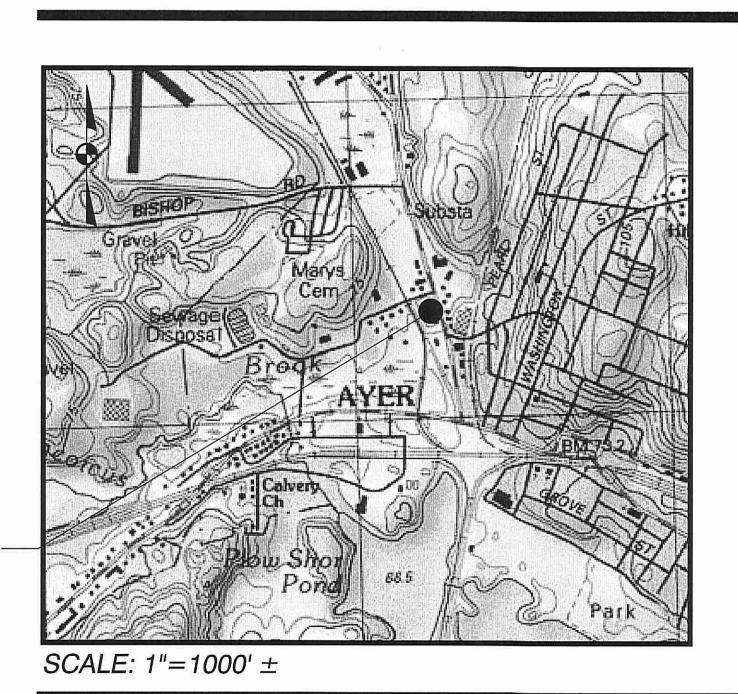
Site Plan Approval Documents

September 13, 2023

Proposed Mixed-Use Development

42 Park Street
Ayer, Massachusetts 01432



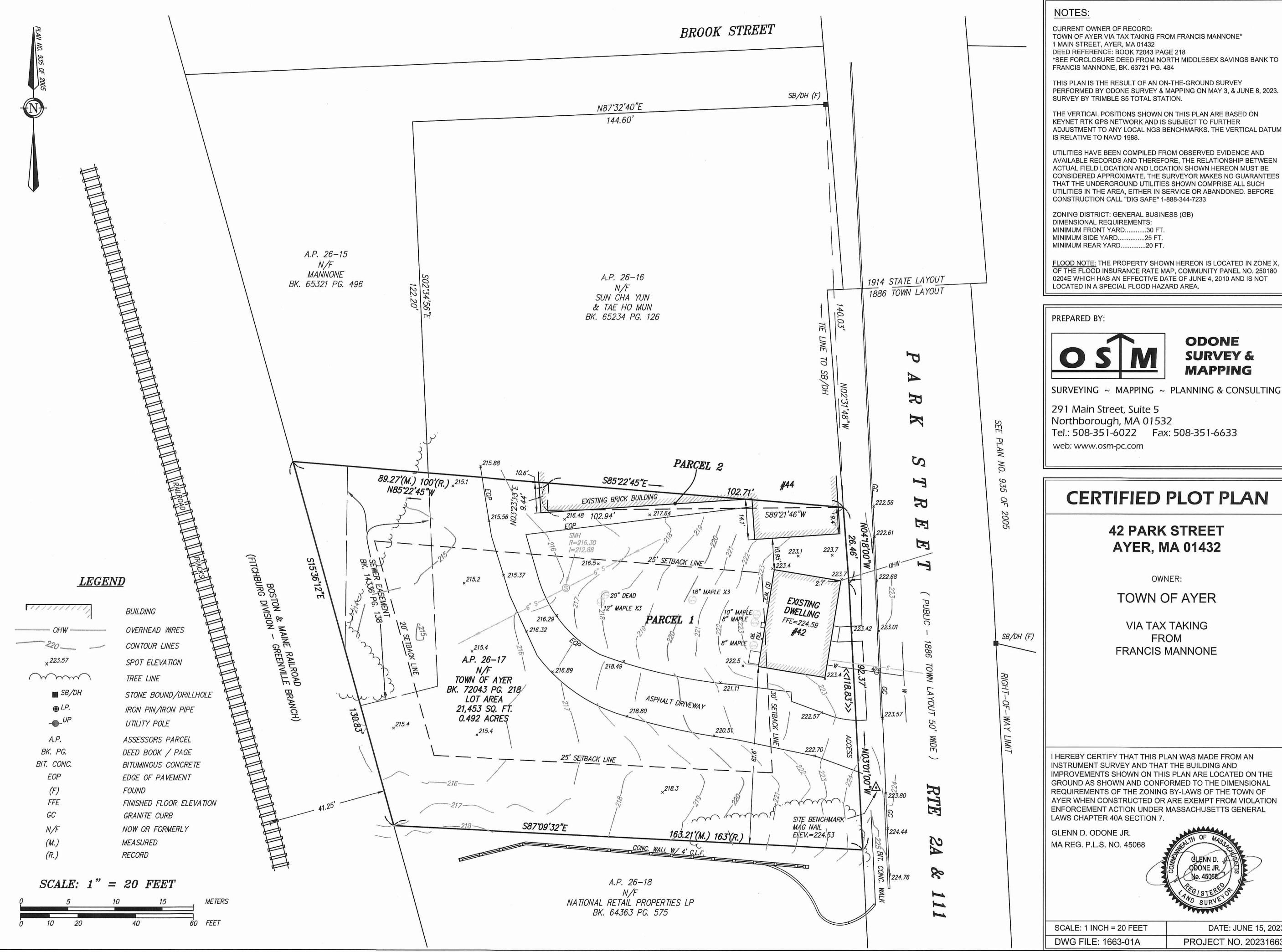
Applicant:
Alexandria Goldinak
50 Mountain Ave
Fitchburg, MA 01420
(978) 202-6333
Owner:
Francis Mannone
44 Park Street
Ayer, MA 01432

