



LEGEND	
EXISTING	PROPOSED
100	100
D	STORM DRAIN
W	WATER
⊙	ELECTRIC MANHOLE
E	ELECTRICAL
G	GAS
S	SANITARY SEWER
3/4"	HYDRANT
⊙	SEWER MANHOLE
⊙	DRAIN MANHOLE
+	VALVE
D	CATCH BASIN
	CURB
429.5	SPOT GRADE
	HP RAMP
	HAY BALES W/ SILTATION FENCE
*	LIGHT POLE
⊙	TREE
	UTILITY POLE
	POST INDICATOR VALVE
	TRAFFIC DIRECTION

- GENERAL NOTES:**
- EXISTING CONDITIONS WERE OBTAINED FROM FIELD SURVEY PREPARED BY BOYER ASSOCIATES WEST WARWICK, RHODE ISLAND DATED JANUARY 21, 2021, ENTITLED EXISTING CONDITIONS PLAN, FOR PHENIX INVESTORS, LLC., UPDATED NOVEMBER 13, 2022 BY BOYER AND ADDITIONAL DATA FIELD LOCATED BY LEVEL DESIGN GROUP, LLC.
  - THE LOCATION OF EXISTING UTILITIES IS APPROXIMATE, THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UTILITIES IN THE FIELD PRIOR TO THE START OF CONSTRUCTION. NOTIFY "DIG-SAFE" AT 1-888-344-7233 AT LEAST 72 HOURS PRIOR TO ANY SITE DEMOLITION OR EXCAVATION.
  - CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES IN THE DESIGN PLANS PRIOR TO THE START OF CONSTRUCTION.
  - ALL EXISTING PAVEMENT SHALL BE SAWCUT PRIOR TO REMOVAL.
  - ALL EXISTING PAVEMENT, CURB, WALKS, UTILITIES, LIGHT POLES, TREES, SHRUBS, ETC., SHALL BE REMOVED FROM THE AREAS TO BE DEVELOPED. ALL SUCH ITEMS NOT WITHIN THE WORK AREA SHALL BE PROTECTED AND UNDISTURBED.
  - ALL DISTURBED AREAS NOT RECEIVING IMPROVEMENTS SHALL BE LOAMED AND SEEDED.
  - ALL CONSTRUCTION AND CONSTRUCTION ACTIVITIES SHALL CONFORM TO STATE AND LOCAL REQUIREMENTS. INCLUDING BUT NOT LIMITED TO THE TOWN OF LINCOLN, THE STATE OF RHODE ISLAND AND ANY OTHER AGENCIES HAVING JURISDICTION.
  - ALL WORK PROPOSED WITHIN THE STATE RIGHT-OF-WAY SHALL CONFORM TO ALL STATE STANDARDS AND SPECIFICATIONS, INCLUDING ALL ADDENDUMS, AS ARE CURRENT AT THE TIME OF CONSTRUCTION.

**PROPERTY LINE AND EXISTING CONDITIONS SURVEY NOTES:**

- REFERENCE PLANS:
  - RHODE ISLAND HIGHWAY PLAT NO. 588
  - PERIMETER RETRACEMENT SURVEY, WEST WARWICK, RI, TALLMAN & TALLMAN, SCALE 1"=20', DATE SEPT. 2000 BY BOYER ASSOCIATES.
  - CORRECTIVE ADMINISTRATIVE SUBDIVISION PHENIX MILL COMPLEX, MAIN STREET & FAIRVIEW AVENUE, PREPARED FOR PHENIX COMMONS, LLC, SCALE 1" = 60' DATE MARCH 19, 2008, REVISED 5/20/08 BY BOYER ASSOCIATES.
- DAM NO.: 156, FLOOD PLAIN 85.00
- THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE CONTRACTOR SHALL NOTIFY "DIG-SAFE" PRIOR TO EXCAVATION AND SHALL NOTIFY LOCAL UTILITY COMPANIES BEFORE COMMENCEMENT OF WORK TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES AND RELOCATE UTILITIES SHOWN ON THE PLANS.
- PER BOYER PLAN NOTE 2. BASE OF LEVELS IS NGVD88 +0.38', 0.38' MUST BE SUBTRACTED FROM ELEVATIONS TO DETERMINE NGVD88 ELEVATION.
- ADDITIONAL FIELD SURVEY COMPLETED BY LEVEL DESIGN GROUP, LLC, JANUARY 16, 2024 FOR THE ADJUTING PROPERTY AND AREA ADJACENT TO THE DAM TO ESTABLISH A FLOOD PLAIN ELEVATION

**GRADING AND UTILITY NOTES:**

- ALL WORK PERFORMED HEREIN SHALL BE COMPLIANT WITH THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION. THE WORK PERFORMED ON THE INTERNAL PROJECT SITE SHALL BE IN ACCORDANCE WITH THE RIDOT STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION AND WITH LINCOLN ENGINEERING AND DPW STANDARDS, WHICH WILL TAKE PRECEDENCE OVER RIDOT STANDARD SPECIFICATIONS WITHIN THE PROJECT SITE ONLY.
- ALL PROPOSED UTILITIES (SEWER, WATER, DRAINAGE, ELECTRIC, GAS, COMMUNICATIONS) SERVING THE SITE AND PROPOSED BUILDING SHALL BE COORDINATE WITH THE APPLICANT, ARCHITECT, LINCOLN, AND ENGINEER PRIOR TO INSTALLATION.
- ALL COMPONENTS OF THE SEWER, WATER, AND DRAINAGE SYSTEMS MUST BE AS-BUILT PRIOR TO BACKFILLING. LINCOLN ENGINEERING AND DESIGN ENGINEER WILL NOT ACCEPT CONTRACTOR FIELD MEASUREMENT FOR AS-BUILT DOCUMENTATION.
- UTILITY LOCATIONS, RIMS, AND INVERTS FOR ALL UTILITIES HAVE BEEN FIELD SURVEYED. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL FIELD VERIFY ALL UTILITY LOCATIONS, RIMS, AND INVERTS AND NOTIFY THE DESIGN ENGINEER OF ANY DISCREPANCIES.
- THE CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES FOR AGREEMENTS TO SERVICE THE PROPOSED BUILDING. THIS SHALL BE DONE PRIOR TO CONSTRUCTION. NO REPRESENTATIONS ARE MADE BY LEVEL DESIGN GROUP, LLC THAT UTILITY SERVICES WILL BE ALLOWED TO CONNECT AS SHOWN.
- ALL EXISTING ABANDONED ON-SITE UTILITIES WITHIN THE AREA OF CONSTRUCTION SHALL BE REMOVED AND LEGALLY DISPOSED OF.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL ON-SITE SOIL EROSION AND SEDIMENT CONTROLS. THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER AND CUMBERLAND OFFICIALS AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION.
- NO STOCKPILING OF MATERIAL SHALL BE LOCATED WITHIN 50' OF A RESOURCE AREA RECOGNIZED BY THE STATE OF RHODE ISLAND DEM, OR WITHIN THE RIGHT OF WAY. NO TRENCHES ARE TO BE LEFT OPEN OVER NIGHT.
- SOME OF THE SOILS AND SUBSURFACE CONDITIONS WITHIN THE SITE MAY VARY FROM ON-SITE SOIL TESTING. IF GROUNDWATER ELEVATIONS AND SOIL CONDITIONS ENCOUNTERED ARE DIFFERENT THAN ANTICIPATED BY THE DESIGN, THE DESIGN ENGINEER SHALL BE NOTIFIED. CHANGES IN THE GROUNDWATER ELEVATIONS AND SOIL CONDITIONS, ESPECIALLY IN THE AREAS OF INFILTRATION AND DETENTION BASINS MAY REQUIRE REDESIGN OF THE STORMWATER MANAGEMENT SYSTEM.
- THE CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING FINAL FINISH GRADING AND DRAINAGE AROUND THE BUILDINGS TO ENSURE SURFACE WATER AND/OR GROUND WATER ARE DIRECTED AWAY FROM THE STRUCTURE OR TOWARDS A PROPOSED YARD DRAIN.
- ALL TRAFFIC CONTROLS SHALL CONFORM WITH THE MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES 2009, AND ANY REVISIONS THERE AFTER.
- ALL CUT AND FILL AREAS ARE TO BE DONE UNDER THE DIRECTION OF A GEOTECHNICAL ENGINEER WITH TESTING AND CERTIFICATION TO BE PROVIDED TO THE OWNER AT THE COMPLETION OF THE PROJECT. LEVEL DESIGN GROUP, LLC IS NOT PROVIDING FILL SPECIFICATIONS, GEOTECHNICAL ENGINEERING OR STRUCTURAL ENGINEER AS PART OF THESE PERMITTING PLANS.
- ELECTRIC, COMMUNICATIONS AND GAS SERVICE SHALL BE ESTABLISHED IN ACCORDANCE WITH THE REQUIREMENTS OF THE SERVICE PROVIDER. SERVICE SHALL BE UNDERGROUND.
- ALL PROPOSED ROOF AREAS SHALL BE CONNECTED VIA DOWNSPOUTS AND ROOF LEADERS TO THE PVIOUS PAVEMENT AREAS.**
- KENT COUNTY WATER SYSTEM REQUIRES 16 INDIVIDUAL UNITS CONNECTIONS AFTER THE METER AND BACKFLOW ASSEMBLY AS DETAILED ON THE DETAIL SHEETS. THE UNIT CONNECTION PLAN SHALL BE PROVIDED TO KENT COUNTY WATER PRIOR TO UNIT SERVICE BEING INSTALLED.

**MAINTENANCE: SHORT TERM / LONG TERM**  
-STORMWATER UNITS

- THE STONE STABILIZATION PADS AT THE SITE ENTRANCE SHALL BE MAINTAINED BY THE CONTRACTOR. THE MAINTENANCE SHALL INCLUDE TOP DRESSING WITH ADDITIONAL STONE OR ADDITIONAL LENGTH AS CONDITIONS DEMAND OR AS DIRECTED BY THE DESIGN ENGINEER. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ON TO THE RIGHT-OF-WAY MUST BE REMOVED IMMEDIATELY BY THE CONTRACTOR.
- ALL HAYBALES/SILT FENCE, TEMPORARY TREATMENTS (HAY, STRAW, ETC.) AND TEMPORARY PROTECTION SHALL BE MAINTAINED BY THE CONTRACTOR THROUGHOUT CONSTRUCTION. HAYBALES/SILT FENCE SHALL BE INSPECTED BY THE CONTRACTOR WITHIN 24 HOURS AFTER EACH STORM EVENT OR EVERY 7 DAYS, WHICHEVER COMES FIRST, FOR UNDERMINING AND DETERIORATION. A STORM EVENT SHALL BE DEFINED AS 0.25 INCHES OF RAIN WITHIN A 24-HOUR PERIOD. THE HAYBALES/SILT FENCE SHALL BE REPAIRED OR REPLACED AS WARRANTED. THE CONTRACTOR SHALL CLEAN THE ACCUMULATED SEDIMENT IF HALF OF THE ORIGINAL HEIGHT OF THE HAYBALES/SILT FENCE BECOMES FILLED IN WITH SEDIMENT. THE HAYBALES/SILT FENCE SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER IS ESTABLISHED. FOLLOWING CONFIRMATION FROM THE PROJECT ENGINEER THAT AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER HAS BEEN ESTABLISHED THE HAYBALES/SILT FENCE SHALL BE REMOVED AND LEGALLY DISPOSED OF.
- THE CONTRACTOR SHALL MAINTAIN ALL TOPSOIL STOCKPILES AND SEDIMENT BARRIERS THROUGHOUT CONSTRUCTION. HAY BALES OR SILT FENCE SHALL BE STAKED AROUND ALL MATERIAL STOCK PILES. EXTREME CARE SHALL BE TAKEN TO ENSURE THAT SEDIMENT DOES NOT SPILL OVER THE SEDIMENT BARRIER.
- ALL DISTURBED SLOPES, EITHER NEWLY CREATED OR CURRENTLY EXPOSED SHALL BE SEEDED, PROTECTED, AND MAINTAINED BY THE CONTRACTOR FOLLOWING FINAL GRADING AND CONSTRUCTION. THE CONTRACTOR SHALL CHECK ALL SEEDED AREAS REGULARLY TO SEE THAT A GOOD STAND OF VEGETATION IS MAINTAINED. THE CONTRACTOR MUST REPAIR OR RESEED ANY AREAS THAT DO NOT DEVELOP WITHIN THE PERIOD OF ONE YEAR AND SHALL DO SO AT NOT ADDITIONAL EXPENSE TO THE OWNER.
- THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE AND INSPECTION OF THE BASINS DURING AND UP TO ONE YEAR AFTER THE COMPLETION OF CONSTRUCTION AND ACCEPTANCE BY THE OWNER. THE OWNER IS RESPONSIBLE FOR INSPECTIONS AND MAINTENANCE THEREAFTER. THE CONTRACTOR'S MAINTENANCE/INSPECTION RESPONSIBILITIES SHALL INCLUDE RESEEDING ANY UNSTABILIZED AREAS WITHIN THE DRAINAGE BMPs AT NO ADDITIONAL EXPENSE TO THE OWNER, REMOVING ACCUMULATED SILT WHEN SEDIMENT IS PRESENT AND MAINTAINING THE GRASS TO A GROWING HEIGHT BETWEEN 2"-10". THE CONTRACTOR SHALL INSPECT RIP-RAP PADS AFTER EACH STORM AND REPAIR AS NECESSARY. THE OWNER'S MAINTENANCE RESPONSIBILITIES SHALL INCLUDE INSPECTION OF THE BASINS AND RIP-RAP PADS SEMI-ANNUALLY AND AFTER MAJOR STORMS. IF REPAIRS ARE NEEDED, THEY SHALL BE CARRIED OUT IMMEDIATELY. THE OWNER SHALL MAINTAIN A GOOD VEGETATIVE COVER (GRASS BETWEEN 2"-10" OR VEGETATION AS SPECIFIED). THE BOTTOM OF THE BMPs SHALL BE INSPECTED MONTHLY AND ACCUMULATED SEDIMENTS SHALL BE REMOVED AS NEEDED OR EVERY 10 YEARS, WHICHEVER COMES FIRST.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSPECTION, MAINTENANCE AND REPAIR TO ALL DRAINAGE STRUCTURES AND RELATED APPURTENANCE ON SITE DURING CONSTRUCTION AND IMMEDIATELY FOLLOWING CONSTRUCTION FOR A MAXIMUM OF ONE YEAR, OR UNTIL ACCEPTANCE BY THE ENGINEER AND THE OWNER. THE OWNER IS RESPONSIBLE FOR INSPECTION AND MAINTENANCE THEREAFTER.
- THE CONTRACTOR SHALL MAINTAIN THE DRAINAGE NETWORK DURING CONSTRUCTION. THE ACCUMULATED SEDIMENTS IN THE CATCH BASINS SHALL BE REMOVED AND DRAINAGE PIPES FLUSHED BY THE CONTRACTOR THROUGHOUT CONSTRUCTION. DURING CONSTRUCTION, THE CATCH BASIN SUMP SHALL BE CHECKED WEEKLY AND ACCUMULATED SEDIMENT REMOVED WHEN A DEPTH OF 6" IS EXCEEDED.
- DURING THE FIRST SIX MONTHS OF OPERATIONS, INSPECTIONS SHALL BE ACCOMPLISHED IN EACH DRAINAGE BMP AFTER EVERY RAINFALL EVENT, TO CHECK FOR CLOGGING, OR CONVERSELY, AN EXCESSIVE STORMWATER RELEASE. FOLLOWING THE SIX MONTHS, INSPECTIONS SHALL BE CONDUCTED ON AN ANNUAL BASIS.
- IF STANDING WATER IS OBSERVED WITHIN THE DRAINAGE BMPs FOR MORE THAN 72 HOURS AFTER A RAINFALL EVENT, THEN FAILURE OF THE SYSTEM MAY HAVE OCCURRED AND SHALL BE ADDRESSED THROUGH REPAIR AND/OR REPLACEMENT.
- THE CONSTRUCTION SUPERINTENDENT SHALL HAVE OVERALL RESPONSIBILITY FOR THE MAINTENANCE PROGRAM DURING THE CONSTRUCTION PHASE AND FOR A PERIOD OF ONE YEAR AFTER CONSTRUCTION. THE SUPERINTENDENT SHALL SEE THAT THE APPROPRIATE WORKERS ARE AWARE OF THE PROVISIONS OF THE PLAN.
- AFTER ACCEPTANCE OF THE SITE BY THE OWNER, THE OWNER SHALL HAVE OVERALL RESPONSIBILITY FOR IMPLEMENTING THE MAINTENANCE PROGRAM FOR THE STORMWATER MANAGEMENT PLAN.
- THE RESPONSIBLE PARTY FOR THE STORMWATER MANAGEMENT PROGRAM IS ATLANTIC NE PROPERTY MANAGEMENT, LLC. THE FUNDING FOR THE STORMWATER MANAGEMENT PROGRAM IS WILL BE PROVIDED BY ATLANTIC NE PROPERTY MANAGEMENT, LLC UNTIL CONSTRUCTION IS COMPLETED AND THE MAINTENANCE OF THE SITE IS TURNED OVER TO AN ESTABLISHED CONDOMINIUM ASSOCIATION.
- A LEGALLY BINDING AND ENFORCEABLE MAINTENANCE AGREEMENT SHALL BE EXECUTED BETWEEN THE OWNER AND THE RESPONSIBLE AUTHORITY TO ENSURE THE FOLLOWING MAINTENANCE SCHEDULES AREA FOLLOWED.

- CATCH BASINS**
- CATCH BASINS SHALL BE INSPECTED AND CLEANED FOUR TIMES PER YEAR OR WHEN THE SUMPS ARE 50% FULL.
- SPRING MAINTENANCE**
- CATCH BASINS REQUIRE THE REMOVAL OF SEDIMENT EACH SPRING. THIS PROCEDURE IS COMPRISED OF REMOVING THE CATCH BASIN GRATE FOLLOWED BY REMOVAL OF SEDIMENT TRAPPED IN THE STRUCTURE WITH A CLAMSHELL SHOVEL. THE OUTLET PIPE FROM THE CATCH BASIN SHALL BE INSPECTED AND ANY OBSTRUCTIONS ARE TO BE REMOVED. THE SEDIMENT AND DEBRIS REMOVED FROM THE CATCH BASIN SHALL BE LEGALLY DISPOSED OF.
- FALL MAINTENANCE**
- CATCH BASIN GRATES SHALL BE CLEARED OF LEAVES AND DEBRIS SO THEY MAY FUNCTION PROPERLY.

**RI DOT NOTES:**

- ALL WORK TO BE DONE WITHIN THE STATE HIGHWAY RIGHT-OF-WAY (ROW) SHALL CONFORM TO THE RHODE ISLAND STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AUGUST 2023 EDITION WITH ALL REVISIONS AND ADDENDA. STANDARD DETAILS FOR THIS WORK ARE R.I. STANDARD DETAILS 1998 EDITION.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
DIVISION OF WATER RESOURCES (DWR)  
SEWER LINE/WATER MAIN SEPARATION POLICY  
FOR DESIGN OF SANITARY SEWERS

**A. LATERAL PLACEMENT OF SEWERS AND WATER MAINS**

SEWERS SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED WATER MAIN. THE DISTANCE SHALL BE MEASURED EDGE-TO-EDGE. THERE IS NO MINIMUM VERTICAL SEPARATION REQUIRED PROVIDED THE 10 FOOT HORIZONTAL SEPARATION IS MAINTAINED.

