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

RED LINE SET

DECEMBER 22, 2016

REVISED JUNE 22, 2017

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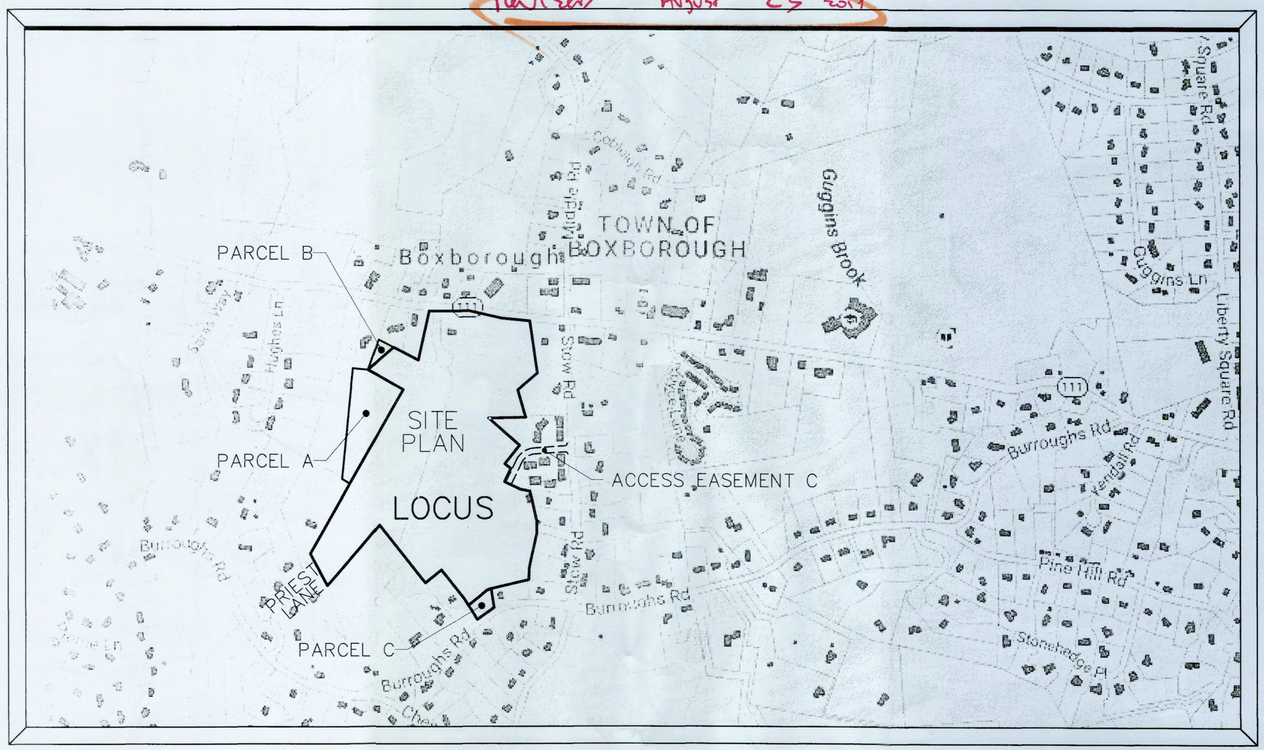
REVISED AUGUST 23 2017



LOCUS

SCALE: 1"=200'

PLAN INDEX:

SHEET 1	COVER SHEET
SHEET 2	MASTER PLAN
SHEET 3-4	EXISTING CONDITIONS PLAN
SHEET 5-10	SITE DEVELOPMENT PLAN
SHEET 11-15	LAYOUT AND UTILITIES PLAN
SHEET 16-23	PLAN AND PROFILE
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SHEET 28-30	STORMWATER POLLUTION PREVENTION PLAN

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:

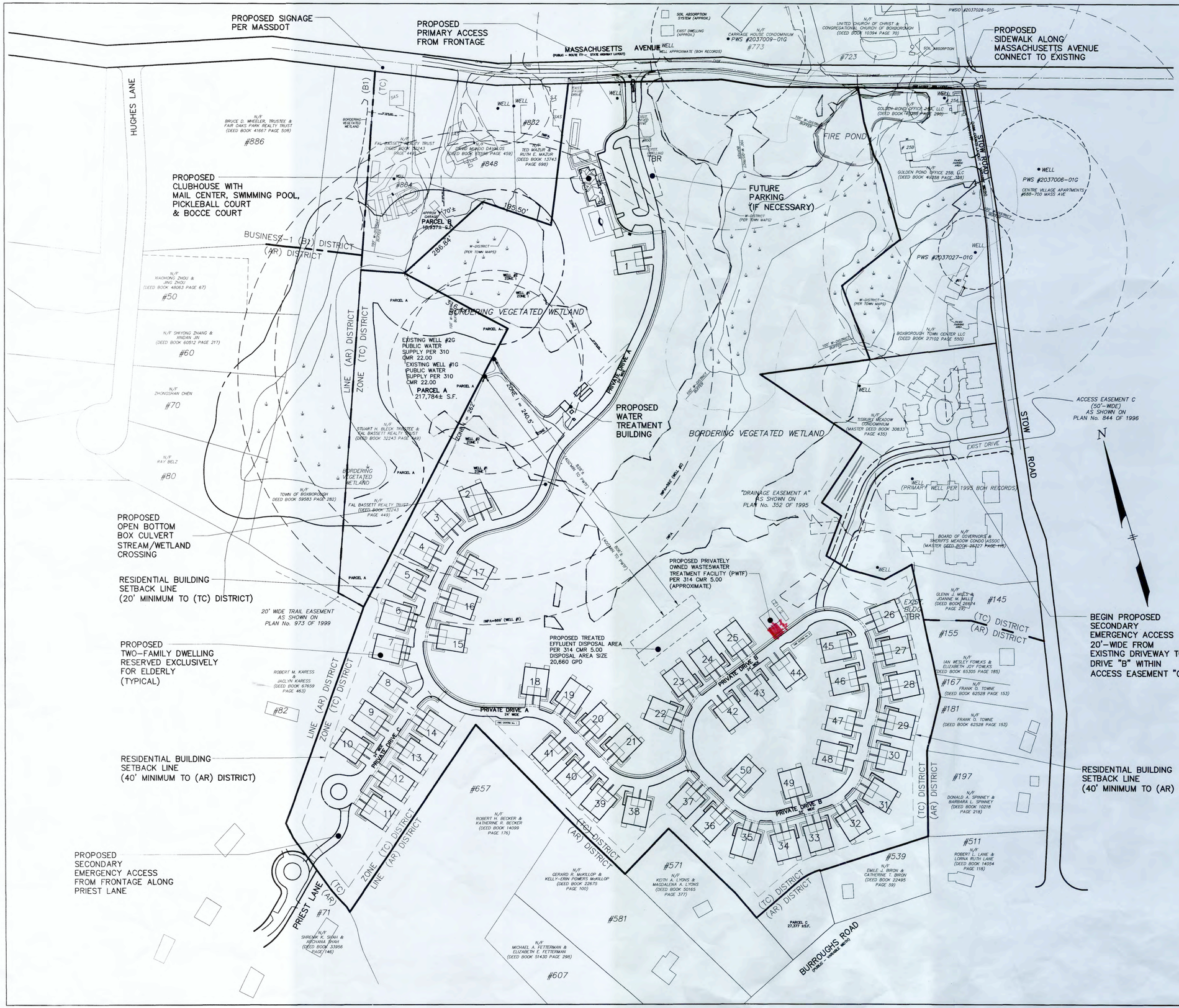
BOXBOROUGH TOWN CENTER, LLC
PO BOX 985
WEST ACTON, MA 01720

ENGINEER/SURVEYOR:

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

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

COMMONWEALTH OF MASSACHUSETTS JOSEPH MARCH # 36384 PROFESSIONAL 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

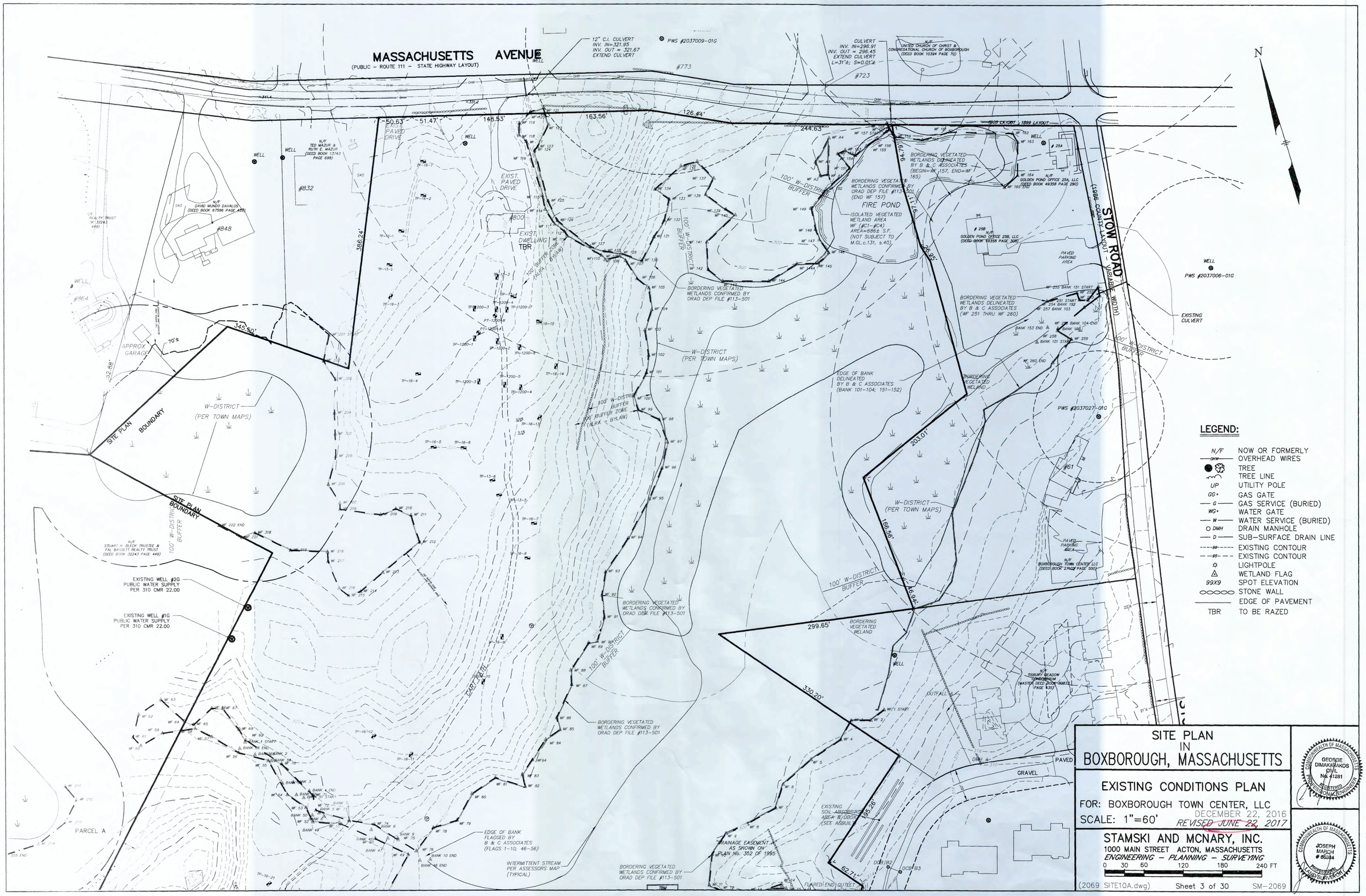
FOR: BOXBOROUGH TOWN CENTER, LLC
SCALE: 1"=120' DECEMBER 22, 2016
REVISED JUNE 22, 2017

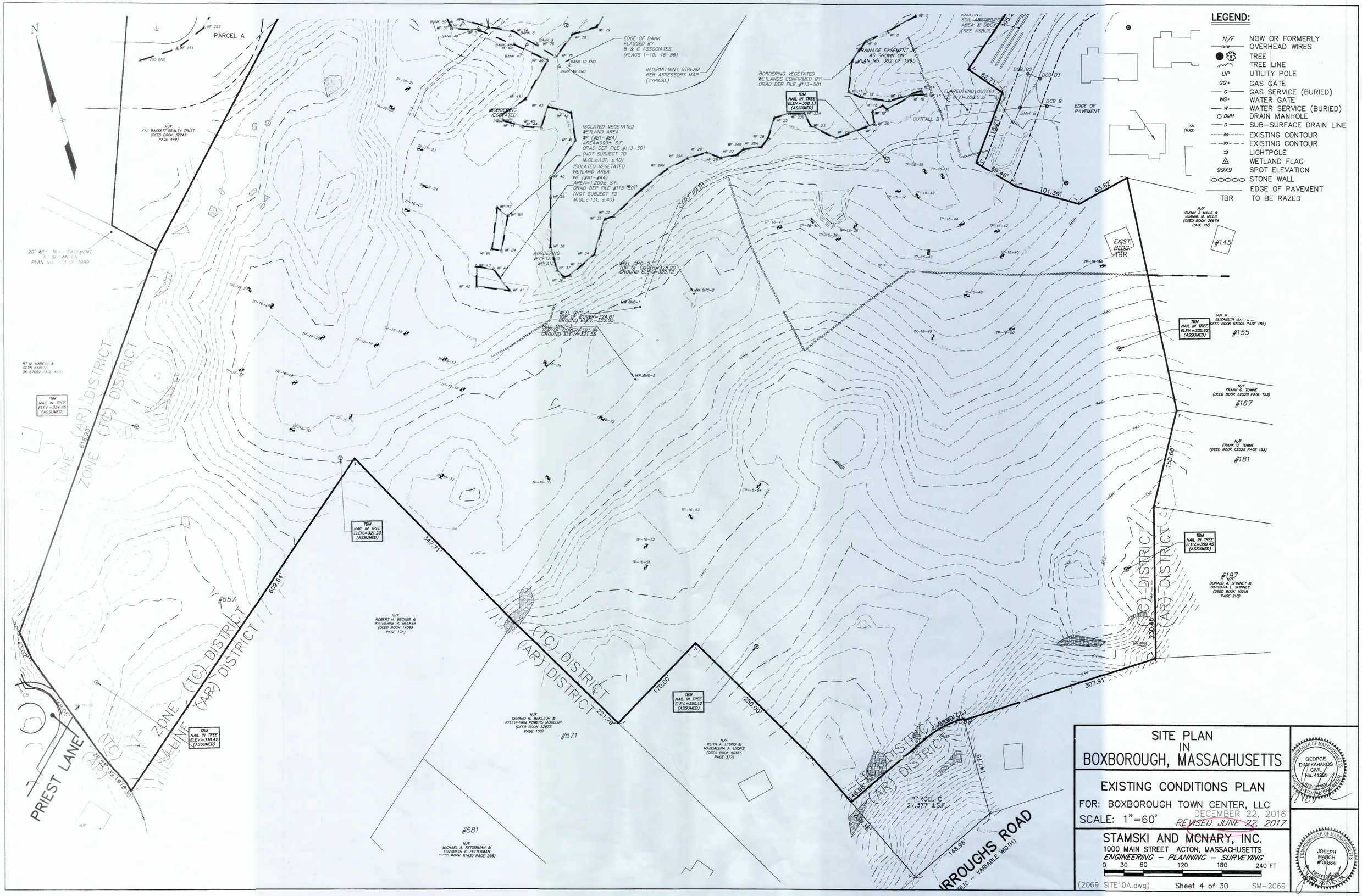
STAMSKI AND MCNARY, INC.
1000 MAIN STREET ACTON, MASSACHUSETTS
ENGINEERING - PLANNING - SURVEYING
0 60 120 240 360 480 FT

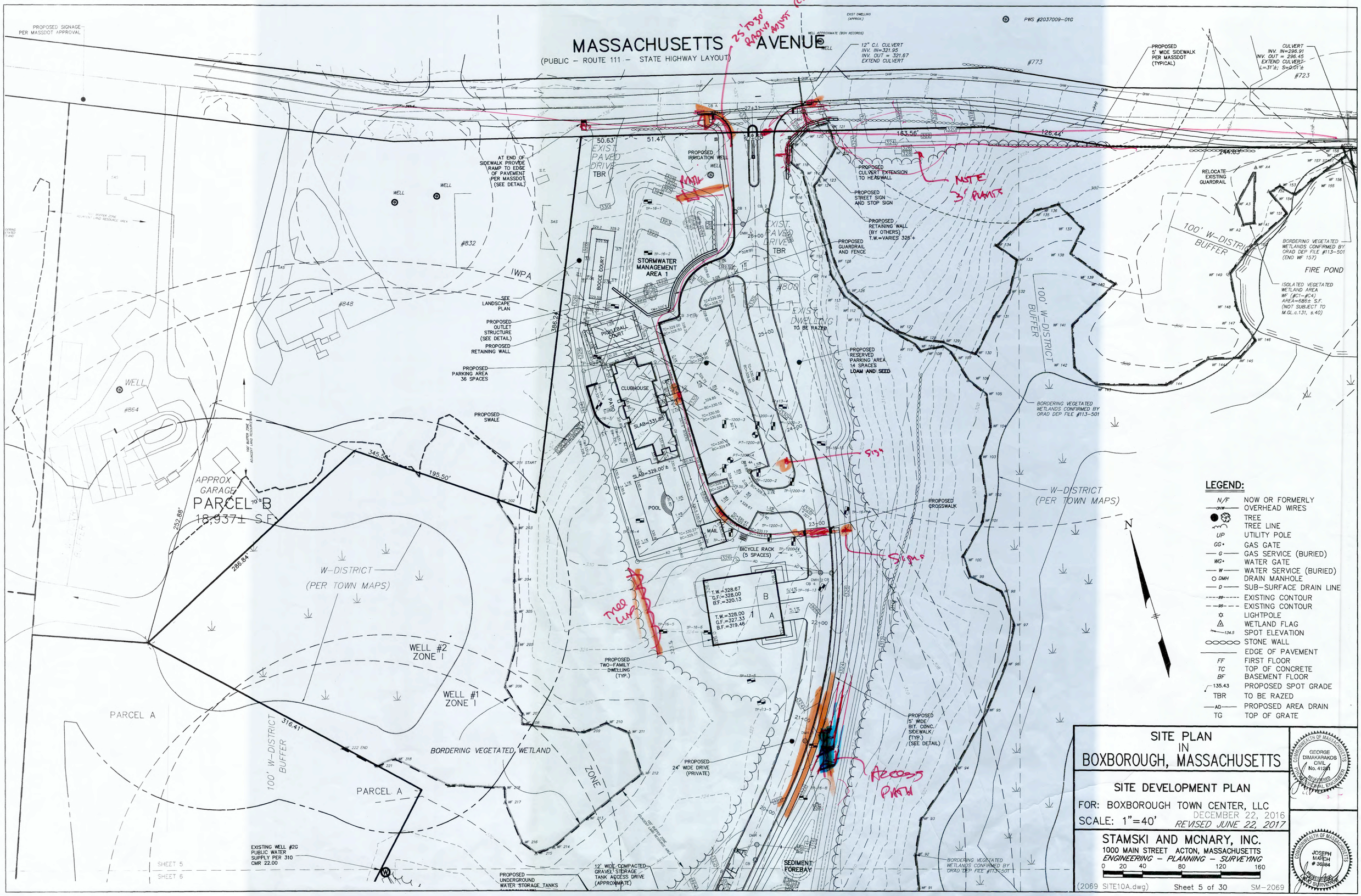
(2069 SITE10A.dwg) Sheet 2 of 30 SM-2069

COMMONWEALTH OF MASSACHUSETTS GEORGE DIMAKOPAKOS 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
(1986 COUNTY LAYOUT - VARIABLE WIDTH)
FIRE POND
EXIST. PAVED DRIVE
EXIST. DWELLING TBR
W-DISTRICT (PER TOWN MAPS)
100' W-DISTRICT BUFFER
SITE PLAN BOUNDARY
APPROX GARAGE
PARCEL A
EXISTING WELL #2G PUBLIC WATER SUPPLY PER 310 CMR 22.00
EXISTING WELL #1G PUBLIC WATER SUPPLY PER 310 CMR 22.00
EXISTING CULVERT
EDGE OF BANK DELINEATED BY B & C ASSOCIATES (BANK 101-104; 151-152)
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
BORDERING VEGETATED WETLANDS DELINEATED BY B & C ASSOCIATES (BEGIN=WF 157, END=WF 165)
BORDERING VEGETATED WETLANDS DELINEATED BY B & C ASSOCIATES (WF 251 THRU WF 260)
ISOLATED VEGETATED WETLAND AREA WF (#C1-#C4) AREA=686± S.F. (NOT SUBJECT TO M.GL.c.131, s.40)
DRAINAGE EASEMENT AS SHOWN ON PLAN No. 352 OF 1995
EXISTING SOIL ABSORPTION AREA & DBOX (SEE ASBUILT)
PAVED PARKING AREA
GRAVEL
PAVED
OUTFALL A
N
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 3 of 30
SM-2069
COMMONWEALTH OF MASSACHUSETTS
GEORGE DIMAKARAKOS
CIVIL
No. 41281
REGISTERED PROFESSIONAL ENGINEER
COMMONWEALTH OF MASSACHUSETTS
JOSEPH MARCH
86384
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
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
TBM NAIL IN TREE ELEV.=308.33 (ASSUMED)
ISOLATED VEGETATED WETLAND AREA WF (#B1-#B4) AREA=999± S.F. ORAD DEP FILE #113-501 (NOT SUBJECT TO M.GL.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.GL.c.131, s.40)
CART PATH
EDGE OF PAVEMENT
EXIST. BLDG. TBR
#145
#155
#167
#181
#197
#657
#571
#581
PRIEST LANE
(TC) DISTRICT
(AR) DISTRICT
ZONE (TC) DISTRICT
LINE (AR) DISTRICT
ZONE (TC) DISTRICT
LINE (AR) DISTRICT
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)
N/F FAL BASSETT REALTY TRUST (DEED BOOK 32243 PAGE 449)
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)
N/F KEITH A. LYONS & MAGDALENA A. LYONS (DEED BOOK 50165 PAGE 377)
N/F MICHAEL A. FETTERMAN & ELIZABETH E. FETTERMAN (DEED BOOK 51430 PAGE 298)
N/F GLENN J. MILLS & JOANNE M. MILLS (DEED BOOK 26674 PAGE 29)
N/F FRANK O. TOWNE (DEED BOOK 62528 PAGE 153)
N/F DONALD A. SPINNEY & BARBARA L. SPINNEY (DEED BOOK 10218 PAGE 218)
PARCEL C 27,377 ±S.F.
BURROUGHS ROAD
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. 41281 REGISTERED PROFESSIONAL ENGINEER
JOSEPH MARCH #38384 PROFESSIONAL LAND SURVEYOR


MASSACHUSETTS AVENUE
(PUBLIC – ROUTE 111 – STATE HIGHWAY LAYOUT)
PROPOSED SIGNAGE PER MASSDOT APPROVAL
PWS #2037009-01G
12" C.I. CULVERT INV. IN=321.95 INV. OUT = 321.67 EXTEND CULVERT
PROPOSED 5' WIDE SIDEWALK PER MASSDOT (TYPICAL)
CULVERT INV. IN=296.91 INV. OUT = 296.45 EXTEND CULVERT L=31'±; S=0.01'±
#773
#723
#832
#848
#864
#800
EXIST. PAVED DRIVE TBR
PROPOSED IRRIGATION WELL
AT END OF SIDEWALK PROVIDE RAMP TO EDGE OF PAVEMENT PER MASSDOT (SEE DETAIL)
PROPOSED CULVERT EXTENSION TO HEADWALL
PROPOSED STREET SIGN AND STOP SIGN
PROPOSED RETAINING WALL (BY OTHERS) T.W.=VARIES 326'+
PROPOSED GUARDRAIL AND FENCE
RELOCATE EXISTING GUARDRAIL
STORMWATER MANAGEMENT AREA 1
BOCCE COURT
PICKLEBALL COURT
CLUBHOUSE
PATIO
SLAB=331.85'
SLAB=329.00'±
POOL
MAIL
BICYCLE RACK (5 SPACES)
EXIST. DWELLING TO BE RAZED
PROPOSED RESERVED PARKING AREA 14 SPACES LOAM AND SEED
SEE LANDSCAPE PLAN
PROPOSED OUTLET STRUCTURE (SEE DETAIL)
PROPOSED RETAINING WALL
PROPOSED PARKING AREA 36 SPACES
PROPOSED SWALE
IWPA
100' W-DISTRICT BUFFER
FIRE POND
BORDERING VEGETATED WETLANDS CONFIRMED BY ORAD DEP FILE #113-501 (END WF 157)
ISOLATED VEGETATED WETLAND AREA WF (#C1-#C4) AREA=686± S.F. (NOT SUBJECT TO M.GL.c.131, s.40)
BORDERING VEGETATED WETLANDS CONFIRMED BY ORAD DEP FILE #113-501
W-DISTRICT (PER TOWN MAPS)
PROPOSED CROSSWALK
APPROX GARAGE
PARCEL B 18,937± S.F.
W-DISTRICT (PER TOWN MAPS)
WELL #2 ZONE I
WELL #1 ZONE I
PARCEL A
100' W-DISTRICT BUFFER
BORDERING VEGETATED WETLAND
ZONE I
PROPOSED TWO-FAMILY DWELLING (TYP.)
PROPOSED 24' WIDE DRIVE (PRIVATE)
PROPOSED 5' WIDE BIT. CONC. SIDEWALK (TYP.) (SEE DETAIL)
SEDIMENT FOREBAY
EXISTING WELL #2G PUBLIC WATER SUPPLY PER 310 CMR 22.00
PROPOSED UNDERGROUND WATER STORAGE TANKS
12' WIDE COMPACTED GRAVEL STORAGE TANK ACCESS DRIVE (APPROXIMATE)
SHEET 5
SHEET 6
25' TO 30' RADIUS ADJUST RAMP
NOTE 3' PLANTS
Sign
Signs
Tree Line
Access Path
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
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
GEORGE DIMAKARAKOS CIVIL No. 41281
JOSEPH MARCH # 36884

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)
O 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

