# RICE POND VILLAGE SITH PIAN OF LAND

MILLBURY, MASSACHUSETTS

OWNER:

# MCLAUGHLIN FAMILY LIVING TRUST

17 RICE ROAD MILLBURY, MASSACHUSETTS 01527

APLLICANT:

# WHITNEY STREET HOME BUILDERS, LLC

ONE GOLDEN COURT WESTBOROUGH, MASSACHUSETTS 01581

CLIENT NUMBER:

DRAWING:

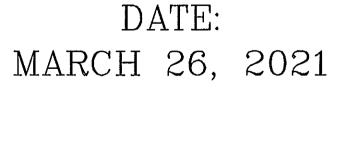
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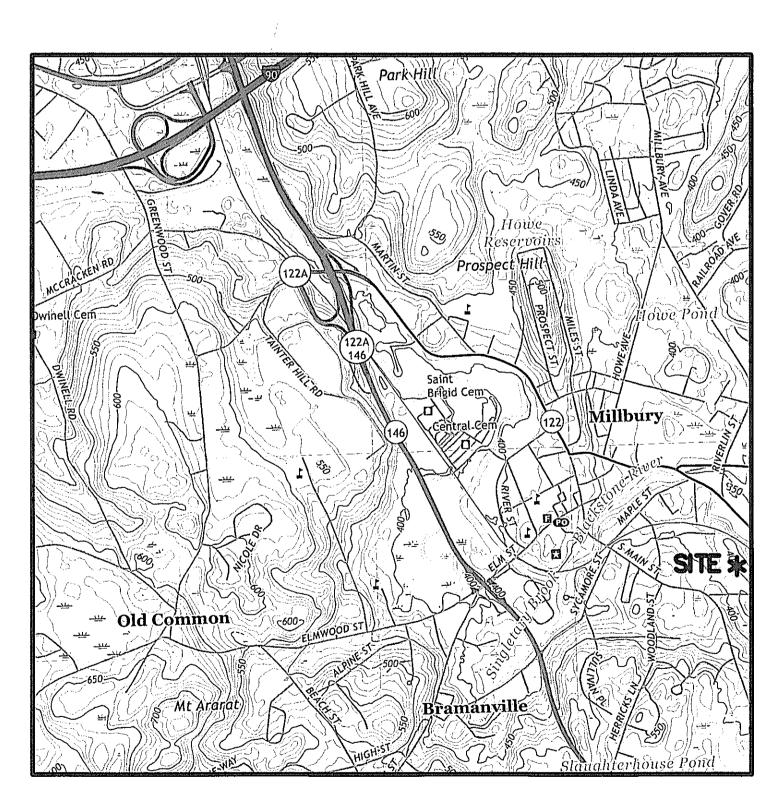
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# AZIMUTH LAND DESIGN, LLC

325 DONALD LYNCH BOULEVARD, SUITE 100 MARLBOROUGH, MASSACHUSETTS 01572 TELEPHONE (508) 485-0137 EMAIL: jamest@azimuthlanddesign.co





LOCUS MAP

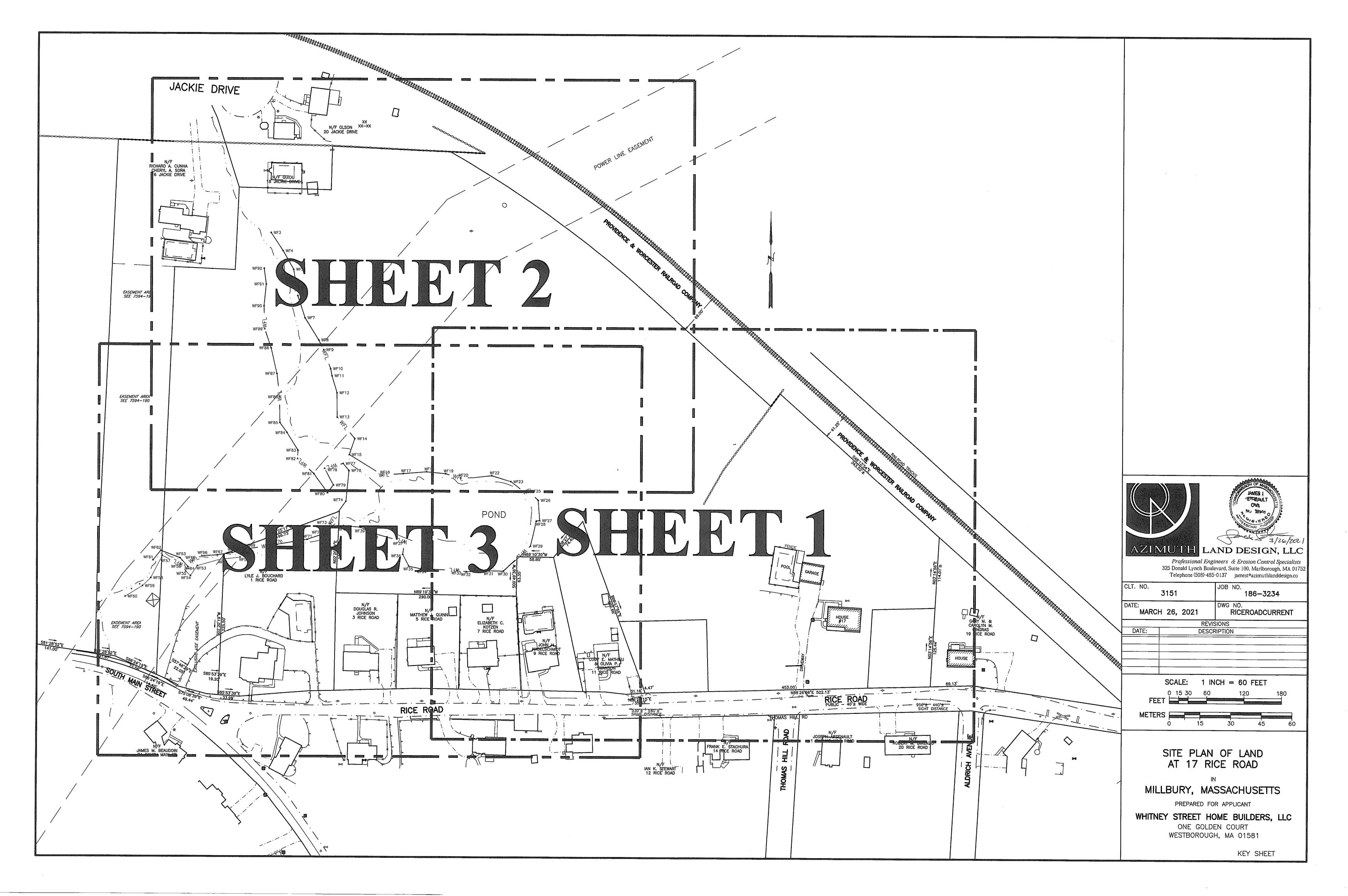
#### EXISTING CONDITIONS PLANS E1 - E3 SITE LAYOUT PLANS S1 - S3 GRADING PLANS G1 - G3 PLAN & PROFILE SHEETS P1 - P2 LANDSCAPING PLAN LS1 - LS2 SOILS MAP S01 DETAIL SHEETS D1 - D4

