AMENDED SITE DEVELOPMENT PLAN
"56 BOYNTON ROAD"
HOLLISTON, MASSACHUSETTS

DATE: February 1, 2019
REVISED: March 5, 2019
March 21, 2019
Oct. 9, 2019
March 29, 2021

I ATTEST THAT THE PLANNING BOARD VOTED _____ TO _____
TO APPROVE THIS SITE PLAN ON _____
DATE

_____
SIGNATURE OF PLANNING BOARD MEMBER

ZONING DATA: INDUSTRIAL

	REQUIRED	PROVIDED
MIN. AREA:	20,000 S.F.	7.45 AC. (324,522± S.F.)
MIN. FRONTAGE:	100 FT.	114.71 FT.
MIN. DEPTH:	150 FT.	> 150 FT.
MIN. SETBACKS		
FRONT:	30 FT.	> 285 FT.
SIDE:	20 FT.	> 21 FT.
REAR:	30FT.	> 50 FT.
MAX. STORIES:	3	1 STORIES
MAX. HEIGHT:	40 FT.	< 40 FT.
BUILDING AREA:	N.A.	38,340 S.F.
MAX. COVERAGE:	40%	11.8%
F.A.R.:	0.50	

ASSESSORS REFERENCE:
MAP 0001
BLOCK 0001
LOT 56

PLAN REFERENCE:
MIDDLESEX REGISTRY OF DEEDS
PLAN NUMBER 1048 OF 1986
RECORDED, BOOK 17276; PAGE 402

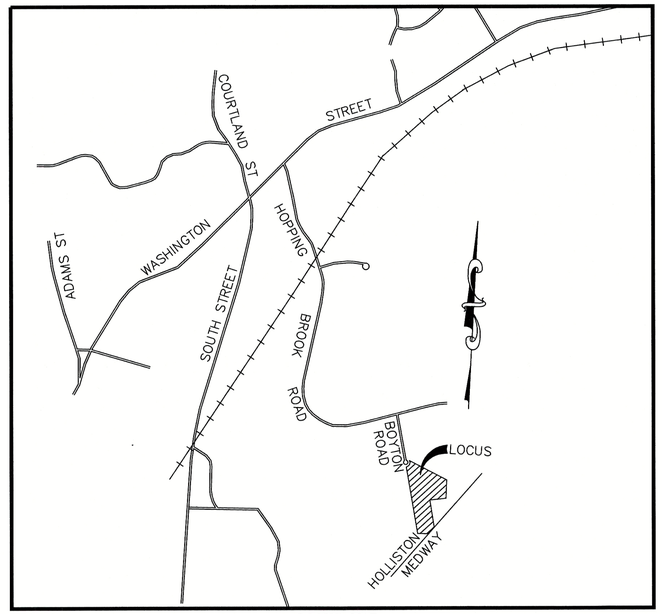
PARKING SCHEDULE:

REQUIRED: ONE (1) SPACES PER 1.3 EMPLOYEES

PROPOSED 22 EMPLOYEES
REQUIRED PARKING: 17 SPACES

PARKING PROVIDED:
HANDICAP: 4 SPACES
STANDARD: 75 SPACES
TOTAL 79 SPACES

1 SPACE PER 300 S.F.
REQUIRED: 84 SPACES
PROVIDED: 84 SPACES



LOCUS MAP
SCALE: 1"=1,000 FT

SHEET INDEX

SHEET NO.	DESCRIPTION
C-1	COVER SHEET
C-2	EXISTING CONDITIONS
C-3	LAYOUT
C-4	DRAINAGE, GRADING & UTILITIES
C-5	EROSION CONTROL
C-6	RECHARGE SYSTEM DETAILS
C-7	DETENTION BASIN DETAILS
C-8	DETAILS
C-9	DETAILS
C-10	DETAILS

COMMONWEALTH OF MASSACHUSETTS
PAUL E. TRUAX
CIVIL
NO. 40527
REGISTERED PROFESSIONAL ENGINEER
4-2-2021

COMMONWEALTH OF MASSACHUSETTS
JOYCE E. HASTINGS
NO. 39393
REGISTERED PROFESSIONAL LAND SURVEYOR
4/2/2021

PREPARED BY:

GLM ENGINEERING CONSULTANTS, INC.
19 EXCHANGE STREET
HOLLISTON, MASSACHUSETTS 01746
(508)429-1100 fax:(508)429-7160

OWNER & APPLICANT:

HOPPING BROOK DEVELOPMENT LLC
330 HOPPING BROOK ROAD
HOLLISTON, MASSACHUSETTS 01746

I ATTEST THAT THE PLANNING BOARD VOTED _____ TO _____
TO APPROVE THIS SITE PLAN ON _____
DATE

_____
SIGNATURE OF PLANNING BOARD MEMBER

N/F NSTAR ELECTRIC CO.

S02°13'58"W
254.99'

WETLANDS

TOWN LINE - MEDWAY - HOLLISTON

EDGE OF WETLAND

50' BUFFER

100' BUFFER

S84°15'28"W
224.97'

N/F NSTAR ELECTRIC CO.

N/F JAT LLC C/O JOHN THEMELI

586.06'

N62°32'23"W

LOT 7-4
7.4506 AC.

WETLANDS

GRAVEL

GRAVEL DRIVE

S08°53'08"E
385.63'

S09°33'39"E
938.02'

BOYNTON
(PUBLIC 60' WIDE)
ROAD

N/F AMERICAN DURAFILM CO, INC.

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

EXISTING CONDITIONS

REVISIONS		
No.	DATE	DESCRIPTION
1	3/05/19	PLG BRD REVIEW COMMENTS
2	3/21/19	PLG BRD REVIEW COMMENTS
3	10/09/19	PARKING AND BUILDING LAYOUT
4	3/29/21	BUILDING EXPANSION

COMMONWEALTH OF MASSACHUSETTS
JOYCE E. HASTINGS
NO. 39353
REGISTERED PROFESSIONAL ENGINEER

4/2/2021

COMMONWEALTH OF MASSACHUSETTS
PAUL E. TRUAX
CIVIL
NO. 46427
REGISTERED PROFESSIONAL ENGINEER

4.2.2021

AMENDED SITE DEVELOPMENT PLAN
"56 BOYNTON ROAD"
HOLLISTON, MASSACHUSETTS

OWNER & APPLICANT

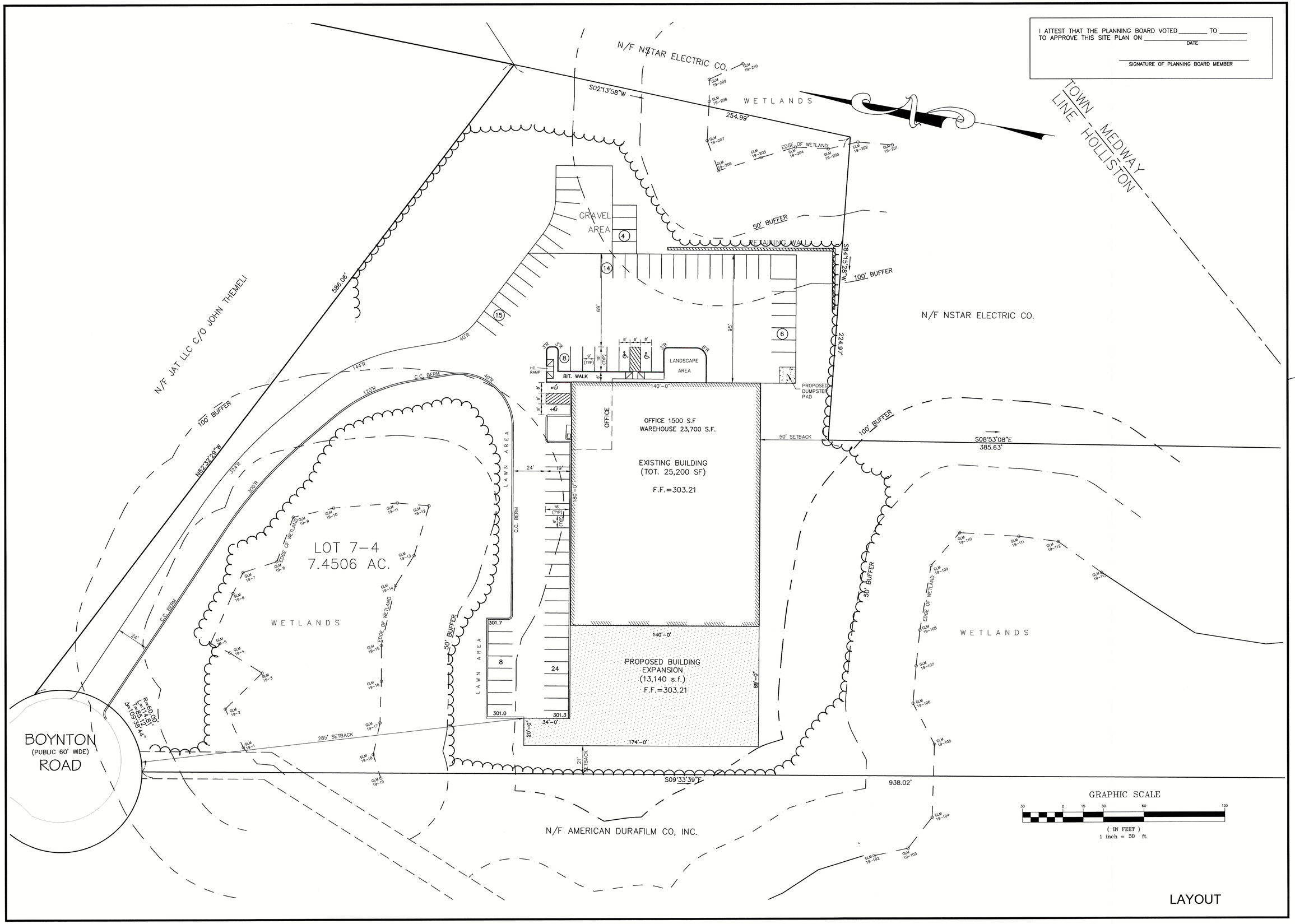
HOPPING BROOK DEVELOPMENT LLC
330 HOPPING BROOK ROAD
HOLLISTON, MASSACHUSETTS 01746

