DRAFT M-104 CORRIDOR OVERLAY DISTRICT

SECTION 13A.1 INTRODUCTION

(a) Description. The M-104 corridor (the "Corridor") is a state highway that serves as a primary east-west thoroughfare located in: the Village of Spring Lake, Spring Lake Township and Crockery Township. The principal function of M-104 is to accommodate relatively high volumes of traffic, and to provide a link between the lakeshore communities to the west and I-96 to the east. The M-104 Corridor Overlay District (the "Overlay District") consists of approximately six (6) miles of Arterial roadway extending from Fruitport Road in Spring Lake Township to 112th Avenue in Crockery Township (see Attachment A).

(b) Purpose. The concept of the Overlay District is based upon recommendations from the M-104 Access Management and Corridor Study (the "Study") which was completed in September, 2004. The Study recommended that each community along the Corridor adopt an amendment to its respective zoning ordinance to implement Access Management techniques.

Access Management is accomplished through the use of Front and Rear Service Drives, Parking Lot Connections, and Shared Driveways in conjunction with Driveway Spacing standards, Access Management is intended to maintain a safe and efficient flow of vehicular traffic while retaining Reasonable Access to the property.

In addition to incorporating Access Management techniques into each community's zoning ordinance, a secondary goal of the Overlay District is to maintain and preserve the aesthetic quality of the Corridor. Specific regulations pertaining to signage and natural feature preservation have been incorporated into the Overlay District.

Finally, the requirements of the Overlay District will help to ensure that the public investment in the road system is maintained and the need for additional capital improvements is postponed to the greatest extent possible.

The standards required by the Overlay District are based upon considerable research and guidelines provided by the Michigan Department of Transportation (MDOT). In addition, public input was sought as the M-104 Overlay District Ordinance was being prepared.

(c) Applicability. The standards of the Overlay District apply to the Lots and parcels of land having frontage on M-104 (see Attachment B) or any parcel of land gaining Access to the Corridor.
The standards of the overlay district shall apply to all uses for which site plan review and approval is required according to Chapter (XIX – Spring Lake; XIII – Crockery).

Single and Two-Family Residential and Agricultural uses shall comply with the Building Setbacks stated in Section 13A.4. Single and Two-Family Residential and Agricultural uses are exempt from all other standards contained herein.

The applicable standards of the underlying zoning district shall also apply. Where a conflict exists between the regulations of the Overlay District and the underlying zoning, the regulations of the Overlay District shall apply.

(d) Site Plan Review. Applicants submitting requests for site plan review for properties located within the Overlay District must first contact the Local Unit's Planning or Zoning Administrator. The Local Unit's Planning or Zoning Administrator will instruct the applicant on the proper procedures and timelines for submitting site plans in the Overlay District.

In addition to the submittal information required for site plan review in Section (19.2 – Spring Lake; 13.04 Crockery Township), the following shall be provided with any application for site plan review for properties located within the Overlay District:

1. Proposed and existing access points within five hundred (500) feet on either side of the Corridor, and along both sides of any adjoining Streets, shall be shown and dimensioned on the site plan.

2. Evidence shall be submitted indicating that the Sight Distance requirements of MDOT, Ottawa County Road Commission (OCRC), and the Local Unit, as applicable, are met.

3. Dimensions shall be provided for driveways (width, radii, throat length, length of any acceleration or deceleration lanes, tapers, pavement markings and signs) and all curb radii within the site.

4. Illustrate the route and dimensioned turning movements of any expected truck traffic, tankers, delivery vehicles, waste receptacle vehicles, and other similar vehicles. The plan should confirm that routing the vehicles will not disrupt operations at the access points nor impede maneuvering or parking within the site.

5. A Traffic Impact Assessment or Study may be required, see Section 13A.3.

6. Correspondence showing that the proposal has been submitted to MDOT, and/or, where appropriate, OCRC, and adjacent municipalities.
(7) Where shared access is proposed or required, an Access Easement, including the maintenance and operation agreements, shall be submitted for approval. Once approved, the Access Easement shall be recorded with the Ottawa County Register of Deeds.

(8) Where a cooperative parking agreement has been reached, a copy of the cooperative parking contract between the property owners shall be provided.

The Local Unit reviewing the site plan shall have the discretion to waive any of the above-referenced submittal requirements.

(e) Criteria. The Planning Commission shall determine the extent of upgrades that will be necessary in order to bring the site into greater compliance with the standards contained herein. In making this decision, the Planning Commission shall consider, but is not limited to, the following criteria:

(1) The type and location of uses on the Lot and adjacent to the Lot.

(2) The location, size, and design of existing and proposed Access Point(s) and Parking Area(s).

(3) The existing and projected traffic volume on the abutting and adjacent Streets.

(4) Compatibility between adjacent land uses and the likelihood of change or expansion.

(5) Number of Lots involved, the location of Lot lines, and the amount of Street frontage.

(6) Topography and Sight Distance along adjacent Streets on the site.

(7) Distance from Intersections.

(8) Location of Opposite Side Driveways, and the distance from the proposed access point on the subject site.

(9) Width of the abutting Street(s) and number of traffic lanes.

(10) Environmental limitations (steep slopes, water, vegetation, etc.).

(11) Proposed Building Setback.
(12) Any specific recommendations of the Township Master Plan and/or the M-104 Corridor and Access Management Study.

(13) Any specific recommendations, from MDOT, OCRC, and/or the adjacent municipalities.

(14) The results of any Traffic Impact Assessments or Studies, see Section 13A.3.

SECTION 13A.2 DEFINITIONS

For the purposes of this Overlay District, certain terms or words used herein shall be interpreted as follows:

(a) **Access.** A ways or means of approach to provide vehicular or pedestrian entrance or exit to a property from a public roadway.

(b) **Access Easement.** A legally-binding written agreement between two (2) or more property owners who share joint-Access to the Corridor, Parking Lots, Front or Rear Service Drives.

(c) **Access Management.** The process of providing and managing Access to land development while simultaneously preserving traffic flow on the surrounding Street system. Through the use of Front and Rear Service Drives, Parking Lot Connections, and Shared Driveways in conjunction with Driveway Spacing standards, Access Management is intended to maintain a safe and efficient flow of vehicular traffic while retaining Reasonable Access to the property.

(d) **Access Point.**

(1) The connection of a Driveway at the Right-of-Way line to a public Street, Front or Rear Service Drive.

(2) A Driveway, Parking Lot Connection, Shared Driveway, Front or Rear Service Drive.

(e) **Acceleration/Deceleration Lane.** A speed-changing lane that enables a Vehicle to enter or leave the traffic lane at a speed equal to or slightly less than the speed of traffic in the through lane.

(f) **Adjacent Driveway.** Driveway(s) located next to each other and on the same side of M-104.

(g) **Alternative Means of Access.** A Front or Rear Service Drive, Parking Lot Connection, or a Shared Driveway.
(h) **Arterial.** See definition of “Functional Classification”.

(i) **Building Setback.** Measured perpendicular from the centerline of M-104 to the nearest point at which a Building or Structure or improvement is permitted to be placed per the standards contained herein.

![Diagram of Building Setback](image)

(j) **Channelized Driveway.** A Driveway having a physical design that prevents left turns into and out of a site.

(k) **Clear Vision Area.** A triangular-shaped area located at the intersection of two Streets, or at the mouth of a Driveway (see image below).

![Diagram of Clear Vision Area](image)

**Note:** The dimension of 'X' varies depending on local conditions; please refer to the Local Unit’s Zoning Ordinance and/or MDOT specifications.

