

TRAFFIC MANAGEMENT PLAN

Prepared by: Stonefield Engineering & Design
Date: January 30, 2023

SITE PLAN MODIFICATION
505 WEST CENTRAL STREET
LOT 3
(515 WEST CENTRAL STREET)
FRANKLIN
MASSACHUSETTS

TRAFFIC MANAGEMENT PLAN NOTES:

1. THE OPERATOR SHALL ENSURE UNIMPEDED ACCESS/EGRESS FOR STAFF AND PARENT/ GUARDIAN VEHICLES.
2. PAVEMENT MARKINGS INCLUDING A PAINTED STOP BAR AND DOUBLE YELLOW CENTERLINE AT THE SITE DRIVEWAY INTERSECTION SHALL BE PROVIDED.
3. DESIGNATED SPACES CLOSEST TO THE BUILDING ENTRANCE SHALL BE FOR SHORT-TERM CHILD DROP-OFF/PICK-UP. THESE SPACES SHOULD BE MARKED AND/OR SIGNAGE PROVIDED. THE OPERATOR SHALL NOTIFY PARENTS OF THE PROCEDURE AS WELL.
4. STAFF MEMBERS WHO DO NOT UTILIZE HANDICAP ACCESSIBLE PARKING MUST BE DIRECTED TO PARK AT THE MOST REMOTE SPACES AVAILABLE TO FREE UP SPACES THAT ARE MORE CONVENIENT/EFFICIENT FOR DROP-OFF/PICK-UP ACTIVITY.
5. STAFF MEMBERS SHOULD DISCOURAGE CHILD LOADING/UNLOADING BEYOND THE DESIGNATED DROP-OFF/ PICK-UP SPACES.
6. PARENT DROP-OFF/PICK-UP ACTIVITY AT NEARBY OFF-SITE SPACES ON ADJACENT PROPERTIES IS STRICTLY PROHIBITED.
7. PARENTS/GUARDIANS REQUIRING MORE TIME FOR TEACHER MEETINGS/IN-BUILDING VISITS SHOULD BE ADVISED TO PARK IN MORE REMOTE SPACES WITHIN THE "PICK-UP/DROP-OFF" ZONE TO FACILITATE HIGHER TURNOVER ACTIVITY AT THE MAIN BUILDING ENTRANCE.



OWNER
NORFOLK COUNTY DEVELOPMENT LLC
185 QUINCY SHORE DRIVE, #28
QUINCY, MA 02171
DEED BOOK 33300 PAGE 92
PLAN NO. 40 OF 2014 PLAN BK. 628
A.M. 270 LOT 29.2

APPLICANT
FRANKLIN LEARNING RE LLC
ATTN: MANUJ GANDHI
206 GREAT ROAD
LITTLETON, MA. 01460

Guerriere & Halnon, Inc.
ENGINEERING & LAND SURVEYING
55 WEST CENTRAL ST. PH. (508) 528-3221
FRANKLIN, MA 02038 FX. (508) 528-7921
www.gandhengineering.com

JOB NO. F4383

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Town of Franklin

355 East Central Street
Franklin, Massachusetts 02038-1352



Phone: (508) 520-4907
www.franklinma.gov

DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT

DATE: January 31, 2023
TO: Franklin Planning Board
FROM: Department of Planning and Community Development
RE: 515 West Central Street
Site Plan

The following has been submitted for discussion:

1. Traffic Management Plan
2. Traffic Study Response from Applicant's Traffic Reviewer
3. Draft Resolution

The Planning Board should review the draft resolution and determine if it is what the Board agrees with.

DECISION ON PETITION FOR SITE PLAN REVIEW

PLANNING BOARD CASE No.

PETITIONER(S):

RELIEF SOUGHT:

LOCATION:

PARCEL ID:

OWNER OF SUBJECT

DATE OF HEARING:

- I. Petition and Relief Sought

- II. Proceedings and Public Hearing

- III. Findings of Fact

- IV. Determinations as to the Petition

- V. General Conditions
 1. The construction shall strictly comply with the Plan. The Petitioner shall submit an as-built plan following construction to the Building Department with a copy to the Board.

 2. This decision authorizes only this Project, in this location as described in the Plan and the submissions provided during this public hearing. Any material change to the use, size, configuration, footprint or height of the proposed structures and site improvements shall require an amendment of this decision, this approval having been based on a review of the proposed use, buildings, and site design as presented to the Board in the above referenced materials. Any modifications not identified and described

in this decision shall be subject to the same submittal, review, and hearing procedures as was the original filing. This decision shall not be construed as approval from any other Board, Committee, Official, or Department. The Petitioner shall obtain all other necessary local approvals and permits before undertaking any work or alteration of the site. Conditions of approval of all permits issued by other boards or agencies of the Town shall be considered conditions of approval under this decision. Should any of those conditions conflict with any provision or condition herein, the Board reserves the right to amend this decision upon a duly noticed public hearing.

VI. Special Conditions

1. The Petitioner shall develop and implement a traffic management plan (TMP) aimed at enhancing school-center drop-off/pick-up operations, parking activity and site circulation which shall be submitted to the Board for its approval. The plan shall include, at a minimum, the elements noted below:

a. A plan to ensure unimpeded access/egress for staff and parent/guardian vehicles;

~~b. A design of the driveway curb radii and travel aisles to accommodate the Town's largest anticipated emergency apparatus (ladder truck). [EVC1]~~

~~e.b.~~ Pavement markings including a painted Stop bar and double yellow centerline at the Site Driveway intersection.

