

LEGEND

- CONTROL DISK (SEE NOTE # 2)
- DRILL HOLE SET
- RAILROAD SPIKE
- STONE BOUND
- BOLT OVER MAIN OUTLET
- UTILITY POLE WITH LIGHT
- GAS METER
- WATER METER
- SHRUB
- POST
- FLAG POLE
- PIPE
- ELECTRIC MANHOLE
- TELEPHONE MANHOLE
- CONIFER TREE
- FIRE DEPARTMENT CONNECTION
- GAS HANDHOLE
- WATER HANDHOLE
- BOLLARD
- DECIDUOUS TREE
- SATELLITE ANTENNA
- AC UNIT
- GENERATOR
- SEWER MANHOLE
- DRAIN MANHOLE
- CATCHBASIN
- HYDRANT
- WATER MANHOLE
- SIGN
- LIGHT POLE
- GUY WIRE
- UTILITY POLE
- GAS VALVE
- WATER GATE
- MONITORING WELL
- BORING
- OVERHEAD WRES
- CHAIN LINK FENCE
- WOOD FENCE
- INTERMEDIATE CONTOURS
- INDEX CONTOURS
- PROPOSED PROPERTY LINE
- EXISTING PROPERTY LINE
- RIGHT OF WAY

BORING TABLE

BORING #	NORTHING	EASTING	GROUND ELEVATION	REMARKS
BOR-1	2957596.6	756613.3	11.8	
BOR-2	2957639.3	757070.5	12.2	
BOR-3	2957681.0	757469.7	12.4	
BOR-4	2957377.1	756722.1	9.3	
BOR-5	2957427.1	757201.4	9.5	(NEW LOCATION)
BOR-6	2957042.9	756654.9	9.6	
BOR-7	2957040.6	756869.4	9.2	
BOR-8	2957107.9	757108.4	7.9	
BOR-9	2957248.5	757518.7	10.6	

DATUM CONVERSION TABLE

POINT #	PLAN DATUM (NGVD 29)	NAVD 1988 *(*Δm -0.82)	BOSTON CITY *(Δm +5.65)
706	10.13	9.31	15.78
TBM-1	12.41	11.59	18.06
TBM-2	14.38	13.56	20.03
TBM-3	14.46	13.64	20.11
TBM-4	14.35	13.53	20.00
TBM-5	13.89	13.07	19.54
TBM-6	13.59	12.77	19.24

* Δm DIFFERENCE THAT MUST BE APPLIED TO THE PLAN DATUM TO OBTAIN THE REQUIRED DATUM.