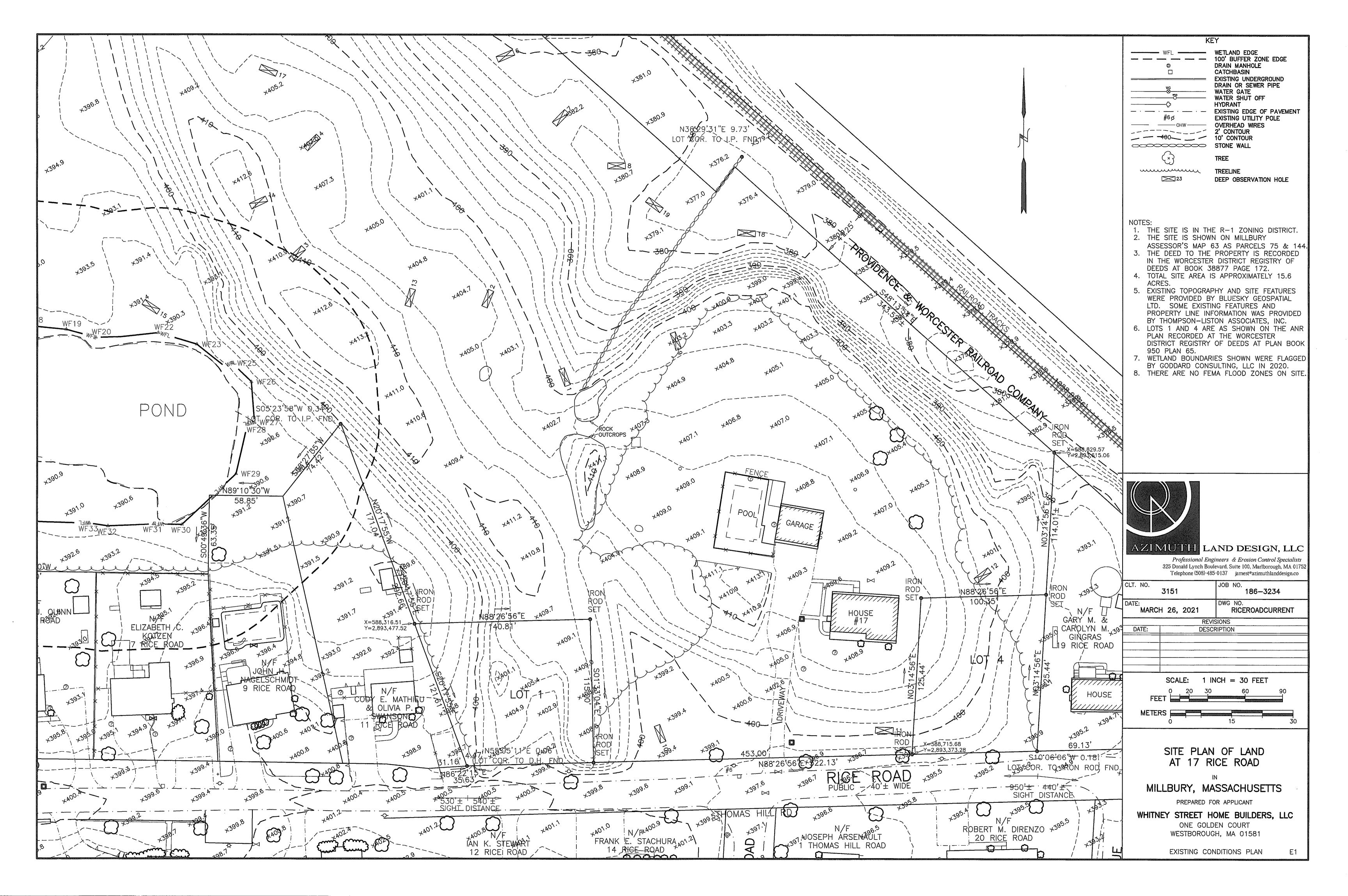
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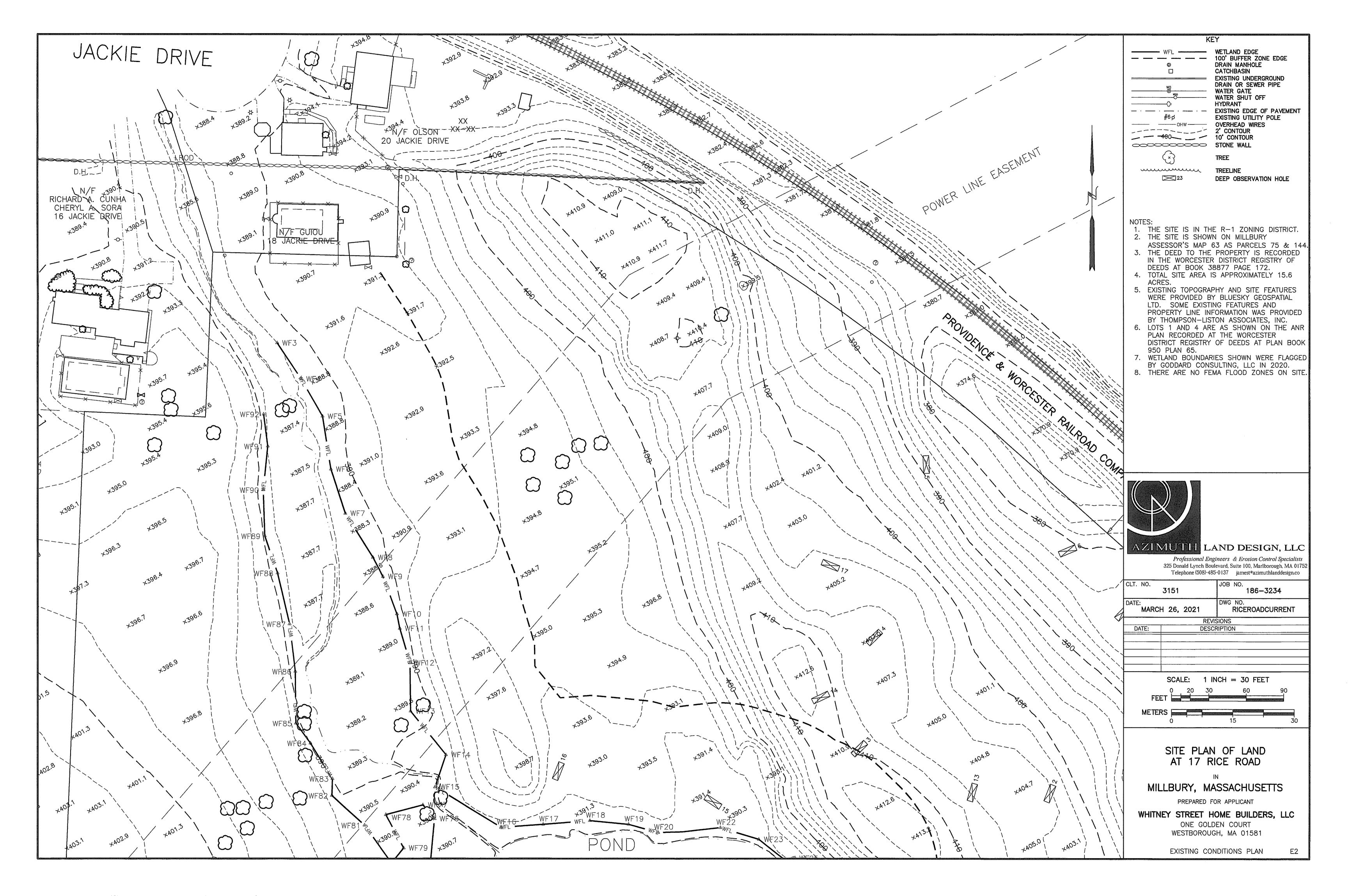
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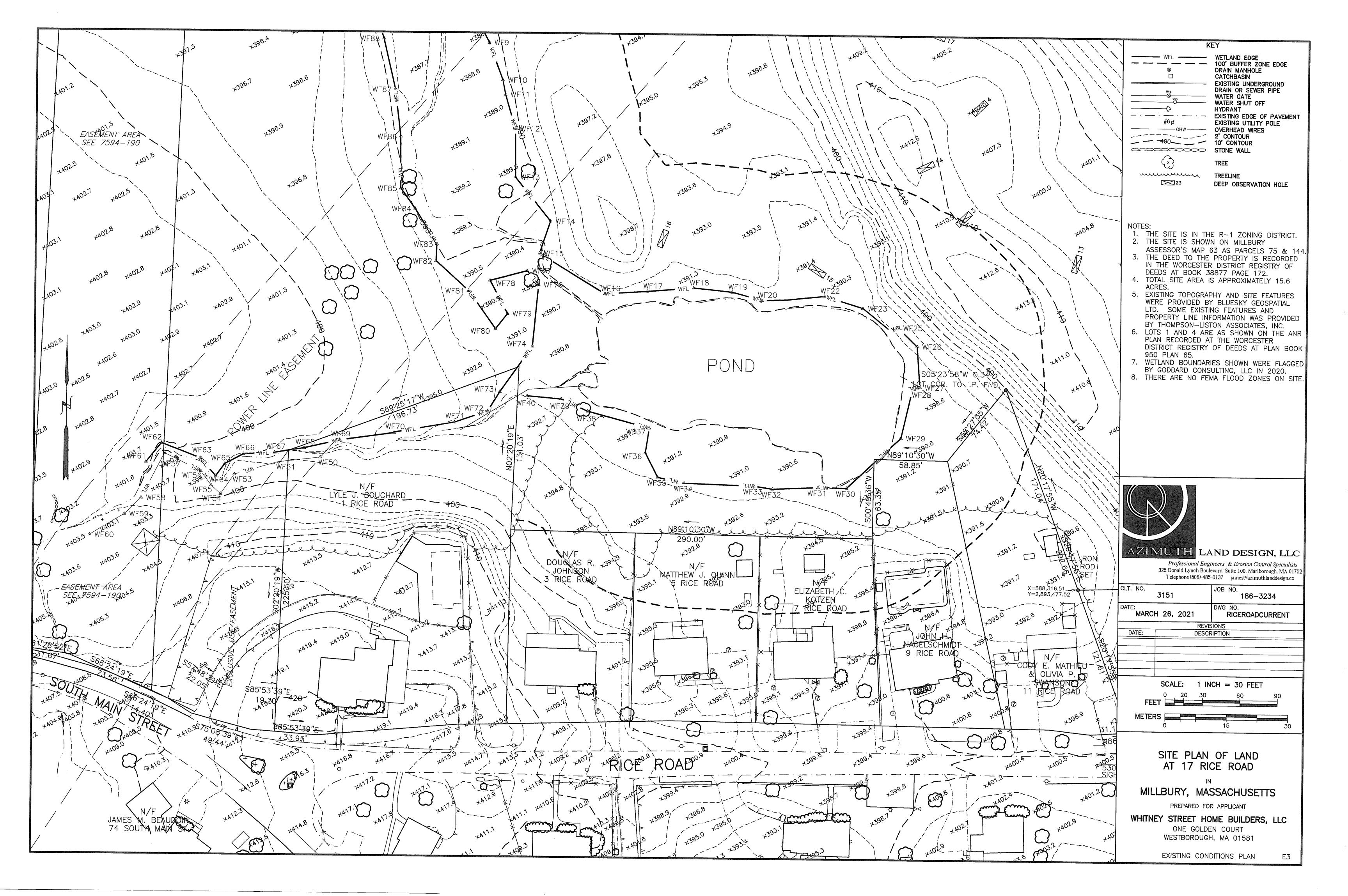
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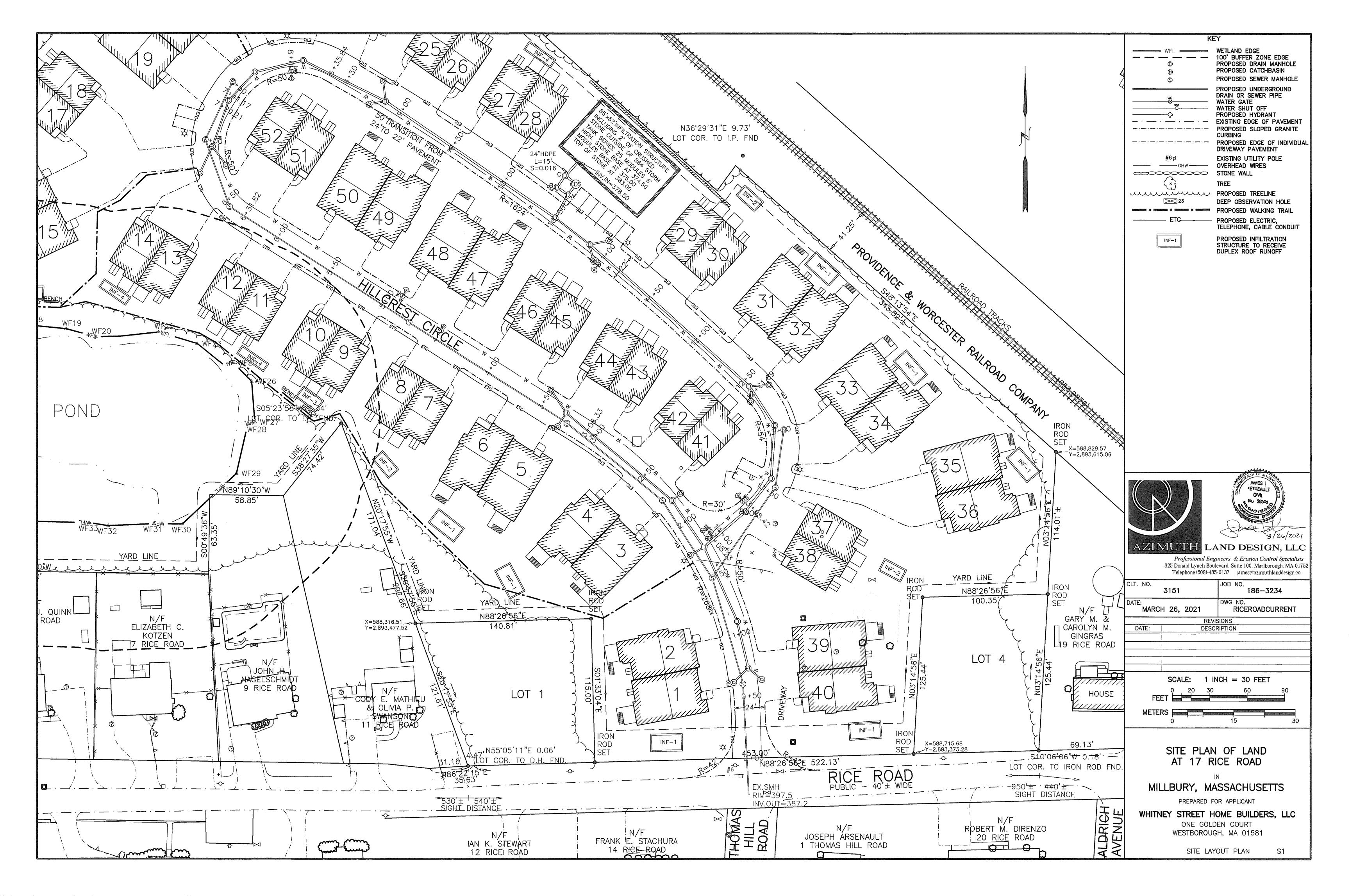
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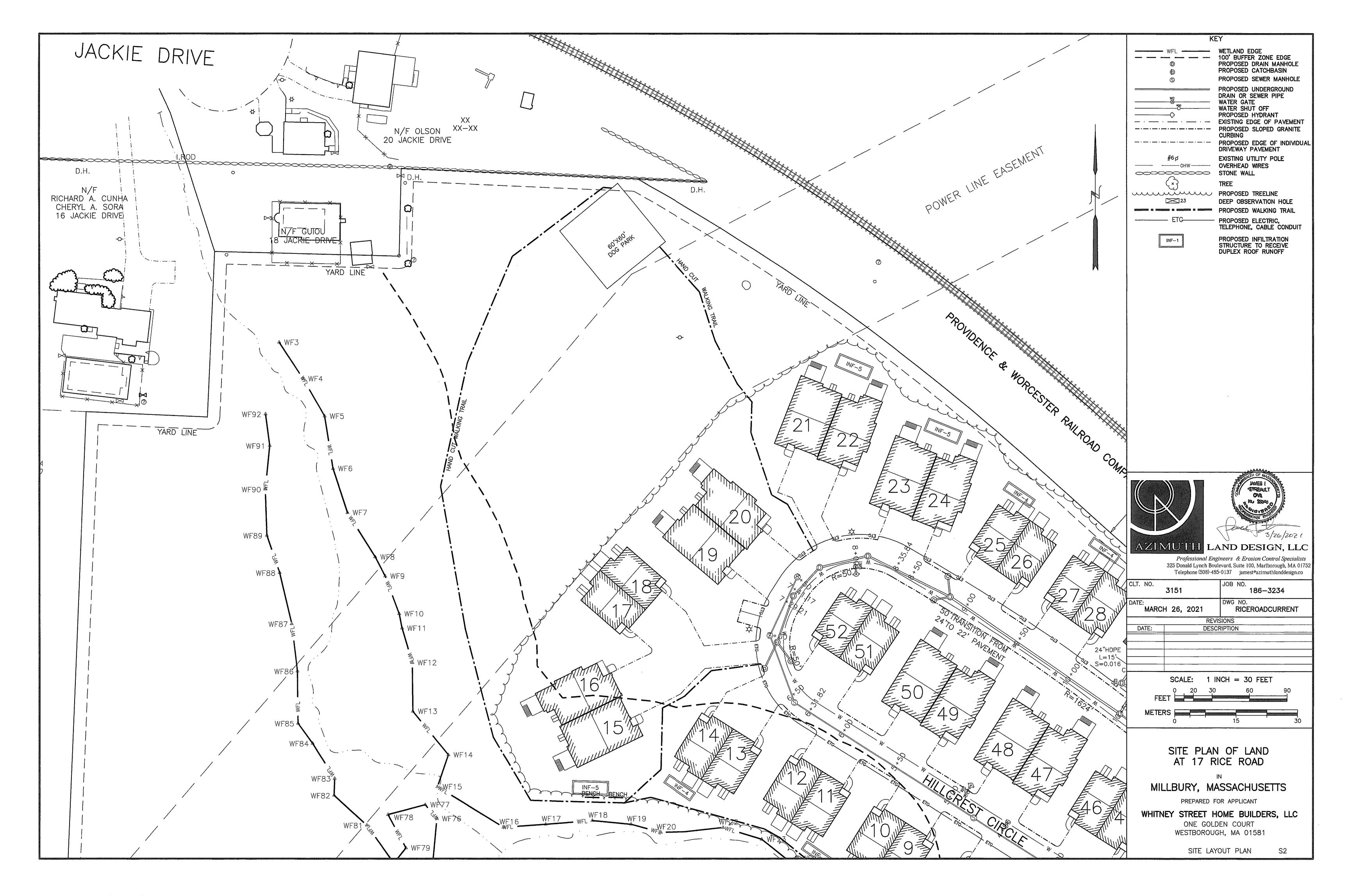


