CASE #20-4

"THE RIDGE" - ADMINISTRATION WING

TAX MAP 80 LOT 18

6 WHITE OAK DRIVE

EXETER, NEW HAMPSHIRE

SITE PLANS

ISSUED:
April 3, 2020 Planning Board Submission
April 15, 2020 Planning Board Re-Submission

Applicant / Owner:

RiverWoods at Exeter
5 White Oak Drive
Exeter, New Hampshire 03833
Tel. (603) 772-4700

Architect:

ag Architecture
1414 UNDERWOOD AVE.
WAUWATOSA, WI 53213
414.431.3131 TEL
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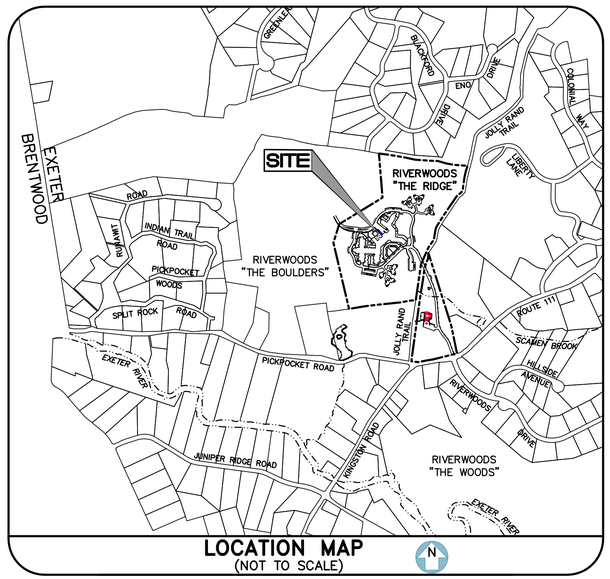
WWW.AGARCH.COM

Civil Engineer:

ALTUS ENGINEERING, INC.
133 COURT STREET PORTSMOUTH, NH 03801
(603) 433-2335 www.ALTUS-ENG.com

Surveyor:

James Verra Associates, Inc.
LAND SURVEYORS
101 Shattuck Way, Suite 8
Newington, New Hampshire 03801-7876
Voice 603.436.3557 Fax 603.436.8339



Sheet Index

Title	***Sheet No.:***	***Rev.***
Overall Site Plan	G-1.0	2
Site Preparation Plan	C-1.0	2
Site Plan	C-2.0	2
Erosion Control Notes	C-3.0	2
Detail Sheet	C-3.1	2
Detail Sheet	C-3.2	2
1/4" Exterior Elevations	A500	0
1/4" Exterior Elevations	A501	0
1/8" First Floor Plan	A200	0

P5056

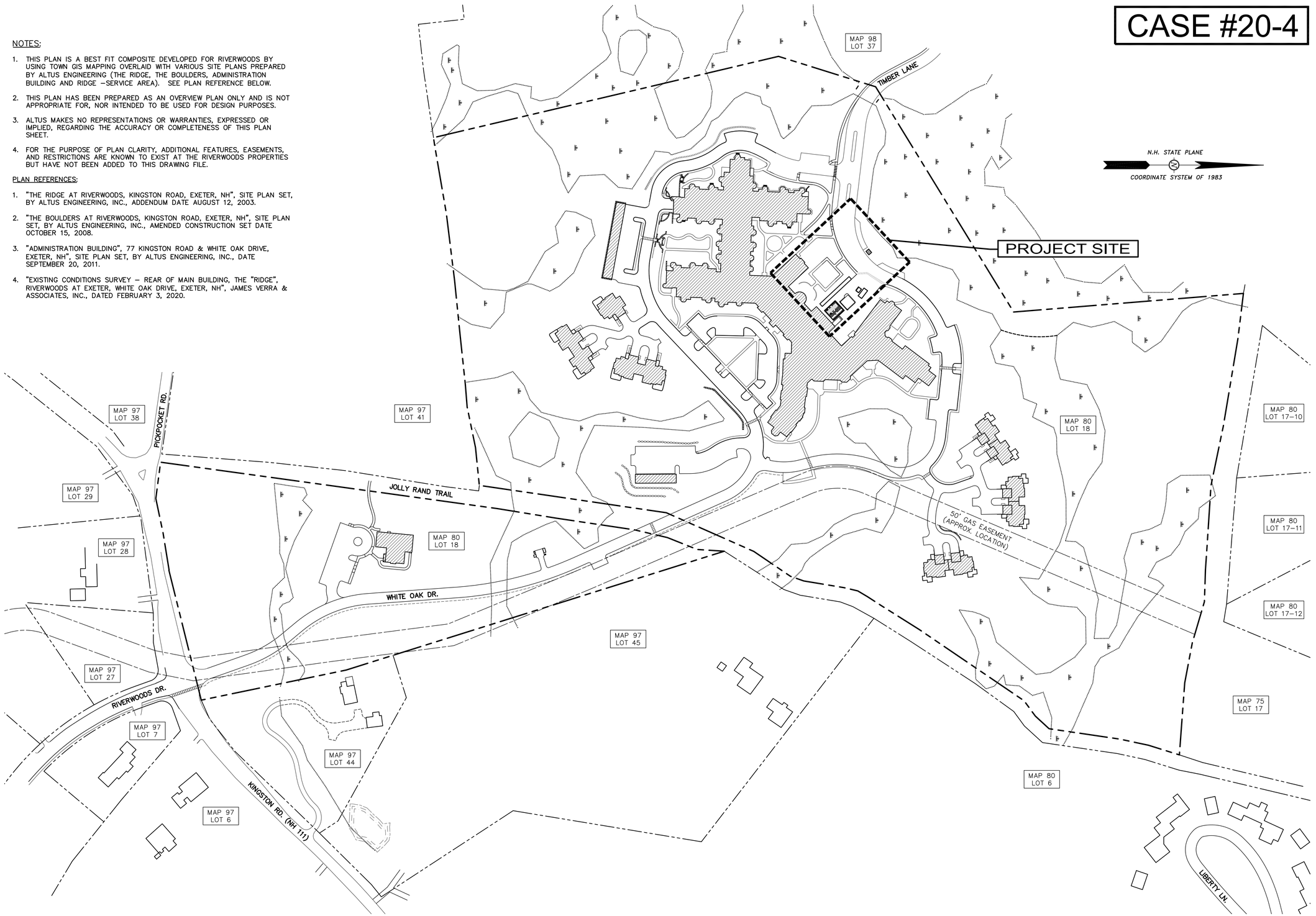
CASE #20-4

NOTES:

1. THIS PLAN IS A BEST FIT COMPOSITE DEVELOPED FOR RIVERWOODS BY USING TOWN GIS MAPPING OVERLAID WITH VARIOUS SITE PLANS PREPARED BY ALTUS ENGINEERING (THE RIDGE, THE BOULDERS, ADMINISTRATION BUILDING AND RIDGE –SERVICE AREA). SEE PLAN REFERENCE BELOW.
2. THIS PLAN HAS BEEN PREPARED AS AN OVERVIEW PLAN ONLY AND IS NOT APPROPRIATE FOR, NOR INTENDED TO BE USED FOR DESIGN PURPOSES.
3. ALTUS MAKES NO REPRESENTATIONS OR WARRANTIES, EXPRESSED OR IMPLIED, REGARDING THE ACCURACY OR COMPLETENESS OF THIS PLAN SHEET.
4. FOR THE PURPOSE OF PLAN CLARITY, ADDITIONAL FEATURES, EASEMENTS, AND RESTRICTIONS ARE KNOWN TO EXIST AT THE RIVERWOODS PROPERTIES BUT HAVE NOT BEEN ADDED TO THIS DRAWING FILE.

PLAN REFERENCES:

1. "THE RIDGE AT RIVERWOODS, KINGSTON ROAD, EXETER, NH", SITE PLAN SET, BY ALTUS ENGINEERING, INC., ADDENDUM DATE AUGUST 12, 2003.
2. "THE BOULDERS AT RIVERWOODS, KINGSTON ROAD, EXETER, NH", SITE PLAN SET, BY ALTUS ENGINEERING, INC., AMENDED CONSTRUCTION SET DATE OCTOBER 15, 2008.
3. "ADMINISTRATION BUILDING", 77 KINGSTON ROAD & WHITE OAK DRIVE, EXETER, NH", SITE PLAN SET, BY ALTUS ENGINEERING, INC., DATE SEPTEMBER 20, 2011.
4. "EXISTING CONDITIONS SURVEY – REAR OF MAIN BUILDING, THE "RIDGE", RIVERWOODS AT EXETER, WHITE OAK DRIVE, EXETER, NH", JAMES VERRA & ASSOCIATES, INC., DATED FEBRUARY 3, 2020.



GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

ALTUS ENGINEERING, INC.
133 COURT STREET PORTSMOUTH, NH 03801
VOICE: (603) 433-2335
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STATE OF NEW HAMPSHIRE · JEFFREY K. CLIFFORD No. 6524 · LICENSED PROFESSIONAL ENGINEER

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ISSUED FOR: PB APPROVAL

ISSUE DATE: APRIL 15, 2020

REVISIONS

NO.	DESCRIPTION	BY	DATE
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0	REVISED PER COMMENTS	EBS	04/15/20

DRAWN BY: RMB
APPROVED BY: EBS
DRAWING FILE: 5056.OS.DWG

SCALE: 1" = 100' (24"x36")

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5 WHITE OAK DRIVE
EXETER, NH 03833

PROJECT:
"THE RIDGE"
ADMINISTRATION WING
TAX MAP 80 LOT 18
6 WHITE OAK DRIVE
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TITLE:
OVERALL SITE PLAN

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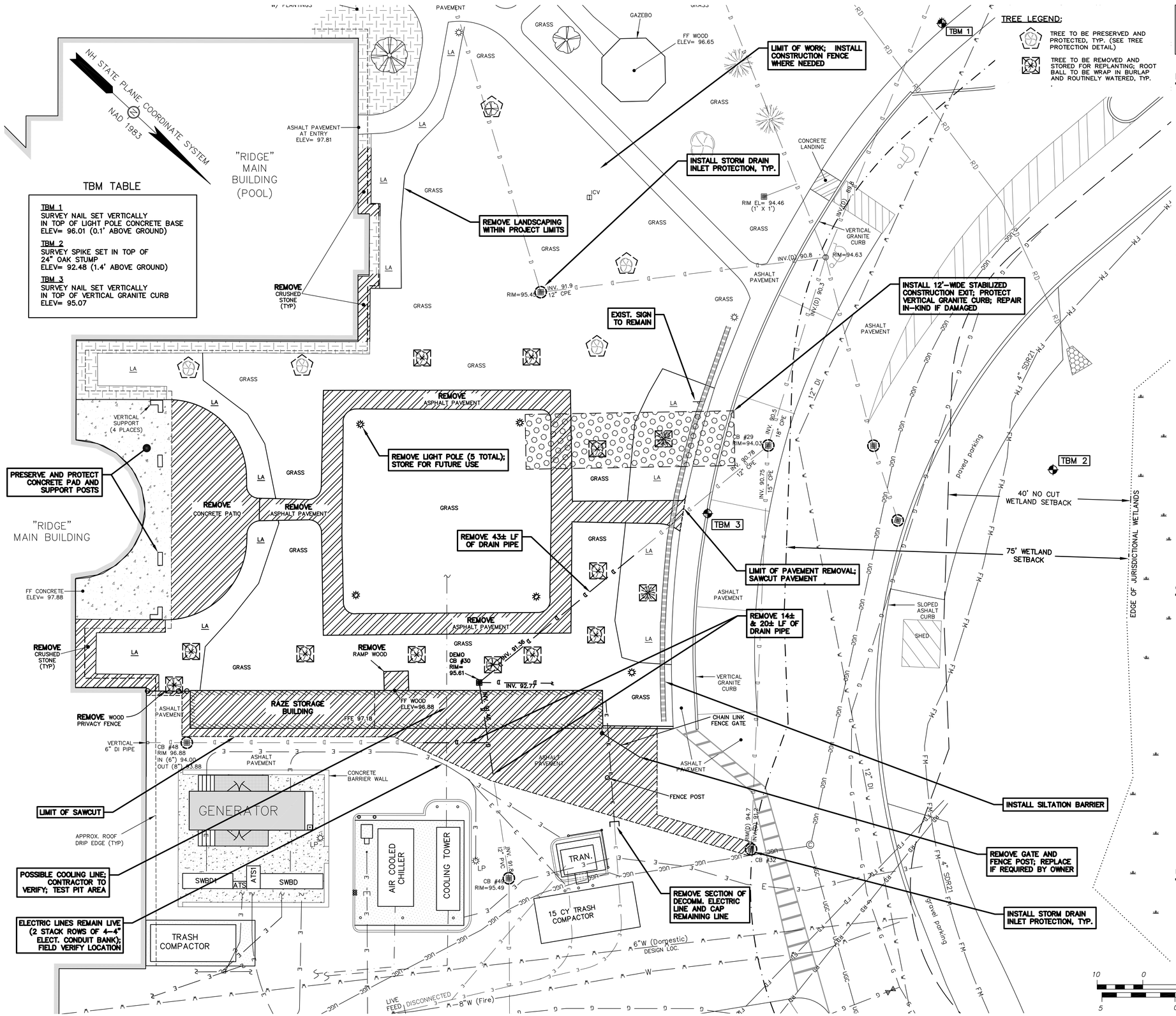

CASE #20-4

TREE LEGEND:

TREE TO BE PRESERVED AND PROTECTED, TYP. (SEE TREE PROTECTION DETAIL)

TREE TO BE REMOVED AND STORED FOR REPLANTING; ROOT BALL TO BE WRAP IN BURLAP AND ROUTINELY WATERED, TYP.