PLAN REFERENCES

- "ALTA/ACSM LAND TITLE SURVEY WESTERN AVE BOSTON, (BRIGHTON), MASS." PREPARED BY R.E. CAMERON & ASSOCIATES, INC. DATED FEBRUARY 26, 2002. THREE SHEETS, RECEIVED FROM HARVARD UNIVERSITY PLANNING OFFICE; PROPERTY INFORMATION RESOURCE CENTER.
- "ALTA/ACSM LAND TITLE SURVEY PLAN OF LAND IN BOSTON, MASS. (BRIGHTON DISTRICT) PREPARED FOR BEAL COMPANIES" PREPARED BY BSC GROUP, DATED MARCH 29, 1990. RECEIVED FROM HARVARD UNIVERSITY PLANNING OFFICE; PROPERTY INFORMATION RESOURCE CENTER.
- "TITLE INSURANCE PLAN OF LAND IN BOSTON (BRIGHTON), MASSACHUSETTS" PREPARED BY SURVEY RESOURCES INC. DATED OCTOBER 16, 1987. RECEIVED FROM HARVARD UNIVERSITY PLANNING OFFICE; PROPERTY INFORMATION RESOURCE CENTER.
- "PLAN OF LAND IN BOSTON (BRIGHTON)" PREPARED BY SCHOFIELD BROTHERS, CIVIL ENGINEERS, DATED MAY 25, 1948 ON RECORD AT THE MASSACHUSETTS LAND COURT AS PLAN NUMBER 21536A.
- "SUBDIVISION PLAN OF LAND IN BOSTON (BRIGHTON)" PREPARED BY NEW ENGLAND SURVEY SERVICE INC., DATED SEPTEMBER 20, 1965 ON RECORD AT THE MASSACHUSETTS LAND COURT AS PLAN NUMBER 21167C.
- "PLAN OF LAND BOSTON (BRIGHTON), MASS." PREPARED BY JOSEPH SELWYN, DATED SEPTEMBER 19, 1973 ON RECORD AT THE MASSACHUSETTS LAND COURT AS PLAN NUMBER 38147A.
- "PLAN OF LAND, 156 WESTERN AVE, BOSTON (BRIGHTON) MASSACHUSETTS" PREPARED BY R.E. CAMERON & ASSOCIATES, INC. DATED SEPTEMBER 5, 2000.
- "CITY OF BOSTON, PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION, LAYING OUT PLAN SEATTLE ST. BRIGHTON" DATED NOVEMBER 4, 1968 ON RECORD AT THE CITY OF BOSTON RECORDS DEPARTMENT AS LAYOUT NUMBER L-9946.
- "CITY OF BOSTON, PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION, DISCONTINUANCE PLAN AND WIDENING AND RELOCATION PLAN, SEATTLE STREET, BRIGHTON" PREPARED BY VANASSE HANGEN BRUSTLIN, INC. DATED APRIL 24, 2000 ON RECORD AT THE CITY OF BOSTON RECORDS DEPARTMENT AS LAYOUT NUMBER L-11158.
- "PLAN OF EASEMENTS TO BE CONVEYED TO THE NEW YORK CENTRAL RAILROAD COMPANY BY THE MASSACHUSETTS TURNPIKE AUTHORITY IN BOSTON, BROOKLINE & NEWTON, COUNTIES OF SUFFOLK NORFOLK MIDDLESEX" PREPARED BY THE MASSACHUSETTS TURNPIKE AUTHORITY, DATED DECEMBER 27, 1962, RECORDED WITH BOOK 7710 PAGE 182 AT THE MIDDLESEX SOUTH REGISTRY OF DEEDS.
- PLAN OF EASEMENTS ON PROPERTY OWNED BY MASSACHUSETTS TURNPIKE AUTHORITY, BOSTON (BRIGHTON), MASSACHUSETTS" PREPARED BY CULLINAN ENGINEERING CO., INC., DATED JULY 13, 1983, RECORDED WITH BOOK 10939 PAGE 224 AT THE MIDDLESEX SOUTH REGISTRY OF DEEDS.

NOTES

- THIS PLAN WAS PREPARED FROM AN ACTUAL ON THE GROUND FIELD SURVEY CONDUCTED BY CHAS. H. SELLS, INC. BETWEEN THE DATES OF SEPTEMBER 7, 2006 AND NOVEMBER 1, 2006.
- THE HORIZONTAL DATUM SHOWN HEREON IS ON REFERENCES THE GPS/ GEODETIC REFERENCE CONTROL NETWORK HARVARD UNIVERSITY GIS/BASE MAPPING PROJECT PREPARED BY BSC GROUP. CONTROL STATION #706 WAS USED AS A POINT OF REFERENCE.
- THE VERTICAL DATUM SHOWN HEREON REFERENCES NGVD 1929 IN ACCORDANCE WITH THE CONTROL REPORT.
- THE LOTS SHOWN HEREON LIE WITHIN THE FLOOD ZONE "C" (AREAS OF MINIMAL FLOODING) AS SHOWN ON THE FLOOD INSURANCE RATE MAP. COMMUNITY PANEL NUMBER 250266 0003C WITH AN EFFECTIVE DATE OF APRIL 1, 1982.
- BY GRAPHIC PLOTTING ONLY, THE SURVEYED PREMISES DOES NOT LIE WITHIN AN OVERLAY DISTRICT. THE SURVEYED PREMISES LIES WITHIN THE ALLSTON LANDING NORTH ECONOMIC DEVELOPMENT AREA.
- SHEETS 3 TO 6 SHOW THE EXISTING CONDITIONS OF ALL ABOVE GROUND FEATURES, SHEETS 7 TO 10 SHOW THE UNDER GROUND UTILITY INFORMATION.
- THE PROPOSED BOUNDARY LINES FOR THE FIRST SCIENCE CENTER PARCEL PREPARED FROM THE COOPER, ROBERTSON & PARTNERS MASTER PLAN AND ACAD FILE PROVIDED BY HARVARD PLANNING AND REAL ESTATE. (REFERENCE IS MADE TO THE PARCEL SUMMARY SECTION 3.1 AND DRAWING 6 ON PAGE 19 OF THE CRP REPORT).
- THIS PLAN WAS PRODUCED TO MEET A MAPPING ACCURACY OF 1"=20' AND PLOTTED AT A SCALE OF 1"=40'.