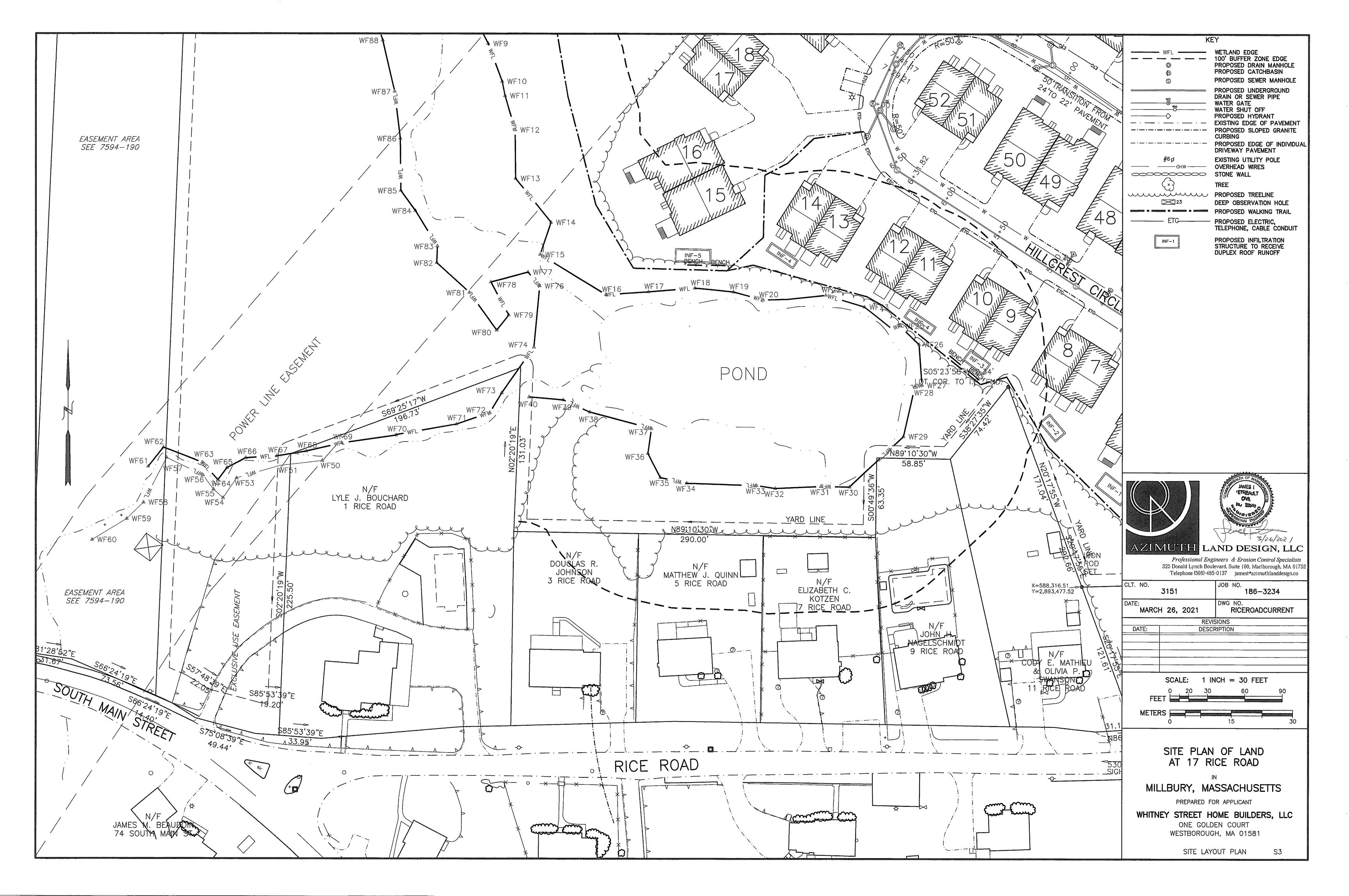


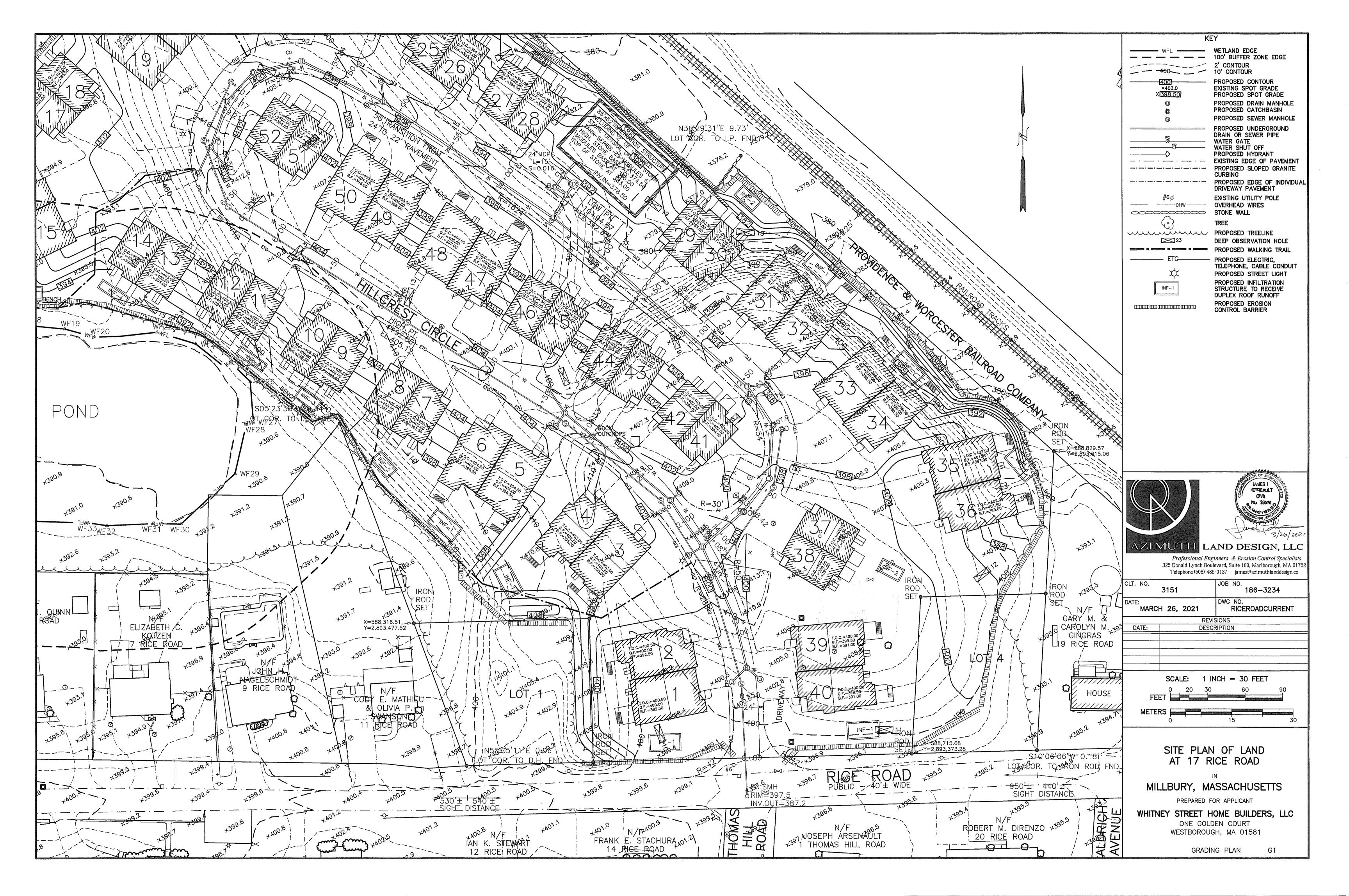


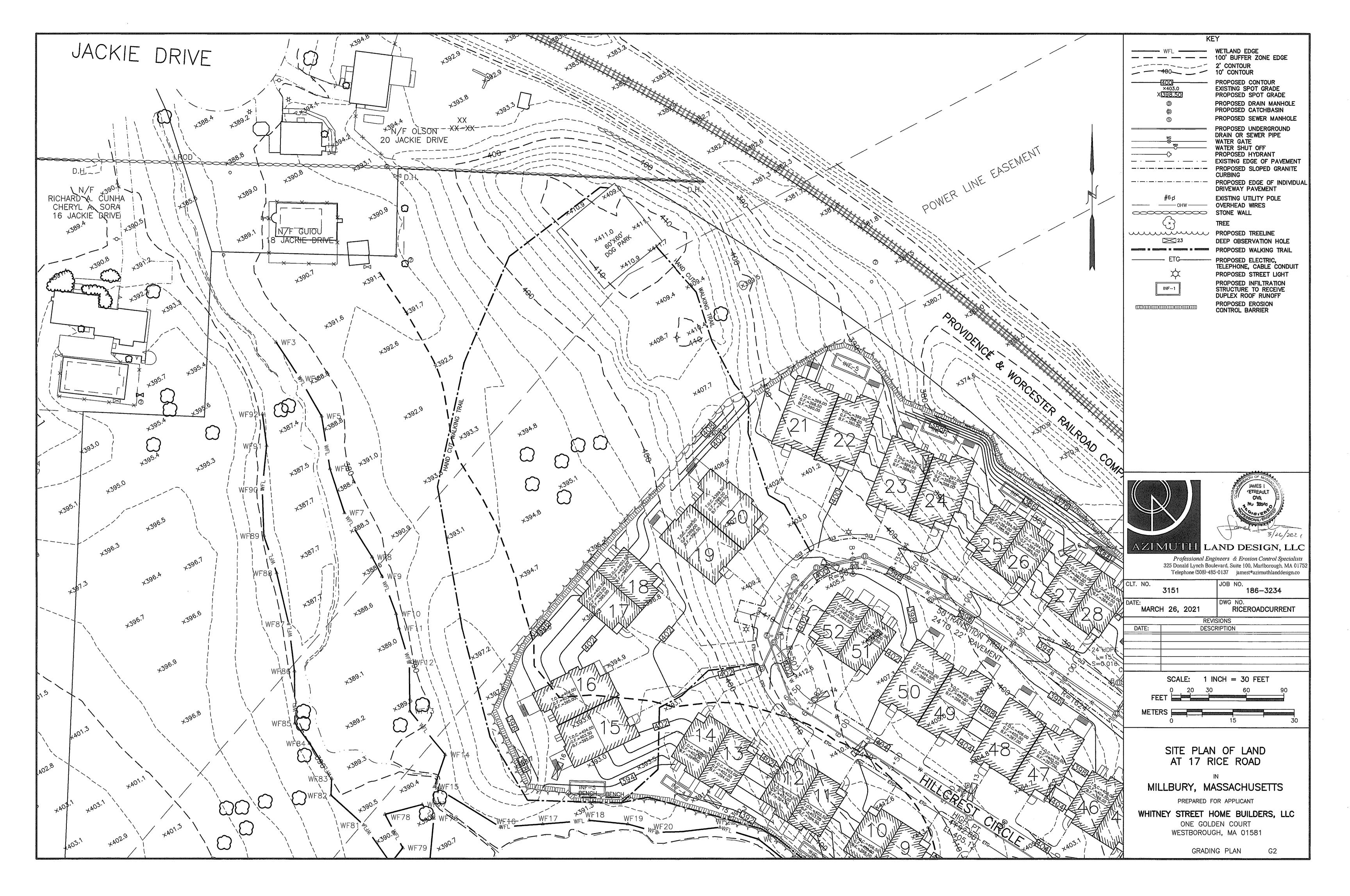


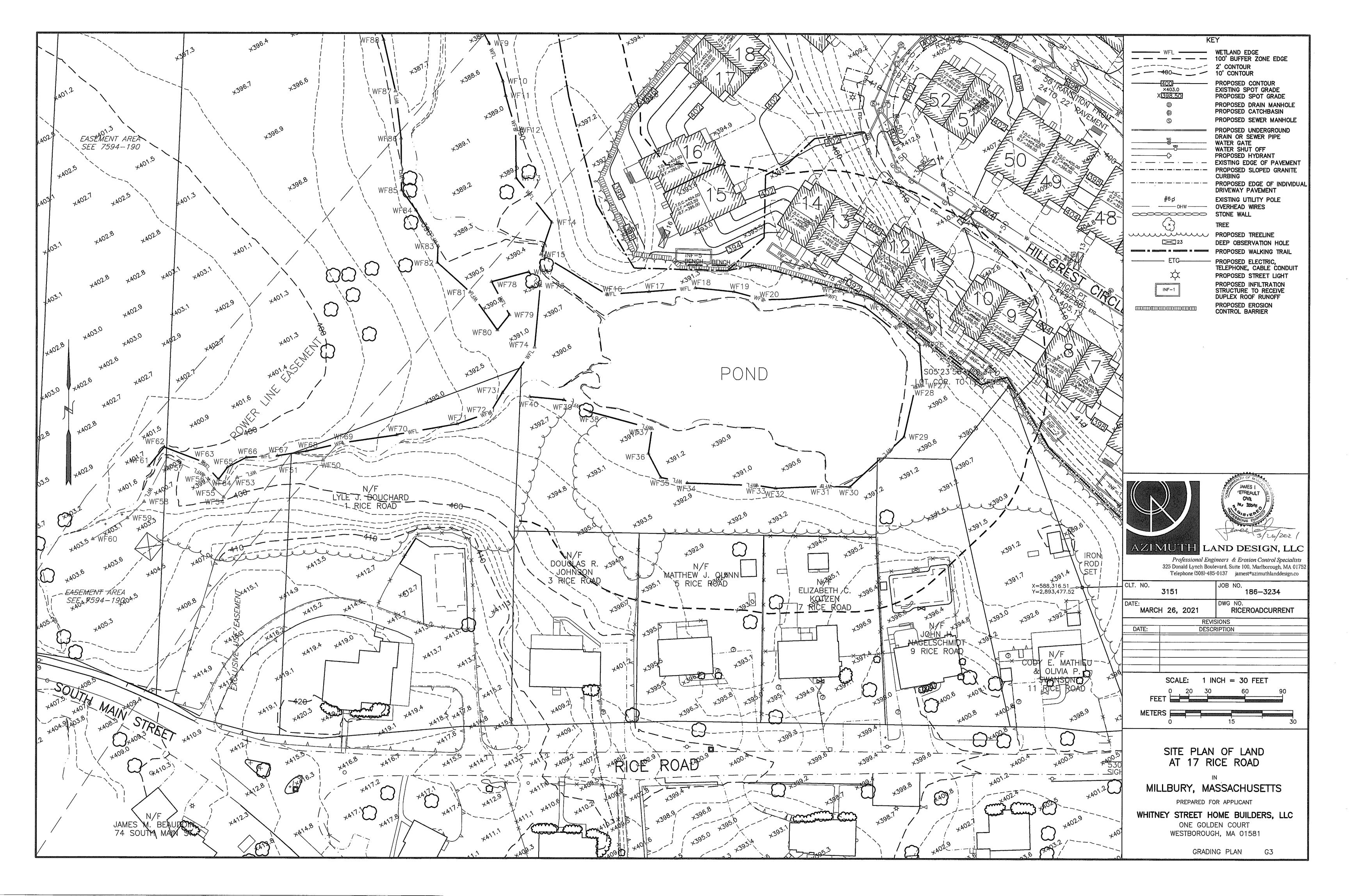


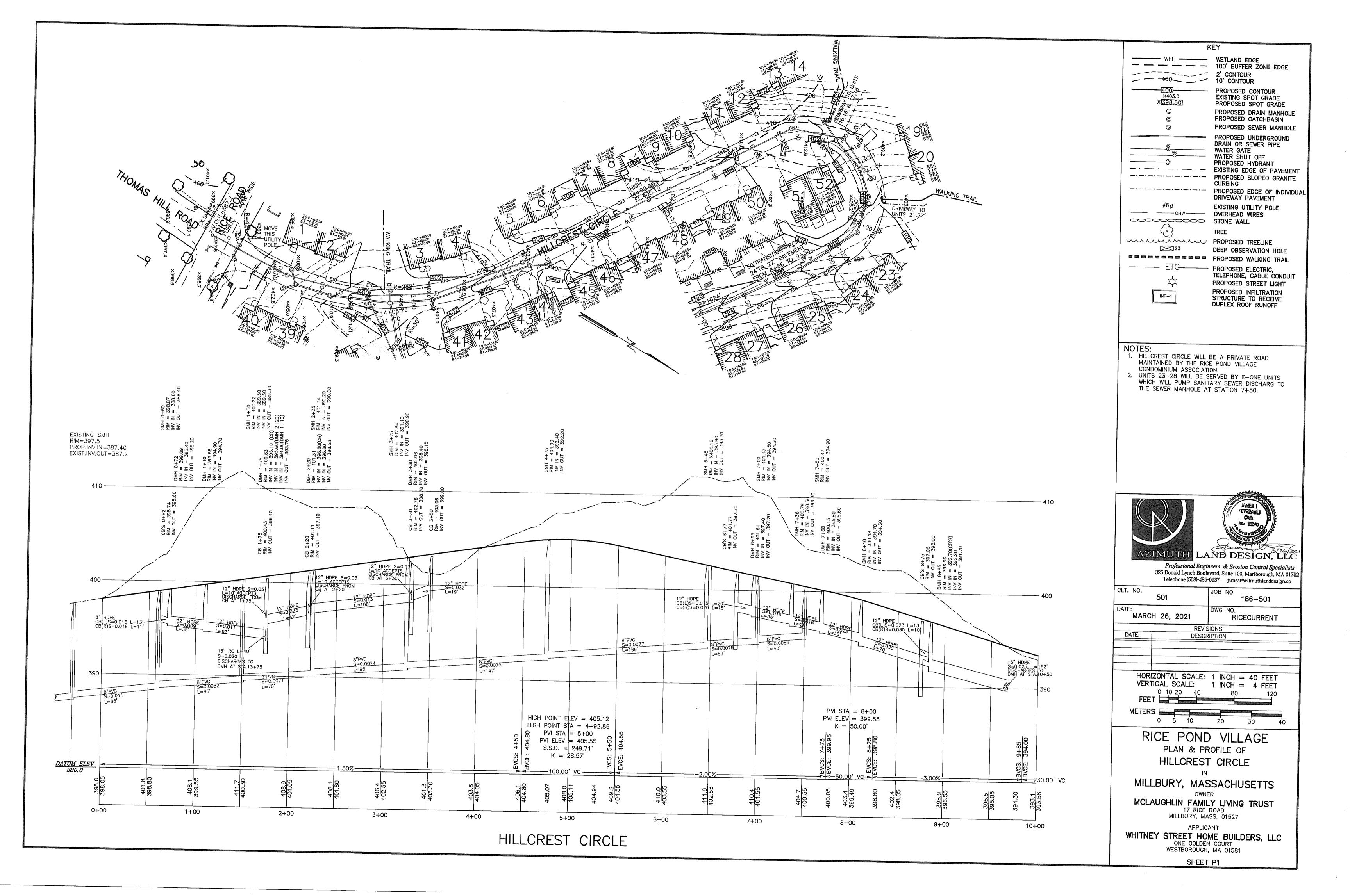


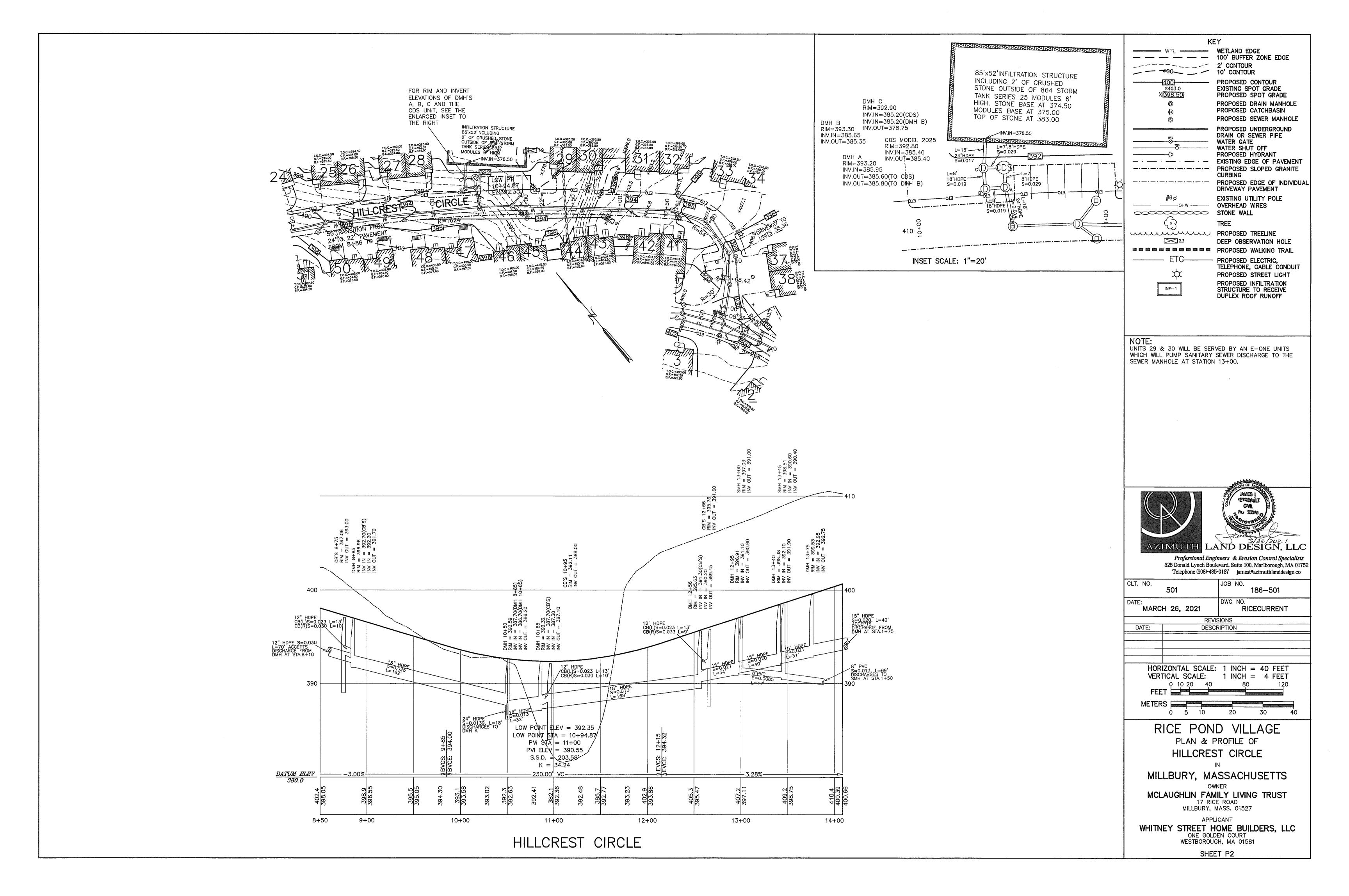


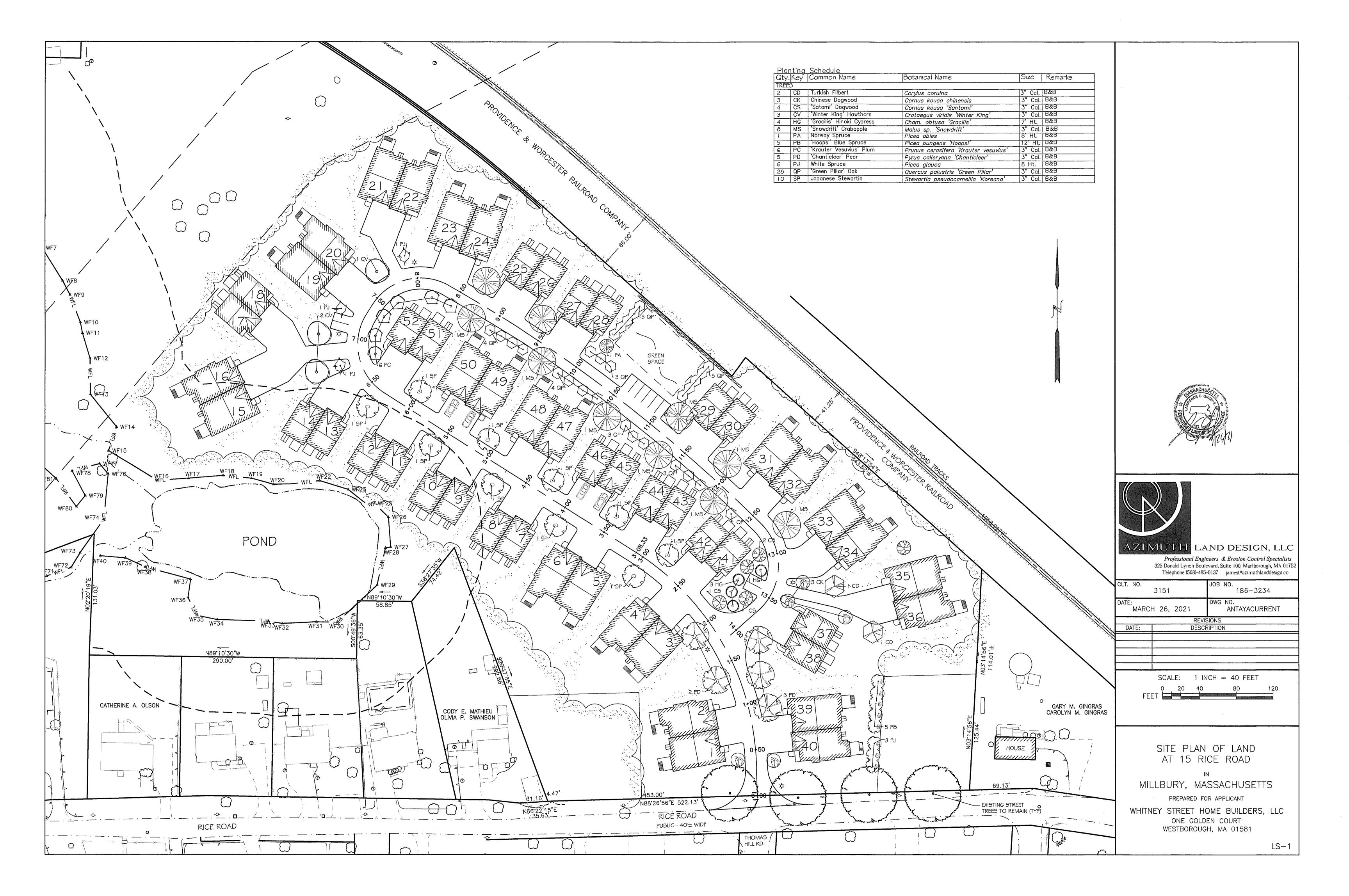


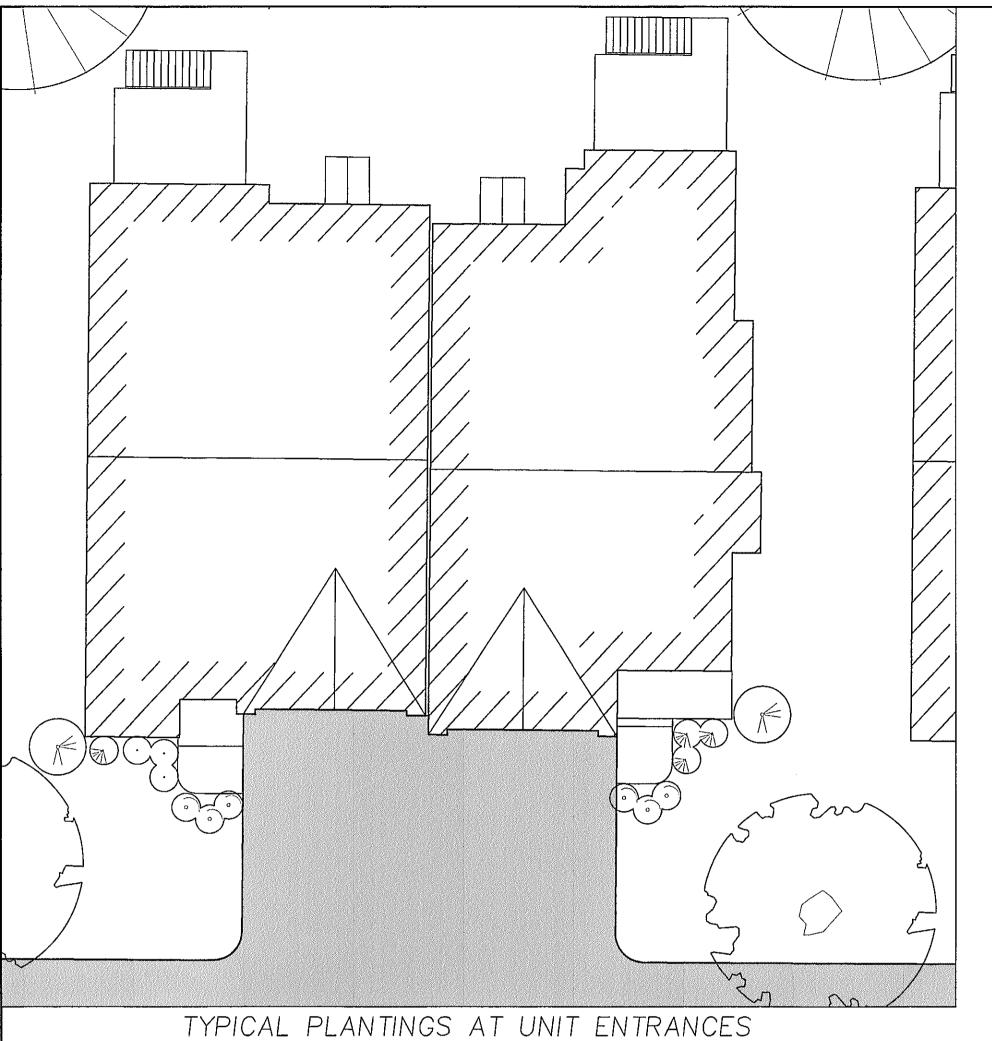


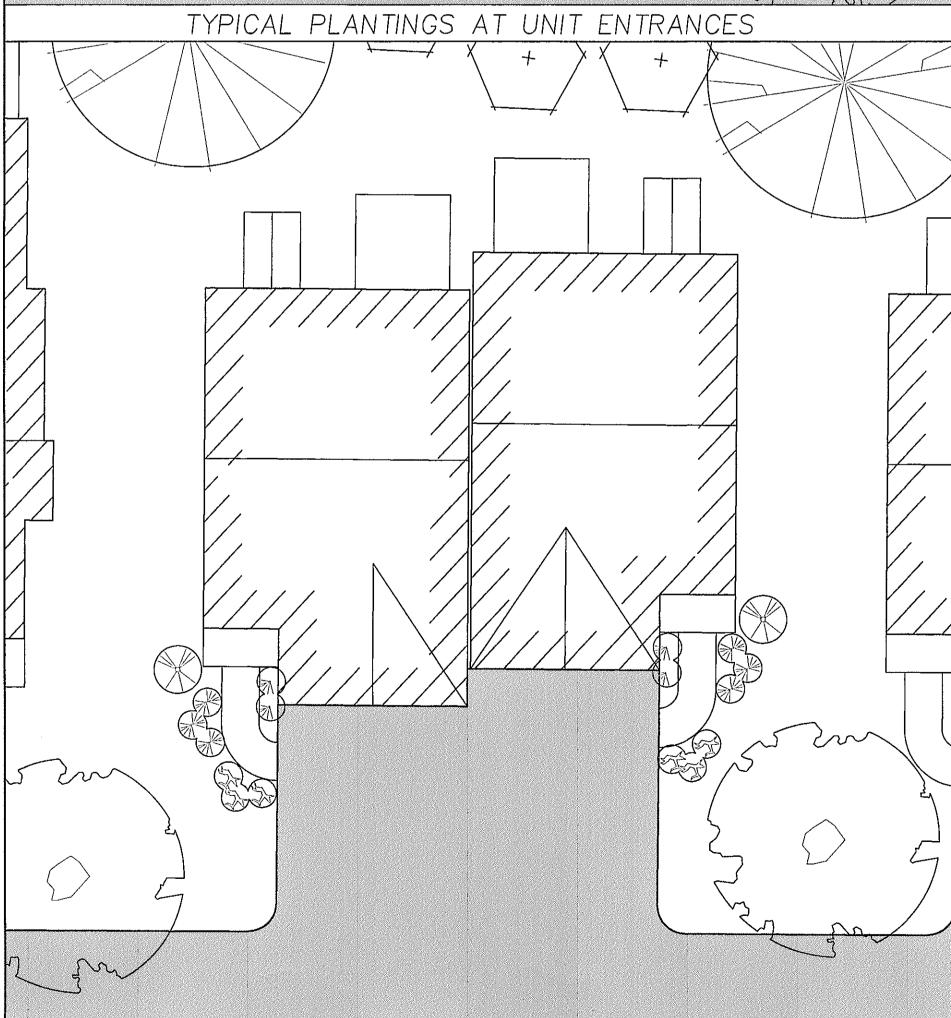












## PLANT SCHEDULE -

Service-Berry	Amelanchier laevis	36" Ht. B&B
Smooth Azalea	Rhododendron arborescens	36" Ht. B&B
American Plum	Prunus americana	36" Ht. B&B
'Dark Knight' Bluebeard	Caryopteris x clandonensis'Dark Knight'	36" Ht. B&B
'Golden Mops' Hinoki Cypress	Chamaecyparis obtusa 'Golden Mops'	36" Ht. B&B
'Pearl Glam' Callicarpa	Callicarpa sp. 'Pearl Glam'	36" Ht. B&B
Alternate—Leaf Dogwood	Cornus alternifolia	36" Ht. B&B
Witch-alder	Fothergilla major	36" Ht. B&B
'Lady Stanley' Rose of Sharon	Hibiscus syriacus 'Lady Stanley'	36" Ht. B&B
St. Johns-wort	Hypericum prolificum	36" Ht. B&B
'Little Quick Fire' Hydrangea	Hydrangea paniculata 'Little quick fire'	36" Ht. B&B
American Yew	Taxus canadensis	36" Ht. B&B
'Sky Pencil' Holly	Ilex crenata 'Sky Pencil'	36" Ht. B&B
Mountain pieris	Pieris floribunda	36" Ht. B&B
Plumleaf Azalea	Rhododendron prunifolium	36" Ht. B&B
'Blushing Knock out' Rose	Rosa sp. 'Blushing Knock Out'	36" Ht. B&B

Common Yarrow	Achillea millefolium	#3 Pot 0	Container Grown
'Hameln' Fountain Grass	Pennisetum alopecuroides 'Hameln'	1 11	Container Grown
Creeping Phlox	Phlox subulata	#3 Pot 0	Container Grown
Black-Eyed Susan	Rudbeckia hirta	#3 Pot 0	Container Grown
Green-Headed Coneflower	Rudbeckia laciniata	#3 Pot 0	Container Grown

#### LANDSCAPING NOTES

- . NOTIFY DIG-SAFE AT 1-888-DIG-SAFE AND LOCAL AUTHORITIES PRIOR TO ANY TYPE OF SITE PREPARATION OR CONSTRUCTION.
- 2. THE CONTRACTOR SHALL SUPPLY ALL PLANT MATERIAL AND MULCH IN SUFFICIENT QUANTITIES TO COMPLETE PLANTING AS SHOWN ON THE DRAWINGS.
- DRAWING QUANTITIES TAKE PRECEDENCE OVER PLANT LIST QUANTITIES.
   ALL PLANT MATERIAL SHALL CONFORM TO THE GUIDELINES SET FORTH BY THE AMERICAN NURSERY \$ LANDSCAPE ASSOCIATION
- 5. ALL TREES AND SHRUBS SHALL BE PLANTED WITH THE "BEST FACE" SHOWING. ALL PLANTS SHALL BE BALLED AND BURLAPPED OR CONTAINER GROWN, UNLESS OTHERWISE APPROVED BY THE LANDSCAPE ARCHITECT.

  6. ALL CONTAINER GROWN STOCK SHALL BE HEALTHY, VIGOROUS, WELL ROOTED AND ESTABLISHED IN THE CONTAINER IN WHICH THEY ARE GROWING. THEY SHALL HAVE TOPS OF GOOD QUALITY, NO APPARENT INJURY AND BE IN A HEALTHY GROWING.
- CONDITION. A CONTAINER GROWN PLANT SHALL HAVE A WELL ESTABLISHED ROOT SYSTEM REACHING THE SIDES OF THE CONTAINER TO MAINTAIN A FIRM BALL.

