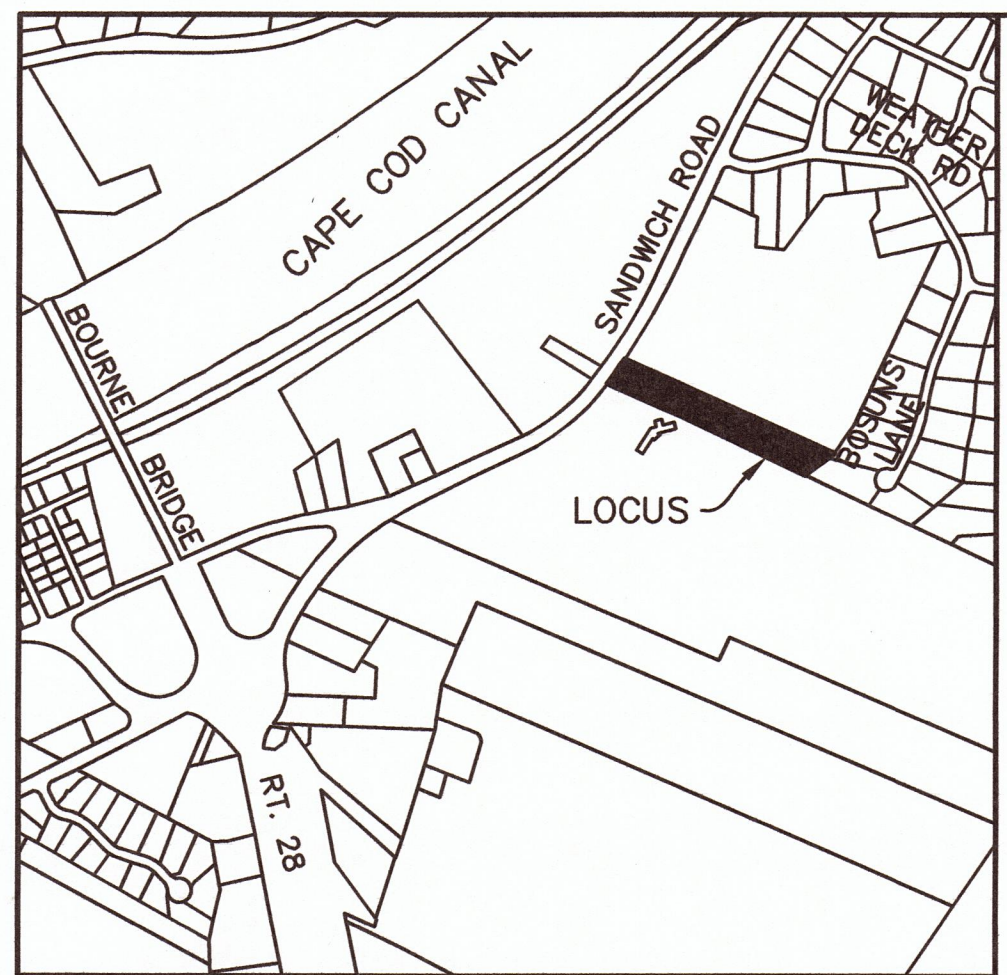
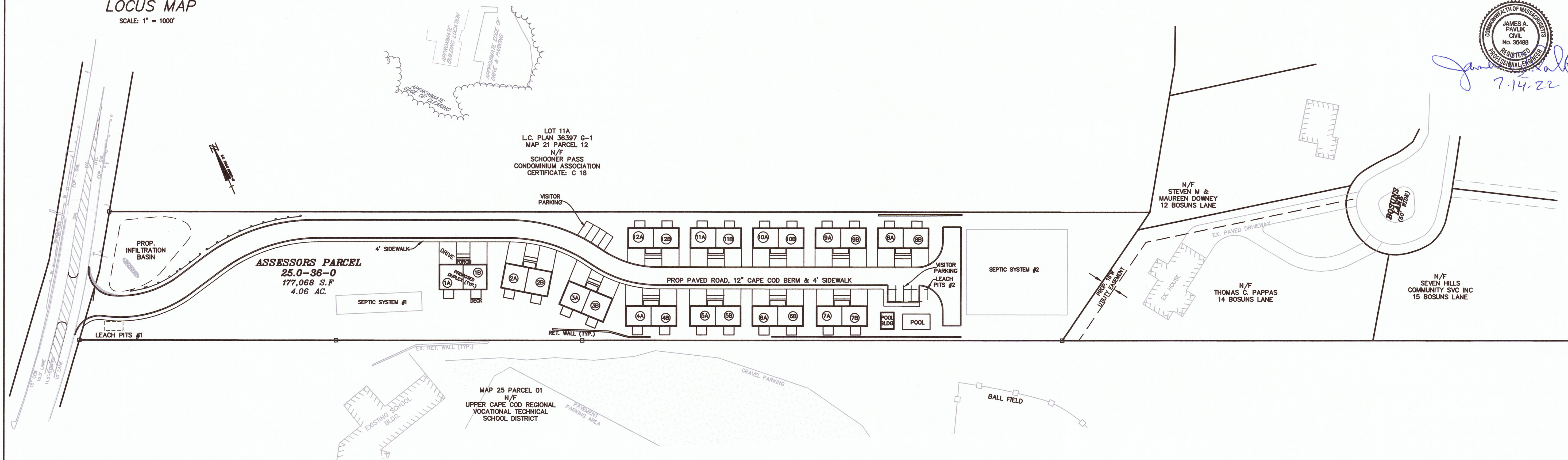


" CHASE ESTATES "
A PROPOSED RESIDENTIAL DEVELOPMENT
IN
BOURNE, MASSACHUSETTS



LOCUS MAP
SCALE: 1" = 1000'



PROJECT SUMMARY

PROPOSED USE: 24 CONDOMINIUM HOMES (24 DUPLEX BUILDINGS, PERMITTED THROUGH MGL CH. 40B, SECTION 20-23
PARKING SUMMARY: 24 HOMES W/ 2-CAR GARAGES + 2 DRIVEWAY SPACES = 96 SPACES
VISITOR PARKING SPACES = 8 SPACES
TOTAL PARKING PROVIDED = 104 SPACES (ALL SPACES 9'X19' MIN. EXCEPT UNITS 8B AND 12A HAVE 1 DRIVEWAY SPACE 9'X16')

WATER AND SEWAGE DESIGN FLOW PER TITLE 5
24 DUPLEX UNITS X 3 BEDROOMS X 110 GPD/BEDROOM = 7,920 GPD

Table with 3 columns: BOURNE TOWN GOVERNMENT/ UTILITY CONTACTS, listing Police Dept, Building Department, Conservation Commission, Fire Dept, Department of Public Works, Planning Board, Bourne Water District, Board of Health, and Zoning Board of Appeals with their respective addresses and phone numbers.

Table with 3 columns: ZONING INFORMATION, showing Residence R-40 requirements and provided specifications for minimum frontage, lot area, setbacks, coverage, height, and shape factor.

Table with 2 columns: PLAN INDEX, listing sheets 1 through 9-11 and their corresponding descriptions from Index Site Plan to Construction Details.

FOR REGISTRY USE ONLY
I CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS.
Professional Engineer Seal for James A. Pavlik, No. 36488, dated 7-14-22.

APPROVED SUBJECT TO TERMS AND CONDITIONS OF A COMPREHENSIVE PERMIT PER ZONING BOARD OF APPEALS DECISION AS AUTHORIZED BY CHAPTER 40B OF THE MASSACHUSETTS GENERAL LAWS, SECTION 20-23.
DATE:
BOURNE ZONING BOARD
I CERTIFY THAT 20 DAYS HAVE ELAPSED SINCE ZONING BOARD APPROVAL, AND THAT NO APPEAL HAS BEEN FILED AT THIS OFFICE.

TOWN CLERK - TOWN OF BOURNE
REVISIONS table with 3 columns: NO., DATE, DESCRIPTION. Revision 1 dated 7/9/22 for PER PEER REVIEW.
OWNER: 230 SANDWICH ROAD REALTY TRUST, 14 BOSUNS LANE, BOURNE, MA
APPLICANT: CHASE DEVELOPERS INC., 14 BOSUNS LANE, BOURNE, MA

SITE PLAN
"CHASE ESTATES"
AT
230 SANDWICH ROAD
IN
BOURNE
MASSACHUSETTS

Outback Engineering logo and contact information: 165 EAST GROVE STREET, MIDDLEBOROUGH, MA 02346, TEL: (508)-946-9231, www.outback-eng.com.
DATE: MARCH 9, 2022
DRAWN BY: CJV, CHECKED BY: JAP
SCALE: 1"=60', SHEET 1 OF 11
Graphic scale bar showing 0, 60, 120, 180 feet.
Project Number: OE-3294A

GENERAL NOTES

PART 1 – TOPOGRAPHIC AND PROPERTY LINE INFORMATION

- A. PROPERTY LINE & TOPOGRAPHIC SURVEY REFERENCES:
1. "CHASE ESTATES 40B SITE PLAN SUBMISSION" AT 230 SANDWICH ROAD BOURNE, MA. PREPARED BY HIGHPOINT ENGINEERING INC. FOR CHASE DEVELOPERS, INC.
 2. THE TOPOGRAPHY SHOWN HEREON IS BASED ON FIELD SURVEY BY OUTBACK ENGINEERING IN JANUARY 2021.
 3. VERTICAL ELEVATIONS ARE BASED ON NAVD88. HORIZONTAL DATUM IS BASED ON NAD83.
- B. THE SITE IS LOCATED WITHIN AN AREA OF MINIMAL FLOOD HAZARD ZONE X, DEPICTED ON FIRM MAP 25001C0502J AND 25023C0237K, EFFECTIVE DATE JULY 16, 2014.
- C. SITE IS NOT LOCATED WITHIN A ZONE II OR IWPA GROUNDWATER RESOURCE PROTECTION AREA. SITE IS NOT LOCATED WITHIN A ZONE A, B, OR C SURFACE WATER PROTECTION AREA.
- D. THE SITE IS NOT LOCATED WITHIN A NATURAL HERITAGE AND ENDANGERED SPECIES PROGRAM (NHESP) PRIORITY HABITAT OF RARE SPECIES OR WITHIN AN NHESP ESTIMATED HABITAT OF RARE WILDLIFE PER THE LATEST ON-LINE MASSGIS MAPPING INFORMATION.
- E. THE SITE IS NOT LOCATED WITHIN A STATE DESIGNATED AREA OF CRITICAL ENVIRONMENTAL CONCERN.
- F. EXISTING UTILITIES DEPICTED HEREON ARE A COMPILATION OF THE FIELD SURVEY AND BEST AVAILABLE INFORMATION AND IS NOT WARRANTED TO BE CORRECT OR THAT ALL UTILITIES ARE SHOWN. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY ALL UTILITY COMPANIES AND AGENCIES PRIOR TO CONSTRUCTION FOR THE LOCATION OF UNDERGROUND UTILITIES. CONTRACTOR SHALL NOTIFY DIGSAFE (811) AT LEAST 72 HOURS PRIOR TO THE ONSET OF ANY CONSTRUCTION TO HAVE ALL EXISTING UTILITIES LOCATED AND CLEARLY MARKED.
- G. THIS PLAN IS THE SUBJECT OF A COMPREHENSIVE PERMIT UNDER M.G.L. C.40B, SECTIONS 20–23.
- H. NO KNOWN PUBLIC OR COMMUNITY WATER SUPPLY WELLS ARE WITHIN 100' OF THE SUBJECT PROPERTY.
- I. SITE HAS TOWN WATER, ELECTRIC, CABLE & GAS SERVICE AVAILABLE IN SANDWICH ROAD. ALL UTILITIES FOR THE PROJECT SHALL BE INSTALLED UNDERGROUND.

PART 2 – EXECUTION

2.1 – DEMOLITION, SEDIMENTATION, AND EROSION CONTROL

- A. THE FIRST STAGE INVOLVES ACTIVITIES NEEDED TO ADDRESS STORMWATER MANAGEMENT, EXCAVATING MATERIAL DESIGNATED FOR OFF-SITE REMOVAL OR ON-SITE RELOCATION AND FENCING SELECTED AREAS. STAGE ONE WILL PREPARE SITE FOR CONVENTIONAL CONSTRUCTION.
- B. THE SECOND STAGE WILL CONSIST OF ROUTINE CONSTRUCTION INVOLVING ROADWAY CONSTRUCTION, UTILITY INSTALLATION, BUILDING, AND LANDSCAPING.
- C. THERE ARE GENERAL PHASES OF CONSTRUCTION. IN EACH PHASE OF CONSTRUCTION, IMPLEMENT STANDARD EROSION AND SEDIMENT CONTROL PRACTICES PRIOR TO INITIATING EARTH DISTURBING ACTIVITIES, AND MAINTAIN THESE PRACTICES THROUGHOUT THE COURSE OF CONSTRUCTION.
- D. DURING DEMOLITION, EXCAVATIONS AS MUCH AS 15 FEET MAY BE REQUIRED FOR THE INSTALLATION OF FOUNDATIONS AND UTILITIES. EXCAVATIONS SHALL BE CUT TO A STABLE SLOPE OR BE TEMPORARILY BRACED, DEPENDING ON THE EXCAVATION DEPTHS AND THE ENCOUNTERED SUBSURFACE CONDITIONS. THE CONTRACTOR MAY BE REQUIRED TO SUBMIT EXCAVATION AND SLOPE STABILIZATION METHODS PRIOR TO THE START OF CONSTRUCTION TO THE ENGINEER FOR REVIEW.
- E. BASED ON THE COMPOSITION OF SOILS ENCOUNTERED DURING THE EXPLORATION PROGRAM, SITE SOILS ARE GENERALLY CLASSIFIED AS TYPE A SOILS AS DEFINED BY USDA NATURAL RESOURCES CONSERVATION SERVICE (NRCS). TEMPORARY CONSTRUCTION SLOPES SHOULD BE DESIGNED IN STRICT COMPLIANCE WITH THE MOST RECENT GOVERNING REGULATIONS. STOCKPILES SHOULD BE PLACED WELL AWAY FROM THE EDGE OF THE EXCAVATION AND THEIR HEIGHT SHOULD BE CONTROLLED TO PREVENT SURCHARGE TO THE SIDES OF THE EXCAVATION. SURFACE DRAINAGE SHOULD BE CONTROLLED TO AVOID FLOW OF SURFACE WATER INTO THE EXCAVATIONS.
- F. CONSTRUCTION SLOPES SHOULD BE REVIEWED FOR MASS MOVEMENT. IF POTENTIAL STABILITY PROBLEMS ARE OBSERVED, WORK SHOULD CEASE AND A GEOTECHNICAL ENGINEER SHOULD BE CONTACTED IMMEDIATELY. THE RESPONSIBILITY FOR EXCAVATION SAFETY AND STABILITY OF TEMPORARY CONSTRUCTION SLOPES SHOULD LIE SOLELY WITH THE CONTRACTOR.
- G. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF EROSION CONTROL MEASURES SHOWN ON THIS PLAN AND ANY ADDITIONAL MEASURES AS MAY BE NECESSARY OR REQUIRED THROUGHOUT CONSTRUCTION, UNTIL FINAL SURFACE FINISHES HAVE BEEN ESTABLISHED AND ACCEPTED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTROL EROSION AND SEDIMENTATION AND THE INTENDED THAT THE IMPLEMENTATION OF THE MEASURES SHOWN ON THESE PLANS WILL MEET THIS GOAL WHEN IT IS CLEAR TO THE DESIGNER THAT EROSION AND SEDIMENTATION HAVE BEEN ADEQUATELY CONTROLLED WITHOUT THE IMPLEMENTATION OF EVERY MEASURE. ADDITIONAL MEASURES NEED NOT BE IMPLEMENTED. ALTERNATIVELY, IF ALL OF THE MEASURES HAVE BEEN IMPLEMENTED AND THE CONTROL OF EROSION AND SEDIMENTATION IS INADEQUATE, THE CONTRACTOR MUST EMPLOY SUFFICIENT SUPPLEMENTAL MEASURES BEYOND THE SCOPE OF THIS PLAN.
- H. REFER TO THE EROSION AND SEDIMENT CONTROL PLAN THAT IS PART OF THIS PLAN SET. THE GENERAL CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR PERIODIC INSPECTIONS AND MAINTENANCE OF THE INSTALLED EROSION CONTROL MEASURES, AND SHALL DOCUMENT THE INSPECTIONS AND REMEDIAL MEASURES THAT MAY BE REQUIRED FROM TIME TO TIME USING A CONSTRUCTION PERIOD OPERATION AND MAINTENANCE LOG FORM (SEE DRAINAGE REPORT, APPENDIX J).

2.2 – TYPICAL PRACTICES TO BE APPLIED TO THE SITE INCLUDE THE FOLLOWING (SEE ESC PLAN ALSO):

- A. PRIOR TO EARTH DISTURBANCE IN ANY WORK AREA, INSTALL EROSION CONTROL BARRIERS BETWEEN THE WORK AREA AND THE SURFACE WATER RESOURCE TO WHICH IT DRAINS, IF PRESENT, OR TO PROTECT OFF-SITE AREAS.
- B. DISCHARGE WATER FROM DEWATERING OPERATIONS TO A TEMPORARY SILTATION TRAP OR SEDIMENTATION BASIN.
- C. PROVIDE TEMPORARY BERMS AND SWALES TO DIVERT SURFACE WATER AWAY FROM THE AREAS THAT WILL BE EXPOSED BY CONSTRUCTION ACTIVITY TO MINIMIZE THE AMOUNT OF SURFACE WATER COMING INTO CONTACT WITH EXPOSED SOILS. PROVIDE STABLE OUTLETS FOR THESE DEVICES, AND LINE OR VEGETATE THESE DIVERSIONS TO PROVIDE FOR THEIR STABILITY DURING CONSTRUCTION.
- D. LIMIT THE EXTENT OF EXPOSED SOILS TO AREAS THAT CAN BE WORKED AND RESTABILIZED WITHIN THE CONSTRUCTION SEASON AND DURING THE SPECIFIC CONSTRUCTION PHASE.
- E. WHEN EARTHWORK CONSTRUCTION ACTIVITY IN AN AREA IS COMPLETE, STABILIZE THE AREA WITH A SUITABLE SURFACE AS DESCRIBED BELOW.
- F. IN ADDITION TO THESE PRACTICES, FOLLOW THE SPECIAL PRACTICES DESCRIBED BELOW. COMPLY WITH THE DIRECTIONS OF THE APPLICANT'S REPRESENTATIVE TO ADDRESS EROSION AND SEDIMENTATION CONDITIONS THAT MAY ARISE ON A CASE BY CASE BASIS DURING CONSTRUCTION.
- G. THE FOLLOWING IS A DESCRIPTION OF MINIMUM CONSTRUCTION REQUIREMENTS AND DOES NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITIES WITH REGARD TO DETERMINING THE ADEQUACY OF MEANS AND METHODS OF CONSTRUCTION.

2.3 – CONSTRUCTION SEQUENCING

- A. SEQUENCING SHALL BE AS SHOWN ON THE PLAN AND AS DICTATED BY THE REQUIREMENTS OF CONSTRUCTION.
- B. THE FOLLOWING ARE GENERAL GUIDELINES FOR CONTRACTOR TO FOLLOW. REFER TO EROSION AND SEDIMENT CONTROL PLAN AND COMPREHENSIVE PERMIT FOR OTHER SPECIFIC REQUIREMENTS.
1. CLEAR TREES TO LIMIT OF WORK SHOWN.
 2. INSTALL EROSION CONTROL BARRIER (ECB) AROUND WORK AREA AS SHOWN.
 - *CLEAR AND GRUB THE SITE.
 - *INSTALL STONE ENTRANCE PAD (SEE DETAIL).
 - *INSTALL STRAW WATTLES ACROSS STONE ENTRANCE PAD AT NIGHT AND PRIOR TO RAIN EVENTS
 - *INSTALL ECB AND SEDIMENT TRAPS PER PLANS. PRIOR TO EARTH DISTURBANCE IN ANY WORK AREA, INSTALL ECB BETWEEN THE WORK AREA AND THE SURFACE WATER RESOURCE AREA (IF PRESENT) OR DOWNGRADIENT AREAS. SEE SHEET 7 FOR MEASURES TO PROTECT INFILTRATION BASIN AND LPIR FROM SEDIMENTATION DURING CONSTRUCTION.
 3. WHEN WORK SITE IS GRADED TOWARDS ROADWAY AND/OR PROPERTY LINES, ECB ARE TO BE PLACED AT PAVEMENT EDGE/PROPERTY LINE, AS NECESSARY DURING CONSTRUCTION.
 - *MAINTAIN ALL EROSION CONTROL BARRIERS DURING CONSTRUCTION, UNTIL SOILS ARE STABILIZED.
 - *DUE TO THE PRESENCE OF RELATIVELY STEEP 2:1 SLOPES ON THE SOUTH SIDE OF THE PROPOSED ROAD UP TO STATION 4+0 APPROXIMATELY (I.E. WEST OF BUILDING #1), CONTRACTOR SHALL BE REQUIRED TO STABILIZE THE CUT SLOPE ALONG THE ROAD SHOULDER WITHIN 14 DAYS OF COMMENCING EARTHWORK ACTIVITIES AS SHOWN ON THE LANDSCAPE PLAN AND EROSION AND SEDIMENT CONTROL PLAN.
 4. CONTRACTOR TO USE STREWN STRAW OR STUMP GRINDINGS ATOP BARE SOILS AS NECESSARY TO MINIMIZE POTENTIAL EROSION, AS NECESSARY DURING CONSTRUCTION.
 5. CONTRACTOR MAY UTILIZE ADDITIONAL EROSION CONTROL MEASURES AS NECESSARY, SUCH AS BUT NOT LIMITED TO HAY BALES, STRAW WATTLES, CRUSHED STONE, EARTHEN BERMS, AND ADDITIONAL SEDIMENT TRAPS TO CONTAIN SOILS ON SITE. MODIFICATIONS MAY BE IMPLEMENTED AS CONSTRUCTION PROGRESSES, AS NECESSARY DURING CONSTRUCTION.
 6. CONTRACTOR TO DEMOLISH EXISTING STRUCTURES, AND CONSTRUCT ROADWAY, PARKING, UTILITIES AND OTHER INFRASTRUCTURE PER SCHEDULE BY OWNER.
 7. DEVELOPER TO CONSTRUCT DUPLEX HOMES WITH SEPTIC SYSTEMS.
 8. COMPLETE LANDSCAPING, FINISH GRADING AND ROADWAY. CLEAN UP SITE AND STABILIZE ALL DISTURBED AREAS.
 9. CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES DURING CONSTRUCTION UNTIL SITE IS FINISH LANDSCAPED AND SOILS ARE STABILIZED.

