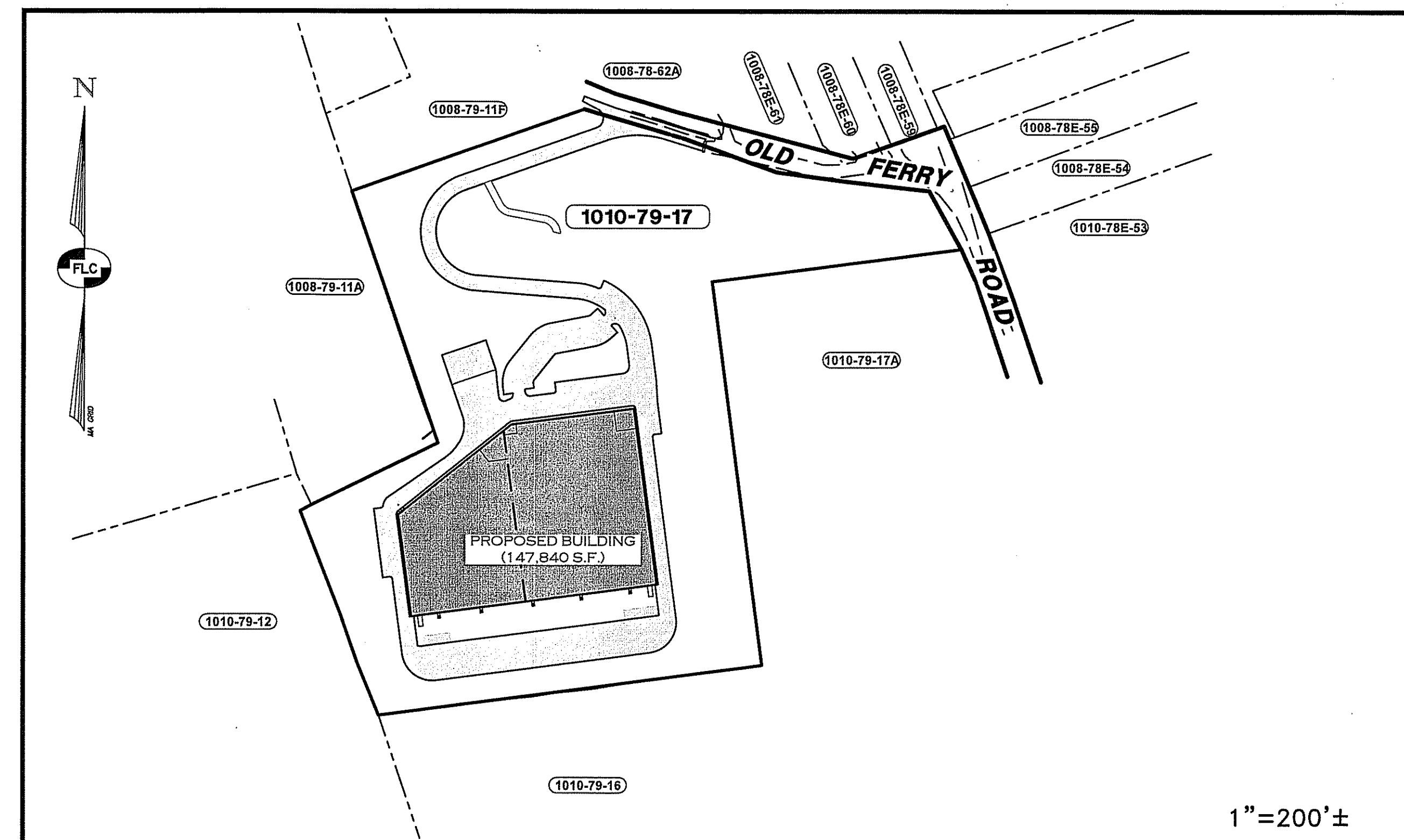
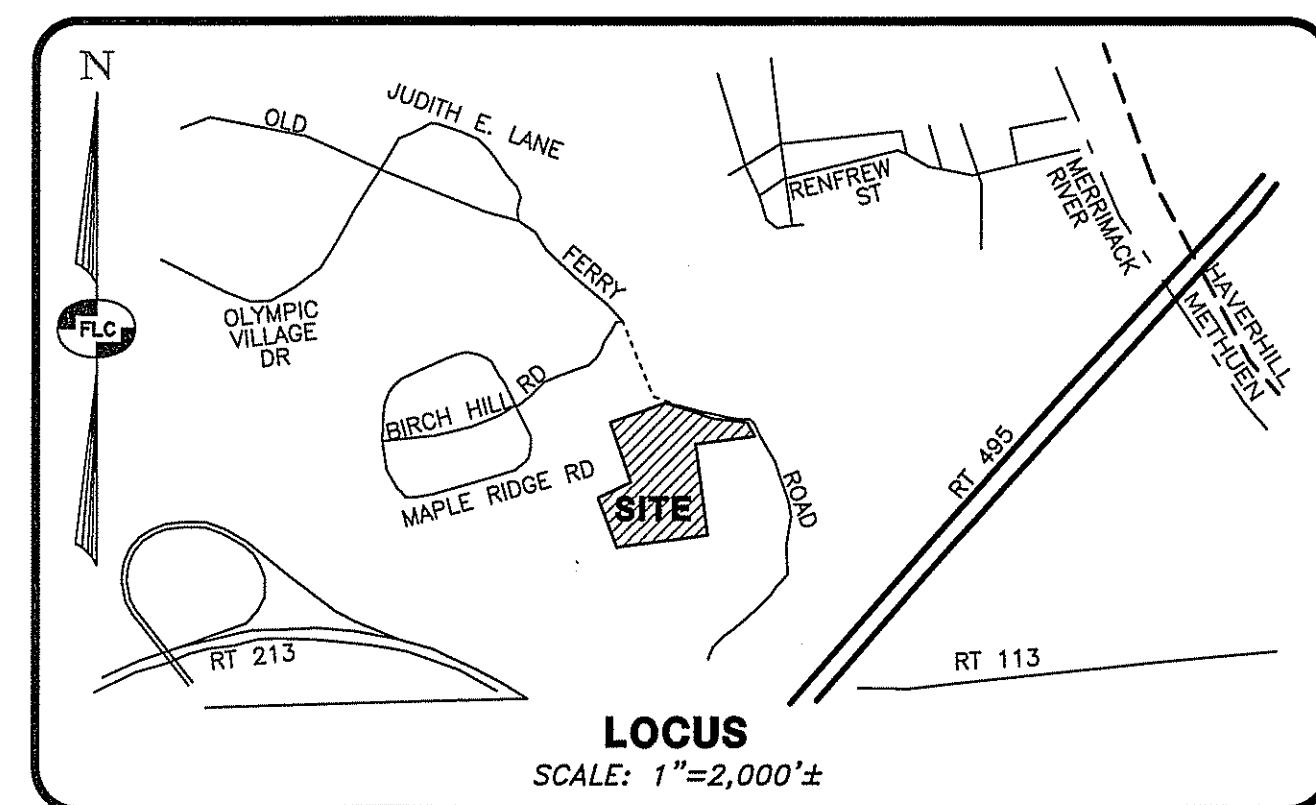


**SITE CONSTRUCTION PLANS**  
TAX MAP 1010 - LOT 79-17  
**PIE HILL WAREHOUSING**

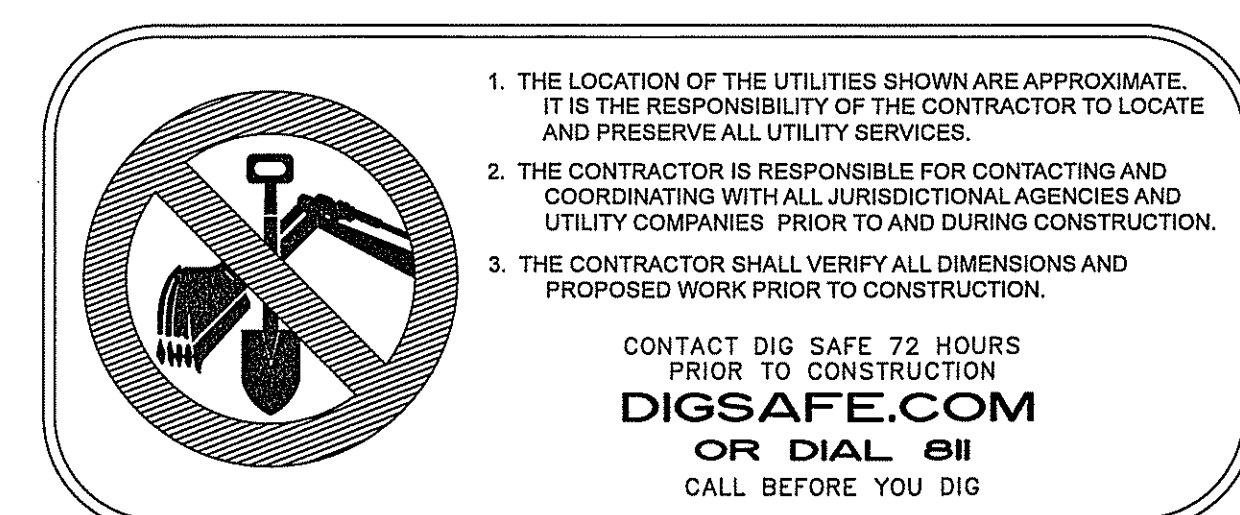
46 OLD FERRY ROAD  
METHUEN, MASSACHUSETTS  
DATE: APRIL 4, 2022  
LAST REVISED: JUNE 29, 2022



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PREPARED FOR AND LAND OF:  
**TRIPLE G PROPERTY LLC**  
59 BONANNO COURT  
METHUEN, MA 01844

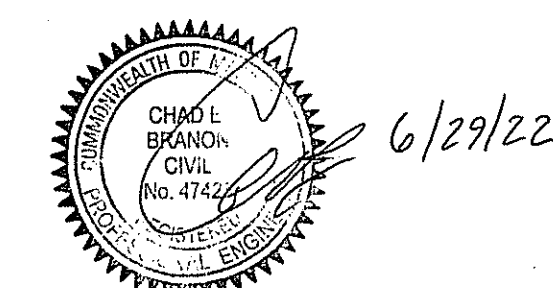
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|-------------------------------|------------|
| METHUEN COMMUNITY DEVELOPMENT |            |
| CHAIRMAN: _____               | DATE _____ |
| SECRETARY _____               | DATE _____ |



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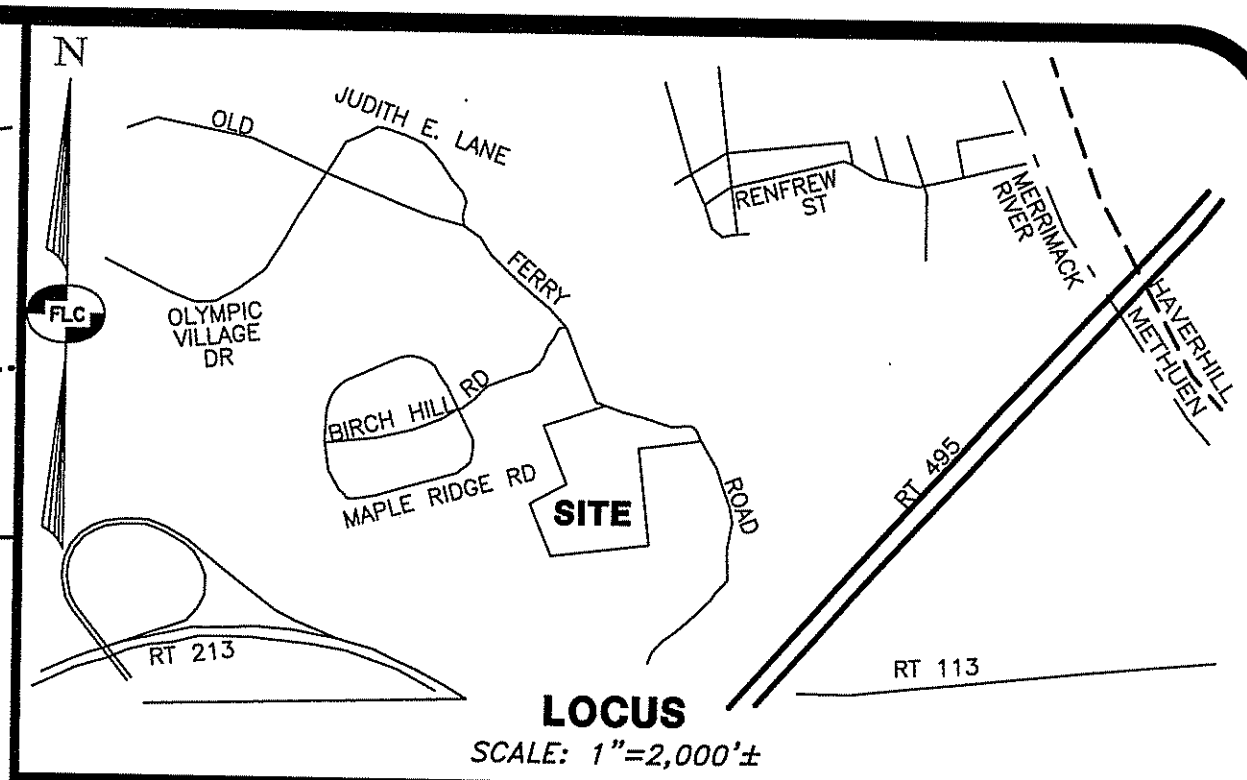
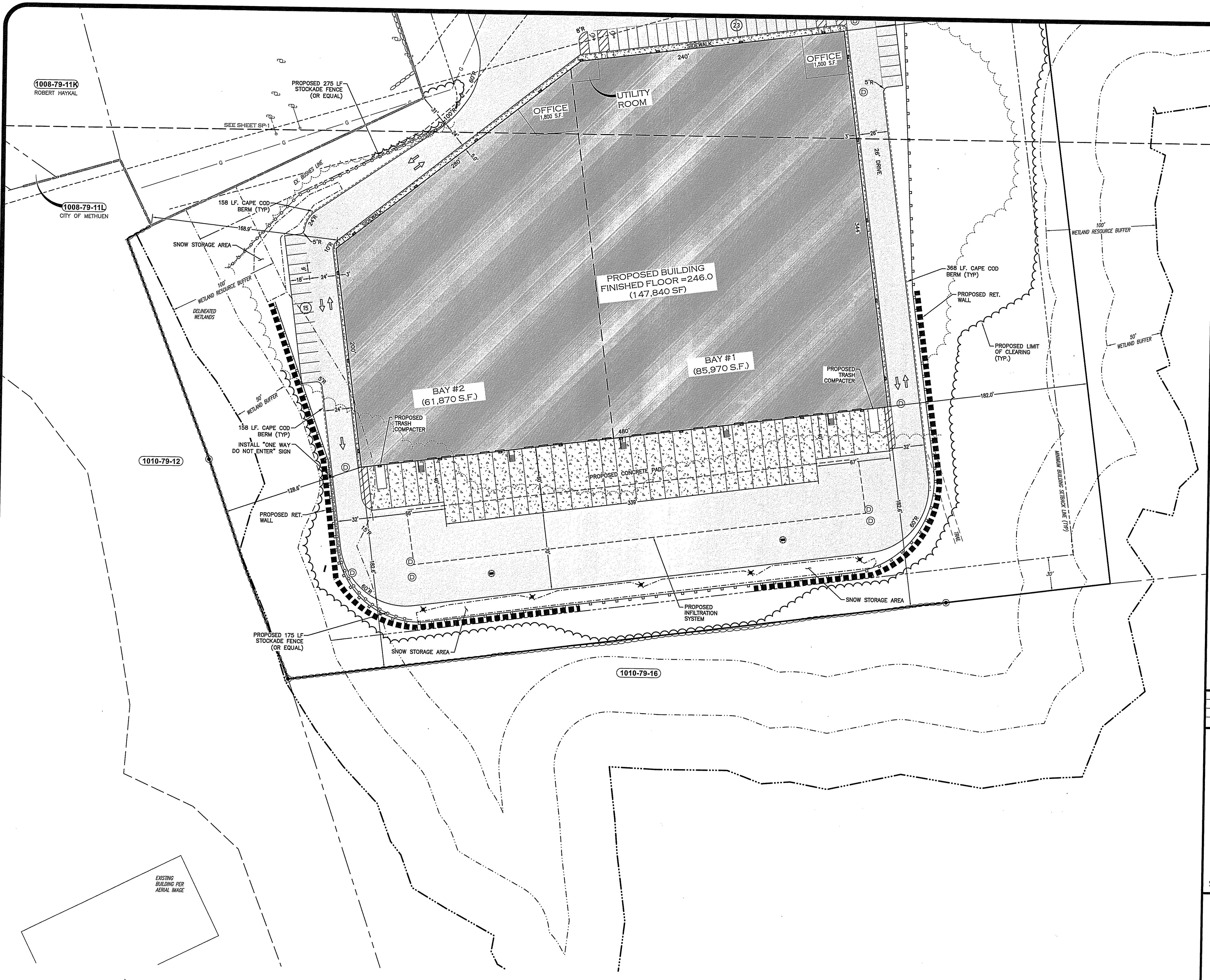
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| A     | 6/1/22        | REVISED PER CITY COMMENTS      |             | CLR              | CEB |
| FILE: | 2295CV018.dwg | PROJ. NO. 2295.01              | SHEET: CV-1 | PAGE NO. 1 OF 29 |     |







**LEGEND:**

**EXISTING FEATURES**

- RIGHT-OF-WAY LINE
- BOUNDARY LINE
- ABUTTING LOT LINE
- BUILDING SETBACK LINE
- EXISTING EASEMENT LINE
- EDGE OF PAVED ROAD
- EDGE OF GRAVEL ROAD
- STONE WALL
- EDGE OF TREE LINE
- EDGE OF WETLANDS
- WETLANDS BUFFER LINE
- 10' CONTOUR INTERVAL
- 2' CONTOUR INTERVAL
- CHAIN-LINK FENCE
- STOCKADE FENCE
- CULVERT
- OVERHEAD UTILITY LINE
- UNDERGROUND ELECTRIC DISSAFE
- UNDERGROUND GAS LINE
- WATER LINE

**1010-79-17 TAX MAP & LOT NUMBER**

**PROPOSED FEATURES**

- EDGE OF PAVEMENT
- CAPE COD BERM
- GUARD RAIL
- CONCRETE AREA
- PAVEMENT AREA
- BITUMINOUS CONCRETE SIDEWALK
- SNOW STORAGE AREA
- EASEMENT LINE
- RETAINING WALL
- PRIMARY SEPTIC AREA
- RESERVE SEPTIC AREA

**GRAPHIC SCALES**

40' 20' 0 40' 80' 120'

IMPERIAL: 1"=40'

**SYMBOLS**

- GRANITE BOUND FOUND
- DRILL HOLE FOUND
- IRON PIN FOUND
- UTILITY POLE, GUY & LIGHT
- CATCH BASIN (SQUARE)
- WATER HYDRANT
- WATER VALVE
- WATER SHUT-OFF
- WELL
- SIGN WITH TWO POSTS
- RIP RAP
- ROCK
- BOLLARD 8" DIA 3' HEIGHT
- TEST PIT NUMBER
- LEDE
- SEASONAL HIGH WATER

**SYMBOLS**

- LIMIT OF CLEARING
- RETAINING WALL
- HYDRANT
- POLE MOUNTED LIGHT
- WALL MOUNTED LIGHT
- HANDICAP PARKING STALL
- TRAFFIC FLOW (PAINTING IS OPTIONAL ON SITE)
- NUMBER OF PARKING SPACES
- BUILDING

|      |         |                                       |     |     |
|------|---------|---------------------------------------|-----|-----|
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**SITE LAYOUT PLAN SOUTH**

**PIE HILL**

**WAREHOUSING**

**TAX MAP 1010 LOT 79-17**

**(46 OLD FERRY ROAD)**

**METHUEN, MASSACHUSETTS**

**PREPARED FOR AND LAND OF:**

**TRIPLE G, LLC**

**59 BONANNO COURT, METHUEN, MA 01844**

SCALE: 1" = 40'

APRIL 4, 2022

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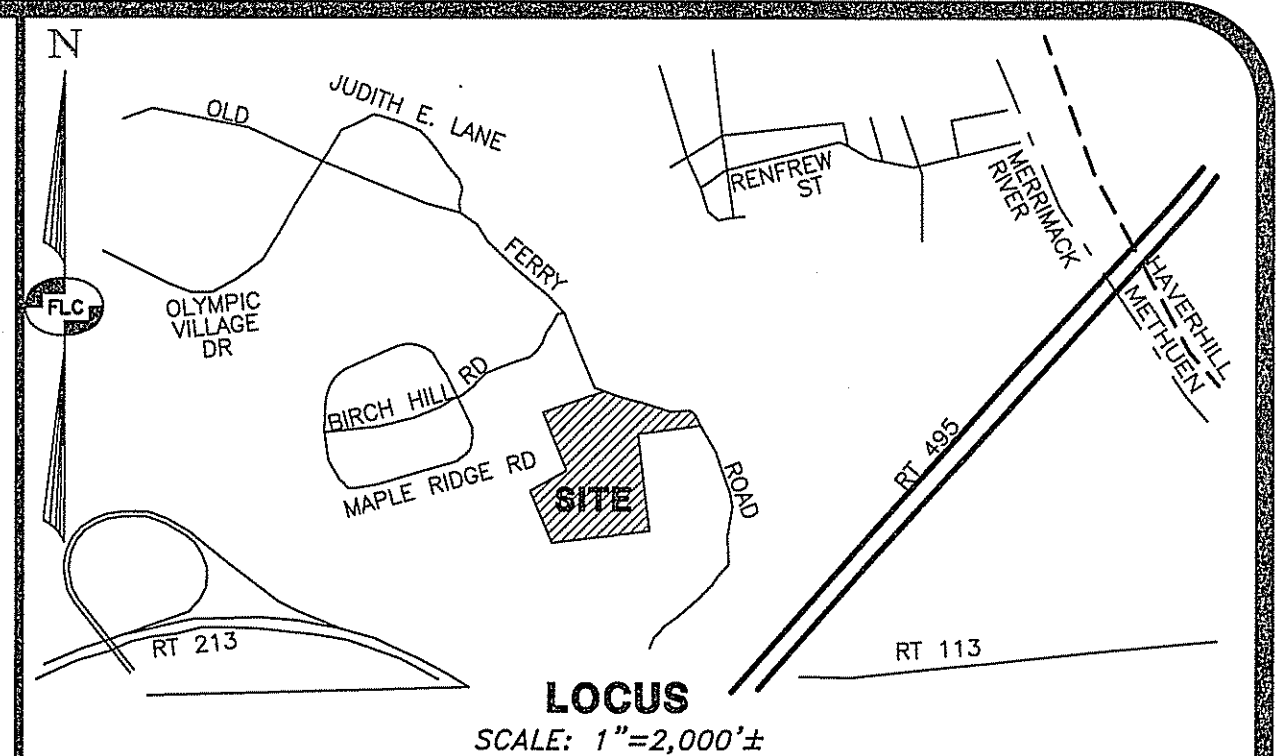
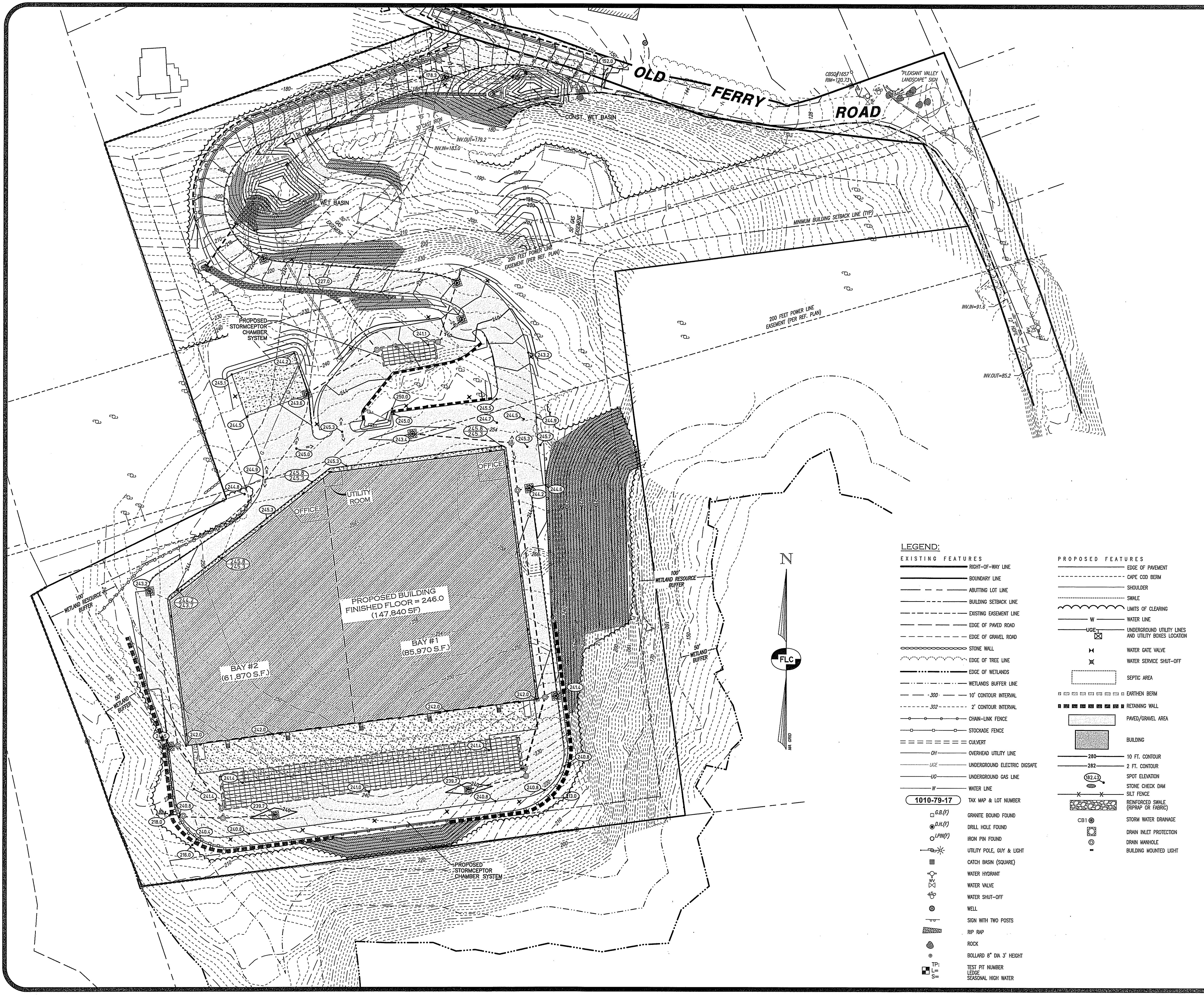
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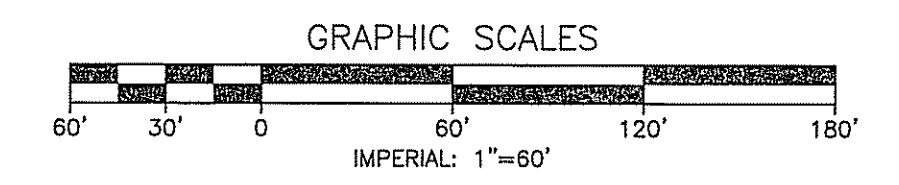




- NOTES:
1. ALL WORK SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS OF THE CITY OF METHUEN AND SHALL BE BUILT IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS FOR ROAD CONSTRUCTION AND SEWERS AND DRAINS AND THE MASSDOT STANDARDS FOR ROAD AND BRIDGE CONSTRUCTION APPROVED AND ADOPTED 2010 ARE HEREBY INCORPORATED BY REFERENCE.
  2. ROAD AND DRAINAGE CONSTRUCTION SHALL CONFORM TO THE TYPICAL SECTIONS AND DETAILS SHOWN ON THE PLANS AND THE SPECIFICATIONS NOTED ABOVE. ANY ALTERATION OF THIS DESIGN OR CHANGE DURING CONSTRUCTION MAY REQUIRE APPROVAL OF VARIOUS CITY/CITY BOARDS OR AGENCIES AND SHALL BE DISCUSSED WITH THE OWNER AND ENGINEER PRIOR TO CONSTRUCTION.
  3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, SIZE, AND ELEVATION OF ALL EXISTING UTILITIES SHOWN OR NOT SHOWN ON THESE PLANS AND SHALL VERIFY THAT ALL THE INFORMATION SHOWN HEREON IS CONSISTENT, COMPLETE, ACCURATE, AND CAN BE CONSTRUCTED PRIOR TO AND/OR DURING CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY DISCREPANCIES, ERRORS, OMISSIONS, OR EXISTING UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION SO THAT REMEDIAL ACTION MAY BE TAKEN BEFORE PROCEEDING WITH THE WORK.
  4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACT "DIGSAFE" AT LEAST 72 HOURS PRIOR TO THE START OF CONSTRUCTION (811)
  5. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE APPROPRIATE CITY DEPARTMENTS PRIOR TO CONSTRUCTION TO ARRANGE FOR NECESSARY INSPECTIONS.
  6. BLASTING, IF REQUIRED, SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF METHUEN FIRE DEPARTMENT REGULATIONS
  7. ALL DISTURBED NON-PAVED AREAS SHALL BE LOAMED AND SEEDDED IMMEDIATELY UPON BEING CONSTRUCTED THE RETAINING WALLS SHOWN SHALL BE DESIGNED BY OTHERS UNLESS OTHERWISE NOTED
  8. ALL TRAFFIC SIGNS SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES LATEST EDITION
  9. EXISTING PAVEMENT SHALL BE SAW-CUT AS NECESSARY. THE CONTRACTOR SHALL ENSURE A SMOOTH TRANSITION BETWEEN EXISTING AND NEW PAVEMENT.
  10. ALL POWER WORK SHALL CONFORM TO LIBERTY UTILITIES STANDARDS.
  11. ALL TELEPHONE WORK SHALL CONFORM TO VERIZON SPECIFICATIONS.
  12. CONTRACTOR SHALL OBTAIN STRUCTURAL DESIGN PLANS, DETAILS AND SPECIFICATIONS FOR ALL RETAINING WALLS SHOWN ON THIS PLAN PRIOR TO CONSTRUCTION.
  13. PORTIONS OF THE EXISTING DRIVEWAY NOT IMPACTED SHALL BE LOAMED AND SEEDDED. ASSOCIATED IMPROVEMENTS TO THE EXISTING DRIVEWAY SHALL ALSO BE REMOVED SUCH AS BUT NOT LIMITED TO THE GATE, CULVERTS, ETC.. ANY QUESTIONS SHALL BE DIRECTED TO THE PROJECT ENGINEER.

LEGEND:

- EXISTING FEATURES
- RIGHT-OF-WAY LINE
  - BOUNDARY LINE
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  - EXISTING EASEMENT LINE
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  - EDGE OF TREE LINE
  - EDGE OF WETLANDS
  - WETLANDS BUFFER LINE
  - 10' CONTOUR INTERVAL
  - 302' 2' CONTOUR INTERVAL
  - CHAIN-LINK FENCE
  - STOCKADE FENCE
  - CULVERT
  - OH- OVERHEAD UTILITY LINE
  - UGE- UNDERGROUND ELECTRIC DIGSAFE
  - UG- UNDERGROUND GAS LINE
  - W- WATER LINE
- PROPOSED FEATURES
- EDGE OF PAVEMENT
  - CAPE COD BERM
  - SHOULDER
  - SWALE
  - LIMITS OF CLEARING
  - W- WATER LINE
  - UGE- UNDERGROUND UTILITY LINES AND UTILITY BOXES LOCATION
  - WATER GATE VALVE
  - WATER SERVICE SHUT-OFF
  - SEPTIC AREA
  - EARTHEN BERM
  - RETAINING WALL
  - PAVED/GRAVEL AREA
  - BUILDING
  - 10 FT. CONTOUR
  - 2 FT. CONTOUR
  - SPOT ELEVATION
  - STONE CHECK DAM
  - SILT FENCE
  - REINFORCED SWALE (RIPRAP OR FABRIC)
  - CB1- STORM WATER DRAINAGE
  - DRAIN INLET PROTECTION
  - DRAIN MANHOLE
  - BUILDING MOUNTED LIGHT
- 1010-79-17
- TAX MAP & LOT NUMBER
- GRANITE BOUND FOUND
  - DRILL HOLE FOUND
  - IRON PIN FOUND
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|      |         |                                       |     |     |     |
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**MASTER GRADING & DRAINAGE PLAN**

**PIE HILL**

**WAREHOUSING**

**TAX MAP 1010 LOT 79-17**

**(46 OLD FERRY ROAD)**

**METHUEN, MASSACHUSETTS**

**PREPARED FOR AND LAND OF:**

**TRIPLE G, LLC**

**59 BONANNO COURT, METHUEN, MA 01844**

SCALE: 1" = 60' APRIL 4, 2022

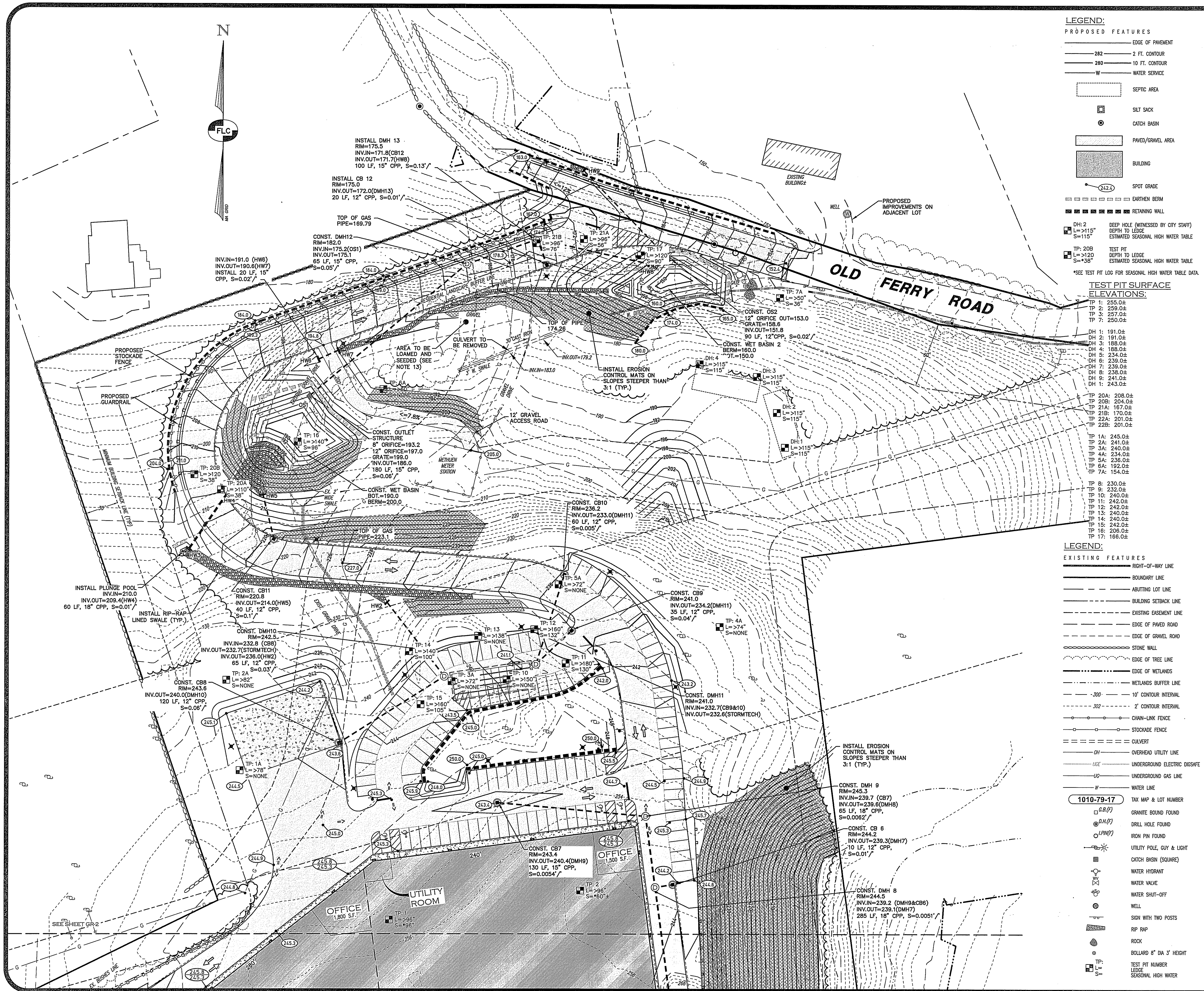
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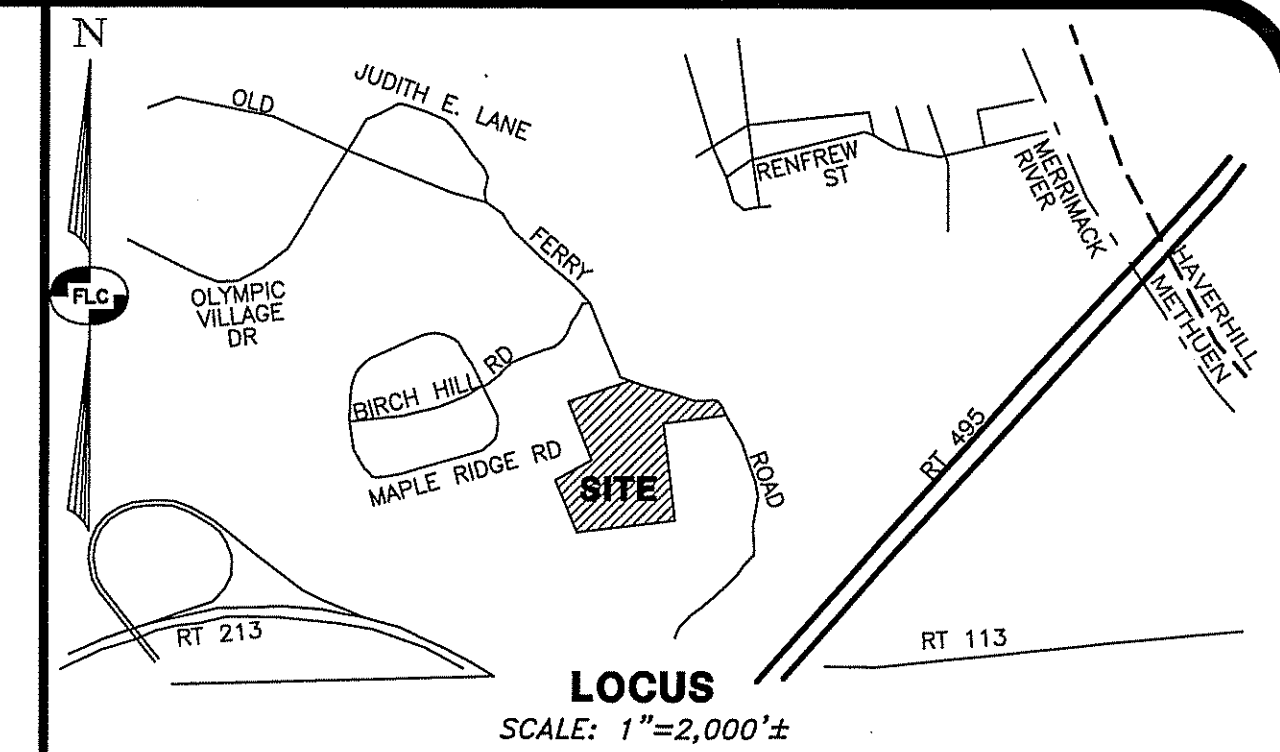
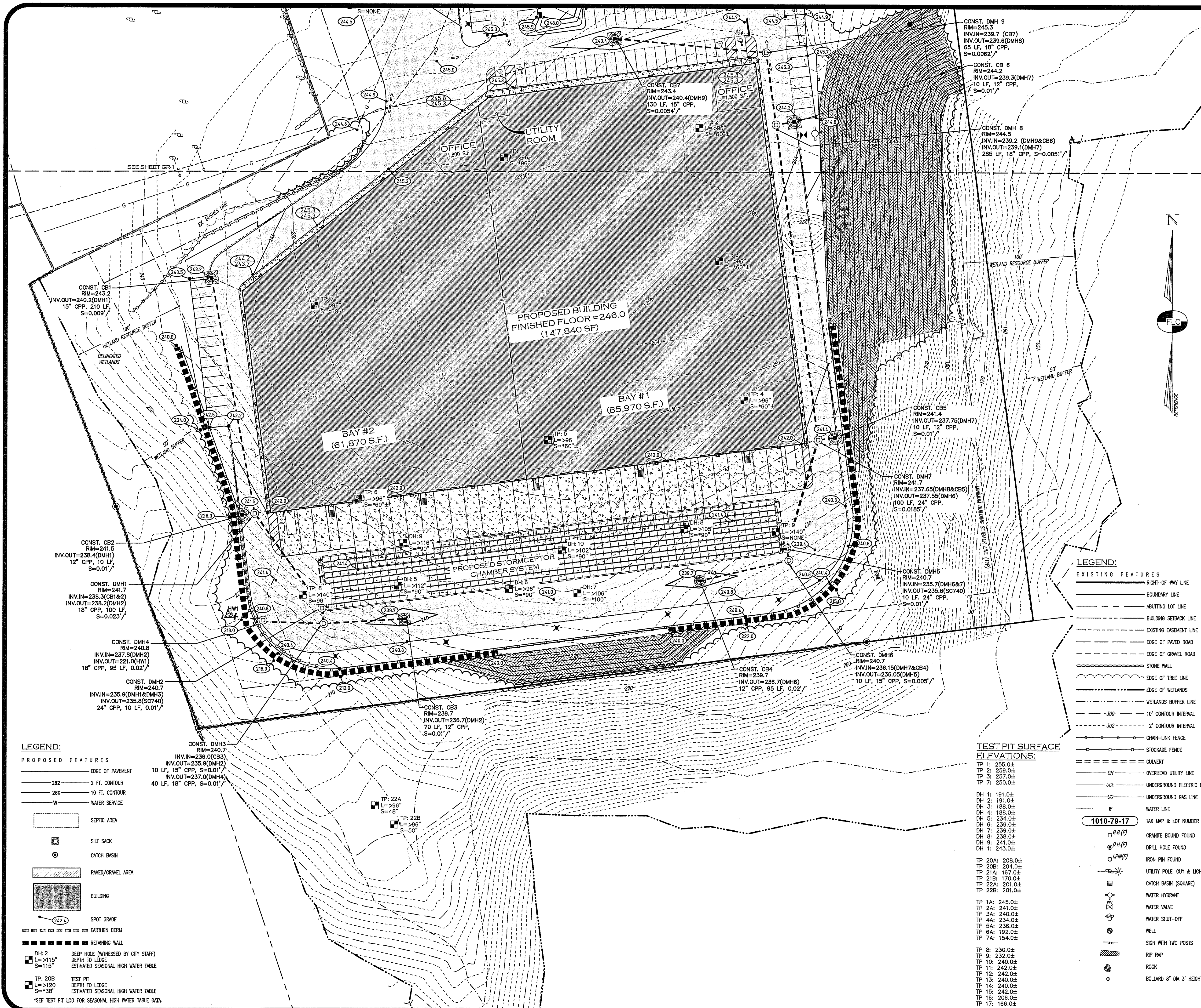
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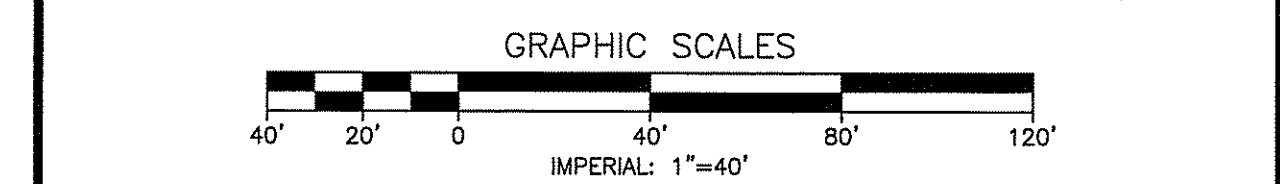
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- NOTES:**
- ALL WORK SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS OF THE TOWN OF METHUEN AND SHALL BE BUILT IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. THE TOWN OF METHUEN DEPARTMENT OF PUBLIC WORKS SPECIFICATIONS FOR ROAD CONSTRUCTION AND SEWERS AND DRAINS AND THE MASSDOT STANDARDS FOR ROAD AND BRIDGE CONSTRUCTION APPROVED AND ADOPTED 2010 ARE HEREBY INCORPORATED BY REFERENCE.
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**GRADING & DRAINAGE PLAN SOUTH**

**PIE HILL**

**WAREHOUSING**

**TAX MAP 1010 LOT 79-17**  
**(46 OLD FERRY ROAD)**  
**METHUEN, MASSACHUSETTS**

**PREPARED FOR AND LAND OF:**  
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**59 BONANNO COURT, METHUEN, MA 01844**

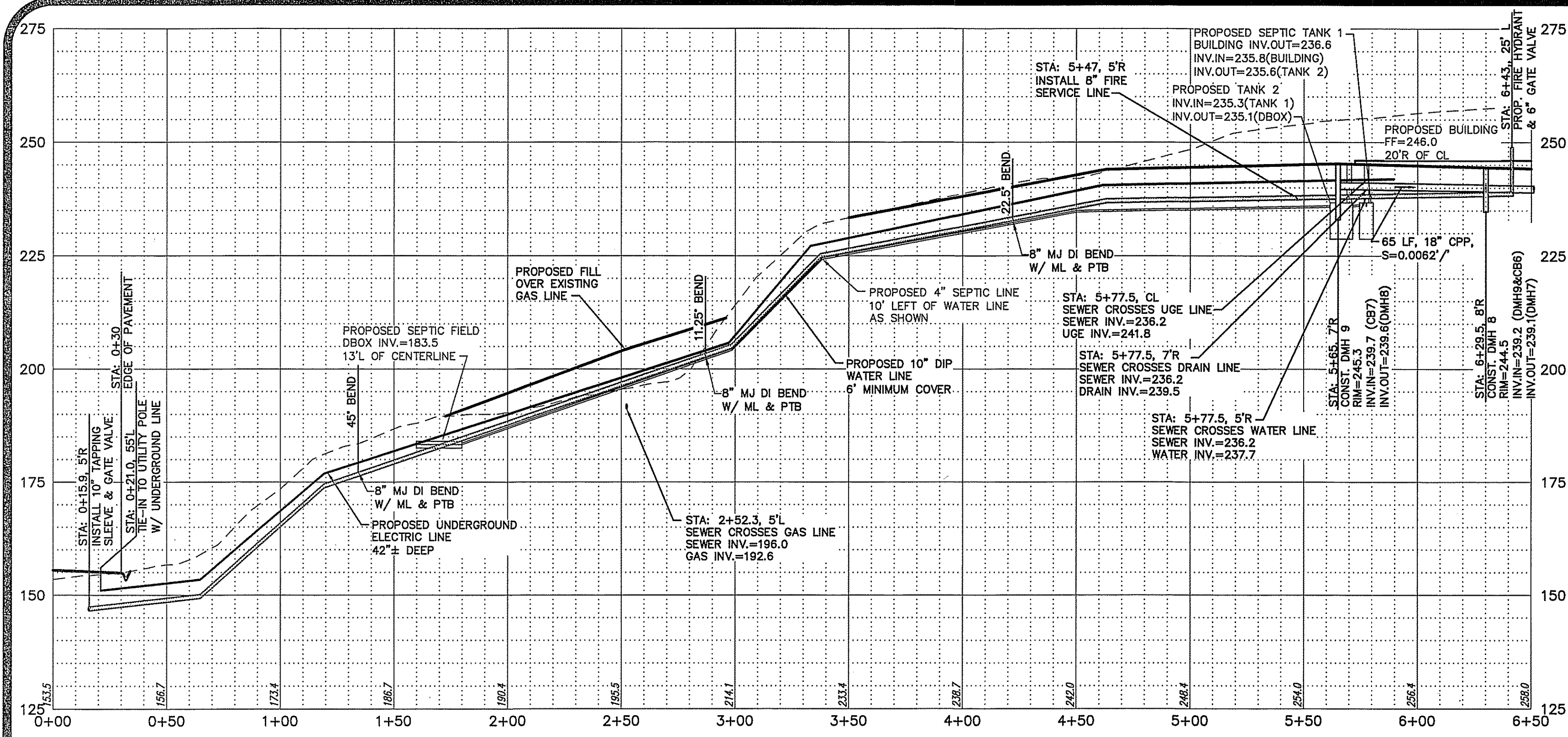
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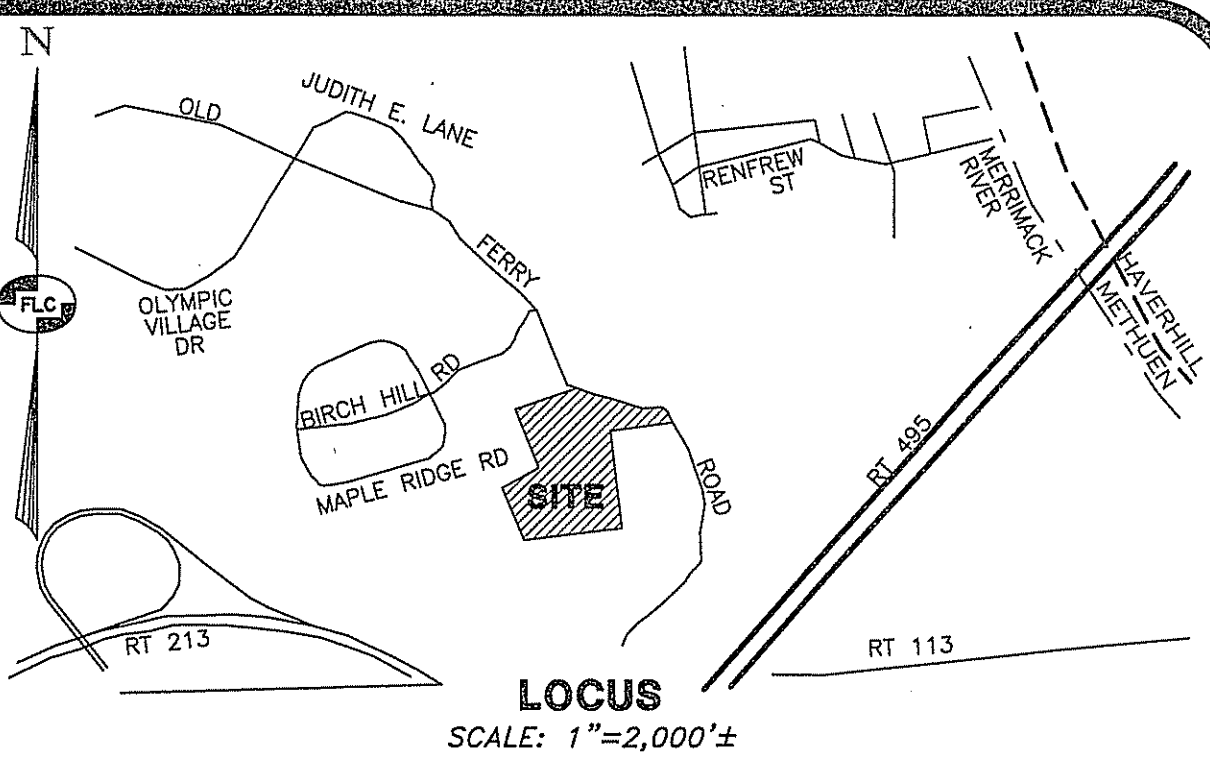
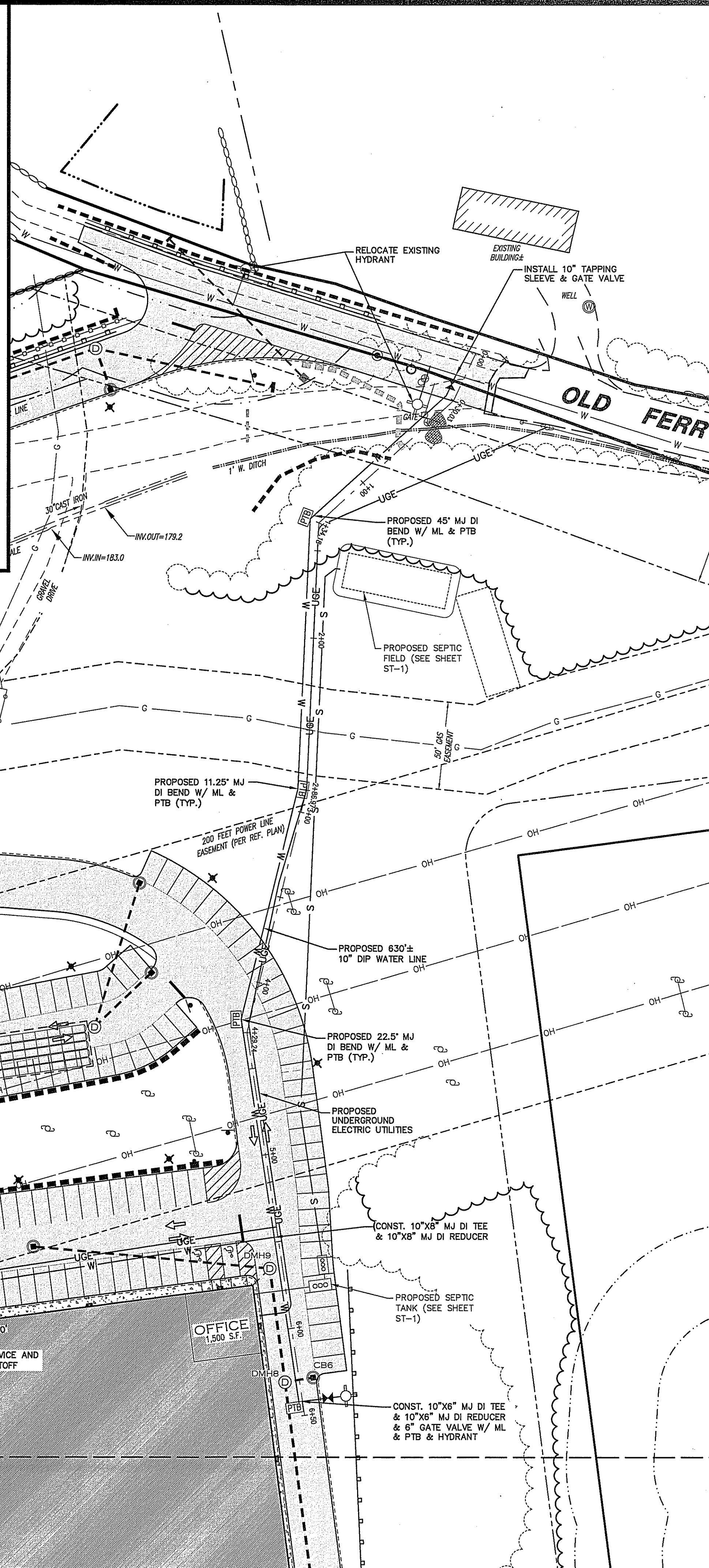
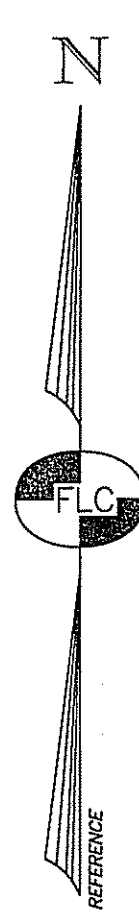
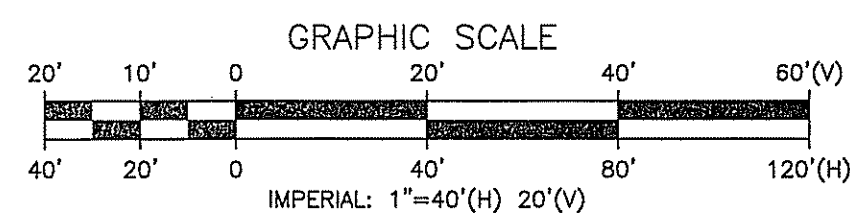
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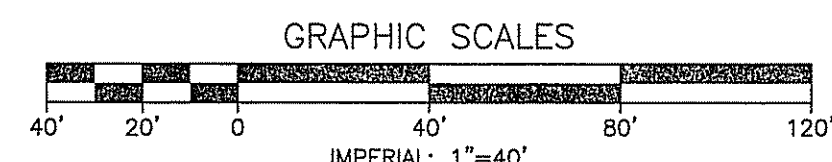
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UTILITY PROFILE



