

## **PART 7 - SUPPLEMENTAL REQUIREMENTS, TESTS, & STUDIES**

### **SECTION 700 TRAFFIC IMPACT STUDY**

#### **A. Study Required.**

##### **1. Abbreviated Traffic Impact Study.**

Whenever a proposed project will generate fifty (50) to ninety nine (99) new vehicle trips in the peak direction (inbound or outbound) during the site peak traffic hour, the applicant shall perform an abbreviated traffic impact study. Based on this study, certain improvements may be identified as necessary to provide safe and efficient access to the development. The abbreviated traffic impact study shall include:

- a. A capacity analysis report prepared under the supervision of a qualified and experienced transportation engineer.
- b. The study area for the capacity analysis report shall only include all proposed intersections.

##### **2. Comprehensive Traffic Impact Study.**

Whenever a proposed project will generate one hundred (100) or more new vehicle trips in the peak direction (inbound or outbound) during the site peak traffic hour, the applicant shall perform a comprehensive traffic impact study. Based on this study, certain improvements may be identified as necessary to provide safe and efficient access to the development.

Transportation demand management measures such as staggered start and end work times, telecommuting, utilization of transit, greenway or trail linkages, park and ride lots, etc. may be used to reduce trip generation for the proposed development. If such measures will reduce the new vehicle trips in the peak direction during the peak traffic hour to less than one hundred (100), than an abbreviated traffic impact study may be performed in lieu of a comprehensive study. When such trip reduction measures are used to justify performance of an abbreviated study as permitted by this section, a developer and successors shall be bound by a recorded agreement to implement such measures. The terms and form of agreement shall be as mutually agreed upon by the Borough and the developers.

##### **3. In addition, a comprehensive traffic impact study shall be prepared at the discretion of the Borough whenever either of the following conditions exists within the impact study area:**

- a. Current traffic problems exist in the local area or neighborhood, including but not limited to a high crash location, confusing intersection, or a congested intersection that directly affects access to the development.
- b. The ability of the existing roadway system to handle increased traffic or the feasibility of improving the roadway system to handle increased traffic is limited.

B. Traffic Impact Study Requirements

1. Area of Traffic Impact Study.

The traffic impact study area shall be based on the characteristics of the surrounding area. The intersections to be included in the study shall be adjacent to the site or have direct impact upon the access to the site. The intersections shall be mutually agreed upon by the Borough and the transportation engineer preparing the study. The Dauphin County Planning Commission shall be called upon to resolve any disputes between the Borough and the transportation engineer.

2. Preparation by Transportation Engineer Required.

Traffic impact studies shall be prepared by or under the supervision of qualified and experienced transportation engineers with specific training in traffic and transportation engineering and at least two (2) years of experience related to preparing traffic studies for existing or proposed developments.

3. Horizon Year.

The traffic forecasts shall be prepared for the anticipated opening year of the development, assuming full build out and occupancy. This year shall be referred to as the "Horizon Year."

4. Non-Site Traffic Estimates.

Estimates of non-site traffic shall be made, and will consist of through motorized and non-motorized traffic and motorized and non-motorized traffic generated by all other developments within the study area for which preliminary or final plans have been approved. Non-site traffic may be estimated using any one of the following three (3) methods: "Build-up" technique, area transportation plan data or modeled volumes, and trends or growth rates.

5. Trip Generation Rates Required.

The traffic impact study shall include a table showing the land use categories and quantities, with the corresponding trip generation rates or equations (with justification for selection of one or the other), and resulting number of trips. The trip generation rates used must be either from the latest edition of Trip Generation by ITE, or from a local study of corresponding land uses and quantities. All sources must be referenced in the study.

6. Consideration of Pass-By Trips.

If pass-by trips or shared trips are a major consideration for the land use in question, studies should be referenced and interviews should be conducted and documented at similar land uses.

7. Rate Sums.

Any significant difference between the sums of single-use rates and proposed mixed-use estimates must be justified and explained in the study.

8. Explanations Required.

The reasoning and data used in developing a trip generation rate for special/unusual generators must be justified and explained in the report.