2.4 – MAINTENANCE

- A. DURING THE PERIOD OF CONSTRUCTION AND/OR UNTIL LONG TERM VEGETATION IS ESTABLISHED, SEEDED AREAS WILL BE FERTILIZED AND RESEEDED AS NECESSARY TO INSURE VEGETATION ESTABLISHMENT.
- B. TEMPORARY SEDIMENTATION TRAPS WILL BE CHECKED AFTER EACH SIGNIFICANT RAINFALL AND CLEANED AS NEEDED TO RETAIN STORAGE CAPACITY.
- C. TEMPORARY DRAINAGE SWALES AND BERMS WILL BE CHECKED WEEKLY AND REPAIRED WHEN NECESSARY.
- D. THE EROSION CONTROL BARRIERS AND OTHER EROSION AND SEDIMENT CONTROL MEASURES/DEVICES SHALL BE INSPECTED, CLEANED, REPLACED AND/OR REPAIRED AS NECESSARY, PERIODICALLY AND AFTER EACH SIGNIFICANT RAINFALL.
- E. SWEEP ON-SITE PAVED AREAS AND OFF-SITE STREETS AS NECESSARY TO PREVENT SILT AND DEBRIS ORIGINATING ON-SITE FROM ENTERING CLOSED DRAINAGE SYSTEMS AND/OR ENVIRONMENTALLY SENSITIVE AREAS. WHEN NECESSARY UTILIZE WATER SPRAYING, SURFACE ROUGHENING AND/OR APPLY POLYMERS, SPRAY-ON TACKIFIERS, CHLORIDES AND BARRIERS FOR DUST CONTROL.
- F. THE OPERATION AND MAINTENANCE (O&M) SCHEDULE DURING THE CONSTRUCTION PHASE IS THE RESPONSIBILITY OF THE OWNER AND/OR SITE CONTRACTOR. THE OUTLINE BELOW SHALL BE ADHERED TO AS CLOSELY AS POSSIBLE TO ENSURE THE PROPER CONSTRUCTION AND FUNCTION OF THE DRAINAGE SYSTEM. CONTRACTOR SHALL BE REQUIRED TO INSPECT EROSION CONTROLS PERIODICALLY AND TO DOCUMENT COMPLIANCE BY COMPLETING CONSTRUCTION PERIOD O&M LOG FORMS (SEE DRAINAGE REPORT, APPENDIX J).
1. PRIOR TO CONSTRUCTION, EROSION CONTROLS (ECB) SHALL BE INSTALLED PER THE APPROVED PLANS. ECB SHALL BE INSPECTED PRIOR TO A LARGE STORM EVENT TO ENSURE THAT THE EROSION CONTROL WILL FUNCTION AS REQUIRED AND FOLLOWING A STORM TO INSPECT FOR DAMAGE TO THE EROSION CONTROL ELEMENTS. ANY DAMAGE OR IMPROPER INSTALLATION THAT IS NOTICED PRIOR TO OR FOLLOWING A STORM EVENT SHALL BE PROMPTLY REPLACED OR REPAIRED IN A SATISFACTORY MANNER SO AS TO PREVENT SEDIMENT FROM BYPASSING THE EROSION CONTROL BARRIER.
 2. IN CONJUNCTION WITH THE SITE CONSTRUCTION, ALL DRAINAGE STRUCTURES INCLUDING CATCH BASIN, WATER QUALITY INLET, SUBSURFACE INFILTRATION STRUCTURES, AND THE INFILTRATION BASIN SHALL BE CONSTRUCTED AND STABILIZED AS SOON AS POSSIBLE. CATCH BASINS SHALL BE PROTECTED WITH SILT SACKS AS SHOWN.
 3. THE CATCH BASINS AND WATER QUALITY TANK SHALL BE INSPECTED WEEKLY DURING CONSTRUCTION. ANY SEDIMENT BUILDUP OF EIGHT (8) INCH DEPTH IN ANY OF THE STRUCTURES SHALL BE PROMPTLY REMOVED BY HAND OR MECHANICAL METHODS AND ALL DEBRIS REMOVED IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.
 - *PROTECT CATCH BASIN AND WATER QUALITY TANK INLETS FROM RECEIVING SEDIMENT-LADEN STORM RUNOFF THAT MAY CLOG UNDERGROUND LEACHING SYSTEMS BY GRADING GRAVEL SUBBASE AWAY FROM THESE INLETS PRIOR TO PAVING.
 4. THE SITE SHALL BE INSPECTED WEEKLY OR AFTER ALL RAINFALL EVENTS GREATER THAN 1/2 INCH, WHICHEVER OCCURS SOONER. ANY EROSION SHALL BE FILLED AND RESTABILIZED IN A MANNER TO PREVENT FUTURE EROSION.

2.5 – GENERAL

- A. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH MASSACHUSETTS GUIDELINES AND ALL LOCAL, COUNTY AND MUNICIPAL REGULATIONS.
- B. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO THE COMMENCEMENT OF ANY SITE WORK OR EARTHWORK OPERATIONS, SHALL BE MAINTAINED DURING CONSTRUCTION, AND SHALL REMAIN IN PLACE UNTIL ALL SITE WORK IS COMPLETE AND GROUNDCOVER IS ESTABLISHED.
- C. ALL WORK SHALL BE IN ACCORDANCE WITH THE PERMITS AND APPROVALS ISSUED AND THE CONSTRUCTION SPECIFICATIONS. BLASTING IS PROHIBITED ON THE PROJECT SITE.
- D. STOCKPILES SHALL BE SURROUNDED ON THEIR PERIMETERS WITH STAKED STRAW WATTLES AND/OR SILTATION FENCES TO PREVENT AND/OR CONTROL SILTATION AND EROSION.
- E. TOPS OF STOCKPILES SHOULD BE COVERED IN SUCH A MANNER THAT STORMWATER DOES NOT INFILTRATE THE MATERIALS AND THEREBY RENDER THE SAME UNSUITABLE FOR FILL USE.
- F. ALL DISTURBED OR EXPOSED AREAS SHALL BE PERMANENTLY STABILIZED WITHIN FIVE (5) BUSINESS DAYS OF COMPLETION OF CONSTRUCTION OF A GIVEN AREA. EXPOSED AREAS WHERE NO WORK HAS OCCURRED FOR FOURTEEN (14) DAYS SHALL BE TEMPORARILY STABILIZED WITH HYDROSEED OR OTHER APPROVED METHOD.
- G. THE LOCATION OF TEMPORARY DRAINAGE SWALES AND SEDIMENTATION TRAPS ARE APPROXIMATE ONLY AND SHALL BE RELOCATED AS REQUIRED AS CONSTRUCTION PROGRESSES.
- H. HAYBALE DIKES SHALL BE CONSTRUCTED AT ALL EXISTING & PROPOSED CATCH BASINS LOCATED IN FILL AREAS & SUBJECT TO STORMWATER RUN-OFF FROM PROPOSED FILL AREAS DURING CONSTRUCTION, OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE. NO SEDIMENTS SHALL ENTER THE ON-SITE OR OFF-SITE DRAINAGE SYSTEMS AT ANY TIME.
- I. CULVERT/PIPE INLETS AND OUTFALLS SHALL BE PROTECTED BY STRAW WATTLE FILTERS UNTIL DISTURBED AREAS ARE PERMANENTLY STABILIZED.
- J. EROSION CONTROLS SHALL BE PERIODICALLY INSPECTED AND REPLACED AS REQUIRED.
- K. ALL PROPOSED NON-RIPRAP SLOPES STEEPER THAN 3:1 SHALL BE STABILIZED WITH EXCELSIOR BLANKETS OR OTHER EROSION CONTROL COVERINGS AND PROTECTED FROM EROSION.
- L. THE CONTRACTOR SHALL KEEP ON SITE AT ALL TIMES ADDITIONAL STRAW WATTLES AND EXTRA SILTATION FENCING FOR INSTALLATION AT THE DIRECTION OF THE OWNER'S REPRESENTATIVE OR LOCAL OFFICIALS TO MITIGATE ANY EMERGENCY CONDITION.
- M. DISPOSAL OF ALL DEMOLISHED MATERIALS IS THE RESPONSIBILITY OF THE CONTRACTOR AND MUST BE HAULED OFF-SITE IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL MUNICIPAL REQUIREMENTS.
- N. THE CONTRACTOR SHALL PROTECT AND/OR CAP OFF ALL EXISTING ON-SITE UTILITY SERVICES DESIGNATED AS SUCH ON THESE DRAWINGS.
- O. THE LIMIT OF WORK LINE FOR THE AREA TO BE CLEARED AND GRUBBED SHALL BE THE SAME AS THE LIMIT OF WORK LINE NECESSARY FOR GRADING PURPOSES, (I.E., THE GRADING LIMITS AROUND THE PERIMETER OF THE PROJECT AREA).
- P. THE AREA OR AREAS OF ENTRANCE AND EXIT TO AND FROM THE SITE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMMEDIATELY.
- Q. FOLLOWING THE ADDITION OF A BINDER COURSE, THE CONTRACTOR SHALL SWEEP ALL ON-SITE PAVEMENT, IF NECESSARY, UNTIL ALL SITE CONSTRUCTION IS COMPLETED.
- R. THE MATERIALS AND METHODS USED IN THE CONSTRUCTION OF ROADWAYS SHALL CONFORM TO THE REQUIREMENTS OF "TOWN OF BOURNE CONSTRUCTION STANDARDS AND SPECIFICATIONS", AS MAY BEWAIVED BY THE COMPREHENSIVE PERMIT. WHEN NO CITY SPECIFICATION IS PROVIDED THE MATERIALS AND METHODS USED IN THE CONSTRUCTION OF ROADWAYS SHALL CONFORM TO THE REQUIREMENTS OF "THE COMMONWEALTH OF MASSACHUSETTS, DEPARTMENT OF PUBLIC WORKS, STANDARDS & SPECIFICATIONS FOR HIGHWAYS & BRIDGES," LATEST EDITION.

PART 3 – STORM DRAINS

- A. STORM DRAIN PIPING (INDICATED BY LETTER "D") SHALL BE CONCRETE UNLESS ADS PLASTIC PIPE PROTECTED IS APPROVED BY THE BOARD. MINIMUM COVER FOR DRAINS SHALL BE 24". PIPING WITH 24" TO 36" COVER SHALL BE REINFORCED CONCRETE.
- B. ANY CATCHBASINS AND MANHOLES SHALL BE AT LEAST FOUR FEET INSIDE DIAMETER, WHERE CB'S SHALL HAVE A 4 FT. OR GREATER SUMP BELOW PIPE INVERT. THEY SHALL BE CONSTRUCTED OF PRECAST CONCRETE UNITS, WITH A CONCRETE BASE OF AT LEAST 4" THICKNESS, PRECAST SEGMENTS OR POURED IN PLACE. ALL CATCHBASINS MUST BE HOODED. A CATCHBASIN TO MANHOLE CONFIGURATION SHALL BE USED. LEACHING CATCHBASINS WILL NOT NORMALLY BE ALLOWED. MANHOLE COVERS AND GRATES SHALL BE IN CONFORMANCE WITH MASSDOT SPECIFICATIONS, DESIGNED AND PLACED SO AS TO CAUSE NO HAZARD TO BICYCLES. NO STORM SEWER SHALL HAVE LESS THAN A 12" INSIDE DIAMETER.
- C. COORDINATES OF MANHOLES REFER TO CENTERS OF STRUCTURES AND CATCH BASINS REFER TO THE CENTER BACK OF THE FRAME AND GRATE.
- E. FLARED END SECTIONS (FES) SHALL BE RCP OR CORRUGATED POLYETHYLENE PIPE (HDPE) AS INDICATED, PER AASHTO M170 MANUFACTURED TO MEET ASTM C76, ADS N-12 OR APPROVED EQUAL.

PART 4 – UTILITIES

4.1 – WATER DISTRIBUTION AND FIRE PROTECTION

- A. ALL WATER MAIN APPURTENANCES, MATERIALS, AND METHODS OF INSTALLATION SHALL MEET OR EXCEED ALL LOCAL MUNICIPAL REQUIREMENTS OF THE BOURNE WATER DISTRICT (BWD).
- B. GENERALLY, WATER MAIN FITTINGS IDENTIFIED ON THIS DRAWING ARE SHOWN FOR INSTALLATION LOCATION PURPOSES. THE CONTRACTOR IS ADVISED THAT NOT ALL FITTINGS AND SUPPLY LINES ARE NOTED, SHOWN, OR INDICATED.
- C. WATER MAINS 3" DIA. AND LARGER SHALL HAVE 4'-6" MINIMUM COVER AND SHALL BE EITHER PLASTIC C900 OR CEMENT LINED DUCTILE IRON (CLDI), CLASS 52 MINIMUM, CONFORMING TO AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) A21.50, A21.4, A21.10 AND A21.51. JOINTS AT FITTINGS, VALVES AND HYDRANT LATERALS SHALL BE MECHANICAL JOINT PER ANSI A21.11, WITH GASKETS. JOINTS AT OTHER LOCATIONS SHALL BE PUSH-ON TYPE WITH GASKETS PER ANSI A21.11. ALL FITTINGS, VALVES, HYDRANTS AND CAPS SHALL BE CLASS 350 PROVIDED WITH THRUST RESTRAINTS (THRUST BLOCKS AND RETAINING RODS) IN CONFORMANCE WITH THE DETAILS. HYDRANTS SHALL BE INSTALLED WITH A 6" CLDI LATERAL AND SHALL BE INSTALLED WITH A 6" GATE VALVE, BOX, AND TEE FITTING. ALL HYDRANTS SHALL MEET AND BE INSTALLED IN ACCORDANCE WITH ALL LOCAL MUNICIPAL STANDARDS.
- E. PRESSURE AND LEAKAGE TEST, DISINFECTION AND FLUSHING SHALL BE IN ACCORDANCE WITH ALL LOCAL MUNICIPAL STANDARDS AND REQUIREMENTS. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS IN CONNECTIONS WITH UTILITY TESTS, FLUSHING, AND INSPECTIONS AS REQUIRED BY THE LOCAL MUNICIPALITY.
- F. EXISTING SERVICES SHALL BE CUT AND A WATERTIGHT PLUG SHALL BE INSTALLED. EXISTING GATE VALVES TO BE ABANDONED SHALL BE PERMANENTLY CLOSED AND CAPPED, AND WATER SERVICES SHOULD BE SHUT OFF AT THE MAIN CORPORATION.

4.2 – UTILITY SEPARATION

- A. A MINIMUM 10 FEET CLEAR HORIZONTAL DISTANCE SHALL BE MAINTAINED BETWEEN SANITARY SEWER MAINS AND WATER MAINS. WHENEVER CONDITIONS PREVENT A LATERAL SEPARATION OF 10 FEET, THE WATER MAIN SHALL BE LAID IN A SEPARATE TRENCH AND THE ELEVATION OF THE CROWN OF THE SEWER SHALL BE AT LEAST 18 INCHES BELOW THE INVERT OF THE WATER MAIN.
- B. A MINIMUM OF 18" VERTICAL CLEARANCE SHALL BE MAINTAINED WHERE WATER MAINS CROSS STORM DRAIN LINES, OR AS MAY BE APPROVED BY TOWN DPW AND BWD.
- C. WHERE SANITARY SEWERS CROSS WATER MAINS, THE SEWER SHALL BE LAID AT SUCH AN ELEVATION THAT THE CROWN OF THE SEWER IS AT LEAST 18" BELOW THE INVERT OF THE WATER MAIN. IF THE ELEVATION OF THE SEWER CANNOT BE VARIED TO MEET THIS REQUIREMENT, THE CONTRACTOR SHALL DO THE FOLLOWING:
 - THE WATER MAIN SHALL BE RELOCATED TO PROVIDE THIS SEPARATION OR CONSTRUCTED WITH MECHANICAL-JOINT PIPE FOR A DISTANCE OF TEN FEET ON EACH SIDE OF THE SEWER. ONE FULL LENGTH OF WATER MAIN SHALL BE CENTERED OVER THE SEWER SO THAT BOTH JOINTS WILL BE AS FAR FROM THE SEWER AS POSSIBLE. IN ADDITION, THE WATER MAIN SHALL BE ENCASED IN CONCRETE.
- D. PRIMARY ELECTRICAL ENCASED CONDUIT MUST BE SEPARATED FROM GAS BY 3' MIN. AND FROM OTHER UTILITIES BY 2' MINIMUM, OR AS REQUIRED BY THE LOCAL UTILITY COMPANY.
- E. TELEPHONE AND FIRE ALARM WHICH SHARE THE SAME TRENCH MUST HAVE A 1' VERTICAL SEPARATION.
- F. GAS MAINS MUST BE SEPARATED FROM OTHER UTILITIES BY 2' MINIMUM.

4.3 – ELECTRIC AND COMMUNICATIONS

- A. INSTALLATION OF COMMUNICATIONS (TELEPHONE, CABLE AND FIRE ALARM) SYSTEMS SHALL BE COORDINATED AND SCHEDULED BY THE CONTRACTOR WITH THE APPROPRIATE UTILITY COMPANY SERVING THE PROJECT SITE.
- B. COORDINATES REFER TO THE CENTER OF STRUCTURES UNLESS OTHERWISE NOTED OR DETAILED. CONTRACTOR SHALL COORDINATE LIGHT BASE LOCATIONS WITH PROPOSED CURBING AND PARKING LOT STRIPING.
- C. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ELECTRICAL SERVICE PRIOR TO ORDERING ANY EQUIPMENT.

PART 5 – PAVEMENT AND CURBING

- A. JOINTS BETWEEN NEW BITUMINOUS CONCRETE PAVEMENT AND SAWCUT EXISTING PAVEMENT SHALL BE SEALED WITH BITUMEN AND BACKSANDS.
- B. CURBING SHALL BE INSTALLED AS FOLLOWS:
 - BITUMINOUS MODIFIED CAPE COD BERM ALONG ROADWAY.
- C. DIMENSIONS REFER TO FACE OF CURB UNLESS NOTED OTHERWISE.
- D. ALL LIMITS OF PAVING SHALL BE CURBED UNLESS NOTED OR DETAILED OTHERWISE.

PART 6 – TRAFFIC CONTROL

- A. INCLUDING, BUT NOT LIMITED TO, ALL CROSSWALKS, STOP LINES AND LEGENDS.
 - LEGENDS SHALL BE PREFORMED PERMANENT PLASTIC. PAVEMENT MARKINGS SHALL BE THERMO PLASTIC (ALKYD). THE MARKINGS, LEGENDS SHALL BE INSTALLED IN ACCORDANCE WITH THE THE RELEVANT PORTIONS OF MASSACHUSETTS HIGHWAY DEPARTMENT (MHD) STANDARD SPECIFICATIONS. THE CONTRACTOR'S ATTENTION ALSO IS DIRECTED TO THE STANDARD SPECIFICATIONS, FOR REQUIREMENTS REGARDING THE AMBIENT AIR TEMPERATURE AT THE TIME OF APPLICATION.

PART 7 – QUALITY ASSURANCE

- A. COMPLY WITH GOVERNING CODES AND REGULATIONS. PROVIDE PRODUCTS FROM ACCEPTABLE MANUFACTURERS. USE EXPERIENCED INSTALLERS. DELIVER, HANDLE, AND STORE MATERIALS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- B. CONFORM TO CONDITIONS OF APPROVAL ISSUED BY REGULATORY AGENCIES INCLUDING, BUT NOT NECESSARILY LIMITED TO, LOCAL PLANNING BOARD, CONSERVATION COMMISSION, CITY COUNCIL, BOARD OF HEALTH, PUBLIC WORKS / HIGHWAY DEPARTMENT, STATE ENVIRONMENTAL PROTECTION DEPARTMENT, AND U.S. GOVERNMENT, ENVIRONMENTAL PROTECTION AGENCY. WHERE CONDITIONS OF REGULATORY APPROVAL DIFFER FROM REQUIREMENTS CONTAINED HEREIN OR ON THE DRAWINGS, COMPLY WITH THE MORE STRINGENT REQUIREMENT.

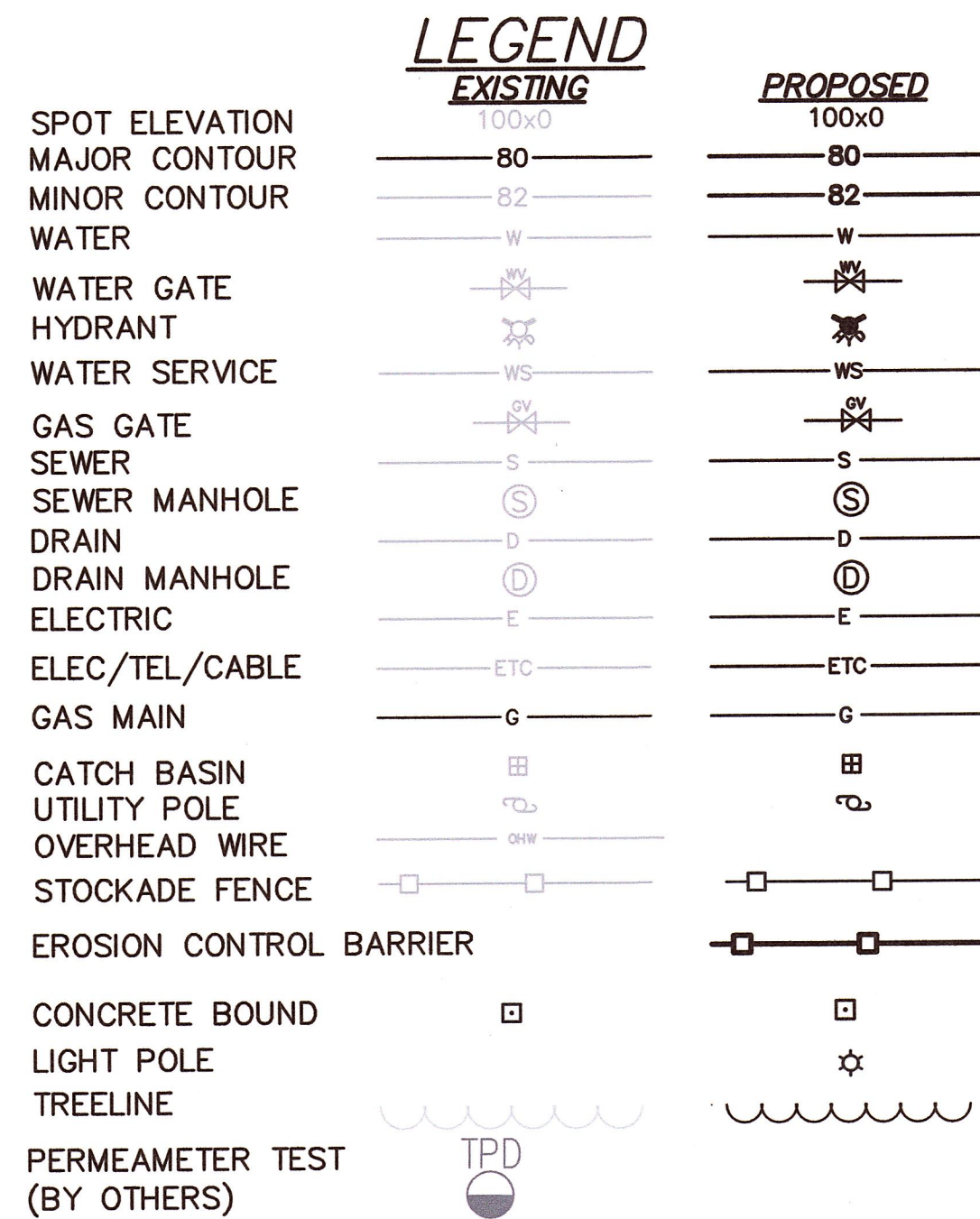
PART 8 – INSPECTION AND MAINTENANCE

BITUMINOUS CONCRETE

- A. INSPECT ALL CATCH BASINS (CB) AND MANHOLES AT LOCATIONS SHOWN ON SITE PLANS. LOOK FOR SETTLING OF PAVEMENT, REPAIR AS REQUIRED. LOOK AT LEVEL OF SAND, SILT IN SUMPS. HAVE SUMPS CLEANED IF OUTLET PIPE IS BLOCKED. VERIFY THAT ELBOW (OIL TRAP) ON PIPE OUTLET IS SECURELY IN PLACE. CLEAN ALL LEAVES, TRASH, AND PINE NEEDLES FROM CB GRATE.
- B. LOOK FOR SIGNS OF CRACKING & POTHOLES, REPAIR AS REQUIRED.

