

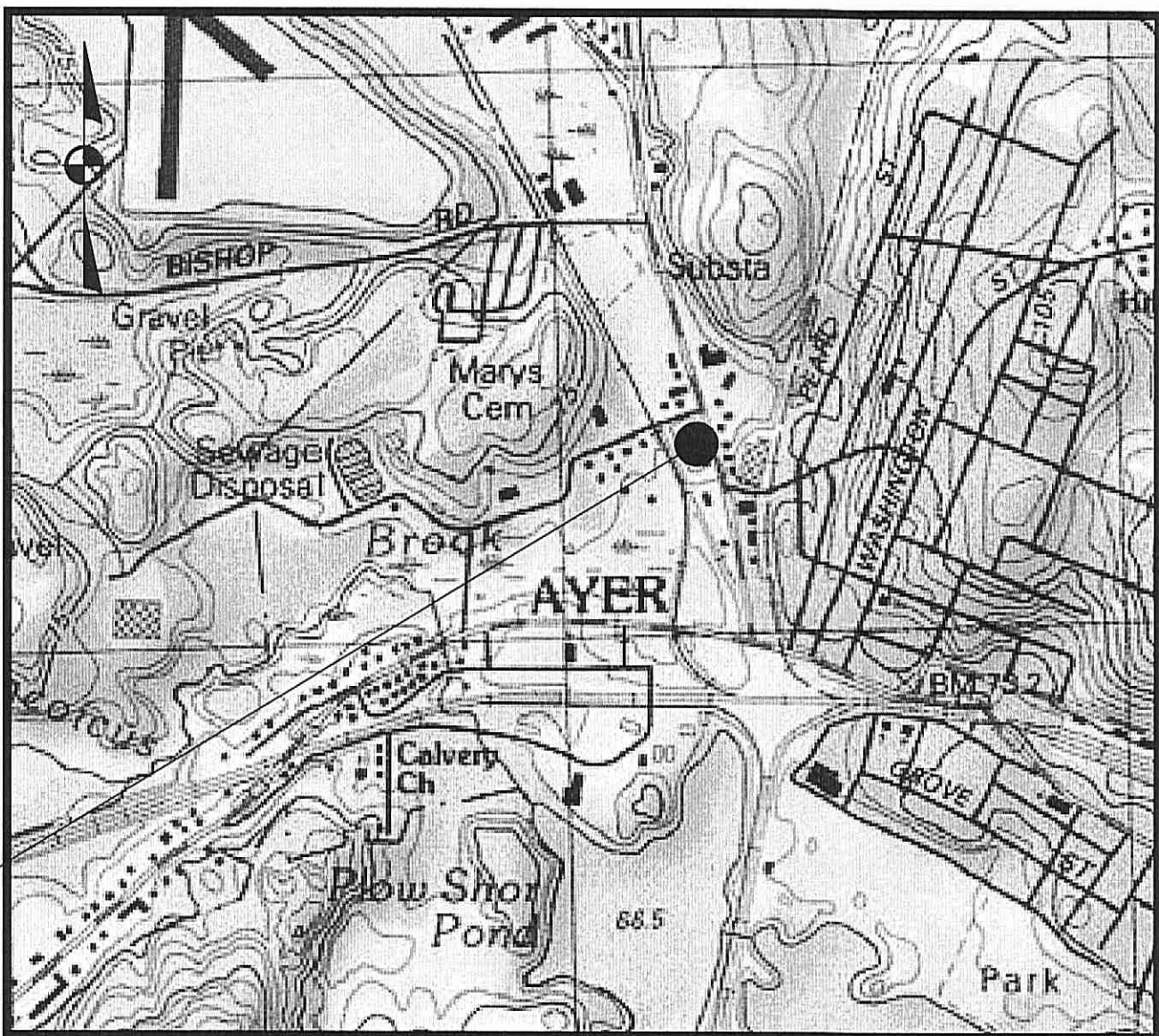
# Site Plan Approval Documents

September 13, 2023 (Revised November 6, 2023)

## Proposed Mixed-Use Development

42 Park Street  
Ayer, Massachusetts 01432

PROJECT SITE



SCALE: 1"=1000' ±

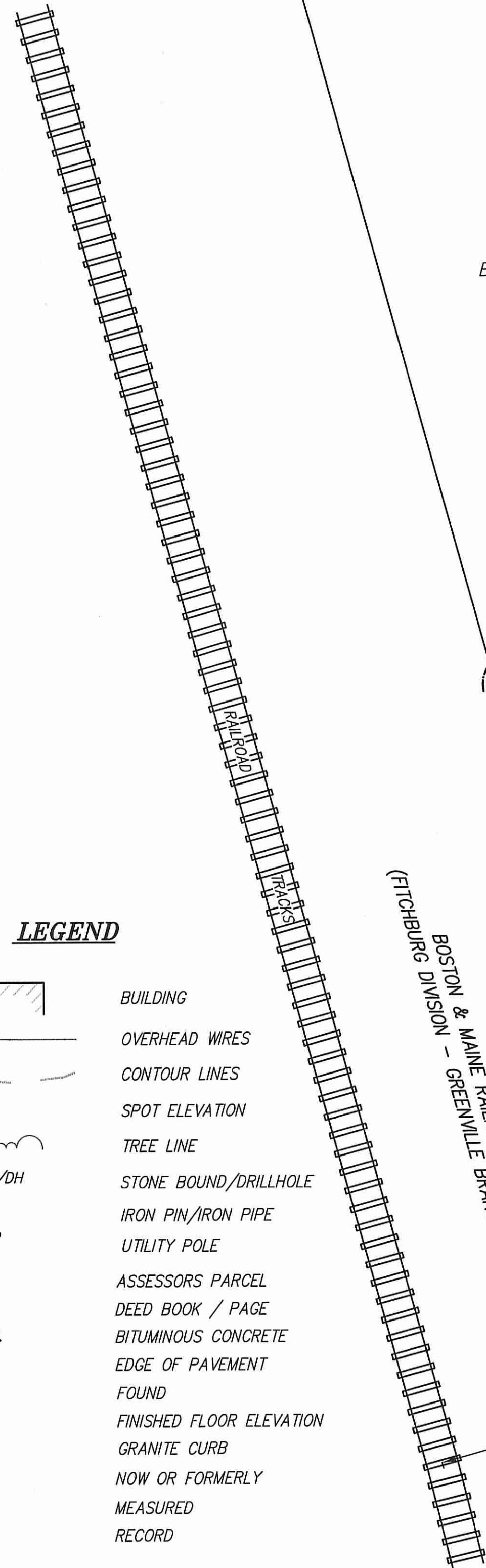
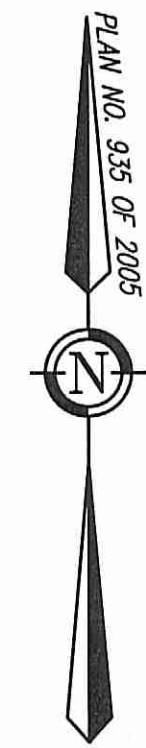
**Applicant:**  
Alexandria Goldinak  
50 Mountain Ave  
Fitchburg, MA 01420  
(978) 202-6333  
**Owner:**  
Francis Mannone  
44 Park Street  
Ayer, MA 01432

**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

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



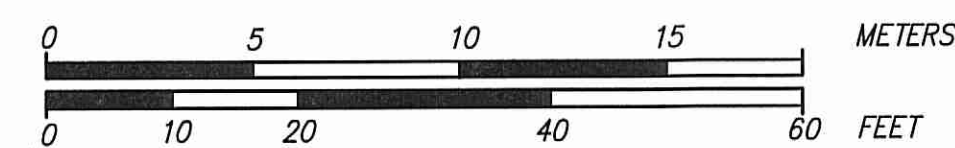




# LEGEND

- |  |                          |
|--|--------------------------|
|  | BUILDING                 |
|  | OVERHEAD WIRES           |
|  | CONTOUR LINES            |
|  | SPOT ELEVATION           |
|  | TREE LINE                |
|  | STONE BOUND/DRILLHOLE    |
|  | IRON PIN/IRON PIPE       |
|  | UTILITY POLE             |
|  | ASSESSORS' PARCEL        |
|  | DEED BOOK / PAGE         |
|  | BITUMINOUS CONCRETE      |
|  | EDGE OF PAVEMENT         |
|  | FOUND                    |
|  | FINISHED FLOOR ELEVATION |
|  | GRANITE CURB             |
|  | NOW OR FORMERLY          |
|  | MEASURED                 |
|  | RECORD                   |

SCALE: 1" = 20 FEET



BROOK STREET

N87°32'40"E  
144.60'

SB/DH (F)

A.P. 26-15  
N/F  
MANNONE  
BK. 65321 PG. 496

A.P. 26-16  
N/F  
SUN CHA YUN  
& TAE HO MUN  
BK. 65234 PG. 126

1914 STATE LAYOUT  
1886 TOWN LAYOUT

PARK STREET  
(PUBLIC - 1886 TOWN LAYOUT 50' WIDE)

RTE 2A & 111

SEE PLAN NO. 935 OF 2005

RIGHT-OF-WAY LIMIT

## NOTES:

CURRENT OWNER OF RECORD:  
FRANCIS MANNONE  
DEED REFERENCE: BOOK 63721 PAGE 484

THIS PLAN IS THE RESULT OF AN ON-THE-GROUND SURVEY  
PERFORMED BY OZONE SURVEY & MAPPING ON MAY 3, & JUNE 8, 2023.  
SURVEY BY TRIMBLE SS TOTAL STATION.

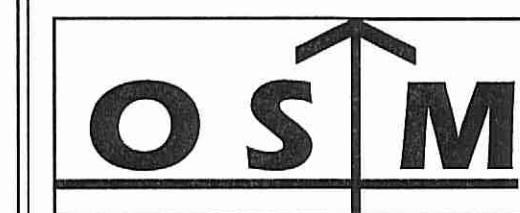
THE VERTICAL POSITIONS SHOWN ON THIS PLAN ARE BASED ON  
KEYNET RTK GPS NETWORK AND IS SUBJECT TO FURTHER  
ADJUSTMENT TO ANY LOCAL NGS BENCHMARKS. THE VERTICAL DATUM  
IS RELATIVE TO NAVD 1988.

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

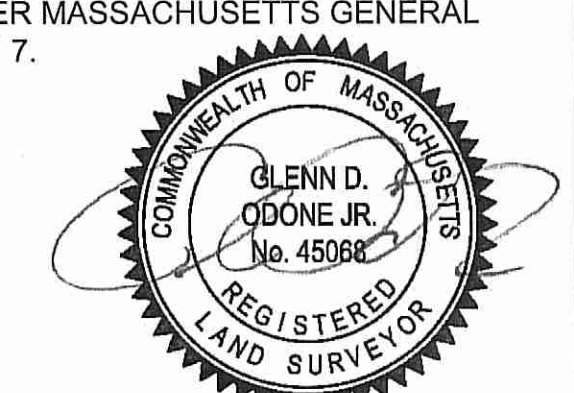
42 PARK STREET  
AYER, MA 01432

PREPARED FOR

ALI GOLDINAK

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. OZONE JR.  
MA REG. P.L.S. NO. 45068



REV.: NOVEMBER 6, 2023

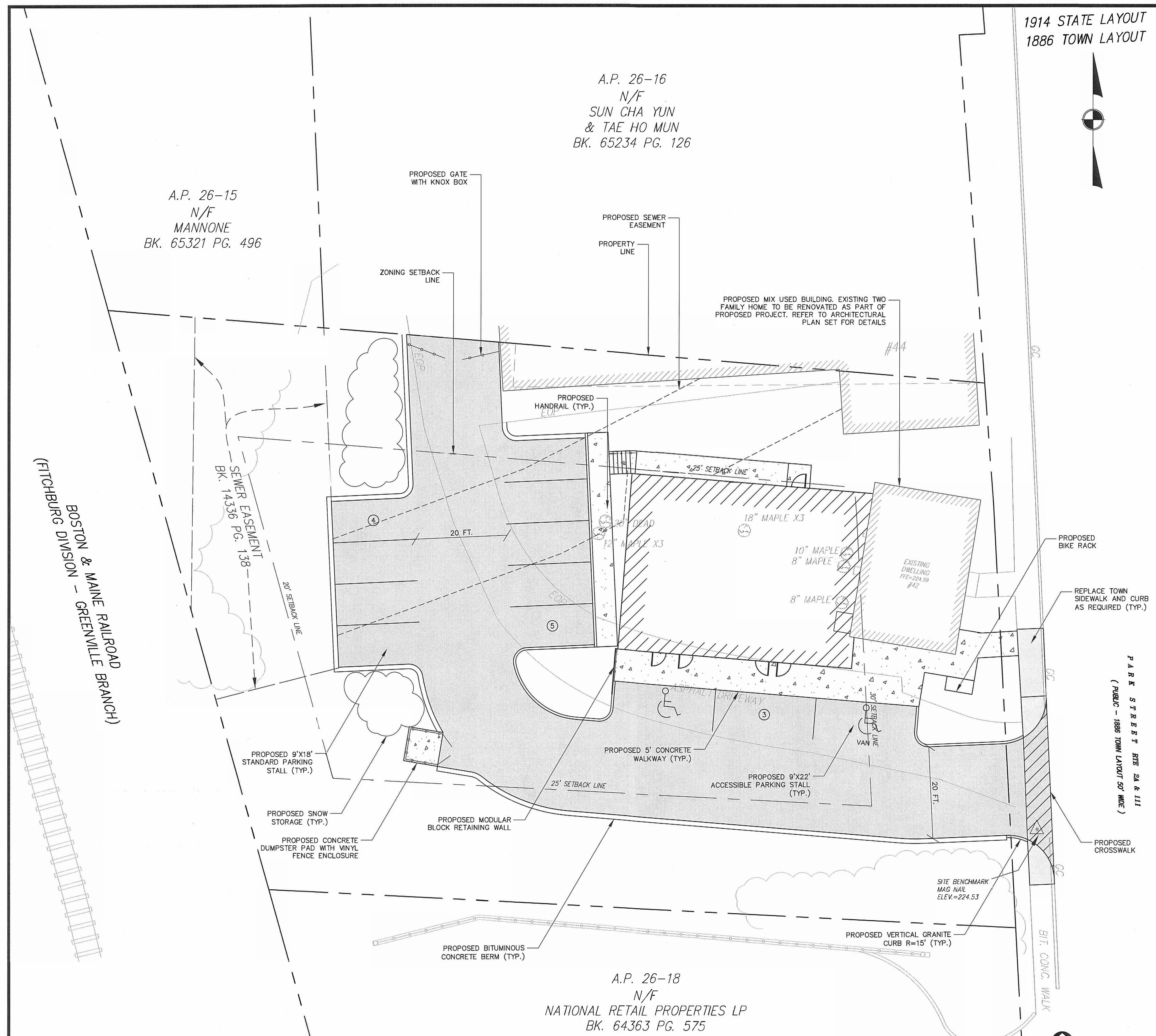
SCALE: 1 INCH = 20 FEET

DATE: JUNE 15, 2023

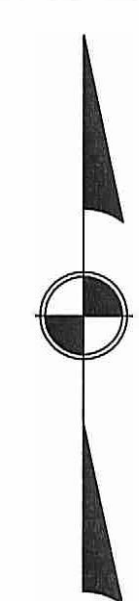
DWG FILE: 1663-01A

PROJECT NO. 20231663





1914 STATE LAYOUT  
1886 TOWN LAYOUT

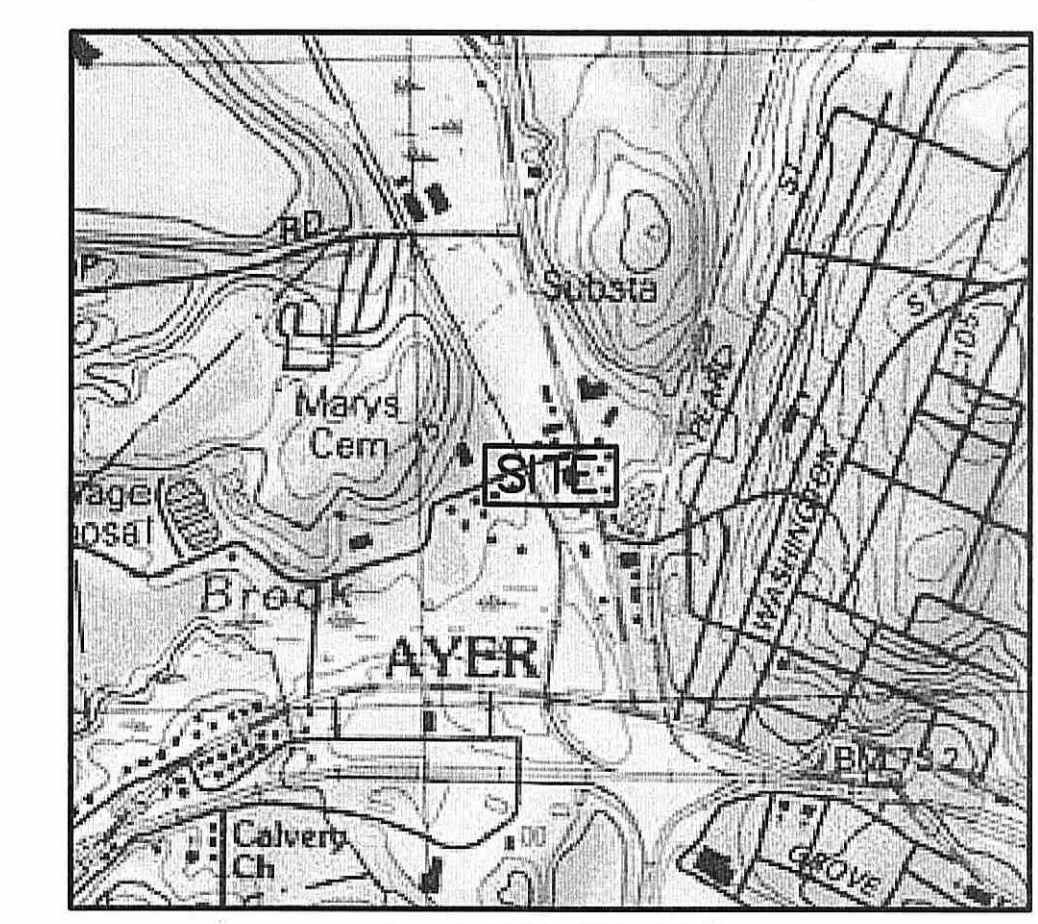


A.P. 26-16  
N/F  
SUN CHA YUN  
& TAE HO MUN  
BK. 65234 PG. 126

A.P. 26-15  
N/F  
MANNONE  
BK. 65321 PG. 496

BOSTON & MAINE RAILROAD  
(FITCHBURG DIVISION - GREENVILLE BRANCH)

A.P. 26-18  
N/F  
NATIONAL RETAIL PROPERTIES LP  
BK. 64363 PG. 575



LOCUS PLAN  
1"=1,000 FT.±

- NOTES:
- EXISTING CONDITIONS INFORMATION SHOWN IS BASED ON AN ON THE GROUND SURVEY PERFORMED BY ODEON SURVEY & MAPPING IN JUNE OF 2023.
  - LANDSCAPING AND LIGHTING PLANS TO BE PROVIDED BY GMG DESIGN.

ZONING SUMMARY:

DISTRICT: GENERAL BUSINESS

DIMENSIONAL REQUIREMENTS:	REQUIRED:	PROVIDED:	CONFORMANCE:
MIN. LOT AREA:	15,000 S.F.	21,000 S.F.	Y
MAX. BLDG. COVERAGE	60%	34%	Y
LOT FRONTAGE:	100 FT.	118.8 FT.	Y
MIN. SIDE YARD:	25 FT.	23.5 FT.	N*
MIN. FRONT YARD:	30 FT.	2.7 FT.	N*
MIN. REAR YARD:	20 FT.	96.8 FT.	Y
MAX. HEIGHT (FT.):	35 FT.	33 FT.±	Y
MAX. # STORIES:	3	2	Y
OPEN SPACE	20%	34%	Y

\*EXISTING NON-CONFORMING

PARKING SUMMARY:

REQUIREMENTS:

MULTI-FAMILY: 2 SPACES PER UNIT WITH 2+ BEDROOMS +5% ADDITIONAL SPACES FOR VISITOR PARKING, OR MINIMUM 1 SPACE

PROFESSIONAL BUSINESS: 1 SP/400 GROSS SF

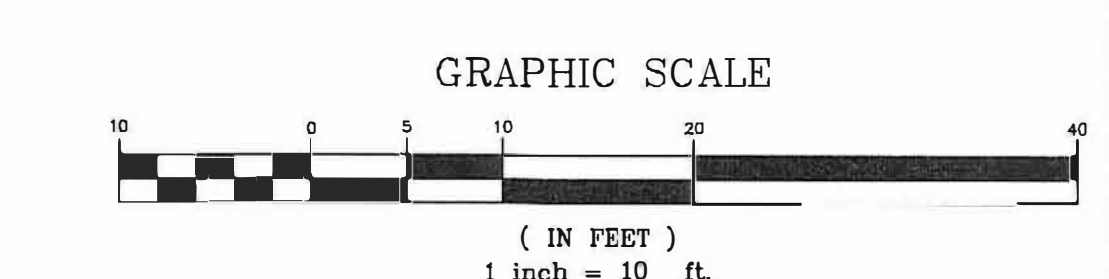
PROPOSED:

MULTI-FAMILY: 3 UNITS X 2 SPACES=6 SPACES + 1 SPACE=7 SPACES

PROFESSIONAL BUSINESS: 1 SP/ 400 SF X 1,428 SF=3.57 SPACES

TOTAL SPACES REQUIRED: 11

PARKING PROVIDED: 12 SPACES



NOT FOR CONSTRUCTION

THESE PLANS WERE PREPARED FOR THE PURPOSE OF OBTAINING STATE AND LOCAL PERMITS AND ARE NOT INTENDED TO BE USED AS CONSTRUCTION DOCUMENTS.

No.	Date	Revision
1	11/6/2023	Response to Comments

11/6/23

Drawn By: JLL    Designed By: JLL    Checked By: JLL

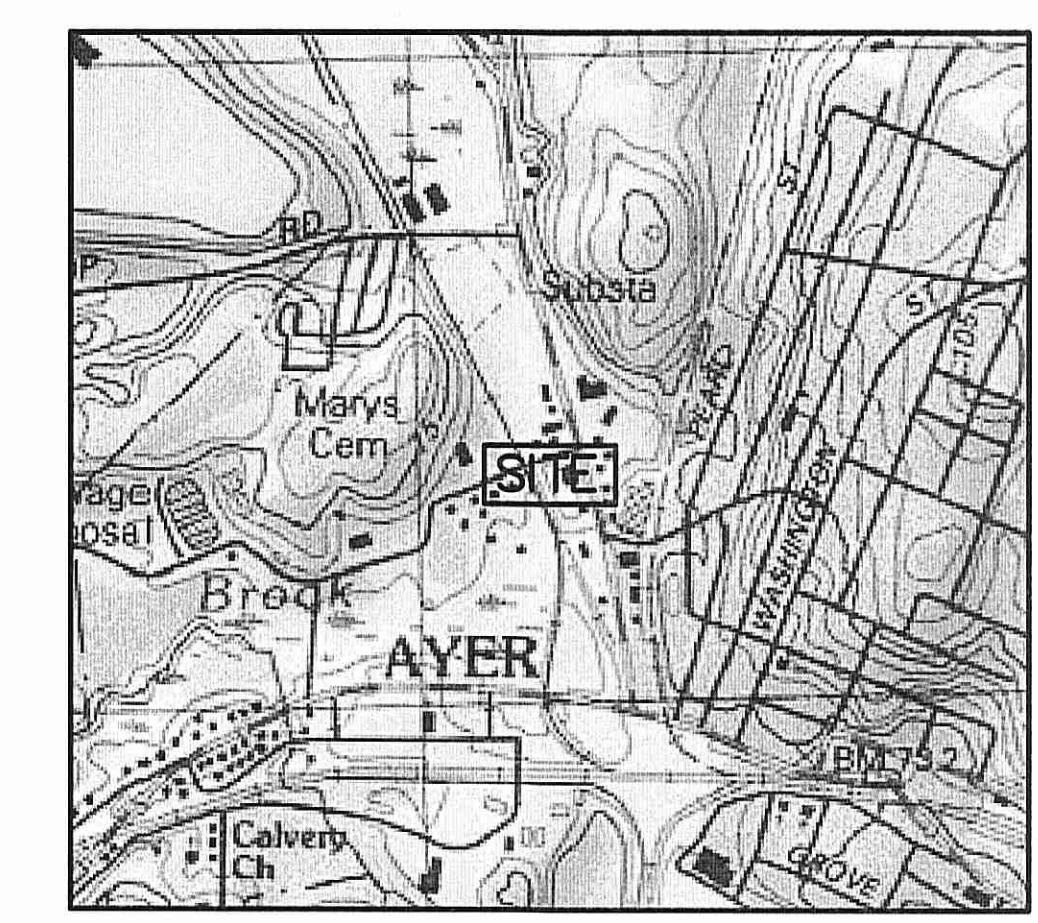
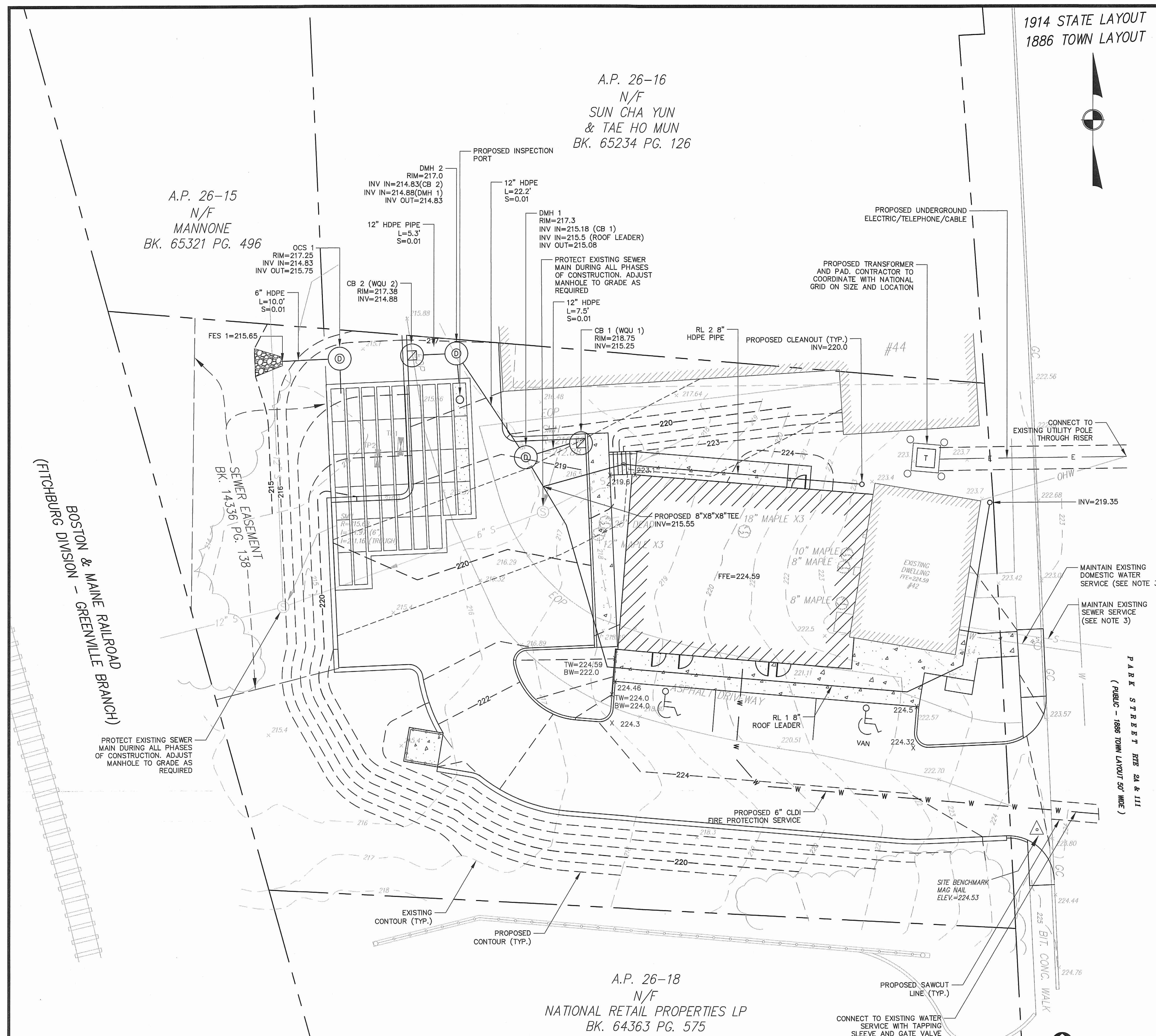
McCarty Engineering, Inc.  
Civil Engineers  
42 Tucker Drive, Leominster, MA 01453  
phone: (978) 534-1318 fax: (978) 840-6907  
www.mccartydb.com

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

Sheet Title  
Layout & Materials Plan

Job No: 419    Sheet No: 2  
File Name: 419P-CPB01  
Date: September 13, 2023  
Scale: 1"=10'

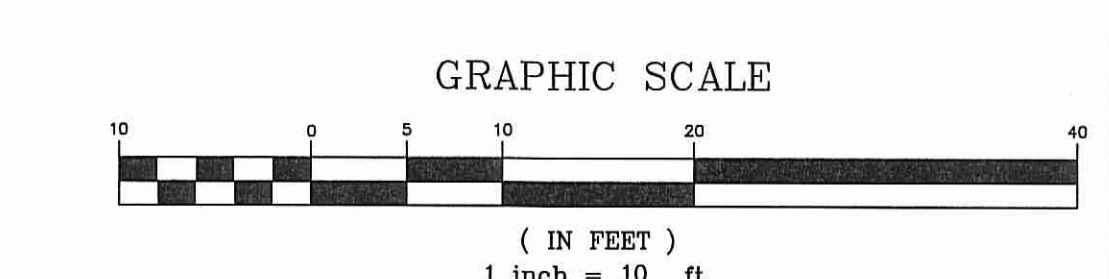




- LOCUS PLAN**  
1"=1,000 FT.±
- NOTES:**
- EXISTING CONDITIONS INFORMATION SHOWN IS BASED ON AN ON THE GROUND SURVEY PERFORMED BY ODEON SURVEY & MAPPING IN JUNE OF 2023.
  - LANDSCAPING AND LIGHTING PLANS TO BE PROVIDED BY GMD DESIGN.
  - CONTRACTOR TO VERIFY CONDITION OF EXISTING SEWER AND DOMESTIC WATER SERVICES ON THE PROPERTY. IF IT IS DETERMINED THAT THE EXISTING SERVICES ARE INADEQUATE, CONTRACTOR TO COORDINATE WITH MEL ON LOCATION OF NEW SEWER AND DOMESTIC WATER SERVICES.

