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Winona Area Public Schools

2021 Capacity Analysis



Independent School District #861

Winona, MN
April 1, 2021



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On behalf of Wold Architects and Engineers we would like to thank the Administration and Principals for their involvement in producing this study. We look forward to continuing the discussion on future program needs.

Sincerely,

A handwritten signature in black ink, appearing to read "Paul Aplikowski".

Paul Aplikowski, AIA, LEED AP
Partner

Sincerely,

A handwritten signature in black ink, appearing to read "Ben Beery".

Ben Beery, AIA
Associate

DISTRICT - OWNED FACILITIES

Elementary Schools

Goodview Elementary

5100 W. 9th St.
Winona, MN 55987

Jefferson Elementary

1268 W. 5th St.
Winona, MN 55987

Washington-Kosciusko Elementary

365 Mankato Ave.
Winona, MN 55987

Middle Schools

Winona Middle School

1570 Homer Road
Winona, MN 55987

High Schools

Winona Senior High School

901 Gilmore Ave.
Winona, MN 55987

Alternate Education Buildings

Winona Area Learning Center

1299 W. 3rd Street
Winona, MN 55987



DEFINING BUILDING CAPACITY

CAPACITY OVERVIEW

Contrary to popular opinion, school buildings do not have a fixed capacity. In fact, they have a capacity based upon how an organization chooses to allocate use of space. As you allocate space for computer labs, special education or other support functions, this technically reduces the number of spaces (classrooms) available for capacity.

Typical practice for School Districts is to assign use of space in preparation for each upcoming school year. Therefore each year we can calculate capacity, and each year the capacity may change. This allocation of space dictates what spaces are available to provide capacity.

What follows is a methodology for determining capacities for your Elementary, Middle School and High School buildings.

- The Actual capacity diagrams are included in this Report. Each school has a 2020/21 capacity and also a “potential capacity.”
- The following pages describe the capacity calculation methodology, and assumptions as developed with your administrators.
- Typically cannot count more than 1 (one) gym station per 500 students.
- Typically cannot count more teaching stations than there are FTE of instructors for a given specialty (i.e. Industrial Technology, Music).
- Count only computer labs that are scheduled.



CAPACITY CALCULATION: SAMPLE EXERCISE

KINDERGARTEN FULL DAY CAPACITY

2 Classrooms x 19 Students/Classroom = 38 Student Capacity

KINDERGARTEN K	KINDERGARTEN K
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ELEMENTARY CAPACITY

2 Classrooms x 24.5 Students/Classroom = 49 Student Capacity

ART	MUSIC	CLASSROOM •	CLASSROOM •
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SECONDARY CAPACITY

4 Classrooms x 30 Students/Teaching Station = 120 Students
x 80% Efficiency Factor = 96 Student Capacity

ART •	MUSIC •	CLASSROOM •	CLASSROOM •
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CAPACITY CALCULATION ASSUMPTIONS

- **Multiple “capacities” for each facility**
 - 2020/21 capacity (based on plans for current utilization)
 - Potential capacity (see details below)
- **Elementary Assumptions**
 - School Board Approved Kindergarten Class Size: 17 to 22 Students (19 Target)
 - School Board Approved Grade 1-4 Class Size:
 - Grade 1 = 19 to 24 Students (21 Target)
 - Grade 2 = 20 to 25 Students (23 Target)
 - Grade 3 = 23 to 27 Students (26 Target)
 - Grade 4 = 25 to 29 Students (28 Target)
 - Overall Grades 1 to 4 Target Average: 24.5 Students
 - Support spaces are not included in capacity counts:
 - Gymnasium
 - Media Center
 - (1) Music Classroom
 - (1) Art Classroom
 - Special Education Rooms: Each elementary should have a DCD Room, ASD Room, and a LD Resource Room (Ideally 1 Per 2 Grade Levels)
 - (1) English Language (or equivalent space)
 - Center-Based Special Ed. (Cluster Programs)
 - (2) rooms assigned District-wide at Elementary
 - Pre Kindergarten Programming
 - (4) rooms assigned District-wide
- **Middle School Assumptions**
 - Grades 5-8 = 30 average class size/teaching station.
 - Middle level efficiency typically 75%-80% before real “pain”
 - Current offerings/schedule should allow for 80% efficiency for potential capacity
 - Center-Based Special Ed.
 - (0) rooms assigned District-wide at Middle School level
- **High School Assumptions**
 - Grades 9-12 = 30 average class size/teaching station.
 - High School Efficiency typically 80-90% before real “pain” (e.g. teaching math in a gym)
 - Current offerings/schedule should allow for 80% efficiency for potential capacity
 - Center-Based Special Ed.
 - (0) rooms assigned District-wide at High School level



DISTRICT-WIDE CAPACITY SUMMARY

			2020/2021 Capacity			Potential Capacity		
<u>ELEMENTARY CAPACITY</u>		Enrollment*	Capacity	Utilization	Open Seats	Capacity	Utilization	Open Seats
Goodview Elementary	K-4	199	259	77%	60	259	77%	60
Jefferson Elementary	K-4	307	376	82%	69	425	72%	118
Washington Kosciusko Elementary	K-4	280	351	80%	71	376	74%	96
Total	K-4	786	986	80%	200	1,060	74%	274
<u>MIDDLE SCHOOL CAPACITY</u>		Enrollment*	Capacity	Utilization	Open Seats	Capacity	Utilization	Open Seats
Winona Middle School	5-8	746	900	83%	154	1,176	63%	430
Total		746	900	83%	154	1,176	63%	430
<u>HIGH SCHOOL CAPACITY</u>		Enrollment*	Capacity	Utilization	Open Seats	Capacity	Utilization	Open Seats
Winona Senior High School	9-12	846	996	85%	150	1296	65%	450
ALC	9-12	72	60	120%	-12	84	86%	12
Total		918	1,056	87%	138	1,380	67%	462
District Total	K-12	2,450	2,942	83%	492	3,616	68%	1,166