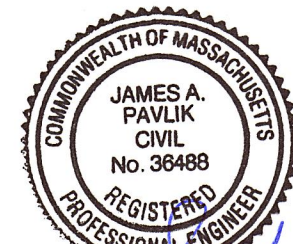
LAWN

- A. INSPECT AFTER EACH SIGNIFICANT RAINFALL (½" OR MORE) FOR FIRST 6 MONTHS AFTER CONSTRUCTION TO ENSURE SURFACE VEGETATION IS HEALTHY, DISCHARGE DEVICES ARE NOT BLOCKED AND BANKS ARE NOT ERODING. CHECK ALL COMPONENTS AFTER EACH MAJOR STORM (MORE THAN 2" RAINFALL IN 24 HOURS). CLEAN/REPAIR AS REQUIRED.



DRAINAGE TEST PITS (BY OTHERS)

DRAINAGE TEST PITS (BY OUTBACK ENGINEERING)



James A. Pavlik
7-14-22

PART 8 – CONTINUED

LANDSCAPING

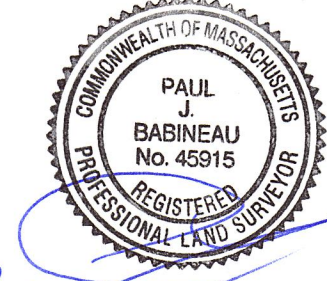
- A. INSPECT FOR DISEASED/DYING TREES, SHRUBS, GROUND COVER, & GRASS; REPLACE AS REQUIRED.
- B. INSPECT MULCH BEDS. SUPPLEMENT AS REQUIRED TO PROVIDE THE SPECIFIED MINIMUM DEPTH (LOOSE MEASURE).
- RIP RAP (STONE) SLOPE PROTECTION
- A. INSPECT STONE SLOPE PROTECTION, CUT EMERGING YOUNG TREES GROWING IN STONES. INSPECT STONE AT PIPE OUTLETS. REMOVE DEBRIS. REPAIR AS REQUIRED.

PART 9 – POST CONSTRUCTION OPERATION AND MAINTENANCE SCHEDULE

- A. ONCE CONSTRUCTION IS COMPLETED, THE OWNER SHALL BE RESPONSIBLE FOR MAINTENANCE OF ROADWAYS AND UTILITY INFRASTRUCTURE, OR ONCE THE CONDOMINIUM ASSOCIATION (CA) ASSUMES RESPONSIBILITY FOR MAINTENANCE. REFER TO THE LONG TERM STORMWATER OPERATION AND MAINTENANCE PLAN & POLLUTION PREVENTION PLAN PREPARED FOR THIS PROJECT FOR ADDITIONAL DETAILS (SEE DRAINAGE REPORT, APPENDIX K).
- B. TRASH AND RECYCLING FROM HOMES SHALL BE BY PRIVATE TRASH REMOVAL COMPANY CONTRACTED BY THE CONDOMINIUM ASSOCIATION.
- C. OPERATION AND MAINTENANCE OF ON SITE SEPTIC SYSTEMS:
1. SEPTIC SYSTEMS SHALL BE THE RESPONSIBILITY OF THE CONDOMINIUM ASSOCIATION.
- D. SNOW STORAGE/REMOVAL:
1. SNOW REMOVAL FROM THE ROADWAY AND VISITOR PARKING AREAS SHALL BE AT THE EXPENSE OF THE HOME ASSOCIATION. SNOW TO BE REMOVED TO MAINTAIN ACCESS TO THE ROADWAY AND OVERALL MAINTENANCE OF THE DEVELOPMENT.
 2. SNOW STORAGE AREAS SHALL BE UTILIZED AS DEPICTED ON THIS PLAN OR IN OTHER AREAS NOT WITHIN RESOURCE AREAS ON THE SITE.

FOR REGISTRY USE ONLY

I CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS.



DATE PROFESSIONAL LAND SURVEYOR

APPROVED SUBJECT TO TERMS AND CONDITIONS OF A COMPREHENSIVE PERMIT PER ZONING BOARD OF APPEALS DECISION AS AUTHORIZED BY CHAPTER 40B OF THE MASSACHUSETTS GENERAL LAWS, SECTION 20–23

DATE:

BOURNE ZONING BOARD

I CERTIFY THAT 20 DAYS HAVE ELAPSED SINCE ZONING BOARD APPROVAL, AND THAT NO APPEAL HAS BEEN FILED AT THIS OFFICE.

TOWN CLERK – TOWN OF BOURNE

REVISIONS

NO.	DATE	DESCRIPTION
1	7/9/22	PER PEER REVIEW

OWNER
230 SANDWICH ROAD REALTY TRUST
14 BOSUNS LANE
BOURNE, MA

APPLICANT
CHASE DEVELOPERS INC.
14 BOSUNS LANE
BOURNE, MA

LEGEND & GENERAL NOTES

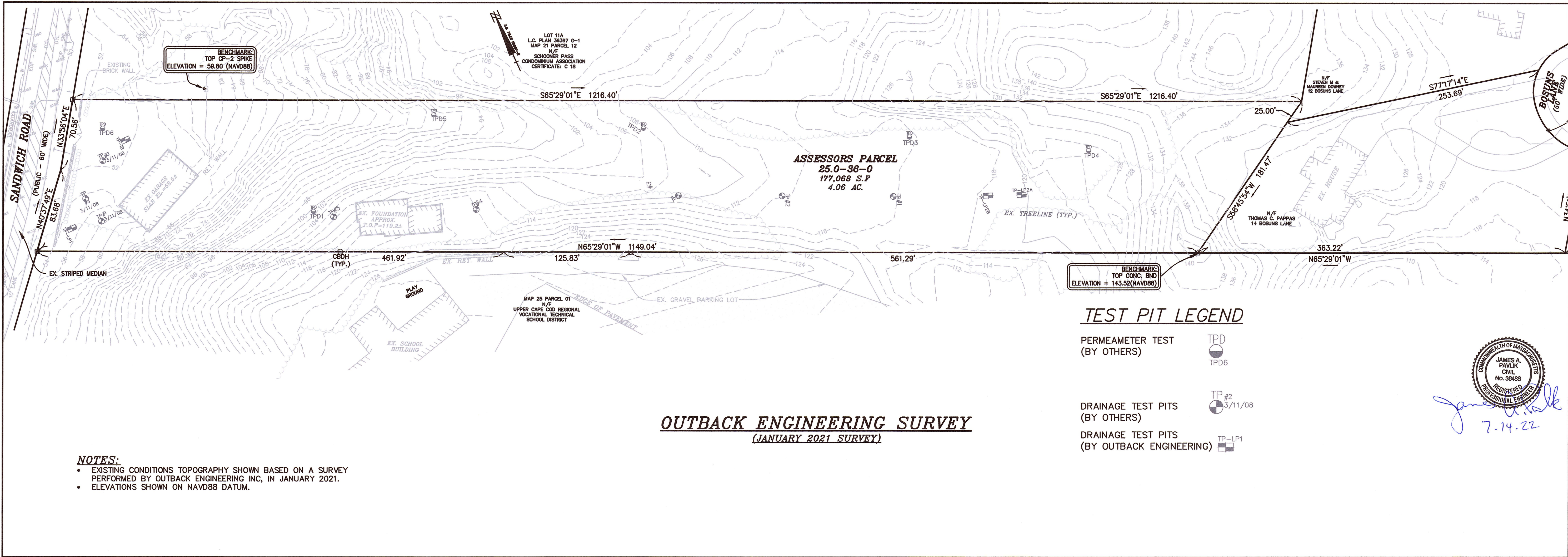
"CHASE ESTATES"

AT
230 SANDWICH ROAD
IN
BOURNE
MASSACHUSETTS



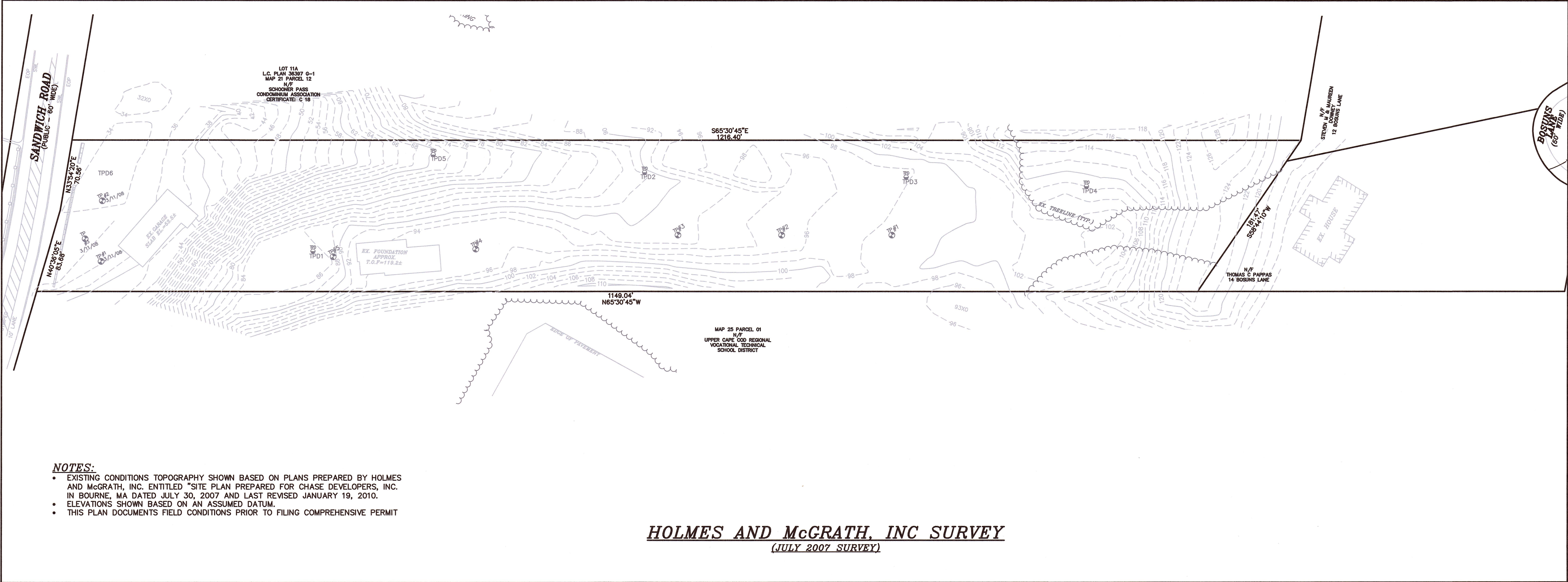
165 EAST GROVE STREET
MIDDLEBOROUGH, MA 02346
TEL: (508)–946–9231
FAX: (508)–947–8873
www.outback-eng.com

DATE: MARCH 9, 2022	
DRAWN BY: CJV	CHECKED BY: JAP
SCALE: 1"=40'	SHEET 2 OF 11
0'	40' 80' 120'
OE-3294A	



NOTES:

- EXISTING CONDITIONS TOPOGRAPHY SHOWN BASED ON A SURVEY PERFORMED BY OUTBACK ENGINEERING INC, IN JANUARY 2021.
- ELEVATIONS SHOWN ON NAVD88 DATUM.



NOTES:

- EXISTING CONDITIONS TOPOGRAPHY SHOWN BASED ON PLANS PREPARED BY HOLMES AND McGRATH, INC. ENTITLED "SITE PLAN PREPARED FOR CHASE DEVELOPERS, INC. IN BOURNE, MA DATED JULY 30, 2007 AND LAST REVISED JANUARY 19, 2010.
- ELEVATIONS SHOWN BASED ON AN ASSUMED DATUM.
- THIS PLAN DOCUMENTS FIELD CONDITIONS PRIOR TO FILING COMPREHENSIVE PERMIT

HOLMES AND McGRATH, INC SURVEY
(JULY 2007 SURVEY)

TEST PIT LEGEND

PERMEAMETER TEST
(BY OTHERS)



DRAINAGE TEST PITS
(BY OTHERS)

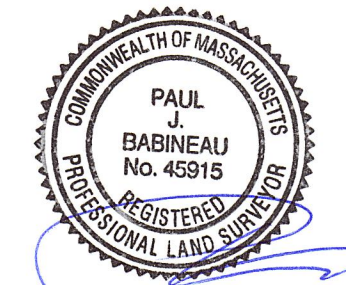


DRAINAGE TEST PITS
(BY OUTBACK ENGINEERING)



JAMES A. PAVLIK
CIVIL
No. 30488
REGISTERED
PROFESSIONAL ENGINEER
7-14-22

FOR REGISTRY USE ONLY
I CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS.



7-4-22
DATE PROFESSIONAL LAND SURVEYOR

APPROVED SUBJECT TO TERMS AND CONDITIONS OF A COMPREHENSIVE PERMIT PER ZONING BOARD OF APPEALS DECISION AS AUTHORIZED BY CHAPTER 40B OF THE MASSACHUSETTS GENERAL LAWS, SECTION 20-23

DATE:

BOURNE ZONING BOARD

I CERTIFY THAT 20 DAYS HAVE ELAPSED SINCE ZONING BOARD APPROVAL, AND THAT NO APPEAL HAS BEEN FILED AT THIS OFFICE.

TOWN CLERK — TOWN OF BOURNE

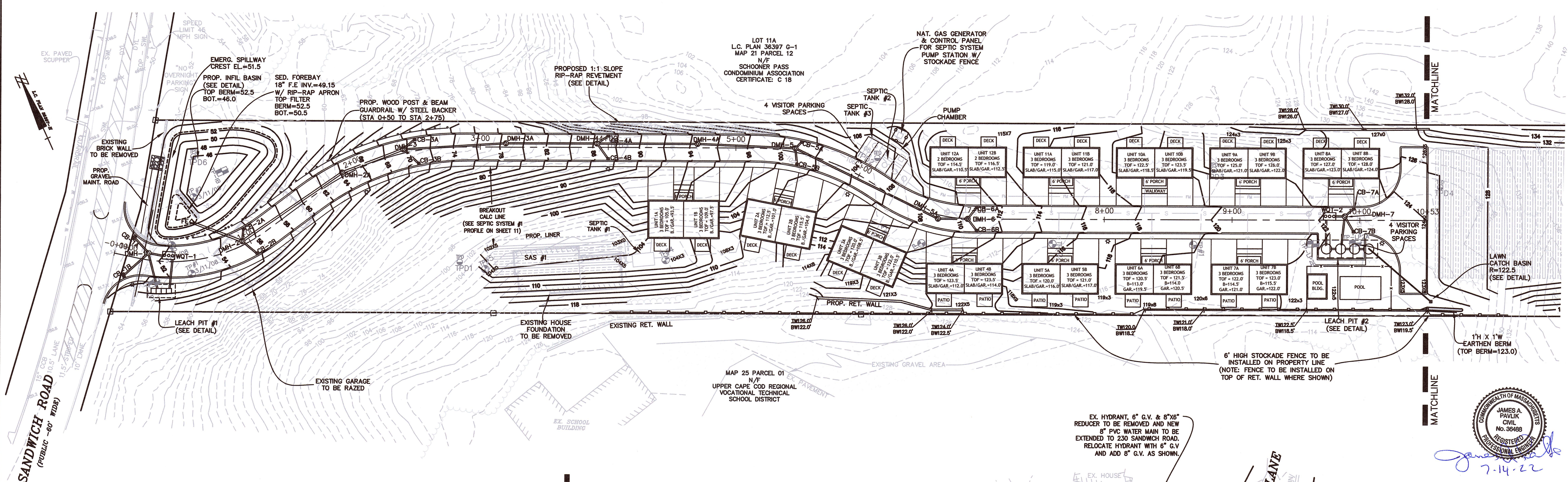
REVISIONS		
NO.	DATE	DESCRIPTION
1	7/8/22	PER PEER REVIEW

OWNER
230 SANDWICH ROAD REALTY TRUST
14 BOSUNS LANE
BOURNE, MA
APPLICANT
CHASE DEVELOPERS INC.
14 BOSUNS LANE
BOURNE, MA

EXISTING CONDITIONS PLAN
"CHASE ESTATES"
AT
230 SANDWICH ROAD
IN
BOURNE
MASSACHUSETTS

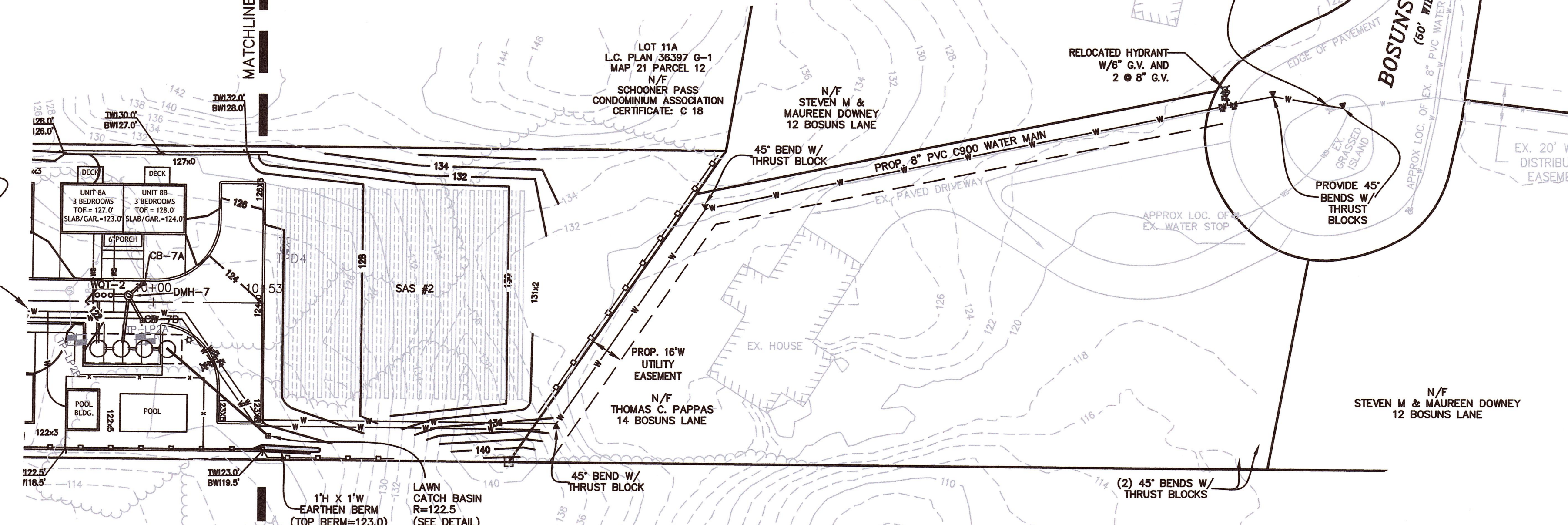
Outback Engineering
Incorporated
165 EAST GROVE STREET
MIDDLEBOROUGH, MA 02346
TEL: (508)-946-9231
www.outback-eng.com

DATE: MARCH 9, 2022	
DRAWN BY: CJV	CHECKED BY: JAP
SCALE: 1"=50'	SHEET 3 OF 11
0'	50' 100' 150'
OE-3294A	



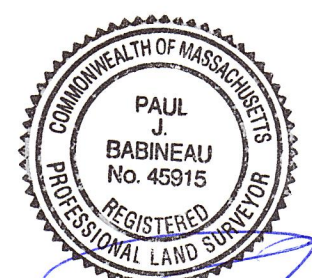
GENERAL NOTES

- 1. PROPOSED HOUSE, SEPTIC SYSTEM, AND DRIVEWAYS SHOWN ARE PRELIMINARY SUBJECT TO TITLE 5 SOIL TESTING AND SITE DESIGN FOR EACH LOT. ACTUAL HOMES, GRADING, AND OTHER FEATURES ARE SUBJECT TO FINAL APPROVALS FROM TOWN BOARD OF HEALTH AND BUILDING DEPARTMENT.
- 2. STAIRS & STEPS MAY BE LOCATED WITHIN PROPOSED BUILDING SETBACKS.
- 3. REFER TO SHEET 5 FOR WATER SYSTEM & UTILITY LAYOUT
- 4. PRIVATE MAINTENANCE OF RETAINING WALLS BY THE CONDOMINIUM ASSOCIATION IS REQUIRED



PROPOSED WATER MAIN CONNECTION TO BOSUNS LANE
SCALE: 1"=40'

FOR REGISTRY USE ONLY
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7-14-22
DATE PROFESSIONAL LAND SURVEYOR

APPROVED SUBJECT TO TERMS AND CONDITIONS OF A COMPREHENSIVE PERMIT PER ZONING BOARD OF APPEALS DECISION AS AUTHORIZED BY CHAPTER 40B OF THE MASSACHUSETTS GENERAL LAWS, SECTION 20-23

DATE:

BOURNE ZONING BOARD

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TOWN CLERK - TOWN OF BOURNE

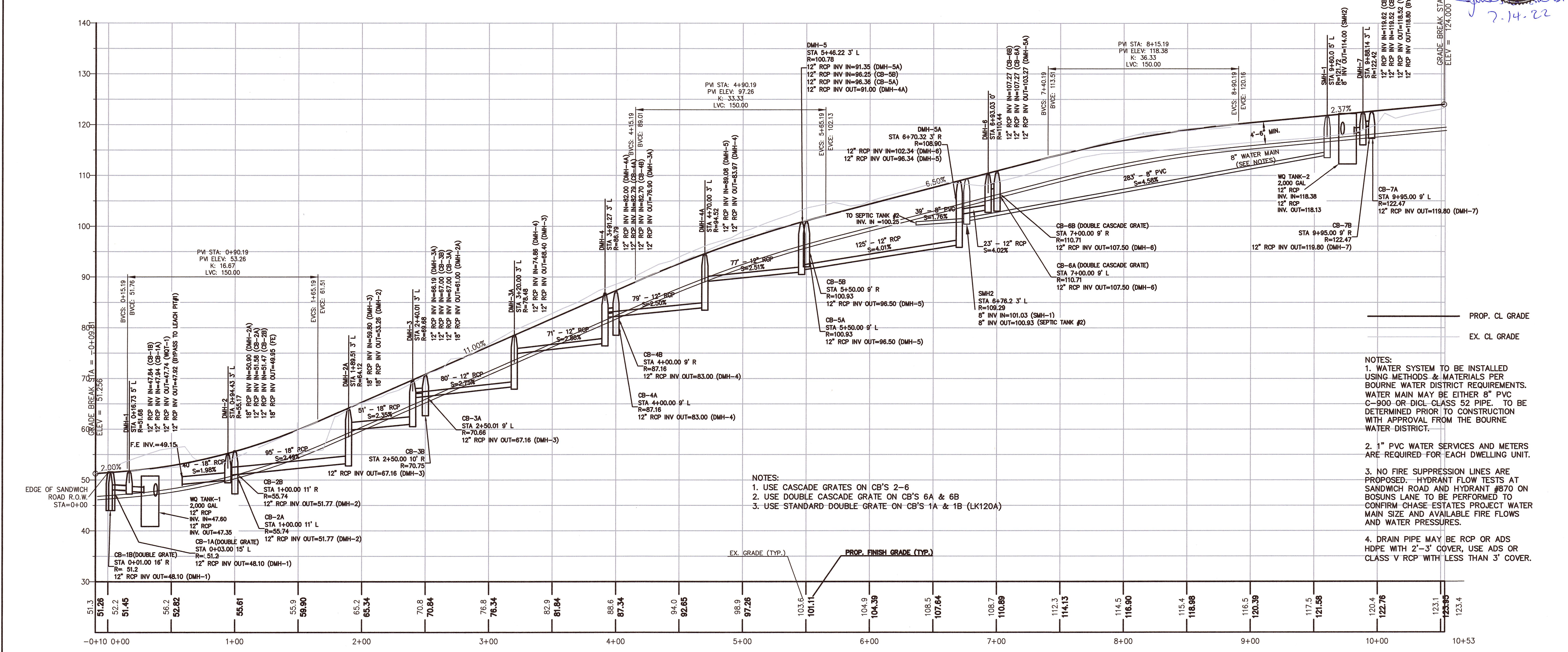
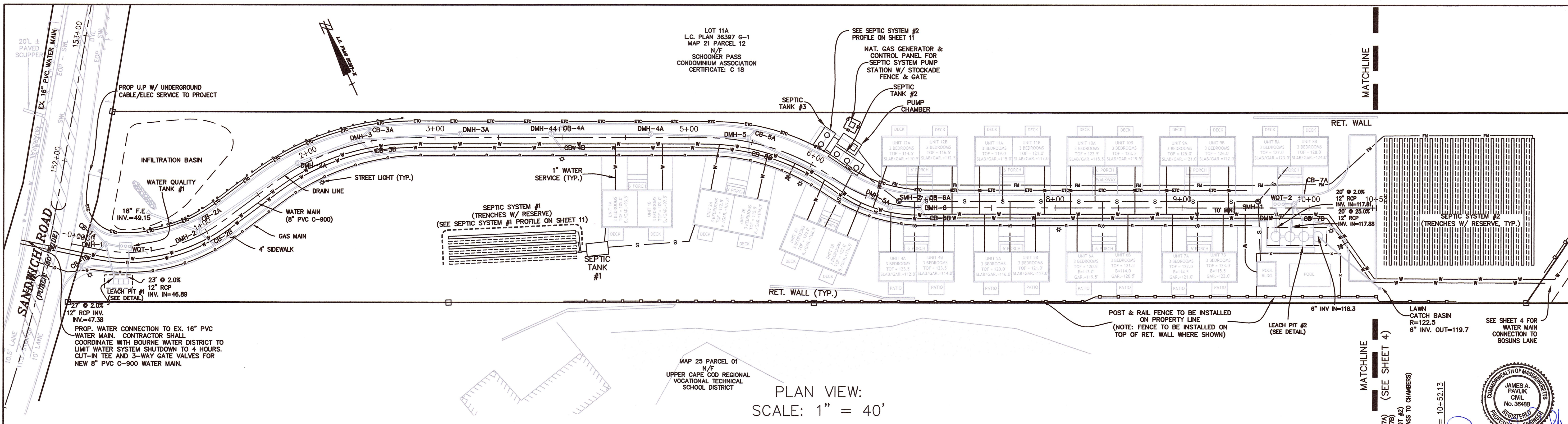
REVISIONS		
NO.	DATE	DESCRIPTION
1	7/8/22	PER PEER REVIEW

OWNER
230 SANDWICH ROAD REALTY TRUST
14 BOSUNS LANE
BOURNE, MA
APPLICANT
CHASE DEVELOPERS INC.
14 BOSUNS LANE
BOURNE, MA

GRADING & DRAINAGE PLAN
"CHASE ESTATES"
AT
230 SANDWICH ROAD
IN
BOURNE
MASSACHUSETTS

Outback Engineering
Incorporated
165 EAST GROVE STREET
MIDDLEBOROUGH, MA 02346
TEL: (508)-946-9231
www.outback-eng.com

DATE: MARCH 9, 2022	
DRAWN BY: CJV	CHECKED BY: JAP
SCALE: 1"=40'	SHEET 4 OF 11
0' 40' 80' 120'	
0E-3294A	



FOR REGISTRY USE ONLY

I CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS.

PAUL J. BABINEAU
No. 45915
REGISTERED
PROFESSIONAL LAND SURVEYOR

7-14-22
DATE PROFESSIONAL LAND SURVEYOR

APPROVED SUBJECT TO TERMS AND CONDITIONS OF A COMPREHENSIVE PERMIT PER ZONING BOARD OF APPEALS DECISION AS AUTHORIZED BY CHAPTER 40B OF THE MASSACHUSETTS GENERAL LAWS, SECTION 20-23

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OWNER
230 SANDWICH ROAD REALTY TRUST
14 BOSUNS LANE
BOURNE, MA

APPLICANT
CHASE DEVELOPERS INC.
14 BOSUNS LANE
BOURNE, MA

UTILITY PLAN & ROAD PROFILE "CHASE ESTATES"

AT
230 SANDWICH ROAD
IN
BOURNE
MASSACHUSETTS

Outback Engineering
Incorporated

165 EAST GROVE STREET
MIDDLEBOROUGH, MA 02346
TEL: (508)-946-9231
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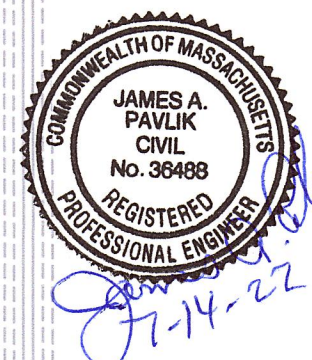
DATE: MARCH 9, 2022

DRAWN BY: CJV CHECKED BY: JAP

SCALE: 1"=40' SHEET 5 OF 11

0' 40' 80' 120'

OE-3294A



DATE: _____

TOWN CLERK - TOWN OF BOURNE

OWNER
230 SANDWICH ROAD REALTY TRUST
14 BOSUNS LANE
BOURNE, MA

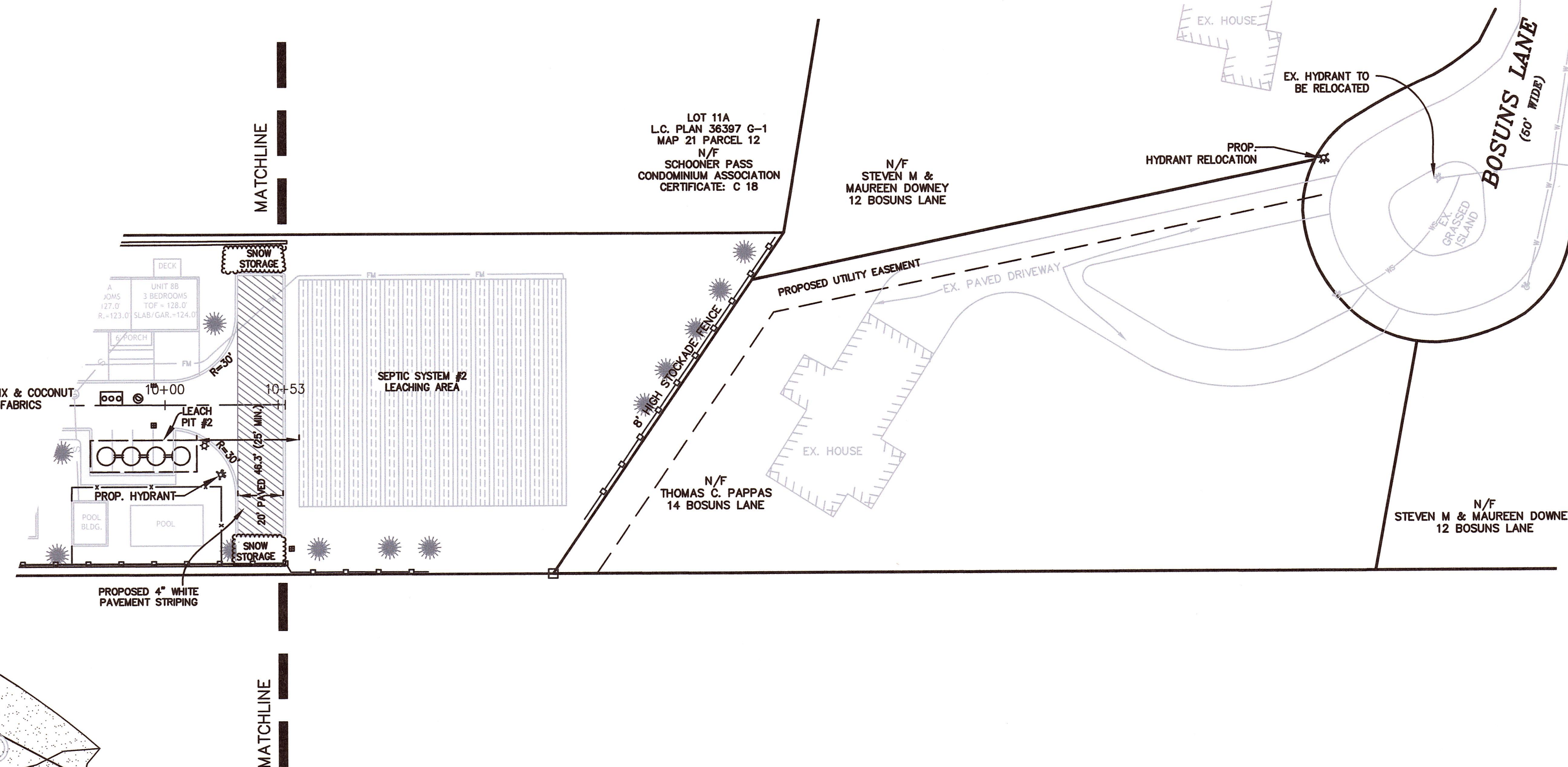
APPLICANT
CHASE DEVELOPERS INC.
14 BOSUNS LANE
BOURNE, MA

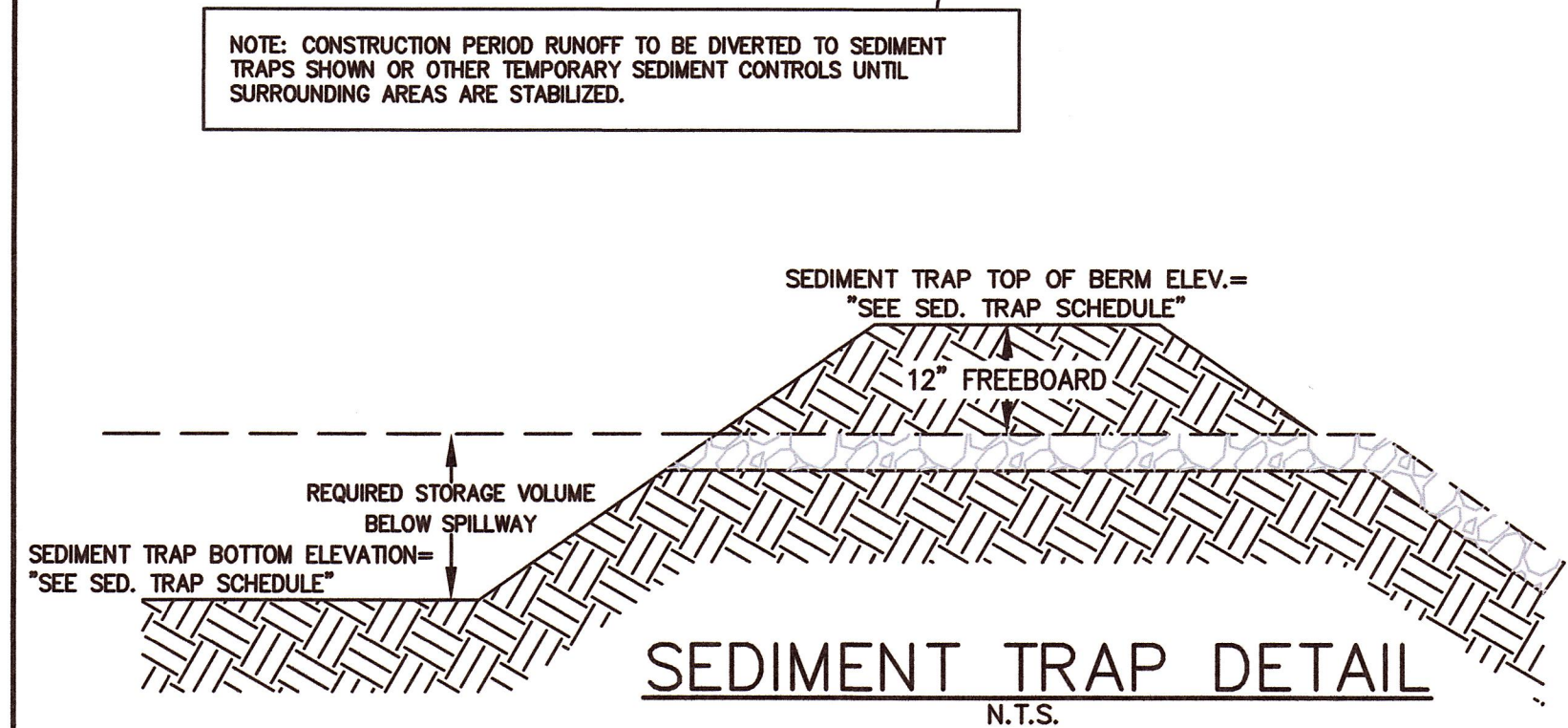
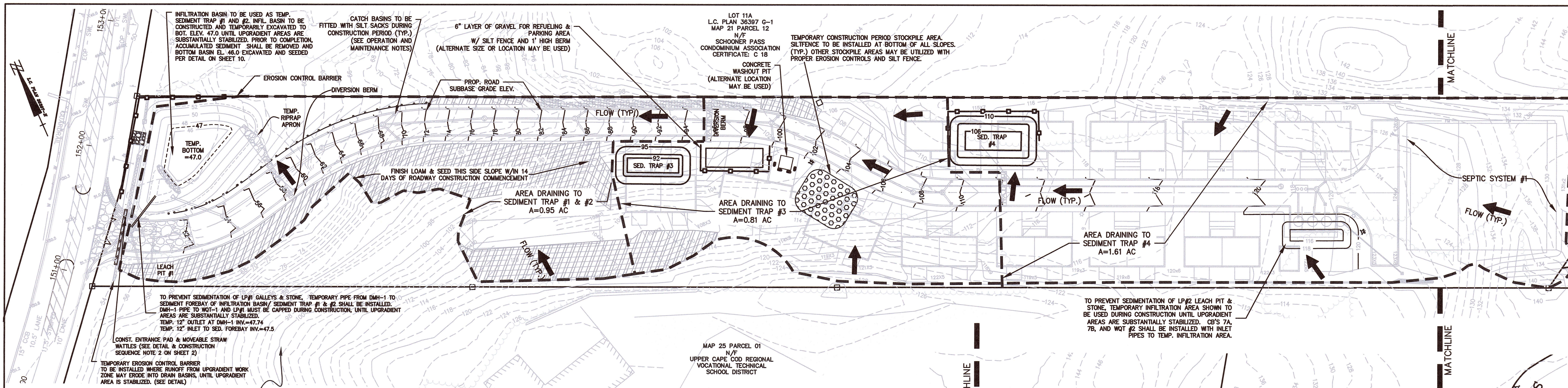
Outback Engineering Incorporated

DATE: MARCH 9, 2022	
DRAWN BY: CJV	CHECKED BY: JAP
SCALE: 1"=40'	SHEET 6 OF 11

OE-3294A

GEOTEXTILE EROSION
CONTROL BLANKET
NOT TO SCALE



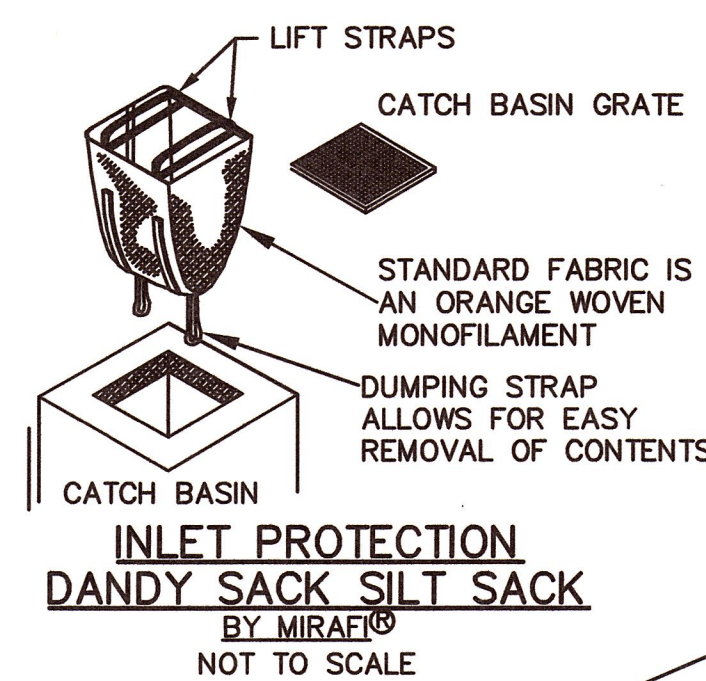


SEDIMENT TRAP SCHEDULE

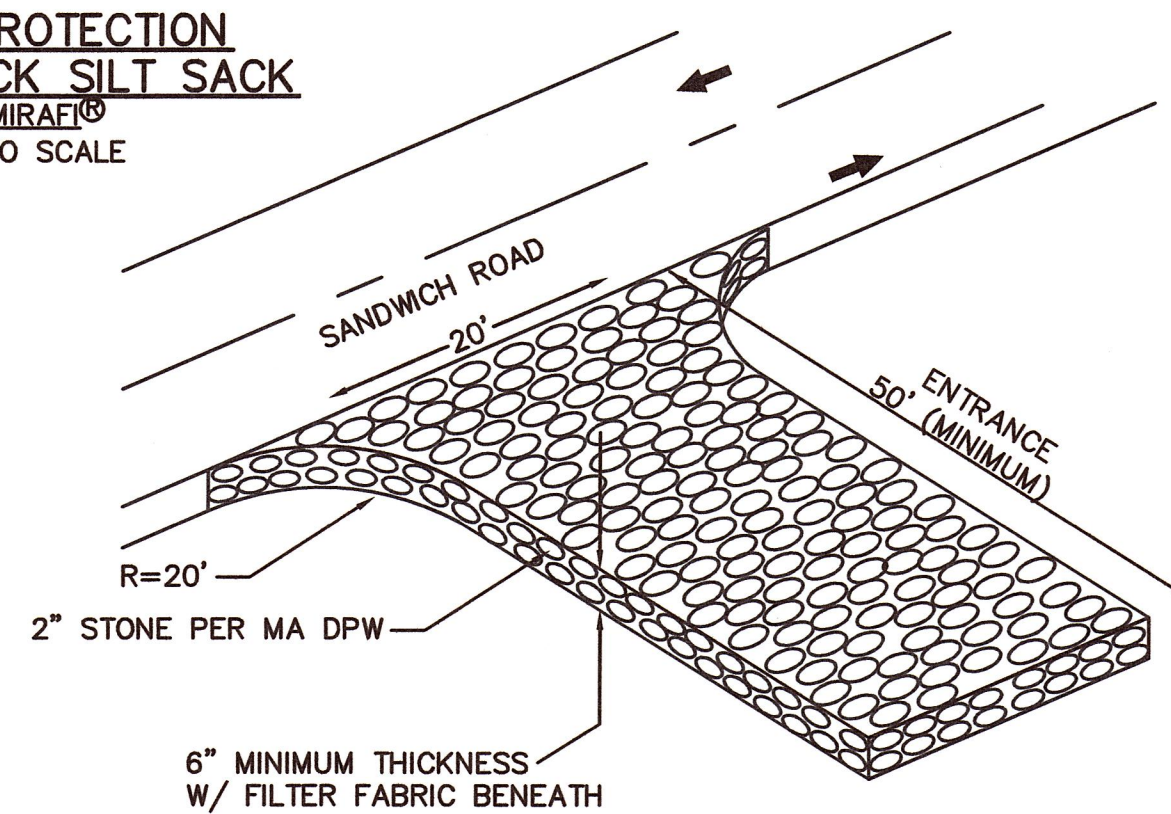
TRAP #	DRAINED AREA (AC)	SED. TRAP REQ. VOLUME (FT ³)*	BOT. EL.	BOT. AREA (S.F)	SPILLWAY EL.	SPILLWAY AREA (S.F)	TRAP VOLUME PROVIDED (FT ³)*
1&2	0.95	3420	47	1500	52	5221	16,952
3	0.81	2907	92	464	95	1671	3203
4	1.61	5796	106	651	110	2585	6472

*SEDIMENT TRAPS MUST BE SIZED TO PROVIDE 3,600 FT³ OF STORAGE PER ACRE DRAINED PER THE MASSACHUSETTS EROSION AND SEDIMENTATION CONTROL GUIDELINES.

NOTE: TRAP LOCATIONS AND ELEVATIONS SHOWN MAY BE FIELD ADJUSTED BY CONTRACTOR AS CONSTRUCTION PROGRESSES.



INLET PROTECTION DANDY SACK SILT SACK BY MIRAFLO NOT TO SCALE

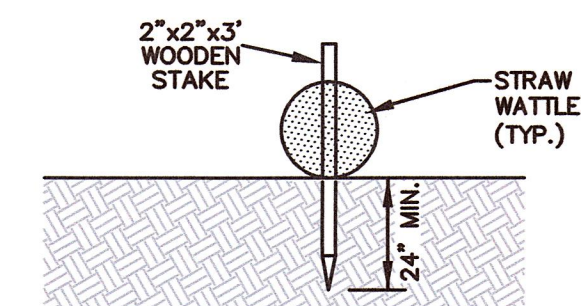


STABILIZED CONSTRUCTION ENTRANCE PAD N.T.S.

