WAIVERS REQUESTED:

REQUESTED WAIVERS FROM THE TOWN OF WAREHAM RULES AND REGULATIONS GOVERNING THE SUBDIVISION OF LAND ARE AS FOLLOWS:

SECTION VI — REQUIRED IMPROVEMENTS FOR AN APPROVED SUBDIVISION:

SEC. VI.A REQUIRES CATCH BASINS BOTH SIDES OF STREET EVERY 400'

NONE ARE PROVIDED.

HEIGHT ABOVE THE GUTTER LINE

SHOULDERS ARE 3' WIDE AND SLOPE AWAY FROM GUTTER LINE
SEC. VI.G. REQUIRES 5' WIDE SIDEWALK ON AT LEAST ONE SIDE OF THE S

NONE ARE PROVIDED

SEC. VI.H REQUIRES PRECAST CONCRETE OR GRANITE CURB ON EACH SIDE OF THE STREET

NONE ARE PROVIDED

C. VI.K REQUIRES INSTALLATION OF FIRE ALARM CIRCUIT AND 1 FIRE ALARM FOR

500' OF STREET

FOR A COMPLETE DESCRIPTION OF THE REQUESTED WAIVERS REFER TO A LETTER FROM THIS

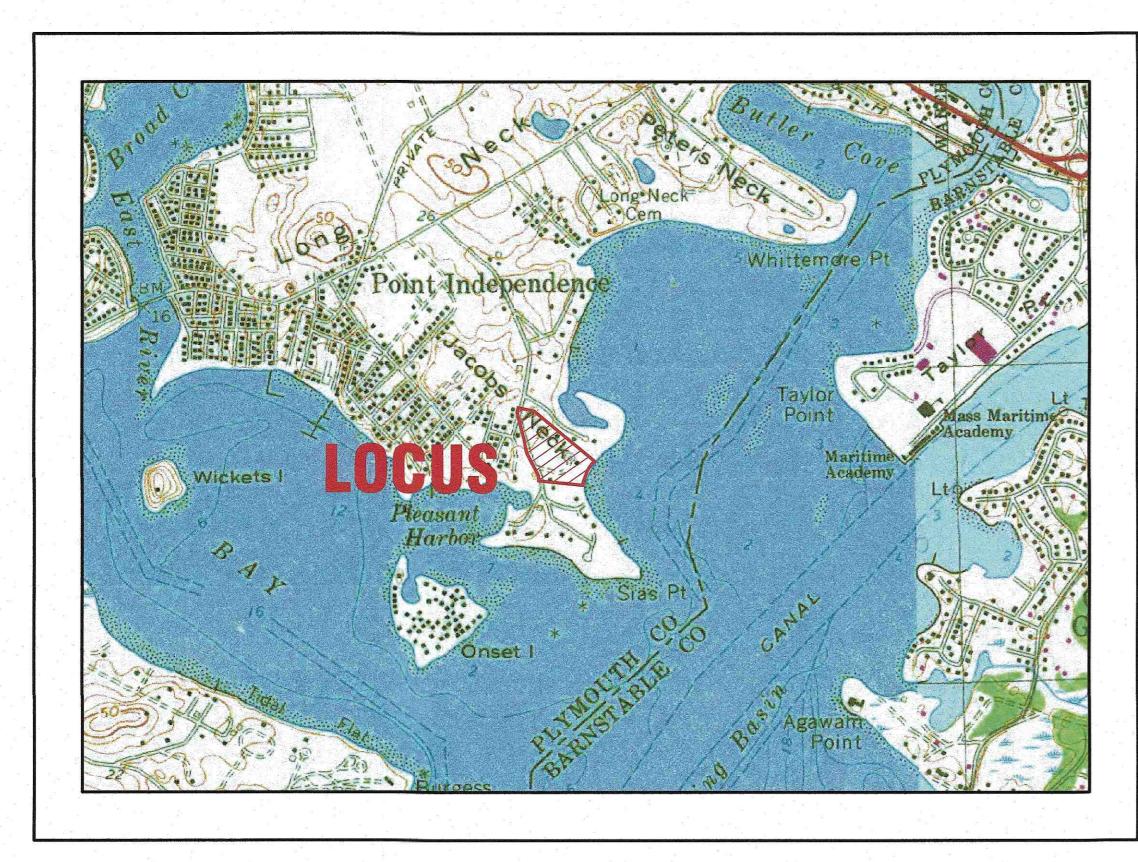
OFFICE TO THE TOWN OF WAREHAM PLANNING BOARD DATED DECEMBER 7, 2021.

"MARITIME HAVEN"

DEFINITIVE SUBDIVISION PLAN ROBINWOOD ROAD WAREHAM, MASSACHUSETTS

OWNER: RESI, LLC 2 CHARLES STREET

2 CHARLES STREET PROVIDENCE, RI 02904



- U.S.G.S. LOCUS PLAN -

SCALE: 1"=1000'

LOT DATA:

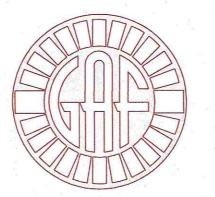
ASSESSORS MAP 4 / LOTS A, B & C
ADDRESS: 36, 42 & 48 ROBINWOOD ROAD

OWNER: RESI, LLC 2 CHARLES STREET PROVIDENCE, RI 02904

ZONING DATA:

ZONE: RESIDENCE 43 (R43)

MINIMUM LOT AREA: 43,000 S.F. (MIN. 80% CONTIGUOUS UPLAND) MINIMUM FRONTAGE: 180' MINIMUM FRONT SETBACK: 40' MINIMUM SIDE SETBACK: 20' MINIMUM REAR SETBACK: 20' MAXIMUM BUILDING HEIGHT: 35'



G.A.F. ENGINEERS & LAND SURVEYORS 266 MAIN STREET, WAREHAM, MA 02571

266 MAIN STREET, WAREHAM, MA 02571
TEL: (508) 295-6600 FAX: (508) 295-6634
E-MAIL: info@gafenginc.com

AUGUST 25, 2021

APPLICANT: RESI, LLC

2 CHARLES STREET PROVIDENCE, RI 02904



- AERIAL OVERVIEW -

SCALE: 1"=400'

PLAN INDEX:

SHEET NO.

1
2
3
4

DESCRIPTION:

COVER SHEET
GENERAL NOTES & LEGEND
EX. CONDITIONS & DEMOLITION PLAN
LOTTING SHEET
UTILITIES PLAN
ROADWAY PLAN & PROFILE
EROSION CONTROL PLAN
DETAIL SHEET 1
DETAIL SHEET 2

FLOOD ZONE DATA:

FLOOD ZONE DATA COMES FROM FEMA FLOOD MAP COMMUNITY PANEL NUMBER 25023C0582K, DATED FEBRUARY 5, 2014. NOTE LOCUS IS ALSO SUBJECT TO LIMIT OF MODERATE WAVE ACTION (LIMWA).

PERMIT SET (NOT FOR CONSTRUCTION)

DRAWN BY: JMP 4 2/22/22 JMP WFM ROADWAY NAME CHANGE
CHECKED BY: WFM 3 1/18/22 JMP WFM PER PEER REVIEW & TOWN COMMEN
JOB NO.: 20-9600 2 1/4/22 JMP WFM NO CHANGE THIS SHEET

SCALE: AS NOTED REV. DATE BY APP'D DESCRIPTION

PPROVED BY:
APPROVIE
WILLIAM F.
MADDEN
CIVIL
NO. 32883
PEGISTERED
FINANCE
PROVIE
NO. 32883

F. ENGINEERS & LAND SURVEYORS
SIONAL ENGINEERS & LAND SURVEYORS
(508) 295-6634
E-MAIL: info@gafenginc.com
S.A.F. ENGINEERING, INC. NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED, Y ANY MEANS, ELECTRONIC AND RECHANICAL PHOTOCOPYING, WHAT- SOEVER, ESS WRITTEN CONSENT OF G.A.F. ENGINEERING, INC. WITH THE EXCEPTION OF ANY

SHEET

WAREHAM, MA

TEL:

COPYRIGHT® 2022 GA

DEFINITIVE SUBDIVISION F
COVER SHEET
42, 48 ROBINWOOD ROAD
PREPARED FOR:
RFSI LLC

JOB NO.: 20-9600 DWG.