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

DRW.:	
JOB No.	13,612
DATE:	Feb. 1, 2019
SCALE:	1"=30'
SHEET:	C-2
PLAN #:	27,312

I ATTEST THAT THE PLANNING BOARD VOTED _____ TO _____
TO APPROVE THIS SITE PLAN ON _____
DATE

_____
SIGNATURE OF PLANNING BOARD MEMBER



REVISIONS

No.	DATE	DESCRIPTION
1	3/05/19	PLG BRD REVIEW COMMENTS
2	3/21/19	PLG BRD REVIEW COMMENTS
3	10/09/19	PARKING AND BUILDING LAYOUT
4	3/29/21	BUILDING EXPANSION

COMMONWEALTH OF MASSACHUSETTS JOYCE HASTINGS NO 35393 REGISTERED PROFESSIONAL ENGINEER
4/2/2021

COMMONWEALTH OF MASSACHUSETTS PAUL E TRUAX CIVIL NO 46527 REGISTERED PROFESSIONAL ENGINEER
4-2-2021

AMENDED SITE DEVELOPMENT PLAN
"56 BOYNTON ROAD"
HOLLISTON, MASSACHUSETTS

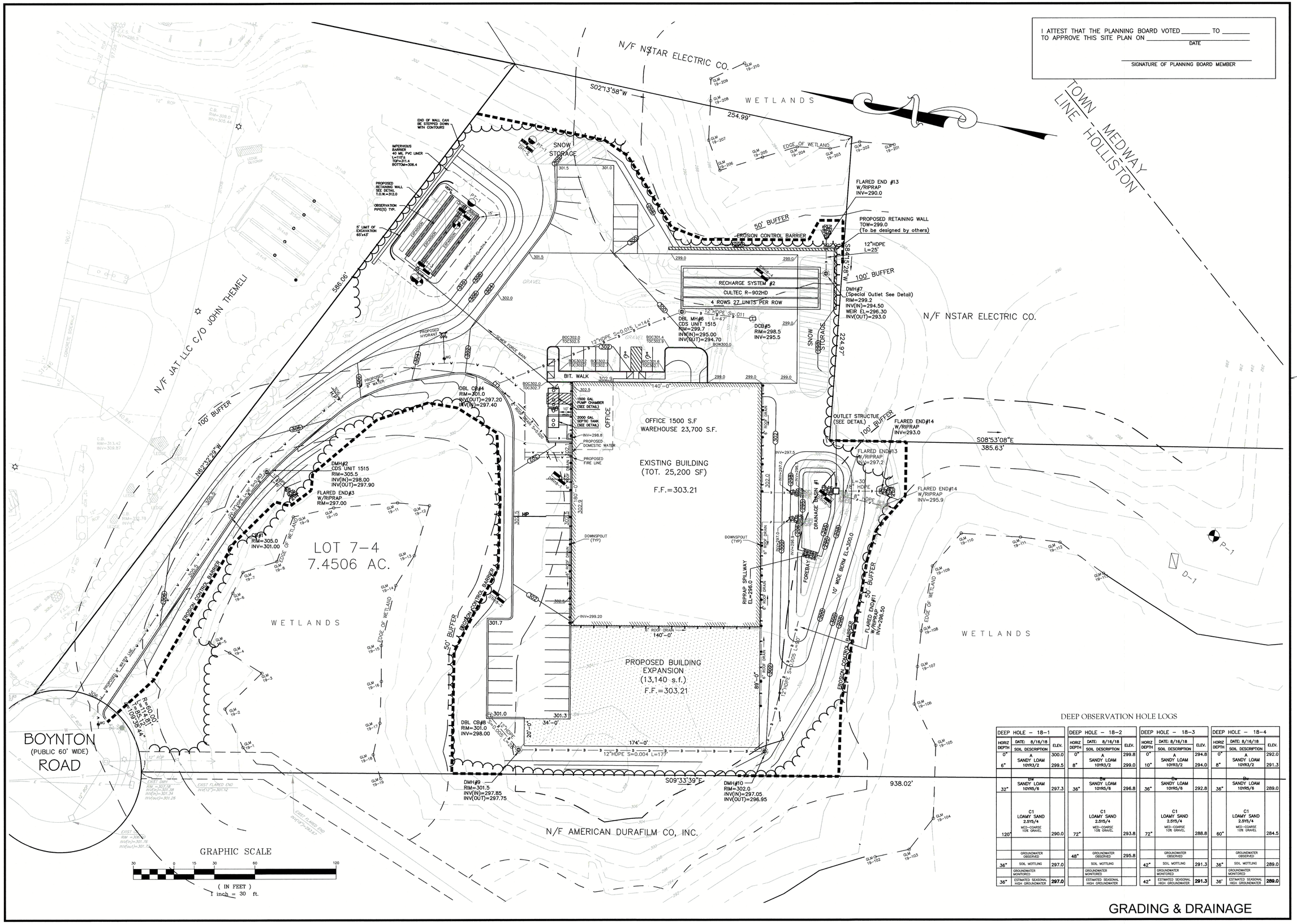
OWNER & APPLICANT
HOPPING BROOK DEVELOPMENT LLC
330 HOPPING BROOK ROAD
HOLLISTON, MASSACHUSETTS 01746

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

DRW.:	
JOB No.	13,612
DATE:	Feb. 1, 2019
SCALE:	1"=30'
SHEET:	C-3
PLAN #:	27,312

I ATTEST THAT THE PLANNING BOARD VOTED _____ TO _____
TO APPROVE THIS SITE PLAN ON _____
DATE

_____
SIGNATURE OF PLANNING BOARD MEMBER



DEEP OBSERVATION HOLE LOGS

DEEP HOLE – 18–1		
HORIZ DEPTH	DATE: 8/16/18 SOIL DESCRIPTION	ELEV.
0"	A SANDY LOAM 10YR3/2	300.0
6"		299.5
32"	B SANDY LOAM 10YR5/6	297.3
120"	C1 LOAMY SAND 2.5Y5/4 MED–COARSE 10% GRAVEL	290.0
	GROUNDWATER OBSERVED	
36"	SOIL MOTTLING	297.0
	GROUNDWATER MONITORED	
36"	ESTIMATED SEASONAL HIGH GROUNDWATER	297.0

DEEP HOLE – 18–2		
HORIZ DEPTH	DATE: 8/16/18 SOIL DESCRIPTION	ELEV.
0"	A SANDY LOAM 10YR3/2	299.8
8"		299.0
36"	B SANDY LOAM 10YR5/6	296.8
72"	C1 LOAMY SAND 2.5Y5/4 MED–COARSE 10% GRAVEL	293.8
	GROUNDWATER OBSERVED	295.8
48"	SOIL MOTTLING	
	GROUNDWATER MONITORED	
	ESTIMATED SEASONAL HIGH GROUNDWATER	

DEEP HOLE – 18–3		
HORIZ DEPTH	DATE: 8/16/18 SOIL DESCRIPTION	ELEV.
0"	A SANDY LOAM 10YR3/2	294.8
10"		294.0
36"	B SANDY LOAM 10YR5/6	292.8
72"	C1 LOAMY SAND 2.5Y5/4 MED–COARSE 10% GRAVEL	288.8
	GROUNDWATER OBSERVED	
42"	SOIL MOTTLING	291.3
	GROUNDWATER MONITORED	
42"	ESTIMATED SEASONAL HIGH GROUNDWATER	291.3

DEEP HOLE – 18–4		
HORIZ DEPTH	DATE: 8/16/18 SOIL DESCRIPTION	ELEV.
0"	A SANDY LOAM 10YR3/2	292.0
8"		291.3
36"	B SANDY LOAM 10YR5/6	289.0
60"	C1 LOAMY SAND 2.5Y5/4 MED–COARSE 10% GRAVEL	284.5
	GROUNDWATER OBSERVED	
36"	SOIL MOTTLING	289.0
	GROUNDWATER MONITORED	
36'	ESTIMATED SEASONAL HIGH GROUNDWATER	289.0

GRADING & DRAINAGE

REVISIONS

No.	DATE	DESCRIPTION
1	3/05/19	PLG BRD REVIEW COMMENTS
2	3/21/19	PLG BRD REVIEW COMMENTS
3	10/09/19	PARKING AND BUILDING LAYOUT
4	3/29/21	BUILDING EXPANSION