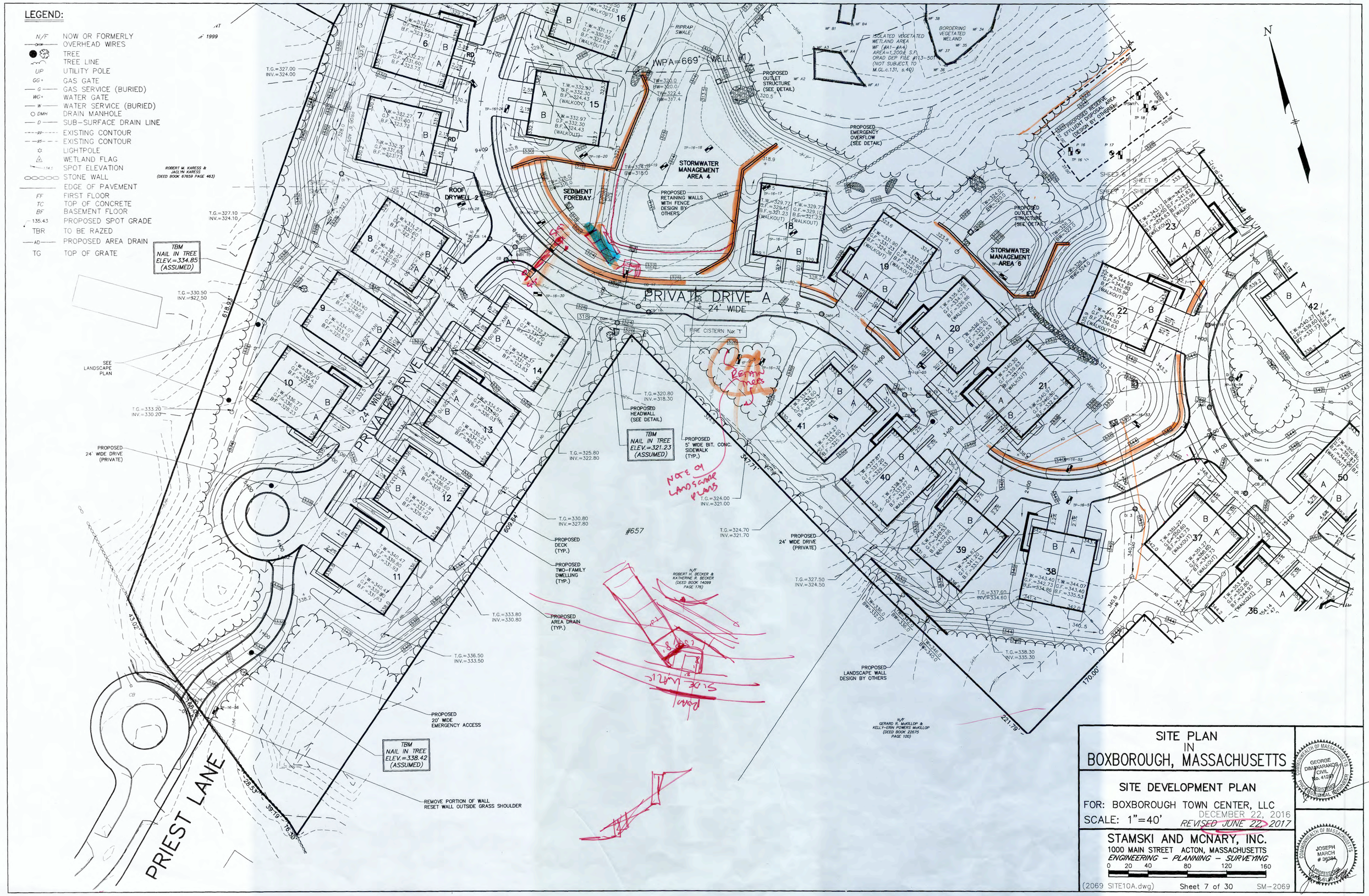
STAMSKI AND MCNARY, INC.
1000 MAIN STREET ACTON, MASSACHUSETTS
ENGINEERING - PLANNING - SURVEYING

0 20 40 80 120 160

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

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

COMMONWEALTH OF MASSACHUSETTS JOSEPH MARGHT 36384 REGISTERED PROFESSIONAL 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
135.43 PROPOSED SPOT GRADE
TBR TO BE RAZED
AD PROPOSED AREA DRAIN
TG TOP OF GRATE
N
PRIVATE DRIVE A
24' WIDE
PRIVATE DRIVE C
24' WIDE
PRIEST LANE
WPA=669' (WELL #1)
RIPRAP SWALE
ISOLATED VEGETATED WETLAND AREA
BORDERING VEGETATED WETLAND
PROPOSED OUTLET STRUCTURE (SEE DETAIL)
PROPOSED EMERGENCY OVERFLOW (SEE DETAIL)
STORMWATER MANAGEMENT AREA 4
SEDIMENT FOREBAY
PROPOSED RETAINING WALLS WITH FENCE DESIGN BY OTHERS
ROOF DRYWELL 2
STORMWATER MANAGEMENT AREA 6
PROPOSED RESERVE SEPTIC DISPOSAL AREA (DESIGN BY OTHERS)
FIRE CISTERN No. 1
PROPOSED HEADWALL (SEE DETAIL)
PROPOSED 5' WIDE BIT. CONC. SIDEWALK (TYP.)
PROPOSED 24' WIDE DRIVE (PRIVATE)
PROPOSED DECK (TYP.)
PROPOSED TWO-FAMILY DWELLING (TYP.)
PROPOSED AREA DRAIN (TYP.)
PROPOSED 20' WIDE EMERGENCY ACCESS
PROPOSED LANDSCAPE WALL DESIGN BY OTHERS
REMOVE PORTION OF WALL RESET WALL OUTSIDE GRASS SHOULDER
SEE LANDSCAPE PLAN
TBM NAIL IN TREE ELEV.=334.85 (ASSUMED)
TBM NAIL IN TREE ELEV.=321.23 (ASSUMED)
TBM NAIL IN TREE ELEV.=338.42 (ASSUMED)
ROBERT M. KARESS & JACLYN KARESS (DEED BOOK 67859 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 22875 PAGE 100)
#657
NOTE ON LANDSCAPE PLANS
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 7 of 30
SM-2069
COMMONWEALTH OF MASSACHUSETTS GEORGE DIMAKARAKOS CIVIL No. 41231 REGISTERED PROFESSIONAL ENGINEER
COMMONWEALTH OF MASSACHUSETTS JOSEPH MARCH # 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
135.43 PROPOSED SPOT GRADE
TBR TO BE RAZED
AD PROPOSED AREA DRAIN
TG TOP OF GRATE
PRIVATE DRIVE B
24' WIDE
STORMWATER MANAGEMENT AREA 6
PROPOSED OUTLET STRUCTURE (SEE DETAIL)
PROPOSED TREELINE
PROPOSED 24' WIDE DRIVE (PRIVATE)
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 G. 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 59)
N/F GERARD R. McKILLOP & KELLY-ERIN POWERS McKILLOP (DEED BOOK 22675 PAGE 100)
N/F KEITH A. LYONS & MAGDALENA A. LYONS (DEED BOOK 50165 PAGE 377)
#167
#181
#197
#511
#571
#581
See utility plan for labels
All buildings shall be provided with gutters and downspouts that connect to the stormwater management system as needed. Indicated in plan set.
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 8 of 30
SM-2069
COMMONWEALTH OF MASSACHUSETTS GEORGE DIMAMARAKOS 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
—99—	EXISTING CONTOUR
—95—	EXISTING CONTOUR
	LIGHTPOLE
	WETLAND FLAG
114.5	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

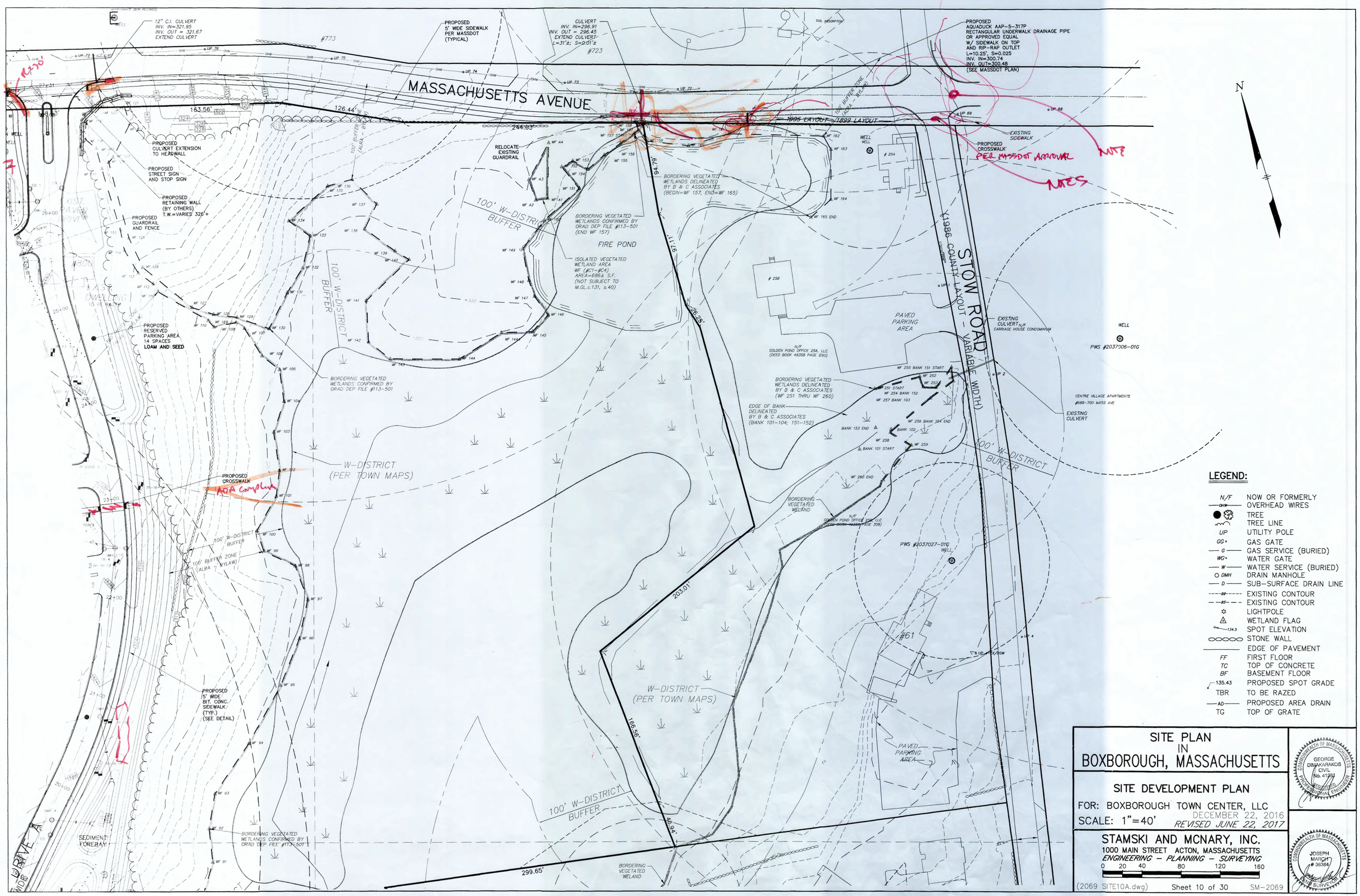
ENGINEERING – PLANNING – SURVEYING

0 20 40 80 120 160

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

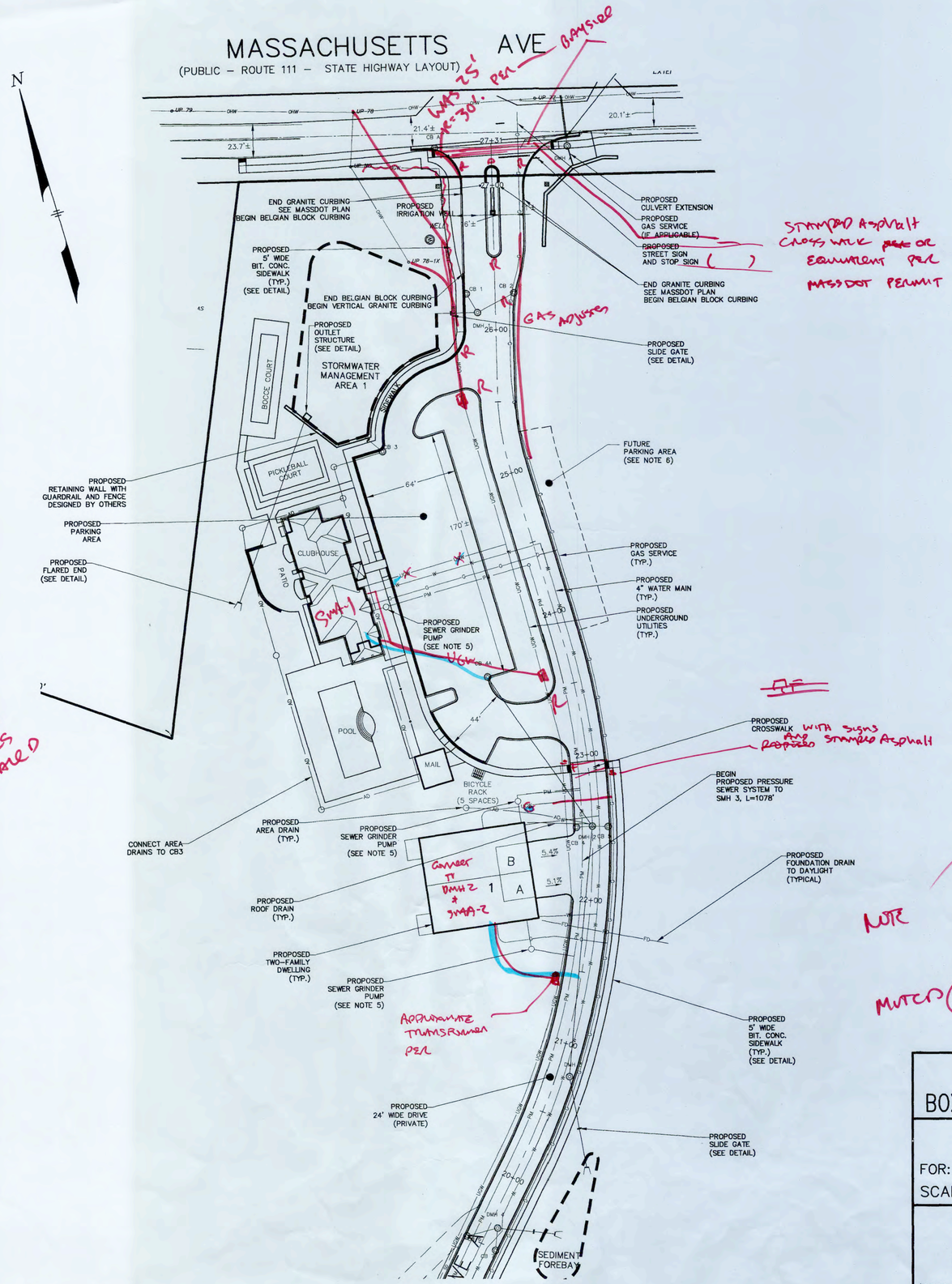
COMMONWEALTH OF MASSACHUSETTS GEORGE DIMAKARAKOS CIVIL No. 41281 REGISTERED PROFESSIONAL ENGINEER

COMMONWEALTH OF MASSACHUSETTS JOSEPH MARCH # 36384 PROFESSIONAL LAND SURVEYOR


MASSACHUSETTS AVENUE
STOW ROAD
(1986 COUNTY LAYOUT - VARIABLE WIDTH)
1905 LAYOUT / 1899 LAYOUT
12" C.I. CULVERT
INV. IN=321.95
INV. OUT = 321.67
EXTEND CULVERT
PROPOSED 5' WIDE SIDEWALK PER MASSDOT (TYPICAL)
CULVERT
INV. IN=296.91
INV. OUT = 296.45
EXTEND CULVERT
L=31'±; S=0.01'±
PROPOSED AQUADUCK AAP-5-317P RECTANGULAR UNDERWALK DRAINAGE PIPE OR APPROVED EQUAL W/ SIDEWALK ON TOP AND RIP-RAP OUTLET
L=10.25', S=0.025
INV. IN=300.74
INV. OUT=300.48
(SEE MASSDOT PLAN)
PROPOSED CULVERT EXTENSION TO HEADWALL
PROPOSED STREET SIGN AND STOP SIGN
PROPOSED RETAINING WALL (BY OTHERS) T.W.=VARIES 326'+
PROPOSED GUARDRAIL AND FENCE
RELOCATE EXISTING GUARDRAIL
100' W-DISTRICT BUFFER
FIRE POND
BORDERING VEGETATED WETLANDS DELINEATED BY B & C ASSOCIATES (BEGIN=WF 157, END=WF 165)
BORDERING VEGETATED WETLANDS CONFIRMED BY ORAD DEP FILE #113-501 (END WF 157)
ISOLATED VEGETATED WETLAND AREA WF (#C1-#C4) AREA=686± S.F. (NOT SUBJECT TO M.GL.c.131, s.40)
PROPOSED RESERVED PARKING AREA 14 SPACES LOAM AND SEED
BORDERING VEGETATED WETLANDS CONFIRMED BY ORAD DEP FILE #113-501
W-DISTRICT (PER TOWN MAPS)
PROPOSED CROSSWALK
ADA Complete
100' W-DISTRICT BUFFER
100' BUFFER ZONE (ALRA - BYLAW)
PROPOSED 5' WIDE BIT. CONC. SIDEWALK (TYP.) (SEE DETAIL)
SEDIMENT FOREBAY
BORDERING VEGETATED WETLANDS CONFIRMED BY ORAD DEP FILE #113-501
PAVED PARKING AREA
EXISTING CULVERT N/F CARRIAGE HOUSE CONDOMINIUM
N/F GOLDEN POND OFFICE 25A, LLC (DEED BOOK 49358 PAGE 290)
BORDERING VEGETATED WETLANDS DELINEATED BY B & C ASSOCIATES (WF 251 THRU WF 260)
EDGE OF BANK DELINEATED BY B & C ASSOCIATES (BANK 101-104; 151-152)
CENTRE VILLAGE APARTMENTS #688-700 MASS AVE
EXISTING CULVERT
PWS #2037006-01G
PWS #2037027-01G
BORDERING VEGETATED WELAND
#61
PAVED PARKING AREA
EXISTING SIDEWALK
PROPOSED CROSSWALK
PER MASSDOT APPROVAL
NOTE
NOTES
N
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
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 10 of 30
SM-2069
COMMONWEALTH OF MASSACHUSETTS GEORGE DIMAKARAKOS CIVIL No. 41981 REGISTERED PROFESSIONAL ENGINEER
COMMONWEALTH OF MASSACHUSETTS JOSEPH MARCH # 36384 LAND SURVEYOR

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.

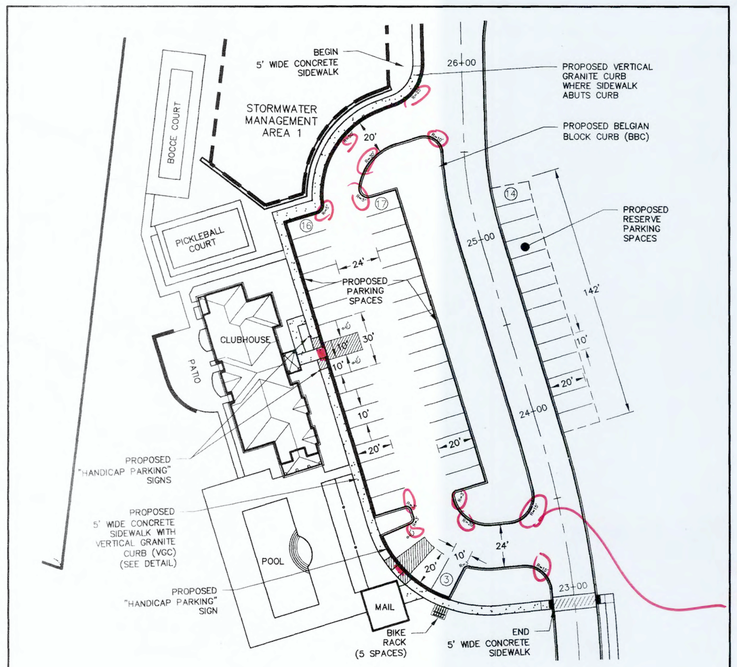
6) BANK PARKING PER DISCRETION OF THE PLANNING BOARD.

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

8. LOCATION OF PROPOSED ELECTRICAL ~~PRIMARY UNDERGROUND~~ PRIMARY CABINETS, TRANSFORMERS, JUNCTION CABINETS, ~~AND~~

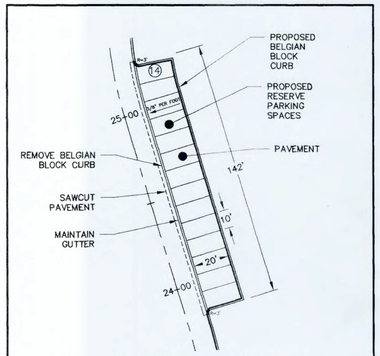
NOTE 9 SECONDARY PEDESTALS AND UNDERGROUND SECONDARY ~~AND~~ SHOWN ARE APPROXIMATE ONLY PER ~~SEE PLAN~~ UTI ~~ELECTRICAL COMPANY~~.

MUTCD 10. ~~SEE DRAWINGS AND~~ EXACT LOCATION PER DRAWINGS PROVIDED BY UTILITY PROVIDER.



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

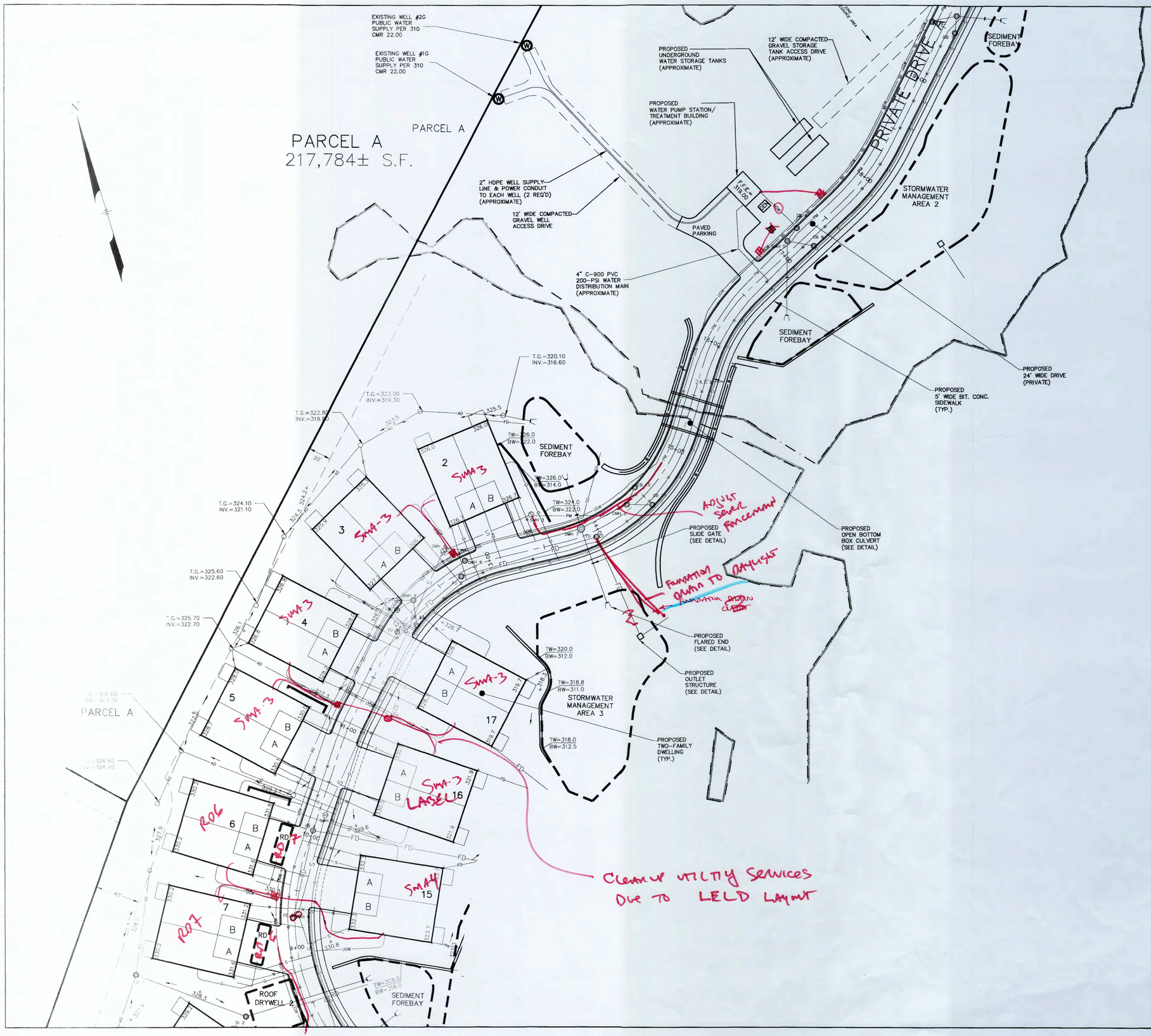
STAMSKI AND MCNARY, INC.
1000 MAIN STREET ACTON, MASSACHUSETTS
ENGINEERING – PLANNING – SURVEYING

0 20 40 80 120 160

(2069 SITE10A.dwg) Sheet 11 of 30 SM-2069

COMMONWEALTH OF MASSACHUSETTS GEORGE DIMAKARAKOS CIVIL No. 41294 PROFESSIONAL ENGINEER

COMMONWEALTH OF MASSACHUSETTS JOSEPH MARCH # 36304 PROFESSIONAL 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
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

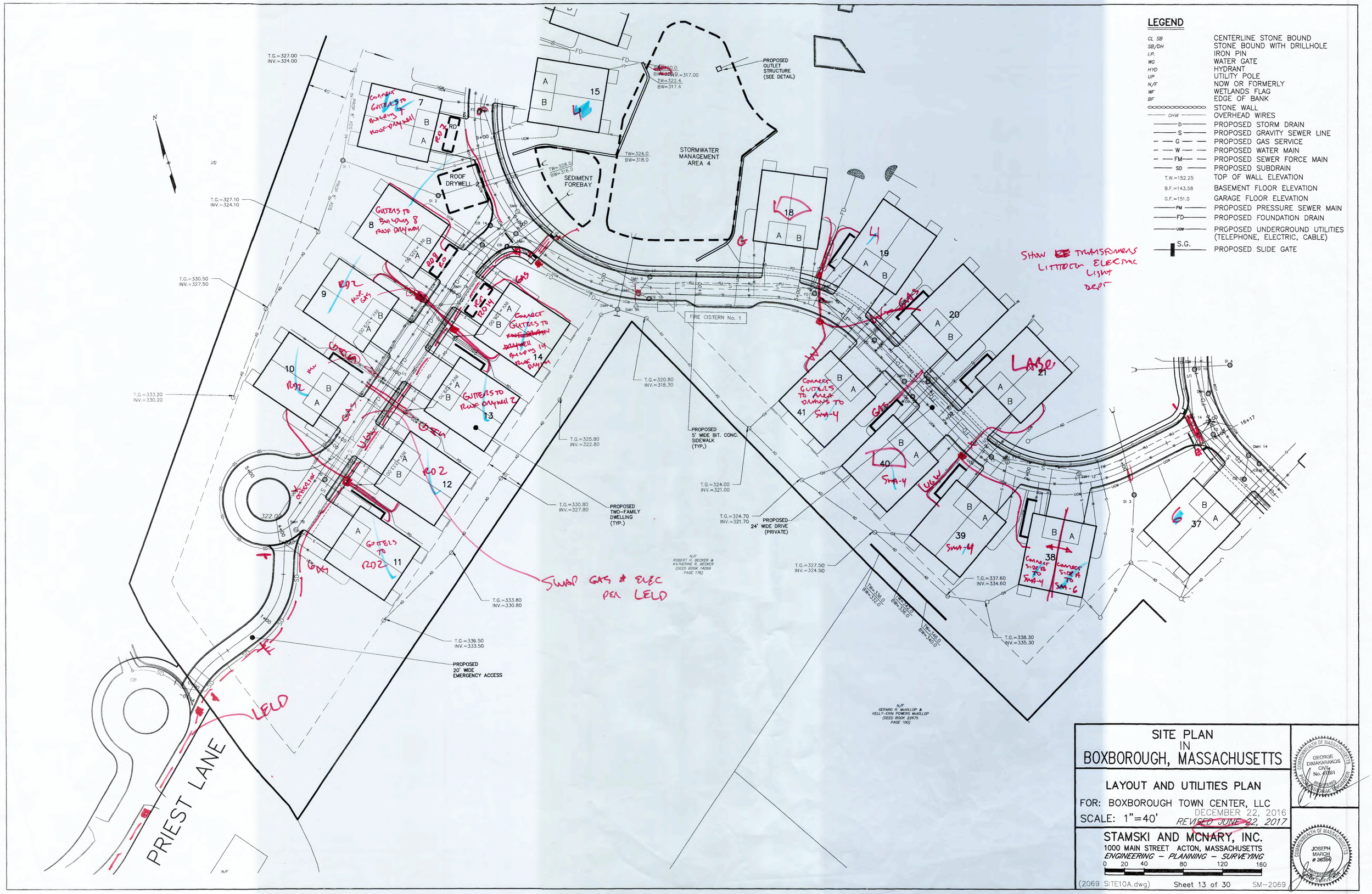
STAMSKI AND MCNARY, INC.
1000 MAIN STREET ACTON, MASSACHUSETTS
ENGINEERING – PLANNING – SURVEYING