GENERAL NOTES:

- 1. ALL UNDERGROUND UTILITIES SHOWN OR NOT SHOWN WERE COMPILED ACCORDING TO AVAILABLE RECORD PLANS AND IN PART FROM FIELD SURVEY AND ARE APPROXIMATE ONLY, ACTUAL LOCATIONS MUST BE DETERMINED IN THE FIELD. BEFORE EXCAVATING, BLASTING, INSTALLING, BACKFILLING, GRADING, PAVEMENT RESTORATION, OR REPAIRING, ALL UTILITY COMPANIES, PUBLIC AND PRIVATE, MUST BE CONTACTED INCLUDING THOSE IN CONTROL OF UTILITIES NOT SHOWN ON THIS PLAN. SEE MGL CHAPTER 370, ACTS OF 1963. CONTRACTORS MUST CALL DIG-SAFE AT (1-888-DIG-SAFE OR 811) G.A.F. ENGINEERING, INC. ASSUMES NO RESPONSIBILITY FOR DAMAGES INCURRED AS A RESULT OF UTILITIES OMITTED OR INACCURATELY SHOWN.
- EXISTING CONDITIONS INFORMATION IS BASED ON ACTUAL FIELD SURVEY, PRIVATE UTILITY PLANS, AND OTHER AVAILABLE SOURCES. ACTUAL FIELD SURVEY WAS PERFORMED BY G.A.F. ENGINEERING, INC. ON VARIOUS DATES AND MOST RECENTLY IN MARCH OF 2021.
- 3. THE CONTRACTOR SHALL COORDINATE AND OBTAIN ALL REQUIRED PERMITS, GIVE ALL NOTICES, COMPLY WITH ALL LAWS AND REGULATIONS, AND PAY ALL FEES ASSOCIATED WITH THE INSTALLATION OF THIS WORK.
- 4. THE CONTRACTOR SHALL FIELD VERIFY, PRIOR TO CONSTRUCTION ALL EXISTING UNDERGROUND UTILITY LOCATIONS AND POINTS OF INTERCONNECTION.
- THE CONTRACTOR SHALL PROVIDE ALL MATERIALS, LABOR, SUPERVISION, TOOLS, EQUIPMENT, FUEL, POWER, SANITARY FACILITIES AND INCIDENTALS NECESSARY FOR THE FURNISHING, PERFORMANCE, TESTING, START-UP AND COMPLETION OF THIS WORK.
- 6. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND OWNER OF ANY CONFLICTS DISCOVERED IN THE FIELD.
- 7. ANY CHANGES TO THESE PLANS THAT ARE MADE IN THE FIELD DURING CONSTRUCTION SHALL BE RECORDED BY THE CONTRACTOR ON RECORD DOCUMENTS AND REPORTED TO THE OWNER AND ENGINEER.
- 8. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AN EXCAVATION AND TRENCH PERMIT PURSUANT TO 520 CMR 14.00 AS APPLICABLE PRIOR TO THE START OF CONSTRUCTION.

CONSTRUCTION NOTES:

- I. IN GENERAL, THE PLANS ARE DIAGRAMMATIC AND ARE NOT INTENDED TO SHOW EVERY FITTING. CHANGE IN DIRECTION OR DETAIL OF CONSTRUCTION.
- 2. THE LOCATION OF UTILITIES WERE OBTAINED FROM VARIOUS SOURCES OF INFORMATION. THE EXACT LOCATION AND COMPLETENESS IS NOT GUARANTEED. THE CONTRACTOR MUST NOTIFY DIG SAFE PRIOR TO THE START OF CONSTRUCTION (1-888-DIG-SAFE OR 811). G.A.F. ENGINEERING, INC. ASSUMES NO RESPONSIBILITY FOR DAMAGES INCURRED AS A RESULT OF UTILITIES OMITTED OR INACCURATELY SHOWN.
- 3. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE SAFETY OF PERSONNEL AND PROTECTION OF PROPERTY AT THE SITE OR ADJACENT THERETO INCLUDING TREES, SHRUBS, LAWNS. PAVEMENTS, ROADWAYS. STRUCTURES AND UNDERGROUND UTILITIES NOT DESIGNED FOR REMOVAL, RELOCATION. OR REPLACEMENT.
- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES OF CONSTRUCTION REQUIRED FOR THE INSTALLATION OF THIS WORK
- 5. ALL MATERIALS SHALL BE NEW AND FREE FROM DEFECTS AND OF GOOD QUALITY.
- 6. THE CONTRACTOR SHALL KEEP THE PREMISES FREE FROM THE ACCUMULATION OF WASTE MATERIAL AND OTHER DEBRIS RESULTING FROM THIS WORK.
- 7. ALL PAVEMENT MARKINGS DISTURBED BY CONSTRUCTION SHALL BE RESTORED AS PART OF THIS WORK.
- THE CONTRACTOR SHALL INSTITUTE ALL SAFETY MEASURES NECESSARY TO PROTECT THE PUBLIC SAFETY. THIS SHALL INCLUDE, BUT NOT LIMITED TO, BARRICADES, SIGNS, LIGHTING, FENCES, POLICE DETAILS, AND ANY OTHER MEANS AS DIRECTED. NO TRENCHES ARE TO REMAIN OPEN OVERNIGHT.
- 9. ELEVATIONS ARE IN FEET AND TENTHS AND ARE BASED ON THE DATUM OF NAVD-88.
- SIDE SLOPE GRADING SHALL BE AS NOTED ON THE SITE PLANS.
- 11. ALL SIDE SLOPES SHALL BE DRESSED WITH 4 INCHES OF TOPSOIL, WHERE SIDE SLOPES EXCEED 3:1. PROVIDE AN EROSION CONTROL BLANKET OVER THE PLANTED SEED BED. SEE PLAN FOR LOCATIONS.
- 12. PERMANENT SEEDING (BEFORE SEPTEMBER 15) LIME TO PH OF 6.5 ACCORDING TO SOIL TEST OR APPLY AT THE RATE OF 100 TO 150 LBS. PER 1,000 SQUARE FEET. APPLY 10-20-20 FERTILIZER AT 1,000 LBS. PER ACRE. INCORPORATE LIME AND FERTILIZER IN TOP 4 INCHES OF SOIL. SEED 100 LBS. PER ACRE OF THE FOLLOWING SEED MIX.