- NOTES:
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  - CONTRACTOR SHALL OBTAIN STRUCTURAL DESIGN PLANS, DETAILS AND SPECIFICATIONS FOR ALL RETAINING WALLS SHOWN ON THIS PLAN PRIOR TO CONSTRUCTION.
  - THIS PROJECT MAY REQUIRE A BOOSTER PUMP FOR WATER SUPPLY ON TOP OF THE HILL. THE ANALYSIS OF THE SYSTEM IS CURRENTLY IN PROCESS.
  - SEWER PIPING SHALL BE CONSTRUCTED MIN. 18" BELOW WATERLINE. WHEN SEWER LINES CROSS WATER LINES BOTH PIPES SHALL BE CONSTRUCTED OF CLASS 150 PRESSURE PIPE AND BE TESTED FOR WATERTIGHTNESS.
  - THE WATER CONNECTION WILL BE COORDINATED WITH THE CITY OF METHUEN DEPARTMENT OF PUBLIC WORKS.



|      |         |                                       |     |     |     |
|------|---------|---------------------------------------|-----|-----|-----|
| A    | 6/29/22 | REVISED PER ENGINEERING & PEER REVIEW |     | CLR | CEB |
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**UTILITY PLAN NORTH**  
**PIE HILL**  
**WAREHOUSING**  
**TAX MAP 1010 LOT 79-17**  
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# LEGEND:

## EXISTING FEATURES

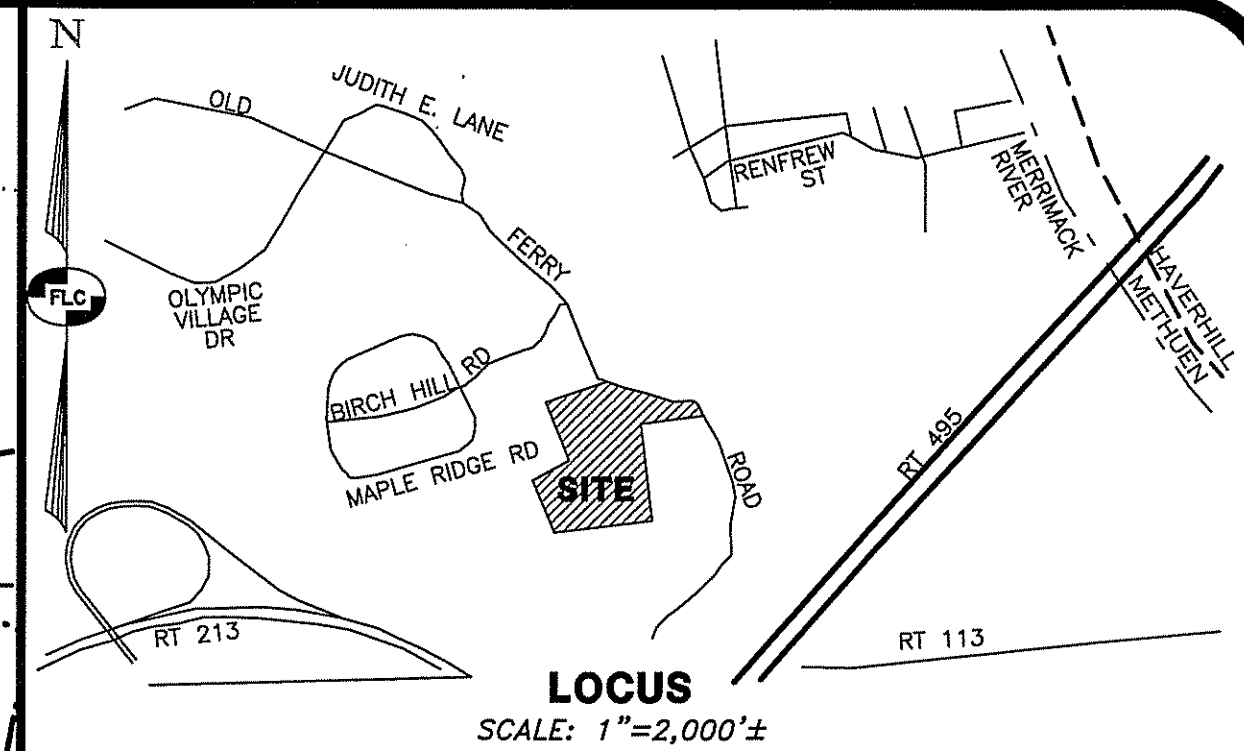
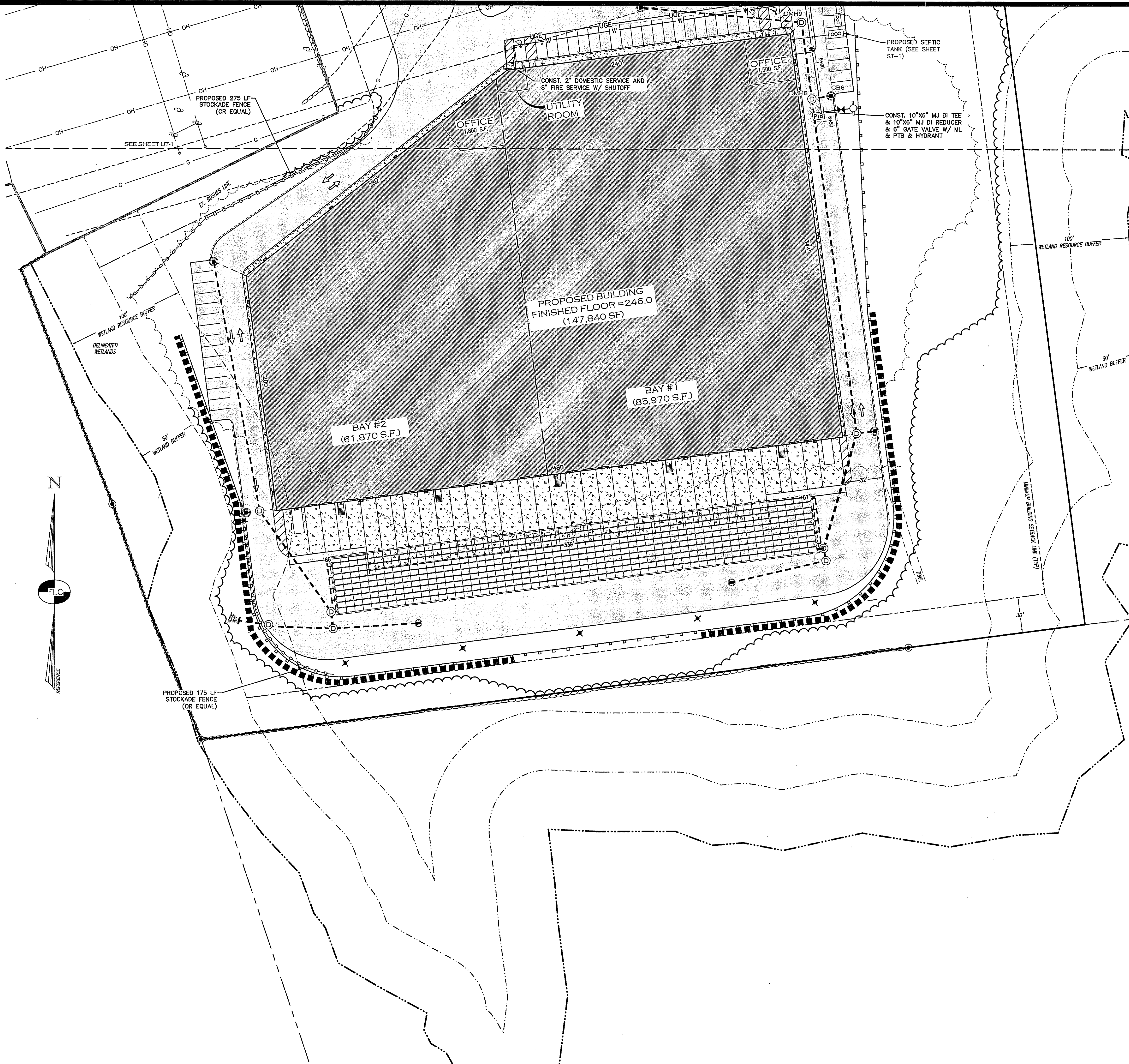
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- STONE WALL
- EDGE OF TREE LINE
- EDGE OF WETLANDS
- WETLANDS BUFFER LINE
- 10' CONTOUR INTERVAL
- 2' CONTOUR INTERVAL
- CHAIN-LINK FENCE
- STOCKADE FENCE
- CULVERT
- OVERHEAD UTILITY LINE
- UNDERGROUND ELECTRIC DIGSAFE
- UNDERGROUND GAS LINE
- WATER LINE

## 1010-79-17

- GRANITE BOUND FOUND
- DRILL HOLE FOUND
- IRON PIN FOUND
- UTILITY POLE, GUY & LIGHT
- CATCH BASIN (SQUARE)
- WATER HYDRANT
- WATER VALVE
- WATER SHUT-OFF
- WELL
- SIGN WITH TWO POSTS
- RIP RAP
- ROCK
- BOLLARD 8" DIA 3' HEIGHT

## PROPOSED FEATURES

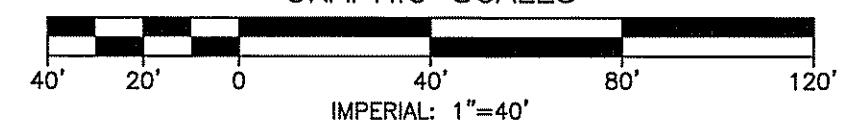
- EDGE OF PAVEMENT
- W — WATER SERVICE
- S — SEWER SERVICE
- UGE — UNDERGROUND UTILITY LINES AND UTILITY BOXES LOCATION
- SEPTIC AREA
- PAVED/GRAVEL AREA
- PRECAST THRUST BLOCK
- CB — DRAINAGE CATCH BASIN
- HW — DRAINAGE HEADWALL
- MH — DRAINAGE MANHOLE
- WATER GATE VALVE
- WATER SHUT OFF
- FIRE HYDRANT



## NOTES:

- ALL WORK SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS OF THE CITY OF METHUEN AND SHALL BE BUILT IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS OF THE CITY OF METHUEN DEPARTMENT OF PUBLIC WORKS. SPECIFICATIONS FOR ROAD CONSTRUCTION AND SEWERS AND DRAINS AND THE MASSDOT STANDARDS FOR ROAD AND BRIDGE CONSTRUCTION APPROVED AND ADOPTED 2010 ARE HEREBY INCORPORATED BY REFERENCE.
- ROAD AND DRAINAGE CONSTRUCTION SHALL CONFORM TO THE TYPICAL SECTIONS AND DETAILS SHOWN ON THE PLANS AND THE SPECIFICATIONS NOTED ABOVE. ANY ALTERATION OF THIS DESIGN OR CHANGE DURING CONSTRUCTION MAY REQUIRE APPROVAL OF VARIOUS CITY/CITY BOARDS OR AGENCIES AND SHALL BE DISCUSSED WITH THE OWNER AND ENGINEER PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, SIZE, AND ELEVATION OF ALL EXISTING UTILITIES SHOWN OR NOT SHOWN ON THESE PLANS AND SHALL VERIFY THAT ALL THE INFORMATION SHOWN HEREON IS CONSISTENT, COMPLETE, ACCURATE, AND CAN BE CONSTRUCTED PRIOR TO AND/OR DURING CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY DISCREPANCIES, ERRORS, OMISSIONS, OR EXISTING UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION SO THAT REMEDIAL ACTION MAY BE TAKEN BEFORE PROCEEDING WITH THE WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACT "DIGSAFE" AT LEAST 72 HOURS PRIOR TO THE START OF CONSTRUCTION (1-888-344-7233).
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- BLASTING, IF REQUIRED, SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF METHUEN FIRE DEPARTMENT REGULATIONS.
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- CONTRACTOR SHALL OBTAIN STRUCTURAL DESIGN PLANS, DETAILS AND SPECIFICATIONS FOR ALL RETAINING WALLS SHOWN ON THIS PLAN PRIOR TO CONSTRUCTION.
- THIS PROJECT MAY REQUIRE A BOOSTER PUMP FOR WATER SUPPLY ON TOP OF THE HILL. THE ANALYSIS OF THE SYSTEM IS CURRENTLY IN PROCESS.
- SEWER PIPING SHALL BE CONSTRUCTED MIN. 18" BELOW WATERLINE. WHEN SEWER LINES CROSS WATER LINES BOTH PIPES SHALL BE CONSTRUCTED OF CLASS 150 PRESSURE PIPE AND BE TESTED FOR WATERTIGHTNESS.
- THE WATER CONNECTION WILL BE COORDINATED WITH THE CITY OF METHUEN DEPARTMENT OF PUBLIC WORKS.

## GRAPHIC SCALES



| REV. | DATE    | DESCRIPTION                           | C/O | DR  | CK  |
|------|---------|---------------------------------------|-----|-----|-----|
| A    | 6/29/22 | REVISED PER ENGINEERING & PEER REVIEW |     | CLR | CEB |

**UTILITY PLAN SOUTH**  
**PIE HILL**  
**WAREHOUSING**  
**TAX MAP 1010 LOT 79-17**  
**(46 OLD FERRY ROAD)**  
**METHUEN, MASSACHUSETTS**  
**PREPARED FOR AND LAND OF:**  
**TRIPLE G, LLC**  
**59 BONANNO COURT, METHUEN, MA 01844**

SCALE: 1" = 40' APRIL 4, 2022

Surveying ♦ Engineering ♦ Land Planning ♦ Permitting ♦ Septic Designs

**FIELDSTONE**  
**LAND CONSULTANTS, PLLC**  
 206 Elm Street, Milford, NH 03055  
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# LEGEND:

## EXISTING FEATURES

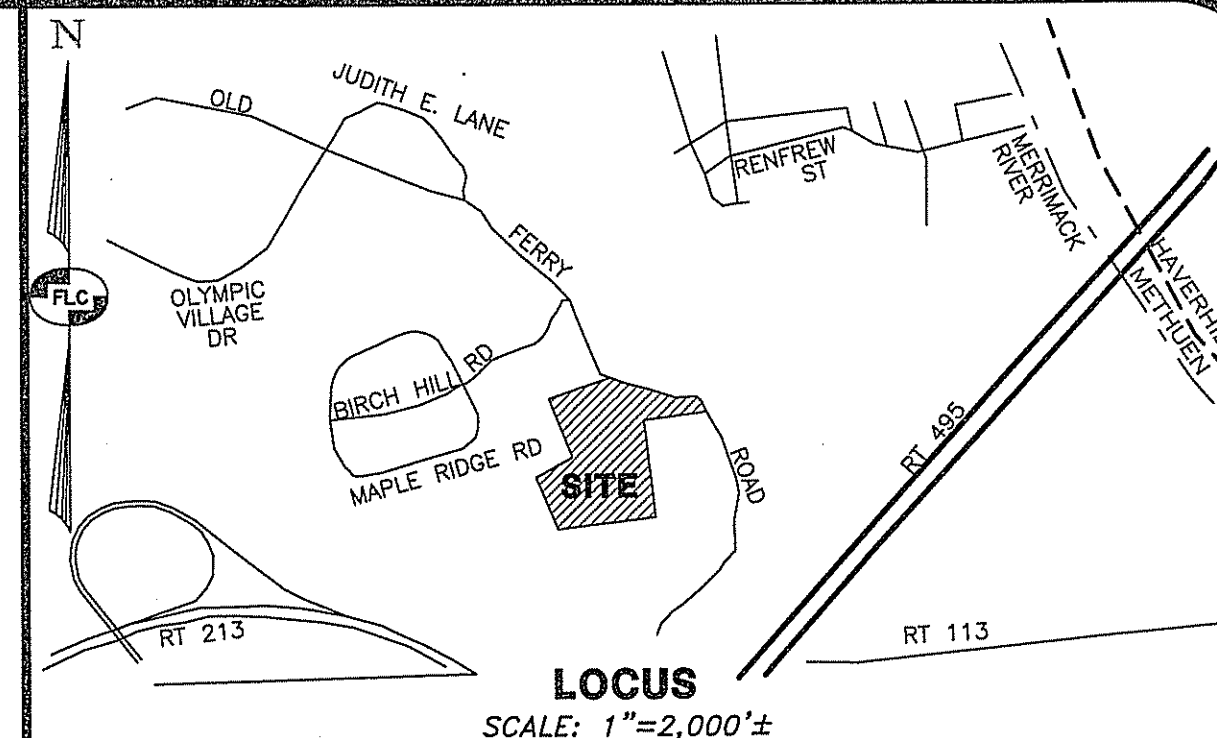
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## 1010-79-17

- C.B.(F)
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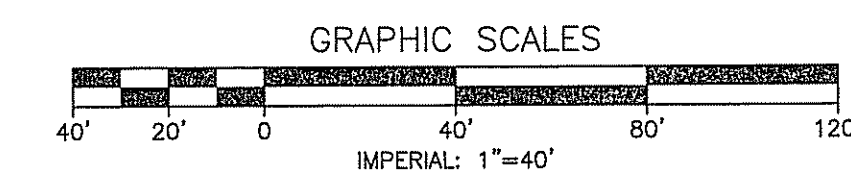
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- EDGE OF PAVEMENT
- 2 FT. CONTOUR
- 10 FT. CONTOUR
- SILT FENCE
- PRIMARY SEPTIC AREA
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- SILT SACK
- CATCH BASIN
- PAVED AREA
- BUILDING
- STONE CHECK DAM
- EROSION CONTROL MAT



## NOTES:

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## EROSION CONTROL PLAN NORTH PIE HILL WAREHOUSING

TAX MAP 1010 LOT 79-17  
(46 OLD FERRY ROAD)  
METHUEN, MASSACHUSETTS

PREPARED FOR AND LAND OF:  
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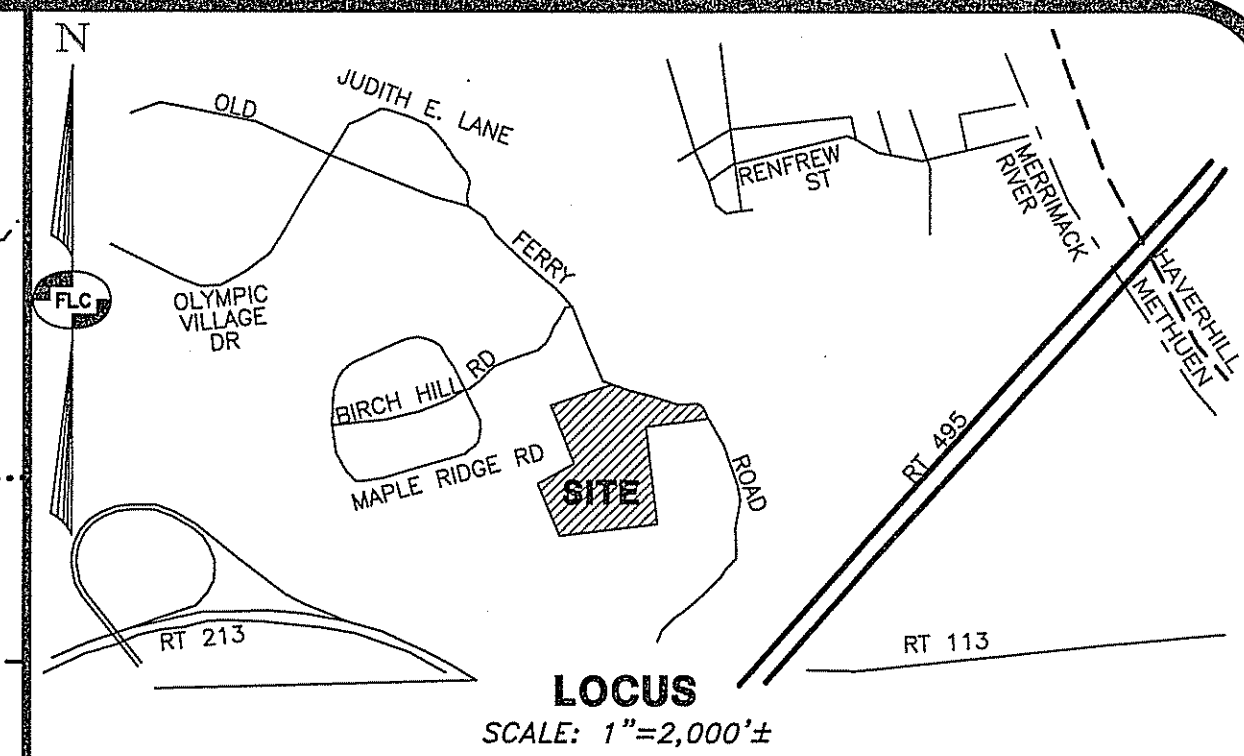
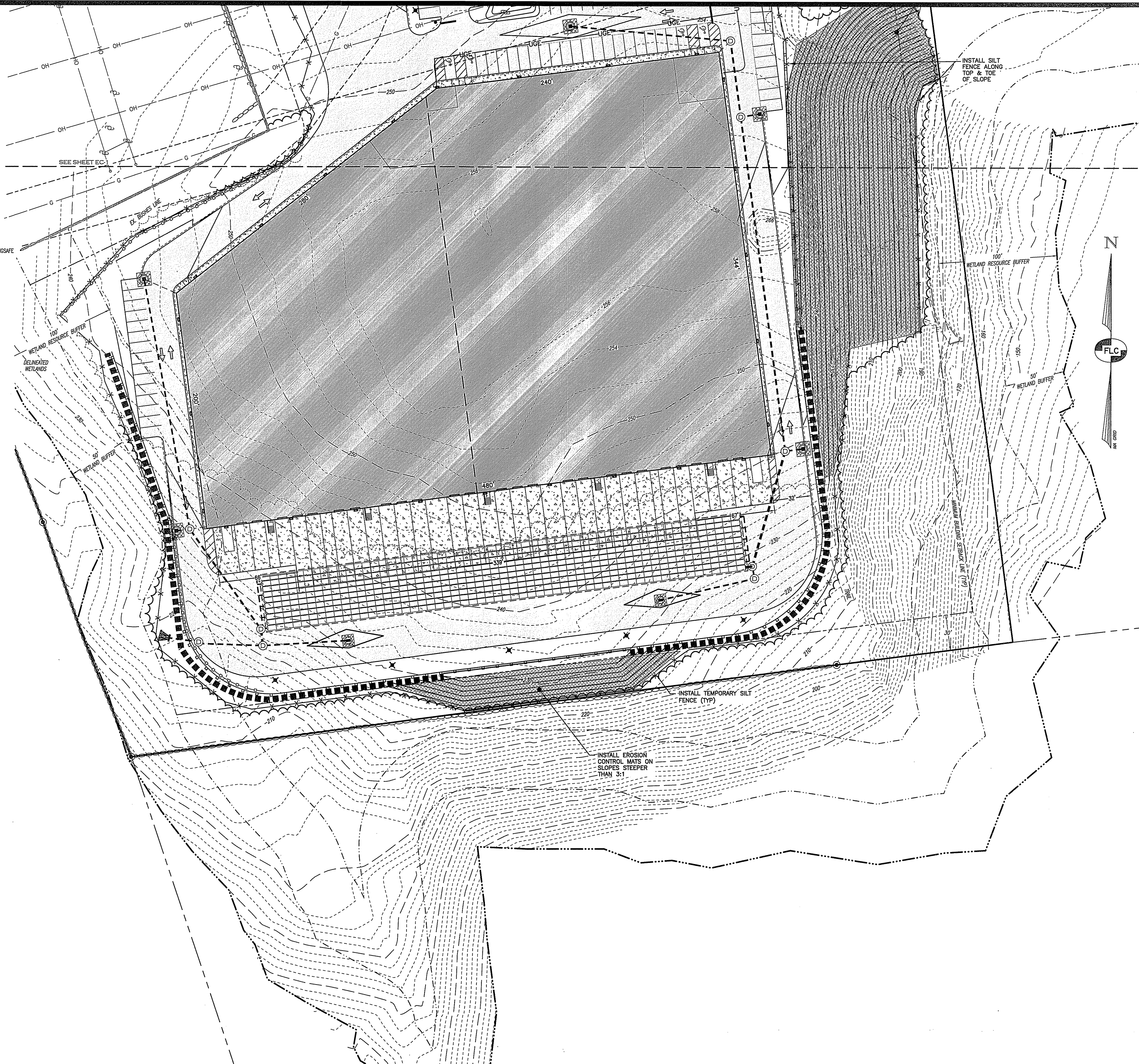
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- W — WATER LINE

1010-79-17 TAX MAP & LOT NUMBER

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- WELL
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- ROCK
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- S: SEASONAL HIGH WATER

## PROPOSED FEATURES

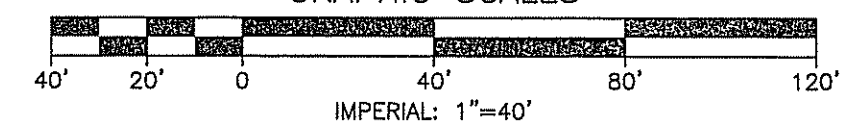
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## EROSION CONTROL PLAN SOUTH

## PIE HILL WAREHOUSING

TAX MAP 1010 LOT 79-17

(46 OLD FERRY ROAD)

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PREPARED FOR AND LAND OF:

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SCALE: 1" = 40'

APRIL 4, 2022

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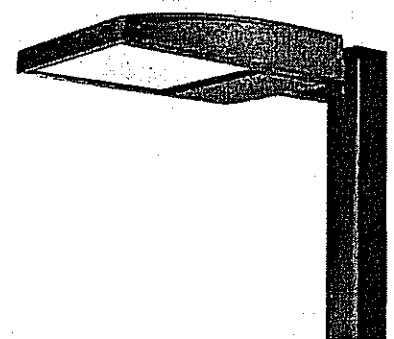
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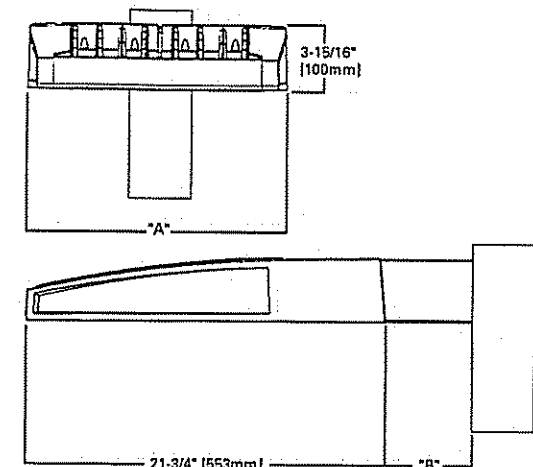
# McGraw-Edison

## GLEON Galleon

Area / Site Luminaire



### Dimensional Details



### Product Specifications

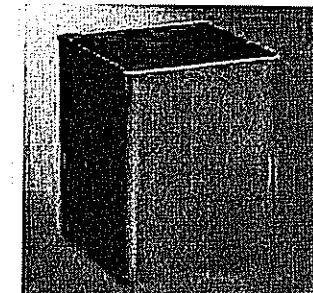
- Construction**
  - Extruded aluminum driver enclosure
  - Heavywall die-cast aluminum end caps
  - Die-cast aluminum heat sinks
  - Patent pending interlocking housing and heat sink
- Optics**
  - Patented, high-efficiency injection-molded AcouLED Optics technology
  - 15 optical distributions
  - 3 shading options including HSS, CRS and PFS
  - IDA Certified (3000K CCT and warmer only)
- Electrical**
  - LED drivers are mounted to removable tray

- assembly for ease of maintenance**
  - Standard with 0-10V dimming
  - Standard with Copper Lighting Solutions proprietary circuit module designed to withstand 10M of ambient line surge
  - Suitable for operation in -40°C to 40°C ambient environments. Optional 50°C High Ambient (HA) configuration
- Mounting**
  - Standard extruded arm includes internal bolt guides and round pole adapter
  - Extended arms (EA and QMEA) may be required in 90° or 120° pole mount configurations, see arm mounting requirements table

- Mount arm (MA) factory installed**
  - Wall mount (WM) option available
  - Quick mount arm (QM and QMEA) includes pole adapter and factory installed future mount for easy installation to square or round poles
- Finishes**
  - Super housing durable TG10 polyester powder coat paint, 2.5 mil nominal thickness
  - Heat sink is powder coated black
  - RAL and custom color matches available
  - Coastal Construction (CC) option available
- Warranty**
  - Five year warranty

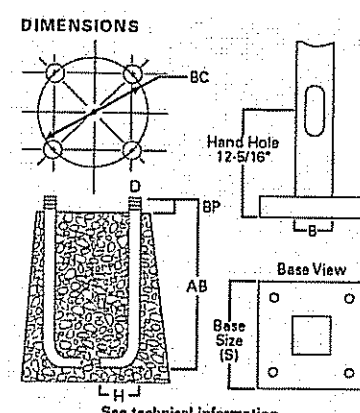
## AREA LIGHT

NOT TO SCALE



## SSS SQUARE STRAIGHT STEEL

- FEATURES**
  - ASTM Grade steel base plate with ASTM A36 base cover
  - Hand hole assembly 3" x 5" on 6" and 8" pole and 2" x 4" on 4" pole
  - 10-38" mounting heights
  - Drilled or tension (specify)



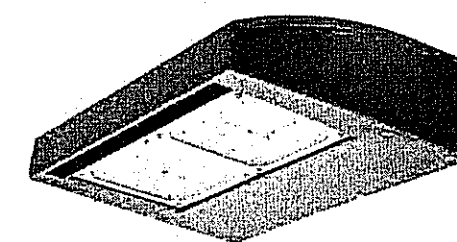
## STEEL POLE

NOT TO SCALE

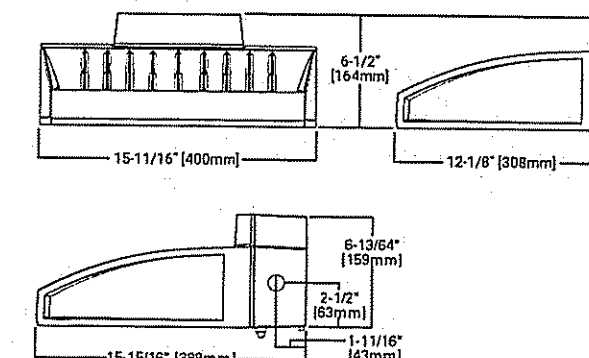
# McGraw-Edison

## GWC Galleon Wall

Wall Mount Luminaire



### Dimensional Details



### Product Specifications

- Construction**
  - Driver enclosure thermally isolated from optics for optimal thermal performance
  - Die-cast aluminum heat sinks
  - IP68 rated housing
  - 1.5G vibration rated
- Optics**
  - Patented, high-efficiency injection-molded AcouLED Optics technology
  - 13 optical distributions
  - IDA Certified (3000K CCT and warmer only)

- Electrical**
  - LED driver assembly mounted for ease of maintenance
  - Standard with 0-10V dimming
  - Optional 100V or 200V surge module
  - Suitable for operation in -40°C to 40°C ambient environments. Optional 50°C High Ambient (HA) configuration
- Mounting**
  - Galvanized and zinc plated rigid steel mounting attachment

- Finish**
  - Housing finished in super durable TG10 polyester powder coat paint, 2.5 mil nominal thickness
  - Heat sink is powder coated black
  - RAL and custom color matches available
  - Coastal Construction (CC) option available
- Warranty**
  - Five year warranty

## WALL LIGHT

NOT TO SCALE

StatArea\_1  
PARKING SPACES IN FRONT OF BUILDING  
Illuminance (Fc)  
Average = 2.41  
Maximum = 7.3  
Minimum = 0.5  
Avg/Min Ratio = 4.82  
Max/Min Ratio = 14.60

StatArea\_2  
PARKING SPACES ALONG ROADWAY  
Illuminance (Fc)  
Average = 1.63  
Maximum = 7.2  
Minimum = 0.1  
Avg/Min Ratio = 16.30  
Max/Min Ratio = 72.00

StatArea\_3  
DOCK AREA  
Illuminance (Fc)  
Average = 2.10  
Maximum = 21.8  
Minimum = 0.3  
Avg/Min Ratio = 7.00  
Max/Min Ratio = 72.67

| Luminaire Schedule |     |       |             |                                                                               |
|--------------------|-----|-------|-------------|-------------------------------------------------------------------------------|
| Symbol             | Qty | Label | Arrangement | Description                                                                   |
|                    | 1   | P5    | Single      | GLEON-SA2C-740-U-5WQ / SSS4A12SFN1 12' POLE MTD ON 2.5' BASE (14.5' AFG)      |
|                    | 7   | P4    | Single      | GLEON-SA2C-740-U-T4FT / SSS4A12SFN1 12' POLE MTD ON 2.5' BASE (14.5' AFG)     |
|                    | 3   | S3    | Single      | GLEON-SA2C-740-U-T3 / SSS4A17SFN1 17' POLE MOUNTED ON 2.5' BASE (19.5' AFG)   |
|                    | 5   | S4    | Single      | GLEON-SA2C-740-U-T4FT / SSS4A17SFN1 17' POLE MOUNTED ON 2.5' BASE (19.5' AFG) |
|                    | 11  | W3    | Single      | GWC-SA1A-740-U-SL3 / WALL MTD 8' AFG                                          |
|                    | 9   | W4    | Single      | GWC-SA2B-740-U-T4FT / WALL MTD 14' AFG                                        |
|                    | 5   | W5    | Single      | GWC-SA1A-740-U-SL4 / WALL MTD 8' AFG                                          |

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## LIGHTING PLAN NORTH

### PIE HILL WAREHOUSING

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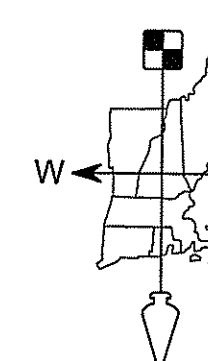
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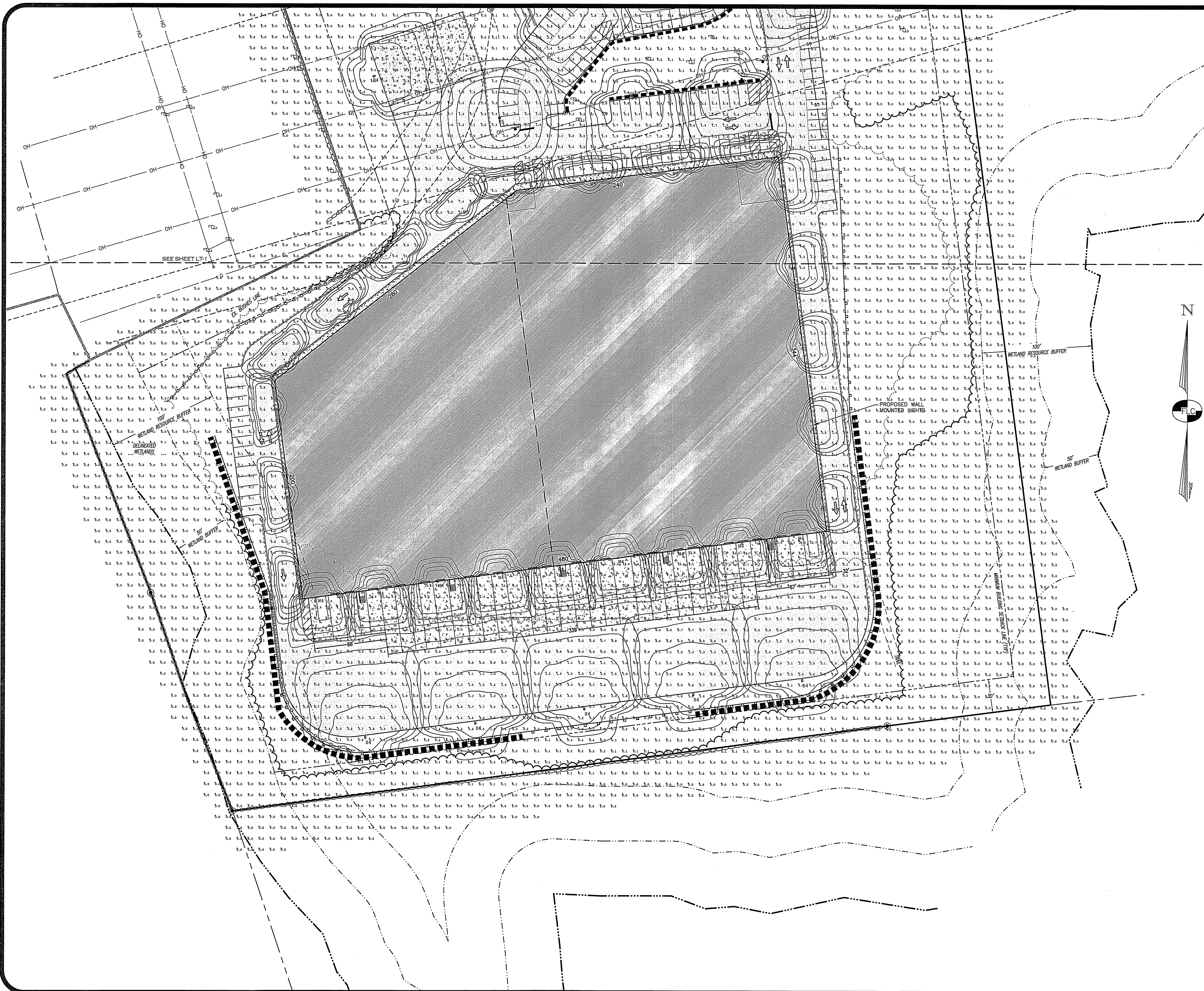
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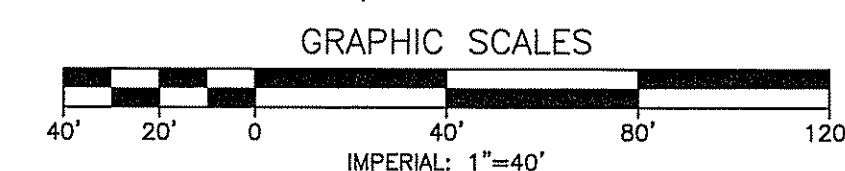
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FILE: 2295SP01B.dwg PROJ. NO. 2295.01 SHEET: LT-1 PAGE NO. 13 OF 29



SEE SHEET LT-1 FOR LIGHTING DETAILS AND LUMINAIRE SCHEDULE.

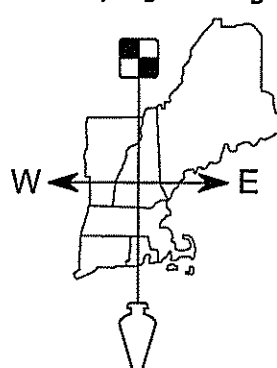


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**LIGHTING PLAN SOUTH**  
**PIE HILL**  
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**TAX MAP 1010 LOT 79-17**  
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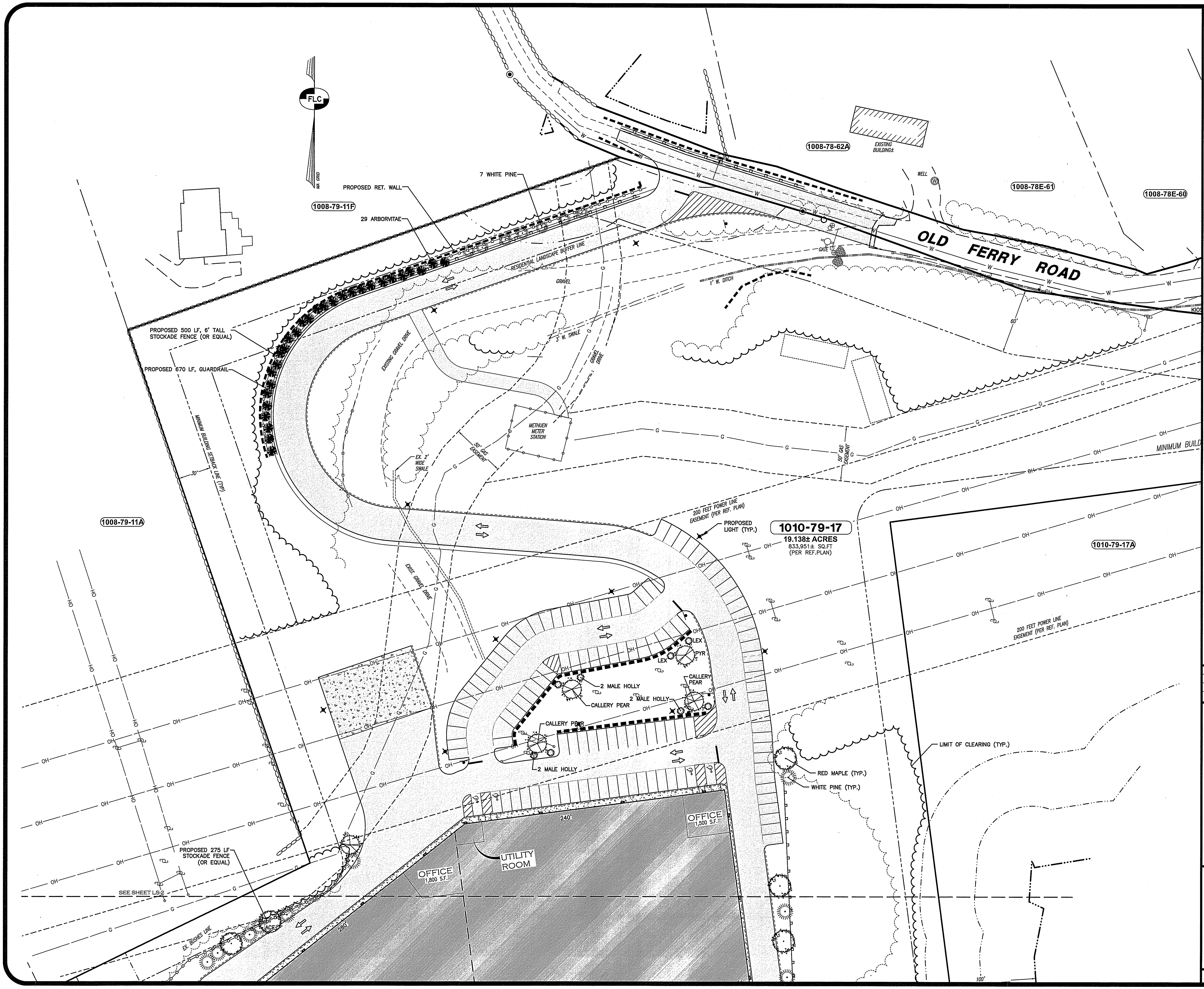
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Surveying ♦ Engineering ♦ Land Planning ♦ Permitting ♦ Septic Designs

 **FIELDSTONE**  
**LAND CONSULTANTS, PLLC**

206 Elm Street, Milford, NH 03055  
Phone: (603) 672-5456 Fax: (603) 413-5456  
www.FieldstoneLandConsultants.com

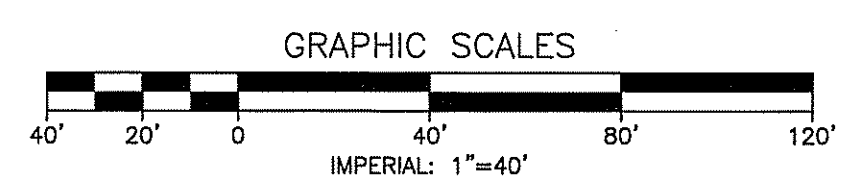
FILE: 2295SP01B.dwg PROJ. NO. 2295.01 SHEET: LT-2 PAGE NO. 14 OF 29



**LANDSCAPING LEGEND:**

| PLANT SYMBOLS | PLANT LIST                                               | QTY.             |
|---------------|----------------------------------------------------------|------------------|
|               | PIN PINUS STROBUS (WHITE PINE) (OR EQUAL)                | (20) 5'-6'       |
|               | ACE ACER PLATANOIDES (CRIMSON KING MAPLE) (OR EQUAL)     | (6) 2.5'-3" CAL. |
|               | PYR PYRUS CALLERYANA (CALLERY PEAR) (OR EQUAL)           | (5) 2.5'-3"      |
|               | THU THUJA O. NIGRA (DARK AMERICAN ARBORVITAE) OR EQUAL   | (29) 7'-8'       |
|               | LEX ILEX MESURVEAE 'BLUE PRINCE' (MALE HOLLY) (OR EQUAL) | (8) 2.5'-3"      |

- LANDSCAPING NOTES:**
- THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR CONTACTING DIG-SAFE AND FOR VERIFICATION OF ALL UTILITIES AND SHALL NOTIFY THE OWNERS REPRESENTATIVE OF ANY CONFLICTS PRIOR TO COMMENCING.
  - EXISTING TREES TO REMAIN SHALL BE PRESERVED AND PROTECTED DURING CONSTRUCTION.
  - UNTIL ALL GRADING AND CONSTRUCTION HAS BEEN COMPLETED WITHIN THE IMMEDIATE AREA NO PLANT MATERIAL SHALL BE INSTALLED.
  - UNLESS OTHERWISE NOTED OR APPROVED, ALL TREES MUST BE BALLED AND BURLAPPED.
  - ALL PLANT MATERIALS INSTALLED SHALL MEET OR EXCEED THE SPECIFICATIONS OF "THE AMERICAN STANDARDS FOR NURSERY STOCK" BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
  - ANY PROPOSED PLANT MATERIAL SUBSTITUTIONS MUST BE APPROVED BY THE OWNER'S REPRESENTATIVE.
  - ALL PLANT MATERIAL SHALL BE GUARANTEED BY THE INSTALLER FOR ONE YEAR FOLLOWING DATE OF ACCEPTANCE.
  - IN AREAS OF STONE MULCH LAY 6 MIL SHEETS OF "MSQUEEN" TYPE POLYETHYLENE ON COMPACTED SUBGRADE BEFORE PLACING STONE, MINIMUM 6" OVERLAP, PERFORATE SHEETING IN PLANTING BEDS BEFORE PLACING STONE.
  - UNLESS OTHERWISE NOTED LOAM AND SEED ALL DISTURBED AREAS WITH A MINIMUM 4" OF SUITABLE LOAM. SLOPES GREATER THAN 3:1 SHALL BE PROTECTED WITH AN EROSION CONTROL BLANKET. SEE SITE PLAN.
  - WHERE APPLICABLE, THE CONTRACTOR SHALL HAVE ALL FALL TRANSPLANTING HAZARD PLANTS DUG IN THE SPRING AND STORED FOR FALL PLANTING.
  - PLANTS SHALL BE INSTALLED WITHIN ONE YEAR OF COMMENCEMENT OF CONSTRUCTION
  - ALL LANDSCAPING SHALL BE LOCATED AND MAINTAINED SO AS NOT TO IMPACT THE LINES OF SIGHT AT THE ENTRANCE AND INTERNAL INTERSECTIONS.
  - ALL LANDSCAPED AREAS WILL BE MAINTAINED TO HAVE A SUFFICIENT AMOUNT OF WATER TO MAINTAIN VIABILITY EITHER BY IRRIGATION OR BY OTHER MEANS.
  - PROPOSED PLANTINGS SHALL NOT CONFLICT WITH SNOW STORAGE AREAS, LIGHT FIXTURES OR UNDERGROUND UTILITIES.
  - A 15' LANDSCAPE BUFFER (MINIMUM) SHALL REMAIN ADJACENT TO THE RIGHT OF WAY LINE AND A 60' BUFFER SHALL REMAIN ALONG PROPERTY LINES SHARED WITH RESIDENTIAL LOTS.
  - LANDSCAPING CALCULATIONS:  
INTERIOR PARKING AREA = 60,479 SF  
REQUIRED INTERIOR LANDSCAPING = 5% X 60,479 SF = 3,024 SF  
PROPOSED INTERIOR LANDSCAPING = 11,480 SF  
REQUIRED TREES = 1 TREE / 2,000 SF OF PARKING X 60,479 = 30.2 TREES  
PROPOSED PARKING AREA TREES = 31 TREES
  - A LANDSCAPED SCREEN WILL BE PLANTED WHERE THE INDUSTRIAL ZONED PARCEL ABUTS RESIDENTIAL PROPERTIES. THE VERTICAL SCREEN WILL NOT BE LESS THAN 4' IN WIDTH AND 5' HIGH AT THE TIME OF PLANTING. PLANTINGS WILL BE SPACED NO MORE THAN 10' ON CENTER AND CONTAIN A MINIMUM OF 50% EVERGREENS.