IN CASES WHERE IT IS NOT POSSIBLE TO MAINTAIN A 10 FOOT HORIZONTAL SEPARATION, THE DIVISION MAY ALLOW DEVIATION ON A CASE-BY-CASE BASIS, IF SUPPORTED BY DATA FROM THE DESIGN ENGINEER. SUCH DEVIATION MAY ALLOW INSTALLATION OF THE SEWER CLOSER TO A WATER MAIN, PROVIDED THAT:

- THE SEWER AND WATER MAIN ARE LAID IN SEPARATE TRENCHES, OR
- THE SEWER AND WATER MAIN MAY BE INSTALLED IN THE SAME TRENCH WITH THE WATER MAIN PLACED ON A BENCH OF UNDISTURBED EARTH, AND
- IN OTHER CASE, THE CROWN OF THE SEWER SHALL BE AT LEAST 18 INCHES BELOW THE INVERT OF THE WATER MAIN.

IN SITUATIONS WHERE IT IS IMPOSSIBLE TO OBTAIN PROPER HORIZONTAL AND VERTICAL SEPARATION AS STIPULATED ABOVE, THE FOLLOWING PROTECTION SHALL BE PROVIDED:

- ENCASEMENT OF THE SEWER PIPE IN CONCRETE (MIN. 6 INCH THICKNESS) OR A CARRIER PIPE FOR AT LEAST 10 FEET EITHER SIDE OF THE AREA NOT COMPLYING WITH THE MINIMUM HORIZONTAL AND VERTICAL SEPARATION, OR
- DESIGN AND CONSTRUCTION OF THE SEWER EQUAL TO WATER MAIN PIPE (CEMENT-LINED DUCTILE IRON OR OTHER AWWA-APPROVED MATERIAL FOR POTABLE WATER CONVEYANCE), AND PRESSURE TESTED IN ACCORDANCE WITH AWWA SPECIFICATIONS.

**B. SEWERS CROSSING WATER MAINS**

SEWERS CROSSING OVER WATER MAINS SHOULD BE AVOIDED, BUT IF CONDITIONS WARRANT THIS SITUATION, THEN ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SEWER TO MAINTAIN LINE AND GRADE. SEWERS CROSSING UNDER WATER MAINS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL SEPARATION OF 18 INCHES BETWEEN THE INVERT OF THE WATER MAIN AND THE CROWN OF THE SEWER. RELOCATION OF AN EXISTING WATER MAIN MAY BE NECESSARY TO ACHIEVE THIS VERTICAL SEPARATION. RELOCATED WATER MAIN SHALL BE CONSTRUCTED OF AN AWWA-APPROVED MATERIAL FOR POTABLE WATER CONVEYANCE AND DESIGNED FOR THE REQUIRED WATER SERVICE PRESSURE FOR A DISTANCE OF 10 FEET ON EACH SIDE AND AS FAR AS POSSIBLE FROM THE WATER MAIN JOINTS.

WHERE CONDITIONS PREVENT AN 18 INCH VERTICAL SEPARATION FROM BEING MAINTAINED, THE FOLLOWING METHODS SHALL BE SPECIFIED:

- THE SEWER SHALL BE DESIGNED AND CONSTRUCTED EQUAL TO WATER MAIN PIPE (CEMENT-LINED DUCTILE IRON PIPE, PVC OR OTHER AWWA-APPROVED MATERIAL FOR POTABLE WATER CONVEYANCE) FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE CROSSING, MEASURED PERPENDICULAR TO THE WATER MAIN AND PRESSURE TESTED IN ACCORDANCE WITH AWWA SPECIFICATIONS, OR
- EITHER THE WATER MAIN OR THE SEWER MAY BE ENCASED IN CONCRETE (MIN. 6 INCH THICKNESS) OR A CARRIER PIPE FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE CROSSING, MEASURED PERPENDICULAR TO THE WATER MAIN. THE CARRIER PIPE SHALL BE DESIGNED AND CONSTRUCTED OF MATERIALS WHICH ARE SATISFACTORY TO THE DIVISION, OR
- ANY OTHER METHODS, IF SUPPORTED BY DATA FROM THE DESIGN ENGINEER, WHICH ENSURE ADEQUATE WATERTIGHTNESS AND ARE SATISFACTORY TO THE DIVISION.

**OWNER:**  
PHENIX INVESTORS  
777 MAIN STREET U4  
WEST WARWICK, RI 02893

**ASSESSORS MAP/PARCEL:**  
PARCEL ID 0002-0661

**APPLICANT:**  
HUS COMPANIES  
2 CHARLES STREET  
PROVIDENCE, RI 02904

**ZONING:**  
MILL USE OVERLAY DISTRICT

**PROJECT INFORMATION:**  
CONSTRUCTION OF A 5 UNIT MULTI-FAMILY COMPLEX

**PROPERTY ADDRESS:**  
777 MAIN STREET  
WEST WARWICK, RI

**NARRATIVE:**  
THE SITE WAS THE SITE OF A PORTION OF THE MILL COMPLEX WITHIN WEST WARWICK. THE PROPOSED DEVELOPMENT WILL REDEVELOP A PORTION OF THE COMPLEX AND LEAVE A PORTION OPEN AT THE REAR ALONG THE RIVER. THE REDEVELOPMENT WILL BE IN CONJUNCTION WITH DEM DUE TO PAST CONTAMINATION AND THE MILL ACTIVITIES, AS WELL AS THE HISTORIC SLUICE WAY AND BURIED STRUCTURES PREVIOUSLY CLOSED THROUGH DEM PERMIT.

THE DEVELOPMENT IS INTENDED TO BE SERVICED BY INDIVIDUAL WATER AND SEWER CONNECTIONS THROUGHOUT THE BUILDING AND THE INDIVIDUAL UNITS.

THE DEVELOPMENT WILL COMPLY WITH LOCAL AND STATE REGULATIONS FOR SPRINKLERS AS NECESSARY.

NO	DATE	REVISIONS
1	06/30/2021	MASTER PLAN SUBMISSION
2	11/15/2023	PERMITTING COMMENTS
3	01/23/2024	PERMITTING COMMENTS
4	03/05/2024	PERMITTING COMMENTS

SEAL

DANIEL R CAMPBELL  
No. 35784  
39°  
REGULATED PROFESSIONAL ENGINEER  
CIVIL  
DATE: MARCH 30, 2021  
DRAWN: DRC  
SCALE: 1" = 20'

**CASCADE FALLS**  
MULTI-FAMILY RESIDENTIAL-PRELIMINARY PLAN  
PARCEL ID 002-0661  
777 MAIN STREET  
WEST WARWICK, RHODE ISLAND

LEVEL  
DESIGN GROUP  
Civil Engineers & Land Surveyors  
248 SOUTH STREET UNIT 1  
PLAINVILLE, MA 02762  
TEL. (508) 695-2221 FAX. (508) 695-2219

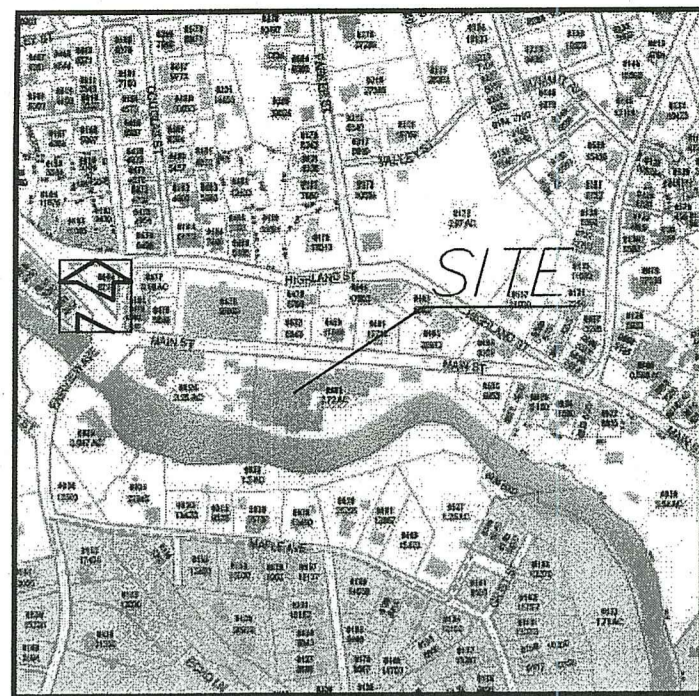
APPROVED WITH CONDITIONS AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED: APR 03 2024 FILE #: 23-0067  
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Signature: *Gregory D. Sweeney*

PLAN NOTES

C-0.1  
Sheet 2 of 10

1866.00



LOCUS MAP  
WEST WARWICK, RHODE ISLAND  
NOT TO SCALE

PROPERTY LINE AND EXISTING CONDITIONS SURVEY NOTES:

- REFERENCE PLANS:
  - 1.1.1. RHODE ISLAND HIGHWAY PLAT NO. 588
  - 1.1.2. PERIMETER RETRACEMENT SURVEY, WEST WARWICK, RI, TALLMAN & TALLMAN, SCALE 1"=20', DATE SEPT. 2000 BY BOYER ASSOCIATES.
  - 1.1.3. CORRECTIVE ADMINISTRATIVE SUBDIVISION PHENIX MILL COMPLEX, MAIN STREET & FAIRVIEW AVENUE, PREPARED FOR PHENIX COMMONS, LLC, SCALE 1" = 60' DATE MARCH 19, 2008, REVISED 5/20/08 BY BOYER ASSOCIATES.
- DAM NO.: 156, FLOOD PLAIN 85.00
- THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE CONTRACTOR SHALL NOTIFY "DIG-SAFE" PRIOR TO EXCAVATION AND SHALL NOTIFY LOCAL UTILITY COMPANIES BEFORE COMMENCEMENT OF WORK TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES AND RELOCATE UTILITIES SHOWN ON THE PLANS.
- PER BOYER PLAN NOTE 2. BASE OF LEVELS IS NAVD88 +0.38', 0.38' MUST BE SUBTRACTED FROM ELEVATIONS TO DETERMINE NAVD88 ELEVATION.
- ADDITIONAL FIELD SURVEY COMPLETED BY LEVEL DESIGN GROUP, LLC, JANUARY 16, 2024 FOR THE ABUTTING PROPERTY AND AREA ADJACENT TO THE DAM TO ESTABLISH A FLOOD PLAIN ELEVATION

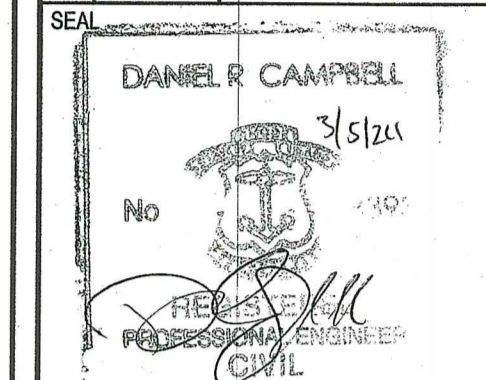


ZONING: MRU  
MILL RE-USE DISTRICT  
(SEE REGULATIONS FOR ADDITIONAL INF.)

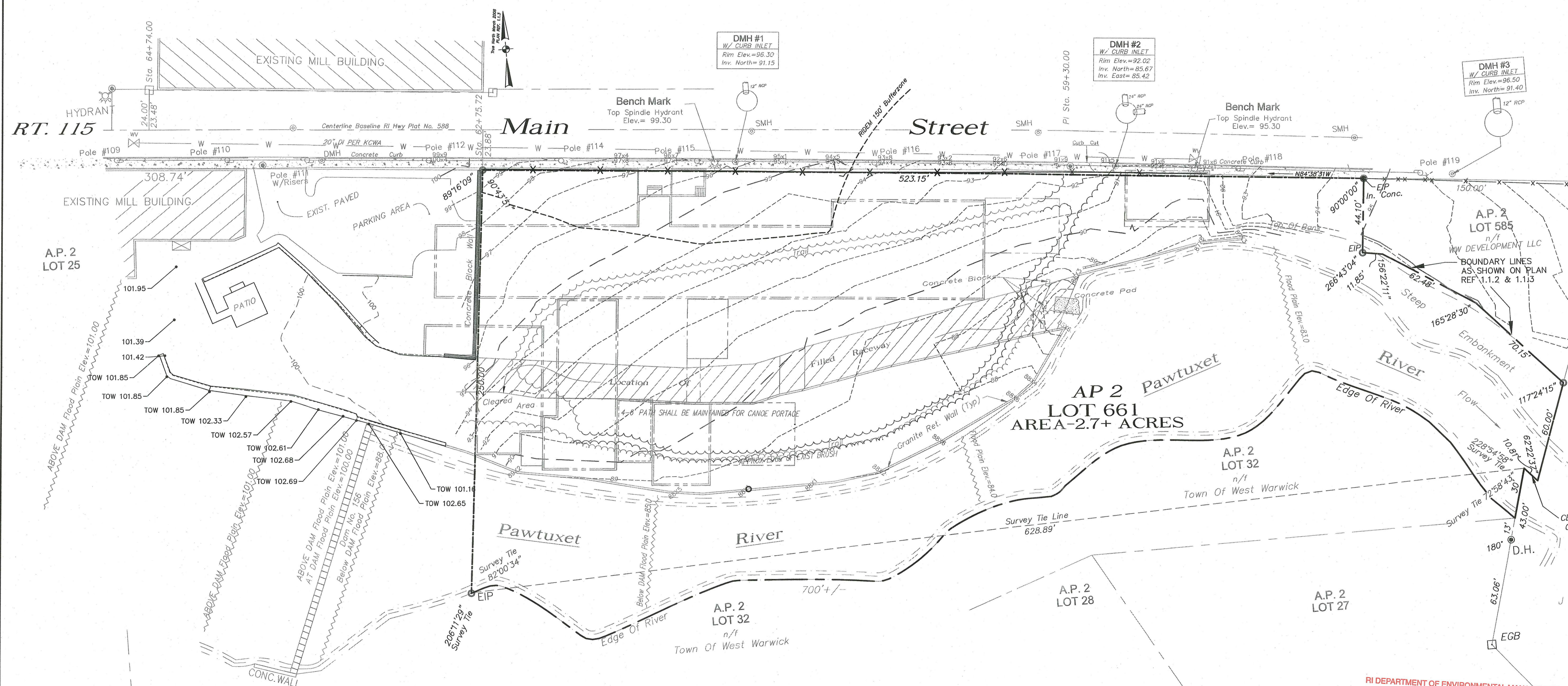
Legend

100.00'	EXISTING PROPERTY LINE
---	APPROXIMATE ABUTTING PROPERTY LINES
---	CENTERLINE OF HIGHWAY
-100-	EXISTING CONTOUR
[ ]	APPROXIMATE LOCATION OF RAZED BUILDING
[ ]	EXISTING ABUT. REPRODUCED FROM REF. #2
[ ]	EXISTING GRANTE BOUND.
[ ]	EDGE PAVEMENT
[ ]	TOP CONCRETE CURB
[ ]	CHAIN LINK FENCE
[ ]	EXISTING OSEIL HOLE
[ ]	EXISTING IRON PIPE
[ ]	EXISTING IRON PIN
[ ]	PROPOSED IRON PIN
[ ]	EXISTING METAL GUARD RAIL
[ ]	UTILITY POLE
[ ]	OVERHEAD UTILITIES

NO	DATE	REVISIONS
1	06/30/2021	MASTER PLAN SUBMISSION
2	01/23/2024	PERMITTING COMMENTS
4	03/05/2024	PERMITTING COMMENTS



DATE: JANUARY 21, 2024  
DRAWN: DRC  
SCALE: 1" = 30'



THIS SURVEY HAS BEEN CONDUCTED AND THE PLAN HAS BEEN PREPARED PURSUANT TO 435-RICR-00-00-1.9 OF THE RULES AND REGULATIONS ADOPTED BY THE RHODE ISLAND STATE BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS ON OR AFTER NOVEMBER 25, 2015, AS FOLLOWS:

TYPE OF BOUNDARY SURVEY:	MEASUREMENT SPECIFICATION:
LIMITED CONTENT BOUNDARY SURVEY	(CLASS I)
DATA ACCUMULATION SURVEY	(CLASS III)

PURPOSE OF SURVEY: EXISTING CONDITIONS SURVEY FOR AP 2 LOT 661 TO BE USED FOR RE-DEVELOPMENT DESIGN

DATE: FEB. 19, 2024  
BY: JASON E. SMITH, RI PLS #2535 (LS.COA #775)

**CASCADE FALLS**  
 MULTI-FAMILY RESIDENTIAL-PRELIMINARY PLAN  
 PARCEL ID 002-0661  
 777 MAIN STREET  
 WEST WARWICK, RHODE ISLAND

LEVEL  
DESIGN GROUP  
Civil Engineers & Land Surveyors  
249 SOUTH STREET, UNIT 1  
PLAINVILLE, MA 02762  
TEL. (508) 695-2221 FAX. (508) 695-2219

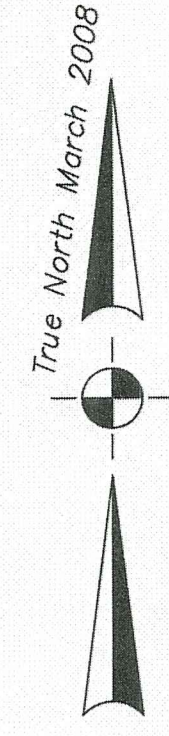
EXISTING  
CONDITIONS

C-1.0  
Sheet 3 of 10

0' 15' 30' 60'  
1866.00

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS AS  
SPECIFIED IN THE LETTER OF APPROVAL  
DATED: APR 03 2024 FILE #: 23-0067  
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
APPROVED PLANS MUST BE AT CONSTRUCTION SITE  
Christopher D. Senechal

- REFERENCES:
- 1) RHODE ISLAND HIGHWAY PLAT NUMBER 588.
  - 2) PERIMETER RETRACEMENT SURVEY WEST WARWICK, R.I. TALLMAN & TALLMAN LLC SCALE: 1"=20' DATE: SEPT. 2000 BY BOYER ASSOCIATES.
  - 3) CORRECTIVE ADMINISTRATIVE SUBDIVISION PHENIX MILL COMPLEX MAIN STREET & FAIRVIEW AVENUE PREPARED FOR PHENIX COMMONS LLC SCALE: 1"=80' DATE: MARCH 19, 2008 REVISED 5/20/08 BY BOYER ASSOCIATES.

