

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



GRAPHIC SCALE: 1"=30'  
 0 10 20 30 40 50  
 FEET  
 0 5 10 15 20  
 METERS

**OWNER**  
 NORFOLK COUNTY DEVELOPMENT LLC  
 185 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: MANOJ GANDHI  
 206 GREAT ROAD  
 LITTLETON, MA. 01460

**Guerriere & Halnon, Inc.**  
 ENGINEERING & LAND SURVEYING  
 55 WEST CENTRAL ST. PH. (508) 528-3221  
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**JOB NO. F4383**

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, 5<sup>th</sup> 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, 10<sup>th</sup> 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 85<sup>th</sup> 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* 11<sup>th</sup> 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 11<sup>th</sup> 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 85<sup>th</sup> 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 85<sup>th</sup> 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

# Town of Franklin

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## DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT

**DATE:** January 18, 2023  
**TO:** Franklin Planning Board  
**FROM:** Department of Planning and Community Development  
**RE:** 515 West Central Street  
Site Plan

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Based on the discussion at the December 19, 2022 Planning Board meeting, the following has been submitted:

1. Color renderings of the Site
2. Traffic Study

The draft decision will be provided prior to the meeting.