0 20 40 80 120 160

(2069 SITE10A.dwg) Sheet 12 of 30 SM-2069

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

COMMONWEALTH OF MASSACHUSETTS JOSEPH MCNARY # 35084 PROFESSIONAL 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
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SD PROPOSED SUBDRAIN
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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
PROPOSED OUTLET STRUCTURE (SEE DETAIL)
STORMWATER MANAGEMENT AREA 4
SEDIMENT FOREBAY
ROOF DRYWELL 2
FIRE CISTERN No. 1
PROPOSED 5' WIDE BIT. CONC. SIDEWALK (TYP.)
PROPOSED TWO-FAMILY DWELLING (TYP.)
PROPOSED 24' WIDE DRIVE (PRIVATE)
PROPOSED 20' WIDE EMERGENCY ACCESS
N/F ROBERT H. BECKER & KATHERINE R. BECKER (DEED BOOK 14099 PAGE 176)
N/F GERARD P. McKILLOP & KELLY-ERIN POWERS McKILLOP (DEED BOOK 22675 PAGE 100)
PRIEST LANE
SHOW TRANSFORMERS LITTLETON ELECTRIC LIGHT DEPT
SWAP GAS & ELEC PER LELD
LELD
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
(2069 SITE10A.dwg)
Sheet 13 of 30
SM-2069
GEORGE DIMAKARAKOS CIVIL No. 41281
JOSEPH MARCH # 36384

IAN WESLE
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
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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

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

(2069 SITE10A.dwg) Sheet 14 of 30 SM-2069

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

COMMONWEALTH OF MASSACHUSETTS
JOSEPH MARCH
38994
PROFESSIONAL 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.=[illegible]	TOP OF WALL ELEVATION
B.F.=[illegible]	BASEMENT FLOOR ELEVATION
G.F.=[illegible]	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~~

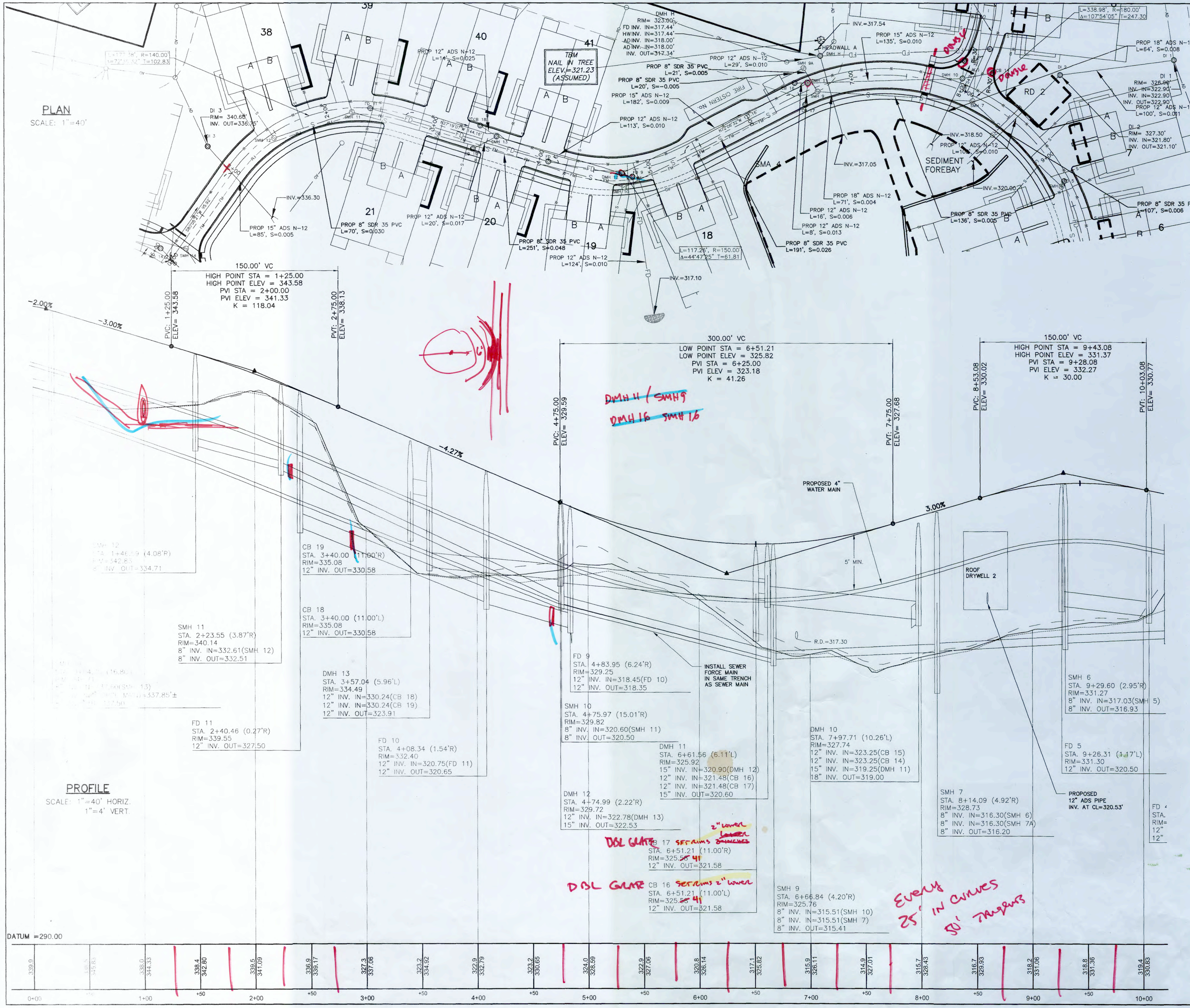
STAMSKI AND MCNARY, INC.
1000 MAIN STREET ACTON, MASSACHUSETTS
ENGINEERING – PLANNING – SURVEYING

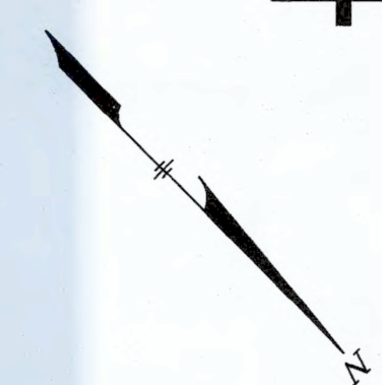
0 20 40 80 120 160

(2069 SITE10A.dwg) Sheet 15 of 30 SM-2069

COMMONWEALTH OF MASSACHUSETTS GEORGE DIMAKARAKOS CIVIL No. 41291 REGISTERED PROFESSIONAL ENGINEER

COMMONWEALTH OF MASSACHUSETTS JOSEPH MARCH # 36984 PROFESSIONAL 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
ooooooooooooo	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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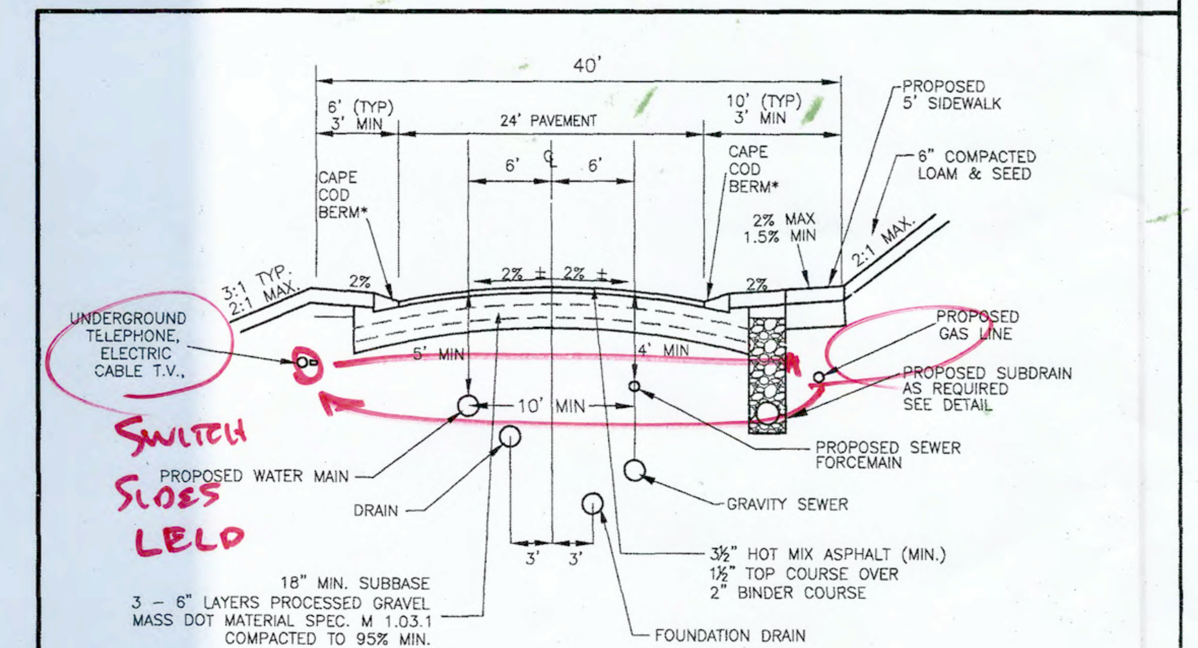
G.F.=151.0	GARAGE FLOOR ELEVATION
—— PM ——	PROPOSED PRESSURE SEWER MAIN
—— FD ——	PROPOSED FOUNDATION DRAIN
—— UGW ——	PROPOSED UNDERGROUND UTILITIES (TELEPHONE, ELECTRIC, CABLE)
S.G.	PROPOSED SLIDE GATE



* 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

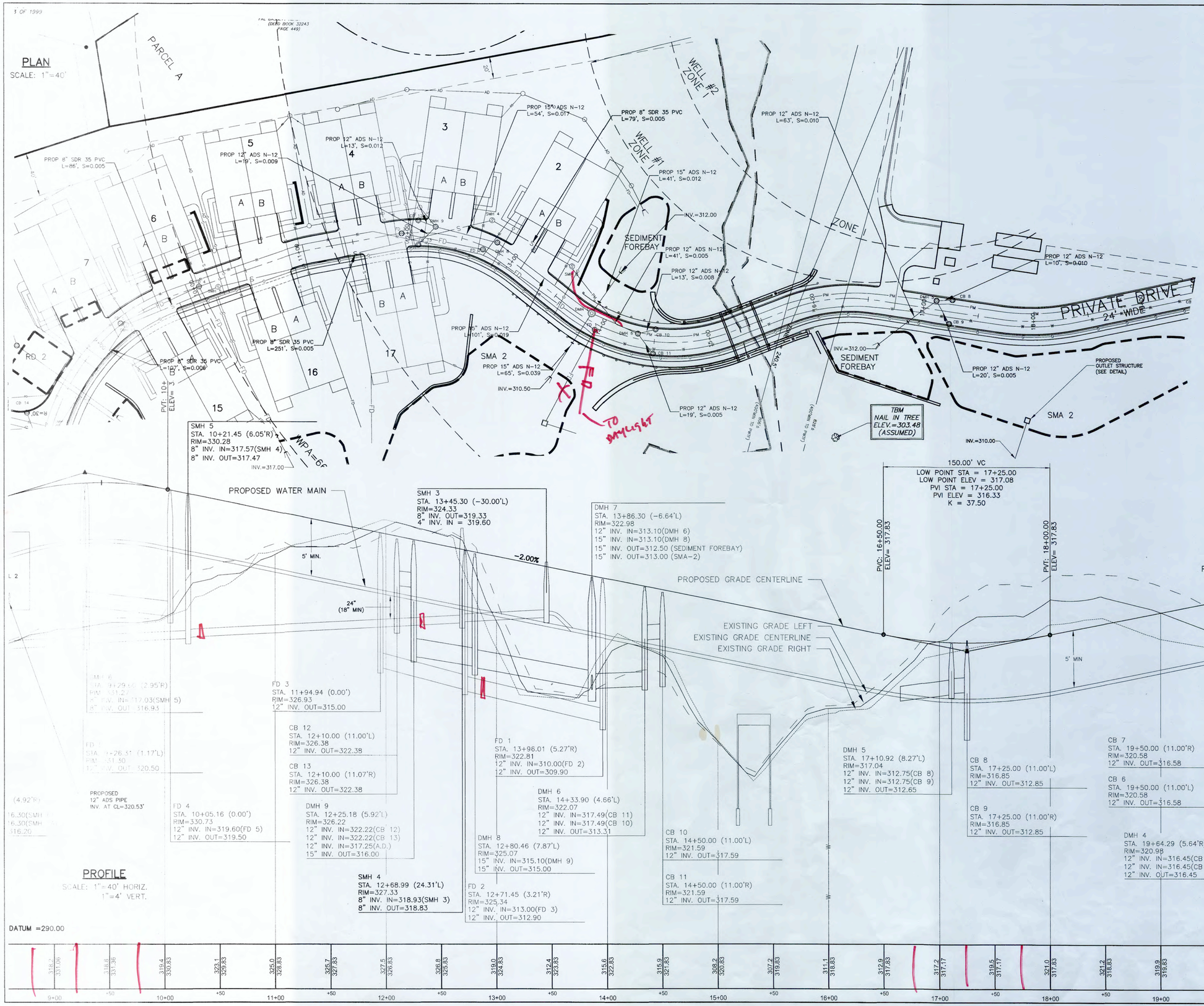
0 20 40 80 120 160 FT

(2069 SITE10A.dwg) Sheet 16 of 30 SM–2069

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

COMMONWEALTH OF MASSACHUSETTS
JOSEPH MARCH
36384
PROFESSIONAL LAND SURVEYOR

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
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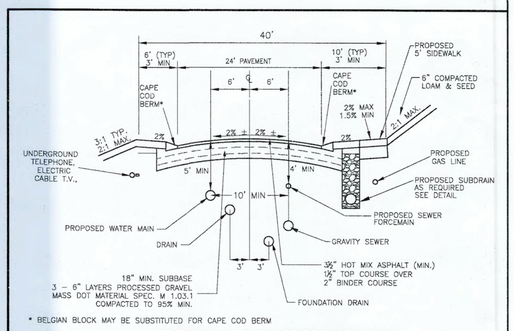
UGW	PROPOSED UNDERGROUND UTILITIES (TELEPHONE, ELECTRIC, CABLE)
S.G.	PROPOSED SLIDE GATE



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

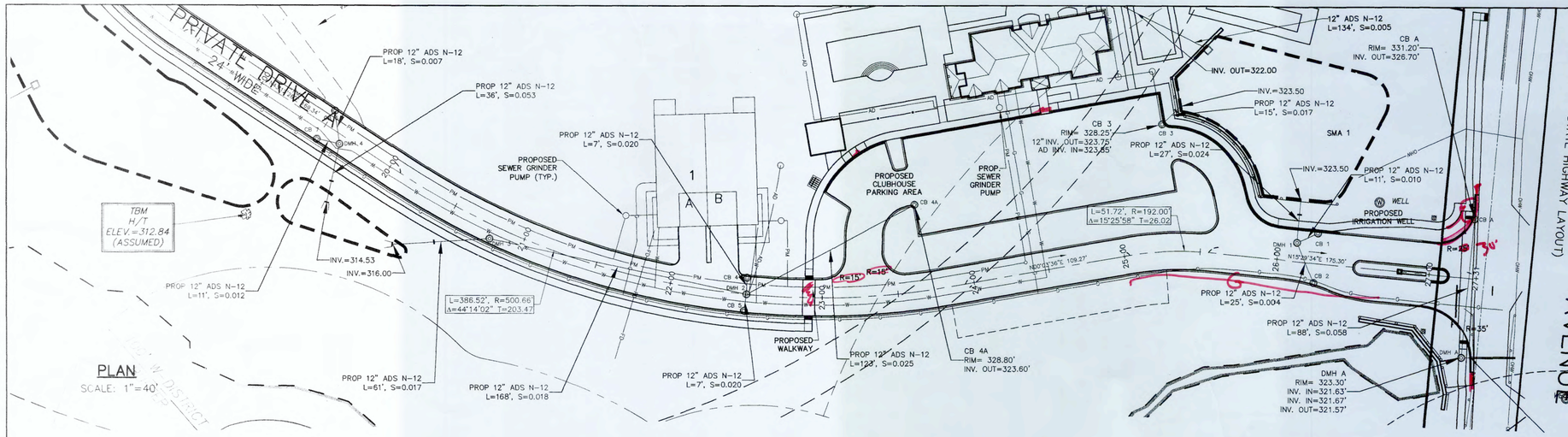
STAMSKI AND MCNARY, INC.
1000 MAIN STREET ACTON, MASSACHUSETTS
ENGINEERING – PLANNING – SURVEYING

0 20 40 80 120 160 FT

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

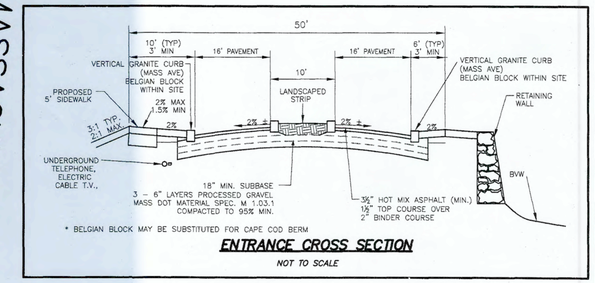
COMMONWEALTH OF MASSACHUSETTS GEORGE DIMAKARAKOS CIVIL No. 41281 REGISTERED PROFESSIONAL ENGINEER

COMMONWEALTH OF MASSACHUSETTS JOSEPH MARCH # 36384 PROFESSIONAL LAND SURVEYOR



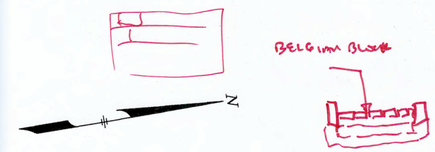
PLAN

SCALE: 1"=40'



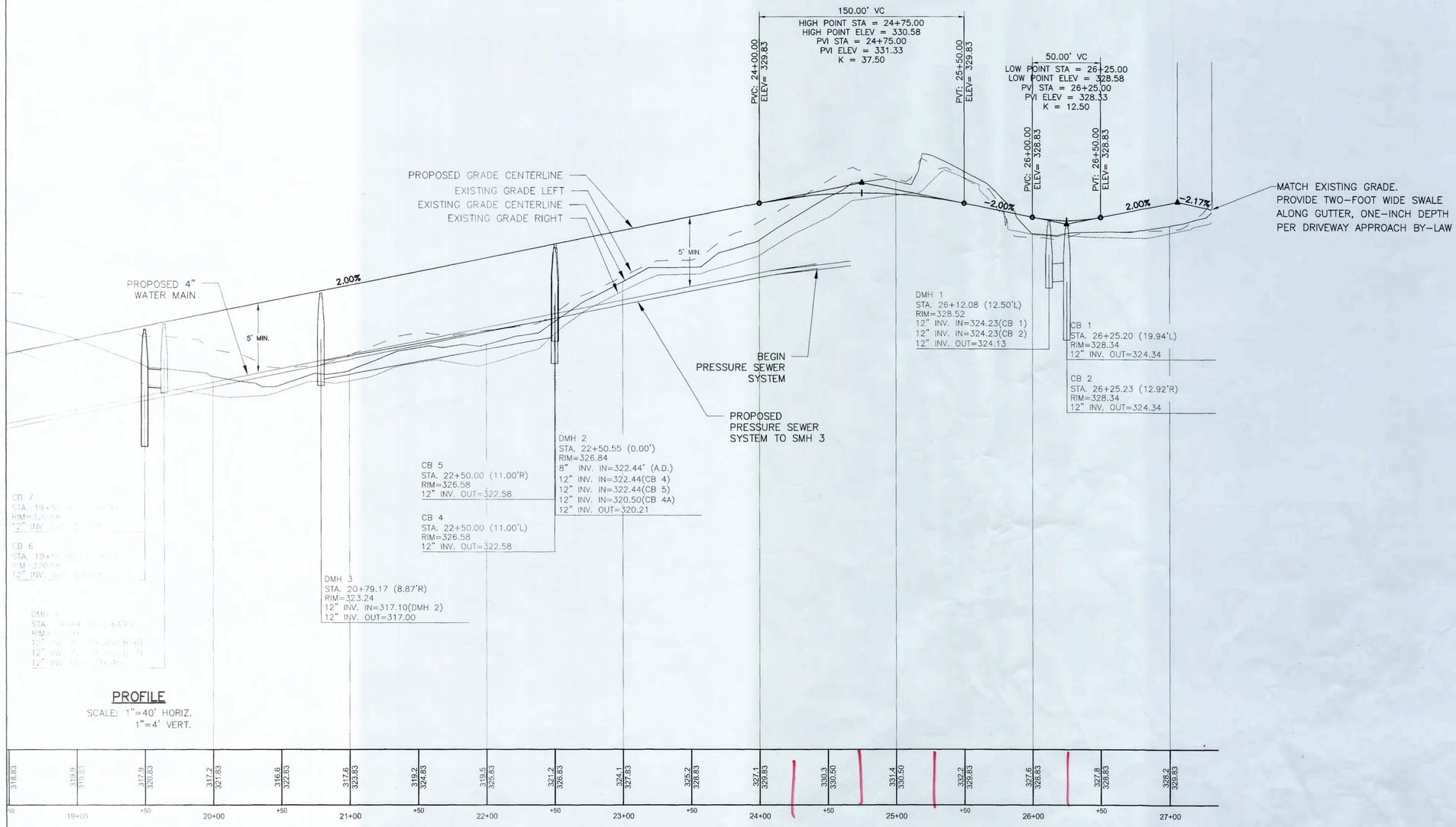
ENTRANCE CROSS SECTION

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
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.