DEMOLITION NOTES

1. ALL CONTRACTORS SHALL NOTIFY, IN WRITING, ALL UTILITY PROVIDERS PRIOR TO ANY EXCAVATION WORK AND CALL DIG SAFE AT "(800) DIG SAFE" (800-344-7233) AND THE TOWN OF EXETER DPW AT (603) 773-6157 AT LEAST SEVENTY-TWO (72) HOURS PRIOR TO COMMENCING CONSTRUCTION.
2. INSTALL TEMPORARY SEDIMENTATION BARRIER, WHERE SHOWN, PRIOR TO COMMENCEMENT OF EARTH MOVING OPERATIONS.
3. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE APPROXIMATE AND NOT GUARANTEED BY THE ENGINEER OR OWNER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL UTILITIES, ANTICIPATE CONFLICTS, REPAIR ANY DAMAGE DONE TO EXISTING UTILITIES, AND RELOCATE EXISTING UTILITIES (IF REQUIRED) AT NO EXTRA COST TO THE OWNER. UTILITY CONFLICTS SHALL BE RESOLVED WITH THE INVOLVEMENT OF THE ENGINEER AND APPROPRIATE UTILITY COMPANIES.
4. DO NOT BEGIN CONSTRUCTION UNTIL ALL STATE AND LOCAL PERMITS HAVE BEEN APPLIED FOR AND RECEIVED. CONTRACTOR SHALL CONFORM TO ALL STATE AND LOCAL PERMIT CONDITIONS.
5. THE CONTRACTOR SHALL BRING ANY AND ALL DISCREPANCIES BETWEEN THE PLANS AND FIELD CONDITIONS TO THE ATTENTION OF THE OWNER AND ENGINEER IMMEDIATELY FOR RESOLUTION.
6. ALL CONSTRUCTION SHALL MEET THE MINIMUM CONSTRUCTION STANDARDS OF THE TOWN OF EXETER AND NHDOT STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES, LATEST EDITION. THE MORE STRINGENT SPECIFICATION SHALL GOVERN.
7. ALL UTILITY DISCONNECTIONS/DEMOLITIONS/RELOCATIONS TO BE COORDINATED BETWEEN THE CONTRACTOR, OWNER AND ALL APPROPRIATE UTILITY COMPANIES. UNLESS OTHERWISE SPECIFIED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELATED EXCAVATION, TRENCHING AND BACKFILLING.
8. ALL ROAD/LANE CLOSURES OR OTHER TRAFFIC INTERRUPTIONS SHALL BE COORDINATED WITH THE OWNER AT LEAST TWO WEEKS PRIOR TO COMMENCING RELATED CONSTRUCTION.
9. ALL BUILDINGS, CURBING, CONCRETE, PAVEMENT AND SUBBASE MATERIALS SHALL BE REMOVED FROM PROPOSED LANDSCAPE AREAS TO A MINIMUM DEPTH OF 12" BELOW FINISH GRADE AND REPLACED WITH LOAM MATERIALS SUITABLE FOR LANDSCAPE PURPOSES AND MEETING THE PROJECT SPECIFICATIONS.
10. SALVAGED GRANITE CURBING SHALL REMAIN THE PROPERTY OF THE OWNER AND BE STOCKPILED ON SITE. ANY GRANITE CURBING TO BE RESET/REUSED AND ALL LOCATIONS WHERE IT IS TO BE RESET/REUSED SHALL BE INSPECTED AND ACCEPTED BY THE ENGINEER PRIOR TO PLACEMENT. SOME USED CURBING MAY NOT BE ACCEPTABLE FOR RE-USE OR MAY REQUIRE CLEANING THROUGH SAND BLASTING OR OTHER MEANS. REJECTED CURBING SHALL BE REMOVED FROM THE SITE TO A LOCATION DESIGNATED BY THE OWNER.
11. HAZARDOUS MATERIALS ENCOUNTERED DURING DEMOLITION AND CONSTRUCTION ACTIVITIES SHALL BE ABATED IN STRICT ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL REGULATIONS.
12. EXISTING SANITARY SEWER LINES, WATER MAINS AND RELATED STRUCTURES SHALL REMAIN UNLESS OTHERWISE SPECIFIED WITHIN THE PROJECT LIMITS.
13. THIS PLAN IS INTENDED TO PROVIDE MINIMUM GUIDELINES FOR THE DEMOLITION OF EXISTING SITE FEATURES. UNLESS OTHERWISE NOTED TO REMAIN, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL BUILDINGS, PAVEMENT, CONCRETE, CURBING, SIGNS, POLES, UTILITIES, FENCES, VEGETATION AND OTHER EXISTING FEATURES AS NECESSARY TO FULLY CONSTRUCT THE PROJECT.
14. LIMITS OF PAVEMENT RECLAMATION/REMOVAL ARE APPROXIMATE AND SHOWN ONLY FOR THE CONTRACTOR'S CONVENIENCE. ACTUAL MEANS AND METHODS MAY IMPACT THE FINAL AMOUNT OF RECLAMATION/REMOVAL.

GRADING AND DRAINAGE NOTES

1. THE CONTRACTOR SHALL VERIFY ALL BENCHMARKS AND TOPOGRAPHY IN THE FIELD PRIOR TO CONSTRUCTION.
2. IF SUITABLE, EXCAVATED MATERIALS SHALL BE PLACED AS FILL WITHIN UPLAND AREAS ONLY AND SHALL NOT BE PLACED WITHIN WETLANDS. PLACEMENT OF BORROW MATERIALS SHALL BE PERFORMED IN A MANNER THAT PREVENTS LONG TERM DIFFERENTIAL SETTLEMENT. EXCESSIVELY WET MATERIALS SHALL BE STOCKPILED AND ALLOWED TO DRAIN BEFORE PLACEMENT. FROZEN MATERIAL SHALL NOT BE USED FOR CONSTRUCTION.
3. UNLESS OTHERWISE SPECIFIED, ALL DISTURBED AREAS NOT PAVED OR OTHERWISE TREATED SHALL RECEIVE A MINIMUM OF SIX (6") INCHES OF LOAM, LIMESTONE, FERTILIZER, SEED, AND HAY MULCH USING APPROPRIATE SOIL STABILIZATION TECHNIQUES. SEE DETAILS FOR ADDITIONAL INFORMATION.
4. PROTECTION OF SUBGRADE: THE CONTRACTOR SHALL MAINTAIN STABLE, DEWATERED SUBGRADES FOR FOUNDATIONS, PAVEMENT AREAS, UTILITY TRENCHES, AND OTHER AREAS DURING CONSTRUCTION. SUBGRADE DISTURBANCE MAY BE INFLUENCED BY EXCAVATION METHODS, MOISTURE, PRECIPITATION, GROUNDWATER CONTROL AND CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO PREVENT SUBGRADE DISTURBANCE INCLUDING DIVERTING STORMWATER RUNOFF AWAY FROM CONSTRUCTION AREAS, REDUCING TRAFFIC IN SENSITIVE AREAS AND MAINTAINING AN EFFECTIVE DEWATERING PROGRAM. SOILS EXHIBITING HEAVING OR INSTABILITY SHALL BE OVER-EXCAVATED TO MORE COMPETENT BEARING SOIL AND REPLACED WITH FREE DRAINING STRUCTURAL FILL. IF EARTHWORK IS PERFORMED DURING FREEZING WEATHER, NO FILL OR UTILITIES SHALL BE PLACED ON FROZEN GROUND. THIS WILL LIKELY REQUIRE REMOVAL OF A FROZEN SOIL CRUST AT THE COMMENCEMENT OF EACH DAY'S OPERATION. THE FINAL SUBGRADE ELEVATION MAY ALSO REQUIRE INSULATION AGAINST FREEZING.
5. FOR VISUAL CLARITY, DRAINAGE AND OTHER UTILITY STRUCTURES MAY NOT BE DRAWN TO SCALE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER SIZING AND LOCATION OF ALL STRUCTURES AND IS DIRECTED TO RESOLVE ANY POTENTIAL DISCREPANCY WITH THE ENGINEER PRIOR TO CONSTRUCTION.

UTILITY NOTES

1. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS & ELEVATIONS OF UTILITY CONNECTIONS AT BUILDING.
2. COORDINATE ALL WORK WITHIN FIVE (5) FEET OF BUILDING WITH BUILDING CONTRACTOR AND ARCHITECTURAL DRAWINGS. ALL CONFLICTS AND DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY AND PRIOR TO COMMENCING RELATED WORK.
3. DETECTABLE WARNING TAPE SHALL BE PLACED OVER THE ENTIRE LENGTH OF ALL BURIED UTILITIES, COLORS PER THE RESPECTIVE UTILITY PROVIDERS.

ALTUS ENGINEERING, INC.
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DRAWN BY: RMB
APPROVED BY: JKC/EBS
DRAWING FILE: 5056SITE.DWG

SCALE: 1" = 10' (24"x36")

OWNER/APPLICANT:
RIVERWOODS AT EXETER
5 WHITE OAK DRIVE
EXETER, NH 03833

PROJECT:
"THE RIDGE"
ADMINISTRATION WING
TAX MAP 80 LOT 18
6 WHITE OAK DRIVE
EXETER, NH 03833

TITLE:
SITE PREPARATION PLAN

SHEET NUMBER:
C-1.0

P5056

CASE #20-4

TOWN OF EXETER, PLANNING BOARD

CHAIRMAN _____ DATE _____

ALTUS ENGINEERING, INC.

133 COURT STREET PORTSMOUTH, NH 03801
VOICE: (603) 433-2335
FAX: (603) 433-4194

JEFFREY K. CLIFFORD No. 6524 LICENSED PROFESSIONAL ENGINEER STATE OF NEW HAMPSHIRE

ZONING SUMMARY:

APPLICANT/OWNER: RIVERWOODS AT EXETER
7 RIVERWOODS DRIVE
EXETER, NH 03833

PROPERTY REFERENCE: TAX MAP 80, LOT 18
LOT SIZE: 47.138 AC.