			2031/2032 Capacity			Potential Capacity		
<u>2031-2032 PROJECTION</u>		Enrollment**	Capacity	Utilization	Open Seats	Capacity	Utilization	Open Seats
Elementary	K-4	811	986	82%	175	1,060	77%	249
Middle School	5-8	651	900	72%	249	1,176	55%	525
High School	9-12	665	1,056	63%	391	1,380	48%	715
District Total	K-12	2127	2,942	72%	815	3,616	59%	1,489

* Enrollment Data as of February 2021

** Enrollment Projection Data based on FY22 School Board Approved Enrollment Assumptions



2020/2021 CAPACITY ANALYSIS

Goodview Elementary (Grades K-4)

K Kindergartens: 2

● First - Fourth Grade: 9

(assumes 24.5 avg per 1-4 grades, 19 avg per K)

Total: Kindergarten 2 x 19 = 38
Classes 1-4 9 x 24 = 221

Total Capacity 259 Students

Total Gross Square Footage: 42,753 SF

CORE CAPACITY ANALYSIS

Gymnasium: 4,755 SF

Media Center: 4,605 SF

Cafeteria: 1,970 SF / 15 SF per student
131 students per lunch period

POTENTIAL CAPACITY ANALYSIS

Goodview Elementary (Grades K-4)

K Kindergartens: 2

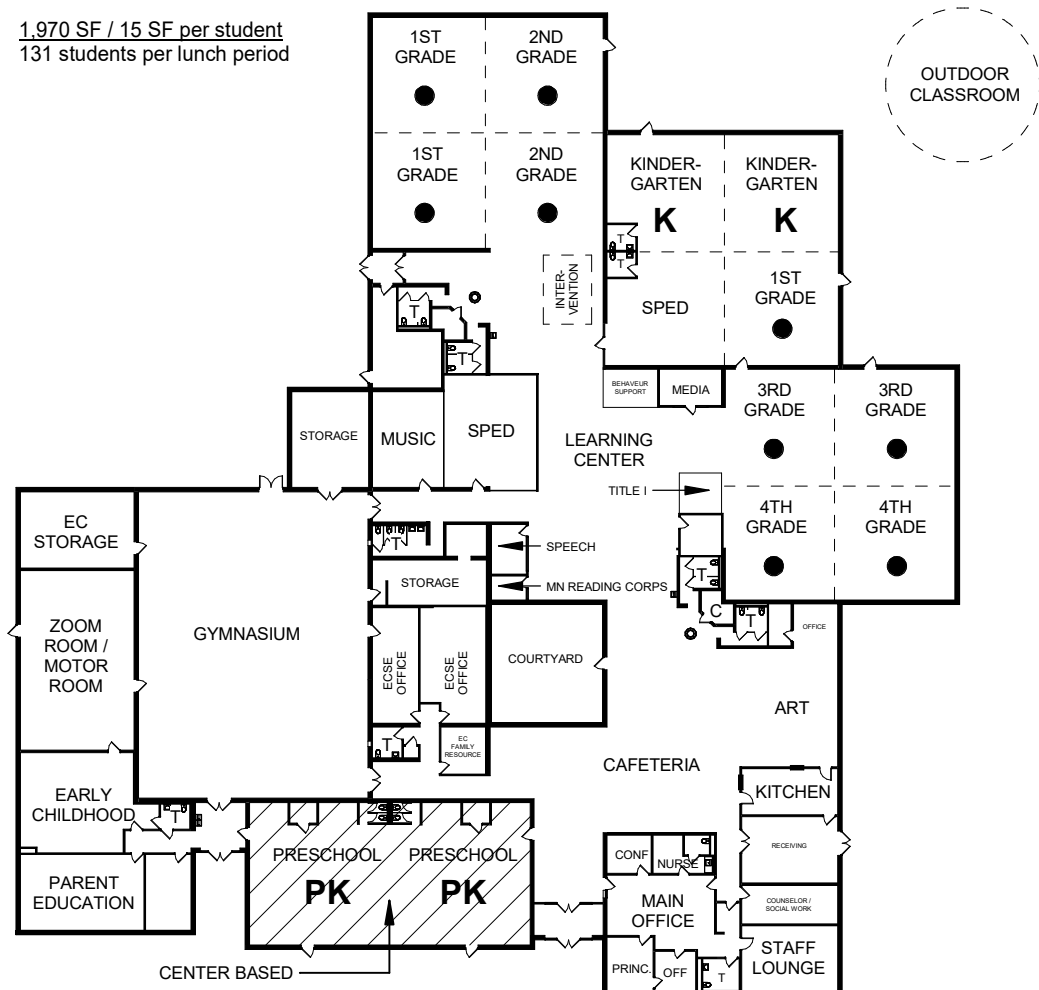
● First - Fourth Grade: 9

○ Potential: 0

(assumes 24.5 avg per 1-4 grades, 19 avg per K)

Total: Kindergarten 2 x 19 = 38
Classes 1-4 9 x 24.5 = 221
Potential 0 x 24 = 0

Total Capacity 259 Students



GOODVIEW ELEMENTARY - MAIN LEVEL CAPACITY PLAN



2020/2021 CAPACITY ANALYSIS

Jefferson Elementary (Grades K-4)

