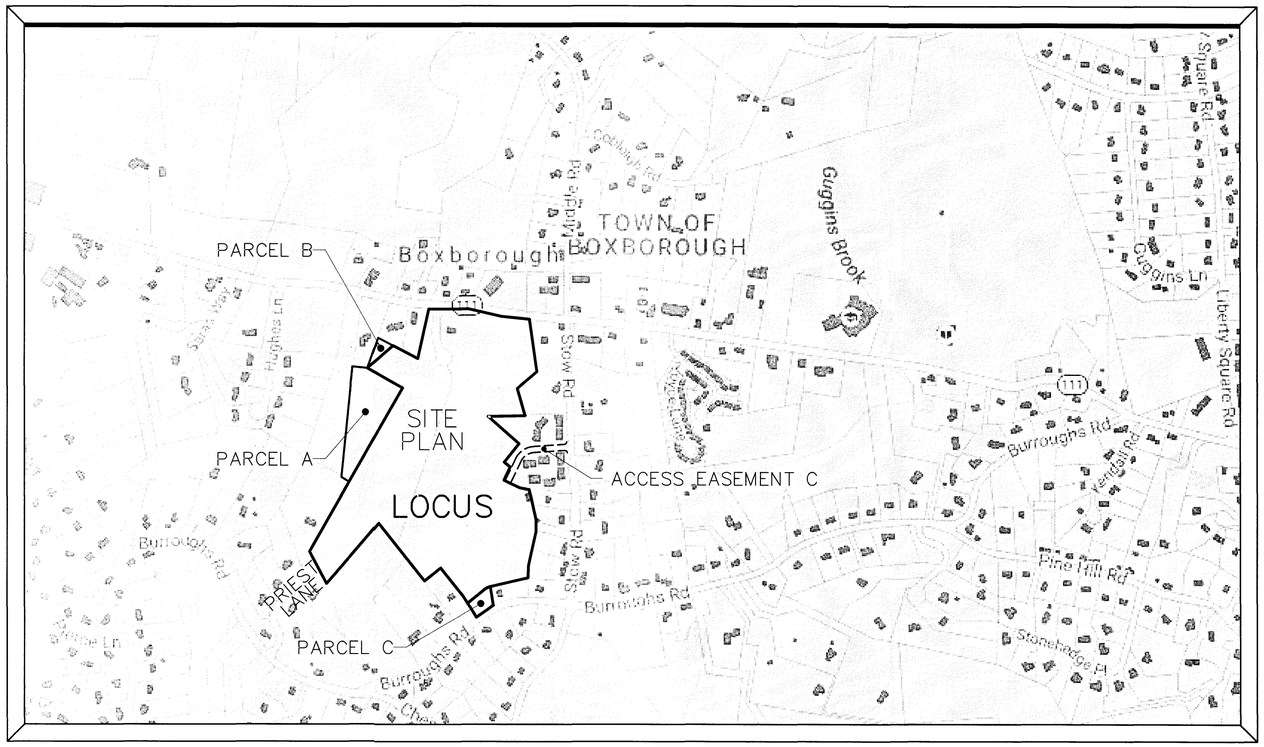
SITE PLAN
FOR
ENCLAVE AT BOXBOROUGH
700 - 800 MASSACHUSETTS AVENUE
BOXBOROUGH, MASSACHUSETTS

DECEMBER 22, 2016
REVISED JUNE 22, 2017

PLAN INDEX:



LOCUS

SCALE: 1"=200'

ZONING DISTRICT:

TOWN CENTER
WETLAND & WATERSHED
OVERLAY DISTRICT

REFERENCE:

MIDDLESEX REGISTRY OF DEEDS
SOUTH DISTRICT
DEED BOOK 27102 PAGE 550
DEED BOOK 19267 PAGE 606

TOWN OF BOXBOROUGH
PROPERTY MAP
ASSESSORS MAP 14, LOTS 46 AND 50
PARCELS 14-046-000 AND 14-050-000

RECORD OWNERS:

BOXBOROUGH TOWN
CENTER, LLC
PO BOX 985
WEST ACTON, MA 01720

MANE REALTY TRUST
TRUSTEE: JOHN J. LYONS
571 BURROUGHS ROAD
BOXBOROUGH, MA 01719

APPLICANT:

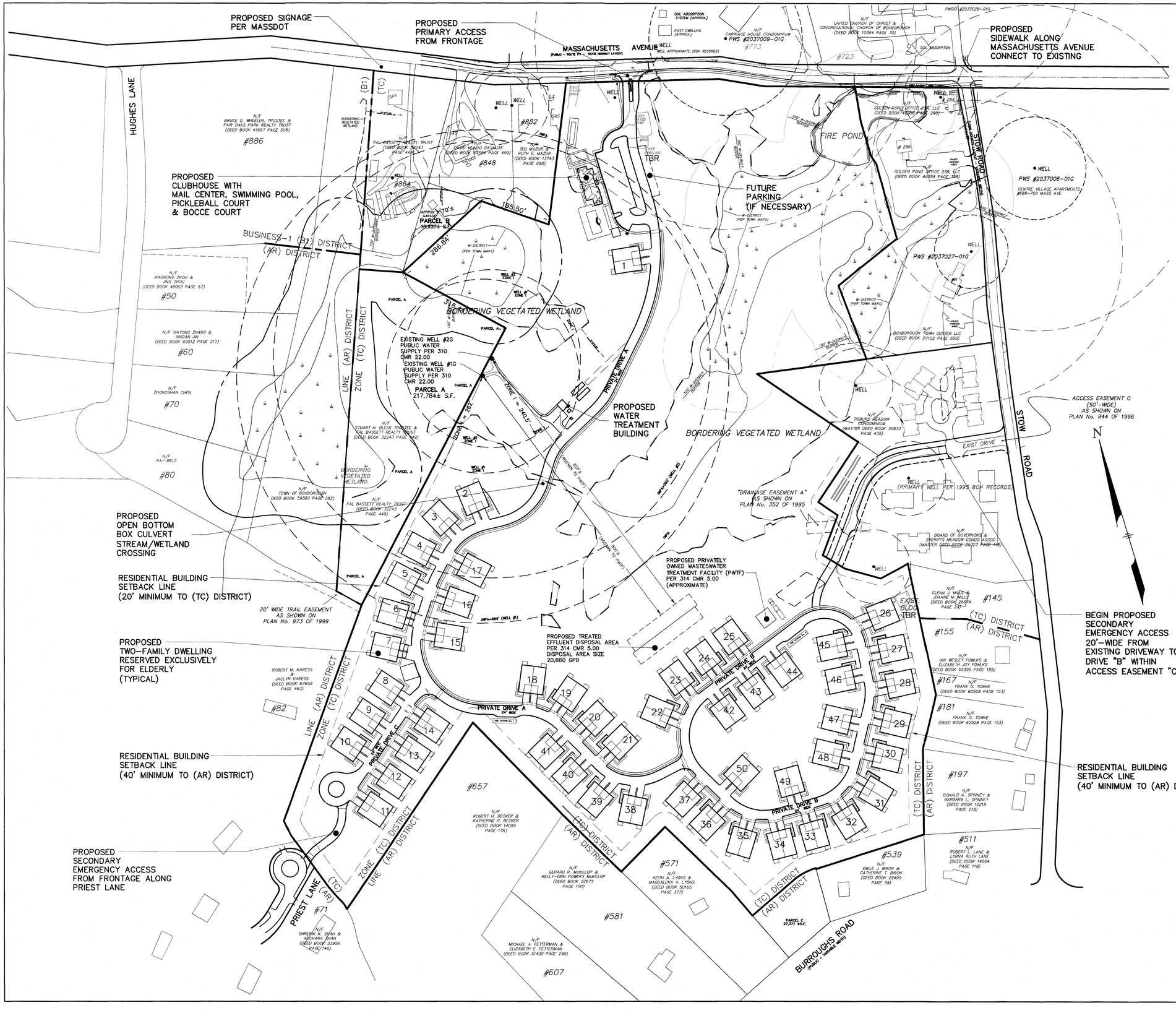
BOXBOROUGH TOWN
CENTER, LLC
PO BOX 985
WEST ACTON, MA 01720

ENGINEER/SURVEYOR:

STAMSKI AND MCNARY, INC.
1000 MAIN STREET
ACTON, MA 01720
(978) 263-8585

COMMONWEALTH OF MASSACHUSETTS — GEORGE D. MAKAROUKOS — CIVIL — No. 41281 — REGISTERED PROFESSIONAL ENGINEER

COMMONWEALTH OF MASSACHUSETTS — JOSEPH MARCH — 36384 — REGISTERED LAND SURVEYOR



LAND USE DATA, TOWN OF BOXBOROUGH ZONING BYLAW AMENDED THROUGH TOWN MEETING MAY 2012

ZONING DISTRICT: TOWN CENTER DISTRICT & W-DISTRICT

ARTICLE IV. USE REGULATIONS	ALLOWED:
TWO-FAMILY DWELLING, RESERVED EXCLUSIVELY FOR ELDERLY OCCUPANCY	YES*

*REFER TO SECTION 5004(1): FOR MULTI-FAMILY DWELLING IN TC DISTRICT RESERVED EXCLUSIVELY FOR ELDERLY OCCUPANCY, DENSITY NOT TO EXCEED 10 UNITS/80,000 SF LAND AREA

2,519,642/80,000= 31.4 x 10 UNITS= 314 UNITS
MAX DENSITY: 157 DUPLEXES= 314 UNITS
PROPOSED DENSITY: 50 DUPLEXES= 100 UNITS

ARTICLE V. DIMENSIONAL REQUIREMENTS

	REQUIRED:	PROVIDED:
MIN LOT AREA:	40,000 SF	2,519,642 SF**
MIN UPLAND LOT AREA:	20,000 SF	196,928± SF***
MIN LOT FRONTAGE:	100 FT	785 FT (MASS AVE)
MIN LOT WIDTH:	100 FT	780+ FT
MIN FRONT SETBACK (PRIEST LANE)	25 FT	>25 FT
MIN FRONT SETBACK (STOW AND BURROUGHS ROAD)	50 FT	>50 FT
MIN FRONT SETBACK (MASS. AVE)	75 FT	217'± FT (CLUBHOUSE)
MIN SIDE & REAR YARD (TC DISTRICT):	20 FT	>20 FT
MIN SIDE & REAR YARD (AR DISTRICT):	40 FT	>40 FT
MAX STORIES	3	2
MAX BUILDING HEIGHT	45 FT	<45 FT
MAX LOT COVERAGE (EXCL. SIDEWALKS)	35%	20%
FLOOR AREA RATIO	NA	
MAX BUILDING SIZE (GROSS FLOOR AREA)	8,000 SF	<8,000 SF****
MIN OPEN SPACE (INCL SIDEWALKS):	65%	80%
PARKING RESIDENTIAL DWELLING (6006):	2	2
PARKING ASSOCIATION BUILDING (6006):	50	36 + (RESERVED)
PARKING RESERVED (6009):		14 (RESERVED)

**-SITE AREA EXCLUDES PARCEL A, PARCEL B AND PARCEL C.
***-ALONG MASSACHUSETTS AVENUE;
****-PER ZONING BYLAW SECTION: 5200 DIMENSIONAL SCHEDULE-FOOTNOTE 5.

DESIGN FLOW CALCULATIONS

100 DWELLING UNITS HOUSING FOR THE ELDERLY
70 (2 BDRM) UNITS AT 150 GPD/UNIT = 10,500 GPD
30 (3 BDRM) UNITS AT 330 GPD/UNIT = 9,900 GPD
13 CLUBHOUSE LOCKERS AT 20 GPD/LOCKER = 260 GPD
TOTAL SEWAGE FLOW = 20,660 GPD

PROPOSED APPROVED WITHDRAWALS

EXISTING WELLS - TOTAL FLOW RATE = 20,660 GPD MINIMUM
FLOWRATE PER EACH WELL BASED ON ACTUAL FIELD RESULTS

WELL #1 + WELL #2 = TOTAL DESIGN FLOW
12,096 GPD + 8,640 GPD = 20,736 GPD (> 20,660 GPD OK)

WELL #1 = 8.4 GPM = 12,096 GPD
WELL #1 - ZONE 1 RADIUS: [150 X LOG(12,096) GPD - 350]=262 FT
WELL #1 - IWPA = [(32 X 8.4 GPM) + 400] = 669 FT

WELL #2 = 6.00 GPM = 8,640 GPD
WELL #2 - ZONE 1 RADIUS: [150 X LOG(8,640) GPD - 350]=240 FT
WELL #2 - IWPA = [(32 X 6.00 GPM) + 400] = 592 FT

SITE PLAN IN BOXBOROUGH, MASSACHUSETTS

MASTER PLAN

FOR: BOXBOROUGH TOWN CENTER, LLC
SCALE: 1"=120' DECEMBER 22, 2016 *REVISED JUNE 22, 2017*

STAMSKI AND MCNARY, INC.
1000 MAIN STREET ACTON, MASSACHUSETTS
ENGINEERING - PLANNING - SURVEYING

COMMONWEALTH OF MASSACHUSETTS GEORGE DIMAKARAKOS CIVIL No.41281 REGISTERED PROFESSIONAL ENGINEER

COMMONWEALTH OF MASSACHUSETTS JOSEPH MARCH # 36384 PROFESSIONAL LAND SURVEYOR

MASSACHUSETTS AVENUE
(PUBLIC – ROUTE 111 – STATE HIGHWAY LAYOUT)

STOW ROAD
(1988 COUNTY LAYOUT – VARIABLE WIDTH)

12" C.I. CULVERT
INV. IN=321.95
INV. OUT = 321.67
EXTEND CULVERT

PWS #2037009-01G

CULVERT
INV. IN=296.91
INV. OUT = 296.45
EXTEND CULVERT
L=31'±; S=0.01'±

N/F
UNITED CHURCH OF CHRIST & CONGREGATIONAL CHURCH OF BOXBOROUGH
(DEED BOOK 10394 PAGE 70)

#773

#723

#905 LAYOUT \ 1899 LAYOUT

EXIST. PAVED DRIVE

N/F
TED MAZUR & RUTH E. MAZUR
(DEED BOOK 13743 PAGE 698)

#832

#800

EXIST. DWELLING
TBR

100' W-DISTRICT BUFFER

100' BUFFER ZONE (ALRA - BYLAW)

BORDERING VEGETATED WETLANDS CONFIRMED BY ORAD DEP FILE #113-501 (END WF 157)

FIRE POND

ISOLATED VEGETATED WETLAND AREA WF (#C1–#C4) AREA=686± S.F. (NOT SUBJECT TO M.GL.c.131, s.40)

BORDERING VEGETATED WETLANDS DELINEATED BY B & C ASSOCIATES (BEGIN=WF 157, END=WF 165)

N/F
GOLDEN POND OFFICE 25A, LLC
(DEED BOOK 49358 PAGE 290)

#25A

#25B

N/F
GOLDEN POND OFFICE 25B, LLC
(DEED BOOK 49358 PAGE 308)

PAVED PARKING AREA

WELL
PWS #2037006-01G

EXISTING CULVERT

BORDERING VEGETATED WETLANDS DELINEATED BY B & C ASSOCIATES (WF 251 THRU WF 260)

BANK 153 END

BANK 101 START

BANK 104-END

BANK 105

100' W-DISTRICT BUFFER

BORDERING VEGETATED WETLANDS CONFIRMED BY ORAD DEP FILE #113-501

W-DISTRICT (PER TOWN MAPS)

EDGE OF BANK DELINEATED BY B & C ASSOCIATES (BANK 101–104; 151–152)

BORDERING VEGETATED WETLAND

PWS #2037027-01G

#61

N/F
BOXBOROUGH TOWN CENTER LLC
(DEED BOOK 27402 PAGE 350)

PAVED PARKING AREA

N/F
TISBURY MEADOW CONDOMINIUM
(MASTER DEED BOOK 30833 PAGE 435)

#864

#848

N/F
DAVID MUNDO DAVALOS
(DEED BOOK 67596 PAGE 459)

VF REALTY TRUST
(BK 13243 449)

APPROX GARAGE

SITE PLAN BOUNDARY

W-DISTRICT (PER TOWN MAPS)

N/F
STUART H. BLECK TRUSTEE & FAL BASSETT REALTY TRUST
(DEED BOOK 32243 PAGE 449)

EXISTING WELL #2G
PUBLIC WATER SUPPLY
PER 310 CMR 22.00

EXISTING WELL #1G
PUBLIC WATER SUPPLY
PER 310 CMR 22.00

PARCEL A

EDGE OF BANK FLAGGED BY B & C ASSOCIATES (FLAGS 1–10; 46–56)

INTERMITTENT STREAM PER ASSESSORS MAP (TYPICAL)

BORDERING VEGETATED WETLANDS CONFIRMED BY ORAD DEP FILE #113-501

EART 24 ITL

EDGE OF PAVEMENT

PAVED

GRAVEL

DMH #

EXISTING SOIL ABSORPTION AREA (S/DBOX) (SEE ASBUILT)

DRAINAGE EASEMENT AS SHOWN ON PLAN No. 352 OF 1995

FLARED END OUTLET

DCB #2

DCB #3

TBM

LEGEND:

N/F	NOW OR FORMERLY
OHW	OVERHEAD WIRES
	TREE
	TREE LINE
UP	UTILITY POLE
GG+	GAS GATE
G	GAS SERVICE (BURIED)
WG+	WATER GATE
W	WATER SERVICE (BURIED)
DMH	DRAIN MANHOLE
D	SUB-SURFACE DRAIN LINE
99	EXISTING CONTOUR
95	EXISTING CONTOUR
	LIGHTPOLE
	WETLAND FLAG
99X9	SPOT ELEVATION
	STONE WALL
	EDGE OF PAVEMENT
TBR	TO BE RAZED

SITE PLAN IN BOXBOROUGH, MASSACHUSETTS

EXISTING CONDITIONS PLAN

FOR: BOXBOROUGH TOWN CENTER, LLC

SCALE: 1"=60'

DECEMBER 22, 2016
REVISED JUNE 22, 2017

STAMSKI AND MCNARY, INC.
1000 MAIN STREET ACTON, MASSACHUSETTS
ENGINEERING – PLANNING – SURVEYING

0 30 60 120 180 240 FT

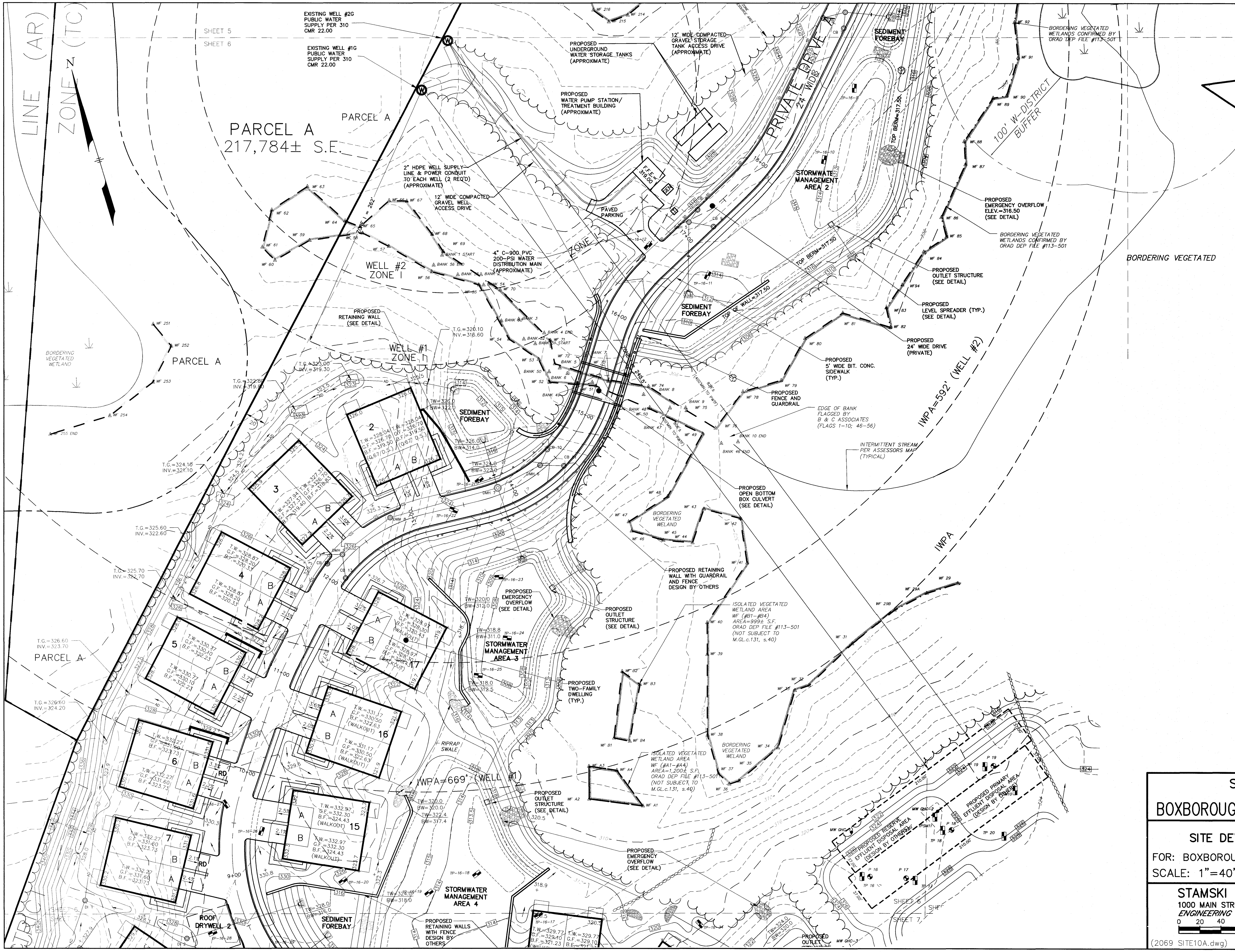
(2069 SITE10A.dwg) Sheet 3 of 30 SM-2069

COMMONWEALTH OF MASSACHUSETTS
GEORGE DIMAKARAKOS
CIVIL
No. 41281
REGISTERED PROFESSIONAL ENGINEER

COMMONWEALTH OF MASSACHUSETTS
JOSEPH MARCH
46344
PROFESSIONAL LAND SURVEYOR


LEGEND:
N/F NOW OR FORMERLY
OVERHEAD WIRES
TREE
TREE LINE
UP UTILITY POLE
GG GAS GATE
G GAS SERVICE (BURIED)
WG WATER GATE
W WATER SERVICE (BURIED)
DMH DRAIN MANHOLE
D SUB-SURFACE DRAIN LINE
EXISTING CONTOUR
EXISTING CONTOUR
LIGHTPOLE
WETLAND FLAG
99X9 SPOT ELEVATION
STONE WALL
EDGE OF PAVEMENT
TBR TO BE RAZED
SITE PLAN
IN
BOXBOROUGH, MASSACHUSETTS
EXISTING CONDITIONS PLAN
FOR: BOXBOROUGH TOWN CENTER, LLC
SCALE: 1"=60'
DECEMBER 22, 2016
REVISED JUNE 22, 2017
STAMSKI AND MCNARY, INC.
1000 MAIN STREET ACTON, MASSACHUSETTS
ENGINEERING - PLANNING - SURVEYING
0 30 60 120 180 240 FT
(2069 SITE10A.dwg)
Sheet 4 of 30
SM-2069
GEORGE DIMAKARAKOS CIVIL No. 41261
JOSEPH MARCH No. 38364
PRIEST LANE
BURROUGHS ROAD
PARCEL A
PARCEL C
N/F FAL BASSETT REALTY TRUST (DEED BOOK 32243 PAGE 449)
20' WIDE TRAIL EASEMENT AS SHOWN ON PLAN No. 973 OF 1999
EDGE OF BANK FLAGGED BY B & C ASSOCIATES (FLAGS 1-10; 46-56)
INTERMITTENT STREAM PER ASSESSORS MAP (TYPICAL)
BORDERING VEGETATED WETLANDS CONFIRMED BY ORAD DEP FILE #113-501
DRAINAGE EASEMENT AS SHOWN ON PLAN No. 352 OF 1995
ISOLATED VEGETATED WETLAND AREA WF (#B1-#B4) AREA=999± S.F. ORAD DEP FILE #113-501 (NOT SUBJECT TO M.G.L.c.131, s.40)
ISOLATED VEGETATED WETLAND AREA WF (#A1-#A4) AREA=1,200± S.F. ORAD DEP FILE #113-501 (NOT SUBJECT TO M.G.L.c.131, s.40)
CART PATH
EDGE OF PAVEMENT
TBM NAIL IN TREE ELEV.=308.33 (ASSUMED)
TBM NAIL IN TREE ELEV.=334.85 (ASSUMED)
TBM NAIL IN TREE ELEV.=321.23 (ASSUMED)
TBM NAIL IN TREE ELEV.=338.42 (ASSUMED)
TBM NAIL IN TREE ELEV.=350.12 (ASSUMED)
TBM NAIL IN TREE ELEV.=335.62 (ASSUMED)
TBM NAIL IN TREE ELEV.=350.45 (ASSUMED)
EXIST. BLDG. TBR
ZONE (TC) DISTRICT
LINE (AR) DISTRICT
(TC) DISTRICT
(AR) DISTRICT
N/F GLENN J. MILLS & JOANNE M. MILLS (DEED BOOK 26874 PAGE 29) #145
#155
N/F FRANK O. TOWNE (DEED BOOK 62528 PAGE 153) #167
N/F FRANK O. TOWNE (DEED BOOK 62528 PAGE 153) #181
#197 N/F DONALD A. SPINNEY & BARBARA L. SPINNEY (DEED BOOK 10218 PAGE 218)
#657
N/F ROBERT H. BECKER & KATHERINE R. BECKER (DEED BOOK 14099 PAGE 176)
N/F GERARD R. McKILLOP & KELLY-ERIN POWERS McKILLOP (DEED BOOK 22675 PAGE 100) #571
N/F KEITH A. LYONS & MAGDALENA A. LYONS (DEED BOOK 50165 PAGE 377)
#581 N/F MICHAEL A. FETTERMAN & ELIZABETH E. FETTERMAN
WELL GHC-2 TOP OF COVER=325.20 GROUND ELEV.=322.12
WELL GHC-1 TOP OF COVER=324.61 GROUND ELEV.=322.05
WELL GHC-3 TOP OF COVER=323.94 GROUND ELEV.=321.56
618.93'
609.64'
347.71'
221.79'
170.00'
250.00'
307.91'
230.46'
150.60'
101.39'
83.62'
62.71'
148.96'
141.79'


MASSACHUSETTS AVENUE
(PUBLIC – ROUTE 111 – STATE HIGHWAY LAYOUT)
PROPOSED SIGNAGE PER MASSDOT APPROVAL
AT END OF SIDEWALK PROVIDE RAMP TO EDGE OF PAVEMENT PER MASSDOT (SEE DETAIL)
EXIST. PAVED DRIVE TBR
PROPOSED IRRIGATION WELL
12" C.I. CULVERT INV. IN=321.95 INV. OUT = 321.67 EXTEND CULVERT
PROPOSED CULVERT EXTENSION TO HEADWALL
PROPOSED STREET SIGN AND STOP SIGN
PROPOSED RETAINING WALL (BY OTHERS) T.W.=VARIES 326'+
PROPOSED GUARDRAIL AND FENCE
PROPOSED 5' WIDE SIDEWALK PER MASSDOT (TYPICAL)
CULVERT INV. IN=296.91 INV. OUT = 296.45 EXTEND CULVERT L=31'±; S=0.01'±
PWS #2037009-01G
RELOCATE EXISTING GUARDRAIL
BORDERING VEGETATED WETLANDS CONFIRMED BY ORAD DEP FILE #113-501 (END WF 157)
FIRE POND
ISOLATED VEGETATED WETLAND AREA WF (#C1–#C4) AREA=686± S.F. (NOT SUBJECT TO M.GL.c.131, s.40)
100' W-DISTRICT BUFFER
STORMWATER MANAGEMENT AREA 1
BOCCE COURT
PICKLEBALL COURT
CLUBHOUSE
PATIO
SLAB=331.85'
SLAB=329.00'±
POOL
MAIL
BICYCLE RACK (5 SPACES)
SEE LANDSCAPE PLAN
PROPOSED OUTLET STRUCTURE (SEE DETAIL)
PROPOSED RETAINING WALL
PROPOSED PARKING AREA 36 SPACES
PROPOSED SWALE
EXIST. DWELLING TO BE RAZED
PROPOSED RESERVED PARKING AREA 14 SPACES LOAM AND SEED
PROPOSED CROSSWALK
T.W.=328.67 G.F.=328.00 B.F.=320.13
T.W.=328.00 G.F.=327.33 B.F.=319.46
PROPOSED TWO-FAMILY DWELLING (TYP.)
PROPOSED 24' WIDE DRIVE (PRIVATE)
PROPOSED 5' WIDE BIT. CONC. SIDEWALK (TYP.) (SEE DETAIL)
SEDIMENT FOREBAY
12' WIDE COMPACTED GRAVEL STORAGE TANK ACCESS DRIVE (APPROXIMATE)
PROPOSED UNDERGROUND WATER STORAGE TANKS
EXISTING WELL #2G PUBLIC WATER SUPPLY PER 310 CMR 22.00
IWPA
#832
#848
#864
#800
#773
#723
APPROX GARAGE
PARCEL B 18,937± S.F.
PARCEL A
W-DISTRICT (PER TOWN MAPS)
WELL #2 ZONE I
WELL #1 ZONE I
BORDERING VEGETATED WETLAND
BORDERING VEGETATED WETLANDS CONFIRMED BY ORAD DEP FILE #113-501
100' BUFFER ZONE ADJACENT LAND RESOURCE AREA
SHEET 5
SHEET 6
N
LEGEND:
N/F NOW OR FORMERLY
OHW OVERHEAD WIRES
TREE
TREE LINE
UP UTILITY POLE
GG GAS GATE
G GAS SERVICE (BURIED)
WG WATER GATE
W WATER SERVICE (BURIED)
DMH DRAIN MANHOLE
D SUB-SURFACE DRAIN LINE
99 EXISTING CONTOUR
95 EXISTING CONTOUR
LIGHTPOLE
WETLAND FLAG
134.5 SPOT ELEVATION
STONE WALL
EDGE OF PAVEMENT
FF FIRST FLOOR
TC TOP OF CONCRETE
BF BASEMENT FLOOR
135.43 PROPOSED SPOT GRADE
TBR TO BE RAZED
AD PROPOSED AREA DRAIN
TG TOP OF GRATE
SITE PLAN IN BOXBOROUGH, MASSACHUSETTS
SITE DEVELOPMENT PLAN
FOR: BOXBOROUGH TOWN CENTER, LLC
SCALE: 1"=40'
DECEMBER 22, 2016
REVISED JUNE 22, 2017
STAMSKI AND MCNARY, INC.
1000 MAIN STREET ACTON, MASSACHUSETTS
ENGINEERING – PLANNING – SURVEYING
0 20 40 80 120 160
(2069 SITE10A.dwg) Sheet 5 of 30 SM-2069
COMMONWEALTH OF MASSACHUSETTS GEORGE DIMAKARAKOS CIVIL No. 41281 REGISTERED PROFESSIONAL ENGINEER
COMMONWEALTH OF MASSACHUSETTS JOSEPH MARCH # 36884 PROFESSIONAL LAND SURVEYOR



LEGEND:

Symbol	Description
N/F	NOW OR FORMERLY
OHW	OVERHEAD WIRES
	TREE
	TREE LINE
UP	UTILITY POLE
GG	GAS GATE
G	GAS SERVICE (BURIED)
WG	WATER GATE
W	WATER SERVICE (BURIED)
DMH	DRAIN MANHOLE
D	SUB-SURFACE DRAIN LINE
99	EXISTING CONTOUR
95	EXISTING CONTOUR
	LIGHTPOLE
	WETLAND FLAG
134.5	SPOT ELEVATION
	STONE WALL
	EDGE OF PAVEMENT
FF	FIRST FLOOR
TC	TOP OF CONCRETE
BF	BASEMENT FLOOR
135.43	PROPOSED SPOT GRADE
TBR	TO BE RAZED
AD	PROPOSED AREA DRAIN
TG	TOP OF GRATE

SITE PLAN IN BOXBOROUGH, MASSACHUSETTS

SITE DEVELOPMENT PLAN

FOR: BOXBOROUGH TOWN CENTER, LLC

SCALE: 1"=40'

DECEMBER 22, 2016

REVISED JUNE 22, 2017

STAMSKI AND MCNARY, INC.