ZONING DISTRICT: R1 – RESIDENTIAL LOW DENSITY
EXISTING USE: ELDERLY HEALTH CARE AND HOUSING FACILITY
SPECIAL EXCEPTION: RECEIVED MARCH 2002 FOR ELDERLY HOUSING IN THE R-1 ZONE

SITE SERVICED WITH MUNICIPAL WATER AND SEWER

R-1 ZONE REQUIREMENTS:

	REQUIRED:	PROVIDED:
BUILDING SETBACKS		
FRONT	25 FEET	>25 FEET
SIDE	15 FEET	>15 FEET
REAR	25 FEET	>25 FEET
MAX. BUILDING HEIGHT:	35 FEET	<35 FEET
MAX. NUMBER OF STORIES:	2 (MAX.)	1 STORY ADDITION
MIN. OPEN SPACE:	70%	81%

WETLANDS SETBACKS:

	REQUIRED:	PROVIDED:
NO CUT/NO DISTURB:	40 FEET	N/A
PARKING:	75 FEET	N/A
STRUCTURES:	75 FEET	>75 FEET

SITE NOTES:

1. ALL WATER, SEWER, ROAD (INCLUDING PARKING LOT), AND DRAINAGE WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 9.5 GRADING, DRAINAGE, AND EROSION & SEDIMENT CONTROL AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION OF PUBLIC UTILITIES IN EXETER, NEW HAMPSHIRE.
2. AREA OF DISTURBANCE IS LESS THAN 43,560 SF, COVERAGE UNDER EPA NPDES PHASE II CONSTRUCTION GENERAL PERMIT NOT REQUIRED.
3. CLEAN AND COAT VERTICAL FACE OF EXISTING PAVEMENT AT SAWCUT LINES WITH RS-1 IMMEDIATELY PRIOR TO PLACING NEW BITUMINOUS CONCRETE.
4. ALL DISTURBED PAVED SURFACES SHALL BE REPAIRED IN-KIND.
5. ALL CATCH BASIN AND YARD DRAIN GRATES TO BE PEDESTRIAN RATED.
6. ALL ROOF DRAIN LEADERS AND RISERS TO BE 6" PVC SDR 35.

PROPOSED DRAINAGE SCHEDULE

CB #32
RIM: 94.70
IN: 91.30 [12" CPE, PCB #1]
CORE NEW OPENING
OUT: 91.20 [12" CPE (D)]

PCB #1 (HOODED)
RIM: 96.40
IN: 91.65 [12" CPE, CB #49]
IN: 91.65 [8" CPE, CB #48]
OUT 91.55 [CB #32]
12" CPE, L=56'±, S=0.0045'/'

PCB #2
RIM: 95.00
IN: 91.36 [8" CPE, PAD #10]
IN: 91.03 [12" CPE, PDMH #11]
OUT: 90.93 [V.I.F] [EX. 12" CPE, CB #29]

PCB #3 (w/HOOD & 3' SUMP)
RIM: 96.00
IN: 93.93 [8" CPE, PAD #4]
IN: 94.20 [6" PVC R.D.]
IN: 94.20 [6" PVC R.D.]
OUT: 93.35 [15" CPE, SMG]
SEE S.M.G. DETAIL

PAD #4
RIM: 96.00
IN: 94.13 [8" CPE, PAD #5]
OUT: 94.03 [PDI #3]
8" CPE, L=19'±, S=0.005'/'

PAD #5
RIM: 95.50
IN: 94.29 [8" CPE, PAD #6]
OUT: 94.19 [PDI #4]
8" CPE, L=11'±, S=0.005'/'

PAD #6
RIM: 96.50
IN: 94.55 [8" CPE, PAD #7]
OUT: 94.45 [PAD #5]
8" CPE, L=31'±, S=0.005'/'

PAD #7
RIM: 96.80
OUT 94.71 [PAD #6]
8" CPE, L=31'±, S=0.005'/'

PCB #8 (w/HOOD & 3' SUMP)
RIM: 96.50
IN: 93.93 [8" CPE, PAD #9]
OUT: 93.35 [15" CPE, SMG]
SEE S.M.G. DETAIL

PAD #9
RIM: 96.90
IN: 94.31 [6" PVC R.D.]
OUT: 914.14 [PCB #8]
8" CPE, L=21'±, S=0.01'/'

PAD #10
RIM: 94.60
OUT: 91.54 [8" CPE, PCB #3]
8" CPE, L=±18', S=0.01'/'

PDMH #11 (SEE DETAIL)
RIM: 96.15
IN: 93.93 [8" CPE, SMG#1]
IN: 93.03 [6" PERF. U.D.]
OUT: 91.20 [PCB #2]
12" CPE, L=35'±, S=0.005'/'

LEGEND:

PD	PROP. DRAIN LINE
RD	PROP. ROOF DRAIN
UD	PROP. PERF. UNDERDRAIN
PG	PROP. GAS LINE
DS	PROP. DOWN SPOUT
PAD	PROP. AREA DRAIN
PCB	PROP. CATCH BASIN
PDMH	PROP. DRAIN MANHOLE
CPE	CORRUGATED POLYETHYLENE PIPE

10 0 10 20 30 40 FEET
5 0 5 10 METERS

P5056

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TITLE:
SITE PLAN

SHEET NUMBER:
C-2.0

CASE #20-4

PROJECT NAME AND LOCATION

The Ridge – Administration Wing
6 White Oak Drive
Exeter, NH 03820

LATITUDE: 042° 58' 22" N
LONGITUDE: 070° 59' 11" W

DESCRIPTION

The project consists of constructing an "Administration Wing" at "The Ridge" campus.

DISTURBED AREA

The newly disturbed area is approximately 9,900 square feet.

SEQUENCE OF MAJOR ACTIVITIES

1. Install perimeter controls and temporary erosion control measures, including siltation barriers and stabilized construction entrances.
2. Upon completion of items 1 through 2, clear and grub landscape areas, strip and stockpile loam. Stockpiles shall be temporarily stabilized with hay, mulch and surrounded by a hay bale or silt fence barrier until material is removed and final grading is complete.
3. Construct swales prior to any earth moving operations that will influence stormwater runoff. They shall be stabilized prior to directing flow to them.
4. Swales shall have sides and bottom reinforced with excelsior matting. Permanent turf reinforcement shall be installed at swale sloped greater than 5%.
5. Construct and backfill building foundation.
6. Construct hardscape base materials.
7. Grade and shape site to finish elevations.
8. All cut and fill slopes. not being paved, shall be seeded/loamed within 72 hours of achieving finished grade.
9. When all construction activity is complete and site is stabilized, remove all hay bales, storm check dams, silt fences and sediment that has been trapped by these devices.

NAME OF RECEIVING WATER

Wetland systems eventually draining into the Exeter River.

TEMPORARY EROSION AND SEDIMENT CONTROLS AND STABILIZATION PRACTICES

All work shall be in accordance with state and local permits.

As indicated in the sequence of Major Activities, the hay bales and silt fences shall be installed prior to commencing any clearing or grading of the site. Structural controls shall be installed concurrently with the applicable activity. Once construction activity ceases permanently in an area, silt fences and hay bale barriers and any earth/dikes will be removed once permanent measures are established.

During construction, runoff will be diverted around the site with stabilized channels where possible. Sheet runoff from the site shall be filtered through hay bale barriers, stone check dams, and silt fences. All storm drain inlets shall be provided with hay bale filters or stone check dams. Stone rip rap shall be provided at the outlets of drain pipes and culverts where shown on the drawings.

Temporary and permanent vegetation and mulching is an integral component of the erosion and sedimentation control plan. All areas shall be inspected and maintained until vegetative cover is established. These control measures are essential to erosion prevention and also reduce costly rework of graded and shaped areas.

Temporary vegetation shall be maintained in these areas until permanent seeding is applied. Additionally, erosion sedimentation measures shall be maintained until permanent vegetation is established.

INSTALLATION, MAINTENANCE AND INSPECTION PROCEDURES FOR TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES

A. GENERAL

These are the general inspection and maintenance practices that shall be used to implement the plan.

1. The smallest practical portion of the site shall be denuded at one time.
2. All control measures shall be inspected at least once each week and following any storm event of 0.5 inches or greater.
3. All measures shall be maintained in good working order; if a repair is necessary, it will be initiated within 24 hours.
4. Built up sediment shall be removed from silt fence or haybale barriers when it has reached one third the height of the fence or bale, or when "bulges" occur.
5. All diversion dikes shall be inspected and any breaches promptly repaired.
6. Temporary seeding and planting shall be inspected for bare spots, washouts, and unhealthy growth.
7. A maintenance inspection report shall be made after each inspection.
8. The Contractor's site superintendent shall be responsible for inspections, maintenance and repair activities, and filling out the inspection and maintenance report.
9. The owner's authorized engineer shall inspect the site on a periodic basis to review compliance with the Plans.
10. An area shall be considered stable if one of the following has occurred:
    a. Base coarse gravels have been installed in areas to be paved;
    b. A minimum of 85% vegetated growth as been established;
    c. A minimum of 3 inches of non-erosive material such as stone of riprap has been installed or
    d. Erosion control blankets have been properly installed.
11. The length of time of exposure of area disturbed during construction shall not exceed 45 days.

B. MULCHING

1. Timing

   Mulching – mulch shall be used on highly erodible soils, on critically eroding areas, on areas where conservation of moisture will facilitate plant establishment, and where shown on the plans.

   In order for mulch to be effective, it must be in place prior to major storm events. There are two (2) types of standards that shall be used to assure this.

   a. Apply mulch prior to any storm event.

      This is applicable when working within 100 feet of wetlands. It shall be necessary to closely monitor weather predictions, usually by contacting the National Weather Service in Concord, to have adequate warning of significant storms.

   b. Required Mulching within a specified time period.

      The time period can range from 21 to 28 days of inactivity on a area, the length of time varying with site conditions. Professional judgment shall be used to evaluate the interaction of site conditions (soil erodibility, season of year, extent of disturbance, proximity to sensitive resources, etc.) and the potential impact of erosion on adjacent areas to choose an appropriate time restriction.

2. Mulch Application

Type	Standard rate per 1,000 s.f.	Winter rate per 1,000 s.f.	Use and Comments
Hay or Straw	75–92 lbs.	150–185 lbs.	Must be dry and free from mold. May be used with plantings.
Jute and Fibrous Matting	As per manufacturer Specifications	As per manufacturer Specifications	Used in scope areas, water coursed and other areas.
Crushed Stone 1/4" to 1-1/2" dia.	Spread more than 1/2" thick	Spread more than 1/2" thick	Effective in controlling wind and water erosion.
Wood chips or bark mulch	460 to 920 lbs.	–	Used mostly with trees and shrub plantings.
Erosion Control Mix	2" thick min.	Per winter season specification	* The organic matter content is between 80 and 100%, dry weight basis. * Particle size by weight is 100% passing a 6" screen and a minimum of 70 %, maximum of 85%, passing a 0.75" screen. * The organic portion needs to be fibrous and elongated. * Large portions of silts, clays or fine sands are not acceptable in the mix. * Soluble salts content is less than 4.0 mmhos/cm. * The pH should fall between 5.0 and 8.0.

3. Maintenance

   All mulches shall be inspected periodically, in particular after rainstorms, to check for rill erosion. If less than 90% of the soil surface is covered by the specified thickness of mulch, additional mulch shall be immediately applied.

C. TEMPORARY GRASS COVER

1. 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.

2. Seeding

   a. Utilize annual rye grass at a rate of 40 lbs/acre.

   b. Where the soil has been compacted by construction operations, loosen soil to a depth of two (2) inches before applying fertilizer, lime and seed.

   c. 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.

3. Maintenance

   Temporary seedings 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.).

D. FILTERS

1. Straw/Hay Bales

   a. Sheet Flow Applications

      1. Bales shall be placed in a single row, lengthwise on the contour, with ends of adjacent bales tightly abutting one another.
      2. All bales shall be string–tied. Bales shall be installed so that bindings are oriented around the sides rather than along the tops and bottoms of the bales to prevent deterioration of the bindings.
      3. The barrier shall be entrenched and backfilled. A trench shall be excavated the width of a bale and the length of the proposed barrier to a minimum depth of four (4) inches. After the bales are staked and chinked, the excavated soil shall be backfilled against the barrier. Backfill soil shall conform to the ground level on the downhill side and shall be built up to four (4) inches against the uphill side of the barrier. Ideally, bales should be placed ten (10) feet away from the toe of slope.
      4. Each bale shall be securely anchored by at least two (2) stakes driven through the bale. The first stake in each bale shall be driven toward the previously laid bale to force the bales together. Stakes shall be driven deep enough into the ground to securely anchor the bales.
      5. The gaps between bales shall be chinked (filled by wedging) with hay to prevent water from escaping between the bales.

