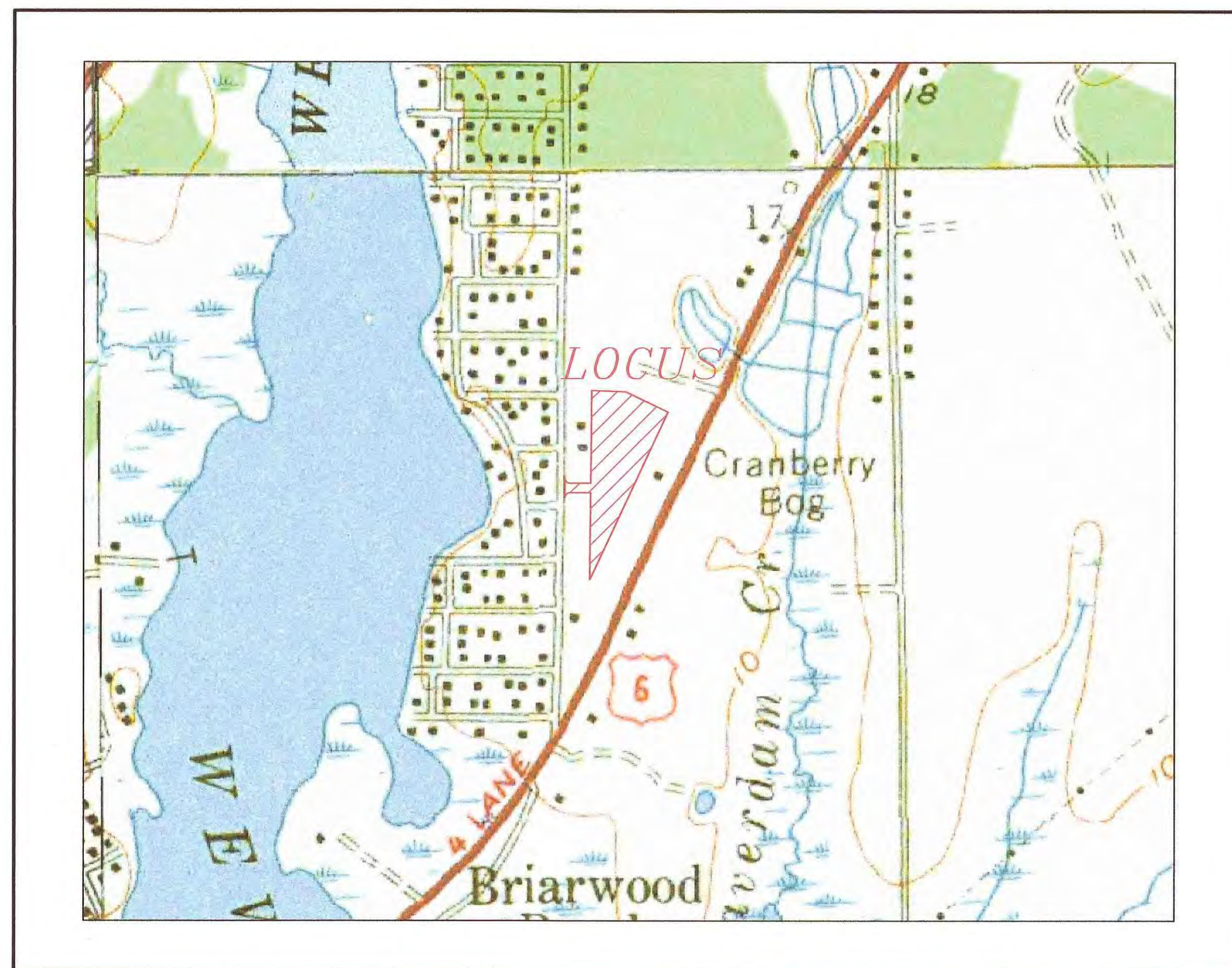


# PHILIP LUKEY WEWEANTIC PLAYGROUND

## SITE DEVELOPMENT PLAN HATHAWAY STREET WAREHAM, MASSACHUSETTS

OWNER: TOWN OF WAREHAM  
54 MARION ROAD  
WAREHAM, MA 02571

APPLICANT: TOWN OF WAREHAM  
54 MARION ROAD  
WAREHAM, MA 02571



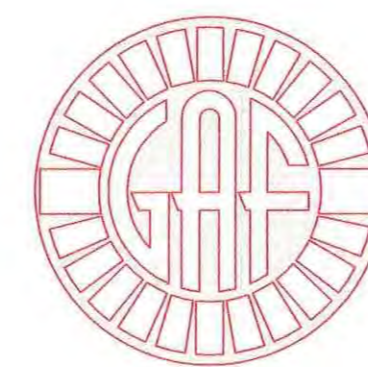
- U.S.G.S. LOCUS PLAN -  
SCALE: 1"= 1000'



- MASSGIS ORTHOPHOTO -  
SCALE: 1"= 1000'

**SITE DATA**

ZONING DISTRICT: MR-30  
ASSESSOR'S MAP: 58  
ASSESSOR'S LOTS: LOT 131  
REQUIRED LOT AREA: 30,000 S.F.  
REQUIRED ROAD FRONTAGE: 150'  
FRONT SETBACK: 20'  
SIDE SETBACK: 10'  
REAR SETBACK: 10'  
MAX. BUILDING HEIGHT (FEET): 50'  
MAX. BUILDING COVERAGE: -  
MAX. IMPERVIOUS SURFACE: NR  
WATER SUPPLY: NA  
SANITARY SEWER: NA



**G. A. F. ENGINEERING, INC.**  
PROFESSIONAL ENGINEERS & LAND SURVEYORS

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

AUGUST 10, 2017

**PARKING DATA**

PER ARTICLE 9 SECTION 912 OF THE TOWN OF WAREHAM ZONING BYLAWS:  
"THE NUMBER OF PARKING SPACES REQUIRED FOR ANY USE NOT LISTED IN A CATEGORY ABOVE SHALL BE DETERMINED BY THE BUILDING INSPECTOR.  
PARKING SPACES PROVIDED=9

**FLOOD ZONE DATA**

THE LOCUS IS LOCATED MOSTLY IN ZONE AE-14 AND A SMALL PORTION IN ZONE X AS SHOWN ON THE FEMA FLOOD INSURANCE RATE MAP (FIRM) PLYMOUTH COUNTY, MASSACHUSETTS MAP NUMBERS 25023C0576K, DATED FEBRUARY 5, 2014.

**PLAN INDEX:**

SHEET NO.	DESCRIPTION