~~d.c.~~ Designated spaces closest to the building entrance for short-term student-child drop-off/pick-up. Staff members who do not utilize handicap accessible parking should-must be directed to park at the most remote spaces available to free up spaces that are more convenient/efficient for drop-off/pick-up activity. The drop-off/pick-up zone should comprise the aisle flanked by 26 spaces nearest the building entrance, with the 12 spaces adjacent to the building serving as primary designated pick-up/drop-off spaces and augmented by a portion of the opposing 14 spaces as needed.

~~e. Designate traffic flow as "one way" [EVC2] counterclockwise around the building to reduce vehicle conflicts during pick-up/drop-off periods. This one-way pattern should be made permanent through the use of appropriate thermoplastic arrow pavement markings throughout the travel aisles around the building to clearly convey the desired travel circulation in combination with applicable MUTCD-compliant "one way" and "Do Not Enter" signs as needed.~~

~~f. The studentchild drop-off/pick-up "zone" (parking spaces nearest the building entrance area) should be designated as "one way" counterclockwise around the building to reduce vehicle/pedestrian conflicts.~~

~~g. Staff members should be available to assist students to/from the school building entrances and the drop-off/pick-up zone. Likewise, Staff members should actively manage all pedestrian crossings of travel aisles as needed.~~

~~h.d.~~ Staff members should also discourage ~~student~~-child loading/unloading beyond the designated drop-off/ pick-up zone – particularly at nearby off-site spaces on adjacent properties, which is strictly prohibited.

~~i.e. Concurrent loading/boarding of students by multiple staff as needed; parents should be discouraged from exiting their vehicles to walk a child into the building.~~ Parents/guardians requiring more time for teacher meetings/in-building visits should be advised to park in more remote spaces within the “pick-up/drop-off” zone to facilitate higher turnover activity at the main building entrance.

~~j.f.~~ Off-site parent drop-off/pick-up activity ~~should be~~is prohibited.

~~k. All parking spaces should be actively managed by staff to avoid conflicts during peak pick-up/drop-off periods.~~

2. Enrollment shall be phased in as set forth below:

a. Initial enrollment during the first phase shall be limited to no more than 90 ~~students~~-children to measure actual parking demand and trip generation characteristics. The Petitioner shall provide enrollment data to the Board and inform the Board when enrollment reaches approximately 90 ~~students~~children. The Petitioner shall not accept any additional ~~students~~-children for a period of nine (9) months once it reaches this enrollment level.

b. During this first phase, once enrollment is at 90 children, the Petitioner’s traffic expert ~~Town’s traffic peer reviewer, at the applicant’s expense, shall monitor~~ shall monitor vehicular activity at the property during one week of normal operation, that is not during a holiday week or Franklin public school vacation week, and then provide to the Board a written report about the parking and on-site traffic, which shall be reviewed by the Town’s traffic peer reviewer at the Petitioner’s expense. Such report shall incorporate the following components:

- i. Hourly parking demand data for a weeklong period under normal operation (no holidays) between 8 AM and 6 PM, noting actual enrollment at time of counts and associated staffing levels; including any observed parking at adjacent properties to the extent related to daycare operations.
 - ii. Hourly traffic volumes at the driveway over a weeklong period from 8 AM to 10 AM and 3 PM to 6 PM, concurrent with parking data.
 - iii. Evaluate and document TMP elements in place and operational during monitoring period including designated short-term parking assignment and number for pick-up/drop-off use; staffing protocols to assist in student-children loading/unloading if applied; assignment of staff parking within the lot (locations), staggered/assigned drop-off/pick-up protocols if applied; traffic controls in place at time of monitoring.
 - iv. ~~Monitoring—The parking and traffic report~~ results should be documented summarizing results confirming adequacy of on-site parking and TMP practices to support student-child enrollment level. ~~Projection/extrapolation of parking demand to full nominal enrollment of 143 students and 25 staff should be identified based on monitoring data to support additional enrollment beyond 90 students up to the maximum enrollment level.~~[EVC3]
- c. ~~Subject to paragraph 2(d) below, a~~At the end of the nine (9) month monitoring period, to the extent no operational or parking capacity problems are identified, ~~constraints are identified based on monitoring results, and if the Board finds that projected parking demand at full enrollment indicates ample parking capacity to accommodate the program proceed to full enrollment and subsequent monitoring, the Petitioner may move to the next phase and accept its full capacity of students~~[EVC4] enrollment shall be increased to 143 [EVC5] children and 25 staff.
 - d. If, however, ~~at the end of~~during the nine (9) month monitoring period, monitoring indicates insufficient on-site parking, queues that extend beyond the site boundaries or undue reliance on or use of off-site parking to support the program, enrollment shall not extend beyond 90 studentschildren, and the Petitioner shall identify additional TMP elements that may be employed to reduce peak parking demands or queue conditions including but not limited to additional staff assistance for drop-off/pick-up operations, staggered/assigned drop-off/pick-up periods or other similar techniques. Such modifications to the TMP shall be implemented and documented by Petitioner and subject to supplemental monitoring/reporting for three (3) additional months to

~~validate Petitioner's ability to accommodate additional enrollment beyond the 90-student limit~~ ensure Petitioner's compliance with the TMP. If the Board wishes to invoke this additional monitoring, it shall only do so at a public hearing with notice to the Petitioner. If the Board does not notice such public hearing prior to the expiration of the nine (9) month monitoring period, the Petitioner ~~may~~ shall be permitted to move to full ~~enrollment~~ capacity of 143 children and 25 staff.