EROSION & SEDIMENT CONTROL NOTES

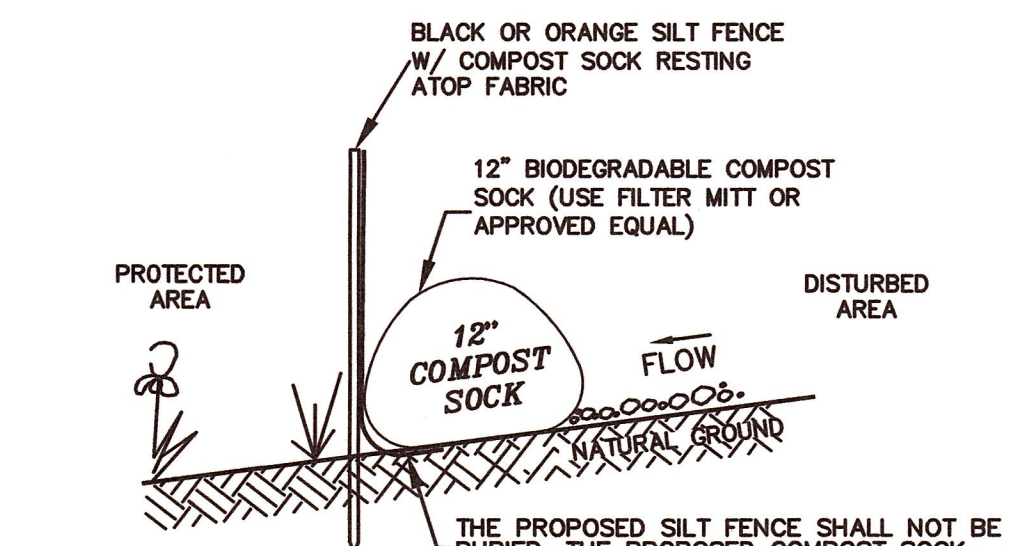
SEE SHEET 2 ALSO FOR PART 2-EXECUTION NOTES, FOR ADDITIONAL EROSION CONTROL AND CONSTRUCTION SEQUENCING NOTES AND OTHER REQUIREMENTS FOR THE CONDUCT OF WORK ON SITE. SEE APPENDIX J IN DRAINAGE REPORT FOR CONSTRUCTION-PERIOD OPERATION AND MAINTENANCE REQUIREMENTS, INCLUDING LOG FORM

- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF EROSION CONTROL MEASURES SHOWN ON THIS PLAN AND ANY ADDITIONAL MEASURES AS MAY BE NECESSARY OR REQUIRED THROUGHOUT CONSTRUCTION, UNTIL FINAL SURFACE FINISHES HAVE BEEN ESTABLISHED AND ACCEPTED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTROL EROSION AND SEDIMENTATION. IT IS INTENDED THAT THE IMPLEMENTATION OF THE FOLLOWING MEASURES WILL MEET THIS GOAL. WHEN IT IS CLEAR TO THE DESIGNER THAT EROSION AND SEDIMENTATION HAVE BEEN ADEQUATELY CONTROLLED WITHOUT THE IMPLEMENTATION OF EVERY MEASURE, ADDITIONAL MEASURES NEED NOT BE IMPLEMENTED. ALTERNATIVELY, IF ALL OF THE FOLLOWING MEASURES HAVE BEEN IMPLEMENTED AND THE CONTROL OF EROSION AND SEDIMENTATION IS INADEQUATE, THE CONTRACTOR MUST EMPLOY SUFFICIENT SUPPLEMENTAL MEASURES BEYOND THE SCOPE OF THIS PLAN.
- ALTHOUGH NOT SHOWN HEREON, CONTRACTOR MAY UTILIZE ADDITIONAL EROSION CONTROL MEASURES SUCH AS, BUT NOT LIMITED TO SEDIMENT TRAPS, EROSION CONTROL BLANKETS, STUMP GRINDINGS, AND STRAW WATTLES OR HAYBALES.
- EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE STANDARDS OF THE MOST CURRENT VERSION OF THE "MASSACHUSETTS EROSION AND SEDIMENT CONTROL GUIDELINES FOR URBAN AND SUBURBAN AREAS," THE STANDARDS OF THE TOWN OF BOURNE, AND AS SHOWN ON THESE PLANS, WHICHEVER IS THE MOST STRINGENT.
- EROSION CONTROLS MUST BE INSTALLED PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES. LIMITED CLEARING (BUT NO GRUBBING) AND SITE DISTURBANCE IS ALLOWED IN ORDER TO FACILITATE INSTALLATION OF EROSION CONTROLS.
- WHERE SEVERAL TYPES OF EROSION CONTROL DEVICES ARE CALLED OUT ON THE PLAN, THE CONTRACTOR MAY SELECT FROM THOSE DETAILED FOR INDIVIDUAL AREAS THAT MAY BEST FIT HIS CONSTRUCTION OPERATIONS WHILE STILL MAINTAINING PROTECTIONS THAT MEET ALL CONTRACT AND REGULATORY REQUIREMENTS.
- ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES, WHETHER INSIDE THE CONTRACT LIMIT LINE OR BEYOND, NOT COVERED BY BUILDINGS OR PAVEMENTS, SHALL BE TOP SOILED AND SEEDED AS LAWN, OR MULCHED.
- THE CONTRACTOR SHALL MONITOR ALL NEW AND MODIFIED DRAINAGE STRUCTURE SUMPS WITHIN THE CONTRACT LIMITS AND SHALL PUMP SUMPS CLEAN OF SILT AND DEBRIS WHEN MORE THAN ¾ FULL AND/OR IMMEDIATELY PRIOR TO FINAL ACCEPTANCE.
- AREAS THAT ARE NOT THE LOCATION OF ACTIVE CONSTRUCTION WHICH ARE TO BE LEFT BARE FOR OVER ONE MONTH BEFORE FINISHED GRADING AND SEEDING IS ACHIEVED, SHALL BE MULCHED OR RECEIVE TEMPORARY STABILIZATION SUCH AS JUTE NETTING OR SHALL RECEIVE A TEMPORARY RYEGRASS APPLIED AT A RATE OF 2 LBS./1,000 SQ. FT. LIMESTONE (EQUIVALENT TO BE 50 PERCENT CALCIUM PLUS MAGNESIUM OXIDE) SHALL BE APPLIED AS SEEDBED PREPARATION AT A RATE OF 90 LBS./1,000 SQ. FT. PLANTING SEASONS SHALL BE APRIL 1 TO JUNE 1 AND AUGUST 1 TO OCTOBER 1. AREAS TO BE LEFT BARE BEFORE FINISH GRADING AND SEEDING OUTSIDE OF PLANTING SEASONS SHALL RECEIVE AN AIR-DRIED WOOD CHIP MULCH, FREE OF COARSE MATTER.
- STABILIZATION OF SLOPES IN CUT AREAS (USING MULCH OR GRASS) AND THE INSTALLATION OF EROSION CONTROL LINE (STRAWBALE CHECK OR FILTER FABRIC) AT THE TOE OF SLOPE SHALL BE INITIATED WITHIN FOURTEEN (14) DAYS OF COMPLETION.
 - BETWEEN STATION 0+00 AND APPROXIMATELY 4+00, THE SOUTHERLY SLOPE SHOWN AS 2:1 MUST BE LOAMED AND SEEDED AND EROSION CONTROL BLANKET INSTALLED (SEE SHEET 6) WITHIN 14 DAYS OF COMMENCING THE EARTHWORK.
- SEDIMENT REMOVED FROM CONTROL STRUCTURES WILL BE DISPOSED IN A MANNER WHICH IS CONSISTENT WITH THE INTENT OF THE PLAN. ALL LINEAR EROSION CONTROLS RETAINING SEDIMENT OVER 1/2 THEIR HEIGHT SHALL HAVE THE SEDIMENT REMOVED AND ALL DAMAGED EROSION CONTROLS SHALL BE REPAIRED OR REPLACED.
- THE CONTRACTOR WILL BE ASSIGNED THE RESPONSIBILITY FOR IMPLEMENTING THIS EROSION AND SEDIMENT CONTROL PLAN. THIS RESPONSIBILITY INCLUDES THE INSTALLATION AND MAINTENANCE OF CONTROL MEASURES, INFORMING ALL PARTIES ENGAGED ON THE CONSTRUCTION SITE OF THE REQUIREMENTS AND OBJECTIVES OF THE PLAN.
- STOCKPILES OF SOIL SHALL BE SURROUNDED BY A SEDIMENT BARRIER. SOIL STOCKPILES TO BE LEFT BARE FOR MORE THAN FOURTEEN (14) DAYS SHALL BE STABILIZED WITH TEMPORARY VEGETATION OR MULCH. IF SOIL STOCKPILES ARE TO REMAIN FOR MORE THAN SIXTY (60) DAYS, FILTER FABRIC SHALL BE USED IN PLACE OF STRAWBALES. SIDE SLOPES SHALL NOT EXCEED 2:1.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTROL DUST AND WIND EROSION THROUGHOUT THE LIFE OF THEIR CONTRACT. DUST CONTROL SHALL INCLUDE, BUT IS NOT LIMITED TO SPRINKLING OF WATER ON EXPOSED SOILS AND HAUL ROADS. CONTRACTOR SHALL CONTROL DUST TO PREVENT A HAZARD TO TRAFFIC.
- IF FINAL GRADING IS TO BE DELAYED FOR MORE THAN FOURTEEN (14) DAYS AFTER LAND DISTURBANCES CEASE, TEMPORARY VEGETATION OR MULCH SHALL BE USED TO STABILIZE SOILS.



NOTE: STRAW WATTLE SHOWN SHALL BE USED ACROSS ENTRANCE TO SITE AT THE END OF EACH WORK DAY TO PREVENT SEDIMENT REACHING SANDWICH ROAD.

MOVEABLE STRAW WATTLE (NOT TO SCALE)

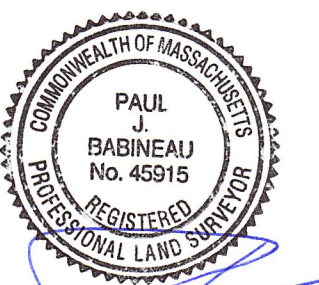


NOTE: A SINGLE SILT FENCE OR COMPOST SOCK MAY BE USED.

EROSION CONTROL BARRIER N.T.S.

FOR REGISTRY USE ONLY

I CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS.



7-14-22
DATE PROFESSIONAL LAND SURVEYOR

APPROVED SUBJECT TO TERMS AND CONDITIONS OF A COMPREHENSIVE PERMIT PER ZONING BOARD OF APPEALS DECISION AS AUTHORIZED BY CHAPTER 40B OF THE MASSACHUSETTS GENERAL LAWS, SECTION 20-23

DATE: _____
BOURNE ZONING BOARD

I CERTIFY THAT 20 DAYS HAVE ELAPSED SINCE ZONING BOARD APPROVAL, AND THAT NO APPEAL HAS BEEN FILED AT THIS OFFICE.

TOWN CLERK - TOWN OF BOURNE

NO.	DATE	DESCRIPTION
1	1/9/22	PER PEER REVIEW

OWNER
230 SANDWICH ROAD REALTY TRUST
14 BOSUNS LANE
BOURNE, MA
APPLICANT
CHASE DEVELOPERS INC.
14 BOSUNS LANE
BOURNE, MA

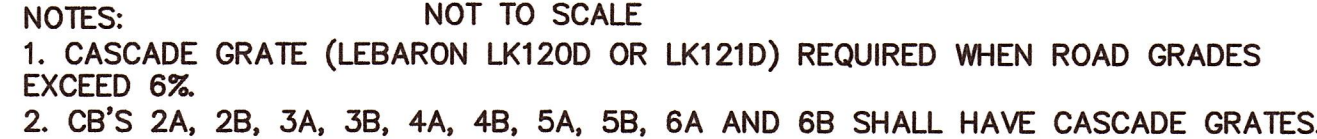
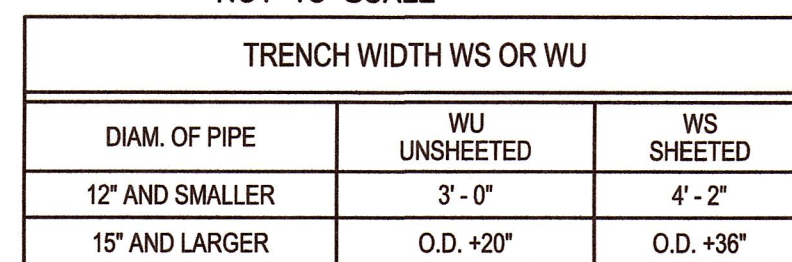
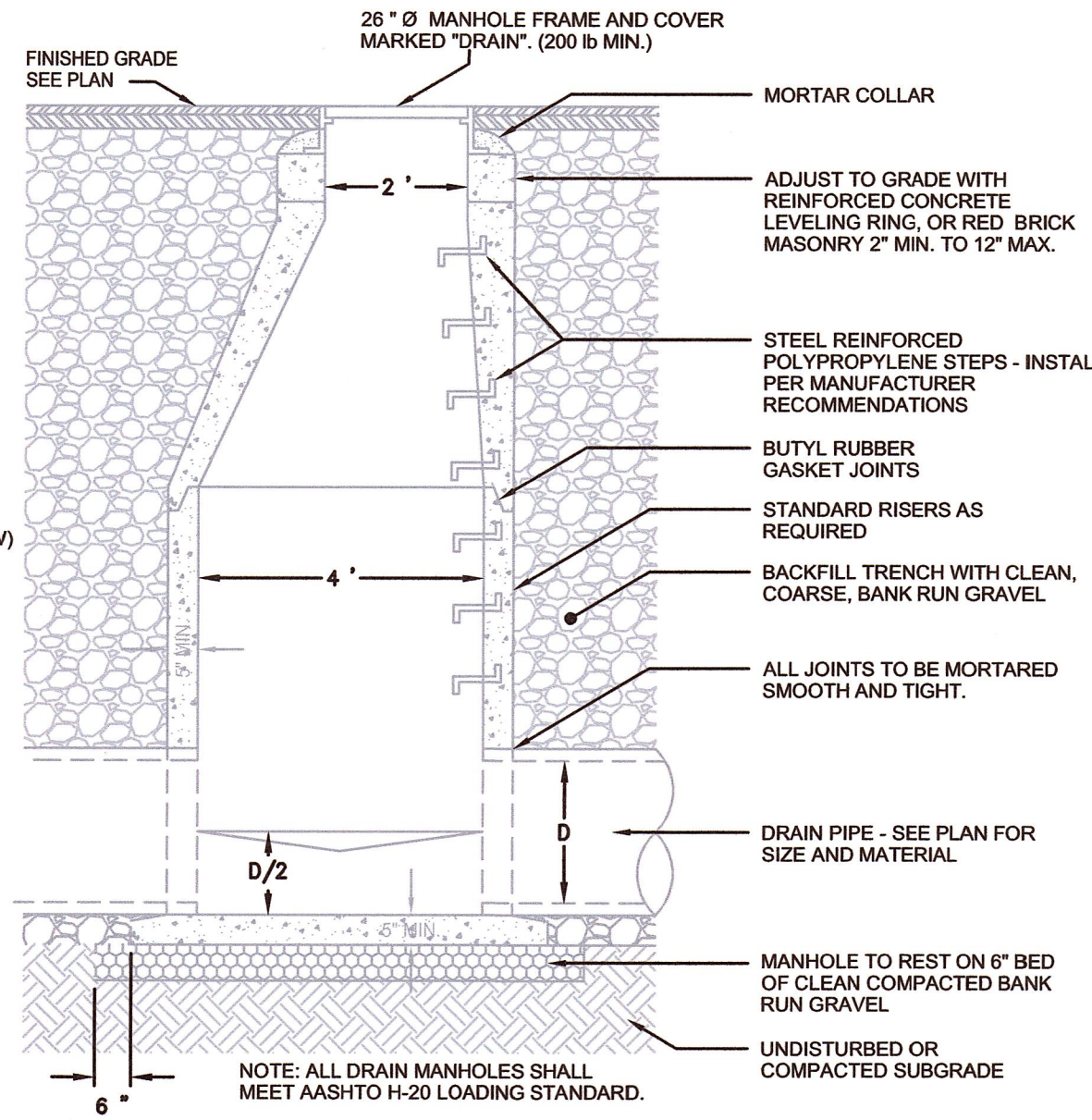
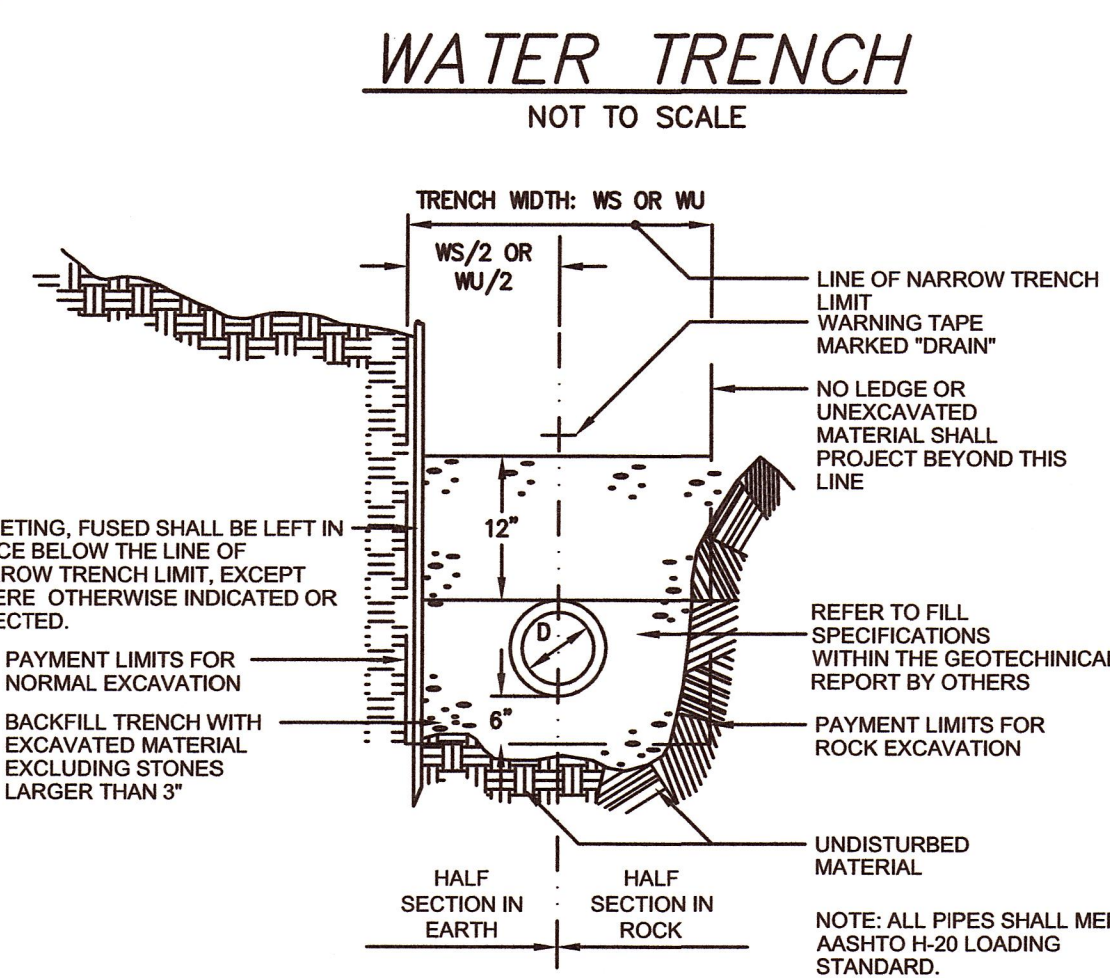
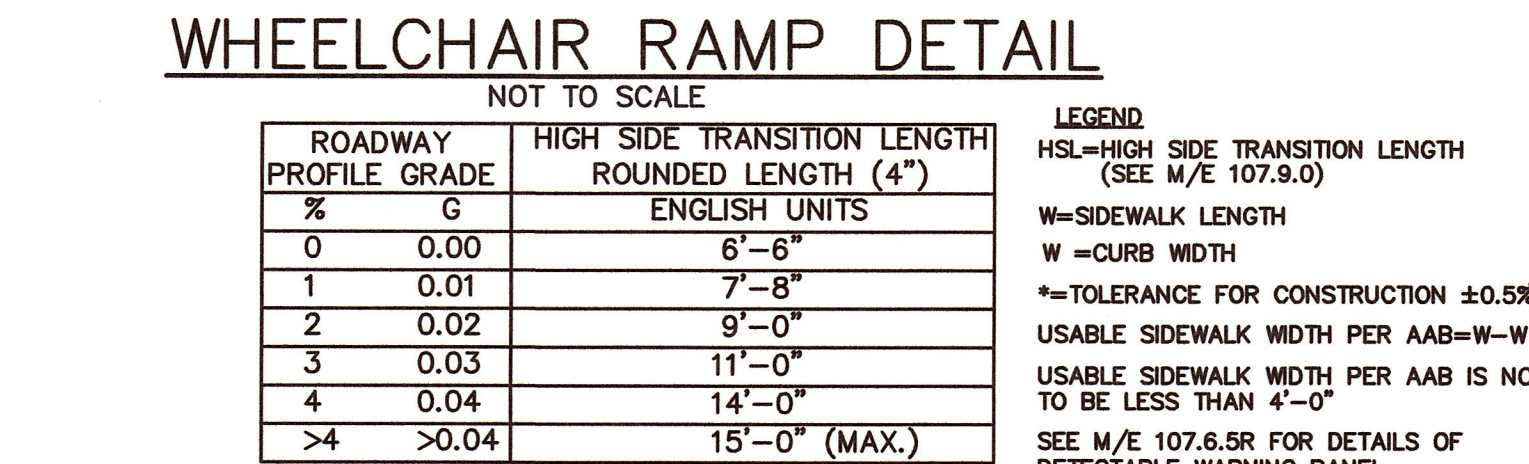
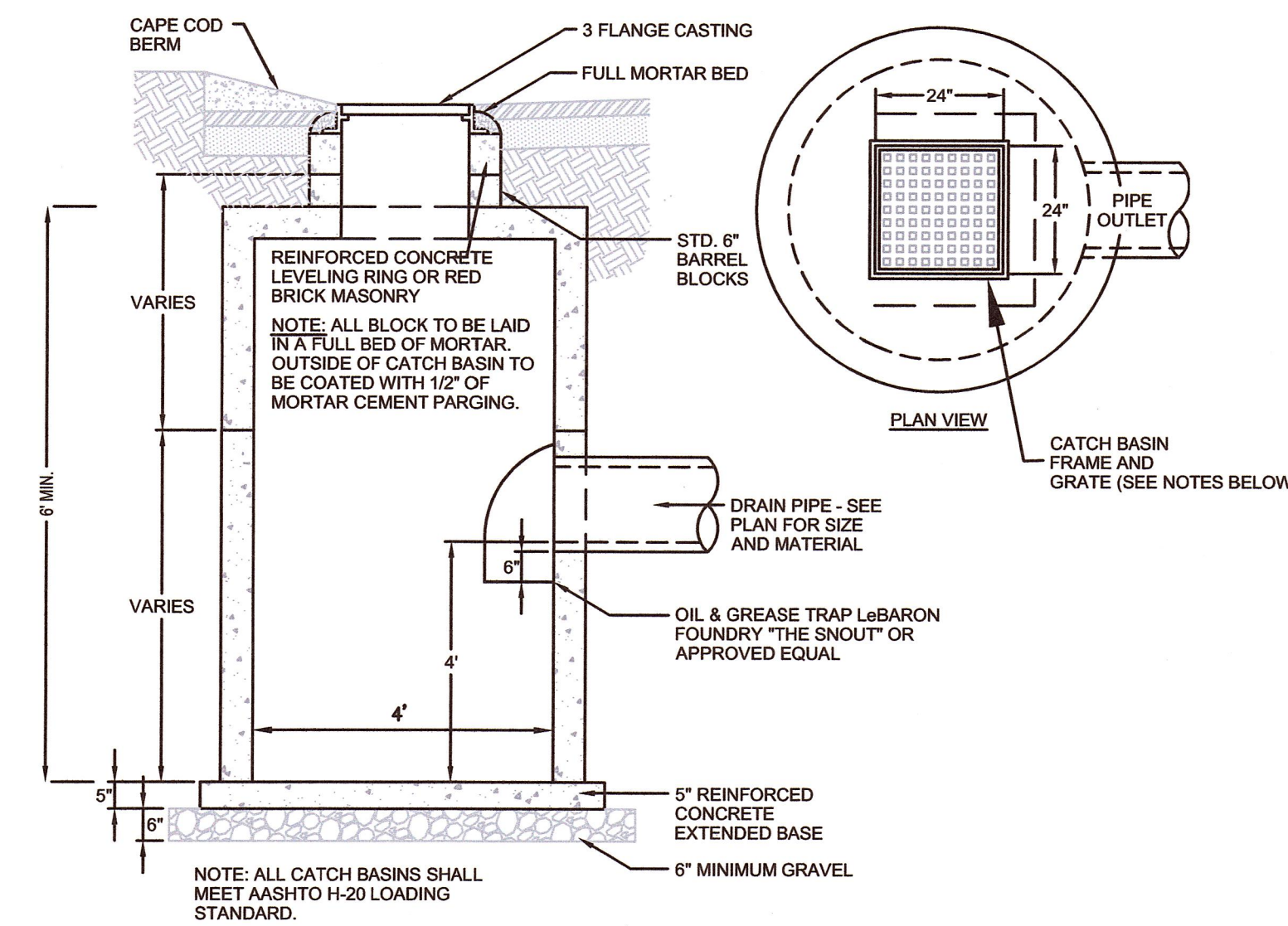
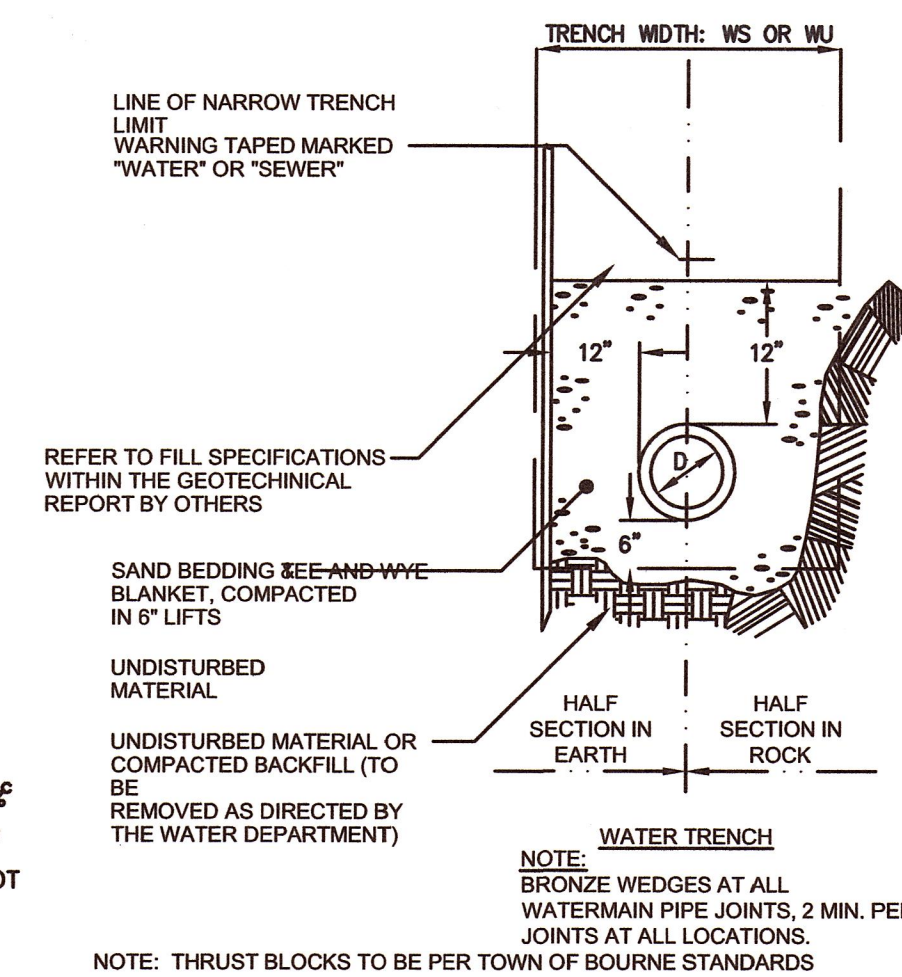
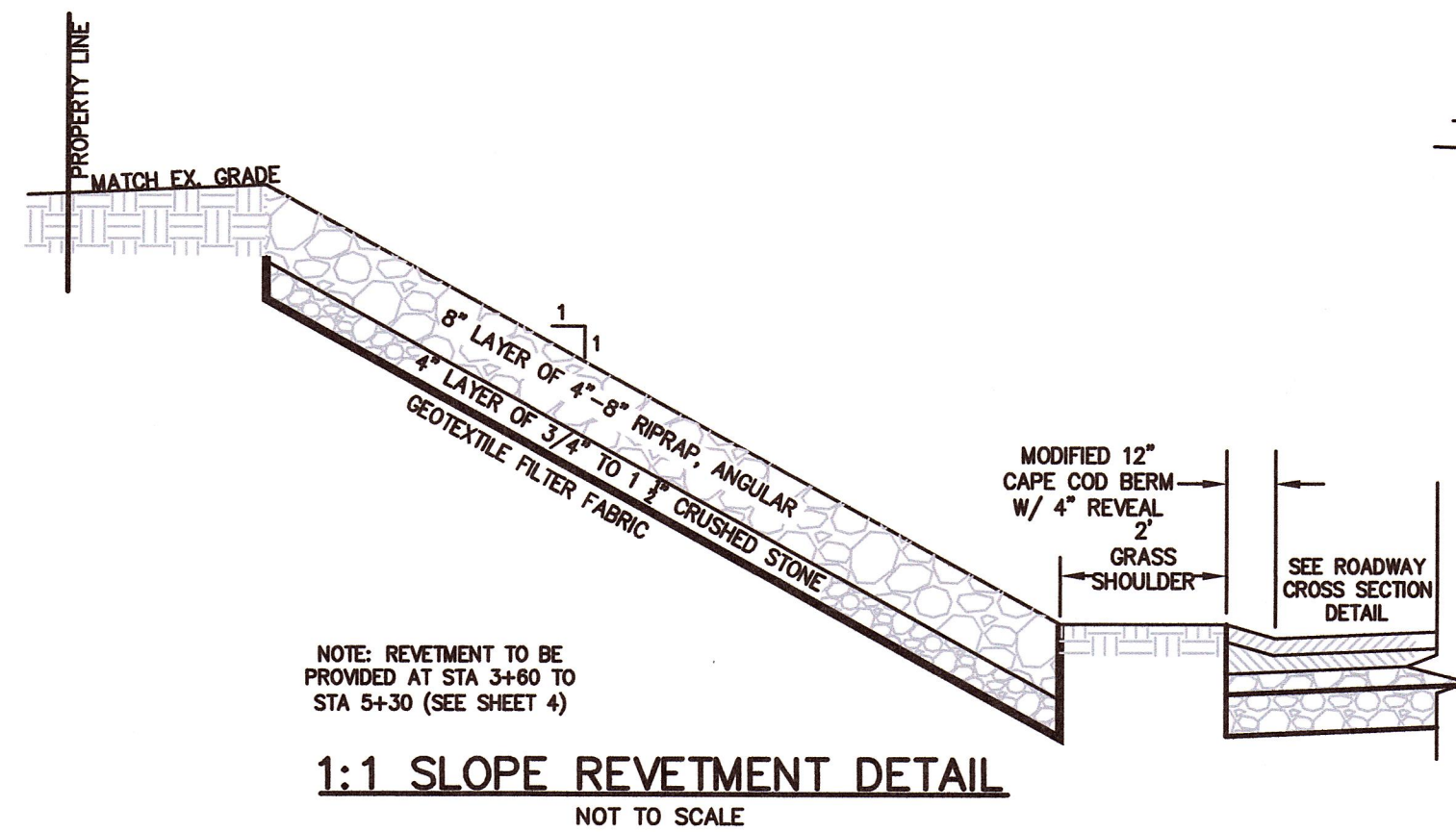
SEDIMENT & EROSION CONTROL PLAN
"CHASE ESTATES"

