



September 29, 2023

Sent via email: Robert_Bruce1@hcpss.org

Robert Bruce, NIGP-CPP, CPPO, CPPB
Director of Procurement and Materials Management
Howard County Public School System
10910 Clarksville Pike
Ellicott City, Maryland 21042

Re: Cure Notice for Student Transportation Services RFP #019.23.B3

Hello Mr. Bruce,

I am writing to you in response of letter subject “Cure Notice for Student Transportation Services RFP #019.23.B3” dated 22 September 2023. Through this response, we hope to give you a clearer understanding of the background and facts surrounding the services we have provided to HCPSS, followed by answers to your specific questions and our plan of action going forward.

First, we would like to assure HCPSS that Zum is currently fully staffed with all required drivers, including for the 17 routes no longer assigned to it. We regret the temporary suspension of 20 routes at the start of the school year. We recognize that HCPSS has elected to remove 17 routes from Zum’s contracted services as HCPSS is entitled to do pursuant to Section 3.5.3.1, subsection 3 of the RFP. However, we hope that HCPSS will shortly invoke the same provision to return the routes to Zum.

With respect to the items noted in HCPSS’s letter, the great majority of the issues were largely outside of Zum’s control, but Zum has worked diligently to address them. This includes overcoming an historical 100 driver shortage, the move to a 3-tier bell system with insufficient time between routes, and unrealistic routes that could not physically be completed in the scheduled time frame. Furthermore, HCPSS was to provide Zum the proposed routes **10 working days** prior to the start of the school year per the Contract; instead Zum only received all the final routes **early Saturday (August 26) morning for the start of school that Monday (August 28)**. This had a huge impact on driver readiness.

Nevertheless, in an effort to be a good partner to HCPSS, Zum worked tirelessly to overcome these challenges, going above and beyond Zum’s contractual requirements. For example, Zum flew in trained drivers from Zum’s yards in Washington and California, deployed more drivers than required under the Contract to cover routes that would otherwise be delayed because of incorrect routing information, and has been providing crucial data to HCPSS to improve routes. That data-driven improvement has been dramatic: e.g., on September 19 (the day before the



changes to the routes), only 38% of 3rd-tier buses were on time but the following day, this number was 90%.

Zum's technology has further played an important role in supporting the community during the confusion of the first few weeks. Zum's dashboards for the school sites, district, and parent app allow up-to-date information showing the actual arrival and start times of the buses—an essential tool during this period of delayed rides. This is evidenced by the ratings for the parent app, **which has an average 4.8 / 5 star rating, with 96% of the ratings at 4 stars or above.**

Bid Process and Award

Zum participated in a competitive and in-depth bid process and was awarded the HCPSS Student Transportation Services Contract #019.23.B3 on February 15, 2023. The only incumbent contractor that participated in this open bid process was Tip Top Transportation, which was awarded a contract alongside Zum. Zum's proposal included a bid for both partial award (1 or more regions) and full award (all regions), and HCPSS awarded Zum Regions 3, 5 and 6.

Change in bell times/delay in routing information

The following events (that Zum was not a party to and outside of Zum's control) made it impossible for Zum to provide the services the parents and children of Howard County deserve.

- (a) The change of bell times from 2-tier to 3-tier and the resulting schedules did not allow sufficient time between routes; and
- (b) Perhaps because of the complexity of changing to a 3-tier system, HCPSS was not able to provide the routes to Zum 10 working days before the start of school, as required by the contract. Instead all of them were only received on Saturday at 1 am ET (August 26) before the start of school early Monday morning (August 28). This delay both eliminated the dry runs and time to make modifications that need to take place before school starts and created confusion among drivers as to what routes they would have and whether they would have a route at all.

Historical driver shortages in HCPSS/Insufficient drivers at school launch

During the RFP and award process, HCPSS advised all bidders of the school bus driver shortages in Howard, estimated to be **a deficit of about 100 drivers**. This historical shortage apparently arose given the competition with more lucrative jobs for CDL drivers particularly given that incumbent school bus contractors were offering lower pay and fewer benefits. HCPSS was able to make up for this shortage because it had a two-bell system that allowed for "double backs" - the first bus returning for the second—and last—run. The 3-tier bell system does not allow for double backs.



Given the circumstances, Zum planned to:

- (a) Train and certify 100 new or first time school bus drivers to make up for the inherited and historical 100 driver deficit; and
- (b) Hire 130 drivers already driving HCPSS routes in the regions awarded to Zum.