- e. During the additional three (3) month monitoring period the Petitioner shall provide the Board with a second parking and traffic report in prepared in the same manner and reviewed by the Town's traffic peer reviewer as set forth in paragraph 2(b) above. At the end of that additional three (3) month monitoring period, to the extent no operational or parking capacity ~~constraints~~ problems are identified based on monitoring results, ~~and if the Board finds that projected parking demand at full enrollment indicates ample parking capacity to accommodate the program proceed to full enrollment and subsequent monitoring,~~ ^[EVC6] the Petitioner may shall be permitted to move to the next phase and accept its full capacity of ~~students~~ children and staff as noted above. If the Board is not satisfied that any such documented issues have been addressed during this additional monitoring period, it shall hold a public hearing with notice to the Petitioner ~~and determine whether or not and under what conditions to extend the 90-student limit~~ in the same manner as set forth in paragraph 2(d) above.
- f. Condition 2 as to phasing shall expire after twelve (12) months from the time that the Petitioner notifies the Board that it has reached approximately 90 enrolled ~~students~~ children per paragraph 2(a) above, unless the Board at a duly noticed public hearing issues a new decision in accordance with paragraphs 2(d) or 2(e) above. Thereupon this Condition 2 as to phasing shall expire at the end of the three (3) month monitoring periods set forth in paragraphs 2(d) or 2(e) above.

FRANKLIN PLANNING BOARD

DATED: _____

Filed with the Town Clerk: _____

STONEFIELD

January 30, 2023

Amy Love, Town Planner II

Town of Franklin

355 East Central

Franklin, MA 02038

Via Email: alove@franklinma.gov

**RE: Peer Review Response #1
Franklin Learning RE LLC (Land Court Case No. 21MISC 000319)
The Learning Experience Childcare Center
515 West Central Street
Parcel # 270-029-002-000
Town of Franklin, Norfolk County, Massachusetts
SE&D Job No. BOS-210006**

Dear Ms. Jones:

Our office is submitting a response and supporting information on behalf of the Applicant to address the comments contained within the peer review letter dated January 17, 2023, prepared by Robert J. Michaud of MDM Transportation Consultant, Inc.

Please find the following items enclosed:

ITEM DESCRIPTION	DATED	COPIES	PREPARED BY
Traffic Management Plan (TMP)	01/30/2023	--	Stonefield Engineering & Design

Should you have any questions regarding the submission items or responses above please do not hesitate to contact our office.

Best Regards,



Joshua H. Kline, PE
Stonefield Engineering and Design, LLC



Matthew J. Seckler, PE, PTOE
Stonefield Engineering and Design, LLC

Via Email

STONEFIELDENG.COM

120 WASHINGTON STREET, SALEM, MA 01970 617.203.2076 T.201.340.4472 F.

The following is an itemized response to the comments contained within the MDM Transportation Consultants Review Letter dated January 17, 2023. For the sake of brevity, any comments that are statements of fact or have been previously addressed are not included in the response below:

MDM Rebuttals - Parking and Traffic

- 5) Development requirements for TLE facilities are outlined in TLE's Real Estate Developer Investment Information Package, citing build-to-suit requirements of 40 parking spaces for the prototypical TLE facility.

Stonefield Response: Acknowledged, there are many factors that go into the site selection process. Including a link below to TLE's website as well.

<https://thelearningexperience.com/our-development-requirements/>

- 6) Massachusetts-based TLE facilities inventoried in the Application materials include locations in South Easton and Littleton; these facilities provide on-site parking supply of 39 spaces (South Easton) and 45 spaces (Littleton) that are consistent with TLE development requirements per TLE's Real Estate Developer Investment Information Package. Indeed, TLE New Jersey facility data are also provided in Application materials indicating on-site parking supply ranging from 41 to 45 spaces consistent with these TLE requirements.

Stonefield Response: The TLE facility in Union, New Jersey has a parking supply of 21 spaces, and for references purposes the TLE in Dedham, MA has 27 spaces.

- 7) Parking demand estimates cited in the Application materials are based on average parking demands using ITE Parking Generation rates and building area. Notably, application of peak demand rates, referred to as 85th percentile rates in Parking Generation, indicate a demand of up to 39 vehicles for a daycare use. Likewise, application of ITE Parking Generation peak demand rates for daycare use based on employment (22 employees) also yields a peak demand of 39 vehicles. Application of ITE Parking Generation peak demand rates for daycare use based on average enrollment level of 80% of licensed capacity (as represented in Application materials, equivalent to 115 students) also yields a peak demand of 39 vehicles.