1 OF 5	COVER SHEET
2 OF 5	LEGEND & NOTES
3 OF 5	EX. CONDITIONS/DEMOLITION PLAN
4 OF 5	PROPOSED CONDITIONS PLAN
5 OF 5	DETAIL SHEET

**NOTES:**

1. THE PURPOSE OF THIS PLAN IS TO OBTAIN AN ORDER OF CONDITIONS FROM THE TOWN OF WAREHAM CONSERVATION COMMISSION.
2. ALL EQUIPMENT SIZE, MATERIAL OF CONSTRUCTION AND LOCATIONS SHALL BE AS DIRECTED BY OWNER.

PERMIT SET  
(NOT FOR CONSTRUCTION)

DATE	REV.	DATE	BY	APPD	DESCRIPTION
AUGUST 10, 2017					
DRAWN BY: JMP					
CHECKED BY: RJR					
JOB NO.: 17-8956					
SCALE: 1" = 30'					
APPROVED BY: <i>[Signature]</i>					
G.A.F. ENGINEERING, INC. PROFESSIONAL ENGINEERS & LAND SURVEYORS 266 MAIN STREET - WAREHAM, MA 02571 TEL: (508) 295-6600 FAX: (508) 295-6634 E-MAIL: gaf@gaf-eng.com <small>                     COPYRIGHT © 2017 G.A.F. ENGINEERING, INC. NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED, OR TRANSMITTED BY ANY MEANS, ELECTRONIC AND/OR MECHANICAL, INCLUDING PHOTOCOPYING, WHATSOEVER, WITHOUT THE WRITTEN PERMISSION OF G.A.F. ENGINEERING, INC. ANY REPRODUCTION OR TRANSMISSION OF THIS DOCUMENT WITHOUT THE WRITTEN PERMISSION OF G.A.F. ENGINEERING, INC. SHALL BE AT THE USER'S RISK AND WITHOUT LIABILITY TO G.A.F. ENGINEERING, INC.                 </small>					
PREPARED FOR: TOWN OF WAREHAM BOARD OF SELECTMAN 54 MARION ROAD WAREHAM, MA					
SITE DEVELOPMENT PLAN COVER SHEET HATHAWAY STREET WAREHAM, MA					
JOB NO.: 17-8956 DWG. 1 OF 5					

