## **Division of Operations**



## Capital Planning, Construction & Maintenance 1250 West Broadway Ave. Mpls, MN 55411

# **MEMO**

To: Curt Hartog, Executive Director, CPCM&O

From: Dan Goemann, District Master Planner

Date: 11/25/2024

Re: Estimated Design Enrollment Calculation Methodology

#### Background

As part of the 2024-2025 School Transformations Physical Space Study, the Operations Department has reviewed the estimated student design enrollment at each school facility. The basic methodology is described in the Process Summary and illustrated in the Appendix.

#### Process Summary

Physical space study building walkthroughs were completed from 10/9/2024 - 10/30/2024 at each school site and included members of the Senior Leadership Team, Associate Superintendents, Operations Department, Research Evaluation & Assessment Department, Principals, Teachers, Building Engineers, Community Members, Board of Education Directors and others to review school space usage and floor plan accuracy. The information obtained from the school building walkthroughs was analyzed and an estimated student design enrollment for each school building was determined. The existing site programming and grade alignment was an input for class size design enrollment calculations.

Variables analyzed in the estimation methodology include class size (the number of students in a classroom) and building classroom quantity (actual classrooms available for use). These two categories are the basis for the estimated student design enrollment for each school. Class size is an administrative determination and varies by grade and other program attributes. As a result, design enrollment at any school may vary from year to year. Each school is assigned a class size average that is specific to that school's current grade alignment, using the values from the class size chart in Appendix 2, assuming equal distribution of sections across grade levels to calculate the average.

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For Elementary Schools, general instruction rooms larger than 599 square feet contribute toward design enrollment, with an appropriate number of predictable core spaces (music, art, gym, etc.) set aside that are non-contributing. Predictable core spaces do not contribute toward elementary design enrollment because the students are either in their general instruction room or in the predictable core space, not both. Unique programming, such as special education settings, was considered in the calculations. The result of unique programs in schools reduced the estimated design enrollment of the school because of the lower student/teacher ratios. Leased or other reserved spaces are considered noncontributing and are excluded from the estimated design enrollment.

For Middle Schools and High Schools, all rooms larger than 599 square feet contribute toward design enrollment with different utilization factors applied based on use and known enrollment trends to account for the portion of a day that space is expected to be available for students and the time lost to scheduling inefficiencies. Unique programming considerations, such as special education settings, are estimated the same as elementary schools discussed above. Leased or other reserved spaces are non-contributing and are excluded from the estimated design enrollment.

Refer to sample design enrollment calculations in Appendix 1. Refer to class size tables and utilization rates and categories in Appendix 2. Refer to estimated design enrollment for SY24-25 in Appendix 3.







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#### Appendix 1: Estimated Design Enrollment Calculations

1) Sample K-5 Elementary School FRL>70% Design Enrollment Calculation:

| Space Type                               | Space<br>Quantity | Class Size <sup>1</sup><br>Average | Utilization<br>Rate <sup>2</sup> | Design<br>Enrollment |
|--|-------------------|------------------------------------|----------------------------------|----------------------|
| Primary Classrooms                       | 22                | 24.5                               | 95%                              | 512                  |
| Support Classrooms                       | 4                 | 24.5                               | 95%                              | 93                   |
| Special Ed (Setting III)                 | 3                 | 8                                  | 100%                             | 24                   |
| Leased/Non-Contributing                  | 2                 | 0                                  | 0%                               | 0                    |
| Predictable Core Spaces                  | 8                 | 0                                  | 0%                               | 0                    |
| Support Spaces (<600 sq. ft.)            | 10                | 0                                  | 0%                               | 0                    |
| Est. Total Design Enrollment             |                   |                                    |                                  | 629                  |
| Current Enrollment (SY24-25)             |                   |                                    |                                  | 494                  |
| Building Utilization                     |                   |                                    |                                  | 79%                  |
| Building Utilization Status <sup>3</sup> |                   |                                    |                                  | Efficient            |

2) Sample 6-8 Middle School FRL<70% Design Enrollment Calculation:

| Space Type                               | Space<br>Quantity | Class Size <sup>1</sup><br>Average | Utilization<br>Rate <sup>2</sup> | Design<br>Enrollment |
|--|-------------------|------------------------------------|----------------------------------|----------------------|
| General Ed Classrooms                    | 17                | 35                                 | 75%                              | 446                  |
| Secondary Elective Rooms                 | 13                | 35                                 | 60%                              | 273                  |
| Secondary Support Rooms                  | 9                 | 35                                 | 50%                              | 157                  |
| Special Ed (Setting III)                 | 5                 | 8                                  | 100%                             | 40                   |
| Media/Fitness/Auditorium                 | 3                 | 35                                 | 30%                              | 32                   |
| Leased/Non-Contributing                  | 0                 | 0                                  | 0%                               | 0                    |
| Est. Total Design Enrollment             |                   |                                    |                                  | 948                  |
| Current Enrollment (SY24-25)             |                   |                                    |                                  | 546                  |
| Building Utilization                     |                   |                                    |                                  | 58%                  |
| Building Utilization Status <sup>3</sup> |                   |                                    |                                  | Underutilized        |

<sup>&</sup>lt;sup>1</sup> Refer to Appendix 2 Space Planning Class Size Table

<sup>&</sup>lt;sup>2</sup> Refer to Appendix 2 Space Utilization Rate Factors

<sup>&</sup>lt;sup>3</sup> Refer to Appendix 2 Utilization Categories

<sup>&</sup>lt;sup>4</sup> Class size varies depending on FRL status. Refer to Appendix 2 Space Planning Class Size Table.



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## Appendix 2: Class Size Tables and Utilization Rates

|        | Space Planning Class Size Table <sup>,</sup>          |                              |   |                              |
|--------|---|------------------------------|---|------------------------------|
|        | Less than 70% of Students on Free or<br>Reduced Meals |                              | More than 70% of Students on Free or<br>Reduced Meals |                              |
| Grade  | Teacher Contract<br>Cap                               | Budget / Placement<br>Target | Teacher Contract<br>Cap                               | Budget / Placement<br>Target |
| К      | 27  | 27                           | 22  | 22                           |
| 1      | 28  | 27                           | 22  | 22                           |
| 2      | 28  | 28                           | 22  | 22                           |
| 3      | 34  | 29                           | 25  | 25                           |
| 4      | 36  | 31                           | 30  | 28                           |
| 5      | 36  | 31                           | 30  | 28                           |
| 6-8    | 42  | 35                           | 40  | 32                           |
| 9-12   | 44  | 36                           | 40  | 36                           |
| SPED   | Varies  | Varies                       | Varies  | Varies                       |
| Elect. | Varies  | Varies                       | Varies  | Varies                       |

| Space Utilization Rate Factors |                                    |  |
|--------------------------------|------------------------------------|--|
| Space                          | Utilization /<br>Scheduling Factor |  |
| Elementary Classrooms          | 95%                                |  |
| Secondary Classrooms           | 75%                                |  |
| Secondary Electives            | Varies <sup>6</sup>                |  |
| Special Education              | Varies <sup>5</sup>                |  |

| Utilization Categories |                     |  |
|------------------------|---------------------|--|
| Category               | Utilization<br>Rate |  |
| Underutilized          | Less than 70%       |  |
| Efficient              | 70% - 89%           |  |
| Highly Efficient       | 90% - 105%          |  |
| Overutilized           | Over 105%           |  |

<sup>&</sup>lt;sup>5</sup> SpEd Student/Teacher Ratios: Resource 19:1, Life Skills 15:1, ASD/DCD/DHH/EBD/SB 8:1, ECSE 4:1 - 16:1

<sup>&</sup>lt;sup>6</sup> Secondary Electives: 60% Labs/Shops/Music/Art/Dance/Gym, 50% Support/Multilingual CRs, 30% Auditorium/Media/Weights/Fitness



