SITE DEVELOPMENT PLAN OF LAND A 40B Comprehensive Permit Project "GEOFFREY PARK" HOLLISTON, MASSACHUSETTS

DATE: FEB. 29, 2020

REVISED: MAY 14, 2020

PREPARED BY:

GLM engineering consultants, inc.

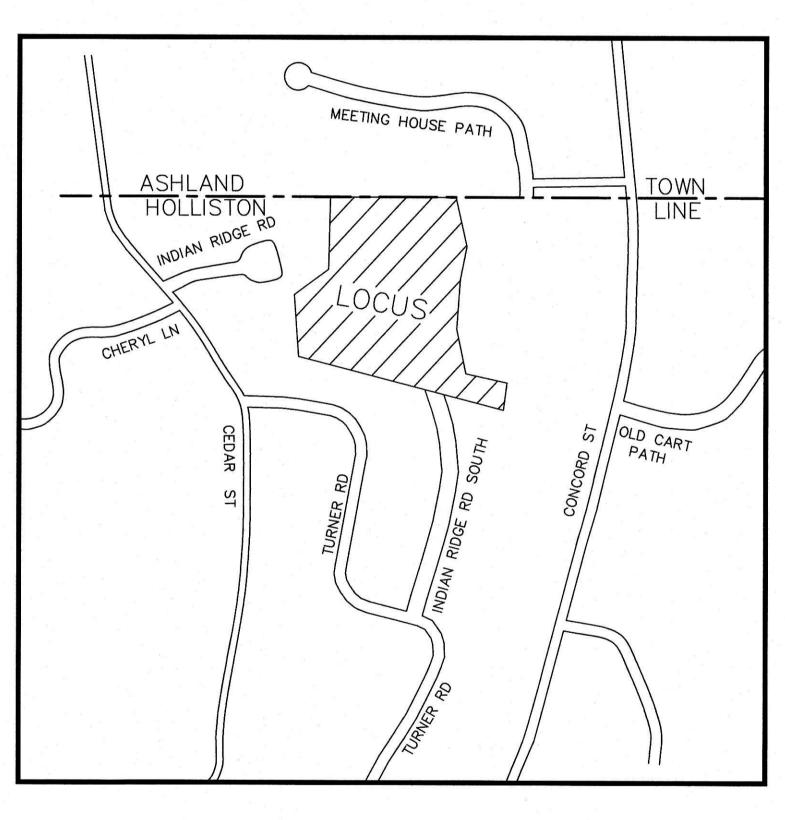
19 EXCHANGE STREET
HOLLISTON, MASSACHUSETTS 01746
(508)429-1100 fax:(508)429-7160

PREPARED FOR:

INDIAN RIDGE REALTY TRUST

223 COURTLAND STREET

HOLLISTON, MA 01746



N.T.S.

ZONING CLASSIFICATION:
AGRICULTURAL RESIDENCE
AREA: 40,000 S.F
FRONTAGE: 180 Feet
DEPTH: 200 Feet
SETBACKS:
FRONT: 40'

PROJECT SUMMARY:
TOTAL LAND AREA: 12.67 ± ACRES
TOTAL LOTS/HOUSE: 24 LOTS

PROPOSED ROAD: 1655 Ft. (From Exist Indian Ridge Rd. South)

ASSESSOR'S REFERENCE: MAP 14, BLOCK 3, LOT 1

DEED REFERENCE: LAND COURT CERTIFICATE No. 206577 DOCCUMENT No. 1015755

PLAN REFERENCE: LAND COURT PLAN No. 36376C

OWNER OF RECORD: INDIAN RIDGE REALTY TRUST 223 COURTLAND STREET HOLLISTON, MA 01746 APPROVED BY THE
HOLLISTON ZONING BOARD
OF APPEALS:

DATE APPROVED:

DATE ENDORSED:

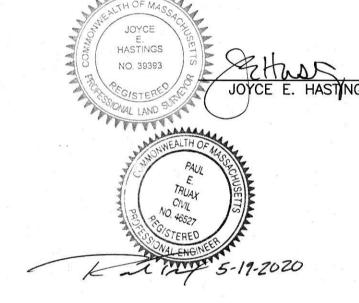
I TOWN CLERK OF THE TOWN OF HOLLISTON
RECEIVED & RECORDED FROM THE ZONING
BOARD OF APPEALS, APPROVAL OF THIS PLAN
AND NO APPEAL HAS BEEN TAKEN FOR TWENTY
DAYS NEXT AFTER RECEIPT AND RECORDING OF
SAME.

TOWN CLERK DATE

I CERTIFY THAT THIS PLAN CONFORMS TO THE RULES & REGULATIONS OF THE REGISTER OF DEEDS

5 14 2020

THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE PROCEDURAL AND TECHNICAL STANDARDS FOR THE PRACTICE OF LAND SURVEYING IN THE



SHEET INDEX

SHEET NO.

DESCRIPTION

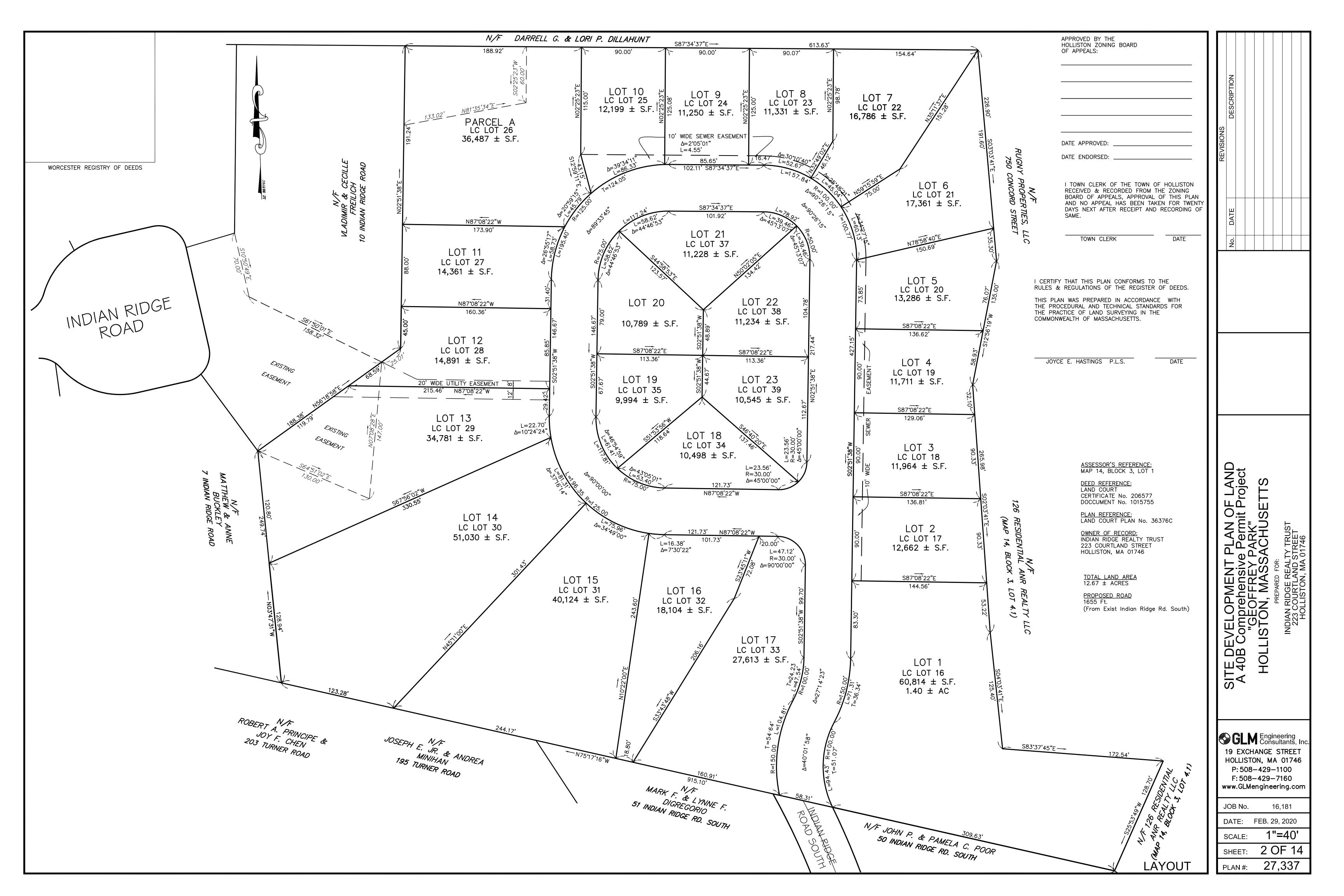
COVER
LAYOUT PLAN
EXISTING CONDITIONS
EXISTING CONDITIONS
DRAINAGE & GRADING
DRAINAGE & GRADING
DRAINAGE & GRADING
PLAN & PROFILE
PLAN & PROFILE
PLAN & PROFILE
PLAN & PROFILE
SEROSION CONTROL PLAN
EROSION CONTROL PLAN
WETLAND REPLICATION
DETAILS
DETAILS
DETAILS