Stonefield Response: The Application materials are based on the "Average Peak Period Parking Demand". The 39-vehicle parking demand noted above reflects the 85th percentile rate for all day care centers, including ones that are smaller than 7,500 square feet (not comparable to the proposed site). When this information is properly filtered the 85th percentile parking demand rate for 7,500-square-foot and larger day care centers (comparable to the proposed site) is 2.38 vehicles per 1,000 square feet, which also equates to 25 vehicles. As such, the 33-space proposed parking supply is consistent with the ITE data.

It should be noted the 85th percentile rate means that 85% of all day cares included in the ITE data had a peak parking demand of 39 vehicles or less, or only 15% of all day cares had a peak parking demand greater. It is industry standard to utilize the average peak parking demand rates rather than overdesigning based on the 85th percentile rates.

- 8) *Empirical parking demand data provided in Application materials are principally based on TLE facilities located in New Jersey, despite there being more than 18 Massachusetts-based TLE facilities. Following ITE recommended practice, use of empirical data as an alternative to published ITE database/rates should include observations at a least several locally-based facilities of comparable size (building area, employment level and enrollment in this case) and multiple days of data to support estimates. Empirical parking data provided in Application materials is not consistent with this recommended practice, does not indicate facility employment levels, enrollment or building size and cannot be relied upon as an alternative to ITE Parking Generation data.*

Stonefield Response: As noted above the proposed parking supply is supported based on the ITE Parking Generation data. In this case the empirical parking data is used merely to supplement the ITE data and provide additional support for the application. TLE facilities have standard operations and are expected to exhibit similar parking demand rates regardless of the location.

- 9) *MDM concludes that proposed parking supply of 33 spaces not only falls below TLE development guidelines but is also notably less than ITE peak parking demand projections based on proposed employment, average enrollment levels and building area variables cited in Application materials. This condition presents a potentially untenable condition for traffic flow on and adjacent to the Site and stands to impact adjacent properties.*

Stonefield Response: The 33-space supply is consistent with the average peak parking demand rates for comparable day cares to the proposed site based on building area, employment, and average enrollment. Additionally, the empirical data provided supports that 33-space supply would be sufficient based on existing TLE facilities in operation.

- 10) *ITE Trip Generation has been updated in September 2021 which if applied to the proposed 10,400 sf Franklin facility results in trips ranging from 114 vehicle-trips (AM peak hour) to 116 vehicle-trips (PM peak hour). Application of ITE Trip Generation 11th Edition trip rates based on enrollment capacity of 143 students (a more reliable variable than building area) results in similar peak-hour trips ranging from 112 vehicle-trips (AM peak hour) to 113 vehicle-trips (PM peak hour). Similar results are noted is using employment level as the trip rate variable. These trip estimates are more than 50 percent higher than represented in Application materials.*

Stonefield Response: Based on trip generation counts that have been conducted at other TLE locations and at similar operating facilities along with our office's experience with this use we are confident that the project will operate safely and trip generation rates will be comparable to the report as submitted.

- 11) *MDM further notes that projects generating more than a 5 percent change in volume on area roadways meet thresholds that industry practice in the Commonwealth deems appropriate for detailed operational analysis; the proposed TLE facility exceeds these thresholds. Accordingly, data and analysis for the intersection at West Main Street at the mutual "driveway" serving the Site and adjoining land uses is appropriate. Providing these data and operational analysis will facilitate an understanding of project traffic flow impacts on the shared use driveway.*

Stonefield Response: Off-Site traffic analysis and impacts are not applicable to this application.

- 12) *MDM further notes that per project trips above using ITE Trip Generation 11th Edition rates when compared to previously approved trips cited in the Application materials, are higher and represent a condition that warrants operational analysis to understand traffic queue operations and delays on the common shared "driveway" serving abutting land uses.*

Stonefield Response: Off-site traffic analysis and impacts are not applicable to this application.

- 13) Application materials fail to document a proposed traffic and parking management plan that would ensure efficient use of on-site parking to accommodate safe school traffic operations. Traffic and parking management practices customary to daycare facilities in the Commonwealth would typically include provisions for assigned staff parking to optimize proximity of parent/guardian parking to building entrances; assigned/staggered drop-off/pick-up times as appropriate to minimize arrival/departure "bunching" and parking demand; staff assistance with pick-up/drop-off operations to optimize/minimize time required for student loading/unloading; etc. A monitoring component is often employed for such facilities to measure actual Site performance for both trip and parking activity to ensure undue parking and circulation impacts are addressed.

Stonefield Response: Please see enclosed a traffic management plan.

Conclusions and Recommendations

- 14) MDM concludes that the proposed 33-space parking supply represents a constraint on potential enrollment and staffing levels at the proposed TLE facility and is insufficient to support the proposed 143-student licensed enrollment and 25-staff without undue impact to circulation within and adjacent to the subject property. More specifically, parking demands in excess of on-site supply stand to cause queuing within the Site or adjacent to the Site or parking within the shared driveway or adjacent properties under peak operating conditions.

Stonefield Response: It is our opinion, based on empirical data as well as ITE data, that the 33-space supply would be sufficient. A monitoring program can be implemented to ensure that no queuing issues occur within the Site or adjacent properties.

- 15) In lieu of providing sufficient on-site parking supply, Applicant may need to "phase-in" enrollment and staffing at lower initial levels and increase enrollment/staffing subject to monitoring. Initial enrollment/staffing levels would need to be more closely evaluated to ensure that projected peak parking demands fall reasonably within ITE-based 85th percentile levels with reasonable surplus (typically 10 percent of supply).

