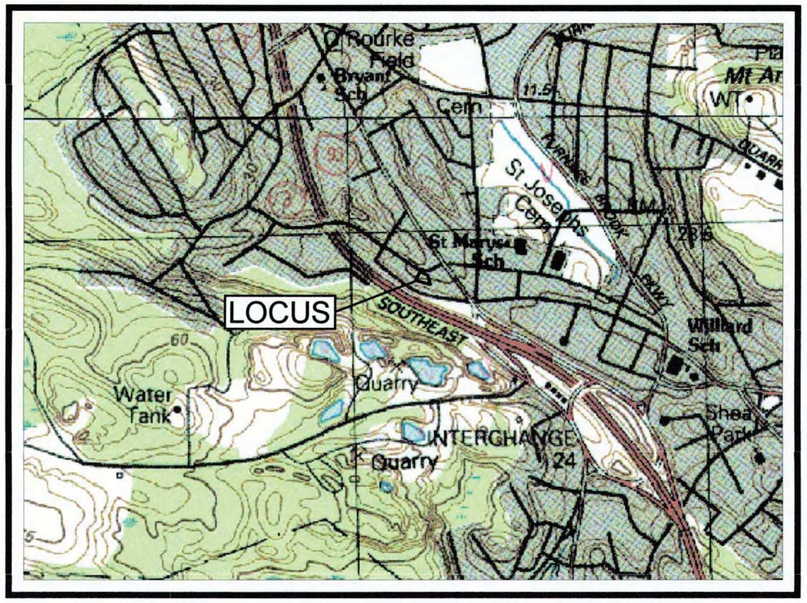
PROPOSED REDEVELOPMENT SITE PLAN
AT
18 BATES AVENUE
QUINCY, MASSACHUSETTS

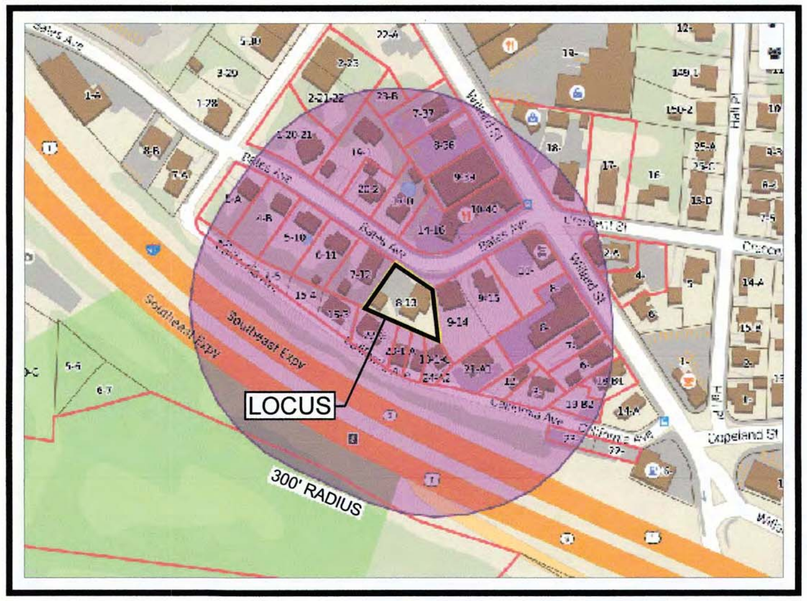
DATE: DECEMBER 18, 2014

LIST OF DRAWINGS

SHEET	TITLE
1	COVER SHEET
2	EXISTING CONDITIONS PLAN
3	LAYOUT PLAN
4	LANDSCAPING PLAN
5	GRADING, DRAINAGE & UTILITIES PLAN
6	EROSION CONTROL PLAN
7-11	DETAIL SHEETS



U.S.G.S. MAP
SCALE 1" = 1000'



ASSESSOR'S MAP
NOT TO SCALE

LEGEND

PROPOSED WATERLINE SERVICE	W
EXISTING WATERLINE SERVICE	W
PROPOSED OVERHEAD UTILITIES	OHV
EXISTING OVERHEAD UTILITIES	OHV
PROPOSED SEWER PIPE	S
EXISTING SEWER PIPE	S
PROPOSED GAS LINE	G
EXISTING GAS LINE	G
PROPOSED EXTERIOR LIGHT	
PROPOSED SPOT GRADE	97x5
EXISTING SPOT GRADE	97x5
PROPOSED CATCH BASIN	
EXISTING CATCH BASIN	
PROPOSED CONTOUR	30
EXISTING CONTOUR	30
EXISTING UTILITY POLE	
EXISTING GUYWIRE	

LOT ID	ABUTTER
5-10	HARTE ANN M.
19-1	TRAINOR FRANK
18	DIBONA THOMAS M.
22-C	LEE RAYMOND
22A	GALVIN COMMERCIAL
5-A	SEITZ LEONARD
11	FLEMING EDWARD J TREE
12	GRIMALDI JOSEPH P.
18-B1	NGUYEN NHAN
8	BBRF LTD
1-20-21	WELCH MARY V.
1-5, 15-3, 15-4	SILVA ARLINDO
4	GORHAM WILLIAM J. ETAL TREES
19-1-B	CHEN YAO RAN
7-12	LE HUNG Q.
21-A1	MAK ELAINE ETAL
3	FENELON CHRIS K.
35-B	MASSACHUSETTS COMMONWEALTH OF
17	HENRIKSEN MARK
20-1-A	QUINONES MERCEDES C.
23-B	257 WILLARD STREET LLC
9-14, 9-15	RECE MASSACHUSETTS LLC
9-39	COMMONWEALTH STATE CORP
2-A	GORHAM ROBERT M JR ETAL
18-1-C	WILLIAMS PATRICIA G.
4-B	LAU TOM & KATHY LU
20-2	BLACK EVA E.
8-36	COMMONWEALTH STATE CORP
7-37	TRAINOR FRANK ETAL TREE MICHEL
19-B2	BIONDI JAMES V. TREE 15
6	SANTOS JOSE A. &
17-B	PETITTI JOSEPH J. & AGNES T.
2-21-22, 2-23	GALVIN RESIDENTIAL
7	GOMATOS CAROLYN TREE WILLARD
6-11	MANNING ALMA
22, 23	MASSACHUSETTS COMMONWEALTH
10-40	IBRAHIM ZAKI TRUSTEE

PREPARED FOR:
NAZIH B. ELKALLASSI, TR.
BATES AVENUE REALTY TRUST
20 TOWER TERRACE
WAREHAM, MA 02571

PREPARED BY:
JC ENGINEERING, INC.
2854 CRANBERRY HIGHWAY
EAST WAREHAM, MA 02538

PLANNING BOARD CASE NO. 2016-02

CITY OF QUINCY PLANNING BOARD

_____
_____
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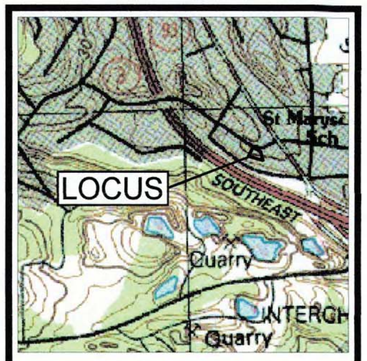


LOCUS MAP
SCALE 1" = 1000'

COMMONWEALTH OF MASSACHUSETTS
JOHN L. CHURCHILL JR.
CIVIL
NO. 41861
REGISTERED PROFESSIONAL ENGINEER

5/2/16
JOHN L. CHURCHILL, JR., P.E. DATE

PROPOSED REDEVELOPMENT SITE PLAN
AT
18 BATES AVENUE
IN
QUINCY, MASSACHUSETTS
(NORFOLK COUNTY)

COVERSHEET

REVISIONS:

No.	DATE	DESC.
1	5/2/16	REVIEW COMMENTS

PREPARED FOR:
NAZIH B. ELKALLASSI, TR.
BATES AVE. REALTY TRUST
20 TOWER TERRACE
WAREHAM, MA 02571

PREPARED BY:
JC ENGINEERING, INC.
2854 CRANBERRY HIGHWAY
EAST WAREHAM, MA 02538
508-273-0377

SCALE:	1" = 10'
DATE:	FEBRUARY 26, 2016
FIELD:	JO/BM
CALC./DESIGN:	BMB
DRAWN:	BMB
CHECK:	JLC
JOB NO:	2448

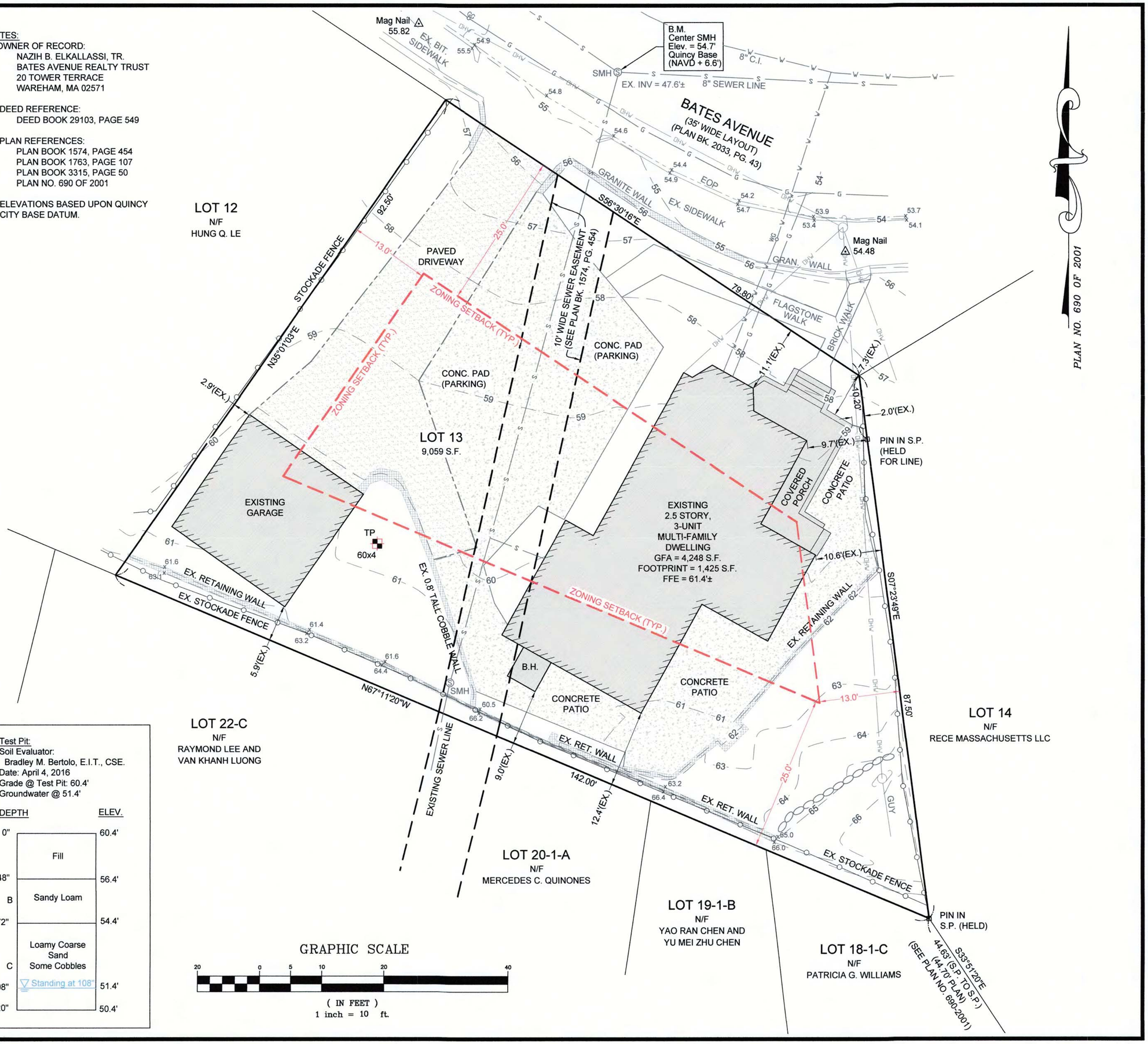
SHEET 1 OF 11

NOTES:
1. OWNER OF RECORD:
NAZIH B. ELKALLASSI, TR.
BATES AVENUE REALTY TRUST
20 TOWER TERRACE
WAREHAM, MA 02571

2. DEED REFERENCE:
DEED BOOK 29103, PAGE 549

3. PLAN REFERENCES:
PLAN BOOK 1574, PAGE 454
PLAN BOOK 1763, PAGE 107
PLAN BOOK 3315, PAGE 50
PLAN NO. 690 OF 2001

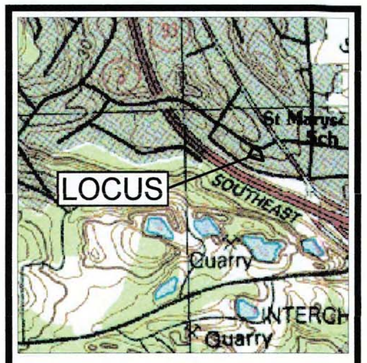
4. ELEVATIONS BASED UPON QUINCY CITY BASE DATUM.