**GENERAL NOTES:**

- 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 (811) OR (1-888-DIG-SAFE) 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 AN ON THE GROUND FIELD SURVEY BY G.A.F. ENGINEERING, INC. ON JULY 18, 2017.
- THE CONTRACTOR SHALL GIVE ALL NOTICES, COMPLY WITH ALL LAWS AND REGULATIONS, AND PAY ALL FEES ASSOCIATED WITH THE INSTALLATION OF THIS WORK.
- 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.

**CONSTRUCTION NOTES**

- IN GENERAL, THE PLANS ARE DIAGRAMMATIC AND ARE NOT INTENDED TO SHOW EVERY FITTING, CHANGE IN DIRECTION OR DETAIL OF CONSTRUCTION.
- THE LOCATION OF UTILITIES WERE OBTAINED FROM VARIOUS SOURCES OF INFORMATION. THE EXACT LOCATION AND COMPLETENESS IS NOT GUARANTEED. THE CONTRACTOR SHALL NOTIFY DIG SAFE PRIOR TO THE START OF ANY EXCAVATION (811) OR (1-888-DIG-SAFE).
- 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 DESIGNATED 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.
- ALL MATERIALS SHALL BE NEW AND FREE FROM DEFECTS AND OF GOOD QUALITY.
- THE CONTRACTOR SHALL KEEP THE PREMISES FREE FROM THE ACCUMULATION OF WASTE MATERIAL AND OTHER DEBRIS RESULTING FROM THIS WORK.
- 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.
- ELEVATIONS ARE IN FEET AND TENTHS AND ARE BASED ON THE DATUM OF NAVD88.
- SIDE SLOPE GRADING SHALL BE AS NOTED ON THE SITE PLANS.
- 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 DETAIL IF APPLICABLE.
- 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.
 

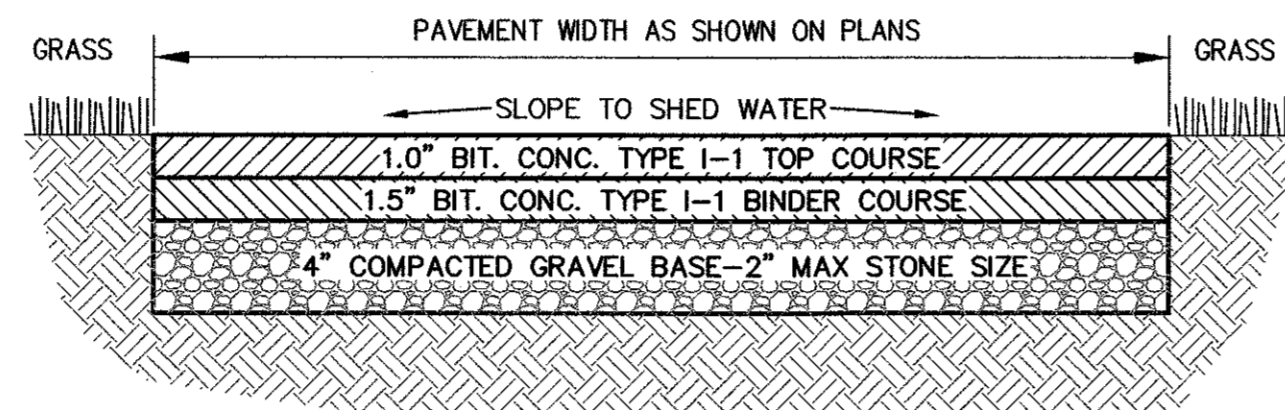
PURE PERCENT	SEED
30-35%	GREeping RED FESCUE
30-35%	PERENNIAL RYEGRASS
20-25%	KENTUCKY BLUEGRASS
10-15%	ANNUAL RYEGRASS

 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
- ALL METHODS AND MATERIALS SHALL CONFORM WITH MassDOT STANDARDS AND THE REQUIREMENTS OF THE TOWN OF WAREHAM MUNICIPAL MAINTENANCE DEPARTMENT.
- ALL UTILITY INSTALLATIONS TO BE IN CONFORMANCE WITH ALL APPLICABLE TOWN, STATE AND FEDERAL REQUIREMENTS & REGULATIONS.
- ALL AREAS THAT ARE NOT LANDSCAPED SHALL BE LOAMED AND SEEDDED.