BSI Subsurface Utility Engineering (SUE) LEGEND:

- TH-X/EH-X TEST/EXPLORATION HOLES (QUALITY LEVEL "A")
- QUALITY LEVEL "B" INFORMATION (QL-B)
 - W-QLB WATER: LOW PRESSURE, HIGH PRESSURE, FIRE SERVICE
 - E-QLB ELECTRIC: ELEC FEED, STREET LIGHT, TRAFFIC SIGNAL
 - D-QLB DRAIN
 - S-QLB SEWER
 - G-QLB PRODUCT: GAS, STEAM, FUEL OIL, CHILLED WATER etc.
 - T-QLB COMMUNICATION: TELEPHONE, CABLE TV
 - U-QLB UNVERIFIED / UNKNOWN UTILITY TYPE
- QUALITY LEVEL "D" INFORMATION (QL-D)
 - W-QLD WATER: LOW PRESSURE, HIGH PRESSURE, FIRE SERVICE
 - E-QLD ELECTRIC: ELEC FEED, STREET LIGHT, TRAFFIC SIGNAL
 - D-QLD DRAIN
 - S-QLD SEWER
 - G-QLD PRODUCT: GAS, STEAM, FUEL OIL, CHILLED WATER etc.
 - T-QLD COMMUNICATION: TELEPHONE, CABLE TV
- OHW X T OHW OVERHEAD UTILITY LINE INFORMATION (QL- C,D)
- X = NUMBER OF LINES
- T = TYPE OF UTILITY
 - E ELECTRIC
 - T TELEPHONE
 - TV CATV
- EOI END OF INFORMATION (R) RECORD INFORMATION
- QLX CHANGE IN QUALITY LEVEL

