Phase I
Problem Seeking

Kingscott

Feasibility Study
Carver Public Schools

PHASE I MAY 2006

PHASE II JUNE 2006

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CARVER PUBLIC SCHOOLS

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WE BUILD A TEAM

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May 08, 2006

Kingscott Associates, Inc.
Paul Blanchard, Assoc. Architect

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I. Purpose of Feasibility Study

The purpose of the Feasibility Study is to identify and develop a series of concept planning options to address the short and long-term facility needs of the Carver Public Schools. With this study, the Space Needs Task Force and School Committee can adopt a master facilities plan, prioritize future facilities needs and propose future capital improvement plans to the Town.

The Feasibility Study will be divided into two phases. Phase I- Problem Seeking will define the problems to be solved and to which all concept planning options must be responsive. Phase II- Problem solving will be the identification and development of a series of concept planning options.

This first Phase- Problem Seeking will include: Student enrollment history and projections, assessment of current facilities, educational specifications and analysis of alternate sites. Taken together, this information as a whole, will identify the problem to be resolved.

Information for Phase I was obtained from the School, Town of Carver and numerous interviews with the District's Space Need Task Force, Central Administrators, Building Administrators, Teachers and Support Staff. The comments, proposals and conclusions are a majority consensus of those voices. There are some individual comments that are identified.

This Feasibility Study is undertaken now to put the Carver Public Schools in a position to make an application to the Massachusetts School Building Authority when the moratorium on state reimbursement for state funding of school building expires July 2007.

II. Student Enrollment History and Projections

Since the High School, grades 7-12, was built in 1987 the Carver Public Schools enrollment increased 20% to 2226 students in the school year 1997-1998, held steady through 2001-2002 and declined 7% to 2042 students this school year 2005-2006. As the attached Exhibit A "Historical Enrollment Chart" shows, the total increase of 182 students over the last 18 years is due to enrollment growth at the grade 9-12 High School level. The Elementary, grades K-5, over that period had a small decrease and, at the Middle School, grade 6-8, enrollment was flat.

Enrollment projections prepared for the Carver Public School by the New England School Development Council, NESDEC, the school enrollment will be essentially unchanged through the school year 2010-2011.

The Town of Carver currently has a population of slightly over 13,000 people. Over the last 5-7 years the Town has grown 40% with corresponding residential development. The question is why Town growth has not translated to growth in student enrollment?

An interview with the Town Planner, Jack Hunter, produces some answers to the question. Mr. Hunter believes that zoning regulations already in place together with new regulations enacted by the Town Planning Commission in 1998, promoted development, which by plan, resulted in a no growth policy for student enrollment in Carver. No growth was translated to containing school operational and capital costs. These policies were:

1. A buildable residential lot is required to be 1½ acres
2. Residential building permits will be limited to 3 per month.
3. The exception to the building permit limit is to develop a conservation district, which requires 65% of the area of the development to be open land.
4. A development is not permitted if more than 50% of the units will impact the School (affordable housing).
5. Condominiums are limited to 1 or 2 bedrooms.

All of these regulations lead to high-end residential development, which historically brings no, and/or few, public school students. The School enrollment history indicates the intent of these regulations was successful.

However, Mr. Hunter predicts that new realities, policies and plans will reverse recent history and result in student enrollment growth. Mr. Hunter predicts that the Town of Caver will grow to 18,000 +/- people by 2010 to 2013. Of this growth, 15% will come from families moving into affordable and/ or market level housing, approximately 750 people, of which 300 to 350 +/- will be kids. Eventually, most will enter the public schools. Mr. Hunter's reasons for these beliefs are:

1. The Town of Carver is coming under pressure from the State to provide affordable housing. There will be, over the next few years, Section 40 affordable housing developments in Carver.
2. By 2010 there will likely be a large mixed used development in South Carver with a percentage of affordable/ market level housing. A public water system in South Carver will accompany this development.
3. North Carver will have public water by 2020; Carver by 2035.

The Master Plan for the Town of Carver speaks of the town having 34,000 people by 2025 with "Smart Growth" development.

Kingscott suggested, and the Space Needs Task Force confirmed, the following enrollment projections should be used in the Study: For a July 2007 application to the Massachusetts School Building Authority an enrollment of 115% of NESDEC's enrollment projections for 2011- 2012; for the long term projection- 140% of the present (2005-2006) enrollment.

The 115% projection falls within the previous guidelines of the MSBA and the predictions of Mr. Hunter. Kingscott suggests the Carver Public Schools ask NESDEC to update the projections in February/ March of 2007 after reinterviewing the Town of Carver planning officials.

An application to the MSBA in July 2007 does not mean that application will be approved. It historically could take 3 to 5 years to move up the list to be approved for a building project; 2010 to 2012 (the new MSBA process has not yet been identified). Therefore, it is important for the facilities master plan to include the best guess on growth. It appears, looking at the numbers, previous building programs provided little or no room for new students, staff or programs; the buildings were at capacity when they opened.

This means the concept planning options should reflect projected student enrollments of:

1. 2011-2012: Elementary School PK-5, 1180 students.
   Middle School 6-8, 565 students
   High School 9-12, 600 students
2. 2026: Elementary School PK-5, 1325 students
   Middle School 6-8, 650 students
   High School 9-12, 725 students

It also should be discussed if a curriculum adjustment at the High School to include more pre-vocational, world of work offerings would affect the drop out rate and increase enrollment over time. These projections also assume if full day Kindergarten is initiated, the Kindergarten grade size would increase by 20 students. These are students who currently attend private Kindergarten to benefit from all day childcare.

Carver Public Schools
Historical Enrollment Chart

Exhibit A

	Pre K	K-2	3-5	K-5	6-8	9-12	Total	K-6	7-12
1987-88	24	519	515	1034	438	362	1860	1179	655
1989	30	534		1059	501	395	1985	1236	719
1990	20	540		1047	507	414	1988	1224	752
1991	22	620		1117	523	420	2082	1277	773
1992	47	596		1099	540	475	2161	1269	833
1993	51	549		1092	513	501	2157	1239	867
1994									
1995									
1995-96	69	506	544	1050	532	532	2183	1298	866
1996-97	66	512	538	1050	536	541	2193	1218	909
1997-98	54	542	518	1060	554	554	2226		
1999	41	523	508	1031	565	563	2180		
2000	41	532	553	1048	563	563	2215		
2001	39	495	550	1045	554	598	2224		
2002	38	496	551	1047	533	598	2209		
2003	37	499	527	1026	517	553	2132		
2004	39	486	469	955	547	556	2097		
2005	42	466	492	938	540	541	2061		
2005-06	35	456	488	944	498	559	2042		

Projected Enrollment Chart

Exhibit A

2010-11	38	480	506	986	469	500	1999		
2015-16					485	502			

III. Assessment of Current Facilities

A. Erwin K. Washburn Primary School- Grades K-2

1. History and Current Condition

The building was built in 1975. The original building was a K-5 building designed for 450 students. It was a prototype one-story open plan system building built with plans purchased from the Town of Plymouth. In 1984 an 8-classroom addition was built. A double wide portable classroom was added in 1988. The square footage of the building is 64,392 s.f.

After the High School (Grades 7-12) was built in 1988 the Washburn Primary building, together with the Governor John Carver and Ben Ellis Elementary Schools served up to 1300 K-6 students. In 1998 the 6th grade moved to the High School site. After the school year 2002-2003 Ben Ellis was closed. Currently the Erwin K. Washburn Primary School serves grades K-2 with 8 of its classrooms used by the Governor John Carver Elementary, grades 3-5. There are 456 K-2 students with 35 Pre-school students housed at the Central Administration Building. There are 158 grade 3-5 students in the building, bringing the total enrollment to 614 students.

a. Site

- Size

The Erwin K. Washburn Primary School shares a 23.7-acre site with the Governor John Carver Elementary School. Located on Main Street (M-58) the site is landlocked by adjoining properties and the highway and is not practical to expand. By current standards the site is small for 979 students.

This problem is compounded by:

  - Location and configuration of the current buildings and site elements
  - The location of a Central Supply Building on the site.
  - The current buildings do not accommodate the current or proposed educational program.

- Utilities

Storm Systems- The storm systems are adequate for the hard surface areas on the site. If any buildings or parking lots are added, the storm retention volume will need to be increased.

Sanitary- The sanitary system has a permitted capacity for 1,000 students (total for both buildings) at 10 gallons per student per day or 10,000 gallons per day. The septic tank has a capacity of 1 ½ times flow or 18,000 gallons. Any increase in the student population will require an upgrade of the sanitary system. Current code limits the peak flow to 10,000 Gallons per day for a septic system. Flows above this volume require a sewage treatment plant.

Water Utility and Fire Protection- The Primary Building has a single well (No. 2) with a 24" casing and gravel pack well screen. The well has 16 feet of partial 36" casing. The well depth is 28 feet with 25 feet of 24 inch casing. Well capacity is 100 GPM. This well has had a history of being contaminated. The pneumatic tank is 72" in diameter by 24 feet long. The capacity is 4,865 gallons.

- Sidewalk, Curbs and Walkways
  The sidewalk in front of the Elementary Building and the walkway to the Primary building has cracks. There is no barrier-free route to either building.

- Traffic Patterns
  The parent drop- off and pickup for both schools occurs in the front of the Elementary building. The Primary and Elementary buildings are entered and exited from a one-way drive off Main Street. This drive serves visitor parking, bus loop, staff parking, parent drop-off and service/ delivery. Cars that are parked in the visitor space can back out into the bus/ parent unloading traffic lane; this is a safety concern.

  Bus loading and unloading occurs in the bus loop in front of the Primary Building for students in both buildings. Four buses are unloaded at a time to avoid student traffic congestion. Service vehicles travel through the hard surface Elementary playground.

  Interviews with staff and administrators indicate the need to separate bus traffic, car traffic and service traffic. It is currently a safety concern.

- Parking
  Four parking areas, totaling 157 cars for visitor, staff and event parking, currently serve both schools.

  - Front of Elementary building- visitor parking (1BF) serves 11 cars.
  - North of Elementary building-Parking Lot 2 serves 40 cars for event parking and 15 staff during the day. This area is also the hard surfaced play area. It is a safety concern to use this area as both play area and parking. The visitor parking area also conflicts with the entering traffic and presents a safety issue.
  - West- service area staff parking 1BF serves 36 cars.
  - East Primary Building lot-staff and visitor serves 70 cars.
  - The staff indicated the preferred Staff Parking Lot was in Lot 3 in the Service Area. Parking occurs on the grass in this area. If Lot 2 is not used, since it is a playground area, additional parking is required.

    Each concept planning option will have its own solution to the traffic and parking issues.

  Parking lot and service drive condition- The paved areas of all 4 parking lots are in repairable condition. All parking lots have some cracks, which are open to the sub-surface. The sealing of cracks will prolong the life of the lots.

- Playgrounds/Playfields
  Playground areas are okay; some additional equipment would improve usage. Surfaces need to be improved to meet barrier-free and safety requirements. Currently the base under the playground equipment is sand. The Primary Building has playgrounds on the south and west sides of the building. Staff has indicated the equipment is not adequate to serve the student

population in the Primary School. Some used equipment is on hand but it has not been installed.

If the Pre-school program moves to this building, a separate fenced-in playground is required. Playfield areas are marginal. To access the playfields to the north, students cross the service/delivery drive(also use as the parent drive to the Before and After School Program) and parking, which is not ideal. As stated above, the hard surfaced play area is used for daytime parking as well as service/delivery drive and parent drive. This is a safety issue and should be eliminated.

- Fencing
  The west and north property lines have fencing as well as the city ball fields. For security reasons it is recommended that all child playground areas be fenced.

- Site Lighting
  The site lighting in parking lot 3 (service area) is not adequate. If lot 1 in front is expanded, additional lights are needed.

b. Building
The building is a one-story open plan systems building laid out on a 5 ft. x 5 ft. module. The building has 64,392 square feet of area. The building is clean and well kept. It has a cluttered look in the classroom areas due to a variety of storage systems and storage in the hallways.

- Building Envelope
  The roof is a single-ply membrane replaced in 1994. The 15-year warranty expires in 2009. If this building is renovated, remodeled and/or added onto, the roof should be replaced, and additional insulation provided to increase energy efficiency.

  The exterior wall is a modular unit with baked enamel finish, prefabricated insulated panels with steel or aluminum faces. The aluminum framed fixed windows are an integral part of the wall system. The panels are attached to the structural steel framing system. The exterior wall appears to have been repainted. The exterior doors should be

replaced. Interviews indicate the fixed windows are a problem. The inability to open windows results in the air conditioning running in moderate to cold weather, which is not energy efficient. If the power fails, the emergency generator does not have the capacity to run the air conditioning. The need for operable windows is high on everybody's list. The energy efficiency of the existing wall is low by current standards.

- Building Structure
  The structure is a steel frame with columns, truss girders, joists and steel roof deck. The structure appears to be sound.

- Interior Finishes
  The interior walls are prefabricated painted steel or aluminum modular panels. They were designed to be movable so spaces could be rearranged on a 5 ft. grid. Originally spaces were further divided with mobile storage and coat cabinets. Because the walls were intended to move, lighting control, clocks, receptacles, etc. were located in a fixed interior power panel serving each classroom and /or on the exterior wall. The ceilings in the 1975 building are a 5 ft x 5ft-vaulted module with a fluorescent fixture. In the 1984 addition these modules are flat. Both the wall and ceiling systems are no longer made and replacement parts are unavailable.

  Over the life of the building walls have been relocated, added and/or extended to the ceiling. Teachers have used various arrangements of fixed and movable equipment to divide and/or isolate teaching spaces. The original carpet flooring was replaced by hard surfaced vinyl tile. This increased the noise level and significantly changed the environmental quality of the building.

  The interviews indicated every one believes the open plan instructional areas are getting in the way of delivering a quality education program. The visual, sound and traffic distractions negatively impact teaching and learning. This serious issue is compounded by the use of space different than what was originally intended; for instance Art and Music

on a cart being taught in regular open classrooms. The need to add walls, doors and operable windows is a universal request. This change will also require a new ceiling system as well as modification of the mechanical system.

- Fixed Equipment
  The majority of fixed equipment in the classroom area needs replacement due to age and extensive use. If the classrooms become self-contained the type of fixed equipment will change. The staff interviews indicated the following concerns:

  - More staff and student storage in the classrooms.
  - Sinks and bubblers are needed in all classrooms.
  - Adequate size student cubbies in Pre School and K.
  - More general storage
  - Adequate boot, coat and backpack storage for students in the classroom and/or hall.

  The original Art and Music room are currently being used as general classrooms. Existing equipment in these rooms will need to be evaluated based on the planning concepts.

  In its present configuration the Kitchen is adequate, except it needs a new oven.

- Plumbing
  Plumbing fixtures- None are B.F. accessible
  Fixtures are as follows:
  - Water Closets
  - Lav's
  - Urinals
  - Electric water coolers
  - Drinking fountains
  - Units are repairable. Replace fixtures as required for B.F. access.

  Floor drains do not have trap primers;
  Drains do not meet current codes.

Sanitary Piping- The building is served with PVC piping below grade and cast iron piping above grade. The condition is acceptable.

Acid Waste System- None

- Heating, Ventilating and Cooling
  Heating Plant- The building is served by one hot water boiler. Boiler was installed in 1975; boiler is repairable but the efficiency is low- 65%. The boiler capacity is 420,000 BTU.

  Air Conditioning- The building is air conditioned except for the Gymnasium.

  Roof Top Air Handling Units- Spaces are served with the following air handling units with gas-fired heating and DX- cooling.
  No. 1- Roof top unit requires replacement
  No. 2- Replaced in 2001, serviceable condition
  No. 3- Replaced in 2004, serviceable condition
  No. 4- Replaced in 1999, serviceable condition
  No. 5- Replaced in 2000, serviceable condition
  No. 6- Original Unit requires replacement
  No. 8- Portable Classroom heat pump, serviceable condition.

  Roof top unit No. 7 is gas-fired heating only unit. This unit serves the Gymnasium and should be replaced with an AC unit.

  A possible solution is to replace units 1, 6 and 7 with the same equipment and the same configuration. Under this arrangement, the Gym would not be air- conditioned. Units 1 and 6 are multi- zone units with a heated air source and a cooling air source. Air dampers are used to regulate the mixing of these two air sources to get the required temperature of air supply to the building classroom zone. This is very energy inefficient and is not recommended for any new construction.

  Diffusers and registers are serviceable unless ceilings are changed or rooms are divided.

Ductwork is serviceable. Ductwork needs to be cleaned.

The interviews indicate the majority of staff believes the Primary Building is an unhealthy building. They cite the following conditions:

- The absence of and/or uneven air distribution. This is caused in part by alterations to walls in the building.
- Uneven and uncomfortable temperatures.
- Continual dust in the air
- Non-operable windows.

They believe there is a demonstrated loss of staff and student class time due to illness.

- Fire Protection
  The building is not fully sprinkled.

- Electrical
  Service
  - Consists of A 3P 1200 Amp 277/480 volt 3 phase 4 wire service.
  - 1200 Amps= 997,200 Volt Amps
  - Main Distribution Panel is "Federal Pacific" with spare spaces.
  - Building is air-conditioned, except gym.
  - 64,392 SQ. FT. at 9 Volt- Amps = 579,528 Volt Amps
  - Service is adequate.
  - Service will support an addition up too 46,419 SQ. FT. or it will serve both the primary, the Elementary School (38,938 S.F.), plus an addition of 7,481 SQ. FT.

  Lighting
  - Site lighting is inadequate- Refer to civil review.
  - Building lighting- T-8 fixtures with electronic ballasts have been installed in all rooms in the building. Lighting is adequate.
  - Occupancy Sensors- None
  - Light Harvesting/ Controls- none

Power

- Power Distribution, panel boards, breakers, spare circuits, feeders; system is inadequate
- Power Receptacles and grounding system is inadequate.
- Transient Voltage Surge Suppression- No protection on main distribution or local panel boards.

Life Safety

- Fire Alarm is a Simplex 2001 Atlas Alarm; system does not meet current codes.

Emergency Generator

- The generator is natural gas powered. Roof top units are not connected to the emergency generator.
- The following items are connected to the emergency panel: Exit signs, freezer, cooler, and perimeter heating system.

Specific Systems

The Classroom Technology System is inadequate, 5 drops per C.R. is recommended. The Clock System is inadequate; the Computer Lab is inadequate and open to the hallways. The Sound Systems in the Cafeteria and Gymnasium are also inadequate.

The interviews indicate the staff wants more electrical power in each teaching station- a minimum of 5 duplex outlets in each room.

2. Meets current building codes and standards.

   a. Fire Safety

      - If the building is remodeled to provide walled in teaching stations with doors, several changes may be required by current code:

        - Additional exit/hallways with exterior exits.

- One hour rated walls/doors between teaching stations and hallways and/or a fire suppression system.
- Rated wall separation of storage, work, custodial, service, kitchen and mechanical/electrical areas.
- Separation of IMC and Cafeteria from hallway.
- Emergency window exiting in teaching stations without exterior exits.

- New fire alarm system will be required, to meet current code.

b. Health
   - Based on recent inspections the Kitchen meets current codes.

c. Mechanical
   - HVAC- Refer to previous section.

   - Plumbing-Refer to previous section.

   Toilet rooms will need to be revised to meet the barrier-free code. Pre-Kindergarten and Kindergarten classrooms shall have toilets in classroom.

d. Electrical
   Refer above to previous section.

e. Barrier-Free
   Any remodeling will need to meet barrier-free code.

f. Energy
   The building is not built to current state standards. As previously stated, when the roof is replaced, additional insulation should be installed. The long term energy savings alone will not justify replacing the existing exterior wall system, except installing new windows.

   Refer to previous section for energy savings associated with mechanical and electrical systems.

3. Meets needs of School's educational program and projected enrollment.

a. The Primary school and the Elementary school essentially act like one building because of shared space, program and staff. 8 classrooms in the Primary building are used to house Elementary third and fourth grade students. Students from the Elementary use the building's Library/Media Center, Computer Lab, Gymnasium and Cafeteria. There are 456 K-2 students in the building and 158 grade 3-4 students for a total population of 614 students. 2 Pre-school classrooms are housed at the Central Administration Offices.

b. The building has exceeded its capacity to accommodate the current educational program and student enrollment.

- The original Art and Music rooms have been converted to regular classrooms. Art and Music are taught on a cart traveling to the regular open plan classroom.
- The Library/Media room has been divided to accommodate a Computer Lab, Special Education classroom and Title I office/teaching station.
- Some teachers do not have an assigned teaching station or home base: OT/PT; Speech/Hearing; Special Education.
- Some teachers are in inadequate spaces: Title I; Special Education; Psychologist; Adjustment Counselor
- Administration area is inadequate; poorly laid out.
- There are no conference areas.
- The current 5 lunch periods negatively impacts the educational program.

c. The open plan classroom area creates significant distractions to learning and teaching. It is a universal request to enclose the teaching stations to provide quality education.

d. Any increase in enrollment and/or enhancement of the educational program will magnify these defiencies.

4. Meets the requirements of the Massachusetts School Building Authority (MSBA):

The MSBA is responsible for receiving and approving community grant applications for school capital projects. With the revised School Building Grant Program, the current

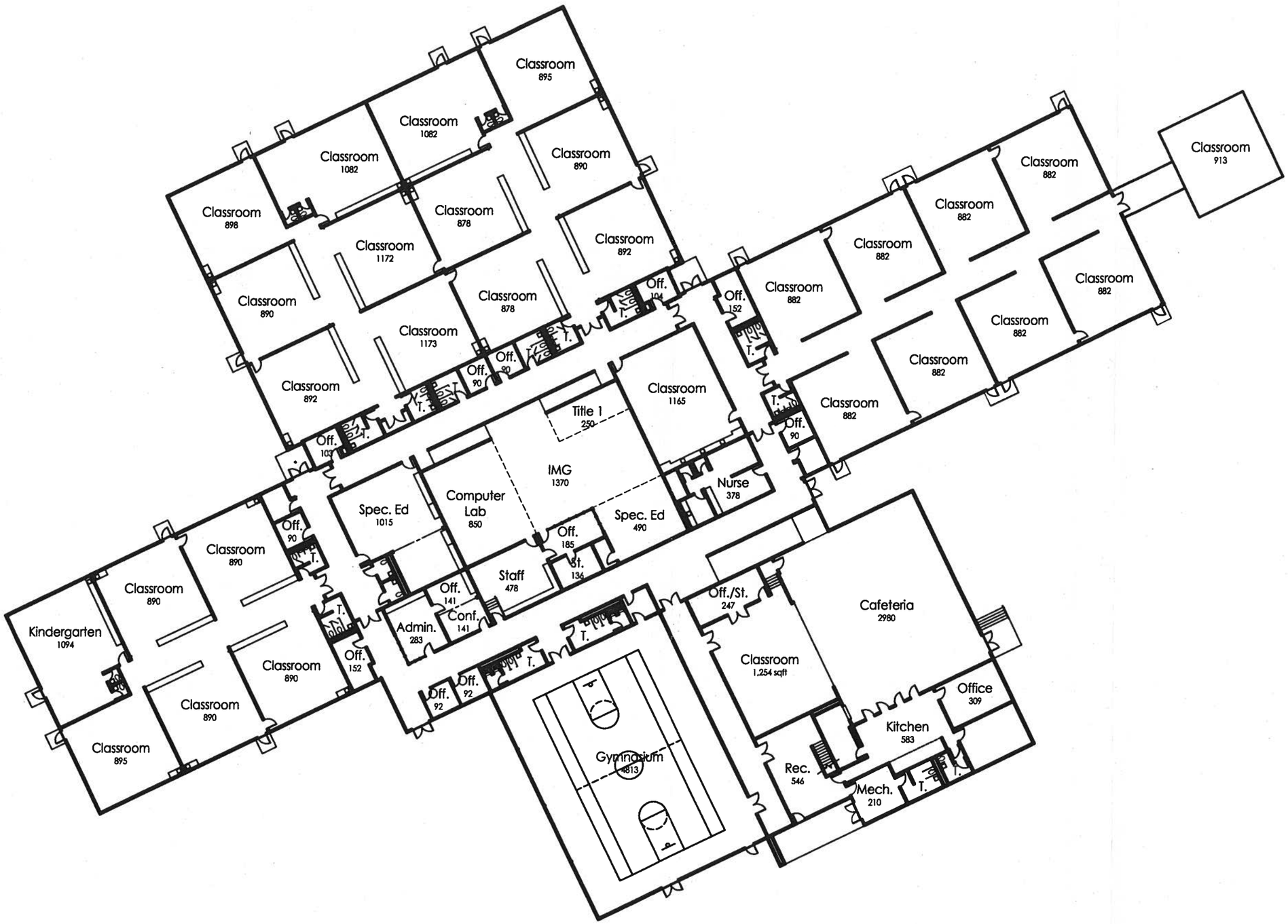
moratorium on state assistance is scheduled to expire July 2007. At that time, the MSBA will again accept applications based on a new preliminary "Needs Survey" of all locally owned school facilities in the commonwealth. In this "Needs Survey" the condition of each school building is ranked on a scale of 1 to 4 as follows:

1. Equals good condition with few or no building system issues.
2. Equals generally moderate condition, a few building systems may need attention.
3. Equals approaching poor condition and some building systems may need attention.
4. Equals poor condition with multiple building systems needing repair or replacement.

This ranking will be used in determining the priority in which applications are accepted. The other criteria are Student Enrollment and whether the school's educational program is being negatively impacted by its facilities.

The preliminary "Needs Survey" ranking by the state for the Primary Building was 2.

In addition, the MSBA sets guidelines for the state reimbursement based on overall size of the building for the number of students; maximum and minimum size of rooms; cost of construction; etc. Based upon an appropriate number of students, the size of the Primary building and its individual rooms generally meets MSBA standards.



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Carver Public Schools

KEY PLAN

JOB NO. 2679-01

SHEET TITLE

FIRST FLOOR PLAN

SHEET NO.

primary

Primary/Elementary Site

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CARVER PUBLIC SCHOOLS

Primary/Elementary Site

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Washburn Primary School

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Washburn Primary School

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CARVER PUBLIC SCHOOLS

Typical Classroom

Washburn Primary School

Kingscott

CARVER PUBLIC SCHOOLS

Typical Classroom

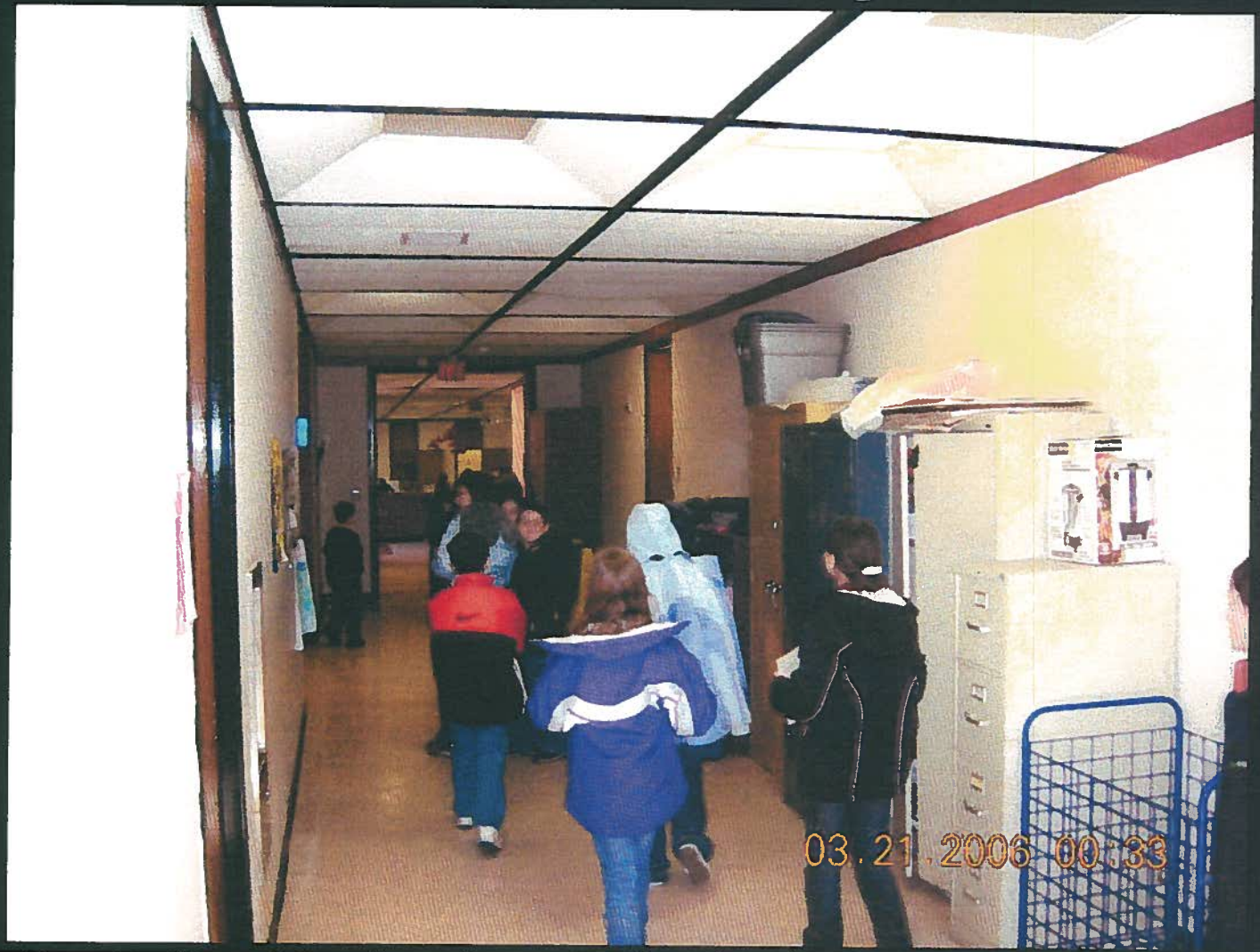
Washburn Primary School

Kingscott

CARVER PUBLIC SCHOOLS

Typical Classroom Hallway

Washburn Primary School



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Typical Hallway

Washburn Primary School

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CARVER PUBLIC SCHOOLS

IMC- Divided into Computer Lab.

Washburn Primary School

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CARVER PUBLIC SCHOOLS

Specialist's Office

Washburn Primary School

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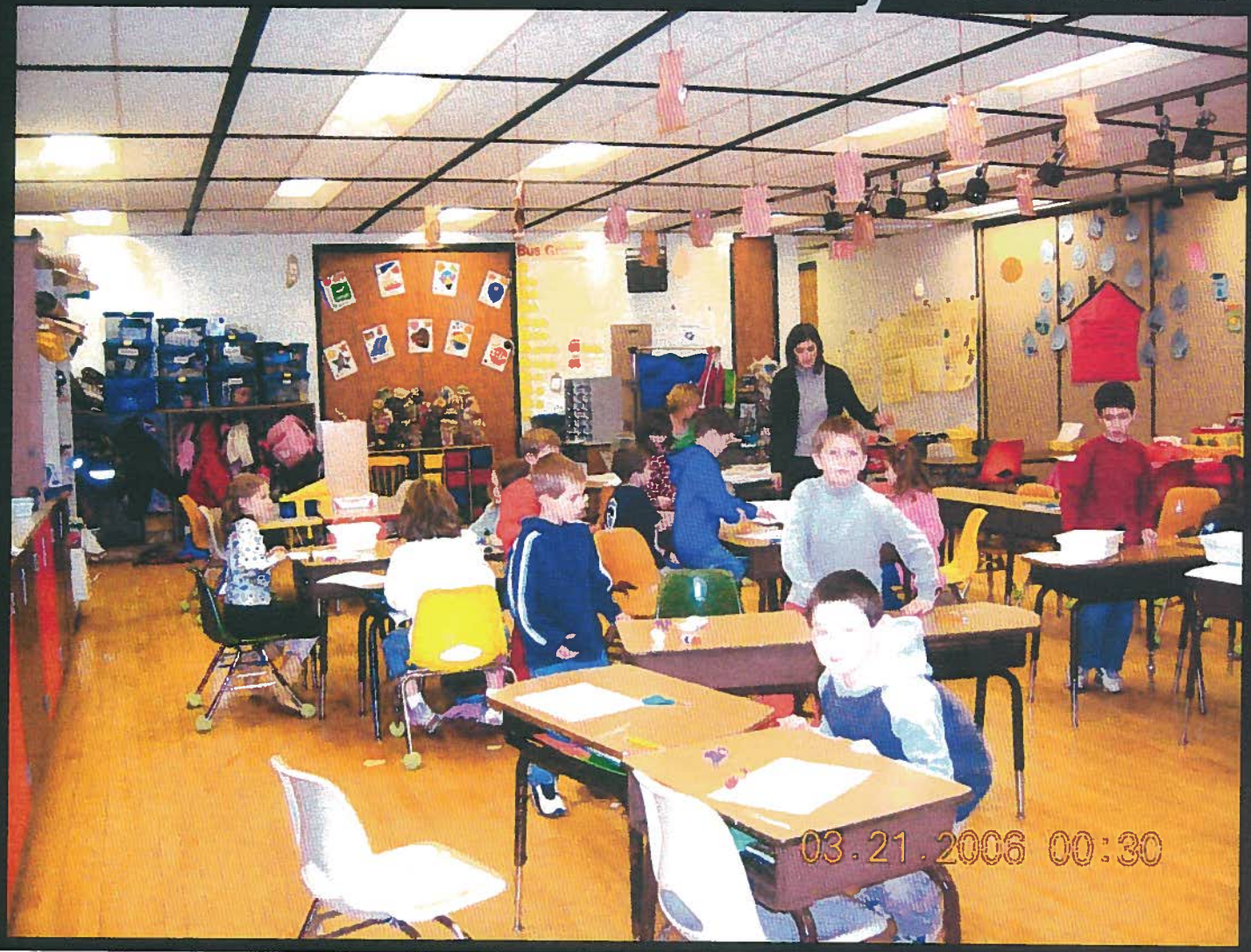
Gymnasium

Washburn Primary School



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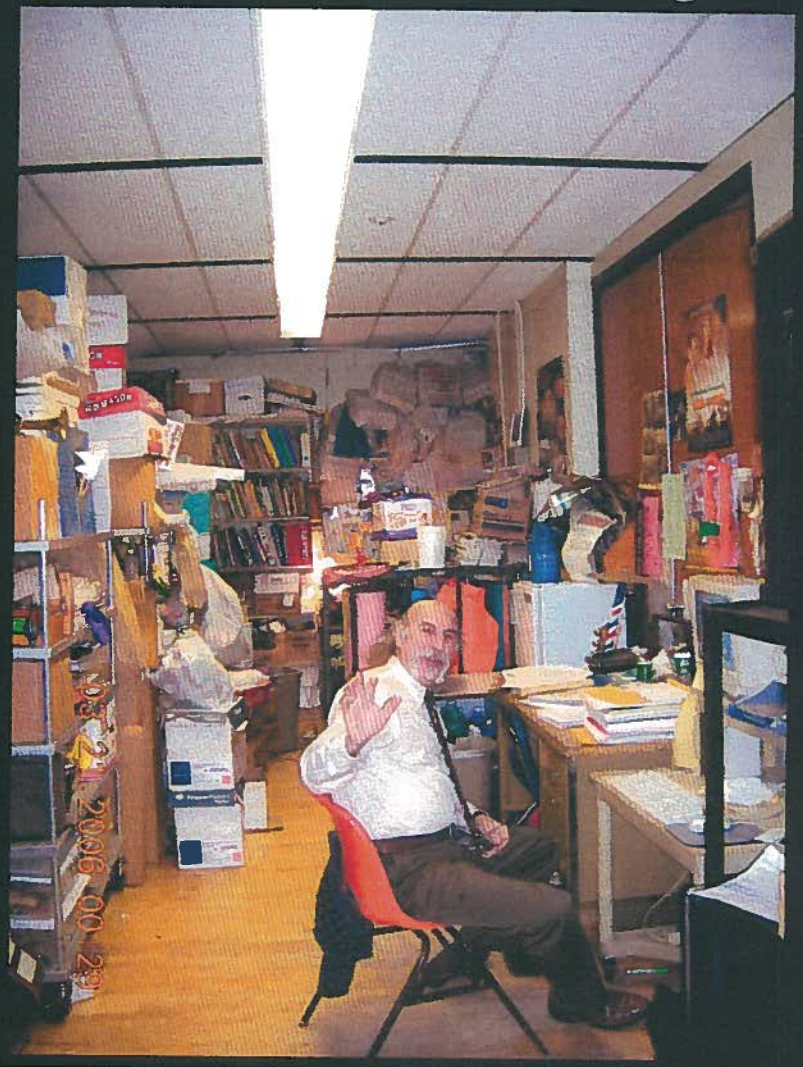
Classroom on the stage