1000 MAIN STREET ACTON, MASSACHUSETTS

ENGINEERING – PLANNING – SURVEYING

0 20 40 80 120 160

(2069 SITE10A.dwg) Sheet 6 of 30 SM-2069

COMMONWEALTH OF MASSACHUSETTS GEORGE DIMAKARAKOS CIVIL No. 41361 REGISTERED PROFESSIONAL ENGINEER

COMMONWEALTH OF MASSACHUSETTS JOSEPH MARCH No. 36384 PROFESSIONAL LAND SURVEYOR

LEGEND:
N/F NOW OR FORMERLY
OVERHEAD WIRES
TREE
TREE LINE
UP UTILITY POLE
GG GAS GATE
G GAS SERVICE (BURIED)
WG WATER GATE
W WATER SERVICE (BURIED)
DMH DRAIN MANHOLE
D SUB-SURFACE DRAIN LINE
EXISTING CONTOUR
EXISTING CONTOUR
LIGHTPOLE
WETLAND FLAG
SPOT ELEVATION
STONE WALL
EDGE OF PAVEMENT
FF FIRST FLOOR
TC TOP OF CONCRETE
BF BASEMENT FLOOR
PROPOSED SPOT GRADE
TBR TO BE RAZED
AD PROPOSED AREA DRAIN
TG TOP OF GRATE
PRIVATE DRIVE A
24' WIDE
PRIVATE DRIVE C
24' WIDE
PRIEST LANE
STORMWATER MANAGEMENT AREA 4
STORMWATER MANAGEMENT AREA 6
SEDIMENT FOREBAY
ROOF DRYWELL 2
FIRE CISTERN
IWPA=669' (WELL #1)
RIPRAP SWALE
TBM NAIL IN TREE ELEV.=334.85 (ASSUMED)
TBM NAIL IN TREE ELEV.=321.23 (ASSUMED)
TBM NAIL IN TREE ELEV.=338.42 (ASSUMED)
SEE LANDSCAPE PLAN
PROPOSED 24' WIDE DRIVE (PRIVATE)
PROPOSED DECK (TYP.)
PROPOSED TWO-FAMILY DWELLING (TYP.)
PROPOSED AREA DRAIN (TYP.)
PROPOSED HEADWALL (SEE DETAIL)
PROPOSED 5' WIDE BIT. CONC. SIDEWALK (TYP.)
PROPOSED 20' WIDE EMERGENCY ACCESS
REMOVE PORTION OF WALL RESET WALL OUTSIDE GRASS SHOULDER
PROPOSED LANDSCAPE WALL DESIGN BY OTHERS
PROPOSED RETAINING WALLS WITH FENCE DESIGN BY OTHERS
PROPOSED OUTLET STRUCTURE (SEE DETAIL)
PROPOSED EMERGENCY OVERFLOW (SEE DETAIL)
PROPOSED RESERVE EFFLUENT DISPOSAL AREA (DESIGN BY OTHERS)
ISOLATED VEGETATED WETLAND AREA WF (#A1-#A4) AREA=1,200± S.F. ORAD DEP FILE #113-501 (NOT SUBJECT TO M.G.L.c.131, s.40)
BORDERING VEGETATED WETLAND
ROBERT M. KARESS & JACLYN KARESS (DEED BOOK 67659 PAGE 463)
N/F ROBERT H. BECKER & KATHERINE R. BECKER (DEED BOOK 14099 PAGE 176)
N/F GERARD R. McKILLOP & KELLY-ERIN POWERS McKILLOP (DEED BOOK 22675 PAGE 100)
#657

SITE PLAN
IN
BOXBOROUGH, MASSACHUSETTS

SITE DEVELOPMENT PLAN

FOR: BOXBOROUGH TOWN CENTER, LLC
SCALE: 1"=40'
DECEMBER 22, 2016
REVISED JUNE 22, 2017

STAMSKI AND MCNARY, INC.
1000 MAIN STREET ACTON, MASSACHUSETTS
ENGINEERING – PLANNING – SURVEYING

(2069 SITE10A.dwg) Sheet 7 of 30 SM-2069

LEGEND:

- N/F — NOW OR FORMERLY
- OHW — OVERHEAD WIRES
- TREE
- TREE LINE
- UP — UTILITY POLE
- GG — GAS GATE
- G — GAS SERVICE (BURIED)
- WG — WATER GATE
- W — WATER SERVICE (BURIED)
- DMH — DRAIN MANHOLE
- D — SUB-SURFACE DRAIN LINE
- 95 — EXISTING CONTOUR
- 95 — EXISTING CONTOUR
- LIGHTPOLE
- WETLAND FLAG
- 134.5 — SPOT ELEVATION
- STONE WALL
- EDGE OF PAVEMENT
- FF — FIRST FLOOR
- TC — TOP OF CONCRETE
- BF — BASEMENT FLOOR
- 135.43 — PROPOSED SPOT GRADE
- TBR — TO BE RAZED
- AD — PROPOSED AREA DRAIN
- TG — TOP OF GRATE

PRIVATE DRIVE B 24' WIDE

PROPOSED OUTLET STRUCTURE (SEE DETAIL)

STORMWATER MANAGEMENT AREA 6

PROPOSED TREELINE

PROPOSED 24' WIDE DRIVE (PRIVATE)

PROPOSED LANDSCAPE WALL DESIGN BY OTHERS

TBM NAIL IN TREE ELEV.=350.12 (ASSUMED)

TBM NAIL IN TREE ELEV.=350.45 (ASSUMED)

ELEV.=335.62 (ASSUMED)

SEE LANDSCAPE PLAN

PROPOSED TWO-FAMILY DWELLING (TYP.)

PROPOSED DECK (TYP.)

PROPOSED 5' WIDE BIT. CONC. SIDEWALK (TYP.)

PARCEL C
27,377 ±S.F.

BURROUGHS ROAD
(PUBLIC – VARIABLE WIDTH)

N/F IAN WESLEY FOWLKS & ELIZABETH JOY FOWLKS (DEED BOOK 65305 PAGE 185)

N/F FRANK O. TOWNE (DEED BOOK 62528 PAGE 153)

N/F DONALD A. SPINNEY & BARBARA L. SPINNEY (DEED BOOK 10218 PAGE 218)

N/F ROBERT L. LANE & LORNA RUTH LANE (DEED BOOK 14054 PAGE 118)

N/F EMILE J. BIRON & CATHERINE T. BIRON (DEED BOOK 22495 PAGE 39)

N/F KEITH A. LYONS & MAGDALENA A. LYONS (DEED BOOK 50165 PAGE 377)

N/F GERARD R. McKILLOP & KELLY-ERIN POWERS McKILLOP (DEED BOOK 22675 PAGE 100)

N/F MICHAEL A. FETTERMAN & ELIZABETH E. FETTERMAN (DEED BOOK 51430 PAGE 298)

#167 #181 #197 #511 #571 #581

SITE PLAN IN BOXBOROUGH, MASSACHUSETTS

SITE DEVELOPMENT PLAN

FOR: BOXBOROUGH TOWN CENTER, LLC

SCALE: 1"=40' DECEMBER 22, 2016 REVISED JUNE 22, 2017

STAMSKI AND MCNARY, INC.
1000 MAIN STREET ACTON, MASSACHUSETTS
ENGINEERING – PLANNING – SURVEYING

0 20 40 80 120 160

COMMONWEALTH OF MASSACHUSETTS GEORGE DIMAKARAKOS CIVIL No. 41281 REGISTERED PROFESSIONAL ENGINEER

COMMONWEALTH OF MASSACHUSETTS JOSEPH MARCH 36384 REGISTERED PROFESSIONAL LAND SURVEYOR

LEGEND:

N/F	NOW OR FORMERLY
—OHW—	OVERHEAD WIRES
●	TREE
	TREE LINE
UP	UTILITY POLE
GG∘	GAS GATE
— G —	GAS SERVICE (BURIED)
WG∘	WATER GATE
— W —	WATER SERVICE (BURIED)
○ DMH	DRAIN MANHOLE
— D —	SUB-SURFACE DRAIN LINE
- - -89- - -	EXISTING CONTOUR
— 85 —	EXISTING CONTOUR
☼	LIGHTPOLE
△	WETLAND FLAG
134.5	SPOT ELEVATION
○○○○○	STONE WALL
———	EDGE OF PAVEMENT
FF	FIRST FLOOR
TC	TOP OF CONCRETE
BF	BASEMENT FLOOR
135.43	PROPOSED SPOT GRADE
TBR	TO BE RAZED
—AD—	PROPOSED AREA DRAIN
TG	TOP OF GRATE

BORDERING VEGETATED WETLAND
BORDERING VEGETATED WELAND
IWPA
100' BUFFER ZONE (ALRA - BYLAW)
"DRAINAGE EASEMENT A" AS SHOWN ON PLAN No. 352 OF 1995
EXISTING SOIL ABSORPTION AREA & DBOX (SEE ASBUILT)
BORDERING VEGETATED WETLANDS CONFIRMED BY ORAD DEP FILE #113-501
TBM NAIL IN TREE ELEV.=308.33 (ASSUMED)
FLARED END OUTLET 12" INV.=308.0±
OUTFALL B
WELL
(PRIMARY WELL PER 1995 BOH RECORDS)
6" LOAM & SEED DISTURBED AREAS WITHIN EASEMENT
SEE LANDSCAPE PLAN
BEGIN PROPOSED 20' WIDE EMERGENCY ACCESS
DCB A
DCB B
EDGE OF PAVEMENT
N/F BOARD OF GOVERNORS & SHERIFFS MEADOW CONDO ASSOC (MASTER DEED BOOK 25327 PAGE 118)
N/F TISBURY MEADOW CONDOMINIUM
N/F BOXBOROUGH TOWN CENTER, LLC
PROPOSED 20' WIDE EMERGENCY ACCESS
PROPOSED PRIVATELY OWNED WASTEWATER TREATMENT FACILITY (PWTF) PER 314 CMR 5.00 (APPROXIMATE)
STORMWATER MANAGEMENT AREA 8
STORMWATER MANAGEMENT AREA 7
PROPOSED PRIMARY EFFLUENT DISPOSAL AREA (DESIGN BY OTHERS)
PROPOSED RESERVE EFFLUENT DISPOSAL AREA (DESIGN BY OTHERS)
WELL GHC-1 TOP OF COVER=324.61 GROUND ELEV.=322.05
WELL GHC-2 TOP OF COVER=325.20 GROUND ELEV.=322.12
WELL GHC-3 TOP OF COVER=323.94 GROUND ELEV.=321.58
PROPOSED OUTLET STRUCTURE
N/F GLENN J. MILLS & JOANNE M. MILLS
#145
#155
TBR EXIST. BLDG.
PROPOSED 24' WIDE DRIVE (PRIVATE)
PROPOSED 5' WIDE BIT. CONC. SIDEWALK (TYP.)
PROPOSED TWO-FAMILY DWELLING (TYP.)
TBM NAIL IN TREE ELEV.=335.62 (ASSUMED)
FIRE CISTERN No. 1
PRIVATE DRIVE B 24' WIDE
SHEET 6
SHEET 7
SHEET 8
SHEET 9
N

SITE PLAN
IN
BOXBOROUGH, MASSACHUSETTS

SITE DEVELOPMENT PLAN

FOR: BOXBOROUGH TOWN CENTER, LLC

SCALE: 1"=40' DECEMBER 22, 2016
REVISED JUNE 22, 2017

STAMSKI AND MCNARY, INC.
1000 MAIN STREET ACTON, MASSACHUSETTS
ENGINEERING – PLANNING – SURVEYING

0 20 40 80 120 160

(2069 SITE10A.dwg) Sheet 9 of 30 SM-2069

LEGEND:

N/F	NOW OR FORMERLY
OHW	OVERHEAD WIRES
	TREE
	TREE LINE
UP	UTILITY POLE
GG	GAS GATE
G	GAS SERVICE (BURIED)
WG	WATER GATE
W	WATER SERVICE (BURIED)
DMH	DRAIN MANHOLE
D	SUB-SURFACE DRAIN LINE
99	EXISTING CONTOUR
95	EXISTING CONTOUR
	LIGHTPOLE
	WETLAND FLAG
134.5	SPOT ELEVATION
	STONE WALL
	EDGE OF PAVEMENT
FF	FIRST FLOOR
TC	TOP OF CONCRETE
BF	BASEMENT FLOOR
135.43	PROPOSED SPOT GRADE
TBR	TO BE RAZED
AD	PROPOSED AREA DRAIN
TG	TOP OF GRATE

SITE PLAN IN BOXBOROUGH, MASSACHUSETTS

SITE DEVELOPMENT PLAN

FOR: BOXBOROUGH TOWN CENTER, LLC

SCALE: 1"=40'

DECEMBER 22, 2016

REVISED JUNE 22, 2017

COMMONWEALTH OF MASSACHUSETTS — GEORGE DIMAKARAKOS — CIVIL — No. 41281 — REGISTERED PROFESSIONAL ENGINEER

STAMSKI AND MCNARY, INC.

1000 MAIN STREET ACTON, MASSACHUSETTS

ENGINEERING - PLANNING - SURVEYING

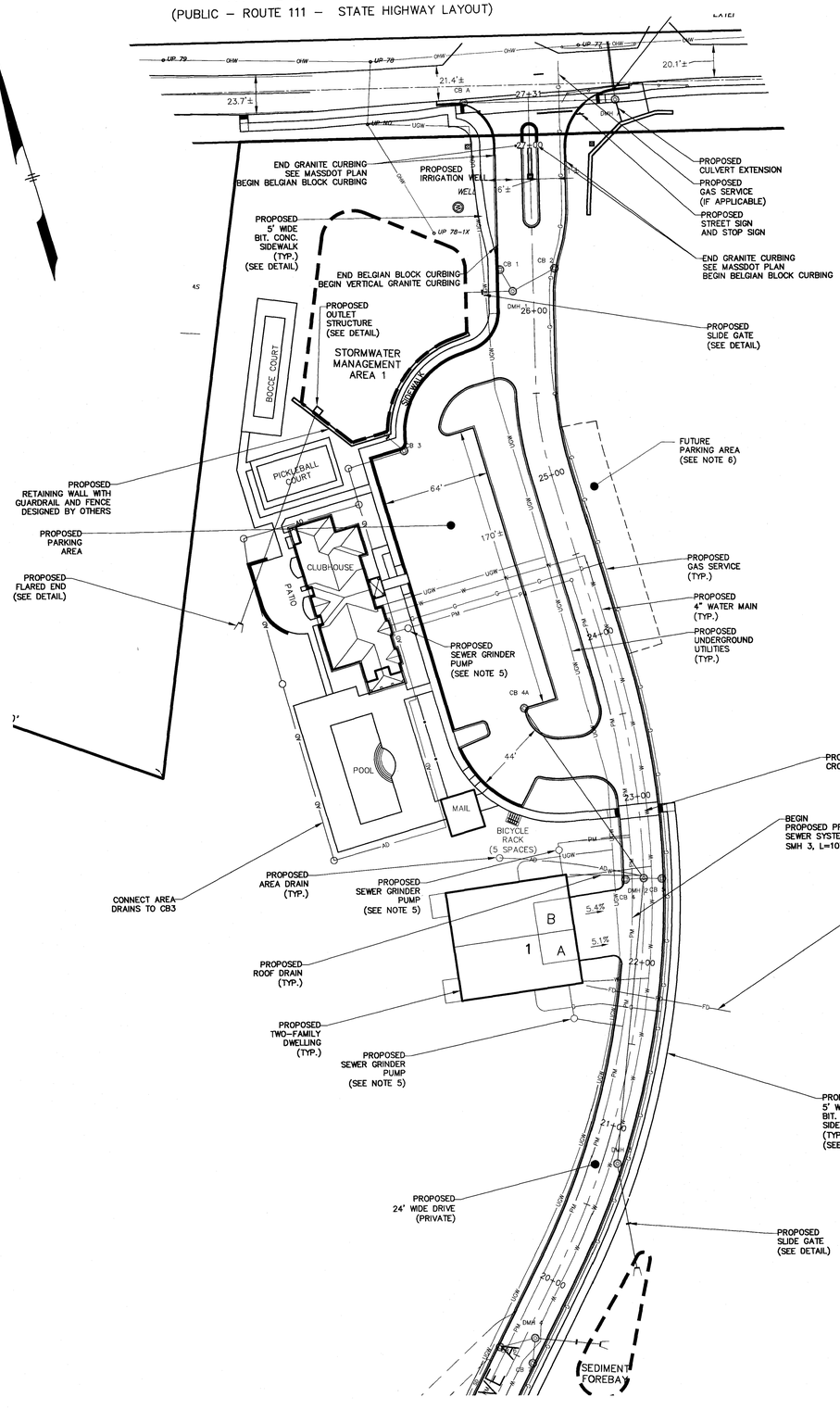
0 20 40 80 120 160

COMMONWEALTH OF MASSACHUSETTS — JOSEPH MARCH — No. 36384 — LAND SURVEYOR

(2069 SITE10A.dwg) Sheet 10 of 30 SM-2069

MASSACHUSETTS AVE

(PUBLIC – ROUTE 111 – STATE HIGHWAY LAYOUT)



LEGEND

CL SB	CENTERLINE STONE BOUND
SB/DH	STONE BOUND WITH DRILLHOLE
I.P.	IRON PIN
WG	WATER GATE
HYD	HYDRANT
UP	UTILITY POLE
N/F	NOW OR FORMERLY
WF	WETLANDS FLAG
BF	EDGE OF BANK
	STONE WALL
OHW	OVERHEAD WIRES
D	PROPOSED STORM DRAIN
S	PROPOSED GRAVITY SEWER LINE
G	PROPOSED GAS SERVICE
W	PROPOSED WATER MAIN
FM	PROPOSED SEWER FORCE MAIN
SD	PROPOSED SUBDRAIN
T.W.=152.25	TOP OF WALL ELEVATION
B.F.=143.58	BASEMENT FLOOR ELEVATION
G.F.=151.0	GARAGE FLOOR ELEVATION
PM	PROPOSED PRESSURE SEWER MAIN
FD	PROPOSED FOUNDATION DRAIN
UGW	PROPOSED UNDERGROUND UTILITIES (TELEPHONE, ELECTRIC, CABLE)
S.G.	PROPOSED SLIDE GATE

NOTES

1) THE EXISTING WELL SERVING THE EXISTING SINGLE FAMILY DWELLING WILL REMAIN AND BE USED AS AN IRRIGATION WELL. SEE LANDSCAPE PLAN FOR ADDITIONAL INFORMATION.

2) EXISTING ELECTRIC SERVICE TO BE UTILIZED AS TEMPORARY SERVICE DURING CONSTRUCTION FOR CONTROL TRAILERS AND MARKETING. TRAILERS TO BE LOCATED PER ZONING REQUIREMENTS NEAR ENTRANCE.

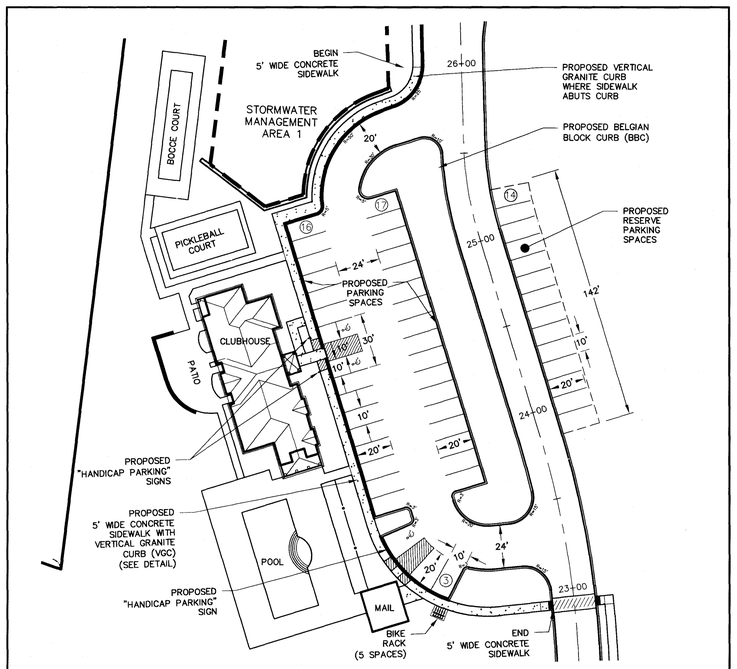
3) EXISTING ON-SITE SEWAGE DISPOSAL SYSTEM SERVING THE SINGLE FAMILY DWELLING SHALL BE DISCONTINUED PER 310 CMR 15.354: ABANDONMENT OF SYSTEMS. THE SEPTIC TANK SHALL BE PUMPED OF ITS ENTIRE CONTENTS BY A LICENSED SEPTAGE HAULER, AND THE TANK SHALL BE EXCAVATED AND REMOVED FROM THE SITE OR THE BOTTOM OF THE TANK SHALL BE RUPTURED AFTER BEING PUMPED OF ITS CONTENTS AND COMPLETELY BACKFILLED WITH CLEAN SAND OR OTHER SUITABLE MATERIAL.

4) SEE LANDSCAPE PLAN FOR LOCATION OF PROPOSED SITE LIGHTING, DESIGNED BY OTHERS.

5) THE CLUBHOUSE AND TWO-FAMILY DWELLING TO BE PROVIDED WITH INDIVIDUAL SEWER GRINDER PUMPS.

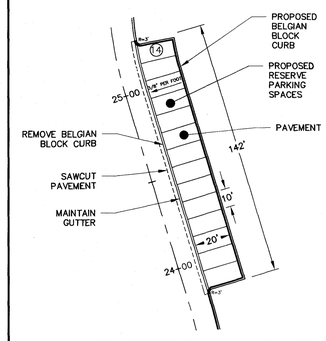
6) BANK PARKING PER DISCRETION OF THE PLANNING BOARD.

7) ALL WORK PROPOSED WITHIN THE STATE HIGHWAY LAYOUT IS SUBJECT TO ADJUST AND APPROVAL BY MASSDOT.



CLUBHOUSE PARKING LOT DETAIL

SCALE: 1"=40'



FUTURE RESERVE PARKING DETAIL

SCALE: 1"=40'

SITE PLAN IN BOXBOROUGH, MASSACHUSETTS

LAYOUT AND UTILITIES PLAN

FOR: BOXBOROUGH TOWN CENTER, LLC

SCALE: 1"=40'

DECEMBER 22, 2016

REVISED JUNE 22, 2017

STAMSKI AND MCNARY, INC.

1000 MAIN STREET ACTON, MASSACHUSETTS

ENGINEERING – PLANNING – SURVEYING

0 20 40 80 120 160

COMMONWEALTH OF MASSACHUSETTS GEORGE DIMAKARAKOS CIVIL No. 41294 REGISTERED PROFESSIONAL ENGINEER

COMMONWEALTH OF MASSACHUSETTS JOSEPH MARCH # 36384 PROFESSIONAL LAND SURVEYOR

EXISTING WELL #2G
PUBLIC WATER
SUPPLY PER 310
CMR 22.00

EXISTING WELL #1G
PUBLIC WATER
SUPPLY PER 310
CMR 22.00

PARCEL A
217,784± S.F.

PARCEL A

PROPOSED
UNDERGROUND
WATER STORAGE TANKS
(APPROXIMATE)

12' WIDE COMPACTED
GRAVEL STORAGE
TANK ACCESS DRIVE
(APPROXIMATE)

PROPOSED
WATER PUMP STATION/
TREATMENT BUILDING
(APPROXIMATE)

PRIVATE DRIVE

SEDIMENT
FOREBAY

2" HDPE WELL SUPPLY
LINE & POWER CONDUIT
TO EACH WELL (2 REQ'D)
(APPROXIMATE)

12' WIDE COMPACTED
GRAVEL WELL
ACCESS DRIVE

F.F.E.=
319.00

PAVED
PARKING

STORMWATER
MANAGEMENT
AREA 2

4" C-900 PVC
200-PSI WATER
DISTRIBUTION MAIN
(APPROXIMATE)

SEDIMENT
FOREBAY

PROPOSED
24' WIDE DRIVE
(PRIVATE)

PROPOSED
5' WIDE BIT. CONC.
SIDEWALK
(TYP.)

T.G.=320.10
INV.=316.60

T.G.=323.00
INV.=319.30

T.G.=322.80
INV.=319.60

SEDIMENT
FOREBAY

T.G.=324.10
INV.=321.10

PROPOSED
SLIDE GATE
(SEE DETAIL)

PROPOSED
OPEN BOTTOM
BOX CULVERT
(SEE DETAIL)

T.G.=325.60
INV.=322.60

T.G.=325.70
INV.=322.70

PROPOSED
FLARED END
(SEE DETAIL)

PROPOSED
OUTLET
STRUCTURE
(SEE DETAIL)

TW=320.0
BW=312.0

TW=318.8
BW=311.0

STORMWATER
MANAGEMENT
AREA 3

T.G.=326.60
INV.=323.70

PARCEL A

TW=318.0
BW=312.5

PROPOSED
TWO-FAMILY
DWELLING
(TYP.)

T.G.=326.60
INV.=324.20

ROOF
DRYWELL 2

TW=328.0
BW=316.0

SEDIMENT
FOREBAY

LEGEND

CL SB	CENTERLINE STONE BOUND
SB/DH	STONE BOUND WITH DRILLHOLE
I.P.	IRON PIN
WG	WATER GATE
HYD	HYDRANT
UP	UTILITY POLE
N/F	NOW OR FORMERLY
WF	WETLANDS FLAG
BF	EDGE OF BANK
	STONE WALL
OHW	OVERHEAD WIRES
D	PROPOSED STORM DRAIN
S	PROPOSED GRAVITY SEWER LINE
G	PROPOSED GAS SERVICE
W	PROPOSED WATER MAIN
FM	PROPOSED SEWER FORCE MAIN
SD	PROPOSED SUBDRAIN
T.W.=152.25	TOP OF WALL ELEVATION
B.F.=143.58	BASEMENT FLOOR ELEVATION
G.F.=151.0	GARAGE FLOOR ELEVATION
PM	PROPOSED PRESSURE SEWER MAIN
FD	PROPOSED FOUNDATION DRAIN
UGW	PROPOSED UNDERGROUND UTILITIES (TELEPHONE, ELECTRIC, CABLE)
S.G.	PROPOSED SLIDE GATE

SITE PLAN
IN
BOXBOROUGH, MASSACHUSETTS

LAYOUT AND UTILITIES PLAN

FOR: BOXBOROUGH TOWN CENTER, LLC

SCALE: 1"=40'

DECEMBER 22, 2016

REVISED JUNE 22, 2017

STAMSKI AND MCNARY, INC.
1000 MAIN STREET ACTON, MASSACHUSETTS
ENGINEERING - PLANNING - SURVEYING

0 20 40 80 120 160

GEORGE DIMAKARAKOS CIVIL No. 41521 REGISTERED PROFESSIONAL ENGINEER

JOSEPH MARCH # 39584 REGISTERED LAND SURVEYOR

LEGEND

CL SB	CENTERLINE STONE BOUND
SB/DH	STONE BOUND WITH DRILLHOLE
I.P.	IRON PIN
WG	WATER GATE
HYD	HYDRANT
UP	UTILITY POLE
N/F	NOW OR FORMERLY
WF	WETLANDS FLAG
BF	EDGE OF BANK
	STONE WALL
OHW	OVERHEAD WIRES
D	PROPOSED STORM DRAIN
S	PROPOSED GRAVITY SEWER LINE
G	PROPOSED GAS SERVICE
W	PROPOSED WATER MAIN
FM	PROPOSED SEWER FORCE MAIN
SD	PROPOSED SUBDRAIN
T.W.=152.25	TOP OF WALL ELEVATION
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G.F.=151.0	GARAGE FLOOR ELEVATION
PM	PROPOSED PRESSURE SEWER MAIN
FD	PROPOSED FOUNDATION DRAIN
UGW	PROPOSED UNDERGROUND UTILITIES (TELEPHONE, ELECTRIC, CABLE)
S.G.	PROPOSED SLIDE GATE

PRIEST LANE

STORMWATER MANAGEMENT AREA 4

SEDIMENT FOREBAY

ROOF DRYWELL

FIRE CISTERN No. 1

PROPOSED OUTLET STRUCTURE (SEE DETAIL)

PROPOSED TWO-FAMILY DWELLING (TYP.)

PROPOSED 20' WIDE EMERGENCY ACCESS

PROPOSED 5' WIDE BIT. CONC. SIDEWALK (TYP.)

