STATE OF CONNECTICUT

OFFICE OF THE STATE TRAFFIC ADMINISTRATION
DEPARTMENT OF TRANSPORTATION
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Step 2 - Major Traffic Generator
Pre-Certificate Application
Mandatory Meeting Guide
Connecticut General Statutes §14-311 (f)

Date: _____

A pre-certificate application meeting is required for major traffic generators that are not eligible for an Administrative Decision (AD) prior to submitting a formal Step 3 certificate application with the Office of the State Traffic Administration (OSTA).

One (1) electronic copy of the required information and corresponding material shall be submitted to the **"DOT OSTA Major Traffic Generator Submission" SharePoint page**. All required information shall be electronically submitted in .pdf format and in the original data files for the traffic and drainage analysis, following the OSTA filing naming conventions provided at the end of the document. Consultant engineers may request access to the SharePoint page by e-mailing DOT.OSTA@ct.gov.

One (1) set of the information shall also be concurrently submitted to the Local Traffic Authority(ies) of the town(s)/city(ies) in which the development will be/is located.

Pre-certificate application meetings will be arranged by the OSTA approximately one month after submission of all required information and corresponding material.

Name of Facility: _____

1 ☐	APPROVED VOLUMES	Submit a copy of the traffic volumes as approved by the Bureau of Policy and Planning.
2 ☐	SITE LOCATION PLAN	A site location plan showing State highways and major intersecting municipal roads in the vicinity of the site is to be submitted. Typically 8 ½" X 11" or it may be shown on the Overall Site Plan if space allows.
3 ☐	ADJACENT PROPERTY	Where easements or right-of-way are required and involve property not owned by the certificate applicant property owner, letters from each such impacted property owner indicating their willingness to grant the easement or deed the right-of-way will be required at the time of application.

4 ☐	OVERALL SITE PLAN	An overall site plan showing the entire certifiable area must be provided, sized to fit on a single 2' x 3' plan sheet. The entire certifiable area shall include all parcels whose traffic must use the applicant development's access drive(s) (not an access of convenience), and shall be distinguishable by a distinct peripheral property line with the call out "OSTA Certifiable Area". The plan is to identify all new buildings (including gross floor area and land use for each), parking spaces, property lines, internal connections to abutting properties, names of all property owners (including the abutting property owners) and the complete street address(es) for all properties within the certifiable area. If street address information is not available, show map/block/lot information. An aerial photograph may be used. ***Items to be considered and documented:*** A. Internal circulation should be designed for vehicular circulation to take place on-site and not on the street system, and to preclude back-ups onto the adjacent roadway. B. Driveway location to be shown relative to intersections and other driveway and adjacent property lines and to ensure that it is conducive to operating safely. Distance from other drives should meet the minimum spacing criteria of the Connecticut Department of Transportation Highway Design Manual. C. Parking lot arrangement must not interfere with entering driveway traffic operations and should have efficient traffic operation for automobiles, service vehicles and emergency vehicles. D. Number of parking spaces required and provided. E. Number of handicap parking spaces required and provided. F. Spacing from signalized drives or intersections should be evaluated to determine if traffic queue will block any proposed drives.
5 ☐	SPEED DATA	Supply the posted speed limit and the 85th percentile speed, if available, on State roadways intersecting site drives. If the 85th percentile speed is unavailable, please assume the 85th percentile speed is 10 mph over the posted speed limit or provide 85th percentile speed measurements. Some 85th percentiles can be obtain through the CTDOT Traffic Monitoring Station Viewer interactive map.
6 ☐	CRASH DATA	Supply UConn Crash Data Repository and/or local police department information on the latest available three years of crash experience. A narrative for all existing site drives and off-site impacted locations on State highways, identifying any crash patterns, is required. A table of data or collision diagram may be used to show the crash history.