Washburn Primary School



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Music Office/ Storage

Washburn Primary School

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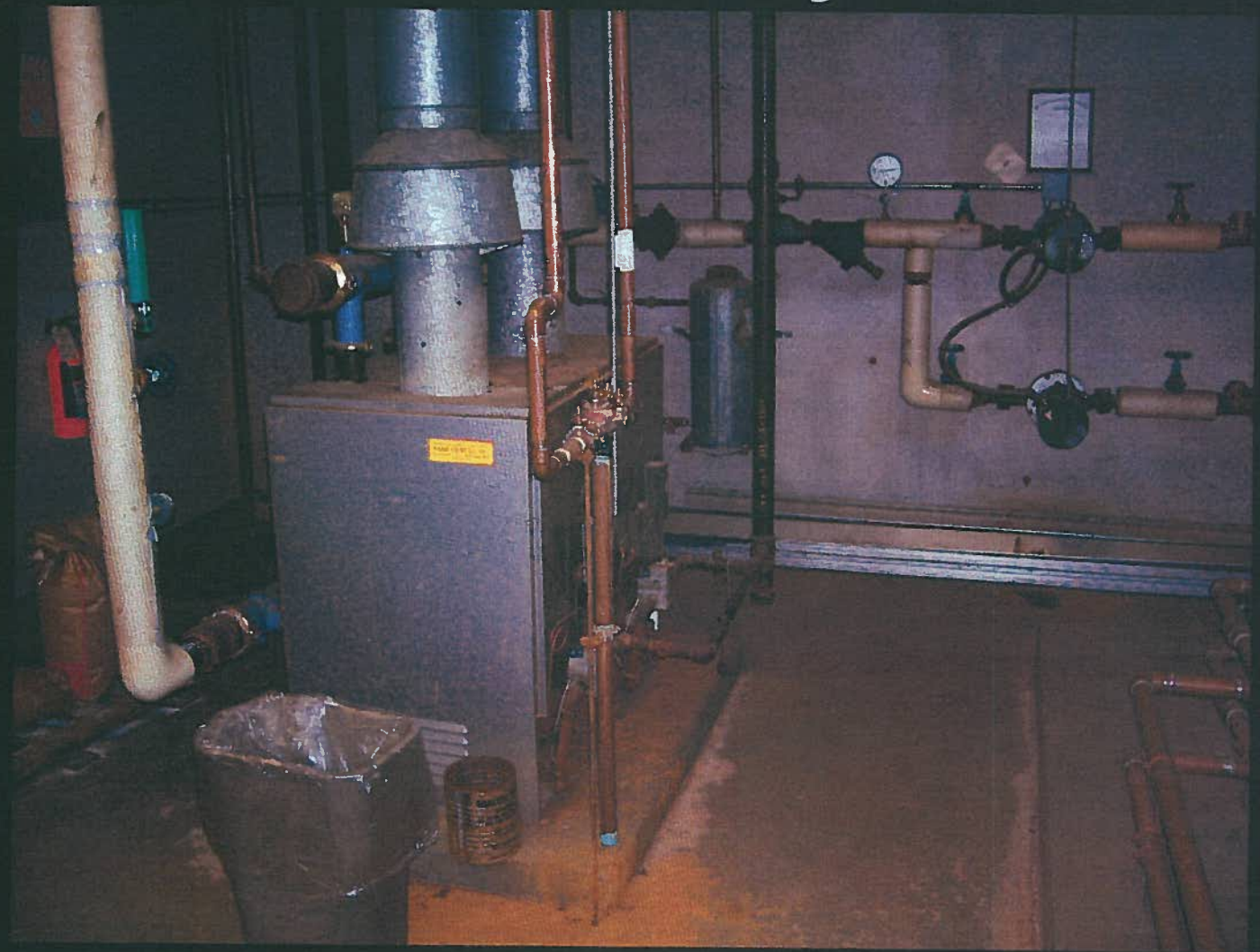
Cafeteria

Washburn Primary School



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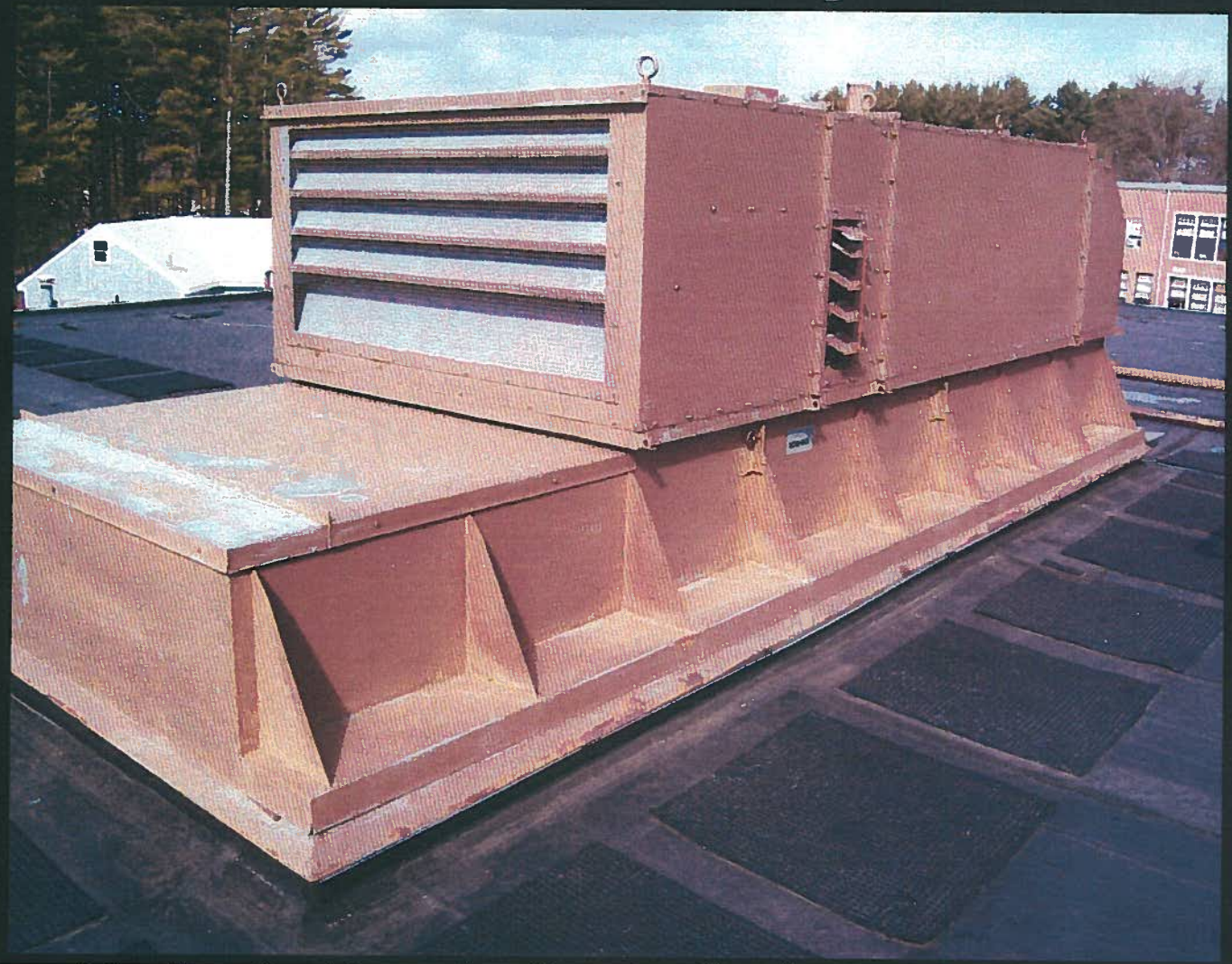
CARVER PUBLIC SCHOOLS

Boiler Room

Washburn Primary School



Kingscott

CARVER PUBLIC SCHOOLS

Roof Top Air Handling Unit

B. Governor John Carver Elementary-Grades 3-5

1. History and Current Condition

   The building was built in 1951. It is a two-story building where you enter at mid-level on the northeast (Main Street) and on the lower level on the south and west. In 1957 a two-story addition was added to the northwest with classrooms on the upper floor and a Cafeteria and Kitchen on the lower level. Currently, Governor John Carver Elementary serves grades 3-5. Of the total enrollment of 528 students, 365 are housed in the Elementary and the remaining 158 at the Primary building.

   a. Site

      See above comments under the Erwin K. Washburn Primary School.

   b. Building

      The building has an area of 34,618 square feet. It is a double-loaded corridor design except for the open Gymnasium at the center of the lower level. The Gymnasium's floor is sunk below the lower level floor; accessed by stairs and two chair lifts. The building is clean and well kept. However, if this building becomes part of the School's long-range facilities plan, the total Mechanical, Electrical and Technology systems need to be replaced.

      - Building Envelope

        The existing single-ply roof was replaced in 1994. It has a 15-year warranty, which expires in 2009. If this building is remodeled, the roof should be replaced with added insulation to increase energy efficiency.

        The exterior wall is masonry with a brick and stone exterior. The majority of windows were replaced in 1996/1997. The remaining original windows should be replaced. The exterior wall is in good shape except the exterior doors, which should be replaced.

      - Building Structure

        The building has masonry bearing walls and poured reinforced concrete floor and roof structure. There are a few interior concrete columns. The structure appears sound.

- Interior Finishes
  The building interior is showing its age. It needs to be refurbished. The exposed concrete floor and roof structure provide classrooms, hallways and offices with wonderfully high ceilings and large window areas. However, together with hard tile floors, the buildings acoustics are poor. The majority of interior walls are masonry and/or plaster on masonry.

- Fixed Equipment
  The existing fixed equipment, because of its age and extensive use, needs to be replaced. The staff interviews indicated the following concerns:

    - More staff and student storage in the classroom.
    - More general storage.
    - Adequate student boot, coat and backpack storage in hallway or classroom.
    - 5th grade classrooms equipped for science.

  In its present configuration, the Kitchen is adequate, except provide new steam kettle.

- Plumbing
  Fixtures are as follows:
    - Water Closets
    - Lav's
    - Urinals
    - Electric water coolers
    - Drinking fountains

  Units do not meet B.F. code requirements.

  Floor drains – Do not have trap primers.

  Sanitary Piping- The building is served with cast iron piping below grade and cast iron piping above grade. The condition is unacceptable in the 1951 building.

  Domestic Water Piping- Hot & Cold- The piping is located above the ceiling. The piping is 55 years old and has internal corrosion.

- Heating/Ventilating and Cooling
  Heating Plant- The building is served by two steam boilers, which were installed in 1985 +/-. Controls were upgraded in 2004. A steam distribution system secures the 1951 building. Pumps are serviceable.

  Air conditioning- None

  Unitary Terminal Equipment- Cabinet heaters are installed in the entryways; Units have exceeded their useful life. Unit ventilators are installed in all classrooms; Units have exceeded their useful life.

  Heating Piping - Heating piping (steam piping) is above the ceiling. Condition is serviceable for steam system.

  Exhaust Systems- Roof exhaust fan is used to exhaust toilet rooms; condition is serviceable.

  Temperature Controls- The building has a pneumatic control system. The supplier is Johnson Controls. The system needs to be upgraded.

  Domestic Hot Water Heater- The domestic hot water heater is a gas-fired water heater. The unit is the original, 1951 heater with insufficient capacity. The building domestic hot water pump needs to be replaced.

- Fire Protection
  The building is not fully sprinkled.

- Electrical
  Service
  - Consists of a 2P 400 Amp 220 volt 1 phase 3 wire.
  - 400 Amps= 88,000 Volt Amps
  - Building is not air-conditioned.
  - 38,938 SQ. FT. at 8 Volt- Amps= 311,509 Volt Amps required.
  - Service is inadequate- Replace the service to support technology and air conditioning.

- Service will support an addition up to 0 SQ. FT.

Lighting- Site lighting is inadequate. Refer to Washburn Primary Site Description. There are no occupancy sensors and no light harvesting/ controls.

Power-Power Distribution, panel boards, breakers, spare circuits and feeders; system is inadequate. Power Receptacles, grounding, system is inadequate. Transient Voltage Surge Suppression- No protection of main distribution or local panel boards.

Life Safety- Fire Alarm is Simplex- Atlas. System is inadequate per current code. Emergency Lighting system is inadequate.

The interviews indicate the staff wants more electrical power in each teaching station; a minimum of 5 duplex outlets.

2. Meets current building codes and standards.

   a. Fire Safety
      - If this building is remodeled to provide long term use and the value of the remodeling is 50 percent of its present value:

        - Existing stairs, if retained, would need to have rated enclosure; exit directly to exterior; revised tread width and riser heights.

        - Gymnasium needs to be separated from hallways, entrance and exits. Its location and floor elevation make it not practical to remodel the Gymnasium in its present location. In addition, its present size is inadequate to provide 2 teaching stations as required by your program and does not meet MSBA standards.

        - All storage rooms, mechanical/electrical, work rooms and maintenance areas need to have rated enclosures.

- New fire alarm system will be required.

b. Health
   - Based on recent inspections the Kitchen meets current codes.

c. Mechanical
   Refer to previous section.

d. Electrical
   Refer to previous section.

e. Barrier-Free
   An elevator was added to the building; access to the elevator is marginal. The main entrance to the building is not barrier-free. Toilet rooms need to be redesigned to meet code.

   A revised stairwell design should allow refuge area for the physically impaired currently required by code.

   Existing chair lifts would be removed if existing Gymnasium was relocated and existing gym floor raised to the lower level floor.

   Any remodeling must meet barrier-free code.

f. Energy
   If the roof is replaced it will provide added insulation to increase energy efficiency.

   Refer to previous section for energy savings associated with mechanical and electrical systems.

3. Meets the needs of School's educational program and projected enrollment.

   a. See the above comments about shared space, program and staff with adjacent Primary School. The additional impact of this problem for the Elementary is the lost instructional time for the teacher and student when traveling to and from rooms in the Primary; especially in inclement weather.

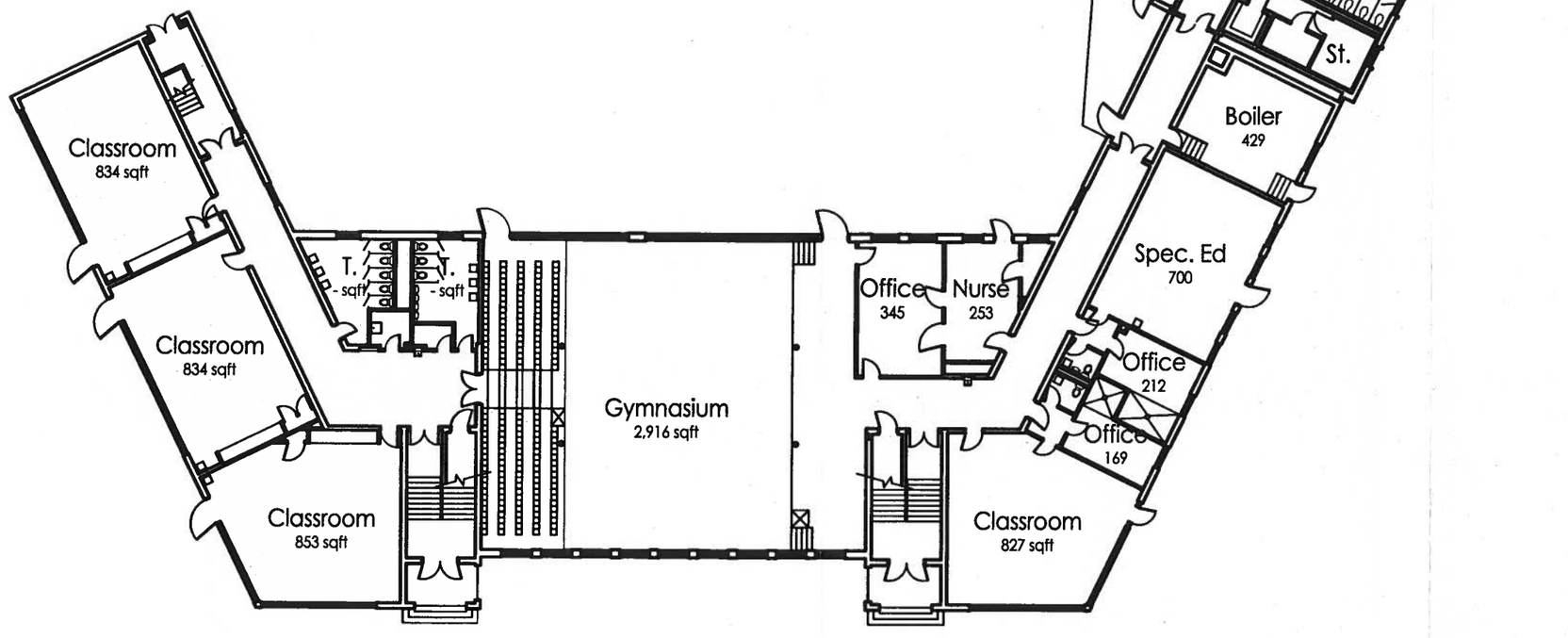
b. The building has exceeded it's capacity to accommodate the current educational program and student enrollment:

- There is no Art or Music room. Art and Music are taught on a cart traveling to the regular classrooms; to both buildings.
- Students travel to the Primary School for instruction in Library/Media, Computer and Physical Education.
- Gymnasium is inadequate and presents safety concerns.
- 8 classrooms of 3rd and 4th grade students are at the primary; 158 students.
- Teachers that do not have an assigned teaching station or home base: OT/PT; Speech/Hearing, Special Education
- Teachers that have inadequate spaces: Title I; Psychology; Adjustment Counselor.
- Administration is inadequate. The Principal is located on the upper level, the Assistant Principal on the lower level. Administration does not have visual control of main entrance, which is a security concern. Administrators are in charge of teachers and students in two buildings.
- The Nurse's Office is inadequate and has experienced plumbing problems.
- There are no conference rooms.
- The current 5 lunch periods negatively impacts the educational program.

4. Meets the requirements of the Massachusetts School Building Authority (MSBA).

   The preliminary "Needs Survey" ranking by the state for this building was 3. Both Kingscott and the School Central Administration believe this building should be ranked 4-poor.

   The existing classroom meets MSBA guidelines for size. All other teaching stations do not meet minimum size standards.



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Carver Public Schools

KEY PLAN

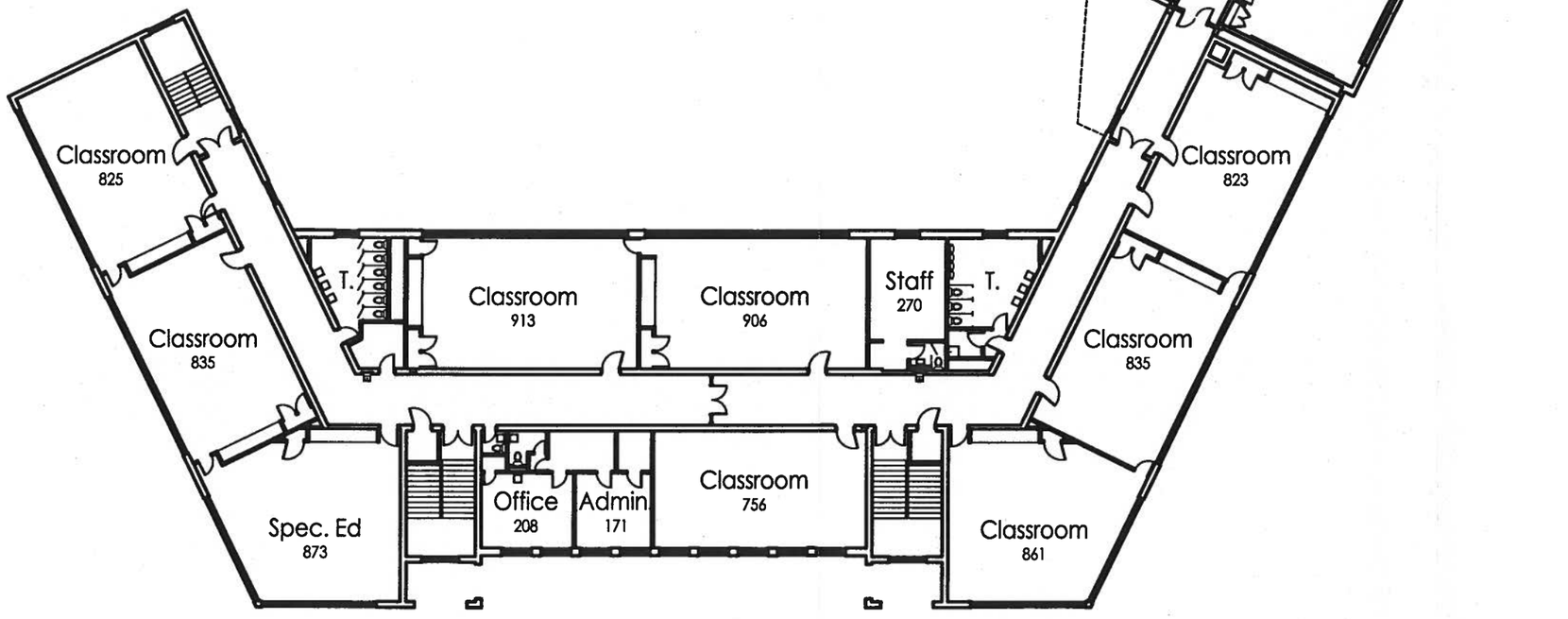
JOB NO. 2579-01

SHEET TITLE

FIRST FLOOR PLAN

SHEET NO.

elem



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Carver Public Schools

KEY PLAN

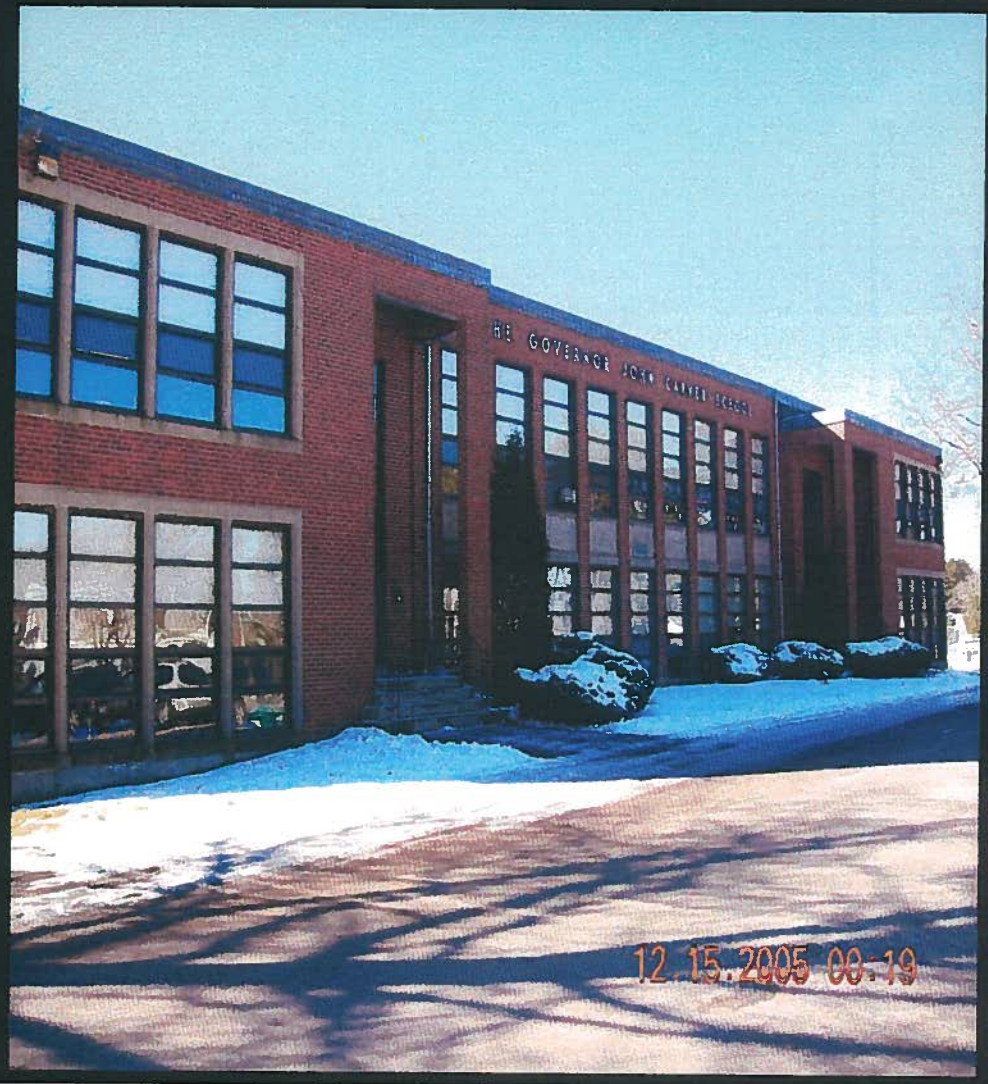
JOB NO. 2679-01

SHEET TITLE

SECOND FLOOR PLAN

SHEET NO.

Gov. Carver Elementary



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CARVER PUBLIC SCHOOLS

Gov. Carver Elementary

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CARVER PUBLIC SCHOOLS

Gov. Carver Elementary

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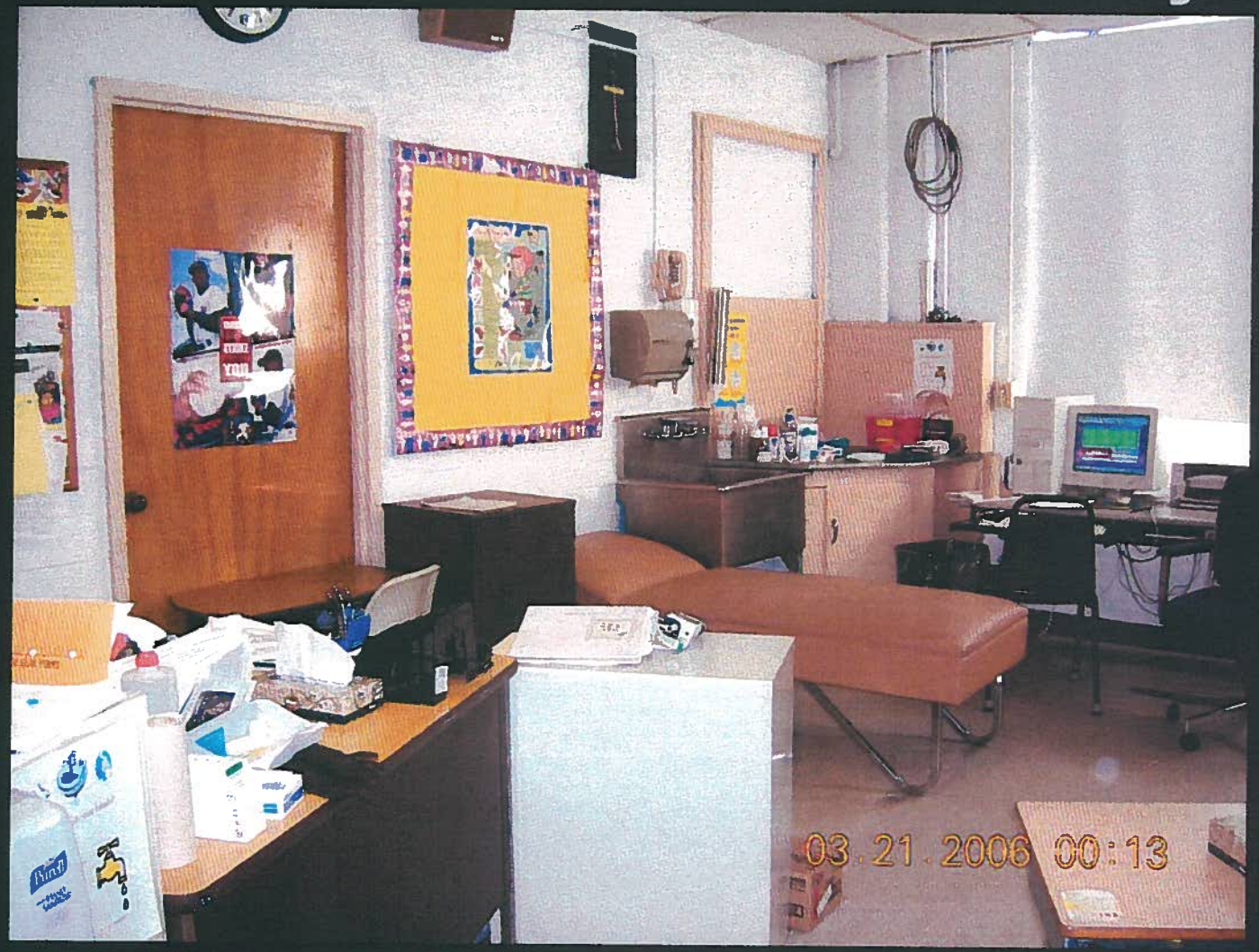
CARVER PUBLIC SCHOOLS

Administration Offices

Gov. Carver Elementary



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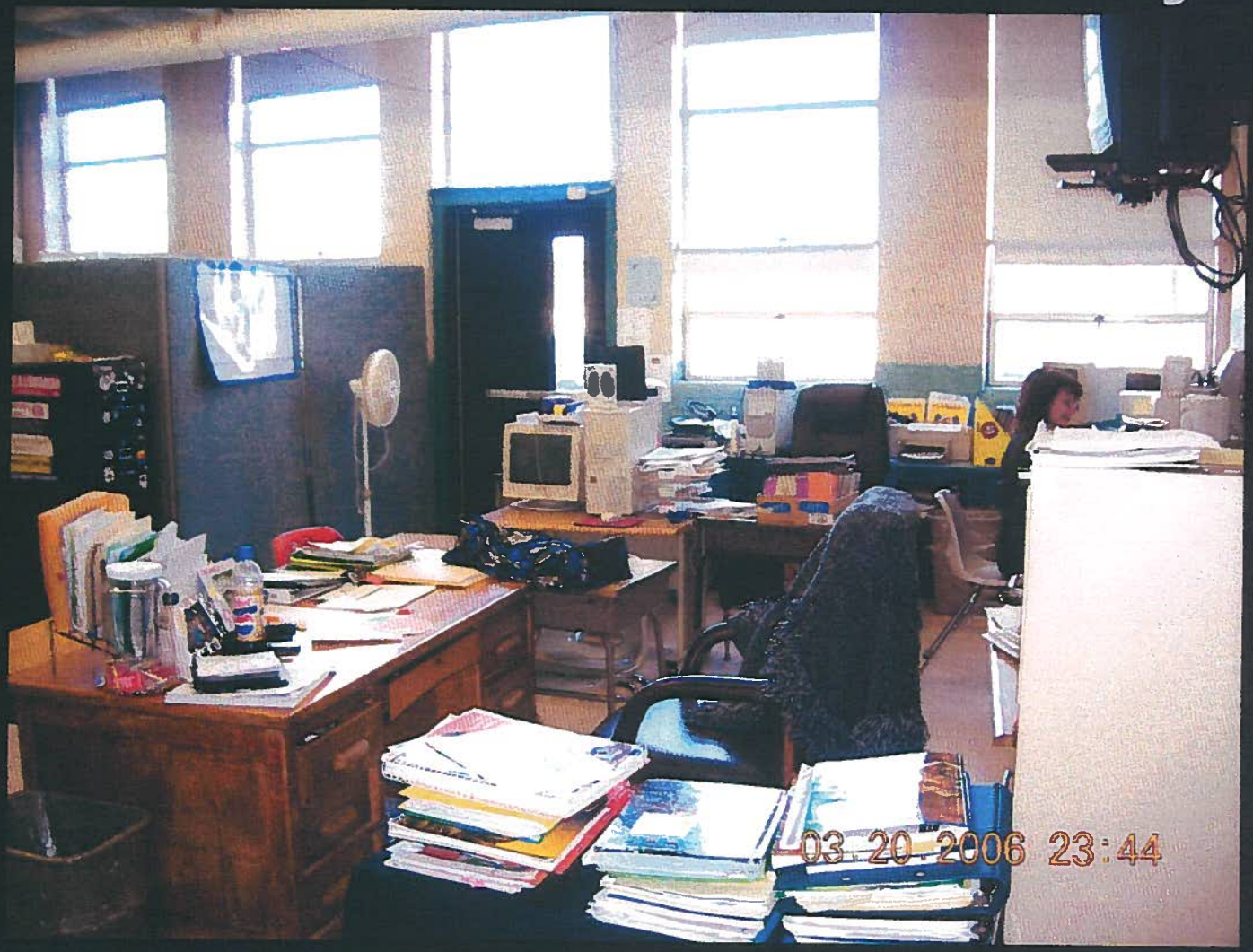
CARVER PUBLIC SCHOOLS

Nurse's Office

Gov. Carver Elementary



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CARVER PUBLIC SCHOOLS

Specialist's Office

Gov. Carver Elementary

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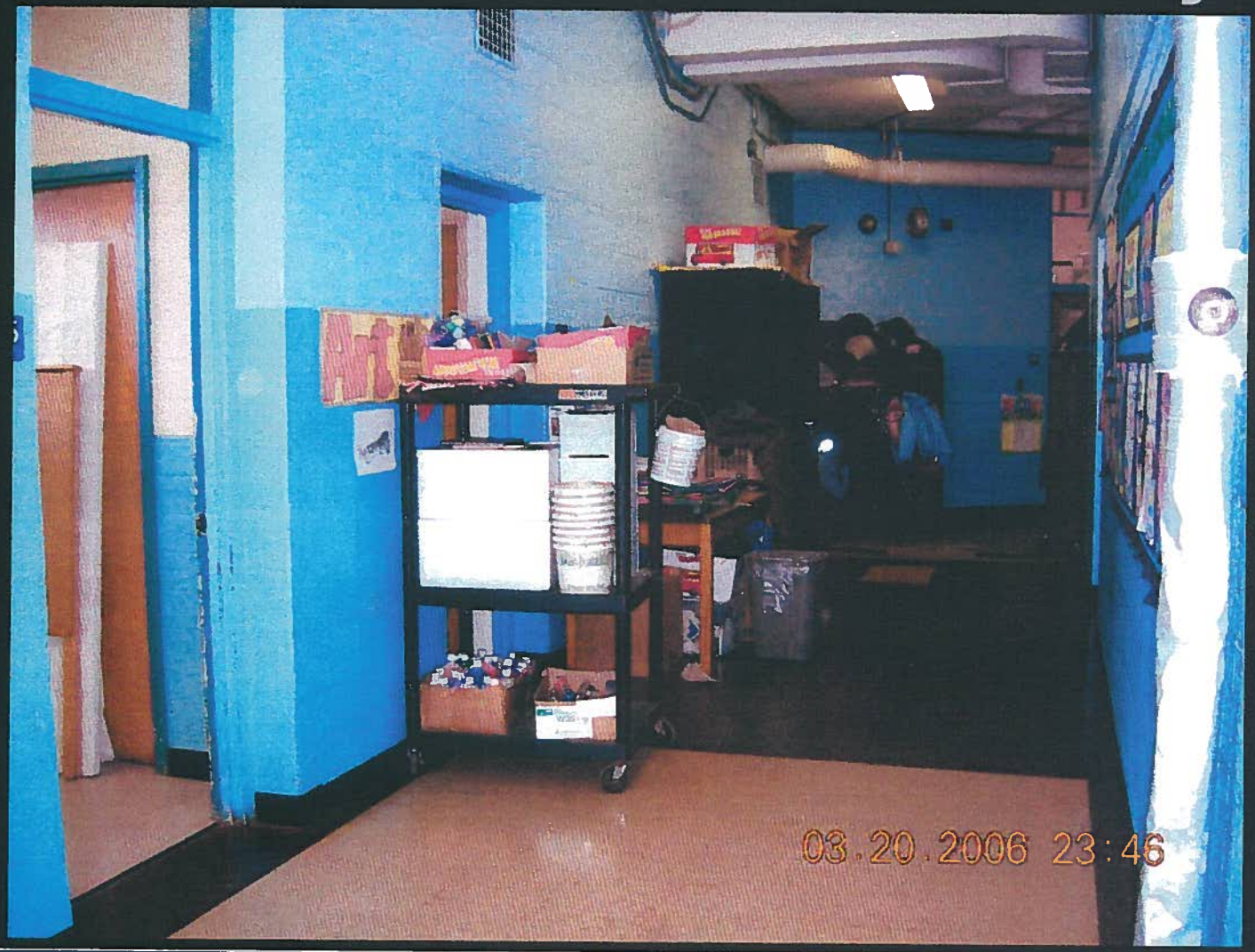
CARVER PUBLIC SCHOOLS

