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SOMERSET MIDDLE SCHOOL

SMS Community Forum #4

Ai3 Architects, LLC
CGA Project Management

October 7, 2020

School Committee

Christopher Godet, Chair
Michael McDonald, Vice Chair
Victor Machado, Jr.
Robert Gaw
Shauna Geary

School Building Committee

Michael Botelho	Resident & Former School Committee Member
Richard Brown	Town Administrator
Kathleen Byers	Middle School Teacher
Dr. Pauline Camara	Middle School Principal
Carlos Campos	Supervisor of Buildings and Grounds
Chris Godet	Chairman of School Committee
Robert Lima	Resident & Former Water Department Superintendent
Victor Machado	Chairman of Building Committee & School Committee Member
Holly McNamara	Chairperson of Board of Selectmen
Steven Medeiros	Resident & Project Architect
Nicole Mello	Middle School Content Coordinator
Cassey Monte	Middle School Teacher
Nick Raffa	Advisory and Finance Committee Chairman
Kevin Scanlon	Resident & Licensed Massachusetts Construction Supervisor
Jeffrey Schoonover	Vice Chairman of Building Committee & Superintendent of Schools
Ronald Tarro	Director of Business and Finances
Elizabeth Haskell	Director of Curriculum and Assessment

Board of Selectmen

Holly McNamara, Chair
Steven Moniz
Lorne Lawless

architects

PROJECT MANAGEMENT

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MSBA partnership with the Town of Somerset

Massachusetts School Building Authority

Funding Affordable, Sustainable, and Efficient Schools in Partnership with Local Communities

Somerset has an opportunity to receive a Grant Reimbursement from the MSBA to pay costs associated with the proposed new 6-8 school facility project.

Massachusetts School Building Authority

Funding Affordable, Sustainable, and Efficient Schools in Partnership with Local Communities

2017 MSBA Statements of Interest Intake (Core Program)

Number of SOI's submitted in 2017 **83**

Number of SOI's invited into MSBA Program *(Eligibility Period)* **15**

Approximate percentage of annual Core Program entrants **18%**

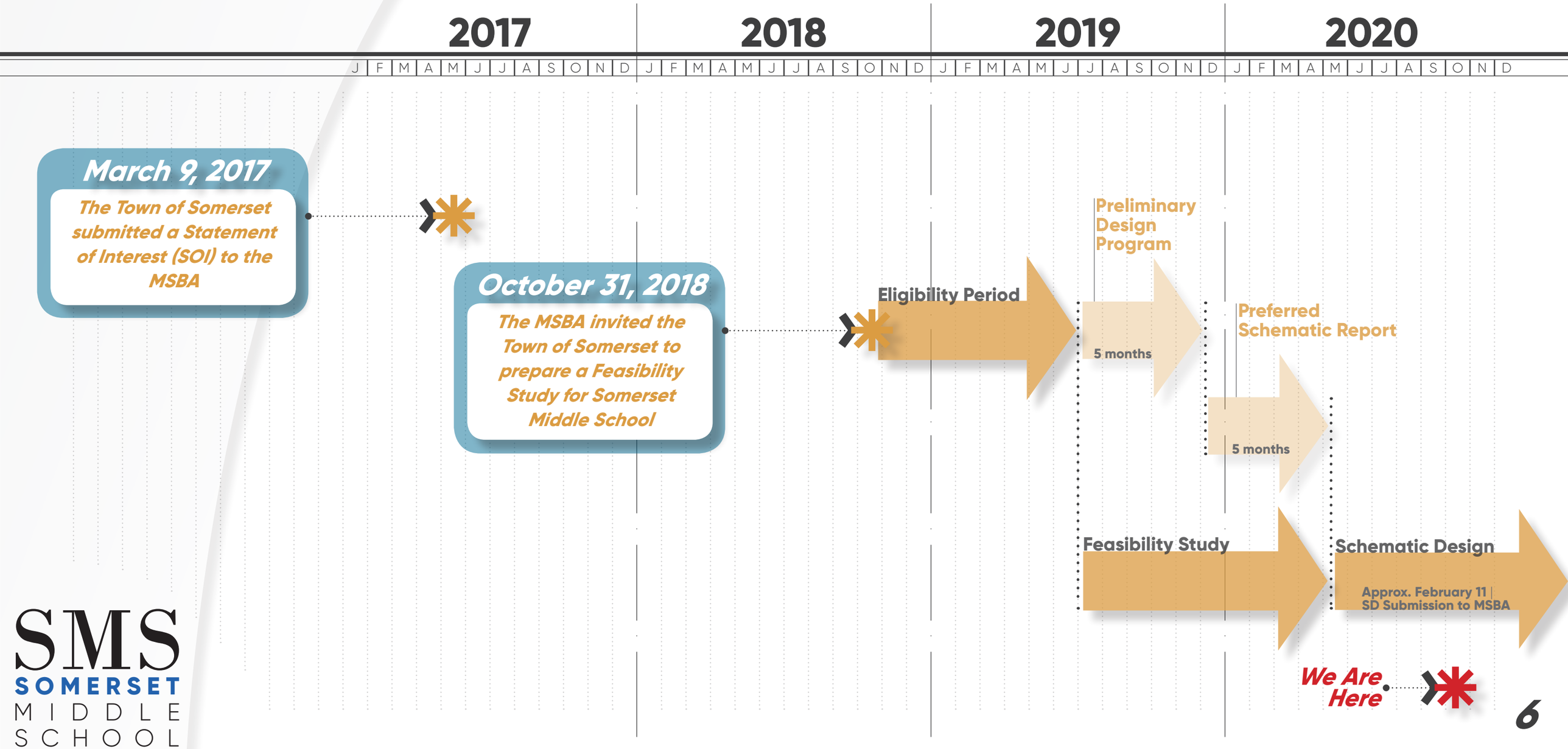
The Massachusetts School Building Authority (MSBA) offered Somerset a Grant opportunity for the following reasons:

- **"Open concept" general classrooms and educational spaces**
- **Lack of educational space for team teaching and collaboration**
- **Science classrooms do not meet the state guidelines**; most of the 7/8th grade instruction & laboratory experiments are limited to teacher demo and are not student-centered
- Undersized student dining area
- Undersized Library Media Center
- **Lack of special education space for remedial and tutorial programs**
- SPED services requiring separate areas are being delivered in the classroom
- **Poor and/or ineffective acoustics within the instructional classrooms and team teaching spaces**
- SPED sub-separate classroom for autistic children does not have separate therapy rooms
- Lack of student exhibit space
- **Lack of small group work, study, and testing areas**
- Lack of adequate administration and support space
- **Lack of integrated project labs**
- **Lack of collaborative learning spaces**

The Massachusetts School Building Authority (MSBA) offered Somerset a Grant opportunity for the following reasons:

- **Condition of existing building infrastructure**
- **Lack of Building Code compliance**
- Lack of Energy Conservation Code compliance
- Lack of Seismic Structural Code compliance
- Lack of modern technology infrastructure at the Somerset Middle School
- **Lack of handicap accessibility (building and site) at the Somerset Middle School**
- Poorly planned building organization
- **Inefficient artificial lighting**
- Lack of natural ventilation and outdated mechanical systems
- Lack of performance, presentation, and instructional space
- Poorly organized middle school building that deters interdisciplinary or collaborative learning
- **Existing Somerset Middle School does not support modern middle school educational programming**
- **Inadequate / inefficient / poorly distributed HVAC systems**
- Poor on-site vehicular/bus circulation
- Ineffective stormwater retention system
- Nondescript main entrance
- **Lack of outdoor educational spaces (indoor-outdoor connections)**