Surveyor:
Odone Survey & Mapping
291 Main Street, Suite 5
Northborough, MA 01532
(508) 351-6022
Civil Engineer:
McCarty Engineering, Inc.
42 Tucker Drive
Leominster, MA 01453
(978) 534-1318
Architect:
GMG Design
78 Blake Street
Hyde park, MA 02136
(617) 980-4938

PROJECT SITE

Sheet No.	Sheet Title		
	Cover Sheet		
1	Existing Conditions Plan	5	Construction Details
2	Layout & Materials Plan	6	Construction Details
3	Grading, Drainage & Utility Plan	7	Construction Details
4	Erosion Control Plan		





NOTES:

CURRENT OWNER OF RECORD: TOWN OF AYER VIA TAX TAKING FROM FRANCIS MANNONE* 1 MAIN STREET, AYER, MA 01432 DEED REFERENCE: BOOK 72043 PAGE 218 *SEE FORCLOSURE DEED FROM NORTH MIDDLESEX SAVINGS BANK TO

FRANCIS MANNONE, BK. 63721 PG. 484

THE VERTICAL POSITIONS SHOWN ON THIS PLAN ARE BASED ON KEYNET RTK GPS NETWORK AND IS SUBJECT TO FURTHER ADJUSTMENT TO ANY LOCAL NGS BENCHMARKS. THE VERTICAL DATUM

UTILITIES HAVE BEEN COMPILED FROM OBSERVED EVIDENCE AND AVAILABLE RECORDS AND THEREFORE, THE RELATIONSHIP BETWEEN ACTUAL FIELD LOCATION AND LOCATION SHOWN HEREON MUST BE CONSIDERED APPROXIMATE. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. BEFORE CONSTRUCTION CALL "DIG SAFE" 1-888-344-7233

ZONING DISTRICT: GENERAL BUSINESS (GB) DIMENSIONAL REQUIREMENTS:

MINIMUM FRONT YARD......30 FT. MINIMUM SIDE YARD.....25 FT. MINIMUM REAR YARD.....20 FT.

FLOOD NOTE: THE PROPERTY SHOWN HEREON IS LOCATED IN ZONE X, OF THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 250180 0204E WHICH HAS AN EFFECTIVE DATE OF JUNE 4, 2010 AND IS NOT LOCATED IN A SPECIAL FLOOD HAZARD AREA.

PREPARED BY:



ODONE SURVEY & MAPPING

SURVEYING ~ MAPPING ~ PLANNING & CONSULTING

291 Main Street, Suite 5 Northborough, MA 01532 Tel.: 508-351-6022 Fax: 508-351-6633 web: www.osm-pc.com

CERTIFIED PLOT PLAN

42 PARK STREET AYER, MA 01432

OWNER:

TOWN OF AYER

VIA TAX TAKING FROM FRANCIS MANNONE

I HEREBY CERTIFY THAT THIS PLAN WAS MADE FROM AN INSTRUMENT SURVEY AND THAT THE BUILDING AND IMPROVEMENTS SHOWN ON THIS PLAN ARE LOCATED ON THE GROUND AS SHOWN AND CONFORMED TO THE DIMENSIONAL REQUIREMENTS OF THE ZONING BY-LAWS OF THE TOWN OF AYER WHEN CONSTRUCTED OR ARE EXEMPT FROM VIOLATION ENFORCEMENT ACTION UNDER MASSACHUSETTS GENERAL LAWS CHAPTER 40A SECTION 7.