(l) **Corridor.** In all instances where the term, “the corridor” is referenced in this Ordinance, it shall refer to state highway M-104 and/or Cleveland Street.

(m) **Diameter Breast Height (D.B.H.).** The diameter in inches of a tree measured at four and one-half (4-1/2) feet above the established grade.

(n) **Driveway.** Any entrance or exit used by Vehicles for the purposes of accessing land or buildings from an abutting roadway.
(o) **Driveway Spacing.** The distance between Driveways as measured from the centerline of one Driveway to the centerline of the second Driveway.

(p) **Throat Length.** The length of a Driveway measured from the edge of the paved shoulder of the Corridor to the first on-site location at which a driver can make a right or left turn (or from the near edge of the Parking Lot). On Streets with curb and gutter, the throat length shall be measured from the face of the curb.

(q) **Egress.** The exit of vehicular traffic from abutting properties to a Street.

(r) **Freestanding Sign.** A sign supported by uprights, poles, or braces in or upon the ground surface and not attached to a building or wall.

(s) **Front Service Drive.** A Local Street or Private Road typically located in front of the principle Buildings and parallel to the Corridor; utilized for the purposes of providing Access to abutting properties, and controlling Access to the Corridor.

(t) **Functional Classification.** A system used to group public Streets into classes according to their purpose and function. Streets are classified by the following categories (see Attachment A for the Functional Classification of Streets along the Corridor).

1. **Interstate.** Major highways providing no direct property Access; Interstates are designed primarily for through traffic.

2. **Major Arterial.** Arterials are Streets of regional importance intended to serve moderate to high volumes of traffic traveling relatively long distances. A Major Arterial is intended primarily to serve through traffic where Access is carefully controlled. Most of the Corridor is classified as a Major Arterial.
(3) **Minor Arterial.** A Street similar in function to Major Arterials, but operates under lower traffic volumes, over shorter distances, and provides a higher degree of property Access than Major Arterials.

(4) **Major Collector.** A Street that provides for traffic movement between Arterials and Local Streets and carries moderate traffic volumes over moderate distances. Collectors may also provide direct Access to abutting properties. A small portion of the Corridor is classified as a Major Collector.

(5) **Minor Collector.** A Street similar in function to a Major Collector but which carries lower traffic volumes over shorter distances and provides a higher degree of property Access than a Major Collector.

(6) **Local Street.** A Street intended to provide Access to abutting properties, which tends to accommodate lower traffic volumes and serves to provide mobility within that neighborhood.

(u) **Ground Sign.** A freestanding sign which is placed directly on the ground surface without the use of uprights, poles, or other means to elevate the sign face above the surrounding ground.

(v) **Ingress.** The entrance of vehicular traffic to abutting properties from a Street.

(w) **Intersection.** The location where two (2) or more Streets or Private Roads cross at grade without a bridge.

(x) **Level of Service.** A qualitative measure describing operational conditions within a traffic stream; generally described in terms of such factors as speed and travel time, delay, freedom to maneuver, traffic interruptions, comfort and convenience, and safety.

(y) **Local Unit.** One of the two (2) communities in which this Overlay District is located (Spring Lake Township and Crockery Township).

(z) **Off-Premise Signs.** Signs which relate to or advertise an establishment, product, merchandise, good, service or entertainment which is not located sold, offered, produced, manufactured or furnished at the property; also referred to as Billboards.

(aa) **Opposite Side Driveway.** A Driveway located on the opposite side of M-104 from the Driveway in question.

(bb) **Overlay District.** An overlay district is an additional zoning requirement that is placed on a specific geographic area but does not change the underlying zoning.
(cc) **Parking Lot Connection.** A vehicular connection between two (2) or more contiguous Parking Lots.

(dd) **Peak Hour.** A one (1) hour period of time representing the highest hourly volume of traffic flow during the morning (a.m. Peak Hour), during the afternoon or evening (p.m. Peak Hour); or representing the hour of highest volume of traffic entering or exiting a site (Peak Hour of generator).

(ee) **Portable or Temporary Signs.** Signs that are not permanent or affixed to a Building or Structure and by their nature may be or are intended to be moved from one (1) location to another.

(ff) **Protected Tree.** Any tree twelve (12) inches or greater Diameter Breast Height (D.B.H.) which does not have a life-threatening disease and which has not been damaged to a point which threatens its viability. DBH shall be measured four and one-half (4-1/2) feet above the established grade.

(gg) **Pylon Signs.** Freestanding signs, the bottoms of which are more than twenty-four (24) inches above the finished grade, and which are supported by structures, poles, or braces which are less than fifty (50) percent of the width of the signs.

(hh) **Reasonable Access.** The minimum number of Access Points, direct or indirect, necessary to provide safe Access to and from a public Street consistent with the purpose and intent of the Overlay District, with any other applicable plans of the Local Unit. Reasonable Access does not necessarily mean direct Access.

(ii) **Rear Service Drive.** A Local Street or Private Road typically located behind the principle Buildings; utilized for the purpose of providing Access to abutting properties, and controlling Access to the Corridor.

(jj) **Right-of-Way.** A general term denoting land, property or interest therein, usually in a strip, acquired for or devoted to transportation purposes.

(kk) **Roof Sign.** A sign erected above (or which extends above) the roof line of a Building.

(ll) **Shared Driveway.** A Driveway serving two (2) or more contiguous properties and providing Access to the public Street system.

(mm) **Sight Distance.** The distance of unobstructed view for the driver of a vehicle, as measured along the normal path of a roadway to a specified height above the roadway.

(nn) **Taper.** A triangular pavement surface that transitions the roadway pavement to accommodate an Acceleration/Deceleration Lane.
Traffic Impact Assessment or Study. Analysis of the potential traffic impacts generated by a proposed project.

(1) Traffic Impact Assessment. May be required by MDOT for any proposed development that is expected to generate fifty (5) to ninety-nine (99) peak hour directional trips (See Attachment C).

(2) Traffic Impact Study. May be required by the Local Unit or MDOT for any proposed development that is expected to generate over one hundred (100) peak hour directional trips (See Attachment D).

Trip (i.e. directional Trip). A single or one-direction Vehicle movement with either the origin or the destination (exiting or entering) inside a study site.

SECTION 13A.3 TRAFFIC IMPACT ASSESSMENT OR STUDY

(a) Procedures.

(1) A Traffic Impact Study shall be required for uses that are expected to generate one hundred (100) or more peak hour directional trips. The estimated generated traffic volumes shall be based on a similar type and size of land use listed in the Institute of Transportation Engineers (ITE) publication “Trip Generation” (current edition).

(2) MDOT may also require a Traffic Impact Assessment or Study based on the type and size of the land use proposed. MDOT shall be contacted to determine if a Traffic Impact Assessment or Study is required.

(3) If a Traffic Impact Assessment or Study is required, the applicant shall submit a copy to the Local Unit with the application for site plan review. A revised Traffic Impact Assessment or Study may be required as the scope and details of the site plan change.

(4) The Local Unit will distribute the Traffic Impact Assessment or Study to the OCRC and the adjacent municipalities, if appropriate.

(b) Cost. The cost of the Traffic Impact Assessment or Study and review by the Local Unit and/or MDOT shall be borne by the applicant.

(c) Contents. The contents of the Traffic Impact Assessment or Study shall be consistent with MDOT’s requirements (See Attachment C and D).