Test Pit:
Soil Evaluator:
Bradley M. Bertolo, E.I.T., CSE.
Date: April 4, 2016
Grade @ Test Pit: 60.4'
Groundwater @ 51.4'

DEPTH		ELEV.
0"		60.4'
	Fill	
48"		56.4'
B	Sandy Loam	
72"		54.4'
	Loamy Coarse Sand Some Cobbles	
C		
108"	▽ Standing at 108"	51.4'
120"		50.4'

GRAPHIC SCALE
20 0 5 10 20 40
(IN FEET)
1 inch = 10 ft.



LOCUS MAP
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JOHN L. CHURCHILL JR. No. 48068 REGISTERED PROFESSIONAL LAND SURVEYOR COMMONWEALTH OF MASSACHUSETTS

JOHN L. CHURCHILL, JR., P.L.S. 5/2/16 DATE

PROPOSED REDEVELOPMENT SITE PLAN
AT
18 BATES AVENUE
IN
QUINCY, MASSACHUSETTS
(NORFOLK COUNTY)
EXISTING CONDITIONS PLAN

REVISIONS:

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SHEET 2 OF 11

DIMENSIONAL REGULATIONS: RESIDENCE B

	BYLAW(4-5 UNITS)	EXISTING	PROPOSED
NUMBER OF D.U.'S		3	5
MAX. FLOOR AREA RATIO	0.4	0.47	0.52
MIN. LOT AREA	6,750 S.F.	9,059 S.F.	9,059 S.F.
MIN. LOT AREA / D.U.	4,000 S.F.	3,019 S.F.	1,812 S.F.
MIN. FRONT YARD	25'	7.3'	8.1'
MIN. SIDE YARD	25'	2.0'	4.3'
MIN. REAR YARD	25'	9.0'	9.0'
MIN. LOT FRONTAGE	75'	79.8'	79.8'
GREEN OPEN SPACE / D.U.	700 S.F.	1,503 S.F.	813 S.F.
MAX. # OF STORIES	3	2.5	3

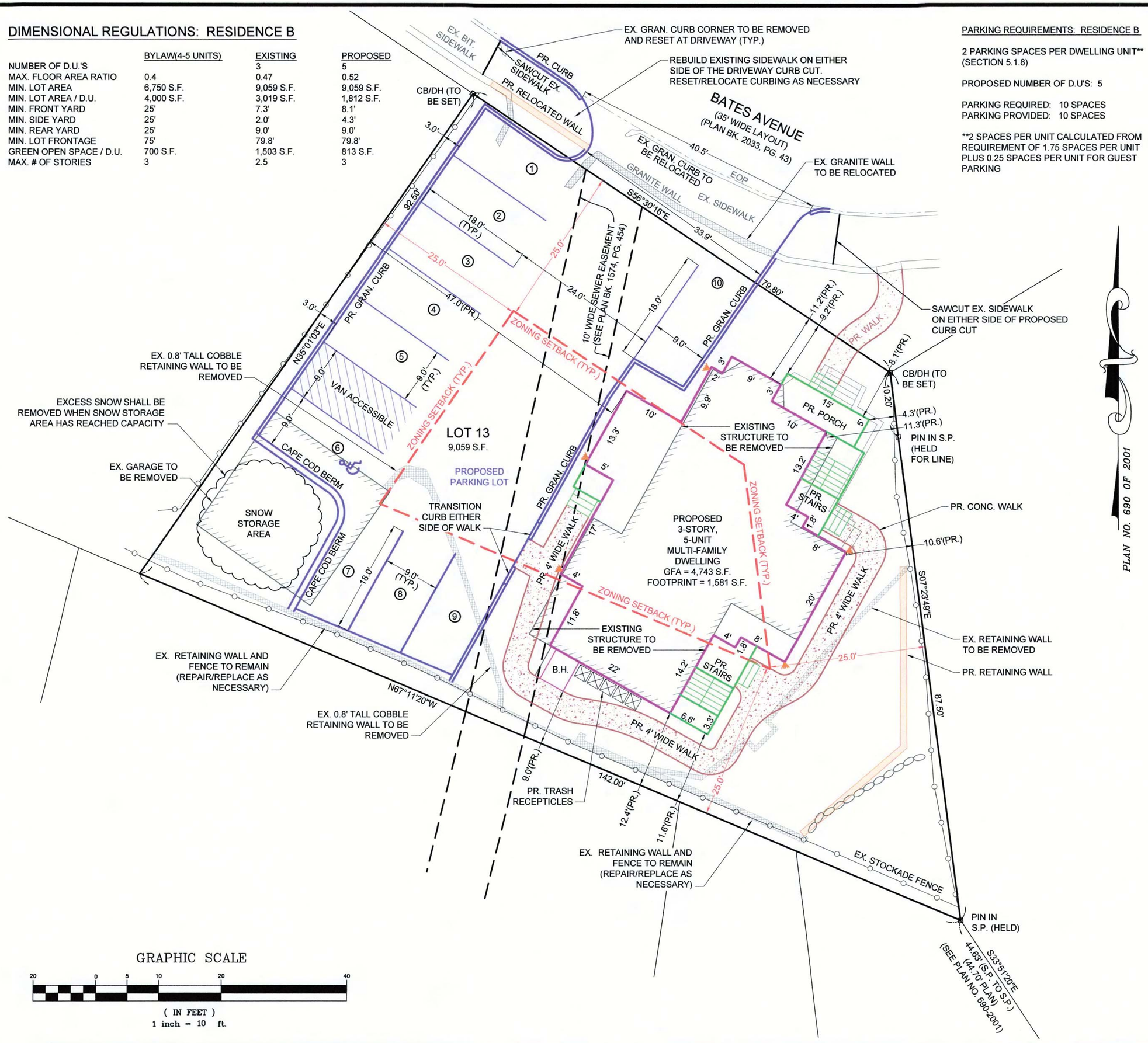
PARKING REQUIREMENTS: RESIDENCE B

2 PARKING SPACES PER DWELLING UNIT** (SECTION 5.1.8)

PROPOSED NUMBER OF D.U'S: 5

PARKING REQUIRED: 10 SPACES
PARKING PROVIDED: 10 SPACES

**2 SPACES PER UNIT CALCULATED FROM REQUIREMENT OF 1.75 SPACES PER UNIT PLUS 0.25 SPACES PER UNIT FOR GUEST PARKING



GRAPHIC SCALE

20 0 5 10 20 40

(IN FEET)
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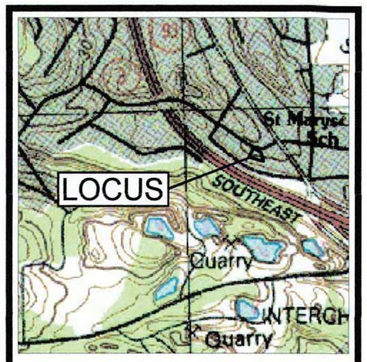

LOCUS MAP
SCALE 1" = 1000'

JOHN L. CHURCHILL JR. CIVIL NO. 41807 REGISTERED PROFESSIONAL ENGINEER COMMONWEALTH OF MASSACHUSETTS

5/2/16

JOHN L. CHURCHILL, JR., P.E. DATE

PROPOSED REDEVELOPMENT SITE PLAN
AT
18 BATES AVENUE
IN
QUINCY, MASSACHUSETTS
(NORFOLK COUNTY)

LAYOUT PLAN

REVISIONS:

No.	DATE	DESC.
1	5/2/16	REVIEW COMMENTS

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BATES AVE. REALTY TRUST
20 TOWER TERRACE
WAREHAM, MA 02571

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SHEET 3 OF 11

GENERAL PLANTING NOTES

1) ALL PLANT MATERIAL SHALL CONFORM TO THE STANDARDS OF THE AMERICAN ASSOCIATION OF NURSERYMEN OR THE PLANT MATERIAL WILL BE UNACCEPTABLE. ALL PLANT MATERIAL SHALL BE TRUE TO SPECIES, VARIETY, SIZE AND BE CERTIFIED DISEASE AND INSECT FREE. THE OWNER AND/OR THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO APPROVE ALL PLANT MATERIAL ON SITE.

2) ALL PLANT MATERIAL SHALL BE PROPERLY STAKED AND PLANTED IN CONFORMANCE WITH THE SPECIFICATIONS. PROVIDE THREE STAKES PER TREE UNLESS NOTED OTHERWISE. INSTALL ALL PLANT MATERIAL ON UNDISTURBED GRADE. PROVIDE BURLAP WRAPPING WITH A 50% OVERLAP. CUT AND REMOVE BURLAP FROM TOP ONE-THIRD OF THE ROOT BALL.

3) PROVIDE PLANTING PITS AS INDICATED ON PLANTING DETAILS. BACKFILL PLANTING PITS WITH ONE PART EACH OF TOPSOIL, PEAT MOSS AND PARENT MATERIAL. IF WET SOIL CONDITIONS EXIST THEN PLANTING PITS SHALL BE EXCAVATED AN ADDITIONAL 12" AND FILLED WITH SAND.

4) NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT. PLANTING DEPTH SHALL BE THE SAME OR HIGHER AS GROWN IN THE NURSERY.

5) NEWLY INSTALLED PLANT MATERIAL SHALL BE WATERED AT THE TIME OF INSTALLATION. REGULAR WATERING SHALL BE PROVIDED TO ENSURE THE ESTABLISHMENT, GROWTH AND SURVIVAL OF ALL NEW PLANTS.