AT
230 SANDWICH ROAD
IN
BOURNE
MASSACHUSETTS

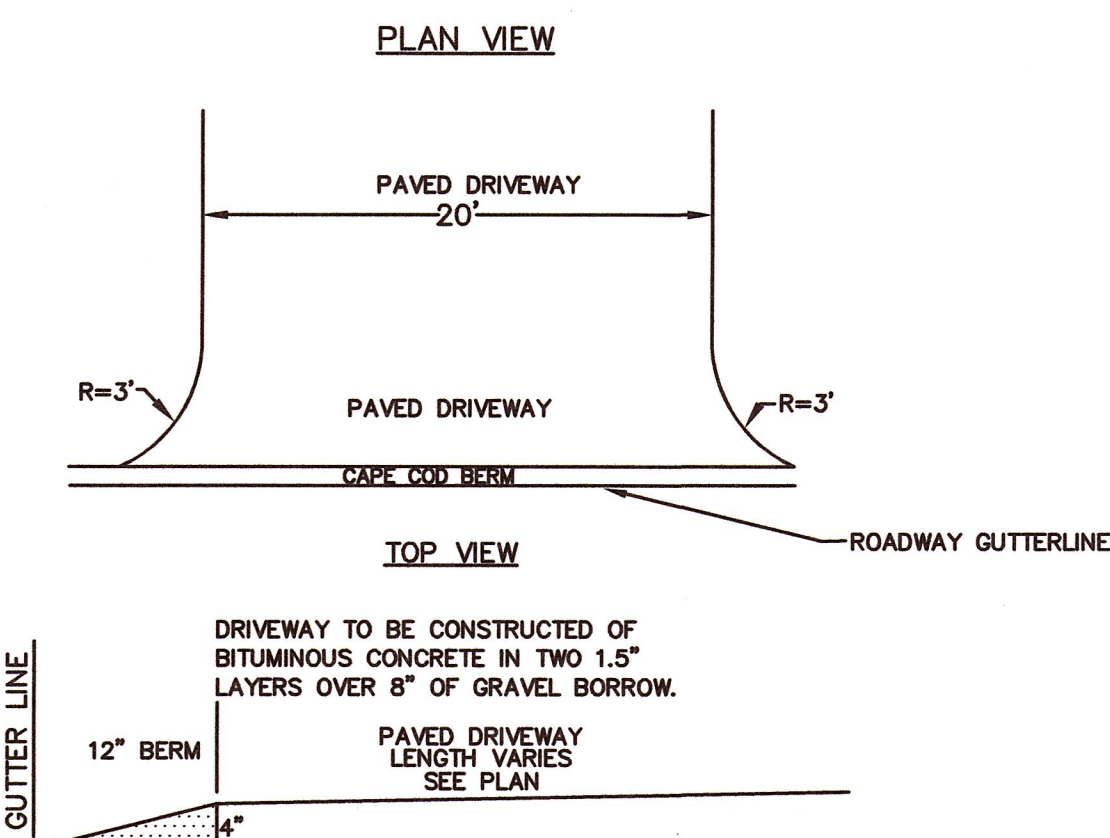
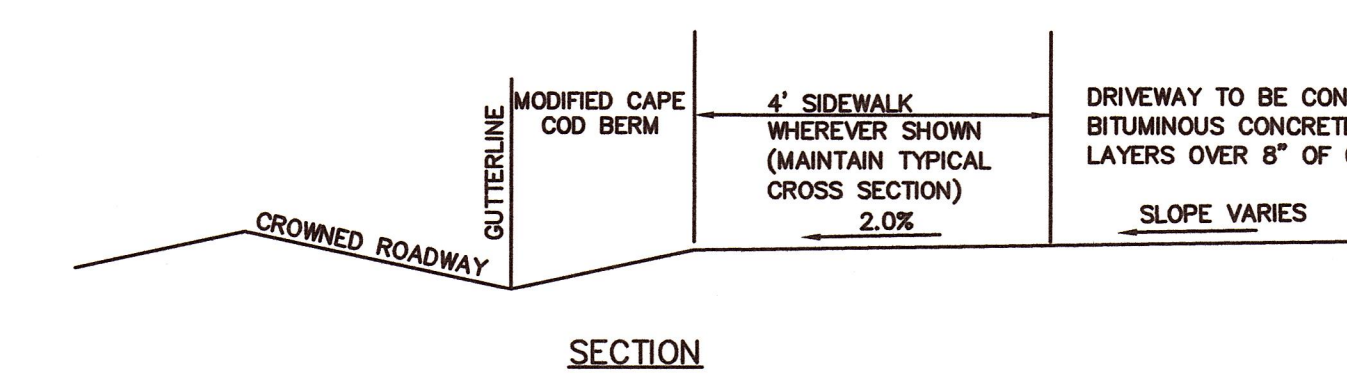
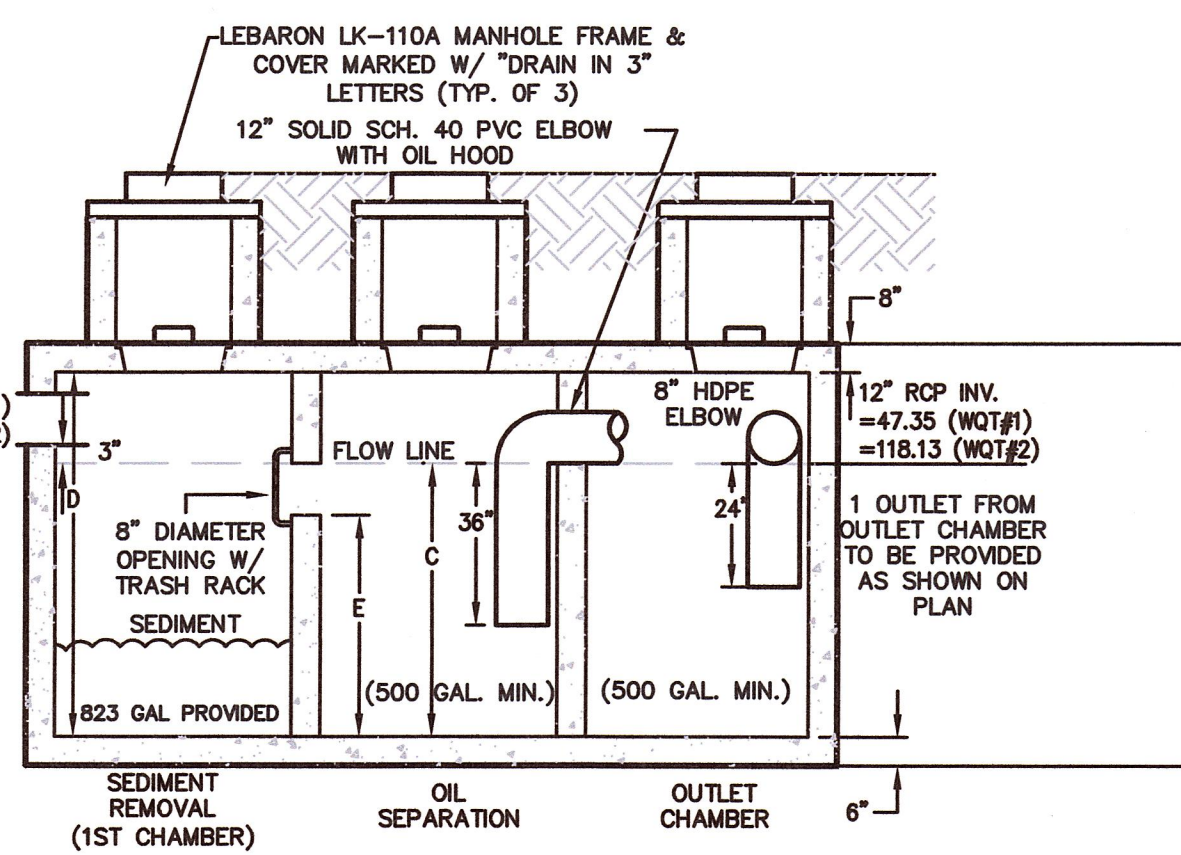
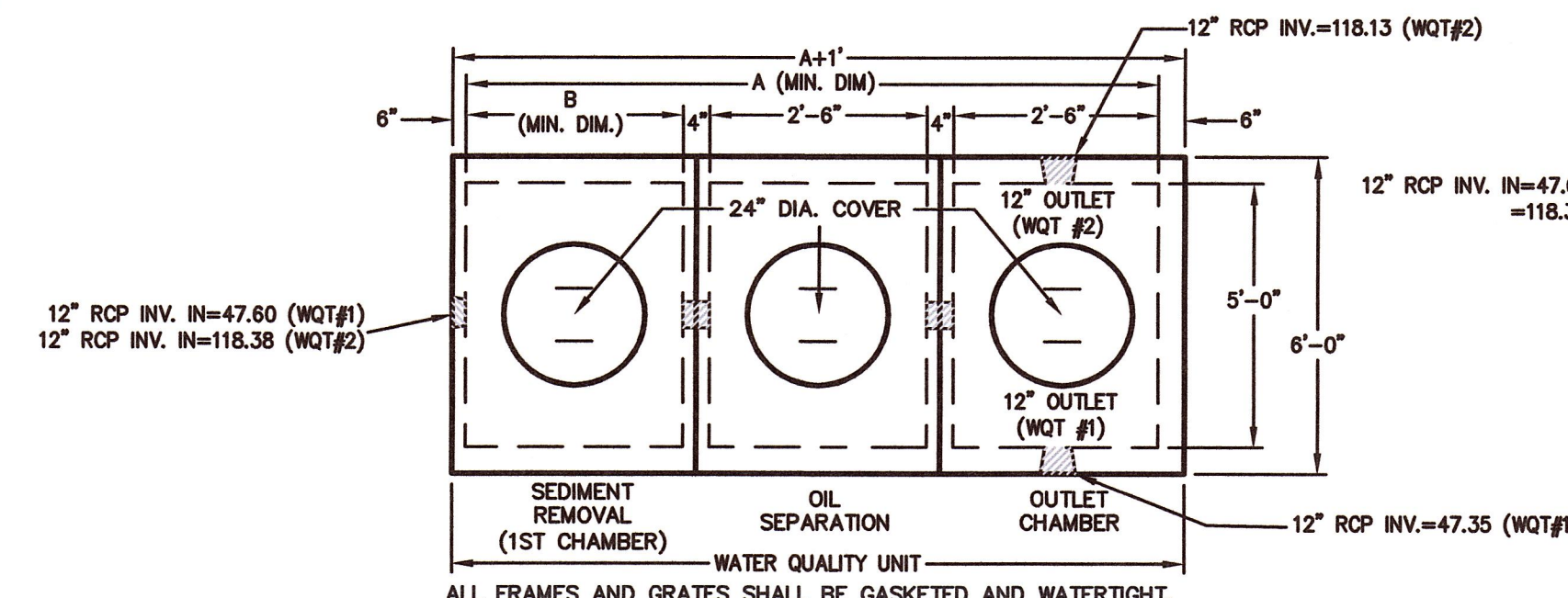
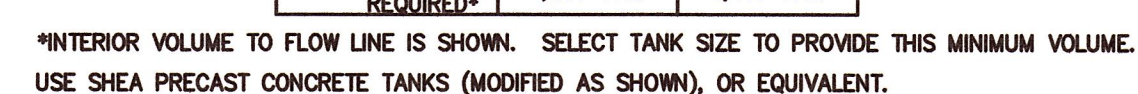


165 EAST GROVE STREET
MIDDLEBOROUGH, MA 02346
TEL: (508)-946-9231
www.outback-eng.com

DATE: MARCH 9, 2022	
DRAWN BY: CJV	CHECKED BY: JAP
SCALE: 1"=40'	SHEET 7 OF 11
0'	40' 80' 120'
OE-3294A	

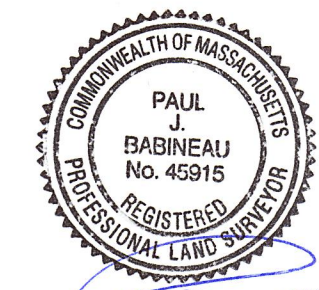


	WQT-1	WQT-2
A (MIN. DIM.)	9'-8"	9'-8"
B (MIN. DIM.)	4'-0"	4'-0"
C	5'-6"	5'-6"
D	7'-0"	7'-0"
E	5'-0"	5'-0"
F	8'-0"	8'-0"
1ST CHAMBER GAL. REQUIRED	263	441
1ST CHAMBER GAL. PROVIDED	823	823
MIN. CAPACITY	1,263 GAL.	1,441 GAL.



FOR REGISTRY USE ONLY

I CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS.



774-22
DATE PROFESSIONAL LAND SURVEYOR

APPROVED SUBJECT TO TERMS AND
CONDITIONS OF A COMPREHENSIVE
PERMIT PER ZONING BOARD OF APPEALS
DECISION AS AUTHORIZED BY CHAPTER
40B OF THE MASSACHUSETTS GENERAL
LAWS, SECTION 20-23

DATE: _____

BOURNE ZONING BOARD

I CERTIFY THAT 20 DAYS HAVE ELAPSED
SINCE ZONING BOARD APPROVAL, AND
THAT NO APPEAL HAS BEEN FILED AT
THIS OFFICE.