UTILITY POLE DATA

POLE #	POLE ID	MATERIAL	DIAMETER	HEIGHT	NORTHING	EASTING	ELECTRIC	TELEPHONE	CABLE	MISCELLANEOUS
300	239 4	WOOD	12"	37'	2957388	757599	NSTAR	VERIZON	C.CAST	G T
301		WOOD	10"	24'	2957395	757593		VERIZON		G T
302	323 3	WOOD	12"	34'	2957248	757561	NSTAR	VERIZON	C.CAST	
303		WOOD	10"	25'	2957250	757554		VERIZON		
304		WOOD	12"	25'	2957480	757462		VERIZON	C.CAST	
305		WOOD	12"		2957479	757448				BRACE FOR 304
306	19114X	WOOD	12"	38'	2957323	757442	NSTAR	VERIZON	C.CAST	G T
307	19113X	WOOD	12"	39'	2957198	757429	NSTAR	VERIZON	C.CAST	G T
308	19112X	WOOD	12"	42'	2957126	757339	NSTAR	VERIZON	C.CAST	T
309	NX1199	WOOD	10"	30.0'	2957184	757329		VERIZON		
310		WOOD	12"	34'	2957117	757247	NSTAR	VERIZON	C.CAST	T
311		WOOD	10"	29'	2957180	757207	NSTAR	VERIZON		2G
312		WOOD	10"	33'	2957069	757173	NSTAR	VERIZON	C.CAST	G
313		WOOD	10"	29'	2957172	757161	NSTAR	VERIZON		G
314		WOOD	10"	24'	2957460	757279		VERIZON	C.CAST	
315		WOOD	8"	23'	2957441	757175		VERIZON		G
316		WOOD	10"	28'	2957311	757192		VERIZON	C.CAST	
317		WOOD	8"	23'	2957427	757040		VERIZON	C.CAST	G
318	4	WOOD	10"	30'	2957416	756940	NSTAR			L
319	2967-2	WOOD	10"	28'	2957405	756841	NSTAR			L
320	22	WOOD	10"	30'	2957389	756704	NSTAR			L
321		WOOD	12"	30'	2957017	756896	NSTAR			L
322		WOOD	12"	35'	2956995	756733	NSTAR	VERIZON		G L
323	140 4	WOOD	12"	39'	2956932	756637	NSTAR	VERIZON	C.CAST	G L T
324	5	WOOD	12"	35'	2956969	756633		VERIZON	C.CAST	
325	154-4-2	WOOD	10"	28'	2957106	756577		VERIZON	C.CAST	2G
326	154 4	WOOD	10"	34'	2957184	756568	NSTAR	VERIZON	C.CAST	ER 2G TR
327	2967-4	WOOD	10"	34'	2957221	756557	NSTAR	VERIZON	C.CAST	
328	2967-3	WOOD	10"	34'	2957362	756541	NSTAR	VERIZON	C.CAST	T TVR
329	21	WOOD	10"	31'	2957375	756556	NSTAR			L
330		WOOD	10"	35'	2957492	756526	NSTAR	VERIZON	C.CAST	L T TVR
331	2967-1	WOOD	10"	35'	2957583	756516	NSTAR			ER L
332	154-4	WOOD	12"	39'	2957149	756521	NSTAR	VERIZON	C.CAST	ER L
333	140 3	WOOD	12"	34'	2956899	756539	NSTAR	VERIZON	C.CAST	L T
334	140 2	WOOD	12"	29'	2956867	756446	NSTAR	VERIZON	C.CAST	L
335		WOOD	12"	34'	2956831	756337	NSTAR	VERIZON	C.CAST	L TR
336		WOOD	10"	24'	2957106	757515		VERIZON		
337	3239-2	WOOD	12"	38'	2957106	757534	NSTAR	VERIZON	C.CAST	
338		WOOD	12"	30'	2957045	757469		VERIZON	C.CAST	
339	3239	WOOD	12"	39'	2956971	757509	NSTAR	VERIZON	C.CAST	G
340		WOOD	12"	39'	2956988	757224	NSTAR	VERIZON	C.CAST	L
341	19-10	WOOD	12"	38'	2956893	757285	NSTAR	VERIZON	C.CAST	L T
342	19-9	WOOD	12"	39'	2956801	757346	NSTAR	VERIZON	C.CAST	L T
343		WOOD	12"	34'	2956881	757239	NSTAR	VERIZON		TR
344		WOOD	10"	20'	2956879	757239	NSTAR			ER (CUT)
345		WOOD	12"	34'	2956697	757112	NSTAR	VERIZON	C.CAST	
346	7	WOOD	12"	35'	2956665	757134	NSTAR	VERIZON	C.CAST	L
347	2099-4	WOOD	12"	34'	2956607	757029	NSTAR	VERIZON	C.CAST	L T
348		WOOD	12"	45'	2957258	757643	NSTAR	VERIZON		T
349		WOOD	12"	31'	2957251	757641	NSTAR			L
350		WOOD	12"	28'	2957113	756477	NSTAR	VERIZON	C.CAST	
351		WOOD	12"	34'	2956857	757582	NSTAR	VERIZON	C.CAST	L