SMS | Project Timeline



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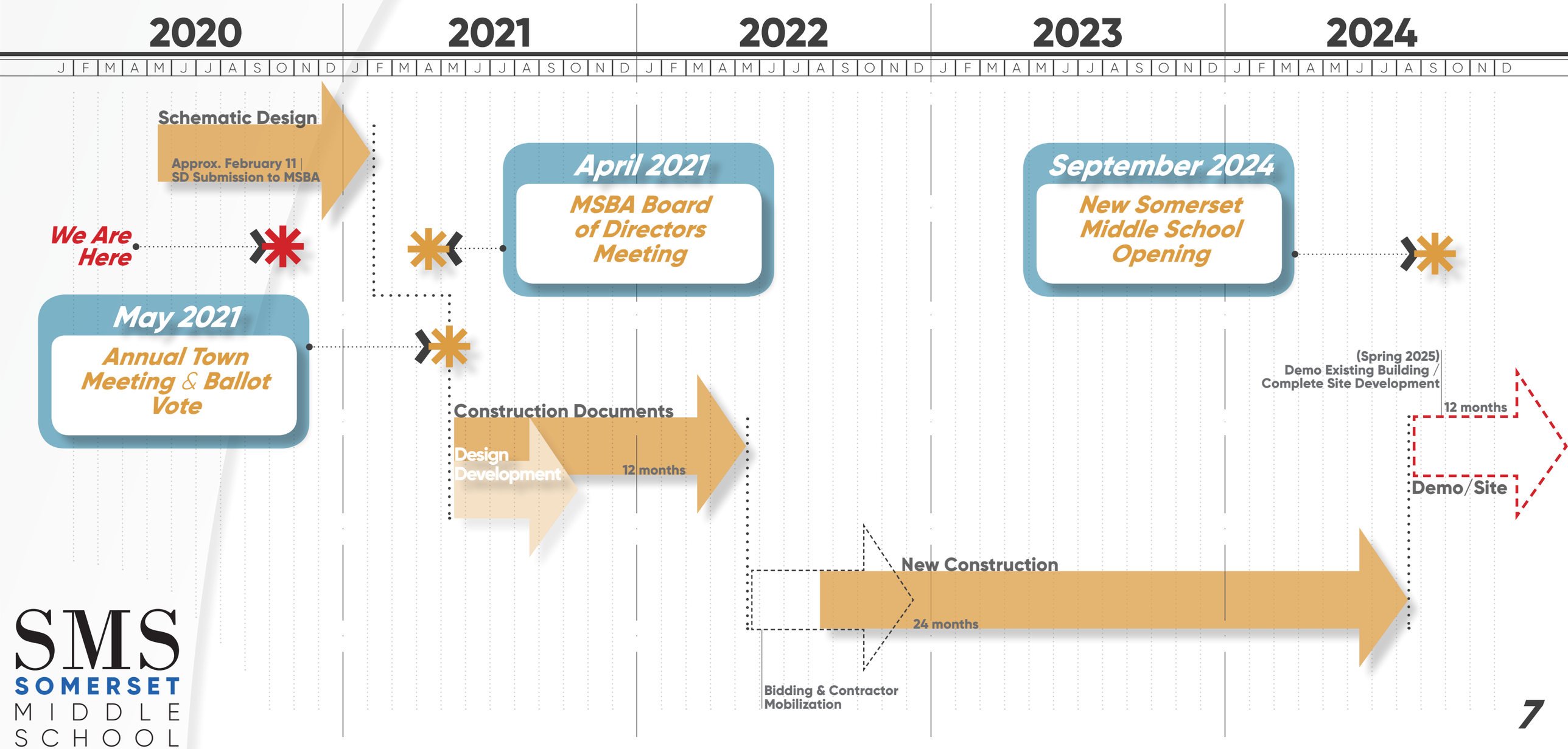
SMS | Project Timeline



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- *"**POST WAR BOOM**" Resulted In Lightweight, Lesser Quality School Construction*
- *Building Codes **Did Not Exist***