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

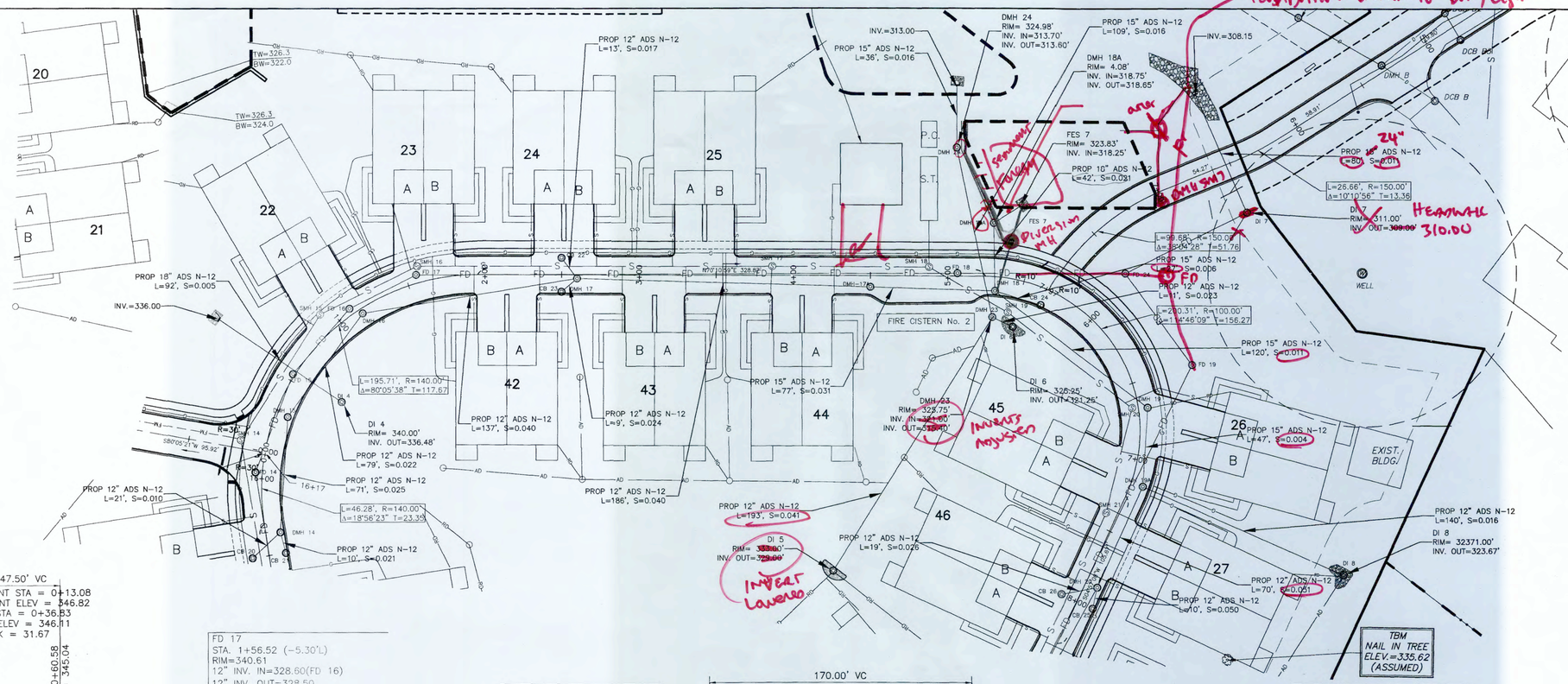
0 20 40 80 120 160 FT

(2069 SITE10A.dwg) Sheet 18 of 30 SM-2069

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

COMMONWEALTH OF MASSACHUSETTS JOSEPH MARCH # 38384 REGISTERED PROFESSIONAL ENGINEER

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
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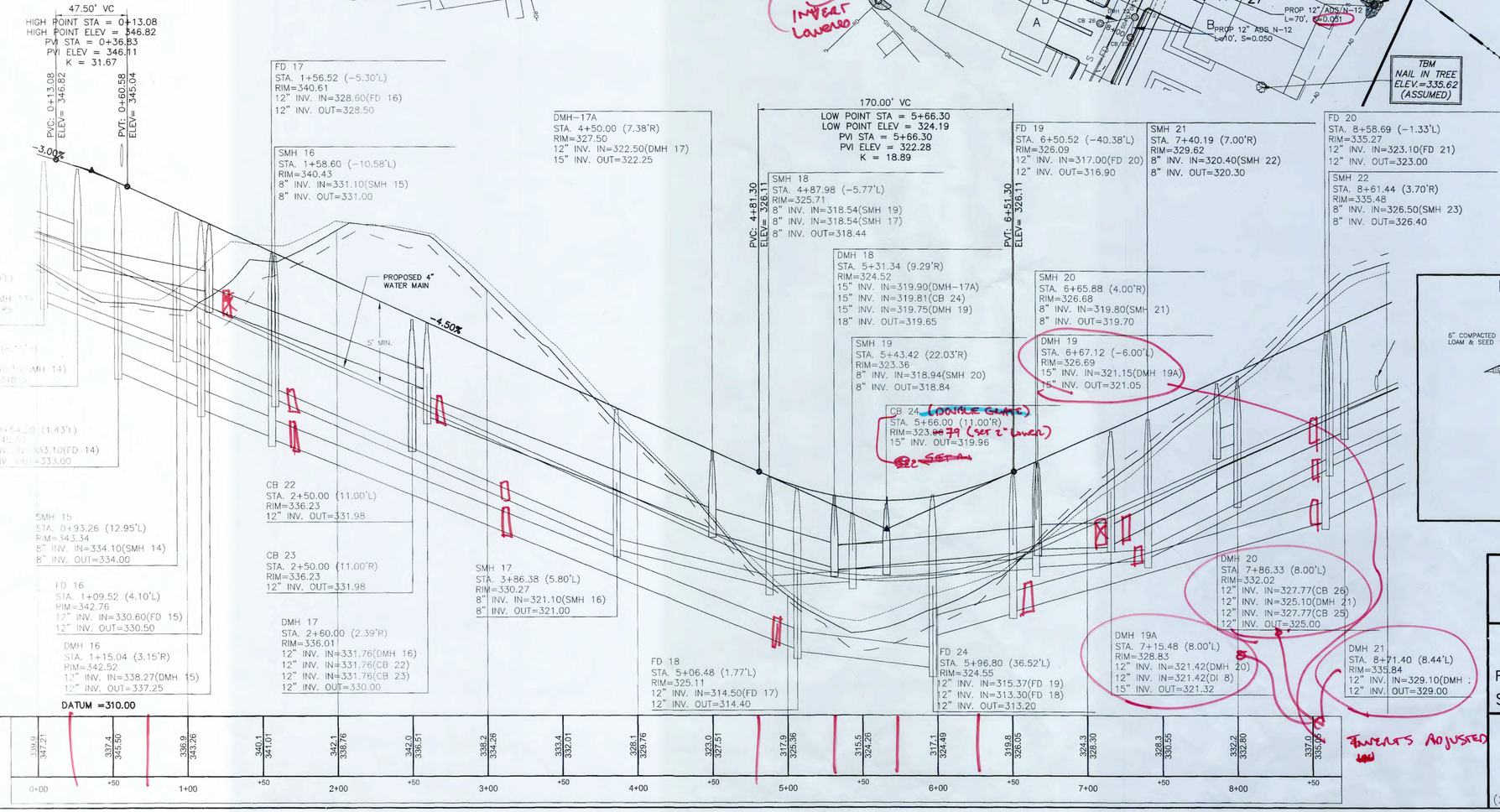
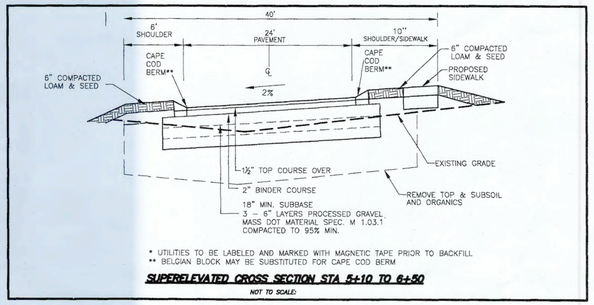
G.F.=151.0	GARAGE FLOOR ELEVATION
PM	PROPOSED PRESSURE SEWER MAIN
FD	PROPOSED FOUNDATION DRAIN
UGW	PROPOSED UNDERGROUND UTILITIES (TELEPHONE, ELECTRIC, CABLE)
S.G.	PROPOSED SLIDE GATE

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





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

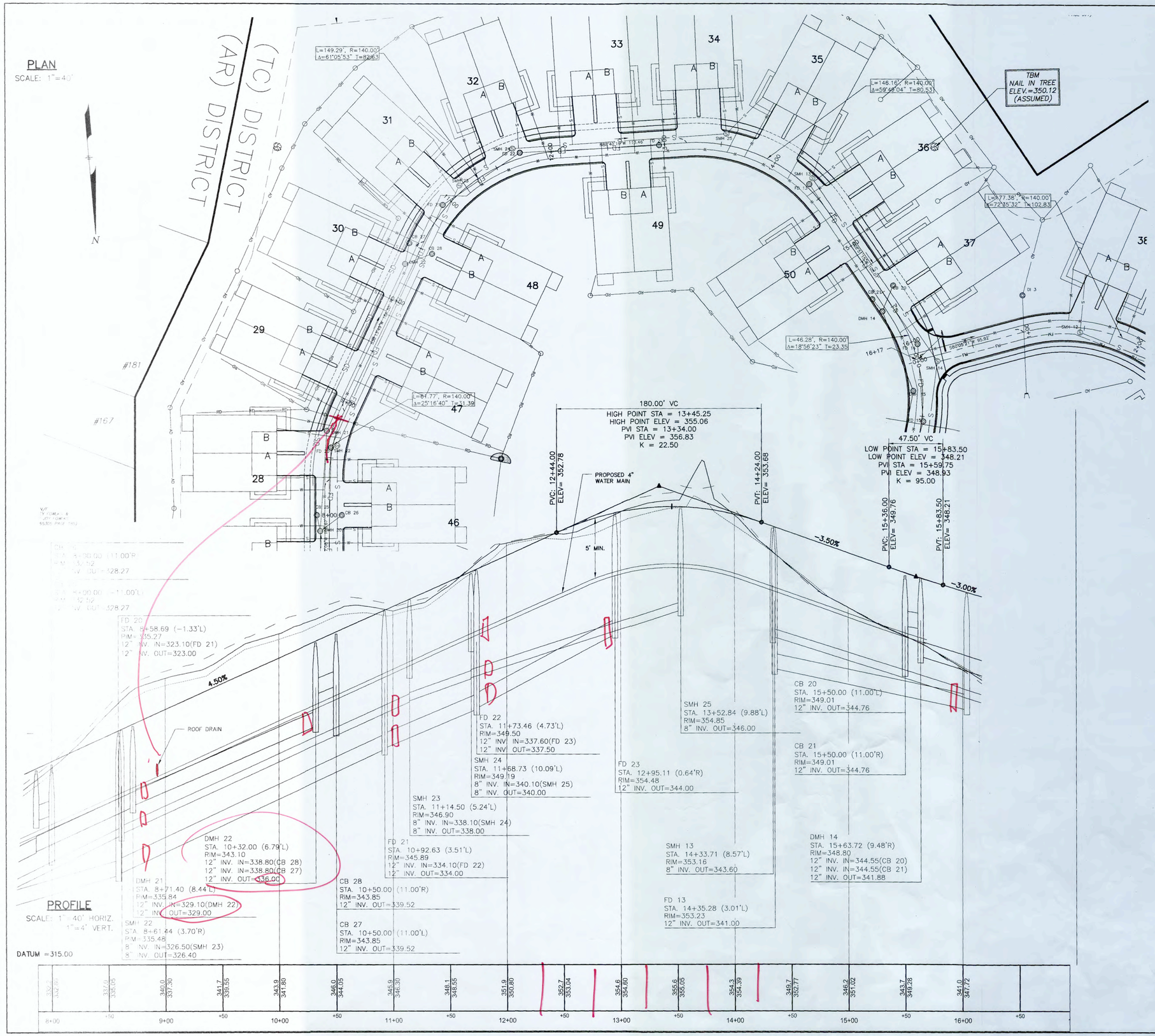
STAMSKI AND MCNARY, INC.
1000 MAIN STREET ACTON, MASSACHUSETTS
ENGINEERING - PLANNING - SURVEYING

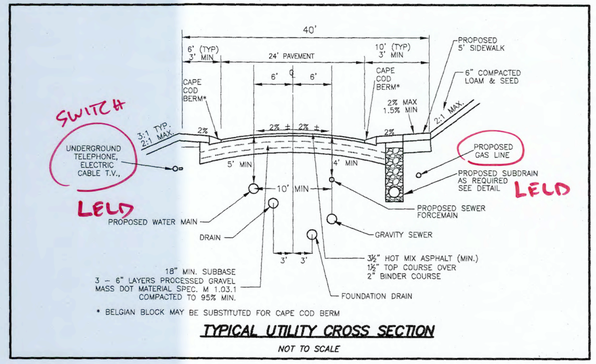
0 20 40 80 120 160 FT

(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





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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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

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

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

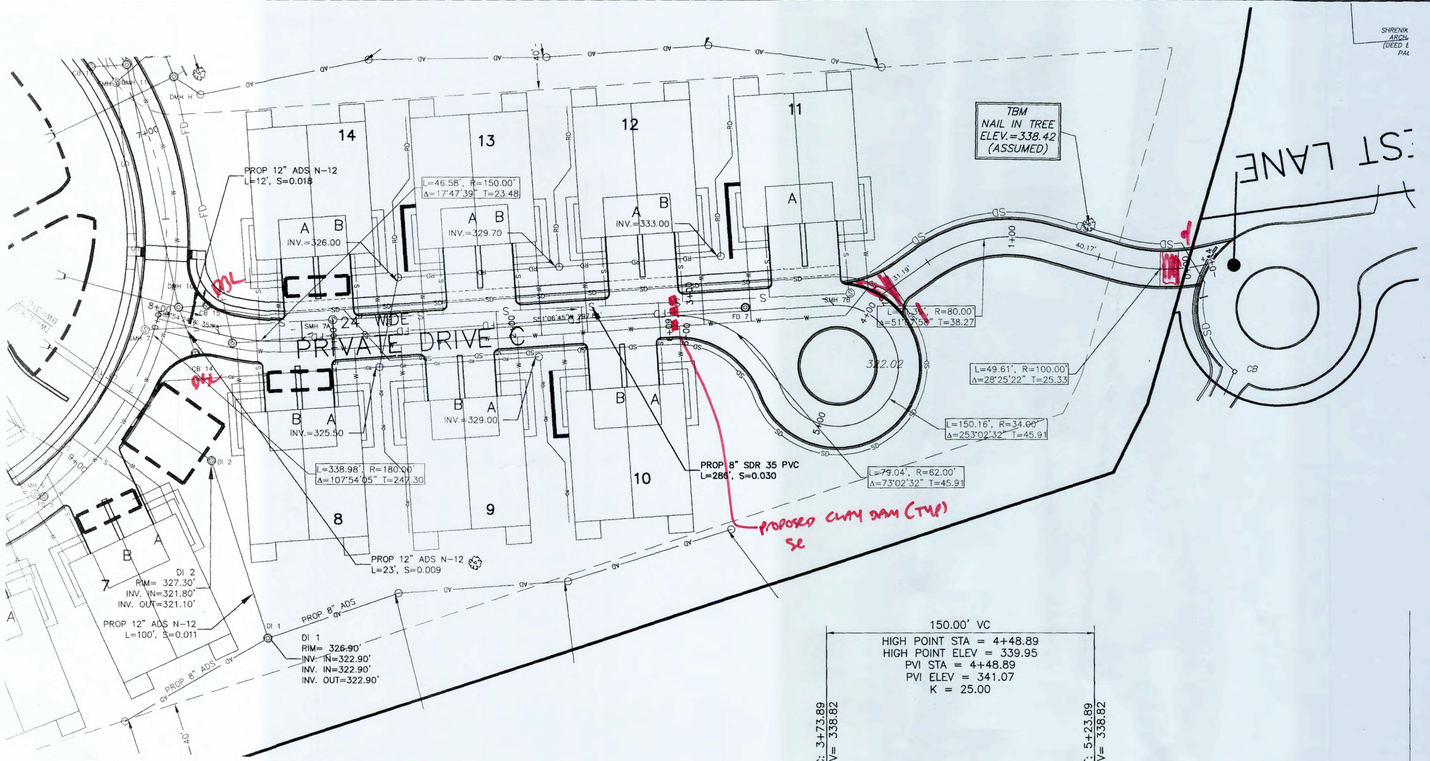
(2069 SITE10A.dwg) Sheet 20 of 30 SM-2069

COMMONWEALTH OF MASSACHUSETTS GEORGE DIMAKARAKOS CIVIL No. 34364 REGISTERED PROFESSIONAL ENGINEER

COMMONWEALTH OF MASSACHUSETTS JOSEPH MARCHI # 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
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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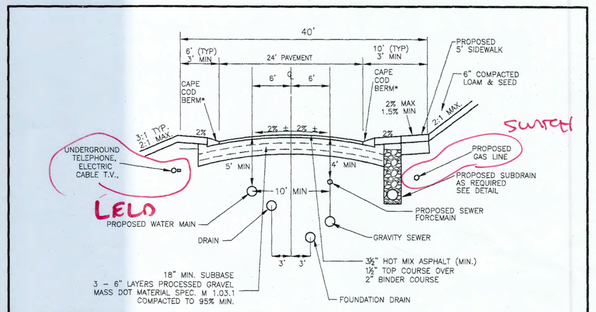
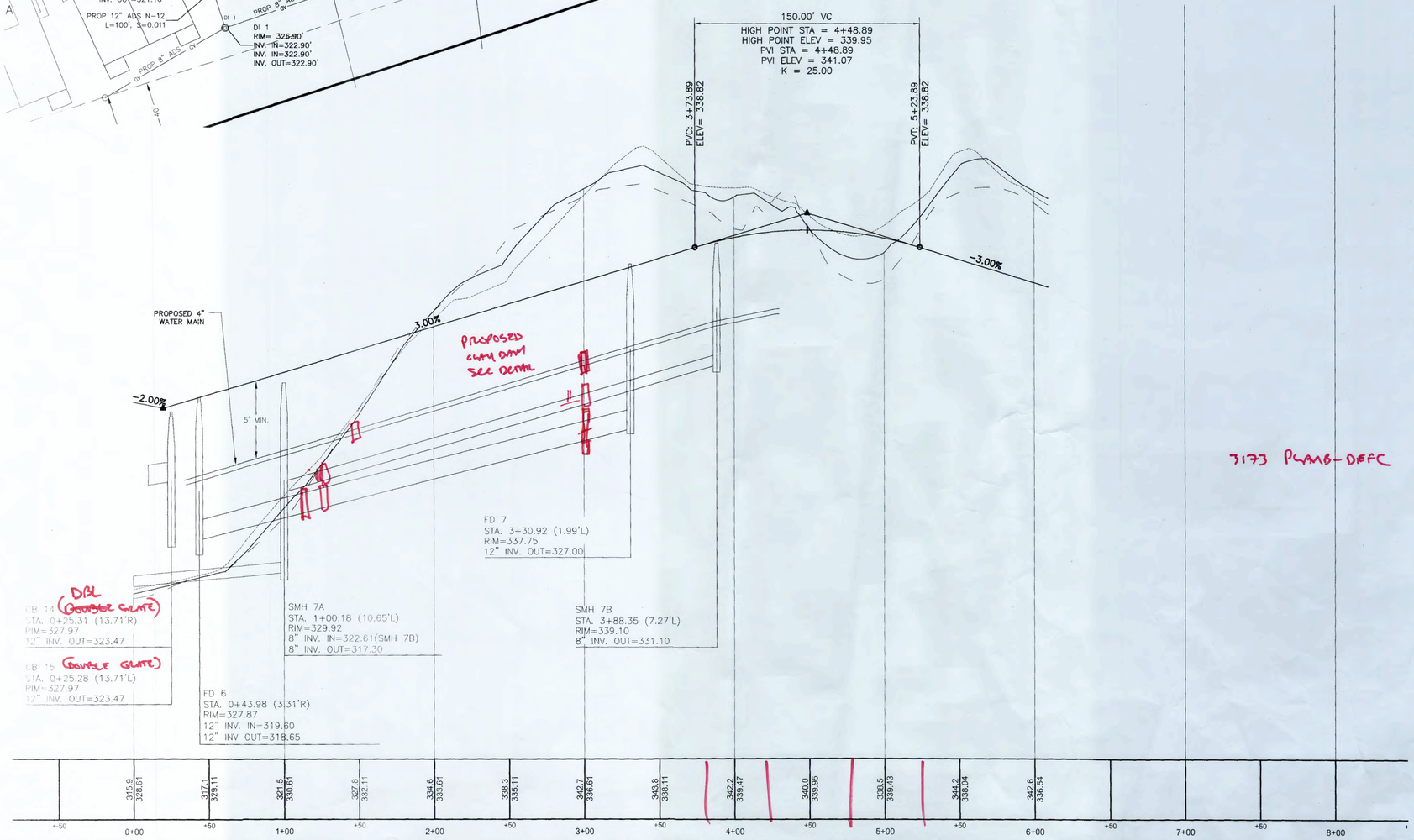
G.F.=151.0	GARAGE FLOOR ELEVATION
PM	PROPOSED PRESSURE SEWER MAIN
FD	PROPOSED FOUNDATION DRAIN
UGW	PROPOSED UNDERGROUND UTILITIES (TELEPHONE, ELECTRIC, CABLE)
S.G.	PROPOSED SLIDE GATE



TYPICAL UTILITY CROSS SECTION

NOT TO SCALE



PROFILE

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

CB 14 (DBL GRATE)
STA. 0+25.31 (13.71'R)
RIM=327.97
12" INV. OUT=323.47

CB 15 (DOUBLE GRATE)
STA. 0+25.28 (13.71'L)
RIM=327.97
12" INV. OUT=323.47

3173 PLAMB-DEFC

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

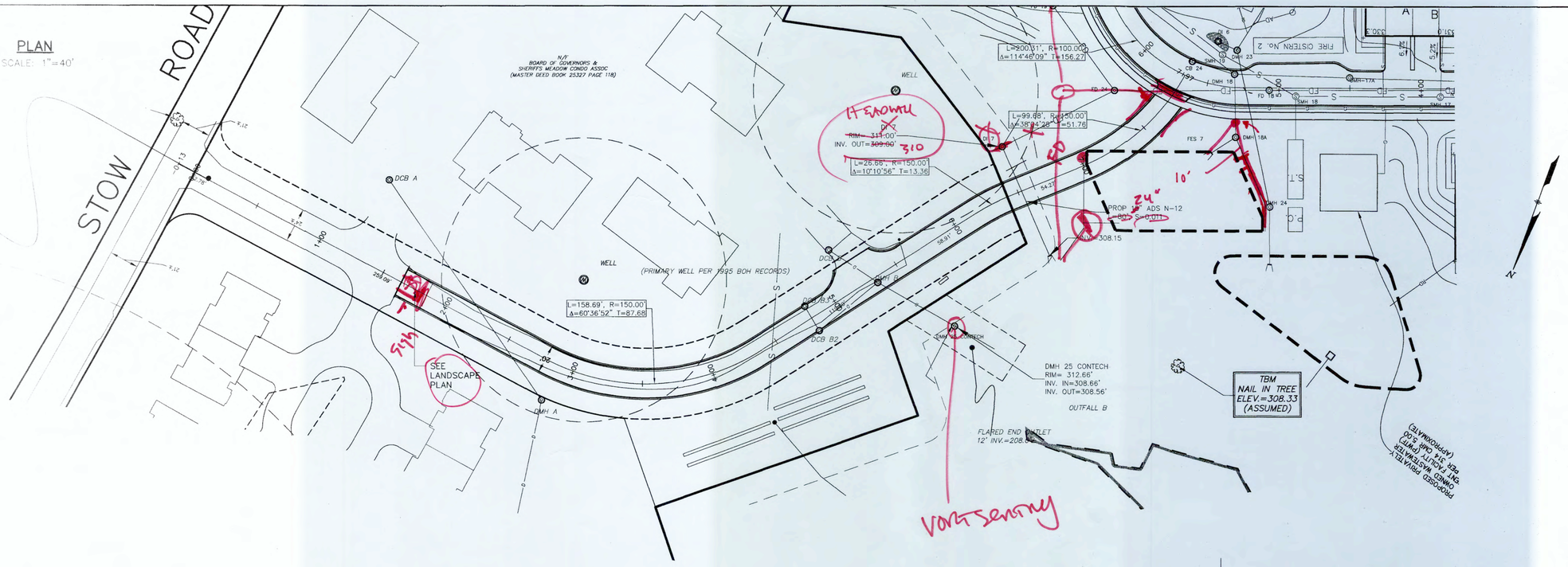
(2069 SITE10A.dwg) Sheet 21 of 30 SM-2069

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

COMMONWEALTH OF MASSACHUSETTS JOSEPH MARCH # 36884 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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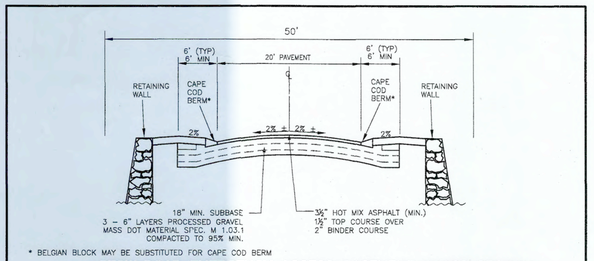
PM	PROPOSED PRESSURE SEWER MAIN
FD	PROPOSED FOUNDATION DRAIN
UGW	PROPOSED UNDERGROUND UTILITIES (TELEPHONE, ELECTRIC, CABLE)
S.G.	PROPOSED SLIDE GATE

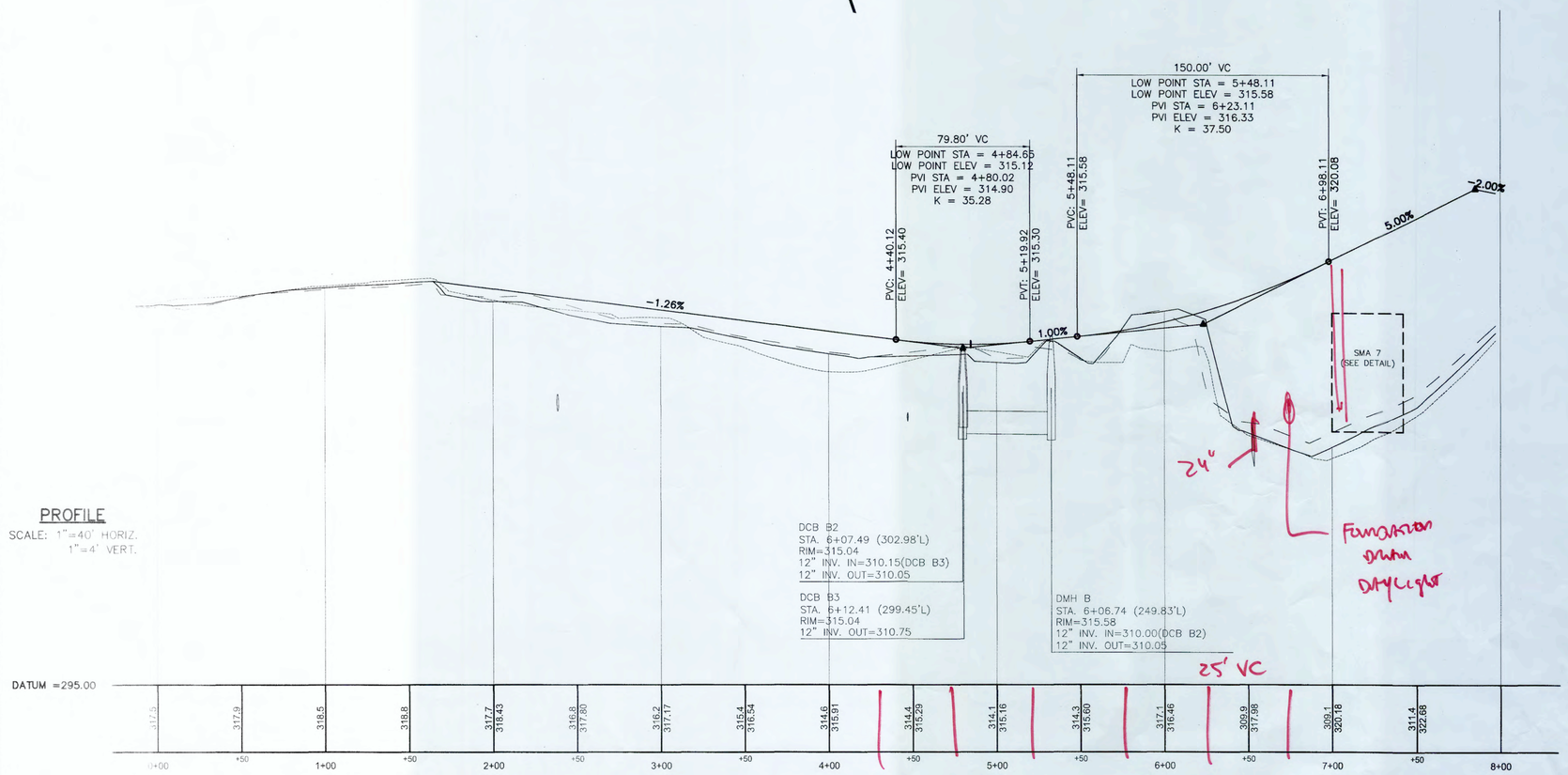


STOW ROAD EMERGENCY ACCESS EASEMENT CROSS SECTION
STA 5+50 – 6+50

NOT TO SCALE

PROFILE

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



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

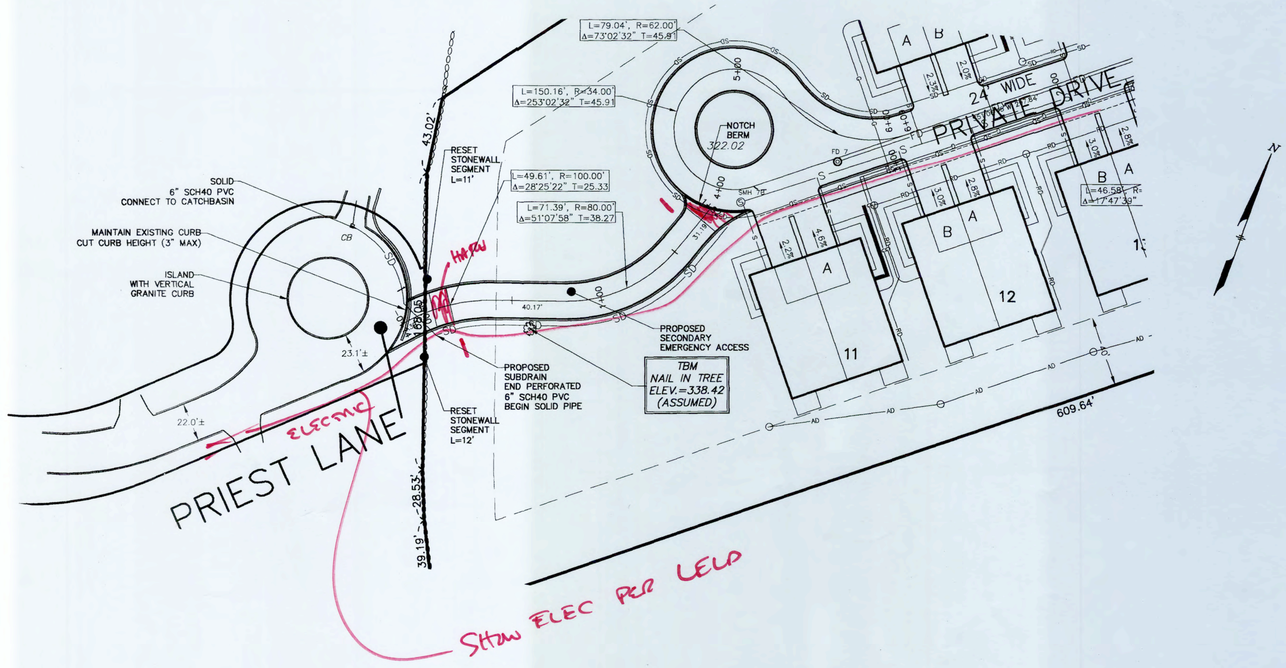
0 20 40 80 120 160 FT

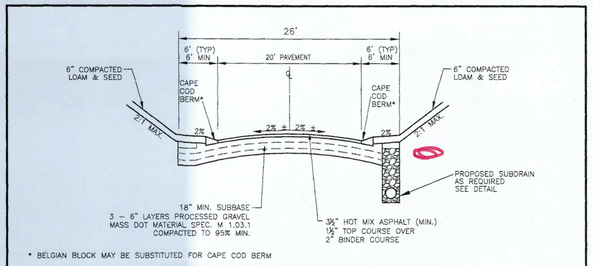
(2069 SITE10A.dwg) Sheet 22 of 30 SM-2069

