

Moorhead Area Public Schools ISD 152

High School & Career Academy

Review & Comment

August 5, 2019





August 5, 2019

Minnesota Department of Education
Attn: Mary Cathryn Ricker, Education Commissioner
1500 Highway 36 West
Roseville, MN 55113

RE: High School & Career Academy Review and Comment Proposal

Commissioner Ricker,

On behalf of the Moorhead Area Public School Board and Administration, we are pleased to present this Review and Comment document summarizing proposed projects for the replacement of our High School and the addition of a Career Academy to our district. The total proposed cost of the project including bond issuance and related financing will be \$110,000,000.

Moorhead Area Public Schools ISD 152 created a Facilities Task Force late summer of 2018 consisting of over 60 community members, District administrators, staff, teachers and students. The focus of the Task Force was to evaluate options for the High School and to make recommendations to the School Board. During those meetings, the group identified the need for a Career Academy to provide additional opportunities for career exploration and technical skill development while helping to address shortages in the regional workforce in these areas. The group met seven times during a period spanning from August 2018 through January 2019.

The Task Force was asked to evaluate three primary options to accommodate 2,400 students with core facilities that could accommodate up to 2,600. A separate off-site Career Academy was included in all three options. The career academy is anticipated to accommodate around 300 students at any given time, making the target for the actual high school 2,100 students with core facilities for 2,300. The three options for the new high school were as follows:

- Option 1** Single Site – 2,400 Students - New Building / New Site
- Option 2** Single Site – 2,400 Students - New Replacement Building / Existing Site
- Option 3** Dual Site – 1,200 Students New Building / New Site
 1,200 Students at Existing Site Building Upgrades and Renovations

A final report with recommendation to proceed with Option 2 – High School Replacement on Existing Site, was presented to the Moorhead School Board on January 31, 2019 and accepted by the Board at their meeting on February 11, 2019. The Task Force was re-engaged following this acceptance to conduct a preliminary design and concept development phase. This work began in late January and was completed in May of 2019. The conceptual design was presented to the Board at their meeting on May 28, 2019.

A detailed description of the proposed projects that resulted from these efforts is included in this Review and Comment. The Board approved the submittal of the Review and Comment document at their meeting held on July 15, 2019 (minutes attached).

The project will be financed through bonding requiring voter approval. The School Board anticipates placing a single question on the November 5, 2019 general election. The proposed wording of the question is as follows:

"APPROVAL OF SCHOOL DISTRICT BOND ISSUE

Shall the School Board of Independent School District No. 152 (Moorhead Area Public Schools) be authorized to issue its general obligation school building bonds in an amount not to exceed \$110,000,000 to provide funds for the acquisition and betterment of school sites and facilities, including the demolition of parts of the existing high school facility, renovation of parts of that existing facility and the construction and equipping of additions to that facility; and the remodeling and renovation of the District's Career Academy?"

Please feel free to contact me if you have any questions at (218) 284-3330.

Sincerely,

Brandon Lunak
Superintendent
Moorhead Area Public Schools

**ORGANIZATIONAL MEETING
SCHOOL BOARD
INDEPENDENT SCHOOL DISTRICT 152
PROBSTFIELD CENTER FOR EDUCATION
JULY 15, 2019
PAGE 1**

CALL TO ORDER AND ROLL CALL: Vice Chair Bjorklund called the meeting to order at 7:00 p.m., requested board member roll call, and led everyone in attendance with the Pledge of Allegiance.

Members present: Cassidy Bjorklund, Melissa Burgard, Rachel Stone, Matt Valan, Keith Vogt, Kara Gloe and Brandon Lunak.

Member absent: Scott Steffes.

PREVIEW OF AGENDA: Superintendent Lunak recommended approval of the agenda with revisions to move 2019-2020 Employee Handbook from the consent agenda to the regular agenda as item 4 and add the handbook attachment as pages 66-107.

APPROVAL OF AGENDA: Vogt moved, seconded by Stone, to approve the agenda as revised. Motion carried 6-0.

MATTERS PRESENTED BY CITIZENS/OTHER COMMUNICATIONS: (Citizens who wish to address a non-agenda item have the opportunity to speak by raising their hand and being recognized by the School Board chair. Speakers must state their name and will be limited to three minutes. Speakers must complete the sign-up form, which outlines the public input process, and submit it to the School Board secretary.) None.

ORGANIZATION OF THE SCHOOL BOARD:

Meeting Date, Time and Location - Gloe moved, seconded by Vogt, to set the regular meetings of the School Board for 6:00 p.m. in the Probstfield Center of Education Board Room 224 on the second and fourth Monday of each month with the exception of Tuesday, November 11, 2019 (due to Veterans Day holiday), December 9, 2019 (one meeting in December), Monday, May 11, 2019 at 5:30 p.m., Tuesday, May 26, 2019 (due to Memorial Day holiday), and the annual organizational meeting Monday, July 13, 2020 (one meeting in July). Motion carried 6-0.

Board discussion included reviewing for the 2020-2021 school year the feasibility of moving board meetings to the first and third Monday of the month.

School Board Compensation - Valan moved, seconded by Burgard, to set the School Board member compensation rate at \$920 per month. Motion carried 5-1 (Bjorklund dissenting).

CONSENT AGENDA: Stone moved, seconded by Gloe, to approve the following items on the Consent Agenda:

Minutes - Approve the June 10, 2019 meeting minutes as presented.

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PROBSTFIELD CENTER FOR EDUCATION
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Designate Official Newspaper 2019-20 - Approve designating The Extra as the school district's official newspaper for the 2019-20 school year.

2019-2020 Memberships - Approve the 2019-20 memberships to Lakes Country Services Cooperative, Minnesota School Boards Association, The Chamber, and Minnesota Rural Education Association.

Legal Services - Approve obtaining legal services on a time and material basis.

Designate Identified Official with Authority - Approve designating Brandon Lunak, Superintendent, as the Minnesota Department of Education Identified Official with Authority (IOwA) and Deb Becker to act as the IOwA to add and remove names only for Moorhead Public School District 0152-01.

July Claims - Approve the July claims, subject to audit, in the amount of \$2,218,344.61.

General Fund: \$2,119,172.28
Food Service: \$73,589.63
Community Service Fund: \$24, 632.70
Debt Fund: \$950.00
TOTAL: \$2,218,344.61

June Wires - Approve June wires, subject to audit, in the amount of \$4,470,109.58.

General fund: \$2,507,537.08
Food Service: \$425.13
Community service: \$4,277.32
Debt Redemption: \$1,423,108.10
Internal Service fund: \$534,761.95
TOTAL: \$ 4,470,109.58

Retirements

Kimberly Melander - LSS Teacher, S.G. Reinertsen Elementary School, effective June 28, 2019.
Mary Jo Gaugler - Paraprofessional, Leave of Absence, Horizon Middle School West Campus, effective July 1, 2019.
Sheila Haugen - Paraprofessional, Horizon Middle School East Campus, effective July 31, 2019.

Resignations

Amanda Craig - Elementary Teacher, Dorothy Dodds Elementary School, effective at the end of the 2018-2019 school year.
Aeissa Escobedo - Paraprofessional, Robert Asp Elementary School, effective at the end of the 2018-2019 school year.
Alexis Greer - Jump Start Teacher, Probstfield Center for Education, effective at the end of the 2018-2019 school year.
Rachel Horan - Music Teacher, Moorhead High School, effective at the end of the 2018-2019 school year.

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Tony Huseby - Teacher on Leave of Absence, Probstfield Center for Education, effective at the end of the 2018-2019 school year.

Julie Podoll - Paraprofessional, Early Intervention Services, effective at the end of the 2018-2019 school year.

Shay Witt - Language Arts Teacher, Vista Center for Education, effective at the end of the 2018-2019 school year.

Deb Hannestad - Paraprofessional, Adult Basic Education, and Instructor, Adult Basic Education, effective August 26, 2019.

Family Medical Leave

Steven Novacek - Custodian, Moorhead High School, medical leave (FMLA) beginning July 10, 2019 through approximately July 12, 2019.

Erin Gunderson - Special Education Teacher, Dorothy Dodds Elementary, family medical leave (non-FMLA) beginning approximately September 3, 2019 through approximately October 21, 2019.

Chelse Ware - Teacher, Jump Start, family medical leave (non-FMLA) beginning approximately December 1, 2019 through approximately February 1, 2020.

New Employees

Shane Brekke - Custodian, Moorhead High School, C2 (10), \$19.40 per hour, effective July 1, 2019 (replaces Abdikadir Mohamed).

Abdi Digale - Custodian, Moorhead High School, 6 hours per day, 5 days per week, C2 (9), \$19.16 per hour, effective July 15, 2019 (new position per 2019-2020 staffing plan).

Ladan Hussein - Custodian, Moorhead High School, 6 hours per day, 5 days per week, C2 (0-2), \$17.10 per hour, effective July 15, 2019 (new position per 2019-2020 staffing plan).

Jacob Johnson - Custodian, Moorhead High School, 6 hours per day, 5 days per week, C2 (0-2), \$17.10 per hour, effective July 15, 2019 (new position per 2019-2020 staffing plan).

Molly Norman - Custodian, Moorhead High School, 6 hours per day, 5 days per week, C2 (0-2), \$17.10 per hour, effective July 15, 2019 (new position per 2019-2020 staffing plan).

John Hoffman - Custodian, Horizon Middle School West Campus, 8 hours per day, C2 (6), \$18.48 per hour, effective August 1, 2019 (replaces Saleban Salad).

Kevin Kernosky - Night Lead Custodian, Horizon Middle School West Campus, 8 hours per day, C4 (3), \$18.66 per hour, effective August 1, 2019 (replaces Michael Broadland).

Emily Smith - Assistant Principal, Moorhead High School, P3 (3), \$90,289.00 effective July 15, 2019 (replaces Josh Haag).

Madison Geiser - Life Science Teacher, Horizon Middle School East Campus, BA (0), \$39,613.00, effective at the beginning of the 2019-2020 school year (replaces Josh Carlson).

Lauren Knutson - Elementary Teacher, S.G. Reinertsen Elementary, MA+30 (7), \$62,156.00, effective at the beginning of the 2019-2020 school year (new position per 2019-2020 staffing plan).

Brittany Meier - Jump Start Teacher, Probstfield Center for Education, BA (2), \$31.59 per hour, effective at the beginning of the 2019-2020 school year (new position per 2019-2020 staffing plan).

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Rose Ndoutou - Behavior Interventionist, Horizon Middle School West Campus, NA10 (0-2), \$28.45 per hour, effective at the beginning of the 2019-2020 school year (replaces Emily Bitz).

Chelsea VanRaden - Elementary Teacher, Robert Asp Elementary School, BA (2), \$41,912.00, effective at the beginning of the 2019-2020 school year (replaces Joni Jensen).

Jacquelyn Weber - Language Arts Teacher, Moorhead High School, BA (10), \$51,135.00, effective at the beginning of the 2019-2020 school year (replaces Dawn Gunderson).

Comparable Worth/Pay Equity Review - Approve the banding and grading updates to the positions listed.

Previous Band/Grade -- Position / Contract -- Adjusted Band/Grade

E81 -- Exec. Director of Community Engagement and PR / Admin -- E92

C43 -- Coordinator, Community Education / Supervisor -- D63

D63 -- Coordinator, Early Learning / Supervisor -- D71

Part-Time and Substitute Pay Schedule - Approve the part-time and substitute schedule as presented.

Dairy and Bakery Bids 2019-20 - Accept the dairy bid received from Cass-Clay and the bakery bid from Pan-O-Gold for the 2019-20 school year.

Continuing Contract - Approve Continuing Contract/Tenure for Abby Altenbernd, Matthew Backlund, Michaela Backlund, Alison Bendickson, Kylie Bengston, Taylor Budke, Brittany Coalwell-Escobedo, Elizabeth Donahue, Erin Eidelbes, Matthew Ellingson, Jocelyn Estrem, Tory Gaard, David George, Caitlyn Gerchak, Nichole Giffey, Laura Gilan, Angela Gukeisen, Alyssa Halvorson, Clair Hamblin, Linsey Holten, Marissa Jenson, Angela Keeping, Chelsea Keller, Bridge Kragness, Sara Kubicek, Joe Leggio, Heather Markuson, Amy Mattison, Emily Nord, Beatriz Osland, Timothy Pipinich, Brittney Rehm, Patricia Ronigan, Julia Sammon, Alex Sandahl, Karina Schwindt, Maggie Seter, Christine Soukup, Brandi Stromstad, Stephanie Walter, Jenny West, Brooke White, Aaron Wilmer and Xuejun Zhang as presented.

Additional Staffing - Approve the additional staffing for the 2019-20 school year.

Ellen Hopkins Elementary - Paraprofessional, 1.0 FTE, an additional 1.0 FTE is requested to provide support to Grade 4 Spanish Immersion.

Jump Start - Teacher, 1.0 FTE, an additional 1.0 FTE is requested to provide a section of Jump Start at Robert Asp Elementary in support of Achievement and Integration.

Jump Start - Paraprofessional, 1.0 FTE, an additional 1.0 FTE is requested to provide a section of Jump Start at Robert Asp Elementary in support of Achievement and Integration.

United Way of Cass-Clay Grant Award - Accept the grant of \$100,000 per year for three years for the Jump Start program.

Motion carried 6-0.

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2019-2020 EMPLOYEE HANDBOOK: Revisions were made to the 2019-2020 Employee Handbook in the following sections: Leave, Deduct/Days Unpaid Leave, Flexible Spending Accounts (FSA), Automated External Defibrillator, and Cell Phone Usage. Additional changes were made based on policy change, phone number or website changes.

Vogt moved, seconded by Stone, to approve the updates and revisions to the 2019-2020 Employee Handbook. Motion carried 6-0.

PURCHASE OF MOORHEAD SPORTS CENTER: As part of the purchase of the Sports Center from the City of Moorhead, Moorhead Area Public Schools will lease office space to the Parks and Recreation Department free of charge for as long as the city requires office space and the City of Moorhead will operate the Sports Center. The 2.75 FTEs will remain City of Moorhead employees and wages/benefits will be paid by the district through the Rink Operations Agreement.

Burgard moved, seconded by Vogt, to approve the purchase of the Moorhead Sports Center for \$1.00 effective July 1, 2019. Motion carried 6-0.

RESOLUTION ACCEPTING DONATIONS: Gloe moved, seconded by Vogt, to accept the monetary donation from the Great Nole Pole for outstanding student meal debt. Motion carried 6-0.

REVIEW AND COMMENT: Minnesota Statute 123B.71 requires a review and comment statement on the educational and economic advisability of proposed school construction projects. Moorhead Area Public Schools plans to purchase and renovate the former Sam's Club building to provide instructional space for a career academy.

Vogt moved, seconded by Burgard, to approve the positive Review and Comment from the Commissioner of Education for the proposed school construction projects. Motion carried 6-0.

APPROVAL FOR THE SUPERINTENDENT TO SUBMIT REQUIRED INFORMATION FOR THE REVIEW AND COMMENT: With a potential November 5, 2019 school building bond election, the school district is required by Minnesota Statute to submit a Review and Comment document by August 7, 2019. The current School Board meeting schedule does not meet this timeline.

Valan moved, seconded by Burgard, to approve the superintendent to submit all required Review and Comment information to the Commissioner of Education to meet the August 7, 2019 timeline. Motion carried 6-0.

COMMITTEE REPORTS: A report was heard on the Citizen Finance Advisory Committee meeting.

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OTHER PERTINENT ITEMS TO COME BEFORE THE BOARD: Lunak noted that August 2019 School Board meetings will be held at 7 p.m. due to the printing of a 13-month calendar. Beginning in September, School Board meetings will start at 6 p.m.

Vogt raised concerns regarding the need for additional support for the resource officer at the middle school level. The board discussed funding, prioritizing and re-evaluating immediate needs and future goals.

Lunak said the ability to videotape meetings is being taken into consideration for the new district office and board room location.

CLOSE PUBLIC MEETING: Valan moved, seconded by Vogt, to close the public meeting at 7:35 p.m., pursuant to Minn. Stat. 13D.03, for the purpose of discussing negotiation strategies. Motion carried 6-0.

OPEN PUBLIC MEETING: Gloe moved, seconded by Valan, to open the public meeting at 7:48 p.m. Motion carried 6-0.

CLOSE PUBLIC MEETING: Valan moved, seconded by Burgard, to close the public meeting at 7:50 p.m., pursuant to Minn. Stat. 13D.05, Subd. 3a, for the purpose of discussing the superintendent's evaluation. Motion carried 6-0.

OPEN PUBLIC MEETING: Valan moved, seconded by Vogt, to open the public meeting at 8:30 p.m. Motion carried 6-0.

ADJOURNMENT: Hearing no objections, the Vice Chair adjourned the meeting at 8:30 p.m.

Matt Valan, Clerk

Special Election Ballot

Independent School District No. 152 (Moorhead Area Public Schools)

November 5, 2019

Instructions to Voters:

To vote, completely fill in the oval(s) next to your choice(s) like this: .

To vote for a question, fill in the oval next to the word "Yes" on that question.
To vote against a question, fill in the oval next to the word "No" on that question.

School District Question 1 Approval of School District Bond Issue

Yes

No

Shall the School Board of Independent School District No. 152 (Moorhead Area Public Schools) be authorized to issue its general obligation school building bonds in an amount not to exceed \$110,000,000 to provide funds for the acquisition and betterment of school sites and facilities, including the demolition of parts of the existing high school facility, renovation of parts of that existing facility and the construction and equipping of additions to that facility; and the remodeling and renovation of the District's Career Academy?

**BY VOTING "YES" ON THIS BALLOT QUESTION, YOU
ARE VOTING FOR A PROPERTY TAX INCREASE.**

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- 1** — INTRODUCTION

- 3** — PART 1 The geographic area and population to be served,
 - a. preschool through grade 12 student enrollment for the past five years, and
 - b. student enrollment projections for the next five years.

- 5** — PART 2 A list of existing school facilities
 - a. by year constructed,
 - b. their uses, and
 - c. an assessment of the extent to which alternate facilities are available within school district boundaries and in adjacent school districts.

- 9** — PART 3 A list of specific deficiencies of the facility
 - a. demonstrating the need for a new or renovated facility to be provided,
 - b. the process used to determine the deficiencies,
 - c. a list of those deficiencies that will and will not be addresses by the proposed projects,
 - d. a list of specific benefits that the new or renovated facility will provide to students, teachers, and community users served by the facility.

- 13** — PART 4 A description of the project including:
 - a. specifications of site and outdoor space acreage,
 - b. square footage allocations for classrooms, laboratories and support spaces,
 - c. estimated expenditures for major portions of the project,
 - d. estimated changes in facility operating costs,
 - e. dates the project will begin and be completed.

- 31** — PART 5 A specification of the source of project financing including:
 - a. applicable statutory citations,
 - b. the schedules date for a bond issue or school board action,
 - c. a schedule of payments, including debt service equalization aid, and
 - d. the effect of a bond issue on local property taxes by property class and valuation.

- 35** — PART 6 Documentation obligating the school district and contractors to comply with required contracts, codes and conditions

- 39** — PART 7 Appendix
 - a. School board, Staff, & Admin Meeting Notes
 - b. Mechanical & Electrical Conditions Assessments
 - c. Master Planning Task Force Summary Presentation
 - d. Design Charrette Task Force Summary Presentation
 - e. Floor Plans

INTRODUCTION

Zerr Berg Architects was engaged by Moorhead Area Public Schools ISD 152 late summer of 2018 to assist with the work of the Moorhead Public Schools Facilities Task Force. Tru-North Consulting also provided support to the District during this effort. The Task Force consisted of over 60 community members, District administrators, staff, teachers and students. The focus of the Task Force was to evaluate options for the High School and to make recommendations to the School Board regarding the future of the High School. During those meetings, the group identified the need for a Career Academy to provide additional opportunities for career exploration and technical skill development while helping to address shortages in the regional workforce in these areas. A full description of the proposed Career Academy space is included in Part 4 of this document. The group met 7 times during a period spanning from August 1918 through January 2019.

The Task Force was asked to evaluate three primary options to accommodate 2,400 students with core facilities that could accommodate up to 2,600. A separate off-site Career Academy was included in all three options. The career academy is anticipated to accommodate around 300 students at any given time, making the target for the actual high school 2,100 students with core facilities for 2,300. The three options for the new high school were as follows:

- Option 1** Single Site – 2,400 Students - New Building / New Site
- Option 2** Single Site – 2,400 Students - New Replacement Building / Existing Site
- Option 3** Dual Site – 1,200 Students New Building / New Site
 1,200 Students at Existing Site Building Upgrades and Renovations

A final report with recommendation to proceed with Option 2 – High School Replacement on Existing Site, was presented to the Moorhead School Board on January 31, 2019 and accepted by the Board at their meeting on February 11, 2019. A copy of that final presentation is included in the appendix of this document.



Southwest aerial view of High School | October 2018



Southeast aerial view of Career Academy | July 2019

PART 1 – GEOGRAPHIC AREA AND POPULATION TO BE SERVED

a. Preschool through grade 12 student enrollment for the past five years

b. Student enrollment projections for the next five years

Located in the heart of the Red River Valley at the intersection of Interstates 94 and 29, Moorhead, Minn., is a regional center for education, agribusiness, processing, marketing and research. Moorhead Area Public Schools encompasses 203 square miles in Clay County, Minnesota, and includes all or part of 11 townships. The district is 34 miles long, ranges from 3.5 to 9.5 miles wide and is bordered to the west by the Red River. The communities of Moorhead, Georgetown, Kragnes, Sabin and Rustad are all part of the district. The district currently employs more than 1,000 people in full- and part-time positions. The district operates an education center, four elementary schools, a middle school, a high school, an area learning center, and an operations center.

Enrollment figures and conservative projections for the next five years are shown below. The district anticipates a steady increase in enrollment as a reflection of the area's continued development. Demographic statistics continue to support this growth for the area.

A map of the school district is included in this section.

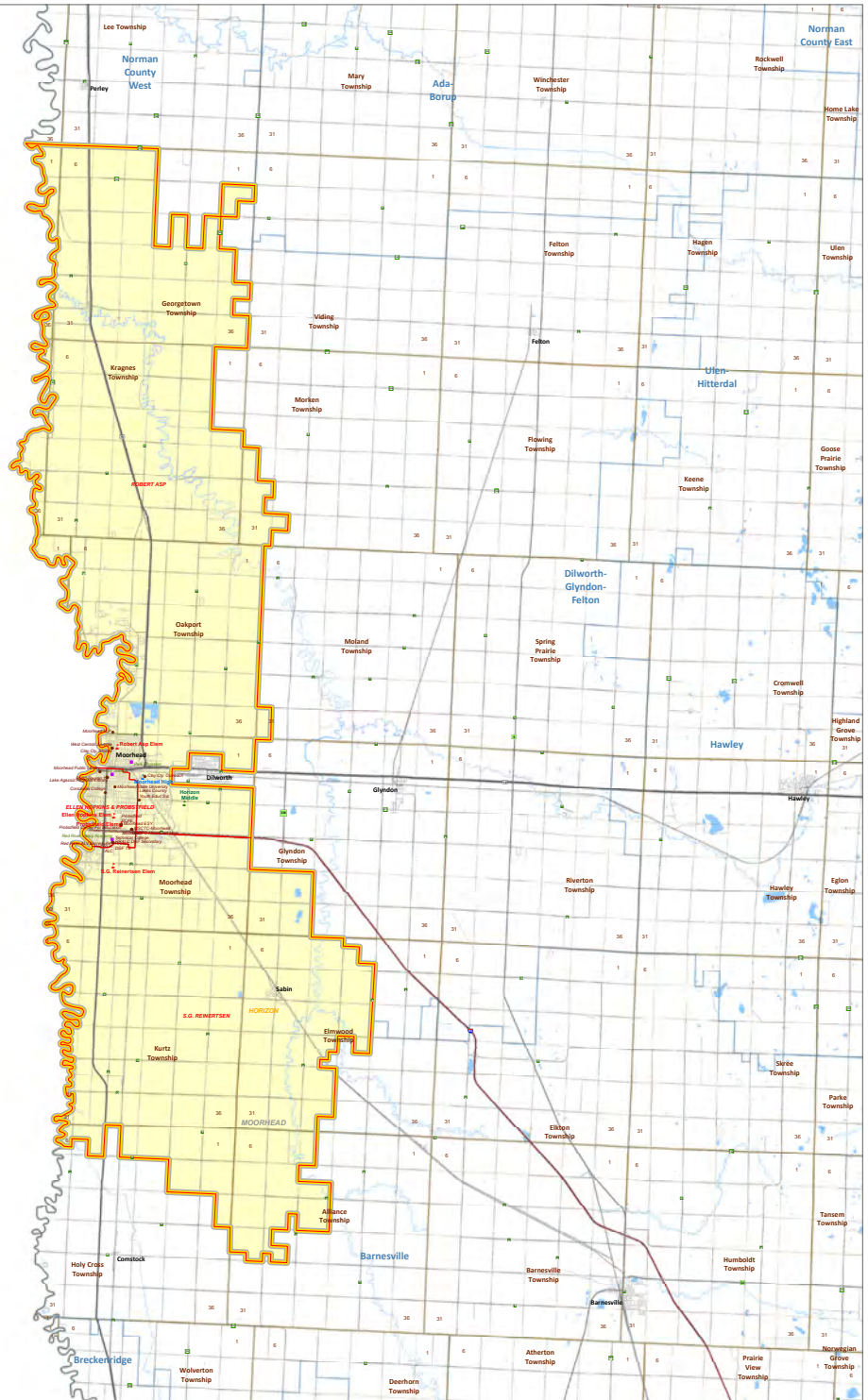
	Previous 5 Years Enrollment					Projected 5 Years Enrollment					
	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24
Kindergarten	494	500	570	491	539	561	574	587	600	600	600
Grade 1	490	499	522	599	494	554	576	590	603	617	617
Grade 2	434	515	520	537	595	504	565	588	601	615	629
Grade 3	433	459	514	538	537	603	512	573	597	611	624
Grade 4	433	436	483	525	520	556	612	519	582	605	619
Grade 5	418	442	451	499	540	545	576	634	538	603	627
Grade 6	414	443	458	459	513	541	556	588	647	549	615
Grade 7	450	417	460	478	466	524	555	570	603	663	563
Grade 8	402	455	428	476	479	468	531	562	578	611	672
Grade 9	453	417	477	465	494	501	492	558	591	608	642
Grade 10	431	461	441	503	466	500	513	504	572	606	623
Grade 11	407	418	457	447	487	473	498	511	502	570	603
Grade 12	389	429	436	472	464	503	491	516	530	521	591
Grades K-4	2284	2409	2609	2690	2685	2778	2839	2857	2983	3048	3089
Grades K-5	2702	2851	3060	3189	3225	3323	3415	3491	3521	3650	3716
Grades 1-3	1357	1473	1556	1674	1626	1661	1653	1751	1801	1842	1870
Grade 4-6	1265	1321	1392	1483	1573	1642	1744	1741	1767	1757	1862
Grade 5-8	1684	1757	1797	1912	1998	2078	2218	2354	2366	2426	2478
Grade 5-6	832	885	909	958	1053	1086	1132	1222	1185	1152	1242
Grade 7-8	852	872	888	954	945	992	1086	1133	1181	1274	1235
Grade 6-8	1266	1315	1346	1413	1458	1533	1642	1720	1828	1823	1850
Grade 6-12	2946	3040	3157	3300	3369	3510	3636	3811	4023	4127	4309
Grade 7-12	2532	2597	2699	2841	2856	2969	3080	3223	3376	3578	3694
Grade 9-12	1680	1725	1811	1887	1911	1977	1994	2090	2195	2304	2459
Grade K-12	5648	5891	6217	6489	6594	6833	7051	7302	7544	7777	8026
+/- Prior Year	253	243	326	272	105	239	218	251	242	233	248
% +/-	4.70%	4.30%	5.53%	4.38%	1.62%	3.62%	3.19%	3.56%	3.32%	3.09%	3.19%

Public School District Attendance Areas and Educational Facility Locations

SY2015-2016

Moorhead
152

Map 1 of 1



Public Educational Facilities or Programs

- Elementary school
- Middle / Junior high school
- High / Secondary school
- School District Office
- Non-Public school
- ▲ Public Charter school
- ▲ Other School Program (examples):
 - Area Learning Center (ALC)
 - Targeted Services
 - College/University
 - Correctional
 - Secondary Education

Public School Attendance Areas

- Elementary School Attendance Area **ELEM**
- Middle School Attendance Area **MIDD**
- High School Attendance Area **HIGH**

Public School Districts

- School District
- Adjacent School District
- INSET - SEE MAP 2 OF 2 (if applicable)**

Other Features

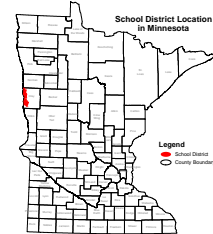
- Interstate Highway
- U.S. Highway
- State Highway
- County Highway
- Road/Street
- Railroad
- Stream
- Lease Road
- Minor Civil Division (Cities, Townships and Unorganized areas)
- Public Land Survey Township / Range
- Public Land Survey Section

Data Sources:

1. Minnesota Department of Education, (7/2015)
2. Metropolitan Council (2010) Minnesota Department of Transportation (2004)
3. Minnesota Geospatial Information Office
4. U.S. Bureau of the Census, Minnesota Legislative GIS Office (modified to include annexation fees with Municipal Board through May 2003)
5. Minnesota Department of Natural Resources

Special Note:
The school district boundary appearing on this map do not necessarily represent the legal territory of the district. It is a generalization of boundaries drawn on the basis of the county official's best knowledge of the current jurisdiction for Census 2010. Since 2005, district boundaries have been modified by the Dept. of Education based on completed County Parcel Information. Please contact your county auditor or assessor to obtain an accurate legal description of the boundary.