**GENERAL NOTES**

- THE CONSTRUCTION OF ALL PROPOSED UTILITIES SHALL CONFORM TO THE TOWN OF AYER STANDARDS AND SPECIFICATIONS, LATEST EDITION, AS WELL AS THE COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS STANDARDS AND SPECIFICATIONS, LATEST EDITION. CONTRACTOR SHALL CONFORM TO ALL APPLICABLE LOCAL, STATE, AND FEDERAL CODES AND REQUIREMENTS DURING CONSTRUCTION.
- THE LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES SHALL BE CONSIDERED APPROXIMATE AND MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY CONSTRUCTION. ANY DISCREPANCIES IN THE LOCATION OF ANY UTILITIES SHOWN OR ENCOUNTERED DURING CONSTRUCTION SHALL BE REPORTED TO MCCARTY ENGINEERING, INC. AT 978-534-1318.
- THE CONTRACTOR SHALL CALL "DIG-SAFE" AT 1-888-DIG-SAFE (344-7233) 72 HOURS PRIOR TO CONSTRUCTION TO INFORM THE UTILITY COMPANIES OF ANY EXCAVATION ADJACENT TO EXISTING UTILITIES.
- CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSAL OF ALL WASTE MATERIAL AT AN APPROVED SITE. BURIAL OF WASTE MATERIAL ON-SITE IS NOT PERMITTED.
- CONTRACTOR SHALL STRIP TOP SOIL AND STOCKPILE ON-SITE FOR REUSE. SOIL STOCKPILES SHALL BE NO HIGHER THAN 8'. STOCKPILES SHALL BE ENCLOSED BY TEMPORARY SILT FENCES TO PREVENT TRAVEL OF SEDIMENT TO ADJACENT DRAINAGE WAYS.
- EROSION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL SURFACE RESTORATION IS COMPLETE AND SHALL BE MAINTAINED IN GOOD CONDITION AT ALL TIMES.
- CONTRACTOR SHALL PROTECT ADJACENT PROPERTIES FROM ON-SITE CONSTRUCTION ACTIVITIES AND REMOVE ANY SEDIMENT OR DEBRIS DEPOSITED THEREON IMMEDIATELY.
- DRAINAGE GENERATED AS A RESULT OF TRENCH DEWATERING SHALL BE DISCHARGED TO EXISTING DRAINAGE COURSES WITH PROPER EROSION CONTROL MEASURES. DIRECT DISCHARGE ONTO PAVEMENT OR PRIVATE PROPERTY SHALL NOT BE ALLOWED.
- WHEN TAPPING EXISTING PRECAST MANHOLES OR SEWER PIPE, DRILL HOLES AT 4" CENTER TO CENTER WITH A STARDRILL AROUND THE PERIPHERY OF THE OPENING TO CREATE A PLANE OF WEAKNESS BEFORE BREAKING THE SECTION OUT.



**NOT FOR CONSTRUCTION**  
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No.	Date	Revision
1	11/6/2023	Response to Comments

Drawn By: JLL  
Designed By: JLL  
Checked By: JLL 11/6/23

**McCarthy Engineering, Inc.**  
Civil Engineers  
42 Tucker Drive, Leominster, MA 01453  
phone: (978) 534-1318 fax: (978) 840-6907  
www.mccartydb.com

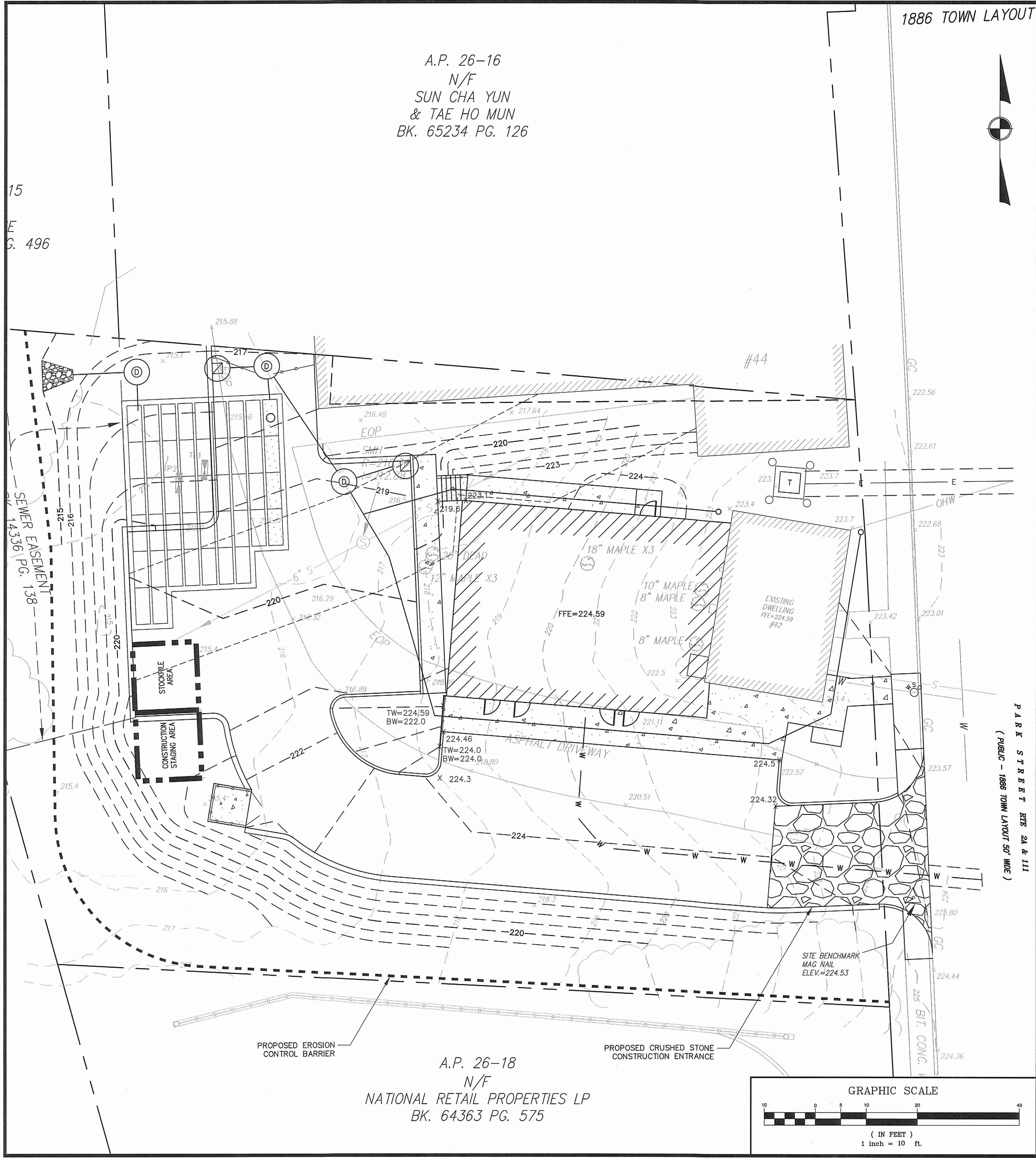
**Project Name**  
Proposed Mixed-Use Development  
42 Park Street  
Ayer, MA 01432

**Sheet Title**  
Grading, Drainage & Utility Plan

Job No: 419  
File Name: 419P-CPG01  
Date: September 13, 2023  
Scale: 1"=10'

Sheet No. **3**





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

#### Construction Process

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 the site; and
- 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 erosion.

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.

#### Stabilization

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:

- 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 biodegradable, 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 permanent.

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 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 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; or
  - 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 significant.

- 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 refilled as necessary.  
If earthen products are transported onto abutting ways during any of the construction phases, then 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.

##### 4) Slope Stabilization

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,
- Sod,
- 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.

##### 6) 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 of the sump.

##### 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 DISPOSAL

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 refuse.

#### 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 spills.

#### 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 or water body.

#### 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 three 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.

#### PETROLEUM PRODUCTS

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 waterbody. No petroleum products will be stored onsite.

#### FERTILIZERS

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

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.

#### SPILL CONTROL PRACTICES

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 supplies.

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 site.
- Establish a construction staging and equipment storage area protected against erosion by lines of staked straw wattles and siltation fencing.
- 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 shown.
- Construct addition
- Upon completion of exterior improvements, complete drainage installation
- Construct parking fields.
- Place asphalt to limits shown on plan.
- Loan and seed all disturbed areas.

#### NOT FOR CONSTRUCTION

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No.	Date	Revision
1	11/6/2023	Response to Comments

11/6/23

Drawn By: JLL  
Designed By: JLL  
Checked By: JLL

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

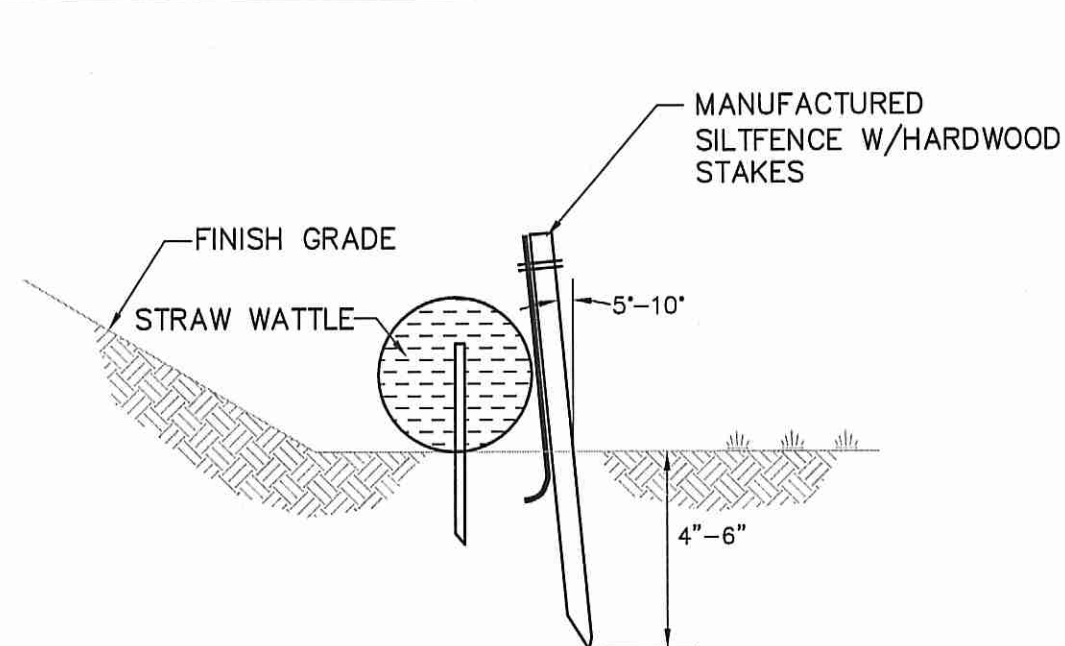
Project Name  
Proposed Mixed-Use  
Development  
42 Park Street  
Ayer, MA 01432

Sheet Title  
Erosion Control  
Plan

Job No: 419  
File Name: 419P-CER01  
Date: September 13, 2023  
Scale: 1"=10'