|      |         |                                       |     |     |
|------|---------|---------------------------------------|-----|-----|
| B    | 6/29/22 | REVISED PER ENGINEERING & PEER REVIEW | CLR | CEB |
| A    | 6/1/22  | REVISED PER CITY COMMENTS             | CLR | CEB |
| REV. | DATE    | DESCRIPTION                           | C/O | DR  |

**LANDSCAPING PLAN NORTH**

**PIE HILL  
WAREHOUSING**

**TAX MAP 1010 LOT 79-17  
(46 OLD FERRY ROAD)  
METHUEN, MASSACHUSETTS**

**PREPARED FOR AND LAND OF:  
TRIPLE G, LLC**

**59 BONANNO COURT, METHUEN, MA 01844**

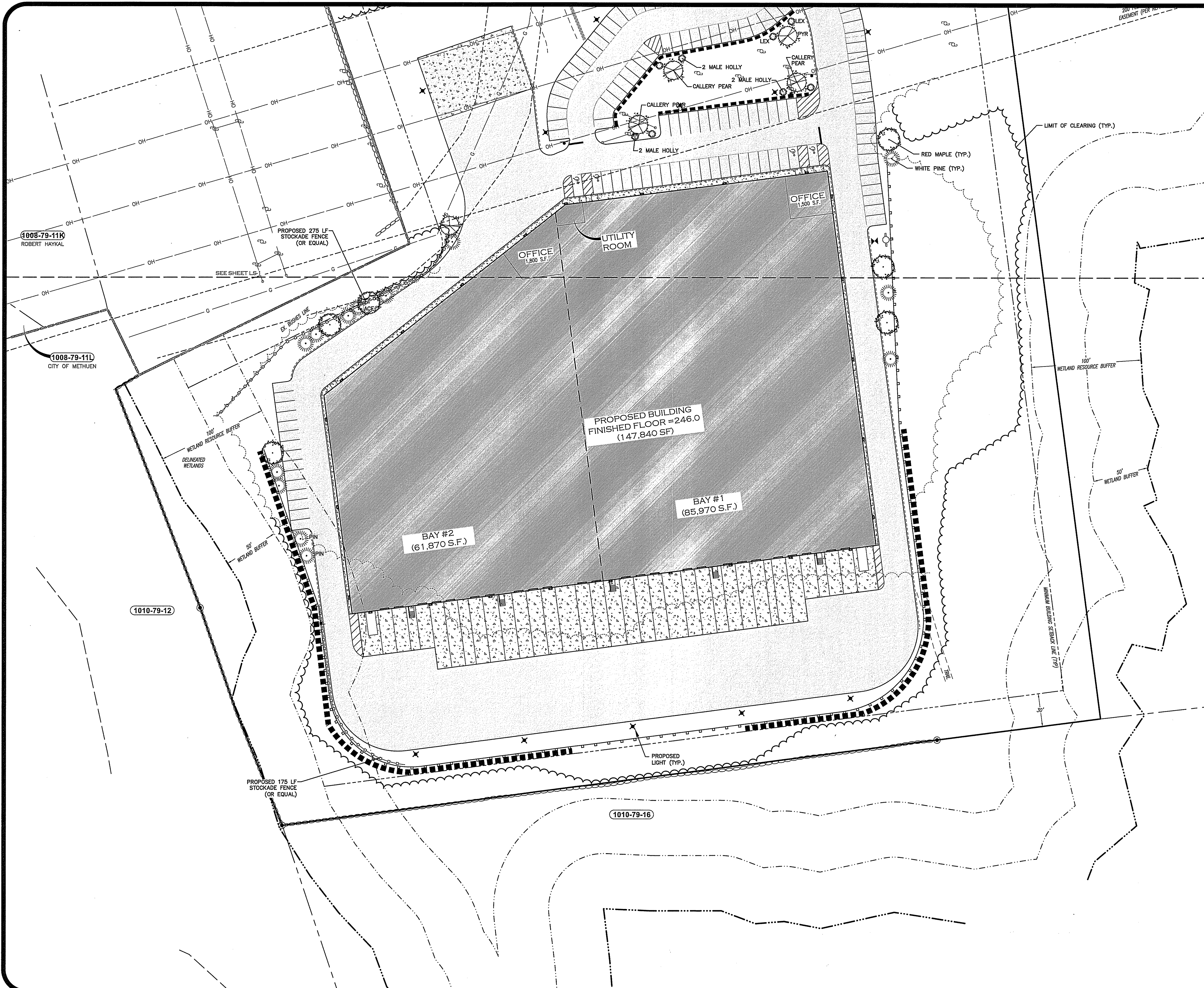
SCALE: 1" = 40' APRIL 4, 2022

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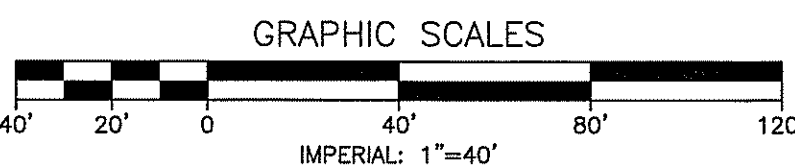
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FILE: 2295SP01B.dwg PROJ. NO. 2295.01 SHEET: LS-1 PAGE NO. 15 OF 29



| PLANT SYMBOLS |     | PLANT LIST                                           | QTY.             |
|---------------|-----|------------------------------------------------------|------------------|
|               | PIN | PINUS STROBUS (WHITE PINE) (OR EQUAL)                | (44) 5'-6'       |
|               | ACE | ACER PLATANOIDES (CRIMSON KING MAPLE) (OR EQUAL)     | (9) 2.5'-3' CAL. |
|               | PYR | PYRUS CALLERYANA (CALLERY PEAR) (OR EQUAL)           | (4) 2.5'-3'      |
|               | JDO | JUNIPERUS CHINENSIS (GREY OWL JUNIPER) (OR EQUAL)    | (12) 3 GAL.      |
|               | LEX | ILEX MESURURAE 'BLUE PRINCE' (MALE HOLLY) (OR EQUAL) | (17) 2.5'-3'     |
|               | COR | CORNUS SANGUINEA (WINTER FLAME DOGWOOD) (OR EQUAL)   | (4) 3 GAL. 2'-3' |

- LANDSCAPING NOTES:**
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  - LANDSCAPING CALCULATIONS:  
INTERIOR PARKING AREA = 62,334 SF  
REQUIRED INTERIOR LANDSCAPING = 5% X 62,334 SF = 3,116.7 SF  
PROPOSED INTERIOR LANDSCAPING = 7,500 SF  
  
REQUIRED TREES = 1 TREE / 2,000 SF OF PARKING X 62,334 = 31.2 TREES  
PROPOSED PARKING AREA TREES = 32 TREES  
  
THERE ARE NO PROPOSED RECREATION AREAS AT THIS TIME.



|      |         |                                       |     |     |
|------|---------|---------------------------------------|-----|-----|
| B    | 6/29/22 | REVISED PER ENGINEERING & PEER REVIEW | CLR | CEB |
| A    | 6/1/22  | REVISED PER CITY COMMENTS             | CLR | CEB |
| REV. | DATE    | DESCRIPTION                           | C/O | DR  |

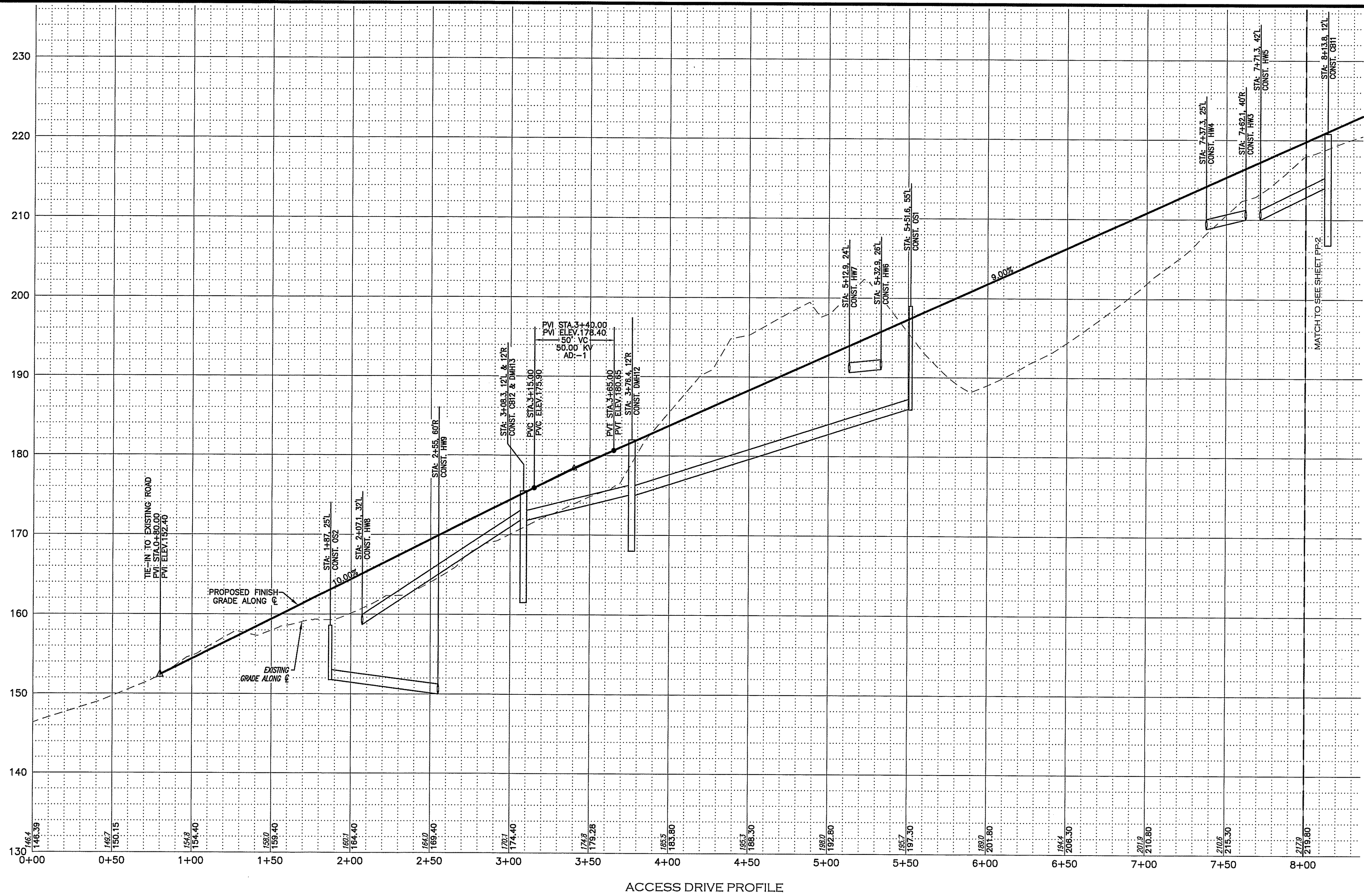
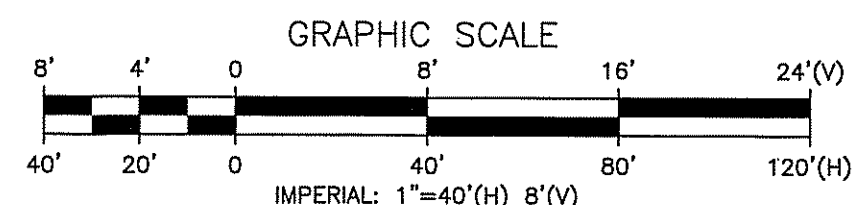
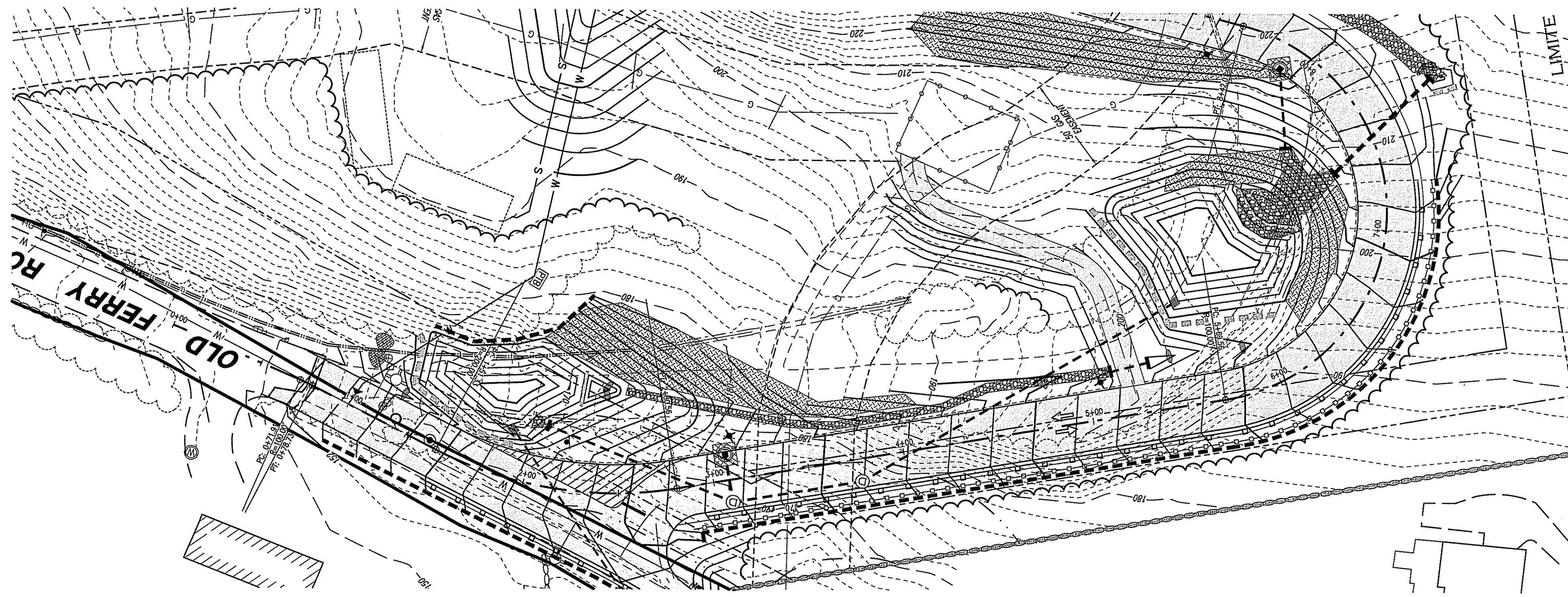
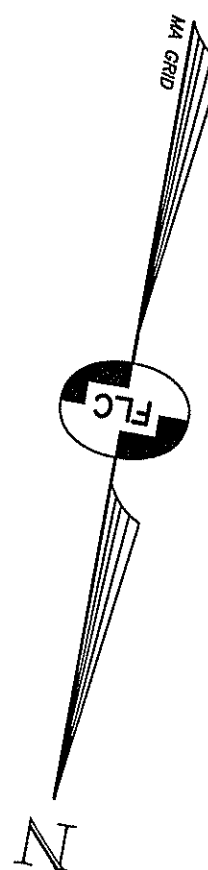
**LANDSCAPING PLAN SOUTH**  
**PIE HILL**  
**WAREHOUSING**  
**TAX MAP 1010 LOT 79-17**  
**(46 OLD FERRY ROAD)**  
**METHUEN, MASSACHUSETTS**  
**PREPARED FOR AND LAND OF:**  
**TRIPLE G, LLC**  
**59 BONANNO COURT, METHUEN, MA 01844**

SCALE: 1" = 40' APRIL 4, 2022

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ACCESS DRIVE PROFILE

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| REV. | DATE    | DESCRIPTION                    | CHK | APP. |
|------|---------|--------------------------------|-----|------|
| A    | 6/29/22 | REVISED PER ENGINEERING REVIEW | CL2 | CE2  |

**DRIVEWAY PLAN & PROFILE** **TRIPLE G, LLC**  
59 BONNARD COURT, METHUEN, MA 01844

**PIE HILL WAREHOUSING**

**TAX MAP 79 LOT 17**  
**METHUEN, MASSACHUSETTS**

PLANS ISSUED FOR:  
**MUNICIPAL REVIEW**

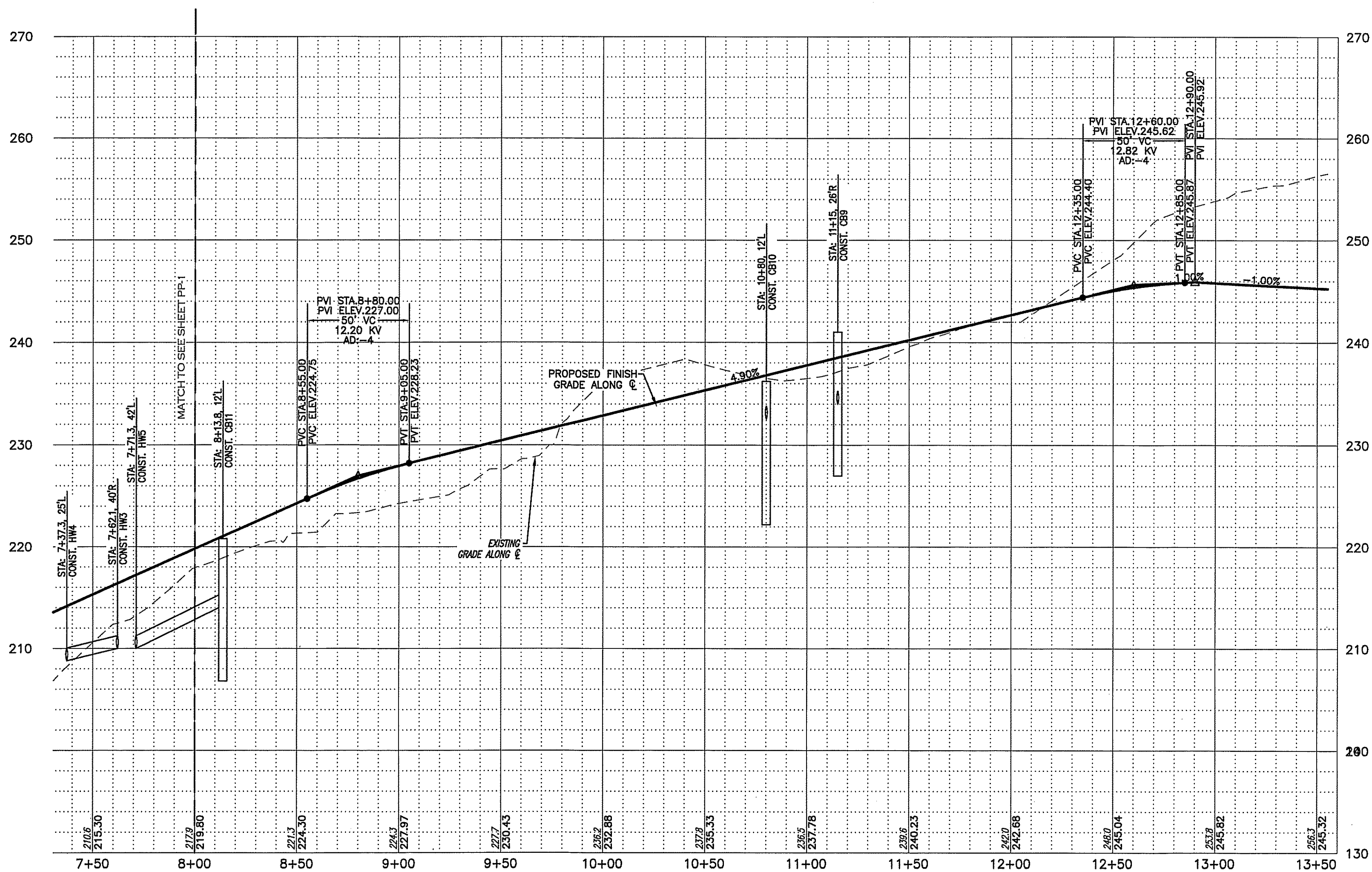
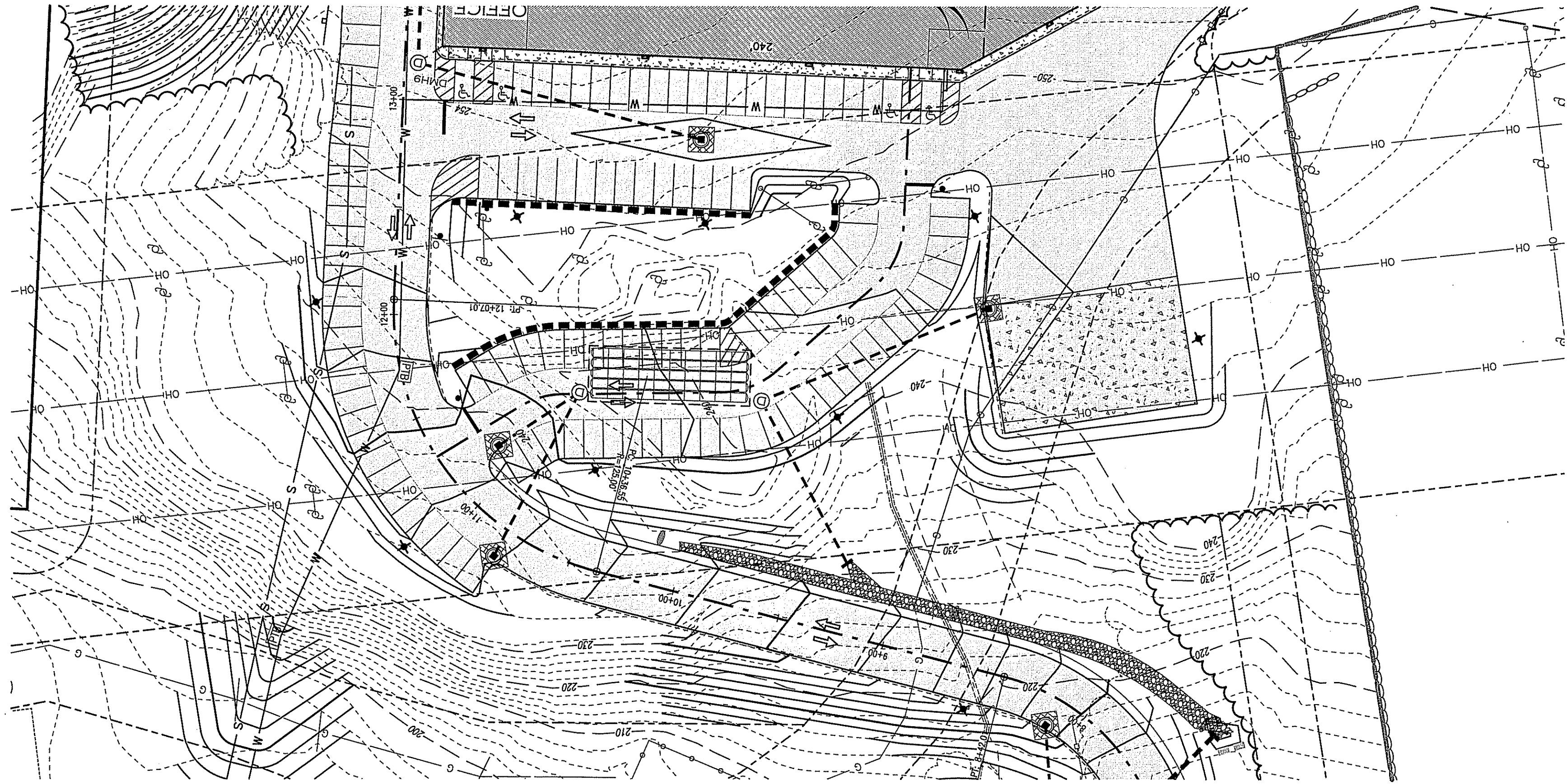
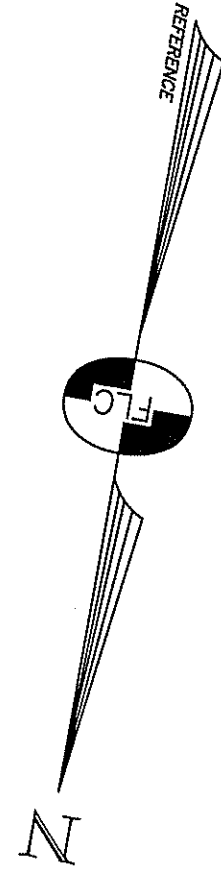
SCALE: 1" = 40' HORIZ. / 4' VERT.

APRIL 4, 2022

FILE: 2295P01C.dwg

**PP-1**  
SHEET

PROJECT NO. 2295.01  
SHEET NO. 17 OF 29



DRIVEWAY PLAN & PROFILE  
STA 5+00 - STA 12+00

DRIVEWAY PLAN & PROFILE  
STA 5+00 - STA 12+00

TAX MAP 79 LOT 17  
METHUEN, MASSACHUSETTS

PLANS ISSUED FOR:  
MUNICIPAL REVIEW

SCALE: 1" = 40' HORIZ. / 4' VERT.

PP-2  
SHEET

PROJECT NO. 2295.01

SHEET NO. 18 OF 29

Surveying & Engineering & Land Planning & Permitting & Septic Designs

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# LEGEND:

- EXISTING FEATURES**
- RIGHT-OF-WAY LINE
  - BOUNDARY LINE
  - ABUTTING LOT LINE
  - BUILDING SETBACK LINE
  - EXISTING EASEMENT LINE
  - EDGE OF PAVED ROAD
  - EDGE OF GRAVEL ROAD
  - STONE WALL
  - EDGE OF TREE LINE
  - EDGE OF WETLANDS
  - WETLANDS BUFFER LINE
  - 300' 10' CONTOUR INTERVAL
  - 302' 2' CONTOUR INTERVAL
  - CHAIN-LINK FENCE
  - STOCKADE FENCE
  - CULVERT
  - OVERHEAD UTILITY LINE
  - UNDERGROUND ELECTRIC DISSAFE
  - UNDERGROUND GAS LINE
  - WATER LINE

- 1010-79-17 TAX MAP & LOT NUMBER**
- GRANITE BOUND FOUND
  - DRILL HOLE FOUND
  - IRON PIN FOUND
  - UTILITY POLE, GUY & LIGHT
  - CATCH BASIN (SQUARE)
  - WATER HYDRANT
  - WATER VALVE
  - WATER SHUT-OFF
  - WELL
  - SIGN WITH TWO POSTS
  - RIP RAP
  - ROCK
  - BOLLARD 8" DIA 3' HEIGHT

100' SAL

1008-79-11L CITY OF METHUEN  
EE

1010-79-12

1008-79-11A

1008-79-11F

1010-79-17  
19.138± ACRES  
833,951± SQ.FT  
(PER REF.PLAN)

1008-78-62A

1008-78E-61

1008-78E-60

1008-78E-59

1008-78E-57

MARITIME & NORTHEAST PIPELINE

1008-78E-55

1008-78E-54

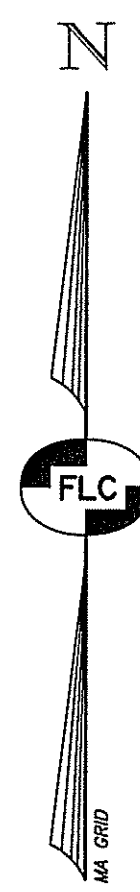
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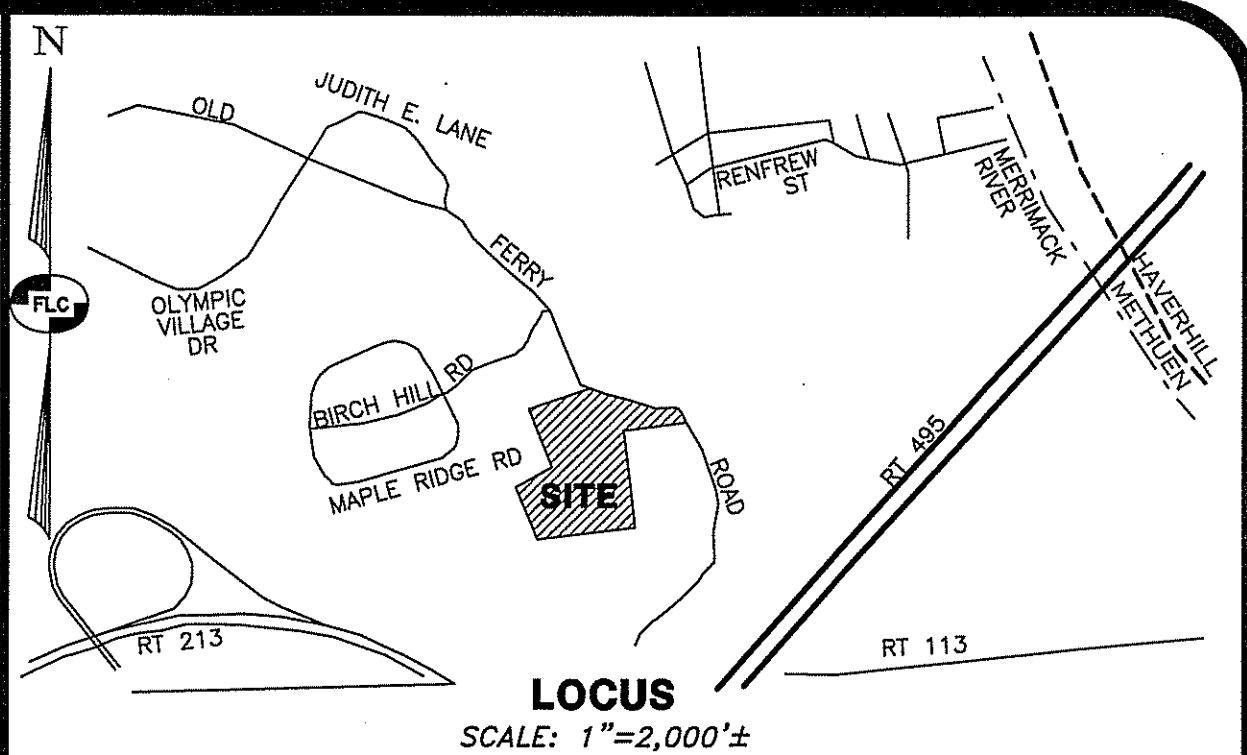
OLD FERRY ROAD

ROAD



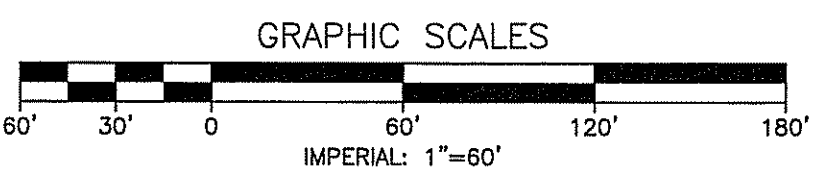
## LEGEND:

- PROPOSED FEATURES**
- EDGE OF PAVEMENT
  - CAPE COD BERM
  - SHOULDER
  - SWALE
  - LIMITS OF CLEARING
  - WATER LINE
  - UNDERGROUND UTILITY LINES AND UTILITY BOXES LOCATION
  - WATER GATE VALVE
  - WATER SERVICE SHUT-OFF
  - ALTERNATE EDA
  - PRIMARY EDA
  - EARTHEN BERM
  - RETAINING WALL
  - PAVED AREA
  - BUILDING
  - 10 FT. CONTOUR
  - 2 FT. CONTOUR
  - SPOT ELEVATION
  - STONE CHECK DAM
  - SILT FENCE
  - REINFORCED SWALE (RIPRAP OR FABRIC)
  - STORM WATER DRAINAGE
  - DRAIN INLET PROTECTION
  - DRAIN MANHOLE
  - BUILDING MOUNTED LIGHT



**NOTES:**

- THE PURPOSE OF THIS PLAN IS TO DEPICT THE TURNING TEMPLATE FOR A WB-62 TRUCK AND TRAILER TRAVERSING THE SITE.



| REV. | DATE | DESCRIPTION | C/O | DR | CK |
|------|------|-------------|-----|----|----|
|      |      |             |     |    |    |

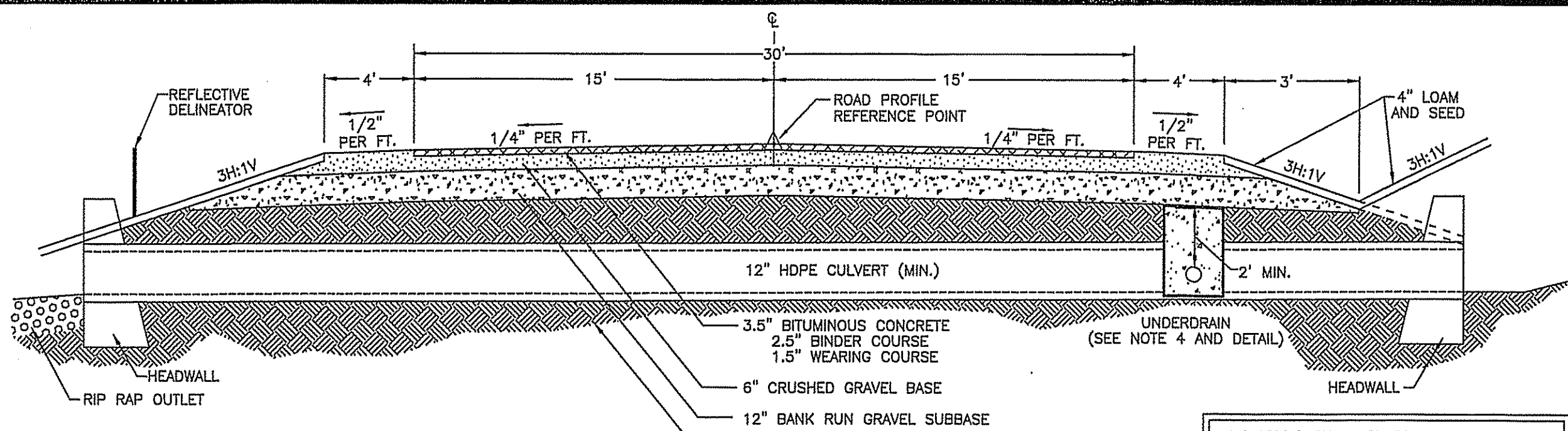
**TRUCK TURNING EXHIBIT**  
**PIE HILL**  
**WAREHOUSING**  
 TAX MAP 1010 LOT 79-17  
 (46 OLD FERRY ROAD)  
 METHUEN, MASSACHUSETTS  
 PREPARED FOR:  
**TRIPLE G, LLC**  
 59 BONANNO COURT, METHUEN, MA 01844

SCALE: 1" = 60' APRIL 4, 2022

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#### GENERAL ROAD CONSTRUCTION NOTES:

1. REMOVE ALL LOAM, CLAY, MUCK, STUMPS, AND OTHER IMPROPER ROAD FOUNDATION MATERIAL WITHIN 3' OF SUBGRADE. REPLACE WITH COMPACTED GRANULAR FILL MATERIAL ACCEPTABLE TO THE ENGINEER. COMPACTION TO BE AT LEAST 95% OF THE DRY WEIGHT AS DETERMINED BY STANDARD PROCTOR TESTING (ASTM 1557).
2. ALL MATERIALS AND CONSTRUCTION SHALL MEET AND BE COMPLETED IN STRICT ACCORDANCE WITH THE CITY OF METHUEN'S CURRENT ROAD AND DRAINAGE SPECIFICATIONS.
3. THE GUARDRAIL POSTS SHALL BE SET 19' FEET FROM CENTERLINE.

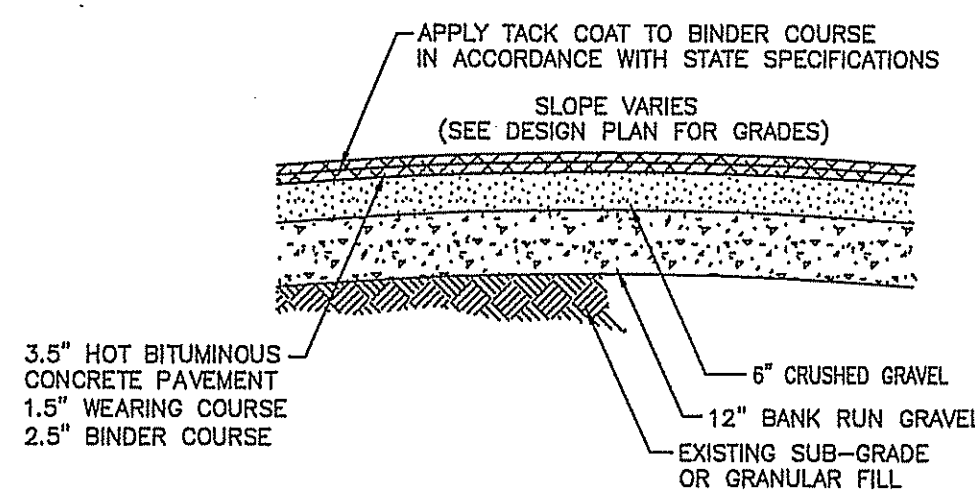
EXISTING SUBGRADE OR GRANULAR BACKFILL PLACED WITH A MAXIMUM LIFT OF TWELVE (12) INCHES AND COMPACTED TO 95% OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T 99 (STANDARD PROCTOR TEST)

**ACCESS WIDTH AND SHOULDER WIDTH VARIES ALONG LENGTH AS DEPICTED ON PLANS.**

SCALE: N.T.S.

TYPICAL CROSS-SECTION - SITE ENTRANCE

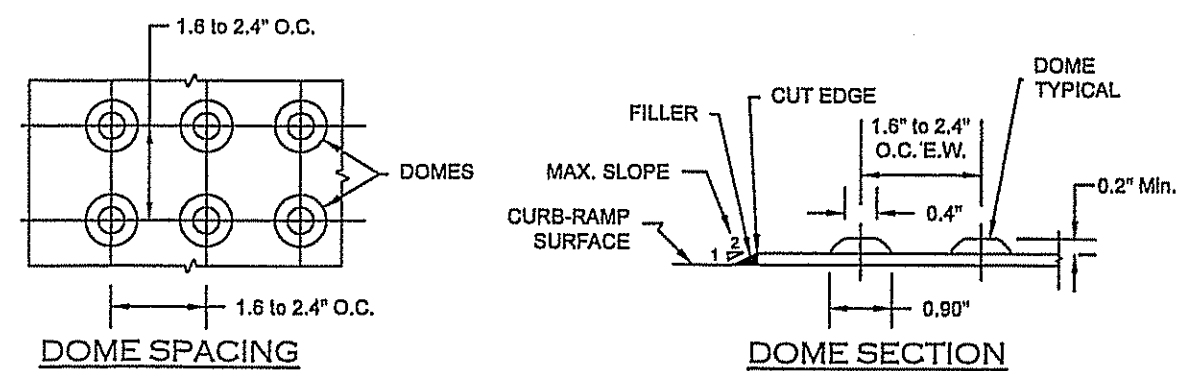
DT-1



\*\* SEE CURB DETAILS WHEN APPLICABLE\*\*

STANDARD DUTY PARKING LOT PAVEMENT SECTION

DT-1



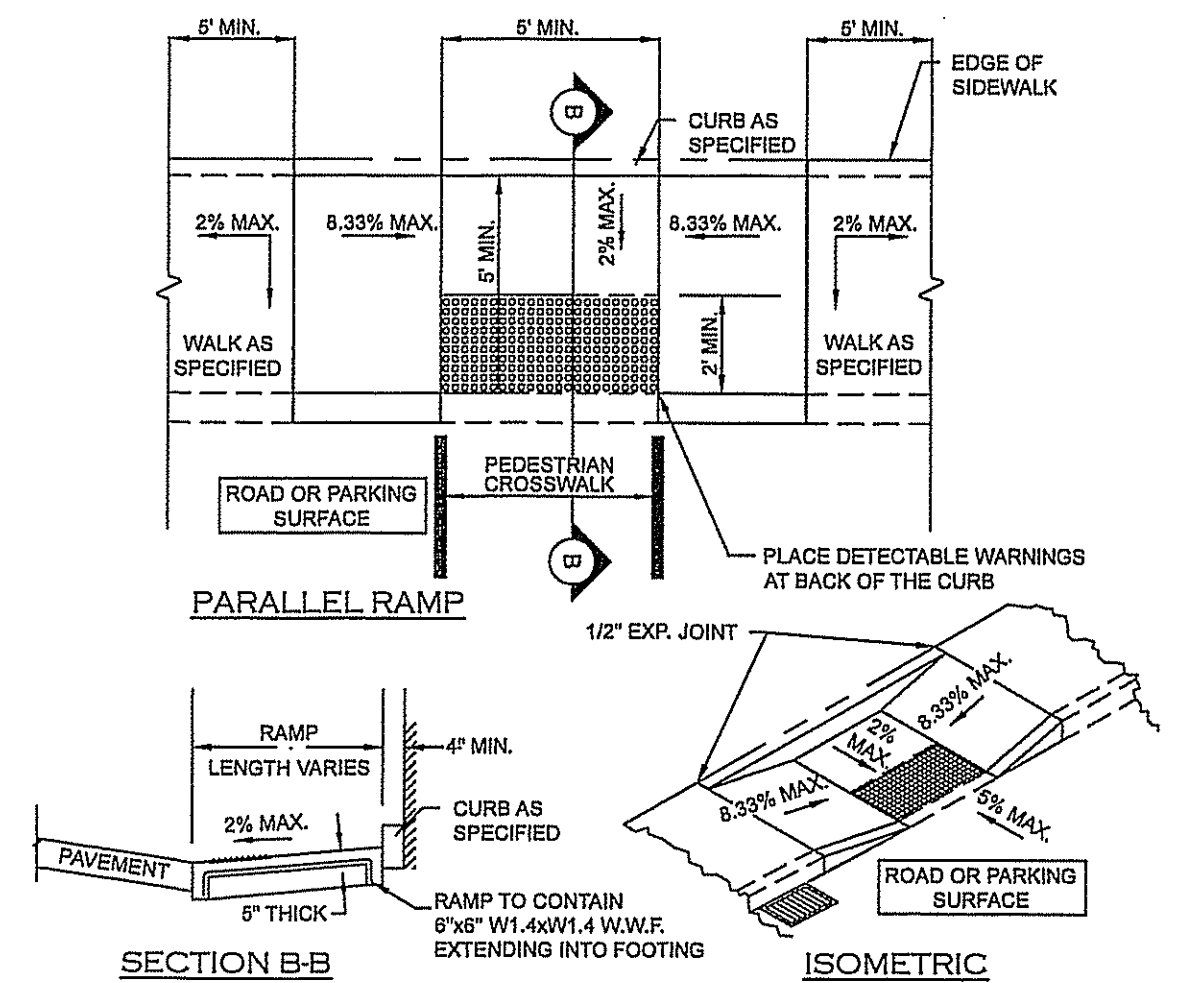
#### NOTES:

1. DETECTABLE WARNINGS SHALL BE PROVIDED WHERE EVER A CURB RAMP CROSSES A VEHICULAR WAY.
2. DETECTABLE WARNINGS SHALL BE PROVIDED 24 INCHES IN THE DIRECTION OF TRAVEL AND EXTEND THE FULL WIDTH OF THE CURB RAMP OR FLUSH SURFACE. THE DETECTABLE WARNING SHALL BE LOCATED ADJACENT TO THE CURB LINE.
3. DETECTABLE WARNING MATERIALS SHALL BE TEXTURED TO PROVIDE SLIP RESISTANCE AND SHALL CONTRAST VISUALLY WITH ADJACENT WALKING SURFACES - EITHER LIGHT OR DARK OR DARK ON LIGHT. THE PREFERRED COLOR FOR A LIGHT BACKGROUND IS RED BRICK AND FOR A DARK BACKGROUND SHALL BE SAFETY YELLOW.
4. DETECTABLE WARNINGS SHALL BE PLACED 6" TO 8" BEHIND THE FACE OF THE CURB JOINT.
5. DETECTABLE WARNING SURFACES SHALL BE SURFACE MOUNTED, THIN MOLDED SHEETGOODS WHICH INCLUDES TILES OR MATS (RIGID OR FLEXIBLE, WITH TRUNCATED DOMES), BONDED AND/OR ANCHORED TO THE SURFACE OF THE RAMP. THE SURFACE SHALL CONFORM WITH THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES GUIDELINES 4.28, 10.3, AND THE CITY OF NASHUA STANDARDS.

SCALE: N.T.S.

DETECTABLE WARNING SURFACE FOR HANDICAP RAMPS

DT-1

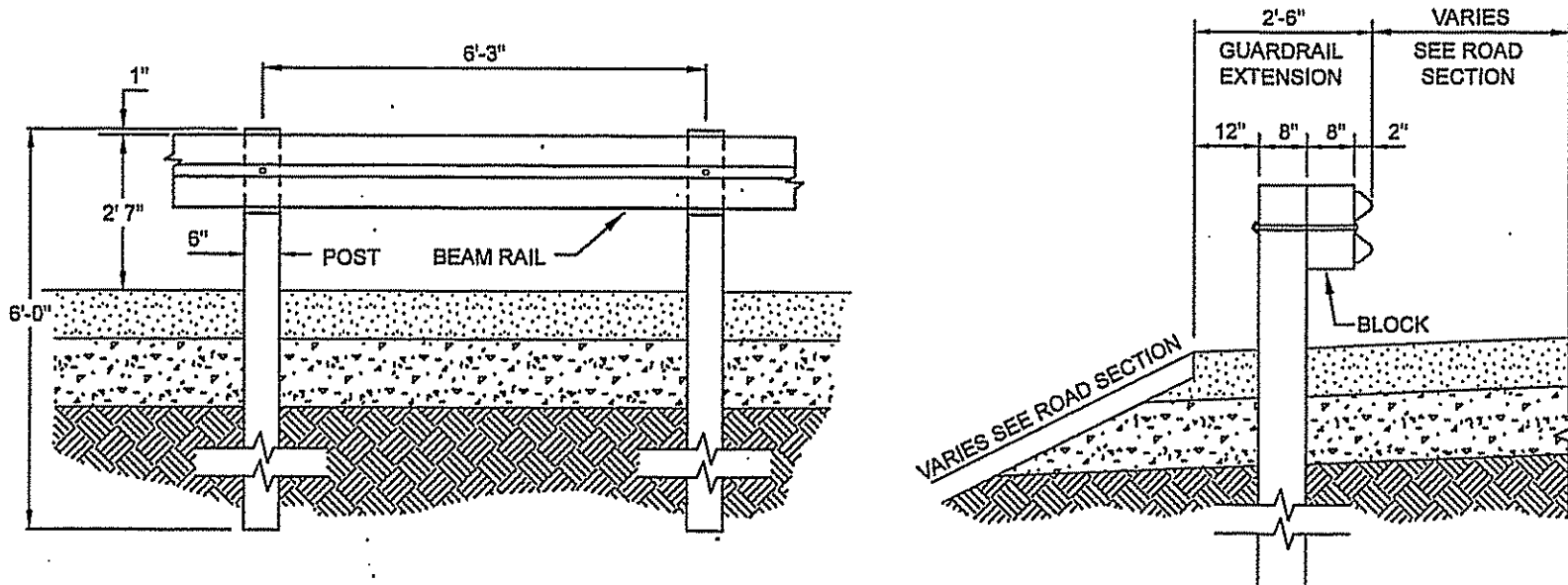


#### HANDICAP RAMP NOTES:

1. A SIDEWALK CURB RAMP IS DEFINED AS THE ENTIRE CONCRETE SURFACE WHICH INCLUDES THE RAMP AND FLARED SIDES.
2. THE MAXIMUM RUNNING SLOPE OF ANY SIDEWALK CURB RAMP IS 8.33% (1:12). THE MAXIMUM CROSS SLOPE IS 2%. THE SLOPE OF THE LANDING SHALL NOT EXCEED 2% IN ANY DIRECTION. THE FLARED SIDE OF THE RAMP SHALL LIE ON A SLOPE OF 10% (1:10) MAXIMUM MEASURED ALONG THE CURB.
3. TRANSITIONS SHALL BE FLUSH AND FREE OF ABRUPT CHANGES. ROADWAY SHOULDER SLOPES ADJOINING SIDEWALK CURB RAMPS SHALL BE A MAXIMUM OF 5% (FULL WIDTH) FOR A DISTANCE OF 2 FEET FROM THE ROADWAY CURBLINE.
4. INTERCEPT DRAINAGE ALONG THE CURB IN ADVANCE OF SIDEWALK CURB RAMPS OR LANDINGS. CATCH BASINS, MANHOLES, ETC. SHALL NOT BE LOCATED IN, OR AT THE BASE OF, SIDEWALK CURB RAMPS OR LANDINGS.
5. THE BOTTOM OF THE SIDEWALK CURB RAMP OR LANDING, EXCLUSIVE OF THE FLARED SIDES, SHALL BE WHOLLY CONTAINED WITHIN THE CROSSWALK MARKINGS. IT IS DESIRABLE THAT THE LOCATION OF THE RAMP BE AS CLOSE AS POSSIBLE TO THE CENTER OF THE CROSSWALK.
6. THE SIDEWALK CURB RAMP OR THE LANDING AREA (PARALLEL SIDEWALK CURB RAMP) SHALL CONTRAST VISUALLY WITH THE ADJOINING SIDEWALK SURFACE, EITHER ASPHALT/LIGHT-COLORED CONCRETE OR LIGHT-COLORED CONCRETE/DARK-STAINED CONCRETE. THE CONCRETE SURFACE SHALL BE SLIP RESISTANT (BROOM FINISHED).
7. DETECTABLE WARNING PANELS SHALL BE THE FULL WIDTH OF THE LANDING, BLENDED TRANSITION, OR CURB RAMP THEY ARE A PART OF AND SHALL BE A MINIMUM OF 2 FEET IN DEPTH. THE ROWS OF TRUNCATED DOMES SHALL BE ALIGNED PERPENDICULAR TO THE GRADE BREAK BETWEEN THE RAMP, BLENDED TRANSITION OR LANDING AND THE STREET.
8. A LEVEL LANDING 5'-0" DEEP, WITH A 2% MAXIMUM SLOPE IN EACH DIRECTION SHALL BE PROVIDED AT THE UPPER END OF EACH CURB RAMP TO ALLOW SAFE EGRESS FROM THE RAMP SURFACES. THE WIDTH OF THE LEVEL LANDING SHALL BE AT LEAST AS WIDE AS THE WIDTH OF THE RAMP. A LEVEL LANDING 4' DEEP SHALL BE PROVIDED AT ALL PEDESTRIAN PUSH BUTTONS AT SIGNALIZED CROSSINGS.
9. RAMP OPENING SHALL BE THE SAME WIDTH AS THE SIDEWALK, UP TO 8'-0" WIDE.
10. FOR NEW CONSTRUCTION - ALL DETECTABLE WARNINGS ARE TO BE CAST IRON AND SET IN CONCRETE.

