North Bayshore
Mountain View Whisman School District

URBAN SCHOOL MODEL
Tonight’s Agenda, Big Picture
Using Design Thinking to Learn More about Our Options

Listening, seeing and building a shared understanding

What problem are we solving in terms of space, land and learning?

Co-creating a new learning campus through sharing ideas and discussion

Analyzing and discussing case study plans and 3-d models

How do the case studies considered apply to North Bay Shore?

Listening, seeing and building a shared understanding

Using Design Thinking to Learn More about Our Options

Ideate

Define

Prototype

Test
Tonight’s Agenda, the Details

Introduction

Part 1: Site and Context
- Land and Density: the problem and opportunity
- Embracing a Successful Paradigm
- Discussion

Part 2: Case Studies
- Existing Elementary Schools in MVWSD
- Neighboring Urban Schools & Comparative Scale Diagram
- FNI Case Studies and Global Network Exemplars
- Discussion

Part 3: Case Study Implications for Success in North Bayshore
- Mapping Space to Successful Learning Outcomes
- Discussion
Considering a More Closely Connected Paradigm

1. A smaller site and the footprint can still support the highest quality of education.

1. A creative approach to the use of adjacent parks, roof tops, and strong connections between indoor and outdoor spaces can overcome the limitations of a smaller site.

2. Close integration with surrounding neighborhoods, community organizations and even businesses is a key foundation of many highly successful schools.

3. An increase in density is often associated with increased connectivity and creativity.
Existing MVWSD Schools
Neighboring Urban Schools

Jean Parker Elementary School

Tenderloin Community Elementary School

Horace Mann Elementary School

San Francisco Urban School

Nueva School
Design for an Open Network

Hierarchical Network

Open Network
Hierarchical Network
Information flows in one direction

Open Network
Multi-directional flow

Teacher Provides Answers

Students Construct Knowledge
Designing for Open Networks and Career Success

“Simply being in an open network instead of a closed one is the best predictor of career success.”

Professor Ron Burt, University of Chicago, paraphrased by Michael Simmons, Forbes
Learning Cycles Rather than Bells and Cells

How do you schedule time and space in an open network school?

- Hands-On
- Trans-disciplinary
- Product-Focused

- Networked
- Community Connected
- Globally Connected

- Individual
- Personalized
- Reflective

Learning Cycles Rather than Bells and Cells
Design for Inquiry

Norma Rose Point School, Vancouver, British Columbia
Learning is Founded in Inquiry
Design for a Culture of Curiosity and Risk Taking

Norma Rose Point School
Design for Fluid Indoor-Outdoor Connections

Norma Rose Point School
Design for Fluid Indoor-Outdoor Connections

Norma Rose Point School
Design for Fluid Indoor-Outdoor Connections
Design for Fluid Indoor-Outdoor Connections
Real-World, Community-Connected Learning

Center for Advanced Professional Learning

“Why just sit in class and AP economics and IB business when you can actually apply it by doing real-world projects for companies?”

David and Jonah Stillman, Gen Z @ Work
Real-World, Community-Connected Learning

Fisher STEAM Middle School
Community Learning Network: Live-Work-Play-Learn

Texas Tech University Costa Rica

Avenue Escazu San Jose, Costa Rica
Community Connected Learning
Fluidly Connected Spaces Support Interleaving (Integrated Learning)

Natural Light and Indoor-Outdoor Connections

Agile, fluidly connected spaces
What does an open network school look like?

Anne Frank Inspire Academy
Designing for Personalized Learning and Reflection
Learning Inside and Out!
Designing for the Most Effective Way to Learn

Massed Learning
Least Effective

Integrated Learning
(Interleaving)
Most Effective


Agile Design for Multiple Uses
Agile Design for Multiple Uses

International School of Brussels

YCIS Chongqing
Agile Design for Multiple Uses
Agile Design for Multiple Uses
Learning is a Social Process

Emerald Elementary School, Boulder, Colorado
Learning is a Social Process
Designing for Place & Ethos
Designing for Surprise and Delight

Yew Chung International Schools Ronghua Early Childhood and Primary Campus, Shanghai
Designing for Well-being

Yew Chung International Schools Ronghua Early Childhood and Primary Campus, Shanghai
Designing with Algorithms Based on Nature and Human Activity
Roof Plan

- Ecological Roof Garden:
  To study green energy systems & weather.