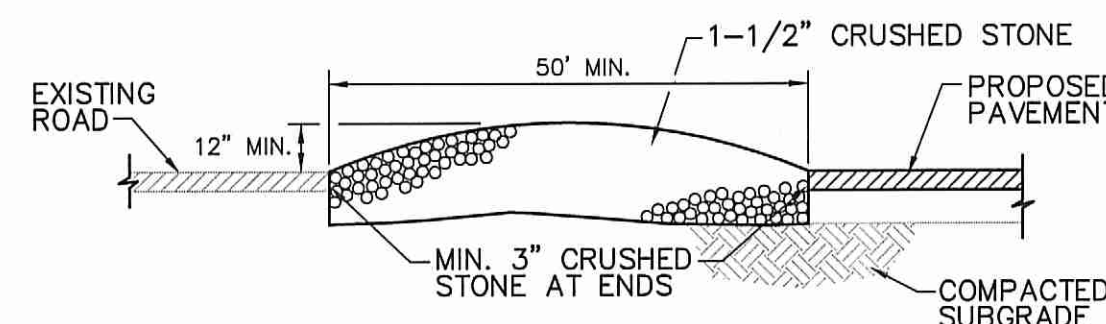
Sheet No.  
4





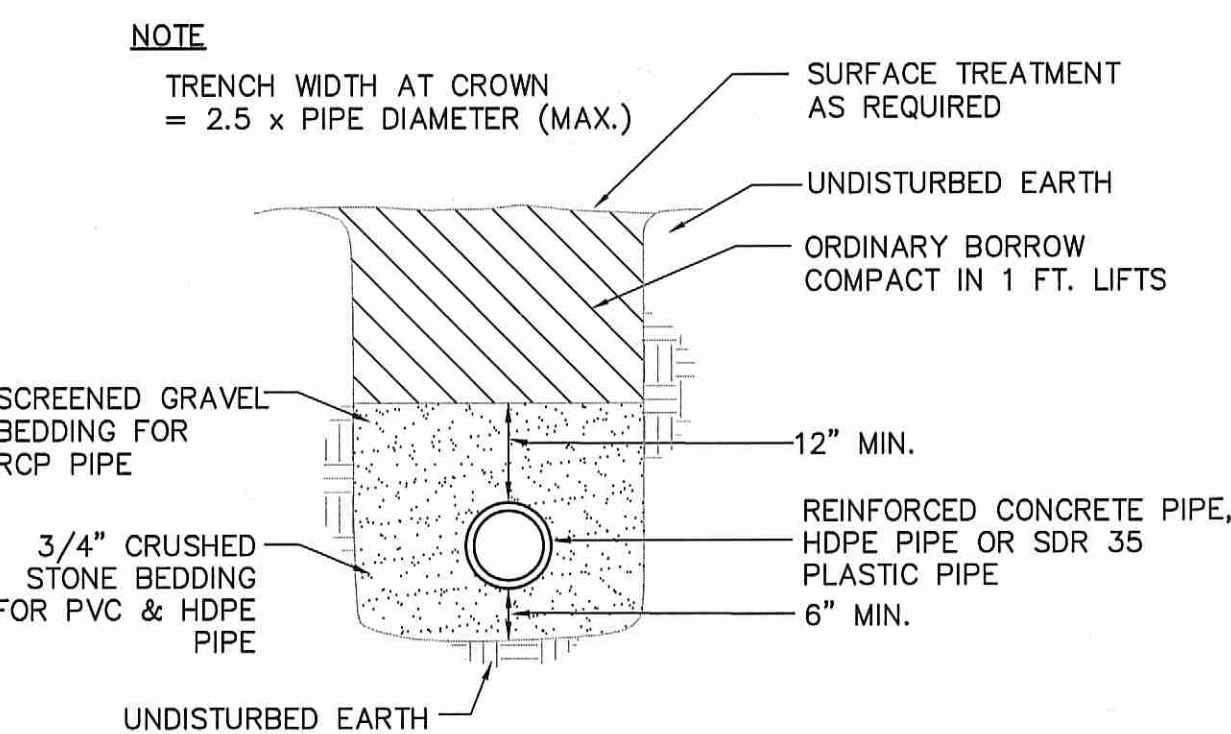
- NOTE: 1. STRAW WATTLES SHALL BE INSTALLED ON CONTOUR AND STAKED WITH 18 OR 24 INCH WOOD STAKES AT FOUR FEET ON CENTER
2. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES  $\frac{3}{4}$  OF ROLL HEIGHT

**STRAW WATTLE / SILT FENCE DETAIL**  
N.T.S.



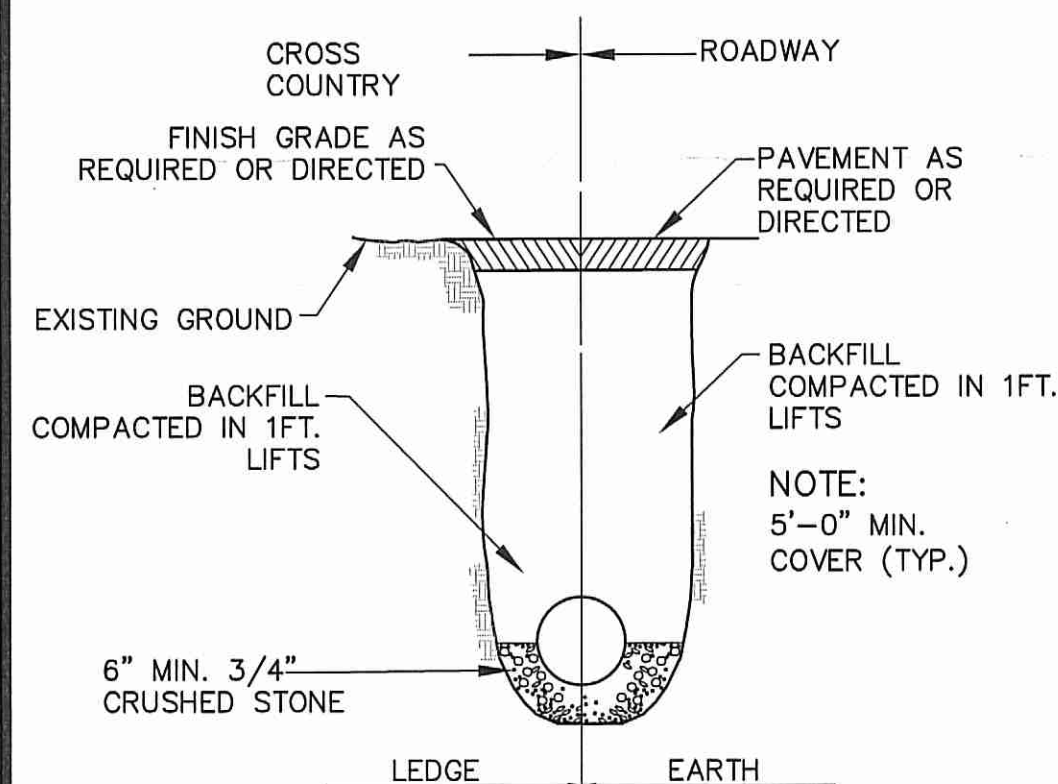
- NOTES:
- THE PURPOSE OF THIS TEMPORARY BERM IS TO REMOVE MUD FROM THE TIRES OF VEHICLES LEAVING THE SITE DURING CONSTRUCTION.
- PROVIDE LEVEL AREA OF CRUSHED STONE 50 FEET IN FROM EDGE OF EXISTING ROAD.

**TEMPORARY ENTRANCE BERM**  
N.T.S.



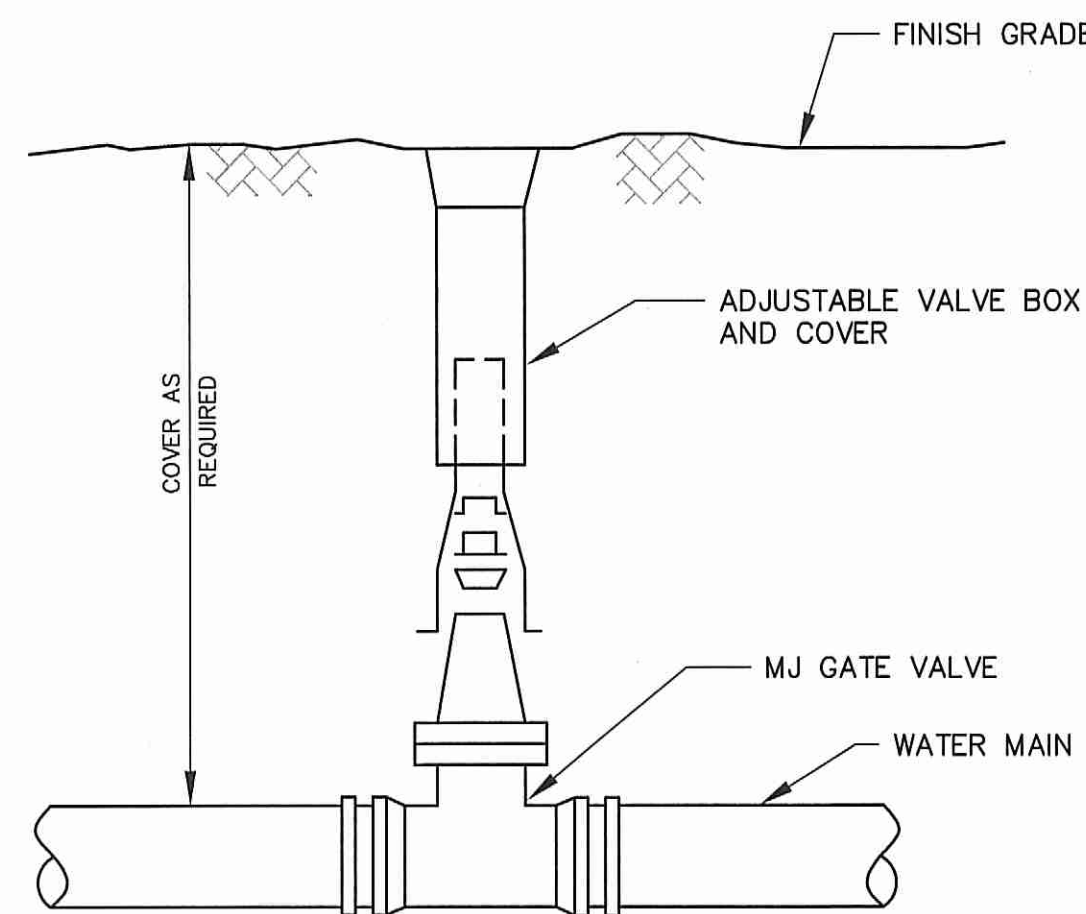
- NOTE:
1. TRENCH EXCAVATION WIDTH TO ALLOW FOR FREE TRAVEL OF COMPACTION EQUIPMENT
2. ALL COMPACTION TO A MINIMUM 95 PERCENT DRY DENSITY DETERMINED BY ASTM D1557.
3. SEE MANUFACTURERS SPECIFICATIONS FOR ADDITIONAL INSTALLATION REQUIREMENTS
4. AVOID HEAVY EQUIPMENT LOADS OVER PIPE DURING CONSTRUCTION

**DRAIN PIPE TRENCH DETAIL**  
N.T.S.

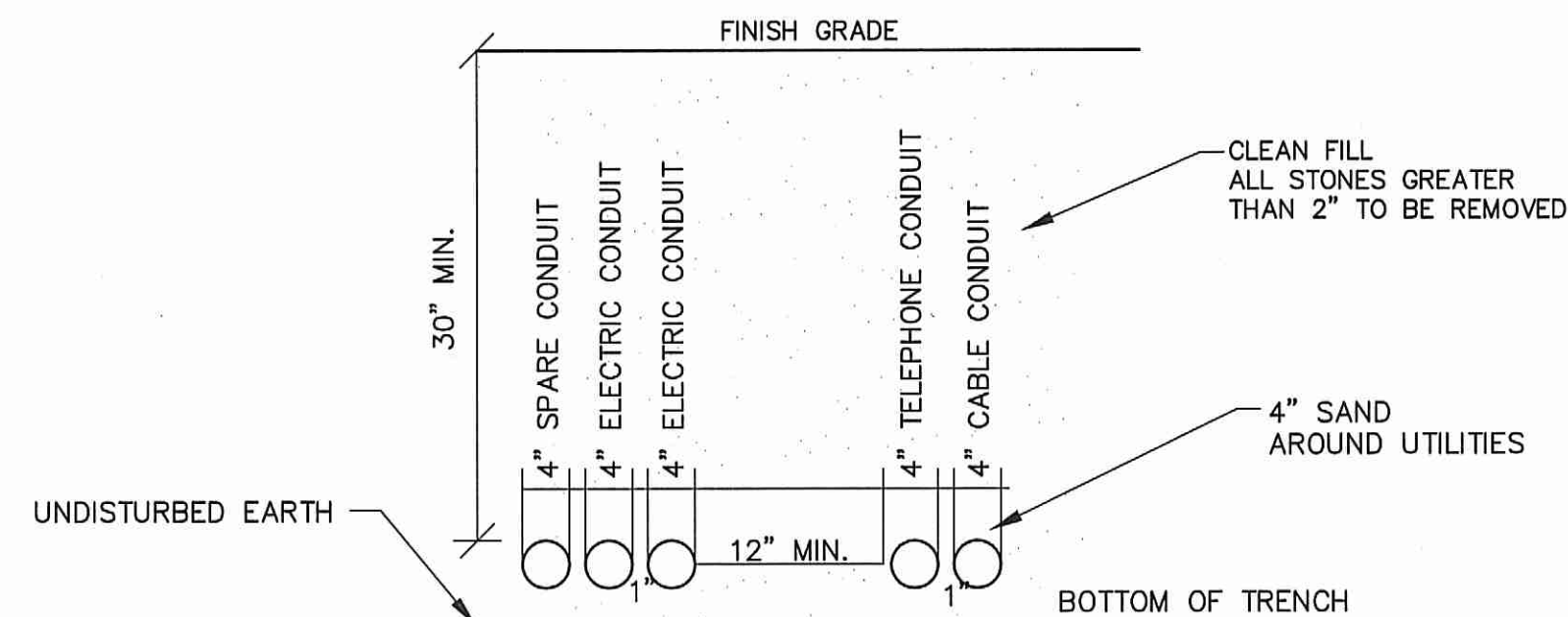


- NOTE:
- BACKFILL MATERIAL SHALL CONSIST OF EXCAVATED MATERIAL AND/OR GRAVEL BORROW AS DIRECTED BY THE ENGINEER.