PROPOSED 24' WIDE DRIVE (PRIVATE)

N/F
ROBERT N. BECKER & KATHERINE R. BECKER
(DEED BOOK 14099 PAGE 176)

N/F
GERARD R. McKILLOP & KELLY-ERIN POWERS McKILLOP
(DEED BOOK 22675 PAGE 100)

SITE PLAN IN BOXBOROUGH, MASSACHUSETTS

LAYOUT AND UTILITIES PLAN

FOR: BOXBOROUGH TOWN CENTER, LLC

SCALE: 1"=40' DECEMBER 22, 2016

REVISED JUNE 22, 2017

STAMSKI AND MCNARY, INC.
1000 MAIN STREET ACTON, MASSACHUSETTS
ENGINEERING – PLANNING – SURVEYING

0 20 40 80 120 160

COMMONWEALTH OF MASSACHUSETTS
GEORGE DIMAKARAKOS
CIVIL
No. 41281
REGISTERED PROFESSIONAL ENGINEER

COMMONWEALTH OF MASSACHUSETTS
JOSEPH MARCH
38384
PROFESSIONAL LAND SURVEYOR

TOP OF COVER=323.94
GROUND ELEV.=321.58

TW=324.0
BW=320.0

PROPOSED OUTLET STRUCTURE (SEE DETAIL)

TW=326.3
BW=322.0

TW=326.3
BW=324.0

STORMWATER MANAGEMENT AREA 6

N

IAN WESLEY ELIZABETH (DEED BOOK 6

LEGEND

CL SB	CENTERLINE STONE BOUND
SB/DH	STONE BOUND WITH DRILLHOLE
I.P.	IRON PIN
WG	WATER GATE
HYD	HYDRANT
UP	UTILITY POLE
N/F	NOW OR FORMERLY
WF	WETLANDS FLAG
BF	EDGE OF BANK
	STONE WALL
OHW	OVERHEAD WIRES
D	PROPOSED STORM DRAIN
S	PROPOSED GRAVITY SEWER LINE
G	PROPOSED GAS SERVICE
W	PROPOSED WATER MAIN
FM	PROPOSED SEWER FORCE MAIN
SD	PROPOSED SUBDRAIN
T.W.=152.25	TOP OF WALL ELEVATION
B.F.=143.58	BASEMENT FLOOR ELEVATION
G.F.=151.0	GARAGE FLOOR ELEVATION
PM	PROPOSED PRESSURE SEWER MAIN
FD	PROPOSED FOUNDATION DRAIN
UGW	PROPOSED UNDERGROUND UTILITIES (TELEPHONE, ELECTRIC, CABLE)
S.G.	PROPOSED SLIDE GATE

PROPOSED 24' WIDE DRIVE (PRIVATE)

T.G.=334.20
INV.=331.20

T.G.=337.70
INV.=334.70

T.G.=341.70
INV.=338.70

RIM=344.90 (SOLID)
INV.=334.60

RIM=345.80 (GRATE)
INV.=335.50

RIM=339.80 (SOLID)
INV.=336.10

T.G.=340.10
INV.=337.10

T.G.=347.00
INV.=344.00

T.G.=350.80
INV.=347.80

T.G.=341.00
INV.=338.00

T.G.=350.40
INV.=347.40

T.G.=352.20
INV.=349.70

T.G.=353.00
INV.=349.90

T.G.=351.70
INV.=350.10

T.G.=352.70
INV.=349.20

RIM=341.70 (SOLID)
INV.=336.70

PROPOSED TWO-FAMILY DWELLING (TYP.)

PROPOSED DECK (TYP.)

PROPOSED 5' WIDE BIT. CONC. SIDEWALK (TYP.)

PROBE LOPP (DEE

SITE PLAN
IN
BOXBOROUGH, MASSACHUSETTS

LAYOUT AND UTILITIES PLAN

FOR: BOXBOROUGH TOWN CENTER, LLC

SCALE: 1"=40'

DECEMBER 22, 2016

REVISED JUNE 22, 2017

STAMSKI AND MCNARY, INC.
1000 MAIN STREET ACTON, MASSACHUSETTS
ENGINEERING – PLANNING – SURVEYING

0 20 40 80 120 160

COMMONWEALTH OF MASSACHUSETTS
GEORGE DIMAKARAKOS
CIVIL
No. 41287
REGISTERED PROFESSIONAL ENGINEER

COMMONWEALTH OF MASSACHUSETTS
JOSEPH MARCH
39984
REGISTERED LAND SURVEYOR

LEGEND

CL SB	CENTERLINE STONE BOUND
SB/DH	STONE BOUND WITH DRILLHOLE
I.P.	IRON PIN
WG	WATER GATE
HYD	HYDRANT
UP	UTILITY POLE
N/F	NOW OR FORMERLY
WF	WETLANDS FLAG
BF	EDGE OF BANK
	STONE WALL
OHW	OVERHEAD WIRES
D	PROPOSED STORM DRAIN
S	PROPOSED GRAVITY SEWER LINE
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G.F.=151.0	GARAGE FLOOR ELEVATION
PM	PROPOSED PRESSURE SEWER MAIN
FD	PROPOSED FOUNDATION DRAIN
UGW	PROPOSED UNDERGROUND UTILITIES (TELEPHONE, ELECTRIC, CABLE)
S.G.	PROPOSED SLIDE GATE

N

STOW ROAD

"DRAINAGE EASEMENT A" AS SHOWN ON PLAN No. 352 OF 1995

OUTFALL B

FLARED END OUTLET 12" INV.=208.0±

DMH A

DCB A

DCB B2

DCB B3

DCB B

DMH B

DMH 25 CONTECH

6" LOAM & SEED DISTURBED AREAS WITHIN EASEMENT

SEE LANDSCAPE PLAN

BEGIN PROPOSED 20' WIDE EMERGENCY ACCESS

WELL

(PRIMARY WELL PER 1995 BOH RECORDS)

PROPOSED 20' WIDE EMERGENCY ACCESS

PROPOSED PRIVATELY OWNED WASTEWATER TREATMENT FACILITY (PWTF) PER 314 CMR 5.00 (APPROXIMATE)

STORMWATER MANAGEMENT AREA 8

STORMWATER MANAGEMENT AREA 7

WELL GHC-2
TOP OF COVER=325.20
GROUND ELEV.=322.12

PROPOSED RESERVE EFFLUENT DISPOSAL AREA (DESIGN BY OTHERS)

PROPOSED PRIMARY EFFLUENT DISPOSAL AREA (DESIGN BY OTHERS)

FIRE CISTERN No. 2

PROPOSED 24' WIDE DRIVE (PRIVATE)

PROPOSED 5' WIDE BIT. CONC. SIDEWALK (TYP.)

PROPOSED TWO-FAMILY DWELLING (TYP.)

24 A B

25 A B

26 A B

27 A B

28

44 B A

45 B A

46 B

SITE PLAN IN BOXBOROUGH, MASSACHUSETTS

LAYOUT AND UTILITIES PLAN

FOR: BOXBOROUGH TOWN CENTER, LLC

SCALE: 1"=40' DECEMBER 22, 2016 *REVISED JUNE 22, 2017*

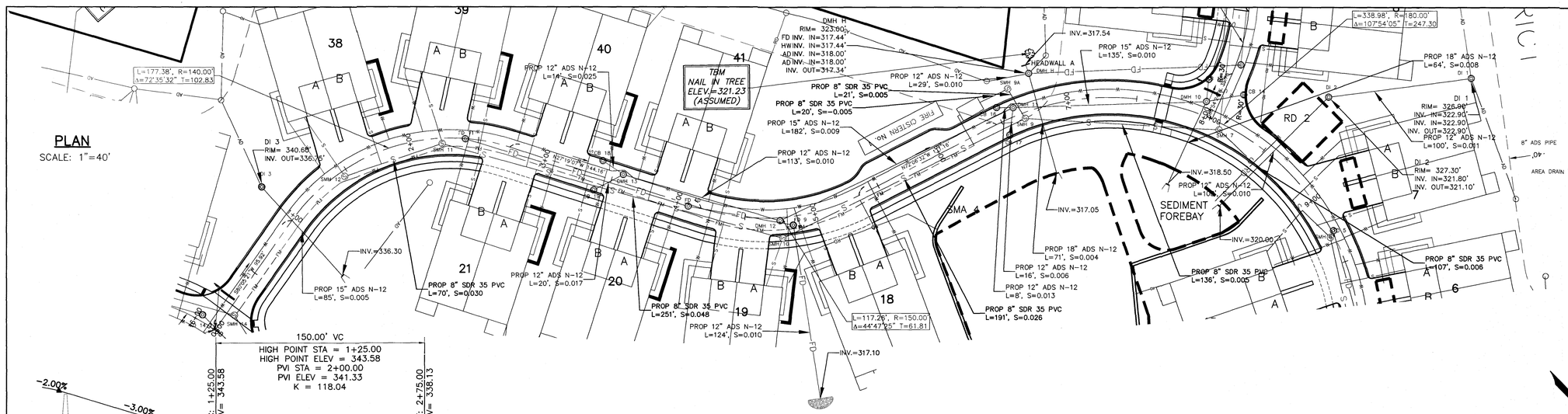
STAMSKI AND MCNARY, INC.
1000 MAIN STREET ACTON, MASSACHUSETTS
ENGINEERING – PLANNING – SURVEYING

0 20 40 80 120 160

COMMONWEALTH OF MASSACHUSETTS GEORGE DIMAKARAKOS CIVIL No. 41287 REGISTERED PROFESSIONAL ENGINEER

COMMONWEALTH OF MASSACHUSETTS JOSEPH MARCH # 36564 PROFESSIONAL LAND SURVEYOR

PLAN
SCALE: 1"=40'



LEGEND

CL SB	CENTERLINE STONE BOUND
SB/DH	STONE BOUND WITH DRILLHOLE
I.P.	IRON PIN
WG	WATER GATE
HYD	HYDRANT
UP	UTILITY POLE
N/F	NOW OR FORMERLY
WF	WETLANDS FLAG
BF	EDGE OF BANK
	STONE WALL
OHW	OVERHEAD WIRES
D	PROPOSED STORM DRAIN
S	PROPOSED GRAVITY SEWER LINE
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T.W.=152.25	TOP OF WALL ELEVATION
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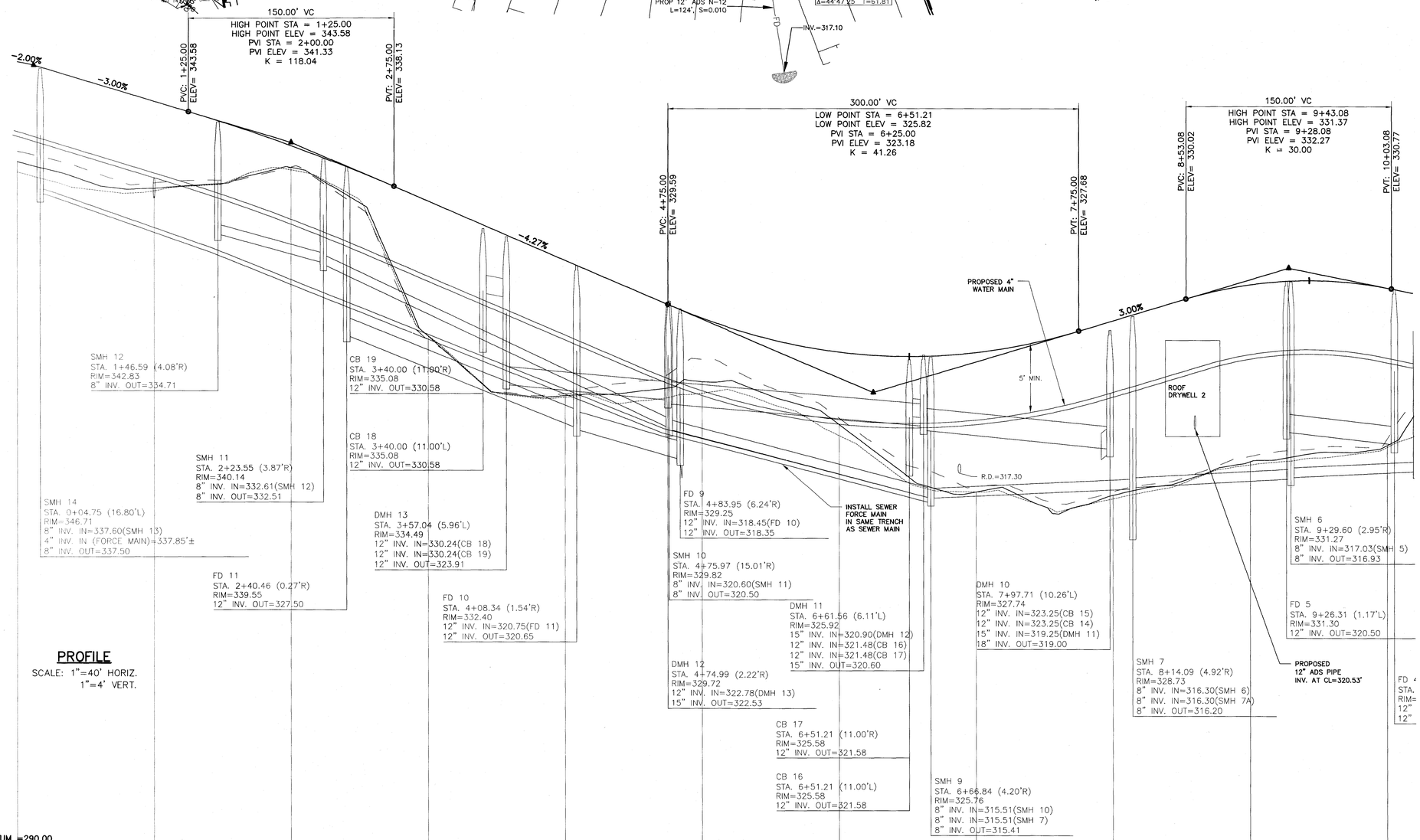
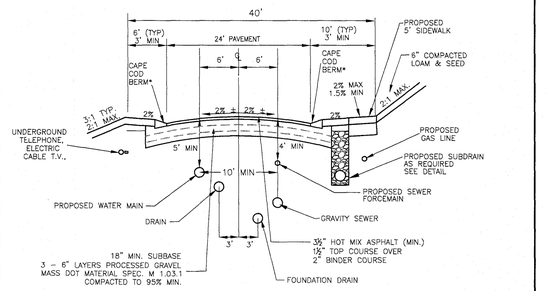
PM	PROPOSED PRESSURE SEWER MAIN
FD	PROPOSED FOUNDATION DRAIN
UGW	PROPOSED UNDERGROUND UTILITIES (TELEPHONE, ELECTRIC, CABLE)
S.G.	PROPOSED SLIDE GATE

PROFILE
SCALE: 1"=40' HORIZ.
1"=4' VERT.





* BELGIAN BLOCK MAY BE SUBSTITUTED FOR CAPE COD BERM

TYPICAL UTILITY CROSS SECTION
NOT TO SCALE

SITE PLAN IN BOXBOROUGH, MASSACHUSETTS

PLAN AND PROFILE
DRIVE A STA 0+00 TO 9+00

FOR: BOXBOROUGH TOWN CENTER, LLC
SCALE: 1"=40' DECEMBER 22, 2016
REVISED JUNE 22, 2017

STAMSKI AND MCNARY, INC.
1000 MAIN STREET ACTON, MASSACHUSETTS
ENGINEERING - PLANNING - SURVEYING

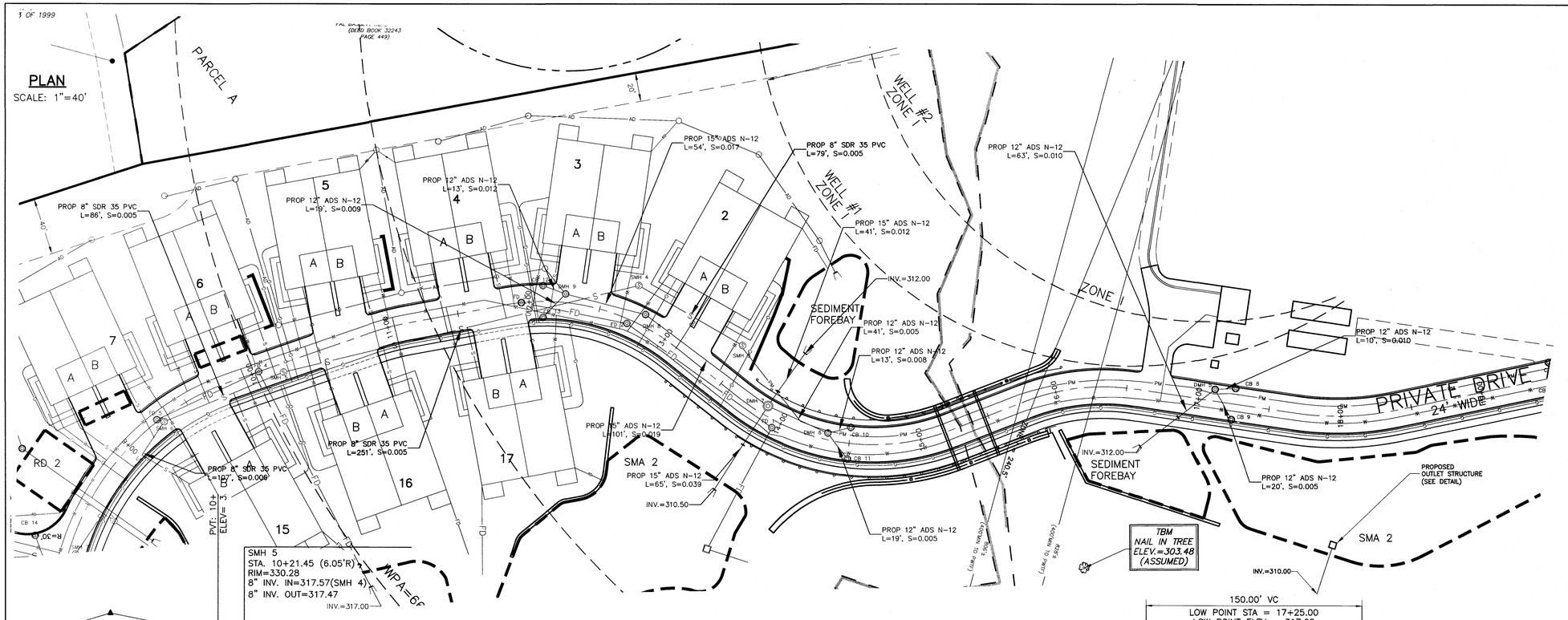
0 20 40 80 120 160 FT

COMMONWEALTH OF MASSACHUSETTS
GEORGE DIMAKARAKOS
CIVIL
No. 41281
REGISTERED PROFESSIONAL ENGINEER

COMMONWEALTH OF MASSACHUSETTS
JOSEPH MARCH
36384
REGISTERED PROFESSIONAL LAND SURVEYOR

1 OF 1999

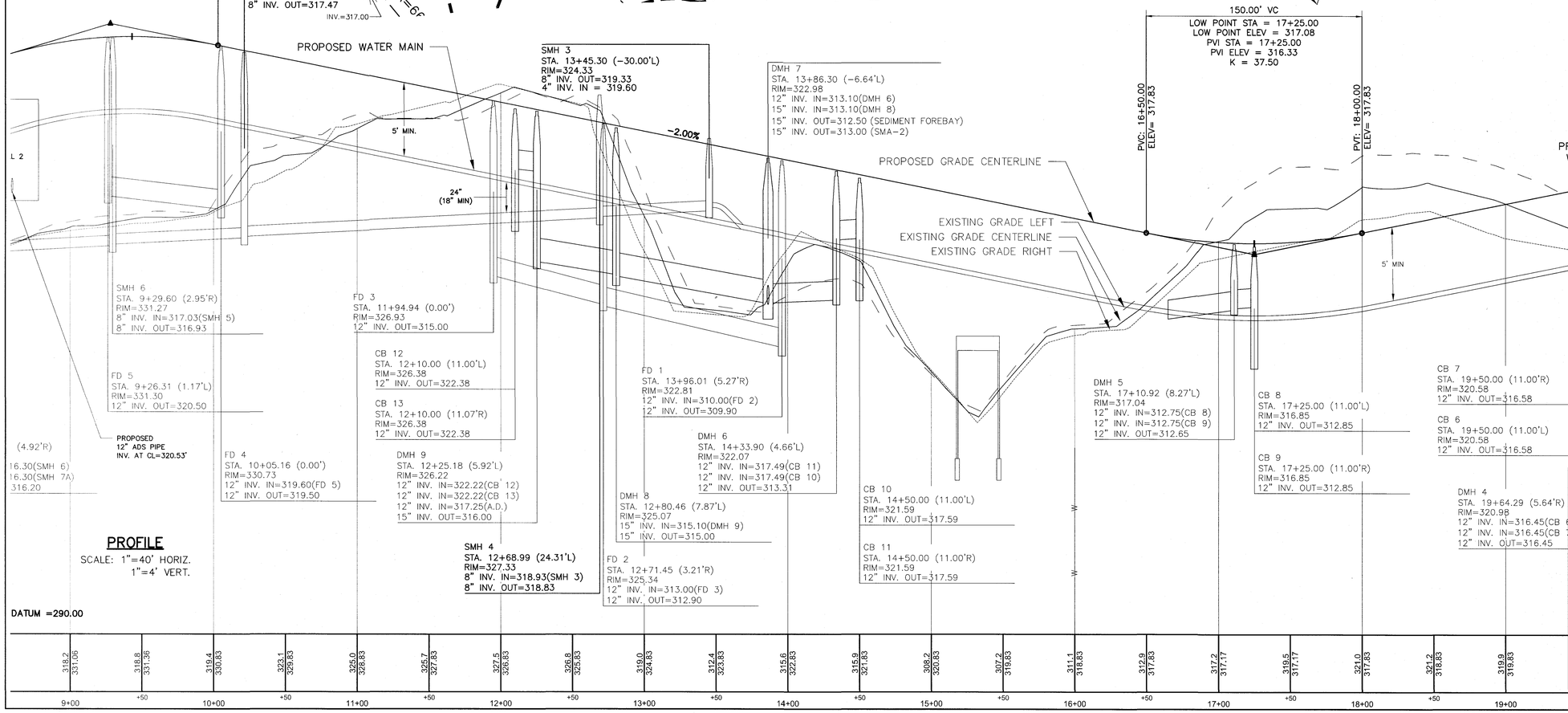
PLAN
SCALE: 1"=40'

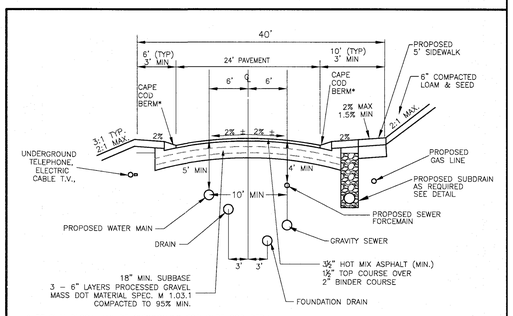


LEGEND

CL SB	CENTERLINE STONE BOUND
SB/DH	STONE BOUND WITH DRILLHOLE
I.P.	IRON PIN
WG	WATER GATE
HYD	HYDRANT
UP	UTILITY POLE
N/F	NOW OR FORMERLY
WF	WETLANDS FLAG
BF	EDGE OF BANK
	STONE WALL
OHW	OVERHEAD WIRES
D	PROPOSED STORM DRAIN
S	PROPOSED GRAVITY SEWER LINE
G	PROPOSED GAS SERVICE
W	PROPOSED WATER MAIN
FM	PROPOSED SEWER FORCE MAIN
SD	PROPOSED SUBDRAIN
T.W.=152.25	TOP OF WALL ELEVATION
B.F.=143.58	BASEMENT FLOOR ELEVATION
G.F.=151.0	GARAGE FLOOR ELEVATION
PM	PROPOSED PRESSURE SEWER MAIN
FD	PROPOSED FOUNDATION DRAIN
UGW	PROPOSED UNDERGROUND UTILITIES (TELEPHONE, ELECTRIC, CABLE)
S.G.	PROPOSED SLIDE GATE

PROFILE
SCALE: 1"=40' HORIZ.
1"=4' VERT.





* BELGIAN BLOCK MAY BE SUBSTITUTED FOR CAPE COD BERM

TYPICAL UTILITY CROSS SECTION
NOT TO SCALE

SITE PLAN IN BOXBOROUGH, MASSACHUSETTS

PLAN AND PROFILE DRIVE A STA 9+00 TO 19+00

FOR: BOXBOROUGH TOWN CENTER, LLC

SCALE: 1"=40' DECEMBER 22, 2016
REVISED JUNE 22, 2017

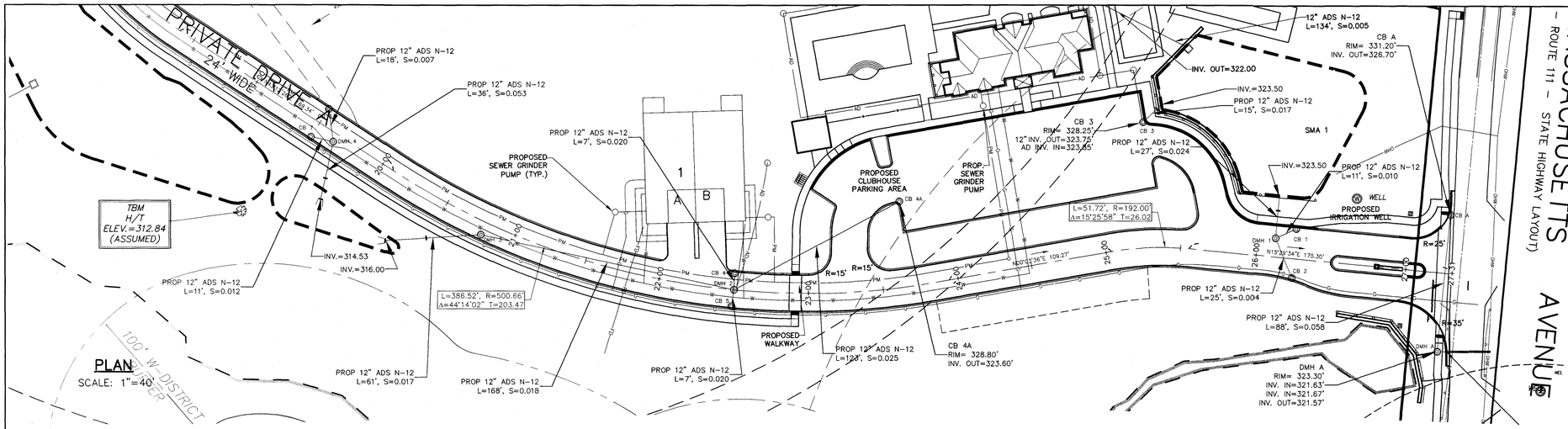
STAMSKI AND MCNARY, INC.
1000 MAIN STREET ACTON, MASSACHUSETTS
ENGINEERING - PLANNING - SURVEYING

0 20 40 80 120 160 FT

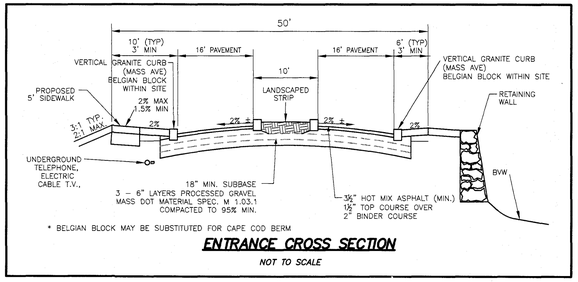
(2069 SITE10A.dwg) Sheet 17 of 30 SM-2069

COMMONWEALTH OF MASSACHUSETTS GEORGE DIMAKARAKOS CIVIL No. 41281 REGISTERED PROFESSIONAL ENGINEER

COMMONWEALTH OF MASSACHUSETTS JOSEPH MARCH # 36384 REGISTERED LAND SURVEYOR



PLAN
SCALE: 1"=40'



ENTRANCE CROSS SECTION
NOT TO SCALE

LEGEND

CL SB	CENTERLINE STONE BOUND
SB/DH	STONE BOUND WITH DRILLHOLE
I.P.	IRON PIN
WG	WATER GATE
HYD	HYDRANT
UP	UTILITY POLE
N/F	NOW OR FORMERLY
WF	WETLANDS FLAG
BF	EDGE OF BANK
	STONE WALL
OHW	OVERHEAD WIRES
D	PROPOSED STORM DRAIN
S	PROPOSED GRAVITY SEWER LINE
G	PROPOSED GAS SERVICE
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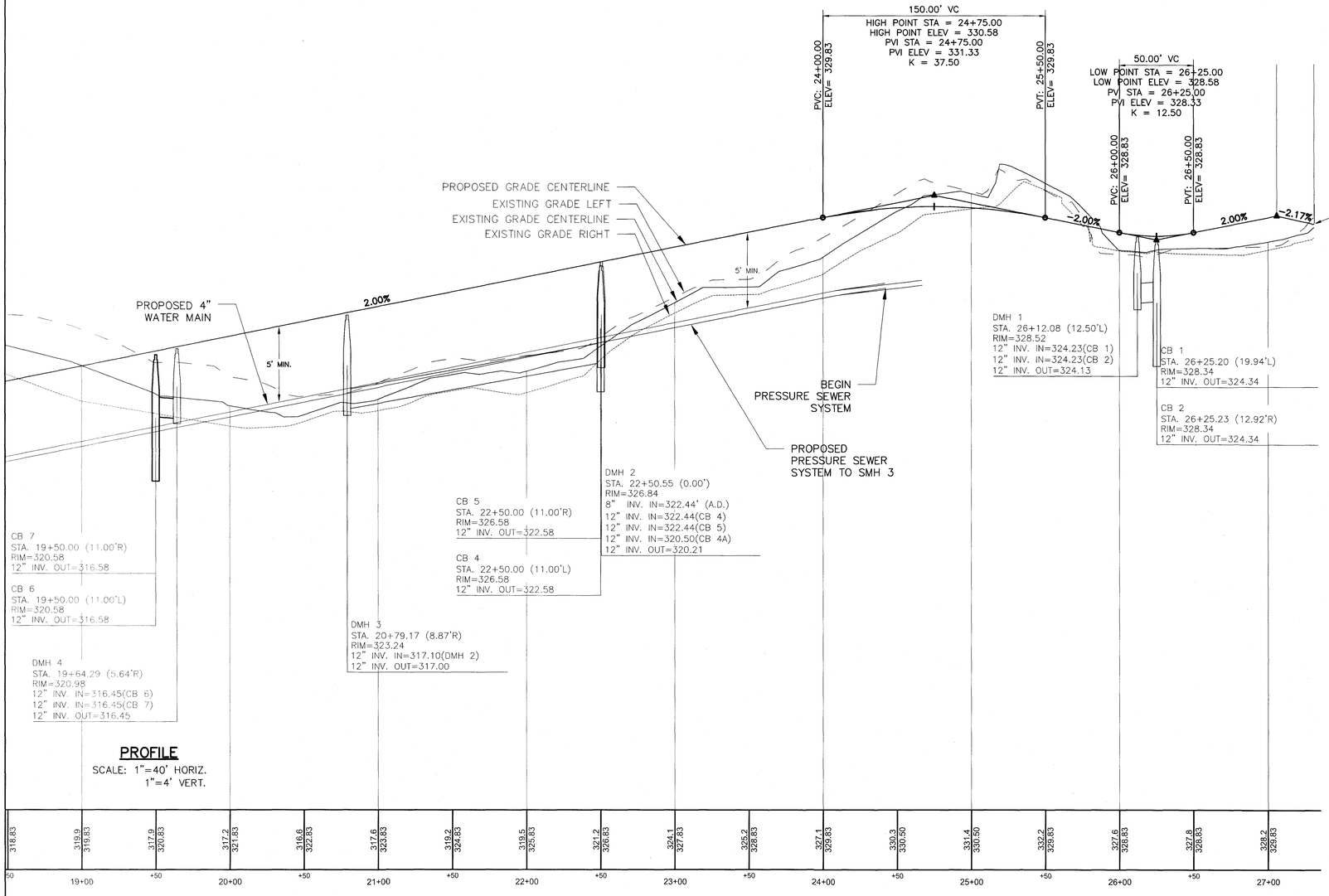
PM	PROPOSED PRESSURE SEWER MAIN
FD	PROPOSED FOUNDATION DRAIN
UGW	PROPOSED UNDERGROUND UTILITIES (TELEPHONE, ELECTRIC, CABLE)
S.G.	PROPOSED SLIDE GATE



PROFILE
SCALE: 1"=40' HORIZ.
1"=4' VERT.