7 ☐	DESIGN ELEMENTS	Supply the design criteria used to evaluate the impacts of the proposed development in a tabular format. The following is a suggested format: **Design Element** / **Standard** / **Existing** / **Proposed** Design Speed (mph) Travel Lane Width (ft.) Turn Lane Width (ft.) Min. Right Shoulder Width (ft.) Min. Left Shoulder Width (ft.) Driveway Grade (%) Min. Stopping Sight Distance (ft.) Min. Intersection Sight Distance (ft.) Design Vehicle (car / truck) Clear Zone Min. Sidewalk Width (ft.) Refer to the Connecticut Department of Transportation Highway Design Manual for standard values of design elements.
8 ☐	ROADWAY PLAN	When capacity or crash analysis indicates that improvements are necessary to mitigate the development's impact on the State highway, plans depicting recommended improvement are to be submitted. If the analysis indicates improvements are necessary but none are proposed, a detailed explanation as to why no improvements are proposed must be submitted. 1" = 40' scale Roadway Plan(s) (preferably 2' x 3') along the development frontage, extending to the limits of the intersectional sight line distance in each direction is required. Such plans must also be provided for all roadways where improvements are proposed. All significant existing and proposed topographical features must be shown on the plans. ***Items to be considered:*** A. All geometrics should accommodate the appropriate design vehicle. Channelized drives, ingress and egress, should be designed for the appropriate design vehicle utilizing full directional driveway width unless a larger design vehicle will frequent the development. Un-channelized drives not frequented by tractor-trailer design vehicles may be designed for a single unit truck but should normally accommodate a tractor-trailer utilizing the total width of the drive without crossing the center line of the intersecting road. B. Preferably, adjustments of grade between the travel way and the site should be beyond the right-of-way line to avoid conflict with potential roadway widening and the needs of the utilities, bicyclists, pedestrians, and mass transit operations. Refer to the Connecticut Department of Transportation Highway Design Manual for driveway grades.

8	ROADWAY PLAN (CONT.)	C. Auxiliary Lanes - At the points of access to a development, determine if auxiliary lanes or bypass areas are needed to address the operational and safety concerns created by slowing or stopped turning vehicles in the through traffic stream. Refer to the Connecticut Department of Transportation Highway Design Manual, *Intersections* chapter, for guidance on auxiliary lanes. i. At a signalized intersection, the need for left turn bypass or lane is generally determined by a volume warrant using capacity analysis. For un-signalized access, use the tables in the Connecticut Department of Transportation Highway Design Manual. A left-turn lane should generally be provided at all median openings. ii. Efficient utilization of artery green time is affected by the ability of the through vehicles to stay in step in the green band. Left-turn lanes may be needed when the presence of stationary left-turning vehicles would disrupt the progression of platooned traffic. iii. Left-turn lane length should consider: • The length to store anticipated queues; • Distance to account for deceleration outside the through lane; • Sufficient length to enable left-turning vehicles to bypass through lane queues; • Visibility of the lane to approaching through traffic; and, • Two-way left-turn lanes (TWLTL) where appropriate. iv. The need for a right-turn lane or widened right shoulder is determined by a volume warrant using capacity analysis. Refer to the Connecticut Department of Transportation's Highway Design Manual. As a guide, highway Average Daily Traffic (ADT) exceeding 10,000 vehicles per day (vpd), highway speeds of at least 50 mph and/or the right-turn ADT exceeding 1,000 vpd with at least 40 right-turn ingresses during the peak hour will warrant consideration. v. A right-turn lane should be considered on downgrades of 5 percent or more approaching the access drive or affected intersection and/or approaching 85th percentile speed of traffic from the rear of 50 mph or higher. The combination of grade and speed should be considered together. vi. An auxiliary lane (left or right) may be needed where there is severe horizontal and/or vertical geometry limiting stopping sight distance. vii. Consideration should be given to opposing left-turn lanes at an intersection with a site driveway such that they shall not interlock. viii. Additional through lanes should be considered at signalized intersections as indicated by capacity analysis. D. Signalized Drive Egress - It is generally desirable to have at least a two-lane egress on signalized drives to minimize the amount of green time that has to be assigned to the drive.

8	ROADWAY PLAN (CONT.)	E. Drainage systems (drainage structures and pipe networks) within the limits of the roadway plans must be shown and labeled (size and type). Existing drainage systems that are anticipated to receive storm water from the development site, that are beyond the limits of the roadway plans, are to have their approximate location depicted on available mapping, including the system outfall.
9 ☐	SIGHT DISTANCE	Intersectional Sight Distance (ISD) A. ISD is needed in accordance with Department of Transportation criteria for: • Existing drives on State highways; • Proposed drives; • Any intersection that has proposed improvements as a result of the development; and, • Any existing drives and/or roadways where traffic is being shifted closer to the existing curb line. If it is not clearly evident that the sightline can be attained, then a profile of the final ground surface along the sight line should be submitted. B. The ISD shall not extend over private property not owned by the applicant unless it is documented that the impacted property owner is agreeable to granting a sightline easement. This only applies to site drives on State highways. C. ISD shall be based on the 85th percentile speed and measured at a 15-foot setback from the edge of road. However, where restrictions limit offset, the ISD may be measured 15 feet from the traveled way or may be based on the posted speed limit. i. An acceptance of ISD not based on the 85th percentile speed and 15-foot setback will be considered only if the applicant can demonstrate that the minimum ISD cannot be provided. ii. ISD needs for facilities served by buses and a large number of trucks should use trucks as the design vehicle. This will account for the slower acceleration of these vehicles. iii. The location and effect of roadside furniture, including utilities, should be considered. iv. Roadway profiles shall be provided if vertical alignment conditions (i.e. crest curves) may restrict the amount of available ISD at a site driveway. v. If a driveway is located in proximity to a signalized intersection, the effects of queued traffic should be considered when evaluating ISD. vi. The ISDs of driveways and municipal roads affected by roadway widening undertaken by the applicant must meet Department standards for intersecting streets or not be diminished.