- Independent Study Balcony

- Outdoor Learning Space

- Edible Roof Garden:
  For growing fruits & vegetables.

- Pond for Environmental Studies:
  Outdoor experimental site to study flora, fauna & water quality.
Building Section

- Grade 10-11 (93-127)
- Grade 7-8 (97-132)
- Theater (464 Students)
- Music & Drama Classroom
- Global Learning Center
- Grade 6 (60-75)
- Grade 8-9 (97-133)
- Grade 11-12 (93-128)
- Grade 13 (72-100)
Learning Principles

3 Access to Nature + Well being
- Play parks will be designed to offer natural spaces to challenge learners to negotiate risk in play as a way to build competence, social skills, and opportunities for learning through engagement with the natural world.
- Play areas will be easy to access for students from any level throughout the building through clear and efficient circulation paths.

5 Well being
- Learning space have access to natural light and views to the outdoors.
- Building utilizes shading strategies to ensure outdoor space is comfortable and protected.

1, 2 Inquiry + Flexibility at the heart of Learning
- Learning communities can vary in size from 2 cohorts to 8 cohorts, and can nest to support grade level professional learning communities.
- The learning environment offers a range of settings for students to choose from during the process of inquiry.
- Professional collaboration space will allow educators to plan, work and learn together in the delivery of personalized learning experiences for all students.

6, 8 Interdisciplinary Learning + Centralized Specials
- Every Learning Community will be in close proximity to specialized and shared resources (i.e. art, world language, library).
- Specialized resources and spaces will be easily integrated into everyday learning experiences.
- Transparency throughout the library will allow learning to be visible.

10 Dining as Learning
- Dining is treated as a delightful experience with connections to outdoor play space and developmentally appropriate sized and programmed spaces.
- Opportunities for dining will be distributed throughout the building and will include a variety of space and seating types to support the needs of all students.
Embracing a Successful Paradigm  |  Creating New Opportunities

FNI has experience with urban / vertical schools on 3 continents, with both independent and public schools. For Fisher STEAM Middle school, we developed a lightly efficient model for vertical schools that places all learning resources near students saving time and distance for students. All building resources, such as IT closets and MEP spaces are distributed as well to minimize cabling conduit and duct work.
The building block for this approach is founded in decades of education research on the benefits of learning in small communities of 150 or less, where every student is known and valued, and teachers can collaborate together to form dynamic groups of students from 1 to 150 based on the learning needs rather than the space.
Key Design Drivers for Urban/Vertical Schools

1. Efficient groupings and shared spaces
2. Space arranged for vertical stacking and optimize natural light and access to outdoor spaces whenever possible.
3. Spaces grouped into key areas conducive to an academy or small learning community model
4. Stairs can also be a learning opportunity, for assembly and student collaboration, or for the display of student work and messaging.
SITE & CONTEXT
The context for this discussion is Google’s offer of a 2.5-acre site (with an adjoining 1 acre park site) for an elementary school with upwards of 700 students.