K Kindergartens: 3
● First - Fourth Grade: 13
(assumes 24.5 avg per 1-4 grades, 19 avg per K)

Total: Kindergarten 3 x 19 = 57
Classes 1-4 13 x 24.5 = 319

Total Capacity 376 Students

Total Gross Square Footage: 92,883 SF

CORE CAPACITY ANALYSIS

Gymnasium: 4,066 SF

Media Center: 2,054 SF

Cafeteria: 1,718 SF / 15 SF per student
115 students per lunch period

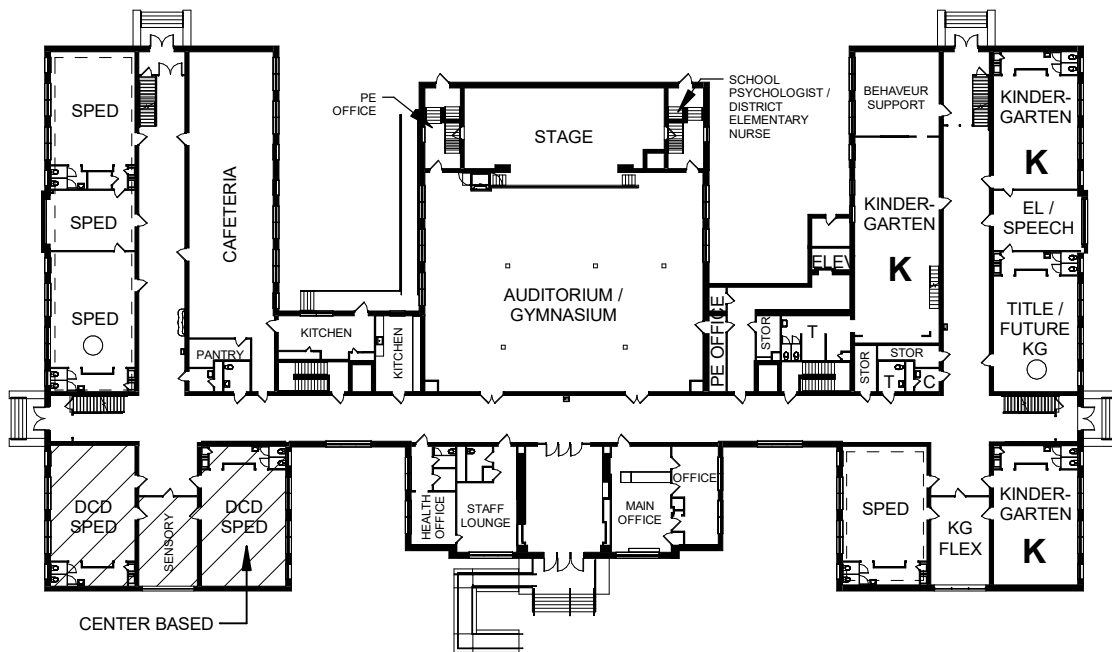
POTENTIAL CAPACITY ANALYSIS

Jefferson Elementary (Grades K-4)

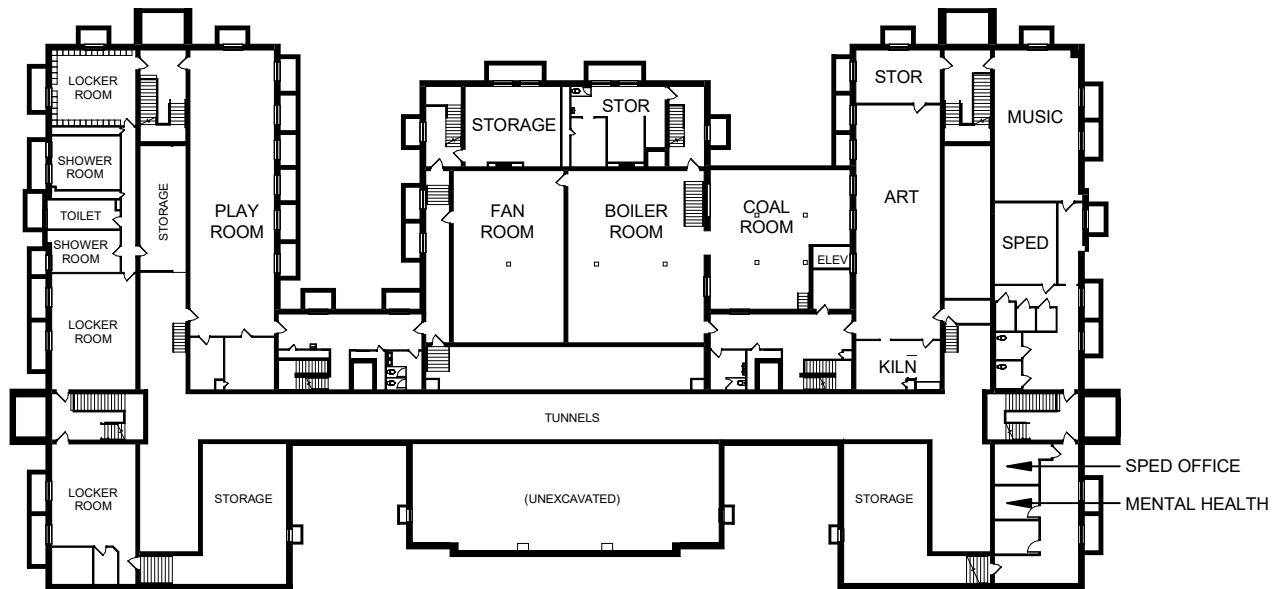
K Kindergartens: 3
● First - Fourth Grade: 13
○ Potential: 2
(assumes 24.5 avg per 1-4 grades, 19 avg per K)