Liability Statement:
The Minnesota Department of Education does not warrant the results you may obtain by using this map. This map is provided without express or implied warranties, including warranties of merchantability and fitness. In no event will MDE be liable for any consequential, incidental or special damages, including any lost profits or lost savings, even if an MDE representative has been advised of the possibility of such damages or any other claim by any third party.



1 : 75,460

For further assistance with this map, contact:

Scott Fraburg scott.fraburg@state.mn.us
 Julie Stark julie.stark@state.mn.us
 Minnesota Department of Education
 MDE IT & Education
 1500 Highway 36 West
 Roseville, MN 55113

Minnesota Department of Education
 Map Created: November 2015

PART 2 – EXISTING SCHOOL FACILITIES

- a. List of existing school facilities by year constructed
- b. By uses
- c. An assessment of the extent to which alternative facilities are available within the school district boundaries and in adjacent school districts.

Moorhead Area Public Schools consists of an education center, four elementary school buildings, one middle school, one high school, one area learning center that also serves adult basic education, and an operations center. The information below shows the buildings the district owns, the original year they were built, the year of subsequent additions, total square footage, and the average age of each building.

PROBSTFIELD CENTER FOR EDUCATION / ELEMENTARY - 0196

Probstfield Elementary was originally constructed in 1965. It became a district education center in 2004, but has been used as a kindergarten center and is gradually being converted back to an elementary school. It currently houses early childhood special education, School Readiness (SR), Early Childhood Family Education (ECFE), Community Education, and the district office.

BUILDING / ADDITION	YEAR CONSTRUCTED	BUILDING AREA
Original Construction	1965	46,013
Addition #1	1970	14,807
Addition #2	1993	9,310
Addition #3	2004	633
Addition #4	2014	24,098

38 YEARS	Average Building Age	94,891 SQUARE FEET	Total Building Area
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ROBERT ASP ELEMENTARY - 0199

Robert Asp Elementary School was originally constructed in 1958 as a junior high school and converted into an elementary school for the 2004-05 school year. It was built with a capacity of 750 students and currently has an enrollment of 652 students.

BUILDING / ADDITION	YEAR CONSTRUCTED	BUILDING AREA
Original Construction	1958	80,000
Addition #1	1992	1,885
Addition #2	1993	13,300
Addition #3	1999	3,330
Addition #4	2014	11,654
Addition #5	2017	2,272

48 YEARS	Average Building Age	112,441 SQUARE FEET	Total Building Area
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ELLEN HOPKINS ELEMENTARY - 0200

Ellen Hopkins Elementary School was originally constructed in 1958 as a junior high school and converted into an elementary school for the 2004-05 school year. It was remodeled with a capacity of 750 students and currently has an enrollment of 671 students.

BUILDING / ADDITION	YEAR CONSTRUCTED	BUILDING AREA
Original Construction	1958	80,000
Addition #1	1989	1,897
Addition #2	1990	4,962
Addition #3	1993	24,146
Addition #4	2017	2,272

50 YEARS	Average Building Age	113,277 SQUARE FEET	Total Building Area
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**S.G. REINERTSEN
ELEMENTARY - 1895**

S.G. Reinertsen Elementary School was constructed in 2004 and opened in the 2004-05 school year. S.G. Reinertsen Elementary School has a capacity of 750 students and currently has an enrollment of 719 students.

BUILDING / ADDITION	YEAR CONSTRUCTED	BUILDING AREA
Original Construction	2004	103,600
Addition #1	2012	2,400
Addition #2	2015	15,800
Addition #3	2017	610

13 YEARS	Average Building Age	122,410 SQUARE FEET	Total Building Area
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**DOROTHY DODDS
ELEMENTARY - 3840**

Dorothy Dodds Elementary School was constructed in 2016 and opened in the 2017-18 school year. Dorothy Dodds Elementary School has a capacity of 750 students and currently has an enrollment of 712 students.

BUILDING / ADDITION	YEAR CONSTRUCTED	BUILDING AREA
Original Construction	2017	108,736

2 YEARS	Average Building Age	108,736 SQUARE FEET	Total Building Area
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**HORIZON MIDDLE
SCHOOL - 1896**

Horizon Middle School opened for the 2004-05 school year and was expanded in 2017 to accommodate an additional grade level. Horizon Middle School has a capacity of 2,600 students and currently has an enrollment of 2,042 students.

BUILDING / ADDITION	YEAR CONSTRUCTED	BUILDING AREA
Original Construction	2004	228,000
Addition #1	2017	198,573

9 YEARS	Average Building Age	426,573 SQUARE FEET	Total Building Area
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**MOORHEAD HIGH
SCHOOL - 0201**

Moorhead High School was originally constructed in 1966 with the fieldhouse and ninth-grade center additions completed in 2004. The capacity of the high school is 1,800 students, and the current enrollment is 1,756 students.

BUILDING / ADDITION	YEAR CONSTRUCTED	BUILDING AREA
Original Construction	1966	238,800
Addition #1	1991	5,069
Addition #2	1999	14,750
Addition #3	2004	75,766

42 YEARS	Average Building Age	334,385 SQUARE FEET	Total Building Area
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**VISTA CENTER FOR
EDUCATION - 3841**

Vista Center for Education was originally constructed in 2008 and currently serves the programs of the alternative high school (area learning center) and adult basic education.

BUILDING / ADDITION	YEAR CONSTRUCTED	BUILDING AREA
Original Construction	2008	30,400

11 YEARS	Average Building Age	30,400 SQUARE FEET	Total Building Area
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BUS GARAGE - 3842

The operations center was constructed in 1973 and is currently being constructed to serve the following programs: District Administration, Operations, Food Service, Transportation and a Bus Garage.

BUILDING / ADDITION	YEAR CONSTRUCTED	BUILDING AREA
Original Construction	1973	29,275
46 YEARS	Average Building Age	29,275 SQUARE FEET
		Total Building Area

OPERATIONS CENTER - # TBD

The building was originally constructed in 1973 as the Anderson Pontiac Building. The District purchased the building from Muscatell Auto in 2018.

The 8,783 SF showroom was demolished, leaving 23,671 SF existing to be repurposed. An additional 75,234 SF will be constructed, for a total of 98,905 SF. The bus garage will be operational Fall 2019, with the new District offices completed Spring 2020.

BUILDING / ADDITION	YEAR CONSTRUCTED	BUILDING AREA
Original Construction	1973	32,454
46 YEARS	Average Building Age	32,454 SQUARE FEET
		Total Building Area

SPORTS CENTER - 1823

The Sports Center was constructed in 1974 and was previously a leased facility from the city of Moorhead for instructional purposes for 9th – 12th grade classes and activities. It also serves as the primary competitive and practice hockey venue for the Moorhead Supds with two sheets of ice. Effective July 1, 2019, the Moorhead Area Public Schools have taken possession of the building and now operate the facility.

BUILDING / ADDITION	YEAR CONSTRUCTED	BUILDING AREA
Original Construction	1974	37,500
Addition #1	1991	46,000
Addition #2	1992	19,473
Addition #3	1999	4,000
33 YEARS	Average Building Age	106,973 SQUARE FEET

CAREER ACADEMY - # TBD

The building was originally constructed in 2013 as a big box “Sam’s Club” store. The District purchased the building in 2019 to be repurposed as the Career Academy. Construction will begin Summer 2020, and the building will be placed in service Fall 2021.

BUILDING / ADDITION	YEAR CONSTRUCTED	BUILDING AREA
Original Construction	2013	143,652
6 YEARS	Average Building Age	143,652 SQUARE FEET
		Total Building Area

PART 3 – SPECIFIC DEFICIENCIES BY FACILITY

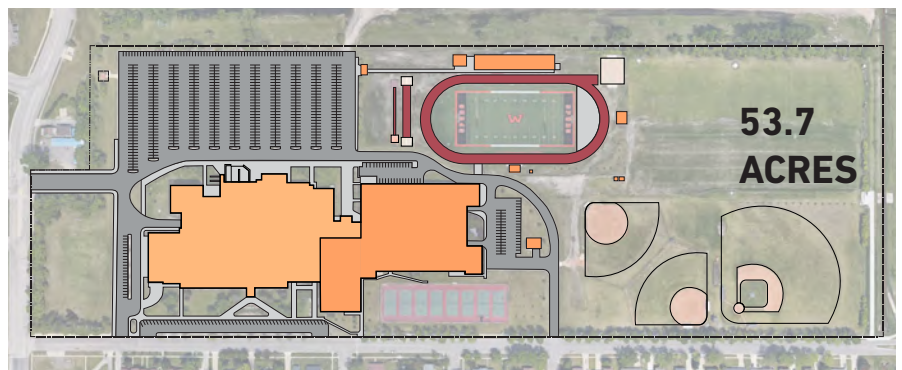
A list of specific deficiencies of the facility

- a. Demonstrating the need for a new or renovated facility to be provided
- b. The process used to determine the deficiencies
- c. A list of those deficiencies that will and will not be addressed by the proposed projects
- d. A list of specific benefits that the new or renovated facility will provide to students teachers, and community users served by the facility.

HIGH SCHOOL

The existing Moorhead High School building was put into service Fall of 1967. Significant deficiencies have been identified through multiple building assessments performed over the past several years by Zerr Berg Architects, local mechanical and electrical engineers and through previous master planning efforts. A copy of the High School section of the comprehensive 2014 Moorhead Area Public Schools Facilities Master Plan Final Report is attached in the Appendix of this document. The 2014 report was prepared by Cunningham Group Architecture and was validated through additional subsequent observations. The original 1967 building, constructed for \$4.5M, consisted of 238,800 SF and has been expanded multiple times over the past 50+ years to its current size of approximately 345,000 SF (not including the attached Moorhead Sports Center Hockey arena). While many of the teaching spaces are adequately sized and still functional, there are several notable deficiencies in the building. These deficiencies include:

- Significant lack of access to natural light – nearly 2/3 of the teaching stations in the building have no access to daylight. (See diagram on pg. 11)
- Split level construction with the original lowest level ½ story in the ground. This has resulted in a multi-level building with over 12 identifiable levels and multiple level changes throughout the building making universal accessibility extremely difficult. (See diagram on pg. 11)
- Aging infrastructure – building systems and envelope – Many systems are original construction
- Classroom space shortages
- Very limited dedicated small group collaborative or active learning spaces
- Security deficiencies – Multiple points of entry – No control of main entry by administration space



Existing Site

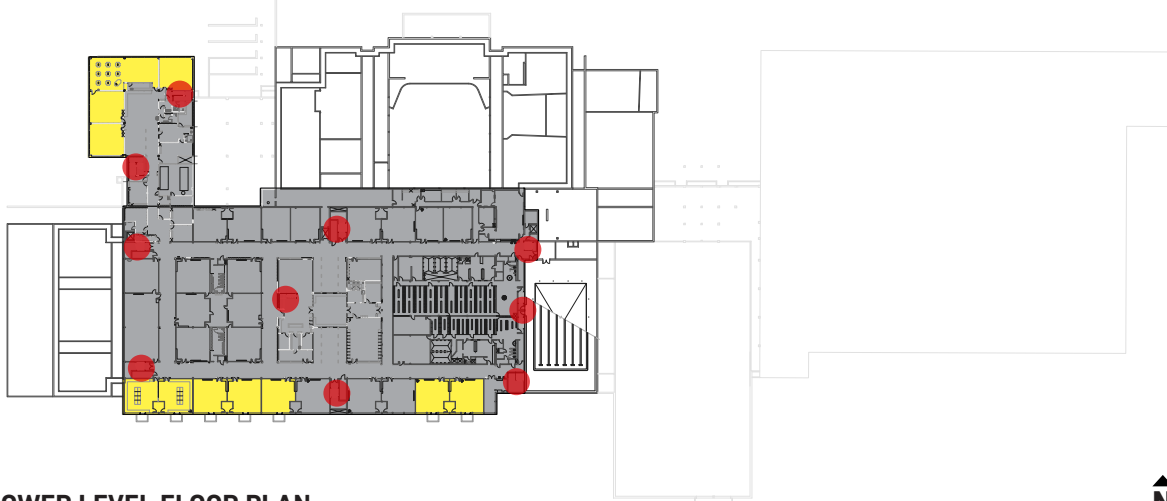


Northwest aerial view of High School | October 2018

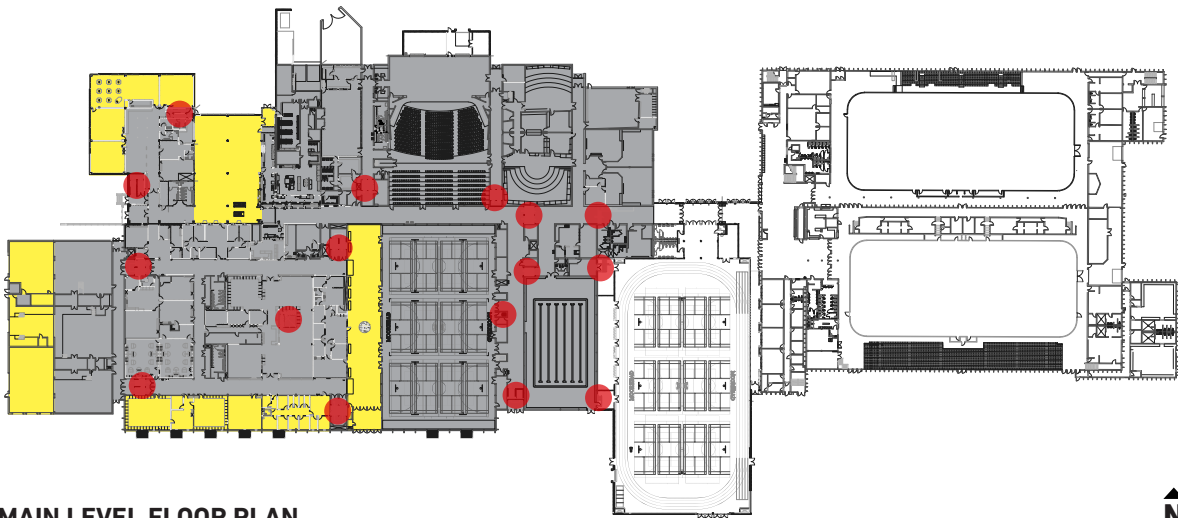
Renovation of the existing building was initially discussed as an option. However, there is no renovation solution that could economically address two of the most significant issues; the lack of natural light in core academic spaces and the split-level configuration.

The 9th grade addition and the fieldhouse, constructed in 2002, are the most recent additions to the building. Initially, the recommendation from the Facilities Task Force was to retain those two components. However, after multiple preliminary design iterations through the design charrette process, it became clear to the group that the split level configuration of the existing 9th grade center (matching the original building) would be in direct opposition to one of the main goals of a new project on this site which is to eliminate the split level in favor of a main level entirely at grade to accommodate universal access. The 30,000 fieldhouse is slab on grade construction and will be retained as part of the final solution.

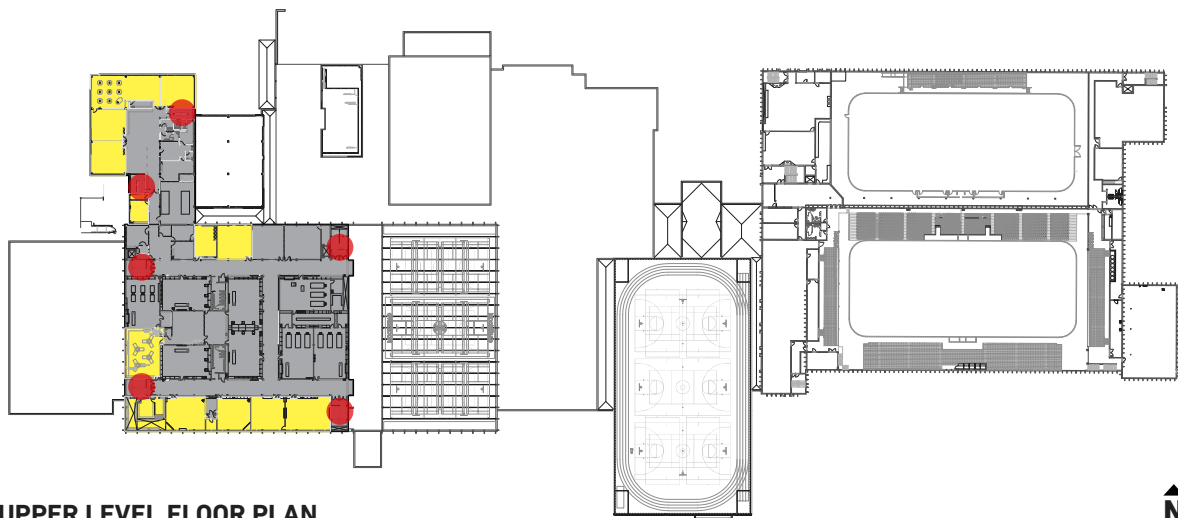
The proposed three-story solution provides significant daylight in nearly every teaching space and in the commons and will be constructed at grade to match the existing fieldhouse and Moorhead Sports Center arena with a maximum of 3 distinct levels. Collaborative space will be provided throughout the new structure, allowing for flexibility in teaching style while maximizing the potential for cross disciplinary collaboration, small group work and project-based learning.






LOWER LEVEL FLOOR PLAN



MAIN LEVEL FLOOR PLAN



UPPER LEVEL FLOOR PLAN

-  Rooms w/Natural Light
-  Rooms w/o Natural Light
-  Level Changes / Vertical Circulation

PART 4 – PROJECT DESCRIPTION

A description of the project including:

- a. specifications of site and outdoor space acreage
- b. square footage allocations for classrooms, laboratories and support spaces
- c. estimated expenditures for major portions of the project
- d. estimated changes in facility operating costs
- e. dates the project will begin and be completed

The Task Force recommended Option 2 and this was approved by the Moorhead School Board on February 11, 2019. Following this approval, the District assembled a new High School Design Task Force to explore options for the replacement of the facility on the existing 53-acre site. During the initial Task Force effort, the group identified 7 Key Design Drivers that would guide the conceptual design of a new High School and Career Academy.

The Design Task Force was engaged to participated in a series of four intensive design charrettes provide input on potential design solutions. A copy of the final Design Charrette presentation to the Moorhead School Board is attached to this document.

Phased construction will be required at the High School site to ensure that the existing school can stay in operation during the construction of the new building. Preliminary concepts all included construction in two phases with the first phase consisting of a new academic core, commons, administration and gymnasium on the area currently occupied by the parking lot north of the existing school building. That parking will be relocated to areas west and east of the existing buildings as a precursor to the start of Phase I construction. At the end of the first phase, the academic core would relocate to the new building allowing for the removal of the existing building.

The second phase would begin with the removal of the existing high school building to allow for the south portion of the new construction to occur. An outline schedule for the work is included in this document at the end of this section.

Programming and Schematic Plans

Preliminary programs for the proposed High School Replacement and the Career Academy were developed through meetings with MAPS Administration and Staff that occurred during the late spring and summer of 2019. As previously noted, these preliminary plans called for the retention of both the fieldhouse and 9th grade academy, at the time, shown in green in the image on the left.



Moorhead High School Key Design Driver Statement

1. Provide **welcoming, engaging, and fully accessible spaces** throughout the school in an environment that **supports connectivity and social interaction, reinforces positive behavior and identity, and enhances occupant safety and security.**
2. Provide **flexible/adaptable/versatile learning spaces** that can support **multiple modes of learning** from traditional lecture to small group activities, active learning, collaboration and peer-to-peer learning.
3. Spaces must support **personalized, student centered learning** within **Small Learning Communities**; school within a school.
4. Provide **access to natural light** throughout with an appropriate level of **transparency** between common areas and circulation spaces to learning spaces.
5. Provide an **entry that projects community and school pride.**
6. Provide spaces that **support and enhance** the 8 characteristics in the **Portrait of a MHS Graduate.**
7. Make **building systems and finish decisions** that will support **durability, sustainability, and operational efficiency.**



The proposed high school will consist of approximately 400,000 SF of new construction with an additional 30,000 SF of existing fieldhouse space. Building area per student will increase from roughly 137SF/student to approximately 180SF/student. The main academic core will be constructed to the north of the existing building in the space currently occupied by the parking lot. The new school will be broken into two distinct academic communities or "schools within a school" that will be vertically integrated (9-12) with science core spaces centrally located for convenience and service flexibility. Each community will include between 1,000 and 1,100 students. Core spaces will serve the entire student body. Centralized teacher workrooms will be provided at each level within each community, providing space for teacher prep period thereby allowing for teaching space usage to be maximized. A media center will be located on the 2nd and 3rd floor central to both learning communities.

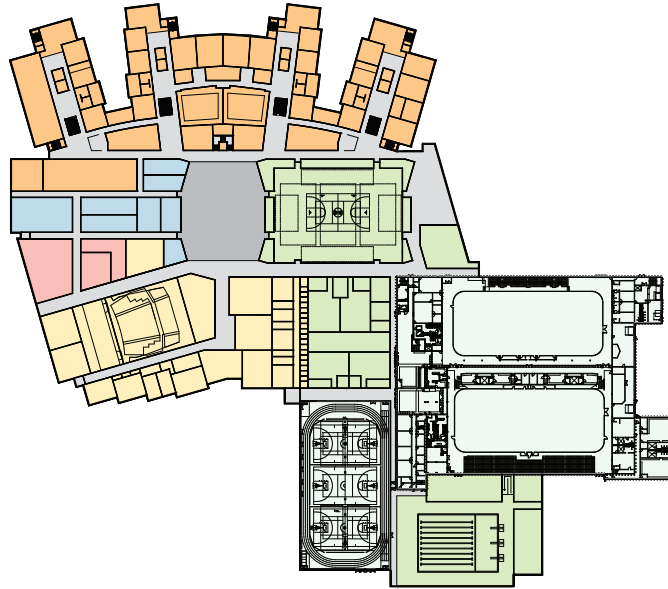
Within each academic community, there will be robust and diverse spaces available for collaborative learning both in large and small group settings. Each community will include a large learning stair for group presentations as well as small and large group collaborative spaces. Informal lounge space will also be provided for social learning and individual study. These spaces will allow teachers to deliver curriculum in new and exciting ways that will engage students in ways that are not possible with the current building configuration.

Special needs student programming will be met through a combination of centralized space for DCD students that need the most assistance and integrated/small group space within the academic core for those students that can be integrated into typical academic life. It is the goal of the district to maximize the integration of special needs students into the general student population whenever possible.

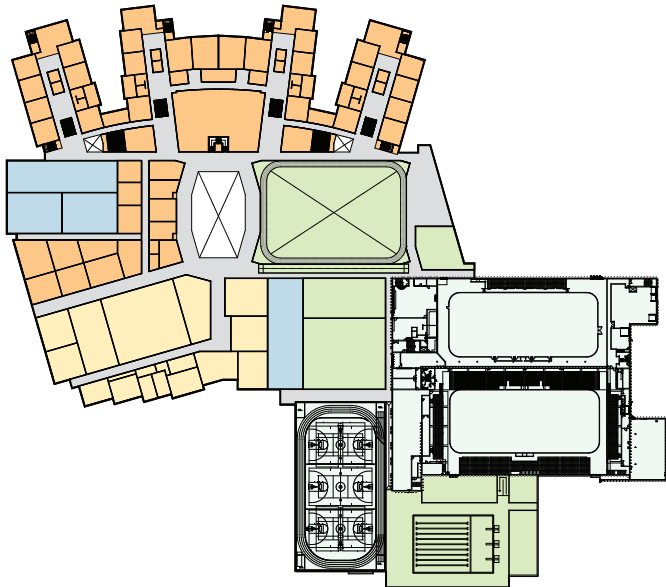
Daylighting will be maximized within the academic core with every teaching space having access to some level of natural light. The centralized commons will be the hub of student daily life with direct access to the academic core, main competition gymnasium, theater and fine arts wing, and building main entry.

The proposed three station gymnasium would include seating for approximately 2,500 on all 4 sides of the primary court space. A 2nd level running track would surround the gymnasium and provide top loading ability at the bleachers on all 4 sides of the court. Service and storage areas would be tucked under the track around the perimeter of the gym. A separate team entry on the east side of the gym will provide drop off and a sub lobby for visiting teams as well as access from the football field to the east. The weight room and cardio lab would be directly adjacent to that space.

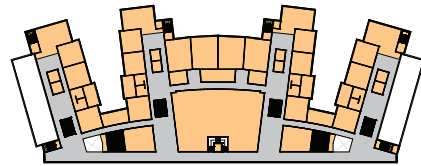
The fine arts area will be constructed in a second phase on the footprint of the existing school following the completion of phase I, relocation of the academic core to the new building and demolition of the existing building. This area will include space for visual arts, music and theater with the focal point being a 1,000-1,200 seat performance area. Private funding is being pursued through a community led effort with the Moorhead Schools Legacy Foundation to raise money for enhancements to the theater space including the additional seating capacity and upgrades to the stage area including a full fly loft and expanded under-stage.