SITE PLAN IN BOXBOROUGH, MASSACHUSETTS

PLAN AND PROFILE
DRIVE A STA 19+00 TO 27+27

FOR: BOXBOROUGH TOWN CENTER, LLC

SCALE: 1"=40' DECEMBER 22, 2016
REVISED JUNE 22, 2017

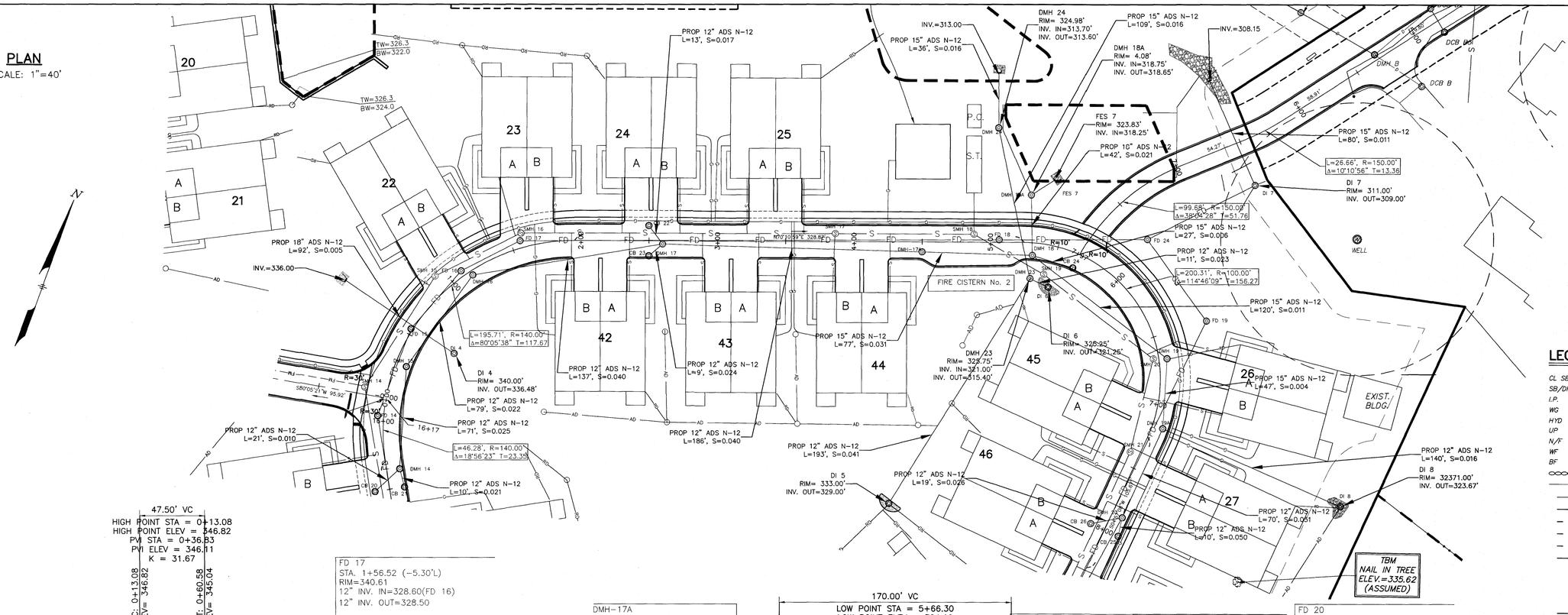
STAMSKI AND MCNARY, INC.
1000 MAIN STREET ACTON, MASSACHUSETTS
ENGINEERING - PLANNING - SURVEYING

0 20 40 80 120 160 FT

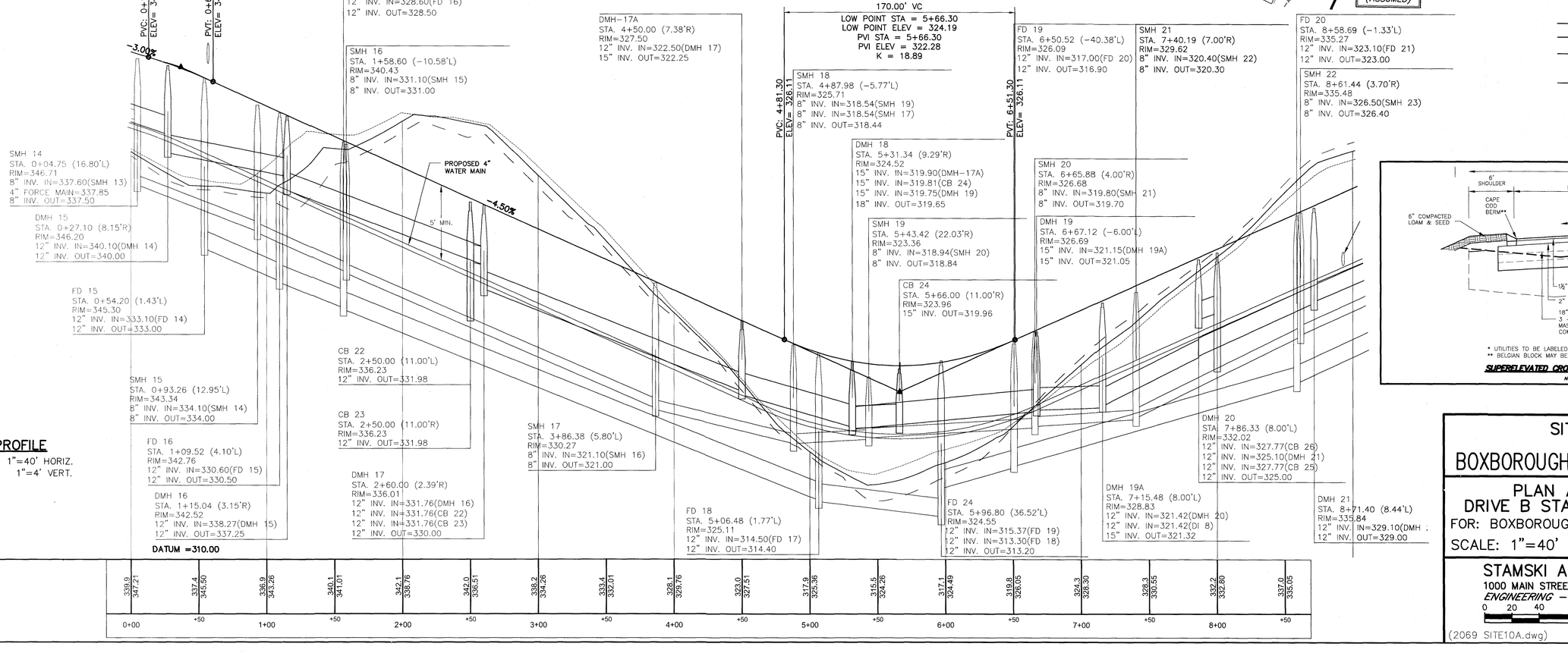
COMMONWEALTH OF MASSACHUSETTS
GEORGE DIMAKARAKOS
CIVIL
No. 47381
REGISTERED PROFESSIONAL ENGINEER

COMMONWEALTH OF MASSACHUSETTS
JOSEPH MARCH
36384
REGISTERED PROFESSIONAL ENGINEER

PLAN
SCALE: 1"=40'



PROFILE
SCALE: 1"=40' HORIZ.
1"=4' VERT.



LEGEND

CL SB	CENTERLINE STONE BOUND
SB/DH	STONE BOUND WITH DRILLHOLE
I.P.	IRON PIN
WG	WATER GATE
HYD	HYDRANT
UP	UTILITY POLE
N/F	NOW OR FORMERLY
WF	WETLANDS FLAG
BF	EDGE OF BANK
	STONE WALL
OHW	OVERHEAD WIRES
D	PROPOSED STORM DRAIN
S	PROPOSED GRAVITY SEWER LINE
G	PROPOSED GAS SERVICE
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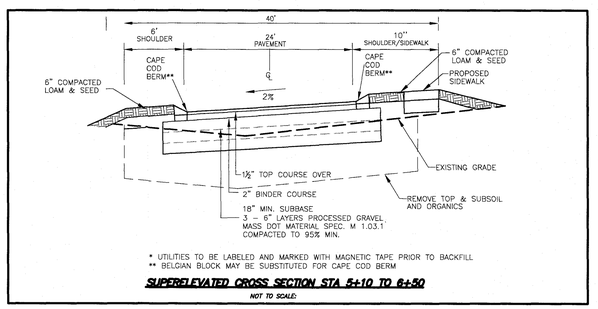
PM	PROPOSED PRESSURE SEWER MAIN
FD	PROPOSED FOUNDATION DRAIN
UGW	PROPOSED UNDERGROUND UTILITIES (TELEPHONE, ELECTRIC, CABLE)
S.G.	PROPOSED SLIDE GATE



* UTILITIES TO BE LABELED AND MARKED WITH MAGNETIC TAPE PRIOR TO BACKFILL
** BELGIAN BLOCK MAY BE SUBSTITUTED FOR CAPE COD BERM

SUPERELEVATED CROSS SECTION STA 5+10 TO 6+50
NOT TO SCALE:

SITE PLAN IN BOXBOROUGH, MASSACHUSETTS

PLAN AND PROFILE DRIVE B STA -0+12 TO 8+00

FOR: BOXBOROUGH TOWN CENTER, LLC
SCALE: 1"=40' DECEMBER 22, 2016
REVISED JUNE 22, 2017

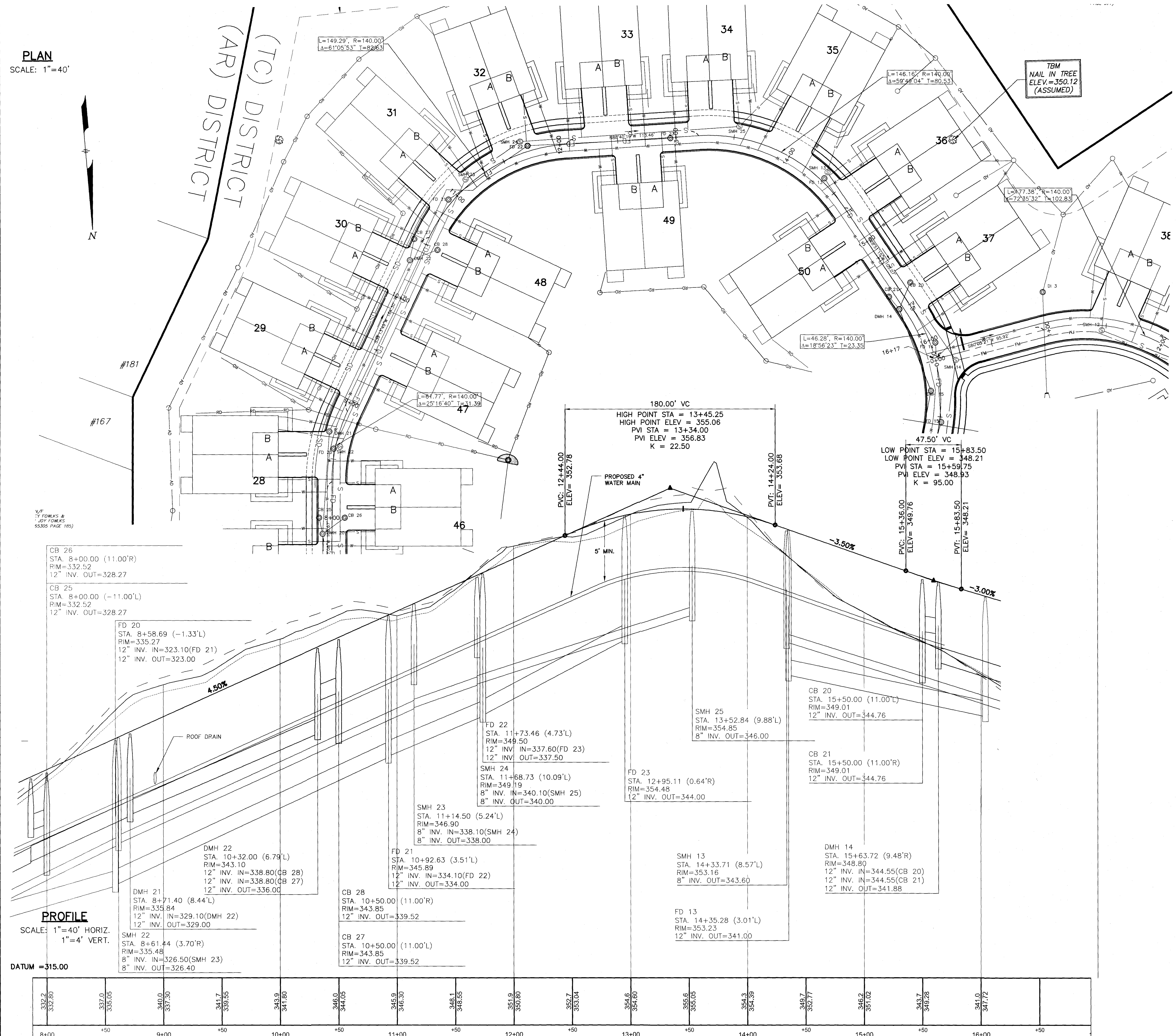
STAMSKI AND MCNARY, INC.
1000 MAIN STREET ACTON, MASSACHUSETTS
ENGINEERING - PLANNING - SURVEYING

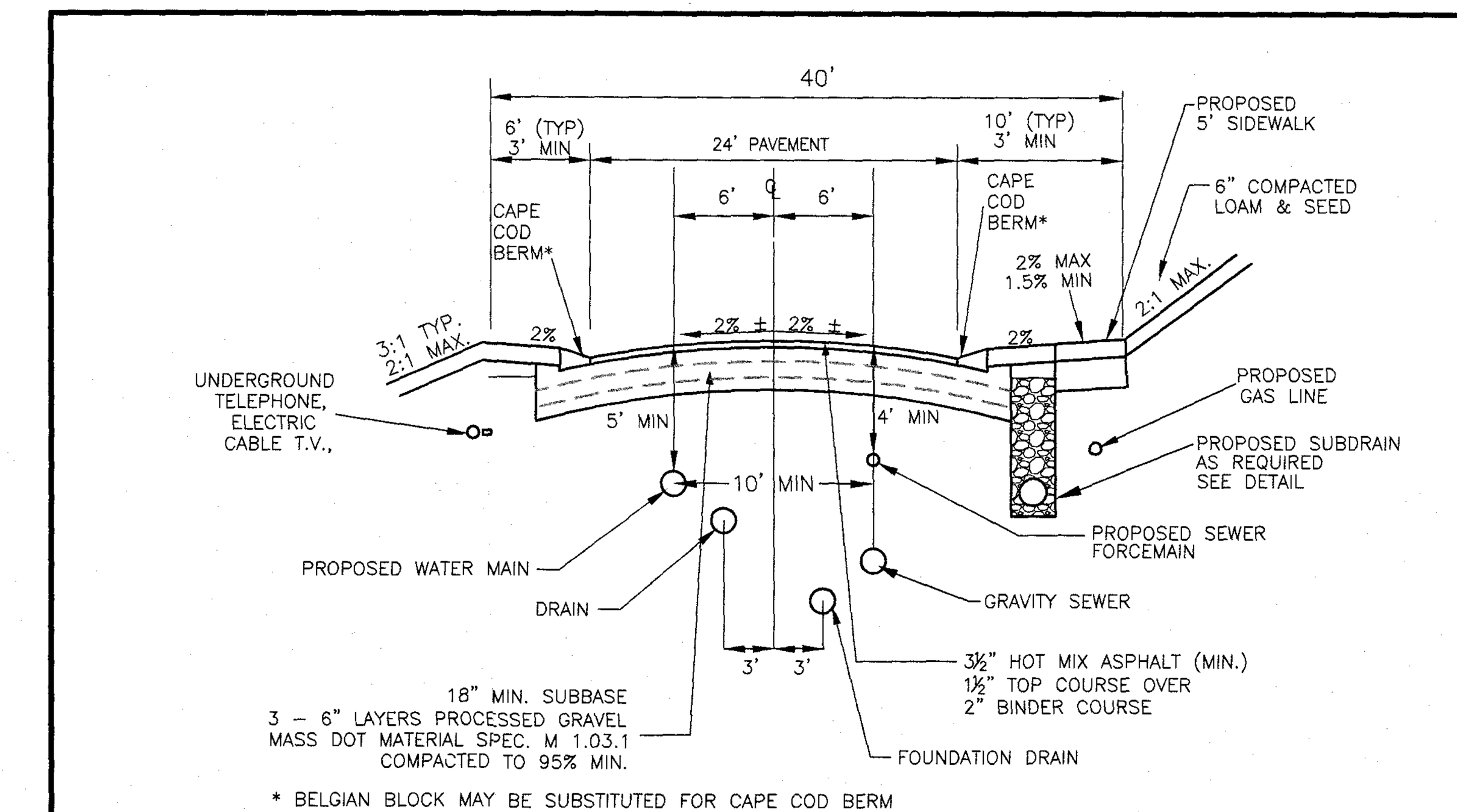
0 20 40 80 120 160 FT

(2069 SITE10A.dwg) Sheet 19 of 30 SM-2069

COMMONWEALTH OF MASSACHUSETTS GEORGE DIMAKARAKOS CIVIL No. 41281 REGISTERED PROFESSIONAL ENGINEER

COMMONWEALTH OF MASSACHUSETTS JOSEPH MARCH # 36384 PROFESSIONAL LAND SURVEYOR





TYPICAL UTILITY CROSS SECTION

NOT TO SCALE

LEGEND

CL SB	CENTERLINE STONE BOUND
SB/DH	STONE BOUND WITH DRILLHOLE
I.P.	IRON PIN
WG	WATER GATE
HYD	HYDRANT
UP	UTILITY POLE
N/F	NOW OR FORMERLY
WF	WETLANDS FLAG
BF	EDGE OF BANK
	STONE WALL
OHW	OVERHEAD WIRES
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FD	PROPOSED FOUNDATION DRAIN
UGW	PROPOSED UNDERGROUND UTILITIES (TELEPHONE, ELECTRIC, CABLE)
S.G.	PROPOSED SLIDE GATE

SITE PLAN IN BOXBOROUGH, MASSACHUSETTS

PLAN AND PROFILE DRIVE B STA 8+00 TO 16+17

FOR: BOXBOROUGH TOWN CENTER, LLC

DECEMBER 22, 2016

SCALE: 1"=40' *REVISED JUNE 22, 2017*

STAMSKI AND MCNARY, INC.

1000 MAIN STREET ACTON, MASSACHUSETTS

ENGINEERING – PLANNING – SURVEYING

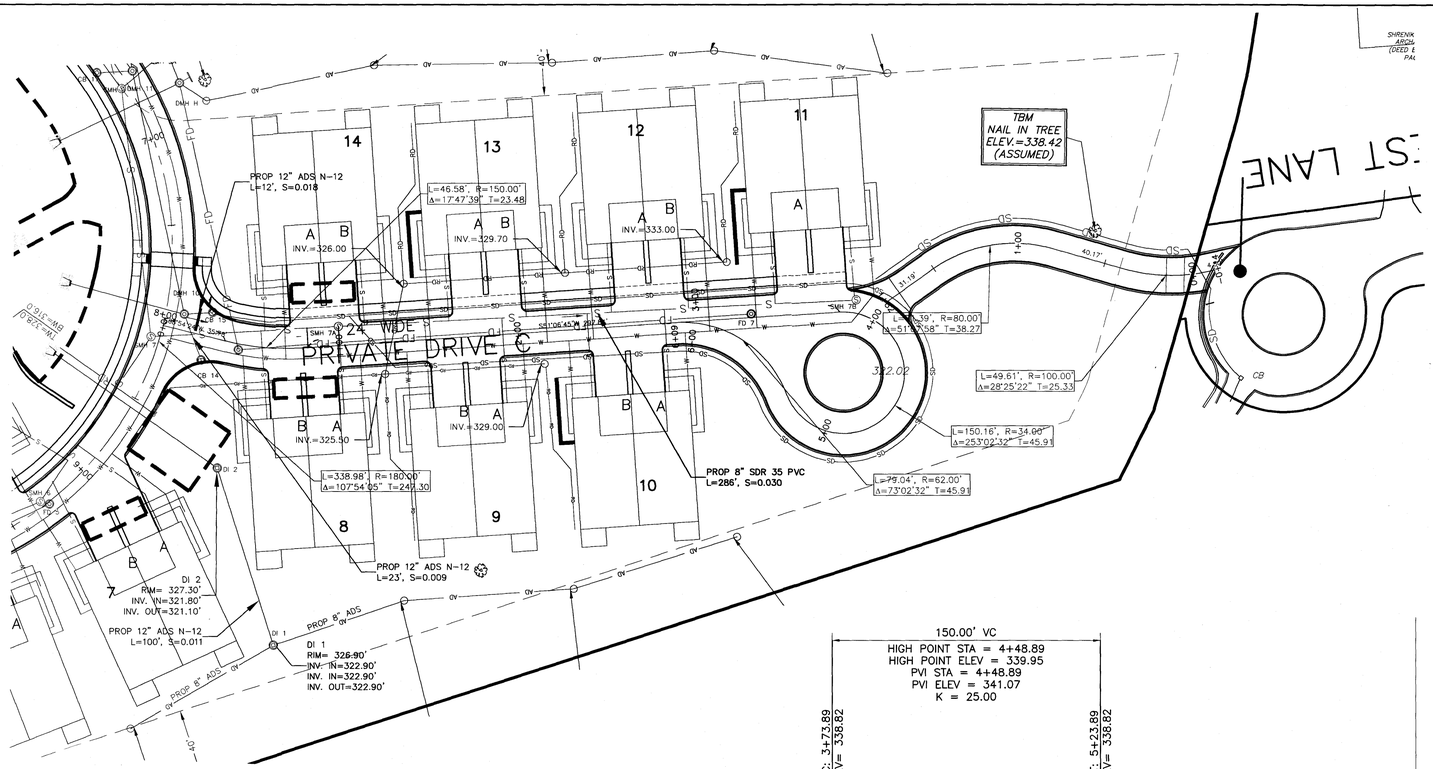
0 20 40 80 120 160 FT

(2069 SITE10A.dwg) Sheet 20 of 30 SM-2069

COMMONWEALTH OF MASSACHUSETTS GEORGE DIMAKARAKOS CIVIL REGISTERED PROFESSIONAL ENGINEER

COMMONWEALTH OF MASSACHUSETTS JOSEPH MARCH # 36384 PROFESSIONAL LAND SURVEYOR

PLAN
SCALE: 1"=40'



LEGEND

CL SB	CENTERLINE STONE BOUND
SB/DH	STONE BOUND WITH DRILLHOLE
I.P.	IRON PIN
WG	WATER GATE
HYD	HYDRANT
UP	UTILITY POLE
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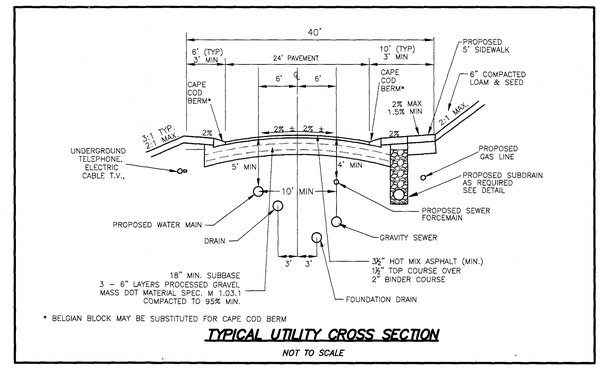
PM	PROPOSED PRESSURE SEWER MAIN
FD	PROPOSED FOUNDATION DRAIN
UGW	PROPOSED UNDERGROUND UTILITIES (TELEPHONE, ELECTRIC, CABLE)
S.G.	PROPOSED SLIDE GATE

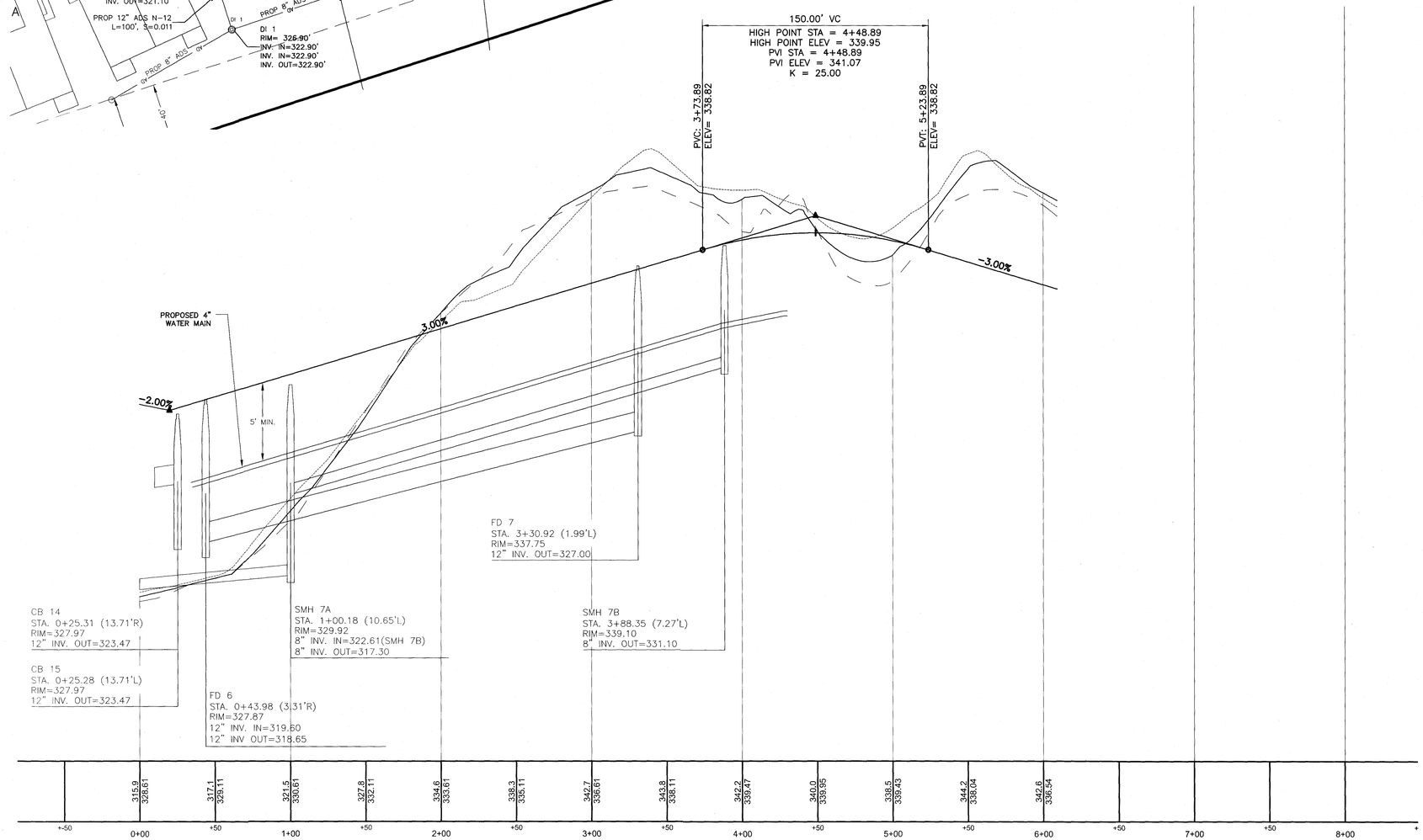


* BELGIAN BLOCK MAY BE SUBSTITUTED FOR CAPE COD BERM

TYPICAL UTILITY CROSS SECTION

NOT TO SCALE

PROFILE
SCALE: 1"=40' HORIZ.
1"=4' VERT.