  7. THE QUALITY OF ALL TREES \$ SHRUBS IS TO BE NORMAL FOR THE SPECIES. ALL PLANTS ARE TO HAVE DEVELOPED ROOT SYSTEMS, TO BE FREE OF INSECTS AND DISEASES AS WELL AS MECHANICAL INJURIES, AND IN ALL RESPECTS BE SUITABLE FOR
- PLANTINGS. 8. ALL CONIFERS SHALL HAVE DORMANT BUDS AND SECONDARY NEEDLES.
- 9. WHERE SPECIFIED, CALIPER SIZE IS TO BE THE OVERRIDING FACTOR IN TREE SELECTION. CALIPER SIZE SHALL BE MEASURED 12" ABOVE THE ROOTBALL.
- IO. PLANT SUBSTITUTIONS ARE NOT ALLOWED UNLESS APPROVED BY THE PROJECT LANDSCAPE ARCHITECT.

  II. ALL DISTURBED AREAS NOT SHOWN OTHERWISE SHALL BE LOAMED AND SEEDED AND BLENDED INTO EXISTING GRADE AND CONDITIONS.
- 12. PRIOR TO INSTALLING ANY PLANT MATERIAL, THE CONTRACTOR SHALL SUBMIT A LOAM SOIL SAMPLE FOR A ROUTINE, ORGANIC, SALTS, AND NITRATE SOIL TEST. UPON THE RESULTS OF THIS TEST, THE SITE CONTRACTOR SHALL AMEND THE LOAM AS RECOMMENDED. SEND THE SOIL SAMPLE TO THE UNIVERSITY OF MASSACHUSETTS SOIL AND PLANT TISSUE TESTING LABORATORY, WEST EXPERIMENT STATION, 682 NORTH PLEASANT ST., UNIVERSITY OF MASSACHUSETTS, AMHERST, MA 0 1 003.

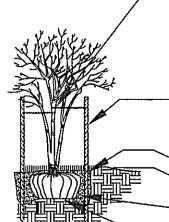
  13. LAWN SEED MIX SHALL BE THE PREVIOUS YEARS CROP: 35% JEFFERSON KENTUCKY BLUEGRASS, 35% CARMEN CHEWING FESCUE AND 30% STALLION PERENNIAL RYEGRASS, OR APPROVED EQUAL. PLANT AT A RATE OF 1 LB. PER 150 SQUARE FEET.
- 14. SLOPE SEED MIX SHALL BE THE PREVIOUS YEARS CROP. PLANT AT A RATE OF 1 LB. PER 150. SQUARE FEET. SEED MIX SHALL BE STALLION PERENNIAL RYE 10%, CREEPING RED FESCUE 50%, ANNUAL RYE GRASS 15%, JEFFERSON KENTUCKY BLUE GRASS 10%, RED TOP CLOVER 5%, AND LADINO CLOVER 5%, OR APPROVED EQUAL. PLANT AT A RATE OF 1 LB. PER 150SF.
- 15. DETENTION BASIN SEED MIX SHALL BE NEW ENGLAND CONTROL MIX SHALL BE FROM NEW ENGLAND PLANTS INC. PLANT AT A RATE OF 1250SF/LB.

  16. LAWN SEED AREAS SHALL BE NOT BE DEEMED ACCEPTABLE UNTIL IN EXCESS OF 90% OF EACH AREA, INDEPENDENTLY, IS GERMINATED, GROWING AND DISPLAYING HEALTHY, UNIFORM GROWTH AND HAS BEEN CUT TWICE. THE SITE CONTRACTOR IS

  RESPONSIBLE FOR APPLYING AT A MINIMUM 1" OF WATER A WEEK UNTIL THE SEEDED AREAS HAVE BEEN ACCEPTED. THE WATERING SHALL OCCUR IN SMALL DOSES. THE SITE CONTRACTOR IS RESPONSIBLE FOR REMOVING ANY WEEDS (CRAB GRASS) WITHIN
- 17. WILDLIFE SEED MIX SHALL BE THE NEW ENGLAND CONSERVATION SEED MIX FROM NEW ENGLAND WETLAND PLANTS INC.OR AN APPROVED EQUAL

  18. THE HYDRO SEED SLURRY SHALL BE A WOOD BASED BONDED FIBER MATRIX. THE APPLICATION RATE SHALL BE 2,500-3,000LB. PER ACRE SPRAYED IN A LEAST TWO DIRECTIONS. DO NOT APPLY HYDRO SEED SLURRY IF RAIN IS EXPECTED WITHIN 12 HOURS,