GLENN D. ODONE JR. MA REG. P.L.S. NO. 45068

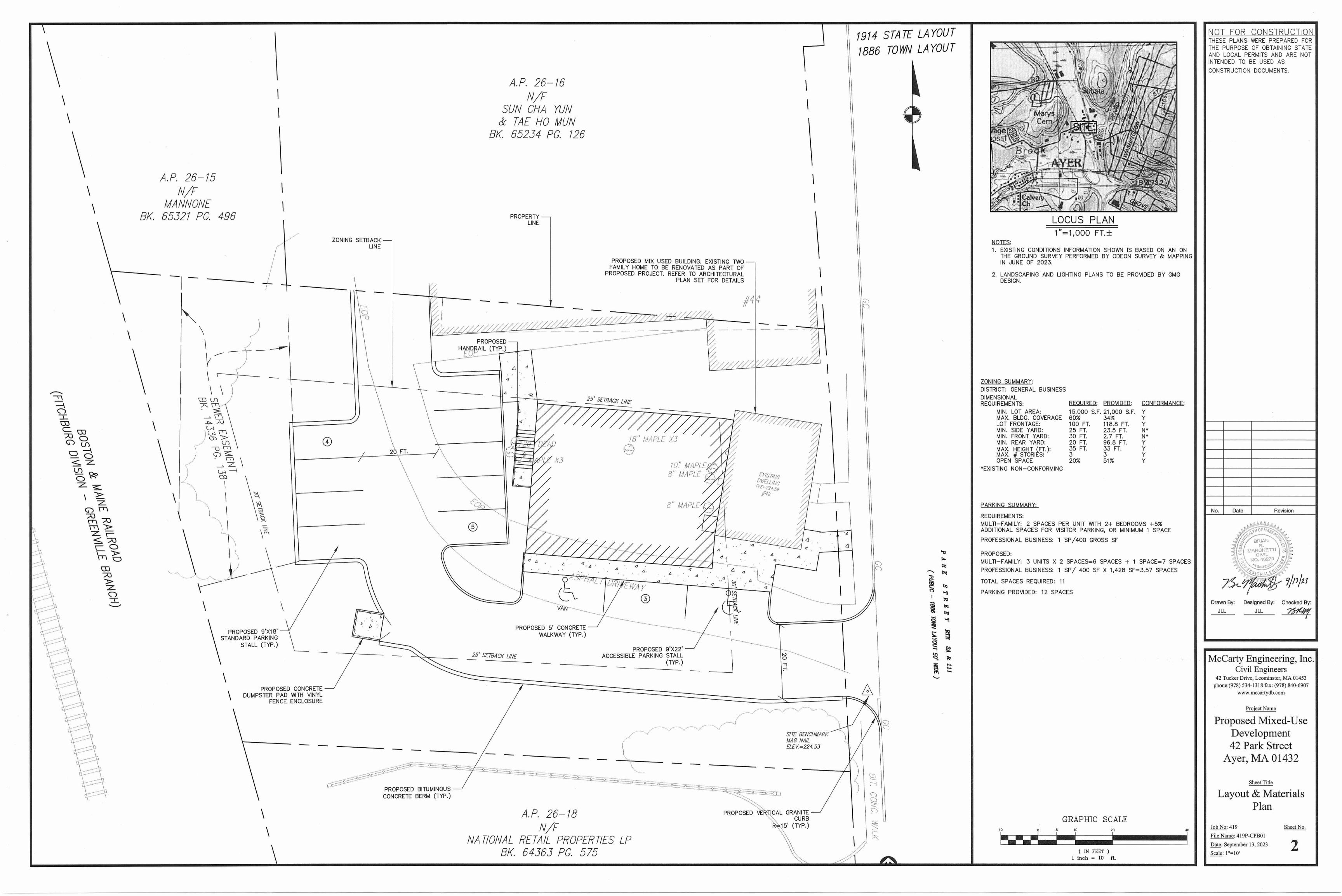


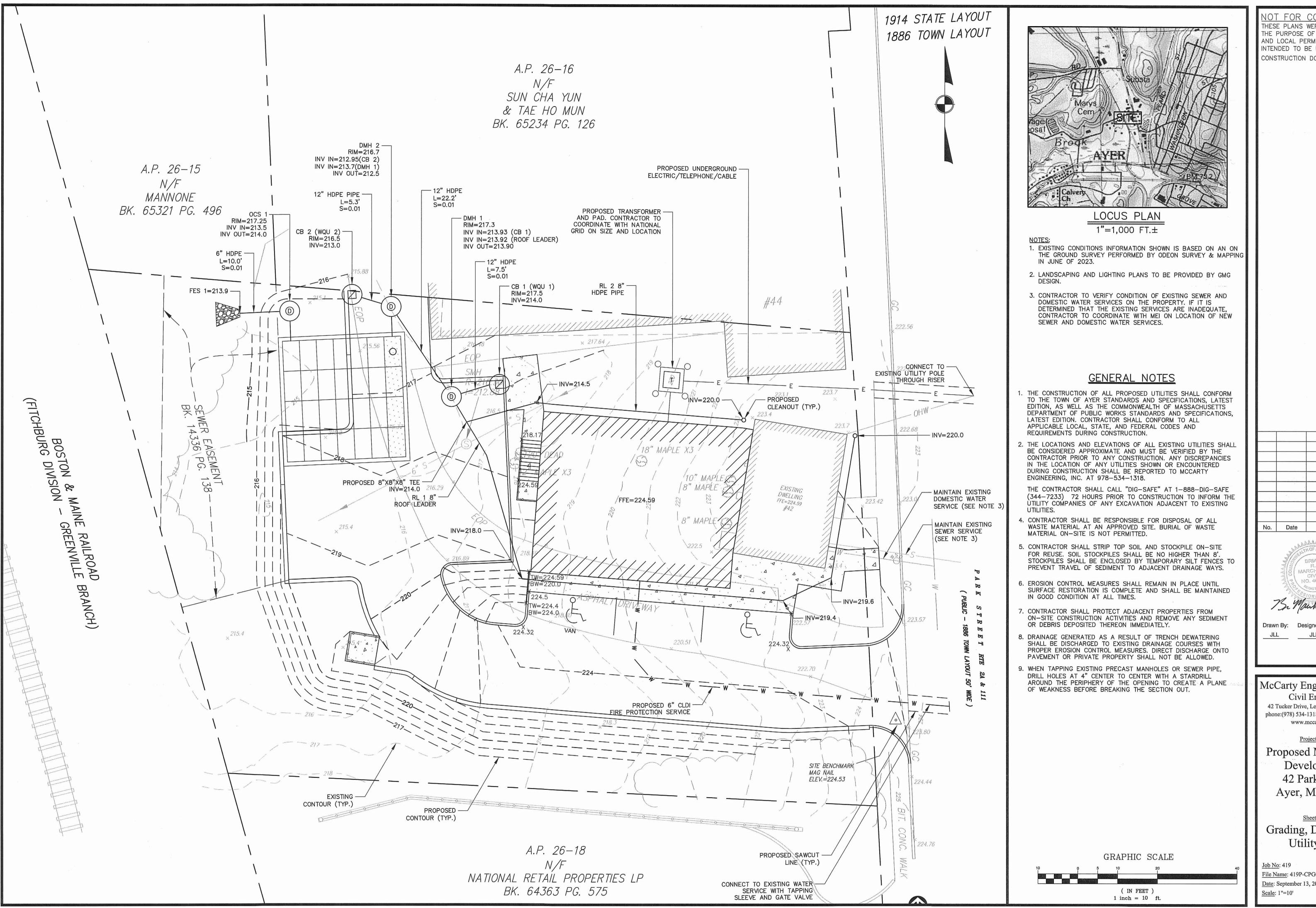
SCALE: 1 INCH = 20 FEET

DATE: JUNE 15, 2023

DWG FILE: 1663-01A

PROJECT NO. 20231663





NOT FOR CONSTRUCTION THESE PLANS WERE PREPARED FO THE PURPOSE OF OBTAINING STATE AND LOCAL PERMITS AND ARE NO INTENDED TO BE USED AS CONSTRUCTION DOCUMENTS.