Total: Kindergarten 3 x 19 = 57
Classes 1-4 13 x 24.5 = 319
Potential 2 x 24.5 = 49

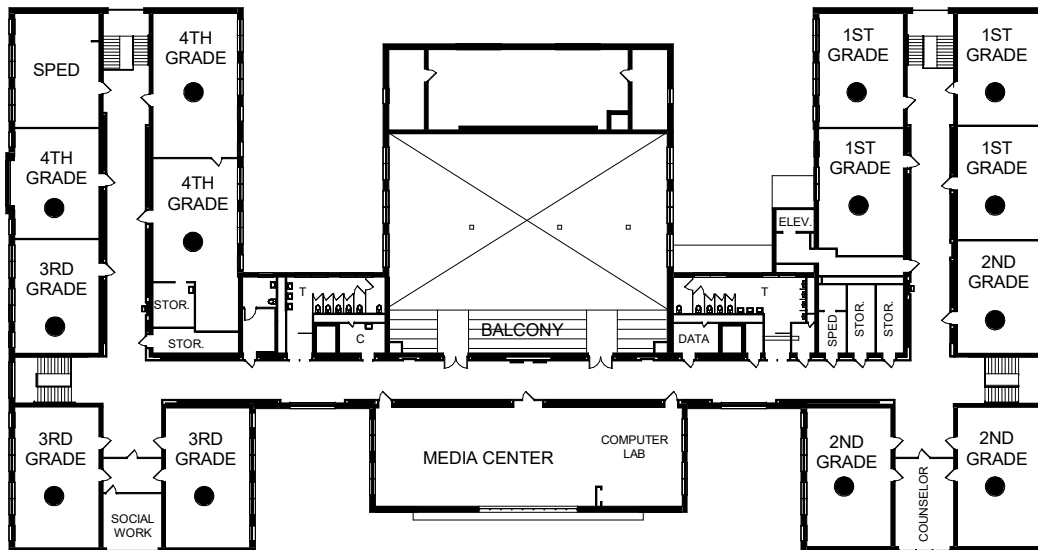
Total Capacity 425 Students



JEFFERSON ELEMENTARY - MAIN LEVEL CAPACITY PLAN



JEFFERSON ELEMENTARY - LOWER LEVEL CAPACITY PLAN



JEFFERSON ELEMENTARY - UPPER LEVEL CAPACITY PLAN



2020/2021 CAPACITY ANALYSIS

Washington-Kosciusko Elementary (Grades K-4)

K Kindergartens: 3
● First - Fourth Grade: 12
(assumes 24.5 avg per 1-4 grades, 19 avg per K)

Total: Kindergarten 3 x 19 = 57
Classes 1-4 12 x 24.5 = 294

Total Capacity 351 Students

Total Gross Square Footage: 87,144 SF

CORE CAPACITY ANALYSIS

Gymnasium: 3,385 SF

Media Center: 1,959 SF

Cafeteria: 1,386 SF / 15 SF per student
93 students per lunch period

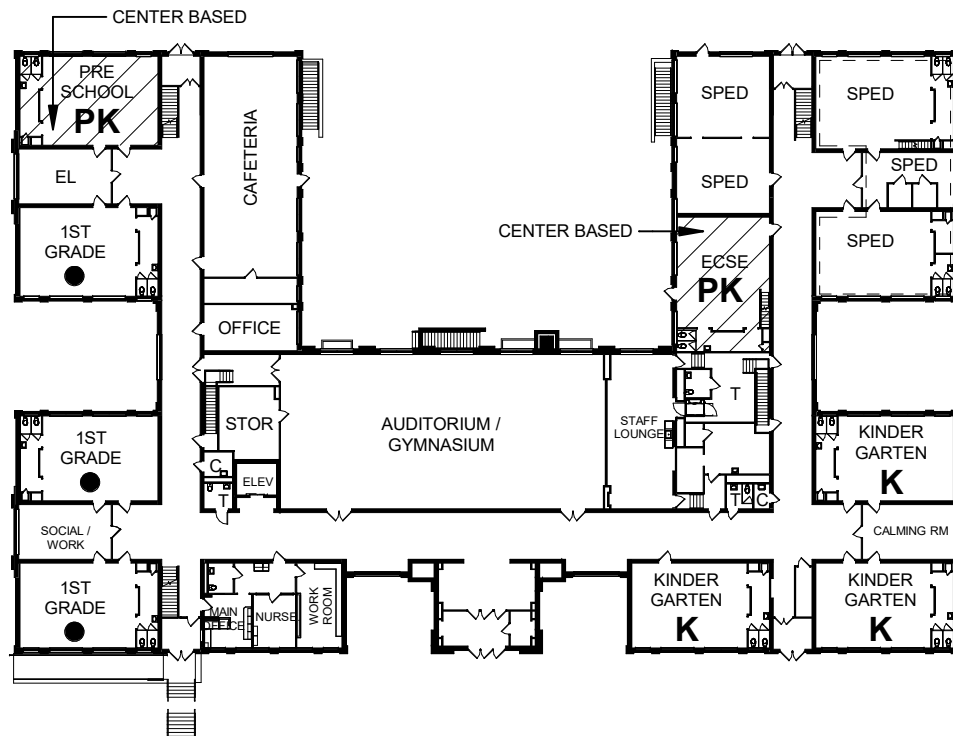
POTENTIAL CAPACITY ANALYSIS

Washington-Kosciusko Elementary (Grades K-4)