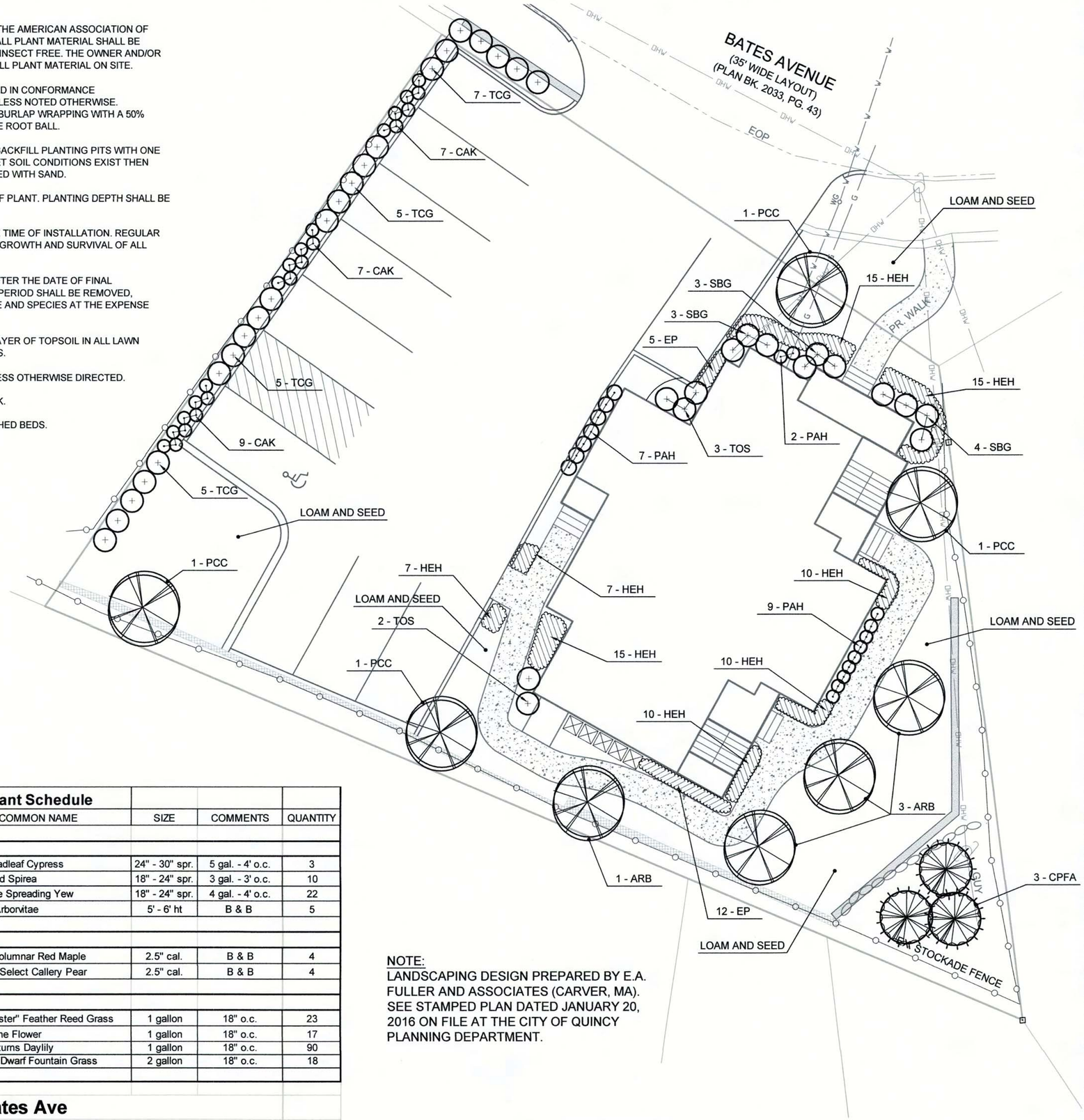
6) ALL PLANT MATERIAL SHALL BE GUARANTEED FOR ONE YEAR AFTER THE DATE OF FINAL ACCEPTANCE. ANY PLANT MATERIAL THAT DIES WITHIN THAT TIME PERIOD SHALL BE REMOVED, INCLUDING THE STUMP, AND REPLACED BY A TREE OF SIMILAR SIZE AND SPECIES AT THE EXPENSE CONTRACTOR.

7) THE LANDSCAPE CONTRACTOR SHALL PROVIDE A MINIMUM 6" LAYER OF TOPSOIL IN ALL LAWN AREAS AND A MINIMUM OF 2'-0" OF TOPSOIL IN ALL PLANTING AREAS.

8) ALL DISTURBED AREAS SHALL BE TOPSOILED AND SEEDED UNLESS OTHERWISE DIRECTED.

9) ALL PLANTING BEDS SHALL RECEIVE 3" OF SHREDDED PINE BARK.

10) ALL SHRUB MASSES SHALL BE PLANTED IN CONTINUOUS MULCHED BEDS.



Plant Schedule

SYMB.	BOTANICAL NAME	COMMON NAME	SIZE	COMMENTS	QUANTITY
	SHRUBS				
CPFA	Chamaecyparis pis.fil. 'Aurea'	Gold Threadleaf Cypress	24" - 30" spr.	5 gal. - 4' o.c.	3
SBG	Spiraea x bumaldi 'Goldmound'	Goldmound Spirea	18" - 24" spr.	3 gal. - 3' o.c.	10
TCG	Taxus cuspidata 'Greenwave'	Greenwave Spreading Yew	18" - 24" spr.	4 gal. - 4' o.c.	22
TOS	Thuja occidentalis 'Smaragd'	Emerald Arborvitae	5' - 6' ht	B & B	5
	TREES				
ARB	Acer rubrum 'Bowhall'	Bowhall Columnar Red Maple	2.5" cal.	B & B	4
PCC	Pyrus calleryana "Chanticleer"	Cleveland Select Callery Pear	2.5" cal.	B & B	4
	GRASSES & PERENNIALS				
CAK	Calamagrostis acutiflora "Karl Foerster'	"Karl Foerster" Feather Reed Grass	1 gallon	18" o.c.	23
EP	Echinacea purpurea	Purple Cone Flower	1 gallon	18" o.c.	17
HEH	Hemerocallis Happy Returns	Happy Returns Daylily	1 gallon	18" o.c.	90
PAH	Pennisetun alopecurroides "Hamelin"	Hamelin's Dwarf Fountain Grass	2 gallon	18" o.c.	18

18 Bates Ave
Quincy, Massachusetts

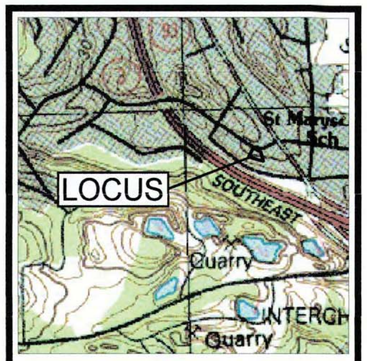
E. A. Fuller Associates - Landscape Architecture
170 Plymouth Street North Carver, MA 02355

NOTE:
LANDSCAPING DESIGN PREPARED BY E.A. FULLER AND ASSOCIATES (CARVER, MA). SEE STAMPED PLAN DATED JANUARY 20, 2016 ON FILE AT THE CITY OF QUINCY PLANNING DEPARTMENT.

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft.



LOCUS MAP
SCALE 1" = 1000'

JOHN L. CHURCHILL JR. CIVIL NO. 41807 REGISTERED

5/2/16
JOHN L. CHURCHILL, JR., P.E. DATE

PROPOSED REDEVELOPMENT SITE PLAN
AT
18 BATES AVENUE
IN
QUINCY, MASSACHUSETTS
(NORFOLK COUNTY)

LANDSCAPING PLAN

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PLAN NO. 690 OF 2001

Mag Nail 55.82

EX. BIT. SIDEWALK

SAWCUT EX. SIDEWALK

PR. CATCH BASIN, RIM = 56.0' 10" INV. OUT = 54.1'

B.M. Center SMH Elev. = 54.7' Quincy Base (NAVD + 6.6')

SMH EX. INV = 47.6'±

8" C.I.

8" SEWER LINE

BATES AVENUE (35' WIDE LAYOUT) (PLAN BK. 2033, PG. 43)

EXISTING DOMESTIC WATERLINE TO BE ABANDONED (CUT AND CAP LINE AT CONNECTION TO MAIN)

PROPOSED 6" WATERLINE FOR FIRE SPRINKLER SYSTEM AND DOMESTIC WATER SERVICE

PR. 10" PVC, L = 15' S = 1.0%

PR. 10" PVC MANIFOLD, INV = 53.95'

INSPECTION PORT (TYP. FOR 8)

EOP

PR. WATER SERVICE AND CURB STOP

Mag Nail 54.48

NEAREST FIRE HYDRANT APPROX. 200' FROM U.P.

(20) CULTEC 100HD CHAMBERS SET IN STONE (SEE DETAIL), INV. STONE = 53.4' INV. CHAMBER = 53.9'

10' WIDE SEWER EASEMENT (SEE PLAN BK. 1574, PG. 454)

SAWCUT EX. SIDEWALK ON EITHER SIDE OF PROPOSED CURB CUT

PR. WALK

REMOVE AND REPLACE UNSUITABLE SOILS TO C-SOILS WITH CLEAN, COARSE SAND

21.2'

40.0'

10.5'

15.3'

PR. 6" SDR. 35 PVC SEWER TO REPLACE EX. SEWER LINE

PROPOSED 3-STORY, 5-UNIT MULTI-FAMILY DWELLING GFA = 4,743 S.F. FOOTPRINT = 1,581 S.F. TOF = 62.0' FF= 62.25'±

PR. EXTERIOR SEWER CLEANOUT (SEE DETAIL)

EXTEND SMH COVER TO GRADE WITH CONCRETE RISER AND CAST IRON COVER LABELED "SEWER"

SMH

GUY

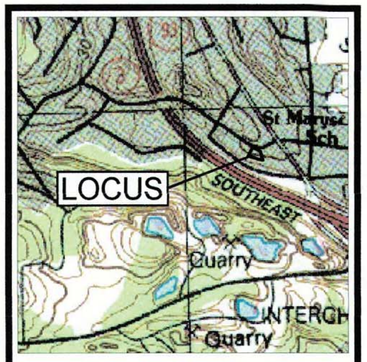
EX. STOCKADE FENCE

GRAPHIC SCALE

20 0 5 10 20 40

(IN FEET)

1 inch = 10 ft.



LOCUS MAP

SCALE 1" = 1000'

COMMONWEALTH OF MASSACHUSETTS JOHN L. CHURCHILL JR. CIVIL NO. 41807 REGISTERED PROFESSIONAL ENGINEER

5/2/16

JOHN L. CHURCHILL, JR., P.E. DATE

PROPOSED REDEVELOPMENT SITE PLAN AT 18 BATES AVENUE IN QUINCY, MASSACHUSETTS

(NORFOLK COUNTY)

GRADING, DRAINAGE, & UTILITIES

REVISIONS:

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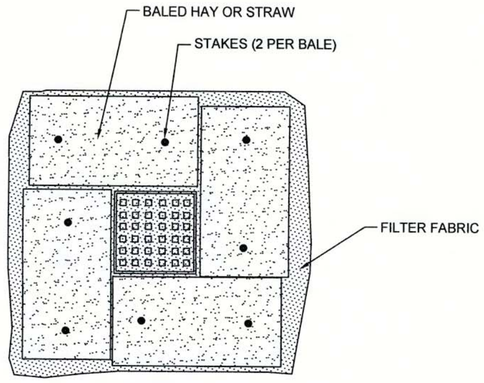
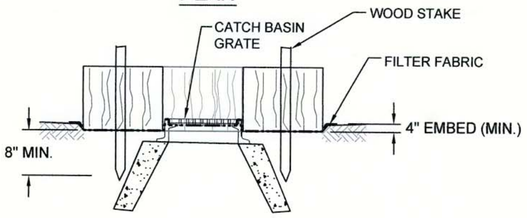
SHEET 5 OF 11