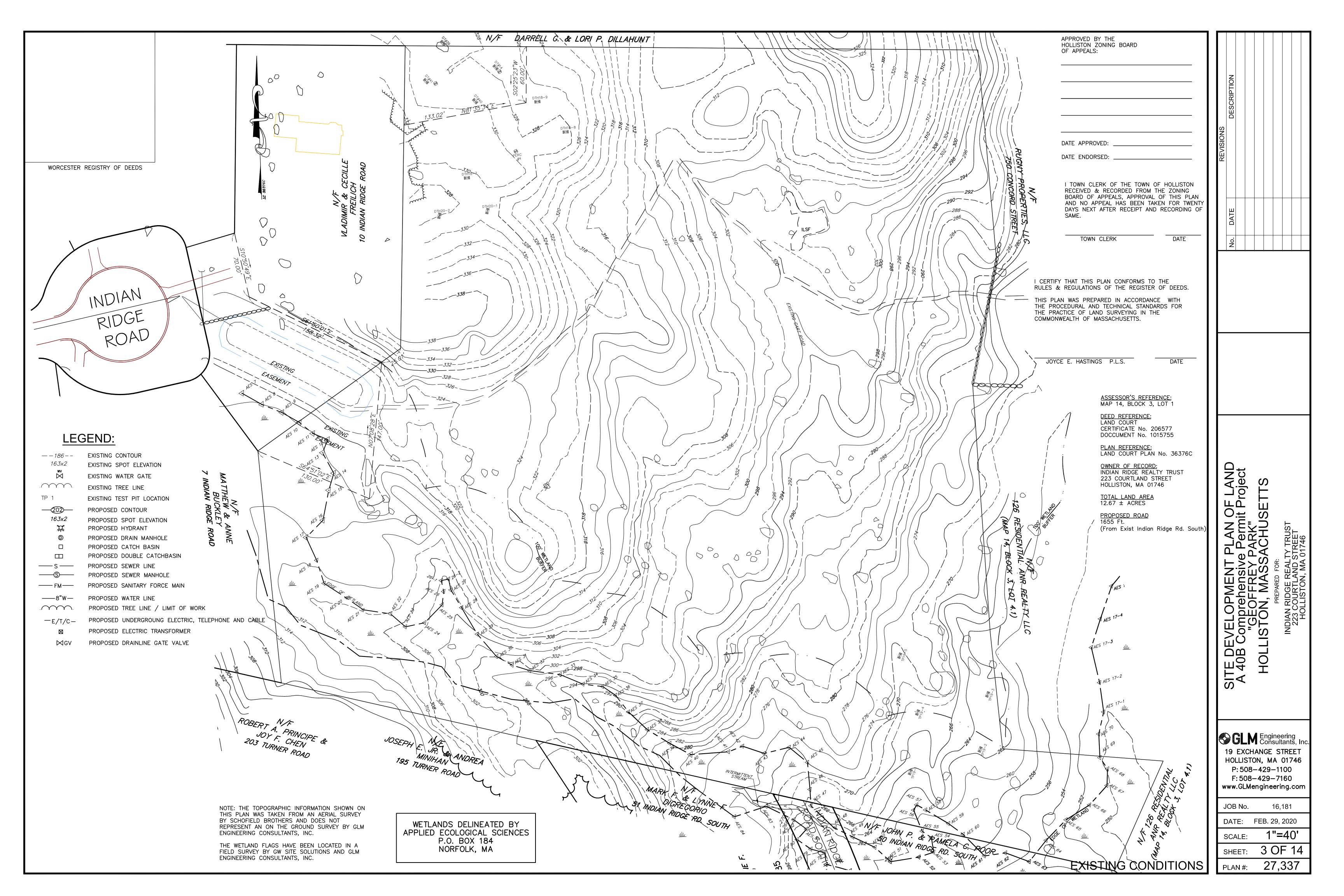
DATE: FEB. 29, 2020

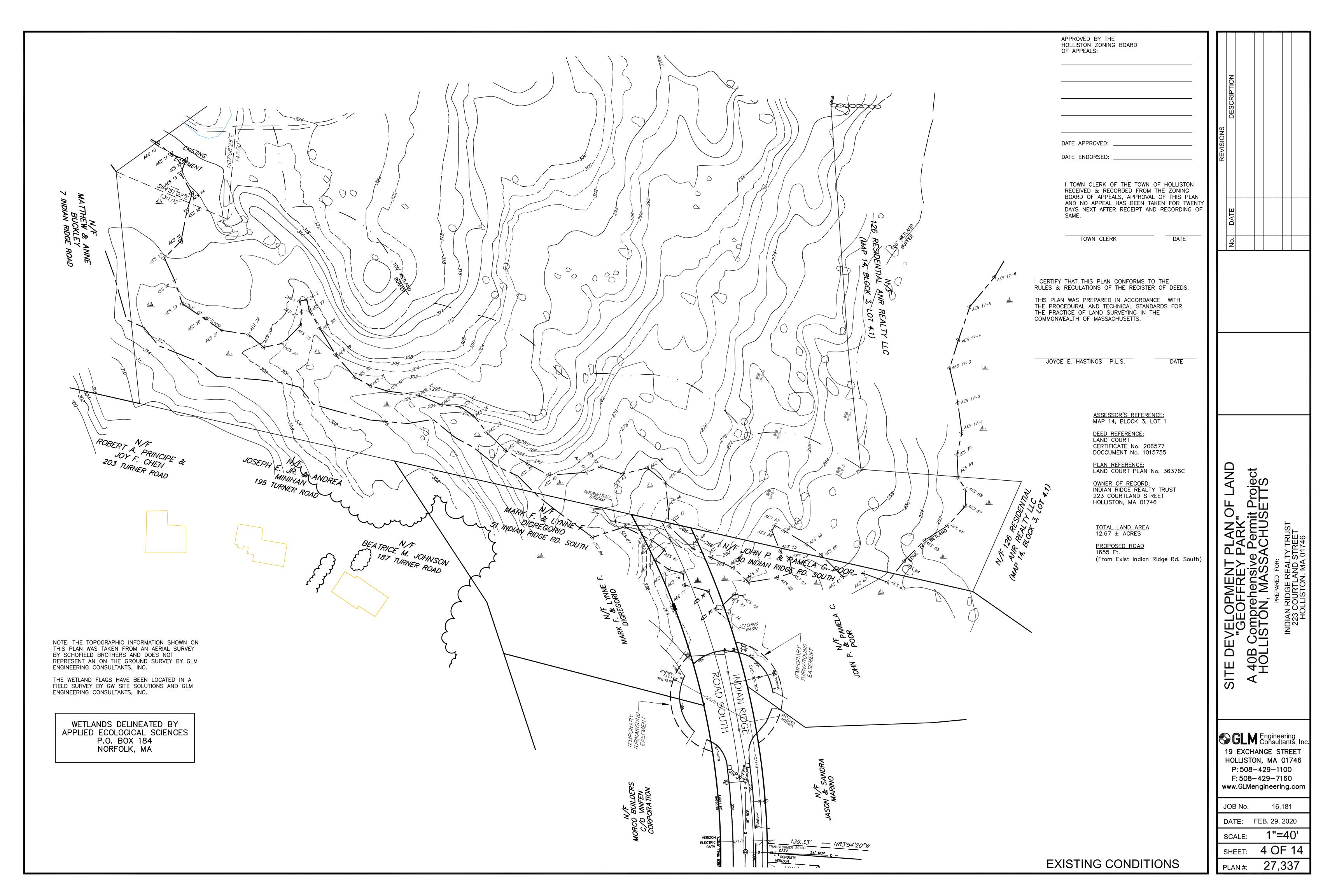
SCALE: As Shown

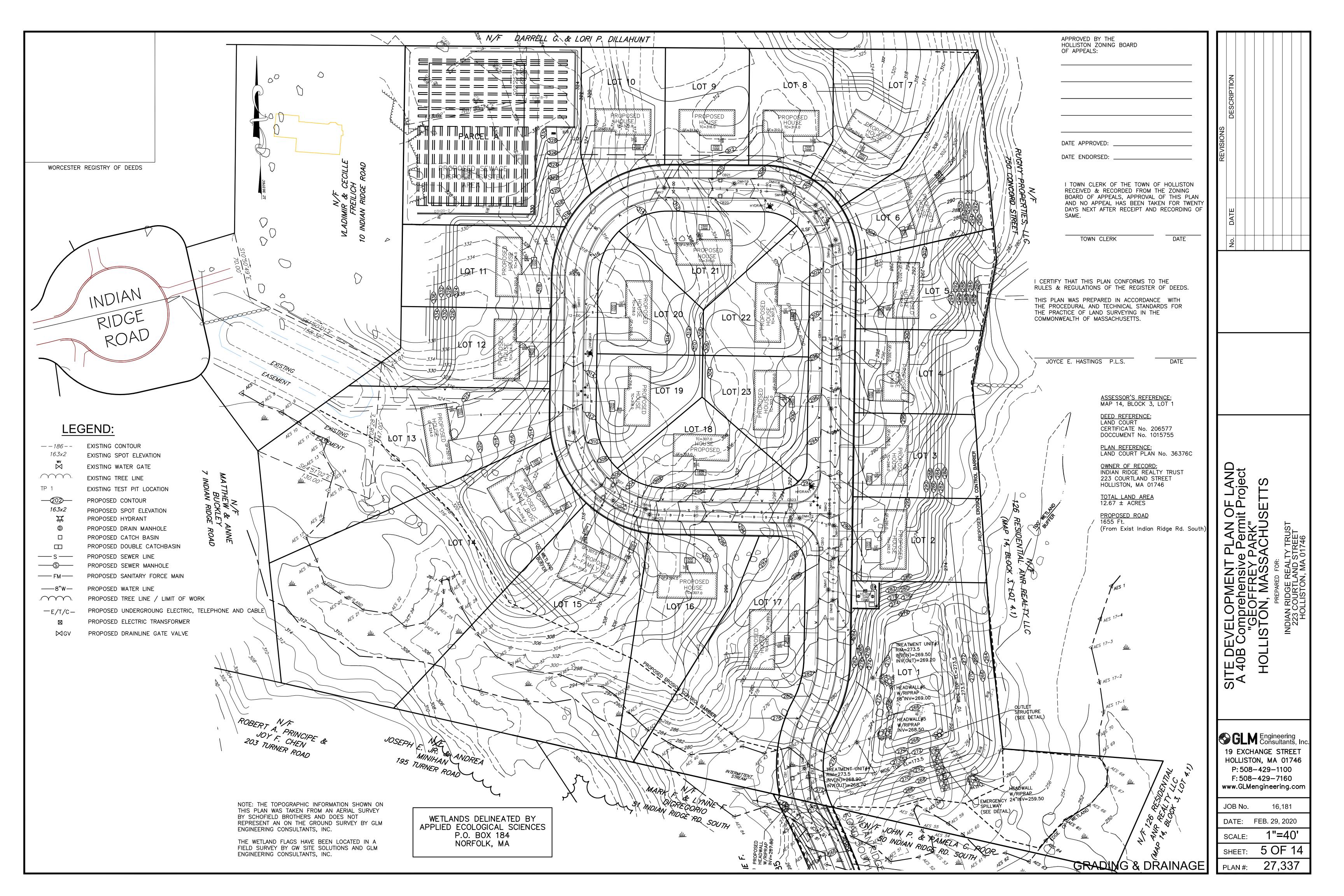
SHEET: 1 OF 14

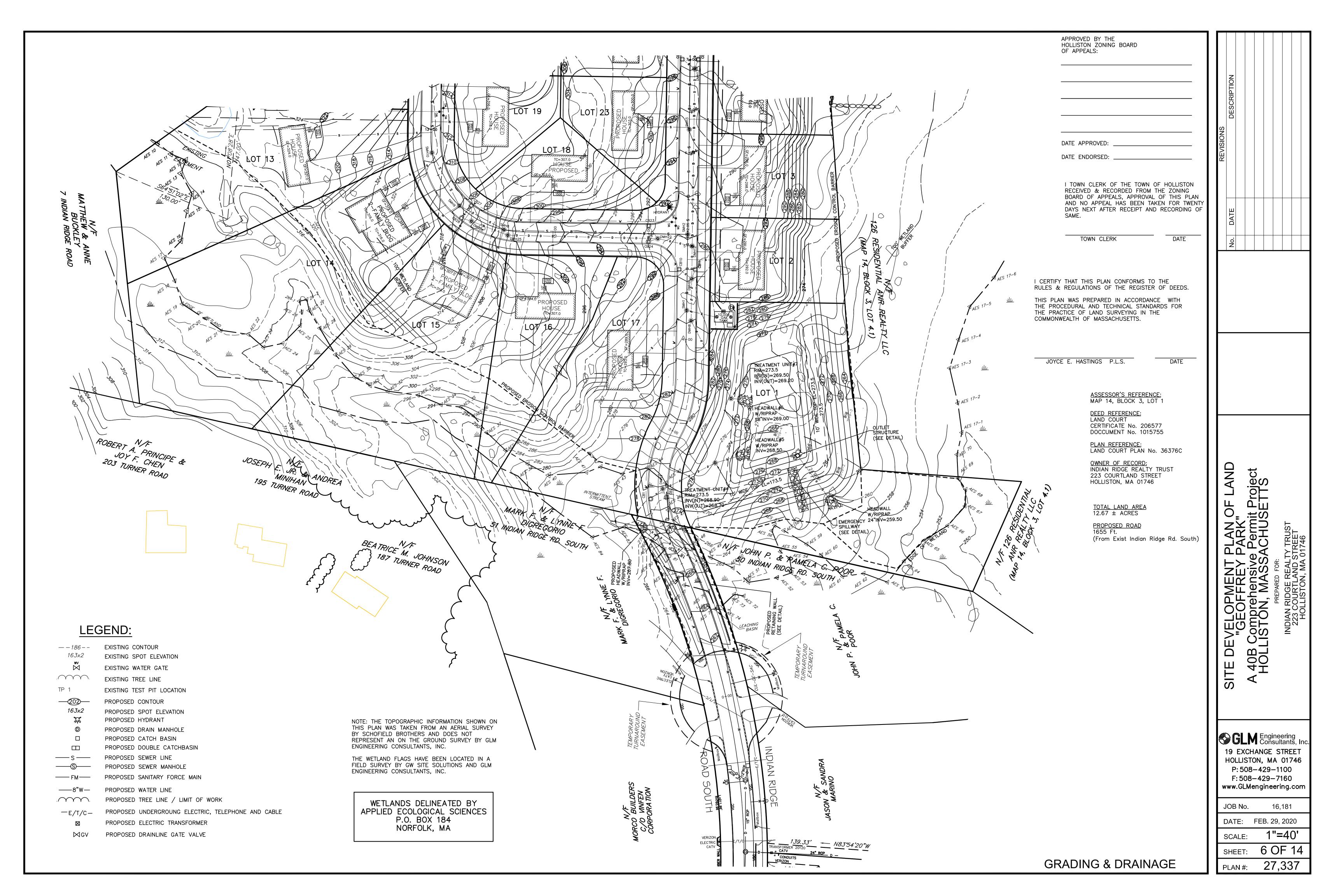
PLAN #: 27,337

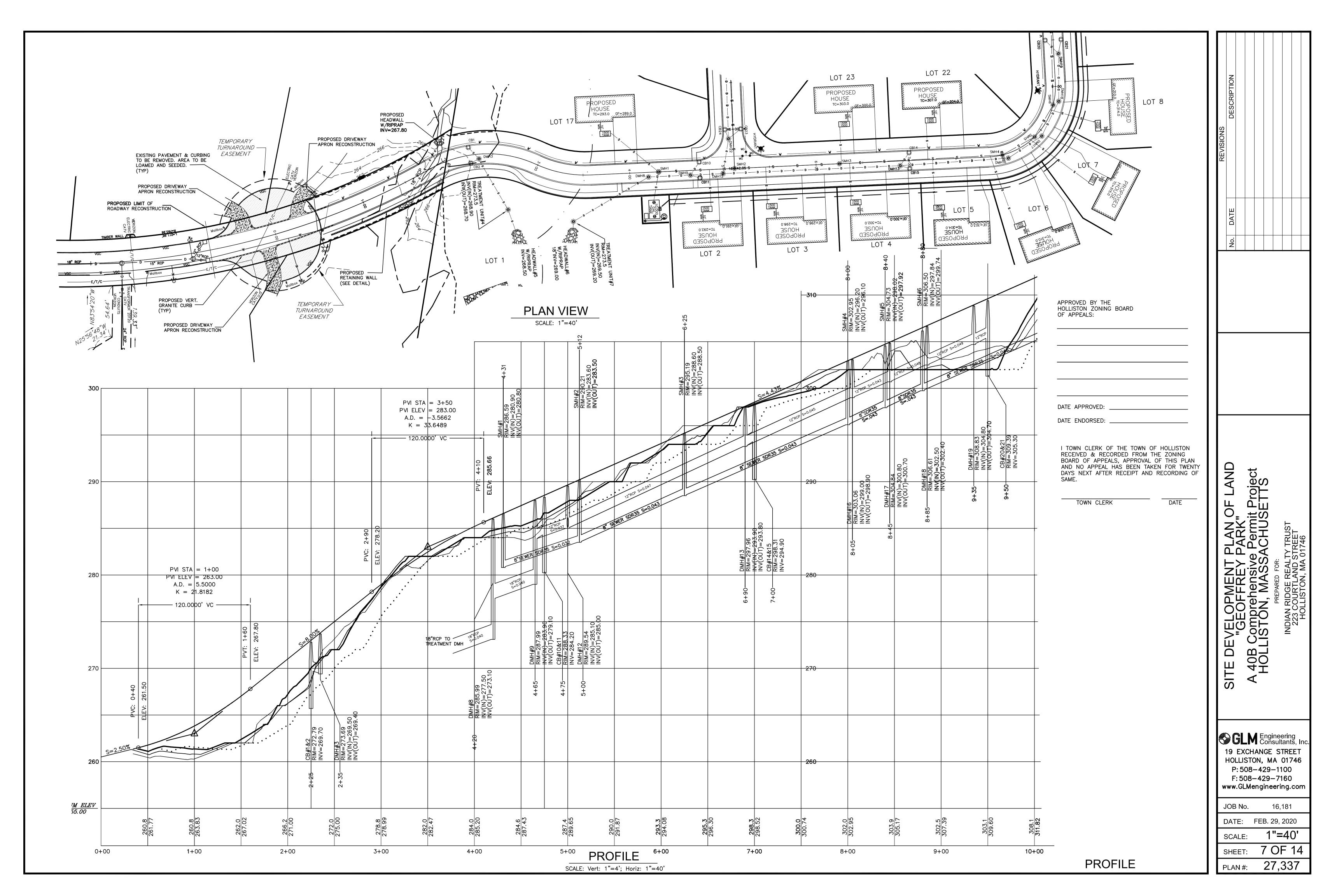


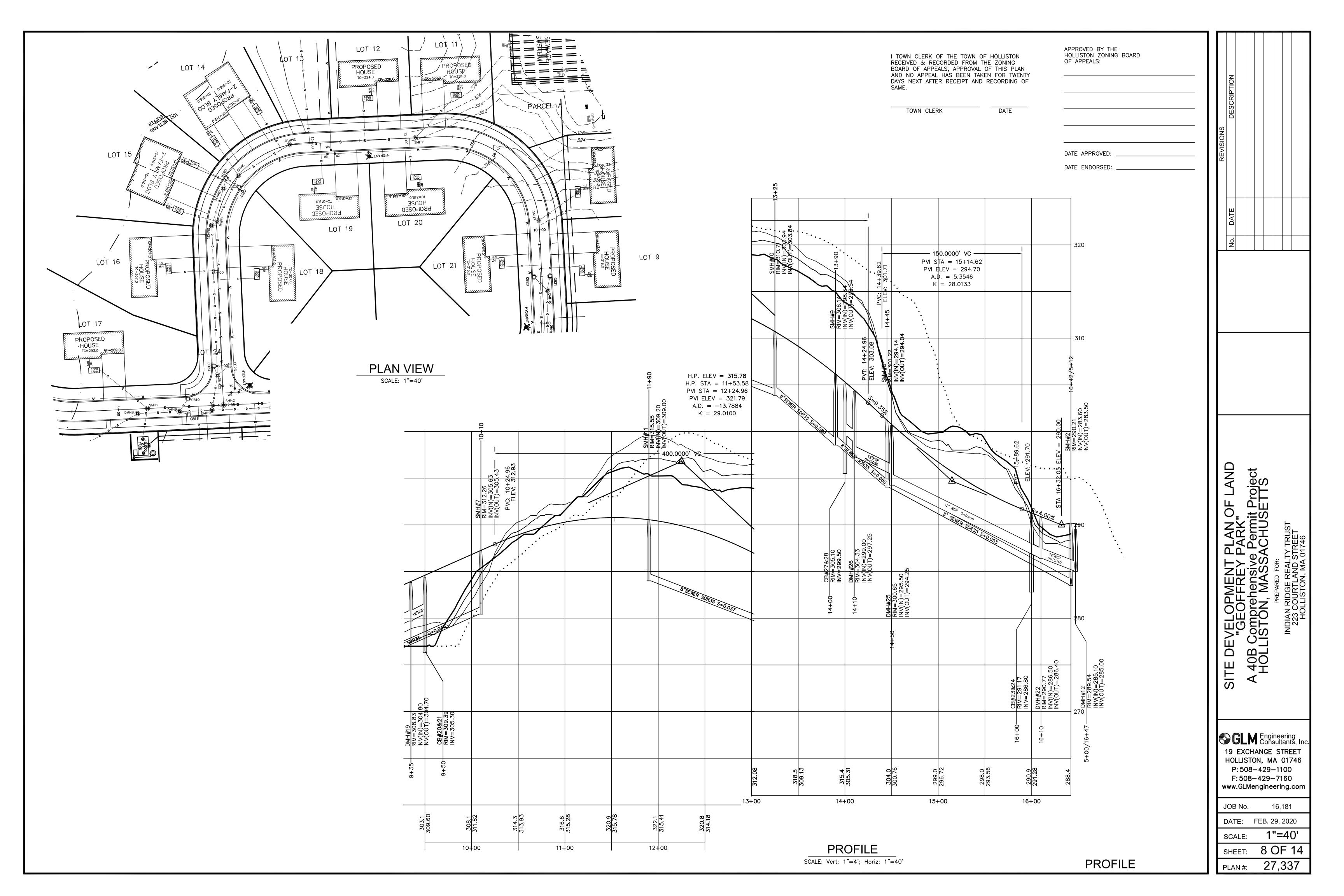


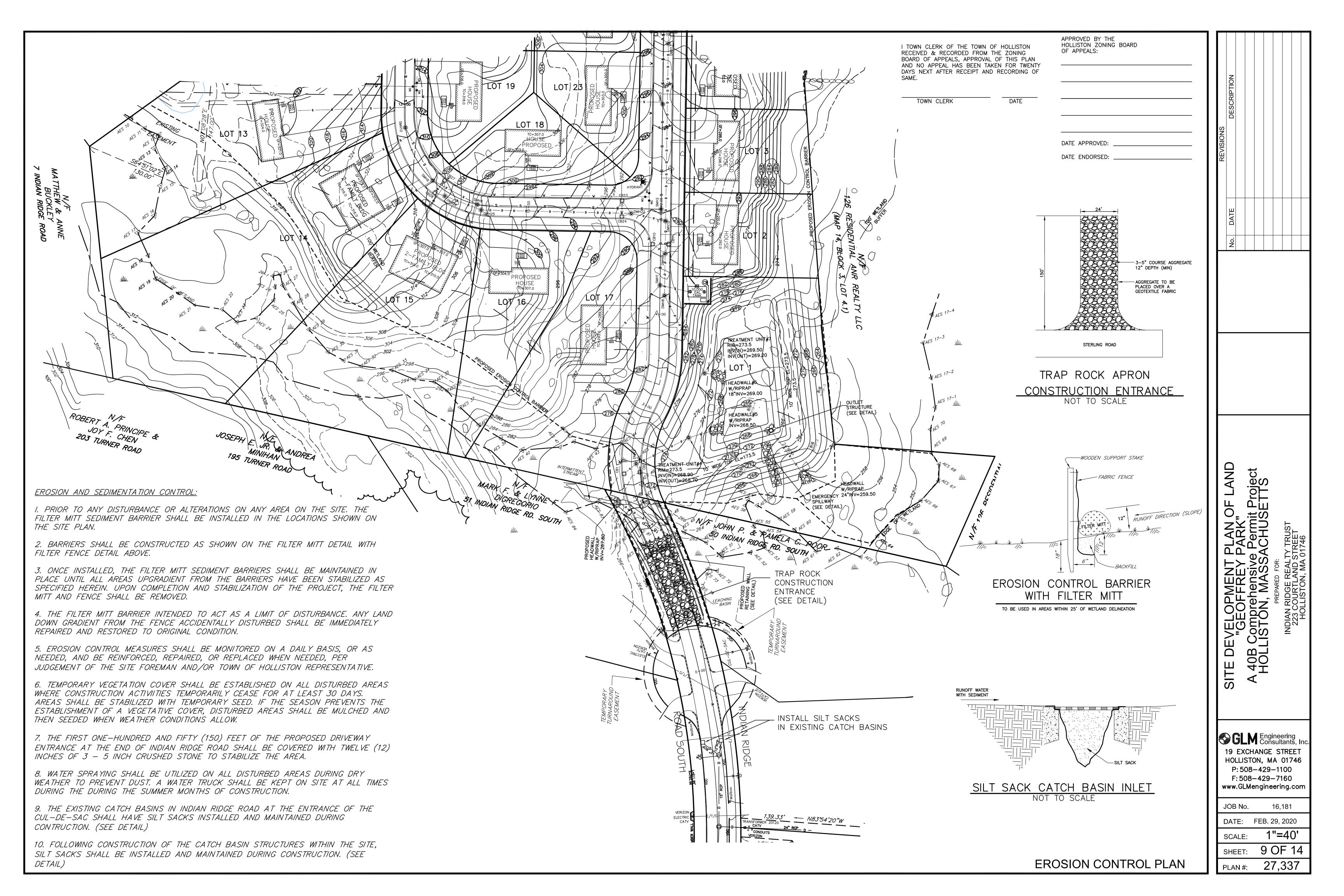


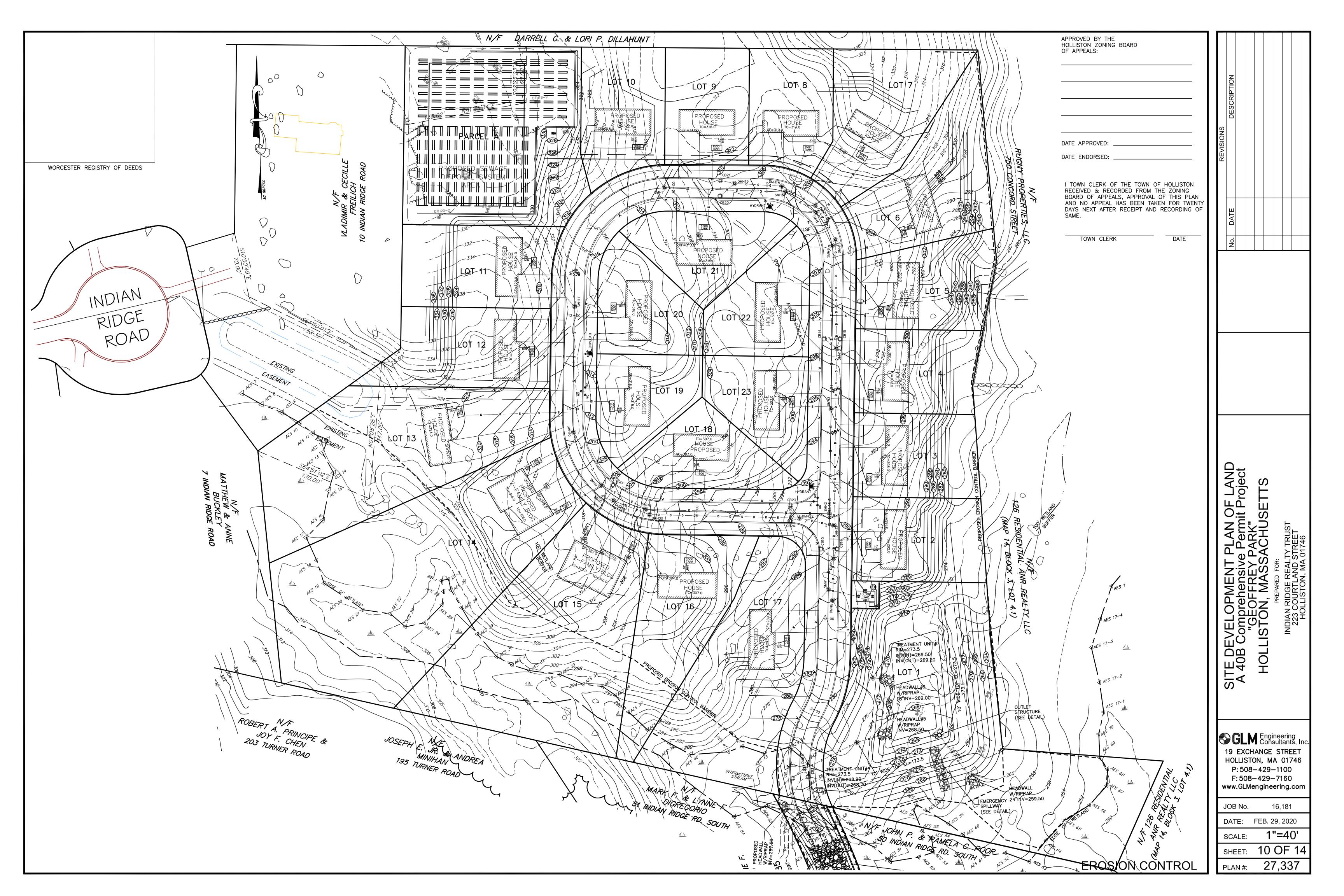


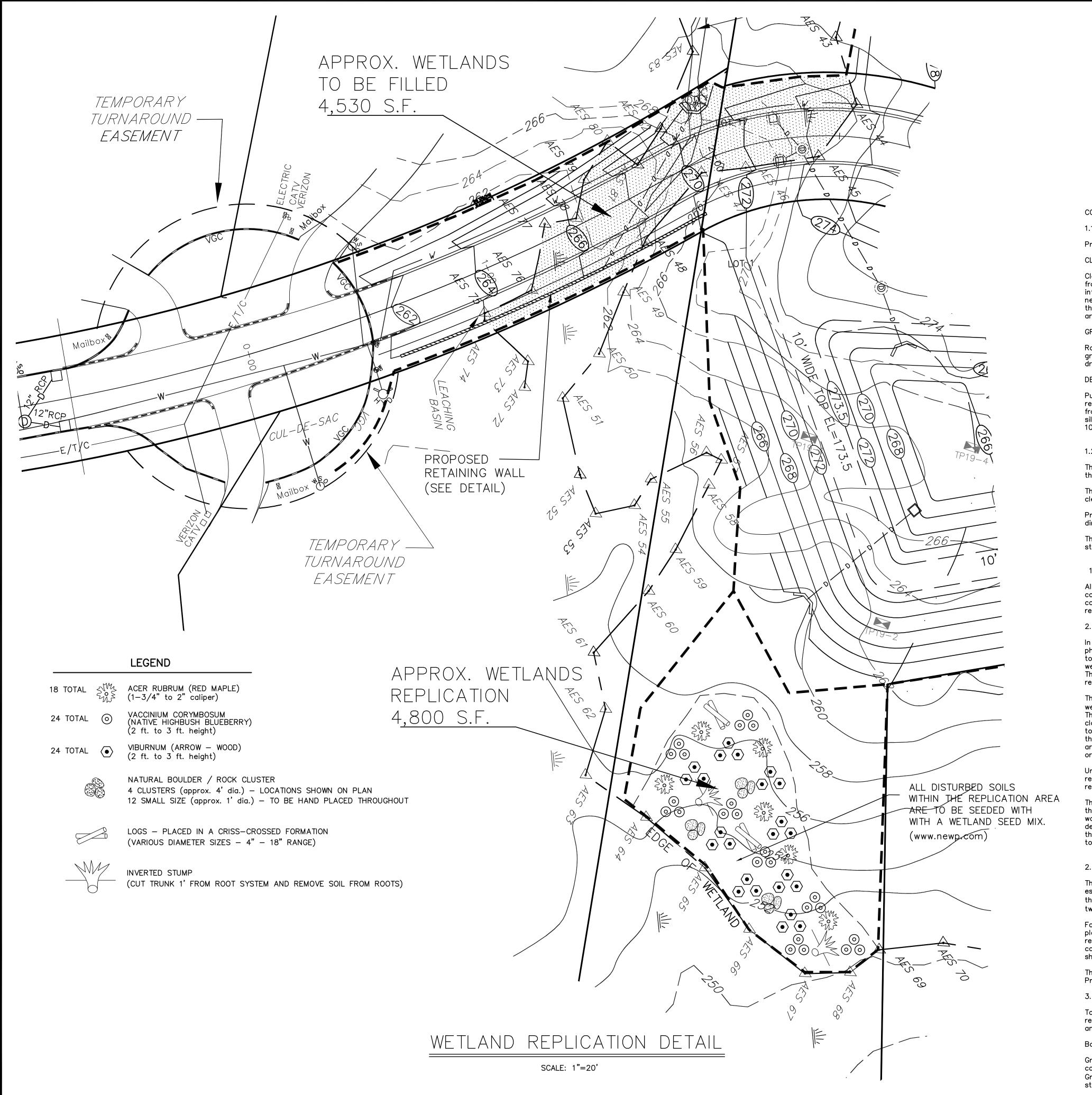












I TOWN CLERK OF THE TOWN ORECEIVED & RECORDED FROM TOWN TOWN TOWN TOWN TOWN TOWN TOWN TOWN	THE ZONING OF THIS PLAN SEN FOR TWENTY	APPROVED BY THE HOLLISTON ZONING BOARD OF APPEALS:
TOWN CLERK	DATE	
		DATE APPROVED:

CONSTRUCTION SPECIFICATIONS

1.1 STANDARD CONSTRUCTION PROCEDURES

Prior to commencement of work, the limit of the work area shall be clearly marked and siltation barriers shall be in place.

CLEARING

Clearing is confined to the minimum amount necessary for construction. When cutting and clearing trees, they shall be felled away from wetlands. All limbs and brush shall be chipped. In the resource areas, the dominant wetland plants shall be excavated, roots intact, balled and set aside in a protected area. The general clearing operation will consist of removing the trees, brush, rocks, etc. needed within the limits of construction. Various clearing methods will be employed depending on the tree size, contour of land and the ability of ground to support equipment. At no time shall any stumps, debris or other materials be disposed of in a resource area or buffer zone.

GRADING

Rock outcroppings, ridges, boulders and tree stumps will be removed from the work area and sharp topographical irregularities will be graded to ensure rapid and safe passage of work crews and equipment. During grading, effort shall be made not to alter existing drainage patterns.