MAIN LEVEL FLOOR PLAN



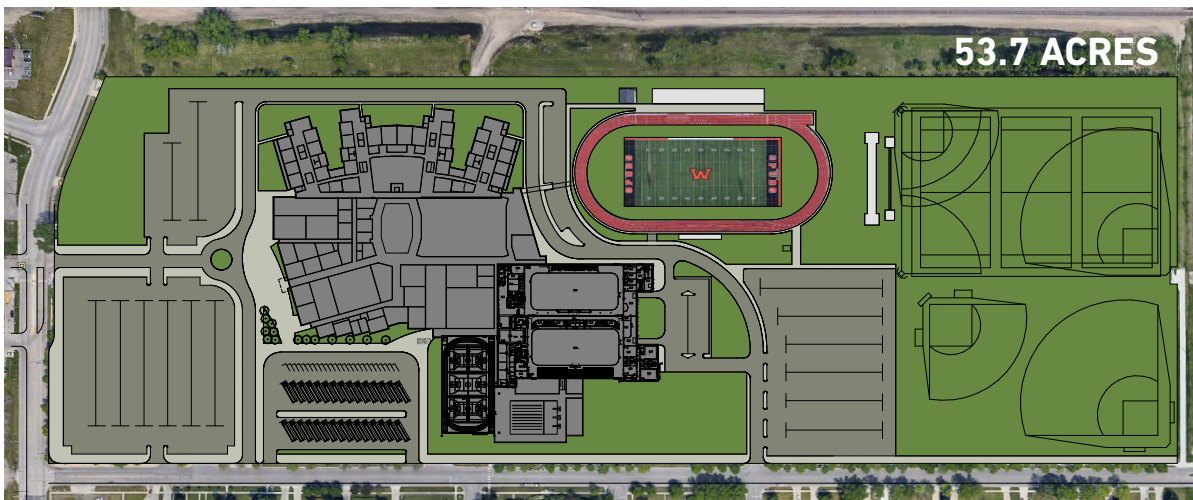
SECOND LEVEL FLOOR PLAN



THIRD LEVEL FLOOR PLAN



See Appendix for expanded plans.



53.7 ACRES

Moorhead Area Public Schools

High School Replacement Project
Moorhead, MN
Project No. 18-050

High School Building Program
August 5, 2019

2,400 students (less 300 at Career Academy)

Design for 2,200 students on site - two groups of 1,100 (275 each grade level - 11 sections)

- Roughly 550 per wing
- 22 sections per wing - 4 wings - 88 sections

Space Description	Quantity	Size (SF)	Total Net SF	Total by Area	Comments
Core Academic Spaces - Academic Wings					
Science (14 rooms + supporting spaces)					
Chemistry/Biology Lab	9	1,400	12,600		
Chemistry Storage	3	300	900		
Chemistry Prep	3	200	600		
Glassware Storage	3	100	300		
Biology Prep/Storage	3	100	300		
Physics Classroom	3	1,000	3,000		
Physics Storage	3	100	300		
Greenhouse / Prep / Classroom	2	900	1,800		
Total Science				19,800	
Team A - 1,100 students (275 each grade level - 11 sections/grade) - Two wings - 1/2 of the academic core					
General Classrooms	22	900	19,800		Math, Language Arts, Social Science, Health, Foreign Language, ESL
Large Group Collaboration	6	1,340	8,040		1 room per floor at each wing - 6 total
Small Group Huddle Room	6	180	1,080		2 rooms per floor at each wing - 12 total
ESL	2	600	1,200		Include shared media library and hand washing sink
Academic Support / Teacher Workroom	3	1,100	3,300		1 per floor at each pair of wings - 3 total
Staff Toilets	3	100	300		
Academic Resource Storage	6	500	3,000		1 per floor at each wing - 6 total
Presentation Stair	1	2,000	2,000		One per wing - seating for 100-150
Large Group Lecture Theater	1	4,000	4,000		Seating for 200
Team A Spud Center	1	1,200	1,200		Academic help desk / study hall / tutoring
Student Toilets	6	480	2,880		1 pair toilets per floor at each wing - 6 total
Total Team A				46,800	
Team B - 1,100 students (275 each grade level - 11 sections/grade) - Two wings - 1/2 of the academic core					
General Classrooms	22	900	19,800		Math, Language Arts, Social Science, Health, Foreign Language, ESL
Large Group Collaboration	6	1,340	8,040		1 room per floor at each wing - 6 total
Small Group Huddle Room	6	180	1,080		2 rooms per floor at each wing - 12 total
ESL	2	600	1,200		Include shared media library and hand washing sink
Academic Support / Teacher Workroom	3	1,100	3,300		1 per floor at each pair of wings - 3 total
Staff Toilets	3	100	300		
Academic Resource Storage	6	500	3,000		1 per floor at each wing - 6 total
Presentation Stair	1	2,000	2,000		One per wing - seating for 100
Large Group Lecture Theater	1	4,000	4,000		Seating for 200
Team B Spud Center	1	1,200	1,200		Academic help desk / study hall / tutoring
Student Toilets	6	480	2,880		1 pair toilets per floor at each wing - 6 total
Total Team B				46,800	
Visual Arts					
Visual Arts Studio	3	1,400	4,200		
Kiln/Finishing/Storage	1	600	600		
Clay Storage	1	120	120		
Art Storage	1	360	360		
Academic Support / Teacher Workroom	1	600	600		Teacher workstations/Prep, Kitchenette, Resource Storage
Student Gallery	1	300			Located as part of student commons
Total Visual Arts				5,880	

Space Description	Quantity	Size (SF)	Total Net SF	Total by Area	Comments
LSS					
DCD	2	1,200	2,400		DCD-S/P - DCD M/M
Life Skills Lab	1	600	600		
Toilets	2	60	120		
Toilet (Full Assist)	1	150	150		
EBD	2	400	800		
Calming	2	50	100		
ASD	2	600	1,200		
ASD Suite (Toilet and Kitchenette)	1	600	600		
Itinerant Staff	2	100	200		
Speech/ Deaf and Hard of Hearing/ Visually Impaired	2	100	200		Deaf and hard of hearing in academic wing
OT/PT	1	800	800		Located on main floor: two beds and a swing
Total LSS				7,170	
Family and Consumer Science					
Foods Lab	1	1,400	1,400		Two labs located at the Career Academy
_Lab	2	600	1,200		
Food Service / Seating	1	600	600		
Pantry/Storage	1	500	500		
Multi-Purpose Classroom / Child Development	1	900	900		
Sewing Lab	1	900	900		
Teacher Planning / Office	1	225	225		
Student toilets	1	480	480		
Total FACS				5,725	
Business and Marketing					
Business Classrooms/Computer Labs	3	1,000	3,000		
Marketing Classroom	1	1,000	1,000		
Student Store	1	900	900		
Student Council Storage	1	500			Locate in the existing Moorhead Sports Center
Storage	1	100	100		
Total Business and Marketing				5,000	
Media Center					
Stacks/Teaching Area	1	5,000	5,000		Includes Entry/ Control
Office	1	120	120		
Small Group Huddle Room	4	120	480		
Large Group Collaboration	2	500	1,000		
Media Center Classroom	1	900	900		
Workroom/Storage	1	500	500		
ITV/Distance Learning	1	750	750		
Network Hub/Coordinator office	1	500	500		
Total Media Center				9,250	
Total Core Academic Spaces				18,303	
Performing Arts					
Music Rehearsal					
Band Rehearsal	1	3,000	3,000		
Band Instrument Storage	1	600	600		
Band Office	1	200	200		
Orchestra Rehearsal	1	3,000	3,000		
Orchestra Instrument Storage	1	600	600		
Orchestra Office	1	200	200		
Vocal Rehearsal	1	2,000	2,000		
Vocal Office	1	200	200		
Music Storage	1	500	500		
Music Tech	1	400	400		

Space Description	Quantity	Size (SF)	Total Net SF	Total by Area	Comments
Music Rehearsal cont.					
Ensemble Rehearsal - Large	1	1,200	1,200		
Ensemble Rehearsal - Small	1	600	600		
Practice Rooms	12	50	600		
Practice Rooms	2	80	160		
Total Music Rehearsal				13,260	
Theater Arts/Performance Hall - Base Project 1,000 Seats					
Auditorium	1	11,000	11,000		1,000 Seats - Add \$1.4M for additional 400 seats
Stage	1	3,650	3,650		96x38 w/ standard loft - Fly loft adds \$800K - Substage with trap adds \$400K
Orchestra Pit / Access	1	1,500	1,500		
Control	1	480	480		12x40
Tech Level / Catwalks	1	2,000	2,000		
Lighting Platform / Rear	2	180	360		
Dressing / Toilets / Shared	1	2,000	2,000		
Black Box / Drama Classroom / Dance	2	2,000	4,000		
Storage / Office	1	640	640		
Scene Shop	1	1,600	1,600		
Shell Storage	1	250	250		
General Storage	1	1,500	1,500		
Total Theater Arts / Performance				28,980	
Total Performing Arts				42,240	
Athletics/Activities/Physical Education - 8 Teaching Stations					
Athletics/PE					
Main Gymnasium / 3 courts / 3,000 seats	1	22,950	22,950		170x135
Concessions/Concession Storage	2	750	1,500		
PE Storage	1	800	800		Additional 400 SF available in the existing Moorhead Sports Center
Activities Storage	1	2,860	2,860		
Existing Fieldhouse / PE Gymnasium	0	0	0		Existing fieldhouse SF not included in Total - 30,000 SF retained
Wrestling Room	1	3,000	3,000		Second Floor?
Storage/Janitor	1	120	120		
Weight/Fitness	1	4,800	4,800		
Cardio Mezzanine	1	1,800	1,800		
PE Office	1	400	400		
AD Offices	2	120	240		Locate near east sports entry
Coaches Offices	4	400	1,600		
Team Locker Rooms	2	2,940	5,880		
PE Locker Rooms	2	2,500	5,000		
Gender Neutral Locker Rooms	1	1,250	1,250		
Visiting Team Rooms	2	1,250	2,500		
Training Room	1	480	480		
Training Office	1	96	96		
PE Classroom / Meeting Room	1	900	900		Also serves at tournament hub/media room
Elevated Track	1	7,800	7,800		12'x670'
Sprint/Performance Track - 2 lanes	1	1,200	1,200		6'x200'
Total Athletics / PE				65,176	

Space Description	Quantity	Size (SF)	Total Net SF	Total by Area	Comments
Pool / Aquatics					
Pool Deck / Pool / Diving	1	18,000	18,000		150x120 25 yd pool w/ one bulkhead and diving well
Spectator Seating (Elevated - 1,000 capacity)	1	4,320	4,320		
Dressing Rooms	2	960	1,920		
Pool Operations / Equipment	1	1,600	1,600		
Pool Storage	1	1,600	1,600		
Mechanical	1	2,000	2,000		
Coaches Office / Dressing	2	250	500		
Total Pool / Aquatics				29,940	
Total Athletics/Activities/Physical Education				95,116	

Administration / Student Services					
Administration					
General Office / Secretarial Support	1	600	600		
Waiting	1	60	60		
Principal's Office	1	225	225		
Assistant Principal's Offices	4	168	672		12x14 - Located in academic wings - One administrator per wing
Attendance Office	1	120	120		
SRO	1	120	120		
ISS	1	288	288		12x24
Security Office	1	250	250		1 office and 3 workstations
Conference Room	1	1,080	1,080		
Staff Workroom / Copy / Mail	1	800	800		
Staff Lounge / Kitchenette	1	500	500		For administrative staff only. Academic staff break area is in their planning area
Staff Toilets	2	56	112		For administrative staff only.
Janitor	1	64	64		
Total Administration				4,891	

Student Services - Locate in Academic Wings					
Nurse	1	400	400		5 beds with curtains
Nurse Office/Reception	1	150	150		
Nurse Area Toilets	2	50	100		1 staff and 1 student
Counseling Career Reception/Resource	1	500	500		10 chairs in waiting
Counselor Office	7	120	840		
Community Counseling	1	120	120		
Social Worker Office	1	140	140		
Student Assistance Counselor	1	140	140		
Personal Care/Health Pantry	1	250	250		Include washer and dryer?
School Psychologist	1	140	140		
Registrar Office	1	160	160		
Itinerant Staff	4	64	256		
Small Conference	2	100	200		
Student Record Storage	1	500	500		
Workroom / File / Storage	1	200	200		
Conference Room	1	320	320		
Toilets	2	240	480		
Janitor	1	64	64		
Total Student Services				4,960	

Total Administration / Student Services				9,851	
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Space Description	Quantity	Size (SF)	Total Net SF	Total by Area	Comments
Student Commons / Food Service					
Commons/Food Service					
Student Commons	1	12,000	12,000		1200 seats @ 10 SF each
Table / Chair Storage	1	1,200	1,200		
Kitchen / Prep Area	1	1,000	1,000		
Serving	1	1,200	1,200		
Dry Good Storage	1	700	700		
Freezer	1	350	350		
Cooler	1	300	300		
Dishwashing	1	400	400		
Office 8x10	1	80	80		
Toilets	1	80	80		
Break Room	1	200	200		
Catering Kitchen	1	600	600		Adjacent to student commons
Grab and Go Service	1	200	200		
Total Commons/Food Service				18,310	

Building Services					
Building Services					
Public Restrooms	2	500	1,000		
Custodial Closets	14	80	1,120		
IT Closets	3	80	240		
Custodial Office / Workshop / General Storage	1	1,200	1,200		
Receiving / Trash	1	800	800		
Recycling	1	800	800		
Electrical Room	1	1,000	1,000		
Mechanical Room Main	1	4,000	4,000		
Mechanical Room Academic Wings	12	400	4,800		
Total Building Services				14,960	

Subtotal				326,902	
Grossing Factor			22%	71,918	
Total - Gross SF				398,820	
Existing Building Area - Fieldhouse				30,000	
Total Building Area				428,820	Includes existing Fieldhouse - Does not include Sports Center

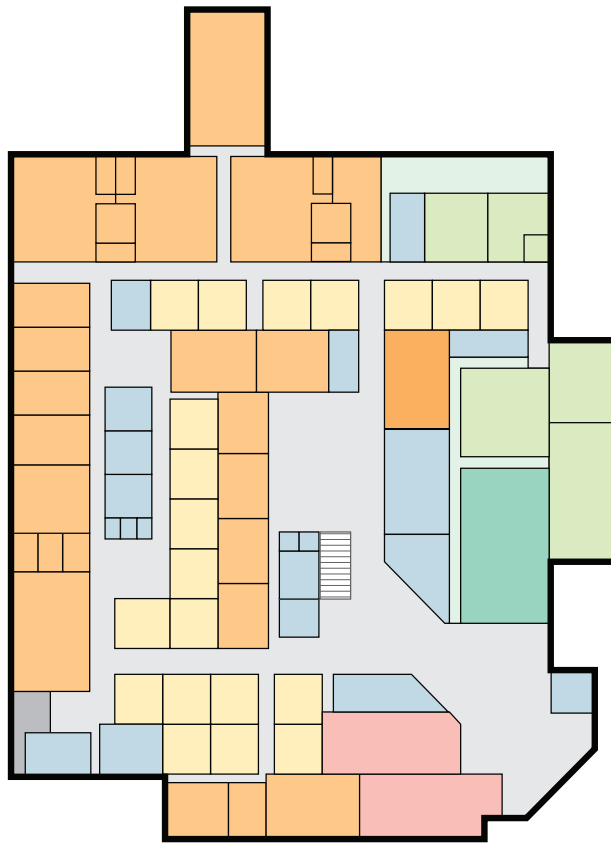
The existing vacated Sam's Club "big box" retail building, located approximately 4 miles to the south of the existing High School site, was purchased by the Moorhead School District early summer of 2019 to house the Career Academy.

The Moorhead Area Public Schools Career Academy will be located in the 143,000 SF former Sam's Club building located on 17 acres at 2800 27th Ave. S., Moorhead, Minn., approximately 1.6 miles south of the Moorhead High School campus. A separate 1.3-acre parcel that contained the former Sam's Club gas station also is included. Moorhead Area Public Schools purchased this property early summer of 2019 for \$4.250 million or just under \$30/SF. The purchase also includes a parking lot with approximately 590 spaces, a service bay area, and a delivery bay with loading docks.

The building will be renovated to provide learning lab and classroom space in support of several Career Pathways; Health and Human Potential, Farm to Table, Transportation, Business/Entrepreneurship, Information Technology, Design Thinking, and Maker Trades. The district anticipates renovating between 100,000 SF and 120,000 SF for career academy programming to house approximately 300 students, along with space for the district's area learning center (current student enrollment of 100 students). Further consideration has been given to pairing career academy and area learning center programming to share resources. The open bays and high ceilings present in the existing space lend themselves to the types of large lab spaces that would be included in the career academy.

The existing building shell will remain intact with new window openings to provide daylight to perimeter spaces. A core space will be left open in the center of the building to provide a student commons space and a hub for daily activity. This could also allow for natural light to penetrate the core of the building and provide borrowed light into the spaces adjacent to the core. The existing building includes over 100 skylights that flood the existing space with natural light, even on overcast days. These skylights will be preserved wherever possible to maximize daylight into the interior of the building.

A new entry will be provided to brand the building in a way that connects with other school facilities and the Moorhead community. Administrative spaces and building security will be provided at this main entrance. The proposed renovation of the building will be approximately \$9-10 million.



See Appendix for expanded plans.

MAIN LEVEL FLOOR PLAN



18.5 ACRES

Moorhead Area Public Schools

Career Academy
Moorhead, MN
Project No. 18-050

Career Academy Program
July 15, 2019

Space Description	Quantity	Size (SF)	Total Net SF	Total by Area	Comments
Pathway Lab Spaces					
Pathway Labs and Classrooms					
CAREER PATHWAYS	Health and Human Potential				
	Farm to Table				
	Transportation				
	Business / Entrepreneurship				
	Information Technology				
	Design Thinking				
	Maker Trades				
Multi-Purpose					
Multi-Purpose Room	1	5,000	5,000		Accessible from building exterior / Event Center
Multi-Purpose Room Storage	1	500	500		
Total Multi-Purpose				5,500	
Maker Trades					
Fabrication Lab (Metal)	1	3,000	3,000		Accessible from building exterior
FLM Storage	1	500	500		
Shared Tool Room	1	500	500		
Fabrication Lab (Wood)	1	3,000	3,000		Accessible from building exterior
FLW Storage	1	500	500		
Construction Lab (Building Systems)	1	3,000	3,000		Accessible from building exterior
CLBS Storage	1	500	500		
Tool Room	1	500	500		
Shared Office	1	300	300		
Total Maker Trades				11,800	
Farm to Table					
Horticulture Bio Lab	1	1,400	1,400		
Hort Bio Storage and Workroom	1	250	250		
Greenhouse Lab	1	1,400	1,400		
Food Science Lab - Research and Development Driven	1	1,500	1,500		
Culinary Arts Lab - Consumer Production Driven	1	3,000	3,000		Also use multi-purpose as "Event Center"
Restaurant/Cafe - Storefront	1	3,000	3,000		Accessible from building exterior
Total Farm to Table				10,550	
Design Thinking					
Robotics Lab	1	2,000	2,000		
Electronics Lab/Classroom	1	1,400	1,400		
Architecture/Engineering Lab	1	1,200	1,200		
Associated Maker Space	1	1,200	1,200		
3D Printing Lab	1	800	800		
Total Design Thinking				6,600	
Transportation					
Small Engine / Automotive	1	3,000	3,000		
Aviation Classroom	1	1,500	1,500		
Total Transportation				4,500	

Space Description	Quantity	Size (SF)	Total Net SF	Total by Area	Comments
Health and Human Potential					
Cosmetology Lab / Storefront	1	2,000	2,000		Accessible from building exterior
Nursing Lab	1	2,000	2,000		
Sports Medicine Lab	1	1,500	1,500		
Early Education Lab	1	1,200	1,200		
Total Health and Human Potential				6,700	
Business and Entrepreneurship					
Digital Media Lab	1	1,200	1,200		
Business Incubator Lab	1	1,000	1,000		
Total Business and Entrepreneurship				2,200	
Information Technology					
Computer Service Lab	1	1,000	1,000		
Cybersecurity Lab	1	1,000	1,000		
Total Information Technology				2,000	
Academic Support / Teacher Workrooms	2	1,000	2,000		Teacher workstations/Prep, Kitchenette, Resource Storage
General Purpose Classrooms	12	900	10,800		Vocational Training Room can occur in a classroom
ALC Classrooms	8	900	7,200		General purpose and ALC Classrooms interchangeable
Physical Education Space	1	2,500	2,500		1/2 court gym / fitness room
Toilets	2	250	500		
Small Group Huddle Rooms	8	250	2,000		
Large Group Huddle Rooms	4	800	3,200		
Learner Support Services					
Total Pathway Labs and Classrooms				78,050	
Administration / Student Services					
Administration					
General Office / Secretarial Support	1	500	500		
Principal's Office	1	225	225		
Assistant Principal's Office	1	168	168		12x14
Attendance Office	1	120	120		
SRO	1	120	120		
ISS	1	288	288		12x24
Conference Room	1	800	800		
Staff Workroom / Copy / Mail	1	400	400		
Staff Lounge / Kitchenette	1	300	300		
Staff Toilets	2	50	100		
Custodial	1	64	64		
Total Administration				3,085	
Student Services					
Nurse	1	400	400		
Toilet	1	50	50		
Career / Counselor Reception/Resource	1	300	300		
Counselor Office	1	140	140		
Red River ALC Counselor	1	140	140		
On-Site Social Worker	1	140	140		
Itinerant Staff	4	64	256		
Workroom / File / Storage	1	200	200		
Conference Room	1	320	320		
Toilets	2	240	480		
Custodial	1	64	64		
Total Student Services				2,490	
Total Administration / Student Services				5,575	

Space Description	Quantity	Size (SF)	Total Net SF	Total by Area	Comments
Student Commons / Food Services					
Commons / Food Service					
Cafeteria/Commons - Central location	1	5,000	5,000		Accommodate 150 at any time
Central "Heat and Eat" Kitchen	1	2,500	2,500		Proximity to Culinary Arts area
Serving area / Grab and Go	1	1,500	1,500		
Student Help Tech - Technology	1	500	500		
Resource Library / Research Lab	1	2,500	2,500		
School Store - Business and Marketing	1	1,200	1,200		
Custodial	1	64	64		
Toilets	2	250	500		
Total Student Commons / Food Services				13,264	

Building Services					
Building Services					
Mechanical GSF (5% of total)	1	7,000	7,000		Rooftop units - may not be required
General Receiving and Storage	1	1,000	1,000		Existing receiving bay and loading docks
Total Building Services				8,000	

Subtotal				104,889	
Grossing Factor			25%	26,222	
Total - Gross SF				131,111	

PART 4 – PROJECT COST

Moorhead Area Public Schools
High School & Career Academy
Moorhead, MN
Project No. 18-050

August 5, 2019

Component		Option 2 - Single Site w/separate CTE Building Replacement Existing Site Renovation
Total number of students (academic area / core space)	excludes CTE Students	2,100 / 2,300
Career and Tech Ed Center Students		300
New competition gymnasium (3 court)		x
New performance auditorium (1000 seats)		x
Aux gym fieldhouse (3 court) - Convert to 4 courts and remove perimeter running track		retain
New 25YD pool (short course)		x
Site recommendation 40 acres + 1 acre / 100 students per MDE Guidelines		64 acres
Proposed / actual site acreage		53 acres
Existing High School Area (not including MHD Sports Center)		335,385
Base SF Per Student (Range) per MDE Guidelines Note: does not include pool or auditorium and associated spaces - allowances for those items are provided separately below.		150 - 180
SF Per Student calculated (existing is currently approx. 137 SF/Student)		180

	Cost / SF	%	
New Construction Area (SF) - Existing Site (includes replacing 9th grade center)			378,000
New Construction Area (SF) - Pool			12,000
New Construction Area (SF) - Auditorium			17,800
Total New Construction			407,800
Renovation Area (SF) - Fieldhouse and support 9th grade center removed			30,000
Total Area New & Existing			437,800
Demolition Area (SF)			299,358
Building Acquisition - Career and Tech Ed Center			Lease to Purchase
Existing High School Demolition			\$1,200,000
Sitework Development - Civil, parking, site utilities			\$3,500,000
Stadium complex - Turf football field, track, grandstand (existing to remain)			\$ -
Outdoor turf - 3 turf fields at NE corner of property (east of Gotta Field) Baseball, Softball, Lacrosse, Soccer, Football practice			\$5,000,000
New Construction - Existing Site (407,800 SF)	\$200		\$81,560,000
Pool	1s		\$1,000,000
Renovation - CTE Center - 120,000 SF	\$80		\$9,600,000
Renovation - Existing Building - Reconfigure floor at Fieldhouse	\$25		\$750,000
Subtotal (excludes design fees)			\$102,610,000
Design Fees (High School)		5.50%	\$4,881,800
Design Fees (Career Academy)		6.25%	\$600,000
Fixtures, Furnishings, Equipment		3.0%	\$2,730,000
Technology		1.5%	\$1,539,150
Contingency		3.0%	\$3,078,300
Owner Soft Costs		2.0%	\$2,052,200
TOTAL Budget Estimate			\$117,491,450 *

*Note: \$110,000,000 will be funded through bond referendum. The remaining \$7.5M will be funded through multiple sources, including private fundraising through the Moorhead Schools Legacy Foundation. Any excess funds from the bond referendum not used for the high school or career academy projects are to be used for remodeling/renovation at existing District facilities.

PART 4 – OPERATING COST STUDY & SCHEDULE

OPERATIONAL COSTS

A table showing operating cost information for the proposed projects by building is included. This analysis is based on the MAPS schools FY 2018-19 actual utility cost including natural gas, electricity, water and sewer charges. A 4% escalator has been used for increase in utility cost in the next two years, yielding an estimated utility cost for FY 21-22. This analysis predicts the increased operating cost in 3+ years with the building additions and changes will be an additional \$??K. This includes Natural Gas, Electricity, Water and Sewer Charges.

August 5, 2019

MOORHEAD AREA PUBLIC SCHOOLS PROPOSED OPERATING UTILITY COST CHANGES

Estimated change in facility operating cost.

	Existing Building Size	Existing Operating Cost (Natural Gas, Electricity, Water, and Sewer) Fiscal YR 2018-19		Building Insulation and Natural Gas Heating Proposed Improvements	Increased Ventilation and Air Conditioning Cost Existing Building	New Additions	New Total Building Size	Estimated Operating Cost Existing and New Building Combined with 4% Escalator	New Total Proposed Operating Cost	Proposed Differential Cost
		\$ / ft ² / yr.	\$ / yr.							
High School	334,385	\$2.35	\$786,446.40	\$0	\$0	407,000	437,000	\$1.25**	\$546,250	\$240,196.40
Career Academy	143,652	n/a*	n/a*	n/a*	n/a*	0	143,652	\$1.50	\$215,478	n/a*

*Building operated as Sam's Club. Historical data is not available.

**Assume the use of existing rooftops for primary heating and cooling. Decrease cost per square foot to \$1.25 for new central heating and cooling plant.

PROJECT SCHEDULE

Construction would begin May of 2020 assuming a positive outcome in November. This is a complex project that will involve a construction duration of approximately 56 months over four entire school years and five summers. Project phasing and sequencing will need to be well coordinated with the District in order to minimize disruption to the academic year.

A conceptual schedule showing the approach to design, review and construction for the proposed projects is included on the next page.

PART 5 – PROJECT FINANCING

A specification of the source of project financing including:

- a. applicable statutory citations,
- b. the schedules date for a bond issue or school board action,
- c. a schedule of payments, including debt service equalization aid, and
- d. the effect of a bond issue on local property taxes by property class and valuation.

The district proposes to obtain financing for the project from the sale of General Obligation School Building Bonds, pursuant to Minnesota Statutes Chapter 475. The School District will seek voter approval of a single ballot question in an election on Tuesday, November 5, 2019. If approved, the question would authorize the issuance of up to \$110,000,000 in bonds. Underwriter's discount and costs of issuance are estimated at \$878,011. The difference between the amount requested to be authorized by the voters (plus estimated interest earnings in the construction fund of \$2,388,127) and estimated capitalized interest of \$2,983,000 and estimated costs of issuing this debt is \$108,527,116, the amount the District expects to need for construction projects.