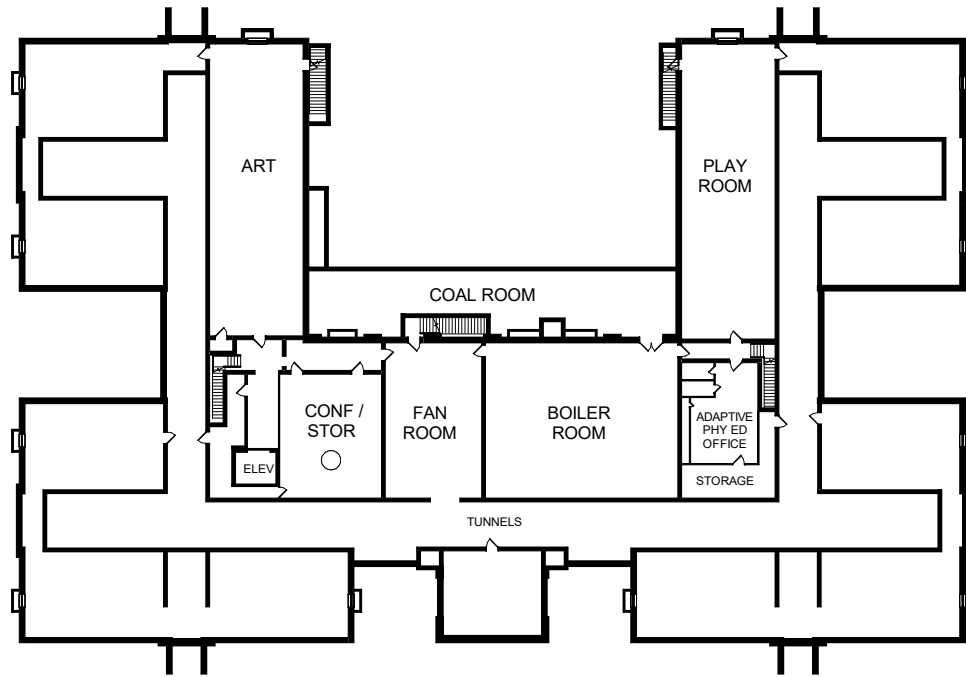
K Kindergartens: 3
● First - Fourth Grade: 12
○ Potential: 1
(assumes 24.5 avg per 1-4 grades, 19 avg per K)

Total: Kindergarten 3 x 19 = 57
Classes 1-4 12 x 24.5 = 294
Potential 1 x 24.5 = 25

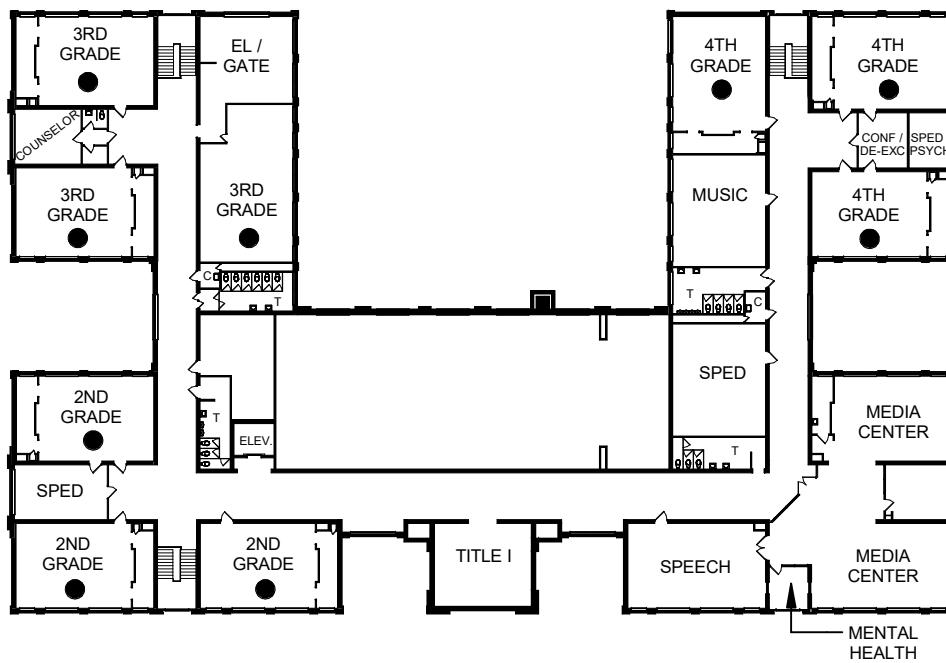
Total Capacity 376 Students



W-K ELEMENTARY - MAIN LEVEL CAPACITY PLAN



W-K ELEMENTARY - LOWER LEVEL CAPACITY PLAN



W-K ELEMENTARY - UPPER LEVEL CAPACITY PLAN



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2020/2021 CAPACITY ANALYSIS

Winona Middle School (Grades 5-8)

● Teaching Stations: 37.5
(assumes 30 avg per teaching station)
Total: Teaching Stations 37.5 x 30 = 1,125
Efficiency 80%
Total Capacity 900 Students

Total Gross Square Footage: 275,380 SF

CORE CAPACITY ANALYSIS

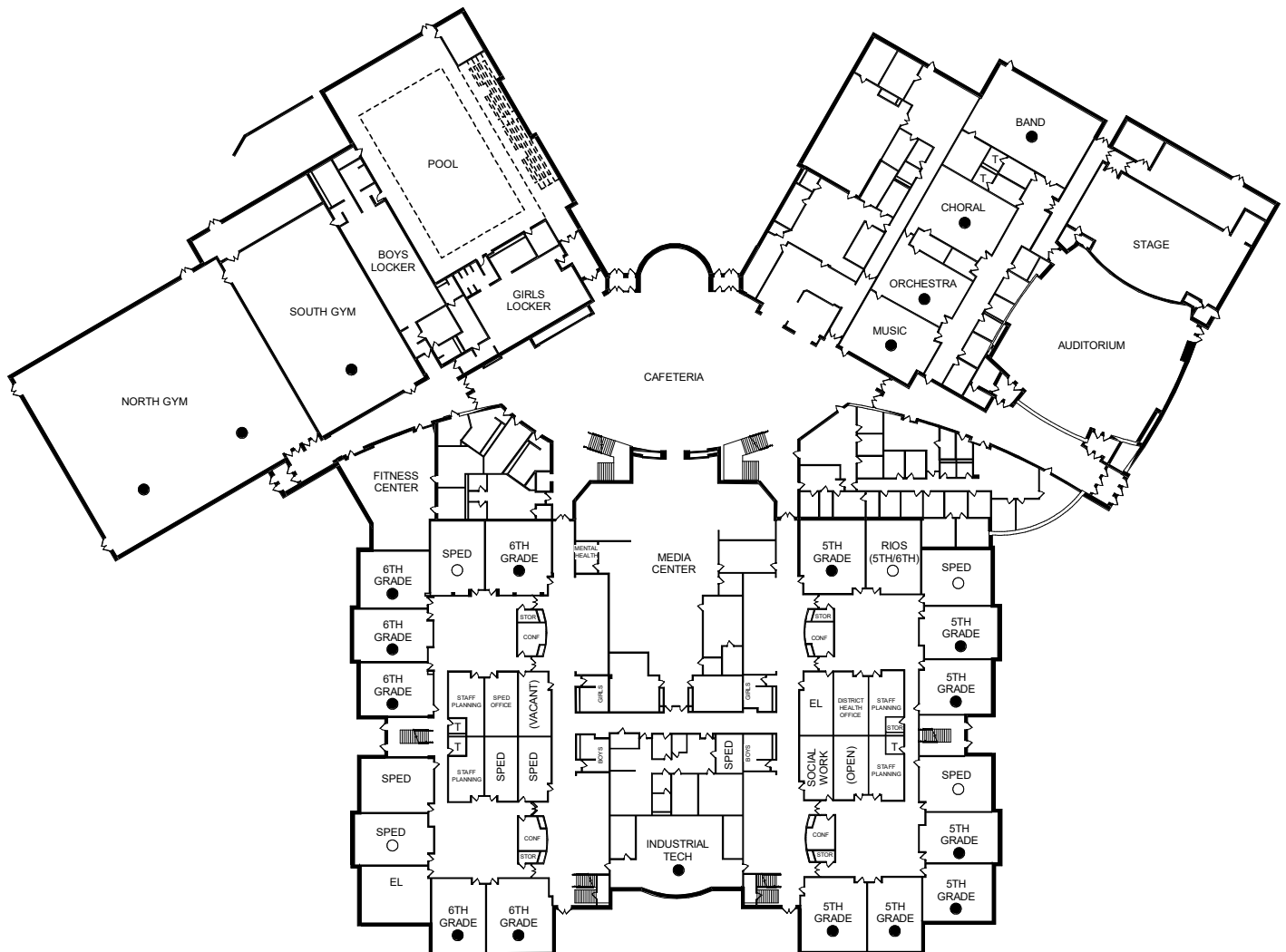
Gymnasium: 15,220 SF
Media Center: 5,644 SF
Cafeteria: 6,900 SF / 15 SF per student
460 students per lunch period

POTENTIAL CAPACITY ANALYSIS

Winona Middle School (Grades 5-8)

● Teaching Stations: 37.5
○ Potential: 11.5
(assumes 30 avg per teaching station)
Total: Teaching Stations 37.5 x 30 = 1,125
Potential 11.5 x 30 = 345
Efficiency 80%

Total Capacity 1,176 Students



WINONA MIDDLE SCHOOL - MAIN LEVEL CAPACITY PLAN



2020 / 2021 CAPACITY ANALYSIS

Winona High School (Grades 9-12)

● Teaching Stations: 41.5

(assumes 30 avg per teaching station)

Total: Teaching Stations 41.5 x 30 = 1,245
Efficiency 80%

Total Capacity 996 Students

Total Gross Square Footage: 244,616 SF

CORE CAPACITY ANALYSIS

Gymnasium: 12,945 SF

Media Center: 5,515 SF

Cafeteria: 6,347 SF / 15 SF per student
423 students per lunch period

POTENTIAL CAPACITY ANALYSIS

Winona High School (Grades 9-12)