Stonefield Response: The applicant has agreed to implement a "phase-in" approach as a condition of approval.

- 16) MOM recommends Applicant commit to a parking and traffic management plan (TMP) tailored to the Site including a monitoring program to measure actual parking demand and trip performance characteristics of the facility, with commitment to countermeasures to address unforeseen circulation and safety issues. The framework of for a TMP and associated monitoring with established thresholds is identified below that will allow for incrementally increasing enrollment and staffing from initial levels subject to actual parking demands and Site traffic operations.

Stonefield Response: Please see enclosed Parking and Traffic Management Plan.

- 17) To facilitate phase-in, MOM recommends Applicant provide an operational analysis (level-of-service and queuing) for the shared driveway at West Central Street to quantify existing and projected conditions under full occupancy/enrollment of the TLE facility. This analysis will provide a comparative basis for recommended monitoring under the TMP and basis for setting appropriate thresholds for incremental enrollment and staffing increases at the Site.

Stonefield Response: Off-site traffic analysis and impacts are not applicable to this application.

Site Access & Circulation Improvements

- 1) Ensure design of the driveway curb radii and travel aisles to accommodate the Town's largest anticipated emergency apparatus (ladder truck).

Stonefield Response: The driveway design and travel aisles will remain as designed on the Site Plan.

- 2) *Install pavement markings including a painted Stop bar and double yellow centerline at the Site Driveway intersection.*

Stonefield Response: Pavement markings and signage will be provided as noted on the TMP.

- 3) *Designate spaces closest to the building entrance for short-term student drop-off/pick-up. Staff members should be designated to park at the most remote spaces available to free up spaces that are more convenient/efficient for drop-off/pick-up activity. The drop-off/pick-up zone ideally comprises the aisle flanked by 26 spaces nearest the building entrance, with the 12 spaces adjacent to the building serving as primary designated pick-up/drop-off spaces and augmented by a portion of the opposing 14 spaces as needed.*

Stonefield Response: Refer to the Traffic Management Plan (TMP).

- 4) *Ideally, designate traffic flow as "one-way" counterclockwise around the building to reduce vehicle conflicts during pick-up/drop-off periods. This one-way pattern may be made permanent through the use of appropriate thermoplastic arrow pavement markings throughout the travel aisles around the building to clearly convey the desired travel circulation in combination with applicable MUTCD-compliant "one-way" and "Do Not Enter" signs as needed.*

Stonefield Response: The project as proposed can safely accommodate traffic flow.

Traffic and Parking Management Policies

1) *Parking and Pick-Up/Drop-Off Operations*

- a) *The student drop-off/pick-up "zone" (parking spaces nearest the building entrance area) should be designated as "one-way" counterclockwise around the building to reduce vehicle/pedestrian conflicts per A.3 and A.4 above.*
- b) *Staff members should be available to assist students to/from the school building entrances and the drop-off/pick-up zone. Likewise, Staff members should actively manage all pedestrian crossings of travel aisles as needed.*
- c) *These staff members should also discourage student loading/unloading beyond the designated drop-off/ pick-up zone - particularly at nearby off-site spaces on adjacent properties.*
- d) *Passenger vehicle processing time can be enhanced by concurrent loading/boarding of students by multiple staff as needed; it is recommended that parents be discouraged from exiting their vehicles to walk a child into the building as a general operating principle as this would notably increase parking turnover time and parking demands during peak drop-off/pick-up periods. Parents/guardians requiring more time for teacher meetings/in-building visits should be advised to park in more remote spaces within the "pick-up/drop-off" zone to facilitate higher turnover activity at the main building entrance.*
- e) *Off-site parent drop-off/pick-up activity should be prohibited.*
- f) *All parking spaces should be actively managed by staff to avoid conflicts during peak pick-up/drop-off periods.*

Stonefield Response: Please refer to the enclosed Parking and Traffic Management Plan.

2) Enrollment Phase-In and Monitoring

- a) Applicant provide an operational analysis (level-of-service and queuing) for the shared driveway at West Central Street to quantify existing and projected conditions under full occupancy/enrollment of the TLE facility. This analysis will provide a comparative basis for recommended monitoring under the TMP and basis for setting appropriate thresholds for incremental enrollment and staffing increases at the Site.
- b) Suggested initial enrollment ceiling based on potential parking demand (ITE 85th percentile) is 90 students, which correlates to a peak projected parking demand of 31 spaces.
- c) Monitoring methodology and thresholds:
 - i) Conduct initial monitoring at enrollment of at least 50 students but no more than 90 students to measure actual parking demand and trip generation characteristics.
 - b) Monitoring should include the following components by a qualified registered professional engineer:
 - i) Hourly parking demand data for a weeklong period under normal operation (no holidays) between 8 AM and 6 PM, noting actual enrollment at time of counts and associated staffing levels. Include any observed parking at adjacent properties to the extent related to daycare operations.
 - ii) Hourly traffic volumes at the Driveway over a weeklong period from 8 AM to 10 AM and 3 PM to 6 PM, concurrent with parking data.
 - iii) Documentation for TMP elements in place and operational during monitoring period including designated short-term parking assignment and number for pick-up/drop-off use; staffing protocols to assist in student loading/unloading if applied; assignment of staff parking within the lot (locations), staggered/assigned drop-off/pick-up protocols if applied; traffic controls in place at time of monitoring.

Stonefield Response: The Applicant has agreed to an initial enrollment of 90 children and to include the above referenced components as part of the monitoring.

January 17, 2023

Attorney Brian Winner
Mead, Talerman & Costa, LLC
730 Main Street, Suite 1F
Millis, MA 02054

Re: Franklin Learning RE LLC v. Anthony Padula et al Land Court Case No. 21MISC 000319

Dear Atty. Winner:

MDM Transportation Consultants, Inc. (MDM) has conducted an initial review of field conditions, Application materials and court documents relative to the above-referenced matter as offers professional transportation-related testimony relative to adequacy of parking for the proposed daycare center at 505 West Central Street, Lot 3 in Franklin, MA below.

In summary, MDM concludes that proposed parking supply of 33 spaces not only falls below TLE development guidelines but is also notably less than ITE peak parking demand projections based on proposed employment, average enrollment levels and building area variables cited in Application materials. This condition presents a potentially untenable condition for traffic flow on and adjacent to the Site and stands to impact adjacent properties. Accordingly, Applicant may need to “phase-in” enrollment and staffing at lower initial levels and increase enrollment/staffing subject to monitoring. Initial enrollment/staffing levels would need to be more closely evaluated to ensure that projected peak parking demands fall reasonably within ITE-based 85th percentile levels with reasonable surplus (typically 10 percent of supply). MDM further recommends that Applicant commit to a parking and traffic management plan tailored to the Site including a monitoring program to measure actual parking demand and trip performance characteristics of the facility, with commitment to countermeasures to address unforeseen circulation and safety issues. The framework for “phase-in” and monitoring is presented herein to facilitate discussions between Applicant and Town.

Application Material Basis

1. The proposed 10,400 sf daycare center is represented in Application materials to have 25 staff (23 teachers and 2 administrative) with up to 22 staff at the property at any given time. Licensed enrollment of up to 143 students is proposed with an average enrollment level of 80%, which is equivalent to 115 students.
2. Associated parking demand estimates presented in Application materials are based on building area and indicate an average parking demand of 25 vehicles on this basis using industry standard parking demand rates for daycare land use published by the Institute of Transportation Engineers (ITE) in *Parking Generation, 5th Edition*. Application materials also provide empirical parking demand data for two Massachusetts-based daycare facilities that suggest similar parking demand ranging from 18 to 22 vehicles though actual facility sizes. New Jersey empirical data suggest a peak demand of 26 spaces. Employment levels, building area and enrollment for empirical data sites at time of inventories are not provided or confirmed and data is for single days of operation only.
3. Trip generation characteristics of the proposed facility in Application materials are based on “filtered” trip generation rates for daycare centers published by ITE in *Trip Generation, 10th Edition* applied to building area. The “filtered” trip rates according to Application materials represent data for daycare facilities of comparable size to the proposed use (i.e., eliminate data associated with surveyed facilities of less than 7,500 sf). On this basis, projected trips for the facility are estimated to be up to 75 vehicle-trips during weekday peak hours.
4. Application materials represent that based on the above parking and trip generation estimates that adequate on-site parking is provided to support the use. No formal analysis of traffic impact is provided on the basis that traffic increases of less than 100 vehicles “is not expected to change the level-of-service or appreciably increase volume-to-capacity ratio of an intersection approach”. Application materials also suggest that relative to prior commercial development approvals of the property that peak-hour trips will be less.

MDM Rebuttals – Parking and Traffic

5. Development requirements for TLE facilities are outlined in TLE's Real Estate Developer Investment Information Package, citing build-to-suit requirements of 40 parking spaces for the prototypical TLE facility.
6. Massachusetts-based TLE facilities inventoried in the Application materials include locations in South Easton and Littleton; these facilities provide on-site parking supply of 39 spaces (South Easton) and 45 spaces (Littleton) that are consistent with TLE development requirements per TLE's Real Estate Developer Investment Information Package. Indeed, TLE New Jersey facility data are also provided in Application materials indicating on-site parking supply ranging from 41 to 45 spaces consistent with these TLE requirements.
7. Parking demand estimates cited in the Application materials are based on average parking demands using ITE Parking Generation rates and building area. Notably, application of peak demand rates, referred to as 85th percentile rates in *Parking Generation*, indicate a demand of up to 39 vehicles for a daycare use. Likewise, application of ITE Parking Generation peak demand rates for daycare use based on employment (22 employees) also yields a peak demand of 39 vehicles. Application of ITE Parking Generation peak demand rates for daycare use based on average enrollment level of 80% of licensed capacity (as represented in Application materials, equivalent to 115 students) also yields a peak demand of 39 vehicles.
8. Empirical parking demand data provided in Application materials are principally based on TLE facilities located in New Jersey, despite there being more than 18 Massachusetts-based TLE facilities. Following ITE recommended practice, use of empirical data as an alternative to published ITE database/rates should include observations at a least several locally-based facilities of comparable size (building area, employment level and enrollment in this case) and multiple days of data to support estimates. Empirical parking data provided in Application materials is not consistent with this recommended practice, does not indicate facility employment levels, enrollment or building size and cannot be relied upon as an alternative to ITE Parking Generation data.
9. MDM concludes that proposed parking supply of 33 spaces not only falls below TLE development guidelines but is also notably less than ITE peak parking demand projections based on proposed employment, average enrollment levels and building area variables cited in Application materials. This condition presents a potentially

untenable condition for traffic flow on and adjacent to the Site and stands to impact adjacent properties.