DEWATERING

Pumping and dewatering the excavation areas shall be done in a manner which will not discharge any silt and sediment into a resource area. Discharges from a dewatering construction procedure will be filtered through a siltation basin constructed upland from the work site. The siltation basin area shall be a depression surrounded by a hay bale dike or silt fence. Overflow from the siltation basin shall be planned to be located over a thickly and naturally mulched upland area. All basins shall be located at least 100 feet upslope from any resource area.

1.2 CONSTRUCTION PROCEDURE FOR WETLAND FILLING

The proposed project involves filling of **4530** square feet of vegetated wetlands. The wetlands loss have been minimized by limiting the amount of fill in the area disturbed.

The limits of construction shall be clearly marked and siltation barriers in place prior to commencement of work. The area shall be cleared as described in Section 1.1.

Prior to removal of the organic soil, the proposed replication area shall be prepared. This will allow the organic soils to be placed directly into the replication area.

The area will be dredged, filled and embankments constructed until finish grade is achieved. The area shall be graded and slopes stabilized upon completion.

1.3 CONSTRUCTION WITHIN BUFFER ZONES

All construction within wetland buffer zones will incorporate all erosion and sediment controls deemed appropriate for the site. No construction will commence until erosion control barriers have been employed to prevent siltation into wetland areas. Following construction, disturbed areas will be graded and seeded with a dense cover until such time as the natural vegetation of the area is