COMMONWEALTH OF MASSACHUSETTS JOYCE HASTINGS NO. 32383 REGISTERED PROFESSIONAL ARCHITECT
4/2/2021

COMMONWEALTH OF MASSACHUSETTS PAUL E. TRUAX CIVIL NO. 46527 REGISTERED PROFESSIONAL ENGINEER
4/2/2021

AMENDED SITE DEVELOPMENT PLAN
"56 BOYNTON ROAD"
HOLLISTON, MASSACHUSETTS

OWNER & APPLICANT
HOPPING BROOK DEVELOPMENT LLC
330 HOPPING BROOK ROAD
HOLLISTON, MASSACHUSETTS 01746

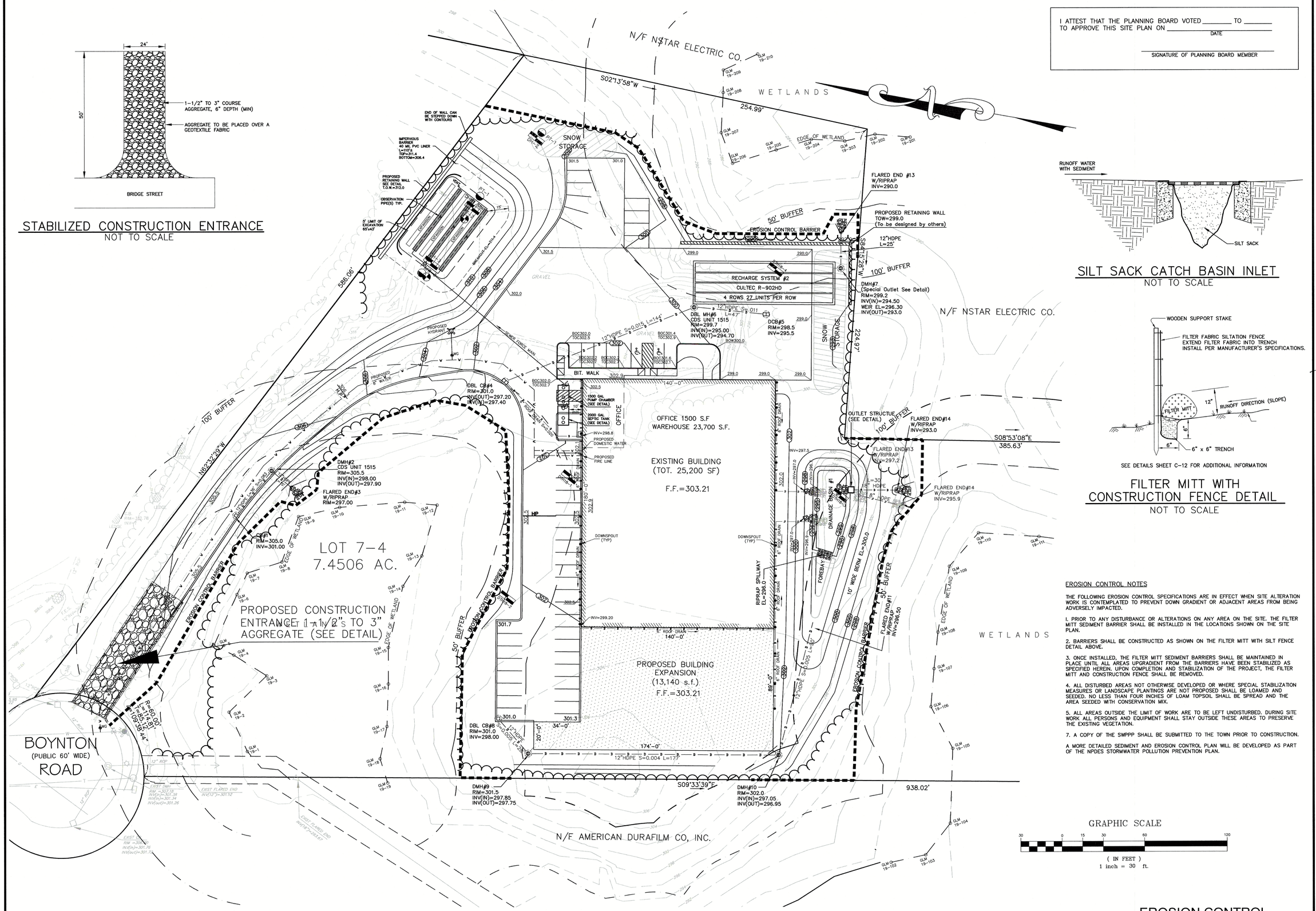
GLM Engineering Consultants, Inc.
19 EXCHANGE STREET
HOLLISTON, MA 01746
P: 508–429–1100
F: 508–429–7160
www.GLMengineering.com

DRW.:	
JOB No.	13,612
DATE:	Feb. 1, 2019
SCALE:	1"=30'
SHEET:	C-4
PLAN #:	27,312

I ATTEST THAT THE PLANNING BOARD VOTED _____ TO _____
TO APPROVE THIS SITE PLAN ON _____
DATE

_____
SIGNATURE OF PLANNING BOARD MEMBER

STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE



SILT SACK CATCH BASIN INLET
NOT TO SCALE

SEE DETAILS SHEET C-12 FOR ADDITIONAL INFORMATION

FILTER MITT WITH CONSTRUCTION FENCE DETAIL
NOT TO SCALE

EROSION CONTROL NOTES

THE FOLLOWING EROSION CONTROL SPECIFICATIONS ARE IN EFFECT WHEN SITE ALTERATION WORK IS CONTEMPLATED TO PREVENT DOWN GRADIENT OR ADJACENT AREAS FROM BEING ADVERSELY IMPACTED.

1. PRIOR TO ANY DISTURBANCE OR ALTERATIONS ON ANY AREA ON THE SITE. THE FILTER MITT SEDIMENT BARRIER SHALL BE INSTALLED IN THE LOCATIONS SHOWN ON THE SITE PLAN.

2. BARRIERS SHALL BE CONSTRUCTED AS SHOWN ON THE FILTER MITT WITH SILT FENCE DETAIL ABOVE.

3. ONCE INSTALLED, THE FILTER MITT SEDIMENT BARRIERS SHALL BE MAINTAINED IN PLACE UNTIL ALL AREAS UPGRADIENT FROM THE BARRIERS HAVE BEEN STABILIZED AS SPECIFIED HEREIN. UPON COMPLETION AND STABILIZATION OF THE PROJECT, THE FILTER MITT AND CONSTRUCTION FENCE SHALL BE REMOVED.

4. ALL DISTURBED AREAS NOT OTHERWISE DEVELOPED OR WHERE SPECIAL STABILIZATION MEASURES OR LANDSCAPE PLANTINGS ARE NOT PROPOSED SHALL BE LOAMED AND SEEDED. NO LESS THAN FOUR INCHES OF LOAM TOPSOIL SHALL BE SPREAD AND THE AREA SEEDED WITH CONSERVATION MIX.

5. ALL AREAS OUTSIDE THE LIMIT OF WORK ARE TO BE LEFT UNDISTURBED. DURING SITE WORK ALL PERSONS AND EQUIPMENT SHALL STAY OUTSIDE THESE AREAS TO PRESERVE THE EXISTING VEGETATION.

7. A COPY OF THE SWPPP SHALL BE SUBMITTED TO THE TOWN PRIOR TO CONSTRUCTION.

A MORE DETAILED SEDIMENT AND EROSION CONTROL PLAN WILL BE DEVELOPED AS PART OF THE NPDES STORMWATER POLLUTION PREVENTION PLAN.

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

EROSION CONTROL

REVISIONS

No.	DATE	DESCRIPTION
1	3/05/19	PLG BRD REVIEW COMMENTS
2	3/21/19	PLG BRD REVIEW COMMENTS
3	10/09/19	PARKING AND BUILDING LAYOUT
4	3/29/21	BUILDING EXPANSION

COMMONWEALTH OF MASSACHUSETTS
JOHN E. HASTINGS
NO. 39393
REGISTERED PROFESSIONAL ENGINEER
4/2/2021

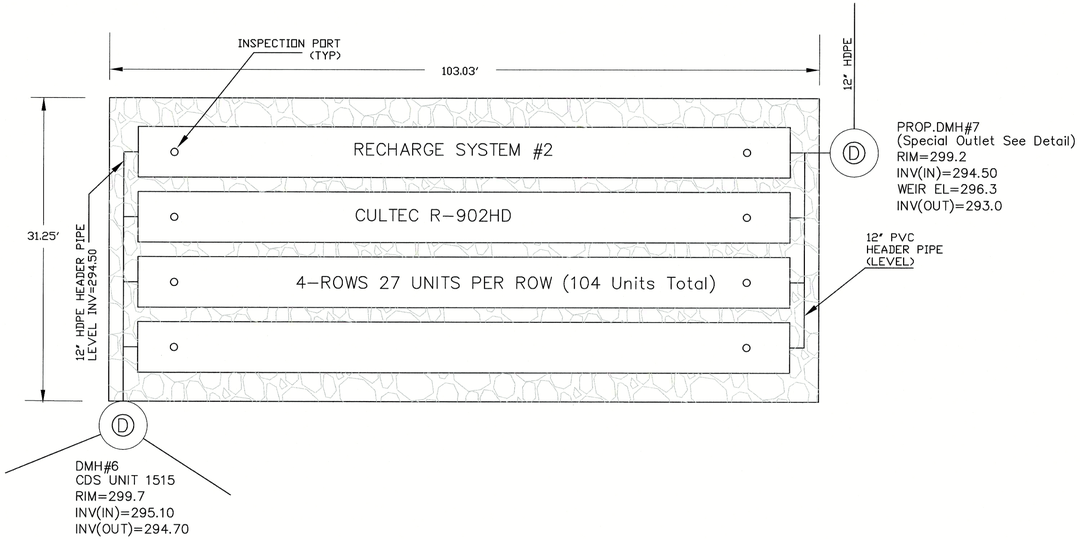
COMMONWEALTH OF MASSACHUSETTS
PAUL E. TRUAX
CIVIL
NO. 46527
REGISTERED PROFESSIONAL ENGINEER
4-2-2021