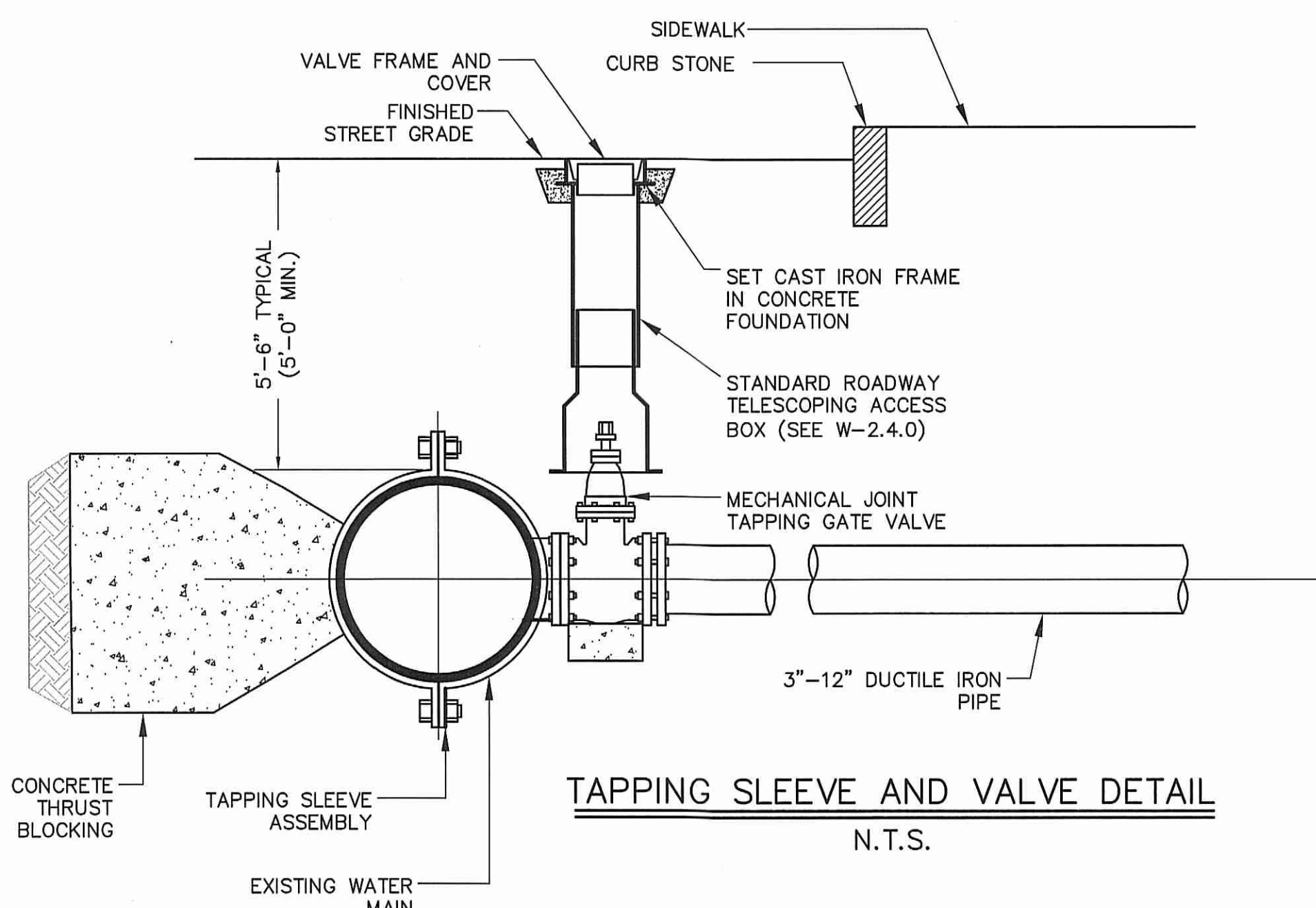
**TYPICAL WATER MAIN TRENCH DETAIL**  
N.T.S.



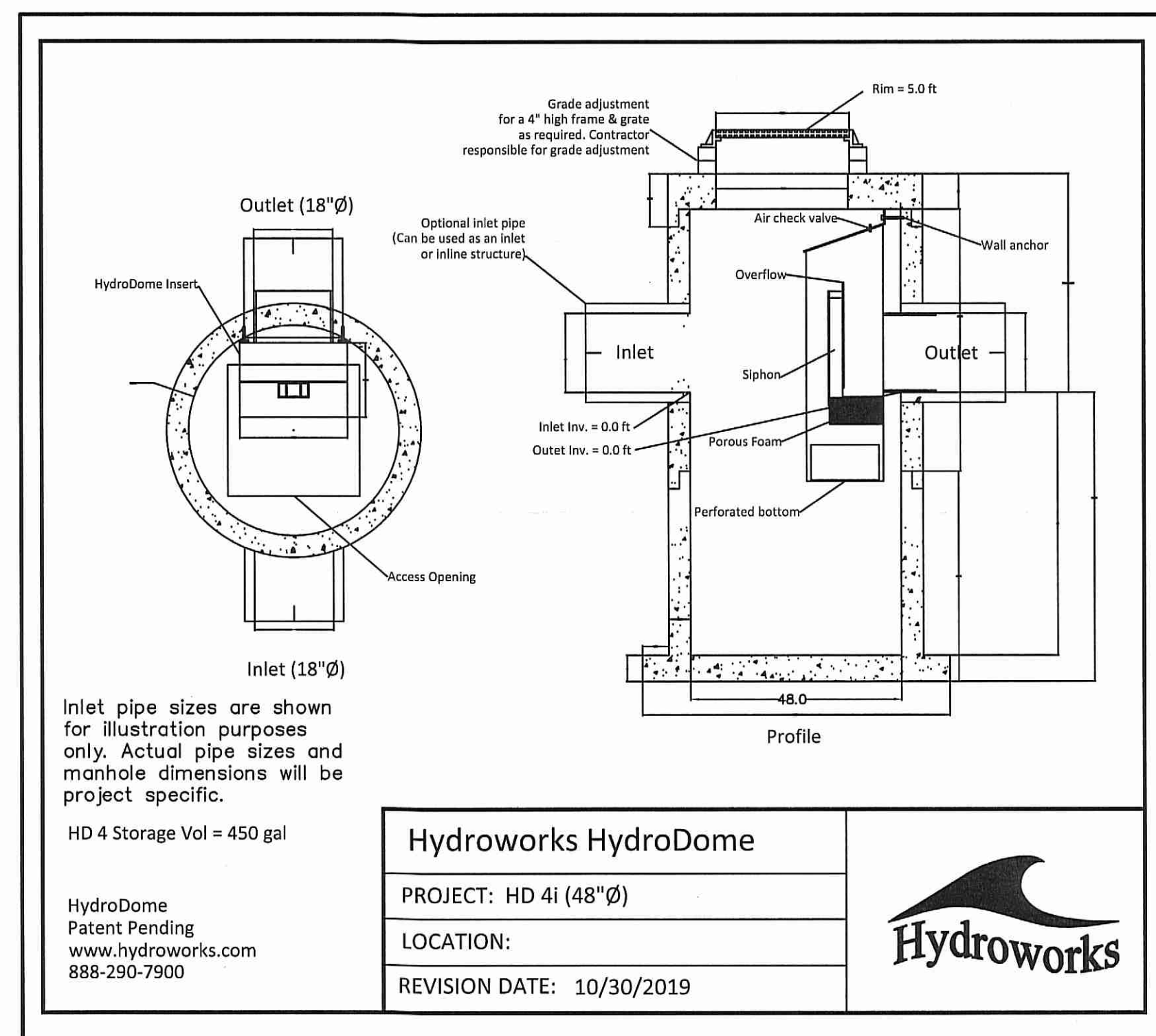
**BURIED GATE VALVE DETAIL**  
N.T.S.



**TYPICAL UTILITY TRENCH DETAIL**  
N.T.S.



**TAPPING SLEEVE AND VALVE DETAIL**  
N.T.S.



Inlet pipe sizes are shown for illustration purposes only. Actual pipe sizes and manhole dimensions will be project specific.

HD 4 Storage Vol = 450 gal

HydroDome  
Patent Pending  
www.hydroworks.com  
888-290-7900

**Hydroworks HydroDome**

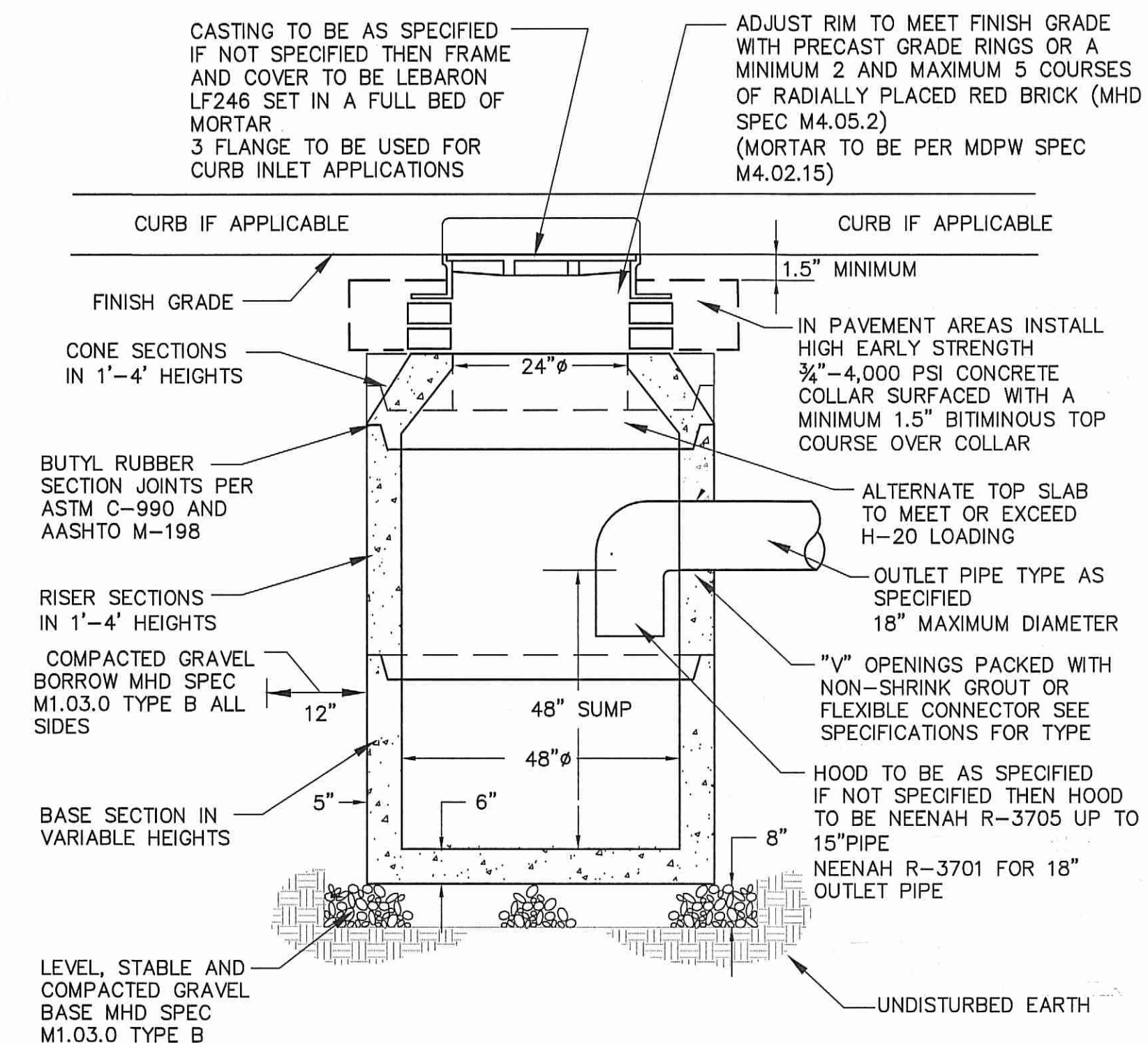
PROJECT: HD 4i (48"Ø)

LOCATION:

REVISION DATE: 10/30/2019

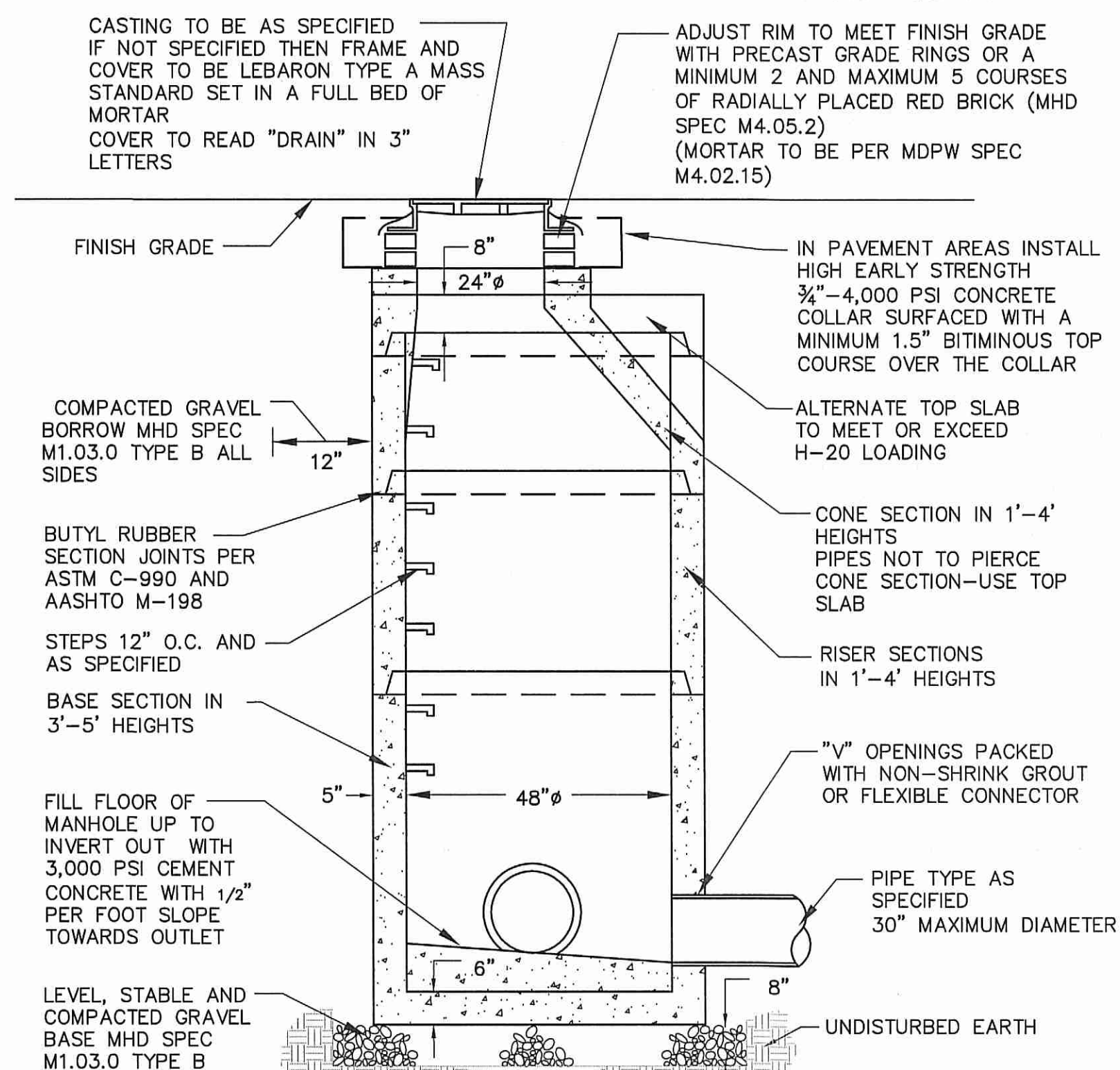


**HYDROWORKS HYDRODOME HD4i DETAIL**  
N.T.S.



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 MINIMUM AND MEET ASTM C-478 (6.1)
6. ALL INTERIOR HOLES TO BE SEALED WITH NON-SHRINK GROUT

**PRECAST CONCRETE CATCH BASIN DETAIL**  
N.T.S.



- NOTE:
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 MINIMUM AND MEET ASTM C-478 (6.1)
6. IF NO STEPS ARE SPECIFIED THAN AS THE LOCAL MUNICIPALITY REQUIRES OR IF NO MUNICIPALITY 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.