(d) Waiver of Requirements. The requirement for a Traffic Impact Assessment or Study may be waived or modified by the Local Unit and/or MDOT. The factors to be considered include:
(1) Roadway improvements that are scheduled which are expected to mitigate any impacts associated with the proposed projects;

(2) If the existing Level of Service along the roadway is not expected to drop below Level of Service “C” (as defined by MDOT) due to the proposed project;

(3) If the existing Level of Service is not expected to be significantly reduced by the proposed project due to specific conditions at this location; and

(4) A similar traffic analysis was previously prepared for the site and is still considered applicable.

SECTION 13A.4 SETBACKS

(a) **Purpose.** The intent of this Section is to preserve sufficient land area along the Corridor for potential future roadway expansions, Access Management, and aesthetic improvements.

(b) **Dimensional.** No Building and/or Structure shall be hereafter constructed, erected, or enlarged within the Overlay District unless the minimum Building Setbacks in Table 1 are maintained.

<table>
<thead>
<tr>
<th>Land Use</th>
<th>*Building Setback</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single &amp; Two-Family Residential, Agricultural</td>
<td>75 feet</td>
</tr>
<tr>
<td>All Other Land Uses</td>
<td>110 feet</td>
</tr>
</tbody>
</table>

*Setbacks are measured from the centerline of the Corridor.*
(c) Permitted Structures and Improvements Within the Building Setback. The following uses may be permitted within the Building Setback area outside of the Right-of-Way and Clear Vision Area. In no case shall any permitted Structure or improvement be located within sixty (60) feet from the centerline of the Corridor. In addition, all of the permitted Structures or improvements listed below shall comply with the applicable regulations of the underlying zoning district.

1. Front or Rear Service Drives and Access Easements are permitted where necessary to accommodate traffic flow plan.

2. Sidewalks and non-motorized paths.

3. Utility lines/structures.

4. Storm water storage (e.g., catch basins, culverts, etc.).

5. Signs.


7. Lighting fixtures.
(8) Agricultural/horticultural Activities (farm Buildings are not permitted within the Building Setback area).

SECTION 13A.5 PARKING

(a) **Purpose.** The intent of this Section is to provide alternatives to traditional parking design and limit unnecessary amounts of impervious surfaces.

(b) **Size.** Parking shall be provided at all commercial and industrial zoned Lots or parcels of land and shall comply with the applicable regulations of the underlying zoning district.

Where the property owner can demonstrate that the required amount of parking is excessive for a particular use, the Planning Commission may consider approving a smaller Parking Area.

If the Planning Commission approves the use of a smaller Parking Area, the remaining area needed to meet the normal Parking Space requirements shall be retained as open space and then developed for additional parking if the Planning Commission concludes the parking is needed.

(c) **Parking Alternatives.** The Planning Commission may require new developments to use alternative parking arrangements.

(1) **Cooperative Parking.** At the discretion of the Planning Commission provisions for cooperative parking may be allowed. Cooperative provisions for off-Street parking would be made by contract between two (2) or more adjacent property owners. The Parking Area provided on any one (1) Lot could be reduced to not less than one-half (1/2) of the number of required spaces. The Parking Areas shall be interconnected for vehicular passage. A copy of the cooperative parking agreement between property owners shall be provided with the application for site plan review. A sample parking agreement is provided in Attachment E.

(2) **Shared Parking.** Where a mix of land uses creates staggered peak periods of parking, shared parking agreements that have the effect of reducing the total amount of needed spaces may be required. In these cases the required number of Parking Spaces may be reduced. Retail, office, institution and entertainment uses may share Parking Areas.
SECTION 13A.6   DRIVEWAY DESIGN, PLACEMENT, AND SPACING

(a) **Purpose.** The purpose of this Section is to create Driveway Spacing requirements that simplify driving by reducing the amount of information a driver must process and react to. Locating Driveways away from the operational area of a signalized Intersection decreases the potential for congestion and accidents for both through-traffic and Vehicles using the Driveway. Adequate spacing between Driveways and unsignalized roadways or other Driveways can reduce confusion. Inadequate spacing requires drivers to watch for Ingress and Egress traffic at several points, while simultaneously trying to control their Vehicles and monitor other traffic ahead of and behind them.

(b) **Closing, Relocation, or Redesign of Access Point.** In the case of expansion, alteration, change of use, or redesign of an existing development where existing Access Points do not comply with the spacing standards required by the Overlay District, the Planning Commission may require that the Access Point be closed, relocated, or redesigned.

(c) **Maximum Number of Access Points.**

   (1) **Multi-Family Residential, Commercial, Office, and Industrial Parcels.** The number of Driveways shall be the minimum necessary to provide Reasonable Access for regular traffic and emergency vehicles, while preserving traffic operations and safety along the Corridor.

   Driveways shall be comprised of either a two-way single Driveway or a paired system wherein one Driveway is designed and appropriately marked to accommodate Ingress traffic, and the other Driveway is designed and appropriately marked to accommodate Egress traffic.

   When a Multi-Family, commercial, office, or industrial Lot or parcel of land abuts more than one (1) Street, Access to each abutting Street may be allowed only if all of the following criteria are met:

   (i) It is demonstrated that such Access is required to adequately serve Driveway volumes and the Access will not be detrimental or unsafe to traffic operations on public Streets. A Traffic Impact Assessment or Study supporting this shall be submitted to the Planning Commission.

   (ii) The minimum Driveway spacing requirements are met.

   (iii) Where the subject site adjoins land that may be developed or redeveloped in the future, Access shall be located to ensure the adjacent site can also meet the minimum spacing standards in the future.
(d) **Minimum Spacing Requirements.** Minimum spacing between driveways shall be maintained in accordance with MDOT requirements.

(1) **Modification of Spacing Requirements.** In the case of expansion, alteration, or redesign of an existing development where it can be demonstrated that pre-existing conditions prohibit adherence to the minimum Driveway Spacing standards, the Planning Commission in conjunction with MDOT, shall have the authority to modify the Driveway Spacing requirements.

In the event that a Lot or parcel of land lacks sufficient frontage to maintain adequate spacing, one of the following options shall be required:

(i) Choose one of the lower mile per hour (mph) spacing from Table 2.

(ii) Encourage a shared driveway or Parking Lot Connection with the adjacent Lot or parcel of land.

(iii) Provide an access point to an adjoining street when it is possible.

(iv) In areas where front or rear service drives exist or can be constructed, individual properties shall be provided access to these rather than directly to the main highway.

(v) After all of the above options are exhausted, an access point may be allowed within the property limits as determined by MDOT and the Local Unit.

(2) **Minimum Spacing Between Adjacent Driveways.** The required minimum driveway spacing contained in Table 2 shall be measured from the centerline of the proposed Driveway to the centerline of the Adjacent Driveway (on the same side of the Street), as depicted in Figure 3.

<table>
<thead>
<tr>
<th>Posted Speed</th>
<th>Required Minimum Driveway Spacing</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 mph</td>
<td>300 feet</td>
</tr>
<tr>
<td>45 mph</td>
<td>350 feet</td>
</tr>
<tr>
<td>50 mph +</td>
<td>455 feet</td>
</tr>
</tbody>
</table>
(3) **Minimum Spacing Between Opposite Side Driveways (Alignment).** Access Points shall be aligned with Opposite Side Driveways, or offset by the appropriate distance contained in Table 3. Measurements shall be taken from centerline of the proposed Driveway to the centerline of the Opposite Side Driveway, as depicted in Figure 4.