2. Silt Fence

   a. Synthetic filter fabric shall be a pervious sheet of propylene, nylon, polyester or ethylene yarn and shall be certified by the manufacturer or supplier as conforming to the following requirements:

Physical Property	Test	Requirements
Filtering Efficiency	VTM–51	75% minimum
Tensile Strength at 20% Maximum Elongation*	VTM–52	Extra Strength 50 lb/lin in (min) Standard Strength 30 lb/lin in (min)
Flow Rate	VTM–51	0.3 gal/sf/min (min)

   * Requirements reduced by 50 percent after six (6) months of installation.

   Synthetic filter fabric shall contain ultraviolet ray inhibitors and stabilizers to provide a minimum of six (6) months of expected usable construction life at a temperature range of 0 degrees F to 120° F.

   b. Posts shall be spaced a maximum of ten (10) feet apart at the barrier location or as recommended by the manufacturer and driven securely into the ground (minimum of 16 inches).

   c. A trench shall be excavated approximately six (6) inches wide and eight (8) inches deep along the line of posts and upslope from the barrier.

   d. When standard strength filter fabric is used, a wire mesh support fence shall be fastened securely to the upslope side of the posts using heavy duty wire staples at least one (1) inch long, tie wires or hog rings. The wire shall extend no more than 36 inches above the original ground surfaces.

   e. The "standard strength" filter fabric shall be stapled or wired to the fence, and eight (8) inches of the fabric shall be extended into the trench. The fabric shall not extend more than 36 inches above the original ground surface. Filter fabric shall not be stapled to existing trees.

   f. When extra strength filter fabric and closer post spacing are used, the wire mesh support fence may be eliminated. In such a case, the filter fabric is stapled or wired directly to the posts with all other provisions of item (g) applying.

   g. The trench shall be backfilled and the soil compacted over the filter fabric.

   h. Silt fences shall be removed when they have served their useful purpose but not before the upslope areas has been permanently stabilized.

3. Sequence of Installation

   Sediment barriers shall be installed prior to any soil disturbance of the contributing upslope drainage area.

4. Maintenance

   a. Straw/hay bale barrier and silt fence barriers shall be inspected immediately after each rainfall and at least daily during prolonged rainfall. They shall be repaired if there are any signs of erosion or sedimentation below them. Any required repairs shall be made immediately. If there are signs of undercutting at the center or the edges, or impounding of large volumes of water, the sediment barriers shall be replaced with a temporary check dam.

   b. Should the fabric on a silt fence or filter barrier decompose or become ineffective prior to the end of the expected usable life and the barrier still is necessary, the fabric shall be replaced promptly.

   c. Sediment deposits shall be removed when deposits reach approximately one third (1/3) the height of the barrier.

   d. Any sediment deposits remaining in place after the silt fence or haybale barrier is no longer required shall be removed. The area shall be prepared and seeded.

   e. Additional stone, if needed, shall be added to the construction entrance, stone lined swales, etc., periodically to maintain proper function of the erosion control structure.

E. PERMANENT SEEDING (LAWN AND LANDSCAPED AREAS):

1. See Landscape Architectural Drawings and specifications.

F. PERMANENT SEEDING (OTHER AREAS):

1. Bedding – stones larger than 3/4", trash, roots, and other debris that will interfere with seeding and future maintenance of the area should be removed. Where feasible, the soil shall be tilled to a depth of 4" to prepare a seedbed and mix fertilizer into the soil. Furnish up to 4" depth of loam, where necessary, to establish the 4" deep seeed bed.
2. Fertilizer – lime and fertilizer shall be applied evenly over the area prior to or at the time of seeding and incorporated into the soil. Kinds and amounts of lime and fertilizer should be based on an evaluation of soil tests. When a soil test is not available, the following minimum amounts should be applied.

   Agricultural Limestone @ 100 lbs. per 1,000 s.f.
   10–20–20 fertilizer @ 12 lbs. per 1,000 s.f.
3. Seed Mixture:

   Rate:

Type	LBS. per Acre	LBS per 1,000 sf
Tall Fescue	20	
Creeping Red Fescue	20	
Red Top	2	
Total	42	0.97

4. Sodding – sodding is done where it is desirable to rapidly establish cover on a disturbed area. Sodding on area may be substituted for permanent seeding procedures anywhere on site. Bed preparation, fertilizing, and placement of sod shall be performed according to supplier's specifications.

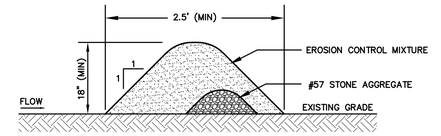
   Sodding is recommended for steep sloped areas, areas immediately adjacent to sensitive water coursed, easily erodible soils (fine sand/silt) etc.

F. OVER WINTER STABILIZATION

1. If a construction site is not stabilized with pavement, a road gravel base, 85% mature vegetation cover or riprap by October 15 then the site shall be protected with over–winter stabilization. An area considered open is any area not stabilized with pavement; vegetation, mulching, erosion control mix, erosion control mats, riprap or gravel base on a road. The winter construction period is from October 15 through May 15.
2. If approved by NHDES, winter excavation and earthwork shall be completed such that no more than 1 acre of the site is without stabilization at any one time. Limit the exposed area to those areas in which work is to occur during the following 5 days and that can be mulched in one day prior to any snow event.
3. During winter construction, a double row of sediment barriers (i.e. silt fence with hay bales or erosion control mix) shall be placed between any natural resource and the disturbed area.
4. During frozen conditions, sediment barriers shall consist of erosion control mix berms or any other recognized sediment barriers.
5. All proposed vegetated areas having a slope of less than 15%, which do not exhibit a minimum of 85% vegetative growth by October 15, or which are disturbed after October 15, shall be seeded and covered with 3 to 4 tons of hay or straw mulch per acre secured with anchored netting, or 2 inches of erosion control mix.
6. All proposed vegetated areas having a slope greater than 15%, which do not exhibit a minimum of 85% vegetative growth by October 15, or which are disturbed after October 15, shall be seeded and covered with a properly installed erosion control blanket or a minimum 4 inches of erosion control mix.
7. Installation of anchored hay mulch, erosion control mix or erosion control blanket shall not occur over snow greater than one inch in depth.
8. Seeding – Between the dates of October 15 and May 15, loam or seed will not be required. If the date is after October 15, and if the exposed area has been loomed, final graded with a uniform surface, then the area may be dormant seeded at a rate of 3 times higher than specified for permanent seed, and then mulched with anchored hay or erosion control mix. All areas seeded during the winter will be inspected in the spring for adequate catch. All areas insufficiently vegetated (less than 85% catch) shall be revegetated by replacing loam, seed and mulch. If dormant seeding is not used for the site, all disturbed areas shall be temporarily stabilized and revegetated in the spring.
9. All ditches or swales which do not exhibit a minimum of 85% vegetative growth by October 15, or which are disturbed after October 15, shall be stabilized temporarily with stone or erosion control blanket, determined by a professional engineer.
10. After November 15, incomplete road or parking areas, where active construction has stopped by winter season, shall be protected with a minimum 3 inch layer of gravel. The gravels shall have a graduation such that less than 12% of the sand portion, or material passing number 4 sieve, by weight, passes the number 200 sieve.

MAINTENANCE

Maintenance measures shall be applied as needed during the entire construction season. After each rainfall, snow storm or period of thawing and runoff, the site contractor shall perform a visual inspection of all installed erosion control measures and perform repairs as needed to insure their continuous function. Following the temporary and/or final seeding and mulching, the contractor shall, in the spring, inspect and repair any damages and/or bare spots. An established vegetative cover means a minimum of 85% of areas vegetated with vigorous growth.

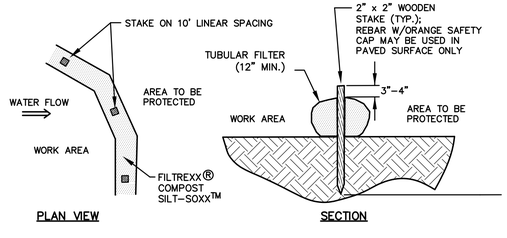


NOTES

1. ORGANIC FILTER BERMS MAY BE UTILIZED IN LIEU OF SILT FENCE OR OTHER SEDIMENT BARRIERS.
2. THE EROSION CONTROL MIXTURE USED IN FILTER BERMS SHALL BE A WELL–GRADED MIX OF PARTICLE SIZES THAT MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER, STUMP GRINDINGS, SHREDDED OR COMPOSTED BARK, AND/OR ACCEPTABLE MANUFACTURED PRODUCTS AND SHALL BE FREE OF REFUSE, PHYSICAL CONTAMINANTS AND MATERIAL TOXIC TO PLANT GROWTH. EROSION CONTROL MIXTURE SHALL MEET THE FOLLOWING STANDARDS:
   a) THE ORGANIC CONTENT SHALL BE 80–100% OF DRY WEIGHT.
   b) PARTICLE SIZE BY WEIGHT SHALL BE 100% PASSING A 6" SCREEN, AND 70–85% PASSING A 0.75" SCREEN.
   c) THE ORGANIC PORTION SHALL BE FIBROUS AND ELONGATED.
   d) SOLUBLE SALTS CONTENT SHALL BE < 4.0 mmhos/cm.
   e) THE pH SHALL BE BETWEEN 5.0 AND 8.0.
   f) LARGE PORTIONS OF SILTS, CLAYS, OR FINE SANDS SHALL NOT BE INCLUDED IN THE MIXTURE.
3. ORGANIC FILTER BERMS SHALL BE INSTALLED ALONG A RELATIVELY LEVEL CONTOUR. IT MAY BE NECESSARY TO CUT TALL GRASSES OR WOODY VEGETATION TO AVOID CREATING VOIDS AND BRIDGES THAT WOULD ENABLE FINES TO WASH UNDER THE BERM.
4. ON SLOPES LESS THAN 5%, OR AT THE BOTTOM OF SLOPES NO STEEPER THAN 3:1 AND UP TO 20' LONG, THE BERM SHALL BE A MINIMUM OF 12" HIGH (AS MEASURED ON THE UPHILL SIDE) AND A MINIMUM OF 36" WIDE. ON LONGER AND/OR STEEPER SLOPES, THE BERM SHALL BE TALLER AND WIDER TO ACCOMMODATE THE POTENTIAL FOR ADDITIONAL RUNOFF (MAXIMUM HEIGHT SHALL NOT EXCEED 2').
5. FROZEN GROUND, OUTCROPS OF BEDROCK, AND VERY ROOTED FORESTED AREAS PRESENT THE MOST PRACTICAL AND EFFECTIVE LOCATIONS FOR ORGANIC FILTER BERMS. OTHER BMP'S SHOULD BE USED AT LOW POINTS OF CONCENTRATED RUNOFF, BELOW CULVERT OUTLET APRONS, AROUND CATCH BASINS, AND AT THE BOTTOM OF STEEP PERIMETER SLOPES THAT HAVE A LARGE CONTRIBUTING AREA.
6. SEDIMENT SHALL BE REMOVED FROM BEHIND THE FILTER BERMS WHEN IT HAS ACCUMULATED TO ONE HALF THE ORIGINAL HEIGHT OF THE BERM.
7. ORGANIC FILTER BERMS MAY BE LEFT IN PLACE ONCE THE SITE IS STABILIZED PROVIDED ANY SEDIMENT DEPOSITS TRAPPED BY THEM ARE REMOVED AND DISPOSED OF PROPERLY.
8. FILTER BERM IS PROHIBITED AT THE BASE OF SLOPE STEEPPER THE 8% OR WHERE THERE IS FLOWING WATER WITHOUT THE SUPPORT OF ADDITIONAL MEASURES, SUCH AS SILT FENCE.