Classroom Storage

Gov. Carver Elementary



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CARVER PUBLIC SCHOOLS

Typical Corridor

Gov. Carver Elementary

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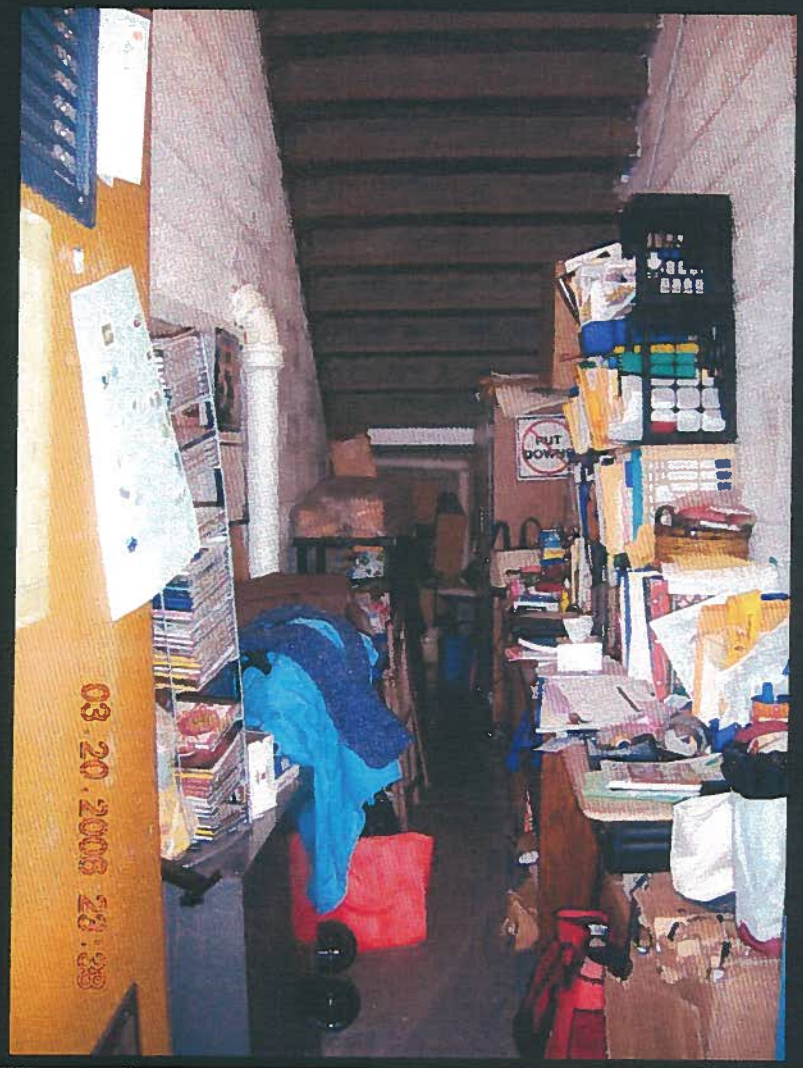
CARVER PUBLIC SCHOOLS

Storage Under Stair

Gov. Carver Elementary



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Music Teacher Office

Gov. Carver Elementary

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CARVER PUBLIC SCHOOLS

Gymnasium

Gov. Carver Elementary

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CARVER PUBLIC SCHOOLS

Cafeteria

Gov. Carver Elementary

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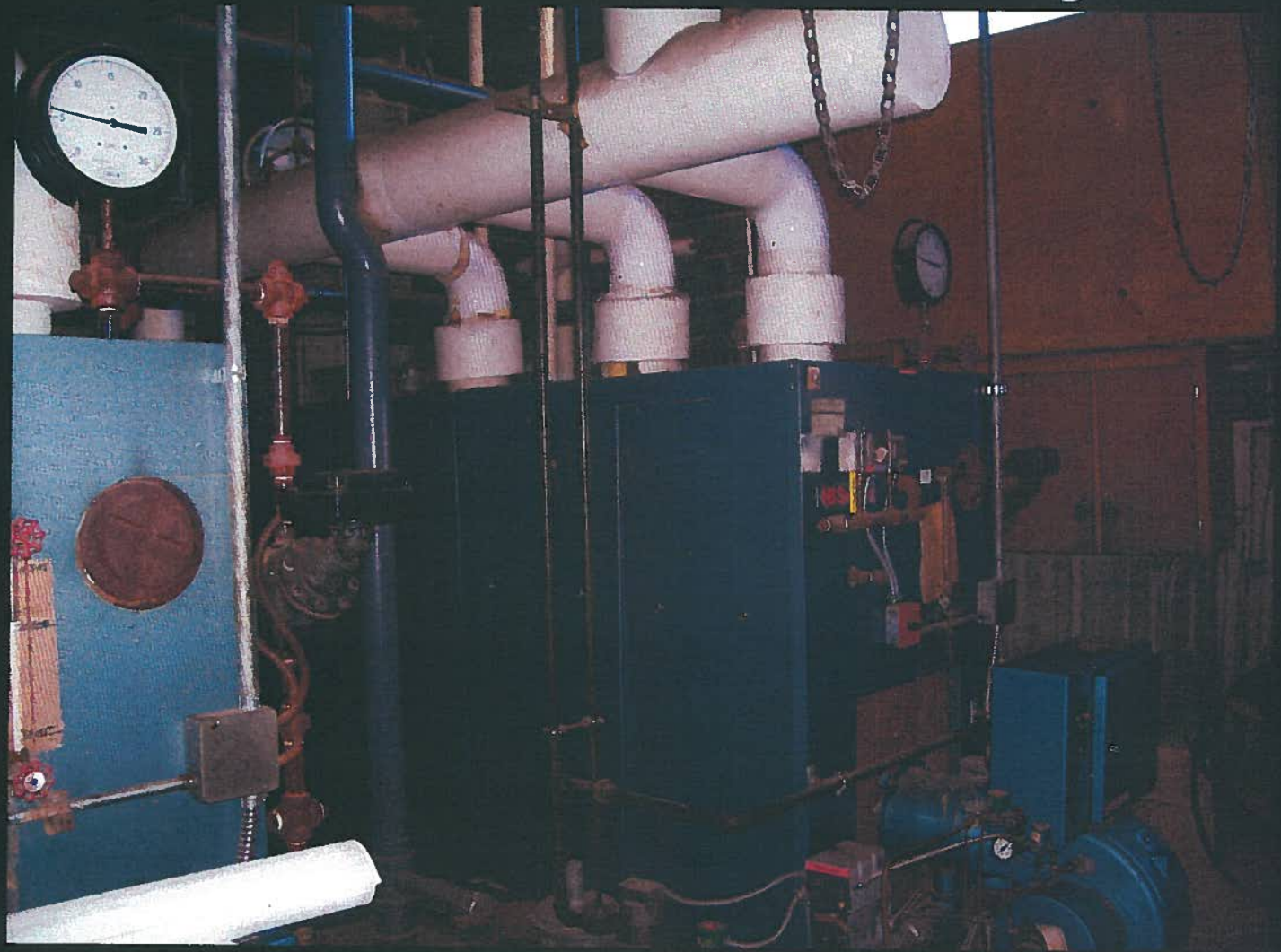
CARVER PUBLIC SCHOOLS

Toilet Room

Gov. Carver Elementary



Kingscott

CARVER PUBLIC SCHOOLS

Boiler Room

C. Carver Middle School-Grades 6-8

1. History and Current Conditions

The current grade 6-8 Middle School was created in 1997 when the original grade 7-12 High School, built in 1988, was added onto and divided into a Middle School and grade 9-12 High School. Despite the 1997 redesign, the building is not designed (laid out) to meet the space needs and/or relationships of the current grade level team teaching instructional delivery system. Looking at the numbers, it appears the building was at capacity when it was opened. The building is designed to meet the requirements of a departmental organization, which better fits the current High School.

Physical change since 1997 has allocated more space to the Middle School.

a. Site

- Size
  The middle school/high school site is 123 acres. The site size is adequate and could support an additional building such as an elementary or middle school.

- Utilities
  Water Utility and Fire Protection- The High School is served by a single on-site 47 foot deep well with a pump capacity of 200 GPM. The majority of this is used for irrigation. The well has the required 350 ft. separation from sanitary/ contaminants. The well has an 8" casing and gravel pack 8" well screen. The well is DEP approved. The building load appears to be 50 GPM using the 1,600- gallon Hydro-pneumatic tanks. The well could support a 2,000 student building provided a separate irrigation well is installed or irrigation use is reduced. Consideration should be given to have two domestic water wells if two buildings are on the site. Staff indicated a test well may be installed to verify water availability, should the main well fail.

- Sanitary
  The waste water treatment plant was designed and permitted for a flow of 30,000 gallons per day (GPD) with no provisions for de-nitrification

(Permit no SE#1-265).The current flow is 4,000 GPD. Under the "Nutrient loading approach to waste water permitting and disposal", the system can operate at 17,500 GPD and maintain a groundwater nitrogen concentration of 5 MG/L or less. The 13,500 GPD additional capacity would support an additional building of 2,250 students at 6 GPD per student. We recommend 3 monitoring wells be installed to verify nitrate loading.

The High School does not have sufficient sanitary flow during the summer to support the proper operation of the treatment plan.

- Traffic Patterns
  The Middle/High School's main site entrance is off South Meadow Road on the south. Buses, parents and visitors use this entrance. The intersection has a traffic light. The turning radius on the east side is inadequate for bus traffic. The site has a second entrance off of Pond Road to the northeast. This entrance from Pond Street is 22 ft wide, one way in the morning and one way out in afternoon; serving students and staff. Consideration should be given to clear trees at the entrance to improve site lines.

  Interviews and observation indicate the conflict of bus traffic, parent drop-off/pick-up, visitor parking and staff parking creates a safety, congestion problem. Efforts have been made to improve safety by adding walkways across the bus lane. Traffic congestion was observed when busses block car drives. The concept planning options need to address this concern. Entrance roads need to be improved.

- Parking
  The Middle/High School is served by 5 parking lots totaling 424 cars. All five parking lots are in repairable condition. Lots constructed in 1987 and 1997 have cracks ; these should be sealed to prolong the life of the lots. The condition of the parking lot surface and marking is fair. The right amount of student, staff, visitor and event parking will be developed as part of the concept planning

options. Separation of student, staff and visitor parking is required.

The staff indicated that the number of student parking spaces at the High School is inadequate in the Spring of the year when many students obtain driver's licenses.

- Concrete Sidewalks, Curbs and Pedestrian Walkways
  The asphalt walkways have cracks at the High School entrance and at the concession building. Curbs are precast concrete and or stone. Bumper curbs are in place except where snow removal equipment has pushed units off the pavement. There is no barrier-free route to the main entry of either the Middle School or High School.

- Site-Storm Drainage Issues
  The parking lots are sheet drained into adjacent storm water retention areas. This system is sufficient except for flooding, which occurs in the front of the building near the tennis courts due to the added hard surface areas (building and parking lots) constructed in 1997.

- Playfields
  Interviews indicate playfields for physical education are adequate. There is a need for hard surfaced play area.

  More open playfields would be desirable depending on concept planning options identified. Additional fields would allow competitive baseball and softball fields to be fenced.

- Athletic Fields
  Football Field- Football field is also used for soccer and field hockey. Seating capacity and lighting are okay. The football field is adequately drained, is irrigated and has acceptable grass cover. The field did have a water peculation problem due to high content of clay below the topsoil surface resulting in standing water at times in the Fall and Spring. This clay has been replaced in some areas with sand. This repair needs to be evaluated during the spring

and fall 2006. The issue does not appear to be the result of backup of the underground storm system. The track/ football field is fenced. Spaces need to be designated at the football bleachers' both home and visitors, for barrier-free access.

Running Track- The 6-lane running track needs resurfacing. The track has a number of surface breaks but the base appears to be stable with no settlement or cracks. The storm drainage system on the slopes to the track needs modification to eliminate erosion and to keep sand off the track.

Tennis Courts- The 4 existing courts need resurfacing. The court has a major crack indicating settlement and a poor sub base. Staff has indicated 6 courts are required for effective competitions. The existing courts are enclosed with a fence and gate, which is not barrier-free accessible. The identification of the concept planning options should determine the tennis court location. The grade and access gate to the tennis courts need to be modified to comply with current standards.

Fencing-The football field/ track and tennis courts are fenced. This fencing is in good condition. The practice football, softball and soccer fields are not fenced. This may be a concern of unauthorized access.

Site Lighting- Lighting for the football field is adequate. Site lighting on the parking lot between the building and the concessions building is not adequate. Two lights were broken and removed from the parking lot- these should be replaced.

- Signage
  The main entrance sign does not include the term "Middle School". This could be added to the south side of the sign or a new sign could be installed with more text space or LED display.

b. Building
   The building is a combination of one and two story elements. The overall Middle School/ High School building

is divided on the diagonal with the shared Instructional Materials Center and Cafeteria at each end of the diagonal- IMC on the south and Cafeteria on the north. The separate Middle School entrance is on the east. The building is well kept and clean. However, even though it is the newest building, the building does not look or feel "fresh". The environmental quality should be improved to positively impact teaching and learning. The exception is the Instructional Materials Center, recently renovated, which has a more pleasant environment. The building has 77,921 square feet of area.

- Building envelope
  The original single-ply roof installed in 1988 should be replaced. (Warranty expired in 1997). The single-ply roof applied in 1997 is okay. When the roof is replaced, additional insulation should be provided to increase energy efficiency. Roof expansion joints between 1987 building and 1994 addition need repairs/ replacement.

  The exterior masonry wall is a combination of exterior brick, precast concrete panels and aluminum windows and entrances. The exterior wall is in good condition. Windows and entrances of the 1987 building need to be caulked.

- Building structure
  The building is a combination of masonry bearing walls and steel structure. The structure appears to be sound.

- Interior finishes
  The hallways are narrow by today's standards with student locker doors swinging into the hallway which reduce the corridor width. Student passing between classes is congested.

  Ceilings are lay-in acoustical tile. Walls are painted masonry. Floors are a combination of terrazzo and vinyl tile. The Middle School lobby has brick walls. As stated above, the Shared Instructional Materials Center was renovated in 2004. The Middle School Gymnasium has a wood floor. When the interior of the building is painted, the "fresh look" described above can start to be accomplished with a new color

palette. The Auditorium stage floor behind the proscenium needs replacement.

The folding door dividing the dining room/ cafeteria needs to be replaced if the door continues to be used to meet program requirements.

- Fixed equipment
  The casework in the Life Skills rooms needs to be revised to meet current use and teaching methods. This room was originally designed as a Food's Lab.

  Replace existing inadequate 9 inch wide student lockers; provide new 12 inch wide lockers.

  Replace Auditorium seating, sound system and theater lighting controls.

- Plumbing
  Floor drains so do not have trap primers. Drains are not acceptable per current code.

  Storm water piping is acceptable. Roof drains are acceptable. The roof sumps are too large and trap water.

- Heating, ventilating, cooling
  The building has a hot water Heating System with unit ventilators and air handling units.

  Heating Plant- The building is served by two 1987 hot water boilers: Cleaver Brooks CB-200-80, 80 HP 3, 347 MBH, SNL-83561 and SH-83560. One boiler has the capacity to heat the building except 3 or 4 days per year. Boilers are serviceable but are not the most efficient. The boilers have a 3-way valve. A system for hot water reset is adequate. Boilers do not have a boiler circulator.

  Air Conditioning- The following areas are air-conditioned:
    - Offices
    - Media Center
    - Technology Hub Rooms
    - Interior Classrooms

Air Distribution- The following spaces are served with air handling units.

- Gyms (MS & HS)
- Media Center
- Locker Rooms

Diffusers and registers are serviceable, ductwork needs to be cleaned, and units do have outdoor ventilation air to meet CO2 requirements.

Interviews indicated the current air conditioning of interior rooms is not working adequately.

- Fire Protection
  The building has no Sprinkler System.

- Electrical
  Service
  - Consists of a 3P 1200 Amp 277/480 volt 3 phase 4 wire.
  - 1200 Amps= 977,200 Volt Amps
  - 194,334 SQ. FT. at 10 Volt- Amps= 1,943,340 Volt Amps
  - Service using watts/ sq. ft. is inadequate.
  - Service will support an addition up to 0 SQ. FT.

  Note: The National Electric Code does also allow the evaluation of service size based on 15 min interval demand meter reading for a typical school month. This is to be determined.

  Lighting levels in Lobbies, Hallways and Cafeteria are low. Higher light levels would contribute to a new, "fresh look". Site lighting is inadequate. There are no occupancy Sensors or light harvesting/ controls.

  Fire Alarm- System is a Simplex (Atlas) fire alarm system. System is inadequate per current code. Replace fire alarm system.

2. Meets current building codes and standards

   a. Fire Safety
      - Several stairwells create "communicating floor levels" without fire separation of adjoining spaces.

While meeting the code when built they do not meet current code. Depending on the concept planning options this may need to be addressed.

- Several classrooms need a second exit.

b. Health
   - Current inspections indicate Kitchen meets current code.

c. Mechanical
   - Refer to previous section.

d. Electrical
   - Refer to previous section.

e. Barrier-Free
   - Redesign Toilet Rooms to meet barrier-free codes.
   - Provide the required number of barrier-free seats in the Auditorium.
   - Any remodeling must meet barrier-free code.

f. Energy
   - Refer above for energy savings associated with mechanical and electrical systems.

3. Meets the needs of School's educational program and projected enrollment

   a. The Middle School shares the following spaces with the High School: Instructional Materials Center including the 5 Computer Labs in this space, of which 3 are shared; Auditorium; Cafeteria; and Staff Copy Room. High School Music classes pass thru the Middle School to use the Auditorium/ Stage as a teaching station. Ideally there would be no cross traffic between the buildings.

   b. The building has exceeded its capacity to accommodate the current educational program and staff. The current enrollment is 498 students. Increasing the class size to an average of 24 students could increase enrollment to 576 students. Physical changes made since 1997 has increased space and teaching stations for the Middle School.

- The building is short a Comprehensive Health classroom and Foreign Language classroom. Teachers travel to available classrooms with carts.

- The Music area is inadequate and poorly designed; remodel/ replace.

- The Nurse's Room is inadequate and does not meet current codes; relocate and/ or remodel.

- Teachers have inadequate size teaching stations or home base: Special Education Pre-Vocational; Special Education Student Assistance; Special Education.

- There needs to be increased access to technology together with an update of that technology. Computers are now centralized in the IMC and some new software will not run on current computers. Interviews suggest some of the Technology needs to be decentralized throughout the building. It was also indicated the second floor IMC area can be used more efficiently; remodel.

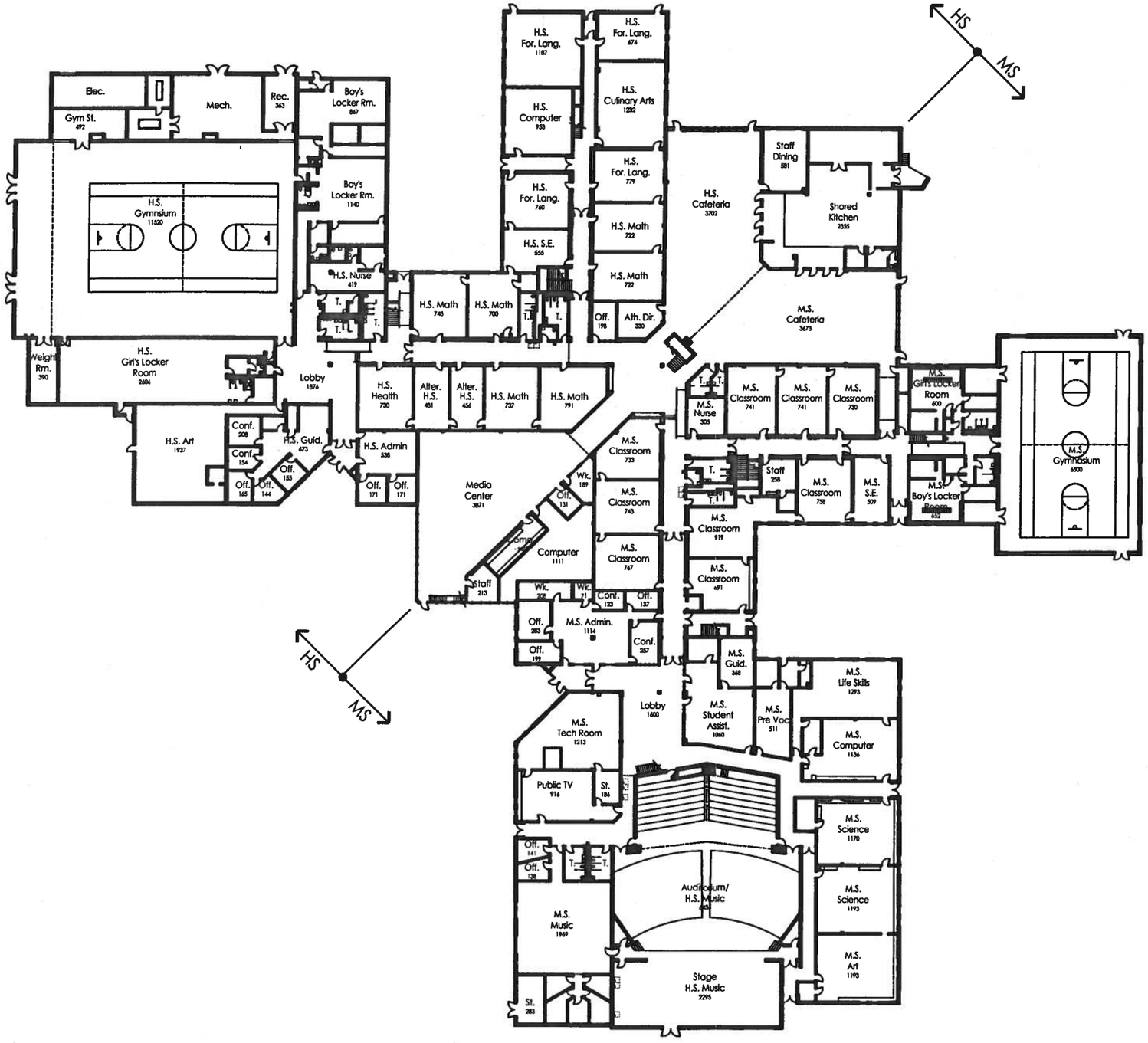
- A decision needs to be made whether the current space occupied by public television should remain in the building or be used for other functions.

- Administration area should be rearranged to better utilize space and improve function.

4. Meets Massachusetts School Building Authority requirements

   a. The building received a ranking of "2" in the State's preliminary "Needs Survey".

   b. The majority of regular classrooms are on the minimum side for size by MSBA area standards; only 4 are below the minimum. 4 out of the 6 Science Rooms are below minimum MSBA standards. The remaining rooms in the building generally meet area standards.



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Carver Public Schools

KEY PLAN

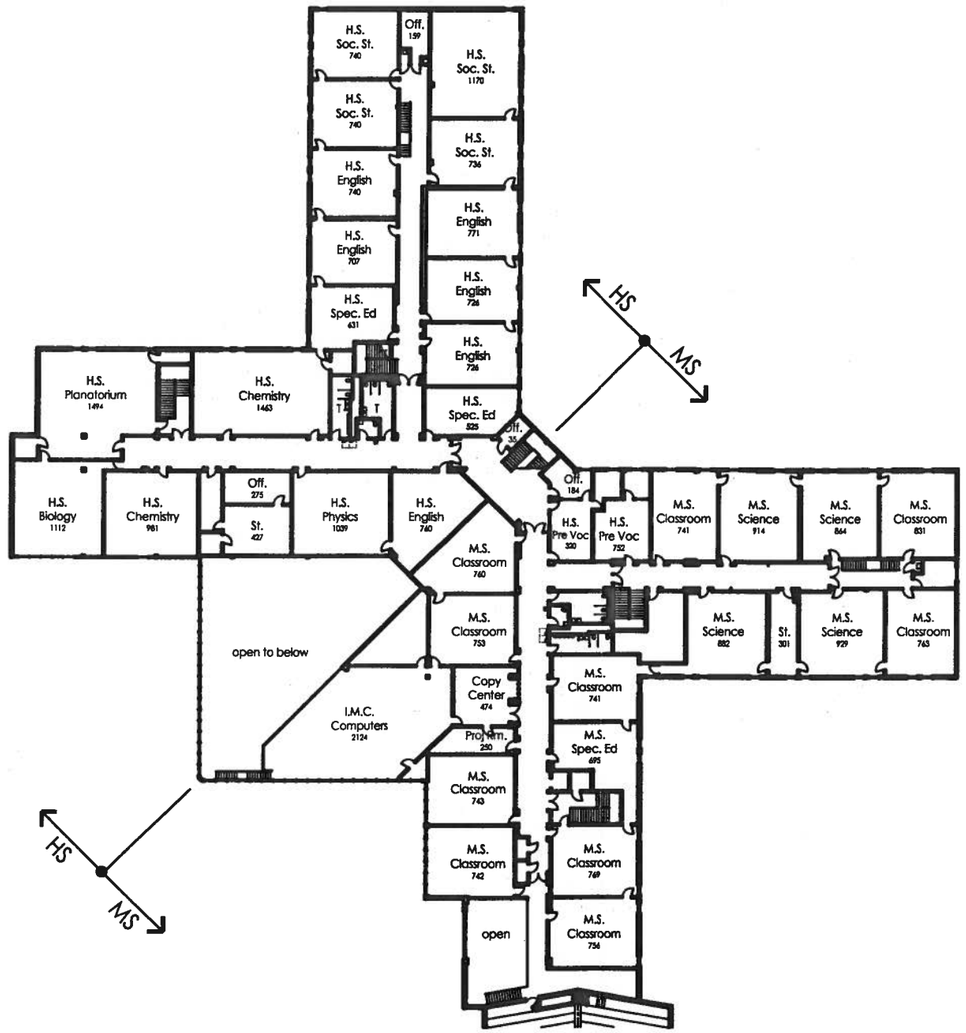
JOB NO. 2679-01

SHEET TITLE

FIRST FLOOR PLAN

SHEET NO.

ms/high



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Carver Public Schools

KEY PLAN

JOB NO. 2679-01

SHEET TITLE

SECOND FLOOR PLAN

SHEET NO.

mis/high

Carver M.S./H.S. Site

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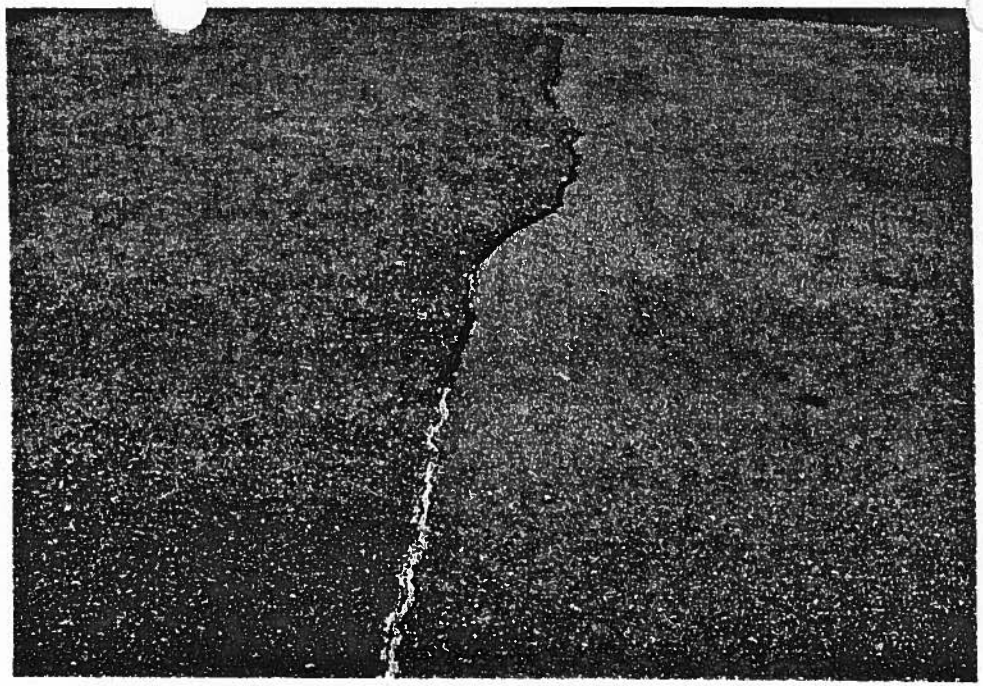
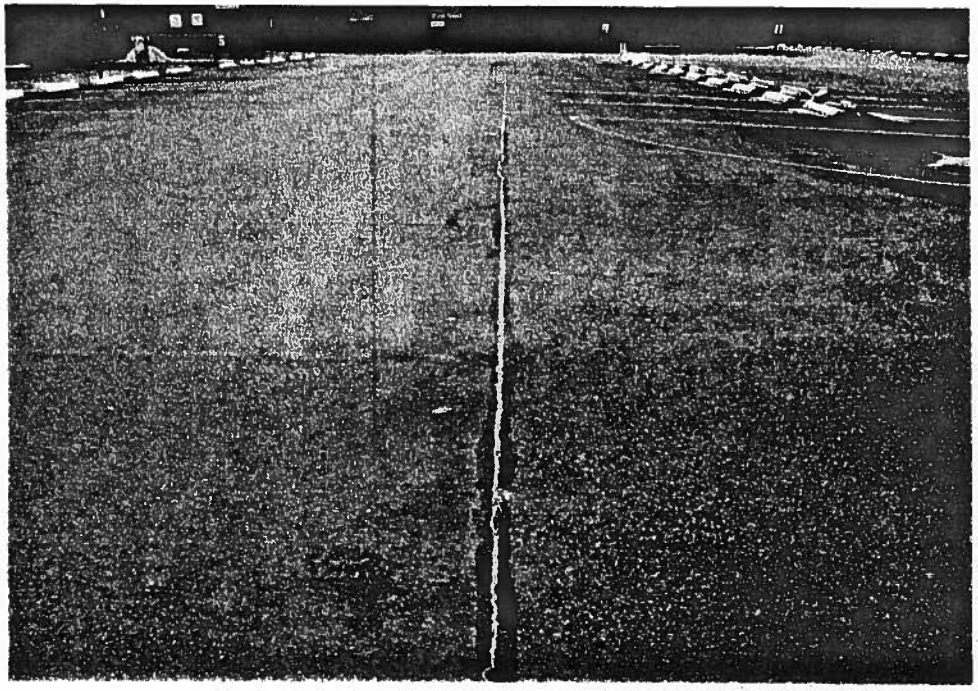
CARVER PUBLIC SCHOOLS