10. ITE *Trip Generation* has been updated in September 2021 which if applied to the proposed 10,400 sf Franklin facility results in trips ranging from 114 vehicle-trips (AM peak hour) to 116 vehicle-trips (PM peak hour). Application of ITE *Trip Generation* 11th Edition trip rates based on enrollment capacity of 143 students (a more reliable variable than building area) results in similar peak-hour trips ranging from 112 vehicle-trips (AM peak hour) to 113 vehicle-trips (PM peak hour). Similar results are noted is using employment level as the trip rate variable. These trip estimates are more than 50 percent higher than represented in Application materials.
11. MDM further notes that projects generating more than a 5 percent change in volume on area roadways meet thresholds that industry practice in the Commonwealth deems appropriate for detailed operational analysis; the proposed TLE facility exceeds these thresholds. Accordingly, data and analysis for the intersection at West Main Street at the mutual “driveway” serving the Site and adjoining land uses is appropriate. Providing these data and operational analysis will facilitate an understanding of project traffic flow impacts on the shared use driveway.
12. MDM further notes that per project trips above using ITE Trip Generation 11th Edition rates when compared to previously approved trips cited in the Application materials, are higher and represent a condition that warrants operational analysis to understand traffic queue operations and delays on the common shared “driveway” serving abutting land uses.
13. Application materials fail to document a proposed traffic and parking management plan that would ensure efficient use of on-site parking to accommodate safe school traffic operations. Traffic and parking management practices customary to daycare facilities in the Commonwealth would typically include provisions for assigned staff parking to optimize proximity of parent/guardian parking to building entrances; assigned/staggered drop-off/pick-up times as appropriate to minimize arrival/departure “bunching” and parking demand; staff assistance with pick-up/drop-off operations to optimize/minimize time required for student loading/unloading; etc. A monitoring component is often employed for such facilities to measure actual Site performance for both trip and parking activity to ensure undue parking and circulation impacts are addressed.

Conclusions and Recommendations

14. MDM concludes that the proposed 33-space parking supply represents a constraint on potential enrollment and staffing levels at the proposed TLE facility and is insufficient to support the proposed 143-student licensed enrollment and 25-staff without undue impact to circulation within and adjacent to the subject property. More specifically, parking demands in excess of on-site supply stand to cause queuing within the Site or adjacent to the Site or parking within the shared driveway or adjacent properties under peak operating conditions.
15. In lieu of providing sufficient on-site parking supply, Applicant may need to “phase-in” enrollment and staffing at lower initial levels and increase enrollment/staffing subject to monitoring. Initial enrollment/staffing levels would need to be more closely evaluated to ensure that projected peak parking demands fall reasonably within ITE-based 85th percentile levels with reasonable surplus (typically 10 percent of supply).
16. MDM recommends Applicant commit to a parking and traffic management plan (TMP) tailored to the Site including a monitoring program to measure actual parking demand and trip performance characteristics of the facility, with commitment to countermeasures to address unforeseen circulation and safety issues. The framework of for a TMP and associated monitoring with established thresholds is identified below that will allow for incrementally increasing enrollment and staffing from initial levels subject to actual parking demands and Site traffic operations.
17. To facilitate phase-in, MDM recommends Applicant provide an operational analysis (level-of-service and queuing) for the shared driveway at West Central Street to quantify existing and projected conditions under full occupancy/enrollment of the TLE facility. This analysis will provide a comparative basis for recommended monitoring under the TMP and basis for setting appropriate thresholds for incremental enrollment and staffing increases at the Site.

Suggested Framework for Facility TMP, Phase-In and Monitoring

MDM recommends that the Applicant implement a traffic management plan (TMP) aimed at enhancing school drop-off/pick-up operations, parking activity and site circulation including some of the elements noted below:

A. Site Access and Circulation Improvements

To ensure unimpeded access/egress for staff and parent/guardian vehicles, MDM recommends the following access and circulation features be developed as part of an updated Site Plan:

- 1: Ensure design of the driveway curb radii and travel aisles to accommodate the Town's largest anticipated emergency apparatus (ladder truck).
- 2: Install pavement markings including a painted Stop bar and double yellow centerline at the Site Driveway intersection.
- 3: Designate spaces closest to the building entrance for short-term student drop-off/pick-up. Staff members should be designated to park at the most remote spaces available to free up spaces that are more convenient/efficient for drop-off/pick-up activity. The drop-off/pick-up zone ideally comprises the aisle flanked by 26 spaces nearest the building entrance, with the 12 spaces adjacent to the building serving as primary designated pick-up/drop-off spaces and augmented by a portion of the opposing 14 spaces as needed.
- 4: Ideally, designate traffic flow as "one-way" counterclockwise around the building to reduce vehicle conflicts during pick-up/drop-off periods. This one-way pattern may be made permanent through the use of appropriate thermoplastic arrow pavement markings throughout the travel aisles around the building to clearly convey the desired travel circulation in combination with applicable MUTCD-compliant "one-way" and "Do Not Enter" signs as needed.