Ehlers, the district's municipal advisors, have prepared the following schedules which have been included in the following pages of this document:

- 1) Estimated sources and uses of funds for the proposed bond issue
- 2) Estimated debt payment structure for the proposed bond issue, including principal and interest payments and annual debt service property tax levies after accounting for the 105% levy requirement (the district is not expected to qualify for debt equalization aid)
- 3) An analysis of the estimated tax impact on various values of residential, commercial, agricultural, and seasonal recreational properties for the proposed bond issue

Moorhead Area Public Schools, ISD. 152

Estimated Sources and Uses for Potential Bond Issue
July 1, 2019

Bond Amount	\$110,000,000
Election Date	November 5, 2019
Dated Date of Bonds	2/1/120
Sources of Funds	
Par Amount	\$110,000,000
Estimated Reoffering Premium ¹	0
Estimated Investment Earnings ²	2,388,127
Total Sources	\$112,388,127
Uses of Funds	
Underwriter's Discount ³	\$550,000
Capitalized Interest ⁴	2,983,000
Legal and Fiscal Costs ⁵	328,011
Net Available for Project Costs	108,527,116
Total Uses	\$112,388,127
Estimated Deposit to Construction Fund	106,138,989

- 1 The underwriter of the bonds may pay a reoffering premium on the sale of the bonds. They will retain a portion of the premium as their compensation, or underwriter's discount. The remainder of the premium will be deposited in the debt service fund and used to pay the interest on the bonds in the first two years or deposited in the construction fund and be used to fund portion of the project costs.
- 2 Estimated investment earnings are based on an average interest rate of 1.5% and an average life for investments of 18 months.
- 3 The underwriter's discount is an estimate of the compensation taken by the underwriter who provides the lowest true interest cost as part of the competitive bidding process and purchases the bonds. Ehlers provides independent municipal advisory services as part of the bond sale process and is not an underwriting firm.
- 4 In order to keep the tax rate for taxes payable in 2020 and 2021 consistent with later years, the district would need to finance a portion of the interest payments due during fiscal years 2021 and 2022 from funds on hand or bond proceeds.
- 5 Includes fees for municipal advisor, bond counsel, rating agency, paying agent and county certificates.

PRELIMINARY INFORMATION - FOR REVIEW AND COMMENT

Moorhead Area Public Schools, ISD, 152
Analysis of Possible Structure for Capital and Debt Levies

\$110,000,000 Voter Approved Bond Issue
25 years, Wrapped Around Existing Debt
November 5, 2019 Election

July 1, 2019

Principal Amount:	\$110,000,000
Dated Date:	2/1/2020
Bond Term	25 Years
Avg. Interest Rate:	3.85%

Levy	Tax Capacity Value ¹		Existing Commitments				Other Levies		Proposed New Debt			Combined Totals							
	Pay. Year	Fiscal Year	Building Bonds ²	Abatement Bonds ²	OPEB Bonds ²	Est. Debt Excess ³	Net Levy	Tax Rate	Existing Leases	New Lease	Principal	Interest	Est. Debt Excess ³	Adjusted Debt Levy	Adjusted Debt Levy	Other Levies	Net Levy	Tax Rate	
2018	2019	40,191	2.8%	7,469,858	-	1,534,313	(768,581)	8,235,589	20.49	972,940	-	-	-	8,235,589	-	972,940	9,208,529	22.91	
2019	2020	41,822	4.1%	7,443,870	-	1,557,413	(360,167)	8,641,116	20.66	972,940	-	-	-	8,641,116	-	972,940	9,614,056	22.99	
2020	2021	42,867	2.5%	7,445,708	136,566	772,041	(333,548)	8,020,767	18.71	972,940	357,167	4	-	10,742,367	2,721,600	1,330,106	12,072,473	28.16	
2021	2022	43,939	2.5%	7,431,533	135,069	771,876	(334,173)	8,004,305	18.22	972,940	358,075	4	-	11,044,055	3,039,750	1,331,015	12,375,070	28.16	
2022	2023	45,037	2.5%	7,007,543	133,573	-	(333,539)	6,807,577	15.12	972,940	358,875	-	-	11,348,827	4,541,250	1,331,815	12,680,641	28.16	
2023	2024	46,163	2.5%	7,007,753	137,327	-	(285,645)	6,859,435	14.86	972,940	359,275	-	(181,650)	11,666,897	4,807,462	1,332,215	12,999,111	28.16	
2024	2025	46,163	0.0%	7,006,073	135,647	-	(285,803)	6,855,916	14.85	972,940	356,775	-	(192,298)	11,668,458	4,812,542	1,332,065	12,998,173	28.16	
2025	2026	46,163	0.0%	7,008,488	133,967	-	(285,669)	6,856,786	14.85	972,940	359,125	-	(192,502)	11,667,689	4,810,903	1,332,065	12,999,754	28.16	
2026	2027	46,163	0.0%	7,006,493	137,379	-	(285,698)	6,858,174	14.86	945,783	356,175	-	(192,436)	11,698,398	4,840,224	1,301,958	13,000,356	28.16	
2027	2028	46,163	0.0%	7,005,338	135,450	-	(285,755)	6,855,033	14.85	918,626	358,075	-	(193,609)	11,721,319	4,866,286	1,276,701	12,998,019	28.16	
2028	2029	46,163	0.0%	7,010,115	137,393	-	(285,632)	6,861,876	14.86	918,626	359,675	-	(194,651)	11,720,833	4,858,957	1,278,303	12,999,133	28.16	
2029	2030	46,163	0.0%	7,008,225	133,928	-	(285,900)	6,856,252	14.85	501,259	355,975	-	(194,358)	12,144,157	5,287,904	857,234	13,001,391	28.16	
2030	2031	46,163	0.0%	7,008,225	135,713	-	(285,686)	6,858,251	14.86	231,306	357,125	-	(211,516)	12,408,818	5,550,566	588,431	12,997,249	28.15	
2031	2032	46,163	0.0%	7,005,390	132,090	-	(285,758)	6,851,723	14.84	231,306	357,975	-	(222,023)	12,407,528	5,560,598	589,831	12,997,360	28.16	
2032	2033	46,163	0.0%	7,007,858	133,718	-	(285,499)	6,856,076	14.85	231,306	358,525	-	(222,424)	12,411,140	5,551,453	589,831	12,997,360	28.16	
2033	2034	46,163	0.0%	7,004,813	135,188	-	(285,663)	6,854,337	14.85	231,306	357,963	-	(222,058)	12,411,140	5,556,803	589,269	13,000,409	28.16	
2034	2035	46,163	0.0%	7,006,755	-	-	(285,600)	6,721,155	14.56	231,306	357,075	-	(222,272)	12,411,351	5,690,196	588,381	12,999,733	28.16	
2035	2036	46,163	0.0%	7,008,120	-	-	(280,270)	6,727,850	14.57	231,306	-	-	(227,608)	12,769,637	6,041,787	231,306	13,000,943	28.16	
2036	2037	46,163	0.0%	-	-	-	-	-	-	8,735,000	3,654,998	(510,713)	(241,671)	12,767,826	12,767,826	231,306	12,999,132	28.16	
2037	2038	46,163	0.0%	-	-	-	-	-	-	9,330,000	3,318,700	(510,713)	(510,713)	12,770,422	12,770,422	231,306	13,001,728	28.16	
2038	2039	46,163	0.0%	-	-	-	-	-	-	9,685,000	2,959,495	(510,817)	(510,817)	12,765,903	12,765,903	231,306	12,997,209	28.15	
2039	2040	46,163	0.0%	-	-	-	-	-	-	10,060,000	2,586,623	(510,636)	(510,636)	12,768,318	12,768,318	231,306	12,999,624	28.16	
2040	2041	46,163	0.0%	-	-	-	-	-	-	10,445,000	2,199,313	(510,733)	(510,733)	12,765,795	12,765,795	231,306	12,997,102	28.15	
2041	2042	46,163	0.0%	-	-	-	-	-	-	10,850,000	1,797,180	(510,632)	(510,632)	12,768,907	12,768,907	231,306	13,000,213	28.16	
2042	2043	46,163	0.0%	-	-	-	-	-	-	11,485,000	1,379,455	(510,756)	(510,756)	12,996,921	12,996,921	-	12,996,921	28.15	
2043	2044	46,163	0.0%	-	-	-	-	-	-	11,940,000	937,283	(519,877)	(519,877)	13,001,270	13,001,270	-	13,001,270	28.16	
2044	2045	46,163	0.0%	-	-	-	-	-	-	12,405,000	477,583	(520,051)	(520,051)	13,006,671	13,006,671	-	13,006,671	28.16	
2045	2046	46,163	0.0%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2046	2047	46,163	0.0%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2047	2048	46,163	0.0%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2048	2049	46,163	0.0%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2049	2050	46,163	0.0%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2050	2051	46,163	0.0%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Totals				127,892,153	1,893,006	4,635,643	(5,838,585)	128,582,217		13,843,487	5,367,854	(7,015,292)	194,150,315	322,732,532	19,211,341	341,943,873			

1 Tax capacity values for taxes payable in 2018 and 2019 are the actual final values. Estimates for future years are based on the percentage changes as shown above.
2 Initial debt service levies (prior to subtracting debt equalization aid) are set at 105 percent of the principal and interest payments during the next fiscal year.
3 Debt excess adjustments for taxes payable in 2018 and 2019 are based on audited data. Debt excess for future years is estimated at 4% of the prior year's initial debt service levy.
4 In order to keep the tax rate for taxes payable in 2020 and 2021 consistent with later years, a portion of the FY 2021 and FY 2022 payments, estimated at \$2,983,000, would have to be made from funds on hand or bond proceeds.



PRELIMINARY ESTIMATES - FOR REVIEW AND COMMENT

Moorhead Area Public Schools, ISD. 152

July 25, 2019

Analysis of Tax Impact for Potential Bond Issue

November 5, 2019 Election

Bond Issue Amount		\$110,000,000	
Type of Property	Estimated Market Value	Estimated Increase in Taxes from 2019 to 2020 *	
		Annually	Monthly
Residential Homestead	\$75,000	\$23	\$2
	100,000	37	3
	125,000	51	4
	150,000	65	5
	175,000	79	7
	200,000	93	8
	250,000	122	10
	300,000	150	13
	400,000	206	17
500,000	259	22	
Commercial/Industrial **	\$100,000	\$78	\$7
	250,000	220	18
	500,000	478	40
	750,000	737	61
	1,000,000	995	83
Agricultural Homestead*** (average value per acre of land & buildings)	\$3,000	\$0.04	\$0.00
	4,000	0.06	0.01
	5,000	0.07	0.01
	6,000	0.08	0.01
	7,000	0.10	0.01
Agricultural Non-Homestead*** (average value per acre of land & buildings)	\$3,000	\$0.08	\$0.01
	4,000	0.11	0.01
	5,000	0.14	0.01
	6,000	0.17	0.01
	7,000	0.20	0.02
8,000	0.22	0.02	

* Estimated tax impact includes principal and interest payments on the new bonds. The amounts in the table are based on school district taxes for bonded debt levies only, and do not include tax levies for other purposes. Tax increases shown above are gross increases, not including the impact of the homeowner's Homestead Credit Refund ("Circuit Breaker") program. Many owners of homestead property will qualify for a refund, based on their income and total property taxes. This will decrease the net effect of the proposed bond issue for many property owners.

** For commercial/industrial property in the Cities of Moorhead and Dilworth, the tax impact will be either zero or much less than shown above, due to the impact of the Border Cities Disparity Credit.

*** Estimated tax impact includes 50% reduction due to the School Building Bond Agricultural Credit for pay 2020 compared with 40% reduction for pay 2019. Average value per acre is the total assessed value of all land & buildings divided by total acres. Homestead examples exclude the house, garage, and one acre, which has the same tax impact as a residential homestead.

PART 6 – DOCUMENTATION

Documentation obligating the school district and contractors to comply with the following items:

- a. section 471.345 governing municipal contracts,
- b. sustainable design,
- c. school facility commissioning under section 123B.72, certifying the plans and designs for heating, ventilating, air conditioning and air filtration for an extensively renovated or new facility meet or exceed current code standards, including ASHRAE air filtration standard 52.1 and
- d. ANSI acoustical performance criteria, design requirements and guidelines for schools on maximum background noise levels and reverberation times,
- e. State fire code,
- f. chapter 326B governing building codes, and
- g. consultation with affected government units about the impact of the project on utilities, roads, sewers, sidewalks, retention ponds, school bus and automobile traffic, access to mass transit and safe access for pedestrians and cyclists.

Governing Municipal Contracts: The School District will comply with 2019 Minnesota Statutes Section 471.345 Uniform Municipal Contracting Law and Section 16C-285 Responsible Contractor Requirements.

Sustainable Design: Fundamental components to sustainable driven design include the re-use of buildings, additions to them, increasing energy efficiency whether in the existing or new applications and the selection of long lasting environmentally friendly building components complying with or exceeding Minnesota State Energy Codes. These criteria will be used as a guide throughout the design and construction process. Any additions and remodeled areas will address sustainability as they present themselves in the design process. The Detroit Lakes projects will be planned and designed using sustainable environmental qualities, such as

- Indoor air quality through improved equipment and building control systems.
- Energy conservation/performance
- Life cycles cost
- Long-term building flexibility
- Low-VOC materials and finishes
- Recycled materials

Facility Commissioning: Design consultants and Acoustical Engineers representing the district will comply with the American National Standards Institute (ANSI) / ASHRAE Standard S12.60-2010, Acoustical Performance Criteria, Design Requirements and Guidelines for Schools.

Governing Building Codes: Design consultants representing the district will comply with the 2019 Minnesota Statutes Chapter 326B. Construction Codes and Licensing. This will include but not be limited to the 2019 Minnesota State Building, Energy, Conservation for Existing Building, Mechanical and Fuel Gas, Fire and Accessibility Codes.

Government Consultations: The district is not anticipating additional costs to provide infrastructure. Existing infrastructure will be adequate at all of the existing sites. Fully serviceable infrastructure is in place and currently serving these schools.

Attachment 1
Review and Comment
Section 6 Documentation
(as amended by the 2018 Legislature)

Documentation obligating the school district and contractors to comply with items (i) to (vii) in planning and executing the project:

- (i) The school district will be in compliance with Minnesota Statute 471.345 governing municipal contracts issued for this project;
- (ii) The school district and the architects will include elements of sustainable design for this project;
- (iii) If the project installs or modifies facility mechanical systems, the school district, architect/engineers and contractors will be in compliance with school facility commissioning under Minnesota Statute 123B.72 certifying the plans and designs for the heating, ventilating, air conditioning, and air filtration for an extensively renovated or new facility meet or exceed current code standards, including the ASHRAE air filtration standard 52.1;
- (iv) If the project creates or modifies interior spaces, the district, architects/engineers and relevant contractors have considered the American National Standards Institute Acoustical Performance Criteria, Design Requirements and Guidelines for Schools on maximum background noise level and reverberation times;
- (v) The project will be in compliance with Minnesota State Fire Code;
- (vi) The project will be in compliance with Minnesota Statute chapter 326B governing building codes; and
- (vii) The school district and the architects/engineers have been in consultation with affected governmental units about the impact of the project on utilities, roads, sewers, sidewalks, retention ponds, school bus and automobile traffic, access to mass transit, and safe access for pedestrians and cyclists.

The school district and architect/engineers will maintain documentation showing compliance with these items upon and subsequent to project completion.

Superintendent Signature: _____ Date: August 5, 2019
Brandon Lunak

Board Chair Signature: _____ Date: August 5, 2019
Scott Steffes

Architect/Engineer Signature: _____ Date: August 5, 2019
Brian Berg
Minnesota Architect #41686

PART 7 – APPENDIX

- a. School board, Staff, & Admin Meeting Notes
- b. Mechanical & Electrical Conditions Assessments
- c. Master Planning Task Force Summary Presentation
- d. Design Charrette Task Force Summary Presentation
- e. Floor Plans & Site Plans



510 4TH AVENUE NORTH
FARGO, ND 58102
701.280.0187
ZERRBERGARCHITECTS.COM

**Moorhead Area Public Schools
New High School
Moorhead, MN
Project No. 18-050**

Subject: High School User Group Meeting
Date: July 08, 2019
Attendees: Brandon Lunak, Angela Doll, Kristin Dehmer, Dan Markert, Kjersten Skatvold, Dave Lawrence, Tamara Uselman – Moorhead Area Public Schools (MAPS)
Brian Berg, John Holten – Zerr Berg Architects (ZBA)

The following represents our understanding of issues discussed and decisions reached. Please review for accuracy and notify this office of any modifications.

General items discussed at the start of every user group

1. Current Design Process and Plan Recap

a. Design Process and Programming

- Work presented to user groups began in late 2018 and will culminate with a review and comment document submitted to the State of Minnesota in early August 2019. The purpose of this meeting is high level information gathering from teachers and staff to double check plan components and space programming of a general classroom prior to the review and comment document.
- The district has asked the new high school building being designed to handle 2,400 students with expansion to 2,600 at a future date. The remote Career Academy building will be designed to handle 300-500 students; the remote academy will reduce the population at the main campus by that given amount during any block throughout the day. Programming for academic spaces of the high school is to accommodate 2,100 students.
- With a school of this size it is imperative to reduce the perceived size. A school within a school concept is being developed; students will be divided into two houses, named team A and team B for design, with half the student population each. The two houses are broken into two wings; each wing is on grade and three stories tall. All of the core academic classes for students will be conducted in their respective wing and each wing has the facilities for all of these core classes.

b. Classrooms and Teacher Prep

- Classrooms are shown at 900sf each or typically 30ft by 30ft. On average this size is larger than most existing instruction areas at the existing high school. Classrooms will be broadly equipped and furnished for many different teaching styles and curriculum; the classrooms are designed for student use rates close to 100% of the time.
- Prep time for teachers would typically occur outside of the classroom. A dedicated work area is designed for collaboration of teachers to exchange ideas, methods, and coordinate curriculum

schedules. There is one work area per wing per floor for a total of 6 in the academic area. Each teacher work room is designed to accommodate 12-15 staff and will be the landing pad for teachers when not in class. Adjacent to the work room will be small meeting rooms for focused individual or small group work and student meetings with teachers. The work room will have individual teacher desks with lockable storage around the perimeter and a shared central work table.

c. Building Layout and Construction Phasing

- The current plan shows academic spaces to the north of the site in the existing parking lot in four wings three stories tall. The athletic facilities are to the east with the competition gym centered on the commons and filling into the existing Sports Center and Field House. The gym and team sports locker rooms are located in the spaces between. The fine arts are located on the west end of the building with the 1,200 seat theater to the south. Building services, receiving, and the kitchen/ serving are nestled between the fine arts and the commons across from the gym. The large commons space in the middle ties all elements together and serves as a center hub for the new school.
- The main administration offices are located at the front of the building to the south adjacent to the main entry. At this location the offices are situated to have visual control of the entry and be public facing for parent/ public interactions. Dispersed administration spaces and staff will be co-located with academic spaces. The goal is to for administration to have an ongoing presence with students and be in close proximity to all students with respect to the large campus.
- First phase of construction will start by building the new building in the parking lot to the north of the existing school. On the proposed plan this will include all spaces north of the competition gym hall. During this first phase school in the existing school will have interruption to typical function. After completion of the first academic year the existing high school will be removed. Following demolition, the remainder of the building construction will begin. The first phase of construction will be completed for the school to begin approximately 16 months after the start of construction. The remainder of construction will be completed the following fall/ winter.

Subject: High School User Group Meeting – Food Service, Custodial, Transportation, Administrative Assistants 10:00AM

Attendees:	Steven Waldron-	MAPS High School Head Cook
	Jim Smith-	Director of Property Service
	Sharon Rein-	Administrative Assistant
	Jenny Krueger-	Administrative Assistant
	Donna Tvedt-	Food Service
	Brent Butenhoff-	Custodian

1. Site Design and Transportation

- Head of transportation, Mike Steffen, is not at the meeting and bussing will be talked about at a later date. ZBA is schedule a follow up meeting.
- On the current plan bus traffic is entering at a different door than general student population. This is not uncommon on a school of this size to have to have multiple main entrances during the morning arrival and after school departure. The site plan has had further design work done not represented on the plan presented. Three different options were discussed: a looped bus drop on the east of the school adjacent to the track: a bus drop on the east with bus traffic through the site: bus drop and traffic on the west of the building north of the current 2nd Ave. loop.
- The site plan presented has a team loading and unloading area on the east of the building with direct access to the track, field and gym. The city road and easements on 2nd Ave. will be vacated and turned over to the school. As a result of discussions with the city, main entrances have been aligned with future roads and economized to drive traffic in and out of the site to the west and 21st St. This should greatly reduce the amount of student traffic adjacent to the residents to the south. Parking has been added to the east of the Sports Center, but a majority of the site parking is located to the west and south of the proposed school plan.
- Ideally all students should arrive at the same door.

2. Food Service

- The operational flow for food service will be from the west of the building in. Building receiving and the service court is located at the center of the building on the west elevation. Deliveries from vendors or the central kitchen will work through receiving via service halls to the kitchen/ storage room. Food service and the front facing kitchen are directly off of the commons for easy student access. The commons space shown is approximately four times as large as the current space.
- Currently food service is accomplished with three service times with line style cuing. A more open and flexible food service option is preferred. The ideal plan is to have four serving options plus a salad bar: pizza, main entrée, sandwiches, ethnic foods and salad bar.
- Approximately 600 hot food meals are served every day at the existing high school plus around 150 additional students eat a la carte. The remainder of the student body eat off campus or bring their own lunch. Currently breakfast starts 30 min before the first bell of the day. Ideally three quarters of students (1,400 or double current capacity) eat on campus in a future plan; its preferred food service occurs the entire day and after the last bell for athletics and fine arts that are in the building after school hours.
- Storage, fridge, and freezer space that are existing at the high school are a good reference. The freezer should stay the same size as the existing; the fridge space available should increase slightly. Dry storage is adequate for future use at the current size. The design team will use the current sizes as a baseline and scale up per program. Grab box commodities and canned products are stored mostly at the high school. With completion of the operations center in the next year daily deliveries from the operations center could reduce the footprint of what storage is required on site.

- The current kitchen space is adequate as is, but poorly laid out. A better flow will allow for more food preparation with the same amount of space. The future prep area will service all of the storefront food options, ideally stocked from the back and served from the front. An open kitchen for all areas with small prep at each storefront station. Culinex has done previous plans for the district and this has worked well. ZBA will reach out to schedule future meetings and further discussion on the kitchen layout and equipment package.
- Dish return can be similar to other schools within the district: standard window. There is no need for a dish carousel or other powered equipment for food service this size. Program future space that is large enough to accommodate the influx of trays, but do it manually. Currently about 50% are plastic reusable trays and 50% disposable. The school would like to move to 100% reusable plastic trays.
- Grab and go and a la carte are two separate lines. This separation is done to maximize the reimbursable amount of food served to students.
- An in school convenience type store with grab and go would be ideal. This could be folded into the entrepreneur track at the Career Academy. If the store is arranged correctly food service could stop service out of the kitchen storefronts after lunch and transition service to the school store. Reimbursement from the students' account is dictated by the amount of food offerings available. The convince store should have a dedicated fridge for this reimbursable items labeled accordingly along with other offerings available.
- The farm to table program at the Career Academy can be incorporated into the main campus. It does not make sense to double kitchen spaces; a space should be made for the culinary arts program to serve on the high school campus; this space should be adjacent to the commons. Food preparation could happen at the Career Academy and be finished/ served at the main campus. The concessions are located under the track adjacent to the gym space and could be utilized for food service. Outside of school events often want to use outside catering. It is preferable to keep the public out of the district kitchen. A catering style kitchen will be programed to serve both the farm to table program when at the main campus and extra-curricular activities.

3. Building Services

- The main building services is located at the west of the plan centered north/ south in the building. Spaces programed with exterior wall are limited with the connections to the two existing buildings, the field house and sports center. Receiving and the associated spaces for the building are at the exterior of the building services core with the main heating plant located adjacent to the interior. Each academic wing has programed mechanical for air handling units and a dedicated custodial spaces. Storage is currently a premium at the existing high school. Once paper products are delivered from the operations center they should be distributed throughout the floors to shorten cleaning and restocking time for staff.
- A place for man lift storage must be programed in the building. High volume spaces require maintenance and cleaning by tall lifts. The design team should pay particular attention to the high volume spaces designed and how the staff will service the space and how service equipment is to be transported to these locations. All doors, elevators, and hallways must be properly sized for equipment to be moved freely.
- The courtyards as shown are a concern with regards to snow accumulation. Exiting must be maintained from the building. In the current plan there are no exits along the courtyards only at the end of the halls. Locating exits more remote in the academic wings will reduce the amount of snow removal done in the courtyards.
- Indoor storage for a skid loader is a requirement. The district has had concerns in the past from the fire marshal about fire separation of a stored vehicle to the general building. Vehicle storage in the building occupies a large amount of square footage. The district has identified a skid loader as the only equipment that the district is looking at storing at the high school. Other equipment storage will

be done at the operations center. A separate building/ vehicle garage was discussed with the design team and building services. It was determined separate building is not desired with the limited amount of items stored inside at the campus.

4. Administration

- The reception and entry sequence will be similar to other district sites, but larger in capacity. Lobby Guard entry control software used district wide will be integrated into the new high school building. A weather vestibule followed by security vestibule will be located at the main entry to screen incoming persons after the start of school. A transparent security window with a speaker box and document pass through preferred to a sliding glass window. The check in kiosk is located inside of the vestibule at other schools; at these locations equipment must be pulled into the office at the end of every night. A design solution that allows access to the kiosk without the need to setup and dismantle every day is to be achieved.
- Privacy of the main office is a concern in the current setup. Conversations between students and staff often happen in the commons. The new plan will not have any open connection from the office to the commons. Access will be achieved through a door with acoustical treatment.
- More storage is needed in the office. Locking cabinets are needed for secure records and also for office staffs' personal belongings.
- The new office suite is to have a lobby for people to wait. It was identified that no more than 8-10 people are waiting at any given time. A centralized work room and staff bathrooms within the admin block are required.
- The new building will have a single point of entry for all visitors. Bus drop can be a separate point of entry open only in the morning. An entry is to be identified for the circulator bus to enter and exit. This should be at the main entry by the central administration suite.
- Separate doors for special needs students is desired. The design team will identify a separate entry point.