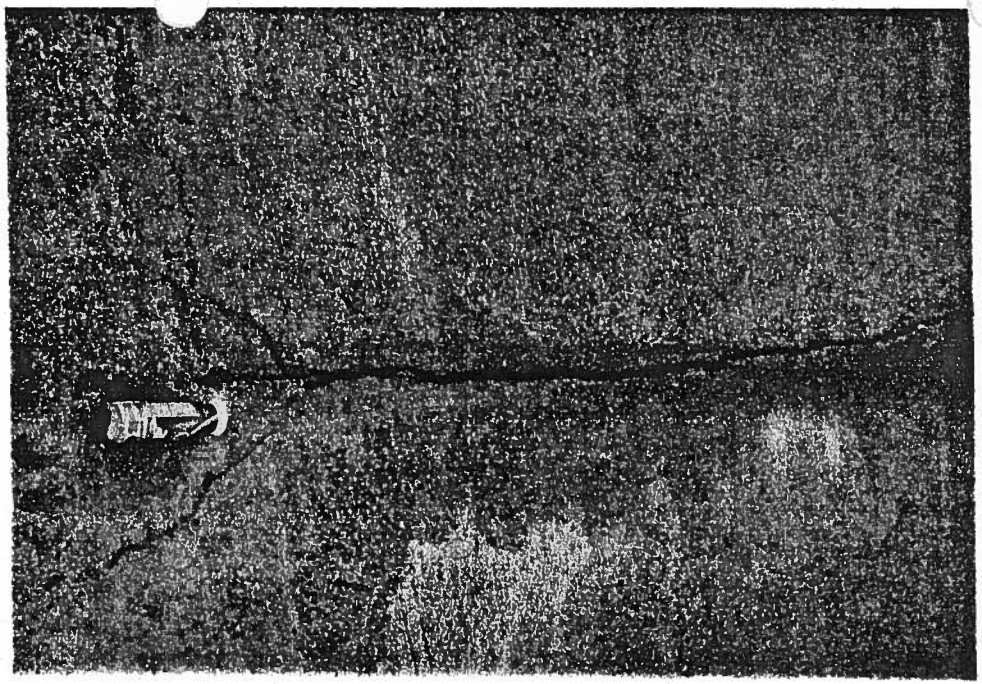
Carver M.S./H.S. Site

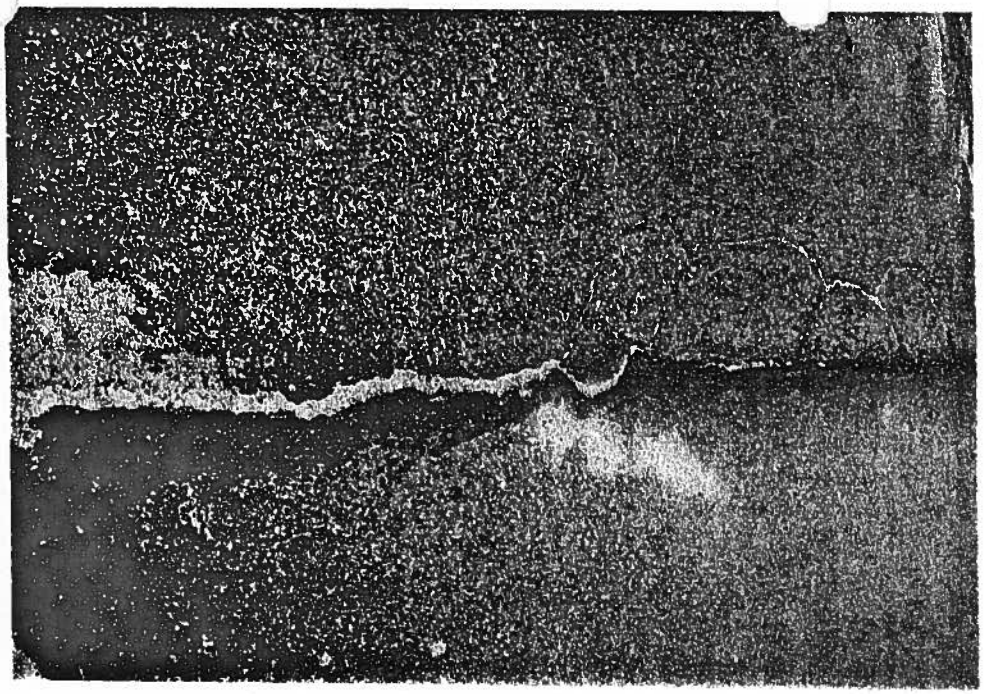
Kingscott

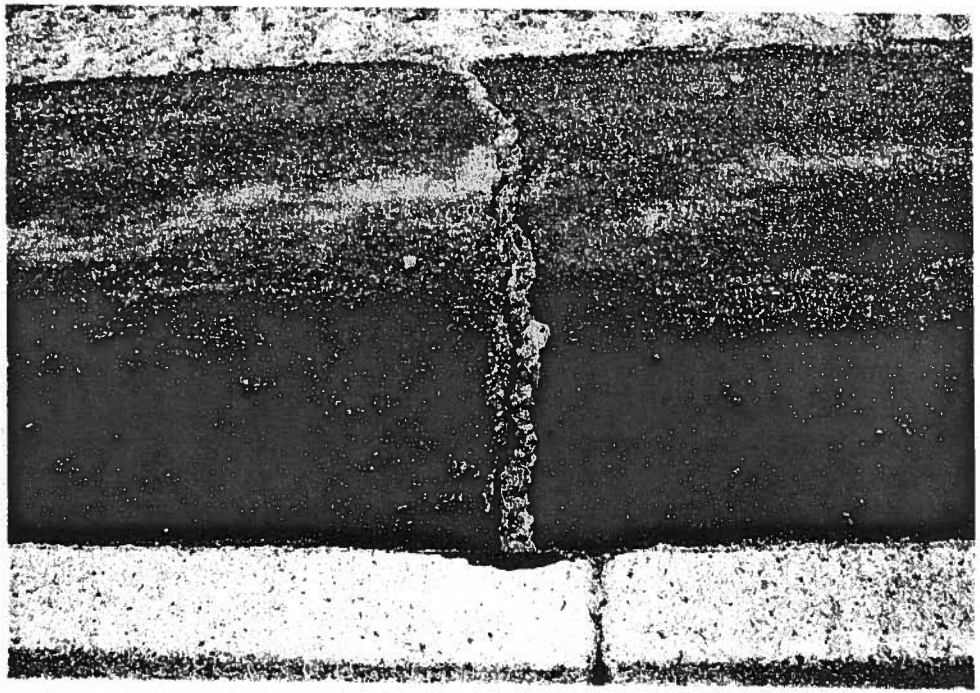
CARVER PUBLIC SCHOOLS

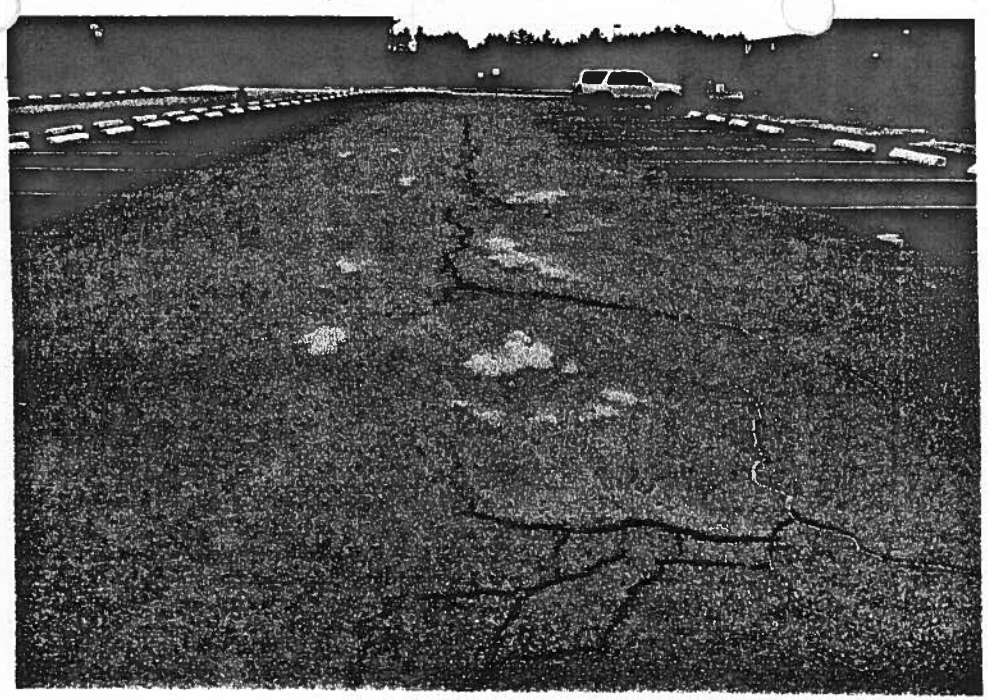


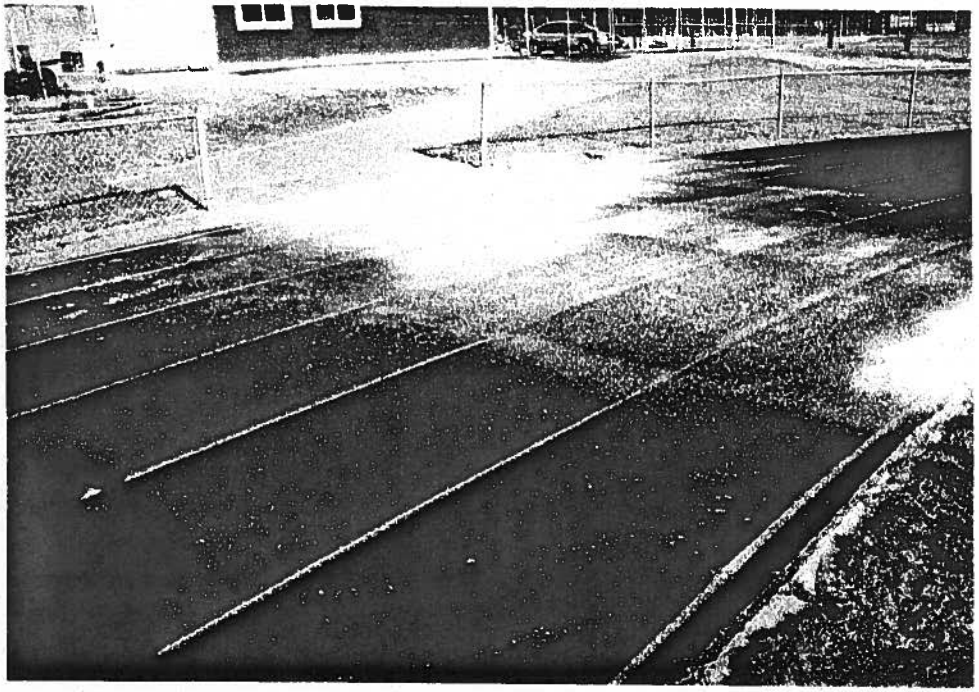


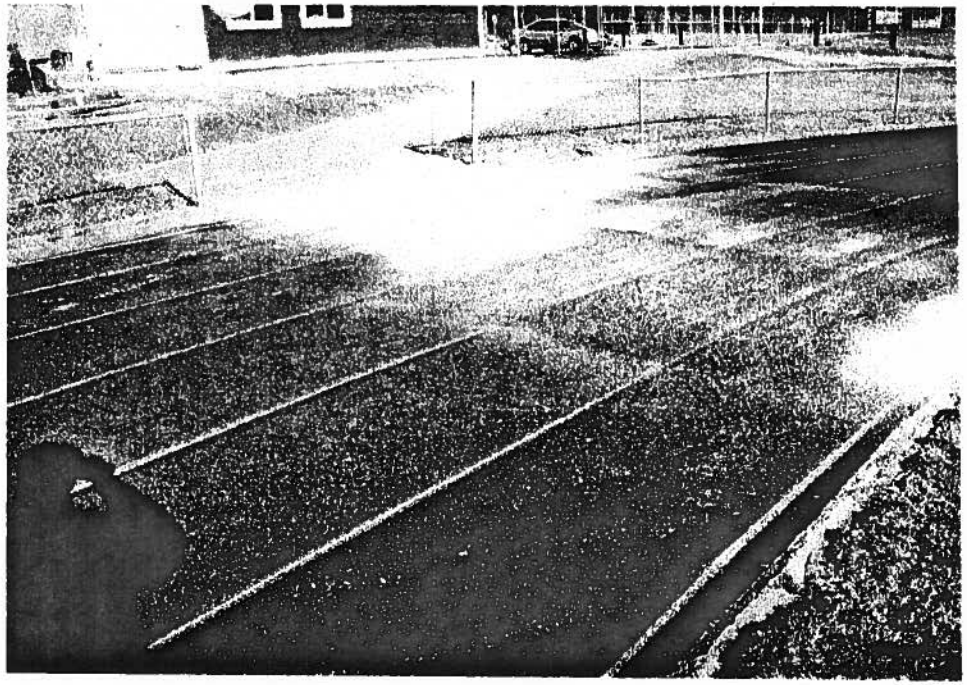


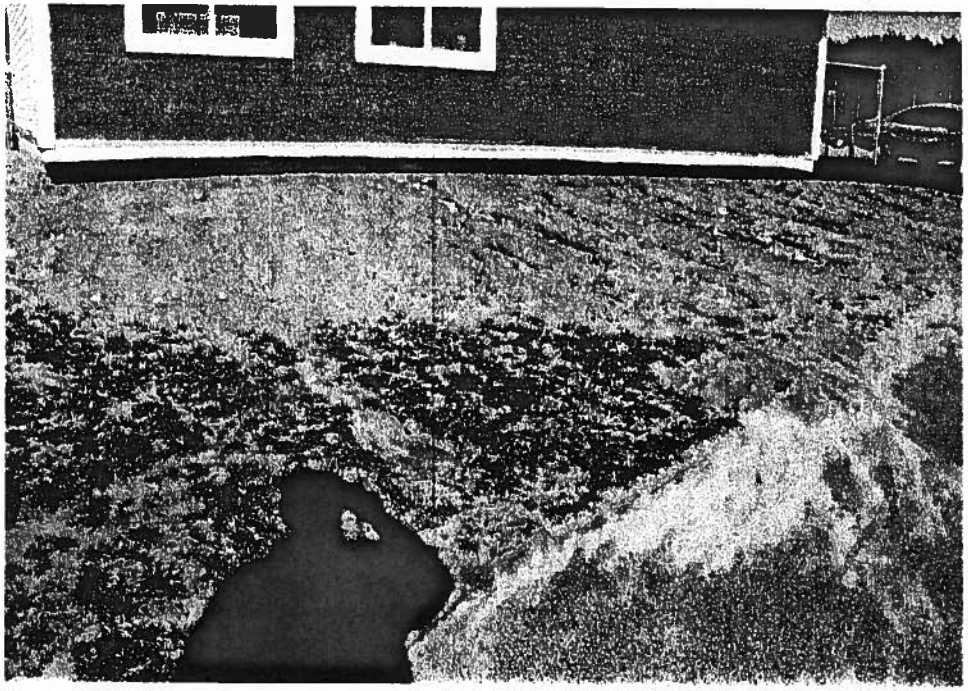


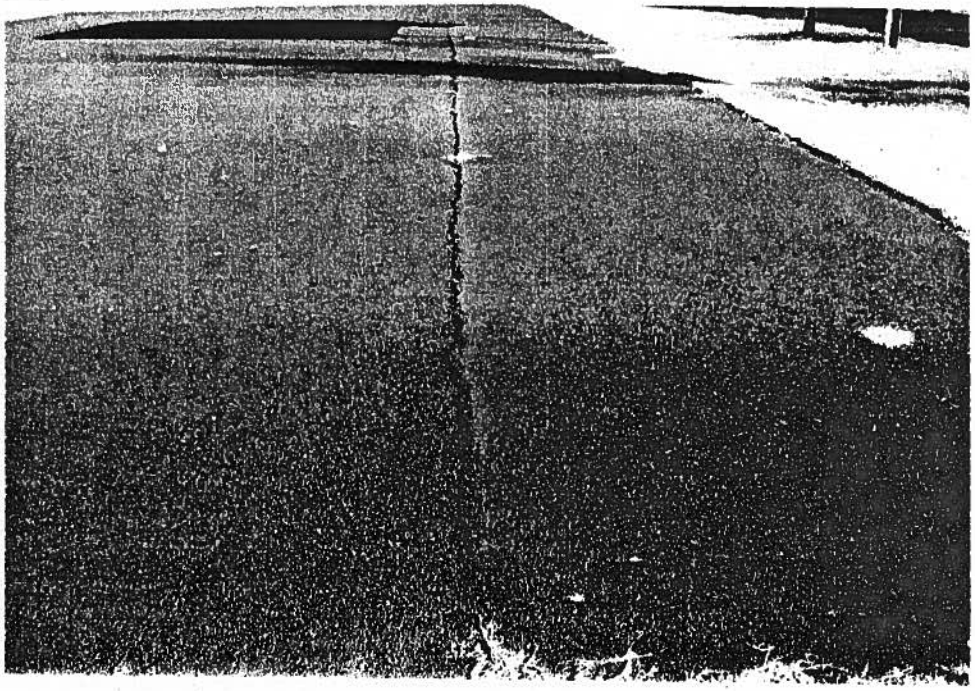


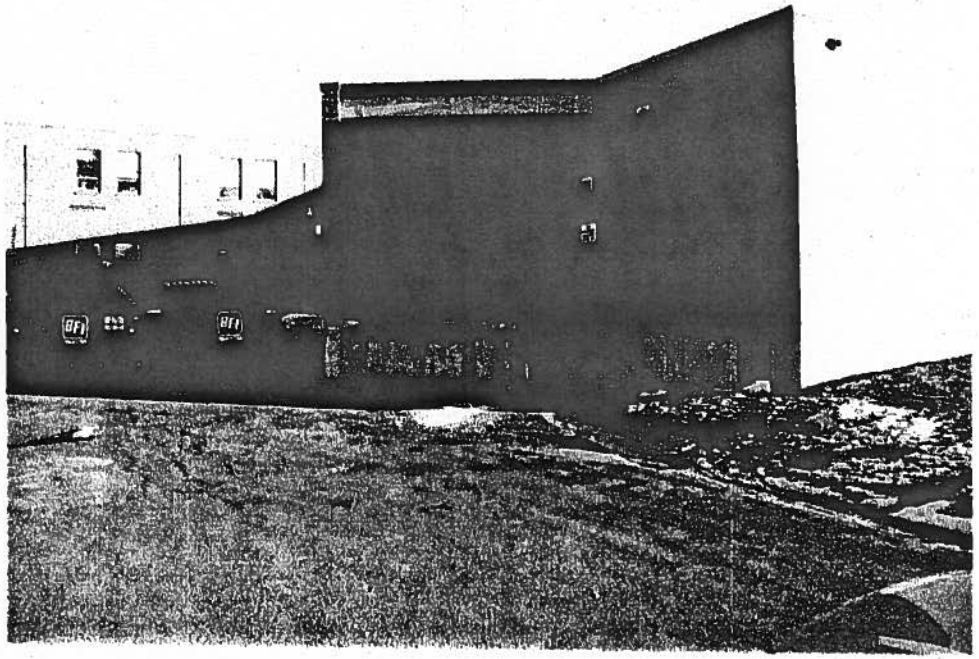




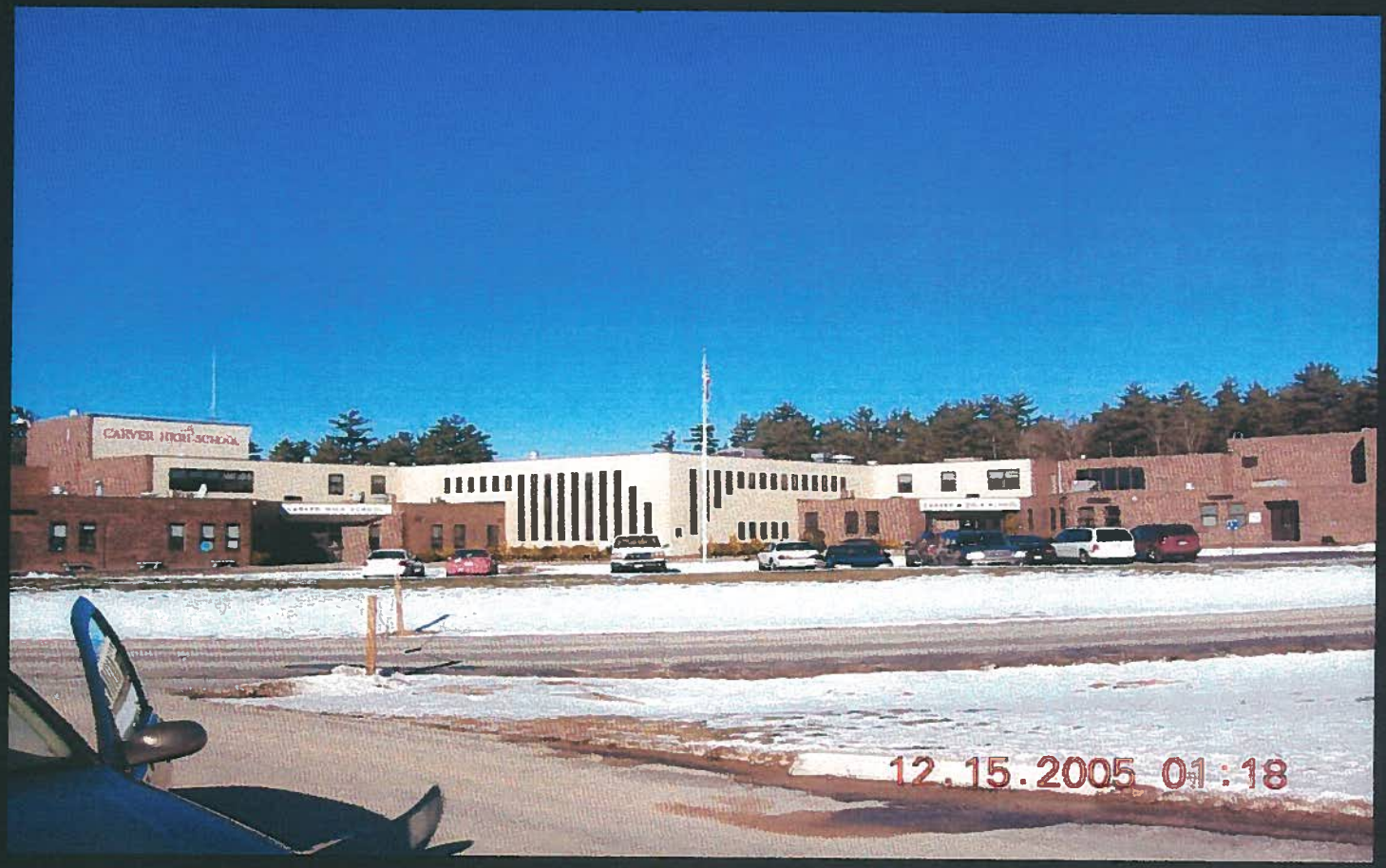








Carver Middle School



Kingscott

CARVER PUBLIC SCHOOLS

Carver Middle School

Kingscott

CARVER PUBLIC SCHOOLS

Entrance Lobby

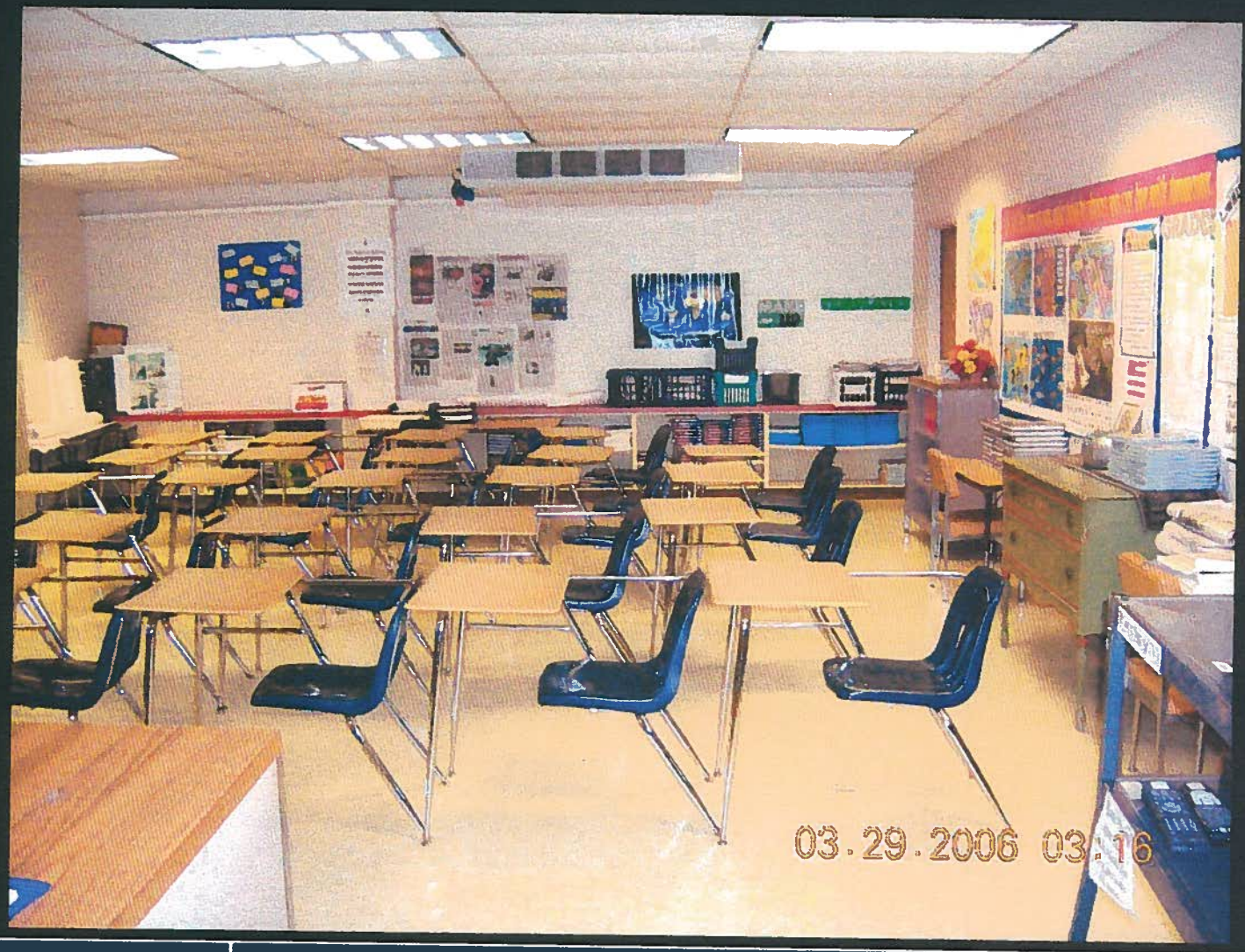
Carver Middle School

Kingscott

CARVER PUBLIC SCHOOLS

Typical Corridor

Carver Middle School



Kingscott

CARVER PUBLIC SCHOOLS

Typical Classroom

Carver Middle School

Kingscott

CARVER PUBLIC SCHOOLS

Nurse's Office

Carver Middle School

Kingscott

CARVER PUBLIC SCHOOLS

Computer Lab

Carver Middle School

Kingscott

CARVER PUBLIC SCHOOLS

Cafeteria

Carver Middle School

Kingscott

CARVER PUBLIC SCHOOLS

Music Room

D. Carver High School

The current grade 9-12 High School was created in 1997 when the original 7-12 High School, built in 1988, was added onto and divided into a grade 6-8 Middle School and a High School. The redesigned building is laid out (designed) for a traditional departmentalized High School. In addition to the shared IMC the Art Room was recently renovated and is an excellent space.

Physical changes since 1997 have resulted in the elimination of some needed space in the High School.

1. History and current condition
   a. Site
      - See "Site" in the above Middle School description.

   b. Building
      See "Building" in the above Middle School description. The separate High School entrance is on the west. This was originally the entrance to the Gymnasium. The building has 87,921 square feet.

      - Building envelope
        See "Building Envelope" in the above Middle School description. The single-ply roof installed in 1988 over 30 percent of the Gymnasium has detached from the fasteners and requires immediate repair.

      - Building structure
        See "Building Structure" in the above Middle School description.

      - Interior Finishes
        See "Interior Finishes" in the above Middle School description. The High School Locker Rooms are not well designed and have never been used as originally intended. The equipment is obsolete. They need remodeling, not only to refurbish the areas, but to meet current functional requirements and building health codes.

        The main entrance lobby is concrete block instead of brick like at the Middle School.

        The original PVC Gymnasium floor needs to be

replaced. A discussion needs to take place of what type of new floor to use.

- Fixed equipment
  See "Fixed Equipment" in the above Middle School description. The Science Classroom/ Lab Equipment, except the recently remodeled Chemistry lab, needs repair and/ or replacement. The Language lab needs to be upgraded. The Math Department wants smart boards; see Technology.

  Plumbing
  Acid Waste System- Acid waste piping is provided in the High School Science Rooms only; the system is in need of repair or replacement. Pipe leaks are common.

- Heating, ventilating, cooling
  See "Heating, ventilating, cooling" in above Middle School description.

- Fire protection
  See "Fire Protection" in above Middle School description.

- Electrical
  See "Electrical" in above Middle School description.

2. Meets current building codes and standards

   a. Fire Safety
      See "Fire Safety" in above Middle School description.

   b. Health
      See "Health" in above Middle school description.

   c. Mechanical
      See "Mechanical" in above Middle School description.

   d. Electrical
      See "Electrical" in above in Middle School description.

   e. Barrier-Free
      See "Barrier-Free" in above Middle School description.

f. Energy
See "Energy" in above Middle School description.

3. Meets the needs of the School's Educational Program and projected enrollment.

   a. Shared spaces with Middle School are described in above Middle School description.

   b. The building has exceeded its capacity to accommodate the current educational program, staff and student enrollment. The current enrollment is 559 students. Physical changes since the 1997 redesign have resulted in the loss of teaching stations originally intended for the pre-vocational curriculum and loss of some Administration/ Student Service Area.

      The majority of teaching stations are utilized 100 percent of the school day since they are used not only for their assigned subject, but for the 412 students enrolled in directed study (study hall). Current practice and MSBA guidelines would provide enough teaching stations to result in 85 percent utilization.

      - The building is lacking a Chemistry Lab/Classroom. This teacher shares an office and travels to available Science Lab Classrooms.

      - The building is lacking a Comprehensive Health Classroom/ Fitness area. Plans are in motion to convert part of the Girls Locker Room to this use.

      - The building is lacking a Music area. High School Band, Choral and Music theory classes are taught in the Auditorium and on the Auditorium Stage. High School Instrument Storage, Office and Practice Facilities are shared in the already inadequate Middle School Music area; this is not working. The High School Music Program conflicts with other uses of the Auditorium and vice versa. High School Music traffic to the Auditorium is disruptive to the Middle School. The Music program will not flourish until it has its own facilities and/ or shares new adequate facilities with the Middle School.

        The Auditorium, which serves the school and

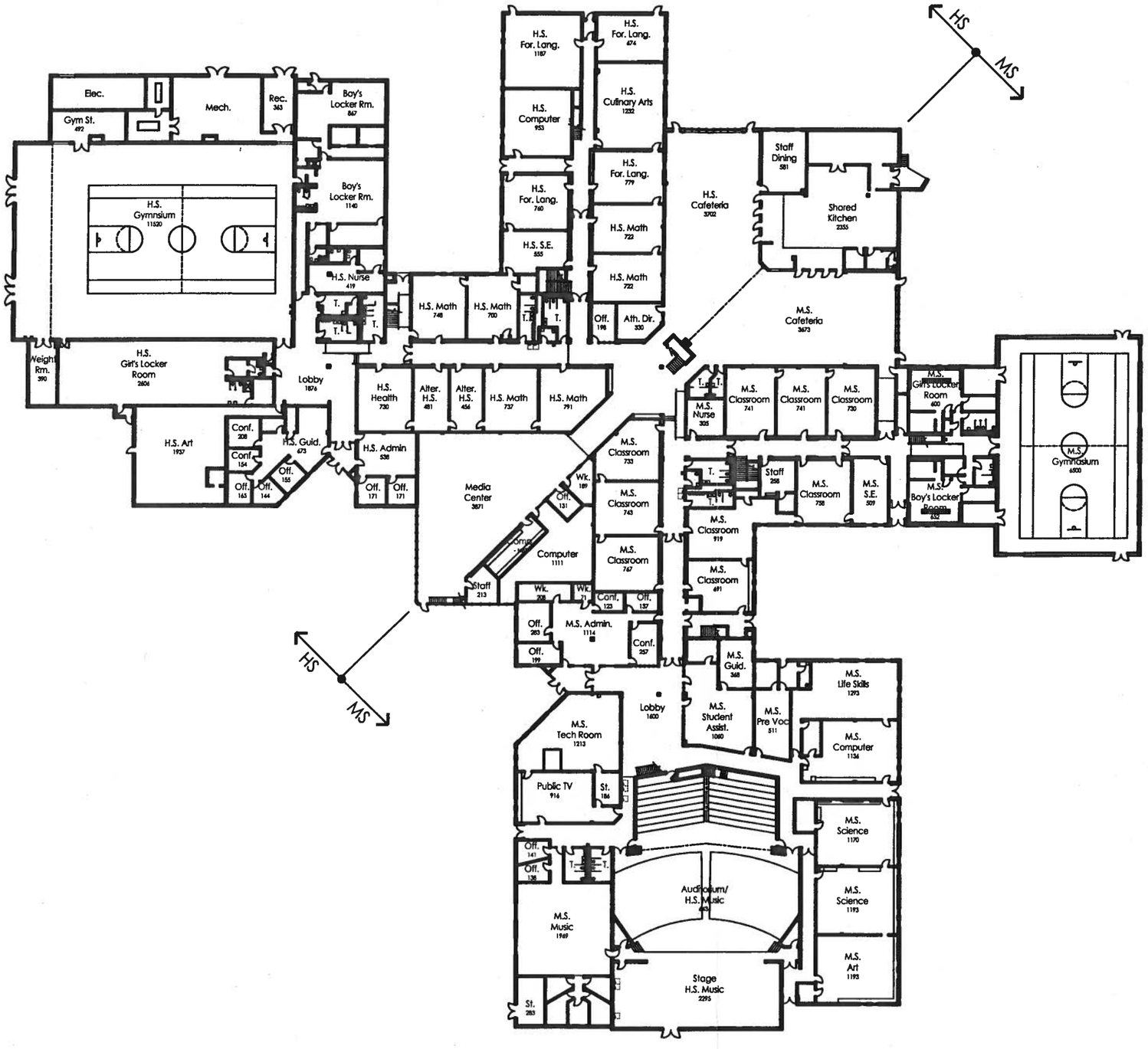
community, should be refurbished (see previous comments) and be used primarily as an auditorium.

- The Administrative Area is very inadequate.
- There is not adequate faculty planning, work or meeting space.
- Teachers do not have an assigned teaching station and/ or home base: OT/PT; Speech/ Hearing; Special Education.
- The Boys and Girls Locker Rooms are inadequate, not well designed and not being used as originally intended.
- Interviews indicate that more access to and updated technology is needed. There needs to be a discussion about centralization versus decentralization of technology in the building- do you add more capacity at the shared IMC or locate computer labs and/ or computers in the classroom at the High School.

4. Meets the Massachusetts School Building Authority Requirements

   a. The building received a ranking of "2" in the states preliminary "Needs Survey".

   b. The majority of regular classrooms are on the low side in size (area) compared to MSBA standards 3 out of 5 Science classrooms/ labs are below MSBA size standards.



Kingscott
KALAMAZOO | SOUTHFIELD | CHELSEA
229 East Michigan Ave., Suite 330
Kalamazoo, MI 49007-6403
P: 269.381.4880 | F: 269.381.9110
800.632.7918

Carver Public Schools

KEY PLAN

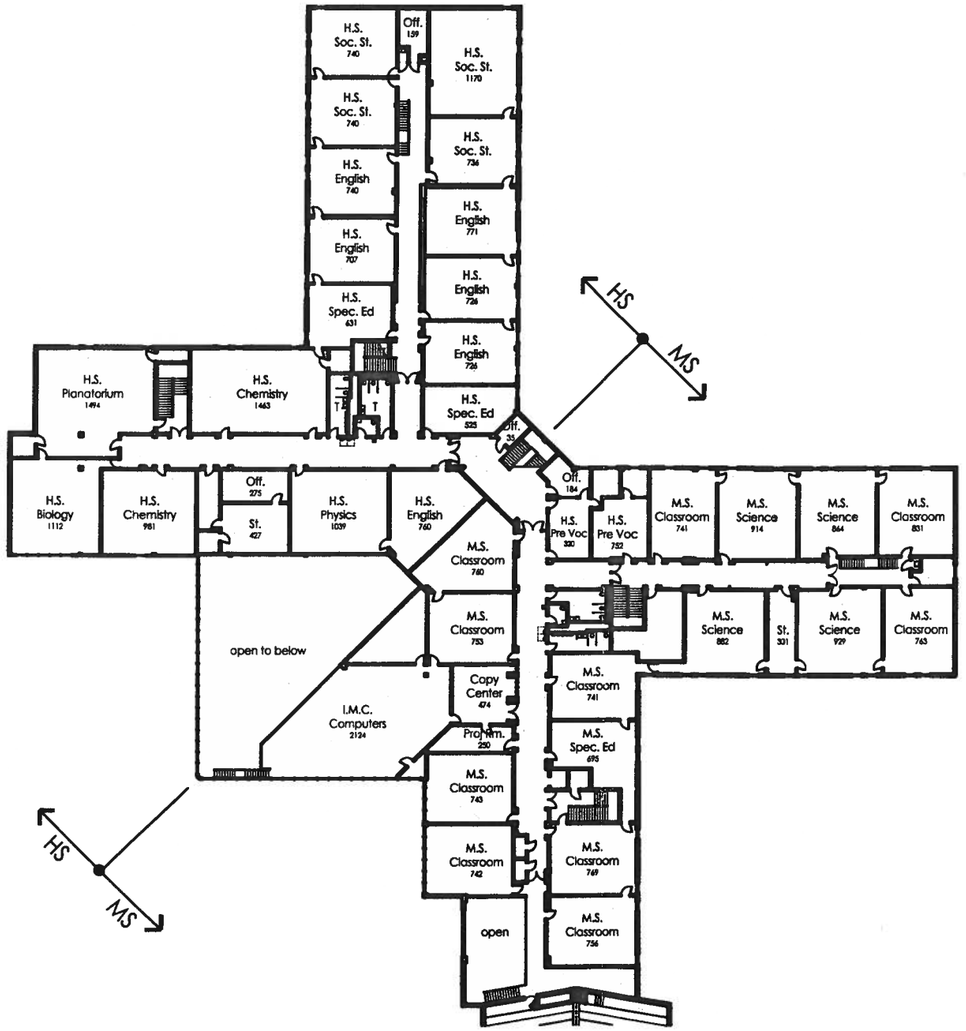
JOB NO. 2679-01

SHEET TITLE

FIRST FLOOR PLAN

SHEET NO.

ms/high



Kingscott
KALAMAZOO | SOUTHFIELD | CHELSEA
229 East Michigan Ave., Suite 335
Kalamazoo, MI 49007-8403
P: 269.381.4880 | F: 269.381.9110
800.632.7818

Carver Public Schools

KEY PLAN

JOB NO. 2579-01

SHEET TITLE

SECOND FLOOR PLAN

SHEET NO.

mns/high

Carver High School

Kingscott

CARVER PUBLIC SCHOOLS

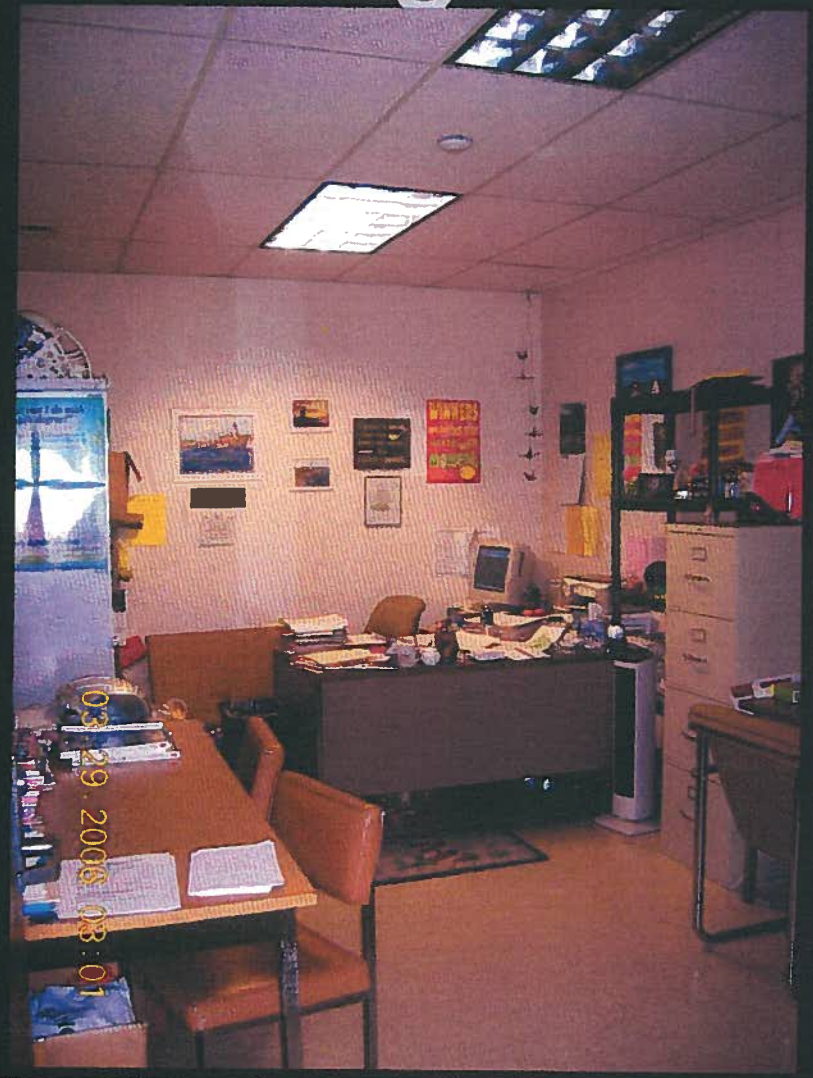
Carver High School

Kingscott

CARVER PUBLIC SCHOOLS

Entrance Lobby

Carver High School



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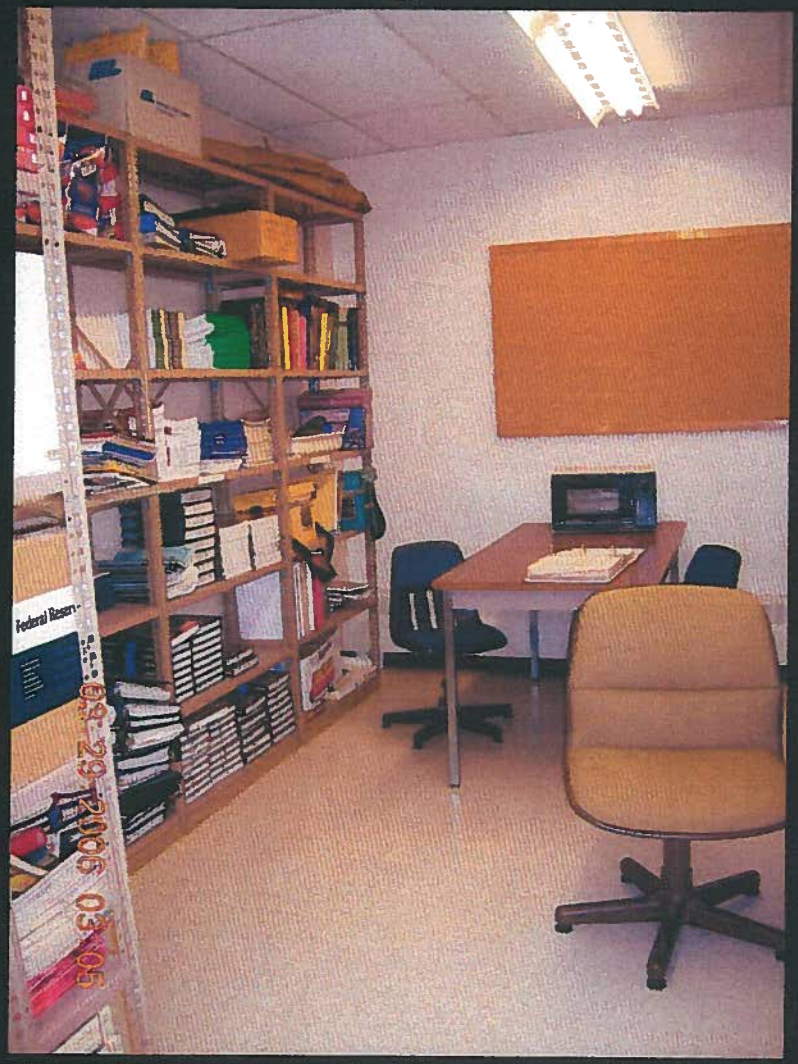
CARVER PUBLIC SCHOOLS