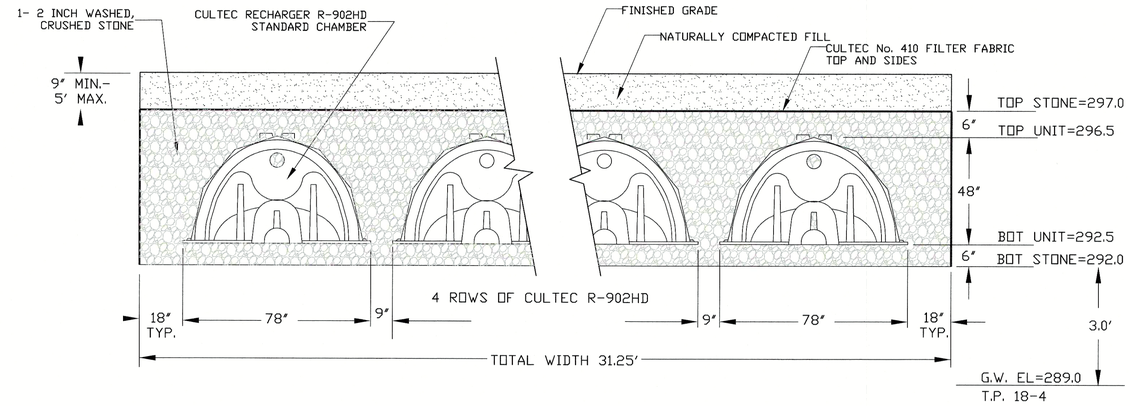
AMENDED SITE DEVELOPMENT PLAN "56 BOYNTON ROAD" HOLLISTON, MASSACHUSETTS

OWNER & APPLICANT
HOPPING BROOK DEVELOPMENT LLC
330 HOPPING BROOK ROAD
HOLLISTON, MASSACHUSETTS 01746

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

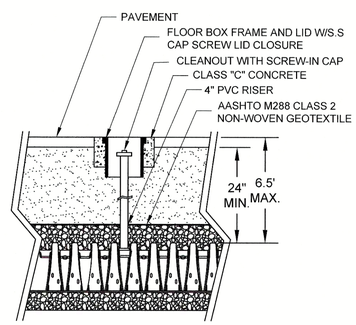
DRW.:	
JOB No.	13,612
DATE:	Feb. 1, 2019
SCALE:	1"=30'
SHEET:	C-5
PLAN #:	27,312





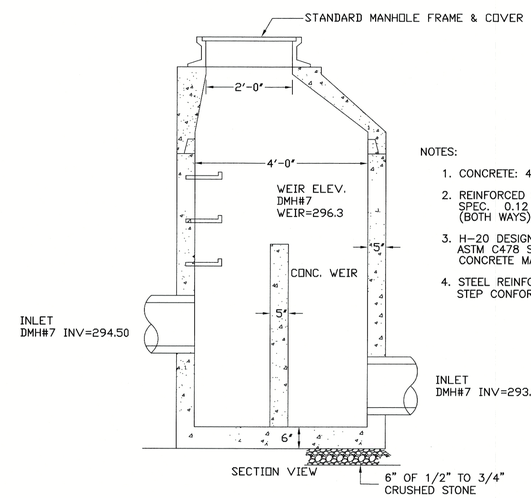
RECHARGE SYSTEM #2 TYPICAL CROSS SECTION DETAIL

NOT TO SCALE



INSPECTION PORT DETAIL

NOT TO SCALE



NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. REINFORCED STEEL CONFORMS TO LATEST ASTM A185 SPEC. 0.12 SQ. IN./LINEAL FT. AND 0.12 SQ. IN. (BOTH WAYS) BASE BOTTOM.
3. H-20 DESIGN LOADING PER AASHTO HS-20-44; ASTM C478 SPEC FOR "PRECAST REINFORCED CONCRETE MANHOLE SECTIONS."
4. STEEL REINFORCED COPOLYMER POLYPROPYLENE PLASTIC STEP CONFORMS TO LATEST ASTM C478 SPEC.

DMH SPECIAL OUTLET DETAIL

NOT TO SCALE

FINISHED GRADE

DRAINAGE RECHARGE SYSTEM DETAILS

REVISIONS

No.	DATE	DESCRIPTION
1	3/05/19	PLG BRD REVIEW COMMENTS
2	3/21/19	PLG BRD REVIEW COMMENTS
3	10/09/19	PARKING AND BUILDING LAYOUT
4	3/29/21	BUILDING EXPANSION