9	SIGHT DISTANCE (CONT.)	Stopping Sight Distance (SSD) D. SSD is to be provided or maintained in accordance with Department of Transportation criteria at proposed drives, proposed traffic signals, where mitigation on State highways involves roadway reconstruction/widening/restriping or elsewhere where SSD is being affected.
10 ☐	TURNING TEMPLATE	The design vehicle turning templates must be shown on a separate plan at 40-scale, similar to the Roadway Plan.
11 ☐	SIGNALIZATION	A. Signals on State highways may be considered if they meet an 8-Hour Volume traffic signal warrant. If signalization is proposed, a warrant must be submitted (refer to the Manual on Uniform Traffic Control Devices). Proximity to adjacent signals should be considered and coordinated if necessary. B. Submission of capacity analysis computations, including Synchro (Trafficware) files, is required. However, a tabular summary of the level of service (LOS) and 95th percentile queue length for each intersection movement in the background, combined, and combined/mitigated conditions should be provided for each intersection where 100 or more new trips will be added or 50 or more new trips will be added to a left-turn movement. Ensure that the analysis matches any existing traffic signal phasing and timing. If alternative phasing, timing, or lane arrangements are used for the capacity analysis, then those mitigations will need to be detailed and included in the application report.
12 ☐	COMPLETE STREETS (REVIEW OF PEDESTRIANS & NON-MOTORIZED ROAD USERS)	The following items shall be submitted for review: A. The anticipated pedestrian and or bicycle travel generation to/from the proposed development. B. A description of all pedestrian and bicycle accommodation features proposed. If no features are proposed, an explanation as to what features were considered and why they are not being pursued shall be provided. C. Information on existing sidewalks and paths in the area and information on any sidewalk requirements. For all public and private developments: Does the financing include State/Federal funding? Yes ◯ No ◯ If "Yes", then the Connecticut Department of Transportation Bicycle and Pedestrian Travel Needs Assessment Form (BPTNA) shall be completed and submitted. Note: Any proposed roadway widening on State highways should evaluate the impact to the usable shoulder. In most areas, the existing usable shoulder should not be diminished.

13 ☐	OFF-SITE MITIGATION	Evaluate the need for mitigation and/or roadway improvements on State highways by, but not limited to, the following situations as determined by capacity analysis: A. The level of service (LOS) for an intersection or a specific movement becomes substantially worse than existing when development traffic is added. B. Queued traffic creates blocking or a de-facto turn lane. C. Specific intersection movements that have a LOS "D" or less in the background condition and the control delay per vehicle for such specific movement is increased by more than 15 seconds per vehicle as a result of the development's added traffic at signalized intersections. Where mitigation is triggered but none is proposed, a detailed explanation as to why no mitigation is proposed shall be provided.
14 ☐	FENCING	If the proposed development abuts a non-access highway line or a railroad and there is a potential for pedestrian encroachment, fencing may be required. The Department's Office of Rails will determine the need for fencing on the development property adjacent to a railroad. If fencing installation or modification is needed it should be depicted on the plan and be in conformance with the Department of Transportation's Fencing Policy.
15 ☐	ILLUMINATION	Consider the need for illumination or improvement to existing illumination at the proposed site drive or at any new intersections with State highways.
16 ☐	RIGHT OF WAY	Determine if right-of-way (ROW) transfer or easements are needed. If existing ROW is being used for proposed widening and will result in less than 15' of remaining ROW post improvement, then ROW should be deeded to the State along the development's frontage. If there is the need to place and maintain traffic signal appurtenances, an easement will be required.
17 ☐	ROADSIDE OBSTACLES	If traffic on State highways is being moved closer to any fixed objects or if access area grading creates a roadside obstacle, including guiderails, mitigation should be considered for that State highway. If widening or revision to pavement markings moves vehicles closer to utility poles, consult the Connecticut Department of Transportation Highway Design Manual for guidance. If utility relocations become necessary, they must be in accordance with the Connecticut Department of Transportation Utility Accommodation Manual.

18 ☐	DRAINAGE	A. Locate the MTG site on an 8.5" x 11" excerpt of a USGS topographic quadrangle map (Scale 1:24,000). Indicate the quadrangle name and number on this plan. B. Locate the MTG site on the relevant portion of the FEMA Flood Insurance Rate Map (FIRM) and Floodway Map. Indicate the panel number, scale and effective date of the map(s). C. A detailed narrative specifically relating the proposed drainage design to existing State drainage facilities (i.e. roadways, railroads, etc.), describing any potential impacts consequent to the proposed construction. The narrative must contain a definitive conclusion on whether there is any drainage impact to State facilities. The narrative should also include a discussion of existing and proposed drainage patterns. It is desirable to maintain the existing drainage patterns. Diversions of storm runoff to State drainage facilities are generally not acceptable unless appropriate drainage rights are obtained from all affected downstream owners. D. Contour plans depicting tributary drainage areas both within and, where applicable, beyond the MTG boundaries. In some cases, the entire MTG site may drain away from the State transportation facility. In this instance, the report narrative identified above should so indicate. This will negate the requirement for drainage design computations; however, contour plans are still needed to verify the drainage patterns. E. Drainage layout and details of existing and proposed storm sewer as well as hydraulic structure and their relationships to any adjacent State drainage facilities. All proposed outlets connecting or discharging to State maintained facilities must be clearly indicated. Further, existing State maintained drainage facilities must be shown on the plans that are located adjacent to development property or are potentially affected by the proposed construction. F. Existing drainage systems (State, Municipal, Private) that are anticipated to receive storm water from the development site must be identified and described. As indicated in the "ROADWAY PLAN" section, these systems which may extend beyond the coverage limits of the roadway plans shall have their approximate location depicted on available mapping to the system outfall. G. Existing and proposed drainage rights and easements of the MTG site and contiguous State properties must be identified on the plans and described in the drainage report narrative. If there are no existing drainage rights or easements recorded for the MTG or contiguous State property, the drainage report narrative must indicate same. H. Investigation of any existing drainage concerns and/or known drainage problems, particularly involving State drainage facilities must be conducted with the appropriate CTDOT Maintenance District Drainage Engineer and the Municipal maintenance/public works departments. The findings of these investigations need to be documented in a report of meeting or included in the drainage report narrative. Inquiries regarding submissions may be directed to the Division of Bridges - Hydraulics and Drainage, at Michael.Hogan@ct.gov.

19 ☐	RAILROAD	Determine if there will be any impact to a State-owned railroad at-grade-crossing or railroad right-of-way by referring to the Connecticut Rail Transportation Ownership and Service Map. If such an impact is anticipated, it may be necessary to have a rail regulatory hearing prior to submission to the OSTA. A rail regulatory hearing shall be scheduled with the Department's Office of Rails.

REMINDER:

The Applicant's representative is to take meeting notes during the pre-certificate review meeting. Meeting notes should be submitted to the OSTA within five (5) business days after the meeting for Department concurrence. It preferrable that the meeting notes be electronically submitted.

The Step 3 Application shall not be submitted until advised by the OSTA that the plans are acceptable for submission.

OSTA CERTIFICATION- STEP 2 SUBMISSION FILE NAMING CONVENTION GUIDE FOR CONSULTANTS

Step 2-Transmittal Letter

Step 2-Application

Step 2-Complete Plan Set

Step 2-Overall Site Plan

Step 2-Roadway Widening Plans

Step 2-Pavement Marking and Signing Plans

Step2-Turning Movement Demonstration Plans

Step 2-Traffic Information-zip

a. Study
b. Synchro Analysis
c. Synchro Data Files

Step 2-Drainage-zip

d. Study
e. Analysis
f. Analysis Data Files
g. Drainage Design Plans
    1. On and Off-Site - Proposed
    2. On and Off-Site - Existing
h. Grading Plan

Note: Files should be placed in one folder for submission to OSTA. The folder name should be the development name with "-Step 2" suffix."

Note: Subsequent submissions of any of the above information should follow the same naming convention except the prefix shall be "Step 2 Follow Up". If more than one subsequent submission is necessary, then the prefix shall include the submission number (i.e. Step 2 Follow Up No. 2, etc.)

Note: Information listed below the -zip files is what would typically be included in the file.