9. Definition of Influence Area.

Prior to trip distribution of site-generated trips, an influence area must be defined which contains eighty (80) percent or more of the trip ends that will be attracted to the

development. A market study can be used to establish the limits of an influence area, if available. If no market study is available, an influence area should be estimated based on a reasonable documented estimate. The influence area can also be based on a reasonable maximum convenient travel time to the site, or delineating area boundaries based on locations of competing developments.

Other methods, such as using trip data from an existing development with similar characteristics or using an existing origin-destination survey of trips within the area, can be used in place of the influence area to delineate the boundaries of the impact.

10. Estimates of Trip Distribution Required.

Trip distribution can be estimated using any one of the following three (3) methods:

- a. Analogy.
- b. Trip distribution model.
- c. Surrogate data.

Whichever method is used, trip distribution must be estimated and analyzed for the horizon year. A mixed-use development may require more than one distribution and coinciding assignment for each phase (for example, residential and retail phases on the same site). Consideration must also be given to whether inbound and outbound trips will have similar distributions.

11. Trip Assignments.

Assignments must be made considering logical routings, available roadway capacities, left turns at critical intersections, and projected (and perceived) minimum travel times. In addition, multiple paths should often be assigned between origins and destinations to achieve realistic estimates rather than assigning all of the trips to the route with the shortest travel time. The assignments must be carried through the external site access points and in large projects [those producing five hundred (500) or more additional peak direction trips to or from the site during the developments peak hour] through the internal roadways. When the site has more than one (1) access drive or driveway, logical routing and possible multiple paths should be used to obtain realistic access drive or driveway volumes. The assignment should reflect conditions at the time of the analysis. Assignments can be accomplished either manually or with applicable computer models.

If a thorough analysis is required to account for pass-by trips, the following procedure should be used:

- a. Determine the percentage of pass-by trips in the total trips generated.
- b. Estimate a trip distribution for the pass-by trips.
- c. Perform two (2) separate trip assignments, based on the new and pass-by trip distributions.
- d. Combine the pass-by and new trip assignment.

Upon completion of the initial site traffic assignment, the results should be reviewed to see if the volumes appear logical given characteristics of the road system and trip distribution. Adjustments should be made if the initial results do not appear to be logical or reasonable.

12. Total Traffic Impacts.

Motorized and non-motorized traffic estimates for any site with current traffic activity must reflect not only new traffic associated with the site's redevelopment, but also the

trips subtracted from the traffic stream because of the removal of a land use. The traffic impact study should clearly depict the total traffic estimate and its components.

13. Capacity Analysis.

Capacity analysis must be performed at each of the major street and project site access intersection locations (signalized and unsignalized) within the study area. In addition, analyses must be completed for roadway segments deemed sensitive to site traffic within the study area as determined by the Borough. These may include such segments as weaving sections, ramps, internal site roadways, parking facility access points, and reservoirs for vehicles queuing on- and off-Site. Other locations may be deemed appropriate depending on the situation.

The recommended level-of-service analysis procedures detailed in the most recent edition of the Highway Capacity Manual must be followed.

The operational analyses in the Highway Capacity Manual should be used for analyzing existing conditions, traffic impacts, access requirements, or other future conditions for which traffic, geometric, and control parameters can be established.

14. Required Levels-of-Service.

The recommendations of the traffic impact study shall provide safe and efficient movement of traffic to and from and within and past the proposed development, while minimizing the impact to non-site trips. The current levels-of-service must be maintained if they are levels "C" or "D", not allowed to deteriorate to worse than level "C" if they are currently levels "A" or "B", and improved to level d if they are levels "E" or "F".

15. Documentation Required.

A traffic impact study report shall be prepared to document the purpose, procedures, findings, conclusions, and recommendations of the study.

a. The documentation for a traffic impact study shall include, at a minimum:

- 1) Study purpose and objectives.
- 2) Description of the site and study area.
- 3) Existing roadway conditions in the area of the development.
- 4) Recorded or approved development(s) within the traffic impact study area.
- 5) Trip generation, trip distribution, and modal split.
- 6) Projected future motorized and non-motorized traffic volumes.
- 7) An assessment of the change in roadway operating conditions resulting from the development traffic.
- 8) Recommendations for site access and transportation improvements needed to maintain and/or improve motorized and non-motorized traffic flow to, from, within, and past the site at an acceptable and safe level-of-service.
- 9) Transit location, availability of bike routes, connection to a park and/or trail system.

b. The analysis shall be presented in a straight forward and logical sequence. It shall lead the reader step-by-step through the various stages of the process and resulting conclusions and recommendations.

c. The recommendations shall specify the time period within which the improvements should be made (particularly if the Improvements are associated with various phases of the development construction), and any monitoring of operating conditions and improvements that may be required. The

recommendations shall also identify who will be responsible for making the improvements.