1960 | 1970 | 1980 | 1990 | 2000 | 2010 | 2020

1963
Construction began

1965
Building is occupied

1969
6th Grade wing was constructed

1997
Underground storage oil tanks were removed

Brick repair project was conducted

1999
One of four boilers was replaced

2004
Entire roof was replaced with a PVC roof

2015
Photovoltaic system installed on roof

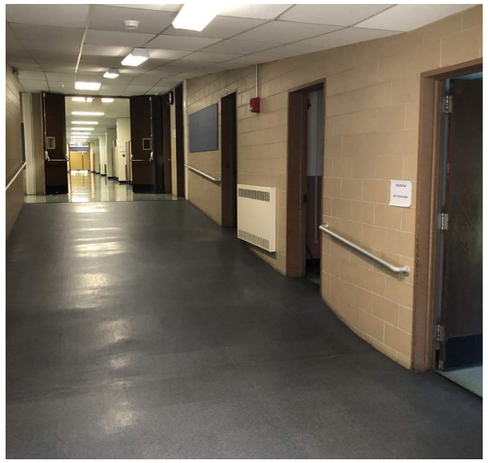
2018
Main entry security upgrades

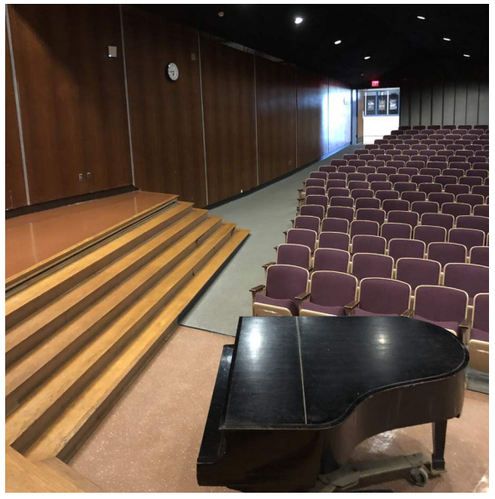
Educational Deficiencies

- **Lack of educational space for team teaching and collaboration**
- Science classrooms do not meet the state guidelines; most of the 7/8th grade instruction & laboratory experiments are limited to teacher demo and are not student-centered
- Undersized student dining area
- Undersized Library Media Center
- **Lack of special education space for remedial and tutorial programs**
- **Poor and/or ineffective acoustics within the instructional classrooms and team teaching spaces**
- SPED sub-separate classroom for autistic children does not have separate therapy rooms
- **Lack of small group work, study, and testing areas**
- Lack of adequate administration and support space
- Lack of integrated project labs
- Lack of collaborative learning spaces
- **Existing Somerset Middle School does not support modern middle school educational programming**
- **“Open concept” general classrooms and educational spaces**

Exterior Envelope Deficiencies

- "Post-war boom" resulted in **lightweight, less expensive school construction** practices that did not have the physical longevity as their predecessors.
- **No insulation** in the existing exterior wall assembly
- Thermal resistance (R-Value) of the existing exterior wall assembly does not meet current energy code requirements.
- Lack of control joints at critical locations is resulting in **exterior masonry cracking**.
- **Original, single-pane exterior window systems** are non-compliant with the State Energy Code.
- **Water infiltration behind masonry walls** has caused cracking in numerous locations resulting from freeze-thaw.
- **Rusting of exterior doors and frames** exists throughout the building.
- Rusting and movement of steel lintels above doors and windows requires removal and replacement.
- **Water infiltration** resulting from continuous deterioration of wall/roof flashing, roof membrane seams, failed sealant, and standing water



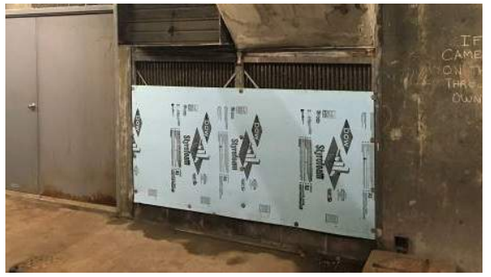


Code Compliance Deficiencies

- **Requirements for handicap accessibility were non-existent in 1965** when the Somerset Middle School was originally designed and constructed.
- **All bathrooms need reconstruction** due to non-compliant conditions (entry doors too narrow – 24 inches wide, NO HC toilet stalls, NO HC urinals, NO HC sinks or accessories)
- Total plumbing fixture counts do not meet state plumbing regulations
- Existing **ramps are non-compliant for accessibility** (slope, landing size, handrails, projections, doors off ramps) – requires complete reconstruction of ramp AND entry door to adjacent rooms.
- **NO accessible seating in assembly spaces** (gymnasium, auditorium, lecture hall, etc.)
- Drinking fountains are non-compliant
- Door hardware and classroom entries are non-compliant
- Gymnasium locker room lockers and showers are non-compliant