PLAN

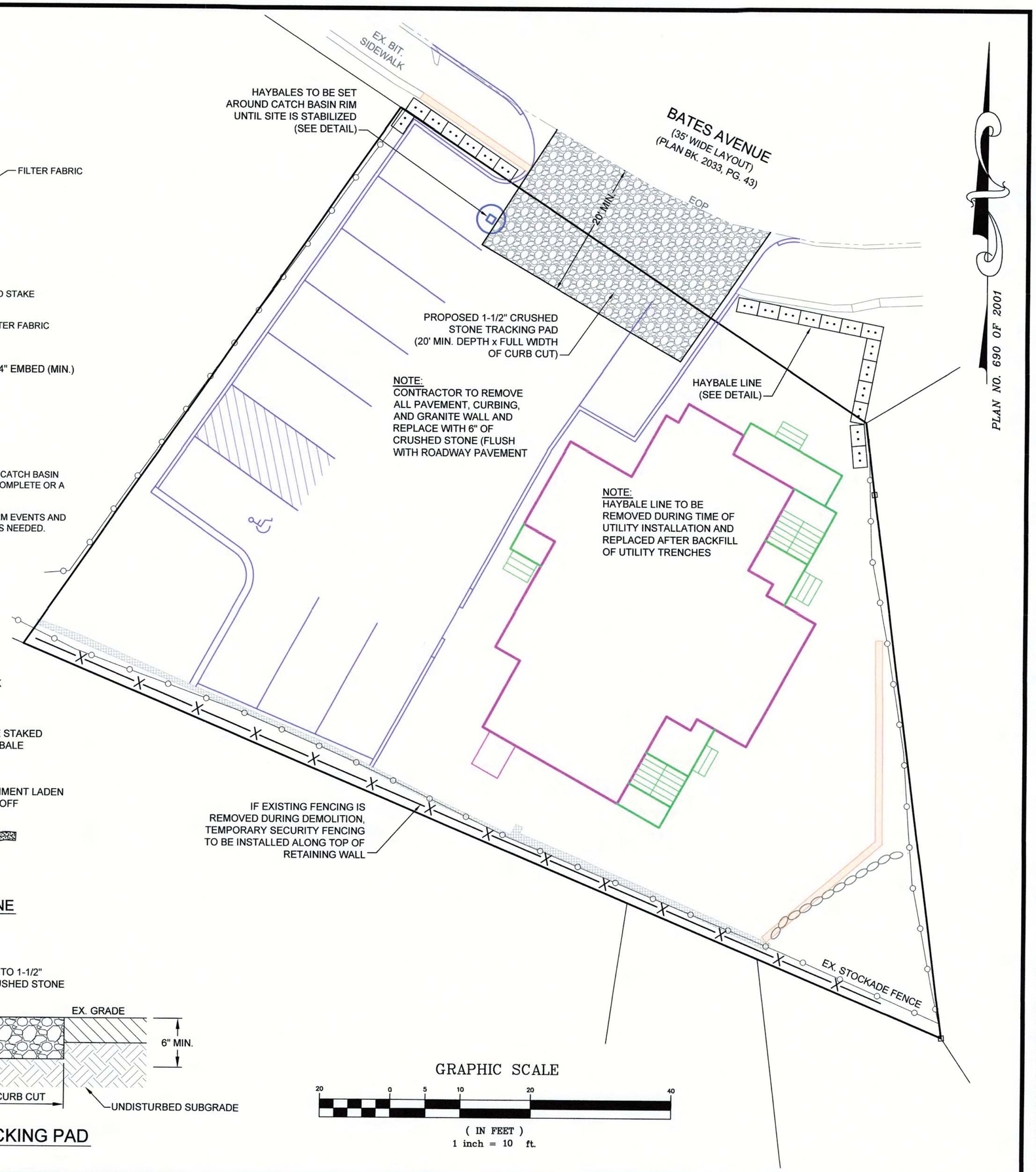


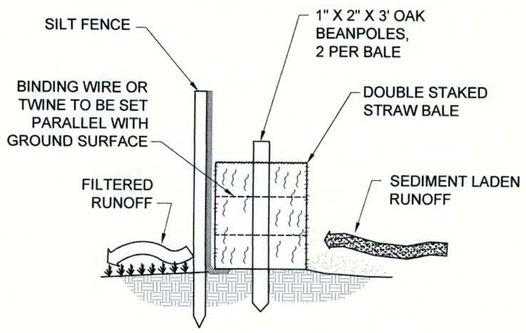
SECTION VIEW

NOTES:
1. ENCLOSE STRUCTURE WITH HAYBALES IMMEDIATELY AFTER CATCH BASIN CONSTRUCTION. MAINTAIN UNTIL PAVING BINDER COURSE IS COMPLETE OR A PERMANENT STAND OF GRASS HAS BEEN ESTABLISHED.
2. GRATE TO BE PLACED OVER FILTER FABRIC.
3. BALES SHALL BE INSPECTED PERIODICALLY AFTER ALL STORM EVENTS AND REPAIR OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED.

EROSION CONTROL DURING CONSTRUCTION

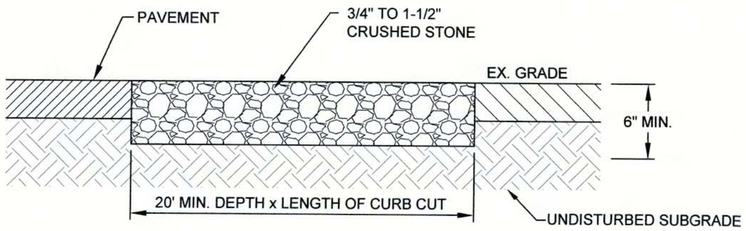
NOT TO SCALE





CROSS SECTION OF HAYBALE LINE

NOT TO SCALE



CRUSHED STONE TRACKING PAD

NOT TO SCALE

GRAPHIC SCALE

20 0 5 10 20 40

(IN FEET)
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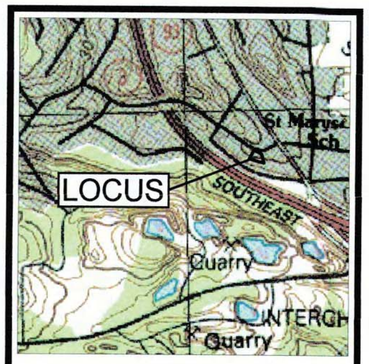

LOCUS MAP

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5/2/16

JOHN L. CHURCHILL, JR., P.E. DATE

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EROSION CONTROL PLAN

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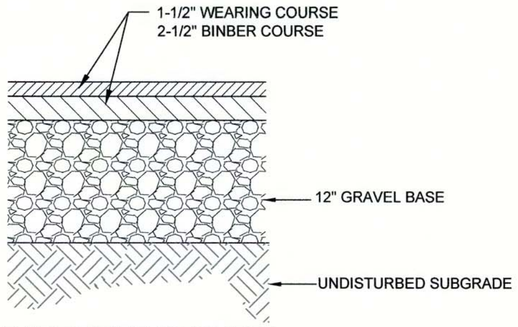
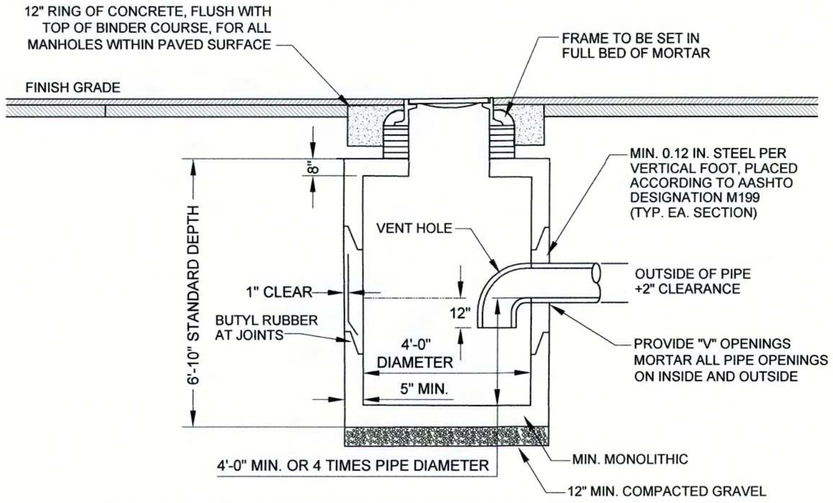
SHEET 6 OF 11



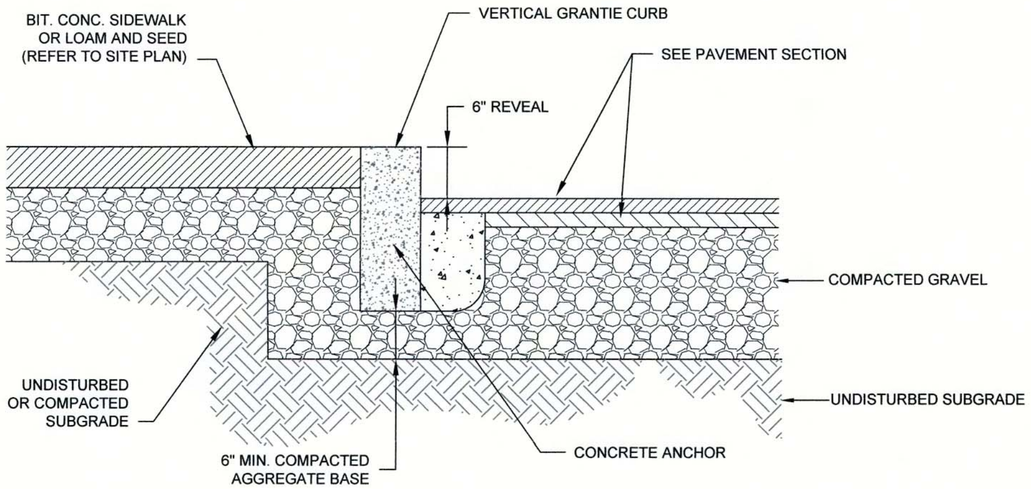
PAVEMENT SECTION

NOT TO SCALE



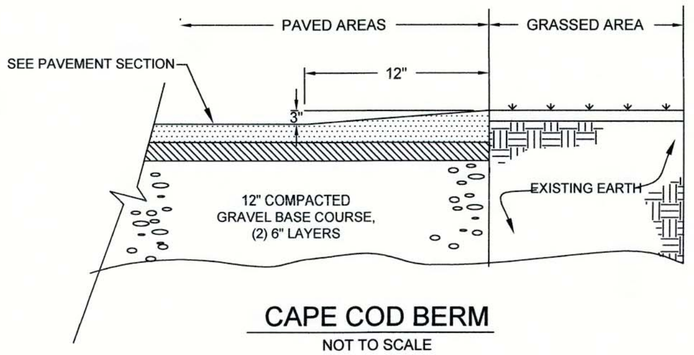
PRECAST CONCRETE CATCH BASIN (H-20)