COMMONWEALTH OF MASSACHUSETTS GEORGE DIMAKARAKOS CIVIL No. 34281 REGISTERED PROFESSIONAL ENGINEER

COMMONWEALTH OF MASSACHUSETTS JOSEPH MARCH #36384 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
BF	EDGE OF BANK
	STONE WALL
OHW	OVERHEAD WIRES
D	PROPOSED STORM DRAIN
S	PROPOSED GRAVITY SEWER LINE
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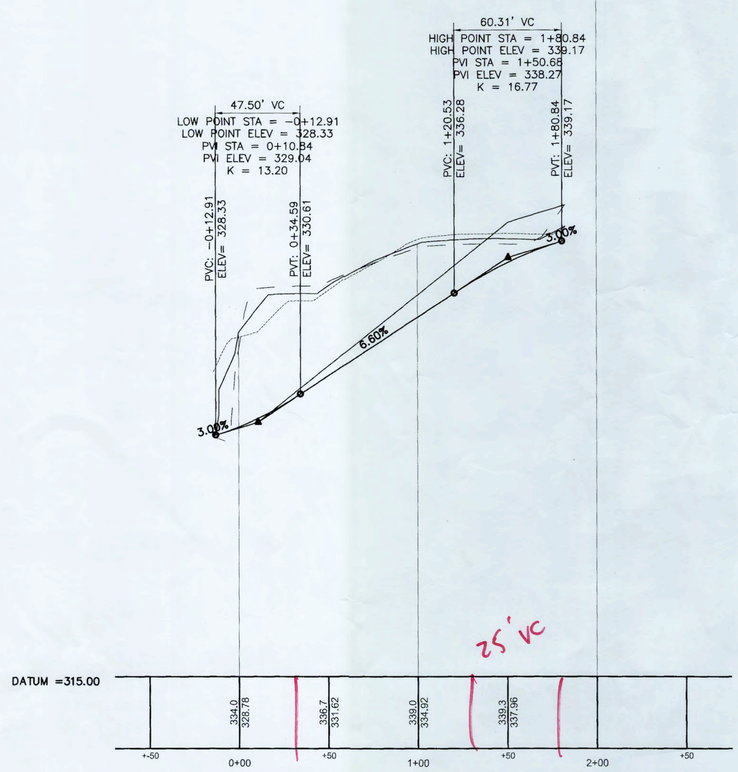
PM	PROPOSED PRESSURE SEWER MAIN
FD	PROPOSED FOUNDATION DRAIN
UGW	PROPOSED UNDERGROUND UTILITIES (TELEPHONE, ELECTRIC, CABLE)
S.G.	PROPOSED SLIDE GATE

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



SITE PLAN
IN
BOXBOROUGH, MASSACHUSETTS

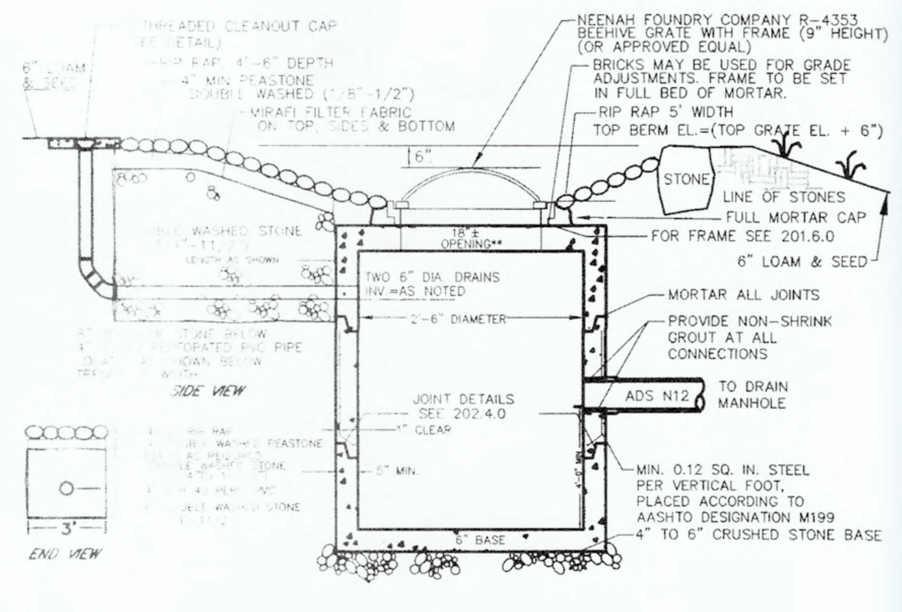
PLAN AND PROFILE
ACCESS C STA -0+14 TO 1+82
FOR: BOXBOROUGH TOWN CENTER, LLC
SCALE: 1"=40'
DECEMBER 22, 2016
REVISED JUNE 22, 2017

STAMSKI AND MCNARY, INC.
1000 MAIN STREET ACTON, MASSACHUSETTS
ENGINEERING - PLANNING - SURVEYING
0 20 40 80 120 160 FT

(2069 SITE10A.dwg) Sheet 23 of 30 SM-2069

COMMONWEALTH OF MASSACHUSETTS GEORGE DIMAKARAKOS No. 41281 REGISTERED PROFESSIONAL ENGINEER

COMMONWEALTH OF MASSACHUSETTS JOSEPH MARCH # 36384 PROFESSIONAL LAND SURVEYOR

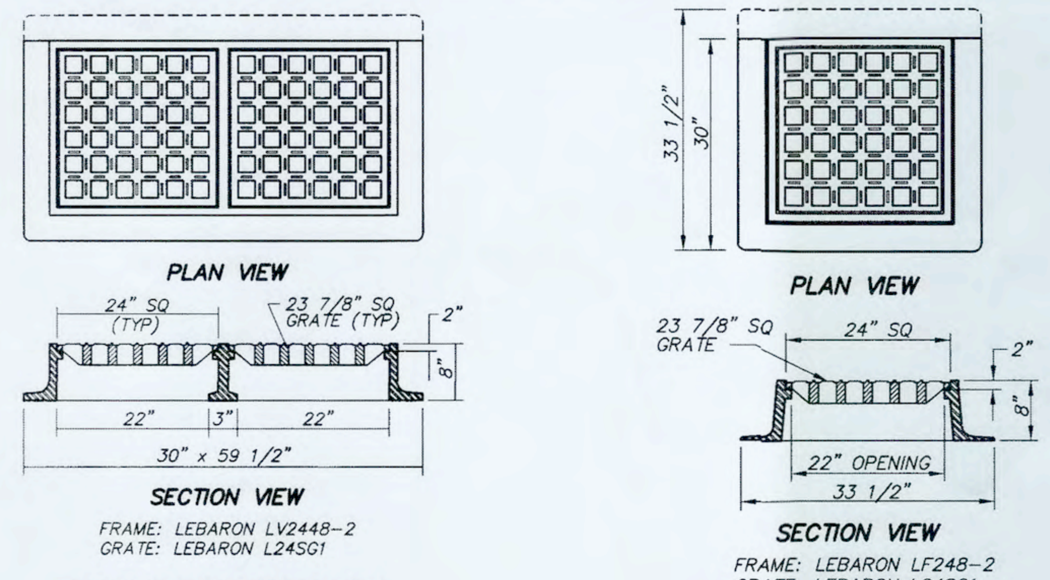


NOTES:

2. FOR DESCRIPTION, MATERIALS AND CONSTRUCTION METHOD, SEE MASS. HIGHWAY SPECIFICATIONS.

DROP INLET DETAIL

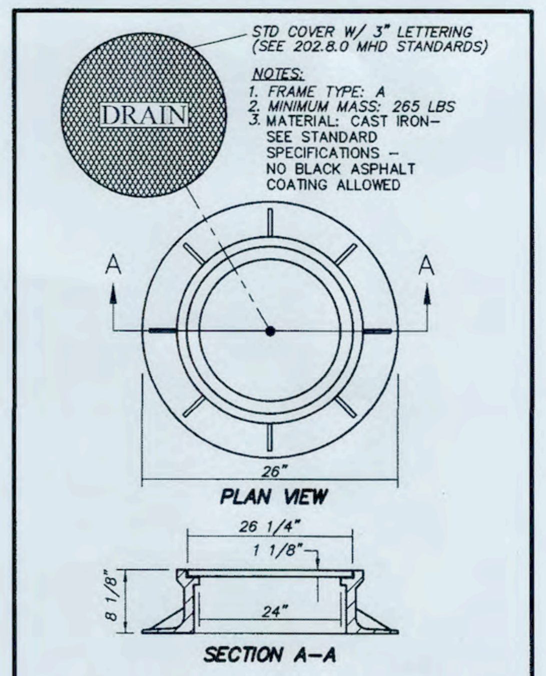
NOT TO SCALE



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

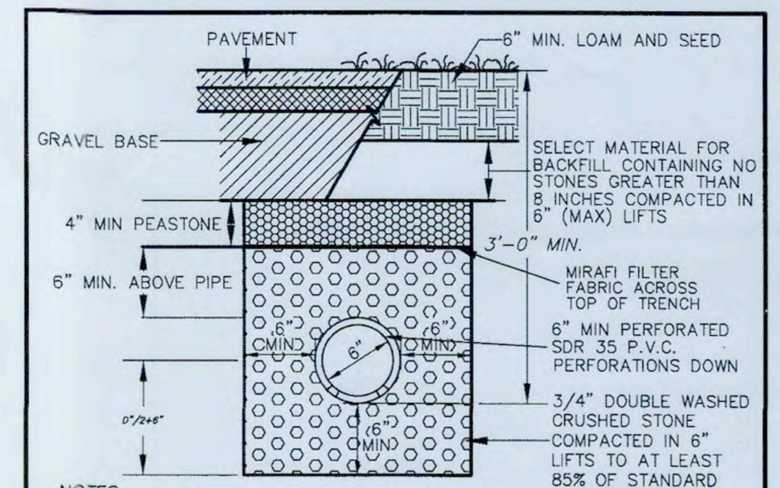
CATCH BASIN FRAME AND GRATE DETAIL

NOT TO SCALE



MANHOLE FRAME AND COVER

NOT TO SCALE



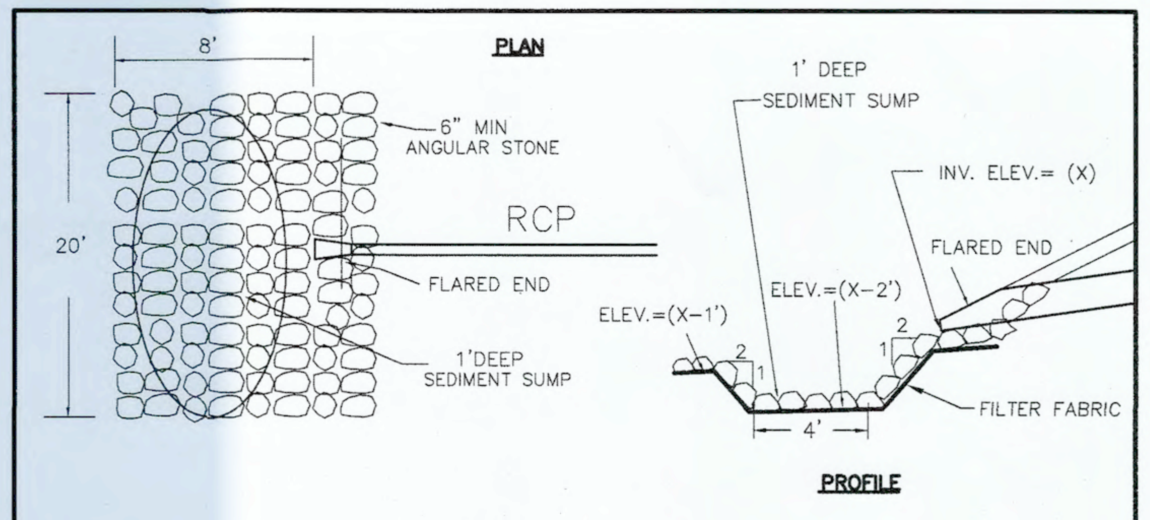
NOTES

1. PROVIDE CLEANOUTS TO FINISHED GRADE AT ALL UPGRADIENT ENDS AND AT INTERVALS OF NO MORE THAN 200 FEET
2. MINIMUM SLOPE SHALL BE 0.003, TO DRAIN TO DAYLIGHT.

TYPICAL SUBDRAIN DETAIL

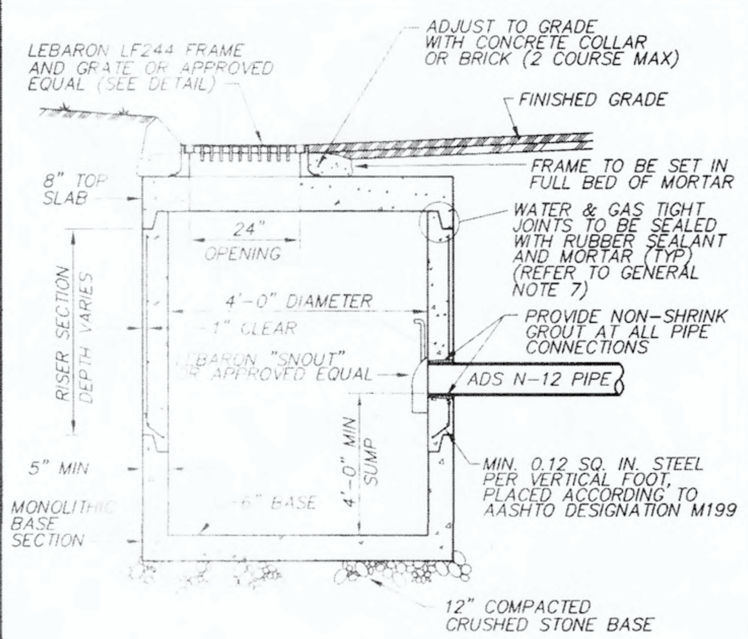
NOT TO SCALE

FILE: SUBDRAIN.DWG



LEVEL SPREADER DETAIL

NOT TO SCALE

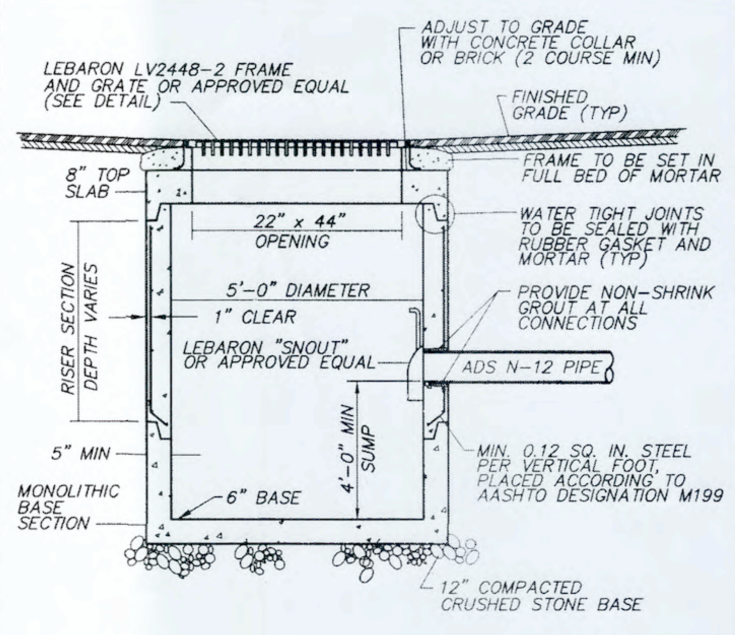


NOTES:

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 CATCH BASIN DETAIL

NOT TO SCALE

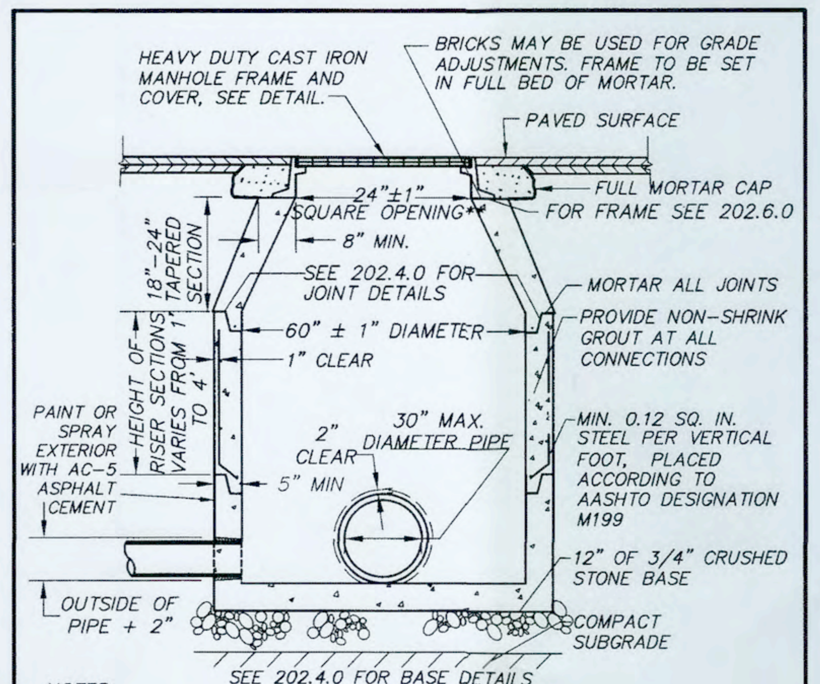


NOTES:

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

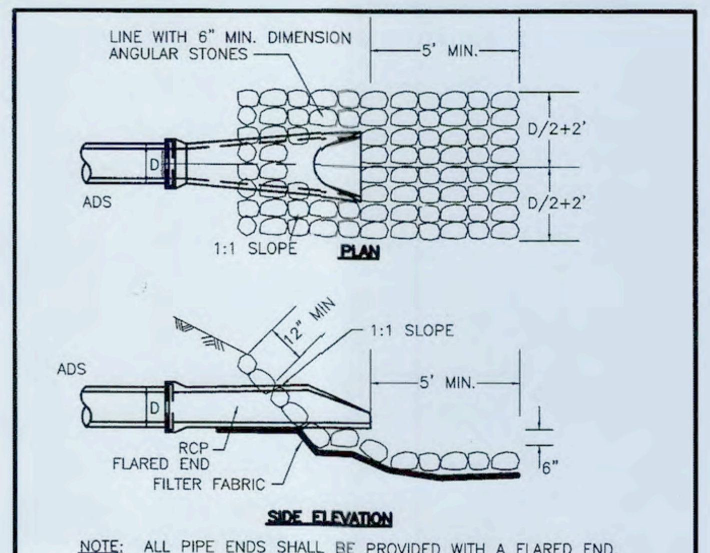


NOTES

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

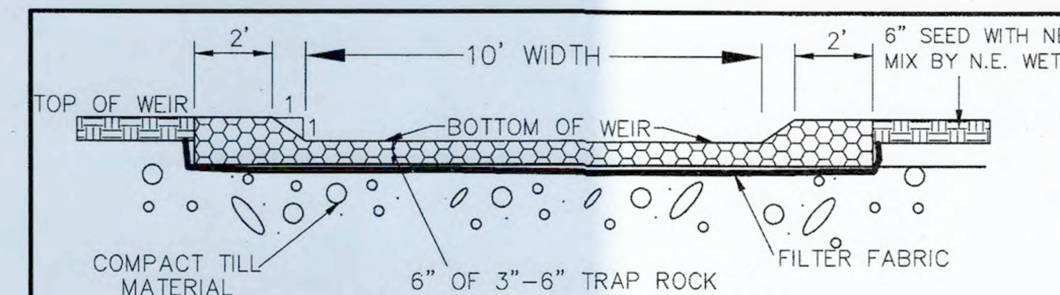
NOT TO SCALE



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

PIPE END DETAIL

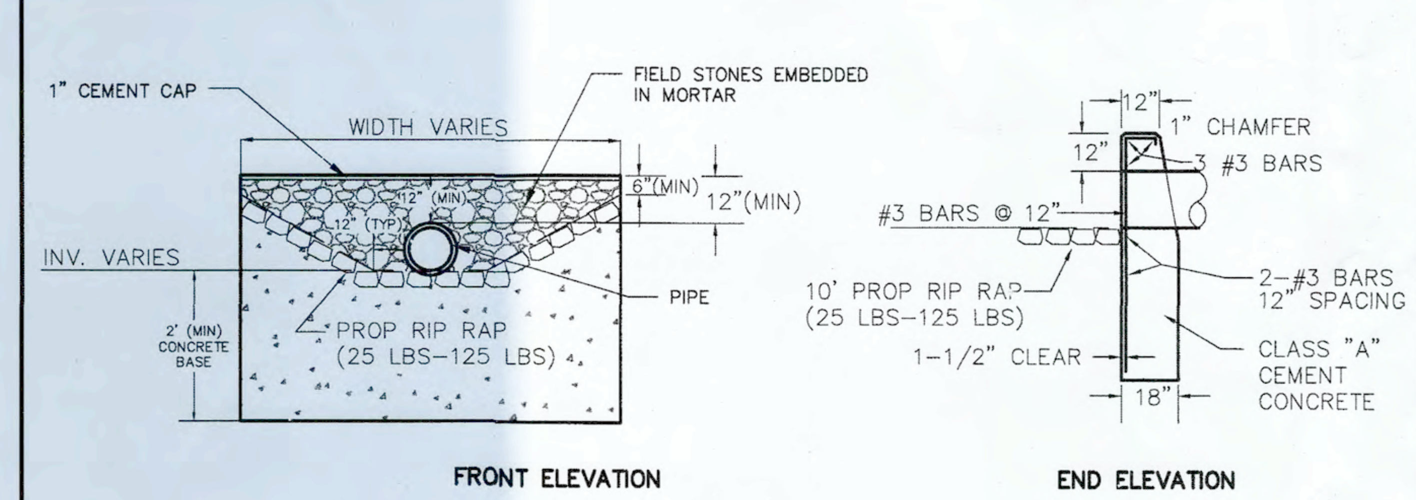
NOT TO SCALE



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

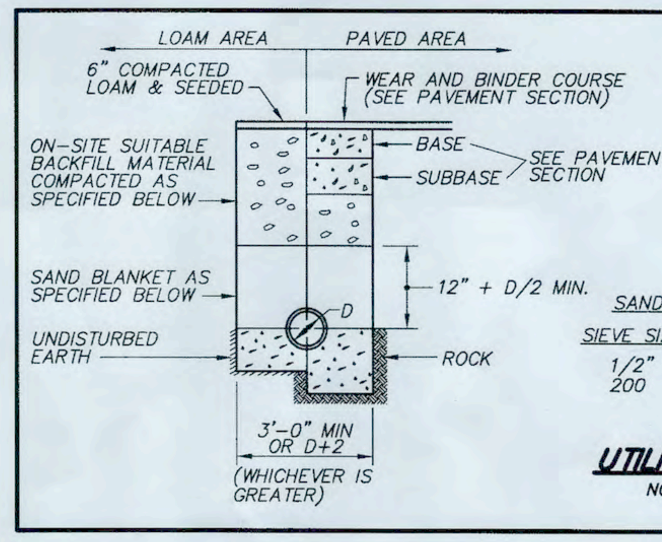
EMERGENCY OVERFLOW WEIR

NOT TO SCALE



HEADWALL DETAIL

NOT TO SCALE



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

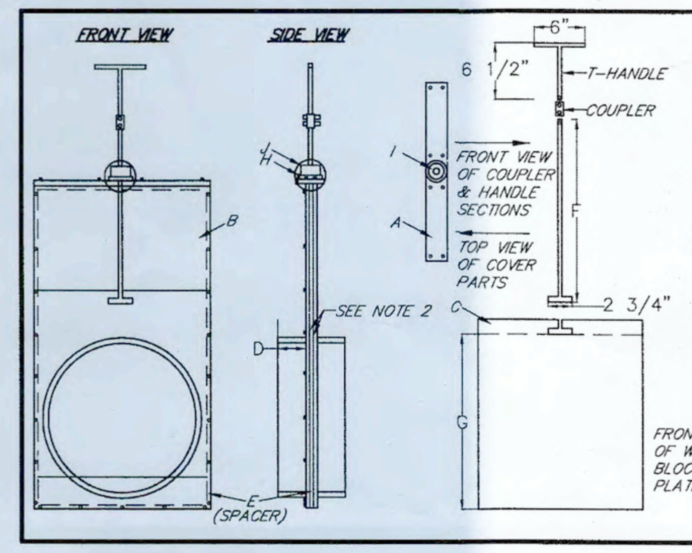
SIEVE SIZE	% FINER BY WEIGHT
1/2"	90 - 100
200	0 - 15

3/4" CRUSHED STONE BEDDING

SIEVE SIZE	% FINER BY WEIGHT
1"	100
3/4"	90 - 100
1/2"	20 - 50
3/8"	0 - 20
# 4	0 - 5

UTILITY TRENCH

NOT TO SCALE



	A	B	C
10"	3" X 13 1/4"	13" X 22 1/2"	13 3/4" X 11 3/4"
12"	3" X 15 1/4"	15" X 26 1/2"	15 1/2" X 13 3/4"
15"	3" X 18"	17 3/4" X 32"	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"	5/8"	16"	11 3/4"
12"	3"	5/8"	16"	13 1/2"
15"	3"	5/8"	19 1/4"	16 3/4"
18"	3"	5/8"	22"	20"

*ALL PVC MATERIAL IS 1-2" THICK.
**STUBS ARE SDR 35 PVC MALE.