Building Systems Deficiencies

- **Boilers have outlived their service life**, are very inefficient to operate, and are in poor condition.
- The unit ventilators have outlived their useful service life.
- **Exhaust fans appear to be old** and beyond their serviceable life expectancy.
- Gymnasium air handling units are original to the construction of the school and have outlived their useful service life.
- In 1969 addition, air is supplied by ceiling diffusers and returned at low wall return grilles, making maintenance difficult due to its confined location and limited access.
- The **water service appears original** and has exceeded its life expectancy.
- The sanitary, waste, and vent piping has served its useful life and should be replaced.
- The storm drainage piping has served its lifetime and should be replaced.
- **Plumbing fixtures have exceeded their life expectancy**, and although not required, high-efficiency fixtures are recommended.
- Per the State Building Code, the facility is required to be fully sprinklered and is **currently not in compliance with the existing Building Code**.
- Emergency power system does not meet current codes.



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Re-Imagine The Future

Benefits of a New Somerset Middle School

Benefits of a New School

Educational

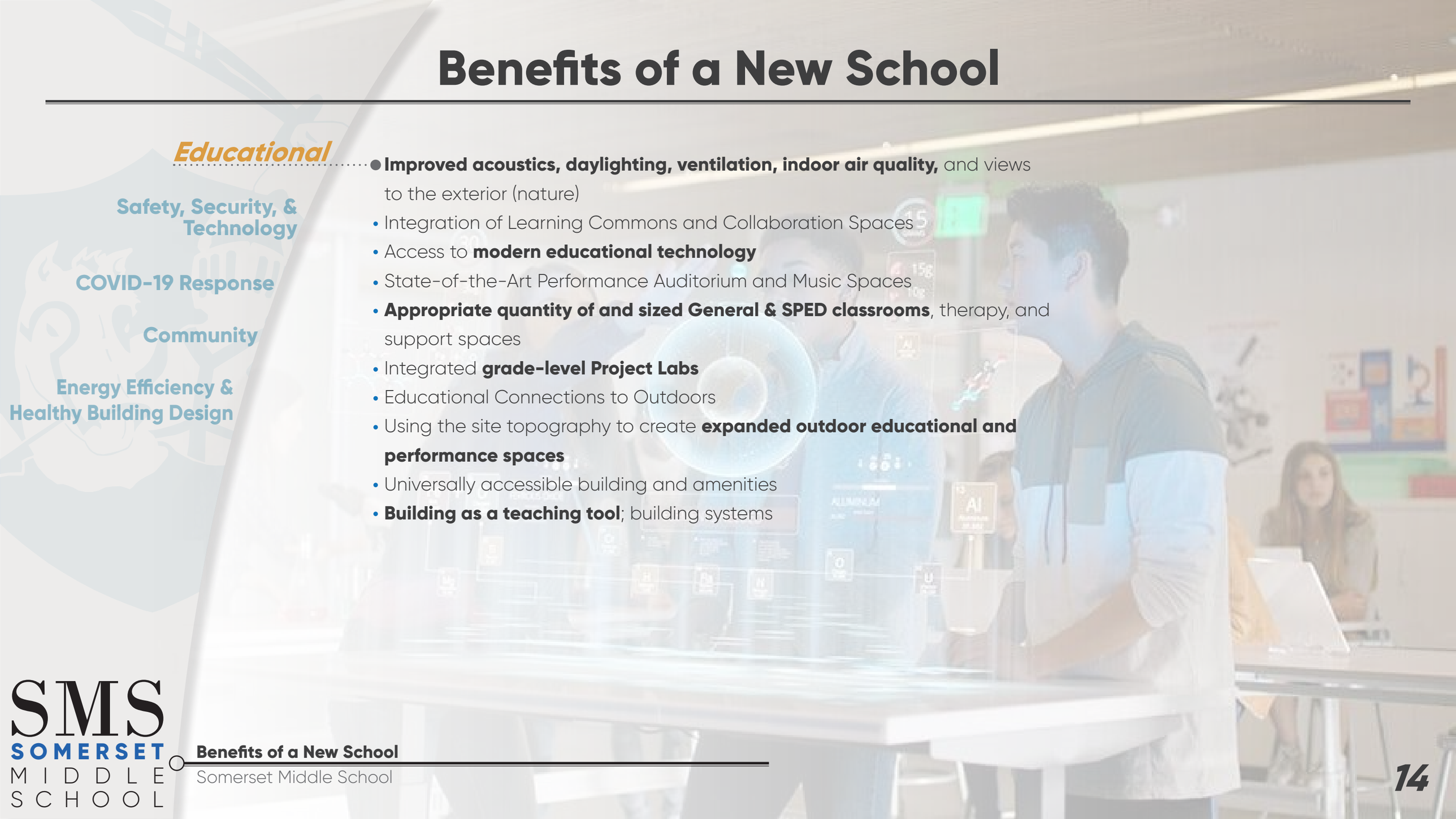
Safety, Security, & Technology

COVID-19 Response

Community

Energy Efficiency & Healthy Building Design

- **Improved acoustics, daylighting, ventilation, indoor air quality,** and views to the exterior (nature)
- Integration of Learning Commons and Collaboration Spaces
- Access to **modern educational technology**
- State-of-the-Art Performance Auditorium and Music Spaces
- **Appropriate quantity of and sized General & SPED classrooms**, therapy, and support spaces
- Integrated **grade-level Project Labs**
- Educational Connections to Outdoors
- Using the site topography to create **expanded outdoor educational and performance spaces**
- Universally accessible building and amenities
- **Building as a teaching tool**; building systems



Benefits of a New School

Educational

Safety, Security, & Technology

COVID-19 Response

Community

Energy Efficiency & Healthy Building Design

- Incorporation of **Passive & Active security** measures
  - **Clearly Identifiable and Visible** Site and Building Entrance
  - Clear Separation of on-site vehicular, bus, and pedestrian pathways
  - **Natural site surveillance** – clear visual sightlines and program adjacencies