NOT TO SCALE



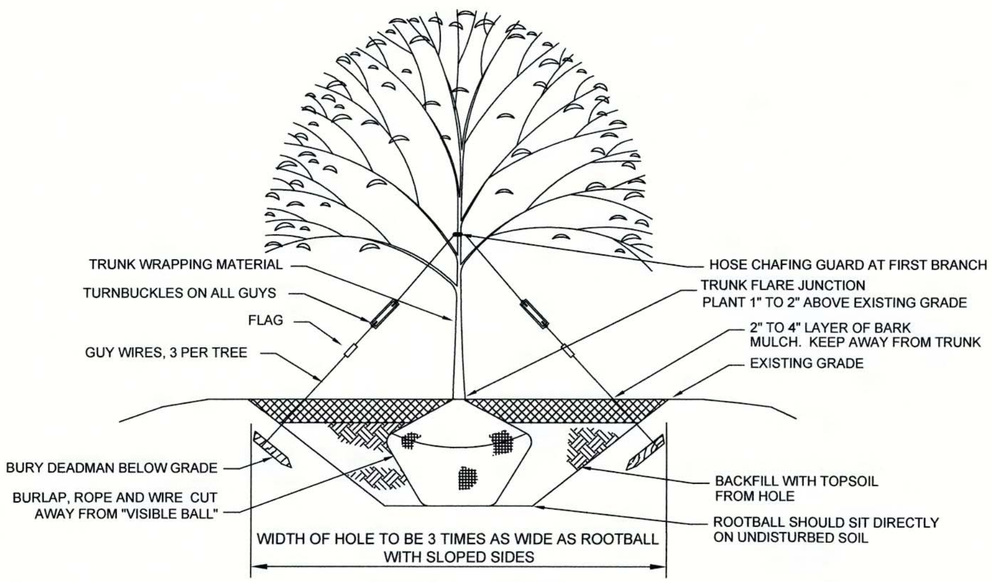
VERTICAL GRANITE CURB

NOT TO SCALE



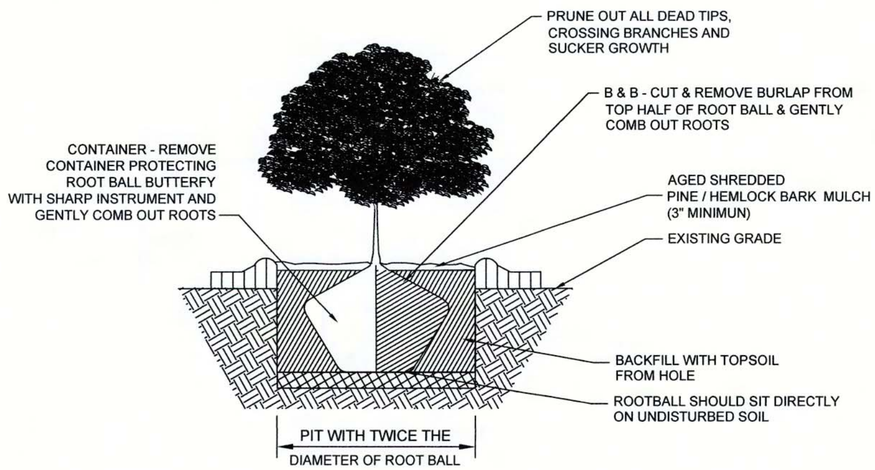
CAPE COD BERM

NOT TO SCALE



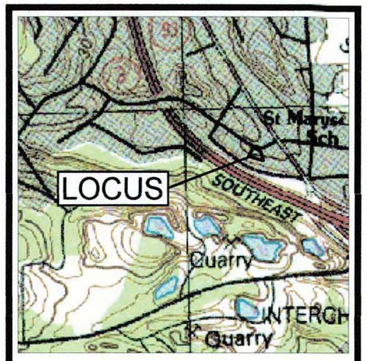
TREE PLANTING

NOT TO SCALE



SHRUB PLANTING

NOT TO SCALE



LOCUS MAP

SCALE 1" = 1000'

JOHN L. CHURCHILL JR. CIVIL NO. 41807 REGISTERED PROFESSIONAL ENGINEER COMMONWEALTH OF MASSACHUSETTS

5/2/16

JOHN L. CHURCHILL, JR., P.E. DATE

PROPOSED REDEVELOPMENT SITE PLAN
AT
18 BATES AVENUE
IN
QUINCY, MASSACHUSETTS
(NORFOLK COUNTY)

DETAIL SHEET 1

REVISIONS:

No.	DATE	DESC.
1	5/2/16	REVIEW COMMENTS

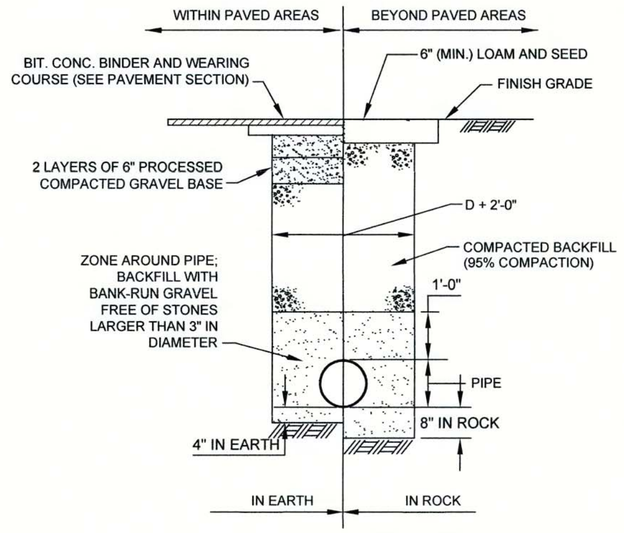
PREPARED FOR:

NAZIH B. ELKALLASSI, TR.
BATES AVE. REALTY TRUST
20 TOWER TERRACE
WAREHAM, MA 02571

PREPARED BY:

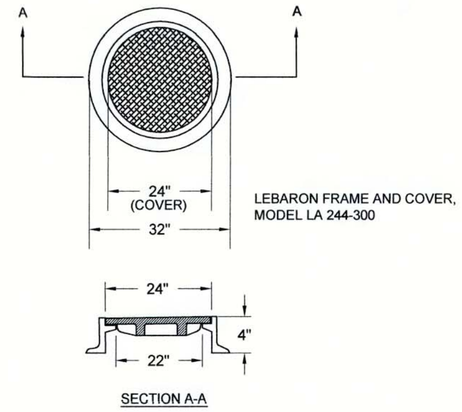
JC ENGINEERING, INC.
2854 CRANBERRY HIGHWAY
EAST WAREHAM, MA 02538
508-273-0377

SCALE:	AS NOTED
DATE:	FEBRUARY 26, 2016
FIELD:	JO/BM
CALC./DESIGN:	BMB
DRAWN:	BMB
CHECK:	JLC
JOB NO:	2448



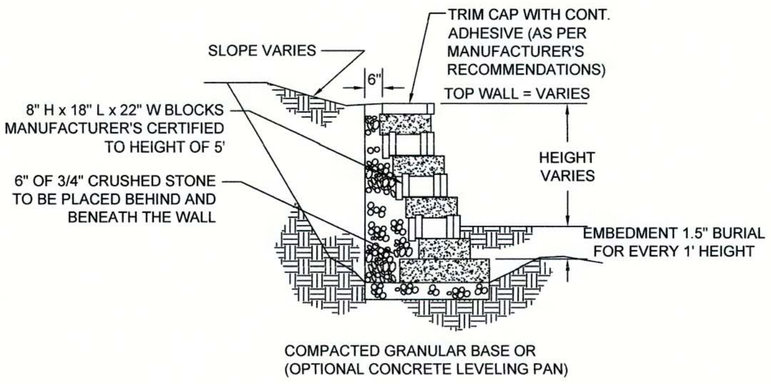
TRENCH DETAIL

NOT TO SCALE



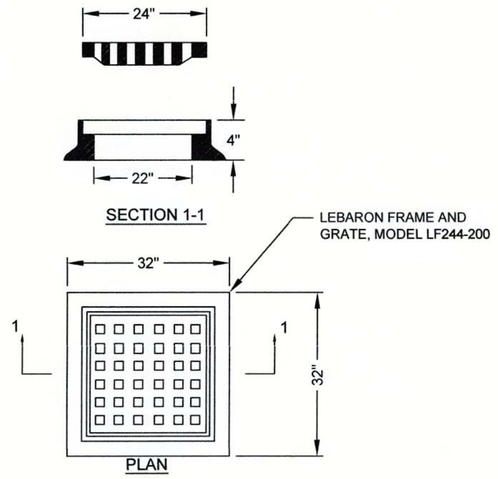
MANHOLE FRAME & COVER (H-20)

NOT TO SCALE



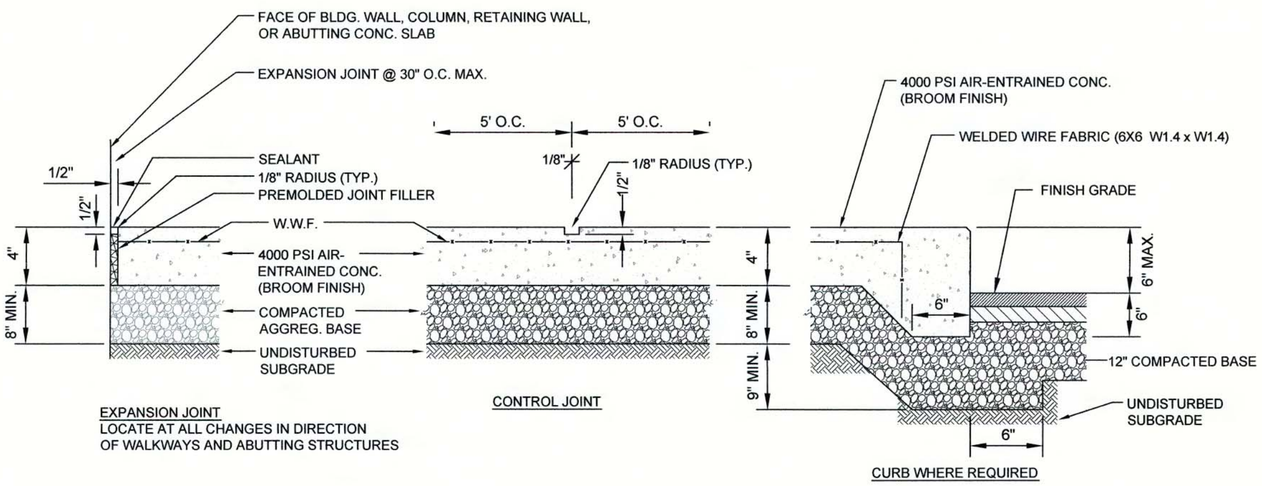
KEYSTONE® RETAINING WALL

NOT TO SCALE



CATCH BASIN FRAME & GRATE (H-20)

NOT TO SCALE



CONCRETE SIDEWALK

NOT TO SCALE

CONSTRUCTION PERIOD POLLUTION PREVENTION

THE CONTRACTOR MUST INSTALL EROSION CONTROL MEASURES AS SHOWN ON THE PLANS AND DETAILS PRIOR TO STARTING ANY OTHER WORK ON THE SITE CONSTRUCTION. EROSION CONTROL MUST BE INSTALLED AT EVERY INLET STRUCTURE AND INLET SWALE AND MAINTAINED FOR THE DURATION OF THE PROJECT. SILT FENCE AND/OR HAYBALES AS SHOWN ON PLANS SHALL BE INSPECTED, REPAIRED AND/OR MAINTAINED BY THE CONTRACTOR WEEKLY AND WITHIN 12 HOURS OF EACH STORM EVENT.

SEDIMENT SHALL BE CONTAINED WITHIN THE CONSTRUCTION SITE AND SHALL BE REMOVED WHEN THEY REACH A DEPTH OF 6 INCHES.

STABILIZE SLOPES STEEPER THAN 3:1 (HORIZONTAL TO VERTICAL) WITH SEED, SECURED GEOTEXTILE FABRIC, OR ROCK RIP-RAP AS REQUIRED TO PREVENT EROSION DURING CONSTRUCTION.

CLEAN OUT CATCH BASINS, DRAIN MANHOLES AND STORM DRAIN PIPES AFTER COMPLETION OF CONSTRUCTION.

NO STORMWATER SHALL BE ALLOWED TO ENTER THE STRUCTURES UNTIL ALL CATCHBASINS, DRAIN MANHOLES AND STORMDRAIN PIPES HAVE BEEN CLEANED, THE BINDER COURSE IS INSTALLED AND ALL DISTURBED AREAS ARE STABILIZED.

IF THE BINDER COURSE IS IN PLACE FOR MORE THAN 3 MONTHS WITHOUT A WEARING COURSE, THE CONTRACTOR SHALL SET THE RIM ELEVATION OF THE DRAINAGE STRUCTURES LEVEL WITH THE BINDER COURSE. THE RIM ELEVATIONS SHALL BE RESET JUST PRIOR TO PLACING THE WEARING COURSE.

THE CONTRACTOR IS RESPONSIBLE FOR ALL STORMWATER BEST MANAGEMENT PRACTICES BEING IN PLACE TO CONTAIN STORMWATER IN THE EVENT THAT DRAINAGE STRUCTURES ARE NOT AT PAVEMENT GRADE DURING A STORM EVENT, AND ALL CLEANUP IN THE EVENT THAT SUCH MEASURES FAIL DURING SAID STORM EVENT.