CREEPING RED FESCUE 30-35% 30-35% PERENNIAL RYEGRASS 20-25% KENTUCKY BLUEGRASS

10-15% ANNUAL RYEGRASS HYDRO SEEDING IS AN ALTERNATIVE FOR THIS APPLICATION. A MIXTURE OF SEED WATER AND MULCH IS SPRAYED ON THE SEED BED COMBINING THREE (3) SEPARATE ACTIONS INTO ONE (1) OPERATION

- 13. ALL SEWER AND PLUMBING WORK SHALL CONFORM WITH 248 CMR 10.00 UNIFORM STATE PLUMBING CODE AND THE TOWN OF WAREHAM SEWER DEPARTMENTS SPECIFICATIONS.
- 14. ALL METHODS AND MATERIALS SHALL CONFORM WITH MassDOT STANDARDS AND SPECIFICATIONS, AND THE REQUIREMENTS OF THE TOWN OF WAREHAM MUNICIPAL MAINTENANCE DEPARTMENT.
- 15. ALL UTILITY INSTALLATIONS SHALL BE IN CONFORMANCE WITH ALL APPLICABLE TOWN. STATE AND FEDERAL REQUIREMENTS & REGULATIONS.
- DEWATERING IF REQUIRED SHALL BE DIRECTED TO A 5' MIN. DIAMETER RING OF HAYBALES OR A DIRTBAG. CONTRACTOR SHALL SIZE, PROVIDE AND MAINTAIN DEWATERING EQUIPMENT FOR THE CONTROL. COLLECTION AND DISPOSAL OF GROUND AND SURFACE WATER WHERE NECESSARY TO COMPLETE THE WORK.

EROSION CONTROL NOTES:

- THE SITE CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING AND MAINTAINING SUITABLE EROSION AND SEDIMENTATION CONTROL DEVICES ON SITE DURING CONSTRUCTION AS REQUIRED TO PREVENT SILT FROM LEAVING THE SITE. SILT WILL NOT BE ALLOWED BEYOND CONSTRUCTION LIMITS. ADDITIONAL PROTECTION: ON-SITE PROTECTION MUST BE PROVIDED THAT WILL NOT PERMIT SILT TO LEAVE THE PROJECT CONFINES DUE TO UNFORESEEN CONDITIONS OR ACCIDENTS.
- EROSION CONTROL MEASURES SHALL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLANS DOES NOT PROVIDE SUFFICIENT EROSION AND SEDIMENT CONTROL, ADDITIONAL CONTROL MEASURES SHALL BE IMPLEMENTED. CONTRACTOR IS RESPONSIBLE FOR REPAIRING OR REPLACING EROSION CONTROL DEVICES WHICH BECOME INEFFECTIVE.
- CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FOR ALL GRADING AND OTHER LAND DISTURBING ACTIVITIES PRIOR TO CONSTRUCTION
- 4. THE CONTRACTOR IS RESPONSIBLE FOR THE CLEANUP AND REMOVAL OF ANY BUILDUP OF SEDIMENT WHICH ESCAPES FROM THE SITE.
- CONTRACTOR IS RESPONSIBLE FOR CLEANING SILT AND DEBRIS OUT OF ALL STORM DRAINAGE STRUCTURES UPON THE COMPLETION OF CONSTRUCTION.
- 6. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL TEMPORARY EROSION CONTROL MEASURES AFTER CONSTRUCTION IS COMPLETE AND ALL DISTURBED AREAS HAVE BEEN STABILIZED.

AND SEDIMENTATION CONTROL FACILITIES IN GOOD CONDITION DURING THE SUSPENSION OF WORK.

- 7. THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH ANY FINES LEVIED AGAINST THE SITE FOR VIOLATIONS OF EROSION CONTROL REGULATIONS.
- CONTRACTOR SHALL PROVIDE TEMPORARY GROUND COVER FOR ALL AREAS WITH EXPOSED SOIL WHICH WILL NOT BE
- DISTURBED BY GRADING OPERATIONS FOR A PERIOD OF THIRTY DAYS OR MORE. 9. IF WORK ON THIS PROJECT IS SUSPENDED FOR ANY REASON, THE CONTRACTOR SHALL MAINTAIN THE SOIL EROSION
- 10. SPRINKLE OR APPLY DUST SUPPRESSERS TO MINIMIZE DUST AT THE CONSTRUCTION SITE. MAINTAIN DUST CONTROL MEASURES UNTIL ALL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED.
- 11. THE CONTRACTOR WILL ALSO NEED TO COMPLY TO ANY ORDER OF CONDITIONS THAT WILL BE ISSUED BY THE TOWN OF WAREHAM CONSERVATION COMMISSION.

DRAINAGE OPERATION AND MAINTENANCE SCHEDULE:

THE OPERATION AND MAINTENANCE (0&M) SCHEDULE DURING THE CONSTRUCTION PERIOD IS THE RESPONSIBILITY OF THE CONTRACTOR. THE OUTLINE BELOW SHALL BE FOLLOWED TO ENSURE THE PROPER CONSTRUCTION AND FUNCTION OF THE DRAINAGE FACILITIES.

- IN CONJUNCTION WITH THE ROADWAY CONSTRUCTION, ALL DRAINAGE STRUCTURES, INCLUDING THE DRAINAGE SWALES SHALL BE INSTALLED AND THE AFFECTED AREAS STABILIZED (LOAM AND SEED, HYDROSEED, PLANTED, RIP-RAP, ETC.). PERMANENT STABILIZATION OF THESE AREAS SHALL BE STARTED AS SOON AS POSSIBLE.
- EROSION CONTROL SHALL BE PLACED ALONG THE LIMITS OF WORK WHERE SHOWN ON THE PLAN.
- A CONSTRUCTION ENTRANCE WILL NEED TO BE INSTALLED BEFORE ANY CONSTRUCTION ACTIVITY OCCURRING
- INSPECT DRAINAGE SWALES WEEKLY DURING CONSTRUCTION AND AFTER ALL RAIN EVENTS FOR THE FIRST FEW MONTHS AFTER INSTALLATION TO MAKE SURE THAT VEGETATION IN THE SWALES BECOMES ADEQUATELY ESTABLISHED. IF THERE IS ANY SEDIMENT BUILDUP, THE AFFECTED AREA OR STRUCTURES SHALL BE CLEANED IMMEDIATELY, AND ALL MATERIAL REMOVED SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL REQUIREMENTS.
- STONE FILLED TRENCHES SHALL BE COVERED WITH AN ADDITIONAL TEMPORARY LAYER OF FILTER FABRIC UNTIL THE ABOVE GRADIENT SLOPE IS STABILIZED. IF THERE IS ANY EVIDENCE OF SEDIMENT ENTERING THE TRENCHES, THE AFFECTED AREA OF THE TRENCH SHALL BE FULLY RECONSTRUCTED INCLUDING THE FILTER FABRIC.
- INFILTRATION CHAMBERS (CULTEC CHAMBERS) WITH NYLOPLAST YARD DRAINS SHALL BE INSPECTED WEEKLY DURING CONSTRUCTION. IF THERE IS ANY SEDIMENT BUILDUP, THE AFFECTED STRUCTURES SHALL BE CLEANED IMMEDIATELY, AND ALL MATERIAL REMOVED SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL REQUIREMENTS.
- ALL AREAS SHALL BE INSPECTED WEEKLY, AND AFTER ALL STORMS. IF THERE IS EVIDENCE OF EROSION, THE ERODED AREA SHALL BE RE-STABILIZED, AND MEASURES SHALL BE TAKEN TO PREVENT REOCCURRENCE. THIS SCHEDULE MUST BE ADHERED TO BY THE CONTRACTOR UNTIL THE PROJECT IS ACCEPTED BY THE OWNER.

POST-CONSTRUCTION OPERATION AND MAINTENANCE PLAN:

UPON THE COMPLETION OF ROADWAY CONSTRUCTION, MAINTENANCE SHALL BE CONDUCTED BY RESI, LLC AND ITS SUCCESSORS OR THE HOME OWNER'S ASSOCIATION ON THE ROADWAY AND DRAINAGE FACILITIES. THE FOLLOWING SHALL BE CARRIED OUT BY THE RESPONSIBLE PARTY AND SHALL BE ADHERED TO ENSURE THE PROPER OPERATION OF THE DRAINAGE FACILITIES.