Revision



Drawn By: Designed By: Checked By: JLL

McCarty Engineering, Inc. Civil Engineers 42 Tucker Drive, Leominster, MA 01453

phone:(978) 534-1318 fax: (978) 840-6907 www.mccartydb.com

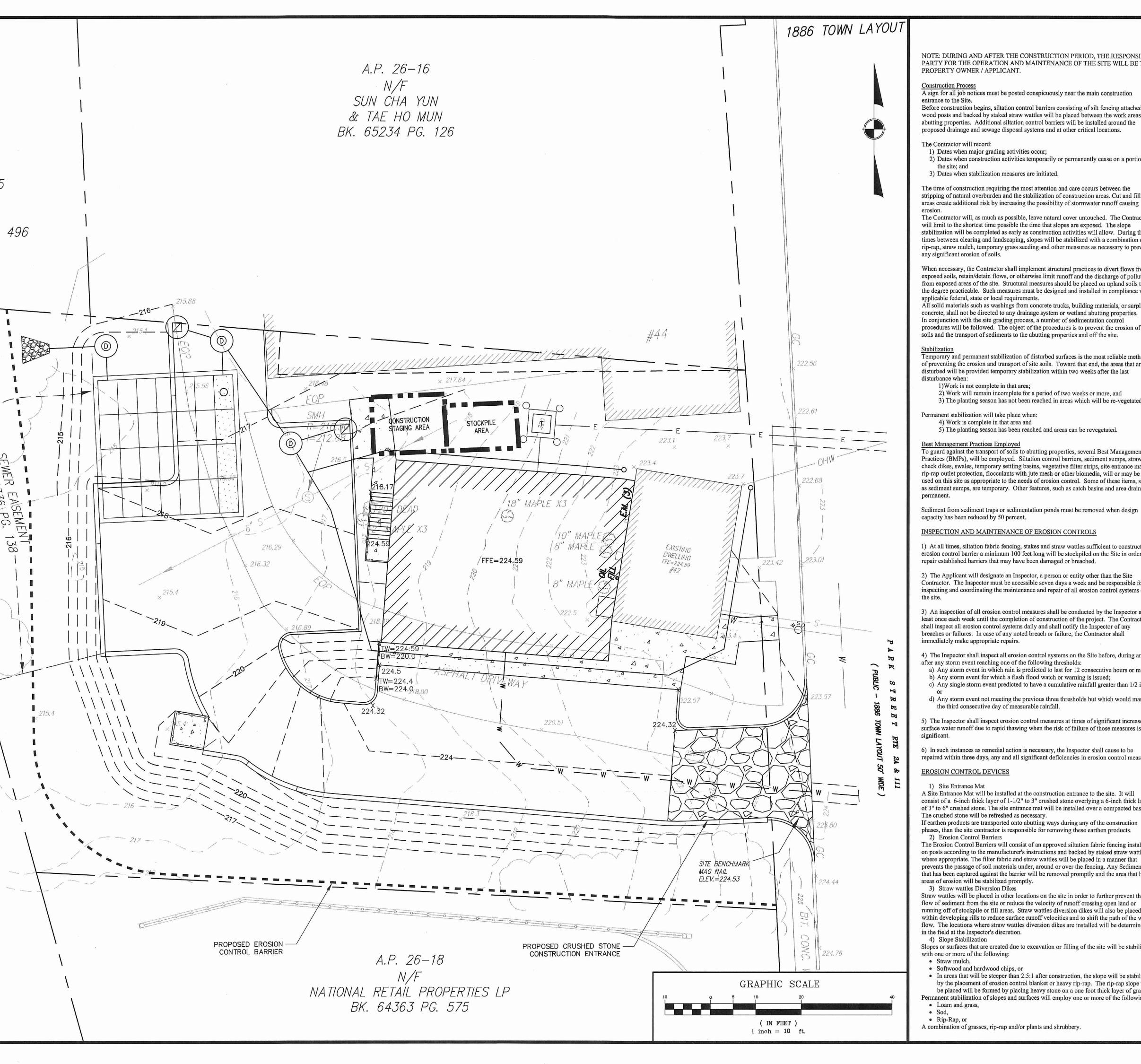
Project Name

Proposed Mixed-Use Development 42 Park Street Ayer, MA 01432

Sheet Title Grading, Drainage & Utility Plan

File Name: 419P-CPG01 Date: September 13, 2023

Sheet No.



NOTE: DURING AND AFTER THE CONSTRUCTION PERIOD, THE RESPONSIBLE PARTY FOR THE OPERATION AND MAINTENANCE OF THE SITE WILL BE THE PROPERTY OWNER / APPLICANT.

A sign for all job notices must be posted conspicuously near the main construction entrance to the Site.

Before construction begins, siltation control barriers consisting of silt fencing attached to wood posts and backed by staked straw wattles will be placed between the work areas and abutting properties. Additional siltation control barriers will be installed around the proposed drainage and sewage disposal systems and at other critical locations.

The Contractor will record:

1) Dates when major grading activities occur;

2) Dates when construction activities temporarily or permanently cease on a portion of

3) Dates when stabilization measures are initiated.

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

The Contractor will, as much as possible, leave natural cover untouched. The Contractor will limit to the shortest time possible the time that slopes are exposed. The slope stabilization will be completed as early as construction activities will allow. During the times between clearing and landscaping, slopes will be stabilized with a combination of rip-rap, straw mulch, temporary grass seeding and other measures as necessary to prevent any significant erosion of soils.

When necessary, the Contractor shall implement structural practices to divert flows from exposed soils, retain/detain flows, or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. Structural measures should be placed on upland soils to the degree practicable. Such measures must be designed and installed in compliance with applicable federal, state or local requirements.

All solid materials such as washings from concrete trucks, building materials, or surplus concrete, shall not be directed to any drainage system or wetland abutting properties. 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 the abutting properties and off the 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

1) Work is not complete in that area;

2) Work will remain incomplete for a period of two weeks or more, and 3) The planting season has not been reached in areas which will be re-vegetated.

Permanent stabilization will take place when:

4) Work is complete in that area and

5) The planting season has been reached and areas can be revegetated.

Best Management Practices Employed

To guard against the transport of soils to abutting properties, several Best Management Practices (BMPs), will be employed. Siltation control barriers, sediment sumps, straw check dikes, swales, temporary settling basins, vegetative filter strips, site entrance mat, rip-rap outlet protection, flocculants with jute mesh or other biomedia, will or may be used on this site as appropriate to the needs of erosion control. Some of these items, such as sediment sumps, are temporary. Other features, such as catch basins and area drains are

Sediment from sediment traps or sedimentation ponds must be removed when design capacity has been reduced by 50 percent.

INSPECTION AND MAINTENANCE OF EROSION CONTROLS

1) At all times, siltation fabric fencing, stakes and straw wattles sufficient to construct an erosion control barrier a minimum 100 feet long will be stockpiled on the Site in order to repair established barriers that may have been damaged or breached.

2) The Applicant will designate an Inspector, a person or entity other than the Site Contractor. 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

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 project. 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 event in which rain is predicted to last for 12 consecutive hours or more;
- b) Any storm event for which a flash flood watch or warning is issued; c) Any single storm event 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 surface water runoff due to rapid thawing when the risk of failure of those measures is

6) In such instances as remedial action is necessary, the Inspector shall cause to be repaired within three days, any and all significant deficiencies in erosion control measures.

EROSION CONTROL DEVICES

1) Site Entrance Mat

A Site Entrance Mat will be installed at the construction entrance to the site. It will consist of a 6-inch thick layer of 1-1/2" to 3" crushed stone overlying a 6-inch thick layer of 3" to 6" crushed stone. The site entrance mat will be installed over a compacted base. The crushed stone will be refreshed as necessary.

phases, than the site contractor is responsible for removing these earthen products. 2) Erosion Control Barriers The Erosion Control Barriers will consist of an approved siltation fabric fencing installed

on posts according to the manufacturer's instructions and backed by staked straw wattles where appropriate. The filter fabric and straw wattles will be placed in a manner that prevents the passage of soil materials under, around or over the fencing. Any Sediment that has been captured against the barrier will be removed promptly and the area that has areas of erosion will be stabilized promptly. 3) Straw wattles Diversion Dikes

Straw wattles 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 of stockpile or fill areas. Straw wattles 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 wattles diversion dikes are installed will be determined in the field at the Inspector's discretion.

Slopes or surfaces that are created due to excavation or filling of the site will be stabilized with one or more of the following:

Straw mulch,

· Softwood and hardwood chips, or

- In areas that will be steeper than 2.5:1 after construction, the slope will be stabilized by the placement of erosion control blanket or heavy rip-rap. The rip-rap slope to be placed will be formed by placing heavy stone on a one foot thick layer of gravel. Permanent stabilization of slopes and surfaces will employ one or more of the following:
- Loam and grass,
- Rip-Rap, or

A combination of grasses, rip-rap and/or plants and shrubbery.

EROSION CONTROL DEVICES (continued.)

5) Runoff Diversion Swales

Runoff Diversion Swales will be provided in order to intercept sheet and concentrated flows above areas of cut, above abutting properties and above resource areas. The swales will direct runoff to sediment sumps or temporary settling basins or to detention basins.

Sediment Sumps Sediment Sumps are excavated depressions 10-foot in diameter and 2-feet deep. The sumps will collect runoff from the unfinished drive 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

7) Temporary Settling Basins

A Temporary Settling Basin is a large, excavated sediment sump that has a stone face overflow leading to a swale or to a drainage inlet structure. The size varies with the area draining to it. Temporary settling basins will be cleaned whenever the accumulated sediment has reached one half of their original depth. 8) Rip-Rip Outlet Protection

Rip-rap outlet protection is a stone apron beginning at a drainage system discharge point and extending down the slope. The rip-rap will serve to reduce the velocity of the discharge, thereby preventing erosion.

WASTE DISPOSA

All waste materials will be collected and stored securely in metal dumpsters. The dumpster will meet local and state solid waste management regulations. All trash and construction debris will be deposited in the dumpster and emptied as necessary. A licensed company in accordance with applicable Federal, State, and local regulations will transport the trash. No trash or construction debris will be buried on site. The disposal of liquid waste is not allowed. Individuals working on the site will be informed of the appropriate procedure for the disposal of construction debris.

The site contractor shall be responsible for ensuring that the project site is free of litter and

HAZARDOUS WASTE

All hazardous waste materials will be disposed of in accordance with applicable Federal, State and local regulations and in accordance with the manufacturer's recommendations. Individuals working on the site will be informed of the appropriate procedures for waste disposal. The construction supervisor will be responsible for overseeing that the proper procedures are followed.

SANITARY WASTE

All sanitary waste will be collected in a timely manner by a licensed contractor and disposed of in accordance with Federal, State, and local regulations.

EQUIPMENT & VEHICLE FUELING AND MAINTENANCE PRACTICES Large equipment will be fueled by an over the road fuel truck and small equipment will be fueled by fitted pickup truck fuel tanks. All equipment will be fueled at a minimum 100 feet from any wetland and/or water body. Fueling areas will be inspected for signs of leaks or

EQUIPMENT & VEHICLE WASHING

No heavy equipment and vehicle washing will be allowed on the site. All construction equipment will be parked in the designated staging area at least 100-feet from any wetland

SPILL PREVENTION AND CONTROL

All construction personnel will be instructed regarding the following measures. The site construction supervisor will be responsible for overseeing that all spill prevention procedures will be adhered to. No storage, stockpiling, or staging of equipment or construction material will occur within 100-feet of any wetland or waterbody. All materials stored onsite will be maintained in an orderly manner and in their appropriate containers. Materials will be kept in there original containers with their original labels. Substances will not be mixed with one another unless recommended by the manufacturer. The manufacturers guidelines for the proper use and disposal will be implemented. The construction supervisor will inspect the premises regularly to ensure proper use and disposal of materials.

All onsite construction machinery and vehicles will be monitored for leaks and will receive regular preventive maintenance to reduce the likelihood of leakage. No vehicle maintenance or handling of petroleum of products will occur within 100-feet of any wetland or

Fertilizers will be applied at the minimum amount recommended by the manufacturer. The storage of fertilizer products will not be allowed onsite.

SOLVENTS & PAINTS

All containers will be sealed and stored when not used. Excess material will not be discharged to the storm and or sewer systems and will be properly disposed of according to the manufacturers specifications including all Federal, State, and local regulations. No storage will occur within 100' of a wetland or waterbody.

CONCRETE TRUCK WASHOUT

waterbody. No petroleum products will stored onsite

Concrete trucks will discharge into temporary basins, where the concrete will be allowed to cure. Once the concrete is cured, the concrete will be broken up and hauled off site.

All of the manufacturers recommended methods for spill cleanup will be clearly posted and site personnel will be informed of the necessary procedures and the location of the cleanup

Materials and the equipment necessary for cleanup of a spill will be kept on site in a designated area. Examples of cleaning equipment are: shovels, rakes, wheel barrows, brooms, dust pans, mops ,rags, safety gloves and eye wear, absorbent foams, sand, sawdust, and plastic or metal bins designated specifically for spill cleanup. After discovery, all spills will be removed as soon as possible.

CONSTRUCTION SEQUENCING:

CONSTRUCTION SCHEDULE

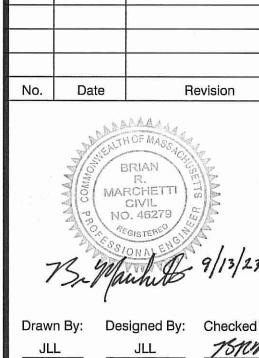
The following is a general construction sequence for the construction of the Site. The actual schedule may vary somewhat from that stated if site or weather conditions require a different schedule and if such change does not negatively affect the prevention of pollution. An example of a logical change to the schedule would be deviating from the sequence below to allow the laying of driveway berm prior to a winter freeze in order to better control the site drainage.

- The Applicant will hold a pre-construction meeting with representatives of the Town, the Engineer, Contractor's employees and the Inspector in order to review permits, procedures and construction methods.
- Establish the Site Entrance Mat at the construction entrance to the
- Establish a construction staging and equipment storage area protected against erosion by lines of staked straw wattles and
- Install the siltation control barriers between the work areas and in other locations as shown within the plan set.
- Strip and Stockpile Topsoil · Place the straw wattles or fencing at least five feet from the base of
- the loam pile, if applicable
- Excavate for foundation Excavate for underground utilities
- Install additional septic tank • Form and pour concrete footings and foundation walls. After concrete cures, backfill footing and foundation to proposed grades
- Construct addition • Upon completion of exterior improvements, complete drainage

siltation fencing.

- Construct parking fields.
- Place asphalt to limits shown on plan. Loam and seed all disturbed areas.

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McCarty Engineering, Inc. Civil Engineers 42 Tucker Drive, Leominster, MA 01453 phone:(978) 534-1318 fax: (978) 840-6907

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Project Name

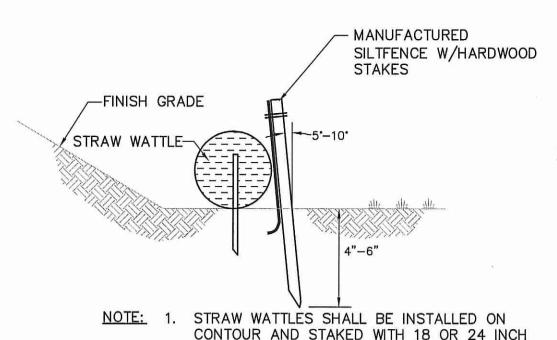
Proposed Mixed-Use Development

42 Park Street Ayer, MA 01432

Sheet Title **Erosion Control** Plan

File Name: 419P-CER01 Date: September 13, 2023 Scale: 1"=10'

Sheet No.

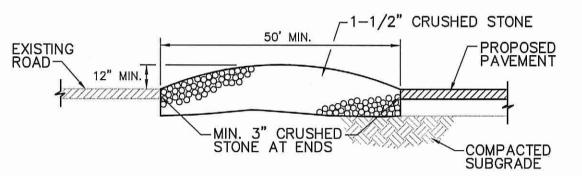


CONTOUR AND STAKED WITH 18 OR 24 INCH WOOD STAKES AT FOUR FEET ON CENTER

> 2. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES # OF ROLL HEIGHT

STRAW WATTLE / SILT FENCE DETAIL

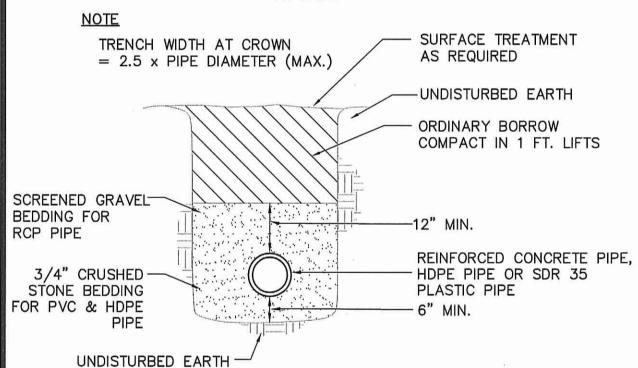
N.T.S.



PROVIDE LEVEL AREA OF CRUSHED STONE 50 FEET IN FROM EDGE OF EXISTING ROAD.

TEMPORARY ENTRANCE BERM

N.T.S..



1. TRENCH EXCAVATION WIDTH TO ALLOW FOR FREE TRAVEL OF COMPACTION EQUIPMENT

2. ALL COMPACTION TO A MINIMUM 95 PERCENT DRY DENSITY DETERMINED BY ASTM D1557.

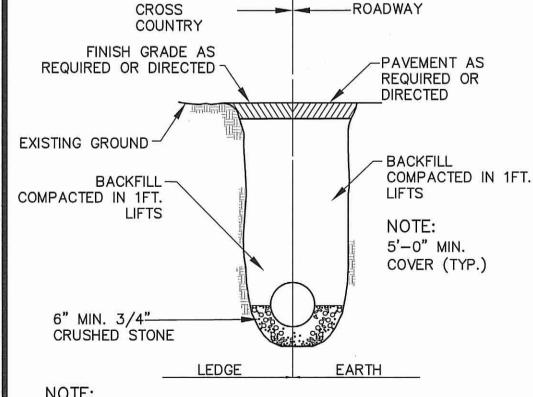
3. SEE MANUFACTURERS SPECIFICATIONS FOR ADDITIONAL INSTALLATION REQUIREMENTS

4. AVOID HEAVY EQUIPMENT LOADS OVER PIPE DURING

DRAIN PIPE TRENCH DETAIL

CONSTRUCTION

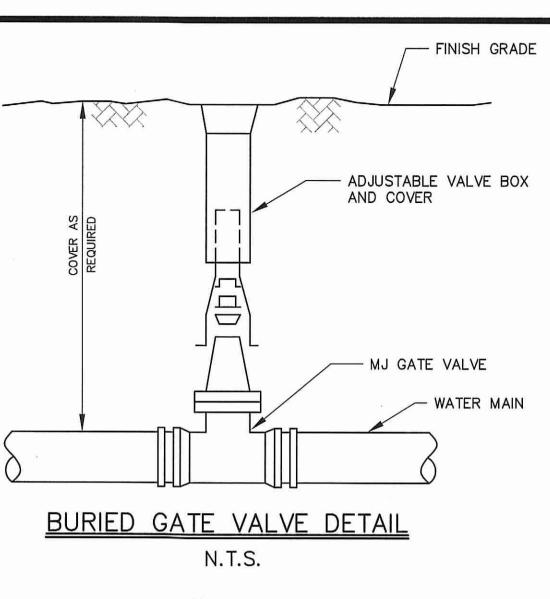
N.T.S.



BACKFILL MATERIAL SHALL CONSIST OF EXCAVATED MATERIAL AND/OR GRAVEL BORROW AS DIRECTED BY THE

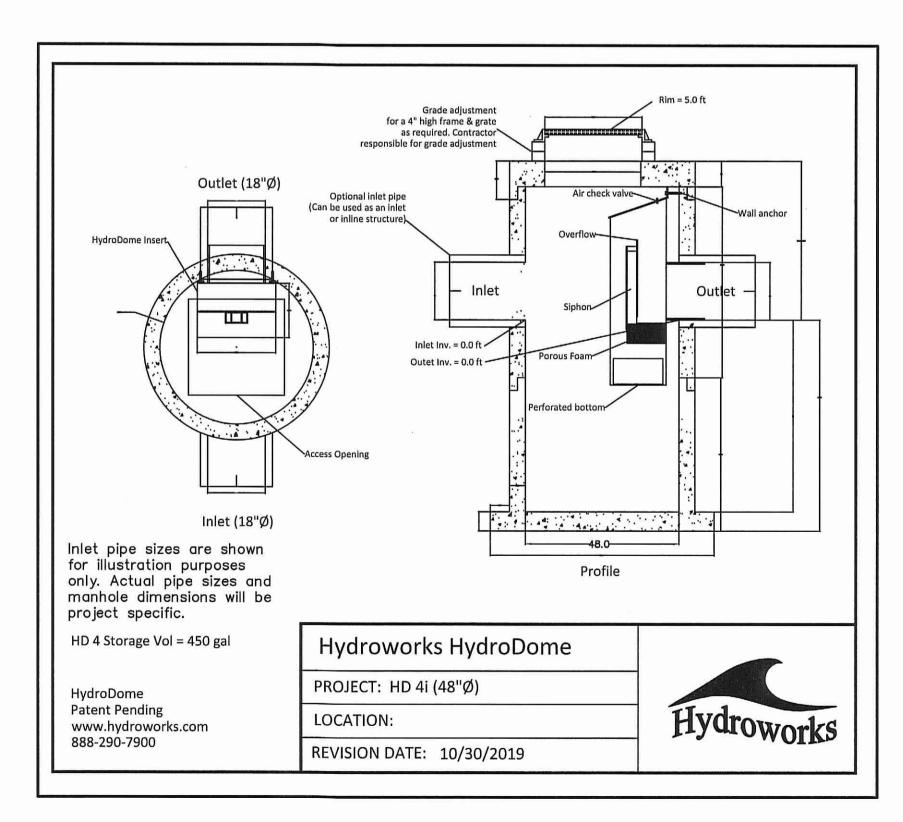
TYPICAL WATER MAIN TRENCH DETAIL

N.T.S.