COMMONWEALTH OF MASSACHUSETTS PAUL E. TRUAX CIVIL NO. 46527 REGISTERED PROFESSIONAL ENGINEER

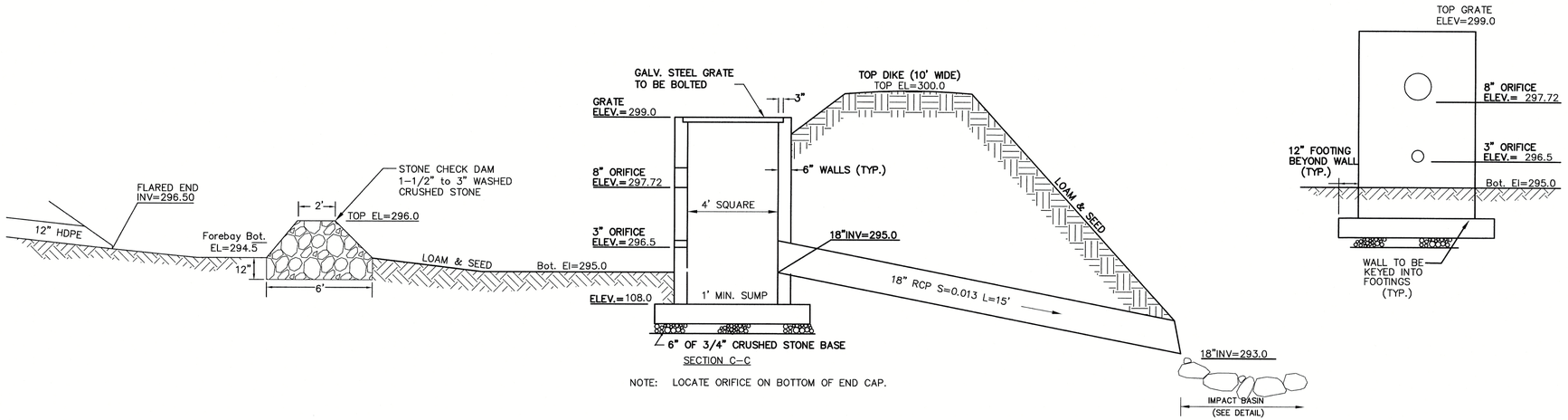
4-2-2021

AMENDED SITE DEVELOPMENT PLAN
"56 BOYNTON ROAD"
HOLLISTON, MASSACHUSETTS

OWNER & APPLICANT
HOPPING BROOK DEVELOPMENT LLC
330 HOPPING BROOK ROAD
HOLLISTON, MASSACHUSETTS 01746

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

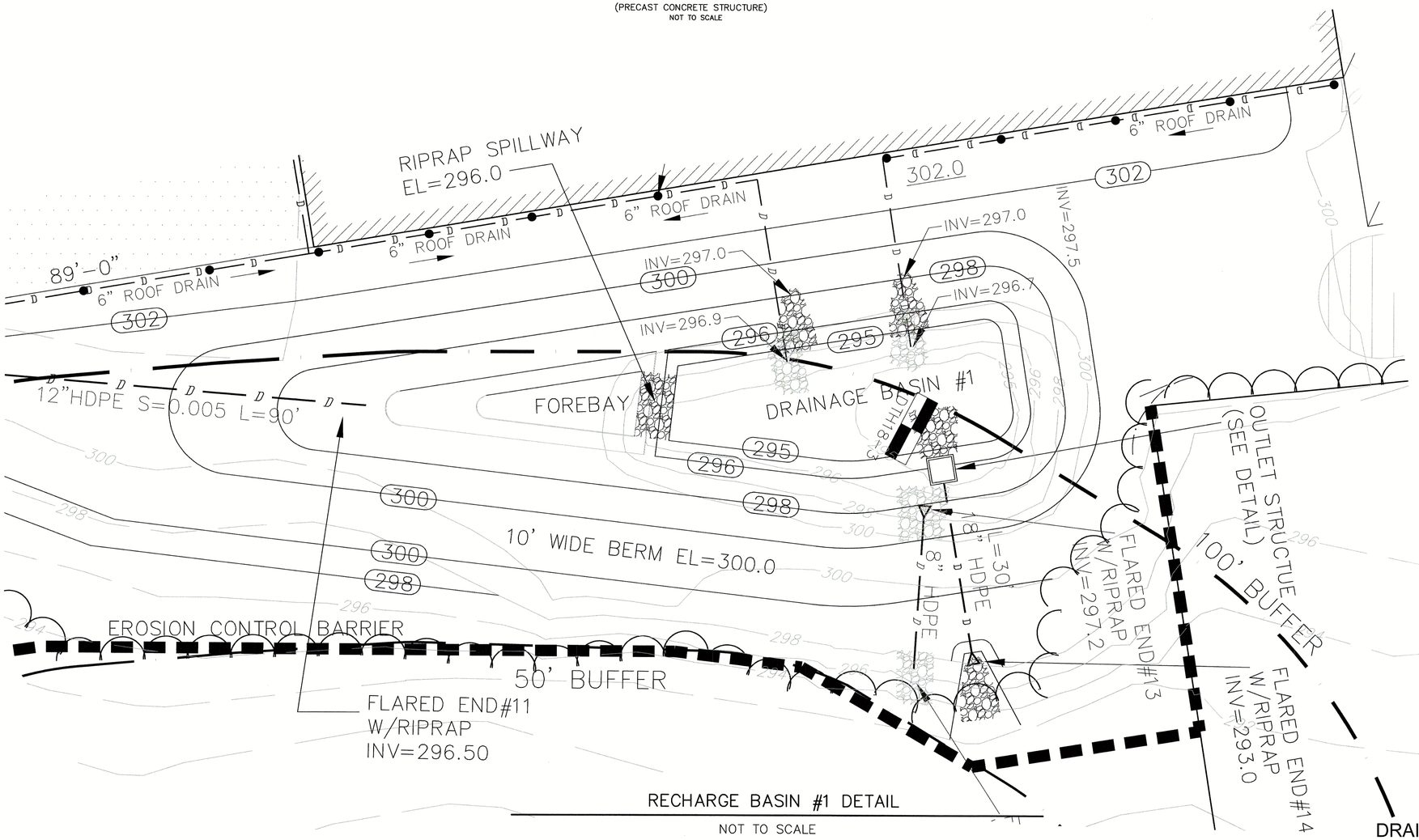
DRW.:	
JOB No.	13,612
DATE:	Feb. 1, 2019
SCALE:	1"=30'
SHEET:	C-6
PLAN #:	27,312



NOTE: LOCATE ORIFICE ON BOTTOM OF END CAP.

OUTLET STRUCTURE DETAIL BASIN #1

(PRECAST CONCRETE STRUCTURE)
NOT TO SCALE



RECHARGE BASIN #1 DETAIL

NOT TO SCALE

DRAINAGE RECHARGE SYSTEM DETAILS

REVISIONS

No.	DATE	DESCRIPTION
1	3/05/19	PLG BRD REVIEW COMMENTS
2	3/21/19	PLG BRD REVIEW COMMENTS
3	10/09/19	PARKING AND BUILDING LAYOUT
4	3/29/21	BUILDING EXPANSION

COMMONWEALTH OF MASSACHUSETTS
PAUL E. TRUAX
CIVIL
NO. 46827
REGISTERED PROFESSIONAL ENGINEER

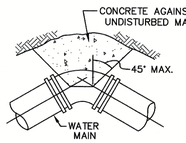
Paul Truax 4-2-2021

SITE DEVELOPMENT PLAN
"56 BOYNTON ROAD"
HOLLISTON, MASSACHUSETTS

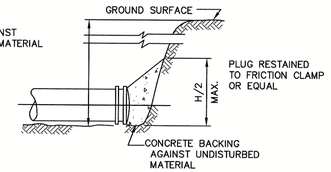
OWNER & APPLICANT
HOPPING BROOK DEVELOPMENT LLC
330 HOPPING BROOK ROAD
HOLLISTON, MASSACHUSETTS 01746

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

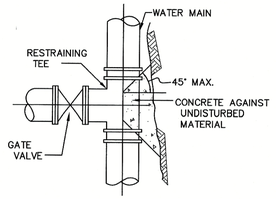
DRW.:	
JOB No.	13,612
DATE:	Feb. 1, 2019
SCALE:	1"=30'
SHEET:	C-7
PLAN #:	27,312



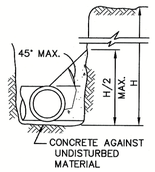
TYPICAL BEND



TYPICAL PLUG



TYPICAL TEE



TYPICAL SECTION

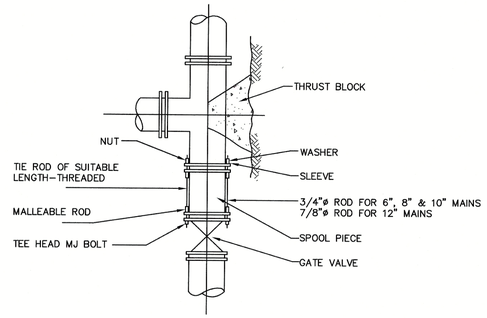
NOTE: CONCRETE FOR THRUST BLOCKS SHALL BE NO LONGER THAN THE RATIO OF 2 1/2 : 5 1/2 AND SHALL HAVE A MINIMUM COMPRESSION STRENGTH OF 2000 PSI (SO THAT FLANGES AND BOLTS ARE ACCESSIBLE.)

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

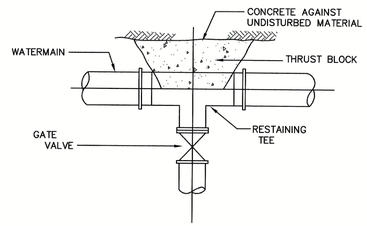
TYPICAL THRUST BLOCK DETAIL

NOT TO SCALE



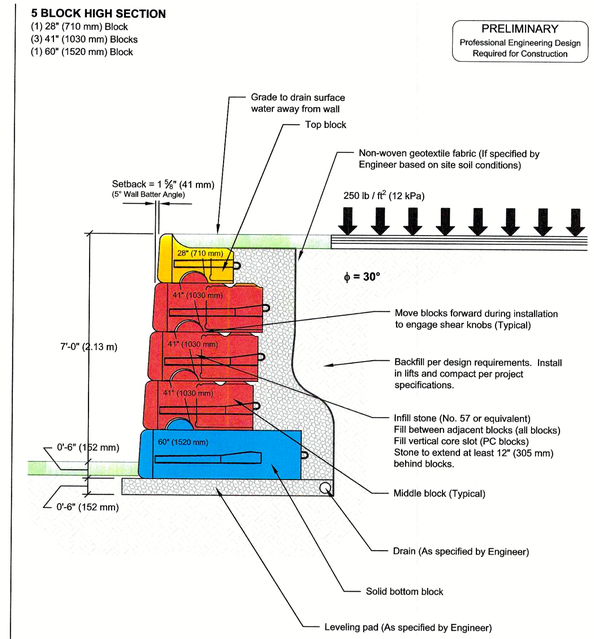
TYPICAL TIED MECHANICAL JOINT VALVE CONNECTION DETAILS

NOT TO SCALE



TYPICAL LATERAL GATE VALVE CONNECTION DETAILS

NOT TO SCALE



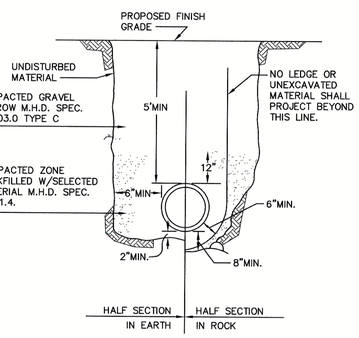
This drawing is for reference only. Determination of the suitability and/or manner of use of any details contained in this document is the sole responsibility of the design engineer of record. Final project designs, including all construction details, shall be prepared by a licensed professional engineer using the actual conditions of the proposed site. Final wall design must address both internal and external drainage and all modes of wall stability.

DRAWN BY: C. Kruger	TITLE: **Preliminary Wall Section** Fine to Medium Sand or Silty Sand, ϕ = 30° 250 lb/ft² (12 kPa) Live Load Surcharge	REDI-ROCK 05481 US 31 SOUTH, CHARLEVOIX, MI 49720 (866) 222-8400 ext 3010 • engineering@redi-rock.com www.redi-rock.com
APPROVED BY: J. Johnson		
DATE: June 9, 2015		
SHEET: 1 of 1	FILE: B_30_B_60_90_cad.dwg	

TYPICAL GRAVITY WALL DETAIL

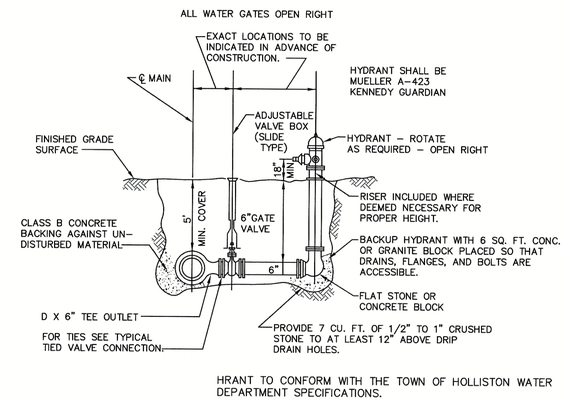
NOT TO SCALE

NOTES:
1. PROPOSED GEO–GRID "SUREGREEN PP40", POROUS GRASS FINISH (Or Approved Equal)
2. THE GEO–GRID SYSTEM SHALL BE INSTALLED PER THE MANUFACTURERS INSTALLATION GUIDELINES.