ORGANIC FILTER BERM

NOT TO SCALE



NOTES:

1. SILTSOXX OR APPROVED EQUAL SHALL BE USED FOR TUBULAR SEDIMENT BARRIERS.
2. ALL MATERIAL TO MEET MANUFACTURER'S SPECIFICATIONS.
3. COMPOST/SOIL/ROCK/SEED FILL MATERIAL SHALL BE ADJUSTED AS NECESSARY TO MEET THE REQUIREMENTS OF THE SPECIFIC APPLICATION.
4. ALL SEDIMENT TRAPPED BY BARRIER SHALL BE DISPOSED OF PROPERLY.

TUBULAR SEDIMENT BARRIER DETAIL

NOT TO SCALE

ALTUS ENGINEERING, INC.
133 COURT STREET PORTSMOUTH, NH 03801
VOICE: (603) 433–2335
FAX: (603) 433–4194

STATE OF NEW HAMPSHIRE
JEFFREY K. CLIFFORD
No. 6524
LICENSED PROFESSIONAL ENGINEER

THIS DRAWING HAS NOT BEEN RELEASED FOR CONSTRUCTION

ISSUED FOR: PB APPROVAL

ISSUE DATE: APRIL 15, 2020

REVISIONS

NO.	DESCRIPTION	BY	DATE
0	INITIAL SUBMISSION	EBS	03/03/20
1	REVISED PER COMMENTS	EBS	04/06/20
2	ELIMINATE FORCE MAIN	EBS	04/15/20

DRAWN BY: RMB
APPROVED BY: JKC/EBS
DRAWING FILE: 5056DS.DWG

SCALE: AS SHOWN

OWNER/APPLICANT:

RIVERWOODS AT EXETER
5 WHITE OAK DRIVE
EXETER, NH 03833

PROJECT:

"THE RIDGE"

ADMINISTRATION WING

TAX MAP 80 LOT 18
6 WHITE OAK DRIVE
EXETER, NH 03833

TITLE:

EROSION CONTROL NOTES

SHEET NUMBER: C-3.0

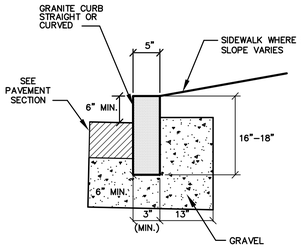
P5056

CASE #20-4

STANDARD TRENCH NOTES:

1. ORDERED EXCAVATION OF UNSUITABLE MATERIAL BELOW GRADE: BACKFILL AS STATED IN THE TECHNICAL SPECIFICATIONS OR AS SHOWN OF THE DRAWING.
2. BEDDING: SCREENED GRAVEL AND/OR CRUSHED STONE FREE FROM CLAY, LOAM, ORGANIC MATTER AND MEETING ASTM C33, STONE SIZE NO. 67.
   100% PASSING 1 INCH SCREEN
   90 – 100% PASSING 3/4 INCH SCREEN
   20 – 55% PASSING 3/8 INCH SCREEN
   0–10% PASSING #4 SIEVE
   0–5% PASSING #8 SIEVE
   WHERE ORDERED BY THE ENGINEER TO STABILIZE THE BASE, SCREENED GRAVEL OR CRUSHED STONE 1–1/2 INCH TO 1/2 INCH SHALL BE USED.
3. SAND BLANKET: CLEAN SAND FREE FROM ORGANIC MATTER, SO GRADED THAT 90 – 100% PASSES 1/2 INCH SIEVE AND NOT MORE THAN 15% WILL PASS A #200 SIEVE. BLANKET MAY BE OMITTED FOR CAST–IRON, DUCTILE IRON, AND REINFORCED CONCRETE PIPE PROVIDED HOWEVER, THAT NO STONE LARGER THAN 2" IS IN CONTACT WITH THE PIPE.
4. SUITABLE MATERIAL: IN ROADS, ROAD SHOULDERS, WALKWAYS AND TRAVELED WAYS, SUITABLE MATERIAL FOR TRENCH BACKFILL SHALL BE THE NATURAL MATERIAL EXCAVATED DURING THE COURSE OF CONSTRUCTION, BUT SHALL EXCLUDE DEBRIS; PIECES OF PAVEMENT; ORGANIC MATTER; TOP SOIL; ALL WET OR SOFT MUCK, PEAT, OR CLAY; ALL EXCAVATED LEDGE MATERIAL; ALL ROCKS OVER 6 INCHES IN LARGEST DIMENSION; AND ANY MATERIAL WHICH, AS DETERMINED BY THE ENGINEER, WILL NOT PROVIDE SUFFICIENT SUPPORT OR MAINTAIN THE COMPLETED CONSTRUCTION IN A STABLE CONDITION.

   IN CROSS COUNTRY CONSTRUCTION, SUITABLE MATERIAL SHALL BE AS DESCRIBED ABOVE, EXCEPT THAT THE ENGINEER MAY PERMIT THE USE OF TOP SOIL, LOAM, MUCK, OR PEAT, IF SATISFIED THAT THE COMPLETED CONSTRUCTION WILL BE ENTIRELY STABLE AND PROVIDED THAT EASY ACCESS TO THE SEWER, FOR MAINTENANCE AND POSSIBLE RECONSTRUCTION, WILL BE PRESERVED.
5. BASE COURSE AND PAVEMENT SHALL MEET THE REQUIREMENTS OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION'S LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES – DIVISIONS 300 AND 400 RESPECTIVELY.
6. SHEETING, IF REQUIRED: WHERE SHEETING IS PLACED ALONGSIDE THE PIPE AND EXTENDS BELOW MID–DIAMETER, IT SHALL BE CUT OFF AND LEFT IN PLACE TO AN ELEVATION 1 FOOT ABOVE THE TOP OF PIPE. WHERE SHEETING IS ORDERED BY THE ENGINEER TO BE LEFT IN PLACE, IT SHALL BE CUT OFF AT LEAST 3 FEET BELOW FINISHED GRADE, BUT NOT LESS THAT 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 MORE THAN 36 INCHES. FOR PIPES GREATER THAN 15 INCHES IN NOMINAL DIAMETER, W SHALL BE 24 INCHES PLUS PIPE OUTSIDE DIAMETER (O.D.) ALSO, W SHALL BE THE PAYMENT WIDTH FOR LEDGE EXCAVATION AND FOR ORDERED 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 NEW HAMPSHIRE DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS STANDARD SPECIFICATION REQUIREMENTS FOR CLASS A (3000#) CONCRETE AS FOLLOWS:
   CEMENT: 6.0 BAGS PER CUBIC YARD
   WATER: 5.75 GALLONS PER BAG CEMENT
   MAXIMUM SIZE OF AGGREGATE: 1 INCH
   CONCRETE ENCASEMENT IS NOT ALLOWED FOR PVC PIPE.
10. CONCRETE FULL ENCASEMENT: IF FULL ENCASEMENT IS UTILIZED, DEPTH OF CONCRETE BELOW PIPE SHALL BE 1/4 I.D. (4" MINIMUM). BLOCK SUPPORT SHALL BE SOLID CONCRETE BLOCKS.
11. NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES DESIGN STANDARDS REQUIRE TEN FEET (10') SEPARATION BETWEEN WATER AND SEWER. REFER TO TOWN'S STANDARD SPECIFICATIONS FOR METHODS OF PROTECTION IN AREAS THAT CANNOT MEET THESE REQUIREMENTS.



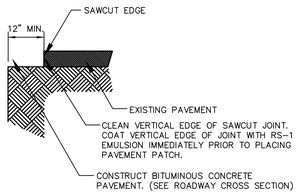
RADIUS	MAX. LENGTH
21'	3'
22'–28'	4'
29'–35'	5'
36'–42'	6'
43'–49'	7'
50'–56'	8'
57'–60'	9'
OVER 60'	10'

NOTES:

1. SEE PLANS FOR CURB LOCATION.
2. ADJOINING STONES SHALL HAVE THE SAME OR APPROXIMATELY THE SAME LENGTH.
3. MINIMUM LENGTH OF CURB STONES = 3'
4. MAXIMUM LENGTH OF CURB STONES = 10'
5. MAXIMUM LENGTH OF STRAIGHT CURB STONES LAID ON CURVES – SEE CHART.
6. CURB ENDS TO ROUNDED AND BATTERED FACES TO BE CUT WHEN CALLED FOR ON THE PLANS.

VERTICAL GRANITE CURB

NOT TO SCALE



TYPICAL PAVEMENT SAWCUT DETAIL

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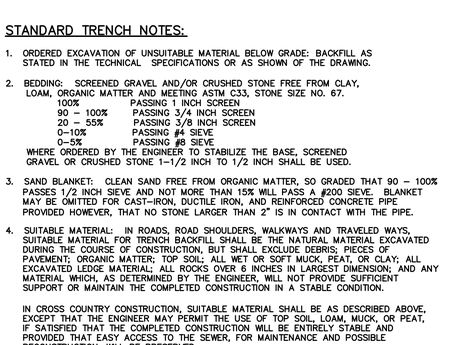

BACKFILL MATERIAL BELOW PAVED OR CONCRETE AREAS, BEDDING MATERIAL, AND SAND BLANKET SHALL BE COMPACTED TO NOT LESS THAN 95% OF AASHTO T99, METHOD C. SUITABLE BACKFILL MATERIAL BELOW LOAM AREAS SHALL BE COMPACTED TO NOT LESS THAN 90% OF AASHTO T 99, METHOD C.

SAND BLANKET

SIEVE SIZE	% FINER BY WEIGHT
1/2"	90 – 100
200	0 – 15

CRUSHED STONE BEDDING *

SIEVE SIZE	% PASSING BY WEIGHT
1"	100
3/4"	90 – 100
3/8"	20 – 55
# 4	0 – 10
# 8	0 – 5

* EQUIVALENT TO STANDARD STONE SIZE #67 – SECTION 703 OF NHDOT STANDARD SPECIFICATIONS

UTILITY TRENCH SECTION

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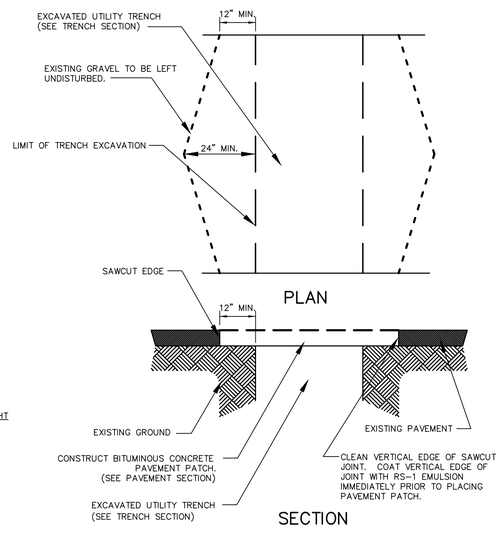

TYPICAL TRENCH PATCH

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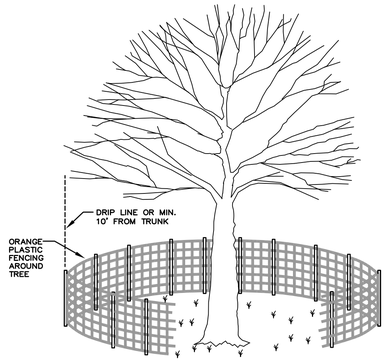

TREE PROTECTION DETAIL

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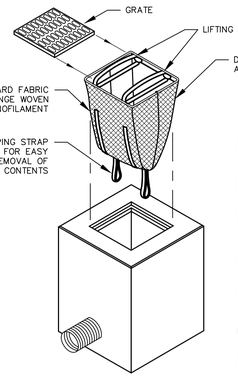


INSTALLATION AND MAINTENANCE:

INSTALLATION: REMOVE THE GRATE FROM CATCH BASIN. IF USING OPTIONAL OIL ABSORBENTS; PLACE ABSORBENT PILLOW IN UNIT. STAND GRATE ON END. MOVE THE TOP LIFTING STRAPS OUT OF THE WAY AND PLACE THE GRATE INTO CATCH BASIN INSERT SO THE GRATE IS BELOW THE TOP STRAPS AND ABOVE THE LOWER STRAPS. HOLDING THE LIFTING DEVICES, INSERT THE GRATE INTO THE INLET.