No.	Date	Revision
1	11/6/2023	Response to Comments



Drawn By: JLL  
Designed By: JLL  
Checked By: JLL

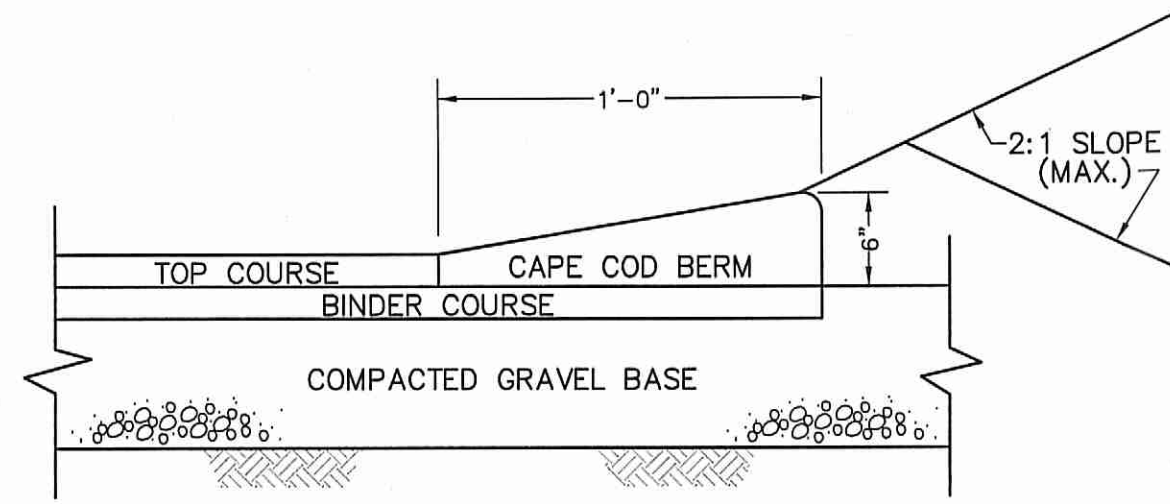
**McCarty Engineering, Inc.**  
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**Proposed Mixed-Use Development**  
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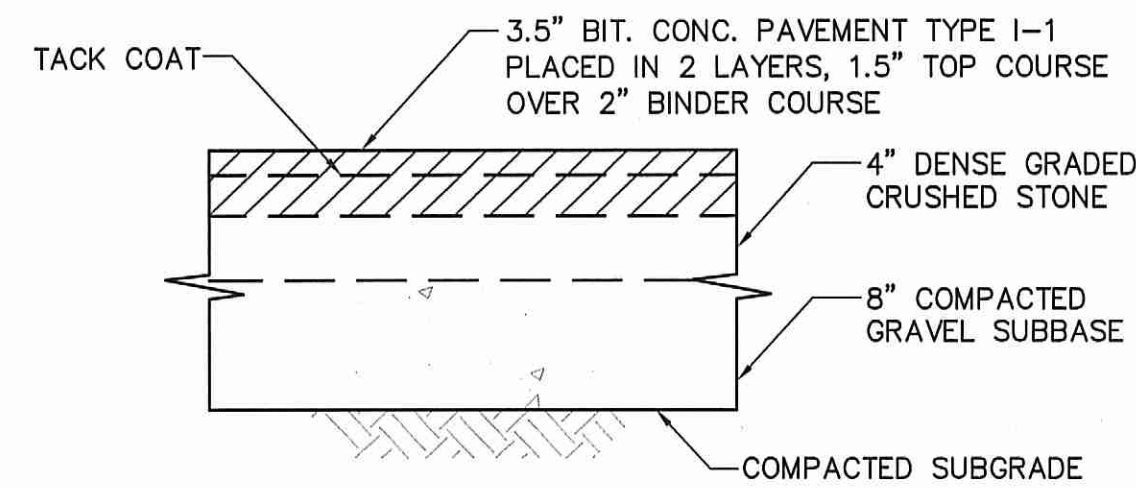
Sheet Title  
**Construction Details**

Job No: 419  
File Name: 419P-DET01  
Date: September 13, 2023  
Scale: N.T.S.

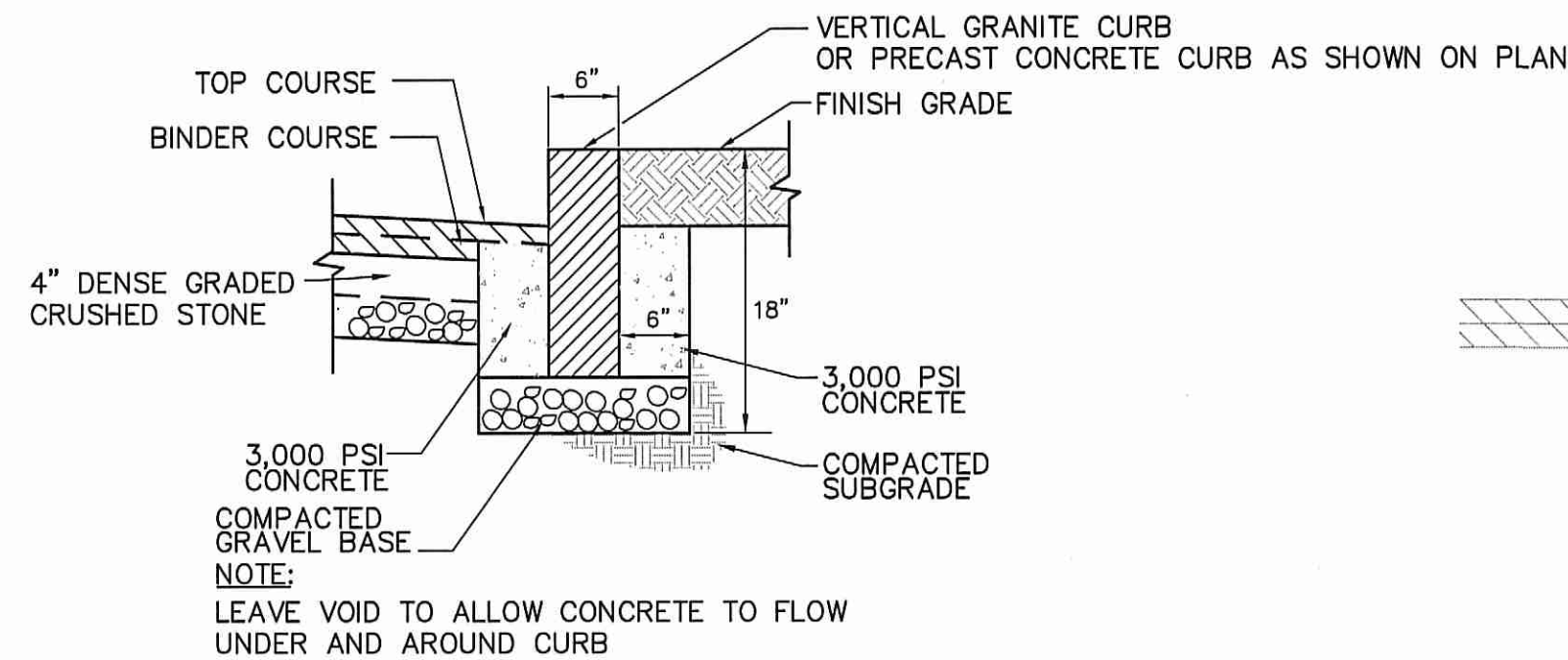




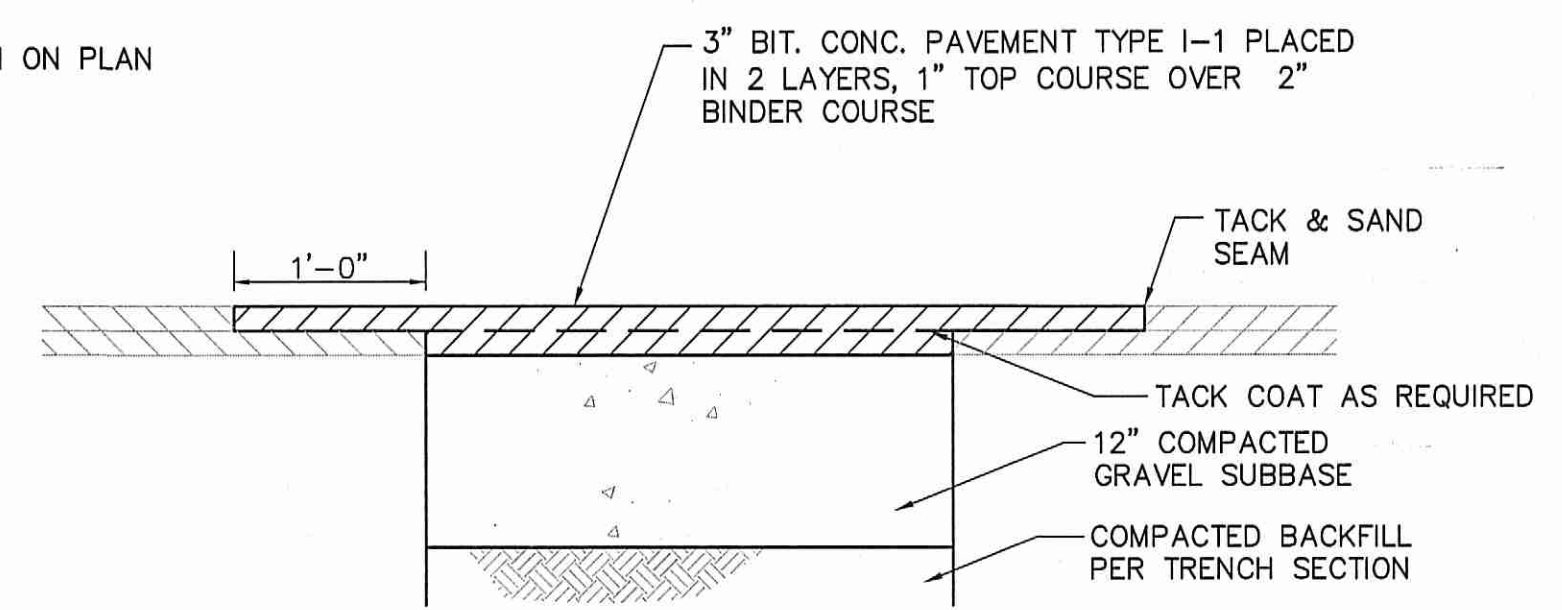
**BITUMINOUS CONCRETE BERM DETAIL**  
N.T.S.



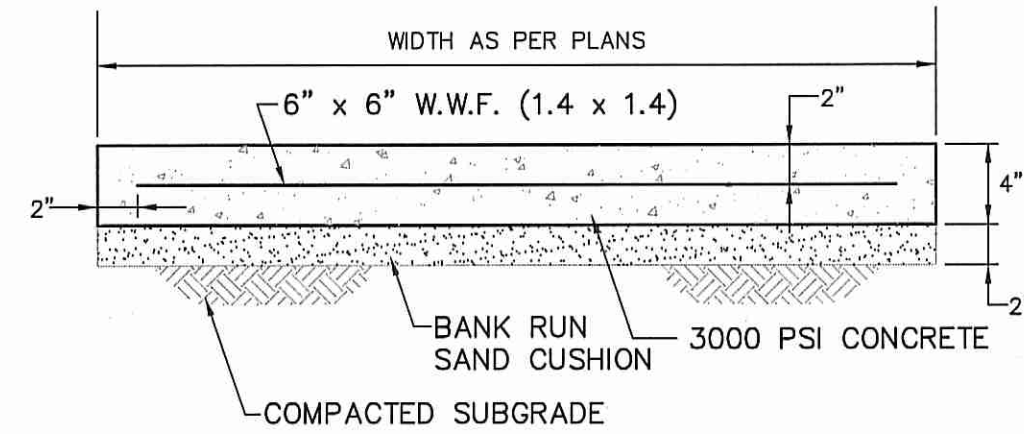
**BITUMINOUS CONCRETE PAVEMENT DETAIL**  
N.T.S.



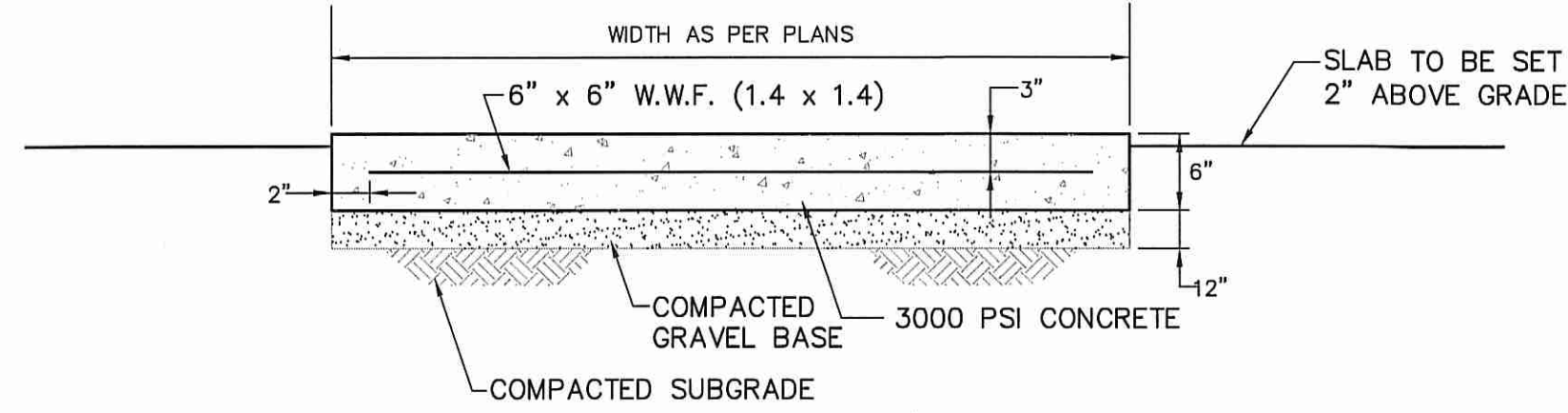
**VERTICAL GRANITE/PRECAST CONCRETE CURB DETAIL**  
N.T.S.