Student Services Office

Carver High School



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CARVER PUBLIC SCHOOLS

Storage/ Office

Carver High School

Kingscott

CARVER PUBLIC SCHOOLS

Typical Corridor

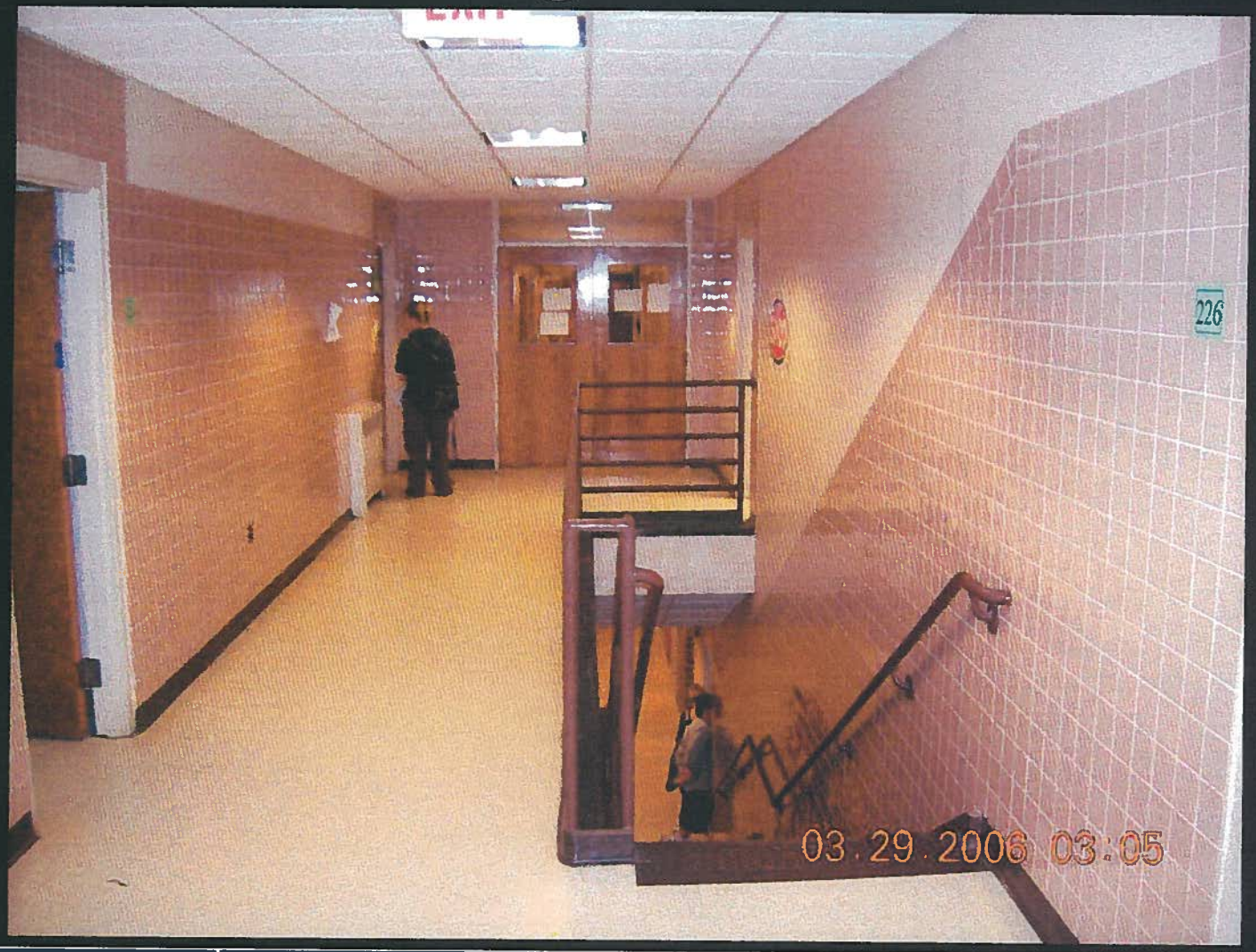
Carver High School

Kingscott

CARVER PUBLIC SCHOOLS

Typical Corridor

Carver High School

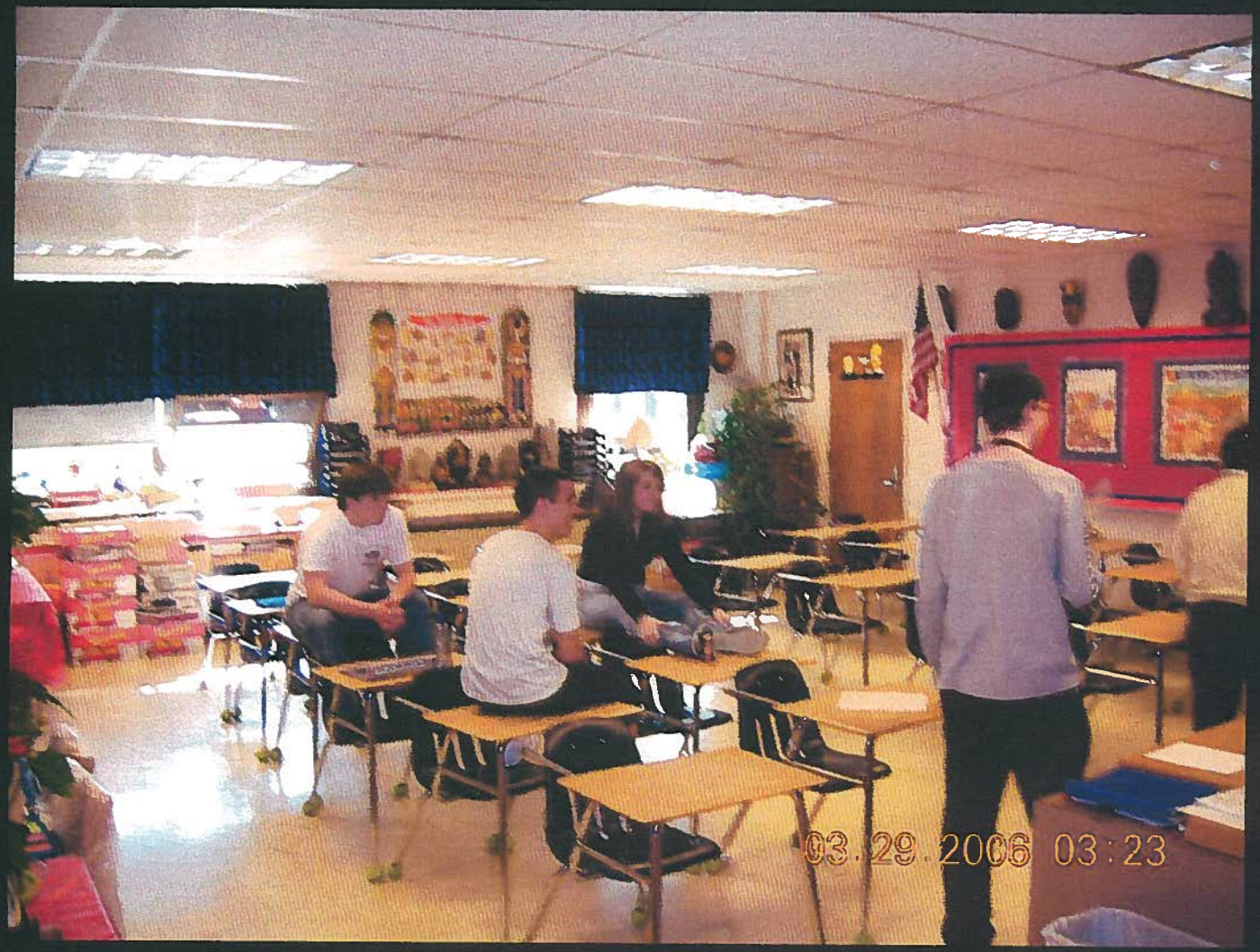


Kingscott

CARVER PUBLIC SCHOOLS

Open Stairwell

Carver High School



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CARVER PUBLIC SCHOOLS

Typical Classroom

Carver High School

Kingscott

CARVER PUBLIC SCHOOLS

Carver High School

Kingscott

CARVER PUBLIC SCHOOLS

Planetarium

Carver High School

Kingscott

CARVER PUBLIC SCHOOLS

Business Lab

Carver High School

Kingscott

CARVER PUBLIC SCHOOLS

Media Center

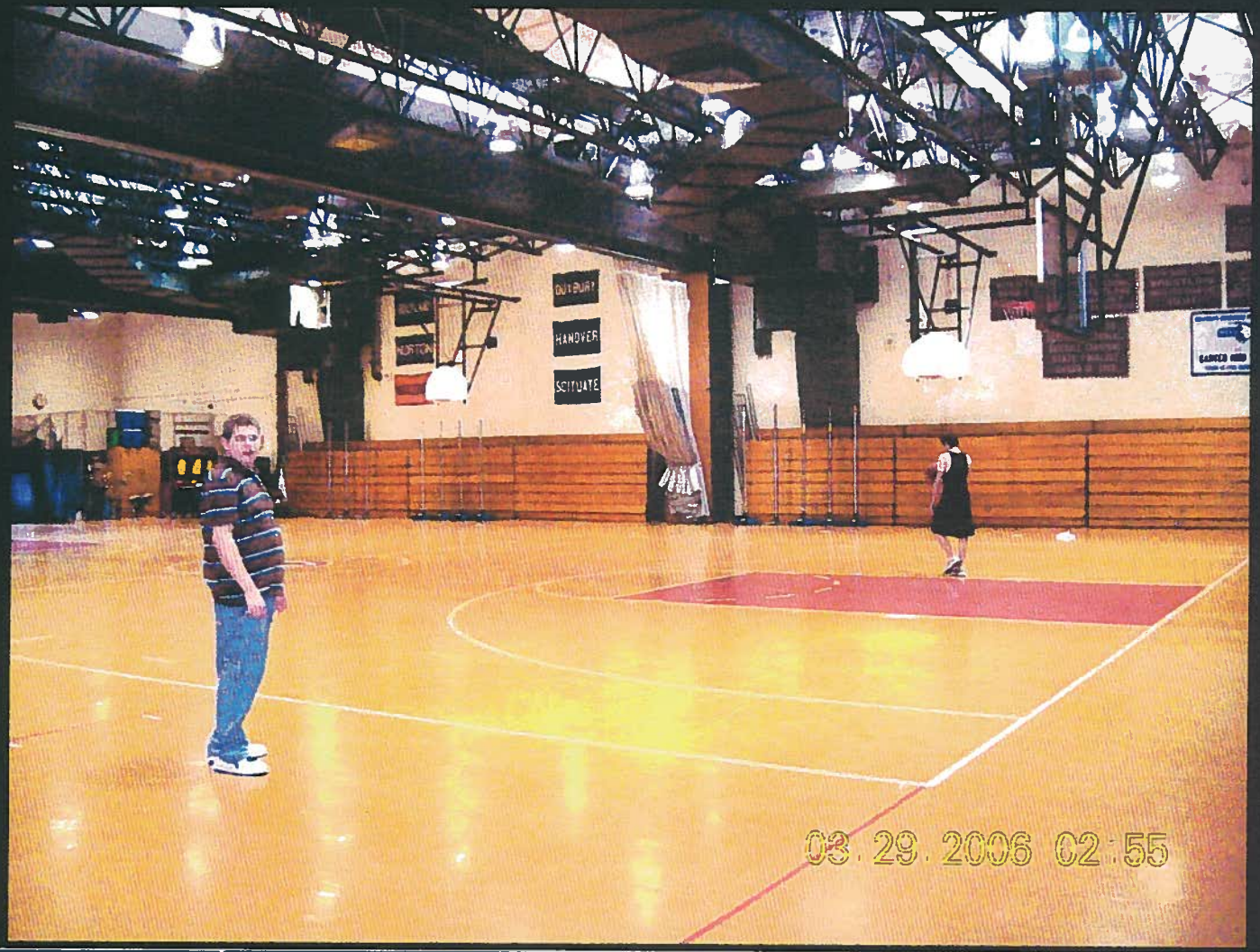
Carver High School

Kingscott

CARVER PUBLIC SCHOOLS

Cafeteria

Carver High School



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CARVER PUBLIC SCHOOLS

Gymnasium

Carver High School

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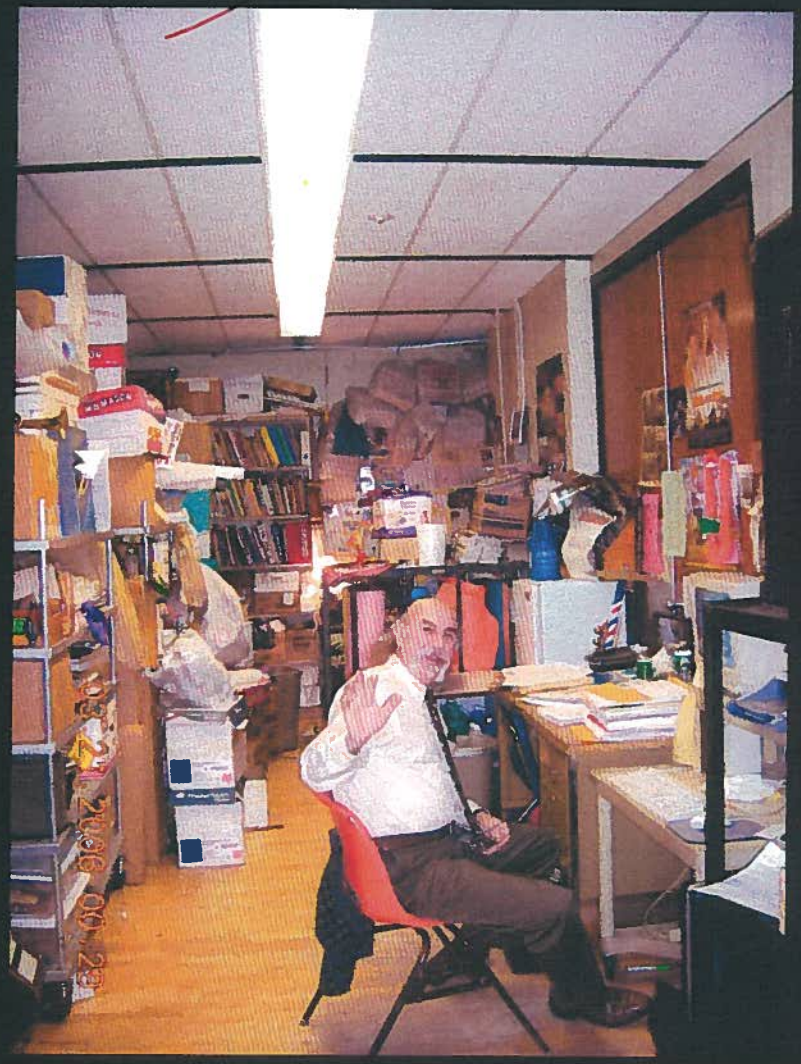
CARVER PUBLIC SCHOOLS

Auditorium

Primary

Carver High School



Kingscott

CARVER PUBLIC SCHOOLS

Storage/ Office

Carver M.S/H.S

Kingscott

CARVER PUBLIC SCHOOLS

Boiler Room

E. Technology Review

1. Basic Network System
   a. The Internet provider is Adelphia with a service to a Cisco 3550 (10g, 2f) Carver- core, 172.18.254.1 core switch/router located in the H.S./ M.S. Building. This network system serves the Maintenance Garage, Town Hall, H.S./ M.S., Elem./ Primary School and the Central Office. Refer to NETWORK diagram T-1.

   b. All link to buildings are 1000 FULL (FIBER). The Elementary/ Primary building network diagram is shown on T-2 and the H.S./ M.S. on T-3.

2. Computer Stations- District Wide
   a. Existing computer stations students and teachers

	**Students	T.S.	Fixed unit	Laptops	*Goal
PK-5	1180	59			295
Middle School 6-7-8	565	24			120
High School 9-12	600	25			125
	2,345	108			540 (23%)

* Goal is based on a state guideline of 5 computers per classroom.
** Projected enrollment

   b. Computer labs- elementary
      No. of labs required 2; No. of stations 48

   c. Computer Labs- Middle School
      No. of labs required 3; No. of stations 72

   d. Computer Labs- High School
      No. of labs required 8; No. of stations 192

   e. Administration
      No. of computer stations required 22

Total	874
Current Number	450
Additional Units Required	424

Recommendation: Purchase of 424 computer units @ $1,400= $593,600

3. Equipment Upgrades
   a. High School- upgrade of switch equipment. Refer to T-4

- Material $85,580
- Labor to install $40,000
- Total $125,580

Recommendation: Provide HS/MS computer network upgrades.

b. Elementary & Primary School
   - Equipment- Refer to T-5
   - Material $60,655
   - Labor to install $30,000
   - Total $90,655

Recommendation: Provide Primary/Elementary computer network upgrades.

4. Cabling
   a. M.S./ H.S. cabling summer of 2006
   b. Refer to attached Tele-dynamics
   c. List of 2/16/06 see T-6 $4,005
   d. Cabling upgrades and for new computer labs $25,000
   e. Total for computers, switch equipment & cabling $29,000

Recommendation: Provide for the upgrade of the computer cabling system and for the computer labs at the Elementary and HS/ MS.

5. Classroom L.C.D. Projectors and screens
   a. L.C.D. projectors are available to staff as follows:
      - 2 carts at the H.S./ M.S.
      - 1 cart at the Elem./ Primary
      - 1 fixed unit at the H.S. IMC
      - 1 fixed unit at the Elem. IMC
   b. The number of units does not meet the needs of teaching staff. Two units were purchased for the H.S. science area but have not been installed.

Recommendation: Provide overhead LCD projector with screen or projectors on a cart for every teaching station in the district. 108 total teaching stations at $1,800= $194,400.

6. TV Monitors
   a. The High School/ Middle School Building and the Elementary Building have TV monitors in all classrooms. The Primary Building does not have coax cabling or TV monitors. Add 26 @ $200= $5,200 (monitors by other)

Cost: Provide cabling and add monitors at the Primary Building. -$5,200

Recommendation: Existing systems should continue to be used short- term. In general the trend is to invest in Classroom LCD Technology for all Classrooms, which provide for greater flexibility.

b. The current satellite TV source system with channel 1 was installed in 1987. It is a single channel distribution system. The selection of different programs or channels is not possible at the classroom teaching station. The cabling is installed in a daisy chain mode. A home run cabling system is needed with a central switch/ tape play/ recording station.

Cost: Upgrade the satellite TV system to sallow the recording of programs and the capability to send selected programs to individual classrooms. Video Production Studio and cabling- $60,000 to $100,000

7. Building access
   a. All entrance doors in the district are controlled and monitored with a card access system. The system is serviceable.

8. Video Surveillance
   a. The Elementary School has one camera.
   b. The H.S./ M.S. has a total of 8 cameras.

Recommendation: Upgrade the security system.

Replace 2 cameras at the HS/MS	**$2,000**
New System for the Elem./ Primary	**$20,000**
Total	**$22,000**

9. Annual Operating and Replacement Costs

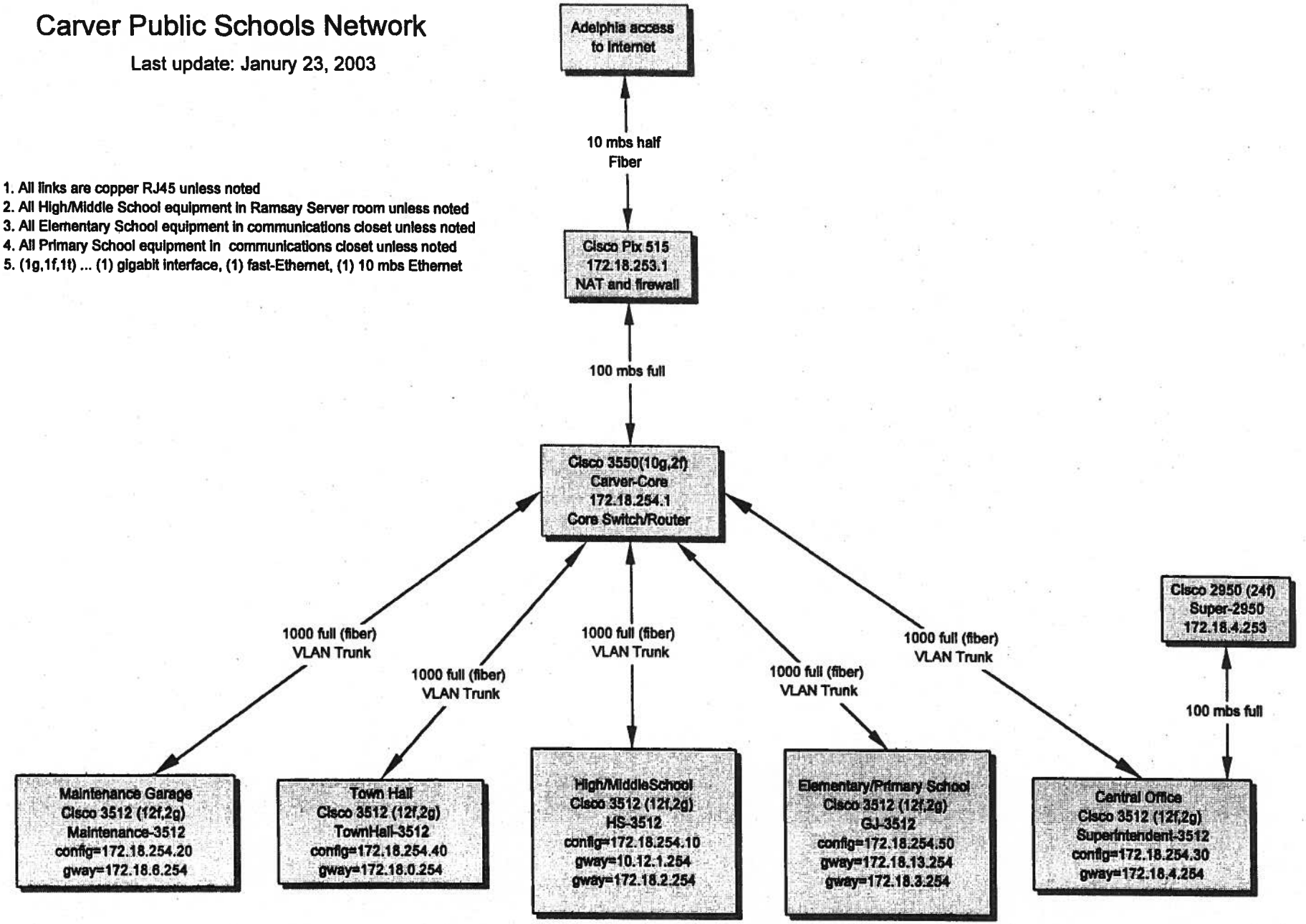
a. Software leases	$25,000
b. Student data lease	$15,000
c. Server replacement/ upgrade	
d. 20-year life. Replace 3 per year 3 @ 1,500	$4,500
e. Computer replacement/ upgrade 424 total units	
f. Assume 8 year life 53 @1,000	$53,000
g. Assume 5 year life 84 @ 1,000	$84,000
	$97,500- $128,500

   h. Note: The above does not include any new educational software.

Carver Public Schools Network

Last update: Janury 23, 2003

1. All links are copper RJ45 unless noted
2. All High/Middle School equipment in Ramsay Server room unless noted
3. All Elementary School equipment in communications closet unless noted
4. All Primary School equipment in communications closet unless noted
5. (1g,1f,1t) ... (1) gigabit interface, (1) fast-Ethernet, (1) 10 mbs Ethernet

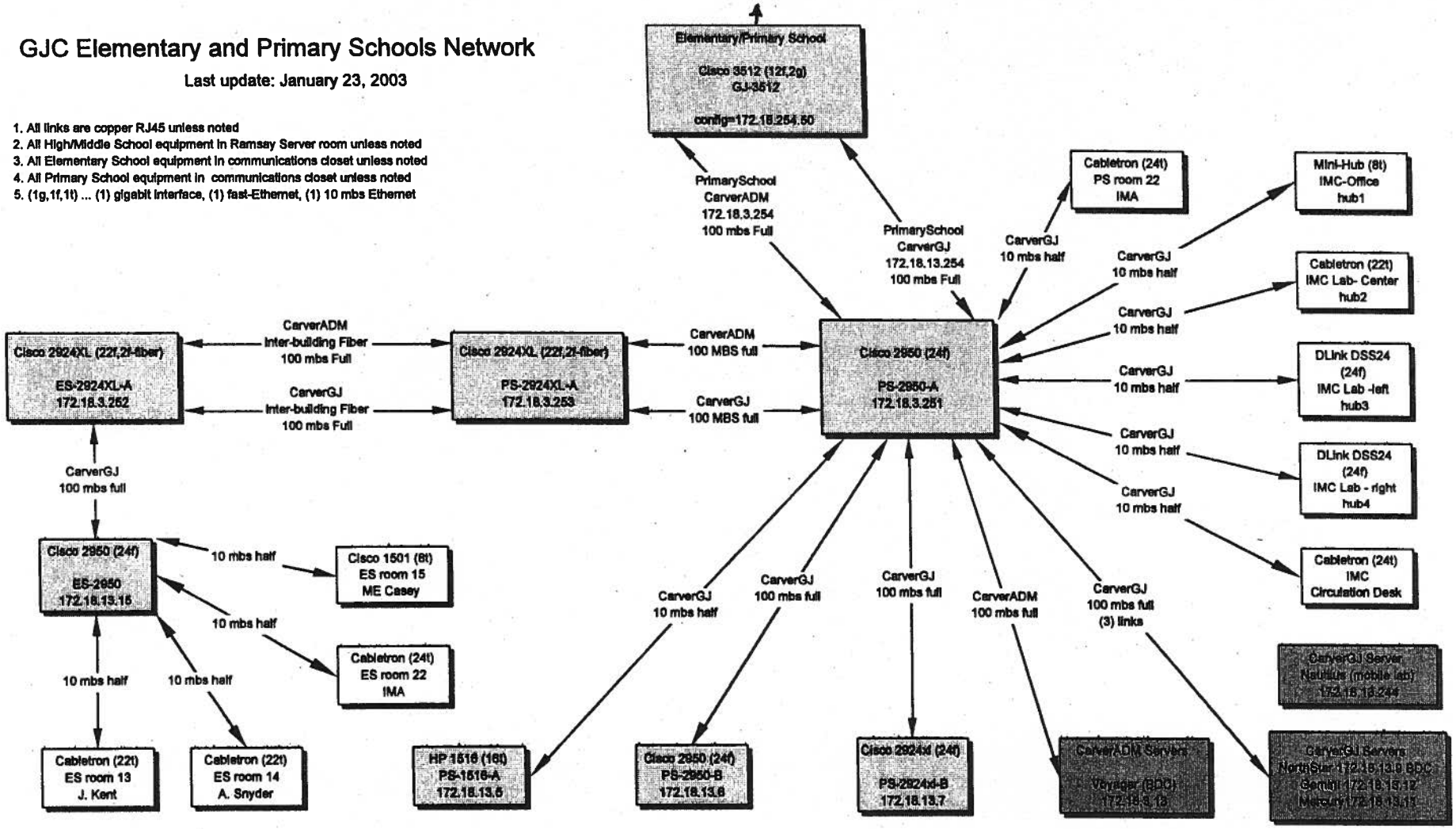


T-1

GJC Elementary and Primary Schools Network

Last update: January 23, 2003

1. All links are copper RJ45 unless noted
2. All High/Middle School equipment in Ramsay Server room unless noted
3. All Elementary School equipment in communications closet unless noted
4. All Primary School equipment in communications closet unless noted
5. (1g,1f,1t) ... (1) gigabit interface, (1) fast-Ethernet, (1) 10 mbs Ethernet

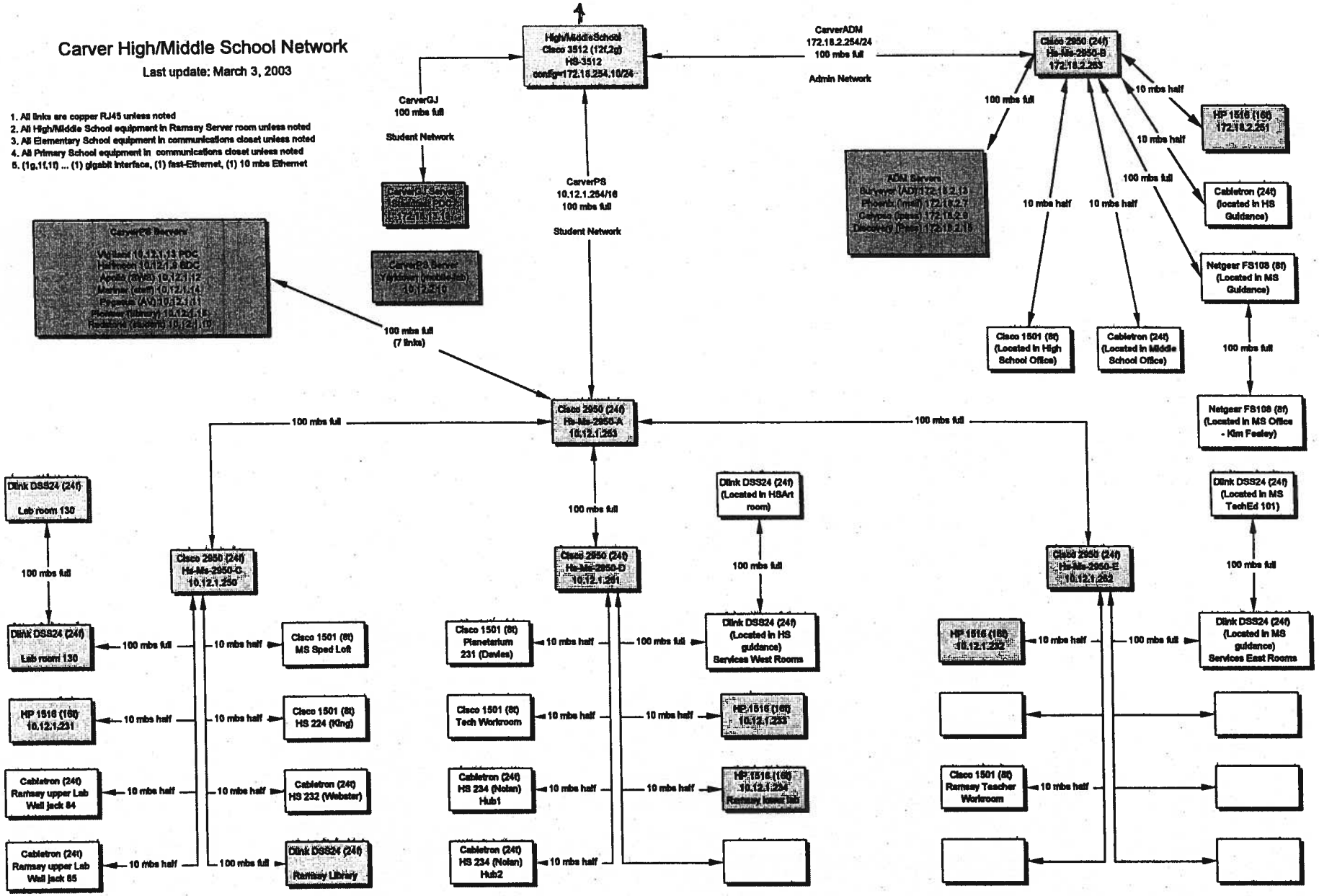


T-2

Carver High/Middle School Network

Last update: March 3, 2003

1. All links are copper RJ45 unless noted
2. All High/Middle School equipment in Ramsay Server room unless noted
3. All Elementary School equipment in communications closet unless noted
4. All Primary School equipment in communications closet unless noted
5. (1g,1f,1t) ... (1) gigabit interface, (1) fast-Ethernet, (1) 10 mbs Ethernet



T-3

Bill of Materials for Carver, MA Public Schools

HP Job # 4061

High School

Prepared January 19, 2006

ProCurve Networking
HP Innovation

Location	Product Number	Product Name	Quantity	List Price (US $)* Unit $	Extended $
Summary:					
	J8700A	ProCurve Switch 5412zl-96G Intelligent Edge NDA	2	13,996	27,992 **
	J8705A	ProCurve Switch 5400zl 20p 10/100/1000 + 4p Mini-GBIC Module ND/	2	3,499	6,998 **
	J8702A	ProCurve Switch 5400zl 24p 10/100/1000 PoE Module NDA	3	3,499	10,497 **
	J4904A	ProCurve Switch 2848	3	4,399	13,197
	J4903A	ProCurve Switch 2824	3	2,499	7,497
	J4899B	ProCurve Switch 2650	1	1,079	1,079
	J4900B	ProCurve Switch 2626	4	629	2,516
	J4859B	ProCurve Gigabit-LX-LC Mini-GBIC	4	899	3,596
	J8153A	ProCurve Access Controller 720wl	1	4,859	4,859
	J8154A	ProCurve Access Control Server 740wl	1	7,349	7,349
	700wl Warranty	Standard 700wl Warranty - 1Yr Advance Replacement NBD	2	Included	Included
	Warranty	Standard Switch Warranty - Lifetime Advance Replacement NBD	13	Included	Included
	Network Mgmt	ProCurve Product Manager	1	Included	Included
Total					**$85,580**

Notes:

**US List Price (US$) as of January 1, 2005*

***This spreadsheet contains product information which requires an NDA before distribution to customer*

T-4

Bill of Materials for Carver, MA Public Schools

Elementary Schools and Admin Bldg

HP Job # 4061

Prepared January 19, 2006

ProCurve Networking HP Innovation

Location	Product Number	Product Name	Quantity	List Price (US $)* Unit $	Extended $
Summary:					
	J8699A	ProCurve Switch 5406zl-48G Intelligent Edge NDA	2	6,998	13,996 **
	J8705A	ProCurve Switch 5400zl 20p 10/100/1000 + 4p Mini-GBIC Module ND/	1	3,499	3,499 **
	J8702A	ProCurve Switch 5400zl 24p 10/100/1000 PoE Module NDA	4	3,499	13,996 **
	J8693A	ProCurve Switch 3500yl-48G-PWR Intelligent Edge NDA	1	10,079	10,079 ***
	J4899B	ProCurve Switch 2650	1	1,079	1,079
	J4900B	ProCurve Switch 2626	10	629	6,290
	J4859B	ProCurve Gigabit-LX-LC Mini-GBIC	2	899	1,798
	J4858B	ProCurve Gigabit-SX-LC Mini-GBIC	2	419	838
	J8153A	ProCurve Access Controller 720wl	1	4,859	4,859
	J8130A	ProCurve Wireless Access Point 420 NA	9	469	4,221
	700wl Warranty	Standard 700wl Warranty - 1Yr Advance Replacement NBD	1	Included	Included
	Warranty	Standard Switch Warranty - Lifetime Advance Replacement NBD	23	Included	Included
	Network Mgmt	ProCurve Product Manager	1	Included	Included
Total					**$60,655**

Notes:

**US List Price (US$) as of January 1, 2005*

***This spreadsheet contains product information which requires an NDA before distribution to customer*

****Not To Exceed Pricing*

T-5

56 Manley Street
West Bridgewater, MA 02379

508 583-5260 Voice 508 586-9845 Fax

jo-annb@tele-dynamics.net

Tele-Dynamics, Inc.

Fax

To: LISA – CARVER PUBLIC SCHOOLS **From:** Jo-Ann Bouve'

Fax: 508-866-2905 **Pages:** to follow

Phone: 508-866-6180 **Date:** 2/16/06

Re: CABLING FOR MIDDLE/HIGH SCHOOL

☐ **Urgent** ☐ **For Review** ☐ **Please Comment** ☐ **Please Reply** ☐ **Please Recycle**

Dear Lisa,

Please find below the estimate you requested to cable both the Middle and High School (Note: These prices are not guaranteed since we have been advised of a price increase in the coming months)

- Estimate approximately 4000' CAT6 Data cable to be run. Approximate cost of $2200.00
- Estimate approximately 350' CAT3 Voice cable to be run. Approximate cost of $52.50
- Estimate approximately 60' CAT5 Data cable to be run. Approximate cost of $24.00
- (1) 24 Port CAT6 Patch Panel @ $120.69
- (24) CAT6 Jacks @ $8.75 ea = $210.00
- (2) CAT5 Jacks @ $7.00 ea = $14.00
- (3) 6 Pin ICC Jacks @ $4.00 ea = $12.00
- (5) Single Surface Boxes @ $1.70 ea = $8.50
- (1) Double Surface Box @ $2.25
- Plus any miscellaneous hardware as needed.
- (3) DTP-8D-2 Phones @ $234.36 ea = $703.08

CONTINGENCY

$3,347
668
$4,005

T-6

IV. Educational Specifications

A. Current Educational Programs and suggested revisions

Your buildings are getting in the way of the Carver Public Schools delivering the Educational Program it is committed to and desires to deliver; both quantity and quality.