TEMPORARY SURFACES SHOULD BE STABALIZED WITH AS SOON AS ACTIVE GRADING IS SUSPENDED. TEMPORARY MEASURES INCLUDE SEEDING WITH GRASS, JUTE NETTING, OR STRAW MULCH. PERMENANT STABILIZATION SHOULD BE ESTABLISHED EARLY IN THE FALL TO ALLOW GOOD COVER BEFORE COLD WEATHER COMES.

A RIP-RAP CONSTRUCTION ENTRANCE CONSISTING OF 1.5" MIN. CRUSHED STONE AND 6" IN DEPTH SHALL BE INSTALLED AT THE ENTRANCE TO BATES AVENUE TO PREVENT SEDIMENTS FROM BEING TRACKED OFFSITE.

UPON ESTABLISHMENT OF PERMANENT VEGETATION OVER DISTURBED AREAS, REMOVE AND DISPOSE OF HAYBALES, STAKES AND SILT FENCE.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN AND SUPPLEMENT THE SPECIFIED SEDIMENTATION CONTROLS. AS NECESSARY TO PREVENT SEDIMENTATION OF OFF-SITE AREAS AND/OR ANY REGULATED RESOURCE AREAS. FAILURE BY THE CONTRACTOR TO CONTROL EROSION, POLLUTION AND/OR SILTATION SHALL BE CAUSE FOR THE OWNER TO EMPLOY OUTSIDE ASSISTANCE OR TO USE HIS OWN FORCES TO PROVIDE THE NECESSARY CORRECTIVE MEASURES, THE COST OF SUCH ASSISTANCE PLUS PROJECT ENGINEERING COSTS WILL BE THE CONTRACTOR'S RESPONSIBILITY.

HAYBALES SHALL BE INSTALLED AT THE FOLLOWING LOCATIONS:
TOE OF SLOPE OF EMBANKMENT CONSTRUCTION, TOE OF TEMPORARY EARTHWORK STOCKPILES.

STORMWATER OPERATIONS AND MAINTENANCE PLAN

OWNER AND RESPONSIBLE PARTY:
NAZIH B. ELKALLASSI, TR.
BATES AVE. REALTY TRUST
20 TOWER TERRACE
WAREHAM, MA 02571

ILLICIT DISCHARGES

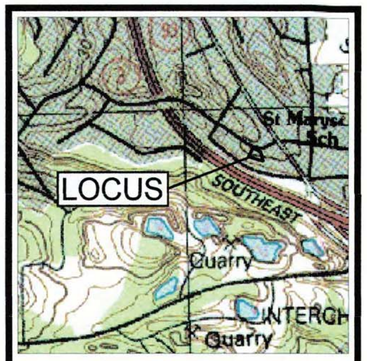
ALL ILLICIT DISCHARGES TO THE STORMWATER MANAGEMENT SYSTEM ARE PROHIBITED.

DEEP SUMP CATCH BASINS

CATCH BASIN SHALL BE INSPECTED BY THE OWNER/OPERATOR ON A QUARTERLY BASIS OR AFTER A MAJOR STORM EVENT. CATCH BASIN SUMP WILL BE CLEANED ANNUALLY DURING THE EARLY SPRING OR WHEN THE SEDIMENT RISES TO WITHIN HALF THE AVAILABLE SUMP HEIGHT OF THE CATCH BASIN, WHICHEVER COMES FIRST.

INFILTRATION SYSTEMS

ONCE THE SYSTEM IS OPERATIONAL, INSPECTIONS OF THE LEACHING STRUCTURES SHOULD OCCUR AFTER EVERY MAJOR STORM EVENT FOR THE FIRST FEW MONTHS. AFTER THE SYSTEM IS IN OPERATION, INSPECTIONS SHOULD BE EVERY SIX MONTHS. SPECIAL ATTENTION SHOULD BE DIRECTED TOWARDS THE DEPTH OF SEDIMENT IN THE LEACHING STRUCTURES. THERE SHOULD BE NO ACCUMULATION OF SEDIMENT WITHIN THE LEACHING STRUCTURES. ALL SEDIMENT SHALL BE REMOVED IF ANY HAS ACCUMULATED.



LOCUS MAP
SCALE 1" = 1000'

COMMONWEALTH OF MASSACHUSETTS
JOHN L. CHURCHILL JR.
CIVIL
NO. 41807
REGISTERED PROFESSIONAL ENGINEER

5/2/16

JOHN L. CHURCHILL, JR., P.E. DATE

PROPOSED REDEVELOPMENT SITE PLAN
AT
18 BATES AVENUE
IN
QUINCY, MASSACHUSETTS
(NORFOLK COUNTY)

DETAIL SHEET 2

REVISIONS:

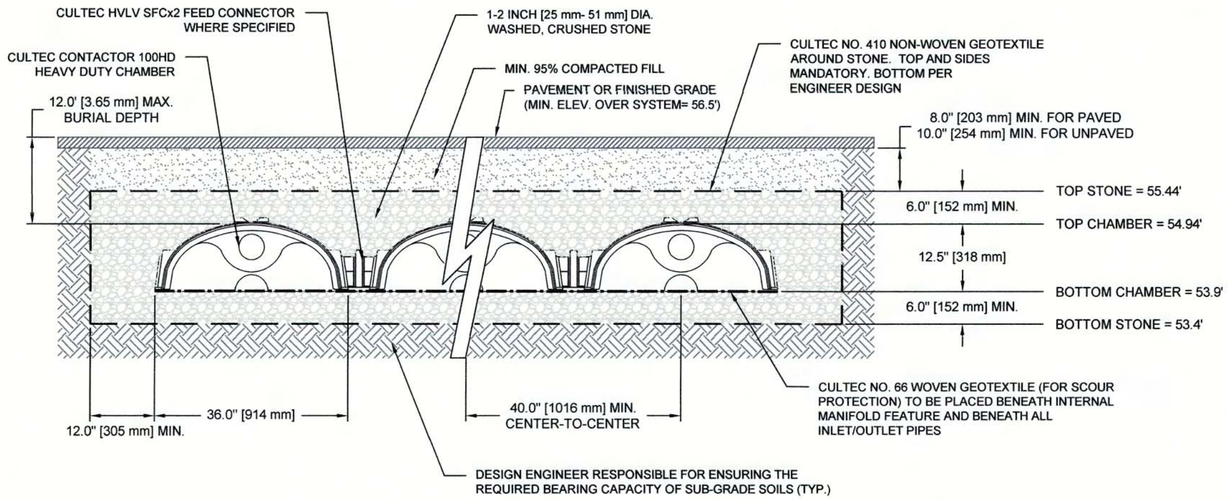
No.	DATE	DESC.
1	5/2/16	REVIEW COMMENTS

PREPARED FOR:
NAZIH B. ELKALLASSI, TR.
BATES AVE. REALTY TRUST
20 TOWER TERRACE
WAREHAM, MA 02571

PREPARED BY:
JC ENGINEERING, INC.
2854 CRANBERRY HIGHWAY
EAST WAREHAM, MA 02538
508-273-0377

SCALE:	AS NOTED
DATE:	FEBRUARY 26, 2016
FIELD:	JO/BM
CALC./DESIGN:	BMB
DRAWN:	BMB
CHECK:	JLC
JOB NO:	2448

SHEET 8 OF 11



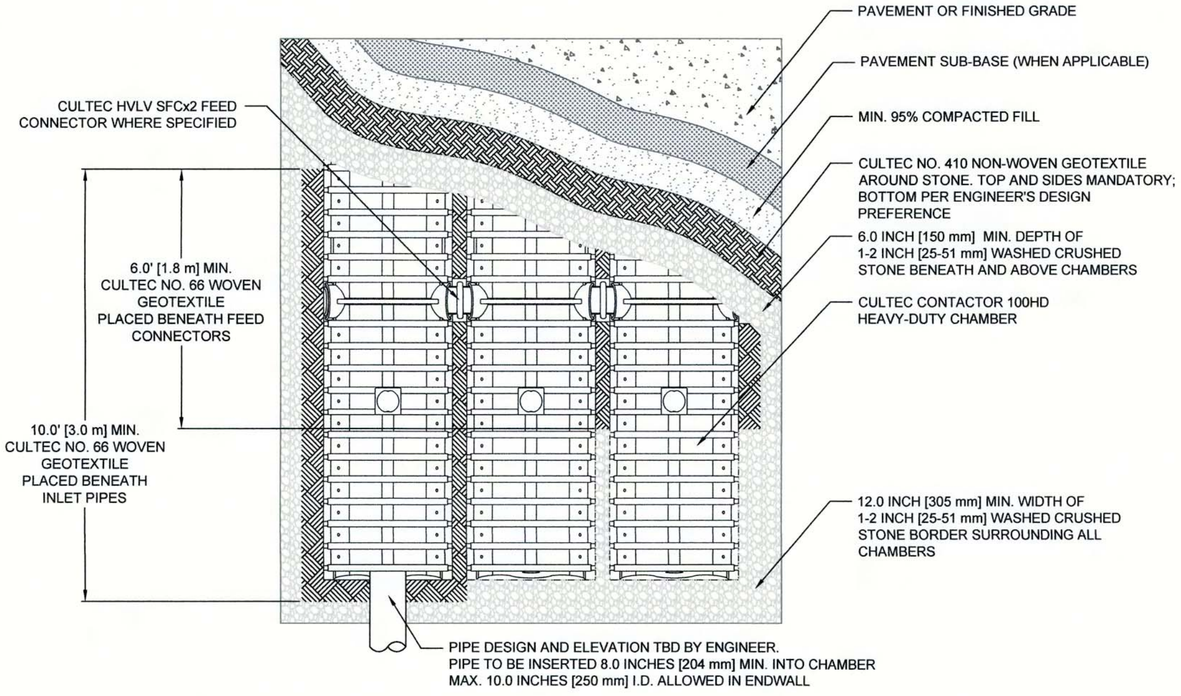
GENERAL NOTES

CONTACTOR 100HD BY CULTEC, INC. OF BROOKFIELD, CT.
STORAGE PROVIDED = 3.84 CF/FT [0.82 M³/3] PER DESIGN UNIT.
REFER TO CULTEC, INC.'S CURRENT RECOMMENDED INSTALLATION GUIDELINES.
MAXIMUM ALLOWED COVER ON TOP OF UNIT SHALL BE 12.0' [3.66 m]
THE CHAMBER WILL BE DESIGNED TO WITHSTAND TRAFFIC LOADS

WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS.ALL CONTACTOR 100HD HEAVY DUTY UNITS ARE MARKED WITH A COLOR STRIPE FORMED INTO THE PART ALONG THE LENGTH OF THE CHAMBER. ALL CONTACTOR 100 CHAMBERS MUST BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.

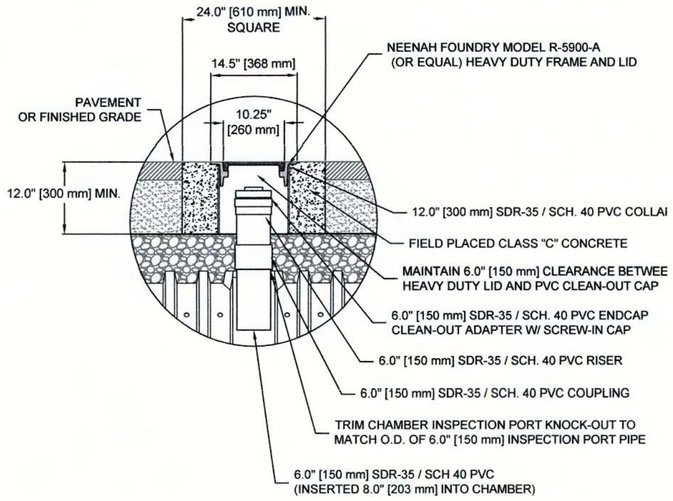
CULTEC CONTACTOR 100HD HEAVY DUTY TYPICAL CROSS SECTION

NOT TO SCALE



CULTEC CONTACTOR 100HD HEAVY DUTY PLAN VIEW

NOT TO SCALE



INSPECTION PORT - ZOOM DETAIL

NOT TO SCALE

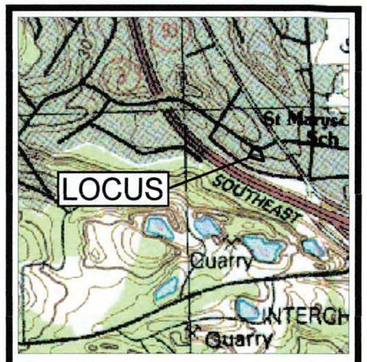
CULTEC CONTACTOR® 100HD CHAMBER PRODUCT SPECIFICATIONS

GENERAL

CULTEC CONTACTOR 100HD CHAMBERS ARE DESIGNED FOR UNDERGROUND STORMWATER MANAGEMENT. THE CHAMBERS MAY BE USED FOR RETENTION, RECHARGING, DETENTION OR CONTROLLING THE FLOW OF ON-SITE STORMWATER RUNOFF.