HANDICAP SIDEWALK RAMP - HCR2

DT-1

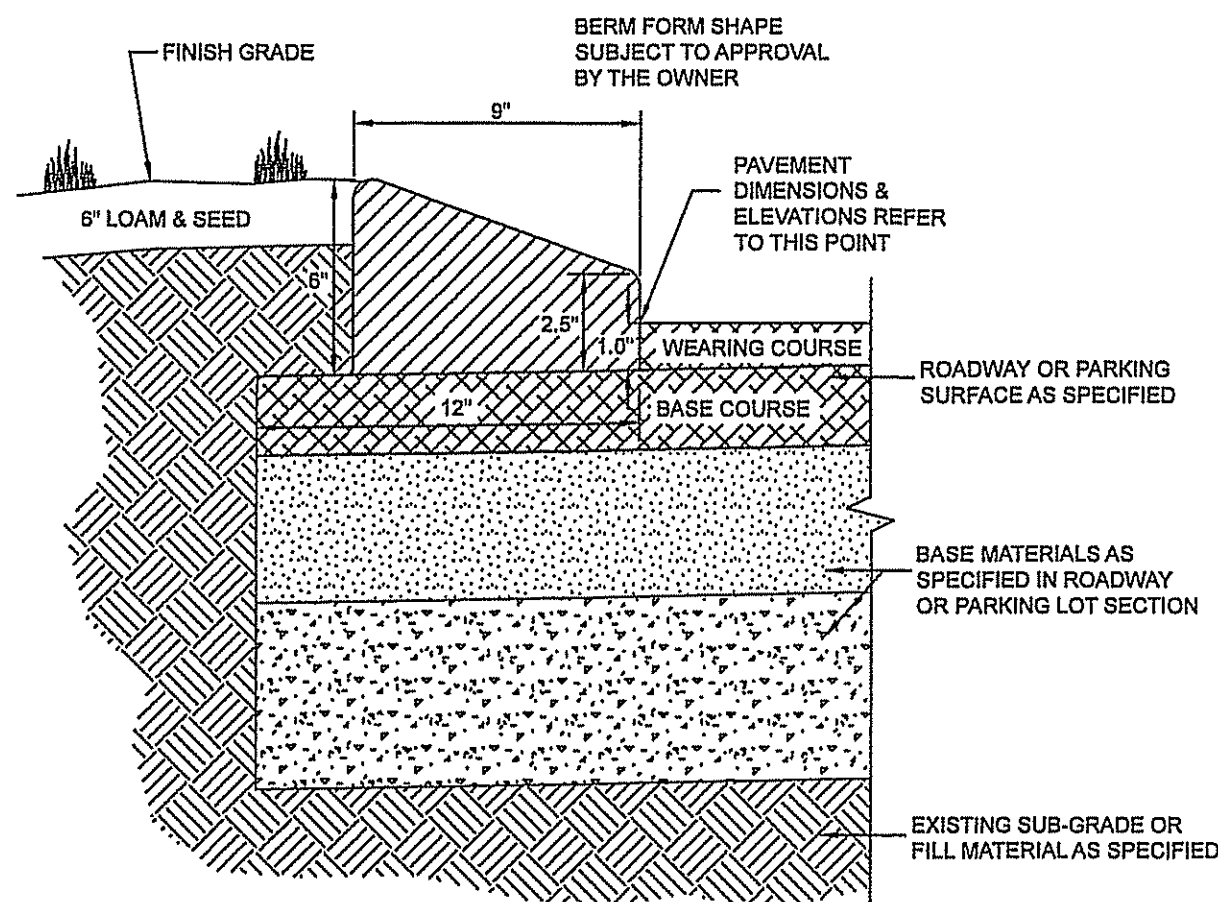


- 1) ALL MATERIALS AND CONSTRUCTION REQUIREMENTS SHALL CONFORM TO "MASSACHUSETTS DEPARTMENT OF TRANSPORTATION HIGHWAY DIVISION CONSTRUCTION STANDARD DETAILS" AS SET FORTH IN SECTION 400, 2017 EDITION.
- 2) ALL GUARDRAIL SHALL BE STEEL BEAM GUARD RAIL WITH 6"x6" WOOD POST AND OFFSET BLOCK (OR ALLOWABLE EQUIVALENT).
- 3) THE END TREATMENT FOR EACH SEGMENT OF RAIL SHALL BE A TRAILING ANCHORAGE (401.4.2) IN THE MASSDOT CONSTRUCTION STANDARD DETAILS.
- 4) ALL RAIL MATERIALS SHALL BE GALVANIZED STEEL AND IS SUBJECT TO THE APPROVAL OF THE DEPARTMENT OF PUBLIC WORKS.

SCALE: N.T.S.

GUARDRAIL (OPTIONAL)

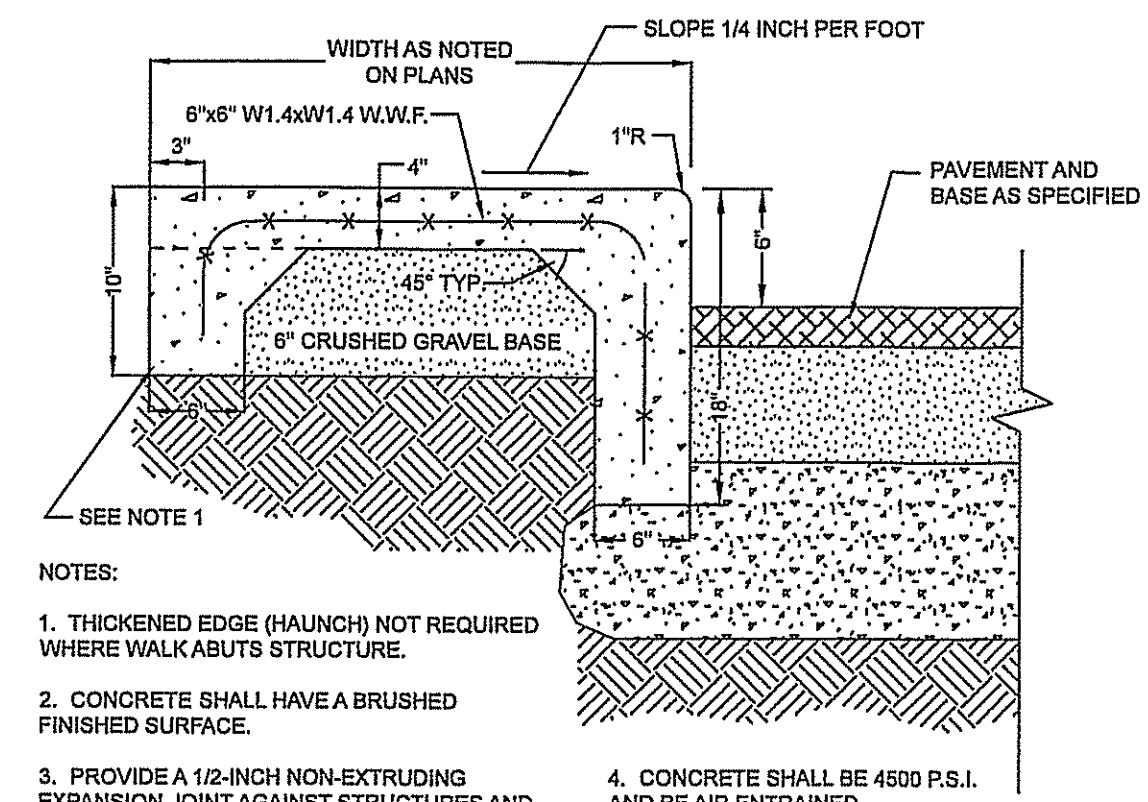
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SCALE: N.T.S.

CURB - ASPHALT (CAPE COD BERM)

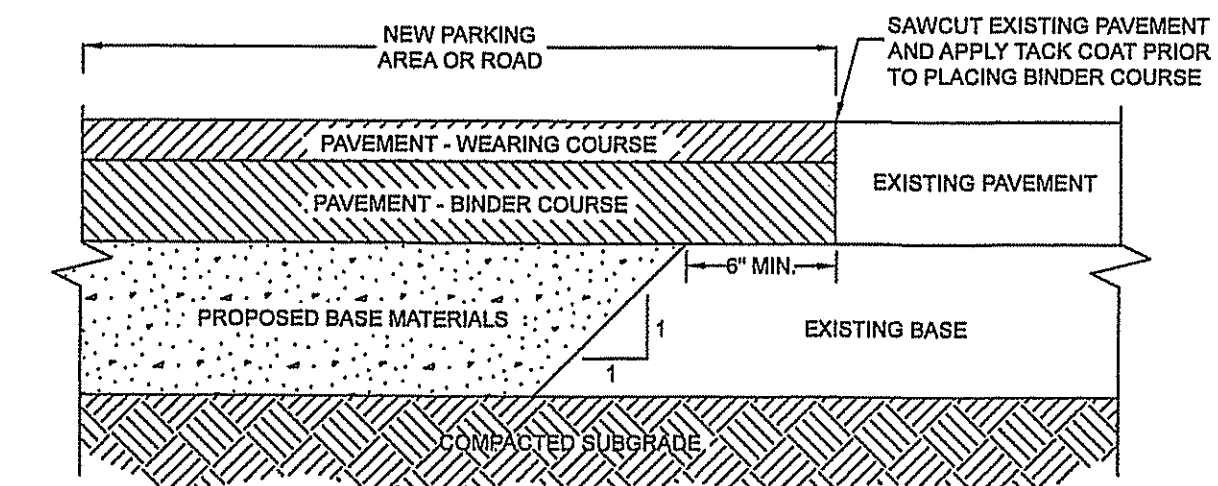
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SCALE: N.T.S.

SIDEWALK - CONCRETE W/INTEGRAL CONCRETE CURB

DT-1



#### NOTE:

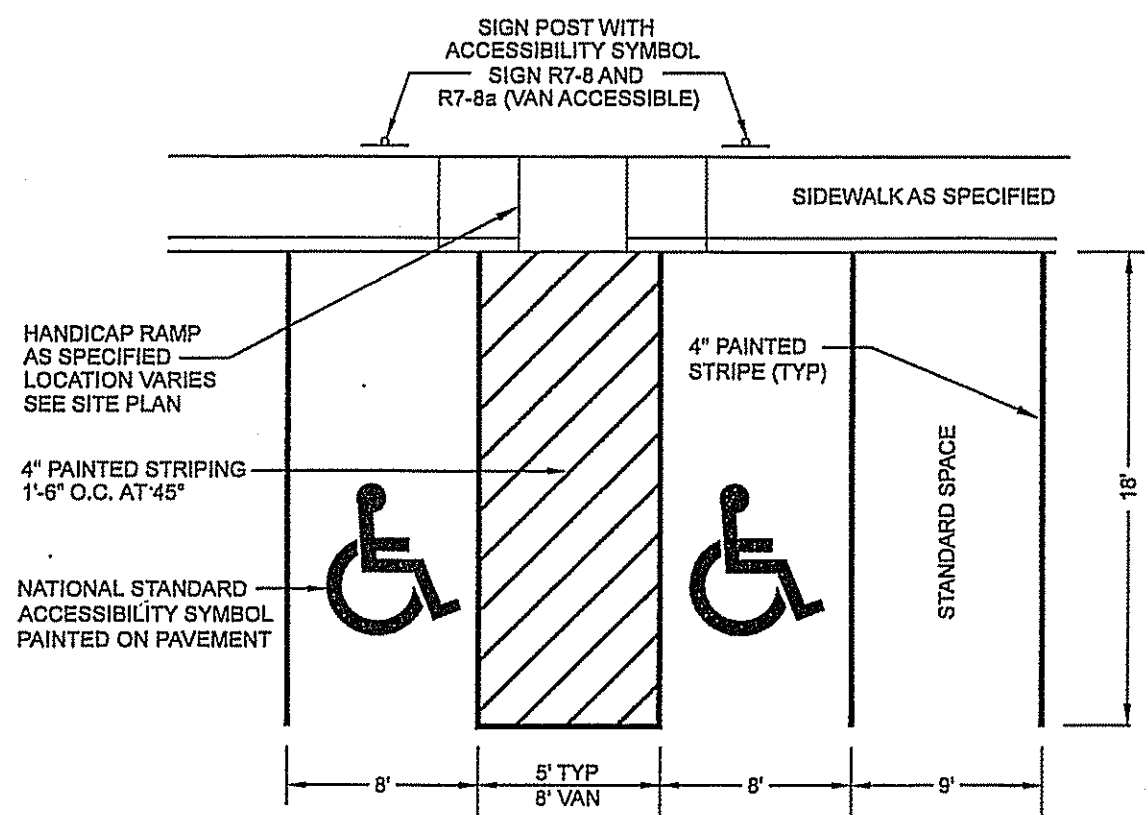
1. SEE ROADWAY OR PARKING LOT SECTION FOR MATERIALS AND ASSOCIATED DEPTHS.
2. INFRARED JOINT AFTER PLACING PAVEMENT.

SCALE: N.T.S.

PAVEMENT MATCH

DT-1

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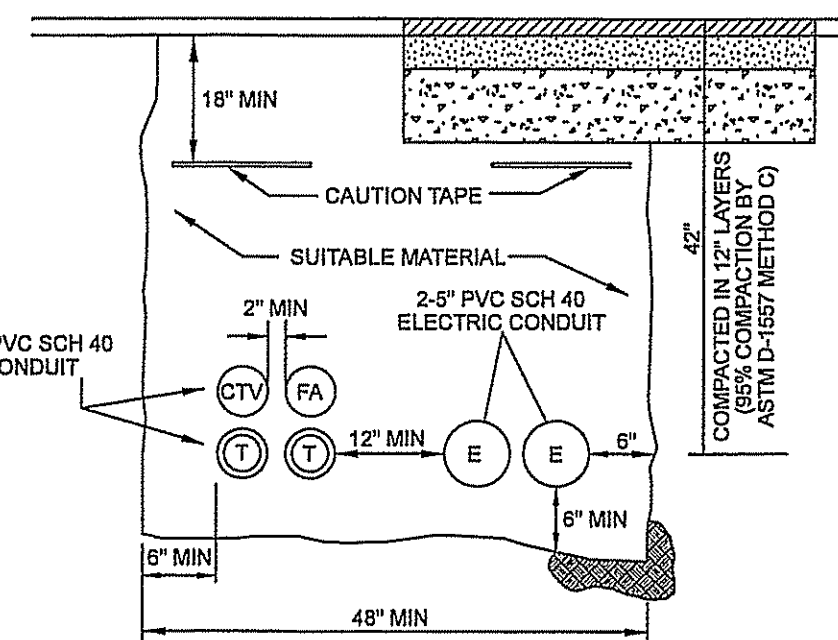


- NOTES:
1. MAXIMUM SLOPE IN ANY DIRECTION IS 2.0% FOR HANDICAP SPACES.
  2. SEE SITE PLAN FOR LOCATION OF HANDICAP SPACES AND TYPE OF HANDICAP RAMP TO BE USED.
  3. HANDICAP SYMBOL SHALL BE CENTERED ON WIDTH OF PARKING STALL AND LOCATED 6" FROM ACCESS DRIVE, INTO PARKING SPACE.
  4. THE HANDICAP SYMBOL SHALL HAVE A 5' x 5' CONTRASTING BACKGROUND, NORMALLY BLUE. A BACKGROUND IS NOT REQUIRED IF WHITE OR YELLOW SYMBOL IS ON BLACK ASPHALT.

SCALE: N.T.S.

PARKING STALL LAYOUT

DT-1



- NOTE:
- ALL CONDUIT AND TRENCH WORK SHALL CONFORM TO THEIR RESPECTIVE UTILITY COMPANY REQUIREMENTS

SCALE: N.T.S.

TYPICAL UTILITY TRENCH

DT-1

**CONSTRUCTION DETAILS**

**PIE HILL**

**WAREHOUSING**

TAX MAP 1010 LOT 79-17  
 (46 OLD FERRY ROAD)  
 METHUEN, MASSACHUSETTS

PREPARED FOR:  
**TRIPLE G PROPERTY LLC**  
 59 BONANNO COURT, METHUEN, MA 01844

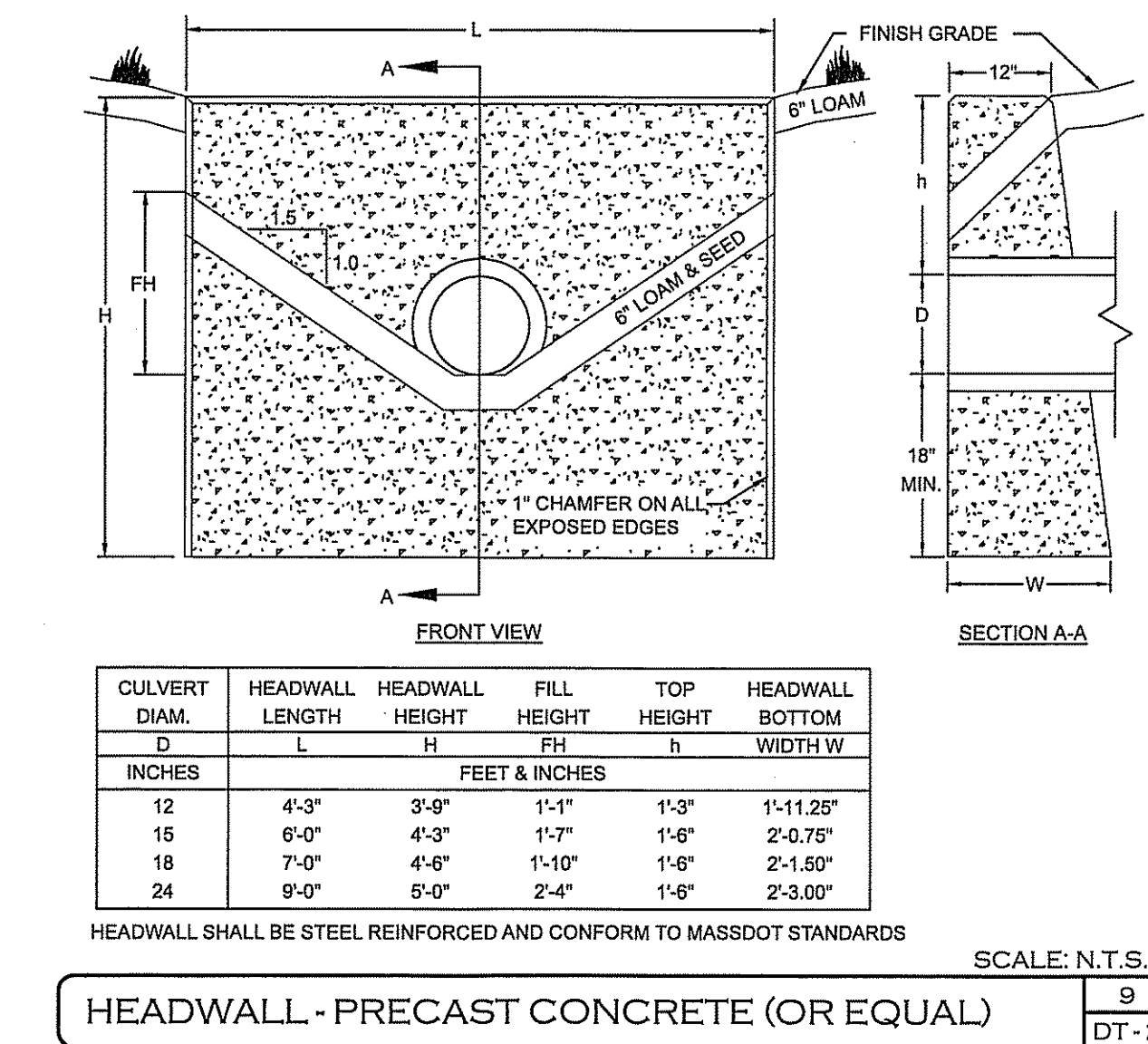
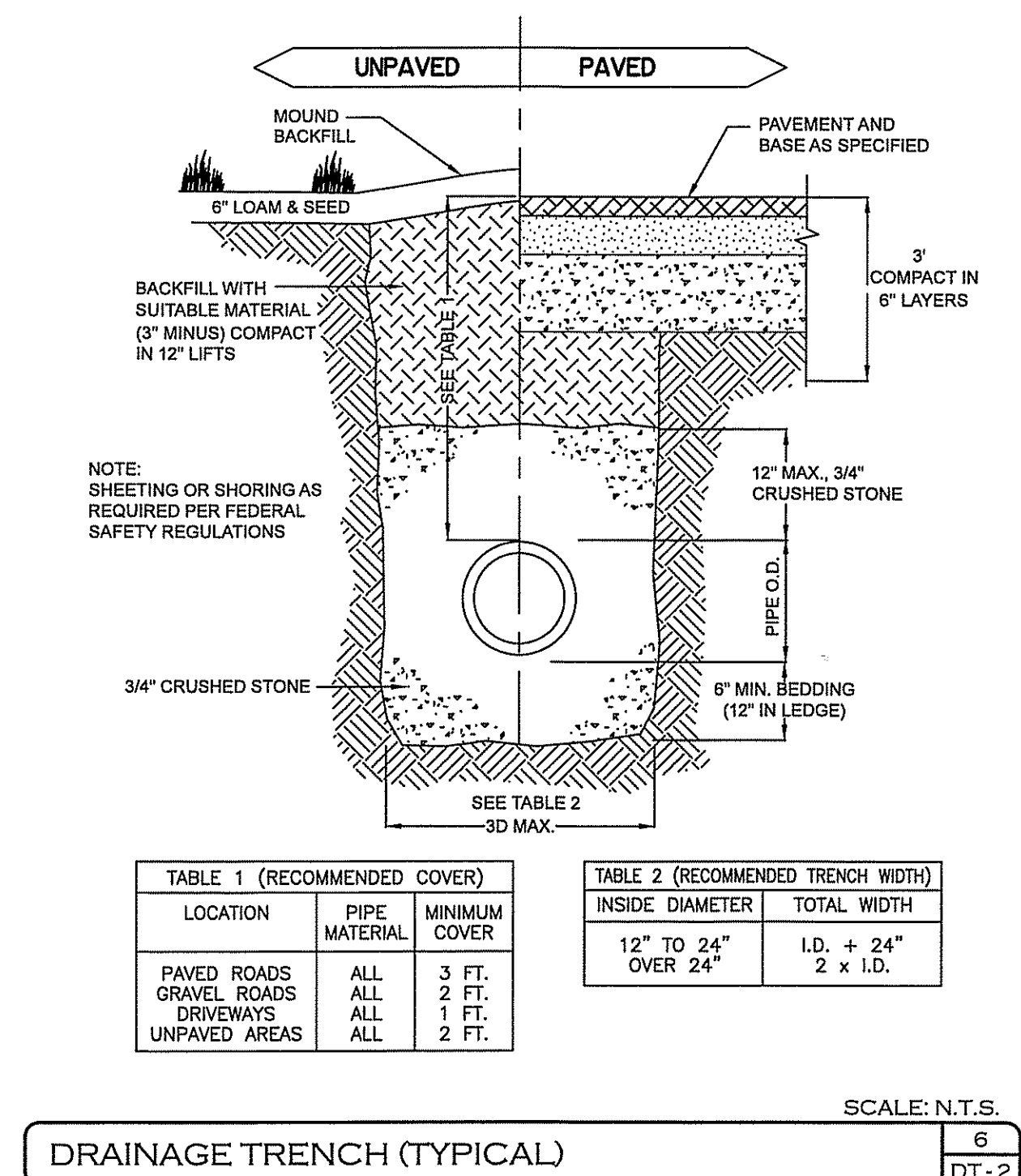
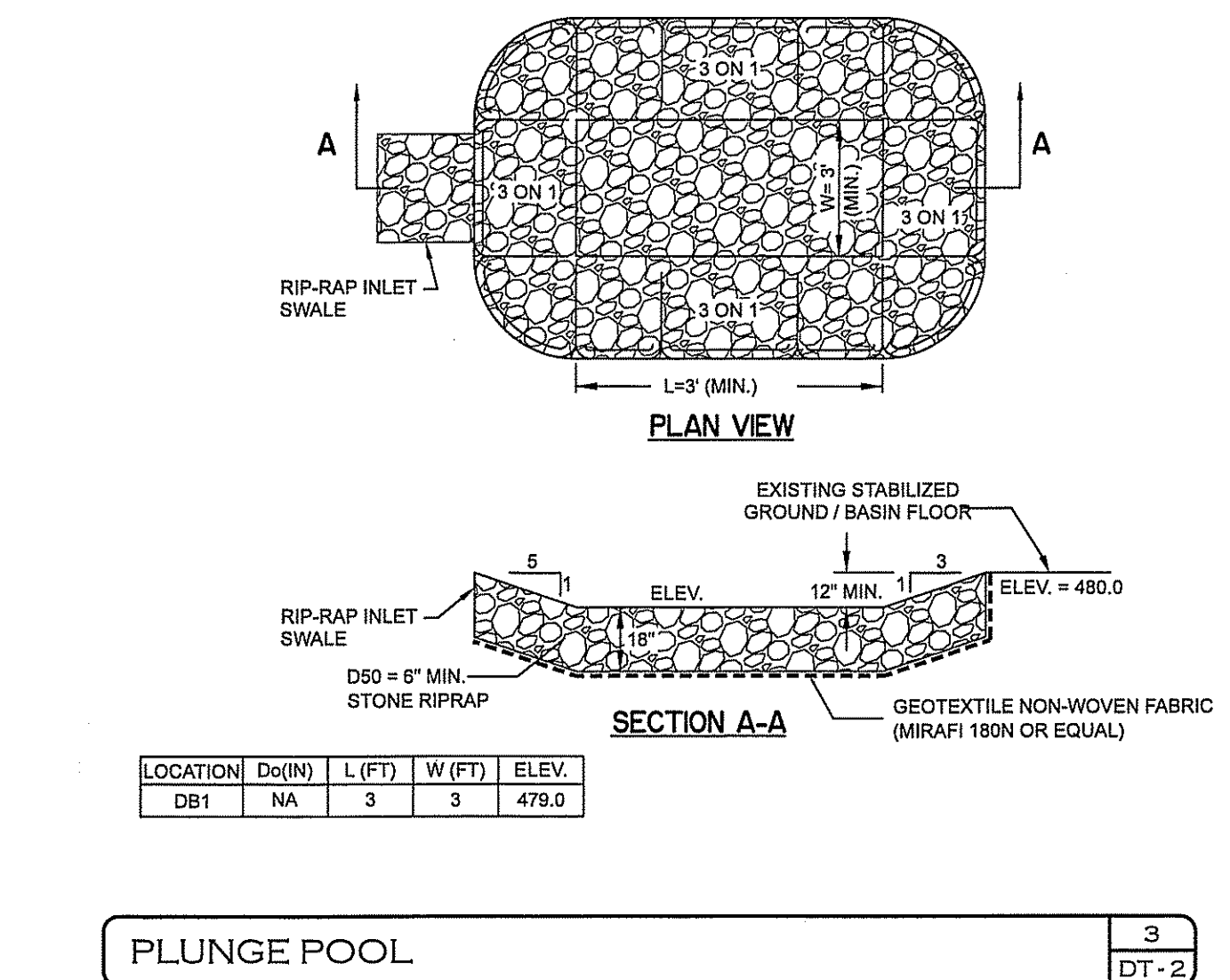
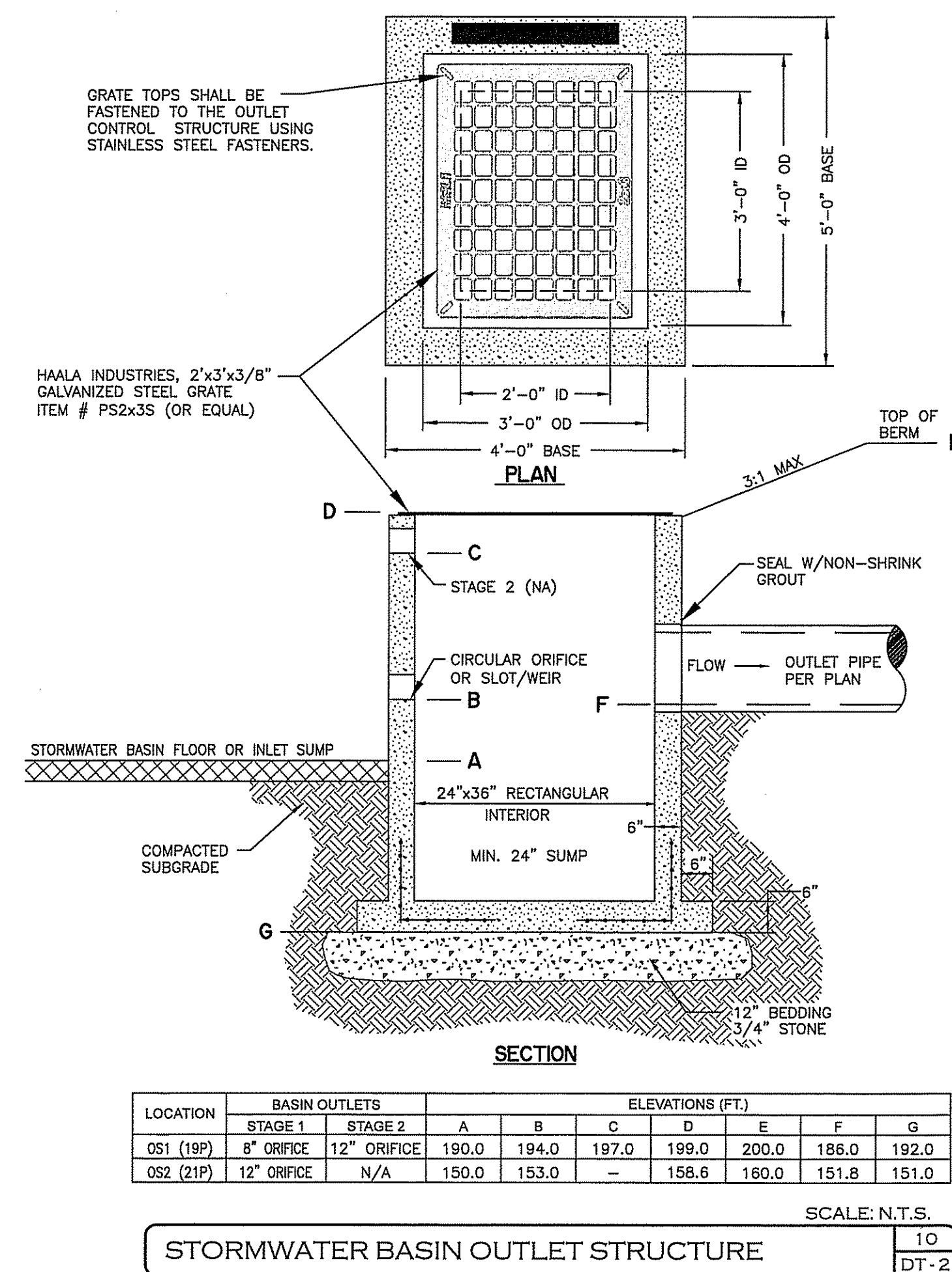
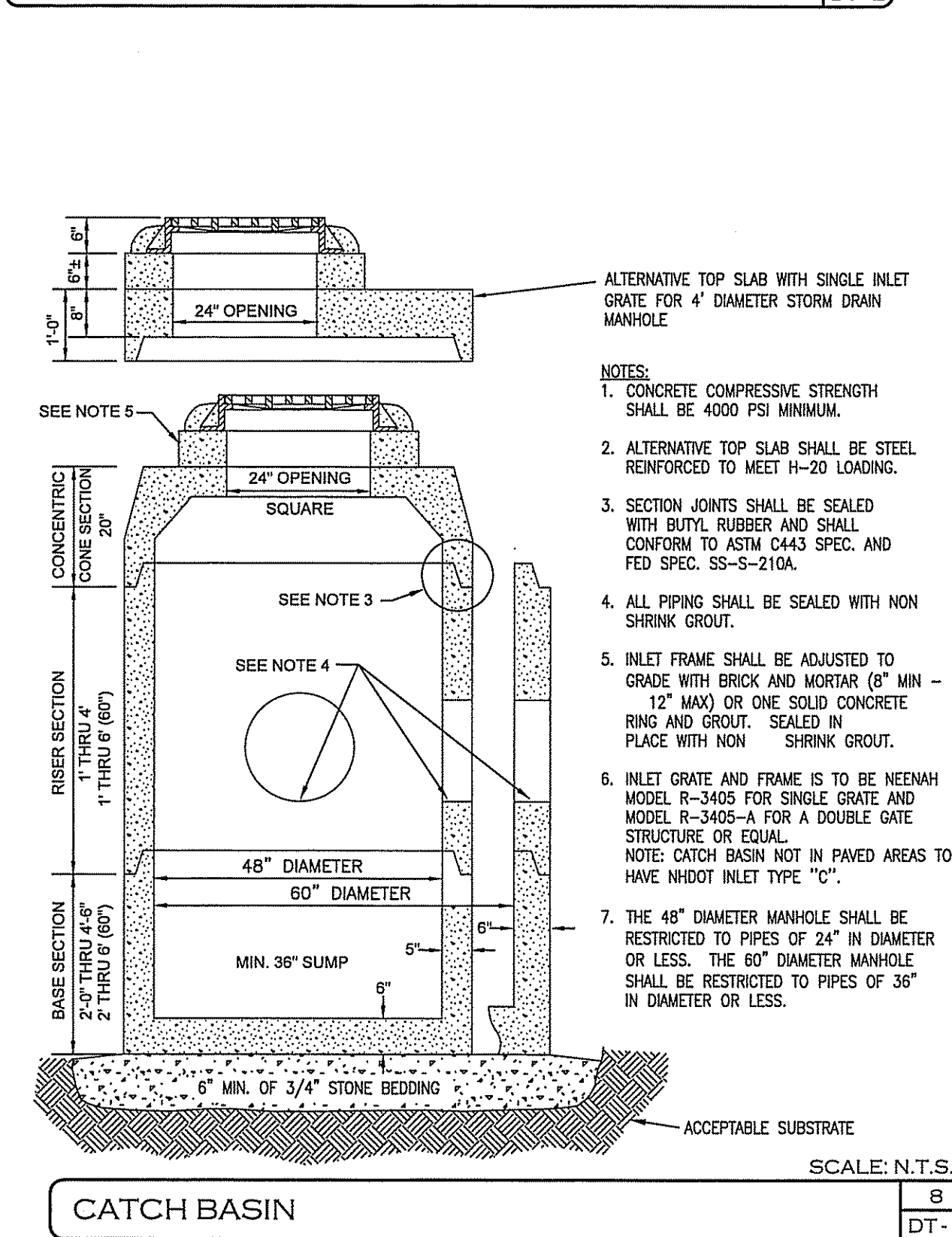
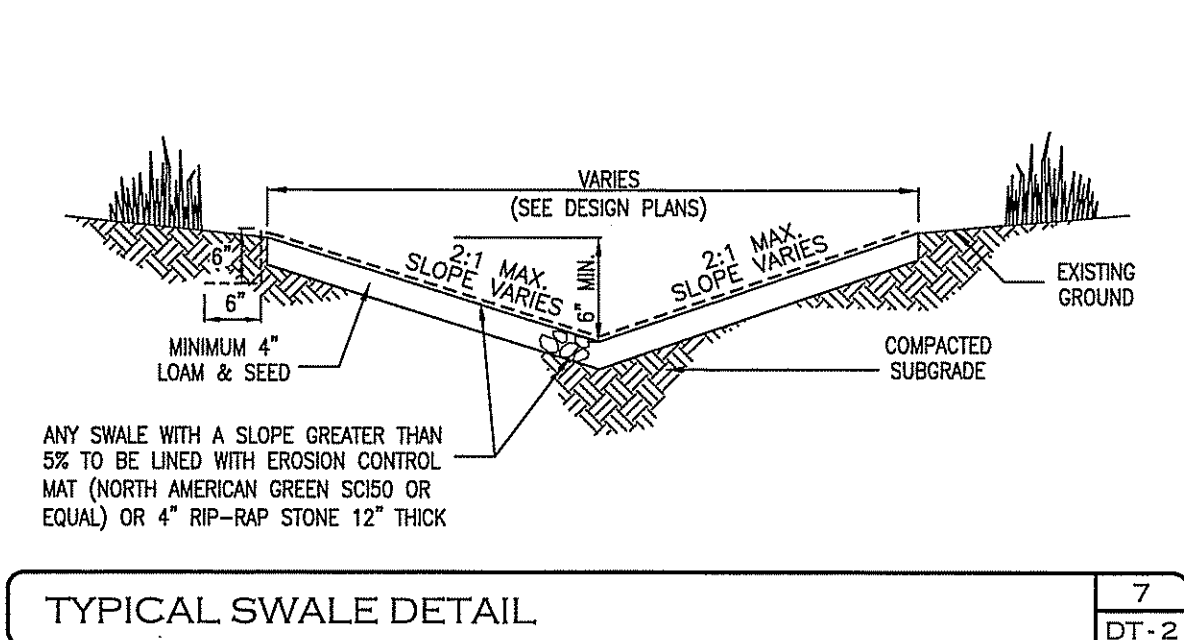
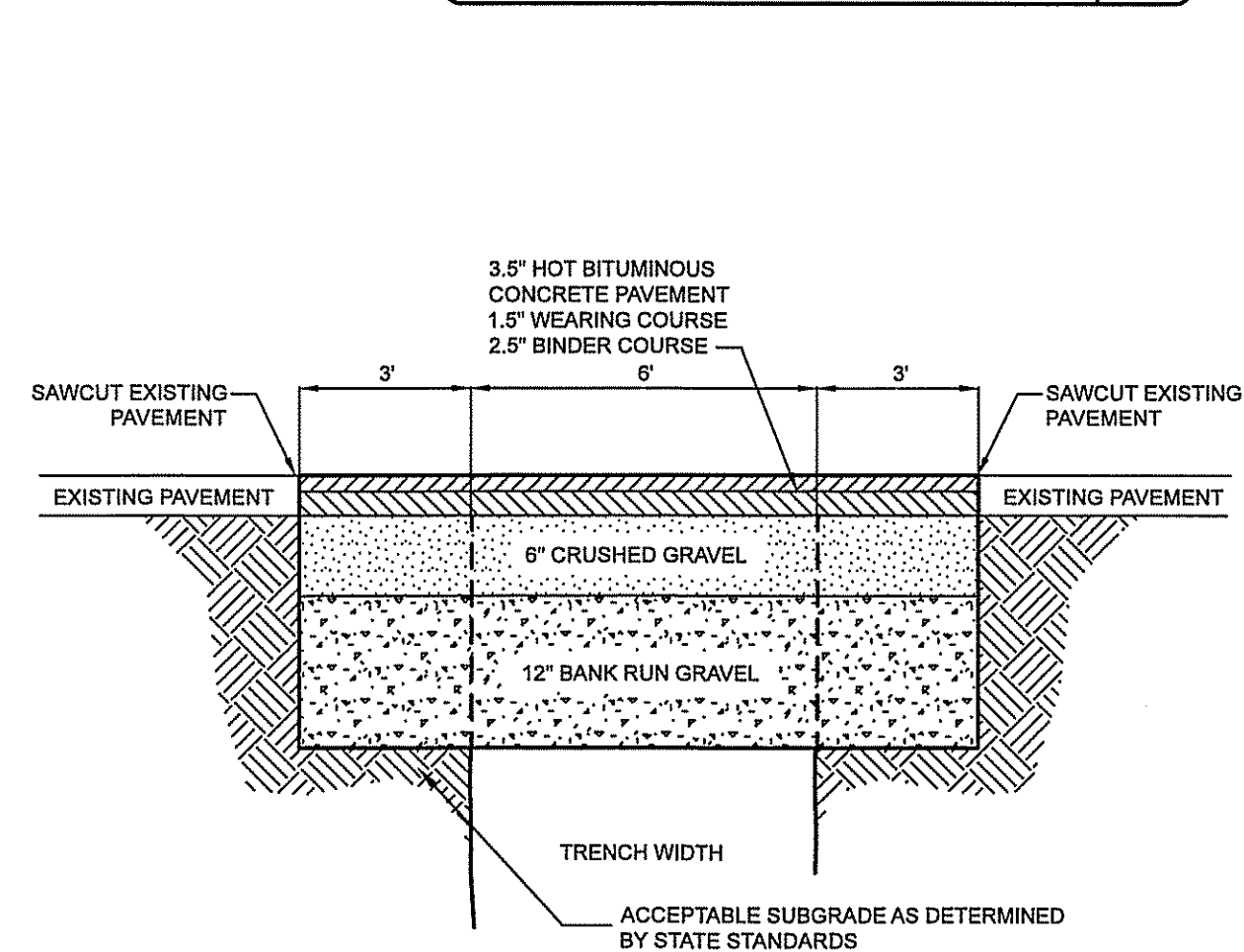
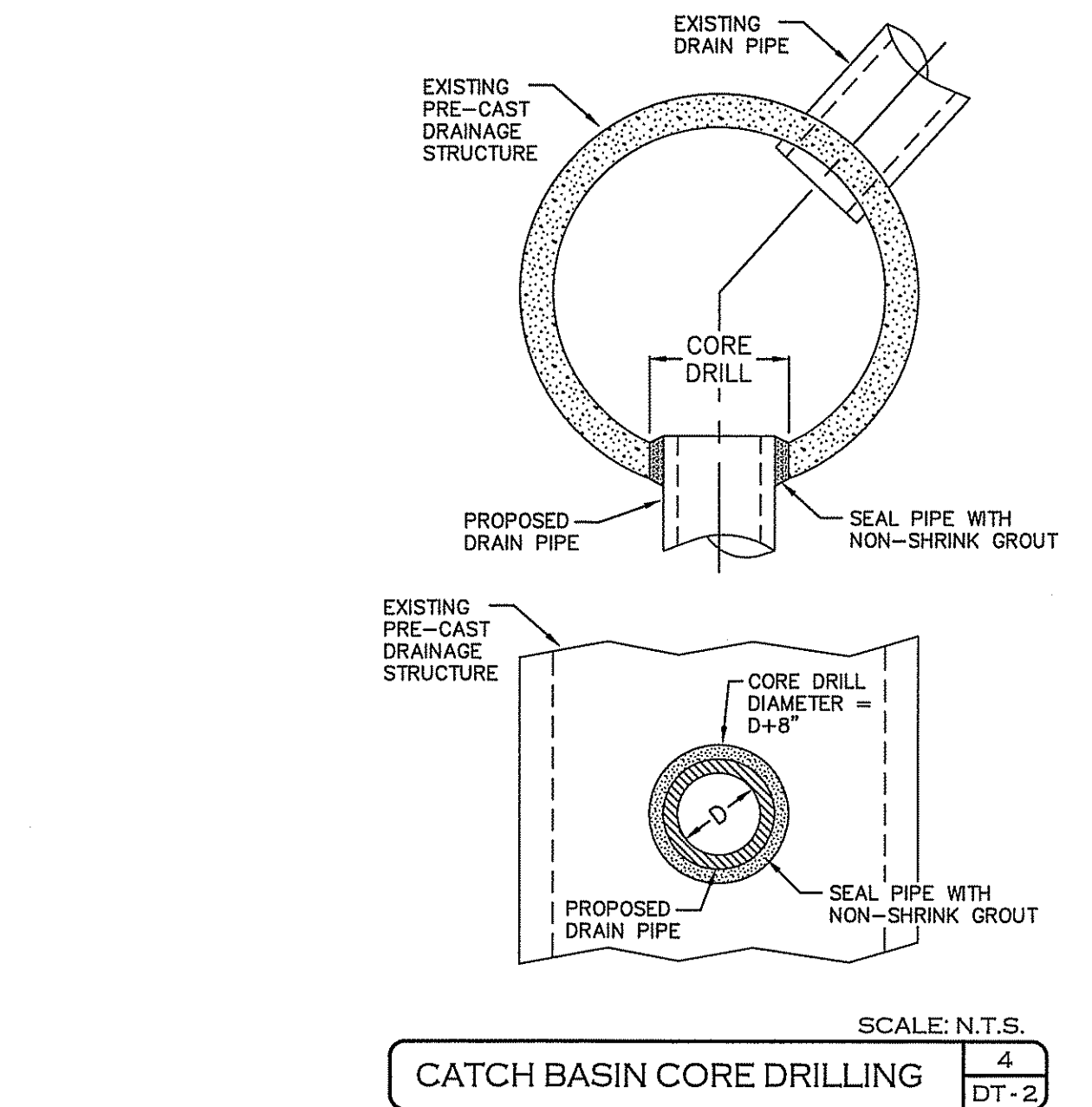
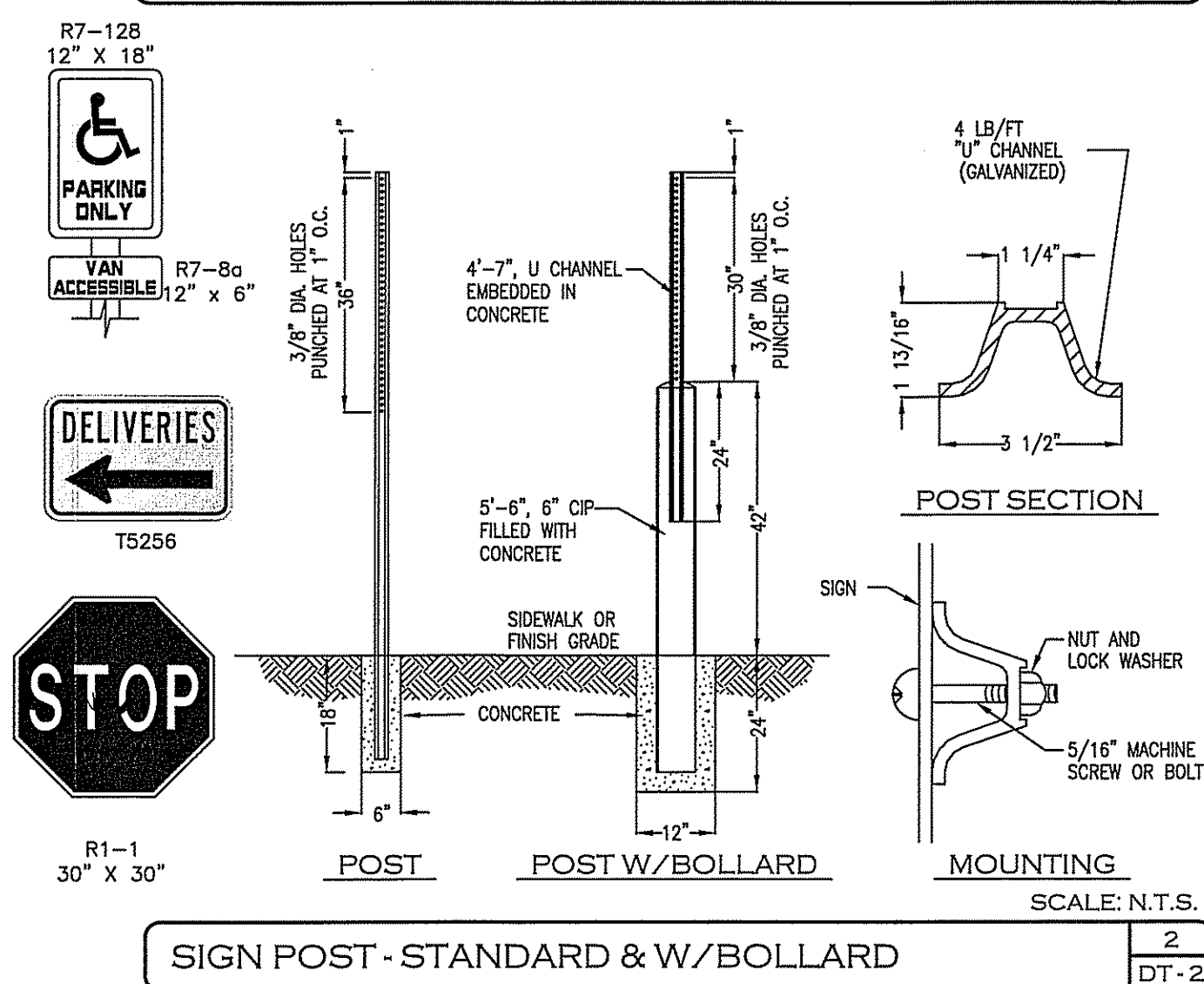
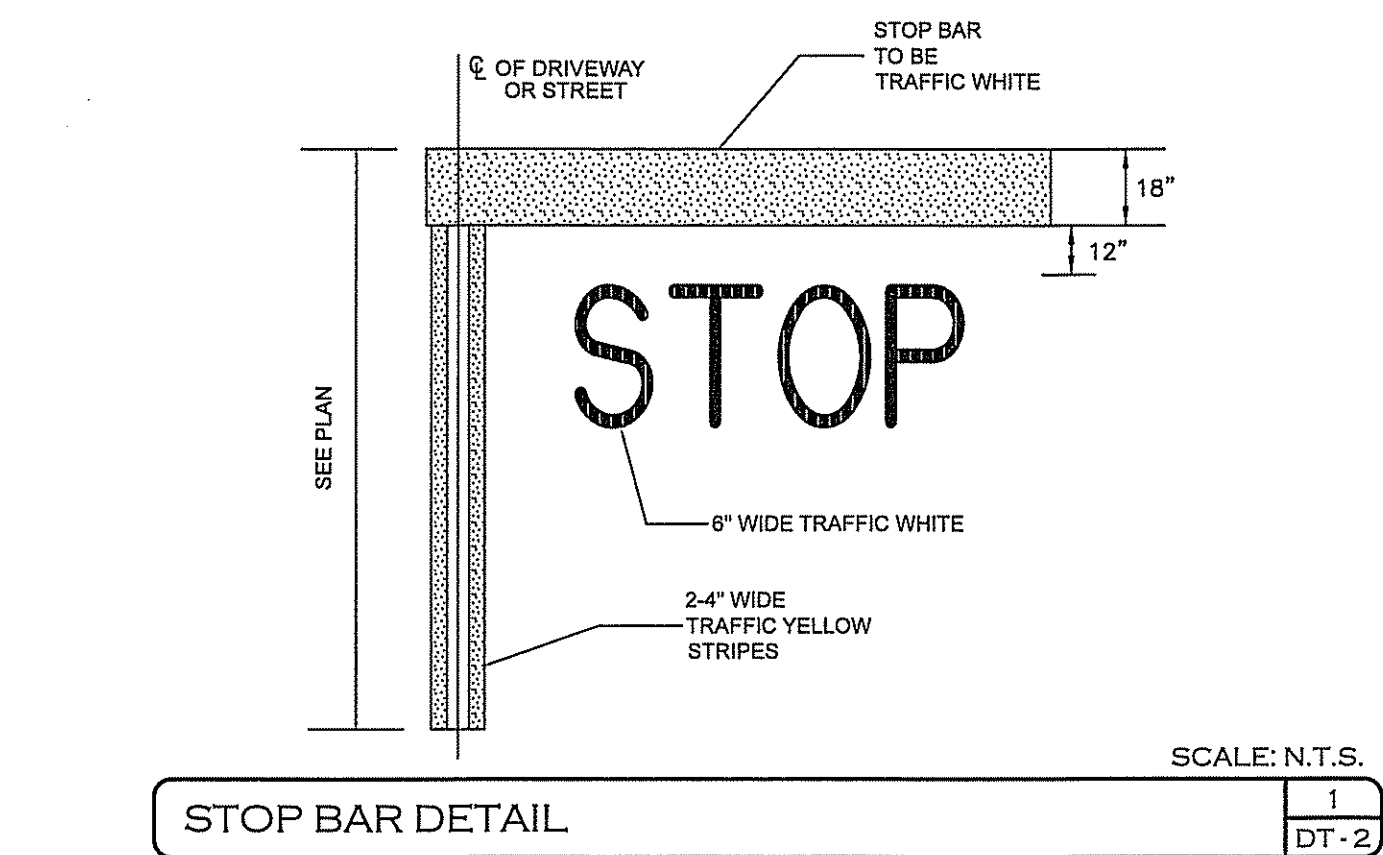
SCALE: NONE APRIL 4, 2022

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 Phone: (603) 672-5456 Fax: (603) 413-5456  
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| REV. | DATE    | DESCRIPTION                 | CLERK | CHK |
|------|---------|-----------------------------|-------|-----|
| A    | 6/29/22 | REV. PER ENGINEERING REVIEW | CLR   | CEB |

**CONSTRUCTION DETAILS**  
**PIE HILL**  
**WAREHOUSING**  
TAX MAP 1010 LOT 79-17  
(46 OLD FERRY ROAD)  
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1. PRIOR TO STARTING ANY WORK ON THE SITE THE CONTRACTOR SHALL NOTIFY APPROPRIATE AGENCIES.
2. ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN ACCORDANCE WITH STANDARDS AND SPECIFICATIONS THEREOF IN MASSACHUSETTS STORM WATER HANDBOOK, VOLUME 1-3, LATEST EDITION.
3. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED PER PLANS AND DETAILS. PERIMETER CONTROLS SHALL BE IN PLACE PRIOR TO COMMENCEMENT OF EARTH DISTURBING ACTIVITIES.
4. INSTALL INLET PROTECTION AROUND ALL STORM DRAIN STRUCTURES. INLET PROTECTION BMP'S SHALL REMAIN UNTIL THE SITE IS STABILIZED. CONSTRUCTION OF DETENTION BASINS AND TREATMENT SWALES SHALL OCCUR PRIOR TO AN EARTH MOVING OPERATION THAT WILL INFLUENCE STORM WATER RUNOFF.
5. THE WORK AREA SHALL BE GRADED, SHAPED AND OTHERWISE DRAINED IN SUCH A MANNER AS TO MINIMIZE SOIL EROSION, SILTATION OF DRAINAGE CHANNELS, DAMAGE TO EXISTING VEGETATION, AND DAMAGE TO PROPERTY OUTSIDE THE LIMITS OF THE WORK AREA.
6. EXISTING VEGETATION IS TO REMAIN UNDISTURBED WHEN POSSIBLE.
7. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE KEPT CLEAN DURING CONSTRUCTION. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSPECTED AT LEAST ONCE A WEEK AND AFTER EVERY 0.5-INCH OR GREATER RAINFALL. SEDIMENTS SHALL BE DISPOSED OF IN AN UPLAND AREA THAT WILL NOT CONTRIBUTE TO SEDIMENT OFF-SITE AND BE PERMANENTLY STABILIZED.
8. THE SMALLEST PRACTICAL AREA SHALL BE DISTURBED DURING CONSTRUCTION. AT NO TIME SHALL THE TOTAL UNSTABILIZED DISTURBED AREA, INCLUDING LOT DISTURBANCES, BE GREATER THAN FIVE (5) ACRES.
9. THE LAND AREA EXPOSED SHALL BE KEPT TO THE SHORTEST PRACTICAL PERIOD OF TIME. ALL NON-ACTIVE DISTURBED AREAS SHALL BE STABILIZED WITHIN 30 DAYS OF THE DISTURBANCE. ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 72 HOURS OF FINAL GRADING.
10. DITCHES, SWALES AND DRAINAGE BASINS SHALL BE CONSTRUCTED DURING THE INITIAL PHASE OF CONSTRUCTION AND STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
11. AN AREA SHALL BE CONSIDERED STABILIZED IF ONE OF THE FOLLOWING HAS OCCURRED:  
A. BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED;  
B. A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;  
C. A MINIMUM OF 3-INCHES OF NON-EROSIVE MATERIAL, SUCH AS STONE OR RIPRAP, HAS BEEN INSTALLED; OR  
D. EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
12. EROSION CONTROL BLANKETS SHALL BE INSTALLED ON ALL SLOPES THAT ARE STEEPER THAN 3:1 (HORIZONTAL / VERTICAL), UNLESS OTHERWISE SPECIFIED THE CONTRACTOR SHALL USE NORTH AMERICAN GREEN SC160, OR APPROVED EQUAL.
13. ALL AREAS RECEIVING EROSION CONTROL STONE OR RIPRAP SHALL HAVE A GEOTEXTILE MATERIAL INSTALLED BELOW THE STONE (SEE APPROPRIATE DETAILS).
14. ALL DISTURBED AREAS TO TURF FINISHED SHALL BE COVERED WITH A MINIMUM THICKNESS OF 6 INCHES OF COMPACTED LOAM. LOAM SHALL BE COVERED WITH THE APPROPRIATE SEED MIXTURE AS INDICATED BELOW:

| PERMANENT SEED (LAWN AREAS) | LBS / 1,000 SQ. FT. | PERMANENT SLOPE SEED MIX  | LBS / 1,000 SQ. FT. |
|-----------------------------|---------------------|---------------------------|---------------------|
| CREeping RED PESCUE         | 0.92 LBS            | CREeping RED PESCUE       | 0.80 LBS            |
| PERENNIAL RYEGRASS          | 1.15 LBS            | PERENNIAL RYEGRASS        | 0.80 LBS            |
| KENTUCKY BLUEGRASS          | 0.58 LBS            | REDTOP                    | 0.12 LBS            |
| REDTOP                      | 0.12 LBS            | ALSIKE CLOVER             | 0.12 LBS            |
|                             |                     | BIRDFOOT TREFOIL          | 0.12 LBS            |
| **APPLICATION RATE TOTALS   |                     | **APPLICATION RATE TOTALS |                     |
| 2.8 LBS PER 1,000 SF        |                     | 1.85 LBS PER 1,000 SF     |                     |

15. TEMPORARY STABILIZATION OF DISTURBED AREAS:  
STRIPPED SOIL SHALL BE STOCKPILED UNCOMPACTED, AND STABILIZED AGAINST EROSION AS OUTLINED BELOW:  
SEED BED PREPARATION: 10-10-10 FERTILIZATION TO BE SPREAD AT THE RATE OF 7 LBS. PER 100 SF AND AGRICULTURAL LIMESTONE AT A RATE OF 80 LBS PER 1000 SF AND INCORPORATED INTO THE SOIL. THE SOIL, FERTILIZER AND LIMESTONE SHALL BE TILLED TO PREPARE FOR SEEDING.

