



ITAS

TRANSPORTATION ADVISORY SERVICES

Student Transportation Program Review Preliminary Draft

Tier Consolidation Study

New Fairfield Public Schools

September 2023



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Introduction

1

Transportation Advisory Services (**TAS**) was engaged to perform an analysis of the student transportation program of the New Fairfield Public Schools (hereinafter referred to as the “District”). The purpose of this Study was to provide a third-party perspective on the changing of bell times and moving to a two-tier structure.

The District’s liaison for the project was Carrie E. DePuy, Director of Business & Operations for the New Fairfield Public Schools. Christopher Wojciechowski served as the consultant for **TAS**.

An evaluation and overview of the school routes and bell times were sought by the District. One consideration is the potential additional cost or savings of making the change from three tiers to two tiers. In this report, we have addressed areas that we believe the District should consider when making changes to the bell times and presented two scenarios to consider. The District wanted to make sure that the contractor has enough buses to transport all students in the case of an emergency.

It is important to keep in mind that the current practices include long-standing historical practices in the Community and the District.

New Fairfield Public Schools reported an enrollment of 2,071 students in District schools, grades K through 12, for the school year (2022-2023).

Introduction (cont.)

STUDY PROFILE

Transportation to and from the District Schools is provided using a three-tier routing system, with bell times as noted below:

School	Grades	Start Time	Release Time	Length of Day
New Fairfield High School	9-12	7:15 AM	2:05 PM	6 hrs., 50 mins
New Fairfield Middle School	6-8	8:00 AM	2:50 PM	6 hrs., 50 mins
CONS/MHHS	K-5	8:55 AM	3:35 PM	6 hrs., 40 mins

Throughout this report we have provided our perspectives and recommendations in several areas. Each scenario was developed to provide the District with two options to consider for more cohesive bell times. *In some areas the desired changes may necessitate negotiations, or changes to contractual agreements, and these types of changes can be very difficult and time consuming.*

We commend the District for their willingness to conduct a third-party review of the program. We often caution Districts... *“Don’t ask the question if you don’t want to hear the answer.”* The New Fairfield Public Schools has been willing to be open and cooperative in our review of the District’s transportation services.

We believe this report will provide the Administration with a thorough understanding of the issues and insights on the pros and cons of making the type of changes that would help the program meet the community’s educational needs at the lowest possible cost.

Methodology

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The first step in any comprehensive transportation study is to gain a detailed understanding of the District's operations and the key financial metrics that report on its operations. To begin this process, TAS provided the District with an extensive request for background information as well as specific transportation data related to the facilities, the fleet of vehicles, the maintenance program, the labor agreements in place, the financial reporting, and the routing procedures currently being utilized. Upon receipt of this data and the performance of on-site interviews, TAS was able to gain a detailed understanding of the District's overall transportation program.

The following activities were undertaken as part of our analysis:

1) Data Collection - Additional documents and analyses were provided by the District in response to questions raised during the analysis process. Throughout the review process, additional items were discussed or provided via telephone conversations or email.

The District staff members were exceptionally responsive in providing all information requested in a thorough and timely fashion.

2) Data Analysis – This included looking at the number of runs, cost differences and drivers needed.

3) Scenario Development – TAS came up with two different scenarios for the District to consider implementing. Considerations and input from the District were taken into account when developing the different scenarios.

TAS uses available information and its experience to estimate the potential costs and/or savings of transportation service arrangements described in this study. Although experience can be an excellent basis for projections, TAS does not warrant that the costs or savings estimated herein will be realized if implemented.

Executive Summary

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As stated in the Introduction section of this report, the comments contained herein pertain to those aspects of the engagement that are within the scope of the study as determined by the District.

Process Recommendation

This report contains several recommendations. We suggest that the District request a review of the report in detail by the District's transportation leaders, with the intention of summarizing the recommendations and responding with comments or changes. In those instances where the recommendations should move forward, the transportation leaders should propose a timeline for implementation along with an estimate on the cost or potential savings. The District should then be held accountable for implementation. As mentioned, in some cases the implementation of recommendations may be delayed due to contractual limitations.

In those instances where there is a disagreement with the suggestions or recommendations in this report, the transportation leaders should document the disagreement and support the District's position. Alternatively, a different approach to the same end could be recommended by the Department.

Recommendations pertaining to each section of this report are embodied in those sections. Some of those recommendations are also included here in summary for easy reference. For a more definitive discussion of each topic, please refer to the section itself. The following recommendations are not listed in any prioritized order.

Bell Time Restructure

The District is also looking to switch their start times into two tiers that will match the chart on the next page. Switching to two start times as indicated on the following charts does open the District to some challenges, which will include fuller middle school/high school buses. Later start times also means athletics and after-school activities will need to make adjustments. There will also be changes in runs for some out-of-District runs due to the changes in times.

Executive Summary

Another factor to changing bell times would be the out-of-District runs. With the existing locations that the District runs, there would not be a large change that would result in additional buses or drivers. The buses consolidating to two tiers would result in more time outside of the original operating time and would be able to service those runs.

In our experience with other Districts, we have seen combined middle school and high school students on the same runs. These Districts have seen success in doing this.

Executive Summary (cont.)

Option 1			
Building	Start	End	Length of Day
New Fairfield High School	8:00	2:50	6:50
New Fairfield Middle School	8:00	2:50	6:50
CONS/MHHS	8:55	3:35	6:40
Henry Abbott Technical High School	7:24	2:10	6:46

Option 2			
Building	Start	End	Length of Day
New Fairfield High School	7:50	2:40	6:50
New Fairfield Middle School	7:50	2:40	6:50
CONS/MHHS	8:55	3:35	6:40
Henry Abbott Technical High School	7:24	2:10	6:46

Existing Situation

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The District is currently operating on a three tier for its school bell times. This means that most buses bring students to three different schools in both the morning and the afternoon runs.

On the next page, there are the times of operation of the current elementary student school bus runs and their current ridership. We will utilize this data to help formulate the transition to a two-tier system. On the following pages, we include the same for the middle school and high school. We believe that using current real data is crucial in determining future goals and plans for consolidating to two tiers.

Existing Situation (cont.)

Elementary:

There are currently 19 buses transporting 865 students in the morning and 863 students in the afternoon.

Elementary		AM Routes				PM Routes			
Bus #	Capacity	Start	Dest	Students	Time	Start	Dest	Students	Time
1	77	8:06	8:38	31	0:32	3:40	4:10	31	0:30
2	77	7:55	8:39	50	0:44	3:40	4:21	51	0:41
3	77	7:55	8:39	39	0:44	3:40	4:23	40	0:43
4	77	8:03	8:38	54	0:35	3:40	4:13	56	0:33
5	77	8:01	8:38	49	0:37	3:40	4:15	52	0:35
6	77	8:03	8:38	40	0:35	3:40	4:13	40	0:33
7	77	8:05	8:38	46	0:33	3:40	4:11	42	0:31
9	77	8:00	8:38	37	0:38	3:40	4:16	37	0:36
10	77	8:02	8:38	49	0:36	3:40	4:14	51	0:34
11	77	8:08	8:38	54	0:30	3:40	4:09	53	0:29
12	77	8:03	8:38	40	0:35	3:40	4:11	40	0:31
13	77	8:10	8:40	60	0:30	3:40	4:06	61	0:26
14	77	8:02	8:38	47	0:36	3:40	4:14	42	0:34
15	77	8:05	8:38	38	0:33	3:40	4:10	39	0:30
16	77	8:06	8:38	48	0:32	3:40	4:09	48	0:29
17	77	8:08	8:38	46	0:30	3:40	4:09	48	0:29
18	77	8:22	8:38	42	0:16	3:40	3:55	38	0:15
19	77	7:52	8:38	55	0:46	3:40	4:23	54	0:43
21	77	8:04	8:38	40	0:34	3:40	4:10	40	0:30

Existing Situation (cont.)

Middle School:

There are currently 14 buses transporting 486 students in the morning and 491 students in the afternoon.

Middle School		AM Routes				PM Routes			
Bus #	Capacity	Start	Dest	Students	Time	Start	Dest	Students	Time
1	77	7:22	7:48	53	0:26	2:50	3:12	53	0:22
4	77	7:17	7:47	34	0:30	2:50	3:16	36	0:26
5	77	7:25	7:47	38	0:22	2:50	3:11	39	0:21
6	77	7:16	7:50	43	0:34	2:50	3:22	43	0:32
7	77	7:01	7:40	33	0:39	2:50	3:25	33	0:35
9	77	7:16	7:47	36	0:31	2:50	3:21	34	0:31
10	77	7:12	7:46	30	0:34	2:50	3:20	32	0:30
11	77	7:23	7:48	21	0:25	2:50	3:09	21	0:19
12	77	7:18	7:47	35	0:29	2:50	3:15	35	0:25
13	77	7:03	7:43	38	0:40	2:50	3:26	38	0:36
14	77	7:22	7:47	30	0:25	2:50	3:17	30	0:27
15	77	7:18	7:48	26	0:30	2:50	3:16	27	0:26
16	77	7:15	7:47	34	0:32	2:50	3:18	35	0:28
21	77	7:16	7:45	35	0:29	2:50	3:15	35	0:25

Existing Situation (cont.)

High School:

There are currently 13 buses transporting 735 students in the morning and 686 students in the afternoon.

High School		AM Routes				PM Routes			
Bus #	Capacity	Start	Dest	Students	Time	Start	Dest	Students	Time
1	77	6:35	7:09	41	0:34	2:10	2:40	36	0:30
2	77	6:17	7:04	77	0:47	2:10	2:51	76	0:41
3	77	6:20	7:06	65	0:46	2:10	2:49	57	0:39
4	77	6:34	7:10	56	0:36	2:10	2:40	55	0:30
6	77	6:37	7:10	56	0:33	2:10	2:40	57	0:30
10	77	6:42	7:09	69	0:27	2:10	2:33	68	0:23
11	77	6:40	7:11	76	0:31	2:10	2:32	69	0:22
12	77	6:35	7:12	71	0:37	2:10	2:44	71	0:34
13	77	6:26	6:59	32	0:33	2:10	2:35	30	0:25
14	77	6:37	7:10	43	0:33	2:10	2:33	41	0:23
18	77	6:15	7:18	37*	1:03	2:10	2:47	18	0:37
19	77	6:25	7:03	39	0:38	2:10	2:43	38	0:33
21	77	6:27	7:03	73	0:36	2:10	2:41	70	0:31

* Discrepancy between AM and PM is due to students transported to Henry Abbot Tech

Existing Situation (cont.)

Morning Runs:

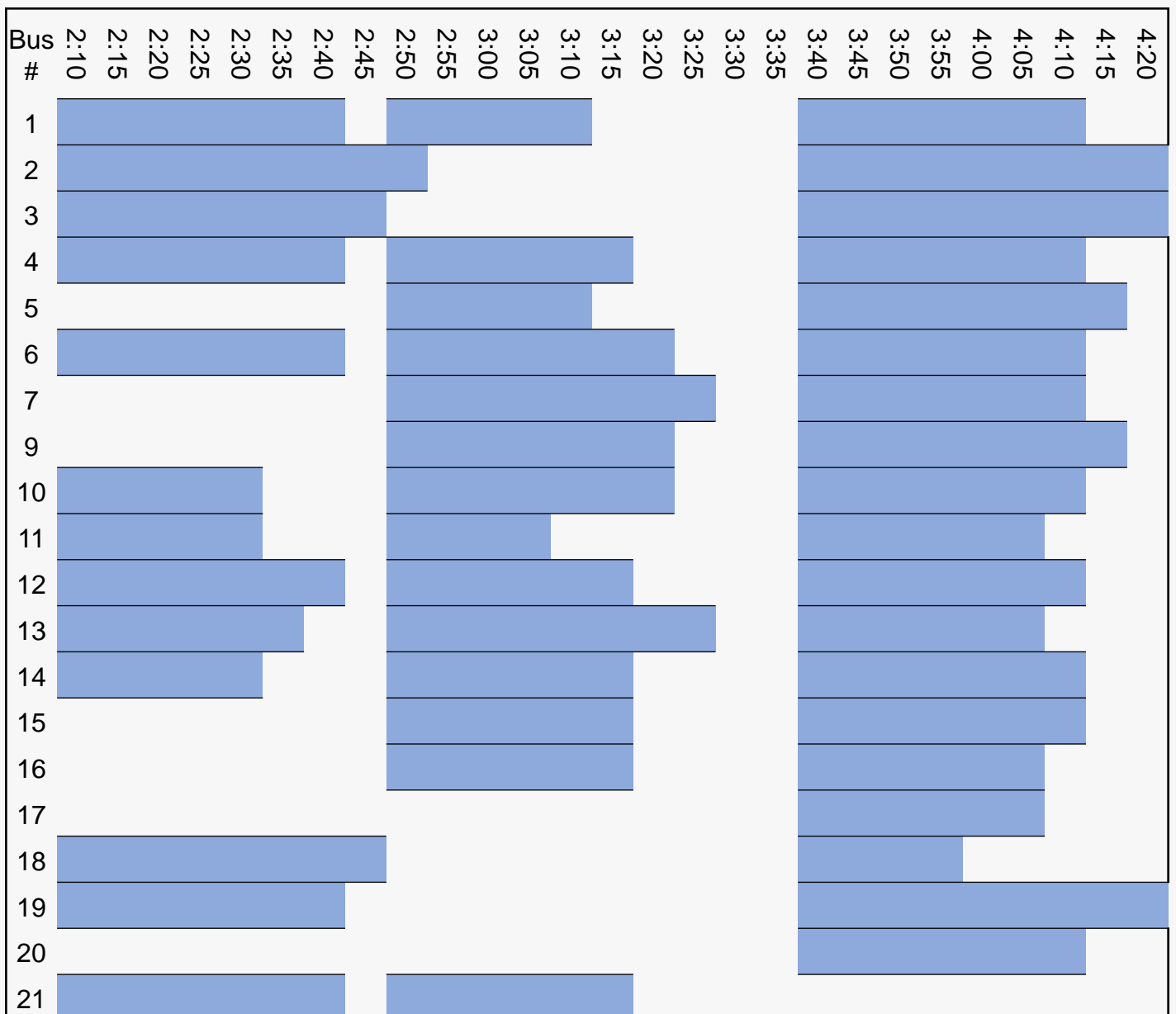
The chart below is the existing transportation schedule for each bus in the morning for New Fairfield Public Schools. The bus number is on the left-hand side and the time the bus is in operation is at the top. The blue section demonstrates the time the bus is transporting students. As you can see from the chart, the buses mostly operate for three schools. There are some instances of inefficiencies that are costing the District extra money. We will utilize this information to effectively provide data for a two-tier system.



Existing Situation (cont.)

Afternoon Runs:

The chart below is the existing transportation schedule for each bus in the afternoon for New Fairfield Public Schools. The bus number is on the left-hand side and the time the bus is in operation is at the top. The blue section demonstrates the time the bus is transporting students. As you can see from the chart, the buses mostly operate for three schools. There are some instances of inefficiencies that are costing the District extra money. We will utilize this information to effectively provide data for a two-tier system.



Tier Consolidation Options 5

Two-Tier Option 1

In option one, the District is shifting to a two-tier system that allows 45-55 minutes in between tiers. Most high school and middle school routes will need to be redone as a result of the change to two tiers. This option would get the students to school just in time for the longest routes. It also allows for greater time for tech students to arrive to the high school in the afternoon.

Option 1			
Building	Start	End	Length of Day
New Fairfield High School	8:00	2:50	6:50
New Fairfield Middle School	8:00	2:50	6:50
Cons/MHHS	8:55	3:35	6:40
Henry Abbott Technical High School	7:24	2:10	6:46

Two-Tier Option 2

In option two, the District is shifting to a two-tier system that allows 55-65 minutes in between tiers. Most high school and middle school routes will need to be redone as a result of the change to two tiers. This option would get the students to school with some flexibility as the longest current routes are around 46 minutes. This allows less time for the tech students to arrive at the high school for afternoon transportation

Option 2			
Building	Start	End	Length of Day
New Fairfield High School	7:50	2:40	6:50
New Fairfield Middle School	7:50	2:40	6:50
Cons/MHHS	8:55	3:35	6:40
Henry Abbott Technical High School	7:24	2:10	6:46

Bell Time Change

Considerations

When considering switching bell times, it is important to note the constraints for the District. These include the following:

- Start times for students,
- Bus capacity,
- Athletic start times and driver availability,
- Current routes and the time it takes to complete those routes,
- Transportation Contract, and
- Students eligible for transportation.

When going from a three-tier to a two-tier structure, the middle school and high school will both start at the same time. It would make sense to place 6th through 12th graders on the same bus to prevent as much overlap as possible and to keep the routes as short as possible. The elementary runs would not need to change. Since there are 19 routes for the elementary school, we will attempt to utilize those 19 runs to service the middle school and high school, with the understanding that there are a considerable number of students at the tech program that is serviced by two buses in the afternoon. We would encourage the District to attempt to keep morning and afternoon runs as similar as possible to prevent driver and student confusion, and we have found that this method tends to be the most efficient.

Moving forward, the main constraints would be:

- 19 buses to service the middle school and high school tier,
- Time for buses to drop off older students in the afternoon and return to the elementary school,
- The desire to schedule no more than the capacity of the bus in the event one school needs to evacuate,
- The number of middle school and high school students eligible for transportation.

Bell Time Change

There are currently 1,221 middle school and high school students who are eligible for transportation in the morning and 1,214 in the afternoon (the afternoon number includes the students riding the tech bus). One goal is to equally distribute all students across the 19 available buses. We would encourage the District to transport the tech students from the Henry Abbott Technical High School to the high school in the afternoon. We have mapped out all of the students for the high school and middle school and provided a potential plan that could be utilized to transport the students.

The buses have a scheduled ridership of 48 at a minimum to 77 at the maximum. We understand that it would not be comfortable for 77 students to ride the bus; however, the ridership levels in middle school and high school tend to be between 30% and 60%. If the bus with 77 students had a 60% ridership rate, the number of students would be 46 students riding the bus, and there would not be a need for older students to sit three to a seat except for an instance where there is a need to quickly evacuate.

When combining the runs, we believe that the runs would not become much longer in any instance. In most cases, we believe that the run times would become shorter due to the nature of the District picking up more students in a more concentrated area.

From a financial impact, there would not be a major change since the District is charged for each bus per day regardless of how long the bus operates. We believe that this incentivizes the contractor to have more buses with shorter operational use. This should be considered changing next time the District goes out to bid or RFP.

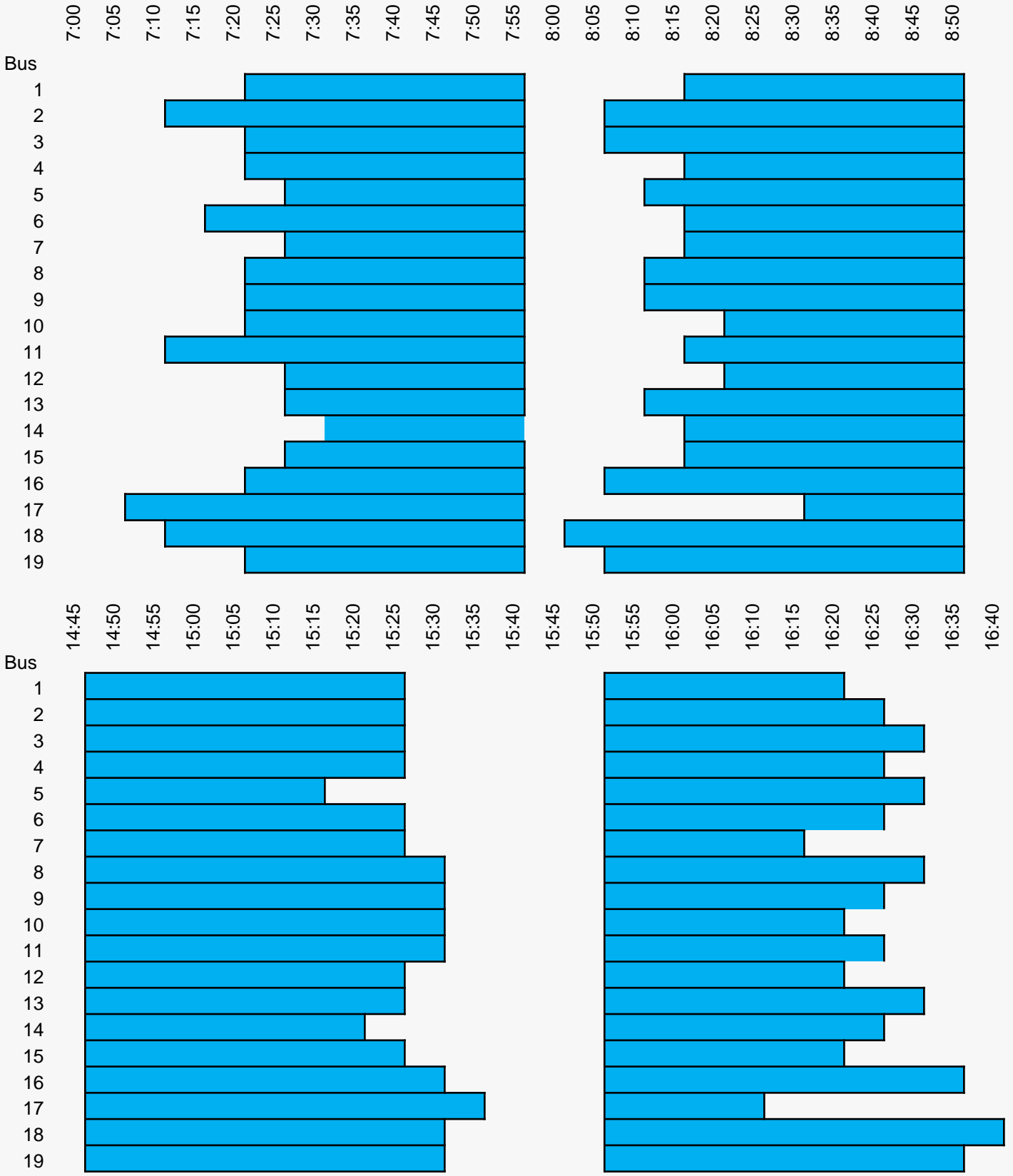
On the next page, we have laid out a potential coverage area that would be utilized for the middle school and high school runs. Each area represents the location of where each bus picks up students. The areas provided keep the total scheduled students under the maximum capacity of the bus of 77. This is the same for the morning and afternoon runs with the Tech students transported from the Henry Abbott Technical High School back to the high school to be distributed onto the bus they took in the morning.

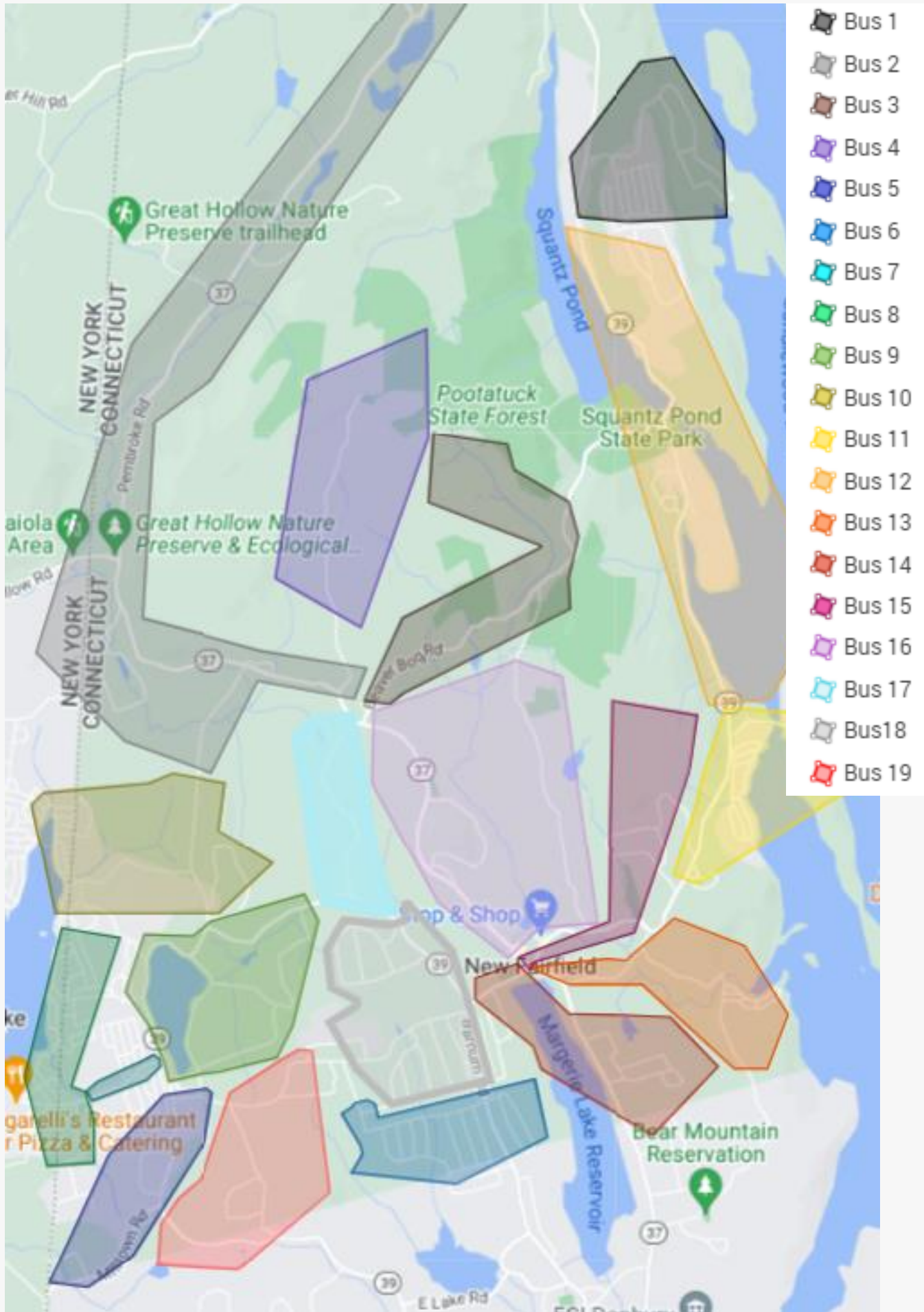
Bell Time Change

Planned # MS & HS Students by Bus		
# of Buses	Students Scheduled	Maximum anticipated ridership
1	75	45
2	48	29
3	66	40
4	50	30
5	55	33
6	65	39
7	70	42
8	72	43
9	70	42
10	68	41
11	60	36
12	60	36
13	66	40
14	58	35
15	73	44
16	77	46
17	68	41
18	65	39
19	55	33

Bell Time Change – Twp-Tier

This chart represents the run time for the 19 buses in the morning and afternoon in a two-tier system.





Bell Time Change

Financial Considerations

The following are several consideration from a financial perspective:

- Consolidating to two tiers allows for a shorter day and potentially cost savings,
- Fuel savings will be seen by consolidating as long as the contractor doesn't add any runs. Fuel savings will range from 10% to 30% of the existing fuel costs,
- Maintaining the current number of buses in the fleet will contain costs.

Athletic Runs

6

Considerations

The following concerns regarding a change in start time were expressed by the District:

There is a concern that there will be an increased travel time for athletes getting to games on time. With both options presented the departure time would result in the buses leaving 25 to 35 minutes later and on a similar schedule as many of the Districts peers.

There is also the thought that there will be a lack of conference opponents who have later end times. The District is among the earliest District to release at 2:05 PM. With the change, the District will be around the average dismissal time for similar Districts. The lack of lighted fields across SWC schools to host night games is a concern that unfortunately could not be adequately addressed by a bell time shift. It should be considered when scheduling games.

When students and teachers need to leave early for games, it is important to balance arriving to a game on time and the instructional time. The shifting of bell times will have a very minor impact as the difference will be between 35 and 45 minutes.

There is also a consideration that the current and/or future bus company could not fulfill the charters to the games. Under the proposed options, there would still be the same availability for buses to take students as the existing situation. The additional cost should be borne by the contractor and language in the upcoming RFP should reflect these concerns.

The District should also consider adding the requirement of undercarriage storage to their buses for their next contract. This will allow the District to transport teams equipment in a safer compartment and reduce the frequency that a separate bus is needed for equipment only.

Conclusion

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It is possible to go to a two-tier system with reducing the number of runs from 20 to 19. The district will need to stay on top of the contractor in order to meet the goals and recommendations by the report.

Requirements to make this happen:

- Constant communication with the contractor,
- Insistence on following district prerogatives,
- Board approval,
- Community support,
- Providing the benefits of the switch, and
- Careful consideration paid when scheduling athletic trips.