Your professional staff believes they are doing a good job in spite of the obstacles; they are finding a way to make it work. They also recognize that facility improvements would: improve and grow your program; retain qualified, experienced staff; give the school momentum; allow teachers and students to be their best.

A part of the solution is to provide every teacher, support staff and administrator with an appropriate assigned teaching station or "home base". Where appropriate these can be shared space.

There is some discussion of bringing back in-house an appropriate number of the 40 Special Education students currently tuitioned out to regional facilities. These students are Learning Disabled and/ or Emotionally Impaired students. If these students are brought back, additional staff and space are required.

1. Erwin K. Washburn Primary Building- Grade Pre-School-2

    a. In additional to the current grade organization Pre School-2 the concept planning concepts need to include a PS-5 grade organization. Many think Pre-School -5 is a better model.

    b. The Primary wants to continue the current 5 ¾ hour day with a: 2 hour Literacy block; 1 hour Math block; 40 minute Specials (Art, Music, Phys. Ed, Media/ Tech); 45 minute lunch/recess; 40 minutes of Science; 40 minutes of Social Studies.

    Interviews indicate the staff would like to add a 5th special to be either Foreign Language or Computer Literacy.

    c. Primary would like their starting time earlier. Current starting time 9:25 a.m. This is an educational and bussing issue.

    d. The Pre- School classrooms should be located in the Primary School building.

e. The ideal class size is 18 students; 20 should be maximum.

f. There will be parent interest in a maximum of 4 Multi-Age classrooms even with enrollment growth. There are currently 4 Multi-Age classrooms. The grades grouped for Multi-Age might be different in a PS-2 versus a PS-5 building i.e. K-1-2/ K-1/2-3/ 4-5; etc. Multi-Age classrooms should be grouped for teaming.

g. Full-day Kindergarten should be initiated in the Carver Public Schools. Include this program in concept planning options.

h. 3 lunch periods are preferred; meets MSBA standards.

i. Provide separate Computer Lab for Primary; adjacent to Media Center.

j. Provide appropriate conference space for Administration, Special Education, Counseling, etc.

k. Provide shared space for Title I teaching station and teacher's home base.

l. Enclose teaching stations; this is a quality of education issue.

m. The number of teachers and students "looping" does not affect how classrooms are organized. Any number can loop.

n. Teachers want to continue the common planning period; by grade.

2. Governor John Carver Elementary Building- Grades 3-5

a. Include a grade Pre-School-5 model in concept planning options.

b. The Elementary wants to continue the same 5 ¾ hour day as described above for the Primary School; they also want a 5th special.

c. The 5th grade is "teaming". Depending on the number of sections there are 2 and 3 teacher teams; 2 teachers being preferable. Students move between classrooms.

d. Ideal class size is 18 students; 22 is maximum.

e. Currently Multi-Age at the elementary groups grades 3-4-5. There are 2 sections.

f. Same comments about "looping" as Primary School.

g. Eliminate lost instructional time caused by current traveling to Primary Building.

h. 3 lunch periods are preferred; meets MSBA standards.

i. Provide separate Computer Lab for Elementary.

j. 50 percent of the 5th grade classrooms need to be sized and equipped for Science Instruction.

k. Building Administration needs to be consolidated and located adjacent to Main entrance; create new front door.

l. Provide appropriate conference areas for Administration, Special Education, Counseling, etc.

m. Same comment as Primary Building on common planning period.

n. Provide a relocated new physical education teaching station.

3. Carver Middle School

a. The Middle School wants to continue the current six-day rotating cycle with 6 periods (blocks) per day. Each student has 4 periods of basic instruction in their team and 2 periods of Exploratory/ Elective subjects. One Exploratory/ Elective is a rotation (9 weeks/ term) of 2 PE, Comprehensive Health and Computer. The other rotation is Art, Life Skills, and Tech. Educ. and an Elective. If a 6th or 7th Grade student elects Band and/ or Choral that full year elective is substituted for an Exploratory/ Elective rotation. An 8th Grade student taking Foreign Language also substitutes for an Exploratory/ Elective rotation.

The Music teacher would like to see General Music included as the fourth subject in the Art, Life Skills, and Tech. Educ. rotation.

b. Continue the two basic instructional teams per grade level. Teams have 4 teachers and 80 to 94 students. Ideal class size is 22 to 24 students.

c. The Music area is inadequate. Provide either of the following:

- A separate Music Area for the Middle School: combination Band and Choral Rehearsal Room with correct area and volume; Office/ Music Library; Ensemble Room; 4 Practice Rooms; Storage.
- A shared Music area with the High School: Band Rehearsal Room; Choral Rehearsal Rooms; Music Theory/ General Music Classroom/ Ensemble Room; 4 Practice Rooms; 2 Offices; Music Library; Storage.

d. The Nurse's suite is inadequate and does not meet code; relocate.

e. 2 lunch periods works best educationally.

f. Make a decision whether there will be a bigger educational partnership with the Public T.V. station or if it will be relocated out of the building.

g. Provide Teacher Planning, Work and Lounge Area; adequately sized and equipped.

4. Carver High School

a. The High School wants to continue the current seven-day rotating cycle with a Home Room and 6 periods (block) day. Students must successfully complete 110 credits for graduation including:

- 4 years English/ Language Arts
- 3 years Mathematics
- 3 years Social Studies
- 3 years Science
- 4 semesters (Grades 9-10) Comprehensive Health

b. There is a concern at the High School Level that the current curriculum does not meet the needs/ interests of approximately 10 percent of the students. There needs to be discussion about increasing the pre-vocational offerings.

- 57 Eighth Grade students, out of the current class of 180, submitted an application to attend the regional Vo-Tech School; Old Colony. It is our understanding that there will be 20 to 25 openings for Carver students next year.
- Historically 50 +/- Eighth Graders have applied for Vo-Tech and 30 are accepted.
- Subjects suggested are: Advanced Computer Applications and Programming; Food Management; Technology Education; Health Related; Justice; Construction Management. Courses like Woodworking; Metals; Auto- Mechanics; Auto Body, etc. would stay at the Vo-Tech School.

c. Ideal class size is 24 students.

d. Music Program uses Auditorium Stage and Auditorium as their teaching stations. This is not desirable. Provide one of the following:

- A separate Music Area for the High School: combination Band/ Choral Rehearsal Room; Music Theory classroom/ Ensemble room; 4 practice rooms; Office/ Music Library; Storage.
- Shared area with Middle School. See "Music" above in Middle School description.

e. 2 lunch periods work best educationally.

f. Provide appropriate conference spaces for Administration, Special Education.

g. Provide Teacher Planning, Work and Meeting space.

h. Provide the required support spaces for the Administration Area.

i. Remodel the Boys and Girls Locker Rooms to meet current program requirements; Comprehensive Health and Athletics.

Provide a Comprehensive Health/ Fitness Room. Relocate current functions/ storage in cages on gym floor. Return that floor area to its original use.

B. Educational Specifications

The Educational Specifications describe the type, quantity and size of spaces in a school building(s) required to meet the needs of a School District's Educational and Administrative Program. The attached Educational Specifications define the grade level organization of that school and its projected number of students.

1. 605 student Primary School- Grades PK-2
2. 690 student Primary School- Grades PK-2
3. 560 student Elementary School- Grades 3-5
4. 645 student Elementary School- Grades 3-5
5. 590 student Elementary School- Grades PK-5
6. 665 student Elementary School- Grades PK-5
7. 565 student Middle School- Grades 6-8
8. 650 student Middle School- Grades 6-8
9. 600 student High School- Grades 9-12
10. 725 student High School- Grades 9-12

V. Analysis of Alternate Sites

A. Add New Elementary School to High School/ Middle School site.

1. The size of the site is adequate to locate a New Elementary School. Preliminary analysis suggests a site location on the northeast corner of the site with access off of Pond Road.

2. The existing Sewage Treatment Facility and well are sized to handle an additional building. However, Kingscott recommends a second well based on the population the site will have.

B. Alternate Future Sites

1. With the potential of a major mixed use development in South Carver, discussions should take place whether a New Elementary School should be part of that development.

Phase II
Problem Solving

Kingscott

Feasibility Study
Carver Public Schools

PHASE I MAY 2006

PHASE II JUNE 2006

Feasibility Study
Phase Two-Problem Solving
Carver Public Schools
June 19, 2006

Kingscott Associates, Inc.
Paul Blanchard, Assoc. Architect

Phase II- Problem Solving
Index

I. Purpose

The purpose of Phase II- Problem Solving is to:

- Agree on which information described in Phase I- Problem Seeking will be used in identifying and developing potential concept planning options.
- Identify concept planning options.
- Develop concept planning options.
- Develop criteria to evaluate concept planning options.
- Select concept planning options to present to community and MSBA.
- Develop parallel operational implications of each selected concept planning option.
- Select concept planning option, which will be the "Right" solution for Carver, the Master Facilities Plan. This option can be one of the original options, revision of an option or combination of options.
- Establish short and long term priorities of the Master Facilities Plan.
- Identify initial building program to present to the Town and MSBA for approval in 2007.

II. **Phase I Information Clarification**

After review of the Feasibility Study Phase I Problem Seeking Report, dated May 8, 2006, the Space Needs Task force and School Committee provided the following clarifications.

A. Agreed to use a projected student enrollment for 2010/2013 of 115% of NESDEC's projections for the school year 2011/2012. Current projections from NESDEC state those enrollment projections will be approximately:

1.	Pre- School	45 Students
2.	Elementary Grades K-5	1135
3.	Middle School Grades 6-8	565
4.	High School Grades 9-12	600
5.	Elementary Grades K-4	960
6.	Middle School Grades 5-8	740

This enrollment projection Pre- School-Grade 12 of 2345 students is a 323 student increase from the current enrollment of 2042 students.

All short term planning options should include this increased student enrollment. All options should recognize and deal with the potential enrollment growth between 2012 and the year 2026 of another 115%:

1.	Pre- School	60 Students
2.	Elementary Grades K-5	1335
3.	Middle School Grades 6-8	650
4.	High School Grades 9-12	725
5.	Middle School Grades 7-8	450
6.	Elementary Grades K-6	1535

B. Agreed that every teacher/ support staff/ administrator will have their own assigned classroom or office with sharing as appropriate. See Educational Specifications, Building Functional Programs.

C. Agreed the concept planning options should meet the Massachusetts School Building Authority guidelines for total school area, room area, construction cost, and enrollment limitations. Exceptions will be: constraints/ realities of existing buildings and slight increases to meet Carver's Educational Program Requirements.

D. Agreed to include full day kindergarten in the Concept Planning Options.

E. Agreed to relocate Pre-School Program/ facilities in Concept Planning Options to the Elementary from Central Administration site to Elementary Schools.

F. Agreed the definition of "fix up" would be to only do work that is included on the Critical Issues list, dated May 8, 2006.

G. Agreed to include the following grade organization configurations in the concept planning options.
    1. Pre- School-Grade 2 Primary School/ Grade 3-5 Elementary.
    2. Pre- School-Grade 5 Elementary/ Grade 6-8 Middle School/ Grade 9-12 High School.
    3. Pre- School-Grade 4 Elementary/ Grade 5-8 Middle School/ Grade 9-12 High School.
    4. Pre- School-Grade 6 Elementary/ Grade 7-8 Middle School/ Grade 9-12 High School.

H. Agreed to include in the concept planning options the following additions and/or enhancements to the curriculum.
    1. Middle School- General Music (9 week rotation).
    2. High School more pre-vocational opportunities.

I. The public TV station will be relocated to the High School only if integrated into the Pre-Vocational curriculum.

J. Agreed that eventually the student population at the current Primary/ Elementary site should be reduced to a maximum of 750 students.

K. Agreed that regular classrooms (English, Social Studies, Math, and Foreign Language) at the High School be utilized five periods a day for assigned subjects, one period for Directed Study and one period for teacher planning. Some classrooms will be used one period to accommodate sections taught by department heads.

L. Agreed to include a fifth special at Elementary; Foreign Language and/or Computer Literacy.

M. Agreed that Carver Public Schools would apply to the MSBA for a building program in June 2007.

III. Concept Planning Options

The following concept planning options are divided into Elementary school options (Pre- School-grade 5) and secondary school options (middle/High School). The Elementary and secondary options are intended to be mixed and matched; example Elementary option No. 2 and secondary option No. A. The combined options form the total approach to a Master Facilities Plan.

It should be remembered that the potential for long-term enrollment growth from 2012 to the year 2026 will be evident shortly into that period. The long-term options should be adjusted accordingly at that time. Also remember the selected concept planning options will be narrowed down to a "Right" solution, a Master Facilities Plan for the Carver Public Schools. Once you have developed the facilities plan, you can choose which parts and pieces of that plan you want to go to the town and MSBA for approval in June, 2007.

A. Elementary

1. Option 1 (Eliminated June 7 by Space Needs Task Force)
   Convert and expand the Erwin K. Washburn Primary and the Governor John Carver Elementary School into a 750-student Pre- School Grade 5 Elementary school.

   Build a new 390-student Pre- School-Grade 5 Elementary with provisions to expand to 590 students. Build this New Elementary on the existing Middle School/ High School site or an alternate site.

   See attached Educational Specifications- Functional Program which describes the type, quantity and size of spaces needed for this option.

   The first part of this option takes advantage of the total area of the two existing Primary/ Elementary buildings and connects them together to form one building. The converted building is arranged to have a Pre-School-2 unit and a 3-5 unit each of 360 students. Both buildings would be remodeled to: meet current and future educational requirements; extend their life 30 years; meet current codes and standards; meet MSBA guidelines and be more energy efficient. They would be like new buildings.

   In the first part of this option the number of students on the existing site would be reduced by 200 students. The site will be remodeled to:

   1. Consolidate utilities

2. Separate bus and car traffic.
3. Separate service traffic.
4. Separate visitor parking.
5. Separate hard surface play area.

In the second part of this option, the new Elementary is sized to accommodate the growth through 2013. Over time it is designed to grow to 590 students through the year 2026; an added 10 classrooms. A sub option I&A would be to add five classrooms to the option to take care of initial growth from 2013 to 2016/2018 before asking the town for another building program. If necessary the building can grow to 750 students. The core facilities would be designed initially to accommodate 750 students.

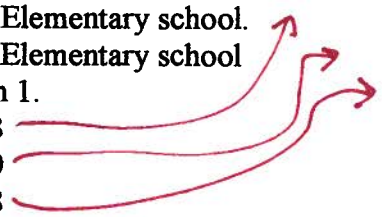
Option 1 provides the Carver Public Schools with a two (2) Elementary solution through 2026+/-.

Because of the extensive remodeling required to convert the existing buildings, a phased construction process is needed for this option. The new building would be built first. The students in the Governor John Carver would be moved to new Elementary, and remodeling and additions to 1951/1957 building would occur. When this work was done, students from parts of the Primary would be moved to 1951 building. Remodeling in the Primary would be in two phases. It would be a three (3) year construction period +/-.

See attached Site Plans and Floor Plans describing Option 1.

Estimated probable project cost.

1. 750 student Elementary school. $10,657,058
2. 390 student Elementary school $10,587,600
3. Total Option 1. $23,099,908
4.



See attached detailed estimates of probable construction cost.

2. Option 2
Convert and expand Erwin K. Washburn Primary Building to a 570 student Grade 3-5 Elementary with provisions to expand to 660 students; an added 4 classrooms. Raze the existing 1951/1957 Governor John Carver Elementary School.

Build a new 605 student Pre-School-Grade 2 Primary School with provisions to expand to 720 students; an added 5 classrooms. Build the New School on existing High School/ Middle School site or alternate site.

See attached Educational Specification-Functional Program which describes the type, quantity and size of spaces needed for this option.

The first part of this option takes advantage of locating a 750 student Grade 3-5 in the existing primary with only minor expansion and/or reconfiguring the present classroom spaces. The problem will be, in this grade organization, both facilities should have a central demographic location in the school district. Beyond 2026, if growth continues as projected, the two buildings become larger.

The converted Primary building will be remodeled to: meet current and future educational requirements; extend their life 30 years; meet current codes and standards; meet MSBA guidelines; be more energy efficient.

In the first part of this option the number of students on the existing site would be reduced initially by 480 students long term by 290students.

The existing site would be remodeled to:
1. Consolidate utilities.
2. Separate car and bus traffic.
3. Separate service traffic.
4. Separate visitor parking.
5. Separate hard surfaced play areas.

In the second part of the option, the New Primary School is sized to accommodate the growth through the 2012/2013 school year. Over time it can then grow to 720 students through 2026; an added 5 classrooms. A sub option 2-A would be to add several classrooms to both the converted Elementary and new primary to offset growth from 2013 to 2016/2018 before asking this town to vote for another building program. These added classrooms would probably not be reimbursed by MSBA.

See attached Site Plans and Floor Plans describing Option 2.

Estimated probable project cost.

1. 605 student new primary school.	$15,435,600
2. 570 student converted existing primary school to Elementary school.	$8,462,913
3. Option 2 Total	$23,866,000

See attached detailed estimate of probable construction cost.

3. Option 3
Convert and expand the Erwin K. Washburn Elementary School into a 605 student Pre- School-Grade 2 primary, with provisions to expand to 720 students, an added 5 classrooms. Raze the existing 1951/1957 Governor John Carver Elementary School.

Build a new 570 student Grade 3-5 Elementary School with provisions to expand to 660 students, an additional 4 classrooms. Build the New School at existing High School/Middle School site or alternate site.

See attached Educational Specifications-Functional Program, which describes the type, quantity and size of spaces needed for this option.

The remaining information in this option is similar to Option 2.

Estimated cost:

1. 605 student Preschool-Grade 5 Elementary School converted from existing Primary School.	$14,231,400
2. 570 student new 3-5 Elementary School.	$9,974,513
3. Total Option 3.	$24,206,000

4. Option 4
Remodel and expand Governor John Carver Elementary School to a 570 student Grade 3-5 Elementary. Retain the existing Erwin K. Washburn Primary Gymnasium, Cafeteria, Stage and mechanical with new construction connecting them to the existing Elementary. Raze remaining parts of existing Primary building. Provide provisions to expand remodeled/ expanded Elementary to 660 students; an additional 4 classrooms.

Build a new 605 student Pre-School-Grade 2 Primary with provisions to expand to 720 students; an additional 5 classrooms. Build the New Primary on existing Middle/ High School site or alternate new site.

This fist part of this option responds to the concern whether it would be wise to remodel the existing Erwin K. Washburn Primary Building given its basic construction. Can its life be extended 30 years (or 50 years per MSBA) in a cost effective manner. Also, taking into account that local sentiment which believes John Carver is the better building. The original Primary building was a systems prototype open plan building where, several major elements of the building had a recognized life span of 20 to 25 years. However, it also recognizes that several of the required spaces that are totally inadequate at the existing Elementary are expensive to replicate. The use of the existing Primary Gymnasium, Cafeteria, Stage and mechanical can accomplish this at less cost and be effectively remodeled to extend their life and increase energy efficiency. It will also allow the existing Elementary to accommodate classroom type rooms, which fit well into the building's existing configuration.

In addition, the existing Elementary Building will be easier to remodel as regular classrooms versus creating larger Pre-School and Kindergarten Rooms.

The existing Elementary and portions of the Primary will be remodeled to: meet current and future educational programs; extend life of building 30 years; meet current codes and standards; meet MSBA guidelines; be more energy efficient.

The remaining information in this Option is similar to Option 3.

See attached Site Plans and Floor Plans describing Option 4.

Estimate of Probable Construction Cost:

1. 570 student Grade 3-5 Elementary converted from existing Elementary and part of Primary.	$8,625,424
2. 605 student Preschool-2 New Primary School.	$15,433,600
3. Total Option 4.	$24,060,000

5. Option 5
   Remodel and expand Governor John Carver Elementary School to a 605 student Pre- School-Grade 2 Primary school. Retain the existing Erwin K. Washburn Primary Gymnasium, Cafeteria, Stage and mechanical with new connection connecting them to existing Elementary. Raze remaining parts of existing Primary. Provide provisions to expand remodeled/expanded Elementary to 720 students; an additional 5 classrooms.

   Build a New 570 student Grade 3-5 Elementary School with provisions to expand to 650 students; an additional 5 classrooms. Build New Elementary on existing Middle/High School site or alternate new site.

   See attached educational specifications-functional program which describes the type, quantity and size of spaces for this option.

   The first part of this option responds to the concerns whether it would be wise to remodel the existing Erwin K. Washburn Primary Building given its basic construction. Can its life be extended 30 years (or 50 years per MSBA) in a cost effective manner. The original Primary was a systems prototype open plan building where several of its major elements had a recognized life span of 20 to 25 years. Also, taking into account that local sentiment believes John Carver is the better building. However, it also recognizes that several of the required spaces that are totally inadequate at the existing Elementary are expensive to replicate. The use of the existing Primary Gymnasium, Cafeteria, Stage and mechanical can accomplish this at less cost and be effectively remodeled to extend their life and increase energy efficiency. It will also allow the existing Elementary to accommodate classroom type rooms, which fit well into the building's existing configuration.

   The existing Elementary and portions of the Primary will be remodeled to: meet current and future educational programs; extend life of the building 30 years; meet current codes and standards; meet MSBA guidelines; be more energy efficient.

   The remaining information on this option is similar to Option 3.

See attached Site Plans and Floor Plans describing Option 5.

Estimate of Probable Construction Cost:

1. 590 student Pre- School-5 Elementary School converted from existing Elementary and part of existing Primary	$10,042,206
2. 590 new Pre- School-Grade 5 Elementary School	$14,231,400
3. Total Option 5	$24,274,000

6. Option 6

Convert and expand Erwin K. Washburn Primary into a 590 student Pre-School-Grade 5 Elementary, with provisions to expand to 690 students; an added 5 classrooms. Raze the existing 1951/ 1957 Governor John Carver Elementary School.

See attached Educational Specifications- Functional Program which describes the type, quantity and size of spaces needed for this Option.

The first part of this Option takes full advantage of the existing 60,000 s.f. in the Primary Building and its existing classroom configuration. The Primary Building would be remodeled to meet current and future educational requirements, extend its life 80 years/ meet current codes and standards, meet MSBA guidelines and be more energy efficient. It would be like a new building.

In the first part of this Option the number of students on the existing site would be reduced initially by 360 students and long term by 260 students. This Option also opens up the potential, long term, to make a decision to go to a three (3) Elementary school solution with sites located to fit future student demographics. Example, the existing site in Carver, a site in South Carver and a third site determined by demographics.

The remaining information in this Option is a similar to Option 2. See attached Site and Floor Plan.

Estimate of Probable Construction Costs.

1. 590 student Pre- School-Grade 5 Elementary converted from existing Primary School	$9,536,601

2. 590 student New Pre- School-Grade 5 Elementary	$15,169,200
3. Total Option 6	$24,706,000

7. Option 7
Convert and expand. Governor John Carver Elementary to a 590 student Pre-School-Grade 5 Elementary. Retain the existing Erwin K. Washburn Primary, Gymnasium, Cafeteria, Stage and Mechanical with new construction connecting them to the existing Elementary. Raze remaining parts of existing Primary- Provide provisions to expand converted Elementary to 690 students; an additional 5 classrooms.

Build a new 590 student Pre-School-Grade 5 Elementary School with provisions to expand to 690 students; an additional 5 classrooms Build the New Elementary on the existing High/ Middle School Site or an Alternate Site.

The first part of this Option also opens up to the potential, long term, to make a decision to go to a three (3) Elementary school solution with sites located to fit future student demographics. Example; the existing site in Carver, a site in South Carver and a third site determined by demographics.

The remaining information in this Option is similar to Option 2. See attached Site Plan and Floor Plans.

Estimate of Probable Construction Costs.

1. 590 student Pre- School-Grade 5 converted from Existing Elementary and a portion of the Primary.	$10,141,293
2. 590 student New Pre- School- Grade 5 Elementary	$15,169,200
3. Total Option 7	$25,311,000

8. Option 8
Option 8 considers changing the grade organization to Pre-School-Grade 4 Elementary, Grade 5-8 Middle School and a Grade 9-12 High School. This option can be short or long term.

In terms of student population on the existing Primary/Elementary site in the school year 2011/2012, the Fifth Grade projected enrollment will be 176 students out of

1135 students, or a remaining total of 949 students. This compares to the current year with 944 students.

There are several issues with this as a short-term option for 2010/2013:

1. Eliminating the Fifth Grade (eight classrooms) only offsets the projected short-term growth. The existing Primary/Elementary site would be over capacity in 2010/2013. A new facility on a separate site would still be needed.

3. The existing Middle School/High School has a current total of 61 teaching stations. By MSBA and national standards, this number of teaching stations can accommodate 1100 students +/-. The projected enrollment for the High School for 2011/2012 is 600 students and in 2026, 725 students. Even if added Pre-Vocational curriculum took over a significant number of teaching stations, the projected High School enrollment would only fill 60% to 70% of the existing building. The High School enrollment would have to increase by almost 90% to make it financially attractive to move the Middle School to a new building.

3. Adding 176 Fifth Grade students to the projected Middle School students' enrollment in 2011/2012 of 565 students totals 741 students. This would require, in addition to eight team classrooms, an added Art, Life Skills, Computer, Health and Music Classroom for the Exploratory/Elective Program. On a long-term solution basis, there is the option to handle the growth between 2012 and 2026 in the Elementary by taking the Fifth Grade out of the Elementary and adding to the Middle School. However, the required specialized classrooms at the Middle School to support these classrooms will be more expensive than adding elementary classrooms to accommodate growth.

NEW ELEM. SCHOOL
PRE-SCHOOL - GRADE 5
390 STUDENTS
EXPANDABLE TO
590 STUDENTS

SECOND FLOOR
ELEMENTARY SCHOOL - OPTION 1
SCALE 1/32" = 1'-0"

FIRST FLOOR
ELEMENTARY SCHOOL - OPTION 1
SCALE 1/32" = 1'-0"

ELEMENTARY OPTION 1
PRE SCHOOL - GRADE 5
750 STUDENTS

- CIRCULATION
- EXISTING
- MINOR RENOVATION
- MAJOR RENOVATION
- NEW ADDITION

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Carver Public Schools

REVISIONS/REVIEW DATE

KEY PLAN

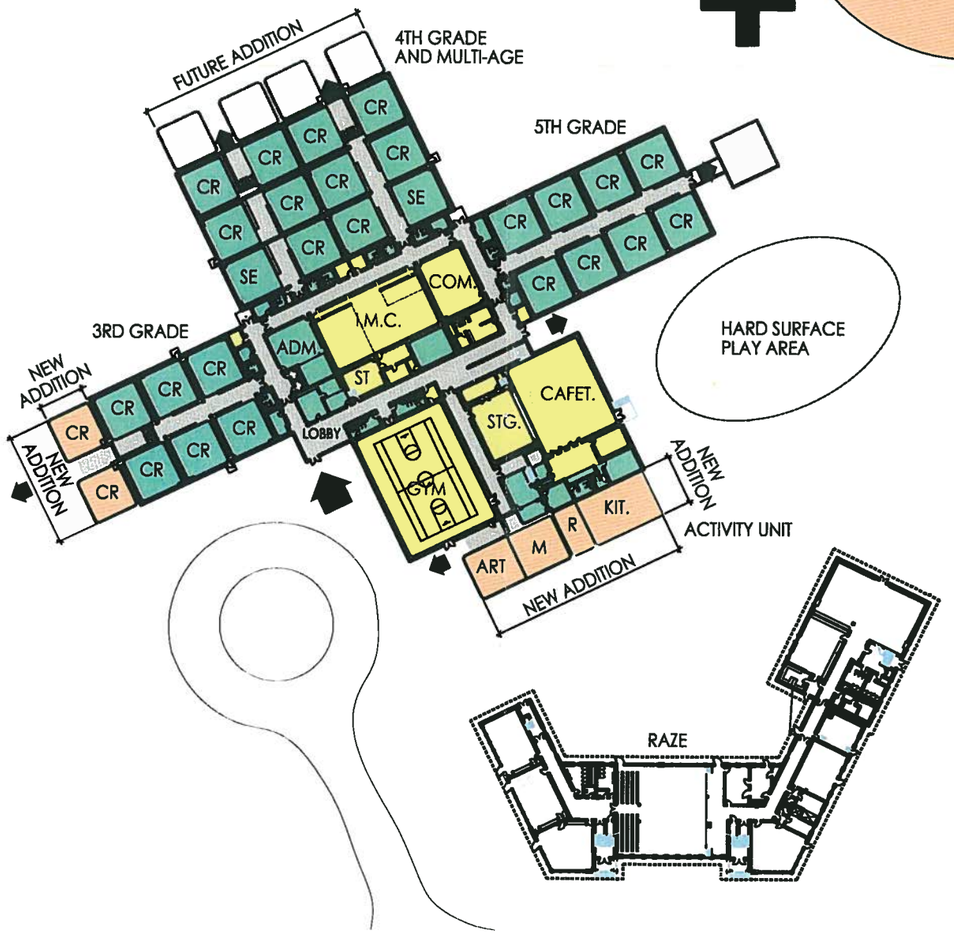
JOB NO. 2579-01

NORTH

SHEET TITLE
COMPOSITE FLOOR PLAN

SHEET NO.
OPTION 1

NEW ELEM. SCHOOL
PRE-SCHOOL - GRADE 2
605 STUDENTS



ELEMENTARY SCHOOL - OPTION 2
SCALE: 1/32" = 1'-0"

ELEMENTARY OPTION 2
GRADES 3-5, 570 STUDENTS

- CIRCULATION
- EXISTING
- MINOR RENOVATION
- MAJOR RENOVATION
- NEW ADDITION

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Carver
Public
Schools

REVISIONS/REVIEW DATE

KEY PLAN

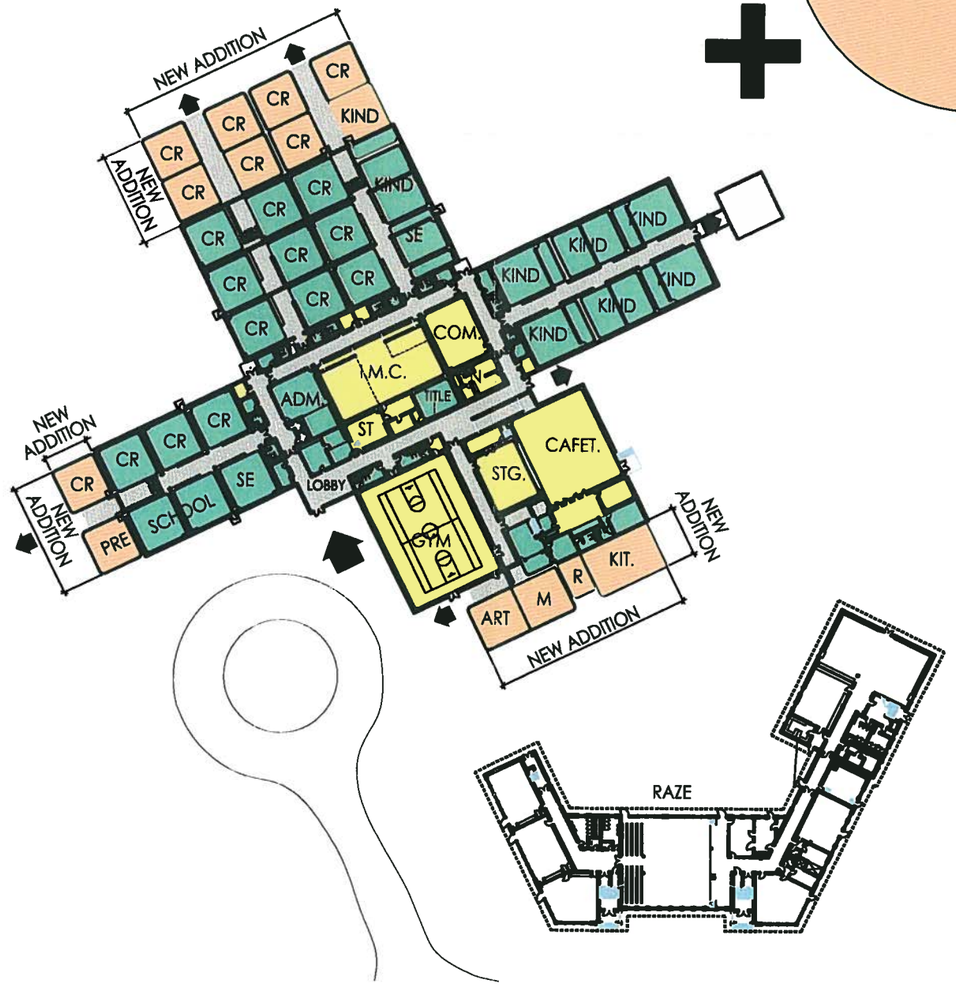
JOB NO. 2579-01

NORTH

SHEET TITLE
COMPOSITE FLOOR PLAN

SHEET NO.
OPTION 2

NEW ELEM. SCHOOL
GRADES 3-5
570 STUDENTS



ELEMENTARY SCHOOL - OPTION 3
SCALE: 1/32" = 1'-0"

ELEMENTARY OPTION 3
PRE SCHOOL - GRADE 2
605 STUDENTS

- CIRCULATION
- EXISTING
- MINOR RENOVATION
- MAJOR RENOVATION
- NEW ADDITION

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Carver Public Schools

REVISIONS/REVIEW DATE

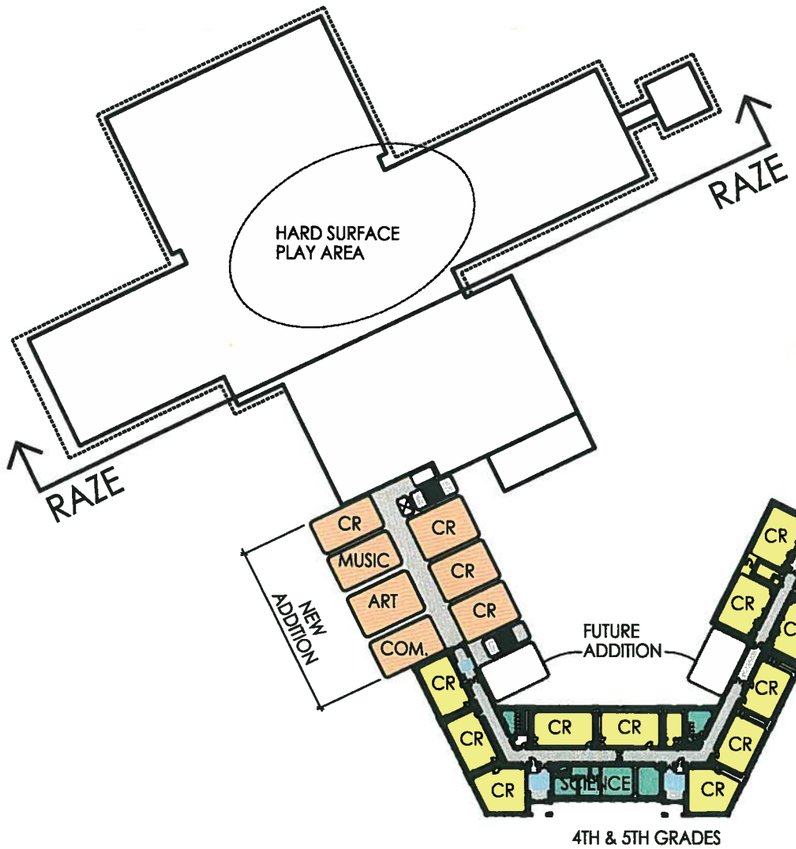
KEY PLAN

JOB NO. 2679-01 NORTH

SHEET TITLE
COMPOSITE FLOOR PLAN

SHEET NO.
OPTION 3

NEW ELEM. SCHOOL
PRE-SCHOOL - GRADE 2
605 STUDENTS
NEW SITE



SECOND FLOOR
ELEMENTARY SCHOOL - OPTION 4
SCALE: 1/32" = 1'-0"

FIRST FLOOR
ELEMENTARY SCHOOL - OPTION 4
SCALE: 1/32" = 1'-0"

ELEMENTARY OPTION 4
GRADES 3-5, 570 STUDENTS

- CIRCULATION
- EXISTING
- MINOR RENOVATION
- MAJOR RENOVATION
- NEW ADDITION

Kingscott
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Kalamazoo, MI 49007-5400
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Carver
Public
Schools