  - AND WHEN TEMPERATURES ARE BELOW 50 DEGREES.

    19. PRIOR TO PLANTING, THE LANDSCAPER SHALL REVIEW AND COORDINATE WITH THE SITE UTILITY PLAN AND GRADING PLAN.
- 20. THE ROOTS OF NEWLY PLANTED TREES AND SHRUBS MUST BE KEPT STEADILY MOIST, AS THE DEVELOPING ROOTS ESTABLISH IN THE NEW SOIL. AT PLANTING, WATER THOROUGHLY TO SOAK THE ROOTS AND TO SETTLE THE NEW SOIL AROUND THE ROOT BALL THE AMOUNT OF SUPPLEMENTAL WATER NEEDED EACH WEEK DURING THE FIRST GROWING SEASON AFTER PLANTING DEPENDS ON RECENT RAINFALL, TEMPERATURE, AND WIND. IF LESS THAN ONE-INCH OF RAIN HAS FALLEN OVER THE PAST FIVE TO SEVEN DAYS, THE NEW PLANTINGS MUST BE WATERED. LAWNS, TREES, AND SHRUBS WATERING SHALL OCCUR AT A MINIMUM OF TWO (2) TIMES A DAY FOR THE FIRST TWO (2) MONTHS; ONCE IN THE EARLY MORNING AND THEN THE OTHER IN THE LATE AFTERNOON. IN GENERAL TEN GALLONS OF WATER APPLIED TWICE A WEEK WILL WET A 20"-24" ROOT BALL AND PROVIDE THE EQUIVALENT OF ONE INCH OF RAIN FALL. NEW LAWNS SHALL BE WATERED SO THAT IS RECEIVES AT A MINIMUM ONE INCH (I") OF WATER EVERY WEEK.
- 21. WITHIN THE LANDSCAPE BEDS ADJACENT TO THE BUILDING FOUNDATIONS, NO (HEMLOCK, PINE, SPRUCE, OR CEDAR) MULCH OR OTHER COMBUSTIBLE LANDSCAPE MATERIALS SHALL BE INSTALLED WITHIN 18" OF THE FOUNDATION.
- 22. ALL LANDSCAPE BEDS SHALL RECEIVE THREE-INCHES OF BARK MULCH.
  23. LANDSCAPE AREAS SHALL BE DEEP TILLED TO A DEPTH OF TWELVE INCHES TO FACILITATE DEEP WATER PENETRATION.
- 24. EXISTING GRAVEL ROADS, TO BE LOOSENED AND SUPPLEMENTED WITH 6" OF LOAM AND SEEDED WITH THE "WILDLIFE SEED MIX".
- 25. DURING CONSTRUCTION COORDINATE WITH PROJECT LANDSCAPE ARCHITECT THE TRANSITION BETWEEN THE WOODS AND MOWING AREA.
- 26. DISTURBED AREAS WITHIN THE RIVERFRONT AREA THAT IS TO BE RESTORED TO MEADOW, SHALL RECEIVE 6" OF LOAM AND SEEDED WITH THE WILDLIFE SEED MIX.
  27. AREAS DISTURBED OUTSIDE THE DEMARCATED LAWN AREAS TO BE SEEDED WITH THE WILDLIFE SEED MIX.



TREE PIT

BE FLAT WOVEN POLYPROPYLENE MATERIAL

A" WIDE, 900 LB. BREAK STRENGTH.

ARBORTIE SHALL BE FASTENED TO TREE

STAKES IN A MANNER WHICH PERMITS

TREE MOVEMENT (8" SWAY) AND

SUPPORTS THE TREE

2"x2" HARDWOOD STAKES DRIVEN FIRMLY A

MINIMUM OF 18" INTO THE SUBGRADE PRIOR TO

BACKFILLING.

DO NOT DRIVE STAKE INTO ROOT BALL.

SPACE STAKING EVENLY AROUND TREE

- ARBORTIE (GREEN) GUYING MATERIAL IS TO

THE SEEDED AREAS UNTIL THE SEEDED AREAS HAVE BEEN ACCEPTED.

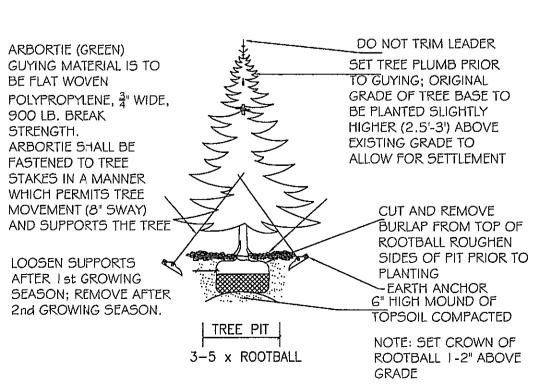
SPACE STAKING EVENLY AROUND TREE.
3" DEEP MULCH
FORM SAUCER WITH 3" CONTINUOUS RIM.