2.1 TECHNICAL SPECIFICATIONS FOR WETLAND REPLICATION

In an attempt to preserve the functions of a naturally occurring wetland, the replication area should mimic the natural wetlands physical characteristics as closely as possible. Before the vegetated wetland is disturbed, the replication area will be clearly marked to show the boundaries of the work area and siltation barriers will be placed along the limits. Prior to excavation, the dominant wetland plants from the disturbed area will be excavated, roots intact, balled and set aside for replanting in the replication area. The dominant plants to be transplanted shall be decided by a qualified wetland scientist prior to commencement of work in the resource area.

The replication area will be prepared by excavating the topsoil until an elevation of approximately 12 inches below the adjacent wetland and/or proposed elevations.

The existing wetlands have approximately 8 to 10 inches of organic soil throughout. The proposal is to mimic this soil structure as closely as possible. The subgrade of the replication area will be excavated in some instances to a depth of below the existing topsoil and subsoil. In an effort to mimic the existing soil stratum, organic soil from the natural wetland area shall be placed throughout the replication area. Thence, the area will be covered with the organic soil from the natural wetland until finish grades are established. If additional organic soil is necessary, it shall comply with Mass. D.P.W. Spec. M1.06.0 peat borrow. When the organic soil is in place, transplanting will begin. Revegetation can be supplemented by purchasing plant species.