REVISIONS/REVIEW DATE

KEY PLAN

JOB NO. 2579-01

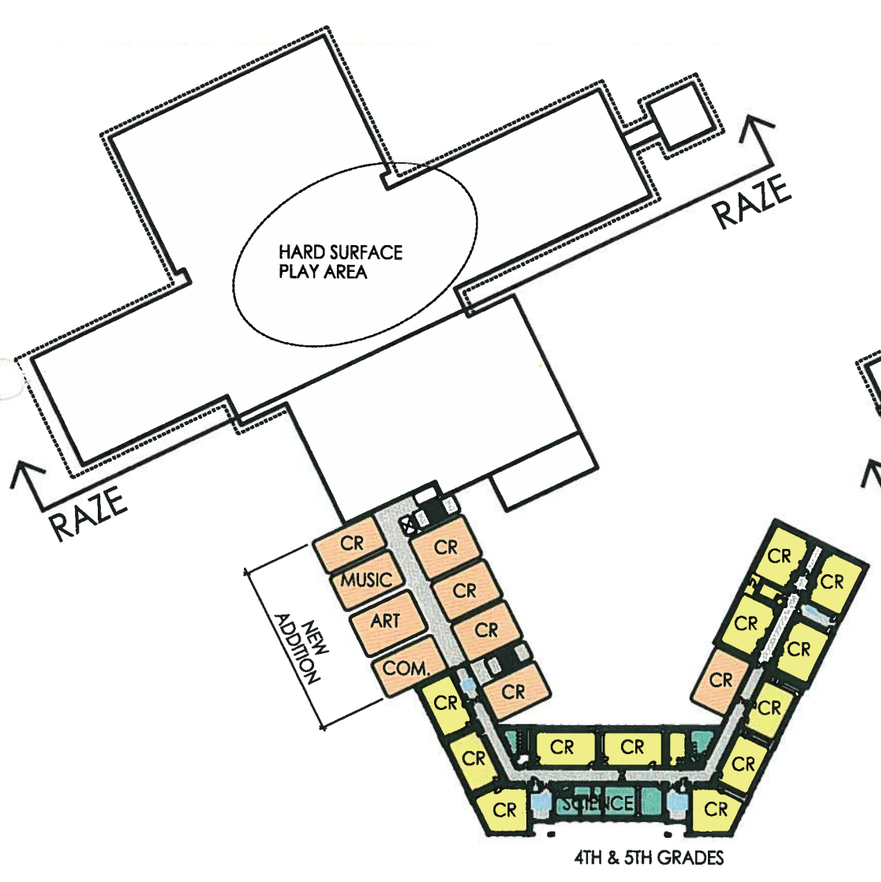
NORTH

SHEET TITLE
COMPOSITE FLOOR PLAN

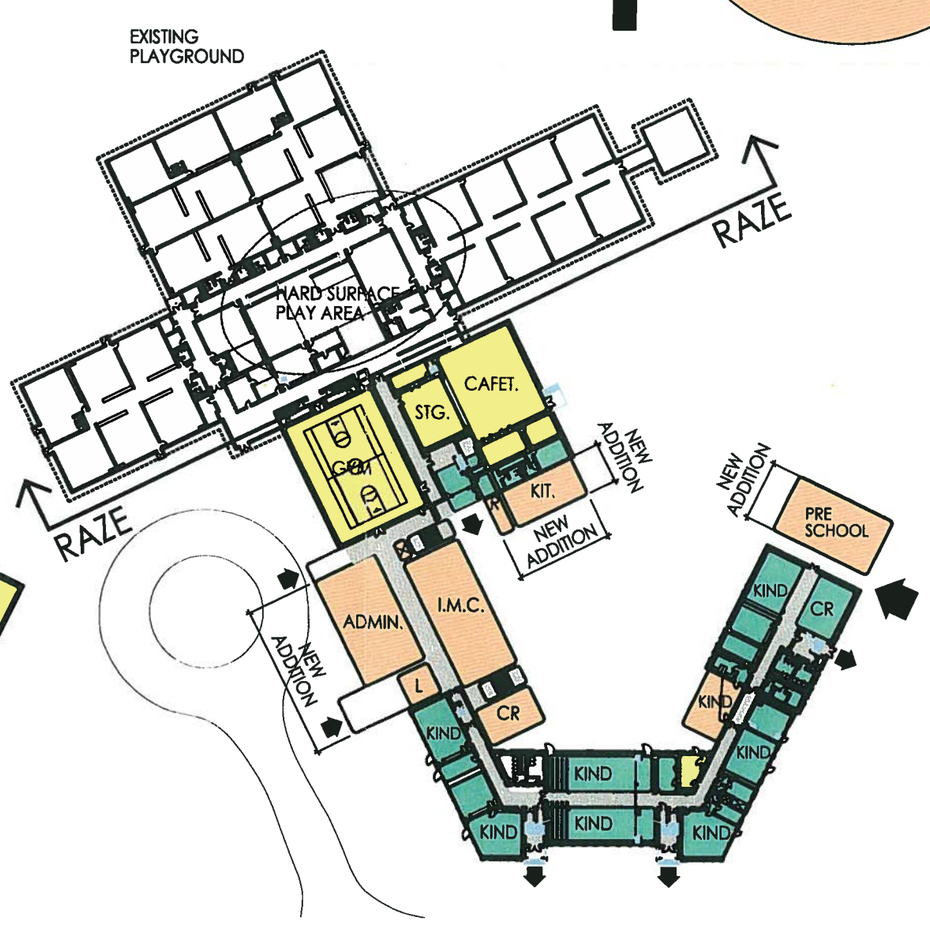
SHEET NO.
OPTION 4

NEW ELEM. SCHOOL
GRADES 3 - 5
570 STUDENTS
NEW SITE

+



SECOND FLOOR
ELEMENTARY SCHOOL - OPTION 5
SCALE: 1/32" = 1'-0"



FIRST FLOOR
ELEMENTARY SCHOOL - OPTION 5
SCALE: 1/32" = 1'-0"

ELEMENTARY OPTION 5
PRE SCHOOL - GRADE 2
605 STUDENTS

- CIRCULATION
- EXISTING
- MINOR RENOVATION
- MAJOR RENOVATION
- NEW ADDITION

Kingscott
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REVISIONS/REVIEW DATE

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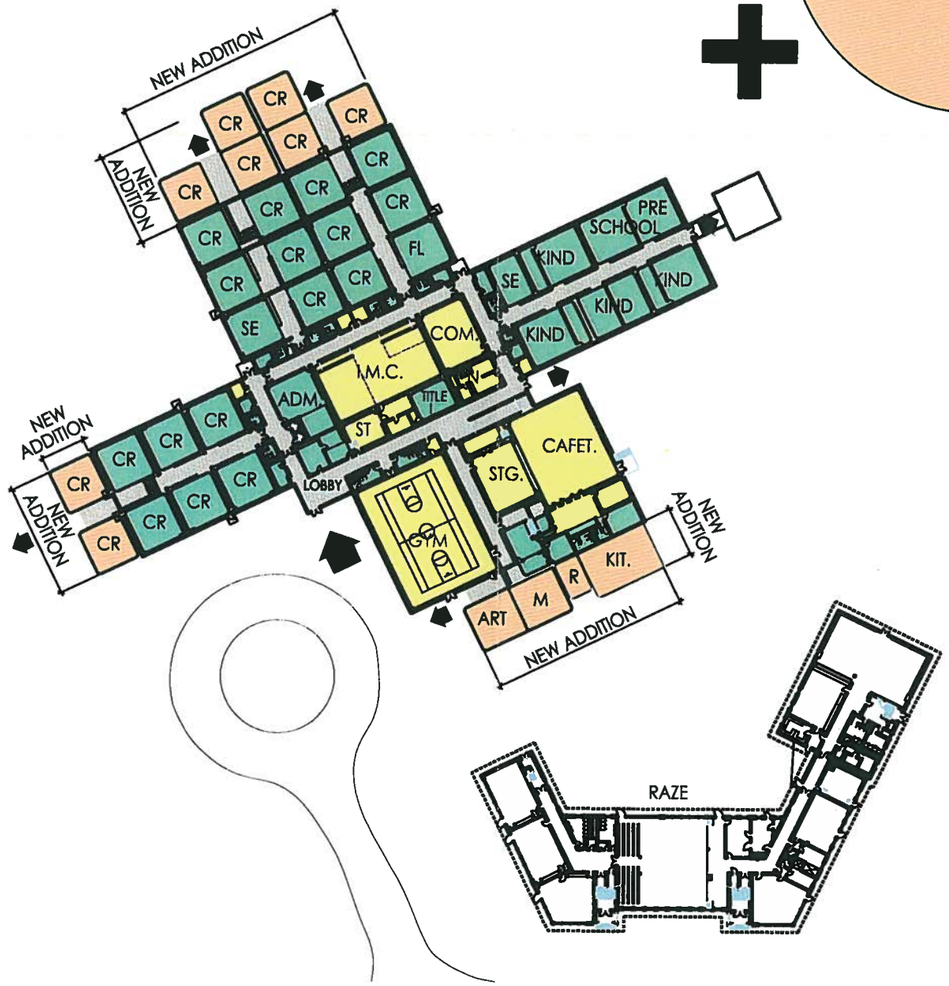
JOB NO. 2579-01

NORTH

SHEET TITLE
COMPOSITE FLOOR PLAN

SHEET NO.
OPTION 5

NEW ELEM. SCHOOL
PRE-SCHOOL - GRADE 5
590 STUDENTS



ELEMENTARY SCHOOL - OPTION 6
SCALE: 1/32" = 1'-0"

ELEMENTARY OPTION 6
PRE SCHOOL - GRADE 5
590 STUDENTS

- CIRCULATION
- EXISTING
- MINOR RENOVATION
- MAJOR RENOVATION
- NEW ADDITION

Kingscott
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Carver Public Schools

REVISIONS/REVIEW | DATE

KEY PLAN

JOB NO. 2579-01

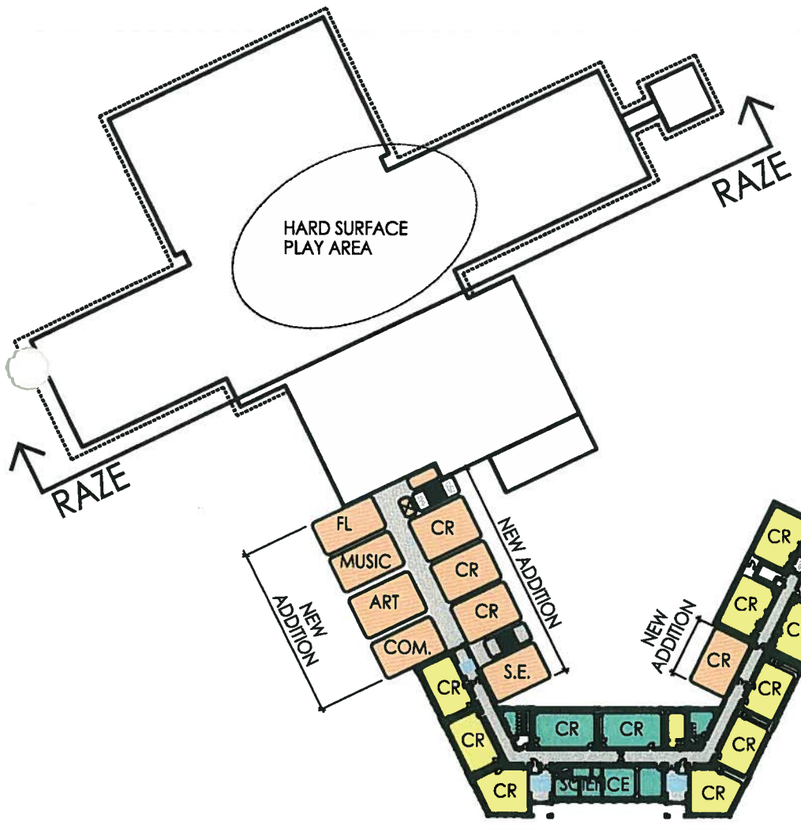
NORTH

SHEET TITLE
COMPOSITE FLOOR PLAN

SHEET NO.
OPTION 6

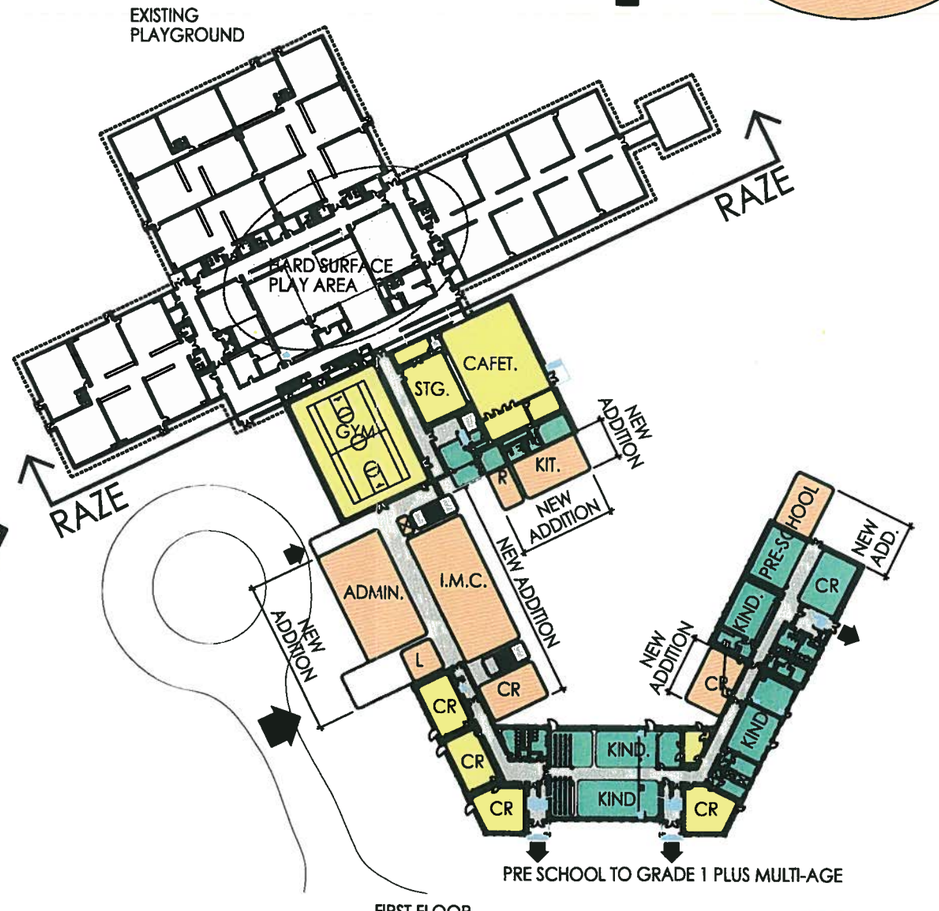
NEW ELEM. SCHOOL
PRE-SCHOOL - GRADE 5
590 STUDENTS
NEW SITE

+



GRADES 2-5 PLUS MULTI-AGE

SECOND FLOOR
ELEMENTARY SCHOOL - OPTION 7
SCALE: 1/32" = 1'-0"



PRE SCHOOL TO GRADE 1 PLUS MULTI-AGE

FIRST FLOOR
ELEMENTARY SCHOOL - OPTION 7
SCALE: 1/32" = 1'-0"

ELEMENTARY OPTION 7
PRE SCHOOL - GRADE 5
590 STUDENTS

- CIRCULATION
- EXISTING
- MINOR RENOVATION
- MAJOR RENOVATION
- NEW ADDITION

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JOB NO. 2579-01
NORTH

SHEET TITLE
COMPOSITE FLOOR PLAN

SHEET NO.
OPTION 7

B. Middle School/High School

1. Option A

The Existing Middle School has three grade level basic instructional units with two teams per grade. Each team has three regular classrooms and a science room. These 24 teaching stations with an average class size of 24 students can accommodate 576 students.

For growth to 2010/2013, which is projected at 565 students, the above basic instructional units are adequate. The following remodeling and/or new additions are required to: meet the short-term enrollment projections; meet MSBA standards; meet current codes and standards and improve energy efficiency. See attached Educational Specifications-Functional Program for the type, quantity and size of rooms required for this option.

1. Add a Foreign Language classroom.
2. Add a Comprehensive Health classroom.
3. Add a Music Suite; provide shared facility with High School.
4. Relocate public TV station to High School side.
5. Increase size of Pre-Vocational and Student Assistance Special Education space.
6. Provide space for OT/PT, Speech Pathologist, Psychologist, etc. special needs staff; provide shared space with High School where appropriate.
7. Provide added conference space.
8. Reconfigure Administration area.
9. Improve Nurses' Suite or relocate.
10. Refurbish Auditorium; shared facility with High School.
11. Reconfigure upper level of Instructional Materials Center; use for Middle School.
12. Improve staff work/meeting room.
13. Upgrade fixed equipment where appropriate.
14. Replace student lockers; one side of hallway.
15. Paint interior.
16. Replace 1988 roof; add insulation for energy efficiency.
17. Provide air conditioning in the total building.
18. Upgrade lighting and power.
19. Upgrade and add technology.
20. Provide energy efficient boilers; shared with High School.
21. Meet barrier-free code.

For long-term growth from 2012 to the year 2026 to 650 students, over time, 3 classrooms and a Science Lab/Classroom

should be added. To absorb this growth in the exploratory/elective program:

- Utilize the existing specialized classrooms six periods per day and increase class size to 27 students.

OR

- Provide two combination specialized classrooms; example: Technology Education/Computer Room; Health/Life Skills Room; Art/Music Room; etc.

There also might be the need for another special education room.

Any additions and/or remodeling, both short and long-term, should focus on adapting the building to better accommodate the grade level team educational delivery process.

The existing High School is currently over capacity. To solve current issues and meet growth to 2010/2013 to 600 students, the following remodeling and/or new additions are required. See attached Educational Specifications-Functional Program for the type, quantity and size of spaces required for this option:

1. Add Chemistry Lab/Classroom; verify need to do this.
2. Expand Pre-Vocational Facilities. Add Tech. Ed. Classroom/ Lab with Project Shop, Classroom, Publications Workroom, etc.
3. Provide Fitness Center.
4. Provide concession stand at Gymnasium Lobby.
5. Add Music Area; share facilities with Middle School.
6. Expand Culinary Arts Classroom to include classroom area.
7. Provide Staff Work/Meeting Room.
8. Provide space for OT/PT, Speech Pathologist; Psychologist, etc. special needs staff; share with Middle School when appropriate.
9. Expand Administration area.
10. Provide added conference spaces.
11. Replace student lockers; one side corridor.
12. Paint interior.
13. Replace 1988 roof; add insulation to increase energy efficiency.
14. Provide air conditioning in the total building.
15. Upgrade lighting and control.
16. Upgrade and add new technology.
17. Provide energy-efficient boilers.
18. Meet barrier-free codes.

For long-term growth from 2012 to the year 2026 to 725 students, over time, an English, Math, Social Studies, Foreign Language and one Allied Arts Room need to be added.

There also might be the need for an additional Special Education Room.

Both the short and long-term part of this Option assume, as agreed, that Directed Study will be taught in the classroom setting; average class size 24 students. If long-term this changes, the above additions, to accommodate long-term growth would not be necessary. Also, currently the average class size is significantly lower in some disciplines. If the average class size can be increased to 24 students, less space needs to be added.

In this option, the following site development issues need to be addressed:

1. Main entrance drive from South Meadow Road needs to be widened with left turn lane onto South Meadow.
2. Provide separate bus loop for 15 busses.
3. Provide separate car drop-off/pick-up loop.
4. Provide separate visitor parking; 30 cars.
5. Provide separate staff parking (double as event parking); 200 cars. Access from Pond Street.
6. Provide separate student parking (double as event parking); 300 cars. Access from Pond Street.
7. Resurface existing six-lane track. (Can be on critical issues list).
8. Provide six to eight court tennis complex.
9. Fence perimeter of athletic fields.
10. Add two soccer/field hockey type playfields.
11. Improve access road from Pond Street.

The advantage of this option is that it utilizes the large number of existing teaching stations and shared facilities; IMC/Auditorium/site. In the short term the requirements can be accommodated in the existing footprint, except for Music, and a small new addition to the High School.

Option A can be considered a Master Facilities Plan for the High School/ Middle School. Within the Master Facilities Plan priorities can be identified and Sub-options A-1, A-2 etc. can be developed to address critical needs in a 2007 Application for a Building Program.

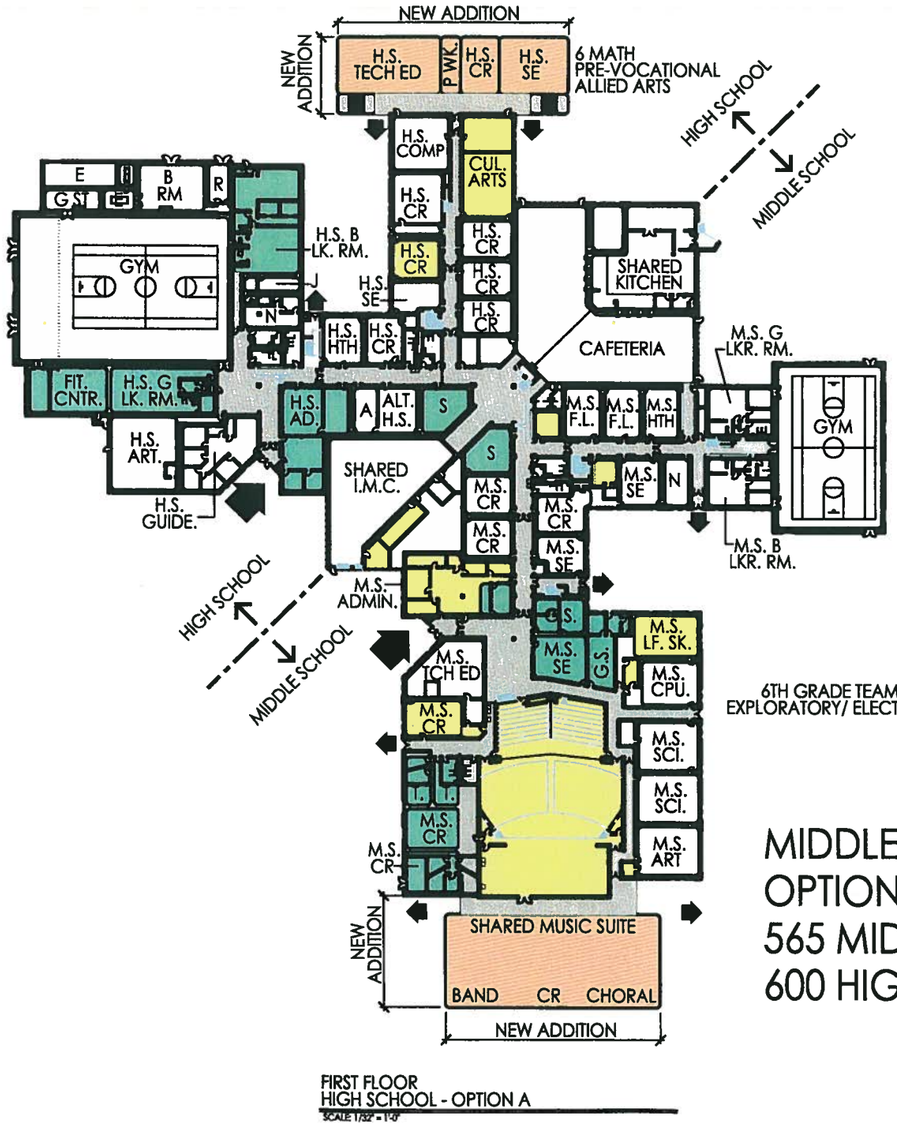
Estimate probable product cost:

1. 565 student 6-8 Middle School remodeling.	$ 1,007,145
2. 600 student 9-12 High School.	
a. Remodeling	$1,632,812
b. New addition	$2,534,000
3. Shared facilities	
a. Remodeling	$5,714,184
b. New addition	$1,639,300
4. Total Option A	$12,598,000

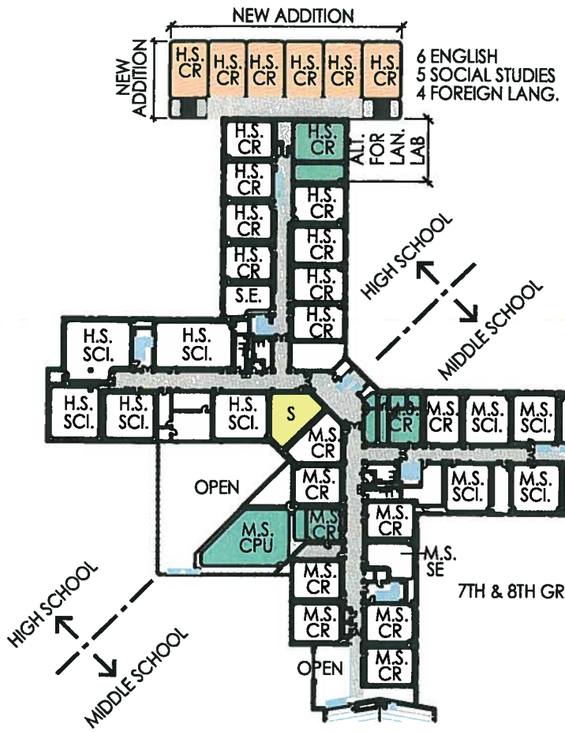
2. Option A-1/ A-2
   $4,800,000

3. Option B
   This option is a long-term option. This option assumes Option A is chosen as the short-term option. (Master Physical Plan)

   One way to leave open the option to eventually convert the Middle School/High School to a High School only would be to not expand the Middle School side to handle growth from 2012 to 2026. The way to do that is to relocate the Sixth Grade to the Elementary; approximately 188 students or eight basic instructional teaching stations. Ten classrooms would be added to the Elementary long-term options. The vacated Middle School space would accommodate the projected High School growth to the year 2026 of 725 students.



FIRST FLOOR
HIGH SCHOOL - OPTION A
SCALE: 1/32" = 1'-0"



SECOND FLOOR
HIGH SCHOOL - OPTION A
SCALE: 1/32" = 1'-0"

6TH GRADE TEAM
EXPLORATORY/ ELECTIVES

MIDDLE/ HIGH SCHOOL
OPTION A
565 MIDDLE SCHOOL STUDENTS
600 HIGH SCHOOL STUDENTS

- CIRCULATION
- EXISTING
- MINOR RENOVATION
- MAJOR RENOVATION
- NEW ADDITION

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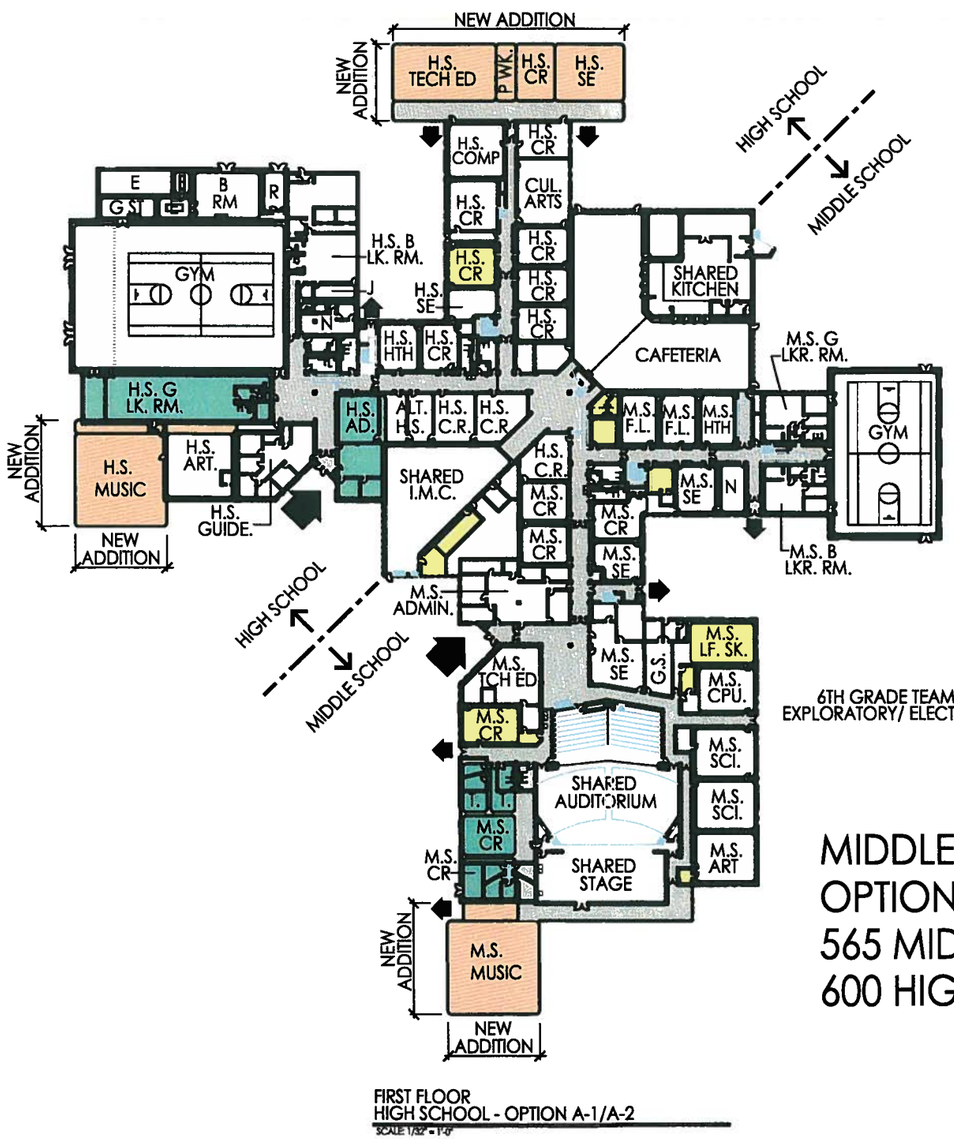
REVISIONS/REVIEW DATE

KEY PLAN

JOB NO. 2579-01
NORTH

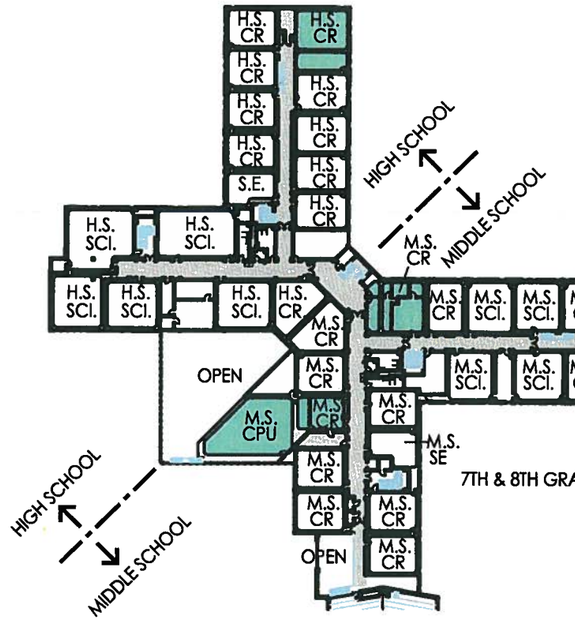
SHEET TITLE
COMPOSITE FLOOR PLANS

SHEET NO.
OPTION A



FIRST FLOOR
HIGH SCHOOL - OPTION A-1/A-2
SCALE: 1/32" = 1'-0"

6TH GRADE TEAM
EXPLORATORY/ ELECTIVES



SECOND FLOOR
HIGH SCHOOL - OPTION A-1/A-2
SCALE: 1/32" = 1'-0"

MIDDLE/ HIGH SCHOOL
OPTION A-1/A-2
565 MIDDLE SCHOOL STUDENTS
600 HIGH SCHOOL STUDENTS

- CIRCULATION
- EXISTING
- MINOR RENOVATION
- MAJOR RENOVATION
- NEW ADDITION

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Carver Public Schools

REVISIONS/REVIEW | DATE

KEY PLAN

JOB NO. 2579-01

NORTH

SHEET TITLE
COMPOSITE FLOOR PLANS

SHEET NO.
OPTION A-1/A-2

IV. Operating Costs

There are a number of components incorporated under the umbrella of operating costs – utility costs, transportation costs, maintenance & repair costs, personnel costs, etc. It is clear the current age and condition of the existing buildings in the school district are having a negative impact on the utility and maintenance/repair costs of the district.

The buildings are not as energy efficient as they could be, resulting in greater expenditures for utilities such as gas and electric. Likewise, the buildings are at a point in their useful lives where equipment, systems and components are in need of on-going repair and/or replacement. All of the options presented will improve energy efficiency and the condition of major equipment and systems - having a positive impact on the district's utility and maintenance/repair costs.

In general, the options all fall within the same general range of utility costs. The amount of new square footage (most energy-efficient construction), and the amount of major remodeling to existing buildings (improved energy-efficient construction) in each option is fairly similar. As a result, there won't be substantial utility cost savings from one option to the next (certainly not enough to consider eliminating one option over another). All things being equal, Option 4 is likely to have the lowest utility costs because it proposes the most new construction and the least amount of remodeling. Likewise, Option #1 is likely to have the highest utility costs because it proposes the least amount of new construction and the most amount of remodeling to existing buildings.

It should also be noted that the district can choose to increase or decrease the level of investment in systems, components, and equipment once an option has been selected and further design study and cost estimating is undertaken. For example, the district can choose to invest in ultra-high efficiency boilers instead of high-efficiency boilers. The level of the additional investment versus the payback in reduced utility bills would need to be evaluated before making this decision. These types of decisions will impact the future utility costs for the district.

The number of options should be reduced to those few that are most viable in the view of the district and community, by considering other factors or criteria that are probably of more critical importance, i.e., educational program, building boundaries, transportation requirements, etc. Once that is accomplished, a more detailed analysis of all operating costs including utility costs, transportation costs, staffing costs, etc. can be developed and utilized for more meaningful decision-making.

Educational Specifications
Carver Public Schools
570 Student Grade 3-5 Elementary

This functional program is based on the following assumptions:

- Projected enrollment of 570 students.
- Average class size 22 students.
- 5 specials per week; 40 min. long.
- 28 ¾ to 30 hour week.

I. Functional Program

A. 3rd Grade
   1. 8 Classrooms @ 900 s.f. = 7200 s.f.

B. 4th Grade — 7200s.f.
   1. 8 Classrooms @ 900 s.f. = 7200 s.f.

C. 5th Grade — 8200
   1. 8 Classrooms @ 900 s.f. = 7200 s.f.
   2. Science Room @ 1000 s.f.
   3. Sub-total 8200 s.f.

D. Multi-Age — 1800
   1. 2 Classrooms @ 900 s.f. = 1800 s.f.

E. Art Room — 1200
   1. Classroom/ Lab @ 1100s.f.
   2. Storage @ 100 s.f.
   3. Sub-total 1200 s.f.

F. Music Room — 1000
   1. Classroom @ 1000 s.f.

G. Comprehensive Health — 5600
   1. Gymnasium @ 4800 s.f.
      (divided into 2 t.s.)
   2. Storage @ 600 s.f.
   3. P.E. Office @ 200 s.f.
      (including Toilet)
   4. Sub-total

H. Foreign Language — 900
   1. Classroom @ 900 s.f.

I. Instructional Materials Center — 4400
   1. Reading Room @ 2400 s.f.
   2. Office/ Work @ 300 s.f.
   3. Storage @ 100 s.f.
   4. Audio Visual @ 200 s.f.
   5. Technology Hub @ 200 s.f.
   6. Project/ Conference Room @ 200 s.f.
   7. Computer Lab @ 1000 s.f.
   8. Sub-total 4400 s.f.

J. Special Education/ Special Needs
   1. Resource Room @ 600 s.f.
   2. Alternate Learning Programs @ 900 s.f.
      (including Toilet)

3. OT/PT @ 600 s.f.
4. 3 Itinerant Staff Offices @ 200 s.f. = 600 s.f.
5. Grade Level S.E. Teacher Home Base @ 200 s.f.
6. Conference room @ 300 s.f.
7. Sub total 3000 s.f.

K. Food Service 6900
1. Cafeteria @ 3000 s.f.
2. Kitchen/ Serving @ 2000 s.f.
3. Chair/ Table Storage @ 300 s.f.
4. Stage @ 1000 s.f.
5. Performance Storage @ 200 s.f.
6. Sub-total 6900 s.f.

L. Administration 2450
1. Reception/ Waiting @ 200 s.f.
2. General Office @ 400 s.f.
3. Principal's Office @ 200 s.f.
4. Assistant Principal's Office @ 200 s.f.
5. Adjustment Counselor @ 200 s.f.
6. Work Room/ Supplies @ 150 s.f.
7. Record Storage @ 150 s.f.
8. Student Waiting Area @ 100 s.f.
9. Conference @ 300 s.f.
10. Toilet @ 50 s.f.
11. Nurses' Office
    - Office @ 150 s.f.
    - Exam Room @ 150 s.f.
    - Cots @ 150 s.f.
    - Toilet @ 50 s.f.
    - Sub-total 500 s.f.
12. Sub-total 2,450 s.f.

M. Staff 600
1. Work Room/ Lounge @ 600 s.f.

N. Net Program Area 49,850
O. Estimated Gross Square Feet 74,775
P. Available Building Area 60,575/36,618
Q. MSBA Allowable/ Preliminary Draft Standards 83,790

Educational Specification
Carver Public Schools
605 Student Primary School – Grades Pre-School-2

This functional program is based on the following assumptions:

- Projected Enrollment 45 PK students and 560 K-2 students.
- Average class size: PK- 7 Special Education Students.
  - 15 Integrated Students.
  K-2- 20 students.
- 5 specials per week; 40 min. in length.
- Full-day Kindergarten
- 28 ¾ to 30 hour week.

I. Functional Program 3000s.f.

A. Pre-school
1. 2 Classrooms @ 1200 s.f. = 2400 s.f.
2. 2 Toilets/ Changing Rooms @ 100 s.f. = 200 s.f.
3. Observation/ Conference Room Therapy @ 150 s.f.= 150 s.f.
4. Storage Room @ 150 s.f. = 150 s.f.
5. Waiting Area @ 100 s.f.
6. Sub-total 3000 s.f.