  - Integration of **interior and exterior surveillance cameras** (CCTV)
  - Proper site and building lighting
  - Strategic placement of school office and administration with clear views to entry plaza
  - **Appropriately designed corridors & stairs** to reduce conflict
  - Clear delineation between **"Public" & "Private" spaces**
  - **100% wireless access** coverage in building & outdoor educational spaces
  - **21st Century educational technologies** incorporated in building

Benefits of a New School

Educational

Safety, Security, & Technology

COVID-19 Response

Community

Energy Efficiency & Healthy Building Design

- Multiple building points of entry for **distributed student movement**
- Numerous **outdoor classroom and performance spaces**
- **Flexible spaces** to accommodate fluid modifications to classrooms
- **Improved Indoor Air Quality**
  - Operable Windows, Ventilation system, Indoor Air Quality Assessment – Building Flush-out and testing, Low-emitting materials specified, & Building walk-off mats

  Hand Cleaning Awareness
  - Signage, Sinks in every classroom, Motion Sensors Faucets, Hand sanitizing stations throughout the building
- **Water bottle filling stations**
- Proposed **general classroom size larger than existing classrooms** net square footage
- **Easy Cleaning Surfaces** (smooth, streamlined, high-touch surfaces)
- Voice activated technology

Benefits of a New School

Educational

Safety, Security, & Technology

COVID-19 Response

Community

Energy Efficiency & Healthy Building Design

- Integration of the recently updated Town-wide Economic Master Plan
  - **New, renovated, and expanded playfields** for community and school use
  - New on-site **walking trails, pathways**, and integrated **fitness stations**
  - Connection of **off-site bike lanes** (South Coast Bikeway along Read Street)
  - **Community use of new building** (Auditorium, Gymnasium / Fitness, Student Commons, and Library Media Center)
  - Integration of **Future Community Gardens/Green House**
- New roadways, sidewalks, parking, etc. as part of the renovation of the entire site
- Expanded and re-configured parking for **better efficiency and access to the new building and playfields**
- Resolution to existing parent drop-off and pick-up challenges – separation of bus, vehicular, and pedestrian activity
- **Universally accessible site, playfields, and building**
- **Positive contributions to sustainability & climate change goals**
  - Renewable energy
  - Green Communities compliance
  - Waste management & recycling