Existing elementary school in MVWSD are generally in low-density suburban residential neighborhoods, whereas the North Bayshore is envisioned to grow into a higher-density, mixed-use urban community.
Existing MVWSD Schools │ Landels Elementary School

- Principal: Heidi Galassi

- Not rows and columns anymore

- All types of students in the same space:
  - Some need support
  - Some need enrichment

- The practice of all students lining up to switch periods reduces learning and collaborative time

- Learning happens in unique group of about 8 students

- Enrichment for some, support for others

- Not every student connects with every teacher. The 4:100 model allows students access to more teachers
Existing MVWSD Schools │ Landels Elementary School

[Image of a school hallway with backpacks hanging on hooks]
Existing MVWSD Schools │ Landels Elementary School
Existing MVWSD Schools | Landels Elementary School
Existing MVWSD Schools │ Landels Elementary School
Teacher collaboration rooms typically consist of 4-8 teachers working jointly within a learning community. These spaces facilitate **formal and informal planning** and discussion around a common group of students in a single grade level or curriculum department. Access to **personal storage** space and direct adjacency to learning communities allows teachers to share a group of learning spaces instead of being confined to a single classroom.
Existing MVWSD Schools  |  Castro Elementary School

- Improved food program
- Traditional education
Existing MVWSD Schools  |  Castro Elementary School
Existing MVWSD Schools | Castro Elementary School
Existing MVWSD Schools | Mistral Elementary School

- Aspirational librarian
- Need for makerspace
- Multi-age groups
- Promote love of reading
- Not judgemental but exploratory, not being assessed or graded
Existing MVWSD Schools  |  Mistral Elementary School
Existing MVWSD Schools │ Stevenson Elementary School

- Principal: Rebecca Westover
- Passion, Experiential
- PBL
- Students: fun!
- Teaching Kitchen
- Need storage to support PBL
Existing MVWSD Schools │ Stevenson Elementary School
Existing MVWSD Schools │ Stevenson Elementary School
Existing MVWSD Schools | Theuerkauf Elementary School

- Principal: Swati Dagar
- “I need additional flexible space”
- Wonderful student / public art facilitated by Bill Gould
- Title 1 lower socio-eco demographics
- STEAM and PBL
- Living classrooms outside
- 21 Google volunteers
Existing MVWSD Schools │ Theuerkauf Elementary School
NEIGHBORING URBAN SCHOOLS
Neighboring Urban Schools  |  Jean Parker Elementary School

- 0.75 acres
- 250 students enrolled;
- Grades K-5
- Located in the Chinatown/North Beach area
- Public School
Neighboring Urban Schools | Jean Parker Elementary School
Neighboring Urban Schools | Jean Parker Elementary School

- Strong family community
- Teacher’s College workshop school
- Dual track school: Cantonese and general
- K-1 on Level 1
  Grades 2-3 on Level 2
  Grades 4-5 on Level 3
Neighboring Urban Schools | Tenderloin Community Elementary School

- 1.5 acres
- 331 students enrolled;
- Grades Pre K-5
- Community resources on site including a dental and medical clinic, community garden, play yards and parent resource center
- Public School
Neighboring Urban Schools │ Tenderloin Community Elementary School

- Use of the basement for parking
- Dental clinic, open Thursday, free
- Teachers escort 1st and 2nd graders down
Neighboring Urban Schools | Tenderloin Community Elementary School

- Low performing compared to other districts, Title 1
- Kids learn to ignore sounds from adjacent play areas
Neighboring Urban Schools | Tenderloin Community Elementary School

- Need shade
- Need storage space at exterior play areas
- Never at full enrollment because of the name and association with district
Neighboring Urban Schools │ Tenderloin Community Elementary School
Neighboring Urban Schools │ San Francisco Urban School

• 6,800 sf parcel (0.15 acres)
• 420 students enrolled;
• Grades K-12
• Academic and Wellness center located one block away from main school (0.5 acres parcel size)
Neighboring Urban Schools | San Francisco Urban School
Neighboring Urban Schools | San Francisco Urban School
Neighboring Urban Schools  |  Horace Mann Elementary School

- 2.98 acres
- 420 students enrolled; 700 students capacity
- Grades K-5
- Stepped form with a variety of courtyards, turf play areas, terraces, and gathering spaces
- Public school
Neighboring Urban Schools | Horace Mann Elementary School
Neighboring Urban Schools | Horace Mann Elementary School
Neighboring Urban Schools | Nueva School

- 2.8 acres
- 390 students enrolled; 450 students capacity
- Grades K-12
- Flexible indoor and outdoor areas
- Private school
Neighboring Urban Schools │ Nueva School
Neighboring Urban Schools │ Nueva School
Comparative Scale Diagram  | Program for 685 Students (TK-5)
Comparative Scale Diagram | Program for 685 Students (TK-5)
CASE STUDIES
The Obersee Bilingual School is a world class primary and secondary school located near Lake Zurich in Switzerland. This ultra-compact project is equally successful in its efficiency and beauty.