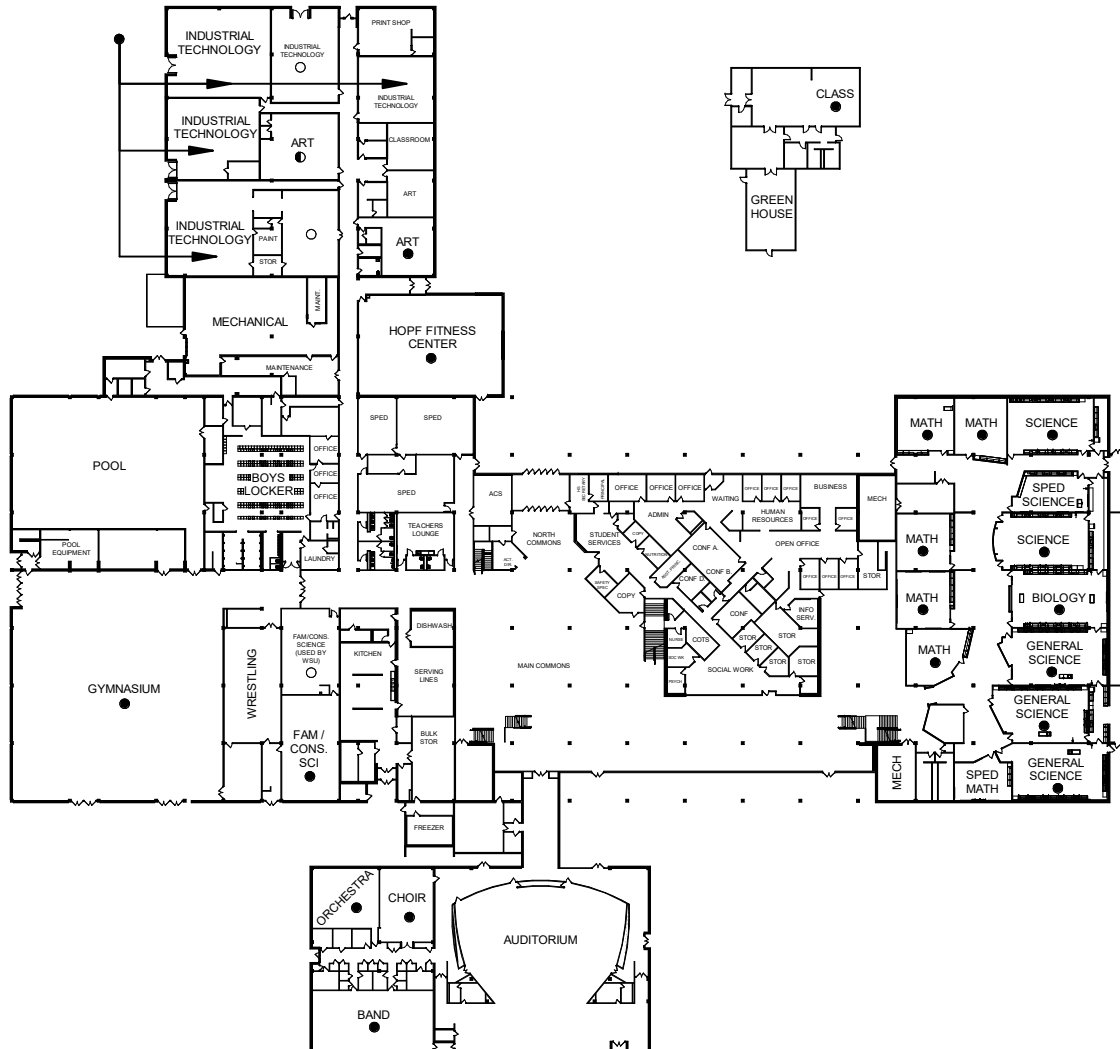
● Teaching Stations: 41.5

○ Potential: 12.5

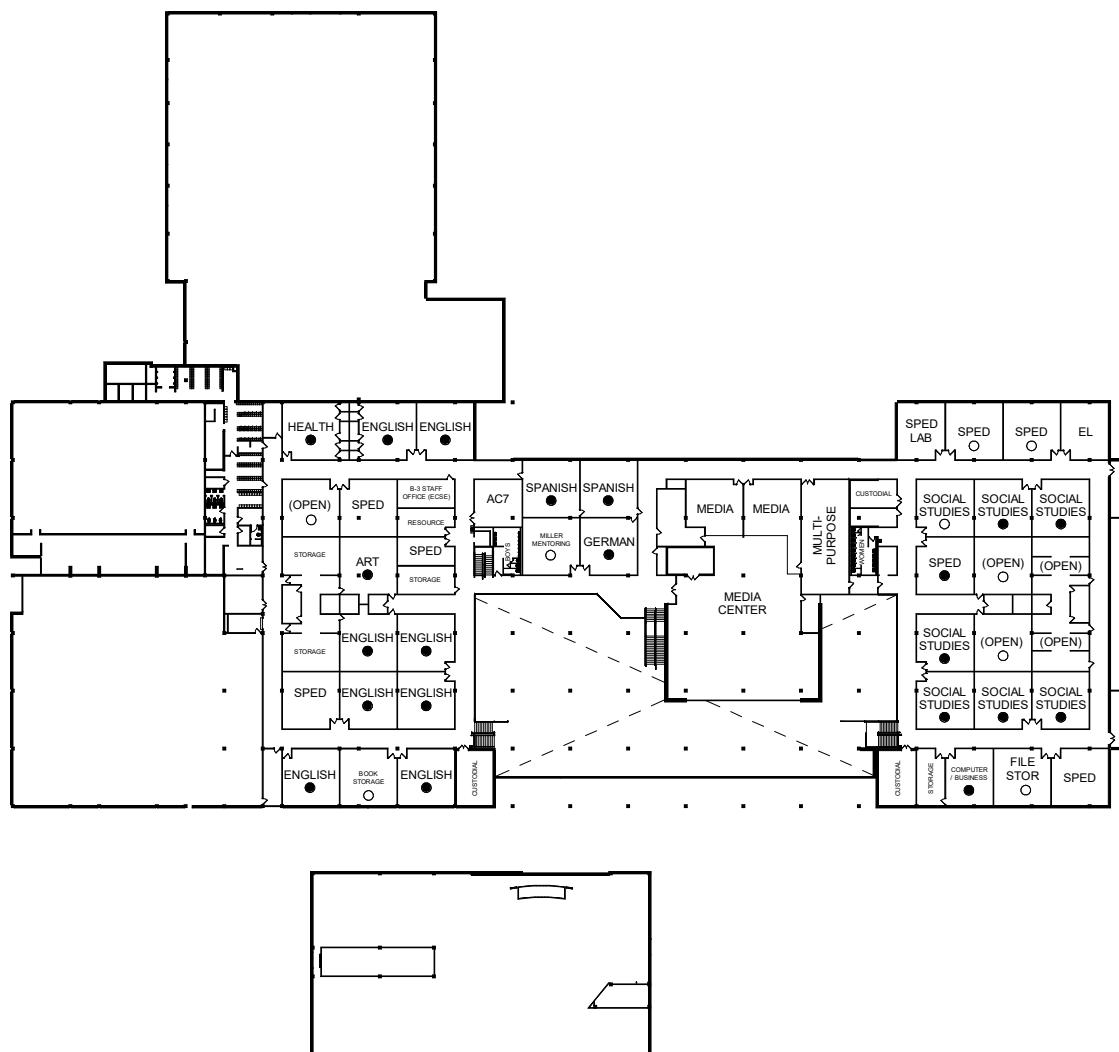
(assumes 30 avg per teaching station)