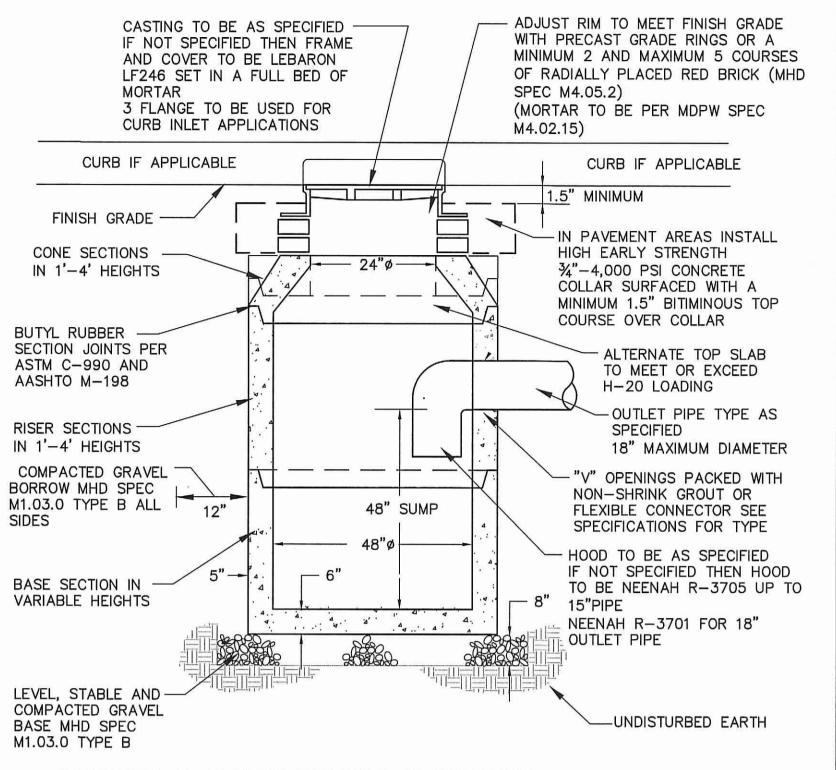
FINISH GRADE -CLEAN FILL ALL STONES GREATER THAN 2" TO BE REMOVED 4" SAND AROUND UTILITIES 41414 UNDISTURBED EARTH BOTTOM OF TRENCH

> TYPICAL UTILITY TRENCH DETAIL N.T.S.



HYDROWORKS HYDRODOME HD4i DETAIL

N.T.S.



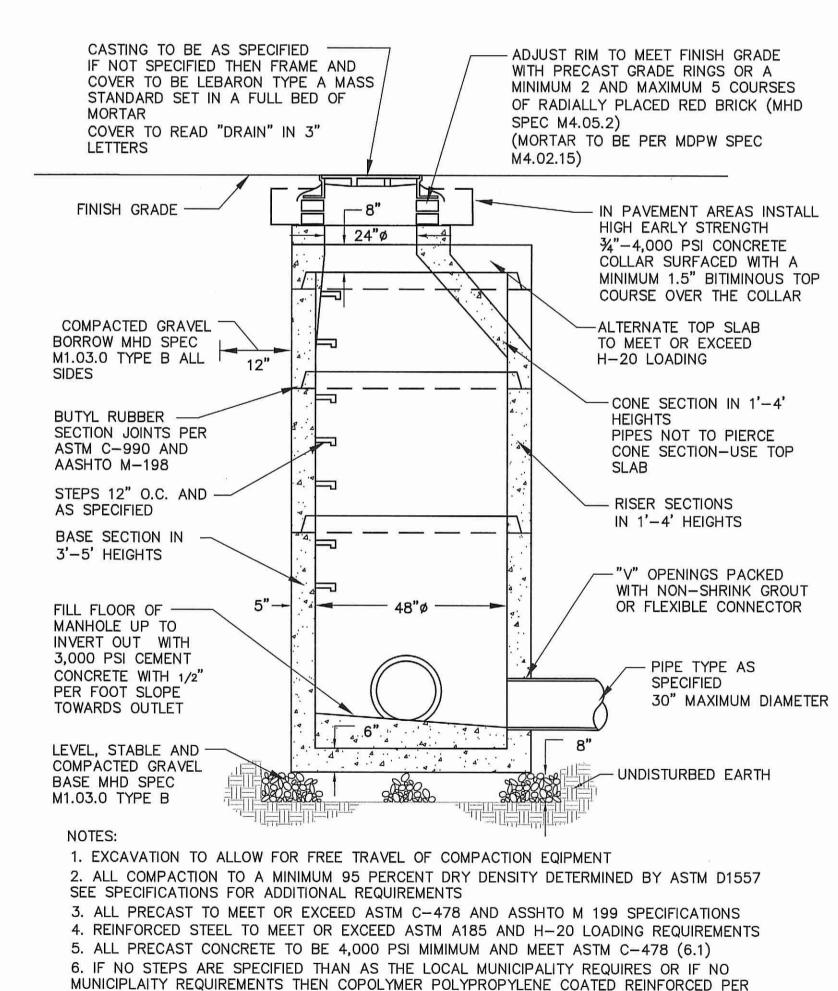
1. EXCAVATION TO ALLOW FOR FREE TRAVEL OF COMPACTION EQUIPMENT 2. ALL COMPACTION TO A MINIMUM 95 PERCENT DRY DENSITY DETERMINED BY ASTM D1557

SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS 3. ALL PRECAST TO MEET OR EXCEED ASTM C-478 AND AASHTO M 199 SPECIFICATIONS 4. REINFORCED STEEL TO MEET OR EXCEED ASTM A185 AND H-20 LOADING REQUIREMENTS 5. ALL PRECAST CONCRETE TO BE 4,000 PSI MIMIMUM AND MEET ASTM C-478 (6.1)

PRECAST CONCRETE CATCH BASIN DETAIL

N.T.S.

6. ALL INTERIOR HOLES TO BE SEALED WITH NON-SHRINK GROUT



MUNICIPLAITY REQUIREMENTS THEN COPOLYMER POLYPROPYLENE COATED REINFORCED PER ASTM C-478 AND OSHA (STD 1-1.9)

7. CONTRACTOR TO CONFIRM WITH CITY OR TOWN DPW THAT BRICK INVERTS ARE NOT A REQUIREMENT

8. FILL ALL INTERNAL AND EXTERNAL HOLES WITH NON-SHRINK GROUT PRECAST CONCRETE DRAIN MANHOLE DETAIL

N.T.S.

Date Revision BRIAN MARCHETTI CIVIL NO. 46279 / Drawn By: Designed By: Checked By

www.mccartydb.com Project Name Proposed Mixed-Use Development

McCarty Engineering, Inc.

Civil Engineers

42 Tucker Drive, Leominster, MA 01453

phone:(978) 534-1318 fax: (978) 840-6907

42 Park Street Ayer, MA 01432

> Sheet Title Construction Details

File Name: 419P-DET01 Date: September 13, 2023

Scale: N.T.S.

Sheet No.