WATER MAIN TRENCH DETAIL

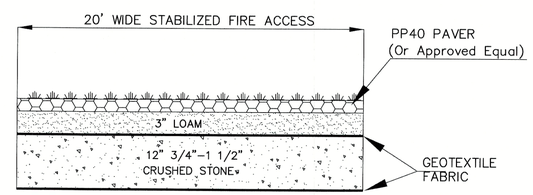
NOT TO SCALE



HRANT TO CONFORM WITH THE TOWN OF HOLLISTON WATER DEPARTMENT SPECIFICATIONS.

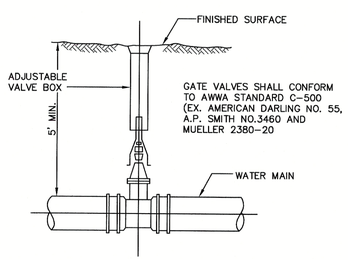
TYPICAL HYDRANT ASSEMBLY DETAIL

NOT TO SCALE



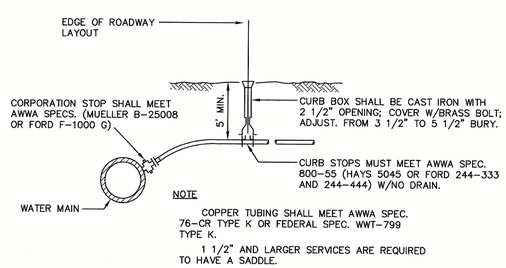
PROPOSED FIRE ACCESS SECTION DETAIL

N.T.S.



TYPICAL GATE VALVE

NOT TO SCALE



NOTE

COPPER TUBING SHALL MEET AWWA SPEC. 76–CR TYPE K OR FEDERAL SPEC. WWT–799 TYPE K.

1 1/2" AND LARGER SERVICES ARE REQUIRED TO HAVE A SADDLE.

TYPICAL SERVICE CONNECTION

NOT TO SCALE

NOTE:
1. ALL WORK IS TO BE DONE IN ACCORDANCE WITH THE TOWN OF HOLLISTON WATER DEPARTMENT RULES AND REGULATIONS AND SPECIFICATIONS.
2. WATER MAIN INSTALLATION IN AREAS OF FILL SHALL COMPLY WITH A MODIFIED PROCTOR TEST TO 90% COMPACTION DONE IN 12" LIFTS TO ASTM STANDARD D1557.

DRAINAGE RECHARGE SYSTEM DETAILS

REVISIONS

No.	DATE	DESCRIPTION
1	3/05/19	PLG BRD REVIEW COMMENTS
2	3/21/19	PLG BRD REVIEW COMMENTS
3	10/09/19	PARKING AND BUILDING LAYOUT
4	3/29/21	BUILDING EXPANSION

COMMONWEALTH OF MASSACHUSETTS PAUL E. TRUAX CIVIL NO. 40527 REGISTERED PROFESSIONAL ENGINEER

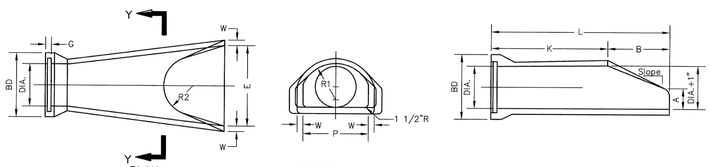
4-2-2021

SITE DEVELOPMENT PLAN
"56 BOYNTON ROAD"
HOLLISTON, MASSACHUSETTS

OWNER & APPLICANT
HOPPING BROOK DEVELOPMENT LLC
330 HOPPING BROOK ROAD
HOLLISTON, MASSACHUSETTS 01746

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

DRW.:	
JOB No.	13,612
DATE:	Feb. 1, 2019
SCALE:	1"=30'
SHEET:	C-8
PLAN #:	27,312

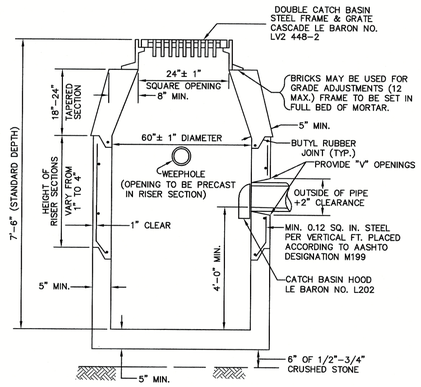


PLAN SECTION Y–Y SECTION

DIA.	W	A	B	C	D	E	BD	K	L	P	DIA.+1"	R1	R2	S	G	Slope
12"	2"	4"	2'–0"	4'–0 7/8"	6'–1 3/8"	2'–0"	20"	4'–8 1/8"	6'–5 1/8"	19 15/16"	13"	10 1/8"	9"	4"	2 1/2"	3:1
15"	2 1/4"	6"	2'–3"	3'–10"	6'–1 1/2"	2'–6"	24"	4'–3 11/16"	6'–4 11/16"	24 5/16"	16"	12 1/2"	11"	4"	2 1/2"	3:1
18"	2 1/2"	9"	2'–3"	3'–10"	6'–1"	3'–0"	28"	4'–3 7/8"	6'–6 7/8"	29"	19"	15 1/2"	12"	4"	2 3/4"	3:1
21"	2 3/4"	9"	2'–11"	3'–2"	6'–1"	3'–6"	32"	3'–8 5/16"	6'–7 5/16"	31 5/8"	22"	16 1/8"	13"	4"	2 3/4"	3:1
24"	3"	9 1/2"	3'–7 1/2"	2'–6"	6'–1"	4'–0"	36"	3'–0 1/2"	6'–8"	33 3/16"	25"	16 13/16"	14"	4"	3"	3:1

R.C.P. FLARED END SECTION DETAILS

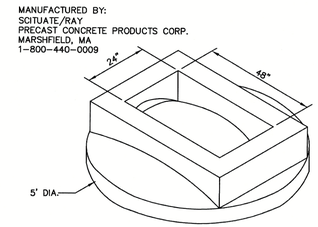
NOT TO SCALE



NOTES:
1. NO BELL ENDS IN CATCH BASIN. CONNECTIONS TO BE TIGHTLY SEALED WITH MORTAR.
2. TRANSITION CURBS TO BE INSTALLED AT ALL CATCH BASINS
3. STORM DRAINAGE PIPING SHALL BE REINFORCED CONCRETE PIPE WITH RUBBER GASKETS UNLESS OTHERWISE NOTED
REINFORCED CONCRETE PIPE – ASTM C76 Min Class III
Packerhead type process shall be used.
Joints & Gaskets for Pipe – ASTM C443

PRECAST CONCRETE CATCH BASIN DETAIL

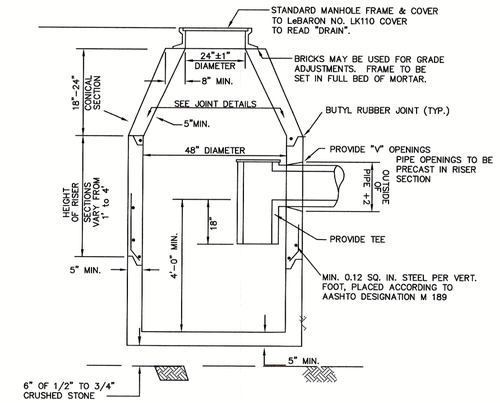
NOT TO SCALE



1. MANUFACTURED TO MEET OR EXCEED ASTM C–478 & AASHTO M 199 SPECS.
2. REINFORCING SHALL CONFORM TO ASTM A–185 AND BE PLACED AS PER ASTM C–478 (8.1, 8.3)
3. CONCRETE = 4000 PSI MIN. AND CEMENT PER ASTMC–478 (6.1)
4. MANHOLE STEPS – POLYPROPLENE COATED GRADE 60 R–BAR PER ASTM C–478 & OSHA (STD. 1–19)
5. BUTYL RUBBER JOINT SEALANT PER ASTM C–990 & AASHTO M–198
6. WATERPROOFING PER CONTRACT SPECS. AS REQUIRED.
7. DESIGNED FOR H–20 LOADING.