B. Traffic and Parking Management Policies

The following framework for a traffic and parking management program (TMP) is recommended to ensure efficient operations of school pick-up/drop-off, parking activity, and student circulation at the site. Key aspects of the TMP include the following:

- *Parking and Pick-Up/Drop-Off Operations*
 - The student drop-off/pick-up “zone” (parking spaces nearest the building entrance area) should be designated as “one-way” counterclockwise around the building to reduce vehicle/pedestrian conflicts per A.3 and A.4 above.
 - Staff members should be available to assist students to/from the school building entrances and the drop-off/pick-up zone. Likewise, Staff members should actively manage all pedestrian crossings of travel aisles as needed.
 - These staff members should also discourage student loading/unloading beyond the designated drop-off/ pick-up zone – particularly at nearby off-site spaces on adjacent properties.
 - Passenger vehicle processing time can be enhanced by concurrent loading/boarding of students by multiple staff as needed; it is recommended that parents be discouraged from exiting their vehicles to walk a child into the building as a general operating principle as this would notably increase parking turnover time and parking demands during peak drop-off/pick-up periods. Parents/guardians requiring more time for teacher meetings/in-building visits should be advised to park in more remote spaces within the “pick-up/drop-off” zone to facilitate higher turnover activity at the main building entrance.
 - Off-site parent drop-off/pick-up activity should be prohibited.
 - All parking spaces should be actively managed by staff to avoid conflicts during peak pick-up/drop-off periods.

C. Enrollment Phase-In and Monitoring

The following framework for enrollment phase-in and monitoring is suggested:

1. Applicant provide an operational analysis (level-of-service and queuing) for the shared driveway at West Central Street to quantify existing and projected conditions under full occupancy/enrollment of the TLE facility. This analysis will provide a comparative basis for recommended monitoring under the TMP and basis for setting appropriate thresholds for incremental enrollment and staffing increases at the Site.
2. Suggested initial enrollment ceiling based on potential parking demand (ITE 85th percentile) is 90 students, which correlates to a peak projected parking demand of 31 spaces.
3. Monitoring methodology and thresholds:
 - a. Conduct initial monitoring at enrollment of at least 50 students but no more than 90 students to measure actual parking demand and trip generation characteristics.
 - b. Monitoring should include the following components by a qualified registered professional engineer:
 - i. Hourly parking demand data for a weeklong period under normal operation (no holidays) between 8 AM and 6 PM, noting actual enrollment at time of counts and associated staffing levels. Include any observed parking at adjacent properties to the extent related to daycare operations.
 - ii. Hourly traffic volumes at the Driveway over a weeklong period from 8 AM to 10 AM and 3 PM to 6 PM, concurrent with parking data.
 - iii. Documentation for TMP elements in place and operational during monitoring period including designated short-term parking assignment and number for pick-up/drop-off use; staffing protocols to assist in student loading/unloading if applied; assignment of staff parking within the lot (locations), staggered/assigned drop-off/pick-up protocols if applied; traffic controls in place at time of monitoring.

- c. Monitoring results should be documented summarizing results confirming adequacy of on-site parking and TMP practices to support student enrollment level. Projection/extrapolation of parking demand to full nominal enrollment of 143 students and 25 staff should be identified based on monitoring data to support additional enrollment beyond 90 students up to the maximum enrollment level.
- d. Subject to review by Town of monitoring report and to the extent no operational or parking capacity constraints are identified based on monitoring results, and further subject to finding that projected parking demand at full enrollment indicates ample parking capacity to accommodate the program proceed to full enrollment and subsequent monitoring.
- e. In no event shall enrollment beyond 90 students occur in the event that monitoring indicates insufficient on-site parking, queues that extend beyond the Site boundaries or undue reliance on or use of off-site parking to support the program. In such case, Applicant should identify additional TMP elements that may be employed to reduce peak parking demands or queue conditions including but not limited to additional staff assistance for drop-off/pick-up operations, staggered/assigned drop-off/pick-up periods or other similar techniques. If such modifications to the TMP is applied, it shall be implemented and documented by Applicant and subject to supplemental monitoring/reporting to Town to validate Applicant's ability to accommodate additional enrollment beyond the 90-student limit.

- f. Upon reaching maximum enrollment, Applicant shall conduct a supplemental weeklong monitoring following protocols cited under C.3.b to document parking and trip characteristics and TMP practices for reporting to the Town. Such monitoring and reporting, to the extent it demonstrates adequate parking capacity and queuing that is contained within the confines of the Site, shall complete Applicant's obligations to monitor or augment its TMP protocols at the Site.

- g. If following maximum enrollment at the Site monitoring indicates a parking constraint, excessive queuing beyond the Site confines or undue reliance upon adjacent off-site parking, Town may request Applicant to augment its TMP and subsequently monitor and validate the augmented TMP to ensure that such constraints or impacts are addressed, or maximum enrollment levels are adjusted to ensure adequate parking is provided at the Site.

Very truly yours,



Robert J. Michaud, P.E.
Managing Principal