Subject: High School User Group Meeting – Business and FACS 11:00AM

Attendees: Cheryl Adams- FACS Teacher
Katie Boer- FACS Teacher
Leah Spotts- Business Education Teacher
Kathi Salvevold- Business Education Teacher

1. FACS

- In the existing FACS program a majority of students enroll in foods classes. There are 20-25 sections of various foods courses, four sections of child development, and a few sections of Interior design and housing. The FACS department has four full time teachers.
- The FACS program teaches four levels of foods courses. Beginning foods averages 17 sections of students. The foods education continues with advanced foods, nutrition, and international foods at the highest level of foods instruction. Entry level course will be at the main campus and higher level education at the Career Academy. All food classes are currently quarter blocks.
- Beginning foods is needed at the main campus as an entry level introduction. Nutrition could also be located at the main campus as this course is a majority of classroom learning. “Serve Safe” certification must be achieved by students to serve food to the public. The staff sees this certification as the benchmark to be at the Career Academy. Students are not currently allowed into the District kitchen as they are not “Serve Safe” certified. After certification they can be allowed into the District kitchen as part of a curriculum.
- A programed catering kitchen is to be separate from FACS kitchens and the main kitchen. The space would be open to after school activities, renters, and/ or the farm to table program serving at the main campus.
- A future curriculum goal is to have a culinary careers class with inventory and catering tied into the learning. This instruction also ties into business classes for cross career path collaboration.
- Other Districts with a Career Academy program have onsite daycare. The FACS program at Moorhead High currently has three to four sections of child development a year. Many students take the course twice due to high interest but lack of further study opportunities. The child development instruction could function similar to foods and have an introduction class at the main campus and further study opportunities at the Career Academy.
- To build the areas of study; start at the end goal of what classes are at the Career Academy and move backwards to curriculum. Current child development classes end at toddlers due to time constraints. Secondary levels could continue child developmental stages and tour child care centers including one located at the Career Academy. With an integrated child care facilities students could participate in the care being provided after a minimum benchmark has been met.
- Storage for the FACS program is a premium. Currently child care devices are stored in an unused office. Child care devices are over \$1,000 each and need to be plugged in to charge batteries.
- FACS has a need for separate spaces for lecturing and lab activities. Lecturing in the lab has social issues with students not paying attention. Space programing will not allow for separate lecture bowls for this curriculum but multiple sections could potentially combine into one lecture but separate labs to utilize space in the school more efficiently

2. Business

- Business courses have three full time teachers. There are two distinct components to the curriculum: a business and entrepreneur arm and a digital technologies and coding arm with over 20 classes currently offered in business. The Accounting and Accounting II classes just switched to a college curriculum and credit. Sports marketing, computer apps, Microsoft office, computer coding, digital tools, adobe and photos, photo editing, and television production are many of the instructional areas taught. A HTML course is offered in conjunction with MSTATE.
- The business courses could function very similar to FACs courses with introduction level classes at the main campus and advanced classes at the Career Academy with access to greater “applied learning” opportunities. There is enough Adobe curriculum to go beyond Digitals II. The Digital classes should have a capstone to the digital learning.
- The school store fits in with Business Management career track. Business Professionals of America (BPA) was a student organization at the High School in the past, but is not currently offered. The state recommended this program be brought back. MAPS is the only school in the area that does not have fiber arts curriculum. It is desired to bring back instruction with space and staff availability.
- Television production for the school is done locally and aired on You Tube and a District internal channel. Recently the demand has lapsed to produce for a larger audience airing. Now with digital capabilities the production room can be remote at Career Academy or other District locations. With the majority of television content being sports events and auditorium programming at the High School the studio seems to want to be located at the main campus close to all of the events to be broadcast. The largest difficulty faced by TV broadcast at the District is student availability after hours to operate equipment at the events
- Storage is a major concern for the business class especially classes with digital instruments. The photography class has over 50 camera combinations available in the classroom that all need a secure storage location. Charging stations for all digital equipment is a must as charge time between classes is often short. The digital instruction desires a layout space adjacent to computers for textbooks and other instructional materials. Small desks or chairs with tablet arms do not provide adequate space for this type of learning.
- Classroom setups for business and technology needs to be able to instruct on a digital device. The instructional trend is moving away from one large screen in a classroom to multiple throughout the room with ability to broadcast to all student screens. This change will be aided in the push for a “One to One” instructional setup with students and laptops.

Subject: High School User Group Meeting – English & Social Studies 1:00PM

Attendees: Chris Lien- Language Arts Teacher
Andrew Tichy- Language Arts Teacher
Tina Bentz- Social Studies Teacher
Audrey Erickson- Social Studies Teacher

1. General Classroom Design

- For high level design input, teachers were asked, “What is essential for a classroom to perform across all academic studies?”. A whiteboard or writable surface for day to day announcements and instruction is required. The more writing surface the better. A projector for digital projection and sound reinforcement for all classrooms, ideally centrally located. All controls for the classroom will be located at a planned teacher station. The central location for all controls is important for teachers to be able to change the class environment without breaking instruction. With flexible seating options a ‘front’ of the classroom is less important. The front can now be moved to accommodate different teaching options, digital, written, oral, etcetera.
- Classrooms currently shown on the plan are approximately 900SF. Most of the rooms teachers are familiar with in the existing high school are slightly over 800SF, an office is also removed from that total footage in the existing school. The classrooms shown will be noticeably larger than existing rooms. Standard design for classrooms is 900SF due to egress requirements. Building code requires a second exit for spaces with over 50 occupants and classrooms are calculated at 1 occupant to 20SF. With the maximum of 50 occupants 999 SF is the largest size for one exit.
- All classrooms currently show will have windows to the exterior of the building. Sun control and proper day-lighting is of great concern to teachers. All windows will be equipped with roller window shades with the proper openness to adjust to the optimal light levels. Classrooms could have a large opening to the collaborative areas similar to other schools toured. The opening will be an operable door or wall to allow instructional flexibility. All classrooms will have a person door that can be used as typical when the large opening is shut.
- With an open/ operable classroom teachers expressed concern about the transparency into the rooms for instruction and in emergency situation. The district will evaluate emergency procedures. Many schools are moving to a “run/ hide/ fight” philosophy. There will be options for security within the wing. For a working lockdown the space will still be able to go on functioning with activities in the hall. Screening of vision into and out of classrooms can be accomplished with window films. This was done at the district Horizon West Campus.

2. Teacher Prep

- Teacher prep areas will have 12-15 staff located. It has a center shared work table, a locker to secure personal belongings, an individual desk, and whiteboard for collaboration and messaging. Small conference rooms should be located directly adjacent to prep areas for conferences with students or other individuals. Small conference rooms should accommodate two to three people and could be used for focused teacher work if desired. A private staff restroom is desired.
- Social studies teachers voiced the difference between not being in the classroom for prep, and not having a room be able to display teaching aids on the walls. Teachers’ concern about higher classroom utilization is the lack of opportunity to personalize with teaching aids on the wall. No class schedules have been created and the district is making efforts to accommodate all teachers. The likelihood is similar classrooms will be grouped together so social studies education can share classrooms and all students be aided by teaching aids throughout the room.

3. English and Social Studies Classrooms

- English classrooms teaching grades 9 & 10 currently have an “in-classroom” library. Space within existing classrooms is a premium both for storage of the “in-class” library books, but also reading spaces for students comfortable with a good book. The current plan has collaborative areas with soft seating in the common spaces that can be utilized for individual reading outside of the classroom. A classroom library could also be located outside of the classroom setting, reducing the space requirement inside of individual classrooms.
- Social Studies classrooms have a variety of teaching aids and displays on the walls tailored to subject material being taught. Places to hang visual aids and system to hang them should be provided. Other elements located in the instructional space will be similar to the standard classroom discussed earlier.

4. Extracurricular Activities and Spaces

- With such a large campus the distance from a centralized administration to the far ends of the wings seems too far to receive assistance when needed. The concept of a distributed administrative presence was liked by all teachers. With administration personnel throughout the entire school assistance is never far away. Security staff will also be spread throughout the academic area as well a main office with administration cluster.
- A dedicated student council area is not currently programed; but should be considered as an additional program element. Prom currently has two storage rooms full of decorations for the dance. A dedicated space for storage of council activities will be added to the program. Meeting for student council can be scheduled for any of the many small or large group rooms throughout the school building.
- As part of the bond referendum the district would like to move forward with a “One to One” technology initiative for students. Journalism program and students will be greatly aided with this technology shift. The existing journalism courses are currently mostly digital but bringing back a print edition is desired. The journalism curriculum could be collaborative with T.V. broadcast.
- Speech and debate extra-curricular activities will not have a dedicated room from the group. Meetings and practices will be classrooms, lecture halls, teaching stairs, breakout spaces, or any other collaborative space in the school building. Storage of any material will be given a dedicated space as required.
- A place for food pantry and clothing donation item distribution is needed. A dedicated space for household donations receiving and distribution.

Subject: High School User Group Meeting – Math and Science 2:00PM

Attendees: Jana Kasper- Science Teacher
Monica Peterson- Math Teacher
Allie Bondy- Science Teacher
Julie Reno- Math Teacher

1. Science

- Currently the high school has two separate science instruction groupings: the main science core and the 9th grade science instruction. The 9th grade science area has three classroom and both lab and lecture rooms. The main science core has a total of four biology classrooms, three chemistry classrooms, and one physics classroom. The biology classrooms area currently used all day long in the exiting building. There are a total of eleven existing science labs.
- The revised high school floor plan has the science classrooms centered at the nexus of the two houses with shared spaces across all three floors. It was identified that shared storage space spread across three floor is difficult for science instruction especially chemistry. The hardship is primarily due to the duplication of lab resources across different floor storage rooms. If science rooms of similar instruction share a lab the redundancies can be eliminated.
- The design goal is to provide a robust lab that can accommodate a multitude of different science disciplines within one space. This space must include gas, water, fume hoods, technology, and robust power for all equipment are a benchmark for a basic science classroom. Additional research is needed by the science instructors to determine the best new equipment for labs.
- The ideal instructional setup for chemistry is two students in a group doing lab activities. A single group of three if utilized in classes with an odd number of students. Other sciences can participate in lab learning in groups of two to four students. Ideally each of these groups will have their own lab station. A base classroom is to have a total of 15 lab stations with one station for the instructor.
- With collaborative small and large group rooms it will be possible to have a science lecture with multiple classes grouped together followed by separated lab classes. The teachers present felt large lectures distance the teacher from students and relationships that can be leveraged for teaching. An integrated lecture and lab instruction and the ability to do lecture and lab within one room is preferred. In this configuration instruction is prepared to have demonstrations that pertains to the curriculum being taught. Standard classroom teaching aids are needed within the lab also. Labs dedicated to one science discipline provides the ability to set up a lab when teacher prep time allows and have lab materials secure from students for safety.
- A robust lecture with lab components adjacent to the space could accommodate two science rooms adjacent. This would allow two or more teachers to co-teach lab and lecture instruction.
- Some science curriculum has a great deal of overlap with math education, chemistry is a primary example. This course material is not easily taught in a lecture opportunity. For math based learning the instruction could take place in a standard classroom.
- Accessible lab stations are a must for the students. It is imperative to have this integrated into the general lab space not separated or isolated within the room. The design intent will be to have all lab stations accessible.

- Summary of science classrooms for the new building are (14 total labs):
 - 5 Biology labs
 - 4 Chemistry labs
 - 1 Physics lab
 - 4 9th grade science labs
- The administration will reach out to the science teachers from Bismarck Legacy to talk specifics with science instruction in flexible classrooms.

2. Math

- Math rooms should have writable surfaces throughout the entire room. The writable surfaces are used for instruction but also for student problem solving individually and in group settings. Tablet whiteboards are also used for individual class participation. Each math classroom should have a set of separate writing surfaces for each student.
- When traveling teachers move classrooms it is possible for teaching materials to get lost. Locked storage in each classroom for supplies that stay with a “math” room would be preferred to traveling with materials.
- Smart boards are liked by the math teachers present. A document camera is not desired for math instruction. Smart boards are being phased out of the district. The company will stop production in 2020. Smart board instruction is moving to touch tablets with content being pushed to one to one devices. With this technology setup learning will be displayed on the students screen and is available for saving and review at a future time.
- The goal of high classroom utilization and flexible scheduling is to have similar discipline teachers in the same general region. The collaborative teacher work space could have teachers of the same subject together, although ideally there would be a mix of teachers.
- Learner support services are to be distributed throughout the academic spaces. The goal is to mainstream the highest amount of students possible. There will be a centralized space for high needs support and will be remotely located from academic classes.

Subject: High School User Group Meeting – Fine Arts 3:00PM

Attendees: Grady Carlson- Visual Arts Teacher
Jon Larson- Music Teacher
Pam Redlinger- Music Teacher

1. Fine Arts

- There has been discussions throughout the day of meetings to flip the plan areas for fine arts and the centralized administration area. This plan change puts the administration and main entry adjacent to the majority of the parking on the southwest of the building. The music rooms are now located to south of the commons adjacent to the athletic spaces. The revised fine arts location puts the location on the plan outside of phase one of construction. The challenge to this design change is to find substitute locations for fine arts during duration of construction. Music ensemble rehearsal spaces could be located in the lecture halls during construction. Individual practice could be done in break out spaces throughout the building. This would inconvenience for the Fine Arts Department for one year in favor of a better long term solution and sounded acceptable to staff.
- The existing instrument and music storage cabinets are not re-locatable. New instrument storage cabinets could be purchased for the temporary rooms and moved to the final location once the space is complete.
- The proximity of the fine arts to the gym/ athletic area is of great concern. Sound transmission from loud activities in the gym and associated spaces must be mitigated. Buffer spaces should be inserted between performance and rehearsal space and athletic space.
- In the current plan the band and orchestra rooms are located on the exterior wall both have large instrument storage rooms adjacent to the space. The interior of the fine arts area is lined with practice rooms and an encore room for theory or other classroom activities. Instrument storage for band and orchestra should be located between the rooms to act as an added buffer to sound transmission. There is also an overlap of some instruments used for both groups. Ample storage for stands, chairs, and risers are needed. It is not desired that any of these items be stored in ensemble rooms. Band uniforms and choir robes will also need storage space. This storage space can be remotely located from the fine arts area.
- The fine arts area will need to have access isolation to secure the suite from the public when not occupied when in the building for other events.

2. Visual Arts

- Visual Art spaces are currently located on the first floor of the west most academic wing. A ground floor location is a major program factor. Access to the exterior will allow visual arts to utilize outdoor learning and have cultivate a sculpture garden.
- Programed spaces are to include a 3D mud room/ wet room for clay and other dirty art. Two dry rooms will be the instruction spaces for the remaining balance of the arts: a 2D and 3D dry room. The district currently has 2 full time visual arts teachers at the high school. A third instructor has been hired for next year.
- An exhibit space for the arts is desired. This could be incorporated into the lobby of the theater or commons to be available during productions or other public facing events.

3. Dance Arts

- Dance will have multiple options for practice throughout the campus. Spaces in the fine arts area or other larger collaborative spaces could be utilized. Programed space will open up in the sports center. The black box theater would be an ideal place for dance rehearsal with a sprung floor already installed. The challenge to the dance team will be scheduling around conflicts.

Report by:

John Holten, AIA

Zerr Berg Architects



510 4TH AVENUE NORTH
FARGO, ND 58102
701.280.0187
ZERRBERGARCHITECTS.COM

**Moorhead Area Public Schools
New High School
Moorhead, MN
Project No. 18-050**

Subject: High School User Group
Date: July 15, 2019
Attendees: Brandon Lunak, Angela Doll, Kristin Dehmer, Dan Markert, Kjersten Skatvold, Dave Lawrence, Tamara Uselman, Josh Haag – Moorhead Area Public Schools (MAPS)
Brian Berg, John Holten – Zerr Berg Architects (ZBA)

The following represents our understanding of issues discussed and decisions reached. Please review for accuracy and notify this office of any modifications.

General items discussed at the start of every user group

1. Current Design Process and Plan Recap

a. Design Process and Programming

- Work presented to user groups began in late 2018 and will culminate with a review and comment document submitted to the State of Minnesota in early August 2019. The purpose of this meeting is high level information gathering from teachers and staff to double check plan components and space programming of a general classroom prior to the review and comment document.
- The district has asked the new high school building being designed to handle 2,400 students with expansion to 2,600 at a future date. The remote Career Academy building will be designed to handle 300-500 students; the remote academy will reduce the population at the main campus by that given amount during any block throughout the day. Programming for academic spaces of the high school is to accommodate 2,100 students.
- With a school of this size it is imperative to reduce the perceived size. A school within a school concept is being developed; students will be divided into two houses, named team A and team B for design, with half the student population each. The two houses are broken into two wings; each wing is on grade and three stories tall. All of the core academic classes for students will be conducted in their respective wing and each wing has the facilities for all of these core classes.

b. Classrooms and Teacher Prep

- Classrooms are shown at 900sf each or typically 30ft by 30ft. On average this size is larger than most existing instruction areas at the existing high school. Classrooms will be broadly equipped and furnished for many different teaching styles and curriculum; the classrooms are designed for student use rates close to 100% of the time.
- Prep time for teachers would typically occur outside of the classroom. A dedicated work area is designed for collaboration of teachers to exchange ideas, methods, and coordinate curriculum

schedules. There is one work area per wing per floor for a total of 6 in the academic area. Each teacher work room is designed to accommodate 12-15 staff and will be the landing pad for teachers when not in class. Adjacent to the work room will be small meeting rooms for focused individual or small group work and student meetings with teachers. The work room will have individual teacher desks with lockable storage around the perimeter and a shared central work table.

c. Building Layout and Construction Phasing

- The current plan shows academic spaces to the north of the site in the existing parking lot in four wings three stories tall. The athletic facilities are to the east with the competition gym centered on the commons and filling into the existing Sports Center and Field House. The gym and team sports locker rooms are located in the spaces between. The fine arts are located on the west end of the building with the 1,200 seat theater to the south. Building services, receiving, and the kitchen/ serving are nestled between the fine arts and the commons across from the gym. The large commons space in the middle ties all elements together and serves as a center hub for the new school.
- The main administration offices are located at the front of the building to the south adjacent to the main entry. At this location the offices are situated to have visual control of the entry and be public facing for parent/ public interactions. Dispersed administration spaces and staff will be co-located with academic spaces. The goal is to for administration to have an ongoing presence with students and be in close proximity to all students with respect to the large campus.
- First phase of construction will start by building the new building in the parking lot to the north of the existing school. On the proposed plan this will include all spaces north of the competition gym hall. During this first phase school in the existing school will have interruption to typical function. After completion of the first academic year the existing high school will be removed. Following demolition, the remainder of the building construction will begin. The first phase of construction will be completed for the school to begin approximately 16 months after the start of construction. The remainder of construction will be completed the following fall/ winter.

Subject: High School User Group Meeting – Nursing and Counseling 8:00AM

Attendees: Jill Roaldson- School Nurse
Maret Kashmark- Counselor
Tammi Fortney- School Psychologist

1. Nursing

- The nurse office at the current high school has three beds, a work table, and office. There are separate bathrooms for students visiting the nurse and the staff working; the separation is greatly appreciated. Elementary buildings in the district have five beds; it was agreed five would be an appropriate number for the new high school. A privacy curtain is installed between student beds, this is adequate separation for future construction. A health technician is always in the office at the high school and the nurse rotates through multiple schools in the district. A reception/ receiving function and desk should be provided as part of the suite.
- A function of the private office for the nurse is confidential conversations between the health staff and students. A majority of the dialog is one on one, student meetings with the school nurse. Issues that bring a student to see the nurse range from mental health, headaches/ migraines, general illness, and to injury.
- Adjacency between the nurse suite and the main office is not needed: the suite can be stand alone. Most to all students have cell phones and make the contact with their parents or guardians when dismissal from school is required. The health staff notifies the main office when the student is sent home from the campus. The school nurse had positive feedback to locating the health office adjacent to students. The nurse suite in the academic wing is the best space for this student service.
- Access to an outside door for the nursing suite is important during lockdown situation, medical or otherwise. The space should be in close proximity to an outside door that is fully accessible and perhaps oversized for students and stretchers alike. The path from the nurse to an exit should avoid the commons and other highly populated student spaces. A more private exit for students leaving the building is ideal. It is imperative this exit not be a main door. At the existing high school hallways at times have to be cleared for an emergency situation or exit of a student. The west side is preferred; this is the direction that ambulances arrive and depart the school campus. The special needs bussing entrance could be identified as the exit place for a stretcher. The nurse office should also be in close proximity to the LSS suite as this is a major population that frequently needs access to the nurse.
- A large storage closet at the high school nurse office is needed for district wide nurse storage. The medical technician at the high school does district ordering and receiving of health products. At this time this ordering and receiving was not identified to go to the operation center but remain at the high school.
- Currently a locking file cabinet is used for medicine storage. The Horizon campus has a flip top storage unit and this was deemed adequate for the high school. All medicine storage must be lockable. At a minimum there must be cabinets and file storage that can be locked in the suite preferably the office. A fridge is required for cool/ cold medicine storage.
- A small stacked clothes washer and dryer would be of benefit to the nurse in the suite or within close proximity. A shower in the health office would be of value. There are opportunities that a shower could be utilized for student hygiene. A shower and clothes washer and dryer have been asked for by other department or building areas. If located in the suite a washer dryer must be removed from the nurse office. The noise generated is not ideal and makes private conversations difficult. The shower and the clothes washer and dryer should not be shared with the DCD and LSS areas. These spaces need to be a separate room with separate identity for the general population students that are in tough spots at home and need laundry or showering facilities.

- Storage for health items, pantry, and laundry room could be a shared space. General health items are stocked for students in need in addition to pantry and school supply items. This space is to be secure but private storage with access granted to students based on need.

2. Counseling

- The counseling department at the high school currently has four staff. An office should be provided for each of the counseling staff. An office for intern or community counseling professional and an office for the registrar would be preferred. The size of the current space meets current needs, but with a campus totally 2,400 students room for growth is needed. Provide space for seven counseling offices, one community counselor, and a registrar office. Rape and abuse counseling is available every Thursday along with other itinerant counselors throughout the week.
- Counseling should have their own office suite and not be part of the administration offices. The concept of locating in the academic area is warmly received. The counseling office should be one space with a single receptionist to greet persons and coordinate scheduling. There are a fair amount of parent meetings with counselors; a single point of contact into the office would be more efficient. Space for parents or guardians and a few students plus the counselor is required in the offices. Access to a larger conference room should be within close proximity. There are multiple different meetings spaces currently programed accommodate eight. These rooms could be utilized by the counseling staff.
- All counseling staff provide a full range of student support including career and college counseling. Storage for college counseling is currently housed in staff offices. General storage within the suite is for school supplies of all types and during graduation time, diplomas. Waiting is currently ten chairs, this is adequate for typical days. Peak days such as schedule change or lead up to graduation are very busy. There is never enough space during these greatest demands.
- The student assistance counselor is separate, but should be located within the group. This counselor should also be centrally located in this suite. Health and social work should be located adjacent to these offices, and could be separated. Counseling would be fine with social worker in the suite, but the representatives present don't know how the social workers feel.
- The social worker, student assistance counselor and psychologist could be co-located. A receptionist for the student assistance counselor (Scott) is greatly desired. The student assistance counselor should not be located with administration. There is a perception with students that the administration office is for discipline and providing support out of an associated office is not conducive. In school suspension is currently remote from the office; it consists of four spaces for students. This function should be in the administration suite. The SRO, security office, and truancy area all part of the critical mass of the main administration office.
- The school psychologist does not need to be an office suite with support staff as appointments are not run through a secretary. The psychologist will locate individuals for appointments throughout the school. A space is needed that is isolated and can be quite. The psychologist spends 80% of her contract time at the high school and 20% at the Vista building. The office needs enough space for one or two additional people in office and storage space. It is desirable to be located closer to the academics rather than administration. The location is mostly about logistics of getting a student from class to office and back to class. Shuffling of students is a concern with the large campus.

- The need for a large file room is currently accomplished with three to four storage rooms spread throughout the building for cumulative files. Some files must be stored, some can be digitized, and some destroyed; the district is working to digitize and destroy records as allowable. Student records are on Microfiche through 1998; this has already been digitized. Ideally records should be digitized immediately but no protocol currently exists. A file storage area will be located in the new building; this is typically part of the registrar and must be secured. Feedback from other schools with new buildings is more storage is needed; all storage: general purpose, admin, etc. For now program a space approximately 500 sf.

Subject: High School User Group Meeting – Media Center, ESL, Language Arts 9:00AM

Attendees: Julie Wellnitz- Media Program Manager
Peggy Morken- ESL
Devina Pederson- ESL
Lana Suomala- Spanish Teacher
Brittney Rehm- Spanish Teacher

1. Media Center

- The media center is located on the second floor centered in the heart of the building at the academic wings. The space will have ample natural light and room for soft seating throughout. A classroom space for student instruction or professional development will be located as part of the media center. A workroom with adequate layout space and shelving is needed. The school is to provide collection numbers for total linear feet of shelving.
- Spaces for kids to collaborate and gather with technology is desired for 21st century learning. Maker spaces or spaces flexible enough to adapt to maker spaces should be programmed into or adjacent to the media center. Every wing has large and small group spaces, these could be collocated with the media center to share resources and supervision.
- Media center as shown on the plan is a square footage placeholder. Spaces can be carved up as desired for the end user with further design refinement. Classroom type spaces that can be accessed from the media center or hall will be included as part of the final program.

2. ESL

- Currently the high school has three ESL teachers sharing two rooms. Three rooms would be preferred for each ESL teacher to have a dedicated space. Different course content is taught throughout the day by the ESL staff. For the ESL students and curriculum white board space is a premium. Grammar is a large portion of ESL and diagraming sentences would use all whiteboards that were provided. A clear document camera is used often in conjunction with a screen that does not obscure the whiteboards. Wall space with tackable surface is needed. There are a great deal of visual displays. Chromebooks are used, but access to chromebases are of benefit. Eight bases are not needed; four is a more accurate number of bases.
- Small desks with small work surfaces do not work well for ESL instruction and the large amount of materials needed for learning. Movable tables and chairs is a top priority but of most importance is the amount of workspace available on any given piece of furniture. Single person tables would be a great asset for testing.
- The ESL program has their own library and media as many of the students do not read at the level of material available in the building media center. This ESL specific media is currently two full shelves in one of the classrooms. Most books and resources are personal property of the teachers. A shared media space would work, but security of the materials is a concern to the teachers. Storage within the ESL rooms is a premium for the large amount of reference materials used.
- A sink that is located in one of the ESL classrooms has been of great benefit to students. A small meeting room in the back of the classroom has been used for Muslim prayer. Hand washing is required for this activity.
- Students often come into classrooms during a prep time for assistance. The ESL teachers want to be certain that there is space to be available outside of a classroom for students. The classrooms may be programmed to have the ability to adapt to different curriculum and teachers. Teacher and room scheduling will be identified at the administration level.

- Student levels in ESL fluctuates greatly via outside forces. Levels have dropped under current US administration and could pick back up with a different 2020 admin. Pinning down the exact number of students using this service will be difficult.
- The ESL area currently has a dedicated printer in the room. This has been a great benefit for learning within the class; a great deal of learning takes place on printed handouts. ESL is also serving as a special needs resource, not only ESL, but also all other courses. The ESL rooms and teachers are seen as a first resource for the students in the program.
- The ESL staff frequently talk to parents that do not speak English. This dialog is accomplished with the use of a telephone translator service. In future programing these conversations will take place in the private meeting rooms off of the teacher preparation area.

3. Language Arts

- The language arts have four full time Spanish teachers and one Chinese instructor. The program is looking to grow with additional students coming into the school. Class sizes range from a small population at 18 to large at 36. More whiteboard space is ideal for classrooms as different class levels of Spanish could all use the same room and have space for each different instruction level on the boards. Language arts switching classrooms is difficult with all of the visual aids. Sharing a room with other language arts teachers is feasible but with a math class for example would be difficult.
- A shared resource room would be of great benefit for the staff and students of language arts. There are a great deal of resources that are used for any given class, puzzles, props, etc. Storage for language arts is a real asset for all of the additional teaching materials. A collaborative space is needed where staff can gather. Having collaboration between language arts staff and other disciplines will only enhance teaching. Being able to come together and plan overlaps between curriculums would benefit students.

4. General Discussions

- The design team has toured the new Moorhead State gender neutral bathrooms. Some bathrooms in the new high school will be traditionally gender separated and others gender neutral. These bathrooms will need the ability to be supervised by staff.
- The teacher workroom will be similar to Davies as discussed with the group. A large workroom with individual desks for personal work with lockable private storage. A general shared workspace and storage will be located in the center of the room.
- Standing height tables are great in theory but difficult for smaller students to use. The height difference can cause ergonomic problems. Future classrooms will not be furnished with all one type of furniture, a variety of furniture will be provided in each classroom for students of different builds to utilize what they feel most comfortable with.
- The floor finish will vary by room and function, but will typically be carpet tile. Sound is always a concern with a full classroom of paired students talking while working collaboratively.
- Backpacks and locker availability will be a district decision and is pending largely on the one to one effort with technology. Some school furniture provides the ability to have bags placed on or below furniture in the classroom. Some general lockers will be made available to students.