DOUBLE OPEN CATCH BASIN DOME TOP (DBL CB)

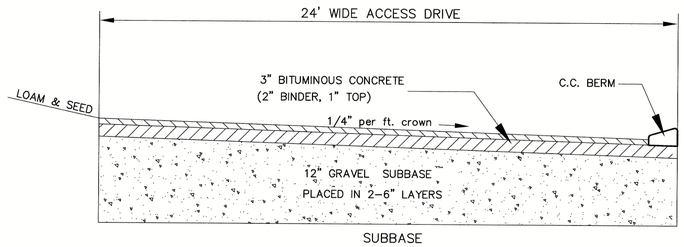
NOT TO SCALE



PRECAST CONCRETE MANHOLE DETAIL

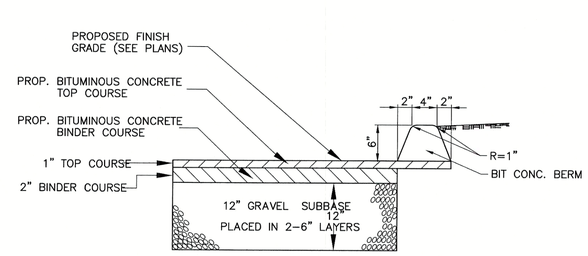
NOT TO SCALE

Each six–inch layer shall be gravel conforming to Section M1.03.0, Type C of the Standard Specs. The surface shall be thoroughly compacted and brought to a true and even grade at the gravel base plane. Total depth of gravel at all points after complete compaction shall be not less than twelve (12) inches.



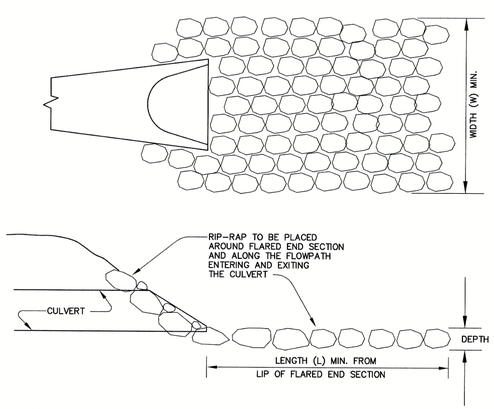
ACCESS ROAD CROSS SECTION

NOT TO SCALE



BITUMINOUS BERM DETAIL

NOT TO SCALE

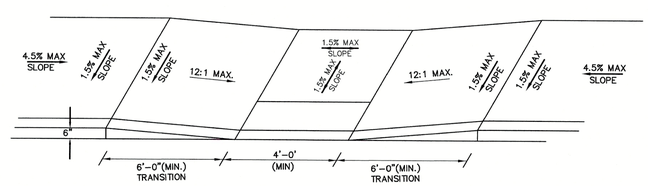


RIPRAP APRON SIZE

OUTLET	STONE SIZE(MIN)	W	L	D
#1RG	3 INCH	6 FT	12 FT	10 INCH
#2RG	3 INCH	6 FT	12 FT	10 INCH

DETAIL OF RIP–RAP AT FLARED END SECTIONS

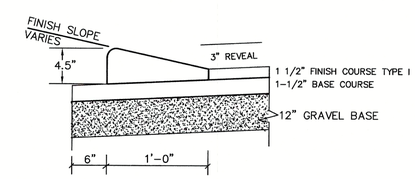
N.T.S.



*THE DIMENSIONS ARE SUBJECT TO CHANGE IN THE FIELD IN EXISTING APPURTENANCES OR CONDITIONS WILL MAKE THE RAMP LOCATIONS IMPRACTICAL OR UNSAFE. CONSULT CIVIL ENGINEER PRIOR TO MAKING ANY MODIFICATIONS.

HANDICAP SIDEWALK CURB CUT DETAIL

NOT TO SCALE



CAPE COD BERM DETAIL

NOT TO SCALE

DETAILS

No.	DATE	REVISIONS DESCRIPTION
1	3/05/19	PLG BRD REVIEW COMMENTS
2	3/21/19	PLG BRD REVIEW COMMENTS
3	10/09/19	PARKING AND BUILDING LAYOUT
4	3/29/21	BUILDING EXPANSION

COMMONWEALTH OF MASSACHUSETTS PAUL E. TRUAX CIVIL NO. 46527 REGISTERED PROFESSIONAL ENGINEER

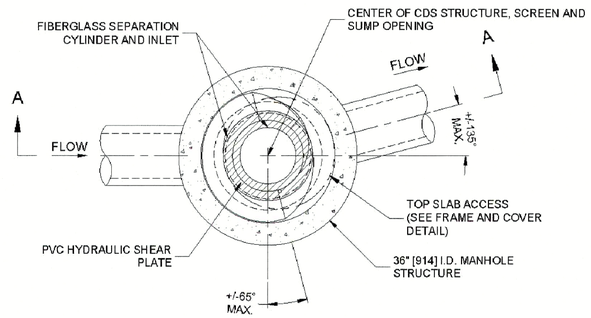
4-2-2021

AMENDED SITE DEVELOPMENT PLAN "56 BOYNTON ROAD" HOLLISTON, MASSACHUSETTS

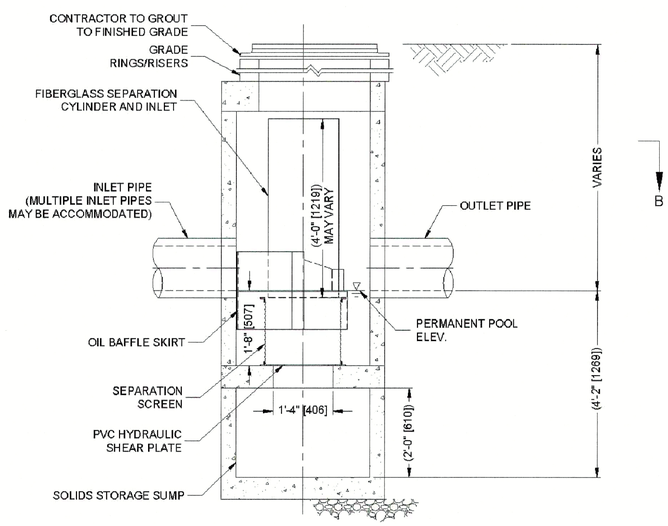
OWNER & APPLICANT
HOPPING BROOK DEVELOPMENT LLC
330 HOPPING BROOK ROAD
HOLLISTON, MASSACHUSETTS 01746

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

DRW.:	
JOB No.	13,612
DATE:	Feb. 1, 2019
SCALE:	1"=30'
SHEET:	C-9
PLAN #:	27,312



PLAN VIEW B-B
N.T.S.

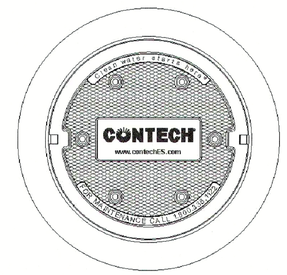


ELEVATION A-A
N.T.S.

CDS1515-3-C DESIGN NOTES

CDS1515-3-C RATED TREATMENT CAPACITY IS 1.0 CFS, OR PER LOCAL REGULATIONS. MAXIMUM HYDRAULIC INTERNAL BYPASS CAPACITY IS 6.0 CFS . IF THE SITE CONDITIONS EXCEED 6.0 CFS, AN UPSTREAM BYPASS STRUCTURE IS REQUIRED.

THE STANDARD CDS1515-3-C CONFIGURATION IS SHOWN.



FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID			
WATER QUALITY FLOW RATE (CFS OR L/s)			*
PEAK FLOW RATE (CFS OR L/s)			*
RETURN PERIOD OF PEAK FLOW (YRS)			*
SCREEN APERTURE (2400 OR 4700)			*
PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	*	*	*
INLET PIPE 2	*	*	*
OUTLET PIPE	*	*	*
RIM ELEVATION			*
ANTI-FLOTATION BALLAST	WIDTH	HEIGHT	
	*	*	
NOTES/SPECIAL REQUIREMENTS:			
* PER ENGINEER OF RECORD			

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
3. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2', AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO..
5. IF REQUIRED, PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.
6. CDS STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE.
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

CONTECH ENGINEERED SOLUTIONS LLC
www.contechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CDS1515-3-C
ONLINE CDS
STANDARD DETAIL

PRETREATMENT WATER QUALITY INLET DETAIL

REVISIONS

No.	DATE	DESCRIPTION
1	3/05/19	PLG BRD REVIEW COMMENTS
2	3/21/19	PLG BRD REVIEW COMMENTS
3	10/09/19	PARKING AND BUILDING LAYOUT
4	3/29/21	BUILDING EXPANSION

COMMONWEALTH OF MASSACHUSETTS
PAUL E. TRUAX
CIVIL
NO. 40527
REGISTERED PROFESSIONAL ENGINEER

4-2-2021

AMENDED SITE DEVELOPMENT PLAN
"56 BOYNTON ROAD"
HOLLISTON, MASSACHUSETTS

OWNER & APPLICANT
HOPPING BROOK DEVELOPMENT LLC
330 HOPPING BROOK ROAD
HOLLISTON, MASSACHUSETTS 01746

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

DRW.:	
JOB No.	13,612
DATE:	Feb. 1, 2019
SCALE:	1"=30'
SHEET:	C-10
PLAN #:	27,312

I ATTEST THAT THE PLANNING BOARD VOTED _____ TO _____
TO APPROVE THIS SITE PLAN ON _____
DATE

_____
SIGNATURE OF PLANNING BOARD MEMBER

N/F NSTAR ELECTRIC CO.

WETLANDS

TOWN LINE HOLLISTON - MEDWAY

N/F JAT LLC C/O JOHN THEMELI

N/F NSTAR ELECTRIC CO.

N/F AMERICAN DURAFILM CO, INC.

BOYNTON (PUBLIC 60' WIDE) ROAD

LOT 7-4
7.4506 AC.