### Table 3

<table>
<thead>
<tr>
<th>Posted Speed</th>
<th>Required Minimum Driveway Spacing</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 mph</td>
<td>525 feet</td>
</tr>
<tr>
<td>45 mph</td>
<td>630 feet</td>
</tr>
<tr>
<td>50 mph +</td>
<td>750 feet</td>
</tr>
</tbody>
</table>

(4) **Minimum Driveway Spacing between Adjacent Streets & Other Intersections.** The measurements contained in Table 4 are taken from the centerline of the proposed Driveway to the near Right-of-Way of Intersection type listed below, as depicted in Figure 5.
Table 4

<table>
<thead>
<tr>
<th>Intersection Type Along M-104</th>
<th>Minimum Spacing for a Full Movement Driveway</th>
<th>Minimum Spacing for a Channelized Driveway (Right In / Right Out)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expressway Ramp</td>
<td>300 feet (600 feet preferred)</td>
<td>300 feet (600 feet preferred)</td>
</tr>
<tr>
<td>Railroad Crossing</td>
<td>Contact MDOT</td>
<td>Contact MDOT</td>
</tr>
<tr>
<td>Bridges</td>
<td>100 feet</td>
<td>100 feet</td>
</tr>
<tr>
<td>Median Openings</td>
<td>75 feet</td>
<td>75 feet</td>
</tr>
<tr>
<td>Arterial</td>
<td>300 feet</td>
<td>125 feet</td>
</tr>
<tr>
<td>Collector or Local Street</td>
<td>200 feet</td>
<td>125 feet</td>
</tr>
</tbody>
</table>

(e) Additional Access Points. Additional Access Points may be permitted as follows:

1. One (1) additional Access Point may be allowed for a site with continuous frontage of four hundred (400) feet or more if the Planning Commission, in conjunction with MDOT, determines that no other Access opportunities are available.

2. Two (2) additional Access Points may be allowed for a site with continuous frontage of eight hundred (800) feet or more if the Planning Commission, in conjunction with MDOT, determines that no other Access opportunities are available.

3. Additional Access Points may be allowed if the applicant provides a Traffic Impact Assessment or Study that indicates traffic safety will be improved with the additional Access Point. The Planning Commission, in conjunction with MDOT, shall make the final decision.
(4) The following conditions may also warrant the consideration of an additional Access Point. The applicant must submit a completed Traffic Impact Assessment or Study to the Planning Commission. The Planning Commission, in conjunction with MDOT, shall decide if an additional Driveway is warranted based on the following criteria:

(i) Traffic volumes reported in the Traffic Impact Study
(ii) On-site traffic circulation
(iii) Use of Channelized Driveway
(iv) Length of property frontage
(v) Relationship between Local Streets, Arterials, and Front or Rear Service Drives
(vi) Square footage of development.

When alternatives to a single, two-way Driveway are necessary to provide Access to property fronting the Corridor, and Shared Driveways or Front/Rear Service Drives are not a viable option, the following progression of alternatives shall be used:

(1) One (1) standard, two-way Driveway;
(2) Additional Ingress/Egress lanes on one (1) standard, two-way drive;
(3) Two (2) one-way Driveways;
(4) Additional Ingress/Egress lanes on two (2) one-way Driveways;
(5) Additional Driveway(s) on an abutting Street with a lower Functional Classification; and
(6) Additional Driveway on the Corridor.

The Local Unit may choose to consult a professional traffic engineer to review plans and make recommendations for an Alternative Means of Access.

SECTION 13A.7 FRONT AND REAR SERVICE DRIVES, PARKING LOT CONNECTIONS, AND SHARED DRIVEWAYS

(a) **Purpose.** The purpose of this Section is to provide guidance for circumstances that may exist where direct Access, consistent with the Driveway Spacing standards of
the Overlay District, cannot be achieved, and the construction of an Alternative Means of Access will minimize the number of Driveways. The use of Front or Rear Service Drives, Parking Lot Connections, and Shared Drives shall ensure that traffic is able to safely and efficiently Ingress and Egress onto the Corridor, and shall provide for Alternative Means of Access to properties along the Corridor.

(b) **Applicability.** Front and Rear Service Drives, Parking Lot Connections, and/or Shared Driveways may be required when the current Access does not comply with the Driveway Spacing standards for the Overlay District, or as determined by the Planning Commission or MDOT. An Alternative Means of Access may be required if one (1) or more of the following circumstances exist:

1. Driveway Spacing standards for the Overlay District cannot be met.
2. If the proposed development is expected to generate one hundred (100) or more Peak Hour Trips. Generated traffic volumes shall be based on a type and size of land use which is compatible with a land use listed in the current edition of the Institute of Transportation Engineers (ITE) “Trip Generation” manual.
3. The proposed Driveway could potentially interfere with traffic operations at an existing or planned traffic signal location.
4. The site is along a portion of the Corridor that exhibits high traffic volumes, congestion, or a relatively high number of crashes.
5. The fire department or other emergency service agency recommends an Alternative Means of Access for emergency Vehicles.

(c) **General.** Multi-Family, commercial, office and industrial properties may be required to install Access for a connection to adjacent Lots that are zoned or planned for Multi-Family, commercial, office or industrial uses.

1. **Parking.** Front and Rear Service Drives, Parking Lot Connections, and Shared Drives are intended, and shall be designed, to be used exclusively for circulation, not as a parking maneuvering aisle. The Planning Commission may require the posting of "no parking" signs.
2. **Maintenance.** Front and Rear Service Drives, Parking Lot Connections, and Shared Driveways shall be privately controlled and maintained by adjoining property owners or other persons who enter into a formal legal agreement together to provide joint maintenance (see Section 13A.7[g][1]).
(d) **Front and Rear Service Drives.**

(1) Front or Rear Service Drives, as depicted in Figure 6, may be required, especially if the proposed development is expected to generate one hundred (100) or more peak hour trips.

(2) If a Rear Service Drive is proposed, the Planning Commission may allow a decrease in the minimum Building Setback requirement.

(3) If two (2) or more existing continuous Lots comprise less than three hundred (300) feet of Street frontage, Front or Rear Service Drive may be required. Additionally, expansion of the Front or Rear Service Drive may be required as additional contiguous Lots develop.

(4) No Front or Rear Service Drive shall be less than twenty-four (24) feet wide. Front Service Drives may be required for locations where construction of a Rear Service Drive is not practical.

(5) In cases where Front or Rear Service Drives exist, or are proposed on an approved site plan for an adjoining Lot, Access may be required to be provided via such Street, rather than by direct connection to the Corridor.

---

**Figure 6**

(i) **Identification.** All Front or Rear Service Drives must have a designated name on a sign meeting the Local Unit's standards.

(ii) **Location.** In considering the most appropriate location for a Front or Rear Service Drive, the Planning Commission shall consider the Setbacks of the existing and/or proposed Buildings and anticipated traffic flow for the site. MDOT shall be encouraged to make reasonable allowance of its Right-of-Way for Front Service Drives when existing Buildings, Structures and conditions warrant.
(iii) **Design.** Front and Rear Service Drives shall comply with the applicable regulations of the OCRC, national design guidelines such as those contained in the "National Access Management Manual" published by the Transportation Research Board, the American Association of State Highway and Transportation Officials (AASHTO) "Green Book," and the standards of the National Cooperative Highway Research Program.

Travel lanes must be at least twelve (12) feet in width, and must also be constructed with curb and gutter to allow for adequate drainage. Provisions must be made for adequate snow storage.

Directional Signs and pavement markings may be required to help promote safe and efficient circulation. The property owner(s) shall be required to maintain all pavement markings and signs. All Directional Signs and pavement markings shall conform to the standards contained in the current "Michigan Manual of Uniform Traffic Control Devices."