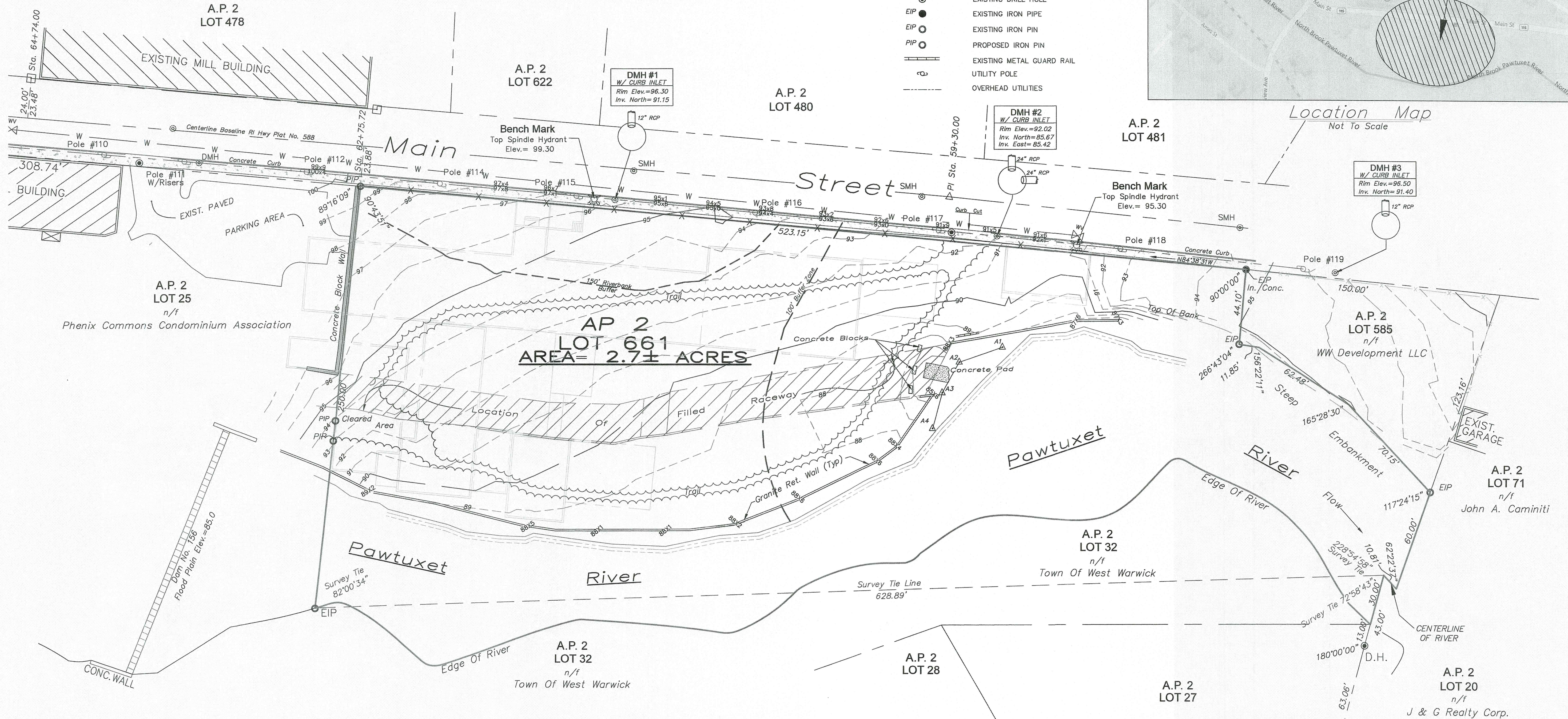
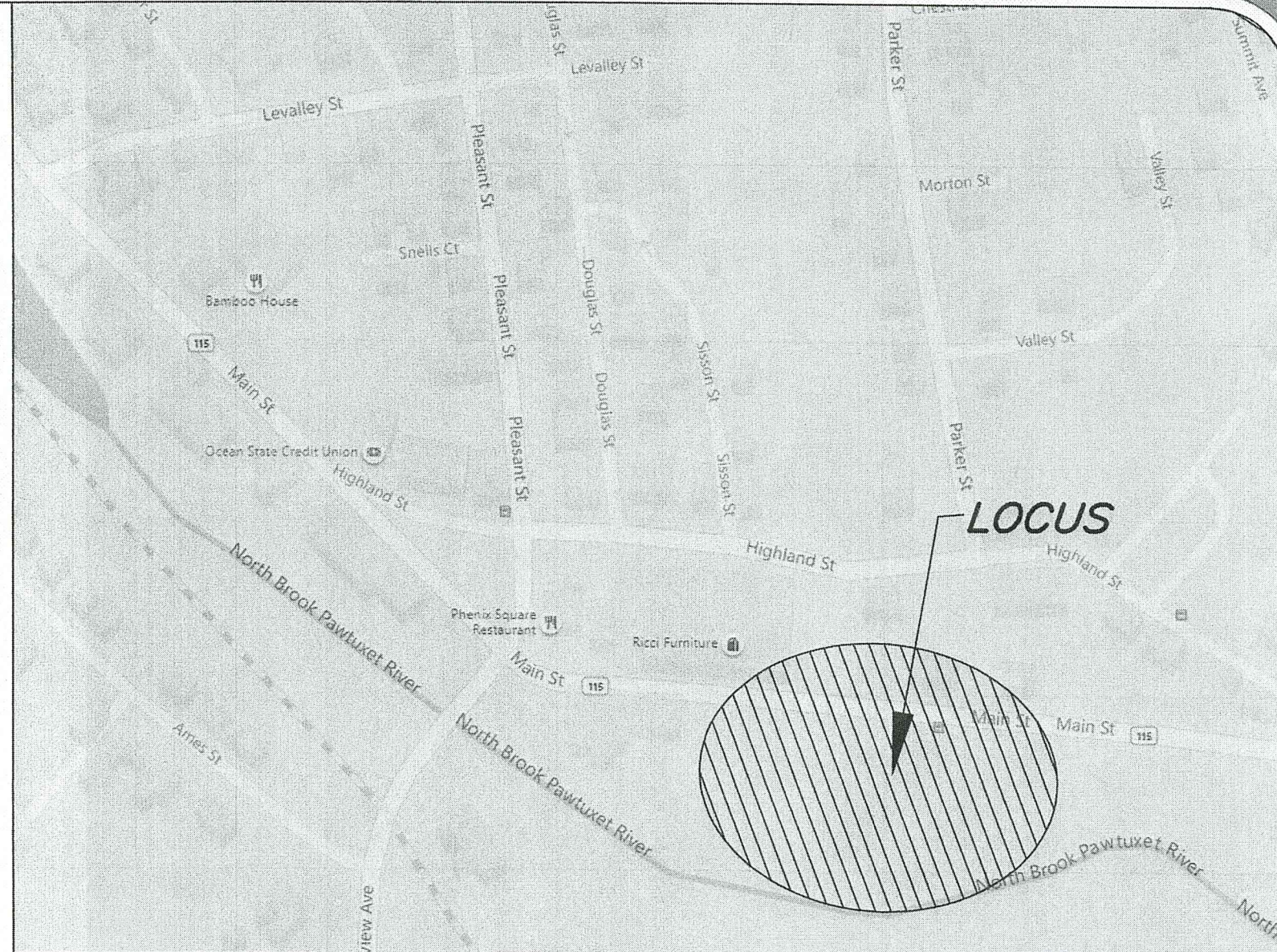


**Dig Safe Notation:**  
 All utilities shown hereon are taken from visible observations. Contractor is responsible to verify all locations and elevations prior to the start of any construction or excavation. Dig Safe must be notified, 1-888-344-7233

**Note:**  
 Locations and elevations of existing aboveground and underground utilities and structures indicated are approximate only, and those indicated are not necessarily all which may exist on the site. Contractor shall contact Dig Safe prior to construction to determine actual locations of all utilities and structures on the project site, whether they are indicated or not. Contractor shall assume the responsibility for any damage to the utility lines, whether shown on the plans or not, during work on the project. Dig Safe phone number is 1-888-344-7233

**Legend**

- 100.00' EXISTING PROPERTY LINE
- APPROXIMATE ABUTTING PROPERTY LINES
- CENTERLINE OF HIGHWAY
- 100 EXISTING CONTOUR
- APPROXIMATE LOCATION OF RAZED BUILDING
- ▣ EXISTING RIHB REPRODUCED FROM REF. #2
- EGB EXISTING GRANITE BOUND
- 91x6 92x1 TOP CONCRETE CURB
- CHAIN LINK FENCE
- EDH EXISTING DRILL HOLE
- EIP EXISTING IRON PIPE
- EIP EXISTING IRON PIN
- PIP PROPOSED IRON PIN
- EXISTING METAL GUARD RAIL
- UTILITY POLE
- OVERHEAD UTILITIES



Location Map  
Not To Scale

**AP 2 LOT 661  
AREA= 2.7± ACRES**

**General Notes**

- 1) LOCATION MAP IMAGE TAKEN FROM BING MAPS.
- 2) BASE OF LEVELS IS NGVD88 + 0.38'. 0.38' MUST BE SUBTRACTED FROM ELEVATIONS TO DETERMINE NGVD88 ELEVATION.
- 3) BOUNDARY, CULTURE & TOPOGRAPHICAL SURVEY WERE CONDUCTED IN JANUARY OF 2021. SITE WAS HEAVILY VEGETATED AT THE TIME THE TOPOGRAPHIC SURVEY WAS CONDUCTED.
- 4) THE SUBJECT PARCEL LIES WITHIN THE RIVER PROTECTION REGION 2. THE WETLAND EDGE WAS FLAGGED BY NATURAL RESOURCE SERVICES INC. AND THE REPORT WAS ISSUED ON NOVEMBER 10, 2022. BASED ON THAT REPORT, THE RIVER RECEIVES A 150' BUFFER AND THE MARSH RECEIVES A 100' BUFFER. WETLAND FLAGS WERE LOCATED IN DEC. 2022. THESE BUFFERS ARE SUBJECT TO RIDEM APPROVAL.
- 5) PER NATURAL RESOURCE SERVICES REPORT, THE RIVERS EDGE WAS FIELD LOCATED AND UTILIZED FOR THE 150' BUFFER SETBACK.
- 6) DRAIN MANHOLES WERE PARTIALLY SUBMERGED AT TIME OF THIS SURVEY. ONLY THOSE PIPES VISIBLE ARE IDENTIFIED HEREON.
- 7) PER KCWA, EXISTING WATER MAIN IS 20" D.I.

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 FRESHWATER WETLANDS PROGRAM  
 APPROVED WITH CONDITIONS AS SPECIFIED IN THE LETTER OF APPROVAL  
 DATED: APR 03 2024 FILE # 23-0667  
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Street Index  
Main Street  
R.I. Rte. 115

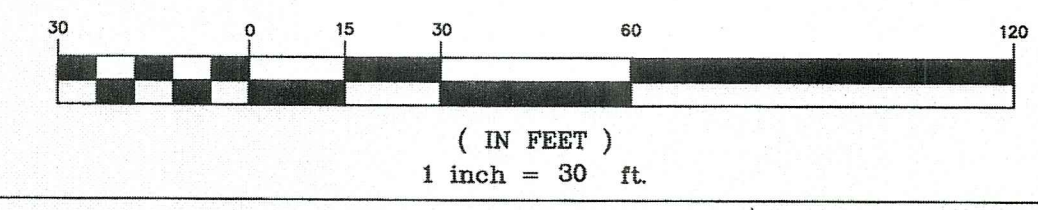
**CERTIFICATION**  
 This survey has been conducted and the plan has been prepared pursuant to 435-RICR-00-00-1.9 of the Rules and Regulations adopted by the Rhode Island State Board of Registration for Professional Land Surveyors on November 25, 2015 as follows:

TYPE OF BOUNDARY SURVEY	MEASUREMENT SPECIFICATION
Limited Content Boundary Survey	I
OTHER TYPE OF SURVEY	III
Data Accumulation Plan	T-2
Topographic Survey	

The purpose for the conduct of this survey and for the preparation of the plan is to delineate the physical location of the deeded boundary lines and topography, delineate the physical location of observed improvements, and identify any observed encroachments by or against the subject parcel to aid in a development plan for the subject parcel.

By: Mark D. Boyer #1888  
Boyer Associates C.O.A. # A317

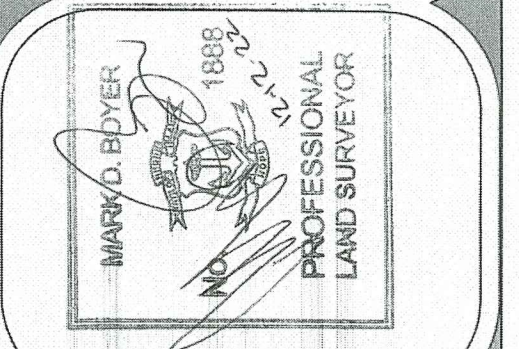
Zoning District  
Mill Re-Use District (MRU)  
See Zoning Ordinance For Details



Being: ASSESSORS PLAT NO. 2 LOT NO. 661  
**EXISTING CONDITIONS PLAN**  
 771 Main Street  
 West Warwick, Rhode Island  
 PHENIX INVESTORS LLC

Checked By: MDB  
 Drawn By: MDB  
 Date: December 12, 2022  
 Scale: 1"= 30'  
 REVISIONS

NO.	REVISION	BY	DATE



© COPYRIGHT 2022  
 THIS DRAWING IS THE PROPERTY OF BOYER ASSOCIATES. ANY USE OR REPRODUCTION WITHOUT THE EXPRESS WRITTEN CONSENT IS PROHIBITED.

**BOYER ASSOCIATES**  
 ESTABLISHED SINCE 1969  
 1071 MAIN STREET  
 WEST WARWICK, RI 02893  
 TEL. (401)821-8872 FAX (401)826-1993

Sheet 1  
of 1 sheets  
Sheet 4 of 10

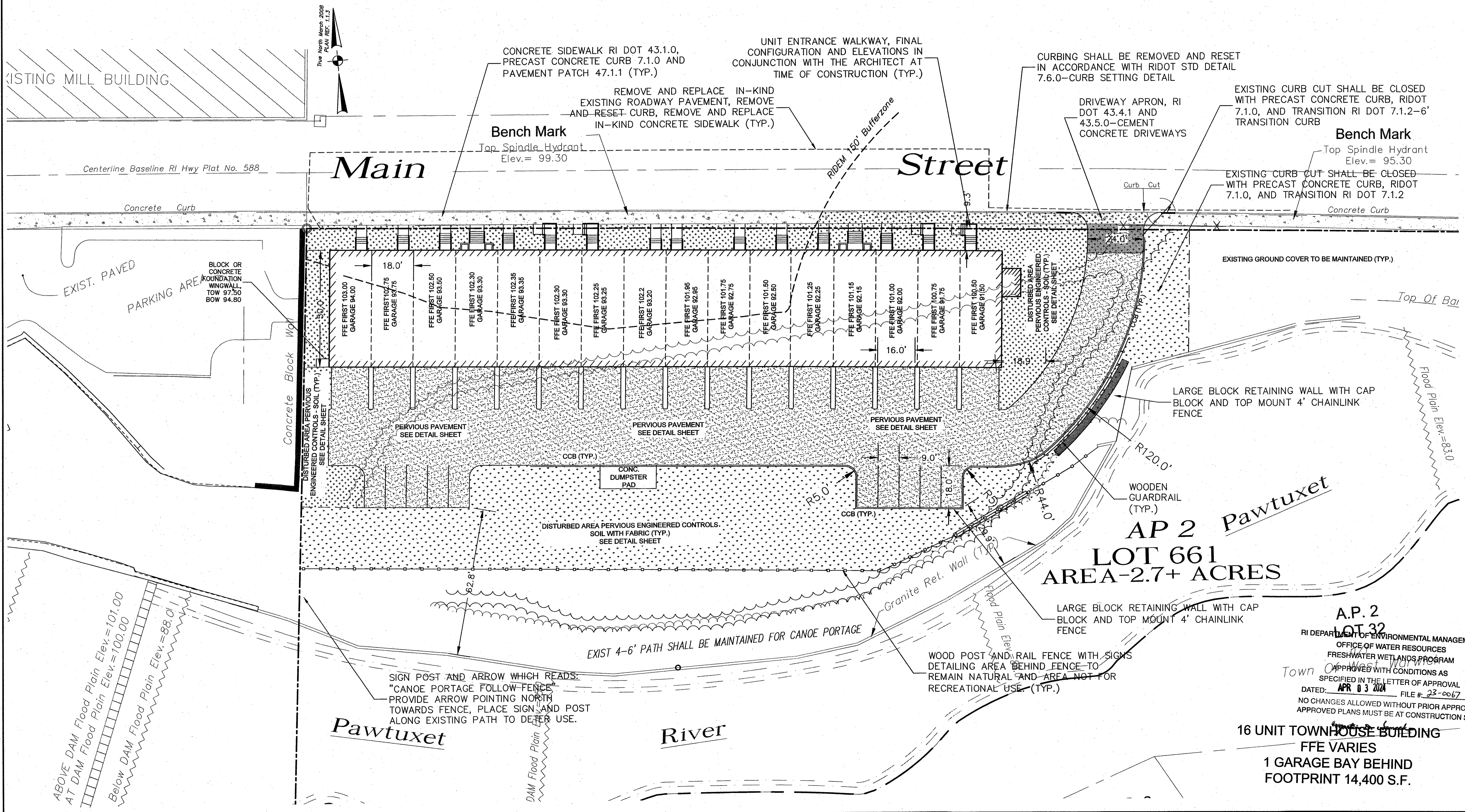
- LIMIT OF DISTURBANCE (LOD) SHOWN ON SHEET C-3.1 SHALL ENCOMPASS ALL WORK ASSOCIATED WITH THE SITE. THE LOD IS NOT SHOWN ON ALL SHEETS FOR CLARITY
- SAWCUT LINE AS DETAILED WILL ENCOMPASS ALL PROPOSED WORK WITHIN THE RI DOT ROW, HOWEVER THE GAS SERVICE IS NOT CURRENTLY SHOWN ON DESIGN PLANS BECAUSE THE GAS COMPANY WILL NOT PROVIDE A DESIGN UNTIL THE APPROVAL IS SUBMITTED TO THEM FOR REVIEW.