PLANTING SOIL MIX AND LEAF COMPOST
WATER & TAMP TO REMOVE AIR POCKETS

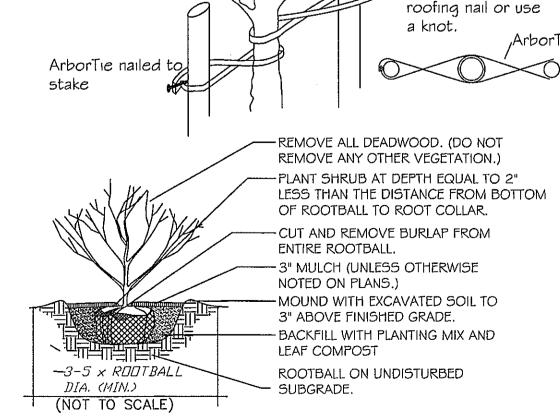
EXISTING SOIL SCARIFY PIT BOTTOM

- 1. STAKE TO MAIN BRANCHES AS NECESSARY FOR FIRM SUPPORT.
  2. PLANT SO THAT TOP OF ROOT BALL IS EVEN WITH THE FINISHED
- GUY WIRE SHALL NOT TOUCH OR RUB ADJACENT TRUNKS OR BRANCHES.
   REMOVE ALL CONTAINERS AND BASKETS FROM ROOT BALL.
- 4. REMOVE ALL CONTAINERS AND BASKETS FROM ROOT BALL.5. REMOVE BURLAP FROM TOP ONE THIRD OF ROOT BALL.6. LOOSEN ROOTBALL PRIOR TO PLANTING.

DECIDUOUS TREE PLANTING
NOT TO SCALE



EVERGREEN TREE PLANTING



Fold ends of

ArborTie back.

Secure to stake
with I" galvanized

SHRUB PLANTING





AZIMUTH LAND DESIGN, LLC

Professional Engineers & Erosion Control Specialists
325 Donald Lynch Boulevard, Suite 100, Marlborough, MA 01752
Telephone (508)-485-0137 jamest@azimuthlanddesign.co

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	SCALE: 1	INCH = 40 FEET	
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SITE PLAN OF LAND AT 17 RICE ROAD

MILLBURY, MASSACHUSETTS

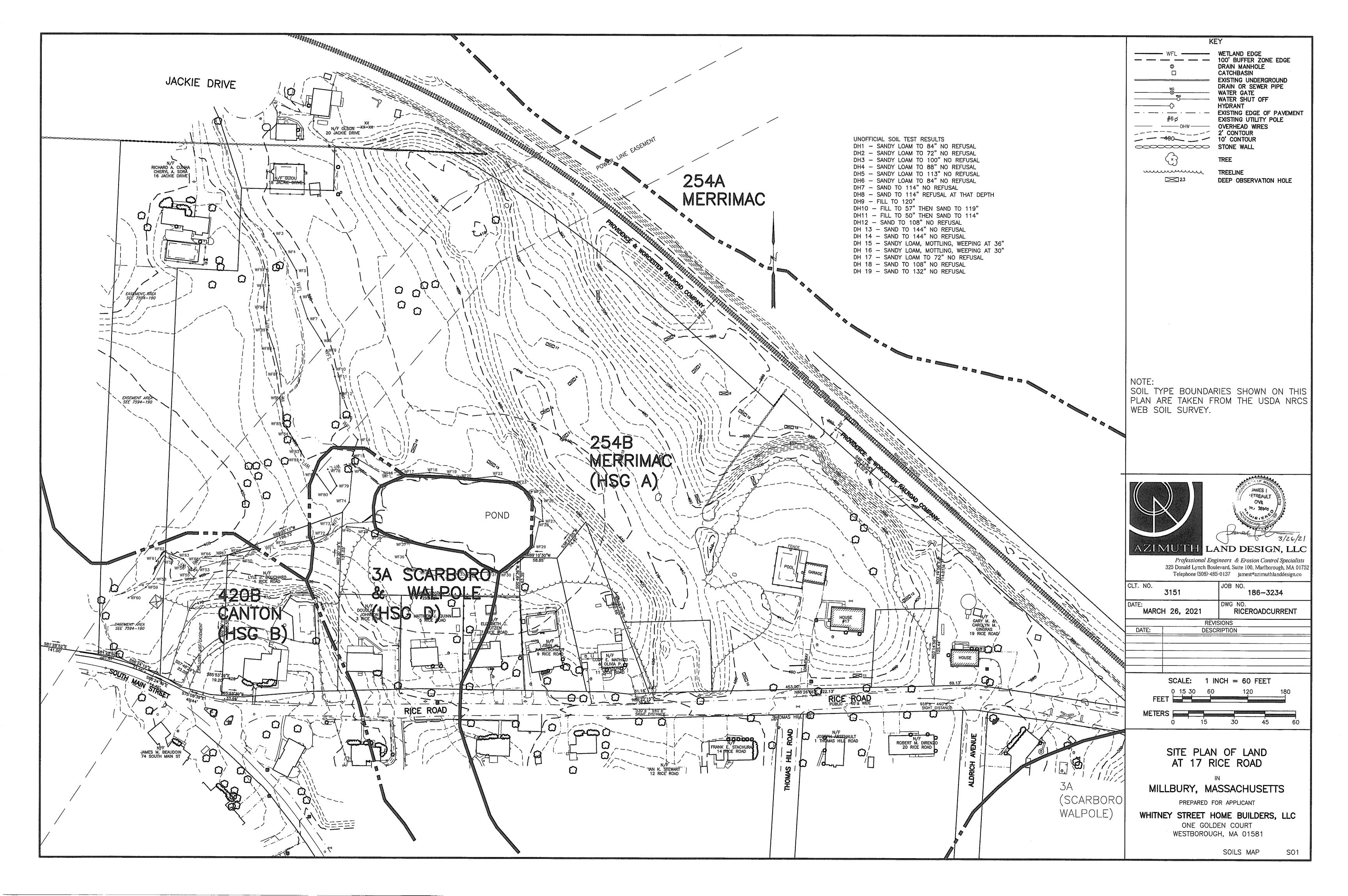
PREPARED FOR APPLICANT

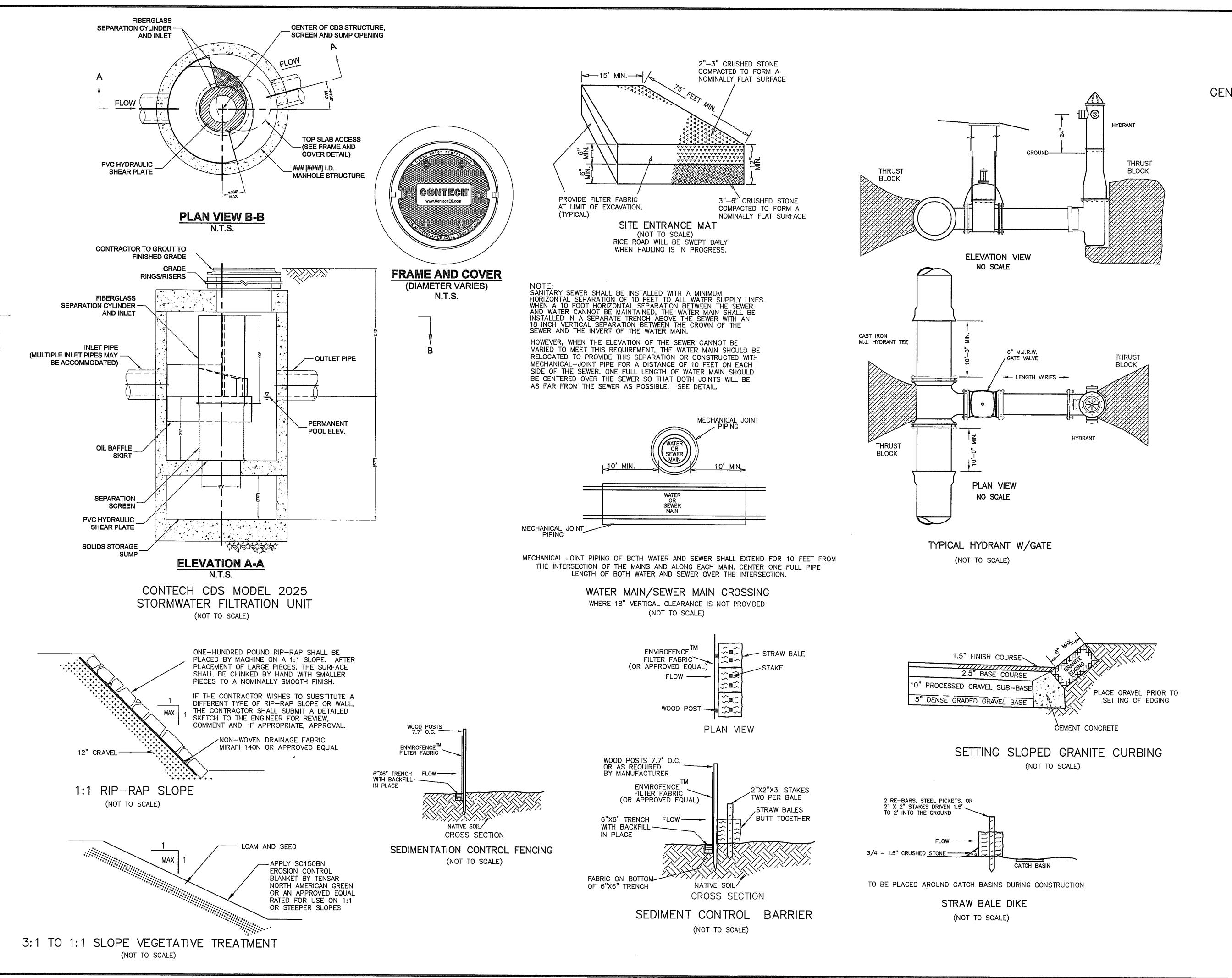
WHITNEY STREET HOME BUILDERS, LLC

ONE GOLDEN COURT

WESTBOROUGH, MA 01581

LS-2



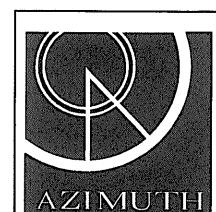


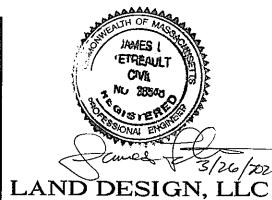
#### GENERAL NOTES:

- 1) THERE ARE NO FEMA FLOOD ZONES ON THIS SITE.
- 2) ACCORDING TO THE MASS GIS OLIVER WEB SITE, THERE ARE NO ENDANGERED SPECIES HABITATS AND NO VERNAL POOLS ON OR ADJACENT TO THIS SITE.
- 3) THE PROJECT SITE IS COMPRISED OF PARCELS NUMBERS 75 AND 144 ON ASSESSOR MAP 63.
- 4) TOTAL SITE ALTERATION IS EXPECTED TO BE 7.5 ACRES.

#### DIG SAFE:

EXCEPT FOR VISIBLE STRUCTURES (MANHOLES, GATES, POLES, ETC.) LOCATED BY THOMPSON-LISTON ASSOCIATES. INC., ALL UNDERGROUND UTILITIES SHOWN WERE COMPILED ACCORDING TO AVAILABLE RECORD PLANS FROM THE VARIOUS UTILITY COMPANIES AND PUBLIC AGENCIES AND ARE APPROXIMATE ONLY. ACTUAL LOCATIONS MUST BE DETERMINED IN THE FIELD BEFORE DESIGNING, EXCAVATING, BLASTING OR INSTALLING, BACKFILLING, GRADING, PAVEMENT RESTORATION, OR REPAIRING. ALL UTILITY COMPANIES, PUBLIC & PRIVATE, MUST BE CONTACTED, INCLUDING THOSE IN CONTROL OF UTILITIES NOT SHOWN ON THIS PLAN. THOMPSON-LISTON ASSOCIATES, INC. ASSUMES NO RESPONSIBILITY FOR DAMAGES INCURRED AS A RESULT OF UTILITIES OMITTED OR INACCURATELY SHOWN. CALL "DIG SAFE" AT 811 or 1-888-DIG-SAFE.





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Telephone (508)-485-0137 jamesteazimuthlanddesign.co

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SITE PLAN OF LAND AT 17 RICE ROAD