- STREET SWEEPING IS AN EFFECTIVE NONSTRUCTURAL SOURCE CONTROL THAT WILL REMOVE SEDIMENT FROM PAVED SURFACES. PARKING LOT SWEEPING SHOULD BE DONE BY THE USE OF A HIGH EFFICIENCY VACUUM SWEEPER OR REGENERATIVE AIR SWEEPER. STREET SWEEPING SHALL BE DONE TWICE PER YEAR. ONCE REMOVED FROM PAVED SURFACES, THE SWEEPINGS MUST BE HANDLED AND DISPOSED OF PROPERLY IN ONE OF THE WAYS APPROVED BY MASSDEP (SEE POLICY # BAW-18-001: REUSE & DISPOSAL OF STREET SWEEPINGS).
- DRAINAGE SWALES SHALL BE INSPECTED SEMI-ANNUALLY AND MAINTENANCE AND REPAIRS MADE AS NECCESSARY. ADDITIONAL INSPECTIONS SHOULD BE SCHEDULED DURING THE FIRST FEW MONTHS TO MAKE SURE THE VEGETATION BECOMES ADEQUATELY ESTABLISHED. REPAIR AND RE-SEED AS REQUIRED. CHECK SWALES FOR SLOPE INTEGRITY, SOIL MOISTURE, VEGETATIVE HEALTH, SOIL STABILITY, SOIL COMPACTION, SOIL EROSION, PONDING AND SEDIMENTATION. REGULAR MAINTENANCE INCLUDES MOWING, FERTILIZING, LIMING, WATER, PRUNING AND WEED AND PEST CONTROL.
- MOW DRAINAGE SWALES AT LEAST ONCE PER YEAR. GRASS CLIPPINGS SHALL BE REMOVED. DO NOT CUT THE GRASS SHORTER THAN 3-4 INCHES, OTHERWISE THE EFFECTIVENESS OF THE VEGETATION IN REDUCING FLOW VELOCITY AND REMOVING POLLUTANTS MAY BE REDUCED. DO NOT LET THE GRASS HEIGHT EXCEED SIX INCHES. MANUALLY REMOVE SEDIMENT AND DEBRIS AT LEAST TWICE A YEAR AND PERIODICALLY RE-SEED IF NECESSARY TO MAINTAIN A DENSE GROWTH OF VEGETATION. SEDIMENT SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.
- STONE FILLED TRENCHES SHALL BE INSPECTED DURING AND 24 HOURS AFTER ALL MAJOR STORM EVENTS TO LOOK FOR PONDED WATER. IF THERE IS EVIDENCE OF PONDED WATER AT THE SURFACE OF THE TRENCH, IT IS LIKELY THAT THE TRENCH IS CLOGGED. REMOVE AND REPLACE THE FIRST LAYER OF STONE AGGREGATE AND FILTER FABRIC. IF WATER IS PONDED INSIDE THE TRENCH THEN THE TRENCH HAS FAILED. IN THIS CASE REMOVE ALL ACCUMULATED SEDIMENT, STONE AND FILTER FABRIC, THE BOTTOM OF THE TRENCH MUST BE SCARIFIED AND TILLED TO INDUCE INFILTRATION AND REPLACE WITH NEW STONE AND FILTER FABRIC. INSPECT STONE TRENCHES EVERY 6 MONTHS AND ROUTINELY REMOVE DEBRIS, TRASH, LEAVES, AND ANY SEDIMENT FROM THE SURFACE OF THE TRENCH, ADD STONE IF NECESSARY.
- CRUSHED STONE PADS AT PIPE ENDS SHALL BE CLEANED FOUR TIMES PER YEAR AND INSPECTED MONTHLY, ADD STONE IF NECESSARY. ALL SEDIMENTS AND HYDROCARBONS SHOULD BE REMOVED AND DISPOSED IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.
- A CHECK DAM IS A SMALL DAM CONSTRUCTED ACROSS A DRAINAGE DITCH, SEDIMENT FOREBAY, SWALE OR CHANNEL TO LOWER THE VELOCITY OF FLOW. REDUCED RUNOFF VELOCITY REDUCES EROSION AND GULLYING IN THE CHANNEL AND ALLOWS SEDIMENT TO SETTLE OUT. INSPECT CHECK DAMS AFTER SIGNIFICANT RAINFALL EVENT AND WHEN MAINTAINING THE SWALES. REPAIR ANY DAMAGE AND REMOVE SEDIMENT AS NEEDED. SEDIMENT SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.
- INFILTRATION CHAMBERS (CULTEC CHAMBERS) AND NYLOPLAST YARD DRAINS SHALL BE INSPECTED AFTER EVERY MAJOR STORM EVENT IN THE FIRST FEW MONTHS AFTER CONSTRUCTION TO ENSURE PROPER STABILIZATION AND FUNCTION. THEREAFTER, THE INFILTRATION CHAMBERS SHALL BE INSPECTED AT LEAST ONCE PER YEAR. WATER DEPTH IN THE INFILTRATION CHAMBERS SHOULD BE OBSERVED AND MEASURED AT 0, 24, AND 48-HOUR INTERVALS AFTER A MAJOR STORM EVENT AT LEAST ONCE PER YEAR. CLEARANCE RATES ARE CALCULATED BY DIVIDING THE DROP IN THE WATER LEVEL (INCHES) BY THE ELAPSED TIME (HOUR). A COMPARISON OF CLEARANCE RATE MEASUREMENTS TAKEN OVER THE YEARS PROVIDE A USEFUL TOOL TRACKING ANY CLOGGING PROBLEMS WITH THE UNDERGROUND INFILTRATION SYSTEM, KEEP NYLOPLAST YARD DRAINS FREE AND CLEAR FROM BUILD UP OF DEBRIS, REMOVE SNOW WHEN REQUIRED.

DRAINAGE INSTALLATION NOTES:

- ALL DRAINAGE PIPES, UNLESS OTHERWISE NOTED, ARE TO BE ADS N-12 PIPE WITH SOIL TIGHT JOINTS AND FITTINGS. REFER TO PLAN FOR LOCATION, SIZES AND SLOPES.
- 2. ALL ROOF DRAIN PIPES, UNLESS OTHERWISE NOTED, ARE TO BE 4" ADS N-12 PIPE WITH SOIL TIGHT JOINTS AND FITTINGS. MINIMUM SLOPE TO BE 1.00%. REFER TO PLAN FOR LOCATION.
- MIN. COVER ON PIPES SHALL NOT BE LESS THAN 1.5 FEET.
- 4. ALL PERFORATED PIPE SHALL BE ADS HDPE PIPE WITH AASHTO CLASS II PERFORATION PATTERN.
- ALL WORK AND MATERIAL SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE TOWN OF WAREHAM MUNICIPAL MAINTENANCE DEPARTMENT.

PERMIT SET (NOT FOR CONSTRUCTION)

DEMOLITION NOTES:

- IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO MAKE HIS/HER OWN DETERMINATION OF SUBSURFACE CONDITIONS, INCLUDING THE LOCATION OF ROCK AND THE ACTUAL LOCATION OF UTILITIES OR OTHER FEATURES WHICH MAY AFFECT HIS/HER WORK. ANY UNSUITABLE MATERIAL ENCOUNTERED DURING CONSTRUCTION WILL BE REPORTED TO THE ENGINEER OF RECORD FOR RESOLUTION AND CONSTRUCTION METHOD.
- 2. THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, TOOLS, EQUIPMENT AND APPARATUS NECESSARY AND SHALL DO ALL WORK REQUIRED TO COMPLETE THE DEMOLITION, REMOVAL, AND ALTERATIONS OF EXISTING FACILITIES, INCLUDING PIPING SYSTEMS AND APPURTENANCES, DRAINAGE, PAVEMENT, LANDSCAPE AND SITE FEATURES ENCOUNTERED DURING THE INSTALLATION AS INDICATED ON THE DRAWINGS, AS HEREIN SPECIFIED, AND/OR AS DIRECTED BY THE DESIGN ENGINEER
- ALL EQUIPMENT, PIPING, AND OTHER MATERIALS THAT ARE NOT TO BE RELOCATED OR TO BE RETURNED TO THE OWNER SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF BY HIM, AWAY FROM THE SITE OF THE WORK AND AT HIS OWN EXPENSE.
- 4. ALL DEMOLITION OR REMOVAL OF EXISTING STRUCTURES, PAVEMENT, UTILITIES, EQUIPMENT, AND APPURTENANCES, LANDSCAPE AND SITE FEATURES SHALL BE ACCOMPLISHED WITHOUT DAMAGING THE INTEGRITY OF EXISTING STRUCTURES, EQUIPMENT, PAVEMENT, APPURTENANCES, AND TREES TO REMAIN.
- 5. SUCH ITEMS THAT ARE DAMAGED SHALL BE EITHER REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE TO A CONDITION AT LEAST EQUAL TO THAT WHICH EXISTED PRIOR TO THE START OF HIS WORK TO THE SATISFACTION OF THE DESIGN ENGINEER AND/OR THE OWNER.
- 6. PROVIDE TWO (2) COPIES OF PROPOSED METHODS AND OPERATIONS OF DEMOLITION TO THE OWNER AND ENGINEER FOR REVIEW PRIOR TO THE START OF WORK. INCLUDE IN THE SCHEDULE THE COORDINATION FOR SHUTOFF, CAPPING AND CONTINUATION OF UTILITY SERVICES AS REQUIRED.
- PROVIDE A DETAILED SEQUENCE OF WORK TO THE DESIGN ENGINEER AND THE OWNER FOR DEMOLITION AND REMOVAL WORK TO ENSURE THE UNINTERRUPTED PROGRESS OF THE OWNER'S OPERATIONS.
- ENSURE THE SAFE PASSAGE OF PERSONS AROUND THE AREA OF DEMOLITION. CONDUCT OPERATIONS TO PREVENT INJURY TO ADJACENT BUILDINGS, STRUCTURES, OTHER FACILITIES AND PERSONS.
- PROVIDE INTERIOR AND EXTERIOR SHORING, BRACING, OR SUPPORT TO PREVENT MOVEMENT, SETTLEMENT OR COLLAPSE OF STRUCTURES TO BE DEMOLISHED AND ADJACENT FACILITIES TO REMAIN.
- 10. THE CONTRACTOR SHALL PROMPTLY REPAIR DAMAGES CAUSED BY DEMOLITION OPERATIONS TO ADJACENT FACILITIES AT NO COST TO THE OWNER.
- 11. THE EXISTING BUILDING FOOTPRINT SHALL BE BACKFILLED WITH ORDINARY SANDY FILL AND COMPACTED TO AT LEAST 95% OF MAXIMUM DENSITY

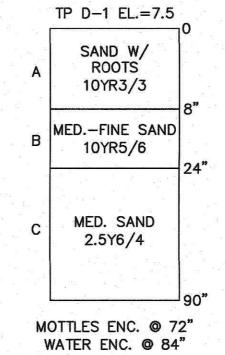
WATER INSTALLATION NOTES:

INSTALLATION OF THE WATER SYSTEM.

- ALL WATER MAINS, SERVICES, GATE VALVES/GATE BOX, CURB STOPS, HYDRANTS FITTINGS, ETC. & METHOD OF INSTALLATION SHALL CONFORM TO THE ONSET FIRE DISTRICT AND ONSET WATER DEPARTMENTS RULES & REGULATIONS.
- WATER MAIN SHALL BE PRESSURE TESTED, FLUSHED & DISINFECTED IN ACCORDANCE WITH THE ONSET FIRE DISTRICT AND ONSET WATER DEPARTMENTS REQUIREMENTS.
- CONTRACTOR TO COORDINATE WITH THE ONSET FIRE DISTRICT AND THE ONSET WATER DEPARTMENT FOR THE INSPECTIONS OF THE WATER MAIN INSTALLATION.
- THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS TO COMPLETE THE
- THE CONTRACTOR SHALL OBTAIN A COPY OF THE "ONSET FIRE DISTRICT, WATER DEPARTMENT GENERAL PROCEDURES, CONSTRUCTION SPECIFICATIONS & MATERIAL SPECIFICATIONS" FROM THE ONSET WATER DEPARTMENT BEFORE PROCEEDING WITH THE INSTALLATION OF THE WATER SYSTEM.
- ALL WATER MAINS SHALL BE 8" C-900 DR-18 CLASS 150 PIPE WITH DUCTILE IRON MECHANICAL JOINT FITTINGS, PRESSURE FITTINGS ARE NOT ALLOWED. REFER TO THE "ONSET FIRE DISTRICT, WATER DEPARTMENT GENERAL PROCEDURES, CONSTRUCTION SPECIFICATIONS & MATERIAL SPECIFICATIONS" FOR COMPLETE DETAILS.
- ALL SEWER SERVICE LINES SHALL BE INSTALLED A MINIMUM OF 10' FROM WATER SERVICE LINES.

TEST PIT DATA

DATE OF TESTING: MAY 4, 2021 PERFORMED BY: BRIAN GRADY, G.A.F. ENGINEERING INC. REFER TO EXISTING CONDITIONS & DEMOLITION PLAN FOR TEST PIT LOCATIONS



BVW BORDERING VEGETATED WETLANDS CB CATCH BASIN CB/DH CONCRETE BOUND/DRILL HOLE CCB CAPE COD BERM CEM. CEMENT C.I. CAST IRON CONC. CONCRETE C.O. CLEAN OUT C.L.D.I CEMENT LINED DUCTILE IRON CORRUGATED METAL PIPE CMP CPP CORRUGATED PLASTIC PIPE DIA DIAMETER DRAIN MANHOLE DMH DUCTILE IRON DCS DRAINAGE CONTROL STRUCTURE **ELECTRIC** ELEV., EL **ELEVATION** EDGE OF PAVEMENT EOP EX. **EXISTING** F.D.C. FIRE DEPARTMENT CONNECTION F.E.S. FLARED END SECTION F.F.E. FINISHED FLOOR ELEVATION FND. FOUND FP FIRE PROTECTION 4 W W GG,GV GAS GATE, GAS VALVE HANDICAP PARKING H.D.P.E HIGH DENSITY POLYETHYLENE HYD HYDRANT WFM .9600 INVERT INV. MAX MAXIMUM MED MEDIUM MIN. MINIMUM N.T.S. NOT TO SCALE N/F NOW OR FORMERLY m o OVERHEAD WIRE PCC PRECAST CONCRETE CURBING PVC POLYVINYL CHLORIDE PIPE PROP PROPOSED **RCP** REINFORCED CONCRETE PIPING RADIUS R&D REMOVE AND DISPOSE REMOVE AND STOCK R&S STONE BOUND/DRILL HOLE SB/DH SEWER SGC SMH SLOPED GRANITE CURBING SEWER MANHOLE STA STATION TOP OF CURB TOP OF WALL TYPICAL T/0/F TOP OF FOUNDATION UTILITY POLE UNDERGROUND ELECTRIC VGC VERTICAL GRANITE CURB WATER WATER GATE, WATER VALVE WG, WV WATER QUALITY STRUCTURE **LEGEND EXISTING** DESC. **PROPOSED** 55 ال ____55____ CONTOURS 52x5 53x5 SPOT GRADES 52x5 Z S **---**/ WETLANDS F.E.M.A. FLOOD ZONE DRAIN LINE PERFORATED DRAIN LINE — —D— — ROOF DRAIN LINE -----RD-----CATCH BASIN (CB) 0 DRAIN MANHOLE (DMH) CLEAN OUT (C.O.) ELECTRIC MANHOLE (EMH) UNDERGROUND UTILITIES ——UE----OVERHEAD WIRES ----OHW--------OHW----UTILITY POLE -0 ← GUY POLE WATER GATE VALVE WATER SHUTOFF/CURB STOP POST INDICATOR VALVE PLANGEND WATER LINE FIRE PROTECTION LINE ---FP---SEWER MANHOLE (SMH) SEWER LINE ----S----——s— र ल श ——FM—— ----FM-----FORCE MAIN TREELINE ·WW LIGHT POST ***** GAS LINE ——-G—— GAS GATE/VALVE GAS SHUTOFF GAS METER

Z

ABBREVIATIONS

APPROXIMATE

BOULDERS

ADS

APPROX.

BLDRS

BW

-0

X

TO .

FENCE

BOUND

TEST PIT/PERC TEST

SILT FENCE

GUARD RAIL

FLARED END SECTION

STONE WALL

0-0-0

0----0

0 0 0 0

 ∞

JOB NO.: 20-9600

BIT. CONC.

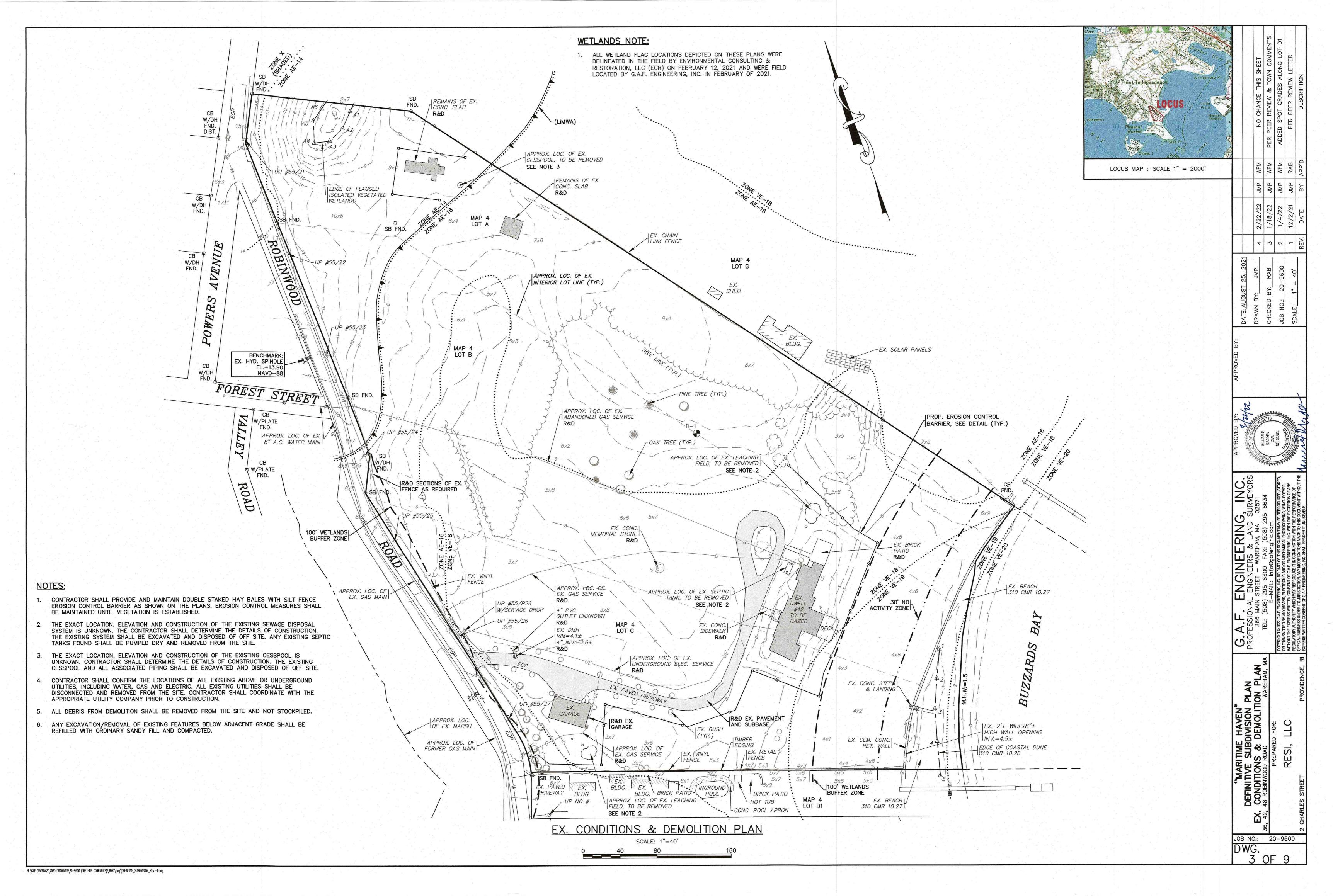
ASBESTIC CONCRETE

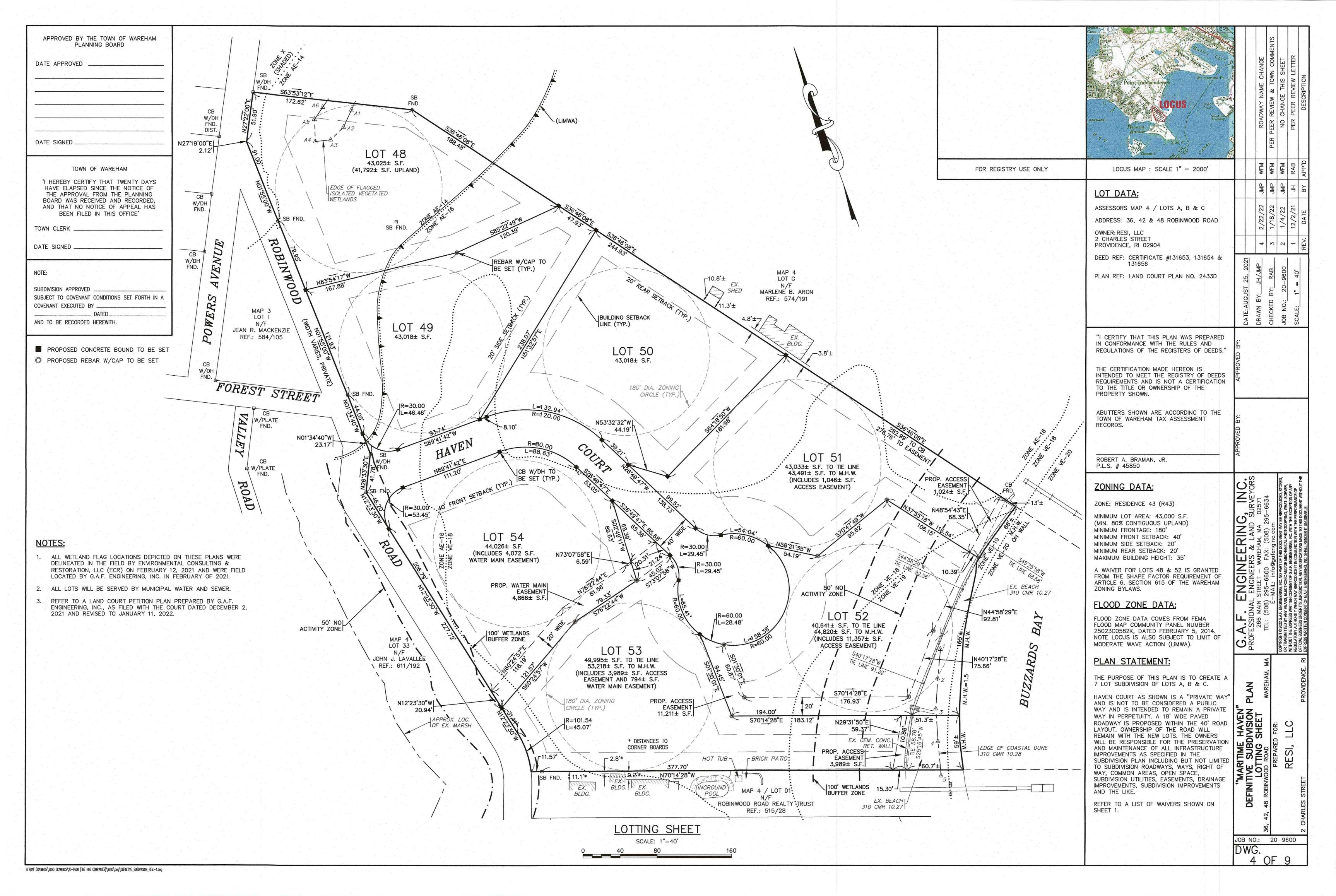
BOTTOM OF CURB

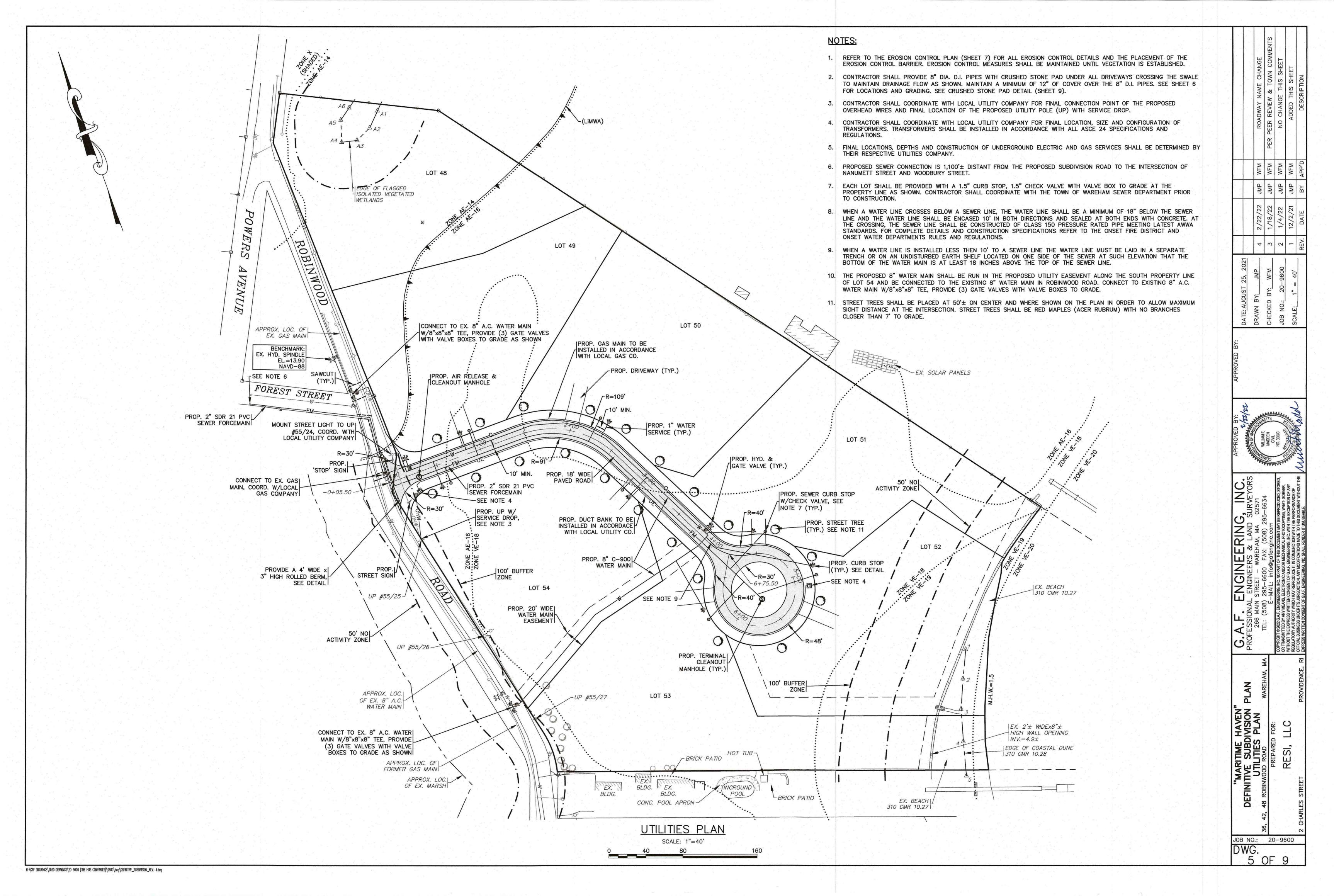
BOTTOM OF WALL

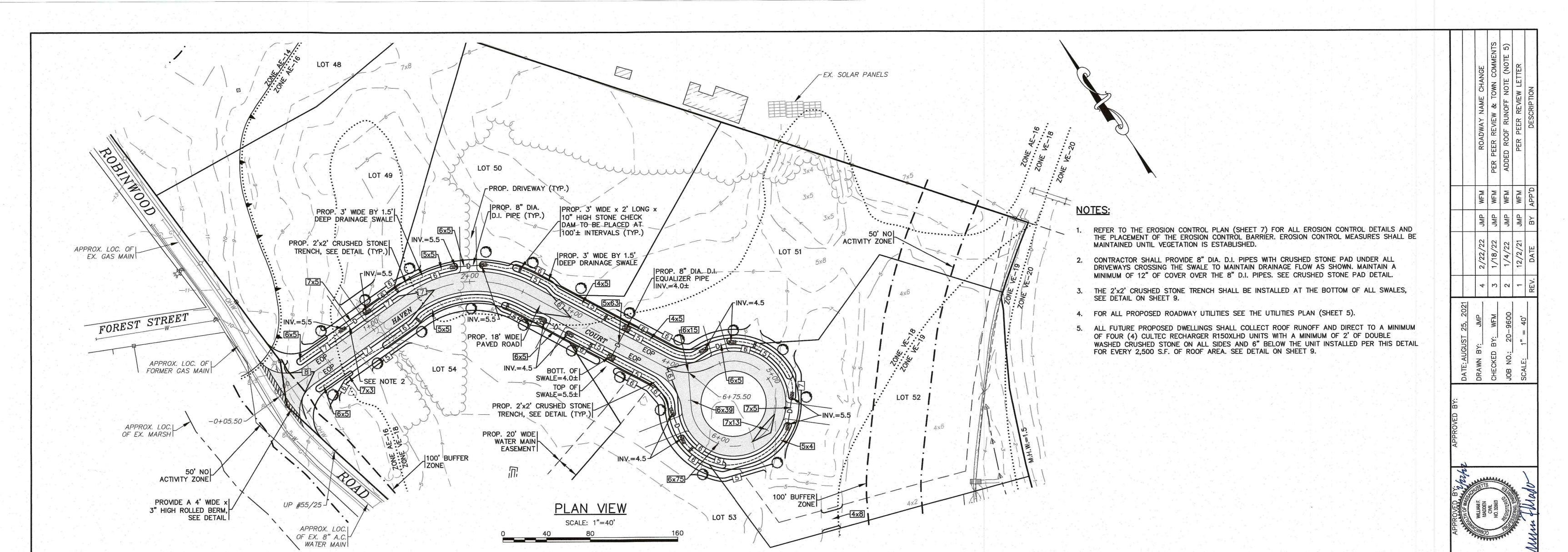
BITUMINOUS CONCRETE

ADVANCED DRAINAGE SYSTEM



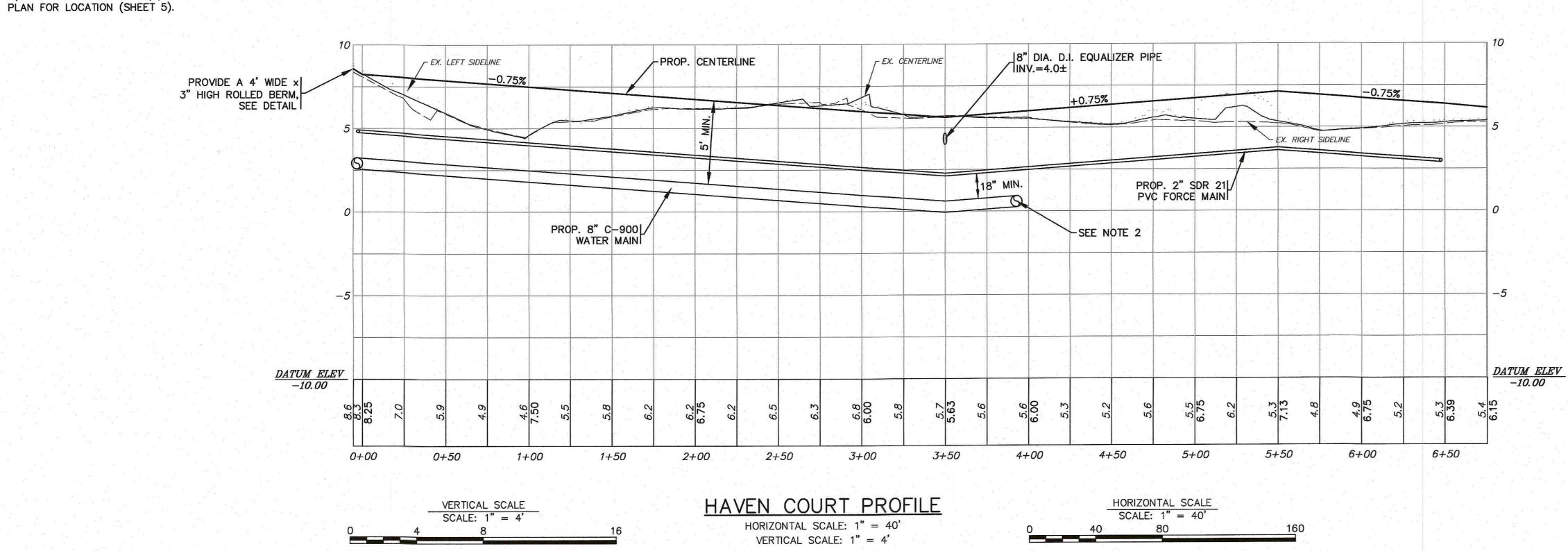






NOTES:

- THE PROPOSED SEWER FORCE MAIN IS SHOWN OFFSET FOR CLARITY. THE FORCE MAIN SHALL KEEP A MINIMUM 10' HORIZONTAL SEPARATION FROM THE WATER MAIN OR SERVICE. REFER TO PLAN VIEW ABOVE. SEE NOTE 8 ABOVE FOR WHEN A SEWER FORCE MAIN CROSSES ABOVE A WATER MAIN OR SERVICE.
- 2. THE PROPOSED 8" WATER MAIN SHALL BE RUN IN THE PROPOSED UTILITY EASEMENT ALONG THE SOUTH PROPOERTY LINE OF LOT 54 AND BE CONNECTED TO THE EXISTING 8" WATER MAIN IN ROBINWOOD ROAD. CONNECT TO EXISTING 8" A.C. WATER MAIN W/8"x8"x8" TEE, PROVIDE (3) GATE VALVE WITH VALVE BOX TO GRADE. SEE UTILITIES