**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.
- 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.
- THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL TEMPORARY EROSION CONTROL MEASURES AFTER CONSTRUCTION IS COMPLETE AND ALL DISTURBED AREAS HAVE BEEN STABILIZED.
- 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.
- IF WORK ON THIS PROJECT IS SUSPENDED FOR ANY REASON, THE CONTRACTOR SHALL MAINTAIN THE SOIL EROSION AND SEDIMENTATION CONTROL FACILITIES IN GOOD CONDITION DURING THE SUSPENSION OF WORK.
- SPRINKLE OR APPLY DUST SUPPRESSERS TO MINIMIZE DUST AT THE CONSTRUCTION SITE. MAINTAIN DUST CONTROL MEASURES UNTIL ALL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED.
- THE CONTRACTOR WILL ALSO NEED TO COMPLY TO ANY ORDER OF CONDITIONS THAT MAY BE ISSUED BY THE TOWN OF WAREHAM CONSERVATION COMMISSION.

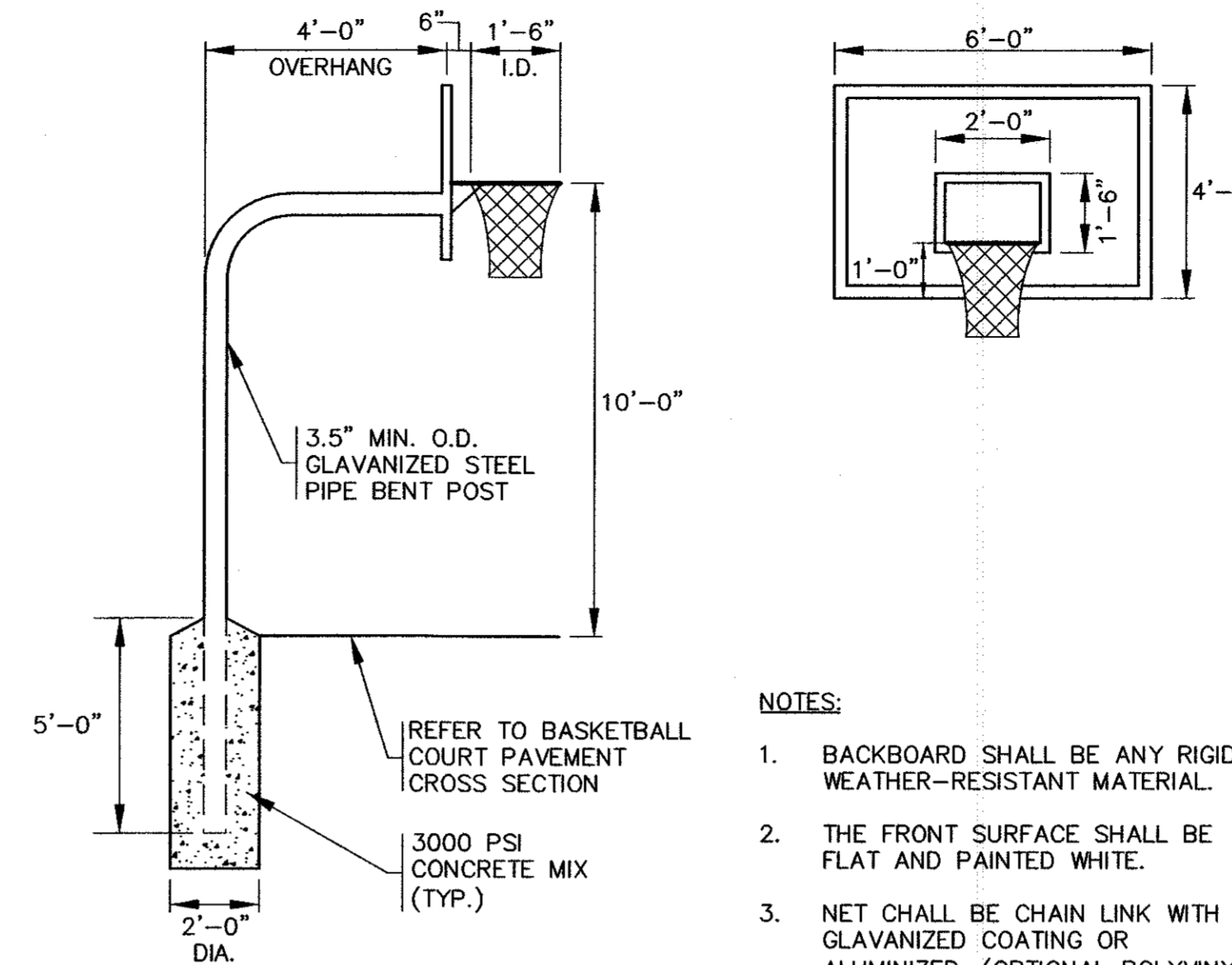
**PERMIT SET  
(NOT FOR CONSTRUCTION)**



**NOTES:**

- ALL PAVEMENT SHALL BE IN ACCORDANCE WITH MHD SECTION 460 & 401, UNLESS OTHERWISE NOTED.
- GRAVEL BASE SHALL CONFORM TO MHD M1.03.0 TYPE C.
- SUBGRADE & BASE SHALL BE COMPACTED TO MINIMUM 95% MAXIMUM DRY DENSITY.

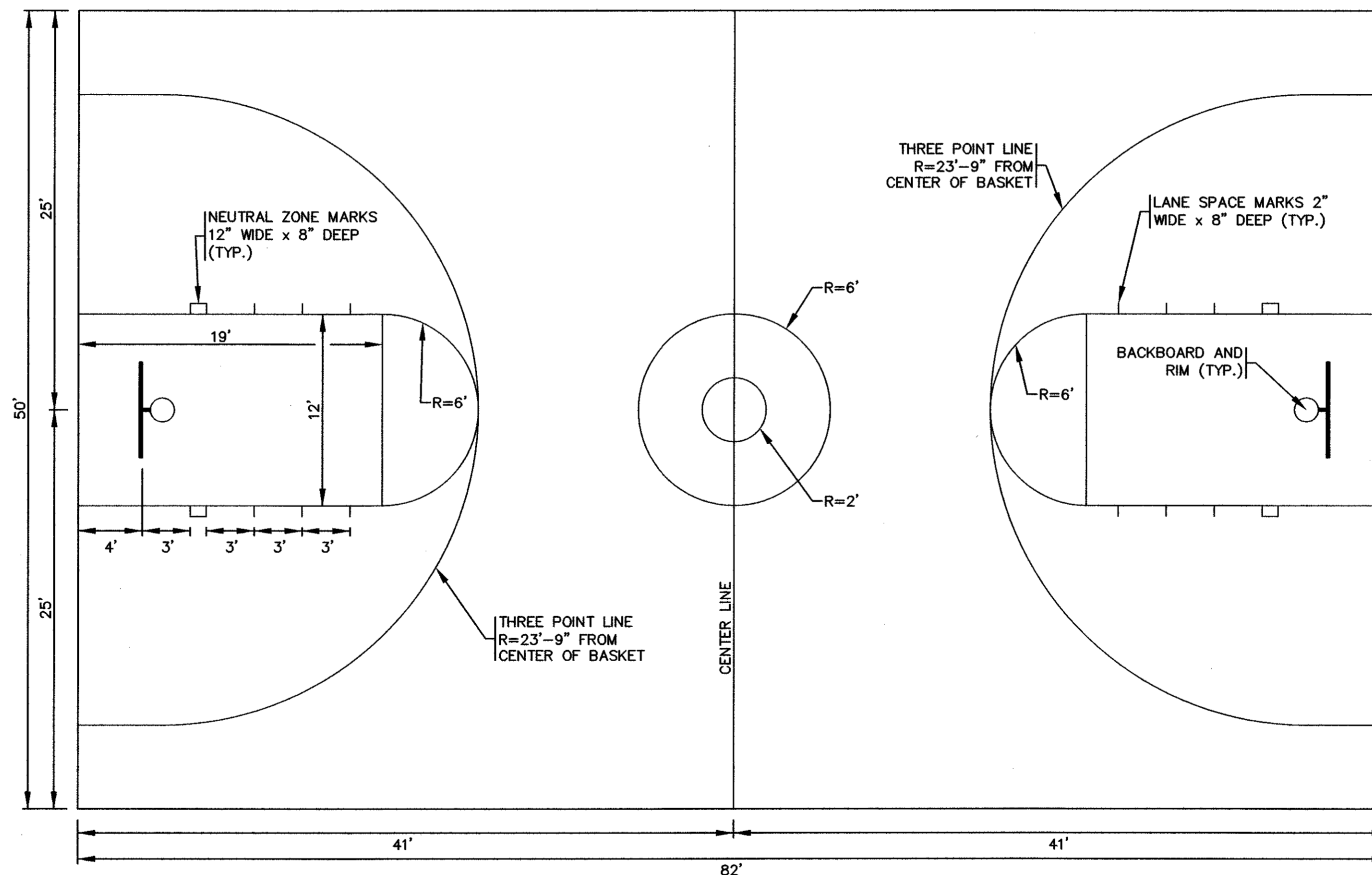
**BASKETBALL COURT PAVEMENT SECTION**  
N.T.S.