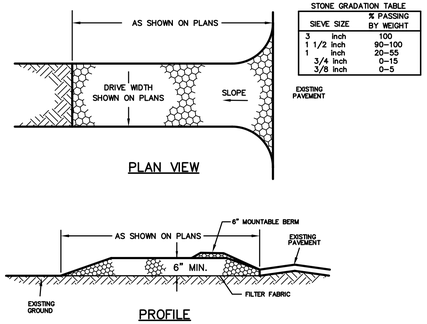
MAINTENANCE: REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM VICINITY OF THE UNIT AFTER EACH STORM EVENT. AFTER EACH STORM EVENT AND AT REGULAR INTERVALS, LOOK INTO THE CATCH BASIN INSERT. IF THE CONTAINMENT AREA IS MORE THAN 1/3 FULL OF SEDIMENT, THE UNIT MUST BE EMPTIED. TO EMPTY THE UNIT, LIFT THE UNIT OUT OF THE INLET USING THE LIFTING STRAPS AND REMOVE THE GRATE. IF USING OPTIONAL ABSORBENTS; REPLACE ABSORBENT WHEN NEAR SATURATION.

UNACCEPTABLE INLET PROTECTION METHOD:

A SIMPLE SHEET OF GEOTEXTILE UNDER THE GRATE IS NOT ACCEPTABLE.

STORM DRAIN INLET PROTECTION

NOT TO SCALE



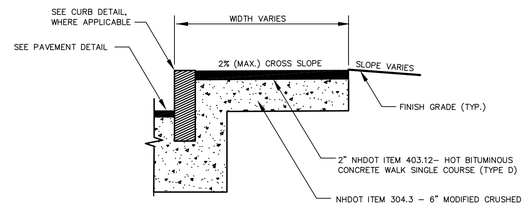
STONE GRADATION TABLE	
SIEVE SIZE	% PASSING BY WEIGHT
3 inch	100
1 1/2 inch	90–100
1 inch	20–55
3/4 inch	0–15
3/8 inch	0–5

CONSTRUCTION SPECIFICATIONS

1. STONE SIZE – NHDOT STANDARD STONE SIZE #4 – SECTION 703 OF NHDOT STANDARD.
2. LENGTH – DETAILED ON PLANS (50 FOOT MINIMUM).
3. THICKNESS – SIX (6) INCHES (MINIMUM).
4. WIDTH – FULL DRIVE WIDTH UNLESS OTHERWISE SPECIFIED.
5. FILTER FABRIC – MIRAFI 600X OR EQUAL APPROVED BY ENGINEER.
6. SURFACE WATER CONTROL – ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARD THE CONSTRUCTION ENTRANCE SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A BERM WITH 5:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE.
7. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS–OF–WAY. THIS WILL REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDITIONAL LENGTH AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS–OF–WAY MUST BE REMOVED IMMEDIATELY PRIOR TO NEXT STORM VIA A VACUUM SWEEPER NOT A MECHANICAL/BROOM SWEEPER.
8. WHEELS SHALL BE CLEANED TO REMOVE MUD PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS–OF–WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. STABILIZED CONSTRUCTION EXITS SHALL BE INSTALLED AT ALL ENTRANCES TO PUBLIC RIGHTS–OF–WAY, AT LOCATIONS SHOWN ON THE PLANS, AND/OR WHERE AS DIRECTED BY THE ENGINEER.

STABILIZED CONSTRUCTION EXIT

NOT TO SCALE



BITUMINOUS CONCRETE SIDEWALK DETAIL

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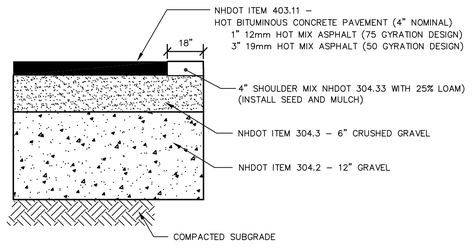


NOTES:

1. ALL LOAM, CLAY, MUCK, ORGANIC AND/OR YIELDING MATERIAL SHALL BE REMOVED TO A DEPTH OF NO LESS THAN 22" BELOW FINISH GRADE. INSTALL COMPACTED SAND OR GRAVEL BORROW TO SUBGRADE, AS NECESSARY.
2. SUBGRADE SHALL BE FREE OF VOIDS THAT ALLOW MOVEMENT/SETTLEMENT OF MATERIALS. REMOVE ANY VISIBLE ORGANICS AT SUBGRADE, REPLACE WITH COMPACTED COMMON OR STRUCTURAL FILL.
3. PRIOR TO THE START OF PAVING, CONTRACTOR SHALL THOROUGHLY EVALUATE THE PARKING/DRIVE AREA SUBGRADE. THE EVALUATION SHALL INCLUDE PROOF ROLLING OF THE PARKING/DRIVE AREA WITH A LOADED TANDEM AXLE DUMP TRUCK. ANY UNSTABLE AREAS ENCOUNTERED SHALL BE REPAIRED. REPAIRS SHALL CONSIST OF EXCAVATION OF SOFT MATERIAL(S) AND REPLACEMENT WITH COMPACTED FILL.

BITUMINOUS CONCRETE PAVEMENT DETAIL

NOT TO SCALE

ALTUS ENGINEERING, INC.
133 COURT STREET PORTSMOUTH, NH 03801
VOICE: (603) 433–2335
FAX: (603) 433–4194

JEFFREY K. CLIFFORD No. 6524 LICENSED PROFESSIONAL ENGINEER STATE OF NEW HAMPSHIRE

THIS DRAWING HAS NOT BEEN RELEASED FOR CONSTRUCTION

ISSUED FOR: PB APPROVAL

ISSUE DATE: APRIL 15, 2020

REVISIONS

NO.	DESCRIPTION	BY	DATE
0	INITIAL SUBMISSION	EBS	03/03/20
1	REVISED PER COMMENTS	EBS	04/06/20
2	ELIMINATE FORCE MAIN	EBS	04/15/20

DRAWN BY: RMB
APPROVED BY: JKC/EBS
DRAWING FILE: 5056DS.DWG

SCALE: AS SHOWN

OWNER/APPLICANT:
RIVERWOODS AT EXETER
5 WHITE OAK DRIVE
EXETER, NH 03833

PROJECT:
"THE RIDGE"
ADMINISTRATION WING
TAX MAP 80 LOT 18
6 WHITE OAK DRIVE
EXETER, NH 03833

TITLE: DETAIL SHEET

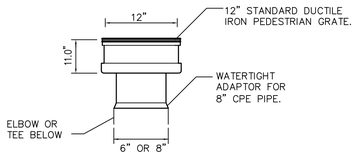
SHEET NUMBER: C-3.1

P5056

CASE #20-4

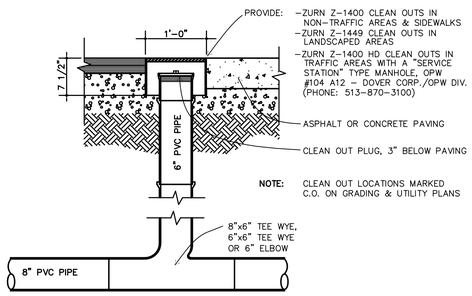
NOTES:

1. INLINE DRAIN TO BE 12" DIAMETER PVC AS MANUFACTURED BY ADS (1-800-821-6710), NDS, INC. (1-800-726-1994) OR APPROVED EQUAL.
2. THE CONTRACTOR SHALL INSTALL THE INLINE DRAIN AS PER THE MANUFACTURERS RECOMMENDATIONS AND AS SHOWN IN THE DRAWINGS.



12" AREA DRAIN AND GRATE

NOT TO SCALE



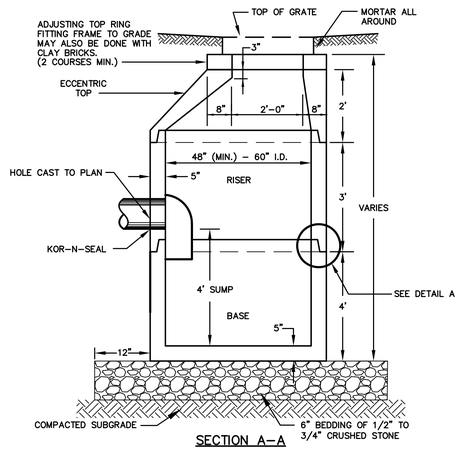
CLEANOUT DETAIL

NOT TO SCALE

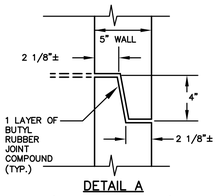
SECTION B-B
GRATE & FRAME DETAIL

NOTES

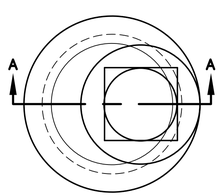
1. ALL SECTIONS SHALL BE CONCRETE CLASS AA (4000 PSI).
2. CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQ.IN. PER LINEAR FT. IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.
3. THE TONGUE OR GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQ. IN. PER LINEAR FT.
4. RISERS OF 1', 2', 3' & 4' CAN BE USED TO REACH DESIRED DEPTH.
5. THE STRUCTURES SHALL BE DESIGNED FOR H20 LOADING.
6. USE H20 LOADING SLAB TOP SECTION IN LIEU OF ECCENTRIC TOP WHERE PIPE INVERT IS WITHIN 4' OF FINISH GRADE.



SECTION A-A



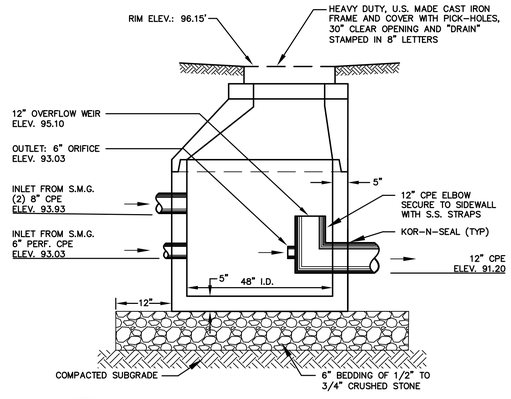
DETAIL A
(TONGUE & GROOVE JOINT)



PLAN

DEEP SUMP CATCH BASIN

NOT TO SCALE



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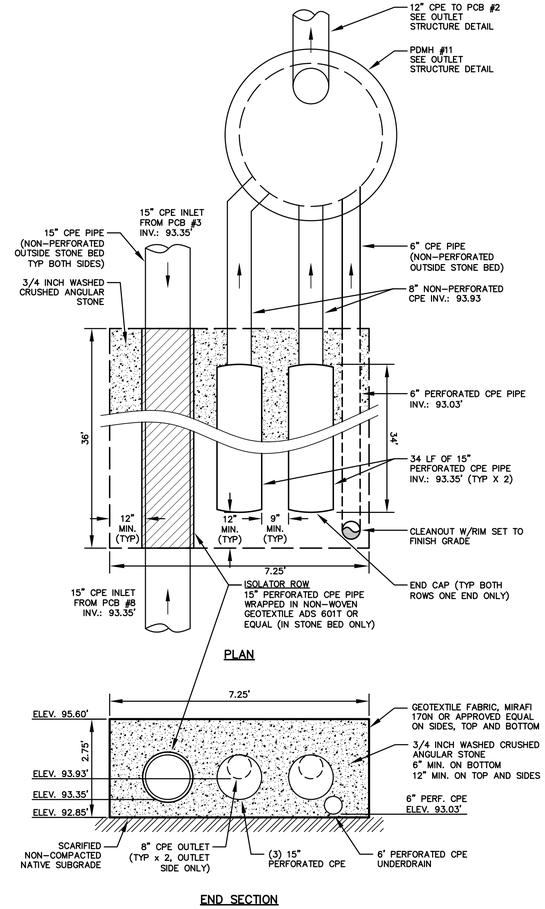
4. RISERS OF 1', 2', 3' & 4' CAN BE USED TO REACH DESIRED DEPTH.
5. ALL MANHOLE STRUCTURES SHALL BE DESIGNED FOR H20 LOADING.
6. USE H-20 LOADING SLAB TOP SECTION IN LIEU OF ECCENTRIC TOP WHERE PIPE INVERT IS WITHIN 4 FT OF GRADE.
7. MANHOLE STEPS ARE NOT PERMITTED.