Total: Teaching Stations 41.5 x 30 = 1,245
Potential 12.5 x 30 = 375
Efficiency 80%

Total Capacity 1,296 Students



WINONA HIGH SCHOOL - MAIN LEVEL CAPACITY PLAN



WINONA HIGH SCHOOL - UPPER LEVEL CAPACITY PLAN



2020/2021 CAPACITY ANALYSIS

Winona ALC (Grades 6-12)

● Teaching Stations: 5
(assumes 15 avg per teaching station)

Total: Teaching Stations 5 x 15 = 75
Efficiency 80%

Total Capacity 60 Students*

Total Gross Square Footage: 17,500 SF

**Capacity does not reflect unique scheduling and student sometimes spending only partial days or partial school years at the ALC.*

CORE CAPACITY ANALYSIS

Gymnasium: 0 SF
Media Center: 0 SF
Cafeteria: 3,071 SF / 15 SF per student
205 students per lunch period

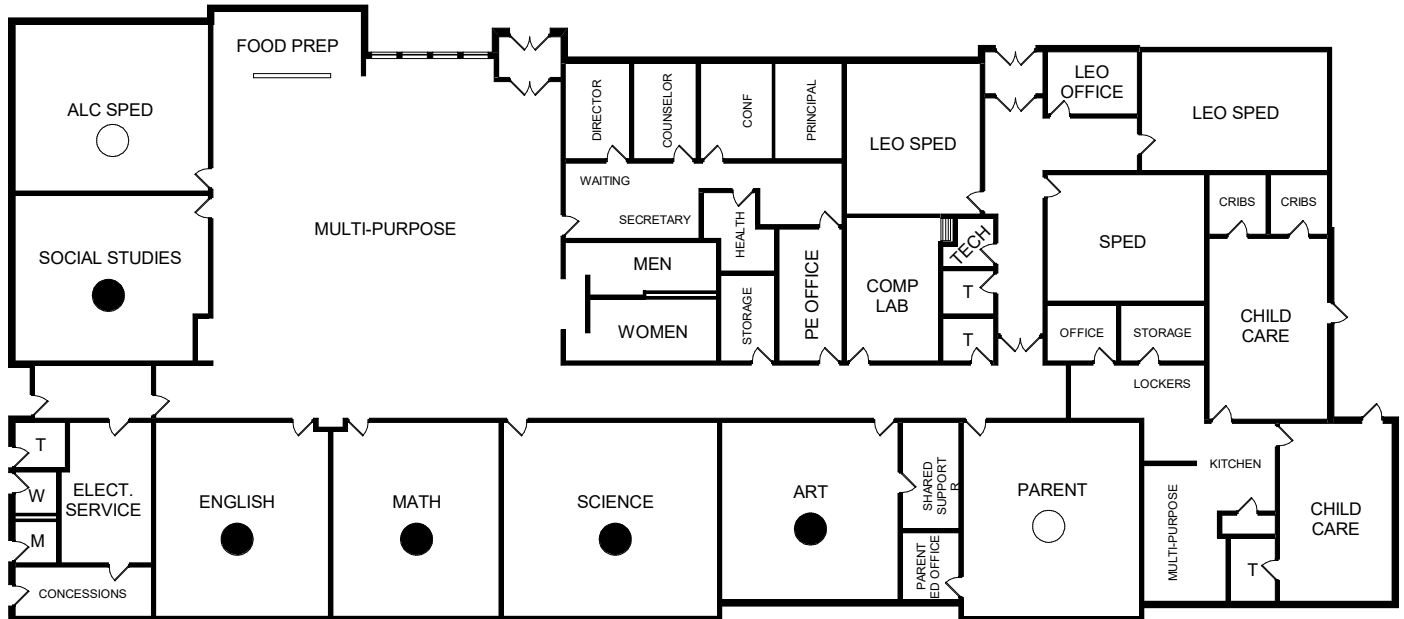
POTENTIAL CAPACITY ANALYSIS

Winona ALC (Grades 6-12)

● Teaching Stations: 5
○ Potential: 2
(assumes 30 avg per teaching station)

Total: Teaching Stations 5 x 15 = 75
Potential 2 x 15 = 30
Efficiency 80%

Total Capacity 84 Students*



WINONA ALC MAIN LEVEL CAPACITY PLAN