- d. Data shall be presented in tables, graphs, maps, and diagrams wherever possible for clarity and ease of review.
- e. To facilitate examination by the Borough, an executive summary of one (1) or two (2) pages shall be provided, concisely summarizing the purpose, conclusions, and recommendations.
- f. The study documentation outlined above provides a framework for site traffic access/impact study reports. Some studies will be easily documented using this outline. However, the specific issues to be addressed, local study requirements, and the study results may warrant additional sections.

C. Improvements.

1. Responsibility for Improvements.  
The applicant shall be responsible for the improvements required to provide safe and convenient ingress and egress to the development site.
2. Coordination with Borough Requirements.  
The applicant shall be responsible for other improvements related to the results of the traffic impact study as may be agreed to with the Borough or which are required by the Borough impact fee ordinance to be installed or paid for by the applicant consistent with provisions of Article V and V-A of the MPC.

## SECTION 701 HISTORIC AND CULTURAL RESOURCES

A. Archaeological Investigations

Specific state and federal guidelines and procedures for review procedures as well as pertinent legislation may be obtained by contacting the Bureau for Historic Preservation (BHP) and Pennsylvania Historical and Museum Commission (PHMC). Specific state and federal guidelines and procedures are outlined in detail in A Summary of Major Relevant Federal and State Legislation and Regulations Appendix A, and Procedures for Compliance with Federal and Commonwealth Preservation Law Appendix H. PHMC administers both the state and federal regulations.

Projects affecting or potentially affecting historical and archaeological properties are subject to review by the PHMC, BHP under the provisions of both Section 106 of the National Historic Preservation Act of 1966 and Section 10 of the 1978 Pennsylvania Historic Preservation Act. No project shall be developed on a site identified by the PHMC as containing or likely to contain features of archaeological or historic significance until procedures for compliance with Federal and State regulations have been realized and the review process has been completed.

All subdivisions and/or land development plans which meet the above mentioned requirements shall provide a letter of determination and/or report from PHMC, BHP addressing the following:

1. BHP Letter of Determination: The BHP letter of determination.
2. Additional Required Action: The BHP letter may recommend one (1) or more of the following activities:

- a. Phase I Survey
- b. Phase II Survey
- c. Phase III (Mitigation)

B. Preservation of Historic Features.

1. Subdivisions and land developments shall be designed to preserve, adaptively reuse, or otherwise provide for the historic features of Highspire Borough
  - a. Historic features that are retained within the project area shall be situated on a lot of sufficient size to retain its integrity of setting.
  - b. After the lot area of the historic feature is determined, the remaining number of buildable lots that would be allowed on the subject tract may each be reduced in area, if necessary, to accommodate the same number of buildable lots on the subject tract, to not smaller than that permitted in the applicable underlying zoning district.
2. Modifications or exterior alterations to historic features or sites, or new construction in the immediate vicinity of historic features shall be consistent with “The Secretary of the Interiors Standards for Rehabilitation of Historic Properties”, as published by the National Park Service (NPS). New construction should be visually compatible with the character of historic features in the vicinity in terms or size, scale, mass, shape, proportion, materials and textures, rhythm and patterns, orientation and location, cornice and floor to floor heights, arrangement and size of windows on the facade, etc. See Appendix F.
3. A landscape plan shall be provided that provides buffering, using vegetative materials, walls or fencing as appropriate, between new construction and historic features to help mitigate adverse visual or auditory impacts and to help the historic feature retain its integrity of setting.