Under supervision of a qualified wetland scientist, the dominant plants selected from the disturbed area are then planted in the replication area. Upon completion, the wetland scientist will determine what additional plantings are necessary to complete the replication area. Reed Canary Grass and Perennial Rye Grass will be planted along the embankment to help stop erosion.

The plant stocks chosen should be of good quality. One or two year old deciduous seedlings properly handled may be selected from the disturbed wetland. Fertilizer with a low nitrogen content will be applied with each planting. The fertilizer can be thoroughly worked into the soil when planting or applied as a side dressing after planting. The plants should be planted at the approximate depth they were found at in nature or in a nursery. The roots should be uncrowded and the soil should be packed firmly around them. The shrubs should be mulched to a depth of 4 inches with wood chips, leaf litter or peat moss. Lime should not be applied to any wetland planting areas to allow acid soil conditions to develop.

2.2 WETLAND REPLICATION MONITORING/MAINTENANCE PLAN

The wetland replication area is to be inspected to assess the overall condition of the wetland in terms of general restoration to estimate the percent vegetative cover. The critical value in terms of vegetation as required by the State Performance Standards is that "...at least 75 percent of the surface of the replacement area be re—established with indigenous wetland plant species within two growing seasons following disturbance..." (310 CMR 10.55 (4)(b)).