Subject: High School User Group Meeting – Athletics 10:00AM

Attendees: Dean Haugo- Athletic Director
Greg Salvevold- Phy. Ed. Teacher
Cory Herrmann- Phy. Ed. Teacher
Kevin Feeney- Phy. Ed. Teacher

1. Athletics

- Around 2,300-2,500 seats are currently shown in the competition gym with all bleachers extended. The bleachers shown will be bottom and top loading to facilitate better circulation. To host section final events 2,500 seats would be needed. Seating capacity in the gym is a program element to be aware of moving forward with design. It is important to provide adequate room between cross courts during tournaments. This space should incorporate safe court buffer spaces but also seating for team players and coaches.
- The cardio area is a mezzanine above with weights below. The cardio area shown open to below. A blackbox theater space could be used as a dance studio. A sprung stage floor is already installed in a blackbox theater. Scheduling open spaces is a hard obstacle to overcome. Dance currently is pushed around the building in search of open space.
- The wrestling room is programed for the second floor above the locker rooms just south of the track and competition gym. The extra space in the sports center after the wrestling program leaves could also be used for dance studios or other dedicated spaces.
- Athletic training will be used for all sports and should be centrally located. The nexus at the lockers/ cardio/ weight/ gym is a central location for all sports. There are currently two trainers on staff that cover all sport activities at the high school.
- The Athletic offices are ideally located in the vicinity of the athletic bus drop. Two offices with slightly more space than what is currently allocated in the existing building will be adequate. The majority of the work for the athletic staff start at 3:00 with incoming visiting teams and departing home team and after school activities. This location at the east entry is centrally located for all sporting events. Ticket sales for activities can also happen out of the athletic office. There is walk up parking adjacent to athletic bus drop for the public to park and purchase tickets.
- Athletic storage demand is decreasing due to increased efficiency of storage systems. Balancing the space dedicated to storage versus increased footage in other athletic support spaces will be important. Hockey and football storage is currently housed in the sports center.
- The weight room is programed at 4,800sf and the cardio area at 1,800sf. A weight rooms and cardio room with 90° corner and walls is preferred. A rectilinear room works well for setup of machines in the space. The east wall the weight room and cardio area of the plan is curtain wall with visibility to the field and track.
- The team bus drop and indoor concessions is located off the east commons with ample space for concessions queuing and sporting events pre-function gathering.
- The current plan is to not have any community access to the weight and cardio room. It was agreed upon that public access to the wellness facilities is not desired by the athletics department or the district.
- There is a separate dedicated sprint track located off of the running track upstairs on the gym mezzanine.
- In the revised plan presented the main entry during night games will be the through the school main entrance. It is desired to have a ticketing ability directly adjacent to this entry. Ticketing for sports could be shared with the theater also located in proximity to the main entrance.

2. Locker Rooms

- The Ideal layout for locker rooms and coaches' offices is to have the offices combined with boys' varsity locker room and boys P.E. locker room on opposite sides of the office. This makes a larger office for more staff, but also allows for supervision of both locker rooms and direct access to both locker rooms from one office.
- Visitor locker rooms could be in the sports center but this location is often looked at as too remote from some of the athletic spaces. Visitor locker rooms will have a small toilet and shower suite incorporated into the space.
- The new high school should include gender neutral lockers rooms for P.E. use during the school day. It was determined by the group these locker rooms should be dedicated and not share the referee room or visiting locker rooms. The gender neutral locker room will be a space to secure belongings with a separate adjacent private shower toilet area.
- There are dedicated locker rooms in the pool area. It was discussed that the swim team and P.E. will locker here not the main locker rooms. It is not desired to have the students walk to the main lockers with wet feet; it is a danger for students and visitors.

3. Sports Center and Field House

- The Moorhead Parks and Recreation office is currently in the sports center and will continue to be a tenant for the next five years unless a new location can be found. The department has asked to remain in the current location. The Parks and Rec. office location would be an ideal location for a training room. The area is centrally located to all athletics with easy access to the outside events on the track and fields.
- At a minimum one office in the sports center must stay; this if the arena manager and this person will continue to need an office space. Athletics expressed an interest to have team rooms in the sports center unprogramed spaces. A short term solution would be to paint the spaces for a quick refresh and use them for team function such as reviewing game film.
- Four courts will be programed for the field house. The track will be eliminated as a new track will be located at the gym mezzanine. The mechanical overhangs do not appear to interfere with court play in the four court setup. During construction and restriping would be the ideal time to install a wood sports floor in the field house. It was discussed with the team this would be an opportunity for a design alternate.
- Gymnastics could be housed in the field house with the space made available at the north or south after the track is removed. Gymnastics could also be housed in space on the second floor of the sports center. Further plan study is needed to determine the most advantageous location for this function.
- The previous weight room on the second floor of the sports center could be converted to a spectator mezzanine and would make a great addition to the west bleachers. This could be difficult as it appears to have bearing precast walls. Zerr Berg Architects will study further study.
- After full occupancy of the sports center it is possible that all four corners of the second floor could be open programmable space. Zerr Berg Architects will take the plans for both levels of the sports center and identify opportunity spaces that will have open program and how these spaces can be repurposed.

4. Outdoor Sports Facilities

- The existing track, football field, and support structures are to remain. A new access point should be created to the east of the football field. All of the field events, baseball, softball, soccer, and practice fields are newly located in the space to the east of the building. The turf room and outdoor pool have been eliminated from the plan. These components will not be part of the school bond, but will need public support and fundraising.
- Turf field layout options were discussed with various arrangements of baseball and softball on the turf. Varsity baseball and softball, lacrosse and soccer are the primary sports to be concerned about on the turf. Show baseball on one side and softball on the other. Zerr Berg Architects will create an overlay on the turf area to show the public the varied uses of the field. For reference of size Matson Field is 373' from home plate to the center field fence. The open field to the southeast will be unprogrammed space.
- Lighting is a major concern for the large turf field when sharing sporting setups. Benches and fences can be moved but lights cannot. The design team will work closely with a sports lighting vendor to ensure optimal lighting for all events.
- Seating at baseball will be provided. A small seating bleacher behind home plate and one bleacher down each of the base lines should be adequate.
- A small enhancement to the football visitors' bleacher is desired. Section and state tournaments are not able to be played on the Moorhead field as the seating currently available is not adequate.

Subject: High School User Group Meeting – LSS 11:00AM

Attendees: Duane Borgeson- Executive Director of Learner Support Services
Brandon Yoney- Sec. LSS Supervision
Meagan Blake- Special Education Teacher
Cadi Olson- Special Education Teacher
Linda Pederson- Para Education

1. LSS

- Learner support services at the high school will have a dedicated centralized area for students with high level need for support. Additionally many support areas will be distributed throughout the academic area for the mainstream integration of as many students as possible. Dispersed support spaces is preferred by the meeting participants. The high school staffs in the range of 35-40 para professionals. These staff need a good landing pad for working or storage of belongings. In the past locker bays in DCD rooms have been shared student and staff. Staff expressed the desire for a dedicated spot within classrooms for a para to sit when observing their students or assisting in learning. Looking at future trends in elementary schools the number of students participating in LSS will be increasing.
- Furniture and chairs with wheels are a challenge for students with mobility issues. Wheeled chairs have a tendency to roll away when students trying to sit down. Furniture selections must be mindful of this population
- Bus drop for special needs kids have been identified on the west side of the building adjacent to the LSS centralized space. This is preferred so that students and staff do not have to traverse the entire school. A covered drop location is to aid in loading and unloading during inclement weather. Wheel chairs take a great deal of time to load and unload from vehicles. A vestibule large enough to accommodate multiple chairs in passing and queuing should be located at this entrance.
- Vocational learning for students will begin at the main campus. This will be the first stepping stone for delayed students and an opportunity for staff to gauge students' abilities. In school vocational training helps teach job basics at the school before moving to outside occupations. Higher functioning vocational training may be moved to the career academy with staff traveling along with students as required. Paras are often the first line of job coaches for students. Kids in the LD program may be mainstreamed in career track courses.
- Vocational/ work experience location two classroom spaces for vocational teachers. Both teachers being at the main campus to start. This is a higher and lower functioning rooms.
- Storage is a premium for all LSS areas. Many students bring mobility aids and other health devices that occupy additional room within classrooms, toilets, and associated spaces.
- A dedicated child study area in the administration area with secure file access is desired. Included in the administration suite is both secure and non-secure conference rooms that can also be used for child observation.
- Lakeland mental health and social workers desire to be in the vicinity of the LSS suite.
- Visual arts is to be moved to the south closer to fine arts. The space on first floor will become the centralized LSS location.

a. DCD

- Four classrooms currently dedicated DCD rooms. Three classrooms are grouped together; two are a classroom environment, one is sensory. One additional room is located down the hall. The program should be for a space to accommodate 14 persons, eight students and six aids. Staff to student ratio in the severe DCD area is 2:1 or close to it. Rooms fill very quickly with students, mobility devices,

and staff. Ample storage room should be provided. Equipment is used for all students, standers and bikes. Some equipment is currently stored in hall.

- Currently at the high school there is one sensory learning space, and one dedicated bathroom space. The single bathroom is a problem with over twenty students with changing needs in the DCD area. Students 14-21 years old are using a learning kitchen area to eat and practice life skills. Due to limited space classes are set up with three to four wheel chairs but there is not space remaining to circulate.
- The DCD area should accommodate 40 students broken apart into different learning areas. A kitchen and life skills setup with seating for students and aids should accommodate 10-12 persons at a time. The kitchen should be fully accessible but include a small portion with typical heights for teaching adaptability to the students. A bathing and toilet skills area should be included. The shower at the existing high school gets everything in the bathroom wet and consequently is not used frequently. Students that need showers have been sent down to the P.E. locker rooms. If future locker rooms have private showers students can be sent down to this area.
- There are multiple levels of DCD learning. The population of 40 students are severe to profound. Students with higher functioning levels are mainstreamed when possible. The higher levels do have a dedicated kitchen area currently and would like to retain this. A smaller kitchen would also benefit EBD students and this could be shared. These students also need skills taught in the kitchen and dining area.
- Mild to moderate students also need a home base area. Two teachers and currently share a classroom. Space is a premium for this population and a second smaller setup similar to sever DCD should be programed. The two classrooms share a kitchen. This space should be close to the academic wings.
- Adaptive PE currently has a closet directly off of the field house for storage. These students access the field house every period for physical education.

b. ASD

- ASD population numbers are high, but not all students need support at one time. These students will also be utilizing academic classrooms throughout the day. Access to a calming or sensory room that can be easily accessed should be planned. Classrooms with small group rooms adjacent will be accessible throughout the day for ASD use. The ASD program does stratification with higher and lower functioning students. Lower functioning are incorporated into the DCD program and higher functioning students are mainstreamed when possible.
- The ASD area should be two classrooms that share a group of two to three calming rooms and a kitchen area.

c. EBD

- EBD will need two dedicated home bases with the capacity of 12-15 students each. A small room within the base should be equipped for calming a student down. These EBD rooms can be based in the academic wings but should be self-contained in a separated space.

d. Special Education/ LD

- The current plan has many small group and large group rooms spread throughout the academic wings that could be utilized to pull LD students for additional instruction. A mix of open and closed collaborative rooms is ideal.
- The program currently has 10-12 kids per grade with three to four instructors that see students as little as one hour a day for support with organization or planning. Others have additional hours for English, Math, or other academic needs.
- The team centers could have programed support for students who need additional assistance. A dedicated support area is not currently available and is seen as a great opportunity for students to get additional assistance as required. Currently if students come to the support classrooms another class is being taught; now the teacher must teach a class and offer support to the student.

- A dedicated room for each teacher is ideal. This helps students know where to always find their staff assistance.
 - Currently there is approximately 15 students in wheelchairs enrolled special education.
- e. OT/PT**
- OT/PT is currently on the second floor of the High School. This space should be on the main floor for emergencies. The space should have a swing and therapy beds. A space for the OT/PT staff to complete their paperwork and documentation should be included. The current space is a good size. At any given time there will be four to five students utilizing OT/PT. Two therapy beds and one swing should be included in the new plan. The setup at Dodds with itinerant staff landing and associated therapy room worked well. Two different mounts for different type of swings should be included.
- f. Speech/ Deaf and Hard of Hearing/ Visually Impaired**
- The speech office should be close to the DCD area.
 - Deaf and hard of hearing should have a dedicated space in an academic wings. This support area has three to five students and an instructor. An interpreter is often present as well. Acoustics are of great importance for this population. Carpeted spaces are preferred.
 - Sound reinforcement should be pre-wired to all classrooms and will be purchased as the FFE budge allows.
 - Visually impaired students are instructed by an itinerant staff. This staff should have a landing pad.

Subject: High School User Group Meeting – Transpiration and Security 12:00PM

Attendees: Mike Steffen- Director of Transportation
JJ Camarillo- Student Resource- H.S.
Brian Dahl- S.R.O. MPD
Emily Smith- Assistant Principal

1. Building Entrances and Security

- A designated LSS drop-off is to be located on the west of the building with a protected entry canopy for inclement weather. Students with mobility issues have longer load and unload times. A pull off of the traffic lane to not obstruct traffic is desired. The vestibule at this entrance is to be large enough for multiple students in wheel chairs to queue inside of the building when arriving and leaving from school.
- One of the primary goals is to reduce the total number of entries to the building. The entries identified are: the main entry, LSS entrance, and sports commons. A potential fourth entry location was identified for a secondary sports entry at the field house. The main entrance to the school will be adjacent to the administration suite and have a security vestibule with check in/ out procedure. Ample exit doors will still be provided per current building code; these doors will be identified as exit only and alarmed accordingly. Any of the grey areas shown in plan is circulation and will have exit doors at the terminus. Stairs shown at the end of the classroom wings will exit directly outside in case of emergency. During normal operation circulation can come back into the academic spaces.
- Building security is located in the administration suite with camera monitoring of the entire campus. It was determined to be easier to have hall monitors tour the campus instead of be stationed at fixed locations. Security currently has four total staff in one office. In the new high school there should be a private office for the head of security and a second shared office for the remainder of the staff to land and lock personal belongings. A school resource officer office is to be located in the administration suite but separate from building security. In school suspension is to be in the administration suite. Ideally all staff in the suite will have visual supervision of the suspension area. This area should be far enough removed from the entry to not allow students to see what is happening and who is entering and exiting at the main entrance.
- All exterior doors on the campus will have a full array of electronic hardware including a door position switch. The building management system can be set to send a text to staff when a door is opened at an unauthorized time.
- In the near future, students within the district will be going to an ID card that can be used for access, attendance, meals, and other purposes. The shift in technology will move attendance to a policy “absent until checked in”. Students will be asked to card in and out of the building for safety and security. This card can also be tied into media lending, lunches, and building access for students into academic spaces and extra-curricular activities.
- The entrance sequence will be identical to other new or remodeled schools in the district. A weather vestibule will comprise the first set of door. The second set will be the security vestibule. There is to be two non-secure conference room with access from the vestibule and secure access from the administration suite. Before and after school all doors will be unlocked for the free flow of students. The location of the administration suite is positioned to give the office staff the most visibility of who is coming into the building and who is already in the building.

2. Transportation

- Busses are shown staged to the south directly off of the 4th Ave. There are two rows of 12 spots each for a campus total of 24 busses. The bus queue is more remote from the building but used only once a day. Bus drop off and the circulator route is done directly adjacent to the school. The area between the bus rows is a raised area. The busses are currently shown with both rows facing one central loading isle. The row closest to the building is to be flipped and load from the adjacent sidewalk.
- Parent drop is ideally located at the west side of the building. The district transportation department would like to keep parent and student traffic separate from the busses. The city also prefers most of the vehicle traffic be driven to 21st St. S.
- The LSS busses are to drop off and pick up on the west side of the building directly outside of the designated LSS area. Ideally busses and vans pull off of the circulation route and will have a covered loading zone for inclement weather. The cover can be a simple cantilevered canopy.
- Football and sports parking is located on the east between the building and the track and field. Overflow parking for sports is on the west of the building. Spectators will enter through the main entrance or the sports vestibule. The academic spaces of the building will be able to be locked separately for after hour activities to restrict access.

Report by:

John Holten, AIA

Zerr Berg Architects

Facilities Assessment Summary

Moorhead High School

Moorhead High School



South, Main Entry



North student entry

Building Area:
334,385 Sq. Ft.

Building Vintage:
1966 with additions through 2004

Moorhead High School, opened in 1967, is located at 2300 South 4th Avenue. The High School is directly connected to the Moorhead Sports Center, operated by the City of Moorhead Parks and Recreation.

- Original construction 1966 – 238,800 sf
 - 1991 – 5,069 sf
 - 1999 – 14,750 sf
 - 2004 – 75,766 sf; Commons and 9th Grade Center
 - Adjacent Sports Center houses the Fine Arts and Outreach in leased space.
- Total building area is 334,385 sf

The Moorhead Sports Center was built in two periods completed in 1999 with a total of 23,473 sf.

High School enrollment is 1,565 (2012 data) with students in grades 9-12.

The building is two levels except the original academic wing on the west and 2004 addition which are three levels. Mechanical penthouses are above the upper floor.

The original building has one academic wing organized around three double loaded corridors with some spaces not on exterior walls. An east/west corridor is continuous through the building as well as a north/south corridor connecting the main entries. West of the entry corridor are the majority of instructional spaces including a ninth grade center 2004 addition. Between the ninth grade center and the original auditorium is the 2004 student commons which is used for cafeteria and multipurpose functions.

On the east side of the main entry corridor is a three station gym and auditorium; the next spaces to the east are the Music suite and swimming pool directly adjacent to the Gym. Support spaces are located around the specialty instructional areas. On the furthest east side is the Moorhead Sports Center.

West of the academic wing is a one story workforce/industrial technology spaces consisting of auto, welding/small engine and wood working. An interior room in this group supports electronics and prototyping design lab.

Corridor width is generous except the north parking lot entry hallway. The form does not lend well to breakout spaces, so these functions generally occur in multi-use rooms with a few exceptions. The only space large enough for all school gatherings is the original gym or the Field House.

The first level of the 3-story portions of the building is a half story in the ground. Groups of stairs make the transition for offset floors and the lower level. The first floor has instructional classrooms,

Facilities Assessment Summary

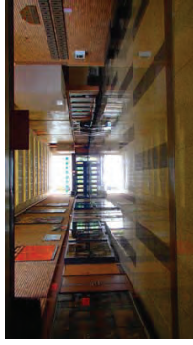
Moorhead High School

Learning/Research portion of the Media Center (2 stories connected internally), Special Education, Locker Rooms for the Pool and Gym and specialist offices.

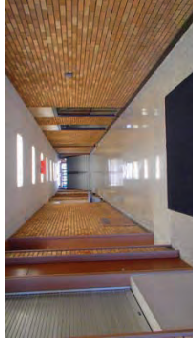
Entry

Entries occur on the south and north sides and are functionally split for visitors and administration on the south with the largest parking on the north where students enter. Both sides are fully accessible. On the north the accessible entrance is on the Far East side so people must travel several hundred feet to the administration area. The primary student entry hall is only 10 feet wide that leads to a half flight of stairs leading up to the main entrance hall. Primary visitor parking is on the south with an exterior ramp to bring visitors up to main floor level.

The north, main public entrance is a classic 1960s architecture leading into a 2-story high ceiling formal entry hall. Monumental murals are located on the upper walls. The floor is terrazzo with benches along the sides. This space is large enough for large gatherings. Two balconies project from the upper level corridors on the west side of the hall. The original Gym is on the east side of entry hall with a wall of trophy display cases.



Entry Hall – looking south



North student entry corridor –south view

Classrooms

1966 classrooms are approximately 950 square feet. They are adequate in size but finishes are past their anticipated lifespan. Furnishings and fixtures do not support collaborative learning settings and do not take advantage of best practices of flexible groupings. Classrooms are rectangles and furniture is tightly organized.

Staff have collaborative spaces at the center of a grouping of six classrooms. Staff rooms are only accessed through the classrooms so are not directly connected to the corridor leading to weak connections for instruction spaces located on the exterior walls. Staff common spaces function as teacher offices.

Cabinets from the original construction are appropriate for storage. Cabinet installations have a few areas for repair. Student and teacher furniture is well maintained but varies in age and adaptability, with student pair desks in most classrooms. Digital projectors are present in most instruction rooms.

The Ninth Grade Center addition has instructional rooms organized around a large team resource space combined with locker commons. All three floors connect with stairs on the perimeter so the ninth grade sections can operate internal to the wing. Each floor level has three classrooms and a large science room.

APPENDIX

FACILITY ASSESSMENT - MOORHEAD HIGH SCHOOL

Facilities Assessment Summary

Moorhead High School



Ninth Grade Center Locker/Resource



9th Grade Classroom – First Level

A water main break occurred in the past with some lasting affects in the academic wing First Floor and stairs. The structure is reported to be stable but settlement is evident in cracks occurring in the exterior walls. The original design had windows very high on First Floor walls. The south side classrooms were remodeled with window wells proving better light access.

Special Education and Facilities

Special Education occupies spaces in several parts of the building. In the academic wing they are centrally located, on main circulation paths. The spaces are generally sized appropriately and some have a main room and smaller breakout spaces. The room furnishings are well maintained and offer a variety of environments to meet individual needs. Staff are housed within teaching spaces. Spaces are located in portions of the building.

Specialty Classrooms

Art is located on the second floor of the Sports Center with two primary studio spaces. It is remote from other academic program spaces. Daylight is minimal for fine arts instruction. The spaces are undersized for the variety of equipment and instruction provided. Pottery is half or less the size needed and the kiln space is cramped. Storage is undersized and limited by the surrounding room uses. The separation in the building does not promote synergy between spaces. The ceramics space has several kilns and minimal ventilated storage. Electronic media lab is a narrow linear space with too few workstations. This room must also support storage. Each space needs to be upgraded to provide an environment suitable for arts students.



Arts studio - looking north



Potting wheels with kiln room beyond

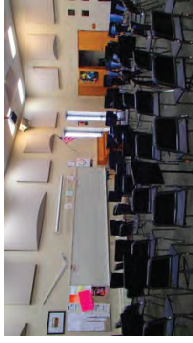
Music is located on the north side of the Main Floor in a suite of band, orchestra, vocal, practice rooms and storage. The room sizes are on the low side for Minnesota state guidelines but are well suited to their uses with acoustical treatment and room height. Storage is adjacent and adequate for the orchestra instruments. The older music areas from 1966 have smaller support spaces. They are

Facilities Assessment Summary

Moorhead High School



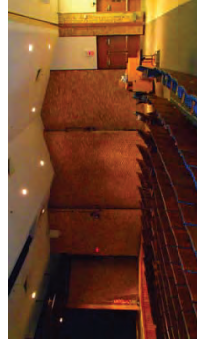
Music- remodeled ceiling



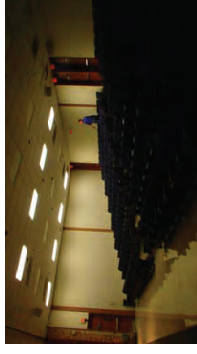
Addition for Orchestra

located such that travel to the new orchestra area is through the choral and band spaces or out and around the main building corridor.

Auditorium space is divided with a main level and the upper sloped seating that can be separated for study uses. The auditorium is original construction with 536 seats. Finishes and equipment are due for updates. Stage area is adequate but the scene shop and supporting spaces are undersized. No formal space in the building will hold the entire student population.



Lower auditorium – stage on left



Lower auditorium - parterre

Media Center spaces were remodeled and are in excellent condition. The spaces are central in the academic wing directly east of the administration office. The computer lab is located on the First Floor in a remodeled space. The network data center is located in an adjacent space with separate cooling.



Media center – Main level



Computer lab

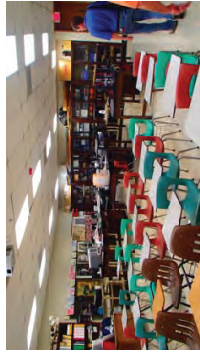
Science Labs, located on the Third Level, vary in their age and condition. The rooms are adequate in size. Many rooms have original science casework and fixtures. These are beyond their usual life and

Facilities Assessment Summary

Moorhead High School

should be replaced. Other lab finishes should be replaced at the same time. A few labs have vinyl flooring that may be vinyl asbestos tile. Finishes are ready for replacement in most labs. These spaces have aged well with quality maintenance but do not support current best practices.

One lab was remodeled since 2000 and is in fine condition. This space and some older labs have updated fume hoods.



Original lab casework



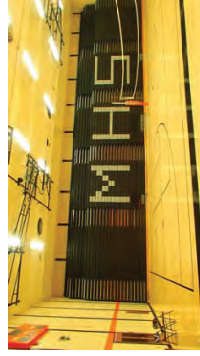
Remodeled lab

Specialized Programs include Robotics, AST certified Auto, welding and Woodworking. They are located on grade on the west side of the original building. Spaces are in good condition and well maintained. The rooms are adequate in size with limitations for storage.

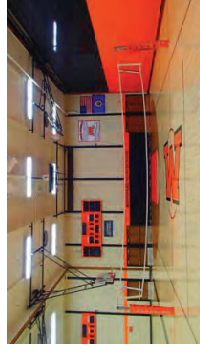
Gymnasium

Gymnasium space in the 1966 section has a full competition basketball court. Cross-court basketball standards are retractable for three teaching stations. Cross courts are separated with roll up athletic curtains. There are also folding wall partitions in pockets. Both north and south sides have retractable bleacher systems. Gym flooring is wood and perimeter walls are concrete masonry. The ceiling is exposed concrete structural 'T' sections. Acoustics are a problem with mostly hard surfaces and parallel walls.

Some masonry cracks have occurred on the south wall of the main gym. They should be corrected but do not have a safety concern. The structural report gives additional information.



Main gym – bleachers



Main Gym

Locker rooms are located on the floor below the gym so movement between spaces is not direct, rather through a stair leading to the corridor between the gym and the pool.

Facilities Assessment Summary

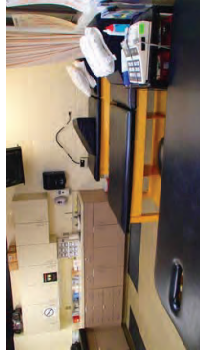
Moorhead High School

Field House

The field house addition was constructed in 1999 and includes support spaces. A four lane track surrounds three basketball stations. The flooring is synthetic athletic sheet with welded seams. Cross courts are separated with roll up athletic curtains. A narrow band of windows provides some daylight on the south wall but not adequate for most program use. Walls are concrete masonry with an exposed steel truss structure above. Gymnasium equipment and sound system are in very good condition. Acoustics are a problem with mostly hard surfaces and parallel walls. Mechanical equipment is mounted on mezzanines in the corners adding to the background noise.



Field House – looking south



Training Room

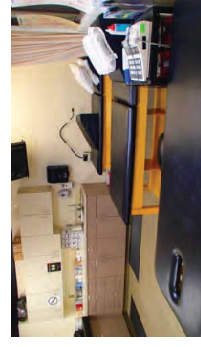
A public entry courtyard extends north of the field house to the large parking lot. It is generously sized and landscaped. Public entry is into a large vestibule that acts as a security point into the main school building. Access can be separated for the school, field house and Sports Center individually.

Adjacent to the field house, on the north side of the pool is the athletic training suite. The suite is entered directly from the main east/west corridor. The size is adequate and has new equipment with well-maintained finishes. Sanford Orthopedics Sports Medicine operates the facility.

Competition locker rooms are located on the furthest east side of the Sports center. They are undersized and have inadequate storage for equipment. Fields are accessed by crossing a service drive before reaching fields or the stadium. Finishes are past due for replacement and shower facilities are too few.



Competition Locker room in Sports Center



Training Room

Pool

Pool spaces are in good condition with limited capacity for spectator seating. The area was remodeled in 2004. Locker rooms were not upgraded and need substantial remodeling. They are located one level below the pool deck. Lockers have some facilities for accessibility although connections to the pool are one level above and would require use of a somewhat remote elevator.

Facilities Assessment Summary

Moorhead High School



Pool



Locker room

Instructional Support and Flexibility/Adaptability

The building core has few support spaces except the staff break room and coordinating offices. Small group space is generally not available with a few exceptions. Generally there are not enough spaces to support individualized/differentiated learning.

The building lacks variety in small and medium breakout spaces for instructional use. The Ninth Grade Center is the exception. Classrooms occupy most of the academic building area and a number are needed to support the student population. This leaves little space for break-out instruction as well as student casual learning.

Flexibility could be increased with common areas created within classroom groupings, for smaller and larger groups and with transitional furnishings.