SITE PLAN
IN
BOXBOROUGH, MASSACHUSETTS

PLAN AND PROFILE
DRIVE C STA 0+00 TO 6+09

FOR: BOXBOROUGH TOWN CENTER, LLC

SCALE: 1"=40' DECEMBER 22, 2016
REVISED JUNE 22, 2017

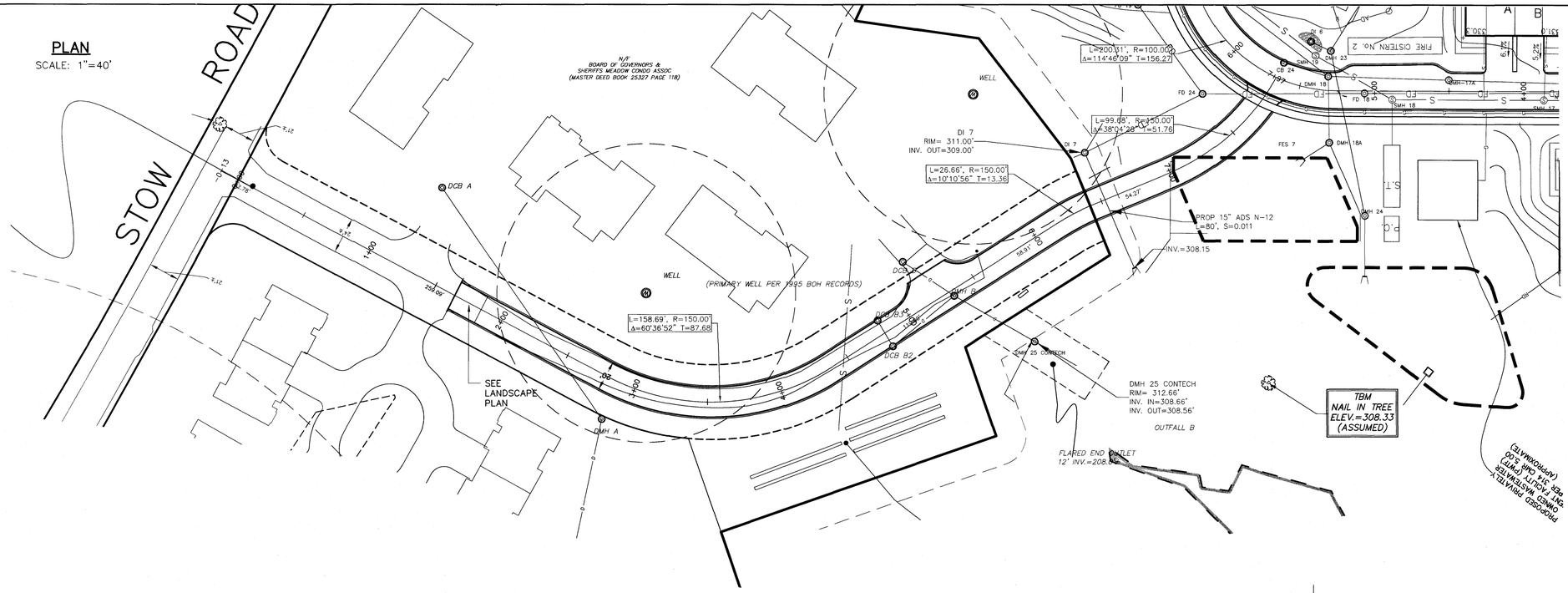
STAMSKI AND MCNARY, INC.
1000 MAIN STREET ACTON, MASSACHUSETTS
ENGINEERING – PLANNING – SURVEYING

0 20 40 80 120 160 FT

COMMONWEALTH OF MASSACHUSETTS
GEORGE DIMAKARAKOS
CIVIL
No. 41281
REGISTERED PROFESSIONAL ENGINEER

COMMONWEALTH OF MASSACHUSETTS
JOSEPH MARCH
36364
REGISTERED PROFESSIONAL LAND SURVEYOR

PLAN
SCALE: 1"=40'



LEGEND

CL SB	CENTERLINE STONE BOUND
SB/DH	STONE BOUND WITH DRILLHOLE
I.P.	IRON PIN
WG	WATER GATE
HYD	HYDRANT
UP	UTILITY POLE
N/F	NOW OR FORMERLY
WF	WETLANDS FLAG
BF	EDGE OF BANK
	STONE WALL
OHW	OVERHEAD WIRES
D	PROPOSED STORM DRAIN
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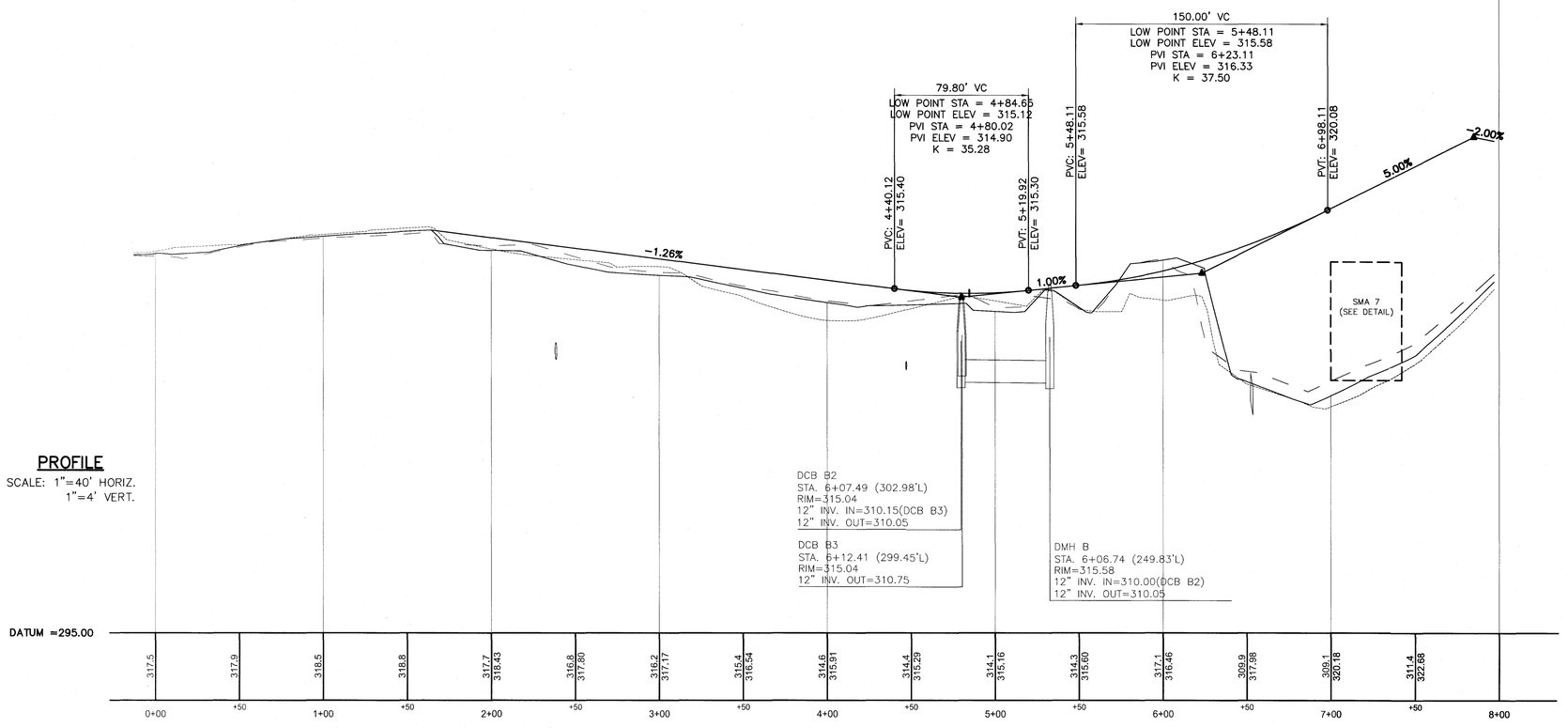
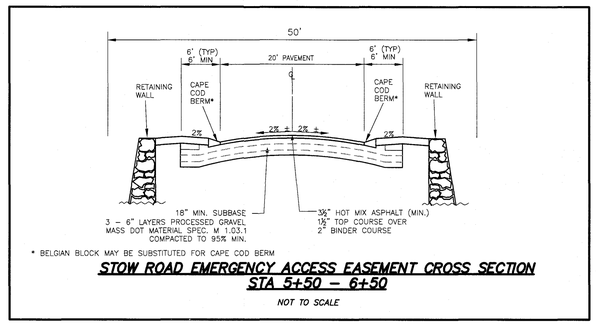
UGW	PROPOSED UNDERGROUND UTILITIES (TELEPHONE, ELECTRIC, CABLE)
S.G.	PROPOSED SLIDE GATE

PROFILE
SCALE: 1"=40' HORIZ.
1"=4' VERT.





* BELGIAN BLOCK MAY BE SUBSTITUTED FOR CAPE COD BERM

STOW ROAD EMERGENCY ACCESS EASEMENT CROSS SECTION
STA 5+50 - 6+50
NOT TO SCALE

SITE PLAN IN BOXBOROUGH, MASSACHUSETTS

PLAN AND PROFILE ACCESS B STA -0+13 TO 7+97

FOR: BOXBOROUGH TOWN CENTER, LLC

SCALE: 1"=40' DECEMBER 22, 2016
REVISED JUNE 22, 2017

STAMSKI AND MCNARY, INC.
1000 MAIN STREET ACTON, MASSACHUSETTS
ENGINEERING - PLANNING - SURVEYING

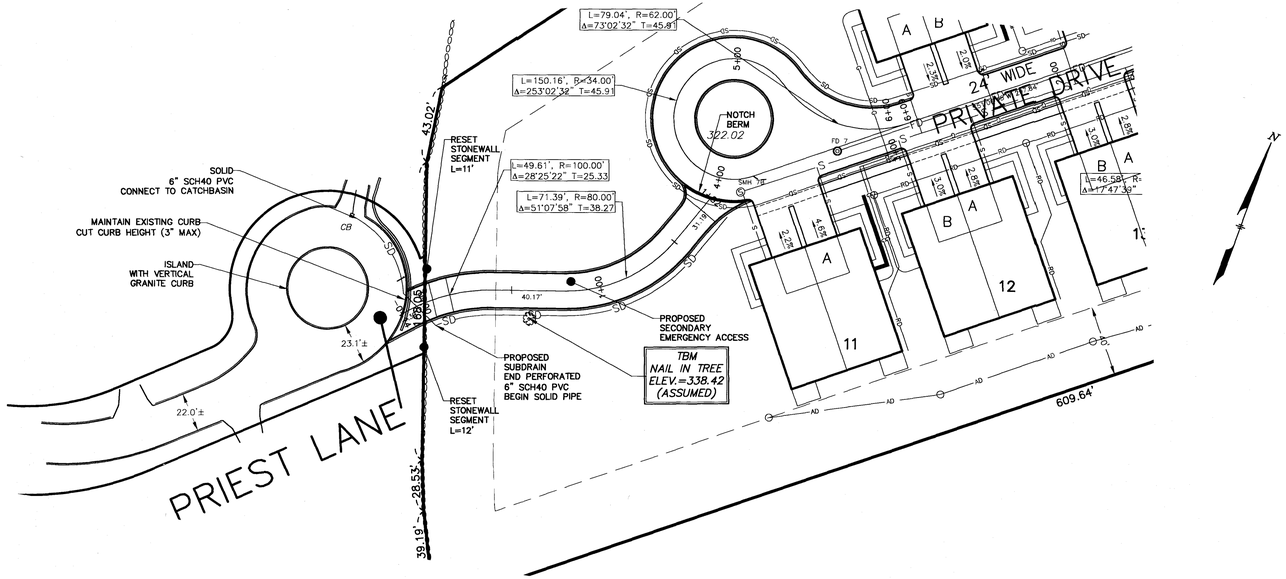
0 20 40 80 120 160 FT

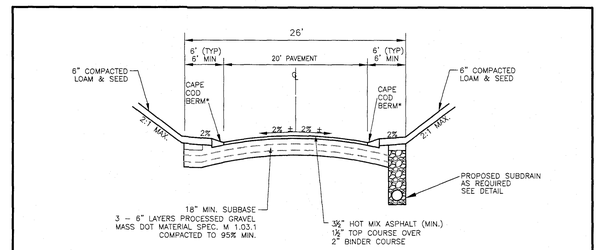
COMMONWEALTH OF MASSACHUSETTS
GEORGE DIMAKARAKOS
CIVIL
No. 42381
REGISTERED PROFESSIONAL ENGINEER

COMMONWEALTH OF MASSACHUSETTS
JOSEPH MARCH
36384
REGISTERED PROFESSIONAL LAND SURVEYOR

PLAN

SCALE: 1"=40'





* BELGIAN BLOCK MAY BE SUBSTITUTED FOR CAPE COD BERM

PRIEST LANE ACCESS CROSS SECTION

NOT TO SCALE

LEGEND

CL SB	CENTERLINE STONE BOUND
SB/DH	STONE BOUND WITH DRILLHOLE
I.P.	IRON PIN
WG	WATER GATE
HYD	HYDRANT
UP	UTILITY POLE
N/F	NOW OR FORMERLY
WF	WETLANDS FLAG
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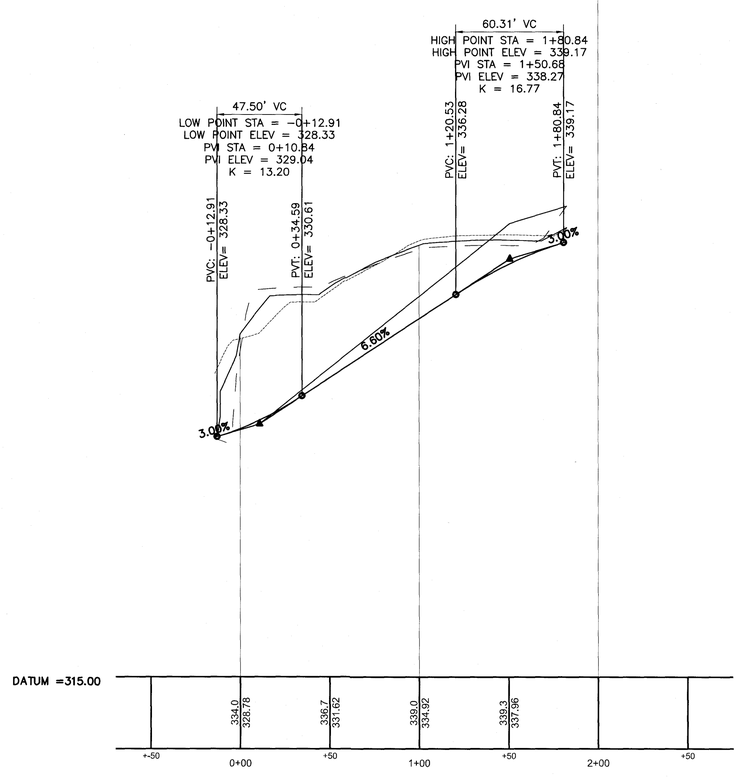
S.G.	PROPOSED SLIDE GATE

PROFILE

SCALE: 1"=40' HORIZ.
1"=4' VERT.



SITE PLAN IN BOXBOROUGH, MASSACHUSETTS

PLAN AND PROFILE ACCESS C STA −0+14 TO 1+82

FOR: BOXBOROUGH TOWN CENTER, LLC

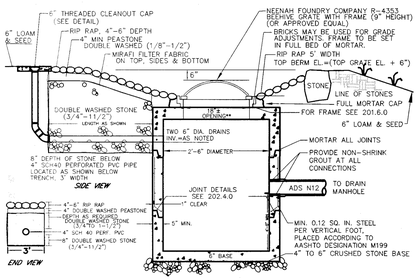
SCALE: 1"=40' DECEMBER 22, 2016 *REVISED JUNE 22, 2017*

STAMSKI AND MCNARY, INC.
1000 MAIN STREET ACTON, MASSACHUSETTS
ENGINEERING – PLANNING – SURVEYING

0 20 40 80 120 160 FT

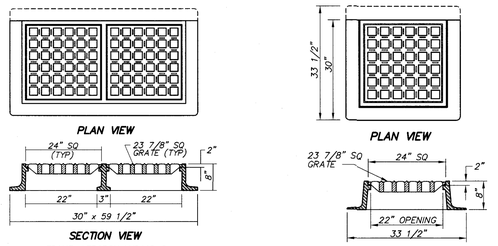
COMMONWEALTH OF MASSACHUSETTS GEORGE EMMANUEL KYRIAKIDES NO. 41281 REGISTERED PROFESSIONAL ENGINEER

COMMONWEALTH OF MASSACHUSETTS JOSEPH MARCH # 39384 REGISTERED PROFESSIONAL LAND SURVEYOR



NOTES
1. DETAILS NOT INDICATED ABOVE ARE TO BE SIMILAR TO THOSE SHOWN ON 201.2.0 AND 201.3.0
2. FOR DESCRIPTION, MATERIALS AND CONSTRUCTION METHOD, SEE MASS. HIGHWAY SPECIFICATIONS.
* MINIMUM DEPTH OF SUMP TO BE 4'-0".

DROP INLET DETAIL
NOT TO SCALE

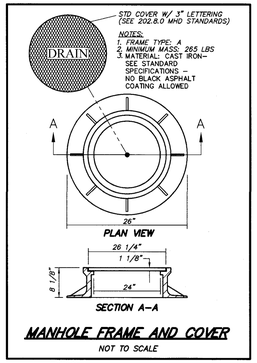


DOUBLE CATCH BASIN

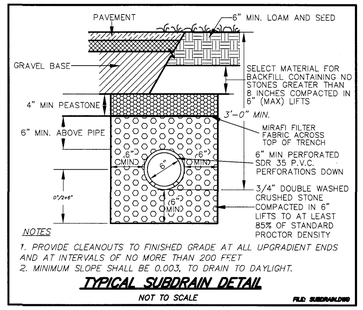
FULLY MACHINED AND INTERCHANGABLE FRAMES AND COVERS.
HIGH QUALITY MATERIALS AND WORKMANSHIP.
COAL TAR EPOXY PAINTED.
NO ROCK COVERS.
H-20 LOADING RATE 3 FLANGE FRAMES TO BE USED WITH CURB INLET

SINGLE CATCH BASIN

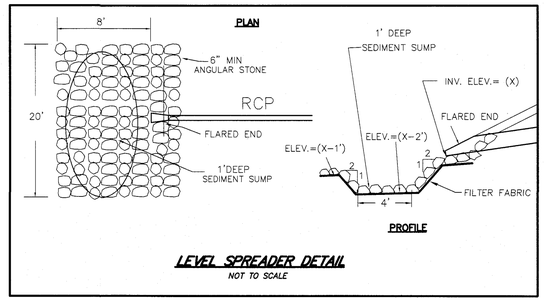
CATCH BASIN FRAME AND GRATE DETAIL
NOT TO SCALE



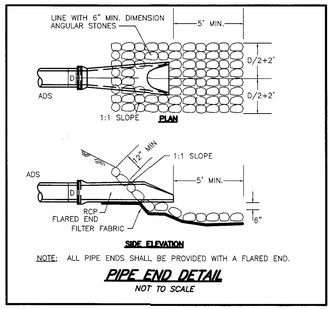
MANHOLE FRAME AND COVER
NOT TO SCALE



TYPICAL SUBDRAIN DETAIL
NOT TO SCALE

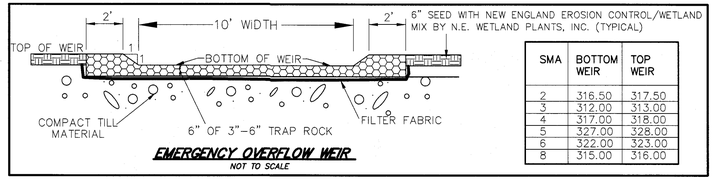


LEVEL SPREADER DETAIL
NOT TO SCALE



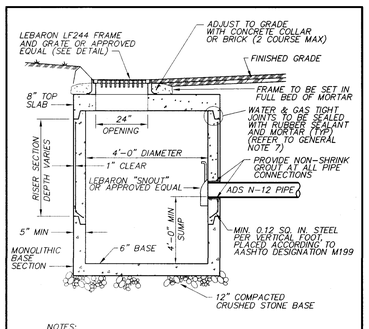
NOTE: ALL PIPE ENDS SHALL BE PROVIDED WITH A FLARED END.

PIPE END DETAIL
NOT TO SCALE



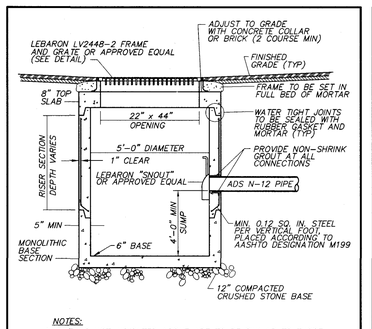
SMA	BOTTOM WEIR	TOP WEIR
2	316.50	317.50
3	312.00	313.00
4	317.00	318.00
5	327.00	328.00
6	322.00	323.00
8	315.00	316.00

EMERGENCY OVERFLOW WEIR
NOT TO SCALE



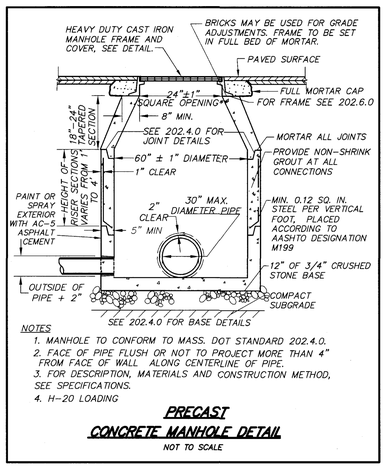
NOTES:
1. DETAILS NOT INDICATED ABOVE ARE TO BE SIMILAR TO THOSE SHOWN ON 201.2.0 AND 201.3.0 MASS DPW STANDARDS
2. FOR DESCRIPTION, MATERIALS AND CONSTRUCTION METHOD, SEE MASS. HIGHWAY SPECIFICATIONS.

PRECAST CONCRETE CATCH BASIN DETAIL
NOT TO SCALE



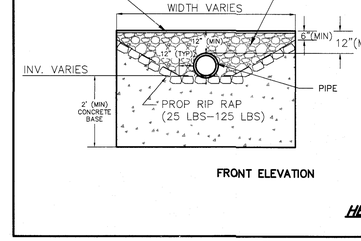
NOTES:
1. DETAILS NOT INDICATED ABOVE ARE TO BE SIMILAR TO THOSE SHOWN ON 201.2.0 AND 201.3.0 MASS DPW STANDARDS
2. FOR DESCRIPTION, MATERIALS AND CONSTRUCTION METHOD, SEE MASS. HIGHWAY SPECIFICATIONS.

PRECAST CONCRETE DOUBLE CATCH BASIN DETAIL
NOT TO SCALE

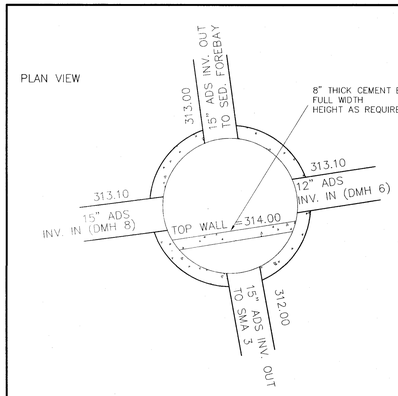


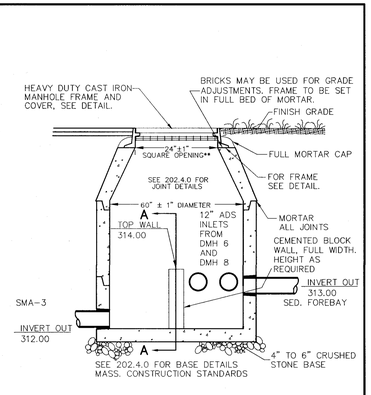
NOTES
1. MANHOLE TO CONFORM TO MASS. DOT STANDARD 202.4.0.
2. FACE OF PIPE FLUSH OR NOT TO PROJECT MORE THAN 4" FROM FACE OF WALL ALONG CENTERLINE OF PIPE.
3. FOR DESCRIPTION, MATERIALS AND CONSTRUCTION METHOD, SEE SPECIFICATIONS.
4. H-20 LOADING

PRECAST CONCRETE MANHOLE DETAIL
NOT TO SCALE



HEADWALL DETAIL
NOT TO SCALE

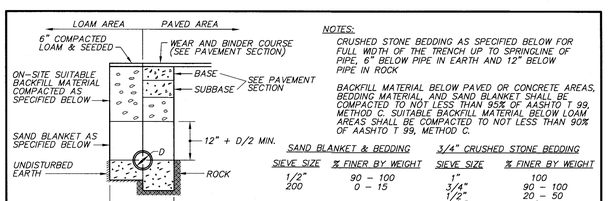




INV. IN FROM DMH 6=313.10
INV. IN FROM DMH 8=313.10
IMV. OUT TO SED. FOREBAY=313.00
INV. OUT TO SMA-3=312.00
TOP OF WALL=314.00

DMH-7
NOT TO SCALE

NOTE: SEE PRECAST CONCRETE MANHOLE DETAIL FOR MANHOLE SPECIFICATIONS.

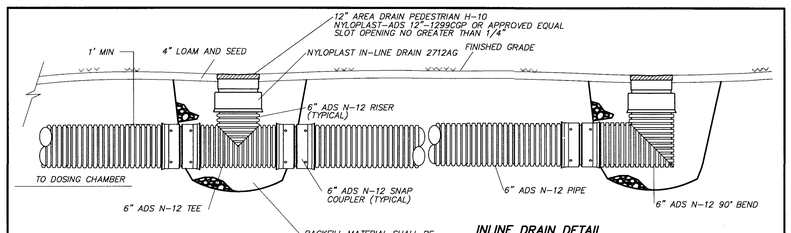


NOTES:
CRUSHED STONE BEDDING AS SPECIFIED BELOW FOR FULL WIDTH OF THE TRENCH UP TO SPRINGLINE OF PIPE, 6" BELOW PIPE IN EARTH AND 12" BELOW PIPE IN ROCK

BACKFILL MATERIAL BELOW PAVED OR CONCRETE AREAS, BEDDING MATERIAL, AND SAND BLANKET SHALL BE COMPACTED TO NOT LESS THAN 95% OF AASHTO T 99, METHOD C. SUITABLE BACKFILL MATERIAL BELOW LOAM AREAS SHALL BE COMPACTED TO NOT LESS THAN 90% OF AASHTO T 99, METHOD C.

SAND BLANKET & BEDDING		3/4" CRUSHED STONE BEDDING	
SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% FINER BY WEIGHT
1/2"	90 - 100	1"	100
200	0 - 15	3/4"	90 - 100
		1/2"	20 - 50
		3/8"	0 - 20
		# 4	0 - 5

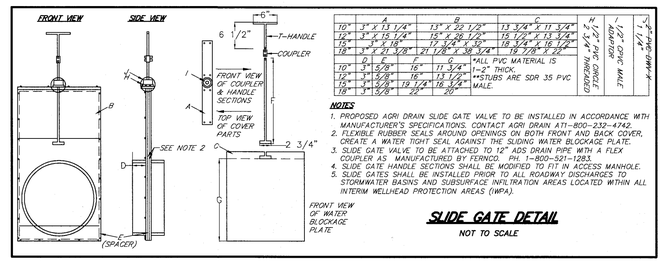
UTILITY TRENCH
NOT TO SCALE



INLINE DRAIN DETAIL

NOTES:
1. INLINE DRAINS SHALL BE AS MANUFACTURED BY ADS OR APPROVED EQUAL.
2. INLINE DRAINS, GRATES AND FRAMES SHALL BE INSTALLED AS REQUIRED BY THE MANUFACTURER'S SPECIFICATIONS.
3. GRATE AND FRAME MATERIALS SHALL CONFORM TO ASTM A536 GRADE 70-50-05 & A48-CLASS 30B.

AREA DRAIN DETAIL
NOT TO SCALE



	A	B	C	H	I	J
10"	3" x 13 1/4"	13" x 22 1/2"	13 3/4" x 11 3/4"	2 1/4" INSIDE	1 1/2" PVC MALE ADAPTOR	1 1/2" PVC
12"	3" x 15 7/8"	15" x 28 1/2"	15 7/8" x 13 3/4"			
15"	3" x 19"	17 1/4" x 34"	18 3/4" x 16 1/2"			
18"	3" x 21 3/8"	21 1/8" x 38 3/4"	19 7/8" x 22"			

	D	E	F	G	
10"	3" x 5/8"	16"	11 3/4"	1"-2"	*ALL PVC MATERIAL IS
12"	3" x 5/8"	16"	13 1/2"	THICK.	**STUBS ARE SDR 35 PVC
15"	3" x 5/8"	19 1/4"	16 3/4"	MALE.	
18"	3" x 5/8"	22"	20"		

NOTES
1. PROPOSED AGRI DRAIN SLIDE GATE VALVE TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS. CONTACT AGRI DRAIN AT1-800-232-4742.
2. FLEXIBLE RUBBER SEALS AROUND OPENINGS ON BOTH FRONT AND BACK COVER, CREATE A WATER TIGHT SEAL AGAINST THE SLIDING WATER BLOCKAGE PLATE.
3. SLIDE GATE VALVE TO BE ATTACHED TO 12" ADS DRAIN PIPE WITH A FLEX COUPLER AS MANUFACTURED BY FERNCO, PH. 1-800-521-1283.
4. SLIDE GATE HANDLE SECTIONS SHALL BE MODIFIED TO FIT IN ACCESS MANHOLE.
5. SLIDE GATES SHALL BE INSTALLED PRIOR TO ALL ROADWAY DISCHARGES TO STORMWATER BASINS AND SUBSURFACE INFILTRATION AREAS LOCATED WITHIN ALL INTERIM WELLHEAD PROTECTION AREAS (IWPA).