In order to meet these challenging hiring goals for Howard County, Zum did the following:

- (a) Created a much more competitive pay and benefits package that included medical benefits and a 401K plan.
- (b) Built a team of over 20 trainers and set up an extensive multilingual digital and off-line marketing campaign to educate and recruit candidates.
- (c) Proactively engaged with various local organizations like Howard County Chamber of Commerce, Howard County Farm Bureau, Baltimore City Mayor's Office of Employment Development, Howard County Economic Development Authority, Howard County Office of Workforce Development to reach out to potential school bus driver recruits. This included social media and grassroots recruiting efforts at community centers, places of worship, malls, and community events.

In few months of time between the award and the start of the school year, we trained and certified 87 new local school bus drivers for HCPSS contract¹.

One unexpected challenge that we faced was that the incumbent contractors were mistakenly advising their existing drivers that they would be able to keep the routes Zum had been awarded (possibly as a result of litigation or administrative actions by the incumbents to which Zum was not a party). That left drivers unsure whether to sign on with Zum and often elected to remain with the incumbent until near the start of the school year. As a result, instead of a target of 130, we were able to hire only 65 pre-certified school bus drivers by the start of the school year.

To fill this gap, at our own tremendous expense, Zum flew in 73 certified bus drivers from Washington and California, boarded them in hotels, and further trained and certified them to meet Maryland- and Howard County-specific requirements. HCPSS called this "the kind of out-of the box thinking needed to change the status quo HCPSS transportation has been struggling with". We agree: if status quo had prevailed and HCPSS had gone with a historic 100 school bus driver shortage with a 3 tier bell schedule system, the outcome would have been far worse.

Through these substantial (and expensive) efforts, Zum had 232 school bus drivers for the start of the school year. We regret that, unexpectedly, 20 of our 230 school bus drivers did not show up for work, and Zum could not cover 20 routes that first day. As a result, it was agreed that

¹ It is worth noting that Zum school bus drivers were put through training that exceeded the Maryland and Howard County requirements. For example, our candidates went through 40 hours of classroom time and at least 25 hours of behind the wheel training as compared to Maryland and Howard County requirements of 19 hours and 9 hours, respectively. All drivers also, of course, receive the Maryland Vehicle Administration and County approvals and background and drug tests before they are allowed to drive for HCPSS.



those routes would be suspended and later covered by other contractors. Through additional tremendous efforts, described below, Zum has now added 68 more drivers to its fleet for HCPSS since the start of the school year, making our total driver figure reach 253 certified school bus drivers.

Routing for the Start of the School Year

Zum, after being awarded the contract, conducted multiple meetings with the HCPSS transportation team to understand their routing plan and technology. Because of our substantial experience with technical solutions to routing, we offered our technology at no additional cost. We even offered (also at no additional cost) to create a complete routing system in parallel to staff's efforts so that HCPSS staff would have the choice of either selecting Zum's routing (for free) or using its existing routing solution. We understand that HCPSS was not able to accept these offers because of procurement and other rules.

HCPSS instead followed its normal practice with staff doing all the routing and providing route sheets and data to the operators. As stated above, perhaps given the complexity of changing to a 3-tier system, HCPSS was not able to provide Zum all of the routes until early Saturday morning (August 26, 2023 at 1:03 AM) before the Monday (August 28, 2023) start of school (and, even then, many of the routes were inaccurate). The HCPSS Contract with Zum requires that the HCPSS provide Zum the proposed routes **10 days before the start of the school year**². This 10-day period is a standard process throughout the industry to allow:

- (a) Drivers to bid on the routes that they want;
- (b) Drivers to perform at least 2 dry runs to familiarize themselves with the routes and provide feedback on the routes on paper vs. the reality on the ground;
- (c) HCPSS to review the feedback to the 1,000's of paper routes; implement needed changes; and provide the drivers with final route sheets;
- (d) Drivers to review the final route sheets and perform another dry run if needed.

This was particularly important here, where 170 of the drivers were new to HCPSS and more than half of them new to driving school buses.

To summarize, in addition to the 20 routes that were suspended and then reassigned, the first few days went poorly for the following reasons:

- (a) the 10-day period was eliminated, therefore dry runs were unable to be done, feedback based on those runs was unable to be provided, and more accurate routes were unable to be created;

² See Section 3.5.3.3, subsection 3 of the RFP #019.23.B3 for Student Transportation Services, issued by the Howard County Public School System (HCPSS) on October 10, 2022 ("Contract"):

"HCPSS shall present proposed routes to Contractor for review and comment as they are developed, but not later than ten (10) workdays prior to the first day of school in any year during the term of this Agreement."



- (b) A 3-tier bell system that did not allow sufficient time to run the routes (e.g., a route could say drop off at 7:50 am with a pick up set for 7:40 am.); and
- (c) Conflicts in routing information (e.g., a route scheduled for 25 minutes that takes 45 minutes).

In response to the driver shortage on Day 1, Zum responded with urgency. We immediately provided HCPSS with a plan to recruit more drivers, including increasing the sign-on bonus for pre-certified school bus drivers up to \$8,000 and for first-time school bus drivers who are required to go through training and certification up to \$5,000. As a result, we have now added 68 more pre-certified school bus drivers to our pool since the start of school. Today, we have sufficient drivers to cover all HCPSS routes, even if 30 drivers are absent on a given day.

In addition, Zum immediately took a number of steps to help the HCPSS team resolve the issues caused by the compressed bell times:

- (a) We immediately began providing the HCPSS team with data showing the conflicts mentioned above.
- (b) We performed analyses for the HCPSS team showing them options for minimal changes to the bell times that could alleviate the very poor on-time performance.
- (c) We have deployed more drivers than contemplated under the Contract – at no additional expense to HCPSS – every day for the past 2 weeks to cover routes in second and third tiers that would otherwise be delayed due to erroneous routing information. This will continue to be done to support HCPSS until it can fix the remaining few routes that still have incorrect routing times.

The below morning and afternoon school bus arrival data clearly shows the following:

- (a) Zum can only control the timing of the first pick up in the morning and afternoon. After that, the routing dictated the cascading delays to the next tiers of schools.
- (b) Once Zum drivers had a chance to complete their routes during the first few days, the on-time performance to the first stop of the morning and afternoon greatly improved, and by the second week, we were on time about 97% of the time. Had they been able to do the dry runs during the 10-day period provided for in the Contract, they would have been on time from day 1 of the school year.
- (c) Based on Zum's data analysis, on September 20, HCPSS implemented the bell time adjustments. The chart shows that in all the bell times tiers, morning and in the afternoon, performance improved considerably. For example, on September 19, only 38% of the third tier buses reached the elementary schools on time but on September 20, the first day of the adjusted bell times, this number went up to 90%.

Bus Arrival Times at First and Last Stop in Each Tier

Morning	Tier 1		Tier 2		Tier 3	
	First Stop	School	First Stop	School	First Stop	School
08/31	87%	42%	62%	53%	70%	56%
09/01	93%	63%	80%	67%	81%	66%
09/05	98%	77%	88%	79%	85%	75%
09/06	97%	82%	87%	80%	82%	76%
09/07	97%	81%	86%	79%	81%	76%
09/08	98%	82%	88%	80%	82%	76%
09/11	97%	82%	87%	79%	82%	76%
09/12	98%	83%	88%	79%	82%	75%
09/13	97%	81%	87%	79%	81%	75%
09/14	97%	83%	88%	80%	83%	76%
09/18	97%	81%	88%	80%	82%	74%
09/19	96%	83%	87%	80%	83%	76%
09/20	97%	93%	95%	96%	94%	98%
09/21	97%	91%	95%	97%	94%	96%
09/22	98%	96%	97%	98%	98%	97%
09/26	94%	90%	95%	97%	99%	99%

← Fourth day of the School Year

← Bell times change implemented

Afternoon	Tier 1		Tier 2		Tier 3	
	School	Drop off	School	Drop off	School	Drop off
08/31	88%	58%	62%	47%	20%	12%
09/01	94%	70%	73%	50%	30%	18%
09/05	96%	83%	76%	66%	44%	18%
09/06	96%	83%	68%	58%	27%	23%
09/07	96%	87%	79%	68%	36%	22%
09/08	95%	87%	79%	70%	39%	26%
09/11	95%	87%	78%	70%	39%	25%
09/12	96%	87%	79%	69%	39%	26%
09/13	97%	87%	78%	69%	39%	25%
09/14	96%	87%	79%	70%	38%	26%
09/18	97%	86%	78%	69%	37%	25%
09/19	97%	87%	79%	69%	38%	25%
09/20	99%	95%	98%	82%	91%	65%
09/21	97%	93%	90%	78%	82%	70%
09/22	99%	94%	94%	79%	90%	68%
09/26	100%	97%	96%	80%	89%	65%

← Fourth day of the School Year

← Bell times change implemented

Zum's Technology

For the first time in HCPSS' history, a school bus contractor has introduced modern and integrated technology that provides an unprecedented level of safety, convenience, transparency and accountability to all stakeholders:

- (a) Routing technology - a modern routing technology specially designed for school transportation that is way more powerful, agile and easy to use than that of any of our competitors. HCPSS has been able to use this technology to help address the routing issues described in this letter.
- (b) Parent app - an application that tells parents who their bus driver is, the expected arrival time of their buses, live tracking on a map, and a unique rating system so parents can provide immediate feedback to Zum about their experience.



- (c) School site dashboard - a dashboard for all school campuses that shows school administrators which buses and students are arriving or departing to or from their schools, expected arrival and departure times, and live tracking on a map.
- (d) School district dashboard - a dashboard that allows school district staff to know more about every school bus on the road both in both a simple map view and a more detailed view with stop details, students and drivers assigned to each route, as well as performance data and reports. The dashboard includes many auto-generated reports to help HCPSS staff stay ahead of the curve and make data-based decisions about transportation.

This technology has played a major role in supporting the HCPSS community through the confusion involved in HCPSS adjusting bell times and fixing routes to help show realistic drive times and scheduled times at stops. It allows parents to see the actual times their child would be picked up and dropped off. For example, HCPSS route sheets may show a parent a scheduled dropoff time of 4:15 pm, while the actual drive time will get the bus to there at 4:30 pm. The Zum app tells parents the correct time – the only way they will know not to spend precious minutes waiting for a bus that will not arrive at the designated time.

The Zum app was rolled out by HCPSS less than 2 weeks ago and already about 4600 unique HCPSS families (or about 50% of the population) log into the Zum app every day, an average of 5 times a day. Further, the app allows families to rate each school bus ride and provide feedback. In the last 2 weeks of app launch, Zum has collected 2,194 ratings from HCPSS families. **The average rating is 4.8 stars out of 5 stars. 96% of HCPSS parent ratings are 4 stars or above.**

There is naturally a human (school bus driver) involved in the use of technology, and a learning curve that could have been largely addressed had we been able to have the full 10 working days of dry runs. There are times when they have made mistakes by not using the tablet and driver app properly, but we are actively addressing these issues. We now conduct a daily training session from 10.30 am - 11.30 am (after the morning shift) for our drivers on the use of technology.

There are also some action items that, if taken by HCPSS, can help in improving the technology experience among HCPSS families:

- (a) Right now, school bus drivers have to manually mark students picked up or dropped off when they get on and off the bus. In our proposal, HCPSS had agreed to issue RFID cards to students that would allow students to check themselves on and off the bus. We had printed 20,000 RFID cards for every student we are supposed to transport but this was never rolled out by HCPSS. We would request that you roll out RFID cards as the best way to take advantage of our technology.



- (b) Many HCPSS families do not have access to phones. We request that we be allowed to send to them via SMS text the information available to parents using our app. This will alleviate stress and allow all families to know accurate estimated times of arrivals and departures.

Additional and Supplemental Trips

We would also like to take this opportunity to clarify Zum's obligations and expectations with respect to Additional and Supplemental Student Transportation (such as athletics trips and field trips). Although we believe that the contract allows for Zum to accept or reject the Additional and Supplemental trips at Zum's discretion³, it is certainly Zum's intent to accommodate any such Additional and Supplemental trip as is physically possible. However, given the flexible and varied nature of such Additional and Supplemental trips, there are often situations where the Additional and Supplemental trips conflict with Zum's standard routes. In such instances, Zum would be unable to provide such Additional and Supplemental services and understands that HCPSS would request such services of its other contractors.⁴ Zum would not expect to be paid for such trips that it does not provide, and Zum does not believe that HCPSS would penalize Zum for not being able to predict and plan for when exactly unpredictable trips would need to be run. Please note that as and when the bell schedules and routes are optimized, many of the current timing conflicts will be removed and Zum will be able to accommodate more Additional and Supplemental Trips.

HCPSS Concerns

With respect to the specific concerns outlined by HCPSS in its letter, in addition to the above summary, we have outlined below how we have addressed each issue and our action plan.