FOR UTILITY POLE LOCATIONS SEE PLANS SHEETS 4, 5, 6 & 7 OF 7 (###)
UTILITY POLE MISCELLANEOUS LEGEND:
ER ELECTRIC RISER T TRANSFORMER
EM ELECTRIC METER TR TELEPHONE RISER
G GUY WIRE TVR CATV RISER
L LIGHT

QUALITY LEVEL "C" INFORMATION (QL-C)

- ELECTRIC MANHOLE
- HAND HOLE
- UTILITY POLE WITH LIGHT
- LIGHT POLE
- GUY WIRE
- UTILITY POLE
- UTILITY POLE NUMBER
- TELEPHONE MANHOLE
- WATER HYDRANT
- WATER GATE
- WATER MANHOLE
- SEWER MANHOLE
- CLEAN OUT
- UNVERIFIED MANHOLE
- GAS GATE
- DRAIN MANHOLE
- CATCH BASIN
- AREA DRAIN
- DROP INLET
- SATELLITE ANTENNA
- AC UNIT

Subsurface Utility Engineering Notes:

- This plan was prepared in conformance with American Society of Civil Engineer standard CEA/ASCE 38-02 "Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data".
- BSI will only warrant the existence or nonexistence of utility lines based on quality level A information. QL "A" information is only valid within the visible limits of the test hole.
- BSI will advance a vacuum test hole until a condition of practical refusal for vacuum excavation is reached. Practical refusal is defined as any of the following conditions occurring: Encountering a utility, bedrock, water table, rocks/cobbles, condition of hole instability or reaching a depth of 8'.
- Below ground structures, unless dimensioned, are symbolic only.
- Prior to excavation utility owners shall review and approve this drawing.
- This drawing is prepared in color. Reproduction may alter the information contained here in. BSI does not warrant the information contained here in following reproduction.
- Use or reuse of this drawing by parties not directly contracted with BSI is prohibited without prior written permission.
- Base mapping/survey control is shown for information only and is not warranted by BSI.
- BSI recommends that all existing utilities near proposed construction activities be located by vacuum excavation (quality level A) prior to any excavation (if not already located by vacuum excavation).

Utility Quality Level Information Index:

- Certain utilities shown have been traced on the ground using electronic designation techniques. Designation, or electronic utility location, is defined as the surface location of a utility line based on electronic geophysical prospecting techniques and is approximate in relation to the actual location of the possible utility.
- Certain utilities shown have been taken from available record information. These utilities may not have been verified. (See Note #4 below.)
- All existing designated utilities near proposed construction should be exactly located using Non-Destructive Air-Vacuum Excavation, if not already located by Air-Vacuum Excavation (See Quality Level A above).
- Unless Non-Destructive Air-Vacuum Excavation is utilized at a particular location, BSI does not guarantee the existence or non-existence of utility lines.
- At locations, where BSI is directed to perform Non-Destructive Air-Vacuum Excavation, the Air-Vacuum hole is advanced until a condition of practical refusal for Air-Vacuum Excavation is reached or hole is advanced to a depth of 8' (eight feet). Practical refusal being defined as encountering a utility, bedrock, water table, large rocks/cobbles, suspected hazardous materials or a condition of hole instability.
- Where BSI is directed to perform Non-Destructive Air-Vacuum Excavation to confirm the non-existence of utilities, BSI will only report non-existence of utilities within the visible limits of the excavation. BSI is not responsible for ensuring that work by others is performed at the same location as the Air-Vacuum Excavation Hole.
- Below ground structures unless otherwise depicted are symbolic only.
- Prior to any excavating, BSI recommends that all utility owner should review this drawing for accuracy and completeness.