PDMH #11 OUTLET STRUCTURE

NOT TO SCALE



END SECTION

STORMWATER MANAGEMENT GALLERY (SMG)

NOT TO SCALE

ALTUS ENGINEERING, INC.

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"THE RIDGE"

ADMINISTRATION WING

TAX MAP 80 LOT 18
6 WHITE OAK DRIVE
EXETER, NH 03833

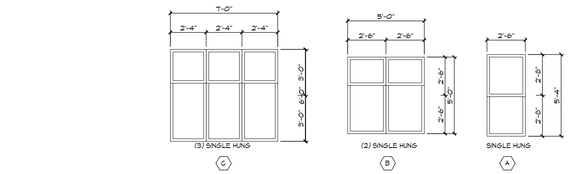
TITLE:

DETAIL SHEET

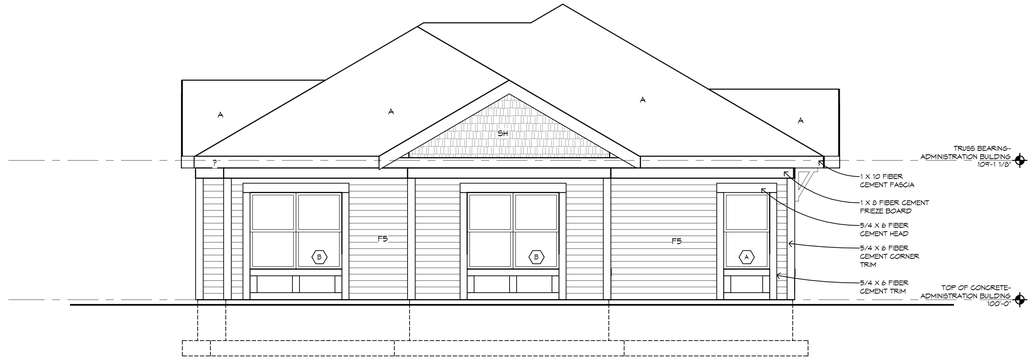
SHEET NUMBER:

C-3.2

P5056



WINDOW SCHEDULE



2 A500 EXTERIOR ELEVATIONS

EXTERIOR ELEVATION GENERAL NOTES

1. PROVIDE CONCRETE SPLASH BLOCKS AT ALL DOWNSPOUTS WHICH SPILL ONTO GRADE OR ROOFS.
2. ALL CONDUIT, METERS, VENTS, ETC. TO BE PAINTED TO MATCH ADJACENT SURFACE.
3. GUTTERS AND DOWNSPOUTS ARE PREFINISHED ALUMNUM.
4. SEE SHEET AT401 FOR WINDOW AND STOREFRONT SCHEDULES.

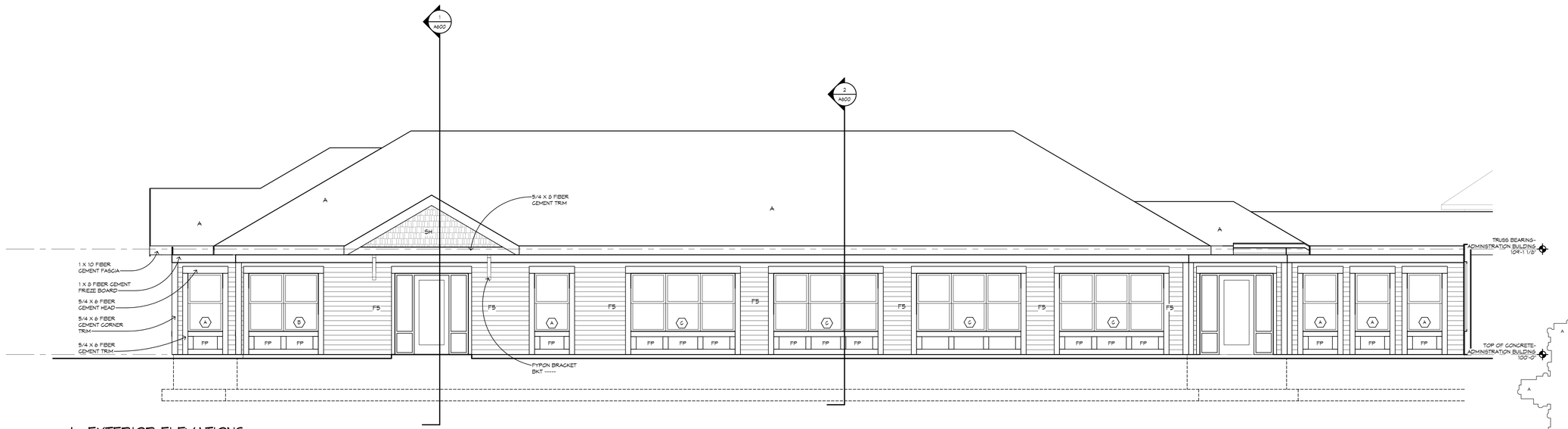
EXTERIOR ELEVATION KEY NOTES:

A THREE DIMENSIONAL ASPHALT SHINGLES

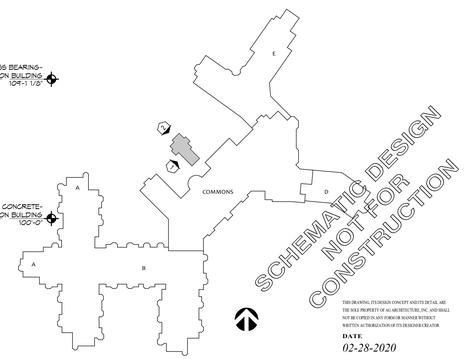
F5 FIBER CEMENT SIDING WITH 5" LAP

FP FIBER CEMENT PANELS

SH SHAKE SIDING



1 A500 EXTERIOR ELEVATIONS
1/4" = 1'-0"



SCHEMATIC DESIGN NOT FOR CONSTRUCTION

The Ridge
Remodel & Admin Addition
New Hampshire
Exeter

Architecture

1414 UNDERWOOD AVE.
WAUWATOSA, WI 53213

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DATE
02-28-2020

PROJECT
161903

SHEET NO.

1/4" EXTERIOR ELEVATIONS A500
Designer

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SHEET PRINTED BY:
FILE PATH:
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EXTERIOR ELEVATION GENERAL NOTES

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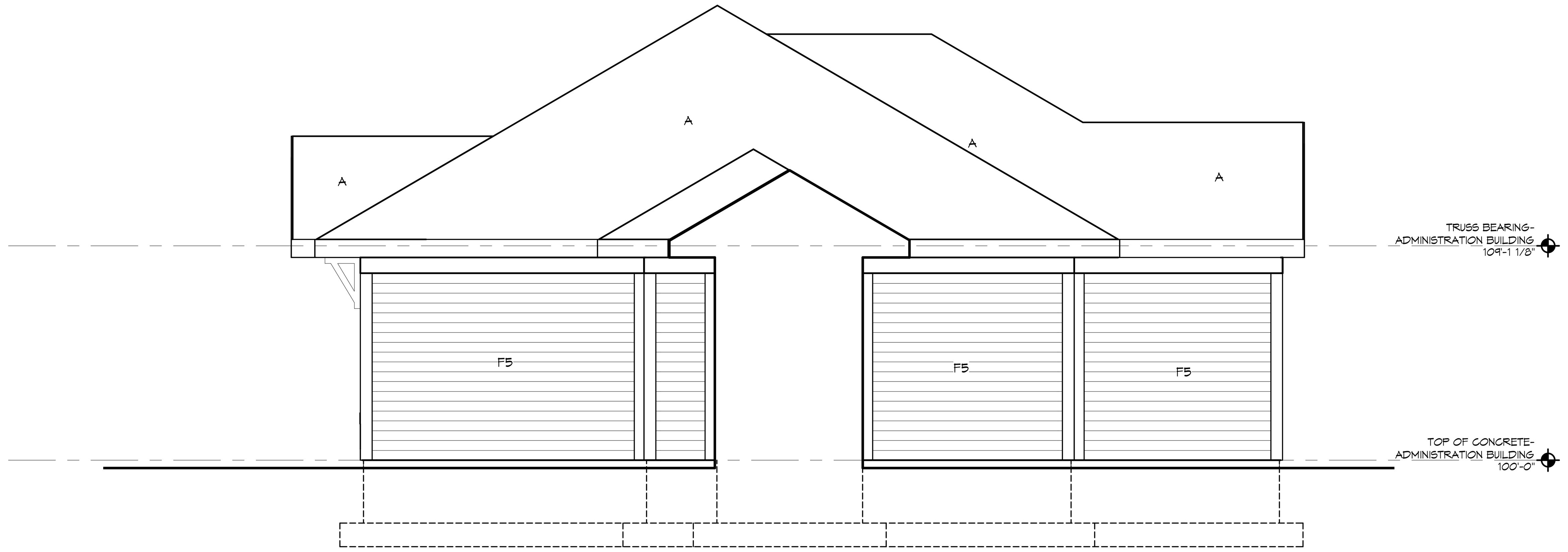
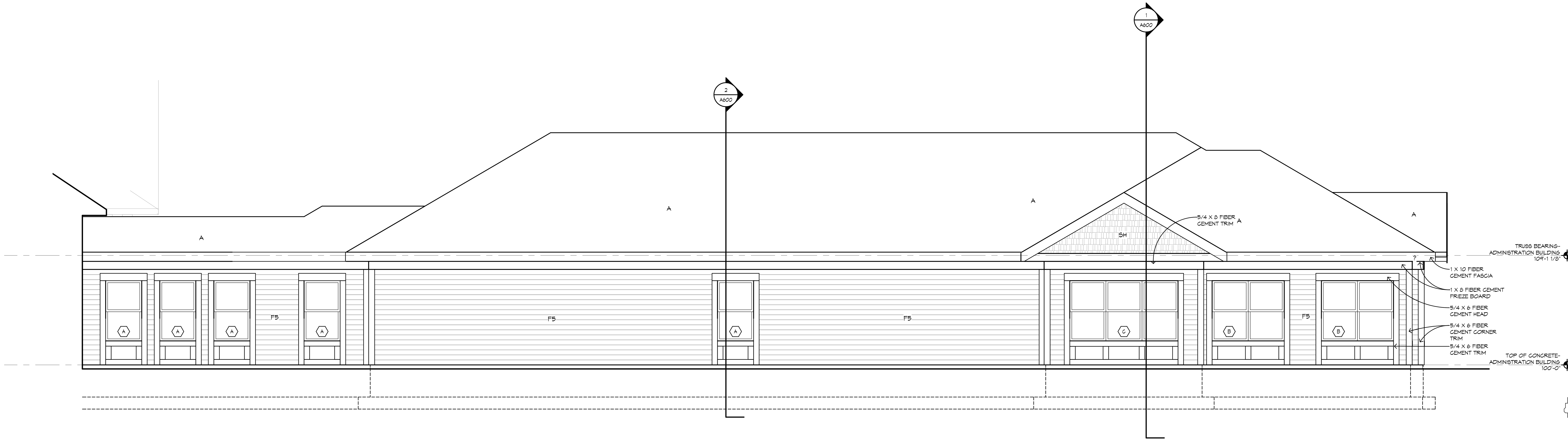
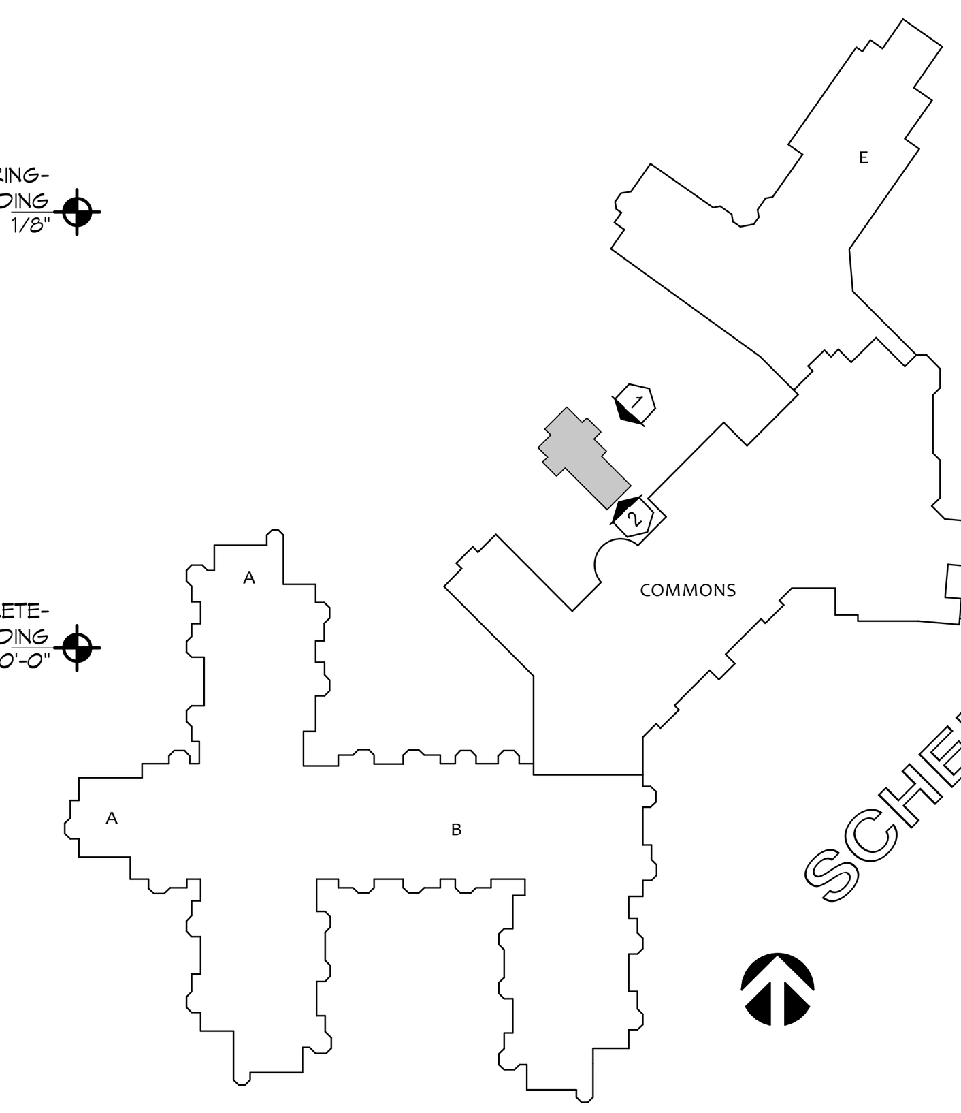