TOWN CLERK - TOWN OF BOURNE

REVISIONS

NO.	DATE	DESCRIPTION
1	7/8/22	PER PEER REVIEW

OWNER
230 SANDWICH ROAD REALTY TRUST
14 BOSUNS LANE
BOURNE, MA

APPLICANT
CHASE DEVELOPERS INC.
14 BOSUNS LANE
BOURNE, MA

CONSTRUCTION
DETAIL SHEET
"CHASE ESTATES"

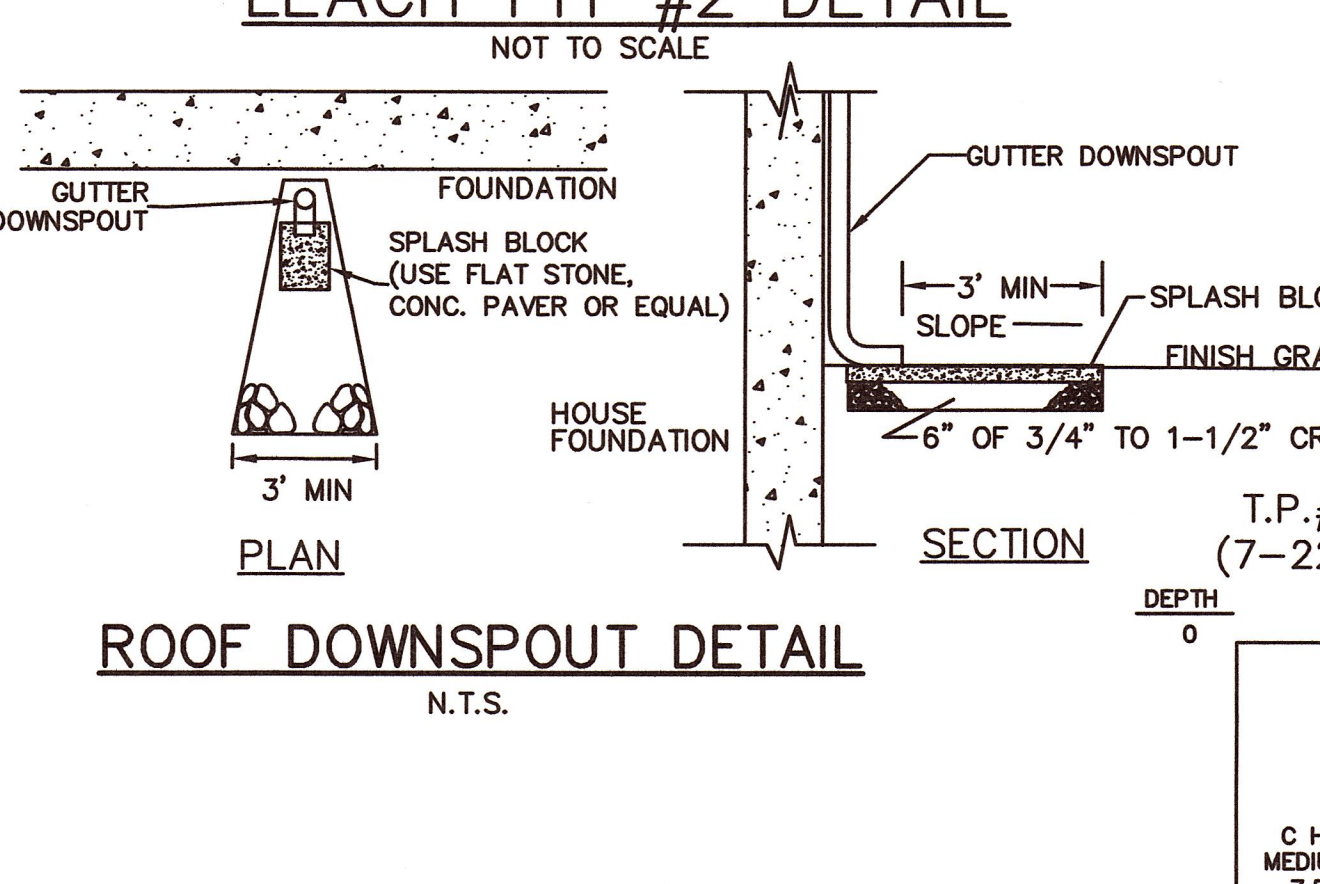
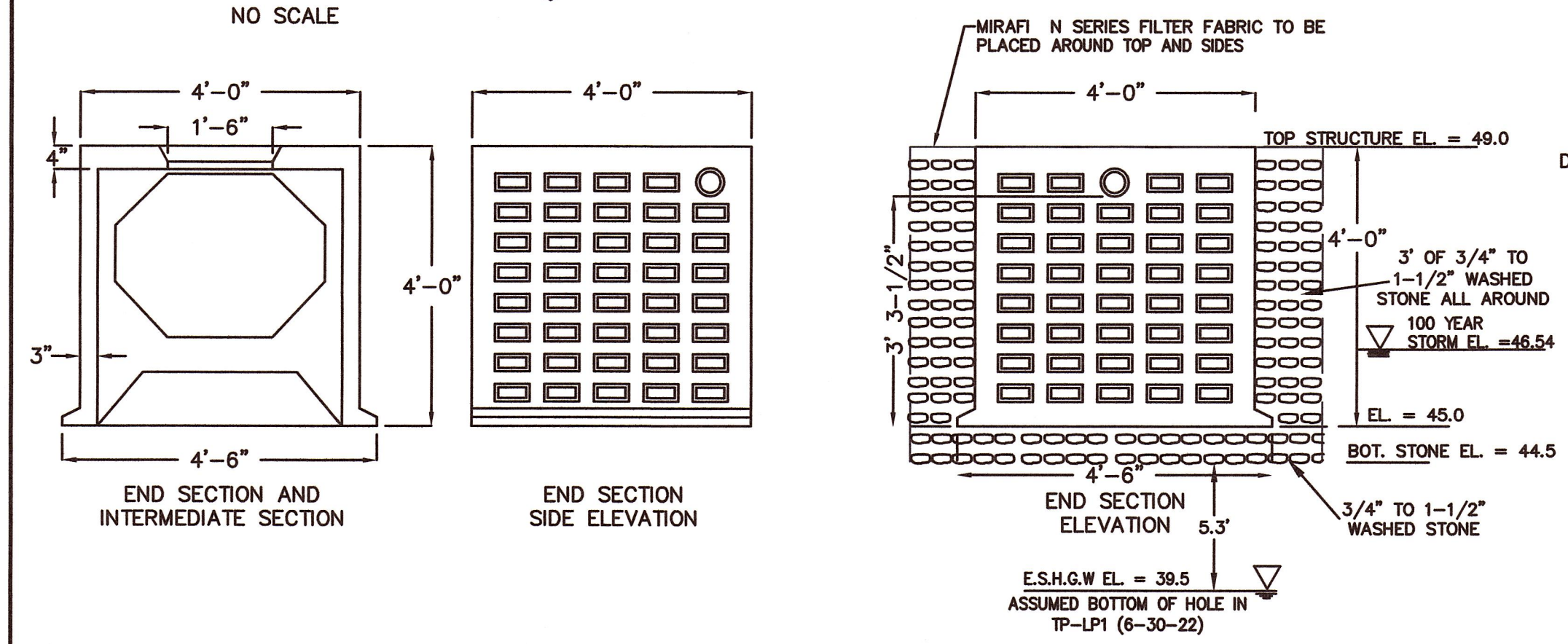
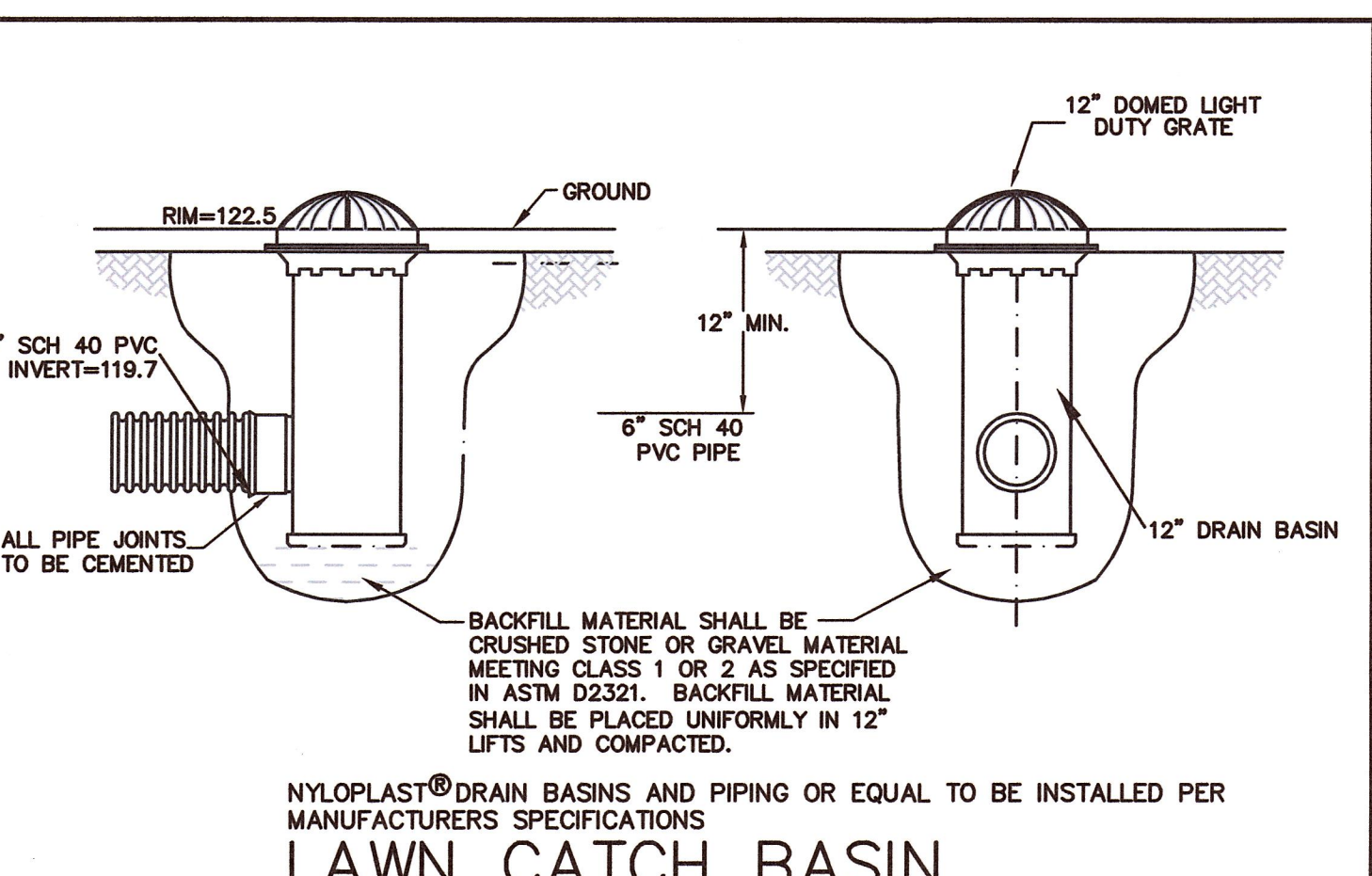
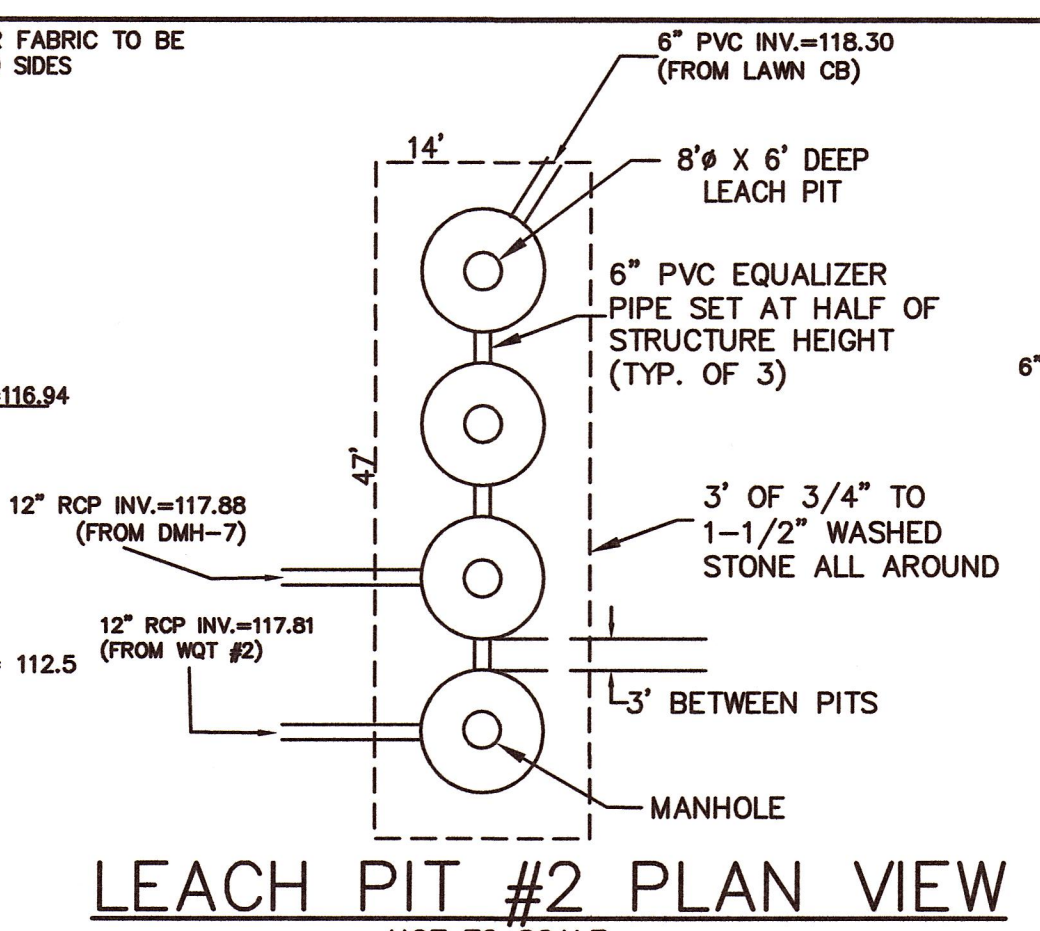
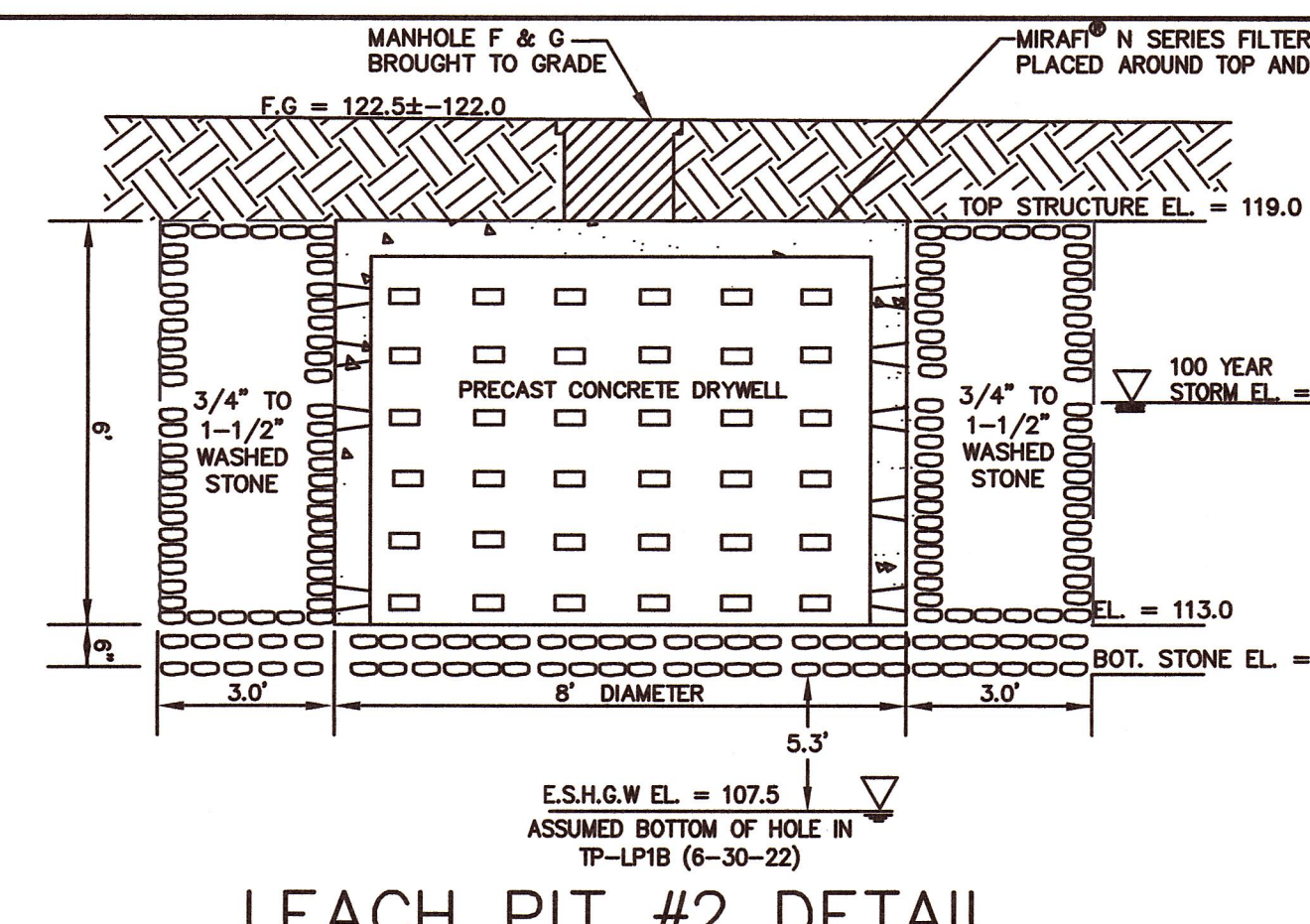
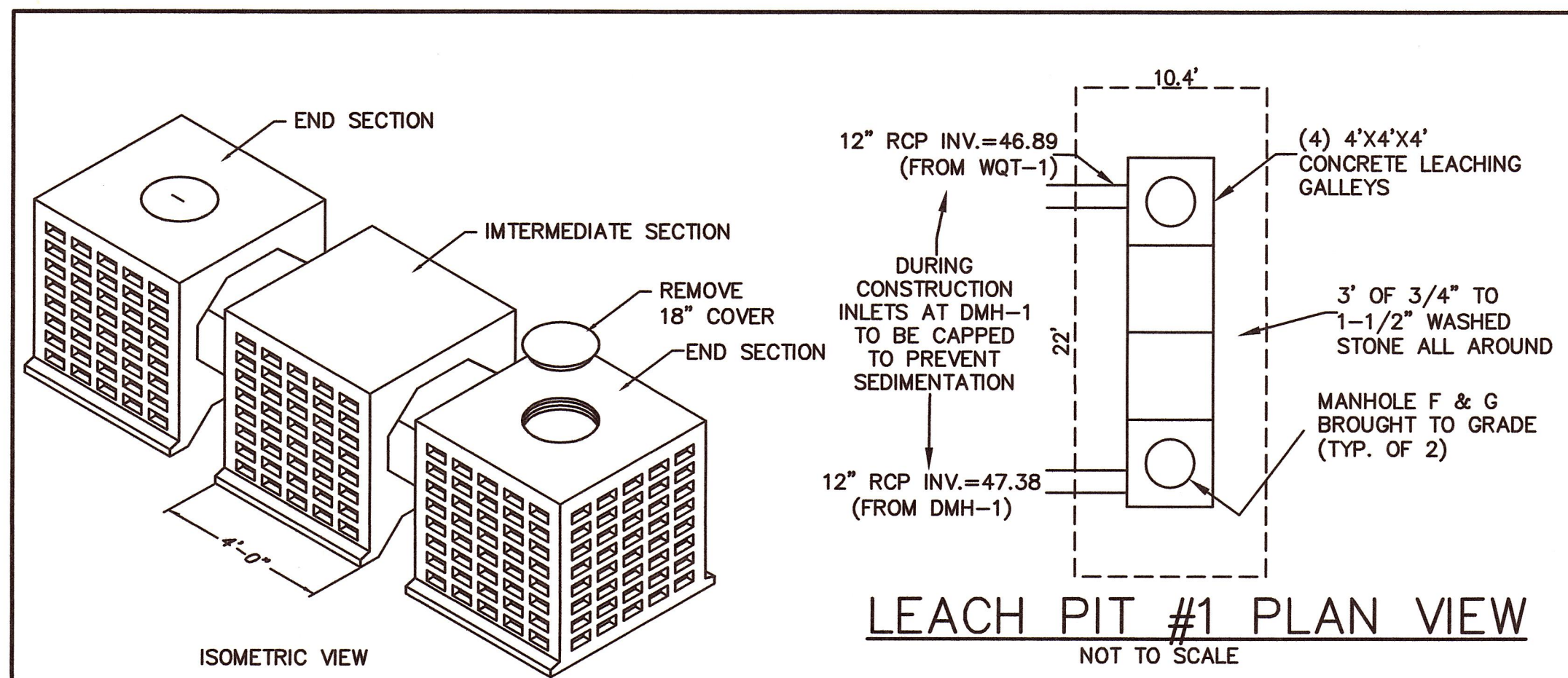
AT
230 SANDWICH ROAD
IN
BOURNE
MASSACHUSETTS



165 EAST GROVE STREET
MIDDLEBOROUGH, MA 02346
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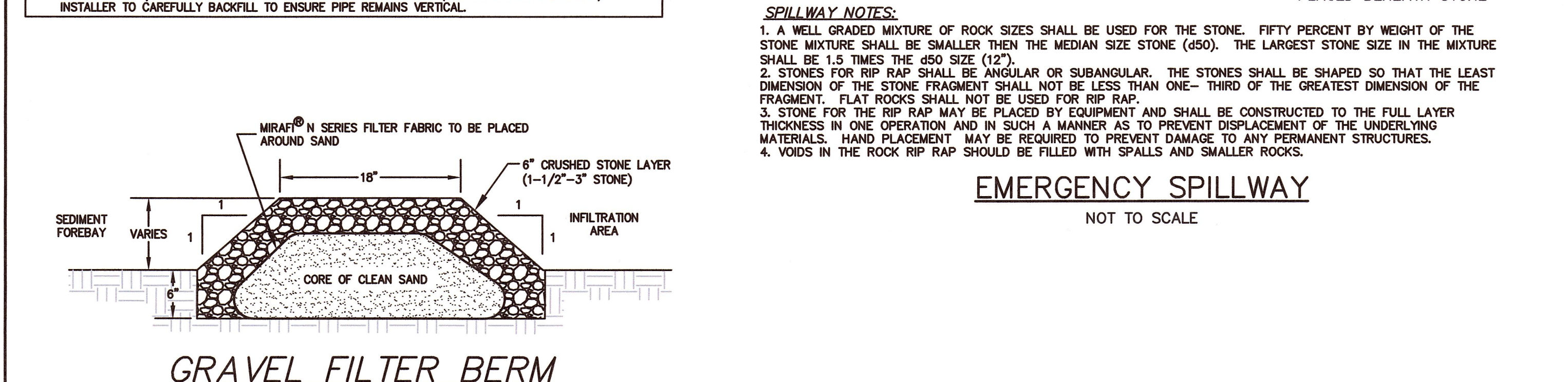
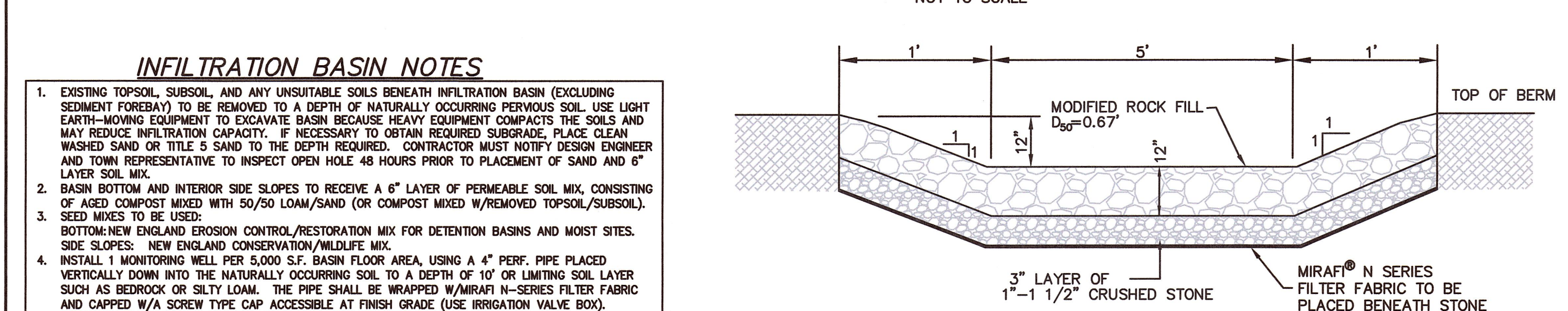
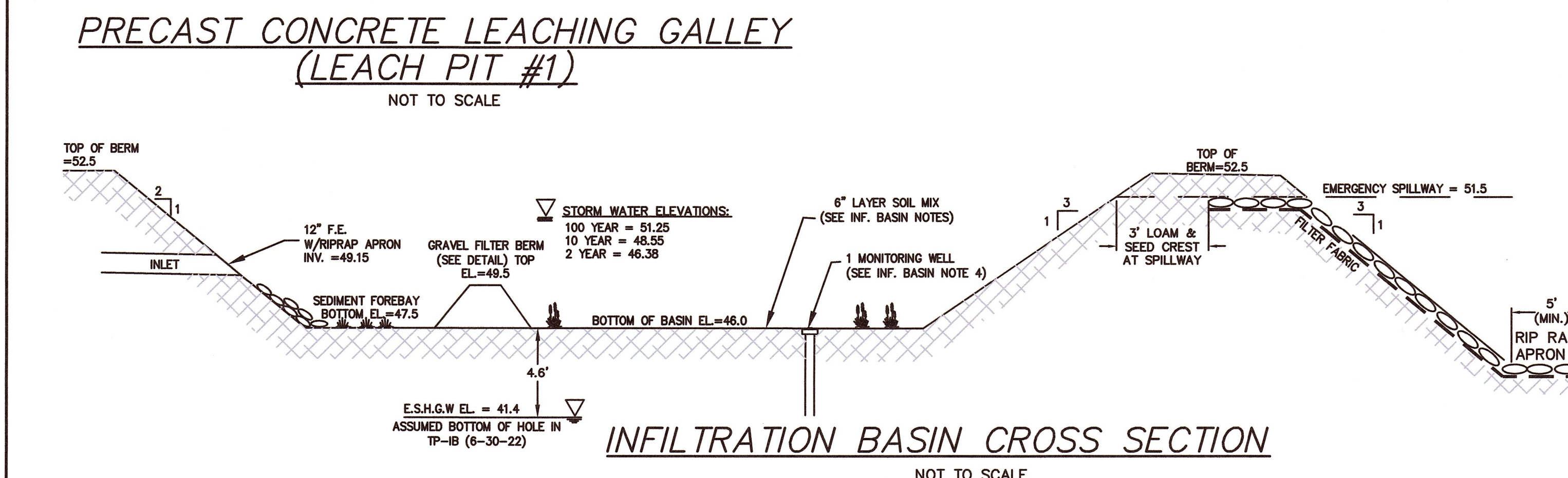
DRAWN BY: KAD	CHECKED BY: JAP
SCALE: AS NOTED	SHEET 9 OF 11

OE-3294A



PERMEAMETER TESTS BY HOLMES AND McGRATH, INC.