NO	DATE	REVISIONS
1		
2	11/15/2023	PERMITTING COMMENTS
3	01/23/2024	PERMITTING COMMENTS
4	03/05/2024	PERMITTING COMMENTS

SEAL

DANIEL R CAMPBELL  
3/9/24  
No. 3393  
REGISTERED PROFESSIONAL ENGINEER  
CIVIL

DATE: MARCH 30, 2021  
DRAWN: DRC  
SCALE: 1" = 20'



**CASCADE FALLS**  
MULTI-FAMILY RESIDENTIAL-PRELIMINARY PLAN  
PARCEL ID 002-0661  
777 MAIN STREET  
WEST WARWICK, RHODE ISLAND

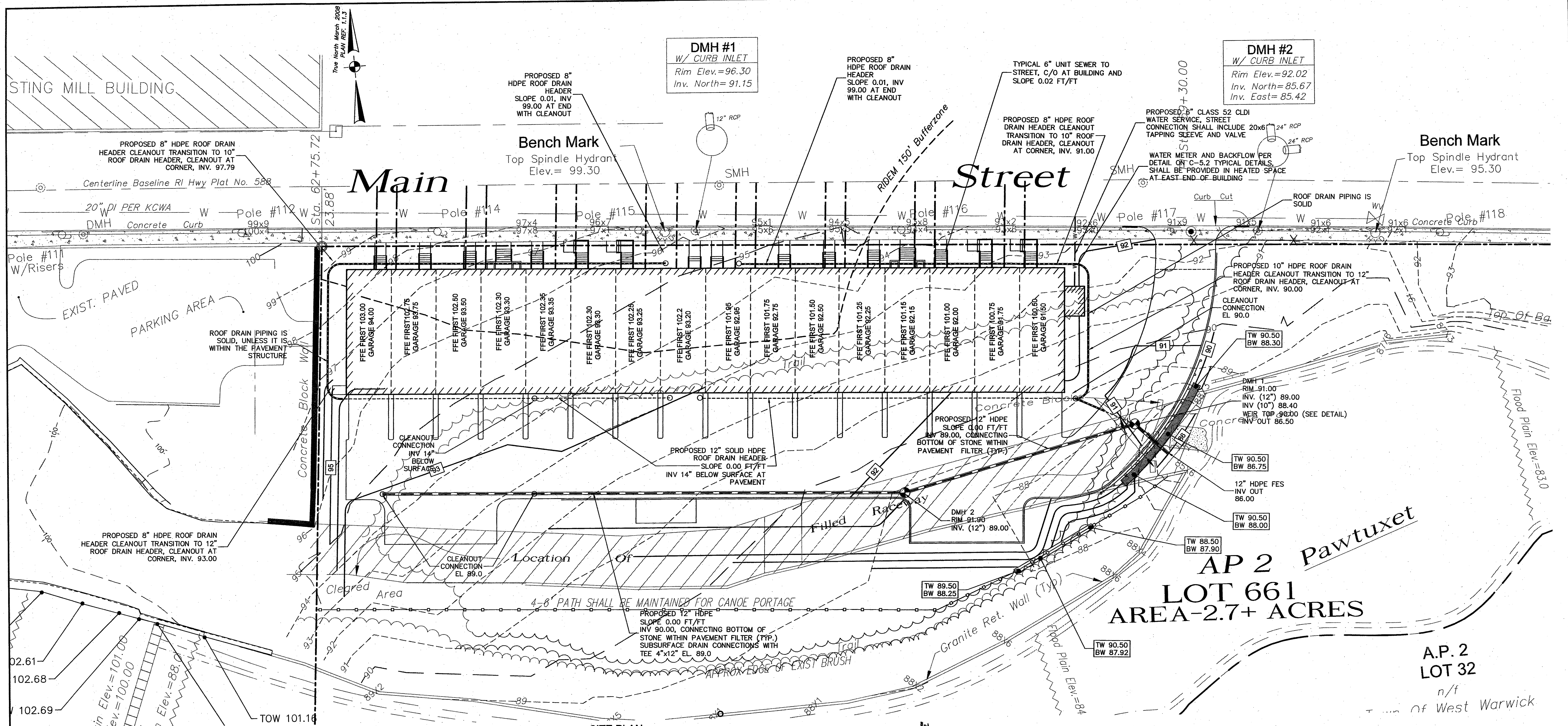
**LEVEL DESIGN GROUP**  
Civil Engineers & Land Surveyors  
249 SOUTH STREET, UNIT 1  
PLAINVILLE, MA 02762  
TEL: (508) 895-2221 FAX: (508) 895-2219

**LAYOUT & MATERIALS**

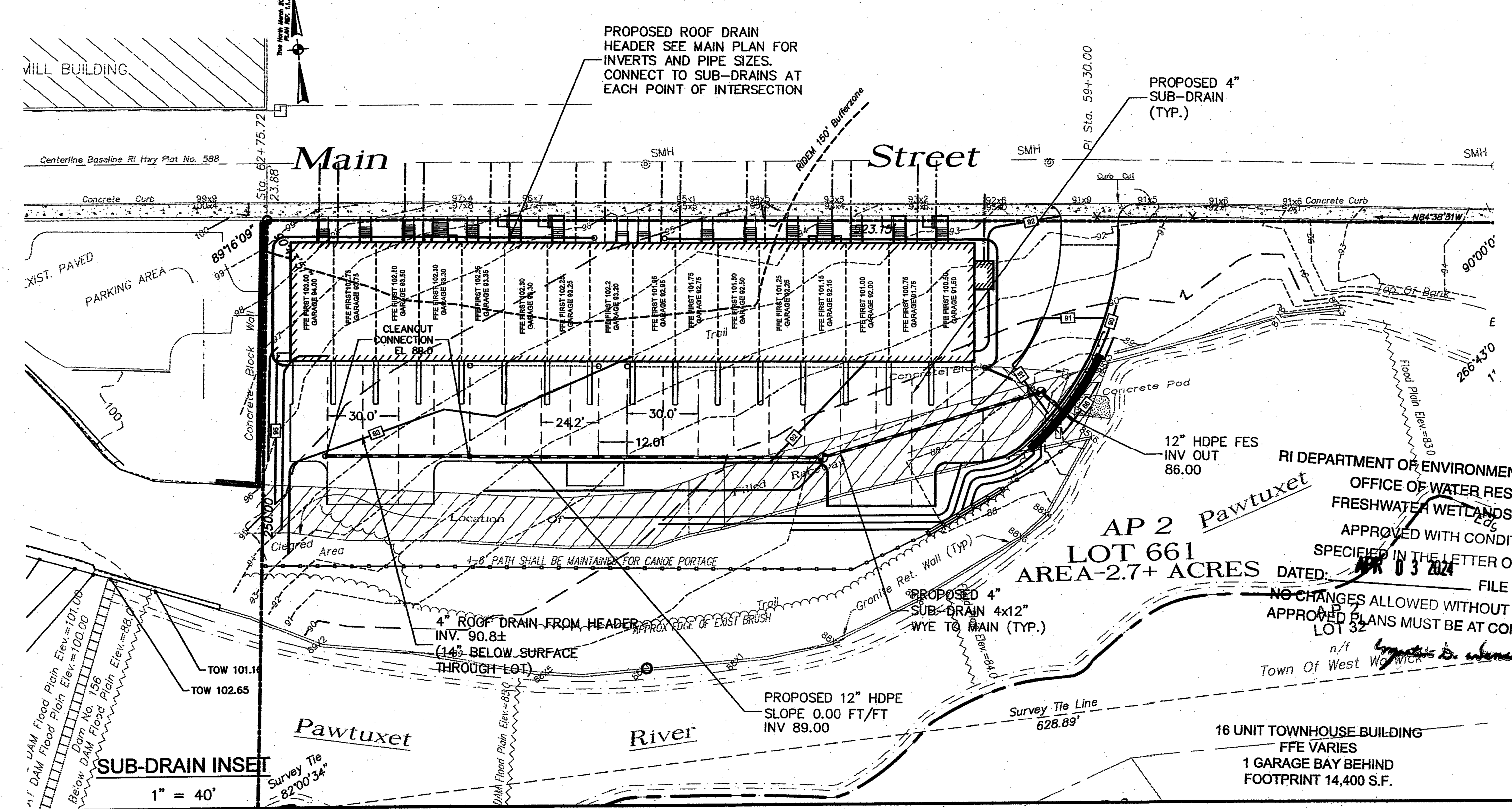
**C-2.0**  
SHEET 5 OF 10  
1866.00

AP. 2  
LOT 32  
RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED: APR 03 2024 FILE #: 23-0067  
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

16 UNIT TOWNHOUSE BUILDING  
FFE VARIES  
1 GARAGE BAY BEHIND  
FOOTPRINT 14,400 S.F.



- SITE PLAN**  
1" = 20'
- LIMIT OF DISTURBANCE (LOD) SHOWN ON SHEET C-3.1 SHALL ENCOMPASS ALL WORK ASSOCIATED WITH THE SITE. THE LOD IS NOT SHOWN ON ALL SHEETS FOR CLARITY
  - SAWCUT LINE AS DETAILED WILL ENCOMPASS ALL PROPOSED WORK WITHIN THE RI DOT ROW, HOWEVER THE GAS SERVICE IS NOT CURRENTLY SHOWN ON DESIGN PLANS BECAUSE THE GAS COMPANY WILL NOT PROVIDE A DESIGN UNTIL THE APPROVAL IS SUBMITTED TO THEM FOR REVIEW.
  - ROOF DRAIN IS AN INDEPENDENT SYSTEM WHICH CONNECTS TO SUBDRAIN IN SOME LOCATIONS TO CONNECT TO OUTLET, IT ALSO ALLOWS A SECONDARY OUTLET BY CONNECTING SYSTEM.
  - KENT COUNTY WATER SYSTEM REQUIRES 16 INDIVIDUAL UNITS CONNECTIONS AFTER THE METER AND BACKFLOW ASSEMBLY AS DETAILED ON THE DETAIL SHEETS. THE UNIT CONNECTION PLAN SHALL BE PROVIDED TO KENT COUNTY WATER PRIOR TO UNIT SERVICE BEING INSTALLED.



NO	DATE	REVISIONS
1		
2	11/15/2023	PERMITTING COMMENTS
3	01/23/2024	PERMITTING COMMENTS
4	03/05/2024	PERMITTING COMMENTS

SEAL

DANIEL R. CAMPBELL  
1/5/24

REGISTERED PROFESSIONAL ENGINEER  
DATE: MARCH 30, 2021  
DRAWN: DRC  
SCALE: AS SHOWN

**CASCADE FALLS**  
MULTI-FAMILY RESIDENTIAL-PRELIMINARY PLAN  
PARCEL ID 002-0661  
777 MAIN STREET  
WEST WARWICK, RHODE ISLAND

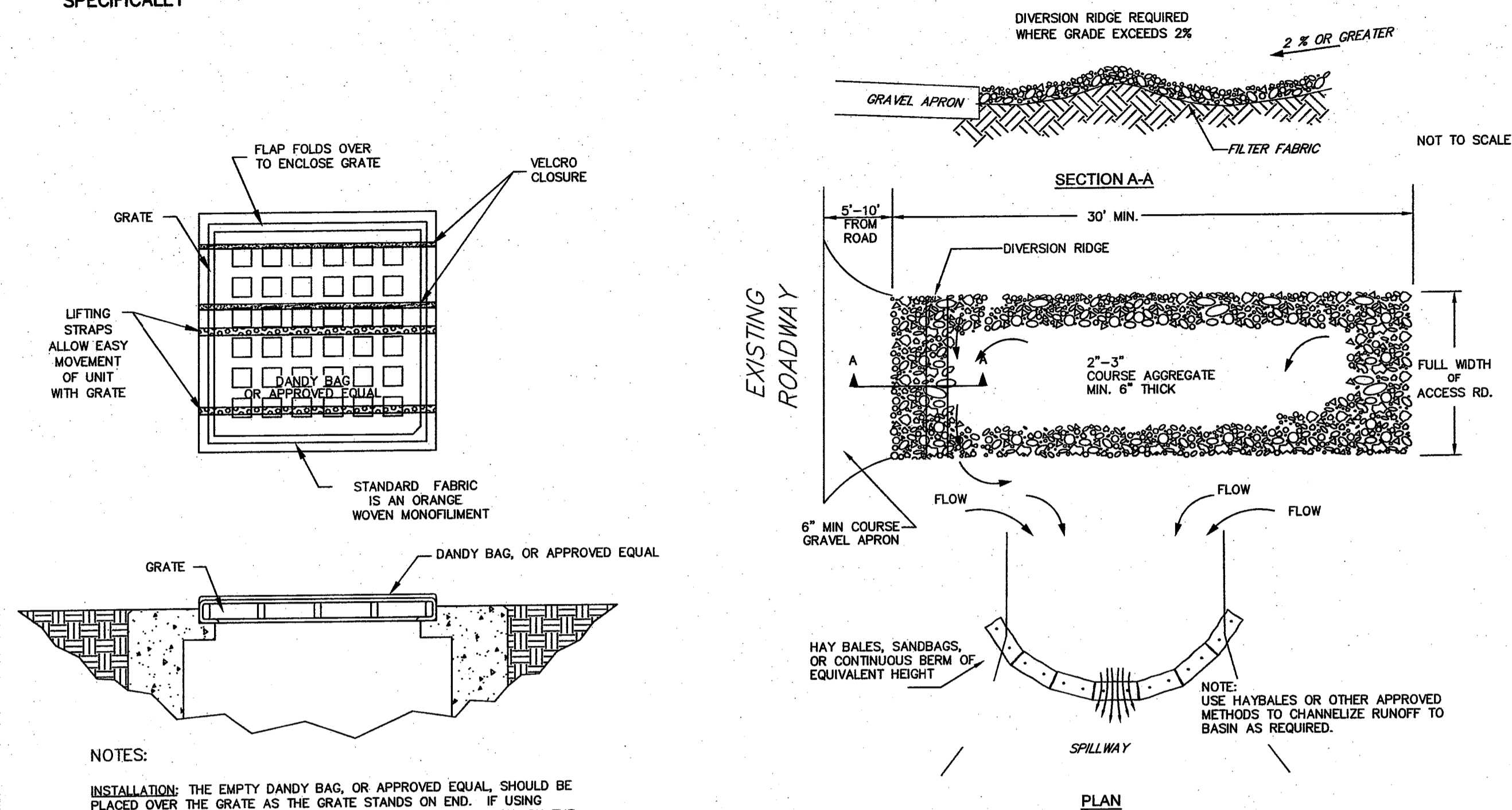
**LEVEL DESIGN GROUP**  
Civil Engineers & Land Surveyors  
248 SOUTH STREET, UNIT 1  
PLAINVILLE, MA 02752  
TEL: (508) 695-2221 FAX: (508) 695-2219

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED: 03/03/2024 FILE #: 23-067  
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

**C-3.0**  
SHEET 6 OF 10  
0' 10'/20' 20'/40' 40'/80'

**1866.00**

1. LIMIT OF DISTURBANCE (LOD) SHOWN ON SHEET C-3.1 SHALL ENCOMPASS ALL WORK ASSOCIATED WITH THE SITE. THE LOD IS NOT SHOWN ON ALL SHEETS FOR CLARITY
2. SAWCUT LINE AS DETAILED WILL ENCOMPASS ALL PROPOSED WORK WITHIN THE RI DOT ROW, HOWEVER THE GAS SERVICE IS NOT CURRENTLY SHOWN ON DESIGN PLANS BECAUSE THE GAS COMPANY WILL NOT PROVIDE A DESIGN UNTIL THE APPROVAL IS SUBMITTED TO THEM FOR REVIEW.
3. CB'S AND CURB INLETS SHALL BE PROTECTED DURING CONSTRUCTION TO CAPTURE SEDIMENTATION PRIOR TO DISCHARGE. NOTED RI DOT STRUCTURE ID 1788, CURB INLET SPECIFICALLY



**NOTES:**

**INSTALLATION:** THE EMPTY DANDY BAG, OR APPROVED EQUAL, SHOULD BE PLACED OVER THE GRATE AS THE GRATE STANDS ON END. IF USING OPTIONAL OIL ABSORBENTS, PLACE ABSORBENT PILLOW IN POUCH, ON THE BOTTOM (BELOW-GRADE SIDE) OF THE UNIT. ATTACH ABSORBENT PILLOW TO TETHER LOOP. TUCK THE ENCLOSURE FLAP INSIDE TO COMPLETELY ENCLOSE THE GRATE. HOLDING THE LIFTING DEVICES (DO NOT RELY ON LIFTING DEVICES TO SUPPORT THE ENTIRE WEIGHT OF THE GRATE), PLACE THE GRATE INTO ITS FRAME.

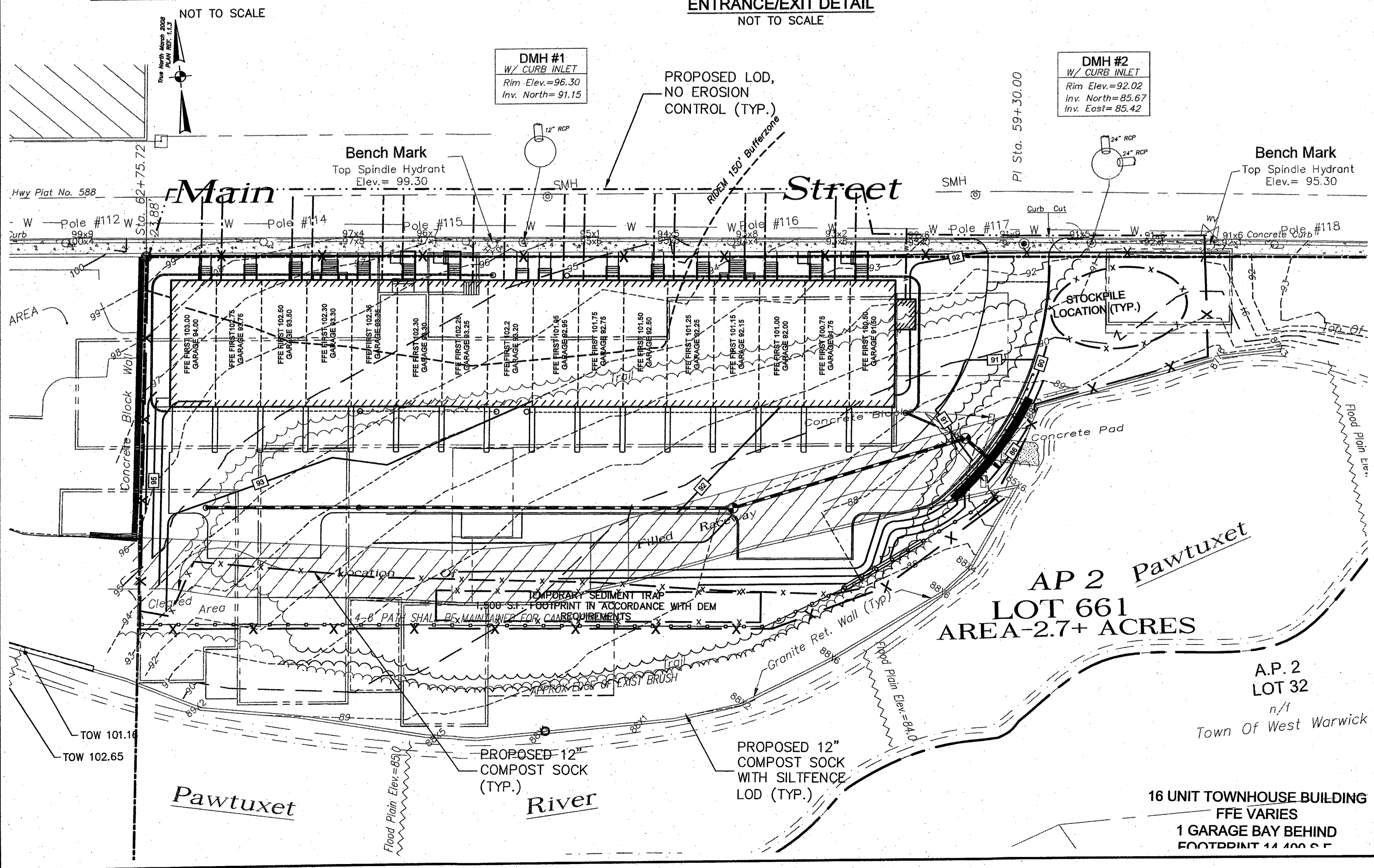
**MAINTENANCE:** REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM SURFACE AND VICINITY OF UNIT AFTER EACH STORM EVENT. REMOVE SEDIMENT THAT HAS ACCUMULATED WITHIN THE CONTAINMENT AREA OF THE DANDY BAG AS NEEDED. IF USING OPTIONAL OIL ABSORBENTS, REMOVE AND REPLACE ABSORBENT PILLOW WHEN NEAR SATURATION.

**NOTES:**

1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITIONS 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.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
3. WHEN WASHING IS REQUIRED IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS TO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

**NOTES:**

1. ALL MATERIAL TO MEET FILTREXX SPECIFICATIONS.
2. SILT SOXX\* FILL TO MEET APPLICATION REQUIREMENTS.
3. COMPOST MATERIAL TO BE DISPERSED ON SITE.



RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED: **APR 03 2024** FILE #: **33-0067**  
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

*Signature: [illegible]*

**EROSION CONTROL NOTES**

**SILTATION CONTROL USING EROSION CONTROL FENCE WITH STRAW WATTLE, OR APPROVED EQUAL**  
EROSION CONTROL LINE IS TO BE VISUALLY INSPECTED AFTER EVERY RAIN FALL AND REPAIRS MADE AS REQUIRED TO THE SILTATION CONTROL FENCE AND STRAW WATTLE AFTER EACH RAIN FALL. CLEANOUT OF ACCUMULATED SEDIMENT BEHIND THE WATTLE IS NECESSARY IF 1/2 OF THE ORIGINAL HEIGHT OF THE WATTLE APPEARS TO HAVE BEEN INUNDATED WITH SEDIMENT.

**PRESERVE TOPSOIL**

SITE OWNERS AND OPERATORS MUST PRESERVE EXISTING TOPSOIL ON THE CONSTRUCTION SITE TO THE MAXIMUM EXTENT FEASIBLE AND AS NECESSARY TO SUPPORT HEALTHY VEGETATION, PROMOTE SOIL STABILIZATION, AND INCREASE STORMWATER INFILTRATION RATES IN THE POST-CONSTRUCTION PHASE OF THE PROJECT.

**STABILIZATION OF SOILS**

UPON COMPLETION AND ACCEPTANCE OF SITE PREPARATION AND INITIAL INSTALLATION OF EROSION, RUNOFF, AND SEDIMENT CONTROLS AND TEMPORARY POLLUTION PREVENTION MEASURES, THE OPERATOR SHALL INITIATE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION PRACTICES DURING ALL PHASES OF CONSTRUCTION ON ALL DISTURBED AREAS AS SOON AS POSSIBLE, BUT NOT MORE THAN FOURTEEN (14) DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT AREA HAS TEMPORARILY OR PERMANENTLY CEASED. SLOPES IN EXCESS OF 3:1 SHALL HAVE 22 MONTH EROSION CONTROL FABRIC INSTALLED OVER A SLOPE MIX SEED MIX WITH TACKIFIER UNLESS OTHERWISE SPECIFIED.

ANY DISTURBED AREAS THAT WILL NOT HAVE ACTIVE CONSTRUCTION ACTIVITY OCCURRING WITHIN 14 DAYS MUST BE STABILIZED USING THE CONTROL MEASURES DEPICTED IN SITE PLANS, IN ACCORDANCE WITH THE STORMWATER LONG TERM POLLUTION PREVENTION & SOURCE CONTROL PLAN, AND PER MANUFACTURER PRODUCT SPECIFICATIONS.

ONLY AREAS THAT CAN BE REASONABLY EXPECTED TO HAVE ACTIVE CONSTRUCTION WORK BEING PERFORMED WITHIN 14 DAYS OF DISTURBANCE WILL BE CLEARED/GRUBBED AT ANY ONE TIME. IT IS NOT ACCEPTABLE TO CLEAR AND GRUB THE ENTIRE CONSTRUCTION SITE IF PORTIONS WILL NOT BE ACTIVE WITHIN THE 14-DAY TIME FRAME. PROPER PHASING OF CLEARING AND GRUBBING ACTIVITIES SHALL INCLUDE TEMPORARY STABILIZATION TECHNIQUES FOR AREAS CLEARED AND GRUBBED THAT WILL NOT BE ACTIVE WITHIN THE 14-DAY TIME FRAME.

**STORMWATER INLET PROTECTION**

INLET PROTECTION - WILL BE UTILIZED TO PREVENT SOIL AND DEBRIS FROM ENTERING STORM DRAIN INLETS AND SHALL BE INSTALLED WITHIN BASINS DOWNSTREAM OF DISTURBANCE WITHIN 200' OF THE PROPOSED DISTURBANCE. THESE MEASURES ARE USUALLY TEMPORARY AND ARE IMPLEMENTED BEFORE A SITE IS DISTURBED.

**MAINTENANCE** - THE OPERATOR MUST CLEAN, OR REMOVE AND REPLACE THE INLET PROTECTION MEASURES AS SEDIMENT ACCUMULATES, THE FILTER BECOMES CLOGGED, AND/OR AS PERFORMANCE IS COMPROMISED. ACCUMULATED SEDIMENT ADJACENT TO THE INLET PROTECTION MEASURES SHOULD BE REMOVED BY THE END OF THE SAME WORK DAY IN WHICH IT IS FOUND OR BY THE END OF THE FOLLOWING WORK DAY IF REMOVAL BY THE SAME WORK DAY IS NOT FEASIBLE.

**STORMWATER BASINS** - ALL AREAS CONTAINING STORMWATER BASINS (ABOVE OR BELOW GROUND) SHALL BE PROTECTED THROUGHOUT CONSTRUCTION. THESE AREAS ARE NOT TO BE USED FOR MATERIAL STOCKPILES OR FOR PARKING EQUIPMENT. SURFACE BASINS ARE TO BE ROUGH GRADED AND PROTECTED UNTIL STABILIZED AND BROUGHT ON-LINE FOR STORMWATER MANAGEMENT OF THE STABILIZED SITE.

**CONSTRUCTION ENTRANCES**

CONSTRUCTION ENTRANCES SHALL BE USED IN CONJUNCTION WITH THE STABILIZATION OF CONSTRUCTION ROADS TO REDUCE THE AMOUNT OF SEDIMENT TRACKING OFF THE PROJECT. A **STONE CONSTRUCTION ENTRANCE SHALL BE INSTALLED WHEN THE EXISTING PAVEMENT IS REMOVED IN THE AREA OF ACCESS AND THE PROPOSED/EXISTING DRIVEWAY. THE STONE CONSTRUCTION ENTRANCE IS NOT NECESSARY UNTIL SUCH TIME AS THE PAVEMENT IS REMOVED.** ANY CONSTRUCTION SITE ACCESS POINT MUST EMPLOY THE CONTROL MEASURES ON THE APPROVED SITE PLANS AND IN ACCORDANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN. CONSTRUCTION ENTRANCES SHALL BE USED IN CONJUNCTION WITH THE STABILIZATION OF CONSTRUCTION ROADS TO REDUCE THE AMOUNT OF MUD PICKED UP BY CONSTRUCTION VEHICLES. ALL CONSTRUCTION ACCESS ROADS SHALL BE CONSTRUCTED PRIOR TO ANY ROADWAY ACCEPTING CONSTRUCTION TRAFFIC.

THE SITE OWNER AND OPERATOR MUST RESTRICT VEHICLE USE TO PROPERLY DESIGNATED EXIT POINTS, USE PROPERLY DESIGNED AND CONSTRUCTED CONSTRUCTION ENTRANCES AT ALL POINTS THAT EXIT ONTO PAVED ROADS SO THAT SEDIMENT REMOVAL OCCURS PRIOR TO VEHICLE EXIT. WHEN AND WHERE NECESSARY, USE ADDITIONAL CONTROLS TO REMOVE SEDIMENT FROM VEHICLE TIRES PRIOR TO EXIT (I.E. WHEEL WASHING RACKS, RUMBLE STRIPS, AND RATTLE PLATES). WHERE SEDIMENT HAS BEEN TRACKED OUT FROM THE CONSTRUCTION SITE ONTO THE SURFACE OF OFF-SITE STREETS, OTHER PAVED AREAS, AND SIDEWALKS, THE DEPOSITED SEDIMENT MUST BE REMOVED BY THE END OF THE SAME WORK DAY IN WHICH THE TRACK OUT OCCURS. TRACK-OUT MUST BE REMOVED BY SWEEPING, SHOVELING, OR VACUUMING THESE SURFACES, OR BY USING OTHER SIMILARLY EFFECTIVE MEANS OF SEDIMENT REMOVAL.

**STOCKPILE CONTAINMENT**

SHALL BE USED ONSITE TO MINIMIZE OR ELIMINATE THE DISCHARGE OF SOIL, TOPSOIL, BASE MATERIAL OR RUBBLE, FROM ENTERING DRAINAGE SYSTEMS OR SURFACE WATERS. ALL STOCKPILES MUST BE LOCATED WITHIN THE LIMIT OF DISTURBANCE, PROTECTED FROM RUN-ON WITH THE USE OF TEMPORARY SEDIMENT BARRIERS AND PROVIDED WITH COVER OR STABILIZATION TO AVOID CONTACT WITH PRECIPITATION AND WIND WHERE AND WHEN PRACTICAL. STOCK PILE MANAGEMENT CONSISTS OF PROCEDURES AND PRACTICES DESIGNED TO MINIMIZE OR ELIMINATE THE DISCHARGE OF STOCKPILED MATERIAL (SOIL, TOPSOIL, BASE MATERIAL, RUBBLE) FROM ENTERING DRAINAGE SYSTEMS OR SURFACE WATERS.

FOR ANY STOCKPILES OR LAND CLEARING DEBRIS COMPOSED, IN WHOLE OR IN PART, OF SEDIMENT OR SOIL, YOU MUST COMPLY WITH THE FOLLOWING REQUIREMENTS - LOCATE PILES WITHIN THE DESIGNATED LIMITS OF DISTURBANCE OUTSIDE OF THE 100-FOOT BUFFER ZONE, PROTECT FROM CONTACT WITH STORMWATER (INCLUDING RUN-ON) USING A TEMPORARY PERIMETER SEDIMENT BARRIER; WHERE PRACTICABLE, PROVIDE COVER OR APPROPRIATE TEMPORARY VEGETATIVE OR STRUCTURAL STABILIZATION TO AVOID DIRECT CONTACT WITH PRECIPITATION OR TO MINIMIZE SEDIMENT DISCHARGE; NEVER HOSE DOWN OR SWEEP SOIL OR SEDIMENT ACCUMULATED ON PAVEMENT OR OTHER IMPERVIOUS SURFACES INTO ANY STORMWATER CONVEYANCE, STORM DRAIN INLET, OR SURFACE WATER; TO THE MAXIMUM EXTENT PRACTICABLE, CONTAIN AND SECURELY PROTECT FROM WIND.

**TEMPORARY SEDIMENT BASINS**

IF REQUIRED, ADDITIONAL TEMPORARY SEDIMENT BASINS SHALL BE CONSTRUCTED TO MITIGATE THE POTENTIAL SEDIMENT LOADING TO THE ADJACENT RESOURCE AREAS. TEMPORARY SEDIMENT BASINS ARE TO BE LOCATED OUTSIDE OF THE 50-FOOT BUFFER ZONE TO THE BORDERING VEGETATED WETLANDS AND SHALL NOT BE LOCATED IN AN AREA WHERE AN INFILTRATION BASIN IS PROPOSED. TEMPORARY SEDIMENT BASIN GRADING LOCATION SHALL BE DICTATED BY THE DESIGN ENGINEER. AT A MINIMUM THE VOLUME OF THE TEMPORARY SEDIMENT BASIN, AS MEASURED FROM THE BOTTOM OF THE BASE TO THE ELEVATION OF THE CREST OF THE PRINCIPAL SPILLWAY SHALL BE AT LEAST 3,600 CUBIC FEET PER ACRE OF DRAINAGE AREA. THIS 3,600 CUBIC FEET IS EQUIVALENT TO 1.0 INCH OF SEDIMENT PER ACRE OF DRAINAGE AREA. ADDITIONAL STORAGE IN THE FORM OF A PERMANENT WET POOL SHALL BE PROVIDED WHENEVER PRACTICABLE, BUT MAY NOT BE USED TO FULFILL THE TEMPORARY STORAGE VOLUME REQUIREMENT.

SEDIMENT BASINS SHALL BE CLEANED OUT WHEN THE VOLUME REMAINING AS DESCRIBED ABOVE IS REDUCED BY SEDIMENTATION TO 1,800 CUBIC FEET PER ACRE OF DRAINAGE AREA (50 PERCENT FULL). IN NO CASE SHALL THE SEDIMENT LEVEL BE PERMITTED TO BUILD UP HIGHER THAN ONE FOOT BELOW THE PRINCIPAL SPILLWAY CREST. AT THIS ELEVATION, CLEANOUT SHALL BE PERFORMED TO RESTORE THE ORIGINAL DESIGN VOLUME TO THE SEDIMENT BASIN. THE ELEVATION OF THE MAXIMUM ALLOWABLE SEDIMENT LEVEL SHALL BE DETERMINED AND SHALL BE STATED IN THE DESIGN DATA AS A DISTANCE BELOW THE TOP OF THE RISER AND BE CLEARLY MARKED ON THE RISER. **NO AREA OF DETENTION SHALL BE UTILIZED FOR TEMPORARY EROSION CONTROL OR DEWATERING ACTIVITIES.**

NO	DATE	REVISIONS
1		
2	11/15/2023	PERMITTING COMMENTS
3	01/23/2024	PERMITTING COMMENTS
4	03/08/2024	PERMITTING COMMENTS

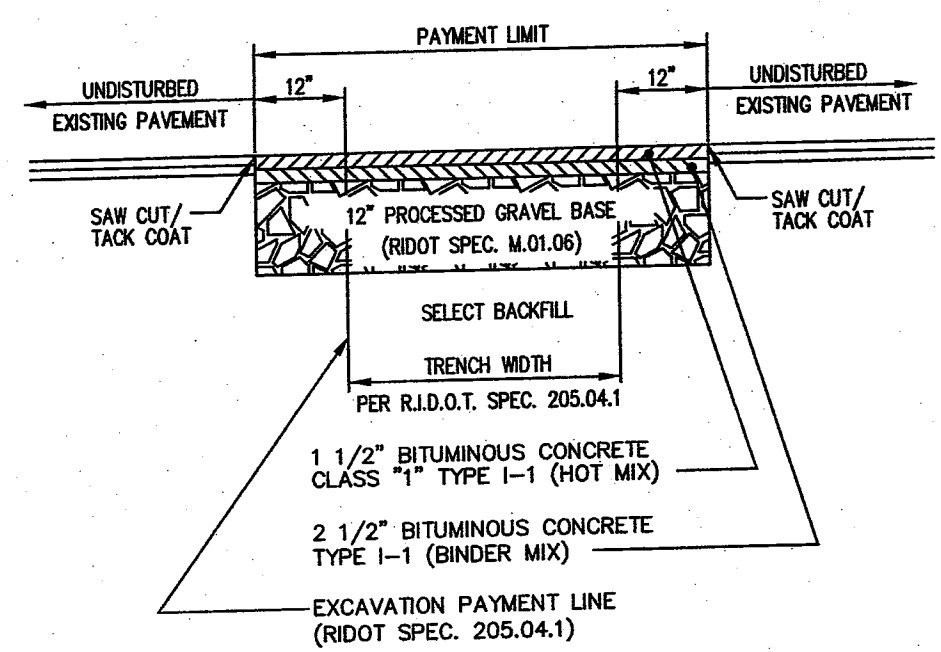
DANIEL R. CAMPBELL  
No. 8399  
REGISTERED PROFESSIONAL ENGINEER  
CIVIL  
DATE: MARCH 30, 2021  
DRAWN: DRG  
SCALE: 1" = 30'

**CASCADE FALLS**  
MULTI-FAMILY RESIDENTIAL-PRELIMINARY PLAN  
PARCEL ID 002-0661  
777 MAIN STREET  
WEST WARWICK, RHODE ISLAND

**LEVEL DESIGN GROUP**  
249 SOUTH STREET, UNIT 1  
PLAINVILLE, MA 02762  
TEL: (508) 695-2221 FAX: (508) 695-2219

**SOIL EROSION & SEDIMENTATION CONTROL**

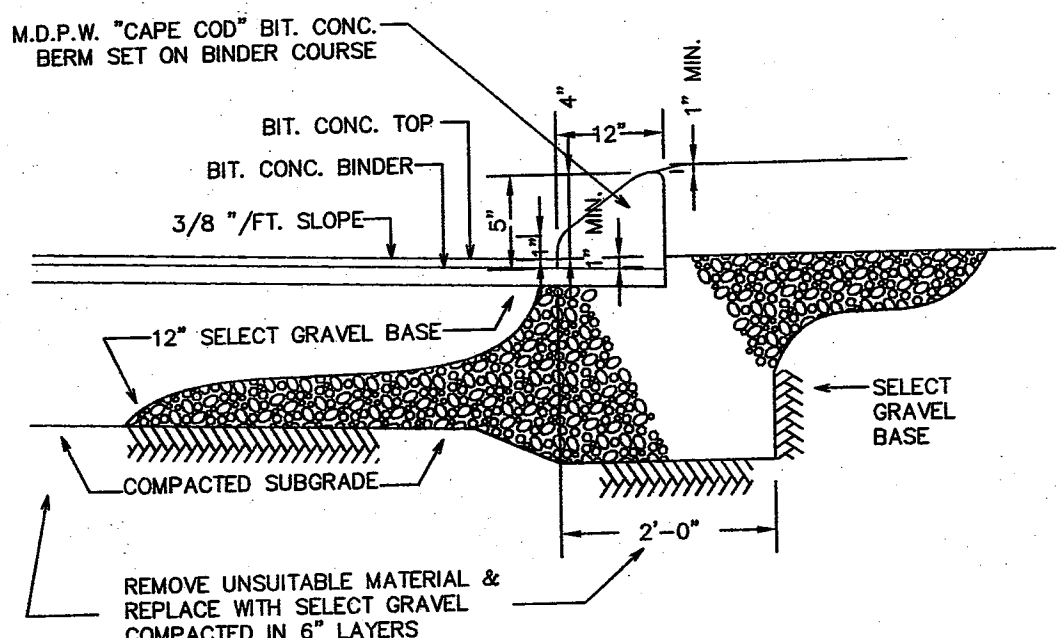
**C-3.1**  
SHEET 7 OF 10  
1866.00



**BITUMINOUS CONCRETE PAVEMENT UTILITY PATCH**

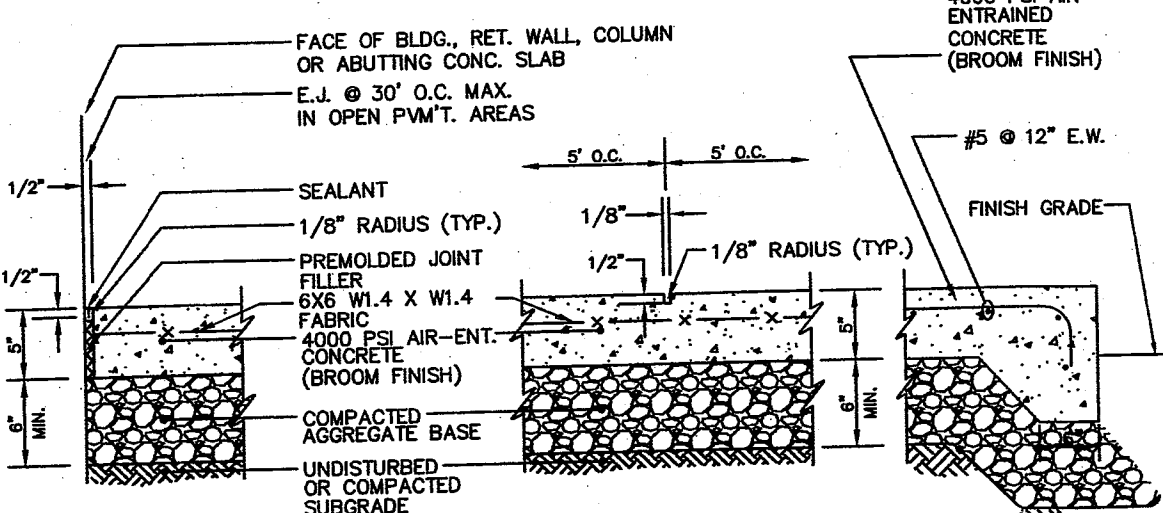
NOT TO SCALE

NOTE: 12" GRAVEL BASE & PERMANENT PAVEMENT SHALL BE EXTENDED TO ALL AREAS EXCAVATED OUTSIDE THE PAYMENT LIMIT LINE AT NO ADDITIONAL EXPENSE TO THE OWNER.