**NOTES:**

- BACKBOARD SHALL BE ANY RIGID WEATHER-RESISTANT MATERIAL.
- THE FRONT SURFACE SHALL BE FLAT AND PAINTED WHITE.
- NET SHALL BE CHAIN LINK WITH GALVANIZED COATING OR ALUMINIZED. (OPTIONAL POLYVINYL CHLORIDE COATED STEEL)

**BACKBOARD LAYOUT**  
N.T.S.



**NOTES:**

- THE COLOR OF THE LANE SPACE MARKS AND NEUTRAL ZONE MARKS SHALL CONTRAST WITH THE COLOR OF THE BOUNDING LINES.
- THE MIDCOURT MARKS SHALL BE THE SAME COLOR AS THE BOUNDING LINES.
- ALL LINES SHALL BE 2 INCH WIDE (NEUTRAL ZONE EXCLUDED)
- ALL DIMENSIONS ARE TO THE INSIDE EDGE OF LINES EXCEPT NOTED.
- ALL LINE MARKINGS SHALL BE ACRYLIC WATER BASE PAINT ONLY. OIL BASE OR TRAFFIC PAINTS CRACK, CRAZE, OR PEEL. SPRAY PAINTING USUALLY IS USED.

**BASKETBALL COURT LAYOUT**  
N.T.S.

**ABBREVIATIONS**

AC	ASBESTIC CONCRETE
ADS	ADVANCED DRAINAGE SYSTEM
APPROX.	APPROXIMATE
BIT CONC	BITUMINOUS CONCRETE
BC	BOTTOM OF CURB
BVW	BORDERING VEGETATED WETLANDS
BLDRS	BOULDERS
CB	CATCH BASIN
CB/DH	CONCRETE BOUND/DRILL HOLE
CCB	CAPE COD BERM
C.L.D.I.	CEMENT LINED DUCTILE IRON
DIA	DIAMETER
DMH	DRAIN MANHOLE
DH	DRILL HOLE
E	ELEVATION
ELEV,EL	ELEVATION
EOP	EDGE OF PAVEMENT
EX	EXISTING
FES	FLARED END SECTION
FP	FIRE PROTECTION
FND	FOUND
HYD	HYDRANT
HP	HANDICAP PARKING
INV	INVERT
MAX	MAXIMUM
MB	MAILBOX
MED	MEDIUM
MIN	MINIMUM
MHB	MASSACHUSETTS HIGHWAY BOUND
NTS	NOT TO SCALE
N/F	NOW OR FORMERLY
OHW	OVERHEAD WIRE
PCC	PRECAST CONCRETE CURB
PVC	POLYVINYL CHLORIDE PIPE
PVMT	PAVEMENT
RCP	REINFORCED CONCRETE PIPING
R	RADIUS
SB	STONE BOUND
SB/DH	STONE BOUND/DRILL HOLE
S	SEWER
SGE	SLOPED GRANITE EDGING
SMH	SEWER MANHOLE
STA	STATION
TC	TOP OF CURB
TYPL	TYPICAL
UP	UTILITY POLE
UE	UNDERGROUND ELECTIC
W	WATER
WG,WV	WATER GATE, WATER VALVE
VTR	VENT THROUGH ROOF
GW	GARAGE WASTE
GV	GARAGE VENT
FD	FLOOR DRAIN
PROP.	PROPOSED
C.I.	CAST IRON
DCS	DRAINAGE CONTROL STRUCTURE
RD	ROOF DRAIN