CHAMBER PARAMETERS

1. THE CHAMBERS WILL BE MANUFACTURED IN THE U.S.A. BY CULTEC, INC. OF BROOKFIELD, CT (203-775-4416 OR 1-800-428-5832).
2. THE CHAMBER WILL BE VACUUM THERMOFORMED OF BLACK POLYETHYLENE.
3. THE CHAMBER WILL BE ARCHED IN SHAPE.
4. THE CHAMBER WILL BE OPEN-BOTTOMED.
5. THE CHAMBER WILL BE JOINED USING AN INTERLOCKING OVERLAPPING RIB METHOD. CONNECTIONS MUST BE FULLY SHOULDERED OVERLAPPING RIBS, HAVING NO SEPARATE COUPLINGS OR SEPARATE END WALLS.
6. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC CONTACTOR 100HD SHALL BE 12.5 INCHES (318 mm) TALL, 36 INCHES (914 mm) WIDE AND 8 FEET (2.44 m) LONG. THE INSTALLED LENGTH OF A JOINED CONTACTOR 100HD SHALL BE 7.5 FEET (2.29 m).
7. MAXIMUM INLET OPENING ON THE CHAMBER END WALL IS 10 INCHES (250 mm).
8. THE CHAMBER WILL HAVE TWO SIDE PORTALS TO ACCEPT CULTEC HVLV® SFCX2 FEED CONNECTORS TO CREATE AN INTERNAL MANIFOLD. THE NOMINAL INSIDE DIMENSIONS OF EACH SIDE PORTAL WILL BE 5.75 INCHES (146 mm) HIGH BY 7.5 INCHES (191 mm) WIDE. MAXIMUM ALLOWABLE OUTER DIAMETER (O.D.) PIPE SIZE IN THE SIDE PORTAL IS 6.9 INCHES (175 mm).
9. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC HVLV SFCX2 FEED CONNECTOR SHALL BE 7.6 INCHES (194 mm) TALL, 12 INCHES (305 mm) WIDE AND 19.7 INCHES (500 mm) LONG.
10. THE NOMINAL STORAGE VOLUME OF THE CONTACTOR 100HD CHAMBER WILL BE 1.866 FT³ / FT (0.173 m³ / m) - WITHOUT STONE. THE NOMINAL STORAGE VOLUME OF A JOINED CONTACTOR 100HD SHALL BE 13.995 FT³ / UNIT (0.396 m³ / UNIT) - WITHOUT STONE.
11. THE NOMINAL STORAGE VOLUME OF THE HVLV SFCX2 FEED CONNECTOR WILL BE 0.294 FT³ / FT (0.027 m³ / m) - WITHOUT STONE.
12. THE CONTACTOR 100HD CHAMBER WILL HAVE FIFTY-SIX DISCHARGE HOLES BORED INTO THE SIDE WALLS OF THE UNIT'S CORE TO PROMOTE LATERAL CONVEYANCE OF WATER.
13. THE CONTACTOR 100HD CHAMBER SHALL HAVE 16 CORRUGATIONS.
14. THE ENDWALL OF THE CHAMBER, WHEN PRESENT, WILL BE AN INTEGRAL PART OF THE CONTINUOUSLY FORMED UNIT. SEPARATE END PLATES CANNOT BE USED WITH THIS UNIT.
15. THE CONTACTOR 100RHD STARTER UNIT MUST BE FORMED AS A WHOLE CHAMBER HAVING TWO FULLY FORMED INTEGRAL ENDWALLS AND HAVING NO SEPARATE END PLATES OR SEPARATE END WALLS.
16. THE CONTACTOR 100EHD MIDDLE/END UNIT MUST BE FORMED AS A WHOLE CHAMBER HAVING ONE FULLY FORMED INTEGRAL END WALL AND ONE FULLY OPEN END WALL AND HAVING NO SEPARATE END PLATES OR END WALLS.
17. THE HVLV SFCX2 FEED CONNECTOR MUST BE FORMED AS A WHOLE CHAMBER HAVING TWO OPEN END WALLS AND HAVING NO SEPARATE END PLATES OR SEPARATE END WALLS. THE UNIT WILL FIT INTO THE SIDE PORTALS OF THE CONTACTOR 100HD AND ACT AS CROSS FEED CONNECTIONS.
18. CHAMBERS MUST HAVE HORIZONTAL STIFFENING FLEX REDUCTION STEPS BETWEEN THE RIBS.
19. THE CHAMBER WILL BE DESIGNED TO WITHSTAND TRAFFIC LOADS WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS.
20. HEAVY DUTY UNITS ARE DESIGNATED BY A COLORED STRIPE FORMED INTO THE PART ALONG THE LENGTH OF THE CHAMBER.
21. THE CHAMBER WILL HAVE A RAISED INTEGRAL CAP LOCATED ON TOP OF THE ARCH IN THE CENTER OF EACH UNIT TO BE USED AS AN OPTIONAL INSPECTION PORT OR CLEAN-OUT.
22. THE UNITS MAY BE TRIMMED TO CUSTOM LENGTHS BY CUTTING BACK TO ANY CORRUGATION.
23. THE CHAMBER SHALL BE MANUFACTURED IN AN ISO 9001:2008 CERTIFIED FACILITY.
24. MAXIMUM ALLOWED COVER ON TOP OF UNIT SHALL BE 12 FEET [3.66 m]



LOCUS MAP
SCALE 1" = 1000'

JOHN L. CHURCHILL JR. CIVIL NO. 41804 REGISTERED COMMONWEALTH OF MASSACHUSETTS PROFESSIONAL ENGINEER

5/2/16

JOHN L. CHURCHILL, JR., P.E. DATE

PROPOSED REDEVELOPMENT SITE PLAN
AT
18 BATES AVENUE
IN
QUINCY, MASSACHUSETTS
(NORFOLK COUNTY)

DETAIL SHEET 3

REVISIONS:

No.	DATE	DESC.
1	5/2/16	REVIEW COMMENTS

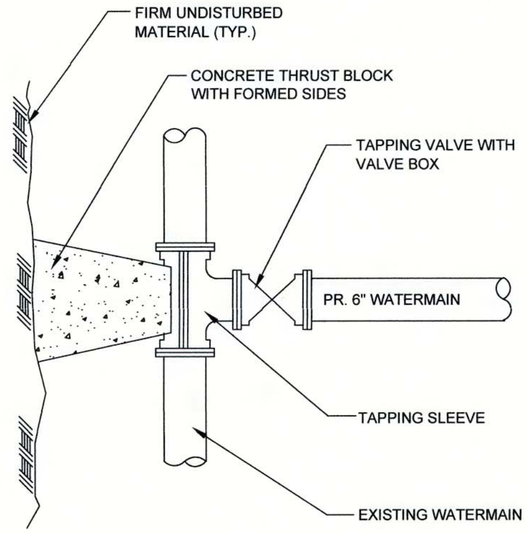
PREPARED FOR:

NAZIH B. ELKALLASSI, TR.
BATES AVE. REALTY TRUST
20 TOWER TERRACE
WAREHAM, MA 02571

PREPARED BY:

JC ENGINEERING, INC.
2854 CRANBERRY HIGHWAY
EAST WAREHAM, MA 02538
508-273-0377

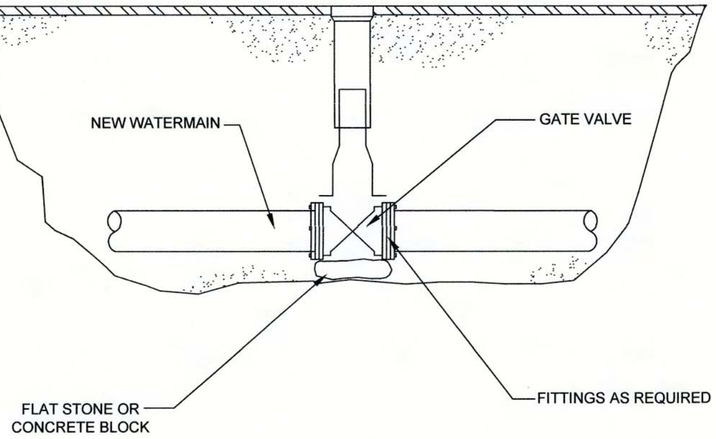
SCALE:	AS NOTED
DATE:	FEBRUARY 26, 2016
FIELD:	JO/BM
CALC./DESIGN:	BMB
DRAWN:	BMB
CHECK:	JLC
JOB NO:	2448



NOTE: CONTRACTOR TO VERIFY OUTSIDE DIAMETER OF EXISTING MAIN.

TAPPING SLEEVE & VALVE DETAIL

NOT TO SCALE



TYPICAL VALVE INSTALLATION DETAIL

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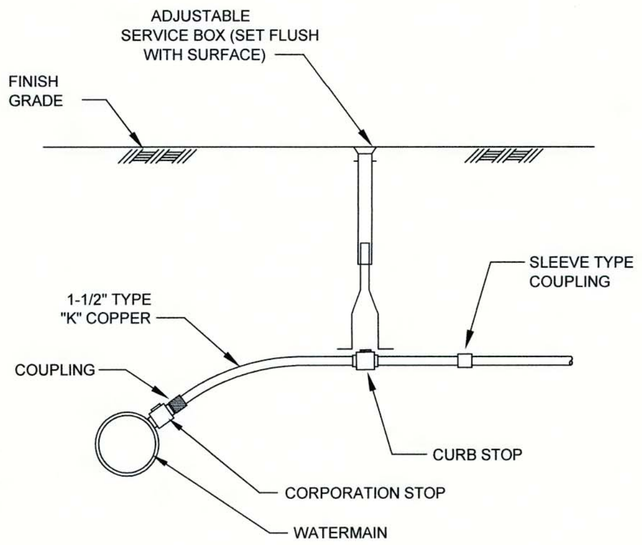