A. SEED MIXTURE: USE ANY OF THE FOLLOWING:

| SPECIES         | RATE PER 1,000 SF | DEPTH     | SEEDING DATES |
|-----------------|-------------------|-----------|---------------|
| WINTER RYE      | 2.5 LBS           | 1 INCH    | 8/15 TO 9/15  |
| OATS            | 2.5 LBS           | 1 INCH    | 4/15 TO 10/15 |
| ANNUAL RYEGRASS | 1.0 LBS           | 0.25 INCH | 8/15 TO 9/15  |

B. MULCHING: MULCH SHOULD BE USED ON HIGHLY ERODIBLE AREAS, AND WHERE CONSERVATION OF MOISTURE WILL FACILITATE PLANT ESTABLISHMENT AS FOLLOWS:

| TYPE                              | RATE PER 1,000 SF                     | USE AND COMMENTS                                                          |
|-----------------------------------|---------------------------------------|---------------------------------------------------------------------------|
| STRAW                             | 70 TO 80 LBS                          | MAY BE USED WITH PLANTINGS, MUST BE ANCHORED TO BE USED ALONE             |
| WOOD CHIPS OR BARK MULCH          | 450 TO 520 LBS                        | USED WITH TREE AND SHRUB PLANTINGS                                        |
| FIBROUS MATTING                   | AS RECOMMENDED BY MANUFACTURER        | MUST BE BIODEGRADABLE. USE IN SLOPE AREAS AND AREAS DIFFICULT TO VEGETATE |
| CRUSHED STONE 1/4" TO 1-1/2" DIA. | SPREAD TO GREATER THAN 1/2" THICKNESS | USE IN SPECIFIC AREAS AS SHOWN ON PLAN OR AS NEEDED                       |

16. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS. IF SOIL TESTING IS NOT FEASIBLE (CRITICAL TIME FRAMES OR VARIABLE SITES) THEN APPLY FERTILIZER AT A RATE OF 11 POUNDS PER 1,000 SF AND LIMESTONE AT A RATE OF 50 POUNDS PER 1,000 SF. FERTILIZER SHALL BE LOW PHOSPHATE (LESS THAN 2% PHOSPHORUS).
17. CAUTION SHOULD BE TAKEN WHEN THE PROPERTY IS LOCATED WITHIN 250 FEET OF A WATER BODY. IN THIS CASE ALL FERTILIZERS SHALL BE RESTRICTED TO A LOW PHOSPHATE, SLOW RELEASE NITROGEN FERTILIZER. SLOW RELEASE FERTILIZERS MUST BE AT LEAST 50% SLOW RELEASE NITROGEN COMPONENT. NO FERTILIZER EXCEPT LIMESTONE SHALL BE APPLIED WITHIN 25 FEET OF THE SURFACE WATER. THESE ARE REGULATED LIMITATIONS.
18. PERMANENT OR TEMPORARY COVER MUST BE IN PLACE BEFORE THE GROWING SEASON ENDS (SEE WINTER CONSTRUCTION NOTES). NO DISTURBED AREAS SHALL BE LEFT EXPOSED DURING THE WINTER MONTHS.
19. A VIGOROUS DUST CONTROL PROGRAM SHALL BE APPLIED BY THE SITE CONTRACTOR. DUST SHALL BE MANAGED THROUGH THE USE OF WATER AND/OR CALCIUM CHLORIDE.
20. IN NO WAY ARE THE MEASURES INDICATED ON THE PLANS OR IN THESE NOTES TO BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR SHALL USE JUDGMENT TO INSTALL ADDITIONAL EROSION CONTROL MEASURES AS SITE CONDITIONS, WEATHER OR CONSTRUCTION METHODS WARRANT.
21. FOLLOWING PERMANENT STABILIZATION, TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED AND ACCUMULATED SEDIMENTATION IS TO BE DISPOSED OF IN AN APPROVED LOCATION, OUTSIDE OF JURISDICTIONAL WETLANDS.
22. LOT DISTURBANCE OTHER THAN SHOWN ON THE APPROVED PLANS, SHALL NOT COMMENCE UNTIL AFTER THE ROADWAY HAS THE BASE COURSE TO DESIGN ELEVATION AND THE ASSOCIATED DRAINAGE IS COMPLETE AND STABLE.
23. THE CONTRACTOR AND OWNER ARE RESPONSIBLE FOR OBSERVING AND MANAGING THE PROJECT PER RSA 430:53 AND AGR 3800 REGARDING INVASIVE SPECIES (PLANTS AND INSECTS). NO INVASIVE SPECIES PLANT OR INSECT SHALL BE INTRODUCED ONTO THE SITE.

1. INSTALL SILTATION CONTROL FENCES IN LOCATIONS SHOWN HEREON. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY EARTH MOVING OPERATION.
2. INSTALL STABILIZED CONSTRUCTION EXIT(S).
3. CUT AND CLEAR TREES; DISPOSE OF DEBRIS. STUMPS ARE TO BE REMOVED FROM THE SITE AND DISPOSED OF PROPERLY.
4. REMOVE TOPSOIL AND STOCKPILE AWAY FROM ANY WETLAND. STABILIZE STOCKPILE IMMEDIATELY BY SEEDING. PLACE SILT FENCE AROUND THE DOWN SLOPE SIDE OF EARTH STOCKPILES.
5. ROUGH GRADE SITE - CONSTRUCT DRAINAGE BASINS AND DRAINAGE SWALES DURING INITIAL PORTION OF CONSTRUCTION. STABILIZE IMMEDIATELY PER THE CONSTRUCTION AND EROSION CONTROL DETAILS. DO NOT DIRECT STORM WATER RUNOFF TO THESE STRUCTURES UNTIL A HEALTHY VEGETATIVE COVER IS ESTABLISHED.
6. EXPOSE LEDGE AND COMMENCE BLASTING ACTIVITIES IN ACCORDANCE WITH THE BLASTING BEST MANAGEMENT PRACTICES SUMMARIZED HEREON. THE SLOPE OF THE LEDGE CUTS SHALL BE DEPENDENT ON THE COMPETENCY OF THE LEDGE ENCOUNTERED WITH A MAXIMUM RATE OF 1' HORIZ. TO 4' VERT.
7. BEGIN BUILDING CONSTRUCTION.
8. CONSTRUCT ROAD, PARKING AND BUILDING PADS. INSTALL UTILITIES AND STRUCTURES. ALL CUT AND FILL SLOPES SHALL BE STABILIZED UPON COMPLETION OF ROUGH GRADING PER THE EROSION CONTROL NOTES.
9. INSPECT AND MAINTAIN EROSION CONTROL MEASURES ON A WEEKLY BASIS AND AFTER EVERY 0.25" OR GREATER RAINFALL.
10. DAILY, OR AS REQUIRED, CONSTRUCT TEMPORARY BERMS, CULVERTS, DITCHES, SILTATION FENCES, SEDIMENT TRAPS, ETC. MULCH AND SEED AS REQUIRED.
11. FINISH GRADING TO PREPARE FOR PAVING AND LOAMING. ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 72 HOURS AFTER FINAL GRADING.
12. FINISH PAVING. PERMANENT SEEDING SHALL BE PERFORMED UPON COMPLETION OF DRIVE AND PARKING AREA PAVING (SEE EROSION CONTROL NOTES).
13. COMPLETE PERMANENT SEEDING AND LANDSCAPING.
14. TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED WHEN ALL DISTURBED AREAS HAVE BEEN STABILIZED.
15. ALL STRUCTURES SHALL BE CLEANED OF SEDIMENTS ONCE CONSTRUCTION IS COMPLETE.

CONSTRUCTION SEQUENCE 2 DT-3

THE FOLLOWING PROVIDES AN ITEMIZATION OF SPECIFIC SITE MAINTENANCE PRACTICES THAT WILL BE EMPLOYED ON THE SITE TO MINIMIZE POLLUTANT GENERATION AND TRANSPORT FROM THE SITE. THE SITE MAINTENANCE PROGRAM INCLUDES ROUTINE INSPECTIONS, PREVENTATIVE MAINTENANCE AND "GOOD HOUSEKEEPING" PRACTICES.

- ROUTINE INSPECTIONS**
1. THE CONTRACTOR SHALL INSPECT ALL CONTROL MEASURES AT LEAST ONCE A WEEK AND WITHIN TWELVE (12) HOURS OF THE END OF A STORM WITH RAINFALL AMOUNT GREATER THAN 0.5 INCHES. THE INSPECTIONS WILL VERIFY THAT THE STRUCTURAL BMP'S DESCRIBED IN THE PLANS ARE IN GOOD CONDITION AND ARE MINIMIZING EROSION. A MAINTENANCE INSPECTION REPORT WILL BE MADE WITH EACH INSPECTION. COMPLETED INSPECTION FORMS SHALL BE KEPT ON-SITE FOR THE DURATION OF THE PROJECT. FOLLOWING CONSTRUCTION, THE COMPLETED FORMS SHALL BE RETAINED AT THE CONTRACTOR'S OFFICE FOR A MINIMUM OF ONE YEAR.
- PREVENTATIVE MAINTENANCE**
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF ALL TEMPORARY AND PERMANENT CONTROLS THROUGHOUT THE DURATION OF THIS CONTRACT. MAINTENANCE PRACTICES SHALL INCLUDE BUT ARE NOT LIMITED TO:

1. CLEANING OF CATCH BASINS TWICE A YEAR OR MORE FREQUENTLY AS DICTATED BY QUARTERLY INSPECTIONS.
2. CLEANING OF SEDIMENT AND DEBRIS FROM STORMWATER MANAGEMENT AREA FOREBAY TWICE A YEAR OR MORE FREQUENTLY AS DICTATED BY MONTHLY INSPECTIONS.
3. IMPLEMENTATION OF OTHER MAINTENANCE OR REPAIR ACTIVITIES AS DEEMED NECESSARY BASED ON WEEKLY INSPECTIONS.
4. REMOVAL OF BUILT UP SEDIMENT ALONG SILT FENCES AND / OR HAY BALE BARRIERS.
5. REMOVAL OF BUILT UP SEDIMENT IN BOTH TEMPORARY AND PERMANENT CONTROLS SUCH AS GRASS SWALES, SEDIMENT FOREBAYS AND RECHARGE / DETENTION BASINS.
6. RECONSTRUCTING THE STABILIZED CONSTRUCTION ENTRANCE IF NOT WORKING PROPERLY.
7. TREATMENT OF NON-STORM WATER DISCHARGES SUCH AS WATER FROM WATER LINE FLUSHINGS OR GROUNDWATER FROM DEWATERING EXCAVATIONS. SUCH FLOWS SHOULD BE DIRECTED TO A TEMPORARY SEDIMENTATION BASIN OR STORM WATER MANAGEMENT AREA.
8. SWEEP PARKING LOTS AND DRIVES REGULARLY TO MINIMIZE SEDIMENT ACCUMULATION. FREQUENCY WILL VARY SEASONALLY ACCORDING TO SEDIMENT ACCUMULATION ON PAVED SURFACES. (E.G. MORE FREQUENT SWEEPING DURING THE WINTER AND SPRING). AFFECTED ROADWAYS, INCLUDING THE SPIT BROOK ROAD AND TARA BOULEVARD INTERSECTION SHOULD BE SWEEPED AS NECESSARY TO ENSURE THERE IS NO ACCUMULATION OF SEDIMENT.

**GOOD HOUSEKEEPING PRACTICES**

THE CONTRACTOR SHALL EMPLOY MEASURES AND PRACTICES TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS TO STORM AND WATER RUNOFF. THE CONTRACTOR SHALL PAY SPECIAL ATTENTION TO THE HANDLING, USE AND DISPOSAL OF MATERIALS SUCH AS PETROLEUM PRODUCTS, FERTILIZERS AND PAINTS TO ENSURE THAT THE RISK ASSOCIATED WITH THESE PRODUCTS IS MINIMIZED. THE FOLLOWING "GOOD HOUSEKEEPING" PRACTICES SHALL BE FOLLOWED DURING THE CONSTRUCTION OF THE PROJECT:

- A. AN EFFORT SHALL BE MADE TO STORE ONLY ENOUGH PRODUCT TO DO THE JOB.
- B. ALL MATERIALS STORED ON-SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS, AND IS POSSIBLE UNDER A ROOF OR ENCLOSURE.
- C. PRODUCTS SHALL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THEIR MANUFACTURER'S LABELS.
- D. WHENEVER POSSIBLE, ALL OF A PRODUCT SHALL BE USED BEFORE DISPOSING OF THE CONTAINER.
- E. MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL SHALL BE FOLLOWED.
- F. THE CONTRACTOR SHALL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS.

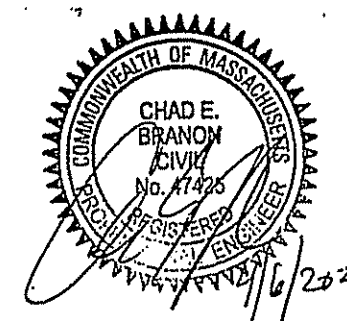
- SPILL PREVENTION AND PRACTICES**
- A. MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.
- B. MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ON-SITE. MATERIALS AND EQUIPMENT WILL INCLUDE BUT NOT BE LIMITED TO BROOMS, DUSTPANS, MOPS, RAGS, GLOVES, GOOGLES, KITTY LITTER, SAND, SAWDUST, AND PLASTIC AND METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE.
- C. ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.
- D. THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.
- E. SPILLS OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SIZE.
- F. THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM REOCCURRING AND HOW TO CLEAN UP THE SPILL IF THERE IS ANOTHER ONE. A DESCRIPTION OF THE SPILL, WHAT CAUSED IT, AND THE CLEANUP MEASURES WILL ALSO BE INCLUDED.

1. [IF MORE THAN 5000 CUBIC YARDS ARE BLASTED] IDENTIFY DRINKING WATER WELLS LOCATED WITHIN 2000 FEET OF THE PROPOSED BLASTING ACTIVITIES. DEVELOP A GROUNDWATER QUALITY SAMPLING PROGRAM TO MONITOR FOR NITRATE AND NITRITE EITHER IN THE DRINKING WATER SUPPLY WELLS OR IN OTHER WELLS THAT ARE REPRESENTATIVE OF THE DRINKING WATER SUPPLY WELLS IN THE AREA. THE PLAN MUST INCLUDE PRE AND POST BLAST WATER QUALITY MONITORING AND BE APPROVED BY NHDES PRIOR TO INITIATING BLASTING. THE GROUNDWATER SAMPLING PROGRAM MUST BE IMPLEMENTED ONCE APPROVED BY NHDES.
2. [APPLIES TO ALL BLASTING] THE FOLLOWING BEST MANAGEMENT PROCEDURES FOR BLASTING SHALL BE COMPLIED WITH:
- (1) LOADING PRACTICES. THE FOLLOWING BLASTHOLE LOADING PRACTICES TO MINIMIZE ENVIRONMENTAL EFFECTS SHALL BE FOLLOWED:
- (A) DRILLING LOGS SHALL BE MAINTAINED BY THE DRILLER AND COMMUNICATED DIRECTLY TO THE BLASTER. THE LOGS SHALL INDICATE DEPTHS AND LENGTHS OF VOIDS, CAVITIES, AND FAULT ZONES OR OTHER WEAK ZONES ENCOUNTERED AS WELL AS GROUNDWATER CONDITIONS.
- (B) EXPLOSIVE PRODUCTS SHALL BE MANAGED ON-SITE SO THAT THEY ARE EITHER USED IN THE BOREHOLE, RETURNED TO THE DELIVERY VEHICLE, OR PLACED IN SECURE CONTAINERS FOR OFF-SITE DISPOSAL.
- (C) SPILLAGE AROUND THE BOREHOLE SHALL EITHER BE PLACED IN THE BOREHOLE OR CLEANED UP AND RETURNED TO AN APPROPRIATE VEHICLE FOR HANDLING OR PLACEMENT IN SECURED CONTAINERS FOR OFF-SITE DISPOSAL.
- (D) LOADED EXPLOSIVES SHALL BE DETONATED AS SOON AS POSSIBLE AND SHALL NOT BE LEFT IN THE BLASTHOLES OVERNIGHT, UNLESS WEATHER OR OTHER SAFETY CONCERNS REASONABLY DICTATE THAT DETONATION SHOULD BE POSTPONED.
- (E) LOADING EQUIPMENT SHALL BE CLEANED IN AN AREA WHERE WASTEWATER CAN BE PROPERLY CONTAINED AND HANDLED IN A MANNER THAT PREVENTS RELEASE OF CONTAMINANTS TO THE ENVIRONMENT.
- (F) EXPLOSIVES SHALL BE LOADED TO MAINTAIN GOOD CONTINUITY IN THE COLUMN LOAD TO PROMOTE COMPLETE DETONATION. INDUSTRY ACCEPTED LOADING PRACTICES FOR PRIMING, STEMMING, DECKING AND COLUMN RISE NEED TO BE ATTENDED TO.
- (2) EXPLOSIVE SELECTION. THE FOLLOWING BMP'S SHALL BE FOLLOWED TO REDUCE THE POTENTIAL FOR GROUNDWATER CONTAMINATION WHEN EXPLOSIVES ARE USED:

- (A) EXPLOSIVE PRODUCTS SHALL BE SELECTED THAT ARE APPROPRIATE FOR SITE CONDITIONS AND SAFE BLAST EXECUTION.
- (B) EXPLOSIVE PRODUCTS SHALL BE SELECTED THAT HAVE THE APPROPRIATE WATER RESISTANCE FOR THE SITE CONDITIONS PRESENT TO MINIMIZE THE POTENTIAL FOR HAZARDOUS EFFECT OF THE PRODUCT UPON GROUNDWATER.
- (3) PREVENTION OF MISFIRES. APPROPRIATE PRACTICES SHALL BE DEVELOPED AND IMPLEMENTED TO PREVENT MISFIRES.
- (4) MUCK PILE MANAGEMENT. MUCK PILES (THE BLASTED PIECES OF ROCK) AND ROCK PILES SHALL BE MANAGED IN A MANNER TO REDUCE THE POTENTIAL FOR CONTAMINATION BY IMPLEMENTING THE FOLLOWING MEASURES:
- (A) REMOVE THE MUCK PILE FROM THE BLAST AREA AS SOON AS REASONABLY POSSIBLE.
- (B) MANAGE THE INTERACTION OF BLASTED ROCK PILES AND STORMWATER TO PREVENT CONTAMINATION OF WATER SUPPLY WELLS OR SURFACE WATER.
- (5) SPILL PREVENTION MEASURES AND SPILL MITIGATION. SPILL PREVENTION AND SPILL MITIGATION MEASURES SHALL BE IMPLEMENTED TO PREVENT THE RELEASE OF FUEL AND OTHER RELATED SUBSTANCES TO THE ENVIRONMENT. THE MEASURES SHALL INCLUDE AT A MINIMUM:
- (A) THE FUEL STORAGE REQUIREMENTS SHALL INCLUDE:
1. STORAGE OF REGULATED SUBSTANCES ON AN IMPERVIOUS SURFACE;
2. SECURE STORAGE AREAS AGAINST UNAUTHORIZED ENTRY;
3. LABEL REGULATED CONTAINERS CLEARLY AND VISIBLY;
4. INSPECT STORAGE AREAS WEEKLY;
5. COVER REGULATED CONTAINERS IN OUTSIDE STORAGE AREAS;
6. WHEREVER POSSIBLE, KEEP REGULATED CONTAINERS THAT ARE STORED OUTSIDE MORE THAN 50 FEET FROM SURFACE WATER AND STORM DRAINS, 75 FEET FROM PRIVATE WELLS, AND 400 FEET FROM PUBLIC WELLS; AND
7. SECONDARY CONTAINMENT IS REQUIRED FOR CONTAINERS CONTAINING REGULATED SUBSTANCES STORED OUTSIDE, EXCEPT FOR ON PREMISE USE HEATING FUEL TANKS, OR ABOVEGROUND OR UNDERGROUND STORAGE TANKS OTHERWISE REGULATED.
- (B) THE FUEL HANDLING REQUIREMENTS SHALL INCLUDE:
1. EXCEPT WHEN IN USE, KEEP CONTAINERS CONTAINING REGULATED SUBSTANCES CLOSED AND SEALED;
2. PLACE DRIP PANS UNDER SPIGOTS, VALVES, AND PUMPS;
3. HAVE SPILL CONTROL AND CONTAINMENT EQUIPMENT READILY AVAILABLE IN ALL WORK AREAS;
4. USE FUNNELS AND DRIP PANS WHEN TRANSFERRING REGULATED SUBSTANCES; AND
5. PERFORM TRANSFERS OF REGULATED SUBSTANCES OVER AN IMPERVIOUS SURFACE.
- (C) THE TRAINING OF ON-SITE EMPLOYEES AND THE ON-SITE POSTING OF RELEASE RESPONSE INFORMATION DESCRIBING WHAT TO DO IN THE EVENT OF A SPILL OF REGULATED SUBSTANCES.
- (D) FUELING AND MAINTENANCE OF EXCAVATION, EARTH-MOVING AND OTHER CONSTRUCTION RELATED EQUIPMENT WILL COMPLY WITH THE REGULATIONS OF THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES (NOTE THESE REQUIREMENTS ARE SUMMARIZED IN WD-DWGB-22-6 BEST MANAGEMENT PRACTICES FOR FUELING AND MAINTENANCE OF EXCAVATION AND EARTH-MOVING EQUIPMENT" OR ITS SUCCESSOR DOCUMENT. (SEE: [HTTP://DES.NH.GOV/ORGANIZATION/COMMISSIONER/PPI/FACT/SHEETS/DWGB22-6.PDF](http://des.nh.gov/organization/commissioner/ppi/fact/sheets/dwgb22-6.pdf)

BLASTING NOTES 4 DT-3

1. ALL PROPOSED VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATED GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED. STABILIZATION METHODS SHALL INCLUDE SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.
2. ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATED GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.
3. AFTER NOVEMBER 15TH, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL OR PROPERLY INSTALLED EROSION CONTROL BLANKETS COVERED WITH HAY. OTHER STABILIZATION OPTIONS ARE TO BE APPROVED BY THE APPROPRIATE AGENCIES AND THE DESIGN ENGINEER. IF CONSTRUCTION IS TO CONTINUE THROUGH THE WINTER MONTHS THEN THE ROAD SHOULD BE CLEARED OF ACCUMULATED SNOW AFTER EACH STORM EVENT.



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EROSION CONTROL NOTES

**PIE HILL  
WAREHOUSING**

TAX MAP 1010 LOT 79-17  
(46 OLD FERRY ROAD)  
METHUEN, MASSACHUSETTS

PREPARED FOR:  
**TRIPLE G PROPERTY LLC**  
59 BONANNO COURT, METHUEN, MA 01844

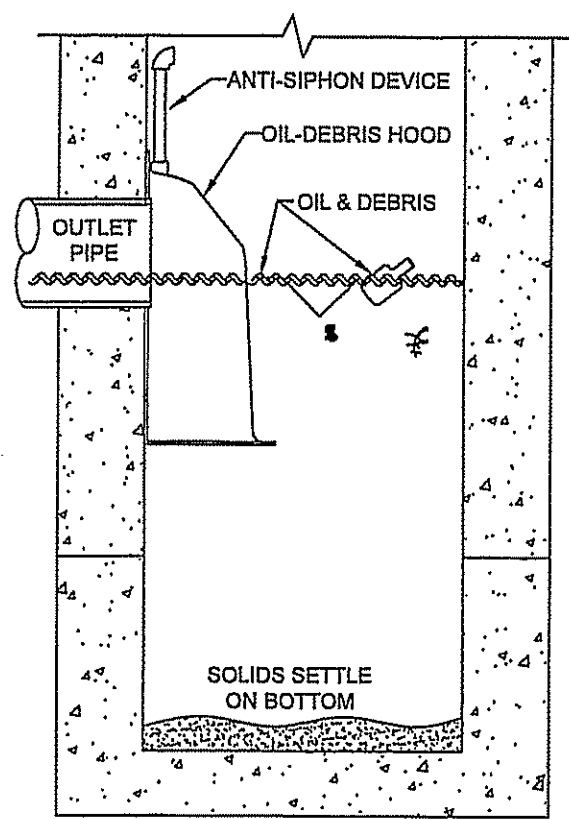
SCALE: NONE APRIL 4, 2022

Surveying ♦ Engineering ♦ Land Planning ♦ Permitting ♦ Septic Designs

**FIELDSTONE  
LAND CONSULTANTS, LLC**

206 Elm Street, Milford, NH 03055  
Phone: (603) 672-5456 Fax: (603) 413-5456  
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FILE: 2295D01.dwg PROJ. NO. 2295.01 SHEET: DT-3 PAGE NO. 22 OF 29



\*SUMP DEPTH OF 36" MIN. FOR <OR= 12" DIA. OUTLET. FOR OUTLETS >OR= 15", DEPTH = 2.5-3X DIA.

| STRUCTURE OUTLET HOLE SIZE | HOOD SIZE |
|----------------------------|-----------|
| 11.9" O.D. OR LESS         | 12 F or R |
| 12.0"-17.9" O.D.           | 18 F or R |
| 18.0"-23.9" O.D.           | 24 F or R |
| 24.0"-29.9" O.D.           | 30 F or R |
| 30.0"-47.9" O.D.           | 48 F      |
| 48.0"-95.9" O.D.           | 96 F      |

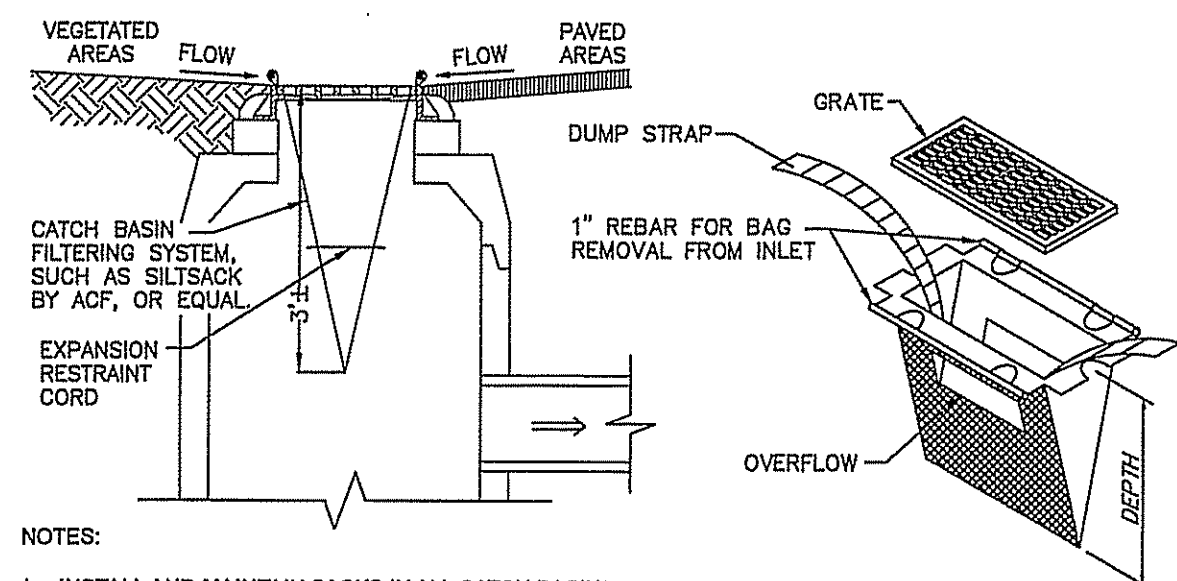
F: FLAT WALL STRUCTURE  
R: ROUND WALL STRUCTURE

#### NOTES:

- ALL HOODS SHALL BE EQUIPPED WITH A WATERTIGHT ACCESS PORT, A MOUNTING FLANGE, AND AN ANTI-SIPHON VENT AS DRAWN. (SEE CONFIGURATION DETAIL)
- THE SIZE AND POSITION OF THE HOOD SHALL BE DETERMINED BY OUTLET PIPE SIZE AS PER MANUFACTURER'S RECOMMENDATION.
- THE BOTTOM OF THE HOOD SHALL EXTEND DOWNWARD A DISTANCE EQUAL TO 1/2 THE OUTLET PIPE DIAMETER WITH A MINIMUM DISTANCE OF 6" FOR PIPES <12" I.D.
- THE ANTI-SIPHON VENT SHALL EXTEND ABOVE HOOD BY MINIMUM OF 3" AND A MAXIMUM OF 12" ACCORDING TO STRUCTURE CONFIGURATION.
- THE SURFACE OF THE STRUCTURE WHERE THE HOOD IS MOUNTED SHALL BE FINISHED SMOOTH AND FREE OF LOOSE MATERIAL AND THE PIPE SHALL BE TRIMMED FLUSH TO WALL.
- THE HOOD SHALL BE SECURELY ATTACHED TO STRUCTURE WALL WITH 3/8" STAINLESS STEEL BOLTS AND OIL-RESISTANT GASKET AS SUPPLIED BY MANUFACTURER. (SEE INSTALLATION DETAIL)
- ALL HOODS AND TRAPS FOR CATCH BASINS AND WATER QUALITY STRUCTURES SHALL BE AS MANUFACTURED BY BEST MANAGEMENT PRODUCTS, INC., LYME, CT OR EQUAL.

#### OIL - DEBRIS HOOD

1  
DT-4



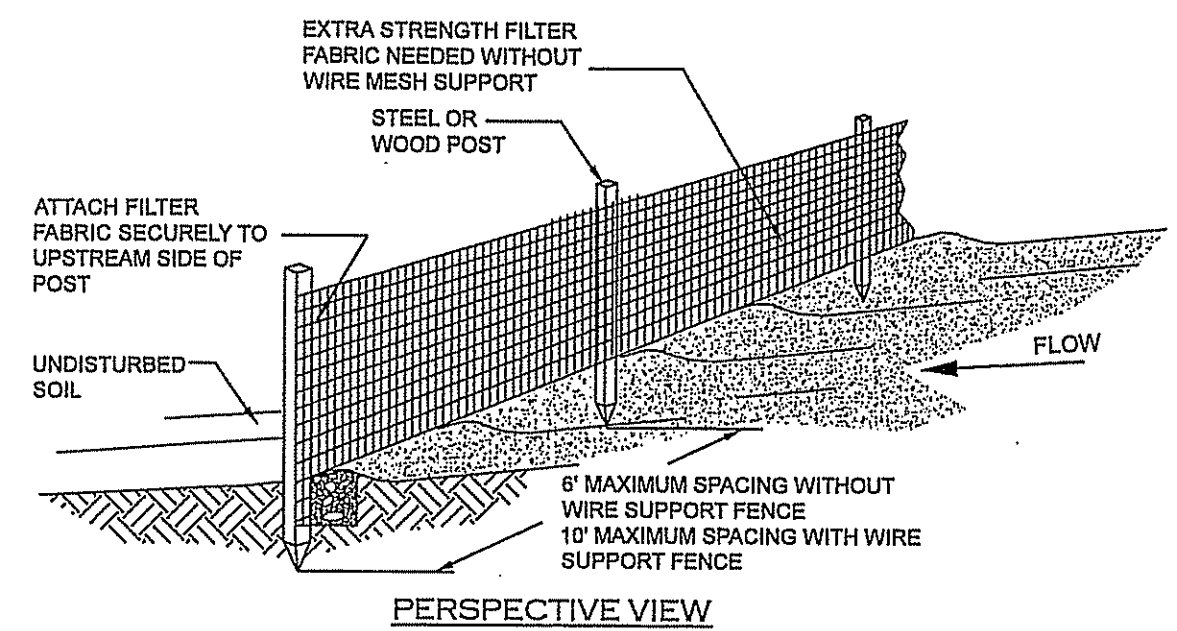
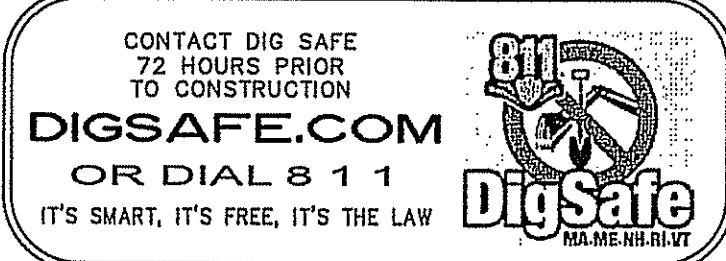
#### NOTES:

- INSTALL AND MAINTAIN SACKS IN ALL CATCH BASINS.
- TO INSTALL SACK, REMOVE CATCH BASIN GRATE AND PLACE SACK IN OPENING. HOLD OUT APPROXIMATELY SIX INCHES OF THE SACK OUTSIDE THE FRAME FOR THE LIFTING STRAPS. REPLACE THE GRATE TO HOLD THE SACK IN PLACE.
- THE SACK SHOULD BE INSPECTED AFTER EVERY STORM, OR ONCE EVERY TWO WEEKS, WHICH EVER OCCURS FIRST.
- THE RESTRAINT CORD SHOULD BE VISIBLE AT ALL TIMES. IF THE CORD IS COVERED WITH SEDIMENT, THE SACK SHOULD BE EMPTIED. EMPTY THE SACK AWAY FROM THE CATCH BASIN TO PREVENT SEDIMENT FROM RE-ENTERING THE CATCH BASIN. EMPTY THE SACK PER THE MANUFACTURER'S RECOMMENDATIONS.
- REPLACE THE SACK IN THE CATCH BASIN AFTER THE SACK HAS BEEN EMPTIED. ONCE CONSTRUCTION IS COMPLETE AND ALL DISTURBED AREAS HAVE BEEN STABILIZED BY PAVING OR A HEALTHY VEGETATIVE COVER, REMOVE THE SACK FROM THE CATCH BASINS.

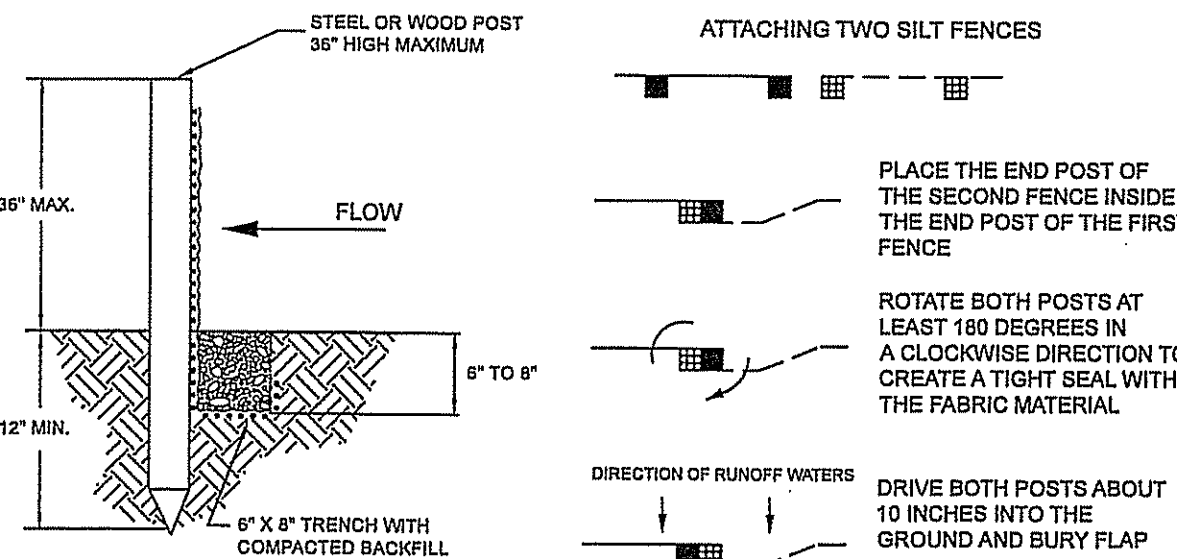
SCALE: N.T.S.

#### SILT SACK SEDIMENT FILTER

2  
DT-4



#### PERSPECTIVE VIEW



#### SECTION VIEW

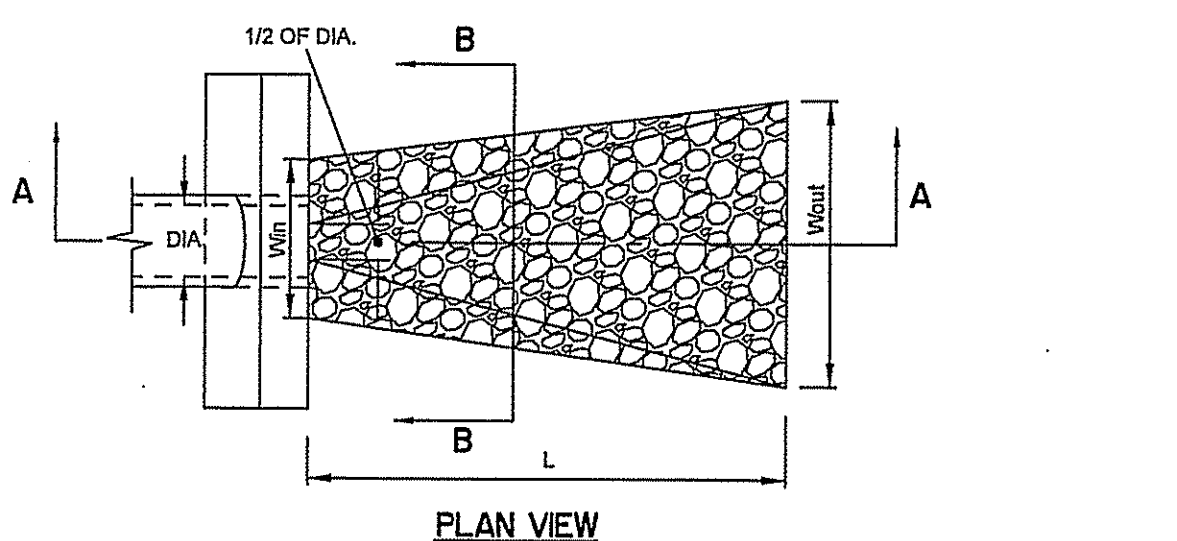
#### NOTES:

- SILT FENCES SHOULD NOT BE USED ACROSS STREAMS, CHANNELS, SWALES, DITCHES OR OTHER DRAINAGE WAYS.
- SILT FENCE SHOULD BE INSTALLED FOLLOWING THE CONTOUR OF THE LAND AS CLOSELY AS POSSIBLE AND THE ENDS OF THE SILT FENCE SHOULD BE FLARED UPSLOPE.
- IF THE SITE CONDITIONS INCLUDE FROZEN GROUND, LEDGE OR THE PRESENCE OF HEAVY ROOTS THE BASE OF THE FABRIC SHOULD BE EMBEDDED WITH A MINIMUM THICKNESS OF 6 INCHES OF 3/4-INCH STONE.
- SILT FENCES PLACED AT THE TOE OF SLOPES SHOULD BE INSTALLED AT LEAST 6 FEET FROM THE TOE TO ALLOW SPACE FOR SHALLOW PONDING AND ACCESS FOR MAINTENANCE.
- THE MAXIMUM SLOPE ABOVE THE FENCE SHOULD BE 2:1 AND THE MAXIMUM LENGTH OF SLOPE ABOVE THE FENCE SHOULD BE 100 FEET.
- REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE TO SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
- SILT FENCES SHOULD BE REMOVED WHEN THE UPSLOPE AREAS HAVE BEEN PERMANENTLY STABILIZED.

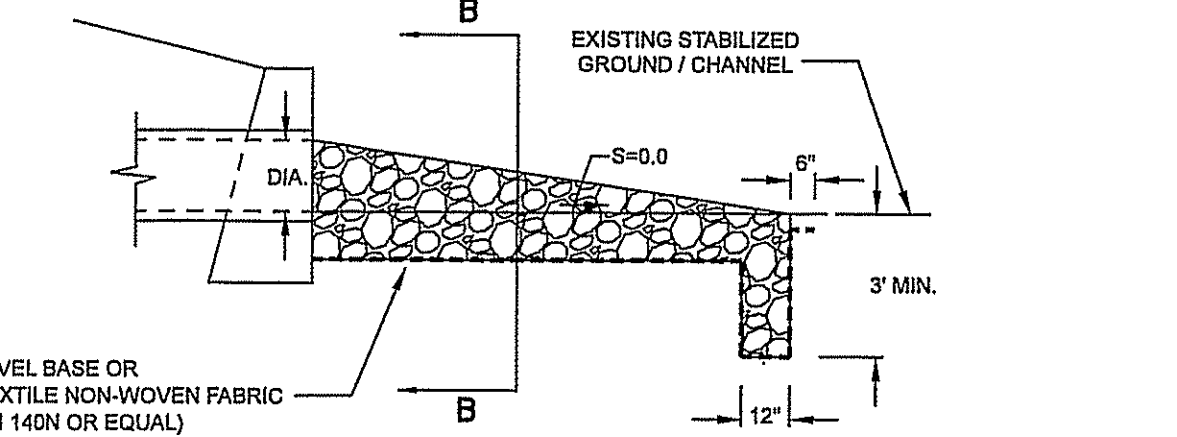
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#### SILT FENCE

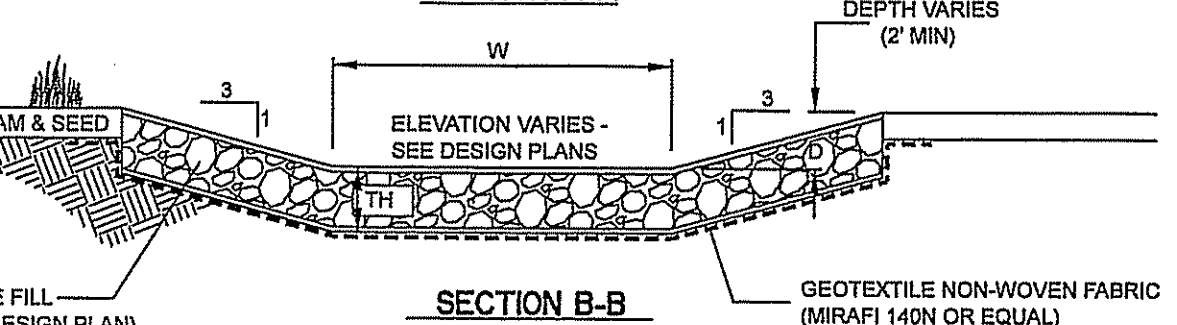
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DT-4



#### PLAN VIEW



#### SECTION A-A



#### SECTION B-B

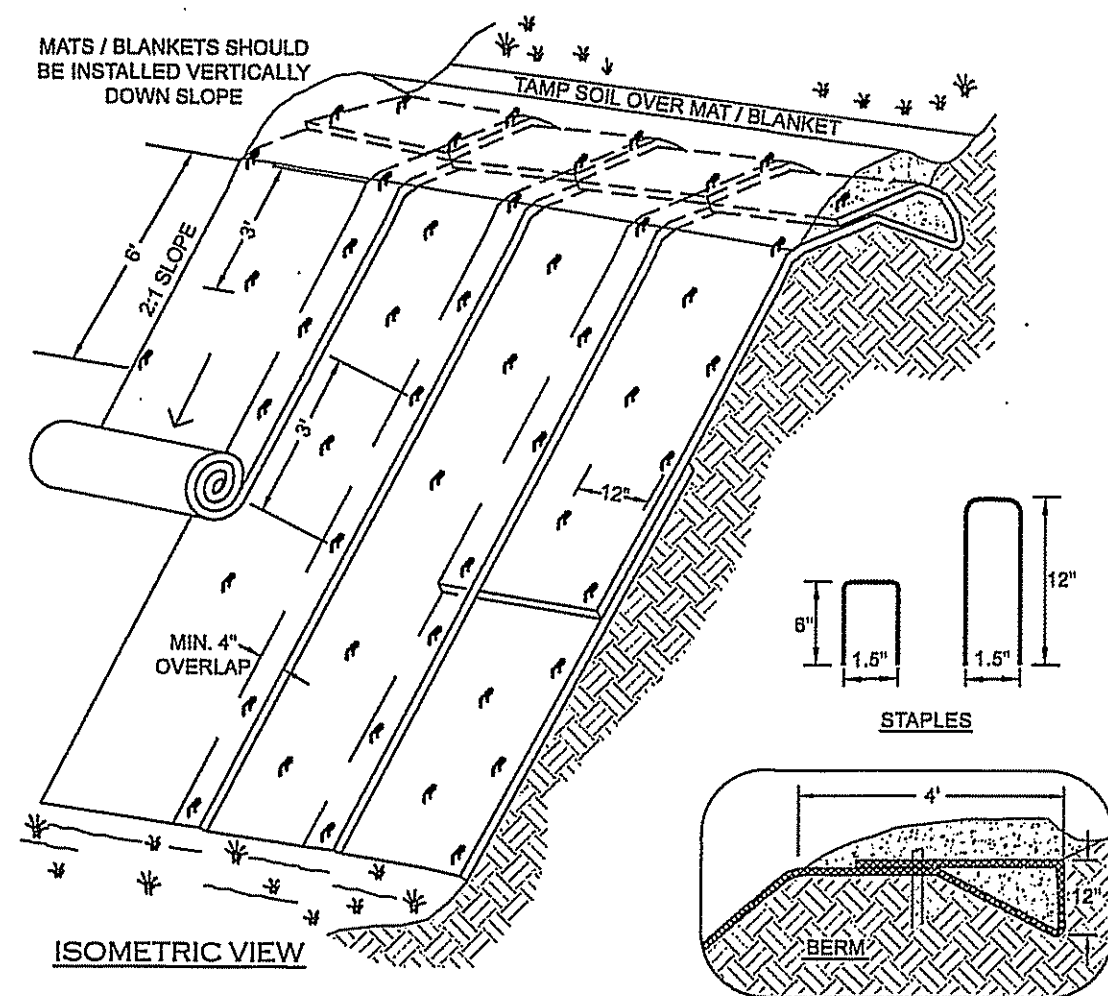
| STRUCTURE | LENGTH<br>FT. | WIDTH (IN)<br>FT. | WIDTH (OUT)<br>FT. | d50<br>DIA. IN. | THICKNESS<br>IN. |
|-----------|---------------|-------------------|--------------------|-----------------|------------------|
| HW101     | 18            | 5                 | 10**               | 6"              | 18"              |
| HW102     | 17            | 4                 | 9**                | 6"              | 18"              |
| HW103     | 15            | 4                 | 14**               | 6"              | 18"              |
| EHW2*     | 15            | 4                 | 10**               | 6"              | 18"              |
| HW201     | 14            | 4                 | 8**                | 6"              | 18"              |

\* EXISTING HEADWALL  
\*\* DEFINED CHANNEL

SCALE: N.T.S.