**CAPE COD BERM**

NOT TO SCALE

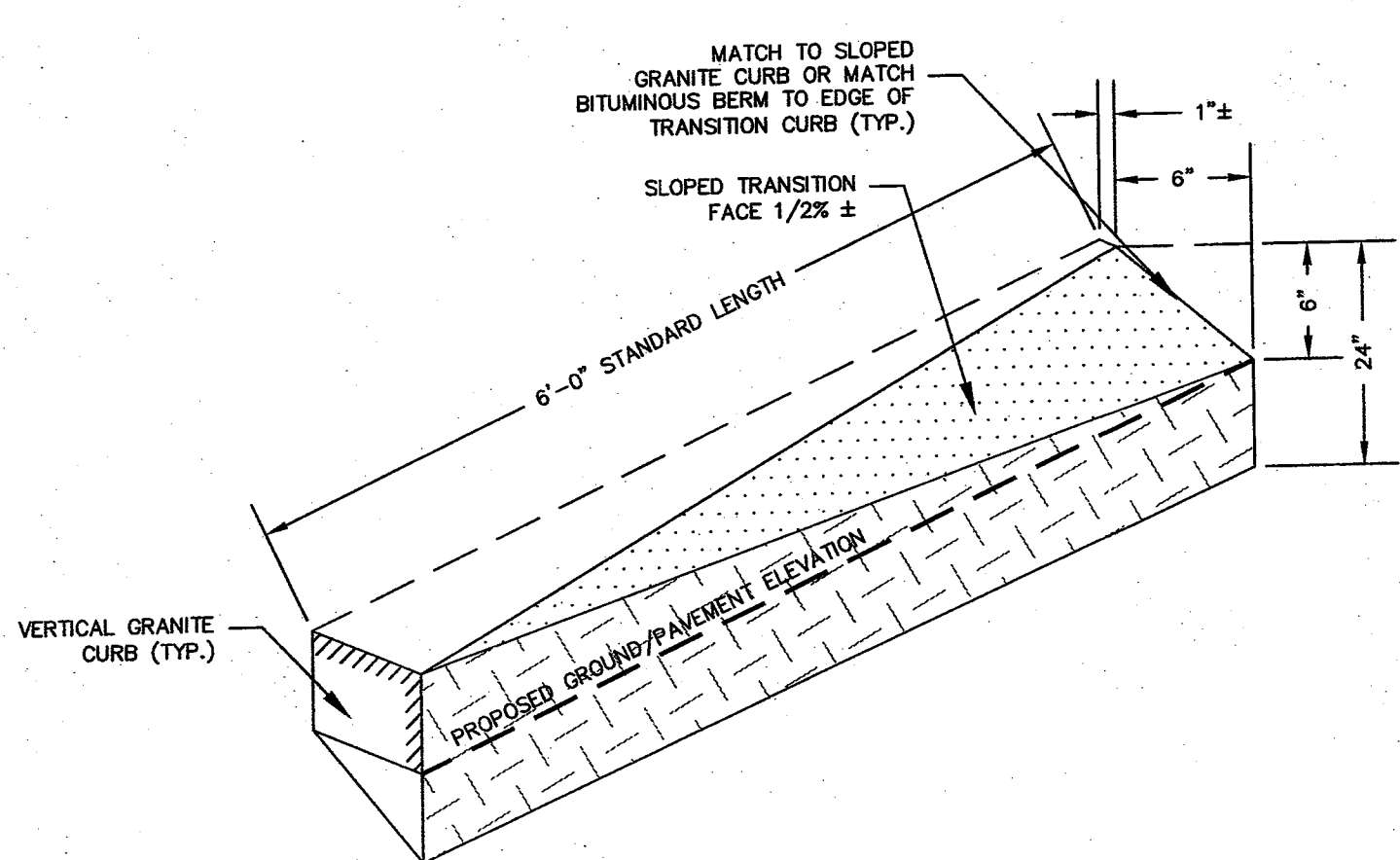


**EXPANSION JOINT**

1. MAXIMUM CROSS SLOPE = 2%
2. MAXIMUM GRADIENT = 5%
3. PROVIDE EXPANSION JOINT AT FACE OF ABUTTING SLABS AND STRUCTURES.
4. PROVIDE VERTICAL GRANITE OR PRECAST CONCRETE CURBING PER SHEET C-5.

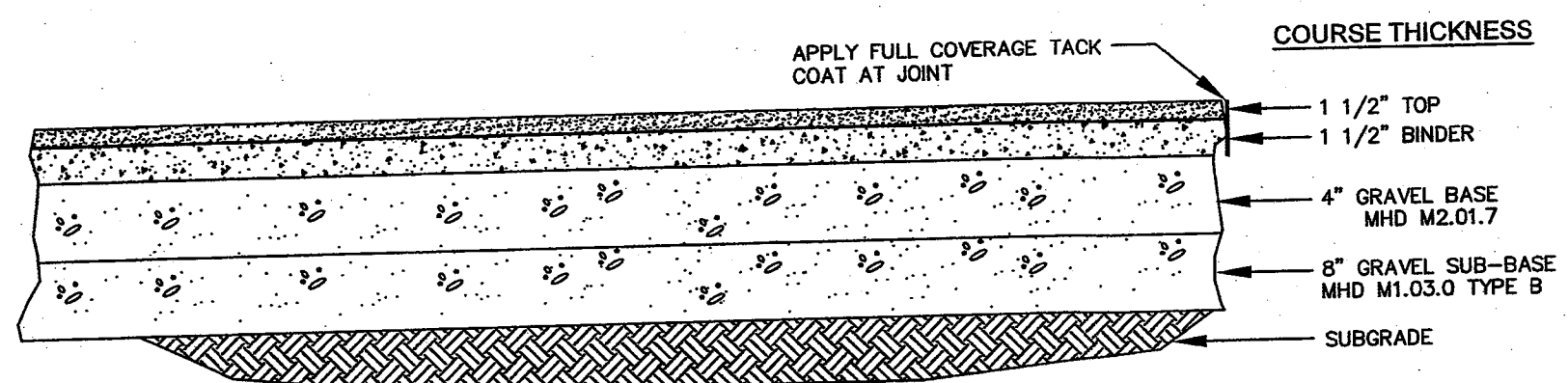
**CONCRETE SIDEWALK**

NOT TO SCALE



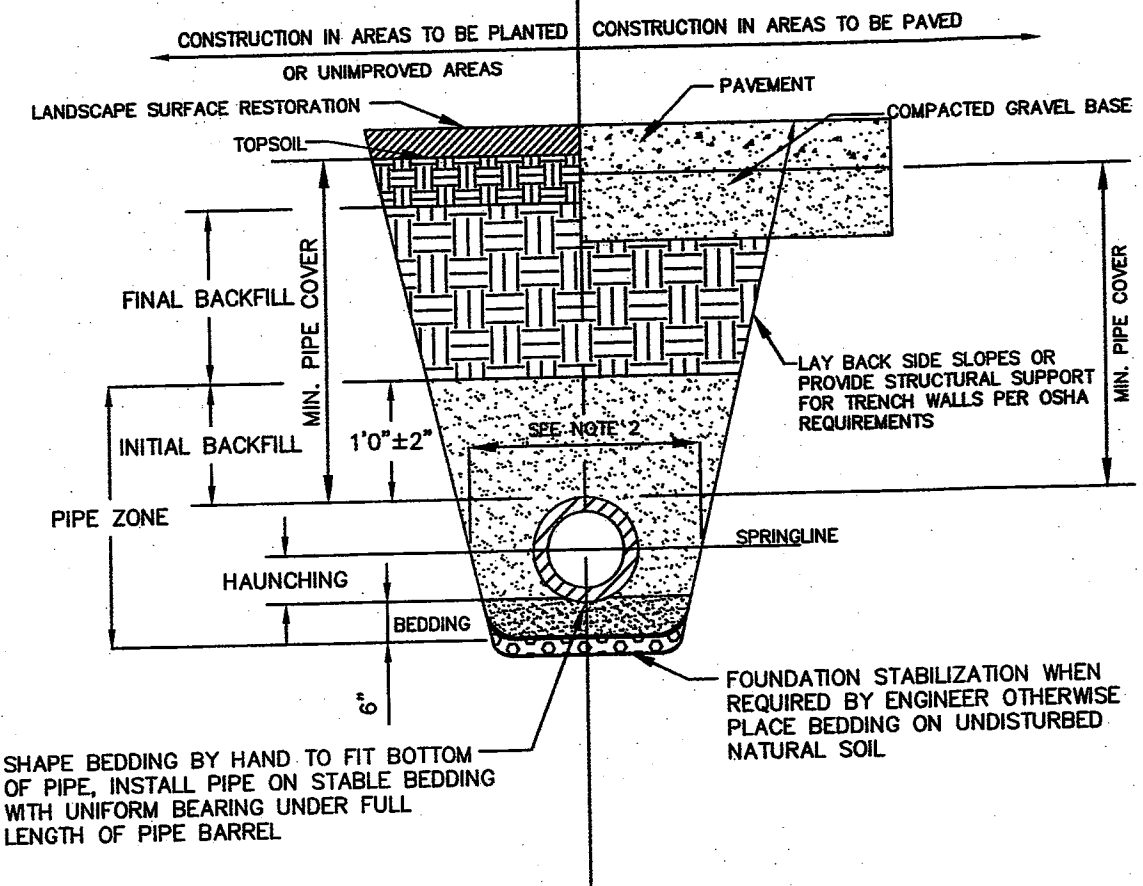
**INTERIOR SITE - TRANSITION CURB DETAIL**

NOT TO SCALE



**AUTOMOTIVE AREAS - BITUMINOUS CONCRETE PAVEMENT**

NOT TO SCALE



**UTILITY TRENCH**

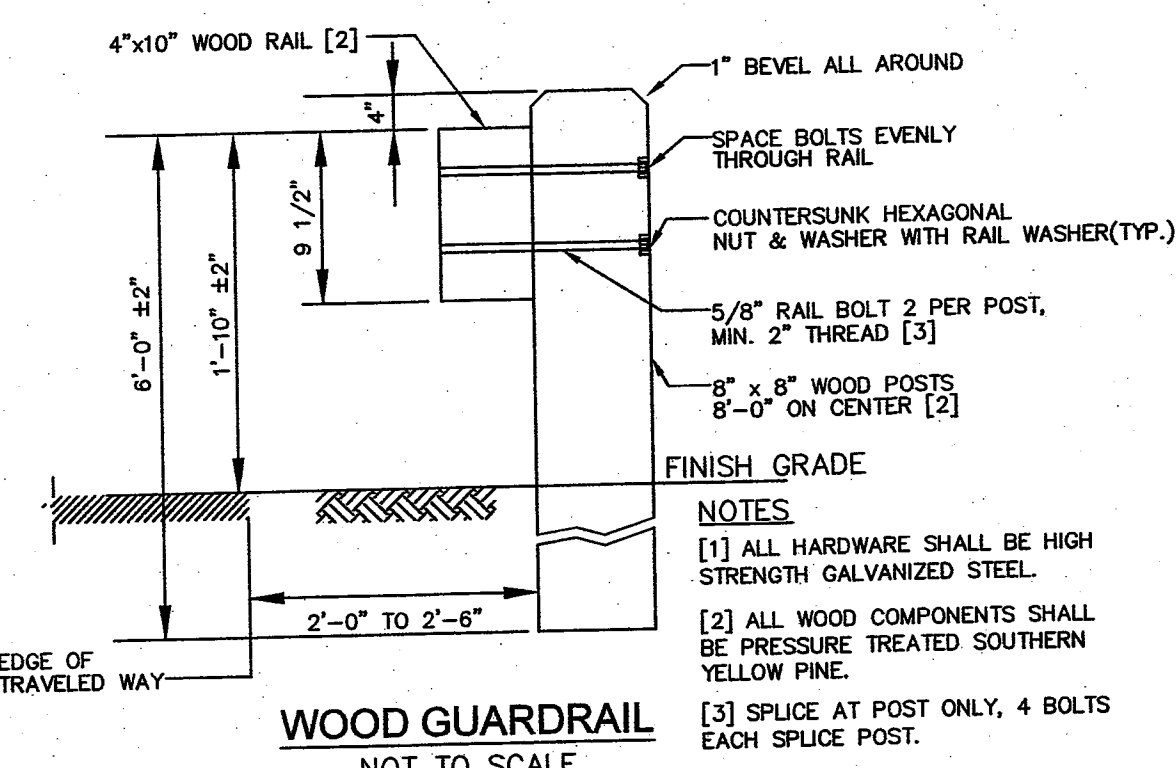
NOT TO SCALE

FOUNDATION, BEDDING AND BACKFILL MATERIALS	QTY	REMARKS
PIPE MATERIAL	HDP PVC	RS. DI
FOUNDATION STABILIZATION	NOTE [6]	[6]
PIPE COVER	[5]	[5]
INITIAL BACKFILL	[4]	[4]
FINAL BACKFILL	[4]	[4]
PIPE COVER	[5]	[5]

- NOTES:
- [1] PLACE 3/4" MINUS GRADED GRANULAR BACKFILL AT OPTIMUM MOISTURE IN HORIZONTAL 8" DEEP LOOSE LAYERS, COMPACT TO 95% PER ASTM D-1557
  - [2] MINIMUM WIDTH OF TRENCH MEASURED AT SPRINGLINE OF PIPE, INCLUDING ANY NECESSARY SHEATHING
  - [3] INSTALL PIPE IN CENTER OF TRENCH.
  - [4] IN PLANTED OR UNIMPROVED AREAS, USE ON-SITE EXCAVATED MATERIAL FOR FINAL BACKFILL. COMPACT TO 95% PER ASTM D-1557. IN PAVED AREAS, OBTAIN ENGINEER APPROVAL OF ON-SITE EXCAVATED MATERIALS FOR USE AS FINAL BACKFILL.
  - [5] MINIMUM COVER OVER TOP OF PIPE
  - [6] FOR FOUNDATION STABILIZATION, USE 2" MINUS CRUSHED STONE

PIPE ID	WIDTH
LESS THAN 21"	O.D. + 12"
21" TO 42"	O.D. + 24"
GREATER THAN 42"	O.D. + 30"

[6] FOR FOUNDATION STABILIZATION, USE 2" MINUS CRUSHED STONE



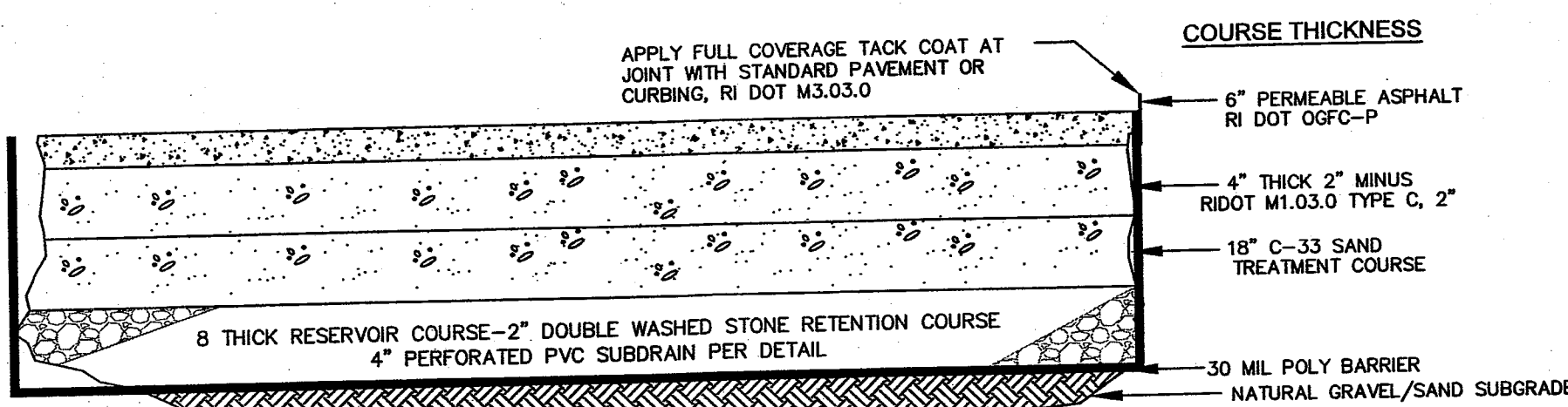
**WOOD GUARDRAIL**

NOT TO SCALE

- NOTES:
- [1] ALL HARDWARE SHALL BE HIGH STRENGTH GALVANIZED STEEL.
  - [2] ALL WOOD COMPONENTS SHALL BE PRESSURE TREATED SOUTHERN YELLOW PINE.
  - [3] SPLICE AT POST ONLY, 4 BOLTS EACH SPLICE POST.