WATER SERVICE CONNECTION

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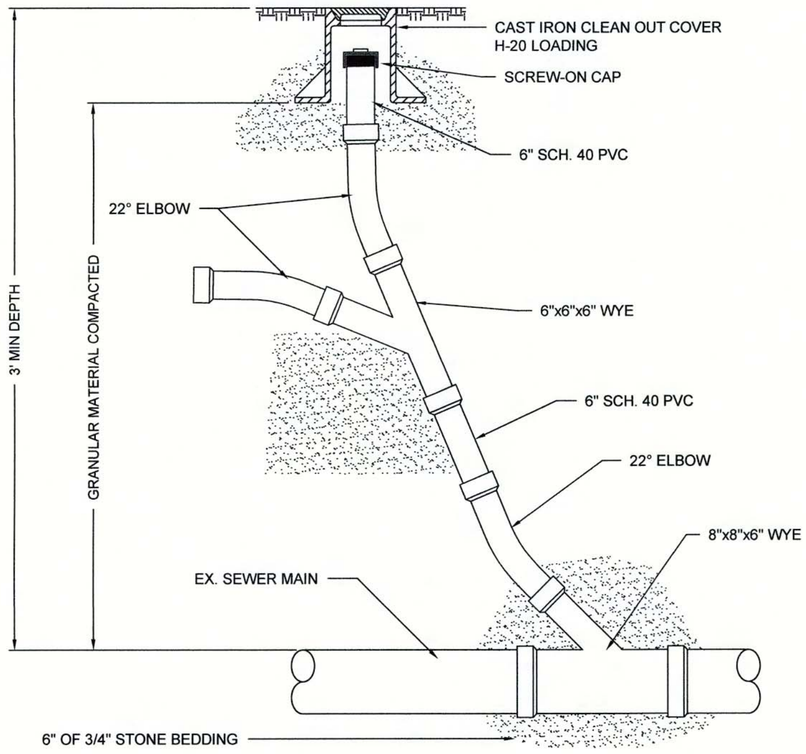
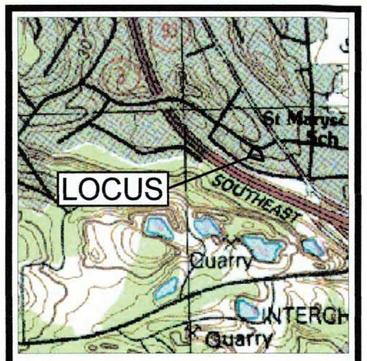


SEWER CLEANOUT

NOT TO SCALE



LOCUS MAP

SCALE 1" = 1000'

COMMONWEALTH OF MASSACHUSETTS
JOHN L. CHURCHILL JR.
CIVIL
NO. 41807
REGISTERED PROFESSIONAL ENGINEER

5/2/16

JOHN L. CHURCHILL, JR., P.E. DATE

PROPOSED REDEVELOPMENT SITE PLAN
AT
18 BATES AVENUE
IN
QUINCY, MASSACHUSETTS
(NORFOLK COUNTY)

DETAIL SHEET 4

REVISIONS:

No.	DATE	DESC.
1	5/2/16	REVIEW COMMENTS

PREPARED FOR:

NAZIH B. ELKALLASSI, TR.
BATES AVE. REALTY TRUST
20 TOWER TERRACE
WAREHAM, MA 02571

PREPARED BY:

JC ENGINEERING, INC.
2854 CRANBERRY HIGHWAY
EAST WAREHAM, MA 02538
508-273-0377

SCALE:	AS NOTED
DATE:	FEBRUARY 26, 2016
FIELD:	JO/BM
CALC./DESIGN:	BMB
DRAWN:	BMB
CHECK:	JLC
JOB NO:	2448

100 Line LED

102 Performance Sconce LED

Philips Gardco 102 LED rounded wedge high performance sconce luminaires are designed to integrate naturally to wall surfaces. 102 LED luminaires are available with three (3) different distribution patterns, providing full cutoff performance (in the normal downlight position) and featuring LED arrays. Luminaires provide performance excellence and advanced Philips Gardco LED thermal management technology. High performance Class 1 LED systems offer potential energy savings of 50 % or more compared to HID systems. 102 LED luminaires are also available with Automatic Profile Dimming, increasing savings by an additional 33%.

PREFIX	DISTRIBUTION	LED WATTAGE	LED SELECTION	VOLTAGE	FINISH	OPTIONS
102L	3	55LA	NW	UNIV		

Enter the order code into the appropriate box above. Note: Philips Gardco reserves the right to refuse a configuration. Not all combinations and configurations are valid. Refer to notes below for exclusions and limitations. For questions or concerns, please consult the factory.

PREFIX

102L	Rounded Wedge LED - Constant Wattage / Full Light Output
102L-DCC	Rounded Wedge LED - Dual Arrays with Dual Circuit Control
102L-DIM	Rounded Wedge LED - 0 - 10V Dimming (Control system by others)
102L-APD	Rounded Wedge LED with Automatic Profile Dimming

DISTRIBUTION

2	Type II	*Wide Throw Optic, featuring Maximized Lateral Throw*
3	Type III	*Preferred Wide Throw Optic, featuring Improved Forward Throw*
4	Type IV	*Maximized Forward Throw Optic*

See page 3 for more detailed luminaire configuration information.

LED WATTAGE AND LUMEN VALUES

Ordering Code	Average System Watts[1]	LED Current (mA)	LED Selection	Luminaire Initial Absolute Lumens[2,3] TYPE 2	TYPE 3	TYPE 4	Basis of Lumen Data
35LA	34	350	NW	3,459	3,559	3,385	Photometric tests performed in compliance with IESNA LM-79
55LA	52	530	NW	4,785	5,021	4,709	

1. Wattage may vary by +/- 8% due to LED manufacturer binning and specification and ambient temperature. Wattage shown is average for 120V through 277V input. Actual wattage may vary by an additional +/- 10% due to actual input voltage.
2. Tests are in accordance to luminaires with the DC option, CW and WW luminaires. CW values may be approximated by applying a 1.08 multiplier to NW values shown. Contact Cindicoop@philips.com if any approximate estimates are required for design purposes.
3. LED arrays feature LEDs that provide from 100 to 130 lumens per watt when operated at 350 mA, lumen values based on tests performed in compliance with IESNA LM-79.

LED SELECTION

CW	Cool White - 5700°K - 75 CRI
NW	Neutral White - 4000°K - 70 CRI
WW	Warm White - 3000°K - 80 CRI

VOLTAGE

UNIV	120V through 277V, 50hz or 60hz
120	
208	
240	
277	
347	

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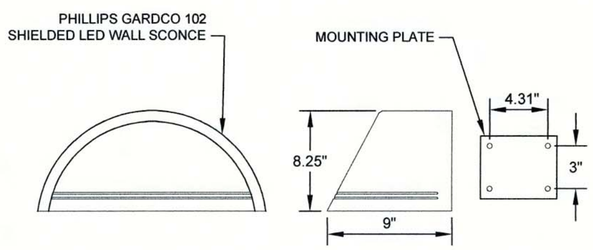
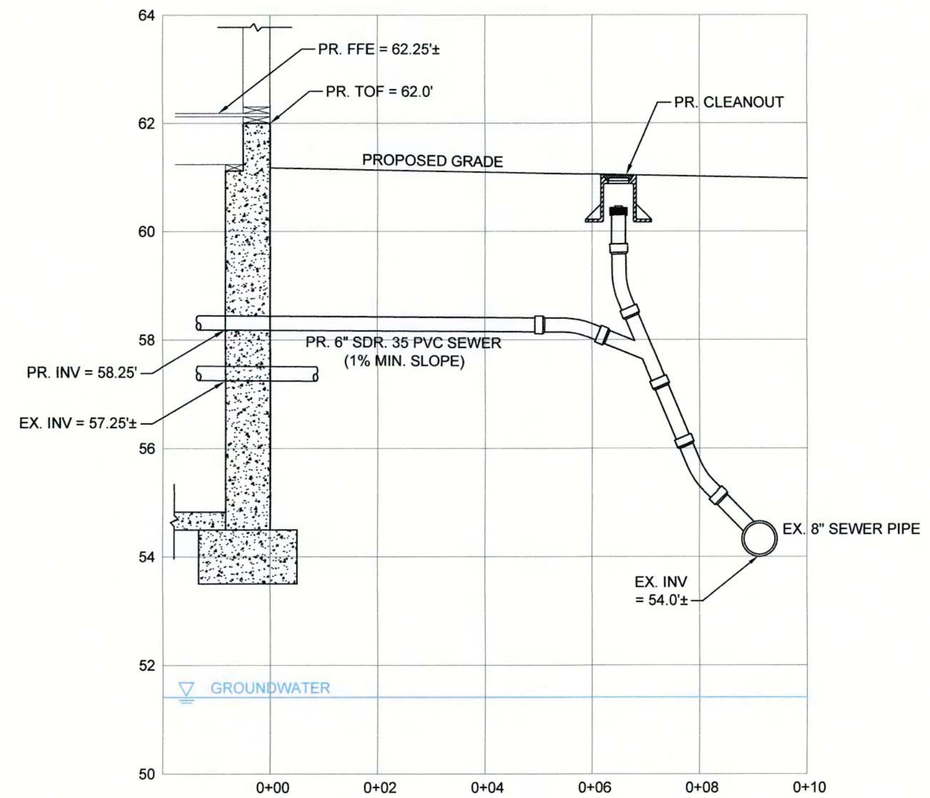
PHILIPS GARDCO



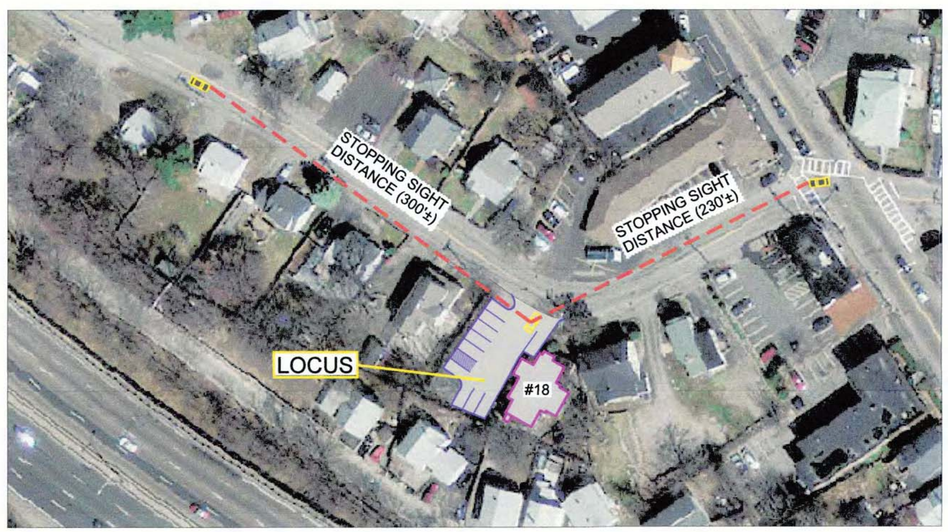
WALL PACK LIGHT DETAIL

NOT TO SCALE



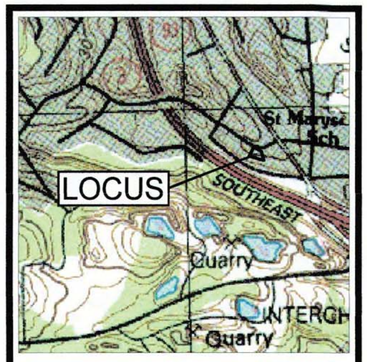
SEWER PROFILE

SCALE: 1" = 2' (HOR. & VERT.)



SIGHT DISTANCE SKETCH

SCALE: 1" = 100'



LOCUS MAP

SCALE 1" = 1000'

JOHN L. CHURCHILL JR. CIVIL NO. 41807 REGISTERED PROFESSIONAL ENGINEER COMMONWEALTH OF MASSACHUSETTS

5/2/16

JOHN L. CHURCHILL, JR., P.E. DATE

PROPOSED REDEVELOPMENT SITE PLAN
AT
18 BATES AVENUE
IN
QUINCY, MASSACHUSETTS
(NORFOLK COUNTY)

DETAIL SHEET 5

REVISIONS:

No.	DATE	DESC.
1	5/2/16	REVIEW COMMENTS

PREPARED FOR:

NAZIH B. ELKALLASSI, TR.
BATES AVE. REALTY TRUST
20 TOWER TERRACE
WAREHAM, MA 02571

PREPARED BY:

JC ENGINEERING, INC.
2854 CRANBERRY HIGHWAY
EAST WAREHAM, MA 02538
508-273-0377

SCALE:	AS NOTED
DATE:	FEBRUARY 26, 2016
FIELD:	JO/BM
CALC./DESIGN:	BMB
DRAWN:	BMB
CHECK:	JLC
JOB NO:	2448

SHEET 11 OF 11