Benefits of a New School

Educational

Safety, Security, & Technology

COVID-19 Response

Community

Energy Efficiency & Healthy Building Design

- **High Performance Building Envelope**
  - Energy efficient windows, roof, and high R-value insulation that reduce draftiness and increase student and teacher comfort levels
- **High Efficiency** Building Mechanical and Lighting Systems (100% LED)
- **On-site renewable energy sources**
  - Re-use (and expansion) of existing 300kW PV system
- Site and Building as a **teaching tool**
- ****9 Foundations of a Healthy Building***
  - Improved ventilation, air quality, thermal health, water quality, moisture control, dust & pests, acoustics & noise, lighting systems, safety & security

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East-West Site Section

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Conceptual Site Plan

25 Acre Site

- Context
  - Dighton town line - Utility Easement (North Side of site)
  - Residential / Light Commercial (East Side of site)
  - Residential (South Side of site)
  - Woods, South Elementary School, fitness trails, and playfields (West Side of site)
- Integration of recently updated Town-Wide economic Master Plan
  - Community use spaces (auditorium, gymnasium, student commons)
  - Bike access points
  - Expanded playfields
  - Updated fitness & cross country trails
  - Green Community Building
- Building massing response to context and site topography
- Multiple access points to site and perimeter access for safety vehicles
- Resolution of current drop-off and pick-up (vehicular/bus) challenges
- Identifiable entrance and plaza "opens" up to Brayton Avenue
- More efficient distribution of parking on site
- 200+ total proposed parking spaces
- Indoor/outdoor educational connections; use of existing topography and adjacent wooded areas
- Efficient building organization and layout
- Constructed away from existing middle school building; least disruptive to education by avoiding phased occupied construction
- Meets the proposed project timeline
- Sustainable, energy efficient, healthy building design
- Meets project educational goals


Existing Middle School
Read Street
Multi-use Playfield
Pedestrian Walkway
Parking
Multi-use Playfield
Multi-use Playfield
Parking
Main Entry Plaza
Pedestrian Walkway
Brayton Avenue
Single Entry Access Point


South Elementary School site
New 6-8 Middle School
124,200 GSF
Fitness & Cross Country trails in Existing Wooded Area
Multi-use Playfield
Amphitheater
Read Street
Parking
Academic Wing
Loading Area
Gymnasium/ Auditorium
Softball Field
Baseball Field
Bus drop-off zone
Main Entry Plaza
Secondary Entry Plaza
Parent drop-off zone
Parking
Parking
Multi-use Playfield
Brayton Avenue

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What is the estimated cost of the project?

Project Design Phase	Preferred Schematic Report (PSR) April 2020 Grades 6-8	Interim Schematic Design October 2020 Grades 6-8	100% Schematic Design February 2021 Grades 6-8
	131,900 GSF	**124,200** GSF	**124,200** GSF
Estimated Construction Cost	$**68** million	$**64.8** million	**TBD**
Estimated Total Project Cost	$**81.5** – $**86.5** million	$**76.5** – $**82.5** million	**TBD**
Estimated Town Share	$**48** – $**53** million	$**42.5** – $**48.5** million	**TBD**

1. *Third party cost estimates are not represented as the final construction costs, as the information they are based on is extremely preliminary.*
2. *Estimates assume a construction start of Summer 2022.*
3. *Estimates assume public bidding under Chapter 149 (Design - Bid - Build) of the MGL.*

Frequently Asked Questions

I. What is the role of the Massachusetts School Building Authority (MSBA)?

II. Why did the SMS SBC/SC/BOS all endorse the construction of a new 6-8 Middle School instead of proposing to expand & renovate the existing building?

III. What are some of the existing building challenges?

IV. What are the safety & security measures included in the proposed project?

V. What is the project timeline?

VI. What happens if the debt exclusion vote DOES or DOES NOT pass in May 2021?

VII. What are the educational & community benefits associated with the new middle school?

VIII. What is the estimated cost of the project & what does it include?

SOMERSET MIDDLE SCHOOL

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Thanks for Participating!

Continued Communications

For Project Related Questions, *please Email:*

- Company Name
- Email: name@somersetschools.org

For more info, *visit our Website:*

- Somerset Middle School Building Project
- Visit: http://www.somersetschools.org/District-Info/Somerset-Middle-School-Building-Project/index.html

Community Forum #5

November 18, 2020