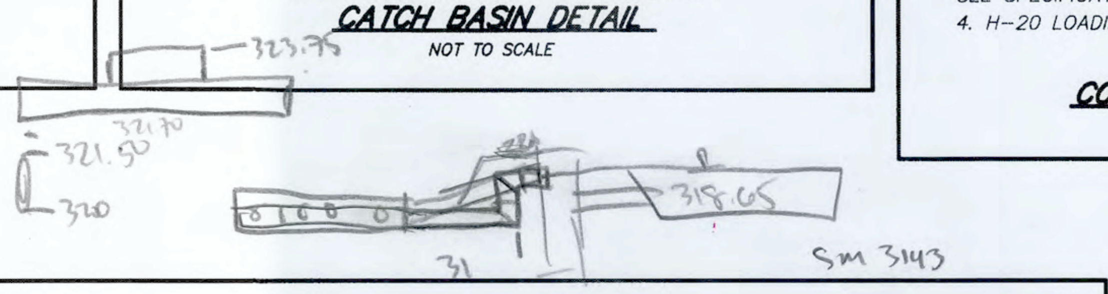
H: 1/2" PVC CIRCLE 2 3/4" THREADED
I: 1/2" CPVC MALE ADAPTOR
J: 2" PVC DWV X 1 1/4"

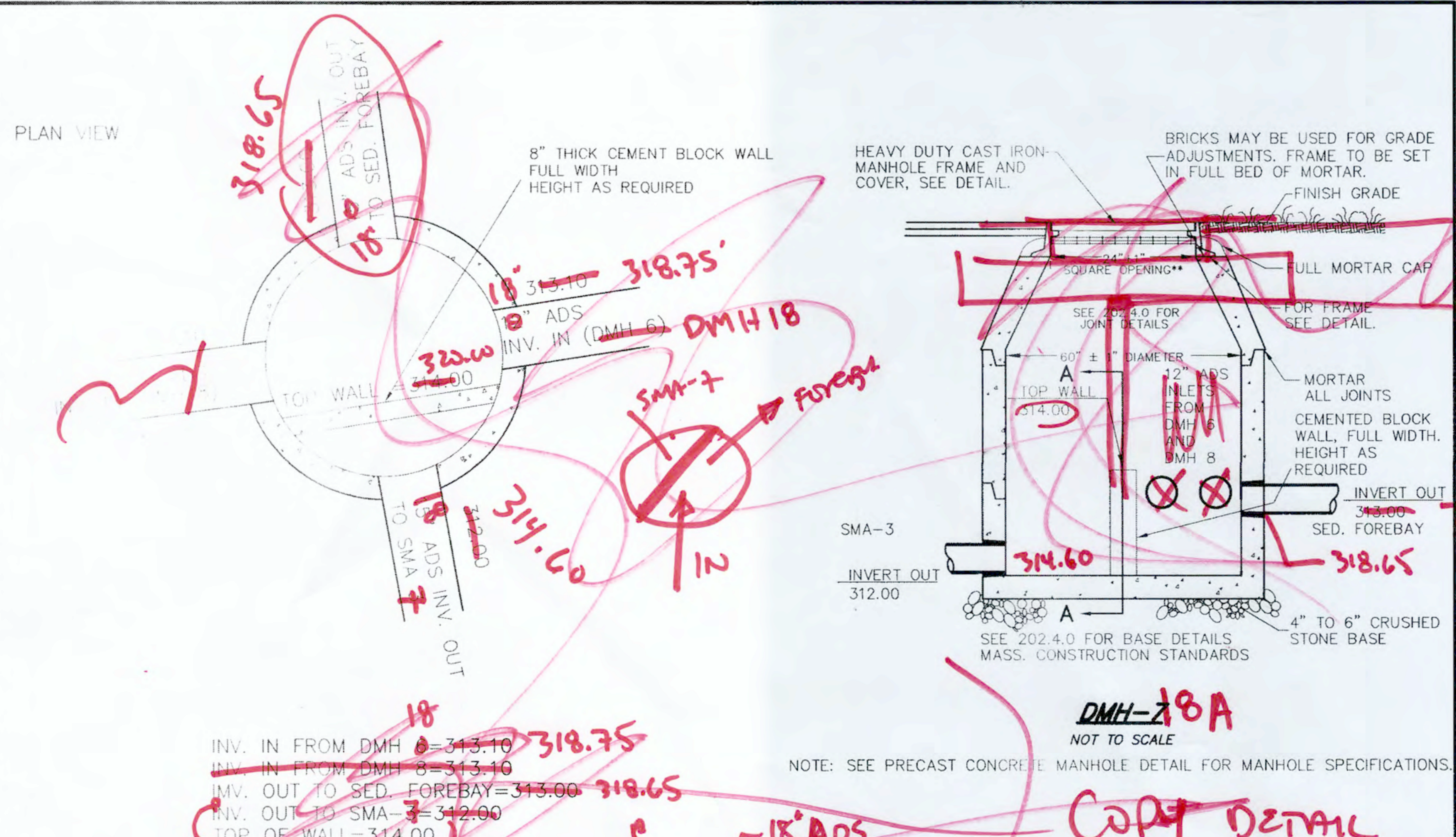
NOTES

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





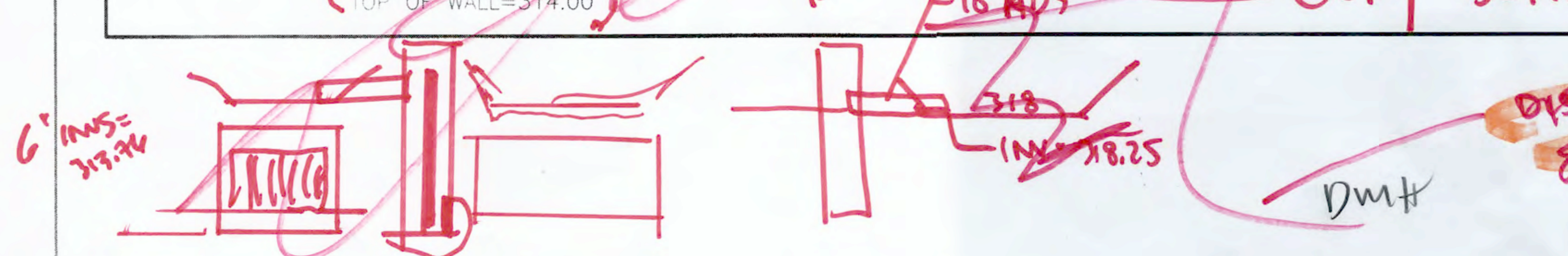
DMH-7 18A

NOT TO SCALE

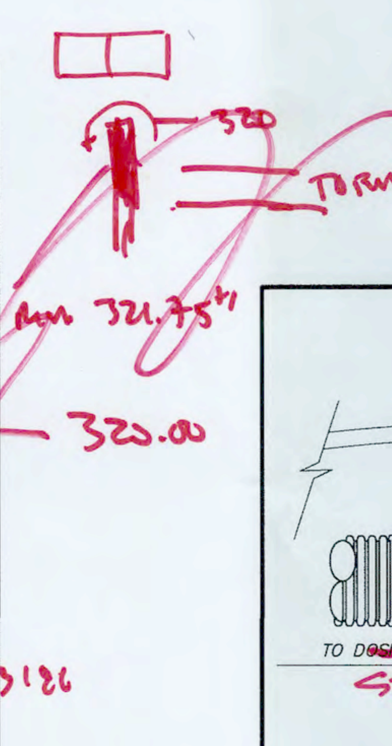
NOTE: SEE PRECAST CONCRETE MANHOLE DETAIL FOR MANHOLE SPECIFICATIONS.

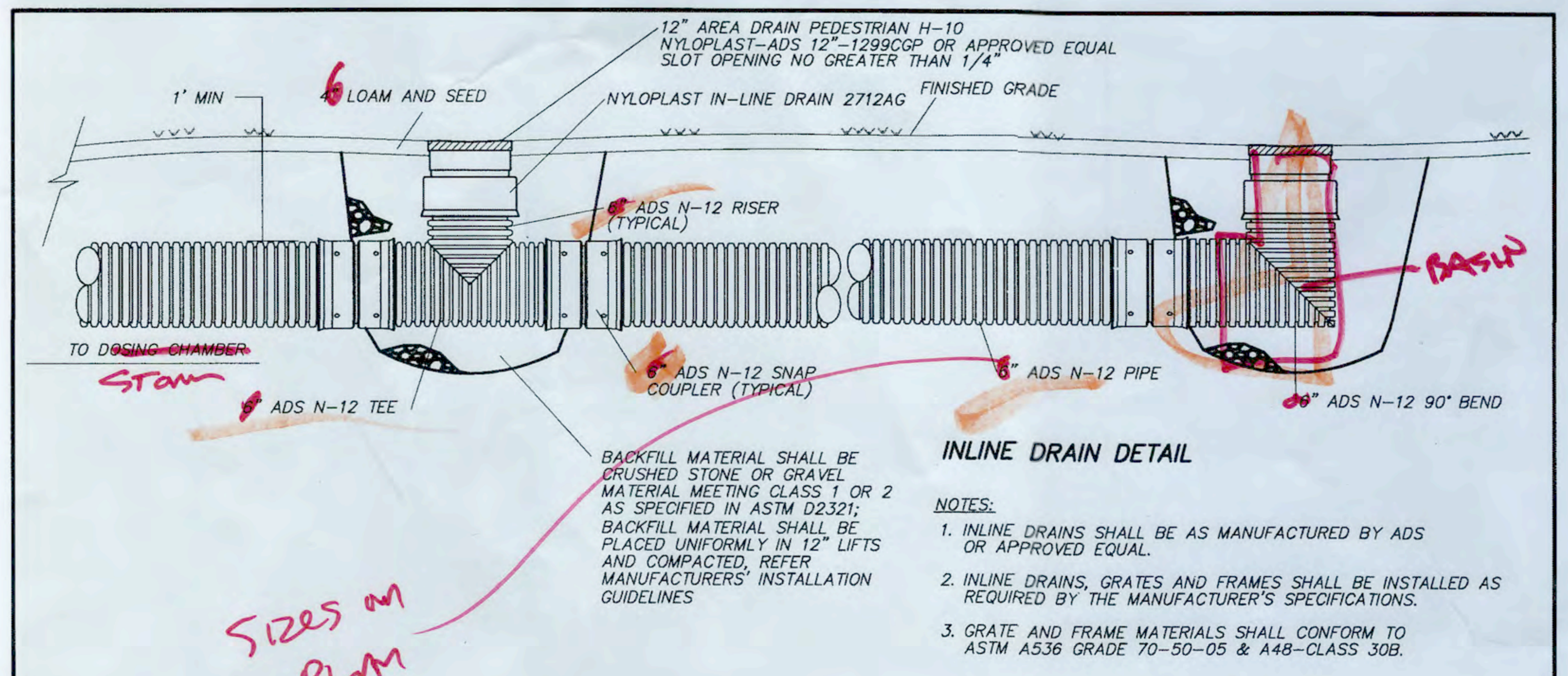
INV. IN FROM DMH 8=313.10 318.75
INV. IN FROM DMH 8=313.10
INV. OUT TO SED. FOREBAY=313.00 318.65
INV. OUT TO SMA-3=312.00
TOP OF WALL=314.00

COPY DETAIL



DISREGARD EXAMPLE FOR NEW SMA-7 OUTLET





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

SITE PLAN
IN
BOXBOROUGH, MASSACHUSETTS

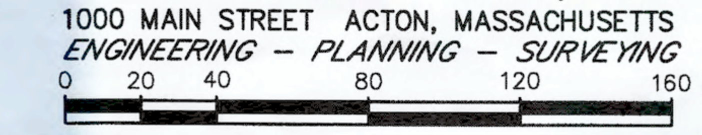
CONSTRUCTION DETAILS

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



(2069 SITE10A.dwg) Sheet 24 of 30 SM-2069

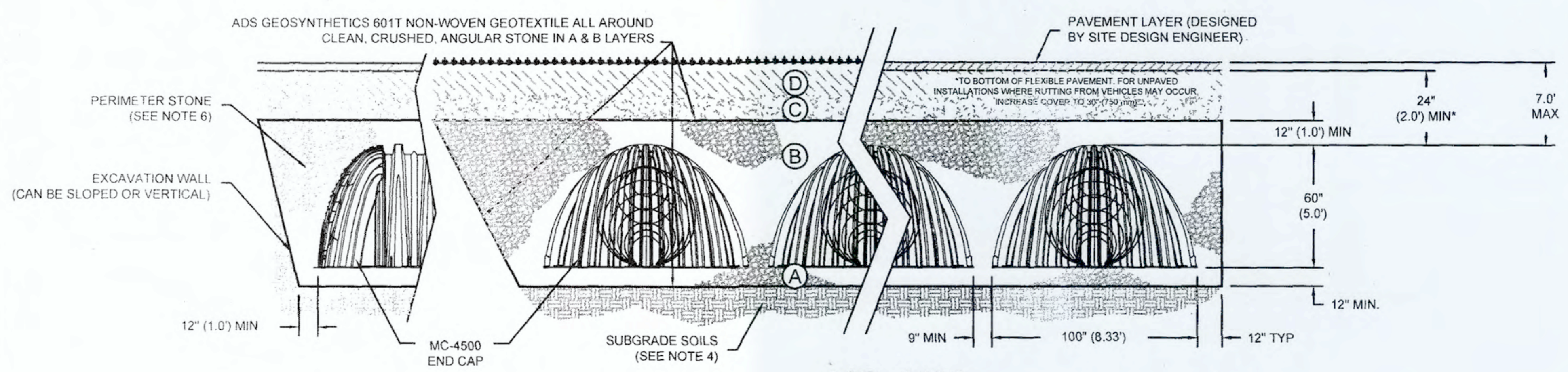
COMMONWEALTH OF MASSACHUSETTS
GEORGE DIMAKARAKOS
CIVIL
No. 41281
REGISTERED PROFESSIONAL ENGINEER

COMMONWEALTH OF MASSACHUSETTS
JOSEPH MARCH
36884
PROFESSIONAL LAND SURVEYOR

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]

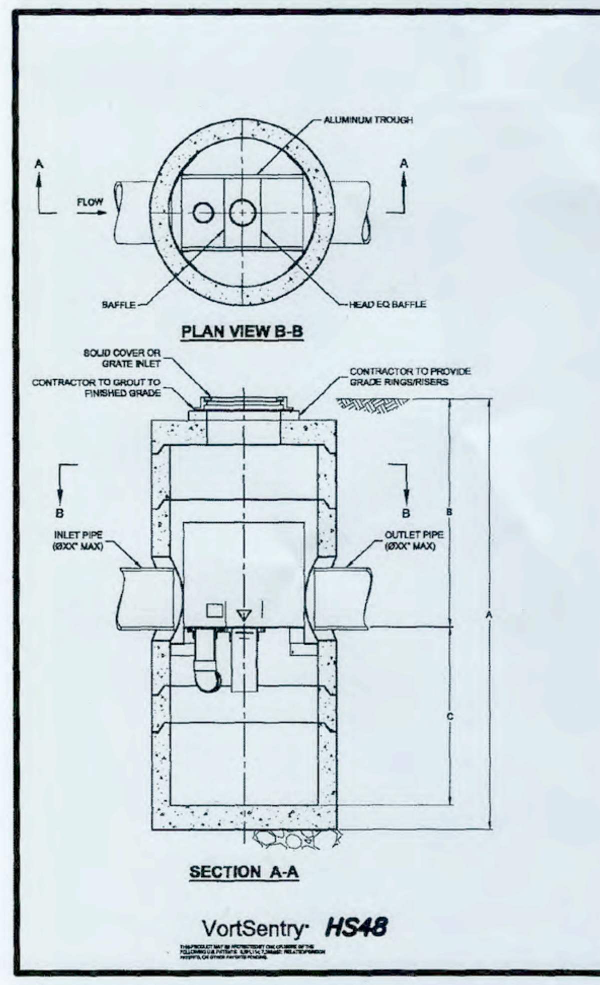
PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN 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

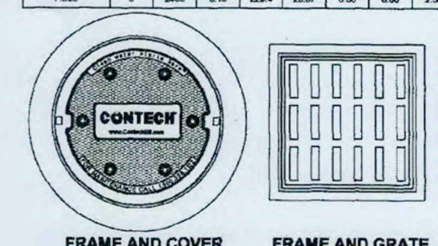
VSHS RATED TREATMENT CAPACITY IS SHOWN IN THE TABLE BELOW, OR PER LOCAL REGULATIONS. MAXIMUM HYDRAULIC INTERNAL BYPASS CAPACITY VARIES. CONTACT YOUR CONTECH REPRESENTATIVE FOR ADDITIONAL INFORMATION.

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) FT	Manhole Diameter (ID) mm	Total Treatment Flow Rate CFS	Total Treatment Flow Rate L/S	Typical Total Distance Rim to Outside Bottom A FT	A m	Typical Distance Rim to Invert B FT	B m	Typical Depth Below Invert (inside) C FT	C mm	Approximate Minimum Distance Rim to Invert FT	m	Maximum Pipe Diameter (ID) IN	mm
HS36	3	900	0.56	15.6	10.16	3.10	4.08	1.24	5.58	1700	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	18.65	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:			

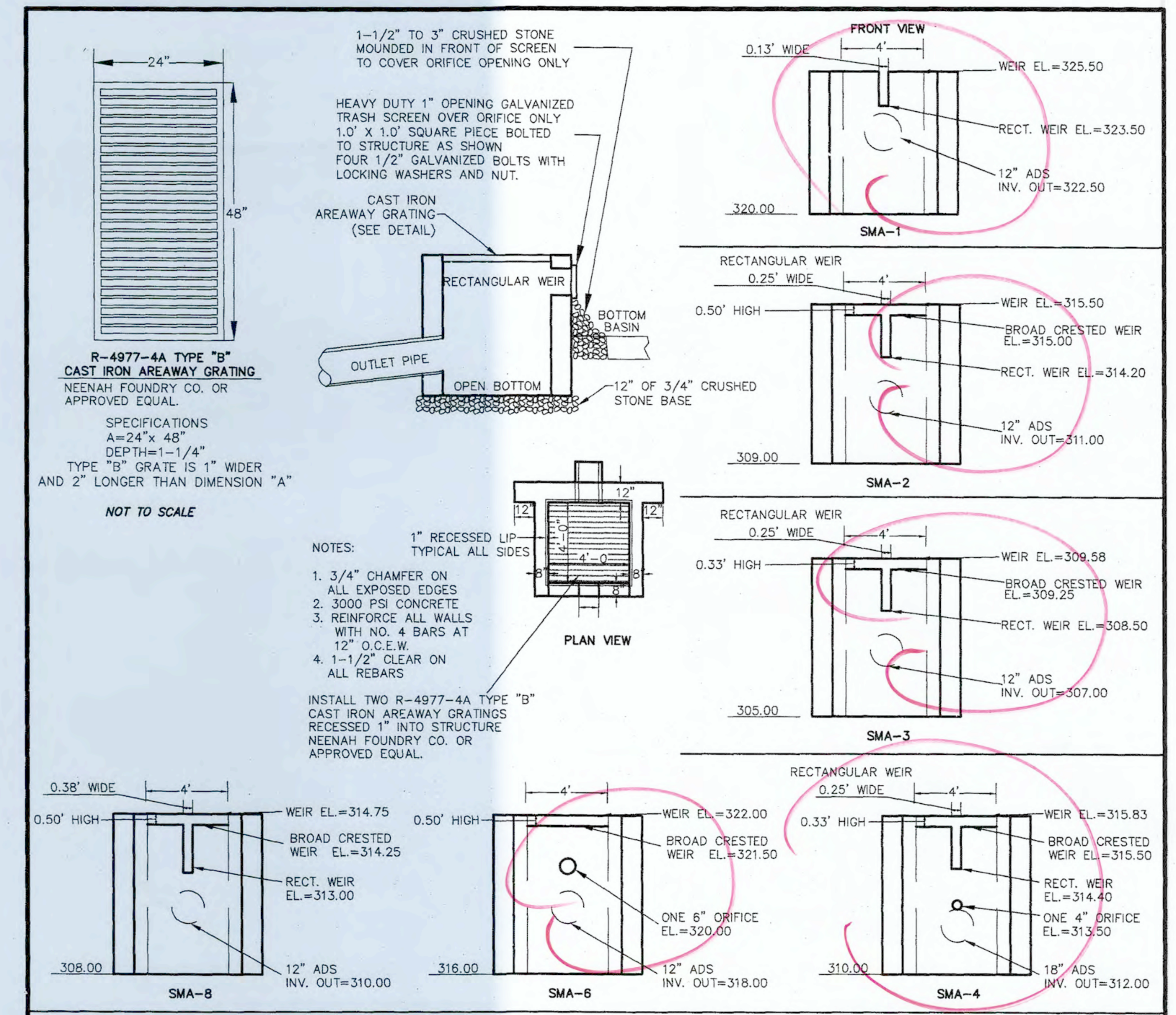
* PER ENGINEER OF RECORD

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.

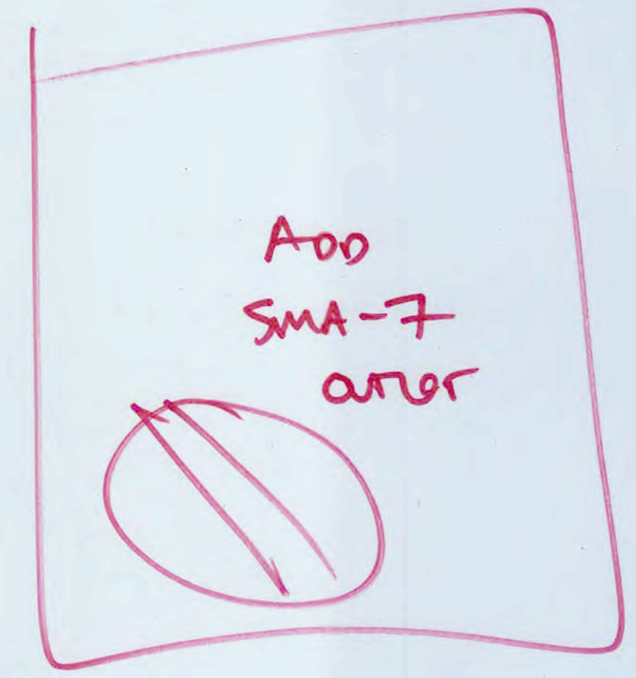
CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069

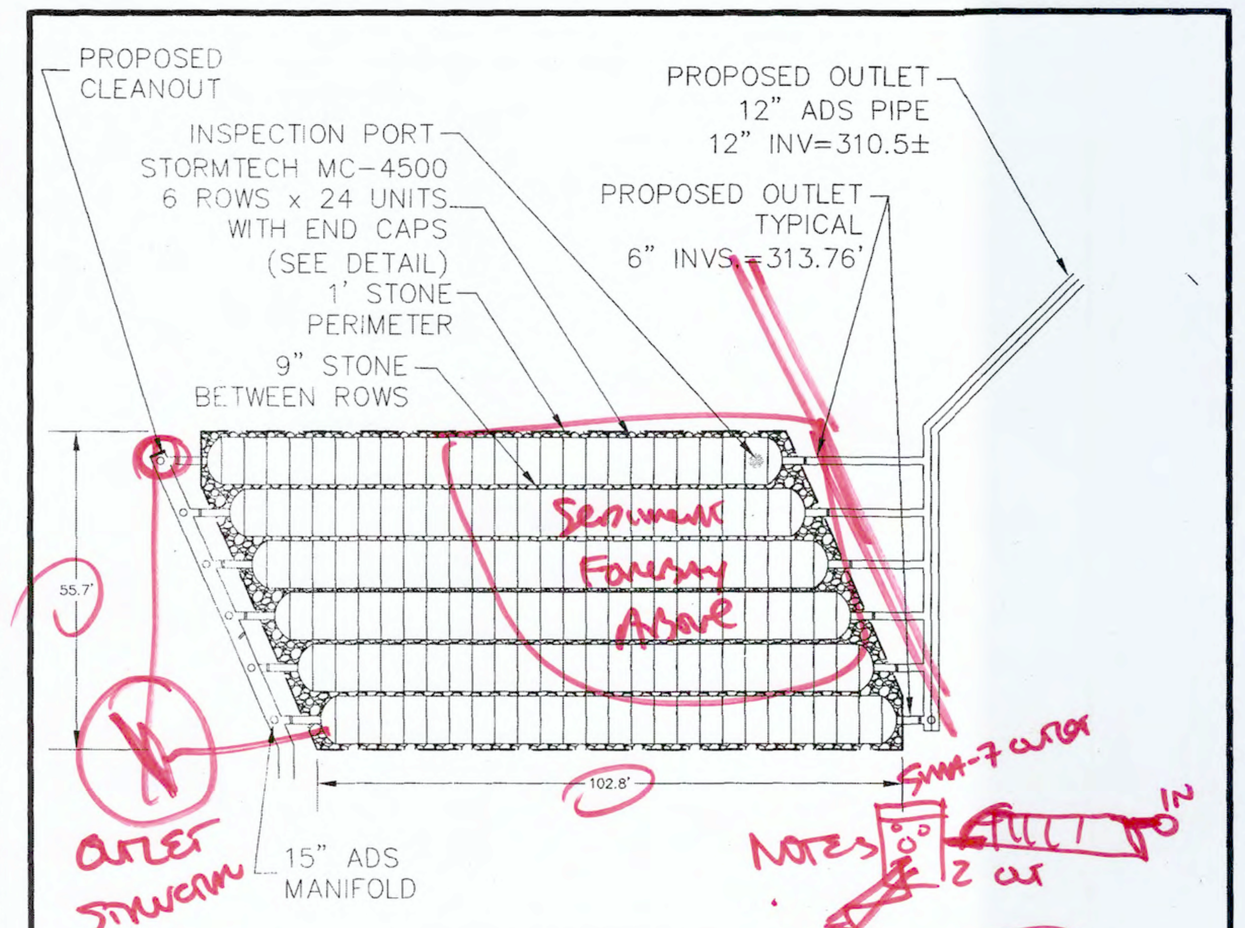
VORTSENTRY HS STANDARD DETAIL



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

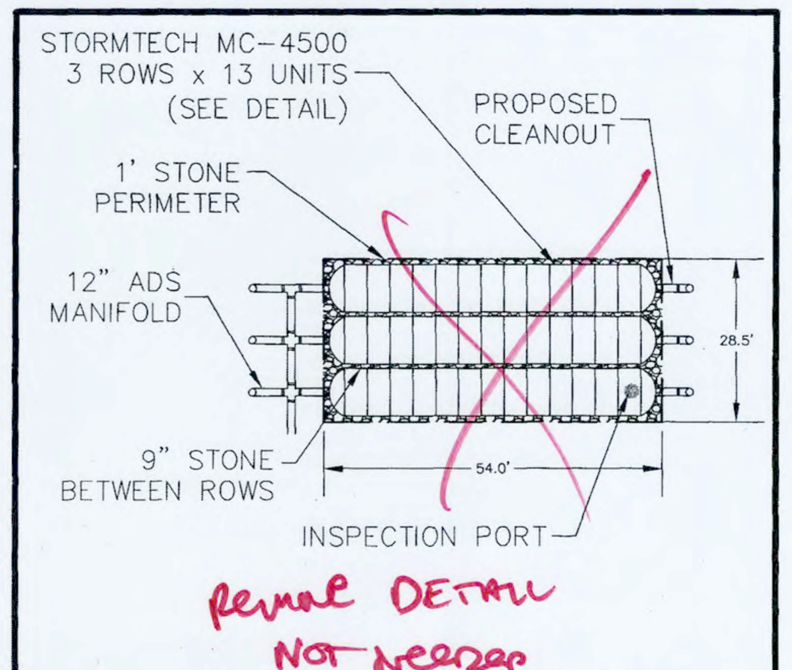
REVIEW ELEVATIONS ADJUST AS NEEDED WITH STORMWATER CALCS