The upper school is designed under the atelier model and provides individual student work space for extended projects guided by teacher advisors. Inspiration for the high school was drawn from innovative contemporary work places and the floor plan more closely resembles an environment like Google rather than a typical school.
Case Study  |  Obersee Bilingual School, Switzerland

The thoughtful and functional planning of the interior is matched by the playful exterior where geometry is used to create pattern and frame views of the Swiss landscape. The school takes a unique attitude both educationally and architecturally that manages to capture its contextual spirit.
Case Study | Global Indian International School, Singapore

- 3800 students capacity
- Grades Pre K-12
- Total Building Area: 320,000sf
- The design draws inspiration from a birds nest – a nurturing oasis for students before they take flight in their lives and careers. The nest or 7 story courtyard serves both as a metaphorical nest protecting students from the noise, traffic, and dust of Singapore.
Case Study | Singapore American School, Singapore

- 4,000 students capacity
- Grades Pre K-12
- Total Building Area: 1,000,000sf
- The master plan, The Connected Campus, charts a sustainable path forward for the renewal of the entire campus. Every school division has been reimagined to create the qualities of space, and connections between spaces that support student centered project based learning.
Case Study | Singapore American School, Singapore

- 4,000 students capacity
- Grades Pre K-12
- Total Building Area: 1,000,000sf
- Private school
- The master plan, The Connected Campus, charts a sustainable path forward for the renewal of the entire campus. Every school division has been reimagined to create the qualities of space, and connections between spaces that support student centered project based learning.
Case Study | South Melbourne Elementary School, Australia

- 1.2 acres
- 525 students + 44 early learning students
- Pre K-6
- Total Building Area: 30,183sf
- Prototyping a new building typology, the project defines a new model of vertical, inner-urban school while exploring the spatial and economic mechanisms of three-dimensional vertical urbanism, innovating in ways to create new spaces for the intersection of people and experience.
Case Study | South Melbourne Elementary School, Australia
American School of Bombay is one of India’s leading educational institutions and caters to a diverse international student body. ASB’s existing campus was bursting at the seams with a long waiting list, so they purchased an 80,000 square foot six story tower in the Kohinoor Township to house the Elementary School, thus creating a split campus. The story of ASB is how FNI turned a bland office-style tower into an exciting and homey place to learn.
Case Study | American School of Bombay, Mumbai

The idea of housing elementary school students in a 6-story tower was a concern to many parents. They wondered if children would feel confused with so many floors to navigate and struggled to imagine how a tower designed for offices could result in a home-like school. FNI found ways to provide children with easily accessible outdoor spaces for learning and playing. The roof terrace has a swimming pool, multipurpose room for P.E. and shaded outdoor play areas with vegetable gardens, pizza oven and outdoor kitchen.
Case Study | International School of Vietnam, Hanoi

International School of Vietnam will be the first Vietnamese backed International school in the country located in the beautiful Hoang Mai district. This urban campus features the use of roof gardens for nature and recreation. The ground level houses the Pre-K through Grade 3 students with their own indoor play area entry, their own small café, learning terraces, and main lobby with bleacher stairs for performances and exhibition of student work.
Case Study  |  International School of Vietnam, Hanoi

Adjacent to the Learning Community is a Learning Terrace, which provides outdoor space for learning.

A natatorium and climate controlled gym are important amenities for physical education in this tropical urban environment.

The multi-use space serves as a cafeteria and large gathering space.