Issue #1 – Canceling 20 routes the first two weeks of school due to lack of drivers. Per the RFP section 3.5.4.2 Minimum Service Levels and Standards of Performance, subsection 3, this is a zero-tolerance standard of performance that was not met. While Zum was able to regain three of these routes, 17 routes were removed from Zum's Contract and HCPSS will deduct and set off any costs and damages incurred in remedying this failure for the remainder of the 2023-2024 school year.

³ See Section 3.5.3.1, subsections 4 and 6 of the RFP incorporated into the Contract. There is no strict obligation for Zum to provide Additional and Supplemental Student Transportation, and indeed the language clearly indicates that it is in Zum's discretion whether or not to accept such a trip.

- Subsection 4: "The Contractor *may provide* such other Additional and Supplemental Trips..." (emphasis added).
- Subsection 6: "All requests for service *accepted by Contractor...*" (emphasis added)

⁴ See Section 3.5.3.1, subsection 5 of the RFP incorporated into the Contract:

"The volume of services to be provided in accordance with this requirement will vary based on demand, is not guaranteed, and may be requested of other Contractors if the Contractor providing home-to-school service under the requirements of this section is *unable* to provide this service." (emphasis added)



As noted above, Zum has taken numerous steps to correct this issue. We are happy to report that driver shortage is no longer an issue. In the past 4 weeks, we have added 68 more school bus drivers to our team and currently have 253 certified school bus drivers on our payroll.

We inherited a 100 school bus driver shortage (20% of the total HCPSS driver requirements) and we have completely removed that historical shortage.

As such, we respectfully request HCPSS to assign back 17 routes removed from Zum's Contract.

Issue #2 - Issues with the GPS/technology solution. This is a deficiency per RFP section 3.5.4.2 Minimum Service Levels and Standards of Performance, subsection 4. Drivers are accepting routes and then failing to complete them. The drivers are marking them as complete before picking up students.

This was a challenge seen among a few drivers who had a steeper learning curve with the technology than others. Zum would have had the ability to address this if Zum had the full 10 working days to conduct dry runs as expected under the Contract.

Our plan to overcome any technology-related issues is as follows:

- (a) We conduct a daily in-person training session at our yard between the morning and afternoon shift. This session is for drivers who we identify through our ride monitoring system or are highlighted by HCPSS families either directly to Zum or through HCPSS staff. Training sessions are also open to all other drivers and our goal is to have 100% of our drivers go through this refresher training by October 7, 2023
- (b) We have assigned 2 dedicated ride monitoring staff to the local team who are identifying rides which are having or will have issues as drivers go from tier 1 to tier 3 routes during the morning and afternoon shifts.
- (c) Our yard team, augmented by a centrally located customer support team, works diligently to respond to every issue raised so that issues raised are resolved quickly.

There are also some action items that if taken by HCPSS can help in improving the technology experience of technology among HCPSS families. We have noted these under "Zum's Technology" above and would appreciate HCPSS's support in implementing these action items.

Issue #3 - Zum has vans covering special education routes that are showing up to transport students without a bus attendant in the vehicle. This is a deficiency per RFP section 3.5.2.1 Legal Compliance, subsection 1. This issue has required HCPSS to use its own staff to manage this failure in order to comply with all applicable requirements. HCPSS will no longer provide bus attendants after Friday, September 29, 2023.



We are working actively to resolve this challenge.

- (a) We are actively recruiting attendants and offer joining bonuses to the candidates who clear the training and certification process and join Zum. As on date we have 39 certified attendants in our employee pool.
- (b) We are working with two temp agencies that supply certified temp staff to HCPSS as well as hiring temporary attendants till such time we can fulfill staff permanently. They are working on getting us 15 more qualified attendants for Monday, 02 October.
- (c) We are also working with the HCPSS transportation team to collapse multiple van routes into fewer school buses routes. On average, three white vans are equal to one school bus. This will reduce the need of attendants and also free up white van drivers who are qualified to act as attendants.

Conclusion

We believe that Zum has demonstrated that we are a true partner with HCPSS. Our mission is to modernize student transportation and we appreciate the opportunity to work with HCPSS to further that mission. We will continue to work collaboratively to serve the HCPSS community with increased safety, convenience, transparency, and accountability.

Sincerely,

A handwritten signature in black ink that reads 'Vivek Garg'.

(Vivek Garg)
Chief Operating Officer
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CC: Brian Nevin, David Ramsey, James Fritz, Anna Rungfarsangaroon, Stephen Cowles, Jahantab Siddiqui, Karalee Turner, Daniel Lubley, Lynn Miller, Kavitha Kadambi, Sarah Skinner