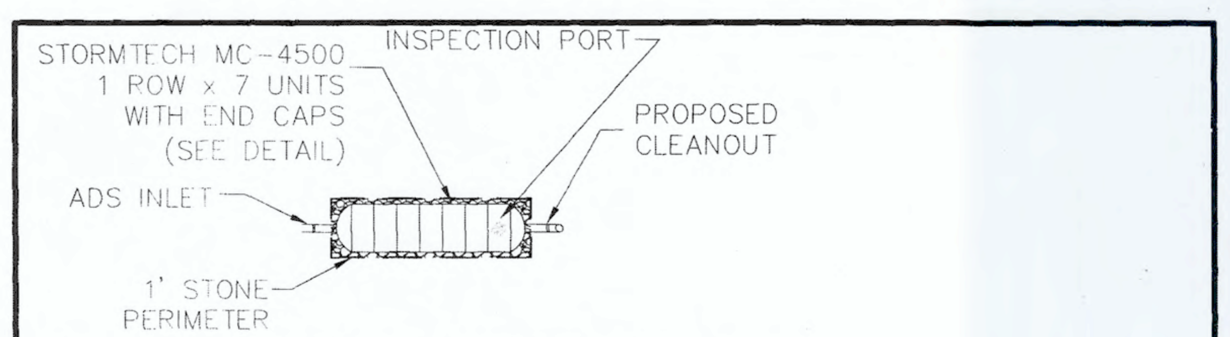
BOTTOM STONE	BOTTOM STRUCTURE	TOP STRUCTURE	TOP STONE
310.00'	311.00'	316.00'	317.00'

SMA 7
NOT TO SCALE



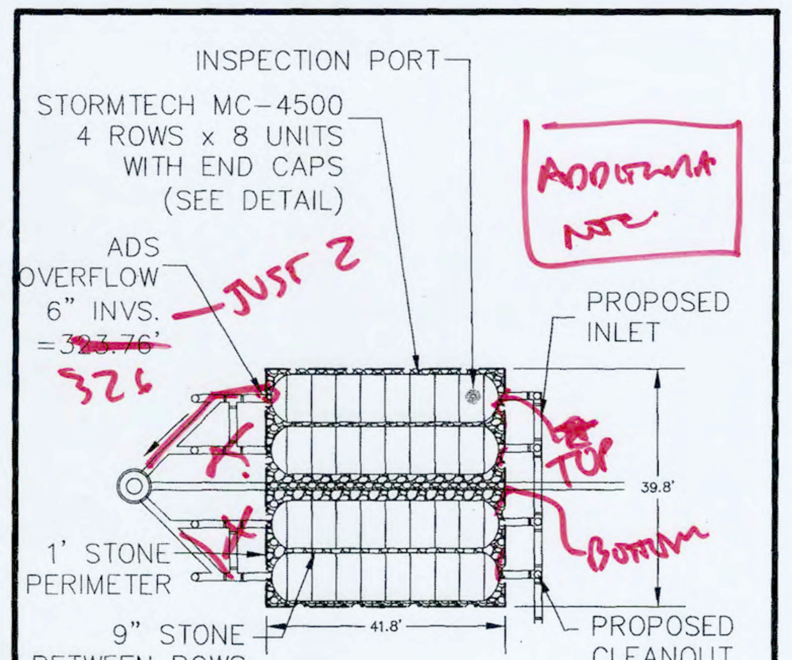
BOTTOM STONE	BOTTOM STRUCTURE	TOP STRUCTURE	TOP STONE
314.00'	315.00'	320.00'	321.00'

ROOF DRYWELL 1 DETAIL
NOT TO SCALE



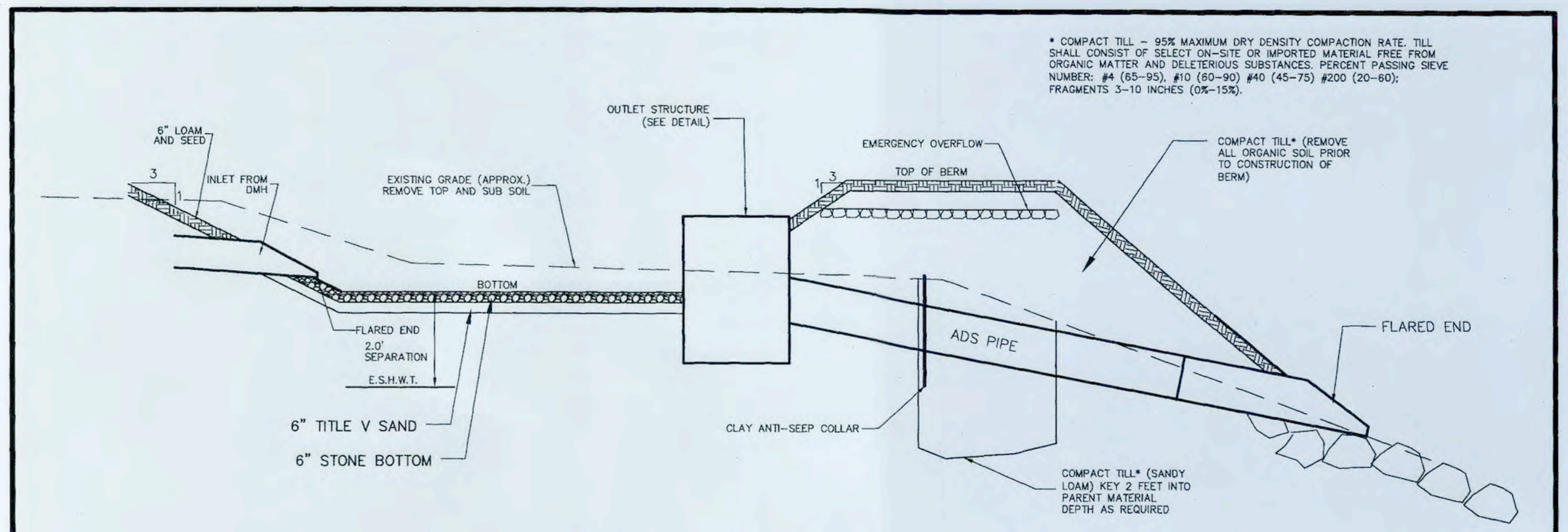
UNIT #	BOTTOM STONE	BOTTOM STRUCTURE	TOP STRUCTURE	TOP STONE
6	322.00'	323.00'	328.00'	329.00'
7	322.00'	323.00'	328.00'	329.00'
8	321.00'	322.00'	327.00'	328.00'
14	321.00'	322.00'	327.00'	328.00'
15	322.00'	323.00'	328.00'	329.00'

INDIVIDUAL ROOF DRYWELL DETAIL
NOT TO SCALE

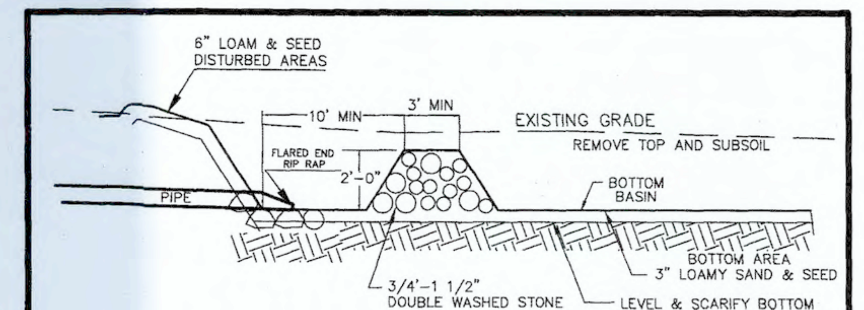


BOTTOM STONE	BOTTOM STRUCTURE	TOP STRUCTURE	TOP STONE
320.00'	321.00'	326.00'	327.00'

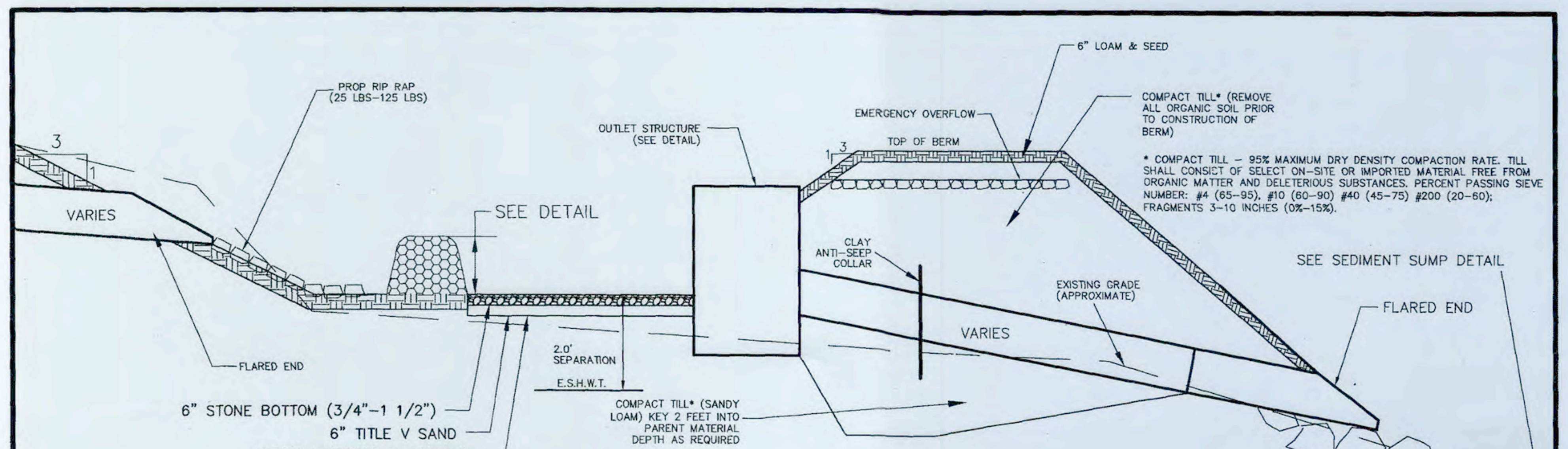
ROOF DRYWELL 2 DETAIL
NOT TO SCALE



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

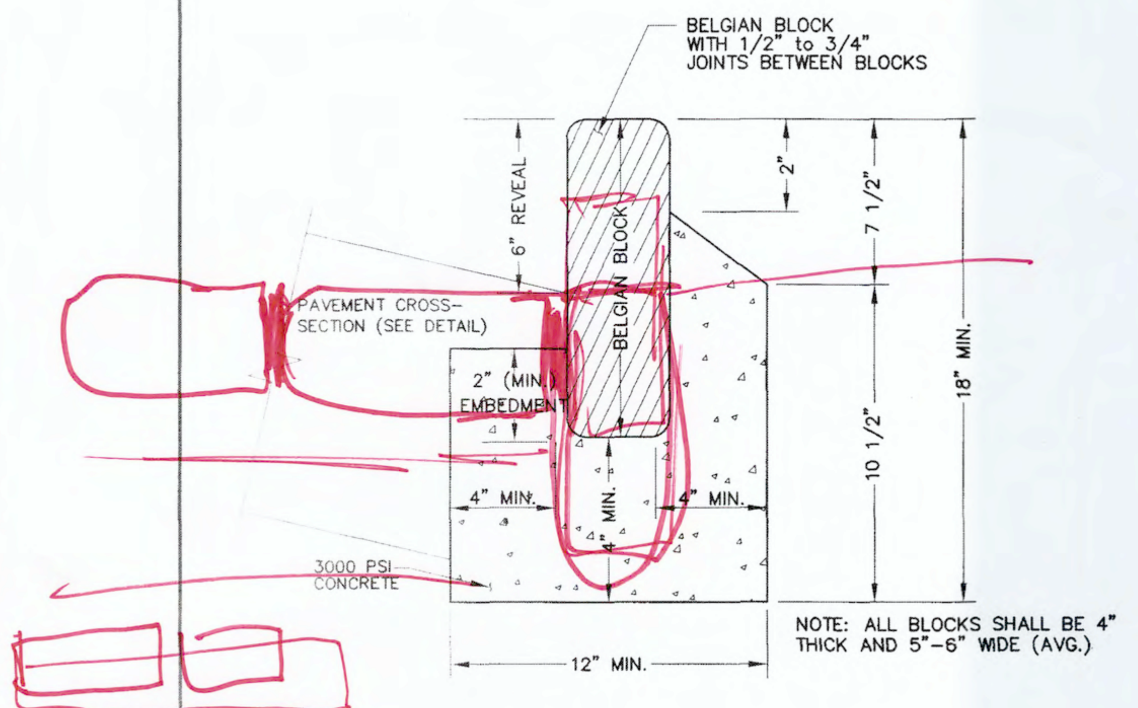
STAMSKI AND MCNARY, INC.
1000 MAIN STREET ACTON, MASSACHUSETTS
ENGINEERING – PLANNING – SURVEYING

0 20 40 80 120 160 FT

(2069 SITE10A.dwg) Sheet 25 of 30 SM-2069

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

COMMONWEALTH OF MASSACHUSETTS
JOSEPH MARCH
#36384
PROFESSIONAL LAND SURVEYOR



NOTE: ALL BLOCKS SHALL BE 4" THICK AND 5"-6" WIDE (AVG.)

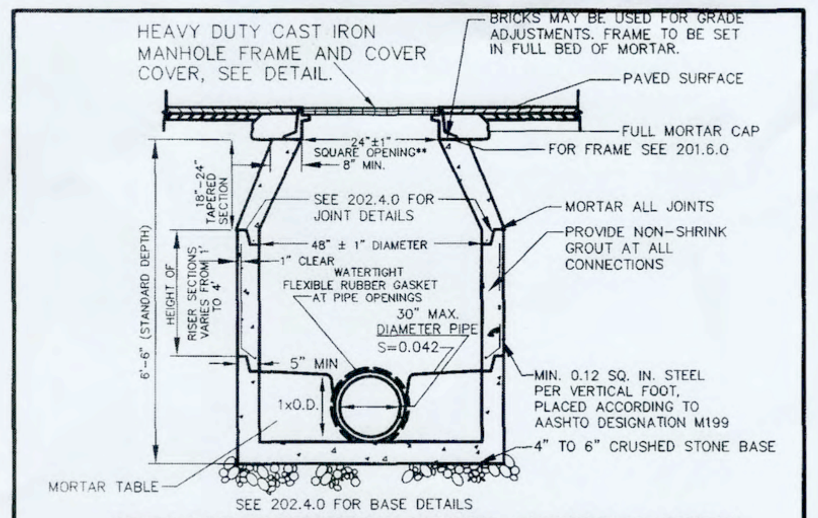
NOTES:

1. THE JOINTS BETWEEN BLOCKS SHALL BE ½" - ¾" CEMENT MORTAR (1:2) JOINTS RAKED AND POINTED TO ½" NOSE.
2. THE USE OF BELGIAN BLOCK CURB MAY BE ALLOWED IN LIEU OF CAPE COD BERM.
3. 3" REVEAL AT ALL EMERGENCY ACCESS DRIVES

VERTICAL BELGIAN BLOCK CURB

NOT TO SCALE

COPY AND ADD

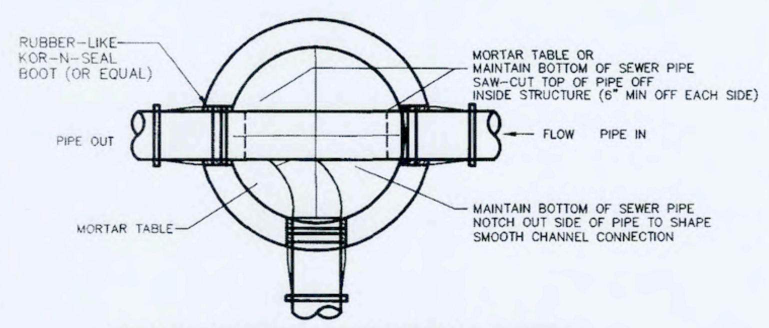


PRECAST CONCRETE SEWER MANHOLE DETAIL

NOT TO SCALE

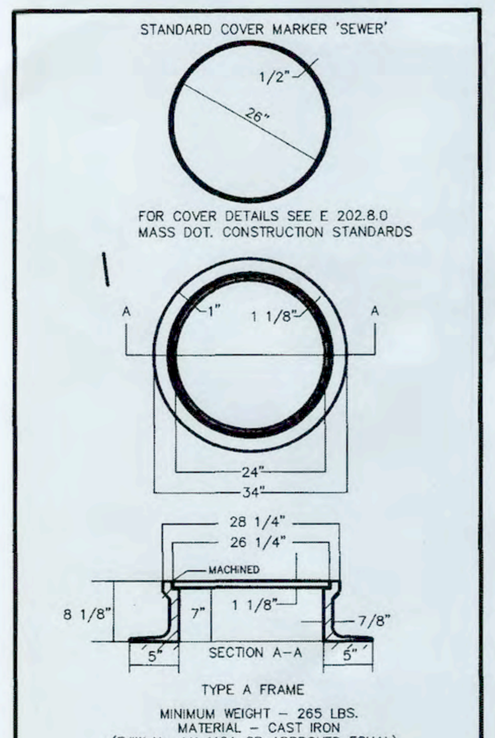
NOTES

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

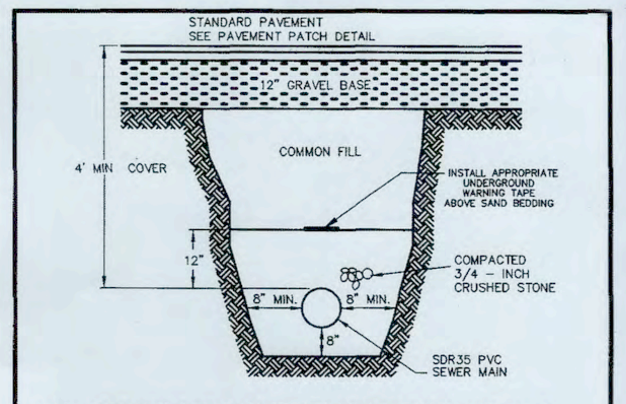


TYPE A FRAME
MINIMUM WEIGHT - 265 LBS.
MATERIAL - CAST IRON
(EJIW No. LK 110A OR APPROVED EQUAL)

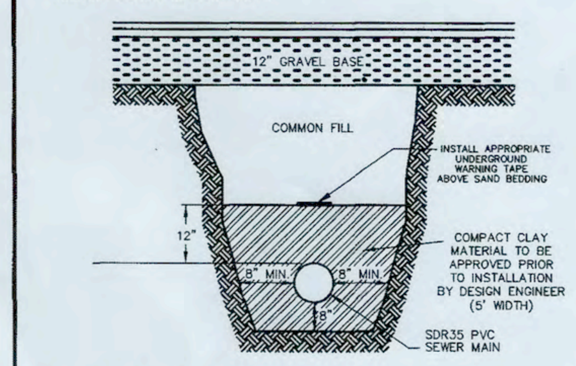
SEWER MANHOLE FRAME AND COVER

NOT TO SCALE

MASSDOT STANDARD DETAIL



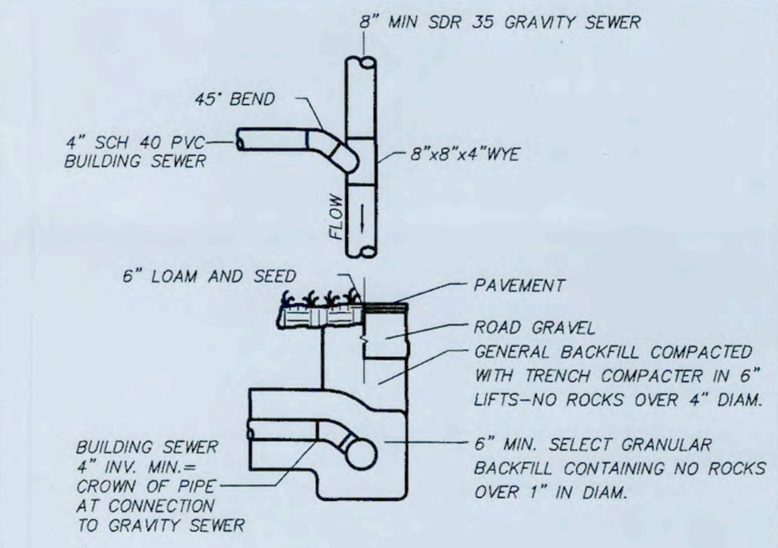
1. ALL SEWER LINES SHALL BE CONSTRUCTED USING WATERTIGHT MATERIALS AND CONSTRUCTION METHODS
2. ALL WORK AND PAVEMENT REPAIR SHALL BE PERFORMED UNDER THE DIRECTION OF THE TOWN ENGINEER AND SEWER SUPERINTENDENT IN ACCORDANCE WITH TOWN STANDARDS.
3. AN "AS-BUILT" DRAWING OF THE INSTALLATION SHALL BE FURNISHED 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

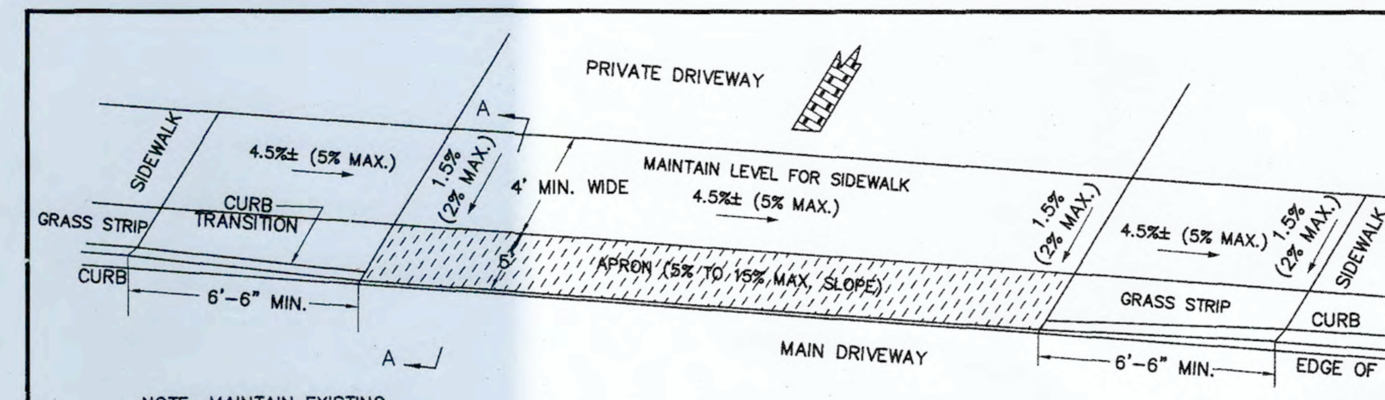
NOT TO SCALE



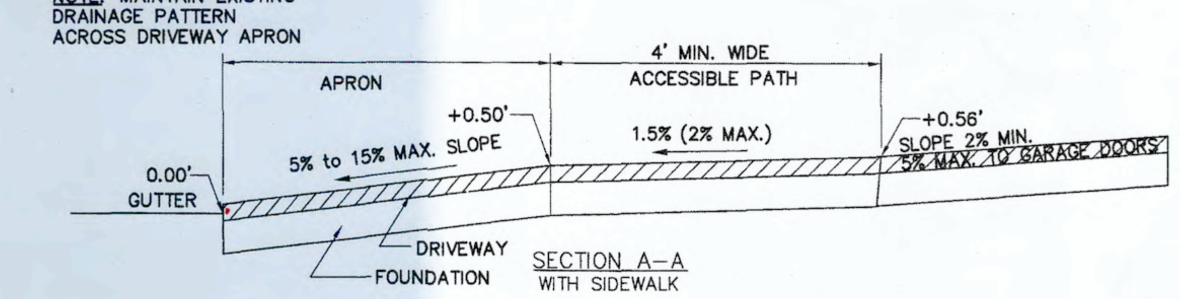
NOTE: ALL PIPES AND FITTINGS SDR35 PVC SEWER PIPE

TYPICAL SEWER CONNECTION

NOT TO SCALE



NOTE: MAINTAIN EXISTING DRAINAGE PATTERN ACROSS DRIVEWAY APRON

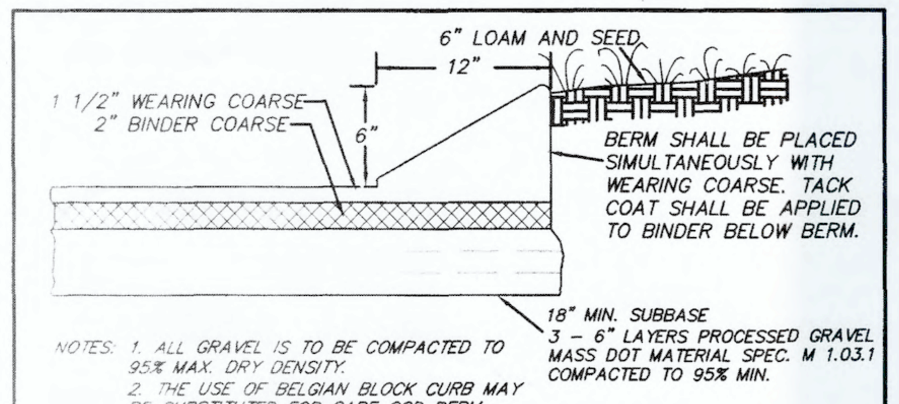


SECTION A-A
WITH SIDEWALK

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

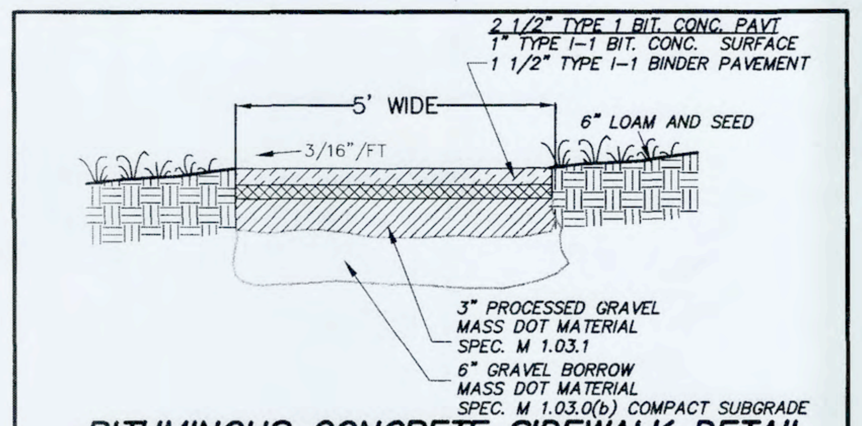


NOTES: 1. ALL GRAVEL IS TO BE COMPACTED TO 95% MAX. DRY DENSITY.
2. THE USE OF BELGIAN BLOCK CURB MAY BE SUBSTITUTED FOR CAPE COD BERM.