Follow up inspections shall occur after the first and second growing season, normally 3 to 6 months and 12 to 15 months after plantings. Revegetation shall be considered successful if perennial vegetation attains 75 percent or more of each square yard of replication area, based on representative random sampling in the field. If vegetative cover is less, the judgment of the professional conducting the inspection shall be used to determine the need for replanting or fertilizing based on site conditions and these actions shall be undertaken.

The inspections shall be done in report form and submitted to the Conservation Commission and Department of Environmental Protection, Wetlands Division within two weeks following the field inspection.

3.1 EROSION AND SEDIMENTATION CONTROL

To control erosion and sedimentation during and after construction, it is advised to disturb only the areas needed for construction, remove only those trees and grasses that must be removed for construction and protect the remaining to preserve their aesthetic and erosion control values.

Backfill, compact and seed disturbed areas as soon as possible after they are opened.

Grasses used for slope stabilization are to be perennial, deep rooted and fast growing variety that will produce a dense uniform cover and can withstand small amounts of sedimentation. Seed mixture to be used is Crown Vetch 5 pounds and Perennial Rye Grass 25 pounds. All loamed (minimum depth of four inches) and newly seeded slopes shall be treated with hay mulch for stabilization.

The erosion control barriers must be periodically checked and replaced when clogging is such that they are no longer efficient in their purpose.

WETLAND REPLICATION PLAN

REVISIONS	DESCRIPTION					
	DATE					
	No.					

FE DEVELOPMENT PLAN OF LAND "GEOFFREY PARK" 40B Comprehensive Permit Project HOLLISTON, MASSACHUSETTS

Engineering Consultants, Inc

19 EXCHANGE STREET

HOLLISTON, MA 01746

P: 508-429-1100

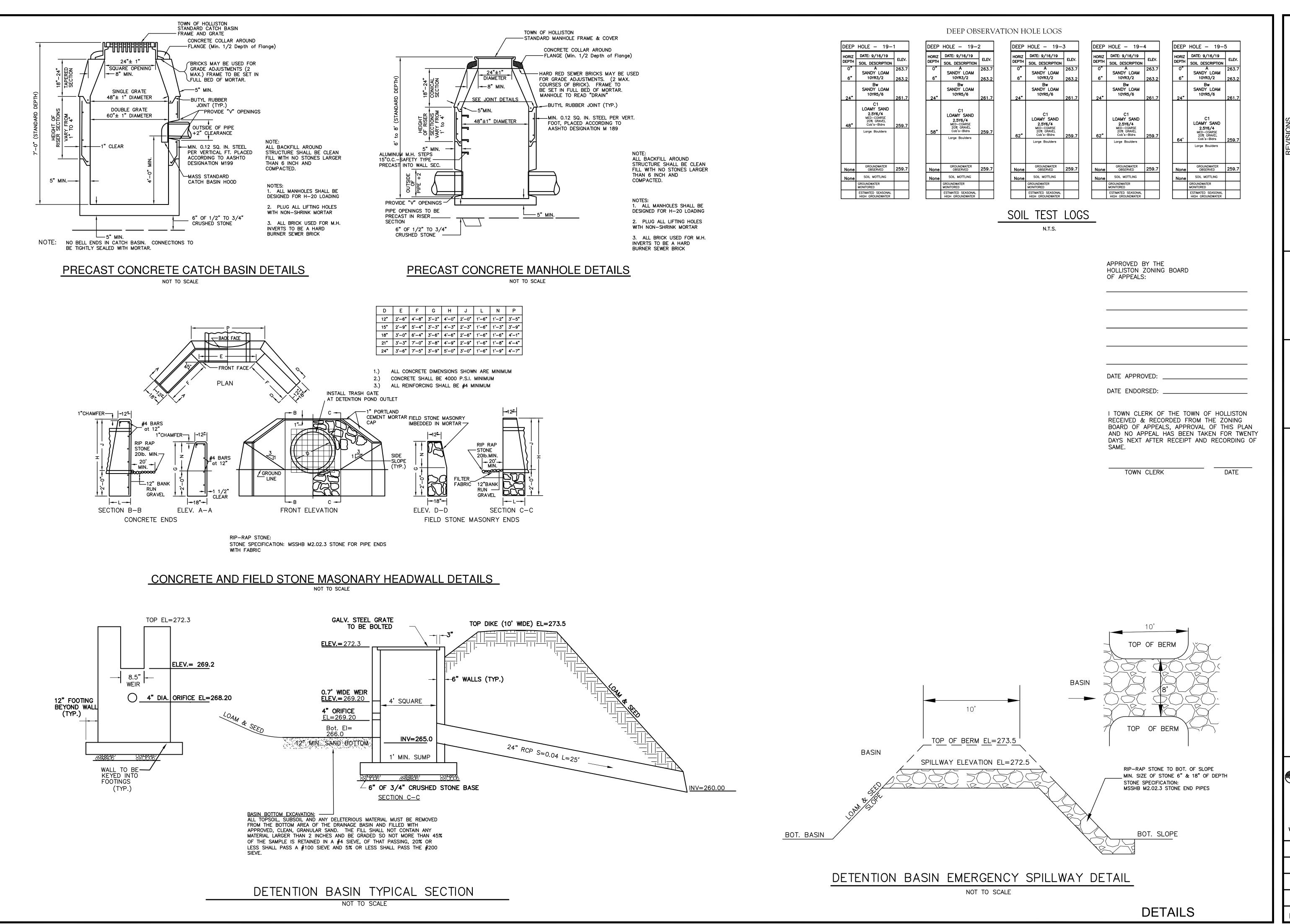
F: 508-429-7160

www.GLMengineering.com

JOB No.	16,181
DATE:	FEB. 29, 2020
SCALE:	1"=40

SHEET: 11 OF 1

N#· 27.33



No. DATE DESCRIPTION

ITE DEVELOPMENT PLAN OF LAND
"GEOFFREY PARK"
A 40B Comprehensive Permit Project
HOLLISTON, MASSACHUSETTS
PREPARED FOR:

F: 508-429-7160
www.GLMengineering Consultants, Inc.
19 EXCHANGE STREET
HOLLISTON, MA 01746
P: 508-429-1100
F: 508-429-7160
www.GLMengineering.com

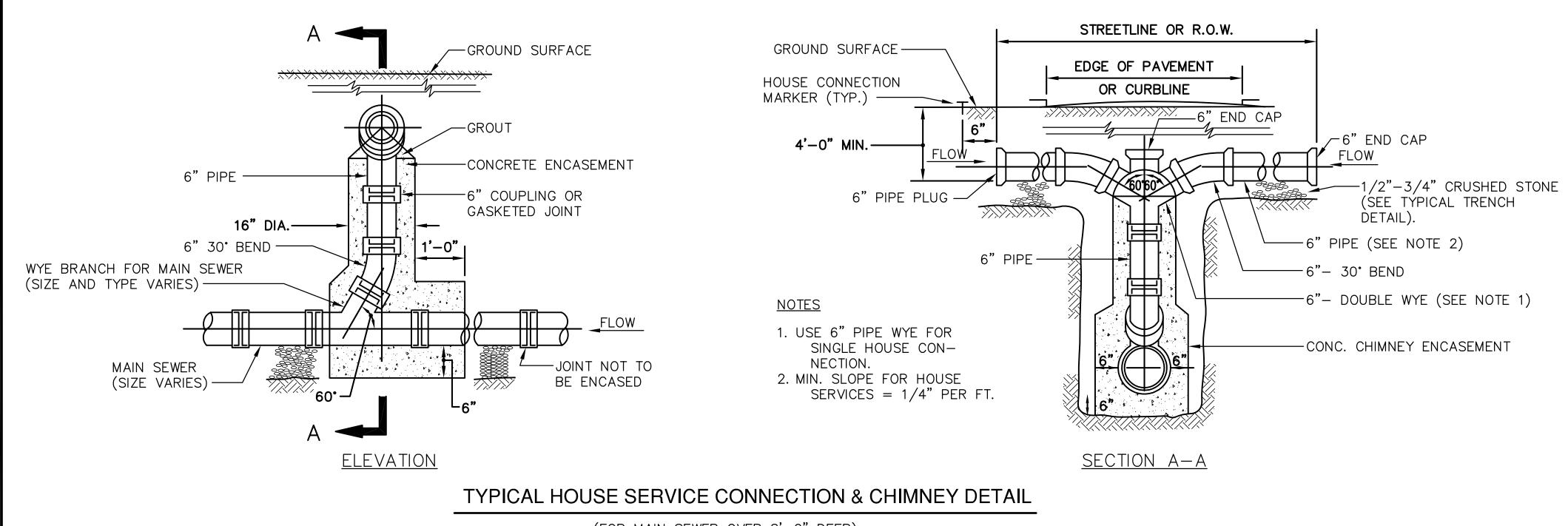
JOB No. 16,181

DATE: FEB. 29, 2020

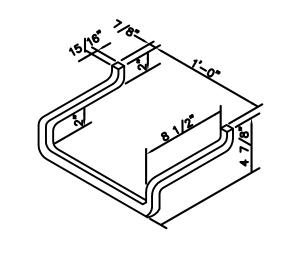
SCALE: 1"=40'

SHEET: 12 OF 14

PLAN #: 27,337

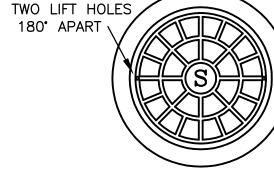


(FOR MAIN SEWER OVER 8'-0" DEEP)
NOT TO SCALE



MANHOLE STEP DETAIL

NOT TO SCALE



AS MANUFACTURED BY:

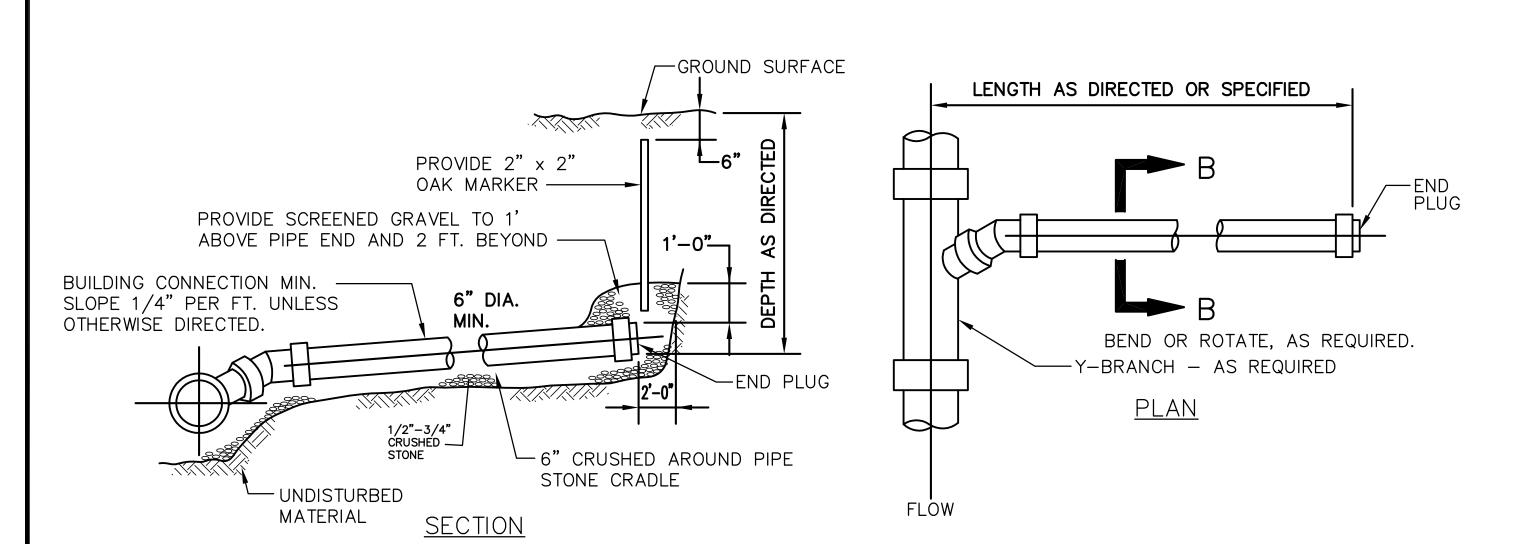
LE BARON FONDRY CO.
BROCKTON, MA
No. LT 101

MECHANICS IRON FOUNDRY CO.
BOSTON, MA
No. K 6004

C.M. WHITE IRON WORKS
NORTH READING, MA
No. R 258

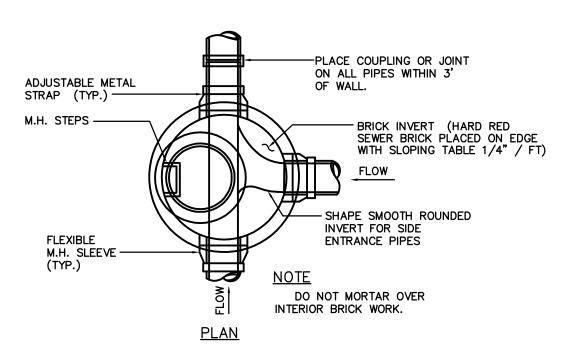
NOTE:
FOR WATERTIGHT APPLICATIONS
USE THE FOLLOWING CASTINGS:
LE BARON FOUNDRY CO.
WATERTIGHT M.H. FRAME & COVER
No. LBW268-2
OR
LE BARON FOUNDRY CO.
BOLTED & GASKETED FRAME & COVER
No. LBB268-2
OR APPROVED EQUAL

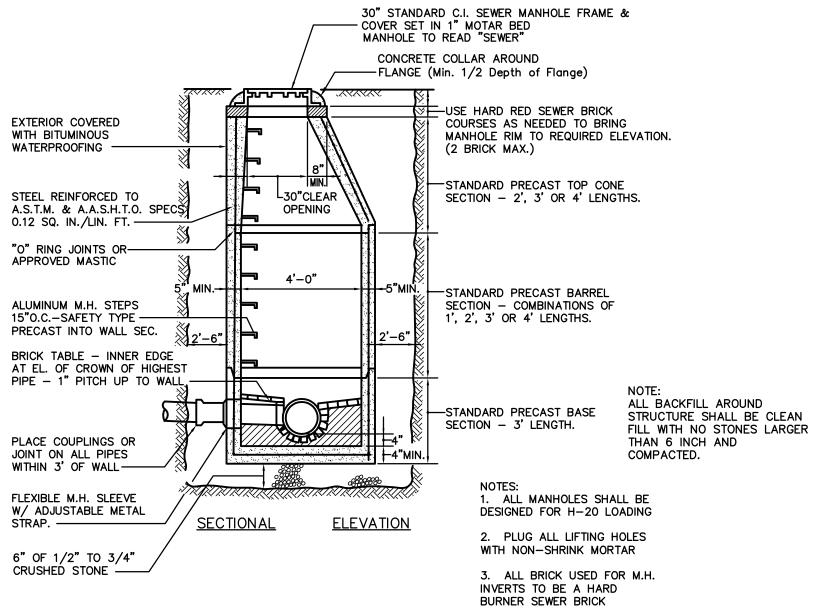
CAST IRON MANHOLE FRAME AND COVER MIN. WEIGHT=450# PER SET



TYPICAL BUILDING CONNECTION

NOT TO SCALE





TYPICAL SEWER MANHOLE DETAIL

NOT TO SCALE

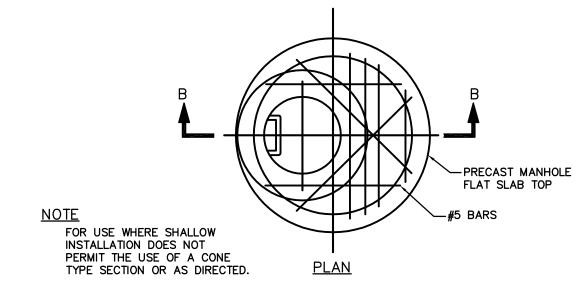
APPROVED BY THE
HOLLISTON ZONING BOARD
OF APPEALS:

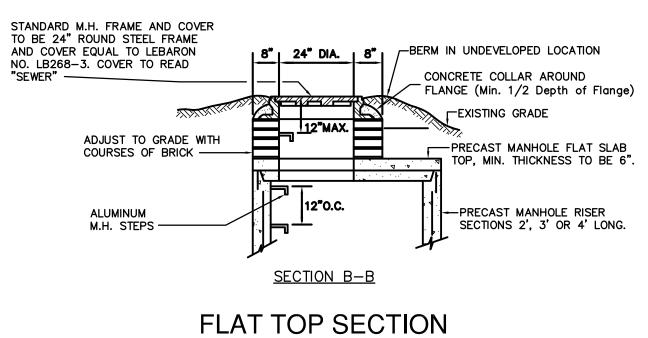
DATE APPROVED:

DATE ENDORSED:

I TOWN CLERK OF THE TOWN OF HOLLISTON
RECEIVED & RECORDED FROM THE ZONING
BOARD OF APPEALS, APPROVAL OF THIS PLAN
AND NO APPEAL HAS BEEN TAKEN FOR TWENTY
DAYS NEXT AFTER RECEIPT AND RECORDING OF
SAME.

TOWN CLERK
DATE





NOT TO SCALE

SITE DEVELOPMENT PLAN OF LANE
"GEOFFREY PARK"
A 40B Comprehensive Permit Project
HOLLISTON, MASSACHUSETTS

GLM Engineering Consultants, Inc.

19 EXCHANGE STREET
HOLLISTON, MA 01746
P: 508-429-1100
F: 508-429-7160
www.GLMengineering.com

JOB No. 16,181

DATE: FEB. 29, 2020

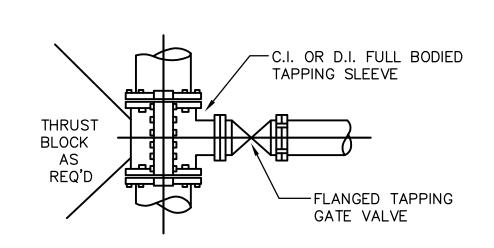
SCALE: 1"=40'