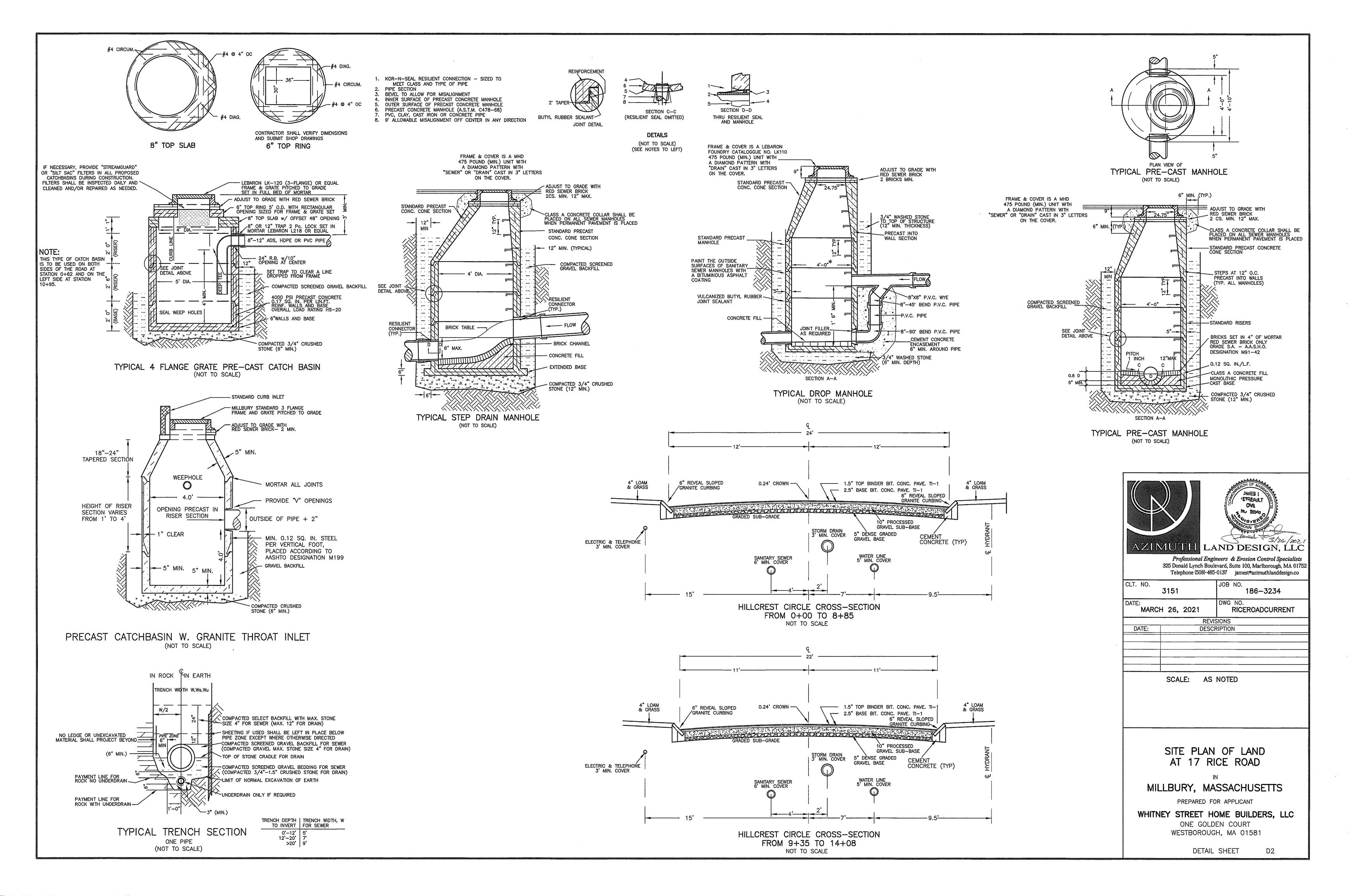
MILLBURY, MASSACHUSETTS

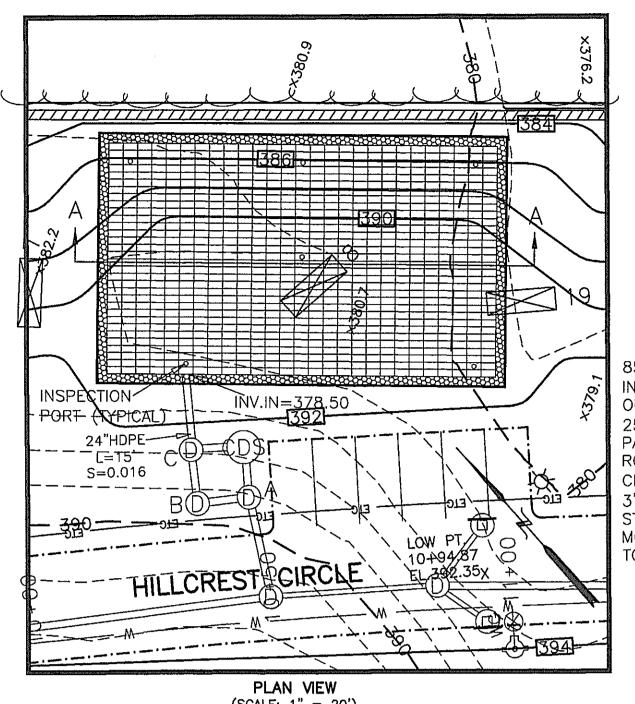
PREPARED FOR APPLICANT

WHITNEY STREET HOME BUILDERS, LLC
ONE GOLDEN COURT
WESTBOROUGH, MA 01581

DETAIL SHEET

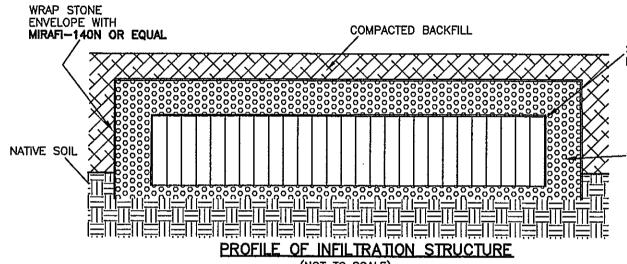
D1





85'x52'INFILTRATION STRUCTURE INCLUDING 2' OF CRUSHED STONE OUTSIDE OF 864 STORM TANK SERIES 25 MODULES (27 UNITS PER ROW PARALLEL TO HILL CREST CIRCLE, 32 ROWS PERPENDICULAR TO HILLCREST CIRCLE) EACH MODULE 6' HIGH, 3'LONG AND 1.5'WIDE. STONE BASE AT 374.50 MODULES BASE AT 375.00 TOP OF STONE AT 383.00

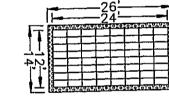
(SCALE: 1" = 20')



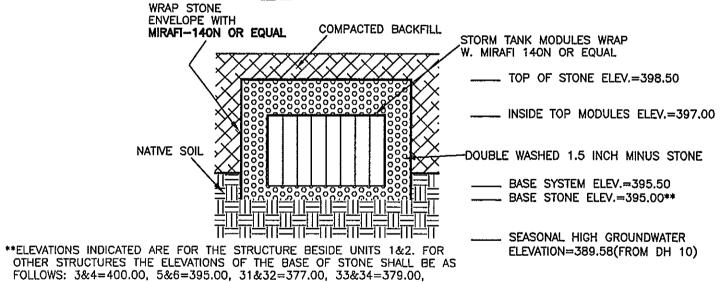
STORM TANK MODULES 25 SERIES MODULES 72" HIGH, WRAP W. MIRAFI 140N OR EQUAL — TOP OF STONE ELEV.=383.00 ---- INSIDE TOP MODULES ELEV.=381.00 -DOUBLE WASHED 1.5 INCH MINUS STONE BASE SYSTEM ELEV.=375.00 — BASE STONE ELEV.≃374.50

> \_\_\_\_ SEASONAL HIGH GROUNDWATER ELEVATION=372.0(FROM DH 8)

DETAIL OF INFILTRATION STRUCTURE AT STATION 10+50

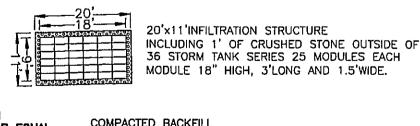


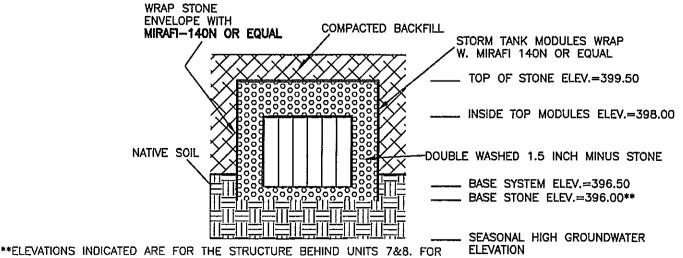
26'x14'INFILTRATION STRUCTURE INCLUDING 1' OF CRUSHED STONE OUTSIDE OF 64 STORM TANK SERIES 25 MODULES EACH MODULE 18" HIGH, 3'LONG AND 1.5'WIDE.



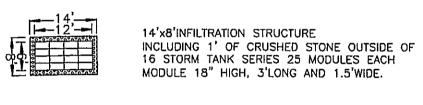
THIS SIZE INFILTRATION STRUCTURE WILL RECEIVE ROOF RUNOFF FROM THE ENTIRE ROOFS OF UNITS 1&2, 3&4, 5&6, 31&32, 33&34, 35&36 AND 39&50 DETAIL OF INFILTRATION STRUCTURE (NOT TO SCALE)

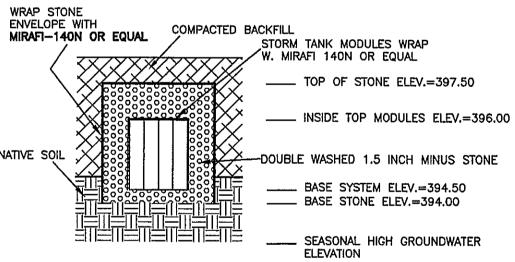
35&36=382.00, 39&40=395.00



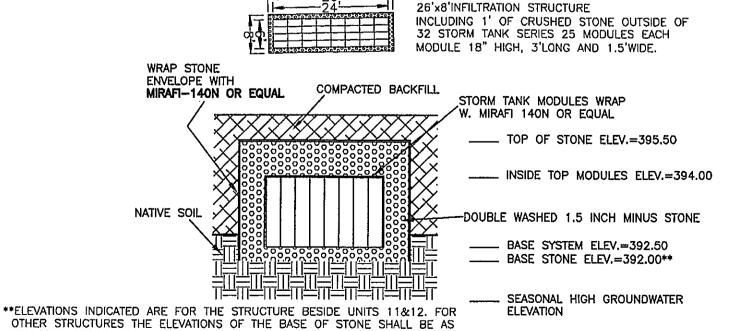


OTHER STRUCTURES THE ELEVATIONS OF THE BASE OF STONE SHALL BE AS FOLLOWS: 29&30=372.00, 37&38=404.00 THIS SIZE INFILTRATION STRUCTURE WILL RECEIVE ROOF RUNOFF FROM THE BACK HALF OF THE ROOFS OF UNITS 7&8, 29&30 AND 37&38 DETAIL OF INFILTRATION STRUCTURE 2 (NOT TO SCALE)



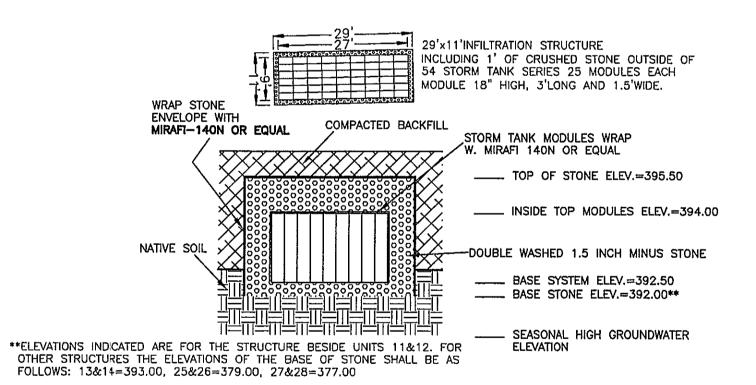


THIS SIZE INFILTRATION STRUCTURE WILL RECEIVE ROOF RUNOFF FROM THE BACK HALF OF THE ROOF OF UNITS DETAIL OF INFILTRATION STRUCTURE 3 (NOT TO SCALE)

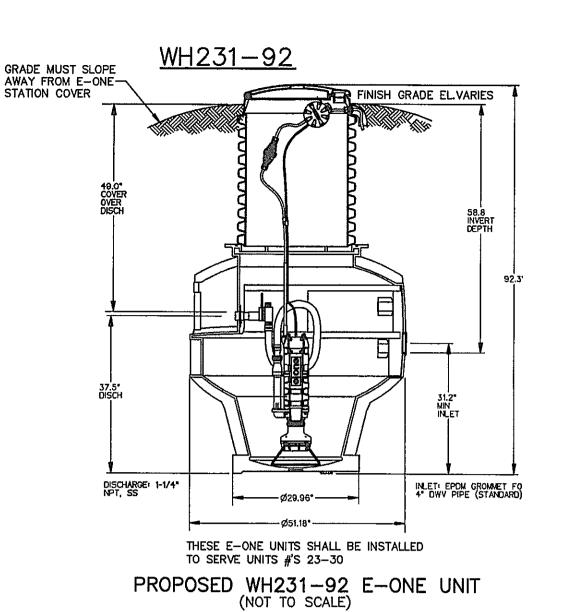


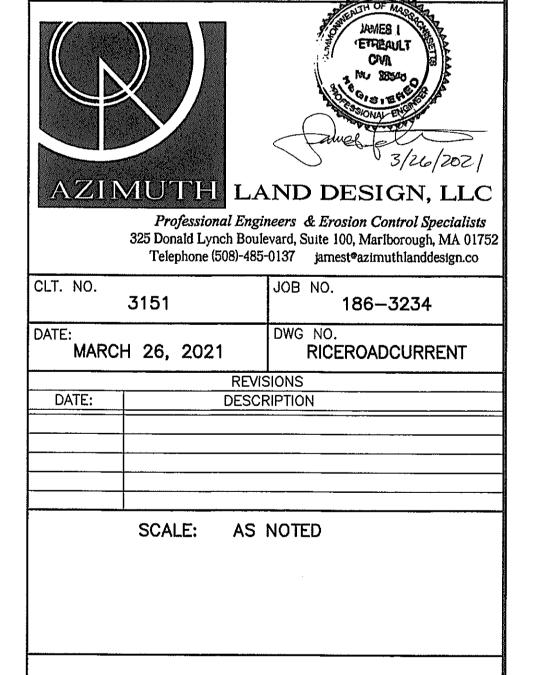
THIS SIZE INFILTRATION STRUCTURE WILL RECEIVE ROOF RUNOFF FROM THE BACK HALF OF THE ROOFS OF UNITS 11&12, 13&14, 25&26 AND 27&28 DETAIL OF INFILTRATION STRUCTURE 4 (NOT TO SCALE)

FOLLOWS: 13&14=393.00, 25&26=379.00, 27&28=377.00



THIS SIZE INFILTRATION STRUCTURE WILL RECEIVE ROOF RUNOFF FROM THE BACK HALF OF THE ROOFS OF UNITS 11&12, 13&14, 25&26 AND 27&28 DETAIL OF INFILTRATION STRUCTURE 5 (NOT TO SCALE)





SITE PLAN OF LAND AT 17 RICE ROAD

MILLBURY, MASSACHUSETTS

PREPARED FOR APPLICANT

WHITNEY STREET HOME BUILDERS, LLC ONE GOLDEN COURT WESTBOROUGH, MA 01581

DETAIL SHEET

D3

## POLLUTION PREVENTION PLAN RICE POND VILLAGE, MILLBURY, MA

#### PROJECT DESCRIPTION

This is a proposal to develop this site, first demolishing the existing house and associated structres and then constructing a 1408 foot long private drive and 26 duplexes on this 15.6 acre site.

Construction will take place in a single phase and is expected to last from the summer of 2021 into the summer of 2023. Total site alteration will be approximately 7.5 acres almost 2 acres of which was previously altered.

#### Construction Process

Before construction begins, erosion control barriers consisting of silt fencing attached to posts and backed by staked straw bales will be placed at the limit of work as shown on the Grading Plans, Sheets G1-G3.

The first step of the construction process will be the demolition of the existing structures. The resulting debris will be disposed of at appropriate licensed facilities. the second step of the process will be the cutting of any trees within the limits of proposed development. After this has been accomplished in the demarcated areas, clearing and grubbing will take place and loam will be stockpiled. Then the existing pavement will be removed and also disposed of at an appropriate licensed facility.

The time of construction requiring the most attention and care occurs between the stripping of natural overburden and the stabilization of construction areas. Cut and fill areas create additional risk by increasing the possibility of stormwater runoff causing erosion.

The contractor will, to the extent possible, leave natural cover untouched at the edges of the property. The contractor will limit to the shortest time possible the time that areas are exposed. The landscaping will be completed as early as weather and building construction allow. During the times between clearing and landscaping, soils will be stabilized with a combination of stump grindings, wood chips, hay/straw mulch, temporary grass seeding and other measures as necessary to prevent any significant erosion of

Soil stockpile areas will be kept out of the 100 foot buffer zone associated with the delineated wetland on site. Soil stockpiles shall be surrounded by staked silt fence placed at least 5 foot off the toe of slope of the stockpile. One suitable stockpile location is in the area of proposed units 41 & 42.