SLIDE GATE DETAIL
NOT TO SCALE

SITE PLAN IN BOXBOROUGH, MASSACHUSETTS

CONSTRUCTION DETAILS

FOR: BOXBOROUGH TOWN CENTER, LLC
SCALE: 1"=40'
DECEMBER 22, 2016
REVISED JUNE 22, 2017

STAMSKI AND MCNARY, INC.
1000 MAIN STREET ACTON, MASSACHUSETTS
ENGINEERING - PLANNING - SURVEYING

0 20 40 80 120 160 FT

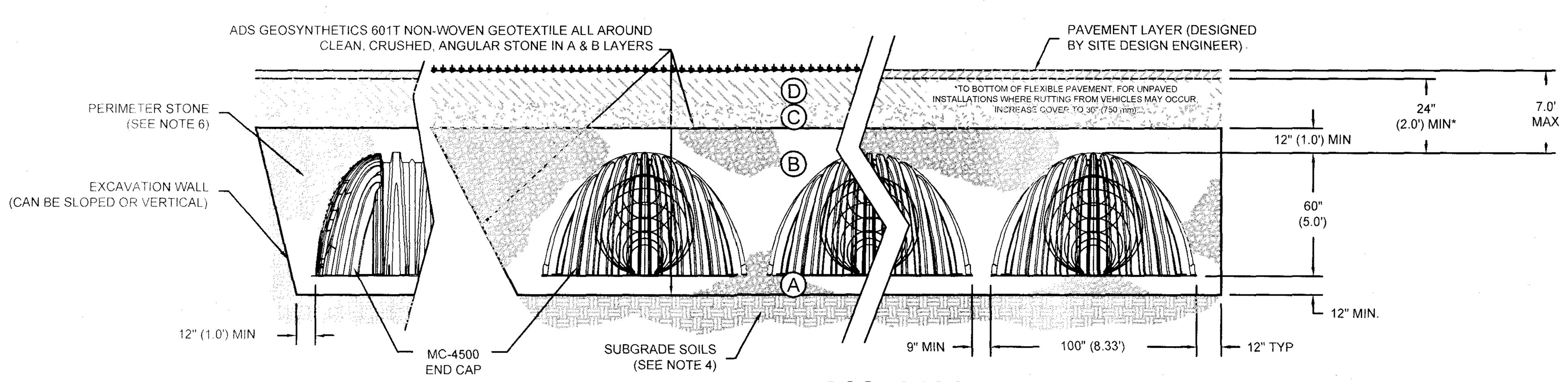
GEORGE DIMAKARAKOS CIVIL No. 41281 REGISTERED PROFESSIONAL ENGINEER COMMONWEALTH OF MASSACHUSETTS

JOSEPH MARCH #31884 REGISTERED PROFESSIONAL SURVEYOR COMMONWEALTH OF MASSACHUSETTS

ACCEPTABLE FILL MATERIALS: STORMTECH MC-4500 CHAMBER SYSTEMS

MATERIAL LOCATION		DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 24" (600 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[1] A-1, A-2-4, A-3 OR AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 24" (600 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 12" (300 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS.
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 4	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 4	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[2,3]

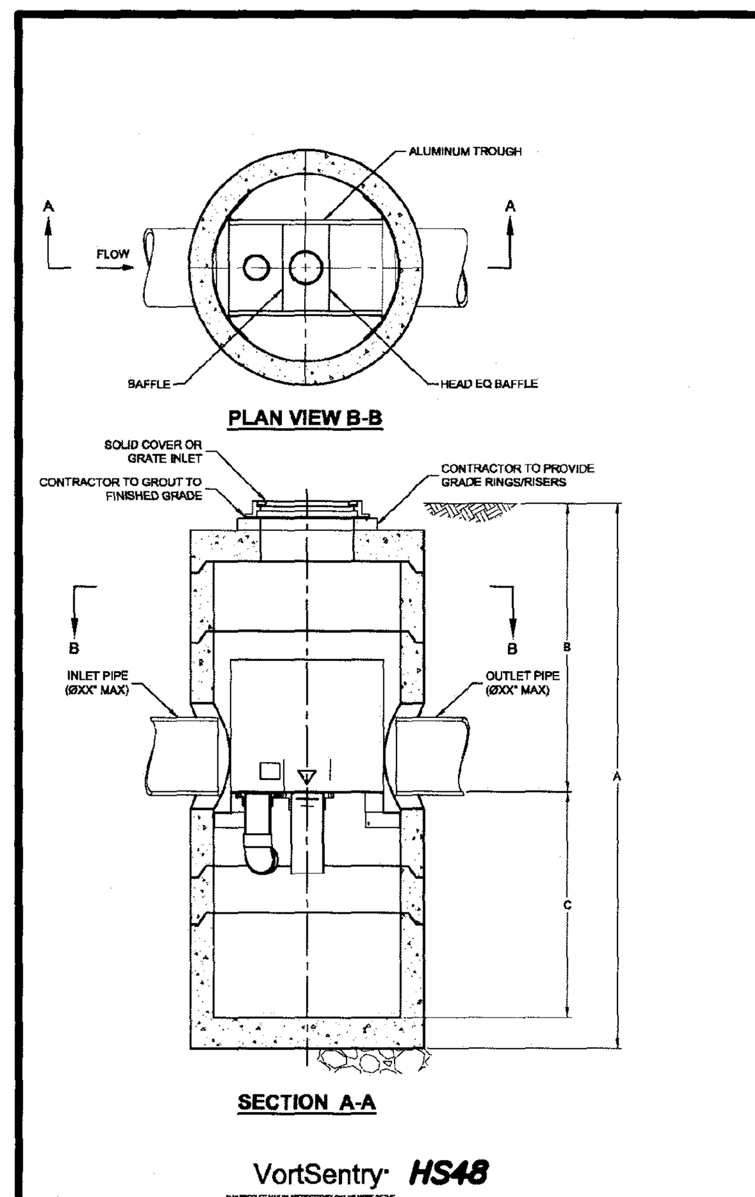
PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.



MC-4500 STANDARD CROSS - SECTION

NOTES:
1. MC-4500 CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
2. MC-4500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. "ACCEPTABLE FILL MATERIALS" TABLE ABOVE PROVIDES MATERIAL LOCATIONS, DESCRIPTIONS, GRADATIONS, AND COMPACTION REQUIREMENTS FOR FOUNDATION, EMBEDMENT, AND FILL MATERIALS.
4. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
5. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
6. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.

StormTech
Detention · Retention · Water Quality
70 INWOOD ROAD, SUITE 3 | ROCKY HILL | CT | 06067
860-529-8188 | 888-892-2694 | WWW.STORMTECH.COM



VORTSENTRY HS DESIGN NOTES

VSHS RATED TREATMENT CAPACITY IS SHOWN IN THE TABLE BELOW, OR PER LOCAL REGULATIONS. MAXIMUM HYDRAULIC INTERNAL BYPASS CAPACITY VARIES. CONTACT YOUR CONTECH REPRESENTATIVE FOR ADITIONAL INFORMATION.

THE STANDARD SOLID COVER CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW.

	CONFIGURATION OPTION DESCRIPTION
	GRATE INLET (NO INLET PIPE)
	GRATE INLET WITH INLET PIPE

VORTSENTRY HS GENERAL INFORMATION

Model	Manhole Diameter (ID)		Total Treatment Flow Rate		Typical Total Distance Rim to Outside Bottom A		Typical Distance Rim to Invert B		Typical Depth Below Invert (inside) C		Approximate Minimum Distance Rim to Invert		Maximum Pipe Diameter (ID)	
	FT	mm	CFS	L/S	FT	m	FT	m	FT	mm	FT	m	IN	mm
HS36	3	900	0.56	15.6	10.16	3.10	4.08	1.24	5.58	1702	3.00	0.91	18	450
HS48	4	1200	1.20	34.0	13.25	4.04	6.00	1.83	6.75	2057	4.00	1.22	24	600
HS60	5	1500	2.20	62.3	15.13	4.61	6.50	1.98	7.96	2426	4.82	1.47	30	750
HS72	6	1800	3.70	104.8	16.56	5.05	6.75	2.06	9.15	2786	5.59	1.70	36	900
HS84	7	2100	5.60	158.6	18.85	5.75	7.75	2.36	10.35	3156	5.00	1.52	42	1050
HS96	8	2400	8.10	229.4	20.87	6.36	8.50	2.59	11.54	3518	6.91	2.11	48	1200

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

FRAME AND GRATE
(24" SQUARE)
N.T.S.

SITE SPECIFIC DATA REQUIREMENTS

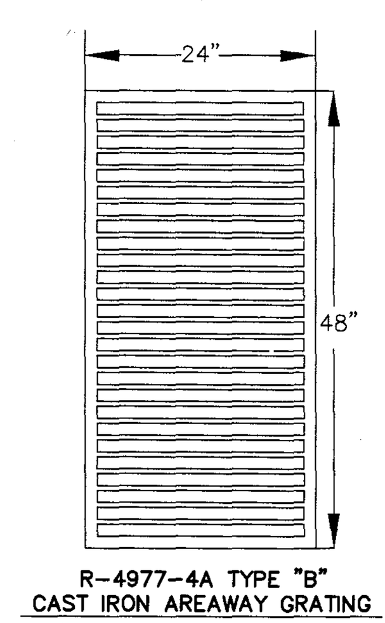
STRUCTURE ID			HS48
WATER QUALITY FLOW RATE (CFS)			*
PEAK FLOW RATE (CFS)			*
RETURN PERIOD OF PEAK FLOW (YRS)			*
PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	*	*	*
OUTLET PIPE	*	*	*
RIM ELEVATION			*
ANTI-FLOTATION BALLAST		WIDTH	HEIGHT
		*	*
NOTES/SPECIAL REQUIREMENTS:			
* PER ENGINEER OF RECORD			

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
4. VORTSENTRY HS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE SHALL MEET AASHTO HS20 AND CASTINGS SHALL MEET AASHTO M306 LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.

INSTALLATION NOTES
1. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
2. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE VORTSENTRY HS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
3. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
4. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
5. 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

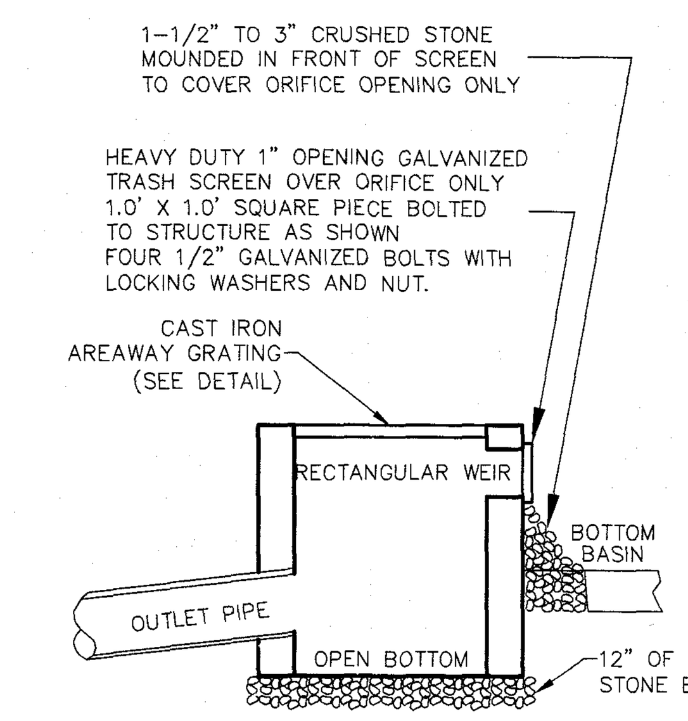
VORTSENTRY HS STANDARD DETAIL

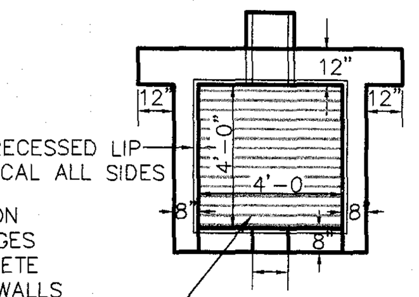


R-4977-4A TYPE "B" CAST IRON AREAWAY GRATING
NEENAH FOUNDRY CO. OR APPROVED EQUAL.

SPECIFICATIONS
A=24"x 48"
DEPTH=1-1/4"
TYPE "B" GRATE IS 1" WIDER AND 2" LONGER THAN DIMENSION "A"

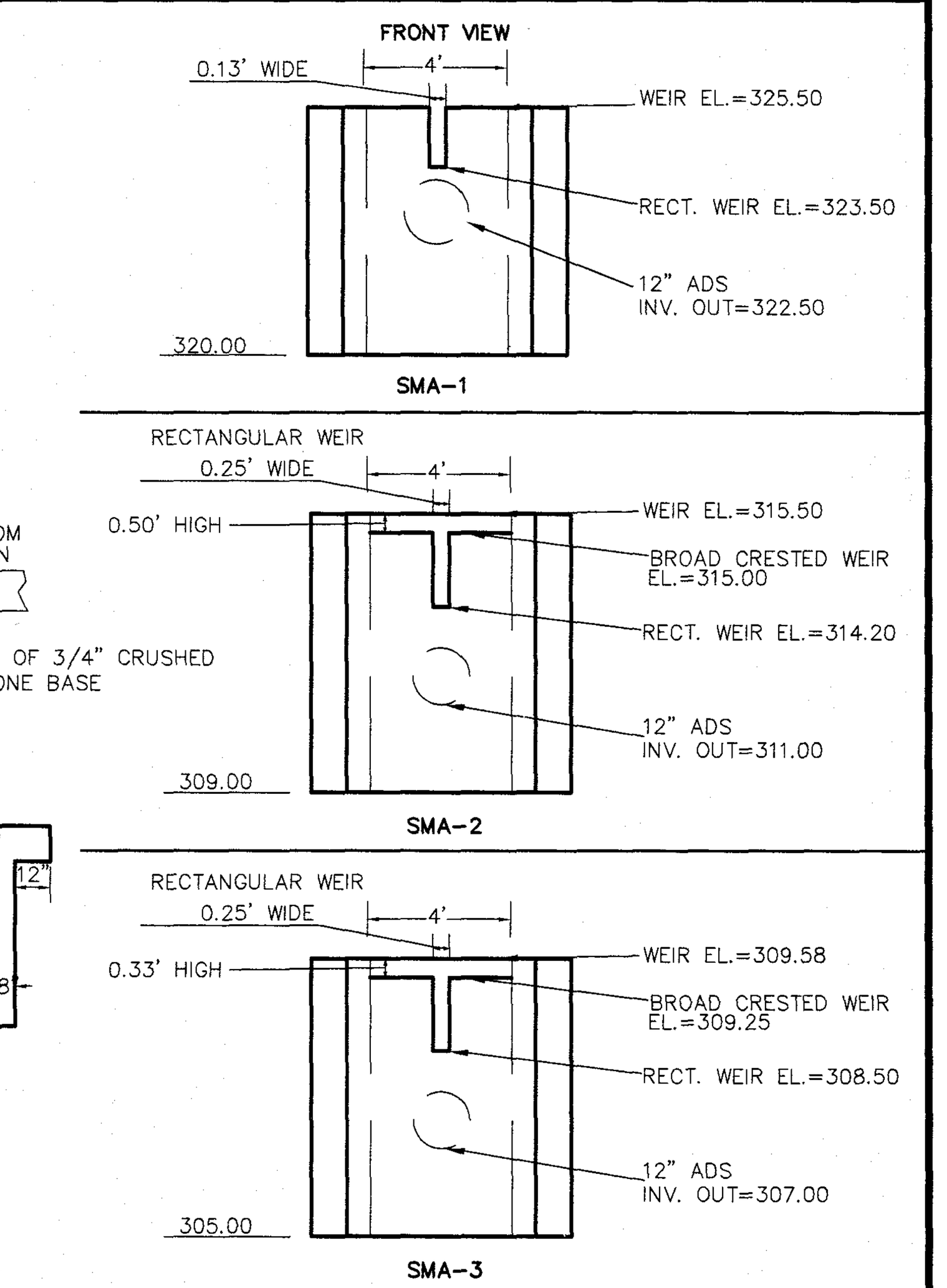
NOT TO SCALE

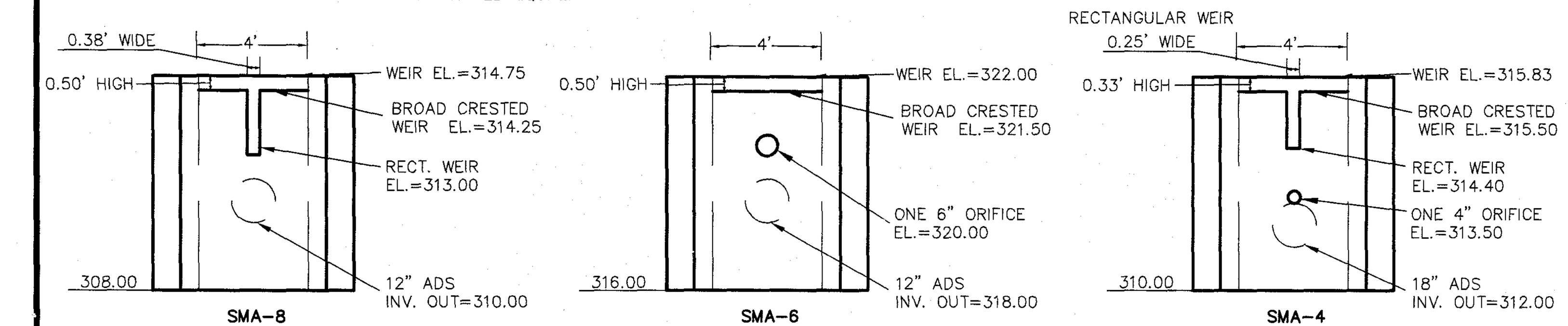




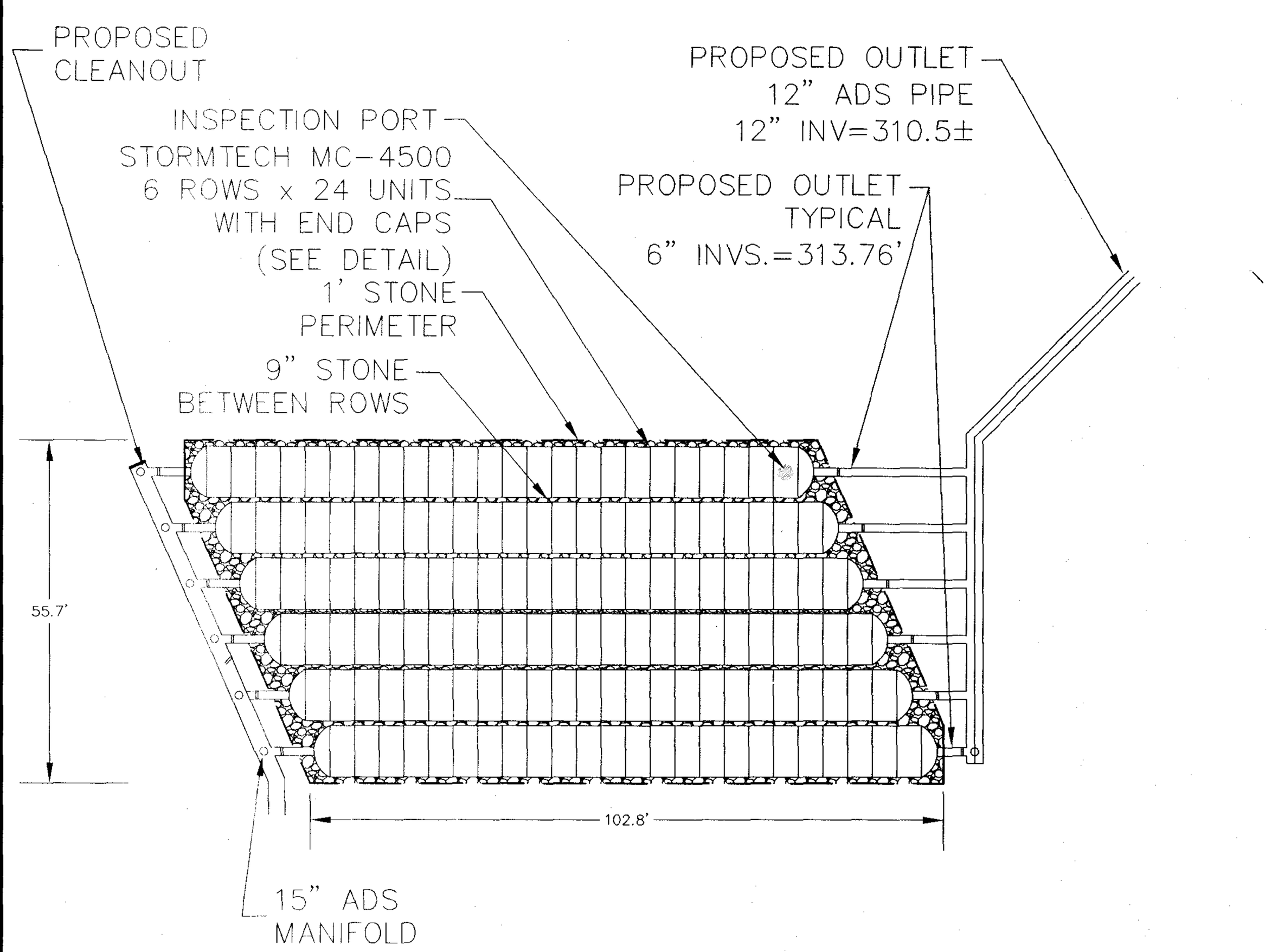
NOTES:
1. 3/4" CHAMFER ON ALL EXPOSED EDGES
2. 3000 PSI CONCRETE
3. REINFORCE ALL WALLS WITH NO. 4 BARS AT 12" O.C.E.W.
4. 1-1/2" CLEAR ON ALL REBARS

INSTALL TWO R-4977-4A TYPE "B" CAST IRON AREAWAY GRATINGS RECESSED 1" INTO STRUCTURE NEENAH FOUNDRY CO. OR APPROVED EQUAL.



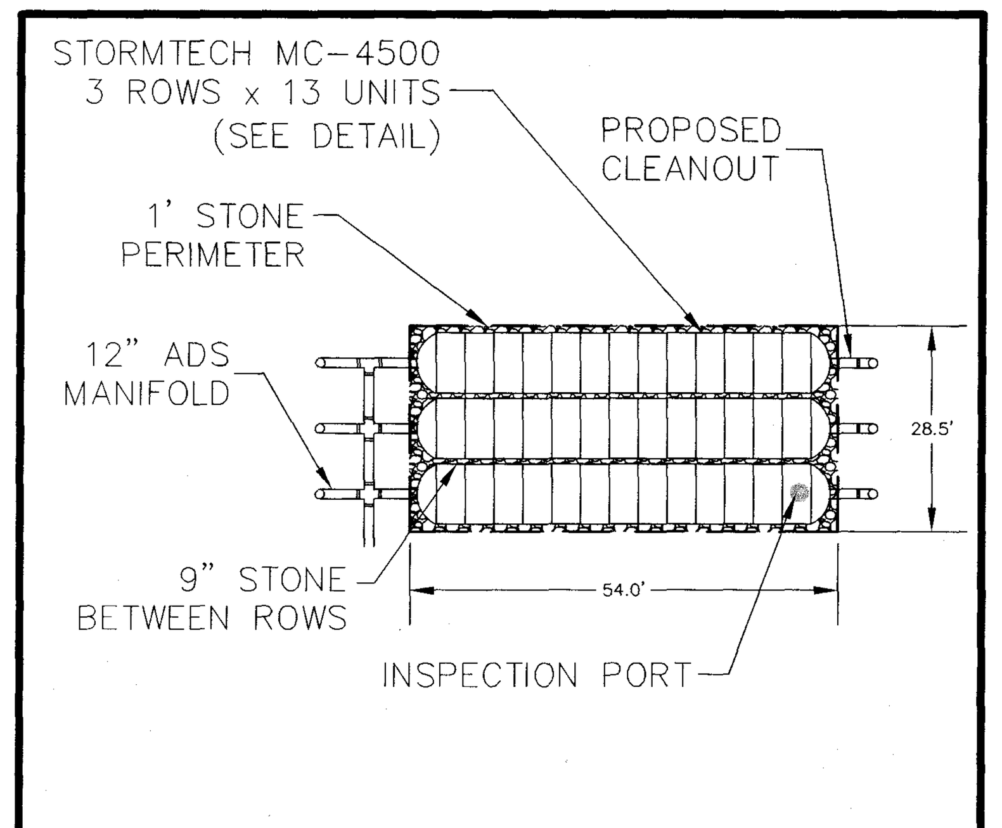


STORMWATER MANAGEMENT AREA #1, #2, #3, #4, #6, & #8 OUTLET STRUCTURE DETAIL
NOT TO SCALE



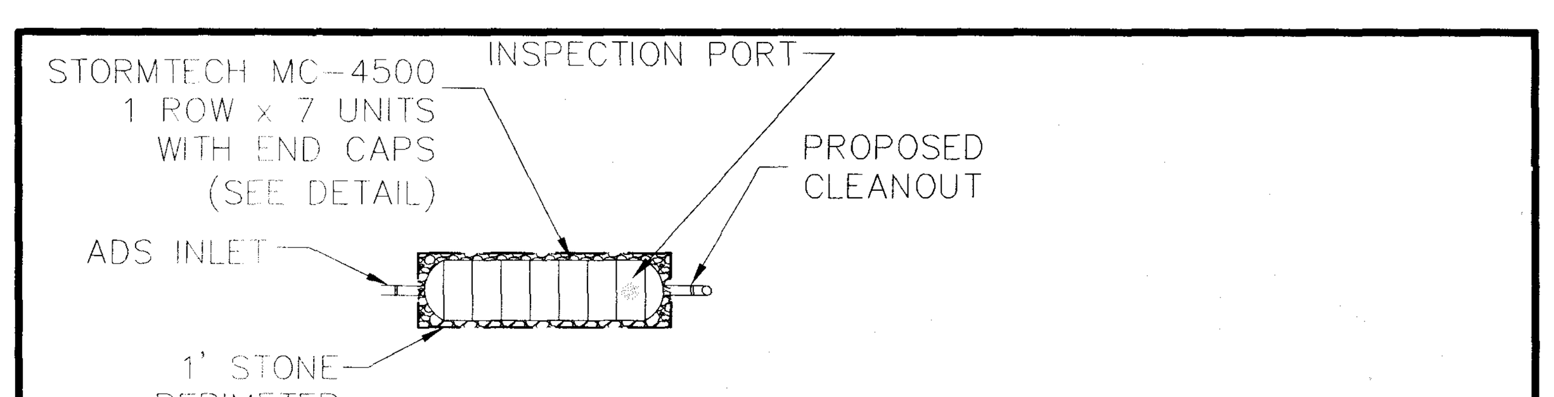
BOTTOM STONE	BOTTOM STRUCTURE	TOP STRUCTURE	TOP STONE
310.00'	311.00'	316.00'	317.00'

SMA 7
NOT TO SCALE



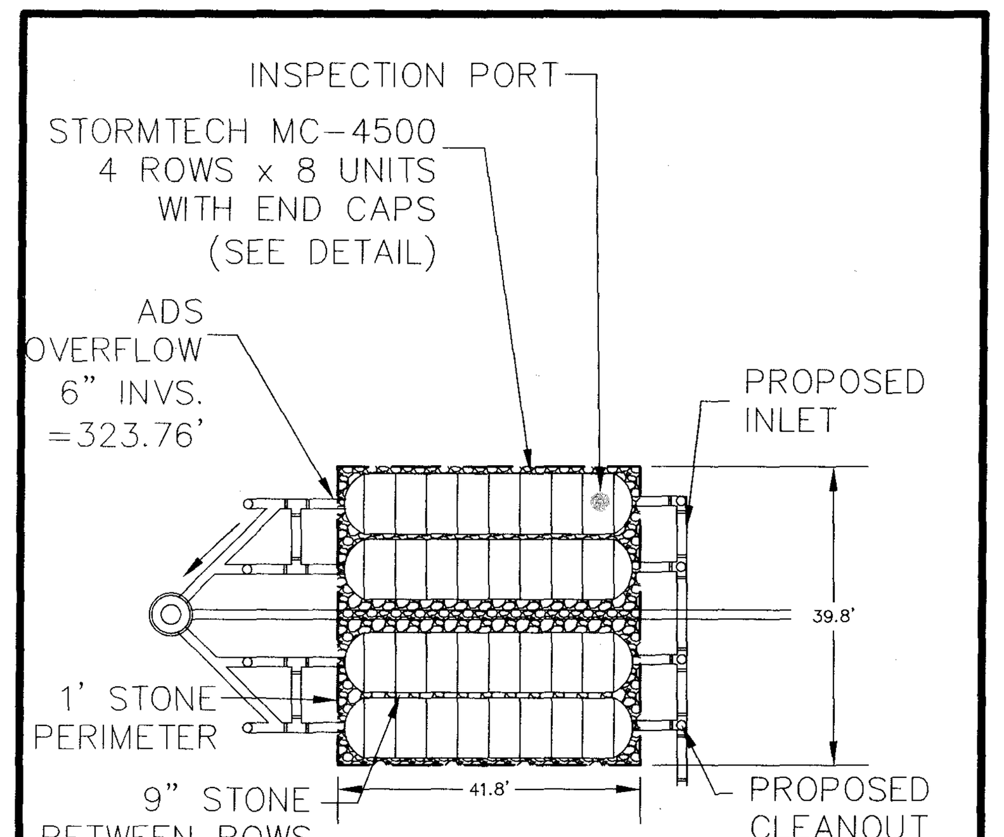
BOTTOM STONE	BOTTOM STRUCTURE	TOP STRUCTURE	TOP STONE
314.00'	315.00'	320.00'	321.00'

ROOF DRYWELL 1 DETAIL
NOT TO SCALE



UNIT #	BOTTOM STONE	BOTTOM STRUCTURE	TOP STRUCTURE	TOP STONE
6	322.00'	323.00'	328.00'	329.00'
7	322.00'	323.00'	328.00'	329.00'
8	321.00'	322.00'	327.00'	328.00'
14	321.00'	322.00'	327.00'	328.00'
15	322.00'	323.00'	328.00'	329.00'

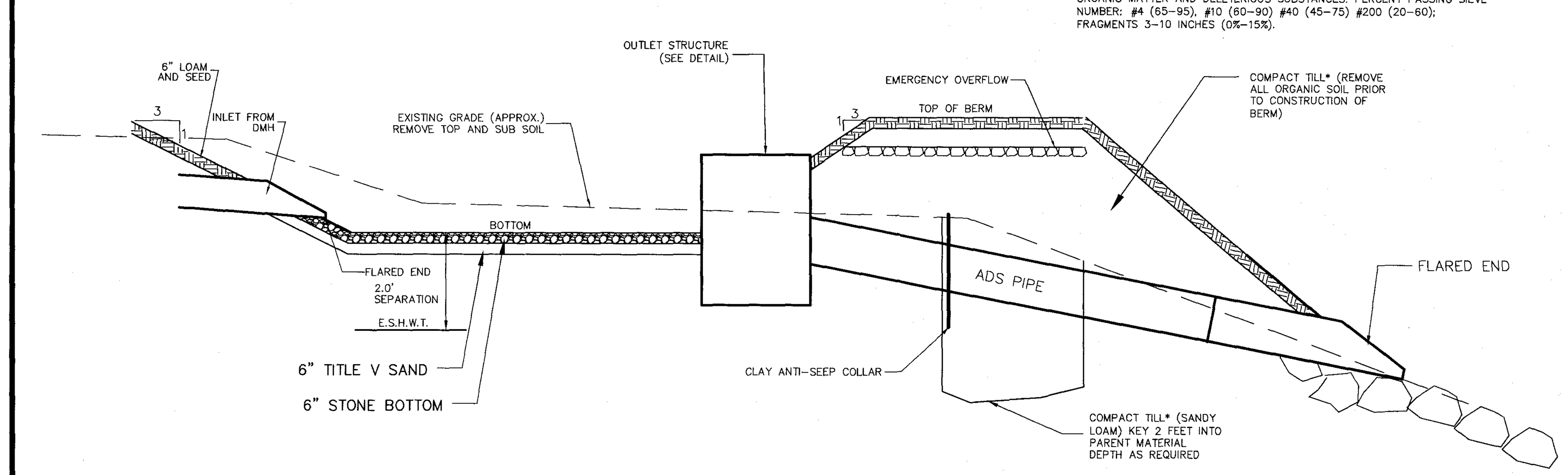
INDIVIDUAL ROOF DRYWELL DETAIL
NOT TO SCALE



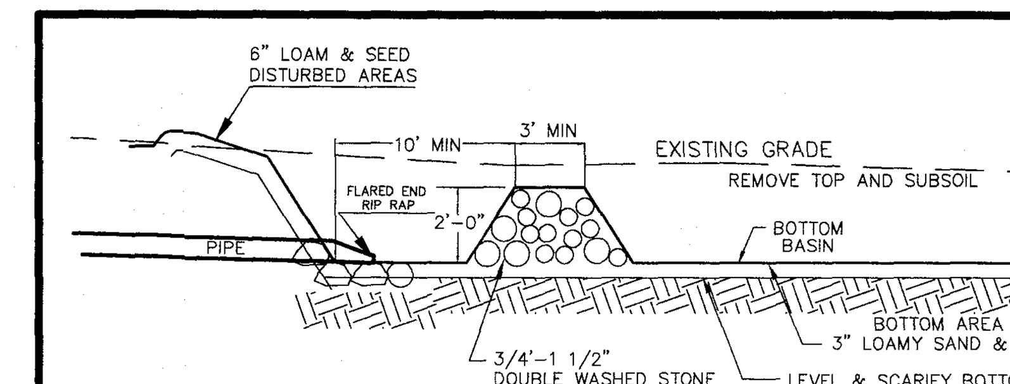
BOTTOM STONE	BOTTOM STRUCTURE	TOP STRUCTURE	TOP STONE
320.00'	321.00'	326.00'	327.00'

ROOF DRYWELL 2 DETAIL
NOT TO SCALE

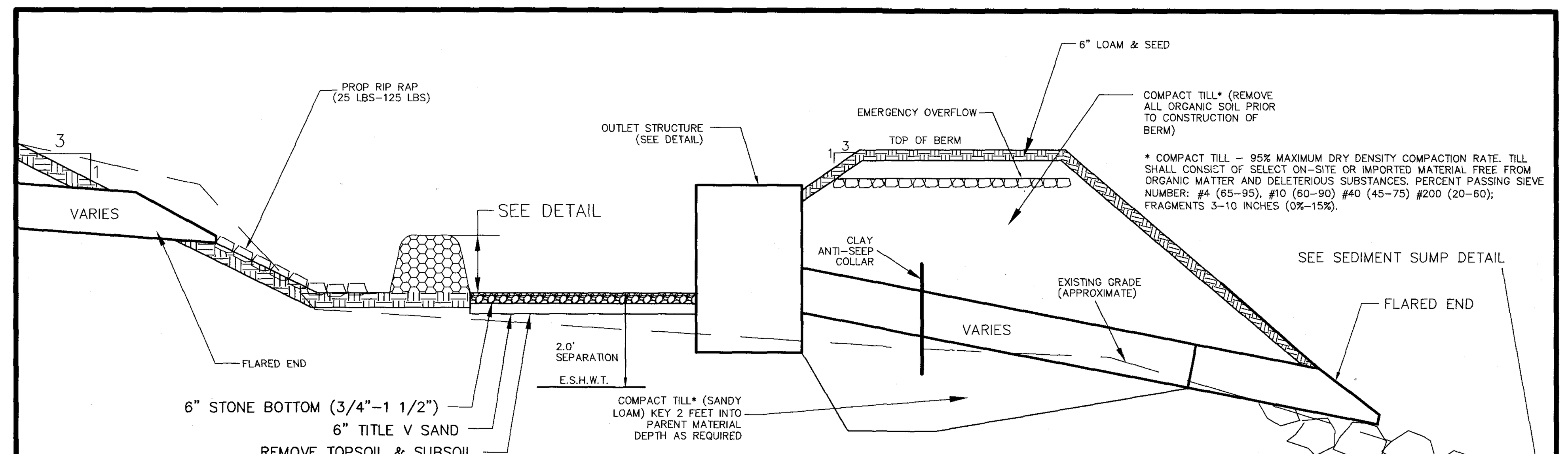
* COMPACT TILL – 95% MAXIMUM DRY DENSITY COMPACTION RATE. TILL SHALL CONSIST OF SELECT ON–SITE OR IMPORTED MATERIAL FREE FROM ORGANIC MATTER AND DELETERIOUS SUBSTANCES. PERCENT PASSING SIEVE NUMBER: #4 (65–95), #10 (60–90) #40 (45–75) #200 (20–60); FRAGMENTS 3–10 INCHES (0%–15%).