#### RIP-RAP OUTLET PROTECTION

4  
DT-4



#### ISOMETRIC VIEW

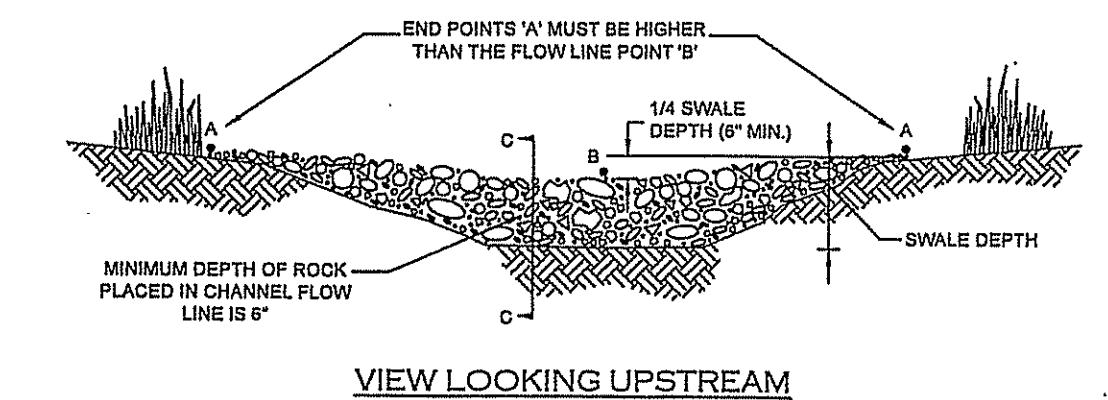
#### NOTES:

- DIMENSIONS GIVEN IN THIS DETAIL ARE EXAMPLES. DEVICE SHOULD BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
- INSTALL STRAW/COCONUT FIBER EROSION CONTROL MAT SUCH AS NORTH AMERICAN GREEN SC150 BN OR EQUAL ON ALL SLOPES EXCEEDING 3' HORIZ : 1' VERT.
- THE EROSION CONTROL MATERIAL(S) SHALL BE ANCHORED WITH 1" SHAPED 11 GAUGE WIRE STAPLES OR WOODEN STAKES WITH A MINIMUM TOP WIDTH OF 1 INCH AND LENGTH OF 6 INCH.
- SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS AND GRASS. MATS / BLANKETS SHALL HAVE GOOD SOIL CONTACT.
- APPLY LIME, FERTILIZER AND PERMANENT SEEDING BEFORE PLACING BLANKETS.
- BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET AS SHOWN. ROLL THE BLANKETS DOWN THE SLOPE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES OR STAKES IN APPROPRIATE LOCATIONS. REFER TO MANUFACTURER'S STAPLE GUIDE FOR CORRECT STAPLE PATTERN.
- LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.
- IN LOOSE SOIL CONDITIONS THE USE OF STAPLES OR STAKE LENGTHS GREATER THAN 6 INCHES MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.
- THE CONTRACTOR SHALL MAINTAIN THE BLANKET UNTIL ALL WORK ON THE CONTRACT HAS BEEN COMPLETED AND ACCEPTED. MAINTENANCE SHALL CONSIST OF THE REPAIR OF AREAS WHERE DAMAGED BY ANY CAUSE. ALL DAMAGED AREAS SHALL BE REPAIRED TO REESTABLISH THE CONDITIONS AND GRADE OF THE SOIL PRIOR TO APPLICATION OF THE COVERING AND SHALL BE REFERTILIZED, RESEEDED AND REMULCHED AS DIRECTED.

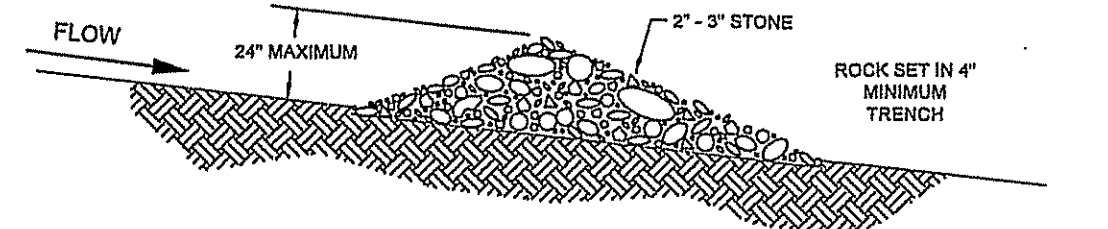
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#### EROSION BLANKETS - SLOPE INSTALLATION

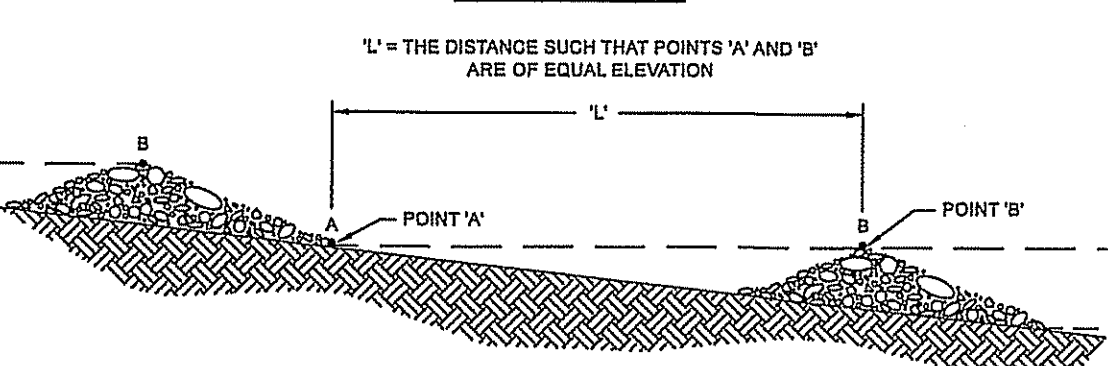
5  
DT-4



#### VIEW LOOKING UPSTREAM



#### SECTION C-C



#### PROFILE - CHECK DAM SPACING

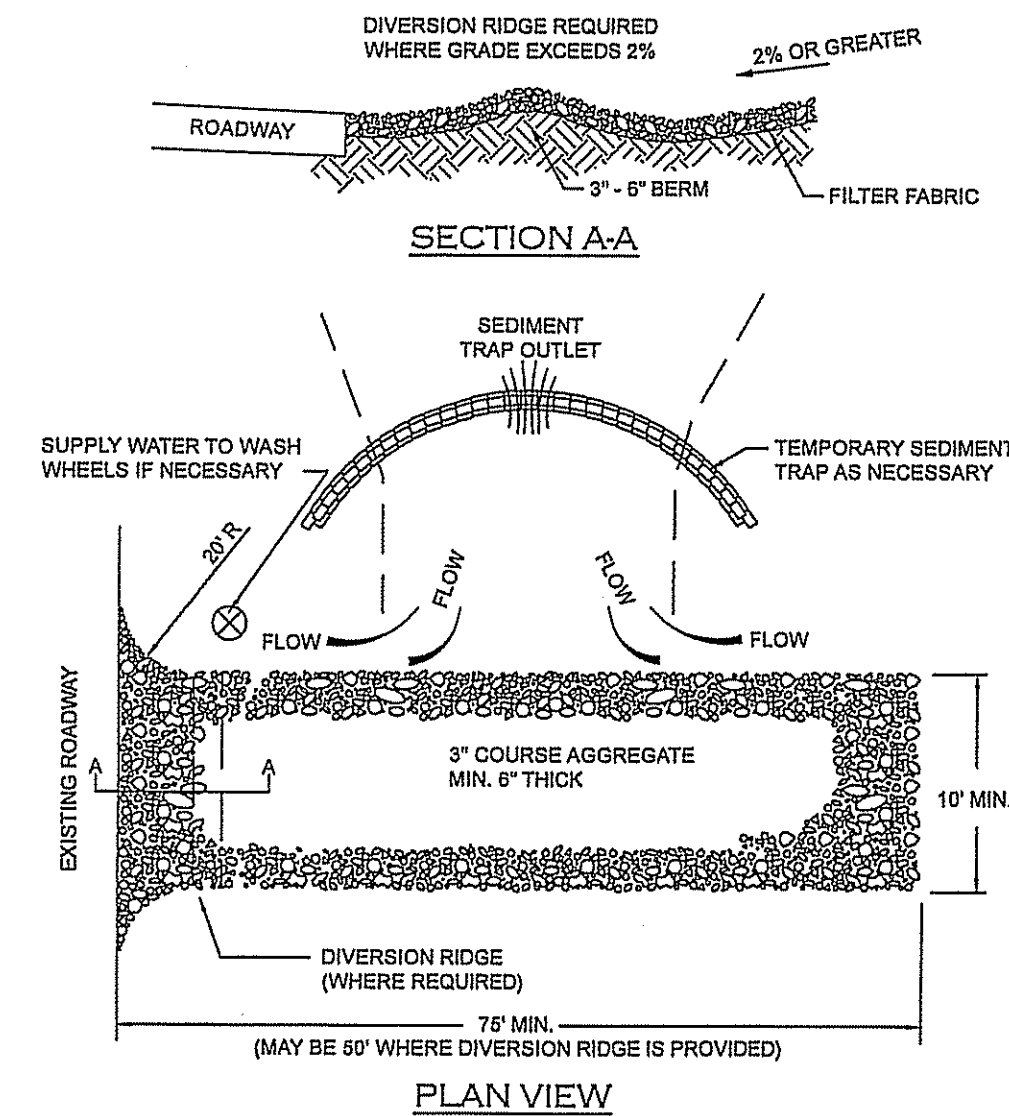
#### NOTES:

- STONE CHECK DAMS SHOULD BE INSTALLED BEFORE RUNOFF IS DIRECTED TO THE SWALE OR DRAINAGE DITCH.
- THE MAXIMUM CONTRIBUTING DRAINAGE AREA TO THE CHECK DAM SHOULD BE LESS THAN ONE ACRE.
- STONE CHECK DAMS SHOULD NOT BE USED IN A FLOWING STREAM.
- STONE CHECK DAMS SHOULD BE CONSTRUCTED OF WELL-GRADED ANGULAR 2 TO 3 INCH STONE. THE INSTALLATION OF 3/4-INCH STONE ON THE UPSLOPE FACE IS RECOMMENDED FOR BETTER FILTERING.
- WHEN INSTALLING STONE CHECK DAMS THE CONTRACTOR SHALL KEY THE STONE INTO THE CHANNEL BANKS AND EXTEND THE STONE BEYOND THE ABUTMENTS A MINIMUM OF 18-INCHES TO PREVENT FLOW AROUND THE DAM.
- STONE CHECK DAMS SHOULD BE REMOVED ONCE THE SWALE OR DITCH HAS BEEN STABILIZED UNLESS OTHERWISE SPECIFIED.

SCALE: N.T.S.

#### STONE CHECK DAM

6  
DT-4



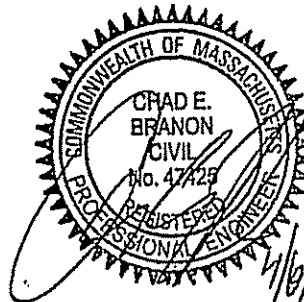
#### NOTES:

- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
- THE MINIMUM STONE USED SHOULD BE 3-INCH CRUSHED STONE.
- THE MINIMUM LENGTH OF THE PAD SHOULD BE 75 FEET, EXCEPT THAT THE MINIMUM LENGTH MAY BE REDUCED TO 50 FEET IF A 3-INCH TO 6-INCH HIGH BERM IS INSTALLED AT THE ENTRANCE OF THE PROJECT SITE.
- THE PAD SHOULD EXTEND THE FULL WIDTH OF THE CONSTRUCTION ACCESS ROAD OR 10 FEET, WHICHEVER IS GREATER.
- THE PAD SHOULD SLOPE AWAY FROM THE EXISTING ROADWAY.
- THE PAD SHOULD BE AT LEAST 6-INCHES THICK.
- THE GEOTEXTILE FILTER FABRIC SHOULD BE PLACED BETWEEN THE STONE PAD AND THE EARTH SURFACE BELOW THE PAD.
- THE PAD SHALL BE MAINTAINED OR REPLACED WHEN MUD AND SOIL PARTICLES CLOG THE VOIDS IN THE STONE SUCH THAT MUD AND SOIL PARTICLES ARE TRACKED OFF-SITE.
- NATURAL DRAINAGE THAT CROSSES THE LOCATION OF THE STONE PAD SHOULD BE INTERCEPTED AND PIPED BENEATH THE PAD, AS NECESSARY, WITH SUITABLE OUTLET PROTECTION.
- WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
- WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

SCALE: N.T.S.

#### GRAVEL CONSTRUCTION EXIT

7  
DT-4



| REV. | DATE | DESCRIPTION | C/O | DR | CK |
|------|------|-------------|-----|----|----|
|      |      |             |     |    |    |

#### EROSION CONTROL DETAILS

### PIE HILL WAREHOUSING

TAX MAP 1010 LOT 79-17  
(46 OLD FERRY ROAD)

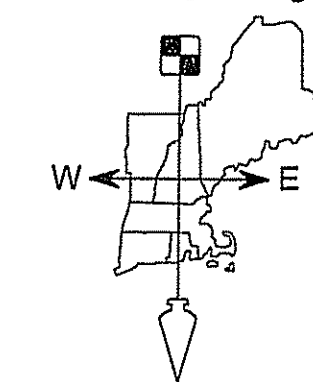
METHUEN, MASSACHUSETTS

PREPARED FOR:  
**TRIPLE G PROPERTY LLC**  
59 BONANNO COURT, METHUEN, MA 01844

SCALE: NONE

APRIL 4, 2022

Surveying ♦ Engineering ♦ Land Planning ♦ Permitting ♦ Septic Designs



**FIELDSTONE**  
LAND CONSULTANTS, PLLC

206 Elm Street, Milford, NH 03055  
Phone: (603) 672-5456 Fax: (603) 413-5456  
www.FieldstoneLandConsultants.com

LOAD CONDITION CR | 1:2 CREST SLOPE, 10' (3.0m) HIGH, 250 lb/ft<sup>2</sup> (12 kPa) SURCHARGE AT CREST

17 BLOCK HIGH SECTION  
(17) 28" (710 mm) Blocks

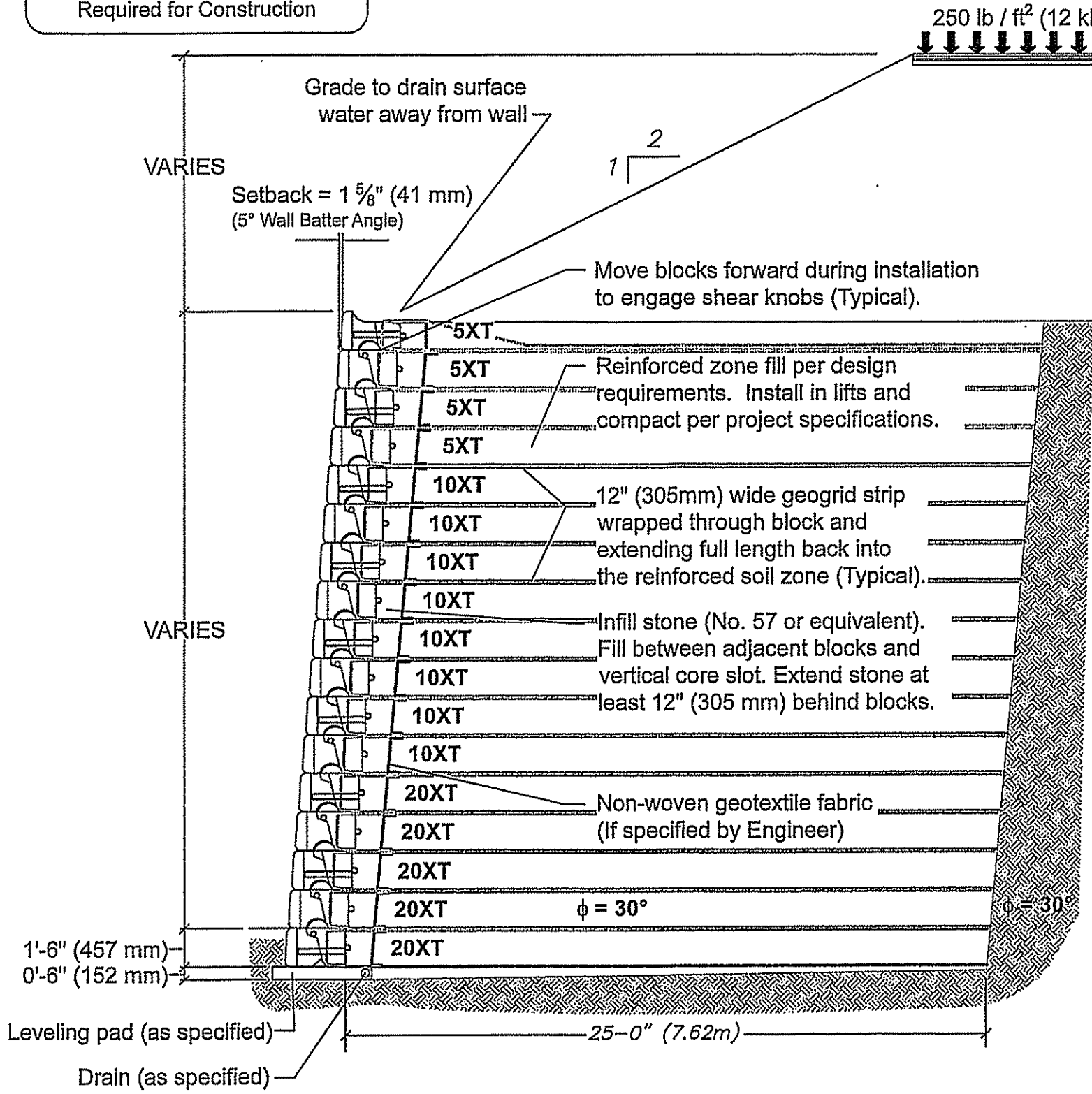
**REDI-ROCK**  
OR EQUAL

| Type | Rolls / linear ft | Rolls / linear m |
|------|-------------------|------------------|
| 5XT  | ± 0.35            | ± 1.14           |
| 10XT | ± 0.69            | ± 2.28           |
| 20XT | ± 0.43            | ± 1.42           |

Geogrid cut length:  
= 25' + 25' + 3'  
= 53'-0" (16.15m)

Geogrid shall be 12" (305 mm) wide strips of Mirafi geogrid, type as noted. Geogrid shall be **Factory cut** and **Certified** for width and strength by TenCate Mirafi.

PRELIMINARY  
Professional Engineering Design  
Required for Construction

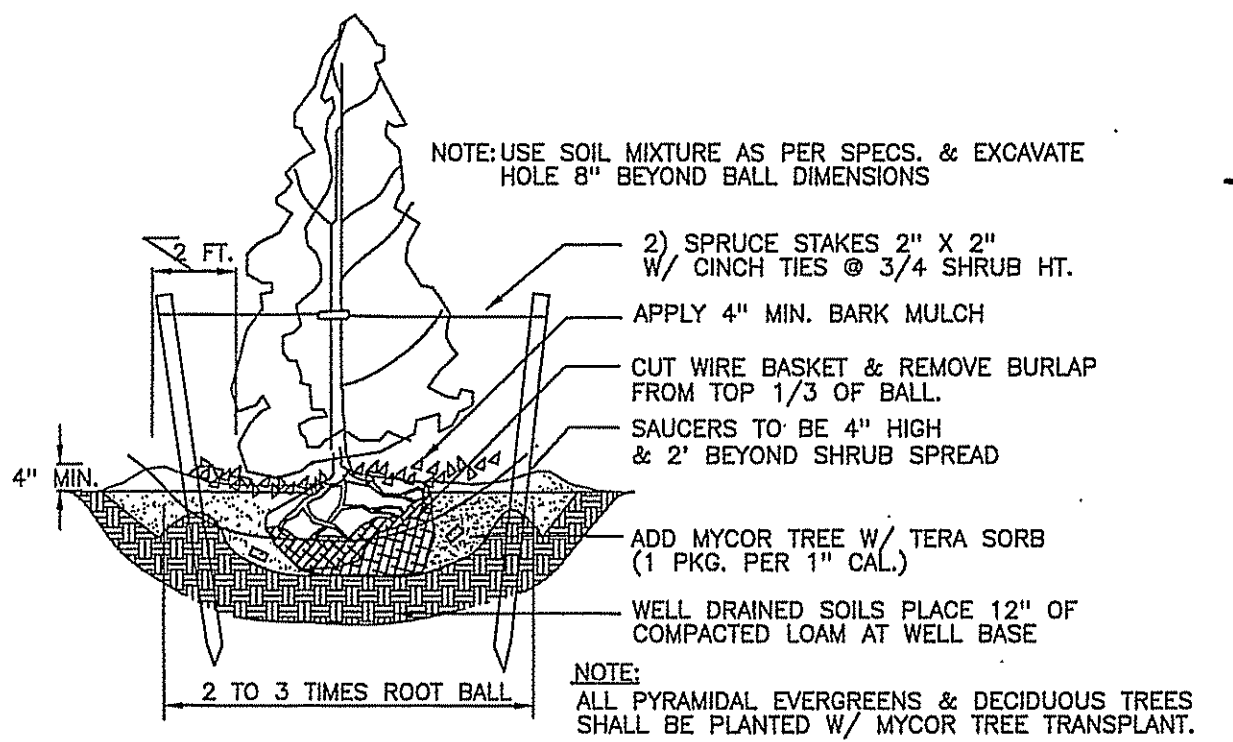


This drawing is for reference only. Determination of the suitability and/or manner of use of any details contained in this document is the sole responsibility of the design engineer of record. Final project designs, including all construction details, shall be prepared by a licensed professional engineer using the actual conditions of the proposed site. Final wall design must address both internal and external drainage and all modes of wall stability.

Preliminary Wall Section

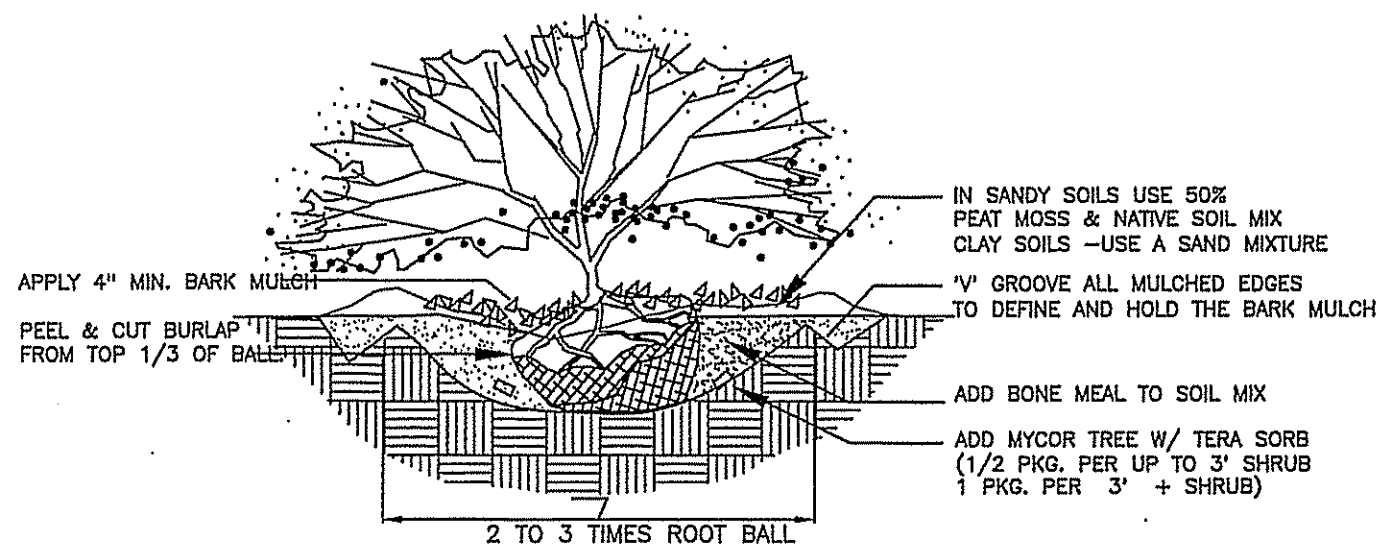
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DT-5

RETAINING WALL



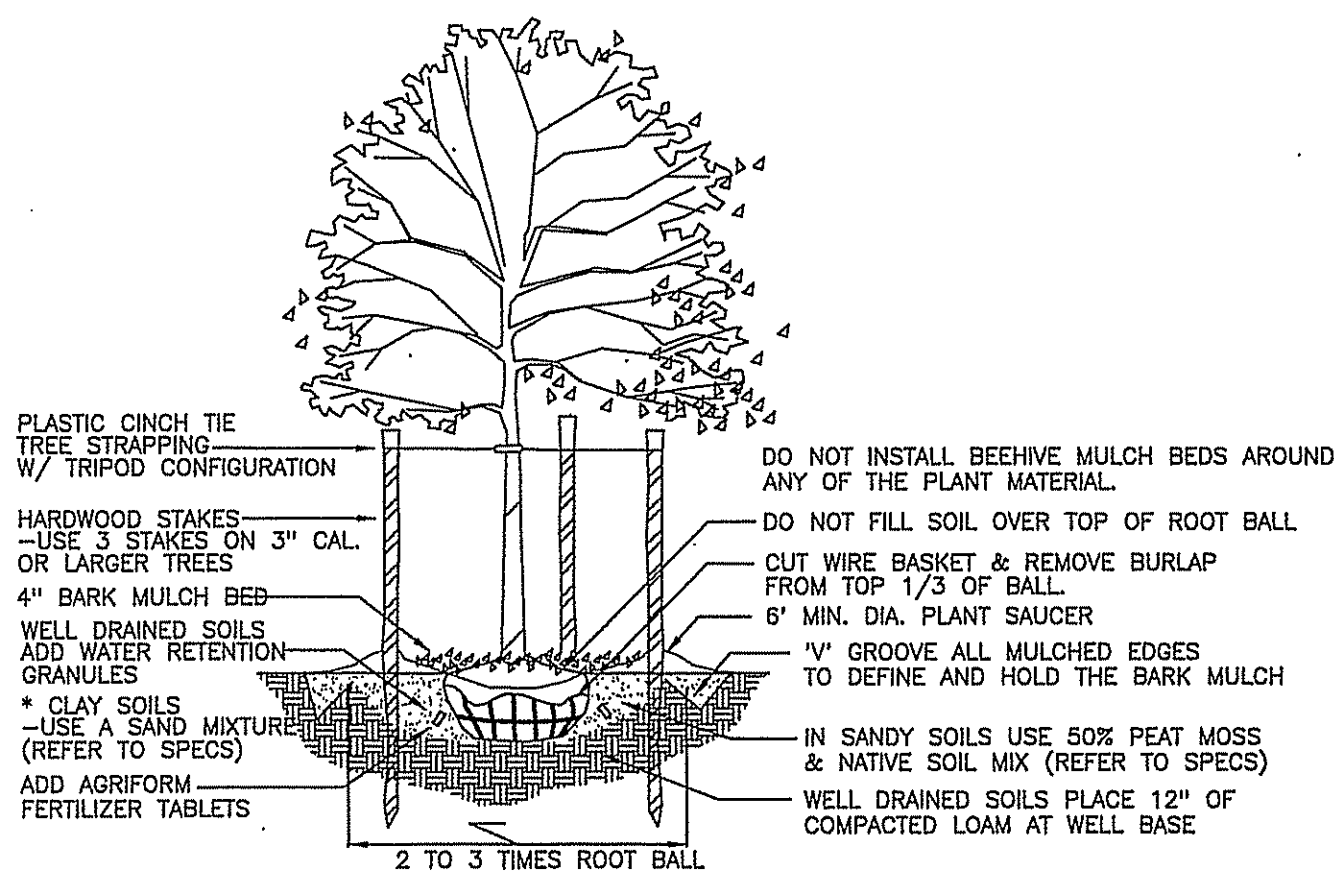
EVERGREEN TREE PLANTING DETAIL

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DT-5



B & B SHRUB PLANTING DETAIL

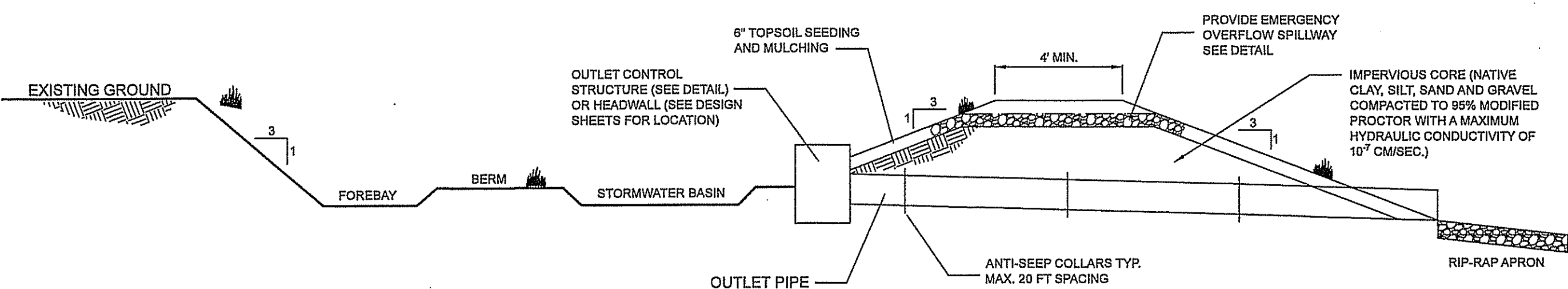
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DT-5



NOTE: ALL PYRAMIDAL EVERGREENS & DECIDUOUS TREES SHALL BE PLANTED W/ ROOTS HORMONE ENHANCER.

DECIDUOUS TREE PLANTING DETAIL

SCALE: N.T.S.  
5  
DT-5



TYPICAL STORMWATER BASIN BERM DETAIL

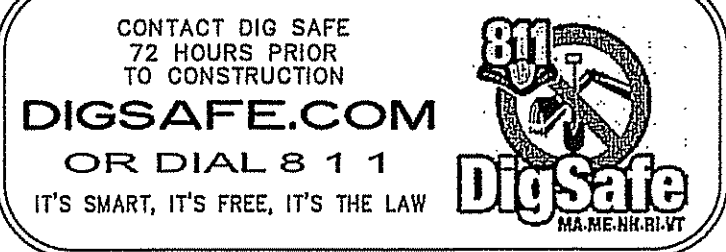
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DT-5

GENERAL SPECIFICATIONS:

- THE CONTRACTOR SHALL AT HIS EXPENSE FURNISH ALL THE MATERIALS, SUPPLIES, MACHINERY, EQUIPMENT, TOOL, SUPERINTENDENT, LABOR, INSURANCE, & OTHER ACCESSORIES AND SERVICES NECESSARY TO COMPLETE THE SAID PROJECT WITHIN THE UNIT COSTS STATED WITHIN THE BID PRICE.
- THE WORK TO BE DONE UNDER THIS CONTRACT IS AS SHOWN AND DESCRIBED ON THE DRAWINGS. EACH BIDDER SHALL MAKE A CAREFUL EXAMINATION OF THE PLANS AND SPECIFICATIONS (THE PLAN SHALL DICTATE QUANTITIES) AND ACQUAINT THEMSELVES WITH ALL CONDITIONS BEFORE MAKING THEIR PROPOSAL. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR ERRORS IN THEIR PROPOSAL RESULTING FROM HIS FAILURE TO MAKE SUCH AN EXAMINATION. ALL BIDDERS SHALL VISIT THE SITE AND INFORM THEMSELVES OF ALL CONDITIONS.
- THE BIDS SHALL BE BASED ON MATERIALS AND EQUIPMENT COMPLYING WITH THE DRAWINGS AND THE SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE UNDER THIS CONTRACT PRICE FOR FURNISHING AND INSTALLING MATERIALS CONFORMING TO THE BID ITEMS. UNDER NO CIRCUMSTANCES MAY A SPECIES HYBRID BE SUBSTITUTED OR SIZE CHANGED WITHOUT WRITTEN CONSENT OF THE OWNER AND/OR OWNERS REPRESENTATIVE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF SUCH EXISTING UTILITIES AS WATER MAINS, SEWER SYSTEMS, GAS MAINS, ELECTRICAL CONDUITS, TELEPHONE LINES AND ANY OTHER UTILITIES AND IF ANY DAMAGE OR DESTRUCTION MAY OCCUR TO THESE UTILITIES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR AND/OR REPLACEMENT AT HIS EXPENSE.
- THE CONTRACTOR SHALL MAKE PAYMENT FOR ALL DAMAGES TO BUILDINGS, STRUCTURES, TREES, SHRUBS AND/OR ANY OTHER PROPERTY OUTSIDE THE CONSTRUCTION AREA OR LOCATED WITHIN THOSE LIMITS BUT NOT DESIGNATED FOR REMOVAL OR RECONSTRUCTED PROVIDING SUCH DAMAGE SHALL RESULT FROM ACCIDENT CAUSED BY NEGLIGENCE FOR WHICH THE CONTRACTOR SHALL BE LEGALLY LIABLE.
- IF ADDITIONAL LABOR AND/OR MATERIALS IS REQUESTED OR REQUIRED, THE CONTRACTOR SHALL SUBMIT A PRICE TO THE OWNER. IF THE OWNER APPROVES THE PRICE THE CONTRACTOR SHALL PREPARE A CHANGE ORDER FOR APPROVAL AND SIGNATURE. THE CONTRACTOR SHALL NOT PROCEED WITHOUT A WRITTEN AUTHORIZATION FROM THE OWNER FOR THE ADDITIONAL WORK. IF THE CONTRACTOR PROCEEDS WITH THE ADDITIONAL WORK WITHOUT AUTHORIZATION THEY SHALL FORFEIT ANY CLAIM FOR ADDITIONAL COMPENSATION.
- THE OWNER AND/OR OWNERS REPRESENTATIVE (L.A.) SHALL RESERVE THE RIGHT TO INSPECT THE PROJECT WORK AT ANY TIME DEEMED NECESSARY TO INSURE THAT THE SPECIFICATIONS AND PLANS AND ANY OTHER CONTRACT DOCUMENTS ARE BEING FOLLOWED.
- THE L.A. SHALL HAVE THE RIGHT TO REJECT ANY PLANT ON-SITE BASED UPON CONDITION, SIZE, OR INCORRECT SPECIES OR HYBRID. THE L.A. MUST BE CONTACTED PRIOR TO INSTALL, TO INSPECT MATERIALS DELIVERED TO THE SITE AND TO INSURE THAT SOIL AMENDMENTS, BARK MULCH, ROOF BALLAST, ETC. ARE TO THE WRITTEN SPECIFICATIONS.
- ALL SEEDING AREAS SHALL RECEIVE A MINIMUM 6" TOPSOIL BLANKET (BY SITE CONTRACTOR) W/ SITE PREPARATION, RAKING AND GENERAL CLEAN UP PRIOR TO APPLICATION. OPERATIONS SHALL INCLUDE A PRE-EMERGENCE TYPE HERBICIDE, 12-25-12 GRANULAR FERTILIZER @ 10 LBS/1000 SF, AND PELLETTIZED LIMESTONE @ 25 LBS/1000 SF POWER RAKED INTO THE TOP 2" OF SOIL PRIOR TO HYDRO-SEEDING. RATIOS & APPLICATION RATES MAY CHANGE BASED UPON THE REQUIRED SOIL ANALYSIS.
- THE CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING A THICK, WEED FREE LAWN. SEED SHALL BE SPREAD @ 4 LBS /1000 SF. LAWN GERMINATION SHALL BE 95% FREE OF NOXIOUS WEEDS FOR ACCEPTANCE. DEFINE DIFFERENCES IN SEED MIXES (IF APPLICABLE) WITH IRRIGATION FLAGGING UNTIL 2ND MOWING. SITE REVIEW BY L.A. IS REQUIRED.
- REVIEW OF THE INSTALLED IRRIGATION SYSTEM BY THE DESIGNER IS REQUIRED PRIOR TO RELEASE OF FINAL PAYMENT.
- HYDROSEEDING OPERATIONS SHALL BE A ONE PART PROCESS WITH A PAPER FIBER MULCH; A TACKIFIER SHALL BE APPLIED ON ALL SLOPES GREATER THAN 3:1, EXCELSDOR DRAINAGE MAT SHALL BE APPLIED TO ALL 2:1 SLOPES AND DRAINAGE SWALES PER PLAN.
- THE CONTRACTOR SHALL MAINTAIN, FROM ACCEPTANCE DATE, THE LAWN AREAS THROUGH THE FIRST MOWING. THE CONTRACTOR IS NOT RESPONSIBLE FOR THE FIRST MOWING.
- ALL PLANT MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH A.L.C.C. SPECIFICATIONS AND PER PLAN DETAILS. PER DETAILS DECIDUOUS TREES SHALL BE GUYED IN A TRIPOD FASHION USING PLASTIC CINCH TIES & 2" X 2" X 8' HARDWOOD STAKES; TREES AND SHRUBS SHALL HAVE APPROPRIATE SOIL MIXTURES, FERTILIZER AND SOIL RETENTION GRANULES.
- IF THE SOIL CONDITIONS ARE EXTREMELY SANDY, ALL TREES SHALL HAVE A 6" LAYER OF COMPACTED TOPSOIL (VERIFY WITH OWNER AND/OR OWNERS REPRESENTATIVE) PLACED AT THE BASE OF THE PLANT PIT AS A MOISTURE RETENTION LAYER. THE PLANT PIT SIDEWALLS SHALL BE OVER EXCAVATED BY AN ADDITIONAL 12" BEYOND THE NORMAL OUTSIDE RADIUS OF THE HOLE. A TOPSOIL PLANTING MIXTURE SHALL BE USED TO BACKFILL AS PER SPEC # 22.
- THE OWNER AND/OR OWNERS REPRESENTATIVE SHALL HAVE THE RIGHT TO REJECT AND HAVE GROUND REMOVED ANY PLANT MATERIAL NOT OF PROPER SIZE OR OF WEAK QUALITY, I.E. THIN, NO LOWER BRANCHING, ETC. CONTRACTOR MUST SUBMIT SHIPPING LISTS (BILLING INVOICES) FOR VERIFICATION, PRIOR TO INSTALLATION.

GENERAL PLANTING NOTES

SCALE: N.T.S.  
6  
DT-5



| REV. | DATE | DESCRIPTION | C/O | DR | CK |
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**LANDSCAPING DETAILS**

**PIE HILL WAREHOUSING**

TAX MAP 1010 LOT 79-17  
(46 OLD FERRY ROAD)  
METHUEN, MASSACHUSETTS

PREPARED FOR:  
**TRIPLE G PROPERTY LLC**  
59 BONANNO COURT, METHUEN, MA 01844

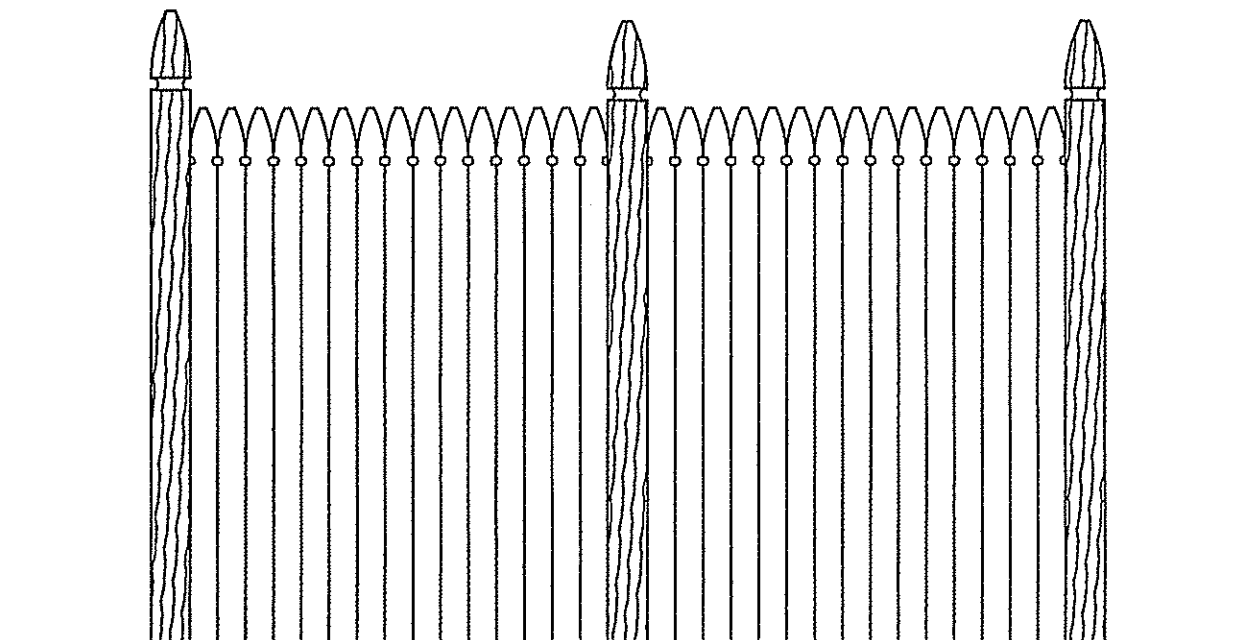
SCALE: NONE APRIL 4, 2022

Surveying ♦ Engineering ♦ Land Planning ♦ Permitting ♦ Septic Designs

**FIELDSTONE**  
LAND CONSULTANTS, PLLC

206 Elm Street, Milford, NH 03055  
Phone: (603) 672-5456 Fax: (603) 413-5456  
www.FieldstoneLandConsultants.com

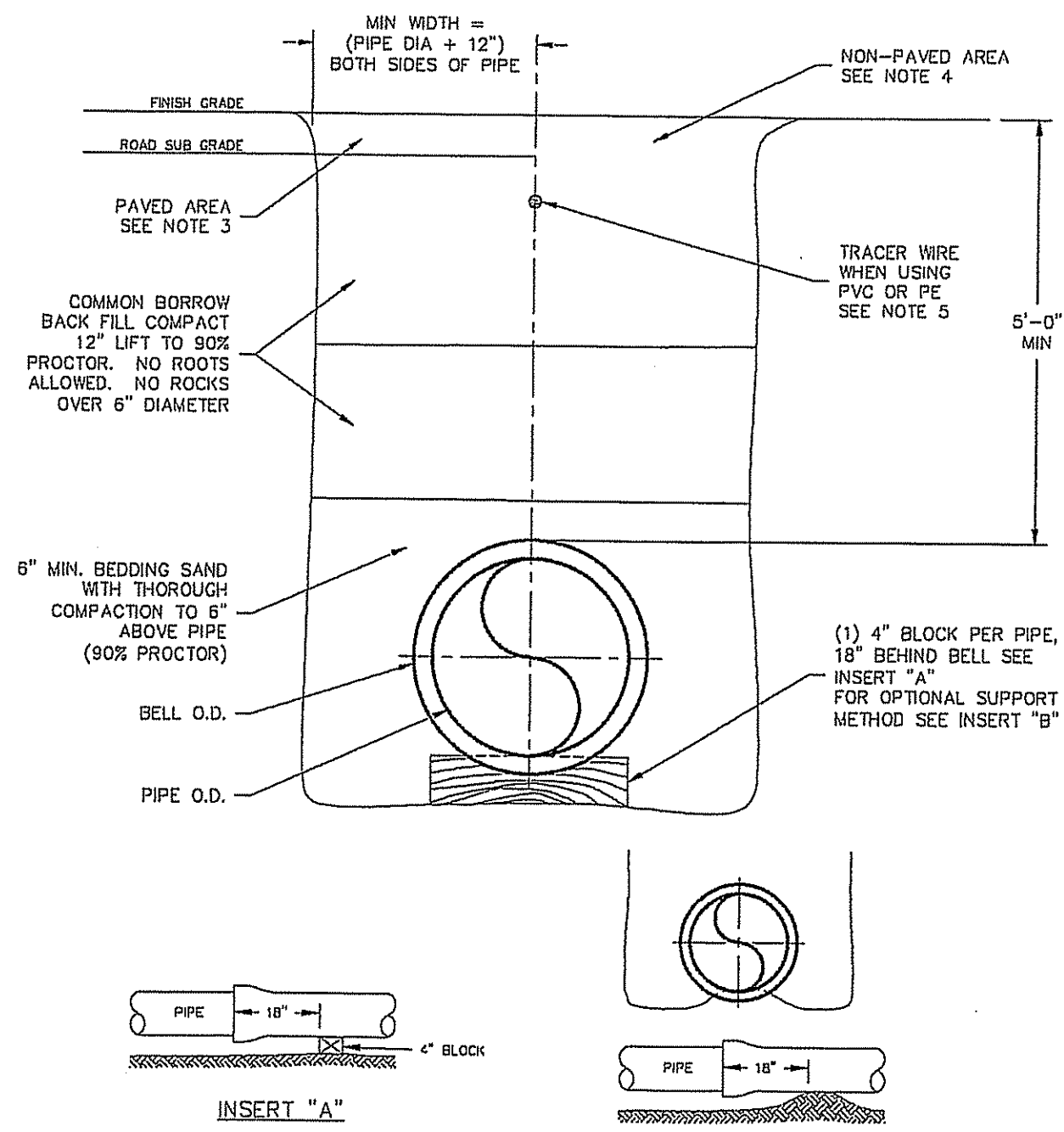
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NOTE:  
1) THE STYLE OF FENCE IS # 704 (MASSACHUSETTS) AS OFFERED BY AMERICAN FENCES, INC. THE FENCE IS TO BE 6' HIGH. (OR EQUAL)

STOCKADE FENCE

SCALE: N.T.S.  
7  
DT-5

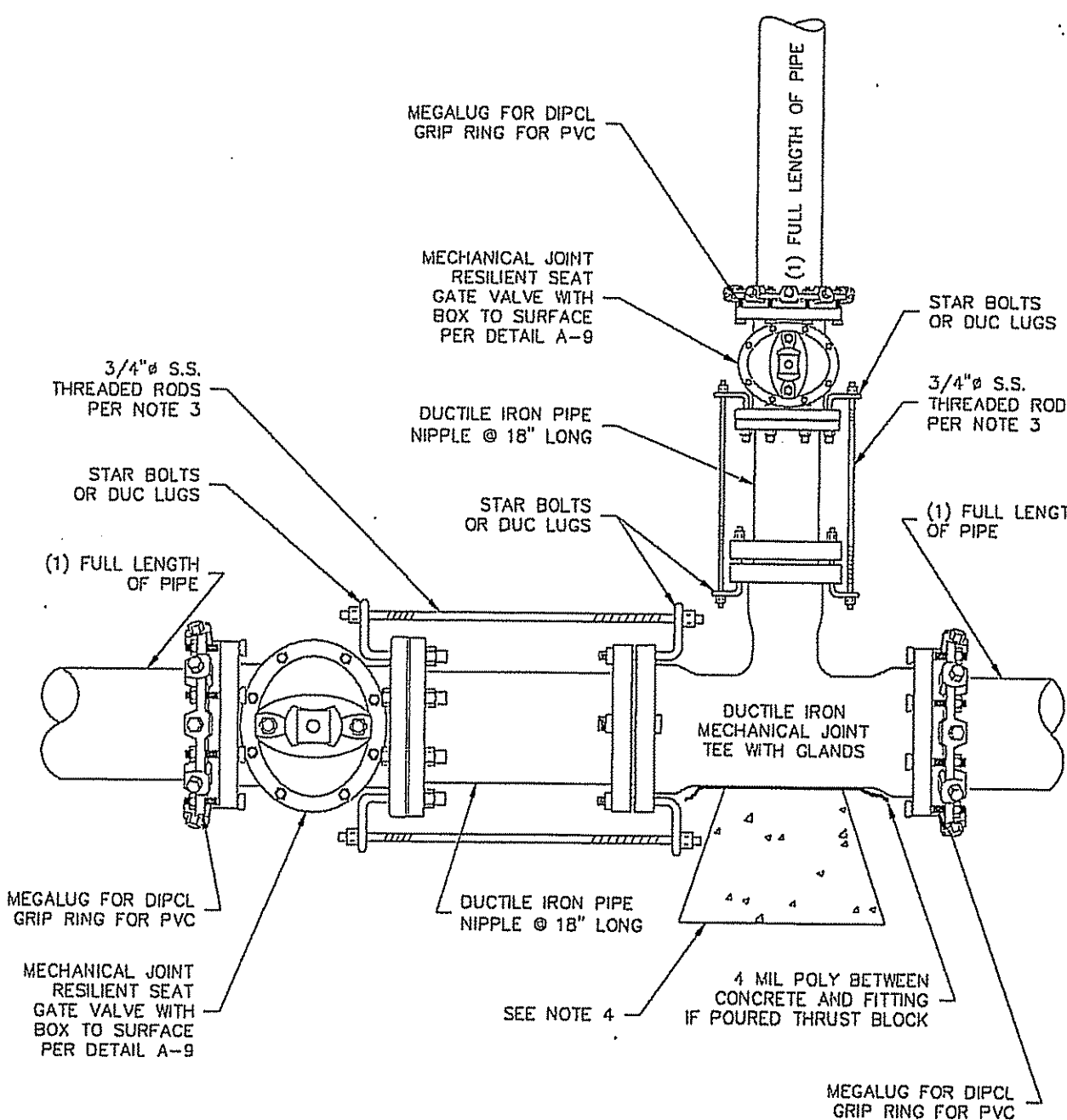


- NOTES:
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO METHUEN D.P.W. TECHNICAL SPECIFICATIONS.
  2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.
  3. REQUIREMENTS FOR SUBGRADE AND BASE MATERIAL TYPE ARE TO BE IN ACCORDANCE WITH LOCAL AUTHORITY HAVING LOCAL JURISDICTION IN PAVED AREAS.
  4. REQUIREMENTS FOR GRAVEL, LOAM AND/OR SEED ARE TO BE IN ACCORDANCE WITH LOCAL AUTHORITY HAVING LOCAL JURISDICTION IN NON-PAVED AREAS.
  5. 10 GAUGE TRACER WIRE AS MANUFACTURED BY BMS, DIVISION OF ALBASTAR CORP., AVON, MA OR EQUIVALENT.

SCALE: N.T.S.