GAS

KEYSPAN ENERGY DELIVERY
52 SECOND AVENUE
WALTHAM
MA 02451
TEL: 781-466-5241
CONTACT: DENNIS PERI

DEPARTMENT OF PUBLIC WORKS

BOSTON ENGINEERING DEPARTMENT
1 CITY HALL ROOM 710
BOSTON
MA 02201
TEL: 617-635-4968
CONTACT: PARA JAYASINGHE
(NO RECORD INFORMATION PROVIDED)

WATER

BOSTON WATER & SEWER DEPARTMENT
980 HARRISON AVENUE
BOSTON
MA 02119
TEL: 617-989-7000
CONTACT: JOHN SULLIVAN

SEWER

BOSTON WATER & SEWER DEPARTMENT
980 HARRISON AVENUE
BOSTON
MA 02119
TEL: 617-989-7000
CONTACT: JOHN SULLIVAN

TELEPHONE

VERIZON
125 LINDQUIST DRIVE
BRANTREE
MA 02184
TEL: 781-849-6311
CONTACT: SUSETE SEELY
(NO RECORD INFORMATION PROVIDED)

MWRA WATER DIVISION

2 GRIFFIN WAY
CHELSEA
MA 02150
TEL: 617-305-5827
CONTACT: RALPH FRANCESCOINI

MWRA SEWER DIVISION

2 GRIFFIN WAY
CHELSEA
MA 02150
TEL: 617-305-5965
CONTACT: KEVIN MCKENNA

ELECTRIC

NSTAR ELECTRIC
ONE NSTAR WAY-SE370
WESTWOOD
MA 02090
TEL: 781-441-3541
CONTACT: BRIAN McDEVITT
(NO RECORD INFORMATION PROVIDED)

RAILROAD

MBTA
32 COBBLE HILL ROAD
SOMERVILLE
MA 02145
TEL: 617-222-6176
CONTACT: ANTHONY GOUVEIA
(NO RECORD INFORMATION PROVIDED)

FIRE ALARM

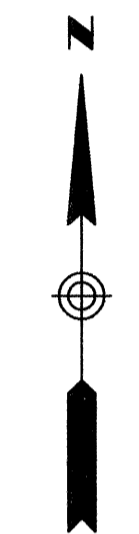
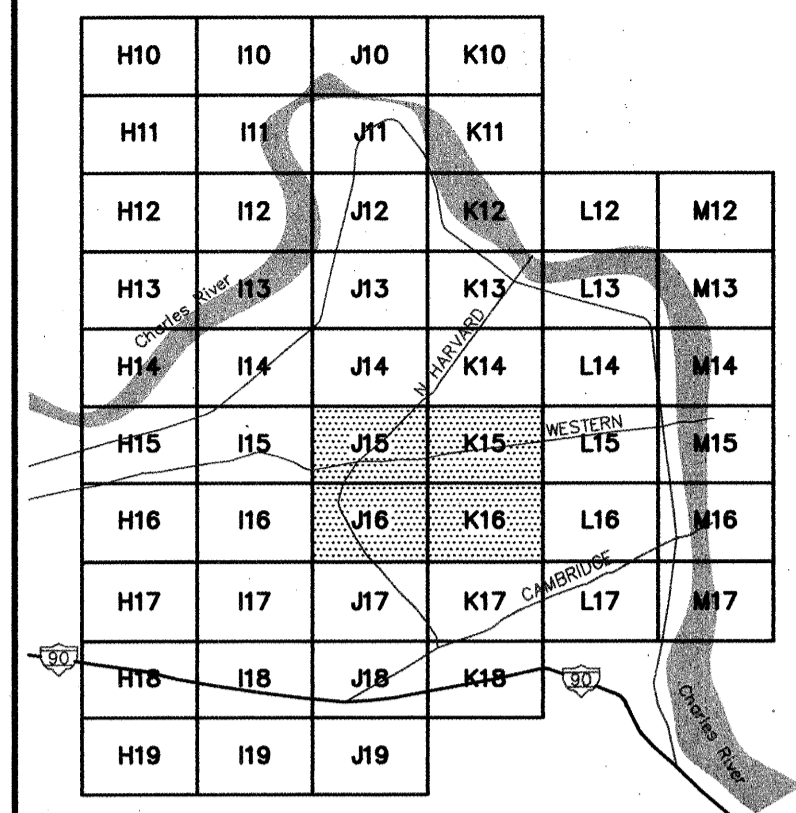
BOSTON FIRE DEPARTMENT
59 THE PENWAY
BOSTON
MA 02115
TEL: 617-343-2897
CONTACT: THOMAS MAGOON
(NO RECORD INFORMATION PROVIDED)