Staff Spaces

In the 1966 west wing staff collaborative spaces are located at the center of a grouping of six classrooms, although it is only accessed through the classrooms so are not directly connected for instruction spaces located on the exterior walls.

Administration

Reception and administration offices are located from the main Entry Hall. The office is open with ample glazing but does not have a direct view from staff positions to the public vestibule. Attendance office is adjacent to the main vestibule but not directly connected to the Administration suite.

Food Service

Kitchen and serving spaces are in the 1966 west wing. Cafeteria function takes place in the Student Commons addition. Student commons finishes are in excellent condition. The serving is in three shifts. Commons seating capacity is 300 and is inadequate for the student population.

The kitchen occupies the original footprint. Some equipment is outdated and the workflow does not meet current food service standards. As offerings have grown, serving includes a space across the common building corridor to support two serving lines. Resupplying the remote serving space is challenging with student movement in and out of the cafeteria.

Updated kitchen equipment and remodeling for improved workflow is currently needed.

Building Services / Storage

Facilities Assessment Summary

Moorhead High School

Building Services / Storage

The delivery dock and trash are on the north side of the building in a segregated loading dock area accessed from the main parking lot. Trash and recycling at the dock are directly west of the student entry from the parking lot. There is little separation for cars and deliveries.

Custodial areas are located throughout the building but are barely adequate in size. The dock lacks an adequate receiving space so materials arriving must compete with a large volume of food products as they arrive. The dock, trash and recycling are adjacent to the main student entrance.

Building-wide storage is too little and not dispersed.

Security/Safety

The main office is located near the visitor entry but entry doors cannot be seen from staff workstation positions. Relocating the office directly adjacent to the public entry and providing a thorough office entrance control would be an improvement. Visibility down corridors is good only for limited distances before a turn. Staff spaces are not adjacent to corridors so they cannot provide passive observation. Operationally the school uses three roving staff to assist with observation. Some cameras are installed for security monitoring. The building has numerous exterior doors to meet exiting requirements under the building code. These are a challenge particularly when students prop them open to re-enter through otherwise secured doors. The interior does not have the capability of securing portions of the building except at the Sports Center. Creating area secure points with cross-corridors may be considered for this purpose.

Site / Outdoor Learning and Activity

Outdoor learning spaces are not developed on the building site. Game fields are across the parking lot or service drive so they must be crossed by students. Landscape areas around the building could be utilized for outdoor learning spaces.

Site / Circulation / Safety

Parking for visitors is on the south at the Main entry. Students and staff park in the largest north lot. The parking capacity is reported to be adequate for the demand. The majority of students arrive by car and enter on the north side of the building through a pair of doors. This entry is undersized.

The paved north side also serves as the loading area from the parking lot drive lane. Trash and service loading is on the same parking lot as cars. Maintenance and deliveries should be clearly separated from student areas.



West Entry - primary student entry



Loading Dock and trash enclosure

Facilities Assessment Summary

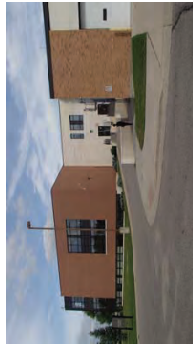
Moorhead High School

Exterior Envelope

The original construction is a steel structure with exterior precast concrete on the 1966 west portion of the building. Brick infills are between the precast fins and a continuous precast concrete panel surrounds the top. Windows are narrow vertical openings between the fins of the concrete wall panels. Exterior sealant joints between precast concrete wall panels are generally past their service life and are ready for replacement. Sealant around windows are also in the replacement category.

Water main damage and subsequent settlement have caused cracks in the lower left corner of horizontal precast concrete panels, at the top of the wall. Refer to the structural report for additional information.

Brick covers exterior sides of the one story west structure and the additions. The 1966 masonry construction has a minimal wall cavity so the insulation value is low by current energy standards. Later additions improve in the thermal envelope and are in good condition.



West addition and loading



1966 south elevation



North addition entry to Commons



Field House Addition

The Commons addition has an entry stair and terraced patio. This entry is available to students at other times but is not highly used and is not accessible. The terraces have settled substantially and should be repaired.

Windows

The original building windows are tall and narrow with weak access for daylight. The windows are single glazed, and past their time for replacement. Perimeter classrooms have daylight access through the narrow windows but approximately half the academic wing are internal and have no daylight or views. 1966 windows are single glazed so are ready for replacement with more energy efficiency.

Facilities Assessment Summary

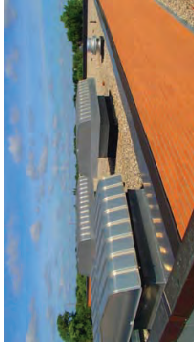
Moorhead High School

Windows in later additions have insulated glass in aluminum frames. Addition windows are good quality and size. Several spaces could benefit from more daylight and should be considered for future improvements.

Roof Assembly

The majority of the building has built-up-bituminous roof systems that match the age of the construction so they are 20 years or older. The roof system is near the end of its calculated lifespan. Dark areas on the roof indicate areas with low spots that retain water. At the time of re-roofing, insulation values and proper slope to drain should be corrected. A thorough review by a roof specialist may determine its actual remaining life expectancy.

The 2004 addition has a ballast-held single ply EPDM roof. The condition is good for a 10 year old installation. The expected replacement will be in approximately 10 years.



2004 Addition



Academic wing roof

Interior Finishes

Original corridor floor is composed of terrazzo in the main entry and major east/west corridors. Classroom wings have resilient tile and secondary spaces have vinyl tile that is generally in good condition. Some common areas with resilient tile have edges of the tile separating or have been installed bridging a joint. These areas need corrections. The Second Floor has some rooms with vinyl asbestos tile (VAT) and an elevator lobby.

Classrooms have carpet flooring. There is broadloom carpet in older spaces and carpet tile in the 2004 addition and remodeling. Broadloom carpet is near the end of its life and ready for replacement.

Acoustical tile and grid ceilings are in good condition in areas of additions and remodeling. Other areas are substantially overdue for replacement, including many academic wing spaces. These areas of ceiling tile have slightly sagging panels, some cracked or missing corners.

Wall materials are concrete block, brick or gypsum board that are in good condition. Corridors have a high-build paint that needs touch-up in a few locations.

Casework in areas not recently remodeled needs replacement. Condition varies from serviceable to poor with veneers in need of repair and outdated plumbing fixtures.

Restrooms throughout the building are generally accessible with a few exceptions. Accommodations have been made with upgrades to stall sizes and lavatories.

Facilities Assessment Summary

Moorhead High School



Academic Wing corridor



Secondary corridor



Entry Commons looking south



Entry Commons looking north



August 28, 2014

Mr. Steve Albertson
Cunningham Group
201 Main Street SE, Suite 325
Minneapolis, MN 55414

Subject: Civil Narrative
Moorhead Schools Master Planning (Moorhead High School)
Moorhead, MN
MBN Project No.: 14-160

Dear Steve:

This letter is a follow up from our site visit on August 28, 2014. The purpose of the visit was to familiarize ourselves to the existing facilities in order to assist with the master planning phase; also we performed a visual assessment review of the existing facility.

We will breakdown our summary based on the civil design components associated with the Moorhead High School.

Parking Lots/ Athletic Facilities

Football Stadium

Asphalt path to home grandstands is in need of a mill and overlay. I would recommend this in two to three (2-3) years. The fence around the football field is in need of replacement in the next 10 years. Some items observed for the fencing are bent top rails and fence posts, corner posts pushed out of ground, and fabric that has been patched in multiple spots. There are also many instances where the asphalt pavement has moved around home bleachers. These spots are a potential tripping hazard and should be fixed in the next couple years.

North Parking Lot

There is great drainage throughout the parking lot. Many curbs are in need of repair. Snow removal equipment is the main culprit. These should be replaced in the next couple of years. Sidewalk on the perimeter have signs of differential movement are in need of replacement in the next couple years. I also recommend a mill and overlay of existing asphalt parking lot in the next five (5) years. The sidewalks around the building are in good condition. The asphalt near door #4 and dumpsters is in need of repair. I would recommend a mill and overlay in the next two (2) years. There is also good drainage away from building. There are two (2) gate valves north of NW corner of Moorhead Sports Center that are in need of a concrete collar. They also need to be brought up to grade. This is also done due to the fact that compaction of asphalt around castings tends to be lacking and

infiltration around the casting is common. North parking lot and access road around the Moorhead Sports Center have good drainage. The sidewalks and curbs are in good condition. I would recommend a seal coat within the next two (2) years.

East Parking Lot

The curbs and sidewalks are in good condition and the drainage is good. There are also more signs of cracking in the parking lot. I would recommend a mill and overlay in the next five (5) years. The inlet in middle of parking lot has raised and needs to be lowered; also a concrete collar should be installed. This should be repaired to ensure water doesn't pond and damage the asphalt pavement in the next year. This is also done due to the fact that compaction of asphalt around castings tends to be lacking and infiltration around the casting is common.

Tennis Courts

Drainage issues on south side of court #7. The low spot should be patched and all the tennis courts should be resurfaced in the next couple years. There are also some areas where balls can get under fence. I would recommend adding additional fence to eliminate the problem.

Baseball Field/Softball

On the baseball field, they possibly could extend a 6' high chain link fence along the 1st base and 3rd base lines. This would be done to avoid and injuries to spectators. Overall the baseball and softball fields are in very good condition, and have good drainage.

South Parking Lot

There is good drainage away from building. Area around door #4 appears to not drain, I would recommend installing inlet to facilitate drainage in the next couple years. North side of the parking lot, the curb and sidewalks are in poor condition. I would recommend replacement in the next two (2) years. The remainder of the curbs and sidewalks are in good condition. There are a couple cracks that extend the entire width of lot. I recommend full depth replacement of cracks and a chip seal of the parking lot in the next two (2) years.

West Parking Lot/Bus Drop-off

There is good drainage in the parking lot. The curbs are in good condition with most of the sidewalks in good condition and a few are in adequate condition. I would recommend a mill and overlay in next two (2) years for the parking area. The drainage is also good in the bus drop-off area. The curbs and sidewalks are in good condition and the pavement is in adequate condition. A concrete collar should be installed around the inlet on north side of the island. This is done due to the fact that compaction of asphalt around castings tends to be lacking and infiltration around the casting is common. I would recommend that the bus drop-off has a chip seal in the next two (2) years. Electrical pull box in west sidewalk needs to be raised to grade and concrete should be filled in around it. This is a potential tripping hazard and should be done in the next year. A concrete collar should be installed around the manhole cover on west side of island. This is done due to the fact that compaction of asphalt around castings tends to be lacking and infiltration around the casting is common.

Utilities

All pertinent public service utilities (sewer and water) appear to be readily available from 2nd Ave S, 4th Ave S, Rensvold Blvd, & 22nd St S. Utility services are currently in place and the storm sewer appears to be functioning at the current locations.

Erosion Control

For all projects, erosion and sedimentation control is required to prevent sediment transport downstream or off-site. Additionally, projects that are one acre or more in disturbance will be required to follow the guidelines of the Storm Water Pollution Prevention Plan and obtain the National Pollution Discharge Elimination System (NPDES) permit as regulated by the Minnesota Pollution Control Agency (MPCA). Erosion and sedimentation control measures include, but are not limited to, silt fence, inlet protection devices, rock construction exits, and temporary seeding.

Miscellaneous

Items that were not verified, but may be requisite with a building addition include:

1. Verification of parking required compared with provided.
2. ADA compliance of any disturbed area that serves as an ADA route.
3. Impervious coverage allowable compared to total impervious existing and proposed.
4. Size of storm water management suitable to meet requirements.

Summary

The purpose of our site visit was to provide a site conditions visual inspection assessment. As mentioned, our recommendations are primarily maintenance based with four (4) parking lots and athletic facilities requiring more immediate improvements.

If you have any questions, please contact me at 701-478-6336.

Sincerely,



Joshua M. Magelky, P.E.
 Civil Engineer

sk



HEYER ENGINEERING, PC
Structural Consultant
 1020 34th Street SW
 Fargo, ND 58103
 701-280-0949
 701-280-9686 Fax
 www.heyereengineering.com

172 9th Street North, Suite 600
 Moorhead, MN 55801
 612-238-3805
 612-238-3806 Fax

September 26th, 2014

Cunningham Group
 Attn: Steve Albertson, AIA
 201 Main Street SE, Suite 325
 Minneapolis, MN 55414

RE: Moorhead Area Public Schools (MAPS) Master Planning
 Facilities Condition Assessment – Moorhead High School
 104-0001

Mr. Albertson:

As requested, Heyer Engineering (Heyer) conducted a visual walkthrough and observation of Moorhead High School, one of Moorhead Area Public Schools' district wide facilities. The observation took place on August 26, 2014. The purpose of the walkthrough was to observe the condition of the structure and preliminarily assess the building's condition from a structural standpoint to aide with MAPS master planning efforts. The level of assessment performed was not comprehensive in nature in that it was solely a visual assessment of easily accessible areas. Since many of the walls are covered by finishes, wall panels, or earth, our walkthrough and observation was limited to visual signs of defects such as cracks, sloping floors, and surface deterioration of materials. Heyer had limited access to the roof, so most observations were made from inside or from ground level on the exterior.

Existing Structure:

The existing building is a two story school facility with a basement, approximately 316,000 SF, originally built in 1967. Many additions to the original structure have been over the years, with the major additions of the Fieldhouse and 9th grade center in 2003. Most of the building's original construction documents were not available for review, but the 2003 documents were. The original building's structure was largely covered by finishes and unable to be observed. The original building's structure is likely concrete structural slab poured over structural steel framing. Columns are likely to be structural steel. It is our understanding that the entire original school structure is founded up on a mat slab that is 2'-6" thick. Exterior walls are almost entirely clad with a brick veneer, with limited areas of precast concrete and glazing. It is assumed that the wall are backed up by a CMU or other concrete type construction. The gymnasium is framed by steel trusses supported by steel beams and columns. Stack bond masonry infill is used for the walls in between steel columns. The 9th Grade center addition roof is framed by steel joists and steel decking, supported by structural steel beams and columns. The 2nd and 3rd floors are framed with 8" precast concrete hollow core planks supported by structural steel beams and columns. The 9th grade center addition is founded by concrete foundations walls spread footings. Exterior walls is likely a steel stud cavity wall with a brick veneer and area of glazing. The field house addition and event entry is framed by steel joists/steel beams and metal decking supported by structural steel beams and columns.

Moorhead Area Public Schools – Master Planning
 Moorhead, MN
 September 26, 2014

Wall of the field house itself are comprised of load bearing CMU. In all areas of the building a concrete slab on grade is utilized as the 1st floor structure.

Visual Observations:

Upon commencing an observation of the interior of the building, in general the building appeared to be in good condition. In the original building most of the structure was covered by finishes, so much of the structure was unable to be observed. However from visual observations a few areas of note were observed.

- At the stairwell on the south side of the original structure adjacent to the main entry, cracks were observed in the stair well in the CMU stack bonded block. It is our understanding that the cracking observed in the storage room beneath the stair has been present for many years. New tile finishes were applied to the stair well during the 2003 remodel. Since that remodel a crack in the corner of the tile has formed. Heyer would attribute the crack to possibly one or more factors including some slight settlement, thermal or moisture driven expansion. Adjacent to the stair well in other classrooms on 1st floor along the south exterior wall, a number of diagonal, settlement type crack were observed in what are assumed to be non-bearing walls covered by plaster. Given the mat foundation of the original structure, large settlements do not seem to be possible. It is Heyer's opinion that the cracks are not a structural concern but should be monitored. To ascertain a definitive cause of the cracking may be difficult due to the buried nature of the foundation system and the unknown condition of the footings and soils beneath the structure in this area.

- Some floor cracks within the slab on grade were observed in the basement of the original structure, near the hallway entrance to the 9th grade center. While the slab cracks would be consistent with the age of the building, it appears some recent movement has occurred. It is likely this movement could be attributed some slight settlement of the 2003 addition structure. Cracks in the slab on grade are not a structural problem but may represent an aesthetic or serviceability concern.

- Due to the area under the pool being filled almost in its entirety with mechanical equipment/ductwork, limited observation of the underside of the pool deck was possible. However, one accessible spot of the deck in the southeast corner, when viewed from underneath, did exhibit signs of water as the form deck was rusted and corroded. This area also coincided with an area of cracking noted by building staff in the tile. Heyer did not observe any slab deflections that would indicate a structural issue, but the slab and the amount of corrosion on the underside of the slab should be monitored.

- In the upper floors of the 9th grade center, floor cracks were observed in the VCT of a science room and the tile of the bathrooms. Although noticeable, the cracks were relative minor in nature and can likely be attributed to being located along a structural beam line, floor control joint, or some slight settling of the structure. A floor slope was also observed in some classrooms in the slab on grade on 1st level. The floor slab is likely experiencing elevation fluctuations due to the soils beneath in combination with some settling of the structure. The floor slope and cracking in their self are not a structural concern at this time, but may present some aesthetic or serviceability issues.

- Relatively minor cracking in the CMU/clay tile was observed in the gym area, both in the infill walls above the main floor and in the walls of the boy's locker room. The cracks did not seem to be major



OBERMILLER NELSON
ENGINEERING

Moorhead Area Public Schools – Master Planning
Moorhead, MN
September 20, 2014

MECHANICAL EVALUATION – HIGH SCHOOL

Date | October 2014
Project # | 2014172
Project Name | Moorhead Schools Masterplan
Project Location | Moorhead, MN
Description | Evaluate HVAC Systems at the High School

Mechanical Overview:

Predominantly the mechanical systems and equipment in the building were installed when the building was new in 1966. Over time there has been some equipment replacement and remodeling and additions. The most significant remodeling and addition happened in 2002. With the original construction being dated in 1966 the age of the majority of the mechanical equipment and systems is 48 years old.

Heating System:

The building is heated through two 350 HP natural gas fired low pressure steam boilers. The boilers can also run on fuel oil which allows the school to take advantage of interruptible natural gas rates which are about 20% lower than firm gas rates.

The steam from the boilers is predominantly used directly in Air Handling Unit Heating Coils, two large heat exchangers in the boiler room, domestic water heaters, and a few miscellaneous heating devices and other smaller heat exchangers.

The steam feeds hot water heat exchangers that heat how water that feeds a heating distribution loop that feeds the entire original building. The hot water heating system feeds hot water baseboard radiation that is installed along the outside wall of all the exterior rooms in the building.

The steam boilers are beyond their useful life as is the entire steam distribution system. The steam boilers should be replaced with new high efficiency hot water boilers. The steam distribution system should be replaced with a hot water heating distribution system. The steam coils in AHU's should be replaced with hot water coils. The steam domestic water heaters for the laundry, pool, kitchen and general hand washing should be replaced with high efficiency gas fired water heaters.

Ventilation System:

The buildings ventilation systems are diverse due to numerous additions and remodeling projects that have been done over the years. As would be expected the older ventilation systems (48 years old) are in poor condition and inefficient. The newer systems installed in the last significant addition in 2002 are in good condition and energy efficient.

The ventilation system for the original school is called a dual duct system. The system is distinguished by the use of two ducts routed side by side. One supply air duct has warm air in it and the other duct has cold air in it. The warm and cold air quantities are varied to provide more cooling or heating depending upon the space thermostat requirements. This type of ventilation system is constant volume and very

and were likely in non-load bearing walls. Continued monitoring is recommended and repair during any future remodeling or other construction project.

- On the exterior of the building at the terrace type structure on the north side of the 9th grade center, major settlement of the slab on grade was observed. The concrete retaining walls appeared to be in good condition, plumb, and in their original position. It is likely the soil used for backfill was not compacted thoroughly, has settled, or become desiccated due to the tree and its roots located in the area. This settlement does not present a structural concern at this time, but it is a maintenance issue.
- A slope in the east-west main floor corridor from the food service area to roughly the pool area was observed. The corridor exhibits a noticeable slope down toward the north over its length. Heyer saw no structural distress when viewing the corridor slab and is unable to determine the cause of the slope. Continued monitoring is recommended. More information and observation would be needed to make a determination of the cause of the slope, but it is unlikely that there are any structural issues with the slab itself.
- Upon walking the exterior of the structure, the overall condition of the building (brick veneer and glazing) appeared to be good.

Summary:

Overall, Moorhead High School appears to be structurally sound and in good condition. The building has been well maintained over its lifespan. Many issues noted above may be related to subsurface issues related to settling of the new addition structures. Heyer recommends continued periodic monitoring of the floor wall cracks and if significant future additional movements are observed, it could be and indicate some sort of latent conditions at work. It is also recommended to address areas noted as future remodeling or other construction projects are undertaken.

If you have any further questions or comments, please contact us.

Sincerely,

HEYER ENGINEERING, PC

Eric A. Greiff, PE
Sr. Project Engineer

FARGO 2201 12th St., N Suite E 701.280.0500	GRAND FORKS 311 4th St., S Suite 203 701.775.2394	BISMARCK 233 West Rosser Ave. 701.222.0520	ALEXANDRIA 503 Hawthorne St., Suite 141 320.846.0300
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energy inefficient. The dual duct ventilation systems should be replaced with a variable air volume system using VAV units with terminal heating coils. The dual ducts could be left in place and reused. AHU's would need to be replaced and VAV boxes would be added where the dual duct boxes are now located.

The other AHU's that remain from the original 1966 construction include the Auditorium, Stage, Gymnasium, Music, Pool and Locker Rooms. All of these AHU's are original (48 years old) and should be replaced with new units with hot water heating coils, chilled water cooling coils, variable speed drives and new automatic temperature controls.

The AHU's and ventilation systems installed in the 2003 addition and remodeling where variable air volume hot water, chilled water units that are in good condition. The units use variable frequency drives to modulate air flow and are energy efficient.

Air Conditioning:

Air conditioning in the building is provided by the 535 ton water cooled chiller. The chiller tubes and main body was new in 1996. The body of the chiller was oversized to handle future expansions at the high school. Future expansion happened in 2003 and the chiller compressor was increased in size to the 535 tons. In addition in 2003 the cooling tower was replaced to accommodate the larger compressor. Therefore the chiller is 18 years old with the compressor and cooling tower being 11 years old. The entire piece of equipment is in good condition and should last another 10 to 20 years.

Plumbing:

The domestic water equipment and piping is in fair condition for their age. Plumbing fixtures have been replaced as needed. There are two issues with the plumbing in the building, the water heaters and the domestic hot water piping.

The water heaters are all heated with steam requiring the very large steam boilers to be fired in the summer just to heat the domestic water. The water heaters should be replaced with high efficiency gas fired water heaters.

The water source in Moorhead is a combination of well water and river water. The water is very hard meaning it has a significant amount of minerals. Domestic hot water is susceptible to calcium buildup over time because the calcium comes out of solution when the water is heated. Therefore there is significant buildup of minerals in the piping system. Consideration should be given to cutting out some sample sections of piping to determine how much the piping is plugged.

Fire Protection:

The building has a complete wet fire protection sprinkler system that is in good condition.

Automatic Temperature Controls:

The automatic temperature controls in the building are electronic. The controls from the 2003 addition are in good shape. The controls in the original school were upgraded to electronic controls in the late 1980's and are in poor condition. The older controls should be replaced with new modern web based controls to improve efficiency and accessibility to the control system from anywhere.



September 19, 2014

Mr. Steve Albertson
Cunningham Group
201 Main Street SE, Suite 325
Minneapolis, MN 55414

Subject: Electrical Condition Assessment
Moorhead Schools Master Planning (Moorhead High School)
Moorhead, MN
MBN Project No.: 14-160

A recent walkthrough of the Moorhead High School, part of the Moorhead School District in Moorhead, MN was conducted. The purpose of this walkthrough was to assess the present condition of the electrical and technology systems within the building. The following systems were included in the assessment:

- Lighting systems and controls
- Electrical power distribution systems
- Fire alarm system
- Class call and clock system
- Telecommunications wiring system (data network and telephone)
- Camera surveillance and security systems

Electrical Power Distribution Systems

Moorhead High School was built in 1967 and was remodeled and expanded in 2004. The local power provider is Moorhead Public Service. The facility has a 4,000 ampere, 480/277 volt, 3 phase electrical service with 2,500 ampere and 1,200 ampere main breakers that provide power to the entire facility. The peak demand for the facility was 1,145 KVA or 1,377 amperes and it was recorded in October of 2008.

The 4,000 ampere main service switchboard and the downstream distribution switchboards are in good condition and have space available for additional distribution circuit breakers for future equipment in the facility. Most of the lighting systems and the mechanical HVAC systems in the facility are fed at 277 volts single phase and 480 volts, 3 phase respectively. The electrical panelboards that serve the lighting systems throughout the building are in good condition with ample spare space and capacity for future modifications. The motor control centers that contain the motor starters and variable frequency drives for the HVAC system pumps, air handling units and fans are in good condition with adequate spare for future modifications. The remainder of the power distribution equipment in the facility

MBN ENGINEERING, INC. • Mechanical • Electrical • Civil • Transmission
503 7th St N • Fargo, ND 58102 • phone: 701.478.6336 • fax: 701.478.6340 • www.mbnengr.com

OBERMILLER NELSON ENGINEERING

FARGO 2201 12th St. N Suite E 701.280.0500
GRAND FORKS 311 4th St. S Suite 203 701.775.2594
BISMARCK 233 West Rosser Ave. 701.222.0520
ALEXANDRIA 503 Hawthorne St. Suite 141 320.844.0300

consists of step down transformers and panelboards to power the branch circuit receptacles, some of the lighting systems, and other equipment throughout the facility. Most of the panelboards are in good condition with some space in most areas for additional circuits to be added for new equipment or modifications. There are a few panelboards in the facility that remain from the original 1967 construction. All of those original panelboards should be upgraded as they are past their rated service life.

The facility has an emergency generator to serve the emergency egress lighting throughout the building, the building heating system, the server room and the fire alarm and emergency communications systems. The generator is rated at 300 kilowatts, 480/277 volts, 3 phase, it is located in an exterior self-contained enclosure and is in good condition.

Lighting Systems and Controls

Lighting throughout most of the facility consists primarily of fluorescent recessed lighting fixtures that utilize T8 lamps and fluorescent ballasts. The light fixtures are in good condition and utilize a light source that is energy efficient.

Emergency egress and exit lighting throughout the building is connected to the emergency generator. The emergency lighting is in good condition and appears to be functioning adequately.

Exterior lighting consists of exterior building mounted light fixtures and pole mounted parking lot light fixtures. The light fixtures are in good condition and utilize HID light sources. An LED upgrade to these fixtures should also be evaluated, however an economical upgrade or replacement is more difficult to obtain.

Fire Alarm System

The fire alarm system is a Simplex 4010 analog addressable system and the facility presently has a wet pipe fire suppression system. The fire alarm system is in good condition. The system appears to have adequate coverage for the annunciation horn/strobes and the detection devices appear to be located as required by the building code.

Class Call and Clock System

The existing class call and clock system is a Rauland Telecenter ICS system. The system has paging and talk-back speakers with clocks located in all of the classrooms and in other spaces in the facility where an instructor or administrator needs to communicate with the main office. In addition, paging speakers are located in the corridors, commons, gymnasiums and other large areas to provide change of class period tones and for general announcements. The system is in good condition and appears to be working properly.

Telecommunications Wiring System

The present telecommunications wiring system consists of a main distribution room located on the first floor near the media center with several intermediate distribution closets located throughout the facility. The data network backbone cabling system is multimode fiber optic cable interconnecting the wiring closets. The analog telephone system backbone cabling system is multipair, category 3 copper cabling interconnecting the wiring closets. The backbone cabling system and wiring closets are in good condition and have space for additional connectivity.

The horizontal wiring system consists of Category 5 enhanced rated copper cables routed from the wiring closets to the individual data and telephone jacks throughout the building. The cabling and termination jacks are in good condition and functioning properly.