TYPICAL TRENCH DETAIL

1  
DT-6

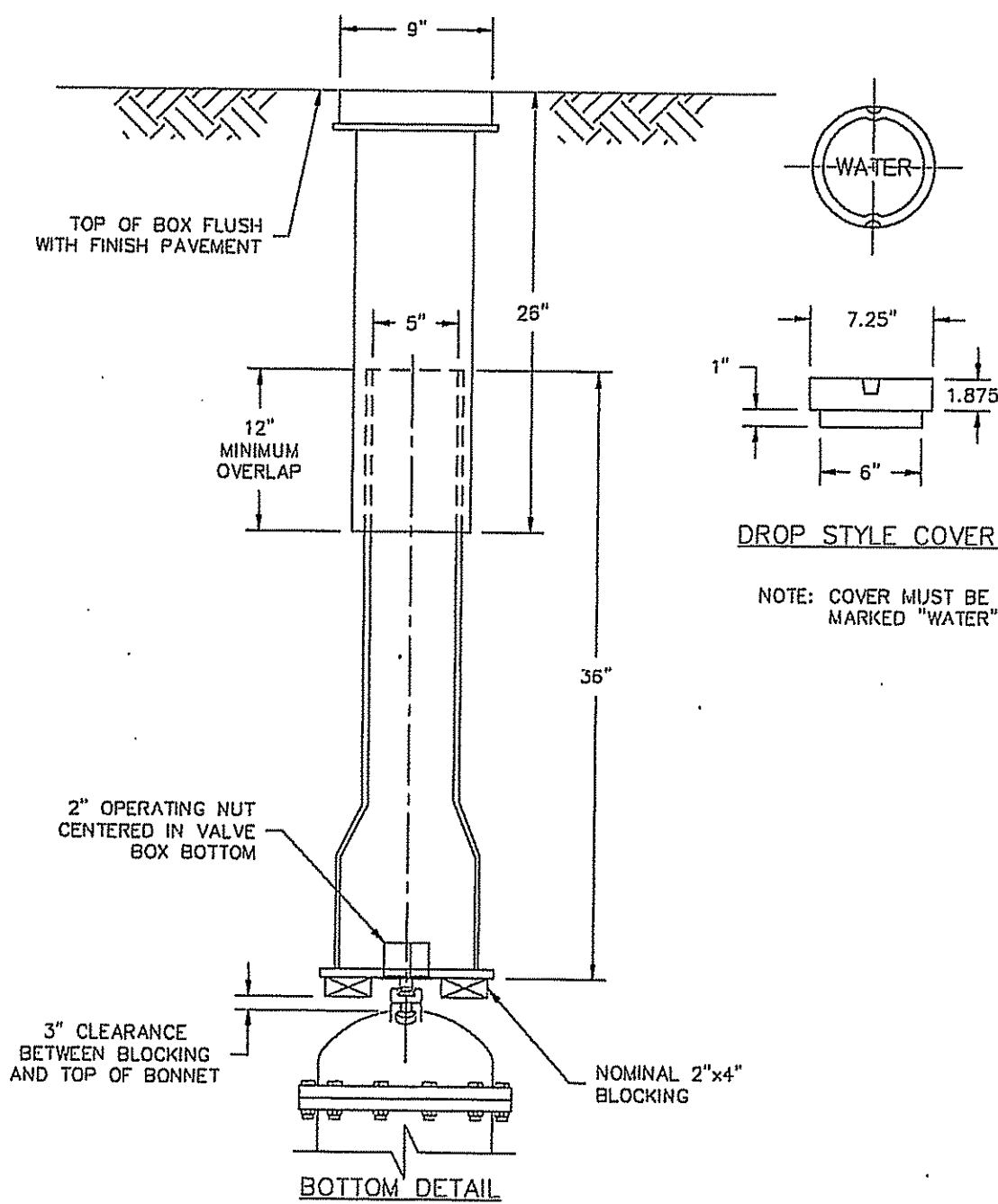


- NOTES:
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO METHUEN D.P.W. TECHNICAL SPECIFICATIONS.
  2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.
  3. 3/4" S.S. RODS SHALL BE USED IN CONJUNCTION WITH REQUIRED S.S. NUTS. RODS ARE TO BE ATTACHED TO FITTINGS WITH EITHER STAR BOLTS OR DUC LUGS. (2) 3/4" S.S. RODS & ASSOC. HARDWARE. 10" FITTING OR SMALLER = (2) 3/4" S.S. RODS & ASSOC. HARDWARE. 12" FITTING OR LARGER = (4) 3/4" S.S. RODS & ASSOC. HARDWARE.
  4. MIN 3"x3"x3' PRE CAST CONCRETE THRUST BLOCK MAY BE USED WITH M.P.W. APPROVAL OR CONCRETE THRUST BLOCK POURED AGAINST UNDISTURBED EARTH - SIZE TO BE BASED ON SIZE OF FITTING AND PRESSURE IN WATER MAIN. SEE DETAIL A-7.

SCALE: N.T.S.

TYPICAL TEE INSTALLATION

3  
DT-6

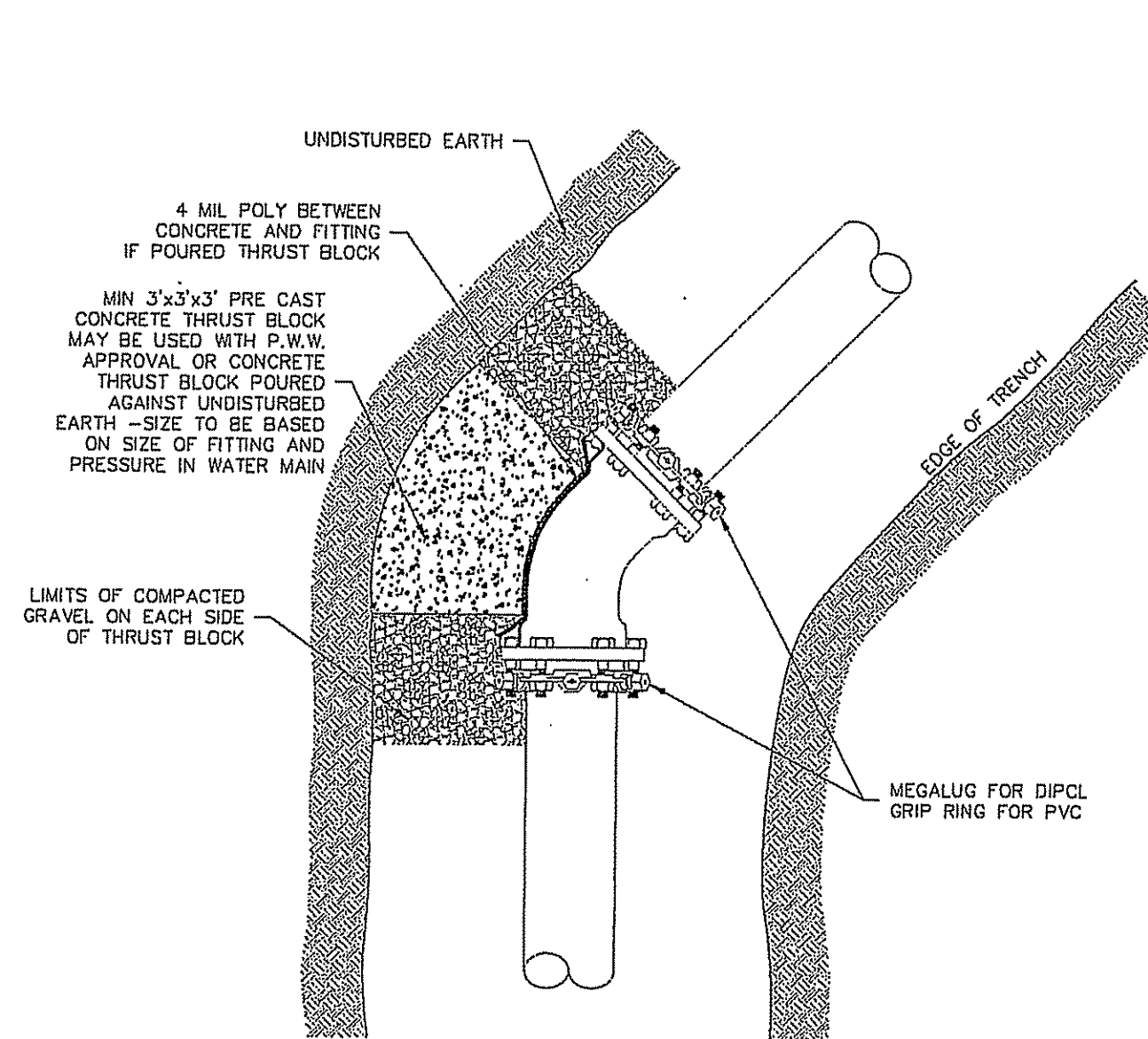


- NOTES:
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO METHUEN D.P.W. TECHNICAL SPECIFICATIONS.
  2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.

SCALE: N.T.S.

TYPICAL VALVE BOX

5  
DT-6

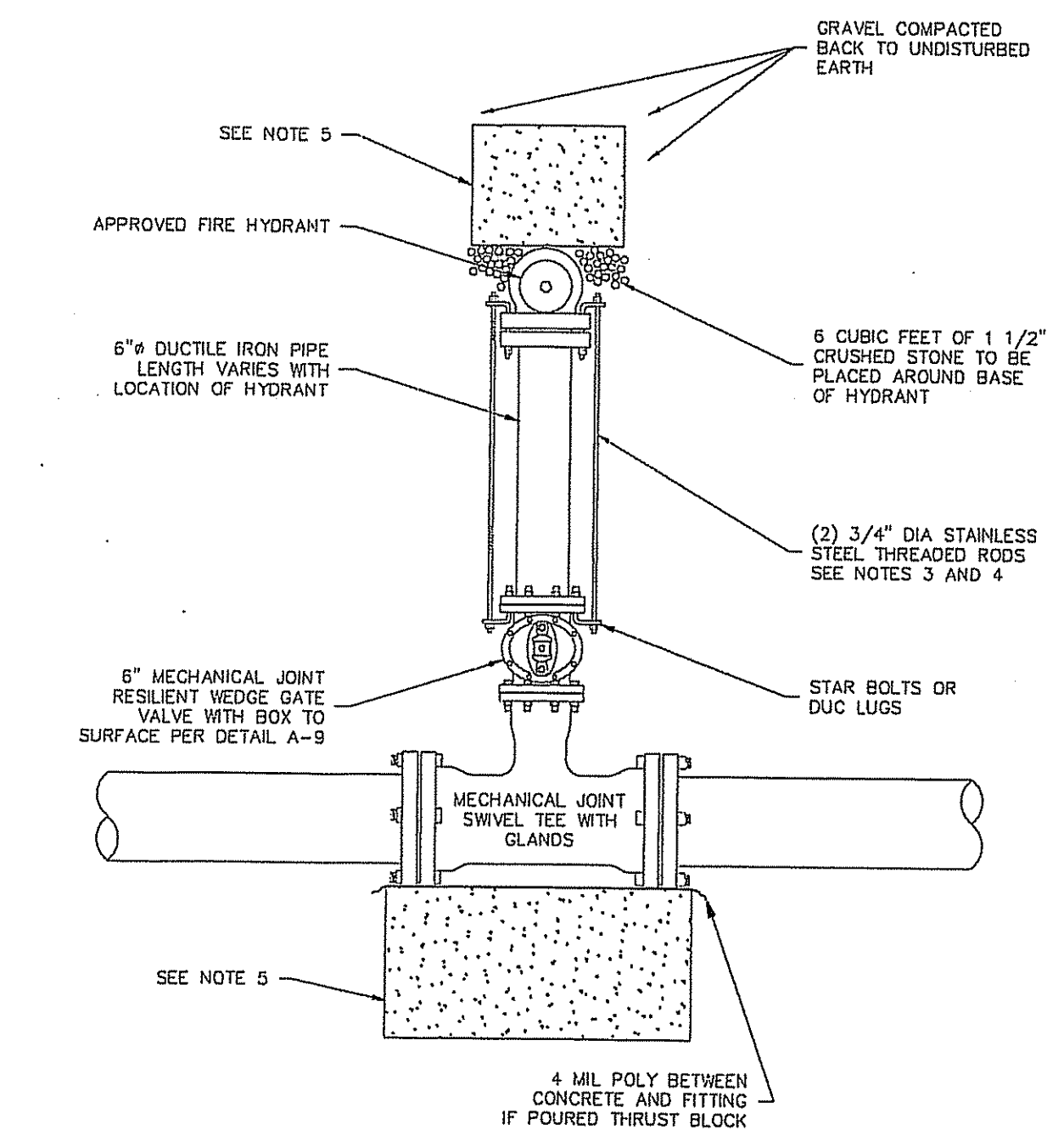


- NOTES:
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO METHUEN D.P.W. TECHNICAL SPECIFICATIONS.
  2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.
  3. 3/4" S.S. RODS SHALL BE USED IN CONJUNCTION WITH REQUIRED S.S. NUTS. RODS ARE TO BE ATTACHED TO FITTINGS WITH EITHER STAR BOLTS OR DUC LUGS. (2) 3/4" S.S. RODS & ASSOC. HARDWARE. 10" FITTING OR SMALLER = (2) 3/4" S.S. RODS & ASSOC. HARDWARE. 12" FITTING OR LARGER = (4) 3/4" S.S. RODS & ASSOC. HARDWARE.
  4. MIN 3"x3"x3' PRE CAST CONCRETE THRUST BLOCK MAY BE USED WITH M.P.W. APPROVAL OR CONCRETE THRUST BLOCK POURED AGAINST UNDISTURBED EARTH - SIZE TO BE BASED ON SIZE OF FITTING AND PRESSURE IN WATER MAIN.

SCALE: N.T.S.

TYPICAL THRUST BLOCK BEHIND FITTINGS

2  
DT-6

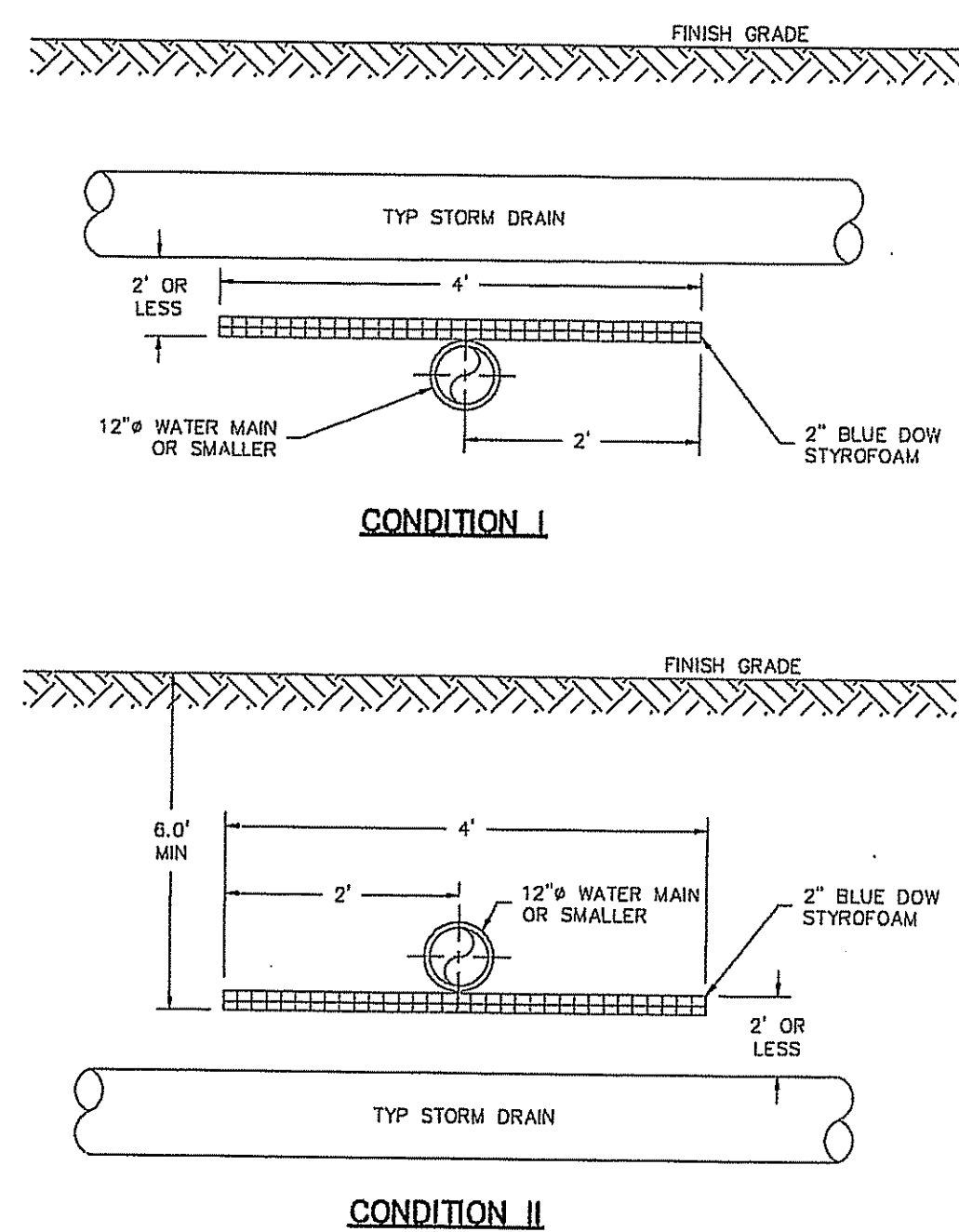


- NOTES:
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO METHUEN D.P.W. TECHNICAL SPECIFICATIONS.
  2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.
  3. 3/4" S.S. RODS SHALL BE USED IN CONJUNCTION WITH REQUIRED S.S. NUTS. RODS ARE TO BE ATTACHED TO FITTINGS WITH EITHER STAR BOLTS OR DUC LUGS. (2) 3/4" S.S. RODS & ASSOC. HARDWARE. 10" FITTING OR SMALLER = (2) 3/4" S.S. RODS & ASSOC. HARDWARE. 12" FITTING OR LARGER = (4) 3/4" S.S. RODS & ASSOC. HARDWARE.
  4. WHEN DISTANCE FROM WATER MAIN TO HYDRANT IS MORE THAN 10' SUBSTITUTE MEGALUGS (OR GRIP RINGS) IN LIEU OF THREADED RODS.
  5. MIN 3"x3"x3' PRE CAST CONCRETE THRUST BLOCK MAY BE USED WITH M.P.W. APPROVAL OR CONCRETE THRUST BLOCK POURED AGAINST UNDISTURBED EARTH - SIZE TO BE BASED ON SIZE OF FITTING AND PRESSURE IN WATER MAIN. SEE DETAIL A-7.

SCALE: N.T.S.

TYPICAL HYDRANT INSTALLATION

4  
DT-6

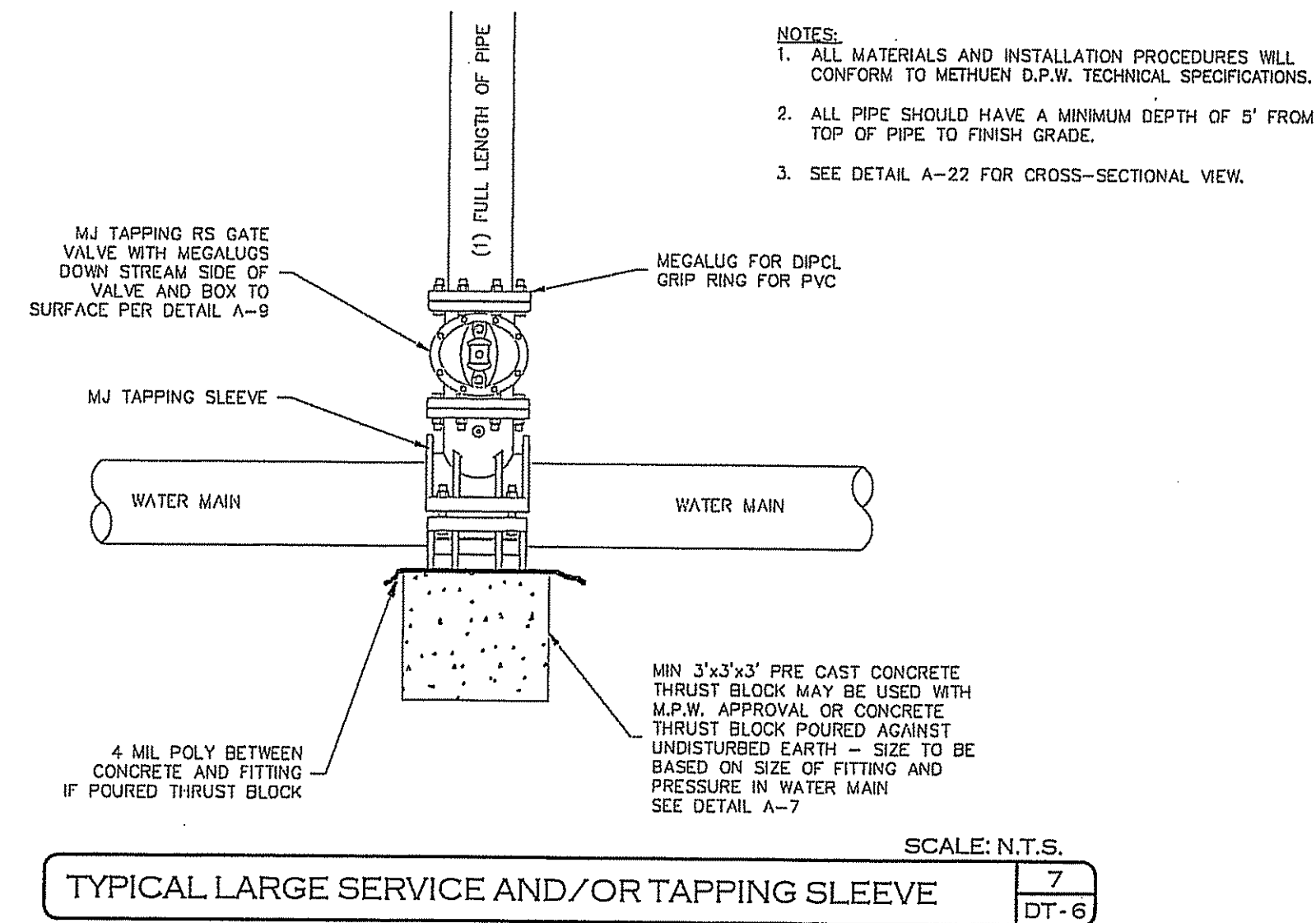


- NOTES:
1. METHUEN DEPARTMENT OF PUBLIC WORKS, RESERVES THE RIGHT TO MODIFY INSULATION REQUIREMENTS AS NECESSARY BASED ON FIELD CONDITIONS, ETC.
  2. THE LENGTH OR WIDTH OF INSULATION SHALL EXTEND 1' STORM DRAIN PIPE DIAMETER BEYOND THE EDGE OF STORM DRAIN PIPE IN EACH DIRECTION OR A MINIMUM OF 2' BEYOND THE CENTERLINE OF THE STORM DRAIN PIPE, WHICHEVER IS GREATER.
  3. ALL BUTT JOINT SEAMS TO BE OVERLAPPED WITH A 1' PIECE OF INSULATION CENTERED OVER SEAM.

SCALE: N.T.S.

STORM DRAIN / WATER MAIN INTERSECTING RUNS

6  
DT-6



- NOTES:
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO METHUEN D.P.W. TECHNICAL SPECIFICATIONS.
  2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.
  3. SEE DETAIL A-22 FOR CROSS-SECTIONAL VIEW.

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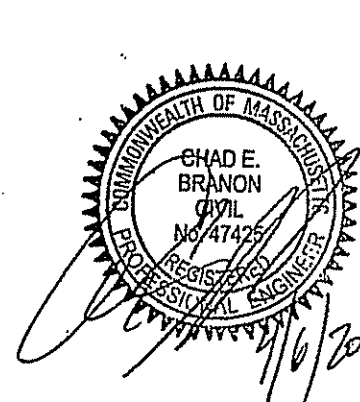
TYPICAL LARGE SERVICE AND/OR TAPPING SLEEVE

7  
DT-6

1. REFERENCE CITY OF METHUEN DEPARTMENT OF PUBLIC WORKS SPECIFICATIONS FOR INSTALLATION OF ALL WATER LINES.
2. ALL SPRINKLER AND DOMESTIC LEADS TO BUILDING SHALL END 8 FEET OUTSIDE THE FACE OF THE BUILDING WALL, UNLESS NOTED, AND SHALL BE PROVIDED WITH A TEMPORARY PLUG AT THE END (FOR OTHERS TO REMOVE AND EXTEND THE LINE AS NECESSARY).
3. THRUST BLOCKS AND MEGALUG RESTRAINTS SHALL BE PROVIDED AT ALL HORIZONTAL BENDS, TEES, AND FIRE HYDRANTS. SEE DETAIL.
4. MINIMUM COVER ON ALL WATER LINES IS 5'-6".
5. CONTRACTOR SHALL MAINTAIN A 6'-0" HORIZONTAL (UNLESS OTHERWISE NOTED) AND 12" VERTICAL SEPARATION BETWEEN WATER SERVICE AND UTILITIES OTHER THAN SANITARY SEWER.
6. INSPECTIONS ON WATER SERVICE INSTALLATION DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE SITE CONTRACTOR AND SHALL BE COORDINATED WITH PENNICHUCK WATER WORKS. ALL INSPECTION FEES SHALL BE PAID FOR BY THE CONTRACTOR.
7. CONTRACTOR SHALL HAVE BACTERIOLOGICAL AND PRESSURE TESTING PERFORMED. CONTRACTOR SHALL GIVE PENNICHUCK WATER WORKS A COPY OF THE RESULTS. PENNICHUCK WATER WORKS SHALL BE ON-SITE TO WITNESS TEST.
8. ALL PIPE, VALVES, MISCELLANEOUS MATERIALS AND INSTALLATION SHALL CONFORM TO PENNICHUCK WATER WORKS SPECIFICATIONS AND REQUIREMENTS.
9. ALL FIRE HYDRANTS, VALVES, FITTINGS, PIPES, ETC. SHALL BE IN ACCORDANCE WITH THE CITY OF METHUEN DEPARTMENT OF PUBLIC WORKS SPECIFICATIONS.
10. METALLIC TAPE OR DETECTOR WIRE SHALL BE INSTALLED IN THE SAME TRENCH WITH ALL NONMETALLIC PIPE SUCH THAT THE PIPE MAY BE LOCATED WITH ELECTRONIC LOCATING EQUIPMENT. METALLIC TAPE OR DETECTOR WIRE SHALL BE INSTALLED APPROXIMATELY 12" TO 18" BELOW GRADE DIRECTLY ABOVE THE TOP OF THE PIPE. DETECTOR WIRE SHALL BE 14 GAUGE SOLID COPPER, SIMPLEX BV8001 OR EQUAL. METALLIC TAPE SHALL BE 2" MINIMUM METALIZED TAPE, GRIFFOLYN COMPANY, INC., TERRATEPE OR EQUAL.
11. CONTRACTOR SHALL ENSURE ALL WATER VALVES ARE IN A FULLY OPEN POSITION UPON COMPLETION, OF PROJECT.
12. CONTRACTOR SHALL COORDINATE ALL WATER INTERRUPTIONS WITH THE CITY OF METHUEN AND AFFECTED PROPERTY OWNERS.

WATER SYSTEM CONSTRUCTION NOTES

8  
DT-6



| REV. | DATE | DESCRIPTION | C/O | DR | CK |
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**WATER CONSTRUCTION DETAILS**

**PIE HILL WAREHOUSING**

TAX MAP 1010 LOT 79-17  
(46 OLD FERRY ROAD)  
METHUEN, MASSACHUSETTS

PREPARED FOR:  
**TRIPLE G PROPERTY LLC**  
59 BONANNO COURT, METHUEN, MA 01844

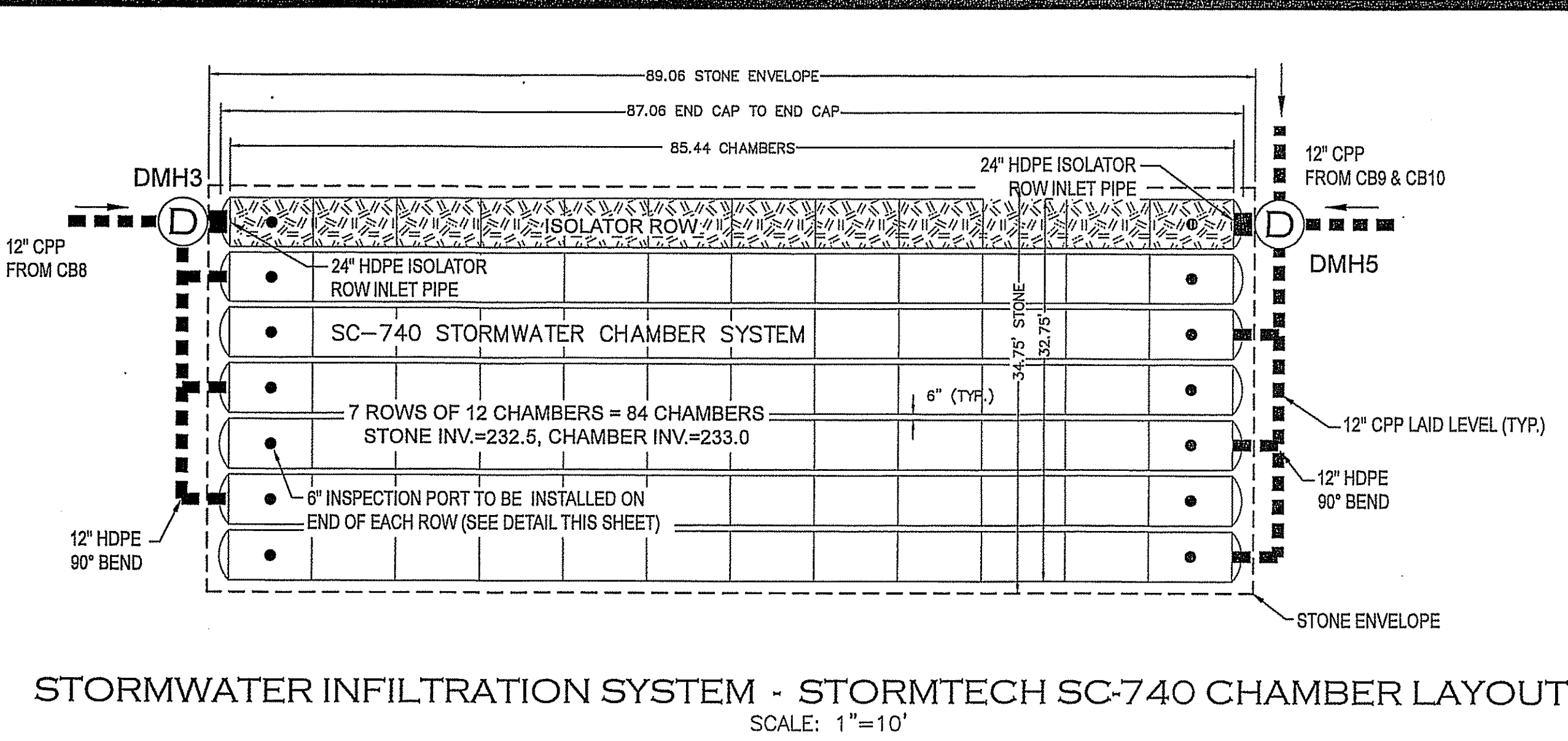
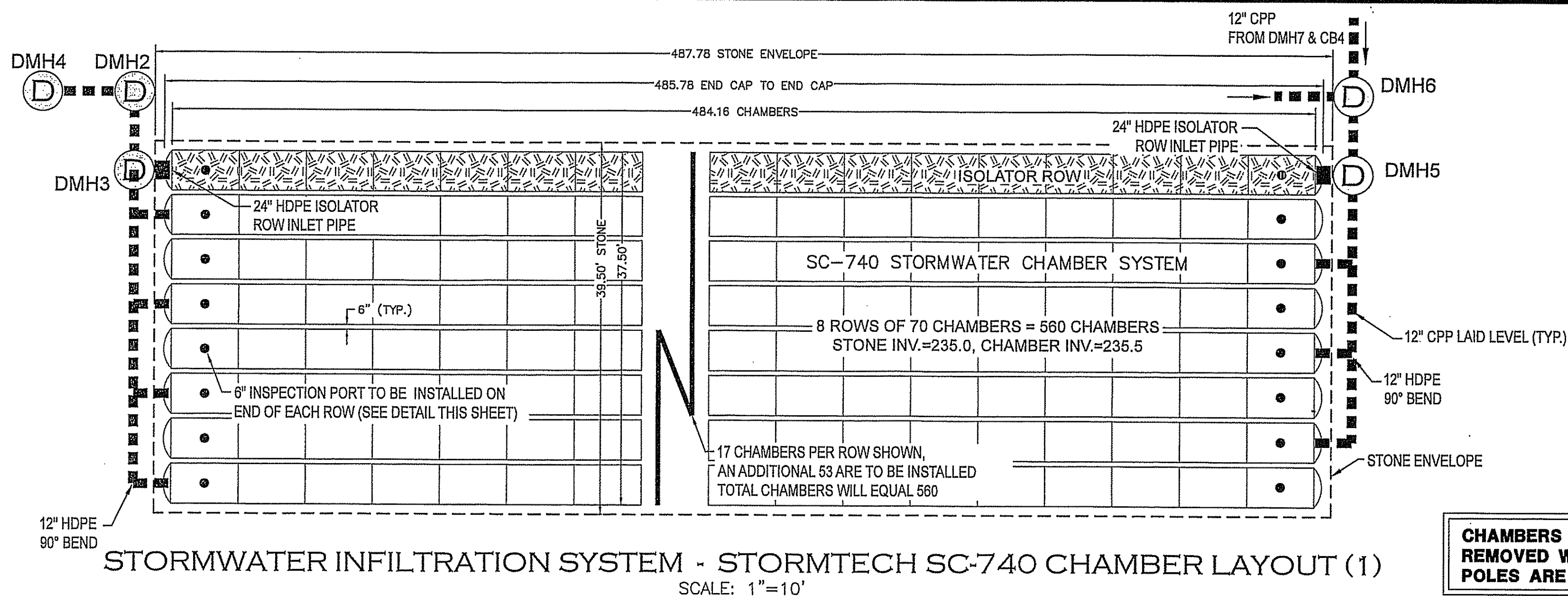
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**FIELDSTONE LAND CONSULTANTS PLLC**

206 Elm Street, Milford, NH 03055  
Phone: (603) 672-5456 Fax: (603) 413-5456  
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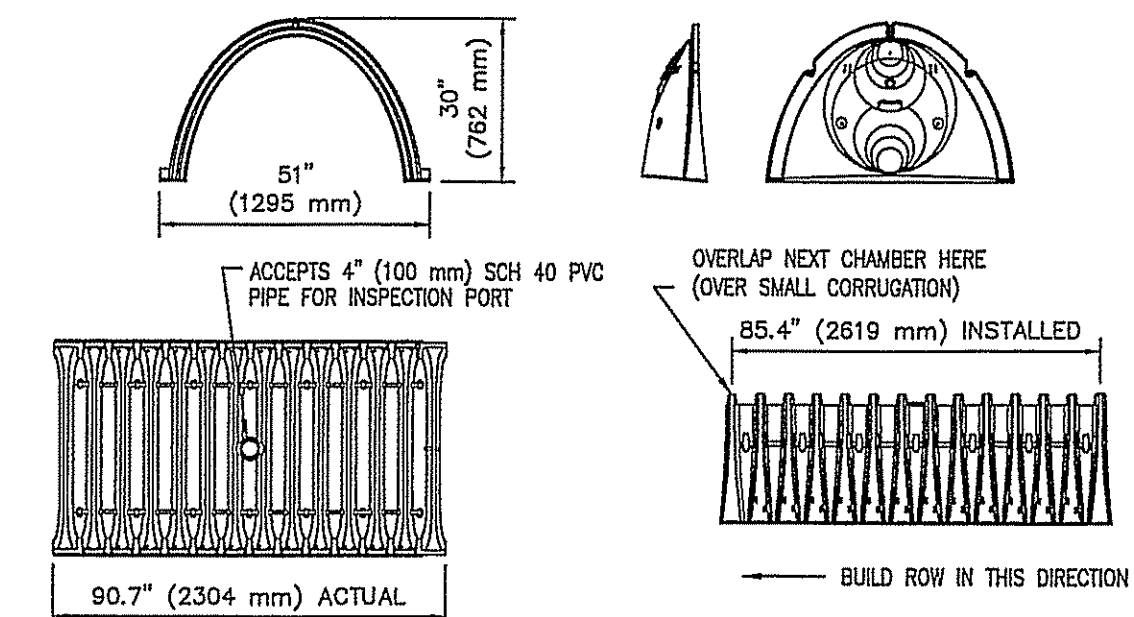


**CHAMBERS TO BE REMOVED WHERE LIGHT POLES ARE LOCATED.**

1. ALL DESIGN SPECIFICATIONS FOR STORMTECH SC-740 CHAMBERS SHALL BE IN ACCORDANCE WITH THE STORMTECH DESIGN MANUAL.
2. THE INSTALLATION OF STORMTECH SC-740 CHAMBERS SHALL BE IN ACCORDANCE WITH THE LATEST STORMTECH INSTALLATION INSTRUCTIONS.
3. THE CONTRACTOR IS ADVISED TO REVIEW AND UNDERSTAND THE INSTALLATION INSTRUCTIONS PRIOR TO BEGINNING SYSTEM INSTALLATION. CALL 1-888-892-2694 OR VISIT WWW.STORMTECH.COM TO RECEIVE A COPY OF THE LATEST STORMTECH INSTALLATION INSTRUCTIONS.
4. CHAMBERS SHALL MEET THE DESIGN REQUIREMENTS AND LOAD FACTORS SPECIFIED IN SECTION 12.12 OF THE LATEST EDITION OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.

### SC-740 NOTES

SCALE: NONE



**NOMINAL CHAMBER SPECIFICATIONS**  
SIZE (W x H x INSTALLED LENGTH) 51.0" x 30.0" x 85.4" (1295 mm x 762 mm x 2169 mm)  
CHAMBER STORAGE 45.8 CUBIC FEET (1.30 m³)  
MINIMUM INSTALLED STORAGE 75 lbs. (33.6 kg)

STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "8"  
STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"

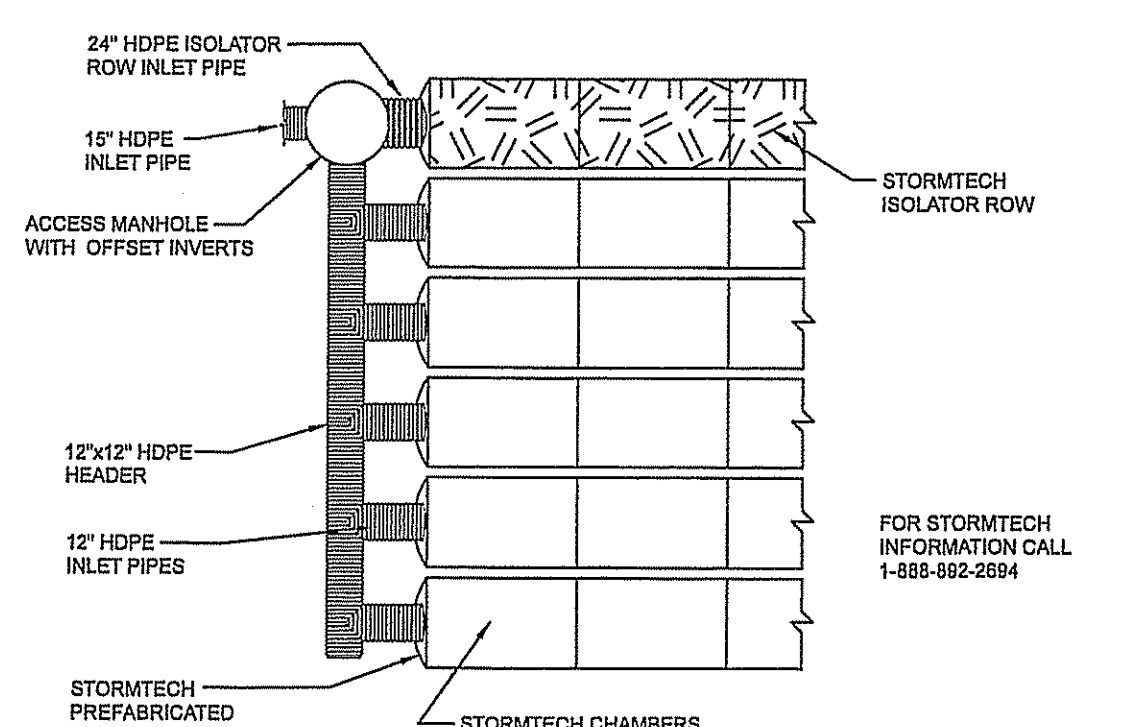
| PART #     | CHAMBER | PIPE SIZE      | A                 | B                 | C                  | D   |
|------------|---------|----------------|-------------------|-------------------|--------------------|-----|
| SC740EP001 | SC 740  | 6 in (150 mm)  | 10.90 in (277 mm) | 3.85 in (98 mm)   | 16.50 in (419 mm)  | N/A |
| SC740EP008 | SC 740  | 6 in (150 mm)  | 10.90 in (277 mm) | 3.85 in (98 mm)   | 16.50 in (419 mm)  | N/A |
| SC740EP017 | SC 740  | 12 in (300 mm) | 14.75 in (375 mm) | 7.70 in (196 mm)  | 22.80 in (580 mm)  | N/A |
| SC740EP026 | SC 740  | 12 in (300 mm) | 14.75 in (375 mm) | 7.70 in (196 mm)  | 22.80 in (580 mm)  | N/A |
| SC740EP035 | SC 740  | 15 in (375 mm) | 18.40 in (467 mm) | 10.35 in (263 mm) | 28.00 in (711 mm)  | N/A |
| SC740EP044 | SC 740  | 15 in (375 mm) | 18.40 in (467 mm) | 10.35 in (263 mm) | 28.00 in (711 mm)  | N/A |
| SC740EP053 | SC 740  | 18 in (450 mm) | 22.10 in (561 mm) | 13.20 in (335 mm) | 34.00 in (863 mm)  | N/A |
| SC740EP062 | SC 740  | 18 in (450 mm) | 22.10 in (561 mm) | 13.20 in (335 mm) | 34.00 in (863 mm)  | N/A |
| SC740EP071 | SC 740  | 18 in (450 mm) | 22.10 in (561 mm) | 13.20 in (335 mm) | 34.00 in (863 mm)  | N/A |
| SC740EP080 | SC 740  | 18 in (450 mm) | 22.10 in (561 mm) | 13.20 in (335 mm) | 34.00 in (863 mm)  | N/A |
| SC740EP089 | SC 740  | 18 in (450 mm) | 22.10 in (561 mm) | 13.20 in (335 mm) | 34.00 in (863 mm)  | N/A |
| SC740EP098 | SC 740  | 24 in (600 mm) | 28.10 in (714 mm) | 16.45 in (418 mm) | 42.00 in (1067 mm) | N/A |

ALL STUBS, EXCEPT FOR THE SC740EP026, ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT 1-888-892-2694.

\*FOR THE SC740EP026 THE 24" (600 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 1.75" (44 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

### SC-740 TECHNICAL DETAILS

SCALE: NONE



### ISOLATOR ROW MAINIFOLD DETAIL

SCALE: NONE

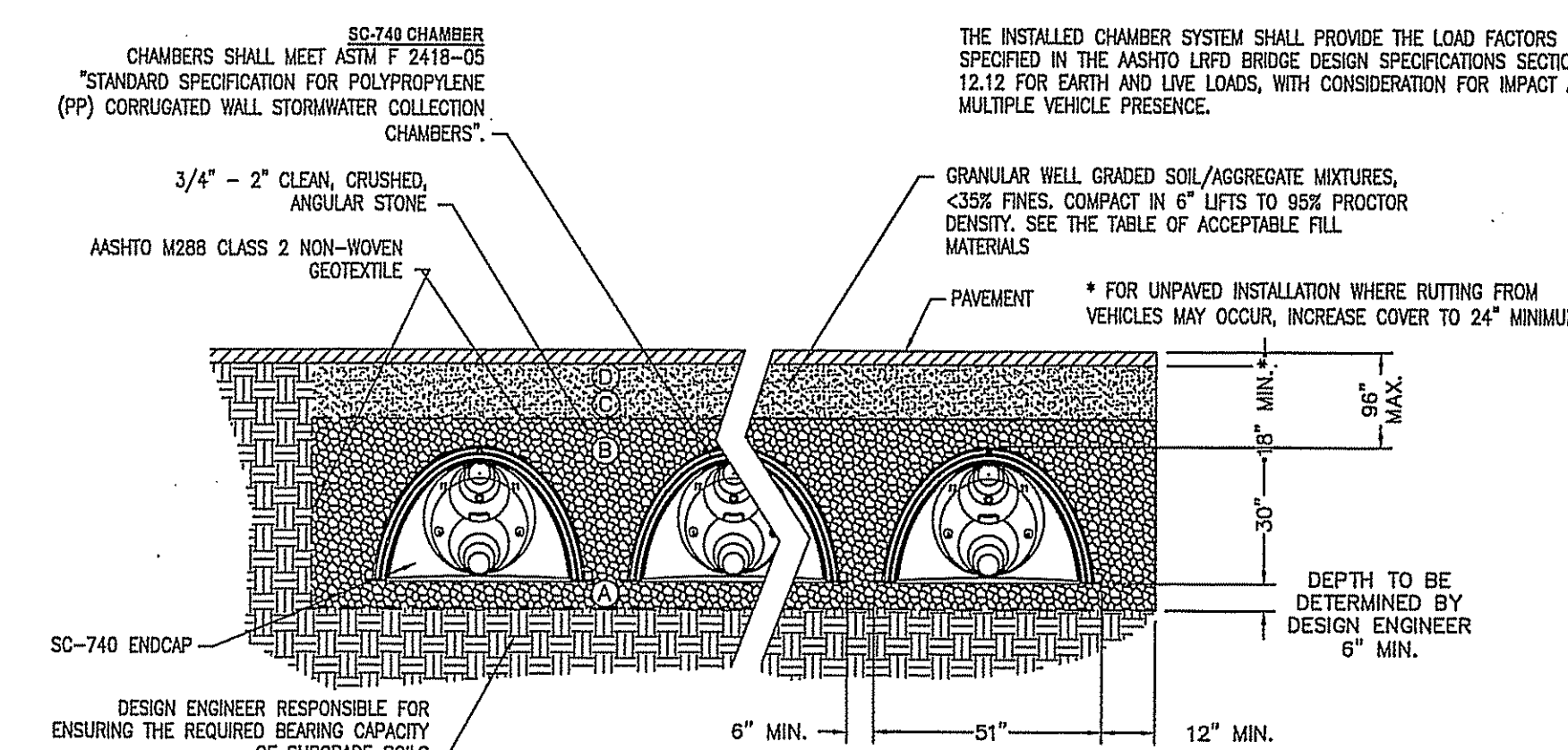
### ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 AND SC-310 CHAMBER SYSTEMS

| MATERIAL LOCATION                                                                                                                                                                          | DESCRIPTION                                                                                                                  | AASHTO M43 DESIGNATION <sup>1</sup>                       | COMPACTION/DENSITY REQUIREMENT                                                                                                                                                                                                                                                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ① FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'D' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISH GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THIS LAYER. | ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBBASE REQUIREMENTS.               | N/A                                                       | PREPARE PER ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.                                                                                                                                                                        |
| ② FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (457 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THIS LAYER. | GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, < 30% FINES. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LAY OF THIS LAYER. | 3, 357, 4, 497, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10 | BEGIN COMPACTION AFTER 12" (305 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (152 mm) LIFTS TO A MIN. 95% STANDARD PROCTOR DENSITY. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 16,000 lbs (73 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN). |
| ③ EMBEDMENT STONE SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'D' LAYER ABOVE.                                                                                   | CLEAN, CRUSHED, ANGULAR STONE. NOMINAL SIZE DISTRIBUTION BETWEEN 3/4" - 2" INCH (19 - 51 mm)                                 | 3, 357, 4, 497, 5, 56, 57                                 | NO COMPACTION REQUIRED.                                                                                                                                                                                                                                                            |
| ④ FOUNDATION STONE BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.                                                                                                | CLEAN, CRUSHED, ANGULAR STONE. NOMINAL SIZE DISTRIBUTION BETWEEN 3/4" - 2" INCH (19 - 51 mm)                                 | 3, 35, 4, 497, 5, 56, 57                                  | FLAKE COMPACT OR ROLL TO ACHIEVE A 95% STANDARD PROCTOR DENSITY <sup>2</sup> .                                                                                                                                                                                                     |

PLEASE NOTE:  
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".  
2. AS AN ALTERNATE TO PROCTOR TESTING AND FIELD DENSITY MEASUREMENTS ON OPEN GRADED STONE, STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (229 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH AN APPROPRIATE COMPACTOR.

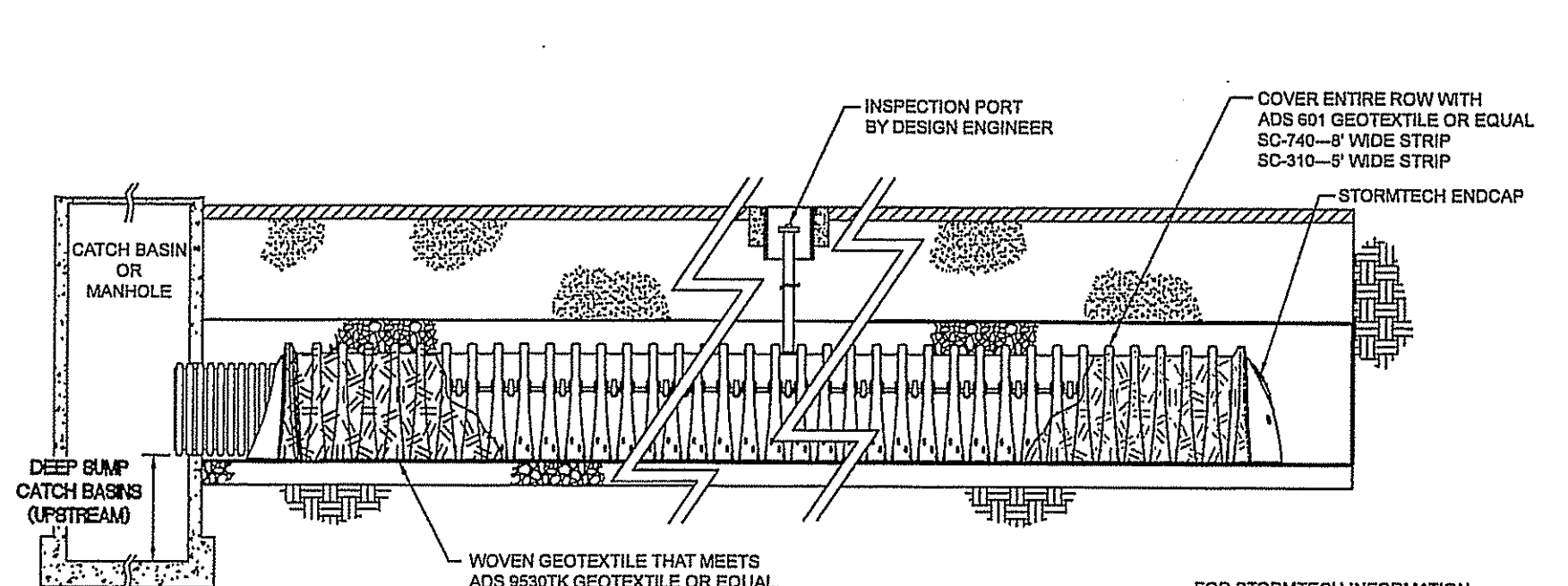
### STORMTECH ACCEPTABLE FILL MATERIALS

SCALE: NONE



### SC-740 STANDARD CROSS SECTION

SCALE: NONE



### ISOLATOR ROW DETAIL

SCALE: NONE

1. REMOVE ALL ORGANIC MATERIAL FROM AREA BELOW PROPOSED INFILTRATION BASINS AND TO EXPOSE UNDERLYING SOILS.
2. CARE SHALL BE TAKEN TO PROTECT THE UNDERLYING SOILS FROM CONSTRUCTION TRAFFIC AND THE DISCHARGE OF SEDIMENT LADEN RUNOFF. IF FEASIBLE, POSITION EQUIPMENT OUTSIDE THE LIMITS OF THE INFILTRATION PRACTICE.
3. ONCE EXCAVATED AND PRIOR TO FILLING, THE UNDERLYING SOILS SHALL BE DEEPLY TILLED WITH A ROTARY TILLER OR DISC HARROW TO RESTORE INFILTRATION RATES, FOLLOWED BY A PASS WITH LEVELING DRAG.
4. FILL BELOW THE INFILTRATION PRACTICE SHALL CONFORM TO THE SPECIFICATIONS FOR NHDOT ITEM 209.1, "GRANULAR BACKFILL".
5. DO NOT PLACE INFILTRATION PRACTICES INTO SERVICE UNTIL ALL CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.