(iv) **Setback.** Front Service Drives shall have a minimum setback of seventy-five (75) feet, measured from the centerline of the Corridor to the nearest edge of pavement on the Front Service Drive, as depicted in Figure 7.

(v) **Access Points.** The Planning Commission shall recommend the appropriate location for all Access Points to the Front or Rear Service Drive. The Planning Commission, in conjunction with MDOT, shall make the final approval of all Access Points to Front or Rear Service Drives.

All separate Parking Areas shall use no more than one (1) Access Point or Driveway to the Front or Rear Service Drive. In areas where Front or Rear Service Drives are required, but adjacent
properties have not yet developed, the site shall be designed to accommodate the future Front or Rear Service Drives.

(e) Parking Lot Connections. Where a proposed Parking Lot is adjacent to an existing Parking Lot of a similar use, providing vehicular connections between the two (2) Parking Lots is may be required.

1. Location. Parking Lot Connections may be required to be located where physically feasible, or as recommended by the Planning Commission.

2. Developments adjacent to vacant properties may be required to provide easements for future Parking Lot Connection(s).

(f) Shared Driveways.

1. Location. The Shared Driveway shall be constructed as close as possible to the midpoint between the two (2) properties.

2. General. Shared Driveways shall remain undedicated and privately owned and maintained. The following shall be adhere to upon construction/approval of a Shared Driveway:

   i. A written easement, as required in Section 13A.7[g], shall be executed which will allow traffic to travel across one (1) parcel to Access another and/or Access M-104. The owners of the two (2) properties shall enter into a joint written maintenance agreement, as required in Section 13A.7[g][1].

   ii. Shared Driveways shall have a minimum easement frontage of sixty-six (66) feet upon a Street; this may be reduced by the Planning Commission.

   iii. The required easement frontage on a Street may be reduced to forty (40) feet where it is demonstrated that there exists no
possibility that the Shared Driveway will be used to serve any more than four (4) Lots. If easements widths are reduced, property owners are required to submit a recorded deed restriction on any of the affected properties indicating that the Shared Driveway will not serve any more than four (4) Lots.

(iv) Driveways shall be constructed and maintained in order to provide year-round Access for emergency Vehicles.

(g) Access Easements. Access Easements are required when two (2) or more property owners share joint-Access to the Corridor, Parking Lots, or Front or Rear Service Drives. Access Easements must be reviewed and approved by the Planning Commission at the time of site plan review. Once approved, the Access Easement shall be filed with the Ottawa County Register of Deeds. A sample Access Easement is provided in Attachment F.

(1) Operating and Maintenance Agreements. Operating and maintenance agreements shall be included in the Access Easement. The agreements shall specify who is responsible for enforcing speed limits, parking, repairs, snow removal, and other related vehicular activity. The owners shall also file documentation for any future Buildings or Lots subject to the maintenance agreements. Lastly, the maintenance agreements must state that the cost of maintenance is solely the responsibility of the property owners named in the Access Easement.

SECTION 13A.8 SIGNAGE

(a) Purpose. The purpose of this Section is to manage signs intended to be visible from the public Right-of-Way, to avoid sign clutter, and to minimize visual distractions to motorists along the Corridor.

(b) Exempted Signs. Signs attached to buildings, governmental signs, and essential service signs are exempt from the requirements of this Section.

(c) Sign Setbacks. All new signs located on properties adjacent to M-104 shall be setback a minimum of sixty (60) feet from the centerline of M-104. Where the associated Building or Structure on the subject property is already within sixty (60) feet of the centerline of M-104, the sign shall be attached to the Structure of the Building, but in no case shall the sign protrude into the Right-of-Way. In addition, Clear Vision Areas must be maintained per the requirements of this Ordinance and MDOT.

(d) External Illumination. The following shall apply to externally illuminated signs.

(1) External lighting shall be limited to light fixtures that do not blink, fluctuate or move.
(2) Lighting fixtures shall be carefully located, aimed and shielded so that the light is directed only onto the sign façade. Lighting fixtures shall not be aimed at adjacent Streets or properties.

(3) All lighting fixtures shall be night-sky friendly (as depicted in Figure 9 below). To the extent possible, fixtures shall be mounted and directed downward (i.e., below the horizon).

![Figure 9](image)

(e) **Internal Illumination.** Internal lights shall be limited to internal light contained within translucent letters and internally illuminated sign boxes, provided the background or field on which the copy and/or logos are placed is opaque. The area illuminated is restricted to sign face only.

(f) **Sign Height.** Signs shall have a maximum height of eight (8) feet. Sign height may be increased by ten (10) percent for every additional ten (10) foot increase in setback. However, by virtue of increasing the sign setback, sign height shall not exceed a maximum of twelve (12) feet.

(g) **Sign Size.** Signs shall have a maximum area of thirty-six (36) square feet. Sign area may be increased by ten (10) percent for every additional ten (10) foot increase in setback. However, by virtue of increasing the sign setback, sign area shall not exceed a maximum of sixty (60) square feet.

(h) **Signs for Multiple businesses.** A development with two (2) or more attached or detached businesses located on one or more Lots or parcels of land may, and are encouraged to, combine individual signs onto one (1) Ground Sign. No more than two (2) Ground Signs shall be allowed per development, and they shall be at least three hundred (300) feet apart. The sign and mounting structure shall have a maximum area of sixty (60) square feet and a maximum height of fifteen (15) feet.

(i) **Prohibited Signs.** The following signs are prohibited for use in the Overlay District:

(1) **Pylon Signs;**

(2) **Moving, scrolling, flashing, or blinking signs;**
(3) Off-Premise Signs;
(4) Portable or Temporary Signs;
(5) Roof Sign;
(6) Inflatable signs; and
(7) Freestanding signs less than two (2) feet tall.

SECTION 13A.9 NATURAL FEATURE PRESERVATION

(a) **Purpose.** The purpose of this Section is to promote preservation of important natural features and to maintain the natural edge and views along the Corridor.

(b) **Guidelines.** The following shall be adhered to.

(1) Prior to construction of any new development, an inventory of natural features, including Protected Trees, located within the Building Setback area must be submitted, unless waived by the Planning Commission. Trees that are thought to be of poor quality must be evaluated by a qualified forester or landscape architect, a subsequent determination of the tree’s health must be provided to the Planning Commission in writing.

(2) The site plan shall be designed to preserve existing natural features and individual Protected Trees to the greatest extent reasonable, based upon a consideration of the size of the Lot, the Lot coverage from buildings and structures, the required Setbacks, the topography of the Lot, the utility requirements for the Lot, and such other factors as the Planning Commission and/or MDOT deems relevant. Trees that are likely to be lost during construction activity or those that are not expected to remain healthy due to the change in the site environment may be removed without penalty with the approval of the Planning Commission and/or MDOT.

(3) Protected Trees located within the Building Setback area shall not be removed unless the Planning Commission determines that the removal is necessary to construct Driveways or other improvements required by the Local Unit, OCRC, or MDOT. Individual tree removal within the Building Setback area shall be reviewed and approved by the Planning Commission.

(4) Protected Trees located within the Building Setback area that are removed or damaged, so as to threaten its continued viability, in violation of this
Section, shall be replaced. Trees that are planted within the Right-of-Way shall be consistent with MDOT’s permitted tree species listed below:

**TREE SPECIES PERMITTED WITHIN THE RIGHT-OF-WAY**

<table>
<thead>
<tr>
<th>Norway Maple</th>
<th>Amur Maple</th>
</tr>
</thead>
<tbody>
<tr>
<td>October Glory Red Maple</td>
<td>Hedge Maple</td>
</tr>
<tr>
<td>Green Ash</td>
<td>Washington Hawthorne</td>
</tr>
<tr>
<td>Common Honey Locust</td>
<td>Serviceberry</td>
</tr>
<tr>
<td>Little Leaf Linden</td>
<td>Winged Euonymus</td>
</tr>
<tr>
<td>Austrian Pine</td>
<td>Common Witch Hazel</td>
</tr>
<tr>
<td>Blue Spruce</td>
<td>Junipers</td>
</tr>
<tr>
<td>Norway Spruce</td>
<td>Smooth and Staghorn Sumac</td>
</tr>
</tbody>
</table>

(5) The Local Unit, MDOT, or the OCRC may remove or otherwise disturb Protected Trees and other natural features if it is deemed necessary.

**SECTION 13A.11 PARCELS INCLUDED IN THE DISTRICT**

The standards of the Overlay District apply to the Lots and parcels of land having frontage on M-104 (see Attachment B) or any parcel of land gaining Access to the Corridor.

RB072101
Attachment B

M-104 Overlay District
Crockery Township

Legend
- M-104 Corridor
- Parcels Included in the Overlay District
- Water Features
- Township Boundary
- Roads

Notes:
The standards of the Overlay District apply to the Lots and parcels of land having frontage on M-104 or any parcel of land gaining access to the Corridor.
Note: The standards of the Overlay District apply to the Lots and parcels of land having frontage on M-104 or any parcel of land gaining Access to the Corridor.
TRAFFIC AND SAFETY NOTE 613B

SUBJECT: Traffic Impact Assessment

PURPOSE: To Define Requirements and Procedures for Traffic Impact Assessments

COORDINATING UNIT: Geometric Design Unit

INFORMATION: A traffic impact assessment is completed for uses which generate a relatively low volume of traffic.

A traffic impact assessment is required for any proposed development expected to generate fifty (50) – ninety-nine (99) peak hour directional trips or at the discretion of the Region/TSC Traffic & Safety Engineer. The attached table on page 3 gives examples of land use that is expected to meet or exceed the 50 peak hour directional trip threshold. A traffic impact study (as outlined in Traffic and Safety Note 607-Series) shall be required for any proposed development expected to generate over 99 peak hour directional trips or if requested by the Region/TSC Traffic & Safety Engineer. Lansing Traffic and Safety, as well as the Region, may review these studies.

The Traffic Impact Assessment should include:

1. A narrative summary at the beginning of the report, including, but not limited to:
   a. The applicant and project name.
   b. A location map with dimensions including proposed drives and distances and/or references to state trunklines.
   c. The size and type of development.

2. Generated traffic volumes based on the type and size of land use which are compatible with those listed in the Institute of Transportations Engineers (ITE) publication Trip Generation (current edition). They should be in the area of the proposed site drives. The traffic volume for the development shall assume a total build out. Both peak hour trip generation and daily trip generation should be used. Local or specific development data can be used, if available, only at the discretion of the Region/TSC Traffic Engineer. Developers can use their own data in the collection of estimated traffic generated. The use of secondary data outside of the ITE Trip Generation manual is acceptable as long as the business that is being referenced is comparable and the state trunkline and local primary connectors have similar ADT. The ITE Trip Generation
The manual has small sample sizes for several types and may not be the best source of information for data collection purposes.

3. **Existing Traffic Volumes** – Volumes during peak hours adjacent to the site.

4. **Project phasing** identifying the year of development activities per phase and the proposed access plan for each phase.

5. **Trip Distribution/Assignment** for the proposed drives. Trip distribution/assignment is for the peak hours (assuming morning and evening). Weekend peak hour data may be requested by the Region/TSC Traffic Engineer if applicable.

6. **Access**:
   - Identify the location of any existing drives within approximately 450 feet (140 m) of the site. Identify the location of the proposed drives. Spacing at 50 MPH (80 Km/h) of proposed drives is suggested.

If it is determined that the impacts of the development affect areas beyond the proposed drives, additional information or assessment may be requested. If there are existing corridor groups, coordination will be needed between them and the proposed project. A corridor group can be defined as a transportation planning group consisting of local officials, MDOT staff, and various other key stakeholders interested in preserving and/or improving the safety, capacity, economic sustainability, and aesthetics of a particular transportation corridor.

For information on intersection operations see the Michigan Intersection Guide.
### TABLE

Examples of Land Use Size Thresholds
Based on Trip Generation Characteristics
(This document is a guideline)

<table>
<thead>
<tr>
<th>Land Use</th>
<th>50 Peak Hours</th>
<th>Directional</th>
<th>Metric</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single Family</td>
<td>70 units</td>
<td>70 units</td>
<td></td>
</tr>
<tr>
<td>Apartments</td>
<td>115 units</td>
<td>115 units</td>
<td></td>
</tr>
<tr>
<td>Condominiums/Townhouses</td>
<td>125 units</td>
<td>125 units</td>
<td></td>
</tr>
<tr>
<td>Mobile Home Park</td>
<td>140 units</td>
<td>140 units</td>
<td></td>
</tr>
<tr>
<td>Shopping Center (GLA)</td>
<td>5,200 sq. ft.</td>
<td>480 m2</td>
<td></td>
</tr>
<tr>
<td>Fast Food Restaurant w/drive-in (GFA)</td>
<td>2,600 sq. ft.</td>
<td>242 m2</td>
<td>650 sq. ft. or 3</td>
</tr>
<tr>
<td>Convenience Store w/gas (GFA)</td>
<td>pumps</td>
<td>pumps</td>
<td></td>
</tr>
<tr>
<td>Bank w/drive-in (GLA)</td>
<td>2,200 sq. ft.</td>
<td>205 m2</td>
<td></td>
</tr>
<tr>
<td>Hotel/Motel</td>
<td>120 rooms</td>
<td>120 rooms</td>
<td></td>
</tr>
<tr>
<td>General Office</td>
<td>22,000 sq. ft.</td>
<td>2,045 m2</td>
<td></td>
</tr>
<tr>
<td>Medical/Dental Office</td>
<td>18,600 sq. ft.</td>
<td>1,728 m2</td>
<td></td>
</tr>
<tr>
<td>Research &amp; Development</td>
<td>37,000 sq. ft.</td>
<td>3,440 m2</td>
<td></td>
</tr>
<tr>
<td>Light Industrial</td>
<td>58,000 sq. ft.</td>
<td>5,390 m2</td>
<td></td>
</tr>
<tr>
<td>Manufacturing</td>
<td>125,000 sq. ft.</td>
<td>11,615 m2</td>
<td></td>
</tr>
</tbody>
</table>

**NOTES:**
1. For example, a traffic impact assessment should be completed (50 peak hour, peak directional trips generated) if 70 or more single family units are proposed for a site.
2. GLA – Gross Leasible Area; GFA – Gross Floor Area
TRAFFIC AND SAFETY NOTE 607B

SUBJECT: Traffic Impact Studies

PURPOSE: To Define Requirements and Procedures for Traffic Impact Studies

COORDINATING UNIT: Geometric Design Unit

INFORMATION: A traffic impact study is a complete analysis and assessment of traffic generated by a proposed development and of the impact a proposed development would have on the surrounding transportation system.