In conjunction with the site grading process, a number of sedimentation control procedures will be followed. The object of the procedures is to prevent the erosion of soils and the transport of sediments to adjacent properties and eventually to wetland resource areas off site.

Temporary and permanent stabilization of disturbed surfaces is the most reliable method of preventing the erosion and transport of site soils. Toward that end, the areas that are disturbed will be provided temporary stabilization within two weeks after the last disturbance when: Work is not complete in that area.

- Work will remain incomplete for a period of three weeks or more, and
- The planting season has not been reached in areas which will be re-vegetated. Permanent stabilization will take place when:
  - Work is complete in that area and
  - The planting season has been reached and areas can be revegetated.

#### Best Management Practices Employed

To guard against the transport of soils offsite several Best Management Practices (BMP's) may be employed. Sediment control barriers, sediment sumps, temporary settling basins, straw bale check dikes, swales, a site entrance mat, flocculants in both crystal and block forms, and organic media for capture of silt below flocculants may be used on this site as appropriate. All of these measures are temporary. The site's permanent protection against erosion and the deposition of sediment off site at resource areas is the permanent stabilization of formerly exposed surfaces with pavement, lawn and other landscaping.

According to the MassGIS Oliver web site the soils underlying this site are almost entirely Merrimac series soils which we are categorizing as hydrologic soil group A soils. However, unofficial soil tests at deep holes #'s1-6 and 15-17 revealed soils with a sandy loam texture that were inconsistent with the expectation of sand textured Merrimac series soils. Sandy loam texture soils have much more risk of erosion than sand textured soils so there is more risk of erosion at this site than the Oliver mapping would indicate.

## Resource Areas

There is a pond, wetlands and intermittent streams on the southwest and west ends of the site

As part of the Site Plans submitted to the Town of Millbury, Thompson—Liston Associates, Inc. has prepared this erosion and sediment control plan calling for permanent and temporary erosion control measures. The site has no existing drainage system and there will be no drainage system connection to the system in the State Highway layout.

Construction of the project will take place in one phase. Total site alteration will be approximately 7.5 acres.

#### POLLUTION PREVENTION SITE PLAN

The Site Plans prepared by Thompson-Liston Associates, Inc. contain Grading Plans. Various Best Management Practices (BMP's) are described herein and/or shown on the Grading Plans or the Detail Sheets and will be used to prevent or to mitigate erosion and pollutio

### INSPECTION AND MAINTENANCE OF EROSION CONTROLS

- 1. At all times, siltation fabric fencing, straw wattles or straw bales and stakes sufficient to construct an erosion control barrier a minimum 25 feet long will be stockpiled on the site in order to repair established barriers which may have been damaged or breached.
- 2. The Developer will designate as Inspector a person or entity other than the site supervisor. The Inspector must be accessible seven days a week and be responsible for inspecting and coordinating the maintenance and repair of all erosion control systems on the site.
- 3. An inspection of all erosion control measures shall be conducted by the Inspector at least once each week until the completion of construction of the subdivision. The Contractor shall inspect all erosion control systems daily and shall notify the Inspector of any breaches or failures. In case of any noted breach or failure, the Contractor shall immediately make appropriate repairs.
- 4. The Inspector shall inspect all erosion control systems on the site before, during and after any storm event reaching one of the following thresholds:
  - a. Any storm in which rain is predicted to last for 12 consecutive hours or more.
  - b. Any storm for which a flash flood watch or warning is issued. c. Any single storm predicted to have a cumulative rainfall greater than 1/2 inch.
  - d. Any storm event not meeting the previous three thresholds but which would mark the third consecutive day of measurable rainfall.
- 5. The Inspector shall inspect erosion control measures at times of significant increase in runoff due to rapid thawing when the risk of failure of those measures is significant.
- 6. In such instances as remedial action is necessary, the Inspector shall cause to be repaired within seven days, any and all significant deficiencies in erosion control measures.

PARKING CALCULATION

FLOOR AREA.

FOR THE PROPOSED USE:

REQUIRED TO HAVE A PROVISION OF FOUR PARKING SPACES.

7. The Millbury Conservation Commission shall be notified of any significant failure of erosion control measures and shall be notified of any release of pollutants.

#### SOIL TEST RESULTS:

UNOFFICIAL SOIL TEST RESULTS

DH1 - SANDY LOAM TO 84" NO REFUSAL

DH2 - SANDY LOAM TO 72" NO REFUSAL

DH3 - SANDY LOAM TO 100" NO REFUSAL

DH4 - SANDY LOAM TO 88" NO REFUSAL

DH5 - SANDY LOAM TO 113" NO REFUSAL

DH6 - SANDY LOAM TO 84" NO REFUSAL DH7 - SAND TO 114" NO REFUSAL

DH8 - SAND TO 114" REFUSAL AT THAT DEPTH

DH9 - FILL TO 120"

DH10 - FILL TO 57" THEN SAND TO 119"

DH11 - FILL TO 50" THEN SAND TO 114"

DH12 - SAND TO 108" NO REFUSAL DH 13 - SAND TO 144" NO REFUSAL

DH 14 - SAND TO 144" NO REFUSAL

DH 15 - SANDY LOAM, MOTTLING, WEEPING AT 36"

DH 16 - SANDY LOAM, MOTTLING, WEEPING AT 30"

DH 17 - SANDY LOAM TO 72" NO REFUSAL

DH 18 - SAND TO 108" NO REFUSAL

DH 19 - SAND TO 132" NO REFUSAL

## EROSION CONTROL DEVICES OR PROCESSES

#### 1. Sediment Control Barrier

The sediment control barrier will consist of an approved siltation fabric fencing installed on posts according to the manufacturer's instructions and backed by staked straw bales. The barriers will be placed in a manner that prevents the passage of soil materials under, around or over it. Sediment will be removed from against the barrier when the accumulated sediment has reached one third of the original installed height of the barrier.

#### 2. Straw Bale Diversion Dike

Straw bales will be placed in other locations on the site in order to further prevent the flow of sediment from the site or reduce the velocity of runoff crossing open land or running off stockpile or fill areas. Straw bale diversion dikes will also be placed within developing rills to reduce surface runoff velocities and to shift the path of the water flow. The locations where straw bale diversion dikes are installed will be determined in the field at the Inspector's discretion.

#### 3. Slope Stabilization

Slopes or surfaces that are created due to excavation or filling along the edge of the parking or loading areas will be temporarily stabilized with one or more of the following:

## - Hay or straw mulch with tackifier

- Soft wood and hard wood chips or stump grindings. Permanent stabilization of slopes and surfaces will employ one or more of the following:

- Loam and arass
- Sod
- Riprap
- Erosion control blankets such as Tensar North American Green C125BN or approved equal and vegetation
- Mulch and landscaping plantings
- A combination of grasses, riprap and/or plants and shrubbery
- In areas that will be steeper than 2:1, after construction, the slope will be stabilized by the placement of heavy riprap or by the installation of erosion control matting specifically rated by the manufacturer for use on a 1:1 slope. The riprap slope will be formed by placing heavy stone on a one foot thick layer of gravel that is covered by an approved filter fabric.

#### 4. Diversion Swale

Runoff diversion swales may be provided in order to intercept sheet and concentrated flows above areas of cut, above abutting properties or Rice Road. The swales will direct runoff to sediment sumps or temporary settling basins. The swales will be approximately 5 feet wide and one foot deep. Straw bale diversion dikes may be installed on the downhill side of the swales to assist in containing the water flow.

Sediment sumps are excavated depressions of 10 foot diameter and 2 foot depth. The sumps will collect runoff from unfinished drives and slopes and will allow sediment to settle out before flow continues to a detention area or siltation control barrier. Sediment sumps will be cleaned whenever the accumulated sediment has reached one half of the original depth of the sump.

#### 6. Temporary Settling Basins

Temporary settling basins (TSB's) are larger excavations made at locations that will receive significant stormwater runoff flow. They are used to capture and detain stormwater in the construction phase to settle out some eroded material and to lessen the rate of flow of stormwater from construction phase work areas. Temporary settling basins are larger than sediment sumps and shall have silt fence or straw bale dikes at their entrance and exit to control flow. They shall be sized according to the DEP Stormwater management standards which requires that they have sufficient capacity to hold 1 inch of runoff from the watershed contributing flow to them. For example, a TSB receiving flow from 1 acre of land should have a volume capacity of at least 3,630 square feet. TSB's should have flocculant blocks and jute mesh matting at their outlet. TSB's should be cleaned out whenever the accumulated sediment has reached more than 6 inches deep. No TSB shall be located where the proposed infiltration structure is to be situated at station 10+50 of Hillcrest Circle.

If the capture of flows in sediment sumps and temporary settling basins does not sufficiently reduce the turbidity of runoff before it leaves the site, flocculant blocks shall be installed at the outlet of any sediment sump, TSB or swale discharge flow to the site's drainage system. Immediately downstream of the flocculant blocks, a suitable organic media such as jute mesh matting shall be installed over stone for runoff that has contacted the flocculant blocks to flow. This will allow capture of silts.

In addition, crystal flocculants may be used to reduce turbidity of captured runoff in sediment sumps and temporary settling basins.

#### SEQUENCE OF INSTALLATION AND CONSTRUCTION

The following is a sequence for the construction of the project. The actual schedule may vary somewhat from that stated if site or weather conditions require.

An example of a logical change to the schedule would be deviating from the sequence below to allow the laying of berms prior to a freeze in order to better control the site drainage.

- 1. The Developer will hold a preconstruction meeting with representatives of the Town of Millbury in order to review permits, procedures and construction methods.
- 2. The Developer will hold a preconstruction meeting with the Engineer, Contractor's employees and the Inspector in order to review permits, procedures and
- 3. Establish the construction entrance to the site off Rice Road.
- 4. Install the site entrance mat and erosion control barriers at the limit of work as shown on the Grading Plans.
- 5. Demolish the existing structures, removing any debris from the site and disposing of it in appropriate facilities according to applicable regulations.
- 6. Cut trees as necessary for the procosed development but no further. Chip wood and then remove existing pavement and dispose of it at an appropriate facility. Then, clear and grub where trees were cut.
- 7. Stockpile and compact excavated loam in an area surrounded by staked straw bales or siltation fencing. Place the straw bales or fencing at least five feet from the base of the loam pile.
- 8. Begin earthwork to bring grades to the subgrade elevations for Hillcrest Circle.
- 9. Begin construction of the duplexes and install the utility connections to the proposed duplexes.
- 10. Install the new drainage system, new sanitary sewer, new water line services to the duplexes and new electric connections and, when complete, lay the binder course of pavement.
- 11. Continue construction of the duplexes.

SECTION 33.2 OF THE TOWN OF MILLBURY ZONING BYLAW CALLS FOR OFF STREET PARKING TO BE PROVIDED AS FOLLOWS

EVERY UNIT IN RICE POND VILLAGE WILL BE PROVIDED WITH A TWO CAR GARAGE AND WITH SPACE TO PARK TWO CARS IN

PARKING SPACES, THROFESSIONAL OR BUSINESS OFFICE USES REQUIRE 1 PARKING SPACE PER EACH 400 S.F. OF GROSS

IN ADDITION, 10 OVERFLOW OR VISITOR PARKING SPACES WILL BE PROVIDED AT THREE LOCATIONS OFF HILLCREST CIRCLE.

THREE (3) SPACES PER TWO BEDROOM MULTI-FAMILY DWELLING UNIT AND ONE (1) ADDITIONAL SPACE PER BEDROOM

EVERY UNIT IN RICE POND VILLAGE MAY HAVE A FLOOR PLAN WHICH COULD SHOW THREE BEDROOMS AND THUS BE

THE DRIVEWAY IN FRONT OF THAT UNIT, NOT ON HILLCREST CIRCLE. SO, EVERY UNIT WILL BE PROVIDED WITH FOUR

SHALL BE ADDED FOR EACH MULTI-FAMILY DWELLING UNIT CONTAINING AN EXCESS OF TWO BEDROOMS.

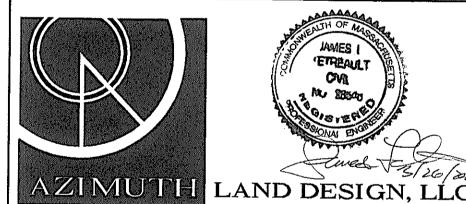
- 12. Permanently stabilize exposed slopes with rirap, grass, other vegetation and landscaping.
- 13. Finish interior construction of the proposed buildings and lay a finish course of pavement.
- 14. Remove accumulated sediment and temporary erosion control measures after all slopes have been permanently stabilized and the risk of erosion has passed.
- 15. Prepare and submit an as—built survey of the work to the Town of Millbury.

#### ZONING COMPLIANCE TABLE

THE SITE IS LOCATED IN THE R1 ZONING DISTRICT. THE FOLLOWING TABLE COMPARES THE R1 JONING REQUIREMENTS AND DIMENSIONS PROPOSED AT THIS SITE

111	IN ZOMMO NEGOINE	MENIS AND DIMEN	ISIONS PROPOSED AT THIS SITE:	
DIMI	ENSION	REQUIREMENT	PROPOSED	
MIN.	LOT AREA	40,000*	679,500 S.F.	
MIN.	FRONTAGE	100'	346.09'	
MIN.	FRONT YARD	25'	28.7'(UNIT 1)	
MIN.	SIDE YARD	10'	17.6'(UNIT 3)	
MIN.	REAR YARD	10'	15.4'(UNIT 29)	
MAX	. LOT COVERAGE	30%	12%	
MAX	. BUILDING HEIGHT	30'	29'	

\*THE MINIMUM LOT AREA REQUIREMENT MAY BE REDUCED TO 12,500 S.F. IF THE LOT WILL BE SERVED BY PUBLIC WATER AND PUBLIC SEWERAGE.



CLT. NO.

Professional Engineers & Erosion Control Specialists 325 Donald Lynch Boulevard, Suite 100, Mariborough, MA 01752 Telephone (508)-485-0137 iamest@azimuthlanddesign.co

JOB NO.

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3151 DATE: MARCH 26, 2021		186-3234  DWG NO. RICEROADCURRENT	
		CRIPTION	
	SCALE: AS	NOTED	

SITE PLAN OF LAND AT 17 RICE ROAD

MILLBURY, MASSACHUSETTS

PREPARED FOR APPLICANT WHITNEY STREET HOME BUILDERS, LLC

ONE GOLDEN COURT

WESTBOROUGH, MA 01581

DETAIL SHEET

D4