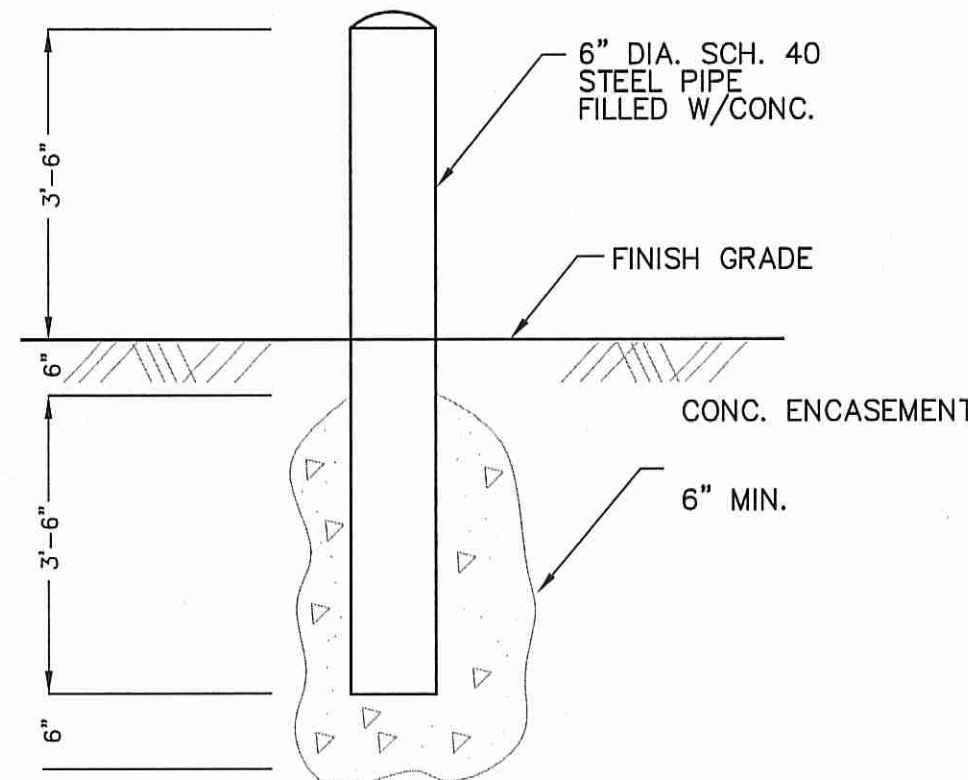
**PERMANENT TRENCH REPAIR DETAIL**  
N.T.S.



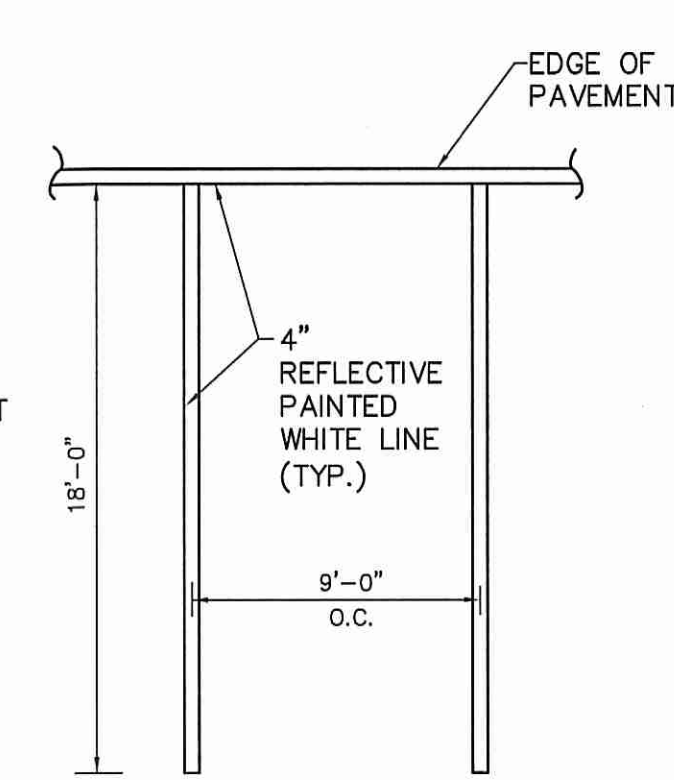
**CONCRETE SIDEWALK DETAIL**  
N.T.S.



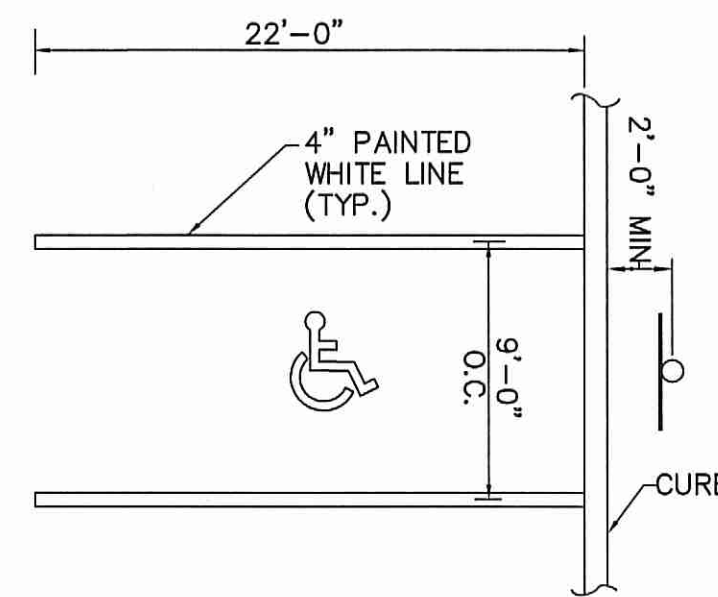
**CONCRETE DUMPSTER PAD DETAIL**  
N.T.S.



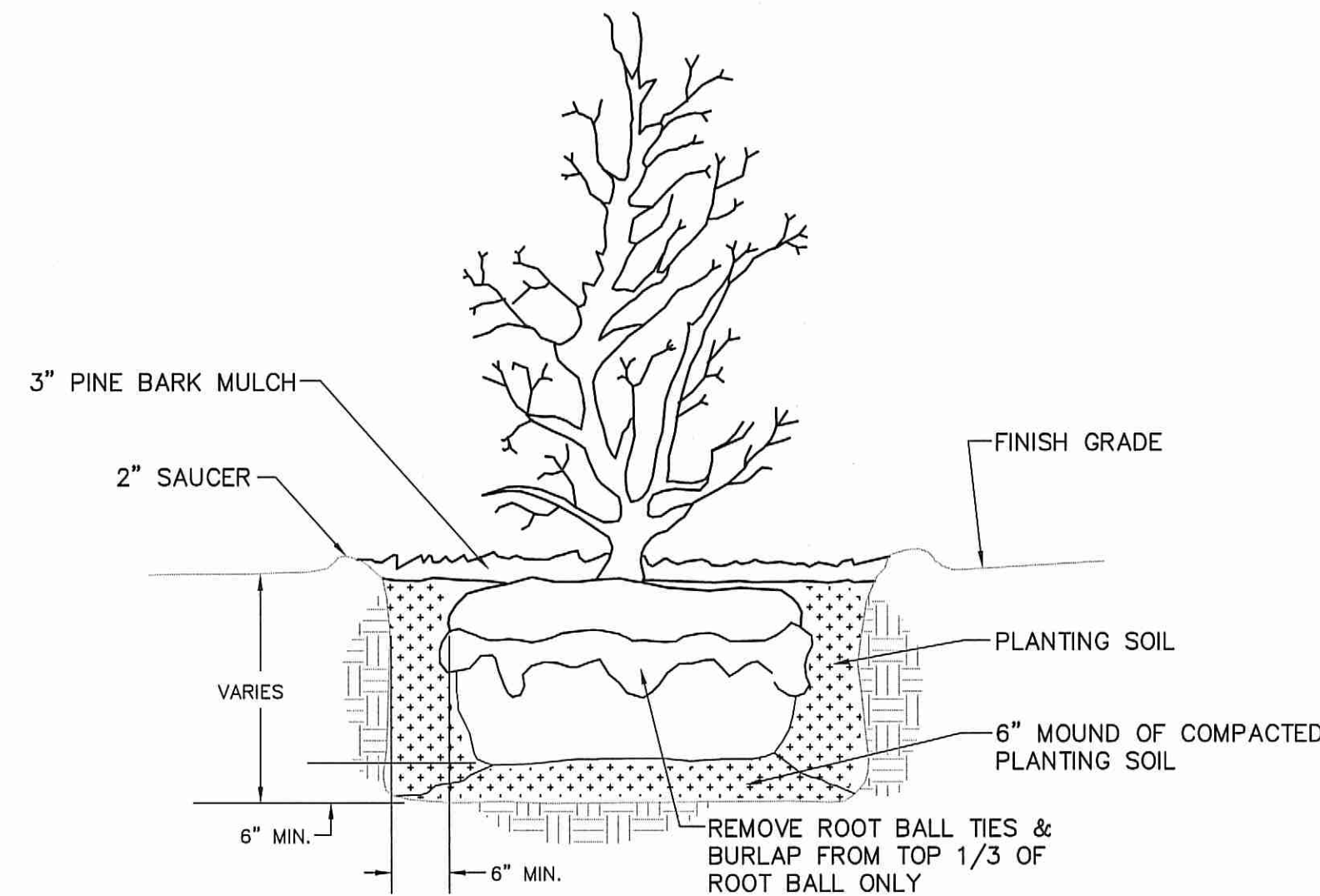
**BOLLARD DETAIL**  
N.T.S.



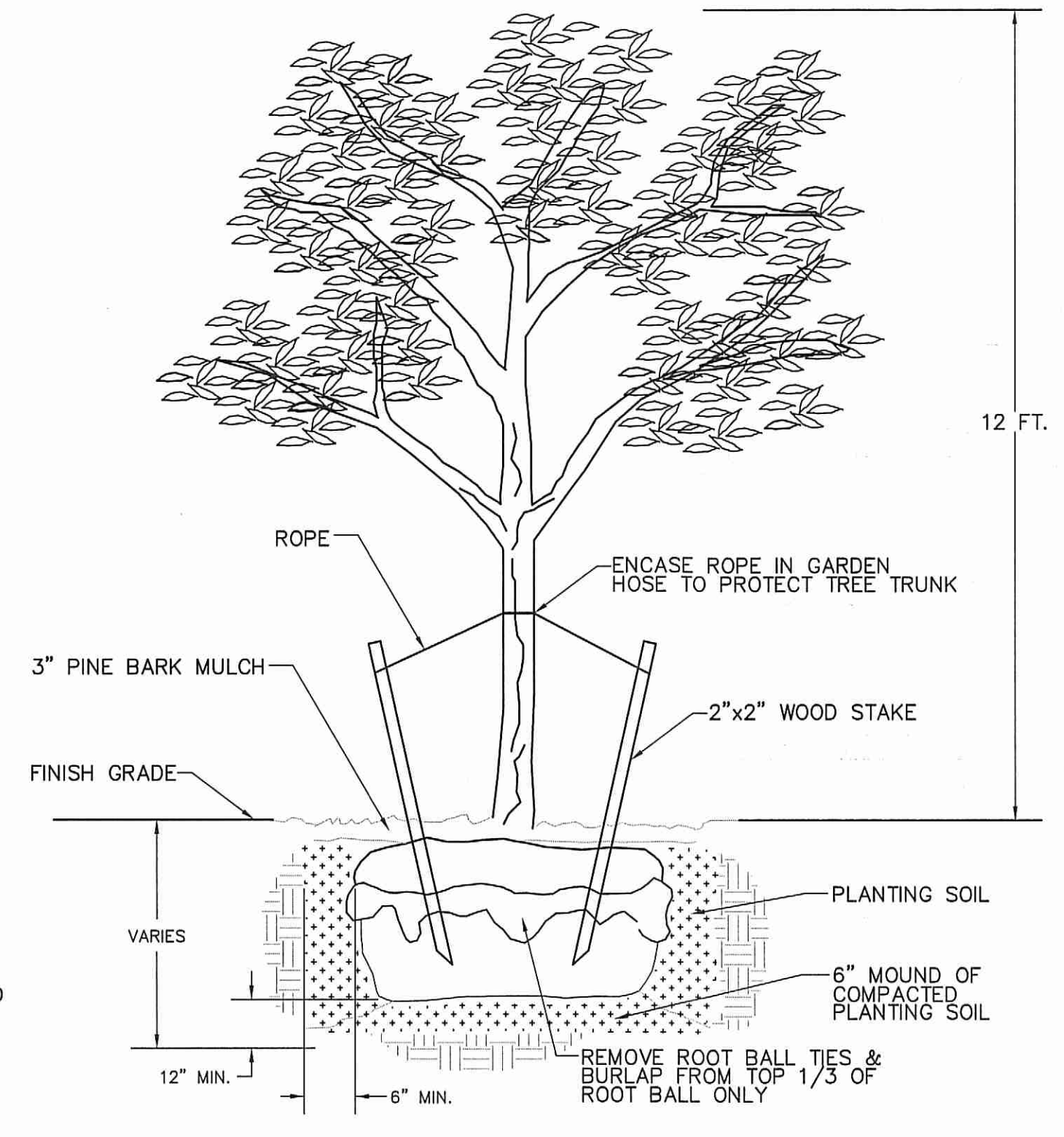
**STANDARD SPACE DETAIL**  
N.T.S.