A traffic impact study is required for any proposed development expected to generate over one hundred (100) peak hour directional trips or at the discretion of the Region/TSC Traffic and Safety Engineer. The study shall be completed and sealed by a licensed professional engineer. The consulting firm shall be pre-qualified by MDOT to do Traffic Capacity Analysis and Geometric Studies. If the study includes the review of potential signal operations, a pre-qualified Traffic Signal Operations consultant must be used (see http://mdotwas1.mdot.state.mi.us/pblc/psvr/dsp_classresult.cfm for a list of approved traffic impact consultants). The attached table on page 3 gives examples of land use that is expected to meet or exceed the 100 peak hour directional trip threshold. Lansing Traffic and Safety, as well as the Region, should review these studies.

Region Review:

1. The Region/TSC Utilities and Permits Section reviews all proposed access plans, and then forwards the plans to the Region Traffic and Safety Engineer with their recommendations. Region Traffic and Safety will notify the Utilities and Permits Engineer if a traffic impact study is required from the developer before the access permit can be issued.

2. The Utilities and Permits Engineer will inform the developer of the required impact study.

3. If an access management corridor team has been established in the vicinity of said development, the draft impact study will be submitted to the corridor team for advisory input prior to awarding a MDOT permit.

A traffic impact study should include:

1. A disclaimer which indicates that the opinions, findings, and conclusions expressed in this TIA are those of the authors and not necessarily those of the MDOT.
2. A narrative summary at the beginning of the report, including, but not limited to:
   a. The applicant and project name.
   b. A location map with dimensions with references to state trunklines.
   c. The size and type of development.
   d. Generated traffic volumes based on type and size of land use which are compatible with those listed in the Institute of Transportation Engineers (ITE) publication, *Trip Generation* (current edition).
   e. A disclaimer indicating why the TIA is being completed.
   f. A location for MDOT (Lansing Traffic and Safety and the Region) to indicate they reviewed the TIA and accept/reject the assessment.

3. Project phasing identifying the year of development activities per phase and proposed access plan for each phase.

4. A transportation system inventory, which describes the physical, functional and operational characteristics of the study area highway system, and where appropriate, locate transit services. The description should provide, where pertinent, data on:
   a. peak-hour volumes for each individual traffic movement (existing and projected)
   b. number of lanes
   c. cross-section
   d. intersection traffic signals and configuration
   e. traffic signal progression
   f. percentage of heavy trucks
   g. adjacent access point locations
   h. jurisdiction
   i. grades

5. Plan showing proposed roadway per phase for each access. The plan needs to be in scale and show lane configurations, drives, traffic signals, and other geometric information pertinent to the study. Driveway design and roadway improvements shall meet Michigan Department of Transportation standards and guides.

6. Capacity analysis shall be performed at each access point. The Department software preference is Synchro. Default values shall not be used when actual values are reasonably available or obtainable. Every effort should be made to obtain accurate values, or good, justifiable estimates. The interaction of conflicting traffic movements shall be addressed in the traffic impact study. Any proposed signalized access within 1 mile (1.6 km) of an existing signalized intersection shall be
analyzed in coordination with the existing signal timing along the entire signalized corridor. A time-space diagram should also be included.

7. A traffic impact study on the trunkline shall be analyzed with and without the proposed development on the existing system, and with the proposed development for both existing and projected traffic volumes.

The traffic volumes for the development shall assume a total build out. If desired, the traffic volumes generated by each individual phase may be provided as well.

If the development is at or near a major intersection or interchange, then traffic generated for the site should also be shown relative to movements into and/or through the intersection or interchange. Large developments should indicate expected market area such as a shopping mall.

The completed analysis shall be summarized in a table showing all the Measures of Effectiveness (MOE) for each individual traffic movement for all of the above conditions.

8. Required operational changes and/or other mitigation measures shall be part of the permit approval process.

9. The consultant and the Department should strive to reach an agreement on the assumptions and methodology of the traffic impact study. In areas where an agreement can not be reached, the Department may provide a response to the traffic impact study that will be made part of the final study and included in the appendix.

For information on intersection operations see the Michigan Intersection Guide.
<table>
<thead>
<tr>
<th>Land Use</th>
<th>100 Peak Hours Directional</th>
<th>Metric</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single Family</td>
<td>150 units</td>
<td>150 units</td>
</tr>
<tr>
<td>Apartments</td>
<td>245 units</td>
<td>245 units</td>
</tr>
<tr>
<td>Condominiums/Townhouses</td>
<td>295 units</td>
<td>295 units</td>
</tr>
<tr>
<td>Mobile Home Park</td>
<td>305 units</td>
<td>305 units</td>
</tr>
<tr>
<td>Shopping Center (GLA)$^{(3)}$</td>
<td>15,500 sq. ft.</td>
<td>1,440 m²</td>
</tr>
<tr>
<td>Fast Food Restaurant w/drive-in (GFA)</td>
<td>5,200 sq. ft.$^{(4)}$</td>
<td>480 m²</td>
</tr>
<tr>
<td>Convenience Store w/gas (GFA)$^{(3,5)}$</td>
<td>1,300 sq. ft. or 5 pumps</td>
<td>120 m² or 5 pumps</td>
</tr>
<tr>
<td>Banks w/drive-in (GFA)</td>
<td>4,400 sq. ft.</td>
<td>410 m²</td>
</tr>
<tr>
<td>Hotel/Motel</td>
<td>250 rooms</td>
<td>250 rooms</td>
</tr>
<tr>
<td>General Office</td>
<td>55,000 sq. ft.$^{(4)}$</td>
<td>5,110 m²</td>
</tr>
<tr>
<td>Medical/Dental Office</td>
<td>37,000 sq. ft.</td>
<td>3,440 m²</td>
</tr>
<tr>
<td>Research &amp; Development</td>
<td>85,000 sq. ft.</td>
<td>7,900 m²</td>
</tr>
<tr>
<td>Light Industrial</td>
<td>115,000 sq. ft.</td>
<td>10,680 m²</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>250,000 sq. ft.</td>
<td>23,225 m²</td>
</tr>
</tbody>
</table>

NOTES:

1. Rates/equations used to calculate the above thresholds are from Trip Generation, 5th Edition, 1991, by the Institute of Transportation Engineers. This table will likely need updating as future editions provided additional information.
2. For example, a full traffic impact study should be completed (100 peak hour, peak direction trips generated) if 150 or more single family units are proposed for a site.
3. GLA – Gross Leasable Area; GFA – Gross Floor Area.
4. Using AM peak-hour rates/equations would provide a lower threshold. However, adjacent roadway volumes are usually higher during the PM peak hour.
5. Uses both “Service Station with Market” and “Convenience Market with Pumps” data.
6. For further trip generation characteristics of the above land uses, or of other uses not illustrated above, refer to the latest version of Trip Generation.
THIS AGREEMENT made and entered into this _______ day of ________________, 20_______, by and between _______________________________, hereinafter referred to as the “Owner of the Primary Parcel(s)”, and _______________________________, hereinafter referred to as the “Owner of Secondary Parcel(s)”:

WITNESSETH:

WHEREAS, the Owner of the Primary Parcel(s) certifies that he/she/it is/are the record owner(s) of property hereinafter referred to as the “Primary Parcel(s)” and identified as:

Parcel(s) Number: __________________________
Legal Description: ________________________________________________________________
_________________________________________________________
_________________________________________________________
_________________________________________________________

WHEREAS, the Owner of the Secondary Parcel(s) certifies that he/she/it is/are the record owner(s) of property hereinafter referred to as the “Secondary Parcel(s)” and identified as:

Parcel(s) Number: __________________________
Legal Description: ________________________________________________________________
_________________________________________________________
_________________________________________________________
_________________________________________________________

NOW, THEREFORE, in consideration of the approval of the site plan for the Primary Parcel(s) and Secondary Parcel(s), and the mutual covenants herein, it is agreed by the parties that:

Pursuant to the terms of Chapter XIV of the Crockery Township Zoning Ordinance off-street parking space requirements for the proposed use of the Primary Parcel(s) and Secondary Parcel(s), are being satisfied through a cooperative parking agreement whereby provision of such required spaces, numbering __________, on the Primary Parcel(s) and numbering __________,
on the Secondary Parcel(s), the total of which satisfies the parking requirements for both the Primary Parcel(s) and the Secondary Parcel(s).