**AUTOMOTIVE PARKING PERVIOUS BITUMINOUS CONCRETE PAVEMENT**

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE



NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

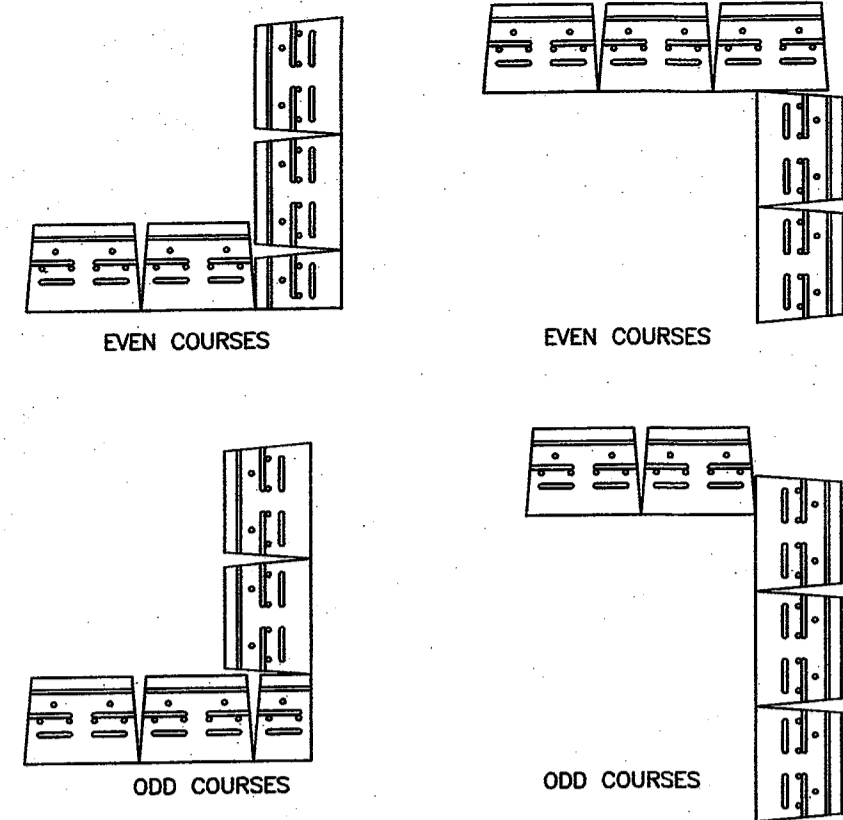
PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE

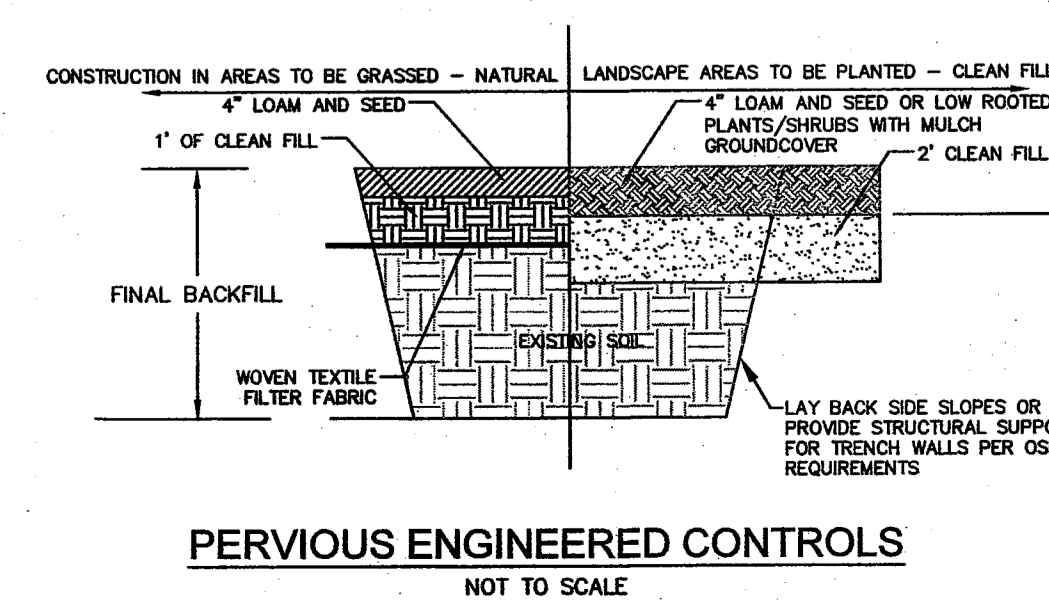
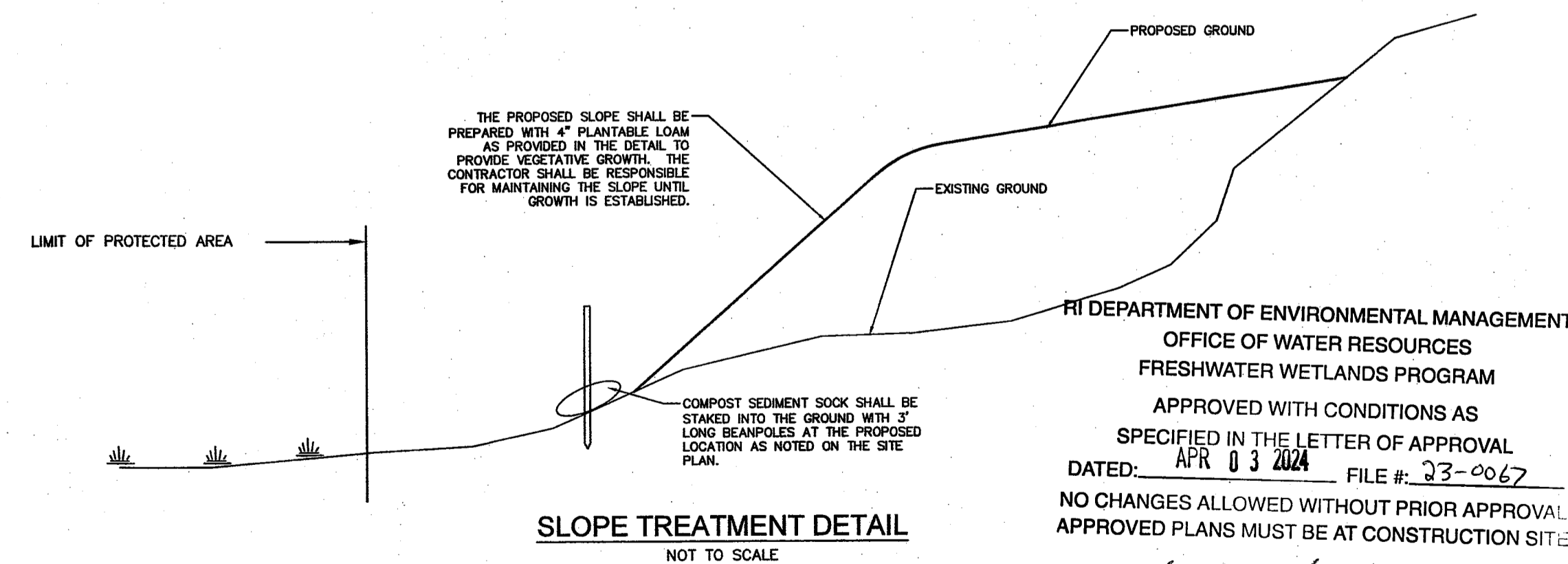
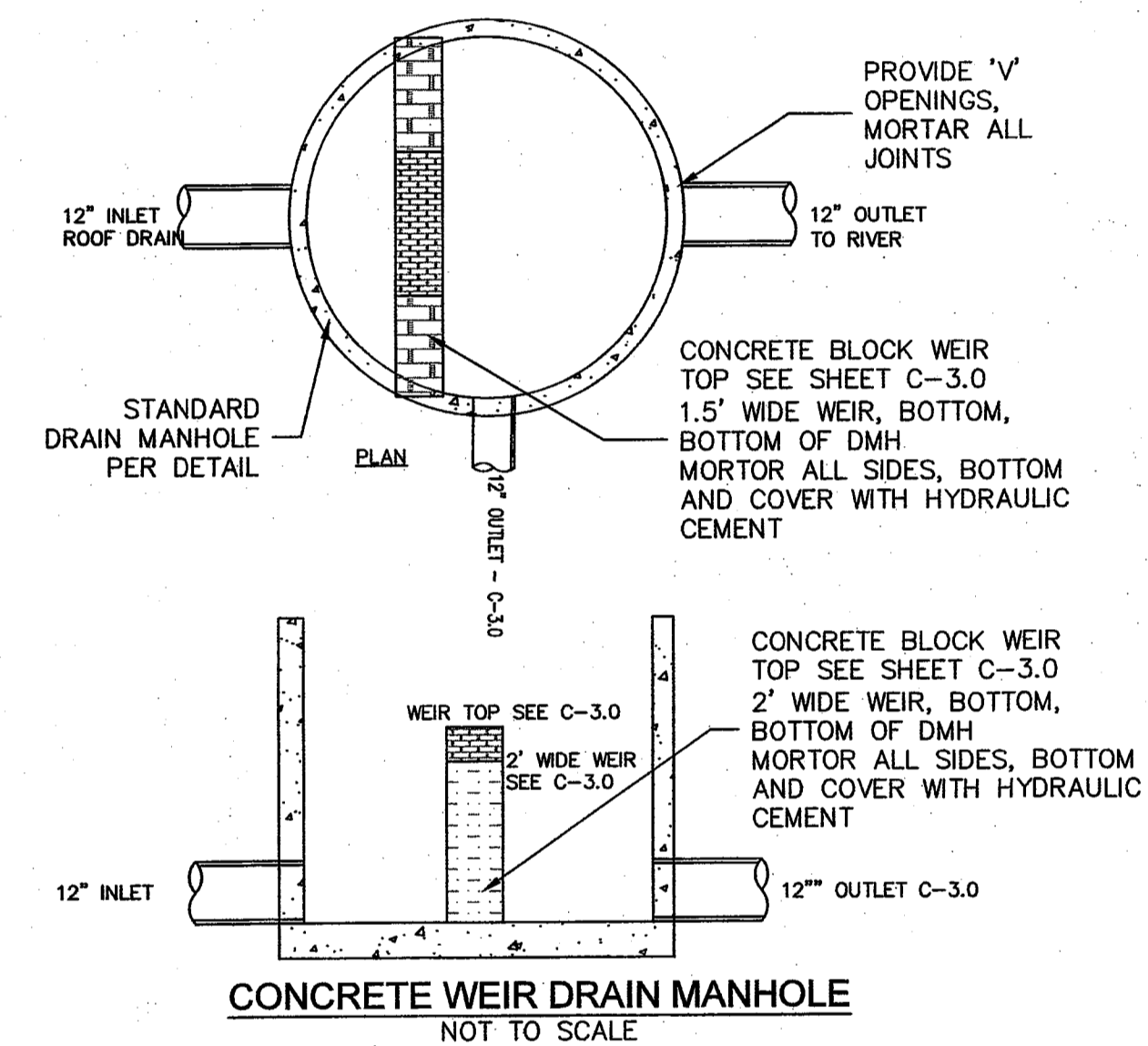
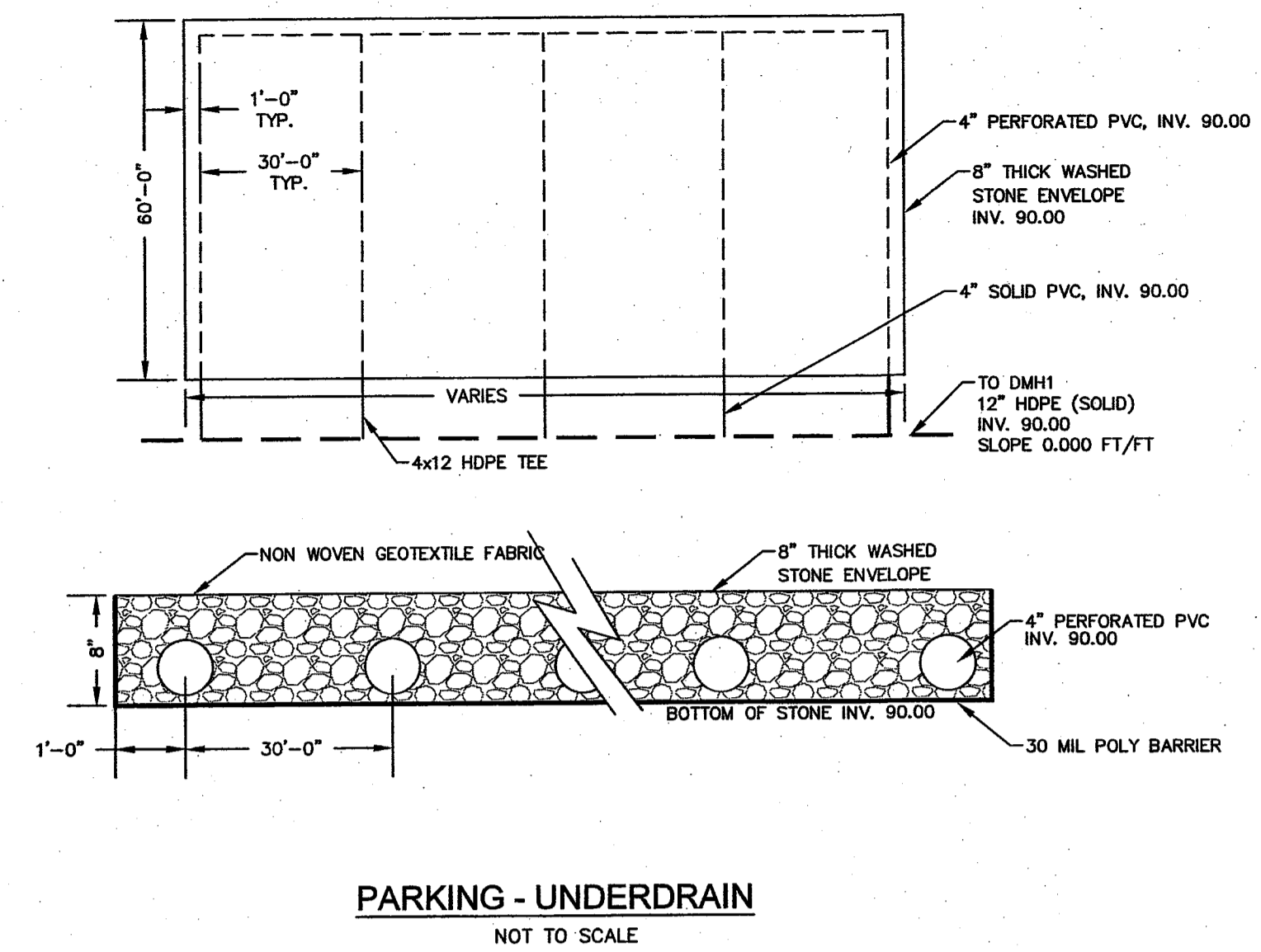
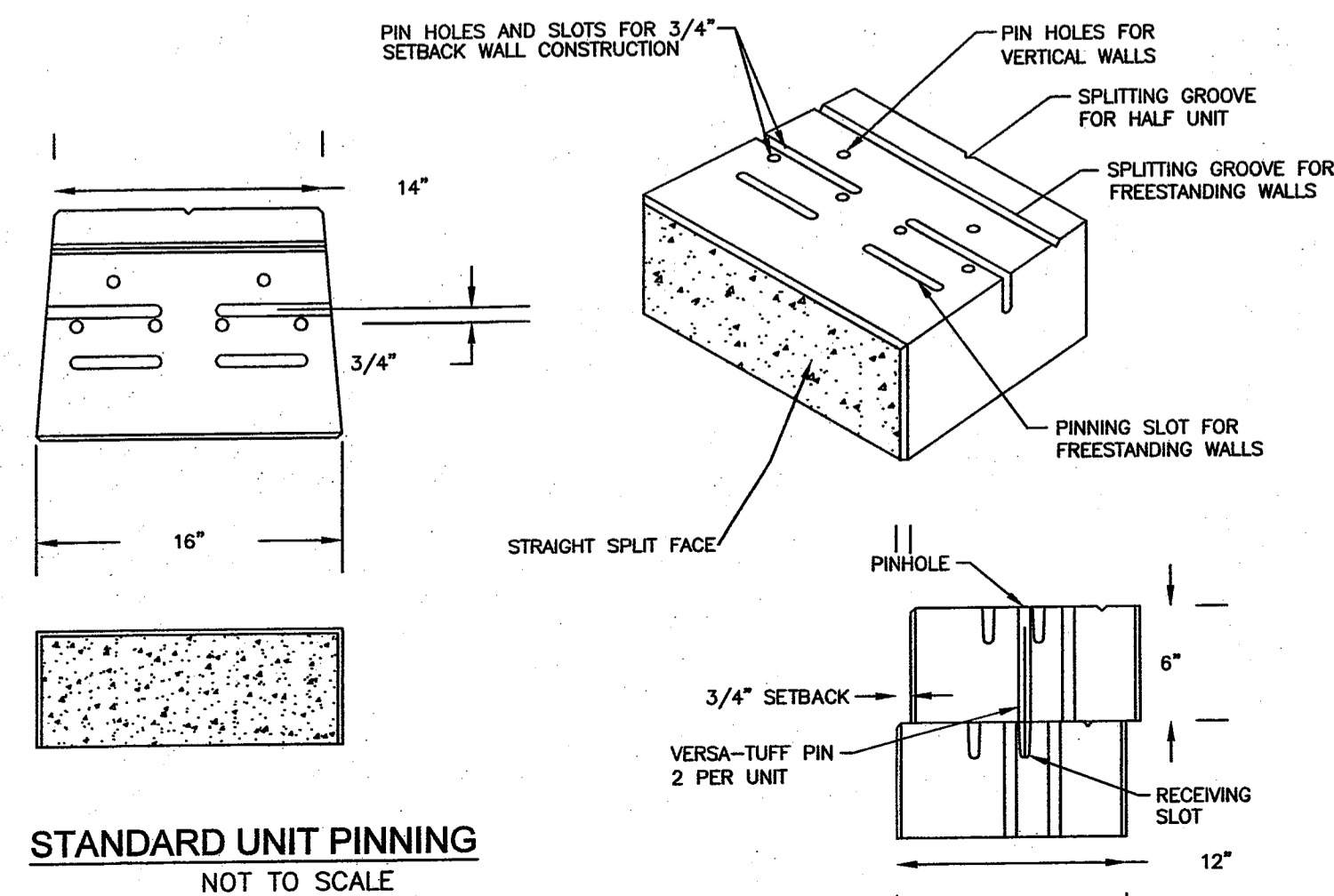
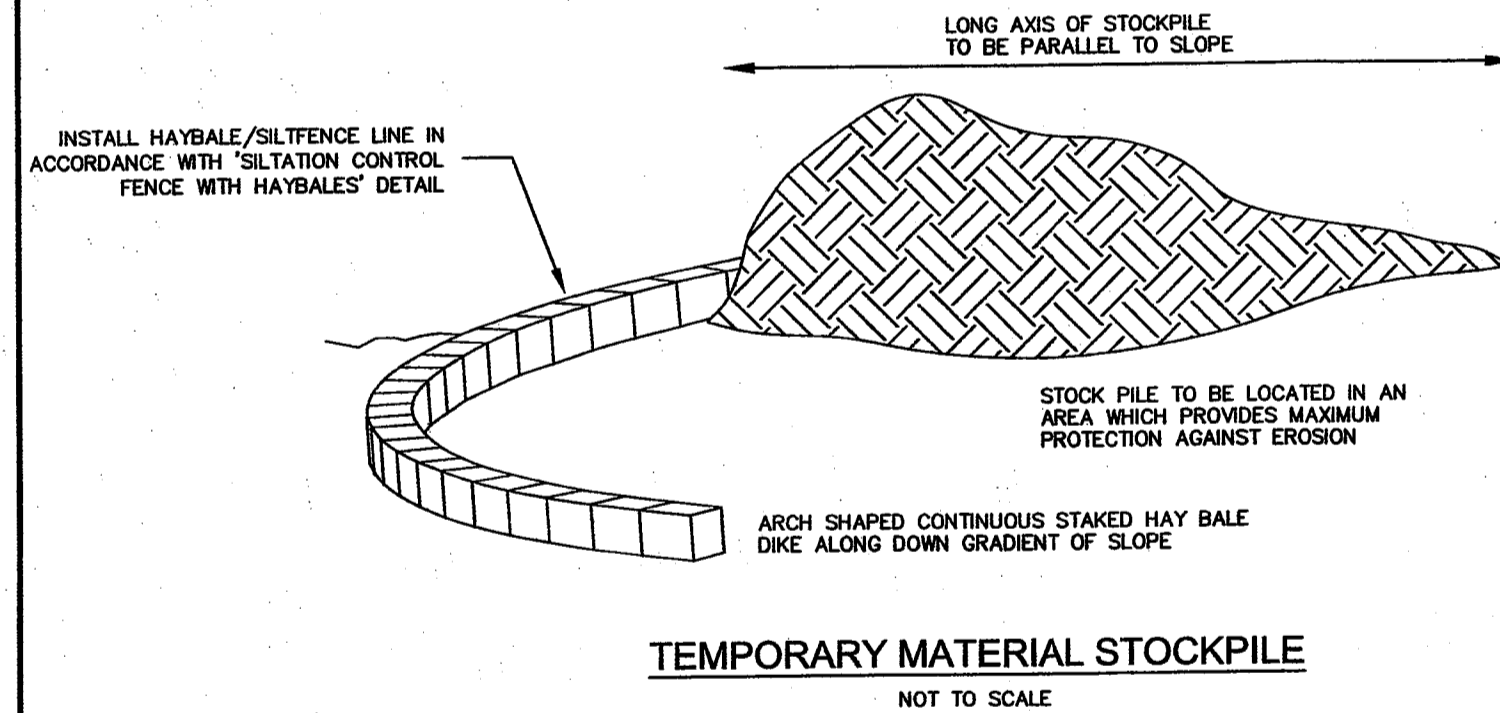
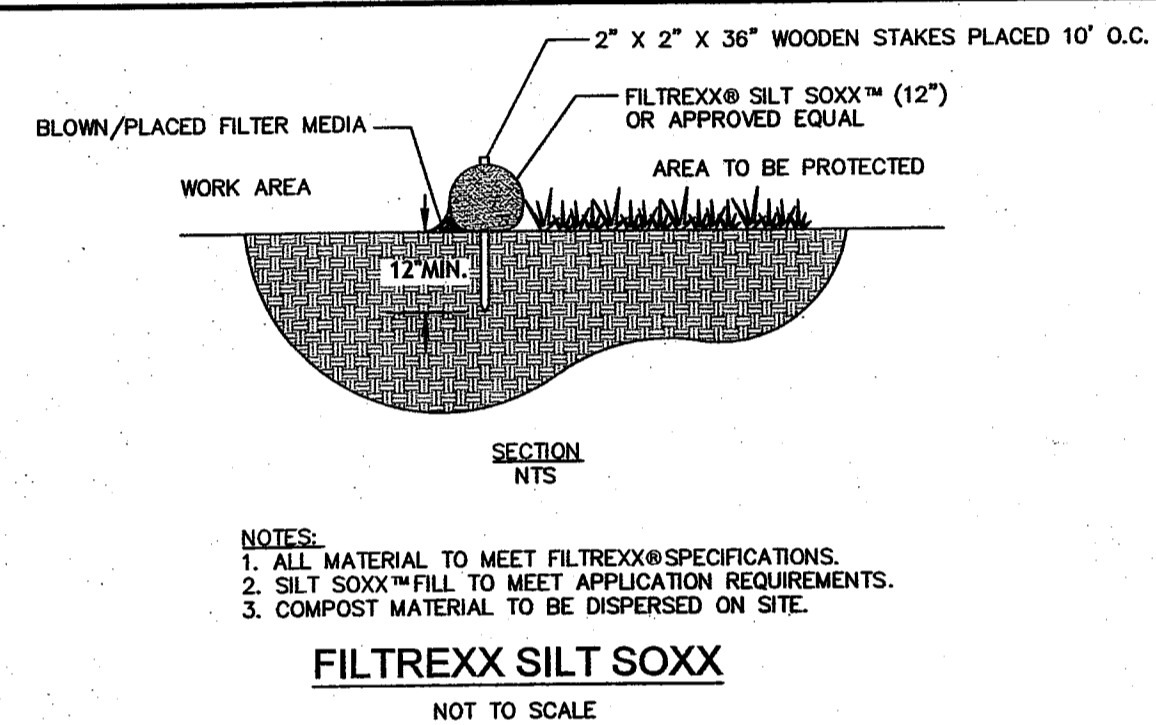
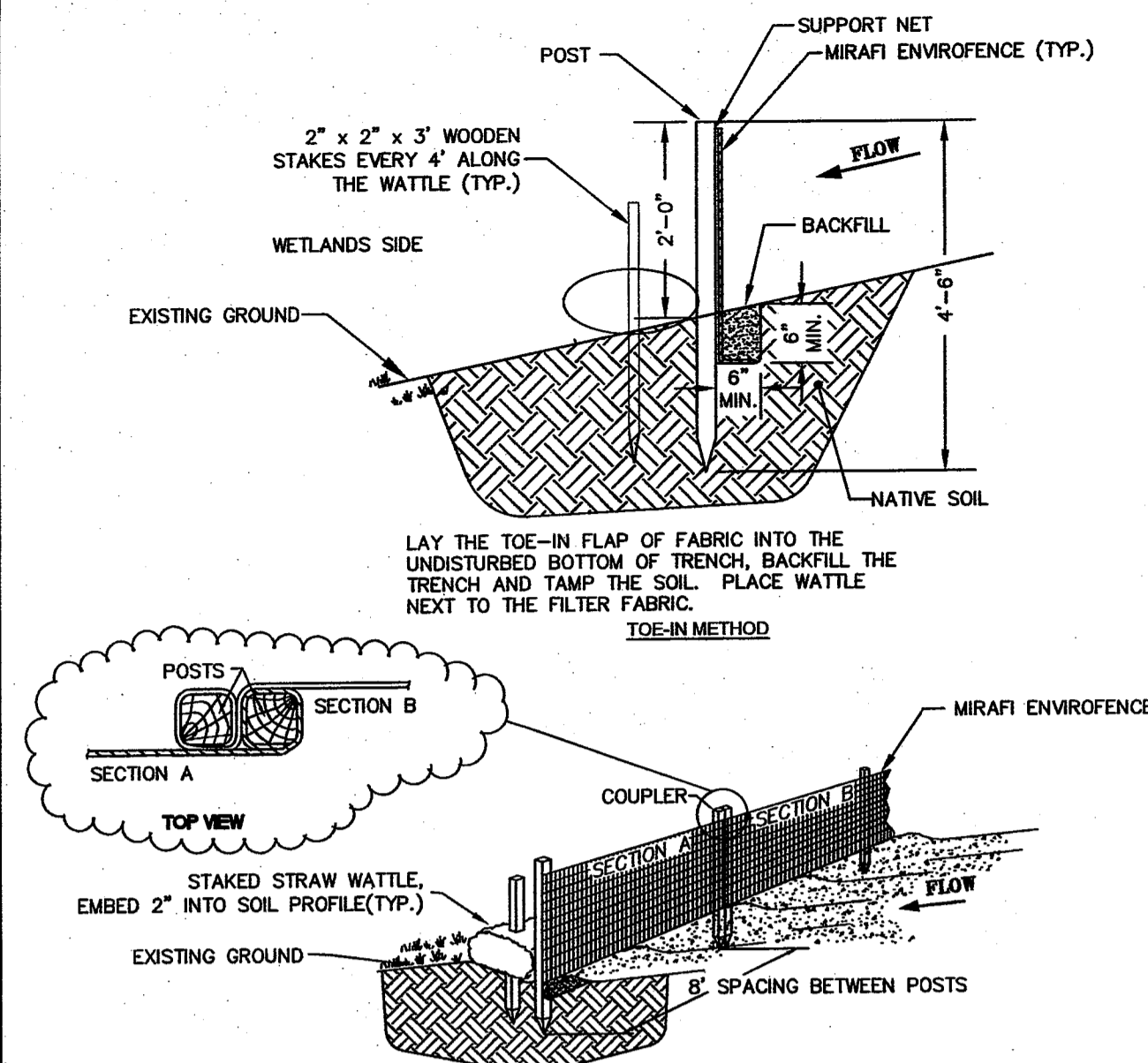
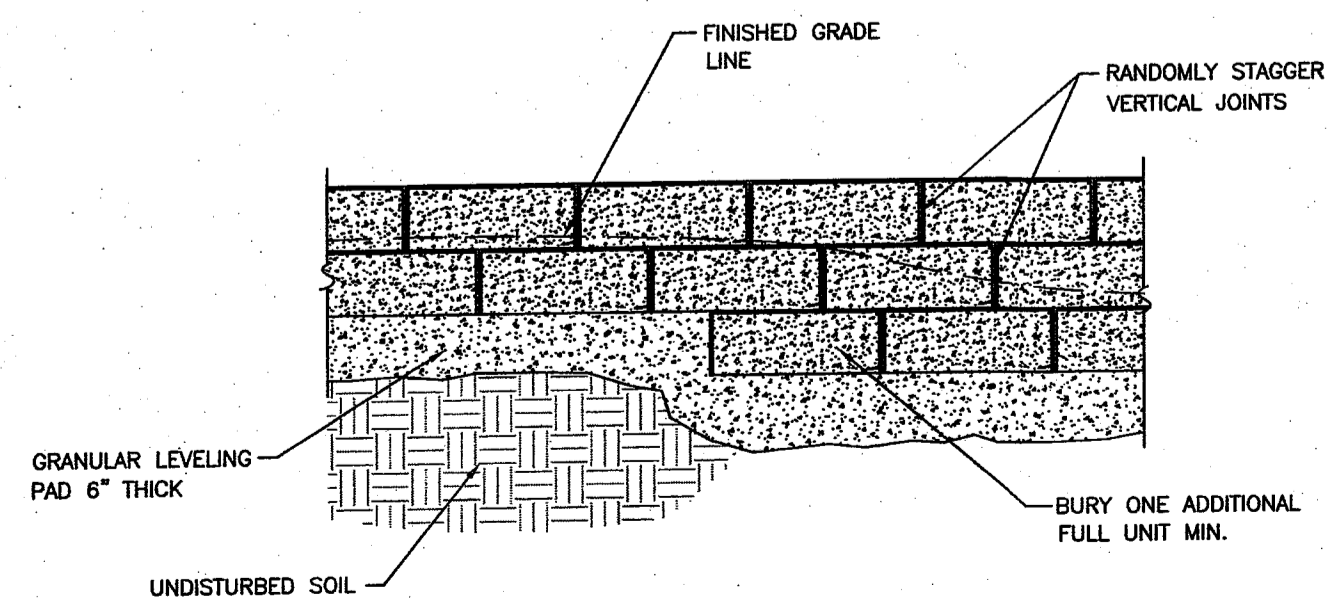
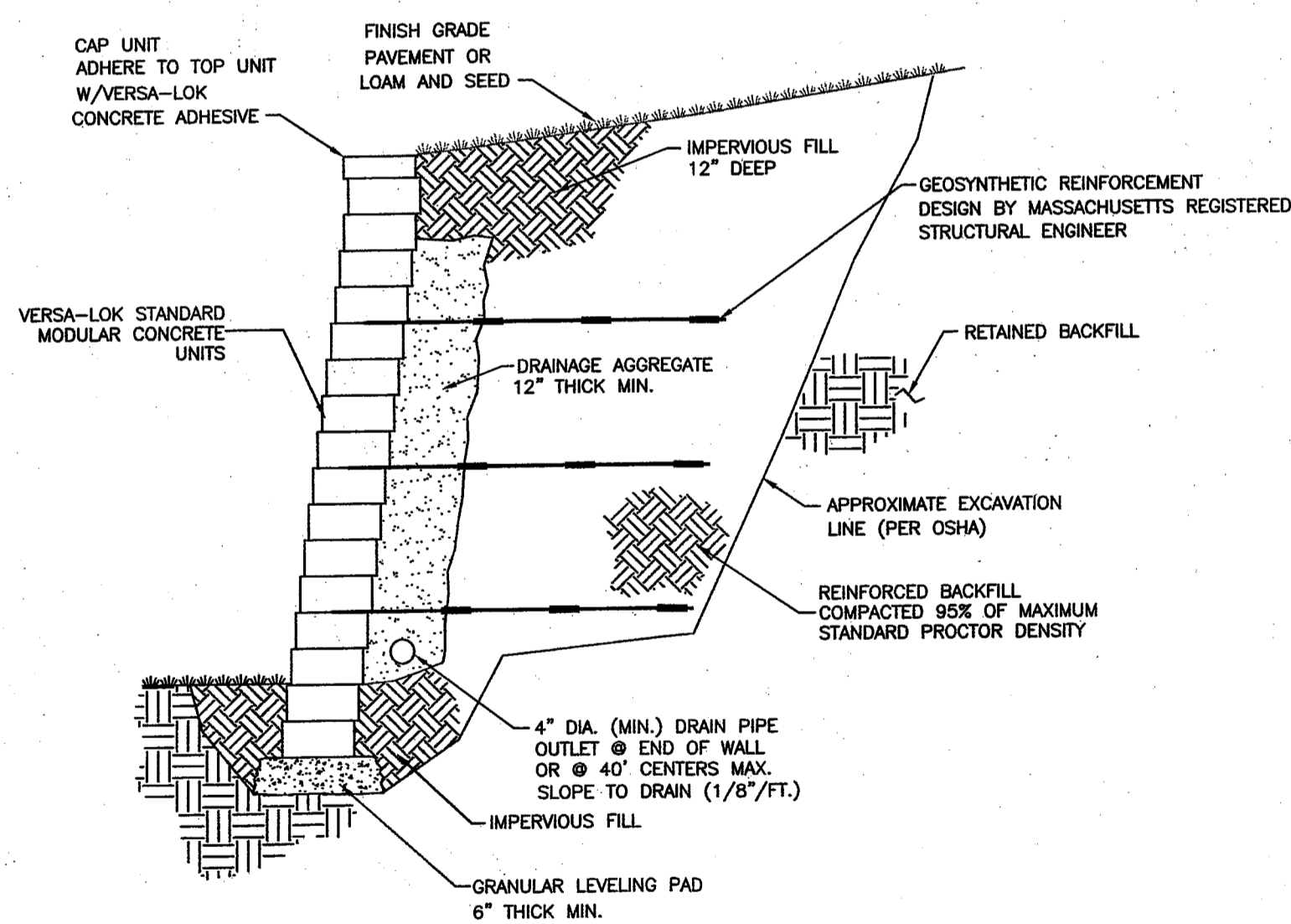
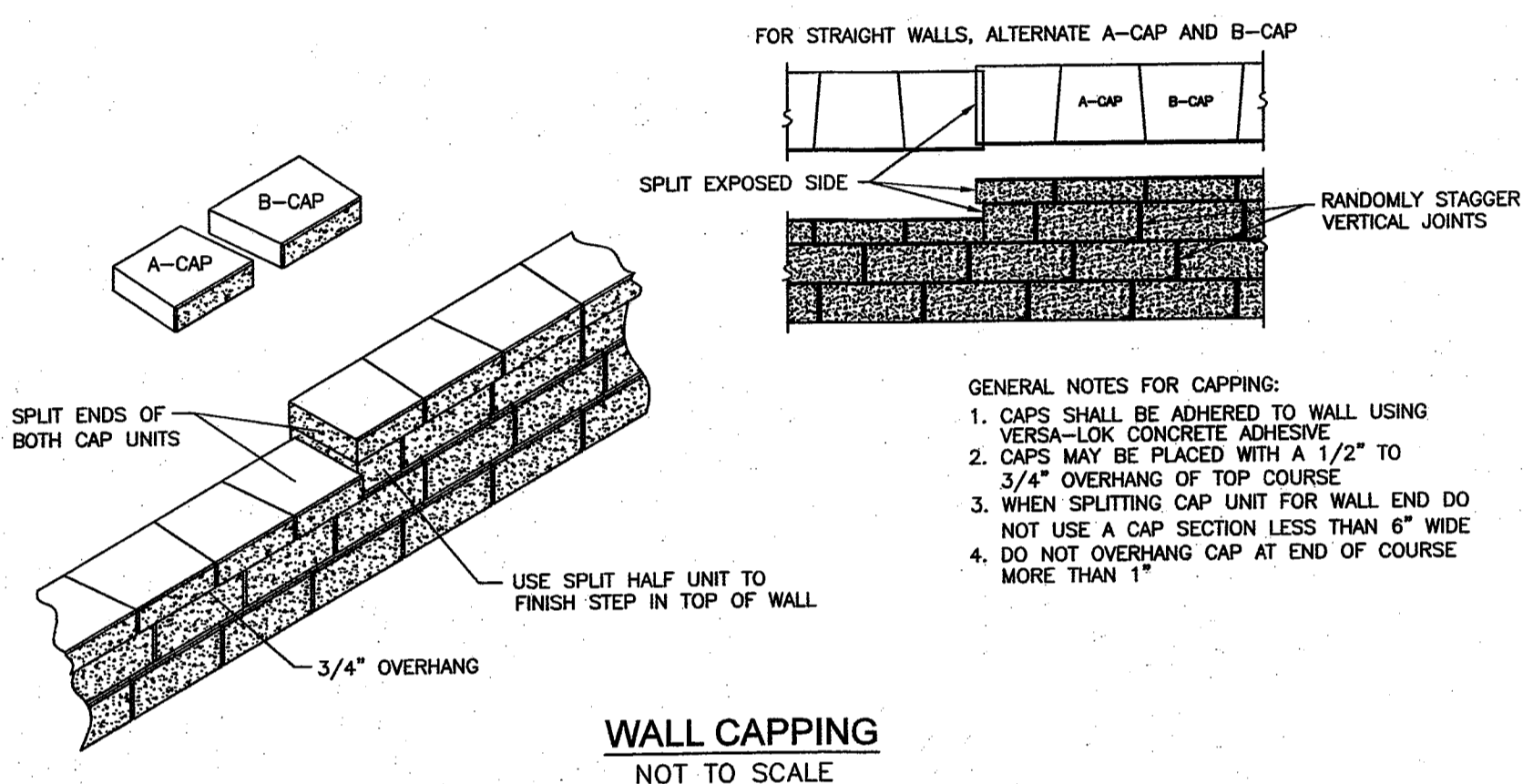
PERVIOUS BITUMINOUS SIDEWALK NOT TO SCALE