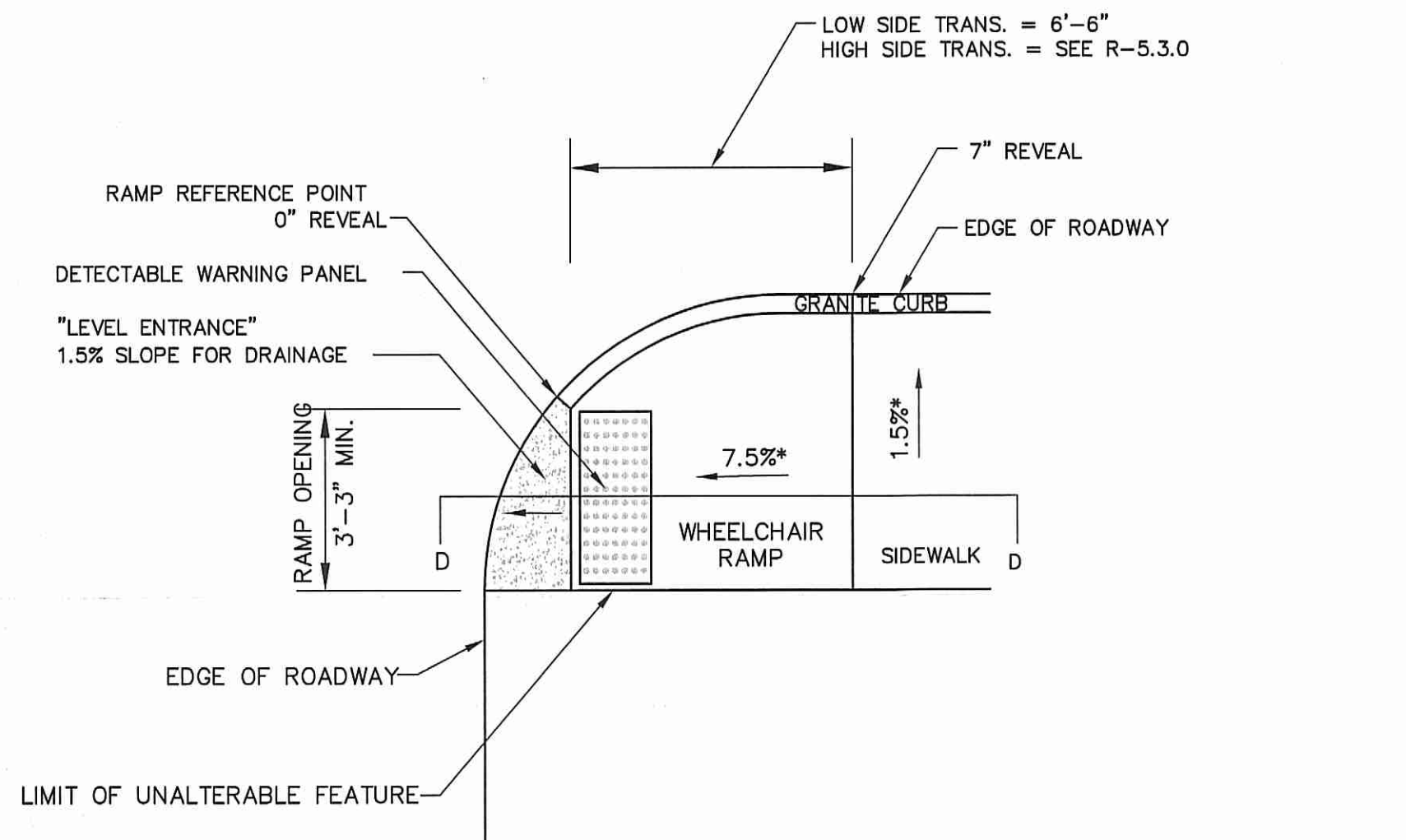
**HANDICAP PARKING SPACE DETAIL**  
N.T.S.



**TYPICAL SHRUB PLANTING DETAIL**  
N.T.S.



**TYPICAL TREE PLANTING DETAIL**  
N.T.S.

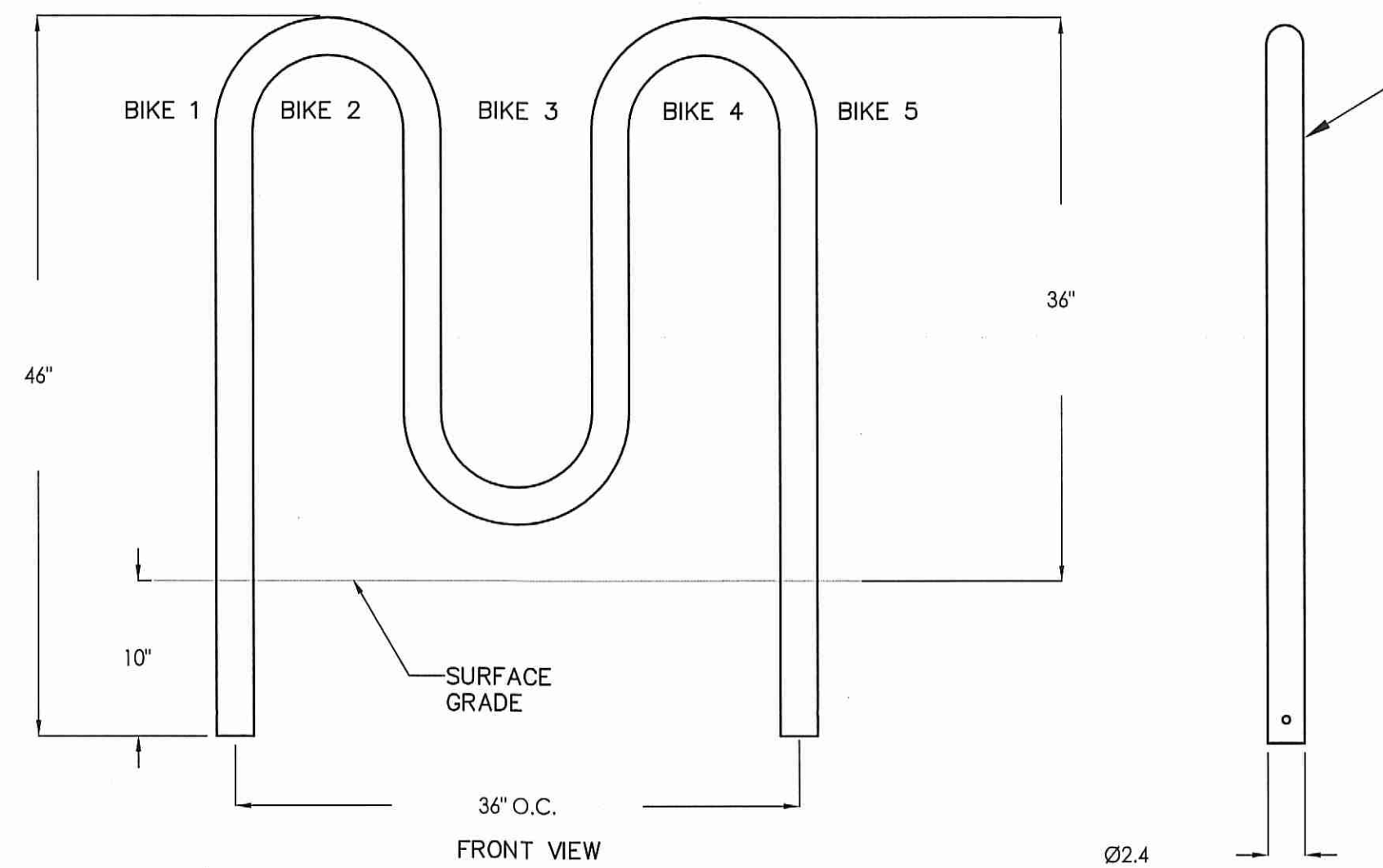


**WHEELCHAIR RAMP TYPE D**  
N.T.S.

WHEELCHAIR RAMPS SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE CURRENT REGULATIONS OF THE ARCHITECTURAL ACCESS BOARD, THE AMERICANS WITH DISABILITIES ACT AND THE CURRENT MASSDOT CONSTRUCTION STANDARDS.

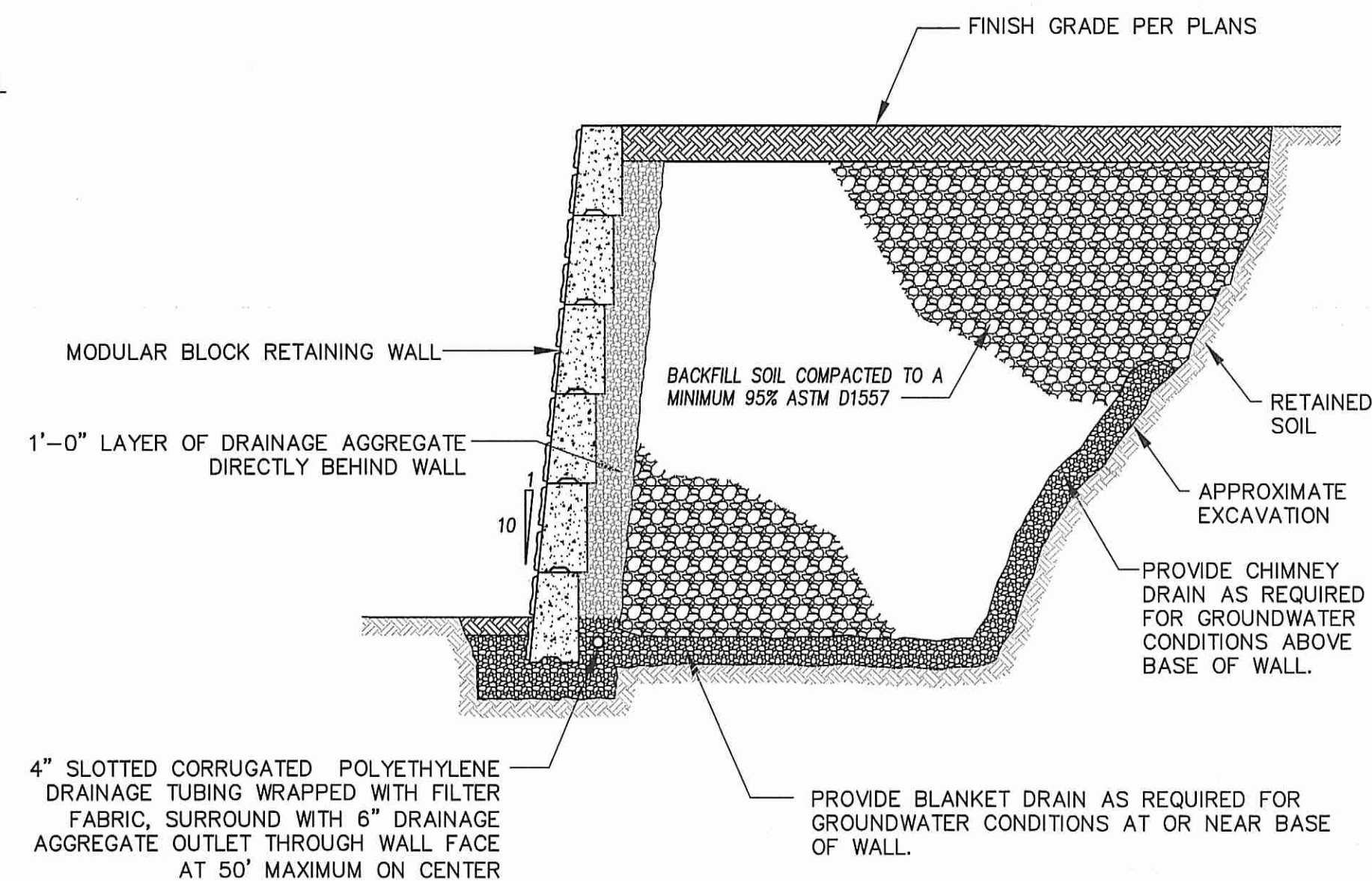
\* = TOLERANCE FOR CONSTRUCTION  $\pm 0.5\%$

NOTE: FOR DETECTABLE WARNING PANEL DETAIL SEE STANDARD DRAWING R-5.3.6



**BIKE RACK DETAIL**  
N.T.S.

NOTES:  
1. BIKE RACK TO BE SITE SCAPES ECHO BIKE RACK OR APPROVED EQUIVALENT



**MODULAR BLOCK RETAINING WALL DETAIL**  
N.T.S.

No.	Date	Revision
1	11/6/2023	Response to Comments



Drawn By: JLL  
Designed By: JLL  
Checked By: JLL

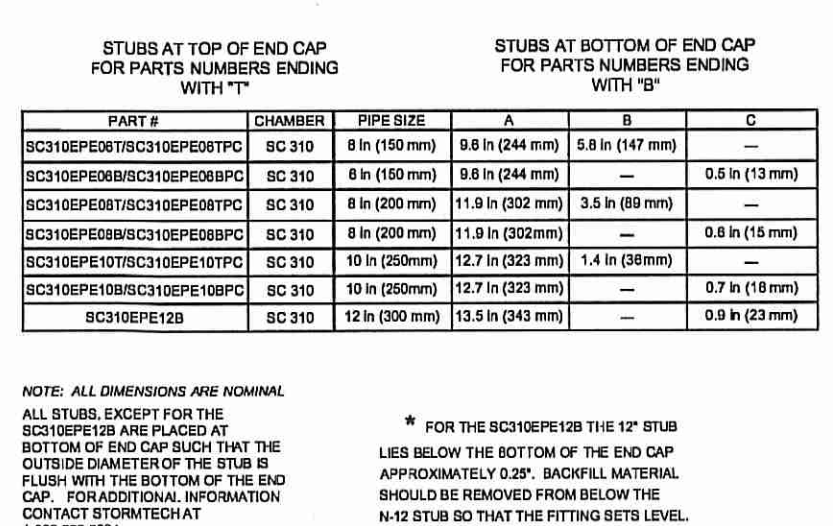
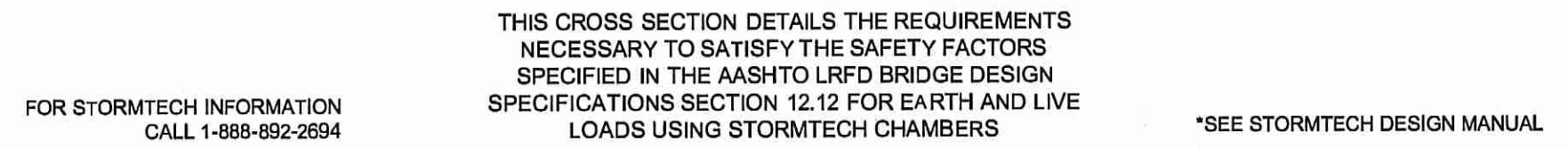
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Sheet Title  
**Construction Details**

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PLEASE NOTE: THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE WASHED CRUSHED ANGULAR. FOR EXAMPLE, THE STONE MUST BE SPECIFIED AS WASHED, CRUSHED, ANGULAR NO. 4 STONE.

STORMTECH ISOLATOR™ ROW MANIFOLD DETAIL





# ADS MANIFOLD DETAILS

A cross-sectional view of the bottom manifold assembly. The diagram shows a grid of vertical tubes. At the top, there is a horizontal manifold. Labels with arrows point to various components: 'OCS 1' points to a circular feature on the left; '18"X18" N-12 BOTTOM MANIFOLD, INV 1.6" ABOVE CHAMBER BASE' points to the top manifold; 'DMH 1' points to a circular feature on the right; 'INSPECTION PORT' points to a vertical opening on the right side; and 'ISOLATOR ROW' points to a row of tubes on the right side.

## STORMTECH SC-310 CHAMBER LAYOUT

SAVED AS	419Stromtech-310		
DRAWN BY	JLL	CHECKED BY	BRM
SCALE	NTS	DRAWING NO.  7	
DATE	11/6/2023		
PROJECT NO.	419		

Detention • Retention • Recharge  
Subsurface Stormwater Management<sup>SM</sup>