2 A501 EXTERIOR ELEVATIONS



1 A501 EXTERIOR ELEVATIONS



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3/28/2020 3:55:15 PM
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Exeter New Hampshire

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PROJECT
161903

SHEET NO.
A501

Designer

1/4" EXTERIOR ELEVATIONS

COMMONS PLAN GENERAL NOTES

1. DIMENSIONS AT EXTERIOR WALLS ARE TO FACE OF BRICK OR SHEATHING. ALIGN WITH FOUNDATION WALL BELOW.
2. UPPER FLOOR EXTERIOR DIMENSIONS ARE TO THE FACE OF MASONRY BELOW. ALIGN FRAMING WITH FRAMING BELOW.
3. ALL OTHER DIMENSIONS ARE TO FACE OF STUD.
4. VERIFY ALL ROUGH AND MASONRY OPENINGS (M.O.) WITH APPROVED SHOP DRAWINGS.
5. FIELD VERIFY ALL TOPS, MIRRORS AND CABINETRY DIMENSIONS.
6. FIRE RATED WALL CONSTRUCTION MUST RUN CONTINUOUS BEHIND TUBS, SHOWERS, ETC.
7. VERIFY WALL CONSTRUCTION WITH WALL TYPES.

—·—·—·— INDICATES 1 HOUR WALL
—··—··— INDICATES 2 HOUR WALL
—···—···— INDICATES 3 HOUR WALL
—····—····— INDICATES 4 HOUR WALL

6'-6" * DIMENSIONS SHOWN AS ROUGH OPENINGS FOR SPECIFIC PRODUCTS BASED ON CURRENT INFORMATION AVAILABLE AT TIME OF DRAWING PREPARATION. CONTRACTOR TO VERIFY AS APPROPRIATE.

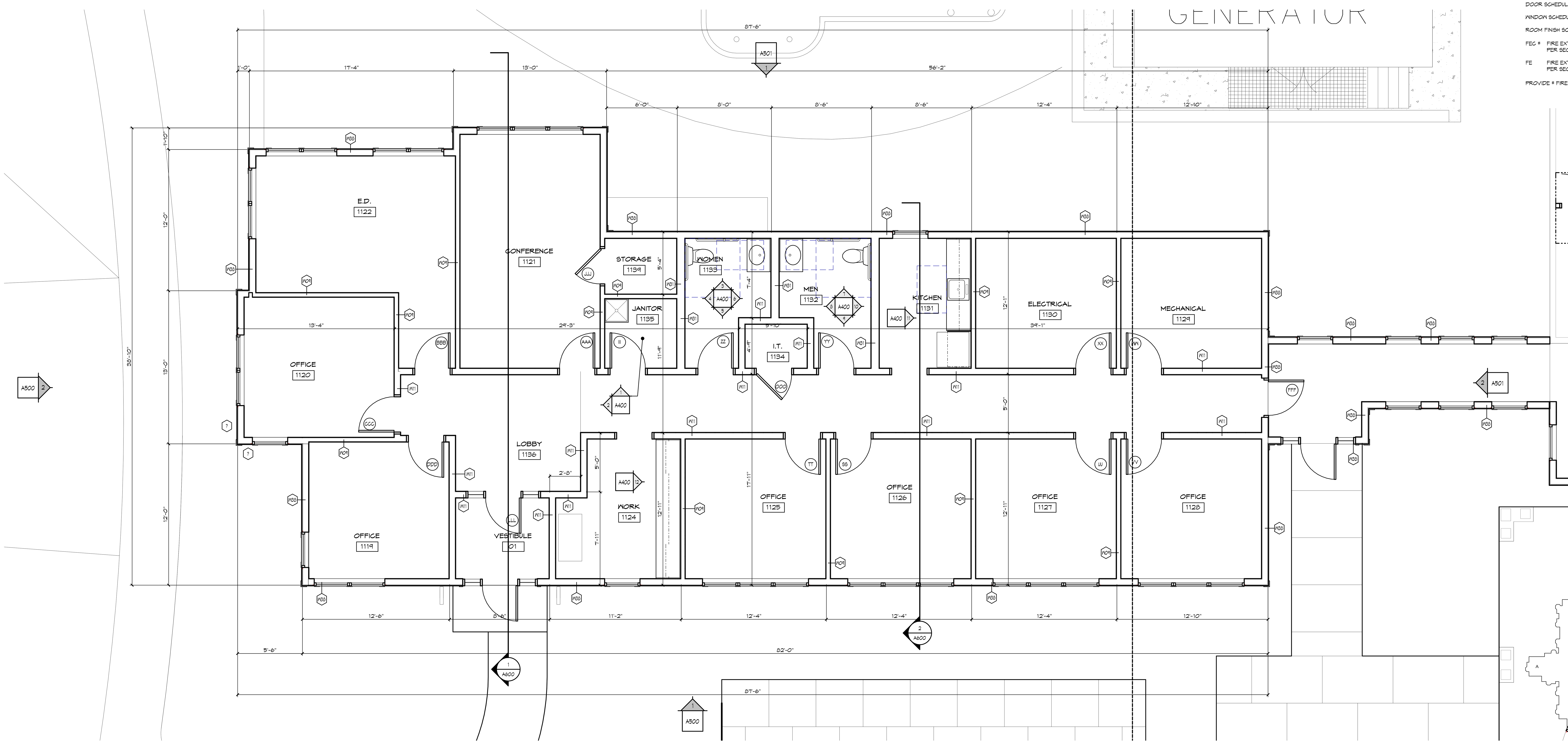
6'-6" ** PLUS OR MINUS - FOR REFERENCE ONLY.

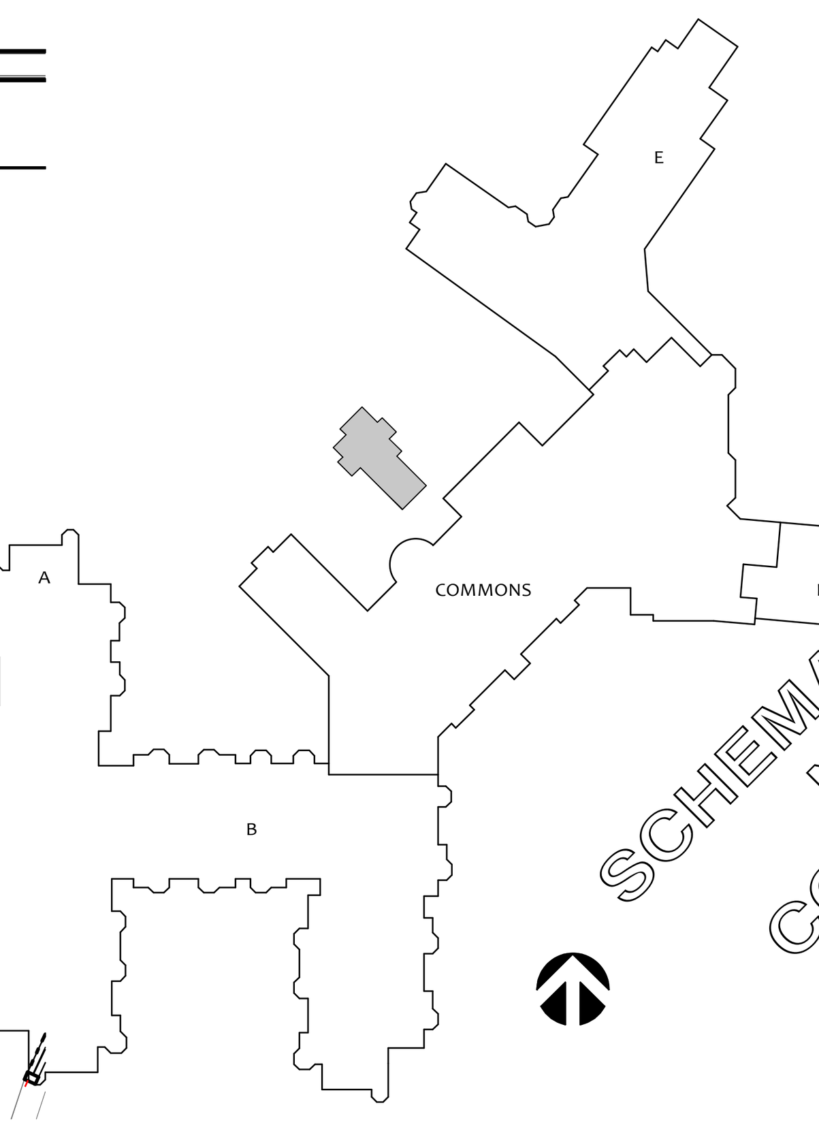
WALL TYPES	SHEET AT300
DOOR SCHEDULE	SHEET AT101
WINDOW SCHEDULE	SHEET X
ROOM FINISH SCHEDULE	SHEET X

FEC # FIRE EXTINGUISHER WITH RECESSED CABINET PER SECTION 10522 - SEE DETAILS 16 AND 17/AT400.

FE FIRE EXTINGUISHER WITH SURFACE MOUNTED BRACKET PER SECTION 10522.

PROVIDE # FIRE EXTINGUISHERS THIS FLOOR.





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DATE 02-28-2020

PROJECT 161903

SHEET NO. A200

Designer

1/8" FIRST FLOOR PLAN