CABLE

COMCAST
676 ISLAND POND ROAD
MANCHESTER
NH 03109
TEL: 603-895-1457
CONTACT: DEENA VANDEBERGHE

AT&T

280 SOUTH BROAD STREET SUITE 1500
PHILADELPHIA
PA 19102
TEL: 215-965-2220
CONTACT: ALANNA PIAZZA



UTILITY OWNER AND CONTACT INFORMATION

ALL THE FOLLOWING UTILITY OWNERS WERE REPORTED TO HAVE UTILITY FACILITIES WITHIN THE VICINITY OF THE PROJECT. UTILITIES FOUND WITHIN THE LIMITS OF STUDY AT THE TIME OF THE S.U.E. INVESTIGATION ARE INDICATED BELOW. THESE UTILITY FACILITIES ARE ALSO SHOWN ON THE PLAN HEREIN.

UTILITY	CONTACT INFORMATION
GAS	KEYSPAN ENERGY DELIVERY, 52 SECOND AVENUE, WALTHAM MA 02451, TEL: 781-466-5241, CONTACT: DENNIS PERI
DEPARTMENT OF PUBLIC WORKS	BOSTON ENGINEERING DEPARTMENT, 1 CITY HALL ROOM 710, BOSTON MA 02201, TEL: 617-635-4968, CONTACT: PARA JAYASINGHE
WATER	BOSTON WATER & SEWER DEPARTMENT, 980 HARRISON AVENUE, BOSTON MA 02119, TEL: 617-989-7000, CONTACT: JOHN SULLIVAN
SEWER	BOSTON WATER & SEWER DEPARTMENT, 980 HARRISON AVENUE, BOSTON MA 02119, TEL: 617-989-7000, CONTACT: JOHN SULLIVAN
TELEPHONE	VERIZON, 125 LINDQUIST DRIVE, BRANTREE MA 02184, TEL: 781-849-6311, CONTACT: SUSETE SEELY
MWRA WATER DIVISION	2 GRIFFIN WAY, CHELSEA MA 02150, TEL: 617-305-5827, CONTACT: RALPH FRANCESCOINI
MWRA SEWER DIVISION	2 GRIFFIN WAY, CHELSEA MA 02150, TEL: 617-305-5965, CONTACT: KEVIN MCKENNA
ELECTRIC	NSTAR ELECTRIC, ONE NSTAR WAY-SE370, WESTWOOD MA 02090, TEL: 781-441-3541, CONTACT: BRIAN McDEVITT
RAILROAD	MBTA, 32 COBBLE HILL ROAD, SOMERVILLE MA 02145, TEL: 617-222-6176, CONTACT: ANTHONY GOUVEIA
FIRE ALARM	BOSTON FIRE DEPARTMENT, 59 THE PENWAY, BOSTON MA 02115, TEL: 617-343-2897, CONTACT: THOMAS MAGOON
CABLE	COMCAST, 676 ISLAND POND ROAD, MANCHESTER NH 03109, TEL: 603-895-1457, CONTACT: DEENA VANDEBERGHE
AT&T	280 SOUTH BROAD STREET SUITE 1500, PHILADELPHIA PA 19102, TEL: 215-965-2220, CONTACT: ALANNA PIAZZA

EXISTING CONDITIONS SURVEY

FIRST SCIENCE CENTER
WESTERN AVENUE
ALLSTON, MA.
PREPARED FOR
HARVARD UNIVERSITY
ALLSTON DEVELOPMENT GROUP

CHAS. H. SELLS, INC.
90 WINDOM STREET (REAR)
ALLSTON, MASSACHUSETTS, 02134
CONSULTING ENGINEERS, SURVEYORS & PHOTOGRAMMETRISTS

Scale	Date
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