SHEET: 13 OF 14

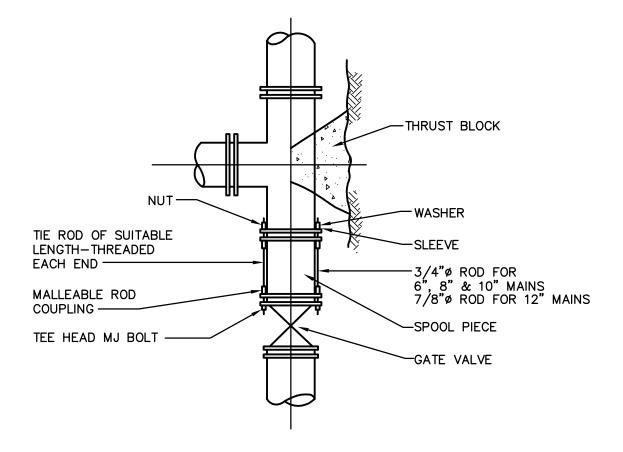
PLAN #: 27,337

DETAILS

r PLAN OF LAND



TAPPING SLEEVE AND VALVE DETAIL NOT TO SCALE



TYPICAL TIED MECHANICAL JOINT VALVE CONNECTION DETAILS NOT TO SCALE

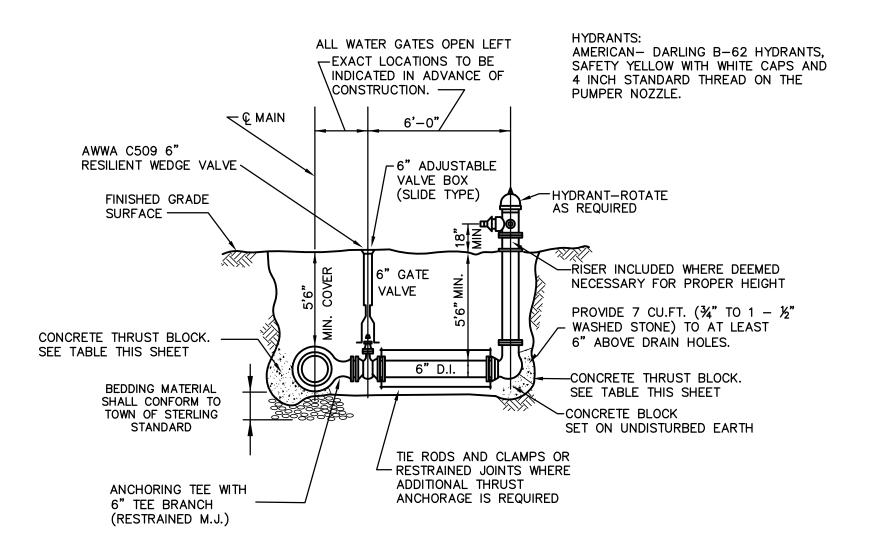
---FINISHED SURFACE OPEN LEFT VALVE
GATE VALVES SHALL CONFORM
TO AWWA STANDARD C-509
(EX. AMERICAN DARLING NO. 55,
A.P. SMITH NO.3460 AND ADJUSTABLE VALVE BOX — MUELLER 2380-20) 200PSI WORKING PRESSURE RATING 400PSI TEST PRESSURE RATING - WATER MAIN

TYPICAL GATE VALVE NOT TO SCALE

CONCRETE FOR THRUST BLOCKS SHALL BE
NO LONGER THAN THE RATIO OF 2 1/2 : 5 1/2
AND SHALL HAVE A MINIMUM COMPRESSION
STRENGTH OF 2000 PSI (THAT FLANGES AND BOLTS ARE ACCESSIBLE.)

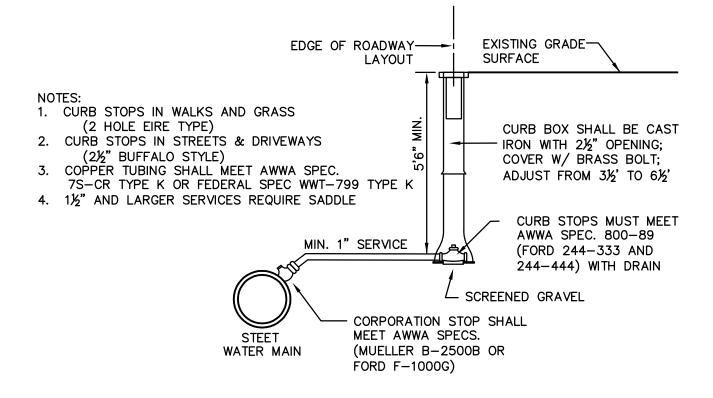
BEARING AREAS OF THRUST BLOCKS (BEARING AREA IN SQUARE FT.)							
PIPE SIZE INCHES	1/4 BEND	1/8 BEND	1/16 BEND OR LESS	PLUG TEES			
6 AND 8	8	8		8			
10 AND 12	22	13	8	16			

TYPICAL THRUST BLOCK DETAIL NOT TO SCALE

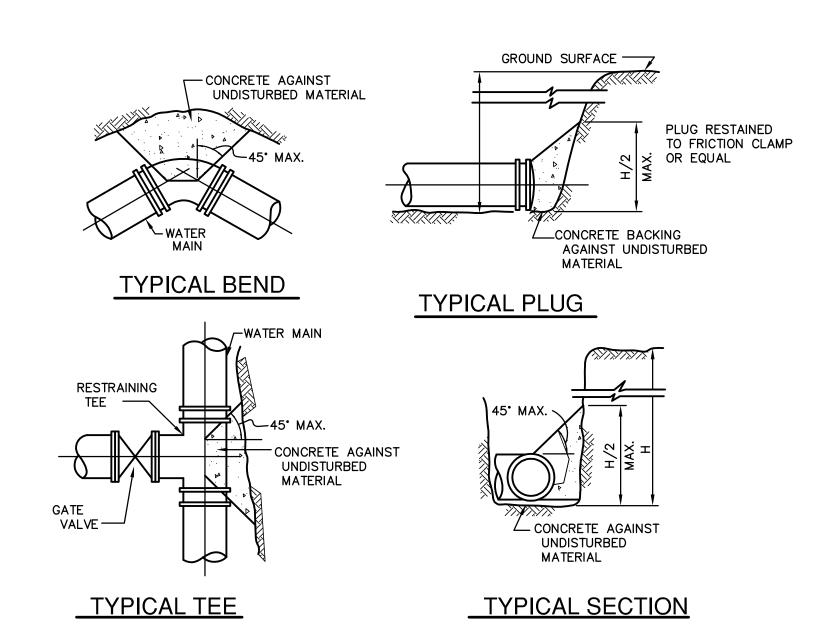


TYPICAL HYDRANT ASSEMBLY DETAIL

NOT TO SCALE

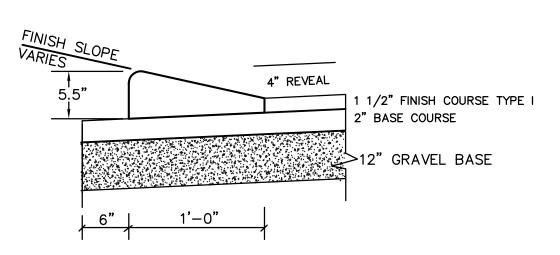


TYPICAL NEW WATER SERVICE CONNECTION DETAIL NOT TO SCALE

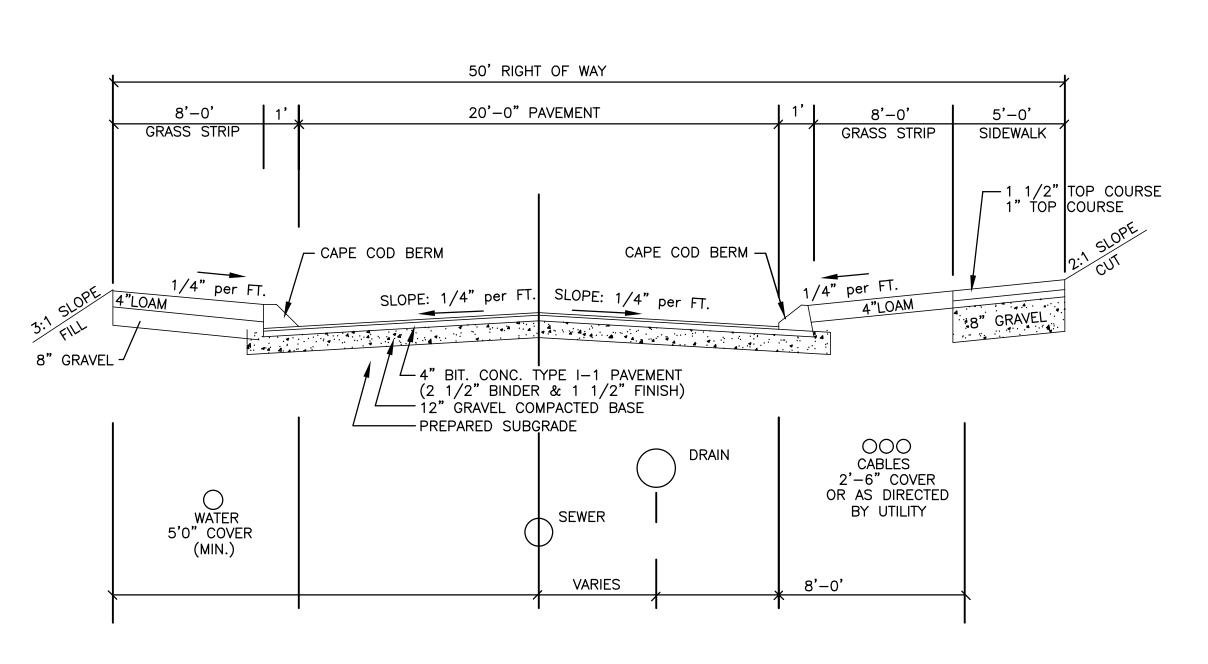


1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE TOWN OF HOLLISTON CONSTRUCTION STANDARDS AND SPECIFICATIONS. 2. ALL WATER DETAILS MANUFACTURERS & CONSTRUCTION STANDARDS SHALL CONFORM TO THE TOWN OF HOLLISTON STANDARDS,





CAPE COD BERM DETAIL NOT TO SCALE



TYPICAL RIGHT OF WAY CROSS SECTION NOT TO SCALE

1. ALL WORK SHALL CONFORM WITH THE TOWN OF HOLLISTON CONSTRUCTION OF ROADWAYS STANDARDS AND SPECIFICATIONS.

DETAILS

DATE				
No.				

LAND roject ITS 10" ITE DEVELOPMENT F "GEOFFREY F A 40B Comprehensive HOLLISTON, MASSA SITE

GLM Engineering Consultants, Inc. 19 EXCHANGE STREET HOLLISTON, MA 01746 P: 508-429-1100 F: 508-429-7160 www.GLMengineering.com

JOB No. 16,181 DATE: FEB. 29, 2020 1"=40' SCALE: 14 OF 14 27,337

PLAN#: