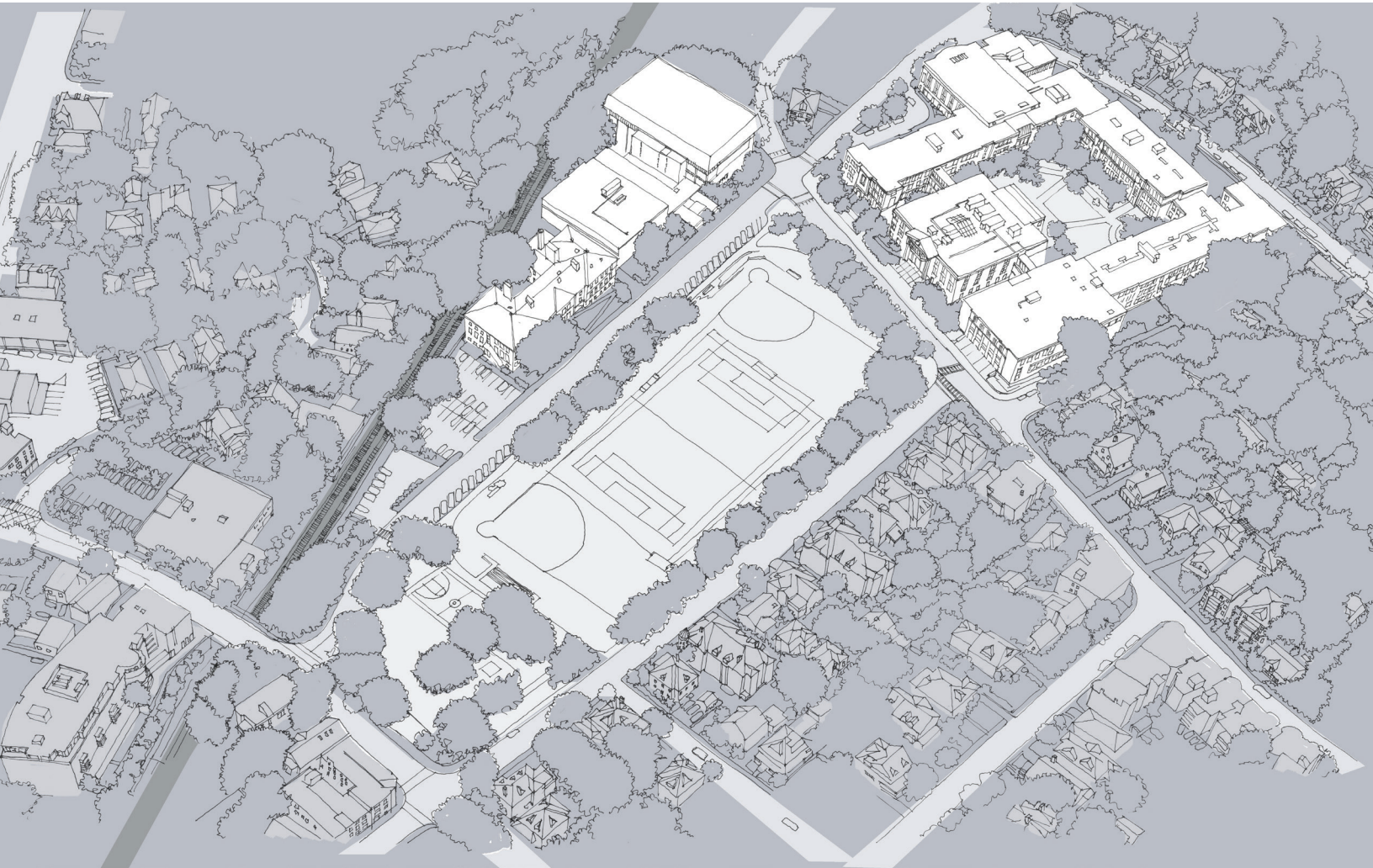




Brookline High School Feasibility Study

JUNE 2017 DRAFT

VOLUME 2 OF 3



HMFH ARCHITECTS

130 Bishop Allen Drive Cambridge, MA 02139 617 492 2200 hmfh.com

HMFH ARCHITECTS

Table of Contents

Volume 2 of 3

Appendix A - Existing Conditions Narratives	A.3 - A.138
Phase 1 Site Investigation	A.3
Civil Narrative	A.11
Landscape Narrative	A.29
Structural Narrative	A-35
Plumbing Narrative	A-61
Fire Protection Narrative	A-71
Mechanical HVAC Narrative	A.77
Electrical Narrative	A.111
Appendix B - Additional Meetings & Analysis	B.139 - B.162
Transportation Department Meeting Minutes	B.141
Building Department Meeting Minutes	B.145
Parks and Open Space / Recreation Meeting Minutes	B.149
BHS Campus Expansion Preliminary Massing Study Areas & Space Harvesting	B.157
Appendix C - Utilization	C.163 - C.264
Brookline High School Utilization	C.165
9th Grade Academy Utilization	C.213
Tappan and Schluntz Gym Utilization	C.231
Memorandum Projected Tappan & Schluntz Gym Utilization	C.253
BHS Memo - Physical Education and Health, BHS Athletic Director, and Brookline Recreation Director	C.260
Appendix D - Preferred Solution	
Building Systems Narrative	D.265 - D.346
Scope & Schedule for Geotechnical Exploration	D.267
Civil Narrative	D.275
Landscape Narrative	D.285
Structural Narrative	D.289
Plumbing Narrative	D.301
Fire Protection Narrative	D.309
Mechanical HVAC Narrative	D.315
Electrical Narrative	D.329

Appendices

A. Existing Conditions Narratives

Phase 1 Site Investigation

A. Existing Conditions Narrative - Phase 1 Site Investigation

A. Existing Conditions Narrative - Phase 1 Site Investigation



June 13, 2017

HMFH Architects
130 Bishop Allen Drive
Cambridge MA 02139

Attention: Ms. Deborah Collins

Reference: Brookline High School, 155 Greenough Street; Brookline, Massachusetts
Phase 1 Environmental Site Assessment

Ladies and Gentlemen:

Enclosed herewith is a Phase I Environmental Site Assessment prepared for the Brookline High School located at 115 Greenough Street and adjacent school properties in Brookline, Massachusetts. The general site locus is shown on the enclosed **Figure 1**.

These services were performed and this report was prepared in accordance with the authorization of HMFH Architects (HMFH). These services are subject to the limitations in **Appendix A**.

This environmental site assessment was conducted pursuant to the provisions contained in the following: (1) Massachusetts Oil and Hazardous Materials (OHM) Release Prevention and Response Act (MGL Chapter 21E); (2) Massachusetts Contingency Plan (MCP) 310 CMR 40.0000; and (3) ASTM E 1527-13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.

The objective of the Phase I Environmental Site Assessment, as defined in the ASTM E 1527-13 Standard, is to identify the potential presence of Recognized Environmental Conditions (RECs), Historical RECs (HREC) and/or Controlled RECs (CREC) at the subject site or at surrounding properties that may potentially pose a threat to the subject site.

Our scope of services for this assessment consisted of the following: (i) an assessment of the subject site history relative to the possible presence of oil and hazardous materials; (ii) a visual reconnaissance of the subject site and surrounding area; (iii) a search of information from the offices of the Town of Brookline for records of permits issued for the storage and/or use of oil or hazardous materials at the subject site; (iv) a database search of State and Federal records including the National Priorities List (NPL), the Superfund Enterprise Management System (SEMS), and the RCIS hazardous waste handlers list using ASTM-required search radii; (v) a review of the Massachusetts Department of Environmental Protection (DEP) database relative to incidents involving releases of OHM at or in the vicinity of the subject site; and (vi) assessing the above and documenting the results in a Phase I Environmental Site Assessment (ESA) Report.

Excluded from our scope of services were a title search, a lien search, an assessment for the presence of radon, lead-based paint, mold, mildew and asbestos containing materials. Furthermore, chemical testing of soil or groundwater was not included in our scope of services.

A. Existing Conditions Narrative - Phase 1 Site Investigation



HMFH Architects
June 13, 2017
Page 2

The approximate approximately 600,000 square-foot subject site includes one three story structure which fronts onto Greenough Street to the southeast and is generally bounded by Lowell Road and residential properties to the north, Welland Road to the west-northwest, and Tappan Street to the south. The subject site also includes the Cypress Street Playground which is bound by Greenough Street to the west, Davis Avenue to the north, Cypress Street to the east, and Tappan Street to the south. In addition, two buildings front onto Tappan Street adjacent to Cypress Street Playground and bound by an active railway way to the south and an active MBTA station to the east. Brookline High School is listed in the Town of Brookline's Assessors Database as Parcel ID 202 0900 which is owned and maintained by the Town of Brookline. The two adjacent parcels to Brookline High School that are encompassed in the subject site are listed in the Town of Brookline's Assessors Database as 19 Cypress Street, Parcel ID 195 0900, and 46 Tappan Street, Parcel ID 194 1011. The subject site currently contains the Brookline High School, athletic fields, gymnasium, aquatic center, and an arts and media building. The remainder of the site generally consists of paved parking areas with landscaped margins.

A review of historical records indicates the subject site has been the location of the Brookline High School since approximately 1898. The southern portion of the subject site was previously utilized for the Brookline Public Baths and then redeveloped to be used as a gymnasium and additional auxiliary classrooms/workshops.

A visual reconnaissance of the subject site was conducted on May 31, 2017 by a representative of McPhail. Observations during our site reconnaissance identified one (1) REC with respect to the subject site. In two separate locations, two (2) hydraulic powered trash compactors and dumpsters were observed. Staining was observed around the trash compactors and dumpsters, and at one location, staining was observed to run off the concrete pad to a landscaped area. The observed staining in the area of the hydraulic compactors and dumpsters at the subject site is considered an REC. Further, surficial observations of readily observable portions of nearby properties did not identify further RECs with respect to the subject site.

A review of municipal records including a review of on-line files from the Town of Brookline Assessors' database and the Massachusetts UST database as well as records provided by the Town of Brookline Building Department, the Town of Brookline Health Department and the Town of Brookline Fire Prevention Office, did not identify an REC in connection with the subject site.

Furthermore, the subject site is listed in multiple DEP databases and has had three historical releases associated with the property. The three releases are associated with the southern section of the subject site, which is inferred to be topographically upgradient, and are considered to be two (2) HRECs and one (1) CREC. These are addressed in detail below.

The subject site is also surrounded by historical release sites from commercial and semi-industrial properties. One of the eight release sites near the subject site is considered an REC due to the historical usage and the mobility of the contaminants of concern (COCs).

A. Existing Conditions Narrative - Phase 1 Site Investigation



HMFH Architects
June 13, 2017
Page 3

The REC is located at 345 Boylston and is linked to several RTNs associated with the historical usage of the site as a historical auto repair and filling station. Two down gradient property status (DPS) submittals were reported around 345 Boylston Street, 323 Boylston Street and 15 Boylston Place, indicating the mobility of COCs associated with 345 Boylston Street. The COCs indicated by reports reviewed on the MassDEP Database in connection with the 345 Boylston Street property and DPS locations are petroleum hydrocarbons in groundwater.

In summary, we have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-13 for the Brookline High School located at 115 Greenough Street and adjacent school properties in Brookline, Massachusetts. This assessment has identified two (2) Historical Recognized Environmental Conditions; one (1) Controlled Recognized Environmental Condition; and three (3) Recognized Environmental Conditions in connection with the subject site. The two HRECs are associated with RTNs 3-24561 and 3-10640. The one CREC is associated with RTN 3-10766. Lastly, the two (2) RECs are associated with localized staining near trash compactors and dumpsters and the historical releases associated with 345 Boylston Street and other DPS properties. We recommend that a Phase II Environmental Site Assessment consisting of chemical analysis of soil and groundwater samples be performed to further evaluate the site for potential environmental concerns.

We trust that the above is sufficient for your present requirements. Should you have any questions concerning this report, please do not hesitate to contact us.

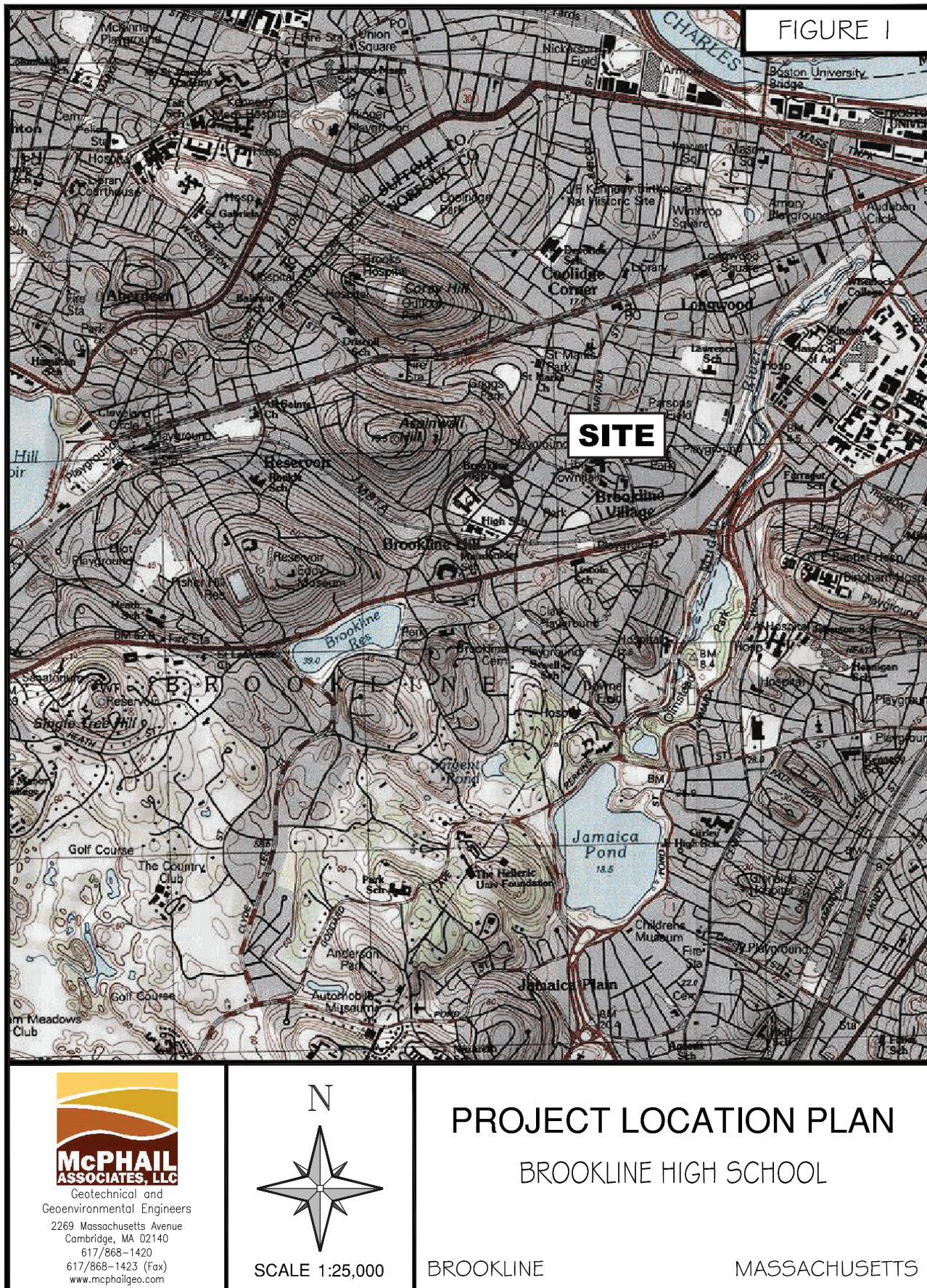
Very truly yours,

McPHAIL ASSOCIATES, LLC

Kirk W. Seaman

Peter J. DeChaves, L.S.P.

A. Existing Conditions Narrative - Phase 1 Site Investigation



A. Existing Conditions Narrative - Phase 1 Site Investigation

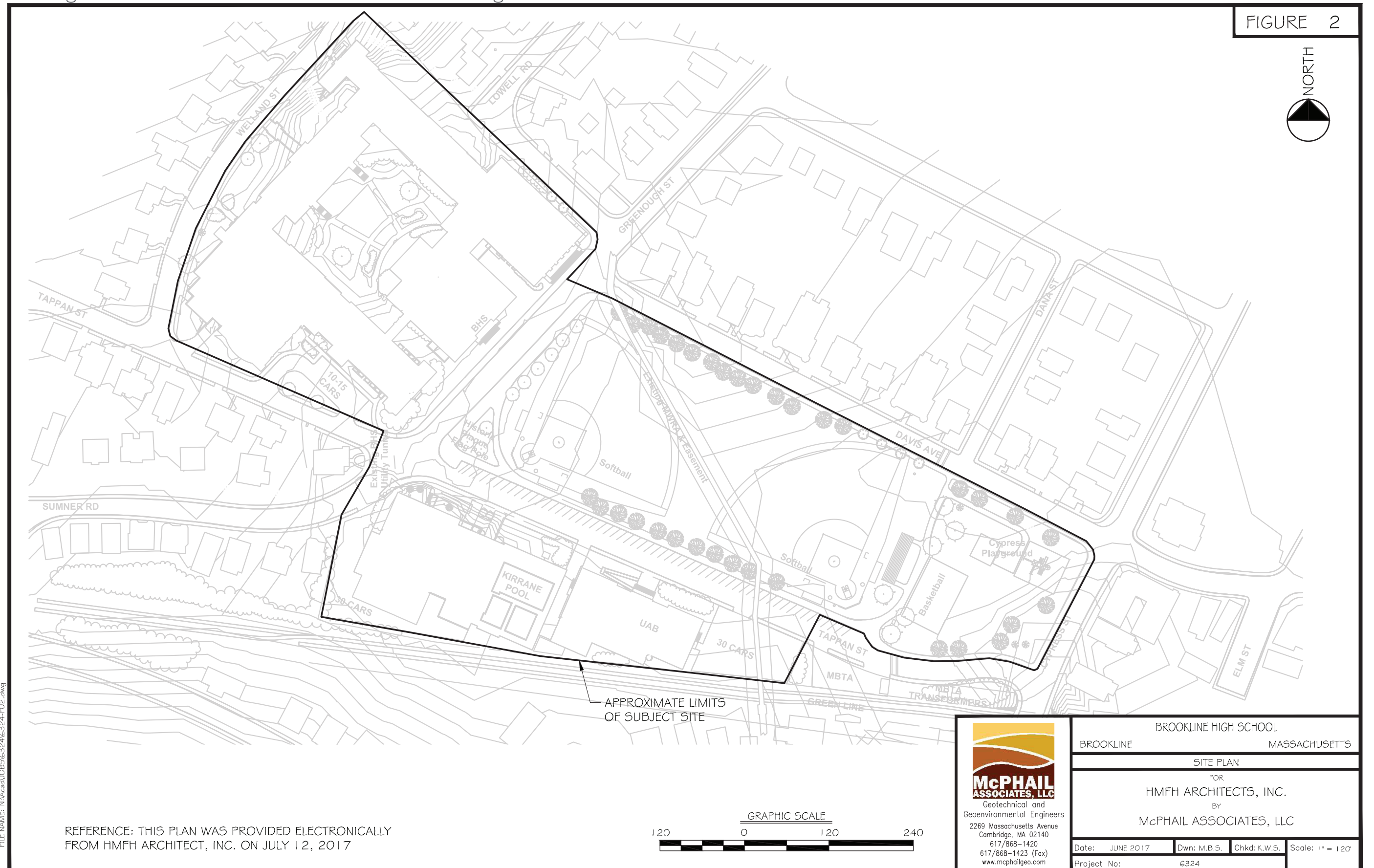


FIGURE 2



APPROXIMATE LIMITS OF SUBJECT SITE

REFERENCE: THIS PLAN WAS PROVIDED ELECTRONICALLY FROM HMFH ARCHITECT, INC. ON JULY 12, 2017



Geotechnical and Geoenvironmental Engineers
 2269 Massachusetts Avenue
 Cambridge, MA 02140
 617/868-1420
 617/868-1423 (Fax)
 www.mcphalgeo.com

BROOKLINE HIGH SCHOOL			
BROOKLINE		MASSACHUSETTS	
SITE PLAN			
FOR			
HMFH ARCHITECTS, INC.			
BY			
McPHAIL ASSOCIATES, LLC			
Date: JUNE 2017	Dwn: M.B.S.	Chkd: K.W.S.	Scale: 1" = 120'
Project No: 6324			

FILE NAME: N:\Acad\UBB\6324\6324-F02.dwg

Appendices

A. Existing Conditions Narratives

Civil Narrative



A. Existing Conditions Narrative - Civil BHS Campus at Greenough & Tappan

MEMORANDUM

To: HMFH Architects, Inc.
From: Nobis Engineering, Inc.
Subject: Brookline High School – Campus Feasibility Study
Date: February 21, 2017

FEASIBILITY STUDY

In accordance with the Massachusetts School Building Authority (MSBA) Feasibility Study Guidelines, Nobis Engineering, Inc. is pleased to present the following feasibility study of the existing main campus at Brookline High School (BHS) located at 115 Greenough Street in Brookline, MA.

The following feasibility study includes an evaluation of the existing conditions at BHS and an evaluation of site restrictions based on the BHS proposed campus expansion. The evaluation includes, but is not limited to, existing water supply, sanitary sewer and drainage systems, vehicular and pedestrian traffic patterns and parking requirements. The feasibility study also includes an evaluation of potential opportunities to improve overall site utilization and the availability of public service utilities for the campus expansion.

Detailed below is the evaluation of the existing main campus, opportunities to improve site utilization, and a site utilities narrative discussing the availability of public service utilities for the BHS campus expansion.

EXISTING CONDITIONS EVALUATION

Water Supply

There is an existing 6" water main in Tappan Street. There are also existing 24" and 6" water mains in Greenough Street and a 6" water main in Lowell Road. From Tappan Street there are two water service taps that feed three services into the existing school. Two of the building services are 2" according to Town records and the size of the third building service is unknown. From Greenough Street there is one service tap from the 24" main to the building. The size of this service is 4" and was constructed as part of the BHS renovations in 1996. From Lowell Road there is one service tap from the 6" main to the building.

Sanitary Sewer

There are existing sewer mains in the streets surrounding BHS. There is an 8" sewer main in Tappan Street that increases to a 37" x 40" pipe past Greenough Street heading east. There is an 18" sewer main in Greenough Street from Tappan Street to Davis Avenue and there is an 8"



A. Existing Conditions Narrative - Civil BHS Campus at Greenough & Tappan

sewer main in Lowell Road north of BHS. There are also two sewer mains that cross the field across from BHS. One of the sewer mains is a large 78" x 84" sewer main located within an easement for the Massachusetts Water Resources Authority (MWRA) in a southeasterly direction across the fields. The other sewer main is a discontinued 8" main that used to connect between Davis Avenue and Tappan Street.

BHS has five service connections from the school to the municipal sanitary sewer system. There is one 8" service connection from the school to the 8" sewer main in Tappan Street. The sewer main within Tappan Street discharges into the MWRA's system just east of the UAB building. There are three service connections from the school to the 18" sewer main in Greenough Street, one of which is from the addition built in 1996. Two of the service connections are 8" and the third service connection (closest to Tappan Street) is unknown but believed to be a 6" or 8" service. From Greenough Street the 18" sewer main discharges to the 18" sewer main in Davis Avenue. There is one service connection that leaves the north side of BHS and enters the sewer main in Lowell Road before entering into the main in Greenough Street. The size of this service is also unknown but believed to be a 6" or 8" service.

Drainage

There is a municipal closed drainage system within Tappan Street. The drainage piping is 18" from Welland Road to Greenough Street. After the intersection at Greenough Street the drainage pipe increases to a 24" x 30" pipe. BHS has multiple drain pipes (mostly yard drains and roof drains) that collect storm water runoff from the southerly side of the building that enter the 18" piping in Tappan Street. Storm water runoff and roof drainage from the northerly side of the building outlets into the closed drainage system in Greenough Street near the intersection with Davis Avenue and Lowell Road. From there the drainage is conveyed via a 24" pipe in a southeasterly direction across the fields to the east of BHS. The 24" pipe outlets into the 24" x 30" pipe in Tappan Street just north of the Gym/Pool. There is also closed drainage along the northeastern edge of the fields adjacent to Davis Avenue which outlets into the municipal system in Davis Avenue east of Dana Street.

The grade of Cypress Fields gently slopes from southwest to northeast. Given the gentle slopes across the field it is likely that most storm water runoff infiltrates during small storm events. During larger events storm water likely discharges into the closed drainage system under the northeastern edge of the fields.

According to the Natural Resources Conservation Service (NRCS), the soils on-site mostly consist of Udorthents, loamy. Udorthents are considered Hydrologic Soil Group A, according to the NRCS, generally having a moderate to slow permeability near the surface and a rapid to slow permeability at below the surface depth.

Vehicular & Pedestrian Traffic Patterns / Parking

The majority of the streets surrounding BHS are designated one-way streets including Welland Road, Tappan Street, Summer Road, Davis Avenue, and Greenough Street. Welland Road, Summer Road, and Davis Avenue offer on-street parking on one side of the road. Tappan Street offers no parking along the entrance in front of BHS and angled parking on the north side of Tappan Street past the intersection with Greenough Street. Greenough Street from Davis Avenue to Tappan Street is a one-way street during non-school hours (4PM to 9AM) with parking along the east side of the road. During school hours (9AM to 4PM, September 1 through July 1) travel

A. Existing Conditions Narrative - Civil BHS Campus at Greenough & Tappan



down Greenough Street is prohibited except for emergency personnel. In general parking around the BHS campus is limited.

SITE RESTRICTIONS & OPPORTUNITIES FOR FACILITY IMPROVEMENTS

Our understanding of the BHS improvements is to expand the school for anticipated growth, improve pedestrian traffic patterns and safety, provide increased parking, reconstruct Cypress fields with athletic turf and make playground area improvements.

Parking around the BHS is limited to on-street parking in select areas, a small off-street parking area along the southern entrance to BHS and a small parking lot next to the Unified Arts Building (UAB). One of the improvements discussed is to build a multi-level parking garage beneath the Cypress fields to expand parking. This would provide adequate parking for all BHS staff, eligible students, parents, and other visitors and decrease the demand on surrounding streets.

Currently pedestrian traffic patterns are generally undefined. With limited off-street parking and various on-street from surrounding streets pedestrians are scattered across the campus. The addition of the multi-level parking garage and defined travel paths to the school would improve upon pedestrian safety. Another way to improve upon pedestrian safety would be to narrow Tappan and Greenough Streets. Tappan and Greenough Street are quite wide for one-way streets. Tappan Street is approximately 26 feet wide with 16 feet wide angled parking on the northern side across from the gym and UAB. Greenough Street is approximately 27 feet wide. If Tappan Street was narrowed to one 14-foot wide travel lane with an 8-foot wide parallel parking lane (to be utilized by patrons using the gym and UAB) this would promote vehicles to drive slower. If Greenough Street was narrowed to one 14-foot wide travel lane and one 8-foot wide parent drop-off lane the same could be expected. Additionally, these roads could have surface treatments to reinforce slower vehicular speeds.

In evaluating the construction of a multi-level parking garage beneath the fields there are a few restrictions to consider. There are several utilities beneath Cypress fields that would need to be removed and relocated or if left in-place would dictate a smaller parking garage footprint. These utilities include:

- 78" x 84" sewer main located within an easement for the Massachusetts Water Resources Authority (MWRA) that travels across the fields in a southeasterly direction
- 24" drain pipe that travels across the fields in a southeasterly direction
- 8" discontinued sewer main that travels across the field from north to south
- Drainage piping that travels from west to east along the northeastern edge of the fields (size unknown)

A. Existing Conditions Narrative - Civil BHS Campus at Greenough & Tappan



SITE PHOTOGRAPHS



Looking east across Davis Avenue



Looking south across Greenough Street

A. Existing Conditions Narrative - Civil BHS Campus at Greenough & Tappan



Looking east across Tappan Street



Looking west at BHS along Tappan Street



A. Existing Conditions Narrative - Civil BHS Campus at Greenough & Tappan

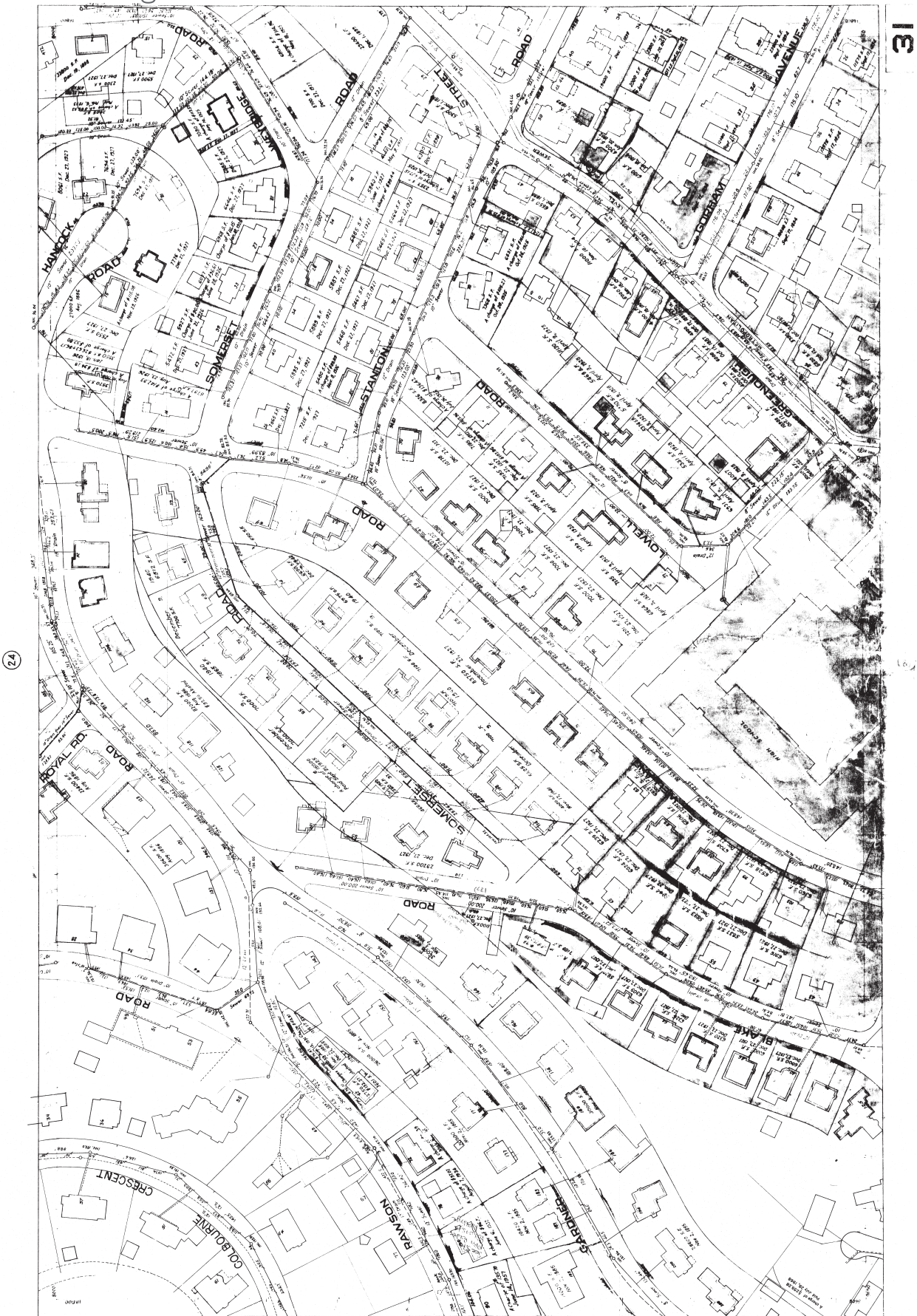


Looking south at the gymnasium along Tappan Street



Looking southwest at the parking lot next to the Unified Arts Building

A. Existing Conditions Narrative - Civil



13

24

13

A. Existing Conditions Narrative - Civil

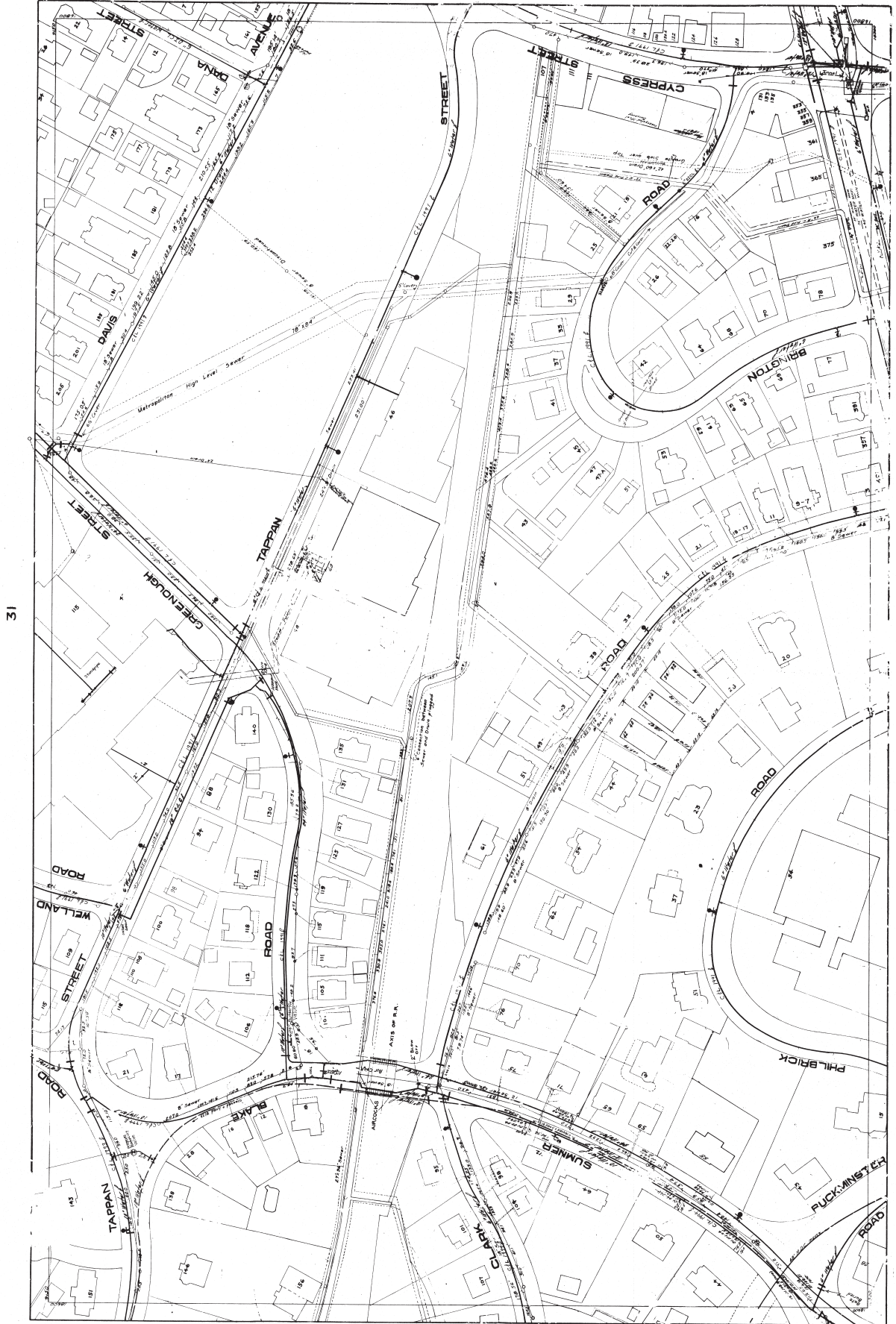


13

24

25

A. Existing Conditions Narrative - Civil

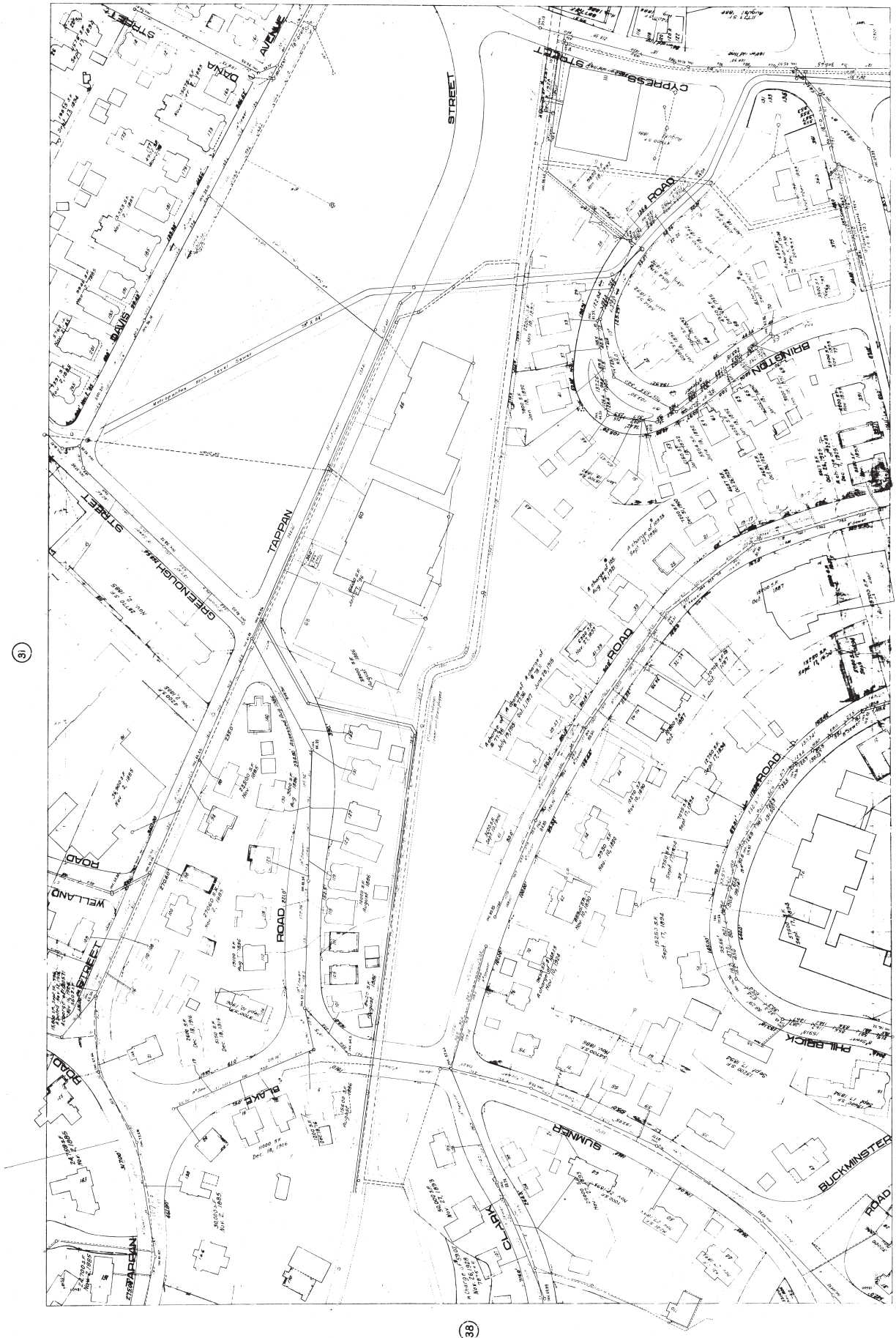


31

39

39

A. Existing Conditions Narrative - Civil



39

38

40

38

A. Existing Conditions Narrative - Civil

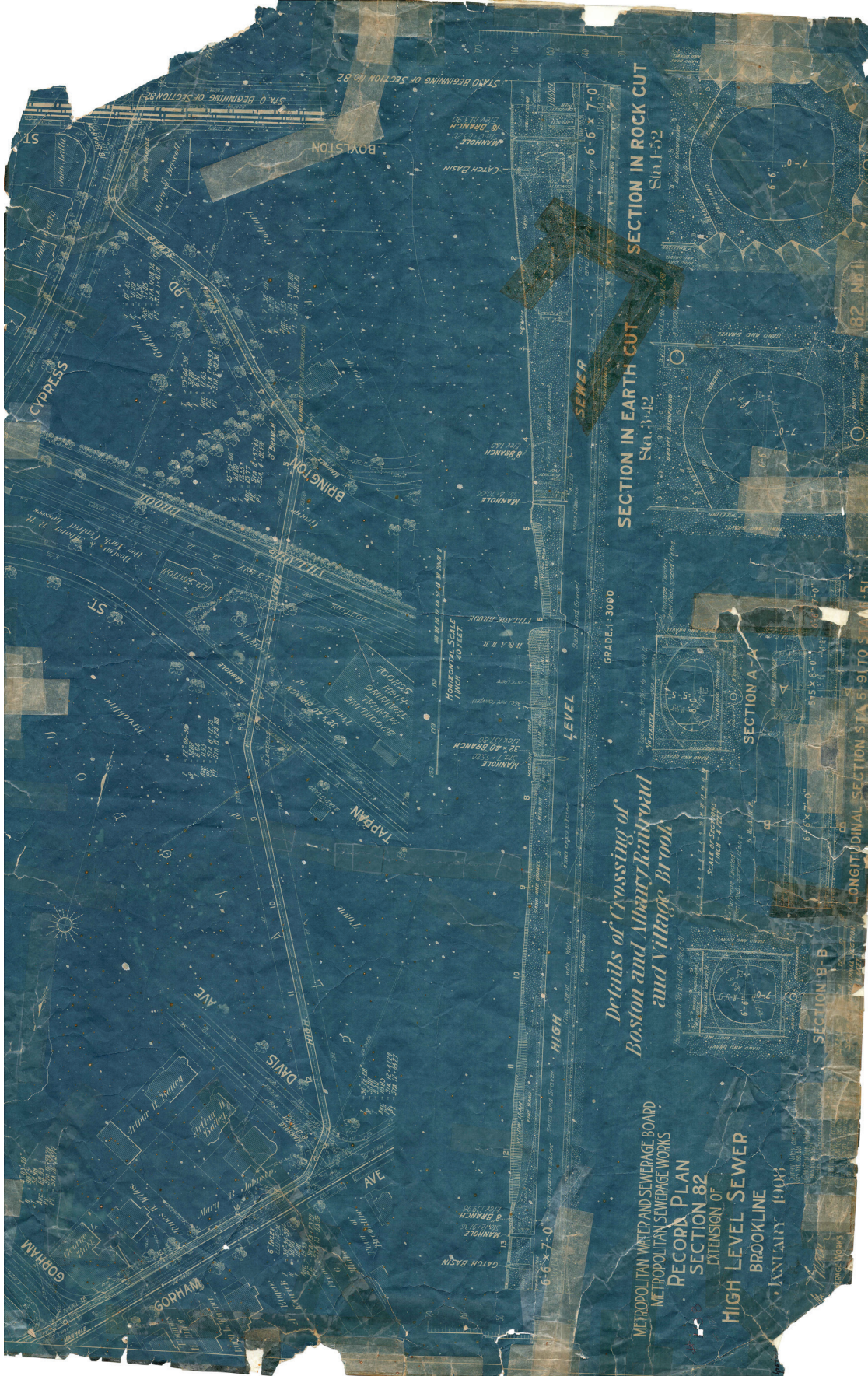


40

A. Existing Conditions Narrative - Civil



A. Existing Conditions Narrative - Civil





A. Existing Conditions Narrative - Civil 111 Cypress Street

MEMORANDUM

To: HMFH Architects, Inc.
From: Nobis Engineering, Inc.
Subject: Brookline High School – Campus Feasibility Study
107-111 Cypress Street Existing Conditions Evaluation
Date: June 7, 2017

FEASIBILITY STUDY

Nobis Engineering, Inc. is pleased to present the following existing conditions evaluation of 107-111 Cypress Street for the location of the new building at Brookline High School (BHS) in Brookline, MA.

The following includes an evaluation of the existing conditions at 107-111 Cypress Street. The evaluation includes, but is not limited to, existing water supply, sanitary sewer and drainage systems, vehicular and pedestrian traffic patterns and parking requirements.

EXISTING CONDITIONS EVALUATION

Water Supply

There is an existing 12" water main in Cypress Street. There are also existing 6" water mains in Brington Road and Tappan Street. It is not known which water main the water service to 111 Cypress Street originates from.

Sanitary Sewer

There is an existing 18" sewer main in Cypress Street. There is also a 10" sewer main that originates in Brington Road off the southwest corner of the 111 Cypress Street property. The 10" sewer main follows along Brington Road heading northwest for approximately 150 feet before crossing in a northeasterly direction towards the MBTA railroad tracks. The 10" sewer main heads east adjacent to the MBTA railroad tracks crossing the 111 Cypress Street property within a 10 foot wide sewer easement before tying into the 18" sewer main in Cypress Street.

There is one 6" sewer service connection that exits the 111 Cypress Street building near its northeast corner and ties into the 10" sewer main within the sewer easement.

Drainage

The property at 111 Cypress Street is mainly covered by the building and parking lot. Stormwater from the parking lot is collected in a closed drainage system beneath the parking lot which outlets into the Town's closed drainage system. It is believed that the stormwater runoff from the roof is

A. Existing Conditions Narrative - Civil

111 Cypress Street



collected and piped to the closed drainage system but the size and location is not known. There are also two large drainage lines that cross the property via easements. There is a 72" drain that crosses the property along the western edge located within a drainage easement owned by the Town of Brookline. There is also a 6'x10' brick culvert that crosses the property along its northern boundary located within the Brook Channel Easement. The on-site drainage from the parking lot and roof outlet into these drainage easements which head east across Cypress Street through the Brook Channel culvert. There is also a 4'x4' culvert located under Cypress Street which drains into the Brook Channel culvert as well.

The grade of the parking lot slopes gently from southeast to northwest. The elevations of the parking lot and ground floor building entrances are roughly 6 to 10 feet below the elevations in Cypress Street. There is a retaining wall along the eastern edge of the parking lot due to the change in elevation. The building can be accessed from the sidewalk along Cypress Street at the first floor elevation.

The property at 107 Cypress Street is mainly undeveloped green space. The area is lightly wooded and slopes southwest from Cypress / Tappan Streets down to the MBTA railroad tracks. The only developed portion of the lot consists of two transformers owned by the MBTA.

According to the Natural Resources Conservation Service (NRCS), the soils at 107-111 Cypress Street mostly consist of Canton-Urban land complex. Canton soils are considered Hydrologic Soil Group A, according to the NRCS, generally having a moderate to slow permeability near the surface and a rapid to slow permeability below the surface depth.

Vehicular & Pedestrian Traffic Patterns / Parking

The property at 111 Cypress Street is surrounded by Cypress Street to the east, Brington Road to the south, and the MBTA railroad tracks to the north. Brington Road is a two-way street with on-street parking available on one-side. The property at 111 Cypress Street has one driveway entrance and one driveway exit off of Brington Road. Pedestrians can access the site from either Brington Street or from the concrete sidewalk along Cypress Street. Cypress Street is a two-way collector street with limited on-street parking available. Since Cypress Street is approximately 6-10 higher than the parking lot at 111 Cypress Street there is a stairway from the concrete sidewalk at Cypress Street down to the parking lot. North of the 111 Cypress Street property is the MBTA railroad tracks. The property at 107 Cypress Street is surrounded by Cypress Street to the east, Tappan Street to the north, and the MBTA railroad tracks to the south.

Easements

There are four easements that transect the 107-111 Cypress Street. As previously mentioned above there is a 10' wide sewer easement running from west to east along the northern side of the property. There are also two drainage easements, one along the western property boundary and one along the northern property boundary for a Town of Brookline 72" drain and the Brook Channel culvert respectively. There is also a 12' wide Right-of-Way easement to parking garage that generally goes from the western parking lot entrance along Brington Road to the northwest corner of the property.

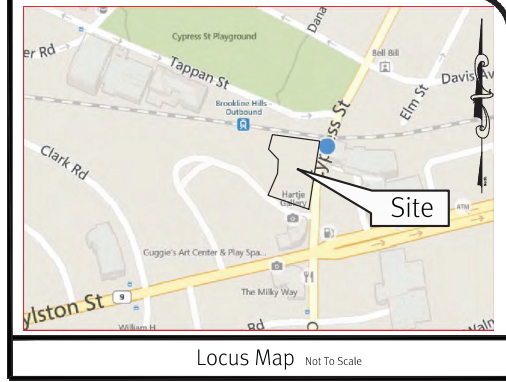
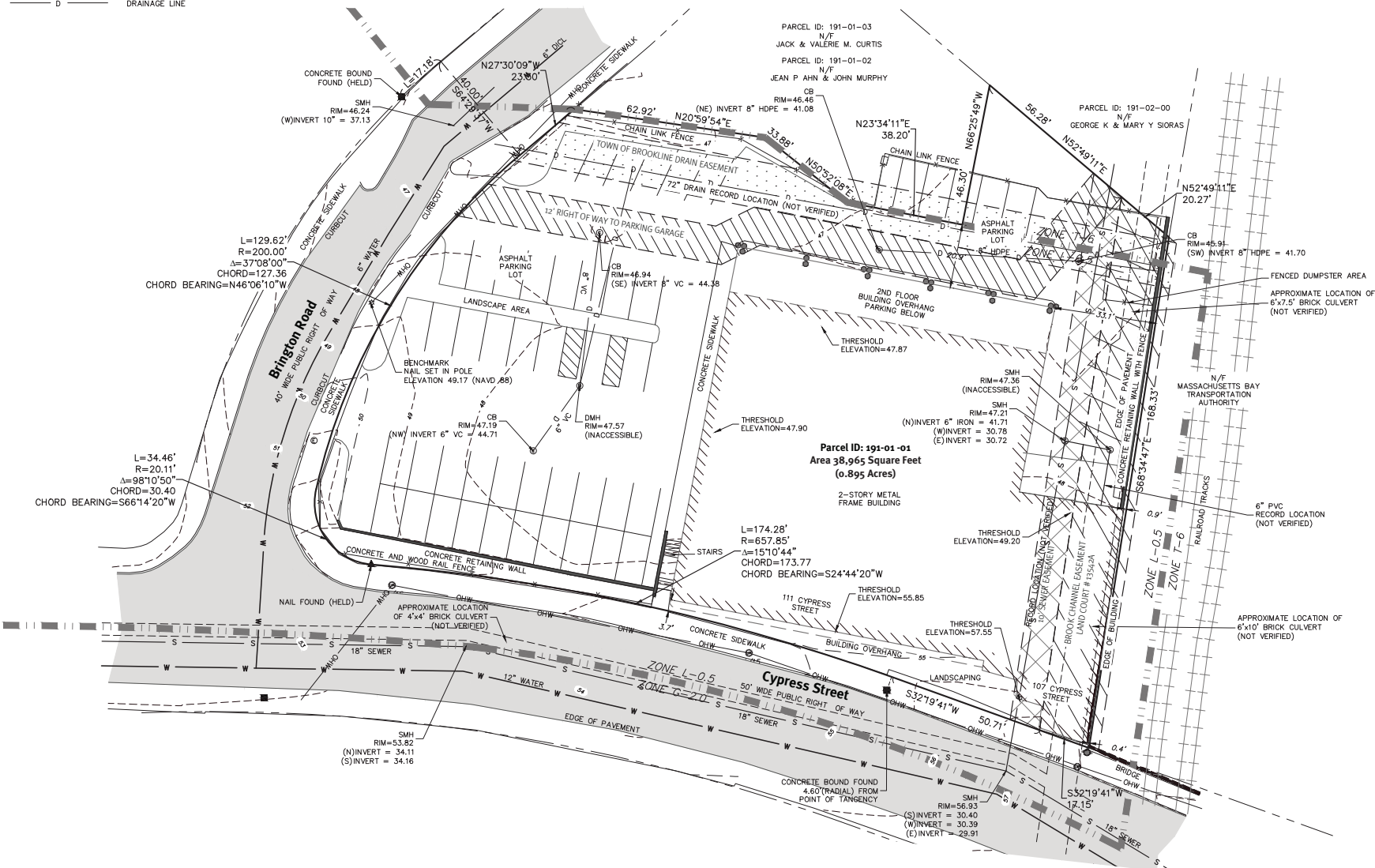
ATTACHMENTS:

Town of Brookline Existing Utility Plans



Legend
NOT ALL ITEMS SHOWN WILL APPEAR ON THE SURVEY

BUILDING		▲/△	NAIL FOUND/SET
ASPHALT		●/○	DRILL HOLE FOUND/SET
AP	ASSESSOR'S PLAT	■/□	IRON ROD/PIPE FOUND/SET
N/F	NOW OR FORMERLY	○	BOUND FOUND/SET
(D)	DEED	○	SIGN
(M)	MEASURED	○	SOLLARD
(C)	CALCULATED	○	SOIL EVALUATION
(CA)	CHORD ANGLE	○	CATCH BASIN
HC	HANDICAPPED	○	DOUBLE CATCH BASIN
	PROPERTY LINE	○	DMH DRAINAGE MANHOLE
	ASSESSOR'S LINE	○	FLARED END SECTION
	TREELINE	○	GUY POLE
	GUARDRAIL	○	EMH ELECTRIC MANHOLE/HANDHOLE
	FENCE	○	UTILITY/POWER POLE
	RETAINING WALL	○	LIGHTPOST
	STONE WALL	○	SMH SEWER/SEPTIC MANHOLE
	MINOR CONTOUR LINE	○	SEWER VALVE
	MAJOR CONTOUR LINE	○	CLEANOUT
	W	○	HYDRANT
	S	○	IRRIGATION VALVE
	SFM	○	WATER VALVE
	G	○	WELL
	E	○	MONITORING WELL
	OHW	○	UNKNOWN MANHOLE
	D	○	GAS VALVE
		○	WETLAND FLAG
		○	BENCH MARK
		○	BUSH
		○	TREE



- General Notes**
- THE PARCEL IS FOUND ON TOWN OF BROOKLINE, NORFOLK COUNTY, MASSACHUSETTS, PARCEL ID 191-01-01.
 - THE PARCEL IS LOCATED IN ZONE X PER FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP 2502100034E, DATED JULY 17, 2012.
 - THE PARCEL IS ZONED L-0.5 & T-6 PER THE ASSESSOR'S ONLINE DATABASE. PLEASE CONTACT THE ZONING DEPARTMENT FOR ANY ADDITIONAL INFORMATION OR FOR A CERTIFICATE OF ZONING.
 - THERE WERE NO CEMETERIES, GRAVE SITES AND/OR BURIAL GROUNDS OBSERVED WITHIN THE LIMITS OF THE SURVEY.
 - FIELD SURVEY PERFORMED BY DIPRETE ENGINEERING ON APRIL 13, 2015. THIS PLAN REFLECTS ON THE GROUND CONDITIONS AS OF THAT DATE.

Datum Note:

1. ELEVATIONS SHOWN HEREON, IN U.S. SURVEY FEET, ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88), AS DETERMINED BY DIPRETE ENGINEERING USING REAL TIME KINEMATIC G.P.S. OBSERVATIONS.

- Plan References:**
- NORFOLK REGISTER OF DEEDS PLAN 509 OF 1980.
 - NORFOLK REGISTER OF DEEDS PLAN 1041 OF 1955.
 - LAND COURT PLAN 13542A.

DiPrete Engineering
990 Washington Street Suite 100A Dedham, MA 02026
tel: 781-326-0021 fax: 401-464-6006 www.dipreteeng.com

This regulatory submission set shall not be used for construction and signed by a DiPrete Engineering representative.

Project No.	107-111 Cypress Street	D.T.C.	
Date	4/7/14	Description	Boundary/Topographic Survey
Drawn By	D.T.C.	Design By	D.T.C.

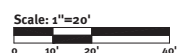
Boundary/Topographic Survey
Cypress Apartments at Brookline Hills

107-111 Cypress Street Realty Trust c/o The Aspen Group
100 River Park Drive, P.O. Box 96, North Reading, MA 01864



ROBERT G. BABCOCK, PLS #49233

4/7/14
DATE



Appendices

A. Existing Conditions Narratives

Landscape Narrative

A. Existing Conditions Narrative - Landscape

HALVORSON DESIGN
PARTNERSHIP

MEMORANDUM

project Brookline High School Feasibility Study
date 17 May 2017
to HMFH Architects, Inc.
from Halvorson Design Partnership
regarding Campus Landscape Existing Condition Assessment

Halvorson Design conducted numerous site visits to evaluate the existing hardscape site conditions and site vegetation. To confirm some of our observations and suspicions regarding plant health, we recommend that a professional arborist be consulted to better determine the health of the trees.

1. Main Building
1.1 Main building –Greenough Street

The grand stair and retaining walls at the main entry are in good condition. The concrete planter curb at both sides of the grand stair is damaged and in bad shape. The step sloped area in front of the school’s main entrance and the area in front of the building’s south wing are both heavily planted. There are various deciduous trees, evergreen trees and shrubs planted. Overall, trees are in good conditions and the shrubs are in fair condition. Ornamental grasses, perennials and groundcover are dormant and cut back during this time of the year. There are also large bare areas on the slope that are not covered by groundcover or shrubs.

There are two 14” DBH Pin Oaks at the entry of the northern corridor to the courtyard; two 16” DBH Pin Oaks are in front of the building’s south-wing entry. Four 14” caliper European Hornbeams framing the entry of the southern corridor are in excellent condition while two 8” caliper European Hornbeams located at the entry of the northern corridor are in good condition. Trees planted symmetrically at both sides of main entry staircase are in good condition. These are two 15’ Ht Star Magnolias, two 6’ Ht Hinoki Cypress, and two 3’ Ht Dwarf Blue Spruce. Two 9’ Ht Cornus mas located in front of the building’s south wing entry are in good condition. Located at the building corner of Greenough Street and Tappan Street are one 15” DBH Eastern Red Cedar and one 14” DBH Northern White Cedar. Also located here is one 12” DBH Red Maple, in fair condition but with branches growing into the overhead power lines.

LANDSCAPE ARCHITECTURE

A. Existing Conditions Narrative - Landscape

MEMORANDUM, 5/15/2017 PAGE 2 OF 5

1.2 Main Building – Corridors and Courtyard

There are various paving materials, including bituminous concrete, exposed aggregate concrete, brick paving and plain concrete paving patching in the courtyard, and all are in poor condition. The brick planter walls with stone cap are deteriorating. Metal benches and trash receptacles are in good shape. Trees are missing from the central tree pit openings. The elevated bluestone patio with monumental bluestone stairs is deteriorating and in poor condition. The adjacent brick retaining wall and cheek walls are in poor condition. Concrete stairs to either side of the monumental bluestone steps are in poor condition. In general, this entire courtyard requires an overhaul.



LANDSCAPE ARCHITECTURE

A. Existing Conditions Narrative - Landscape

MEMORANDUM, 5/15/2017 PAGE 3 OF 5

The landscape in the courtyard is composed of perimeter planting beds, two raised planters and four tree pits in the middle of the paving. The four deciduous trees planted in the tree pits - 10" caliber Pin Oak, 42" DBH Black Oak and Princeton Elm (3" and 6" caliper), are in poor condition due to limited soil area and lack of organic matter. There are several Winged Euonymus in the courtyard. This is an invasive species and should be strongly considered for removal. There are nine 20' Ht Kousa Dogwoods near the south and north corridors. They are in good condition. There are three 15' Ht Flowering Dogwoods in the raised planter area, along with evergreen broadleaf shrubs. They are all in good condition. The ornamental trees in the courtyard also include two 6' Ht Weeping Cherry trees, one 6' Ht Dwarf Japanese Maple, two 8' Ht Sargent Crabapples, a few 10'-12" Ht Amelanchiers, and four 12" DBH Callery Pears. These ornamental trees are all in fair condition. Callery Pear is considered to be an invasive species that is also susceptible to storm damage due to weak branches. The 10" caliber Pin Oak and 12" DBH Princeton American Elm in the southwest corner are in good condition.

1.3 Main Building - Along Tappan road

Four, 8" caliber Crabapples, along the southern side of the building are in fair condition. Four, 14" DBH Scarlet Oaks located along the sidewalk are in good condition but have few branches growing into the overhead power lines. Two evergreen trees, a White Spruce and a Norway Spruce near the loading dock are in poor condition with needles turning brown. One, 20' Ht Hemlock against the building is in poor condition. Several 5' Ht American Holly trees screening the dumpster are in good condition. There is a 30' Ht White Fir at the building's western corner that is in good condition.

2. Tappan Gym

The brick retaining wall with stone cap in front of Tappan Gym is deteriorating. Sidewalk and curb are in fair condition. Three Black Pines at the east side of the Tappan building entry are in fair condition. Four, 10'-15' Ht Cornus mas at the front door are in good condition. One heavily-pruned Cherry Tree, near the retaining wall, is in poor condition. One 18" DBH Paper Birch and one 14" DBH River Birch are in good condition. Three 10' Ht multi-stem Serviceberries in front of the ramp are in good condition. Broadleaf evergreen shrubs, needled evergreen shrubs and deciduous shrubs in front of the building are in fair condition.

LANDSCAPE ARCHITECTURE

A. Existing Conditions Narrative - Landscape

MEMORANDUM, 5/15/2017 PAGE 4 OF 5

3. UAB

Three White Pines (14"-18" DBH) at the west side of the building entry are in fair condition. There are two large Evergreen shrubs in front of the entry and a row of deciduous shrub along the sidewalk. They are in good condition.

4. CYPRESS FIELD

4.1 Cypress Field –Sport Fields

The sidewalk and curb along Davis Avenue is in fair condition. There is 6'H and 4'H chain-link fence in fair condition along the inner edge of the sidewalk. Five Sycamore trees ranging from 10" to 20" DBH, are located in tree pits in the concrete sidewalk at Davis Road, along the outside of the sport field fence, partially conflicting with overhead power lines. They are in fair condition. Further west on Davis Road, toward the High School Main Building, are 9 Norway Maples (12"- 32" DBH), two Sugar Maples (both 30" DBH) and one 32" DBH Northern Red Oak. These trees, except for the Red Oak, have a portion of their canopy conflicting with the overhead power lines. Norway Maple is an invasive species and, when possible, should be considered for removal. The Northern Red Oak and two Sugar Maples are in fair condition.

The sidewalk paving along Greenough Street is deteriorating. There are six granite benches in fair condition. Several tree pit openings are missing trees. Six Kwanzan Cherry Trees (3"-5" caliper) in the individual tree pits in the sidewalk are in fair condition. Six Littleleaf Linden Trees (24"-28"DBH), located at the western edge of the sport field, are in good condition. There are two Common Hackberry (12" and 16" DBH) at the triangular planting area. They are in fair condition.

The sidewalk paving along Tappan Street is in fair condition. The 3.5'H chain-link fencing along the sidewalk is deteriorating. There are ten Red Maples (14"-20"DBH) in front of the UAB building and MBTA station on Tappan Street. They are approximately 5' away from the fence and are in good condition.

4.2 Cypress Field – Playground Area

The 3.5'H chain link fence around the perimeter of the playground is in fair condition. The bituminous paving path is deteriorating. There are five large deciduous trees and two small flowering trees along Tappan Street at the perimeter of the playground. There is a 24" DBH Scarlet Oak and a 26" DBH

A. Existing Conditions Narrative - Landscape

MEMORANDUM, 5/15/2017 PAGE 5 OF 5

Northern Red Oak near the backstop fence of the softball field, both are in good condition. Two Red Maples (26-28" DBH) on the top of the hill, are in good condition. One 32" DBH Norway Maple is in good condition. Two 8" caliper Crabapples at the intersection of Tappan Road and Cypress Road are in fair condition.

There are two 30" DBH Norway Maples and one 8" caliper Red Maple inside of the wood fence along Cypress Road. The two Norway Maples have branches growing into the overhead power lines and a lot of broken branches. These are in poor condition. The Red Maple is in good condition and setback from the overhead power lines.

There are two small 3" caliper Red Maples and two 36" DBH Norway Maples along Davis Ave. The Red Maples are in good condition. The two large Norway Maples have branches growing into the overhead power lines. These are in poor condition. There are three 32"-36" DBH Northern Red Oaks and one 32" DBH Scarlet Oak in the playground and all are in good condition.

5. Lowell Road

There are limited street trees on Lowell Road along the northern side of the school building. Three Sycamore trees, 2" caliper, 12" DBH and 20" DBH are in very small tree pits and are in fair condition. There are 12' Ht and 6' Ht Western Red Cedar and 12.5'Ht Arborvitae trees near the dumpster area.

6. Building at 111 Cypress Street

The sidewalks along Tappan Street from MBTA station approaching Cypress Street are approximately at 10:1 slope. The sidewalk along the bridge over MBTA rail and along Cypress Street is in fair condition. There is an elevation change of 8'-10' between the sidewalk and parking lot in front of the building. Honey Locust trees (12"-14"DBH) in the tree pits have branches growing into the overhead power lines. Honey Locust trees (10-12"DBH) in the parking lot island are in fair condition.

LANDSCAPE ARCHITECTURE

Appendices

A. Existing Conditions Narratives

Structural Narrative

A. Existing Conditions Narrative - Structure



2150 Washington Street
Newton MA 02462

T 617-527-9600
F 617-527-9606

offices in:
Newton MA
Manchester NH
Atlanta GA

www.fbra.com

BROOKLINE HIGH SCHOOL

Brookline, Massachusetts

Existing Conditions Structural Report

April 22, 2017

INTRODUCTION

Foley Buhl Roberts & Associates, Inc. (FBRA) is collaborating with HMFH Architects, Inc. (HMFH) in the review and evaluation of structural issues/conditions at the Brookline High School campus in Brookline, MA. The purpose of this report is to identify and describe the structural systems of the various buildings that comprise the high school and to comment on the structural issues/conditions observed. General comments relating to the potential renovation of the buildings are presented as well. Preferred Renovation/New Construction options will be addressed in a separate, future narrative.

The main campus of the Brookline High School is located at 115 Greenough Street. This portion of the school contains the main academic spaces, administrative offices, the library, the cafeteria, the auditorium and physical education spaces. These program elements are located in various wings of the facility (Refer to Figure 1) which were constructed at various times (1922 to 1996; refer to Figure 2), and surround a large, central courtyard.



The Unified Arts Building (circa 1900) is located to the south of the main campus at 46 Tappan Street and houses most of the visual arts and technical programs. The boiler room and various shop spaces are located at the basement level of this building.

The Tappan Street Gym (66 Tappan Street) and the Pool Complex (Evelyn Kirrane Aquatics Center; 60 Tappan Street) are located adjacent to, and west of the Unified Arts Building. The three-story (plus basement) gym building contains an indoor playing field, a weight/fitness facility, dance studios, a wrestling room, a basketball gym and a climbing gym. The pool complex contains a lap pool, a wading pool and a diving pool. In addition to serving the High School, the Tappan Street Gym and the Pool Complex are used by the Town of Brookline Recreation Department.

Structural conditions at the Brookline High School campus were reviewed at the site by FBRA on December 28, 2016 and on January 19, 2017. No exploratory building demolition or structural materials testing was performed in conjunction with this report. Limited subsurface soils information was available (borings for the 1966 Tappan Gym only).

The following documents were reviewed in the preparation of this report (Refer to Figure Nos. 1 and 2 in Appendix A at the end of this report):

Main Campus

Brookline High School (Cafeteria/Auditorium Wing (C) and Partial Welland Wing (E)):
Architectural Drawings prepared by Kilham, Hopkins & Greeley Architects - Boston, Massachusetts, dated January 9, 1922.

A. Existing Conditions Narrative - Structure

BROOKLINE HIGH SCHOOL

Brookline, Massachusetts

Existing Conditions Structural Report

April 22, 2017

Page 2 of 18

Brookline High School - Unit Number Two (Schluntz Wing (G) and Partial Welland Wing (E)): Structural Drawings prepared by Kilham, Hopkins & Greeley Architects - Boston, Massachusetts, dated November 9, 1931.

Additions to the Brookline High School (Roberts Wing (B) and Partial Greenough Building (A.2)): Structural Drawings prepared by Kilham, Hopkins & Greeley Architects - Boston, Massachusetts, dated May 10, 1937.

Additions and Alterations to the Brookline High School, Brookline, Mass. (Schluntz Gym (H)): Structural Drawings prepared by Charles T. Main - Boston, Massachusetts, dated December 14, 1948.

Additions and Alterations - Brookline High School (Cafeteria/Auditorium Addition (D) and Welland Addition (F)): Structural Drawings prepared by Othar Zadastani, dated March 1965.

Brookline High School Renovations (All Wings, plus the Greenough Building Additions (A.1 and A.3)): Structural Drawings prepared by Weidlinger Assoc., Inc. - Cambridge, MA, dated October 29, 1996.

Unified Arts Building

Unified Arts Building Alterations & Renovations: Structural Drawings prepared by Brown, Rona, Inc. - Boston, MA, dated February 19, 1981.

Pool Complex (Evelyn Kirrane Aquatics Center)

Indoor Swimming Pool Building: Structural Drawing S-1, prepared by Severud, Elstad, Krueger, New York, NY, dated September 10, 1956.

Tappan Street Gym

Physical Education Building: Structural Drawings prepared by David M. Berg, dated February 10, 1966.

I. STRUCTURAL SYSTEMS DESCRIPTION

Structural systems for the buildings which comprise the Brookline High School Campus are described in this section. Structural descriptions are based on the documents noted above and on FBRA observations at the site.

Main Campus (Refer to Figure Nos. 1 and 2)

Structural descriptions of the wings which comprise the Main Campus of the Brookline High School are presented in this section.

Except as noted below, structural material strengths were not indicated on the drawings. Accordingly, FBRA's representative structural calculations are based on assumed material strengths that were commonly used at the time of construction.

Design live loads were typically not indicated on the original Structural Drawings (unless noted otherwise); however, floor and roof construction in the various wings appears to be performing satisfactorily under the current uses. Structural calculations for typical floor and roof framing (where shown on the original drawings) generally confirm that adequate structural capacity exists, except at snow drift areas on low roof areas, as noted in this report.

A. Existing Conditions Narrative - Structure

BROOKLINE HIGH SCHOOL

Brookline, Massachusetts

Existing Conditions Structural Report

April 22, 2017

Page 3 of 18

Roofs of the various wings which comprise the Main Campus are typically flat.

Exterior walls are typically unreinforced, load bearing masonry construction with a brick veneer (no cavity), unless otherwise noted. Lateral force resistance (wind and seismic loads) is typically provided by these unreinforced masonry walls. Note that none of the wings meet current seismic code requirements.

None of the various wings are structurally separated from each other by and expansion (seismic) joint.

There are numerous construction types throughout the Main Campus wings; combustible and non-combustible floor and roof construction is typically not protected (except to the extent provided by the finishes). All wings of the Main Campus were fully sprinklered during the 1996 major renovation. Prior to 1996, portions of the Main Campus wings had undergone limited renovations/upgrades (1965, 1985, 1987, etc.); however, little or no structural work was involved in these projects.

For the purposes of this report, north has been designated as the Lowell Road side of the Main Campus and Tappan Street has been designated as south.

1922 Building (*Cafeteria/Auditorium Wing (C) and Partial Welland Wing (E)*)

No original Structural Drawings were available for this wing (only limited Architectural Drawings exist); however, it appears that (flat) roof and floor construction is wood framed (2x12 wood joists), supported by interior and perimeter unreinforced masonry bearing walls. This wing is comprised of a three-story Cafeteria/Auditorium section located along Tappan Street and a three and four-story classroom section situated along Welland Road. Bearing walls in the classroom section are arranged in a double-loaded corridor fashion, with wood floor and roof joists spanning from the exterior walls to the interior corridor walls.

The low roof adjacent to the four-story section of this wing was not likely designed for snow drift loading. Typically, there are no parapets.

First Floor construction (original Lunch Room and present Cafeteria) appears to be a concrete slab on grade (thickness unknown).

Foundations are assumed to be conventional, shallow spread footings.

Story Heights in are as follows:

First Floor to Second Floor - Classroom Section:	11'- 4" +/-
First Floor (Café Corridor) to Second Floor:	15'- 6" +/-
First Floor (Café) to Second Floor:	17'- 6" +/-
Second Floor to Third Floor:	13'- 4" +/-

Floor elevations in the classroom section of this wing match those in the 1931 Schluntz Wing.

A. Existing Conditions Narrative - Structure

BROOKLINE HIGH SCHOOL

Brookline, Massachusetts

Existing Conditions Structural Report

April 22, 2017

Page 4 of 18

1931 Addition (*Schluntz Wing (G) and Partial Welland Wing (E)*)

Per the referenced original Structural Drawings, the 1931 addition (Schluntz Wing (G)) is a three and four-story wood framed classroom building, supported by interior and perimeter unreinforced masonry bearing walls (thicknesses vary). This wing is "EII" shaped in plan; the shorter (west) leg of the EII joins the four-story northern section of the 1922 Welland Wing (E). Bearing walls in the main (classroom), three-story section of the Schluntz Wing are arranged in a double-loaded corridor fashion (classrooms on either side of the corridor), with wood floor and roof joists spanning from the exterior walls to the interior corridor walls.

Flat roof construction consists of 2x12 wood joists @16" o.c. spanning over the classrooms and 2x8 wood joists @16" o.c. spanning between corridor bearing walls. It does not appear that the low roof adjacent to the four-story section of this wing was designed for snow drift loading. Typically, there are no parapets.

Second and Third Floors are framed with 3x12 joists @16" o.c. over the classrooms and a reinforced concrete joist slab (8½" deep) at the central corridor. Toilet room floors and stair landings have been constructed with similar reinforced concrete slabs.

First Floor construction (over the crawl space below) is similar to the upper floors; however, a line of W8 steel beam supports has been added at mid-span of the classrooms and joists have been reduced to 2x10. A reinforced concrete slab in the corridor spans over the central utility tunnel below.

Foundations are assumed to be conventional, shallow spread footings (no original foundation drawings were available).

Wood joists are noted to be a dense select grade of Douglas Fir. Concrete is a 1:2:4 mix, corresponding to a 28 day strength of approximately 3,000 psi.

Story Heights are 13'-4" +/-, except at the First Floor, where the story height is 11'-4" +/- . Floor elevations in this wing match those in the 1922 Welland Wing.

Portions of this building were renovated by HMFH in 1987.

1937 Additions (*Roberts Wing (B) and Partial Greenough Building (A.2)*)

Roberts Wing

With reference to the original Structural Drawings, the 1937 classroom addition (Roberts Wing (B)) is a three-story wood framed classroom building, supported by interior and perimeter unreinforced masonry bearing walls (thicknesses vary). This wing is rectangular in plan and abuts the 1922 Cafeteria/Auditorium wing to the west and connects (via a corridor) to the original section of the Greenough Building (A.2) to the north. Bearing walls are arranged in a double-loaded corridor fashion, with wood floor and roof joists spanning from the exterior walls to the interior corridor walls.

An existing building (pre – 1922) was demolished and removed to accommodate construction of this wing.

A. Existing Conditions Narrative - Structure

BROOKLINE HIGH SCHOOL

Brookline, Massachusetts

Existing Conditions Structural Report

April 22, 2017

Page 5 of 18

Flat roof construction consists of 2" wood plank spanning 6+/- feet to 8x12 wood beams which span over the classrooms. Similarly spaced 6x10 wood beams span between the corridor walls. Roof beams are anchored to perimeter and interior masonry bearing walls. Typically, there are no parapets.

Second and Third Floors are framed with 3x12 joists @16" o.c. over the classrooms and a reinforced concrete joist slab (10½" deep) at the central corridor. Floor joists are typically anchored to perimeter and interior masonry bearing walls. Toilet room floors and stair landings have been constructed with 5" thick reinforced concrete slabs.

First Floor construction consists of 5" thick and 7" thick reinforced concrete slabs (at the classrooms over the crawl space below and at the corridor over the tunnel below) supported by reinforced concrete beams or concrete encased steel beams and perimeter foundation walls.

Foundations are conventional, shallow spread footings; foundation walls are reinforced concrete construction.

Wood joists are noted to be yellow pine or a dense select grade of Douglas Fir. Wood plank is spruce or fir. Concrete is a 1:2½:5 mix, corresponding to a 28 day strength of approximately 2,500 psi.

Story Heights are 13'-4", except at the Basement (utility tunnel), where the story height is 10'-2". Floor elevations in this wing match those in the 1922 Cafeteria/Auditorium Wing; however, the First Floor in the Roberts Wing is 2'-2" higher.

Greenough Building

Per the referenced original Structural Drawings, the 1937 central addition (Greenough Wing (A.2)) is a three-story (plus a basement) wood framed classroom/library building, supported by interior and perimeter unreinforced masonry bearing walls (thicknesses vary). This wing is rectangular in plan, connecting (via a corridor) to the Roberts Wing (B) on the south side and to the Schluntz Gym (H) on the north side (at the Second Floor and Third Floor levels). Additions to the original building were constructed in 1996, as described later in this report.

Flat roof construction consists of 2" wood plank spanning 6+/- feet to 10x12 wood beams which span over the classrooms. Similarly spaced 6x10 wood beams span between the corridor walls. Roof beams are anchored to perimeter and interior masonry bearing walls. Typically, there are no parapets.

Second and Third Floors are framed with 3x12 joists @16" o.c. over the classrooms and a reinforced concrete joist slab (10½" deep) at the central corridor. Floor joists are typically anchored to perimeter and interior masonry bearing walls. The south corridor bearing wall is supported by steel beams and columns at the Second Floor, opening up the original library space at the First Floor below.

First Floor construction consists of reinforced concrete slabs (4" to 5½" thick) supported by concrete encased steel beams and perimeter foundation walls.

Foundations are conventional, shallow spread footings; foundation walls are reinforced concrete construction.

Wood joists are noted to be yellow pine or a dense select grade of Douglas Fir. Wood plank is spruce or fir. Concrete is a 1:2½:5 mix, corresponding to a 28 day strength of approximately 2,500 psi.

BROOKLINE HIGH SCHOOL A. Existing Conditions Narrative - Structure Brookline, Massachusetts

Existing Conditions Structural Report

April 22, 2017

Page 6 of 18

Story Heights are as follows:

Basement to First Floor:	13'- 4" +/-
First Floor to Second Floor:	13'- 4" +/-
Second Floor to Third Floor:	13'- 4" +/-

Floor elevations in this wing are 2'-6" higher than the corresponding floors in the Roberts Wing.

1948 Addition (*Schluntz Gym (H)*)

The Schluntz Gym is a three-story (plus a mezzanine and a full basement) steel framed gymnasium and classroom building located to the north of the Greenough Building on a gently sloping site (downwards west to east). This wing is connected to the Greenough Building at the basement level and at the Second and Third Floor levels by an elevated connector structure (constructed in 1965 with other additions to the school). Boys and girls locker rooms are located at the Basement level. The double-height gymnasium and entry lobby are located at the First Floor, approximately six feet above the Greenough Street sidewalk grade. There is a small area of offices located at the east end of the Second Floor, with a conference room at the Mezzanine level above. The Third Floor is dedicated to science classrooms; this level connects with the Third Floor of the 1931 Schluntz Wing to the west. Portions of the Schluntz Gym were renovated by HMFH in 1987.

Flat roof construction consists of 2" thick gypsum concrete plank spanning 4+/- feet in the north-south direction to wide flange steel beams. Steel beams typically span 20+/- feet in the east-west direction and are supported by wide flange steel girders that span 50+/- feet from the perimeter steel columns to a centrally located line of interior steel columns. The interior steel columns are supported by steel trusses at the Third Floor below and do not continue to the foundation.

Third Floor construction (currently classrooms) is a 4" thick, one-way reinforced concrete slab spanning 6+/- feet in the north-south direction to concrete encased wide flange steel beams. Steel beams typically span 20+/- feet in the east-west direction and are supported by 9'-2-5/8" deep steel trusses, which clear span the gymnasium space at the First Floor level (100+/- feet span). A system of catwalks threads through the trusses, providing access and support for mechanical units and ductwork.

Second Floor construction and Second Floor Mezzanine Floor construction are similar to Third Floor construction, with 4" or 5" thick, one-way reinforced concrete slabs spanning in the north-south direction to concrete encased wide flange steel beams.

First floor construction consists of a 7½" thick, one-way reinforced concrete slab spanning 12+/- feet in the north-south direction to 48" wide by 19½" deep reinforced concrete beams. Concrete beams span 20+/- feet in the east-west direction and are supported by integrally cast, reinforced concrete girders.

Basement Floor construction is a 6" thick concrete slab on grade.

Foundations are conventional, shallow spread footings, proportioned on the basis of a 1½ tons per square foot (tsf) allowable bearing capacity. Basement walls are reinforced concrete construction (16" thick).

Concrete 28 day compressive strength is 2,500 psi for foundations and 3,000 psi elsewhere. Structural steel is likely ASTM A7, with a yield strength of 33 ksi.

Exterior walls are solid masonry construction (no cavity); 12" to 16" thick.

A. Existing Conditions Narrative - Structure

BROOKLINE HIGH SCHOOL

Brookline, Massachusetts

Existing Conditions Structural Report

April 22, 2017

Page 7 of 18

Story Heights in are as follows:

Basement to First Floor:	11'- 8" +/-
First Floor to Second Floor:	10'- 6" +/-
First Floor to Third Floor (Gym):	29'- 2" +/-
Second Floor to Second Floor Mezzanine:	9'- 4" +/-
Second Floor to Third Floor:	18'- 8" +/-
Third Floor to Roof:	16'- 4-7/8" +/-

1965 Additions (*Cafeteria/Auditorium Addition (D) and Welland Addition (F)*)

Cafeteria/Auditorium Addition

A three-story (plus Mezzanine) cafeteria/auditorium addition was constructed on the west side of the 1922 Auditorium (C), which also connects to the southern end of the 1922 Welland Wing (E). The cafeteria as well as various support spaces and offices are located at the First Floor of this addition. A white box theater and support spaces are located at the Second Floor. The Third Floor of this addition houses a black box theater and a chorus room, as well as additional support space. There is no basement. Portions of this addition were renovated by HMFH in 1987.

Roof construction consists of a 2½" thick concrete slab (reinforced with welded wire fabric) on a galvanized steel form deck, supported by open web steel bar joists spaced at 24" on centers. Bar joists span in the east-west direction (spans vary) and are supported by wide flange steel beams. Steel beams span north-south (spans vary) and are supported by wide flange steel columns.

The Third Floor is framed with a 4½" thick, reinforced concrete slab spanning in the north-south direction (9½ feet to 11+/- feet) to concrete encased wide flange steel beams. Steel beams span in the east-west direction (spans vary) and are supported by wide flange steel columns. Second Floor construction is similar to that at the Third Floor; however, slab thicknesses vary from 5" to 6½". Second Floor elevations vary (originally an auditorium with a sloped seating slab); the western end of this addition is approximately 18" lower than the eastern end. Note that the highest original section of this floor was removed during the 1996 additions/renovations and a new floor and ramp was constructed at a lower elevation.

Mezzanine Floor construction is a reinforced concrete joist (rib) slab supported by concrete encased wide flange steel beams and steel columns. The slab thickness varies from 11" (8" deep pans plus a 3" topping slab) to 13" (10" deep pans plus a 3" topping slab). Slab spans and directions vary as well.

First Floor construction is a 5" thick concrete slab on grade reinforced with No. 3 bars each way. Foundations are conventional spread footings, proportioned on the basis of a 3 tons per square foot (tsf) allowable bearing capacity. Foundation walls are reinforced concrete construction.

All concrete is 3,000 psi strength at 28 days; reinforcing bars are Grade 60 (60 ksi yield strength). Structural steel is ASTM A36; Fy = 36 ksi.

The flat roof was designed for a snow load of 40 psf. Snow drift loading on the low roof may be an issue, upper floors were designed for a live load of 75 psf (including partitions); the First Floor (cafeteria slab on grade) was designed for a live load of 100 psf. Exterior walls are typically non load bearing masonry construction, infilled between the perimeter steel columns. Wall construction generally consists of a 4" brick veneer with a

A. Existing Conditions Narrative - Structure

BROOKLINE HIGH SCHOOL Brookline, Massachusetts

Existing Conditions Structural Report

April 22, 2017

Page 8 of 18

concrete masonry unit (CMU) backup wall (8" or 12" thick). There is no drainage cavity. Interior partitions and perimeter masonry walls provide lateral force resistance for the building (by default); however, the building does not meet the seismic requirements of the current code.

Story heights are as follows:

First Floor to Second Floor (Low):	12'- 11-1/2" +/-
First Floor to Second Floor (High):	14'- 5-5/8" +/-
Second Floor (Low) to Third Floor:	12'- 10-7/8" +/-
Second Floor (High) to Third Floor:	11'- 4-1/2" +/-
Third Floor to Roof:	16'- 3" +/-

Welland Addition

A three-story classroom addition was constructed on a steeply sloping site at the western end of the 1931 Schluntz Wing in 1965. Storage spaces are located at the First Floor of this addition (1½ stories are below grade); classrooms are located at both the Second and Third Floors. Portions of this addition were renovated by HMFH in 1987.

Roof construction consists of a 2½" thick concrete slab (reinforced with welded wire fabric) on a galvanized steel form deck, supported by open web steel bar joists spaced at 24" on centers. Bar joists span in the east-west direction (spans vary) and are supported by wide flange steel beams. Steel beams span north-south (spans vary) and are supported by wide flange steel columns.

The Third Floor is framed with a 4½" thick, reinforced concrete slab spanning in the north-south direction (8'-5" feet to 13 feet) to concrete encased wide flange steel beams. Steel beams span in the east-west direction (spans vary) and are supported by wide flange steel columns. Second Floor construction is similar to that at the Third Floor.

First Floor construction is a 5" thick concrete slab on grade reinforced with No. 3 bars each way. Foundations are conventional spread footings, proportioned on the basis of a 3 tons per square foot (tsf) allowable bearing capacity. Foundation walls are reinforced concrete construction.

All concrete is 3,000 psi strength at 28 days; reinforcing bars are Grade 60 (60 ksi yield strength). Structural steel is ASTM A36; Fy = 36 ksi.

The flat roof was designed for a snow load of 40 psf. Upper floors were designed for a live load of 75 psf (including partitions); the First Floor (cafeteria slab on grade) was designed for a live load of 100 psf.

Exterior walls are typically non load bearing masonry construction, infilled between the perimeter steel columns. Wall construction generally consists of a 4" brick veneer with a concrete masonry unit (CMU) backup wall (8" thick typically). There is no drainage cavity. Interior partitions and perimeter masonry walls provide lateral force resistance for the building (by default); however, the building does not meet the seismic requirements of the current code.

Story heights are as follows:

First Floor to Second Floor:	11'- 1-3/8" +/-
Second Floor to Third Floor:	13'- 6-5/8" +/-
Third Floor to Roof:	16'- 2-7/8" +/-

A. Existing Conditions Narrative - Structure

BROOKLINE HIGH SCHOOL

Brookline, Massachusetts

Existing Conditions Structural Report

April 22, 2017

Page 9 of 18

1996 Additions (*Greenough Building (A.1 and A.3)*)

The Main Campus buildings were renovated in 1996. Additions to the east and west sides of the Greenough Building were constructed at this time. The 1966 library extension on the west side of the Greenough Building was demolished to accommodate the construction of the 1996 addition. Structural alterations (relatively minor in scope) were made to various sections of the other wings as well; such as the partial Second Floor reconstruction at the 1965 cafeteria/auditorium addition, previously noted above.

Flat roof construction at the additions consists of a 3" deep Type N galvanized steel roof deck supported by wide flange steel beams and girders spanning to wide flange steel columns.

Upper Level floor construction is a 3" deep, lightweight concrete topping slab on a 2" deep galvanized composite steel floor deck, supported by composite wide flange steel beams and girders spanning to wide flange steel columns.

Basement Floor construction in the east addition and the First Floor of the western (library) addition is a 5" thick concrete slab on grade, reinforced with welded wire fabric.

Foundations for the additions are conventional, reinforced concrete spread footings bearing on glacial till or compacted structural fill, proportioned on the basis of a 4.0 tsf (bottom of footing below Elevation 46.0') or 2.0 tsf (bottom of footing above Elevation 46.0'). Foundation walls are reinforced concrete construction.

Typical, normal weight concrete has a 28 day compressive strength of 4,000 psi. Lightweight concrete slabs on composite steel floor deck is 3,000 psi strength. All reinforcing is Grade 60 deformed bars. Structural steel shapes are ASTM A 572, Grade 50 (Fy = 50 ksi); HSS members are ASTM A 500 Grade B (Fy = 46 ksi).

Open plan area were designed for a live load of 100 psf. The library area (west addition) was designed for a 150 psf live load. Roof construction was designed for a snow load of 30 psf plus the additional weight of drifting snow.

Lateral Force Resistance for the additions is provided by steel moment resisting frames in each direction. The additions are structurally ties to the original building; there are no expansion (seismic) joints.

Typical exterior wall construction is a blend of 4" brick veneer and architectural metal panels. The backup wall is assumed to be light gauge steel stud construction (to be confirmed).

Story heights in the new additions match those of the original (1937) building.

A. Existing Conditions Narrative - Structure

BROOKLINE HIGH SCHOOL

Brookline, Massachusetts

Existing Conditions Structural Report

April 22, 2017

Page 10 of 18

Unified Arts Building

The Unified Arts Building, constructed circa 1900, is a three-story wood and steel framed classroom building, located on a relatively flat site, adjacent to the Pool Complex.

No original Structural Drawings were available; however, Structural Drawings for the 1981 renovations and the Third Floor (Attic) addition were reviewed. Access to the Third Floor was not possible (occupied by the Brookline Interactive Group). Comments below are based on the available drawings and on observations at the site.



Sloped roof construction (symmetrical east and west hipped roof sections) is wood framed, with 4x8 rafters spaced at 4+/- feet on centers, supported by interior timber beams and by unreinforced brick masonry bearing walls at the building perimeter.

Third Floor construction (1981) consists of a 3¼" thick, lightweight concrete topping slab (reinforced with welded wire fabric) on a 2" deep composite steel floor deck (5¼" minimum slab thickness), supported by composite steel beams. Steel beams are supported by the original, interior and perimeter masonry bearing walls. Original First and Second Floor construction is wood framed, with wood floor deck spanning to widely spaced timber beams.

Basement Floor construction is a concrete slab on grade; foundations are assumed to be conventional spread footings.

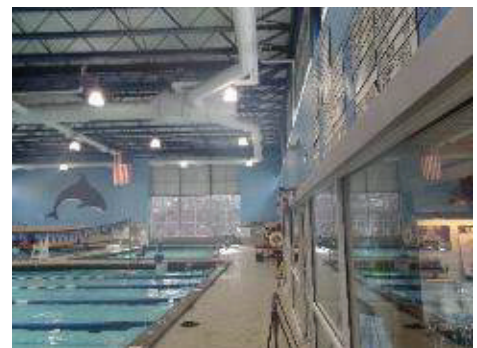
Typical concrete elements (slabs on steel deck, etc.) for the 1981 construction likely have a minimum 28 day strength of 3,000 psi. Reinforcing is Grade 60 deformed bars. Structural steel is ASTM A36, $F_y = 36$ ksi. Wood framing is No. 1 Hemfir (joists) or No. 1 Douglas Fir Larch (headers and posts).

The 1981 Third Floor addition was designed for a 100 psf live load. The live load capacity of the original First and Second Floor construction is unknown.

Exterior walls are unreinforced brick masonry construction. Interior and perimeter masonry walls provide lateral force resistance for the building (by default); however, the building does not meet the seismic requirements of the current code.

Pool Complex (Evelyn Kirrane Aquatics Center)

The Pool Complex, constructed in 1956, is a one-story (plus a partial basement below the pool area), cast-in-place concrete building with a steel framed roof, located on a relatively flat site adjacent to the Tappan Street Gym. This facility replaced the original Brookline Municipal Bath House which, when dedicated in 1897, was the oldest indoor swimming pool facility in the United States. The building is connected to the Unified Arts Building with a below grade tunnel on the east side (basement level of each building). Limited Structural Drawings were available (foundations only); accordingly, comments below are based primarily on observations at the site.



A. Existing Conditions Narrative - Structure

BROOKLINE HIGH SCHOOL

Brookline, Massachusetts

Existing Conditions Structural Report

April 22, 2017

Page 11 of 18

Flat roof construction over the pool area consists of cellular steel roof deck (perhaps acoustic) spanning in the north-south direction to longspan open web steel joists. Steel joists clear span the pool area in the east-west direction (approximately 95 feet) and are supported by wide flange steel beams and columns at the perimeter. Steel roof deck along the north and south edges of the building is supported by exterior (unreinforced) masonry bearing walls.

First Floor (pool deck) construction is a cast-in-place, reinforced concrete structural slab spanning over the pool equipment/circulation basement below. To the west of the pool area, First Floor construction is also a reinforced concrete structural slab, spanning over a crawl space below. The pools are cast-in-place reinforced concrete construction.

Basement Floor construction is a concrete slab on grade. Foundations are conventional, shallow spread footings. Foundation walls are reinforced concrete construction.

Typical exterior wall construction is a 4" brick veneer, backed up by an 8" (unreinforced) concrete masonry unit (CMU) block wall. There is no drainage cavity. The upper sections of the east and west walls of the pool area are glazed. Perimeter masonry walls provide lateral force resistance for the building (by default); however, the building does not meet the seismic requirements of the current code.

Tappan Street Gym

The Tappan Street Gym, opened in 1968, is a three-story (plus basement), cast-in-place concrete and precast concrete framed building, located adjacent to the Pool Complex. An indoor playing field is located at the (top) Third Floor level; this space occupies the entire footprint of the building. Two small gymnasiums are located at the Second Floor; a balcony was constructed along the east side of the northern gym. The fitness center, a dance studio and the women's locker room are included at the First Floor; the southwest section of this level opens to the two-story dance studio located at the basement level. In addition to the dance studio, a wrestling room, a multi-purpose room and the men's locker room are located at the basement floor level. An exposed, galvanized steel canopy spans over the front plaza, which serves as the entry to the Tappan Street Gym and the adjacent Pool Complex.



Original Structural Drawings for this building were available; the comments below are based on the original Structural Drawings and on observations at the site.

Flat roof construction over the indoor playing field consists of 3" composite roof panels (e.g. tectum) with steel bulb tees spanning 8+/- feet to 60" deep, longspan open web steel joists. The steel joists have a double pitched top chord (for drainage) and clear span the space below (approximately 96 feet in the east-west direction). Joists are supported by steel beams at the building perimeter. The steel beams are supported by reinforced concrete columns.

Third Floor construction consists of 8 feet wide by 4 feet deep precast, prestressed single tees, clear spanning the spaces below (approximately 96 feet in the east-west direction) to reinforced concrete beams at the perimeter. The reinforced concrete beams are supported by reinforced concrete columns. A 2" thick, bonded concrete topping was placed over the top flanges of the tees, to create a level floor.

A. Existing Conditions Narrative - Structure

BROOKLINE HIGH SCHOOL

Brookline, Massachusetts

Existing Conditions Structural Report

April 22, 2017

Page 12 of 18

First and Second Floor construction (east side) is a cast-in-place, reinforced concrete joist (rib) slab system spanning in the east-west direction and supported by reinforced concrete columns. The total slab thickness is 15" (12" deep pans and a 3" deep topping slab); joists are 6" wide, spaced at 36" o.c. Second Floor balcony floor construction is similar. First and Second Floor construction along the western side of the building is similar to Third Floor construction, with 8 feet wide by 2'-8" deep precast, prestressed single tees, clear spanning the spaces below (approximately 48 feet in the east-west direction). A 2" thick, bonded concrete topping was placed over the top flanges of the tees, to create a level floor.

Floor construction in the circulation spaces along the east side of the building is reinforced concrete slabs and beams supported by reinforced concrete columns.

Basement Floor construction is a 4" thick concrete slab on grade reinforced with welded wire fabric.

Foundations are conventional, shallow spread footings, proportioned on the basis of a 1½ tons per square foot (tsf) allowable bearing capacity. Foundation walls are reinforced concrete construction. Original soil boring logs indicate that firm sands and gravels are present at the footing bearing level. Water was typically encountered at Elevation 38' +/-, approximately 14 feet below the original grade.

Typical concrete elements have a minimum 28 day strength of 3,000 psi, except columns, which are higher strength (varies). Reinforcing is Grade 40 deformed bars (40 ksi yield strength). Structural steel is ASTM A36; Fy = 36 ksi.

The roof was designed for a 40 psf snow load. Typical floors were designed for a live load of 100 psf. Seismic loads were not considered in the design; however, the building was designed for a 20 psf wind load.

Typical exterior wall construction is a 4" brick veneer, backed up with an 8" thick (unreinforced) pumice block wall. There is no drainage cavity. A wood clad mansard wall surrounds the building at the roof of the indoor playing field; translucent wall panels below the mansard introduce natural light into the space. There are limited areas of precast as well. Perimeter masonry walls provide lateral force resistance for the building (by default); however, the building does not meet the seismic requirements of the current code.

Story Heights are as follows:

Basement to First Floor (West):	12'- 0" +/-
Basement to First Floor (East):	10'- 3" +/-
First Floor to Second Floor:	10'- 8" +/-
Second Floor to Balcony:	8'- 9" +/-
Second Floor to Third Floor:	26'- 2" +/-
Third Floor to Roof:	32'- 9 ½" +/- Clear to bottom of structure

A. Existing Conditions Narrative - Structure

BROOKLINE HIGH SCHOOL

Brookline, Massachusetts

Existing Conditions Structural Report

April 22, 2017

Page 13 of 18

II. STRUCTURAL CONDITION/COMMENTS (ALL BUILDINGS)

Structural Conditions at the Brookline High School were reviewed at the site (to the extent possible) on December 28, 2016 and on January 19, 2017. Generally speaking, floor and roof construction in all buildings appears to be in satisfactory condition; there is no evidence of structural distress that would indicate significantly overstressed, deteriorated or failed structural members.

Foundations generally appear to be performing adequately; there are no signs of excessive, total or differential settlements.

Floors and roofs appear to have been constructed in general accordance with the available, original Structural Drawings.

Town of Brookline personnel are not aware of any significant groundwater issues or seepage through foundation walls.

Access was gained to the roof of the 1931 Schluntz Wing (G); the existing membrane roofing appears to be in satisfactory condition. The evaluation of roofing system at all buildings will be conducted by others.

Structural/structurally related conditions observed during our site visits are summarized below. While several items concern the building structure, the majority of conditions described relate to building envelope (masonry repointing/repair) and site structures (walls, stairs, ramps, etc.). Refer to Appendix B at the end of this report for photographs of the conditions observed and noted below.

1. The concrete roof slab of the south connector tunnel between the Greenough Building (A.2) and the Roberts Wing (B) has spalled in several locations (See Photo 1); this is likely due to water infiltration from above. The condition of the waterproofing system should be evaluated and repaired/replaced as required. This is not an immediate structural concern; however, repair is recommended.
2. The underside of a small section of the First Floor slab in the pool building has deteriorated. Reportedly, this location is where a diving board was removed in the past; chlorinated water has seeped into the bolt holes and has corroded the reinforcing (See Photo 2). This is not an immediate structural concern; however, repair is recommended.
3. It appears that original grades at the Unified Arts Building have been lowered, exposing the top of the rubble stone foundation walls in some locations (See Photo 3). FBRA recommends that openings be filled/mortared to prevent potential water infiltration and freeze-thaw damage.
4. Exterior site structures (site walls, planter walls, stairs, ramps, paving, etc.) have deteriorated at each building. Wall capstones are loose and/or damaged in some locations, there are open joints in site elements and there are cracks in stairs and paving, etc. These structures should be repaired or replaced; otherwise, they will continue to deteriorate at an increasing rate. Refer to the Photographs in Appendix B for examples of conditions observed at each building.
5. The condition of the exterior brick masonry is generally satisfactory at each building; however, there are areas where moisture damage has occurred and areas where repointing the brick and cast stone accents is required. Refer to the Photographs in Appendix B for examples of conditions observed at each building.

A. Existing Conditions Narrative - Structure

BROOKLINE HIGH SCHOOL

Brookline, Massachusetts

Existing Conditions Structural Report

April 22, 2017

Page 14 of 18

6. Snow drift loading on low roofs which are adjacent to higher roofs should be evaluated and existing framing should be reinforced, if required. Areas of particular concern would be the low, wood framed roofs located at the north and south ends of the Welland Wing high roof and the steel framed low roof of the 1965 cafeteria/auditorium addition (D).

III. RENOVATIONS AND ADDITIONS - MEBC REQUIREMENTS

General Requirements - MEBC

General comments relating to potential renovations, alterations and additions to the Brookline High School are presented in this section. Renovations, alterations, repairs and additions to existing buildings in Massachusetts are governed by the provisions of the Massachusetts State Building Code (MSBC – 8th Edition) and the Massachusetts Existing Building Code (MEBC). These documents are based on amended versions of the 2009 International Building Code (IBC) and the 2009 International Existing Building Code (IEBC), respectively.

The MEBC defines three (3) compliance methods for the repair, alteration, change of occupancy, addition or relocation of an existing building. The method of compliance is chosen by the Design Team (based on the project scope and cost considerations) and cannot be combined with other methods.

The Prescriptive Compliance Method (IEBC Chapter 3) duplicates Sections 3403 through 3411 of Chapter 34 in the IBC and prescribes specific minimum requirements for construction related to additions, alterations, repairs, fire escapes, glass replacement, change of occupancy, historic buildings, moved buildings and accessibility. A complete structural evaluation of the building is required by the Massachusetts Amendments. If the impact of the proposed alterations and additions to structural elements carrying gravity loads and lateral loads is minimal (less than 5% and 10% respectively), seismic upgrades to an existing building are generally not required.

The *Work Area Compliance Method* (IEBC Chapters 4 through 12) is based on a proportional approach to compliance, where upgrades to an existing building are triggered by the type and extent of work. The Work Area Compliance Method includes requirements for three levels of alterations, in addition to requirements for repairs, changes in occupancy, additions, historic buildings or moved buildings. A complete seismic evaluation of the existing building is required under the following conditions: Level 2 alterations where the demand to capacity ratio of lateral load resisting elements has been increased by more than 10%, all Level 3 alterations, a change in occupancy to a higher category and where structurally attached additions (vertical or horizontal) are planned (not applicable to this project).

The *Performance Compliance Method* (IEBC Chapter 13) duplicates Section 3412 of Chapter 34 in the IBC and provides for evaluating a building based on fire safety, means of egress and general safety (19 parameters total). This method allows for the evaluation of the existing building to demonstrate that proposed alterations, while not meeting new construction requirements, will maintain existing conditions to at their current levels (at a minimum) or improve conditions, as required. A structural investigation and analysis of the existing building is required to determine the adequacy of the structural systems for the proposed alteration, addition or change of occupancy. A report of the investigation and evaluation, along with proposed compliance alternatives must be submitted to the code official for approval.

The *Work Area Compliance Method* will likely be the most appropriate method of compliance for the Brookline High School buildings.

A. Existing Conditions Narrative - Structure

BROOKLINE HIGH SCHOOL

Brookline, Massachusetts

Existing Conditions Structural Report

April 22, 2017

Page 15 of 18

Additions - General Comments - MEBC

The design and construction of any addition to the Brookline High School would be conducted in accordance with the Code for new construction. Additions should be structurally separated from the existing, adjacent construction by an expansion (seismic) joint to avoid an increase in gravity loads or lateral loads to existing structural elements.

Renovations/Alterations - General Comments - MEBC

Where proposed alterations to existing structural elements carrying gravity loads result in a stress increase of over 5%, the affected element will need to be reinforced or replaced to comply with the Code for new construction. Proposed alterations to existing structural elements carrying lateral load (i.e. masonry walls) which result in an increase in the demand - capacity ratio of over 10% should be avoided, if possible. Essentially, this means that removal of, or major alterations to the existing, exterior unreinforced masonry bearing walls in any building should be minimized.

Additional Comments - Seismic Issues

- None of the buildings which comprise the Brookline High School meet current seismic code requirements. With the exception of the 1996 additions to the Greenough Building the lateral force resisting system is not well defined for any of the buildings. By default, lateral force resistance is typically provided by interior and exterior (unreinforced) masonry walls.
- The code generally does not require a seismic retrofit/upgrade, provided the use stays the same (expected to be the case), structural alterations are not considered to be “substantial”, and the *demand-to-capacity ratio* of any element resisting lateral loads (i.e. masonry walls), *does not increase by more than 10% over current levels*. “Demand” is the seismic force (proportional to mass); adding significant mass to any building should be avoided (major additions should be structurally separated). “Capacity” is the capacity of the walls to resist lateral forces. Creating new, large openings in masonry walls or removing large sections of the walls should be avoided; otherwise, they would need to be replaced elsewhere (with new, reinforced masonry or concrete walls), making the argument that the stresses in the remaining, existing walls do not increase by more than 10%. If the modifications are such that this argument cannot be made, then the building would need to be retrofitted/ upgraded to resist 50% to 75% of the seismic loading required by the code for new construction (% depends on the extent of structural alterations). This would have a significant cost impact.
- If the “Work Area” (defined as the area of reconfigured spaces within the building) is less than 50% of the total area, the renovation would be classified as a *Level 2 Alteration* – no seismic upgrades would be necessary unless the 10% requirement noted above is not met (such upgrades can be done as a voluntary upgrade; however). If the work area exceeds 50% of the total area of the building, the renovation would be classified as a *Level 3 Alteration*. Certain seismic hazards (anchorage of floor and roof diaphragms to masonry walls, bracing of chimneys, bracing of parapets, etc.) would need to be addressed. No further seismic upgrades would be required unless the 10% requirement noted above is not met.
- In either a *Level 2* or a *Level 3 Alteration*, if the 10% requirement cannot be met, and the structural alterations are not considered to be “substantial” (see below), the building would need to be evaluated and reinforced to withstand 50% of the seismic loading required by the code for new construction (significant cost impact).

A. Existing Conditions Narrative - Structure

BROOKLINE HIGH SCHOOL

Brookline, Massachusetts

Existing Conditions Structural Report

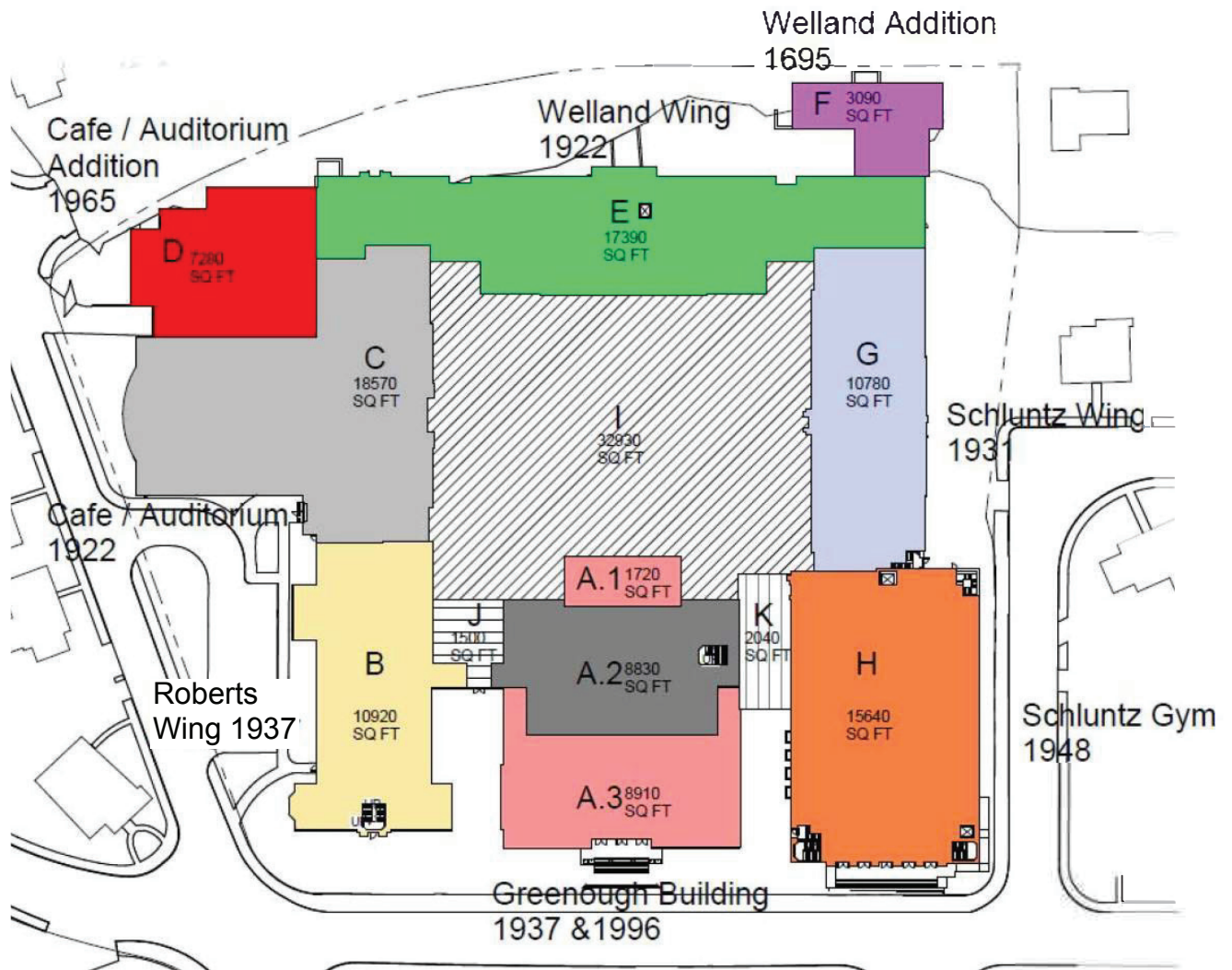
April 22, 2017

Page 16 of 18

- If a *Level 3 Substantial Structural Alteration* is proposed, where more than 30% of the total floor and roof area is structurally altered, the building will need to be evaluated and reinforced to withstand full wind loading and 75% of the seismic loading required by the code for new construction (again, a significant cost impact).

End of Existing Conditions Structural Report

APPENDIX A – MAIN CAMPUS DIAGRAMS

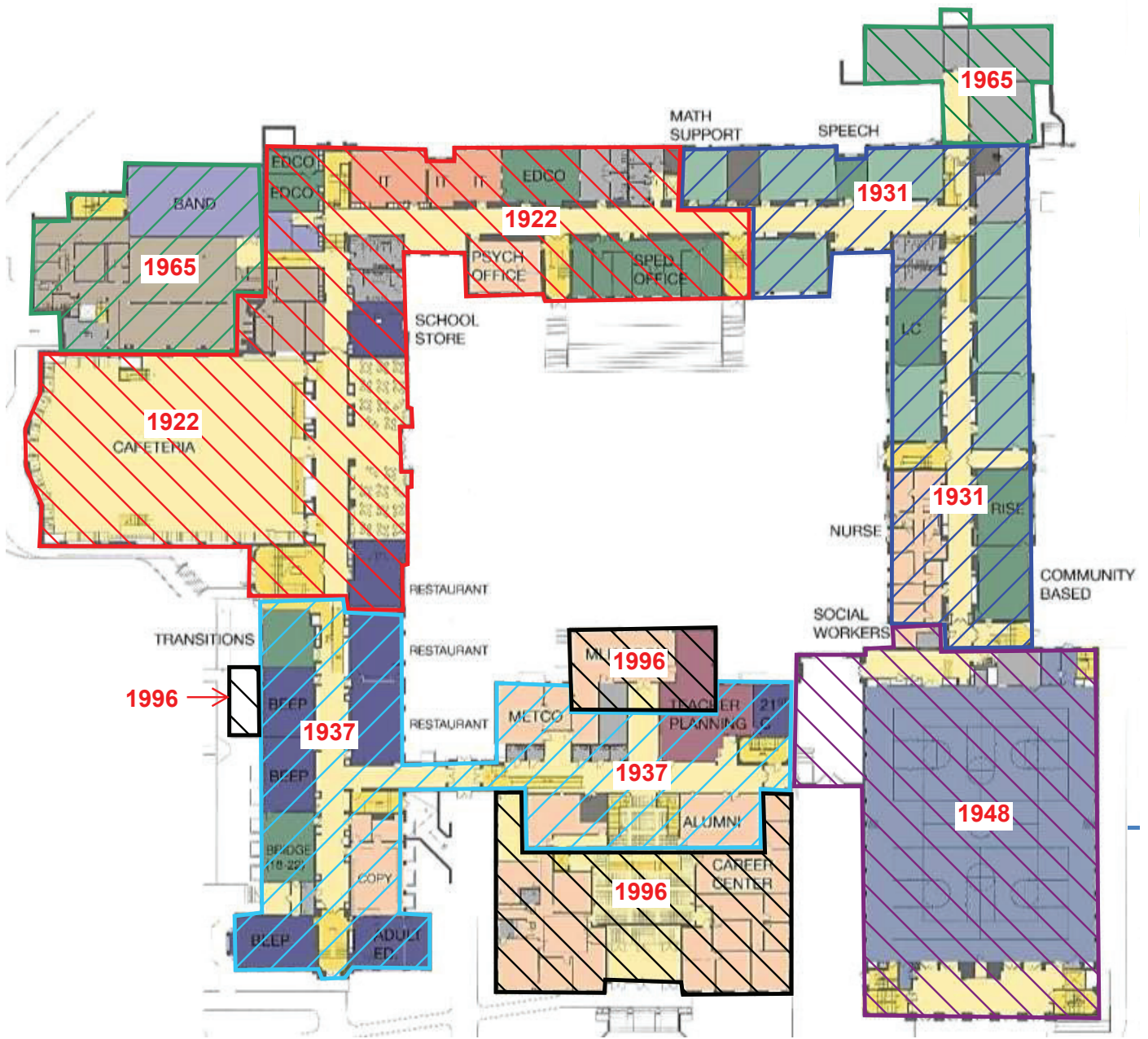


MAIN CAMPUS

A. Existing Conditions Narrative - Structure

Figure 2: BROOKLINE HIGH SCHOOL - HISTORY

February 2017



FIRST FLOOR PLAN



MAIN CAMPUS

A. Existing Conditions Narrative - Structure

BROOKLINE HIGH SCHOOL

Brookline, Massachusetts

PHOTOGRAPHS

Existing Conditions Structural Report

April 22, 2017

Page 18 of 18

A. Existing Conditions Narrative - Structure

BROOKLINE HIGH SCHOOL

Brookline, Massachusetts

Existing Conditions Structural Report

April 22, 2017

Page B-1



Photo 1: Deterioration in South Tunnel Roof



Photo 2: Deterioration in Pool Deck Slab at Former Diving Board Location



Photo 3: Exposed Rubble Stone Foundation at the Unified Arts Building



Photo 4: Cracks in Concrete Pavement - Main Campus Courtyard



Photo 5: Open Site Wall Cap Stones - Main Campus Courtyard



Photo 6: Rusting Lintels - Main Campus

A. Existing Conditions Narrative - Structure

BROOKLINE HIGH SCHOOL Brookline, Massachusetts

Existing Conditions Structural Report

April 22, 2017

Page B-2



Photo 7: Deteriorating Column Base - Main Campus



Photo 8: Open Cap Stone Joints at Site Stair - Main Campus



Photo 9: Deteriorating Site Wall - Main Campus



Photo 10: Deteriorating Site Stair - Main Campus



Photo 11: Moisture Damaged Veneer - Main Campus



Photo 12: Deteriorating Site Stair - Main Campus

A. Existing Conditions Narrative - Structure

BROOKLINE HIGH SCHOOL
Brookline, Massachusetts

Existing Conditions Structural Report

April 22, 2017
Page B-3



Photo 13: Open Entry Stair Stone Tread
- Main Campus



Photo 14: Open Cap Stone Joints at Entry Stair
- Main Campus



Photo 15: Lintel Replacement and New Windows
- Main Campus



Photo 16: Galvanized Steel Replacement Lintel (with Weep Hole) and New Window - Main Campus

A. Existing Conditions Narrative - Structure

BROOKLINE HIGH SCHOOL
Brookline, Massachusetts

Existing Conditions Structural Report

April 22, 2017

Page B-4



Photo 17: Deteriorating Site Stair - Main Campus



Photo 18: Moisture Damage at Site Wall and Building Wall - Main Campus

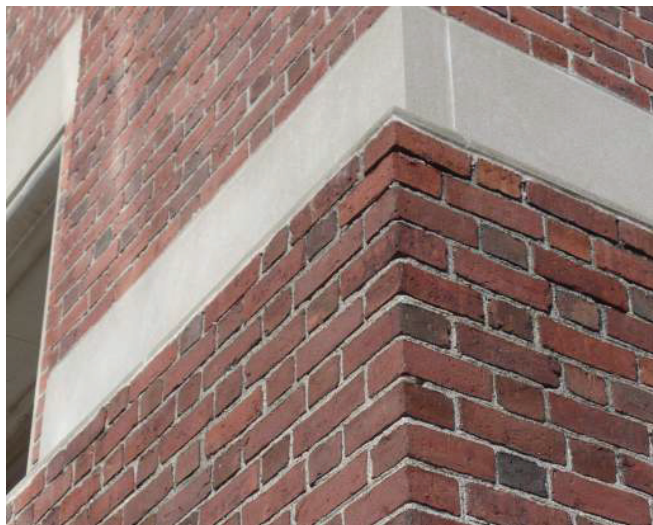


Photo 19: Veneer Repointing Needed - Main Campus



Photo 20: Concrete Damage at Railing Base - Main Campus

A. Existing Conditions Narrative - Structure

BROOKLINE HIGH SCHOOL Brookline, Massachusetts

Existing Conditions Structural Report

April 22, 2017

Page B-5



Photo 21: Moisture Damaged Veneer - Main Campus



Photo 22: Damaged Site Stairs and Site Walls - Main Campus



Photo 23: Deteriorating Ramp - Tappan Gym



Photo 24: Concrete Damage at Entry Stair Railing - Tappan Gym

A. Existing Conditions Narrative - Structure

BROOKLINE HIGH SCHOOL

Brookline, Massachusetts

Existing Conditions Structural Report

April 22, 2017

Page B-6



Photo 25: Concrete Damage at Entry Ramp Railing - Tappan Gym



Photo 26: Repointing of Brick Veneer Needed - Unified Arts Building



Photo 27: Repair/Repointing of Brick Veneer Needed at Downspout (Moisture Damage) - Unified Arts Building



Photo 28: Repaired/Repointed Boiler Stack - Unified Arts Building

A. Existing Conditions Narrative - Structure

Existing Conditions Structural Report

April 22, 2017
Page B-7



Photo 29: Repointing of Brick Veneer Needed at Base of West Exterior Wall - Unified Arts Building



Photo 30: Open Joints in Stone Foundation - Unified Arts Building



Photo 31: Moisture Damaged Brick and Loose Cap Stones - Tappan Gym/Pool Complex

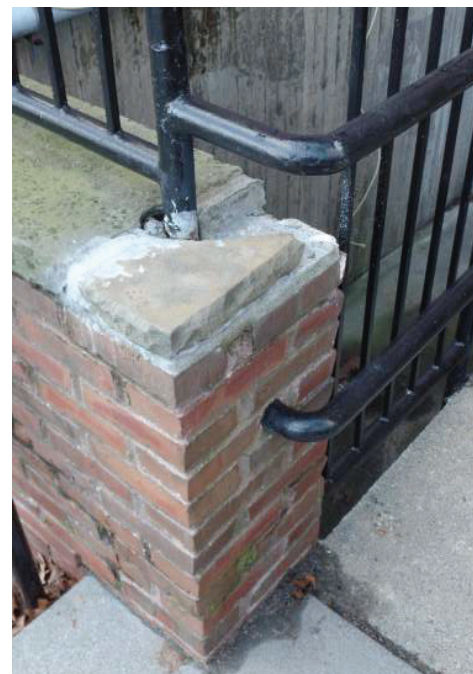


Photo 32: Damaged Masonry and Cap Stones at Tappan Gym/Pool Complex Entry Ramp

Appendices

A. Existing Conditions Narratives

Plumbing Narrative

A. Existing Conditions Narrative - Plumbing

Brookline High School
Brookline, MA
Plumbing Existing Conditions Systems Report
J#831 060 00.00
L#55168/Page 1/February 4, 2017

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc.

PLUMBING

Executive Summary:

Presently, the Plumbing Systems serving the buildings are cold water, hot water, sanitary, waste and vent system, special waste and vent system, storm drain system, and natural gas. Municipal sewer and municipal water service the Building.

The plumbing systems have been updated as part of building renovation and upgrade projects. In general the last major renovation project occurred in 1996. The plumbing systems appear to be well maintained. The school plumbing systems could continue to be used with maintenance and replacement of failed components.

The plumbing fixtures are in good condition. Plumbing fixtures appear to meet code in terms of water conservation. The code does not require these fixtures to be upgraded, but where new fixtures are installed, as may be required by other codes or concerns, the new fixtures need to be accessible and water conserving type.

Cast iron is used for sanitary and storm drainage. Rainwater from roof areas is collected by interior rain leaders which appear to discharge to a below grade drainage system. Where visible, the cast iron pipe appears to be in fair condition. Smaller pipe sizes appear to be copper. In general, the drainage piping can be reused where adequately sized for the intended new use.

Main Building

Fixtures:

The water closets are predominately wall hung vitreous china with sensor flush valves.

Urinals are wall hung vitreous china with sensor flush valves.

Lavatories are wall hung vitreous china with individual metering hot and cold water faucets. There are no mixing valves at the lavatories.

Electric water coolers are wall hung, hi-lo units. Some have bottle filling stations. There is a recessed drinking fountain/cuspidor in the gym area.

Janitor's sink are generally trap standard mounted, enameled cast iron sinks. Faucets are equipped with vacuum breakers.

Science classroom sinks are resin type with cold and hot water faucets. Faucets are equipped with vacuum breakers. Sinks are piped to an interior limestone chip acid neutralization system that ultimately discharges to the municipal sewer.

Science classrooms contain emergency shower/eyewash fixtures fed by the cold water system. The fixtures are antiquated and do not meet current code. New emergency fixtures should be provided in the classrooms.

A. Existing Conditions Narrative - Plumbing

Brookline High School
Brookline, MA
Plumbing Existing Conditions Systems Report
J#831 060 00.00
L#55168/Page 2/February 4, 2017

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc.

Kitchen area fixtures are in good condition. The 3-pot washing sink is directed through a grease interceptors. There is no dishwasher.



Water closet



Wall hung urinals



Wall hung lavatories



Gym showers



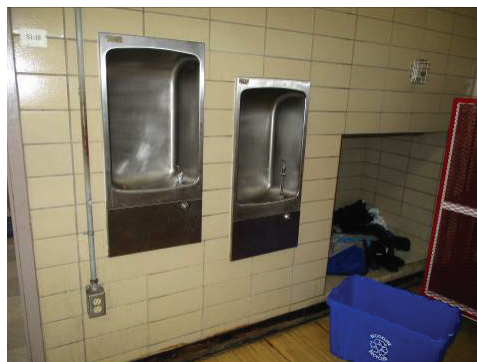
Hi-lo water cooler



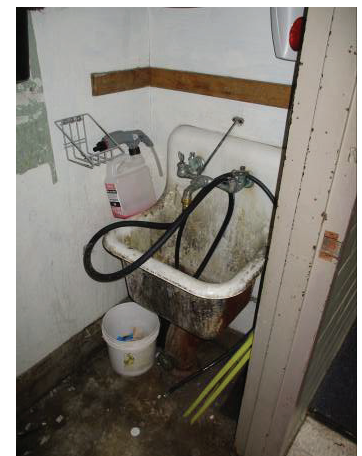
Science classroom sink



Science emergency fixture



Recessed drinking fountains



Service sink
HMFH ARCHITECTS

A. Existing Conditions Narrative - Plumbing

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc.

Brookline High School
Brookline, MA
Plumbing Existing Conditions Systems Report
J#831 060 00.00
L#55168/Page 3/February 4, 2017

Water Systems:

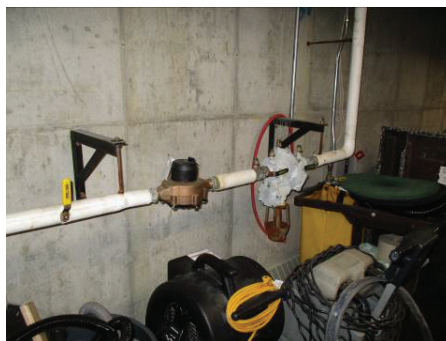
The main domestic water service is located in the basement Mechanical Room. The service is 4-inch in size and includes a 4" water meter. There is a 1-inch irrigation meter fed off the main service. The irrigation supply includes a reduced pressure backflow preventer.

The main domestic cold-water distribution is 4" in size. Piping appears to be copper with sweat joints. There does appear to be some original brass piping and fittings in the system. The majority of the piping is insulated. All original brass piping and fitting should be replaced with copper tubing.

Domestic hot water is generated through two gas-fired water heaters. Water heaters are connected to two 80 gallon each indirect water heaters and one 120 gallon storage tank. The hot water systems are recirculated. Systems includes a thermostatic mixing valve and expansion tank. The water heaters appear to be near the end of their useful life. Water heaters should be replaced. Non potable hot water for the Science classrooms is generated through a gas-fired tank type water heater. Water heater has a natural gas input of 120,000 BTUH and 71 gallons of storage. Non-potable water heater is in good condition.



Domestic water service & meter



Irrigation meter



Domestic water heater #1



Domestic water heater #2



Non-potable water heater



Domestic water piping

A. Existing Conditions Narrative - Plumbing

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc.

Brookline High School
Brookline, MA
Plumbing Existing Conditions Systems Report
J#831 060 00.00
L#55168/Page 4/February 4, 2017

Gas:

Natural gas is provided to the building. Gas serves the domestic water heaters, kitchen cooking equipment, and Science classrooms. There are two gas meters in the building. One meter is located on the exterior of the building adjacent to the Basement Mechanical Room. The other gas meter is located in a pipe trench area.

Gas piping is black steel with a combination of screwed and welded joints and fittings depending on the time of installation.

Natural gas is provided in the science classrooms. Classrooms are equipped with emergency shutoff valves.

Natural gas is provided for kitchen cooking equipment. Kitchen supply is equipped with an automatic shutoff valve interlocked with the hood fire suppression system. There is no CO monitor in the kitchen. CO monitoring with interlock with new gas valve should be provided.



Exterior gas meter



Interior gas meter



Science room gas shutoff valve

Drainage Systems:

Cast iron is used for sanitary and storm drainage. Where visible, the cast iron pipe appears to be in fair condition. Smaller pipe sizes appear to be copper.

Flat roof is in good condition. Roof drains are replacement type insert drains.

In general, the cast iron drainage piping can be reused even in a major renovation where adequately sized for the intended new use.

Acid waste and vent piping is acid resistant polypropylene pipe. Fittings and joints are made up with no-hub couplings. Piping is in good condition.

A. Existing Conditions Narrative - Plumbing

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc.

Brookline High School
Brookline, MA
Plumbing Existing Conditions Systems Report
J#831 060 00.00
L#55168/Page 5/February 4, 2017



Cast iron drainage pipe



Acid neutralizer



Typical Roof drain

Unified Arts Building

Fixtures:

The water closets are predominately wall hung vitreous china with sensor flush valves.

Urinals are wall hung vitreous china with sensor flush valves.

Lavatories are wall hung vitreous china with sensor type faucets. There are no mixing valves at the lavatories.

Electric water coolers are wall hung with stainless steel bowls.

Janitor's sink are generally trap standard mounted, enameled cast iron sinks. Faucets are equipped with vacuum breakers.

Home-Ec Classroom sinks are counter mounted two-bowl stainless steel with gooseneck faucets.

Art Classroom sinks two bowl stainless steel sinks or two bowl fiberglass sinks with gooseneck faucets. Art sinks are equipped with sediment traps.

Info Tech Classroom has a wall mounted fiberglass sink. The sink is not properly vented, and is equipped with an air admittance valve.

A. Existing Conditions Narrative - Plumbing

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc.

Brookline High School
Brookline, MA
Plumbing Existing Conditions Systems Report
J#831 060 00.00
L#55168/Page 6/February 4, 2017



Water closet



Wall hung urinal



Wall hung lavatory



Electric water cooler



Home-Ec sinks



Art room sink with sediment trap

Water Systems:

The domestic water service is located in a basement Sprinkler Room. The service is 4-inch in size and includes a 3-inch compound water meter and a 3-inch pressure reducing valve.

The main domestic cold-water distribution appears to be 3-inch in size. Piping appears to be copper with sweat joints. The majority of the piping is insulated.

Domestic hot water is generated through two tank type gas-fired water heaters. Each water heater has a natural gas input of 1,200,000 BTUH and a hot water storage volume of 600 gallons. The hot water heaters also supply hot water to the Tappan Gym building. The hot water systems are recirculated. Systems includes a thermostatic mixing valve and expansion tank.

There is a 1-inch reduced pressure backflow preventer on the water boiler make-up water connection.

A. Existing Conditions Narrative - Plumbing

Brookline High School
 Brookline, MA
 Plumbing Existing Conditions Systems Report
 J#831 060 00.00
 L#55168/Page 7/February 4, 2017

GARCIA • GALUSKA • DESOUSA
 Consulting Engineers Inc.



Domestic water service and meter



Gas-fired domestic water heaters

Gas:

Natural gas is provided to the building. Gas serves the domestic water heaters and heating boilers. Gas meter is located on the inside of the building.

There are two natural gas boosters in the building. One booster is located in a room adjacent to the Boiler Room. The booster supplies 2 PSI to the heating boilers. The second booster is located in the Boiler Room and supplies the domestic water heater and a summer boiler.

Gas piping is black steel with a combination of screwed and welded joints and fittings depending on the pipe size. The elevated pressure (2 PSI) system is welded. Gas piping appears to be in good condition.



Gas booster #1



Gas booster #2

Drainage Systems:

Cast iron is used for sanitary and storm drainage. Where visible, the cast iron pipe appears to be in fair condition. Smaller pipe sizes appear to be copper. It was reported by the staff that there are concerns with the sanitary service from the building to the Municipal main in Tappan Street.

Flat roof is in good condition.

In general, the cast iron drainage piping can be reused even in a major renovation where adequately sized for the intended new use. We recommend video inspection of all existing drainage lines to confirm integrity and proper slope of piping prior to re-use.

A. Existing Conditions Narrative - Plumbing

Brookline High School
 Brookline, MA
 Plumbing Existing Conditions Systems Report
 J#831 060 00.00
 L#55168/Page 8/February 4, 2017

GARCIA • GALUSKA • DESOUSA
 Consulting Engineers Inc.

Tappan Gym

Fixtures:

The water closets are predominately wall hung vitreous china with sensor flush valves. There are wall hung water closets with manual flush valves and a floor mounted water closet with manual flush valve.

Urinals are wall hung vitreous china with sensor flush valves.

Lavatories are wall hung vitreous china with individual metering hot and cold water faucets. There are no mixing valves at the lavatories. Some lavatories have manual faucets.

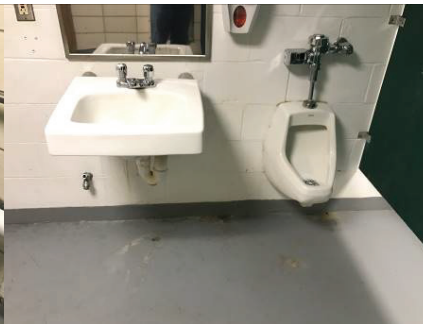
Electric water coolers are wall hung, hi-lo units.

Janitor's sink are generally trap standard mounted, enameled cast iron sinks. Faucets are equipped with vacuum breakers.

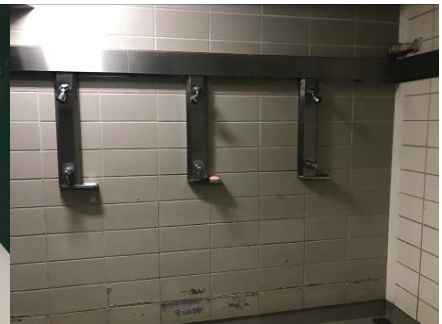
Locker room showers are supplied from thermostatic mixing valve stations. In one area showers are located in stainless steel enclosures and include individual shower valves. In other shower area shower heads are fed directly from the outlet of a master mixing valve and have no individual shower valve controls. All shower fixtures appear to be antiquated.



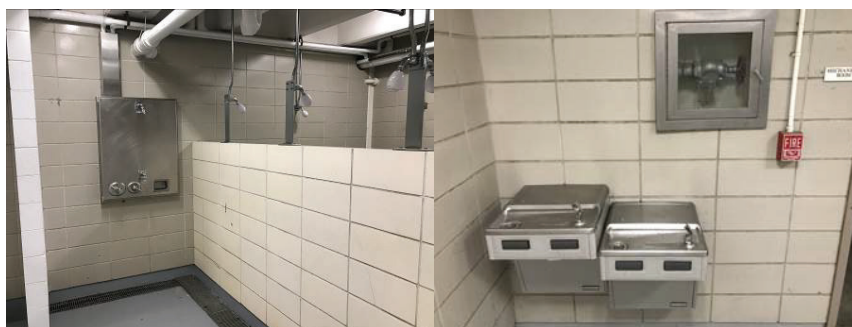
Wall hung water closet



Wall hung urinal & lavatory



Shower with shower valve control



Shower heads

Electric water cooler

A. Existing Conditions Narrative - Plumbing

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc.

Brookline High School
Brookline, MA
Plumbing Existing Conditions Systems Report
J#831 060 00.00
L#55168/Page 9/February 4, 2017

Water Systems:

The main domestic water service is located in the basement Mechanical Room. The service is 4-inch in size and includes a 4" compound water meter.

The main domestic cold-water distribution is 4" in size. Piping appears to be copper with sweat joints. The majority of the piping is insulated.

Domestic hot water is supplied from the Unified Arts Building.



Domestic water meter

Drainage Systems:

Cast iron is used for sanitary and storm drainage. Where visible, the cast iron pipe appears to be in fair condition. Smaller pipe sizes appear to be copper.

There are multiple sewage ejector pumps in the building. The entire building is pumped from the ejector located in an abandoned bathroom. The ejectors are duplex systems with discharge piping being threaded galvanized steel pipe. The discharge is ultimately connected to no-hub cast iron drainage piping. It was reported by the staff that there were past blockage issues with the sewer main in Tappan Street. The sewage ejectors were installed to prevent further back-ups to the building. The ejector systems appear to be in good working condition.

In general, the cast iron drainage piping can be reused even in a major renovation where adequately sized for the intended new use. We recommend video inspection of all existing drainage lines to confirm integrity and proper slope of piping prior to re-use.



Sewage ejector



Sewage ejector

Appendices

A. Existing Conditions Narratives

Fire Protection Narrative

A. Existing Conditions Narrative - Fire Protection

GARCIA • GALUSKA • DESOUSA

Consulting Engineers

Inc.

Brookline High School Feasibility Study
Brookline, MA
Fire Protection Existing Conditions Systems Report
J#831 060 00.00
L#55151/Page 1/February 3, 2017

FIRE PROTECTION

Executive Summary

The Brookline High School Main Building, Unified Arts Building, and Tappan Gym are all protected by automatic sprinkler systems. Each building is served by its own dedicated fire water service. All buildings appear to be fully sprinklered.

Main Building:

The Main School building is served with three separate dedicated 6-inch fire water services. The sprinkler system was modified during a 1996 renovation project. The installation date of the original system is not known.

The first service includes a 6-inch double check valve assembly and a 6-inch wet alarm valve, a 4-inch dry alarm valve, and a 6-inch dry alarm valve. The 6-inch dry alarm valves serves the attic area above the Adult Education area and the 4-inch alarm valve serves the attic area above Administration.

The second fire service includes a 6-inch double check valve assembly, a 6-inch wet alarm valve, and two 6-inch dry alarm valves.

The third fire service includes a 6-inch double check valve assembly, a 6-inch wet alarm valve, and a 4-inch dry alarm valve.

There is a remote 3-inch alarm valve located in Stair 3 adjacent to Room 359 that supplies a dry sprinkler system above the Classroom area.

The system is a combined standpipe/sprinkler system. Standpipe risers with fire department valves are located in the stairwells. Each floor is has a dedicated sprinkler zone. Zone control valve assemblies for each floor include supervised shutoff valve, check valve, flow switch, and inspector's test station.

System fire department connection is a three-way inlet.

In non-ceiling areas, sprinkler heads are typically upright brass heads. Where ceilings are provided, sprinklers are fully concealed type or pendent type. Sprinklers vary in age. Heads installed as part of the 1996 renovation are quick response type. Older heads are standard response.

Piping is black steel with either grooved coupling joints or threaded joints depending on pipe sizes. Piping appears to be in good to fair condition.

All spaces within the building appear to be protected.

System appears to be well maintained with required periodic inspections/testing performed by Owner. The existing system appears to have the capacity to be modified should renovations occur in the building.

A. Existing Conditions Narrative - Fire Protection

GARCIA • GALUSKA • DESOUSA

Consulting Engineers

Inc.

Brookline High School Feasibility Study
Brookline, MA
Fire Protection Existing Conditions Systems Report
J#831 060 00.00
L#55151/Page 2/February 3, 2017



Building Fire service entrances



Remote dry alarm valve



Fire Department Connection



Typical sprinkler zone control valve



Concealed type sprinkler



Pendent type sprinkler



Upright type sprinkler

A. Existing Conditions Narrative - Fire Protection

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc.

Brookline High School Feasibility Study
Brookline, MA
Fire Protection Existing Conditions Systems Report
J#831 060 00.00
L#55151/Page 3/February 3, 2017

Unified Arts Building:

The Unified Arts building is served with a dedicated 6-inch fire water service from Tappan Street. Fire service is located in a water entry room in the Basement. The service includes a 6-inch double check valve assembly and a 6-inch wet alarm valve. Sprinkler system was installed in approximately 1996.

The system is a combined standpipe/sprinkler system. Standpipe risers with fire department valves are located in each stairwell. Each floor is has a dedicated sprinkler zone. Zone control valve assemblies for each floor include supervised shutoff valve, check valve, flow switch, and inspector's test station.

System fire department connection is a three-way inlet.

The majority of the sprinkler system is run exposed. Sprinkler heads are typically upright brass heads. Where ceilings are provided, fully concealed sprinklers are provided.

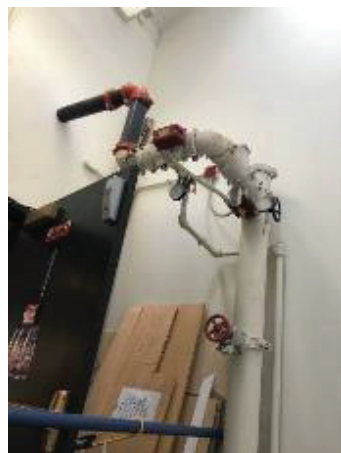
Piping is black steel with either grooved coupling joints or threaded joints depending on pipe sizes. Piping appears to be in good condition.

All spaces within the building appear to be protected.

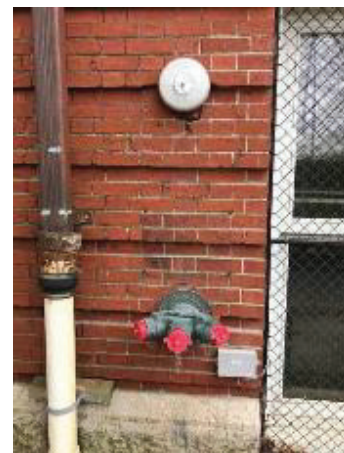
System appears to be well maintained with required periodic inspections/testing performed by Owner. The existing system appears to have the capacity to be modified should renovations occur in the building.



Fire service entrance



*Combined standpipe with
sprinkler control valve assembly*



Fire Department Connection

A. Existing Conditions Narrative - Fire Protection

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc.

Brookline High School Feasibility Study
Brookline, MA
Fire Protection Existing Conditions Systems Report
J#831 060 00.00
L#55151/Page 4/February 3, 2017



Typical exposed sprinkler piping and upright sprinkler heads



Concealed type heads in ceiling

Tappan Gym:

The Tappan Gym building is served with a dedicated 6-inch fire water service from Tappan Street. Fire service is located in a mechanical room in the Basement. The service includes a 6-inch double check valve assembly and a 6-inch wet alarm valve. The sprinkler system was modified in 1996. The installation date of the original system is not known.

The system is a combined standpipe/sprinkler system. Standpipe risers with fire department valves are located in the stairwells. Each floor is has a dedicated sprinkler zone. Zone control valve assemblies for each floor include supervised shutoff valve, check valve, flow switch and inspector's test station.

System has two fire department connections. There is a three-way inlet facing Tappan Street. There is a Siamese connection facing the parking area adjacent to Sumner Road.

The majority of the sprinkler system is run exposed. Sprinkler heads in non-ceiling areas are typically upright brass heads. Where ceilings are provided, fully concealed sprinklers are provided.

Piping is black steel with either grooved coupling joints or threaded joints depending on pipe sizes. Piping appears to be in good condition.

All spaces within the building appear to be protected.

A. Existing Conditions Narrative - Fire Protection

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc.

Brookline High School Feasibility Study
Brookline, MA
Fire Protection Existing Conditions Systems Report
J#831 060 00.00
L#55151/Page 5/February 3, 2017

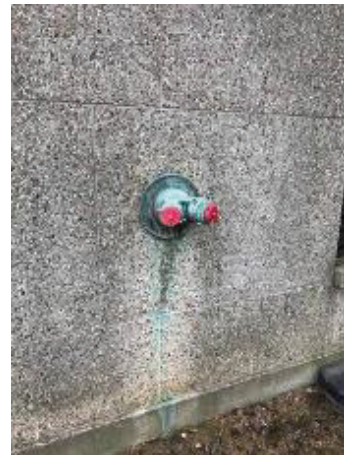
System appears to be maintained with required periodic inspections/testing performed by Owner. The existing system appears to have the capacity to be modified should renovations occur in the building.



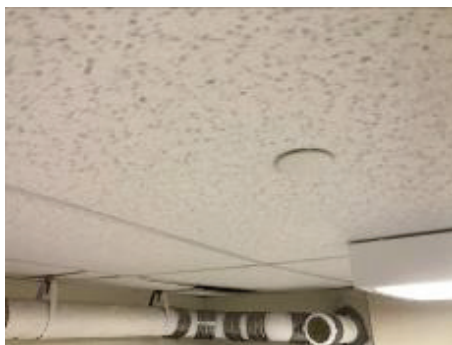
Double check valve assembly & alarm valve



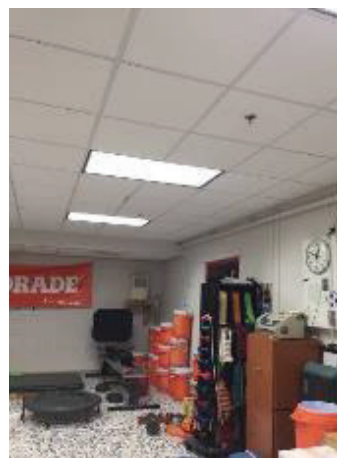
*Fire Department Connection
Tappan Street*



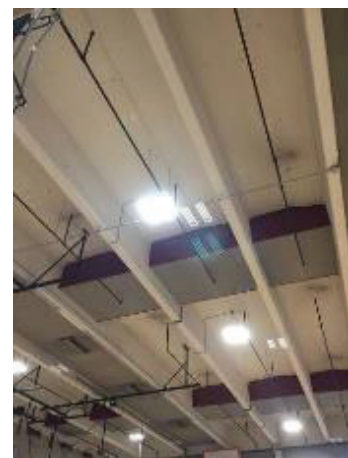
*Fire Department Connection
Sumner Road side*



Concealed type sprinkler



Pendent type sprinkler



Exposed upright sprinklers

Appendices

A. Existing Conditions Narratives

Mechanical HVAC Narrative

A. Existing Conditions Narrative - Mechanical HVAC

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc

Brookline High School Feasibility Study
Brookline, MA
HVAC Existing Conditions Systems Report
J#831 060 00.00
L#55101/Page 1/January 31, 2017

Heating, Ventilation, and Air Conditioning – HVAC

Existing Conditions Systems Report

Boiler Plant:

The High School buildings are heated by a central hot water boiler plant that is located in the Unified Arts Building Boiler room. There are four (4) Cleaver Brooks dual fuel, No.2 oil and natural gas boilers. Boilers B-1 & B-2 are Cleaver Brooks Model CEW600250125 three pass dryback firetube high temperature hot water boilers that were installed in 1998, and Boilers B-3 & B-4 are Cleaver Brooks Model CBW600250125 three pass dryback firetube high temperature hot water boilers that were installed in 1999. The boilers appear to be in good condition and have been well maintained. The boilers are approximately 18-19 years old, and should have a useful remaining service life of approximately 11-16 years with continued preventative service maintenance.

Each boiler provides high temperature hot water and has a manufacturer's rated capacity of 8,369 MBH output and maximum input of 70 GPH oil and 10,460 MBH gas input. Each boiler is provided with an Industrial Combustion burner control panel, low NOx air atomizing burner and flue gas recirculation system with Metek Thermox Series 210 controller. Per the design drawing schedules, the design boiler capacity for each boiler is 6,695 MBH gross output and 5,356 MBH Net output. The boilers appear to have all operating safety controls and burner shutoff switches installed. High temperature hot water supply water at a design temperature range of 220 deg. F supply and 180 deg. F return, from each boiler is distributed into a common header located over the boilers and distributes out to the Main High School, Gymnasium and Pool, and Unified Arts buildings. The secondary loop design temperature is 190 deg. F supply and 150 deg. F return. Each heat exchanger is equipped with a 3-way modulating control valve which provides outdoor air hot water supply temperature reset control for each building's heating system.



Existing Boilers, B-1 & B-2



Existing Boilers, B-3 & B-4

A. Existing Conditions Narrative - Mechanical HVAC

GARCIA • GALUSKA • DESOUSA

Consulting Engineers

Inc

Brookline High School Feasibility Study
 Brookline, MA
 HVAC Existing Conditions Systems Report
 J#831 060 00.00
 L#55101/Page 2/January 31, 2017

In addition to natural gas, the boilers are supplied with No.2 fuel oil. No.2 oil is distributed by a duplex fuel oil pump set installed circa 1998 and appears to be in fair condition. The fuel oil pumps provide No. 2 fuel oil from (2) two underground 15,000-gallon fuel oil tanks to the boilers. The fuel oil system is equipped with a Veeder-Root fuel oil leak monitoring system.



Fuel Oil Pumps



Fuel Oil Monitor Panel

The boilers are vented to the atmosphere by a steel positive pressure breaching system that is routed to a masonry chimney. Per our review of existing plans, the chimney has a 60-inch diameter and extends approximately 84 feet above grade, and appears to be adequate height to maintain proper draft without the use of draft fans. The breaching located within the mechanical room appears to be on good condition. A mechanical combustion air make-up air handling unit located on the roof of the Boiler room provides combustion air for the boiler. The make-up heating and ventilation (H&V) air handling unit is a direct fired gas heating unit with a capacity of 500 MBH heating and 7,500 CFM. The make-up air unit appears to be in fair condition, was installed circa 1998, is approximately 19 years old and is nearing the end of its expected useful service life.



Boiler Breaching



Boiler Room H&V Unit



Chimney

Each boiler is provided with a primary loop inline vertical split coupled circulator pump. The pumps were manufactured by Armstrong and were installed circa 1998. The pumps appear to be in fair condition but show some signs of corrosion. In general, the pumps have exceeded their expected useful service life of 15 years. Each pump has a capacity of 250 GPM and 1.5 HP 208v/3Ph motor. There is a primary, standby set of main primary loop hot water pumps that distribute high temperature hot water from the boilers to each building's heat exchanger. The main hot water primary loop pumps (tagged CP-P-01 & CP-P-02) each have a capacity of 1,000 GPM, 50 ft. head and are equipped with 20 HP 208V/3Ph motors which are equipped with variable speed drives.

A. Existing Conditions Narrative - Mechanical HVAC

Brookline High School Feasibility Study
Brookline, MA
HVAC Existing Conditions Systems Report
J#831 060 00.00
L#55101/Page 3/January 31, 2017

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc.



Primary Boiler Loop Circulator Pump



Primary Loop HW Pumps



Hot Water Expansion Tanks



Hot Water Piping in Tunnel

There are three (3) vertical floor mounted expansion tanks installed in the boiler room. The expansion tanks were installed circa 1998 and appear to be in good condition. The hot water piping distribution system and associated insulation was installed circa 1997-8 and appears to be in good condition.

UAB Building Heating: Within the boiler room, a plate and frame heat exchanger and (2) inline hot water pumps are installed, which serve the Unified Arts Building hot water heating system. The heat exchanger was manufactured by Armstrong (Model PFX13), has a capacity of 3,200 MBH and was installed in 1997. The hot water pumps were manufactured by Armstrong, have a capacity of 160 GPM at 70 ft. head and are equipped with 5 HP 460V/3ph motors and are controlled by Johnson Controls VFD drives. The Unified Arts building expansion tank was manufactured by Taco and installed in 1997. Hot water is distributed by the pumps to the heating equipment, consisting of hot water fin tube radiation, cabinet unit heaters and air handling units, located in the Unified Arts Building.



UAB - Plate & Frame Heat Exchanger



UAB - Hot Water Pumps & Expansion Tank

A. Existing Conditions Narrative - Mechanical HVAC

Brookline High School Feasibility Study
 Brookline, MA
 HVAC Existing Conditions Systems Report
 J#831 060 00.00
 L#55101/Page 4/January 31, 2017

GARCIA • GALUSKA • DESOUSA
 Consulting Engineers Inc.

Main HS Building Heating: Within the Main High School building there is a plate and frame heat exchanger and (2) inline hot water pumps that provide hot water from the UAB boiler plant to the Main High School building hot water heating equipment. The heat exchanger was manufactured by Alfa Lavel (M15-MFG), has a capacity of 13,040 MBH and was installed in 2011, and appears to be in very good condition. The hot water pumps were manufactured by Armstrong, have a capacity of 650 GPM at 160 ft. head and are equipped with 50 HP motors that are controlled by Yasakawa VFD drives. The Main HS Building expansion tanks were installed in 1997. While the pumps have been well maintained over the years, the hot water pumps currently show signs of corrosion, and are nearing the end of their useful expected service life of 15-20 years.



Main HS Building Tunnel – Hot Water Piping



HS Main Building Heat Exchanger



HS Main Building – Hot Water Pumps and VFDs



Hot Water Pumps



Expansion Tanks

A. Existing Conditions Narrative - Mechanical HVAC

GARCIA • GALUSKA • DESOUSA

Consulting Engineers

Inc

Brookline High School Feasibility Study
 Brookline, MA
 HVAC Existing Conditions Systems Report
 J#831 060 00.00
 L#55101/Page 5/January 31, 2017

Pool Building Heating: There are (2) plate and frame heat exchangers located in the Pool building basement which provide hot water heating from the UAB boiler plant to the Pool Building heating systems. One of the heat exchangers serves the Pool and the other heat exchanger serves the building HVAC heating system. There are (2) inline hot water pumps that provide hot water to the Pool building hot water heating equipment. The building heating system heat exchanger was manufactured by Alfa Laval, has a capacity of 2,100 MBH, and appears to have been installed since the 1997-8 renovation. The hot water pumps were manufactured by Armstrong, have a capacity of 105 GPM at 85 ft. head and are equipped with 5 HP motors and are controlled by Johnson Controls VFD drives. There is a Bell & Gossett expansion tank located adjacent to the pumps. The pool water heating heat exchanger was manufactured by Armstrong has a capacity of 2,500 MBH based on raising the Pool water temperature from 50 deg. F to 80 deg. F. The hot water pumps are showing signs of corrosion and are nearing the end of their useful expected service life of 15-20 years. One pump has had a motor change in recent years. The heat exchangers appear to be in good condition.



Pool Building – Heat Exchangers



Pool Building – HW Pumps

Tappan Street Gym Building Heating: The Gym building is heated from the Central UAB building hot water plant through a plate and frame heat exchanger and (2) inline hot water pumps that provide hot water to the Gym building hot water heating equipment. The heat exchanger has a capacity of 4,600 MBH and was installed in 1997-8. The heat exchanger appears to be in good condition. The hot water pumps were manufactured by Armstrong, have a capacity of 230 GPM at 110 ft. head and are equipped with 10 HP, 208V-3ph motors that are controlled by VFD drives. While the pumps have been well maintained over the years, the hot water pumps currently show signs of corrosion, and are nearing the end of their useful expected service life of 15-20 years.

Automatic Temperature Controls:

The Automatic Temperature Control (ATC) system is a direct digital control (DDC) building automation system. The DDC control system was manufactured by Siemens (Apogee/Insight), and most the DDC control components were installed during the 1997-8 renovation. The system has been continually maintained and updated throughout the years, with the building level controllers having been updated recently. The building ATC system is integrated with School Dude software via BACNet protocol.

A. Existing Conditions Narrative - Mechanical HVAC

GARCIA • GALUSKA • DESOUSA

Consulting Engineers

Inc

Brookline High School Feasibility Study
 Brookline, MA
 HVAC Existing Conditions Systems Report
 J#831 060 00.00
 L#55101/Page 6/January 31, 2017

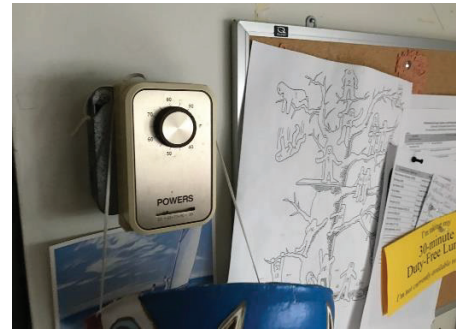


Unified Art Building DDC Control Panels

There are a combination of newer Siemens and older Powers thermostat sensors located throughout the buildings, and some control components were manufactured by Landis & Gyr.



Newer Siemens Temperature Sensor



Older Powers Temperature Sensor

High School – Main Building:

Air Handling Systems:

A large portion of the High School Main Building is ventilated by rooftop air handling units equipped with hot water heating coils. There are nine (9) rooftop air handling units installed; five (5) of the units serve the Classrooms, one unit serves the Library, one unit serves the Cafeteria, one unit serve the Auditorium and one unit serves the First Floor Office area of the building. The Library, Office and one of the Classroom (2nd/3rd Floor South Classrooms) rooftop units are equipped with direct expansion cooling via roof-mounted air cooled condensing units. All the rooftop units except for the Auditorium RTU were manufactured by HeatEx and are equipped with plate type heat recovery sections. The Auditorium unit was manufactured by Trane. The rooftop air handling units were installed during the 1997-8 building renovation, and are approximately 20 years old. Overall the units have been well maintained, and should be capable of continued operation for the next 10 years with continued preventative maintenance. However, the exterior of most of the units show signs of rust and corrosion, and the units are nearing the end of their expected service life of 20-25 years. In addition, units that are equipped with cooling operate using R-22 refrigerant which is being phased out of use. Therefore, refrigerant maintenance for these units will continue to be more expensive in future years.

A. Existing Conditions Narrative - Mechanical HVAC

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc

Brookline High School Feasibility Study
Brookline, MA
HVAC Existing Conditions Systems Report
J#831 060 00.00
L#55101/Page 7/January 31, 2017



Rooftop Unit



Rooftop Unit



Rooftop Units (RTU-1,2&3)



Rooftop Unit

Several of the rooftop units are connected to roof mounted ductwork. Overall the ductwork's associated insulation and covering appears to be in fair condition. Some sections appear to be damaged and/or soiled and in need of cleaning and repair.



*Rooftop Air Handling Units and
Condensers*



Roof mounted insulated ductwork

A. Existing Conditions Narrative - Mechanical HVAC

GARCIA • GALUSKA • DESOUSA

Consulting Engineers

Inc

Brookline High School Feasibility Study
Brookline, MA
HVAC Existing Conditions Systems Report
J#831 060 00.00
L#55101/Page 8/January 31, 2017

In addition to roof mounted air handling units, some areas of the building are ventilated by horizontal type classroom unit ventilators and indoor heating and ventilation unit ventilators. The unit ventilators and indoor air handling units are equipped with hot water heating coils and were installed circa 1997-8. There are eleven (11) unit ventilators; seven (7) of which have DX cooling coils (approx. 5-ton capacity each) and associated air cooled condensing units. The Unit ventilators with cooling serve the Foreign Language Lab (Rm 230 - 2nd Floor West), Computer Lab (Rm 226 - 2nd Floor West), Technology Head End Room (Rm 275 - 2nd Floor East), Science Computer Room (Rm 347 - 3rd Floor North), Graphic Art/Publishing (Rm 103 - 1st Floor South), Info. Systems (Rm 122 - 1st Floor West), Computer Lab (Rm 129 - F1st Floor North). There are seven (7) indoor heating and ventilating air handling units, and one (1) indoor air handling unit with a DX cooling coil (and split air cooled condensing unit. There are also two (2) hot water make-up heating and ventilation units that serve the Main Kitchen and Restaurant Kitchen areas.

Exhaust and Ventilator Systems:

There are approximately thirty-one (31) roof exhaust air fans; nineteen (19) of which were installed during the 1997-8 renovation, and twelve (12) of which were installed during the 1988 Science Wing renovation. There are also several roof intake and relief air hoods. Most the roof intake and relief air hoods serve the Science Room classroom unit ventilator system and were installed circa 1998. Most roof exhaust fans and hoods appear to be in fair condition. However, some of this equipment is showing signs of rust and corrosion and the fans and hoods are nearing the end of its useful expected service life of 20-25 years. In addition to this equipment, there are several older style roof hood and ventilators, which were installed prior to 1988, that appear to be in poor condition.



Roof Intake Hood and Exhaust Fan



Roof Hood

A. Existing Conditions Narrative - Mechanical HVAC

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc

Brookline High School Feasibility Study
Brookline, MA
HVAC Existing Conditions Systems Report
J#831 060 00.00
L#55101/Page 9/January 31, 2017



Roof Fume Hood Exhaust Fan



Older Roof Ventilators

A few of the exhaust fans are connected to interior ductwork via roof mounted ductwork. The uninsulated roof ductwork shows signs of rust and corrosion.



Roof Exhaust Fan with exterior ductwork

The building's Atrium is equipped with a roof mounted tubular centrifugal smoke exhaust fan with a capacity of 40,000 cfm. The Smoke Exhaust fan appears to be in good condition.

Air Conditioning Systems:

In addition to the Rooftop, unit ventilator and indoor air handling unit equipped with split system direct expansion (DX) cooling described in the Air Handling System section above, some of the building areas are air conditioned by ductless split system AC units and window AC units. The building does not have a central chiller plant. Many of the ductless AC condensing units appear to have been installed since the 1997-8 renovation. In general, most ductless split system AC units appear to be in good physical condition and operate using R-410A refrigerant.

A. Existing Conditions Narrative - Mechanical HVAC

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc

Brookline High School Feasibility Study
Brookline, MA
HVAC Existing Conditions Systems Report
J#831 060 00.00
L#55101/Page 10/January 31, 2017



Roof mounted Air cooled Condensing Units



Ductless Split System Condensing Units



*Window AC Unit and Grade mounted
Ductless AC Condensing Unit*



Rooftop Unit – Split Condensing Units

A. Existing Conditions Narrative - Mechanical HVAC

GARCIA • GALUSKA • DESOUSA
 Consulting Engineers Inc

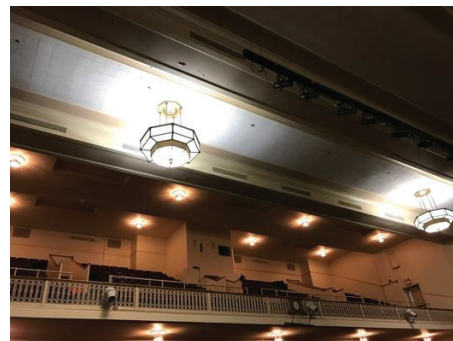
Brookline High School Feasibility Study
 Brookline, MA
 HVAC Existing Conditions Systems Report
 J#831 060 00.00
 L#55101/Page 11/January 31, 2017

Auditorium:

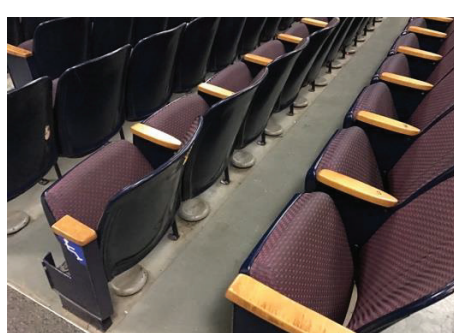
The Auditorium is provided with heating and ventilation by a roof mounted air handling unit (M-RTU-500-5). The air-handling unit has a capacity of 18,000 CFM SA, is equipped with hot water heating coil, supply and return air fan, CO2 ventilation control and filters. The unit does not have heat recovery. The Auditorium is provided with sidewall mounted diffusers, generally located high on the back wall of the lower level seating area, and on the ceiling sidewalls above the balcony section. The diffusers were noted to be slightly dirty; however, they appeared to be in good condition. Return air is provided back to the rooftop unit through a return air ductwork system that is connected to a floor return air plenum with floor diffusers locating in the seating area. The floor diffusers were previously used as supply air registers prior to the 1997-8 renovation. The diffusers were noted to be slightly dirty; however, they appeared to be in fair overall condition.



Auditorium- Sidewall Diffusers



Auditorium – Sidewall Supply diffusers



Auditorium – Floor Return diffusers



Auditorium – Rooftop Unit (center)

The Auditorium is provided with supplemental heating by hot water convector radiators located at the lower level of the Auditorium. The radiators appear to be in good condition and were installed in 1997-8.

A. Existing Conditions Narrative - Mechanical HVAC

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc

Brookline High School Feasibility Study
Brookline, MA
HVAC Existing Conditions Systems Report
J#831 060 00.00
L#55101/Page 12/January 31, 2017



Auditorium – Hot water convectors

There is a portable spot cooling unit located in the Stage Area. The unit is ducted to the outdoors via flexible ductwork. The unit was manufactured by Kwik Cool (Model SAC 6061), has a capacity of 5 tons and utilizes R-22 refrigerant. The Scenery Shop is heated by a ceiling suspended hot water cabinet unit heater, and has a small dust collector system and associated exhaust ductwork installed.



Stage – Portable AC unit



Scenery Shop Ceiling Unit Heater

White Spring Box, Black Box, Music Rooms:

The White Box, Black Box and Music rooms are heated and ventilated by ceiling mounted unit ventilator units. The unit ventilators are equipped with hot water heating coils, supply fans and filters. Outdoor ventilation is generally provided by the Classroom rooftop ventilation air handling units that were installed in 1997-8. The unit ventilators in the White Box and Black Box rooms are ducted with exposed galvanized sheetmetal ductwork. Some of the Unit ventilators in the Music Classrooms have minimal ductwork and at least one Music classroom does not have external ductwork. The unit ventilators and ductwork appear to be in fair to good condition.

A. Existing Conditions Narrative - Mechanical HVAC

Brookline High School Feasibility Study
Brookline, MA
HVAC Existing Conditions Systems Report
J#831 060 00.00
L#55101/Page 13/January 31, 2017

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc.



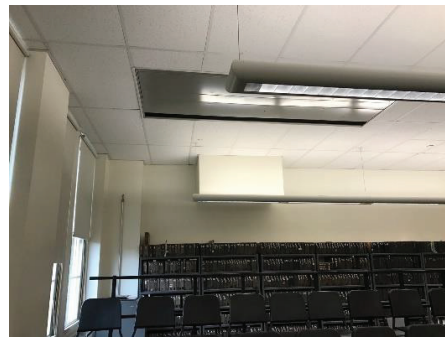
White Box – Exposed Ductwork



Black Box – Exposed Ductwork



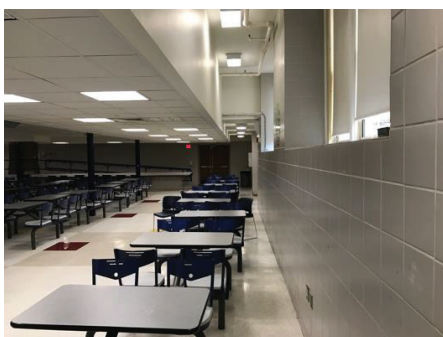
Music Room – Ceiling Unit Ventilator



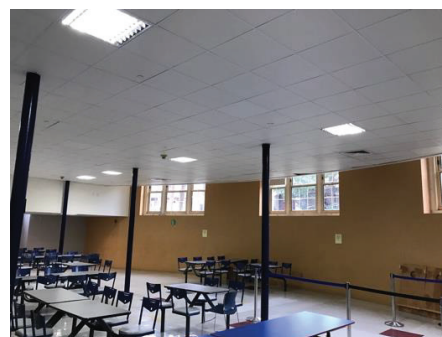
Music Room – Ceiling Unit Ventilator

Cafeteria:

The Cafeteria is provided with heating and ventilation from a rooftop air handling unit (M-RTU-500-6) that was manufactured by HeatEx, has a capacity of 9,100 cfm and was installed in 1997-8. The rooftop unit has hot water heating, heat recovery, supply and return fans and filters. The rooftop unit supply and return air is ducted with sheetmetal ductwork to ceiling supply air diffusers and a return air ceiling plenum respectively. Some of the supply air diffusers were noted to be slightly dirty; however, they appear to operate in a satisfactory manner and serve their intended function. The Cafeteria Overflow area is also served by the Cafeteria rooftop unit. The Cafeteria Overflow area is provided with supplemental heating by hot water fin tube radiation and a ceiling mounted unit heater. The fin tube radiation enclosure appears to be dirty.



Cafeteria Diffusers



Cafeteria Diffusers

A. Existing Conditions Narrative - Mechanical HVAC

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc

Brookline High School Feasibility Study
Brookline, MA
HVAC Existing Conditions Systems Report
J#831 060 00.00
L#55101/Page 14/January 31, 2017



Cafeteria Overflow – Fintube Radiation

Kitchen and Servery:

The Kitchen and Servery is provided with heating and ventilation from a rooftop make-up air handling unit (M-MUA-500-2) that has a capacity of 7,125 cfm and was installed in 1997-8. The make-up air unit is ducted to ceiling mounted supply air diffusers. The Kitchen is provided with two individual stainless steel exhaust hoods. Each hood is provided with cleanable filters and fire protection. The hoods were noted to be clean and appear to be working in a satisfactory manner. The make-up air unit and kitchen exhaust fans were installed in 1997-8, and appear to be in fair condition.



Kitchen Exhaust Hoods

The Kitchen is provided with supplemental heating from wall mounted fin tube radiation heating and a ceiling suspended horizontal unit heater. Supplemental ventilation is provided by a wall mounted propeller exhaust fan. The dishwasher has a dedicated stainless steel exhaust ductwork system.

A. Existing Conditions Narrative - Mechanical HVAC

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc

Brookline High School Feasibility Study
Brookline, MA
HVAC Existing Conditions Systems Report
J#831 060 00.00
L#55101/Page 15/January 31, 2017



Dishwasher Exhaust



Wall Propeller Exhaust Fan



Wall mounted Fintube radiation and Unit Heater

Restaurant Kitchen:

The Restaurant Kitchen is provided with heating and ventilation from a rooftop make-up air handling unit (M-MUA-500-1) that has a capacity of 4,000 cfm and was installed in 1997-8. The make-up air unit is ducted to ceiling mounted supply air diffusers. The Restaurant Kitchen is provided with a stainless-steel exhaust hood that is provided with cleanable filters and fire protection. The hood was noted to be clean. The make-up air unit and kitchen exhaust fan were installed in 1997-8, and appears to be in fair condition. The Restaurant Kitchen is provided with supplemental heating from a ceiling suspended horizontal hot water unit heater.



Restaurant Kitchen Exhaust Hood



Restaurant Kitchen Supply diffuser and Unit Heater

A. Existing Conditions Narrative - Mechanical HVAC

GARCIA • GALUSKA • DESOUSA

Consulting Engineers

Inc

Brookline High School Feasibility Study
Brookline, MA
HVAC Existing Conditions Systems Report
J#831 060 00.00
L#55101/Page 16/January 31, 2017

Library:

The Library and adjacent office/work room areas are heated, ventilated and air conditioned by a rooftop air handling unit (M-RTU-500-1). The unit was manufactured by HeatEx, has a capacity of 32 tons and 12,100 CFM; and is equipped with a hot water heating coil, DX cooling coil, supply and return fans and filters. The unit has an associated roof mounted air cooled condensing unit. Supply air is ducted from the unit to ceiling supply diffusers. There are constant volume fan powered boxes installed in the branch supply ductwork located between the mains and diffusers. Return air is delivered back to the unit via a return air ceiling plenum system. Some office areas are also provided with hot water fin tube radiation heating.

General Classrooms:

The majority of general classroom areas are ventilated by a rooftop units which were manufactured by HeatEx and were installed in 1997-8.

The first, second and third floor South “B wing” classrooms are heated and ventilated by a constant volume rooftop air handling unit (M-RTU-500-4). The unit was manufactured by HeatEx, has a capacity of 11,545 CFM; and is equipped with a hot water heating coil, heat recovery, supply and return fans, and filters. Supply air is ducted from the unit to ceiling supply diffusers. Return air is delivered back to the unit via a return air ceiling plenum system. Classrooms are typically provided with supplemental hot water cabinet unit heaters located at the exterior walls.

The first, second and third floor North general classrooms are heated and ventilated by two (2) constant volume rooftop air handling unit (M-RTU-500-8 and M-RTU-500-9). The units were installed in 1997-8, were manufactured by HeatEx, have a capacity of 12,730 and 9,560 CFM respectively; and are equipped with hot water heating coils, heat recovery, supply and return fans, and filters. Supply air is ducted from the unit to ceiling supply diffusers. Return air is delivered back to the unit via a return air ceiling plenum system. Classrooms are typically provided with supplemental hot water cabinet unit heaters located at the exterior walls.

The first, second and third floor West classrooms are heated and ventilated by a constant volume rooftop air handling unit (M-RTU-500-7). The unit was manufactured by HeatEx, has a capacity of 6,535 CFM; and is equipped with a hot water heating coil, heat recovery, supply and return fans, and filters. Supply air is ducted from the unit to ceiling supply diffusers. Return air is delivered back to the unit via a return air ceiling plenum system. Classrooms are typically provided with supplemental hot water cabinet unit heaters located at the exterior walls.

The 2nd and 3rd floor South “A wing” Classrooms are heated, ventilated and air conditioned by a rooftop air handling unit (M-RTU-500-2). The unit was manufactured by HeatEx, has a capacity of 52.5 tons and 20,000 CFM; and is equipped with a hot water heating coil, DX cooling coil, supply and return fans and filters. The unit has an associated roof mounted air cooled condensing unit. Supply air is ducted from the unit to ceiling supply diffusers. There are constant volume fan powered boxes with hot water heating coils installed in the branch supply ductwork located between the mains and diffusers. Return air is delivered back to the unit via a return air ceiling plenum system.

A. Existing Conditions Narrative - Mechanical HVAC

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc

Brookline High School Feasibility Study
Brookline, MA
HVAC Existing Conditions Systems Report
J#831 060 00.00
L#55101/Page 17/January 31, 2017



Classroom – Radiation Heating and Box Fan



Classroom – Window AC Unit



Classroom – Hot water Cabinet Unit heater



Classroom – damaged fin tube radiation enclosure

The majority of general classrooms are provided with a sidewall or low wall exhaust, which communicates to rooftop heat recovery air handlings units through a galvanized sheet metal exhaust system. It was noted that several of the exhaust grilles were slightly contaminated and generally in need of cleaning.

The Foreign Language Lab and Computer classrooms are provided with unit ventilators with associated split system DX cooling coil and roof mounted air cooled condensing units that were installed in 1997-8. The unit ventilators receive ventilation air from the rooftop heat recovery air handling units.

A. Existing Conditions Narrative - Mechanical HVAC

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc

Brookline High School Feasibility Study
Brookline, MA
HVAC Existing Conditions Systems Report
J#831 060 00.00
L#55101/Page 18/January 31, 2017

Science Classrooms

The Science Wing classroom heating and ventilation systems were installed in 1988. Most of the Science classrooms are heated and ventilated by horizontal ceiling suspended classroom unit ventilators. In some Science classrooms, the supply air is ducted with galvanized sheetmetal to ceiling mounted supply diffusers, and in other classrooms the supply air is provided from the unit ventilator supply diffuser. Outside air is ducted from roof intake ventilator hoods to the unit ventilators. Exhaust air for the Science classrooms is provided by a combination of low wall and ceiling exhaust air registers. Chemistry Classrooms and Prep rooms have fume hoods installed which are ducted to roof mounted exhaust air fans. In general, the unit ventilators, fume hoods and associated exhaust fans appear to be in fair condition. Many of the classrooms also have perimeter fin tube radiation, typically installed in architectural enclosures.



Science Classroom Unit Ventilator



Chemistry Classroom Unit Ventilator



Fin tube Radiation in Enclosure



Prep Room - Fume Hoods

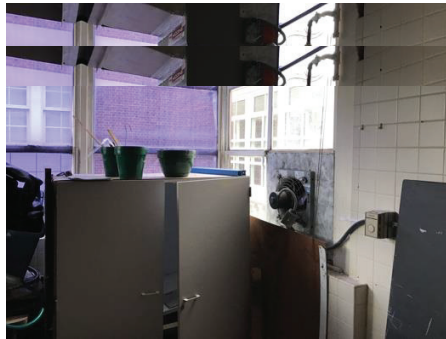
Greenhouse:

The Greenhouse is heated by a ceiling suspended hot water unit heater, and is exhausted by a wall mounted propeller exhaust fan. Ventilation is provided by a wall mounted intake louver and damper assembly. The heating and ventilation systems appear to have been installed in 1988 and are in fair physical condition.

A. Existing Conditions Narrative - Mechanical HVAC

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc

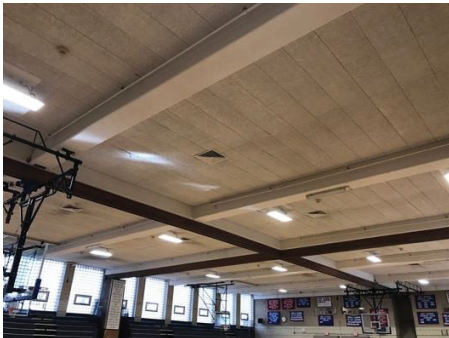
Brookline High School Feasibility Study
Brookline, MA
HVAC Existing Conditions Systems Report
J#831 060 00.00
L#55101/Page 19/January 31, 2017



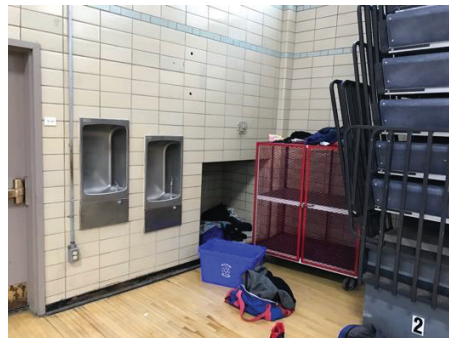
Greenhouse Unit Heater

Gymnasium

The Gymnasium is provided with heating and ventilation from four (4) indoor hot water heating and ventilation units that are located in the Mezzanine area above the Gym, and are ducted to ceiling supply air diffusers in the gym. Each air-handling unit has a hot water heating coil, a source of outside ventilation air, supply fans, and filters. The units appear to be in fair condition, and the units were installed in 1997-8. Each of the units (M-HV-156-1,2,3&4) have a capacity of 4,500 CFM. Service access is limited and difficult for these units due to their installation location in the Mezzanine area. The Gym is also provided with four (4) return/relief air fans located in the Mezzanine and are ducted to low wall return registers located in the Gym. These inline fans are interlocked with the H&V unit operation and were also installed during the 1997-8 renovation project. The supply air registers and associated ductwork appear to be in good condition, but do show some signs of soiling.



Gym Ceiling Supply Diffusers



Gym Return Location



Gym Air Handling Units and Ductwork located in Mezzanine

A. Existing Conditions Narrative - Mechanical HVAC

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc

Brookline High School Feasibility Study
Brookline, MA
HVAC Existing Conditions Systems Report
J#831 060 00.00
L#55101/Page 20/January 31, 2017

Locker and Team Rooms:

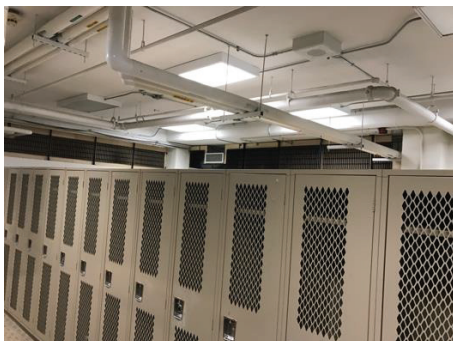
Each Locker/Team room area is provided with an overhead exhaust and supply air heating and ventilation system. The ductwork is generally exposed within each space and appears to be in good condition. Each locker room is served by an indoor hot water heating air handling unit that is located within the locker room area. The units were manufactured by Trane and were installed in 1997-8. The units appear to be in fair condition. Each unit is provided with a source of outside ventilation air, hot water heating coil, filters, and a supply fan. As we understand it, the units do operate and properly ventilate the space. The Boy's Locker/Team room unit (M-HV-051) has a capacity of 3,600 cfm and the Girl's Locker/Team room unit (M-HV-036) has a capacity of 4,050 cfm. Each of the locker/team rooms is served by a roof mounted exhaust fan. The adjacent Vegas (Spining Room) is served by the Girl's Lockeroom H&V unit via overhead supply ductwork.



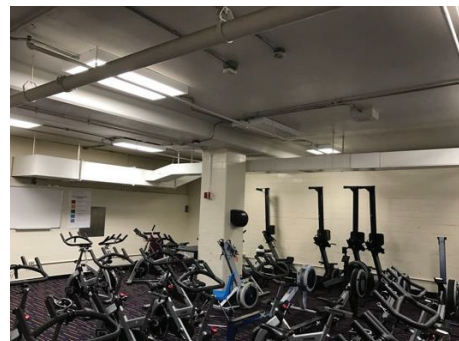
Locker Room Ductwork & Diffusers



Locker Room AHU



Locker Room Ductwork & Diffusers



Vegas Room (Spining)

A. Existing Conditions Narrative - Mechanical HVAC

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc

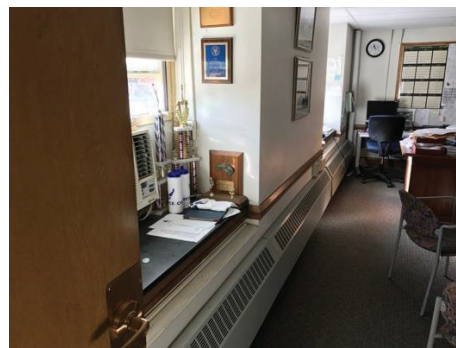
Brookline High School Feasibility Study
Brookline, MA
HVAC Existing Conditions Systems Report
J#831 060 00.00
L#55101/Page 21/January 31, 2017

Athletic Offices and Classrooms:

The Athletic department office areas are generally heated by wall mounted fin tube radiation heating and some of the offices are air conditioned by window AC units. The adjacent Physical Education classrooms are heated by hot water cabinet unit heaters. Some of the cabinet unit heaters have damaged or missing grilles which are in need of replacement. These areas are ventilated by an indoor hot water heating and ventilation unit (Unit # M-HV-300-1) which has a capacity of 1200 CFM and is located in the Mezzanine of the East area of the building.



Athletic Dept Office – Window AC Unit



Athletic Dept. Office – Fintube Radiation



Phys. Ed. Classroom – Cabinet Unit Heater with Missing Grille

A. Existing Conditions Narrative - Mechanical HVAC

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc

Brookline High School Feasibility Study
Brookline, MA
HVAC Existing Conditions Systems Report
J#831 060 00.00
L#55101/Page 22/January 31, 2017

Basement – Office/Team Store/Fitness Room/Classroom/Storage Areas:

The majority of office, Team Store, Fitness room, classroom and storage areas in the basement are ventilated by a ceiling suspended indoor air handling unit equipped with hot water heating, filters and supply air fan. The air handling unit (M-AHU-003) has a capacity of 2,300 cfm, was manufactured by Trane and was installed in 1997-8. The unit appears to be in fair condition.



Basement Classroom Exhaust Fan



Basement Air Handling Unit

Several of the Storage rooms also have ceiling suspended hot water unit heaters, which were typically manufactured by Modine. A dehumidifier unit is installed in a section of the basement corridor.



Basement Storage Room – Unit Heater



Basement Dehumidifier

Emergency Generator Room

The emergency generator room is provided with an outside air intake wall louver, electric unit heater, and Generator vent piping; all of which appears to be in good condition.

Electrical Vault Room

The emergency generator room is provided with an outside air intake wall louver and fan assembly, electric unit heater, and exhaust wall louver assembly, all of which were installed in 1997-8.

A. Existing Conditions Narrative - Mechanical HVAC

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc

Brookline High School Feasibility Study
Brookline, MA
HVAC Existing Conditions Systems Report
J#831 060 00.00
L#55101/Page 23/January 31, 2017

Administration Area:

The First Floor Administration office, conference room, Alumni Hall, and staff work room areas are heated, ventilated and air conditioned by a rooftop air handling unit (M-RTU-500-3). The unit was manufactured by HeatEx, has a capacity of 52.5 tons and 20,000 CFM; and is equipped with a hot water heating coil, DX cooling coil, supply and return fans and filters. The unit has an associated roof mounted air cooled condensing unit. Supply air is ducted from the unit to ceiling supply diffusers. There are a combination of constant volume fan powered boxes and variable air volume boxes with hot water heating coils installed in the branch supply ductwork located between the mains and diffusers. Return air is delivered back to the unit via a return air ceiling plenum system. Some office areas are also provided with hot water fintube radiation heating.



Office –Ductless AC Unit



Office area – Fintube radiation



Office – Ceiling diffusers and registers



Office – Supply air diffuser

Some office areas have wall mounted ductless split system AC units installed. These office areas are generally located away from the first floor main office area. Overall there are approximately 20 ductless split system AC units. Located throughout the building, with associated roof (or grade) mounted condensing units.

A. Existing Conditions Narrative - Mechanical HVAC

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc

Brookline High School Feasibility Study
Brookline, MA
HVAC Existing Conditions Systems Report
J#831 060 00.00
L#55101/Page 24/January 31, 2017

Public Toilet Areas

The toilet spaces are provided with exhaust ventilation, generally from roof mounted exhaust air fans that were installed in 1988 in the Science Wing and in 1997-9 for the remainder of the building. Some of the exhaust registers were noted to be dirty, however the registers observed were not damaged and appeared to be in fair condition.



Bathroom Exhaust

Corridors:

The majority of Corridor areas appear to be provided with code required ventilation. Corridor areas are provided with varying length of fin tube radiation located at the floor level. Several of the fintube radiation enclosure covers were noted to be damaged and slightly dirty.



Corridor Fintube



Corridor Fintube

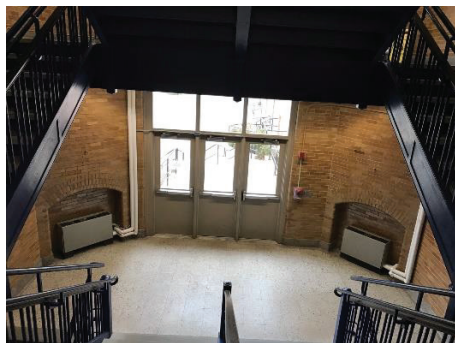
A. Existing Conditions Narrative - Mechanical HVAC

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc

Brookline High School Feasibility Study
Brookline, MA
HVAC Existing Conditions Systems Report
J#831 060 00.00
L#55101/Page 25/January 31, 2017

Entryways & Stairways:

These areas are provided with wall and ceiling mounted cabinet heaters. The majority of the cabinet unit heaters are believed to have been installed in 1997-8 and were noted to be in fair to good condition.



Stairwell/Entry Unit Heaters



Main Entry – Ceiling Unit Heater

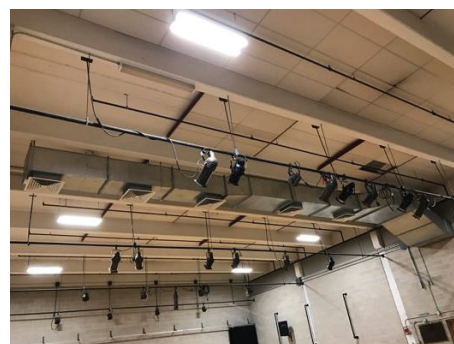
Tappan Street Gym:

Fitness (Wrestling/Dance/Multi-Purpose) Rooms:

These areas are provided with heating and ventilation from hot water H&V units located in adjacent mechanical/storage rooms. The H&V units are provided with hot water heating coil, outside ventilation air, filters, and supply fans. The H&V units were installed in 1997-8 and generally appear to be in good physical condition. H&V unit T-HV-027 serves the Basement Dance Studio and has a capacity of 4,500 cfm. H&V unit T-HV-123 serves the First Floor Dance Studio and has a capacity of 3,600 cfm. H&V Unit T-HV-030 serves the Wrestling /Multi-Purpose room. Supply ductwork is minimal in these areas. Return air is generally drawn low on the wall via wall mounted return air registers. These registers were noted to be slightly dirty.



Wrestling Room-Ceiling Supply Ductwork



Dance Studio-Ceiling Supply Ductwork

A. Existing Conditions Narrative - Mechanical HVAC

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc

Brookline High School Feasibility Study
Brookline, MA
HVAC Existing Conditions Systems Report
J#831 060 00.00
L#55101/Page 26/January 31, 2017

Locker Rooms:

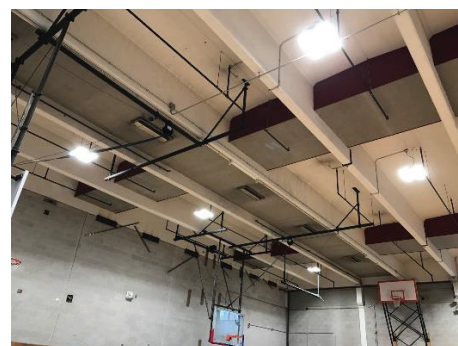
Each Locker room area is provided with an overhead exhaust and supply air heating and ventilation system. The ductwork is generally exposed within each space and appears to be in fair condition. Each locker room is served by an indoor hot water heating air handling unit that is located within a mechanical space adjacent to the locker room area. The units were installed in 1997-8. The units appear to be in fair condition. Each unit is provided with a source of outside ventilation air, hot water heating coil, filters, and a supply fan. The Men's Locker room unit (M-HV-048) has a capacity of 6,165 CFM and the Women's Locker room unit (M-HV-130) has a capacity of 6,425 cfm. Each of the locker rooms is served by a roof mounted exhaust fan.

Second Floor Gymnasium/Balcony:

The Second-Floor Gymnasium and Balcony areas are provided with heating and ventilation from four (4) indoor hot water heating and ventilation units. Two of the H&V units (T-HV-BL4 (6,600 cfm) & T-HV-BL5 (4,500 cfm)) are located in mechanical/storage rooms located on the Balcony Level and two of the H&V units (T-HV-202 (6,600 cfm) & T-HV-208 (4,500 cfm)) are located in second floor mechanical/storage rooms. The units are provided with ceiling level supply ductwork diffusers and sidewall return air grilles. There is an inline exhaust fan located in another second-floor mechanical room that provides exhaust air from the space via ceiling level exhaust ductwork and registers. The H&V units and exhaust fan were installed during the 1997-8 renovation project; however, most of the ductwork was previously installed and was existing to the original building. The H&V units appear to be in good condition, but the ductwork does show some signs of soiling.



Second Floor Gym – Sidewall Return Registers



Second Floor Gym – Ceiling Supply Diffusers

A. Existing Conditions Narrative - Mechanical HVAC

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc

Brookline High School Feasibility Study
Brookline, MA
HVAC Existing Conditions Systems Report
J#831 060 00.00
L#55101/Page 27/January 31, 2017

Third Floor Gymnasium:

The Third Floor Gymnasium is provided with heating and ventilation from five (5) ceiling suspended indoor hot water heating and ventilation units (T-HV-300-1,2,3,4&5). Each air-handling unit has a hot water heating coil, outside ventilation air, supply fans, and filters. The units appear to be in fair condition, and the units were installed in 1997-8. The associated ductwork was previously installed circa 1988. Each of the units (M-HV-156-1,2,3&4) have a capacity of 4,500 CFM. The Gym is also provided with four (4) sidewall propeller type exhaust air fans. These inline fans are interlocked with the H&V unit operation and were also installed prior to the 1997-8 renovation project. The H&V units and associated ductwork appear to be in good condition, and the sidewall exhaust fans show some signs of soiling.



Third Floor Gym – H&V Units



Third Floor Gym – Sidewall Exhaust Fans

There is a general exhaust fan located within a mechanical/storage room adjacent to the Third Floor Gym. The exhaust fan was installed circa 1997-8, and appears to be in fair to poor condition.



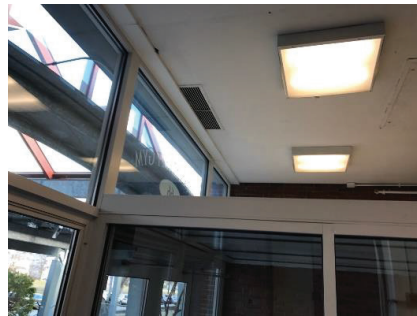
Third Floor – General Exhaust Fan

A. Existing Conditions Narrative - Mechanical HVAC

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc

Brookline High School Feasibility Study
Brookline, MA
HVAC Existing Conditions Systems Report
J#831 060 00.00
L#55101/Page 28/January 31, 2017

Entryway – The Entryway is heated by a ducted ceiling mounted cabinet heater that was installed in 1997-8.



Entryway – Unit Heater Diffusers

Pool Building:

The Pool Building lobby, locker and office areas are primarily heated and ventilated by hot water heating indoor air handling units. The Lobby area is served by AHU unit P-AHU-012 which has a capacity of 1,500 cfm. The Locker rooms are served by AHU unit P-AHU-011 which has a capacity of 3,970 cfm. The office area is served by AHU unit P-AHU-013 which has a capacity of 1,400 cfm. The units were installed in 1997-8 and are located in the Basement area underneath the Pool. The units appear to be in fair condition, but appear to be slightly dirty. The units are each equipped with hot water heating coils, 100% outdoor air capability, supply fans, and filters. Some of the associated ductwork and piping insulation is damaged and other sections of ductwork and hot water piping have missing insulation.



Pool Lobby Ductwork



Pool Basement - AHU

A. Existing Conditions Narrative - Mechanical HVAC

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc

Brookline High School Feasibility Study
Brookline, MA
HVAC Existing Conditions Systems Report
J#831 060 00.00
L#55101/Page 29/January 31, 2017



Pool Basement – AHU – Missing HW Piping Insulation

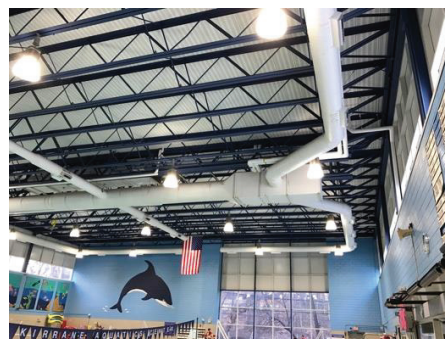


Pool Ductwork with missing insulation

The Pool area is heated, ventilated and dehumidified by a roof mounted PoolPak air handling unit was installed approximately 10 years ago. The associated ductwork was previously installed, and appears to be in good condition. The PoolPak unit has an estimated capacity of 16,000 cfm.



Pool – PoolPak Rooftop AHU



Pool Supply Ductwork

The main entryway vestibule of the Pool building does not have a direct heating source, and is indirectly heated by the Lobby AHU unit.



Pool Building Entry Vestibule

A. Existing Conditions Narrative - Mechanical HVAC

GARCIA • GALUSKA • DESOUSA

Consulting Engineers

Inc

Brookline High School Feasibility Study
 Brookline, MA
 HVAC Existing Conditions Systems Report
 J#831 060 00.00
 L#55101/Page 30/January 31, 2017

Unified Arts Building (UAB):

Most of the UAB classrooms and shops are primarily heated and ventilated by hot water heating indoor air handling units, typically located at the ceiling level within the spaces they serve. The majority of units were installed in 1997-8 and appear to be in good condition. Much of the associated ductwork in the Classroom and Shop areas are routed exposed near the ceiling level of the spaces. Supplemental heating is provided to the building areas by a combination of hot water fin tube radiation, unit heaters and cabinet unit heaters. Several of the fin tube radiation covers appears to be damaged and/or dirty. In total, there are eight (8) heating and ventilation units, ranging in capacity from 1,200 to 3,00 cfm which serve these areas. Each H&V unit typically also has an exhaust fan(s) that are interlock with the unit operation. The exhaust fans in the Shop areas exhaust dust collection systems and canopy hoods. Some Classroom areas are provided with window AC units.



UAB Basement – Exposed Ductwork



UAB Classroom – Ceiling AHU & Ductwork



UAB Classroom – Window AC and Fintube Heating



UAB – Fintube Radiation

The Gallery area and adjacent general classrooms located on the First, Second and Attic levels that with lower exhaust air requirements are ventilated by an indoor heating and ventilation unit (U-AHU-00-1 – 6,150 CFM capacity) which was installed prior to the 1997-8 renovation. The unit mechanical room was not accessible at the time of our visit. The unit is believed to be over 25 years old and approaching the end of its expected useful service life. The associated ductwork was installed in 1997-8 and generally appears to be in good condition, with some diffusers/registers appearing to be dirty and in need of cleaning.

A. Existing Conditions Narrative - Mechanical HVAC

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc

Brookline High School Feasibility Study
Brookline, MA
HVAC Existing Conditions Systems Report
J#831 060 00.00
L#55101/Page 31/January 31, 2017



UAB Basement Shop – Dust Collector System



UAB Ceiling AHU unit and Exhaust Fan



UAB Basement Shop – Canopy Hood Exhaust System



UAB Gallery – Exposed Ductwork

The TV Studio, and adjacent office areas are served by an indoor hot water heating, split system DX cooling (10 ton) air handling unit (U-AHU-48-1) located in a mechanical room in the Attic, which was installed in 1997-8. The server room is served by a split system AC unit that appears to have been installed approx. 10 years ago.



UAB Server Room – Split System AC Unit



UAB – Roof mounted ACC Unit

A. Existing Conditions Narrative - Mechanical HVAC

GARCIA • GALUSKA • DESOUSA

Consulting Engineers

Inc

Brookline High School Feasibility Study
Brookline, MA
HVAC Existing Conditions Systems Report
J#831 060 00.00
L#55101/Page 32/January 31, 2017

The main entryway and corridors of the UAB building are generally heated by wall mounted hot water cabinet unit heaters that were installed in 1997-8. Some of the cabinet unit heaters appear to be in poor condition, and in need of repair and/or cleaning.



UAB Corridor Cabinet Unit Heater



UAB Corridor Cabinet Unit Heater

Recommendations for Renovation and Repair Project:

We recommend that the following HVAC system renovations occur as part of a building renovation and repair project:

- UAB Boiler Plant – Overall the existing boilers, heat exchangers and piping systems appear to be in good condition. The boilers have between 11-16 years of useful service life remaining. The existing boilers are standard efficiency, however have flue gas recirculation which adds to their energy efficiency. In addition the boilers are dual fuel capable which provides the Town School department pricing flexibility between natural gas and oil pricing. Oil fired high efficiency boilers of this size are not readily available commercially at this time. Therefore we would recommend re-using the existing boiler plant as part of a near term renovation project.
- All Buildings - As part of a renovation project we would recommend that all hot water heating piping systems are internally cleaned and flushed.
- All Buildings – Consideration should be given to replacing the building and boiler loop hot water pumps.
- All Buildings- All existing to be re-used HVAC system ductwork, registers and diffusers should be cleaned.
- All Buildings – Damaged Ductwork and Piping Insulation should be repaired/replaced. Particularly in the Pool Building basement area.
- All Buildings - All existing air handling and terminal heating equipment (H&V units, AHU units, unit ventilators, convectors, unit heaters, fin tube radiation) should be cleaned. Damaged fin tube and cabinet unit heater enclosure should be replaced.

A. Existing Conditions Narrative - Mechanical HVAC

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc

Brookline High School Feasibility Study
Brookline, MA
HVAC Existing Conditions Systems Report
J#831 060 00.00
L#55101/Page 33/January 31, 2017

- All buildings - Existing roof exhaust air fans should be replaced with new exhaust air fans. Interior inline exhaust fans should be tested and replaced on an as needed basis. Main HS building older exhaust and intake hoods and ventilators should be replaced.
- All buildings – Window AC units should be replaced with high efficiency AC systems.
- Main Building - Consideration should be given to replacing the existing rooftop and make-up air handling units and associated remote air cooled condensing units, where equipped. New air handling units should incorporate heat/energy recovery with increased effectiveness. New air cooled condensing units should utilize R-410A refrigerant.
- Main Building - Air conditioning could also potentially be added to replacement rooftop units that are currently not provided with air conditioning, if desired. Please note adding air conditioning to existing heating and ventilation systems will also require existing ductwork systems to be insulated and existing duct sizes could potentially reduce the amount of AC that can be provided to areas.
- All Building - Interior H&V units should be considered for potential future replacement. Recommend performing a pre-construction testing report for these units to determine existing capacity.
- Main Building - All existing Music Department, Computer room and Science wing Classroom unit ventilators should be considered for replacement. New heating and ventilation and (air conditioning or dehumidification) system based on a central indoor or rooftop unit approach should be studied.
- Main Building - Science Classrooms should be provided with new fume hood exhaust fan systems.
- UAB Building – Consideration should be given to replacing the Gallery/Classroom indoor air handling unit.
- Pool Building – A new unit heater should be installed to serve the entry vestibule.
- Prior to final design for a repair/replacement project, we recommend that a pre-construction testing and balancing firm is hired to provide a baseline report of the existing buildings air handling and exhaust fans systems.
- As part of a renovation project we recommend that all related HVAC air-side and water-side systems are tested, adjusted and balanced.
- We recommend that the existing building BMS/ATC direct digital control system is updated for the integration of all new and replacement HVAC equipment and systems.

Appendices

A. Existing Conditions Narratives

Electrical Narrative

A. Existing Conditions Narrative - Electrical

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc

Brookline High School Feasibility Study
Brookline, MA
Electrical Existing Conditions Systems Report
J#831 060 00.00
L#55130/Page 1/February 2, 2017

ELECTRICAL

Existing Conditions Systems Report

Executive Summary:

In general, the Electrical systems are in fair condition. The buildings underwent a major renovation in 1996 where all major systems were upgraded. This means that the Electrical systems are approximately one half of their expected serviceable life. There are some major electrical items that were not replaced in 1996 that would make them beyond their serviceable life, which consists of the following: Switchboard “B” at the Tappen St. Gym; distribution panel and associated sub-panels at the PDP-1 Pool Building; and the 100 KW generator at the Unified Arts Building. Although these systems are in fair condition and at one half of their serviceable life, major advances in technology from an energy efficiency stand point have become available which make some of the systems out dated. The existing systems seem to also be code compliant for the time in which they were installed; however, in some cases are not compliant with current codes which we will go into further detail below in the system specific sections.

Electrical Distribution System:

Brookline High School:

The electrical service enters a utility company vault within the high school basement from an underground duct bank on Greenough Street. The utility company is Eversource and the primary voltage is 13.8kV.

The service is rated at 4,000 Amperes 277/480 V WYE, 3 Phase, 4 wire. The main switchgear is rear accessible. Distribution panels are located in remote electric rooms that serve branch circuit panelboards and feed mechanical systems. Most branch circuit panelboards are installed in corridors both flush and surface mounted. Some panelboards in corridors have their associated transformer wall hung above them hidden above the corridor ceiling. An 800 ampere, 3 phase circuit breaker that is interlocked using a kirk key system with the main 4,000 ampere service breaker serves a temporary generator connection box with generator cables and Camlock connections. In general, the electrical distribution system is in fair condition and adequately sized for the building.

A. Existing Conditions Narrative - Electrical

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc

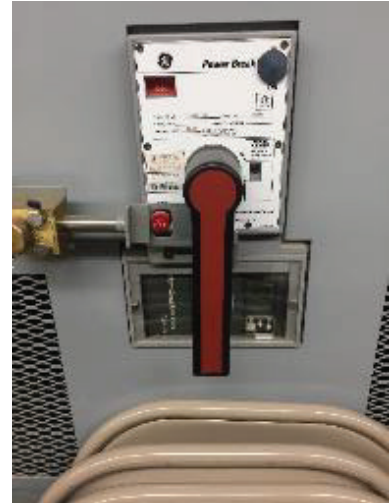
Brookline High School Feasibility Study
Brookline, MA
Electrical Existing Conditions Systems Report
J#831 060 00.00
L#55130/Page 2/February 2, 2017



Main Switchboard Name Plate



Utility Meter



Main Circuit Breaker



Rear Access to Main Switchgear



Typical Distribution Panel



800 AMP Breaker for Temp. Generator

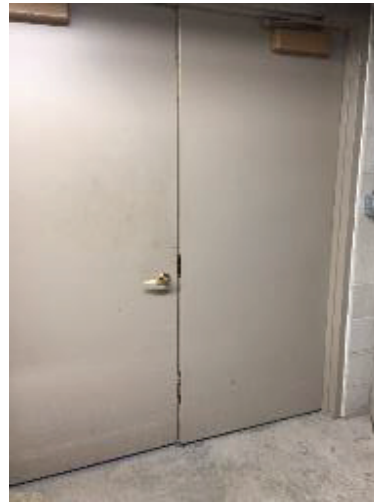
A. Existing Conditions Narrative - Electrical

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc.

Brookline High School Feasibility Study
Brookline, MA
Electrical Existing Conditions Systems Report
J#831 060 00.00
L#55130/Page 3/February 2, 2017



Typical Branch Circuit Panel Board



Electric Room Doors

The entrance door to the main electric room swings into the room and does not contain panic hardware. This is a code violation. Electric rooms with equipment rated 1,200 amperes or more and over six feet require panic hardware on the doors to the room.

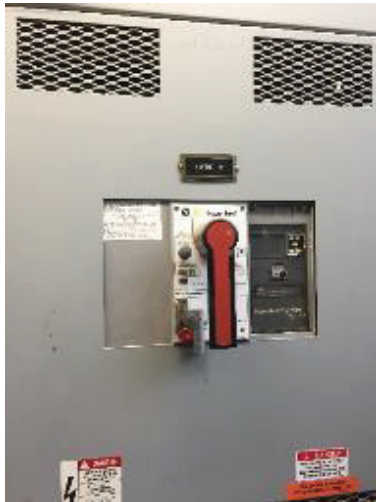
Unified Arts Building:

The electrical service is fed from a utility company primary 13.8kV switch located at the Pool building which feeds a 13.8kV to 277/480V utility company and padmounted transformer also located in front of the Pool building. The transformer secondary feeds Switchboard “C” which is rated at 1,200 Amperes, 277/480V, 3 Phase, 4-wire, 42 KAIC. The switchboard contains a metering section and the utility company meter is located indoors in the Main Electric room meter #5113721. Switchboard “C” feeds a 300kVA transformer that services an 800 Ampere, 120/208V, 3 Phase, 4-Wire Distribution Board “UNDP-1”. The Main Electrical room requires a 1-hour rating because of the 300kVA transformer. The room also requires panic hardware and two exit doors. The room is not in compliance with current code. The Unified Arts Building Switchboard “C” serves the “Central Plant” which services the three buildings mechanical systems. In the Central Plant there are three distribution panels and two motor control centers. “UEDP” 200 Ampere, 277/480V Emergency Distribution Panel, “CPNP” 250 Ampere, 480V Distribution Panel, MCC-1,600 Ampere, 480 Volt Motor Control Center and EMCC-1, 600 Ampere, 480 Volt Motor Control Center backed up by the emergency generator.

A. Existing Conditions Narrative - Electrical

GARCIA • GALUSKA • DESOUSA
 Consulting Engineers Inc.

Brookline High School Feasibility Study
 Brookline, MA
 Electrical Existing Conditions Systems Report
 J#831 060 00.00
 L#55130/Page 4/February 2, 2017



Switchboard "C" Main Switch



Unified Arts Utility Meter



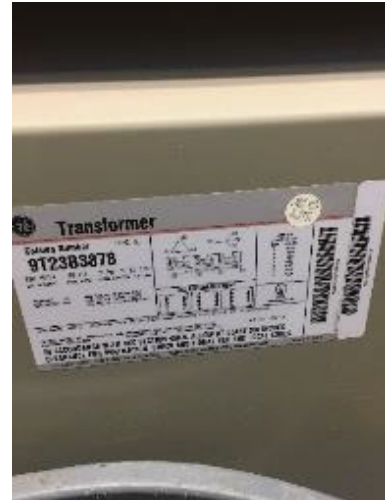
Switchboard "C" Distribution Section



Central Plant MCC



Central Plant Distribution Panel "CPNDP"



300kVA Transformer

Tappen Gym:

The electrical service is fed from a utility company vault below grade adjacent to the building main entry. The vault contains two 225 kVA Transformers with 4,160 Volt primary and 120/208 Volt, 3 Phase, 4-Wire secondaries. The secondaries feed switchboard "B" rated at 1,200 amperes, 120/208 Volt, 3 Phase, 4-Wire. Switchboard "B" is manufacture by Federal Pacific, beyond its servicible life and in poor condition. The main is a fused switch. The utility company meter is located indoors within the main Electric Room Meter #5119745. Switchboard "B" feeds distribution panel "INDP" rated at 800 amperes, 120/208 Volt, 3 Phase, 4-Wire. This distribution panel was added in the 1996 renovation. Switchboard "B" also feeds 400 Ampere panel PDP-1, which is of original vintage and in poor condition. An Emon Demon sub-meter is installed in the Main Electric room and is labeled "GYM". It is assumed that the gymnasium power usage is being motoried and recorded.

A. Existing Conditions Narrative - Electrical

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc

Brookline High School Feasibility Study
Brookline, MA
Electrical Existing Conditions Systems Report
J#831 060 00.00
L#55130/Page 5/February 2, 2017

As part of the 1996 renovation, many of the original vintage Federal Pacific branch circuit panelboards were re-fed by the new distribution board “INDP”. These existing panelboards are in poor condition, have no more capacity, and are beyond their servicable life.



Transformer Vault Grate



Original Vintage Main Fuse Switch



Original Vintage Main Switchboard



Utility Meter



1996 "INDP"



"INDP" Main Circuit Breaker

A. Existing Conditions Narrative - Electrical

GARCIA • GALUSKA • DESOUSA
 Consulting Engineers Inc

Brookline High School Feasibility Study
 Brookline, MA
 Electrical Existing Conditions Systems Report
 J#831 060 00.00
 L#55130/Page 6/February 2, 2017



Emon Demon Sub-Meter



Existing Original Vintage Panelboard



Existing Original Vintage Panelboard

Branch Circuits/Wiring Devices:

Brookline High School:

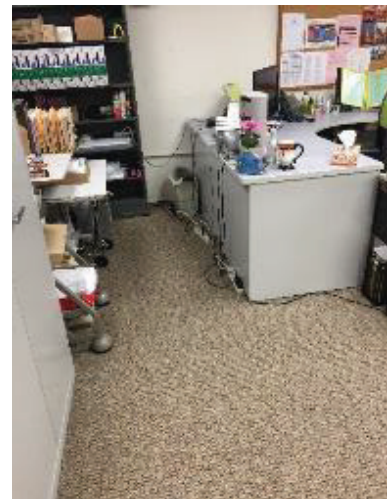
The quantity of receptacles seems adequate, however, in some locations receptacles are not placed properly due to revision of equipment layouts and added equipment over the years. Many types of wiring methods are used throughout the building. Flush mounted receptacles, floor boxes, power poles, cord drops and surface metal raceway serve all type of installations noted in the building. From a ground fault protection standpoint, the building seems to be compliant with exception to the culinary kitchen on the first floor. The outlets are not provided with ground fault protection. This should be rectified as it is a code violation. There were some locations where excessive use of extension cords/ plug strips were noted.



GFCI Receptacles in Science Lab



Cord Drops



Excessive Plug Strip Example

A. Existing Conditions Narrative - Electrical

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc

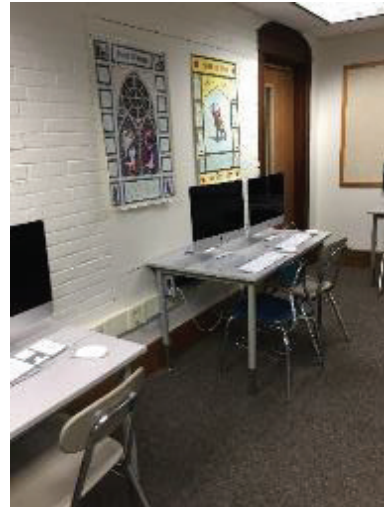
Brookline High School Feasibility Study
Brookline, MA
Electrical Existing Conditions Systems Report
J#831 060 00.00
L#55130/Page 7/February 2, 2017



Surface Mounted Receptacles in Cafeteria



Power Poles in Mac Lab



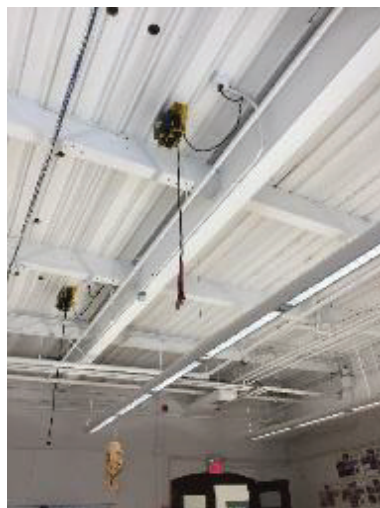
Surface Metal Raceway/Wiremold in Mac Lab

Unified Arts Building:

The quantity of receptacles seems adequate. In general, outlets that have been added are installed in exposed metal raceway. Arts rooms and shops contain cord reels and cord drops for work areas and equipment. Areas that require around fault protection seem to be compliant.



Surface Receptacle



Cord Reel



Cord Drop

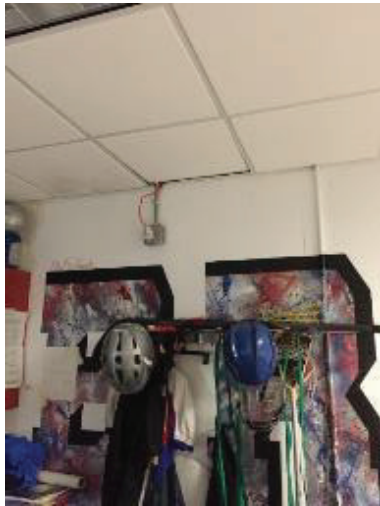
A. Existing Conditions Narrative - Electrical

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc

Brookline High School Feasibility Study
Brookline, MA
Electrical Existing Conditions Systems Report
J#831 060 00.00
L#55130/Page 8/February 2, 2017

Tappen Gym:

Branch circuitry is largely original vintage, some receptacles have been added over the years in a surface metal raceway. In general, the branch circuitry and receptacles throughout are in poor condition. A code violation was noted in the Athletic Trainer room. An extension cord was run above the ceiling.



Added Receptacle Extension Cord Code Violation



Existing Switch

Emergency Power System:

Brookline High School:

The emergency power system consists of an indoor 125kW/156.3 kVA at .8PF, 277/480 Volt, 3 Phase, 4-Wire Cummings Onan diesel fired generator, Model 125 DGEA Serial #G970643264. The generator is in fair condition and has 719 hours. The generator sits on an integral 220 gallon sub-base tank. It serves a single transfer switch fed from a 250 Ampere thermal magnetic circuit breaker mounted to the generator. A second circuit breaker is located in the generator room and feeds a manual transfer switch that is remotely located in the Main Electric room. This manual transfer switch feeds a computer lab. The generator services emergency lighting, sump pumps, and a computer lab. Exit signs are in fair condition and seem to be adequate and properly located. In an educational facility it would be good practice to include any refrigeration units and include communications equipment in addition to the emergency lighting. The 125kW generator may be undersized to accommodate these additional recommended loads for this facility.

A. Existing Conditions Narrative - Electrical

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc

Brookline High School Feasibility Study
Brookline, MA
Electrical Existing Conditions Systems Report
J#831 060 00.00
L#55130/Page 9/February 2, 2017



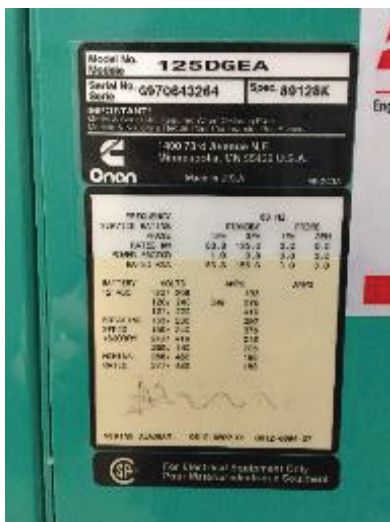
Generator



Generator Tank



Hour Meter



Generator Name Plate

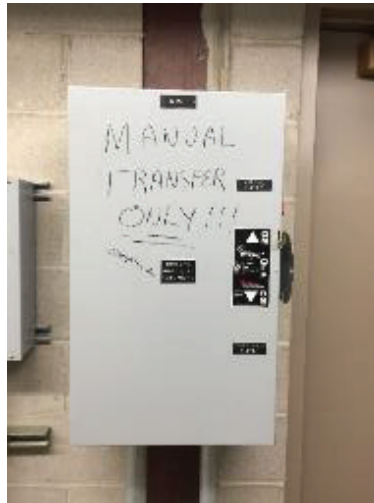


Breaker for Manual Transfer Switch

A. Existing Conditions Narrative - Electrical

GARCIA • GALUSKA • DESOUSA
 Consulting Engineers Inc

Brookline High School Feasibility Study
 Brookline, MA
 Electrical Existing Conditions Systems Report
 J#831 060 00.00
 L#55130/Page 10/February 2, 2017



Manual Transfer Switch

Unified Arts Building:

A 100kW oil fired 277/480 Volt, 3-Phase, 4-Wire Generator is located indoors in the Central Plant. The existing documents show that it is an existing generator that was reconnected in 1996. During the site visit, access was not provided to the generator room so it is assumed to be beyond its servicable life. The generator serves two transfer switches, ATS-1 and ATS-2. ATS-1 serves the life safety distribution for Unified Arts and the Tappan Street Gym. A mineral insulated 2-hour rated feeder runs from the central plant to a 2-hour rated closet in the Tappan Street Gym Panel “CPSDP” in the Central Plant which backs up Boiler #1, fuel oil pumps, primary cold water pumps, and primary heating pumps.



ATS-2



ATS-2 Name Plate



“CPSDP”

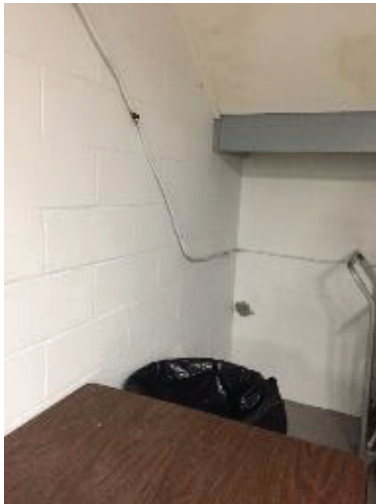
A. Existing Conditions Narrative - Electrical

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc

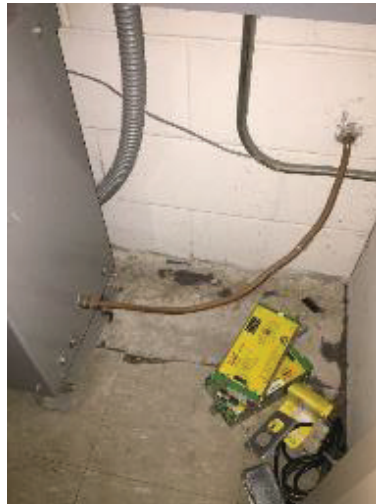
Brookline High School Feasibility Study
Brookline, MA
Electrical Existing Conditions Systems Report
J#831 060 00.00
L#55130/Page 11/February 2, 2017

Tappen Gym:

A mineral insulated 2-hour feeder from the generator at the Central Plant runs exposed through the Tappen Gym and into a 2-hour rated closet with a transformer and Panel TELB that serves emergency lighting. Other equipment has been installed in the 2-hour rated closet that cannot be in the room as it is dedicated for life safety systems. There are also emergency battery units installed in the building. All of the emergency lights in the main gym have been broken and require repair. This is a life safety issue.



MI Feeder



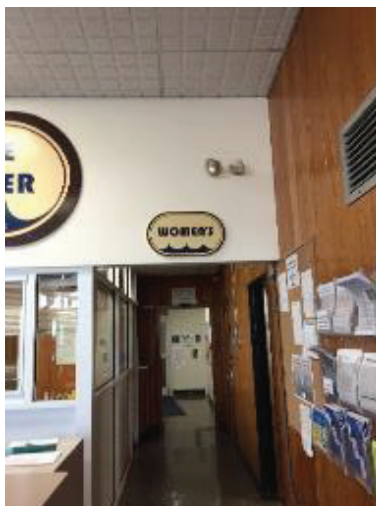
MI Feeder to Transformer



Other Equipment installed in 2-Hour Rated Life Safety Closet



Panel TELB in 2-Hour Rated Closet



Emergency Battery Unit Heads



Broken Emergency Lights in Gym

A. Existing Conditions Narrative - Electrical

Brookline High School Feasibility Study
 Brookline, MA
 Electrical Existing Conditions Systems Report
 J#831 060 00.00
 L#55130/Page 12/February 2, 2017

GARCIA • GALUSKA • DESOUSA
 Consulting Engineers Inc.

Interior Lighting System:

Brookline High School:

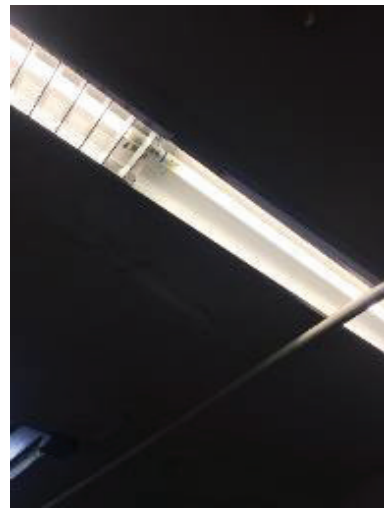
In general, interior lighting are fluorescent fixtures. All fluorescent lamps have been replaced with Retro-Fit Philips LED Tubes. The lighting is in fair condition and generally consist of recessed troffers 2’x2’s in corridors’, rows of 1’x4’s in classrooms, and 2’x4’s in offices. Some classrooms and the library contain pendant direct/indirect fixtures. The gymnasium lighting has been upgraded to 2’x4’ LED troffers with integral occupancy sensors. The stairwells consist of pendant mounted direct linear fixtures with louvers. Many of the louvers are broken or gone in these fixtures. Lighting control is generally via local line voltage switching with the exception of corridors where occupancy sensors have been added and exterior lighting controlled via time clock and photocell via a contactor panel. The existing lighting control does not meet current energy code. High efficiency fixtures and addition of an automated lighting control system would reduce the energy consumption from lighting in the building substantially.



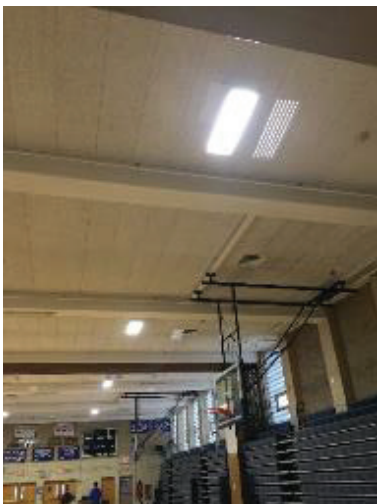
Corridor Lighting



Classroom with Pendant Lighting



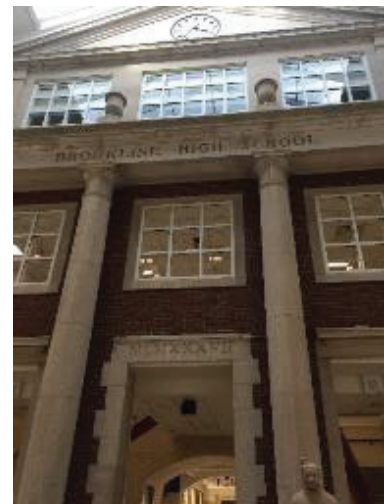
Damaged Stairwell Lighting



Gymnasium Lighting



Main Lobby Lighting

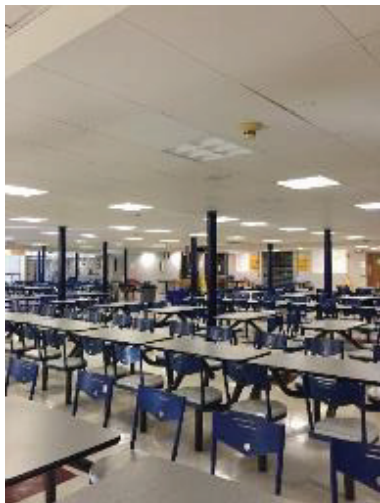


Main Lobby Up-Lighting

A. Existing Conditions Narrative - Electrical

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc

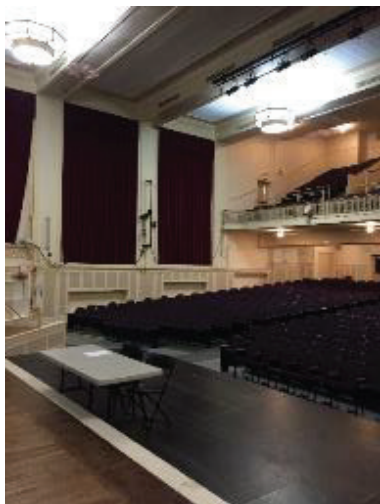
Brookline High School Feasibility Study
Brookline, MA
Electrical Existing Conditions Systems Report
J#831 060 00.00
L#55130/Page 13/February 2, 2017



Cafeteria Lighting



Library Lighting



Auditorium Lighting



Corridor Occupancy Sensor

The Auditorium contains decorative chandeliers for house lighting and a Leviton Dimming System that has been retrofitted into the Auditorium. The access to service the dimming rack is poor. It is mounted up in the catwalk stage left.

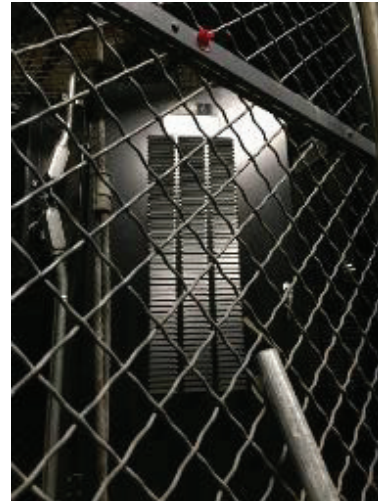
A. Existing Conditions Narrative - Electrical

GARCIA • GALUSKA • DESOUSA
 Consulting Engineers Inc

Brookline High School Feasibility Study
 Brookline, MA
 Electrical Existing Conditions Systems Report
 J#831 060 00.00
 L#55130/Page 14/February 2, 2017



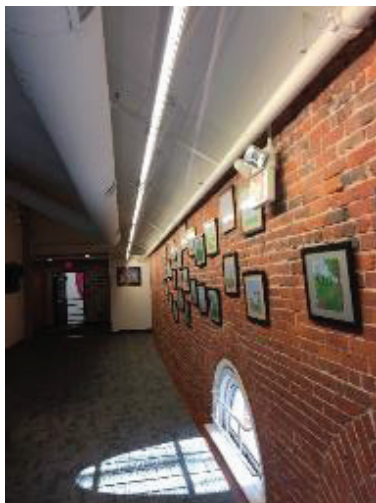
Theatrical Lighting Scene Controller



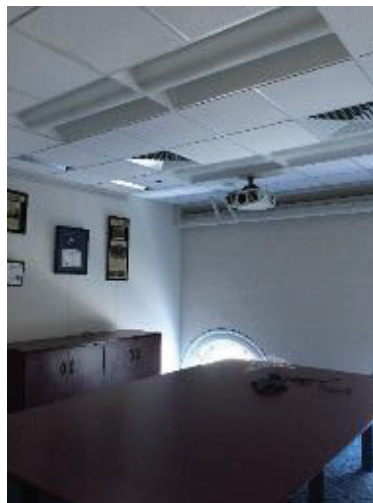
Dimming Rack

Unified Arts Building:

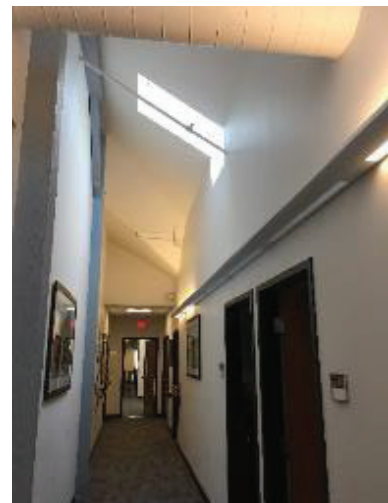
In general, the lighting is in poor condition. Lighting fixtures all consist of fluorescent T8 Lamps and electronic ballasts. Lighting types, in general, are 2'x4' troffers with acrylic lenses, acrylic lensed wrap around fixtures, pendant direct/indirect, and the upper floor TV Studio contains decorative wall sconces and pendant wall washers. The lighting seems to have been upgraded in the TV Studio and entrance gallery area. The building contains a dark room with dark room fixtures for photography development. Lighting control is typically via line voltage local controls. Lighting controls and an LED fixture upgrade would substantially reduce energy consumption.



Wall Washer in Gallery



2'x4' Ballasts in TV Studio Office



Linear Wall Sconce in Gallery Hallway

A. Existing Conditions Narrative - Electrical

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc

Brookline High School Feasibility Study
Brookline, MA
Electrical Existing Conditions Systems Report
J#831 060 00.00
L#55130/Page 15/February 2, 2017



Pendant Lighting in Home Education



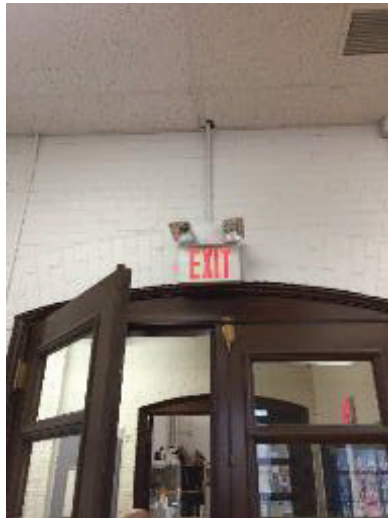
Pendant Wraps



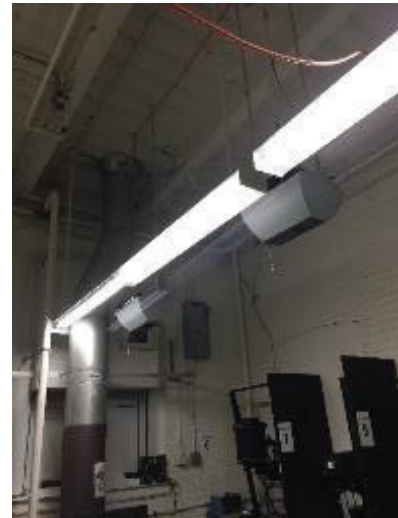
Pendant Direct/Indirect Fixture



2'x4' Troffers



Exit Sign with Emergency Battery Heads



Dark Room

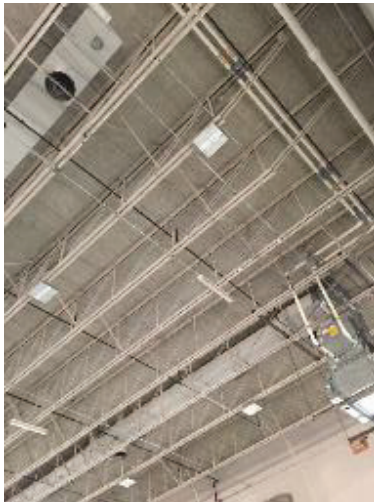
A. Existing Conditions Narrative - Electrical

GARCIA • GALUSKA • DESOUSA
 Consulting Engineers Inc

Brookline High School Feasibility Study
 Brookline, MA
 Electrical Existing Conditions Systems Report
 J#831 060 00.00
 L#55130/Page 16/February 2, 2017

Tappen Gym:

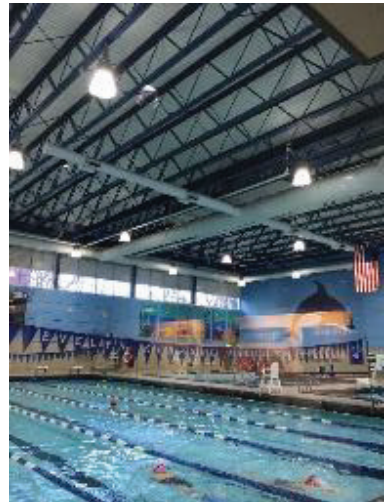
In general, the lighting is in fair condition and consists of mostly fluorescent fixtures with exception to the pool and the gymnasiums. The pool consists of highbay metal halide fixtures and the gymnasiums consist of 2'x2' LED highbays that have recently been upgraded and are in good condition. The pool fixtures are hung over the water, making lamp replacement very difficult. This should be considered under any lighting upgrade in the pool. Lighting control is typically via line voltage local controls. Lighting controls and a full LED fixture upgrade would substantially reduce energy consumption.



Gym Lighting



Gym Lighting



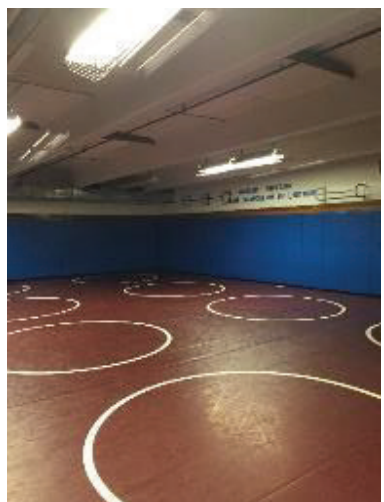
Pool Lighting



Utility Lighting



Surface 2'x4' Lighting

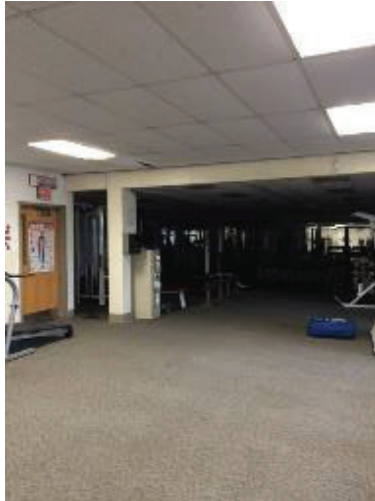


Wrestling Room Lighting

A. Existing Conditions Narrative - Electrical

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc

Brookline High School Feasibility Study
Brookline, MA
Electrical Existing Conditions Systems Report
J#831 060 00.00
L#55130/Page 17/February 2, 2017



Weight Room Lighting

Exterior Lighting System

Brookline High School:

The exterior lighting consists of two site poles with two fixtures with 175 Watt metal halide lamps. Exterior wall packs with induction lamps are located around the building used for egress and area lighting.



Induction Lamp in Exterior Wall Pack

A. Existing Conditions Narrative - Electrical

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc

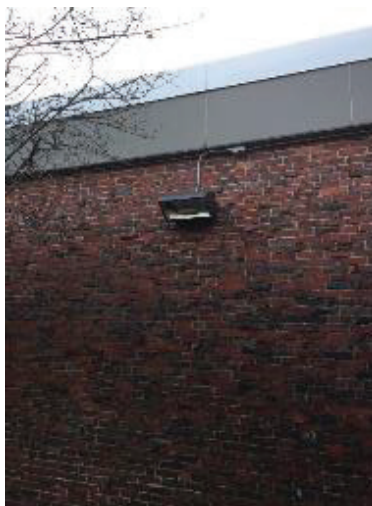
Brookline High School Feasibility Study
Brookline, MA
Electrical Existing Conditions Systems Report
J#831 060 00.00
L#55130/Page 18/February 2, 2017

Unified Arts Building:

The exterior lighting consists of wall sconces mounted over exterior doors that are controlled via time clock. The lights are in fair condition.

Tappen Gym:

Exterior wall packs are located at egress doors. Wall packs contain induction lamps.



Wall Pack

Fire Alarm System

Brookline High School:

The fire alarm system is an addressable Notifier panel. The control panel read all systems normal during the site walk through. The system consists of horn/strobe notification appliances, pull stations, and early warning detection in egress paths. The System does not comply with current code as a voice excuation is required in educational use groups in Massachusetts. The method of transmission to the fire department is via a local energy masterbox. The system is near the end of its servicable life and should be upgraded in the near future.

A. Existing Conditions Narrative - Electrical

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc

Brookline High School Feasibility Study
Brookline, MA
Electrical Existing Conditions Systems Report
J#831 060 00.00
L#55130/Page 19/February 2, 2017



Fire Alarm Control Panel



Typical Pull Station and Horn Strobe

Unified Arts Building:

The fire alarm system is an addressable Notifier panel. The fire alarm control panel is located in the sprinkler room. The control panel finds all systems normal during the site walk through. The system consists of horn/strobe notification appliances, pull stations, and early warning detection in egress paths. The System does not comply with current code as a voice excuation is required in educational use groups in Massachusetts. The method of transmission to the fire department is via a local energy masterbox. The system is near the end of its servicable life and should be upgraded in the near future.



Fire Alarm Control Panel



Fire Alarm Control Panel

A. Existing Conditions Narrative - Electrical

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc

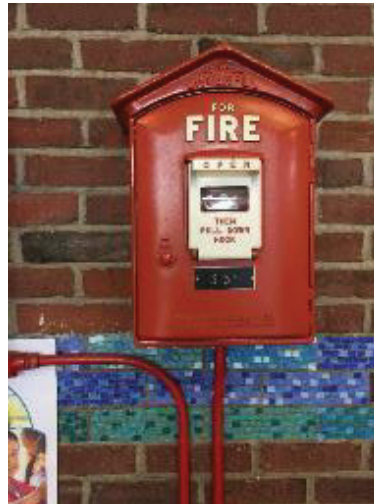
Brookline High School Feasibility Study
Brookline, MA
Electrical Existing Conditions Systems Report
J#831 060 00.00
L#55130/Page 20/February 2, 2017

Tappen Gym:

The fire alarm system at the pool building consists of a Firelite MS-4474 conventional 4-zone panel. This panel is obsolete and the system is not compliant with current code. The fire alarm control panel at the Tappen Street building is an addressable Notifier panel. A voice evacuation system is required in assembly use groups. The method of transmission is via local energy masterbox #3137. The fire alarm system should be replaced in this building and combined into one system.



FACP Pool Building



Masterbox



FACP Tappen Gym

Lightning Protection System

Brookline High School:

The facility does not have a lightning protection system.

Unified Arts Building:

The facility does not have a lightning protection system.

Tappen Gym:

The facility does not have a lightning protection system.

A. Existing Conditions Narrative - Electrical

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc

Brookline High School Feasibility Study
Brookline, MA
Electrical Existing Conditions Systems Report
J#831 060 00.00
L#55130/Page 21/February 2, 2017

Data/Telephone/Classroom Intercom/Clock System

Brookline High School:

The data backbone consists of legacy 62.5 micron multimode between MGF Room and IDF Rooms. The language Lab is also connected to MDF via multimode fiber. The High School is connected to an I-net or district WAN via single mode fiber.

In general, data wiring is CAT 5E throughout the building. The network closets are very disorganized and the patch cabling has not been neatly dressed in a neat and workman like manner. Rack mounted UPS units are located very close to the ground on the rack which subjects them to physical damage. Wireless access points are installed throughout the building. Coverage seems adequate. The classroom intercom system is a Rauland Telecenter System 21. Classrooms contain a wall mounted speaker/clock and call button unit adjacent to the entrance. The school seems to be transitioning to wall mounted VOIP phones in classrooms that replace the call in switch. The paging system seems to be in fair condition.

Wireless radio controlled clocks are replacing the existing clocks as they fail. Most classrooms contain ultra short throw interactive britelink projectors with HDMI cable run to the teachers workstation.

The Language Lab utilizes IMAC workstations and DILL Language Lab software.

There are local sound systems in the Gymnasium, Cafeteria, and Auditorium.

The Schools phone system is a Cisco Call Manager VOIP system. VOIP handsets are located throughout the School.



Ultra Short Throw Projector



Wireless Access Point



VOIP Handset

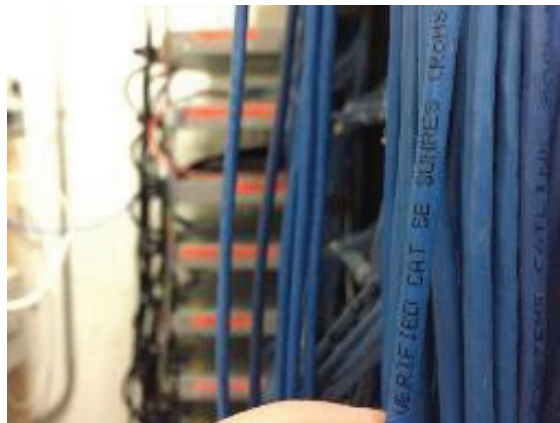
A. Existing Conditions Narrative - Electrical

GARCIA • GALUSKA • DESOUSA

Consulting Engineers

Inc

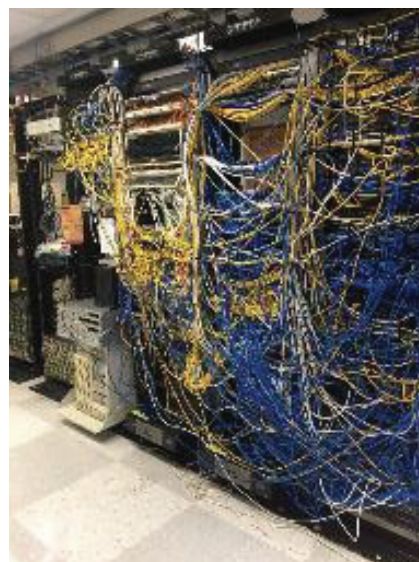
Brookline High School Feasibility Study
Brookline, MA
Electrical Existing Conditions Systems Report
J#831 060 00.00
L#55130/Page 22/February 2, 2017



Data Cable



UPS Subject to Damage

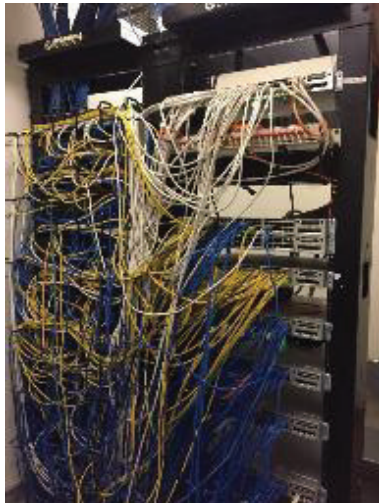


Headend Data Rack

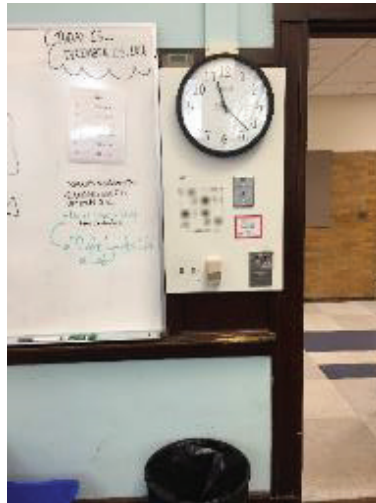
A. Existing Conditions Narrative - Electrical

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc

Brookline High School Feasibility Study
Brookline, MA
Electrical Existing Conditions Systems Report
J#831 060 00.00
L#55130/Page 23/February 2, 2017



IDF Room



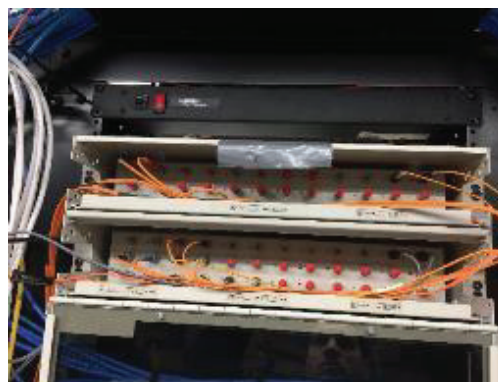
Classroom with Call Button



Classroom with VOIP Handset



Classroom Intercom System Headend



Fiber Distribution

Unified Arts Building:

The data backbone is fed from the High School via multimode fiber. The data wiring is CAT5E throughout. In many locations the data wiring is run exposed and subject to physical damage.

The intercom system is fed from the Rauland telecenter located at the High School Head End Room. There are clock/speaker/call switch boxes in each classroom. It seems as though some IP intercom speakers are being rolled out in some areas.

Most classrooms contain ultra short throw interactive projectors with HDMI cable run to the Teacher's station.

A. Existing Conditions Narrative - Electrical

GARCIA • GALUSKA • DESOUSA
 Consulting Engineers Inc

Brookline High School Feasibility Study
 Brookline, MA
 Electrical Existing Conditions Systems Report
 J#831 060 00.00
 L#55130/Page 24/February 2, 2017

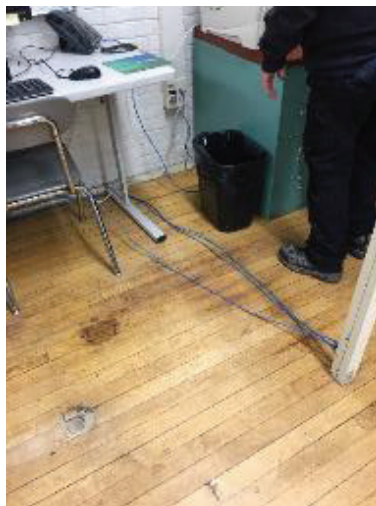
There are Cisco VOIP handsets in the Unified Arts Building that are on the Cisco call manager VOIP system.



Clock/Speaker/Call Switch



IP Speaker



Data Run on Ground



Exposed Data Cables

Tappen Gym:

The data backbone is fed from the High School via multimode fiber. The data wiring is CAT5E throughout. In many locations the data wiring is run exposed and subject to physical damage.

The intercom system is fed from the Rauland telecenter located at the High School Head End Room. There are clock/speaker/call switch boxes in each classroom. It seems as though some IP intercom speakers are being rolled out in some areas.

A. Existing Conditions Narrative - Electrical

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc

Brookline High School Feasibility Study
Brookline, MA
Electrical Existing Conditions Systems Report
J#831 060 00.00
L#55130/Page 25/February 2, 2017

There are Cisco VOIP handsets in the Unified Arts Building that are on the Cisco call manager VOIP system.



Incoming Fiber



Exposed Data Cabling

Security

Brookline High School:

The school contains an intrusion system that consists of motion sensors, door contacts, and keypads to disarm the system. The system seems to be operational.



Motion Sensor in Corridor



Intrusion Keypad

There is no CCTV system installed in the School.

A. Existing Conditions Narrative - Electrical

GARCIA • GALUSKA • DESOUSA

Consulting Engineers

Inc

Brookline High School Feasibility Study
Brookline, MA
Electrical Existing Conditions Systems Report
J#831 060 00.00
L#55130/Page 26/February 2, 2017

The School is equipped with an access control system. Proximity readers are located at a number of entry doors. The access control system seems to be manufactured by AMAG Technology with symmetry door controllers and multiple types of proximity readers.



Door Controller



Proximity Reader



Proximity Reader

Unified Arts:

The School contains an intrusion system that consists of motion sensors, door controls, and keypads to disarm the system. The system appears to be operational.



Intrusion Keypad

There is no CCTV or access control system in the Unified Arts Building.

A. Existing Conditions Narrative - Electrical

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc

Brookline High School Feasibility Study
Brookline, MA
Electrical Existing Conditions Systems Report
J#831 060 00.00
L#55130/Page 27/February 2, 2017

Tappan Gym:

The school contains an intrusion system that consists of motion sensors, door contacts, and keypads to disarm the system. The system seems to be operational.

There is no CCTV system installed in the School.

The School is equipped with an access control system. Proximity readers are located at a number of entry doors. The access control system seems to be manufactured by AMAG Technology with symmetry door controllers and multiple types of proximity readers.



Intrusion Panel



Guest Control Panel



Panic Button in Pool Building

Appendices

B. Additional Meetings & Analysis

Transportation Meeting Minutes

Building Department Meeting Minutes

**Parks and Open Space & Recreation
Meeting Minutes**

**BHS Campus Expansion Study Areas
and Preliminary Massing Diagrams**

Appendices

B. Additional Meetings & Analysis

Transportation Meeting Minutes

B. Additional Meetings & Analysis - Transportation Meeting Minutes



MINUTES

OFFICE: (617) 492 2200
FAX: (617) 876 9775

130 Bishop Allen Drive
Cambridge, MA 02139

hmfh.com

date: 1.9.2017

meeting date: 12.13.2016

re: Transportation- Brookline High School Feasibility Study

attendees: Peter Ditto, Director, Town of Brookline Engineering/Transportation
Todd Kirrane, Transportation Administrator, Town of Brookline Transportation Department
Ray Masak, Owner’s Project Manager, Town of Brookline Building Department
Elizabeth Peart, Howard Stein Hudson Associates, Inc.
Joe SanClemente, Howard Stein Hudson Associates, Inc.
Alicia Crothers, HMFH Architects, Inc.
Deborah Collins, HMFH Architects, Inc.

distribution: Attendees

item: topic:

1. Street Network

- A. Current school enrollment puts pressure on the existing street network.
- B. Several projects are planned in the vicinity. Todd Kirrane will forward drawings.
 - 1. Changes to the traffic island at Blake Road and Tappen Street.
 - 2. New traffic circle at Rawson Road and Gardner Street
 - 3. Shared bike lane markings for Greenough Street
- C. Greenough Street is open for one-way traffic except for between the hours of 9 am – 4 pm, when it is closed to improve the safety of student pedestrian movement. During the design of the 1996 BHS renovation project, there was a proposal to close Greenough Street to develop a pedestrian plaza for the High School. This proposal was met with neighborhood opposition, particularly from the Welland Road neighbors.
- D. Speed bumps were incorporated into Welland Road for traffic calming.
- E. Emergency vehicle access is accommodated around the campus with no problems.

2. Parking

- A. Neighborhood Parking Permit Program
 - 1. Brookline High School teachers, administrators, and staff participate in a lottery for neighborhood parking permits. These permits are valid only Monday – Friday. There are no permits for students.

B. Additional Meetings & Analysis - Transportation Meeting Minutes

Transportation

2 of 3

12.13.16

2. The designated streets are Blake Road, Welland Road, Lowell Road, Stanton Road, Greenough Street to Washington, and Gorham Road. Within these streets, there are 379 spaces. At peak demand, 282 vehicles are accommodated.
3. The Town of Brookline has a moratorium on any increases to the neighborhood parking permit program. As school enrollments have expanded, parking in the neighborhoods has increased.
- B. Student parking includes private arrangements with private residences in the neighborhood to park in driveways. Some students park in the two-hour parking zones and incur parking tickets. Students park on the north-side of Sumner Road. In the morning, there are 2-lanes of traffic used as drop-off, plus bus parking and queuing related to sports and community activities, resulting in a bottle-neck at the intersection of Sumner and Tappen.
- C. There are several parking areas throughout the campus. Most spaces are assigned to the High School staff.
 1. A loop of parking for fifteen (15) cars adjacent to the main building and accessed from Tappan Street.
 2. Parallel parking along the Cypress Street field. Within this parking are 2 accessible spaces, 3 drop-off spaces for the BEEP program, and the remainder allotted to the High School.
 3. Parking adjacent to and behind the Tappan Street Gym building. This parking is assigned to High School.
 4. A lot near the Unified Arts Building. This lot had been striped for tandem parking, which was not successfully implemented. In this lot, there are four (4) parking spaces assigned to Recreation staff.
 5. The MBTA parking lot with five (5) spaces at the Brookline Hills MBTA station. This is MBTA property but the Town of Brookline maintains it and regulates the parking meters.
- D. There is a conflict between the community members using the pool early in the morning and the teachers arriving for school.
- E. Evening use of the High School is heavy with Adult Ed and an active Performing Arts program with over 100 events a year. Parking in the neighborhood is impacted.
- F. The possibility of underground parking beneath the Cypress Street field was discussed. The use of the field is subject to the regulations of Article 97. There is also a large MWRA sewer line that transverses the field.
3. School Busses
 - A. Bus #51 (Public Transportation Advisory)
 1. The MBTA runs a special bus only in the afternoon to transport students to South Brookline. The students wait in front of the Tappen Gym near the corner of Sumner Rd & Tappen St. It is at capacity – first come, first serve.
 - B. SPED drop-off is at the bend on Lowell Road on the north side of BHS.
 - C. METCO drop off is in front of the Tappen Gym.
4. Traffic Study

B. Additional Meetings & Analysis - Transportation Meeting Minutes

Transportation

3 of 3

12.13.16

- A. SMMA/Appendix VAI Report – Traffic Study is a DRAFT and is incomplete, missing:
 1. Lacking observations volume, operations, safety, parking, queuing and circulation issues with data and analysis, including back-up associated with Cypress Street intersections, at Tappen St and Boylston St./Rt.9, and at Washington St.
 - B. HMFH/ Howard-Stein Hudson will propose intersections to be studied and will review with Transportation Department. The Town would also like to know travel mode shares of BHS students.
5. Pedestrian Circulation and Access
- A. BHS is an “Open” campus. Students can go off-campus for lunch.
 - B. Many students are dropped-off in the morning. Students and staff arrive by public transportation primarily at the MBTA Green Line Brookline Hills station. Also, there are bus routes at Washington St.
 - C. Student circulate back and forth between the main campus building(s) and the Tappen Gym, the UAB, and the MBTA station throughout the day. Raised cross walks at Tappen/Greenough and at Davis Ave/Dana St. have been added for traffic calming, however students cross streets between the main buildings and the UAB at random.
 - D. Private Daycares in the area, such as at Brookline Village, Washington, and Cypress streets, use the Cypress Playground at specific assigned intervals throughout the day.
6. Bicycle Traffic and Circulation
- A. There is a large volume of bicycles, both students and staff, in the spring and fall.
 - B. Refer to See Bicycle Network Plan. Updates every January, review in 2017, as well as “Complete Streets” policy and prioritization plan.
 - C. Plans are for repairing Tappen to provide shared car-bike lanes. Also, Brookline would like more and new standards for bicycle racks.
7. Cypress Field Open Space
- A. BHS uses the field/open space for sports practice and games.
 - B. Community Recreation uses fields for various activities. The design team activities include meeting with the athletic department and the Recreations and Parks departments.
 - C. Summer use is heavy by both the BHS and Community/Recreation programs, using the school facilities and the field/open space.
8. Other Issues for Brookline
- A. Air-quality studies and reports and the impact on schools near major street/traffic.

Follow-up -- Meet with Hal Mason – Assistant Head of Operations at the Brookline High School.

Appendices

B. Additional Meetings & Analysis

Building Department

B. Additional Meetings & Analysis - Building Department



MINUTES

OFFICE. (617) 492 2200
FAX. (617) 876 9775

130 Bishop Allen Drive
Cambridge, MA 02139

hmfh.com

date: 5.11.2017

meeting date: 12.14.2016

re: Brookline High School Feasibility Study

attendees: Ray Masak, Owner’s Project Manager, Town of Brookline Building Department
 Charlie Simmons, Director of Public Buildings, Brookline Building Department
 Mark Sacco, Town of Brookline Building Department
 Chris Garcia, Garcia Galuska DeSousa Consulting Engineers Inc.
 Dominic Puniello, Garcia Galuska DeSousa Consulting Engineers Inc.
 Alicia Crothers, HMFH Architects Inc.

distribution: attendees

item: topic:

1. BHS Main Building Existing Mechanical Equipment
 - A. The system is essentially 20 years old, installed as part of the 1996-1998 renovation. Equipment is routinely serviced and maintained.
 - B. Wing-A (2006 project) is fully air conditioned, with VAV units served from three (3) roof-top units, and scattered ductless units.
 - C. Fresh air is through heat recovery units with carbon-dioxide monitors.
 - D. Heating by fan-coil units.
 - E. All units are Rooftop Units except for serving the BHS Locker Rooms, and (1) Basement Unit for the Administration Wing-A
 - F. The control network has been upgraded using the Siemens’ “Apogee” software.
 - G. The BHS-Science-Wing existing HVAC system was renovated in the 1980’s, switched over from steam to hot-water system

2. Existing Main Central Heating/Boiler Plant
 - A. The campus boiler plant is in the basement of the Unified Arts Building. Boiler are 20-yr old Cleaver Brooks.
 - B. The campus buildings are connected by steam tunnels. As part of the 1996 renovation, steam was replaced with high-temperature hot water.
 - C. Town of Brookline preference is a 4-pipe hot-water/chilled-water system.
 - D. GGD will develop a Life Cycle analysis of the option of a separate boiler for the High School or maintaining the Central Plant.
 - E. Ray Masak noted that the Unified Arts Building and the steam tunnels have lead paint.
 - F. (2) 15,000 Diesel Emergency Generator fuel storage tanks are located just between the UAB and Pool buildings below grade.

B. Additional Meetings & Analysis - Building Department

topic

2 of 3

5.11.2017

- G.
- 3. Kirrane Aquatic Center
 - A. HVAC and Fire Alarm systems have been updated
 - B. Pool-Pack System for dehumidification was replaced 10 years ago. They generally have a 30-year life-cycle if maintained.
 - C. Brookline proceeding with the PV-project at the roof of the Pool
 - D. Charlie - noted that the site has had water issues in the basement. Confirm with DPW-Engineering if there are flood-zone as part of old stream-river system.
 - E. Ground-water injection-pump and sewer injection systems
- 4. BHS Campus - Sustainable Design Issues and Goals
 - A. HMFH suggested that any renovated or new MEP/FP/IT systems would meet the similar standards as the Devotion-ES project, GGD designed dehumidification system, no AC at classrooms.
 - B. HMFH also questioned what are the goals for LEED, and Energy Performance.
 - C. Brookline noted that Net-Zero requirements are not far off, and that the performance should be designed similar to at least LEED silver. Brookline also stated that they may just replace parts of systems rather than entire new systems. Also R. Masak noted that the 9th ES project is following climate-action plan
 - D. GGD noted that they complete energy model and life-cycle-analysis of the system and components, and that it is important that overall performance is best achieved by the design and installation of new systems. Plus, review and evaluate the central plant combined vs. separate systems
- 5. Plumbing - Piping renovated in 1996 project including all steam was removed from all buildings, and replaced by welded steel piping, except there is some brass piping in the UAB and Gym facilities.
- 6. Fire Protection System - completed in 1996, a complicated Dry and Wet Zone Sprinkler Systems
- 7. Electrical - existing panels installed in 1996
- 8. Misc. Technology
 - A. NO Clock Systems
 - B. NO Cameras: except at the Boiler Room and under the Pool. Note Brookline is reviewing the location and use of exterior cameras around the campus.
 - C. Modified Voice System: with speakers in the hallways and at larger rooms
- 9. Utilities/Storm-water/ Sewer
 - A. Utilities at Tappan St. outside the UAB -- Brookline noted that there is NO-slope as the existing line is almost zero from the UAB building out to the street structures. There has been sewer back-up on Tappan Street so a sewer injection system has been installed.
- 10. Other BHS Campus Project Issues
 - A. BHS-Science Class-Labs
 - 1. Bring the existing up to Code

B. Additional Meetings & Analysis - Building Department

topic

3 of 3

5.11.2017

2. Some spaces have emergency showers, however, in the past they have been triggered and flooded the school, so they are currently locked.
3. The current code requires eyewash stations, depending on the Fire-chief's review and approval

B. BHS - Existing Windows (at A-Wing)

1. HMFH noted that the Draft versions of the BHS Education Plan includes a number of comments about the need for operable windows, better temperature controls and ventilation
 2. Brookline provided background on the problems with the Wausau windows, noting that the large windows at the Center-A-wing are difficult to operate as they are 100lbs./sash
- C. Summer Operations: 50% of the summer programs are for Special Education. Portable AC-Window units are used.
- D. Interior Air Quality: Brookline has students with individual ed. plans requiring HVAC ventilation
- E. Acoustics: Ray commented that acoustics sound isolation of the mechanical systems are very important, noting that the BHS-Martin Luther King Room is an example where the mechanical systems need better sound isolation
- F. UAB: The CCTV-Studio that occupies the upper floor, was a costly project and will not likely relocate.

NEXT STEPS

Meet with Mark Sacco for more information about the HVAC system(s)

Walk-thru with the GGD MEP/FP/IT consultant team and BHS Campus Facilities, Dec. 28th

document1

Appendices

B. Additional Meetings & Analysis

Parks and Open Space & Recreation

Memorandum and Meeting Minutes

B. Additional Meetings & Analysis - Parks & Open Space / Recreation



MEMORANDUM

date: 1.17.2017

from: HMFH – Deborah Collins and Alicia Crothers

to: Erin Gallentine – Parks & Open Space Division Director
Lisa Paradis – Recreation Department Director

re: BHS Feasibility Study - Cypress Field and Open Space

cc: Ray Masak, Ben Lumis, Mary Ellen Dunn

OFFICE. (617) 492 2200
FAX. (617) 876 9775

130 Bishop Allen Drive
Cambridge, MA 02139

hmfh.com

Open Space Plan:

Programs & Activities:

Recreation - Athletics / Health & Wellness/ Fitness

Summer and After School and Adult Ed programs?

Schedules Utilization: at Field, Playgrounds

Athletic Fields

Playgrounds: Ages / Day Care Use (Permits) Spray Pool, and or Splash Pads

Cultural and Other Uses: Outdoor Film and Concert Events, Farmers Market

Local Community and Abutters Uses

Landscape Issues: Open lawn

Picnic Areas/ Learning Gardens/ Outdoor Learning and Study Areas

Trees Open Space trees, existing and new. (Tree Bylaw)

Streetscape Issues: Street Trees

Utilities: Easements / Other Easements, Guidelines, Regulations

Bikes: Bicycle Storage and Trail(s) at Davis

Dog Areas

Other Amenities' and Accessories

Article 97 – Land Use

Underground Parking Structure:

Vehicle Ramp, Pedestrian Access, emergency access, mechanical exhaust

B. Additional Meetings & Analysis - Parks & Open Space / Recreation

topic

2 of 3

1.17.2017

Cypress Street Playground

Category:	Community Parks
Size:	5.22 acres
Protection:	Article 97, National Register (eligible)
Manager:	Brookline DPW, Parks and Open Space Division
Location:	Brookline Avenue
Precinct:	6
Inventory Date:	10/09/04, revised 2/1/05
Vicinity:	Vicinity Bordered by multi-family houses, Cypress Street and Brookline High School.



Overview:

The playground is a long rectangular park located between multi-family houses on the north, Cypress Street on the east, the High School on the west and the Main Gym and Kिरrane Aquatic Center on the south. A play area and spray pool are located at the bottom of the slope beside Cypress Street. A basketball court and bleachers stand beside the large multi-purpose field. The fields are used extensively for High School sports, adult leagues, and youth sports. New playground equipment was installed in 1999 and 2000, with donations from neighborhood families and parents of children in the Brookline Early Education Program.

Park History:

This site, along with the Brookline Avenue Playground, was one of the first municipal purchases for playground purposes in the United States. In 1876, the new property was filled with loam from the Fairmont (now Dudley) Street pit, and thirty young maples were planted. By 1880 the Brookline Athletic Club had built a track and seats for sport exhibitions. The playground was enlarged in 1886. Over the years, the property has been the site of many activities, including ice skating, track meets, baseball, and football.

Deed/Title/Restrictions:

The Town bought this land from William B. Craft for \$45,878.50 in 1871 as "public grounds to use, improve, and maintain for the public use forever, as and for a public square, park, common or playground, not otherwise."

Cypress Street Playground

B. Additional Meetings & Analysis - Parks & Open Space / Recreation

topic

3 of 3

1.17.2017

The following is a list of Outdoor Program features that we have been tracking based on the various Feasibility Study Meetings to date:

OUTDOOR PROGRAM / ACADEMIC and COMMUNITY	
<i>(List activities and of different sizes separately)</i>	
Outdoor Learning Spaces / Small, Medium, Large	
Outdoor Performance / Amphitheatre/ Summer Films	
Bicycle Parking	
Cypress Field	
Natural-Lawn Area (Campus Quad) BHS Open Campus	
Community Picnic	
Football Field and Soccer Field	
Baseball and or Softball	
Bleachers	
Basketball court	
Confirm Other: Concessions/Restroom Facilites	
Cypress Playground	
Playground(s): 6months - 2 yrs	
Playground(s): 2 yrs - 5 yrs	
Playground(s): 5 yrs - 12 yrs	
Confirm Spray & Splash	
Confirm Others: Skate Park / Excersize Stations	
Underground Parking Structure	
Parking	
Head-house Pavilion, Stairs/ Elevator/ Paystations	

B. Additional Meetings & Analysis - Parks & Open Space / Recreation



MINUTES

date: 1.19.2017

meeting date: 1.17.2017

re: Brookline High School Feasibility Study

attendees: Erin Gallentine, Brookline Parks & Open Space Director
Pip Lewis, Deborah Collins, Alicia Crothers, HMFH Architects Inc.

distribution: attendees; BHS Ray Masak, Mary Ellen Dunn, Ben Lummis

OFFICE. (617) 492 2200
FAX. (617) 876 9775

130 Bishop Allen Drive
Cambridge, MA 02139

hmfh.com

item: topic: BHS Campus – Parks and Open Space - Cypress Playground

1) Renovation Project

- A. The renovation of the existing Cypress Field and Playground is part of the town override funding the BHS project.
- B. The Park and Open Space by-law has a specific design review and public meeting process for any park improvements. Erin will help coordinate and facilitate the P&OS process in coordination with the BHS School process.
- C. The design team includes Halvorson Design, Landscape Architect and Nobis Engineering, Civil Engineering

2) Existing

- A. The playground is a public park first, inclusive, accessible and multi-generational.
- B. There is a large lawn field that is a catch all for the High School, with (2) Softball fields, and lighting for use until 10pm.
- C. BHS High School uses the space daily during athletic seasons for practices – rugby, football, powder-puff, lacrosse, soccer and captains' practices. The field is also used for JV soccer games and Girls Softball games.
- D. Community permitted use daily from 5:30 until 10 pm, including; travel soccer, youth soccer, summer sports camps, and Recreation and Adult Education partnership, plus neighborhood use. Men's Softball C-team also uses the field(s).
- E. At the eastern end is a single Basketball court used for pick-up games.
- F. The playground area has a spray pad and playground with 2-5 and 5-12 equipment/structures, at the eastern end near Cypress St. The small sloped area is used for sledding. Because of the heavy use the neighborhood Daycare/Pre-schools use the playground on a rotating schedule.

B. Additional Meetings & Analysis - Parks & Open Space / Recreation

topic

2 of 3

1.19.2017

- G. Flagpole at the southwest corner, near Tappan St. and Greenough St. P&OS is in the process of installing a bronze Plaque mounted on a stone base for Hennessey Park. Also, there is a Historic Plaque.

3) Large Turf Fields for BHS Athletics and Community Recreation

- A. Maximize a new rectangular turf field. Test fit to provide a combination of soccer, lacrosse, football, and one or two softball fields
- B. HMFH provided preliminary Test fit diagrams, in combinations of Football, Soccer, a 400meter track, and a 200meter track. Pip-HMFH noted that the BHS Educational Plan talks about the need for 200- meter, as an indoor field house. Erin-P&OS advised not to show the 200-meter track in the outdoor Cypress field.
 - 1. Erin-P&OS suggested look at -a test-fit combination of Soccer and Lacrosse with ideally (2) Softball, and without Football.
 - 2. The footprint of a full- size 400 - meter track is too large to fit on the site without a reconfiguration of Tappan St. Erin-P&OS noted that improvement of Tappan St., such as raised intersections and shorter cross-walks are recommended to provide better access and safety.
 - 3. Erin-P&OS suggested that a Fitness Loop, made of flex-paving, with possible fitness station(s) as a track/path may be more suitable. Examples of this are at the Waldstein and Eliot Parks, renovations.
 - 4. Confirm and coordinate with Lisa-Recreation the need for (2) Softball fields
- C. Provide all new full lighting connected to the town MUSCO controls.

4) Playgrounds

- A. Replace/Provide new low-flow splash pad and good sized playground for 2-5 and 5-12 as the playground structures are heavily used by neighborhood pre-schools and summer school programs. There is opportunity for creative use of the sloped/hill area.

- 5) **Basketball Court** -- Remove drain in the middle of the court, add lights for extended hours of use, and, also if possible add a second court

6) Picnic Area

- A. Picnic areas by permit, usually for 15-people or more, allows public to reserve the area.
- B. Provide a Picnic area a with a shelter. No grills.

7) Improve Features -- Drainage/ New Utilities/ Fencing/ Recycling/ Bicycle Racks

- A. Improve the Drainage throughout the field and playground facility.
- B. Provide new utilities, such as back-flow preventer, the existing electrical panel located at/along Tappan St.
- C. Replace fencing, and provide new fencing at Cypress St.
- D. New provisions for Recycling Big-Bertha containers

B. Additional Meetings & Analysis - Parks & Open Space / Recreation

topic

3 of 3

1.19.2017

- 8) **Snow Removal and Maintenance** -- important to be coordinated with Parks & Open Space / Recreation
- 9) **Street Trees and Park Trees**
 - A. Review of removal and replacing Street-Trees at sidewalks is under Chapter-89 and must be reviewed by the Town of Brookline Arborist, and a different process than for Park Trees.
- 10) **Pedestrian Access and Other Uses -- Circulation / Seating / Bicycle Racks**
 - A. Provide a seat-wall at the back-of-sidewalk on the north side of Greenough St. for students waiting for pick-up
 - B. Pedestrian access and desire-lines including across the park at Dana and Davis streets to the MBTA station
 - C. Dedicated learning areas such as raised beds for science are not recommended. There is most likely not enough space for this activity at the public park.
 - D. Possibly a stage-like area and seating areas as the field still is and will be used for BHS graduations.
- 11) **Other Structures -- Concessions, Restrooms, Equipment Storage / Head-House Pavilions at Underground Parking**
 - A. Currently the BHS and field operate as, and under, an open-campus policy. The Public uses the school facilities and buildings for restrooms. Issues of the expanded school facility and security may impact this arrangement, and the need for facilities to support the field/playground activities.
 - B. Building features such as Auto-lock Restrooms, Equipment Storage, and Head-houses associated with below grade parking are to be coordinated with the BHS campus plan strategies
 - C. HMFH provided diagrams that show possible Underground Parking under the field. Parking below would allow for possible modification/ improvements to the Tappan St. street campus linking the BHS with the other campus buildings, UAB and Tappen.
 - D. HMFH provided diagram locating a new community Pool located on the playground at Cypress St., with playground and open space features on the roof.
 - E. Structures such as Underground Parking and a Pool will involve Article 97.

Attachments

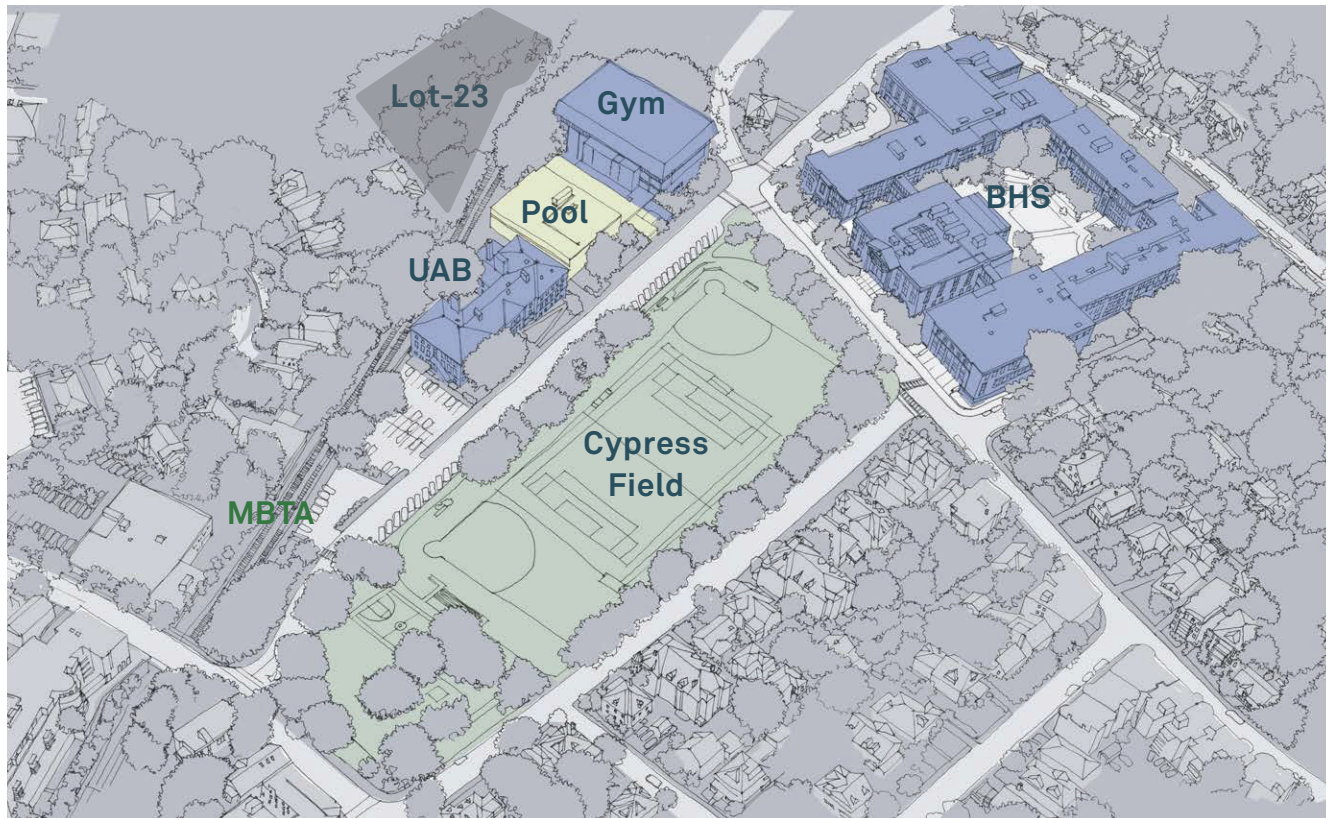
- Erin Gallentine – P&OS provided a memo with project goals
- HMFH provided both a Memo-BHS FS Parks Open Space Rec and a 11x17 Preliminary Diagrams of Cypress Field & Playground. This handout is to be up-dated based on today's input and further review with BHS-Athletics and Recreation.

Appendices

B. Additional Meetings & Analysis

BHS Campus Expansion

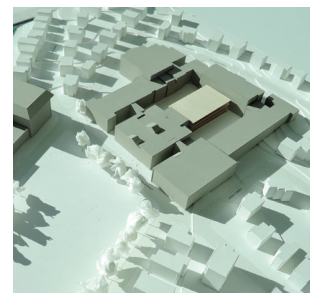
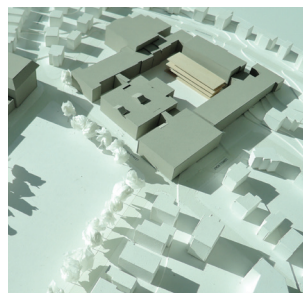
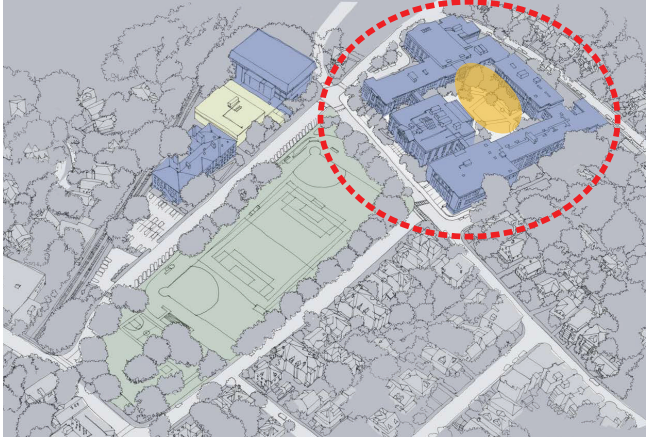
Preliminary Massing Study Areas



B. Additional Meeting Materials

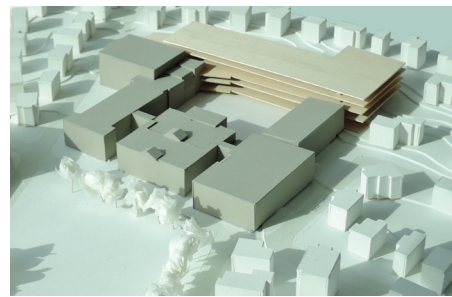
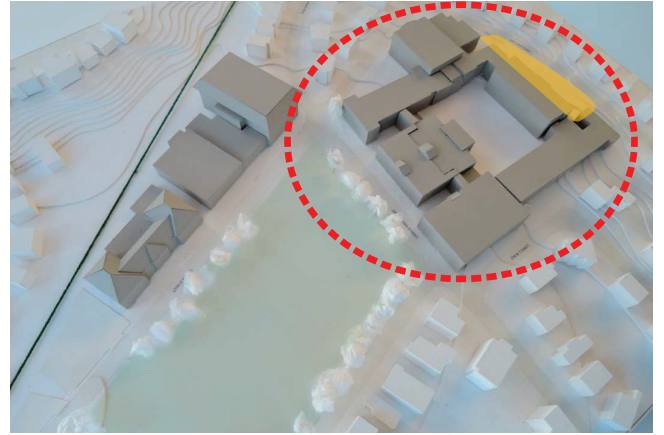
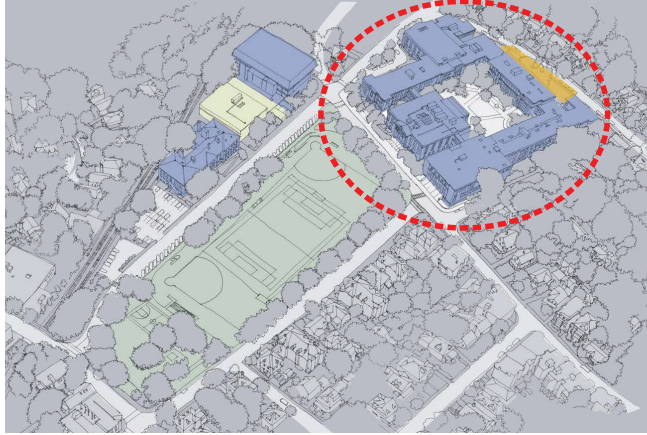
Preliminary Massing Study Areas - BHS Campus Space Harvesting

BHS Main Building - Courtyard

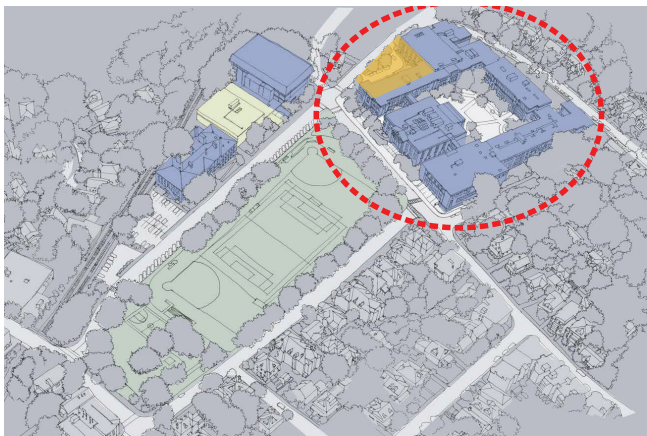


B. Additional Meeting Materials Preliminary Massing Study Areas - BHS Campus Space Harvesting

BHS Main Building - BHS North at Welland Road



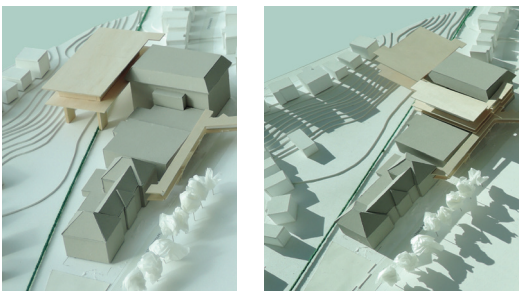
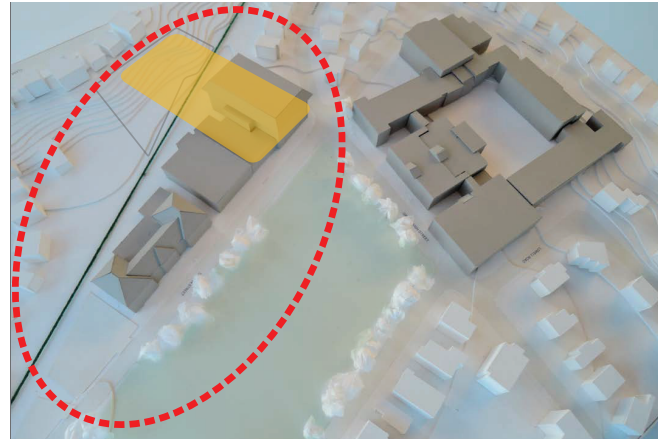
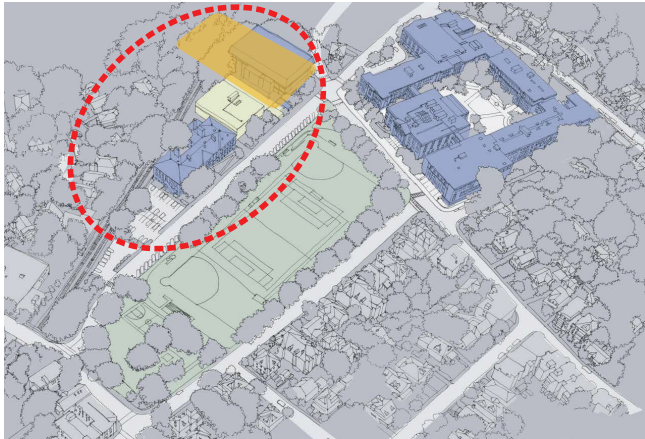
BHS Main Building - BHS West at Tappan St. (Roberts-Wing)



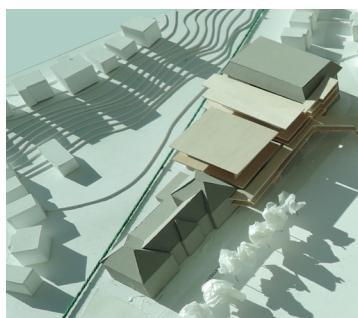
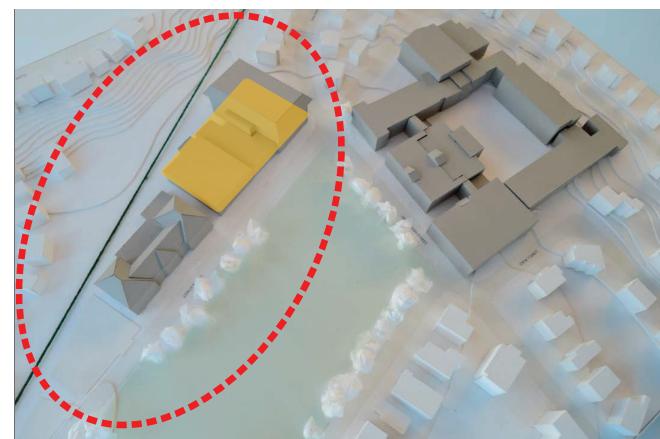
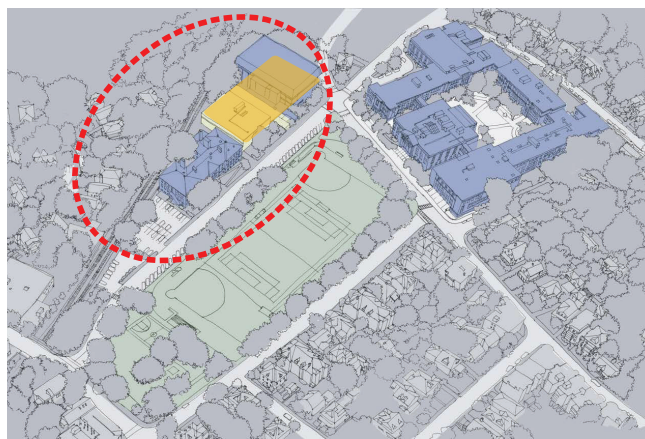
B. Additional Meeting Materials

Preliminary Massing Study Areas - BHS Campus Space Harvesting

Tappan Gym Building - Over the MBTA and at Lot 23



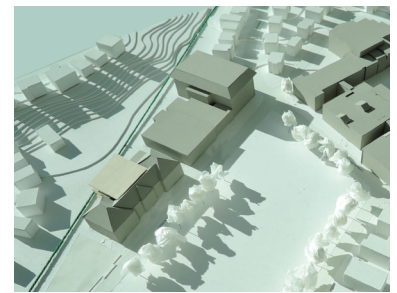
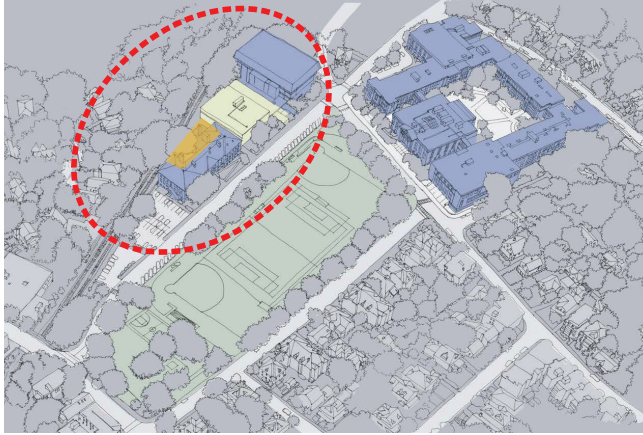
Tappan Gym Building - Over the Kirrane (Recreation) Pool



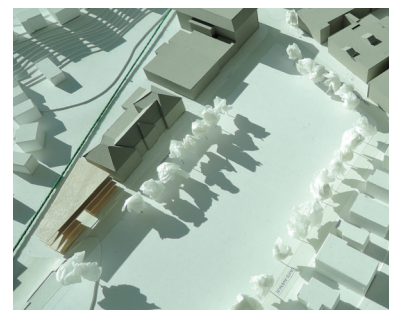
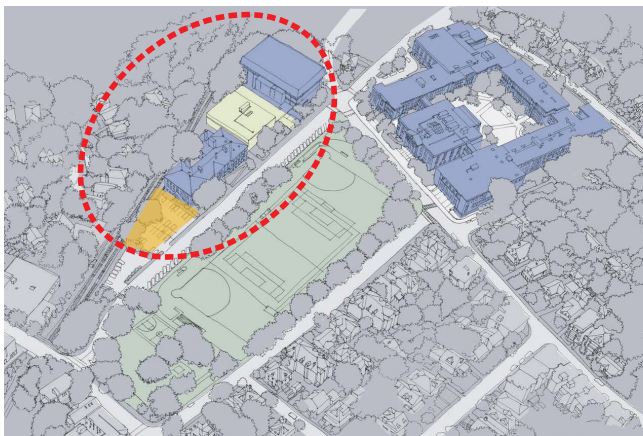
B. Additional Meeting Materials

Preliminary Massing Study Areas - BHS Campus Space Harvesting

Unified Arts Building - South/West



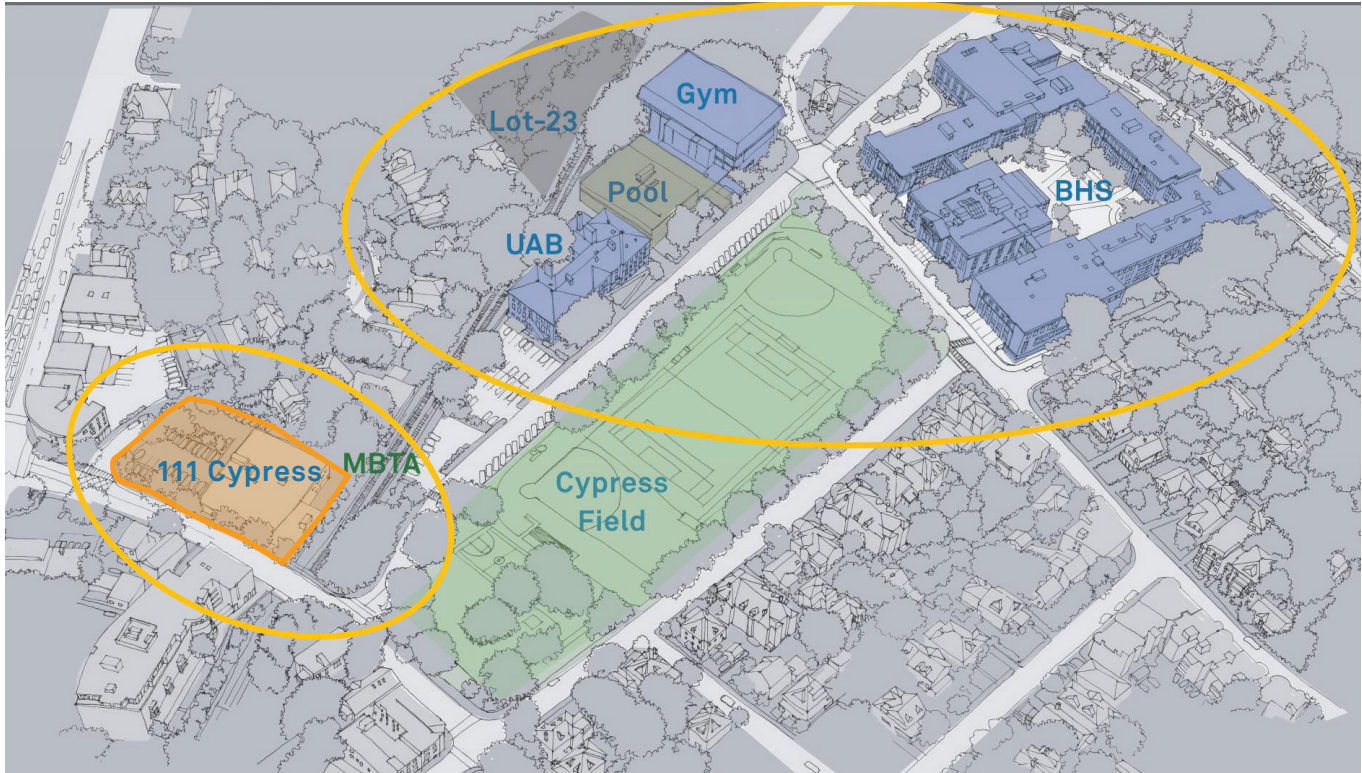
Unified Arts Building - East at Parking Lot



B. Additional Meeting Materials

Preliminary Massing Study Areas - BHS Campus Space Harvesting

BHS Campus Expansion - Additional Stand-alone Off-site Facility at 111 Cypress Street



Appendices

C. Utilization

Brookline High School Utilization

9th Grade Academy Utilization

Tappan and Schluntz Gym Utilization

Memorandum Projected Tappan &

Schluntz Gym Utilization

Memo to BHS Building Committee from

Physical Education and Health

BHS Athletic Director

Brookline Recreation Director

Appendices

C. Utilization

Brookline High School Utilization

C. Utilization - Brookline High School

Depth/Description	P	Teacher	TrackID	Schedule	Name	Depth	Code	Num	Class	Total	Maj	Deght	ID	Current Course Enrollment S1	Current Course Enrollment S2	Enrollment Increase S1	Enrollment Increase S2	Projected Course Enrollment S1	Projected Course Enrollment S2	Max Students per Section	No. of Sections S1	No. of Sections S2	No. of Sessions per week	Sessions per week S1	Sessions per week S2	Periods per Week	Total Stations Req. S1	Total Stations Required S2	Notes		
AC5510-01 OP Academic Achievement		Evans, Elijah; Little, Benjamin; Shields, Elliot; Shearck, Julia	M/W	Ac Act/ PGP(M,W)	Evans, Elijah	OP	FY	8		15	OP																		Multiplier from 43 to 100		
AC5510-02 OP Academic Achievement		Evans, Elijah; Shields, Elliot; Shearck, Julia	T/F	Ac Act/ PGP(T,F)	Evans, Elijah	OP	FY	0		15	OP																				
AC5510-03 OP Academic Achievement		Evans, Elijah; Little, Benjamin; Shields, Elliot; Shearck, Julia	Ac Ach 4X	Ac Act/ PGP(M,W,F)	Evans, Elijah	OP	S1	12		15	OP			8	2,325	19	15	2	2	4	4	4	4	4	4	4	1,000	1,000	1,000 in four periods at end of day		
AC5510-04 OP Academic Achievement		Evans, Elijah; Little, Benjamin; Shields, Elliot; Shearck, Julia	Ac Ach 4X	Ac Act/ PGP(M,W,F)	Evans, Elijah	OP	S2	9		15	OP																				
AC5511-01 OP Academic Achievement 4X		Evans, Elijah; Little, Benjamin; Shields, Elliot; Shearck, Julia	Ac Ach 4X	Ac Act/ PGP(M,W,F)	Evans, Elijah	OP	FY	14		20	OP			14	2,325	33	33	2	2	4	4	4	4	4	4	4	2,000	2,000	2,000 in four periods at end of day		
AC5512-01 OP Academic Achievement		Evans, Elijah; Little, Benjamin; Shields, Elliot; Shearck, Julia	T/F	Ac Act/ PGP(T,F)	Evans, Elijah	OP	S1	9		0	OP																				
AC5512-02 OP Academic Achievement		Evans, Elijah; Little, Benjamin; Shields, Elliot; Shearck, Julia	T/F	Ac Act/ PGP(T,F)	Evans, Elijah	OP	S2	11		15	OP																				
HR1001-01 OP Advisory		Little, Benjamin	Advisory	Advisory(T,R)	Little, Benjamin	OP	FY	11		40	OP			9	11	2,325	21	26	15	2	2	4	8	8	4	2,000	2,000	2,000 in four periods at end of day			
HR1001-02 OP Advisory		Evans, Elijah	Advisory	Advisory(T,R)	Evans, Elijah	OP	FY	11		20	OP																				
HR1001-03 OP Advisory		Shearck, Julia	Advisory	Advisory(T,R)	Shearck, Julia	OP	FY	11		20	OP																				
HR1001-04 OP Advisory		Shields, Elliot	Advisory	Advisory(T,R)	Shields, Elliot	OP	FY	10		20	OP																				
PGP001-01 OP Post Graduate Planning 1		Lopez, Kara	PGP (T)	Ac Act/PGP(T)	Lopez, Kara	GU	FY	0		15	OP			43	43	2,325	100	100	20	5	5	2	10	10	2	5,000	5,000	5,000 Shared CR			
PGP002-01 OP Post Graduate Planning 2		Lopez, Kara	GM	Ac Act/ PGP(M,W)	Lopez, Kara	GU	S1	9		15	OP																				Shared with Academic Achievement
PGP002-02 OP Post Graduate Planning 2		Lopez, Kara	GM	Ac Act/ PGP(M,W)	Lopez, Kara	GU	S2	11		20	OP																				Shared with Academic Achievement
PGP003-01 OP Post Graduate Planning 3		Lopez, Kara	ET(GF)	Ac Act/ PGP(T,F)	Lopez, Kara	GU	FY	8		15	OP																				Shared with Academic Achievement
EN020-01 OP Thematic Lit Analysis		Shearck, Julia	Class 2	Ac 2(M-F)	Shearck, Julia	OP	Term 1	6		25	OP			6	2,325	14	25	1	5	5	10	5	5	10	5	10	0,500	0,500			
EN050-01 OP Creative Writing		Shearck, Julia	Class 1	Ac 1(M-F)	Shearck, Julia	OP	Term 1	3		20	OP			3	2,325	7	20	1	5	5	10	5	5	10	5	10	0,500	0,500			
EN070-01 OP Humanities Seminar		Evans, Elijah	Class 1	Ac 1(M-F)	Evans, Elijah	OP	Term 1	13		20	OP			27	2,325	63	20	4	5	20	10	20	10	20	10	20	2,000	2,000			
EN070-02 OP Humanities Seminar		Evans, Elijah	Class 2	Ac 2(M-F)	Evans, Elijah	OP	Term 1	14		20	OP			4	2,325	9	20	1	5	5	10	5	5	10	5	10	0,500	0,500			
MA0120-01 OP Algebra 2A		Shields, Elliot	Class 2	Ac 2(M-F)	Shields, Elliot	OP	Term 1	3		20	OP			4	2,325	9	20	1	5	5	10	5	5	10	5	10	0,500	0,500			
MA020-01 OP Algebra 2B		Shields, Elliot	Class 1	Ac 1(M-F)	Shields, Elliot	OP	Term 1	4		20	OP			4	2,325	9	20	1	5	5	10	5	5	10	5	10	0,500	0,500			
MA0920-01 OP Statistics Seminar		Little, Benjamin	Class 1	Ac 1(M-F)	Little, Benjamin	OP	Term 1	14		20	OP			27	2,325	63	20	4	5	20	10	20	10	20	10	20	2,000	2,000			
MA0920-02 OP Statistics Seminar		Little, Benjamin	Class 2	Ac 2(M-F)	Little, Benjamin	OP	Term 1	13		20	OP			27	2,325	63	20	4	5	20	10	20	10	20	10	20	2,000	2,000			
MA1120-01 OP I/5 Intro to Alg		Shields, Elliot	Class 2	Ac 2(M-F)	Shields, Elliot	OP	Term 1	1		25	OP																				Incl. in MA0220-01
TERM 1 SUBTOTAL																															6,000

C. Utilization - Brookline High School

Dept./Description	P	Teacher	Track/ID	Schedule	Name	Dept. Code	Num	Clsr	Total	Max	Dept./ID	Term	Current Course Enroll	Enrollment Increase Multiplier	Projected Program Enroll	Projected Program Enroll	No. of Sections	No. of Sections	No. of Sections	Sessions per week	Sessions per week	Periods per Week	Total Sessions Required	Notes	
													Enroll	Enroll	Enroll	Enroll	S1	S2	S1	S2	S1	S2			
EN0620-01	OP	Siesarchik, Julia	Class 2	Ace 2(M-F)	Siesarchik, Julia	OP	Term 2	8	20	OP	Term 2														
EN1120-01	OP	Siesarchik, Julia	Class 1	Ace 1(M-F)	Siesarchik, Julia	OP	Term 2	10	20	OP	Term 2														
MA0120-02	OP	Shields, Elliot	Class 2	Ace 2(M-F)	Shields, Elliot	OP	Term 2	15	20	OP	Term 2														
MA0220-04	OP	Shields, Elliot	Class 1	Ace 1(M-F)	Shields, Elliot	OP	Term 2	1	1	OP	Term 2														
MA0820-01	OP	Shields, Elliot	Class 2	Ace 2(M-F)	Shields, Elliot	OP	Term 2	9	20	OP	Term 2														
SO0120-01	OP	Evans, Elijah	Class 1	Ace 1(M-F)	Evans, Elijah	OP	Term 2	9	20	OP	Term 2														
SO0220-01	OP	Evans, Elijah	Class 2	Ace 2(M-F)	Evans, Elijah	OP	Term 2	14	20	OP	Term 2														
SC0520-01	OP	Little, Benjamin	Class 2	Ace 2(M-F)	Little, Benjamin	OP	Term 2	7	20	OP	Term 2														
SC0620-01	OP	Little, Benjamin	Class 1	Ace 1(M-F)	Little, Benjamin	OP	Term 2	3	20	OP	Term 2														
CE105-01	OP	Lopez, Kara	Ind Study	Ace 1(M-F)	Lopez, Kara	GU	Term 3	1	1	OP	Term 3														
CE105-01	OP	Lopez, Kara	Ind Study	Ace 1(M-F)	Lopez, Kara	GU	Term 3	1	1	OP	Term 3														
EN0120-01	OP	Siesarchik, Julia	Class 2	Ace 2(M-F)	Siesarchik, Julia	OP	Term 3	11	30	OP	Term 3														
EN0220-01	OP	Siesarchik, Julia	Class 1	Ace 1(M-F)	Siesarchik, Julia	OP	Term 3	11	30	OP	Term 3														
EN0720-03	OP	Evans, Elijah	Class 1	Ace 1(M-F)	Evans, Elijah	OP	Term 3	8	30	OP	Term 3														
EN1620-01	OP	Siesarchik, Julia	D Block	D Block (M-W-F)	Siesarchik, Julia	OP	Term 3	1	30	OP	Term 3														
MA0920-03	OP	Little, Benjamin	Class 2	Ace 2(M-F)	Little, Benjamin	OP	Term 3	8	30	OP	Term 3														
MA0320-01	OP	Shields, Elliot	Class 2	Ace 2(M-F)	Shields, Elliot	OP	Term 3	8	30	OP	Term 3														
MA0520-01	OP	Shields, Elliot	Class 1	Ace 1(M-F)	Shields, Elliot	OP	Term 3	8	30	OP	Term 3														
MA0820-02	OP	Shields, Elliot	Class 1	Ace 1(M-F)	Shields, Elliot	OP	Term 3	1	1	OP	Term 3														
SC0120-01	OP	Little, Benjamin	Class 1	Ace 1(M-F)	Little, Benjamin	OP	Term 3	14	30	OP	Term 3														
SC0120-01	OP	Evans, Elijah	Class 2	Ace 2(M-F)	Evans, Elijah	OP	Term 3	16	30	OP	Term 3														
EN0120-02	OP	Evans, Elijah	Class 2	Ace 2(M-F)	Evans, Elijah	OP	Term 3	1	30	OP	Term 3														
EN0220-02	OP	Siesarchik, Julia	Class 2	Ace 2(M-F)	Siesarchik, Julia	OP	Term 4	4	30	OP	Term 4														
EN1320-02	OP	Siesarchik, Julia	D Block	D Block (M-W-F)	Siesarchik, Julia	OP	Term 4	0	30	OP	Term 4														
EN1320-03	OP	Siesarchik, Julia	Class 1	Ace 1(M-F)	Siesarchik, Julia	OP	Term 4	2	30	OP	Term 4														
EN1520-01	OP	Siesarchik, Julia	Class 1	Ace 1(M-F)	Siesarchik, Julia	OP	Term 4	4	30	OP	Term 4														
EN1620-02	OP	Siesarchik, Julia	Class 1	Ace 1(M-F)	Siesarchik, Julia	OP	Term 4	1	30	OP	Term 4														
MA0220-02	OP	Shields, Elliot	Class 2	Ace 2(M-F)	Shields, Elliot	OP	Term 4	10	30	OP	Term 4														
MA0620-01	OP	Shields, Elliot	Class 1	Ace 1(M-F)	Shields, Elliot	OP	Term 4	6	30	OP	Term 4														
SC0120-02	OP	Little, Benjamin	Class 2	Ace 2(M-F)	Little, Benjamin	OP	Term 4	13	30	OP	Term 4														
SC0120-02	OP	Little, Benjamin	Class 1	Ace 1(M-F)	Little, Benjamin	OP	Term 4	8	30	OP	Term 4														
SO1220-01	OP	Evans, Elijah	Class 1	Ace 1(M-F)	Evans, Elijah	OP	Term 4	16	30	OP	Term 4														
SO1220-01	OP	Evans, Elijah	Class 2	Ace 2(M-F)	Evans, Elijah	OP	Term 4	1	30	OP	Term 4														
SO1420-02	OP	Evans, Elijah	Class 2	Ace 2(M-F)	Evans, Elijah	OP	Term 4	1	30	OP	Term 4														
EN0320-01	OP	Siesarchik, Julia	Class 2	Ace 2(M-F)	Siesarchik, Julia	OP	Term 5	13	30	OP	Term 5														
EN1320-01	OP	Siesarchik, Julia	Class 1	Ace 1(M-F)	Siesarchik, Julia	OP	Term 5	9	30	OP	Term 5														
MA0120-03	OP	Shields, Elliot	Class 1	Ace 1(M-F)	Shields, Elliot	OP	Term 5	1	30	OP	Term 5														
SC0320-01	OP	Little, Benjamin	Class 2	Ace 2(M-F)	Little, Benjamin	OP	Term 5	9	30	OP	Term 5														
SO0420-01	OP	Evans, Elijah	Class 2	Ace 2(M-F)	Evans, Elijah	OP	Term 5	6	30	OP	Term 5														
SO0420-01	OP	Little, Benjamin	Class 1	Ace 1(M-F)	Little, Benjamin	OP	Term 5	12	30	OP	Term 5														
SO1520-01	OP	Evans, Elijah	Class 2	Ace 2(M-F)	Evans, Elijah	OP	Term 5	14	30	OP	Term 5														
EN0420-02	OP	Siesarchik, Julia	Class 2	Ace 2(M-F)	Siesarchik, Julia	OP	Term 6	8	30	OP	Term 6														
EN1420-01	OP	Siesarchik, Julia	Class 1	Ace 1(M-F)	Siesarchik, Julia	OP	Term 6	5	30	OP	Term 6														
MA0220-03	OP	Shields, Elliot	Class 2	Ace 2(M-F)	Shields, Elliot	OP	Term 6	10	30	OP	Term 6														
SO0320-01	OP	Evans, Elijah	Class 1	Ace 1(M-F)	Evans, Elijah	OP	Term 6	16	30	OP	Term 6														
MA0820-03	OP	Shields, Elliot	Class 1	Ace 1(M-F)	Shields, Elliot	OP	Term 6	6	30	OP	Term 6														
SC0220-01	OP	Little, Benjamin	Class 1	Ace 1(M-F)	Little, Benjamin	OP	Term 6	8	30	OP	Term 6														
SC0720-01	OP	Little, Benjamin	Class 2	Ace 2(M-F)	Little, Benjamin	OP	Term 6	11	30	OP	Term 6														
SO1420-01	OP	Evans, Elijah	Class 2	Ace 2(M-F)	Evans, Elijah	OP	Term 6	6	30	OP	Term 6														
ACE SUBTOTAL																									
ACE SUBTOTAL AT 85% UTILIZATION																									
CE5200-01	CE	Early Childhood	C Block	3(M-W)4(F)	Meeirov, Sandra	CE	S1	UA	10	25	CE	S1												6,000 0.000 0.000 Includes CE5200 & CE5600	
CE5600-01	CE	Early Child Cur	C Block	3(M-W)4(F)	Meeirov, Sandra	CE	S2	UA	9	25	CE	S2													
EARLY CHILDHOOD EDUCATION SUBTOTAL																									
EARLY CHILDHOOD SUBTOTAL AT 85% UTILIZATION																									

C. Utilization - Brookline High School

Dept./Description	P	Teacher	Track	Schedule	Name	Dept. Code	Num	Cs	Sr	Total	Max	Deg	ID	Term	Current Course Enroll	Enrollment Increase	Projected Course Enroll	No. of Students per Section	No. of Sections	No. of Sections per week	Sessions per week	Sessions per week	Total Sessions Required	Notes		
						CE	S1	S2	S3	S4	UA	CE		S1	S2	S3	S4		S1	S2	S3	S4	S1	S2		
CE5500-01 CE Medical Careers	Joyal, Julie	Joyal, Julie	B Block	1(R-F) 2(M,W)	Joyal, Julie	CE	S1	347	347	19	0	CE	WL6630-01/CE5550/CE5	S1	19	18	1,385	26	25	2	4	8	28	0.286	Assumed 18 max	
CE5500-02 CE Medical Careers	Joyal, Julie	Joyal, Julie	B Block	1(R-F) 2(M,W)	Joyal, Julie	CE	S2	347	347	18	0	CE	WL6630-01/CE5550/CE5	S2	19	18	1,385	26	25	2	4	8	28	0.286	Assumed 18 max	
CE5500-03 CE Medical Interpretation & Translation Spanish	Fuertes-Rodriguez, Marta	Fuertes-Rodriguez, Marta	D Block	2(F) 4(W) 5(T,W)	Fuertes-Rodriguez, Marta	WL	UA	14	14	5	20	CE	WL6630-01/CE5550/CE5	FY	15	15	1,385	21	21	1	4	4	28	0.143	Includes CE551, WL6630-01, WL6630-01	
CE5500-04 CE Medical Interpretation & Translation Portuguese	Fuertes-Rodriguez, Marta	Fuertes-Rodriguez, Marta	D Block	2(F) 4(W) 5(T,W)	Fuertes-Rodriguez, Marta	WL	UA	14	14	5	20	CE	WL6630-01/CE5550/CE5	FY	15	15	1,385	21	21	1	4	4	28	0.143	Includes CE551, WL6630-01, WL6630-01	
MEDICAL EDUCATION SUBTOTAL 85% UTILIZATION																										
CE6100-01 CE Culinary Cr 1X	Carpenter, Paul	Carpenter, Paul	A Block	1(M,W) 2(R)	Carpenter, Paul	CE	FY	108	108	7	12	CE	CE6100-01/CE6100/CE6	FY											Shared CR with CE6100-03, CE6100-04, CE6100-05, CE6100-06, CE6100-09 (S1 & S2), CE6100-10 (S1 & S2), CE6100-11 (S1 & S2)	
CE6100-02 CE Culinary Cr 1X	Carpenter, Paul	Carpenter, Paul	B Block	1(R-F) 2(M,W)	Carpenter, Paul	CE	FY	108	108	12	12	CE	CE6100-02/CE6100/CE6	FY											Shared CR with CE6100-03, CE6100-04, CE6100-05, CE6100-06, CE6100-09 (S1 & S2), CE6100-10 (S1 & S2), CE6100-11 (S1 & S2)	
CE6100-03 CE Culinary Cr 1X	Carpenter, Paul	Carpenter, Paul	C Block	3(M,W) 4(F)	Carpenter, Paul	CE	FY	108	108	7	12	CE	CE6100-03/CE6100/CE6	FY											Shared CR with CE6100-01, CE6100-02, CE6100-04, CE6100-05, CE6100-06, CE6100-09 (S1 & S2), CE6100-10 (S1 & S2), CE6100-11 (S1 & S2)	
CE6100-04 CE Culinary Cr 1X	Carpenter, Paul	Carpenter, Paul	D Block	2(F) 4(W) 5(T,W)	Carpenter, Paul	CE	FY	108	108	8	12	CE	CE6100-04/CE6100/CE6	FY											Shared CR with CE6100-01, CE6100-02, CE6100-03, CE6100-05, CE6100-06, CE6100-09 (S1 & S2), CE6100-10 (S1 & S2), CE6100-11 (S1 & S2)	
CE6100-05 CE Culinary Cr 1X	Carpenter, Paul	Carpenter, Paul	E Block	3(F) 4(R) 6(T,W)	Carpenter, Paul	CE	FY	108	108	8	12	CE	CE6100-05/CE6100/CE6	FY											Shared CR with CE6100-01, CE6100-02, CE6100-03, CE6100-04, CE6100-06, CE6100-09 (S1 & S2), CE6100-10 (S1 & S2), CE6100-11 (S1 & S2)	
CE6100-06 CE Culinary Cr 1X	Carpenter, Paul	Carpenter, Paul	F Block	4(W) 5(M,F) 6(R)	Carpenter, Paul	CE	FY	108	108	12	12	CE	CE6100-06/CE6100/CE6	FY											Shared CR with CE6100-01, CE6100-02, CE6100-03, CE6100-04, CE6100-05, CE6100-09 (S1 & S2), CE6100-10 (S1 & S2), CE6100-11 (S1 & S2)	
CE6100S-01 CE Culinary Cr Semester	Carpenter, Paul	Carpenter, Paul	A Block	1(M,W) 2(R)	Carpenter, Paul	CE	S1	108	108	6	6	CE	CE6100-03/CE6100/CE6	S1											Shared CR with CE6100-01, CE6100-02, CE6100-04, CE6100-05, CE6100-06, CE6100-09 (S1 & S2), CE6100-10 (S1 & S2), CE6100-11 (S1 & S2)	
CE6100S-02 CE Culinary Cr Semester	Carpenter, Paul	Carpenter, Paul	B Block	1(R-F) 2(M,W)	Carpenter, Paul	CE	S1	108	108	4	6	CE	CE6100-04/CE6100/CE6	S1											Shared CR with CE6100-01, CE6100-02, CE6100-03, CE6100-05, CE6100-06, CE6100-09 (S1 & S2), CE6100-10 (S1 & S2), CE6100-11 (S1 & S2)	
CE6100S-03 CE Culinary Cr Semester	Carpenter, Paul	Carpenter, Paul	C Block	3(M,W) 4(F)	Carpenter, Paul	CE	S1	108	108	6	6	CE	CE6100-05/CE6100/CE6	S1											Shared CR with CE6100-01, CE6100-02, CE6100-04, CE6100-06, CE6100-09 (S1 & S2), CE6100-10 (S1 & S2), CE6100-11 (S1 & S2)	
CE6100S-04 CE Culinary Cr Semester	Carpenter, Paul	Carpenter, Paul	D Block	2(F) 4(W) 5(T,W)	Carpenter, Paul	CE	S1	108	108	6	6	CE	CE6100-06/CE6100/CE6	S1											Shared CR with CE6100-01, CE6100-02, CE6100-03, CE6100-05, CE6100-09 (S1 & S2), CE6100-10 (S1 & S2), CE6100-11 (S1 & S2)	
CE6100S-05 CE Culinary Cr Semester	Carpenter, Paul	Carpenter, Paul	E Block	3(F) 4(R) 6(T,W)	Carpenter, Paul	CE	S1	108	108	5	6	CE	CE6100-03/CE6100/CE6	S1											Shared CR with CE6100-01, CE6100-02, CE6100-04, CE6100-06, CE6100-09 (S1 & S2), CE6100-10 (S1 & S2), CE6100-11 (S1 & S2)	
CE6100S-06 CE Culinary Cr Semester	Carpenter, Paul	Carpenter, Paul	F Block	4(W) 5(M,F) 6(R)	Carpenter, Paul	CE	S1	108	108	6	6	CE	CE6100-06/CE6100/CE6	S1											Shared CR with CE6100-01, CE6100-02, CE6100-03, CE6100-05, CE6100-09 (S1 & S2), CE6100-10 (S1 & S2), CE6100-11 (S1 & S2)	
CE6100S-07 CE Culinary Cr Semester	Carpenter, Paul	Carpenter, Paul	A Block	1(M,W) 2(R)	Carpenter, Paul	CE	S2	108	108	6	6	CE	CE6100-03/CE6100/CE6	S2											Shared CR with CE6100-01, CE6100-02, CE6100-04, CE6100-05, CE6100-06, CE6100-09 (S1 & S2), CE6100-10 (S1 & S2), CE6100-11 (S1 & S2)	
CE6100S-08 CE Culinary Cr Semester	Carpenter, Paul	Carpenter, Paul	B Block	1(R-F) 2(M,W)	Carpenter, Paul	CE	S2	108	108	6	6	CE	CE6100-04/CE6100/CE6	S2											Shared CR with CE6100-01, CE6100-02, CE6100-03, CE6100-05, CE6100-06, CE6100-09 (S1 & S2), CE6100-10 (S1 & S2), CE6100-11 (S1 & S2)	
CE6100S-09 CE Culinary Cr Semester	Carpenter, Paul	Carpenter, Paul	C Block	3(M,W) 4(F)	Carpenter, Paul	CE	S2	108	108	6	6	CE	CE6100-05/CE6100/CE6	S2											Shared CR with CE6100-01, CE6100-02, CE6100-04, CE6100-06, CE6100-09 (S1 & S2), CE6100-10 (S1 & S2), CE6100-11 (S1 & S2)	
CE6100S-10 CE Culinary Cr Semester	Carpenter, Paul	Carpenter, Paul	D Block	2(F) 4(W) 5(T,W)	Carpenter, Paul	CE	S2	108	108	6	6	CE	CE6100-06/CE6100/CE6	S2											Shared CR with CE6100-01, CE6100-02, CE6100-03, CE6100-05, CE6100-09 (S1 & S2), CE6100-10 (S1 & S2), CE6100-11 (S1 & S2)	
CE6100S-11 CE Culinary Cr Semester	Carpenter, Paul	Carpenter, Paul	E Block	3(F) 4(R) 6(T,W)	Carpenter, Paul	CE	S2	108	108	6	6	CE	CE6100-03/CE6100/CE6	S2											Shared CR with CE6100-01, CE6100-02, CE6100-04, CE6100-06, CE6100-09 (S1 & S2), CE6100-10 (S1 & S2), CE6100-11 (S1 & S2)	
CE6100S-12 CE Culinary Cr Semester	Carpenter, Paul	Carpenter, Paul	F Block	4(W) 5(M,F) 6(R)	Carpenter, Paul	CE	S2	108	108	6	6	CE	CE6100-06/CE6100/CE6	S2											Shared CR with CE6100-01, CE6100-02, CE6100-03, CE6100-05, CE6100-09 (S1 & S2), CE6100-10 (S1 & S2), CE6100-11 (S1 & S2)	
CE6100S2-01 CE Culinary Semester 2 Block	Carpenter, Paul	Carpenter, Paul	Z Block	Z(M-F)	Carpenter, Paul	CE	S1	108	108	6	6	CE	CE6100S2-01/CE6100S2/C	S1	90	1,385	125	18	7	4	28	28	1,000	1,000	incl. FY classes above CE6100S2-02, CE6400-01	
CE6100S2-02 CE Culinary Semester 2 Block	Carpenter, Paul	Carpenter, Paul	Z Block	Z(M-F)	Carpenter, Paul	CE	S2	108	108	6	6	CE	CE6100S2-01/CE6100S2/C	S2											Shared CR with CE6100S2-01, CE6400-01	
CE6100Z-01 CE Culinary Z Block	Carpenter, Paul	Carpenter, Paul	Z Block	Z(M-F)	Carpenter, Paul	CE	FY	108	108	13	12	CE	CE6100Z-01/CE6100Z/C	FY	19	1,385	26	26	2	2	5	10	10	5	2,000	Total does not include Z-period
CE6400-01 CE Restaurant and Culinary Sci/Theory	Carpenter, Paul	Carpenter, Paul	AM/ Z Block	AM-Z(M-F)	Carpenter, Paul	CE	FY	108	108	1	12	CE		FY	1	1,385	1	1	12	1	5	5	1,000	1,000	Total does not include Z-period	
CULINARY EDUCATION SUBTOTAL 85% UTILIZATION																										

C. Utilization - Brookline High School

Dept. Description	Teacher	TrackID	Schedule	Name	Dept. Code	Num C	S	R	Total	Max. Dept. ID	Current Course Enroll S1	Current Course Enroll S2	Enrollment Increase Multiplier	Projected Course Enroll S1	Projected Course Enroll S2	Max. Students per Section	No. of Sections S1	No. of Sections S2	No. of Sessions per week	Sections per week S1	Sections per week S2	Total Sessions Req'd per Week S1	Total Sessions Req'd per Week S2	NOTES	
CE1100-01	Stevens, Brittany	D Block	2(F) 4(M) 5(T-W)	Stevens, Brittany	CE S1	UA	25	25	CE	25	25														
CE1100-02	Stevens, Brittany	B Block	1(R-F) 2(M-W)	Stevens, Brittany	CE S2	UA	26	25	CE	26	25														
CE1100-03	Stevens, Brittany	G Block	4(T) 5(R) 6(M-F)	Stevens, Brittany	CE S2	UA	25	25	CE	25	25														
CE1200-01	Stevens, Brittany	B Block	1(R-F) 2(M-W)	Stevens, Brittany	CE S1	UA	25	25	CE	25	25		1.385	35	71	22	2	4	4	8	16	28	0.286	0.571	
CE1200-02	Stevens, Brittany	E Block	3(F) 4(R) 6(T-W)	Stevens, Brittany	CE S1	UA	26	25	CE	26	25														
CE1200-03	Stevens, Brittany	E Block	3(F) 4(R) 6(T-W)	Stevens, Brittany	CE S2	UA	25	25	CE	25	25														
CE1200-04	Stevens, Brittany	D Block	2(F) 4(M) 5(T-W)	Stevens, Brittany	CE S2	UA	25	25	CE	25	25														
CE1400-01	Stevens, Brittany	G Block	4(T) 5(R) 6(M-F)	Stevens, Brittany	CE S1	UA	25	25	CE	25	25		1.385	71	69	22	4	4	4	16	16	28	0.571	0.571	
CE1500-01	Stevens, Brittany; Fischer, Ebon	A Block	1(M-W) 2(R)	Fischer, Ebon	EN FY	UA	1	25	CE	1	25			35	25	22	2	2	4	8	28	0.286	0.286	Shared CR with EN4900	
CE1600-01	Stark, Susan C	A Block	1(M-W) 2(R)	Stark, Susan C	WL S1	UA	16	18	CE	16	18													Included in EN4900	
CE1600-02	Stark, Susan C	C Block	3(M-W) 4(F)	Stark, Susan C	WL S1	UA	18	18	CE	18	18														
CE1600-03	Stark, Susan C	E Block	3(F) 4(R) 6(T-W)	Stark, Susan C	WL S1	UA	18	18	CE	18	18														
CE1600-04	Stark, Susan C	D Block	2(F) 4(M) 5(T-W)	Stark, Susan C	WL S2	UA	18	18	CE	18	18														
CE1600-05	Stark, Susan C	E Block	3(F) 4(R) 6(T-W)	Stark, Susan C	WL S2	UA	17	18	CE	17	18														
CE1700-01	Stark, Susan C	C Block	3(M-W) 4(F)	Stark, Susan C	WL S2	UA	18	18	CE	18	18		1.385	72	48	18	5	3	4	20	12	28	0.714	0.429	
CE1700-02	Stark, Susan C	B Block	1(R-F) 2(M-W)	Stark, Susan C	WL FY	UA	9	18	CE	9	18		1.385	25	18	18	2	4	4	8	8	28	0.286	0.286	
CE1800-01	Stark, Susan C	G Block	4(T) 5(R) 6(M-F)	Stark, Susan C	WL S2	UA	18	18	CE	18	18		1.385	12	12	18	1	1	4	4	4	28	0.143	0.143	
CE1900-01	Stark, Susan C	G Block	4(T) 5(R) 6(M-F)	Stark, Susan C	WL S1	UA	18	18	CE	18	18		1.385	25	18	18	2	4	4	8	8	28	0.286	0.286	
CE1900-02	Marcus, Arnold	F Block	4(W) 5(M-F) 6(R)	Marcus, Arnold	CE S1	116	116	3	3	CE	18	1.385	25	18	25	18	2	4	4	8	8	28	0.286	0.286	
CE1900-03	Marcus, Arnold	PM(M-F)	PM(M-F)	Marcus, Arnold	CE S1	116	116	3	3	CE	3	1.385	4	4	4	4	2	4	4	8	8	28	0.286	0.286	
CE1900-04	Marcus, Arnold	F Block	4(W) 5(M-F) 6(R)	Marcus, Arnold	CE S2	116	116	2	3	CE	3	2	1.385	4	4	3	2	1	5	10	5	5	2.000	1.000	PM - Net within the 28 sessions - not in total
											3	3	1.385	4	4	4	3	2	4	8	8	28	0.286	0.286	

C. Utilization - Brookline High School

Dept. Description	P	Teacher	TrackID	Schedule	Name	Dept. Code	Num	Sr	Total	Max	DepthID	Term	Current Course Enroll S1	Current Course Enroll S2	Enrollment Increase Multiplier	Projected Course Enroll S1	Projected Course Enroll S2	Max Students per Section	No. of Sections S1	No. of Sections S2	No. of Sessions per week	Sessions per week S1	Sessions per week S2	Periods per Week	Total Stations Required S1	Total Stations Required S2	Notes																
CEB101-01	CE	Digital Design Studio I	Laitmer, Eric	G Block	4(T)5(R)6(M)F	Laitmer, Eric	VA	SZ	UA	UA	3	16	CE	VA9101-01/CE9101/CE9	S2												Shared CR with CE9201-01, VA9101-01, VA9201-01																
CEB101-02	CE	Digital Design Studio I	Laitmer, Eric	E Block	3(F)4(N)6(T+W)	Laitmer, Eric	VA	SZ	UA	UA	4	16	CE	VA9201-02/CE9101/CE9	S2												Shared CR with CE9201-01, VA9101-01, VA9201-01																
CEB201-01	CE	Digital Design Studio II	Laitmer, Eric	G Block	4(T)5(R)6(M)F	Laitmer, Eric	VA	SZ	UA	UA	1	16	CE	VA9101-01/CE9101/CE9	S2												0.429 Includes CE9301, VA9301, VA9201																
CEB201-02	CE	Digital Design Studio II	Laitmer, Eric	E Block	3(F)4(N)6(T+W)	Laitmer, Eric	VA	SZ	UA	UA	0	16	CE	VA9201-02/CE9101/CE9	S2												Shared CR with CE9301-01, VA9301-01, VA9201-01																
CEB310-01	CE	Digital Video I	Mwosa, Thato	D Block	2(F)4(M)5(T+W)	Mwosa, Thato	VA	S1	UA	UA	7	16	CE	VA9320-01/CE9310/CE9	S1												Shared CR with CE9320-01, VA8301-01, VA9310-01, VA9320-01																
CEB310-02	CE	Digital Video I	Mwosa, Thato	A Block	1(M+W)2(R)	Mwosa, Thato	VA	S2	UA	UA	3	16	CE	CE9320-02/CE9310/CE9	S2												Shared CR with CE9320-01, VA8301-01, VA9310-01, VA9320-01																
CEB310-03	CE	Digital Video I	Mwosa, Thato	F Block	4(W)5(M)F 6(R)	Mwosa, Thato	VA	SZ	UA	UA	3	16	CE	VA9310-03/VA9320-03	S2												Shared CR with CE9320-02, VA8301-01, VA9310-02, VA9320-02																
CEB320-01	CE	Digital Video II	Mwosa, Thato	D Block	2(F)4(M)5(T+W)	Mwosa, Thato	VA	S1	UA	UA	0	0	CE	VA9320-01/CE9310/CE9	S1	15	30	1.385	21	42	22	1	2	4	8	28	0.143	0.286 incl. in VA9310 below															
CEB320-02	CE	Digital Video II	Mwosa, Thato	A Block	1(M+W)2(R)	Mwosa, Thato	VA	S2	UA	UA	0	0	CE	CE9320-02/CE9310/CE9	S2												Shared CR with CE9320-01, VA8301-01, VA9310-01, VA9320-01																
CEB320-03	CE	Digital Video II	Mwosa, Thato	F Block	4(W)5(M)F 6(R)	Mwosa, Thato	VA	SZ	UA	UA	0	0	CE	VA9310-03/VA9320-03	S2												Shared CR with CE9320-02, VA8301-01, VA9310-02, VA9320-02																
CEB800-01	CE	TV Production 101	Mwosa, Thato	A Block	1(M+W)2(R)	Mwosa, Thato	VA	S1	UA	UA	4	4	CE	VA9900-01/CE9800/CE9	S1												Shared CR with CE9900-01, VA9900-01, VA9900-01																
CEB800-02	CE	TV Production 101	Mwosa, Thato	D Block	2(F)4(N)5(T+W)	Mwosa, Thato	VA	SZ	UA	UA	5	15	CE	VA9800-02/VA9900-02	S2												Shared CR with CE9900-02, VA9900-02, VA9900-02																
CEB900-01	CE	TV Production 102	Mwosa, Thato	A Block	1(M+W)2(R)	Mwosa, Thato	VA	S1	UA	UA	1	0	CE	VA9900-01/CE9800/CE9	S1	16	15	1.385	22	21	22	2	1	4	8	28	0.143	Included in CE9800															
CEB900-02	CE	TV Production 102	Mwosa, Thato	D Block	2(F)4(N)5(T+W)	Mwosa, Thato	VA	SZ	UA	UA	0	0	CE	VA9800-02/VA9900-02	S2												Shared CR with CE9800-02, VA9800-02, VA9900-02																
CAREER EDUCATION SUBTOTAL													3.000	3.429																													
CAREER EDUCATION SUBTOTAL AT 85% UTILIZATION													3.000	3.429																													

C. Utilization - Brookline High School

Dept. Description	P. Teacher	TrackID	Schedule	Name	Dept. Code	Numb. Chrs	Total	Max	Dept. ID	Term	Current Course Enroll S1	Enrollment Increase Multiplier S2	Projected Course Enroll S1	Projected Course Enroll S2	Max Students per Section	No. of Sections S1	No. of Sections S2	No. of Sessions per week	Sessions per week S1	Sessions per week S2	Periods per week S1	Total Stations Req. S1	Total Stations Required S2	Notes			
CO8800-01 SP Speech and Language Direct Service 1	Albert, Laura	A(M)	1(W)	Albert, Laura	SP	FY	126	3	10 SP	FY	6	6	1,385	8	8	10	1	1	1	1	28	0.036	0.036	Small number of students w/specialist			
CO8800-02 SP Speech and Language Direct Service 1	Albert, Laura	A(T)	1(T)	Albert, Laura	SP	FY	126	1	10 SP	FY																	
CO8800-03 SP Speech and Language Direct Service 1	Albert, Laura	B(M)	2(W)	Albert, Laura	SP	FY	126	2	10 SP	FY																	
CO8801-01 SP Speech and Language Direct Service 2	Albert, Laura	A(R)	2(R)	Albert, Laura	SP	FY	126	3	10 SP	FY																	
CO8801-02 SP Speech and Language Direct Service 2	Albert, Laura	B(W)	2(W)	Albert, Laura	SP	FY	126	2	10 SP	FY																	
CO8801-03 SP Speech and Language Direct Service 2	Albert, Laura	C(M)	3(M)	Albert, Laura	SP	FY	126	0	10 SP	FY																	
CO8801-04 SP Speech and Language Direct Service 2	Stevens, Shelley	C(F)	4(F)	Stevens, Shelley	SP	FY	126	0	10 SP	FY	5	5	1,385	7	7	10	1	1	1	1	28	0.036	0.036	Small number of students w/specialist			
CO8802-01 SP Speech and Language Direct Service 3	Albert, Laura	C(T)	3(T)	Albert, Laura	SP	FY	126	1	10 SP	FY																	
CO8802-02 SP Speech and Language Direct Service 3	Albert, Laura	C(W)	3(W)	Albert, Laura	SP	FY	126	0	10 SP	FY																	
CO8802-03 SP Speech and Language Direct Service 3	Stevens, Shelley	C(M)	3(M)	Stevens, Shelley	SP	FY	126	0	10 SP	FY																	
CO8802-04 SP Speech and Language Direct Service 3	Stevens, Shelley	A(T)	1(T)	Stevens, Shelley	SP	FY	126	2	10 SP	FY																	
CO8802-05 SP Speech and Language Direct Service 3	Stevens, Shelley	B(W)	2(W)	Stevens, Shelley	SP	FY	126	2	10 SP	FY																	
CO8802-06 SP Speech and Language Direct Service 3	Stevens, Shelley	G(R)	5(R)	Stevens, Shelley	SP	FY	126	1	10 SP	FY	6	6	1,385	8	8	10	1	1	1	1	28	0.036	0.036	Small number of students w/specialist			
CO88010-01 SP Social Language Group	Albert, Laura	D(M)	4(M)	Albert, Laura	SP	FY	126	2	10 SP	FY																	
CO88010-02 SP Social Language Group	Albert, Laura	D(T)	5(T)	Albert, Laura	SP	FY	126	3	10 SP	FY																	
CO88010-03 SP Social Language Group	Albert, Laura	E(M)	6(T)	Albert, Laura	SP	FY	126	1	10 SP	FY																	
CO88010-04 SP Social Language Group	Albert, Laura	F(R)	4(R)	Albert, Laura	SP	FY	126	1	10 SP	FY																	
CO88010-05 SP Social Language Group	Albert, Laura	F(W)	4(W)	Albert, Laura	SP	FY	126	4	10 SP	FY																	
CO88010-06 SP Social Language Group	Stevens, Shelley	D(M)	4(M)	Stevens, Shelley	SP	FY	126	2	10 SP	FY																	
CO88010-07 SP Social Language Group	Stevens, Shelley	G(T)	4(T)	Stevens, Shelley	SP	FY	126	4	10 SP	FY																	
CO88010-08 SP Social Language Group	Stevens, Shelley	C(W)	3(W)	Stevens, Shelley	SP	FY	126	3	10 SP	FY																	
CO88010-09 SP Social Language Group	Stevens, Shelley	A(R)	2(R)	Stevens, Shelley	SP	FY	126	2	10 SP	FY																	
CO88010-10 SP Social Language Group	Stevens, Shelley	D(F)	2(F)	Stevens, Shelley	SP	FY	126	3	10 SP	FY	25	25	1,385	35	35	10	4	4	4	4	4	28	0.143	0.143	Small number of students w/specialist		
SPEECH AND LANGUAGE SUBTOTAL																								0.250	0.250		
SPEECH AND LANGUAGE SUBTOTAL AT 85% UTILIZATION																										0.294	0.294

C. Utilization - Brookline High School

Dept. Description	P	Teacher	TrackID	Schedule	Name	Dept. Code	Num. Class	Total	Max. Dept. ID	Term	Current Enrollment	Enrollment Multiplier	Projected Course Enrollment	Max. Students Per Section	No. of Sections	No. of Sections per Week	Stations per week	Stations per week	Stations per Week	Total Stations	Notes
EN1030-01	EN	RoP To LHH	A Block	1(M-W)2(R)	Mitchell, David	EN	344	344	22	25	EN										
EN1030-02	EN	RoP To LHH	F Block	4(W)5(M)6(R)	Mitchell, David	EN	344	344	25	25	EN										
EN1030-03	EN	RoP To LHH	A Block	1(M-W)2(R)	Moussseau, Evan	EN	301	301	21	25	EN										
EN1030-04	EN	RoP To LHH	B Block	1(R-F)2(M-W)	Moussseau, Evan	EN	301	301	25	25	EN										
EN1030-05	EN	RoP To LHH	C Block	3(M-W)4(F)	Rocco, Julia	EN	336	336	24	25	EN										
EN1030-06	EN	RoP To LHH	D Block	2(F)4(M)5(T-W)	Hayden, Rebecca	EN	410	410	25	25	EN										
EN1030-07	EN	RoP To LHH	C Block	3(M-W)4(F)	Frydman, Alison	EL	408	408	22	25	EN										
EN1030-08	EN	RoP To LHH	F Block	4(W)5(M)6(R)	Frydman, Alison	EL	341	341	24	25	EN										
EN1030-09	EN	RoP To LHH	D Block	2(F)4(M)5(T-W)	Rocco, Julia	EN	336	336	25	25	EN										
EN1030-10	EN	RoP To LHH	E Block	3(F)4(R)6(T-W)	Hayden, Rebecca	EN	410	410	25	25	EN										
EN1030-11	EN	RoP To LHH	F Block	4(W)5(M)6(R)	Rocco, Julia	EN	336	336	23	25	EN										
EN1030-12	EN	RoP To LHH	B Block	1(R-F)2(M-W)	Anderson, Marcella	EN	395	395	25	25	EN										
EN1030-13	EN	RoP To LHH	E Block	3(F)4(R)6(T-W)	Breen, Jennifer	EN	301	301	25	25	EN										
EN1060-01	EN	English I	A Block	1(M-W)2(R)	Mahoney, Brenna	SP	FY	407	407	4	20	EN	EN1060-01/ EN1060-02								
EN2020-01	EN	World Lit/Living The Questions	C Block	3(M-W)4(F)	Robstein, Nicholas	EN	FY	309	309	7	18	EN	EN2020-01/ EN2020-02								
EN2020-02	EN	World Lit/Living The Questions	F Block	4(W)5(M)6(R)	Robstein, Nicholas	EN	FY	387	387	11	18	EN	EN2020-02/ EN2020-03								
EN2020-03	EN	World Lit/Living The Questions	B Block	1(R-F)2(M-W)	Robstein, Nicholas	EN	FY	387	387	11	18	EN	EN2020-03/ EN2020-04								
EN2022-01	EN	World Lit/Living The Questions	C Block	3(M-W)4(F)	Robstein, Nicholas	EN	FY	387	387	12	11	EN	EN2022-01/ EN2020-02/ EN2020-03								
EN2022-02	EN	World Lit/Living The Questions	F Block	4(W)5(M)6(R)	Robstein, Nicholas	EN	FY	387	387	7	11	EN	EN2020-02/ EN2020-03								
EN2030-01	EN	World LHH	A Block	1(M-W)2(R)	Allegrezza, Christina	EN	FY	409	409	19	26	EN									
EN2030-02	EN	World LHH	D Block	2(F)4(M)5(T-W)	Allegrezza, Christina	EN	FY	409	409	26	26	EN									
EN2030-03	EN	World LHH	F Block	4(W)5(M)6(R)	Sedlak, Peter	EN	FY	318	318	26	26	EN									
EN2030-04	EN	World LHH	E Block	3(F)4(R)6(T-W)	Sedlak, Peter	EN	FY	318	318	27	26	EN									
EN2030-05	EN	World LHH	D Block	2(F)4(M)5(T-W)	Mastandrea, Mary	PA	FY	318	318	25	26	EN									
EN2060-01	EN	English II	A Block	1(M-W)2(R)	Mahoney, Brenna	SP	FY	407	407	0	20	EN	EN1060-01/ EN1060-02								
EN2120-01	EN	Future World Lit	E Block	3(F)4(R)6(T-W)	Morrissey, Amy	EN	FY	341	341	4	9	EN	EN2130-01/ EN2120-02								
EN2120-02	EN	Future World Lit	F Block	4(W)5(M)6(R)	Wang, Kevin	EN	FY	395	395	6	9	EN	EN2120-02/ EN2130-03								
EN2120-03	EN	Future World Lit	A Block	1(M-W)2(R)	Wang, Kevin	EN	FY	336	336	6	9	EN	EN2130-03/ EN2120-04								
EN2120-04	EN	Future World Lit	B Block	1(R-F)2(M-W)	Morrissey, Amy	EN	FY	341	341	4	9	EN	EN2130-04/ EN2120-05								
EN2120-05	EN	Future World Lit	C Block	3(M-W)4(F)	Sheffield, Laura	EN	FY	341	341	4	9	EN	EN2120-05/ EN2130-06								
EN2120-06	EN	Future World Lit	D Block	2(F)4(M)5(T-W)	Sheffield, Laura	EN	FY	341	341	6	9	EN	EN2130-06/ EN2120-07								
EN2120-07	EN	Future World Lit	E Block	3(F)4(R)6(T-W)	Wang, Kevin	EN	FY	336	336	4	9	EN	EN2130-07/ EN2120-08								

C. Utilization - Brookline High School

Dept Description	P	Teacher	TrsdID	Schedule	Name	Dept Code	Num	Curr	Total	Max	Dept ID	Term
EN2130-01	EN	Morrissey, Amy	E Block	3(F)4(R)5(T-W)	Morrissey, Amy	EN	FY 341	341	18	18	EN2130-01/ EN2220/FEN2	FY
EN2130-02	EN	Wang, Kevin	F Block	4(W)5(M,P)6(R)	Wang, Kevin	EN	FY 395	395	16	16	EN2130-02/ EN2220/FEN2	FY
EN2130-03	EN	Wang, Kevin	A Block	1(M-W)2(R)	Wang, Kevin	EN	FY 336	336	17	18	EN2130-03/ EN2220/FEN2	FY
EN2130-04	EN	Morrissey, Amy	B Block	1(R-F)2(M-W)	Morrissey, Amy	EN	FY 341	341	16	18	EN2130-04/ EN2220/FEN2	FY
EN2130-05	EN	Sheffield, Laura	C Block	3(M-W)4(F)	Sheffield, Laura	EN	FY 341	341	18	18	EN2130-05/ EN2220/FEN2	FY
EN2130-06	EN	Sheffield, Laura	D Block	2(F)4(M)5(T-W)	Sheffield, Laura	EN	FY 341	341	18	18	EN2130-06/ EN2220/FEN2	FY
EN2130-07	EN	Wang, Kevin	E Block	3(F)4(R)6(T-W)	Wang, Kevin	EN	FY 336	336	16	18	EN2130-07/ EN2220/FEN2	FY
EN2220-01	EN	Mitchell, David	B Block	1(R-F)2(M-W)	Mitchell, David	EN	FY 344	344	1	9	EN2220-01/ EN2220/FEN2	FY
EN2220-02	EN	Mitchell, David	D Block	2(F)4(M)5(T-W)	Mitchell, David	EN	FY 346	346	6	9	EN2220-02/ EN2220/FEN2	FY
EN2220-03	EN	Wise, Lindsay	C Block	3(M-W)4(F)	Wise, Lindsay	EN	FY 304	304	5	9	EN2220-03/ EN2220/FEN2	FY
EN2220-04	EN	Harrington, Gaelen	F Block	4(W)5(M,P)6(R)	Harrington, Gaelen	EN	FY 408	408	9	9	EN2220-04/ EN2220/FEN2	FY
EN2220-05	EN	Harrington, Gaelen	E Block	3(F)4(R)6(T-W)	Harrington, Gaelen	EN	FY 408	408	6	9	EN2220-05/ EN2220/FEN2	FY
EN2220-01	EN	Mitchell, David	B Block	1(R-F)2(M-W)	Mitchell, David	EN	FY 344	344	15	17	EN2220-01/ EN2220/FEN2	FY
EN2220-02	EN	Mitchell, David	D Block	2(F)4(M)5(T-W)	Mitchell, David	EN	FY 346	346	15	17	EN2220-02/ EN2220/FEN2	FY
EN2220-03	EN	Wise, Lindsay	C Block	3(M-W)4(F)	Wise, Lindsay	EN	FY 304	304	14	17	EN2220-03/ EN2220/FEN2	FY
EN2220-04	EN	Harrington, Gaelen	F Block	4(W)5(M,P)6(R)	Harrington, Gaelen	EN	FY 408	408	13	17	EN2220-04/ EN2220/FEN2	FY
EN2220-05	EN	Harrington, Gaelen	E Block	3(F)4(R)6(T-W)	Harrington, Gaelen	EN	FY 408	408	14	17	EN2220-05/ EN2220/FEN2	FY
EN3020-01	EN	Reagan, Rachel	D Block	2(F)4(M)5(T-W)	Reagan, Rachel	EN	FY 343	343	15	20	EN3020-01/ EN3020/FEN3	FY
EN3020-02	EN	Harrington, Gaelen	B Block	1(R-F)2(M-W)	Harrington, Gaelen	EN	FY 343	343	19	20	EN3020-02/ EN3020/FEN3	FY
EN3020-03	EN	Harrington, Gaelen	A Block	1(M-W)2(R)	Harrington, Gaelen	EN	FY 343	343	17	20	EN3020-03/ EN3020/FEN3	FY
EN3020-04	EN	Reagan, Rachel	C Block	3(M-W)4(F)	Reagan, Rachel	EN	FY 343	343	20	20	EN3020-04/ EN3020/FEN3	FY
EN3020-05	EN	Mousseau, Evan	E Block	3(F)4(R)6(T-W)	Mousseau, Evan	EN	FY 387	387	14	20	EN3020-05/ EN3020/FEN3	FY
EN3020-06	EN	Mousseau, Evan	D Block	2(F)4(M)5(T-W)	Mousseau, Evan	EN	FY 387	387	9	20	EN3020-06/ EN3020/FEN3	FY
EN3020-01	EN	Mousseau, Evan	E Block	3(F)4(R)6(T-W)	Mousseau, Evan	EN	FY 387	387	6	11	EN3020-05/ EN3020/FEN3	FY
EN3020-02	EN	Mousseau, Evan	D Block	2(F)4(M)5(T-W)	Mousseau, Evan	EN	FY 387	387	9	11	EN3020-06/ EN3020/FEN3	FY
EN3030-01	EN	Gorlin, Sophie	F Block	4(W)5(M,P)6(R)	Gorlin, Sophie	EN	FY 385	385	23	26	EN3030-01/ EN3030/FEN3	FY
EN3030-02	EN	Dondero, Alisa	C Block	3(M-W)4(F)	Dondero, Alisa	EN	FY 386	386	26	26	EN3030-02/ EN3030/FEN3	FY
EN3030-03	EN	Primmer, Robert	E Block	3(F)4(R)6(T-W)	Primmer, Robert	EN	FY 386	386	24	26	EN3030-03/ EN3030/FEN3	FY
EN3030-04	EN	Primmer, Robert	F Block	4(W)5(M,P)6(R)	Primmer, Robert	EN	FY 386	386	24	26	EN3030-04/ EN3030/FEN3	FY
EN3030-05	EN	Sedlak, Peter	A Block	1(M-W)2(R)	Sedlak, Peter	EN	FY 318	318	22	26	EN3030-05/ EN3030/FEN3	FY
EN3030-06	EN	Sedlak, Peter	C Block	3(M-W)4(F)	Sedlak, Peter	EN	FY 318	318	23	26	EN3030-06/ EN3030/FEN3	FY
EN3030-07	EN	Wang, Kevin	B Block	1(R-F)2(M-W)	Wang, Kevin	EN	FY 336	336	24	26	EN3030-07/ EN3030/FEN3	FY
EN3030-08	EN	Ramos, Jenee	D Block	2(F)4(M)5(T-W)	Ramos, Jenee	EN	FY 307	307	24	26	EN3030-08/ EN3030/FEN3	FY
EN3030-09	EN	Colburn, Eric	E Block	3(F)4(R)6(T-W)	Colburn, Eric	EN	FY 304	304	25	26	EN3030-09/ EN3030/FEN3	FY
EN3030-10	EN	Colburn, Eric	B Block	1(R-F)2(M-W)	Colburn, Eric	EN	FY 304	304	25	26	EN3030-10/ EN3030/FEN3	FY
EN3030-11	EN	Dondero, Alisa	A Block	1(M-W)2(R)	Dondero, Alisa	EN	FY 386	386	23	26	EN3030-11/ EN3030/FEN3	FY
EN3030-12	EN	Robstein, Nicholas	D Block	2(F)4(M)5(T-W)	Robstein, Nicholas	EN	FY 301	301	34	26	EN3030-12/ EN3030/FEN3	FY
EN3030-13	EN	Mason, Harold	G Block	4(T)5(O)6(M)	Mason, Harold	EN	FY 393	393	20	20	EN3030-13/ EN3030/FEN3	FY

C. Utilization - Brookline High School

Dept. Description	P	Teacher	TracID	Schedule	Name	Dept. Code	Num. Cls	Total	Max. Dept.	Term	Current Enroll S1	Enroll S2	Enrollment Multiplier	Projected Course Credit S1	Projected Course Credit S2	Max Students per Section	No. of Sections S1	No. of Sections S2	No. of Spots per week	Sections per week S1	Sections per week S2	Total Stations per Week S1	Total Stations per Week S2	Notes		
EN4030-01 EN Stranger in Lit H		Andrews, John	B Block	1(R-F) 2(M,W)	Andrews, John	EN FY	404	404	24	25	EN															
EN4030-02 EN Stranger in Lit H		Andrews, John	D Block	2(F) 4(W) 5(T,W)	Andrews, John	EN FY	403	403	17	25	EN															
EN4030-03 EN Stranger in Lit H		Burchenal, Mary	A Block	1(M,W) 2(R)	Burchenal, Mary	EN FY	395	395	24	25	EN															
EN4220-01 EN True Life Stories		Allegrezza, Christina; Zembruski, Alexandra	C Block	3(M,W) 4(F)	Allegrezza, Christina	EN FY	410	410	12	20	EN														Shared CR with EM4222-01	
EN4220-02 EN True Life Stories		Allegrezza, Christina; Zembruski, Alexandra	B Block	1(R-F) 2(M,W)	Allegrezza, Christina	EN FY	410	410	13	20	EN														Shared CR with EM4222-02	
EN4222-01 EN True Life Stories		Allegrezza, Christina; Zembruski, Alexandra	C Block	3(M,W) 4(F)	Allegrezza, Christina	EN FY	410	410	5	8	EN														Includes EM4222 below	
EN4222-02 EN True Life Stories		Allegrezza, Christina; Zembruski, Alexandra	B Block	1(R-F) 2(M,W)	Allegrezza, Christina	EN FY	410	410	4	8	EN														Includes EM4222-01	
EN4430-01 EN British Lit & Beyond H		Hayden, Rebecca	A Block	1(M,W) 2(R)	Hayden, Rebecca	EN FY	410	410	17	25	EN															
EN4430-02 EN British Lit & Beyond H		Hayden, Rebecca	F Block	4(W) 5(M,F) 6(R)	Hayden, Rebecca	EN FY	340	340	19	25	EN															
EN4500-01 EN Issues in Contemporary Lit		Morrissey, Amy	A Block	1(M,W) 2(R)	Morrissey, Amy	EN FY	341	341	19	22	EN															
EN4500-02 EN Issues in Contemporary Lit		Morrissey, Amy	F Block	4(W) 5(M,F) 6(R)	Morrissey, Amy	EN FY	343	343	22	22	EN															
EN4500-03 EN Issues in Contemporary Lit		Tyack, Eliza	E Block	3(F) 4(R) 6(T,W)	Tyack, Eliza	EN FY	395	395	21	22	EN															
EN4600-01 EN Craft of Writing		Berman, Ben	C Block	3(M,W) 4(F)	Berman, Ben	EN FY	409	409	23	22	EN															
EN4600-02 EN Craft of Writing		Berman, Ben	E Block	3(F) 4(R) 6(T,W)	Berman, Ben	EN FY	409	409	22	22	EN															
EN4700-01 EN Public Spk. & Wtg		Fischer, Ebon	B Block	1(R-F) 2(M,W)	Fischer, Ebon	EN FY	346	346	23	22	EN															
EN4700-02 EN Public Spk. & Wtg		Fischer, Ebon	F Block	4(W) 5(M,F) 6(R)	Fischer, Ebon	EN FY	409	409	23	22	EN															
EN4800-01 EN Fiction and Film		Primmer, Robert	C Block	3(M,W) 4(F)	Primmer, Robert	EN FY	395	395	23	22	EN															
EN4800-02 EN Fiction and Film		Primmer, Robert	D Block	2(F) 4(W) 5(T,W)	Primmer, Robert	EN FY	395	395	33	22	EN															
EN4800-03 EN Fiction and Film		Berman, Ben	A Block	1(M,W) 2(R)	Berman, Ben	EN FY	408	408	23	22	EN															
EN4900-01 EN Comm for Entrepreneurs		Stevens, Brittany; Fischer, Ebon	A Block	1(M,W) 2(R)	Fischer, Ebon	EN FY	UA	UA	33	33	EN															Shared CR with EM4220-01
ID01100-01 EN Journalism I		Anderson, Marcella	D Block	2(F) 4(W) 5(T,W)	Anderson, Marcella	EN FY	385	385	30	32	EN															Shared CR with CEI500-01
ID01300-01 EN Journalism II		Wise, Lindsay	D Block	2(F) 4(W) 5(T,W)	Wise, Lindsay	EN FY	386	386	32	35	EN															Includes CEI500-01 Planmaxis 25
ID02000-01 EN EPIC for Seniors		Berman, Ben; Poen, Stephanie	F Block	4(W) 5(M,F) 6(R)	Berman, Ben	EN FY	410	410	18	30	EN															Includes ED Plan Max
ENGLISH SUBTOTAL											18	18	1,385	25	25	25	1	1	1	4	4	4	28	0.143	Includes ED Plan Max	
ENGLISH SUBTOTAL AT 85% UTILIZATION											16.143	16.143	1,385	25	25	25	1	1	1	4	4	4	28	0.143	Includes ED Plan Max	
											18.992	18.992	1,385	25	25	25	1	1	1	4	4	4	28	0.143	Includes ED Plan Max	

C. Utilization - Brookline High School

Dept. Description	P. Teacher	TrackID	Schedule	Name	Dept. Code	Num. Cls	Total Max. Dept. ID	Term	Current Enrollment	Current Enrollment Multiplier	Projected Course Enrollment	Projected Course Enrollment	Max. Students per Section	No. of Sections	No. of Sections	No. of Sections	Sessions per Week	Sessions per Week	Total Stations	Total Stations	Notes					
					CE S1	UA	UA	24	24	CE	S1	UA	UA	24	24	CE	S1	UA	UA	24	24					
FP2000-01	Saler, Judith	G Block	4(T) 5(R) 6(M,F)	Saler, Judith	CE	S1	UA	24	24	CE	S1	UA	24	24	CE	S1	UA	24	24	0.714	0.714					
FP2000-02	Ford, David	C Block	3(M-W) 4(F)	Ford, David	CE	S1	UA	24	24	CE	S1	UA	24	24	CE	S1	UA	24	24							
FP2000-03	Saler, Judith	B Block	1(R-F) 2(M,W)	Saler, Judith	CE	S1	UA	24	24	CE	S1	UA	24	24	CE	S1	UA	24	24							
FP2000-04	Saler, Judith	D Block	2(F) 4(W) 5(T-W)	Saler, Judith	CE	S2	UA	24	24	CE	S2	UA	24	24	CE	S2	UA	24	24							
FP2000-05	Ford, David	F Block	4(W) 5(M,T) 6(R)	Ford, David	CE	S2	UA	24	24	CE	S2	UA	24	24	CE	S2	UA	24	24							
FP2000-06	Ford, David	E Block	3(F) 4(R) 6(T-W)	Ford, David	CE	S2	UA	24	24	CE	S2	UA	24	24	CE	S2	UA	24	24							
FP2000-01	Saler, Judith	F Block	4(W) 5(M,F) 6(R)	Saler, Judith	CE	S1	UA	24	24	CE	S1	UA	24	24	CE	S1	UA	24	24	1.385	1.385					
FP2000-02	Ford, David	A Block	1(M-W) 2(R)	Ford, David	CE	S1	UA	24	24	CE	S1	UA	24	24	CE	S1	UA	24	24							
FP2000-03	Ford, David	A Block	1(M-W) 2(R)	Ford, David	CE	S2	UA	24	24	CE	S2	UA	24	24	CE	S2	UA	24	24							
FP4000-01	Ford, David	E Block	3(F) 4(R) 6(T-W)	Ford, David	CE	S1	UA	24	24	CE	S1	UA	24	24	CE	S1	UA	24	24	1.385	1.385					
FP5000-01	Saler, Judith	A Block	1(M-W) 2(R)	Saler, Judith	CE	S1	UA	23	24	CE	S1	UA	23	24	CE	S1	UA	23	24							
FP5000-02	Saler, Judith	E Block	3(F) 4(R) 6(T-W)	Saler, Judith	CE	S1	UA	24	24	CE	S1	UA	24	24	CE	S1	UA	24	24							
FP5000-03	Ford, David	D Block	2(F) 4(W) 5(T-W)	Ford, David	CE	S1	UA	24	24	CE	S1	UA	24	24	CE	S1	UA	24	24							
FP5000-04	Ford, David	B Block	1(R-F) 2(M,W)	Ford, David	CE	S1	UA	24	24	CE	S1	UA	24	24	CE	S1	UA	24	24							
FP5000-05	Saler, Judith	E Block	3(F) 4(R) 6(T-W)	Saler, Judith	CE	S2	UA	24	24	CE	S2	UA	24	24	CE	S2	UA	24	24							
FP5000-06	Saler, Judith	C Block	3(M-W) 4(F)	Saler, Judith	CE	S2	UA	24	24	CE	S2	UA	24	24	CE	S2	UA	24	24							
FP5000-07	Ford, David	G Block	4(T) 5(M) 6(M,F)	Ford, David	CE	S2	UA	24	24	CE	S2	UA	24	24	CE	S2	UA	24	24							
FP5000-08	Ford, David	D Block	2(F) 4(W) 5(T-W)	Ford, David	CE	S2	UA	24	24	CE	S2	UA	24	24	CE	S2	UA	24	24							
FP5000-09	Saler, Judith	B Block	1(R-F) 2(M,W)	Saler, Judith	CE	S2	UA	25	24	CE	S2	UA	25	24	CE	S2	UA	25	24							
FP7000-01	Saler, Judith	A Block	1(M-W) 2(R)	Saler, Judith	CE	S2	UA	21	24	CE	S2	UA	21	24	CE	S2	UA	21	24	1.385	1.385					
FOOD PREPARATION SUBTOTAL																						2.571	2.000			
FOOD PREPARATION SUBTOTAL AT 85% UTILIZATION																						3.025	2.353			
GU1200-02	Herz, Ellen	A/R	2(R)	Herz, Ellen	GU	S1	279	279	24	150																
GU1200-03	Sergeant-Jourdan, Jeanette	B/M	2(M)	Sergeant-Jourdan, Jeanette	GU	S1	279	279	24	150																
GU1200-04	Herz, Ellen	R/W	2(W)	Herz, Ellen	GU	S1	279	279	24	150																
GU1200-05	Herz, Ellen	C/M	3(M)	Herz, Ellen	GU	S1	279	279	24	150																
GU1200-06	Sergeant-Jourdan, Jeanette	C/W	3(W)	Sergeant-Jourdan, Jeanette	GU	S1	279	279	24	150																
GU1200-07	Schiff, Eric	D/F	2(F)	Schiff, Eric	GU	S1	279	279	18	150																
GU1200-08	Herz, Ellen	D/T	5(T)	Herz, Ellen	GU	S1	279	279	21	150																
GU1200-09	Whelan, Kathleen	E/F	3(F)	Whelan, Kathleen	GU	S1	279	279	25	150																
GU1200-10	Schiff, Eric	F/T	6(T)	Schiff, Eric	GU	S1	279	279	24	150																
GU1200-11	Whelan, Kathleen	F/W	4(W)	Whelan, Kathleen	GU	S1	279	279	29	150																
GU1200-12	Whelan, Kathleen	F/F	5(F)	Whelan, Kathleen	GU	S1	279	279	26	150																
GU1200-13	Schiff, Eric	G/M	6(M)	Schiff, Eric	GU	S1	279	279	14	150																
GU1200-14	Sergeant-Jourdan, Jeanette	G/R	5(R)	Sergeant-Jourdan, Jeanette	GU	S1	279	279	15	150																
GU1200-15	Whelan, Kathleen	X Block	3(R)	Whelan, Kathleen	GU	S1	279	279	24	150																
GU1200-16	Sergeant-Jourdan, Jeanette	X Block	3(R)	Sergeant-Jourdan, Jeanette	GU	S1	318	318	26	150																
GU1200-17	Schiff, Eric	F/R	6(R)	Schiff, Eric	GU	S1	279	279	29	120																
GUIDANCE SUBTOTAL																						1.385	514			
GUIDANCE SUBTOTAL AT 85% UTILIZATION																						150	4	28	0.443	0.168

C. Utilization - Brookline High School

Dept. Description	P. Teacher	TrackID	Schedule	Name	Dept. Code	Num. Cls	Total	Max. Degr. ID	Term	Current Enrol. S1	Current Enrol. S2	Enrollment Multiplier	Projected Course Enrol. S1	Projected Course Enrol. S2	Max. Students per Section	No. of Sections S1	No. of Sections S2	No. of Sections per week	Sessions per week S1	Sessions per week S2	Total Stations per Week S1	Total Stations per Week S2	Notes	
HF001B-01 HF ST Cr Crty- Boys	Bozeman, Tina	PM(T)		Bozeman, Tina	S1	291	291	27 100 HF	HF081G-01/ Fall Sport															
HF001G-01 HF ST Cr Crty- Girls	Bozeman, Tina	PM(T)		Bozeman, Tina	S1	291	30	100 HF	HF081G-01/ Fall Sport															
HF011B-01 HF ST Football	Bozeman, Tina	PM(T)		Bozeman, Tina	S1	291	50	100 HF	HF081G-01/ Fall Sport															
HF021G-01 HF ST Field Hockey	Bozeman, Tina	PM(T)		Bozeman, Tina	S1	291	33	100 HF	HF081G-01/ Fall Sport															
HF031B-01 HF ST Soccer-Boys	Bozeman, Tina	PM(T)		Bozeman, Tina	S1	291	44	100 HF	HF081G-01/ Fall Sport															
HF041G-01 HF ST Soccer-Girls	Bozeman, Tina	PM(T)		Bozeman, Tina	S1	291	37	100 HF	HF081G-01/ Fall Sport															
HF051B-01 HF ST Golf-Boys	Bozeman, Tina	PM(T)		Bozeman, Tina	S1	291	15	100 HF	HF081G-01/ Fall Sport															
HF052G-01 HF ST Golf-Girls	Bozeman, Tina	PM(W)		Bozeman, Tina	S2	291	9	100 HF	HF12U-01/ Winter and Spring															
HF061G-01 HF ST Volleyball-Girls	Bozeman, Tina	PM(T)		Bozeman, Tina	S1	291	19	100 HF	HF081G-01/ Fall Sport															
HF062B-01 HF ST Volleyball-Boys	Bozeman, Tina	PM(T)		Bozeman, Tina	S2	291	22	100 HF	HF20G-01/ Winter and Spring															
HF071G-01 HF ST Childing-Fall	Bozeman, Tina	PM(T)		Bozeman, Tina	S1	291	16	100 HF	HF081G-01/ Fall Sport															
HF081G-01 HF ST Swimming-Girls	Bozeman, Tina	PM(T)		Bozeman, Tina	S1	291	27	100 HF	HF081G-01/ Fall Sport															
HF0900-01 HF Health & Fitness	Skoff, Roberta	A Block	1(M-W) 2(R)	Skoff, Roberta	HF S1	M04 B	M04 B	20 23 HF	S1	298	31	1,385	413	43	100	5	1	1	5	1	5	1,000	0.200 PM Sports - not included in total	Shared w/ HF0900-02
HF0900-02 HF Health & Fitness	Eckhardt, Anya	A Block	1(M-W) 2(R)	Eckhardt, Anya	HF S1	M04 B	M04 B	17 23 HF	S1															Shared w/ HF0900-01
HF0900-03 HF Health & Fitness	Eckhardt, Anya	E Block	3(F) 4(R) 6(T-W)	Eckhardt, Anya	HF S1	M04 B	M04 B	22 23 HF	S1															Shared w/ HF0900-11
HF0900-04 HF Health & Fitness	Eckhardt, Anya	B Block	1(R-F) 2(M-W)	Eckhardt, Anya	HF S1	M04 B	M04 B	23 23 HF	S1															Shared w/ HF0900-10
HF0900-05 HF Health & Fitness	Graham, William	G Block	4(T) 5(R) 6(M-F)	Graham, William	HF S1	M04 B	M04 B	23 23 HF	S1															
HF0900-06 HF Health & Fitness	Graham, William	C Block	3(M-W) 4(F)	Graham, William	HF S1	M04 B	M04 B	23 23 HF	S1															
HF0900-07 HF Health & Fitness	Graham, William	F Block	4(W) 5(M-F) 6(R)	Graham, William	HF S1	M04 B	M04 B	23 23 HF	S1															Shared w/ HF0900-08
HF0900-08 HF Health & Fitness	Thomas, Keith	F Block	4(W) 5(M-F) 6(R)	Thomas, Keith	HF S1	M04 B	M04 B	23 23 HF	S1															Shared w/ HF0900-07
HF0900-09 HF Health & Fitness	Thomas, Keith	D Block	2(F) 4(M) 5(T-W)	Thomas, Keith	HF S1	M04 B	M04 B	24 23 HF	S1															
HF0900-10 HF Health & Fitness	Thomas, Keith	B Block	1(R-F) 2(M-W)	Thomas, Keith	HF S1	M04 B	M04 B	23 23 HF	S1															Shared w/ HF0900-04
HF0900-11 HF Health & Fitness	Thomas, Keith	E Block	3(F) 4(R) 6(T-W)	Thomas, Keith	HF S1	M04 B	M04 B	23 23 HF	S1															Shared w/ HF0900-03
										244		1,385	338		22	16	4	64			28	2,286		

C. Utilization - Brookline High School

Dept. Description	P	Teacher	Track/ID	Schedule	Name	Dept. Code	Num. Class	Total	Max	Dept. ID	Term	Current Course Enroll S1	Current Course Enroll S2	Enrollment Increase Multiplier	Projected Course Enroll S1	Projected Course Enroll S2	Max Students per Section	No. of Sections S1	No. of Sections S2	No. of Sessions per week	Sessions per week S1	Sessions per week S2	Periods per Week S1	Total Stations Req. per Week S1	Total Stations Req. S2	Notes	
HF0900-12	HF	Health & Finess	A Block	2(M-W)2(R)	Skoff, Roberta	HF	M04 M04 B	22	23	HF	S2															Shared w/ HF0900-17	
HF0900-13	HF	Health & Finess	C Block	3(W-W)4(F)	Skoff, Roberta	HF	M04 M04 B	24	23	HF	S2																Shared w/ HF0900-16
HF0900-14	HF	Health & Finess	F Block	4(W)5(M-F)6(R)	Thomas, Keith	HF	M04 M04 B	21	23	HF	S2																Shared w/ HF0900-19
HF0900-15	HF	Health & Finess	E Block	3(F)4(R)5(T-W)	Thomas, Keith	HF	M04E M04E B	23	23	HF	S2																Shared w/ HF2500-01 Basketball Spec (2 periods) - calculated independently due to difference in class
HF0900-16	HF	Health & Finess	C Block	3(M-W)4(F)	Thomas, Keith	HF	M04 M04 B	24	23	HF	S2																Shared w/ HF0900-13
HF0900-17	HF	Health & Finess	A Block	1(W-W)2(R)	Thomas, Keith	HF	M04 M04 B	21	23	HF	S2																Shared w/ HF0900-12
HF0900-18	HF	Health & Finess	G Block	4(T)5(R)5(M-F)	Graham, William	HF	M04 M04 B	24	23	HF	S2																Shared w/ HF0900-22
HF0900-19	HF	Health & Finess	F Block	4(W)5(M-F)5(R)	Graham, William	HF	M04 M04 B	14	23	HF	S2																Shared w/ HF0900-14
HF0900-20	HF	Health & Finess	B Block	1(R-F)2(M,W)	Graham, William	HF	M04 M04 B	26	23	HF	S2																
HF0900-21	HF	Health & Finess	D Block	2(F)4(M)5(T-W)	Eckhardt, Anya	HF	M04 M04 B	24	23	HF	S2																
HF0900-22	HF	Health & Finess	G Block	4(T)5(R)5(M-F)	Eckhardt, Anya	HF	M04 M04 B	25	23	HF	S2																Shared w/ HF0900-18
HF0900-23	HF	Health & Finess	Z Block	2(W-F)	Eckhardt, Anya	HF	M04 M04 B	6	15	HF	S2	248	1,385	248	343	22	22	16	4	64	28	2,286	2,286			In Z block. Shared with HF2601-01 The Revolution on M and W. Student totals not combined due to difference in class frequency.	
HF0928-01	HF	ST Bball-Boys		PM(W)	Bozeman, Tina	S2	291 291 B	25	100	HF	S2	6	1,385	6	8	15	8	1	5	5	5	5	5	5	5	1,000 Z period not part of 28	
HF0929-01	HF	ST Bball-Girls		PM(W)	Bozeman, Tina	S2	291 291 B	16	100	HF	S2																
HF1028-01	HF	ST Ice Hcky-Boys		PM(W)	Bozeman, Tina	S2	291 291 B	18	100	HF	S2																
HF1029-01	HF	ST Ice Hockey-Girls		PM(W)	Bozeman, Tina	S2	291 291 B	9	100	HF	S2																
HF1100-01	HF	Lifetime Accts	D(T,F)	2(F)5(T)	Eckhardt, Anya	HF	S1 Tappa Tappi	24	25	HF	S1	68	1,385	68	94	100	94	1	1	1	1	1	1	5	5	0.200 PM Sports - not included in total	
HF1100-02	HF	Lifetime Accts	F(M,R)	5(W)6(R)	Eckhardt, Anya	HF	S1 Tappa Tappi	25	25	HF	S1																
HF1100-03	HF	Lifetime Accts	C(T,F)	3(T)4(F)	Eckhardt, Anya	HF	S1 Tappa Tappi	21	25	HF	S1																
HF1100-04	HF	Lifetime Accts	F(W,F)	4(W)5(F)	Eckhardt, Anya	HF	S1 Tappa Tappi	24	25	HF	S1																
HF1100-05	HF	Lifetime Accts	D(M,W)	4(M)5(W)	Graham, William	HF	S1 Tappa Tappi	25	25	HF	S1	119	1,385	119	165	22	22	8	2	16	28	0,571	0,571				
HF1100-06	HF	Lifetime Accts	B(M,R)	1(R)2(M)	Skoff, Roberta	HF	S2 Tappa Tappi	24	25	HF	S2																
HF1100-07	HF	Lifetime Accts	E(T,R)	4(R)6(T)	Eckhardt, Anya	HF	S2 Tappa Tappi	15	25	HF	S2																
HF1100-08	HF	Lifetime Accts	E(W,F)	3(F)6(W)	Eckhardt, Anya	HF	S2 Tappa Tappi	10	25	HF	S2																
HF1100-09	HF	Lifetime Accts	A(T,X)	1(T)2(R)	Eckhardt, Anya	HF	S2 Tappa Tappi	25	25	HF	S2																
HF1100-10	HF	Lifetime Accts		4(T)5(R)	Thomas, Keith	HF	S2 Tappa Tappi	11	12	HF	S2	74	1,385	74	102	22	22	5	2	10	28	0,957	0,957			Shared with HF2610-02 Excel Lifetime	
												13	1,385	13	18	22	18	22	1	2	2	2	28	0,071	0,071	Includes HF2610-02	

C. Utilization - Brookline High School

Dept./Description	P	Teacher	TrackID	Schedule	Name	Dept./Code	Num	Cls	Total	Max	Depth	ID	Term
HF112U-01 HF ST DvlnHl/Skiing		Bozeman, Tina		PM(M)	Bozeman, Tina	S2	291	291	13	100	HF	HF112U-01/ Winter and	S2
HF122U-01 HF ST Crs-Cntry SK		Bozeman, Tina		PM(W)	Bozeman, Tina	S2	291	291	4	100	HF	HF122U-01/ Winter and	S2
HF132B-01 HF ST Wnt Trk-Boys		Bozeman, Tina		PM(R,F)	Bozeman, Tina	S2	291	291	10	100	HF	HF132B-01/ Winter and	S2
HF132G-01 HF ST Wnt Trk-Girls		Bozeman, Tina		PM(M)	Bozeman, Tina	S2	291	291	9	100	HF	HF132G-01/ Winter and	S2
HF142U-01 HF ST Wrestling		Bozeman, Tina		PM(M)	Bozeman, Tina	S2	291	291	12	100	HF	HF142U-01/ Winter and	S2
HF152B-01 HF ST Swimming-Boys		Bozeman, Tina		PM(M)	Bozeman, Tina	S2	291	291	18	100	HF	HF152B-01/ Winter and	S2
HF162G-01 HF ST Chldng-Wint		Bozeman, Tina		PM(T)	Bozeman, Tina	S2	291	291	0	1	HF	HF202G-01/ Winter and	S2
HF172G-01 HF ST Gymnastics-Grl		Bozeman, Tina		PM(T)	Bozeman, Tina	S2	291	291	4	100	HF	HF202G-01/ Winter and	S2
HF182B-01 HF ST Crew-Boys		Bozeman, Tina		PM(T)	Bozeman, Tina	S2	291	291	34	100	HF	HF202G-01/ Winter and	S2
HF182G-01 HF ST Crew-Girls		Bozeman, Tina		PM(M)	Bozeman, Tina	S2	291	291	26	100	HF	HF112U-01/ Winter and	S2
HF192B-01 HF ST Baseball-Boys		Bozeman, Tina		PM(W)	Bozeman, Tina	S2	291	291	27	100	HF	HF122U-01/ Winter and	S2
HF192G-01 HF ST Softball-Girls		Bozeman, Tina		PM(W)	Bozeman, Tina	S2	291	291	11	100	HF	HF122U-01/ Winter and	S2
HF2000-01 HF ContractPE		Bozeman, Tina		PM(M)	Bozeman, Tina	S1	291	291	0	100	HF	HF202G-01/ Winter and	S1
HF2000-02 HF ContractPE		Bozeman, Tina		PM(T)	Bozeman, Tina	S2	291	291	0	100	HF	HF202G-01/ Winter and	S2
HF202B-01 HF ST Lacrosse-Boys		Bozeman, Tina		PM(M)	Bozeman, Tina	S2	291	291	16	100	HF	HF112U-01/ Winter and	S2
HF202G-01 HF ST Lacrosse-Girls		Bozeman, Tina		PM(T)	Bozeman, Tina	S2	291	291	17	100	HF	HF202G-01/ Winter and	S2
HF2100-01 HF Tennis Spec		Skoff, Roberta		B(M,R)	Skoff, Roberta	HF	S1	PAV	PAV	14	16	HF	S1
HF212U-01 HF ST Sailing		Bozeman, Tina		PM(W)	Bozeman, Tina	S2	291	291	4	100	HF	HF122U-01/ Winter and	S2
HF2200-01 HF Swim-Aqua Aero		Skoff, Roberta		Z(L,R)	Skoff, Roberta	HF	S1	POOL	POOL	14	15	HF	S1
HF222B-01 HF ST Tennis-Boys		Bozeman, Tina		PM(R,F)	Bozeman, Tina	S2	291	291	14	100	HF	HF132B-01/ Winter and	S2
HF222G-01 HF ST Tennis-Girls		Bozeman, Tina		PM(R,F)	Bozeman, Tina	S2	291	291	8	100	HF	HF132B-01/ Winter and	S2
HF2300-01 HF Weight/Cardio		Thomas, Keith		CM,W	Thomas, Keith	HF	S1	F	F	22	25	HF	S1
HF2300-02 HF Weight/Cardio		Thomas, Keith		DM,F	Thomas, Keith	HF	S2	F	F	22	25	HF	S2
HF232B-01 HF ST Trk-Bys Spr		Bozeman, Tina		PM(R,F)	Bozeman, Tina	S2	291	291	9	100	HF	HF132B-01/ Winter and	S2
HF232G-01 HF ST Trk-Gls Spr		Bozeman, Tina		PM(R,F)	Bozeman, Tina	S2	291	291	13	100	HF	HF132B-01/ Winter and	S2
HF2400-01 HF Rock Climb/Adv		Gorman, Elizabeth		ET,R	Gorman, Elizabeth	WL	S1	GYM	GYM	14	15	HF	S1
HF2400-02 HF Rock Climb/Adv		Graham, William		ACT,R	Graham, William	HF	S1	GYM	GYM	15	15	HF	S1
HF2400-03 HF Rock Climb/Adv		Graham, William		DIM,W	Graham, William	HF	S2	GYM	GYM	15	15	HF	S2
HF2400-04 HF Rock Climb/Adv		Graham, William		CM,W	Graham, William	HF	S2	GYM	GYM	15	15	HF	S2
HF2400-05 HF Rock Climb/Adv		Gorman, Elizabeth		ET,W,F	Gorman, Elizabeth	WL	S2	GYM	GYM	12	15	HF	S2
HF242B-01 HF ST Rugby		Bozeman, Tina		PM(T)	Bozeman, Tina	S2	291	291	17	100	HF	HF202G-01/ Winter and	S2

C. Utilization - Brookline High School

Dept. Description	P Teacher	TrackID	Schedule	Name	Dept. Code	Num	Clsr	Total	Max	Dept. ID	Term	Current Course Enrollment S1	Enrollment Increase Multiplier	Projected Enrollment S1	Max Students per Section	No. of Sections S1	No. of Sections S2	No. of Sections per week	Sections per week S2	Total Sections per Week S1	Total Sections per Week S2	Notes	
HF2500-01 HF Basketball Spec	Graham, William	E(LR)	4(R) 6(T)	Graham, William	HF S2	M04	M04	11	25	HF1120-01/ Winter and	S2		1.385	15	25	1	2	2	2	2	0.071		
HF2520-01 HF ST Dance	Bozeman, Tina	PM(M)	PM(M)	Bozeman, Tina	S2	291	291	1	100	HF1120-01/ Winter and	S2		1.385	100	1	1	2	2	2	5	0.400	PM Sports - not included in total	
HF2600-01 HF The Revolution	Graham, William	Z(M-F)	Z(M-F)	Graham, William	HF S1	M04	M04	30	30		S1	27	1.385	37	30	2	5	10	5	5	2.000	Z periods not included in Shared with HF2000-23 on M and W. Student totals not combined due to difference in class frequency.	
HF2601-01 HF The Revolution	Graham, William	Z(M-W)	Z(M-W)	Graham, William	HF S2	M04E	M04E	3	0		S2		1.385	0	0	0	0	0	0	0	0	0.400	Z periods not included in total
HF2610-01 HF Excel Lifetime	Thomas, Keith; Beaulieu, G(T-R)	4(T) 5(R)	4(T) 5(R)	Thomas, Keith	HF S1	Tapp	Tapp	0	15		S1	0	1.385	0	15	0	5	0	5	28	0.000	Shared w/ HF1100-10	
HF2610-02 HF Excel Lifetime	Thomas, Keith; Beaulieu-Jones, Kyle	G(T,R)	4(T) 5(R)	Thomas, Keith	HF S2	Tapp	Tapp	2	15	HF1100-01/ HF1100/HF2	S2		1.385	0	15	0	5	0	5	28	0.000	Included in HF1100-10	
HF2620-01 HF ST Ultimate Disc	Bozeman, Tina	PM(W)	PM(W)	Bozeman, Tina	S2	291	291	36	100	HF1120-01/ Winter and	S2		1.385	94	25	4	8	8	28	28	0.286		
HF2720-01 HF ST Fencing	Bozeman, Tina	PM(W)	PM(W)	Bozeman, Tina	S2	291	291	22	50	HF1320-01/ Winter and	S2		1.385	25	25	2	4	4	5	5	0.800	Z periods not included in total	
HF2800-01 HF Yoga	Skoff, Roberta	G(M,R)	5(R) 6(M)	Skoff, Roberta	HF S1	DS 2	DS 2	18	25		S1	58	1.385	80	100	1	2	2	2	5	0.400	PM Sports - not included in total	
HF2800-02 HF Yoga	Hernandez, Mayra	E(W,F)	3(F) 6(W)	Hernandez, Mayra	PA S1	DS 2	DS 2	25	25		S1		1.385	0	0	0	0	0	0	0	0		
HF2800-03 HF Yoga	Hernandez, Mayra	B(W,F)	1(F) 2(W)	Hernandez, Mayra	PA S1	DS 1	DS 1	25	25		S1	68	1.385	94	25	4	8	8	28	28	0.286		
HF2800-04 HF Yoga	Gorman, Elizabeth	Z(T,R)	Z(T,R)	Gorman, Elizabeth	WL S1	ASP	ASP	25	25		S1	25	1.385	25	25	2	4	4	5	5	0.357		
HF2800-05 HF Yoga	Skoff, Roberta	F(M,F)	5(M) 6(F)	Skoff, Roberta	HF S2	DS 1	DS 1	25	25		S2	25	1.385	35	25	2	4	4	5	5	0.800	Z periods not included in total	
HF2800-06 HF Yoga	Hernandez, Mayra	B(M,R)	1(R) 2(M)	Hernandez, Mayra	PA S2	DS 1	DS 1	24	25		S2		1.385	0	0	0	0	0	0	0	0		
HF2800-07 HF Yoga	Hernandez, Mayra	B(W,F)	1(F) 2(W)	Hernandez, Mayra	PA S2	DS 1	DS 1	26	25		S2	75	1.385	104	25	5	10	10	28	28	0.357		
HF2800-08 HF Yoga	Gorman, Elizabeth	Z(T,R)	Z(T,R)	Gorman, Elizabeth	WL S2	ASP	ASP	26	25		S2		1.385	36	25	2	4	4	28	28	0.143	Z periods not included in total	
HF2820-01 HF ST Squash	Bozeman, Tina	PM(R-F)	PM(R-F)	Bozeman, Tina	S2	291	291	14	50	HF1320-01/ Winter and	S2		1.385	19	100	1	2	2	5	5	0.400	PM Sports - not included in total	
HF2900-01 HF Net Games	Eckhardt, Anya	F(M,R)	5(M) 6(R)	Eckhardt, Anya	HF S2	GTM	GTM	24	25		S2	14	1.385	33	25	2	4	4	28	28	0.143		
HF2902-01 SP Adapted PE	Glazer, Caryn	Z(F) 5(T)	Z(F) 5(T)	Glazer, Caryn	SP S1	204	204	4	10		S1	24	1.385	6	10	1	2	2	2	5	0.600	No students?	
HF2999-01 HF Last Chance	Skoff, Roberta	Z(M-F)	Z(M-F)	Skoff, Roberta	HF Q4			0	0		Q4	4	1.385	0	0	0	0	0	0	0	0		
HEALTH AND FITNESS SUBTOTAL											4.043	3.714	4.756	4.370									

C. Utilization - Brookline High School

Dept. Description	P	Teacher	TrackID	Schedule	Name	Dept. Code	Num	Curr	Total	Max	Max	Term	Current Course Enrollment S1	Enrollment Increase Multiplier	Projectd Course Enrollment S2	Max Students per Section	No. of Sections S1	No. of Sections S2	No. of Sessions per week	Sections per week S1	Sections per week S2	Periods per Week S1	Periods per Week S2	Total Stations Req. S1	Total Stations Required S2	Notes
HR00PK-01 BEEP Homeroom PK		Kleiner, Deborah		(1)(WF)	Kleiner, Deborah	BEEP FY	12	30	30	30	30	FY	12	12	1,385	17	17	30	1	5	5	30	0.167	0.167		
HRFR01-01 HR Advisory FR01		Rittenburg, Peter	HR	2(T)	Rittenburg, Peter	EN FY	308	138	32	30	30	FY														
HRFR02-01 HR Advisory FR02		Allen, Astrid	HR	2(T)	Allen, Astrid	WL FY	236	206	30	30	30	FY														
HRFR03-01 HR Advisory FR03		Shen, Ahilene	HR	2(T)	Shen, Ahilene	MA FY	262	262	29	30	30	FY														
HRFR04-01 HR Advisory FR04		Rodriguez, Lisa	HR	2(T)	Rodriguez, Lisa	MA FY	131	131	28	30	30	FY														
HRFR05-01 HR Advisory FR05		Rodriguez, Jani	HR	2(T)	Rodriguez, Jani	WL FY	395	395	30	30	30	FY														
HRFR06-01 HR Advisory FR06		Poon, Stephanie	HR	2(T)	Poon, Stephanie	SO FY	301	301	32	30	30	FY														
HRFR07-01 HR Advisory FR07		Kimball, Andrew	HR	2(T)	Kimball, Andrew	WL FY	206	206	31	30	30	FY														
HRFR08-01 HR Advisory FR08		Shiffman, Gary	HR	2(T)	Shiffman, Gary	SO FY	392	392	31	30	30	FY														
HRFR09-01 HR Advisory FR09		Speyer, Julia	HR	2(T)	Speyer, Julia	SC FY	370	376	30	30	30	FY														
HRFR10-01 HR Advisory FR10		Wolf, Catherine	HR	2(T)	Wolf, Catherine	SC FY	357	357	31	30	30	FY														
HRFR11-01 HR Advisory FR11		Myers, Wes	HR	2(T)	Myers, Wes	WL FY	245	245	28	30	30	FY														
HRFR12-01 HR Advisory FR12		Veader, Mark	HR	2(T)	Veader, Mark	MA FY	145	145	30	30	30	FY														
HRFR13-01 HR Advisory FR13		Wang, Kevin	HR	2(T)	Wang, Kevin	EN FY	303	303	29	30	30	FY														
HRFR14-01 HR Advisory FR14		Kissel, Stacy	HR	2(T)	Kissel, Stacy	SC FY	366	366	30	30	30	FY														
HRFR15-01 HR Advisory FR15		Barkett, Scott	HR	2(T)	Barkett, Scott	SP FY	309	309	29	30	30	FY														
HRFR16-01 HR Advisory FR16		Juo, Jennifer	HR	2(T)	Juo, Jennifer	SC FY	351	351	27	30	30	FY														
HRFR17-01 HR Advisory FR17		Sullivan, Tara	HR	2(T)	Sullivan, Tara	SP FY	341	341	27	30	30	FY														
HRFR18-01 HR Advisory FR18		Giblin, Heather	HR	2(T)	Giblin, Heather	SC FY	360	360	27	30	30	FY														
HRFR19-01 HR Advisory FR19		Tosa, Diego	HR	2(T)	Tosa, Diego	WL FY	345	345	28	30	30	FY														
HRFR20-01 HR Advisory FR20		Barrett, James	HR	2(T)	Barrett, James	SP FY	379	379	28	30	30	FY														
HRFR03-01 HR Advisory FR03		Grant, Robert	HR	2(T)	Grant, Robert	SO FY	382	382	35	30	30	FY	587	587	1,385	813	813	30	28	28	28	30	0.933	0.933		
HRFR04-01 HR Advisory FR04		Berman, Ben	HR	2(T)	Berman, Ben	EN FY	307	307	25	30	30	FY														
HRFR05-01 HR Advisory FR05		Woolley-Brown, Katherine	HR	2(T)	Woolley-Brown, Katherine	SC FY	380	380	27	30	30	FY														
HRFR06-01 HR Advisory FR06		Cooney, Brian	HR	2(T)	Cooney, Brian	SP FY	258	258	17	30	30	FY														
HRFR07-01 HR Advisory FR07		Grubb, Jennifer	HR	2(T)	Grubb, Jennifer	SO FY	261	261	11	30	30	FY														
HRFR08-01 HR Advisory FR08		Braman-Parikh, Jennifer	HR	2(T)	Braman-Parikh, Jennifer	SO FY	130	130	18	30	30	FY														
HRFR09-01 HR Advisory FR09		Gronlund-Jacob, Noah	HR	2(T)	Gronlund-Jacob, Noah	SO FY	340	340	14	30	30	FY														
HRFR10-01 HR Advisory FR10		Frey, Jennifer	HR	2(T)	Frey, Jennifer	SO FY	384	384	18	30	30	FY														
HRFR11-01 HR Advisory FR11		Kennedy-Justice, Meghan	HR	2(T)	Kennedy-Justice, Meghan	MA FY	140	140	27	30	30	FY														
HRFR13-01 HR Advisory FR13		Mitchell, David	HR	2(T)	Mitchell, David	EN FY	338	338	34	30	30	FY														
HRFR14-01 HR Advisory FR14		Murphy, Alexis	HR	2(T)	Murphy, Alexis	SC FY	373	373	17	30	30	FY														
HRFR15-01 HR Advisory FR15		Blette, Erin	HR	2(T)	Blette, Erin	SP FY	266	266	26	30	30	FY														
HRFR16-01 HR Advisory FR16		Gacloch, Carey	HR	2(T)	Gacloch, Carey	SP FY	231	231	18	30	30	FY														
HRFR17-01 HR Advisory FR17		Williams, Elaha	HR	2(T)	Williams, Elaha	WL FY	208	208	20	30	30	FY														
HRFR19-01 HR Advisory FR19		Crane, Elizabeth	HR	2(T)	Crane, Elizabeth	SC FY	354	354	20	30	30	FY														
HRFR20-01 HR Advisory FR20		Brown, Briana	HR	2(T)	Brown, Briana	SC FY	362	362	19	30	30	FY														
HRSD01-01 HR Advisory SD01		Knightly, Bridget	HR	2(T)	Knightly, Bridget	FY	260	260	27	30	30	FY	327	327	1,385	453	453	30	16	16	16	30	0.533	0.533		
HRSD02-01 HR Advisory SD02		Celis, Meaghan	HR	2(T)	Celis, Meaghan	SC FY	361	361	29	30	30	FY														
HRSD03-01 HR Advisory SD03		Thomas, Keith	HR	2(T)	Thomas, Keith	HF FY	MDAEMBAE	25	30	30	FY															
HRSD04-01 HR Advisory SD04		Allegrezza, Christina	HR	2(T)	Allegrezza, Christina	EN FY	407	407	28	30	30	FY														
HRSD05-01 HR Advisory SD05		Alibhai, Marika	HR	2(T)	Alibhai, Marika	MA FY	263	263	29	30	30	FY														
HRSD06-01 HR Advisory SD06		Rabins, Danielle	HR	2(T)	Rabins, Danielle	MA FY	133	133	27	30	30	FY														
HRSD07-01 HR Advisory SD07		Putnam, Dean	HR	2(T)	Putnam, Dean	WL FY	209	209	28	30	30	FY														
HRSD08-01 HR Advisory SD08		Mcginis, Emily	HR	2(T)	Mcginis, Emily	WL FY	347	347	25	30	30	FY														
HRSD09-01 HR Advisory SD09		Kelly, Andrew	HR	2(T)	Kelly, Andrew	SP FY	410	410	27	30	30	FY														
HRSD10-01 HR Advisory SD10		Dickerman, Samuel	HR	2(T)	Dickerman, Samuel	SO FY	388	388	25	30	30	FY														
HRSD11-01 HR Advisory SD11		Weiffenbach, Barbara	HR	2(T)	Weiffenbach, Barbara	SC FY	350	350	24	30	30	FY														
HRSD12-01 HR Advisory SD12		Elo, Rachel	HR	2(T)	Elo, Rachel	WL FY	246	246	26	30	30	FY														
HRSD13-01 HR Advisory SD13		Gama, Monica	HR	2(T)	Gama, Monica	SP FY	144	144	28	30	30	FY														
HRSD14-01 HR Advisory SD14		Dondero, Alisa	HR	2(T)	Dondero, Alisa	EN FY	238	238	26	30	30	FY														
HRSD15-01 HR Advisory SD15		Crusberg, Gretchen	HR	2(T)	Crusberg, Gretchen	SC FY	343	343	26	30	30	FY														
HRSD16-01 HR Advisory SD16		Kumpf, Julia	HR	2(T)	Kumpf, Julia	SC FY	370	370	27	30	30	FY														
HRSD17-01 HR Advisory SD17		Chang, Fu-Tsing	HR	2(T)	Chang, Fu-Tsing	WL FY	381	381	28	30	30	FY														
HRSD18-01 HR Advisory SD18		Moussau, Evan	HR	2(T)	Moussau, Evan	EN FY	380	380	27	30	30	FY														
HRSD19-01 HR Advisory SD19		Pitco, Susan	HR	2(T)	Pitco, Susan	MA FY	249	249	26	30	30	FY														
HRSD20-01 HR Advisory SD20		Leslie, Eibeth	HR	2(T)	Leslie, Eibeth	SC FY	360	360	27	30	30	FY														

C. Utilization - Brookline High School

Depth/Description	P	Teacher	TrackID	Schedule	Name	Depth	Code	Num	Class	Total	Max	Term	Current Course Enrollment S1	Current Course Enrollment S2	Enrollment Increase S2	Projected Course Enrollment S1	Projected Course Enrollment S2	Max Students per Section	No. of Sections S1	No. of Sections S2	No. of Sections per week	Sessions per week S1	Sessions per week S2	Periods per week S1	Total Stations Required S1	Total Stations Required S2	Notes		
HR502-01 HR Advisory SR02		Miller, Marcie	HR	2(T)	Miller, Marcie	SO	FY	353	353	30	30	FY																	
HR502-02 HR Advisory SR02		Leite, Kaitlyn	HR	2(T)	Leite, Kaitlyn	SC	FY	364	364	25	30	FY																	
HR502-03 HR Advisory SR02		Gooden, Aaron	HR	2(T)	Gooden, Aaron	SC	FY	378	378	21	30	FY																	
HR502-04 HR Advisory SR07		Gomez, Dominique	HR	2(T)	Gomez, Dominique	WL	FY	214	214	23	30	FY																	
HR502-05 HR Advisory SR09		Ramos, Jesse	HR	2(T)	Ramos, Jesse	EN	FY	304	304	16	30	FY																	
HR502-06 HR Advisory SR10		Fried, Adam	HR	2(T)	Fried, Adam	MA	FY	143	143	16	30	FY																	
HR502-07 HR Advisory SR11		Mendez-Barroso, Christobal	HR	2(T)	Mendez-Barroso, Christobal	WL	FY	235	235	22	30	FY																	
HR502-08 HR Advisory SR12		Murphy, Kristen	HR	2(T)	Murphy, Kristen	SO	FY	284	284	18	30	FY																	
HR502-09 HR Advisory SR13		Primmer, Robert	HR	2(T)	Primmer, Robert	EN	FY	336	336	22	30	FY																	
HR502-10 HR Advisory SR14		Stark, Susan C	HR	2(T)	Stark, Susan C	WL	FY	UA33	UA33	21	30	FY																	
HR502-11 HR Advisory SR16		Stevens, Brittany	HR	2(T)	Stevens, Brittany	CE	FY	UA31	UA31	17	30	FY																	
HR502-12 HR Advisory SR17		Longmire, Jennifer	HR	2(T)	Longmire, Jennifer	SO	FY	342	342	17	30	FY																	
HR502-13 HR Advisory SR18		Shorner, Lihua	HR	2(T)	Shorner, Lihua	WL	FY	200	200	19	30	FY																	
HR502-14 HR Advisory SR19		Buhl, Elizabeth	HR	2(T)	Buhl, Elizabeth	SO	FY	346	346	19	30	FY																	
HR502-01 MA Algebra I		Gorlin, Sophie	HR	2(T)	Gorlin, Sophie	EN	FY	300	300	17	30	FY																	
HR502-02 MA Algebra I		Kennedy, Karen	HR	2(T)	Kennedy, Karen	GU	FY			0	20	FY	332	332	1,385	460	460	30	16	16	1	16	16	1	30	0.533	0.533		
HR502-03 MA Algebra I		Epstein, Paul	HR	2(T)	Epstein, Paul	SO	FY			0	20	FY	0	0	1,385	0	0	30	0	0	0	0	0	0	30	0.000	0.000		
HR502-04 MA Advisory Sugmore		Wise, Lindsay	Sag	HR	2(T)	Wise, Lindsay	EN	FY	394	394	3	HR	3	3	1,385	4	4	3	2	2	1	2	2	30	0.067	0.067			
HR502-05 MA Advisory SMS		Kozel Brad, Martin, Jennifer, Andrews,	HR	2(T)	Flynn-Conson, Keira	SW	FY	404	404	119	125	SW	119	119	1,385	165	165	125	2	2	2	2	2	30	0.067	0.067			
ADVISORY SUBTOTAL																													
ADVISORY SUBTOTAL AT 85% UTILIZATION																													
MA1000-01 MA Algebra I		Camara, Monica; Friedland, Craig	G	Block	4(T) 5(R) 6(M,F)	MA	FY	131	131	5	5	FY																	
MA1000-02 MA Algebra I		Friedland, Craig; Camara, Monica	E	Block	3(F) 4(R) 6(T,W)	MA	FY	131	131	6	5	FY																	
MA1000-03 MA Algebra I		Friedland, Craig; Camara, Monica	A	Block	1(M,W) 2(R)	MA	FY	131	131	6	18	FY																	
MA1002-01 MA Algebra I		Friedland, Craig; Camara, Monica	G	Block	4(T) 5(R) 6(M,F)	MA	FY	131	131	10	8	FY																	
MA1002-02 MA Algebra I		Friedland, Craig; Camara, Monica	E	Block	3(F) 4(R) 6(T,W)	MA	FY	131	131	7	8	FY																	
MA1020-01 MA Geometry		Hitchcock, Katherine; Wells, Hayley	F	Block	4(W) 5(M,F) 6(R)	MA	FY	130	130	9	8	FY																	
MA1020-02 MA Geometry		Hitchcock, Katherine; Wells, Hayley	B	Block	1(R-F) 2(M,W)	MA	FY	258	258	8	8	FY																	
MA1020-03 MA Geometry		Woollever, Chloe; Wells, Hayley	A	Block	1(M,W) 2(R)	MA	FY	262	262	8	8	FY																	
MA1020-04 MA Geometry		Wells, Hayley; Woollever, Chloe	G	Block	4(T) 5(R) 6(M,F)	MA	FY	209	209	7	8	FY																	
MA1020-05 MA Geometry		Camara, Monica; Rodriguez, Lisa	B	Block	1(R-F) 2(M,W)	MA	FY	266	266	10	18	FY																	
MA1020-06 MA Geometry		Rodriguez, Lisa	E	Block	3(F) 4(R) 6(T,W)	MA	FY	266	266	17	18	FY																	
MA1020-07 MA Geometry		Strong, Elizabeth	D	Block	2(F) 4(M) 5(T,W)	MA	FY	266	266	16	18	FY																	
MA1020-08 MA Geometry		Strong, Elizabeth	A	Block	1(M,W) 2(R)	MA	FY	266	266	16	18	FY																	
MA1022-01 MA Geometry		Hitchcock, Katherine; Wells, Hayley	F	Block	4(W) 5(M,F) 6(R)	MA	FY	130	130	8	8	FY																	
MA1022-02 MA Geometry		Hitchcock, Katherine; Wells, Hayley	B	Block	1(R-F) 2(M,W)	MA	FY	258	258	9	8	FY																	
MA1022-03 MA Geometry		Woollever, Chloe; Wells, Hayley	A	Block	1(M,W) 2(R)	MA	FY	262	262	8	8	FY																	
MA1022-04 MA Geometry		Woollever, Chloe; Wells, Hayley	G	Block	4(T) 5(R) 6(M,F)	MA	FY	209	209	9	8	FY																	

C. Utilization - Brookline High School

Dept./Description	P	Teacher	TrackID	Schedule	Name	Dgpt. Code	Num. Clstr.	Total	Max. Dept. ID	Term	Current Course Enroll S1	Current Course Enroll S2	Enrollment Increase S2 Multiplier	Projected Course Enroll S1	Projected Course Enroll S2	Max. Students per Section	No. of Sections S1	No. of Sections S2	No. of Sections per week	Sessions per week S1	Sessions per week S2	Periods per week S1	Periods per week S2	Total Stations Req. S1	Total Stations Required S2	Notes	
MA1030-01 MA Geometry H		Crisso, KATHYNN	F Block	4(W)5(M)/J 6(R)	Caroso, KATHYNN	MA	FY	145	24	25 MA																	
MA1030-02 MA Geometry H		Boys, Kari	E Block	3(F)4(R)6(T-W)	Boys, Kari	MA	FY	262	26	25 MA																	
MA1030-03 MA Geometry H		Naimy, Julla	A Block	1(M-W) 2(R)	Naimy, Julla	MA	FY	260	26	25 MA																	
MA1030-04 MA Geometry H		Naimy, Julla	D Block	2(F)4(M)5(T-W)	Naimy, Julla	MA	FY	381	22	25 MA																	
MA1030-05 MA Geometry H		Ficop, Susan	D Block	2(F)4(M)5(T-W)	Ficop, Susan	MA	FY	258	25	25 MA																	
MA1030-06 MA Geometry H		Ficop, Susan	B Block	2(F)4(M)5(T-W)	Ficop, Susan	MA	FY	261	26	25 MA																	
MA1030-07 MA Geometry H		Shen, Anhleen	A Block	1(M-W) 2(R)	Shen, Anhleen	MA	FY	133	13	20 25 MA																	
MA1030-08 MA Geometry H		Shen, Anhleen	E Block	4(T)5(R)6(M-F)	Shen, Anhleen	MA	FY	133	13	21 25 MA																	
MA1030-09 MA Geometry H		Shen, Anhleen	E Block	3(F)4(R)6(T-W)	Ficop, Susan	MA	FY	258	25	24 25 MA																	
MA1040-01 MA Geometry Advanced		Alibhai, Marika	D Block	2(F)4(M)5(T-W)	Alibhai, Marika	MA	FY	143	14	28 25 MA																	
MA1040-02 MA Geometry Advanced		Alibhai, Marika	A Block	1(M-W) 2(R)	Alibhai, Marika	MA	FY	143	14	28 25 MA																	
MA1040-03 MA Geometry Advanced		Paris, Joshua	B Block	1(R-F)2(M-W)	Paris, Joshua	MA	FY	263	26	25 MA																	
MA1040-04 MA Geometry Advanced		Fried, Adam	F Block	4(W)5(M)/J 6(R)	Fried, Adam	MA	FY	265	26	25 MA																	
MA1048-01 MA Geometry Adv		Fried, Adam	Z(M-R)	Z(M-R)	Fried, Adam	MA	FY	265	26	12 25 MA																	
MA1062-01 MA Geometry		Rodriguez, Lisa, Camara, Monica	B Block	1(R-F)2(M-W)	Rodriguez, Lisa	MA	FY	266	26	3 5 MA MA1062-01/MA1020/MA1																	
MA2020-01 MA Algebra 2		Kennedy-Justice, Meghan, Wells, Hayley	E Block	3(F)4(R)6(T-W)	Kennedy-Justice, Meghan	MA	FY	140	14	7 MA MA2022-01/MA2020/MA2																	
MA2020-02 MA Algebra 2		Ficop, Susan	F Block	4(W)5(M)/J 6(R)	Ficop, Susan	MA	FY	258	25	17 18 MA																	
MA2020-03 MA Algebra 2		Kennedy-Justice, Meghan	D Block	2(F)4(M)5(T-W)	Kennedy-Justice, Meghan	MA	FY	140	14	17 18 MA																	
MA2020-04 MA Algebra 2		Naimy, Julla	F Block	4(T)5(R)6(M-F)	Naimy, Julla	MA	FY	260	26	18 18 MA																	
MA2020-05 MA Algebra 2		Naimy, Julla	G Block	4(W)5(M)/J 6(R)	Naimy, Julla	MA	FY	260	26	16 18 MA																	
MA2020-06 MA Algebra 2		Wang, Grace	B Block	1(R-F)2(M-W)	Wang, Grace	MA	FY	130	13	16 18 MA																	
MA2020-07 MA Algebra 2		Kostant, Shoshanna	E Block	3(F)4(R)6(T-W)	Kostant, Shoshanna	MA	FY	261	26	18 18 MA																	
MA2020-08 MA Algebra 2		Rodriguez, Lisa	A Block	1(M-W) 2(R)	Rodriguez, Lisa	MA	FY	140	14	14 18 MA																	
MA2022-01 MA Algebra 2		Kennedy-Justice, Meghan, Wells, Hayley	E Block	3(F)4(R)6(T-W)	Kennedy-Justice, Meghan	MA	FY	140	14	15 MA MA2022-01/MA2020/MA2																	
MA2030-01 MA Algebra 2 H		Hitchcock, Katherine	A Block	1(M-W) 2(R)	Hitchcock, Katherine	MA	FY	258	24	25 MA																	
MA2030-02 MA Algebra 2 H		Shen, Anhleen	F Block	4(W)5(M)/J 6(R)	Shen, Anhleen	MA	FY	133	13	22 25 MA																	
MA2030-03 MA Algebra 2 H		Winkler, Deborah	E Block	3(F)4(R)6(T-W)	Winkler, Deborah	MA	FY	144	14	25 25 MA																	
MA2030-04 MA Algebra 2 H		Hitchcock, Katherine	G Block	4(T)5(R)6(M-F)	Hitchcock, Katherine	MA	FY	258	25	25 MA																	
MA2030-05 MA Algebra 2 H		Rabina, Danielle	E Block	3(F)4(R)6(T-W)	Rabina, Danielle	MA	FY	133	13	23 25 MA																	
MA2030-06 MA Algebra 2 H		Rabina, Danielle	D Block	2(F)4(M)5(T-W)	Rabina, Danielle	MA	FY	133	13	23 25 MA																	
MA2030-07 MA Algebra 2 H		Rodriguez, Lisa	F Block	4(W)5(M)/J 6(R)	Rodriguez, Lisa	MA	FY	266	26	23 25 MA																	
MA2030-08 MA Algebra 2 H		Shen, Anhleen	B Block	1(R-F)2(M-W)	Shen, Anhleen	MA	FY	140	14	23 25 MA																	
MA2035-01 MA Interactive Math Pgrm II H		Rabina, Danielle	B Block	1(R-F)2(M-W)	Rabina, Danielle	MA	FY	133	13	21 25 MA																	
MA2040-01 MA Algebra 2 Advanced		Pero, Nicholas	A Block	1(M-W) 2(R)	Pero, Nicholas	MA	FY	144	14	25 25 MA																	
MA2040-02 MA Algebra 2 Advanced		Vesler, Mark	F Block	4(W)5(M)/J 6(R)	Vesler, Mark	MA	FY	263	26	25 MA																	
MA2040-03 MA Algebra 2 Advanced		Vesler, Mark	D Block	2(F)4(M)5(T-W)	Vesler, Mark	MA	FY	263	26	22 25 MA																	
MA2040-04 MA Algebra 2 Advanced		Pero, Nicholas	G Block	4(T)5(R)6(M-F)	Pero, Nicholas	MA	FY	145	14	25 25 MA																	
MA2062-01 MA Algebra I		Friedland, Craig, Camara, Monica	A Block	1(M-W) 2(R)	Friedland, Craig	MA	FY	131	13	1 10 MA MA2062/MA1000-03																	
MA3010-01 MA Algebra Topics and Technology		Fiedor, Marc; Mallory, Bruce	F Block	4(W)5(M)/J 6(R)	Mallory, Bruce	MA	FY	143	14	4 4 MA MA3012-01/MA3010/MA3																	
MA3010-02 MA Algebra Topics and Technology		Mallory, Bruce; Fiedor, Mark	E Block	3(F)4(R)6(T-W)	Mallory, Bruce	MA	FY	143	14	4 4 MA MA3010-02/MA3010/MA3																	
MA3010-03 MA Algebra Topics and Technology		Mallory, Bruce	A Block	1(M-W) 2(R)	Mallory, Bruce	MA	FY	244	24	5 18 MA																	
MA3012-01 MA Algebra Topics and Technology		Fiedor, Marc; Mallory, Bruce	F Block	4(W)5(M)/J 6(R)	Mallory, Bruce	MA	FY	143	14	9 11 MA MA3012-01/MA3010/MA3																	
MA3012-02 MA Algebra Topics and Technology		Mallory, Bruce; Fiedor, Mark	E Block	3(F)4(R)6(T-W)	Mallory, Bruce	MA	FY	143	14	10 11 MA MA3010-02/MA3010/MA3																	

C. Utilization - Brookline High School

Dept. Description	P. Teacher	TrackID	Schedule	Name	Dept. Code	Num. Classr.	Total Max. Dept. ID	Term	Current Course Enroll '21	Enrollment Increase Budget	Projected Course Enroll '24	Projected Course Enroll '24	Max Students per Section	No. of Sections '24	No. of Sections per week	Sessions per week	Periods per week	Total Stations Req. '24	Total Stations Req. '24	Notes																			
MA3020-01 MA Trig and Analysis	Strong, Elizabeth	E Block	3(F) 4(B) 6(T-W)	Strong, Elizabeth	MA	FY 130	130	FY																															
MA3020-02 MA Trig and Analysis	Strong, Elizabeth	G Block	4(T) 5(F) 6(M-F)	Strong, Elizabeth	MA	FY 265	265	FY																															
MA3020-03 MA Trig and Analysis	Woollever, Chloe	F Block	1(R-F) 2(M-W)	Woollever, Chloe	MA	FY 262	262	FY																															
MA3020-04 MA Trig and Analysis	Woollever, Chloe	F Block	4(W) 5(M-W) 6(R)	Woollever, Chloe	MA	FY 262	262	FY																															
MA3020-05 MA Trig and Analysis	Fried, Adam	A Block	1(R-F) 2(M-W)	Fried, Adam	MA	FY 361	361	FY																															
MA3020-06 MA Trig and Analysis	Fried, Adam	D Block	2(F) 4(W) 5(T-W)	Fried, Adam	MA	FY 265	265	FY	106	106	1385	147	20	8	4	32	32	28	1.143	1.143																			
MA3030-01 MA Precalculus H	Padgett, Julie	D Block	2(F) 4(W) 5(T-W)	Padgett, Julie	MA	FY 260	260	FY																															
MA3030-02 MA Precalculus H	Padgett, Julie	B Block	1(R-F) 2(M-W)	Padgett, Julie	MA	FY 260	260	FY																															
MA3030-03 MA Precalculus H	Winkler, Deborah	F Block	4(W) 5(M-W) 6(R)	Winkler, Deborah	MA	FY 144	144	FY																															
MA3030-04 MA Precalculus H	Winkler, Deborah	G Block	3(F) 4(R) 6(M-F)	Winkler, Deborah	MA	FY 144	144	FY																															
MA3030-05 MA Precalculus H	Padgett, Julie	E Block	3(F) 4(R) 6(M-F)	Padgett, Julie	MA	FY 260	260	FY																															
MA3030-06 MA Precalculus H	Padgett, Julie	A Block	1(M-W) 2(R)	Padgett, Julie	MA	FY 261	261	FY																															
MA3030-07 MA Precalculus H	Veader, Mark	G Block	4(T) 5(R) 6(M-F)	Veader, Mark	MA	FY 263	263	FY																															
MA3030-08 MA Precalculus H	Veader, Mark	E Block	3(F) 4(R) 6(T-W)	Veader, Mark	MA	FY 263	263	FY																															
MA3035-01 MA Interactive Math Pgrm III	Canuso, Kathryn	E Block	3(F) 4(R) 6(T-W)	Canuso, Kathryn	MA	FY 145	145	FY	198	198	1385	274	25	11	4	44	44	28	1.571	1.571 ED plan maximum																			
MA3035-02 MA Interactive Math Pgrm III	Mallory, Bruce	B Block	1(R-F) 2(M-W)	Mallory, Bruce	MA	FY 143	143	FY																															
MA3040-01 MA PreCalculus Advanced	Kostant, Shoshanna	F Block	4(W) 5(M-W) 6(R)	Kostant, Shoshanna	MA	FY 261	261	FY	38	38	1385	53	20	3	4	12	12	28	0.429	0.429																			
MA3040-02 MA PreCalculus Advanced	Wang, Grace	A Block	1(M-W) 2(R)	Wang, Grace	MA	FY 130	130	FY																															
MA3040-03 MA PreCalculus Advanced	Kostant, Shoshanna	D Block	2(F) 4(W) 5(T-W)	Kostant, Shoshanna	MA	FY 261	261	FY																															
MA4010-01 MA College Algebra Topics	Pero, Nicholas	B Block	1(R-F) 2(M-W)	Pero, Nicholas	MA	FY 144	144	FY																															
MA4010-02 MA College Algebra Topics	Veader, Mark	G Block	4(T) 5(R) 6(M-F)	Kennedy-Justice, Meghan	MA	FY 140	140	FY																															
MA4020-01 MA Pre-Calculus	Paniagua, Juan	A Block	1(M-W) 2(R)	Paniagua, Juan	MA	FY 265	265	FY	32	32	1385	44	18	3	4	12	12	28	0.429	0.429																			
MA4020-02 MA Pre-Calculus	Alibhai, Marika	F Block	4(W) 5(M-W) 6(R)	Alibhai, Marika	MA	FY 131	131	FY																															
MA4020-03 MA Pre-Calculus	Alibhai, Marika	G Block	4(T) 5(R) 6(M-F)	Alibhai, Marika	MA	FY 143	143	FY																															
MA4030-01 MA Foundations in Calculus	Wang, Grace	D Block	2(F) 4(W) 5(T-W)	Wang, Grace	MA	FY 130	130	FY	47	47	1385	65	22	3	4	12	12	28	0.429	0.429																			
MA4030-02 MA Foundations in Calculus	Kennedy-Justice, Meghan	F Block	4(W) 5(M-W) 6(R)	Kennedy-Justice, Meghan	MA	FY 140	140	FY																															
MA4030-03 MA Foundations in Calculus	Wang, Grace	G Block	4(T) 5(R) 6(M-F)	Wang, Grace	MA	FY 130	130	FY																															
MA4040-01 MA AP Calculus AB	Friedland, Craig	B Block	1(R-F) 2(M-W)	Friedland, Craig	MA	FY 131	131	FY	61	61	1385	84	22	4	4	16	16	28	0.571	0.571																			
MA4040-02 MA AP Calculus AB	Friedland, Craig	D Block	2(F) 4(W) 5(T-W)	Friedland, Craig	MA	FY 131	131	FY																															
MA4040-03 MA AP Calculus AB	Paniagua, Juan	G Block	4(T) 5(R) 6(M-F)	Paniagua, Juan	MA	FY 265	265	FY																															
MA4040-04 MA AP Calculus AB	Paniagua, Juan	E Block	3(F) 4(R) 6(T-W)	Paniagua, Juan	MA	FY 265	265	FY	128	128	1385	177	25	8	4	32	32	28	1.143	1.143 ED plan maximum																			
MA4041-01 MA AP Calculus BC	Pero, Nicholas	D Block	2(F) 4(W) 5(T-W)	Pero, Nicholas	MA	FY 144	144	FY																															
MA4041-02 MA AP Calculus BC	Kostant, Shoshanna	G Block	4(T) 5(R) 6(M-F)	Kostant, Shoshanna	MA	FY 261	261	FY																															
MA4120-01 MA Statistics	Canuso, Kathryn	A Block	1(M-W) 2(R)	Canuso, Kathryn	MA	FY 145	145	FY	59	59	1385	82	25	4	4	16	16	28	0.571	0.571 ED plan maximum																			
MA4120-02 MA Statistics	Canuso, Kathryn	D Block	2(F) 4(W) 5(T-W)	Canuso, Kathryn	MA	FY 145	145	FY																															
MA4140-01 MA AP Statistics	Buy, Kari	A Block	1(M-W) 2(R)	Buy, Kari	MA	FY 263	263	FY	59	59	1385	82	25	4	4	16	16	28	0.571	0.571 ED plan maximum																			
MA4140-02 MA AP Statistics	Buy, Kari	D Block	2(F) 4(W) 5(T-W)	Buy, Kari	MA	FY 262	262	FY																															
MA6100-01 MA Math Lab	Paniagua, Juan; Naimy, B	B Block	1(R-F) 2(M-W)	Paniagua, Juan	MA	FY 265	265	FY	64	64	1385	89	25	4	4	16	16	28	0.571	0.571 ED plan maximum																			
MATH SUBTOTAL																			17.714	17.714																			
MATH SUBTOTAL AT 85% UTILIZATION																			20.840	20.840																			

C. Utilization - Brookline High School

Dept	Description	P	Teacher	Track/ID	Schedule	Name	Dept	Code	Num	Clas	Total	Max	Dept/ID	Term	Current Course Enroll '21	Enrollment Increase '22	Projected Course Enroll '22	Max Students per Section	No. of Sections '21	No. of Sections '22	No. of Sessions per week	Sessions per week '21	Periods per week	Total Stations Req. per Week	Total Stations Required '22	Notes		
SC1300-01	SC In Field/Sci		Sarranowitz, Donna	C Block	3(M-W)4(F)	Sarranowitz, Donna	VA	S1	UA	9	20	SC	SC1300/146	'21												Shared CR with VA6100-01		
SC1300-02	SC Draw For Understanding in Field/Sci		Sarranowitz, Donna	D Block	2(F)4(M)5(T-W)	Sarranowitz, Donna	VA	S2	UA	4	20	SC	VA6100-02/ SC1300/146	'22												Included in VA6100-02 Shared CR with VA6100-02		
SC2020-01	SC Chemistry I		Cells, Meaghan; Crusing, Gretchen	F Block	4(W)5(M-F)6(R)	Cells, Meaghan	SC	FY	361	361	15	20	SC	SC2020-01/ SC2020/SC2												Incl. in VA6100 below Shared CR with SC2022-01		
SC2020-02	SC Chemistry I		Cells, Meaghan; Crusing, Gretchen	B Block	1(R-F)2(M-W)	Cells, Meaghan	SC	FY	361	361	11	20	SC													Shared CR with SC2022-02		
SC2020-03	SC Chemistry I		Crocker, Alison	G Block	4(T)5(R)6(M-F)	Crocker, Alison	SC	FY	364	364	20	20	SC													Shared CR with SC2062-01		
SC2020-04	SC Chemistry I		Barrett, James; Weiffenbach, Barbara	B Block	1(R-F)2(M-W)	Weiffenbach, Barbara	SC	FY	350	350	15	20	SC	SC2062/2020												Shared CR with SC2020-02		
SC2020-05	SC Chemistry I		Weiffenbach, Barbara	A Block	1(M-W)2(R)	Weiffenbach, Barbara	SC	FY	350	350	14	20	SC													Shared CR with SC2062-02		
SC2022-01	SC Chemistry I		Cells, Meaghan; Crusing, Gretchen	F Block	4(W)5(M-F)6(R)	Cells, Meaghan	SC	FY	361	361	7	10	SC	SC2020-01/ SC2020/SC2												Shared CR with SC2020-01		
SC2022-02	SC Chemistry I		Cells, Meaghan; Crusing, Gretchen	B Block	1(R-F)2(M-W)	Cells, Meaghan	SC	FY	361	361	9	10	SC													Shared CR with SC2020-02		
SC2030-01	SC Chemistry I		Angione, Mary	B Block	1(R-F)2(M-W)	Angione, Mary	SC	FY	359	359	24	24	SC													Incl. in SC2020 above		
SC2030-02	SC Chemistry I		Angione, Mary	D Block	2(F)4(M)5(T-W)	Angione, Mary	SC	FY	359	359	24	24	SC															
SC2030-03	SC Chemistry I		Angione, Mary	F Block	4(M)5(M-F)6(R)	Angione, Mary	SC	FY	359	359	24	24	SC															
SC2030-04	SC Chemistry I		Cells, Meaghan	C Block	3(M-W)4(F)	Cells, Meaghan	SC	FY	361	361	24	24	SC															
SC2030-05	SC Chemistry I		Cells, Meaghan	G Block	4(T)5(R)6(M-F)	Cells, Meaghan	SC	FY	361	361	24	24	SC															
SC2030-06	SC Chemistry I		Lantos, Stephen	D Block	2(F)4(M)5(T-W)	Lantos, Stephen	SC	FY	358	358	24	24	SC															
SC2030-07	SC Chemistry I		Lantos, Stephen	C Block	3(M-W)4(F)	Lantos, Stephen	SC	FY	358	358	24	24	SC															
SC2030-08	SC Chemistry I		Lantos, Stephen	G Block	4(T)5(R)6(M-F)	Lantos, Stephen	SC	FY	358	358	5	5	SC	SV0793/08													Shared CR with SC7030-01	
SC2030-09	SC Chemistry I		Murphy, Alexis	A Block	1(M-W)2(R)	Murphy, Alexis	SC	FY	373	373	24	24	SC															
SC2030-10	SC Chemistry I		Murphy, Alexis	B Block	1(R-F)2(M-W)	Murphy, Alexis	SC	FY	373	373	24	24	SC															
SC2035-01	SC Chem (LBC)H		Crocker, Alison	B Block	1(R-F)2(M-W)	Crocker, Alison	SC	FY	364	364	22	24	SC															
SC2035-02	SC Chem (LBC)H		Crocker, Alison	D Block	2(F)4(M)5(T-W)	Crocker, Alison	SC	FY	364	364	24	24	SC															
SC2035-03	SC Chem (LBC)H		Murphy, Alexis	C Block	3(M-W)4(F)	Murphy, Alexis	SC	FY	373	373	23	24	SC															
SC2035-04	SC Chem (LBC)H		Spreyer, Julia	B Block	1(R-F)2(M-W)	Spreyer, Julia	SC	FY	376	376	23	24	SC															
SC2035-05	SC Chem (LBC)H		Spreyer, Julia	C Block	3(M-W)4(F)	Spreyer, Julia	SC	FY	376	376	21	24	SC															
SC2035-06	SC Chem (LBC)H		Kumpf, Julia	A Block	1(M-W)2(R)	Kumpf, Julia	SC	FY	370	370	22	24	SC															
SC2050-01	SP Applied Science II		Rondeau, Coral; Crocker, Alison	E Block	3(F)4(R)6(T-W)	Rondeau, Coral	SP	FY	364	364	12	12	SP															
SC2062-01	SC Chemistry I		Weiffenbach, Barbara; Barrett, James	B Block	1(R-F)2(M-W)	Weiffenbach, Barbara	SC	FY	350	350	2	20	SC	SC2062/2020													Shared CR with SC2020-04 - total in Chemistry I	
SC2020-01	SC Biology I		Wolf, Catherine; Mangold, Dorothee	F Block	4(W)5(M-F)6(R)	Wolf, Catherine	SC	FY	357	357	8	18	SC	SC3020-01/ SC3020/SC3													Shared CR with SC3022-01 - total in Biology I	
SC2020-02	SC Biology I		Wolf, Catherine; Mangold, Dorothee	D Block	2(F)4(M)5(T-W)	Wolf, Catherine	SC	FY	357	357	8	18	SC	SC3020-02/ SC3020/SC3													Shared CR with SC3022-02 - total in Biology I	
SC2020-03	SC Biology I		Giblin, Heather	E Block	3(F)4(R)6(T-W)	Giblin, Heather	SC	FY	351	351	13	18	SC															
SC2020-04	SC Biology I		Giblin, Heather	C Block	3(M-W)4(F)	Giblin, Heather	SC	FY	351	351	15	18	SC															
SC2022-01	SC Biology I		Wolf, Catherine; Mangold, Dorothee	F Block	4(W)5(M-F)6(R)	Wolf, Catherine	SC	FY	357	357	8	10	SC	SC3020-01/ SC3020/SC3													Included in SC3020	
SC2022-02	SC Biology I		Wolf, Catherine; Mangold, Dorothee	D Block	2(F)4(M)5(T-W)	Wolf, Catherine	SC	FY	357	357	7	10	SC	SC3020-02/ SC3020/SC3													Shared CR with SC3020-02 - total in Biology I	
SC2025-01	SC Biology I		Kozel, Brad	D Block	2(F)4(M)5(T-W)	Kozel, Brad	SC	FY	360	360	0	10	SC	SC3035-01/ SC3025/SC3													Included in SC3020	
SC2025-02	SC Biology I		Kozel, Brad	C Block	3(M-W)4(F)	Kozel, Brad	SC	FY	360	360	4	10	SC	SC3025-02/ SC3025/SC3													Shared CR with SC3035-02	
SC2025-03	SC Biology I		Juo, Jennifer	B Block	1(R-F)2(M-W)	Juo, Jennifer	SC	FY	351	351	0	10	SC	SC3025-03/ SC3025/SC3													Shared CR with SC3035-03	
SC2025-04	SC Biology I		Juo, Jennifer	A Block	1(M-W)2(R)	Juo, Jennifer	SC	FY	351	351	2	10	SC	SC3025-04/ SC3025/SC3													Shared CR with SC3035-04	
SC2025-05	SC Biology I		Juo, Jennifer	D Block	2(F)4(M)5(T-W)	Juo, Jennifer	SC	FY	351	351	2	10	SC	SC3025-05/ SC3025/SC3													Shared CR with SC3035-05	
SC2025-06	SC Biology I		Sifantus, Jill	B Block	1(R-F)2(M-W)	Sifantus, Jill	SC	FY	345	345	2	10	SC	SC3025-06/ SC3025/SC3													Shared CR with SC3035-06	

C. Utilization - Brookline High School

Dept	Description	P	Teacher	TrackID	Schedule	Name	Dept	Code	Num	Class	Total	Max	Term
SC	0300-01	SC	Biology	Block	1(M-W) 2(R)	Giblin, Heather	SC	FY	354	354	23	24	SC
SC0300-01	Biology I		Giblin, Heather	A Block	1(M-W) 2(R)	Giblin, Heather	SC	FY	354	354	23	24	SC
SC0300-02	Biology II		Hemphill, Sarah	B Block	4(T) 5(R) 6(M,F)	Hemphill, Sarah	SC	FY	357	357	23	24	SC
SC0300-03	Biology III		Brown, Briana	C Block	3(M-W) 4(F)	Brown, Briana	SC	FY	362	362	23	24	SC
SC0300-04	Biology IV		Hemphill, Sarah	D Block	3(F) 4(R) 6(T,W)	Brown, Briana	SC	FY	362	362	24	24	SC
SC0300-05	Biology V		Hemphill, Sarah	E Block	2(F) 4(M) 5(T-W)	Hemphill, Sarah	SC	FY	345	345	25	24	SC
SC0300-06	Biology VI		Crane, Elizabeth	F Block	3(F) 4(R) 6(T-W)	Crane, Elizabeth	SC	FY	354	354	24	24	SC
SC0300-07	Biology VII		Crane, Elizabeth	G Block	3(M-W) 4(F)	Crane, Elizabeth	SC	FY	354	354	25	24	SC
SC0300-08	Biology VIII		Giblin, Heather	H Block	4(T) 5(R) 6(M,F)	Giblin, Heather	SC	FY	354	354	24	24	SC
SC0300-09	Biology IX		Crane, Elizabeth	I Block	1(R-F) 2(M,W)	Crane, Elizabeth	SC	FY	354	354	23	24	SC
SC0300-10	Biology X		Kozel, Brad	J Block	4(T) 5(R) 6(M,F)	Kozel, Brad	SC	FY	360	360	1	0	SC
SC0300-11	Biology XI		Kozel, Brad	K Block	1(R-F) 2(M,W)	Kozel, Brad	SC	FY	360	360	1	2	SC
SC0305-01	Biology BC5C H		Kozel, Brad	L Block	2(F) 4(M) 5(T-W)	Kozel, Brad	SC	FY	360	360	14	18	SC
SC0305-02	Biology BC5C H		Kozel, Brad	M Block	3(M-W) 4(F)	Kozel, Brad	SC	FY	360	360	16	18	SC
SC0305-03	Biology BC5C H		Juo, Jennifer	N Block	1(R-F) 2(M,W)	Juo, Jennifer	SC	FY	351	351	18	18	SC
SC0305-04	Biology BC5C H		Juo, Jennifer	O Block	1(M-W) 2(R)	Juo, Jennifer	SC	FY	351	351	17	18	SC
SC0305-05	Biology BC5C H		Juo, Jennifer	P Block	2(F) 4(M) 5(T-W)	Juo, Jennifer	SC	FY	351	351	17	18	SC
SC0305-06	Biology BC5C H		Sfantus, Jill	Q Block	1(R-F) 2(M,W)	Sfantus, Jill	SC	FY	345	345	16	18	SC
SC0305-07	Biology BC5C H		Rondeau, Coral	R Block	4(W) 5(M,F) 6(R)	Rondeau, Coral	SP	FY	351	351	9	20	SP
SC0307-01	Science III		Rondeau, Coral	S Block	1(R-F) 2(M,W)	Rondeau, Coral	SP	FY	146	146	2	20	SP
SC0407-01	Science IV		Rondeau, Coral	T Block	1(R-F) 2(M,W)	Rondeau, Coral	SP	FY	146	146	0	20	SP
SC4140-01	AP Physics 1&2		Kumpf, Julia	D(F,W,R)	2(F) 4(M) 5(M-W)	Kumpf, Julia	SC	FY	370	370	19	24	SC
SC4140-02	AP Physics 1&2		Derrien, Andre	G(F,W,F)	4(T-W) 5(R-F) 6(M,F)	Derrien, Andre	SC	FY	378	378	23	24	SC
SC4141-01	AP Physics C		Kesel, Stacy	D(F,M,R)	2(F) 4(M) 5(M-W)	Kesel, Stacy	SC	FY	366	366	23	24	SC
SC4141-02	AP Physics C		Kesel, Stacy	C(B,M,R)	1(R) 2(M) 3(M-W) 4(N,S)	Kesel, Stacy	SC	FY	366	366	26	24	SC
SC4240-01	AP Chemistry		Murphy, Alexis	G(F,W,R)	4(T-W) 5(R) 6(M,F)	Murphy, Alexis	SC	FY	373	373	24	24	SC
SC4240-02	AP Chemistry		Speyer, Julia	D(F,W,F)	4(T-W) 5(R-F) 6(M,F)	Speyer, Julia	SC	FY	376	376	24	24	SC
SC4240-03	AP Chemistry		Speyer, Julia	D(F,W,R)	2(F) 4(M) 5(M-W)	Speyer, Julia	SC	FY	376	376	22	24	SC
SC4240-04	AP Chemistry		Leslie, Ebbeth	C(B,M,R)	1(R) 2(M) 3(M-W) 4(L,S), Ebbeth	Leslie, Ebbeth	SC	FY	368	368	24	24	SC
SC4320-01	Anatomy/Physio		Sfantus, Jill	C Block	3(M-W) 4(F)	Sfantus, Jill	SC	FY	345	345	6	24	SC
SC4320-02	Anatomy/Physio		Sfantus, Jill	G Block	4(T) 5(R) 6(M,F)	Sfantus, Jill	SC	FY	345	345	3	24	SC
SC4320-03	Anatomy/Physio		Sfantus, Jill	E Block	3(F) 4(R) 6(T-W)	Sfantus, Jill	SC	FY	345	345	5	24	SC
SC4330-01	Anatomy/Physio H		Sfantus, Jill	C Block	3(M-W) 4(F)	Sfantus, Jill	SC	FY	345	345	15	24	SC
SC4330-02	Anatomy/Physio H		Sfantus, Jill	G Block	4(T) 5(R) 6(M,F)	Sfantus, Jill	SC	FY	345	345	21	24	SC
SC4330-03	Anatomy/Physio H		Sfantus, Jill	E Block	3(F) 4(R) 6(T-W)	Sfantus, Jill	SC	FY	345	345	20	24	SC
SC4430-01	Bio I H		Juo, Jennifer	G Block	4(T) 5(R) 6(M,F)	Juo, Jennifer	SC	FY	351	351	22	24	SC
SC4440-01	AP Biology		Wolf, Catherine	A(B,W,F)	1(M-W) 2(W-R)	Wolf, Catherine	SC	FY	357	357	22	24	SC
SC4440-02	AP Biology		Crane, Elizabeth	D(F,M,R)	2(F) 4(M) 5(M-W)	Crane, Elizabeth	SC	FY	354	354	21	24	SC
SC4440-03	AP Biology		Wolf, Catherine	C(B,M,R)	1(R) 2(M) 3(M-W) 4(W)	Wolf, Catherine	SC	FY	357	357	25	24	SC

C. Utilization - Brookline High School

Dept. Description	P Teacher	TrackID	Schedule	Name	Dept. Code	Num. Cls	Total	Max. Dept. ID	Term	Current Enroll S1	Enroll S2	Enrollment Multiplier	Projected Course Credit S1	Projected Course Credit S2	Max. Students per Section	No. of Sections S1	No. of Sections S2	No. of Sections per week	Sessions per week S1	Sessions per week S2	Provide per Week S1	Total Stations Required S1	Total Stations Required S2	Notes			
SC4540-01 SC AP Enviro Sci	Brown, Briana	A/R(W,F)	1(M-W,F) 2(W-R)	Brown, Briana	SC	FY	362	21	24 SC	21	21	1,385	29	29	24	2	2	2	6	12	12	28	0.429	0.429	Meet 6 times a week?		
SC5020-01 SC Astronomy	Wiser, Edward	B Block	1(R-F) 2(M,W)	Wiser, Edward	SC	FY	378	13	24 SC	25	25	1,385	35	35	24	2	2	2	4	8	8	28	0.386	0.386	Incl. SC5930 below		
SC5030-01 SC Astronomy H	Wiser, Edward	B Block	1(R-F) 2(M,W)	Wiser, Edward	SC	FY	378	12	24 SC	24	24	1,385	33	33	24	2	2	2	4	8	8	28	0.286	0.286	Shared CR with SC5020-01		
SC5130-01 SC Body/Mind H	Angione, Mary	G Block	4(T) 5(M) 6(M,F)	Angione, Mary	SC	FY	359	24	24 SC	24	24	1,385	33	33	24	2	2	2	4	8	8	28	0.286	0.286	Incl. in SC5920 above		
SC5530-01 SC Eng By Dign H	Love, Aubrey	C Block	3(M-W) 4(F)	Love, Aubrey	SC	FY	362	15	24 SC	22	22	1,385	30	30	24	2	2	2	6	12	12	28	0.429	0.429	Shared CR with TE5530-01		
SC5530-02 SC Eng By Dign H	Love, Aubrey	G/F(W,F)	4(T-W) 5(R-F) 6(M,F)	Love, Aubrey	SC	FY	362	15	24 SC	22	22	1,385	30	30	24	2	2	2	6	12	12	28	0.429	0.429	Included in TE5530-01		
SC5530-03 SC Eng By Dign H	Love, Aubrey	A/R(W,F)	1(M-W,F) 2(W-R)	Love, Aubrey	SC	FY	362	17	24 SC	22	22	1,385	30	30	24	2	2	2	6	12	12	28	0.429	0.429	Shared CR with TE5530-02		
SC5620-01 SC Marine Biology	Brown, Briana	D Block	2(F) 4(M) 5(T-W)	Brown, Briana	SC	FY	362	7	24 SC	22	22	1,385	30	30	24	2	2	2	6	12	12	28	0.429	0.429	Shared CR with TE5530-03		
SC5630-01 SC Marine Biology H	Brown, Briana	D Block	2(F) 4(M) 5(T-W)	Brown, Briana	SC	FY	362	15	24 SC	22	22	1,385	30	30	24	2	2	2	6	12	12	28	0.429	0.429	Shared CR with SC5620-01		
SC5820-01 SC Forensic Science	Weffenbach, Barbara	C Block	3(M-W) 4(F)	Weffenbach, Barbara	SC	S1	350	7	24 SC																	Incl. in SC5620 above	
SC5820-02 SC Forensic Science	Weffenbach, Barbara	D Block	2(F) 4(M) 5(T-W)	Weffenbach, Barbara	SC	S2	350	6	24 SC																		Shared CR with SC5820-01
SC5820-03 SC Forensic Science	Weffenbach, Barbara	G Block	4(T) 5(M) 6(M,F)	Weffenbach, Barbara	SC	S2	350	8	24 SC																		Shared CR with SC5820-02
SC5830-01 SC Forensic Science H	Weffenbach, Barbara	C Block	3(M-W) 4(F)	Weffenbach, Barbara	SC	S1	350	16	24 SC																		Shared CR with SC5820-03
SC5830-02 SC Forensic Science H	Weffenbach, Barbara	D Block	2(F) 4(M) 5(T-W)	Weffenbach, Barbara	SC	S2	350	9	24 SC																		Incl. SC5930 below
SC5830-03 SC Forensic Science H	Weffenbach, Barbara	G Block	4(T) 5(M) 6(M,F)	Weffenbach, Barbara	SC	S2	350	15	24 SC																		Shared CR with SC5820-01
SC5920-01 SC Genetics	Weffenbach, Barbara	E Block	3(F) 4(R) 6(T-W)	Weffenbach, Barbara	SC	S1	350	3	24 SC																		Shared CR with SC5920-02
SC5930-01 SC Genetics H	Weffenbach, Barbara	E Block	3(F) 4(R) 6(T-W)	Weffenbach, Barbara	SC	S1	350	19	24 SC																		Shared CR with SC5820-02
SC5930-02 SC Genetics H	Weffenbach, Barbara	E Block	3(F) 4(R) 6(T-W)	Weffenbach, Barbara	SC	S2	350	24	24 SC																		Shared CR with SC5820-03
SC6200-01 SC Chemistry I/EL	Crocker, Alison	F Block	4(W) 5(M) 6(R)	Crocker, Alison	SC	FY	364	8	18 SC	8	8	1,385	11	11	18	1	1	1	4	4	4	28	0.143	0.143	Incl. in SC5920 above		
SCIENCE SUBTOTAL																											
SCIENCE SUBTOTAL AT 85% UTILIZATION																											

C. Utilization - Brookline High School

Dept. Description	P	Teacher	TrackID	Schedule	Name	Dept. Code	Num	Clsr	Total	Max	Depth	ID	Term	Current Course Enroll S1	Enrollment Increase S2	Projected Course Enroll S1	Projected Course Enroll S2	No. of Sections S1	No. of Sections S2	No. of Sessions per week	Sessions per week S1	Stations per week	Periods per week S1	Total Stations Req. S1	Total Stations Req. S2	Notes
SO0300-01	Oth	Academic Center		6(M-W)F	Lopez, Kara	GU	FY	245	245	0	8	0th	FY	0	0	0	0	0	0	4	0	0	28	0.000	0.000	No assigned students? Shared CR with SO1022-01
SO1020-01	SO	Wld Hst 9	E Block	3(F) 4(R) 6(T-W)	Poon, Stephanie	SO	FY	303	303	8	19	SO	SO1020-01/	0	0	0	0	0	0	4	0	0	28	0.000	0.000	Shared CR with SO1022-01
SO1020-02	SO	Wld Hst 9	A Block	1(M-W)2(R)	Poon, Stephanie	SO	FY	303	303	8	19	SO	SO1020-02/	0	0	0	0	0	0	4	0	0	28	0.000	0.000	Shared CR with SO1022-02
SO1020-03	SO	Wld Hst 9	F Block	4(W) 5(M-F) 6(R)	Longmire, Jennifer; Sullivan, Tara	SO	FY	342	342	12	19	SO	SO1020-03/	0	0	0	0	0	0	4	0	0	28	0.000	0.000	Shared CR with SO1062-01
SO1020-04	SO	Wld Hst 9	G Block	4(T) 5(R) 6(M-F)	Kahrl, Benjamin	SO	FY	303	303	19	19	SO	SO1020/SO1	0	0	0	0	0	0	4	0	0	28	0.000	0.000	Shared CR with SO1022-01
SO1020-05	SO	Wld Hst 9	F Block	4(W) 5(M-F) 6(R)	Gronlund-Jacob, Noah	SO	FY	382	382	19	19	SO	SO1020/SO1	0	0	0	0	0	0	4	0	0	28	0.000	0.000	Shared CR with SO1022-01
SO1020-06	SO	Wld Hst 9	A Block	1(M-W)2(R)	Gronlund-Jacob, Noah	SO	FY	384	384	14	19	SO		0	0	0	0	0	0	4	0	0	28	0.000	0.000	
SO1020-07	SO	Wld Hst 9	C Block	3(M-W)4(F)	Miller, Marcie	SO	FY	307	307	18	19	SO		122	122	169	169	10	10	4	40	40	28	1.429	1.429	Includes SO1022, SO1062
SO1022-01	SO	Wld Hst 9	E Block	3(F) 4(R) 6(T-W)	Barkett, Scott; Poon, Stephanie	SO	FY	303	303	11	11	SO	SO1020-01/	0	0	0	0	0	0	4	0	0	28	0.000	0.000	Shared CR with SO1020-01
SO1022-02	SO	Wld Hst 9	A Block	1(M-W)2(R)	Barkett, Scott; Poon, Stephanie	SO	FY	303	303	11	11	SO	SO1020-02/	0	0	0	0	0	0	4	0	0	28	0.000	0.000	Shared CR with SO1020-02
SO1030-01	SO	Wld Hst 9H	C Block	3(M-W)4(F)	Dickerman, Samuel	SO	FY	388	388	25	25	SO		0	0	0	0	0	0	4	0	0	28	0.000	0.000	incl. in SO1020 above
SO1030-02	SO	Wld Hst 9H	G Block	4(T) 5(R) 6(M-F)	Dickerman, Samuel	SO	FY	388	388	25	25	SO		0	0	0	0	0	0	4	0	0	28	0.000	0.000	
SO1030-03	SO	Wld Hst 9H	E Block	3(F) 4(R) 6(T-W)	Dickerman, Samuel	SO	FY	388	388	25	25	SO		0	0	0	0	0	0	4	0	0	28	0.000	0.000	
SO1030-04	SO	Wld Hst 9H	B Block	1(R-F) 2(M-W)	Dickerman, Samuel	SO	FY	388	388	25	25	SO		0	0	0	0	0	0	4	0	0	28	0.000	0.000	
SO1030-05	SO	Wld Hst 9H	F Block	4(W) 5(M-F) 6(R)	Grant, Robert	SO	FY	384	384	25	25	SO		0	0	0	0	0	0	4	0	0	28	0.000	0.000	
SO1030-06	SO	Wld Hst 9H	C Block	3(M-W)4(F)	Murphy, Kristen	SO	FY	382	382	23	25	SO		0	0	0	0	0	0	4	0	0	28	0.000	0.000	
SO1030-07	SO	Wld Hst 9H	E Block	3(F) 4(R) 6(T-W)	Hanaghan, Jennifer	SO	FY	346	346	23	25	SO		0	0	0	0	0	0	4	0	0	28	0.000	0.000	
SO1030-08	SO	Wld Hst 9H	E Block	3(F) 4(R) 6(T-W)	Kahrl, Benjamin	SO	FY	340	340	25	25	SO		0	0	0	0	0	0	4	0	0	28	0.000	0.000	
SO1030-09	SO	Wld Hst 9H	B Block	1(R-F) 2(M-W)	Hanaghan, Jennifer	SO	FY	342	342	23	25	SO		0	0	0	0	0	0	4	0	0	28	0.000	0.000	
SO1030-10	SO	Wld Hst 9H	G Block	4(T) 5(R) 6(M-F)	Poon, Stephanie	SO	FY	308	308	25	25	SO		0	0	0	0	0	0	4	0	0	28	0.000	0.000	
SO1030-11	SO	Wld Hst 9H	B Block	1(R-F) 2(M-W)	Murphy, Kristen	SO	FY	382	382	25	25	SO		0	0	0	0	0	0	4	0	0	28	0.000	0.000	
SO1030-12	SO	Wld Hst 9H	G Block	4(T) 5(R) 6(M-F)	Shuster, Sarah	SO	FY	381	381	24	25	SO		0	0	0	0	0	0	4	0	0	28	0.000	0.000	
SO1030-13	SO	Wld Hst 9H	B Block	1(R-F) 2(M-W)	Kahrl, Benjamin	SO	FY	340	340	23	25	SO		0	0	0	0	0	0	4	0	0	28	0.000	0.000	
SO1030-14	SO	Wld Hst 9H	A Block	1(M-W)2(R)	Shuster, Sarah	SO	FY	383	383	22	25	SO		336	336	465	465	19	19	4	76	76	28	2.714	2.714	Shared CR with SO1020-03
SO1062-01	SO	Wld Hst 9	F Block	4(W) 5(M-F) 6(R)	Longmire, Jennifer; Sullivan, Tara	SO	FY	342	342	3	6	SO	SO1020-03/	0	0	0	0	0	0	4	0	0	28	0.000	0.000	incl. in SO1020 above
SO1400-01	SO	USHist-ELLII	A Block	1(M-W)2(R)	Wheeler, Mark	SO	FY	388	388	12	25	SO		12	12	17	17	1	1	4	4	4	28	0.143	0.143	Shared CR with SO2022-01
SO2020-01	SO	Wld Hst 5	A Block	1(M-W)2(R)	Hunt, Stephanie; Sullivan, Tara	SO	FY	340	340	10	15	SO		0	0	0	0	0	0	4	0	0	28	0.000	0.000	Shared CR with SO2022-02
SO2020-02	SO	Wld Hst 5	G Block	4(T) 5(R) 6(M-F)	Hunt, Stephanie	SO	FY	340	340	13	19	SO	SO2020-02/	0	0	0	0	0	0	4	0	0	28	0.000	0.000	Shared CR with SO2022-02
SO2020-03	SO	Wld Hst 5	C Block	3(M-W)4(F)	Hunt, Stephanie	SO	FY	340	340	10	19	SO	SO2020/SO2	0	0	0	0	0	0	4	0	0	28	0.000	0.000	Shared CR with SO2062-01
SO2020-04	SO	Wld Hst 5	E Block	3(F) 4(R) 6(T-W)	Grande, Roger	SO	FY	346	346	18	19	SO		0	0	0	0	0	0	4	0	0	28	0.000	0.000	
SO2020-05	SO	Wld Hst 5	C Block	3(M-W)4(F)	Grubb, Jennifer	SO	FY	308	308	15	19	SO		0	0	0	0	0	0	4	0	0	28	0.000	0.000	
SO2020-06	SO	Wld Hst 5	B Block	1(R-F) 2(M-W)	Grubb, Jennifer	SO	FY	308	308	14	19	SO		95	95	132	133	7	7	4	28	28	28	1.000	1.000	Includes SO2022, SO2062
SO2022-01	SO	Wld Hst 5	A Block	1(M-W)2(R)	Hunt, Stephanie	SO	FY	340	340	7	7	SO		0	0	0	0	0	0	4	0	0	28	0.000	0.000	Shared CR with SO2020-01
SO2022-02	SO	Wld Hst 5	G Block	4(T) 5(R) 6(M-F)	Hunt, Stephanie; Sullivan, Tara	SO	FY	340	340	6	11	SO	SO2020-02/	0	0	0	0	0	0	4	0	0	28	0.000	0.000	incl. in SO2020 above

C. Utilization - Brookline High School

Dept. Description	P	Teacher	TrackID	Schedule	Name	Dept. Code	Num	Clsr	Total	Max Dept. ID	Term	Current Course Enroll S1	Enrollment Increase Multiplier	Projected Course Enroll S1	Projected Course Enroll S2	Max Students per Section	No. of Sections S1	No. of Sections S2	No. of Sessions per week	Sessions per week S1	Periods per week S1	Total Stations Rec. per Week S1	Total Stations Required S2	Notes	
SO2030-01	SO	Wld Hstry H	CBlock	3(M-W)4(F)	Frey, Jennifer	SO	FY	381	381	25	25	25													
SO2030-02	SO	Wld Hstry H	ABlock	1(M-W)2(R)	Frey, Jennifer	SO	FY	381	381	23	23	25													
SO2030-03	SO	Wld Hstry H	FBlock	4(W)5(M,F)6(R)	Grande, Roger	SO	FY	346	346	25	25	25													
SO2030-04	SO	Wld Hstry H	GBlock	4(T)5(R)6(M,F)	Grande, Roger	SO	FY	346	346	25	25	25													
SO2030-05	SO	Wld Hstry H	GBlock	4(T)5(R)6(M,F)	Gronlund-Jacob, Noah	SO	FY	382	382	25	25	25													
SO2030-06	SO	Wld Hstry H	EBlock	3(F)4(R)6(T-W)	Gronlund-Jacob, Noah	SO	FY	382	382	25	25	25													
SO2030-07	SO	Wld Hstry H	ABlock	1(M-W)2(R)	Grubb, Jennifer	SO	FY	308	308	23	23	25													
SO2030-08	SO	Wld Hstry H	FBlock	4(W)5(M,F)6(R)	Grubb, Jennifer	SO	FY	308	308	25	25	25													
SO2030-09	SO	Wld Hstry H	EBlock	3(F)4(R)6(T-W)	Leslie, Kathryn	SO	FY	309	309	25	25	25													
SO2030-10	SO	Wld Hstry H	BBlock	1(R-F)2(M-W)	Leslie, Kathryn	SO	FY	309	309	24	24	25													
SO2030-11	SO	Wld Hstry H	CBlock	3(M-W)4(F)	Longmire, Jennifer	SO	FY	342	342	24	24	25													
SO2030-12	SO	Wld Hstry H	GBlock	4(T)5(R)6(M,F)	Longmire, Jennifer	SO	FY	342	342	25	25	25													
SO2030-13	SO	Wld Hstry H	EBlock	3(F)4(R)6(T-W)	Shuster, Sarah	SO	FY	381	381	25	25	25													
SO2030-14	SO	Wld Hstry H	BBlock	1(R-F)2(M-W)	Shuster, Sarah	SO	FY	381	381	22	22	25													
SO2062-01	SO	Wld Hstry S	CBlock	3(M-W)4(F)	Hunt, Stephanie; Sullivan, Tara	SO	FY	340	340	2	6	50												Shared CR with SO2020-03	
SO2100-01	SO	Racial Awareness Seminar	ABlock	1(T)2(R)	Cawthorne, J. Malcolm	SO	FY	307	307	11	27	50												Incl. in SO2020 above	
SO2100-02	SO	Racial Awareness Seminar	ABlock	1(M-W)	Cawthorne, J. Malcolm	SO	FY	307	307	15	27	50													
SO3020-01	SO	US History S	BBlock	1(R-F)2(M-W)	Normant, Michael	SO	FY	303	303	9	20	50												Shared CR with SO3020-01	
SO3020-02	SO	US History S	FBlock	4(W)5(M,F)6(R)	Normant, Michael	SO	FY	303	303	13	20	50												Shared CR with SO3020-02	
SO3020-03	SO	US History S	GBlock	4(T)5(R)6(M,F)	Cawthorne, J. Malcolm	SO	FY	307	307	20	20	50												Shared CR with SO3020-03	
SO3020-04	SO	US History S	CBlock	3(M-W)4(F)	Cawthorne, J. Malcolm	SO	FY	383	383	19	20	50													
SO3022-01	SO	US History	BBlock	1(R-F)2(M-W)	Normant, Michael	SO	FY	303	303	8	11	50													Includes SO3022 below
SO3022-02	SO	US History	FBlock	4(W)5(M,F)6(R)	Normant, Michael	SO	FY	303	303	5	11	50													Shared CR with SO3020-02
SO3030-01	SO	US History H	FBlock	4(W)5(M,F)6(R)	Buhl, Elizabeth	SO	FY	300	300	22	25	50													Incl. in SO3020 above
SO3030-02	SO	US History H	EBlock	3(F)4(R)6(T-W)	Buhl, Elizabeth	SO	FY	300	300	24	25	50													Shared CR with SO3020-01
SO3030-03	SO	US History H	CBlock	3(M-W)4(F)	Grant, Robert	SO	FY	384	384	24	25	50													
SO3030-04	SO	US History H	BBlock	1(R-F)2(M-W)	Grant, Robert	SO	FY	384	384	21	25	50													
SO3030-05	SO	US History H	FBlock	4(W)5(M,F)6(R)	Miller, Marcie	SO	FY	307	307	15	25	50													
SO3030-06	SO	US History H	ABlock	1(M-W)2(R)	Miller, Marcie	SO	FY	309	309	23	25	50													
SO3030-07	SO	US History H	GBlock	4(T)5(R)6(M,F)	Shiffman, Gary	SO	FY	386	386	25	25	50													
SO3030-08	SO	US History H	ABlock	4(T)5(R)6(M,F)	Carr, Oveshliu	SO	FY	392	392	21	25	50													
SO3030-09	SO	US History H	BBlock	1(R-F)2(M-W)	Carr, Oveshliu	SO	FY	392	392	22	25	50													
SO3040-01	SO	US History AP	FBlock	4(W)5(M,F)6(R)	Murphy, Kristen	SO	FY	381	381	27	27	50													
SO3040-02	SO	US History AP	ABlock	1(M-W)2(R)	Murphy, Kristen	SO	FY	382	382	21	27	50													
SO3040-03	SO	US History AP	EBlock	3(F)4(R)6(T-W)	Wheeler, Mark	SO	FY	392	392	27	27	50													
SO3040-04	SO	US History AP	FBlock	4(W)5(M,F)6(R)	Wheeler, Mark	SO	FY	392	392	26	27	50													
SO3040-05	SO	US History AP	GBlock	4(T)5(R)6(M,F)	Carr, Oveshliu	SO	FY	392	392	26	27	50													
SO3040-06	SO	US History AP	CBlock	3(M-W)4(F)	Carr, Oveshliu	SO	FY	392	392	28	27	50													
SO3040-07	SO	US History AP	ABlock	1(M-W)2(R)	Buhl, Elizabeth	SO	FY	300	300	9	25	50													
SO3040-08	SO	US History AP	BBlock	1(R-F)2(M-W)	Buhl, Elizabeth	SO	FY	300	300	8	25	50													
SO3040-09	SO	US History AP	EBlock	3(F)4(R)6(T-W)	Normant, Michael	SO	FY	383	383	30	28	50													
SO3040-10	SO	US History AP	GBlock	4(T)5(R)6(M,F)	Normant, Michael	SO	FY	383	383	29	28	50													
SO4220-01	SO	Art/Am Semr	BBlock	1(R-F)2(M-W)	Cawthorne, J. Malcolm	SO	FY	383	383	9	14	50													Includes SO4230-01
SO4230-01	SO	Art/Am Sem H	BBlock	1(R-F)2(M-W)	Cawthorne, J. Malcolm	SO	FY	383	383	19	18	50													Includes SO4220-01

C. Utilization - Brookline High School

Dept. Description	P	Teacher	Track/ID	Schedule	Name	Dept. Code	Num	Cls	Sr	Total	Max	Dept. ID	Term	Current Course Enroll S1	Enrollment Increase S2	Projected Course Enroll S1	Projected Course Enroll S2	Max Students per Section	No. of Sections S1	No. of Sections S2	No. of Sessions per week	Sessions per week S1	Sessions per week S2	Total Stations Req. per Week S1	Total Stations Required S2	Notes		
SO4320-01 SO Legal Studies		Hanaghan, Jennifer	D Block	2(F) 4(W) 5(T-W)	Hanaghan, Jennifer	SO	FY	383	383	8	16	SO4330-01/ SO4320/SO4	FY													Shared CR with SO4330-01		
SO4320-02 SO Legal Studies		Miller, Marcle	E Block	3(F) 4(R) 6(T-W)	Miller, Marcle	SO	FY	307	307	6	16	SO4320-02/ SO4320/SO4	FY														Shared CR with SO4330-02	
SO4330-01 SO Legal Studies and Intern		Hanaghan, Jennifer	D Block	2(F) 4(W) 5(T-W)	Hanaghan, Jennifer	SO	FY	383	383	18	16	SO4330-01/ SO4320/SO4	FY	48	1,385	66	66	25	3	3	4	12	12	28	0.429	0.429	Includes SO4330 below	
SO4330-02 SO Legal Studies and Intern		Miller, Marcle	E Block	3(F) 4(R) 6(T-W)	Miller, Marcle	SO	FY	307	307	16	16	SO4320-02/ SO4320/SO4	FY														Shared CR with SO4320-02	
SO4420-01 SO Psychology		Frey, Jennifer	G Block	4(T) 5(R) 6(M-F)	Frey, Jennifer	SO	FY	385	385	6	16	SO4430-01/ SO4420/SO4	FY														Incl. in SO4320 above	
SO4420-02 SO Psychology		Frey, Jennifer	F Block	4(W) 5(M-F) 6(R)	Frey, Jennifer	SO	FY	383	383	9	16	SO4420-02/ SO4420/SO4	FY														Shared CR with SO4430-01	
SO4420-03 SO Psychology		Burke-Hunter, Joanne	C Block	3(M-W) 4(F)	Burke-Hunter, Joanne	SO	FY	300	300	10	16	SO4420-03/ SO4420/SO4	FY														Shared CR with SO4430-02	
SO4420-04 SO Psychology		Burke-Hunter, Joanne	G Block	4(T) 5(R) 6(M-F)	Burke-Hunter, Joanne	SO	FY	300	300	9	16	SO4430-04/ SO4420/SO4	FY														Shared CR with SO4430-03	
SO4430-01 SO Psychology H		Frey, Jennifer	G Block	4(T) 5(R) 6(M-F)	Frey, Jennifer	SO	FY	385	385	20	18	SO4430-01/ SO4420/SO4	FY	115	1,385	159	159	25	7	7	4	28	28	28	1,000	1,000	Incl. SO4430 below	
SO4430-02 SO Psychology H		Frey, Jennifer	F Block	4(W) 5(M-F) 6(R)	Frey, Jennifer	SO	FY	383	383	20	18	SO4420-02/ SO4420/SO4	FY														Shared CR with SO4420-01	
SO4430-03 SO Psychology H		Burke-Hunter, Joanne	C Block	3(M-W) 4(F)	Burke-Hunter, Joanne	SO	FY	300	300	20	18	SO4420-03/ SO4420/SO4	FY														Shared CR with SO4420-02	
SO4430-04 SO Psychology H		Burke-Hunter, Joanne	G Block	4(T) 5(R) 6(M-F)	Burke-Hunter, Joanne	SO	FY	300	300	21	18	SO4430-04/ SO4420/SO4	FY														Shared CR with SO4420-03	
SO4500-01 SO Social Jstc Lead		Grande, Roger	A Block	1(T) 2(R)	Grande, Roger	SO	FY	346	346	11	14	SO	FY														Incl. SO4420 above	
SO4500-02 SO Social Jstc Lead		Grande, Roger	A Block	1(M-W)	Grande, Roger	SO	FY	346	346	10	14	SO	FY															
SO4500-03 SO Social Jstc Lead		Leslie, Kathryn	F Block	5(M) 6(R)	Leslie, Kathryn	SO	FY	309	309	16	14	SO	FY															Shared CR with SO4420-01
SO4500-04 SO Social Jstc Lead		Leslie, Kathryn	G Block	4(T) 6(F)	Leslie, Kathryn	SO	FY	309	309	16	14	SO	FY															Shared CR with SO4420-02
SO4600-01 SO Global Leadership		Kahri, Benjamin	A Block	1(M-W) 2(R)	Kahri, Benjamin	SO	FY	342	342	22	25	SO	FY	53	53	73	73	18	5	5	2	10	10	28	0.357	0.357	Shared CR with SO4420-04	
SO4800-01 SO Film as History/ History as Film		Wheeler, Mark; Mwosa, Thato	B Block	1(R-F) 2(M-W)	Wheeler, Mark	SO	FY	15	15	32	32	VA4800-01/ SO4800/VA4	FY	22	22	30	30	25	2	2	4	8	8	28	0.286	0.286	Shared CR with VA4800-01	
SO5300-01 SO Philosophy H		Poon, Brian	E Block	3(F) 4(R) 6(T-W)	Poon, Brian	SO	S1	308	308	28	28	SO	S1	16	16	22	22	25	1	1	4	4	4	28	0.143	0.143	Includes VA4800-01	
SO5420-01 SO Economics		Grant, Robert	G Block	4(T) 5(R) 6(M-F)	Grant, Robert	SO	S1	384	384	11	16	SO5430-01/ SO5420/SO5	S1	28	1,385	39	39	25	2	2	4	8	8	28	0.286	0.286	ED Plan Max. is 25	
SO5430-01 SO Economics H		Grant, Robert	G Block	4(T) 5(R) 6(M-F)	Grant, Robert	SO	S1	384	384	17	16	SO5430-01/ SO5420/SO5	S1	28	1,385	39	39	25	2	2	4	8	8	28	0.286	0.286	Incl. in SO5430 below	
SO5600-01 SO Gender & Society		Grant, Robert	A Block	1(M-W) 2(R)	Grant, Robert	SO	S2	387	387	21	26	SO	S2														Incl. in SO5420 above	
SO5700-01 SO Asian/American Studies		Poon, Brian	E Block	3(F) 4(R) 6(T-W)	Poon, Brian	SO	S2	308	308	10	18	SO5700-01/ SO5700/SO5	S2	21	1,385	29	29	25	2	2	4	8	8	28	0.286	0.286	ED Plan Max. is 25	
SO5730-01 SO Asian/American Studies H		Poon, Brian	E Block	3(F) 4(R) 6(T-W)	Poon, Brian	SO	S2	308	308	18	18	SO5700-01/ SO5700/SO5	S2	28	1,385	39	39	25	2	2	4	8	8	28	0.286	0.286	Incl. SO5730 below	
SOCIAL STUDIES SUBTOTAL																											Incl. in SO5700 above	
SOCIAL STUDIES SUBTOTAL 85% UTILIZATION																											15,643 15,643 18,403 18,403	

C. Utilization - Brookline High School

Dept. Description	P	Teacher	TrackID	Schedule	Name	Dept. Code	Num	Cls	Total	Max	Dept. ID	Term	Current Course Enroll	Enrollment Increase Multiplier	Projected Course Enroll	Max Students per Section	No. of Sections	No. of Sections per week	No. of Sections per week	Sessions per week	Sessions per week	Total Sessions Required	Total Sessions Required																					
ST	ST	ST	A Block	1(M-W)2(R)									Enroll		Enroll	per Section	per week	per week	per week	per week	per Week	per Week																						
ST1000-01	ST	Step to Success	A Block	1(M-W)2(R)																																								
ST1000-02	ST	Step to Success	B Block	1(R-F)2(M-W)																																								
ST1000-03	ST	Step to Success	C Block	3(M-W)4(F)																																								
ST1000-04	ST	Step to Success	D Block	2(F)4(M)5(T-W)																																								
ST1000-05	ST	Step to Success	E Block	3(F)4(R)6(T-W)																																								
ST1000-06	ST	Step to Success	F Block	4(W)5(M-F)6(R)																																								
ST1000-07	ST	Step to Success	G Block	4(T)5(R)6(M-F)																																								
ST1000-08	ST	Step to Success	A Block	1(M-W)2(R)																																								
ST1000-09	ST	Step to Success	B Block	1(R-F)2(M-W)																																								
ST1000-10	ST	Step to Success	C Block	3(M-W)4(F)																																								
ST1000-11	ST	Step to Success	D Block	2(F)4(M)5(T-W)																																								
ST1000-12	ST	Step to Success	E Block	3(F)4(R)6(T-W)																																								
ST1000-13	ST	Step to Success	F Block	4(W)5(M-F)6(R)																																								
ST1000-14	ST	Step to Success	G Block	4(T)5(R)6(M-F)																																								
ST1000-15	ST	Step to Success	A Block	1(M-W)2(R)																																								
ST1000-16	ST	Step to Success	B Block	1(R-F)2(M-W)																																								
ST1000-17	ST	Step to Success	C Block	3(M-W)4(F)																																								
ST1000-18	ST	Step to Success	D Block	2(F)4(M)5(T-W)																																								
ST1000-19	ST	Step to Success	E Block	3(F)4(R)6(T-W)																																								
ST1000-20	ST	Step to Success	F Block	4(W)5(M-F)6(R)																																								
ST1000-21	ST	Step to Success	G Block	4(T)5(R)6(M-F)																																								
STEPS TO SUCCESS SUBTOTAL																							356	1,385	493	300	2	1	4	28	0.143													
STEPS TO SUCCESS SUBTOTAL AT 85% UTILIZATION																							0.286	0.286	0.336	0.336																		
Study 9-01	Study 9	Fuente-Rodriguez, Maria	(M)	1(M)	Fuente-Rodriguez, Maria	WL	SL	122	122	4	300	S1																																
Study 9-02	Study 9	Reagan, Rachel	(M)	2(M)	Reagan, Rachel	EN	SL	122	122	4	300	S1																																
Study 9-03	Study 9	Alibhai, Marika	(M)	3(M)	Alibhai, Marika	MA	SL	122	122	10	300	S1																																
Study 9-04	Study 9	Fischer, Elon	(M)	4(M)	Fischer, Elon	EN	SL	122	122	9	300	S1																																
Study 9-05	Study 9	Comner, Alisa	(M)	5(M)	Comner, Alisa	WL	SL	122	122	12	300	S1																																
Study 9-06	Study 9	Williams, Elisha	(M)	6(M)	Williams, Elisha	WL	SL	122	122	36	300	S1																																
Study 9-07	Study 9		(M)	1(T)																																								
Study 9-08	Study 9		(M)	3(T)																																								
Study 9-09	Study 9	Colburn, Eric	(M)	4(T)	Colburn, Eric	EN	SL	122	122	36	300	S1																																
Study 9-10	Study 9		(M)	5(T)																																								
Study 9-11	Study 9	Rocco, Julia	(M)	6(T)	Rocco, Julia	EN	SL	122	122	14	300	S1																																
Study 9-12	Study 9		(M)	1(W)																																								
Study 9-13	Study 9		(M)	2(W)																																								
Study 9-14	Study 9		(M)	3(W)																																								
Study 9-15	Study 9	Cranie, Elizabeth	(M)	4(W)	Cranie, Elizabeth	SC	SL	122	122	11	300	S1																																
Study 9-16	Study 9		(M)	5(W)																																								
Study 9-17	Study 9		(M)	6(W)																																								
Study 9-18	Study 9		(M)	1(R)																																								
Study 9-19	Study 9		(M)	2(R)																																								
Study 9-20	Study 9		(M)	4(R)																																								
Study 9-21	Study 9		(M)	5(R)																																								
Study 9-22	Study 9		(M)	6(R)																																								
Study 9-23	Study 9		(M)	1(F)																																								
Study 9-24	Study 9		(M)	2(F)																																								
Study 9-25	Study 9		(M)	3(F)																																								
Study 9-26	Study 9		(M)	4(F)																																								
Study 9-27	Study 9		(M)	5(F)																																								
Study 9-28	Study 9		(M)	6(F)																																								

C. Utilization - Brookline High School

Dept. Description	P	Teacher	Track ID	Schedule	Name	Dept. Code	Num. Cls	Total	Max. Dept. ID	Term	Current Course Enrollment S1	Current Course Enrollment S2	Enrollment Increase Multiplier	Projected Course Enrollment S1	Projected Course Enrollment S2	Max. Students per Section	No. of Sections S1	No. of Sections S2	No. of Sessions per week	Sessions per week S1	Sessions per week S2	Periods per Week S1	Total Stations Required S1	Total Stations Required S2	Notes	
Study 9-29			A(W)	1(W)		S2	122	122	7	300																
Study 9-30			B(M)	2(M)		S2	122	122	30	300																
Study 9-31			C(M)	3(M)		S2	122	122	3	300																
Study 9-32			D(W)	4(W)		S2	122	122	9	300																
Study 9-33			F(M)	5(M)		S2	122	122	8	300																
Study 9-34			G(M)	6(M)		S2	122	122	10	300																
Study 9-35			A(T)	1(T)		S2	122	122	7	300																
Study 9-36			C(T)	3(T)		S2	122	122	3	300																
Study 9-37			G(T)	4(T)		S2	122	122	10	300																
Study 9-38			E(T)	6(T)		S2	122	122	3	300																
Study 9-39			S2	6(T)		S2	122	122	14	300																
Study 9-40			A(W)	1(W)		S2	122	122	7	300																
Study 9-41			B(W)	2(W)		S2	122	122	31	300																
Study 9-42			C(W)	3(W)		S2	122	122	2	300																
Study 9-43			F(W)	4(W)		S2	122	122	7	300																
Study 9-44			D(W)	5(W)		S2	122	122	9	300																
Study 9-45			E(W)	6(W)		S2	122	122	17	300																
Study 9-46			B(R)	1(R)		S2	122	122	31	300																
Study 9-47			A(R)	2(R)		S2	122	122	7	300																
Study 9-48			E(R)	4(R)		S2	122	122	17	300																
Study 9-49			G(R)	5(R)		S2	122	122	10	300																
Study 9-50			F(R)	6(R)		S2	122	122	8	300																
Study 9-51			B(F)	1(F)		S2	122	122	31	300																
Study 9-52			D(F)	2(F)		S2	122	122	9	300																
Study 9-53			E(F)	3(F)		S2	122	122	17	300																
Study 9-54			C(F)	4(F)		S2	122	122	3	300																
Study 9-55			F(F)	5(F)		S2	122	122	7	300																
Study 9-56			G(F)	6(F)		S2	122	122	10	300																
													327	1,385	453	300	2	1	2	28	0.071	0.071	0.084	0.084		
STUDY SUBTOTAL																										
STUDY SUBTOTAL AT 85% UTILIZATION																										

C. Utilization - Brookline High School

Dept. Description	Teacher	TrackID	Schedule	Name	Dept. Code	Num. C	Num. S	Num. I	Num. T	Max. Dept. ID	Current Term Enroll S1	Current Term Enroll S2	Enrollment Multiplier	Projected Course Credit S1	Projected Course Credit S2	Max. Students per Section	No. of Sections S1	No. of Sections S2	No. of Sections per week	Sessions per week S1	Sessions per week S2	Total Stations per Week S1	Total Stations per Week S2	NOBS
SW1030-01 SW Contemp Lit H	Andrews, John	E Block	3(F) 4(R) 6(F) 7(W)	Andrews, John	EN	S1	404	404	19	21	19	21	1.385	26	26	21	2	2	4	8	8	28	0.286	
SW1130-01 SW Creative Wtg H	Flynn-Carson, Keira	D Block	2(F) 4(M) 5(T) 7(W)	Flynn-Carson, Keira	SW	S2	406	406	22	21												28	0.286	
SW1230-01 SW Creative Non Fict H	Andrews, John	E Block	3(F) 4(R) 6(F) 7(W)	Andrews, John	EN	S2	404	404	18	21	22	21	1.385	30	30	30	2	2	4	8	8	28	0.286	
SW1430-01 SW Humanities in Lit H	Harris, Karen	D Block	2(F) 4(M) 5(T) 7(W)	Harris, Karen	SW	S1	404	404	22	21	18	21	1.385	25	25	25	2	2	4	8	8	28	0.286	
SW1730-01 SW Friendship in Lit H	Harris, Karen	D Block	2(F) 4(M) 5(T) 7(W)	Harris, Karen	SW	S2	404	404	22	21	22	21	1.385	30	30	30	2	2	4	8	8	28	0.286	
SW2130-01 SW Spirit in Lit H	Harris, Karen	C Block	3(M) 4(W) 4(F)	Harris, Karen	SW	S1	404	404	21	21	22	21	1.385	29	29	30	2	2	4	8	8	28	0.286	
SW2830-01 SW Lit of Love H	Flynn-Carson, Keira	D Block	2(F) 4(M) 5(T) 7(W)	Flynn-Carson, Keira	SW	S1	406	406	21	21	21	21	1.385	29	29	21	2	2	4	8	8	28	0.286	
SW2930-01 SW Feminism in Lit H	Flynn-Carson, Keira	C Block	3(M) 4(W) 4(F)	Flynn-Carson, Keira	SW	S2	406	406	20	21	20	21	1.385	28	28	28	2	2	4	8	8	28	0.286	
SW3830-01 SW Identity in Lit H	Flynn-Carson, Keira	C Block	3(M) 4(W) 4(F)	Flynn-Carson, Keira	SW	S1	406	406	19	21	19	21	1.385	26	26	21	2	2	4	8	8	28	0.286	
SW4030-01 SW SWS World Hist H	Martin, Jennifer	B Block	1(R) 2(M) 2(W)	Martin, Jennifer	SO	FY	403	403	23	24	23	24	1.385	32	32	32	2	2	4	8	8	28	0.286	
SW4130-01 SW SWS US Hist H	Martin, Jennifer	C Block	3(M) 4(W) 4(F)	Martin, Jennifer	SO	FY	403	403	25	24	23	24	1.385	32	32	32	2	2	4	8	8	28	0.286	
SW4430-01 SW Contemp World History H	Martin, Jennifer	E Block	3(F) 4(R) 6(T) 7(W)	Martin, Jennifer	SO	FY	403	403	25	24	25	24	1.385	35	35	35	2	2	4	8	8	28	0.286	
SW4730-01 SW SWS Educ Sem H	Flynn-Carson, Keira	B Block	2(M) 4(W)	Flynn-Carson, Keira	SW	FY	406	406	23	21	25	25	1.385	35	35	35	2	2	4	8	8	28	0.286	
SW4830-01 SW LGBT Lit H	Andrews, John	A Block	1(M) 2(R)	Andrews, John	EN	S1	404	404	21	21	23	23	1.385	32	32	32	2	2	4	8	8	28	0.143	
SW4930-01 SW Writers of Color H	Harris, Karen	C Block	3(M) 4(W) 4(F)	Harris, Karen	SW	S2	404	404	19	21	21	21	1.385	29	29	21	2	2	4	8	8	28	0.286	
SW5030-01 SW African Lit H	Andrews, John	A Block	1(M) 2(R)	Andrews, John	EN	S2	404	404	18	21	19	21	1.385	26	26	26	2	2	4	8	8	28	0.286	
SW6000-01 SW SWS Town Mtg	Andrews, John; Martin, Jennifer; Harris, Karen; Kozel, Brad	F(W)	4(W)	Flynn-Carson, Keira	SW	FY	403	403	117	125	18	21	1.385	25	25	25	2	2	4	8	8	28	0.286	
SW7030-01 SC SWS Chemistry H	Lantos, Stephen	G Block	4(T) 5(R) 6(M) 6(F)	Lantos, Stephen	SC	FY	358	358	19	24	117	117	1.385	162	162	125	2	2	1	2	2	28	0.071	
SW7130-01 SC SWS Biology H	Kozel, Brad	G Block	4(T) 5(R) 6(M) 6(F)	Kozel, Brad	SC	FY	360	360	23	24												28	0.143	Shared CR with SC2030-01 - total in Chemistry I H
SW7130-02 SC SWS Biology H	Kozel, Brad	B Block	1(R) 2(M) 2(W)	Kozel, Brad	SC	FY	360	360	19	22												28	0.143	SW7130-01 & SW7130-02 share CR with SC3030-10 & SC3030-11 - students total in Biology I H above
SCHOOL WITHIN A SCHOOL SUBTOTAL																								
SCHOOL WITHIN A SCHOOL SUBTOTAL AT 85% UTILIZATION																								
TE1001-01 CE Creative Woodworking 1	Gurner, Glen	F Block	4(W) 5(M) 6(R)	Gurner, Glen	CE	S1	UA	UA	17	16	11	11										28	0.429	
TE1001-02 CE Creative Woodworking 1	Gurner, Glen	B Block	1(R) 2(M) 2(W)	Gurner, Glen	CE	S1	UA	UA	16	16	11	11										28	0.429	
TE1001-03 CE Creative Woodworking 1	Gurner, Glen	F Block	4(W) 5(M) 6(R)	Gurner, Glen	CE	S2	UA	UA	16	16	11	11										28	0.429	
TE1001-04 CE Creative Woodworking 1	Gurner, Glen	E Block	3(F) 4(R) 6(T) 7(W)	Gurner, Glen	CE	S2	UA	UA	16	16	11	11										28	0.429	
TE1002-01 CE Creative Woodworking 2	Gurner, Glen	G Block	4(T) 5(R) 6(M) 6(F)	Gurner, Glen	CE	S1	UA	UA	8	13	11	11										28	0.429	
TE1003-01 CE Furniture Design & Construct.	Gurner, Glen	G Block	4(T) 5(R) 6(M) 6(F)	Gurner, Glen	CE	S1	UA	UA	3	8	11	11										28	0.143	Includes TE1003-01 Shared CR with TE1002-01 incl. in TE1002 above
WOODWORKING SUBTOTAL																								
WOODWORKING SUBTOTAL AT 85% UTILIZATION																								
0.571 0.429 0.072 0.504																								

C. Utilization - Brookline High School

Depth/Description	P	Teacher	TrackID	Schedule	Name	Dept. Code	Num	Class	Total	Max	Depth	Term	Current Course Enroll S1	Enrollment Increase Multiplier	Projected Course Enroll S1	Max Students per Section	No. of Sections S1	No. of Sections S2	No. of Sessions per week	Sessions per week S1	Periods per Week S1	Total Stations Req. per Week S1	Total Stations Required S2	Notes			
TE3200-01 CE Tech DWJ/GAD		Gurner, Glen	A Block	1(M-W)2(R)	Gurner, Glen	CE	SZ	UA	10	10	CE	TE3200-01/TE3200/TE3	S2	15	1.385	21	16		2	4	8	28	0.286	Shared CR with TE3200-01			
TE3300-01 CE Arch Desy/DRT/CAD		Gurner, Glen	A Block	1(M-W)2(R)	Gurner, Glen	CE	SZ	UA	5	10	CE	TE3200-01/TE3200/TE3	S2											Incl. in TE3200-01			
TE4200-01 CE Grp Art Gpy/Cnt		Marcus, Arnold	C Block	3(M-W)4(F)	Marcus, Arnold	CE	S1	103	103	2	5	CE	S1														
TE4200-02 CE Grp Art Gpy/Cnt		Marcus, Arnold	F Block	4(W)5(M)7(6R)	Marcus, Arnold	CE	S1	103	103	5	5	CE	S1														
TE4200-03 CE Grp Art Gpy/Cnt		Marcus, Arnold	C Block	3(M-W)4(F)	Marcus, Arnold	CE	S2	103	103	0	5	CE	S2														
TE4200-04 CE Grp Art Gpy/Cnt		Marcus, Arnold	B Block	1(R-F)2(M-W)	Marcus, Arnold	CE	S1	103	103	2	5	CE	S1														
TE4200-05 CE Grp Art Gpy/Cnt		Marcus, Arnold	E Block	3(F)4(R)6(T-W)	Marcus, Arnold	CE	S1	103	103	5	5	CE	S1														
TE4200-06 CE Grp Art Gpy/Cnt		Marcus, Arnold	A Block	1(M-W)2(R)	Marcus, Arnold	CE	S1	103	103	5	5	CE	S1														
TE4200-07 CE Grp Art Gpy/Cnt		Marcus, Arnold	G Block	4(T)5(R)6(M-F)	Marcus, Arnold	CE	S1	103	103	6	5	CE	S1														
TE4200-08 CE Grp Art Gpy/Cnt		Marcus, Arnold	D Block	2(F)4(M)5(T-W)	Marcus, Arnold	CE	S1	103	103	3	5	CE	S1														
TE4200-09 CE Grp Art Gpy/Cnt		Marcus, Arnold	G Block	4(T)5(R)6(M-F)	Marcus, Arnold	CE	S2	103	103	2	5	CE	S2														
TE4200-10 CE Grp Art Gpy/Cnt		Marcus, Arnold	E Block	3(F)4(R)6(T-W)	Marcus, Arnold	CE	S2	103	103	1	5	CE	S2														
TE4200-11 CE Grp Art Gpy/Cnt		Marcus, Arnold	F Block	1(R-F)2(M-W)	Marcus, Arnold	CE	S2	103	103	3	5	CE	S2														
TE4200-12 CE Grp Art Gpy/Cnt		Marcus, Arnold	D Block	2(F)4(M)5(T-W)	Marcus, Arnold	CE	S2	103	103	5	5	CE	S2														
TE4200-13 CE Grp Art Gpy/Cnt		Marcus, Arnold	A Block	1(M-W)2(R)	Marcus, Arnold	CE	S2	103	103	2	5	CE	S2														
TE4200-14 CE Grp Art Gpy/Cnt		Marcus, Arnold	F Block	4(W)5(M)7(6R)	Marcus, Arnold	CE	S2	103	103	3	5	CE	S2														
TE4200Z-01 CE Grp Art Gpy/Cnt		Marcus, Arnold	Z Block	Z(M-F)	Marcus, Arnold	CE	S1	103	103	2	5	CE	S1	28	1.385	39	22	5	8	5	4	32	20	28	1.143	0.714	
TE4200Z-02 CE Grp Art Gpy/Cnt		Marcus, Arnold	Z Block	Z(M-F)	Marcus, Arnold	CE	S2	103	103	1	5	CE	S2	2	1.385	3	1	1	1	4	4	5	0.800	0.800	0.800	Z block classes - not within 28 periods.	
TE4501-01 CE Eng Future I		Gurner, Glen	A Block	1(M-W)2(R)	Gurner, Glen	CE	S1	UA	16	16	16	CE	S1														
TE4501-02 CE Eng Future I		Gurner, Glen	B Block	1(R-F)2(M-W)	Gurner, Glen	CE	S2	UA	15	15	16	CE	S2														
TE4501-03 CE Eng Future I		Gurner, Glen	G Block	4(T)5(R)6(M-F)	Gurner, Glen	CE	S2	UA	15	16	16	CE	S2														
TE4501-04 CE Eng Future I		Gurner, Glen	E Block	3(F)4(R)6(T-W)	Gurner, Glen	CE	S1	UA	16	16	16	CE	S1														
TE5530-01 CE Eng By Design H		Love, Aubrey	C Block	3(M-W)4(F)	Love, Aubrey	SC	FY	UA1	0	20	CE	SC5530-01/SC5530/TE5	FY	32	30	1.385	44	16	3	3	4	12	12	28	0.429	Shared CR with SC5530-01	
TE5530-02 CE Eng By Design H		Love, Aubrey	G Block	4(T-W)5(R-F)6(M-F)	Love, Aubrey	SC	FY	UA1	0	20	CE	TE5530-02/SC5530/TE5	FY	20	20	1.385	28	28	2	2	4	8	8	28	0.286	0.286	Includes SC5530-02
TE5530-03 CE Eng By Design H		Love, Aubrey	A Block	1(M-W)2(W-R)	Love, Aubrey	SC	FY	UA1	1	20	CE	SC5530-03/SC5530/TE5	FY	37	37	1.385	51	25	3	3	6	18	18	28	0.643	0.643	Includes SC5530-02, SC5530-02
TECHNICAL SUBTOTAL																							1.357	1.597	Doesn't include Copy Center or Z-block classes		

C. Utilization - Brookline High School

Dept. Description	P	Teacher	TrackID	Schedule	Name	Dept. Code	Num. C	S	Total	Max. Dept. ID	Term	Current Enrollment	Enrollment Multiplier	Projected Grade Enrollment	Projected Grade Enrollment	Max. Students per Section	No. of Sections	No. of Sections per week	Sections per week	Total Stations per Week	Total Stations Shared	No. of Stations		
TU1000-01 TU BHS Tutorial9		Putnam, Dean	E Block	3(F) 4(R) 6(T-W)	Putnam, Dean	WL	FY	267	267	3	5 TU													
TU1000-02 TU BHS Tutorial9		Burke-Hunter, Joanne; Kostant, Shobhana	A Block	1(M-W) 2(R)	Burke-Hunter, Joanne	SO	FY	267	267	5	4 TU TU1000/02/ TU1000/07/2													
TU1000-03 TU BHS Tutorial9		Magninis, Emily; Gronlund-Jacob, Noah	B Block	1(R-F) 2(M-W)	Magninis, Emily	WL	FY	283	283	10	11 TU													
TU1000-04 TU BHS Tutorial9		Boys, Kari; Gurry, Laura	B Block	1(R-F) 2(M-W)	Boys, Kari	MA	FY	201	201	6	4 TU TU1000-04/ TU1000/07/2													
TU1000-05 TU BHS Tutorial9		Angione, Mary; Eto, Rachel	C Block	3(M-W) 4(F)	Angione, Mary	SC	FY	283	283	2	5 TU TU2000-06/ TU1000/07/2													
TU1000-06 TU BHS Tutorial9		Hitchcock, Katherine; Cawthorne, J. Malcolm	D Block	2(F) 4(M) 5(T-W)	Hitchcock, Katherine	MA	FY	283	283	9	10 TU													
TU1000-07 TU BHS Tutorial9		Shen, Annie; Conner, Alisa	D Block	2(F) 4(M) 5(T-W)	Shen, Annie	MA	FY	201	201	5	4 TU TU1000-07/ TU1000/07/2													
TU1000-08 TU BHS Tutorial9		Kozel, Brad; Frey, Jennifer	E Block	3(F) 4(R) 6(T-W)	Kozel, Brad	SC	FY	283	283	4	4 TU TU1000-08/ TU1000/07/2													
TU1000-09 TU BHS Tutorial9		Albahi, Marias; Grant, Robert	E Block	3(F) 4(R) 6(T-W)	Albahi, Marias	MA	FY	201	201	5	5 TU TU2000-10/ TU1000/07/2													
TU1000-10 TU BHS Tutorial9		Weiffenbach, Barbara; Carr, Dyanika	F Block	4(W) 5(M-F) 6(R)	Weiffenbach, Barbara	SC	FY	283	283	5	4 TU TU2000-12/ TU1000/07/2													
TU1000-11 TU BHS Tutorial9		Prigent, Julie; Williams, Eliza	F Block	4(W) 5(M-F) 6(R)	Prigent, Julie	MA	FY	201	201	4	4 TU TU2000-13/ TU1000/07/2													
TU1000-12 TU BHS Tutorial9		Gilbin, Heather; Tosa, Dygo	F Block	4(W) 5(M-F) 6(R)	Gilbin, Heather	SC	FY	267	267	4	4 TU TU2000-14/ TU1000/07/2													
TU1000-13 TU BHS Tutorial9		Woolley-Brown, Katherine; Grubb, Jennifer	G Block	4(T) 5(R) 6(M-F)	Woolley-Brown, Katherine	SC	FY	283	283	11	10 TU													
TU1000-14 TU BHS Tutorial9		Williams, Summer; Malory, Bruce	G Block	4(T) 5(R) 6(M-F)	Williams, Summer	PA	FY	201	201	4	3 TU TU1000-14/ TU1000/07/2													
TU1000-15 TU BHS Tutorial9		Buhl, Elizabeth; Grande, Roger	C Block	3(M-W) 4(F)	Buhl, Elizabeth	SO	FY	201	201	4	4 TU													
TU1000-16 TU BHS Tutorial9		Leslie, Kathryn	C Block	3(M-W) 4(F)	Leslie, Kathryn	SO	FY	267	267	3	2 TU													
TU1000-17 TU BHS Tutorial9		Celis, Meaghan; Fuentes-Rodriguez, Marta	D Block	2(F) 4(M) 5(T-W)	Celis, Meaghan	SC	FY	170	170	4	0 TU													
TU1000-18 TU Metro Tutorial		Fuentes-Rodriguez, Marta	F Block	4(W) 5(M-F) 6(R)	Fuentes-Rodriguez, Marta	WL	FY	170	170	7	0 TU													
TU1000-19 TU Metro Tutorial		Celis, Meaghan; Fuentes-Rodriguez, Marta	F Block	4(W) 5(M-F) 6(R)	Celis, Meaghan	WL	FY	170	170	7	0 TU													
TU1209-01 TU Afr-Am Sch Sem 9		Lemmel, David	D Block	2(F) 4(M) 5(T-W)	Lemmel, David	FY	382	382	20	25 TU														
TU1209-02 TU Afr-Am Sch Sem 9		Lemmel, David	D Block	2(F) 4(M) 5(T-W)	Lemmel, David	FY	382	382	4	25 TU														
TU1209-03 TU Afr-Am Sch Sem 9		Lemmel, David	D Block	2(F) 4(M) 5(T-W)	Lemmel, David	FY	382	382	7	25 TU														
TU1210-01 TU Afr-Am Sch Sem 10		Lemmel, David; Hunt, Stephanie	B Block	1(R-F) 2(M-W)	Hunt, Stephanie	SO	FY	385	385	28	25 TU													
TU1210-02 TU Afr-Am Sch Sem 10		Lemmel, David; Hunt, Stephanie	B Block	1(R-F) 2(M-W)	Hunt, Stephanie	SO	FY	385	385	8	25 TU													
TU1210-03 TU Afr-Am Sch Sem 10		Lemmel, David; Hunt, Stephanie	B Block	1(R-F) 2(M-W)	Hunt, Stephanie	SO	FY	385	385	5	25 TU													
TU1211-01 TU Afr-Am Sch Sem 11		Kennedy-Justice, Meghan; Lemmel, Meghan; Lemmel, Meghan; Lemmel, Meghan; Lemmel, Meghan	A Block	1(M-W) 2(R)	Lemmel, David	FY	304	304	19	25 TU														
TU1211-02 TU Afr-Am Sch Sem 11		Kennedy-Justice, Meghan; Lemmel, Meghan; Lemmel, Meghan; Lemmel, Meghan	A Block	1(M-W) 2(R)	Lemmel, David	FY	304	304	2	25 TU														
TU1211-03 TU Afr-Am Sch Sem 11		Kennedy-Justice, Meghan; Lemmel, Meghan; Lemmel, Meghan	A Block	1(M-W) 2(R)	Lemmel, David	FY	304	304	2	25 TU														
TU1212-01 TU Afr-Am Sch Sem 12		Lemmel, David	E(F, R)	4(R) 6(T)	Lemmel, David	FY	384	384	10	25 TU														
TU1212-02 TU Afr-Am Sch Sem 12		Lemmel, David	F(M, R)	5(M) 6(R)	Lemmel, David	FY	388	388	19	25 TU														
TU1212-03 TU Afr-Am Sch Sem 12		Lemmel, David	E(F, R)	4(R) 6(T)	Lemmel, David	FY	384	384	0	25 TU														
TU1212-04 TU Afr-Am Sch Sem 12		Lemmel, David	E(F, R)	4(R) 6(T)	Lemmel, David	FY	384	384	2	25 TU														
TU1212-05 TU Afr-Am Sch Sem 12		Lemmel, David	F(M, R)	5(M) 6(R)	Lemmel, David	FY	388	388	3	25 TU														
TU1212-06 TU Afr-Am Sch Sem 12		Lemmel, David	F(M, R)	5(M) 6(R)	Lemmel, David	FY	388	388	0	25 TU														

C. Utilization - Brookline High School

Dept	Description	P	Teacher	TrackID	Schedule	Name	Dept	Code	Num	Chrs	Total	Max	Projcted	Projcted	Enrollment	Current	Current	Sessions	Sessions	No. of	No. of	Total	Total	Notes
												Students	Course	Enroll	Multipl	Enroll S2	Enroll S1	per week	per week	Sections	Sections	Stations	Stations	
												per Section	Enroll S1	Enroll S2				S2	S1	per Week	per Week	Reqd	Avail	
TU2000-02	TU BHS Upperclass Tutorial	Burke-Hunter, Joanne; Kostant, Shoobana	A Block	3(M-W) 2(R)	Burke-Hunter, Joanne	SO	FY	267	267	6	6	10	10	1.385	90	90		52	52	13	13	1.857	1.857	Shared CR with TU1000-02
TU2000-04	TU BHS Upperclass Tutorial	Buys, Karl	B Block	1(R-F) 2(M-W)	Buys, Karl	MA	FY	201	201	5	6	10	10											Shared CR with TU1000-04
TU2000-05	TU BHS Upperclass Tutorial	Angione, Mary	C Block	3(M-W) 4(F)	Angione, Mary	SC	FY	283	283	6	7	10	10											Shared CR with TU1000-05
TU2000-06	TU BHS Upperclass Tutorial	Grande, Roger; Blahnik, Laura	C Block	3(M-W) 4(F)	Grande, Roger	SO	FY	201	201	4	6	10	10											Shared CR with TU1000-06
TU2000-07	TU BHS Upperclass Tutorial	Sifanus, Jill; Wheeler, Mark	D Block	2(F) 4(W) 5(T-W)	Sifanus, Jill	SC	FY	267	267	10	10	10	10											Shared CR with TU1000-07
TU2000-08	TU BHS Upperclass Tutorial	Conner, Alisa; Shen, Anileen	D Block	2(F) 4(W) 5(T-W)	Shen, Anileen	MA	FY	201	201	6	7	10	10											Shared CR with TU1000-08
TU2000-09	TU BHS Upperclass Tutorial	Kozel, Brad; Frey, Jennifer	E Block	3(F) 4(R) 6(T-W)	Kozel, Brad	SC	FY	283	283	6	6	10	10											Shared CR with TU1000-09
TU2000-10	TU BHS Upperclass Tutorial	Albaha, Mark; Grant, Robert	E Block	3(F) 4(R) 6(T-W)	Grant, Robert	SO	FY	201	201	7	6	10	10											Shared CR with TU1000-10
TU2000-12	TU BHS Upperclass Tutorial	Weiffenbach, Barbara; Carr, Oyeobaku	F Block	4(W) 5(M-F) 6(R)	Weiffenbach, Barbara	SC	FY	283	283	6	7	10	10											Shared CR with TU1000-12
TU2000-13	TU BHS Upperclass Tutorial	Padgett, Julie; Williams, Elaha	F Block	4(W) 5(M-F) 6(R)	Padgett, Julie	MA	FY	201	201	7	6	10	10											Shared CR with TU1000-13
TU2000-14	TU BHS Upperclass Tutorial	Tosa, Digo; Giblin, Heather	F Block	4(W) 5(M-F) 6(R)	Giblin, Heather	SC	FY	267	267	7	8	10	10											Shared CR with TU1000-14
TU2000-15	TU BHS Upperclass Tutorial	Williams, Summer; Malloy, Bruce	G Block	4(T) 5(W) 6(M-F)	Williams, Summer	PA	FY	201	201	9	9	10	10											Shared CR with TU1000-15
TU2000-16	TU BHS Upperclass Tutorial	Vollmer, Marce; Fried, Adam	G Block	4(T) 5(W) 6(M-F)	Fried, Adam	MA	FY	267	267	10	9	10	10											Shared CR with TU1000-16
TU2000-17	TU BHS Upperclass Tutorial	Leslie, Kathryn	C Block	3(M-W) 4(F)	Leslie, Kathryn	SO	FY	267	267	1	4	10	10											Shared CR with TU1000-17
TUTORIAL SUBTOTAL																								
TUTORIAL SUBTOTAL AT 85% UTILIZATION																								
TU2009-01	SP Learning Center 9	Ivin, Holly	G Block	4(T) 5(R) 6(M-F)	Ivin, Holly	SP	FY	284	284	8	7	5	5											Shared CR with TU2009-01
TU2009-02	SP Learning Center 9	Mangold, Dorothee	A Block	1(M-W) 2(R)	Mangold, Dorothee	SP	FY	284	284	6	7	5	5											Shared CR with TU2009-02
TU2009-03	SP Learning Center 9	Ivin, Holly	F Block	4(W) 5(M-F) 6(R)	Ivin, Holly	SP	FY	284	284	7	7	5	5											Shared CR with TU2009-03
TU2009-04	SP Learning Center 9	Mangold, Dorothee	C Block	3(M-W) 4(F)	Mangold, Dorothee	FY	FY	284	284	6	7	5	5											Shared CR with TU2009-04
TU2009-05	SP Learning Center 9	Ivin, Holly	E Block	3(F) 4(R) 6(T-W)	Ivin, Holly	SP	FY	284	284	8	7	5	5											Shared CR with TU2009-05
TU2009-06	SP Learning Center 9	Differ, Elizabeth	D Block	2(F) 4(W) 5(T-W)	Differ, Elizabeth	SP	FY	100	100	4	7	5	5											Shared CR with TU2009-06
TU2009-07	SP Learning Center 9	Differ, Elizabeth	C Block	3(M-W) 4(F)	Differ, Elizabeth	SP	FY	100	100	4	7	5	5											Shared CR with TU2009-07
TU2009-08	SP Learning Center 9	Differ, Elizabeth	B Block	1(R-F) 2(M-W)	Differ, Elizabeth	SP	FY	100	100	6	7	5	5											Shared CR with TU2009-08
TU2009-09	SP Learning Center 9	Montrose, Jason	F Block	4(W) 5(M-F) 6(R)	Montrose, Jason	SP	FY	100	100	8	7	5	5											Shared CR with TU2009-09
TU2009-10	SP Learning Center 9	Montrose, Jason	G Block	4(T) 5(R) 6(M-F)	Montrose, Jason	SP	FY	100	100	5	7	5	5											Shared CR with TU2009-10
TU2009x-01	SP Learning Center 9	Ivin, Holly	F(W)	4(W) 5(F)	Ivin, Holly	SP	FY	284	284	1	1	5	5											Shared CR with TU2009x-01
TU2010-01	SP Learning Center 10	Kelly, Andrew	A Block	1(M-W) 2(R)	Kelly, Andrew	SP	FY	202	202	7	7	5	5											Shared CR with TU2010-01
TU2010-02	SP Learning Center 10	Kelly, Andrew	G Block	3(F) 4(R) 6(T-W)	Kelly, Andrew	SP	FY	202	202	7	7	5	5											Shared CR with TU2010-02
TU2010-03	SP Learning Center 10	Kelly, Andrew	E Block	3(F) 4(R) 6(T-W)	Kelly, Andrew	SP	FY	202	202	7	7	5	5											Shared CR with TU2010-03
TU2010-04	SP Learning Center 10	Davidson, Carol	C Block	3(M-W) 4(F)	Davidson, Carol	SP	FY	311	311	8	7	5	5											Shared CR with TU2010-04
TU2010-05	SP Learning Center 10	Davidson, Carol	B Block	1(R-F) 2(M-W)	Davidson, Carol	SP	FY	311	311	3	7	5	5											Shared CR with TU2010-05
TU2010-06	SP Learning Center 10	Davidson, Carol	D Block	2(F) 4(W) 5(T-W)	Davidson, Carol	SP	FY	311	311	6	7	5	5											Shared CR with TU2010-06
TU2010-07	SP Learning Center 10	Blette, Erin	D Block	2(F) 4(W) 5(T-W)	Blette, Erin	SP	FY	334	334	8	7	5	5											Shared CR with TU2010-07
TU2011-01	SP Learning Center 11	Ivin, Holly	B Block	1(R-F) 2(M-W)	Ivin, Holly	SP	FY	284	284	7	7	5	5											Shared CR with TU2011-01
TU2011-02	SP Learning Center 11	Ivin, Holly	C Block	3(M-W) 4(F)	Ivin, Holly	SP	FY	284	284	5	7	5	5											Shared CR with TU2011-02
TU2011-03	SP Learning Center 11	Differ, Elizabeth	E Block	3(F) 4(R) 6(T-W)	Differ, Elizabeth	SP	FY	100	100	7	7	5	5											Shared CR with TU2011-03
TU2011-04	SP Learning Center 11	Differ, Elizabeth	G Block	4(T) 5(R) 6(M-F)	Differ, Elizabeth	SP	FY	100	100	7	7	5	5											Shared CR with TU2011-04
TU2011-05	SP Learning Center 11	Montrose, Jason	A Block	1(M-W) 2(R)	Montrose, Jason	SP	FY	100	100	6	7	5	5											Shared CR with TU2011-05
TU2012-01	SP Learning Center 12	Kelly, Andrew	F Block	4(W) 5(M-F) 6(R)	Kelly, Andrew	SP	FY	202	202	8	7	5	5											Shared CR with TU2012-01
TU2012-02	SP Learning Center 12	Kelly, Andrew	C Block	3(M-W) 4(F)	Kelly, Andrew	SP	FY	202	202	9	7	5	5											Shared CR with TU2012-02
TU2012-03	SP Learning Center 12	Davidson, Carol	E Block	3(F) 4(R) 6(T-W)	Davidson, Carol	SP	FY	311	311	7	7	5	5											Shared CR with TU2012-03
TU2012-04	SP Learning Center 12	Davidson, Carol	A Block	1(M-W) 2(R)	Davidson, Carol	SP	FY	311	311	7	7	5	5											Shared CR with TU2012-04

C. Utilization - Brookline High School

Dept. Description	P	Teacher	TrackID	Schedule	Name	Dept. Code	Num. Clsrs	Total	Max. Dept. ID	Term	Current Enroll S1	Enrollment Multiplier	Projected Course Enroll S2	Max Students per Section	No. of Sections S1	No. of Sections S2	No. of Sections per week	Seasons per week S1	Seasons per week S2	Total Stations Required S1	Total Stations Required S2	Notes
TU1400-01 SP Supported Learning Tutorial		Labouchere, Natalie	C Block	3(M-W)4(F)	Labouchere, Natalie	SP	FY 124	124	1	1 SP TU1400-01/ FY TU1400-01/												
TU1400-02 SP Supported Learning Tutorial		Labouchere, Natalie	G Block	4(T)5(F)6(M,F)	Labouchere, Natalie	SP	FY 124	124	1	1 SP TU2200-02/ FY TU1400-01/												
TU1400-03 SP Supported Learning Tutorial		Labouchere, Natalie	E Block	3(F)4(R)6(T-W)	Labouchere, Natalie	SP	FY 124	124	0	1 SP TU2200-03/ FY TU1400-01/												
TU1400-04 SP Supported Learning Tutorial		Labouchere, Natalie	A Block	1(M-W)2(R)	Labouchere, Natalie	SP	FY 124	124	0	1 SP TU2200-04/ FY TU1400-01/												
TU1400-05 SP Supported Learning Tutorial		Labouchere, Natalie	F Block	4(W)5(M,F)6(R)	Labouchere, Natalie	SP	FY 124	124	0	1 SP TU1400-05/ FY TU1400-01/												
TU2200-01 SP Supported Learning Center		Labouchere, Natalie	C Block	3(M-W)4(F)	Labouchere, Natalie	SP	FY 124	124	5	5 SP TU1400-01/ FY TU1400-01/												
TU2200-02 SP Supported Learning Center		Labouchere, Natalie	G Block	4(T)5(F)6(M,F)	Labouchere, Natalie	SP	FY 124	124	6	5 SP TU2200-02/ FY TU1400-01/												
TU2200-03 SP Supported Learning Center		Labouchere, Natalie	E Block	3(F)4(R)6(T-W)	Labouchere, Natalie	SP	FY 124	124	4	5 SP TU2200-03/ FY TU1400-01/												
TU2200-04 SP Supported Learning Center		Labouchere, Natalie	A Block	1(M-W)2(R)	Labouchere, Natalie	SP	FY 124	124	4	5 SP TU2200-04/ FY TU1400-01/												
TU2200-05 SP Supported Learning Center		Labouchere, Natalie	F Block	4(W)5(M,F)6(R)	Labouchere, Natalie	SP	FY 124	124	5	5 SP TU1400-05/ FY TU1400-01/												
TU2300-01 SP Learning Center ACE		Mangold, Dorothee		4(R)6(M,W,F)	Mangold, Dorothee	FY	202	202	12	10 SP												
TU2300-01 SP Learning Center		Mahoney, Brenna	G Block	4(T)5(F)6(M,F)	Mahoney, Brenna	SP	FY 407	407	5	10 SP TU2310-01/ Learning C												
TU2310-01 SP Learning Center 10		Mahoney, Brenna	G Block	4(T)5(F)6(M,F)	Mahoney, Brenna	SP	FY 407	407	2	10 SP TU2310-01/ Learning C												
TU2311-01 SP Learning Center 11		Camara, Monica	F Block	4(W)5(M,F)6(R)	Camara, Monica	SP	FY 407	407	4	10 SP TU2311-01/ Learning C												
TU2312-01 SP Learning Center 12		Camara, Monica	F Block	4(W)5(M,F)6(R)	Camara, Monica	SP	FY 407	407	0	10 SP TU2312-01/ Learning C												
TU3000-01 SP Study Skills and Tutorial		Moreno, Susan	G Block	4(T)5(F)6(M,F)	Moreno, Susan	SP	FY 240	240	5	4 SP												
TU3000-02 SP Study Skills and Tutorial		Moreno, Susan	B Block	1(R-F)2(M,W)	Moreno, Susan	SP	FY 240	240	3	4 SP												
TU3000-03 SP Study Skills and Tutorial		Moreno, Susan	D Block	2(F)4(W)5(T-W)	Moreno, Susan	SP	FY 240	240	4	4 SP												
TU3000-04 SP Study Skills and Tutorial		Moreno, Susan	C Block	3(M-W)4(F)	Moreno, Susan	SP	FY 240	240	3	4 SP												
TU3000-05 SP Study Skills and Tutorial		Moreno, Susan	F Block	4(W)5(M,F)6(R)	Moreno, Susan	SP	FY 240	240	4	4 SP												
TU4000-01 SP RESE Tutorial		Orolovsky, Rachel	B Block	1(R-F)2(M,W)	Orolovsky, Rachel	SP	FY 142	142	3	12 SP												
TU4000-02 SP RESE Tutorial		Orolovsky, Rachel	A Block	1(M-W)2(R)	Orolovsky, Rachel	SP	FY 142	142	5	12 SP												
TU4000-03 SP RESE Tutorial		Orolovsky, Rachel	F Block	4(W)5(M,F)6(R)	Orolovsky, Rachel	SP	FY 142	142	3	12 SP												
TU4000-04 SP RESE Tutorial		Orolovsky, Rachel	D Block	2(F)4(W)5(T-W)	Orolovsky, Rachel	SP	FY 142	142	0	12 SP												
TU4000-05 SP RESE Tutorial		Orolovsky, Rachel	E Block	3(F)4(R)6(T-W)	Orolovsky, Rachel	SP	FY 142	142	0	12 SP												
TU4000-06 SP RESE Tutorial		Orolovsky, Rachel	C Block	3(M-W)4(F)	Orolovsky, Rachel	SP	FY 142	142	5	12 SP												
TU4000-07 SP RESE Tutorial		Orolovsky, Rachel	G Block	4(T)5(F)6(M,F)	Orolovsky, Rachel	SP	FY 142	142	6	12 SP												
TU4001-01 SP CBC Tutorial		Ross, Robin	E Block	3(F)4(R)6(T-W)	Ross, Robin	SP	FY 148	148	1	12 SP												
TU4001-02 SP CBC Tutorial		Ross, Robin	B Block	1(R-F)2(M,W)	Ross, Robin	SP	FY 148	148	2	12 SP												
TU4001-03 SP CBC Tutorial		Ross, Robin	A Block	1(M-W)2(R)	Ross, Robin	SP	FY 148	148	0	12 SP												
TU4001-04 SP CBC Tutorial		Ross, Robin	C Block	3(M-W)4(F)	Ross, Robin	SP	FY 148	148	2	12 SP												
TU4001-05 SP CBC Tutorial		Ross, Robin	D Block	2(F)4(W)5(T-W)	Ross, Robin	SP	FY 148	148	0	12 SP												
TU4001-06 SP CBC Tutorial		Ross, Robin	F Block	4(W)5(M,F)6(R)	Ross, Robin	SP	FY 148	148	0	12 SP												
TU4001-07 SP CBC Tutorial		Ross, Robin	G Block	4(T)5(F)6(M,F)	Ross, Robin	SP	FY 148	148	1	12 SP												
SPECIAL EDUCATION TUTORIAL SUBTOTAL AT 85% UTILIZATION																						
8.143 8.143 9.580 9.580																						

C. Utilization - Brookline High School

Dept. Description	P Teacher	TrackID	Schedule	Name	Dept. Code	Num. Csr.	Total	Max. Depth	ID	Term	Current Course	Enrollment Increase	Projected Course	Max. Students	No. of Sections	No. of Sections	No. of Sections	No. of Sections	Sections per week	Periods per week	Total Stations	Total Stations	Notes
					SP	FY	1098	1098	0	0	SP												
CE241L01 SP Transition I	Lynch, Andrea	E Block	3(F)4(R)6(T-W)	Lynch, Andrea	SP	FY	1098	1098	0	0	SP			12	0	0	0	0	0	28	0.000	0.000	No students?
CE241Z01 SP Transition II	Lynch, Andrea	D Block	2(F)4(M)5(T-W)	Lynch, Andrea	SP	FY	1098	1098	0	0	SP			12	0	0	0	0	0	28	0.000	0.000	No students?
CE880L01 SP Employment Support I	Lynch, Andrea	G Block	4(T)5(R)6(M-F)	Lynch, Andrea	SP	FY	1098	1098	0	0	SP			12	0	0	0	0	0	28	0.000	0.000	No students?
CE880Z01 SP Employment Support II	McCarthy, Brendan	F Block	4(W)5(M-F)6(R)	McCarthy, Brendan	SP	FY	1098	1098	0	0	SP			12	0	0	0	0	0	28	0.000	0.000	No students?
CE900L01 SP Job Skills	McCarthy, Brendan	B Block	1(R-F)2(M-W)	McCarthy, Brendan	SP	FY	1098	1098	0	1	SP			12	0	0	0	0	0	28	0.000	0.000	No students?
EN1050-01 SP English I	Blette, Erin	B Block	1(R-F)2(M-W)	Blette, Erin	SP	FY	334	334	6	20	SP			12	0	0	1	0	0	28	0.000	0.000	
EN1070-01 SP English I	Ross, Robin	F Block	4(W)5(M-F)6(R)	Ross, Robin	SP	FY	148	148	2	20	SP			12	1	1	4	4	4	28	0.143	0.143	EN1070-01 SP English I, EN2070-01 SP English II, EN3070-01 SP English III, and EN4070-01 SP English IV are same class totals in EN1070
EN1070-02 SP English I	Orlovsky, Rachel	B Block	1(R-F)2(M-W)	Orlovsky, Rachel	SP	FY	142	142	3	20	SP			12	2	2	4	8	8	28	0.286	0.286	EN1070-02 SP English I, EN2070-02 SP English II, EN3070-02 SP English III, and EN4070-02 SP English IV are same class total in EN1070
EN2050-01 SP English II	Maloney, Brenna	D Block	2(F)4(M)5(T-W)	Maloney, Brenna	SP	FY	407	407	9	20	SP			14	2	2	4	8	8	28	0.286	0.286	Includes EN2070,
EN2070-01 SP English II	Ross, Robin	F Block	4(W)5(M-F)6(R)	Ross, Robin	SP	FY	148	148	0	20	SP			12	2	2	4	8	8	28	0.286	0.286	Shared CR
EN2070-02 SP English II	Orlovsky, Rachel	B Block	1(R-F)2(M-W)	Orlovsky, Rachel	SP	FY	142	142	3	20	SP			12	2	2	4	8	8	28	0.286	0.286	Shared CR
EN3050-01 SP English III	Blette, Erin	A Block	1(M-W)2(R)	Blette, Erin	SP	FY	334	334	9	20	SP			12	2	2	4	8	8	28	0.286	0.286	Shared CR
EN3070-01 SP English III	Ross, Robin	F Block	4(W)5(M-F)6(R)	Ross, Robin	SP	FY	148	148	2	20	SP			12	2	2	4	8	8	28	0.286	0.286	Shared CR
EN3070-02 SP English III	Orlovsky, Rachel	B Block	1(R-F)2(M-W)	Orlovsky, Rachel	SP	FY	142	142	0	20	SP			12	1	1	4	4	4	28	0.143	0.143	Shared CR
EN4050-01 SP Senior English	Blette, Erin	F Block	4(W)5(M-F)6(R)	Blette, Erin	SP	FY	334	334	6	20	SP			12	1	1	4	4	4	28	0.143	0.143	Included in EN1070
EN4070-01 SP English IV	Ross, Robin	F Block	4(W)5(M-F)6(R)	Ross, Robin	SP	FY	148	148	0	20	SP			12	1	1	4	4	4	28	0.143	0.143	Shared CR
EN4070-02 SP English IV	Orlovsky, Rachel	B Block	1(R-F)2(M-W)	Orlovsky, Rachel	SP	FY	142	142	0	20	SP			12	1	1	4	4	4	28	0.143	0.143	Shared CR

C. Utilization - Brookline High School

Dept. Description	P. Teacher	TrackID	Schedule	Name	Dept. Code	Num. Class	Total	Max. Dept. ID	Term	Current Enroll S1	Current Enroll S2	Enrollment Multiplier	Projected Course Enroll S1	Projected Course Enroll S2	Max. Students per Section	No. of Sections S1	No. of Sections S2	No. of Sections per week	Sessions per week S1	Sessions per week S2	Periods per Week S1	Total Stations Required S1	Total Stations Required S2	Notes	
MA1070-01 SP Math I	Rondeau, Coral	A Block	1(M-W)2(R)	Rondeau, Coral	SP	FY	146	146	2	20 SP	MA1070-01/MA2	FY												Shared CR with MA2070-01, MA3070-01, MA4070-01	
MA1070-02 SP Math I	Ross, Robin	A Block	1(M-W)2(R)	Ross, Robin	SP	FY	148	148	2	20 SP	MA2	FY													Shared CR with MA2070-02, MA3070-02, MA4070-02
MA2050-01 SP Alg /Geometry	Fiedor, Mark	G Block	4(T)5(R)6(M,F)	Fiedor, Mark	SP	FY	237	237	4	12 SP		FY													
MA2050-02 SP Alg /Geometry	Fiedor, Mark	C Block	3(M-W)4(F)	Fiedor, Mark	SP	FY	237	237	9	12 SP		FY													
MA2070-01 SP Math II	Rondeau, Coral	A Block	1(M-W)2(R)	Rondeau, Coral	SP	FY	146	146	0	20 SP	MA1070-01/MA1070/MA2	FY													Shared CR with MA1070-01, MA3070-01, MA4070-01
MA2070-02 SP Math II	Ross, Robin	A Block	1(M-W)2(R)	Ross, Robin	SP	FY	148	148	0	20 SP	MA2	FY													Shared CR with MA1070-01, MA3070-01, MA4070-01
MA3050-01 SP Essential Math for Life I	Crusberg, Gretchen	G Block	4(T)5(R)6(M,F)	Crusberg, Gretchen	SP	FY	334	334	10	20 SP		FY													Shared CR with MA1070-01, MA3070-02, MA4070-02
MA3070-01 SP Math III	Rondeau, Coral	A Block	1(M-W)2(R)	Rondeau, Coral	SP	FY	146	146	2	20 SP	MA1070-01/MA1070/MA2	FY													Incl. in MA1070 above
MA4050-01 SP Essential Math for Life II	Crusberg, Gretchen	D Block	2(F)4(M)5(T-W)	Crusberg, Gretchen	SP	FY	237	237	8	20 SP		FY													Shared CR with MA1070-01, MA2070-01, MA3070-01
MA4070-01 SP Math IV	Rondeau, Coral	A Block	1(M-W)2(R)	Rondeau, Coral	SP	FY	146	146	0	20 SP	MA1070-01/MA1070/MA2	FY													Shared CR with MA1070-01, MA2070-01, MA3070-01
MA4070-02 SP Math IV	Ross, Robin	A Block	1(M-W)2(R)	Ross, Robin	SP	FY	148	148	1	20 SP	MA2	FY													Shared CR with MA1070-02, MA2070-02, MA3070-02
SC1070-01 SP Science I	Rondeau, Coral	B Block	1(R-F)2(M,W)	Rondeau, Coral	SP	FY	146	146	1	20 SP	SC3070-01/SC1070/SC2	FY													Incl. in MA1070 above
SC2070-01 SP Science II	Rondeau, Coral	B Block	1(R-F)2(M,W)	Rondeau, Coral	SP	FY	146	146	0	20 SP	SC3070-01/SC1070/SC2	FY													Includes SC2070, SC1070-01 Science I, 2070-01-01 Science I, SC3070-01 Science III, and SC-4070-01 Science IV share CR.
SC3070-01 SP Science III	Rondeau, Coral	B Block	1(R-F)2(M,W)	Rondeau, Coral	SP	FY	146	146	2	20 SP	SC3070-01/SC1070/SC2	FY													Included in SC1070
SC4070-01 SP Science IV	Rondeau, Coral	B Block	1(R-F)2(M,W)	Rondeau, Coral	SP	FY	146	146	0	20 SP	SC3070-01/SC1070/SC2	FY													Included in SC1070

C. Utilization - Brookline High School

Dept. Description	P Teacher	TrackID	Schedule	Name	Dept. Code	Num	Chsr	Total	Max	Depth	ID	Term	Current Course Enrollment	Enrollment Increase Multiplier	Projected Course Enrollment	Projected Course Enrollment	No. of Sections	No. of Sections	No. of Sessions per week	Sessions per week	Periods per Week	Total Stations Required	Total Stations Required	Notes																					
SO1070-01 SP	World History I	D Block	2(F) 4(M) 5(T-W)	Sullivan, Tara	SP	FY	340	340	7	25 SP		FY	7	7	1,385	10	10	1	4	4	28	0.143	0.143	SO1070-01, SO2070-01, and TU4001-07 share same CR - total in SO1070																					
SO1070-01 SP	Social Studies I	G Block	4(T) 5(R) 6(M,F)	Ross, Robin	SP	FY	148	148	1	12 SP	SO3070-01/ SO1070/ SO2	FY	7	7	1,385	10	10	1	4	4	28	0.143	0.143	SO1070-01, SO2070-01, and TU4001-07 share same CR - total in SO1070																					
SO1070-02 SP	Social Studies I	D Block	2(F) 4(M) 5(T-W)	Ross, Robin	SP	FY	148	148	4	12 SP		FY	7	7	1,385	10	10	1	4	4	28	0.143	0.143	SO1070-02, SO2070-02, and TU4001-05 share same CR - total in SO1070																					
SO2050-01 SP	World History II	F Block	4(W) 5(M,F) 6(R)	Kobus, Brendan	SP	FY	146	146	9	25 SP		FY	8	8	1,385	11	11	1	4	4	28	0.143	0.143	See above																					
SO2070-01 SP	Social Studies II	G Block	4(T) 5(R) 6(M,F)	Ross, Robin	SP	FY	148	148	1	12 SP	SO3070-01/ SO1070/ SO2	FY	9	9	1,385	12	12	2	4	8	28	0.286	0.286	SO1070-01, SO2070-01, and TU4001-07 share same CR																					
SO2070-02 SP	Social Studies II	D Block	2(F) 4(M) 5(T-W)	Ross, Robin	SP	FY	148	148	1	12 SP		FY	9	9	1,385	12	12	2	4	8	28	0.286	0.286	SO1070-02, SO2070-02, and TU4001-05 share same CR																					
SO3050-01 SP	US History	C Block	3(M-W) 4(F)	Bankett, Scott	SP	FY	303	303	10	25 SP		FY	10	10	1,385	14	14	1	4	4	28	0.143	0.143	Included in SO1070																					
SO3070-01 SP	Social Studies III	G Block	4(T) 5(R) 6(M,F)	Ross, Robin	SP	FY	148	148	2	12 SP	SO3070-01/ SO1070/ SO2	FY	10	10	1,385	14	14	1	4	4	28	0.143	0.143	SO1070-01, SO2070-01, and TU4001-07 share same CR - total in SO1070																					
SO3070-02 SP	Social Studies III	D Block	2(F) 4(M) 5(T-W)	Ross, Robin	SP	FY	148	148	0	12 SP		FY	10	10	1,385	14	14	1	4	4	28	0.143	0.143	SO1070-02, SO2070-02, and TU4001-05 share same CR																					
SO4070-01 SP	Social Studies IV	G Block	4(T) 5(R) 6(M,F)	Ross, Robin	SP	FY	148	148	0	12 SP	SO3070-01/ SO1070/ SO2	FY	10	10	1,385	14	14	1	4	4	28	0.143	0.143	Included in SO1070																					
SO4070-02 SP	Social Studies IV	D Block	2(F) 4(M) 5(T-W)	Ross, Robin	SP	FY	148	148	0	12 SP		FY	10	10	1,385	14	14	1	4	4	28	0.143	0.143	SO1070-01, SO2070-01, and TU4001-07 share same CR - total in SO1070																					
SPECIAL EDUCATION CLASSROOMS SUBTOTAL																						2,857	2,857																						
SPECIAL EDUCATION CLASSROOMS SUBTOTAL AT 85% UTILIZATION																						3,361	3,361																						

C. Utilization - Brookline High School

Dept. Description	P	Teacher	TrackID	Schedule	Name	Dept. Code	Num	Cs	Sr	Total	Max	Dept. ID	Term	Current Course Enroll S1	Current Course Enroll S2	Enrollment Increase Multiplier	Projected Course Enroll S1	Projected Course Enroll S2	Max. Students per Section	No. of Sections S1	No. of Sections S2	No. of Sessions per week	Sections per week S1	Sections per week S2	Periods per week	Total Stations Req. S1	Total Stations Req. S2	Notes	
VA0101-01 VA Art Studio		Lalmer, Eric	G Block	4(T) 5(R) 6(M,F)	Lalmer, Eric	VA S1	UA	24	24	20	20	VA	S1	20			1.385	28	20	2	2	4	8	28	0.286				
VA1001-02 VA Drawing I		Lynn, Lori	G Block	4(T) 5(R) 6(M,F)	Lynn, Lori	VA S2	UA	22	22	22	22	VA	S2				1.385	28	20	2	2	4	8	28	0.286				
VA1001-03 VA Drawing I		MacDonald-Brennan, Elizabeth	A Block	1(M-W) 2(R)	MacDonald-Brennan, Elizabeth	VA S1	UA	22	22	22	22	VA	S1	22		22	1.385	30	22	2	2	4	8	28	0.286				
VA1001-04 VA Drawing I		MacDonald-Brennan, Elizabeth	D Block	2(F) 4(M) 5(T-W)	MacDonald-Brennan, Elizabeth	VA S1	UA	22	22	22	22	VA	S1				1.385	26	26	26	26								
VA1001-05 VA Drawing I		Sartanowicz, Donna	B Block	1(R-F) 2(M,W)	Sartanowicz, Donna	VA S1	UA	22	22	22	22	VA	S1				1.385	26	26	26	26								
VA1201-01 VA Drawing II		MacDonald-Brennan, Elizabeth	F Block	4(W) 5(M,F) 6(R)	MacDonald-Brennan, Elizabeth	VA S2	UA	15	15	20	20	VA	S2	66		66	1.385	91	22	5	4	20	28	0.714					
VA1201-02 VA Drawing II		MacDonald-Brennan, Elizabeth	B Block	1(R-F) 2(M,W)	MacDonald-Brennan, Elizabeth	VA S2	UA	15	15	20	20	VA	S2				1.385	26	26	26	26								
VA2001-01 VA Painting I		Sartanowicz, Donna	C Block	3(M-W) 4(F)	Sartanowicz, Donna	VA S2	UA	20	20	20	20	VA	S2				1.385	26	26	26	26								
VA2001-02 VA Painting I		Sartanowicz, Donna	D Block	2(F) 4(M) 5(T-W)	Sartanowicz, Donna	VA S1	UA	20	20	20	20	VA	S1	20		20	1.385	28	28	20	2	4	8	28	0.286				
VA2001-01 VA Painting II		Sartanowicz, Donna	A Block	1(M-W) 2(R)	Sartanowicz, Donna	VA S2	UA	29	29	29	29	VA	S2	30		30	1.385	42	22	20	2	4	8	28	0.286				
VA3001-01 VA Sculptural Objects I		Magliathin, Andrew	A Block	1(M-W) 2(R)	Magliathin, Andrew	VA S1	UA	15	15	15	15	VA	S1	15		15	1.385	21	20	20	2	2	4	8	28	0.286			
VA3001-01 VA Sculptural Objects 2		Magliathin, Andrew	A Block	1(M-W) 2(R)	Magliathin, Andrew	VA S1	UA	0	0	15	15	VA	S1	15		15	1.385	21	20	20	2	2	4	8	28	0.286			
VA4001-01 VA Printmaking I		MacDonald-Brennan, Elizabeth	C Block	3(M-W) 4(F)	MacDonald-Brennan, Elizabeth	VA S1	UA	15	15	16	16	VA	S1				1.385	21	20	20	2	2	4	8	28	0.286			
VA4001-02 VA Printmaking I		MacDonald-Brennan, Elizabeth	G Block	4(T) 5(R) 6(M,F)	MacDonald-Brennan, Elizabeth	VA S2	UA	16	16	16	16	VA	S2				1.385	22	28	20	2	2	4	8	28	0.286			
VA4201-01 VA Printmaking II		MacDonald-Brennan, Elizabeth	C Block	3(M-W) 4(F)	MacDonald-Brennan, Elizabeth	VA S1	UA	1	1	16	16	VA	S1				1.385	22	28	20	2	2	4	8	28	0.286			
VA4201-02 VA Printmaking II		MacDonald-Brennan, Elizabeth	G Block	4(T) 5(R) 6(M,F)	MacDonald-Brennan, Elizabeth	VA S2	UA	1	1	16	16	VA	S2				1.385	22	28	20	2	2	4	8	28	0.286			
VA4800-01 VA Film as History/History as Film		Wheeler, Mark Mwosa, Thabo	B Block	1(R-F) 2(M,W)	Wheeler, Mark	SO	FY	UA	1	32	32	VA	FY				1.385	22	28	20	2	2	4	8	28	0.286			
VA5001-01 VA Ceramics I		Magliathin, Andrew	F Block	4(W) 5(M,F) 6(R)	Magliathin, Andrew	VA S2	UA	20	20	20	20	VA	S2				1.385	24	30	22	2	2	4	8	28	0.286			
VA5001-02 VA Ceramics I		Magliathin, Andrew	A Block	1(M-W) 2(R)	Magliathin, Andrew	VA S2	UA	20	20	20	20	VA	S2				1.385	24	30	22	2	2	4	8	28	0.286			
VA5001-03 VA Ceramics I		Magliathin, Andrew	E Block	3(F) 4(R) 6(T-W)	Magliathin, Andrew	VA S2	UA	21	20	20	20	VA	S2				1.385	24	30	22	2	2	4	8	28	0.286			
VA5001-04 VA Ceramics I		Magliathin, Andrew	E Block	3(F) 4(R) 6(T-W)	Magliathin, Andrew	VA S1	UA	21	20	20	20	VA	S1				1.385	24	30	22	2	2	4	8	28	0.286			
VA5001-05 VA Ceramics I		Magliathin, Andrew	F Block	4(W) 5(M,F) 6(R)	Magliathin, Andrew	VA S1	UA	21	20	20	20	VA	S1				1.385	24	30	22	2	2	4	8	28	0.286			
VA5101-01 VA Ceramics II		Magliathin, Andrew	B Block	1(R-F) 2(M,W)	Magliathin, Andrew	VA S1	UA	15	22	22	22	VA	S1	42		42	1.385	58	84	20	3	5	4	12	20	0.429			
VA5101-02 VA Ceramics II		Magliathin, Andrew	C Block	3(M-W) 4(F)	Magliathin, Andrew	VA S2	UA	16	22	22	22	VA	S2	17		17	1.385	24	30	22	2	2	4	8	28	0.286			
VA5201-01 VA Ceramics III		Magliathin, Andrew	B Block	1(R-F) 2(M,W)	Magliathin, Andrew	VA S1	UA	2	22	22	22	VA	S1				1.385	24	30	22	2	2	4	8	28	0.286			
VA5201-02 VA Ceramics III		Magliathin, Andrew	C Block	3(M-W) 4(F)	Magliathin, Andrew	VA S2	UA	4	22	22	22	VA	S2				1.385	24	30	22	2	2	4	8	28	0.286			
VA5301-01 VA Ceramics IV		Magliathin, Andrew	B Block	1(R-F) 2(M,W)	Magliathin, Andrew	VA S1	UA	0	22	22	22	VA	S1				1.385	24	30	22	2	2	4	8	28	0.286			
VA5301-02 VA Ceramics IV		Magliathin, Andrew	C Block	3(M-W) 4(F)	Magliathin, Andrew	VA S2	UA	2	22	22	22	VA	S2				1.385	24	30	22	2	2	4	8	28	0.286			

C. Utilization - Brookline High School

Dept. Description	P. Teacher	TrackID	Schedule	Name	Dept. Code	Num. Ckrs	Total	Max. Dept. ID	Term	Current Enrollment	Current Enrollment Multiplier	Projected Course Enrollment	Projected Course Enrollment Multiplier	No. of Sections	No. of Sections per Week	Sessions per Week	Periods per Week	Total Stations	Total Stations Required	Notes	
VA6001-01 VA Metals I	MacDonald-Brennan, Elizabeth	F Block	4(W)5(M)7 (6R)	MacDonald-Brennan, Elizabeth	VA S1	UA	16	16 VA	S1	35	32	48	1.385	4	4	16	12	28	0.571	0.429	Incl. VA6001 below
VA6001-02 VA Metals I	MacDonald-Brennan, Elizabeth	G Block	4(T)5(R) 6(M)F	MacDonald-Brennan, Elizabeth	VA S1	UA	16	16 VA	S1												Shared CR with VA6101-02
VA6001-03 VA Metals I	MacDonald-Brennan, Elizabeth	D Block	2(F)4(W)5(T)W	MacDonald-Brennan, Elizabeth	VA S2	UA	16	16 VA	S2												Shared CR with VA6101-03
VA6001-04 VA Metals I	MacDonald-Brennan, Elizabeth	C Block	3(M)W)4(F)	MacDonald-Brennan, Elizabeth	VA S2	UA	15	16 VA	S2												Shared CR with VA6101-04
VA6100-01 VA Draw For Understanding in Field Science	Sartanowicz, Donna	C Block	3(M)W)4(F)	Sartanowicz, Donna	VA S1	UA	16	25 VA	S1	35	32	48	1.385	4	4	16	12	28	0.571	0.429	Incl. VA6100 below
VA6100-02 VA Draw For Understanding in Field Science	Sartanowicz, Donna	D Block	2(F)4(W)5(T)W	Sartanowicz, Donna	VA S2	UA	7	20 VA	S2												Shared CR with SCI300-01
VA6101-01 VA Metals II	MacDonald-Brennan, Elizabeth	F Block	4(W)5(M)7 (6R)	MacDonald-Brennan, Elizabeth	VA S1	UA	3	16 VA	S1	25	11	35	1.385	2	1	4	8	28	0.286	0.143	Incl. in SCI300 above
VA6101-02 VA Metals II	MacDonald-Brennan, Elizabeth	G Block	4(T)5(R) 6(M)F	MacDonald-Brennan, Elizabeth	VA S1	UA	2	16 VA	S1												Shared CR with VA6001-02
VA6101-03 VA Metals II	MacDonald-Brennan, Elizabeth	D Block	2(F)4(W)5(T)W	MacDonald-Brennan, Elizabeth	VA S2	UA	0	16 VA	S2												Shared CR with VA6001-03
VA6101-04 VA Metals II	MacDonald-Brennan, Elizabeth	C Block	3(M)W)4(F)	MacDonald-Brennan, Elizabeth	VA S2	UA	1	16 VA	S2												Shared CR with VA6001-04
VA7001-01 VA Photography I	Lynn, Lori	C Block	3(M)W)4(F)	Lynn, Lori	VA S2	UA	20	20 VA	S2												Incl. in VA6100 Metals I above
VA7001-02 VA Photography I	Lynn, Lori	G Block	4(T)5(R) 6(M)F	Lynn, Lori	VA S1	UA	20	20 VA	S1												Shared CR with VA6001-01
VA7001-03 VA Photography I	Lynn, Lori	B Block	1(R)2(M)W	Lynn, Lori	VA S2	UA	20	20 VA	S2												Shared CR with VA6001-02
VA7001-04 VA Photography I	Lynn, Lori	C Block	3(M)W)4(F)	Lynn, Lori	VA S1	UA	20	20 VA	S1												Shared CR with VA6001-03
VA7001-05 VA Photography I	Lynn, Lori	F Block	4(W)5(M)7 (6R)	Lynn, Lori	VA S1	UA	20	20 VA	S1												Shared CR with VA6001-04
VA7001-06 VA Photography I	Lynn, Lori	E Block	3(F)4(R)6(T)W	Lynn, Lori	VA S2	UA	20	20 VA	S2												Incl. in VA6100 Metals I above
VA7101-01 VA Photography II	Lynn, Lori	A Block	1(M)W)2(R)	Lynn, Lori	VA S1	UA	16	18 VA	S1	60	60	83	1.385	5	5	20	20	28	0.714	0.714	Shared CR with VA7301-01
VA7301-01 VA Photography III	Lynn, Lori	A Block	1(M)W)2(R)	Lynn, Lori	VA S1	UA	0	0 VA	S1	16	16	22	1.385	2	2	8	8	28	0.286	0.286	Incl. VA7301 below

C. Utilization - Brookline High School

Dept. Description	P. Teacher	TrackID	Schedule	Name	Dept	Code	Num	Class	Total	Mbr	Dept ID	Term
VA8101-01 VA Animation I	Latimer, Eric	D Block	2(F)4(W) 5(T-W)	Latimer, Eric	VA	SZ	12	UA	12	16 VA	VA8201-01/ VA	S2
VA8101-02 VA Animation I	Latimer, Eric	C Block	3(M-W)4(F)	Latimer, Eric	VA	SZ	11	UA	11	16 VA	VA8101-02/ VA	S2
VA8101-03 VA Animation I	Latimer, Eric	C Block	3(M-W)4(F)	Latimer, Eric	VA	S1	15	UA	15	16 VA	VA8101-03/ VA	S1
VA8201-01 VA Animation II	Latimer, Eric	D Block	2(F)4(W) 5(T-W)	Latimer, Eric	VA	SZ	5	UA	5	16 VA	VA8201-01/ VA	S2
VA8201-02 VA Animation II	Latimer, Eric	C Block	3(M-W)4(F)	Latimer, Eric	VA	SZ	5	UA	5	16 VA	VA8101-02/ VA	S2
VA8201-03 VA Animation II	Latimer, Eric	C Block	3(M-W)4(F)	Latimer, Eric	VA	S1	1	UA	1	16 VA	VA8101-03/ VA	S1
VA8301-01 VA 3D Animation	Latimer, Eric	D Block	2(F)4(W) 5(T-W)	Latimer, Eric	VA	S1	16	UA	16	16 VA		S1
VA9000-01 VA Portfolio AP	Sartanowicz, Donna	G Block	4(T)5(R) 6(M,F)	Sartanowicz, Donna	VA	FY	15	UA	15	20 VA		FY
VA9101-01 VA Digital Design Studio I	Latimer, Eric	G Block	4(T)5(R) 6(M,F)	Latimer, Eric	VA	S2	11	UA	11	16 VA	VA9101-01/ CE9101/CE9	S2
VA9101-02 VA Digital Design Studio I	Latimer, Eric	E Block	3(F)4(R) 6(T-W)	Latimer, Eric	VA	S2	10	UA	10	16 VA	VA9101-02/ CE9101/CE9	S2
VA9201-01 VA Digital Design Studio II	Latimer, Eric	G Block	4(T)5(R) 6(M,F)	Latimer, Eric	VA	S2	2	UA	2	16 VA	VA9201-01/ CE9101/CE9	S2
VA9201-02 VA Digital Design Studio II	Latimer, Eric	E Block	3(F)4(R) 6(T-W)	Latimer, Eric	VA	S2	3	UA	3	16 VA	VA9201-02/ CE9101/CE9	S2
VA9300-01 VA Adv Draw/Paint	Sartanowicz, Donna	F Block	4(W)5(M,F) 6(R)	Sartanowicz, Donna	VA	FY	10	UA	10	20 VA		FY
VA9310-01 VA Digital Video I	Mwosa, Thabo	D Block	2(F)4(W) 5(T-W)	Mwosa, Thabo	VA	S1	8	UA	8	16 VA	VA9310-01/ CE9310/CE9	S1
VA9310-02 VA Digital Video I	Mwosa, Thabo	A Block	1(M-W) 2(R)	Mwosa, Thabo	VA	S2	10	UA	10	16 VA	CE9310-02/ CE9310/CE9	S2
VA9310-03 VA Digital Video I	Mwosa, Thabo	F Block	4(W)5(M,F) 6(R)	Mwosa, Thabo	VA	S2	13	UA	13	16 VA	VA9310-03/ VA9320-03	S2

Current Course Enroll '21	Current Course Enroll '22	Enrollment Increase per year	Projected Course Enroll '21	Projected Course Enroll '22	Max Students per Section	No. of Sections '21	No. of Sections '22	No. of Sessions per week	Sessions per week '21	Sessions per week '22	Total Stations Req. per Week '21	Total Stations Required '22	Notes
	33	1,385		1,385	46		22	4		12		28	Shared CR with VA8201-01
													Shared CR with VA8201-02
													0.429 Includes VA8201-01, VA8201-02
													Shared CR with VA8201-03
16		1,385	22	22	22	2	2	4	8	8	28	0.286	Includes VA8201-03
													Shared CR with VA8101-01
													Shared CR with VA8101-02
													Incl. in Animation 1 above
													Shared CR with VA8101-03
													Incl. in VA8101-03
16		1,385	22	22	16	2	2	4	8	8	28	0.286	
15	15	1,385	21	21	21	2	2	4	8	8	28	0.286	Shared CR with VA9201-01, CE9101, CE9201-01
													Shared CR with VA9201-02, CE9101, CE9201-02
													Included in CE9101 above
													Shared CR with VA9201-01, CE9101, CE9201-01
													Shared CR with VA9201-02, CE9101, CE9201-02
													Incl. in CE9101 above
10	10	1,385	14	14	14	1	1	4	4	4	28	0.143	Shared CR with CE9310-01, CE9320-01, VA9320-01
													VA9320
													Shared CR with CE9310-02, CE9320-02, VA9320-02
15		1,385	21	21	16	2	2	4	8	8	28	0.286	Incl. CE9310, CE9320
													Shared CR with CE9310-03, CE9320-03, VA9320-03
													Incl. in CE9310 above

C. Utilization - Brookline High School

Dept. Description	P	Teacher	TrackID	Schedule	Name	Dept. Code	Num	Class	Total	Max	Depth	Term	Current Course Enroll S1	Current Course Enroll S2	Enrollment Increase S2 Multiple	Projected Course Enroll S1	Projected Course Enroll S2	Max Students per Section	No. of Sections S1	No. of Sections S2	No. of Sessions per week	Sessions per week S1	Sessions per week S2	Periods per Week S1	Total Stations Req. per Week S1	Total Stations Required S2	Notes					
VA9320-01 VA Digital Video II		Mwosa, Thabo	D Block	2(F)4(W)W	5(T-Mwosa, Thabo)	VA	SI	UA	0	0	0	VA	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
VA9320-02 VA Digital Video II		Mwosa, Thabo	A Block	1(M-W)2(R)	Mwosa, Thabo	VA	S2	UA	1	0	0	VA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		Incl. in CE9310 above Shared CR with CE9310-02, CE9320-02, VA9320-03, CE9320-03, VA9310-03			
VA9320-03 VA Digital Video II		Mwosa, Thabo	F Block	4(W)5(M-F)6(R)	Mwosa, Thabo	VA	S2	UA	0	0	0	VA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		Incl. in CE9310 above Shared CR with VA9411-01		
VA9401-01 VA Comic Books 101		Latimer, Eric	E Block	3(F)4(R)6(T-W)	Latimer, Eric	VA	S1	UA	16	16	16	VA	16	16	16	0	0	0	0	0	0	0	0	0	0	0	0	0		Incl. in VA9411 below Shared CR with VA9401-01		
VA9411-01 VA Comic Books 102		Latimer, Eric	E Block	3(F)4(R)6(T-W)	Latimer, Eric	VA	S1	UA	0	0	0	VA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		Incl. in VA9411 above Shared CR with CE9800-01, CE9900-01, VA9900-01		
VA9800-01 VA TV Production 101		Mwosa, Thabo	A Block	1(M-W)2(R)	Mwosa, Thabo	VA	S1	UA	11	11	11	VA	11	11	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0		Included in CE9800 Shared CR with CE9310-02, CE9320-02, VA9320-02	
VA9800-02 VA TV Production 101		Mwosa, Thabo	D Block	2(F)4(W)5(T-W)	Mwosa, Thabo	VA	S2	UA	10	10	10	VA	10	10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0		Included in CE9800 Shared CR with CE9800-01, CE9900-01, VA9800-01	
VA9900-01 VA TV Production 102		Mwosa, Thabo	A Block	1(M-W)2(R)	Mwosa, Thabo	VA	S1	UA	0	0	0	VA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		Included in CE9800 Shared CR with CE9800-01, CE9900-01, VA9900-01	
VA9900-02 VA TV Production 102		Mwosa, Thabo	D Block	2(F)4(W)5(T-W)	Mwosa, Thabo	VA	S2	UA	0	0	0	VA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		Included in CE9800 above	
VISUAL ARTS SUBTOTAL																																
VISUAL ARTS SUBTOTAL AT 85% UTILIZATION																																
VP2000-01 Oth Peer Leadership Full Year		Minott, Mary	Z Block	Z(M-F)	Minott, Mary	CE	FY	143	143	20	50	Oth	VP2000/VP2001																			
VP2000-02 Oth Peer Leadership Full Year		Minott, Mary	Z Block	Z(M-F)	Minott, Mary	CE	FY	384	384	11	50	Oth	VP2000/VP2001																			
VP2001-01 Oth Peer Leadership Semester1		Minott, Mary	Z Block	Z(M-F)	Minott, Mary	CE	S1	143	143	6	10	Oth	VP2000/VP2001																			
VP2001-02 Oth Peer Leadership Semester1		Minott, Mary	Z Block	Z(M-F)	Minott, Mary	CE	S1	384	384	5	10	Oth	VP2000/VP2001																			
VP2002-01 Oth Peer Leadership Semester2		Minott, Mary	Z Block	Z(M-F)	Minott, Mary	CE	S2	103	103	0	10	Oth																				
PEER LEADERSHIP SUBTOTAL																																
PEER LEADERSHIP SUBTOTAL AT 85% UTILIZATION																																

C. Utilization - Brookline High School

Dept. Description	P Teacher	Track/ID	Schedule	Name	Dept. Code	Num. Cls	Trn	Total	Max. Dept. ID	Term	Current Course Enroll S1	Enrollment Increase S2	Projected Course Enroll S1	Projected Course Enroll S2	Max. Per Section	No. of Sections S1	No. of Sections S2	No. of Sections per week	Sessions per week S1	Sessions per week S2	Periods per Week S1	Total Stations Req. S1	Total Stations Req. S2	Notes		
WL0100-01 WL Chinese I	Shorter, Lihua; Chang, Fu-Tsang	G Block	4(T) 5(R) 6(M) F	Shorter, Lihua	WL FY	200	200	26	26 WL	FY	26	26	36	36	36	2	2	2	4	8	8	28	0.286	0.286	Shared CR with WL0230-01	
WL0200-01 WL Chinese II	Chang, Fu-Tsang	C Block	3(M-W) 4(F)	Chang, Fu-Tsang	WL FY	246	246	11	12 WL WL0230-01/ WL0200/ WL0	FY															Shared CR with WL0200-02	
WL0200-02 WL Chinese II	Shorter, Lihua	A Block	1(M-W) 2(R)	Shorter, Lihua	WL FY	235	235	11	12 WL WL0230-02/ WL0200/ WL0	FY																
WL0230-01 WL Chinese II H	Chang, Fu-Tsang	C Block	3(M-W) 4(F)	Chang, Fu-Tsang	WL FY	246	246	13	13 WL WL0230-01/ WL0200/ WL0	FY	47	1,385	65	65	65	3	3	3	4	12	12	28	0.429	0.429	Incl. WL0230 below Shared CR with WL0200-01	
WL0230-02 WL Chinese II H	Shorter, Lihua	A Block	1(M-W) 2(R)	Shorter, Lihua	WL FY	235	235	12	13 WL WL0230-02/ WL0200/ WL0	FY																
WL0300-01 WL Chinese III	Chang, Fu-Tsang	A Block	1(M-W) 2(R)	Chang, Fu-Tsang	WL FY	200	200	4	7 WL WL0300-01/ WL0300/ WL0	FY																Incl. in WL0200 above Shared CR with WL0330-01
WL0300-02 WL Chinese III	Chang, Fu-Tsang	D Block	2(F) 4(M) 5(T-W)	Chang, Fu-Tsang	WL FY	200	200	4	7 WL WL0300-02/ WL0300/ WL0	FY																
WL0330-01 WL Chinese III H	Chang, Fu-Tsang	A Block	1(M-W) 2(R)	Chang, Fu-Tsang	WL FY	200	200	15	16 WL WL0300-01/ WL0300/ WL0	FY	41	1,385	57	57	57	3	3	3	4	12	12	28	0.429	0.429	Incl. WL0330 below Shared CR with WL0300-01	
WL0330-02 WL Chinese III H	Chang, Fu-Tsang	D Block	2(F) 4(M) 5(T-W)	Chang, Fu-Tsang	WL FY	200	200	18	16 WL WL0300-02/ WL0300/ WL0	FY																
WL0400-01 WL Chinese IV	Shorter, Lihua	C Block	3(M-W) 4(F)	Shorter, Lihua	WL FY	200	200	3	5 WL WL0400-01/ WL0400/ WL0	FY																Incl. in WL0300 above Shared CR with WL0430-01
WL0400-02 WL Chinese IV	Shorter, Lihua	E Block	3(F) 4(R) 6(T-W)	Shorter, Lihua	WL FY	200	200	4	5 WL WL0400-02/ WL0400/ WL0	FY																
WL0430-01 WL Chinese IV H	Shorter, Lihua	C Block	3(M-W) 4(F)	Shorter, Lihua	WL FY	200	200	20	20 WL WL0430-01/ WL0400/ WL0	FY																
WL0430-02 WL Chinese IV H	Shorter, Lihua	E Block	3(F) 4(R) 6(T-W)	Shorter, Lihua	WL FY	200	200	20	20 WL WL0400-02/ WL0400/ WL0	FY																
WL0500-01 WL Chinese V	Chang, Fu-Tsang; Shorter, Lihua	F Block	4(W) 5(M) 6(R)	Chang, Fu-Tsang	WL FY	200	200	0	2 WL WL0540-01/ WL0500/ WL0	FY	47	1,385	65	65	65	3	3	3	4	12	12	28	0.429	0.429	Incl. WL4300 below Shared CR with WL0400-01	
WL0530-01 WL Chinese V H	Chang, Fu-Tsang; Shorter, Lihua	F Block	4(W) 5(M) 6(R)	Chang, Fu-Tsang	WL FY	200	200	3	4 WL WL0540-01/ WL0500/ WL0	FY	23	1,385	32	32	32	2	2	2	4	8	8	28	0.286	0.286	Included in WL0500 above Shared w/ WL0500-01, WL0540-01	
WL0540-01 WL AP/Chinese	Chang, Fu-Tsang; Shorter, Lihua	F Block	4(W) 5(M) 6(R)	Chang, Fu-Tsang	WL FY	200	200	22	22 WL WL0540-01/ WL0500/ WL0	FY																
WL1100-01 WL French I	Gurry, Laura	G Block	4(T) 5(R) 6(M) F	Gurry, Laura	WL FY	344	344	19	18 WL	FY																
WL1100-02 WL French I	Gurry, Laura	D Block	2(F) 4(M) 5(T-W)	Gurry, Laura	WL FY	344	344	19	18 WL	FY																
WL1200-01 WL French II	Putnam, Dean	D Block	2(F) 4(M) 5(T-W)	Putnam, Dean	WL FY	238	238	20	25 WL	FY	38	38	53	53	53	3	3	3	4	12	12	28	0.429	0.429		
WL1230-01 WL French II H	Putnam, Dean	F Block	4(W) 5(M) 6(R)	Putnam, Dean	WL FY	238	238	17	26 WL	FY	20	20	28	28	28	2	2	2	4	8	8	28	0.286	0.286		
WL1230-02 WL French II H	Putnam, Dean	G Block	4(T) 5(R) 6(M) F	Putnam, Dean	WL FY	231	231	19	26 WL	FY																
WL1240-01 WL French II Adv	Davis, Elizabeth	D Block	2(F) 4(M) 5(T-W)	Davis, Elizabeth	WL FY	206	206	26	27 WL	FY	36	36	50	50	50	2	2	2	4	8	8	28	0.286	0.286		
WL1320-01 WL French III	Putnam, Dean	A Block	1(M-W) 2(R)	Putnam, Dean	WL FY	231	231	17	26 WL	FY	26	26	36	36	36	2	2	2	4	8	8	28	0.286	0.286		
WL1330-01 WL French III H	Davis, Elizabeth	F Block	4(W) 5(M) 6(R)	Davis, Elizabeth	WL FY	206	206	25	29 WL	FY	17	17	24	24	24	1	1	1	4	4	4	28	0.143	0.143		
WL1340-01 WL French III Adv	Gurry, Laura	C Block	3(M-W) 4(F)	Gurry, Laura	WL FY	344	344	22	25 WL	FY	25	25	35	35	35	2	2	2	4	8	8	28	0.286	0.286		
WL1340-02 WL French III Adv	Gurry, Laura	E Block	3(F) 4(R) 6(T-W)	Gurry, Laura	WL FY	344	344	23	25 WL	FY	45	45	62	62	62	3	3	3	4	12	12	28	0.429	0.429		

C. Utilization - Brookline High School

Dept Description	P Teacher	TrasID	Schedule	Name	Dept Code	Num	Class	Total	Max	Dept ID	Term
WL1420-01 WL French 4 Through Film	Gonyer, Dominique	E Block	3(F)4(R)6(T-W)	Gonyer, Dominique	WL FY	214	214	14	15	WL1420-01/ WL1420/ WL1	FY
WL1420-02 WL French 4 Through Film	Gonyer, Dominique	D Block	2(F)4(M)5(T-W)	Gonyer, Dominique	WL FY	214	214	14	15	WL1420-02/ WL1420/ WL1	FY
WL1430-01 WL French IV H	Kimball, Andrew	E Block	3(F)4(R)6(T-W)	Kimball, Andrew	WL FY	206	206	21	25	WL	FY
WL1440-01 WL French IV Adv	Butchart, Scott	B Block	1(R-F)2(M-W)	Butchart, Scott	WL FY	206	206	24	28	WL	FY
WL1520-01 WL French V Through Film	Gonyer, Dominique	E Block	3(F)4(R)6(T-W)	Gonyer, Dominique	WL FY	214	214	7	8	WL1520-01/ WL1420/ WL1	FY
WL1520-02 WL French V Through Film	Gonyer, Dominique	D Block	2(F)4(M)5(T-W)	Gonyer, Dominique	WL FY	214	214	6	8	WL1520-02/ WL1420/ WL1	FY
WL1530-01 WL French V H	Aberola, Agnes	A Block	1(M-W)2(R)	Aberola, Agnes	WL FY	208	208	5	7	WL1540-01/ WL1530/ WL1	FY
WL1540-01 WL AP French	Aberola, Agnes	A Block	1(M-W)2(R)	Aberola, Agnes	WL FY	208	208	22	21	WL1540-01/ WL1530/ WL1	FY
WL1300-01 WL Latin I	Williams, Elsha	B Block	1(R-F)2(M-W)	Williams, Elsha	WL FY	208	208	25	25	WL	FY
WL1300-02 WL Latin I	Williams, Elsha	D Block	2(F)4(M)5(T-W)	Williams, Elsha	WL FY	208	208	24	25	WL	FY
WL1300-03 WL Latin I	Williams, Elsha	C Block	3(M-W)4(F)	Williams, Elsha	WL FY	208	208	24	25	WL	FY
WL3220-01 WL Latin II	Tosa, Dygo	E Block	3(F)4(R)6(T-W)	Tosa, Dygo	WL FY	209	209	3	3	WL3220-01/ WL3220/ WL3	FY
WL3220-02 WL Latin II	Tosa, Dygo	C Block	3(M-W)4(F)	Tosa, Dygo	WL FY	209	209	2	3	WL3220-02/ WL3220/ WL3	FY
WL3230-01 WL Latin III H	Tosa, Dygo	E Block	3(F)4(R)6(T-W)	Tosa, Dygo	WL FY	209	209	23	24	WL3230-01/ WL3220/ WL3	FY
WL3230-02 WL Latin III H	Tosa, Dygo	C Block	3(M-W)4(F)	Tosa, Dygo	WL FY	209	209	26	24	WL3230-02/ WL3220/ WL3	FY
WL3320-01 WL Latin III	Tosa, Dygo	A Block	1(M-W)2(R)	Tosa, Dygo	WL FY	209	209	3	4	WL3320-01/ WL3320/ WL3	FY
WL3320-02 WL Latin III	Tosa, Dygo	D Block	2(F)4(M)5(T-W)	Tosa, Dygo	WL FY	209	209	1	4	WL3320-02/ WL3320/ WL3	FY
WL3330-01 WL Latin III H	Tosa, Dygo	A Block	1(M-W)2(R)	Tosa, Dygo	WL FY	209	209	20	18	WL3330-01/ WL3320/ WL3	FY
WL3330-02 WL Latin III H	Tosa, Dygo	D Block	2(F)4(M)5(T-W)	Tosa, Dygo	WL FY	209	209	21	18	WL3330-02/ WL3320/ WL3	FY
WL3420-01 WL Latin IV	Williams, Elsha	E Block	3(F)4(R)6(T-W)	Williams, Elsha	WL FY	208	208	0	2	WL3420-01/ WL3420/ WL3	FY
WL3430-01 WL Latin IV H	Williams, Elsha	E Block	3(F)4(R)6(T-W)	Williams, Elsha	WL FY	208	208	11	15	WL3430-01/ WL3420/ WL3	FY
WL3520-01 WL Latin V	Williams, Elsha	E Block	3(F)4(R)6(T-W)	Williams, Elsha	WL FY	208	208	0	1	WL3540-01/ WL3420/ WL3	FY
WL3530-01 WL Latin V H	Williams, Elsha	E Block	3(F)4(R)6(T-W)	Williams, Elsha	WL FY	208	208	0	1	WL3540-01/ WL3420/ WL3	FY

C. Utilization - Brookline High School

Dept. Description	P Teacher	TrackID	Schedule	Name	Dept. Code	Num. Cls	Total	Max	Dept. ID	Term	Current Enroll S1	Enrollment Multiplier	Projected Course Enroll S1	Projected Course Enroll S2	Make Students per Section	No. of Sections S1	No. of Sections S2	No. of Sections per week	Sessions per week S1	Sessions per week S2	Periods per Week	Total Stations per Week S1	Total Stations per Week S2	Notes																					
WL4504-01 WL AP Spanish Lang and Culture	Magninis, Emily	C Block	3(M-W) 4(F)	Magninis, Emily	WL FY	347	347	23	25 WL	FY	58	1.385	80	80	25	4	4	4	16	16	28	0.571	0.571	Shared CR with WL6630-01, CE5550-01, CE5551-01. Incl. in CE5550-01																					
WL4504-02 WL AP Spanish Lang and Culture	Magninis, Emily	E Block	3(F) 4(R) 6(T-W)	Magninis, Emily	WL FY	347	347	19	25 WL	FY																																			
WL4504-03 WL AP Spanish Lang and Culture	Rodriguez, Jani	D Block	2(F) 4(M) 5(T-W)	Rodriguez, Jani	WL FY	236	236	16	25 WL	FY																																			
WL4630-01 WL Medical Interpretation & Translation Spanish H	Fuentes-Rodriguez, Maria	D Block	2(F) 4(M) 5(T-W)	Fuentes-Rodriguez, Maria	WL FY	235	235	10	20 WL CE5550/ CE5	FY	58	1.385	80	80	25	4	4	4	16	16	28	0.571	0.571	Shared CR with WL6630-01, CE5550-01, CE5551-01. Incl. in CE5550-01																					
WL5100-01 WL Japanese I	Eio, Rachel	F Block	4(W) 5(W) 6(R)	Eio, Rachel	WL FY	246	246	30	28 WL	FY																																			
WL5100-02 WL Japanese I	Eio, Rachel	G Block	4(T) 5(R) 6(M-F)	Eio, Rachel	WL FY	246	246	28	28 WL	FY	58	1.385	80	80	25	4	4	4	16	16	28	0.571	0.571	ED Plan max. is 25. Shared CR with WL5200-01																					
WL5200-01 WL Japanese II	Eio, Rachel	E Block	3(F) 4(R) 6(T-W)	Eio, Rachel	WL FY	246	246	4	7 WL WL5200/ WL5	FY																																			
WL5200-02 WL Japanese II	Shapiro, Fukuko	A Block	1(M-W) 2(R)	Shapiro, Fukuko	WL FY	246	246	7	7 WL WL5200-02/WL5200/ WL5	FY																																			
WL5200-03 WL Japanese II	Shapiro, Fukuko	E Block	3(F) 4(R) 6(T-W)	Eio, Rachel	WL FY	246	246	21	18 WL WL5200-01/ WL5200/ WL5	FY	48	1.385	66	66	25	3	3	4	12	12	28	0.429	0.429	Includes WL5200 below																					
WL5300-01 WL Japanese III	Eio, Rachel	D Block	2(F) 4(M) 5(T-W)	Eio, Rachel	WL FY	246	246	4	6 WL WL5300-01/ WL5300/ WL5	FY																																			
WL5300-02 WL Japanese III	Shapiro, Fukuko	A Block	1(M-W) 2(R)	Shapiro, Fukuko	WL FY	246	246	16	18 WL WL5200-02/ WL5200/ WL5	FY																																			
WL5300-03 WL Japanese III	Eio, Rachel	D Block	2(F) 4(M) 5(T-W)	Eio, Rachel	WL FY	246	246	11	15 WL WL5300-01/ WL5300/ WL5	FY	15	1.385	21	21	25	1	1	4	4	4	28	0.143	0.143	Incl. in WL5200 above. Shared CR with WL5330-01																					
WL5300-04 WL Japanese III	Eio, Rachel	D Block	2(F) 4(M) 5(T-W)	Eio, Rachel	WL FY	246	246	11	15 WL WL5300-01/ WL5300/ WL5	FY	15	1.385	21	21	25	1	1	4	4	4	28	0.143	0.143	Incl. WL5330 below. Shared CR with WL5300-01																					
WL5400-01 WL Japanese IV	Shapiro, Fukuko	B Block	1(R-F) 2(M-W)	Shapiro, Fukuko	WL FY	246	246	3	4 WL WL5400-01/WL5400/ WL5	FY	18	1.385	25	25	25	1	1	4	4	4	28	0.143	0.143	Incl. in WL5300 above. Shared CR with WL5430-01, WL5440-01																					
WL5400-02 WL Japanese IV	Shapiro, Fukuko	B Block	1(R-F) 2(M-W)	Shapiro, Fukuko	WL FY	246	246	3	4 WL WL5400-01/WL5400/ WL5	FY																																			
WL5400-03 WL AP Japanese	Shapiro, Fukuko	B Block	1(R-F) 2(M-W)	Shapiro, Fukuko	WL FY	246	246	12	15 WL WL5400-03/WL5400/ WL5	FY																																			
WL6630-01 WL Medical Interpretation & Translation Portuguese H	Fuentes-Rodriguez, Maria	D Block	2(F) 4(M) 5(T-W)	Fuentes-Rodriguez, Maria	WL FY	235	235	0	20 WL WL6630-01/CE5550/CE5	FY																																			
WORLD LANGUAGE SUBTOTAL																							16.286	16.286																					
WORLD LANGUAGE SUBTOTAL AT 85% UTILIZATION																							19.160	19.160																					

C. Utilization - Brookline High School

Dept./Description	P	Teacher	TrackID	Schedule	Name	Dept.	Code	Num	Clstr	Total	Max	Dept./ID	Term	Current Course Enroll S1	Current Course Enroll S2	Enrollment Increase Multiplier	Projected Course Enroll S1	Projected Course Enroll S2	Max Students per Section	No. of Sections S1	No. of Sections S2	No. of Sections per week	Sessions per week S1	Sessions per week S2	Periods per week	Total Stations Req. S1	Total Stations Req. S2	Notes			
AD2010-01 SP Advisory		Vendola, Joslyn		AdvM-W/F	Vendola, Joslyn	SP				6	25	FY																			
AD2010-02 SP Advisory		Beaulieu-Jones, Kyle		AdvM-W/F	Beaulieu-Jones, Kyle	SP				6	25	FY																			
AD2010-03 SP Advisory		Schreckengast, Amanda		AdvM-W/F	Schreckengast, Amanda	SC				4	25	FY																			
AD2010-04 SP Advisory		Kornell, Sarah		AdvM-W/F	Kornell, Sarah	EN				4	25	FY																			
CE22EX-01 SP Forensics		Schreckengast, Amanda	B Block	8 Block(M,W,F)	Schreckengast, Amanda	SC	S1			6	25	S1		20	20	1.385	28	28	12	3	3	4	12	12	4	4	3,000	3,000			
CE22EX-02 SP Forensics		Schreckengast, Amanda	B Block	8 Block(M,W,F)	Schreckengast, Amanda	SC	S2			0	25	S2																			
EN2100-01 SP English I		Kornell, Sarah	Subject 2	Acad Blk 2(M,F)	Kornell, Sarah	EN	Cycle 2/ Cycle 4			6	25	Cycle 2/ Cycle 4		6	0	1.385	8	0	12	1	0	4	4	0	17	0.235	0.235	0.000			
EN2200-01 SP English II		Kornell, Sarah	Subject 1	Acad Blk 1(M,F)	Kornell, Sarah	EN	Cycle 2/ Cycle 4			3	25	Cycle 2/ Cycle 4		6	1.385	8	12	8	12	5	1	5	5	5	17	0.294	0.294				
EN2210-01 SP English III		Kornell, Sarah	Subject 2	Acad Blk 2(M,F)	Kornell, Sarah	EN	Cycle 1/ Cycle 3			6	25	Cycle 1/ Cycle 3		3	1.385	4	12	4	12	1	1	5	5	5	17	0.294	0.294				
EN2300-01 SP Senior English		Kornell, Sarah	Subject 1	Acad Blk 1(M,F)	Kornell, Sarah	EN	Cycle 1/ Cycle 3			5	25	Cycle 1/ Cycle 3		6	1.385	8	12	8	12	1	1	5	5	5	17	0.294	0.294				
MA2800-01 SP Math I		Vendola, Joslyn	Subject 1	Acad Blk 1(M,F)	Vendola, Joslyn	SP	Cycle 1/ Cycle 3			6	25	Cycle 1/ Cycle 3		5	1.385	7	12	7	12	1	1	5	5	5	17	0.294	0.294				
MA2810-01 SP Math II		Vendola, Joslyn	Subject 2	Acad Blk 2(M,F)	Vendola, Joslyn	SP	Cycle 1/ Cycle 3			3	25	Cycle 1/ Cycle 3		6	1.385	8	12	8	12	1	1	5	5	5	17	0.294	0.294				
MA2810-02 SP Math II		Vendola, Joslyn	Subject 2	Acad Blk 2(M,F)	Vendola, Joslyn	SP	Cycle 2/ Cycle 4			6	10	Cycle 2/ Cycle 4																			
MA2910-01 SP Math IV		Vendola, Joslyn	Subject 1	Acad Blk 1(M,F)	Vendola, Joslyn	SP	Cycle 2/ Cycle 4			3	25	Cycle 2/ Cycle 4		3	6	1.385	4	8	12	1	1	4	4	4	17	0.235	0.235				
SC1050-01 SP Applied Science I		Schreckengast, Amanda	Subject 2	Acad Blk 2(M,F)	Schreckengast, Amanda	SC	Cycle 2/ Cycle 4			0	25	Cycle 2/ Cycle 4		5	1.385	7	12	7	12	1	1	5	5	5	17	0.294	0.294				
SC1050-02 SP Applied Science I		Schreckengast, Amanda	Subject 2	Acad Blk 2(M,F)	Schreckengast, Amanda	SC	Cycle 2/ Cycle 4			3	10	Cycle 2/ Cycle 4																			
SC2050-01 SP Applied Science II		Schreckengast, Amanda	Subject 1	Acad Blk 1(M,F)	Schreckengast, Amanda	SC	Cycle 1/ Cycle 3			6	25	Cycle 1/ Cycle 3		3	1.385	4	12	4	12	1	1	5	5	5	17	0.294	0.294				
SC2050-02 SP Applied Science II		Schreckengast, Amanda	Subject 2	Acad Blk 2(M,F)	Schreckengast, Amanda	SC	Cycle 2/ Cycle 4			0	10	Cycle 2/ Cycle 4		6	0	1.385	8	0	12	1	0	4	4	0	17	0.235	0.000				
SC2250-01 SP Physics I		Schreckengast, Amanda	Subject 1	Acad Blk 1(M,F)	Schreckengast, Amanda	SC	Cycle 2/ Cycle 4			6	25	Cycle 2/ Cycle 4		6	0	1.385	8	0	12	1	0	4	4	0	17	0.235	0.000				
SC2280-01 SP Environmental Science		Schreckengast, Amanda	Subject 2	Acad Blk 2(M,F)	Schreckengast, Amanda	SC	Cycle 1/ Cycle 3			5	15	Cycle 1/ Cycle 3		5	1.385	7	12	7	12	1	1	5	5	5	17	0.294	0.294				

C. Utilization - Brookline High School

Dept. Description	P Teacher	TrackID	Schedule	Name	Dept. Code	Num C	Classr	Total	Max. Dept.	Current Course Enrollment	Current Term Enrollment	Enrollment Multiplier	Projected Course Enrollment	Projected Course Enrollment	No. of Sections per week	No. of Sections per week	Sections per week	Sections per week	Total Stations per Week	Total Stations per Week	NOBS
SP	World History I	SO2500-01	Acad Bk 2(M-F)	Beaulieu-Jones, Kyle	SP	6	25	SP	Cycle 1/ Cycle 3	6	1,385	8	5	17	0.294						
SP	World History II	SO2600-01	Acad Bk 1(M-F)	Beaulieu-Jones, Kyle	SP	3	25	SP	Cycle 1/ Cycle 3												
SP	World History II	SO2600-02	Acad Bk 2(M-F)	Beaulieu-Jones, Kyle	SP	6	10	SP	Cycle 2/ Cycle 4	3	6	1,385	4	17	0.235						
SP	US History II	SO2800-01	Acad Bk 2(M-F)	Beaulieu-Jones, Kyle	SP	5	25	SP	Cycle 2/ Cycle 4	5	1,385	7	5	17	0.294						
SP	Tutorial E	TU220-01	E Block(T-W)	Beaulieu-Jones, Kyle	FY	7	25	SP	FY												
SP	Tutorial E	TU220-02	E Block(T-W)	Schreckengast, Ananda	SC	6	25	SP	FY												
SP	Tutorial E	TU220-03	E Block(T-W)	Kornell, Sarah	EN	7	25	SP	FY	20	20	1,385	28	28	17	0.706					
SP	Learning Center E	TU222-01	F Block	Vendola, Joslyn	SP	0	10	SP	Q2	0	0	1,385	0	0	17	0.000					
SP	Film and Fiction	VA22EX-01	B Block	Kornell, Sarah	EN	7	25	SP	S1	0	0										
SP	Film and Fiction	VA22EX-02	B Block	Kornell, Sarah	EN	0	25	SP	S2	7	0										
EXCEL SUBTOTAL																					
EXCEL SUBTOTAL AT 85% UTILIZATION																					
Special Education																					
Subtotal by Department																					
From Master Schedule - two different classes meet together																					
When classes meet together, total student enrollment is combined and included in totals for class indicated in Notes column.																					
Class scheduled during Z-period. Utilization not included in total for department.																					
Class shares classroom with classes scheduled during the school day.																					
<p>3.118 2,941</p> <p>3.668 3,460</p>																					

Appendices

C. Utilization

9th Grade Academy Utilization

C. Utilization - 9th Grade Academy

Dept. Description	P. Teacher	TrackID	Schedule	Name	Dept. Code	Num. Class	Total	Max Dept. ID	Term	Current Course Enroll	Enroll Multiplier	Projected Course Enroll	Max Students per Section	No. of Sections	No. of Sessions per week	Sessions per wk per class	Periods per wk	Total Stations Req. SZ	Notes	
CO8000-01 SP Speech and Language Direct Service 1	Albert, Laura	A(M)	3(W)	Albert, Laura	SP	FY	126 126	3 10 SP	FY	6	0.346	2	2	10	1	1	1	28	0.036	Small number of students w/specialist
CO8000-02 SP Speech and Language Direct Service 1	Albert, Laura	A(T)	1(T)	Albert, Laura	SP	FY	126 126	1 10 SP	FY											
CO8000-03 SP Speech and Language Direct Service 1	Albert, Laura	B(M)	2(W)	Albert, Laura	SP	FY	126 126	2 10 SP	FY											
CO8001-01 SP Speech and Language Direct Service 2	Albert, Laura	A(R)	2(R)	Albert, Laura	SP	FY	126 126	3 10 SP	FY											
CO8001-02 SP Speech and Language Direct Service 2	Albert, Laura	B(W)	2(W)	Albert, Laura	SP	FY	126 126	2 10 SP	FY											
CO8001-03 SP Speech and Language Direct Service 2	Albert, Laura	C(M)	3(W)	Albert, Laura	SP	FY	126 126	0 10 SP	FY											
CO8001-04 SP Speech and Language Direct Service 2	Stevens, Shelley	C(F)	4(F)	Stevens, Shelley	SP	FY	126 126	0 10 SP	FY											
CO8002-01 SP Speech and Language Direct Service 3	Albert, Laura	C(T)	3(T)	Albert, Laura	SP	FY	126 126	1 10 SP	FY	5	0.346	2	2	10	1	1	1	28	0.036	Small number of students w/specialist
CO8002-02 SP Speech and Language Direct Service 3	Albert, Laura	C(W)	3(W)	Albert, Laura	SP	FY	126 126	0 10 SP	FY											
CO8002-03 SP Speech and Language Direct Service 3	Stevens, Shelley	C(M)	3(W)	Stevens, Shelley	SP	FY	126 126	0 10 SP	FY											
CO8002-04 SP Speech and Language Direct Service 3	Stevens, Shelley	A(T)	1(T)	Stevens, Shelley	SP	FY	126 126	2 10 SP	FY											
CO8002-05 SP Speech and Language Direct Service 3	Stevens, Shelley	B(W)	2(W)	Stevens, Shelley	SP	FY	126 126	2 10 SP	FY											
CO8002-06 SP Speech and Language Direct Service 3	Stevens, Shelley	G(R)	5(R)	Stevens, Shelley	SP	FY	126 126	1 10 SP	FY											
CO8010-01 SP Social Language Group	Albert, Laura	D(M)	4(W)	Albert, Laura	SP	FY	126 126	2 10 SP	FY	6	0.346	2	2	10	1	1	1	28	0.036	Small number of students w/specialist
CO8010-02 SP Social Language Group	Albert, Laura	D(T)	5(T)	Albert, Laura	SP	FY	126 126	3 10 SP	FY											
CO8010-03 SP Social Language Group	Albert, Laura	E(M)	6(T)	Albert, Laura	SP	FY	126 126	1 10 SP	FY											
CO8010-04 SP Social Language Group	Albert, Laura	E(R)	4(R)	Albert, Laura	SP	FY	126 126	1 10 SP	FY											
CO8010-05 SP Social Language Group	Albert, Laura	F(W)	4(W)	Albert, Laura	SP	FY	126 126	4 10 SP	FY											
CO8010-06 SP Social Language Group	Stevens, Shelley	D(M)	4(W)	Stevens, Shelley	SP	FY	126 126	2 10 SP	FY											
CO8010-07 SP Social Language Group	Stevens, Shelley	C(W)	4(T)	Stevens, Shelley	SP	FY	126 126	4 10 SP	FY											
CO8010-08 SP Social Language Group	Stevens, Shelley	C(W)	3(W)	Stevens, Shelley	SP	FY	126 126	3 10 SP	FY											
CO8010-09 SP Social Language Group	Stevens, Shelley	A(R)	2(R)	Stevens, Shelley	SP	FY	126 126	2 10 SP	FY											
CO8010-10 SP Social Language Group	Stevens, Shelley	D(F)	2(F)	Stevens, Shelley	SP	FY	126 126	3 10 SP	FY	25	0.346	9	9	10	1	1	1	28	0.036	Small number of students w/specialist
SPEECH & LANGUAGE SUBTOTAL																				
SPEECH & LANGUAGE SUBTOTAL AT 85% UTILIZATION																				
EL1000-01 EL ELL I Reading and Writing	Babitskaya, Kalya	C Block	3(W-W) 4(F)	Babitskaya, Kalya	EL	FY	239 239	6 18 EL	FY	6	0.346	2	2	18	1	4	4	28	0.143	
EL1000-02 EL ELL I Speaking/Listening	Babitskaya, Kalya	D Block	2(F) 4(W) 5(T-W)	Babitskaya, Kalya	EL	FY	239 239	6 18 EL	FY	6	0.346	2	2	18	1	4	4	28	0.143	
EL2000-01 EL ELL II Rig/Wing	Babitskaya, Kalya	B Block	1(R-F) 2(M-W)	Babitskaya, Kalya	EL	FY	239 239	7 18 EL	FY											
EL2000-02 EL ELL II Rig/Wing	Davis, Elizabeth	B Block	1(R-F) 2(M-W)	Davis, Elizabeth	W/L	FY	244 244	5 18 EL	FY											
EL2100-01 EL ELL II SpK/Lst	Babitskaya, Kalya	G Block	4(T) 5(R) 6(M-F)	Babitskaya, Kalya	EL	FY	239 239	8 18 EL	FY	12	0.346	4	4	18	1	4	4	28	0.143	
EL2100-02 EL ELL II SpK/Lst	Babitskaya, Kalya	E Block	3(F) 4(R) 5(T-W)	Babitskaya, Kalya	EL	FY	239 239	5 18 EL	FY	13	0.346	18	18	18	1	4	4	28	0.143	
EL3000-01 EL ELL III Comp	Szewczyk, Anne	C Block	3(W-W) 4(F)	Szewczyk, Anne	EL	FY	244 244	10 18 EL	FY	25	0.346	9	9	18	1	4	4	28	0.143	
EL3000-02 EL ELL III Comp	Frydman, Alison	E Block	3(F) 4(R) 6(T-W)	Frydman, Alison	EL	FY	343 343	6 18 EL	FY											
EL3000-03 EL ELL III Comp	Szewczyk, Anne	G Block	4(T) 5(N) 6(M-F)	Szewczyk, Anne	EL	FY	244 244	9 18 EL	FY	25	0.346	9	9	18	1	4	4	28	0.143	
EL3100-01 EL ELL III Lst	Frydman, Alison	D Block	2(F) 4(M) 5(T-W)	Frydman, Alison	EL	FY	408 408	8 18 EL	FY											
EL3100-02 EL ELL III Lst	Szewczyk, Anne	F Block	4(W) 5(M-F) 6(R)	Szewczyk, Anne	EL	FY	244 244	11 18 EL	FY											
EL3100-03 EL ELL III Lst	Szewczyk, Anne	D Block	2(F) 4(M) 5(T-W)	Szewczyk, Anne	EL	FY	244 244	6 18 EL	FY	25	0.346	9	9	18	1	4	4	28	0.143	
EL4000-01 EL ELL Academic Support	Kirstajin, Sima	Z(M-F)	2(M-F)	Kirstajin, Sima	EL	FY	239 239	6 18 EL	FY	17	0.346	6	6	18	1	5	5	1.000	1.000	Shared w/ EL4001-01 periods. W/EL4001-01 Shared w/ EL4000-01 included in EL4000 above
EL4000-01 EL ELL Academic Support	Kirstajin, Sima	Z(T-W,R)	2(T-F)	Kirstajin, Sima	EL	FY	239 239	11 18 EL	FY											
ELL SUBTOTAL																				
ELL SUBTOTAL AT 85% UTILIZATION																				
																		0.857	0.857	Total does not include 2
																		1.008	1.008	period - shared Crmt

C. Utilization - 9th Grade Academy

Dept. Description	P	Teacher	Track/ID	Schedule	Name	Dept. Code	Num Clsr	Total Max	Dept. ID	Term	Current Course Enroll	Enrollment Increase Multiplier	Projected Course Enroll	Max Students per Section	No. of Sections	No. of Sections week	Sessions per wk	Periods per wk	Total Stations Req.	Total Stations Req. S2	Notes	
EN1020-01	EN	Zembruski, Alexandra, D	Block	2(F) 4(W) 5(T-W)	Coburn, Eric	EN	FY	304	304	8	18	EN	EN1022-01/ EN1020/ EN1								Shared CR with EN1022-01	
EN1020-02	EN	Coburn, Eric	F Block	4(W) 5(M, F) 6(R)	Coburn, Eric	EN	FY	304	304	5	18	EN	EN1022-02/ EN1020/ EN1									Shared CR with EN1022-02
EN1020-03	EN	Zembruski, Alexandra	C Block	3(M-W) 4(F)	Breen, Jennifer	EN	FY	301	301	7	18	EN	EN1022-03/ EN1020/ EN1									Shared CR with EN1022-03
EN1020-04	EN	Blette, Erin	F Block	4(W) 5(M, F) 6(R)	Breen, Jennifer	EN	FY	301	301	9	18	EN	EN1020-04/ EN1022-04									Shared CR with EN1022-04
EN1020-05	EN	Dondero, Alisa	B Block	1(R-F) 2(M,W)	Dondero, Alisa	EN	FY	386	386	18	18	EN										
EN1020-06	EN	Dondero, Alisa	F Block	4(W) 5(M, F) 6(R)	Dondero, Alisa	EN	FY	208	208	17	18	EN										
EN1020-07	EN	Gorlin, Sophie	A Block	1(M-W) 2(R)	Gorlin, Sophie	EN	FY	385	385	12	18	EN										
EN1020-08	EN	Gorlin, Sophie	E Block	3(F) 4(F) 6(T-W)	Gorlin, Sophie	EN	FY	385	385	15	18	EN										
EN1020-09	EN	Gorlin, Sophie	C Block	3(M-W) 4(F)	Gorlin, Sophie	EN	FY	385	385	15	18	EN										
EN1022-01	EN	Coburn, Eric	D Block	2(F) 4(W) 5(T-W)	Coburn, Eric	EN	FY	304	304	9	9	EN	EN1022-01/ EN1020/ EN1		11	4	44	44	28	1,571	1,571	Includes EN1022-01
EN1022-02	EN	Zembruski, Alexandra	F Block	4(W) 5(M, F) 6(R)	Coburn, Eric	EN	FY	304	304	7	9	EN	EN1022-02/ EN1020/ EN1									Shared CR with EN1020-02
EN1022-03	EN	Breen, Jennifer	C Block	3(M-W) 4(F)	Breen, Jennifer	EN	FY	301	301	10	9	EN	EN1022-03/ EN1020/ EN1									Shared CR with EN1020-03
EN1022-04	EN	Blette, Erin	F Block	4(W) 5(M, F) 6(R)	Breen, Jennifer	EN	FY	301	301	7	9	EN	EN1020-04/ EN1022-04									Shared CR with EN1020-04
EN1030-01	EN	Mitchell, David	A Block	1(M-W) 2(R)	Mitchell, David	EN	FY	344	344	22	25	EN										
EN1030-02	EN	Mitchell, David	F Block	4(W) 5(M, F) 6(R)	Mitchell, David	EN	FY	344	344	25	25	EN										
EN1030-03	EN	Mousseau, Evan	A Block	1(M-W) 2(R)	Mousseau, Evan	EN	FY	301	301	21	25	EN										
EN1030-04	EN	Mousseau, Evan	B Block	1(R-F) 2(M,W)	Mousseau, Evan	EN	FY	301	301	25	25	EN										
EN1030-05	EN	Rocco, Julia	C Block	3(M-W) 4(F)	Rocco, Julia	EN	FY	336	336	24	25	EN										
EN1030-06	EN	Hayden, Rebecca	D Block	2(F) 4(W) 5(T-W)	Hayden, Rebecca	EN	FY	410	410	25	25	EN										
EN1030-07	EN	Frydman, Alison	C Block	3(M-W) 4(F)	Frydman, Alison	EL	FY	408	408	22	25	EN										
EN1030-08	EN	Rocco, Julia	F Block	4(W) 5(M, F) 6(R)	Rocco, Julia	EN	FY	341	341	24	25	EN										
EN1030-09	EN	Rocco, Julia	D Block	2(F) 4(W) 5(T-W)	Rocco, Julia	EN	FY	336	336	25	25	EN										
EN1030-10	EN	Hayden, Rebecca	E Block	3(F) 4(F) 6(T-W)	Hayden, Rebecca	EN	FY	410	410	25	25	EN										
EN1030-11	EN	Rocco, Julia	F Block	4(W) 5(M, F) 6(R)	Rocco, Julia	EN	FY	336	336	23	25	EN										
EN1030-12	EN	Anderson, Marcella	B Block	1(R-F) 2(M,W)	Anderson, Marcella	EN	FY	395	395	25	25	EN										
EN1030-13	EN	Breen, Jennifer	E Block	3(F) 4(F) 6(T-W)	Breen, Jennifer	EN	FY	301	301	25	25	EN										
EN1060-01	EN	Mahoney, Brema	A Block	1(M-W) 2(R)	Mahoney, Brema	SP	FY	407	407	4	20	EN	EN1060-01/ EN1060/ EN2		1	4	4	4	0.143	0.143	EN1060-01 English and EN2060-01 EN are same class - total in EN1060-01	
EN2060-01	EN	Mahoney, Brema	A Block	1(M-W) 2(R)	Mahoney, Brema	SP	FY	407	407	0	20	EN	EN1060-01/ EN1060/ EN2		1	4	4	4	0.143	0.143	Shared w/ EN1060-01 in EN1060-01 EN English	
ENGLISH SUBTOTAL																						
ENGLISH SUBTOTAL AT 85% UTILIZATION																						

C. Utilization - 9th Grade Academy

Dept. Description	P	Teacher	TrackID	Schedule	Name	Dept Code	Num C	Max	Dept ID	Term	Current Enrollment	Enrollment Increase Multiplier	Projected Enrollment	Max Students per Section	No. of Sections	No. of Sections per week	Sections per wk	Periods per wk	Facilities	Notes	
ADVISORY SUBTOTAL											587	1.385	813	30	28	1	28	28	30	0.933	1.100 Advisory meets 1 period a week - shares CIs.
ADVISORY SUBTOTAL AT 85% UTILIZATION											587	1.385	813	30	28	1	28	28	30	0.933	1.100 Advisory meets 1 period a week - shares CIs.
MA1020-01 MA Geometry		Hitchcock, Katherine; Wells, Hayley	F Block	4(W) 5(M,F) 6(R)	Hitchcock, Katherine	MA	130	130	9	8 MA MA1020-01/ MA1020/MA1											Shared CR with MA1022-01
MA1020-02 MA Geometry		Hitchcock, Katherine; Wells, Hayley	B Block	1(R-F) 2(M,W)	Hitchcock, Katherine	MA	258	258	8	8 MA MA1022-02/ MA1020/											Shared CR with MA1022-02
MA1020-03 MA Geometry		Woolver, Chbe; Wells, Hayley	A Block	1(M-W) 2(R)	Woolver, Chbe	MA	262	262	8	8 MA MA1022-03/ MA1020/											Shared CR with MA1022-03
MA1020-04 MA Geometry		Woolver, Chbe; Wells, Hayley	G Block	4(T) 5(R) 6(M,F)	Woolver, Chbe	MA	209	209	7	8 MA											Shared CR with MA1022-04
MA1020-05 MA Geometry		Camara, Monica; Rodriguez, Lisa	B Block	1(R-F) 2(M,W)	Rodriguez, Lisa	MA	266	266	10	18 MA MA1065-01/ MA1020/											Shared CR with MA1062-01
MA1020-06 MA Geometry		Rodriguez, Lisa	E Block	3(F) 4(R) 6(T-W)	Rodriguez, Lisa	MA	266	266	17	18 MA											
MA1020-07 MA Geometry		Strong, Elizabeth	D Block	2(F) 4(W) 5(T-W)	Strong, Elizabeth	MA	266	266	16	18 MA											
MA1020-08 MA Geometry		Strong, Elizabeth	A Block	1(M-W) 2(R)	Strong, Elizabeth	MA	266	266	16	18 MA											
MA1022-01 MA Geometry		Hitchcock, Katherine; Wells, Hayley	F Block	4(W) 5(M,F) 6(R)	Hitchcock, Katherine	MA	130	130	8	8 MA MA1020-01/ MA1020/MA1											Includes MA1022, MA1062 below
MA1022-02 MA Geometry		Hitchcock, Katherine; Wells, Hayley	B Block	1(R-F) 2(M,W)	Hitchcock, Katherine	MA	258	258	9	8 MA MA1022-02/ MA1020/											Shared CR with MA1020-01
MA1022-03 MA Geometry		Woolver, Chbe; Wells, Hayley	A Block	1(M-W) 2(R)	Woolver, Chbe	MA	262	262	8	8 MA MA1022-03/ MA1020/MA1											Shared CR with MA1020-02
MA1022-04 MA Geometry		Woolver, Chbe; Wells, Hayley	G Block	4(T) 5(R) 6(M,F)	Woolver, Chbe	MA	209	209	9	8 MA											Shared CR with MA1020-03
MA1030-01 MA Geometry H		Caruso, Kathryn	F Block	4(W) 5(M,F) 6(R)	Caruso, Kathryn	MA	145	145	24	25 MA											
MA1030-02 MA Geometry H		Buyis, Keri	E Block	3(F) 4(R) 6(T-W)	Buyis, Keri	MA	262	262	25	25 MA											
MA1030-03 MA Geometry H		Buyis, Keri	G Block	4(T) 5(R) 6(M,F)	Buyis, Keri	MA	262	262	23	25 MA											
MA1030-04 MA Geometry H		Naimy, Julia	A Block	1(M-W) 2(R)	Naimy, Julia	MA	260	260	19	25 MA											
MA1030-05 MA Geometry H		Naimy, Julia	D Block	2(F) 4(W) 5(T-W)	Naimy, Julia	MA	381	381	22	25 MA											
MA1030-06 MA Geometry H		Filcop, Susan	B Block	2(F) 4(W) 5(T-W)	Filcop, Susan	MA	258	258	23	25 MA											
MA1030-07 MA Geometry H		Filcop, Susan	B Block	1(R-F) 2(M,W)	Filcop, Susan	MA	261	261	24	25 MA											
MA1030-08 MA Geometry H		Shen, Anhleen	A Block	1(M-W) 2(R)	Shen, Anhleen	MA	133	133	20	25 MA											
MA1030-09 MA Geometry H		Shen, Anhleen	G Block	4(T) 5(R) 6(M,F)	Shen, Anhleen	MA	133	133	21	25 MA											
MA1030-10 MA Geometry H		Filcop, Susan	E Block	3(F) 4(R) 6(T-W)	Filcop, Susan	MA	258	258	24	25 MA											
MA1040-01 MA Geometry Advanced		Albhal, Marika	B Block	2(F) 4(W) 5(T-W)	Albhal, Marika	MA	143	143	28	25 MA											
MA1040-02 MA Geometry Advanced		Albhal, Marika	A Block	1(M-W) 2(R)	Albhal, Marika	MA	143	143	28	25 MA											
MA1040-03 MA Geometry Advanced		Paris, Joshua	B Block	1(R-F) 2(M,W)	Paris, Joshua	MA	263	263	29	25 MA											
MA1040-04 MA Geometry Advanced		Fried, Adam	F Block	4(W) 5(M,F) 6(R)	Fried, Adam	MA	265	265	29	25 MA											
MA1048-01 MA Geometry Adv		Fried, Adam	Z(M-R)	Z(M-R)	Fried, Adam	MA	265	265	12	25 MA											
MA1062-01 MA Geometry		Rodriguez, Lisa; Camara, Monica	B Block	1(R-F) 2(M,W)	Rodriguez, Lisa	MA	266	266	3	5 MA MA1065-01/MA1											
MATH SUBTOTAL											114	1.385	158	25	7	4	28	28	28	1.000	
MATH SUBTOTAL AT 85% UTILIZATION											12	1.385	17	25	1	4	4	4	5	0.800	0.800 in 2 period - not counted in total
																					Ind. in MA1020 above
																					4.286 4.286 5.042

C. Utilization - 9th Grade Academy

Dept.	Description	P	Teacher	TrackID	Schedule	Name	Dept.	Code	Num	Clstr	Total	Max	Dept.	ID	Term
PA1000-01	PA Concert Choir	Driscoll, Michael	C Block	3(M-W) 4(F)	Driscoll, Michael	PA	FY	324	324	30	60	PA	PA1000-01/PA FY		
PA1001-01	PA Concert Choir	Driscoll, Michael	C Block	3(M-W) 4(F)	Driscoll, Michael	PA	SI	324	324	7	10	PA	PA1000-01/PA S1		
PA1200-01	PA Camerata H	Driscoll, Michael	Z(R-F)PM(T)2(R-F) PM(T)	Driscoll, Michael	PA	FY	324	324	324	52	52	PA		FY	
PA1500-01	PA A Cappella Choir	Driscoll, Michael	A Block	1(M-W) 2(R)	Driscoll, Michael	PA	FY	324	324	33	60	PA		FY	
PA2000-01	PA Concert Band	Castellano, Carolyn	Z(M-F)	Castellano, Carolyn	PA	FY	120	120	81	80	80	PA		FY	
PA2201-01	PA Digital Music Production	Castellano, Carolyn	C Block	3(M-W) 4(F)	Castellano, Carolyn	PA	S1	120	120	15	15	PA		S1	
PA2301-02	PA Digital Music Production	Castellano, Carolyn	B Block	1(R-F) 2(M-W)	Castellano, Carolyn	PA	S1	120	120	16	15	PA		S2	
PA2301-03	PA Digital Music Production	Castellano, Carolyn	C Block	3(M-W) 4(F)	Castellano, Carolyn	PA	S2	120	120	14	15	PA		S1	
PA2301-04	PA Digital Music Production	Castellano, Carolyn	D Block	2(F) 4(M) 5(T-W)	Castellano, Carolyn	PA	S1	120	120	15	15	PA		S1	
PA2300-01	PA Music Collective/Jazz Band	Castellano, Carolyn	A Block	1(M-W) 2(R)	Castellano, Carolyn	PA	FY	120	120	19	20	PA		FY	
PA2350-01	PA Jazz/Beck Ensemble	Castellano, Carolyn	D Block	2(F) 4(M) 5(T-W)	Castellano, Carolyn	PA	S2	120	120	12	20	PA		S2	
PA2350-01	PA Orchestra	Soto, Jorge	Z(M-F)	Soto, Jorge	PA	FY	170	170	81	85	85	PA		FY	
PA2801-01	PA Drumming and Wind Mus	Castellano, Carolyn	B Block	1(R-F) 2(M-W)	Castellano, Carolyn	PA	S2	120	120	10	25	PA		S2	
PA2900-01	PA Piano	Driscoll, Michael	E Block	3(F) 4(R) 6(T-W)	Driscoll, Michael	PA	S1	324	324	15	16	PA		S1	
PA2900-02	PA Piano	Driscoll, Michael	D Block	2(F) 4(M) 5(T-W)	Driscoll, Michael	PA	S2	324	324	14	16	PA		S2	
MUSIC SUBTOTAL															
MUSIC SUBTOTAL AT 85% UTILIZATION															
MUSIC SUBTOTAL - Z-Block AT 85% UTILIZATION															
PA3000-01	PA Begin Dance	Hernandez, Mayra	F Block	4(W) 5(M-F) 6(R)	Hernandez, Mayra	PA	FY	DS 2	DS 2	13	22	PA		FY	
PA3001-01	PA Begin Dance 1-A	Hernandez, Mayra	D Block	2(F) 4(M) 5(T-W)	Hernandez, Mayra	PA	S1	DS 1	DS 1	13	22	PA		S1	
PA3001-02	PA Begin Dance 1-A	TBA, Dance	E Block	3(F) 4(R) 6(T-W)	TBA, Dance	PA	S2	DS 2	DS 2	17	22	PA		S2	
PA3100-01	PA Intermediate Dance	Polos, S. Christien	F Block	4(W) 5(M-F) 6(R)	Polos, S. Christien	PA	FY	DS 1	DS 1	16	22	PA		FY	
PA3200-01	PA Adv. Mtnr/Jz Dnc	Polos, S. Christien	E Block	3(F) 4(R) 6(T-W)	Polos, S. Christien	PA	FY	DS 1	DS 1	22	22	PA		FY	
PA3200-02	PA Adv. Mtnr/Jz Dnc	Hernandez, Mayra	A Block	1(M-W) 2(R)	Hernandez, Mayra	PA	FY	DS 1	DS 1	25	22	PA		FY	
PA3200-01	PA African, Latin, Hip Hop Dance	Hernandez, Mayra	C Block	3(M-W) 4(F)	Hernandez, Mayra	PA	S1	DS 1	DS 1	22	22	PA		S1	
PA3200-02	PA African, Latin, Hip Hop Dance	Hernandez, Mayra	D Block	2(F) 4(M) 5(T-W)	Hernandez, Mayra	PA	S2	DS 1	DS 1	17	22	PA		S2	
DANCE SUBTOTAL															
DANCE SUBTOTAL AT 85% UTILIZATION															
PA4000-01	PA Drama I	Williams, Summer	E Block	3(F) 4(R) 6(T-W)	Williams, Summer	PA	FY	AUD	AUD	18	24	PA		FY	
PA4000-02	PA Drama I	Williams, Summer	F Block	4(W) 5(M-F) 6(R)	Williams, Summer	PA	FY	220	220	14	24	PA		FY	
PA4001-01	PA Drama 1-A	Williams, Summer	B Block	1(R-F) 2(M-W)	Williams, Summer	PA	S1	AUD	AUD	13	24	PA		S1	
PA4001-02	PA Drama 1-A	Williams, Summer	D Block	2(F) 4(M) 5(T-W)	Williams, Summer	PA	S1	AUD	AUD	19	24	PA		S1	
PA4001-03	PA Drama 1-A	Mistandrea, Mary	C Block	3(M-W) 4(F)	Mistandrea, Mary	PA	S2	220	220	22	24	PA		S2	
PA4001-04	PA Drama 1-A	Mistandrea, Mary	F Block	4(W) 5(M-F) 6(R)	Mistandrea, Mary	PA	S2	323	323	23	24	PA		S2	
PA4400-01	PA Backstage: Power Tools	Vanderzee, Mark	C Block	3(M-W) 4(F)	Vanderzee, Mark	PA	S2	220	220	16	15	PA		S2	
PA4400-02	PA Backstage: Power Tools	Vanderzee, Mark	C Block	3(M-W) 4(F)	Vanderzee, Mark	PA	S1	220	220	14	15	PA		S1	
DRAMA SUBTOTAL															
DRAMA SUBTOTAL AT 85% UTILIZATION															

C. Utilization - 9th Grade Academy

Dept. Description	P	Teacher	Track/ID	Schedule	Name	Dept. Code	Num	Class	Total	Max	Dept. ID	Term	Current Course Enroll	Current Course Enroll Multiple	Projected Course Enroll	No. of Sections per section	No. of Sections per week	Sessions per week	Sessions per wk	Periods per wk	Total Stations Req.	Notes			
SCI020-01	SC	Physcis I	E Block	3(F) 4(W) 6(T-W)	Kissel, Stacy	SC	FY	366	366	10	20 SC	FY	159	1.385	220	20	12	4	48	28	1,714	Shared room with SCI.022-01			
SCI020-02	SC	Physcis I	G Block	4(T) 5(R) 6(M-F)	Kissel, Stacy	SC	FY	366	366	8	20 SC	FY										Shared room with SCI.022-02			
SCI020-03	SC	Physcis I	D Block	2(F) 4(W) 5(T-W)	Derrien, Andre	SC	FY	378	378	20	20 SC	FY										Shared room with SCI.020-05/ SCI.020-06/ SCI.022-03			
SCI020-04	SC	Physcis I	A Block	3(M-W) 2(R)	Derrien, Andre	SC	FY	378	378	21	20 SC	FY										Shared room with SCI.020-01			
SCI020-05	SC	Physcis I	G Block	3(M-W) 4(F)	Wooley-Brown, Katherine	SC	FY	379	379	16	20 SC	FY										Shared room with SCI.022-03			
SCI020-06	SC	Physcis I	F Block	4(W) 5(M-F) 6(R)	Wooley-Brown, Katherine	SC	FY	379	379	16	20 SC	FY										Shared room with SCI.022-03			
SCI020-07	SC	Physcis I	E Block	3(F) 4(R) 6(T-W)	Millington, Layne	SC	FY	370	370	21	20 SC	FY										Shared room with SCI.022-03			
SCI020-08	SC	Physcis I	A Block	1(M-W) 2(R)	Tong, Jason	SC	FY	379	379	17	20 SC	FY										Shared room with SCI.022-03			
SCI022-01	SC	Physcis I	E Block	3(F) 4(R) 6(T-W)	Kissel, Stacy	SC	FY	366	366	11	10 SC	FY										Incl. SCI.022, SCI.062			
SCI022-02	SC	Physcis I	G Block	4(T) 5(R) 6(M-F)	Kissel, Stacy	SC	FY	366	366	11	10 SC	FY										Shared room with SCI.020-02/ SCI.020-03			
SCI022-03	SC	Physcis I	F Block	4(W) 5(M-F) 6(R)	Wooley-Brown, Katherine	SC	FY	379	379	4	10 SC	FY										Shared room with SCI.020-06/ SCI.022-03			
SCI030-01	SC	Physcis H	A Block	1(M-W) 2(R)	Leslie, Elisabeth	SC	FY	368	368	23	24 SC	FY										Shared room with SCI.020-05/ SCI.020-06/ SCI.020-07/ SCI.020-08			
SCI030-02	SC	Physcis H	F Block	4(W) 5(M-F) 6(R)	Leslie, Elisabeth	SC	FY	368	368	24	24 SC	FY										Shared room with SCI.020-05/ SCI.020-06/ SCI.020-07/ SCI.020-08			
SCI030-03	SC	Physcis H	B Block	2(F) 4(W) 5(T-W)	Leslie, Elisabeth	SC	FY	368	368	24	24 SC	FY										Shared room with SCI.020-05/ SCI.020-06/ SCI.020-07/ SCI.020-08			
SCI030-04	SC	Physcis H	G Block	4(T) 5(R) 6(M-F)	Kumpf, Julia	SC	FY	370	370	24	24 SC	FY										Shared room with SCI.020-05/ SCI.020-06/ SCI.020-07/ SCI.020-08			
SCI030-05	SC	Physcis H	C Block	3(M-W) 4(F)	Kumpf, Julia	SC	FY	370	370	24	24 SC	FY										Shared room with SCI.020-05/ SCI.020-06/ SCI.020-07/ SCI.020-08			
SCI030-06	SC	Physcis H	D Block	3(M-W) 4(F)	Millington, Layne	SC	FY	380	380	24	24 SC	FY										Shared room with SCI.020-05/ SCI.020-06/ SCI.020-07/ SCI.020-08			
SCI030-07	SC	Physcis H	A Block	1(M-W) 2(R)	Millington, Layne	SC	FY	380	380	22	24 SC	FY										Shared room with SCI.020-05/ SCI.020-06/ SCI.020-07/ SCI.020-08			
SCI030-08	SC	Physcis H	G Block	4(T) 5(R) 6(M-F)	Millington, Layne	SC	FY	380	380	24	24 SC	FY										Shared room with SCI.020-05/ SCI.020-06/ SCI.020-07/ SCI.020-08			
SCI030-09	SC	Physcis H	D Block	2(F) 4(W) 5(T-W)	Wooley-Brown, Katherine	SC	FY	379	379	24	24 SC	FY										Shared room with SCI.020-05/ SCI.020-06/ SCI.020-07/ SCI.020-08			
SCI030-10	SC	Physcis H	E Block	3(F) 4(R) 6(T-W)	Wooley-Brown, Katherine	SC	FY	379	379	24	24 SC	FY										Shared room with SCI.020-05/ SCI.020-06/ SCI.020-07/ SCI.020-08			
SCI030-11	SC	Physcis H	A Block	1(M-W) 2(R)	Wooley-Brown, Tyler	SC	FY	366	366	22	24 SC	FY										Shared room with SCI.020-05/ SCI.020-06/ SCI.020-07/ SCI.020-08			
SCI030-12	SC	Physcis H	D Block	2(F) 4(W) 5(T-W)	Tong, Jason	SC	FY	380	380	24	24 SC	FY										Shared room with SCI.020-05/ SCI.020-06/ SCI.020-07/ SCI.020-08			
SCI030-13	SC	Physcis H	F Block	4(W) 5(M-F) 6(R)	Tong, Jason	SC	FY	380	380	24	24 SC	FY										Shared room with SCI.020-05/ SCI.020-06/ SCI.020-07/ SCI.020-08			
SCI030-14	SC	Physcis H	E Block	3(F) 4(R) 6(T-W)	Tong, Jason	SC	FY	380	380	24	24 SC	FY										Shared room with SCI.020-05/ SCI.020-06/ SCI.020-07/ SCI.020-08			
SCI050-01	SP	Applied Science I	E Block	3(F) 4(R) 6(T-W)	Derrien, Andre	SC	FY	378	378	9	12 SP	FY	331	1.385	458	24	20	4	80	28	2,857	Shared room with SCI.020-05/ SCI.020-06/ SCI.020-07/ SCI.020-08			
SCI062-01	SC	Physcis I	C Block	3(M-W) 4(F)	Wooley-Brown, Katherine	SC	FY	379	379	4	20 SC	FY	9	0.346	3	12	1	4	4	28	0.143	Shared room with SCI.020-05/ SCI.020-06/ SCI.020-07/ SCI.020-08			
SCI300-01	SC	Draw For Understanding in Field Science	E Block	3(M-W) 4(F)	Sartanowicz, Donna	VA	S1	U42	U42	9	20 SC	S1										Shared room with SCI.020-05/ SCI.020-06/ SCI.020-07/ SCI.020-08			
SCI300-02	SC	Draw For Understanding in Field Science	D Block	2(F) 4(W) 5(T-W)	Sartanowicz, Donna	VA	S2	U42	U42	4	20 SC	S2										Shared room with SCI.020-05/ SCI.020-06/ SCI.020-07/ SCI.020-08			
SCI050-01	SP	Applied Science II	E Block	3(F) 4(R) 6(T-W)	Rondeau, Coral	SP	FY	364	364	12	12 SP	FY	12	0.346	4	12	1	4	4	28	0.143	Shared room with SCI.020-05/ SCI.020-06/ SCI.020-07/ SCI.020-08			
SCI050-02	SP	Applied Science III	F Block	4(W) 5(M-F) 6(R)	Rondeau, Coral	SP	FY	351	351	9	20 SP	FY	9	0.346	3	12	1	4	4	28	0.143	Shared room with SCI.020-05/ SCI.020-06/ SCI.020-07/ SCI.020-08			
SCI070-01	SP	Science III	B Block	1(R-F) 2(M-W)	Rondeau, Coral	SP	FY	146	146	2	20 SP	FY										Shared room with SCI.020-05/ SCI.020-06/ SCI.020-07/ SCI.020-08			
SCI070-02	SP	Science IV	B Block	1(R-F) 2(M-W)	Rondeau, Coral	SP	FY	146	146	0	20 SP	FY										Shared room with SCI.020-05/ SCI.020-06/ SCI.020-07/ SCI.020-08			
SCIENCE SUBJECT TOTAL																						5,000	5,000	5,882	5,882

C. Utilization - 9th Grade Academy

Dept. Description	P. Teacher	Track/ID	Schedule	Name	Dept. Code	Num. Cls	Total Max	Dept. ID	Term	Current Course Enroll	Current Course Enroll	Enrollment Increase Multiple	Projected Course Enroll	Projected Course Enroll	No. of Sections	No. of Sections	No. of Sessions per week	Sections per week	Periods per wk	Total Stations Req.	Total Stations Req.	Notes																			
					GU	FY	245	245	0	8	0	0	1,385	0	8	0	4	0	28	0.000	0.000																				
S01020-01	Lopez, Kara	E Block	3(F) 4(F) 6(T-W)	Poon, Stephanie	SO	FY	303	303	8	19	SO	SO1020-01/	FY									No assigned students? Shared CR with SO1020-01																			
S01020-02	Barkett, Scott; Poon, Stephanie	A Block	1(W-W) 2(R)	Poon, Stephanie	SO	FY	303	303	8	19	SO	SO1020-02/	FY										Shared CR with SO1020-02																		
S01020-03	Longmire, Jennifer; Sullivan, Tara	F Block	4(W) 5(M-F) 6(R)	Longmire, Jennifer	SO	FY	342	342	12	19	SO	SO1020-03/	FY										Shared CR with SO1020-01																		
S01020-04	Kahr, Benjamin	G Block	4(T) 5(R) 6(M-F)	Kahr, Benjamin	SO	FY	303	303	19	19	SO	SO1020-04/	FY																												
S01020-05	Gronlund-Jacob, Noah	F Block	4(W) 5(M-F) 6(R)	Gronlund-Jacob, Noah	SO	FY	382	382	19	19	SO	SO1020-05/	FY																												
S01020-06	Gronlund-Jacob, Noah	A Block	1(W-W) 2(R)	Gronlund-Jacob, Noah	SO	FY	384	384	14	19	SO	SO1020-06/	FY																												
S01020-07	Miller, Marcie	C Block	3(M-W) 4(F)	Miller, Marcie	SO	FY	307	307	18	19	SO	SO1020-07/	FY																												
S01022-01	Barkett, Scott; Poon, Stephanie	E Block	3(F) 4(F) 6(T-W)	Poon, Stephanie	SO	FY	303	303	10	11	SO	SO1020-01/	FY										Includes SO1022, SO1062																		
S01022-02	Barkett, Scott; Poon, Stephanie	A Block	1(W-W) 2(R)	Poon, Stephanie	SO	FY	303	303	11	11	SO	SO1020-02/	FY										Shared CR with SO1020-01																		
S01030-01	Dickerman, Samuel	C Block	3(M-W) 4(F)	Dickerman, Samuel	SO	FY	388	388	25	25	SO		FY																												
S01030-02	Dickerman, Samuel	G Block	4(T) 5(R) 6(M-F)	Dickerman, Samuel	SO	FY	388	388	25	25	SO		FY																												
S01030-03	Dickerman, Samuel	E Block	3(F) 4(F) 6(T-W)	Dickerman, Samuel	SO	FY	388	388	23	25	SO		FY																												
S01030-04	Dickerman, Samuel	B Block	1(R-F) 2(M-W)	Dickerman, Samuel	SO	FY	388	388	25	25	SO		FY																												
S01030-05	Grant, Robert	F Block	4(W) 5(M-F) 6(R)	Grant, Robert	SO	FY	384	384	25	25	SO		FY																												
S01030-06	Murphy, Kristen	C Block	3(M-W) 4(F)	Murphy, Kristen	SO	FY	382	382	23	25	SO		FY																												
S01030-07	Hanigan, Jennifer	E Block	3(F) 4(F) 6(T-W)	Hanigan, Jennifer	SO	FY	346	346	23	25	SO		FY																												
S01030-08	Kahr, Benjamin	C Block	3(F) 4(F) 6(T-W)	Kahr, Benjamin	SO	FY	340	340	25	25	SO		FY																												
S01030-09	Hanigan, Jennifer	B Block	1(R-F) 2(M-W)	Hanigan, Jennifer	SO	FY	342	342	23	25	SO		FY																												
S01030-10	Poon, Stephanie	G Block	4(T) 5(R) 6(M-F)	Poon, Stephanie	SO	FY	308	308	25	25	SO		FY																												
S01030-11	Murphy, Kristen	B Block	1(R-F) 2(M-W)	Murphy, Kristen	SO	FY	382	382	25	25	SO		FY																												
S01030-12	Shuster, Sarah	G Block	4(T) 5(R) 6(M-F)	Shuster, Sarah	SO	FY	381	381	24	25	SO		FY																												
S01030-13	Kahr, Benjamin	B Block	1(R-F) 2(M-W)	Kahr, Benjamin	SO	FY	340	340	23	25	SO		FY																												
S01030-14	Shuster, Sarah	A Block	1(W-W) 2(R)	Shuster, Sarah	SO	FY	383	383	22	25	SO		FY																												
S01062-01	Longmire, Jennifer; Sullivan, Tara	F Block	4(W) 5(M-F) 6(R)	Longmire, Jennifer	SO	FY	342	342	3	6	SO	SO1020-03/	FY										Shared CR with SO1020-03																		
S01400-01	Wheeler, Mark	A Block	1(W-W) 2(R)	Wheeler, Mark	SO	FY	388	388	12	25	SO		FY										Incl. in SO1020 above																		
S03000-01	Buhl, Elizabeth	A Block	1(W-W) 2(R)	Buhl, Elizabeth	SO	FY	300	300	9	25	SO		FY																												
S03000-02	Buhl, Elizabeth	B Block	1(R-F) 2(M-W)	Buhl, Elizabeth	SO	FY	300	300	8	25	SO		FY																												
SOCIAL STUDIES SUBTOTAL																																									
SOCIAL STUDIES SUBTOTAL AT 85% UTILIZATION																																									
ST1000-01	ST	Stp to Success	1(M-W) 2(R)				0	20	ST																																
ST1000-02	ST	Stp to Success	1(R-F) 2(M-W)				0	20	ST																																
ST1000-03	ST	Stp to Success	3(M-W) 4(F)				1	20	ST																																
ST1000-04	ST	Stp to Success	2(F) 4(W) 5(T-W)				0	20	ST																																
ST1000-05	ST	Stp to Success	3(F) 4(F) 6(T-W)				0	20	ST																																
ST1000-06	ST	Stp to Success	4(W) 5(M-F) 6(R)				1	20	ST																																
ST1000-07	ST	Stp to Success	4(T) 5(R) 6(M-F)				0	20	ST																																
ST1000-08	ST	Stp to Success	1(M-W) 2(R)				0	20	ST																																
ST1000-09	ST	Stp to Success	1(R-F) 2(M-W)				0	20	ST																																
ST1000-10	ST	Stp to Success	3(M-W) 4(F)				1	20	ST																																
ST1000-11	ST	Stp to Success	2(F) 4(W) 5(T-W)				0	20	ST																																
ST1000-12	ST	Stp to Success	3(F) 4(F) 6(T-W)				0	20	ST																																
ST1000-13	ST	Stp to Success	4(W) 5(M-F) 6(R)				1	20	ST																																
ST1000-14	ST	Stp to Success	4(T) 5(R) 6(M-F)				0	20	ST																																
ST1000-15	ST	Stp to Success	1(M-W) 2(R)				0	20	ST																																
ST1000-16	ST	Stp to Success	1(R-F) 2(M-W)				2	20	ST																																
ST1000-17	ST	Stp to Success	3(M-W) 4(F)				0	20	ST																																
ST1000-18	ST	Stp to Success	2(F) 4(W) 5(T-W)				0	20	ST																																
ST1000-19	ST	Stp to Success	3(F) 4(F) 6(T-W)				0	20	ST																																
ST1000-20	ST	Stp to Success	4(W) 5(M-F) 6(R)				0	20	ST																																
ST1000-21	ST	Stp to Success	4(T) 5(R) 6(M-F)				0	20	ST																																
STEPS TO SUCCESS SUBTOTAL																																									
STEPS TO SUCCESS SUBTOTAL AT 85% UTILIZATION																																									
																				0.286	0.286																				
																				0.336	0.336																				

C. Utilization - 9th Grade Academy

Dept. Description	P. Teacher	TrackID	Schedule	Name	Dept. Code	Num. Class	Total	Max. Dept. ID	Current Course Enrollment	Enrollment Manager	Projected Course Enrollment	Max. Adj. Seats	No. of Sections	No. of Sections per Week	Sections per Week	Sections per Week	Total Stations	Notes
Study 9-01	Fuertes-Rodriguez, Mia	1(M)	1(M)	Fuertes-Rodriguez, Mia	WL	51	122	122	4	300								
Study 9-02	Reagan, Rachel	2(W)	2(W)	Reagan, Rachel	EN	51	122	122	4	300								
Study 9-03	Albhai, Marika	3(M)	3(M)	Albhai, Marika	MA	51	122	122	30	300								
Study 9-04	Fischer, Ebon	4(M)	4(M)	Fischer, Ebon	EN	51	122	122	9	300								
Study 9-05	Comer, Alisa	5(M)	5(M)	Comer, Alisa	WL	51	122	122	12	300								
Study 9-06	Williams, Elisha	6(M)	6(M)	Williams, Elisha	WL	51	122	122	36	300								
Study 9-07		1(T)	1(T)			51	122	122	4	300								
Study 9-08	Colburn, Eric	3(T)	3(T)	Colburn, Eric	EN	51	122	122	10	300								
Study 9-09		4(T)	4(T)			51	122	122	36	300								
Study 9-10		5(T)	5(T)			51	122	122	9	300								
Study 9-11	Rocco, Julia	6(T)	6(T)	Rocco, Julia	EN	51	122	122	14	300								
Study 9-12		1(W)	1(W)			51	122	122	4	300								
Study 9-13		2(W)	2(W)			51	122	122	5	300								
Study 9-14		3(W)	3(W)			51	122	122	9	300								
Study 9-15	Crane, Elizabeth	4(W)	4(W)	Crane, Elizabeth	SC	51	122	122	11	300								
Study 9-16		5(W)	5(W)			51	122	122	9	300								
Study 9-17		6(W)	6(W)			51	122	122	14	300								
Study 9-18		1(R)	1(R)			51	122	122	5	300								
Study 9-19		2(R)	2(R)			51	122	122	4	300								
Study 9-20		4(R)	4(R)			51	122	122	14	300								
Study 9-21		5(R)	5(R)			51	122	122	36	300								
Study 9-22		6(R)	6(R)			51	122	122	12	300								
Study 9-23		1(F)	1(F)			51	122	122	5	300								
Study 9-24		2(F)	2(F)			51	122	122	9	300								
Study 9-25		3(F)	3(F)			51	122	122	14	300								
Study 9-26		4(F)	4(F)			51	122	122	10	300								
Study 9-27		5(F)	5(F)			51	122	122	11	300								
Study 9-28		6(F)	6(F)			51	122	122	36	300								
Study 9-29		1(M)	1(M)			52	122	122	7	300								
Study 9-30		2(M)	2(M)			52	122	122	30	300								
Study 9-31		3(M)	3(M)			52	122	122	3	300								
Study 9-32		4(M)	4(M)			52	122	122	9	300								
Study 9-33		5(M)	5(M)			52	122	122	8	300								
Study 9-34		6(M)	6(M)			52	122	122	10	300								
Study 9-35		1(T)	1(T)			52	122	122	7	300								
Study 9-36		3(T)	3(T)			52	122	122	3	300								
Study 9-37		4(T)	4(T)			52	122	122	10	300								
Study 9-38		5(T)	5(T)			52	122	122	3	300								
Study 9-39		6(T)	6(T)			52	122	122	14	300								
Study 9-40		1(W)	1(W)			52	122	122	7	300								
Study 9-41		2(W)	2(W)			52	122	122	31	300								
Study 9-42		3(W)	3(W)			52	122	122	2	300								
Study 9-43		4(W)	4(W)			52	122	122	7	300								
Study 9-44		5(W)	5(W)			52	122	122	9	300								
Study 9-45		6(W)	6(W)			52	122	122	17	300								
Study 9-46		1(R)	1(R)			52	122	122	31	300								
Study 9-47		2(R)	2(R)			52	122	122	7	300								
Study 9-48		4(R)	4(R)			52	122	122	17	300								
Study 9-49		5(R)	5(R)			52	122	122	10	300								
Study 9-50		6(R)	6(R)			52	122	122	8	300								
Study 9-51		1(F)	1(F)			52	122	122	31	300								
Study 9-52		2(F)	2(F)			52	122	122	9	300								
Study 9-53		3(F)	3(F)			52	122	122	17	300								
Study 9-54		4(F)	4(F)			52	122	122	3	300								
Study 9-55		5(F)	5(F)			52	122	122	7	300								
Study 9-56		6(F)	6(F)			52	122	122	10	300								
STUDY SUBTOTAL											453	30	17	1	17	28	0.607	
STUDY SUBTOTAL AT 85% UTILIZATION									337	1.385	493	30	16	1	16	28	0.571	
TE1001-01 CE Creative Woodworking 1	Gurner, Glen	F Block	4(W) 5(M) 6(R)	Gurner, Glen	CE	51	U411	U411	17	16	CE						0.607	0.571
TE1001-02 CE Creative Woodworking 1	Gurner, Glen	B Block	1(R) 2(M) 3(W)	Gurner, Glen	CE	51	U411	U411	16	16	CE						0.714	0.672
TE1001-03 CE Creative Woodworking 1	Gurner, Glen	F Block	4(W) 5(M) 6(R)	Gurner, Glen	CE	52	U411	U411	16	16	CE							
TE1001-04 CE Creative Woodworking 1	Gurner, Glen	F Block	3(F) 4(R) 5(T) 6(W)	Gurner, Glen	CE	52	U411	U411	16	16	CE						0.143	0.143
TE1002-01 CE Creative Woodworking 2	Gurner, Glen	G Block	4(T) 5(R) 6(M) 7(F)	Gurner, Glen	CE	51	U411	U411	8	12	CE	TE1003-01/TE1002/TE1						
TE1003-01 CE Furniture Design & Construct	Gurner, Glen	G Block	4(T) 5(R) 6(M) 7(F)	Gurner, Glen	CE	51	U411	U411	3	8	CE	TE1003-01/TE1002/TE1					0.143	Includes TE1003-01 Shared w/ TE1002-01
WOODWORKING SUBTOTAL									33	32	0.346	11	1	1	4	4	0.143	0.143
WOODWORKING SUBTOTAL AT 85% UTILIZATION									11	0.346	4	16	1	1	4	4	0.143	Includes TE1003-01 Shared w/ TE1002-01
																	0.286	0.143 Assume 9th Graders go to UAB for Woodworking
																	0.336	0.168 to UAB for Woodworking

C. Utilization - 9th Grade Academy

Dept. Description	P. Teacher	Track/D	Schedule	Name	Dept. Code	Hum. Classr.	Total	Max	Dept. ID	Current Course Enrollment	Enrollment Increase Manager	Projected Course Enrollment	Max. Students per Section	No. of Sections	No. of Sections per Week	Sessions per wk	Sessions per wk	Periods per wk	Total Stations Req. SZ	Total Stations Req. SZ	Notes	
TE3200-01	Gurner, Glen	A Block	1(M-W)2(R)	Gurner, Glen	CE S2	UA16/UA16	10	10	CE TE3200-01/10	15	0.346	5	16	1	4	4	4	28	0.143	0.143	Shared CR with TE3300-01	
TE3300-01	Gurner, Glen	A Block	1(M-W)2(R)	Gurner, Glen	CE S2	UA16/UA16	5	5	CE TE3200-01/10	15	0.346	5	16	1	4	4	4	28	0.143	0.143	Shared CR with TE3200-01	
TE4200-01	Marous, Arnold	C Block	3(M-W)4(F)	Marous, Arnold	CE S1	103/103	2	5	CE TE3200-01/10	28												
TE4200-02	Marous, Arnold	F Block	4(W)5(M-F)6(R)	Marous, Arnold	CE S1	103/103	5	5	CE TE3200-01/10	28												
TE4200-03	Marous, Arnold	C Block	3(M-W)4(F)	Marous, Arnold	CE S1	103/103	2	5	CE TE3200-01/10	28												
TE4200-04	Marous, Arnold	B Block	1(R-F)2(M-W)	Marous, Arnold	CE S1	103/103	2	5	CE TE3200-01/10	28												
TE4200-05	Marous, Arnold	E Block	3(F)4(R)6(T-W)	Marous, Arnold	CE S1	103/103	5	5	CE TE3200-01/10	28												
TE4200-06	Marous, Arnold	A Block	1(M-W)2(R)	Marous, Arnold	CE S1	103/103	5	5	CE TE3200-01/10	28												
TE4200-07	Marous, Arnold	G Block	4(T)5(R)6(M-F)	Marous, Arnold	CE S1	103/103	6	5	CE TE3200-01/10	28												
TE4200-08	Marous, Arnold	D Block	2(F)3(W)5(T-W)	Marous, Arnold	CE S1	103/103	3	5	CE TE3200-01/10	28												
TE4200-09	Marous, Arnold	G Block	4(T)5(R)6(M-F)	Marous, Arnold	CE S2	103/103	2	5	CE TE3200-01/10	28												
TE4200-10	Marous, Arnold	E Block	3(F)4(R)6(T-W)	Marous, Arnold	CE S2	103/103	1	5	CE TE3200-01/10	28												
TE4200-11	Marous, Arnold	B Block	1(R-F)2(M-W)	Marous, Arnold	CE S2	103/103	3	5	CE TE3200-01/10	28												
TE4200-12	Marous, Arnold	A Block	2(F)4(W)5(T-W)	Marous, Arnold	CE S2	103/103	5	5	CE TE3200-01/10	28												
TE4200-13	Marous, Arnold	D Block	2(F)4(W)5(T-W)	Marous, Arnold	CE S2	103/103	2	5	CE TE3200-01/10	28												
TE4200-14	Marous, Arnold	F Block	4(W)5(M-F)6(R)	Marous, Arnold	CE S2	103/103	3	5	CE TE3200-01/10	28												
TE4200Z-01	Marous, Arnold	Z Block	Z(M-F)	Marous, Arnold	CE S1	103/103	2	5	CE TE3200-01/10	28	16	0.346	10	6	2	4	8	8	28	0.286	0.286	
TE4200Z-02	Marous, Arnold	Z Block	Z(M-F)	Marous, Arnold	CE S2	103/103	1	5	CE TE3200-01/10	2	1	0.346	1	0	5	1	4	4	5	0.800	0.800	Z block classes - not within 28 periods.
TE4501-01	Gurner, Glen	A Block	1(M-W)2(R)	Gurner, Glen	CE S1	UA16/UA16	16	16	CE TE3200-01/10													
TE4501-02	Gurner, Glen	B Block	1(R-F)2(M-W)	Gurner, Glen	CE S2	UA16/UA16	15	16	CE TE3200-01/10													
TE4501-03	Gurner, Glen	G Block	4(T)5(R)6(M-F)	Gurner, Glen	CE S2	UA16/UA16	15	16	CE TE3200-01/10													
TE4501-04	Gurner, Glen	E Block	3(F)4(R)6(T-W)	Gurner, Glen	CE S1	UA16/UA16	16	16	CE TE3200-01/10													
TECHNICAL SUBTOTAL																						
TECHNICAL SUBTOTAL AT 85% UTILIZATION																						
TU1000-01	Putnam, Dean	E Block	3(F)4(R)6(T-W)	Putnam, Dean	WL FY	267/267	3	5	TU1000-01/10													
TU1000-02	Burke-Hunter, Joanne; Kostant, Shobhana	A Block	1(M-W)2(R)	Burke-Hunter, Joanne	SO FY	267/267	5	4	TU1000-02/10													
TU1000-03	McGinnis, Emily; Gronlund-Jacob, Noah	B Block	1(R-F)2(M-W)	McGinnis, Emily	WL FY	283/283	10	11	TU1000-03/10													
TU1000-04	Buys, Kari; Gurry, Laura	B Block	1(R-F)2(M-W)	Buys, Kari	MA FY	201/201	6	4	TU1000-04/10													
TU1000-05	Angione, Mary; Eby, Rachel	C Block	3(M-W)4(F)	Angione, Mary	SC FY	283/283	2	5	TU1000-05/10													
TU1000-06	Hitchcock, Katherine; Cavhome, J. Malcolin	D Block	2(F)4(W)5(T-W)	Hitchcock, Katherine	MA FY	283/283	9	10	TU1000-06/10													
TU1000-07	Shen, Ahnleen; Conner, Alia	D Block	2(F)4(W)5(T-W)	Shen, Ahnleen	MA FY	201/201	5	4	TU1000-07/10													
TU1000-08	Kozel, Brad; Frey, Jennifer	E Block	3(F)4(R)6(T-W)	Kozel, Brad	SC FY	283/283	4	4	TU1000-08/10													
TU1000-09	Alibhai, Manik; Grant, Robert	E Block	3(F)4(R)6(T-W)	Alibhai, Manik	MA FY	201/201	5	5	TU1000-09/10													
TU1000-10	Weiffenbach, Barbara; Carr, O'Neil	F Block	4(W)5(M-F)6(R)	Weiffenbach, Barbara	SC FY	283/283	5	4	TU1000-10/10													
TU1000-11	Padgett, Julie; Williams, Elsha	F Block	4(W)5(M-F)6(R)	Padgett, Julie	MA FY	201/201	4	4	TU1000-11/10													
TU1000-12	Giblin, Heather; Tosa, Dygo	F Block	4(W)5(M-F)6(R)	Giblin, Heather	SC FY	267/267	4	4	TU1000-12/10													
TU1000-13	Wooley-Brown, Katherine; Grubb, Mallory; Bruce	G Block	4(T)5(R)6(M-F)	Wooley-Brown, Katherine	SC FY	283/283	11	10	TU1000-13/10													
TU1000-14	Williams, Summer; Malloy, Bruce	G Block	4(T)5(R)6(M-F)	Williams, Summer	PA FY	201/201	4	3	TU1000-14/10													
TU1000-15	Buhl, Elizabeth; Grande, Reger	C Block	3(M-W)4(F)	Buhl, Elizabeth	SO FY	201/201	4	4	TU1000-15/10													
TU1000-17	Leslie, Kathryn	C Block	3(M-W)4(F)	Leslie, Kathryn	SO FY	267/267	3	2	TU1000-17/10													
TU1100-01	Celis, Meaghan	D Block	2(F)4(W)5(T-W)	Celis, Meaghan	SC FY	170/170	4	0	TU1100-01/10	84	1.385	116	116	12	12	4	48	48	28	1.714	1.714	
TU1100-02	Fuertes-Rodriguez, Mar	F Block	4(W)5(M-F)6(R)	Fuertes-Rodriguez, Mar	WL FY	170/170	7	0	TU1100-02/10													
TU1209-01	Lemmel, David	D Block	2(F)4(W)5(T-W)	Lemmel, David	FY	382/382	20	25	TU1209-01/10													
TU1209-01	Lemmel, David	D Block	2(F)4(W)5(T-W)	Lemmel, David	FY	382/382	4	25	TU1209-01/10	11	0.346	4	4	10	1	4	4	4	28	0.143	0.143	
TU1209-02	Lemmel, David	D Block	2(F)4(W)5(T-W)	Lemmel, David	FY	382/382	7	25	TU1209-02/10													
TUTORIAL SUBTOTAL																						
TUTORIAL SUBTOTAL AT 85% UTILIZATION																						

C. Utilization - 9th Grade Academy

Dept. Description	P	Teacher	TrackID	Schedule	Name	Dept. Code	Num	Clsr	Total	Max	Dept. ID	Term	Current Course Enroll	Enrollment Increase Multiplier	Projected Course Enroll	Max Students per Section	No. of Sections	No. of Sections / Week	Sections per week	Sections per wk	Periods per wk	Peak Statuses Req.	Notes																					
TU2009-01 SP Learning Center 9		Irvin, Holly	G Block	4(T) 5(R) 6(M,F)	Irvin, Holly	SP	FY	284	284	8	7 SP	FY																																
TU2009-02 SP Learning Center 9		Mangold, Dorothee	A Block	1(M-W) 2(R)	Mangold, Dorothee	FY	284	284	6	7 SP	FY												Shared CR with TU20092x-01																					
TU2009-03 SP Learning Center 9		Irvin, Holly	F Block	4(W) 5(M,F) 6(R)	Irvin, Holly	SP	FY	284	284	7	7 SP	FY																																
TU2009-04 SP Learning Center 9		Mangold, Dorothee	C Block	3(M-W) 4(F)	Mangold, Dorothee	FY	284	284	6	7 SP	FY																																	
TU2009-05 SP Learning Center 9		Irvin, Holly	E Block	3(F) 4(R) 6(T-W)	Irvin, Holly	SP	FY	284	284	8	7 SP	FY																																
TU2009-06 SP Learning Center 9		Differ, Elizabeth	D Block	2(F) 4(M) 5(T-W)	Differ, Elizabeth	SP	FY	100	100	8	7 SP	FY																																
TU2009-07 SP Learning Center 9		Differ, Elizabeth	C Block	3(M-W) 4(F)	Differ, Elizabeth	SP	FY	100	100	4	7 SP	FY																																
TU2009-08 SP Learning Center 9		Differ, Elizabeth	B Block	1(R-F) 2(M,W)	Differ, Elizabeth	SP	FY	100	100	6	7 SP	FY																																
TU2009-09 SP Learning Center 9		Montrose, Jason	F Block	4(W) 5(M,F) 6(R)	Montrose, Jason	SP	FY	100	100	8	7 SP	FY																																
TU2009-10 SP Learning Center 9		Montrose, Jason	G Block	4(T) 5(R) 6(M,F)	Montrose, Jason	SP	FY	100	100	5	7 SP	FY																																
TU20092x-01 SP Learning Center 9		Irvin, Holly	F(W)	4(W) 5(F)	Irvin, Holly	SP	FY	284	284	1	1 SP	FY	66	1.385	91	91	7	14	14	4	56	28	2.000	Incl. TU20092x-01 Shared CR with TU2009-03 W.F																				
TU400-01 SP Supported Learning Tutorial		Labouhere, Natalie	C Block	3(M-W) 4(F)	Labouhere, Natalie	SP	FY	124	124	1	1 SP	FY											Incl. in TU2009 above																					
TU400-02 SP Supported Learning Tutorial		Labouhere, Natalie	G Block	4(T) 5(R) 6(M,F)	Labouhere, Natalie	SP	FY	124	124	1	1 SP	FY																																
TU400-03 SP Supported Learning Tutorial		Labouhere, Natalie	E Block	3(F) 4(R) 6(T-W)	Labouhere, Natalie	SP	FY	124	124	0	1 SP	FY																																
TU400-04 SP Supported Learning Tutorial		Labouhere, Natalie	A Block	1(M-W) 2(R)	Labouhere, Natalie	SP	FY	124	124	0	1 SP	FY																																
TU400-05 SP Supported Learning Tutorial		Labouhere, Natalie	F Block	4(W) 5(M,F) 6(R)	Labouhere, Natalie	SP	FY	124	124	0	1 SP	FY																																
TU2200-01 SP Supported Learning Center		Labouhere, Natalie	C Block	3(M-W) 4(F)	Labouhere, Natalie	SP	FY	124	124	5	5 SP	FY	26	0.346	9	9	7	2	2	4	8	28	0.286	Incl. TU2200 below																				
TU2200-02 SP Supported Learning Center		Labouhere, Natalie	G Block	4(T) 5(R) 6(M,F)	Labouhere, Natalie	SP	FY	124	124	6	5 SP	FY																																
TU2200-03 SP Supported Learning Center		Labouhere, Natalie	E Block	3(F) 4(R) 6(T-W)	Labouhere, Natalie	SP	FY	124	124	4	5 SP	FY																																
TU2200-04 SP Supported Learning Center		Labouhere, Natalie	A Block	1(M-W) 2(R)	Labouhere, Natalie	SP	FY	124	124	4	5 SP	FY																																
TU2200-05 SP Supported Learning Center		Labouhere, Natalie	F Block	4(W) 5(M,F) 6(R)	Labouhere, Natalie	SP	FY	124	124	5	5 SP	FY																																
TU2300-01 SP Learning Center		Mahoney, Bernia	G Block	4(T) 5(R) 6(M,F)	Mahoney, Bernia	SP	FY	407	407	5	10 SP	FY											Included in TU400 above																					
TU3000-01 SP Study Skills and Tutorial		Moreno, Susan	G Block	4(T) 5(R) 6(M,F)	Moreno, Susan	SP	FY	240	240	5	4 SP	FY																																
TU3000-02 SP Study Skills and Tutorial		Moreno, Susan	B Block	1(R-F) 2(M,W)	Moreno, Susan	SP	FY	240	240	3	4 SP	FY																																
TU3000-03 SP Study Skills and Tutorial		Moreno, Susan	D Block	2(F) 4(M) 5(T-W)	Moreno, Susan	SP	FY	240	240	4	4 SP	FY																																
TU3000-04 SP Study Skills and Tutorial		Moreno, Susan	C Block	3(M-W) 4(F)	Moreno, Susan	SP	FY	240	240	3	4 SP	FY																																
TU3000-05 SP Study Skills and Tutorial		Moreno, Susan	F Block	4(W) 5(M,F) 6(R)	Moreno, Susan	SP	FY	240	240	4	4 SP	FY																																
TU4000-01 SP RISE Tutorial		Orobosky, Rachel	B Block	1(R-F) 2(M,W)	Orobosky, Rachel	SP	FY	142	142	3	12 SP	FY																																
TU4000-02 SP RISE Tutorial		Orobosky, Rachel	A Block	1(M-W) 2(R)	Orobosky, Rachel	SP	FY	142	142	5	12 SP	FY																																
TU4000-03 SP RISE Tutorial		Orobosky, Rachel	F Block	4(W) 5(M,F) 6(R)	Orobosky, Rachel	SP	FY	142	142	3	12 SP	FY																																
TU4000-04 SP RISE Tutorial		Orobosky, Rachel	D Block	2(F) 4(M) 5(T-W)	Orobosky, Rachel	SP	FY	142	142	0	12 SP	FY																																
TU4000-05 SP RISE Tutorial		Orobosky, Rachel	E Block	3(F) 4(R) 6(T-W)	Orobosky, Rachel	SP	FY	142	142	0	12 SP	FY																																
TU4000-06 SP RISE Tutorial		Orobosky, Rachel	C Block	3(M-W) 4(F)	Orobosky, Rachel	SP	FY	142	142	5	12 SP	FY																																
TU4000-07 SP RISE Tutorial		Orobosky, Rachel	G Block	4(T) 5(R) 6(M,F)	Orobosky, Rachel	SP	FY	142	142	6	12 SP	FY																																
TU4001-01 SP CBC Tutorial		Ross, Robin	E Block	3(F) 4(R) 6(T-W)	Ross, Robin	SP	FY	148	148	1	12 SP	FY																																
TU4001-02 SP CBC Tutorial		Ross, Robin	B Block	1(R-F) 2(M,W)	Ross, Robin	SP	FY	148	148	2	12 SP	FY																																
TU4001-03 SP CBC Tutorial		Ross, Robin	A Block	1(M-W) 2(R)	Ross, Robin	SP	FY	148	148	0	12 SP	FY																																
TU4001-04 SP CBC Tutorial		Ross, Robin	C Block	3(M-W) 4(F)	Ross, Robin	SP	FY	148	148	2	12 SP	FY																																
TU4001-05 SP CBC Tutorial		Ross, Robin	D Block	2(F) 4(M) 5(T-W)	Ross, Robin	SP	FY	148	148	0	12 SP	FY																																
TU4001-06 SP CBC Tutorial		Ross, Robin	F Block	4(W) 5(M,F) 6(R)	Ross, Robin	SP	FY	148	148	0	12 SP	FY																																
TU4001-07 SP CBC Tutorial		Ross, Robin	G Block	4(T) 5(R) 6(M,F)	Ross, Robin	SP	FY	148	148	1	12 SP	FY																																
SPECIAL EDUCATION TUTORIAL SUBTOTAL																							6	6	0.346	2	2	12	1	1	4	4	4	4	4	4	4	4	4	4	4	4	0.143	
SPECIAL EDUCATION TUTORIAL SUBTOTAL AT 85% UTILIZATION																																												
TOTAL																							3,000	3,000																				3,529

C. Utilization - 9th Grade Academy

Dept. Description	SP	Teacher	TrackID	Schedule	Name	Dept. Code	Num	CS	Total	Max Dept. ID	Term	Current Course Enroll	Current Course Enroll	Enrollment Increase Multiplier	Projected Course Enroll	Projected Course Enroll	Max Students per section	No. of Sections	No. of Sections	No. of Sessions per week	Sessions per wk	Sessions per wk	Periods per wk	Total Stations Req.	Total Stations Req.	Notes
CE8900-01	SP	English I	B Block	1(R-F) 2(M,W)	McCarthy, Brendan	FY	109B	109B	0	1	FY	0	0	0.346	0	0	0	12	0	0	0	0	28	0.000	0.000	No students?
EN1070-01	SP	English I	B Block	1(R-F) 2(M,W)	Blette, Erin	SP	FY	334	334	6	20	6	6	1.385	8	8	12	1	1	4	4	4	28	0.143	0.143	EN1070-01 SP English I, EN1070-01 SP English II, EN1070-01 SP English III, and EN1070-01 SP English IV are same class student totals in EN1070
EN1070-02	SP	English I	B Block	4(W) 5(M,F) 6(R)	Ross, Robin	SP	FY	148	148	2	20	0	0													EN1070-02 SP English I, EN1070-02 SP English II, EN1070-02 SP English III, and EN1070-02 SP English IV are same class student totals in EN1070
EN1070-01	SP	English I	B Block	1(R-F) 2(M,W)	Orolovsky, Rachel	SP	FY	142	142	3	20	10	10	0.346	3	3	12	1	1	4	4	4	28	0.143	0.143	Includes EN2070, EN3070, EN4070 Shared CR
EN2070-01	SP	English II	F Block	4(W) 5(M,F) 6(R)	Ross, Robin	SP	FY	148	148	0	20	0	0													EN2070-01/ EN1070/EN2
EN2070-02	SP	English II	B Block	1(R-F) 2(M,W)	Orolovsky, Rachel	SP	FY	142	142	3	20	0	0													Shared CR Included in EN1070
EN3070-01	SP	English III	F Block	4(W) 5(M,F) 6(R)	Ross, Robin	SP	FY	148	148	2	20	0	0													EN3070-01/ EN1070/EN2
EN3070-02	SP	English III	B Block	1(R-F) 2(M,W)	Orolovsky, Rachel	SP	FY	142	142	0	20	0	0													Shared CR Included in EN1070
EN4070-01	SP	English IV	F Block	4(W) 5(M,F) 6(R)	Ross, Robin	SP	FY	148	148	0	20	0	0													Shared CR
EN4070-02	SP	English IV	B Block	1(R-F) 2(M,W)	Orolovsky, Rachel	SP	FY	142	142	0	20	0	0													Shared CR
MA1070-01	SP	Math I	A Block	1(M-W) 2(R)	Rondeau, Coral	SP	FY	146	146	2	20	0	0													MA1070-01/ MA4070/ MA2
MA1070-02	SP	Math I	A Block	1(M-W) 2(R)	Ross, Robin	SP	FY	148	148	2	20	0	0													Shared CR with MA2070-02, MA3070-02, MA4070-02
MA2070-01	SP	Math II	A Block	1(M-W) 2(R)	Rondeau, Coral	SP	FY	146	146	0	20	0	0													MA2070, MA3070, MA4070
MA2070-02	SP	Math II	A Block	1(M-W) 2(R)	Ross, Robin	SP	FY	148	148	0	20	0	0													Shared CR with MA1070-01, MA3070-01, MA4070-01
MA3070-01	SP	Math III	A Block	1(M-W) 2(R)	Rondeau, Coral	SP	FY	146	146	2	20	0	0													Shared CR with MA1070-02, MA3070-02, MA4070-02
MA3070-02	SP	Math III	A Block	1(M-W) 2(R)	Rondeau, Coral	SP	FY	146	146	2	20	0	0													Includes MA1070 above
MA4070-01	SP	Math IV	A Block	1(M-W) 2(R)	Rondeau, Coral	SP	FY	146	146	0	20	0	0													Shared CR with MA1070-01, MA2070-01, MA3070-01
MA4070-02	SP	Math IV	A Block	1(M-W) 2(R)	Ross, Robin	SP	FY	148	148	1	20	0	0													Shared CR with MA1070-02, MA2070-02, MA3070-02
SC1070-01	SP	Science I	B Block	1(R-F) 2(M,W)	Rondeau, Coral	SP	FY	146	146	1	20	0	0													Includes MA1070 above
SC1070-02	SP	Science I	B Block	1(R-F) 2(M,W)	Rondeau, Coral	SP	FY	146	146	0	20	0	0													Shared CR with MA1070-01, MA2070-01, MA3070-01
SC2070-01	SP	Science II	B Block	1(R-F) 2(M,W)	Rondeau, Coral	SP	FY	146	146	0	20	0	0													Includes SC2070, SC3070, SC4070
SC2070-02	SP	Science II	B Block	1(R-F) 2(M,W)	Rondeau, Coral	SP	FY	146	146	0	20	0	0													SC1070-01 Science I, 2070-01 Science I, SC3070-01 Science II, and SC4070-01 Science IV share CR

C. Utilization - 9th Grade Academy

Dept. Description	P Teacher	Track/D	Schedule	Name	Dept. Code	Num Class	Total Max	Dept. ID	Term	Current Course Enroll	Current Course Enroll	Enrollment Increase Multiplier	Projected Course Enroll	Projected Course Enroll	Max. Students per Section	No. of Sections	No. of Sections	No. of Sections	Seasons per week	Seasons per week	Periods per week	Total Stations Req.	Total Stations Req.	Notes																					
SP - Science II	Rondeau, Coral	B Block	1(R-F) 2(M,W)	Rondeau, Coral	SP	146	146	2 - 20 SP	SC3070-01/ SC1070/SC2	7	7	1.385	10	10	12	1	1	4	4	4	28	0.143	0.143	SC3070-01 Science I, SC3070-01 Science II, SC3070-01 Science III, and SC4070-01 Science IV share CR.																					
SP - Science IV	Rondeau, Coral	B Block	1(R-F) 2(M,W)	Rondeau, Coral	SP	146	146	0 - 20 SP	SC3070-01/ SC1070/SC2	7	7	1.385	10	10	12	1	1	4	4	4	28	0.143	0.143	Incl. in SC1070 above																					
SP - World History I	Sullivan, Tara	D Block	2(F) 4(M) 5(T-W)	Sullivan, Tara	SP	340	340	7 - 25 SP	FY	7	7	1.385	10	10	12	1	1	4	4	4	28	0.143	0.143	SO1070-01, SO2070-01, SO3070-01, SO4070-01, and TU4001-07 share same CR - students totalled in SO1070																					
SP - Social Studies I	Ross, Robin	G Block	4(T) 5(R) 6(M,F)	Ross, Robin	SP	148	148	1 - 12 SP	SO3070-01/ SO1070/SC2	8	8	0.346	3	3	12	1	1	4	4	4	28	0.143	0.143	SO1070-02, SO2070-02, SO3070-02, SO4070-02, and TU4001-05 share same CR - students totalled in SO1070																					
SP - Social Studies I	Ross, Robin	D Block	2(F) 4(M) 5(T-W)	Ross, Robin	SP	148	148	4 - 12 SP	FY	8	8	0.346	3	3	12	1	1	4	4	4	28	0.143	0.143	SO1070-02, SO2070-02, SO3070-02, SO4070-02, and TU4001-05 share same CR																					
SP - Social Studies II	Ross, Robin	D Block	2(F) 4(M) 5(T-W)	Ross, Robin	SP	148	148	1 - 12 SP	FY	8	8	0.346	3	3	12	1	1	4	4	4	28	0.143	0.143	SO1070-02, SO2070-02, SO3070-02, SO4070-02, and TU4001-05 share same CR																					
SP - Social Studies III	Ross, Robin	G Block	4(T) 5(R) 6(M,F)	Ross, Robin	SP	148	148	2 - 12 SP	SO3070-01/ SO1070/SC2	8	8	0.346	3	3	12	1	1	4	4	4	28	0.143	0.143	Included in SC1070																					
SP - Social Studies III	Ross, Robin	D Block	2(F) 4(M) 5(T-W)	Ross, Robin	SP	148	148	0 - 12 SP	FY	8	8	0.346	3	3	12	1	1	4	4	4	28	0.143	0.143	SO1070-01, SO2070-01, SO3070-01, SO4070-01, and TU4001-07 share same CR																					
SP - Social Studies III	Ross, Robin	D Block	2(F) 4(M) 5(T-W)	Ross, Robin	SP	148	148	0 - 12 SP	FY	8	8	0.346	3	3	12	1	1	4	4	4	28	0.143	0.143	SO1070-02, SO2070-02, SO3070-02, SO4070-02, and TU4001-05 share same CR																					
SP - Social Studies IV	Ross, Robin	G Block	4(T) 5(R) 6(M,F)	Ross, Robin	SP	148	148	0 - 12 SP	SO3070-01/ SO1070/SC2	8	8	0.346	3	3	12	1	1	4	4	4	28	0.143	0.143	Included in SC1070																					
SP - Social Studies IV	Ross, Robin	D Block	2(F) 4(M) 5(T-W)	Ross, Robin	SP	148	148	0 - 12 SP	FY	8	8	0.346	3	3	12	1	1	4	4	4	28	0.143	0.143	SO1070-01, SO2070-01, SO3070-01, SO4070-01, and TU4001-07 share same CR - students totalled in SO1070																					
SP - Social Studies IV	Ross, Robin	D Block	2(F) 4(M) 5(T-W)	Ross, Robin	SP	148	148	0 - 12 SP	FY	8	8	0.346	3	3	12	1	1	4	4	4	28	0.143	0.143	SO1070-02, SO2070-02, SO3070-02, SO4070-02, and TU4001-05 share same CR																					
SPECIAL EDUCATION CLASSROOMS SUB TOTAL																						0.857	0.857																						
SPECIAL EDUCATION CLASSROOMS SUB TOTAL AT 85% UTILIZATION																						1.008	1.008																						

C. Utilization - 9th Grade Academy

Dept. Description	P. Teacher	TrackID	Schedule	Name	Dept. Code	Num. C	Num. S	Num. T	Max. Dept. ID	Term	Current Course Enroll	Current Course Enroll	Enrollment Increase Multiple	Projected Course Enroll	Projected Course Enroll	Max. Students per Section	No. of Sections	No. of Sections	No. of Sections	Sections per week	Sections per week	Periods per VA	Total Stations Req. S1	Total Stations Req. S2	Notes
VA6100-01 VA Draw For Understanding in Field Science	Sartanowicz, Donna	CBlock	3(W)5(4F)	Sartanowicz, Donna	VA S1	UA	26	26	25 VA SCI300-01/ S1	S1	25	11	0.346	9	25	4	1	1	4	4	4	28	0.143	0.143	Shared CR with SCI300-01
VA6100-02 VA Draw For Understanding in Field Science	Sartanowicz, Donna	DBlock	2(F)4(W)5(T-W)	Sartanowicz, Donna	VA S2	UA	7	20	VA6100-02/ S2	S2															Shared CR with SCI300-02
VA6101-01 VA Metals II	MacDonald-Brennan, Elizabeth	FBlock	4(W)5(M)7(6R)	MacDonald-Brennan, Elizabeth	VA S1	UA	3	16	VA6001-01/ S1	S1	25	11	0.346	9	25	4	1	1	4	4	4	28	0.143	0.143	Includes SCI300 above
VA6101-02 VA Metals II	MacDonald-Brennan, Elizabeth	GBlock	4(T)5(R)6(MF)	MacDonald-Brennan, Elizabeth	VA S1	UA	2	16	VA6001-02/ S1	S1															Shared CR with VA6001-01
VA6101-03 VA Metals II	MacDonald-Brennan, Elizabeth	DBlock	2(F)4(W)5(T-W)	MacDonald-Brennan, Elizabeth	VA S2	UA	0	16	VA6001-03/ S2	S2															Shared CR with VA6001-02
VA6101-04 VA Metals II	MacDonald-Brennan, Elizabeth	CBlock	3(M-W)4(F)	MacDonald-Brennan, Elizabeth	VA S2	UA	1	16	VA6001-04/ S2	S2															Shared CR with VA6001-03
VA7001-01 VA Photography I	Lynn, Lori	CBlock	3(M-W)4(F)	Lynn, Lori	VA S2	UA	20	20	VA	S2	60	60	0.346	21	20	2	2	4	8	8	8	28	0.286	0.286	Ind. in VA6100 Metals I above
VA7001-02 VA Photography I	Lynn, Lori	GBlock	4(T)5(R)6(MF)	Lynn, Lori	VA S1	UA	20	20	VA	S1															Shared w/VA8201-01
VA7001-03 VA Photography I	Lynn, Lori	BBlock	1(R)2(MW)	Lynn, Lori	VA S2	UA	20	20	VA	S2															Shared w/VA8201-02
VA7001-04 VA Photography I	Lynn, Lori	CBlock	3(M-W)4(F)	Lynn, Lori	VA S1	UA	20	20	VA	S1															Includes VA8201-01, VA8201-02
VA7001-05 VA Photography I	Lynn, Lori	FBlock	4(W)5(M)7(6R)	Lynn, Lori	VA S1	UA	20	20	VA	S1															Includes VA8201-03
VA7001-06 VA Photography I	Lynn, Lori	EBlock	3(F)4(R)6(T-W)	Lynn, Lori	VA S2	UA	20	20	VA	S2															Includes VA8101-01
VA8101-01 VA Animation I	Latmer, Eric	DBlock	2(F)4(W)5(T-W)	Latmer, Eric	VA S2	UA	12	16	VA8201-01/ S2	S2	60	60	0.346	21	20	2	2	4	8	8	8	28	0.286	0.286	Shared w/VA8201-01
VA8101-02 VA Animation I	Latmer, Eric	CBlock	3(M-W)4(F)	Latmer, Eric	VA S2	UA	11	16	VA8101-02/ S2	S2															Shared w/VA8201-02
VA8101-03 VA Animation I	Latmer, Eric	CBlock	3(M-W)4(F)	Latmer, Eric	VA S1	UA	15	16	VA8101-03/ S1	S1															Includes VA8201-01, VA8201-02
VA8101-04 VA Animation II	Latmer, Eric	DBlock	2(F)4(W)5(T-W)	Latmer, Eric	VA S2	UA	5	16	VA8201-01/ S2	S2															Includes VA8201-03
VA8101-05 VA Animation II	Latmer, Eric	CBlock	3(M-W)4(F)	Latmer, Eric	VA S2	UA	5	16	VA8101-02/ S2	S2															Includes VA8101-01
VA8101-06 VA Animation II	Latmer, Eric	CBlock	3(M-W)4(F)	Latmer, Eric	VA S1	UA	1	16	VA8101-03/ S1	S1															Ind. in Animation 1
VA8101-07 VA 3D Animation	Latmer, Eric	DBlock	2(F)4(W)5(T-W)	Latmer, Eric	VA S1	UA	16	16	VA	S1															Shared w/VA8101-03
VA9101-01 VA Digital Design Studio I	Latmer, Eric	GBlock	4(T)5(R)6(MF)	Latmer, Eric	VA S2	UA	11	16	VA9101-01/ S2	S2	16	16	0.346	6	16	1	1	4	4	4	4	28	0.143	0.143	Shared CR with VA9201-01, CE9101/CE9
VA9101-02 VA Digital Design Studio I	Latmer, Eric	EBlock	3(F)4(R)6(T-W)	Latmer, Eric	VA S2	UA	10	16	VA9201-02/ S2	S2															Shared CR with VA9201-02, CE9101/CE9
VA9101-03 VA Digital Design Studio II	Latmer, Eric	GBlock	4(T)5(R)6(MF)	Latmer, Eric	VA S2	UA	2	16	VA9101-01/ S2	S2															Includes CE9101
VA9101-04 VA Digital Design Studio II	Latmer, Eric	EBlock	3(F)4(R)6(T-W)	Latmer, Eric	VA S2	UA	3	16	VA9201-02/ S2	S2															Shared CR with VA9201-01, CE9101/CE9
VA9101-05 VA Digital Video I	Mwosa, Thato	DBlock	2(F)4(W)5(T-W)	Mwosa, Thato	VA S1	UA	8	16	VA9320-01/ S1	S1															Ind. in VA9310 above
VA9101-06 VA Digital Video I	Mwosa, Thato	ABlock	1(M-W)2(R)	Mwosa, Thato	VA S2	UA	10	16	CE9310/CE9	S2															Shared CR with CE9310-02, CE9320-02, VA9320-01
VA9101-07 VA Digital Video I	Mwosa, Thato	FBlock	4(W)5(M)7(6R)	Mwosa, Thato	VA S2	UA	13	16	VA9310-03/ S2	S2															Shared CR with CE9310-03, CE9320-03, VA9320-03
VA9101-08 VA Digital Video II	Mwosa, Thato	DBlock	2(F)4(W)5(T-W)	Mwosa, Thato	VA S1	UA	0	0	VA9320-01/ S1	S1															Ind. in VA9310 above

C. Utilization - 9th Grade Academy

Dept. Description	P	Teacher	TrackID	Schedule	Name	Dept. Code	Num	CS	Total	Max	Dept. ID	Term	
VA1001-01	VA	Art Studio	G Block	4(T) 5(F) 6(M,F)	Lalmer, Eric	VA	S1	UA	UA	20	20	VA	S1
VA1001-01	VA	Art Studio	G Block	4(T) 5(F) 6(M,F)	Lalmer, Eric	VA	S1	UA	UA	20	20	VA	S1
VA1001-02	VA	Drawing I	G Block	4(T) 5(F) 6(M,F)	Lynn, Lori	VA	S2	UA	UA	22	22	VA	S2
VA1001-03	VA	Drawing I	A Block	1(M-W) 2(R)	MacDonald-Brennan, Elizabeth	VA	S1	UA	UA	22	22	VA	S1
VA1001-04	VA	Drawing I	B Block	2(F) 4(M) 5(T-W)	MacDonald-Brennan, Elizabeth	VA	S1	UA	UA	22	22	VA	S1
VA1001-05	VA	Drawing I	B Block	1(R-F) 2(M,W)	Saranowicz, Donna	VA	S1	UA	UA	22	22	VA	S1
VA1201-01	VA	Drawing II	F Block	4(W) 5(M,F) 6(R)	MacDonald-Brennan, Elizabeth	VA	S2	UA	UA	15	15	VA	S2
VA1201-02	VA	Drawing II	B Block	1(R-F) 2(M,W)	MacDonald-Brennan, Elizabeth	VA	S2	UA	UA	15	15	VA	S2
VA2001-01	VA	Painting I	C Block	3(M-W) 4(F)	Saranowicz, Donna	VA	S2	UA	UA	20	20	VA	S2
VA2001-02	VA	Painting I	D Block	2(F) 4(M) 5(T-W)	Saranowicz, Donna	VA	S1	UA	UA	20	20	VA	S1
VA2001-03	VA	Painting II	A Block	1(M-W) 2(R)	Saranowicz, Donna	VA	S2	UA	UA	9	9	VA	S2
VA3001-01	VA	Sculptural Objects 1	A Block	1(M-W) 2(R)	Magliathin, Andrew	VA	S1	UA	UA	15	15	VA	S1
VA3001-02	VA	Sculptural Objects 2	A Block	1(M-W) 2(R)	Magliathin, Andrew	VA	S1	UA	UA	0	0	VA	S1
VA4001-01	VA	Printmaking I	C Block	3(M-W) 4(F)	MacDonald-Brennan, Elizabeth	VA	S1	UA	UA	15	15	VA	S1
VA4001-02	VA	Printmaking I	G Block	4(T) 5(F) 6(M,F)	MacDonald-Brennan, Elizabeth	VA	S2	UA	UA	16	16	VA	S2
VA4201-01	VA	Printmaking II	C Block	3(M-W) 4(F)	MacDonald-Brennan, Elizabeth	VA	S1	UA	UA	1	1	VA	S1
VA4201-02	VA	Printmaking II	G Block	4(T) 5(F) 6(M,F)	MacDonald-Brennan, Elizabeth	VA	S2	UA	UA	4	4	VA	S2
VA4800-01	VA	Film as History/ as Film	B Block	1(R-F) 2(M,W)	Wheeler, Mark Mwosa, Thabo	SO	FY	UA	UA	1	1	VA	FY
VA5001-01	VA	Ceramics I	F Block	4(W) 5(M,F) 6(R)	Magliathin, Andrew	VA	S2	UA	UA	20	20	VA	S2
VA5001-02	VA	Ceramics I	A Block	1(M-W) 2(R)	Magliathin, Andrew	VA	S2	UA	UA	20	20	VA	S2
VA5001-03	VA	Ceramics I	E Block	3(F) 4(R) 6(T-W)	Magliathin, Andrew	VA	S2	UA	UA	21	21	VA	S2
VA5001-04	VA	Ceramics I	E Block	3(F) 4(R) 6(T-W)	Magliathin, Andrew	VA	S1	UA	UA	21	21	VA	S1
VA5001-05	VA	Ceramics I	F Block	4(W) 5(M,F) 6(R)	Magliathin, Andrew	VA	S1	UA	UA	21	21	VA	S1
VA5101-01	VA	Ceramics II	B Block	1(R-F) 2(M,W)	Magliathin, Andrew	VA	S1	UA	UA	15	15	VA	S1
VA5101-02	VA	Ceramics II	C Block	3(M-W) 4(F)	Magliathin, Andrew	VA	S2	UA	UA	20	20	VA	S2
VA5201-01	VA	Ceramics III	B Block	1(R-F) 2(M,W)	Magliathin, Andrew	VA	S1	UA	UA	2	2	VA	S1
VA5201-02	VA	Ceramics III	C Block	3(M-W) 4(F)	Magliathin, Andrew	VA	S2	UA	UA	4	4	VA	S2
VA5301-01	VA	Ceramics IV	B Block	1(R-F) 2(M,W)	Magliathin, Andrew	VA	S1	UA	UA	0	0	VA	S1
VA5301-02	VA	Ceramics IV	C Block	3(M-W) 4(F)	Magliathin, Andrew	VA	S2	UA	UA	2	2	VA	S2
VA6001-01	VA	Metals I	F Block	4(W) 5(M,F) 6(R)	MacDonald-Brennan, Elizabeth	VA	S1	UA	UA	14	14	VA	S1
VA6001-02	VA	Metals I	G Block	4(T) 5(F) 6(M,F)	MacDonald-Brennan, Elizabeth	VA	S1	UA	UA	16	16	VA	S1
VA6001-03	VA	Metals I	D Block	2(F) 4(M) 5(T-W)	MacDonald-Brennan, Elizabeth	VA	S2	UA	UA	16	16	VA	S2
VA6001-04	VA	Metals I	C Block	3(M-W) 4(F)	MacDonald-Brennan, Elizabeth	VA	S2	UA	UA	15	15	VA	S2

C. Utilization - 9th Grade Academy

Dept. Description	P	Teacher	TrackID	Schedule	Name	Dept. Code	Num. Csr	Total	Max	Dept. ID	Term	Current Enrollment	Enrollment Increase Multiplier	Projected Enrollment	Max Students per Section	No. of Sections	No. of Sections per week	Sections per week	Sections per wk	Periods per WK	Total Sections Req. S1	Total Sections Req. S2	Notes
VA9320-02 VA Digital Video II		Mwosa, Thato	A Block	1(M-W) 2(R)	Mwosa, Thato	VA S2	UA	1	0	CE9320-02/CE9310/CE9	S2											Shared CR with CE9310-02, CE9320-02, VA9320-02	
VA9320-03 VA Digital Video II		Mwosa, Thato	F Block	4(W) 5(M) 6(R)	Mwosa, Thato	VA S2	UA	0	0	VA9310-03/VA9320-03	S2												Shared CR with CE9310-03, CE9320-03, VA9310-03
VA9411-01 VA Comic Books 101		Lalimer, Eric	E Block	3(F) 4(R) 6(T-W)	Lalimer, Eric	VA S1	UA	16	16	VA9401-01/VA9401/VA9	S1	16	0.346	6	16	1	4	4	4	28	0.143		Incl. in VA9411 below Shared w/ VA9401-01
VA9411-01 VA Comic Books 102		Lalimer, Eric	E Block	3(F) 4(R) 6(T-W)	Lalimer, Eric	VA S1	UA	16	16	VA9401-01/VA9401/VA9	S1												Incl. in VA9401 above Shared CR with CE9800-01, CE9900-01, VA9900-01
VA9800-01 VA TV Production 101		Mwosa, Thato	A Block	1(M-W) 2(R)	Mwosa, Thato	VA S1	UA	11	16	VA9800-01/CE9800/CE9	S1												Included in CE9800 Shared CR with CE9310-02, CE9320-02, VA9320-02
VA9800-02 VA TV Production 101		Mwosa, Thato	D Block	2(F) 4(W) 5(T-W)	Mwosa, Thato	VA S2	UA	16	16	VA9900-02/VA9900-02	S2												Included in CE9800 Shared CR with CE9800-01, CE9900-01, VA9800-01
VA9900-01 VA TV Production 102		Mwosa, Thato	A Block	1(M-W) 2(R)	Mwosa, Thato	VA S1	UA	0	0	VA9900-01/CE9800/CE9	S1												Included in CE9800 Shared CR with CE9800-01, CE9900-01, VA9800-01
VA9900-02 VA TV Production 102		Mwosa, Thato	D Block	2(F) 4(W) 5(T-W)	Mwosa, Thato	VA S2	UA	0	0	VA9900-02/VA9900-02	S2												Included in CE9800 Shared CR with CE9800-01, CE9900-01, VA9900-01
VISUAL ARTS SUBTOTAL																							
VISUAL ARTS SUBTOTAL AT 85% UTILIZATION																							
VP2000-01 Oth Peer Leadership Full Year		Minott, Mary	Z Block	Z(M-F)	Minott, Mary	CE FY	143	143	20	50	Oth	VP2000/VP2001	FY										Shared w/ VP2001-01
VP2000-02 Oth Peer Leadership Full Year		Minott, Mary	Z Block	Z(M-F)	Minott, Mary	CE FY	384	384	11	50	Oth	VP2000-VP2001	FY	15	50	1	5	5	5	1.000			Includes VP2001, Z-period not included in total CR Shared w/ VP2000-01
PEER LEADERSHIP SUBTOTAL																							
VP2001-01 Oth Peer Leadership Semester 1		Minott, Mary	Z Block	Z(M-F)	Minott, Mary	CE S1	143	143	6	10	Oth	VP2000/VP2001	S1										Incl. in VP2000 above
VP2001-02 Oth Peer Leadership Semester 1		Minott, Mary	Z Block	Z(M-F)	Minott, Mary	CE S1	384	384	5	10	Oth	VP2000-VP2001	S1										Incl. in VP2000 above
VP2002-01 Oth Peer Leadership Semester 2		Minott, Mary	Z Block	Z(M-F)	Minott, Mary	CE S2	103	103	0	10	Oth	S2		0	0	0	0	0	0	0	0.000	0.000	Z period not included in total CR
PEER LEADERSHIP SUBTOTAL AT 85% UTILIZATION																							
PEER LEADERSHIP SUBTOTAL																							
PEER LEADERSHIP SUBTOTAL AT 85% UTILIZATION																							

C. Utilization - 9th Grade Academy

Dept.	Description	P. Teacher	TrackID	Schedule	Name	Dept. Code	Num	Csr	Total	Max	Dept. ID	Term	Current Enroll	Current Enroll S1	Enrollment Increase Multiplier	Projected Enroll S1	Projected Enroll S2	No. of Sections S1	No. of Sections S2	No. of Sections per week	Sessions per week S1	Sessions per week S2	Periods per wk	No. of Sections per wk	No. of Sections S1	No. of Sections S2	Max Students per Section	Projected Enroll S1	Projected Enroll S2	Enrollment Increase Multiplier	Current Enroll S1	Current Enroll S2	Term	Notes
WL100-01	WL Chinese I	Shorter, Ulihaa	G Block	4(T) 5(R) 6(M,F)	Shorter, Ulihaa	WL FY	200	200	26	26	WL	FY	26	26	0.346	9	9	1	1	1	4	4	4	4	28	0.143	0.143	9	9	0.346	26	26	FY	Shared CR with WL0230-01
WL0200-01	WL Chinese II	Chang, Fu-Tsang	C Block	3(M-W) 4(F)	Chang, Fu-Tsang	WL FY	246	246	11	11	WL	FY	47	47	0.346	16	16	1	1	1	4	4	4	4	28	0.143	0.143	16	16	0.346	47	47	FY	Shared CR with WL0230-02
WL0200-02	WL Chinese III	Shorter, Ulihaa	A Block	1(M-W) 2(R)	Shorter, Ulihaa	WL FY	235	235	11	11	WL	FY	47	47	0.346	16	16	1	1	1	4	4	4	4	28	0.143	0.143	16	16	0.346	47	47	FY	Includes WL0230-01
WL0230-01	WL Chinese III H	Chang, Fu-Tsang	C Block	3(M-W) 4(F)	Chang, Fu-Tsang	WL FY	246	246	13	13	WL	FY	47	47	0.346	16	16	1	1	1	4	4	4	4	28	0.143	0.143	16	16	0.346	47	47	FY	Shared CR with WL0230-01
WL0230-02	WL Chinese III H	Shorter, Ulihaa	A Block	1(M-W) 2(R)	Shorter, Ulihaa	WL FY	235	235	12	12	WL	FY	47	47	0.346	16	16	1	1	1	4	4	4	4	28	0.143	0.143	16	16	0.346	47	47	FY	Shared CR with WL0230-02
WL1100-01	WL French I	Gurry, Laura	G Block	4(T) 5(R) 6(M,F)	Gurry, Laura	WL FY	344	344	19	19	WL	FY	38	38	0.346	13	13	1	1	1	4	4	4	4	28	0.143	0.143	13	13	0.346	38	38	FY	
WL1100-02	WL French I	Gurry, Laura	D Block	2(F) 4(M) 5(T-W)	Gurry, Laura	WL FY	344	344	19	19	WL	FY	38	38	0.346	13	13	1	1	1	4	4	4	4	28	0.143	0.143	13	13	0.346	38	38	FY	
WL1200-01	WL French II	Puanaa, Dean	D Block	2(F) 4(M) 5(T-W)	Puanaa, Dean	WL FY	238	238	20	20	WL	FY	20	20	0.346	7	7	1	1	1	4	4	4	4	28	0.143	0.143	7	7	0.346	20	20	FY	
WL1230-01	WL French III H	Puanaa, Dean	F Block	4(W) 5(M,F) 6(R)	Puanaa, Dean	WL FY	238	238	17	17	WL	FY	20	20	0.346	7	7	1	1	1	4	4	4	4	28	0.143	0.143	7	7	0.346	20	20	FY	
WL1230-02	WL French III H	Puanaa, Dean	G Block	4(T) 5(R) 6(M,F)	Puanaa, Dean	WL FY	231	231	19	19	WL	FY	36	36	0.346	12	12	1	1	1	4	4	4	4	28	0.143	0.143	12	12	0.346	36	36	FY	
WL1260-01	WL French II Adv	Davis, Elizabeth	D Block	2(F) 4(M) 5(T-W)	Davis, Elizabeth	WL FY	206	206	26	27	WL	FY	26	26	0.346	9	9	1	1	1	4	4	4	4	28	0.143	0.143	9	9	0.346	26	26	FY	
WL1300-01	WL Latin I	Williams, Eliska	B Block	1(R-F) 2(M,W)	Williams, Eliska	WL FY	208	208	25	25	WL	FY	73	73	0.346	25	25	2	2	2	4	4	4	4	28	0.286	0.286	25	25	0.346	73	73	FY	
WL1300-02	WL Latin I	Williams, Eliska	D Block	2(F) 4(M) 5(T-W)	Williams, Eliska	WL FY	208	208	24	25	WL	FY	73	73	0.346	25	25	2	2	2	4	4	4	4	28	0.286	0.286	25	25	0.346	73	73	FY	
WL1300-03	WL Latin I	Williams, Eliska	C Block	3(M-W) 4(F)	Williams, Eliska	WL FY	208	208	24	25	WL	FY	73	73	0.346	25	25	2	2	2	4	4	4	4	28	0.286	0.286	25	25	0.346	73	73	FY	
WL4101-01	WL Beg Spanish I	Allen, Astrid	D Block	2(F) 4(M) 5(T-W)	Allen, Astrid	WL FY	231	231	23	23	WL	FY	46	46	0.346	16	16	1	1	1	4	4	4	4	28	0.143	0.143	16	16	0.346	46	46	FY	
WL4101-02	WL Beg Spanish I	Gorman, Elizabeth	B Block	1(R-F) 2(M,W)	Davis, Lindsay	WL FY	245	245	23	23	WL	FY	46	46	0.346	16	16	1	1	1	4	4	4	4	28	0.143	0.143	16	16	0.346	46	46	FY	
WL4102-01	WL Beg Spanish II	McGinnis, Emily	A Block	1(M-W) 2(R)	McGinnis, Emily	WL FY	347	347	18	21	WL	FY	39	39	0.346	13	13	1	1	1	4	4	4	4	28	0.143	0.143	13	13	0.346	39	39	FY	
WL4102-02	WL Beg Spanish II	McGinnis, Emily	D Block	2(F) 4(M) 5(T-W)	McGinnis, Emily	WL FY	347	347	21	21	WL	FY	39	39	0.346	13	13	1	1	1	4	4	4	4	28	0.143	0.143	13	13	0.346	39	39	FY	
WL4200-01	WL Inter Spanish II	Rodriguez, Jani	C Block	3(M-W) 4(F)	Rodriguez, Jani	WL FY	235	235	20	23	WL	FY	60	60	0.346	21	21	1	1	1	4	4	4	4	28	0.143	0.143	21	21	0.346	60	60	FY	
WL4200-02	WL Inter Spanish II	Rodriguez, Jani	G Block	4(T) 5(R) 6(M,F)	Rodriguez, Jani	WL FY	236	236	23	23	WL	FY	60	60	0.346	21	21	1	1	1	4	4	4	4	28	0.143	0.143	21	21	0.346	60	60	FY	
WL4200-03	WL Inter Spanish II	Mendez-Barrero, Christobel	A Block	1(M-W) 2(R)	Mendez-Barrero, Chris	WL FY	236	236	17	23	WL	FY	60	60	0.346	21	21	1	1	1	4	4	4	4	28	0.143	0.143	21	21	0.346	60	60	FY	
WL4200-04	WL Int Spanish II H	Gonyer, Dominique	C Block	3(M-W) 4(F)	Gonyer, Dominique	WL FY	214	214	23	25	WL	FY	91	91	0.346	31	31	2	2	2	4	4	4	4	28	0.286	0.286	31	31	0.346	91	91	FY	
WL4200-05	WL Int Spanish II H	Gonyer, Dominique	A Block	1(M-W) 2(R)	Gonyer, Dominique	WL FY	214	214	22	25	WL	FY	91	91	0.346	31	31	2	2	2	4	4	4	4	28	0.286	0.286	31	31	0.346	91	91	FY	
WL4200-06	WL Int Spanish II H	Comer, Alisa	G Block	4(T) 5(R) 6(M,F)	Comer, Alisa	WL FY	238	238	26	25	WL	FY	91	91	0.346	31	31	2	2	2	4	4	4	4	28	0.286	0.286	31	31	0.346	91	91	FY	
WL4200-07	WL Int Spanish II H	Comer, Alisa	C Block	3(M-W) 4(F)	Comer, Alisa	WL FY	238	238	20	25	WL	FY	91	91	0.346	31	31	2	2	2	4	4	4	4	28	0.286	0.286	31	31	0.346	91	91	FY	
WL4200-08	WL Spanish II Adv	Fuertes-Rodriguez, Marta	G Block	4(T) 5(R) 6(M,F)	Fuertes-Rodriguez, Marta	WL FY	235	235	28	29	WL	FY	86	86	0.346	30	30	2	2	2	4	4	4	4	28	0.286	0.286	30	30	0.346	86	86	FY	
WL4200-09	WL Spanish II Adv	Fuertes-Rodriguez, Marta	B Block	1(R-F) 2(M,W)	Fuertes-Rodriguez, Marta	WL FY	235	235	29	29	WL	FY	86	86	0.346	30	30	2	2	2	4	4	4	4	28	0.286	0.286	30	30	0.346	86	86	FY	
WL4200-10	WL Spanish II Adv	Davis, Lindsay	C Block	3(M-W) 4(F)	Davis, Lindsay	WL FY	245	245	29	29	WL	FY	86	86	0.346	30	30	2	2	2	4	4	4	4	28	0.286	0.286	30	30	0.346	86	86	FY	
WL5100-01	WL Japanese I	Eio, Rachel	F Block	4(W) 5(M,F) 6(R)	Eio, Rachel	WL FY	246	246	30	28	WL	FY	58	58	0.346	20	20	1	1	1	4	4	4	4	28	0.143	0.143	20	20	0.346	58	58	FY	
WL5100-02	WL Japanese I	Eio, Rachel	G Block	4(T) 5(R) 6(M,F)	Eio, Rachel	WL FY	246	246	28	28	WL	FY	58	58	0.346	20	20	1	1	1	4	4	4	4	28	0.143	0.143	20	20	0.346	58	58	FY	
WORLD LANGUAGE SURTOTAL AT 85% UTILIZATION																																		
2,286 2,286 2,689																																		

C. Utilization - 9th Grade Academy

Dept/Description	P	Teacher	Name	Dept.	Code	Num	Cls	Str	Total	Max	Depth	ID	Term	Current Course Enroll	Enroll Increase Multiplier	Projected Course Enroll	Max Students per Section	No. of Sections	No. of Sections per week	Sections per wk	Sections per wk	Total Stations Req.	Notes
				SP	FY					SP	SP	FY		Enroll	Enroll	Enroll	per Section	52	52	52	52	52	
AD2010-01 SP Advisory		Vendola, Joslyn	Vendola, Joslyn	SP	FY	6	25	SP	FY														
AD2010-02 SP Advisory		Beaulieu-Jones, Kyle	Beaulieu-Jones, Kyle	SP	FY	6	25	SP	FY														
AD2010-03 SP Advisory		Schreckengast, Amanda	Schreckengast, Amanda	SC	FY	4	25	SP	FY														
AD2010-04 SP Advisory		Kornell, Sarah	Kornell, Sarah	EN	FY	4	25	SP	FY														
CE22EX-01 SP Forensics		Schreckengast, Amanda	Schreckengast, Amanda	SC	S1	20	20	0.346		7	12	1	4	4	4	4	1.000	1.000	4	4	4	1.000	1.000
CE22EX-02 SP Forensics		Schreckengast, Amanda	Schreckengast, Amanda	SC	S2	0	25	SP	S2														
EN2100-01 SP English I		Kornell, Sarah	Kornell, Sarah	EN	Cycle	6	25	SP	Cycle 2/ Cycle 4														
MA2800-01 SP Math I		Vendola, Joslyn	Vendola, Joslyn	SP	Cycle	6	25	SP	Cycle 1/ Cycle 3														
SC1050-01 SP Applied Science I		Schreckengast, Amanda	Schreckengast, Amanda	SC	Cycle	6	25	SP	Cycle 2/ Cycle 4														
SC1050-02 SP Applied Science I		Schreckengast, Amanda	Schreckengast, Amanda	SC	Cycle	3	10	SP	Cycle 2/ Cycle 4														
SC2050-01 SP Applied Science II		Schreckengast, Amanda	Schreckengast, Amanda	SC	Cycle	6	25	SP	Cycle 1/ Cycle 3														
SC2050-02 SP Applied Science II		Schreckengast, Amanda	Schreckengast, Amanda	SC	Cycle	0	10	SP	Cycle 2/ Cycle 4														
SC2250-01 SP Physics I		Schreckengast, Amanda	Schreckengast, Amanda	SC	Cycle	6	25	SP	Cycle 2/ Cycle 4														
SC2280-01 SP Environmental Science		Schreckengast, Amanda	Schreckengast, Amanda	SC	Cycle	6	13	SP	Cycle 1/ Cycle 3														
SO2500-01 SP World History I		Beaulieu-Jones, Kyle	Beaulieu-Jones, Kyle	SP	Cycle	6	25	SP	Cycle 1/ Cycle 3														
TU2220-01 SP Tutorial E		Beaulieu-Jones, Kyle	Beaulieu-Jones, Kyle	SP	FY	7	25	SP	FY														
TU2220-02 SP Tutorial E		Schreckengast, Amanda	Schreckengast, Amanda	SC	FY	6	25	SP	FY														
TU2220-03 SP Tutorial E		Kornell, Sarah	Kornell, Sarah	EN	FY	7	25	SP	FY														
TU2222-01 SP Learning Center E		Vendola, Joslyn	Vendola, Joslyn	SP	Q2	0	10	SP	Q2														
VA22EX-01 SP Film and Fiction		Kornell, Sarah	Kornell, Sarah	EN	S1	7	25	SP	S1														
VA22EX-02 SP Film and Fiction		Kornell, Sarah	Kornell, Sarah	EN	S2	0	25	SP	S2														
EXCEL SUBTOTAL																							
EXCEL SUBTOTAL AT 85% UTILIZATION																							
Special Education																							
Subtotal by Department																							
Class enrollment includes students in Grades 9-12. Enrollment increase multiplier for total student enrollment from 1950 students to 2700 students = 1.385. For classes shared with upper grades, the enrollment increase multiplier is the proportional increase of the 9th grade students only (1.385/4).																							
Class enrollment - 9th grade only. Enrollment increase multiplier based on increase in 9th grade																							
From Master Schedule - two different classes meet together																							
When classes meet together, total student enrollment is combined and included in totals for class indicated in Notes column.																							
Class scheduled during 2-period. Utilization not included in total for department.																							
Class shares classroom with classes scheduled during the school day.																							

Appendices

C. Utilization

Tappan Gym & Schluntz Gym Utilization

C. Utilization - Tappan Gym & Schluntz Gym YR2016-2017

Season	Space	Time	Responsibility	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	
FALL - SEPTEMBER - NOVEMBER	GYM 1	SCHOOL SCHEDULE									
		7:30 - 8:15 AM									
		8:20 - 9:10 AM									
		9:15 - 10:15 AM									
		10:20 - 11:15 AM									
		11:20 - 12:55 PM									
		1:00 - 2:00 PM									
		2:05 - 2:55 PM	High School						Volleyball (Gameday only) 2:30 - 7:00 PM		
		AFTERSCHOOL									
		3:00 PM	High School		Volleyball (Gameday only) 3:00 - 7:00 PM						
		4:00 PM	High School		Volleyball (Gameday only)						
		4:30 PM	High School		Volleyball (Gameday only) 4:30 - 7:00 PM		Volleyball (Gameday only) 4:30 - 7:00 PM		Volleyball (Gameday only)		
		5:00 PM - 5:30 PM	High School		Volleyball (Gameday only)		Volleyball (Gameday only)		Volleyball (Gameday only)		
		5:30 PM	Recreation & High School		Volleyball (Gameday only)		Volleyball (Gameday only)		Volleyball (Gameday only)		
	5:30 PM	Recreation & High School		Volleyball (Gameday only)		Volleyball (Gameday only)		Volleyball (Gameday only)			
	6:30 PM	Recreation & High School		Volleyball (Gameday only) 6:30 PM - 11:00 PM		Volleyball (Gameday only) 6:30 PM - 11:00 PM		Volleyball (Gameday only) 6:30 PM - 11:00 PM			
	7:00 PM	Recreation		Volleyball (Gameday only) 7:00 PM - 11:00 PM		Volleyball (Gameday only) 7:00 PM - 11:00 PM		Volleyball (Gameday only) 7:00 PM - 11:00 PM			
	8:00 PM	Recreation		Volleyball (Gameday only) 8:00 PM - 11:00 PM		Volleyball (Gameday only) 8:00 PM - 11:00 PM		Volleyball (Gameday only) 8:00 PM - 11:00 PM			
	9:00 PM	Recreation		Volleyball (Gameday only) 9:00 PM - 11:00 PM		Volleyball (Gameday only) 9:00 PM - 11:00 PM		Volleyball (Gameday only) 9:00 PM - 11:00 PM			
	10:00 PM	Recreation		Volleyball (Gameday only) 10:00 PM - 11:00 PM		Volleyball (Gameday only) 10:00 PM - 11:00 PM		Volleyball (Gameday only) 10:00 PM - 11:00 PM			
11:00 PM	Recreation		Volleyball (Gameday only) 11:00 PM		Volleyball (Gameday only) 11:00 PM		Volleyball (Gameday only) 11:00 PM				
GYM 2	SCHOOL SCHEDULE										
	7:30 - 8:15 AM										
	8:20 - 9:10 AM	Recreation & High School		Rock Climbing/Adv						Viking Sports 8:30 AM - 12:00 PM	
	9:15 - 10:15 AM	Recreation & High School								Viking Sports	
	10:20 - 11:15 AM	Recreation								Viking Sports	
	11:20 - 12:55 PM	Recreation & High School								Viking Sports	
	1:00 - 2:00 PM	High School									
	2:05 - 2:55 PM	High School									
	AFTERSCHOOL										
	3:00 PM	High School		Cheer 3:00 PM - 6:00 PM		Cheer 3:00 PM - 6:00 PM		Cheer 3:00 PM - 6:00 PM			
	4:00 PM	High School		Cheer		Cheer		Cheer			
	4:30 PM	High School		Cheer		Cheer		Cheer			
	5:00 PM	High School		Cheer		Cheer		Cheer			
	5:30 PM	Recreation & High School		Cheer		Cheer		Cheer			
	6:00 PM	Recreation									
	6:30 PM	Recreation									
7:00 PM	Recreation										
8:00 PM	Recreation		Viking Sports - 8:00 PM - 11:00 PM		Viking Sports - 8:00 PM - 11:00 PM		Viking Sports - 8:00 PM - 11:00 PM				
9:00 PM	Recreation		Viking Sports		Viking Sports		Viking Sports				
10:00 PM	Recreation		Viking Sports		Viking Sports		Viking Sports				
10:30 PM	Recreation		Viking Sports		Viking Sports		Viking Sports				
11:00 PM	Recreation		Viking Sports		Viking Sports		Viking Sports				

C. Utilization - Tappan Gym & Schluntz Gym YR2016-2017

Season	Space	Time	Responsibility	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	Pavilion	SCHOOL SCHEDULE								
		7:30 - 8:15 AM								
		8:20 - 9:10 AM	Recreation & High School				Tennis Spec		Net Results Tennis 8:30 AM - 1:00 PM	Net Results Tennis 8:30 AM - 5:00 PM
		9:15 - 10:15 AM	Recreation & High School	Tennis Spec					Net Results Tennis	Net Results Tennis
		10:20 - 11:15 AM	Recreation						Net Results Tennis	Net Results Tennis
		11:20 - 12:00 PM	Recreation						Net Results Tennis	Net Results Tennis
		12:05 - 12:55 PM	Recreation						Net Results Tennis	Net Results Tennis
		1:00 - 2:00 PM	Recreation						Net Results Tennis	Net Results Tennis
		2:05 - 2:55 PM	Recreation						Net Results Tennis	Net Results Tennis
		AFTERSCHOOL	High School							
		3:00 PM	Recreation							Net Results Tennis
		4:00 PM	Recreation							Net Results Tennis
		4:30 PM	Recreation							Net Results Tennis
		5:00 PM								
		5:30 PM	Recreation					RAFT 5:30 PM - 10:30 PM		
		6:00 PM	Recreation			Net Results Tennis 6:00 PM - 10:30 PM		RAFT 6:00		
		6:30 PM	Recreation	Viking Sports - 6:30 PM - 11:00 PM		Net Results Tennis 6:00 PM - 10:30 PM		RAFT		
		7:00 PM	Recreation	Viking Sports		Net Results Tennis		RAFT		
		8:00 PM	Recreation	Viking Sports		Net Results Tennis		RAFT		
		9:00 PM	Recreation	Viking Sports		Net Results Tennis		RAFT		
		10:00 PM	Recreation	Viking Sports		Net Results Tennis		RAFT		
		10:30 PM	Recreation	Viking Sports		Net Results Tennis		RAFT		
		11:00 PM	Recreation	Viking Sports		Net Results Tennis		RAFT		
	Schluntz Gym									
		AM								
		7:30 - 8:15 AM								
		8:20 - 9:10 AM	High School						Volleyball 9:00 AM - 2:00 PM	
		9:15 - 10:15 AM	High School						Volleyball	
		10:20 - 11:15 AM	High School						Volleyball	
		11:20 - 12:55 PM	High School						Volleyball	
		1:00 - 2:00 PM	High School						Volleyball	
		2:05 - 2:55 PM	High School					Volleyball 2:30 PM - 7:30 PM		
		AFTERSCHOOL								
		3:00 PM	High School	Volleyball 3:00 PM - 7:30 PM	Volleyball 3:00 PM - 7:30 PM	Volleyball 3:00 PM - 7:30 PM	Volleyball 3:00 PM - 7:30 PM	Volleyball		
		4:00 PM	High School	Volleyball	Volleyball	Volleyball	Volleyball	Volleyball		
		4:30 PM	High School	Volleyball	Volleyball	Volleyball	Volleyball	Volleyball		
		5:00 PM	High School	Volleyball	Volleyball	Volleyball	Volleyball	Volleyball		
		5:30 PM	High School	Volleyball	Volleyball	Volleyball	Volleyball	Volleyball		
		6:00 PM	High School	Volleyball	Volleyball	Volleyball	Volleyball	Volleyball		
		7:00 PM	High School	Volleyball	Volleyball	Volleyball	Volleyball	Volleyball		
		7:30 PM	High School	Basketball 7:30 PM - 9:00 PM	Basketball 7:30 PM - 9:00 PM	Basketball 7:30 PM - 9:00 PM	Basketball 7:30 PM - 9:00 PM	Basketball 7:30 PM - 9:00 PM		
		8:00 PM	High School	Basketball	Basketball	Basketball	Basketball	Basketball		
		9:00 PM								
		10:00 PM								
		11:00 PM								

C. Utilization - Tappan Gym & Schluntz Gym YR2016-2017

Season	Space	Time	Responsibility	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	Dance Studio 1	SCHOOL SCHEDULE								
		Z: 7:30 - 8:15 AM								
		1: 8:20 - 9:10 AM	High School	Adv. Modern / Jazz	Adv. Modern / Jazz	Adv. Modern / Jazz	Adv. Modern / Jazz	Yoga (S1)	Begin Dance 1-A (S1)	
		2: 9:15 - 10:15 AM	High School	African/ Latin/ Hip Hop (S1)	African/ Latin/ Hip Hop (S1)	African/ Latin/ Hip Hop (S1)	Adv. Modern / Jazz	Begin Dance 1-A (S1)	Adv. Modern / Jazz	
		3: 10:20 - 11:15 AM	High School	Begin Dance 1-A (S1)	Begin Dance 1-A (S1)	Interm. Dance	Interm. Dance	African/ Latin/ Hip Hop (S1)	African/ Latin/ Hip Hop (S1)	
		4: 12:00 - 12:55 PM	High School	Inter. Dance	Begin Dance 1-A (S1)	Begin Dance 1-A (S1)	Adv. Modern / Jazz	Interm. Dance	Interm. Dance	
		5: 1:00 - 2:00 PM	High School		Adv. Modern / Jazz	Adv. Modern / Jazz	Interm. Dance			
		6: 2:05 - 2:55 PM	High School							
		AFTERSCHOOL								
		3:00 PM								
		4:30 PM	High School	Cheer	Cheer	Cheer	Cheer	Cheer	Cheer	
		5:00 PM	High School	Cheer	Cheer	Cheer	Cheer	Cheer	Cheer	
		6:30 PM	High School	Cheer	Cheer	Cheer	Cheer	Cheer	Cheer	
		7:00 PM								
		8:00 PM								
		9:00 PM								
		10:00 PM								
	Dance Studio 2	SCHOOL SCHEDULE								
		Z: 7:30 - 8:15 AM	High School		Yoga (S1)		Yoga (S1)			
		1: 8:20 - 9:10 AM								
		2: 9:15 - 10:15 AM	High School					Yoga (S1)		
		3: 10:20 - 11:15 AM	High School							
		4: 11:20 - 12:00 PM	High School			Begin Dance	Begin Dance			
		4: 12:00 - 12:55 PM	High School			Begin Dance	Begin Dance			
		5: 1:00 - 2:00 PM	High School	Begin Dance			Yoga (S1)	Begin Dance		
		6: 2:05 - 2:55 PM	High School	Yoga (S1)			Begin Dance			
		AFTERSCHOOL								
		3:00 PM								
		4:00 PM								
		4:30 PM	High School	Team Yoga	Team Yoga	Team Yoga	Team Yoga	Team Yoga	Team Yoga	
		5:00 PM	High School	Team Yoga	Team Yoga	Team Yoga	Team Yoga	Team Yoga	Team Yoga	
		6:00 PM	High School							
		6:30 PM								
		7:00 PM								
		8:00 PM								
		9:00 PM								
		10:00 PM								
	Fitness Center	SCHOOL SCHEDULE								
		Z: 7:30 - 8:15 AM	High School						All Programs	All Programs
		1: 8:20 - 9:10 AM	High School						8:30 AM - 1:00 PM	
		2: 9:15 - 10:15 AM	High School						All Programs	
		3: 10:20 - 11:15 AM	High School	Weight Tr/Cardio	Weight Tr/Cardio	Weight Tr/Cardio	Weight Tr/Cardio	Weight Tr/Cardio	All Programs	
		4: 11:20 - 12:00 PM	High School						All Programs	
		4: 12:00 - 12:55 PM	High School						All Programs	
		5: 1:00 - 2:00 PM	High School						All Programs	
		6: 2:05 - 2:55 PM	High School						All Programs	
		AFTERSCHOOL								
		3:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs	All Programs	
		4:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs	All Programs	
		4:30 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs	All Programs	
		5:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs	All Programs	
		5:30 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs	All Programs	
		6:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs	All Programs	
		6:30 PM								
		7:00 PM								
		8:00 PM								

C. Utilization - Tappan Gym & Schluntz Gym YR2016-2017

Season	Space	Time	Responsibility	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
		9:00 PM								
		10:00 PM								
	Mezzanine									
		SCHOOL SCHEDULE								
		Z: 7:30 - 8:15 AM								
		1: 8:20 - 9:10 AM								
		2: 9:15 - 10:15 AM								
		3: 10:20 - 11:15 AM								
		4: 11:20 - 12:00 PM								
		4: 12:00 - 12:55 PM								
		5: 1:00 - 2:00 PM	High School					All Programs 2:30 PM - 6:30 PM		
		6: 2:05 - 2:55 PM	High School							
		AFTERSCHOOL								
		3:00 PM	High School	All Programs 3:00 PM - 6:30 PM	All Programs 3:00 PM - 6:30 PM	All Programs 3:00 PM - 6:30 PM	All Programs 3:00 PM - 6:30 PM	All Programs		
		4:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		4:30 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		5:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		PM								
		5:30 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		6:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		6:30 PM								
		7:00 PM								
		8:00 PM								
		9:00 PM								
		10:00 PM								
	Sports Medicine Room									
		SCHOOL SCHEDULE								
		Z: 7:30 - 8:15 AM								
		1: 8:20 - 9:10 AM								
		2: 9:15 - 10:15 AM								
		3: 10:20 - 11:15 AM								
		4: 12:00 - 12:55 PM								
		4: 12:00 - 12:00 PM	High School	All Programs 12:30 PM - 8:00 PM	All Programs 12:30 PM - 8:00 PM	All Programs 12:30 PM - 8:00 PM	All Programs 12:30 PM - 8:00 PM	All Programs 12:30 PM - 10:00 PM		
		5: 1:00 - 2:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		6: 2:05 - 2:55 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		AFTERSCHOOL								
		3:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		4:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		4:30 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		5:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		PM								
		5:30 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		6:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		6:30 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		7:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		8:00 PM								
		9:00 PM								
		10:00 PM								
	Wrestling Room									
		SCHOOL SCHEDULE								
		Z: 7:30 - 8:15 AM								
		1: 8:20 - 9:10 AM								
		2: 9:15 - 10:15 AM								
		3: 10:20 - 11:15 AM								
		4: 11:20 - 12:00 PM								
		4: 12:00 - 12:55 PM								
		5: 1:00 - 2:00 PM	High School							
		6: 2:05 - 2:55 PM	High School					Wrestling/Team Yoga 2:30 PM - 5:30 PM		
		AFTERSCHOOL								
		3:00 PM	High School	Wrestling/Team Yoga 3:00 PM - 5:30 PM	Wrestling/Team Yoga 3:00 PM - 5:30 PM	Wrestling/Team Yoga 3:00 PM - 5:30 PM	Wrestling/Team Yoga 3:00 PM - 5:30 PM	Wrestling/Team Yoga		
		4:00 PM	High School	Wrestling/Team Yoga	Wrestling/Team Yoga	Wrestling/Team Yoga	Wrestling/Team Yoga	Wrestling/Team Yoga		
		4:30 PM	High School	Wrestling/Team Yoga	Wrestling/Team Yoga	Wrestling/Team Yoga	Wrestling/Team Yoga	Wrestling/Team Yoga		
		5:00 PM	High School	Wrestling/Team Yoga	Wrestling/Team Yoga	Wrestling/Team Yoga	Wrestling/Team Yoga	Wrestling/Team Yoga		
										Wrestling/Team Yoga 1:00 PM - 3:00 PM
										Wrestling/Team Yoga

C. Utilization - Tappan Gym & Schluntz Gym YR2016-2017

Season	Space	Time	Responsibility	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	
WINTER - DECEMBER	GYM 1	PM									
		5:30 PM	High School								
		6:00 PM	High School	Wrestling/ Team Yoga							
		6:30 PM									
		7:00 PM									
		8:00 PM									
		9:00 PM									
		10:00 PM									
		SCHOOL SCHEDULE									
		2:7:30 - 8:15 AM									
1: 8:20 - 9:10 AM	Recreation										
2: 9:15 - 10:15 AM	Recreation								Travel Basketball - 8:30 AM - 5:00 PM		
3: 10:20 - 11:15 AM	Recreation								Travel Basketball		
4: 11:20 - 12:55 PM	Recreation								Travel Basketball		
5: 1:00 - 2:00 PM	Recreation								Travel Basketball		
6: 2:05 - 2:55 PM	Recreation & High School							HS Basketball 2:30 PM - 6:30 PM	Travel Basketball		
AFTERSCHOOL											
3:00 PM	Recreation & High School	HS Basketball 3:00 PM - 6:30 PM	HS Basketball 3:00 PM - 6:30 PM	HS Basketball 3:00 PM - 6:30 PM	HS Basketball 3:00 PM - 6:30 PM	HS Basketball 3:00 PM - 6:30 PM	HS Basketball 3:00 PM - 6:30 PM	HS Basketball	Rec Basketball	Travel Basketball	
4:00 PM	Recreation & High School	HS Basketball	HS Basketball	HS Basketball	HS Basketball	HS Basketball	HS Basketball	HS Basketball	Rec Basketball	Travel Basketball	
4:30 PM	Recreation & High School	HS Basketball	HS Basketball	HS Basketball	HS Basketball	HS Basketball	HS Basketball	HS Basketball	Rec Basketball	Travel Basketball	
5:00 PM	High School	HS Basketball	HS Basketball	HS Basketball	HS Basketball	HS Basketball	HS Basketball	HS Basketball	Rec Basketball	Travel Basketball	
5:30 PM	Recreation & High School	HS Basketball	HS Basketball	HS Basketball	HS Basketball	HS Basketball	HS Basketball	HS Basketball	Rec Basketball	Travel Basketball	
6:00 PM	Recreation & High School	HS Basketball	HS Basketball	HS Basketball	HS Basketball	HS Basketball	HS Basketball	HS Basketball	Rec Basketball	Travel Basketball	
6:30 PM	Recreation	Viking Sports - 6:30 PM - 11:00 PM	Viking Sports - 6:30 PM - 11:00 PM	Viking Sports - 6:30 PM - 11:00 PM	Viking Sports - 6:30 PM - 11:00 PM	Viking Sports - 6:30 PM - 11:00 PM	Viking Sports - 6:30 PM - 11:00 PM	RAFT 5:30 PM - 10:30 PM			
7:00 PM	Recreation	Viking Sports	Travel Basketball	Viking Sports	Travel Basketball	Viking Sports	Viking Sports	RAFT 5:30 PM - 10:30 PM			
8:00 PM	Recreation	Viking Sports	Travel Basketball	Viking Sports	Travel Basketball	Viking Sports	Viking Sports	RAFT			
9:00 PM	Recreation	Viking Sports	Travel Basketball	Viking Sports	Travel Basketball	Viking Sports	Viking Sports	RAFT			
10:00 PM	Recreation	Viking Sports	Travel Basketball	Viking Sports	Travel Basketball	Viking Sports	Viking Sports	RAFT			
10:30 PM	Recreation	Viking Sports	Travel Basketball	Viking Sports	Travel Basketball	Viking Sports	Viking Sports	RAFT			
11:00 PM											
GYM 2											
SCHOOL SCHEDULE											
2:7:30 - 8:15 AM											
1: 8:20 - 9:10 AM	Recreation & High School				Rock Climb/ Adv (S1)				HS Basketball 8:30 AM - 12:00 PM	HS Basketball 9:00 AM - 12:00 PM	
2: 9:15 - 10:15 AM	Recreation & High School								HS Basketball	Viking Sports 8:30 AM - 12:00 PM	
3: 10:20 - 11:15 AM	Recreation & High School								HS Basketball	HS Basketball	
4: 11:20 - 12:00 PM	Recreation & High School								HS Basketball	HS Basketball	
4: 12:00 - 12:55 PM	Recreation & High School								HS Basketball	HS Basketball	
5: 1:00 - 2:00 PM	Recreation								Rec Basketball - 1:00 PM - 5:00 PM	Travel Basketball	
6: 2:05 - 2:55 PM	Recreation & High School				Rock Climb/ Adv (S1)				Rec Basketball	Travel Basketball	

C. Utilization - Tappan Gym & Schluntz Gym YR2016-2017

Season	Space	Time	Responsibility	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
		AFTERSCHOOL								
		3:00 PM	Recreation & High School	HS Basketball 3:00 PM - 6:30 PM	Cheer 3:00 PM - 6:30 PM HS Basketball 3:00 PM - 4:00 PM	HS Basketball 3:00 PM - 6:30 PM	HS Basketball 3:00 PM - 6:00 PM		Rec Basketball	Travel Basketball
		4:00 PM	Recreation & High School	HS Basketball	Cheer	HS Basketball	HS Basketball		Rec Basketball	Travel Basketball
		4:30 PM	High School	HS Basketball	Cheer	HS Basketball	HS Basketball			
		5:00 PM	High School	HS Basketball	Cheer	HS Basketball	HS Basketball			
		5:30 PM	Recreation & High School	HS Basketball	Cheer	HS Basketball	HS Basketball	RAFT 5:30 PM - 10:30 PM		
		6:00 PM	Recreation & High School	HS Basketball	Cheer	HS Basketball		RAFT		
		6:30 PM	Recreation			Rec Basketball - 6:30 PM - 7:30 PM	Rec Basketball - 6:30 PM - 7:30 PM	RAFT		
		7:00 PM	Recreation			Rec Basketball	Rec Basketball	RAFT		
		7:30 PM	Recreation			Viking Sports - 7:30 PM - 11:00 PM	Viking Sports - 7:30 PM - 11:00 PM	RAFT		
		8:00 PM	Recreation	Viking Sports - 8:00 PM - 11:00 PM	Viking Sports - 8:00 PM - 11:00 PM	Viking Sports	Viking Sports	RAFT		
		9:00 PM	Recreation	Viking Sports	Viking Sports	Viking Sports	Viking Sports	RAFT		
		10:00 PM	Recreation	Viking Sports	Viking Sports	Viking Sports	Viking Sports	RAFT		
		10:30 PM	Recreation	Viking Sports	Viking Sports	Viking Sports	Viking Sports	RAFT		
		11:00 PM	Recreation	Viking Sports	Viking Sports	Viking Sports	Viking Sports	RAFT		
	Pavilion									
		SCHOOL SCHEDULE								
		Z: 7:30 - 8:15 AM								
		1: 8:20 - 9:10 AM	Recreation & High School				Tennis Spec (S1)		Net Results Tennis 8:30 AM - 11:00 AM	Net Results Tennis 8:30 AM - 5:00 PM
		2: 9:15 - 10:15 AM	Recreation & High School	Tennis Spec (S1)					Net Results Tennis	Net Results Tennis
		3: 10:20 - 11:15 AM	Recreation & High School						Net Results Tennis	Net Results Tennis
		4: 11:20 - 12:55 PM	Recreation & High School						Track, Baseball, Softball, Lacrosse 11:00 AM - 5:00 PM	
		5: 1:00 - 2:00 PM	Recreation & High School						Track, Baseball, Softball, Lacrosse	Net Results Tennis
		6: 2:05 - 2:55 PM	Recreation & High School						Track, Baseball, Softball, Lacrosse	Net Results Tennis
		AFTERSCHOOL								
		3:00 PM	Recreation & High School	Track, Baseball, Softball, Lacrosse 3:00 PM - 6:00 PM	Track, Baseball, Softball, Lacrosse 3:00 PM - 6:00 PM	Track, Baseball, Softball, Lacrosse 3:00 PM - 6:00 PM	Track, Baseball, Softball, Lacrosse 3:00 PM - 6:00 PM	Track, Baseball, Softball, Lacrosse	Track, Baseball, Softball, Lacrosse	Net Results Tennis
		4:00 PM	Recreation & High School	Track, Baseball, Softball, Lacrosse	Track, Baseball, Softball, Lacrosse	Track, Baseball, Softball, Lacrosse	Track, Baseball, Softball, Lacrosse	Track, Baseball, Softball, Lacrosse	Track, Baseball, Softball, Lacrosse	Net Results Tennis
		4:30 PM	High School	Track, Baseball, Softball, Lacrosse	Track, Baseball, Softball, Lacrosse	Track, Baseball, Softball, Lacrosse	Track, Baseball, Softball, Lacrosse	Track, Baseball, Softball, Lacrosse	Track, Baseball, Softball, Lacrosse	Net Results Tennis
		5:00 PM	High School	Track, Baseball, Softball, Lacrosse	Track, Baseball, Softball, Lacrosse	Track, Baseball, Softball, Lacrosse	Track, Baseball, Softball, Lacrosse	Track, Baseball, Softball, Lacrosse	Track, Baseball, Softball, Lacrosse	Net Results Tennis
		PM								
		5:30 PM	Recreation & High School	Track, Baseball, Softball, Lacrosse	Track, Baseball, Softball, Lacrosse	Track, Baseball, Softball, Lacrosse	Track, Baseball, Softball, Lacrosse	Track, Baseball, Softball, Lacrosse	Track, Baseball, Softball, Lacrosse	Net Results Tennis
		6:00 PM	Recreation			Net Results Tennis PM - 10:30 PM	Net Results Tennis PM - 10:30 PM	RAFT 5:30 PM - 10:30 PM		
		6:30 PM	Recreation	Viking Sports - 6:30 PM - 11:00 PM	Viking Sports - 6:30 PM - 11:00 PM	Net Results Tennis	Net Results Tennis	RAFT		
		7:00 PM	Recreation	Viking Sports	Viking Sports	Net Results Tennis	Net Results Tennis	RAFT		
		8:00 PM	Recreation	Viking Sports	Viking Sports	Net Results Tennis	Net Results Tennis	RAFT		
		9:00 PM	Recreation	Viking Sports	Viking Sports	Net Results Tennis	Net Results Tennis	RAFT		
		10:00 PM	Recreation	Viking Sports	Viking Sports	Net Results Tennis	Net Results Tennis	RAFT		
		10:30 PM	Recreation	Viking Sports	Viking Sports	Net Results Tennis	Net Results Tennis	RAFT		
		11:00 PM	Recreation	Viking Sports	Viking Sports	Net Results Tennis	Net Results Tennis	RAFT		

C. Utilization - Tappan Gym & Schluntz Gym YR2016-2017

Season	Space	Time	Responsibility	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	Schluntz Gym	SCHOOL SCHEDULE								
		Z: 7:30 - 8:15 AM								
		1: 8:20 - 9:10 AM	Recreation						Rec Basketball 8:30 AM - 2:00 PM	Travel Basketball 8:30 AM - 1:00 PM
		2: 9:15 - 10:15 AM	Recreation						Rec Basketball	Travel Basketball
		3: 10:20 - 11:15 AM	Recreation						Rec Basketball	Travel Basketball
		4: 11:20 - 12:55 PM	Recreation						Rec Basketball	Travel Basketball
		5: 1:00 - 2:00 PM	Recreation & High School						Rec Basketball	HS Basketball 1:00 PM - 5:00 PM
		6: 2:05 - 2:55 PM	High School					HS Basketball 2:30 PM - 10:00 PM	HS Basketball 2:00 PM - 5:00 PM	HS Basketball
		AFTERSCHOOL								
		3:00 PM	High School	HS Basketball 3:00 PM - 9:00 PM	HS Basketball 3:00 PM - 10:00 PM	HS Basketball 3:00 PM - 9:00 PM	HS Basketball 3:00 PM - 9:00 PM	HS Basketball	HS Basketball	HS Basketball
		4:00 PM	High School	HS Basketball	HS Basketball	HS Basketball	HS Basketball	HS Basketball	HS Basketball	HS Basketball
		4:30 PM	High School	HS Basketball	HS Basketball	HS Basketball	HS Basketball	HS Basketball	HS Basketball	HS Basketball
		5:00 PM	High School	HS Basketball	HS Basketball	HS Basketball	HS Basketball	HS Basketball	HS Basketball	HS Basketball
		5:30 PM	High School	HS Basketball	HS Basketball	HS Basketball	HS Basketball	HS Basketball	HS Basketball	HS Basketball
		6:00 PM	High School	HS Basketball	HS Basketball	HS Basketball	HS Basketball	HS Basketball	HS Basketball	HS Basketball
		7:00 PM	High School	HS Basketball	HS Basketball	HS Basketball	HS Basketball	HS Basketball	HS Basketball	HS Basketball
		8:00 PM	High School	HS Basketball	HS Basketball	HS Basketball	HS Basketball	HS Basketball	HS Basketball	HS Basketball
		9:00 PM	High School	HS Basketball	HS Basketball	HS Basketball	HS Basketball	HS Basketball	HS Basketball	HS Basketball
		10:00 PM								
		11:00 PM								
	Dance Studio 1	SCHOOL SCHEDULE								
		Z: 7:30 - 8:15 AM								
		1: 8:20 - 9:10 AM	High School	Adv. Modern / Jazz	Adv. Modern / Jazz	Adv. Modern / Jazz	Adv. Modern / Jazz	Yoga (S1)		
		2: 9:15 - 10:15 AM	High School	Adv. Modern / Jazz	African / Latin / Hip Hop (S1)	Yoga (S1)	Adv. Modern / Jazz	Begin Dance 1-A (S1)		
		3: 10:20 - 11:15 AM	High School	African / Latin / Hip Hop (S1)	African / Latin / Hip Hop (S1)	African / Latin / Hip Hop (S1)	African / Latin / Hip Hop (S1)	Adv. Modern / Jazz		
		4: 11:20 - 12:00 PM	High School	Begin Dance 1-A (S1)	Interm. Dance	Interm. Dance	Adv. Modern / Jazz	African / Latin / Hip Hop (S1)		
		4: 12:00 - 12:55 PM	High School	Begin Dance 1-A (S1)	Interm. Dance	Interm. Dance	Adv. Modern / Jazz	African / Latin / Hip Hop (S1)		
		5: 1:00 - 2:00 PM								
		6: 2:05 - 2:55 PM	High School	Adv. Modern / Jazz	Adv. Modern / Jazz	Adv. Modern / Jazz	Interm. Dance			
		AFTERSCHOOL								
		3:00 PM								
		4:00 PM								
		4:30 PM	High School	Cheer 4:30 PM - 6:30 PM	Cheer 4:30 PM - 6:00 PM	Cheer 4:30 PM - 6:00 PM	Cheer 4:30 PM - 6:00 PM			
		5:00 PM	High School	Cheer	Cheer	Cheer	Cheer			
		6:00 PM	High School	Cheer	Cheer	Cheer	Cheer			
		6:30 PM								
		7:00 PM								
		8:00 PM								
		9:00 PM								
		10:00 PM								

C. Utilization - Tappan Gym & Schluntz Gym YR2016-2017

Season	Space	Time	Responsibility	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	Dance Studio 2	SCHOOL SCHEDULE								
		2: 7:30 - 8:15 AM	High School		Yoga (S1)					
		1: 8:20 - 9:10 AM								
		2: 9:15 - 10:15 AM	High School					Yoga (S1)		
		3: 10:20 - 11:15 AM	High School							
		4: 11:20 - 12:00 PM	High School			Begin Dance				
		4: 12:00 - 12:55 PM	High School			Begin Dance				
		5: 1:00 - 2:00 PM	High School	Begin Dance			Yoga (S1)	Begin Dance		
		6: 2:05 - 2:55 PM	High School	Yoga (S1)						
		AFTERSCHOOL								
		3:00 PM								
		4:00 PM								
		4:30 PM								
		5:00 PM	High School				Team Yoga 5:00 PM - 6:30 PM			
		PM								
		5:30 PM					Team Yoga			
		6:00 PM	High School				Team Yoga			
		6:30 PM								
		7:00 PM								
		8:00 PM								
		9:00 PM								
		10:00 PM								
	Fitness Center									
		SCHOOL SCHEDULE								
		2: 7:30 - 8:15 AM	High School							
		1: 8:20 - 9:10 AM	High School						All Programs 8:30 AM - 5:00 PM	
		2: 9:15 - 10:15 AM	High School						All Programs	
		3: 10:20 - 11:15 AM	High School						All Programs	
		4: 11:20 - 12:00 PM	High School			Weight Tr/Cardio (S1)			All Programs	
		4: 12:00 - 12:55 PM	High School						All Programs	
		5: 1:00 - 2:00 PM	High School						All Programs	All Programs 12:00 PM - 5:00 PM
		6: 2:05 - 2:55 PM	High School						All Programs 2:30 All Programs	All Programs
		AFTERSCHOOL								
		3:00 PM	High School						All Programs	All Programs
		4:00 PM	High School						All Programs	All Programs
		4:30 PM	High School						All Programs	All Programs
		5:00 PM	High School	All Programs 4:30 PM - 8:30 PM	All Programs 4:30 PM - 8:30 PM	All Programs 4:30 PM - 8:30 PM	All Programs PM - 8:30 PM	All Programs	All Programs	All Programs
		PM								
		6:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs	All Programs	All Programs
		7:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs	All Programs	All Programs
		8:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs	All Programs	All Programs
		8:30 PM								
		9:00 PM								
		10:00 PM								
	Mezzanine									
		SCHOOL SCHEDULE								
		2: 7:30 - 8:15 AM								
		1: 8:20 - 9:10 AM								
		2: 9:15 - 10:15 AM								
		3: 10:20 - 11:15 AM								
		4: 11:20 - 12:00 PM								
		4: 12:00 - 12:55 PM								
		5: 1:00 - 2:00 PM								
		6: 2:05 - 2:55 PM	High School							
		AFTERSCHOOL								
		3:00 PM	High School	All Programs 3:00 PM - 8:00 PM	All Programs 3:00 PM - 8:00 PM	All Programs 3:00 PM - 8:00 PM	All Programs 3:00 PM - 8:00 PM	All Programs	All Programs 3:00 PM - 8:00 PM	All Programs
		4:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs	All Programs	All Programs
		5:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs	All Programs	All Programs

C. Utilization - Tappan Gym & Schluntz Gym YR2016-2017

Season	Space	Time	Responsibility	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
		PM								
		5:30 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		6:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		6:30 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		7:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		8:00 PM								
		8:30 PM								
		9:00 PM								
		10:00 PM								
		Sports Medicine Room								
		AM								
		Z: 7:30 - 8:15 AM								
		1: 8:20 - 9:10 AM								
		2: 9:15 - 10:15 AM								
		3: 10:20 - 11:15 AM								
		4: 11:20 - 12:00 PM								
		4: 12:00 - 12:55 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs	All Programs	All Programs
		5: 1:00 - 2:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs	All Programs	All Programs
		6: 2:05 - 2:55 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs	All Programs	All Programs
		AFTERSCHOOL								
		3:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs	All Programs	All Programs
		4:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs	All Programs	All Programs
		4:30 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs	All Programs	All Programs
		5:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs	All Programs	All Programs
		PM								
		5:30 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs	All Programs	All Programs
		6:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs	All Programs	All Programs
		6:30 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs	All Programs	All Programs
		7:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs	All Programs	All Programs
		8:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs	All Programs	All Programs
		9:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs	All Programs	All Programs
		10:00 PM								
		Wrestling Room								
		AM								
		Z: 7:30 - 8:15 AM								
		1: 8:20 - 9:10 AM	High School							Wrestling
		2: 9:15 - 10:15 AM	High School							9:00 AM - 12:00 PM
		3: 10:20 - 11:15 AM	High School							Wrestling
		4: 11:20 - 12:00 PM	High School							Wrestling
		4: 12:00 - 12:55 PM								
		5: 1:00 - 2:00 PM								
		6: 2:05 - 2:55 PM	High School					Wrestling		2:30 PM - 5:30 PM
		AFTERSCHOOL								
		3:00 PM	High School	Wrestling	Wrestling	Wrestling	Wrestling	Wrestling		
		4:00 PM	High School	Wrestling	Wrestling	Wrestling	Wrestling	Wrestling		
		4:30 PM	High School	Wrestling	Wrestling	Wrestling	Wrestling	Wrestling		
		5:00 PM	High School	Wrestling	Wrestling	Wrestling	Wrestling	Wrestling		
		PM								
		5:30 PM	High School	Wrestling	Wrestling	Wrestling	Wrestling	Wrestling		
		6:00 PM	High School	Wrestling	Wrestling	Wrestling	Wrestling	Wrestling		
		6:30 PM								
		7:00 PM								
		8:00 PM								
		9:00 PM								
		10:00 PM								
WINTER- JANUARY - MARCH										
	GYM 1	SCHOOL SCHEDULE								
		Z: 7:30 - 8:15 AM								
		1: 8:20 - 9:10 AM	Recreation						Rec Basketball - 8:30 AM - 5:00 PM	Travel Basketball
		2: 9:15 - 10:15 AM	Recreation						Rec Basketball	Travel Basketball
		3: 10:20 - 11:15 AM	Recreation						Rec Basketball	Travel Basketball
		4: 11:20 - 12:55 PM	Recreation						Rec Basketball	Travel Basketball
		5: 1:00 - 2:00 PM	Recreation						Rec Basketball	Travel Basketball

C. Utilization - Tappan Gym & Schluntz Gym YR2016-2017

Season	Space	Time	Responsibility	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
		6: 2:05 - 2:55 PM	Recreation & High School					Basketball 2:30 PM - 6:30 PM	Rec Basketball	Travel Basketball
		AFTERSCHOOL								
		3:00 PM	Recreation & High School	Basketball 3:00 PM - 6:30 PM	Basketball 3:00 PM - 6:30 PM	Basketball 3:00 PM - 6:30 PM	Basketball 3:00 PM - 6:30 PM	Basketball	Rec Basketball	Travel Basketball
		4:00 PM	Recreation & High School	Basketball	Basketball	Basketball	Basketball	Basketball	Rec Basketball	Travel Basketball
		4:30 PM	Recreation & High School	Basketball	Basketball	Basketball	Basketball	Basketball	Rec Basketball	Travel Basketball
		5:00 PM	Recreation & High School	Basketball	Basketball	Basketball	Basketball	Basketball	Rec Basketball	Travel Basketball
		5:30 PM	Recreation & High School	Basketball	Basketball	Basketball	Basketball	RAFT 5:30 PM - 10:30 PM		
		6:00 PM	Recreation & High School	Basketball	Basketball	Basketball	Basketball	Basketball		
		6:30 PM	Recreation	Viking Sports - 6:30 PM - 11:00 PM	Travel Basketball - 6:30 - 10:00 PM	Viking Sports - 6:30 PM - 11:00 PM	6 Viking Sports - 6:30 PM - 11:00 PM	RAFT		
		7:00 PM	Recreation	Viking Sports	Travel Basketball	Viking Sports	Viking Sports	RAFT		
		8:00 PM	Recreation	Viking Sports	Travel Basketball	Viking Sports	Viking Sports	RAFT		
		9:00 PM	Recreation	Viking Sports	Travel Basketball	Viking Sports	Viking Sports	RAFT		
		10:00 PM	Recreation	Viking Sports	Travel Basketball	Viking Sports	Viking Sports	RAFT		
		10:30 PM	Recreation	Viking Sports	Travel Basketball	Viking Sports	Viking Sports	RAFT		
		11:00 PM	Recreation	Viking Sports	Travel Basketball	Viking Sports	Viking Sports	RAFT		
		SCHOOLSCHEDULE								
		Z: 7:30 - 8:15 AM								
		1: 8:20 - 9:10 AM	Recreation & High School						Basketball (Jan-Feb) 8:30 AM - 12:00 PM	Viking Sports
		2: 9:15 - 10:15 AM	Recreation & High School						Basketball (Jan-Feb)	Viking Sports
		3: 10:20 - 11:15 AM	Recreation & High School	Rock Climbs/ Adv (S2)			Rock Climbs/ Adv (S2)	Rock Climbs/ Adv (S2)	Basketball (Jan-Feb)	Viking Sports
		4: 11:20 - 12:00 PM	Recreation & High School	Rock Climbs/ Adv (S2)					Basketball (Jan-Feb)	Viking Sports
		4: 12:00 - 12:55 PM	Recreation & High School	Rock Climbs/ Adv (S2)						Travel Basketball PM - 5:00 PM
		5: 1:00 - 2:00 PM	Recreation & High School	Net Games (S2)					Rec Basketball 1:00 PM - 5:00 PM	Travel Basketball
		6: 2:05 - 2:55 PM	Recreation & High School					Basketball (Jan-Feb) 2:30 PM - 6:00 PM Golf, Softball, Baseball, Ultimate Frisbee	Rec Basketball	Travel Basketball
		AFTERSCHOOL								
		3:00 PM	Recreation & High School	Basketball (Jan-Feb) PM - 6:30 PM	Cheer (Jan-Feb) 3:00 PM - 6:30 PM; Basketball (Jan-Feb) 3:00 PM - 4:00 PM	Basketball (Jan-Feb) 3:00 PM - 4:30 PM	Basketball (Jan-Feb) 3:00 PM - 6:00 PM	Basketball (Jan-Feb) 2:30 PM - 6:00 PM	Rec Basketball	Travel Basketball
		4:00 PM	Recreation & High School	Golf, Softball, Baseball, Ultimate Frisbee (March) 3:00 PM - 6:30 PM	Golf, Softball, Baseball, Ultimate Frisbee (March) 3:00 PM - 6:30 PM	Golf, Softball, Baseball, Ultimate Frisbee (March) 3:00 PM - 6:30 PM	Golf, Softball, Baseball, Ultimate Frisbee (March) 3:00 PM - 6:30 PM	Golf, Softball, Baseball, Ultimate Frisbee	Rec Basketball	Travel Basketball
		4:30 PM	Recreation & High School	Basketball (Jan-Feb) Golf, Softball, Baseball, Ultimate Frisbee (March)	Cheer (Jan-Feb) Ultimate Frisbee (March)	Golf, Softball, Baseball, Ultimate Frisbee (March)	Basketball (Jan-Feb) Golf, Softball, Baseball, Ultimate Frisbee (March)	Basketball (Jan-Feb) Golf, Softball, Baseball, Ultimate Frisbee	Rec Basketball	Travel Basketball
		5:00 PM	High School	Basketball (Jan-Feb) Golf, Softball, Baseball, Ultimate Frisbee (March)	Cheer (Jan-Feb) Ultimate Frisbee (March)	Golf, Softball, Baseball, Ultimate Frisbee (March)	Basketball (Jan-Feb) Golf, Softball, Baseball, Ultimate Frisbee (March)	Basketball (Jan-Feb) Golf, Softball, Baseball, Ultimate Frisbee	Rec Basketball	Travel Basketball

C. Utilization - Tappan Gym & Schluntz Gym YR2016-2017

Season	Space	Time	Responsibility	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
		PM								
		5:30 PM	Recreation & High School	Basketball (Jan-Feb) Golf, Softball, Baseball, Ultimate Frisbee (March)	Cheer (Jan-Feb) Golf, Softball, Baseball, Ultimate Frisbee (March)	Golf, Softball, Baseball, Ultimate Frisbee (March)	Basketball (Jan-Feb) Golf, Softball, Baseball, Ultimate Frisbee (March)	Basketball (Jan-Feb) Golf, Softball, Baseball, Ultimate Frisbee (March) RAFT 5:30 PM - 10:30 PM		
		6:00 PM	Recreation, High School, and Adult Ed	Basketball (Jan-Feb) Golf, Softball, Baseball, Ultimate Frisbee (March)	Cheer (Jan-Feb) Golf, Softball, Baseball, Ultimate Frisbee (March)	Golf, Softball, Baseball, Ultimate Frisbee (March) Spring Running (3/1, 3/7, 3/15)	Golf, Softball, Baseball, Ultimate Frisbee (March)	RAFT		
		6:30 PM	Recreation & Adult Ed			Rec. Basketball - 6:30 PM - 7:30 PM Spring Running (3/1, 3/7, 3/15)	Rec. Basketball - 6:30 PM - 7:30 PM	RAFT		
		7:00 PM	Recreation & Adult Ed	Archery 7:00 PM - 8:00 PM	Introduction to Parkour 7:00 PM - 8:30 PM	Rec. Basketball	Rec. Basketball	RAFT		
		7:30 PM	Recreation & Adult Ed	Archery	Introduction to Parkour	Viking Sports - 7:30 PM - 11:00 PM	Viking Sports - 7:30 PM - 11:00 PM	RAFT		
		8:00 PM	Recreation & Adult Ed	Viking Sports - 8:00 PM - 11:00 PM	Introduction to Parkour Viking Sports - 8:00 PM - 11:00 PM	Viking Sports	Viking Sports	RAFT		
		8:30 PM	Recreation	Viking Sports	Viking Sports	Viking Sports	Viking Sports	RAFT		
		9:00 PM	Recreation	Viking Sports	Viking Sports	Viking Sports	Viking Sports	RAFT		
		10:00 PM	Recreation	Viking Sports	Viking Sports	Viking Sports	Viking Sports	RAFT		
		10:30 PM	Recreation	Viking Sports	Viking Sports	Viking Sports	Viking Sports	RAFT		
		11:00 PM	Recreation	Viking Sports	Viking Sports	Viking Sports	Viking Sports	RAFT		
	Pavilion									
		SCHOOL SCHEDULE								
		Z: 7:30 - 8:15 AM								
		1: 8:20 - 9:10 AM	Recreation						Net Results Tennis 8:30 AM - 11:00 AM	
		2: 9:15 - 10:15 AM	Recreation						Net Results Tennis 5:30 PM - 6:00 PM	
		3: 10:20 - 11:15 AM	Recreation & High School						Track, Baseball, Softball, Lacrosse (Jan-March) 11:00 AM - 5:00 PM	
		4: 11:20 - 12:55 PM	Recreation & High School						Track, Baseball, Softball, Lacrosse (Jan-March)	
		5: 1:00 - 2:00 PM	Recreation & High School						Track, Baseball, Softball, Lacrosse (Jan-March)	
		6: 2:05 - 2:55 PM	Recreation & High School						Track, Baseball, Softball, Lacrosse (Jan-March) 2:30 PM - 6:00 PM	
		AFTERSCHOOL								
		3:00 PM	Recreation & High School	Track, Baseball, Softball, Lacrosse (Jan/Feb) 3:00 PM - 6:00 PM	Track, Baseball, Softball, Lacrosse (Jan/Feb) 3:00 PM - 6:00 PM	Track, Baseball, Softball, Lacrosse (Jan/Feb) 3:00 PM - 6:00 PM	Track, Baseball, Softball, Lacrosse (Jan/Feb) 3:00 PM - 6:00 PM	Track, Baseball, Softball, Lacrosse (Jan-March)	Track, Baseball, Softball, Lacrosse (Jan-March)	Net Results Tennis
		4:00 PM	Recreation & High School	Track, Baseball, Softball, Lacrosse (March) 3:00 PM - 6:30 PM	Track, Baseball, Softball, Lacrosse (March) 3:00 PM - 6:30 PM	Track, Baseball, Softball, Lacrosse (March) 3:00 PM - 6:30 PM	Track, Baseball, Softball, Lacrosse (March) 3:00 PM - 6:30 PM	Track, Baseball, Softball, Lacrosse (Jan-March)	Track, Baseball, Softball, Lacrosse (Jan-March)	
		4:30 PM	Recreation & High School	Track, Baseball, Softball, Lacrosse (Jan-March)	Track, Baseball, Softball, Lacrosse (Jan-March)	Track, Baseball, Softball, Lacrosse (Jan-March)	Track, Baseball, Softball, Lacrosse (Jan-March)	Track, Baseball, Softball, Lacrosse (Jan-March)	Track, Baseball, Softball, Lacrosse (Jan-March)	Net Results Tennis
		5:00 PM	Recreation & High School	Track, Baseball, Softball, Lacrosse (Jan-March)	Track, Baseball, Softball, Lacrosse (Jan-March)	Track, Baseball, Softball, Lacrosse (Jan-March)	Track, Baseball, Softball, Lacrosse (Jan-March)	Track, Baseball, Softball, Lacrosse (Jan-March)	Track, Baseball, Softball, Lacrosse (Jan-March)	Net Results Tennis
		PM								
		5:30 PM	Recreation & High School	Track, Baseball, Softball, Lacrosse (Jan-March)	Track, Baseball, Softball, Lacrosse (Jan-March)	Track, Baseball, Softball, Lacrosse (Jan-March)	Track, Baseball, Softball, Lacrosse (Jan-March)	Track, Baseball, Softball, Lacrosse (Jan-March)	Track, Baseball, Softball, Lacrosse (Jan-March)	
		6:00 PM	Recreation & High School	Track, Baseball, Softball, Lacrosse (March)	Track, Baseball, Softball, Lacrosse (March)	Track, Baseball, Softball, Lacrosse (March)	Track, Baseball, Softball, Lacrosse (March)	Track, Baseball, Softball, Lacrosse (March)	Track, Baseball, Softball, Lacrosse (Jan-March)	
		6:30 PM	Recreation	Viking Sports - 6:30 PM - 11:00 PM	Viking Sports - 6:30 PM - 11:00 PM	Net Results Tennis 6:00 PM - 10:30 PM	Net Results Tennis 6:00 PM - 10:30 PM	RAFT		
		7:00 PM	Recreation	Viking Sports	Viking Sports	Net Results Tennis	Net Results Tennis	RAFT		
		8:00 PM	Recreation	Viking Sports	Viking Sports	Net Results Tennis	Net Results Tennis	RAFT		

C. Utilization - Tappan Gym & Schluntz Gym YR2016-2017

Season	Space	Time	Responsibility	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
		9:00 PM	Recreation	Viking Sports	Viking Sports	Net Results Tennis	Net Results Tennis	RAFT		
		10:00 PM	Recreation	Viking Sports	Viking Sports	Net Results Tennis	Net Results Tennis	RAFT		
		10:30 PM	Recreation	Viking Sports	Viking Sports					
		11:00 PM	Recreation							
	Schluntz Gym									
		SCHOOL SCHEDULE								
		1: 8:20 - 9:10 AM	Recreation							
		2: 9:15 - 10:15 AM	Recreation						Rec Basketball 8:30 AM - 1:00 PM	Travel Basketball 8:30 AM - 1:00 PM
		3: 10:20 - 11:15 AM	Recreation						Rec Basketball	Travel Basketball
		4: 11:20 - 12:55 PM	Recreation						Rec Basketball	Travel Basketball
		5: 1:00 - 2:00 PM	Recreation & High School						Rec Basketball	Travel Basketball
		6: 2:05 - 2:55 PM	High School						Basketball (Jan/Feb) 2:45 PM - 10:00 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March) 2:30 PM - 9:00 PM	Basketball (Jan/Feb) 2:00 PM - 5:00 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March) 2:00 PM - 5:00 PM
		AFTERSCHOOL								
		3:00 PM	High School	Basketball (Jan/Feb) 3:00 PM - 6:45 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March) 3:00 PM - 9:00 PM	Basketball (Jan/Feb) 3:00 PM - 10:00 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March) 3:00 PM - 9:00 PM	Basketball (Jan/Feb) 3:00 PM - 6:45 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March) 3:00 PM - 9:00 PM	Basketball (Jan/Feb) 3:00 PM - 6:45 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March) 3:00 PM - 9:00 PM	Basketball (Jan/Feb) 3:00 PM - 6:45 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March) 3:00 PM - 9:00 PM	Basketball (Jan/Feb) 3:00 PM - 6:45 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March) 3:00 PM - 9:00 PM	Basketball (Jan/Feb) 3:00 PM - 6:45 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March) 3:00 PM - 9:00 PM
		4:00 PM	High School	Basketball (Jan/Feb) 4:00 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March)	Basketball (Jan/Feb) 4:00 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March)	Basketball (Jan/Feb) 4:00 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March)	Basketball (Jan/Feb) 4:00 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March)	Basketball (Jan/Feb) 4:00 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March)	Basketball (Jan/Feb) 4:00 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March)	Basketball (Jan/Feb) 4:00 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March)
		4:30 PM	High School	Basketball (Jan/Feb) 4:30 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March)	Basketball (Jan/Feb) 4:30 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March)	Basketball (Jan/Feb) 4:30 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March)	Basketball (Jan/Feb) 4:30 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March)	Basketball (Jan/Feb) 4:30 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March)	Basketball (Jan/Feb) 4:30 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March)	Basketball (Jan/Feb) 4:30 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March)
		5:00 PM	High School	Basketball (Jan/Feb) 5:00 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March)	Basketball (Jan/Feb) 5:00 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March)	Basketball (Jan/Feb) 5:00 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March)	Basketball (Jan/Feb) 5:00 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March)	Basketball (Jan/Feb) 5:00 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March)	Basketball (Jan/Feb) 5:00 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March)	Basketball (Jan/Feb) 5:00 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March)
		PM								
		5:30 PM	High School	Basketball (Jan/Feb) 5:30 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March)	Basketball (Jan/Feb) 5:30 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March)	Basketball (Jan/Feb) 5:30 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March)	Basketball (Jan/Feb) 5:30 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March)	Basketball (Jan/Feb) 5:30 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March)	Basketball (Jan/Feb) 5:30 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March)	Basketball (Jan/Feb) 5:30 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March)
		6:00 PM	High School	Basketball (Jan/Feb) 6:00 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March)	Basketball (Jan/Feb) 6:00 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March)	Basketball (Jan/Feb) 6:00 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March)	Basketball (Jan/Feb) 6:00 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March)	Basketball (Jan/Feb) 6:00 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March)	Basketball (Jan/Feb) 6:00 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March)	Basketball (Jan/Feb) 6:00 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March)
		7:00 PM	Recreation & High School	HS Basketball 7:00 PM - 10:00 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March)	HS Basketball 7:00 PM - 10:00 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March)	HS Basketball 7:00 PM - 10:00 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March)	HS Basketball 7:00 PM - 10:00 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March)	HS Basketball 7:00 PM - 10:00 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March)	HS Basketball 7:00 PM - 10:00 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March)	HS Basketball 7:00 PM - 10:00 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March)
		8:00 PM	Recreation & High School	HS Basketball 8:00 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March)	HS Basketball 8:00 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March)	HS Basketball 8:00 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March)	HS Basketball 8:00 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March)	HS Basketball 8:00 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March)	HS Basketball 8:00 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March)	HS Basketball 8:00 PM Track, Lacrosse, Rugby, Ultimate Frisbee (March)
		9:00 PM	Recreation	HS Basketball	HS Basketball	HS Basketball	HS Basketball	HS Basketball	HS Basketball	HS Basketball
		10:00 PM								
		11:00 PM								
	Dance Studio 1									
		SCHOOL SCHEDULE								
		1: 8:20 - 9:10 AM	High School	Adv. Modern / Jazz	Adv. Modern / Jazz	Adv. Modern / Jazz	Yoga (S2)	Yoga (S2)	R&B and Soul Line Dancing 9:00 - 11:00 AM	
		2: 9:15 - 10:15 AM	High School	Yoga (S2)	Yoga (S2)	Yoga (S2)	Adv. Modern / Jazz	Adv. Modern / Jazz	R&B and Soul Line Dancing 9:00 - 11:00 AM	
		3: 10:20 - 11:15 AM	High School	Africa, Latin/ Hip Hop (S2)	Africa, Latin/ Hip Hop (S2)	Interm. Dance	Adv. Modern / Jazz	Adv. Modern / Jazz	R&B and Soul Line Dancing	
		4: 12:00 - 12:55 PM	High School	Africa, Latin/ Hip Hop (S2)	Africa, Latin/ Hip Hop (S2)	Interm. Dance	Adv. Modern / Jazz	Adv. Modern / Jazz	R&B and Soul Line Dancing	

C. Utilization - Tappan Gym & Schluntz Gym YR2016-2017

Season	Space	Time	Responsibility	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
		5:100 - 2:00 PM	High School	Inter. Dance & Yoga (S2)	African/ Latin/ Hip Hop (S2)	African/ Latin/ Hip Hop (S2)		Inter. Dance & Yoga (S2)		
		6: 2:05 - 2:55 PM	High School		Adv. Modern/ Jazz	Adv. Modern/ Jazz	Interm. Dance			
		AFTERSCHOOL								
		3:00 PM								
		4:00 PM								
		4:30 PM	High School	Cheer 4:30 PM - 6:30 PM	Cheer 4:30 PM - 6:30 PM	Cheer 4:30 PM - 6:30 PM	Cheer 4:30 PM - 6:30 PM			
		5:00 PM	High School	Cheer	Cheer	Cheer	Cheer			
		PM								
		5:30 PM	High School	Cheer	Cheer	Cheer	Cheer			
		6:00 PM	Adult Ed	Cheer	Cheer	Cheer	Cheer			
		6:30 PM	Adult Ed		Perfect Abs & Glutes 6:00 PM - 6:30 PM	Perfect Abs & Glutes 6:00 PM - 6:30 PM	Perfect Abs & Glutes 6:00 PM - 6:30 PM			
		7:00 PM	Adult Ed		Winter Boot Camp 6:30 PM - 7:15 PM	Winter Boot Camp 6:30 PM - 8:00 PM	Winter Boot Camp 6:30 PM - 7:15 PM			
		8:00 PM	Adult Ed		Winter Boot Camp 6:30 PM - 7:15 PM	Rumba 6:30 PM - 8:00 PM	Winter Boot Camp 6:30 PM - 7:15 PM			
		8:30 PM	Adult Ed		Winter Boot Camp 6:30 PM - 7:15 PM	Rumba 6:30 PM - 8:00 PM	Winter Boot Camp 6:30 PM - 7:15 PM			
		9:00 PM	Adult Ed							
		9:30 PM	Adult Ed							
		10:00 PM	Adult Ed							
		SCHOOL SCHEDULE								
		Z: 7:30 - 8:15 AM	High School		Yoga (S2)	Yoga (S2)	Yoga (S2)			
		1: 8:20 - 9:10 AM	Adult Ed							
		2: 9:15 - 10:15 AM	Adult Ed							
		3: 10:20 - 11:15 AM	High School & Adult Ed							
		4: 11:20 - 12:00 PM	High School							
		4: 12:00 - 12:55 PM	High School							
		5: 1:00 - 2:00 PM	High School							
		6: 2:05 - 2:55 PM	High School							
		AFTERSCHOOL								
		3:00 PM								
		4:00 PM								
		4:30 PM	High School							
		5:00 PM	High School							
		PM								
		5:30 PM	High School							
		6:00 PM	Adult Ed							
		6:30 PM	Adult Ed							
		7:00 PM	Adult Ed							
		7:30 PM	Adult Ed							
		8:00 PM	Adult Ed							
		8:30 PM	Adult Ed							
		9:00 PM	Adult Ed							
		9:30 PM	Adult Ed							
		10:00 PM	Adult Ed							
		SCHOOL SCHEDULE								
		Z: 7:30 - 8:15 AM	High School							
		1: 8:20 - 9:10 AM	High School							
		2: 9:15 - 10:15 AM	High School							
		3: 10:20 - 11:15 AM	High School							
		4: 11:20 - 12:00 PM	High School							
		4: 12:00 - 12:55 PM	High School							
		5: 1:00 - 2:00 PM	High School							
		6: 2:05 - 2:55 PM	High School							
		Fitness Center								
		SCHOOL SCHEDULE								
		Z: 7:30 - 8:15 AM	High School							
		1: 8:20 - 9:10 AM	High School							
		2: 9:15 - 10:15 AM	High School							
		3: 10:20 - 11:15 AM	High School							
		4: 11:20 - 12:00 PM	High School							
		4: 12:00 - 12:55 PM	High School							
		5: 1:00 - 2:00 PM	High School							
		6: 2:05 - 2:55 PM	High School							

C. Utilization - Tappan Gym & Schluntz Gym YR2016-2017

Season	Space	Time	Responsibility	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
		AFTERSCHOOL	High School		All Programs 3:00 PM - 8:30 PM			All Programs	All Programs	All Programs
		3:00 PM	High School							
		4:00 PM	High School		All Programs			All Programs	All Programs	All Programs
		4:30 PM	High School	All Programs 4:30 PM - 8:30 PM	All Programs	All Programs 4:30 PM - 8:30 PM	All Programs PM - 8:30 PM	All Programs	All Programs	All Programs
		5:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		PM	High School							
		5:30 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		6:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		7:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		8:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		8:30 PM	High School							
		9:00 PM	High School							
		10:00 PM	High School							
	Mezzanine									
		SCHOOL SCHEDULE								
		Z: 7:30 - 8:15 AM								
		1: 8:20 - 9:10 AM								
		2: 9:15 - 10:15 AM								
		3: 10:20 - 11:15 AM								
		4: 11:20 - 12:00 PM								
		4: 12:00 - 12:55 PM								
		5: 1:00 - 2:00 PM								
		6: 2:05 - 2:55 PM	High School					All Programs 2:30 PM - 6:00 PM		
		AFTERSCHOOL	High School							
		3:00 PM	High School	All Programs 3:00 PM - 8:00 PM	All Programs 3:00 PM - 8:00 PM	All Programs 3:00 PM - 8:00 PM	All Programs 3:00 PM - 8:00 PM	All Programs		
		4:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		5:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		PM	High School & Adult Ed							
		5:30 PM	High School & Adult Ed	All Programs	All Programs	All Programs	All Programs	All Programs		
		Boxer's Workout	High School & Adult Ed	Boxer's Workout 5:30 PM - 7:00 PM						
		6:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		6:30 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		7:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		8:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		8:30 PM	High School							
		9:00 PM	High School							
		10:00 PM	High School							
	Sports Medicine Room									
		SCHOOL SCHEDULE								
		Z: 7:30 - 8:15 AM								
		1: 8:20 - 9:10 AM								
		2: 9:15 - 10:15 AM								
		3: 10:20 - 11:15 AM								
		4: 11:20 - 12:00 PM								
		4: 12:00 - 12:55 PM	High School	All Programs 12:30 PM - 9:00 PM	All Programs 12:30 PM - 10:00 PM	All Programs 12:30 PM - 9:00 PM	All Programs 12:30 PM - 9:00 PM	All Programs 12:30 PM - 10:00 PM	All Programs 12:30 PM - 10:00 PM	All Programs 12:30 PM - 10:00 PM
		5: 1:00 - 2:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		6: 2:05 - 2:55 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		AFTERSCHOOL	High School							
		3:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		4:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		4:30 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		5:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		PM	High School							
		5:30 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		6:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		6:30 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		7:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		8:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		9:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		10:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
									Weekend Game Days	

C. Utilization - Tappan Gym & Schluntz Gym YR2016-2017

Season	Space	Wrestling Room	Time	Responsibility	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday		
SPRING - APRIL - JUNE	GYM 1	Wrestling Room	SCHOOL SCHEDULE										
			2: 7:30 - 8:15 AM										
			1: 8:20 - 9:10 AM	High School									Wrestling 9:00 AM - 12:00 PM
			2: 9:15 - 10:15 AM	High School									Wrestling
			3: 10:20 - 11:15 AM	High School									Wrestling
			4: 11:20 - 12:00 PM	High School									Wrestling
			4: 12:00 - 12:55 PM										
			5: 1:00 - 2:00 PM	High School							Wrestling 2:30 PM - 6:30 PM		
			6: 2:05 - 2:55 PM										
			AFTERSCHOOL										
			3:00 PM	High School	Wrestling 3:00 PM - 6:30 PM	Wrestling 3:00 PM - 6:30 PM	Wrestling 3:00 PM - 6:30 PM	Wrestling 3:00 PM - 6:30 PM	Wrestling 3:00 PM - 6:30 PM	Wrestling 3:00 PM - 6:30 PM	Wrestling 3:00 PM - 6:30 PM		
			4:00 PM	High School	Wrestling	Wrestling	Wrestling	Wrestling	Wrestling	Wrestling	Wrestling		
			4:30 PM	High School	Wrestling	Wrestling	Wrestling	Wrestling	Wrestling	Wrestling	Wrestling		
			5:00 PM	High School	Wrestling	Wrestling	Wrestling	Wrestling	Wrestling	Wrestling	Wrestling		
			5:30 PM	High School	Wrestling	Wrestling	Wrestling	Wrestling	Wrestling	Wrestling	Wrestling		
			6:00 PM	High School	Wrestling	Wrestling	Wrestling	Wrestling	Wrestling	Wrestling	Wrestling		
			6:30 PM										
			7:00 PM										
8:00 PM													
9:00 PM													
10:00 PM													
10:30 PM													
11:00 PM													
SPRING - APRIL - JUNE	GYM 2	Wrestling Room	SCHOOL SCHEDULE										
			2: 7:30 - 8:15 AM										
			1: 8:20 - 9:10 AM	Recreation									Volleyball 9:00 AM - 1:00 PM
			2: 9:15 - 10:15 AM	High School									Volleyball
			3: 10:20 - 11:15 AM	High School									Volleyball
			4: 11:20 - 12:00 PM	High School									Volleyball
			4: 12:00 - 12:55 PM	High School									Volleyball
			5: 1:00 - 2:00 PM	High School							Volleyball 2:30 PM - 6:30 PM		
			6: 2:05 - 2:55 PM	High School									
			AFTERSCHOOL										
			3:00 PM	High School	Volleyball 3:00 PM - 6:30 PM	Volleyball 3:00 PM - 6:30 PM	Volleyball 3:00 PM - 6:30 PM	Volleyball 3:00 PM - 6:30 PM	Volleyball 3:00 PM - 6:30 PM	Volleyball 3:00 PM - 6:30 PM	Volleyball		
			4:00 PM	High School	Volleyball	Volleyball	Volleyball	Volleyball	Volleyball	Volleyball	Volleyball		
			4:30 PM	High School	Volleyball	Volleyball	Volleyball	Volleyball	Volleyball	Volleyball	Volleyball		
			5:00 PM	High School	Volleyball	Volleyball	Volleyball	Volleyball	Volleyball	Volleyball	Volleyball		
			5:30 PM	Recreation & High School	Volleyball	Volleyball	Volleyball	Volleyball	Volleyball	Volleyball	Volleyball	Volleyball	
			6:00 PM	Recreation & High School	Volleyball	Volleyball	Volleyball	Volleyball	Volleyball	Volleyball	Volleyball	RAFT 5:30 PM - 10:30 PM	
			6:30 PM	Recreation	Viking Sports - 6:30 PM - 11:00 PM	Viking Sports - 6:30 PM - 11:00 PM	Viking Sports - 6:30 PM - 11:00 PM	Viking Sports - 6:30 PM - 11:00 PM	Viking Sports - 6:30 PM - 11:00 PM	Viking Sports - 6:30 PM - 11:00 PM	Viking Sports - 6:30 PM - 11:00 PM	RAFT	
			7:00 PM	Recreation	Viking Sports	Viking Sports	Viking Sports	Viking Sports	Viking Sports	Viking Sports	Viking Sports	RAFT	
8:00 PM	Recreation	Viking Sports	Viking Sports	Viking Sports	Viking Sports	Viking Sports	Viking Sports	Viking Sports	RAFT				
9:00 PM	Recreation	Viking Sports	Viking Sports	Viking Sports	Viking Sports	Viking Sports	Viking Sports	Viking Sports	RAFT				
10:00 PM	Recreation	Viking Sports	Viking Sports	Viking Sports	Viking Sports	Viking Sports	Viking Sports	Viking Sports	RAFT				
10:30 PM	Recreation	Viking Sports	Viking Sports	Viking Sports	Viking Sports	Viking Sports	Viking Sports	Viking Sports	RAFT				
11:00 PM	Recreation	Viking Sports	Viking Sports	Viking Sports	Viking Sports	Viking Sports	Viking Sports	Viking Sports	RAFT				
SPRING - APRIL - JUNE	GYM 2	Wrestling Room	SCHOOL SCHEDULE										
			2: 7:30 - 8:15 AM										
			1: 8:20 - 9:10 AM	Recreation									Viking Sports 8:30 AM - 12:00 PM
			2: 9:15 - 10:15 AM	Recreation									Viking Sports
			3: 10:20 - 11:15 AM	Recreation & High School									Viking Sports
			4: 11:20 - 12:00 PM	Recreation & High School									Viking Sports
4: 12:00 - 12:55 PM	High School												

C. Utilization - Tappan Gym & Schluntz Gym YR2016-2017

Season	Space	Time	Responsibility	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
		5:1:00- 2:00 PM	High School	Rock Climb/ Adv (S2)		Net Games (S2)		Volleyball 2:30 PM - 6:30 PM		
		6: 2:05 - 2:55 PM	High School	Net Games (S2)						
		AFTERSCHOOL								
		3:00 PM	High School	Volleyball 3:00 PM - 6:30 PM	Volleyball 3:00 PM - 6:30 PM	Rock Climb/ Adv (S2)	Net Games (S2)	Volleyball		
		4:00 PM	High School	Volleyball	Volleyball	Volleyball	Volleyball	Volleyball		
		4:30 PM	High School	Volleyball	Volleyball	Volleyball	Volleyball	Volleyball		
		5:00 PM	High School	Volleyball	Volleyball	Volleyball	Volleyball	Volleyball		
		PM								
		5:30 PM	Recreation & High School	Volleyball	Volleyball	Volleyball	Volleyball	RAFT 5:30 PM - 10:30 PM		
		6:00 PM	Recreation & High School	Volleyball	Volleyball	Volleyball	Volleyball	RAFT		
			Adult Ed							
		6:30 PM	Recreation & Adult Ed		Parkour for Children 6:00 PM - 7:00 PM	Beginning Running 6:00 PM - 7:00 PM	Viking Sports - 6:30 PM - 11:00 PM	RAFT		
					Parkour for Children	Beginning Running	Viking Sports - 6:30 PM - 11:00 PM			
		7:00 PM	Recreation & Adult Ed		Introduction to Parkour 7:00 PM - 8:30 PM	Viking Sports	Viking Sports	RAFT		
		8:00 PM	Recreation & Adult Ed	Viking Sports - 8:00 PM - 11:00 PM	Introduction to Parkour 7:00 PM - 8:30 PM	Viking Sports	Viking Sports	RAFT		
		8:30 PM	Recreation	Viking Sports	Viking Sports	Viking Sports	Viking Sports	RAFT		
		9:00 PM	Recreation	Viking Sports	Viking Sports	Viking Sports	Viking Sports	RAFT		
		10:00 PM	Recreation	Viking Sports	Viking Sports	Viking Sports	Viking Sports	RAFT		
		10:30 PM	Recreation	Viking Sports	Viking Sports	Viking Sports	Viking Sports	RAFT		
		11:00 PM								
	Pavilion									
		SCHOOL SCHEDULE								
		Z: 7:30 - 8:15 AM								
		1: 8:20 - 9:10 AM	Recreation						Net Results Tennis 8:30 AM - 1:00 PM	Net Results Tennis 8:30 AM - 5:00 PM
		2: 9:15 - 10:15 AM	Recreation						Net Results Tennis	Net Results Tennis
		3: 10:20 - 11:15 AM	Recreation & High School						Rain Use 11:00 AM - 5:00 PM	Net Results Tennis
		4: 11:20 - 12:00 PM	Recreation & High School						Net Results Tennis	Net Results Tennis
		4: 12:00 - 12:55 PM	Recreation & High School						Rain Use	Net Results Tennis
									Rain Use	Net Results Tennis
		5: 1:00 - 2:00 PM	Recreation & High School						Rain Use	Net Results Tennis
		6: 2:05 - 2:55 PM	Recreation & High School						Rain Use	Net Results Tennis
		AFTERSCHOOL								
		3:00 PM	High School							
		4:00 PM	High School							
		4:30 PM	High School							
		5:00 PM	Recreation							
		PM								
		5:30 PM	Recreation							
		5:30 PM	Recreation							
		6:00 PM	Recreation						RAFT 5:30 PM - 10:30 PM	
		6:30 PM	Recreation		Viking Sports - 6:30 PM - 10:30 PM	Net Results Tennis 6:00 PM - 10:30 PM	Net Results Tennis 6:00 PM - 10:30 PM	RAFT		
		7:00 PM	Recreation	Viking Sports	Viking Sports	Net Results Tennis	Net Results Tennis	RAFT		
		8:00 PM	Recreation	Viking Sports	Viking Sports	Net Results Tennis	Net Results Tennis	RAFT		
		9:00 PM	Recreation	Viking Sports	Viking Sports	Net Results Tennis	Net Results Tennis	RAFT		
		10:00 PM	Recreation	Viking Sports	Viking Sports	Net Results Tennis	Net Results Tennis	RAFT		
		10:30 PM	Recreation	Viking Sports	Viking Sports	Net Results Tennis	Net Results Tennis	RAFT		
		11:00 PM								

C. Utilization - Tappan Gym & Schluntz Gym YR2016-2017

Season	Space	Time	Responsibility	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	Schluntz Gym	AM								
		7:30 - 8:15 AM								
		8:20 - 9:10 AM								
		9:15 - 10:15 AM								
		10:20 - 11:15 AM								
		11:20 - 12:55 PM								
		1:00 - 2:00 PM	High School							
		2:05 - 2:55 PM	High School							
	AFTERSCHOOL	3:00 PM	High School							
		4:00 PM	High School							
		4:30 PM	High School							
		5:00 PM	High School							
		5:30 PM	High School							
		6:00 PM	High School							
		7:00 PM	High School							
		8:00 PM	High School							
		9:00 PM	High School							
		10:00 PM	High School							
		11:00 PM	High School							
	Dance Studio 1	AM								
		7:30 - 8:15 AM	High School							
		8:20 - 9:10 AM	High School and Adult Ed							
		9:15 - 10:15 AM	Adult Ed							
		10:20 - 11:15 AM	High School and Adult Ed							
		11:20 - 12:00 PM	High School							
		12:00 - 12:55 PM	High School							
		1:00 - 2:00 PM	High School							
		2:05 - 2:55 PM	High School							
	AFTERSCHOOL	3:00 PM	Adult Ed							
		4:00 PM	Adult Ed							
		4:30 PM	Adult Ed							
		5:00 PM	Adult Ed							
		6:00 PM	Adult Ed							
		6:30 PM	Adult Ed							
		7:00 PM	Adult Ed							
		7:30 PM	Adult Ed							
		8:00 PM	Adult Ed							
		8:30 PM	Adult Ed							
		9:00 PM	Adult Ed							
		9:30 PM	Adult Ed							
		10:00 PM	Adult Ed							
	Dance Studio 2	AM								
		7:30 - 8:15 AM	High School							
		8:20 - 9:10 AM	Adult Ed							
		9:15 - 10:15 AM	Adult Ed							
		10:20 - 11:15 AM	High School							
		11:20 - 12:00 PM	High School							
		12:00 - 12:55 PM	High School							
		1:00 - 2:00 PM	High School							
		2:05 - 2:55 PM	High School							

C. Utilization - Tappan Gym & Schluntz Gym YR2016-2017

Season	Space	Time	Responsibility	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
		AFTERSCHOOL								
		3:00 PM	High School	All Programs 3:00 PM - 6:30 PM	All Programs 3:00 PM - 6:30 PM	All Programs 3:00 PM - 6:30 PM	All Programs 3:00 PM - 6:30 PM	All Programs		
		4:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		5:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		5:30 PM	High School & Adult Ed	All Programs	All Programs	All Programs Boxer's Workout 5:30 PM - 7:00 PM	All Programs	All Programs		
		6:00 PM	High School & Adult Ed	All Programs	All Programs	All Programs Boxer's Workout 5:30 PM - 7:00 PM	All Programs	All Programs		
		6:30 PM								
		7:00 PM								
		8:00 PM								
		8:30 PM								
		9:00 PM								
		10:00 PM								
		Sports Medicine Room								
		SCHOOLSCHEDULE								
		Z: 7:30 - 8:15 AM								
		1: 8:20 - 9:10 AM								
		2: 9:15 - 10:15 AM								
		3: 10:20 - 11:15 AM								
		4: 11:20 - 12:00 PM								
		4: 12:00 - 12:55 PM	High School	All Programs 12:30 PM - 7:00 PM	All Programs 12:30 PM - 7:00 PM	All Programs 12:30 PM - 7:00 PM	All Programs 12:30 PM - 7:00 PM	All Programs 12:30 PM - 7:00 PM		
		5: 1:00 - 2:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		6: 2:05 - 2:55 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		AFTERSCHOOL								
		3:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		4:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		4:30 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		5:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		PM								
		5:30 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		6:00 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		6:30 PM	High School	All Programs	All Programs	All Programs	All Programs	All Programs		
		7:00 PM								
		8:00 PM								
		9:00 PM								
		10:00 PM								
		Wrestling Room								
		SCHOOLSCHEDULE								
		Z: 7:30 - 8:15 AM								
		1: 8:20 - 9:10 AM								
		2: 9:15 - 10:15 AM								
		3: 10:20 - 11:15 AM								
		4: 11:20 - 12:00 PM								
		4: 12:00 - 12:55 PM								
		5: 1:00 - 2:00 PM								
		6: 2:05 - 2:55 PM	High School					Conditioning 2:30 PM - 4:30 PM		

C. Utilization - Tappan Gym & Schluntz Gym YR2016-2017

Season	Space	Time	Responsibility	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
		PM								
		5:30 PM 6:00 PM	Recreation	Viking Camps	Viking Camps	Viking Camps	Viking Camps	Viking Camps		
		6:30 PM	Recreation	Viking Sports - 6:30 PM - 10:00 PM	Viking Sports - 6:30 PM - 10:00 PM	Viking Sports - 6:30 PM - 10:00 PM	Viking Sports - 6:30 PM - 10:00 PM	Viking Sports - 6:30 PM - 10:00 PM		
		7:00 PM	Recreation	Viking Sports	Viking Sports	Viking Sports	Viking Sports	Viking Sports		
		8:00 PM	Recreation	Viking Sports	Viking Sports	Viking Sports	Viking Sports	Viking Sports		
		9:00 PM	Recreation	Viking Sports	Viking Sports	Viking Sports	Viking Sports	Viking Sports		
		10:00 PM								
	Pavilion									
		AM								
		Z: 7:30 - 8:15 AM	Recreation	Net Results Tennis - 8:00 AM - 10 PM	Net Results Tennis - 8:00 AM - 10 PM	Net Results Tennis - 8:00 AM - 10 PM	Net Results Tennis - 8:00 AM - 10 PM	Net Results Tennis - 8:00 AM - 6 PM		
		1: 8:20 - 9:10 AM	Recreation	Net Results Tennis	Net Results Tennis	Net Results Tennis	Net Results Tennis	Net Results Tennis		
		2: 9:15 - 10:15 AM	Recreation	Net Results Tennis	Net Results Tennis	Net Results Tennis	Net Results Tennis	Net Results Tennis		
		3: 10:20 - 11:15 AM	Recreation	Net Results Tennis	Net Results Tennis	Net Results Tennis	Net Results Tennis	Net Results Tennis		
		4: 11:20 - 12:00 PM	Recreation	Net Results Tennis	Net Results Tennis	Net Results Tennis	Net Results Tennis	Net Results Tennis		
		4: 12:00 - 12:55 PM	Recreation	Net Results Tennis	Net Results Tennis	Net Results Tennis	Net Results Tennis	Net Results Tennis		
		5: 1:00 - 2:00 PM	Recreation	Net Results Tennis	Net Results Tennis	Net Results Tennis	Net Results Tennis	Net Results Tennis		
		6: 2:05 - 2:55 PM	Recreation	Net Results Tennis	Net Results Tennis	Net Results Tennis	Net Results Tennis	Net Results Tennis		
		3:00 PM	Recreation	Net Results Tennis	Net Results Tennis	Net Results Tennis	Net Results Tennis	Net Results Tennis		
		4:00 PM	Recreation	Net Results Tennis	Net Results Tennis	Net Results Tennis	Net Results Tennis	Net Results Tennis		
		4:30 PM	Recreation	Net Results Tennis	Net Results Tennis	Net Results Tennis	Net Results Tennis	Net Results Tennis		
		5:00 PM	Recreation	Net Results Tennis	Net Results Tennis	Net Results Tennis	Net Results Tennis	Net Results Tennis		
		PM								
		5:30 PM	Recreation	Net Results Tennis	Net Results Tennis	Net Results Tennis	Net Results Tennis	Net Results Tennis		
		6:00 PM	Recreation	Net Results Tennis	Net Results Tennis	Net Results Tennis	Net Results Tennis	Net Results Tennis		
		7:00 PM	Recreation	Net Results Tennis	Net Results Tennis	Net Results Tennis	Net Results Tennis	Net Results Tennis		
		8:00 PM	Recreation	Net Results Tennis	Net Results Tennis	Net Results Tennis	Net Results Tennis	Net Results Tennis		
		9:00 PM	Recreation	Net Results Tennis	Net Results Tennis	Net Results Tennis	Net Results Tennis	Net Results Tennis		
		10:00 PM								

Appendices

C. Utilization

Memorandum Projected Tappan Gym & Schluntz Gym Utilization

BHS Memo to Building Committee from

- Physical Education and Health
- BHS Athletic Director
- Brookline Recreation Director

C. Memorandum - Tappan Gym & Schluntz Gym Utilization



MEMORANDUM

date: 5.12.2017

from: Deborah Collins

to: Ray Masak, MaryEllen Dunn, Ben Lummis

re: Projected Tappan and Schluntz Gym Utilization

OFFICE. (617) 492 2200
 FAX. (617) 876 9775

130 Bishop Allen Drive
 Cambridge, MA 02139

hmfh.com

HMFH Architects has reviewed the current utilization of the Tappan and Schluntz Gym facilities on the Brookline High School campus as part of a study to determine the future facility needs based on the anticipated enrollment increase and the BHS Education Plan.

The following sources of data were used in the study:

- Brookline High School Master Schedule – for classes offered during BHS school periods
- Brookline High School Athletic Programs schedules – for individual and team sports use
- Brookline Recreation schedules – for program offerings
- Brookline Adult and Community Education (BACE) – for programs for children and Adults (Winter and Spring schedules)

Schedules have been reviewed for the following time periods:

- Fall: September – November
- Winter: December
- Winter: January – March
- Spring: April – June
- Summer: July – August

Projected use for the Tappan and Schluntz Gym facilities is based on the following assumptions:

- Enrollment growth at Brookline High School from 1950 students to 2700 students, an increase of 38.5%.
- No change in current Brookline High School graduation requirements for Physical Education
- Current participation in BHS athletic programs, adjusted for enrollment increase
- Off-site BHS athletic programs remain off-site
- Current number of Brookline Recreation and Brookline Adult & Community Education classes

1. Gym 1

Gym1 is the larger, at 7,130 SF, of the two Gyms at Tappan Gym. It includes bleachers and is used for some Volleyball, Wrestling, and Basketball competitions.

C. Memorandum - Tappan Gym & Schluntz Gym Utilization

Tappan Gym

2 of 6

5.12.2017

A. School Use

1. Gym 1 is unprogrammed before and during the scheduled school periods.

B. Afterschool Use

1. In the Fall, Gym 1 is only used for Volleyball games.
2. Beginning in December through the end of the academic year, Gym 1 is used for either Basketball (December- February) or Volleyball (March – June). Gym 1 is also used occasionally for Wrestling meets.
3. Beginning in December through the end of the academic year, Gym 1 is 100% utilized.
4. Further discussion with the Athletic Department is recommended to determine the potential for growth in team participants. Basketball and Volleyball have not been identified by the Athletic Department as programs with anticipated growth. The Basketball and Volleyball teams, at the Freshman, Junior Varsity, and Varsity levels, each have 12-13 participants. With the anticipated 38.5% enrollment growth, the team would be 17–18 participants. Options to accommodate growth include: a cap of 12-13 on the teams, a larger team size, or additional teams.

C. Recreation and BACE Use

1. Brookline Recreation uses Gym 1 year-round. During the academic year, programming runs from 6:30 PM until as late as 11:00 PM during the week. On the weekend, programs are offered on both Saturday and Sunday, with scheduling that varies by the season.
2. Programs include Basketball, Viking Sports, and RAFT.
3. During the time periods used by Recreation, Gym 1 is 100% utilized.
4. Brookline Recreation and BACE offer summer programs in Gym 1 in July and August.

2. Gym 2

Gym 2 is the smaller of two gyms at Tappan Gym, at 5,930 SF. It houses the Rock Climbing facility and a basketball court.

A. School Use

1. During the school day, Gym 2 is used for Rock Climbing and Net Games classes.
2. In the busier Semester 2, Gym 2 occupies 8 of the available 28 periods in a week, a utilization rate of 29%. If these two classes increased at the anticipated enrollment growth percentage, 12 periods would be used, a utilization rate of 43%. There is adequate capacity in the existing facility to add these two classes.

B. Afterschool Use

1. From September through December, Gym 2 is fully utilized for Cheerleading and Basketball in the afterschool hours Monday through Thursday. Fridays are unprogrammed.
2. Beginning in January, Gym 2 is 100% utilized afterschool from Monday through Friday: Basketball and Cheerleading in January and February; Golf, Softball, Baseball, and Ultimate Frisbee in March; and Volleyball in April and May.

C. Memorandum - Tappan Gym & Schluntz Gym Utilization

Tappan Gym

4 of 6

5.12.2017

1. Brookline Recreation uses the Pavilion year-round. During the academic year, programming runs from 6:30 PM until as late as 11:00 PM during the week. On the weekend, the Pavilion is shared with the High School, with programming on both Saturday and Sunday.
 2. Programs include Tennis, Viking Sports, and RAFT.
 3. During the time periods used by Recreation, the Pavilion is 100% utilized.
4. Schluntz Gym

Schluntz Gym is in the main BHS academic building on Greenough Street. It serves as the Competition Gym for Brookline High School.

A. School Use

1. The Schluntz Gym is unprogrammed before and during the scheduled school periods.

B. Afterschool Use

1. For the entire academic calendar, Schluntz Gym is 100% utilized during the afterschool hours: Volleyball in the Fall; Basketball in December – February; Track, Lacrosse, Rugby and Ultimate Frisbee in March; and Basketball in the April and May.
2. High School programs extend into the evening timeslots for most of the seasons.
3. In the Fall, Volleyball uses the Schluntz Gym on Saturday mornings. During the winter season, the High School and the Recreation Department share use of Schluntz both Saturdays and Sundays. In April and May, Basketball is offered on both Saturday and Sunday afternoons.

C. Recreation Use

1. As described above, the Schluntz Gym is predominantly used for High School programs.
2. In January and February, the Recreation Department offers a High School (non-team) Basketball program three evenings a week.
3. From December through March, the Recreation Department uses the Schluntz Gym for Basketball on Saturday and Sunday mornings.

D. Summer Use

1. There are no programs in Schluntz Gym during July and August.

4. Dance Studios

There are two Dance Studios at Tappan Gym. Dance Studio 1 is large, 2,950 SF, with a high ceiling. Dance Studio is smaller, 2,360 SF, with a lower ceiling with exposed concrete beams.

A. School Use

1. Both Yoga classes and Dance classes use the two Dance studios.
2. There are 28 periods available. In the busiest season, Fall, Dance Studio 1 holds classes in 22 periods, a utilization percentage of 79%. Dance 2 is occupied for 8 classes in 28

C. Memorandum - Tappan Gym & Schluntz Gym Utilization

Tappan Gym

3 of 6

5.12.2017

3. Further discussion with the Athletic Department is recommended to determine the potential for growth in team participants. Basketball and Volleyball have not been identified by the Athletic Department as programs with anticipated growth. The Basketball and Volleyball teams, at the Freshman, Junior Varsity, and Varsity levels, each have 12-13 participants. With the anticipated 38.5% enrollment growth, the teams would each have 17-18 participants. Options to accommodate growth include: a cap of 12-13 participants on the teams, a larger team size, or additional teams.
4. Golf, Softball, Baseball, and Ultimate Frisbee use Gym 2 in March but typically practice and compete in outdoor locations and in the Pavilion. The total participation of all four sports in March is 148 students. If participation in each sport increased at the rate of the overall enrollment increase, 38.5%, the total participation would be 205 students. Further discussion with the Athletic Department is recommended to confirm the March use of Gym 2 and anticipated growth in participation.

C. Recreation and BACE Use

1. Brookline Recreation uses Gym 2 year-round. During the academic year, programming runs from 6:30 PM until as late as 11:00 PM during the week. On the weekend, full day programs are offered on both Saturday and Sunday.
2. Programs include Basketball, Viking Sports, and RAFT.
3. BACE uses Gym 2 for several classes.
4. During the time periods used by Recreation and BACE, Gym 2 is 100% utilized.

3. Pavilion

The Pavilion is the large, 14,980 SF, multisport space on the top floor of Tappan Gym.

A. School Use

1. In Semester 1, Tennis Spec classes use two of 28 available periods, a utilization rate of 7%. With the enrollment increase, an additional class of Tennis Spec would be offered, requiring two additional periods. There is adequate capacity in the Pavilion to program the additional class.

B. Afterschool Use

1. In the Fall Season, the Pavilion is used by BHS Athletics only as a rain option.
2. From December through March, the Pavilion is used for BHS Track, Baseball, Softball, and Lacrosse.
3. Between December through March, the Pavilion has a utilization of 100% during the afterschool hours of 3:00 PM – 6:00 PM.
4. Track, Softball, Baseball, and Lacrosse use the Pavilion in March but compete in other locations. The total participation of all four sports in March is 224 students. If participation in each sport increased at the rate of the overall enrollment increase, 38.5%, the total participation would be 310 students. Further discussion with the Athletic Department is recommended to confirm the March use of the Pavilion and anticipated growth in participation.

C. Recreation Use

C. Memorandum - Tappan Gym & Schluntz Gym Utilization

Tappan Gym

5 of 6

5.12.2017

periods, a utilization percentage of 29%. This may suggest a preference for Dance Studio 1.

3. Combining both Yoga and Dance class enrollments, adjusted for enrollment growth, results in a projected need for 1.85 stations in Semester 1 and 2.1 in Semester 2. This assumes a utilization percentage of 85% for each station.

B. Afterschool Use

1. In the Fall and Winter, Dance Studio 1 is used for Cheerleading practice and Dance Studio 2 is used for Team Yoga.
2. There are 17.5 hours weekly between 3:00 PM – 6:30 PM. Cheerleading practice meets three days for a total of 5.5 hours. This is a utilization percentage of 31% for Dance Studio 1. Team Yoga meets three days for a total of 4.5 hours. This is a utilization percentage of 26%.
3. Cheerleading also practices in Gym1 and in the Mezzanine. Varsity Cheerleading has two teams for a total of 29 participants. Junior Varsity Cheerleading has 14 participants, but the Athletic Department anticipates growth in this program. Applying the Enrollment Increase multiplier of 1.385, 14 participants would increase to 19.
4. Further discussion with the Athletic Department is required to determine if a cheerleading team will have more participants or if a new team will be added. In either case, it appears that the Dance Studios can accommodate the possible increase.

C. Brookline Adult and Community Education Use

1. Brookline Adult and Community Education offers Dance and Exercise classes in both Dance Studios, primarily Monday – Thursday between 6:00 PM – 8:30 PM.
2. The Dance Studios are unprogrammed after 8:30 PM and on Fridays, which would allow the option to offer additional programming.

5. Fitness Center

A. School Use

1. During the school day, two periods of the available 28 periods are used for a Weight Training class, resulting in a utilization rate of 7%. With the enrollment increase an additional class would be added, with two additional periods per week utilized. There is adequate capacity to add this class in the existing space.

B. Afterschool

1. Only the High School uses the Fitness Center.
2. In the busiest season, Winter, the Fitness Center is available to students from 3:00 PM – 8:30 PM Monday – Thursday, closing at 6:00 PM on Fridays. The Fitness Center is also available on Saturday and Sunday.
3. Sports teams are scheduled into the Fitness Center on different days of the week. Further discussion with the Athletic Department will clarify the current number of participants using the Fitness Center at a specific time.
4. The Educational Plan notes that the Fitness Center is too small and that it should accommodate 50 students at once.

C. Memorandum - Tappan Gym & Schluntz Gym Utilization

Tappan Gym

6 of 6

5.12.2017

6. Mezzanine

The mezzanine overlooks Gym 1.

A. School Use

1. There are no programmed classes in the Mezzanine before or during school hours.

B. Afterschool

1. The Mezzanine supports all programs during the Afterschool hours. In the busiest season, Winter, the Mezzanine is open from 3:00 PM – 8:00 PM on Monday through Thursday, and until 6:00 PM on Friday. From April – June, it is available to students on Saturday from 8:30 AM – 3:00 PM.
2. Sports teams are scheduled into the Mezzanine on different days of the week. Further discussion with the Athletic Department will clarify the current number of participants using the Mezzanine at a specific time and the potential for increased use.

C. Recreation and BACE Use

1. The Recreation Department does not offer programs in the Mezzanine.
2. BACE offers a Boxing Workshop class one evening a week in the Winter and Spring seasons.

7. Wrestling

A. School Use

1. There are no programmed classes in the Wrestling Room before or during school hours.

B. Afterschool

1. The Wrestling Room is 100% utilized by High School programs in the Afterschool hours on Monday through Friday. There is some weekend use.
2. Programs include: Wrestling/ Team Yoga in the Fall, Wrestling in the Winter, and Multi-Team Conditioning in the Spring.
3. Wrestling competitions are occasionally scheduled in Gym 1.
4. Varsity Wrestling has 12 team participants; JV Wrestling has 10. The Athletic Department has not identified these two programs for anticipated growth. If the teams increased at the same ratio as the overall enrollment growth, the Varsity Wrestling team would have 17 team members, and the JV team 14. Further discussion with the Athletic Department will confirm whether the team participation will increase or if additional teams will be formed.

C. Recreation Use

1. In the Spring season, the Recreation Department offers a Recreational Wrestling class from 6:00 PM – 7:30 PM two evenings a week.

C. BHS Memo - PE/ Health/ Athletics & Recreation

To: BHS Building Committee

From: Tina Bozeman, K-12 Coordinator for Physical Education and Health
Pete Rittenberg, BHS Athletic Director
Lisa Paradis, Brookline Recreation Director

Date: May 2, 2017

Re: BHS Building Committee Design Vote

The consideration of the expansion of the Brookline high school is a huge undertaking for the town. We acknowledge the enormity of the project and realize that Brookline's needs have outweighed the existing school's capacity for a long time. Right sizing the school's academic areas is a "no brainer." Students at Brookline High deserve a building that supports the educational experience that the town has come to be known for.

It is equally important though, that the physical, emotional and mental needs of the students are met as well. Right sizing and enhancing the quality of the wellness areas at Brookline High School is vitally important to promoting a safe, accessible and thriving environment where students and the community can develop healthy lifestyles lasting a lifetime. Expansion of these areas should be addressed in concert with the expansion of the academic areas, since the effect of increased enrollment in Brookline is not in any way isolated to the traditional classroom walls. Treating the child educational experience as a whole includes providing for enhanced spaces that encourage and invite physical activity.

The staff at the high school athletic department, K-12 Health and Wellness and the Brookline Recreation Department strongly advocate for a plan that expands the current areas of the Tappan Gym and Cypress Field for enhanced wellness experiences for both the students and the community. We envision the current Tappan gym space to be a community inclusive facility that would be seen as the Brookline Wellness Center, used by the Health & Fitness Department on a daily basis for a wide variety of fitness courses of which are required for graduation and then open to the community and Recreation after hours. The renovated spaces will optimize instruction, increase student participation, and afford additional community opportunities for collaboration. A positive fitness center experience can have lasting implications on students' competence and confidence to be physical active beyond their high school years.

The existing Athletics, Physical Education and Recreation buildings on BHS campus include the Schluntz (formerly North Wing) Gymnasium built in 1949 (nearly 70 years ago)

C. BHS Memo - PE/ Health/ Athletics & Recreation

and the Tappan Physical Education Building, which opened in 1968. The Tappan building, built 50 years ago is the “modern” athletic facility on campus. At the time of the last BHS renovation project, completed in 1999, planned improvements to Schluntz and Tappan were cut as a result of overall project cost overruns.

Cypress Field in its current grass-depleted state is a sub-standard and often unsafe practice and playing field for interscholastic athletics, physical education classes, youth sports and other recreational uses.

Current expansion/renovation options that do not include significant new and modern square footage, both indoors and outdoors, will repeat the “left behind” look and feel of our Town and school’s shared athletic and wellness spaces. Options that do not include additional athletic and wellness square footage to accommodate enrollment growth ensure that a greater number of student-athletes will be forced off-campus and/or outside of walking distance to remote fields and facilities. The resulting impacts to the community will include loss of community building opportunities, lost travel time and time on learning (as much as an additional hour per day for some students), increased traffic congestion in town, and travel safety considerations.

The Brookline High School campus is the heartbeat of the town, centrally located and accessible by all areas. We have before us a one-time opportunity to transform the Town’s athletic and wellness facilities on the High School campus from tired, inadequate spaces into a centralized, modern community showcase. The Brookline community deserves this, and we ask that the BHS Building Committee treat Tappan Gym and Cypress Field as equal and important spaces during the design process so that Brookline High Students and families from all over town can access facilities that will provide a lifetime of health and wellness.

Sincerely,

Tina Bozeman, K-12 Coordinator for Physical Education and Health

Peter Rittenberg, BHS Athletic Director

Lisa Paradis, Brookline Recreation Director

Attachment

C. BHS Memo - PE/ Health/ Athletics & Recreation

Attachment

Data points and arguments for Synthetic Turf on Cypress to create a safer, more reliable and more flexible field facility:

- 30 days of rain from mid-August to mid-November 2016
- 30 days of rain from mid-March to mid-June 2016
- Approximately 1/4 of each fall/spring season is impacted by weather.
- For every rescheduled game, a practice is lost.
- Allows for use mid-Nov to mid-March.
- Immediate use, no loss of time for growing...no resting
- Adding square footage for practices allows us to go from 2 teams on Cypress to 3 or 4, possibly doubling the number of students who participate on campus.
- Adding square footage could also allow for an increase in intramural offerings, allowing more students the chance to participate in healthy recreational activities with their classmates.
- More students on campus is safer, greener, and educationally sound.
- Allows us to move closer to our goals of increasing participation, knowing all students, and building community
- Adding lights to the facility would allow us to go from 2 teams on Cypress to 6-8 depending on permitting (40 students to approximately 130)
- Each team that we bring back on campus opens up space at parks around Brookline. This can be good for allowing fields to rest, growing athletic offerings, or adding community activities.
- Cut down on approximately an hour of travel time each afternoon (driving to Larz/Skyline or walking a mile/two each way to other facilities)...an hour more for school, family, social.
- Fewer students self-transporting in over packed vehicles.
- Anticipate growth of Boys and Girls Lacrosse and Girls Rugby, all of which must be played on synthetic turf. We would not be able to safely add these programs without at least one more synthetic rectangular field.
- Allows for appropriate sport experience for 50+ Field Hockey players, who currently do not get to play on synthetic turf in Brookline, but play the majority of their away games on synthetic as is customary our league high schools.
- Football could practice on campus which should help with participation, equity concerns, and educational support/access. Also allows for safer experience for football as players are not traveling across Rt 9 with all their equipment, running late, on a bike, etc.
- Gives more teams access to facilities on campus: fitness center, mezzanine, spin room, BIG, locker rooms
- Creates a significantly safer and less demanding coverage for Athletic Trainer.

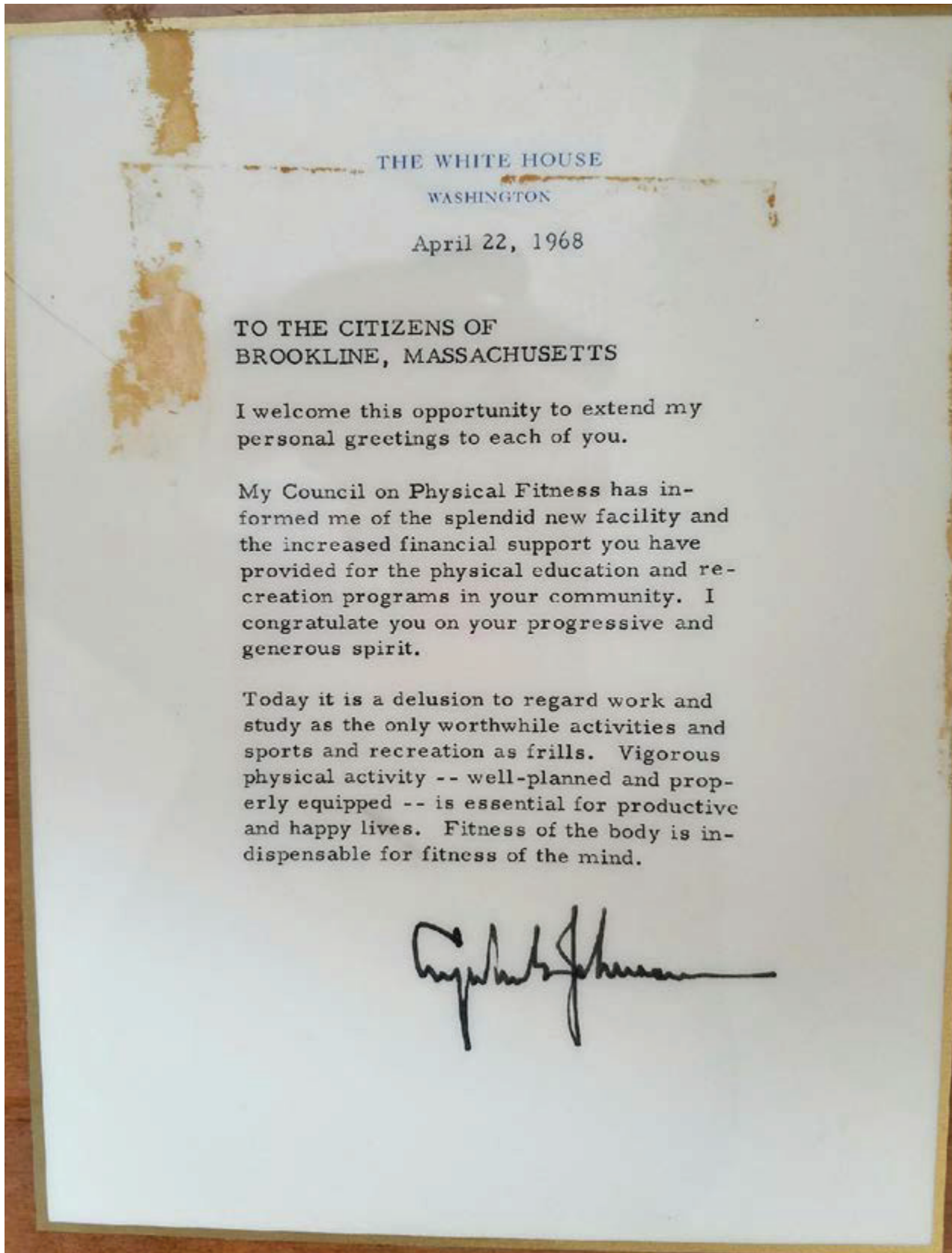
C. BHS Memo - PE/ Health/ Athletics & Recreation

Attachment

Data points and arguments for adding indoor square footage - fieldhouse, auxiliary gym, wellness center

- Opportunity to bring squash, fencing and gymnastics back to campus and better hours (100 students, ~25% of all winter athletes)...would anticipate growth of all three of these programs with a move back to campus
- House all students in one building: know all students, security, community
- Relieves pressure on Winter season where our gym facilities are currently operating at 100% capacity in the after school hours
- Possible growth of intramural offerings, currently no offerings in gymnasiums during the Winter
- Accommodate more students in Boys and Girls Winter Track, with appropriate facility
- Consolidate locker room spaces - safety, security, supervision, community
- Improve experience during snowy/wet early-Spring season. Many educational days are lost due to weather. A field house, wellness center, and aux gym would allow for safe and appropriate indoor practices. Many teams cancel practice on those days currently since there is a lack of available and appropriate space.
- Ability to provide Sports Performance/Strength and Conditioning to more students, develop confidence and life long fitness.
- Participation has increased by 300 students in the past two years. Growing at more than three times the rate of enrollment. These students need appropriate places on campus for a range of athletic activities to help them develop.
- Housing all Athletic facilities in one building allows for a building of positive and intentional community and culture
- Informal interactions increase and create deeper, more authentic relationships: students, staff, coaches, families, Athletics, Health and Fitness, Rec, Adult Ed, Performing Arts, etc
- Better professional environment as coaches can connect and support each other.
- Students, coaches, teams, feel as if they are part of something bigger than themselves, not just a team out on an island.

C. BHS Memo - PE/ Health/ Athletics & Recreation



Appendices

D. Preferred Solution Building Systems Narratives

Scope & Schedule Geotechnical Exploration

Civil Narrative

Landscape Narrative

Structural Narrative

Plumbing Narrative

Fire Protection Narrative

Mechanical HVAC Narrative

Electrical & Technology Narrative

Appendices

- D. Preferred Solution
 - Building Systems Narratives
 - Geotechnical Exploration**

D. Preferred Solution Building Systems Narratives - Geotechnical



May 30, 2017

HMFH Architects, Inc.
130 Bishop Allen Drive
Cambridge, MA

Attention: Mr. Pip Lewis, AIA, LEED AP

Reference: Brookline High School Campus Expansion; Brookline, Massachusetts
Geotechnical Scope for Schematic Design Phase

In accordance with your request, this letter provides a geotechnical scope, including a subsurface exploration program, for the Schematic Design Phase of the proposed Brookline High School Campus Expansion in Brookline, Massachusetts.

The preliminary campus study area includes the existing main campus of Brookline High School located at 115 Greenough Street, the gymnasium building located at 68 Tappan Street, the pool building located at 60 Tappan Street, the existing Unified Arts Building located at 46 Tappan Street, the site of an existing medical office building at 111 Cypress Street, and the existing Cypress Street fields and playground.

On May 3rd, 2017, the Brookline High School Building Committee voted for Option 4D as the preferred option to proceed to schematic design. Option 4D is understood to consist of a new STEM wing addition to the main academic building located at 115 Greenough Street with a gross area of about 50,000 square feet, and a new academic building located at 111 Cypress Street with a gross area of about 112,000 square feet. In addition, this option would include repurposing of existing science classrooms. It is also understood that the Civil Engineer and Landscape Architects are currently developing plans for the Cypress Street fields as part of Option 4D.

Optional projects are also being evaluated, such as a renovation of the gymnasium building. However, it is understood that structural modifications will not be included in this scope.

Based on available subsurface information and our experience in the general area, it is anticipated that the existing ground surface in the preliminary campus study area is underlain by an approximate 5- to 10-foot thickness of fill. Underlying the fill, a natural glacial outwash deposit is anticipated with an approximate thickness of 20 to 25 feet. A natural marine clay deposit is anticipated to underlie the natural glacial outwash deposit at approximate depths of 25 to 30 feet below the existing ground surface. Groundwater is anticipated at depths of about 10 to 20 feet below existing grades.

GEOTECHNICAL AND GEOENVIRONMENTAL ENGINEERS
2269 Massachusetts Avenue
Cambridge, Massachusetts 02140
(617) 868-1420

D. Preferred Solution Building Systems Narratives - Geotechnical



HMFH Architects, Inc.
May 30, 2017
Page 2

In consideration of the scope of development associated with Option 4D, it is recommended that the scope and schedule of geotechnical engineering services and subsurface exploration programs consist of the following:

1. Review available drawings for the existing buildings;
2. Five (5) borings and three (3) test pits at the existing main campus, in the vicinity of the proposed STEM addition.

One of the borings would be performed to an approximate depth of 60 feet below the existing ground surface, and the remaining borings would be performed to approximate depths of 20 feet below the existing ground surface, or to practical refusal, whichever occurs first. It is anticipated that two (2) of the borings could be completed with a truck-mounted drill-rig. Due to limited access, the remaining three (3) borings would be completed with portable drilling equipment. A groundwater monitoring well would be installed in one (1) of the completed boreholes.

The test pits would be completed with a small track-mounted excavator to depths of about 10 feet below the existing ground surface. The purpose of these test pits would be to evaluate the depth and configuration of the existing school building foundations, in the vicinity of the area where it would abut the proposed STEM addition.

The five (5) borings would require three (3) days to complete. The three (3) test pits would require one (1) day to complete;

3. Four (4) borings at the existing Cypress Street fields. These borings would be performed to approximate depths of 30 feet below the existing ground surface using a track-mounted drill-rig. A groundwater monitoring well would be installed in one (1) of the completed boreholes.

The four (4) borings would require two (2) days to complete; and

4. Four (4) borings at the 111 Cypress Street site. These borings would generally be performed to approximate depths of 30 feet below the existing ground surface, with the exception of one boring which would be performed to an approximate depth of 60 feet below the existing ground surface. These borings would be advanced using a truck-mounted drill-rig. A groundwater monitoring well would be installed in one (1) of the completed boreholes.

The four (4) borings would require three (3) days to complete.

Proposed boring and test pit locations are provided on the sketches contained in **Appendix A**. The borings and test pits could commence within about two (2) to three (3) weeks following notification to proceed, subject to the availability of the drilling and excavation contractors.

D. Preferred Solution Building Systems Narratives - Geotechnical



HMFH Architects, Inc.
 May 30, 2017
 Page 3

The scope and schedule for the geotechnical subsurface exploration program is also summarized below in **Table 1**:

Site	Borings			Test Pits		
	Number	Depth per Boring [ft]	Duration [days]	Number	Depth per Test Pit [ft]	Duration [days]
Existing Main Campus	5	20-60	3	3	10	1
Cypress Street Fields	4	30	2	-	-	-
111 Cypress Street	4	30-60	3	-	-	-

Following completion of the geotechnical subsurface exploration program, we would prepare a Preliminary Foundation Engineering Report providing preliminary recommendations for foundation support of the proposed structures and their lowest level slabs, treatment of the lowest level slabs in consideration of groundwater, and seismic design considerations in accordance with the provisions of the Eighth Edition of the Massachusetts State Building Code. Foundation construction considerations relating to geotechnical aspects of the proposed construction would also be presented therein.

We trust that the above is sufficient for your present requirements. Should you have any questions concerning the above, please do not hesitate to contact us.

Very truly yours,

McPHAIL ASSOCIATES, LLC

Scott S. Dennis, P.E.

Ambrose J. Donovan, P.E., L.S.P.

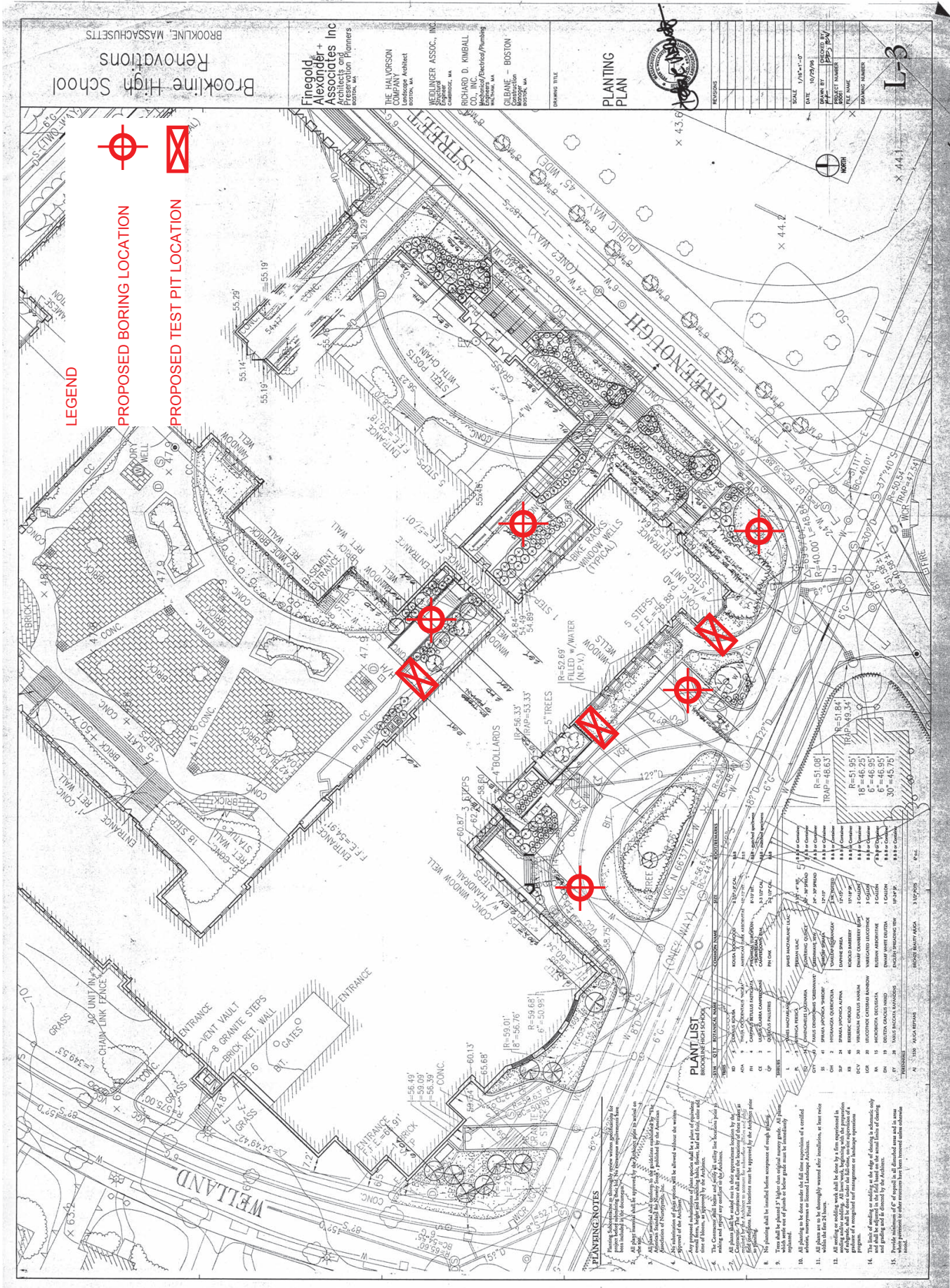
D. Preferred Solution Building Systems Narratives - Geotechnical



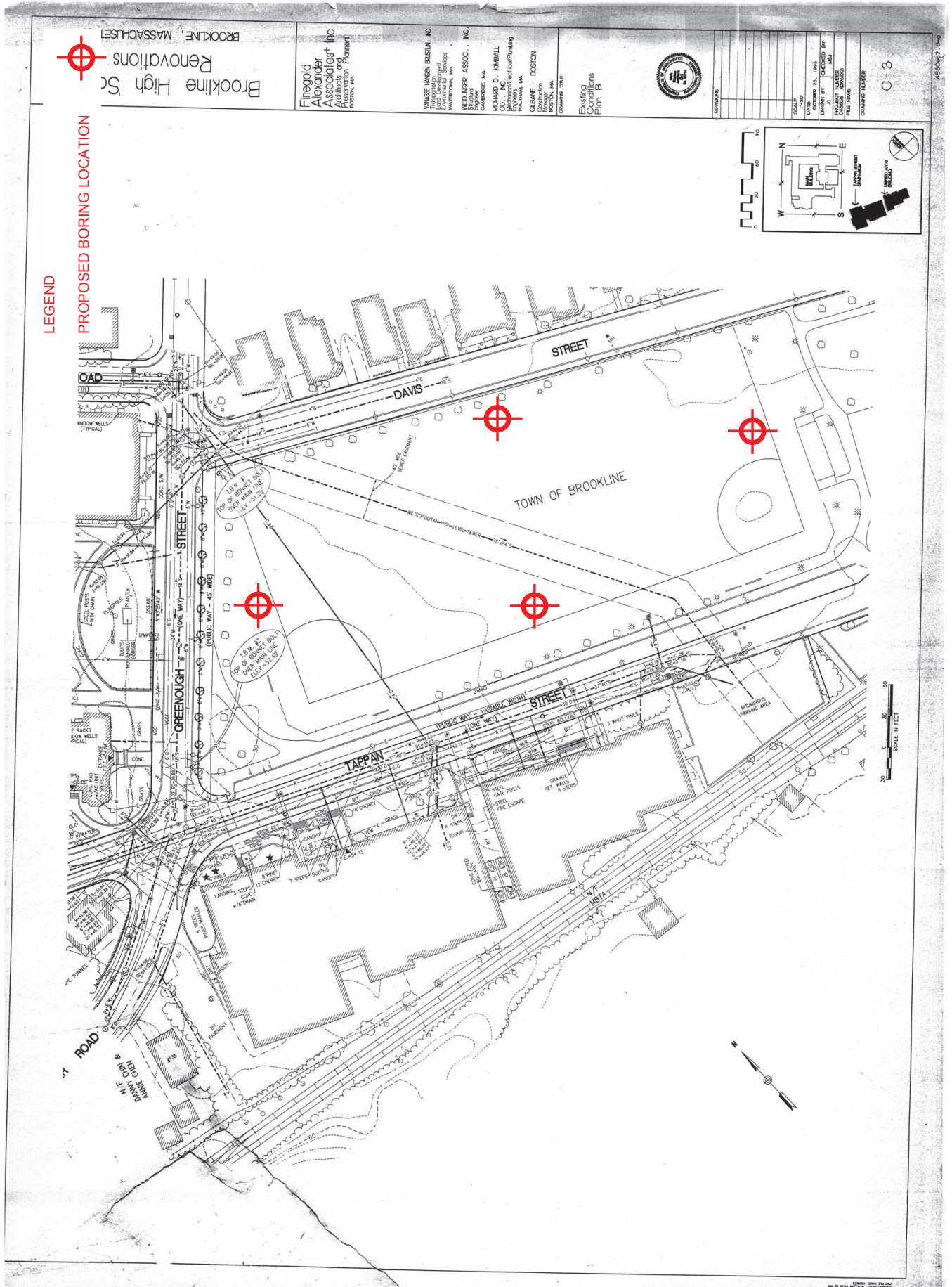
APPENDIX A:

PROPOSED BORING AND TEST PIT LOCATIONS

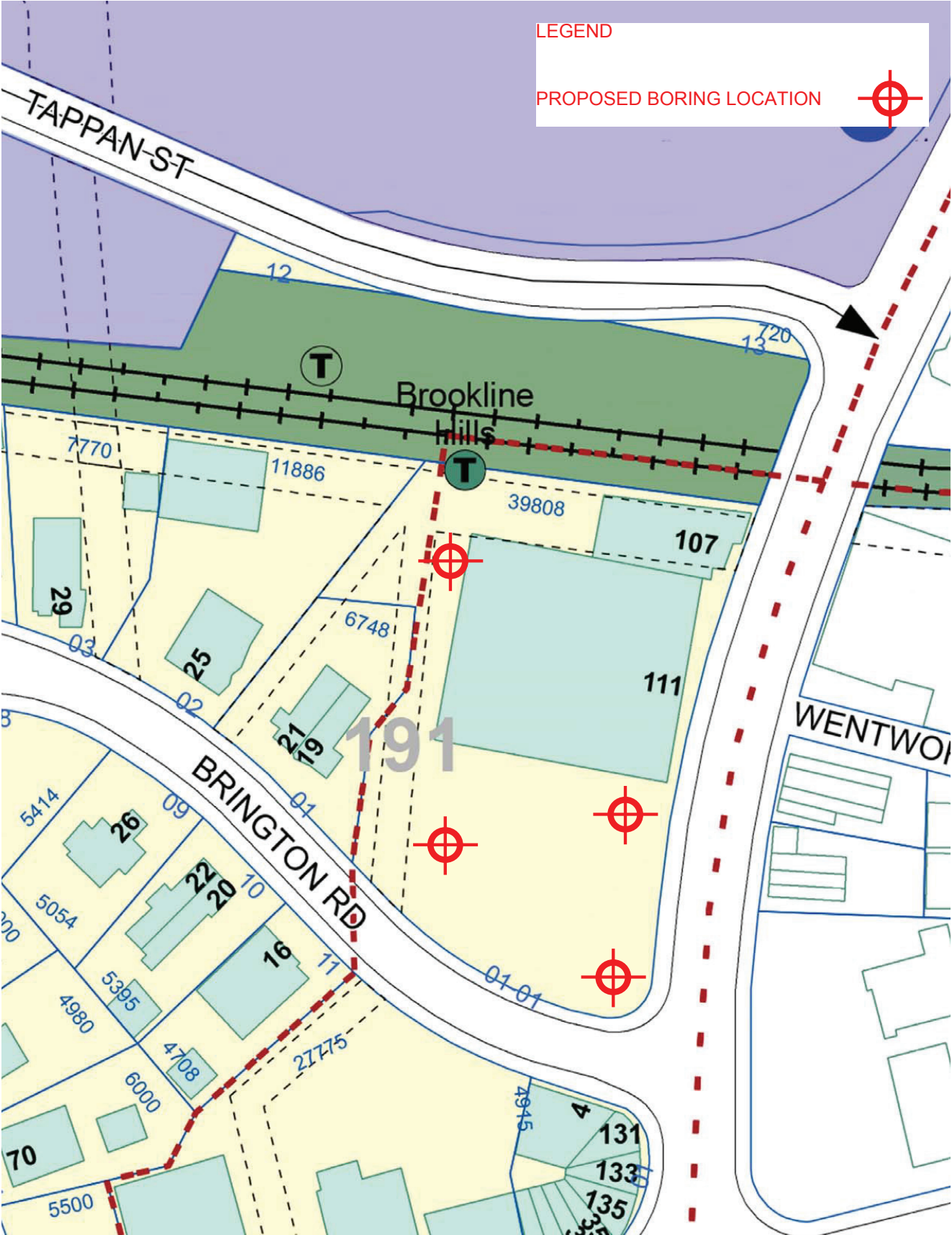
D. Preferred Solution Building Systems Narratives - Geotechnical



D. Preferred Solution Building Systems Narratives - Geotechnical



D. Preferred Solution Building Systems Narratives - Geotechnical



Appendices

- D. Preferred Solution
 - Building Systems Narratives
 - Civil Narrative**



MEMORANDUM

To: HMFH Architects, Inc.

From: Nobis Engineering, Inc.

Subject: Brookline High School – Campus Feasibility Study
Cypress Building and STEM Wing Site Utility Narrative

Date: June 7, 2017

FEASIBILITY STUDY

Nobis Engineering, Inc. is pleased to present the following site utilities narrative for the proposed Cypress building and the STEM Wing for Brookline High School (BHS) located at 115 Greenough Street in Brookline, MA.

The following includes a site utilities narrative for the proposed additions to the BHS. The narrative includes water supply, sanitary sewer and drainage systems.

SITE UTILITY NARRATIVE

On May 22nd Nobis Engineering corresponded with the Town Director of Water & Sewer to determine the availability of public service utilities to support the proposed campus development. Nobis Engineering also consulted with the Town Director of Engineering & Transportation regarding the Town’s drainage requirements for redevelopment. The availability and capacity of the water and sewer services are discussed below as well as the drainage criteria and proposed stormwater alternatives for Selected Option 4D Site Plan Option 1 and Option 2 (provided by HMFH and HDPI).

Water Supply

According to the Town Director of Water & Sewer there is adequate capacity in the municipal water system surrounding the BHS campus to support the proposed STEM building and the proposed Cypress building. Based on programming needs the BHS STEM building should be able to receive water supply from Tappan Street, Greenough Street or one of the existing water services. For the proposed Cypress building there will likely be at least two water services required due to the ground floor of the proposed building being divided by the MBTA railroad tracks. The southern portion of the proposed building (south of the railroad tracks) should be able to receive water supply from Brington Road or Cypress Street. The northern portion of the proposed building (north of the railroad tracks) should be able to receive water supply from Tappan Street or Cypress Street.

Client-Focused, Employee-Owned

www.nobiseng.com

Nobis Engineering, Inc.
18 Chenell Drive
Concord, NH 03301
T (603) 224-4182

D. Preferred Solution Building Systems Narratives - Civil



Sanitary Sewer

According to the Town Director of Water & Sewer there is adequate capacity in the municipal sewer system surrounding the BHS campus to support the proposed STEM building and the proposed Cypress building. Based on programming needs the BHS STEM building should be able to discharge the additional sanitary sewer demand into either of the sewer mains in Tappan Street and Greenough Street or one of the existing sanitary sewer services.

Based on the proposed STEM building it is our understanding that the student and staff at BHS will increase. There are currently 2,301 students/staff using the existing BHS. In accordance with 310 CMR 15.203 Title 5 regulations a secondary school with cafeteria, gymnasium, and showers must have a minimum capacity to handle 20 gallons per day per person. Using a peaking factor of 5 and adjusting the volume over an 8 hour period during the day the minimum sewer flow design must accommodate at least 479 gallons per minute (gpm) for the existing BHS. Using Manning's equation, an 8" sewer service at one percent slope flowing half full has the capacity to handle approximately 250 gpm. Given that the existing high school has 5 existing services there is more than enough capacity to handle the additional sanitary discharge into one or multiple of the existing sanitary sewer services (total capacity of the 5 services equals approximately $5 \times 250 \text{ gpm} = 1,250 \text{ gpm}$).

For the proposed Cypress building there will likely be at least two sewer services required due to the ground floor of the proposed building being divided by the MBTA railroad tracks. The southern portion of the proposed building (south of the railroad tracks) should be able to discharge the sanitary sewer demand into the sewer main crossing the property through a 10' wide sewer easement or into the sewer main under Cypress Street. The northern portion of the proposed building (north of the railroad tracks) should be able to discharge the sanitary sewer demand into the sewer main under Cypress Street.

It is our understanding that the student and staff at the proposed Cypress building could be approximately 900 students/staff. In accordance with 310 CMR 15.203 Title 5 regulations as stated above the minimum sewer flow design must accommodate at least 188 gallons per minute (gpm) for the proposed Cypress building. Using Manning's equation, an 8" sewer service at one percent slope flowing half full has the capacity to handle approximately 250 gpm. Given that the proposed Cypress building will require at least two sewer services there is more than enough capacity to tie the proposed building into the municipal sewer system (total capacity of two sewer services equals approximately $2 \times 250 \text{ gpm} = 500 \text{ gpm}$).

D. Preferred Solution Building Systems Narratives - Civil



Drainage

According to the Town's Site Plan Review Checklist and in confirmation with the Town's Director of Engineering & Transportation the stormwater calculations for the project must demonstrate that peak rates of flow and volume do not exceed existing rates for post-development conditions for the 2-, 10-, 25-, and 100-year design storms. Therefore, no increase into the Town's closed drainage system will be permitted. In addition, any on-site infiltration structures shall be designed to retain the 25-year 24-hour storm event to the greatest extent practicable. An emergency overflow from the proposed infiltration system(s) on-site would be connected to the municipal drainage system should the Town allow it.

Given the proposed BHS campus expansion, we have evaluated a few stormwater management schematic design alternatives to meet the Town of Brookline's regulations. The stormwater management alternatives assume there will be an increase in impervious area for the STEM building, the Cypress building, and for the campus plaza near the main building entry. As

confirmed by the Town of Brookline Director of Engineering & Transportation, the artificial turf proposed for the Cypress fields is considered a pervious surface for stormwater management design. The stormwater management alternatives have been evaluated to manage the increase in stormwater runoff from the proposed campus expansion for each of the two site plan options proposed under Selected Option 4D discussed below.

continues next page

D. Preferred Solution Building Systems Narratives - Civil



Site Plan Option 1 (Nobis Alternatives 1A and 1B) includes, but is not limited to, the proposed 111 Cypress building, the proposed STEM building, and the Cypress field plaza. In Site Option 1 there is approximately a 4,000 square foot decrease in impervious area around the main building including the STEM building addition, Cypress field plaza, and the courtyard at the main building. In both stormwater alternatives 1A and 1B, since there is no increase in impervious area surrounding the STEM building addition, Cypress field plaza, and the courtyard at the main building, stormwater will be controlled using a conventional closed drainage system that ties into the municipal drainage system. Also in Site Option 1 there is approximately a 13,000 square foot increase in impervious area at 107-111 Cypress Street for the proposed Cypress building. Stormwater alternative 1A accommodates the increase in impervious area by providing quantity and quality stormwater management by using porous asphalt pavement for the Cypress building parking lot and/or pervious pavers for the hardscape around the building. Stormwater alternative 1B accommodates the increase in impervious area by providing quantity and quality stormwater management using a conventional closed drainage system including catch basins and drain manholes that discharge into roughly a 1,500 square foot infiltration system under the paved driveway with an overflow to the existing closed drainage system in Brington Road.

Site Plan Option 2 (Nobis Alternatives 2A and 2B) includes, but is not limited to, the proposed 111 Cypress building, the proposed STEM building, the new plaza at the main building entry, and the realignment of Greenough Street. In Site Option 2 there is approximately a 1,000 square foot increase in impervious area around the main building including the STEM building addition, new plaza in front of the main building, the courtyard at the main building, and the realignment of Greenough Street. Stormwater alternative 2A accommodates the increase in impervious area for the proposed STEM building, the new plaza at the main building entry, and the realignment of Greenough Street by providing quantity and quality stormwater management using pervious pavers for a portion of the campus plaza, main building entry or main building courtyard and porous asphalt pavement for the Cypress building parking lot and/or pervious pavers for the hardscape around the building. Also in Site Option 2 there is approximately a 13,000 square foot increase in impervious area at 107-111 Cypress Street for the proposed Cypress building. Stormwater alternative 2B accommodates the increase in impervious area for the proposed STEM building, the new plaza at the main building entry, and the realignment of Greenough Street by providing quantity and quality stormwater management using a conventional closed drainage system including catch basins and drain manholes that discharge into roughly a 200 square foot infiltration system with an overflow to the existing closed drainage system in Greenough Street Brington Road. Under alternative 2B the increase in impervious area for the proposed 111 Cypress building will be managed using a conventional closed drainage system including catch basins and drain manholes that discharge into roughly a 1,500 square foot infiltration system under the paved driveway with an overflow to the existing closed drainage system in Brington Road. Each component of alternatives 1A, 1B, 2A, and 2B discussed above can be mixed and matched with the other alternatives.

For both Site Plan Options 1 and 2, Nobis recommends installing an additional 6" stone reservoir course under the athletic turf fields to provide additional groundwater recharge and retain the 25-year 24-hour storm event to the greatest extent practicable.

D. Preferred Solution Building Systems Narratives - Civil



The rough sizing of these systems was determined using Rawl's Infiltration Rates in accordance with the NRCS soils classification, per the Town's requirement. However, the exact size cannot be determined until the expansion design has been finalized and the depth to the estimated seasonal high groundwater table can be determined in the vicinity of the proposed infiltration system(s). The infiltration system(s) size is based on the estimated seasonal high groundwater table being at least 8 feet below the ground surface in the vicinity of the infiltration system(s). The proposed height of the infiltration system is 5.5 feet.

Refer to attached conceptual utility layout figures for a schematic layout of each stormwater alternative.

Greenough Street Realignment Utility Considerations (Site Plan Option 2)

In Site Plan Option 2, Greenough Street would be realigned to the east, away from the existing main building entry. With this street realignment additional considerations would need to be made regarding the existing utilities in this corridor including overhead electric, drainage, water, and sewer. There is currently overhead electric in the sidewalk along the eastern side of Greenough Street. Under proposed Option 2, the overhead electric could stay where it is but would cross through the new entry plaza, it could be relocated along the edge of the realigned Greenough Street or the overhead electric could be converted to an underground service. Additionally the water and sewer mains and municipal closed drainage system that currently run under Greenough Street if left alone would be under the new entry plaza. The Town may require that the mains be relocated under the new roadway alignment for ease of maintenance. Nobis' recommendation would be to relocate the water, sewer, and drainage under the realigned Greenough Street and install the electric service underground.

ATTACHMENTS:

Selected Option 4D Conceptual Utility Layout Alternatives 1A, 1B, 2A, 2B

Town of Brookline Existing Utility Plans

D. Preferred Solution Building Systems Narratives - Civil



I:\92760.00 - 9th Elementary School and Brookline High School and Brookline High School - CONCEPT - OPTION4D.dwg 6/7/2017 12:21 PM

- NOTES:
1. THE CONCEPTUAL UTILITY LOCATIONS SHOWN ON THIS PLAN ARE INTENDED TO BE USED FOR FEASIBILITY ANALYSIS ONLY. THE CAMPUS LAYOUT SHOWN ON THIS PLAN IS BASED ON THE PLANS PROVIDED BY HALVORSON DESIGN PARTNERSHIP, INC. ON JUNE 5, 2017.
 2. THE LOCATION OF THE WATER AND SEWER SERVICE CONNECTIONS HAVE BEEN SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. THE WATER AND SEWER SERVICES FROM THE STEM BUILDING CAN TIE INTO THE MAINS ALONG TAPPAN STREET OR GREENOUGH STREET. THE WATER SERVICES FROM THE CYPRESS BUILDING CAN TIE INTO THE MAINS ALONG TAPPAN STREET, CYPRESS STREET, OR BRINGTON ROAD. THE SEWER SERVICES FROM THE CYPRESS BUILDING CAN TIE INTO THE MAINS ALONG CYPRESS STREET OR THE MAIN THAT CROSSES THE PROPERTY. ACTUAL LOCATIONS WILL DEPEND UPON THE PROPOSED BUILDING PROGRAMMING NEEDS.
 3. THE DRAINAGE IMPROVEMENTS SHOWN ARE CONCEPTUAL ONLY. FOR THE PURPOSES OF THE CONCEPTUAL DESIGN ASSUMPTIONS HAVE BEEN MADE FOR THE DEPTH TO GROUNDWATER AND BEDROCK AS WELL AS THE INFILTRATION RATES OF THE SOILS.

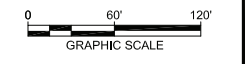
Nobis
 Engineering a Sustainable Future
 Nobis Engineering, Inc.
 18 Chenell Drive
 Concord, NH 03301
 T(603) 224-4182
 www.nobiseng.com
 Client - Focused, Employee - Owned

NOT ISSUED FOR CONSTRUCTION

BROOKLINE HIGH SCHOOL CAMPUS EXPANSION

BROOKLINE, MASSACHUSETTS

NO.	DATE	DESCRIPTION
REVISIONS		



DATE:	JUNE 2017
NOBIS PROJECT NO.:	92760.00
DRAWN BY:	SM
CHECKED BY:	TC
CAD DRAWING FILE:	92760.00-CONCEPT-OPTION4D.dwg
SHEET TITLE	

CONCEPTUAL LAYOUT OPTION 4D ALTERNATIVE 1A

SHEET C-1A

- EASEMENT LEGEND**
- BROOK CHANNEL EASEMENT
 - 10' SEWER EASEMENT
 - TOWN OF BROOKLINE DRAIN EASEMENT
 - 12' ROW TO PARKING GARAGE EASEMENT
- *THE LOCATION OF THE EXISTING EASEMENTS AS DEPICTED ON THIS PLAN ARE APPROXIMATE.

D. Preferred Solution Building Systems Narratives - Civil



- NOTES:
1. THE CONCEPTUAL UTILITY LOCATIONS SHOWN ON THIS PLAN ARE INTENDED TO BE USED FOR FEASIBILITY ANALYSIS ONLY. THE CAMPUS LAYOUT SHOWN ON THIS PLAN IS BASED ON THE PLANS PROVIDED BY HALVORSON DESIGN PARTNERSHIP, INC. ON JUNE 5, 2017.
 2. THE LOCATION OF THE WATER AND SEWER SERVICE CONNECTIONS HAVE BEEN SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. THE WATER AND SEWER SERVICES FROM THE STEM BUILDING CAN TIE INTO THE MAINS ALONG TAPPAN STREET OR GREENOUGH STREET, THE WATER SERVICES FROM THE CYPRESS BUILDING CAN TIE INTO THE MAINS ALONG TAPPAN STREET, CYPRESS STREET, OR BRINGTON ROAD, THE SEWER SERVICES FROM THE CYPRESS BUILDING CAN TIE INTO THE MAINS ALONG CYPRESS STREET OR THE MAIN THAT CROSSES THE PROPERTY. ACTUAL LOCATIONS WILL DEPEND UPON THE PROPOSED BUILDING PROGRAMMING NEEDS.
 3. THE DRAINAGE IMPROVEMENTS SHOWN ARE CONCEPTUAL ONLY. FOR THE PURPOSES OF THE CONCEPTUAL DESIGN ASSUMPTIONS HAVE BEEN MADE FOR THE DEPTH TO GROUNDWATER AND BEDROCK AS WELL AS THE INFILTRATION RATES OF THE SOILS.



Engineering a Sustainable Future
 Nobis Engineering, Inc.
 18 Cheneil Drive
 Concord, NH 03301
 T(603) 224-4182
 www.nobiseng.com
 Client - Focused, Employee - Owned

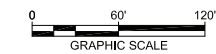
NOT ISSUED FOR CONSTRUCTION

BROOKLINE HIGH SCHOOL CAMPUS EXPANSION

BROOKLINE, MASSACHUSETTS

NO.	DATE	DESCRIPTION
-----	------	-------------

REVISIONS



DATE:	JUNE 2017
NOBIS PROJECT NO.:	92760.00
DRAWN BY:	SM
CHECKED BY:	TC
CAD DRAWING FILE:	92760,00-CONCEPT-OPTION4D.dwg

SHEET TITLE
 CONCEPTUAL LAYOUT OPTION 4D ALTERNATIVE 1B

SHEET
 C-1B

- EASEMENT LEGEND
- BROOK CHANNEL EASEMENT
 - 10' SEWER EASEMENT
 - TOWN OF BROOKLINE DRAIN EASEMENT
 - 12' ROW TO PARKING GARAGE EASEMENT

*THE LOCATION OF THE EXISTING EASEMENTS AS DEPICTED ON THIS PLAN ARE APPROXIMATE.

J:\92760.00 - 9th Elementary School and Brookline High\CAD\Drawings\92760.00-CONCEPT-OPTION4D.dwg 6/7/2017 12:19 PM

D. Preferred Solution Building Systems Narratives - Civil



J:\92760.00 - 9th Elementary School and Brookline High\CAO\92760.00-CONCEPT-OPTION4D.dwg 6/7/2017 12:17 PM

NOTES:

1. THE CONCEPTUAL UTILITY LOCATIONS SHOWN ON THIS PLAN ARE INTENDED TO BE USED FOR FEASIBILITY ANALYSIS ONLY. THE CAMPUS LAYOUT SHOWN ON THIS PLAN IS BASED ON THE PLANS PROVIDED BY HALVORSON DESIGN PARTNERSHIP, INC. ON JUNE 5, 2017.
2. THE LOCATION OF THE WATER AND SEWER SERVICE CONNECTIONS HAVE BEEN SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. THE WATER AND SEWER SERVICES FROM THE STEM BUILDING CAN TIE INTO THE MAINS ALONG TAPPAN STREET OR GREENOUGH STREET, THE WATER SERVICES FROM THE CYPRESS BUILDING CAN TIE INTO THE MAINS ALONG TAPPAN STREET, CYPRESS STREET, OR BRINGTON ROAD, THE SEWER SERVICES FROM THE CYPRESS BUILDING CAN TIE INTO THE MAINS ALONG CYPRESS STREET OR THE MAIN THAT CROSSES THE PROPERTY. ACTUAL LOCATIONS WILL DEPEND UPON THE PROPOSED BUILDING PROGRAMMING NEEDS.
3. THE DRAINAGE IMPROVEMENTS SHOWN ARE CONCEPTUAL ONLY, FOR THE PURPOSES OF THE CONCEPTUAL DESIGN ASSUMPTIONS HAVE BEEN MADE FOR THE DEPTH TO GROUNDWATER AND BEDROCK AS WELL AS THE INFILTRATION RATES OF THE SOILS.

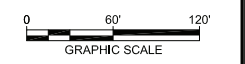


NOT ISSUED FOR CONSTRUCTION

BROOKLINE HIGH SCHOOL CAMPUS EXPANSION

BROOKLINE, MASSACHUSETTS

NO.	DATE	DESCRIPTION
REVISIONS		



DATE: JUNE 2017
 NOBIS PROJECT NO. 92760.00
 DRAWN BY: SM
 CHECKED BY: TC
 CAD DRAWING FILE: 92760.00-CONCEPT-OPTION4D.dwg

SHEET TITLE

CONCEPTUAL LAYOUT OPTION 4D ALTERNATIVE 2A

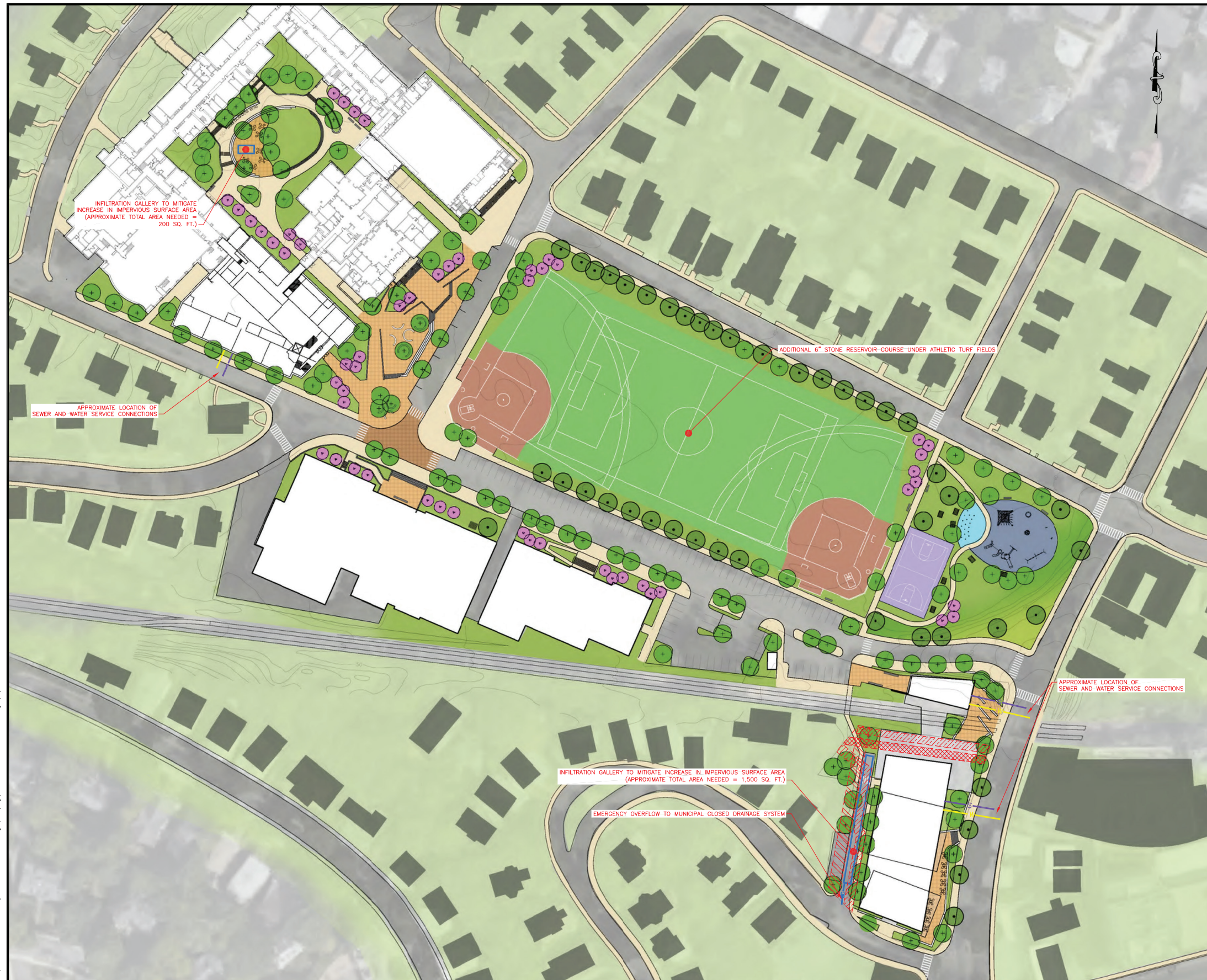
SHEET **C-2A**

EASEMENT LEGEND

	BROOK CHANNEL EASEMENT
	10' SEWER EASEMENT
	TOWN OF BROOKLINE DRAIN EASEMENT
	12' ROW TO PARKING GARAGE EASEMENT

*THE LOCATION OF THE EXISTING EASEMENTS AS DEPICTED ON THIS PLAN ARE APPROXIMATE.

D. Preferred Solution Building Systems Narratives - Civil



NOTES:
 1. THE CONCEPTUAL UTILITY LOCATIONS SHOWN ON THIS PLAN ARE INTENDED TO BE USED FOR FEASIBILITY ANALYSIS ONLY. THE CAMPUS LAYOUT SHOWN ON THIS PLAN IS BASED ON THE PLANS PROVIDED BY HALVORSON DESIGN PARTNERSHIP, INC. ON JUNE 5, 2017.
 2. THE LOCATION OF THE WATER AND SEWER SERVICE CONNECTIONS HAVE BEEN SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. THE WATER AND SEWER SERVICES FROM THE STEM BUILDING CAN TIE INTO THE MAINS ALONG TAPPAN STREET OR GREENOUGH STREET, THE WATER SERVICES FROM THE CYPRESS BUILDING CAN TIE INTO THE MAINS ALONG TAPPAN STREET, CYPRESS STREET, OR BRINGTON ROAD, THE SEWER SERVICES FROM THE CYPRESS BUILDING CAN TIE INTO THE MAINS ALONG CYPRESS STREET OR THE MAIN THAT CROSSES THE PROPERTY. ACTUAL LOCATIONS WILL DEPEND UPON THE PROPOSED BUILDING PROGRAMMING NEEDS.
 3. THE DRAINAGE IMPROVEMENTS SHOWN ARE CONCEPTUAL ONLY. FOR THE PURPOSES OF THE CONCEPTUAL DESIGN ASSUMPTIONS HAVE BEEN MADE FOR THE DEPTH TO GROUNDWATER AND BEDROCK AS WELL AS THE INFILTRATION RATES OF THE SOILS.

Nobis
 Engineering a Sustainable Future
 Nobis Engineering, Inc.
 18 Chenell Drive
 Concord, NH 03301
 T(603) 224-1152
 www.nobiseng.com
 Client - Focused, Employee - Owned

NOT ISSUED FOR CONSTRUCTION

BROOKLINE HIGH SCHOOL CAMPUS EXPANSION
 BROOKLINE, MASSACHUSETTS

NO.	DATE	DESCRIPTION
REVISIONS		

DATE: JUNE 2017
 NOBIS PROJECT NO. 92760.00
 DRAWN BY: SM
 CHECKED BY: TC
 CAD DRAWING FILE: 92760.00-CONCEPT-OPTION4D.dwg
 SHEET TITLE

CONCEPTUAL LAYOUT OPTION 4D ALTERNATIVE 2B

SHEET C-2B

EASEMENT LEGEND

 BROOK CHANNEL EASEMENT
 10' SEWER EASEMENT
 TOWN OF BROOKLINE DRAIN EASEMENT
 12' ROW TO PARKING GARAGE EASEMENT
 *THE LOCATION OF THE EXISTING EASEMENTS AS DEPICTED ON THIS PLAN ARE APPROXIMATE.

J:\92760.00 - 8th Elementary School and Brookline High CAD.dwg 92760.00-CONCEPT-OPTION4D.dwg 6/7/2017 12:15 PM

Appendices

- D. Preferred Solution
 - Building Systems Narratives
 - Landscape Narrative**

D. Preferred Solution Building Systems Narratives - Landscape

HALVORSON DESIGN
PARTNERSHIP

MEMORANDUM

project Brookline High School Feasibility Study
date 2 June 2017
to HMFH Architects, Inc.
from Halvorson Design Partnership
regarding Proposed Option 4 Narrative

Main building and STEM Addition at Greenough Street

Greenough Street will be reconfigured to allow for a more generous pedestrian space at the School's traditional main entrance including an accessible entrance to the new STEM building. Accessibility to the courtyard and Main Building entrance will be available along and through elevated student friendly courtyards with an ample variety of seating and planting. 10 parallel parking spaces will be available along Greenough. The Greenough/Tappan intersection will be an elevated table-top design to provide for safe movement for students and faculty between the Main campus building, the sports fields at Cypress Field and the campus buildings along Tappan Street

Main Building Courtyard

The courtyard will be renovated into multi-level outdoor rooms that can help reduce the scale of the surrounding buildings, especially the west wing entrance, which is perched 9' above the courtyard. We propose an elevated paving/lawn plaza that includes seat walls, trees and movable tables and chairs, while maintaining accessibility to all entrances. The elevated plaza also becomes a semi-public space that creates a separation from students walking between buildings. A lawn area is proposed at the northeast corner of the courtyard, as this area will receive the most sunlight through out the year. The terrace walls could be used for seating as an outdoor classroom or for small events.

Tappan Road and Adjacent Buildings

Tappan Street will be reconfigured to include a 24' one-way travel lane, a new 17' tree lined pedestrian way along Tappan Gym, the UAB, campus and MBTA parking lots to the south (53) 90-degree parking spaces and a new 7' sidewalk to the north along Cypress Field. Entry stairs and ramps to Tappan Gym and UAB will be reconfigured, as well as the campus parking lot.

Cypress Field –Sport Fields

Cypress Field will be designed as an artificial turf sports field to include a regulation soccer / lacrosse field and 2 softball fields. Striping of the fields will allow for additional practice space for football, etc. Existing trees along Tappan and Davis Streets will remain and be protected during the construction of the playfields. New chain link fencing and backstops will be added. Natural lawn along Tappan and Davis Streets will be maintained and re-seeded. The existing curb and sidewalk at Davis Street will remain.

Cypress Field – Playground Area

The Playground Area will be redesigned to include new play equipment and water play area for Pre-K through age 12. A new basketball court will be installed with seating and picnic tables provided for the entire playground area. A winter tubing hill will be maintained.

New Building at 111 Cypress Street

A new outdoor terrace at the end of the Tappan Street pedestrian Way will announce the Tappan Street entrance to the new 111 Cypress Street (Library Building). An outdoor terrace with seating and planting at the Tappan / Cypress Street intersection will allow for accessible pedestrian access from this intersection. A third entrance, located along Brington Road, will allow an accessible to the building and outdoor café seating.

D. Preferred Solution Building Systems Narratives - Landscape

Refer to Volume 1 of 3, section 5. Preferred Solution for Landscape Site Plans and Sections

Appendices

- D. Preferred Solution
 - Building Systems Narratives
 - Structural Narrative**

D. Preferred Solution Building Systems Narratives - Structural

2150 Washington Street
Newton MA 02462

T 617-527-9600
F 617-527-9606

offices in:
Newton MA
Manchester NH
Atlanta GA

www.fbra.com



BROOKLINE HIGH SCHOOL

Brookline, Massachusetts

Preferred Solution - Structural Narrative

May 22, 2017

INTRODUCTION

Foley Buhl Roberts & Associates, Inc. (FBRA) is collaborating with HMFH Architects, Inc. (HMFH) in the study of new construction/renovation options for the Brookline High School in Brookline, MA.

A number of options have been studied by the Design Team in recent months. With reference to the May 3, 2017 *Brookline High School Feasibility Study - Campus Expansion Update*, prepared by HMFH, the Building Committee has selected Option 4D as the preferred solution, which includes the construction of a new, 5-story, 112,700+/- square feet New Academic Building located at 111 Cypress Street and a new, 3-story (plus partial basement), 50,400+/- square feet STEM Wing at the Main Academic Building (at the location of the current, 1937 Roberts Wing). The new Cypress Street Academic Building would span over the MBTA Green Line tracks to an entry/circulation structure (which also includes limited program area) that can be accessed from Tappan Street. Renovations to the Third Floors of the 1948 Schluntz Gymnasium and the 1931 Schluntz Wing (presently science classrooms) to regular classrooms, collaborative spaces and teacher planning areas (core academics) is also proposed. The total area of spaces to be renovated is approximately 36,500 square feet.

Alternately, if negotiations with the MBTA to construct a portion of the new building over the Green Line tracks are unsuccessful or the time frame is prohibitive, the Town may choose to proceed with Option 4B, which places all the program spaces for the New Academic Building at the 111 Cypress Street site (south of the MBTA tracks). An outdoor plaza would be constructed along the north side of MBTA tracks (parallel to Tappan Street), which would turn to the south and span over the tracks to the main entrance of the New Academic Building. The plaza would serve as a public gathering space and allow the new building to be accessed independent from Cypress Street.

Additional, optional projects include the renovation of the Tappan Street Gym, improvements to Cypress Field and an underground parking garage. Limited alterations to the Tappan Street Gym may be included in the project; however, little or no structurally related work is anticipated. Improvements to Cypress Field may also be included (no structural scope). The underground parking garage is not under consideration at this time.

Structural systems and materials for the proposed, new construction and renovations are described in this Structural Narrative. Estimated quantities of structural materials and Structural Outline Specifications are also included. This narrative is based on the previously referenced, *Campus Expansion Update* and on meetings/discussions with the Design Team. It is intended to be used in conjunction with the Feasibility Study documents prepared by HMFH and the other Consultants, as the basis of the preliminary cost estimate.

I. GENERAL STRUCTURAL DESCRIPTION:

Proposed new construction (Cypress Street Academic Building and the Stem Wing of the Main Academic Building) will be steel framed, for reasons of economy, performance, flexibility, and speed of construction. A composite structural steel floor system is proposed, as it exhibits superior stiffness, vibrational characteristics, future flexibility, and less structural depth compared to other steel floor framing systems. Floor framing will be wide flange steel beams and girders,

D. Preferred Solution Building Systems Narratives - Structural

BROOKLINE HIGH SCHOOL

Brookline, Massachusetts

Preferred Solution - Structural Narrative

May 22, 2017

Page 2 of 11

acting compositely with cast-in-place concrete floor slabs on steel deck. Shear studs will be field welded to the beam/girder flanges to achieve composite action with the floor slab. The roof will be steel framed as well, with steel roof deck supported by wide flange steel beams and columns (typically no concrete slab). Floor and roof steel framing will be surface prepped and left unpainted, except at areas that will ultimately be exposed to view (limited locations).

Foundations are assumed to be conventional spread footings (to be confirmed by a Geotechnical Engineer). Lowest level floor construction is anticipated to be a concrete slab on grade.

Exterior walls will typically be masonry veneer, with areas of glazed curtainwall and (potentially) rainscreen cladding. Backup wall construction will be galvanized, light gauge steel stud construction (16 gauge minimum thickness at masonry veneer areas; 18 gauge minimum elsewhere).

II. **BASIS OF STRUCTURAL DESIGN:**

Codes and Design Standards

Building Code: Massachusetts State Building Code (780 CMR) - Eighth Edition.

Structural Materials: ASTM; applicable standards.

Concrete: ACI 318 and ACI 301; latest editions.

Structural Steel: AISC "Specification for Structural Steel Buildings" and AISC "Code of Standard Practice"; latest editions.

Steel Deck: Steel Deck Institute (SDI); referenced standards; latest editions.

Design Loads/Parameters

Live Loads:

Classrooms (with partition allowance):	65 PSF
Corridors:	80 PSF
Open Plan Areas (Including Option 4B Plaza):	100 PSF
Stairs:	100 PSF
Mechanical Areas:	150 PSF

Snow Loads (Brookline):

Basic Ground Snow Load:	40 PSF
Minimum Flat Roof Snow Load:	30 PSF

Future Photovoltaic (PV) Panel Roof Load:

Flat Roof Areas:	15 PSF
------------------	--------

Wind Loads (Brookline):

Wind Speed:	105 MPH
-------------	---------

D. Preferred Solution Building Systems Narratives - Structural

BROOKLINE HIGH SCHOOL

Brookline, Massachusetts

Preferred Solution - Structural Narrative

May 22, 2017

Page 3 of 11

Seismic Parameters:

Spectral Response - Short Periods:	$S_S = 0.28g$
Spectral Response - 1-Second Periods:	$S_D = 0.068g$
Seismic Use Group:	III
Seismic Design Category:	B
Site Class:	D (Assumed)
Structural System:	Building Frame System
Lateral Load Resisting System:	Steel Braced Frames (<i>Not Specifically Detailed for Seismic Resistance</i>)
Response Modification Factor (R):	3.0
System Overstrength Factor (Ω_0):	3.0
Deflection Amplification Factor (C_d):	3.0

Foundations:

The preliminary foundation design is based on an assumed allowable bearing capacity of 5.0 kips per square foot (2.5 tons per square foot), to be confirmed by a Geotechnical Engineer.

Construction Classification:

The construction type for the new buildings has not yet been determined; however, it is anticipated that construction will be either Type IIA or Type IB (Noncombustible, Protected). Typical floor and roof construction will require applied fireproofing. The new buildings will be fully sprinklered.

Sustainable Design Considerations:

Sustainable design considerations will be incorporated into the design; it is intended that the new buildings be designed and constructed in accordance with LEED Silver (V.4) standards. The flat roofs of each building will be designed to accommodate the installation of photovoltaic (PV) panels in the future.

III. **STRUCTURAL DESCRIPTION and ESTIMATED QUANTITIES - NEW CONSTRUCTION:**

(STEM Addition and Cypress Street Academic Building)

A. SUBSTRUCTURE

A10: Foundations

No subsurface soils investigations were conducted during this study. Historical subsurface soils information for the Main Academic Building was not available; however, it appears that all buildings are supported on conventional spread footings. Original foundation drawings for certain wings indicate a design allowable bearing capacity ranging from 1½ tons per square foot to 4 tons per square feet.

Borings logs for the 1966 Tappan Street Gym were included in the original drawings. The borings, suggest that groundwater may be located 12+/- feet below grade. Accordingly, perimeter foundation drainage and underslab drainage should be provided at below grade portions of the new buildings. Temporary dewatering will likely be required during construction.

D. Preferred Solution Building Systems Narratives - Structural

BROOKLINE HIGH SCHOOL

Brookline, Massachusetts

Preferred Solution - Structural Narrative

May 22, 2017

Page 4 of 11

In the absence of additional subsurface soils information, the preliminary foundation design presented in this Structural Narrative is based on a design allowable bearing capacity of 2.5 tons per square foot (to be confirmed by a Geotechnical Engineer).

A1010 - Standard Foundations

- Typical perimeter frost walls: *14" thick with an 8" wide masonry shelf with horizontal and vertical reinforcing each face (4.5+/- psf). The outside surface of the perimeter foundation walls will receive a troweled-on bituminous mastic.*
- Typical perimeter frost wall continuous footing: *2'-2" wide, by 12" deep, with continuous reinforcing bars, plus dowels to the foundation wall (10.0+/- plf). The bottom of footing will be placed 4'-0" minimum below the exterior finish grade for frost protection.*
- Typical, full height (basement) foundation walls: *16" thick including an 8" wide masonry shelf, with horizontal and vertical reinforcing each face (6.0+/- psf). The outside surface of perimeter foundation walls should receive troweled-on bituminous mastic dampproofing.*
- Typical, full height foundation wall continuous footing: *2'-6" wide, by 12" deep, with continuous reinforcing bars, plus dowels to the foundation wall (15.0+/- plf). The bottom of the footing will be approximately 2'-4" minimum below the Lower Level slab on grade.*
- Typical, average interior column footings (Assume a 900+/- SF structural bay):

STEM Wing - Main Academic Building (3 Stories + Partial Basement):

10'- 6" x 10'- 6" x 2'-4" deep with 1,110 pounds of reinforcing. The bottom of the footing will be approximately 3'- 4" below the lowest floor slab on grade.

New Academic Building - Cyprus Street (5 Stories):

12'- 0" x 12'- 0" x 2'-8" deep with 1,700 pounds of reinforcing. The bottom of the footing will be approximately 3'- 8" below the lowest floor slab on grade.

- Typical, average perimeter column footings (Assume a 900+/- SF structural bay):

STEM Wing - Main Academic Building (3 Stories + Partial Basement):

7'- 6" x 7'- 6" x 1'-10" deep with 475 pounds of reinforcing. The bottom of the footing will be approximately 5'-4" below the finished exterior grade.

New Academic Building - Cyprus Street (5 Stories):

8'- 6" x 8'- 6" x 2'-0" deep with 650 pounds of reinforcing. The bottom of the footing will be approximately 5'- 6" below the finished exterior grade.

- Typical footing at Outdoor Plaza (Option 4B Only):

8'- 6" x 8'- 6" x 2'-0" deep with 650 pounds of reinforcing. The bottom of the footing will be approximately 4'- 6" below the finished exterior grade.

D. Preferred Solution Building Systems Narratives - Structural

BROOKLINE HIGH SCHOOL

Brookline, Massachusetts

Preferred Solution - Structural Narrative

May 22, 2017

Page 5 of 11

- Typical piers/pilasters at interior/perimeter columns: *24 inches square, reinforced concrete with 60 plf reinforcing.*
- Typical grade beams interconnecting footings in bracing bays (Assume 30 linear feet of grade beam per 2,500 SF of lowest level floor area): *2'-0" wide by 2'-6" deep with 70 plf reinforcing.*
- Foundation Wall Dampproofing: *ASTM D1227 Standard Specification for Emulsified Asphalt Used as a Protective Coating for Roofing; Type II, Class I, non-asbestos fibers.*
- Anchor Bolts: Anchor bolts at column base plates shall conform to ASTM F1554 – Grade 36 and shall be headed type. Provide a minimum of four (4), $\frac{3}{4}$ " diameter anchor bolts at all columns; additional bolts and/or larger diameter bolts will be required at bracing locations.
- Drainage: The preliminary cost estimate should carry a sloped (.5%), perimeter foundation drainage system at below grade floor areas. The perimeter foundation drainage system will consist of a 4" diameter perforated PVC pipe surrounded by crushed stone and a geotextile filter fabric. A full height, 2 feet wide zone of drainage fill will be placed behind the foundation walls and a drainage board (e.g. MiraDrain) will be installed against the wall. The underslab drainage system for slabs located below the finished exterior grade will consist of a 9" thick layer of crushed stone below the entire slab. Four-inch diameter, perforated PVC pipe (.5% slope), spaced at 30+/- feet on centers and surrounded by 6 inches (minimum) of crushed stone, will be installed in the crushed stone layer.

A1020 - Special Foundations

- Elevator pits: Elevator pit construction will consist of 12" thick, reinforced concrete walls and an 18" thick, reinforced concrete foundation mat, with an integral sump pit. Waterstops will be provided at all construction joints and all interior surfaces of the elevator pit will be waterproofed. Elevator shaft walls will be 100% solid grouted, reinforced CMU construction (8" thick).

A1030 - Slabs on Grade

First Floor Construction will typically be a 5" thick concrete slab on grade, reinforced with 6x6-W2.9 x W2.9 welded wire fabric. Typical slab will be underlain by a heavy duty (16-mil) vapor barrier, rigid insulation, and 6" of compacted slab base fill (except at below grade/underdrained slabs, as previously noted). Saw cut control joints (1 $\frac{1}{4}$ " deep) will be provided in each direction at each column line. Full depth isolation joints will be constructed around columns. Depressions will be required at entrance mats and at Toilet Rooms. Floor finishing will be coordinated with flooring requirements.

B. SHELL

B10: Superstructure

Structural Bays/Spans: Structural bays/spans will vary in each building; the average/typical structural bay is assumed to be approximately 900 square feet in area.

D. Preferred Solution Building Systems Narratives - Structural

BROOKLINE HIGH SCHOOL

Brookline, Massachusetts

Preferred Solution - Structural Narrative

May 22, 2017

Page 6 of 11

Story Heights/Floor Elevations: The typical story height is assumed to be approximately 14'-0", except at the First Floor of the New Academic Building on Cypress Street, which will have a story height of approximately 18'-0".

Steel Framing Connections: Type 2 simple framing connections (shear only); double clip angles typically.

Columns: Typical columns will be rectangular steel tube (HSS) or wide flange (WF) steel sections.

Lateral Force Resisting System: Lateral (wind and seismic) forces will be resisted by steel bracing, for reasons of economy, stiffness, reduced structural depth and smaller column sizes. Bracing members will be square or rectangular HSS sections. Brace configurations may include chevrons, inverted chevrons ("V"), or single diagonals in short bays, as required by architectural considerations.

Expansion (Seismic) Joints: No internal expansion joints are proposed for either building. The STEM wing will be separated from the adjacent, existing construction by an expansion (seismic) joint. In Option 4B, the reinforced concrete Outdoor Plaza structure will be separated from the New Academic Building by an expansion (seismic) joint.

Fire Protection: The construction type for the new buildings has not yet been determined; however, it is anticipated that construction will be either Type IIA or Type IB (Noncombustible, Protected). Typical floor and roof construction will require applied fireproofing. The new buildings will be fully sprinklered. All steel framed construction is considered to be *restrained*.

B1010 - Floor Construction

Typical Upper Level Floor Construction: Composite structural steel framing: 4½" thick (minimum), normal weight concrete topping slab on a 3" deep, 18 gauge, composite type, galvanized steel floor deck (7½" minimum total slab thickness), reinforced with welded wire fabric, spanning 9 to 10 feet to composite wide flange structural steel beams. Steel beams are supported by composite wide flange steel girders. Steel girders span to HSS (tubular) or wide flange steel columns. All composite steel beams and girders will be *unshored*. Composite action will be achieved by field welding ¾" diameter x 6" long headed shear studs through the deck, to the top flanges of the beams and girders. To avoid compromising composite action, conduit or other similar embedded items *should not* be placed in the concrete slab on steel deck construction. Slabs on composite steel floor deck will be placed at the required elevation, adding concrete to compensate for the deflection of the (unshored) steel framing (assume an approximate average of ¾" additional concrete required over the bay area). Floor finishing requirements will be coordinated with the flooring manufacturers.

First Floor Construction - New Academic Building (Option 4D): First Floor construction at the New (Cypress Street) Academic Building will be similar to the upper level floor construction described above; however, deep steel transfer girders will be required at the Second Floor level, to transfer upper level columns over the MBTA tracks below.

Outdoor Plaza Construction - New Academic Building (Option 4B Only): Under Option 4B, the entire New Academic Building will be constructed on the south side of the MBTA tracks. A cast-in-place, reinforced concrete plaza structure (12" thick, two-way concrete slab supported by reinforced concrete beams and columns) will span over the MBTA tracks at the First Floor level and connect to a similar plaza structure on the north side of the tracks. The northern plaza

D. Preferred Solution Building Systems Narratives - Structural

BROOKLINE HIGH SCHOOL

Brookline, Massachusetts

Preferred Solution - Structural Narrative

May 22, 2017

Page 7 of 11

section will have stepped levels that cascade downwards to meet the lower, Tappan Street grades. The plaza structure will serve as a public gathering space and allow the New Academic Building to be accessed independent from Cypress Street.

Estimated Quantities:

- Welded wire fabric for slabs on composite steel deck: 6x6-W2.9xW2.9.
- The estimated total weight of structural steel for the upper floors of the new buildings; including beams, columns, bracing, plates, trusses, relieving angles, miscellaneous frames, connections, etc. (but excluding entry canopies and catwalks (an allowance should be carried in the estimate)) is as follows:

Structural Steel Weight: Included in B1020 Below

- Shear Studs: Assume 25, ¾" diameter, 6" long headed shear studs per 100 square feet of composite steel framed floor area.
- Cast-in-place Outdoor Plaza Construction: The primary structure of the plaza will be pitched for drainage. A paving/waterproofing sandwich will be installed on the primary structure, consisting of a precast concrete paving system, drainage fabric, protection board and membrane waterproofing. The preliminary cost estimate should assume the following approximate quantities (includes reinforced concrete beams, slabs and columns).

Formwork: *1.75 SF of Formwork per 1.0 SF of Plaza Area*

Concrete: *.055 Cu.Yd. of Concrete per 1.0 SF of Plaza Area*

Reinforcing: *14.5 PSF of reinforcing steel per 1.0 SF of Plaza Area*

B1020 - Roof Construction

Roof Construction: Typical (flat) roof construction consists of a 1½" deep, 18 gauge, Type WR galvanized steel roof deck spanning 7+/- feet to wide flange steel beams. Steel beams are typically supported by wide flange steel girders, which span to HSS (Tube) or wide flange steel columns.

Where practical, roof drainage will be achieved by sloping the steel to the internal drains. Some areas of tapered insulation should be anticipated, where it is not practical to slope the steel.

Exposed steel framing (limited locations) will be classified as Architecturally Exposed Structural Steel (AESS). All AESS will be surface prepped and shop painted with a primer that is compatible with the finished paint.

Concrete slabs on composite steel deck will be provided below rooftop mechanical units, for acoustical purposes; construction will be similar to that described above for upper floor levels. Galvanized, steel framed equipment screens will be required at all rooftop mechanical units for visual and/or acoustic purposes.

Roofs will be designed to support the future installation of photovoltaic (PV) panels.

D. Preferred Solution Building Systems Narratives - Structural

BROOKLINE HIGH SCHOOL

Brookline, Massachusetts

Preferred Solution - Structural Narrative

May 22, 2017

Page 8 of 11

Skylights will be installed at selected locations, introducing natural light to the building. Supplemental steel framing will be provided around all skylight openings.

Estimated Quantities:

- Welded wire fabric for slabs on composite steel deck (at rooftop mechanical equipment areas): 6x6-W2.9xW2.9.
- The estimated weight of structural steel for the new buildings (floor and roof construction; based on the gross floor area of the buildings); including beams, columns, bracing, trusses, plates, relieving angles, equipment screens, miscellaneous frames, connections, etc. (but excluding entry canopies (an allowance should be carried in the estimate)) is as follows:

STEM Wing: 14.25 psf Structural Steel

New Academic Building (Option 4D): 16.25 psf Structural Steel

New Academic Building (Option 4B): 15.25 psf Structural Steel

- Shear Studs: Assume 25, ¾" diameter, 6" long headed shear studs per 100 square feet of composite steel framed rooftop mechanical equipment areas (concrete equipment pads).

B20: Exterior Enclosure

B2010 - Exterior Walls

Exterior walls will typically be masonry veneer, with areas of glazed curtainwall and (potentially) rainscreen cladding. A galvanized steel relieving angle will be required in those areas, where the height of the veneer exceeds 30 feet, or in those locations where the veneer cannot be supported on the foundation. Continuous galvanized steel beams, supported by HSS posts, will be provided at locations where masonry stacks down onto low roof areas. The outside face of masonry will be located approximately 20" from the column centerline.

A galvanized, light gauge steel stud backup wall will be provided in all veneer and architectural panel areas (16 gauge minimum thickness at brick veneer areas; H/600 deflection limitation). Vertical slip joints will be provided in the metal stud backup system at each level. Ties to the masonry veneer will be installed at 16" o.c. horizontally and vertically.

Sunshades will be provided at the south elevation of each building; these elements will be supplied by the curtainwall manufacturer and will be integrated with the curtainwall units.

IV. ANTICIPATED SCOPE OF STRUCTURAL WORK - THIRD FLOOR RENOVATIONS:

The anticipated scope of structural/structurally related work associated with the proposed, renovations to the Third Floors of the 1948 Schluntz Gymnasium and the 1931 Schluntz Wing is summarized in this section. It is expected that no major alterations to the primary structure will be necessary and that structural supports (bearing walls and columns) will remain. As the Work Area of the proposed renovations is less than 50% of the gross floor area of each building and structural alterations will be minimal, a seismic upgrade/retrofit of these wings will not be required.

D. Preferred Solution Building Systems Narratives - Structural

BROOKLINE HIGH SCHOOL

Brookline, Massachusetts

Preferred Solution - Structural Narrative

May 22, 2017

Page 9 of 11

- Masonry walls: Masonry walls at the Third Floor of the Schluntz Wing and the Schluntz Gymnasium generally appear to be in satisfactory condition. The anchorage/bracing of interior and perimeter masonry walls to the roof construction will not be required by code; however, FBRA recommends that consideration be given to conducting this work on a voluntary basis. *The preliminary cost estimate should include an allowance to anchor/brace the tops of all interior and perimeter masonry walls (approximately 4'-0" o.c. spacing of anchors/braces).*
- New, framed openings in the existing roof and Third Floor construction at each wing will likely be required to accommodate new MEP/FP work.
- New (structural steel) supports for rooftop mechanical equipment (and screens) will likely be required.
- Minor structural alterations, infills, etc. as required to accommodate the architectural design.

V. **STRUCTURAL OUTLINE SPECIFICATION:**

Concrete:

- All concrete shall be normal weight, 4,000 psi at 28 days, except foundation walls and footings, which shall be normal weight, 3,000 psi and exterior (exposed) concrete (paving) which shall be normal weight, 4,500 psi.
- Portland Cement: ASTM C150, Type I or II.
- Fly Ash: ASTM C618, Class F. Replacement of cement content with fly ash is limited to 20% (by weight). Fly ash is not permitted in exterior, exposed concrete, slabs on grade or slabs on steel deck/forms.
- All concrete shall be proportioned with 3/4" maximum aggregate, ASTM C 33, except 3/8" maximum aggregate shall be used at toppings less than 2" thick (e.g. metal pan stairs).
- All reinforcing shall be ASTM A 615 deformed bars, Grade 60.
- All welded wire fabric shall conform to ASTM A 185.
- Reinforcing bars, steel wire, welded wire fabric, and miscellaneous steel accessories shall contain a minimum of 25% (combined) post-industrial/post-consumer recycled content (the percentage of recycled content is based on the weight of the component materials). Certification of recycled content shall be in accordance with Submittal Requirements.
- Concrete products manufactured within 500 miles (by air) of the project site shall be documented in accordance with Submittal Requirements.
- Cure all concrete by moisture retention methods, approved by Architect; curing compounds shall not be used.

D. Preferred Solution Building Systems Narratives - Structural

BROOKLINE HIGH SCHOOL

Brookline, Massachusetts

Preferred Solution - Structural Narrative

May 22, 2017

Page 10 of 11

Reinforced Concrete Masonry (Elevator Shafts):

- Masonry construction shall conform to ACI 530/ASCE 5/TMS 402 "Building Code Requirements for Masonry Structures", latest edition.
- Masonry strength, $f'm$ shall not be less than 1350 psi.
- Requirements for load bearing block strength shall be as required for specified masonry strength ($f'm$) but shall not be less than 2000 psi on the net area of the block.
- Grout shall conform to ASTM C476, Type Fine, and shall be of strength required for specified masonry strength ($F'm$) but not less than 3000 psi.
- Mortar for reinforced masonry shall conform to ASTM C 270 Type S and shall be of strength required for specified masonry strength ($f'm$) but not less than 1800 psi.
- Reinforcing bars shall conform to ASTM A 615 Grade 60 deformed bars. Lap all continuous bars 48 diameters and provide bar positioners. Assume No. 5 bars at 2'-8" o.c. vertically and horizontal bond beams with 2 – No. 5 continuous at 4'-0" o.c.
- Joint reinforcing shall be 9 gauge ladder type conforming to ASTM A 82. Provide prefabricated corners and tees. Walls shall be reinforced horizontally with joint reinforcing at 16 inches on centers unless otherwise noted.
- Reinforcing bars, steel wire, and miscellaneous accessories shall contain a minimum of 25% (combined) post-industrial/post-consumer recycled content (the percentage of recycled content is based on the weight of the component materials). Certification of recycled content shall be in accordance with Submittal Requirements.
- Elevator shaft walls shall be 100% solid grouted (all cores); low lift grouting.
- Masonry products manufactured within 500 miles (by air) of the project site shall be documented in accordance with Submittal Requirements.

Structural Steel:

- Structural steel shapes shall conform to ASTM A 992, $F_y = 50$ ksi.
- Steel tubes (HSS) shall conform to ASTM A 500, Grade B/C, $F_y = 50$ ksi.
- Structural steel plates and bars shall conform to ASTM A 36, $F_y = 36$ ksi.
- Steel members shall contain a minimum of 25% (combined) post-industrial/post-consumer recycled content (the percentage of recycled content is based on the weight of the component materials). Certification of recycled content shall be in accordance with the Submittal Requirements.
- Steel manufactured within 500 miles (by air) of the project site shall be documented in accordance with the Submittal Requirements.

D. Preferred Solution Building Systems Narratives - Structural

BROOKLINE HIGH SCHOOL

Brookline, Massachusetts

Preferred Solution - Structural Narrative

May 22, 2017

Page 11 of 11

- Anchor Bolts: Anchor bolts at column base plates shall conform to ASTM F1554 – Grade 36 and shall be headed type. Provide a minimum of four (4), ¾” diameter anchor bolts at all columns; additional bolts and/or larger diameter will be required at bracing locations.
- Bolted connections shall be ASTM A 325, Type N (bearing) bolts, except slip-critical bolts shall be used at lateral brace beam connections.
- Shear connectors shall be ¾” diameter, 6” long, headed Nelson studs conforming to ASTM A 108.
- Shop and field welding shall be AWS D1.1 E70XX electrodes.
- Surface treatment for typical structural steel: SSPC Surface Preparation No. 3 (Power Tool Cleaning). Structural steel shall be left unprimed.
- Surface treatment for Architecturally Exposed Structural Steel (AESS) shall be SSPC Surface Preparation No. 6 (Commercial Blast Cleaning). Structural steel shall receive one coat of shop primer that is compatible with the finish paint.
- All exterior, exposed structural steel shall be hot-dipped galvanized.

Steel Deck:

- Typical steel roof deck shall be 1½” deep, 18 gauge, Type WR, conforming to ASTM A653, Grade 33 (minimum), galvanized in accordance with ASTM A 653, coating class G-60.
- Steel floor deck shall be 3” deep, 18 Gauge, composite type, conforming to ASTM A 653, Grade 33, galvanized in accordance with ASTM A 653, coating class G-60.
- All steel floor deck and roof deck accessories (pour stops, finish strips, closures, etc.) shall be the same finish as the deck; 18 gauge minimum.
- Steel deck shall contain a minimum of 25% (combined) post-industrial/post-consumer recycled content (the percentage of recycled content is based on the weight of the component materials). Certification of recycled content shall be in accordance with the Submittal Requirements.
- Steel deck manufactured within 500 miles (by air) of the project site shall be documented in accordance with the Submittal Requirements.
- Provide 14 gauge sump pans at roof drains.

END OF STRUCTURAL NARRATIVE

Appendices

- D. Preferred Solution
 - Building Systems Narratives
 - Plumbing Narrative**

D. Preferred Solution Building Systems Narratives - Plumbing

Brookline High School Feasibility Study
Brookline, MA
J#831 060 00.00
L#56488/Page 1/May 17, 2017

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc.

PLUMBING SYSTEMS NARRATIVE REPORT

OPTION 4D – CYPRESS BUILDING

The following is the Plumbing System Narrative which defines the scope of work and capacities of the Plumbing System, as well as, the Basis of Design. The Plumbing Systems shall be designed and constructed for **LEED for Schools v4** where indicated on this narrative.

1. CODES

- A. All work installed under Section 220000 shall comply with the MA Building Code, IBC 2009, MA Plumbing Code and all state, county, and federal codes, laws, statutes, and authorities having jurisdiction.

2. DESIGN INTENT

- A. The work of Section 220000 is shown on the drawings and specifications. All work is new and consists of furnishing all materials, equipment, labor, transportation, facilities, and all operations and adjustments required for the complete and operating installation of the Plumbing work and all items incidental thereto, including commissioning and testing.

3. GENERAL

- A. The plumbing systems that will serve the project are hot and cold water, sanitary waste and vent system, garage waste system, grease waste system, special waste system, storm drain system, and natural gas system.
- B. The building is serviced by municipal water service and municipal sewer service.
- C. All plumbing in the building will conform to accessibility codes and to water conserving sections of the plumbing code.

4. DRAINAGE SYSTEM

- A. Soil, waste, and vent piping system is provided to connect to all fixtures and equipment. System runs from 10 ft. outside the building and terminates with stack vents through the roof.
- B. Storm drainage system is provided to drain all flat roofs with roof drains piped through the building to a point 10 ft. outside the building. Sub-soil underdrain piping (if necessary) is to be provided to a point 10 ft. outside the building. The pre-cast drainage structures are to be provided under Division 33 scope.
- C. Drainage systems piping will be service weight cast iron piping; hub and spigot with gaskets for below grade; no hub with gaskets, bands and clamps for above grade 2 in. and larger. Waste and vent piping 1-1/2 in. and smaller will be type 'L' copper. Sub-soil underdrain piping shall be Schedule 40 perforated PVC pipe with solvent cement joints.

D. Preferred Solution Building Systems Narratives - Plumbing

Brookline High School Feasibility Study
Brookline, MA
J#831 060 00.00
L#56488/Page 2/May 17, 2017

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc.

- D. A separate special waste system shall be provided starting with a connection to an interior limestone chip acid neutralizer, running thru the building and to the science classroom fixtures terminating with vent terminals through the roof. Special waste and vent piping will be Schedule 40 electric heat fused polypropylene piping, fittings and traps, flame retardant above grade and non-flame retardant below ground.

5. WATER SYSTEM

- A. The building shall be provided with a 4-inch domestic water service, reduced pressure backflow preventer, and meter.
- B. Cold and hot water distribution piping will be provided. Reduced pressure backflow preventers will be provided on the hot and cold water supply to the science area for cross connection protection as required by code. Non-freeze wall hydrants with integral back flow preventers are provided along the exterior of the building.
- C. Domestic hot water heating will be provided by two high efficiency natural gas fired water heaters with storage tank and a thermostatically controlled mixing device to control water temperature to the fixtures.
- D. Water temperature will be 140 deg. to serve the kitchen and 120 deg. to serve general use fixtures. A pump will recirculate hot water from the piping system loop for each temperature system.
- E. Water piping will be type 'L' copper with wrought copper sweat fittings, silver solder. All piping will be insulated with 1 in. thick high density fiberglass.
- F. Tepid (70 deg. F – 90 deg. F) water will be provided to the emergency shower/eyewash fixtures as required by code.

6. NATURAL GAS SYSTEM

- A. Natural gas service will be provided for the building and will serve the heating boilers, domestic water heater, science classrooms, kitchen cooking equipment, and generator.
- B. Gas piping will be Schedule 40 black steel pipe with threaded gas pattern malleable fittings for 2 in. and under and butt welded fittings for 2½ in. and larger.

7. FIXTURES

- A. Furnish and install all fixtures, including supports, connections, fittings, and any incidentals to make a complete installation.
- B. Fixtures shall be the manufacturer's guaranteed label trademark indicating first quality. All acid resisting enameled ware shall bear the manufacturer's symbol signifying acid resisting material.
- C. Vitreous china and acid resisting enameled fixtures, including stops, supplies and traps shall be of one manufacturer by Kohler, American Standard, Eljer, or equal. Supports shall be Zurn, Smith, Josam or equal. All fixtures shall be white. Faucets shall be Speakman, Chicago, or equal.

D. Preferred Solution Building Systems Narratives - Plumbing

Brookline High School Feasibility Study
Brookline, MA
J#831 060 00.00
L#56488/Page 3/May 17, 2017

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc.

- D. Fixtures shall be as scheduled on drawings.
 - 1. Water Closet: High efficiency toilet, 1.28 gallon per flush, wall hung, vitreous china, siphon jet, manually operated 1.28 gallon per flush-flush valve.
 - 2. Urinal: Manually operated 0.125 gallon flush valve urinal, wall hung, and vitreous china.
 - 3. Lavatory: Wall hung/countertop ADA lavatory. Infra-red, sensor mixing faucet, 0.35 GPM outlet.
 - 4. Sink: ADA stainless steel countertop sink with gooseneck faucet and 0.5 GPM aerator. Sediment traps are to be provided in art areas.
 - 5. Drinking Fountain: Hi-low wall mounted electric water cooler, stainless steel basin with bottle filling stations.
 - 6. Janitor Sink: 24 x 24 x 10 Terrazzo mop receptor.
 - 7. Emergency showers and eyewashes shall comply with ANSI Z-358.1-2009.
- 8. DRAINS
 - A. Drains are cast iron, caulked outlets, nickaloy strainers, and in waterproofed areas and roofs shall have galvanized iron clamping rings with 6 lb. lead flashings to bond 9 in. in all directions. Drains shall be Smith, Zurn, Josam, or equal.
- 9. VALVES
 - A. Locate all valves so as to isolate all parts of the system. Shutoff valves 3 in. and smaller shall be ball valves, solder end or screwed, Apollo, or equal.
- 10. INSULATION
 - A. All water piping shall be insulated with snap-on fiberglass insulation Type ASJ-SSL, equal to Johns Manville Micro-Lok HP, 850 degrees snap-on system.
- 11. CLEANOUTS
 - A. Cleanouts shall be full size up to 4 in. threaded bronze plugs located as indicated on the drawings and/or where required in soil and waste pipes.
- 12. ACCESS DOORS
 - A. Furnish access doors for access to all concealed parts of the plumbing system that require accessibility. Coordinate types and locations with the Architect.
- 13. WATER HEATER
 - A. Natural gas fired, condensing, high efficiency units, 800,000 BTUH input total, with 318 gallon storage tank.

D. Preferred Solution Building Systems Narratives - Plumbing

GARCIA • GALUSKA • DESOUSA

Consulting Engineers

Inc.

Brookline High School Feasibility Study

Brookline, MA

J#831 060 00.00

L#56487/Page 1/May 17, 2017

PLUMBING SYSTEMS NARRATIVE REPORT

OPTION 4D - ADDITION/RENOVATION

The following is the Plumbing System Narrative which defines the scope of work and capacities of the Plumbing System, as well as, the Basis of Design. The Plumbing Systems shall be designed and constructed for **LEED for Schools V4** where indicated on this narrative.

1. CODES

- A. All work installed under Section 220000 shall comply with the MA Building Code, IBC 2009, MA Plumbing Code and all state, county, and federal codes, laws, statutes, and authorities having jurisdiction.

2. DESIGN INTENT

- A. The work of Section 220000 is shown on the drawings and specifications. All work is new and consists of furnishing all materials, equipment, labor, transportation, facilities, and all operations and adjustments required for the complete and operating installation of the Plumbing work and all items incidental thereto, including commissioning and testing.

3. GENERAL

- A. The plumbing systems that will serve the project are hot and cold water, sanitary waste and vent system, garage waste system, grease waste system, special waste system, storm drain system, and natural gas system.
- B. The building is serviced by municipal water service and municipal sewer service.
- C. All plumbing in the building will conform to accessibility codes and to water conserving sections of the plumbing code.
- D. Installation of all work is to be coordinated with the phasing plans for the project.

4. DRAINAGE SYSTEM

- A. Soil, waste, and vent piping system is provided to connect to all fixtures and equipment. System runs from 10 ft. outside the building and terminates with stack vents through the roof.
- B. Storm drainage system is provided to drain all flat roofs with roof drains piped through the building to a point 10 ft. outside the building. Under drain piping (if necessary) is to be provided to a point 10 ft. outside the building. The pre-cast drainage structures are to be provided under Division 33 scope.

D. Preferred Solution Building Systems Narratives - Plumbing

GARCIA • GALUSKA • DESOUSA

Consulting Engineers

Inc.

Brookline High School Feasibility Study
Brookline, MA
J#831 060 00.00
L#56487/Page 2/May 17, 2017

- C. Drainage systems piping will be service weight cast iron piping; hub and spigot with gaskets for below grade; no hub with gaskets, bands and clamps for above grade 2 in. and larger. Waste and vent piping 1-1/2 in. and smaller will be type 'L' copper.
- D. A separate special waste system shall be provided starting with a connection to an interior limestone chip acid neutralizer, running thru the building and to the science classroom fixtures terminating with vent terminals through the roof. Special waste and vent piping will be Schedule 40 electric heat fused polypropylene piping, fittings and traps, flame retardant above grade and non-flame retardant below ground.

5. WATER SYSTEM

- A. The building addition shall be provided with a 4 inch domestic water service, reduced pressure backflow preventer, and meter.
- B. Cold and hot water distribution piping will be provided. New reduced pressure backflow preventers will be provided on the hot and cold water supply to the science area for cross connection protection as required by code. Non-freeze wall hydrants with integral back flow preventers are provided along the exterior of the building.
- C. Domestic hot water heating will be provided by two high efficiency natural gas fired water heaters with storage tank and a thermostatically controlled mixing device to control water temperature to the fixtures.
- D. Water temperature will be 140 deg. to serve the kitchen and 120 deg. to serve general use fixtures. A pump will recirculate hot water from the piping system loop for each temperature system.
- E. Water piping will be type 'L' copper with wrought copper sweat fittings, silver solder. All piping will be insulated with 1 in. thick high density fiberglass.
- F. Tepid (70 deg. F – 90 deg. F) water will be provided to the emergency shower/eyewash fixtures as required by code. Existing fixtures are provided with cold water only.

6. NATURAL GAS SYSTEM

- A. Natural gas service will be provided for the building addition and will serve new domestic water heater, science classrooms, rooftop equipment, and kitchen cooking equipment.
- B. Gas piping will be Schedule 40 black steel pipe with threaded gas pattern malleable fittings for 2 in. and under and butt welded fittings for 2½ in. and larger.
- C. The building addition will be constructed over an existing gas service. New gas service to be installed prior to building addition due to phasing. New gas service will re-connect existing piping and supply new addition.

D. Preferred Solution Building Systems Narratives - Plumbing

GARCIA • GALUSKA • DESOUSA

Consulting Engineers

Inc.

Brookline High School Feasibility Study

Brookline, MA

J#831 060 00.00

L#56487/Page 3/May 17, 2017

7. FIXTURES

- A. Furnish and install all fixtures, including supports, connections, fittings, and any incidentals to make a complete installation.
- B. Fixtures shall be the manufacturer's guaranteed label trademark indicating first quality. All acid resisting enameled ware shall bear the manufacturer's symbol signifying acid resisting material.
- C. Vitreous china and acid resisting enameled fixtures, including stops, supplies and traps shall be of one manufacturer by Kohler, American Standard, Eljer, or equal. Supports shall be Zurn, Smith, Josam or equal. All fixtures shall be white. Faucets shall be Speakman, Chicago, or equal.
- D. Fixtures shall be as scheduled on drawings.
 1. Water Closet: High efficiency toilet, 1.28 gallon per flush, wall hung, vitreous china, siphon jet, manually operated 1.28 gallon per flush-flush valve.
 2. Urinal: Manually operated 0.125 gallon flush valve urinal, wall hung, and vitreous china.
 3. Lavatory: Wall hung/countertop MAAB/ADA lavatory. Infra-red, sensor mixing faucet, 0.35 GPM outlet.
 4. Sink: ADA stainless steel countertop sink with gooseneck faucet and 0.5 GPM aerator. Sediment traps are to be provided in art areas.
 5. Drinking Fountain: Hi-low wall mounted electric water cooler, stainless steel basin with bottle filling stations.
 6. Janitor Sink: 24 x 24 x 10 Terrazzo mop receptor.
 7. Emergency showers and eyewashes shall comply with ANSI Z-358.1-2009.

8. DRAINS

- A. Drains are cast iron, caulked outlets, nickaloy strainers, and in waterproofed areas and roofs shall have galvanized iron clamping rings with 6 lb. lead flashings to bond 9 in. in all directions. Drains shall be Smith, Zurn, Josam, or equal.

9. VALVES

- A. Locate all valves so as to isolate all parts of the system. Shutoff valves 3 in. and smaller shall be ball valves, solder end or screwed, Apollo, or equal.

10. INSULATION

- A. All water piping shall be insulated with snap-on fiberglass insulation Type ASJ-SSL, equal to Johns Manville Micro-Lok HP, 850 degrees snap-on system.

D. Preferred Solution Building Systems Narratives - Plumbing

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc.

Brookline High School Feasibility Study
Brookline, MA
J#831 060 00.00
L#56487/Page 4/May 17, 2017

- 11. CLEANOUTS
 - A. Cleanouts shall be full size up to 4 in. threaded bronze plugs located as indicated on the drawings and/or where required in soil and waste pipes.

- 12. ACCESS DOORS
 - A. Furnish access doors for access to all concealed parts of the plumbing system that require accessibility. Coordinate types and locations with the Architect.

- 13. WATER HEATER
 - A. Natural gas fired, condensing, high efficiency unit (400,000 BTUH input) with 250 gallon storage tank.

Appendices

- D. Preferred Solution
 - Building Systems Narratives
 - Fire Protection Narrative**

D. Preferred Solution Building Systems Narratives - Fire Protection

Brookline High School Feasibility Study
Brookline, MA
J#831 060 00.00
L#56486/Page 1/May 17, 2017

FIRE PROTECTION SYSTEMS NARRATIVE REPORT

OPTION 4D - CYPRESS BUILDING

The following is the Fire Protection System Narrative, which defines the scope of work and capacities of the Fire Protection System, as well as, the Basis of Design.

1. CODES
 - A. All work installed under Section 210000 shall comply with the MA Building Code, IBC 2009 and all state, county, and federal codes, laws, statutes, and authorities having jurisdiction.
2. DESIGN INTENT
 - A. The work of Section 210000 is shown on the drawings and specifications. All work is new and consists of furnishing all materials, equipment, labor, transportation, facilities, and all operations and adjustments required for the complete and operating installation of the Fire Protection work and all items incidental thereto, including commissioning and testing.
3. GENERAL
 - A. In accordance with the provisions of the Massachusetts Building Code 780 CMR, a school building of this size must be protected throughout with an automatic sprinkler system.
4. DESCRIPTION
 - A. The system will include a new 8" fire service, double check valve assembly, wet alarm valve and dry alarm valves, electric bell, and a fire department connection meeting local thread standards.
 - B. The system will be a combined standpipe/sprinkler system with control valve assemblies to limit the sprinkler area controlled to less than 52,000 square feet as required by NFPA 13-2013. Control valve assemblies shall consist of a supervised shutoff valve, check valve, flow switch and test connection with drain. Dry systems will be provided for the Ground Floor MBTA overpass area.
 - C. All areas of the building, including all finished and unfinished spaces, will be sprinklered. All electrical rooms/closets will be sprinklered. The elevator shaft and elevator machine room are not sprinklered.
 - D. All sprinkler heads will be quick response, pendent and/or sidewall in hung ceiling areas and upright in unfinished areas.
 - E. Fire Protection Systems are designed in accordance with NFPA 13-2013, NFPA 14-2013 and NFPA 72-2010. The system includes a combination standpipe/sprinkler system throughout the building.
5. BASIS OF DESIGN
 - A. The mechanical rooms, culinary, science classrooms, and storage rooms are considered Ordinary Hazard Group 1. Stage areas and dry system are considered Ordinary Hazard Group 2. All other areas are considered light hazard.

D. Preferred Solution Building Systems Narratives - Fire Protection

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc.

Brookline High School Feasibility Study
Brookline, MA
J#831 060 00.00
L#56486/Page 2/May 17, 2017

B. Required Design Densities:

Light Hazard Areas = 0.10 GPM over 1,500 s.f.
Ordinary Hazard Group 1 = 0.15 GPM over 1,500 s.f.
Ordinary Hazard Group 2 = 0.20 GPM over 1,500 s.f.

C. Sprinkler spacing (max.):

Light Hazard Areas = 225 s.f.
Ordinary Hazard Areas = 130 s.f.

D. A hydrant flow test must be conducted to confirm Municipal water supply capacity.

6. PIPING

A. Sprinkler piping 1-1/2 in. and smaller shall be ASTM A-53, Schedule 40 black steel pipe. Sprinkler piping 2 in. and larger shall be ASTM A-135, Schedule 10 black steel pipe.

7. FITTINGS

A. Fittings on fire service piping, 2 in. and larger, shall be Victaulic Fire Lock Ductile Iron Fittings conforming to ASTM A-536 with integral grooved shoulder and back stop lugs and grooved ends for use with Style 009-EZ or Style 005 couplings. Branch line fittings shall be welded or shall be Victaulic 920/920N Mechanical Tees. Schedule 10 pipe shall be roll grooved. Schedule 40 pipe, where used with mechanical couplings, shall be roll grooved and shall be threaded where used with screwed fittings. Fittings for threaded piping shall be malleable iron screwed sprinkler fittings.

8. JOINTS

A. Threaded pipe joints shall have an approved thread compound applied on male threads only. Teflon tape shall be used for threads on sprinkler heads. Joints on piping, 2 in. and larger, shall be made up with Victaulic, or equal, Fire Lock Style 005, rigid coupling of ductile iron and pressure responsive gasket system for wet sprinkler system as recommended by manufacturer.

9. DOUBLE CHECK VALVE ASSEMBLY

A. Double check valve assembly shall be MA State approved, U.L./F.M. approved, with iron body bronze mounted construction complete with supervised OS & Y gate valves and test cocks. Furnish two spare sets of gaskets and repair kits.

B. Double check valve detector assembly shall be of one of the following:

1. Watts Series 757-OSY
2. Wilkins 350A-OSY
3. Conbraco Series 4S-100
4. Or equal

D. Preferred Solution Building Systems Narratives - Fire Protection

GARCIA • GALUSKA • DESOUSA

Consulting Engineers

Inc.

Brookline High School Feasibility Study
Brookline, MA
J#831 060 00.00
L#56485/Page 1/May 17, 2017

FIRE PROTECTION SYSTEMS NARRATIVE REPORT

OPTION 4D - ADDITION/RENOVATION

The following is the Fire Protection System Narrative, which defines the scope of work and capacities of the Fire Protection System, as well as, the Basis of Design.

1. CODES
 - A. All work installed under Section 210000 shall comply with the MA Building Code, IBC 2009 and all state, county, and federal codes, laws, statutes, and authorities having jurisdiction.
2. DESIGN INTENT
 - A. The work of Section 210000 is shown on the drawings and specifications. All work is new and consists of furnishing all materials, equipment, labor, transportation, facilities, and all operations and adjustments required for the complete and operating installation of the Fire Protection work and all items incidental thereto, including commissioning and testing.
3. GENERAL
 - A. The existing building is served with three separate dedicated 6-inch fire water services. The sprinkler system was modified during a 1996 renovation project. The existing building is fully sprinklered.
4. DESCRIPTION
 - A. The proposed addition will be constructed over one of the existing 6-inch fire services. A new 6-inch fire service will be provided for phasing to allow for the addition to be constructed. The new service will include a double check valve assembly, wet alarm valve and dry alarm valves, electric bell, and a fire department connection meeting local thread standards. The new service will re-connect to the existing systems to remain and will supply the automatic sprinkler system in the addition.
 - B. The system protecting the addition will be a combined standpipe/sprinkler system with control valve assemblies. One control valve assembly will be provided for each floor of the addition. Control valve assemblies shall consist of a supervised shutoff valve, check valve, flow switch and test connection with drain.
 - C. All areas of the building, including all finished and unfinished spaces, will be sprinklered. All electrical rooms/closets will be sprinklered. The elevator shaft and elevator machine room are not sprinklered.
 - D. All sprinkler heads will be quick response, pendent and/or sidewall in hung ceiling areas and upright in unfinished areas.

D. Preferred Solution Building Systems Narratives - Fire Protection

GARCIA • GALUSKA • DESOUSA

Consulting Engineers

Inc.

Brookline High School Feasibility Study

Brookline, MA

J#831 060 00.00

L#56485/Page 2/May 17, 2017

- E. Fire Protection Systems are designed in accordance with NFPA 13-2013, NFPA 14-2013 and NFPA 72-2010. The system includes a combination standpipe/sprinkler system throughout the building addition.

5. BASIS OF DESIGN

- A. The mechanical rooms, culinary arts, science classrooms, and storage rooms are considered Ordinary Hazard Group 1. All other areas are considered light hazard.

- B. Required Design Densities:

Light Hazard Areas =	0.10 GPM over 1,500 s.f.
Ordinary Hazard Group 1 =	0.15 GPM over 1,500 s.f.

- C. Sprinkler spacing (max.):

Light Hazard Areas =	225 s.f.
Ordinary Hazard Areas =	130 s.f.

- D. A hydrant flow test must be conducted to confirm Municipal water supply capacity.

6. PIPING

- A. Sprinkler piping 1-1/2 in. and smaller shall be ASTM A-53, Schedule 40 black steel pipe. Sprinkler piping 2 in. and larger shall be ASTM A-135, Schedule 10 black steel pipe.

7. FITTINGS

- A. Fittings on fire service piping, 2 in. and larger, shall be Victaulic Fire Lock Ductile Iron Fittings conforming to ASTM A-536 with integral grooved shoulder and back stop lugs and grooved ends for use with Style 009-EZ or Style 005 couplings. Branch line fittings shall be welded or shall be Victaulic 920/920N Mechanical Tees. Schedule 10 pipe shall be roll grooved. Schedule 40 pipe, where used with mechanical couplings, shall be roll grooved and shall be threaded where used with screwed fittings. Fittings for threaded piping shall be malleable iron screwed sprinkler fittings.

8. JOINTS

- A. Threaded pipe joints shall have an approved thread compound applied on male threads only. Teflon tape shall be used for threads on sprinkler heads. Joints on piping, 2 in. and larger, shall be made up with Victaulic, or equal, Fire Lock Style 005, rigid coupling of ductile iron and pressure responsive gasket system for wet sprinkler system as recommended by manufacturer.

D. Preferred Solution Building Systems Narratives - Fire Protection

GARCIA • GALUSKA • DESOUSA

Consulting Engineers

Inc.

Brookline High School Feasibility Study
Brookline, MA
J#831 060 00.00
L#56485/Page 3/May 17, 2017

9 DOUBLE CHECK VALVE ASSEMBLY

- A. Double check valve assembly shall be MA State approved, U.L./F.M. approved, with iron body bronze mounted construction complete with supervised OS & Y gate valves and test cocks. Furnish two spare sets of gaskets and repair kits.
- B. Double check valve detector assembly shall be of one of the following:
 - 1. Watts Series 757-OSY
 - 2. Wilkins 350A-OSY
 - 3. Conbraco Series 4S-100
 - 4. Or equal

Appendices

- D. Preferred Solution
Building Systems Narratives
Mechanical Narrative

D. Preferred Solution Building Systems Narratives - Mechanical HVAC

GARCIA • GALUSKA • DESOUSA

Consulting Engineers

Inc.

Brookline High School Feasibility Study
Brookline, MA
J#831 060 00.00
L#56484/Page 1/May 17, 2017

HVAC SYSTEMS NARRATIVE REPORT

OPTION 4D - CYPRESS BUILDING

The following is the HVAC system narrative, which defines the scope of work and capacities of the HVAC system, as well as, the Basis of Design. The HVAC systems shall be designed and constructed for **LEED for Schools v4** where indicated on this narrative.

1. CODES

All work installed under Division 230000 shall comply with the State of Massachusetts Building Code and all local, IBC 2012, IECC 2015 and IMC 2012 with MA Amendments, county, and federal codes, laws, statutes, and authorities having jurisdiction.

2. DESIGN INTENT

The work of Division 230000 is described within the narrative report. The HVAC project scope of work shall consist of providing new HVAC equipment and systems as described here within. All new work shall consist of furnishing all materials, equipment, labor, transportation, facilities, and all operations and adjustments required for the complete and operating installation of the Heating, Ventilating and Air Conditioning work and all items incidental thereto, including commissioning and testing.

3. BASIS OF DESIGN: (MASS CODE)

Project weather and Code temperature values are listed herein based on weather data values as determined from ASHRAE weather data tables and the International Energy Conservation Code.

Outside: Winter 5 deg. F, Summer 91 deg. F DB 74 deg. F WB

Inside: 70 deg. F +/- 2 deg. F for heating, 75 deg. F +/- 2 deg. F (55% RH) for cooling for areas with air conditioning, 78 deg. F +/- 2 deg. F (<60% RH) for areas with displacement/dehumidification*(see note below). Unoccupied temperature setback will be provided (60 deg. F heating (adj.), 85 deg. F cooling/dehumidification (adj.).

Outside air is provided at the rate in accordance with ASHRAE guide 62.1-2010 and the International Mechanical Code as a minimum. All occupied areas will be designed to maintain 800 PPM carbon dioxide maximum.

D. Preferred Solution Building Systems Narratives - Mechanical HVAC

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc.

Brookline High School Feasibility Study
Brookline, MA
J#831 060 00.00
L#56484/Page 2/May 17, 2017

4. SYSTEM DESCRIPTION

A. Central Heating Plants: **LEED for Schools Credit Ep2 & Ec2**

Heating for the entire building will be through the use of a high efficiency gas-fired condensing boiler plant.

The new boiler plant shall be provided with (3) 2,000 MBH input high efficiency boilers and (2) end suction base mounted pumps primary and standby with a capacity of 400 gpm each will be located in the Mechanical room. Boilers shall each be sized for approximately 50% of the building heating load. In addition to new boilers and pumps, new hot water accessories including air separators and expansion tanks shall be provided.

The boiler plant will supply heating hot water to heating equipment and systems located throughout the building through a two-pipe fiberglass insulated schedule 40 black steel and copper piping system. The boiler plant shall supply a maximum hot water temperature of 160 deg F on a design heating day and the hot water supply water temperature will be adjusted downward based on an outside temperature reset schedule to improve the overall operating efficiency of the power plants. Primary and standby end suction base mounted pumps will be provided with variable frequency drives for variable volume flow through the water distribution system for improved energy efficiency.

The hot water system will consist of a 35% propylene glycol solution. A glycol make-up feed unit system shall be provided.

Combustion air for each boiler will be directly ducted to each boiler through a galvanized ductwork distribution system. Venting from each boiler shall be through separate double wall aluminized stainless steel (AL29-4C) vent system and shall discharge approximately 12 feet above the roof level. Final venting height will be depending on the location of building intake air locations and adjacent roofs.

B. Central Cooling Plant: **LEED for Schools Credit Ep2 & 4, Ec2**

A high efficiency central chilled water cooling plant consisting of (3) 65-ton high efficiency "Turbo-cor" or "Mag-Lev" (oil-less compressor design) water cooled chillers (total plant capacity of 195 tons), primary and standby chilled water pumps with VFDs, each with a capacity of 440 gpm, accessories, controls and steel and copper piping distribution system shall be provided to serve chilled water cooling HVAC equipment located throughout the building.

An induced draft counter-flow cooling tower system, consisting of two (2) open cell induced draft cooling towers, equipped with filtration and chemical treatment system and condenser water pump set and controls shall be provided as part of the chilled water system.

D. Preferred Solution Building Systems Narratives - Mechanical HVAC

GARCIA • GALUSKA • DESOUSA

Consulting Engineers

Inc.

Brookline High School Feasibility Study
 Brookline, MA
 J#831 060 00.00
 L#56484/Page 3/May 17, 2017

- C. Classroom Heating and Ventilation (*General Classrooms, Science, Art & Music, OT/PT, Rise, Small Group, Maker's Space, and Teacher Planning*):
LEED for Schools Credit Ep2 & 4, Ec2 & 3, IEQp1 & 3, IEQc1, 2, 3, 4, 5, & 9

It is proposed that new displacement ventilation systems are installed to serve the building's Classroom areas under this Option.

New air handling units with supply and return fan with VFDs, dual energy recovery wheels, hot water heating and chilled water cooling with modulating capacity control, and MERV 13 filtration will be provided to serve a new displacement ventilation system. Supply air will be provided to the space through new insulated, galvanized steel supply duct distribution system and shall be connected to wall mounted displacement ventilation diffusers located within the classrooms. Return air will be drawn back to the units by ceiling return air registers located within the classroom and will be routed back to the air handling unit by an insulated galvanized sheetmetal return air ductwork distribution system. Supplemental hot water fin tube radiation or ceiling radiant heating will be provided along exterior walls.

Each classroom will be provided with a variable air volume terminal box and CO2 sensor for demand ventilation control.

Science Classrooms and Prep areas shall be provided with dedicated fume hood exhaust air systems or ductless filtered fume hoods.

It is estimated that the air handling equipment with the capacity of 54,000 CFM will be required to serve the Classroom areas:

Displacement Ventilation:

The displacement ventilation system for the classroom wings are intended to provide a maximum cooling temperature during peak cooling periods of approximately 78 deg. F, however, the ventilation air provided will be extremely dry which will be the result of utilizing cooling equipment to reduce vapor pressure to an extremely low condition of approximately 50 grains of moisture per pound of air and reheating the air to a supply temperature of approximately 68 deg. F which will be distributed to each space. The extremely dry condition of the supply air provides the perception of a condition that is cooler than is actually occurring due to the evaporation of moisture to the adjacent air from the occupants of the space.

Considering maximum cooling requirements occur primarily during the months of July and August when the majority of the academic areas are not in use, it would suggest maintaining slightly higher temperatures may not present a discomfort, however, will relate to a substantial operating cost savings and a reduced installation cost.

An additional major benefit of utilizing dry air within the building will be the overall reduction of vapor pressure typically present in outside ventilation air during summer months. This reduction in vapor pressure will dramatically reduce the amount of moisture entering the building and the potential of condensation resulting in moisture, and a direct relationship with the formation of mold.

D. Preferred Solution Building Systems Narratives - Mechanical HVAC

GARCIA • GALUSKA • DESOUSA

Consulting Engineers

Inc.

Brookline High School Feasibility Study
Brookline, MA
J#831 060 00.00
L#56484/Page 4/May 17, 2017

Classrooms Requiring Full Air Conditioning:

Classrooms that require full air conditioning will be provided with supplemental cooling active chilled beam induction units.

D. Administration Areas (Air Conditioned):

LEED for Schools Credit Ep2 & 4, Ec2 & 3, IEQp1 & 3, IEQc1, 2, 3, 4, 5, & 9

Spatial heating and air-conditioning for the Administration areas will be served by horizontal ceiling concealed type ducted 4-pipe heating and cooling active chilled beam induction units with hot water and chilled water for the induction unit system provided by the individual hot water and chilled water central recirculation piping system communicating with the boiler and chilled water power plants.

The air handling unit will have a capacity of approximately 2,500 CFM and will include supply and return fan with VFDs, hot water heating section with modulating capacity control, MERV 13 filtration, chilled water cooling section, and exhaust air energy recovery wheel. Supply air ventilation will be provided to each space that will satisfy building code requirements based on population.

E. Library (Air Conditioned):

LEED for Schools Credit Ep2 & 4, Ec2 & 3, IEQp1 & 3, IEQc1, 2, 3, 4, 5, & 9

The Library will be provided with an air-handling unit capable of providing 100% outside air and variable air volume operation. The AHU unit will be approximately 3,800 CFM and will include supply and return fan with VFDs, hot water heating section with modulating capacity control, MERV 13 filtration chilled water cooling section, and exhaust air energy recovery wheel. Supply air ventilation will be provided to each space which will satisfy building code requirements based on population. It is proposed that spatial heating and air-conditioning for zones will be provided by horizontal ceiling concealed type ducted 4-pipe heating and cooling active chilled beam induction units. Ventilation air to these perimeter areas will be provided by the associated air handling ventilation unit, with hot water and chilled water for the induction unit system provided by the individual hot water and chilled water central recirculation piping system communicating with the boiler and chilled water power plants.

F. Cafeteria and Staff Lunch Areas (Air Conditioned):

LEED for Schools Credit Ep2 & 4, Ec2 & 3, IEQp1 & 3, IEQc1, 2, 3, 4, 5, & 9

The Cafeteria area will be served by an air-handling unit capable of providing 100% outside air. The units will be approximately 5,200 CFM and will include supply and return fan with VFDs, heating section with modulating capacity control, MERV 13 filtration, chilled water cooling section, and exhaust air energy recovery wheel. Supply air ventilation will be provided to each space through galvanized steel supply duct that will connect to floor level displacement diffuser distribution which will satisfy building code requirements based on population. In addition, carbon dioxide controls will be installed which will monitor the overall level of carbon dioxide at a threshold level of 800 ppm. As levels drop generally relating to a reduction in population the air-handling unit outside air damper will modulate to reduce airflow and ventilation while always maintaining a maximum of 800 ppm. Return air will be drawn back to the units by ceiling mounted return air registers.

D. Preferred Solution Building Systems Narratives - Mechanical HVAC

GARCIA • GALUSKA • DESOUSA

Consulting Engineers

Inc.

Brookline High School Feasibility Study
Brookline, MA
J#831 060 00.00
L#56484/Page 5/May 17, 2017

G. Kitchen (Heating/Partial AC Dehumidification):

LEED for Schools Credit Ep2 & 4, Ec2 & 3, IEQp1 & 3, IEQc1, 2, 3, 4, 5, & 9

The Kitchen areas shall be provided with a kitchen exhaust fan from a new kitchen exhaust air fan system. It is estimated that a kitchen exhaust fan system with a capacity of 5,000 CFM is required. The kitchen will be heated and provided with make-up air from a 4,000 CFM make-up air handling unit equipped with hot water heating for heating and chilled water cooling for dehumidification control.

A variable volume kitchen exhaust hood control system consisting of kitchen exhaust stack temperature and smoke density sensors, supply and exhaust fan variable speed drives and associated controller will be provided by the Kitchen Equipment Vendor. This system installation shall be field installed and coordinated with the ATC and Electrical Contractors.

H. Lobby, Corridor, and Entry Way Heating:

New hot water convectors, cabinet unit heaters and fin tube radiation heating equipment shall be installed to provide heating to these areas. Corridors shall be ventilated from adjacent air handling unit systems.

I. Custodial Support Areas:

Custodial support areas will be heated and ventilated by a heating and ventilation unit. Storage areas will be heated by radiation heating equipment. Horizontal type unit heaters will heat areas adjacent to the loading dock. All custodial closets will be exhausted by exhaust air fan systems.

J. Utility Areas:

Utility areas will be provided with exhaust air fan systems for ventilation, and will typically be heated with horizontal type ceiling suspended unit heaters.

The Main IDF Room will be air conditioned by high efficiency ductless AC cooling units.

K. Testing, Adjusting, Balancing & Commissioning:

All new HVAC systems shall be tested, adjusted, balanced and commissioned as part of the project scope.

L. Automatic Temperature Controls – Building Energy Management System:

A new DDC (direct digital control) automatic temperature control and building energy management system shall be installed to control and monitor building HVAC systems. Energy metering shall be installed to monitor the energy usage of building HVAC systems and utilities (fuel, gas, water).

Lighting control and door access control system shall be integrated into the BMS system.

The control system shall be as manufactured by Johnson Controls (Metasys), Siemens (Apogee) or Delta Controls.

D. Preferred Solution Building Systems Narratives - Mechanical HVAC

GARCIA • GALUSKA • DESOUSA

Consulting Engineers

Inc.

Brookline High School Feasibility Study

Brookline, MA

J#831 060 00.00

L#56484/Page 6/May 17, 2017

5. TESTING REQUIREMENTS:

A. The Mechanical Contractor shall provide testing of the following systems with the Owner and Owner's Representative present:

1. Hot Water Boiler plant system
2. Chilled water plant system
3. Air handling unit systems including all indoor air handling systems and exhaust air systems
4. Terminal heating and cooling devices
5. Automatic temperature control and building energy management system

B. Testing reports shall be submitted to the Engineer for review and approval before providing to the Owner.

6. OPERATION MANUALS AND MAINTENANCE MANUALS: When the project is completed, the Mechanical Contractor shall provide operation and maintenance manuals to the Owner.

7. RECORD DRAWINGS AND CONTROL DOCUMENTS: When the project is completed, an as-built set of drawings, showing all mechanical system requirements from contract and addendum items will be provided to the Owner.

8. COMMISSIONING: The project shall be commissioned per Section 018000 of the specifications.

9. PHASING REQUIREMENTS:

During all Phases of Construction, the following SMACNA IAQ Guidelines for Occupied Building Under Construction, 2007 shall be met to maintain proper indoor air quality within the occupied areas. Areas to remain occupied shall be positively pressured in relationship to the construction zone to prevent construction debris from entering the occupied areas. Construction areas shall be exhausted to prevent construction debris from entering the occupied areas. All return grilles shall be covered with MERV-8 filter media, all fresh air supply units shall be provided with MERV-13 media and all filter media shall be changed on a regular basis in accordance with SMACNA IAQ Guidelines to maintain the IAQ within the occupied areas.

All new ductwork shall be installed per SMACNA guidelines for "Duct Cleanliness for New Construction Guidelines". A high level of indoor air quality shall be maintained throughout the duration of the project construction phase.

Testing, Balancing and Commissioning: A complete HVAC system Testing and Balancing, encompassing all HVAC systems and equipment installed during that phase shall be performed at the completion of each phase. Once all phases are completed, a complete testing and balancing report shall be issued which shall require the Balancing Contractor to re-balance the entire system as a whole and modify systems as required.

D. Preferred Solution Building Systems Narratives - Mechanical HVAC

GARCIA • GALUSKA • DESOUSA

Consulting Engineers

Inc.

Brookline High School Feasibility Study

Brookline, MA

J#831 060 00.00

L#56465/Page 1/May 17, 2017

HVAC SYSTEMS

OPTION 4D ADDITION-RENOVATION

NARRATIVE REPORT

The following is the HVAC system narrative, which defines the scope of work and capacities of the HVAC system as well as the Basis of Design. The HVAC systems shall be designed and constructed for **LEED for Schools v4** where indicated on this narrative.

1. CODES

All work installed under Division 230000 shall comply with the State of Massachusetts Building Code and all local, IBC 2012, IECC 2015 and IMC 2012 with MA Amendments, county, and federal codes, laws, statutes, and authorities having jurisdiction.

2. DESIGN INTENT

The work of Division 230000 is described within the narrative report. The HVAC project scope of work shall consist of providing new and renovated existing HVAC equipment and systems as described here within. All new work shall consist of furnishing all materials, equipment, labor, transportation, facilities, and all operations and adjustments required for the complete and operating installation of the Heating, Ventilating and Air Conditioning work and all items incidental thereto, including commissioning and testing.

3. BASIS OF DESIGN: (MASS CODE)

Project weather and Code temperature values are listed herein based on weather data values as determined from ASHRAE weather data tables and the International Energy Conservation Code.

Outside: Winter 5 deg. F, Summer 91 deg. F DB 74 deg. F WB

Inside: 70 deg. F +/- 2 deg. F for heating, 75 deg. F +/- 2 deg. F (55% RH) for cooling for areas with air conditioning, 78 deg. F +/- 2 deg. F (<60% RH) for areas with displacement/dehumidification*(see note below). Unoccupied temperature setback will be provided (60 deg. F heating (adj.), 85 deg. F cooling/dehumidification (adj.).

Outside air is provided at the rate in accordance with ASHRAE guide 62.1-2010 and the International Mechanical Code as a minimum. All occupied areas will be designed to maintain 800 PPM carbon dioxide maximum.

4. SYSTEM DESCRIPTION

A. Central Heating Plants: **LEED for Schools Credit Ep2 & Ec2**

Heating for the renovation and addition shall be provided from the existing gas fired boiler plant that is currently located in the Unified Art Building (UAB) Boiler room.

The existing hot water heat exchanger located in the UAB boiler room shall be provided with additional capacity by providing additional heat exchanger plates. New hot water

D. Preferred Solution Building Systems Narratives - Mechanical HVAC

GARCIA • GALUSKA • DESOUSA

Consulting Engineers

Inc.

Brookline 9th Elementary School
Brookline, MA
J#680 014 00.00
L#55797/Page 2/March 27, 2017

pumps and VFD drives shall be provided to replace the existing pumps.

The boiler plant will supply heating hot water to heating equipment and systems located throughout the Main High School building addition and renovation areas through a combination of new and existing two-pipe fiberglass insulated schedule 40 black steel and copper piping system. New hot water piping shall be connected to the existing hot water piping mains to serve the new Science Classroom addition. Hot water piping located within the renovated existing Science Classroom areas shall be modified to connect to new renovated heating equipment.

B. Central Cooling Plant: **LEED for Schools Credit Ep2 & 4, Ec2**

A high efficiency central chilled water cooling plant consisting of an outdoor roof mounted high efficiency “Turbo-cor” or “Mag-Lev” (oil-less compressor design) low-noise condenser fan, air cooled chiller with an estimated capacity of 110 tons, primary and standby chilled water pumps with VFDs, each with a capacity of 220 gpm, accessories, controls and steel and copper piping distribution system shall be provided to serve chilled water cooling HVAC equipment located in the New Science Classroom Addition.

The existing Third Floor Science Classrooms which shall be renovated to general Classrooms shall be served by a new 60 ton high efficiency “Turbo-cor” or “Mag-Lev” (oil-less compressor design) low-noise condenser fan, air cooled chiller, including chilled water pump with VFDs, accessories and controls located in a pre-fabricated rooftop pump room enclosure and rooftop air handling units as described below. Insulated chilled water piping shall be provided to connect the chiller to new air handling equipment.

C. New Addition Classroom Heating and Ventilation (*Science, Maker’s Space, Learning Commons*) (*Partial Air Conditioning/Dehumidification*): **LEED for Schools Credit Ep2 & 4, Ec2 & 3, IEQp1 & 3, IEQc1, 2, 3, 4, 5, & 9**

It is proposed that new displacement ventilation systems are installed to serve the new Addition building’s Science Classroom, Maker’s Space and Learning Common areas under this Option.

New air handling units with supply and return fan with VFDs, dual energy recovery wheels, hot water heating and chilled water cooling with modulating capacity control, and MERV 13 filtration will be provided to serve a new displacement ventilation system. Supply air will be provided to the space through new insulated, galvanized steel supply duct distribution system and shall be connected to wall mounted displacement ventilation diffusers located within the classrooms. Return air will be drawn back to the units by ceiling return air registers located within the classroom and will be routed back to the air handling unit by an insulated galvanized sheetmetal return air ductwork distribution system. Supplemental hot water fin tube radiation or ceiling radiant heating will be provided along exterior walls.

Each classroom or zone will be provided with a variable air volume terminal box and CO2 sensor for demand ventilation control.

Science Classrooms and Prep areas shall be provided with dedicated fume hood exhaust air systems or ductless filtered fume hoods.

D. Preferred Solution Building Systems Narratives - Mechanical HVAC

GARCIA • GALUSKA • DESOUSA

Consulting Engineers

Inc.

Brookline 9th Elementary School
 Brookline, MA
 J#680 014 00.00
 L#55797/Page 3/March 27, 2017

Maker's Space areas shall be provided with dedicated exhaust systems for Laser cutting equipment, welding booths, paint booths, etc.

It is estimated that the air handling equipment with the capacity of 27,000 CFM will be required to serve the Addition Classroom areas.

Displacement Ventilation:

The displacement ventilation system for the classroom wings are intended to provide a maximum cooling temperature during peak cooling periods of approximately 78 deg. F, however, the ventilation air provided will be extremely dry which will be the result of utilizing cooling equipment to reduce vapor pressure to an extremely low condition of approximately 50 grains of moisture per pound of air and reheating the air to a supply temperature of approximately 68 deg. F which will be distributed to each space. The extremely dry condition of the supply air provides the perception of a condition that is cooler than is actually occurring due to the evaporation of moisture to the adjacent air from the occupants of the space.

Considering maximum cooling requirements occur primarily during the months of July and August when the majority of the academic areas are not in use, it would suggest maintaining slightly higher temperatures may not present a discomfort, however, will relate to a substantial operating cost savings and a reduced installation cost.

An additional major benefit of utilizing dry air within the building will be the overall reduction of vapor pressure typically present in outside ventilation air during summer months. This reduction in vapor pressure will dramatically reduce the amount of moisture entering the building and the potential of condensation resulting in moisture, and a direct relationship with the formation of mold.

Classrooms Requiring Full Air Conditioning:

Classrooms that require full air conditioning will be provided with supplemental cooling active chilled beam induction units.

D. Culinary Arts Cafe Areas (Air Conditioned):

LEED for Schools Credit Ep2 & 4, Ec2 & 3, IEQp1 & 3, IEQc1, 2, 3, 4, 5, & 9

The Cafe areas will be served by an air-handling unit capable of providing 100% outside air. The units will be approximately 5,200 CFM and will include supply and return fan with VFDs, heating section with modulating capacity control, MERV 13 filtration, chilled water cooling section, and exhaust air energy recovery wheel. Supply air ventilation will be provided to each space through galvanized steel supply duct that will connect to floor level displacement diffuser distribution which will satisfy building code requirements based on population. In addition, carbon dioxide controls will be installed which will monitor the overall level of carbon dioxide at a threshold level of 800 ppm. As levels drop generally relating to a reduction in population the air-handling unit outside air damper will modulate to reduce airflow and ventilation while always maintaining a maximum of 800 ppm. Return air will be drawn back to the units by ceiling mounted return air registers.

E. Culinary Arts Kitchen (Heating/Partial AC Dehumidification):

LEED for Schools Credit Ep2 & 4, Ec2 & 3, IEQp1 & 3, IEQc1, 2, 3, 4, 5, & 9

D. Preferred Solution Building Systems Narratives - Mechanical HVAC

GARCIA • GALUSKA • DESOUSA

Consulting Engineers

Inc.

Brookline 9th Elementary School
Brookline, MA
J#680 014 00.00
L#55797/Page 4/March 27, 2017

The kitchen areas shall be provided with a kitchen exhaust fan from a new kitchen exhaust air fan system. It is estimated that a kitchen exhaust fan system with a capacity of 4,500 CFM is estimated. The kitchen will be heated and provided with make-up air from a 4,000 CFM make-up air handling unit equipped with hot water heating for heating and chilled water cooling for dehumidification control.

A variable volume kitchen exhaust hood control system consisting of kitchen exhaust stack temperature and smoke density sensors, supply and exhaust fan variable speed drives and associated controller will be provided by the kitchen equipment vendor. This system installation shall be field installed and coordinated with the ATC and Electrical contractors.

F. Lobby, Corridor, and Entry Way Heating:

New hot water convectors, cabinet unit heaters and fin tube radiation heating equipment shall be installed to provide heating to these areas. Corridors shall be ventilated from adjacent air handling unit systems.

G. Custodial Support Areas:

Custodial support areas will be heated and ventilated by a heating and ventilation unit. Storage areas will be heated by radiation heating equipment. Horizontal type unit heaters will heat areas adjacent to the loading dock. All custodial closets will be exhausted by exhaust air fan systems.

H. Utility Areas:

Utility areas will be provided with exhaust air fan systems for ventilation, and will typically be heated with horizontal type ceiling suspended unit heaters.

I. Renovation Classroom Heating and Ventilation (*Existing Science Classrooms Converted to General Classrooms*) (*Partial Air Conditioning/Dehumidification*):
LEED for Schools Credit Ep2 & 4, Ec2 & 3, IEQp1 & 3, IEQc1, 2, 3, 4, 5, & 9

It is proposed that new displacement ventilation systems are installed to serve the renovated Third Floor Classroom areas under this Option. The existing unit ventilators and fin tube radiation heating that currently serve these areas shall be removed.

New rooftop air handling units with supply and return fan with VFDs, dual energy recovery wheels, hot water heating and chilled water cooling with modulating capacity control, and MERV 13 filtration will be provided to serve a new displacement ventilation system. Supply air will be provided to the space through new insulated, galvanized steel supply duct distribution system and shall be connected to wall mounted displacement ventilation diffusers located within the classrooms. Return air will be drawn back to the units by ceiling return air registers located within the classroom and will be routed back to the air handling unit by an insulated galvanized sheetmetal return air ductwork distribution system. New supplemental hot water fin tube radiation or ceiling radiant heating will be provided along exterior walls.

Each classroom or zone will be provided with a variable air volume terminal box and CO2 sensor for demand ventilation control.

D. Preferred Solution Building Systems Narratives - Mechanical HVAC

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc.

Brookline 9th Elementary School
Brookline, MA
J#680 014 00.00
L#55797/Page 5/March 27, 2017

It is estimated that the air handling equipment with the capacity of 18,000 CFM will be required to serve the Renovation Classroom areas.

J. Testing, Adjusting, Balancing & Commissioning:

All new HVAC systems shall be tested, adjusted, balanced and commissioned as part of the project scope.

K. Automatic Temperature Controls – Building Energy Management System:

A new DDC (direct digital control) automatic temperature control and building energy management system shall be installed to control and monitor building HVAC systems. Energy metering shall be installed to monitor the energy usage of building HVAC systems and utilities (fuel, gas, water).

Lighting control and door access control system shall be integrated into the BMS system.

The control system shall be as manufactured by Siemens (Apogee) and shall be integrated into the existing High School BMS system. The existing BMS systems software and graphics shall be updated to include all new and renovated HVAC systems and equipment.

5. TESTING REQUIREMENTS:

A. The mechanical contractor shall provide testing of the following systems with the owner and owner’s representative present:

1. Hot Water Boiler plant system
2. Chilled water plant system
3. Air handling unit systems including all indoor air handling systems and exhaust air systems
4. Terminal heating and cooling devices
5. Automatic temperature control and building energy management system

B. Testing reports shall be submitted to the engineer for review and approval before providing to the owner.

D. Preferred Solution Building Systems Narratives - Mechanical HVAC

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc.

Brookline 9th Elementary School
Brookline, MA
J#680 014 00.00
L#55797/Page 6/March 27, 2017

6. OPERATION MANUALS AND MAINTENANCE MANUALS: When the project is completed, the mechanical contractor shall provide operation and maintenance manuals to the owner.
7. RECORD DRAWINGS AND CONTROL DOCUMENTS: When the project is completed, an as-built set of drawings, showing all mechanical system requirements from contract and addendum items will be provided to the owner.
8. COMMISSIONING: The project shall be commissioned per Section 018000 of the specifications.
9. PHASING REQUIREMENTS:

During all Phases of Construction, the following SMACNA IAQ Guidelines for Occupied Building Under Construction, 2007 shall be met to maintain proper indoor air quality within the occupied areas. Areas to remain occupied shall be positively pressured in relationship to the construction zone to prevent construction debris from entering the occupied areas. Construction areas shall be exhausted to prevent construction debris from entering the occupied areas. All return grilles shall be covered with MERV-8 filter media, all fresh air supply units shall be provided with MERV-13 media and all filter media shall be changed on a regular basis in accordance with SMACNA IAQ Guidelines to maintain the IAQ within the occupied areas.

All new ductwork shall be installed per SMACNA guidelines for "Duct Cleanliness for New Construction Guidelines". A high level of indoor air quality shall be maintained throughout the duration of the project construction phase.

Testing, Balancing and Commissioning: A complete HVAC system Testing and Balancing, encompassing all HVAC systems and equipment installed during that phase shall be performed at the completion of each phase. Once all phases are completed a complete testing and balancing report shall be issued which shall require the balancing contractor to re-balance the entire system as a whole and modify systems as required.

Appendices

- D. Preferred Solution
 - Building Systems Narratives
 - Electrical & Technology Narrative**

D. Preferred Solution Building Systems Narratives - Electrical

GARCIA • GALUSKA • DESOUSA

Consulting Engineers

Inc.

Brookline High School Feasibility Study
Brookline, MA
J#831 060 00.00
L#56464/Page 1/May 17, 2017

ELECTRICAL SYSTEMS NARRATIVE REPORT

OPTION 4D - CYPRESS BUILDING

The following is the Electrical system narrative, which defines the scope of work and capacities of the Power and Lighting system as well as the Basis of Design. The electrical systems shall be designed and constructed for LEED v4 where indicated on this narrative. This project shall confirm to LEED Silver rating.

1. CODES

All work installed under Division 26 shall comply with the Massachusetts State Building Code, IBC 2012 and all local, county, and federal codes, laws, statutes, and authorities having jurisdiction.

2. DESIGN INTENT

The work of Section 260000 is indicated in this narrative report. All work is new and consists of furnishing all materials, equipment, labor, transportation, facilities, and all operations and adjustments required for the complete and operating installation of the Electrical work and all items incidental thereto, including commissioning and testing.

3. SEQUENCE OF OPERATIONS AND INTERACTIONS

A. Classroom and Corridor lighting will be controlled via “addressable relays”, which is achieved through programming networked controls. The control of the relays will be by automatic means, such as an occupancy sensor in each classroom. The system will have a BacNet gateway and will be interfaced with the DDC control system for schedule functions. The controllability shall be in conformance with associated LEED credit in indoor environmental quality.

B. Automatic control of receptacles based on occupancy will be provided for at least 50% of the receptacles. Installed in private offices, open offices, and computer classrooms. Controlled receptacles will be marked per NEC 406.3 (E).

C. Exterior lighting will be controlled by photocell “ON” and “scheduled” for “OFF” operation. The parking area lighting will be controlled by “zones” with dimmable capability.

D. Emergency and Exit lighting will be run through life safety panels to be “ON” during normal power conditions, as well as, power outage conditions. The emergency lighting system will have time control so that lights are “ON” only when building is occupied.

4. DESCRIPTION OF THE SYSTEMS

A. Electrical Distribution System:

1. New construction service ratings are designed for a demand load of 10 watts/s.f. The service capacity will be sized for 1600 amperes with 100% rating at 277/480 volt, 3Ø, 4wire. New lighting and power panels will be provided to accommodate respective loads. The service capacity will be sized for 20% spare capacity.

D. Preferred Solution Building Systems Narratives - Electrical

GARCIA • GALUSKA • DESOUSA

Consulting Engineers

Inc.

Brookline High School Feasibility Study
Brookline, MA
J#831 060 00.00
L#56464/Page 2/May 17, 2017

B. Interior Lighting System:

1. Classroom lighting fixtures will consist of pendant mounted indirect luminaires with LED lamps and electronic dimmable drivers. The fixtures will be pre-wired for continuous dimming control where natural daylight is available and also for multi-level switching. Two daylight dimming zones will be provided in each classroom.
2. Office lighting fixtures will consist of pendant mounted indirect LED luminaires and electronic drivers for dual-level switching. Offices on the perimeter with windows will have daylight dimming controls similar to classrooms.

In general, lighting power density will be 30-40% less than ASHRAE 90.1-2010. The power density reduction relates to associated LEED credit in energy and atmosphere.

3. Lighting levels will be approximately 30 foot candles in classrooms and offices. The daylight dimming foot-candle level will be in compliance with associated LEED credit in indoor environment quality.
4. Gymnasium lighting will be comprised of direct fixtures with LED lamps and electronic drivers. The fixtures will be provided with clear lens and protective wire guards. The light level will be designed for approximately 50 foot candles. Multi-level switching will be provided.

Daylight dimming will be provided within 15 feet of skylights or glazing. Daylight dimming controls will be similar in operation to classrooms.

5. Corridor lighting will be comprised of recessed acrylic fixtures with LED lamps and electronic drivers. The Corridor light level will be designed for approximately 20 foot candles. Corridor lighting will be on time clock control and only "ON" during occupied hours. The Corridor lighting will be dual-level controlled by schedule.
6. Cafeteria lighting will be a combination of pendant direct/indirect fixtures and linear recessed fixtures with LED lamps and electronic drivers. The light levels will be designed for approximately 30 foot candles. Daylighting controls will be provided on perimeter light fixtures with 15 feet of glazing
7. Stage and Auditorium theatrical lights with connector strips and a dimming system will be provided for performances. House lighting in Auditorium will be dimmable LED and controlled by theatrical dimming system.
8. Kitchen and Seryery lighting will consist of recessed 2'x4' acrylic lensed gasketed troffers with aluminum frame doors with LED lamps and electronic drivers. Light levels will be approximately 50 foot candles.

D. Preferred Solution Building Systems Narratives - Electrical

GARCIA • GALUSKA • DESOUSA

Consulting Engineers

Inc.

Brookline High School Feasibility Study
Brookline, MA
J#831 060 00.00
L#56464/Page 3/May 17, 2017

9. Media Center lighting will be a combination of pendant direct/indirect fixtures and linear recessed fixtures with LED lamps and electronic drivers. The light levels will be designed for approximately 30 foot candles. Daylighting controls will be provided on perimeter light fixtures with 15 feet of glazing
 10. Each area will be locally switched and designed for multi-level controls. Each Classroom, Office space, and Toilet room will have occupancy sensors to turn lights off when unoccupied. Occupancy sensors will be set to vacancy mode where required by Energy Code.
 11. The shops will have industrial grade strips with LED lamps and protective wireguards. Light levels will be approximately 50 foot-candles.
 12. Daylight dimming sensors will be installed in each room where natural light is available for continuous dimming of light fixtures. The control system will be in accordance with associated LEED credit in indoor environmental quality.
 13. The entire school will be controlled with an automatic lighting control system for programming of interior and exterior lights "on and off". Lighting control system will be interfaced with DDC system, and will be demand response capable in accordance with associated LEED credit in Energy and atmosphere.
- C. Emergency Lighting System:
1. An interior 125 kW natural gas fuelled indoor emergency generator with sound attenuated housing will be provided. Light fixtures and LED exit signs will be installed to serve all egress areas such as corridors, intervening spaces, toilets, stairs and exit discharge exterior doors. The administration area lighting will be connected to the emergency generator.
 2. The generator will be sized to include life safety systems, boilers and circulating pumps and communications systems.
- D. Site Lighting System
1. Fixtures for area lighting will be pole-mounted cut-off 'LED' luminaries in the drop-off areas. The fixtures shall be per Town of Brookline standards. Pole heights will be below 12 ft. Fixtures for the underground parking shall be low profile, suspended 'LED' fixtures. The exterior lighting will be connected to the automatic lighting control system for photocell on and timed off operation. The site lighting fixtures will be dark sky compliant. The illumination level is 0.5 foot candle minimum for parking areas in accordance with Illuminating Engineering Society.
 2. Building perimeter fixtures will be wall mounted cut-off over exterior doors for exit discharge.

D. Preferred Solution Building Systems Narratives - Electrical

GARCIA • GALUSKA • DESOUSA

Consulting Engineers

Inc.

Brookline High School Feasibility Study
Brookline, MA
J#831 060 00.00
L#56464/Page 4/May 17, 2017

E. Wiring Devices:

1. Each classroom will have a minimum of (2) duplex receptacles per teaching wall and (2) double duplex receptacles on dedicated circuits at classroom computer workstations. The teacher's workstation will have a double duplex receptacle also on a dedicated circuit. Refer to drawings.
2. Office areas will generally have (1) duplex outlet per wall. At each workstation a double duplex receptacle will be provided.
3. Corridors will have a cleaning receptacle at approximately 25 foot intervals.
4. Exterior weatherproof receptacles will be installed at exterior doors.
5. A system of computer grade panelboards with double neutrals and transient voltage surge suppressors will be provided for receptacle circuits.

F. Fire Alarm System:

1. A fire alarm and detection system will be provided with 60 battery back-up. The system will be of the addressable type where each device will be identified at the control panel and remote annunciator by device type and location to facilitate search for origin of alarms.
2. Smoke detectors will be provided in open areas, corridors, stairwells and other egress ways.
3. The sprinkler system will be supervised for water flow and tampering with valves.
4. Speaker/strobes will be provided in egress ways, classrooms, assembly spaces, open areas and other large spaces. Strobe only units will be provided in single toilets and conference rooms.
5. Manual pull stations will be provided at exit discharge doors.
6. The system will be remotely connected to automatically report alarms to fire department via wireless master box.

G. Uninterruptible Power Supply (UPS):

1. One (1) 24kw, three (3) phase centralized UPS systems will be provided with battery back-up.
2. The system will provide conditioned power to sensitive electronic loads, telecommunication systems, bridge over power interruptions of short duration and allow an orderly shutdown of servers, communication systems, etc. during a prolonged power outage.
3. The UPS systems will also be connected to the stand by generator.

D. Preferred Solution Building Systems Narratives - Electrical

GARCIA • GALUSKA • DESOUSA

Consulting Engineers

Inc.

Brookline High School Feasibility Study
 Brookline, MA
 J#831 060 00.00
 L#56464/Page 5/May 17, 2017

H. Lightning Protection System:

1. A system of lightning protection devices will be provided.
2. The lightning protection equipment will include air terminals, roof and down conductors, conduits, fasteners, connectors, ground rods, etc.
3. The facility will be issued a UL Mater Label Certificate.

I. Two-Way Communications System:

1. A Two-Way Communications System will be provided at the elevator lobbies that do not have grade access. Area of rescue assistance call boxes will be provided at Elevator Lobbies with no grade access. The call boxes connect to a main panel located adjacent to the Fire Alarm annunciator panel.

J. Distribution Antennae System (DAS):

1. A public safety radio distributed antenna system (DAS) which consists of bi-directional amplifiers (BDA), donor antennas, coverage antennas, coax cable, coax connectors, splitters, combiners and couplers. These devices will be used as part of a system for in-building public safety 2-way radio system communication.

5. TESTING REQUIREMENTS

The Electrical Contractor shall provide testing of the following systems with the Owner and Owner’s Representative present:

- Lighting and power panels for correct phase balance.
- Emergency generator.
- Lighting control system (interior and exterior).
- Fire alarm system.
- Security system.

Testing reports shall be submitted to the Engineer for review and approval before providing to the Owner.

6. OPERATION MANUALS AND MAINTENANCE MANUALS:

When the project is completed, the Electrical Contractor shall provide operation and maintenance manuals to the Owner.

7. RECORD DRAWINGS AND CONTROL DOCUMENTS:

When the project is completed, an as-built set of drawings, showing all lighting and power requirements from contract and addendum items, will be provided to the Owner.

D. Preferred Solution Building Systems Narratives - Electrical

GARCIA • GALUSKA • DESOUSA

Consulting Engineers

Inc.

Brookline High School Feasibility Study
Brookline, MA
J#831 060 00.00
L#56464/Page 6/May 17, 2017

8. COMMISSIONING

The project shall be commissioned per Section 018000 of the specifications.

9. RENEWABLE ENERGY PROVISIONS

Provisions for a renewable energy system will consist of a grid connected Photovoltaic PV system intended to reduce the facilities demand for electricity by three percent. The Photovoltaic system will be installed at a future date. The project will be PV ready.

10. SITE UTILITIES

The Electric, Telephone and Cable TV utilities will be underground for each system provided.

11. INTRUSION SYSTEM

An intrusion system will consist of security panel, keypads, motion detectors and door contacts. The system is addressable which means that each device will be identified when an alarm occurs. The system is designed so that each perimeter classroom with grade access will have dual tech sensors along the exterior wall and corridors, door contacts at each exterior door.

The system will include a digital transmitter to summons the central station in the event of an alarm condition.

The intrusion system will be connected to the automated lighting control system to automatically turn on lighting upon an alarm.

12. CARD ACCESS

A card access system includes a card access controller, door controllers and proximity readers/keypads. Proximity readers will be located at various locations. Each proximity reader will have a distinctive code to identify the user and a log will be kept in memory. The log within the panel can be accessed through a computer.

The system will be an extension of the existing AMAG system at the High School.

D. Preferred Solution Building Systems Narratives - Electrical

GARCIA • GALUSKA • DESOUSA

Consulting Engineers

Inc.

Brookline High School Feasibility Study
Brookline, MA
J#831 060 00.00
L#56463/Page 1/May 17, 2017

ELECTRICAL SYSTEMS NARRATIVE REPORT

OPTION 4D - ADDITION/RENOVATION

The following is the Electrical system narrative, which defines the scope of work and capacities of the Power and Lighting system, as well as, the Basis of Design. The Electrical systems shall be designed and constructed for LEED V4 where indicated on this narrative. This project shall confirm to LEED Silver rating.

1. CODES

All work installed under Division 26 shall comply with the Massachusetts State Building Code, IBC 2012 and all local, county, and federal codes, laws, statutes, and authorities having jurisdiction.

2. DESIGN INTENT

The work of Section 260000 is indicated in this narrative report. All work is new and consists of furnishing all materials, equipment, labor, transportation, facilities, and all operations and adjustments required for the complete and operating installation of the Electrical work and all items incidental thereto, including commissioning and testing.

3. SEQUENCE OF OPERATIONS AND INTERACTIONS

- A. Classroom and Corridor lighting will be controlled via “addressable relays”, which is achieved through programming networked controls. The control of the relays will be by automatic means, such as an occupancy sensor in each classroom. The system will have a BacNet gateway and will be interfaced with the DDC control system for schedule functions. The controllability shall be in conformance with associated LEED credit in indoor environmental quality.
- B. Automatic control of receptacles based on occupancy will be provided for at least 50% of the receptacles. Installed in private offices, open offices, and computer classrooms. Controlled receptacles will be marked per NEC 406.3 (E).
- C. Exterior lighting will be controlled by photocell “ON” and “scheduled” for “OFF” operation. The parking area lighting will be controlled by “zones” with dimmable capability.
- D. Emergency and Exit lighting will be run through life safety panels to be “ON” during normal power conditions, as well as, power outage conditions. The emergency lighting system will be fed from the existing emergency distribution system.

D. Preferred Solution Building Systems Narratives - Electrical

GARCIA • GALUSKA • DESOUSA

Consulting Engineers

Inc.

Brookline High School Feasibility Study
Brookline, MA
J#831 060 00.00
L#56463/Page 2/May 17, 2017

4. DESCRIPTION OF THE SYSTEMS

A. Electrical Distribution System:

1. The existing service is rated at 4,000 amperes 277/480 volt wye, 3 phase, 4 wire. The existing main switchboard will serve the addition/renovation. A 1200 ampere 277/480 volt, 3 phase, 4 wire distribution panel will serve the addition/renovation. New lighting power panels and mechanical panels will be provided to accommodate the respective loads. A 1200 ampere circuit breaker will be installed in the existing main switchboard.

B. Interior Lighting System:

1. Classroom lighting fixtures consist of pendant mounted indirect LED luminaries with dimming drivers. The fixtures will be pre-wired for dimming control where natural daylight is available and also for multi-level switching. Office lighting fixtures will consist of similar fixtures to classrooms. Offices on the perimeter with windows shall have daylight dimming controls. In existing building recessed LED panel fixtures will be used, when ceiling height does not allow for pendant lighting.

In general lighting power density will be 40 percent less than IECC 2009. The power density reduction relates to LEED for Schools Credit EAC1.

2. Lighting levels will be approximately 30 foot candles in classrooms and offices. The daylight dimming footcandle level will be in compliance with LEED for Schools IEQ 6.1.

Daylight dimming will be provided within 15 feet of skylights or glazing. Daylight dimming controls will be similar in operation to classrooms.

3. Corridor lighting will be comprised of linear indirect lighting using LED light source. The corridor light level will be designed for approximately 15 foot candles. Corridor lighting will be on a schedule through the DDC system control and only "on" during occupied hours.
4. Library lighting will consist of indirect fluorescent fixtures with LED dimmable drivers. Light levels will be approximately 30 foot candles.
5. Each area will be locally switched and designed for multi-level controls. Each classroom, office space and toilet rooms will have an occupancy sensor to turn lights off when unoccupied. Daylight sensors will be installed in each room where natural light is available for dimming of light fixtures.
6. The addition/renovation areas will be controlled with an automatic lighting control system using the DDC control system for schedule programming of lights. This will be designed so it can be expanded to the rest of the school in the future.

D. Preferred Solution Building Systems Narratives - Electrical

GARCIA • GALUSKA • DESOUSA

Consulting Engineers

Inc.

Brookline High School Feasibility Study
Brookline, MA
J#831 060 00.00
L#56463/Page 3/May 17, 2017

C. Emergency Lighting System:

1. An interior 125 kW natural gas fuelled indoor emergency generator with sound attenuated housing will be provided. Light fixtures and LED exit signs will be installed to serve all egress areas such as corridors, intervening spaces, toilets, stairs and exit discharge exterior doors. The administration area lighting will be connected to the emergency generator.
2. The generator will be sized to include life safety systems, boilers and circulating pumps and communications systems.

D. Site Lighting System

The existing High school is equipped with a 125 kW/156.3 KVA at .8 PF 277/480V, 3 phase, 4 wire Cummings Onan generator that serves an emergency life safety lighting distribution system. A new emergency life safety panel will be installed in the addition fed via 2-hour rated MI cable from the existing emergency distribution system to serve emergency lighting in the addition. New emergency branch circuits will be run to existing emergency panels for the renovated areas.

E. Wiring Devices:

1. Each classroom will have a minimum of (2) duplex receptacles per teaching wall and (2) double duplex receptacles on dedicated circuits at classroom computer workstations. The teacher's workstation will have a double duplex receptacle also on a dedicated circuit. Refer to drawings.
2. Office areas will generally have (1) duplex outlet per wall. At each workstation a double duplex receptacle will be provided.
3. Corridors will have a cleaning receptacle at approximately 25 foot intervals.
4. Exterior weatherproof receptacles will be installed at exterior doors.
5. A system of computer grade panelboards with double neutrals and transient voltage surge suppressors will be provided for receptacle circuits.

F. Fire Alarm System:

1. The existing fire alarm system will be replaced with a new addressable fire alarm system with voice evacuation. New devices shall be installed throughout the entire building.
2. A fire alarm and detection system will be provided with 60 battery back-up. The system will be of the addressable type where each device will be identified at the control panel and remote annunciator by device type and location to facilitate search for origin of alarms.
3. Smoke detectors will be provided in open areas, corridors, stairwells and other egress ways.

D. Preferred Solution Building Systems Narratives - Electrical

GARCIA • GALUSKA • DESOUSA

Consulting Engineers

Inc.

Brookline High School Feasibility Study
Brookline, MA
J#831 060 00.00
L#56463/Page 4/May 17, 2017

4. The sprinkler system will be supervised for water flow and tampering with valves.
5. Speaker/strobes will be provided in egress ways, classrooms, assembly spaces, open areas and other large spaces. Strobe only units will be provided in single toilets and conference rooms.
6. Manual pull stations will be provided at exit discharge doors.
7. The system will be remotely connected to automatically report alarms to fire department via wireless master box.

G. Two-Way Communications System:

1. A Two-Way Communications System will be provided at the elevator lobbies that do not have grade access. Area of rescue assistance call boxes will be provided at Elevator Lobbies with no grade access. The call boxes connect to a main panel located adjacent to the Fire Alarm annunciator panel.

H. Distribution Antennae System (DAS):

1. A public safety radio distributed antenna system (DAS) which consists of bi-directional amplifiers (BDA), donor antennas, coverage antennas, coax cable, coax connectors, splitters, combiners and couplers. These devices will be used as part of a system for in-building public safety 2-way radio system communication.

5. TESTING REQUIREMENTS

The Electrical Contractor shall provide testing of the following systems with the Owner and Owner's representative present:

- Lighting and power panels for correct phase balance.
- Emergency generator.
- Lighting control system (interior and exterior).
- Fire alarm system.
- Security system.

Testing reports shall be submitted to the engineer for review and approval before providing to the Owner.

6. OPERATION MANUALS AND MAINTENANCE MANUALS:

When the project is completed, the Electrical Contractor shall provide operation and maintenance manuals to the Owner.

7. RECORD DRAWINGS AND CONTROL DOCUMENTS:

When the project is completed, an as-built set of drawings, showing all lighting and power requirements from contract and addendum items, will be provided to the Owner.

D. Preferred Solution Building Systems Narratives - Electrical

GARCIA • GALUSKA • DESOUSA

Consulting Engineers

Inc.

Brookline High School Feasibility Study
Brookline, MA
J#831 060 00.00
L#56463/Page 5/May 17, 2017

8. COMMISSIONING

The project shall be commissioned per Section 018000 of the specifications.

9. PHASING

The Work will be conducted in phases to provide the least possible interference to the activities of the existing School.

10. INTRUSION SYSTEM

An intrusion system will consist of security panel, keypads, motion detectors and door contacts. The system is addressable which means that each device will be identified when an alarm occurs. The system is designed so that each perimeter classroom with grade access will have dual tech sensors along the exterior wall and corridors, door contacts at each exterior door. It will be an extension of the existing system.

The system will include a digital transmitter to summons the central station in the event of an alarm condition.

The intrusion system will be connected to the automated lighting control system to automatically turn on lighting upon an alarm.

11. CARD ACCESS

The existing high school is equipped with an access control system consisting of proximity readers, door controllers and proximity cards. The system is manufactured by AMAG technology and will be expanded to accommodate access control doors in the addition/renovation.

D. Preferred Solution Building Systems Narratives - Technology

GARCIA • GALUSKA • DESOUSA

Consulting Engineers

Inc.

Brookline High School Feasibility Study
Brookline, MA
J#831 060 00.00
L#56466/Page 1/May 17, 2017

TECHNOLOGY SYSTEMS NARRATIVE REPORT

OPTION 4D - CYPRESS BUILDING

The following is the Technology System narrative, which defines the scope of work and capacities of the Communications system infrastructure and Security system, as well as, the Basis of Design.

1. CODES

- A. All work installed under Section 270000 shall comply with the Massachusetts Building Code, IBC 2012, and all local, county, and federal codes, laws, statues, and authorities having jurisdiction.

2. DESIGN INTENT

- A. All work is new and consists of furnishing all materials, equipment, labor, transportation, facilities, and all operations and adjustments required for the complete and operating installation of the Technology and Security work and all items incidental thereto, including commissioning and testing.

3. TECHNOLOGY

- A. The data system infrastructure will consist of fiber optic backbone cabling. Horizontal wiring will consist of Category 6A UTP Non-Plenum rated cabling for both data and telephone systems for gigabit connectivity. The telephone infrastructure will accommodate VOIP based voice systems. A new IP telephone system will be used.
- B. Each classroom will have 4 data outlets for student computers. Two data with video and audio connections to a wall mounted touch screen monitor will be provided at teacher's station. A wall phone will be provided for communications with administration in each classroom. Wireless access points will be provided in all classrooms and other spaces with (2) CAT6A cables.
- C. A central paging system will be provided and integrated with the telephone system. The speakers shall be IP.
- D. A wireless GPS/LAN based master clock system will be provided with 120V wireless remote clocks that act as transceivers.
- E. The Main Distribution Frame (MDF) will contain all core network switching and IP voice switch. Intermediate Distribution Frames (IDFs) will serve each floor/wing of the school. A fiber optic backbone will be provided from each IDF to MDF. The backbone will be designed for 10 Gbps Ethernet.

D. Preferred Solution Building Systems Narratives - Technology

GARCIA • GALUSKA • DESOUSA

Consulting Engineers

Inc.

Brookline High School Feasibility Study
Brookline, MA
J#831 060 00.00
L#56466/Page 2/May 17, 2017

4. TESTING REQUIREMENTS

A. The Technology and Security Contractors shall provide testing of the following systems with the Owner and Owner's Representative present:

- Telephone and data cabling
- Fiber optic backbone cabling
- Paging system
- Wireless clock system
- A/V wiring for classrooms

Testing reports shall be submitted to the Engineer for review and approval before providing to the Owner.

5. OPERATION MANUALS AND MAINTENANCE MANUALS:

A. When the project is completed, the Technology Contractor shall provide operation and maintenance manuals to the Owner.

6. RECORD DRAWINGS AND CONTROL DOCUMENTS:

A. When the project is completed, an as-built set of drawings, showing all lighting and power requirements from contract and addendum items, will be provided to the Owner.

7. COMMISSIONING

A. The project shall be commissioned per Commissioning Section of the specifications.

D. Preferred Solution Building Systems Narratives - Technology

GARCIA • GALUSKA • DESOUSA

Consulting Engineers

Inc.

Brookline High School Feasibility Study
Brookline, MA
J#831 060 00.00
L#56465/Page 1/May 17, 2017

TECHNOLOGY SYSTEMS NARRATIVE REPORT

OPTION 4D - ADDITION/RENOVATION

The following is the Technology System narrative, which defines the scope of work and capacities of the Communications system infrastructure and Security system, as well as, the Basis of Design.

1. CODES
 - A. All work installed under Section 270000 shall comply with the Massachusetts Building Code, IBC 2012, and all local, county, and federal codes, laws, statues, and authorities having jurisdiction.
2. DESIGN INTENT
 - A. All work is new and consists of furnishing all materials, equipment, labor, transportation, facilities, and all operations and adjustments required for the complete and operating installation of the Technology and Security work and all items incidental thereto, including commissioning and testing.
3. TECHNOLOGY
 - A. The data system infrastructure will consist of fiber optic backbone cabling. Horizontal wiring will consist of Category 6A UTP Non-Plenum rated cabling for both data and telephone systems for gigabit connectivity. The telephone infrastructure will accommodate VOIP based voice systems. A new IP telephone system will be used.
 - B. Each classroom will have 2 data outlets for student computers. Two data with video and audio connections to a wall mounted touch screen monitor will be provided at teacher's station. A wall phone will be provided for communications with administration in each classroom. Wireless access points will be provided in all classrooms and other spaces with (2) CAT6A cables.
 - C. A central paging system will be provided the system will be an extension of the existing system. Speakers shall be IP type.
 - D. A wireless GPS/LAN based master clock system will be provided with 120V wireless remote clocks that act as transceivers.
 - E. A new (IDF) intermediate distribution frames will be provided in the addition/renovation scope as required to meet Ethernet distance requirements. (IDFs) will serve each floor/wing of the school. A fiber optic backbone will be provided from each IDF to the existing MDF (main distribution frame). The backbone will be designed for 10 Gbps Ethernet.

D. Preferred Solution Building Systems Narratives - Technology

GARCIA • GALUSKA • DESOUSA

Consulting Engineers

Inc.

Brookline High School Feasibility Study
Brookline, MA
J#831 060 00.00
L#56465/Page 2/May 17, 2017

4. TESTING REQUIREMENTS

A. The Technology and Security Contractors shall provide testing of the following systems with the Owner and Owner's Representative present:

- Telephone and data cabling
- Fiber optic backbone cabling
- Paging system
- Wireless clock system
- A/V wiring for classrooms

Testing reports shall be submitted to the Engineer for review and approval before providing to the Owner.

5. OPERATION MANUALS AND MAINTENANCE MANUALS:

A. When the project is completed, the Technology Contractor shall provide operation and maintenance manuals to the Owner.

6. RECORD DRAWINGS AND CONTROL DOCUMENTS:

A. When the project is completed, an as-built set of drawings, showing all lighting and power requirements from contract and addendum items, will be provided to the Owner.

7. COMMISSIONING

A. The project shall be commissioned per Commissioning Section of the specifications.

8. PHASING

A. The Work will be conducted in phases to provide the least possible interference to the activities of the existing School.