**MARITIME HAVEN"

DEFINITIVE SUBDIVISION PLAN
PLAN & ROADWAY PROFILE

48 ROBINWOOD ROAD

PREPARED FOR:

COPYRIGHT © 2022 G.A.F. ENGINEERING, INC. MITH THE EXCEPTION OF ANY
COPYRIGHT © 2022 G.A.F. ENGINEERING, INC. MITH THE EXCEPTION OF ANY
REGULATIORY MITHOUT THE EXPRESS WRITTEN CONSENT OF G.A.F. ENGINEERING, INC. WITH THE EXCEPTION OF ANY
REGULATIORY MITHOUT THE EXPRESS WRITTEN CONSENT OF G.A.F. ENGINEERING, INC. WITH THE EXCEPTION OF ANY
REGULATIORY MITHOUT THE EXPRESS WRITTEN CONSENT OF G.A.F. ENGINEERING, INC. SHALL RENDER IT UNIDSFABLE.

**EXPRESS WRITTEN CONSENT OF G.A.F. ENGINEERING, INC. SHALL RENDER IT UNIDSFABLE.

**EXPRESS WRITTEN CONSENT OF G.A.F. ENGINEERING, INC. SHALL RENDER IT UNIDSFABLE.

**EXPRESS WRITTEN CONSENT OF G.A.F. ENGINEERING, INC. SHALL RENDER IT UNIDSFABLE.

**EXPRESS WRITTEN CONSENT OF G.A.F. ENGINEERING, INC. SHALL RENDER IT UNIDSFABLE.

**EXPRESS WRITTEN CONSENT OF G.A.F. ENGINEERING, INC. SHALL RENDER IT UNIDSFABLE.

**EXPRESS WRITTEN CONSENT OF G.A.F. ENGINEERING, INC. SHALL RENDER IT UNIDSFABLE.