C. Demolition Restricted.

1. Prior to the demolition or removal from its original foundation, review and approval by the Highspire Borough Council shall occur. The applicant must provide the Highspire Borough Council with an evaluation by a qualified historic preservation professional of the historic and/or architectural significance of the building. In addition, the applicant must provide credible evidence in response to each of the following specific criteria:
  - a. That it is not feasible to continue the current use.
  - b. That other uses permitted within the underlying zoning district, either as permitted uses, special exception uses, or conditional uses, have been denied or are not feasible due to constraints on the building or structure.
  - c. That adaptive use opportunities do not exist due to constraints related to the building, structure, or property.
  - d. That the building, its permitted uses, and adaptive use potential does not provide a reasonable rate of return, based on a reasonable initial investment.
  - e. That the applicant has not contributed to the existing conditions, either through neglect or prior renovation, conversion, alteration, or similar physical action.

- f. That the demolition will not adversely affect the character of the neighborhood or community.
  - g. That a proposed new building(s), structure(s), or use of the property will not adversely affect the character of the neighborhood or community.
  - h. That the building is structurally unsound.
2. If the application for a permit for demolition, relocation, or removal is approved, said permit shall not be issued by the Borough until the following additional requirements have been satisfied.
    - a. The recording of an approved subdivision or land development plan for the lot where the demolition, removal, or relocation is proposed;
    - b. Issuance of any necessary zoning approvals; and
    - c. Approval of the subdivision or land development plan by the Highspire Borough Council.
  3. Applicants whose applications for demolition, removal, or relocation are approved may be subject to conditions that include but may not be limited to the following. (The applicant will be informed at the conclusion of the review process regarding any conditions that must be satisfied. refusal to comply with the conditions will be deemed a violation.)
    - a. A complete set of exterior and interior photographs of the building or proposed for all demolition, removal, or relocation which includes all exterior elevations, interior spaces, and all significant architectural features.
    - b. A historic structure report which may include any or all of the following;
      - 1) Physical description including a site plan with north arrow, showing all buildings on the parcel nearby streets, landmarks, streams, etc., a written description of the general area, a written description of the lot or parcel with relationships of buildings one to another, and a written description of each building with exterior and interior pictures.
      - 2) Historic narrative telling the story of the property and including a bibliography.
      - 3) Chain of title including documentation of the source of the information such as the deed or will book, volume, page number, etc.
      - 4) Photo documentation including general photos of property showing relationships of buildings and detailed photos (interior and exterior) of all buildings.
      - 5) Measured drawings labeled and cross-referenced to photographs of the same detail.
      - 6) Appendices including copies of deeds and wills, maps, and other supporting materials
    - c. A plan for the salvage of architectural features and/or building materials.

D. Retention of Local Names.

Applicants are encouraged to perpetuate historic names or geographic references that are traditionally associated with the area, in which a project is located, rather than proposing project names that are not consistent with Highspire Borough or Dauphin County traditions or culture.

## SECTION 702      PARKS AND OPEN SPACE

### A.      Dedication.

All plans for residential subdivision or residential land developments shall provide for the dedication of land for park and open space uses, and/or, upon agreement by the applicant, the construction of recreation facilities, the payment of fees in lieu thereof, the private reservation of land, or any combination thereof.

### B.      Limited Exemption.

The developer of any residential subdivision or land development, whether single and two (2) family or multi-family and single family attached that contains less than thirty (30) dwelling units may be exempted by Borough Council from dedicating land for recreational purposes, provided the developer pays a fee in lieu of dedication as provided herein this Section.

### C.      General Requirements.

The applicant shall make an irrevocable offer of dedication for such land to the Borough, as required by the Highspire Borough Council. Title to such land shall be good and marketable, free of liens or other defects, and acceptable to the Borough Solicitor. The Highspire Borough Council may, upon agreement of the applicant, authorize the transfer of the land to a homeowners association or to a non-profit corporation whose purpose is the conservation or preservation of land.

### D.      Amount of Land to be Dedicated.

1.      The amount of park and open space land to be dedicated shall be equal to, and in conformance with, standards as follows:
  - a.      Single family and two family residential developments: In the case of single and two family residential subdivisions, the developer shall provided a minimum of one thousand five hundred (1,500) square feet per lot.
  - b.      Multi-family dwellings/apartment, and single family attached residential developments: In the case of multi-family dwellings/apartment, and single family attached residential developments, a minimum area of ten (10) percent of the total tract area shall be provided for recreation exclusive of streets of the land being developed.
2.      If the applicable plan specifically designates a future park site within the acreage of the tract proposed for development, all subdivision and land development plans shall be designed in conformance with such designation in that all land required to be dedicated shall correspond to the location of the future park site.
  - a.      Should the amount of land required to be dedicated exceeds the acreage of the future park site as designated within the applicable plan, the development proposal shall provide for such additional area to be located in a manner that best serves future residents of the proposed development.
  - b.      Should the amount of land required to be dedicated falls short of the acreage of the future park site as designated within the applicable plan or if the proposed development involves only a portion of the development rights afforded to the tract, the applicant shall reserve that portion of the future park site which will best serve the immediate development. In addition, a sketch plan shall be prepared to