TP#	INFIL. RATE (IN/HR)
TPD1	22.16
TPD2	62.24
TPD3	55.15
TPD4	22.77
TPD5	100.89
TPD6	98.34



TEST PIT LOGS

NOT TO SCALE

TP-IB (6-30-22)	TP-LP1 (6-30-22)	TP-LP2A (6-30-22)	TP-LP2B (6-30-22)
DEPTH 0 ELEV. 51.7	DEPTH 0 ELEV. 55.0	DEPTH 0 ELEV. 119.5	DEPTH 0 ELEV. 118.3
24" FILL	36" FILL	4" A HORIZON SANDY LOAM 10YR 4/3	6" FILL
49.7	52.0	119.2	117.8
44" A HORIZON SANDY LOAM 10YR 3/3	44" A HORIZON SANDY LOAM 10YR 3/3	32" B HORIZON SANDY LOAM W/ GRAVEL 10YR 5/6	
51.0	51.0	116.8	
66" B HORIZON LOAMY SAND W/ GRAVEL 10YR 5/4	66" B HORIZON LOAMY SAND W/ GRAVEL 10YR 5/4	C HORIZON MED.-COARSE SAND W/ GRAVEL & COBBLES 10YR 6/4	
49.5	49.5		
124" NO MOTILES NO WATER	186" NO MOTILES NO WATER	144" NO MOTILES NO WATER	124" NO MOTILES NO WATER
41.4	39.5	107.5	108.0
PERC. RATE : OBSERVATION	PERC. RATE : OBSERVATION	PERC. RATE : OBSERVATION	PERC. RATE : OBSERVATION
DATE OF TEST : 6/30/22	DATE OF TEST : 6/30/22	DATE OF TEST : 6/30/22	DATE OF TEST : 6/30/22
SOIL EVALUATOR : JIM PAVLIK	SOIL EVALUATOR : JIM PAVLIK	SOIL EVALUATOR : JIM PAVLIK	SOIL EVALUATOR : JIM PAVLIK

OUTBACK TEST PIT LOGS

NOT TO SCALE

TP-IB (6-30-22)	TP-LP1 (6-30-22)	TP-LP2A (6-30-22)	TP-LP2B (6-30-22)
DEPTH 0 ELEV. 51.7	DEPTH 0 ELEV. 55.0	DEPTH 0 ELEV. 119.5	DEPTH 0 ELEV. 118.3
24" FILL	36" FILL	4" A HORIZON SANDY LOAM 10YR 4/3	6" FILL
49.7	52.0	119.2	117.8
44" A HORIZON SANDY LOAM 10YR 3/3	44" A HORIZON SANDY LOAM 10YR 3/3	32" B HORIZON SANDY LOAM W/ GRAVEL 10YR 5/6	
51.0	51.0	116.8	
66" B HORIZON LOAMY SAND W/ GRAVEL 10YR 5/4	66" B HORIZON LOAMY SAND W/ GRAVEL 10YR 5/4	C HORIZON MED.-COARSE SAND W/ GRAVEL & COBBLES 10YR 6/4	
49.5	49.5		
124" NO MOTILES NO WATER	186" NO MOTILES NO WATER	144" NO MOTILES NO WATER	124" NO MOTILES NO WATER
41.4	39.5	107.5	108.0
PERC. RATE : OBSERVATION	PERC. RATE : OBSERVATION	PERC. RATE : OBSERVATION	PERC. RATE : OBSERVATION
DATE OF TEST : 6/30/22	DATE OF TEST : 6/30/22	DATE OF TEST : 6/30/22	DATE OF TEST : 6/30/22
SOIL EVALUATOR : JIM PAVLIK	SOIL EVALUATOR : JIM PAVLIK	SOIL EVALUATOR : JIM PAVLIK	SOIL EVALUATOR : JIM PAVLIK

FOR REGISTRY USE ONLY

I CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS.

PAUL J. BASINEAU
No. 45815
REGISTERED PROFESSIONAL LAND SURVEYOR

7-14-22
DATE PROFESSIONAL LAND SURVEYOR

APPROVED SUBJECT TO TERMS AND CONDITIONS OF A COMPREHENSIVE PERMIT PER ZONING BOARD OF APPEALS DECISION AS AUTHORIZED BY CHAPTER 40B OF THE MASSACHUSETTS GENERAL LAWS, SECTION 20-23

DATE: _____

BOURNE ZONING BOARD

I CERTIFY THAT 20 DAYS HAVE ELAPSED SINCE ZONING BOARD APPROVAL, AND THAT NO APPEAL HAS BEEN FILED AT THIS OFFICE.

TOWN CLERK - TOWN OF BOURNE

REVISIONS

NO.	DATE	DESCRIPTION
1	7/8/22	PER PEER REVIEW

OWNER
230 SANDWICH ROAD REALTY TRUST
14 BOSUNS LANE
BOURNE, MA

APPLICANT
CHASE DEVELOPERS INC.
14 BOSUNS LANE
BOURNE, MA

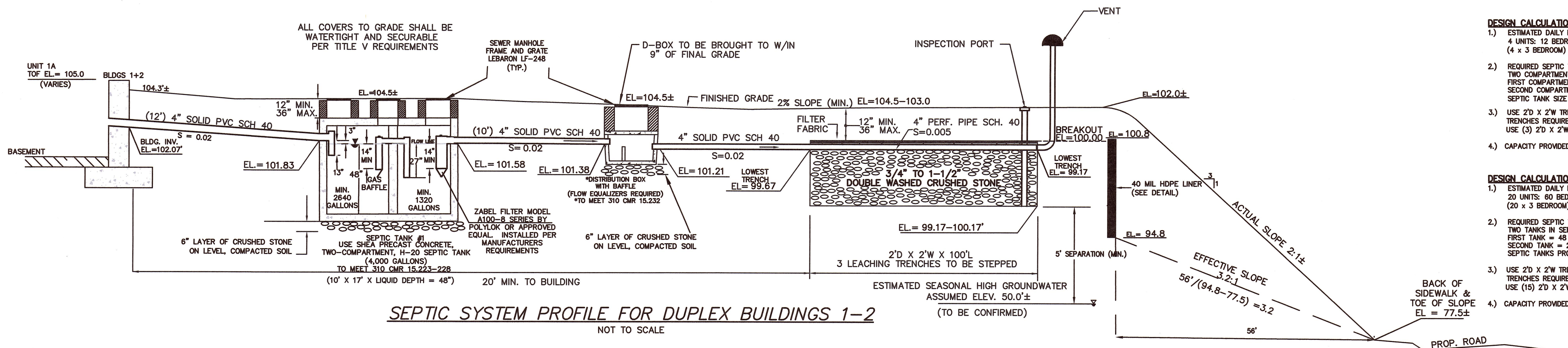
CONSTRUCTION DETAIL SHEET "CHASE ESTATES"

AT
230 SANDWICH ROAD
IN
BOURNE
MASSACHUSETTS

Outback Engineering Incorporated

165 EAST GROVE STREET
MIDDLEBOROUGH, MA 02346
TEL: (508)-946-9231
www.outback-eng.com

DATE: MARCH 9, 2022
DRAWN BY: KAD CHECKED BY: JAP
SCALE: AS NOTED SHEET 10 OF 11
OE-3294A



SEPTIC SYSTEM PROFILE FOR DUPLEX BUILDINGS 1-2
NOT TO SCALE

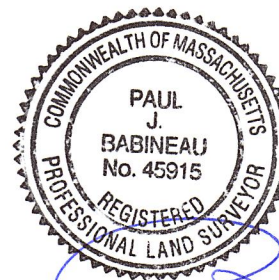
NOTE:
EXISTING HOUSE FOUNDATION (TOF ELEV. -119.2±)
AND SURROUNDING SOILS TO BE REMOVED AND CUT
TO ELEV. 102.5-106.0± AT PROPOSED LEACHING AREA
FOR SEPTIC SYSTEM #1.

- DESIGN CALCULATIONS FOR BUILDINGS 1-2:**
- ESTIMATED DAILY FLOW:
4 UNITS: 12 BEDROOMS X 110 GPD/BEDROOM = 1,320 GPD (4 x 3 BEDROOM)
 - REQUIRED SEPTIC TANK CAPACITY: (PER TITLE 5)
TWO COMPARTMENT TANK:
FIRST COMPARTMENT = 48 HOUR DETENTION X 1,320 GPD = 2,640 GAL
SECOND COMPARTMENT = 24 HOUR DETENTION X 1,320 GPD = 1,320 GAL
SEPTIC TANK SIZE PROVIDED (2-COMPARTMENT TANK) = 4,000 GAL
 - USE 2'D X 2'W TRENCHES AND <5 MPI PERC RATE = 0.74 GPD/SF
TRENCHES REQUIRED: 1320 GPD / 0.74 = 1784 S.F. / 6 S.F./L.F. = 297 L.F.
USE (3) 2'D X 2'W X 100'L TRENCHES = 300 L.F.
 - CAPACITY PROVIDED: 300 L.F. X 6 S.F./L.F. X 0.74 GPD/SF = 1,332 GPD

- DESIGN CALCULATIONS FOR BUILDINGS 3-12:**
- ESTIMATED DAILY FLOW:
20 UNITS: 60 BEDROOMS X 110 GPD/BEDROOM = 6,600 GPD (20 x 3 BEDROOM)
 - REQUIRED SEPTIC TANK CAPACITY: (PER TITLE 5)
TWO TANKS IN SERIES:
FIRST TANK = 48 HOUR DETENTION X 6,600 GPD = 13,200 GAL
SECOND TANK = 24 HOUR DETENTION X 6,600 GPD = 6,600 GAL
SEPTIC TANKS PROVIDED = 13,545 GAL + 7,000 GAL
 - USE 2'D X 2'W TRENCHES AND 0.74 GPD/SF
TRENCHES REQUIRED: 6,600 GPD / 0.74 = 8,919 S.F. / 6 S.F./L.F. = 1,486.5 L.F.
USE (15) 2'D X 2'W X 100'L TRENCHES = 1,500 L.F.
 - CAPACITY PROVIDED: 1,500 L.F. X 6 S.F./L.F. X 0.74 GPD/SF = 6,660 GPD

FOR REGISTRY USE ONLY

I CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS.



7-14-22
DATE PROFESSIONAL LAND SURVEYOR

APPROVED SUBJECT TO TERMS AND CONDITIONS OF A COMPREHENSIVE PERMIT PER ZONING BOARD OF APPEALS DECISION AS AUTHORIZED BY CHAPTER 40B OF THE MASSACHUSETTS GENERAL LAWS, SECTION 20-23

DATE:

BOURNE ZONING BOARD

I CERTIFY THAT 20 DAYS HAVE ELAPSED SINCE ZONING BOARD APPROVAL, AND THAT NO APPEAL HAS BEEN FILED AT THIS OFFICE.

TOWN CLERK - TOWN OF BOURNE

REVISIONS		
NO.	DATE	DESCRIPTION
1	7/9/22	PER PEER REVIEW

OWNER
230 SANDWICH ROAD REALTY TRUST
14 BOSUNS LANE
BOURNE, MA
APPLICANT
CHASE DEVELOPERS INC.
14 BOSUNS LANE
BOURNE, MA

**CONSTRUCTION
DETAIL SHEET**

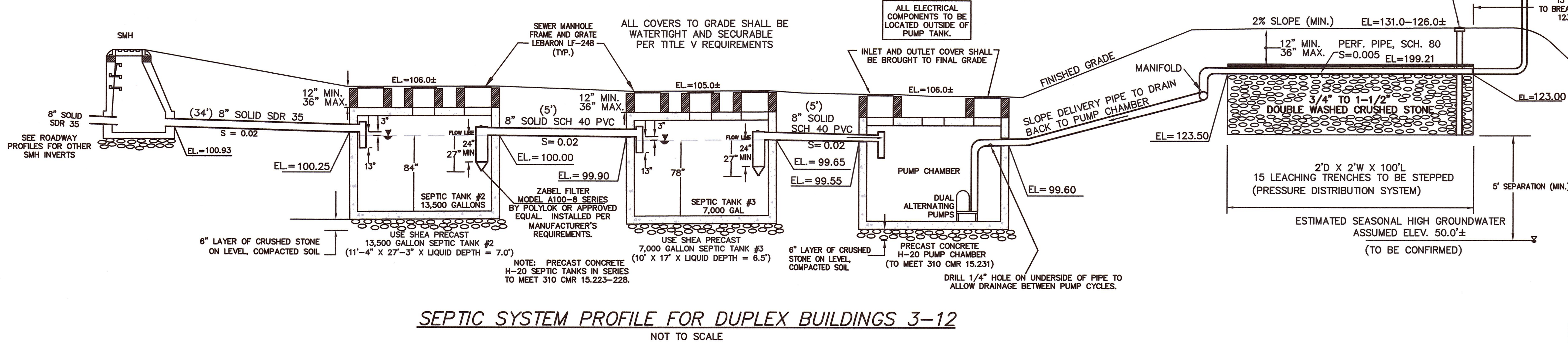
"CHASE ESTATES"

AT
230 SANDWICH ROAD
IN
BOURNE
MASSACHUSETTS

Outback Engineering
Incorporated

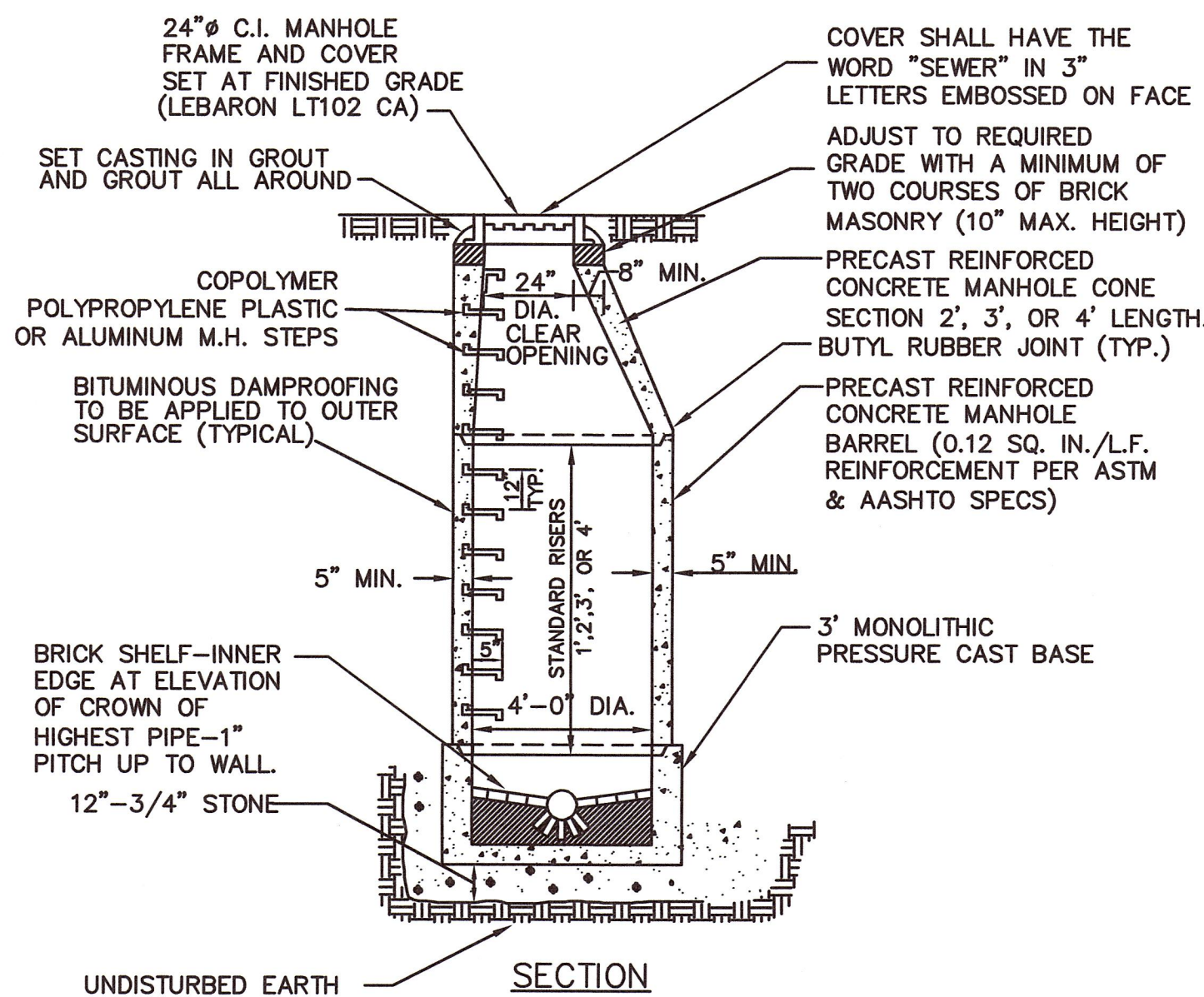
165 EAST GROVE STREET
MIDDLEBOROUGH, MA 02346
TEL: (508)-946-9231
www.outback-eng.com

DATE: MARCH 9, 2022
DRAWN BY: AJP CHECKED BY: JAP
SCALE: AS NOTED SHEET 11 OF 11
0E-3294A

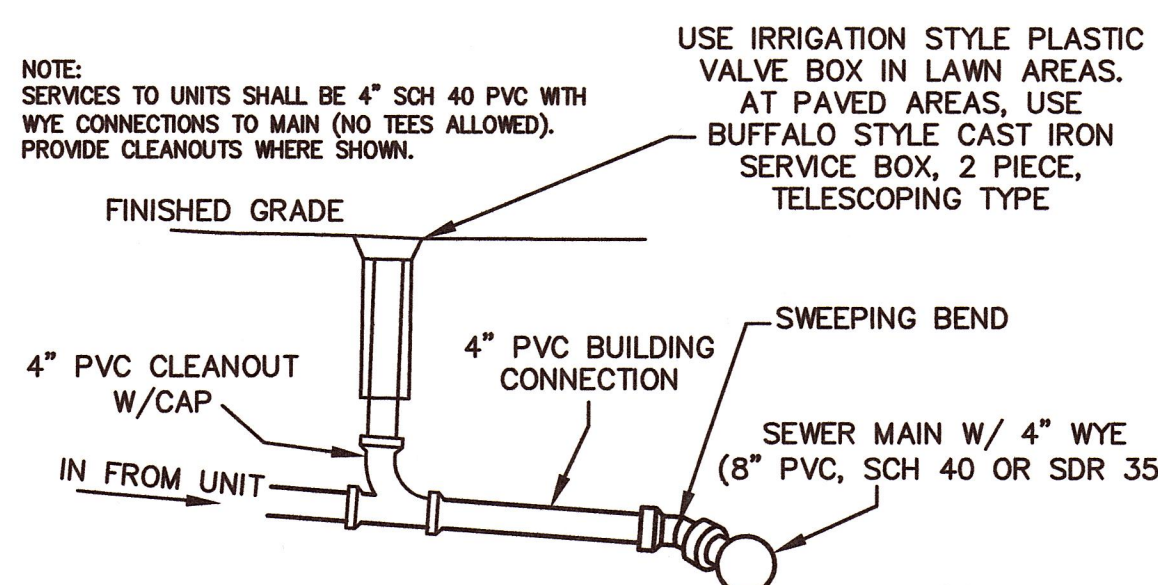


SEPTIC SYSTEM PROFILE FOR DUPLEX BUILDINGS 3-12
NOT TO SCALE

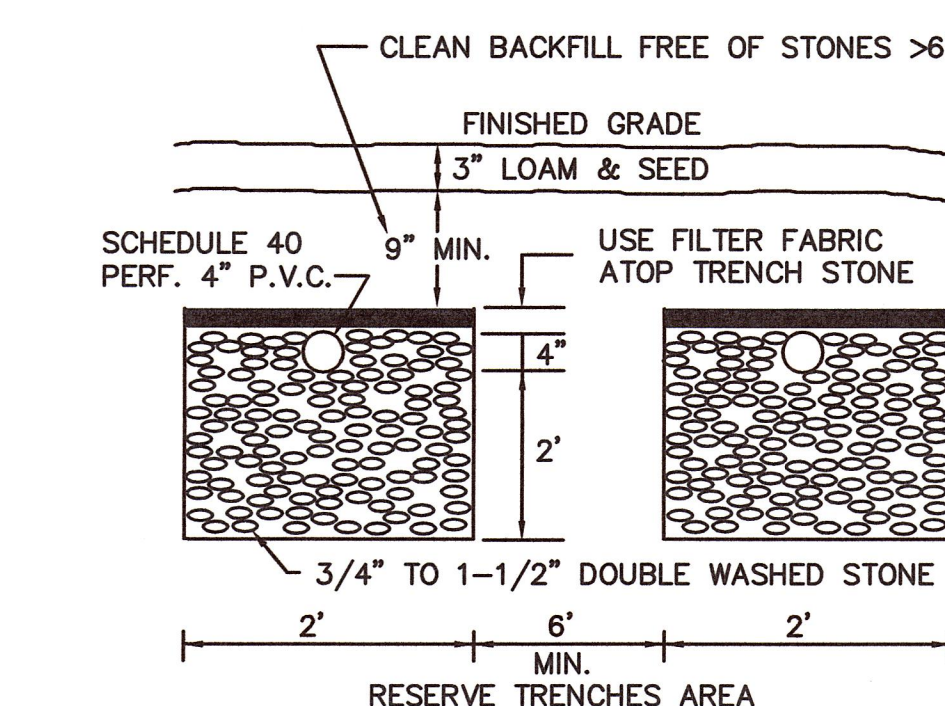
SEPTIC SYSTEM NOTES:
SYSTEM DETAILS SHOWN HERE ARE SCHEMATIC ONLY TO DEMONSTRATE LOCATION AND SIZING OF THE SYSTEM COMPONENTS. MORE DETAILED DESIGN PLANS PER TITLE 5 REQUIREMENTS SHALL BE PREPARED FOLLOWING ISSUANCE OF A COMPREHENSIVE PERMIT FOR THE SITE LAYOUT PROPOSED HEREON. SEPTIC SYSTEM DESIGN SHALL BE SUBJECT TO THE APPROVAL OF THE BOARD OF HEALTH.



STANDARD SEWER MANHOLE SECTION
NOT TO SCALE



TYPICAL SEWER CONNECTION
W/ CLEANOUT
NOT TO SCALE



TYPICAL LEACHING TRENCHES
NOT TO SCALE