1S

2S

3S

50' BUFFER

100' BUFFER

S02°13'58"W

234.99'

S8°15'52"E

224.97'

S08°53'08"E
385.63'

S09°33'39"E

938.02'

N62°39'29"W

585.06'

FLARED END #13
W/RIPRAP
INV=297.2

FLARED END #1
W/RIPRAP
INV=295.9

DRAINAGE SYSTEM #1

Tc L=110' S=0.14

Tc L=175' S=0.05

Tc L=50' S=0.02

Tc L=50' S=0.08

Tc L=50' S=0.03

Tc L=155' S=0.03

Tc L=330' S=0.08

Tc L=220' S=0.005

Tc L=120' S=0.08

R=60.00'
L=84.91'
T=55.19'
Δ=109°39'44"

LEGEND

WETLANDS

3S —Subcatchment

1P —POND

A — — — B Time of Concentration

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

EXISTING CONDITIONS

REVISIONS		
No.	DATE	DESCRIPTION
1	3/05/19	PLG BRD REVIEW COMMENTS
2	10/09/19	PARKING AND BUILDING LAYOUT
3	10/09/19	PARKING AND BUILDING LAYOUT
4	3/29/21	BUILDING EXPANSION

COMMONWEALTH OF MASSACHUSETTS
JOHN E. HASTINGS
NO. 39393
REGISTERED PROFESSIONAL LAND SURVEYOR

4/2/2021

COMMONWEALTH OF MASSACHUSETTS
PAUL E. TRUAX
CIVIL
NO. 46027
REGISTERED PROFESSIONAL ENGINEER

4-2-2021

SITE DEVELOPMENT PLAN
"56 BOYNTON ROAD"
HOLLISTON, MASSACHUSETTS

OWNER & APPLICANT

HOPPING BROOK DEVELOPMENT LLC
330 HOPPING BROOK ROAD
HOLLISTON, MASSACHUSETTS 01746

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

DRW.:	
JOB No.	13,612
DATE:	Feb. 1, 2019
SCALE:	1"=30'
SHEET:	1 of 3
PLAN #:	

I ATTEST THAT THE PLANNING BOARD VOTED _____ TO _____
TO APPROVE THIS SITE PLAN ON _____
DATE

_____
SIGNATURE OF PLANNING BOARD MEMBER

N/F NSTAR ELECTRIC CO.

WETLANDS

TOWN LINE MEDWAY HOLLISTON

N/F JAT LLC C/O JOHN THEMELI

N/F NSTAR ELECTRIC CO.

N/F AMERICAN DURAFILM CO, INC.

BOYNTON (PUBLIC 60' WIDE) ROAD

7S

8S

4S

5S

6S

1P

LOT 7-4
7.4506 AC.

EXISTING BUILDING
(TOT. 15,200 SF)
F.F.=303.21

OFFICE 1500 S.F
WAREHOUSE 23,700 S.F.

PROPOSED BUILDING
EXPANSION
(13,140 s.f.)
F.F.=303.21

50' BUFFER

100' BUFFER

S02°13'58"W 254.99'

S08°53'08"E 385.63'

S09°33'39"E 938.02'

N02°32'29"W 566.06'

S08°15'26"W 224.97'

LEGEND

8S —Subcatchment

1P —POND

A B Time of Concentration

GRAPHIC SCALE

(IN FEET)
1 inch = 30 ft.

POST DEVELOPED RUNOFF

REVISIONS		
No.	DATE	DESCRIPTION
1	3/05/19	PLG BRD REVIEW COMMENTS
2	10/09/19	PARKING AND BUILDING LAYOUT
3	10/09/19	PARKING AND BUILDING LAYOUT
4	3/29/21	BUILDING EXPANSION

4/2/2021

4-2-2021

SITE DEVELOPMENT PLAN
"56 BOYNTON ROAD"
HOLLISTON, MASSACHUSETTS

OWNER & APPLICANT
HOPPING BROOK DEVELOPMENT LLC
330 HOPPING BROOK ROAD
HOLLISTON, MASSACHUSETTS 01746

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

DRW.:	
JOB No.	13,612
DATE:	Feb. 1, 2019
SCALE:	1"=30'
SHEET:	2 of 3
PLAN #:	

I ATTEST THAT THE PLANNING BOARD VOTED _____ TO _____
TO APPROVE THIS SITE PLAN ON _____
DATE

_____
SIGNATURE OF PLANNING BOARD MEMBER

N/F NSTAR ELECTRIC CO.

S02°13'58"W 254.99'

WETLANDS

TOWN LINE - MEDWAY HOLLISTON

EDGE OF WETLAND

SNOW STORAGE

END OF WALL CAN BE STEPPED DOWN WITH CONTOURS

IMPERVIOUS BARRIER 40 MIL PVC LINER L=110'± TOP=311.4 BOTTOM=306.4

PROPOSED RETAINING WALL SEE DETAIL T.O.W.=312.0

OBSERVATION PIPE(S) TYP.

5' LIMIT OF EXCAVATION 65'±5'

FLARED END #13 W/RIPRAP INV=290.0

50' BUFFER

PROPOSED RETAINING WALL TOW=299.0 (To be designed by others)

12"HDPE L=25'

S84°15'28"W

100' BUFFER

DMH#7 (Special Outlet See Detail) RIM=299.2 INV(IN)=294.50 WEIR EL=296.30 INV(OUT)=293.0

N/F NSTAR ELECTRIC CO.

RECHARGE SYSTEM #2
CULTEC R-902HD
4 ROWS 27 UNITS PER ROW

12"HDPE S=0.011

DBL MH#6 CDS UNIT 1515 RIM=299.7 INV(IN)=295.00 INV(OUT)=294.70

DCB#5 RIM=298.5 INV=295.5

CB#5 23,989 S.F. Imp: 18,605 sf Grass: 5,384 sf

CB#4 21,256 S.F. Imp: 14,512 sf Grass: 6,744 sf

12"HDPE S=0.015 L=144'

GRAVEL

WALK

DBL CB#4 RIM=301.0 INV(OUT)=297.20 INV(IN)=297.40

1500 GAL PUMP CHAMBER (SEE DETAIL)

2000 GAL SEPTIC TANK (SEE DETAIL)

OFFICE

OFFICE 1500 S.F
WAREHOUSE 23,700 S.F.

EXISTING BUILDING (TOT. 25,200 SF)
F.F.=303.21

PROPOSED DOMESTIC WATER

PROPOSED FIRE LINE

DOWNSPOUT (TYP)

N/F JAT LLC C/O JOHN THEMELI

566.06'

100' BUFFER

N62°32'29"W

DMH#2 CDS UNIT 1515 RIM=305.5 INV(IN)=298.00 INV(OUT)=297.90

FLARED END#3 W/RIPRAP RIM=297.00

CB#1 RIM=305.0 INV=301.00

LOT 7-4
7.4506 AC.

CB#1 23,683 S.F. Imp: 6,974 sf Grass: 16,709 sf

WETLANDS

EDGE OF WETLAND

50' BUFFER

CB#8 7,904 S.F. Imp: 7,904 sf Grass: 0 sf

PROPOSED BUILDING EXPANSION (13,144 s.f.)
F.F.=303.21

ROOF-A 6,910 S.F.

ROOF-B 6,230 S.F.

8" ROOF DRAIN

DBL CB#8 RIM=301.0 INV=298.00

12"HDPE S=0.004 L=177'

DMH#9 RIM=301.5 INV(IN)=297.85 INV(OUT)=297.75

S09°33'39"E

DMH#10 RIM=302.0 INV(IN)=297.05 INV(OUT)=296.95

938.02'

N/F AMERICAN DURAFILM CO, INC.

BOYNTON (PUBLIC 60' WIDE) ROAD

R=60.00' L=185.91' Δ=109°36'44"

OUTLET STRUCTUE (SEE DETAIL)

FLARED END#14 W/RIPRAP INV=293.0

S08°53'08"E 385.63'

FLARED END#13 W/RIPRAP INV=297.2

FLARED END#14 W/RIPRAP INV=295.9

DRAINAGE BASIN #1

FOREBAY

10' WIDE BERM EL=300.0

RIPRAP SPILLWAY EL=296.0'

FLARED END#11 W/RIPRAP INV=296.50

12"HDPE S=0.005 L=90'

D-1

P-1

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

DRAINAGE AREAS

REVISIONS		
No.	DATE	DESCRIPTION
1	3/05/19	PLG BRD REVIEW COMMENTS
2	10/09/19	PARKING AND BUILDING LAYOUT
3	10/09/19	PARKING AND BUILDING LAYOUT
4	3/29/21	BUILDING EXPANSION

COMMONWEALTH OF MASSACHUSETTS GLM MARTIN NO. 33983 REGISTERED PROFESSIONAL ENGINEER

4/2/2021

COMMONWEALTH OF MASSACHUSETTS PAUL E. TRUAX CIVIL NO. 46527 REGISTERED PROFESSIONAL ENGINEER

4-2-2021

SITE DEVELOPMENT PLAN "56 BOYNTON ROAD" HOLLISTON, MASSACHUSETTS

OWNER & APPLICANT
HOPPING BROOK DEVELOPMENT LLC
330 HOPPING BROOK ROAD
HOLLISTON, MASSACHUSETTS 01746

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

DRW.:	
JOB No.	13,612
DATE:	Feb. 1, 2019
SCALE:	1"=30'
SHEET:	3 of 3
PLAN #:	