depict how full build-out of the site will be accomplished in a manner that respects the location of the future park site and ensures its accessibility to all future dwellings on the tract. As an alternative to such piecemeal dedication, the Borough may opt to purchase that portion of the future park site. In which case, the future dedication of land associated with the development of the tract would proceed in accordance with the provisions of Section 702.J.

E. Fee in Lieu of Dedication.

The applicant may, with the consent and approval of the Highspire Borough Council, elect to pay a fee to the Borough in lieu of the park and open space dedication and so note on the plans.

1. The amount of any fee to be paid in lieu of dedication of land shall be equal to the average fair market value of the land (based on the unimproved land value) otherwise required by this section or shall be in accordance with any existing, Borough adopted flat fee-in-lieu schedule which establishes a fixed price per lot, unit, or acre. If no formula is provided in any other Borough planning documents, the formula to be used in computing the fee based upon fair market value shall be:

$$N \times (\text{average FMV of one acre}) = \text{fee.}$$

Where: N = the number of acres required to be dedicated for park and open space purposed, calculated in accordance with Section 702.D, and FMV = fair market value based on the unimproved land value.

2. The applicant shall provide the Highspire Borough Council with all information necessary to determine the fair market value of the land, including, but not limited to, the following:
  - a. If the applicant is the equitable owner, or purchased the land in fee simple less than two (2) years prior to the preliminary or final plan submission, a copy of the agreement of sale or real estate transfer tax affidavit of value.
  - b. If the applicant is the equitable owner, or purchased the land in fee simple more than two (2) years prior to the preliminary or final plan submission, an opinion of value of the property by a state certified appraiser acceptable to the Highspire Borough Council.

Any applicant aggrieved by the fee established shall have the right to secure a second (2<sup>nd</sup>) opinion of value of the property by a state certified appraiser acceptable to the Highspire Borough Council. The two (2) estimated values shall be averaged, with the result being the amount upon which the fee will be based.

3. Such fee shall be payable to the Highspire Borough Council prior to the recording of each final phase of the plan and shall be in an amount equal to the percentage of the total number of dwelling units in the phase.

F. Parkland Acquisition Fund.

All fees paid by the developer in lieu of dedication of park and open space land shall be paid to the Borough and upon its receipt shall be deposited in a separate interest-bearing account. Fees deposited to this account shall be administered as required by the MPC.

G. General Design Criteria.

Except as provided in Sections 702.H and I, the type of areas to be dedicated for park and open space land within a subdivision or land development plan shall principally involve neighborhood parks which are defined as “those parks providing primarily active outdoor recreational opportunities located within one-half (1/2) mile radius from a majority of the residences to be served thereby”. Exceptions to this will be when dedications are made to a community park which serves the subdivision or land development and is located within a two (2) mile radius of the majority of the residences to be served, or a County park which serves residences located within a ten (10) mile radius.

The land set aside for park and open space uses shall meet the following design criteria:

1. The park and open space land shall be reasonably located so as to serve all of the residents of the subdivision or land development.
2. The park and open space land shall be accessible from a street either directly or by pedestrian connection or shall adjoin and become a part of an already existing public park or open space area that is accessible from a street. Where access to the park is by public streets, the width of the frontage shall be a minimum length deemed necessary by the Borough for access, visibility of the site, and public safety.
3. No more than twenty-five (25) percent of the park and open space land shall contain detention basins or other storm water management facilities, or be located within a floodplain or wetland unless such area is part of a linear trail or green way along an existing watercourse. In all cases, land containing detention basin or other storm water management facilities, floodplains, or wetlands, must be suitable for public recreation use without compromising the function of these areas.
4. The park and open space land shall be compact and contiguous unless the land is located adjacent to and combined with existing park and open space land, or specific topographic features require a different configuration. An example of such topographic features would be the provision of linear public open space along a scenic creek.
5. When public park and open space land exists adjacent to the tract to be subdivided or developed, the park and open space land shall be located to adjoin and enlarge the presently existing park and open space land.
6. The park and open space land shall be accessible to utilities such as sewer, water, and power that are provided within the subdivision or land development, and if so, the developer shall extend such utilities to the park and open space land.
7. If the developer is planning to construct facilities for recreation on the dedicated property as an amenity for the development, such facilities shall be constructed in accordance with current standards established by the National Recreation and Park Association. Where applicable, facilities constructed shall also comply with the accessibility guidelines of the Americans with Disabilities Act of 1990. Playground equipment constructed or placed on parkland shall be in compliance with guidelines from the Consumer Products Safety Commission.

H. Existing Trails.

When a subdivision or land development is traversed by or abuts an existing public trail, customarily used by pedestrians and/or equestrians, the applicant shall make provision for the

continued recreational use of the trail, subject to alterations of the course of the trail within the boundaries of the development under the following conditions:

1. The points at which the trail enters and exits the tract shall remain unchanged.
2. The proposed alteration exhibits quality trail design according to the generally accepted principles of landscape architecture.
3. The proposed alteration does not run coincidentally with the paved road intended for use by motorized vehicles.
4. The land set aside for the continuation of such existing trail shall be counted towards the amount of park and open space land.

I. Trails and Linear Parks.

The trail or linear park shall conform to any applicable Borough master park and open space plan, any County-wide trail and recreation master plan, and appropriate and most recent versions of the Highspire Borough and/or Dauphin County Comprehensive Plans. The Highspire Borough Council may require, as a condition of final plan approval, the dedication and improvement of trails and linear parks, which may be credited toward the park and open space land requirement. Trails and linear parks developed and dedicated for public use may be credited toward the park and open space land requirement.

J. Borough Fund Reimbursement.

The Borough may from time-to-time decide to purchase land for parks in or near the area of actual or potential development. If the Borough does purchase park and open space land within a distance of one-half (1/2) mile, subsequent park and open space land dedications within that area may, upon agreement with the applicant, be in cash only and shall be calculated on a percentage basis to reimburse the Borough's actual cost of acquisition and/or cost of development of such land for park and open space purposes. The cash amount shall be equal to the sum of the average price per acre of such land plus the actual costs of adjacent streets and on-site utilities (or an estimate of such actual costs provided by the Borough Engineer) divided by the number of lots or dwelling units in the development.

K. Additional Recreation Reservations.

The provisions of this section are minimum standards and shall not be construed as prohibiting a developer, with the approval of the Highspire Borough Council, from dedicating or reserving other land for recreation purposes in addition to the requirements of this Chapter.

L. Private Reservation of Land.

Notwithstanding anything contained in the above sections, the applicant may, with the consent and approval of the Highspire Borough Council, elect to fulfill the open space requirements through the private reservation of a recreation area.

1. Any project that proposes the private reservation of land shall be accompanied by an agreement, which is acceptable to the Borough Solicitor, and which shall be recorded prior to or concurrent with the preliminary plan approval. Such agreement shall stipulate:
  - a. That maintenance of the designated open space is the responsibility of the applicant, a homeowners association, a condominium unit owners' association, or other recognized conservation organization.
  - b. The availability of such private open space to non-residents of the development.

- c. The method by which the private, reservation may be offered for public dedication.
  - d. That the land cannot be developed for anything other than open space purposes.
  - e. That the land cannot be sold or disposed of by the association except to another organization formed to own and maintain said open space and without first (1<sup>st</sup>) offering to dedicate the land and improvements to the Borough.
2. If such lands are to become common elements of a homeowners or condominium unit owners' association of any type, then such association's organizational by-laws must conform to the requirements of applicable state law.

M. Construction of Recreation Facilities.

Notwithstanding anything contained in the above Sections, the applicant may, with the consent and approval of the Highspire Borough Council, elect to fulfill the open space requirements through the construction of recreational facilities. All approved recreation facilities constructed in lieu of land dedication shall be included within the cost estimate for the improvement guarantee.