Rev. 1  
Project: On 01/20/2016, 2:07pm, Rev. 1  
Tighe & Bond: 1/10/2016, 2:07pm, Rev. 1



NOTE:  
1. SEE NOTES AND LEGEND SHEET FOR ADDITIONAL LEGEND, DRAINAGE STRUCTURE TABLES AND NOTE INFORMATION.  
2. STORMWATER RUNOFF SHALL BE DIVERTED AWAY FROM STORMWATER MANAGEMENT PRACTICES UNTIL THE INFILTRATION BASIN AND GRAVEL WETLANDS ARE STABILIZED.

**LEGEND**

- PERIMETER CONTROL BARRIER
- INLET PROTECTION BARRIER
- PROPOSED STABILIZED CONSTRUCTION LOCATION
- 1 FT CONTOUR
- 5 FT CONTOUR
- PROPOSED GRADE
- PROPOSED SPOT GRADE
- PROPOSED FINISHED FLOOR ELEVATION
- EXISTING CATCH BASIN
- PROPOSED CATCH BASIN
- EXISTING DRAIN MANHOLE
- PROPOSED DRAIN MANHOLE
- PROPOSED RIP RAP

STRUCTURE TABLE	
PCB-1	RIM=246.90 INV.IN=239.10 - W INV.OUT=239.00 - S
PCB-2	RIM=246.90 INV.OUT=239.25 - E
PCB-3	RIM=242.30 INV.OUT=237.90 - E
PCB-4	RIM=242.30 INV.IN=237.75 - W INV.IN=237.75 - N INV.OUT=237.65 - S
PCB-5	RIM=240.20 INV.OUT=237.45 - SE
PCB-6	RIM=240.20 INV.IN=237.35 - NW INV.OUT=237.25 - SE
PCB-7	RIM=247.50 INV.OUT=242.50 - SE
PCB-8	RIM=247.45 INV.IN=242.30 - NW INV.OUT=242.20 - SW
PCB-9	RIM=245.50 INV.OUT=240.75 - E
PCB-10	RIM=246.00 INV.IN=240.60 - W INV.OUT=240.50 - SE
PCB-11	RIM=246.00 INV.IN=240.40 - NW INV.IN=240.40 - NE INV.OUT=240.30 - SE
PCB-12	RIM=246.50 INV.IN=239.85 - NW INV.IN=237.75 - E
PDMH-1	RIM=246.40 INV.IN=238.85 - N INV.IN=238.85 - W INV.OUT=238.75 - S
PDMH-2 (6 FT DIA.)	RIM=243.50 INV.IN=237.15 - NW INV.IN=237.15 - N INV.OUT=237.05 - SE

**Tighe & Bond**  
www.tighebond.com

STATE OF NEW HAMPSHIRE  
PROFESSIONAL SEAL  
GREGG M. MAROLATIES  
No. 6364  
12/16/16

STATE OF NEW HAMPSHIRE  
PROFESSIONAL SEAL  
KENNETH A. MAROLATIES  
No. 13328  
1/10/2016

**Proposed Multi-family Development**

**Norway Plains Road Site Plans**

Tenants In Common:  
Robert Graham  
81 Lakeview Drive  
Nottingham, NH  
03290

Michael Anderson  
2637 E Atlantic Blvd #172  
Pompano Beach FL 33062-4939

Rochester, New Hampshire

MARK	DATE	DESCRIPTION
2.	12/16/16	RESPONSE TO CITY COMMENTS
1.	10/24/2016	Revised Per DPW Comment
A	10/11/2016	City Review Comments

PROJECT NO:	G-0693
DATE:	09/06/2016
FILE:	G0693-C-102.dwg
DRAWN BY:	ERC/KAM
CHECKED:	KAM
APPROVED:	BLM

**GRADING PLAN**

SCALE: AS SHOWN

**C-102**

**SPECIAL NOTE:**  
1. EACH TOWNHOUSE SHALL RECEIVE A 4" DUCTILE IRON FIRE SERVICE FOR INTERIOR FIRE SUPPRESSION SYSTEM. COORDINATE WITH ROCHESTER FIRE DEPARTMENT.  
2. EACH TOWNHOUSE SHALL RECEIVE A SINGLE 2" TYPE K COPPER DOMESTIC WATER SERVICE WITH INTERIOR MANIFOLD AND INDIVIDUAL METERS PER UNIT.

**NOTE:**  
SEE NOTES AND LEGEND SHEET FOR EXISTING SEWER STRUCTURE TABLE AND ADDITIONAL INFORMATION.

### LEGEND

— PW —	— PW —	WATER LINE
— SS —	— SS —	SEWER LINE
— — —	— — —	UNDERGROUND ELECTRIC
+		HYDRANT
⊙		PROPOSED SANITARY SEWER MANHOLE
⊙		PROPOSED CATCH BASIN
⊙		PROPOSED DRAIN MANHOLE
⊙		PROPOSED UNDERGROUND PROPANE TANK
⊙		PROPOSED TRANSFORMER
★		PROPOSED LIGHT
✱		PROPOSED GATE VALVE
▲		PROPOSED THRUST BLOCK
— — —		PROPOSED DRAINAGE

### STRUCTURE TABLE

EX. SMH#2	RIM=244.26	INV.IN=237.55 - N	INV.OUT=237.45 (VIF)
PSMH-1	RIM=248.40	INV.IN=241.75 - N	INV.OUT=241.65 - SW
PSMH-2	RIM=248.20	INV.IN=238.25 - NE	INV.OUT=238.15 - S
PSMH-3	RIM=246.45	INV.IN=238.90 - NE	INV.IN=238.90 - SE
PSMH-4	RIM=245.45	INV.IN=236.70 - N	INV.IN=236.70 - E
PSMH-6	RIM=247.50	INV.IN=237.80 - N	INV.IN=237.80 - E
PSMH-7	RIM=243.10	INV.IN=235.40 - N	INV.IN=235.40 - E
PSMH-8	RIM=241.75	INV.IN=233.85 - N	INV.IN=233.85 - E
PSMH-9	RIM=241.00	INV.IN=233.50 - NE	INV.IN=233.40 - SW
PSMH-10 (DOGHOUSE)	RIM=239.44	INV.IN=233.05 - NE	INV.OUT=232.95 (VIF)

## Proposed Multi-family Development

### Norway Plains Road Site Plans

Tenants in Common:  
Robert Graham  
81 Lakewood Drive  
Nottingham, NH  
03290

Michael Anderson  
2637 E Atlantic Blvd #172  
Pompano Beach FL 33062-4939

Rochester, New Hampshire

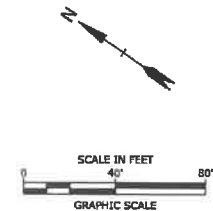
MARK	DATE	DESCRIPTION
2.	1/13/17	REVISED UNDERGROUND ELEC
1.	12/16/16	RESPONSE TO CITY COMMENTS
A	10/11/2016	City Review Comments
PROJECT NO: G-0693		
DATE: 09/05/2016		
FILE: G0693-C-103.dwg		
DRAWN BY: ERC/KAM		
CHECKED: KAM		
APPROVED: BLM		

### UTILITIES PLAN

SCALE:

C-103





## Development

## Norway Plains Road Site Plans

**Tenants in Common:**  
Robert Graham  
81 Lakeview Drive  
Nottingham, NH  
03290

Michael Anderson  
2637 E Atlantic Blvd #172  
Pompano Beach FL 33062-4939

Rochester, New  
Hampshire

4	1/13/2017	REVISED UNDERGROUND ELECTRIC
3	12/16/16	RESPONSE TO CITY COMMENTS
2	11/21/2016	Revised per NHDES Comment
1	10/24/2016	Revised per DPW Comment
A	10/11/2016	City Review Comments
MARK	DATE	DESCRIPTION
PROJECT NO: G-0693		
DATE: 10/11/2016		
FILE: G0693-C-104.dwg		
DRAWN BY:		ERC/KAM
CHECKED:		KAM
APPROVED:		BLM

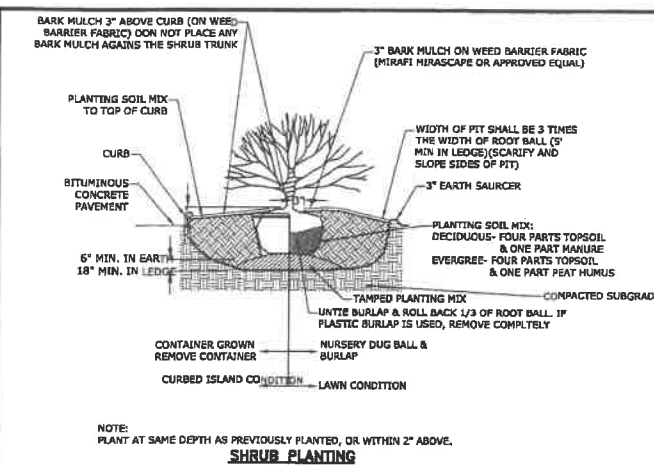
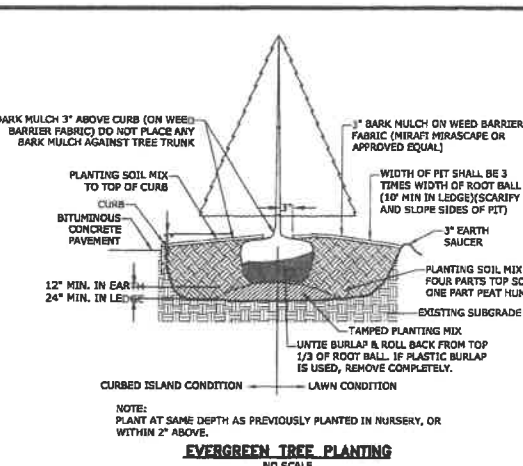
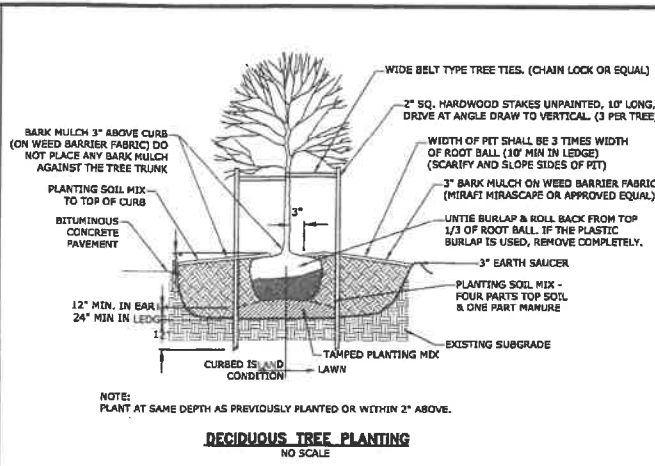
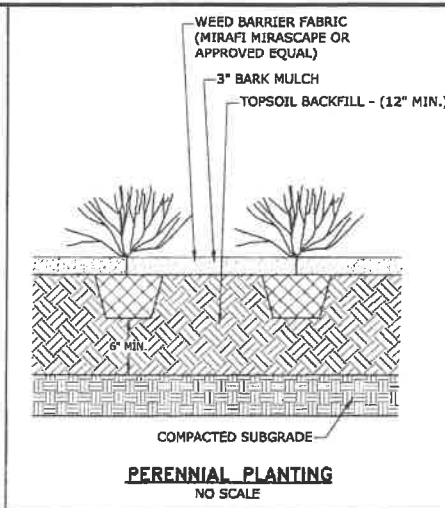
SEWER PLAN  
AND PROFILE

SCALE: AS SHOWN

C-104



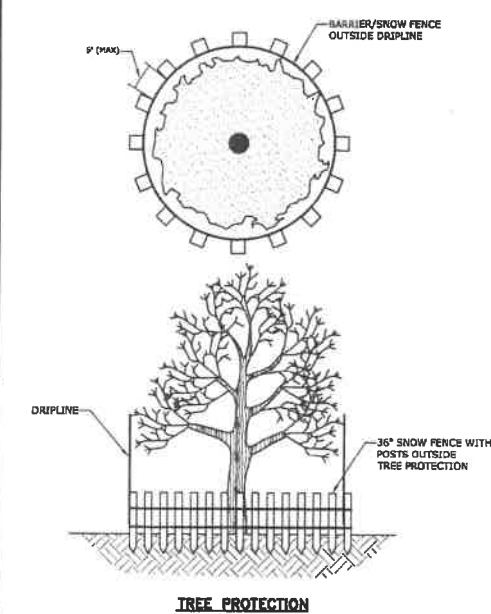
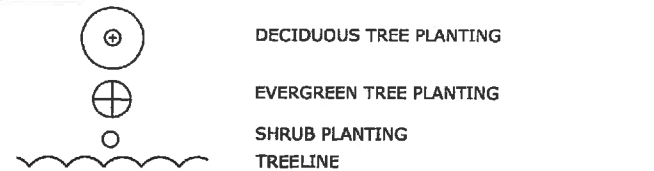
PROPOSED SEWER SOUTH



**PLANT SCHEDULE:**

TREES:	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
PC	PYRUS CALLERYANA 'CHANTICLEER'	CHANTICLEER PEAR	3 - 3 1/2" CALIPER	B & B
UA	ULMUS AMERICANA 'PRINCETON'	PRINCETON AMERICAN ELM	3 - 3 1/2" CALIPER	B & B
AR	ACER RUBRUM	RED MAPLE	3 - 3 1/2" CALIPER	B & B
PA	PICEA ABIES	NORWAY SPRUCE	8 - 10' HT.	B & B
AC	ABIES CONCOLOR	WHITE FIR	8 - 10' HT.	B & B
JC	JUNIPERUS CHINENSIS 'MOUNTBATTEN'	MOUNTBATTEN JUNIPER	7 - 8' HT.	B & B
SHRUBS:	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
SV	SYRINGA VULGARIS	COMMON PURPLE LILAC	5 - 6' HT.	B & B
VL	VIBURNUM LENTAGO	NANNYBERRY VIBURNUM	5 - 6' HT.	B & B
VD	VIBURNUM DENTATUM 'BLUE MUFFIN'	BLUE MUFFIN VIBURNUM	3 - 4' HT.	B & B
FN	FORSYTHIA 'NORTHERN GOLD'	NORTHERN GOLD FORSYTHIA	5 GALLON	CONTAINER
CS	CORNUS SERICEA 'ALLEMAN'S COMPACT'	ALLEMAN'S RED STEM DOGWOOD	5 GALLON	CONTAINER
ORNAMENTAL GRASSES & PERENNIALS:	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
PV	PANICUM VIRGATUM 'SHENANDOAH'	SHENANDOAH SWITCH GRASS	#3	CONTAINER
DL	HEMEROCALLIS 'HAPPY RETURNS'	HAPPY RETURNS DAYLILY	#2	CONTAINER
SS	SALVIA SUPERBA 'MAY NIGHT'	MAY NIGHT SAGE	#2	CONTAINER

**LEGEND**



**Proposed Multi-family Development**

**Norway Plains Road Site Plans**

Tenants In Common:  
Robert Graham  
81 lakeview drive  
Nottingham, NH  
03290

Michael Anderson  
2637 E Atlantic Blvd #172  
Pompano Beach FL 33062-4939

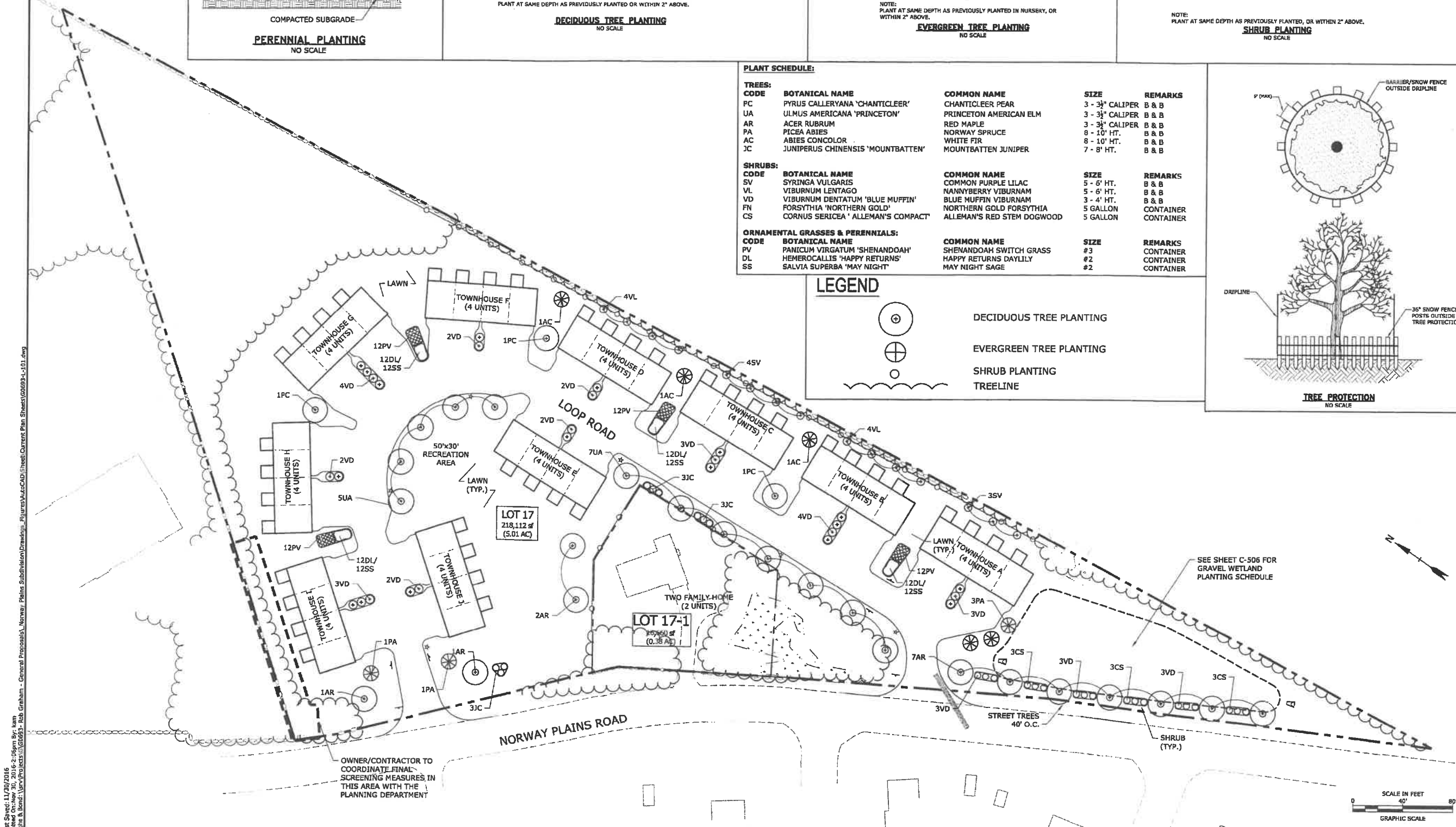
Rochester, New Hampshire

MARK	DATE	DESCRIPTION
1.	12/16/16	RESPONSE TO CITY COMMENTS
A	10/11/2016	City Review Comments
PROJECT NO:	G-0693	
DATE:	09/06/2016	
FILE:	G0693-L-101.dwg	
DRAWN BY:	ERC/KAM	
CHECKED:	KAM	
APPROVED:	BLM	

**LANDSCAPE PLAN**

SCALE: AS SHOWN

**L-101**

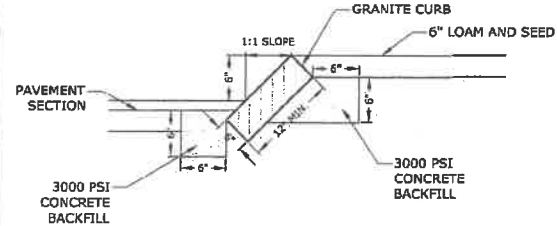


Lot Sheet: L-101/2016  
Date: 09/06/2016  
Project: Norway Plains Road Site Plans  
Tighe & Bond: L-101.dwg





10/1/2016  
10:42:30am  
Robert Graham  
Norway, Plains Subdivision  
General Proposals  
Norway, Plains Subdivision  
Plan Sheets  
G0693-C-502.dwg  
Tighe & Bond  
Norway, Plains Subdivision  
General Proposals  
Norway, Plains Subdivision  
Plan Sheets  
G0693-C-502.dwg



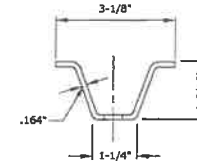
- NOTES:
- SEE SITE PLAN FOR LIMITS OF CURBING.
  - ADJOINING STONES OF STRAIGHT CURB LAID ON CURVES SHALL HAVE THE SAME OR APPROXIMATELY THE SAME LENGTH.
  - MINIMUM LENGTH OF STRAIGHT CURB STONES = 18 INCHES.
  - MAXIMUM LENGTH OF STRAIGHT CURB STONES = 8 FEET.
  - MAXIMUM LENGTH OF STRAIGHT CURB STONES LAID ON CURVES - SEE CHART.
  - JOINTS BETWEEN STONES SHALL BE MORTARED.

RADIUS	MAXIMUM LENGTH
<2'	USE CURVED CURB
2'-15'	USE RADIAL JOINTS
16'-29'	1'-6"
30'-41'	2'
42'-55'	3'
56'-68'	4'
69'-82'	5'
83'-96'	6'
97'-110'	7'
OVER 110'	8'

**SLOPED GRANITE CURB**  
NO SCALE

SIGN ID NUMBER	SIGN SIZE WIDTH x HEIGHT	SIGN	TEXT DIMENSIONS	NO. OF SIGNS	BACK-GROUND	LEGEND	BORDER	POST SIZE & QUANTITY	UNIT AREA	AREA (SQ. FT.)
R1-1	30" x 30"	STOP	SEE STANDARD HIGHWAY SIGNS 2004 EDITION (W/2012 SUPPLEMENT) PUBLISHED BY USDOT - FHWA	2	RED	WHITE	WHITE	U-CHANNEL	6.25	12.5
D3	36" x 9"	LOOP ROAD		2	GREEN	WHITE	WHITE	U-CHANNEL	2.25	4.50
D3A	30" x 9"	PRIVATE ROAD		2	WHITE	BLACK	WHITE	U-CHANNEL	1.75	3.50
R7-1	12" x 18"	NO PARKING FIRE LANE		4	WHITE	RED	WHITE	U-CHANNEL	1.50	6.00

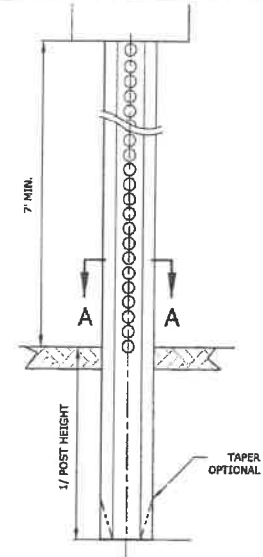
**SIGN LEGEND**  
NO SCALE



**SECTION A-A**

\* IN LEDGE DRILL & GROUT TO A MIN OF 2'

**TYPICAL METAL SIGN POST**  
NO SCALE



**Tighe & Bond**  
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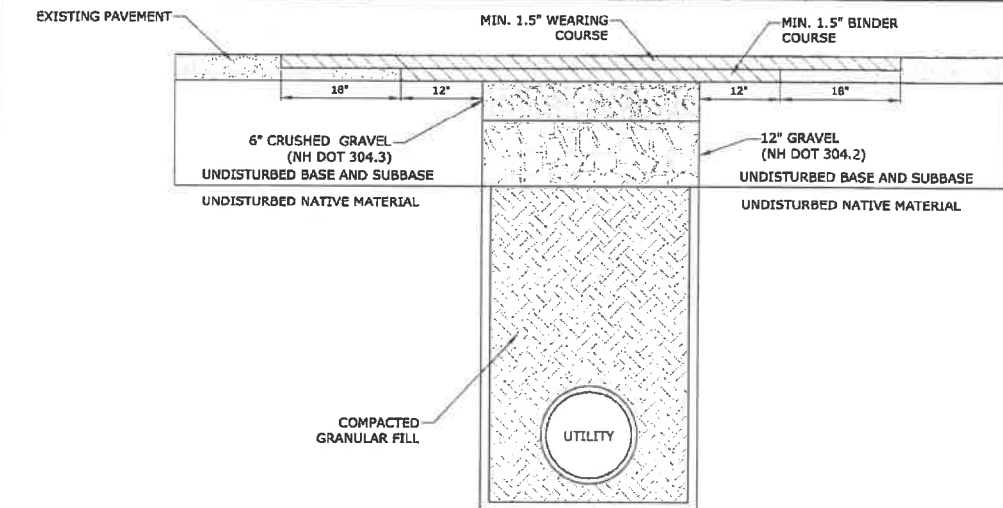
Rochester, New Hampshire

MARK	DATE	DESCRIPTION
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A	10/11/2016	City Review Comments
PROJECT NO:		G-0693
DATE:		09/05/2016
FILE:		G0693-C-502.dwg
DRAWN BY:		ERC/KAM
CHECKED:		KAM
APPROVED:		BLM

DETAILS SHEET

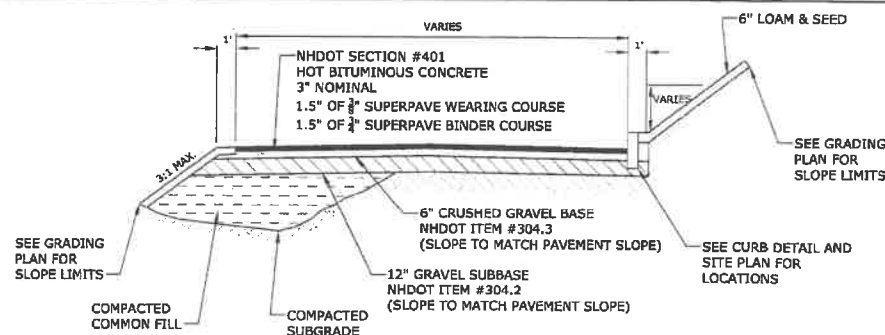
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C-502



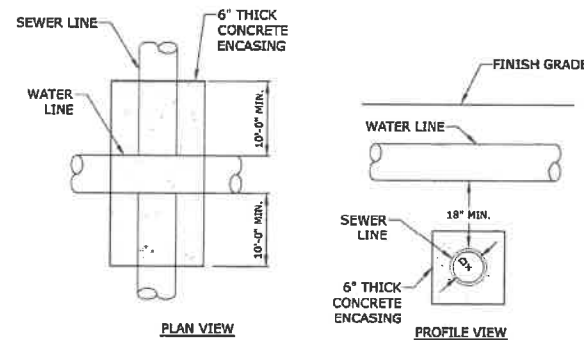
- NOTES:
- PAVEMENT EDGES SHALL BE DEFINED BY A STRAIGHT EDGE FORMED BY A MACHINED SAW CUT.
  - TRENCH SUBGRADE MATERIAL SHALL BE BACKFILLED WITH GRANULAR FILL AND COMPACTED TO 95% OF ITS MAXIMUM DRY DENSITY.
  - TOP 18" OF BACKFILL SHALL BE 6" IF COMPACTED 3/4" CRUSHED GRAVEL (NHDOT 304.3) SUPPORTED BY 12" OF COMPACTED GRAVEL (NHDOT 304.2).
  - ALL VERTICAL AND HORIZONTAL JOINTS BETWEEN PAVEMENTS SHALL BE TACK COATED.
  - PAVEMENT THICKNESS SHALL MATCH EXISTING BUT IN NO CASE SHALL BE LESS THAN 3" THICK TOTAL.
  - PAVEMENT SHALL BE PLACED IN TWO PHASES:
    - THE FIRST PHASE SHALL CONSIST OF CUTTING BACK THE FULL DEPTH OF PAVEMENT 12" BEYOND THE EDGES OF THE DISTURBED TRENCH AND PAVING A BINDER COURSE THE FULL DEPTH OF THE PAVEMENT AS TO BRING THE PATCH FLUSH WITH THE EXISTING ROAD SURFACE.
    - THE SECOND PHASE SHALL BE CONDUCTED THE FOLLOWING YEAR AND SHALL CONSIST OF MILLING OVER THE EDGES OF THE PREVIOUS PATCH BY A MINIMUM OF 18" IN ALL DIRECTIONS TO A DEPTH OF 1.5". WEARING COURSE PAVEMENT SHALL BE USED TO CREATE A SMOOTH SURFACE WITH THE ROADWAY OVER THE EXTENTS OF THE MILLED AREA.
  - ANY TRENCH PATCH REQUIRES PRE-APPROVAL BY DPW AND IS SUBJECT TO INSPECTION TO ENSURE COMPLIANCE WITH CITY STANDARDS.

**ROCHESTER, NH UTILITY TRENCH PATCH**  
NO SCALE



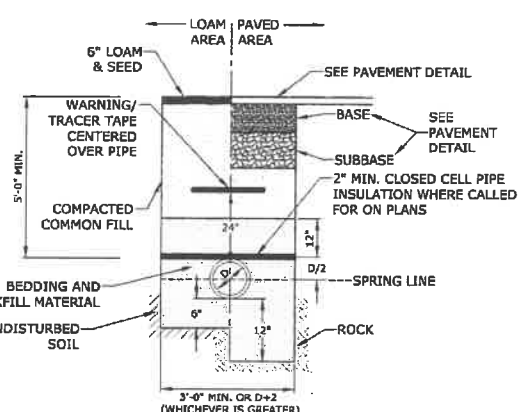
- NOTE:
- SEE SITE PLAN FOR PAVEMENT WIDTH AND LOCATION.
  - SEE GRADING, DRAINAGE AND EROSION CONTROL PLAN FOR PAVEMENT SLOPE AND CROSS-SLOPE.
  - A TACK COAT SHALL BE PLACED ON TOP OF BINDER COURSE PAVEMENT PRIOR TO PLACING WEARING COURSE.
  - CONTRACTOR SHALL HAVE THE OPTION OF RECLAIMING THE EXISTING PAVEMENT AND REMOVING THE MATERIAL, THEN REUSING THE RECLAIMED MATERIAL AS A PAVEMENT SUBBASE.

**STANDARD DUTY PAVEMENT SECTION**  
NO SCALE



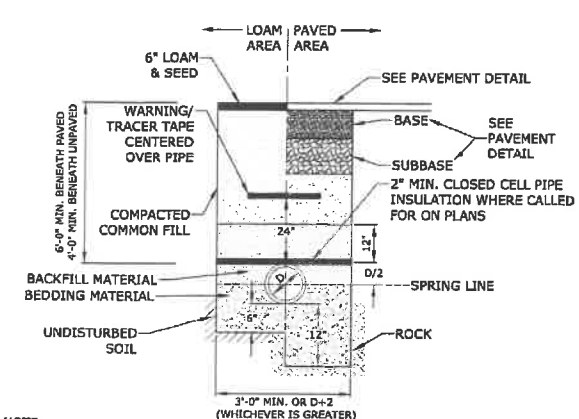
NOTE:  
A 10 FOOT MINIMUM EDGE TO EDGE HORIZONTAL SEPARATION SHALL BE PROVIDED BETWEEN ALL WATER AND SANITARY SEWER LINES. AN 18" MINIMUM OUTSIDE TO OUTSIDE VERTICAL SEPARATION SHALL BE PROVIDED AT ALL WATER AND SANITARY SEWER CROSSINGS. WHERE SEWER AND WATER CROSS, ENCASE SEWER IN CONCRETE 6" THICK OR SUBSTITUTE RUBBER GASKETED PRESSURE PIPE WITH JOINTS FOR A MINIMUM DISTANCE OF 10 FEET EACH SIDE OF THE CROSSING. CROSSING SHALL CONFORM TO CITY OF ROCHESTER WATER DEPARTMENT STANDARDS AND SPECIFICATIONS.

**WATER & SEWER CROSSING**  
NO SCALE



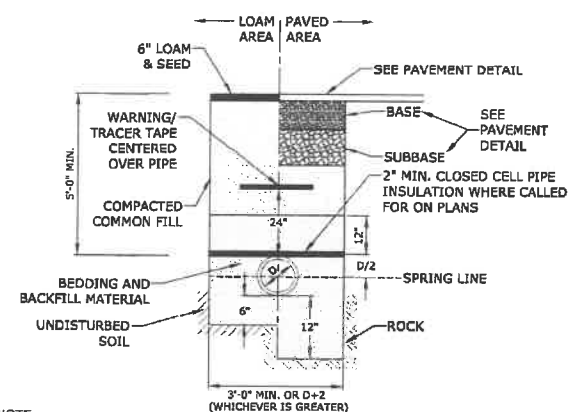
- NOTE:
- SAND BEDDING AND BACKFILL FOR FULL WIDTH OF THE TRENCH FROM 6" BELOW PIPE IN EARTH AND 12" BELOW PIPE IN ROCK UP TO 12" ABOVE TOP OF PIPE.
  - ALL UTILITIES SHALL BE INSTALLED PER THE INDIVIDUAL UTILITY COMPANY STANDARDS. COORDINATE ALL INSTALLATIONS WITH INDIVIDUAL UTILITY COMPANIES AND THE CITY OF ROCHESTER.

**WATER TRENCH**  
NO SCALE



- NOTE:
- CRUSHED STONE BEDDING FOR FULL WIDTH OF THE TRENCH FROM 6" BELOW PIPE IN EARTH AND 12" BELOW PIPE IN ROCK UP TO SPRING LINE.
  - SAND BACKFILL FOR FULL WIDTH OF THE TRENCH FROM SPRING LINE UP TO 12" ABOVE TOP OF PIPE.
  - ALL UTILITIES SHALL BE INSTALLED PER THE INDIVIDUAL UTILITY COMPANY STANDARDS. COORDINATE ALL INSTALLATIONS WITH INDIVIDUAL UTILITY COMPANIES AND THE CITY OF ROCHESTER.

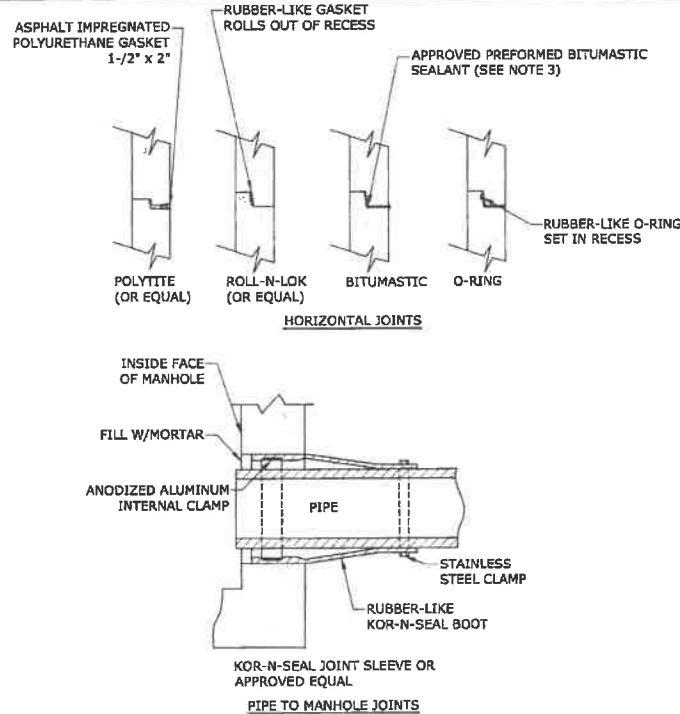
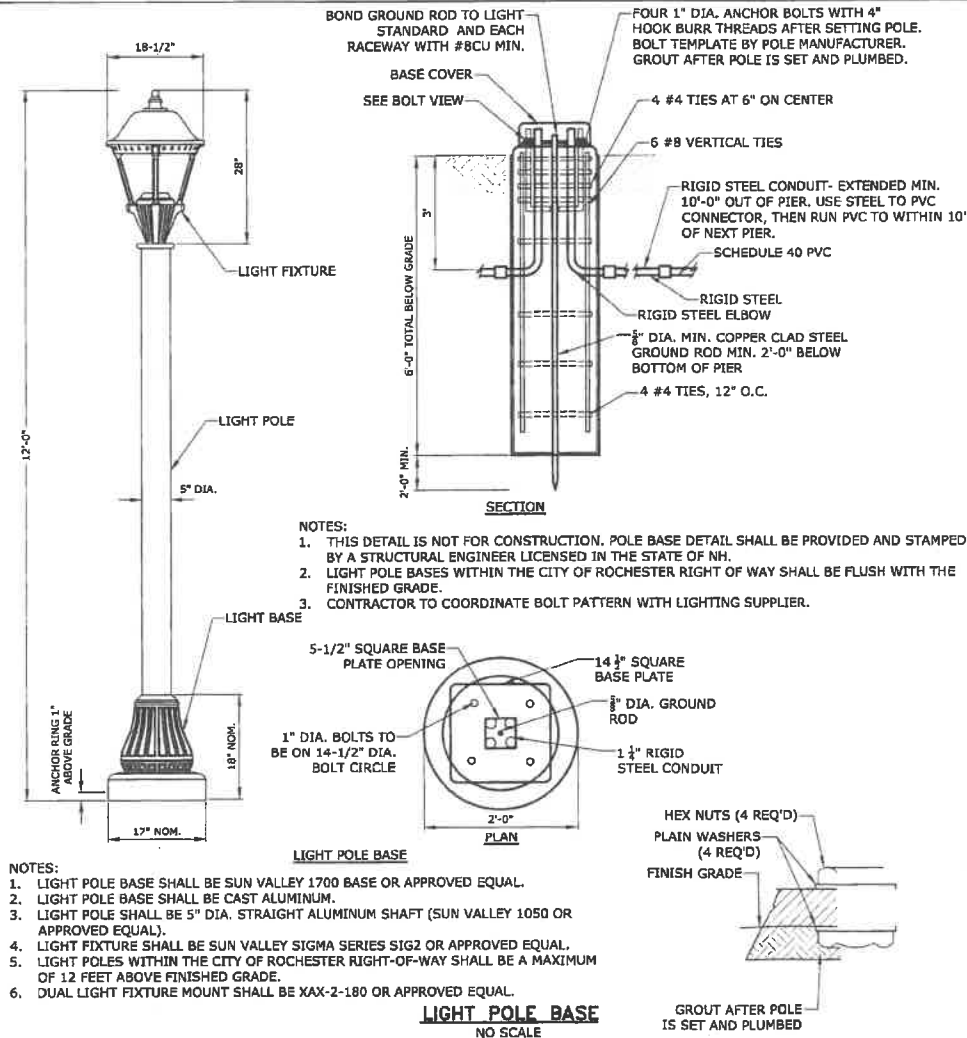
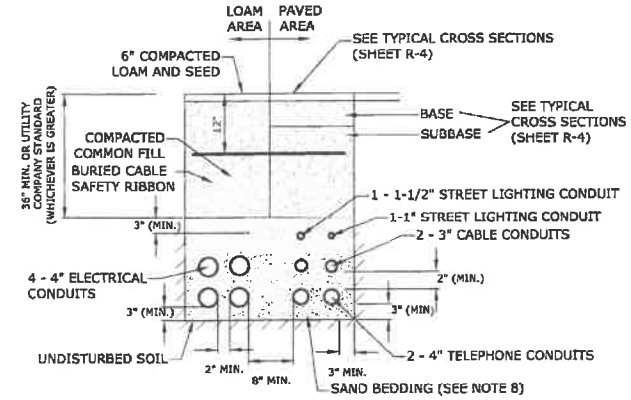
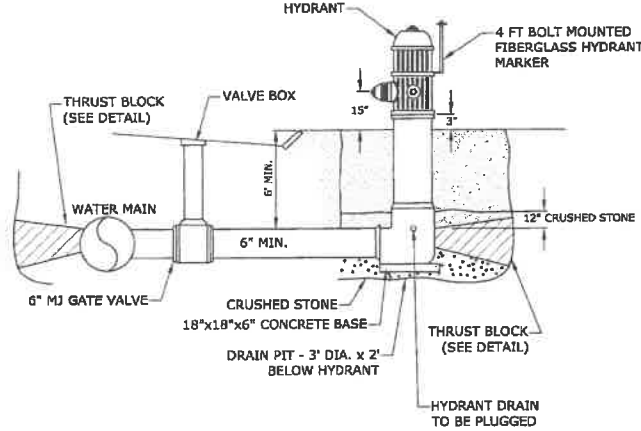
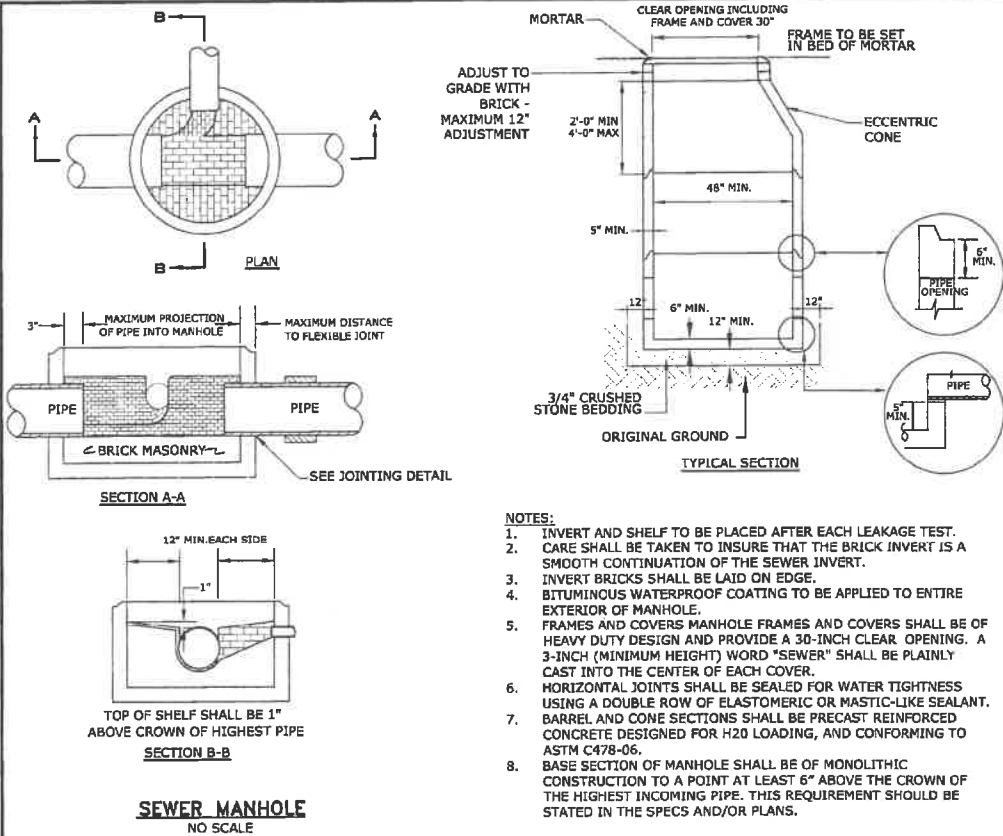
**SEWER TRENCH**  
NO SCALE



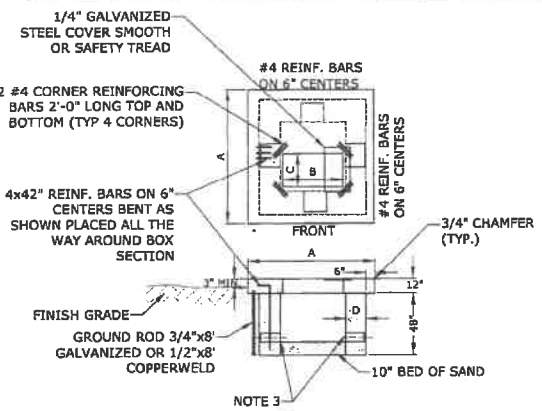
- NOTE:
- SAND BEDDING AND BACKFILL FOR FULL WIDTH OF THE TRENCH FROM 6" BELOW PIPE IN EARTH AND 12" BELOW PIPE IN ROCK UP TO 12" ABOVE TOP OF PIPE.
  - ALL UTILITIES SHALL BE INSTALLED PER THE INDIVIDUAL UTILITY COMPANY STANDARDS. COORDINATE ALL INSTALLATIONS WITH INDIVIDUAL UTILITY COMPANIES AND THE CITY OF ROCHESTER.

**GAS TRENCH**  
NO SCALE





KVA	KV	A	B	C	D	STEEL COVER
750 - 2500	15	9'-0"	5'-8"	1'-6"	12"	24"x24"x1/4"
150 - 2500	35	9'-0"	5'-8"	1'-6"	12"	24"x24"x1/4"
75 - 500	15	7'-0"	4'-0"	1'-6"	8"	16"x24"x1/4"
75 - 150	35	7'-0"	4'-0"	1'-6"	8"	16"x24"x1/4"



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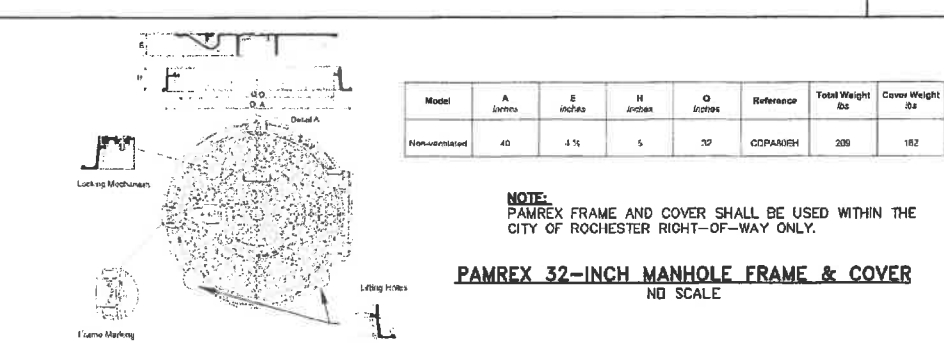
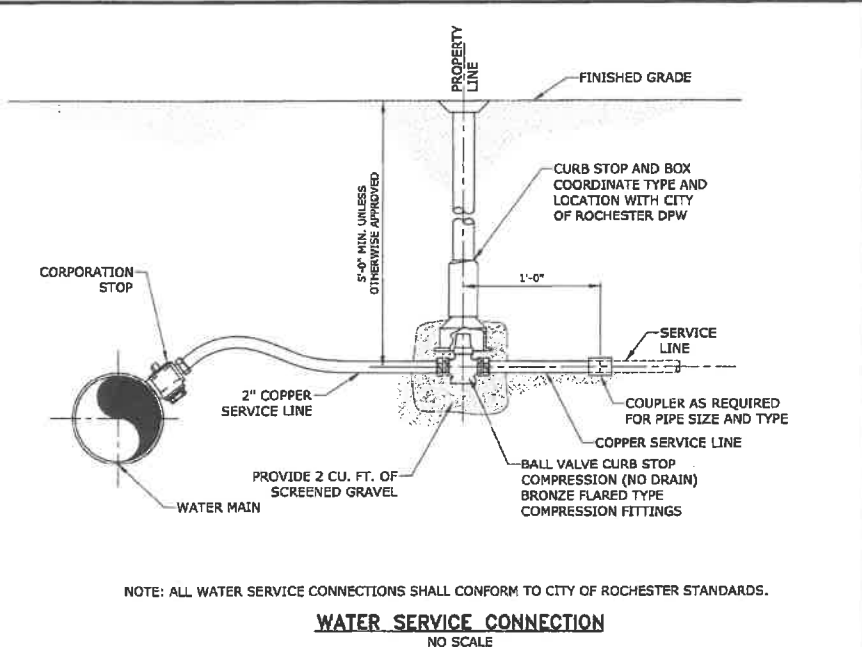
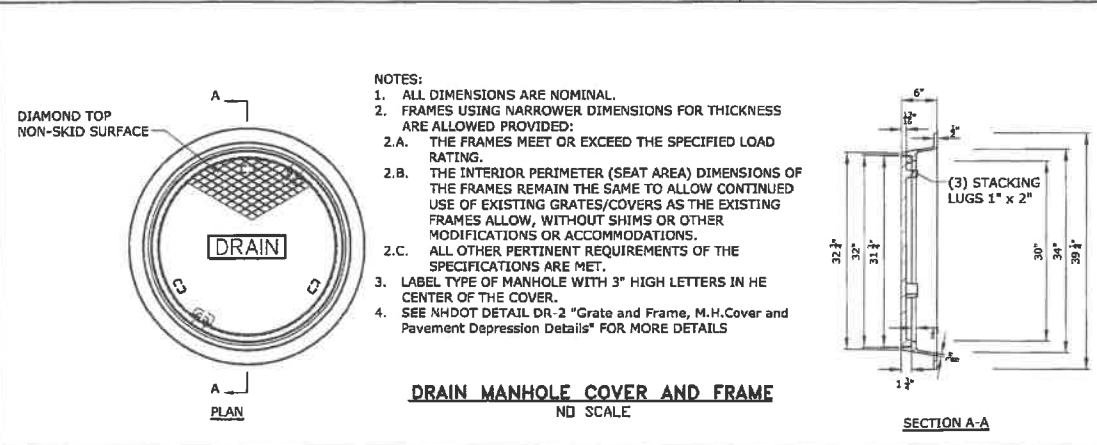
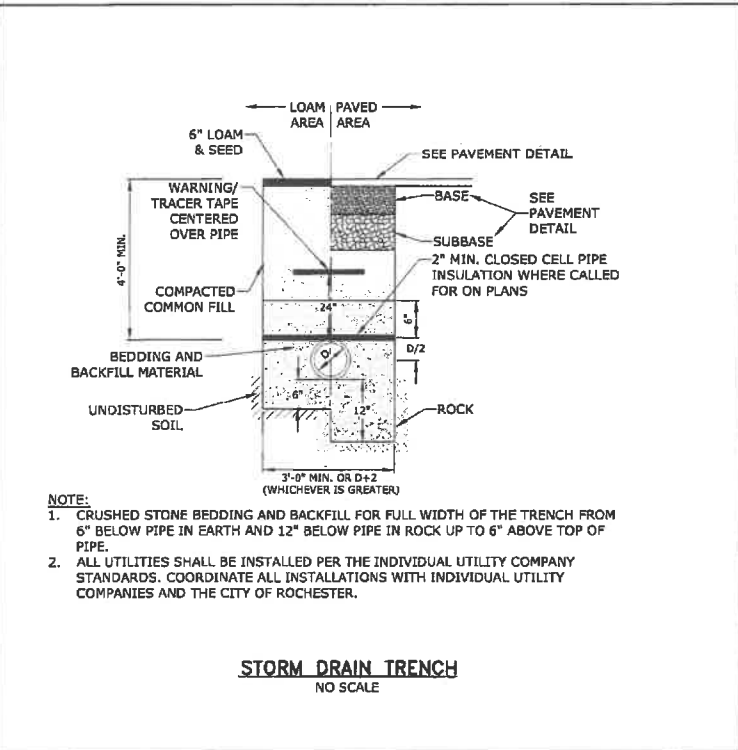
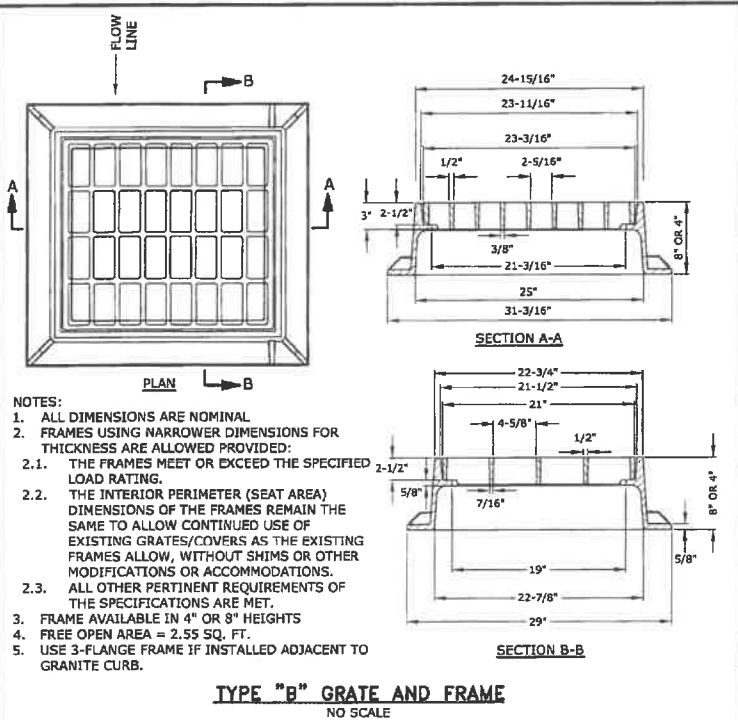
Rochester, New Hampshire

MARK	DATE	DESCRIPTION
2.	12/16/16	Revised per City Comment
1.	11/21/16	Revised per NHDES Comment
A	10/11/2015	City Review Comments
PROJECT NO:	G-0693	
DATE:	09/06/2016	
FILE:	G0693-C-503.dwg	
DRAWN BY:	ERC/KAM	
CHECKED:	KAM	
APPROVED:	BLM	

DETAILS SHEET

SCALE: AS SHOWN

C-503



CORE HOLE SIZE				
PIPE SIZE	RCP CORE HOLE DIA.		PLASTIC CORE HOLE DIA.	
INCHES	INCHES	FEET	INCHES	FEET
6	18	1.5	7	0.6
12	22	1.8	18	1.5
15	26	2.2	20	1.7
18	34	2.8	24	2.0
24	42	3.5	32	2.7
30	48	4.0	42	3.5
36	54	4.5	48	4.0
42	64	5.3	54	4.5
48	72	6.0	64	5.3
54	78	6.5		
60				

DIAMETER	WALL THICKNESS (MIN.)	FLOOR THICKNESS (MIN.)
4"	5"	6"
5"	6"	8"
6"	7"	8"
8"	9"	10"

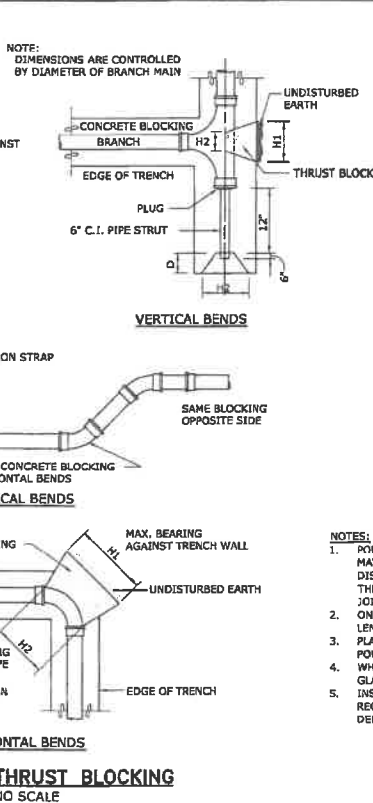
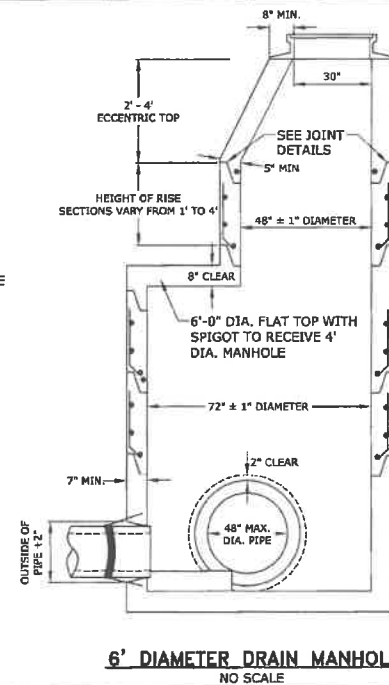
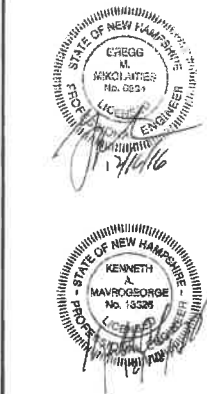
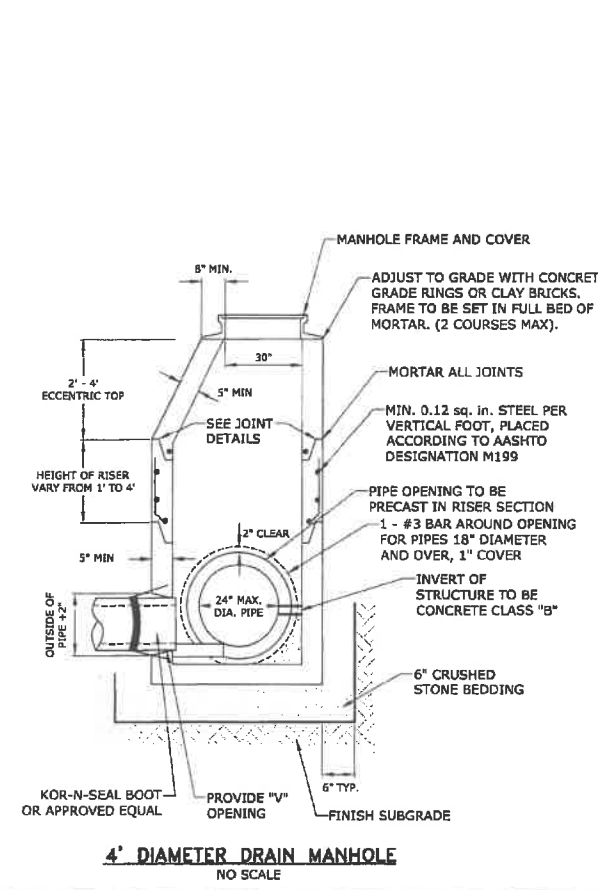


TABLE OF DIMENSIONS FOR CONCRETE BLOCKING																				
PIPE SIZE (H)	TEES, CROSSES & PLUGS				90° BENDS				45° BENDS				22 1/2° BENDS				11 1/4° BENDS			
	H1	H2	V	D	C.U. FT.	H1	H2	V	D	C.U. FT.	H1	H2	V	D	C.U. FT.	H1	H2	V	D	C.U. FT.
6"Ø	24"	16"	18"	18"	3.50	30"	16"	18"	18"	4.05	24"	10"	16"	18"	3.20	24"	10"	16"	18"	3.20
8"Ø	36"	18"	18"	18"	5.05	39"	18"	24"	18"	7.30	30"	11"	18"	18"	3.95	24"	11"	16"	18"	3.45
12"Ø	54"	30"	24"	24"	13.4	54"	32"	36"	24"	18.15	42"	18"	24"	24"	9.60	24"	18"	24"	24"	6.60



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Rochester, New Hampshire

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PROJECT NO: G-0693		
DATE: 09/06/2016		
FILE: G0693-C-504.dwg		
DRAWN BY: ERC/KAM		
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APPROVED: BLM		

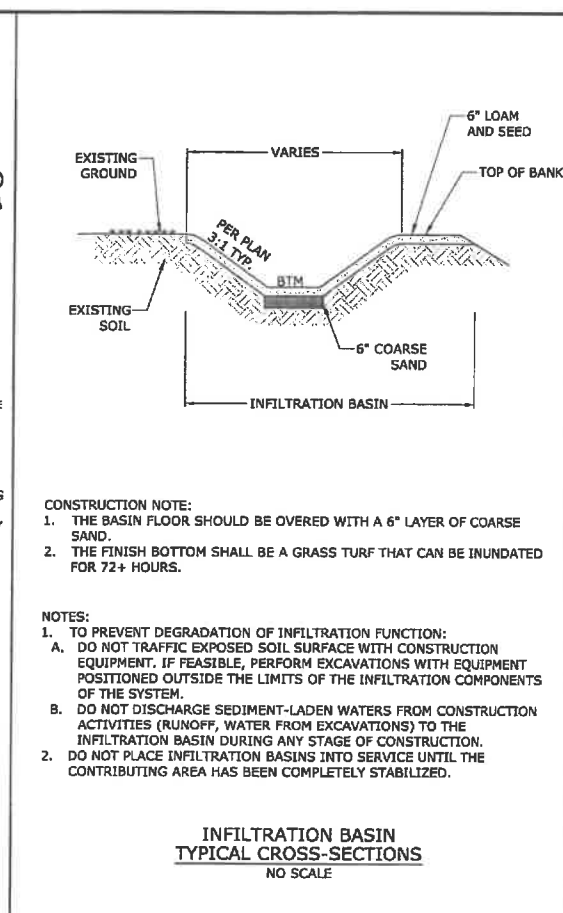
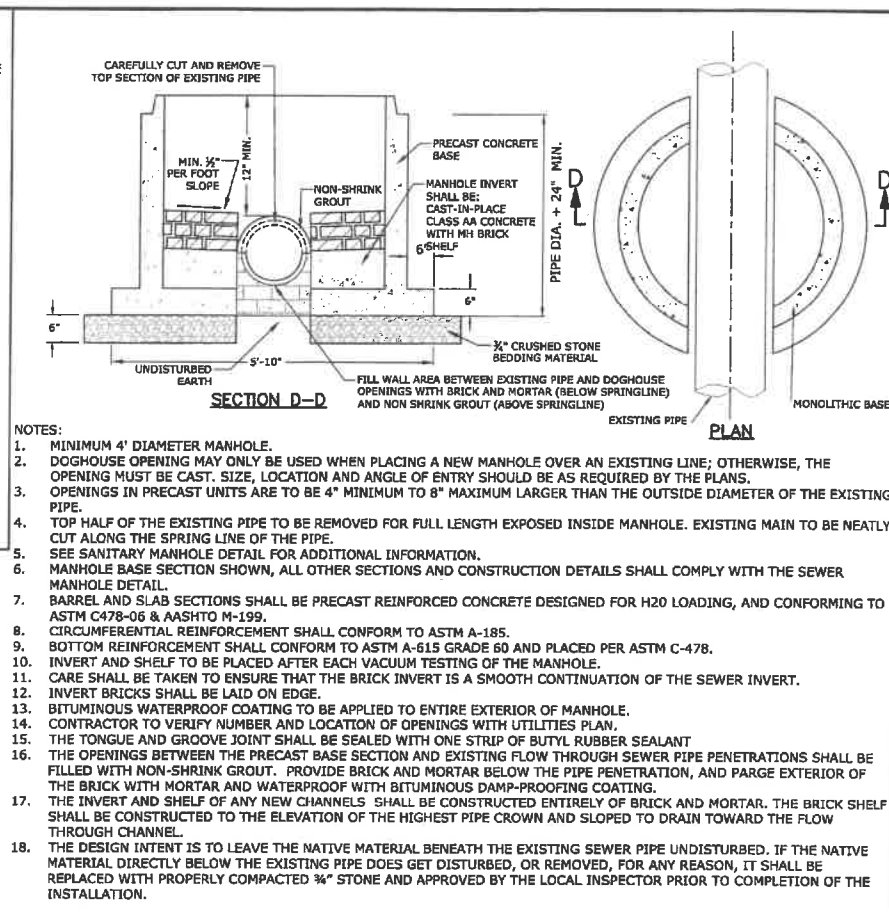
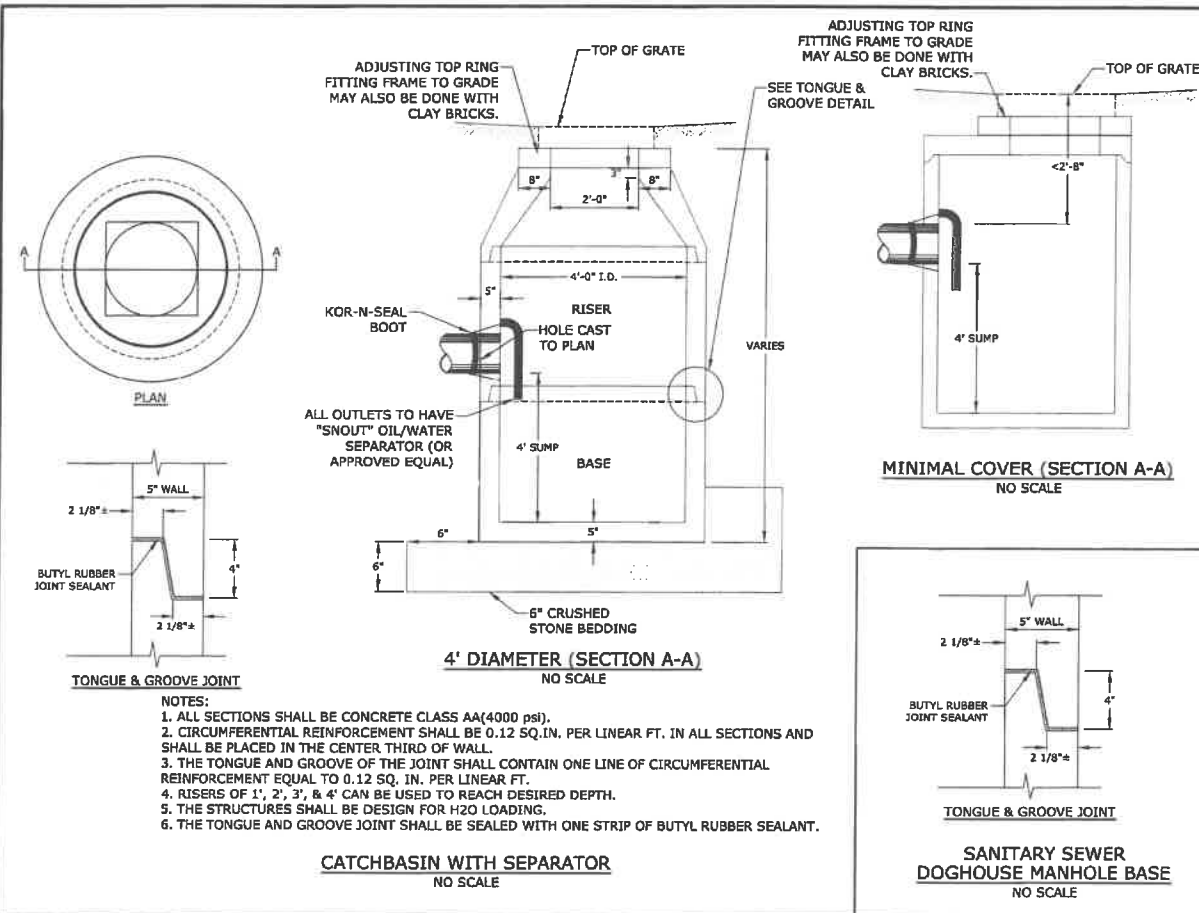
### DETAILS SHEET

SCALE: AS SHOWN

C-504



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99. See Sheet 12/20/2016  
100. See Sheet 12/20/2016



**Tighe & Bond**  
www.tighebond.com

STATE OF NEW HAMPSHIRE  
KAREN M. MAHONEY  
No. 6554  
LICENSED  
1-9-17

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Rochester, New Hampshire

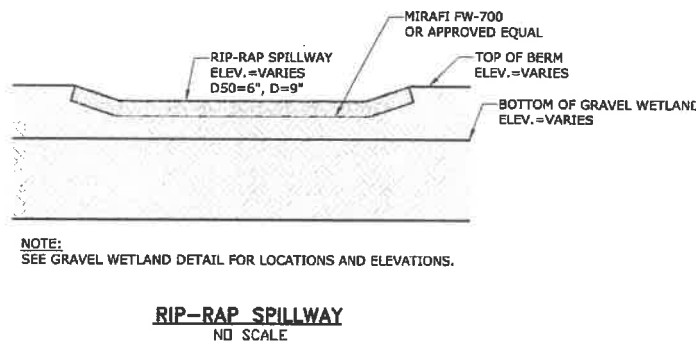
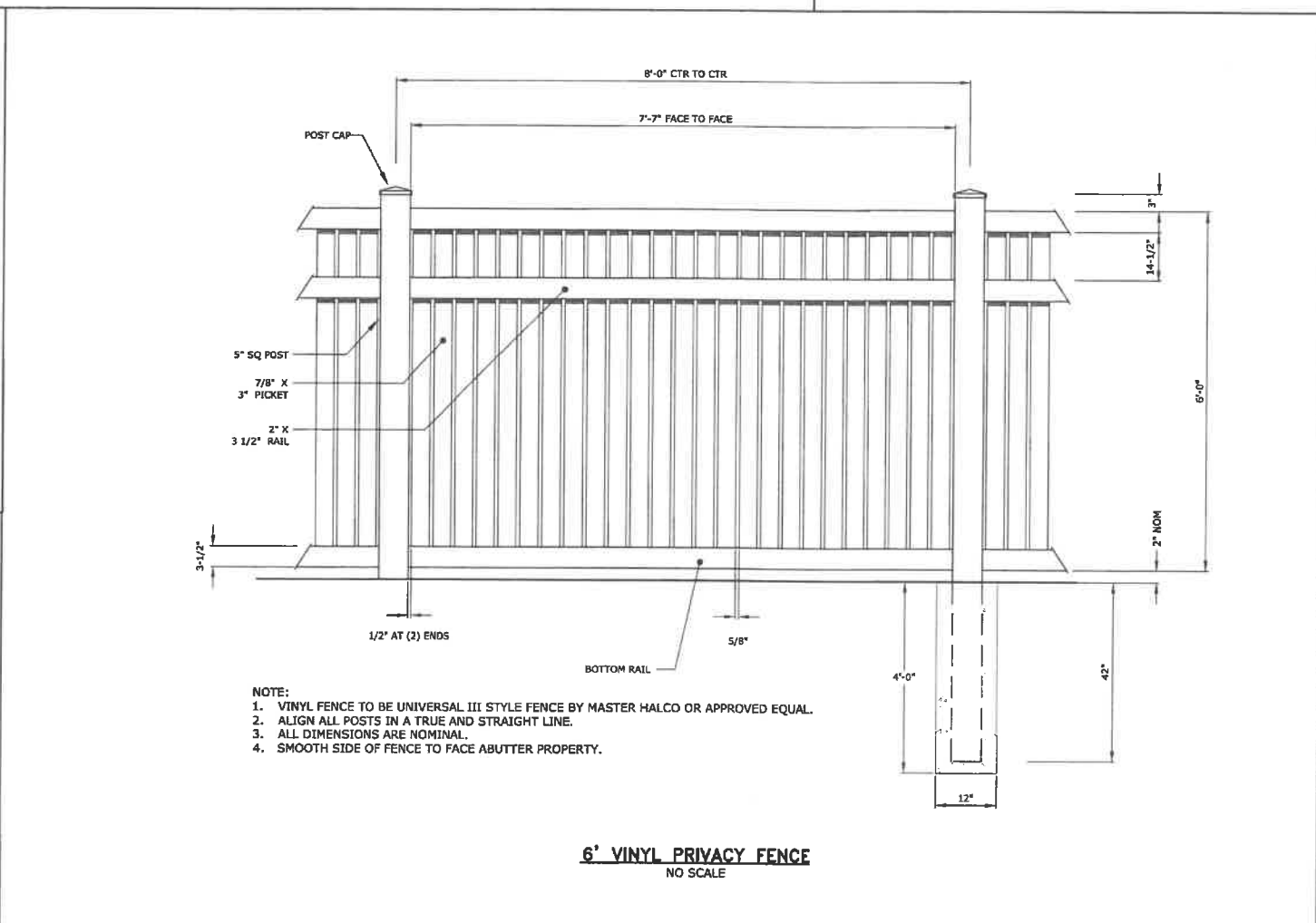
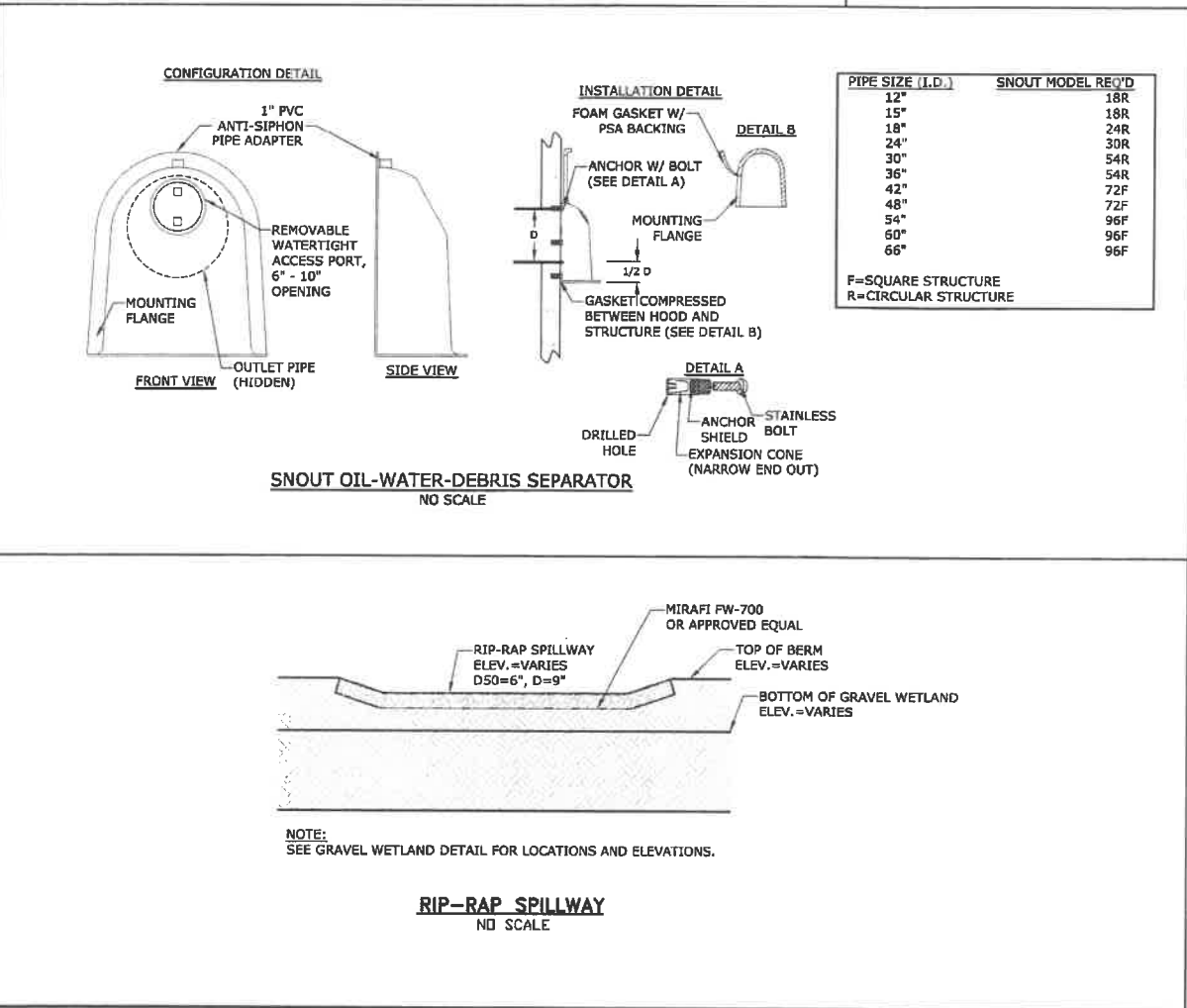
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1.	12/16/16	RESPONSE TO CITY COMMENTS
A	10/11/2016	City Review Comments

PROJECT NO: G-0693  
DATE: 09/06/2016  
FILE: G0693-C-505.dwg  
DRAWN BY: ERC/KAM  
CHECKED: KAM  
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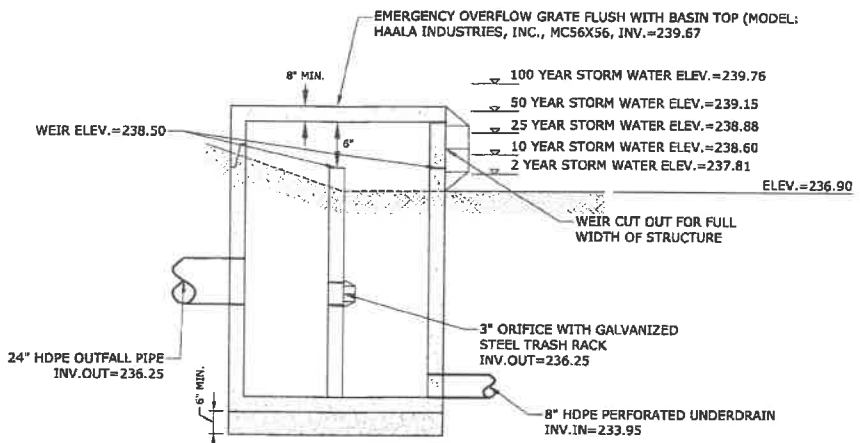
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**C-505**

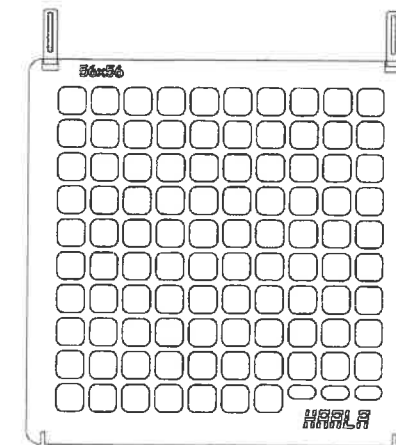


GRAVEL WETLAND PLANTING PLAN		
SPECIES	PLANT SIZE	QUANTITY/SPACING
GLAND EROSION L/RESTORATION MIX VALENT		35LB/ACRE
IER DOGWOOD* SERICEA	2'-3'	50/ 8'-10' ON CENTER
OGWOOD* AMMOMUM		50/ 8'-10' ON CENTER
ISH BLUEBERRY* UM CORYBOSSUSUM	2'-3'	(ALTERNATING SHRUBS)



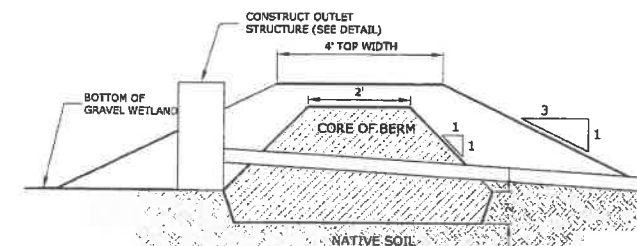
- NOTES:**
1. ALL SECTIONS SHALL BE 4,000 PSI CONCRETE (TYPE II CEMENT).
  2. CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQUARE INCHES PER LINEAR FOOT IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER OF THE THIRD WALL.
  3. THE TONGUE OR THE GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQUARE INCHES PER LINEAR FOOT.
  4. THE STRUCTURES SHALL BE DESIGNED FOR H20 LOADING.
  5. ALL JOINTS ON THE STRUCTURE AND PIPING SHALL BE WATERTIGHT.

**OUTLET STRUCTURE**  
NO SCALE



- NOTES:**  
1. GRATE SHALL BE HAALA INDUSTRIES, INC. MC56X56 TOP MOUNT GRATE OR EQUAL.  
2. GRATE TO BE SECURED TO CONCRETE STRUCTURE.

**OVERFLOW GRATE**  
NO SCALE



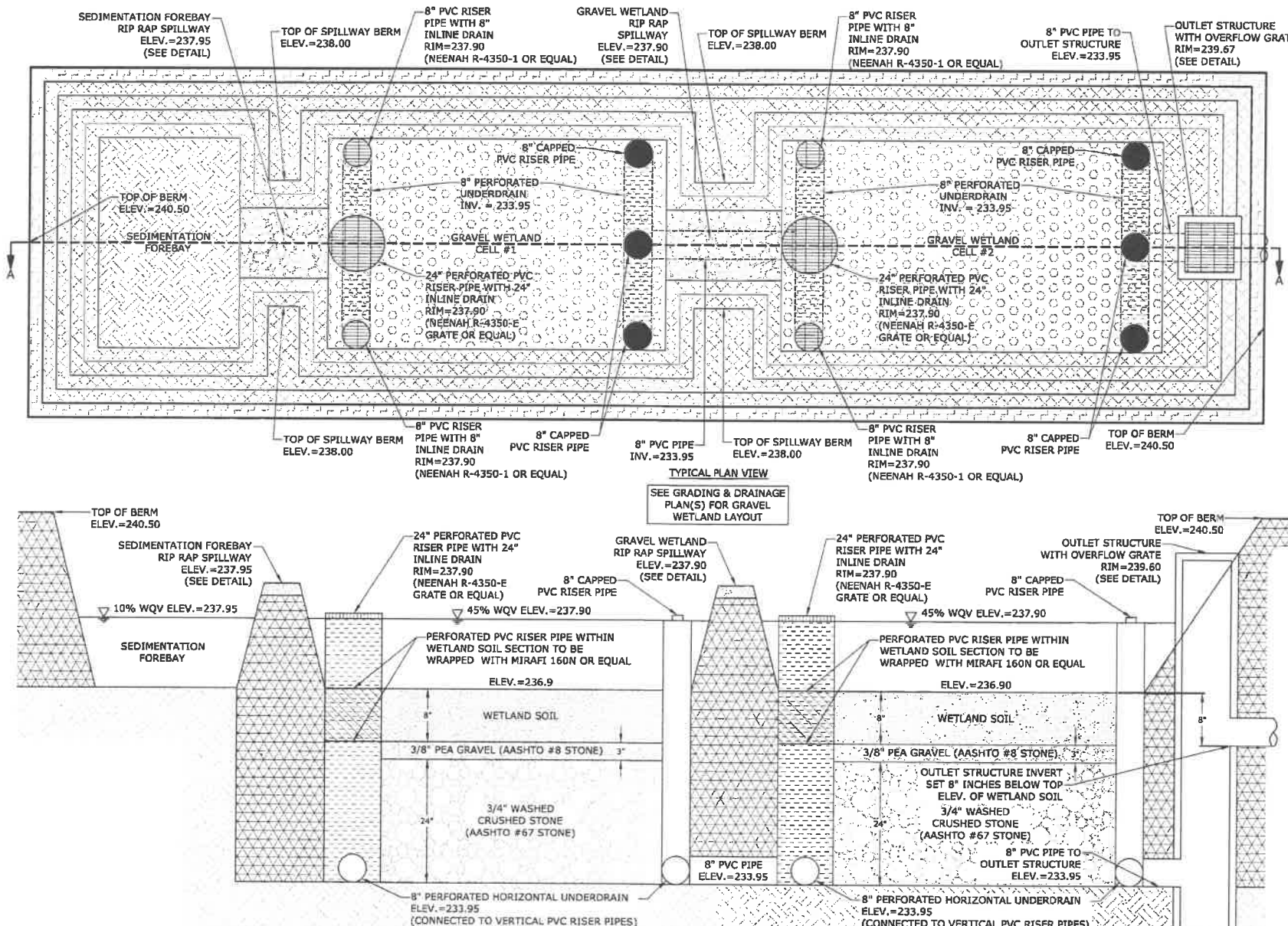
- NOTES:  
1. CORE MATERIAL SHALL MEET USGS CLASSIFICATION SC, SM, CL OR ML AND HAVE A MAXIMUM PARTICLE SIZE OF 3" AND A PERMEABILITY LESS THAN 0.000005 CM/S, AND MEET THE FOLLOWING GRADATION

SIEVE SIZE	PERCENT FINER BY WEIGHT
3 INCH	100
No. 200	50 -100.

2. PIPE SHALL BE FULLY EMBEDDED IN CORE TO ELIMINATE SEEPAGE

CLAY CORE BERM  
NO SCALE

Printed On: Dec 20, 2016 - 2:53pm By: kam  
Title & Bond: [www.Projects.co/G0693](#) - Rob Graham - General Proposals - Norway Plains Subdivision Drawings - Flures/AutoCAD/Sheet - Current Plan Sheets/G0693-C-506.dwg  
Last Saved: 12/20/2016



- TYPICAL SECTION A-A VIEW
- NOTES:
1. WETLAND SOIL SHALL BE A SANDY CLAY LOAM WITH A HYDRAULIC CONDUCTIVITY OF 0.1-0.01 FT/DAY. ORGANIC CONTENT SHALL BE GREATER THAN 15% BY VOLUME. CLAY CONTENT SHALL BE LESS THAN 15% BY VOLUME.
  2. INFILTRATION TESTING OF THE NATIVE SOILS AT THE SUBGRADE OF THE PROPOSED GRAVEL WETLAND SHALL OCCUR PRIOR TO THE INSTALLATION OF THE GRAVEL WETLAND AND SHALL BE COORDINATED WITH THE ENGINEER. IF THE NATIVE SOILS EXCEED A PERMEABILITY RATE OF 0.03 FT/DAY THE SOILS SHOULD AMENDED OR LINER ADDED AS DETERMINED BY THE ENGINEER.
  3. PERFORATED PVC RISERS SHALL HAVE VERTICAL SLOTS CUT INTO PVC RISERS ABOVE GRADE MEASURING 3"x1/8".

AASHTO #67 STONE (#4 to 3/4")	
SIEVE SIZE	% PASSING
1"	100
3/4"	90-100
3/8"	20-55
#4	0-10
#8	0-5

GRAVEL WETLAND DETAIL SHEET  
NO SCALE

**Tighe & Bond**  
www.tighebond.com



### Proposed Multi-family Development

## Norway Plains Road Site Plans

**Tenants In Common:**  
Robert Graham  
81 Lakeview Drive  
Nottingham, NH  
03290

**Michael Anderson**  
2637 E Atlantic Blvd #172  
Pompano Beach FL 33062-4939

Rochester, New  
Hampshire

1	12/16/16	Revised per City Comment
A	10/11/2016	City Review Comments
MARK	DATE	DESCRIPTION
PROJECT NO:		G-0693
DATE: 09/06/2016		
FILE: G0693-C-506.dwg		
DRAWN BY:		ERC/KAM
CHECKED:		KAM
APPROVED:		BLM

## DETAILS SHEET

SCALE: AS SHOWN

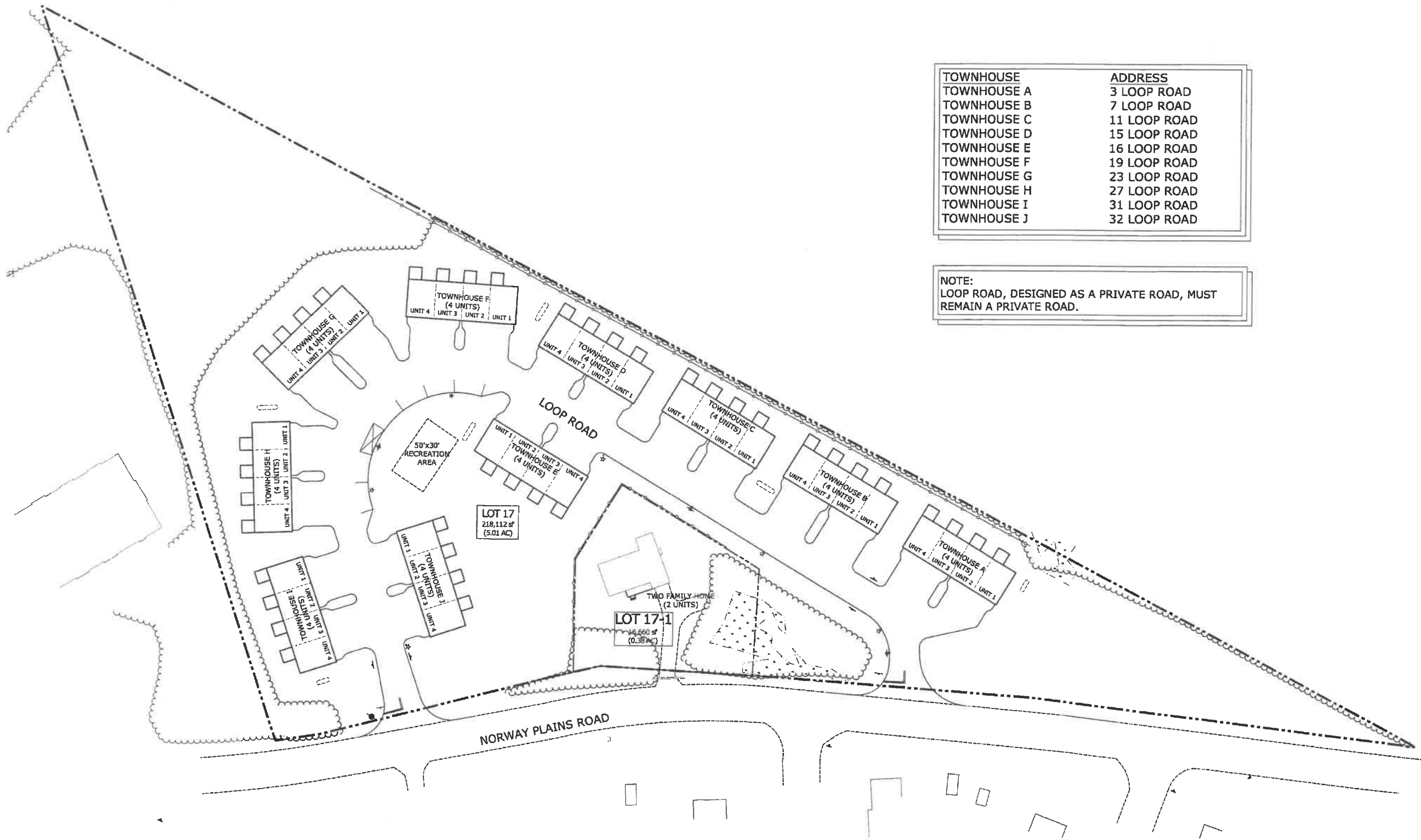
C-506



Rochester, New  
Hampshire

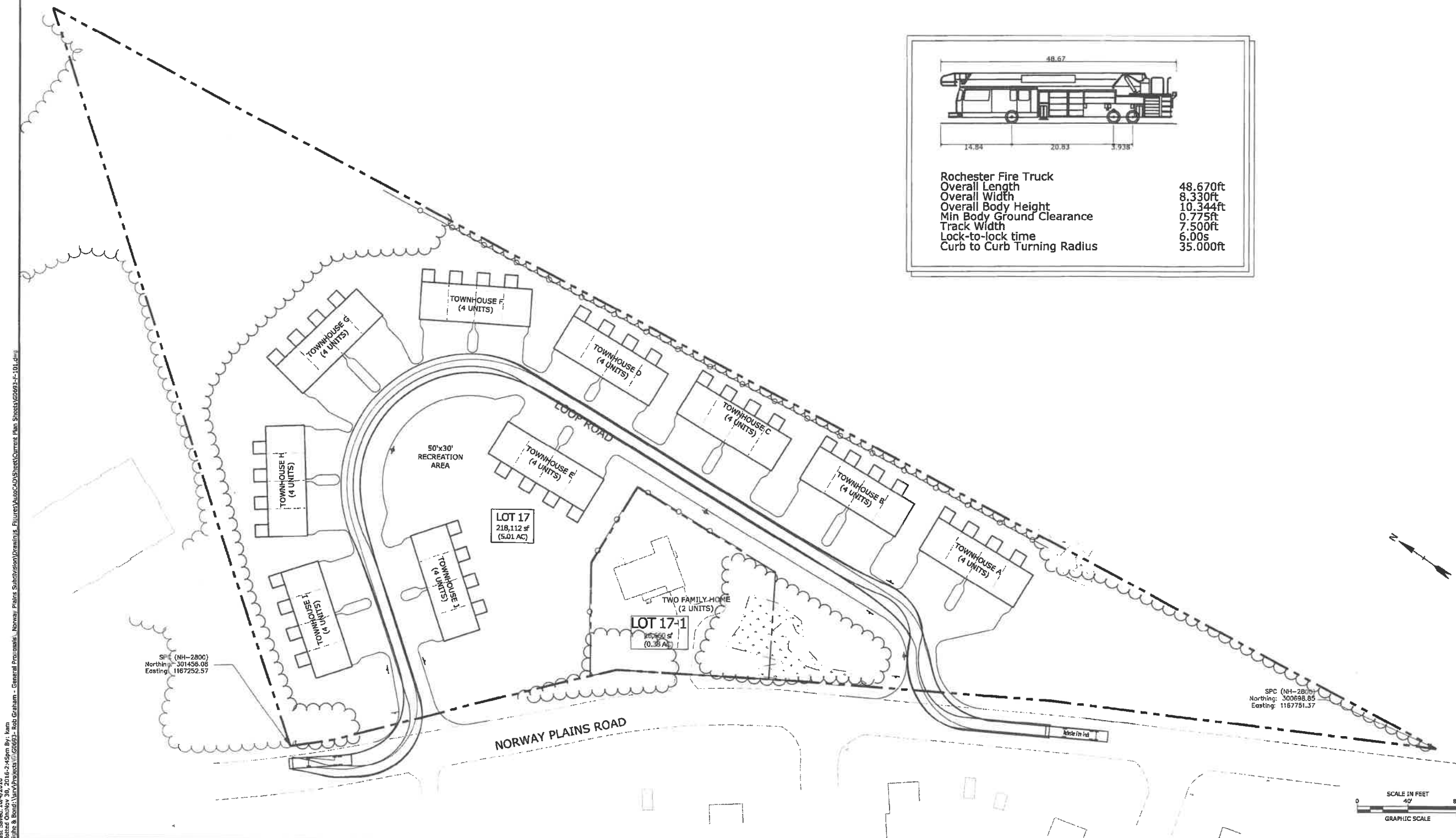
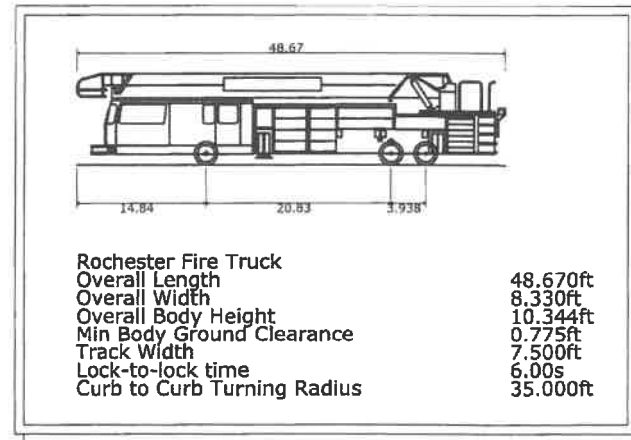
1.	12/16/16	REVISED PER CITY COMMENTS
A	10/11/2016	City Review Comments
MARK	DATE	DESCRIPTION
PROJECT NO:		G-0693
DATE: 09/06/2016		
FILE: G0693-C-602.DWG		
DRAWN BY:		ERC/KAM
CHECKED:		KAM
APPROVED:		BLM

C-601



Last Saved: 11/28/2016  
Plotted On: Nov 30, 2016-2:46pm By: kam  
Title & Bond: \\srv\Projects\GUG0693- Bob





## Proposed Multi-family Development

### Norway Plains Road Site Plans

Tenants In Common:  
Robert Graham  
81 Lakeview Drive  
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03290

Michael Anderson  
2637 E Atlantic Blvd #172  
Pompano Beach FL 33062-4939

Rochester, New Hampshire

MARK	DATE	DESCRIPTION
1	12/16/2016	Revised per City Comments
A	10/11/2016	City Review Comments
PROJECT NO: G-0693		
DATE: 09/06/2016		
FILE: G0693-F-101.dwg		
DRAWN BY: ERC/KAM		
CHECKED: KAM		
APPROVED: BLM		

### FIRE TRUCK TURNING PLAN

SCALE: AS SHOWN

F-101

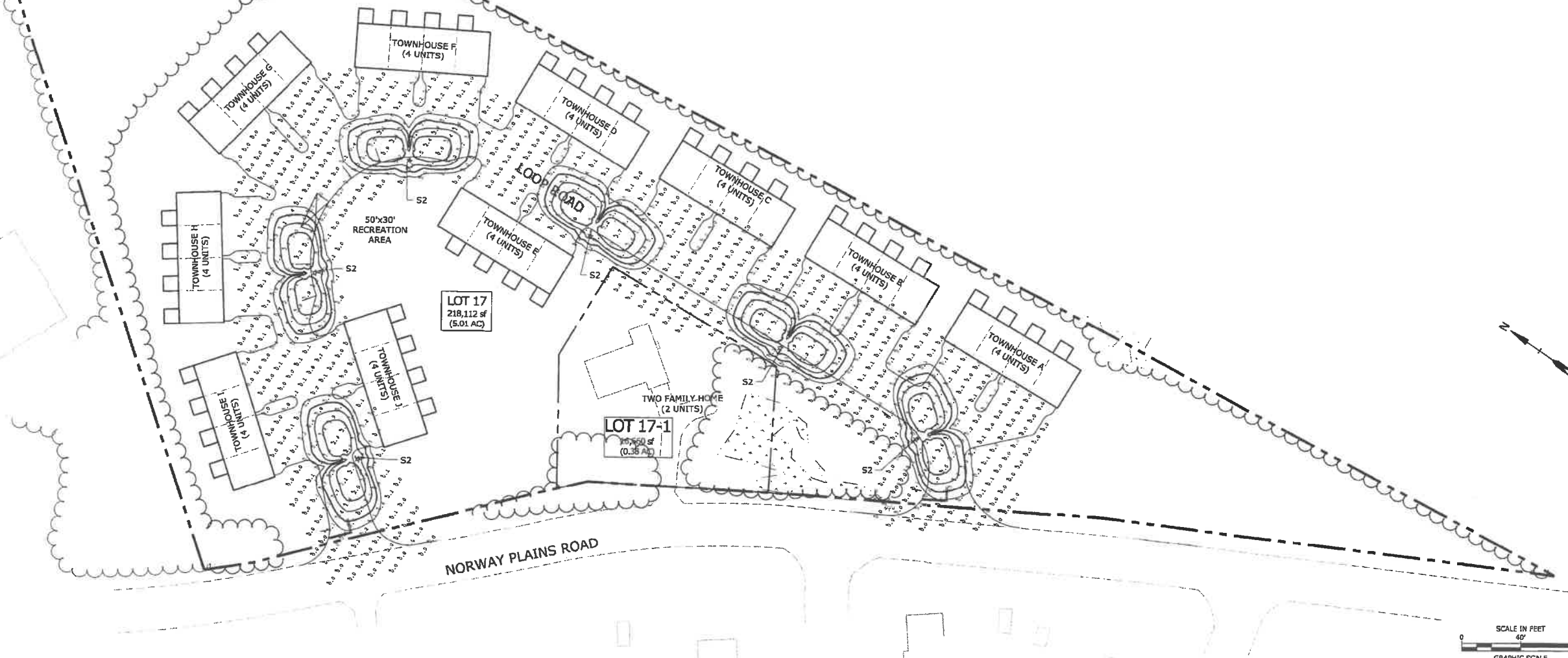
NOTE:  
SEE NOTES AND LEGEND SHEET FOR ADDITIONAL INFORMATION.

NOTE:  
PHOTOMETRICS DESIGN PROVIDED BY CHARRON, INC.

NOTE:  
SITE LIGHTING TO BE ON TIMERS AND ON ALL NIGHT.

Luminaire Schedule				
Symbol	Qty	Label	Arrangement	Description
●	6	S2	SINGLE	SIG2-II-64VLED-NW-525-HS/ 1050 10' POLE

StatArea 1  
ROADWAY ONLY  
Illuminance (Fc)  
Average = 1.00  
Maximum = 3.7  
Minimum = 0.0  
Avg/Min Ratio = 0.00  
Max/Min Ratio = 0.00



**Proposed  
Multi-family  
Development**

**Norway Plains Road  
Site Plans**

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Rochester, New  
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MARK	DATE	DESCRIPTION
PROJECT NO:	G-0693	
DATE:	09/06/2016	
FILE:	G0693-E-101.dwg	
DRAWN BY:	ERC/KAM	
CHECKED:	KAM	
APPROVED:	BLM	

**PHOTOMETRICS PLAN**

SCALE: AS SHOWN