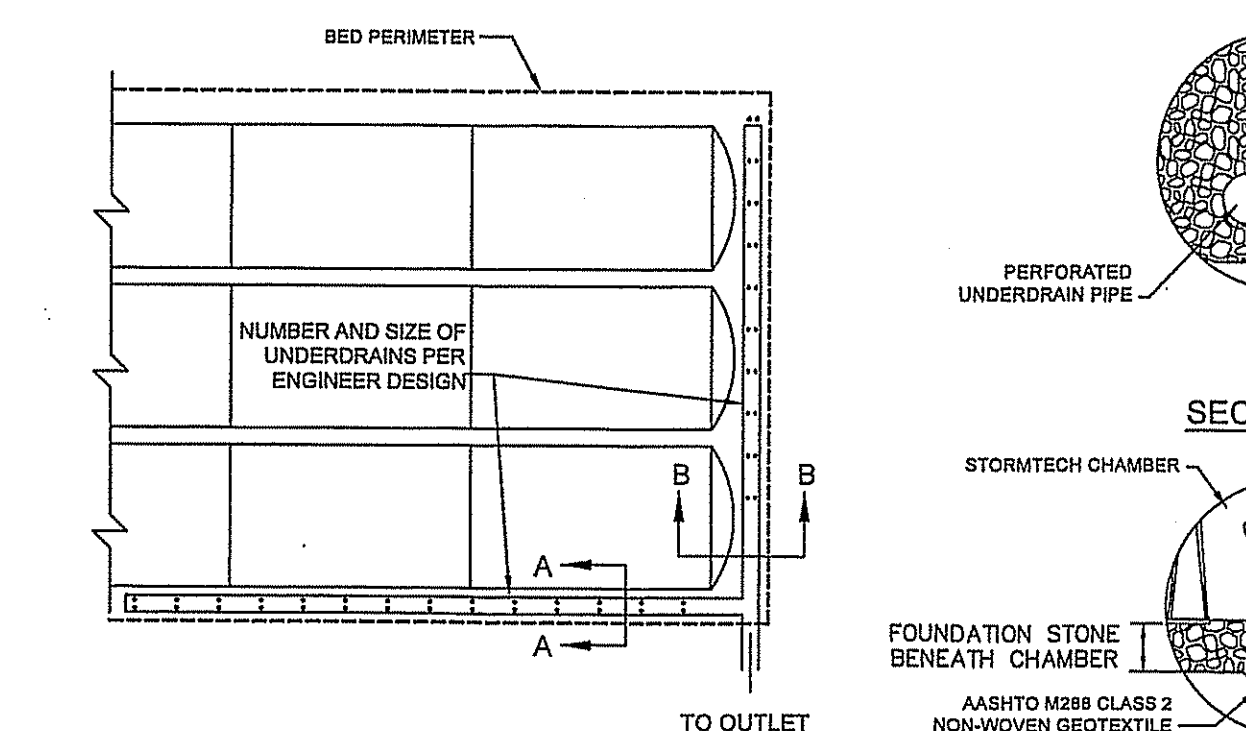
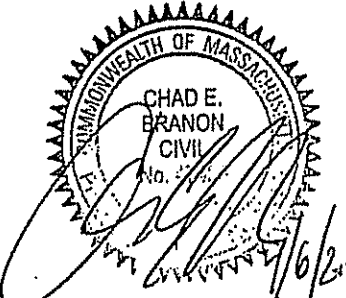
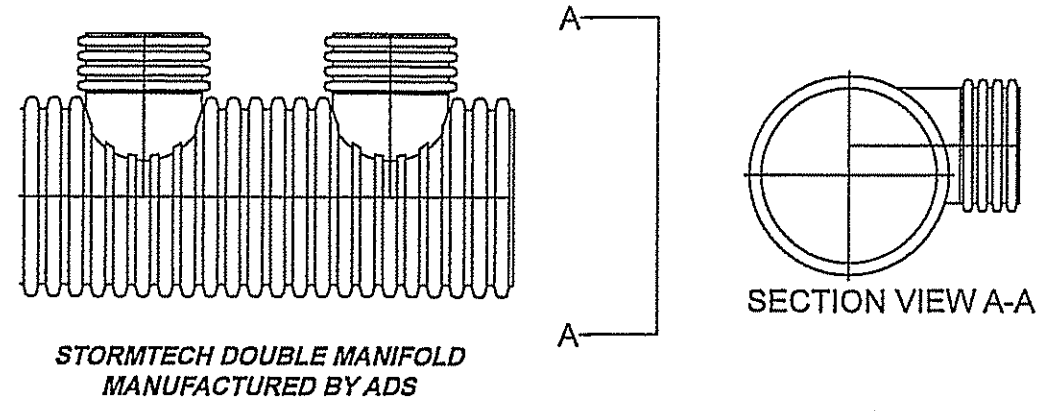
### INFILTRATION PRACTICE CONSTRUCTION NOTES

MANIFOLDS ARE DESIGNED TO BE COUPLED TO STORMTECH PREFABRICATED END CAPS. WHEN USING STANDARD END CAPS, CORRUGATE PIPE UP TO 18 INCHES CAN BE INSERTED DIRECTLY INTO THE END CAP. FOR 24" INLET PIPES, A CORRUGATED TO SMOOTH PIPE ADAPTER IS REQUIRED.

FOR INFORMATION  
CALL 1-888-892-2694

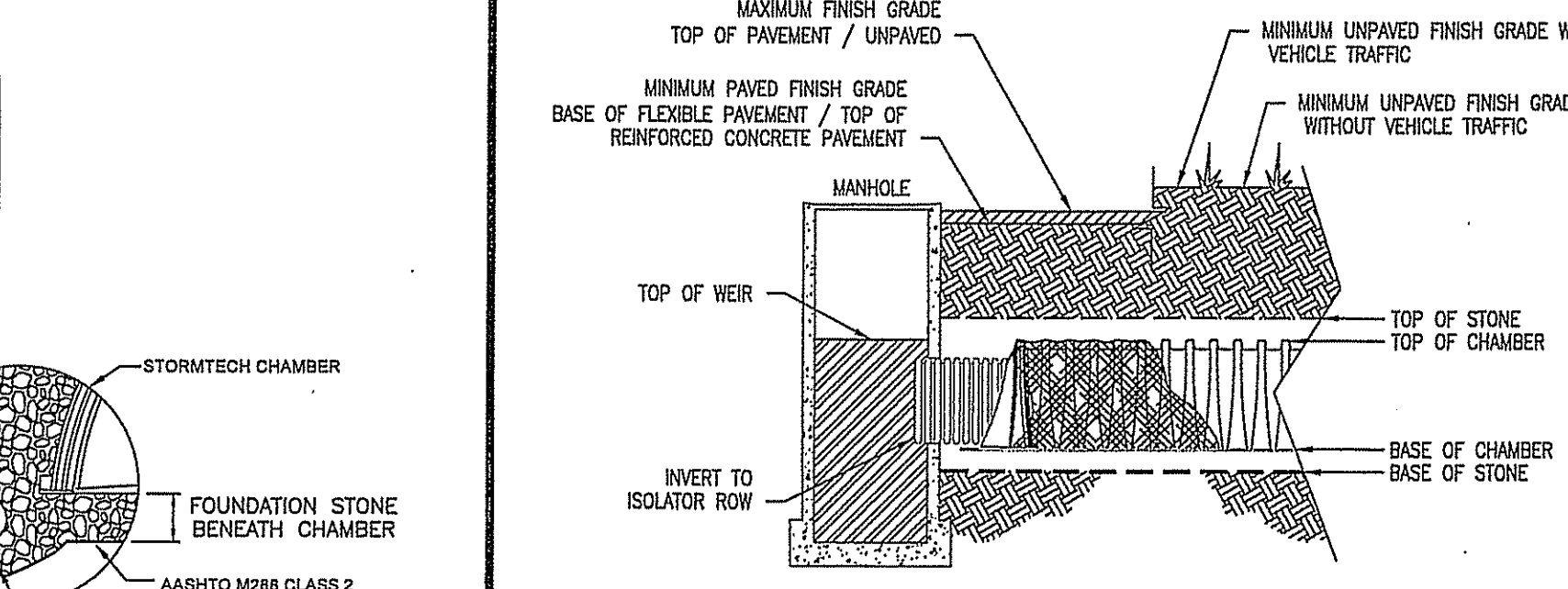
| STUB SIZE | 48"   | 42"   | 36"   | 30"   | 24"   | 18"   | 15"   | 12"   | 10"   | 8"    |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 24"       | AVAIL | AVAIL | AVAIL | AVAIL | AVAIL | AVAIL | AVAIL | AVAIL | AVAIL | AVAIL |
| 18"       | AVAIL | AVAIL | AVAIL | AVAIL | AVAIL | AVAIL | AVAIL | AVAIL | AVAIL | AVAIL |
| 15"       | AVAIL | AVAIL | AVAIL | AVAIL | AVAIL | AVAIL | AVAIL | AVAIL | AVAIL | AVAIL |
| 12"       | AVAIL | AVAIL | AVAIL | AVAIL | AVAIL | AVAIL | AVAIL | AVAIL | AVAIL | AVAIL |
| 10"       | AVAIL | AVAIL | AVAIL | AVAIL | AVAIL | AVAIL | AVAIL | AVAIL | AVAIL | AVAIL |
| 8"        | AVAIL | AVAIL | AVAIL | AVAIL | AVAIL | AVAIL | AVAIL | AVAIL | AVAIL | AVAIL |

AVAIL - STANDARD HEADERS AVAILABLE



### UNDERDRAIN DETAILS

SCALE: NONE



### SECTION AT DRAIN STRUCTURE

SCALE: NONE

### STORMWATER RECHARGE SYSTEM DETAILS

## PIE HILL WAREHOUSING

TAX MAP 1010 LOT 79-17

(46 OLD FERRY ROAD)

METHUEN, MASSACHUSETTS

PREPARED FOR:

**TRIPLE G PROPERTY LLC**  
59 BONANNO COURT, METHUEN, MA 01844

SCALE: AS SHOWN

APRIL 4, 2022

Surveying ♦ Engineering ♦ Land Planning ♦ Permitting ♦ Septic Designs



**WAREHOUSE**  
PROPOSED SEPTIC  
LOADING = 1440 GPD

INLET AND OUTLET RISER FOR TANK TO BE UP TO FINISHED GRADE  
WITH H-20 CAST IRON MANHOLES  
MIN. OF 20" DIAMETER-TYP

10' MIN.

10' MIN.

4" SCH 40 PVC W/ TIGHT JOINTS  
MIN 2% SLOPE, 1/4" PER FT.

35 LF

INV.=236.6

INV.=235.8

PROPOSED TANK #1  
3000 GALLON H-20  
PRE-CAST CONCRETE  
SEPTIC TANK

INLET  
BAFFLE  
PVC OUTLET  
W/GAS BAFFLE

3 LF - 4" SCH 40 PVC SEWER LINE  
MIN 1% SLOPE, 1/8" PER FT.

INV.=235.3

PROPOSED TANK #2  
3000 GALLON H-20  
PRE-CAST CONCRETE  
SEPTIC TANK

INLET  
BAFFLE  
PVC OUTLET  
W/GAS BAFFLE

400 LF±

4" SCH 40 PVC SEWER LINE  
MIN 1% SLOPE, 1/8" PER FT.

INV.=235.1

INV.=184.7

PROPOSED  
SEWER CROSSING  
SEWER INV.=196.0  
GAS LINE = 192.6

D-BOX WITH H-20 LOADING RISER TO BE  
WITHIN 6" OF FINISHED GRADE

60'

SOLID 4" SCH 40 P.V.C. LEVEL  
FOR 2 FT FROM D-BOX THEN  
0.005 FT/FT TO LEACH LINE  
FINISH GRADE TO SLOPE 2% MIN

BED TO BE LEVEL MIN.FG=184.9  
PERFORATED SCH 40 PVC PIPE AT .005 FT/FT  
PERF. INV. = 183.3  
SOLID INV. = 183.5

4" OUTLET DISTRIBUTION BOX 12" INSIDE MIN.  
TO BE LEVEL AND HAVE 6" DEEP SUMP MIN.  
AND 2" THICK WALLS MIN. & VELOCITY REDUCING TEE  
TO BE SET ON STABLE COMPACTED BASE

4" PVC INSPECTION PORT W/SCREW  
CAP WITHIN 3" OF SURFACE

15'

4" PVC VENT, 3' HIGH, MANIFOLD ALL ROWS  
(SEE DETAIL)

3:1 SLOPE

BREAKOUT ELEV.=184.0

SHWT. ELEV. = 177.5

20' (4 ROWS @ 5" OC)  
PERFORATED PIPING IS 5" ON CENTER

2'-6"

5'

5'

2'-6"

FINISHED GRADE  
SLOPED AT 2%

4" TOPSOIL

9" SAND BACKFILL

2"

4" VARIES (6" MIN)

4" SCH 40 PVC  
PERFORATED  
PIPING-HOLES AT 6x7

FILTER FABRIC

DOUBLE WASHED BASE SEPTIC STONE - .75 TO 1.5 INCH

BED BOTTOM ELEVATION  
PIPING TO BE .005 FT/FT DOWNWARD SLOPE (NOT TO SCALE)

ANY DISCREPANCIES, CHANGES,  
SUBSTITUTIONS OR DEVIATIONS FROM THIS  
PLAN REQUIRES NOTIFICATION OF THE  
DESIGNER. USE OF THIS PLAN FOR ANY  
PURPOSE OTHER THAN THE CONSTRUCTION  
OF THE SEWAGE DISPOSAL SYSTEM SHALL  
BE AT THE USER'S RISK.

ALL UNSUITABLE MATERIAL AND ORGANIC MATTER SHALL BE REMOVED FROM THE AREA  
BENEATH THE SAS. LEACH BED IS TO BE DOUBLE WASHED .75-1.5" CRUSHED STONE BASE WITH  
AT LEAST 2" OF 1/8"-1/2" STONE ABOVE THE BASE AGGREGATE TO PREVENT INFILTRATION OF  
FINER TEXTURED SOILS.

SEPTIC TANKS TO BE LEVEL  
AND SET ON A STABLE  
COMPACTED BASE W/6"  
OF CRUSHED STONE

INLET BAFFLE TO BE A SCH 40 PVC T-BAFFLE. EXTEND AT LEAST 10"  
BELOW LIQUID BUT NOT DEEPER THAN THE OUTLET BAFFLE

OUTLET BAFFLE TO BE A VENTED TEE WHICH EXTENDS DOWN  
TO 14" MIN BELOW LIQUID DEPTH WITH TANK WATER DEPTH OF 4' MIN

OUTLET & INLET BAFFLE TO EXTEND ABOVE LIQUID LEVEL TO  
NOT LESS THAN 3" FROM TOP OF TANK

1. THIS IS NOT A PROPERTY LINE SURVEY. ALL PROPERTY LINES SHALL BE VERIFIED BY OWNER AND CONTRACTOR PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. THERE ARE NO WETLANDS WITHIN 100 FEET OF THE SEWAGE DISPOSAL SYSTEM.
3. INSTALLER SHALL NOT ALLOW ANY VEHICULAR TRAVEL TO OCCUR OVER THE PROPOSED EFFLUENT DISPOSAL SYSTEM (EDS) EXCEPT DURING CONSTRUCTION.
4. ALL PIPE CONNECTIONS TO THE SEPTIC TANK SHALL BE SEALED WITH A NON-SHRINK MORTAR OR OTHER APPROVED SEALANT.
5. THE INSTALLATION OF A GARBAGE GRINDER IS PROHIBITED.
6. THIS SYSTEM IS NOT DESIGNED FOR DISCHARGES FROM WATER PURIFICATION SYSTEMS OR FLOOR DRAINS.
7. REPLACEMENT SYSTEM TO BE LOCATED IN THE SAME LOCATION IF REPLACEMENT BECOMES NECESSARY.
8. CONTRACTOR SHALL USE CAUTION WHEN PREPARING THE SITE AND PLACING FILL MATERIALS TO AVOID COMPACTION AND/OR SMEARING OF THE INFILTRATIVE SOILS.
9. ALL INVERT ELEVATIONS AND GRADES ARE REFERENCED FROM THE T.B.M.
10. DESIGNER SHALL BE NOTIFIED OF ANY CONDITIONS CONTRARY TO THOSE DEPICTED ON THIS PLAN.
11. ADDITIONAL PERMITTING MAY BE REQUIRED FOR CROSSING EXISTING UTILITY EASEMENTS WITH SEWER LINE.
12. PROPOSED WATER SUPPLY IS MUNICIPAL SERVICE.
13. ALL PIPING SHALL BE SCH 40 PVC OR BETTER.
14. SEPTIC TANK SHALL BE PUMPED AND CLEANED A MINIMUM OF EVERY 36 MONTHS OR AT MORE FREQUENT INTERVALS IF NEEDED.
15. SEPTIC TANK AND D BOX ARE TO BE SUPPLIED BY SHEA CONCRETE PRODUCTS OR EQUAL.
16. VONNETTE TARE TO BE PLACED OVER ALL SYSTEM COMPONENTS.
17. SEPTIC TANKS AND D-BOX TO BE SET ON A LEVEL & STABLE COMPACTED BASE
18. ALL SEPTIC MATERIALS SHALL MEET TITLE 5 CRITERIA
19. CONTRACTOR AND OWNER ARE RESPONSIBLE FOR CONTACTING DISGASE FOR THE LOCATION OF UNDERGROUND UTILITIES PRIOR TO BREAKING GROUND. ANY UTILITIES SHOWN HEREIN ARE APPROXIMATE ONLY.
20. THERE ARE NO WELLS OR WATER SUPPLIES WITHIN THE SETBACK REQUIREMENTS

(NOT TO SCALE)

90 DEG. BEND

TEE (TYP.)

SCH-40 PVC TIGHT PIPE

4" SCH-40 SOLID PVC (TYP.)

4" SCH-40 PERF. PVC (TYP.)

4" PVC VENT, 3' HIGH WITH 180 DEG. BEND

45° SCH-40 ELBOW (TYP.)

4" PVC VENT, 3' HIGH

VENT MANIFOLD TO BE RAISED ABOVE THE LEACHING LINES

45° SCH-40 ELBOW

4" SCH-40 PERF. PVC LEACHING LINE (TYP.)

NO SCALE

OLD FERRY ROAD

478'±

391'±

300'±

123'±

DESIGN AREA #1 (SHEET ST-1)

MAP 1010 LOT 79-17

DESIGN AREA #2 (SHEET ST-2)

478'±

750'±

150'±

608'±

750'±

272'±

516'±

SCHEDULE OF MATERIALS:

4" SCH 40 PVC SOLID PIPE= 440 Lf +/-  
6" SCH 40 PVC SOLID PIPE (SLEEVE) = 275 Lf +/-  
4" SCH 40 PVC PERFORATED PIPE= 240 Lf +/-  
6" SCH 40 PVC ELBOW 90 DEG = 8 +/-  
4" SCH 40 PVC ELBOW 45 DEG = 7 +/-  
4" SCH 40 PVC ELBOW 22.5 DEG = 1 +/-  
4" SCH 40 PVC TEE = 1  
4" SCH 40 THREADED COLLAR W/ SCREW CAP = 5  
ALL JOINTS TO BE GLUED AND SEALED

MAGNETIC TAPE TO COVER ALL COMPONENTS  
20" DIA RISER FOR D-BOX (H=20) = 1  
20" DIA RISER FOR SEPTIC TANKS (H=20) = 40  
4. OUTLET CONCRETE 12"x12" ID MIND-BOX  
CONCRETE COLLAR CONCRETE TANK = 1  
1500 GALLON CONCRETE SEPTIC TANK = 1

APPROVED TITLE 5 SPECIFIED SEPTIC SAND  
LOAM & CRUSHED STONE  
ALL MATERIALS TO COMPLY WITH 316 CMR 15

**PIPE & STONE LEACHBED  
(NOT TO SCALE)**

PROPOSED SAS TO HAVE 4 ROWS OF PERFORATED DISTRIBUTION LINES

UNFOLD ALL ROWS  
(SEE DETAIL)

20' (4 ROWS @ 5' OC)

PERFORATED PIPING IS 5' ON CENTER

The diagram shows a cross-section of a leachbed system. At the bottom is a layer of 'DOUBLE WASHED BASE SEPTIC STONE - .75 TO 1.5 INCH'. Above this is a layer of '4" SCH. 40 PVC PERFORATED PIPING-HOLES AT 5&7'. Above the piping is a layer of '9" SAND BACKFILL'. Above the sand is a layer of '4" TOPSOIL'. The entire system is covered by 'FILTER FABRIC'. The piping is spaced at 5' on center, and the rows are spaced at 20' (4 rows @ 5' OC). The diagram also shows '2'-6"' dimensions for the topsoil and sand layers, and a '2"' dimension for the filter fabric layer.

FINISHED GRADE  
SLOPED AT 2%

4" TOPSOIL

9" SAND BACKFILL

2"

4"

VARIABLES (6" MIN)

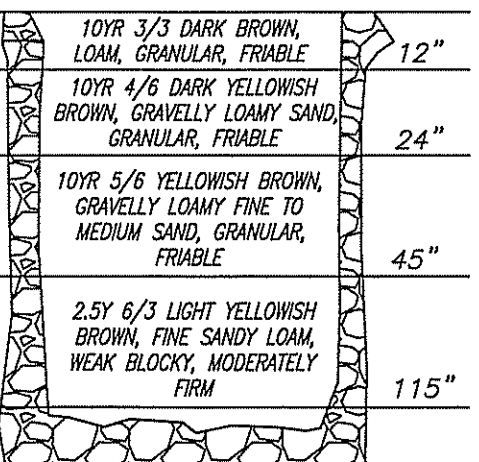
BED BOTTOM ELEVATION  
PIPING TO BE .005 FT/FT DOWNWARD SLOPE (NOT TO SCALE)

SOIL ABSORPTION SYSTEM DATA  
WAREHOUSE WITH 96 EMPLOYEES/UNIT AT 15 GPD PER EMPLOYEE = 1440 GPD  
1440 GPD AT 2 MIN/IN AT 0.74 GPD/SF FOR CLASS I SOILS = 1,066 SF  
OF SOILS ABSORPTION AREA REQUIRED  
PROPOSED IS A 20X60' LEACHFIELD PROVIDING 1,200 SQ FT TOTAL  
SOIL DATA - PAXTON FINE SANDY LOAM, 8-15% SLOPES

DUE TO SWHT AT 115" THE BOTTOM OF THE SOIL ABSORPTION SYSTEM (SAS) SHALL BE CONSTRUCTED AT ELEVATION=182.5 A 5 FOOT SEPARATION IS REQUIRED BETWEEN BED BOTTOM AND THE AVERAGE SEASONAL HIGH WATER TABLE: PROVIDED IS 5.0 FT OF SEPARATION.

RECORDED AS BOOK #15533, PAGE #306 DATED 6/29/2018  
NORTH ESSEX COUNTY REGISTRY OF DEEDS

DH-3 6/23/20 (ELEV.=187.0)

|                                                                                     |                                                                                 |      |                                                                                                                                     |                   |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------------------------------------------------------|-------------------|
|  |                                                                                 |      | SOIL EVALUATION PERFORMED BY CHRISTOPHER GUIDA, MASSACHUSETTS SOIL EVALUATOR<br>LICENSE SE #13488. WITNESSED BY CITY OF METHUEN, MA |                   |
| A                                                                                   | 10YR 3/3 DARK BROWN, LOAM, GRANULAR, FRAGILE                                    | 12"  | ROOTS                                                                                                                               | 90"               |
| B1                                                                                  | 10YR 4/6 DARK YELLOWISH BROWN, GRAVELLY LOAMY SAND, GRANULAR, FRAGILE           | 24"  | E.S.H.W.T.                                                                                                                          | 115"              |
| B2                                                                                  | 10YR 5/6 YELLOWISH BROWN, GRAVELLY LOAMY FINE TO MEDIUM SAND, GRANULAR, FRAGILE | 45"  | WATER                                                                                                                               | NONE              |
| C                                                                                   | 2.5Y 6/3 LIGHT YELLOWISH BROWN, FINE SANDY LOAM, WEAK BLOCKY, MODERATELY FIRM   | 115" | HARDPAN                                                                                                                             | NONE              |
|                                                                                     |                                                                                 |      | LEDGE                                                                                                                               | NONE              |
|                                                                                     |                                                                                 |      | PERC. TEST 2                                                                                                                        | 3 MIN./IN. AT 84" |
|                                                                                     |                                                                                 |      | DATE                                                                                                                                | 6/23/20           |

[illegible]

IMPERIAL: 1"=20'

DESIGNER'S STAMP

# PIE HILL INDUSTRIAL PARK

**METHUEN, MASSACHUSETTS**

CERTIFICATION:

I CERTIFY THAT I AM CURRENTLY APPROVED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION PURSUANT TO 310 CMR 15.017 TO CONDUCT SOIL EVALUATIONS AND THAT THE ABOVE ANALYSIS HAS BEEN PERFORMED BY ME CONSISTENT WITH THE REQUIRED TRAINING, EXPERTISE, AND EXPERIENCE DESCRIBED IN 310 CMR 15.017. I FURTHER CERTIFY THAT THE RESULTS OF MY SOIL EVALUATION, AS INDICATED ON THE ATTACHED SOIL EVALUATION FORM, ARE ACCURATE AND IN ACCORDANCE WITH 310 CMR 15.100 THROUGH 15.107.

DATE: \_\_\_\_\_

DH-1 6/23/20 (ELEV.=190.5)

|    |                                                                                     |      |
|----|-------------------------------------------------------------------------------------|------|
| A  | 10YR 3/3 DARK BROWN, LOAM, GRANULAR, FRAGILE                                        | 10"  |
| B1 | 10YR 5/6 YELLOWISH BROWN, LOAMY FINE SAND, GRANULAR, FRAGILE                        | 28"  |
| B2 | 2.5YR 6/4 LIGHT YELLOWISH BROWN, GRAVELLY LOAMY FINE SAND, MASSIVE, MODERATELY FIRM | 40"  |
| C  | 2.5Y 4/3 OLIVE BROWN, FINE SANDY LOAM, MASSIVE/BLOCKY, MODERATELY FIRM              | 115" |

SOIL EVALUATION PERFORMED BY CHRISTOPHER  
GUIDA, MASSACHUSETTS SOIL EVALUATOR  
LICENSE SE #13488. WITNESSED BY CITY OF  
METHUEN, MA

ROOTS 90"  
E.S.H.W.T. 115"  
WATER NONE  
HARDPAN NONE  
LEDGE NONE  
PERC. TEST 1 2 MIN./IN. AT 72"  
DATE 6/23/20

DH-2 6/23/20 (ELEV.=190.5)

|    |                                                                               |      |
|----|-------------------------------------------------------------------------------|------|
| A  | 10R 3/3 DARK BROWN, LOAM, GRANULAR, FRABLE                                    | 12"  |
| B1 | 10R 4/6 DARK YELLOWISH BROWN, GRAVELLY LOAMY SAND, GRANULAR, FRABLE           | 26"  |
| B2 | 10R 5/6 YELLOWISH BROWN, GRAVELLY LOAMY FINE TO MEDIUM SAND, GRANULAR, FRABLE | 48"  |
| C  | 2.5Y 6/3 LIGHT YELLOWISH BROWN, FINE SANDY LOAM, WEAK BLOCKY, MODERATELY FIRM | 115" |

SOIL EVALUATION PERFORMED BY CHRISTOPHER  
GUIDA, MASSACHUSETTS SOIL EVALUATOR  
LICENSE SE #13488. WITNESSED BY CITY OF  
METHUEN, MA

|            |             |
|------------|-------------|
| ROOTS      | <u>90"</u>  |
| E.S.H.W.T. | <u>115"</u> |
| WATER      | <u>NONE</u> |
| HARDPAN    | <u>NONE</u> |
| LEDGE      | <u>NONE</u> |

DH-4 6/23/20 (ELEV.=187.0)

|    |                                                                                         |      |
|----|-----------------------------------------------------------------------------------------|------|
| A  | 10T/ 3/3 DARK BROWN,<br>LOAM, GRANULAR, FRABLE                                          | 10"  |
| B1 | 10T/ 4/6 DARK YELLOWISH<br>BROWN, GRAVELLY LOAMY SAND,<br>GRANULAR, FRABLE              | 22"  |
| B2 | 10T/ 5/6 YELLOWISH BROWN,<br>GRAVELLY LOAMY FINE TO<br>MEDIUM SAND, GRANULAR,<br>FRABLE | 32"  |
| C  | 2.5Y 6/3 LIGHT YELLOWISH<br>BROWN, FINE SANDY LOAM,<br>WEAK BLOCKY, MODERATELY<br>FRM   | 115" |

SOIL EVALUATION PERFORMED BY CHRISTOPHER  
GUIDA, MASSACHUSETTS SOIL EVALUATOR  
LICENSE SE #13488. WITNESSED BY CITY OF  
METHUEN, MA

|            |             |
|------------|-------------|
| ROOTS      | <u>86"</u>  |
| E.S.H.W.T. | <u>115"</u> |
| WATER      | <u>NONE</u> |
| HARDPAN    | <u>NONE</u> |
| LEDGE      | <u>NONE</u> |

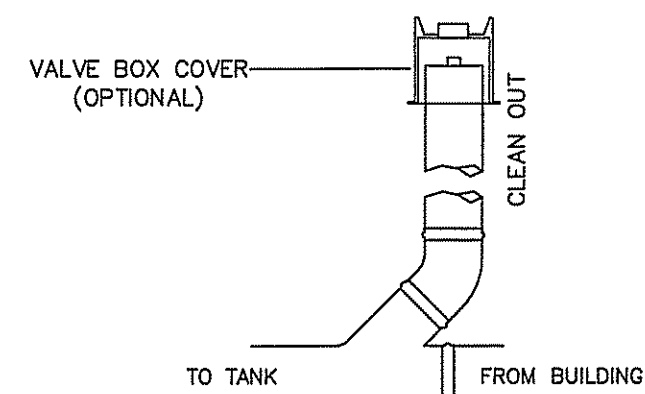
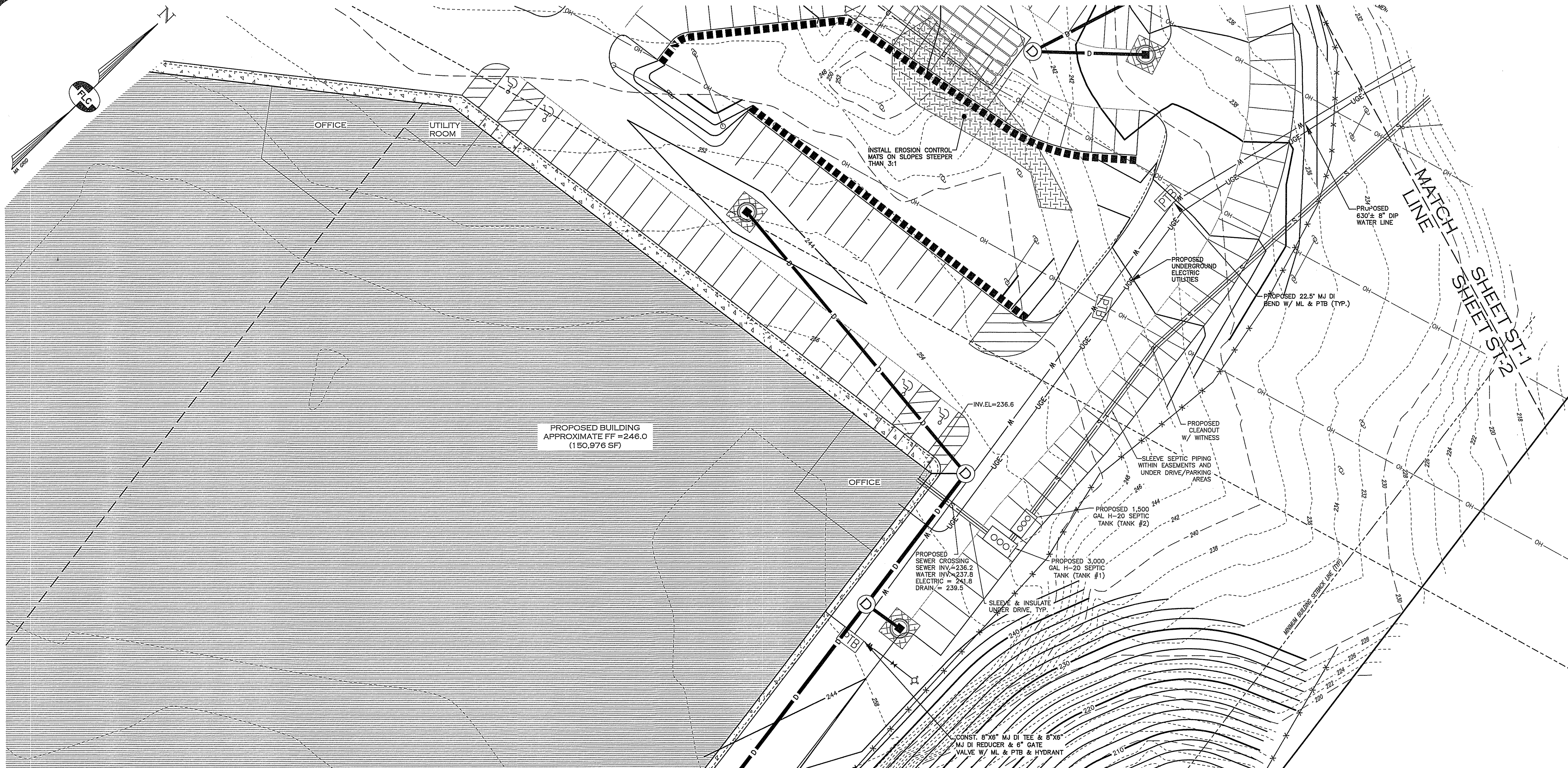
SCALE: 1" = 20'

FEBRUARY 22, 2022

**Surveying ♦ Engineering ♦ Land Planning ♦ Permitting ♦ Septic Designs**



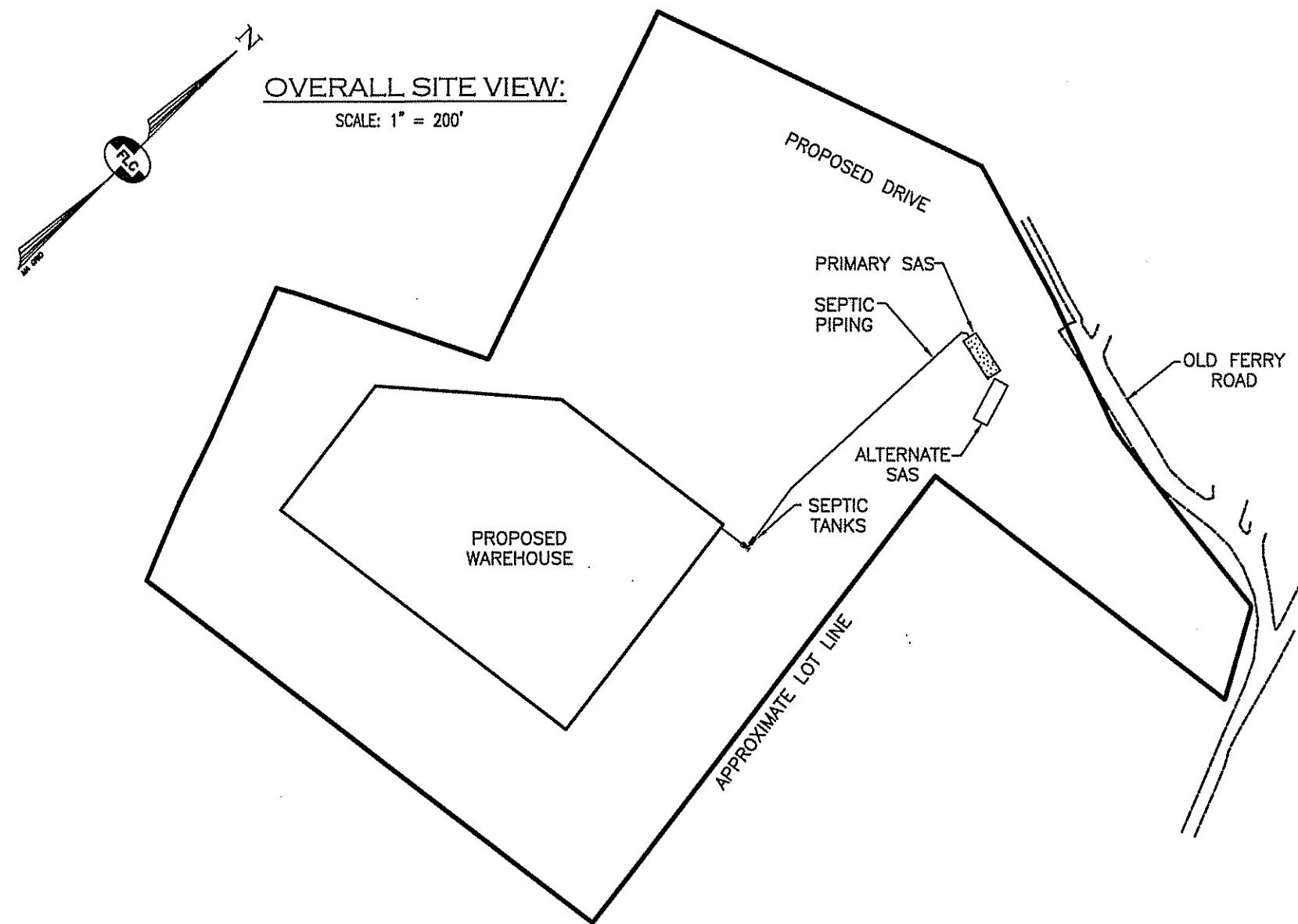
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|---------------------|-------------------|-------------|--------------------|
| FILE: 2295ST01C.dwg | PROJ. NO. 2295.01 | SHEET: ST-1 | SHEET NO. 27 OF 29 |
|---------------------|-------------------|-------------|--------------------|



SEWER SERVICE CLEAN OUT DETAIL

SCALE: N.T.S.

1  
ST-2



OVERALL SITE VIEW:  
SCALE: 1" = 200'

LEGEND:

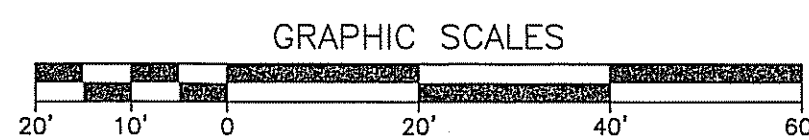
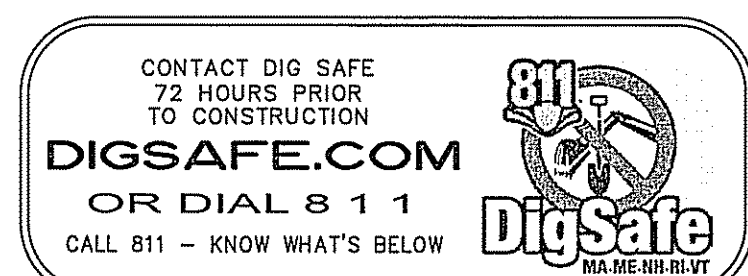
EXISTING FEATURES

- RIGHT-OF-WAY LINE
- BOUNDARY LINE
- ABUTTING LOT LINE
- EXISTING EASEMENT LINE
- EDGE OF PAVED ROAD
- EDGE OF GRAVEL ROAD
- EDGE OF TREE LINE
- EDGE OF WETLANDS
- WETLANDS BUFFER LINE
- 10' CONTOUR INTERVAL
- 2' CONTOUR INTERVAL
- CHAIN-LINK FENCE
- STOCKADE FENCE
- CULVERT
- OH OVERHEAD UTILITY LINE
- UGE UNDERGROUND ELECTRIC DISSAFE

- UC UNDERGROUND GAS LINE
- W WATER LINE
- 1010-79-17 TAX MAP & LOT NUMBER
- G.B.(F) GRANITE BOUND FOUND
- D.H.(F) DRILL HOLE FOUND
- I.PIN(F) IRON PIN FOUND
- UTILITY POLE, GUY & LIGHT
- CATCH BASIN (SQUARE)
- WATER HYDRANT
- WATER VALVE
- WATER SHUT-OFF
- WELL
- SIGN WITH TWO POSTS
- RIP RAP
- ROCK
- BOLLARD 8" DIA 3' HEIGHT
- TEST PIT NUMBER
- LEDGE
- SEASONAL HIGH WATER

PROPOSED FEATURES

- EDGE OF PAVEMENT
- CAPE COD BERM
- SHOULDER
- UGE UNDERGROUND UTILITY LINES AND UTILITY BOXES LOCATION
- WATER GATE VALVE
- WATER SERVICE SHUT-OFF
- ALTERNATE EDA
- PRIMARY EDA
- PAVED/GRAVEL AREA
- BUILDING
- 10 FT. CONTOUR
- 2 FT. CONTOUR
- SPOT ELEVATION
- STONE CHECK DAM
- SILT FENCE
- REINFORCED SWALE (RIPRAP OR FABRIC)
- STORM WATER DRAINAGE
- DRAIN INLET PROTECTION
- DRAIN MANHOLE



Surveying + Engineering + Land Planning + Permitting + Septic Designs

**FIELDSTONE**  
LAND CONSULTANTS, PLLC

206 Elm Street, Milford, NH 03055  
Phone: (603)-413-5456 Fax: (603)-413-5456  
www.FieldstoneLandConsultants.com

| REV. | DATE    | DESCRIPTION                                             | DR  | CK  |
|------|---------|---------------------------------------------------------|-----|-----|
| B    | 6/29/22 | UPDATED PLAN TO ADDRESS METHUEN B.O.H. 5/10/22 COMMENTS | KWR | CEB |
| A    | 4/6/22  | REV. UTILITIES/GRADING/DRAINAGE                         | KWR | CEB |

PROPOSED SEWAGE DISPOSAL SYSTEM PLAN

TRIPLE G. LLC

TAX MAP 1010 LOT 79-17  
METHUEN, MASSACHUSETTS

**ST-2**  
SHEET

PROJECT NO. 2295.01  
SHEET NO. 28 OF 29

PLANS ISSUED FOR:  
**PERMITTING**

FILE:2295.ST01C.dwg FEBRUARY 22, 2022 SCALE: 1" = 20' HORIZ.

# LEGEND:

## EXISTING FEATURES

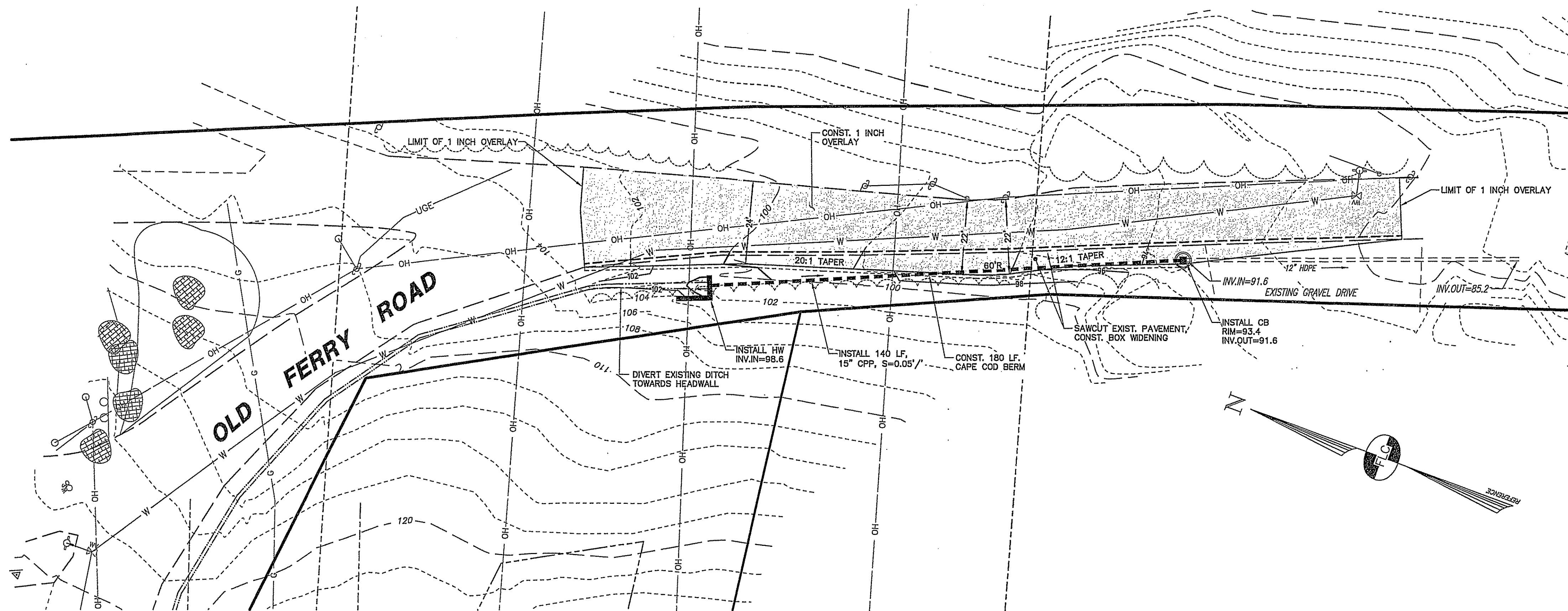
- RIGHT-OF-WAY LINE
- BOUNDARY LINE
- ABUTTING LOT LINE
- BUILDING SETBACK LINE
- EXISTING EASEMENT LINE
- EDGE OF PAVED ROAD
- EDGE OF GRAVEL ROAD
- STONE WALL
- EDGE OF TREE LINE
- EDGE OF WETLANDS
- WETLANDS BUFFER LINE
- 10' CONTOUR INTERVAL
- 2' CONTOUR INTERVAL
- CHAIN-LINK FENCE
- STOCKADE FENCE
- CULVERT
- OVERHEAD UTILITY LINE
- UNDERGROUND ELECTRIC DISSAFE
- UNDERGROUND GAS LINE
- WATER LINE

## 1010-79-17

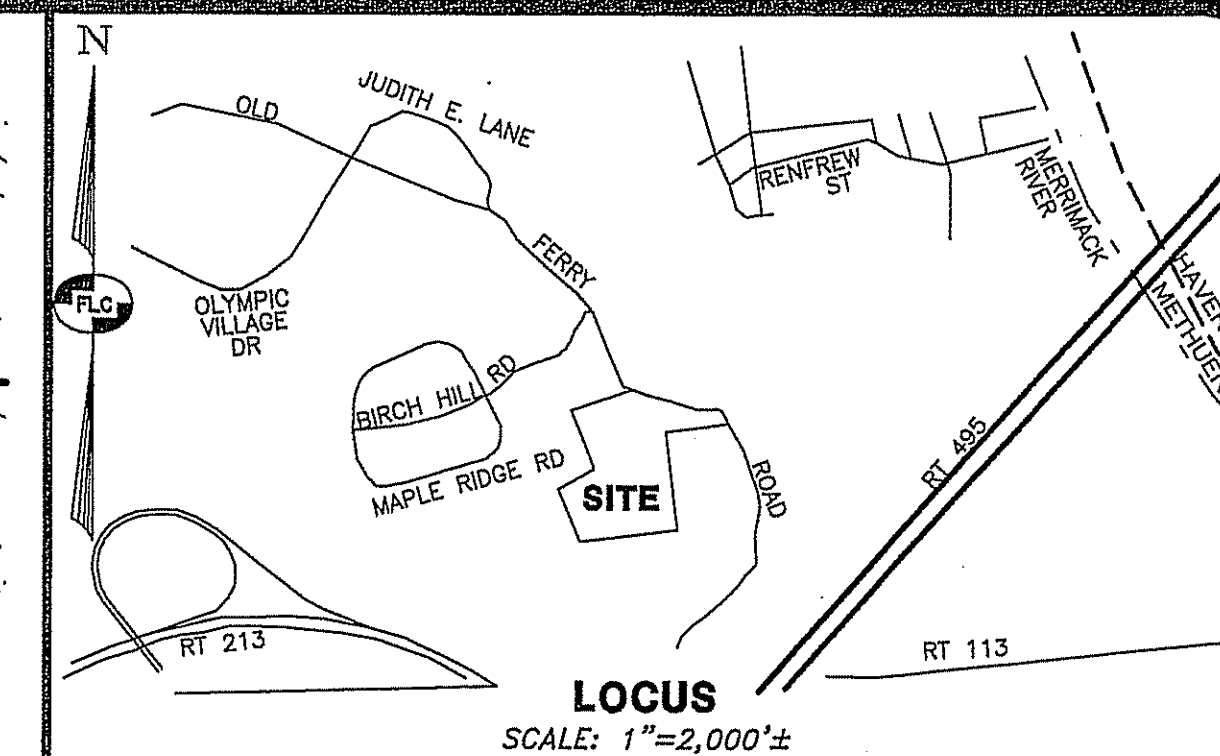
- TAX MAP & LOT NUMBER
- GRANITE BOUND FOUND
- DRILL HOLE FOUND
- IRON PIN FOUND
- UTILITY POLE, GUY & LIGHT
- CATCH BASIN (SQUARE)
- WATER HYDRANT
- WATER VALVE
- WATER SHUT-OFF
- WELL
- SIGN WITH TWO POSTS
- RIP RAP
- ROCK
- BOLLARD 6" DIA 3' HEIGHT

## PROPOSED FEATURES

- EDGE OF PAVEMENT
- 2 FT. CONTOUR
- 10 FT. CONTOUR
- WATER SERVICE
- SILT SHOCK
- CATCH BASIN
- PAVED/GRAVEL AREA
- SPOT GRADE
- LIMITS OF CLEARING

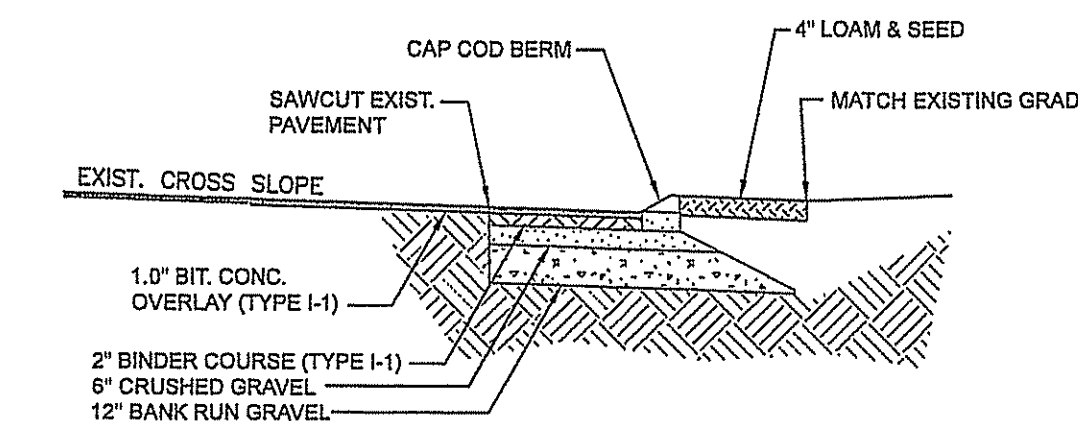


## OFF SITE IMPROVEMENT PLAN



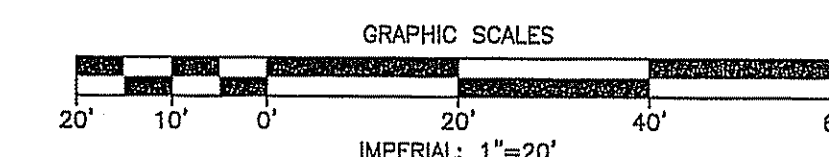
## NOTE:

1. ALL OFF-SITE IMPROVEMENTS TO BE CONSTRUCTED BY OTHERS.



SCALE: N.T.S.

## BOX WIDENING DETAIL



| REV. | DATE | DESCRIPTION | C/O | DR | CK |
|------|------|-------------|-----|----|----|
|      |      |             |     |    |    |

## OFF SITE IMPROVEMENT EXHIBIT PLAN

## PIE HILL WAREHOUSING

TAX MAP 1010 LOT 79-17

(46 OLD FERRY ROAD)

METHUEN, MASSACHUSETTS

PREPARED FOR AND LAND OF,

**TRIPLE G PROPERTY LLC**

59 BONANNO COURT, METHUEN, MA 01844

SCALE: 1" = 20'

APRIL 4, 2022

Surveying ♦ Engineering ♦ Land Planning ♦ Permitting ♦ Septic Designs

**FIELDSTONE**  
LAND CONSULTANTS, PLLC

206 Elm Street, Milford, NH 03055  
Phone: (603) 672-5456 Fax: (603) 413-5456  
www.FieldstoneLandConsultants.com