CAPE COD BERM DETAIL

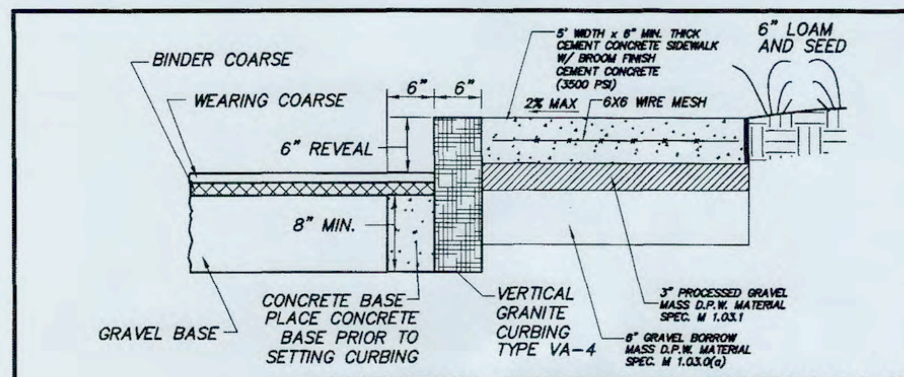
NOT TO SCALE

FILE: CAPE COD BERM DETAIL.DWG



BITUMINOUS CONCRETE SIDEWALK DETAIL

NOT TO SCALE

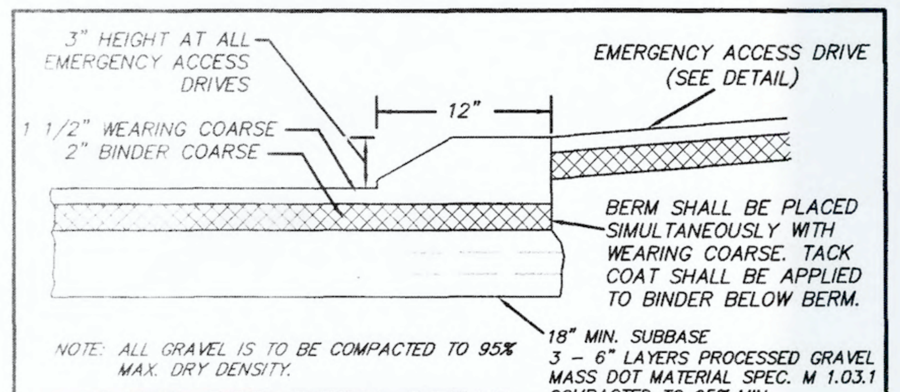


NOTES:

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

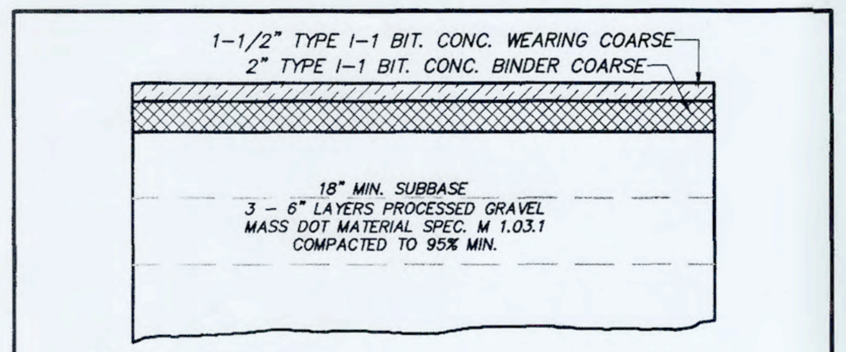


NOTE: ALL GRAVEL IS TO BE COMPACTED TO 95% MAX. DRY DENSITY.

~~CAPE COD~~ BERM DETAIL

Emerg Access

NOT TO SCALE

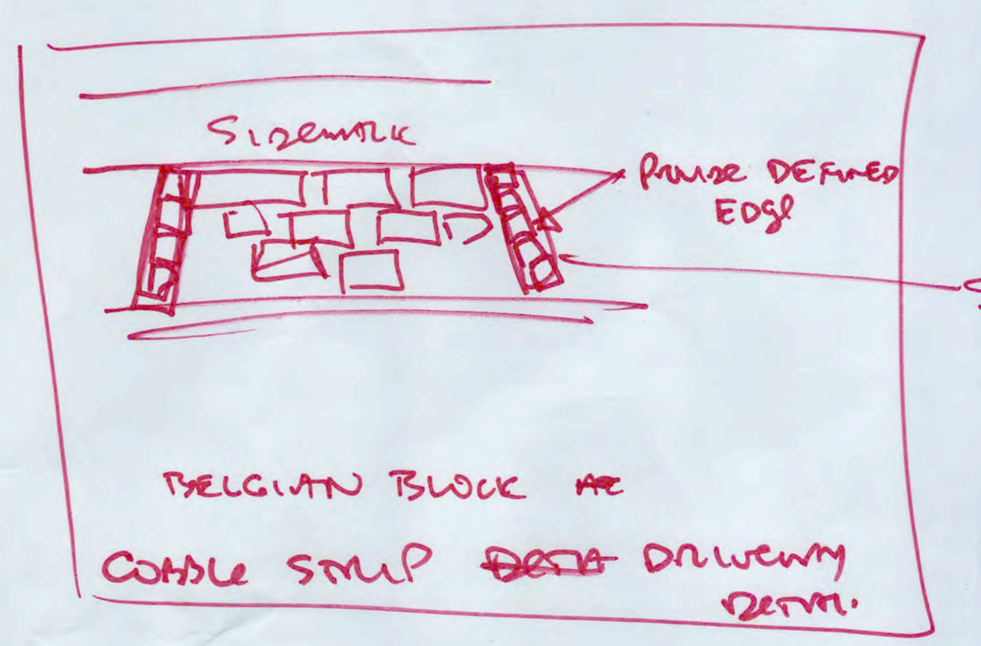


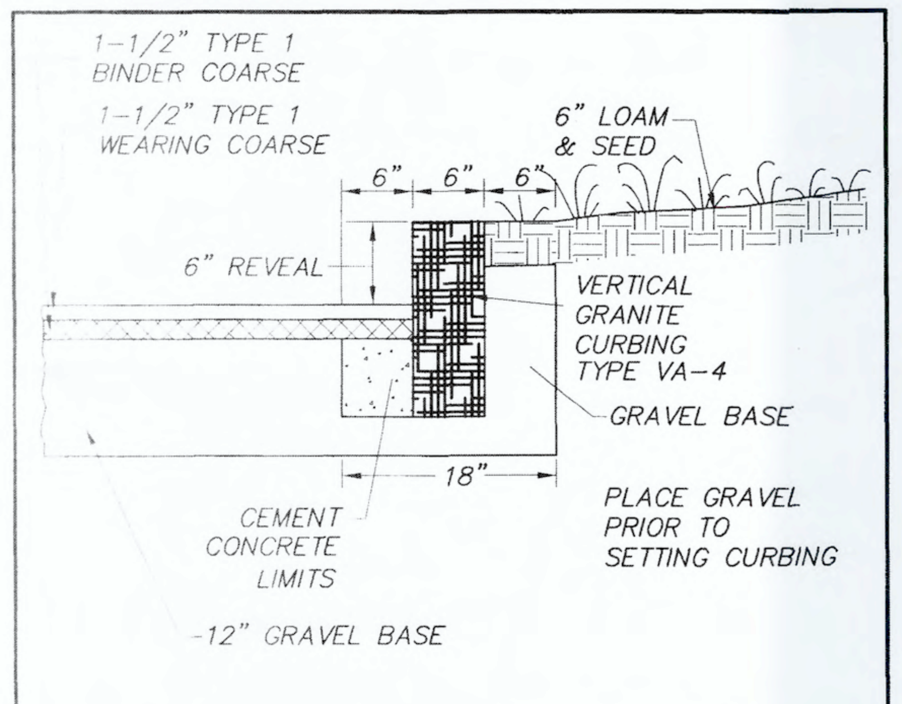
NOTES

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

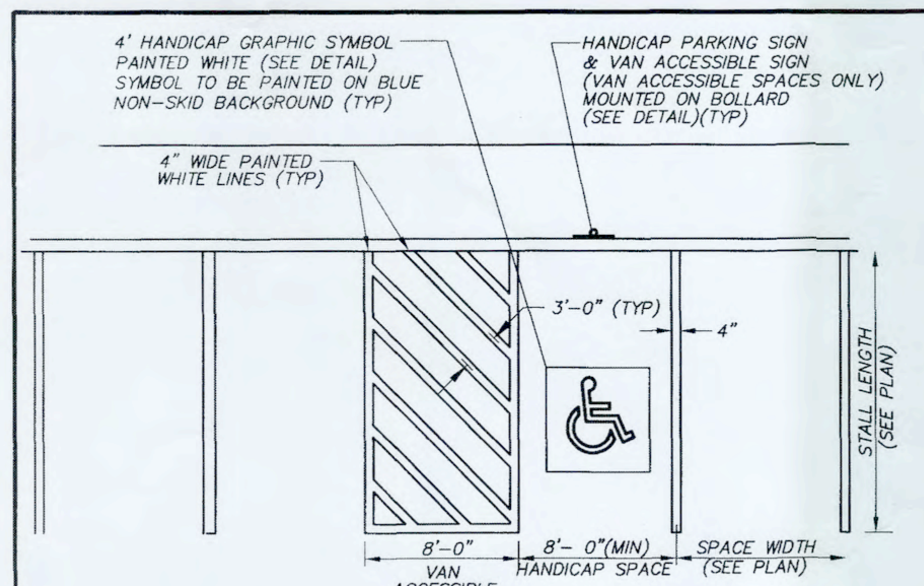
NOT TO SCALE





VERTICAL GRANITE CURBING DETAIL

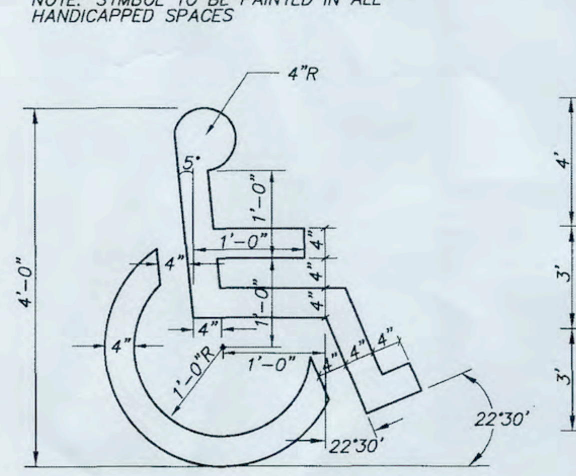
NOT TO SCALE



STALL STRIPING

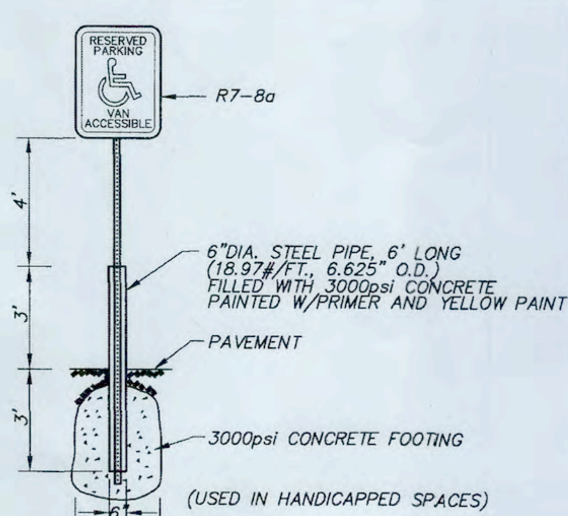
NOT TO SCALE

NOTE: SYMBOL TO BE PAINTED IN ALL HANDICAPPED SPACES



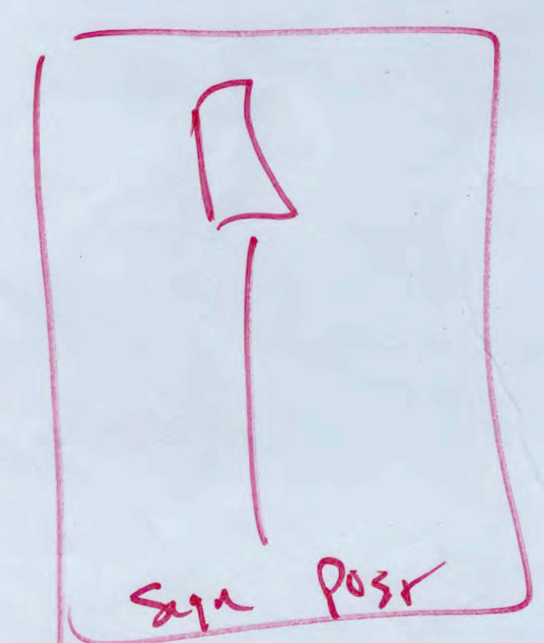
PAINTED HANDICAP SYMBOL

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

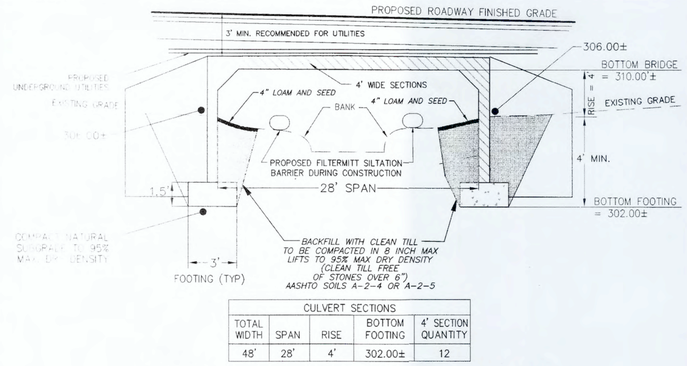
STAMSKI AND MCNARY, INC.
1000 MAIN STREET ACTON, MASSACHUSETTS
ENGINEERING - PLANNING - SURVEYING

0 20 40 80 120 160 FT

(2069 SITE10A.dwg) Sheet 26 of 30 SM-2069

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

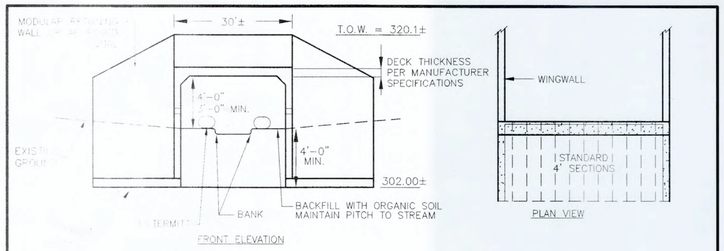
COMMONWEALTH OF MASSACHUSETTS
JOSEPH MARCH
36884
PROFESSIONAL LAND SURVEYOR



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

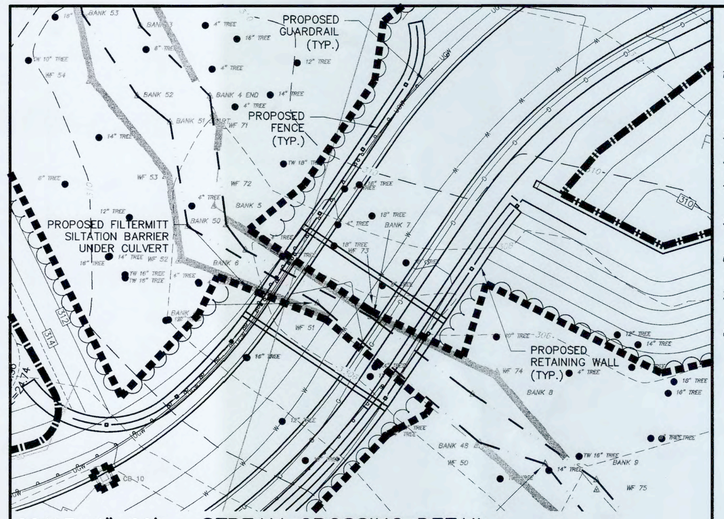


NOTES:

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:

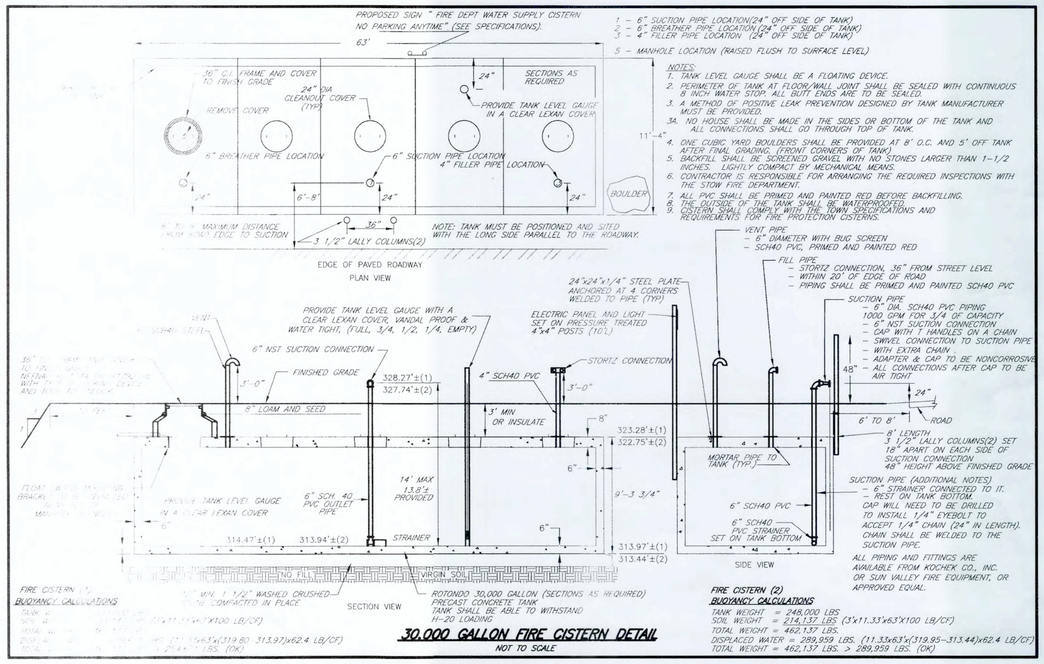
1. DELINEATE UPLAND EDGE OF BVW/BANK LINE PRIOR TO TREE REMOVAL AND INSTALL SILTATION CONTROLS ALONG EDGE OF RESOURCE AREA.
2. INSTALL ADDITIONAL TEMPORARY SILTATION CONTROLS WITHIN RESOURCE AREA.
3. ANY TEMPORARY DISTURBANCE TO RESOURCE AREAS RESULTING FROM VEGETATION REMOVAL AND/OR INSTALLATION OF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



30,000 GALLON FIRE CISTERN DETAIL

NOT TO SCALE

RAMP A

RAMP B

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

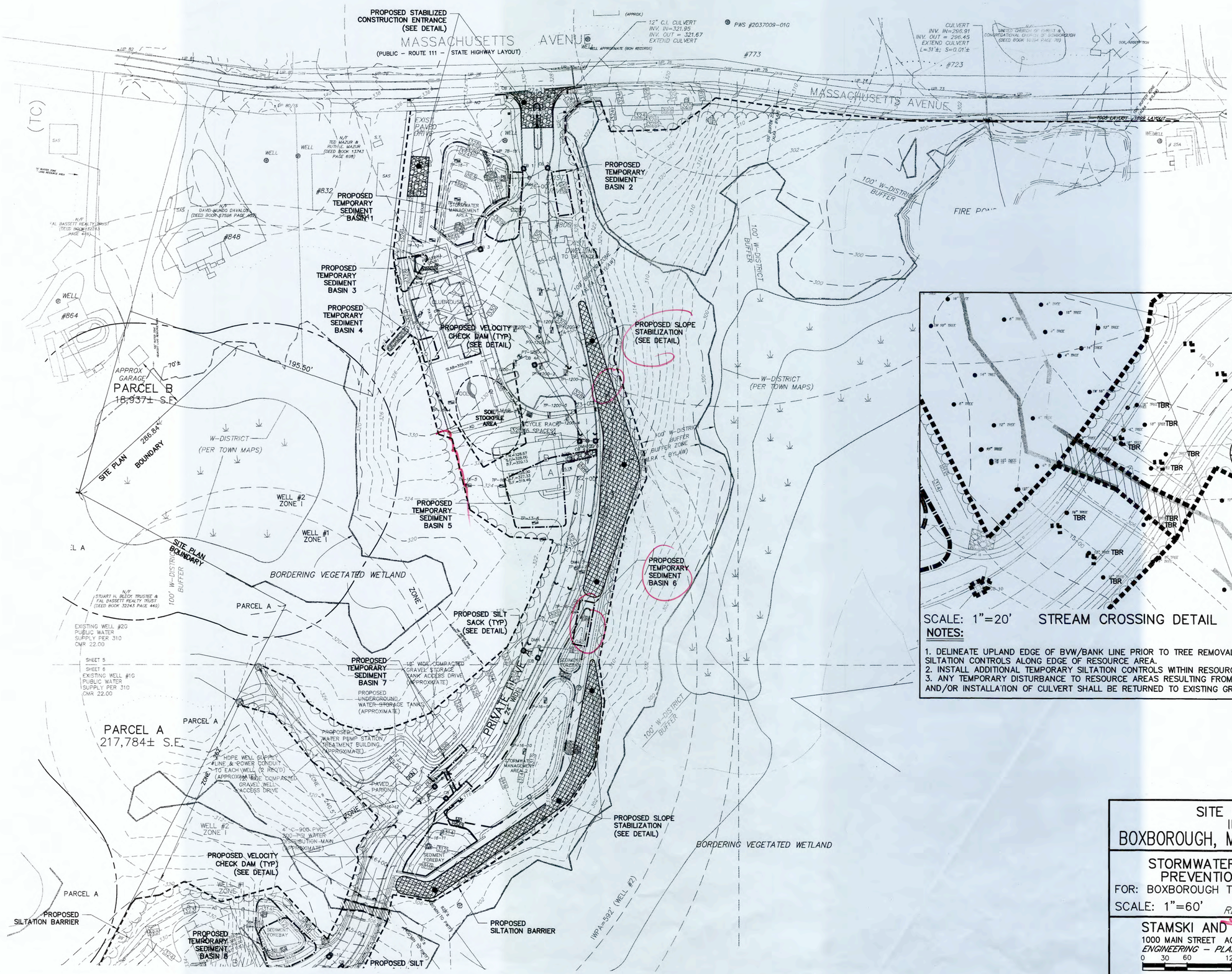
(2069 SITE10A.dwg) Sheet 27 of 30 SM-2069

COMMONWEALTH OF MASSACHUSETTS GEORGE DIMAKARAKOS CIVIL No. 41261 REGISTERED PROFESSIONAL ENGINEER

COMMONWEALTH OF MASSACHUSETTS JOSEPH MARCH # 36304 PROFESSIONAL LAND 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



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.

SITE PLAN IN BOXBOROUGH, MASSACHUSETTS

STORMWATER POLLUTION PREVENTION DETAILS

FOR: BOXBOROUGH TOWN CENTER, LLC

SCALE: 1"=60'

DECEMBER 22, 2016
REVISED JUNE 22, 2017

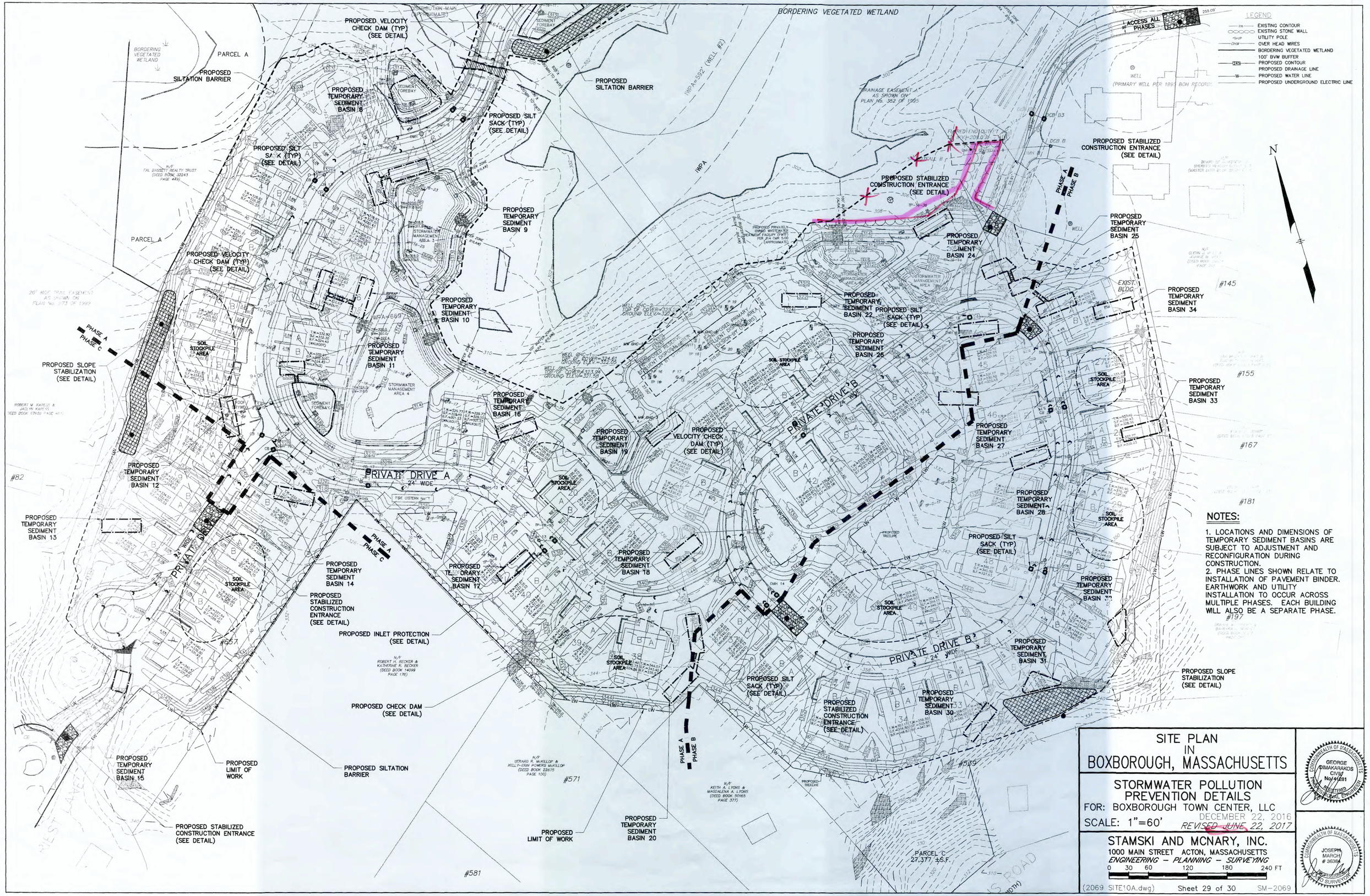
STAMSKI AND MCNARY, INC.
1000 MAIN STREET ACTON, MASSACHUSETTS
ENGINEERING – PLANNING – SURVEYING

0 30 60 120 180 240 FT

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

COMMONWEALTH OF MASSACHUSETTS
JOSEPH MARCH
36384
PROFESSIONAL LAND SURVEYOR

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



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 DIMAKARAKOS
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COMMONWEALTH OF MASSACHUSETTS
JOSEPH MARCH
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