Also, the classrooms presently are outfitted with analog tube style televisions. These displays are not compatible with modern high definition signals for instructive purposes. It is recommended that the televisions be replaced with high definition flat panel displays sized for adequate viewing in the room and that HDMI cabling be considered for interconnections to the displays.

Camera Surveillance and Security Systems

The facility presently has a digital camera surveillance system that utilizes Pelco digital cameras with a central network video recorder. The system is in good condition. In addition, the facility has a Lenel access control system to allow for card key access to certain doors throughout the building. The system is in good condition and can be expanded.

Reported by,



Michael A. Berger, P.E., LEED^{BC&D}
Electrical Engineer

Moorhead Public Schools Facilities Task Force School Board Report

Thursday,
January 31, 2019



Moorhead Public Schools Facilities Task Force Report

- Facilities Task Introduction and Overview
 - **Brandon Lunak**

Moorhead Public Schools Facilities Task Force

- Facilities Task Report—Executive Summary
 - Jeff Olson and Terry Quist
- Purpose:
 - Provide the school board with recommendations concerning the capacity, adequacy, and design drivers of Moorhead High School facilities for the next five, ten, and twenty-five years.
- Planning Drivers
 - Transparency in Planning
 - Data Driven Decision Making
 - Stakeholder Driven Collaborative Process



Moorhead Public Schools Facilities Task Force Report

Timeline and Activities

- | | |
|------------------------------------|---------------------------------|
| • 1 st Meeting—Sept. 19 | Overview & Introductions |
| • 2 nd Meeting—Oct. 10 | Facilities Assessment |
| • 3 rd Meeting—Oct. 24 | Site Visits |
| • 4 th Meeting—Nov. 14 | Academic Program |
| Conduct Community Survey | |
| • 5 th Meeting—Nov. 28 | Financial Information & Review |
| • 6 th Meeting—Dec. 12 | Develop Recommendations |
| • 7 th Meeting—Jan. 9 | Final Task Force Recommendation |



Moorhead Public Schools Facilities Task Force Report

- Presentation of Recommendations
 - Mike Kieselbach and Ann Hagen
 - Building Replacement/Renovations—Existing Site
 - Built for 2,400 Students and Core Amenities for 2,600 Students
 - Career and Technical Center—Offsite
 - Design Drivers



Moorhead High School Key Design Driver Statement

1. Provide **welcoming, engaging, and fully accessible spaces** throughout the school in an environment that **supports connectivity and social interaction, reinforces positive behavior and identity, and enhances occupant safety and security.**
2. Provide **flexible/adaptable/versatile learning spaces** that can support **multiple modes of learning** from traditional lecture to small group activities, active learning, collaboration and peer-to-peer learning.
3. Spaces must support **personalized, student centered learning** within **Small Learning Communities** school within a school.
4. Provide **access to natural light** throughout with an appropriate level of **transparency** between common areas and circulation spaces to learning spaces.
5. Provide an **entry that projects community and school pride.**
6. Provide spaces that **support and enhance** the 8 characteristics in the **Portrait of a MHS Graduate.**
7. Make **building systems and finish decisions** that will support **durability, sustainability, and operational efficiency.**

Project No. 18-050

Component	Option 1 - Single Site	Option 2 - Single Site	Option 3 - Dual Site	
	w/ sep. CTE Center New Building New Site	w/ sep. CTE Center Building Replacement Existing Site Renovation	Existing	New
Total number of students (academic area / core space excludes CTE Student Career and Tech Ed Center Students)	2,400/2,600	2,400/2,600	1,200/1,300	1,200/1,300
New competition gymnasium (3 court)	x	x	x	x
New performance auditorium (800 seats)	x	x	x	x
New aux gym fieldhouse (3 court)	x	retain	retain	x
New 25M pool (short course) <small>Note: a shared pool complex would be much more cost effective for the 2 site option. This matrix assumes no pool at the existing site. Pool would be at the new site only.</small>	x	x	none	x
Site recommendation 40 acres + 1 acre / 100 students per MDE Guidelines	64 acres	64 acres	52 acres	52 acres
Proposed / actual site acreage	72 acres	53 acres	53 acres	72 acres
Existing High School Area (not including MHD Sports Center)	0	335,385	335,385	0
Base SF Per Student (Range) per MDE Guidelines <small>Note: does not include pool or auditorium and associated spaces - allow acres for those items are provided separately below.</small>	150-180	150-180	180-200	180-200
SF Per Student calculated (existing is currently approx. 137 SF/Student)	165	165	200	200
	Cost / SF	%		
New Construction Area (SF) - Existing Site	0	319,000	205,000	0
New Construction Area (SF) - New Site	396,000	0	0	240,000
New Construction Area (SF) - Pool	12,000	12,000	0	12,000
New Construction Area (SF) - Auditorium	17,800	17,800	17,800	17,800
Total New Construction	425,800	348,800	222,800	287,358
Renovation Area (SF) - Fieldhouse and support 9th grade center	0	35,000	35,000	0
Demolition Area (SF)	0	299,358	299,358	0
Land Acquisition - City of Moorhead 72 acres - 40th Avenue and 20th Street	\$ 900,000	\$ 900,000	\$ -	\$ 900,000
Building Acquisition - Career and Tech Ed Center	\$ 3,500,000	\$ 3,500,000	\$ -	\$ 3,500,000
Demolition	\$ 1,200,000	\$ 1,200,000	\$ 1,200,000	\$ -
Sitework Development - Civil, parking, site utilities	\$ 3,000,000	\$ 2,000,000	\$ 1,500,000	\$ 2,500,000
Stadium complex - Turf football field, track, grandstand	\$ 5,500,000	\$ -	\$ -	\$ 5,500,000
Outdoor turf - 3 football fields <small>Baseball, Softball, Lacrosse, Soccer, Football practice</small>	\$ 5,000,000	\$ 5,000,000	\$ 5,000,000	\$ 5,000,000
New Construction - Existing Site	\$ 220	\$ -	\$ 70,180,000	\$ 49,016,000
New Construction - New Site	\$ 220	\$ 87,120,000	\$ -	\$ 63,218,760
Pool	\$ -	\$ 1,000,000	\$ -	\$ 1,000,000
Renovation - CTE Center - 100,000 SF	\$ 100	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000
Renovation - Existing Building	\$ 60	\$ -	\$ 2,100,000	\$ -
Subtotal (including design fees)	\$ 117,220,000	\$ 95,880,000	\$ 88,816,000	\$ 91,618,760
Furniture, Furnishings, Equipment	3.0%	\$ 3,516,600	\$ 2,876,400	\$ 1,764,480
Technology	1.5%	\$ 1,758,300	\$ 1,438,200	\$ 882,240
Contingency	7.0%	\$ 8,205,400	\$ 6,711,800	\$ 4,117,120
Owner Soft Costs	2.0%	\$ 2,344,400	\$ 1,917,600	\$ 1,178,320
Subtotal	\$ 133,044,700	\$ 108,823,800	\$ 96,756,160	\$ 103,987,293
TOTAL Budget Estimate Comparison	\$ 133,044,700	\$ 108,823,800	\$ 96,756,160	\$ 103,987,293
	\$ 15,322,500	\$ 15,322,500	\$ 15,322,500	\$ 15,322,500
	\$ 117,722,200	\$ 93,501,300	\$ 81,433,660	\$ 88,664,793

*assumes bidding in spring of 2020



Moorhead Public Schools Facilities Task Force Report

Task Force Options

Home Value \$ 200,000

	Option 1	Option 2	Option 3
Total Cost w/o Academy	\$ 117,000,000	\$ 93,000,000	\$ 155,000,000
Annual Tax Impact	\$ 125	\$ 75	\$ 200
Career Academy Cost	\$ 13,000,000	\$ 13,000,000	\$ 13,000,000
Combined Total	\$ 130,000,000	\$ 106,000,000	\$ 168,000,000
Combined Annual Tax Impact	\$ 150	\$ 100	\$ 225

Moorhead Public Schools Facilities Task Force Report

Recommended Option Detail

- Design for 2,400 students with core facilities for 2,600.
- Retain and renovate approximately 23% of existing building area (77,000 SF - 9th grade addition and fieldhouse). Remove approximately 258,000 SF of existing building following completion of 1st phase.
- Eliminate split level configuration and circulation issues.
- New academic wings to the north utilizing identified design drivers.
- Includes new short course pool (not 50 M) and 1,000 seat auditorium.
- Athletic field enhancements – outdoor turf – maintain Gotta Stadium.
- Includes \$900K for future site acquisition
- \$13M for Career and Tech Ed Academy (offsite) – budget can support purchase of a larger building with a partial remodel or new construction.



- Design phasing concept – development over the next 3 months
- Site logistics – phasing/staging/parking/site management

Moorhead Public Schools Facilities Task Force Report

Construction Timeframe and Scheduling

- Assuming November 2019 vote – Spring 2020 start
- Acceleration of document preparation similar to Horizon/Dodds
- 24 month construction project
- Replacement parking and traffic control – site logistics.
- Phased construction – Academic wing replacement to the north. Completion and relocation prior to phase II.
- Will require temporary facilities for theater arts and music
- Renovation/update of 2002 9th grade addition and fieldhouse
- Maintain key components of the existing building to minimize disruption to academic calendar.

Moorhead Public Schools Facilities Task Force Report

Next Steps - Conceptual Design Phase

- Charette Task Force
- Group exercises – Seven tables of 7-8
- Strong student participation – representation at each table
- Programming discussion
- Design concept development
- Everything ties back to the Design Drivers
- Three meetings currently scheduled
 - 2-20-19 Big picture concepts – site analysis and observations
 - 3-27-19 Building ideation – design concept development
 - 4-10-19 Fine tuning and review

Moorhead Public Schools Facilities Task Force Report

- Board Questions and Answers

Moorhead Public Schools Facilities Task Force Report

- Next Steps
 - Brandon Lunak
 - September 2018 – February 2019
 - Task Force Recommendations & Board Action
 - February – May 2019
 - Community Based Conceptual Design Activities
 - February – June 2019
 - Communicating the Plan
 - April-May
 - Tracking Survey
 - Summer 2019
 - Board Action on Date and Amount of Referendum



Moorhead Public Schools Facilities Task Force

THANK YOU!!!



MOORHEAD HIGH SCHOOL

PLAN REVIEW

CAREER ACADEMY DISCUSSION

5/1/19

MEETING DATES

Design Charette #1	2/20/19	Site Analysis/Concept Development
Design Charette #2	3/27/19	Design Concept Development
Design Charette #3	4/10/19	Fine Tuning and Review
Design Charette #4	5/1/19	CTE Community Brainstorm (includes TF#1 and TF#2)

Meeting #4 Agenda

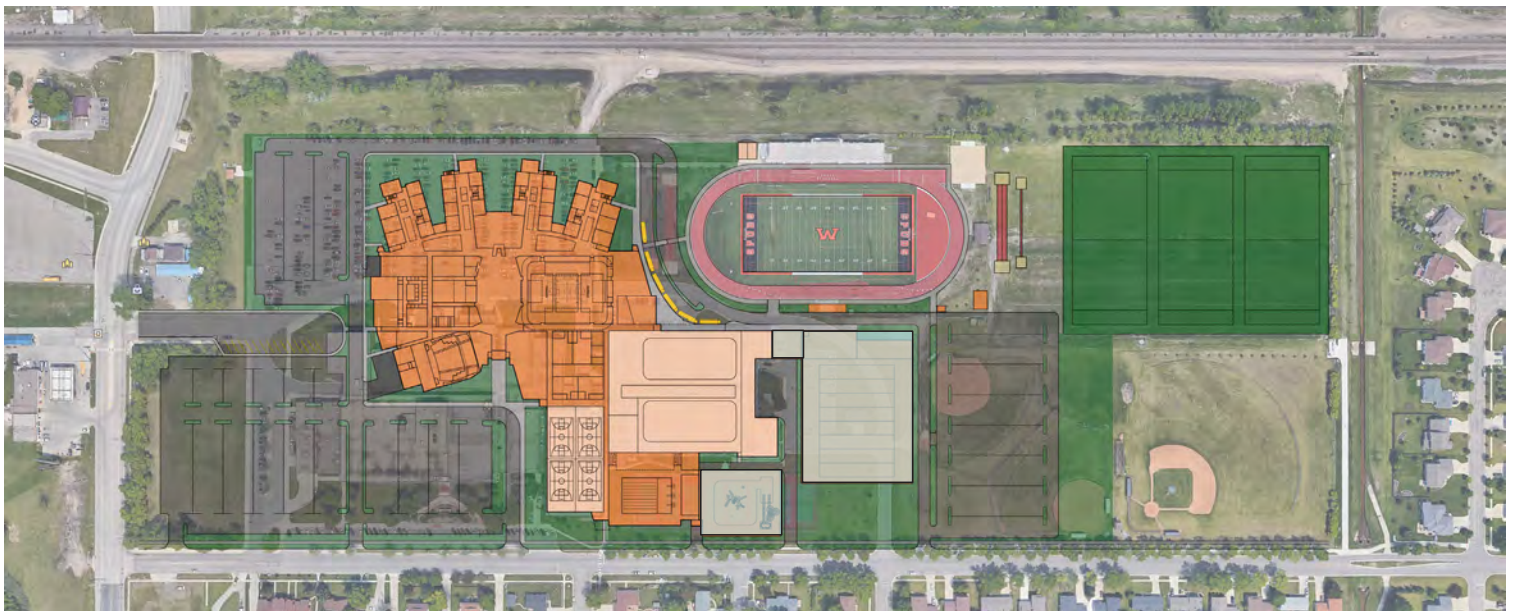
- Welcome – Brian Berg and Tamara Uselman
- Review final preliminary design concept – 15 minutes
- Introduction – Jeff Ubl – Ubl Design
- Career Academy Concepts
 - Choice Ready Students
 - The Deeper Dive – Moving from Exploration to Investigation
- Small Group Discussion – Academy Pathways
 - Community Brainstorm
- Next Steps – Wrap up by 6:15





Design Charrette #3 Comments

- Relocate pool to area south of the Moorhead Sports Center
- Move Academic Core to the east
- Provide east commons support space for athletic fields
- Flip Theater and Music Classrooms
- Show Visual Arts classroom space in west academic wing
- Provide separate entrance for theater that shares main commons



Revised Plan



Career Academy Pathways – Group Discussion – 20 Mintues

- Discuss Pathways – Are we missing anything?
- Discuss opportunities for community partnership with local business.
- Discuss subcategories within each pathway.
- Discuss possible areas of pathway crossover and opportunities for synergistic relationships.
- What should be the “Mission Statement” of the Moorhead Career Academy?

Health Careers

- CNA, Sports Med, LPN, Cosmetology
- Human Service Careers – Educator Academy

Information Technology – IT

- Cyber Security, Systems Management
- Coding, Game Design

Farm to Table

- Ag Science
- Food Science, Culinary Arts

Design Thinking

- Architecture, Engineering, Electronics, Robotics
- Digital Arts, CADD and BIM Modeling

Transportation

- Auto Tech/Body, Aviation, Rail, Trucking

Maker Trades

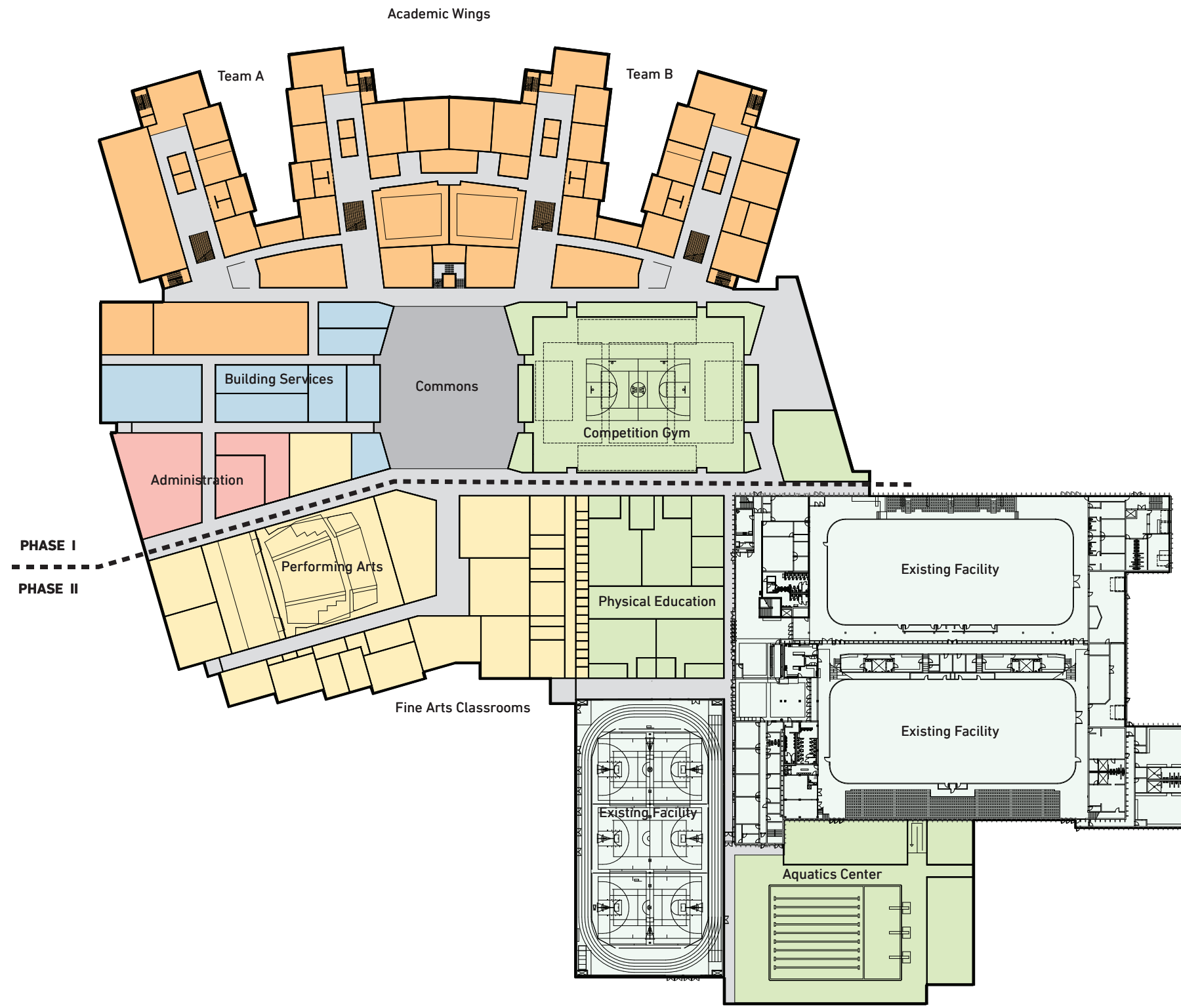
- Construction and Fabrication
- Metal Fabrication / Welding
- MEP Trades

Business/Entrepreneurship

- Marketing, Management, Model Business

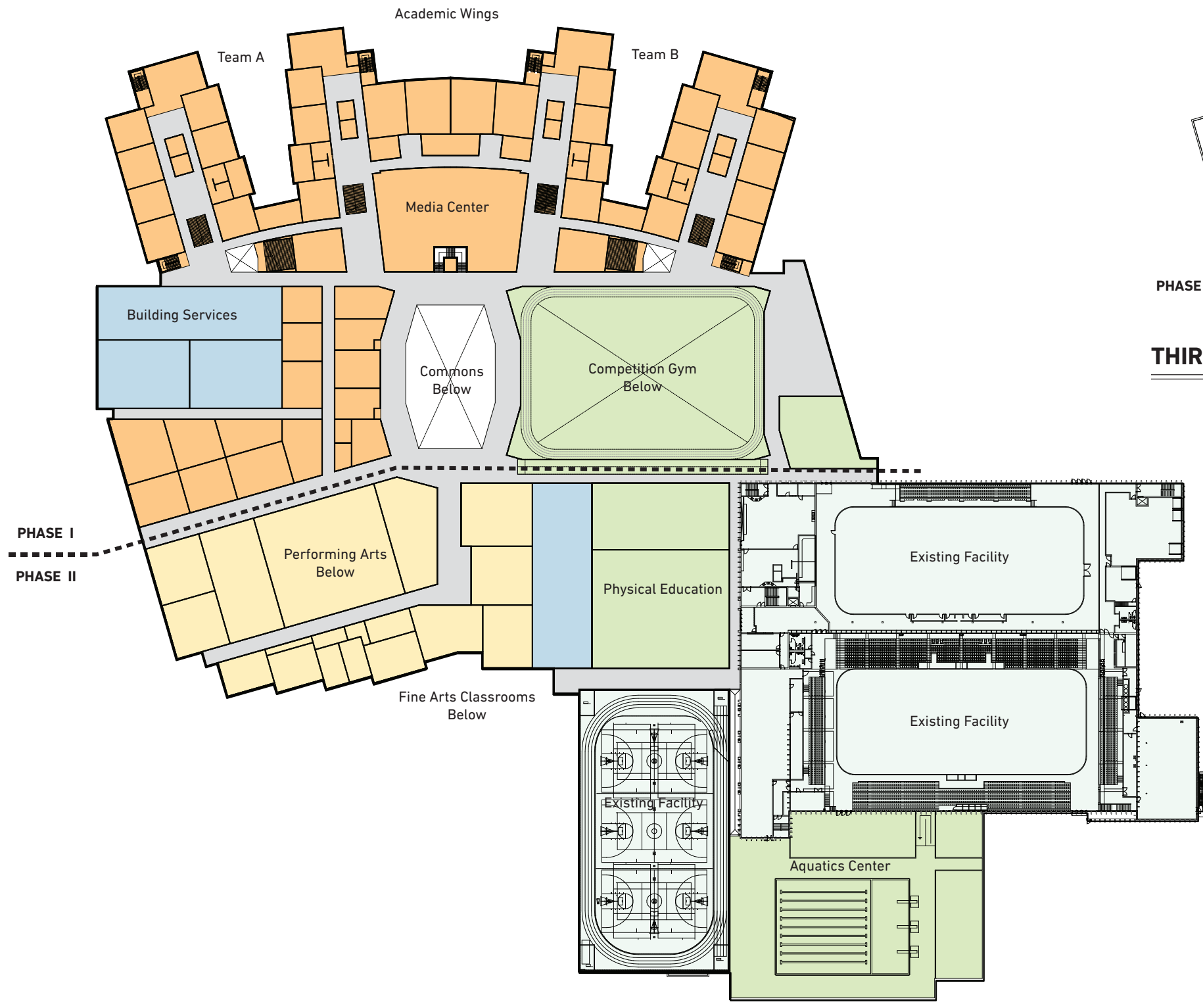
Questions??

Next Steps

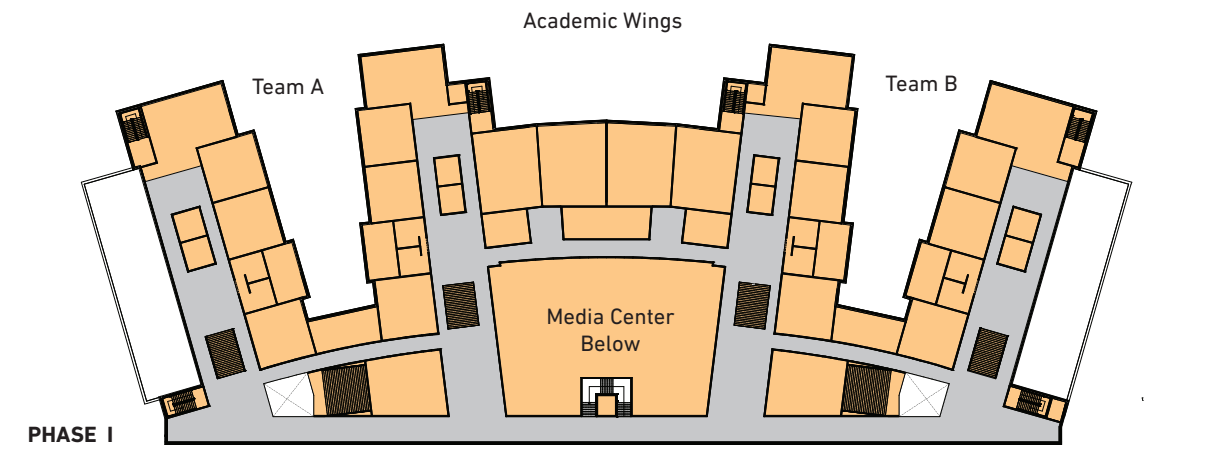


MAIN LEVEL FLOOR PLAN

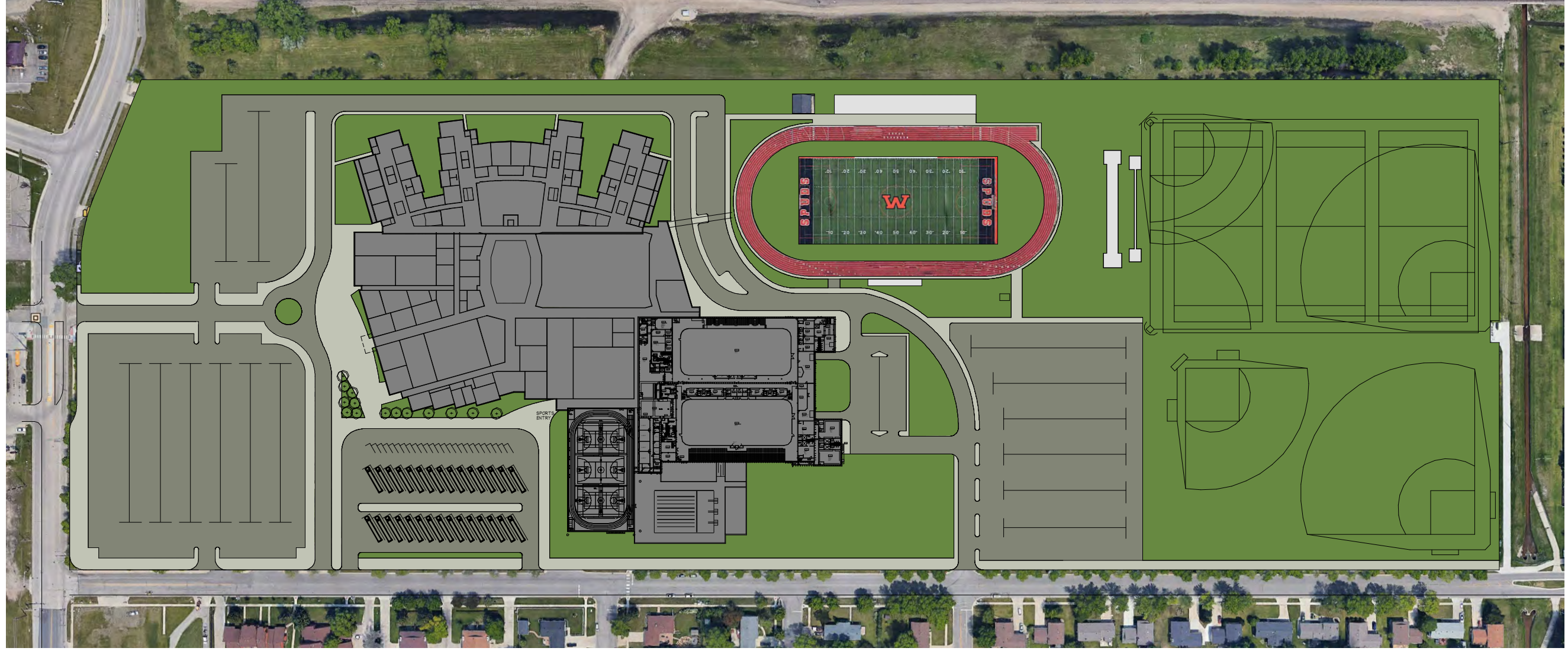




SECOND LEVEL FLOOR PLAN



THIRD LEVEL FLOOR PLAN



OVERALL SITE PLAN





MAIN LEVEL FLOOR PLAN