The permanent availability of such parking spaces and associated pedestrian access routes for use on the Secondary Parcel(s) in conjunction with the uses conducted on the Primary Parcel(s) and Secondary Parcel(s) has been established by execution of an appropriate legal instrument, recorded with the Clerk’s Office of the County of Ottawa, Liber/Page Number: ________________.

By signature(s) on this statement, the Owner(s) of the Primary Parcel(s) and the Owner(s) of the Secondary Parcel(s), do hereby acknowledge and agree that should the parking spaces that are subject of the Agreement become unavailable for use at some future time as a result of a breach in the recorded instrument, or for any other reason, than an equal number of parking spaces shall be constructed and provided either on the Primary Parcel(s) or the Secondary Parcel(s) or through another off-site arrangement. Failure to provide or construct such replacement parking spaces within ninety (90) days, weather permitting, shall be deemed a violation of the Township’s Zoning Ordinance and shall be punishable in accordance with the penalties provided therein.

The responsibility of complying with these parking requirements shall run with the title to the Primary Parcel(s) and the Secondary Parcel(s), and shall not be affected by transfer by lease or of ownership, as long as the use of the Primary Parcel(s) necessitates provision of off-site parking spaces to satisfy to satisfy the applicable parking standards specified by the Zoning Ordinance. A recorded statement executed by the Township, indicating that all or a portion of such parking spaces are no longer required, shall be conclusive as to any release from the requirements of this Agreement by the Township.

WITNESS the following signatures and seals:
OWNER OF THE PRIMARY PARCEL(S)

By: ______________________________

Title: ______________________________
(if signing for a corporation or a partnership)

OWNER OF THE SECONDARY PARCEL(S)

By: ______________________________

Title: ______________________________
(if signing for a corporation or a partnership)

TOWNSHIP APPROVAL

By: ______________________________

Title: ______________________________

NOTARY PUBLIC

______________________________

My commission expires: ______________
SAMPLE
ACCESS EASEMENT AGREEMENT

THIS AGREEMENT made and entered into this _______ day of ________________, 20_______, by and between _______________________________, hereinafter referred to as the “Owner of the Primary Parcel(s)”, and _______________________________, hereinafter referred to as the “Owner of Secondary Parcel(s)”:

WITNESSETH:

WHEREAS, the Owner of the Primary Parcel(s) certifies that he/she/it is/are the record owner(s) of property hereinafter referred to as the “Primary Parcel(s)” and identified as:

 Parcel(s) Number: ________________________________
 Legal Description: ________________________________

 WHEREAS, the Owner of the Secondary Parcel(s) certifies that he/she/it is/are the record owner(s) of property hereinafter referred to as the “Secondary Parcel(s)” and identified as:

 Parcel(s) Number: ________________________________
 Legal Description: ________________________________

 WHEREAS, Chapter XIII of the Crockery Township Zoning Ordinance, entitled “M-104 Overlay District” mandates, where possible, the establishment of shared driveway(s), parking lot connection(s), front or rear service drive(s), and/or any other cross access design for properties along M-104/Cleveland Street and located within the M-104 Overlay District, and

 WHEREAS, it has been stipulated by the Crockery Township Planning Commission, in approving the preliminary site plan for ________________________________
has determined that it is necessary to establish a means of cross access between the Primary Parcel(s) and the Secondary Parcel(s), or order to facilitate efficient traffic operations and improve public safety along M-104/Cleveland Street.

NOW, THEREFORE, in consideration of the foregoing and the terms and conditions contained herein, the above named parties agree as follows:

1. Access Easement
   a. An easement shall be created which shall allow the above named parties and the general public vehicular and pedestrian access across the Primary Parcel(s) and the Secondary Parcel(s). Said easement being illustrated on the attached Exhibit A, and legally described as follows:

   b. No physical barrier including, but not limited to, curbs, structures, buildings, signs, parking spaces, and product displays shall be placed across the easement in such a manner to block access across and/or between the Primary Parcel(s) or Secondary Parcel(s).

   c. Details pertaining to the placement of the shared driveway(s), parking lot connection(s), front or rear service drive(s), and/or any other cross access design located within the easement shall be illustrated on the final site plans for any future developments on the Primary Parcel(s) or the Secondary Parcel(s). Said plans shall be submitted to Crockery Township for review and approval.

   d. Properties located adjacent to the easement shall be permitted to connect their parking areas, aisleways, driveways, etc. to the shared driveway(s), parking lot connection(s), front or rear service drive(s), and/or other cross access design
within the easement. The easement and corresponding access drive shall be open for use by the general public.

e. The easement shall be permanently recorded with the Ottawa County Register of Deeds.

2. The Owner of the Primary Parcel(s) and the Owner of the Secondary Parcel(s) hereby agree that this Agreement shall be binding and shall inure to the benefit of the parties hereto, their successors, assigns, tenants, and sub-tenants, and that the covenants herein shall be deemed to be covenants running with the land.

3. The Owner of the Primary Parcel(s) shall be responsible for the payment of any and all costs and expenses incurred and arising out of any use of the easement for any of the purposes described and set forth in this agreement, including, but not limited to, any cost and expenses incurred in the construction, maintenance, and repair of the shared driveway(s), parking lot connection(s), front or rear service drive(s), or any other cross access design within that portion of the easement area located on the Primary Parcel(s). The Owner of the Secondary Parcel(s) shall be responsible for the payment of any and all costs and expenses incurred and arising out of any use of the easement for any of the purposes described and set forth in this agreement including, but not limited to, any cost and expenses incurred in the construction, maintenance, and repair of the shared driveway(s), parking lot connection(s), front or rear service drive(s), or any other cross access design within that portion of the easement area located on the Secondary Parcel(s).

4. The Owner of the Primary Parcel(s) shall be responsible for enforcing speed limits, parking, snow removal, and other activities related to vehicular activity within that portion of the easement area located on the Primary Parcel(s). The Owner of the Secondary Parcel(s) shall be responsible for enforcing speed limits, parking, snow removal, and other activities related to vehicular activity within that portion of the easement area located on the Secondary Parcel(s).
5. The Owner of the Primary Parcel(s) and the Owner of the Secondary Parcel(s) shall separately operate the easement area located on their respective parcels and shall maintain the same in good condition and repair at their own cost and expense so long as such easement area shall exist.

WITNESS the following signatures and seals:

OWNER OF THE PRIMARY PARCEL(S)

By: ________________________________

Title: ________________________________
(if signing for a corporation or a partnership)

OWNER OF THE SECONDARY PARCEL(S)

By: ________________________________

Title: ________________________________
(if signing for a corporation or a partnership)

TOWNSHIP APPROVAL

By: ________________________________

Title: ________________________________

NOTARY PUBLIC

______________________________

My commission expires: _________________