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## Appendix 3: Estimated Design Enrollment SY24-25

| School Building  | Enrollment | Est. Design | Utilization |
|------------------|------------|-------------|-------------|
| Name             | SY24-25    | Enrollment  | Percent     |
| Andersen Middle  | 1065       | 1517        | 70%         |
| Anthony Middle   | 731        | 931         | 79%         |
| Anwatin Middle   | 351        | 760         | 44%         |
| Armatage Elem    | 378        | 539         | 70%         |
| Bancroft Elem    | 503        | 706         | 71%         |
| Barton Elem      | 511        | 550         | 93%         |
| Bethune Elem     | 244        | 532         | 46%         |
| Bryn Mawr Elem   | 448        | 594         | 75%         |
| Burroughs Elem   | 481        | 700         | 69%         |
| Camden High      | 785        | 1477        | 53%         |
| Cityview Elem    | 244        | 632         | 39%         |
| Dowling Elem     | 399        | 470         | 85%         |
| Edison High      | 883        | 1421        | 62%         |
| Ella Baker Elem  | 545        | 739         | 74%         |
| Emerson Elem     | 507        | 505         | 100%        |
| FAIR Arts High   | 338        | 728         | 46%         |
| Field Elem       | 288        | 466         | 62%         |
| Folwell Elem     | 496        | 783         | 63%         |
| Franklin Middle  | 259        | 656         | 39%         |
| Green Central El | 596        | 670         | 89%         |
| Hale Elementary  | 330        | 535         | 62%         |
| Hall Elementary  | 240        | 524         | 46%         |
| Hiawatha Elem    | 202        | 284         | 71%         |
| Hmong Int'l Ac.  | 260        | 797         | 33%         |
| Howe Elementary  | 232        | 293         | 79%         |
| Jenny Lind Elem  | 254        | 529         | 48%         |
| Justice Page MS  | 1023       | 1189        | 86%         |
| Kenny Elementary | 295        | 389         | 76%         |

| School Building      | Enrollment | Est. Design | Utilization |
|----------------------|------------|-------------|-------------|
| Name                 | SY 24-25   | Enrollment  | Percent     |
| Kenwood Elem         | 391        | 507         | 77%         |
| Lake Harriet Lower   | 309        | 509         | 61%         |
| Lake Harriet Upper   | 285        | 581         | 49%         |
| L.N. Keewaydin El    | 349        | 552         | 63%         |
| L.N. Wenonah Elem    | 152        | 298         | 51%         |
| Las Estrellas Elem   | 443        | 724         | 61%         |
| Loring Elem          | 335        | 396         | 85%         |
| Lucy Craft Laney El  | 418        | 708         | 59%         |
| Lyndale Elementary   | 494        | 629         | 79%         |
| Marcy Arts Elem      | 432        | 567         | 76%         |
| Nellie Stone John El | 306        | 738         | 41%         |
| North High           | 592        | 1292        | 46%         |
| Northeast Middle     | 546        | 948         | 58%         |
| Northrop Elem        | 384        | 444         | 86%         |
| Olson Middle         | 333        | 640         | 52%         |
| Pillsbury Elem       | 464        | 648         | 72%         |
| Pratt Elementary     | 211        | 249         | 85%         |
| Roosevelt High       | 1240       | 2033        | 61%         |
| Sanford Middle       | 740        | 1025        | 72%         |
| Seward Montessori    | 611        | 912         | 67%         |
| South High           | 1260       | 2089        | 60%         |
| Southwest High       | 1198       | 2030        | 59%         |
| Sullivan/Anishinabe  | 855        | 1136        | 75%         |
| Waite Park Elem      | 273        | 481         | 57%         |
| Washburn High        | 1523       | 1771        | 86%         |
| Webster Elem         | 299        | 382         | 78%         |
| Whittier Elem        | 525        | 668         | 79%         |
| Windom Elem          | 369        | 499         | 74%         |