**LEGEND**

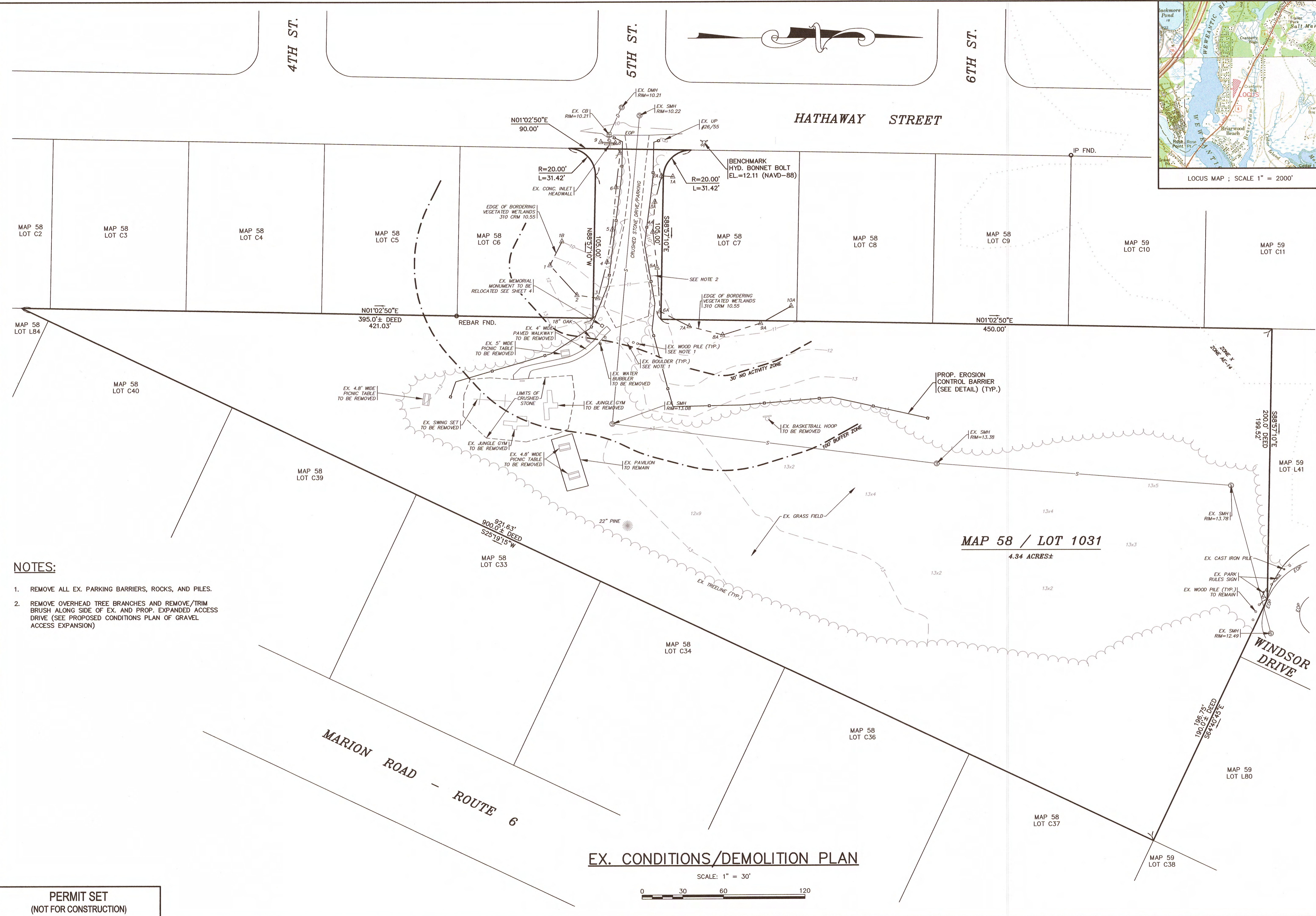
EXISTING	DESC.	PROPOSED
80	CONTOURS	80
x 80.12	SPOT GRADES	80x5 80.0
WETLANDS		
F.E.M.A. FLOOD ZONE		
D	DRAIN LINE	D
CB	CATCH BASIN (CB)	CB
DMH	DRAIN MANHOLE (DMH)	DMH
EMH	ELECTRIC MANHOLE (EMH)	EMH
OHW	OVERHEAD WIRES	OHW
UP	UTILITY POLE	UP
GUY	GUY POLE	GUY
WG	WATER GATE VALVE	WG
WS	WATER SHUTOFF/CURB STOP	WS
HYD	HYDRANT	HYD
W	WATER LINE	W
FP	FIRE SERVICE LINE	FP
UE	UNDERGROUND UTILITIES	UE
E	ELECTRIC LINE	E
+	SIGN	+
FENCE		FENCE
BOUND		BOUND
TEST PIT/PERC TEST		TEST PIT/PERC TEST
SILT FENCE		SILT FENCE
LIGHT POLES		LIGHT POLES
WALL MOUNTED LIGHT		WALL MOUNTED LIGHT
FLARED END SECTION		FLARED END SECTION
50' NO ACTIVITY ZONE		50' NO ACTIVITY ZONE
100' WETLAND BUFFER ZONE		100' WETLAND BUFFER ZONE
SMH	SEWER MANHOLE (SMH)	SMH
S	SEWER LINE	S
RD	ROOF DRAIN LINE	RD
G	GAS LINE	G