INFILTRATION BASIN SMA-3, SMA-5, SMA-6 AND SMA-8 DETAIL
NOT TO SCALE



SEDIMENT FOREBAY DETAIL
NOT TO SCALE



INFILTRATION BASIN SMA-1, SMA-2, AND SMA-4 DETAIL
NOT TO SCALE

SITE PLAN IN BOXBOROUGH, MASSACHUSETTS

CONSTRUCTION DETAILS

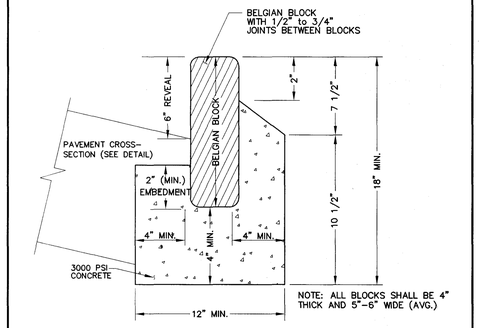
FOR: BOXBOROUGH TOWN CENTER, LLC
SCALE: 1"=40'
DECEMBER 22, 2016
REVISED JUNE 22, 2017

STAMSKI AND MCNARY, INC.
1000 MAIN STREET ACTON, MASSACHUSETTS
ENGINEERING – PLANNING – SURVEYING

0 20 40 80 120 160 FT

COMMONWEALTH OF MASSACHUSETTS
GEORGE DIMAKARAKOS
CIVIL
No. 41281
REGISTERED PROFESSIONAL ENGINEER

COMMONWEALTH OF MASSACHUSETTS
JOSEPH MARCH
No. 35394
PROFESSIONAL LAND SURVEYOR

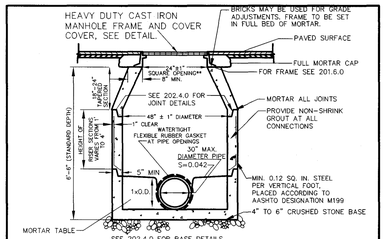


NOTES:

1. THE JOINTS BETWEEN BLOCKS SHALL BE ½" – ¾" CEMENT MORTAR (1:2) JOINTS RAKED AND POINTED TO ¾" NOSE.
2. THE USE OF BELGIAN BLOCK CURB MAY BE ALLOWED IN LIEU OF CAPE COD BERM.

VERTICAL BELGIAN BLOCK CURB

NOT TO SCALE

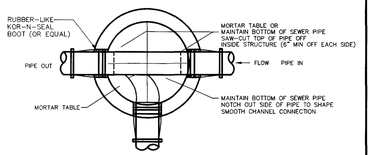


PRECAST CONCRETE SEWER MANHOLE DETAIL

NOT TO SCALE

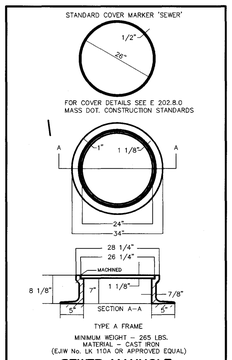
NOTES

1. MANHOLE TO CONFORM TO MASS DOT STANDARD E 202.4.0.
2. FACE OF PIPE FLUSH OR NOT TO PROJECT MORE THAN 4" FROM FACE OF WALL ALONG CENTERLINE OF PIPE.
3. FOR DESCRIPTION, MATERIALS AND CONSTRUCTION METHOD, SEE SPECIFICATIONS.
4. ALL SEWER MANHOLES SHALL BE CONSTRUCTED USING WATERTIGHT CONSTRUCTION MATERIALS AND METHODS.
5. A BITUMINOUS COATING SHALL BE APPLIED TO THE OUTSIDES OF THE MANHOLES.



SEWER MANHOLE MORTAR TABLE

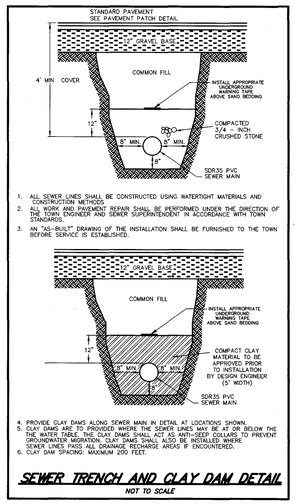
NOT TO SCALE



SEWER MANHOLE FRAME AND COVER

NOT TO SCALE

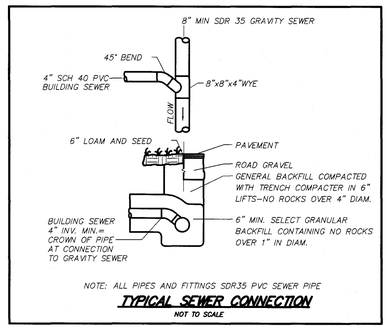
MASSDOT STANDARD DETAIL



1. ALL SEWER LINES SHALL BE CONSTRUCTED USING WATERTIGHT MATERIALS AND CONSTRUCTION METHODS.
2. ALL WORK AND PAVEMENT REPAIR SHALL BE PERFORMED UNDER THE DIRECTION OF THE TOWN ENGINEER AND SEWER SUPERINTENDENT IN ACCORDANCE WITH TOWN STANDARDS.
3. AN "AS-BUILT" DRAWING OF THE INSTALLATION SHALL BE FURNISHED TO THE TOWN BEFORE SERVICE IS ESTABLISHED.
4. PROVIDE CLAY DAMS ALONG SEWER MAIN IN DETAIL AT LOCATIONS SHOWN.
5. CLAY DAMS ARE TO PROVIDED WHERE THE SEWER LINES MAY BE AT OR BELOW THE THE WATER TABLE. THE CLAY DAMS SHALL ACT AS ANTI-SEEP COLLARS TO PREVENT GROUNDWATER MIGRATION. CLAY DAMS SHALL ALSO BE INSTALLED WHERE SEWER LINES PASS ALL DRAINAGE RECHARGE AREAS IF ENCOUNTERED.
6. CLAY DAM SPACING: MAXIMUM 200 FEET.

SEWER TRENCH AND CLAY DAM DETAIL

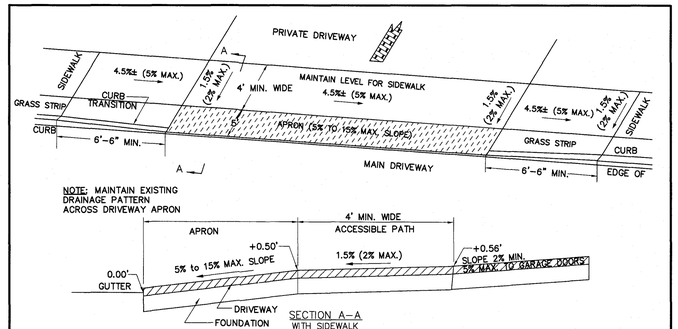
NOT TO SCALE



NOTE: ALL PIPES AND FITTINGS SDR35 PVC SEWER PIPE

TYPICAL SEWER CONNECTION

NOT TO SCALE

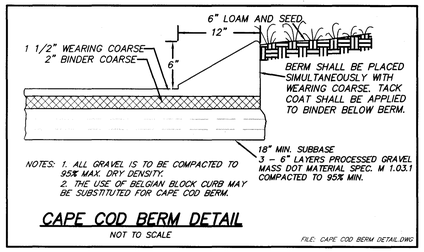


NOTE: MAINTAIN EXISTING DRAINAGE PATTERN ACROSS DRIVEWAY APRON

ROADWAY PROFILE GRADE	HIGH SIDE TRANSITION LENGTH
=0%	6'–6"
>0% TO 1%	7'–8"
>1% TO 2%	9'–0"
>2% TO 3%	11'–0"
>3% TO 4%	14'–0"
>4% TO 5%	15'–0" MAX

TYPICAL DRIVEWAY DETAIL

NOT TO SCALE

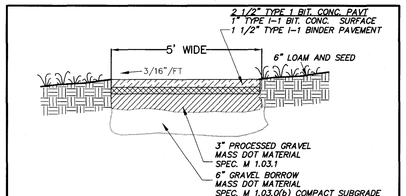


NOTES: 1. ALL GRAVEL IS TO BE COMPACTED TO 95% MAX. DRY DENSITY.
2. THE USE OF BELGIAN BLOCK CURB MAY BE SUBSTITUTED FOR CAPE COD BERM.

CAPE COD BERM DETAIL

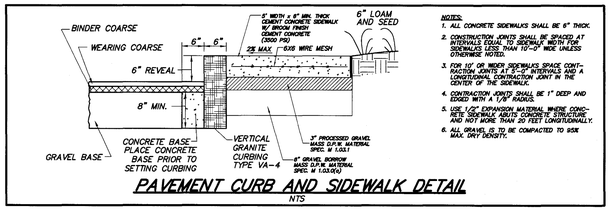
NOT TO SCALE

FILE: CAPE COD BERM DETAIL.DWG



BITUMINOUS CONCRETE SIDEWALK DETAIL

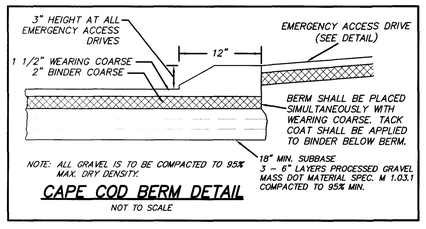
NOT TO SCALE



NOTES:
1. ALL CONCRETE SIDEWALKS SHALL BE 6" THICK.
2. CONSTRUCTION JOINTS SHALL BE SPACED AT INTERVALS EQUAL TO SIDEWALK WIDTH FOR SIDEWALKS LESS THAN 10'–0" WIDE UNLESS OTHERWISE NOTED.
3. FOR 10' OR WIDER SIDEWALKS SPACE CONTRACTION JOINTS AT 5'–0" INTERVALS AND A LONGITUDINAL CONTRACTION JOINT IN THE CENTER OF THE SIDEWALK.
4. CONTRACTION JOINTS SHALL BE 1" DEEP AND EDGED WITH A 1/8" RADIUS.
5. USE 1/2" EXPANSION MATERIAL WHERE CONCRETE SIDEWALK ABUTS CONCRETE STRUCTURE AND NOT MORE THAN 20 FEET LONGITUDINALLY.
6. ALL GRAVEL IS TO BE COMPACTED TO 95% MAX. DRY DENSITY.

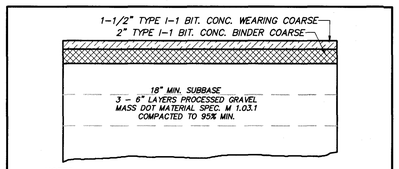
PAVEMENT CURB AND SIDEWALK DETAIL

NTS



CAPE COD BERM DETAIL

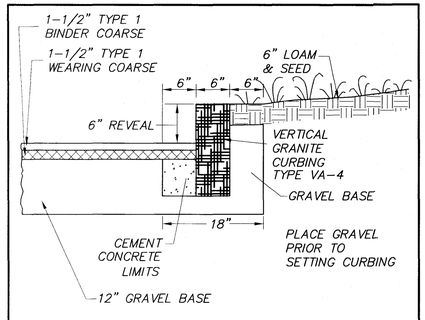
NOT TO SCALE



NOTES
1. ALL GRAVEL IS TO BE COMPACTED TO 95% MAX. DRY DENSITY.
2. AREA UNDER GRAVEL BASE COURSE TO BE FREE OF ORGANIC MATERIAL, TRASH, ECT. FILL WHERE REQUIRED SHALL CONFORM TO MASS. DOT 1.03.c. 6" MAX. STONE
3. GRAVEL SHALL EXTREND 6" BEYOND ALL EDGE OF PAVEMENT LOCATIONS MATERIAL, TRASH, ECT. FILL WHERE REQUIRED SHALL CONFORM TO MASS. DOT 1.03.c. 6" MAX. STONE

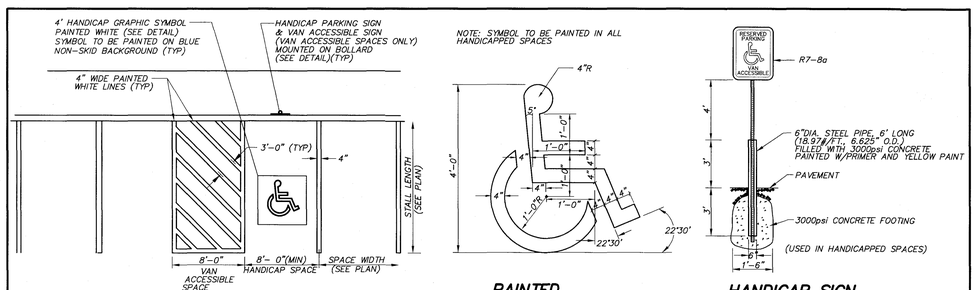
PAVEMENT DETAIL

NOT TO SCALE



VERTICAL GRANITE CURBING DETAIL

NOT TO SCALE



STALL STRIPING

NOT TO SCALE

PAINTED HANDICAP SYMBOL

NOT TO SCALE

HANDICAP SIGN AND BOLLARD

NOT TO SCALE

SITE PLAN IN BOXBOROUGH, MASSACHUSETTS

CONSTRUCTION DETAILS

FOR: BOXBOROUGH TOWN CENTER, LLC

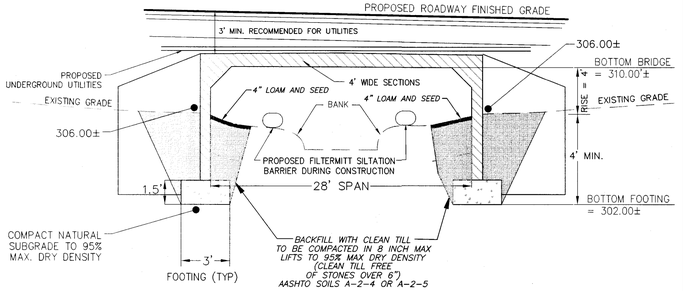
SCALE: 1"=40' DECEMBER 22, 2016 *REVISED JUNE 22, 2017*

STAMSKI AND MCNARY, INC.
1000 MAIN STREET ACTON, MASSACHUSETTS
ENGINEERING – PLANNING – SURVEYING

0 20 40 80 120 160 FT

COMMONWEALTH OF MASSACHUSETTS GEORGE DIMAKARAKOS CIVIL No. 41281 REGISTERED PROFESSIONAL ENGINEER

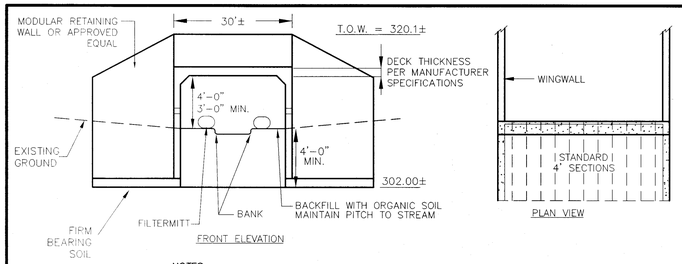
COMMONWEALTH OF MASSACHUSETTS JOSEPH MARCH 36884 PROFESSIONAL LAND SURVEYOR



CULVERT SECTIONS				
TOTAL WIDTH	SPAN	RISE	BOTTOM FOOTING	4' SECTION QUANTITY
48'	28'	4'	302.00±	12

OPEN BOTTOM CULVERT CROSS SECTION

NOT TO SCALE

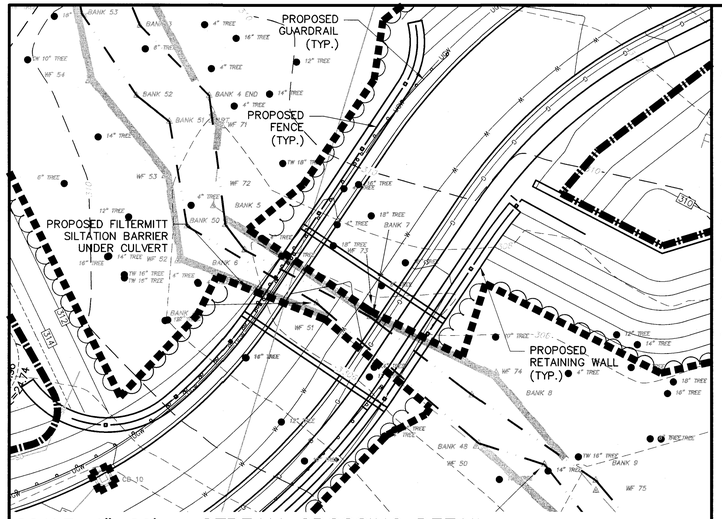


NOTES:

1. CULVERT, WINGWALLS AND END SECTION MANUFACTURED BY LAMARRE CONCRETE PRODUCTS OR APPROVED EQUAL.
2. INSTALLATION OF THE CULVERT IS TO OCCUR WHEN THERE IS LITTLE OR NO FLOW IN STREAM. (TYP. JULY 1 TO OCTOBER 1)
3. IF DEWATERING OF STREAM OR EXCAVATION IS REQUIRED, CONTRACTOR SHALL PUMP TO DEWATERING STILL SITUATED BEYOND EDGE OF WETLAND.

OPEN BOTTOM CULVERT & WINGWALL DETAIL

NOT TO SCALE



SCALE: 1"=20' STREAM CROSSING DETAIL

NOTES:

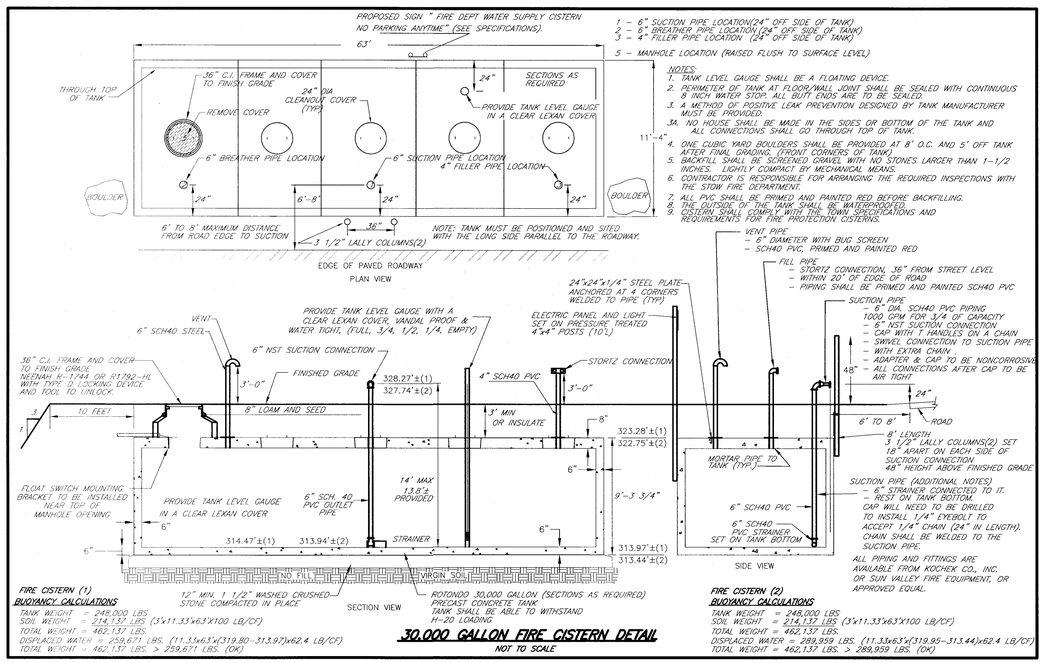
1. DELINEATE UPLAND EDGE OF BVW/BANK LINE PRIOR TO TREE REMOVAL AND INSTALL SILTATION CONTROLS ALONG EDGE OF RESOURCE AREA.
2. INSTALL ADDITIONAL TEMPORARY SILTATION CONTROLS WITHIN RESOURCE AREA.
3. ANY TEMPORARY DISTURBANCE TO RESOURCE AREAS RESULTING FROM VEGETATION REMOVAL AND/OR INSTALLATION OF CULVERT SHALL BE RETURNED TO EXISTING GRADES.

GENERAL CONSTRUCTION SEQUENCE FOR WETLAND CROSSING

1) *INSTALL SILTATION BARRIER PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION AT ALL LOCATIONS SHOWN ON THE PLAN FOR THAT PHASE. SET SILTATION BARRIER LINES IN THE LOCATIONS STAKED BY THE DESIGN ENGINEER.*
2) *INSTALL OPEN BOTTOM CULVERT AND HEADWALLS.*
3) *INSTALL PROPOSED UNDERGROUND UTILITIES.*
4) *PLACE AND COMPACT GRAVEL FILL FOR ROADWAY WITHIN WETLAND CROSSING TO THE GRADES SHOWN ON THE PLAN.*
5) *STABILIZE SLOPES IN WETLAND FILL AREA WITH 6" OF LOAM AND HYDROSEEDING.*
6) *INSTALL ROADWAY SURFACE TO THE WIDTH SHOWN ON THE PLAN.*
7) *LOAM AND SEED ALL DISTURBED SURFACES WHICH HAVE NOT BEEN STABILIZED.*
8) *REMOVE SILTATION BARRIERS AFTER ALL VEGETATION IS ESTABLISHED AND THE APPROVING AUTHORITY HAS ISSUED A CERTIFICATE OF COMPLIANCE.*

GENERAL NOTES

1. ALL UNDERGROUND UTILITIES SHOWN HERE WERE COMPILED ACCORDING TO AVAILABLE RECORD PLANS FROM VARIOUS UTILITY COMPANIES AND PUBLIC AGENCIES AND ARE APPROXIMATE ONLY. ACTUAL LOCATIONS MUST BE DETERMINED IN THE FIELD BEFORE DESIGNING, 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 CHAPTER 370, ACTS OF 1963 MASS. WE ASSUME NO RESPONSIBILITY FOR DAMAGE INCURRED AS A RESULT OF UTILITIES OMITTED OR INACCURATELY SHOWN. BEFORE PLANNING FUTURE CONNECTIONS, THE APPROPRIATE PUBLIC UTILITY ENGINEERING DEPARTMENT MUST BE CONSULTED. DIG-SAFE TELE. NO. (888) 344-7233.
2. ALL PROPOSED SIDEWALKS, CURBCUTS AND RAMPS SHALL BE PROVIDED WITH A MAXIMUM OF 2% CROSS-SLOPE AND SHALL GENERALLY COMPLY WITH THE ARCHITECTURAL ACCESS BOARD REGULATIONS (CMR 521) AND THE AMERICANS WITH DISABILITIES ACT.
3. ALL STUMPS AND OTHER CONSTRUCTION DEBRIS SHALL BE PROPERLY REMOVED FROM THE SITE.
4. ALL DRAIN LINES SHALL BE CORRUGATED SMOOTHWALL ADS N-12 PIPE
5. ALL ROOF RUNOFF SHALL BE DIRECTED TO ROOF DRYWELLS.
6. ANY FILL MATERIAL USED SHALL BE FREE OF HAZARDOUS MATERIALS, WASTE, AND CONSTRUCTION DEBRIS.
7. RIP RAP SHALL CONSIST OF HARD DURABLE STONE, ANGULAR IN SHAPE, THAT IS WELL GRADED WITHIN THE 25# TO 125# RANGE. THE RIP RAP SHALL BE PLACED OVER A 12" BASE OF COARSE BANK RUN GRAVEL. RIP RAP SHOWN SCHEMATICALLY AT DRAINAGE OUTFALLS SHALL BE PLACED FOR A 3' WIDTH AND 6' LENGTH UNLESS OTHERWISE SPEC'D.
8. THE LIMITS OF WORK SHALL BE CLEARLY MARKED IN THE FIELD PRIOR TO THE START OF CONSTRUCTION OR SITE CLEARING PER THE STORMWATER POLLUTION PREVENTION PLAN.
9. EXISTING TOPSOIL SHALL BE STRIPPED, STOCKPILED, SCREENED AND SPREAD TO REQUIRED DEPTHS SHOWN ON THE PLAN.
10. CATCHBASIN SUMPS AND STORM WATER BASINS SHALL BE CLEANED FOLLOWING COMPLETION OF CONSTRUCTION AND ANNUALLY THEREAFTER PER O & M PLAN.
11. THE ENTIRE WORK AREA SHALL BE CLEARED OF BUILDINGS TO BE RAZED, PAVEMENT, DEBRIS, BOULDERS, BRUSH, TREES, STUMPS, UNSUITABLE MATERIALS AND LIKE MATERIAL.
12. ALL TOP AND SUBSOIL WITHIN WORK AREA SHALL BE REMOVED AND STOCKPILED ON SITE AS DIRECTED BY THE OWNER. LOAM SHALL BE SCREENED AND STOCKPILED ON-SITE FOR RE-USE IN AREAS OF GENERAL LOAM AND SEED.
13. THE CONTRACTOR SHALL MAINTAIN THE SITE IN A SAFE CONDITION THROUGHOUT THE CONTRACT PERIOD. THE CONTRACTOR SHALL FULLY COMPLY WITH ALL STATE, FEDERAL, AND LOCAL REGULATIONS PERTAINING TO SAFETY.
14. ALL WALKWAYS AND PATIO AREAS SHALL BE CONSTRUCTED WITH PERMEABLE PAVERS,
15. ALL PROPOSED SIGNAGE SHALL BE IN COMPLIANCE WITH 2012 ZONING BYLAW SECTION 6300.