**EXPRESS WRITTEN CONSENT OF G.A.F. ENGINEERING, INC. SHALL RENDER IT UNIDSFABLE.

**EXPRESS WRITTEN CONSENT OF G.A.F. ENGINEERING, INC. SHALL RENDER IT UNIDSFABLE.

**EXPRESS WRITTEN CONSENT OF G.A.F. ENGINEERING, INC. SHALL RENDER IT UNIDSFABLE.

**EXPRESS WRITTEN CONSENT OF G.A.F. ENGINEERING, INC. SHALL RENDER IT UNIDSFABLE.

**EXPRESS WRITTEN CONSENT OF G.A.F. ENGINEERING, INC. SHALL RENDER IT UNIDSFABLE.

**EXPRESS WRITTEN CONSENT OF G.A.F. ENGINEERING, INC. SHALL RENDER IT UNIDSFABLE.

**EXPRESS WRITTEN CONSENT OF G.A.F. ENGINEERING, INC. SHALL RENDER IT UNIDSFABLE.

**EXPRESS WRITTEN CONSENT OF G.A.F. ENGINEERING, INC. SHALL RENDER IT UNIDSFABLE.

**EXPRESS WRITTEN CONSENT OF G.A.F. ENGINEERING, INC. SHALL RENDER IT UNIDSFABLE.

**EXPRESS WRITTEN CONSENT OF G.A.F. ENGINEERING, INC. SHALL RENDER IT UNIDSFABLE.

**EXPRESS WRITTEN CONSENT OF G.A.F. ENGINEERING, INC. SHALL RENDER IT UNIDSFABLE.

**EXPRESS WRITTEN CONSENT OF G.A.F. ENGINEERING, INC. SHALL RENDER IT UNIDSFABLE.

**

JOB NO.: 20-9600

6 OF 9