**CORNER 90° OUTSIDE**  
NOT TO SCALE

**CORNER 90° INSIDE**  
NOT TO SCALE

NOTE:  
FOLLOW GEGRID MANUFACTURER'S INSTRUCTIONS  
FOR REINFORCEMENT PLACEMENT AT CURVES  
AND CORNERS.



**NOTES:**  
1. PERVIOUS ENGINEERED CONTROLS  
a. LANDSCAPING  
a.1. OPTION A - 2' OF CLEAN FILL (EITHER IMPORTED OR TEST RESULTS DOCUMENTATION TOP 2 FEET OF EXISTING SOIL IS CLEAN). THE 2 FEET OF CLEAN FILL CAN BE ANY COMBINATION OF COMMON BORROW & LOAM.  
a.2. OPTION B - 1 FOOT OF CLEAN FILL (EITHER IMPORTED OR TEST RESULTS DOCUMENTATION TOP 2 FEET OF EXISTING SOIL IS CLEAN) UNDERLAIN BY FILTER FABRIC. THE 1 FOOT OF CLEAN FILL CAN BE ANY COMBINATION OF COMMON BORROW & LOAM.

NO	DATE	REVISIONS
1		
2	11/15/2023	PERMITTING COMMENTS
3	01/23/2024	PERMITTING COMMENTS
4	03/08/2024	PERMITTING COMMENTS

DANIEL R. CAMPBELL  
3/5/24  
No. 3393  
REGISTERED PROFESSIONAL ENGINEER  
CIVIL

DATE: MARCH 30, 2021  
DRAWN: DRC  
SCALE: AS SHOWN

**CASCADE FALLS**  
MULTI-FAMILY RESIDENTIAL-PRELIMINARY PLAN  
PARCEL ID 002-0661  
777 MAIN STREET  
WEST WARWICK, RHODE ISLAND

LEVEL DESIGN GROUP  
Civil Engineers & Land Surveyors  
249 SOUTH STREET, UNIT 1  
PLAINVILLE, MA 02762  
TEL. (508) 695-2221 FAX. (508) 695-2219

**TYPICAL DETAILS**  
**C-5.1**  
SHEET 9 OF 10  
**1866.00**