FIRE CISTERN (1)
BUOYANCY CALCULATIONS
TANK WEIGHT = 248,000 LBS
SOIL WEIGHT = 214,137 LBS (3'x11.33'x63'X100 LB/CF)
TOTAL WEIGHT = 462,137 LBS.
DISPLACED WATER = 259,671 LBS. (11.33'x63'x(319.80-313.97)x62.4 LB/CF)
TOTAL WEIGHT = 462,137 LBS. > 259,671 LBS. (OK)

FIRE CISTERN (2)
BUOYANCY CALCULATIONS
TANK WEIGHT = 248,000 LBS
SOIL WEIGHT = 214,137 LBS (3'x11.33'x63'X100 LB/CF)
TOTAL WEIGHT = 462,137 LBS.
DISPLACED WATER = 289,959 LBS. (11.33'x63'x(319.85-313.44)x62.4 LB/CF)
TOTAL WEIGHT = 462,137 LBS. > 289,959 LBS. (OK)

30,000 GALLON FIRE CISTERN DETAIL

NOT TO SCALE

SITE PLAN IN BOXBOROUGH, MASSACHUSETTS

CONSTRUCTION DETAILS

FOR: BOXBOROUGH TOWN CENTER, LLC

SCALE: 1"=40' DECEMBER 22, 2016 *REVISED JUNE 22, 2017*

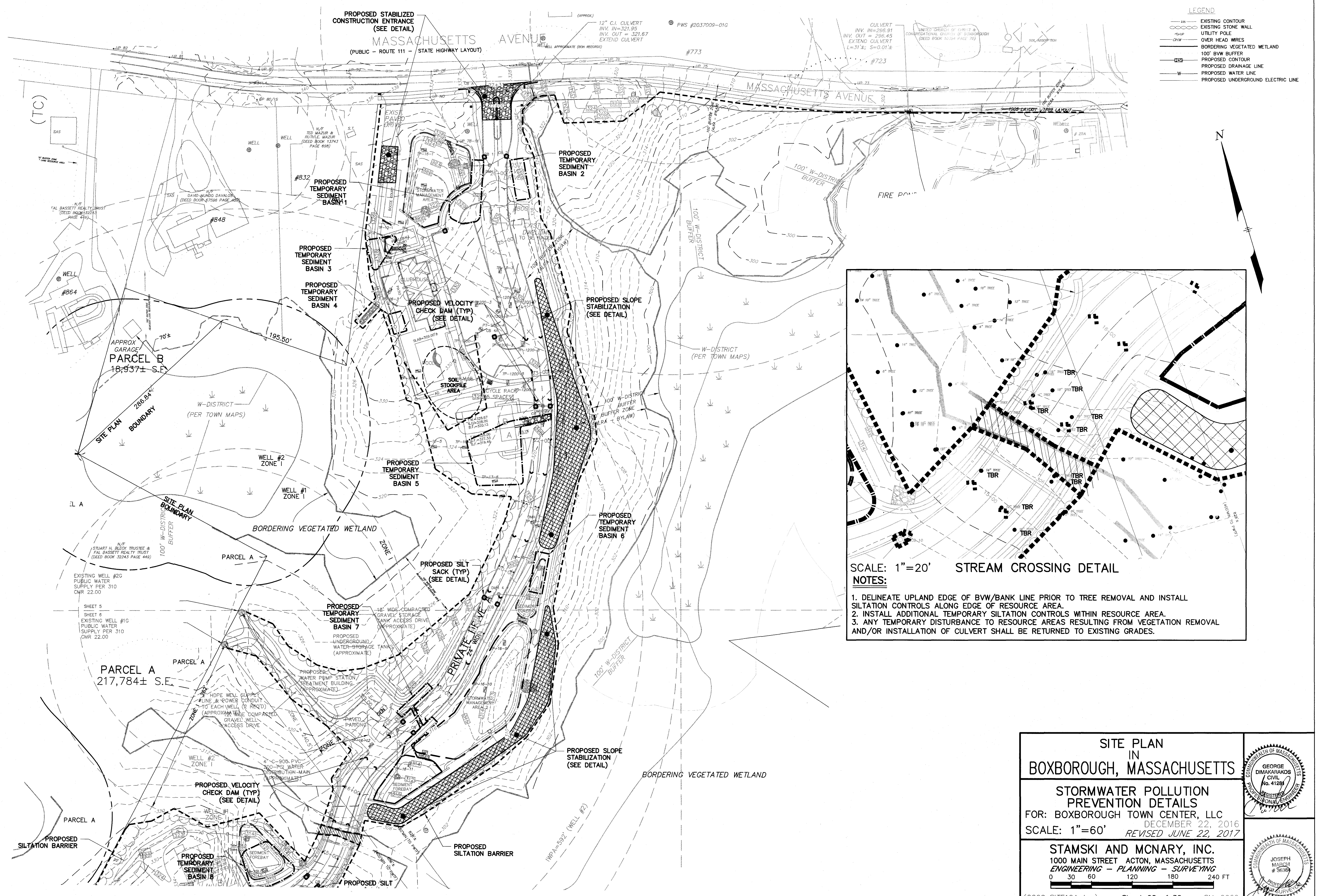
STAMSKI AND MCNARY, INC.
1000 MAIN STREET ACTON, MASSACHUSETTS
ENGINEERING - PLANNING - SURVEYING

0 20 40 80 120 160 FT

(2069 SITE10A.dwg) Sheet 27 of 30 SM-2069

COMMONWEALTH OF MASSACHUSETTS
GEORGE DIMAKARAKOS
CIVIL
No. 41251
REGISTERED PROFESSIONAL ENGINEER

COMMONWEALTH OF MASSACHUSETTS
JOSEPH MARCH
PROFESSIONAL SURVEYOR


LEGEND
EXISTING CONTOUR
EXISTING STONE WALL
UTILITY POLE
OVER HEAD WIRES
BORDERING VEGETATED WETLAND
100' BVW BUFFER
PROPOSED CONTOUR
PROPOSED DRAINAGE LINE
PROPOSED WATER LINE
PROPOSED UNDERGROUND ELECTRIC LINE
MASSACHUSETTS AVENUE
(PUBLIC – ROUTE 111 – STATE HIGHWAY LAYOUT)
PROPOSED STABILIZED CONSTRUCTION ENTRANCE (SEE DETAIL)
12" C.I. CULVERT INV. IN=321.95 INV. OUT = 321.67 EXTEND CULVERT
PWS #2037009-01G
CULVERT INV. IN=296.91 INV. OUT = 296.45 EXTEND CULVERT L=31'±; S=0.01'±
#773
#723
#832
#848
#864
PROPOSED TEMPORARY SEDIMENT BASIN 1
PROPOSED TEMPORARY SEDIMENT BASIN 2
PROPOSED TEMPORARY SEDIMENT BASIN 3
PROPOSED TEMPORARY SEDIMENT BASIN 4
PROPOSED TEMPORARY SEDIMENT BASIN 5
PROPOSED TEMPORARY SEDIMENT BASIN 6
PROPOSED TEMPORARY SEDIMENT BASIN 7
PROPOSED TEMPORARY SEDIMENT BASIN 8
PROPOSED VELOCITY CHECK DAM (TYP) (SEE DETAIL)
PROPOSED SLOPE STABILIZATION (SEE DETAIL)
PROPOSED SILT SACK (TYP) (SEE DETAIL)
PROPOSED SILTATION BARRIER
SOIL STOCKPILE AREA
PARCEL B 18,937± S.F.
PARCEL A 217,784± S.F.
SITE PLAN BOUNDARY
W-DISTRICT (PER TOWN MAPS)
100' W-DISTRICT BUFFER
BORDERING VEGETATED WETLAND
WELL #2 ZONE I
WELL #1 ZONE I
EXISTING WELL #2G PUBLIC WATER SUPPLY PER 310 CMR 22.00
EXISTING WELL #1G PUBLIC WATER SUPPLY PER 310 CMR 22.00
PRIVATE DRIVE
FIRE POND
SCALE: 1"=20' STREAM CROSSING DETAIL
TBR

NOTES:

1. DELINEATE UPLAND EDGE OF BVW/BANK LINE PRIOR TO TREE REMOVAL AND INSTALL SILTATION CONTROLS ALONG EDGE OF RESOURCE AREA.
2. INSTALL ADDITIONAL TEMPORARY SILTATION CONTROLS WITHIN RESOURCE AREA.
3. ANY TEMPORARY DISTURBANCE TO RESOURCE AREAS RESULTING FROM VEGETATION REMOVAL AND/OR INSTALLATION OF CULVERT SHALL BE RETURNED TO EXISTING GRADES.

SITE PLAN IN BOXBOROUGH, MASSACHUSETTS

STORMWATER POLLUTION PREVENTION DETAILS

FOR: BOXBOROUGH TOWN CENTER, LLC

SCALE: 1"=60'

DECEMBER 22, 2016
REVISED JUNE 22, 2017

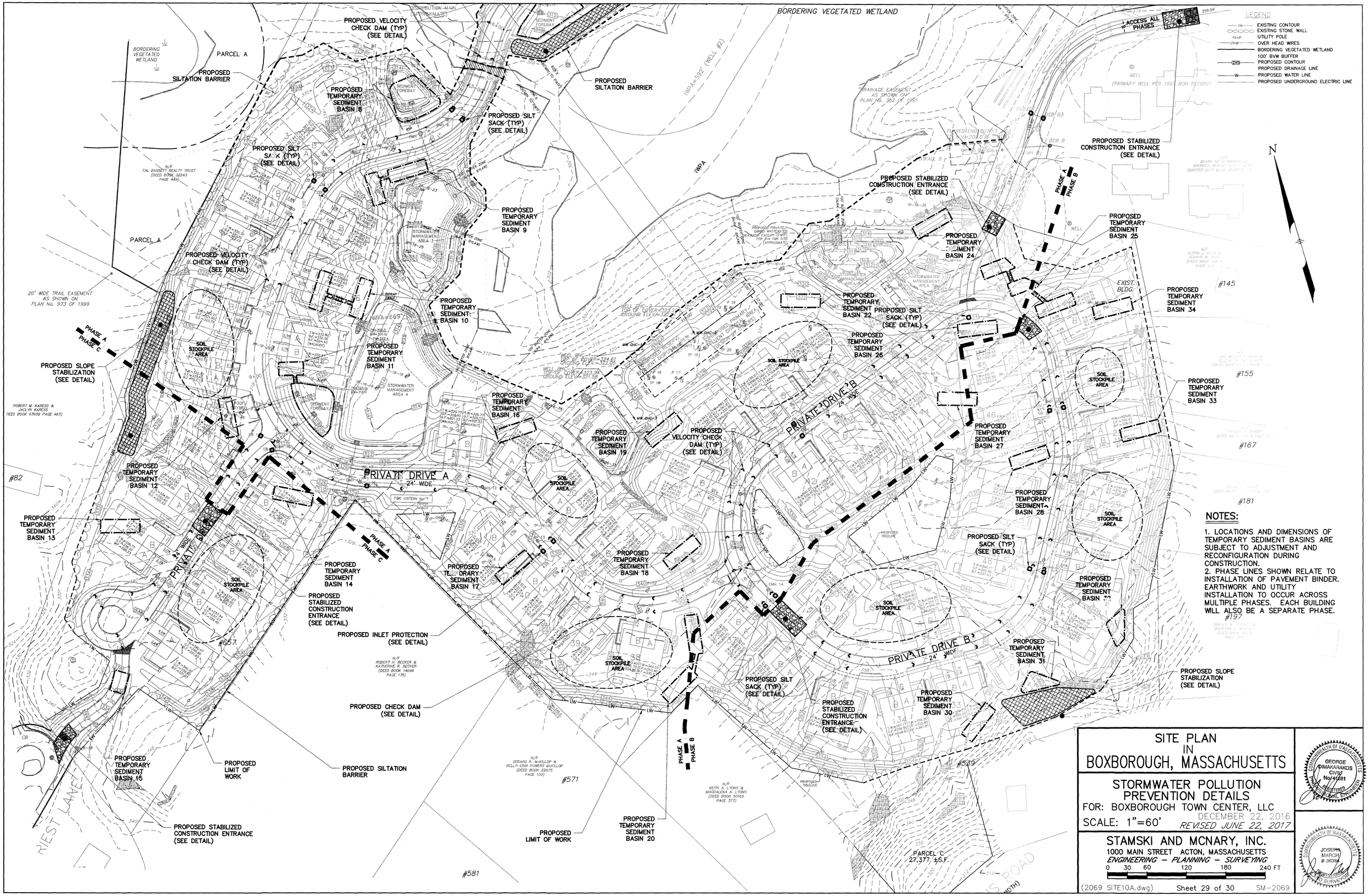
STAMSKI AND MCNARY, INC.
1000 MAIN STREET ACTON, MASSACHUSETTS
ENGINEERING – PLANNING – SURVEYING

0 30 60 120 180 240 FT

(2069 SITE10A.dwg) Sheet 28 of 30 SM-2069

GEORGE DIMAKARAKOS CIVIL No. 41281 REGISTERED PROFESSIONAL ENGINEER

JOSEPH MARCH # 36381 PROFESSIONAL LAND SURVEYOR



NOTES:

1. LOCATIONS AND DIMENSIONS OF TEMPORARY SEDIMENT BASINS ARE SUBJECT TO ADJUSTMENT AND RECONFIGURATION DURING CONSTRUCTION.
2. PHASE LINES SHOWN RELATE TO INSTALLATION OF PAVEMENT BINDER. EARTHWORK AND UTILITY INSTALLATION TO OCCUR ACROSS MULTIPLE PHASES. EACH BUILDING WILL ALSO BE A SEPARATE PHASE.

SITE PLAN IN BOXBOROUGH, MASSACHUSETTS

STORMWATER POLLUTION PREVENTION DETAILS

FOR: BOXBOROUGH TOWN CENTER, LLC

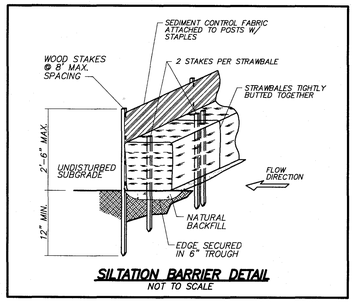
SCALE: 1"=60' DECEMBER 22, 2016 *REVISED JUNE 22, 2017*

STAMSKI AND MCNARY, INC.
1000 MAIN STREET ACTON, MASSACHUSETTS
ENGINEERING – PLANNING – SURVEYING
0 30 60 120 180 240 FT

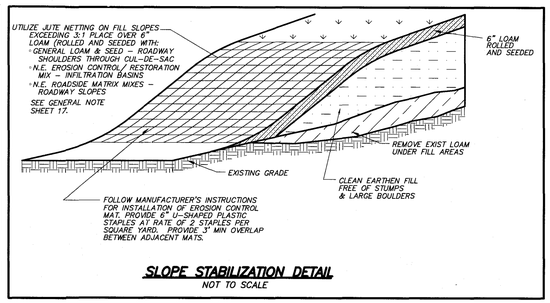
(2069 SITE10A.dwg) Sheet 29 of 30 SM-2069

COMMONWEALTH OF MASSACHUSETTS GEORGE PIMAKARAKOS CIVIL No. 44631 REGISTERED PROFESSIONAL ENGINEER

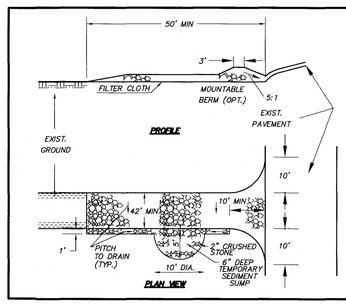
COMMONWEALTH OF MASSACHUSETTS JOSEPH MARCH # 36384 REGISTERED LAND SURVEYOR



SILTATION BARRIER DETAIL
NOT TO SCALE



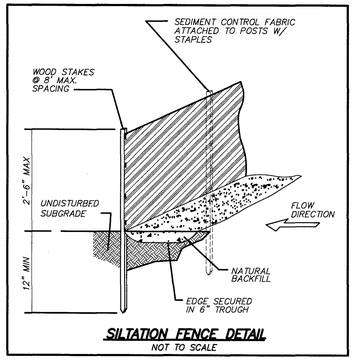
SLOPE STABILIZATION DETAIL
NOT TO SCALE



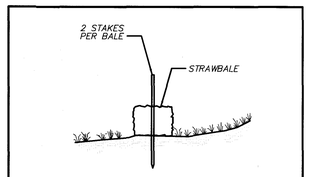
CONSTRUCTION SPECIFICATIONS

1. THE ENTRANCE OF THE PROPOSED DRIVEWAY SHALL INITIALLY HAVE 6" OF 2" CRUSHED STONE LAID DOWN AS A TRAFFIC SEDIMENT CONTROL SURFACE AS SHOWN IN THE STABILIZED CONSTRUCTION ENTRANCE DETAIL. THIS STONE PACK SHALL BE PLACED OVER THE DRIVEWAY FOR A MINIMUM DISTANCE OF 50 FEET FROM THE EDGE OF PAVEMENT AND SHALL BE REMOVED AND REPLACED WITH ROADWAY GRAVEL PRIOR TO THE PLACEMENT OF PAVEMENT.
2. STONE SIZE – USE 2" CRUSHED STONE.
3. WIDTH – TWENTY (20) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS OF INGRESS OR EGRESS.
4. FILTER CLOTH – WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO THE PLACEMENT OF STONE.
5. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED NEAR CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
6. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
7. WASHING – WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAYS. WHEN WASHING IS DONE IT SHALL BE DONE ON STABILIZED ENTRANCE WITH STONE AND WHICH DRAINS INTO THE SEDIMENT SUMP AS SHOWN.
8. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

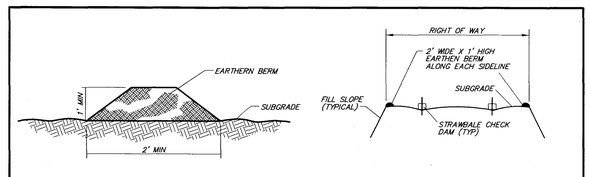
STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE



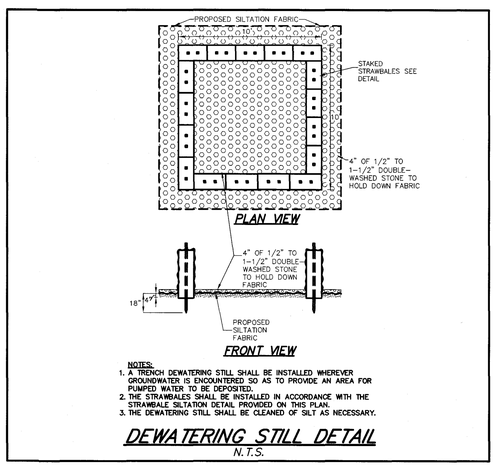
SILTATION FENCE DETAIL
NOT TO SCALE



STRAWBALE CHECK DAM DETAIL
NOT TO SCALE

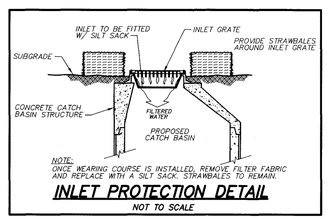


EARTHEN BERM DETAIL
NOT TO SCALE

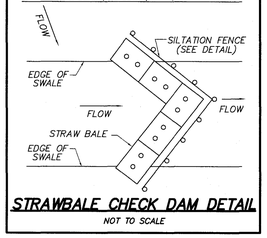


NOTES:
1. A TRENCH DEWATERING STILL SHALL BE INSTALLED WHEREVER GROUNDWATER IS ENCOUNTERED SO AS TO PROVIDE AN AREA FOR PUMPED WATER TO BE DEPOSITED.
2. THE STRAWBALES SHALL BE INSTALLED IN ACCORDANCE WITH THE STRAWBALE SILTATION DETAIL PROVIDED ON THIS PLAN.
3. THE DEWATERING STILL SHALL BE CLEANED OF SILT AS NECESSARY.

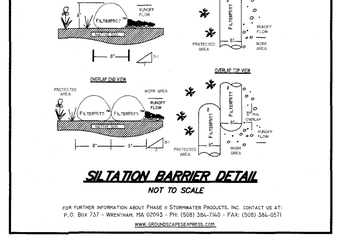
DEWATERING STILL DETAIL
N.T.S.



INLET PROTECTION DETAIL
NOT TO SCALE



STRAWBALE CHECK DAM DETAIL
NOT TO SCALE



SILTATION BARRIER DETAIL
NOT TO SCALE

FOR FURTHER INFORMATION ABOUT PHASE II STORMWATER PRODUCTS, INC. CONTACT US AT:
P.O. BOX 737 - WRENTHAM, MA 02093 - PH: (508) 384-1740 - FAX: (508) 384-0571
WWW.GROUNDSCAPESEXPRESS.COM.

EROSION AND SEDIMENTATION CONTROL NOTES:

1. SEDIMENT AND EROSION CONTROL MEASURES SHALL BE IMPLEMENTED PRIOR TO ANY CONSTRUCTION OCCURRING ON SITE. ADDITIONAL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE AVAILABLE ON SITE.
2. SILTATION FENCE SHALL BE PLACED IN ALL AREAS AS SHOWN ON THE GRADING, DRAINAGE AND UTILITIES PLAN AND IN ANY OTHER AREAS AS DETERMINED NECESSARY DURING CONSTRUCTION.
3. TOPSOIL SHALL BE STRIPPED FROM DISTURBED AREAS AND STOCKPILED IN THE AREAS OUTSIDE OF THE BUFFER ZONE. ALL SOIL STOCK PILES SHALL HAVE EROSION CONTROL MEASURES AROUND THEIR EDGES AT ALL TIMES. SOIL STOCK PILES SHALL BE COVERED WITH TEMPORARY VEGETATION OR FASTENED TARPAULIN SHEETS.
4. THE SEDIMENT FOREBAYS AND RIP RAP SWALE SHALL BE ROUGHLY CONSTRUCTED DURING THE EARLIEST STAGES OF THE PROJECT AND SHALL BE USED AS A SEDIMENT BASIN. THE BASIN SHALL BE INITIALLY EXCAVATED TO 6" ABOVE THE BOTTOM ELEVATION SHOWN ON THE PLAN. THE DRAINAGE SYSTEM SHALL ALSO BE CONSTRUCTED DURING THE EARLIEST STAGES OF THE PROJECT IN ORDER TO DIRECT RUNOFF AND SEDIMENT TO THE BASIN.
5. ALL CATCH BASIN GRATES SHALL BE COVERED WITH SILT SACKS DURING CONSTRUCTION. CATCH BASIN GRATES ARE TO BE SET AT BINDER GRADE UNTIL IT IS TIME TO APPLY THE PAVEMENT WEARING COURSE.
6. ALL CUT AND FILL SLOPES SHALL BE IMMEDIATELY COVERED WITH 6" OF LOAM AND SEEDED DURING THE GROWING SEASON (APRIL 1 TO SEPTEMBER 30) OR COVERED WITH HAY MULCH DURING THE NON-GROWING SEASON (OCTOBER 1 TO MARCH 31).
7. UNLESS OTHERWISE INDICATED ALL DISTURBED AREAS SHALL RECEIVE A MINIMUM OF 6" OF LOAM AND BE SEEDED TO PREVENT EROSION.
8. DISTURBED AREAS WHERE CONSTRUCTION HAS PERMANENTLY OR TEMPORARILY CEASED MUST BE STABILIZED WITHIN 14 DAYS OF THE LAST DISTURBANCE. AREAS WHICH WILL BE REDISTURBED WITHIN 21 DAYS DO NOT HAVE TO BE STABILIZED.
9. ALL CATCH BASIN SUMPS SHALL BE CLEANED FOLLOWING CONSTRUCTION AND IN ACCORDANCE WITH THE OPERATION AND MAINTENANCE PLAN.
10. VELOCITY CHECK DAMS – STRAW BALES WILL BE USED AROUND THE CATCH BASINS ON THE PROPOSED ROAD TO PROTECT THEM FROM THE ERODING SOILS AND PROVIDE A CHECK DAM* TO SLOW THE RUNOFF DURING THE CONSTRUCTION. THE DEVELOPER SHALL PROVIDE VELOCITY CHECK DAMS* IN ALL UNPAVED STREET AREAS AT THE INTERVALS INDICATED BELOW:

GRADE OF THE ROAD	INTERVALS BETWEEN CHECK DAMS
LESS THAN 4%	100 FEET
4% TO 10%	50 FEET
OVER 10%	25 FEET

THE DEVELOPER SHALL PROVIDE VELOCITY CHECK DAMS* IN ALL UN-VEGETATED OR UNPAVED CHANNELS AT THE INTERVALS INDICATED BELOW:

GRADE OF THE CHANNEL	INTERVALS BETWEEN CHECK DAMS
LESS THAN 3%	100 FEET
3% TO 6%	50 FEET
OVER 6%	25 FEET

*CHECK DAMS IN UNPAVED DRIVES AND UN-VEGETATED OR UNPAVED GRADED CHANNELS SHALL BE CONSTRUCTED OF STAKED STRAW BALES OR OTHER EROSION RESISTANT MATERIALS APPROVED BY THE BOARD. THE CHECK DAMS SHALL BE INSTALLED AT THE END OF EACH WORKING DAY, AND IN THE EVENT OF RAINFALL BEING PREDICTED. THE STRAW BALES SHOULD BE SECURELY STAKED TO PREVENT OVERTURNING, FLOATATION, OR DISPLACEMENT. THEY SHALL EXTEND COMPLETELY ACROSS THE STREET OR CHANNEL AT RIGHT ANGLES TO THE CENTERLINE. ALSO, A VELOCITY CHECK DAM SHALL BE PROVIDED ALONG THE ENTRANCE OF THE LOT TO PROTECT THE PUBLIC STREETS AND ADJACENT PROPERTIES FROM THE HAZARDS OF EROSION. ALL CHECK DAMS SHALL BE CLEANED OF DEBRIS AND SILT PERIODICALLY.

INSPECTION/MAINTENANCE:

11. UPON ACCUMULATION OF 6" OF SEDIMENT, THE INFILTRATION BASIN AND RIP RAP SWALE SHALL BE CLEANED. AT THE END OF CONSTRUCTION THE BOTTOM OF THE BASIN SHALL BE EXCAVATED TO REMOVED ALL TOP SOILS AND GRADED WITH SAND AND LOAM.
12. THE DEVELOPER IS RESPONSIBLE FOR CLEAN UP OF ANY SAND, DIRT OR DEBRIS WHICH ERODES FROM THE SITE ONTO MASSACHUSETTS AVENUE AND TO REMOVE SILT OR DEBRIS THAT ENTERS ANY EXISTING DRAINAGE SYSTEM INCLUDING, BUT NOT LIMITED TO, CATCH BASIN SUMPS, PIPE LINES, MANHOLES, AND DITCHES.
13. SILTATION BARRIERS SHALL BE MAINTAINED UNTIL VEGETATIVE COVER HAS BEEN SUITABLY ESTABLISHED AND GRADED SLOPES ARE STABLE.
14. IF DRAINAGE OR RUN-OFF PROBLEMS OCCUR DURING CONSTRUCTION THE APPLICANT SHALL TAKE IMMEDIATE CORRECTIVE MEASURES.
15. ANY SILT, CONSTRUCTION DEBRIS, ETC. SHALL BE REMOVED FROM MASSACHUSETTS AVE IMMEDIATELY UPON DISCOVERY.
16. THE CONTRACTOR SHALL FOLLOW STANDARD PRACTICE AND LOAM AND SEED ALL DISTURBED AREAS FOLLOWING CONSTRUCTION. A MAINTENANCE CHECK PLAN SHALL BE IN PLACE AT ALL TIMES ON THE SITE.
17. OPERATOR PERSONNEL MUST INSPECT THE CONSTRUCTION SITE AT LEAST EVERY 5 DAYS AND WITHIN 24 HOURS OF A RAINFALL OF 0.5 INCHES OR MORE. DISTURBED AREAS THAT HAVE BEEN STABILIZED MUST BE INSPECTED AT LEAST ONCE EVERY TWO WEEKS.
18. THE SILTATION FENCE SHALL REMAIN IN PLACE UNTIL A VEGETATIVE COVER IS ESTABLISHED.
19. ALL CATCH BASIN SUMPS, INFILTRATION BASIN, INFILTRATION TRENCHES, RIP RAP SWALE AND MANHOLES SHALL BE CLEANED AFTER CONSTRUCTION AND ANNUALLY THEREAFTER.
20. TREE STUMPS SHALL BE DISPOSED OF OFFSITE. BOULDERS MAY ONLY BE USED IN GENERAL FILL & LANDSCAPE AREAS.
21. IN THE EVENT THAT SEVERE WEATHER IS EXPECTED, ALL SILTATION CONTROLS SHALL BE INSPECTED AND REPAIRED PRIOR TO THE EVENT. SILTATION CONTROLS STOCKPILED ON SITE SHALL BE SECURED TO PREVENT DAMAGE FROM HIGH WINDS. ALL SILTATION CONTROLS SHALL BE INSPECTED AND REPAIRED IMMEDIATELY FOLLOWING THE SEVERE WEATHER.

POLLUTION PREVENTION STANDARDS

1. ALL CONSTRUCTION AND DOMESTIC WASTE SHALL BE DISPOSED OF OFFSITE AT AN APPROVED LOCATION. WASTE CONTAINERS SHALL BE PROVIDED AT THE START OF CONSTRUCTION. ON WORK DAYS, CLEAN UP AND DISPOSE OF WASTE IN DESIGNATED WASTE CONTAINERS. ANY OVERFLOW SHALL BE CLEANED UP IMMEDIATELY.
2. PORTABLE TOILETS SHALL BE LOCATED ON SECURE GROUND IN AN AREA NOT PRONE TO FLIPPING OR BEING KNOCKED OVER.
3. ALL CONCRETE AND OTHER MATERIAL WASTEWATER MUST BE DIRECTED INTO LEAK-PROOF CONTAINERS. DO NOT DUMP LIQUID WASTE INTO STORM DRAINS. DISPOSE OF WASTE PROPERLY. LOCATE ALL WASHOUT AREAS AS FAR FROM ANY SURFACE WATERS AND STORMWATER INLETS AS POSSIBLE. (SEE NOTE 4)
4. ALL AMENITIES SHALL BE LOCATED PRIOR TO THE START OF EACH PHASE OF CONSTRUCTION. ALL AMENITIES SHALL BE LOCATED OUTSIDE OF ANY BUFFER ZONES.

GENERAL NOTE:

-SEE LANDSCAPE PLAN FOR ADDITIONAL SEED MIX SPECIFICATIONS.

-NEW ENGLAND EROSION CONTROL/RESTORATION MIX: SEED MIX TO BE LOCATED WITHIN SIDE SLOPES OF THE INFILTRATION BASINS, AS SUPPLIED BY NEW ENGLAND WETLAND PLANTS, INC., OR APPROVED EQUAL. SEED MIX TO BE INSTALLED PER THE MANUFACTURER'S SPECIFICATIONS. SEE LANDSCAPE PLAN.

SITE PLAN IN BOXBOROUGH, MASSACHUSETTS

STORMWATER POLLUTION PREVENTION DETAILS

FOR: BOXBOROUGH TOWN CENTER, LLC

SCALE: 1"=60' DECEMBER 22, 2016 *REVISED JUNE 22, 2017*

STAMSKI AND MCNARY, INC.
1000 MAIN STREET ACTON, MASSACHUSETTS
ENGINEERING – PLANNING – SURVEYING

0 30 60 120 180 240 FT

(2069 SITE10A.dwg) Sheet 30 of 30 SM-2069

COMMONWEALTH OF MASSACHUSETTS
GEORGE DIMAKARAKOS
CIVIL
No. 44281
REGISTERED PROFESSIONAL ENGINEER

COMMONWEALTH OF MASSACHUSETTS
JOSEPH MARCH
No. 36384
REGISTERED LAND SURVEYOR