Note: There are 4 half day sections of pre-school.

B. Kindergarten 9900
1. 8 Kindergarten Classrooms @ 1200 s.f. = 9600 s.f. (including one Toilet)
2. Storage @ 300 s.f.
3. Sub-total 9900 s.f.

C. Multi-Age Classrooms (K-2) 3600
1. 4 Classrooms @ 900 s.f. = 3600 s.f.

D. Grade 1-2 Classrooms 14,400
1. 16 Classrooms @ 900 s.f. = 14,400 s.f.

E. Title 1 750
1. 1 Shared Classroom @ 750 s.f. (including 2 teacher home base)

F. Special Education/ Special Needs 3000
1. Resource Room @ 600 s.f.
2. Alternate Learning Program @ 900 s.f. (including Toilet)
3. Grade Level Special Education Teachers Home Base @ 200 s.f (8 teachers)
4. Psychologist Office/ Teaching Station @ 200 s.f.
5. OT/PT Teaching Station @ 600 s.f.
6. 2 Itinerant Staff Home Base @ 200 s.f. = 400 s.f.
7. Conference Room @ 300 s.f.
8. Sub-total 3000 s.f.

G. Arts 1200

1. Classroom @ 1100 s.f.
2. Storage @ 100 s.f.
3. Sub-total 1200 s.f.

H. Music 1000

1. Classroom @ 1000 s.f.

I. Physical Education 3200

1. Gymnasium/ gross motor skills @ 2400 s.f (divisible)
2. Storage @ 600 s.f
3. P.E. office @ 200 s.f. (including Toilet)
4. Sub-total 3200 s.f.

Note: If 2 teaching stations are required add health/ fitness room @ 1600 s.f.

J. Foreign Language 900

1. Classroom @ 900 s.f.

K. Instructional Materials Center 4400

1. Reading Room/ Collection @ 2400 s.f.
2. Office/ Work @ 300 s.f.
3. Storage @ 100 s.f.
4. Audio Visual @ 200 s.f.
5. Technology Hub @ 200 s.f.
6. Project/ Conference Room @ 200 s.f.
7. Computer Lab @ 1000 s.f.
8. Sub-total 4400 s.f.

L. Food Service 6500

1. Cafeteria @ 3000 s.f. (seating 200)
2. Kitchen/ Serving @ 2000 s.f.
3. Chair Storage @ 300 s.f.
4. Stage (platform) @ 1000 s.f.
5. Performance Storage @ 200 s.f.
6. Sub-total 6900 s.f.

Note: Seats 275 for a performance. If need to seat total student body consider stage/ platform in gym.

M. Administration 2450

1. Reception/ Waiting @ 200 s.f.
2. General Office @ 400 s.f.
3. Principal's Office @ 200 s.f.
4. Assistant Principal Office @ 200 s.f.
5. Adjustment Counselor Office @ 200 s.f.
6. Work Room/ Supplies @ 150 s.f.
7. Record Storage @ 150 s.f.
8. Student Waiting Area @ 100 s.f.
9. Conference Room @ 300s.f.
10. Toilets 50 s.f.
11. Nurses' Suite
    - Office @ 150
    - Exam @ 150

- Cots @ 150
- Toilets @ 50
- Sub-total 500 s.f.

12. Sub-total 1950 s.f.

N. Staff	600
1. Work Room/ Lounge @ 600 s.f.	
O. Net Program Area	55,000 s.f.
P. Estimated Gross Building Area	82,800 s.f.
Q. Available Building Area	60,476/36,618s.f.
R. MSBA Allowable/ Preliminary Draft Standards	87,725 s.f.

Educational Specification
Carver Public Schools
590 Student Primary School – Grades Pre-School-5

This functional program is based on the following assumptions:

- Projected Enrollment 30 PK students and 560 K-2 students.
- Average class size: PK- 7 Special Education Students.
  15 Integrated Students.
  K-5- 20 students.
- 5 specials per week; 40 min. in length.
- Full-day Kindergarten
- 28 ¾ to 30 hour week.

I. Functional Program

A. Pre-school — 1700 s.f.

1. 1 Classroom @ 1200 s.f.
2. 1 Toilet/ Changing Rooms @ 100 s.f.
3. Observation/ Conference Room/Therapy @ 150 s.f.= 150 s.f.
4. Storage Room @ 150 s.f. = 150 s.f.
5. Waiting Area @ 100 s.f.
6. Sub-total 1700 s.f.

Note: There are 2 half-day sections of Pre-School. 5100

B. Kindergarten

1. 4 Kindergarten cCassrooms @ 1200 s.f. = 4800 s.f. (including one Toilet)
2. Storage @ 300 s.f.
3. Sub-total 5100 s.f. 3600

C. Multi-Age Classrooms (K-2)

1. 4 Classrooms @ 900 s.f. = 3600 s.f.
2. Sub-total 4000 s.f.

D. Grade 1-5 Classrooms 18,000

1. 20 Classrooms @ 900 s.f. = 18,000 s.f.
2. Sub-total 18,000 s.f.

E. Title I 750

1. 1 Shared Classroom @ 750 s.f. (including 2 Teacher Home Base)

F. Special Education/ Special Needs 3000

1. Resource Room @ 600 s.f.
2. Alternate Learning Program @ 900 s.f. (including Toilet)
3. Grade Level Special Education Teachers Home Base @ 200 s.f (6 teachers)
4. OT/PT Teaching Station @ 600 s.f.
5. 3 Itinerant Staff Home Base @ 200 s.f. = 600 s.f.
6. Conference Room @ 300 s.f.
7. Sub-total 3000 s.f.

1200

G. Art Room
1. Classroom @ 1100 s.f.
2. Storage @ 100 s.f.
3. Sub-total 1200 s.f. 1000

H. Music Room
1. Classroom @ 1000 s.f. 5600

I. Physical Education
1. Gymnasium @ 4800 s.f (divisible)
2. Storage @ 600 s.f
3. P.E. Office @ 200 s.f. (including Toilet)
4. Sub-total 5600 s.f.

J. Foreign Language 900
1. Classroom @ 900 s.f.

K. Instructional Materials Center 4400
1. Reading room/ collection @ 2400 s.f.
2. Office/ work @ 300 s.f.
3. Storage @ 100 s.f.
4. Audio- Visual @ 200 s.f.
5. Technology Hub @ 200 s.f.
6. Project/ Conference Room @ 200 s.f.
7. Computer Lab @ 1000 s.f.
8. Sub-total 4400 s.f.

L. Food Service 6500
1. Cafeteria @ 3000 s.f. (seating 200)
2. Kitchen/ Serving @ 2000 s.f.
3. Chair Storage @ 300 s.f.
4. Stage (platform) @ 1000 s.f.
5. Performance Storage @ 200 s.f.
6. Sub-total 6900 s.f.

Note: Seats 275 for a performance. If need to seat total student body consider stage/ platform in gym.

M. Administration 2450
1. Reception/ Waiting @ 200 s.f.
2. General Office @ 400 s.f.
3. Principal's Office @ 200 s.f.
4. Assistant Principal Office @ 200 s.f.
5. Adjustment Counselor Office @ 200 s.f.
6. Work Room/ Supplies @ 150 s.f.
7. Record Storage @ 150 s.f.
8. Student Waiting Area @ 100 s.f.
9. Conference Room @ 300s.f.
10. Toilets 50 s.f.
11. Nurses' Suite
    - Office @ 150
    - Exam @ 150
    - Cots @ 150

- Toilet @ 50
- Sub-total 500 s.f.

12. Sub total 1950 s.f.

N. Staff	600
1. Work room/ lounge @ 600 s.f.	
O. Net Program Area	54,050 s.f.
P. Estimated Gross Building Area	81,075 s.f.
Q. Available Building Area	60,476/36,618s.f.
R. MSBA Allowable/ Preliminary Draft Standards	87,725 s.f.

Educational Specifications
Carver Public Schools
575 Student Middle School

This functional program is based on the following assumptions:

- Projected enrollment of 565 grade 6-8 students.
- Average maximum class size 24 students
- 2 teams per grade; 4 periods basic instruction and 2 elective/ exploratory rotations (9 week/ term rotation)

I. Functional Program

A. 6th Grade (2-4 teacher teams) — 6700 s.f.
   1. 6 Classrooms @ 750 s.f. = 4500 s.f.
   2. 2 Science Rooms @ 1000 s.f. = 2000 s.f.
   3. Science Prep/ Storage @ 200 s.f.
   4. Sub-total 6700 s.f.

B. 7th Grade (2-4 teacher team) — 6700
   1. 6 Classrooms @ 750 s.f. = 4500 s.f.
   2. 2 Science Rooms @ 1000 s.f. = 2000 s.f.
   3. Science Prep/ Storage @ 200 s.f.
   4. Sub-total 6700 s.f.

C. 8th Grade (2-4 teacher teams) — 6700
   1. 6 Classrooms @ 750 s.f. = 4500 s.f.
   2. 2 Science Rooms @ 1000 s.f. = 2000 s.f.
   3. Science Prep/ Storage @ 200 s.f.
   4. Sub-total 6700 s.f.

D. Exploratory/ Elective — 10,950
   1. Comprehensive Health/ Physical education
      a. Gymnasium @ 6800 s.f.
      b. Gym Storage @ 800 s.f.
      c. Health Classroom @ 950 s.f.
      d. 2 Locker Rooms @ 1200 s.f. = 2400 s.f. (including P.E. Offices)
      e. Sub-total 10,950 s.f.
   2. Computer — 1200
      a. Classroom @ 1200 s.f.
   3. Music — 3600/6350 divided by 2= 3175
      a. Combination Instrumental/ Choir Rehearsal Room @ 2400 s.f. (Inst. Storage in this room)
      b. Office/ library @ 300 s.f.
      c. Ensemble Room @ 300 s.f.
      d. 4 Practice Rooms @ 75 s.f. = 300 s.f.
      e. Storage @ 200 s.f.
      f. General Music Classroom @ 100 s.f.
      g. Sub-total @ 3600 s.f.

      OR

      a. Instrumental Rehearsal Room @ 2400 s.f.
      b. Choral Rehearsal Room @ 1400 s.f.

c. Music Theory/ General Music C.R. @ 850 s.f.
d. 2 Offices @ 150 s.f.= 300 s.f.
e. Library @ 200 s.f.
f. Ensemble Room @ 300 s.f.
g. 4 Practice Rooms @75 s.f. = 300 s.f.
h. 2 Storage Rooms @ 200 s.f. = 400 s.f.
i. Uniform Storage @ 200 s.f.= 400 s.f.
j. Sub-total 6350 s.f.

4. Art Room 1500
   a. Classroom @ 1200 s.f.
   b. Storage @ 200 s.f.
   c. Kiln @100 s.f.
5. Technology Education 2200
   a. Classroom/ Lab @ 1200 s.f.
   b. Project Shop @ 600 s.f.
   c. Storage @ 20 s.f.
   d. Subtotal @ 2200 s.f.
6. Foreign Language 1900
   a. 2 Classrooms @ 950 s.f.= 1900 s.f.
7. Life Skills 1400
   a. Classroom @ 1200 s.f.
   b. Storage @ 200 s.f.
   c. Subtotal 1400 s.f.

E. Special Education/ Special Needs 3450
1. Special Education Resource Room @ 600 s.f.= 1200 s.f.
2. Special Education Pre-Vocational @ 750 s.f.
3. Special Education (including toilet) Student Assistance @ 750 s.f.
4. 3 Itinerant Staff Offices @ 200 s.f. (shared with H.S.) = 600 s.f./ 2 = 300 s.f.
5. OT/ PT @ 600 s.f. (shared with H.S.)/ 2 = 300 s.f.
6. Conference Room @ 300 s.f./ 2= 150 s.f.
7. Subtotal 3450 s.f.

F. Instructional Materials Center (shared with H.S.) (50 students) 6000
1. Reading Room/ Collection @ 2400 s.f.
2. Office @ 200 s.f.
3. Workroom @ 400 s.f.
4. Storage @ 200 s.f.
5. Project/ Conference @ 200 s.f.
6. 2 Computer Labs @ 1100 s.f. = 2200 s.f.
7. Audio- visual @ 200 s.f.
8. Technology Hub @ 200 s.f.
9. Subtotal 6000 s.f.

G. Administration 2450
1. Reception/ Waiting @ 200 s.f.
2. General Office @ 500 s.f.
3. Principal's Office @ 200 s.f.
4. Ass't Principal's Office @ 200 s.f.
5. Conference Room @ 300 s.f.
6. Work Room (supplies) @ 200 s.f.
7. Record Storage @ 200 s.f.
8. Student Waiting @ 100 s.f.

9. Toilet @ 50 s.f.
10. Nurse's Suite
    a. Office @ 150 s.f.
    b. Exam Room @ 150 s.f.
    c. Cot Area @ 150 s.f.
    d. Toilet @ 50 s.f.
    e. Subtotal 500 s.f.
11. Subtotal 2450 s.f.

H. Guidance — 1500
1. Reception/ Library @ 600 s.f.
2. 2 Counselor's Office @ 200 s.f. = 400 s.f.
3. Adjustment Counselor @ 200 s.f.
4. Conference Room @ 300 s.f.
5. Sub-total 1200 s.f.

I. Staff — 750
1. Work Room/ Lounge @ 650 s.f.
2. 2 Toilets @ 50 s.f. = 100 s.f.
3. Sub-total 750 s.f.

J. Food Service — 6200
1. Cafeteria @ 3000 s.f. (seating 200)
2. Kitchen @ 4600 (share w/ H.S.) / 2= 2300 s.f.
3. Staff Dining @ 600 s.f. (Share w/ H.S.)
4. Chair Storage @ 300 s.f.
5. Sub-total 6200s.f.

K. Auditorium — 9024 divided by 2= 4515
1. Auditorium @ 6434 s.f. (seating 750)
2. Stage @ 2295 s.f.
3. Performing Storage @ 300 s.f.
4. Sub-total 9029 s.f.

L. Net Program Area — 67,270 s.f.
M. Estimated Gross Area — 100,905 s.f.
N. Available Area
O. MSBA Guidelines — 97,750 s.f.

Educational Specifications
Carver Public Schools
600 Student High School Grade 9-12

This functional program is based on the following assumptions:

- Average class size 24 students
- Current percentage of total students enrolled in each discipline will be the same
- General classroom will be utilized either four periods a day for assigned subject plus a fifth period for directed study **OR** five periods a day for assigned subject.

I. Functional Program

A. English (109%) — 4900 s.f.
   1. 5 Period Utilization plus Department Head
      a. 6 classrooms @ 750 s.f. = 3750 s.f.
      b. Departmental Office @ 200 s.f.
      c. Departmental Storage @ 200 s.f.
      d. Sub-total 4900 s.f.

B. Social Studies (94%) — 4150
   1. 5 Period Utilization plus Department Head
      a. 5 classrooms @ 750 s.f. = 3750 s.f. (Note: Requires 2 sections in a 6th period)
      b. Departmental Office @ 200 s.f.
      c. Departmental Storage @ 200 s.f.
      d. Sub-total 4150 s.f.

C. Math (100%) — 4150
   1. 5 Period Utilization plus Department Head
      a. 5 classrooms @ 750 s.f. = 3750 s.f.
      b. Departmental Office @ 200 s.f.
      c. Departmental Storage @ 200 s.f.
      d. Sub-total 4150 s.f.

D. Science — 8650
   1. 5 Period utilization plus Department Head
      a. 2 Biology Labs @ 1100 s.f. = 2200 s.f.
      b. Physics Lab @ 1100 s.f.
      c. Planetarium/ Earth Science @ 2200 s.f.
      d. 2 Chemistry Labs @ 1500 s.f. = 3000 s.f.
      e. Prep and Storage @ 550 s.f.
      f. Sub-total 8650 s.f.
      Note: Need to verify if 6 teaching stations are needed with 5 period utilization and no Directed study.

E. Foreign Language (62%) — 3650
   1. 5 Period Utilization plus Department Head
      a. 3 classrooms @ 750 s.f. (one section in 6th period) = 2250 s.f.
      b. 1 Classroom/ Language Lab @ 1100 s.f.
      c. Department Office @ 200 s.f.
      d. Departmental Storage @ 100 s.f.
      e. Sub-total 3650 s.f.

F. Art — 1900
   1. Classroom @ 1900 s.f.(including Storage and Kiln)

G. Business Technology — 4250
   1. Classroom/ Computer Lab @ 1100 s.f.

2. Classroom @ 850 s.f.
3. Work Room (Publication) @ 300 s.f.
4. Tech. Educational Lab/ Classroom @ 1400 s.f.
5. Project Shop @ 600 s.f.
6. Sub-total 4250 s.f.

H. Comprehensive Health Educational/ Athletics — 19,550
1. Health Classroom @ 750 s.f.
2. 3 Station Gymnasium @ 11500 s.f.
3. Fitness Center @ 1300 s.f.
4. Storage @ 1200 s.f.
5. Boys Locker Room @ 2500 s.f.
6. Girls Locker Room @ 2000 s.f.
7. Concession Stand @ 300 s.f.
8. Sub-total @ 19550 s.f.

I. Music — 4250/6350 divided by 2= 3175
1. Combination Band and Choral Rehearsal Room @ 2400 s.f.
2. Office/ Library @ 300 s.f.
3. Combination Classroom/ Ensemble Room @ 820 s.f.
4. 4 Practice Rooms @ 75 s.f. = 300 s.f.
5. Uniform Storage @ 200 s.f.
6. Storage @ 200 s.f.
7. Sub-total 4250 s.f.

OR shared with the M.S.
1. Band Rehearsal Room @ 2400 s.f.
2. Choral Rehearsal Room @ 1200 s.f.
3. Classroom @ 850 s.f.
4. 2 Offices @ 150 s.f. = 300 s.f.
5. Library @ 300 s.f.
6. Ensemble @ 300 s.f.
7. 4 Practice Rooms @ 75 s.f. = 300 s.f.
8. Uniform Storage @ 200 s.f.
9. 2 Storage Rooms @ 200 s.f. = 400 s.f.
10. Sub-total 6350 s.f.

J. Culinary Arts — 1800
1. Combination Food and Child Care Lab/ Classroom @ 1800 s.f.

K. Instruction Materials Center (Share with M.S.) — 6000
1. Reading Room/ Collection @ 2400 s.f.
(50 students)
2. Office @ 300 s.f.
3. Work Room @ 300 s.f.
4. A.V. Stor. @ 200 s.f.
5. Storage @ 200 s.f.
6. Tech. Hub @ 200 s.f.
7. 2 Computer Labs @ 1100 s.f. = 2200 s.f.
8. Project/ Conference Room @ 200 s.f.
9. Sub-total 600 s.f.

L. Staff — 1750
1. Work Room/ Lounge @ 750 s.f.
2. Staff Dining @ 600 s.f.
3. Copy Center @ 400 s.f. (Shared w/ M.S.)
4. Sub-total 1750 s.f.

M. Special Education/ Special Needs	4100
1. Resource Room @ 600 s.f.	
2. Pre-Vocational @ 1400 s.f.	
3. Alternate High School @ 750s.f.	
4. Student Assistance Center @ 600 s.f.	
5. 3 Itinerant Staff Offices @ 200 s.f. = 600 s.f./ 2= 300 s.f.	
6. OT/PT – Share w/ M.S. @ 600 s.f./ 2= 300 s.f.	
7. Conference Room @ 300 s.f./ 2= 150 s.f.	
8. Sub-total 4100 s.f.	
N. Food Service	5600
1. Cafeteria @ 3000 s.f. (Seating 200/300)	
2. Kitchen/ Serving @ 4600 s.f./2 = 2300 s.f. (Share w/ M.S.)	
3. Chair/Table Stor. @ 300 s.f.	
4. Sub-total 5600 s.f.	
O. Auditorium	9029 divided by 2 = 4515
1. Auditorium @ 6434 s.f. (seating)	
2. Stage @ 2295 s.f.	
3. Performance Storage @ 300 s.f.	
4. Sub-total	
P. Administration	2700
1. Reception/ Waiting @ 200 s.f.	
2. General Office @ 500 s.f.	
3. Principal's Office @ 200 s.f.	
4. Assistant Principal's Office @ 200 s.f.	
5. Conference Room @ 300 s.f.	
6. Work Room/ Supplies @ 200 s.f.	
7. Record Storage @ 200 s.f.	
8. Student Waiting @ 100 s.f.	
9. Nurses' Suite	
a. Office @ 150 s.f.	
b. Exam Room @ 150 s.f.	
c. Cot Area @ 150 s.f.	
d. Toilet @ 50 s.f.	
e. Subtotal 500 s.f.	
10. Athletic Director's Office @ 300 s.f.	
11. Sub-total 2700 s.f.	
Q. Guidance/ Counseling	1800
1. 2 Counselors' Offices @ 200s.f. = 400 s.f.	
2. 2 Adjustment Counselors Offices @ 200 s.f. = 400 s.f.	
3. Secretary/ Reception @ 100 s.f.	
4. Resource/ Class Area @ 600 s.f.	
5. Conference Room @ 300 s.f.	
6. Sub-total 1800 s.f.	
R. Net Program Area	83,390
S. Estimated Gross Square Feet	125,085
T. Building Area Available	
U. MSBA Guidelines	123,000

Estimates of Probable Construction Costs
Carver Public Schools
Option 1

I.	New Kindergarten- Grade 5 Elementary	$9,882,600
	A. Site, Building, Fixed Equip, Contingency, Fees. 54,600 s.f. @ $181/s.f.	
	B. Furniture, Fixtures, Equipment	705,000
	C. Sub-total	$10,587,600
II.	Expand and Remodel Existing Primary and Elementary to 750 Student Pre-School to Grade 5 Elementary	
	A. New Additions 10,250 s.f. @ ~~$[illegible]~~ s.f. $181/sf	1,855,250
	B. Remodeling	
	1. Site Development	450,000
	2. Minor Remodeling 62,700 s.f. @ $30/s.f.	1,881,000
	3. Major Remodeling 45,300 s.f. @ $50/s.f.	2,265,000
	4. Remodel Stairs	50,000
	5. Mechanical	1,223,900
	6. Electrical	1,540,470
	7. Fixed Equipment	735,000
	8. Sub-total	$8,145,370
	9. Contingency @ 15%	$1,221,806
	10. Project Manager/ Architectural-Engineering Fees	889,882
	11. Sub-total	$10,257,058
	C. Furniture, Fixtures, Equipment	$400,000
	D. Sub-total	$10,657,058
III.	Option 1- Estimate of Probable Construction Cost	$23,099,908
	Use	**$23,100,000**

Estimates of Probable Construction Costs
Carver Public Schools
Option 2

I.	New 605 Student Pre School-Grade 2 Primary Building	$14,493,600
	A. Site, Building, Fixed Equip, Contingency, Fees. 82,350 s.f. @ $176/s.f.	
	B. Furniture, Fixtures, Equipment	940,000
	C. Sub-total	$15,433,600
II.	Expand and Remodel Existing Primary 590 Student Grade 3-5 Elementary	
	A. New Additions 6000 s.f. @ $185/s.f.	1,110,000
	B. Remodeling	
	1. Site Development	350,000
	2. Exterior	943,000
	3. Minor Interior Architectural 29,700 s.f. @ $30/s.f.	891,000
	4. Major Interior Architectural 30,300 s.f. @ $50/s.f.	1,515,000
	5. Mechanical	782,950
	6. Electrical	609,725
	7. Fixed Equipment	490,000
	8. Sub-total	$5,581,675
	9. Contingency @ 15%	837,251
	10. Project Manager/ Architectural-Engineering Fees	676,852
	11. Sub-total	$7,092,913
	C. Furniture, Fixtures, Equipment	230,000
	D. Sub-total	$8,432,913
III.	Option 2- Estimate of Probable Construction Cost	$23,866,513
	Use	**$23,867,000**

Estimate of Probable Construction Costs
Carver Public Schools
Option 3

I.	New 570 Student Grade 3-5 Elementary	
	A. Site, Building, Fixed Equipment, Contingency, Fees	
	75,775 s.f. @ $176/s.f.	$13,336,400
	B. Furniture, Fixtures, Equipment	895,000
	C. Sub-total	$14,231,400
II.	Expand and Remodel Existing Primary	
	605 Student Preschool-Grade 2 Primary	
	A. New Addition	
	14,650 s.f. @ $181/s.f.	2,651,650
	B. Remodeling	
	1. Site Development	350,000
	2. Exterior	943,000
	3. Minor Interior Architectural	891,000
	29,700 s.f. @ $80/s.f.	
	4. Major Interior Architectural	1,515,000
	5. Mechanical	782,950
	6. Electrical	609,725
	7. Fixed Equipment	490,000
	8. Sub-total	$5,581,675
	9. Contingency @ 15%	837,251
	10. Project Manager/ Architectural-Engineering Fees	673,987
	11. Sub-total	$7,092,913
	C. Furniture, Fixtures, Equipment	$230,000
	D. Sub-total	$9,974,513
III.	Option 3- Estimated Probable Construction Cost	$24,205,913
	Use	**$24,206,000**

Estimate of Probable Construction Costs
Carver Public Schools
Option 4

I.	New 605 Student Preschool-Grade 2 Primary	
	A. Site, Building, Fixed Equipment, Contingency, Fees 82,350 s.f. @ $176/s.f.	$14,493,600
	B. Furniture, Fixtures, Equipment	940,000
	C. Sub-total	$15,433,600
II.	Expand and Remodel Existing Elementary and part of Existing Primary 570 Student Grade 3-5 Elementary	
	A. New Addition 10,200 s.f. @ $181/s.f.	1,846,200
	B. Remodeling	
	1. Site Development	350,000
	2. Exterior	350,000
	3. Minor Interior Architectural 33,000 s.f. @ $30/s.f.	990,000
	4. Major Interior Architectural 15,000 s.f. @ $50/s.f.	750,000
	5. Remodel Stairs	50,000
	6. Mechanical	1,440,950
	7. Electrical	730,745
	8. Fixed Equipment	490,000
	9. Sub-total	$5,151,695
	10. Contingency @ 15%	774,254
	11. Project Manager/ Architectural-Engineering Fees	623,275
	12. Sub-total	$6,549,224 ($128.50/s.f.)
	C. Furniture, Fixtures, Equipment	230,000
	D. Sub-total	$8,625,424
III.	Option 4-Estimate of Probable Construction Costs	$24,059,024
	Use	**$24,060,000**

Estimate of Probable Construction Cost
Carver Public Schools
Option 5

I.	New 570 Student Grade 3-5 Elementary	
	A. Site, Building, Fixed Equipment, Contingency, Fees 75,775 s.f. @ $176/s.f.	$13,336,400
	B. Furniture, Fixtures, Equipment	895,000
	C. Sub-total	$14,231,400
II.	Expand and Remodel Existing Elementary and part of Existing Primary 605 Student Preschool-Grade 2 Primary	
	A. New Addition 17,200 s.f. @ $181/s.f.	3,113,200
	B. Remodeling	
	1. Site Development	350,000
	2. Exteriors	350,000
	3. Minor Interior Architectural 27,000 s.f. @ $30/s.f.	810,000
	4. Major Interior Architectural 21,000 s.f. @ $50/s.f.	1,050,000
	5. Remodel Stairs	50,000
	6. Mechanical	1,440,950
	7. Electrical	730,745
	8. Fixed Equipment	490,000
	9. Sub-total	$5,271,695
	10. Contingency @ 15%	790,754
	11. Project Manager/ Architectural-Engineering Fees	636,557
	12. Sub-total	$6,699,006 ($132.10/s.f.)
	C. Furniture, Fixtures, Equipment	230,000
	D. Sub-total	$10,042,206
III.	Option 5 Estimate of Probable Construction costs	$24,273,606
	Use	**$24,274,000**

Estimate of Probable Construction Cost
Carver Public Schools
Option 6

I.	New 590 Student Grade Preschool-5 Elementary		
	A. Site, Building, Fixed Equipment, Contingency, Fees 81,075 s.f. @ $176/s.f.		$14,269,200
	B. Furniture, Fixture, Equipment		900,000
	C. Sub-total		$15,169,200
II.	Remodel and Expand Existing Primary 590 Student Preschool-Grade 5		
	A. New Addition 12,270 s.f. @ $181/s.f.		2,220,870
	B. Remodeling		
	1. Site Development		350,000
	2. Exterior		943,000
	3. Minor Interior Architectural 30,000 @ $30/s.f.		900,000
	4. Major Interior Architectural 30,000 @ $50/s.f.		1,500,000
	5. Mechanical		782,950
	6. Electrical		609,725
	7. Fixed Equipment		490,000
	8. Sub-total		$5,575,675
	9. Contingency @ 15%		836,751
	10. Project Manager/ Architectural-Engineering Fees		673,305
	11. Sub-total		$7,085,731
	C. Furniture, Fixtures, Equipment		230,000
	D. Sub-total		$9,536,601
III.	Option 6 Estimate of Probable Construction Cost		$24,705,801
		Use	**$24,706,000**

Estimate of Probable Construction Cost
Carver Public Schools
Option 7

I.	New 590 Student Preschool-Grade 5 Elementary	
	A. Sets, Building, Fixed Equipment, Contingency, Fees 80,075 s.f. @ $176/s.f.	$14,269,200
	B. Furniture, Fixtures, Equip.	900,000
	C. Sub-total	$15,169,200
II.	Remodel and Expand Existing Elementary and part of Existing Primary	
	A. New Addition 18,760 s.f. @ $181/s.f.	3,395,560
	B. Remodeling	
	1. Site Development	350,000
	2. Exterior	350,000
	3. Minor Interior Architectural 31,700 s.f. @ $30/s.f.	951,000
	4. Major Interior Architectural 15,300 s.f. @ $50/s.f.	765,000
	5. Remodel Stairs	50,000
	6. Mechanical	1,440,950
	7. Electrical	730,725
	8. Fixed Equipment	490,000
	9. Sub-total	$5,127,675
	10. Contingency @ 15%	769,151
	11. Project Manager/ Architectural-Engineering Fees	619,167
	12. Sub-total	$6,515,993
	C. Furniture, Fixtures, Equipment	230,000
	D. Sub-total	$10,141,293
III.	Option 7 Estimate Probable Construction Cost	$25,310,495
	Use	**$25,311,000**

Estimate of Probable Construction Cost
Carver Public Schools
Option A

I. Remodel Carver Middle School 575 Grade 6-8 Students.	
A. New Additions	See Shared Facilities
B. Remodeling	
1. Site Development	See Shared Facilities
2. Exterior	See Shared Facilities
3. Minor Interior Architectural 4800 s.f. @ $30/s.f.	$144,000
4. Major Interior Remodeling 8300 s.f. @ $50/s.f.	$415,000
5. Mechanical	See Shared Facilities
6. Electrical	See Shared Facilities
7. Fixed Equipment	$260,000
8. Sub-total	$819,000
9. Contingency @ 15%	$122,850
10. Project Manager/ Architectural-Engineering Fees	$98,895
11. Sub-total	$1,076,845
C. Furniture, Fixtures, Equipment	$36,400
D. Sub-total	$1,077,145
II. Remodel and Expand Carver Middle School and Carver High School Shared Facilities.	
A. New Additions- Music Area 8450 s.f. @ $194/s.f.	$1,639,300
B. Remodeling	
1. Site Development	$815,835
2. Exterior	$1,059,730
3. Minor Architectural Interior 9900 s.f. @ $30/s.f.	$297,000
4. Major Architectural Interior 1800 s.f. @ $50/s.f.	$90,000
5. Mechanical	$886,530
6. Electrical	$682,372
7. Fixed Equipment	$548,000
8. Sub-total	$4,379,467
9. Contingency @ 15%	$656,920
10. Project Manager/ Architectural-Engineering fees	$597,797
11. Sub-total	$5,634,184
C. Furniture, Fixtures, Equipment	$80,000
D. Sub-total	$7,353,484

III. Remodel and Expand Carver High School 600 Grade 9-12 Students.

A. New Addition 14,000 s.f. @ $181/s.f.		$2,534,000
B. Remodeling		
1. Site Development		See Shared Facilities
2. Exterior		See Shared Facilities
3. Minor Interior Architectural 2800 s.f. @ $30/s.f.		$84,000
4. Major Interior Architectural 8500 s.f. @ $50/s.f.		$425,000
5. Replace Gymnasium Floor		$169,000
6. Fixed Equipment		$529,800
7. Mechanical		See Shared Facilities
8. Electrical		See Shared Facilities
9. Sub-total		$1,207,800
10. Contingency @ 15%		$181,170
11. Project Manager/ Architectural-Engineering Fees		$145,842
12. Sub-total		$1,534,812
C. Furniture, Fixtures, Equipment		$98,000
D. Sub-total		$4,166,812

IV. Option A Estimate of Probable Construction Cost		$12,597,441
	Use	**$12,598,000**

Estimates of Probable Construction Costs
Carver Public Schools
Option A-1

I. Remodel Carver Middle School	
A. New Additions	See Shared Facilities
B. Remodeling	
1. Major Interior Architecture 4300 s.f. @ $50/ s.f.	$215,000
2. Site Development	See Shared Facilities
3. Mechanical	See Shared Facilities
4. Electrical	See Shared Facilities
5. Exterior	See Shared Facilities
6. Fixed Equipment	23,200
7. Sub-total	$238,200
8. Contingency @ 15%	35,730
9. Project Manager/ Architect- Engineering Fees	28,763
10. Sub-total	$302,693
C. Furniture, Fixtures, Equipment	$18,000
D. Sub-total	$320,693
II. Expand and Remodel Shared Facilities Middle School/ High School	
A. New Addition- Music Area	
B. Remodel	$1,639,000
1. Site Development	
2. Exterior	88,380
3. Minor Interior Architecture	129,920
4. Major Interior Architecture	None
5. Mechanical	None
6. Electrical	49,000
7. Fixed Equipment	471,842
8. Sub Total	50,000
9. Contingency @ 15%	$788,142
10. Project Management/ architect-	118,221
Engineering Fee	107,581
11. Sub-total	
C. Furniture, Fixtures, equipment	$1,013,944
D. Sub-total	68,000
	$2,720,944
III. Remodel and Expand carver High School	
A. New Addition	
7000 s.f. @ $181/ s.f.	$1,267,000
B. Remodeling	
1. Site Development	

2. Exterior	See Shared Facilities
3. Minor Interior Architecture	See Shared Facilities
4. Major Interior Architecture	None
2780 s.f. @ $50/ s.f.	139,000
5. Mechanical	
6. Electrical	See Shared Facilities
7. Fixed Equipment	See Shared Facilities
8. Sub-total	208,400
9. Contingency @ 15%	$347,400
10. Project Manager/ Architect- Engineer Fee	52,110
11. Sub-total	41,000
C. Furniture, Fixtures, equipment	$441,509
D. Sub-total	49,000
	$1,757,509

IV. Option A-1 Estimate of Probable Construction Cost

$4,799,146

Use **$4,800,000**

Estimates of Probable Construction Costs
Carver Public Schools
Option A-2

I. Remodel Carver Middle School	
A. New Additions- New Music Area 4200 s.f. @ $194/ s.f.	$814,800
B. Remodeling	
1. Major Interior Architecture 4900 s.f. @ $50/ s.f.	$245,000
2. Site Development	See Shared Facilities
3. Mechanical	See Shared Facilities
4. Electrical	See Shared Facilities
5. Exterior	See Shared Facilities
6. Fixed Equipment	$48,200
7. Sub-total	$293,200
8. Contingency @ 15%	43,980
9. Project Manager/ Architect- Engineering Fees	32,000
10. Sub-total	369,180
C. Furniture, Fixtures, Equipment	$86,000
D. Sub-total	$1,269,980
II. Expand and Remodel Shared Facilities Middle School/ High School	
A. New Addition-	None
B. Remodel	
1. Site Development	88,380
2. Exterior	129,920
3. Minor Interior Architecture	None
4. Major Interior Architecture	None
5. Mechanical	49,000
6. Electrical	471,842
7. Fixed Equipment	25,000
8. Sub-total	764,142
9. Contingency @ 15%	114,600
10. Project Management/ architect- Engineering fee	83,480
11. Sub-total	$962,222
C. Furniture, Fixtures, equipment	None
D. Sub-total	$962,222
III. Remodel and Expand carver High School	
A. New Addition	
1. 7000 s.f. @ $181/ s.f. "New Classooms"	$1,267,000

2. 4200 s.f. @ $194/ s.f. " New usic Area	814,800
3. Sub-total	$2,081,200
B. Remodeling	
1. Site Development	See Shared Facilities
2. Exterior	See Shared Facilities
3. Minor Interior Architecture	None
4. Major Interior Architecture 2780 s.f. @ $50/ s.f.	139,000
5. Mechanical	See Shared Facilities
6. Electrical	See Shared Facilities
7. Fixed Equipment	238,400
8. Sub-total	$372,400
9. Contingency @ 15%	55,860
10. Project Manager/ Architect- Engineer Fee	41,000
11. Sub-total	$469,260
C. Furniture, Fixtures, equipment	49,000
D. Sub-total	$2,549,460
IV. Option A-2 Estimate of Probable Construction Cost	$4,781,662
	Use **$4,800,000**