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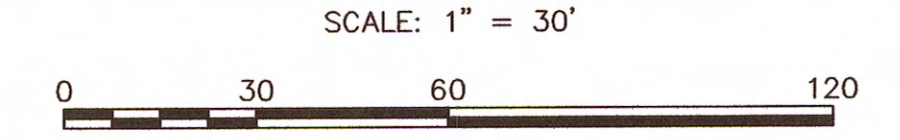
**SITE DEVELOPMENT PLAN  
LEGEND AND NOTES**  
HATHAWAY STREET  
WAREHAM, MA

**TOWN OF WAREHAM  
BOARD OF SELECTMAN**  
WAREHAM, MA  
54 MARION ROAD



- NOTES:**
1. REMOVE ALL EX. PARKING BARRIERS, ROCKS, AND PILES.
  2. REMOVE OVERHEAD TREE BRANCHES AND REMOVE/TRIM BRUSH ALONG SIDE OF EX. AND PROP. EXPANDED ACCESS DRIVE (SEE PROPOSED CONDITIONS PLAN OF GRAVEL ACCESS EXPANSION)

**EX. CONDITIONS/DEMOLITION PLAN**



DATE: AUGUST 10, 2017	DATE	BY	APP'D	DESCRIPTION
DRAWN BY: JMP				
CHECKED BY: RJR				
JOB NO.: 17-8956				
SCALE: 1" = 30'				
<p>APPROVED BY: <i>[Signature]</i></p> <p>APPROVED BY: <i>[Signature]</i></p> <p>APPROVED BY: <i>[Signature]</i></p>				
<p><b>G.A.F. ENGINEERING, INC.</b>          PROFESSIONAL ENGINEERS &amp; LAND SURVEYORS          266 MAIN STREET - WAREHAM, MA 02571          TEL: (508) 295-6600 FAX: (508) 295-6634          E-MAIL: gaf@gef-inc.com</p>				
<p><b>SITE DEVELOPMENT PLAN</b>  <b>EX. CONDITIONS/DEMOLITION</b>          WAREHAM, MA          HATHAWAY STREET</p>				
<p>PREPARED FOR:  <b>TOWN OF WAREHAM</b>  <b>BOARD OF SELECTMAN</b>          54 MARION ROAD          WAREHAM, MA</p>				
<p>JOB NO.: 17-8956          DWG. 3 OF 5</p>				



