



Melissa Municipal Center  
901 U.S. Highway 121  
Melissa, Texas 75454  
Phone: (972) 838-2338

City File No.: \_\_\_\_\_

## Engineering Site Plan Application

Applicant: \_\_\_\_\_ Date: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

Contact: \_\_\_\_\_ E-mail: \_\_\_\_\_

Proposed Addition Name: \_\_\_\_\_ Acres: \_\_\_\_\_

Existing Zoning: \_\_\_\_\_ Proposed Zoning: \_\_\_\_\_ No. of Lots: \_\_\_\_\_

I HEREBY CERTIFY THAT I AM THE SOLE CURRENT OWNER OF RECORD OF THE PROPERTY DESCRIBED ABOVE. THAT THIS APPLICATION IS BEING SUBMITTED WITH MY CONSENT AND THAT THE INFORMATION CONTAINED HEREIN IS TRUE AND CORRECT. IF I AM NOT THE SOLE CURRENT OWNER OF RECORD OF THE REAL PROPERTY INVOLVED, I HAVE ATTACHED NOTARIZED WRITTEN EVIDENCE OF AUTHORIZATION FROM THE CURRENT OWNER(S) OF RECORD. I ACKNOWLEDGE THAT ANY INVALID INFORMATION MAY BE CAUSE FOR DENIAL OF THIS APPLICATION. **I AM THE OWNER OR AGENT AUTHORIZED TO MAKE THE STATEMENTS AND REPRESENTATIONS HEREIN ON THE BEHALF OF THE OWNER.**

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Signature: \_\_\_\_\_

**PART I. ENGINEERING SITE PLAN** (To be completed by City of Melissa)

- Completed Engineering Site Plan Application
- Completed Review Application
- Current Tax Certificate issued by Collin County Tax Offices (if platted):  
1800 N. Graves Street  
McKinney, Texas 75070  
972-424-1460 ext. 5020
- Fees (Based on Fee Schedule) - Check made out to City of Melissa
- Seven (7) Sets of Drawings and Supporting Documents: Individually Folded (8 1/2" x 11" size) or Rolled (sheet size 24" x 36") as deemed necessary with Cover Sheet facing out.
- Copy of Approved Plat
- Copy of Pre-Design Conference Meeting Minutes
- Completed Part II.
- Re-submittals shall include original Staff marked-up Drawings

**NOTE:**

Upon staff approval, submit the following to the City of Melissa prior to City Council approval:

One (1) set of Mylars 24" x 36", sealed by a Texas Registered Civil Engineer and signed by applicable utility companies, to be signed by staff members.

After all city staff signatures are obtained, submit original mylar and (12) blueline or blackline copies (24" x 36"), with all signatures, for City Council consideration.

Upon City Council approval, approved drawings will be returned to developer.

Prior to site development, developer must secure a permit for site development.

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**The attached and referenced plat has been fully and properly processed in accordance with the provisions of the City of Melissa Subdivision Ordinance.**

City of Melissa Representative: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**PART II. CHECKLIST PERTINENT TO DRAWINGS – ENGINEERING SITE PLANS:****Sheets Required**

- Cover Sheet
- Final Plat (if easements or right of way dedications are required)
- Engineering Site Plan
- Landscape and Irrigation Plan
- Utility Plan
- Paving Plan
- Grading Plan
- Drainage Plan
- Sign Plan, if applicable
- Fence/Screening Wall Plan, if applicable

**General Requirements:**

- ( ) ( ) a. The engineering site plan shall be drawn to a scale of twenty (20), forty (40), sixty (60), or one hundred (100) feet to the inch, unless otherwise agreed to in writing by the City Engineer prior to submission of the plans.
- ( ) ( ) b. All other plan sheets shall be drawn at a scale of twenty (20) to forty (40) feet to the inch, unless otherwise agreed to in writing by the City Engineer prior to submission of the plans.
- ( ) ( ) c. Sheets shall be 24" by 36"
- ( ) ( ) d. Each sheet plan shall have a north point (oriented to the top or right of the sheet) with a graphic scale of the sheet
- ( ) ( ) e. Each sheet shall be sealed and signed by a registered professional engineer (draft for draft submittals and sealed for final submittals)

**(1) Title block information:**

A title block containing the following information shall be located in the lower right hand corner of all drawings except the cover sheet.

- ( ) ( ) a. existing zoning
- ( ) ( ) b. proposed zoning
- ( ) ( ) c. drawing scale
- ( ) ( ) d. date (dates of revision are also to be added with each modified set of plans)
- ( ) ( ) e. acreage of the site
- ( ) ( ) f. names, addresses, and phone numbers of the owner, developer and land planner, engineer, and surveyor, as appropriate
- ( ) ( ) g. tract designation, abstract, and other description according to the land records of Collin County; or lot, block, and name of subdivision as filed in the land records of Collin County
- ( ) ( ) h. project name
- ( ) ( ) i. sheet name and designation

**(2) Cover Sheet**

All engineering site plans shall include a cover sheet which includes the following information:

- ( ) ( ) a. project name
- ( ) ( ) b. project address
- ( ) ( ) c. existing zoning

- ( ) ( ) d proposed zoning (if proposed differently than existing)
- ( ) ( ) e lot, block, and name of the subdivision
- ( ) ( ) f date (dates of revision are also to be added with each modified set of plans)
- ( ) ( ) g acreage of the site
- ( ) ( ) h names, addresses, and phone numbers of the owner, developer and land planner, engineer, and surveyor, as appropriate
- ( ) ( ) i tract designation, abstract, and other description according to the land records of Collin County; or lot, block, and name of subdivision as filed in the land records of Collin County
- ( ) ( ) j sheet index which indicates the revision date of each drawing submitted.
- ( ) ( ) k month, day, and year of the date of submittal,
- ( ) ( ) l city staff and utility company signature block
- ( ) ( ) m location map of the site at a scale of one inch to two thousand (2,000) feet showing existing and proposed major features covering an area of at least one mile in all directions from the proposed site.

**(3) Final Plat of Property:**

- ( ) ( ) a Submit an approved final plat prepared in accordance the City of Melissa Subdivision for Ordinance if easement or public right of way dedications are required.

**(4) Engineering Site Plan**

The intent of Engineering Site Plan is to demonstrate compliance with provisions of City of Melissa Ordinances, including, but not limited to City of Melissa Building and Construction; Zoning; and Subdivision Regulations. If utility and drainage easements, dedication of streets, alleys, and other public improvements required to meet the standards for the platting of land are necessary, site plans shall be accompanied by a plat to record easements and dedications in the land records of Collin County, Texas. Any and all plots, tracts, or lots must be provided access via a public street or drive.

The following is a checklist for items that shall be included, as applicable, on each Engineering Site Plan submitted for review. IT SHALL BE THE RESPONSIBILITY OF THE ENGINEER/ PROJECT MANAGER IN CHARGE OF PLAN PREPERATION TO REVIEW PLANS FOR COMPLIANCE PRIOR TO SUBMITTAL.

**CHECK ALL THAT APPLY:**

(Applicable) (N/A)

- ( ) ( ) The engineering site plan is used to demonstrate compliance with all City of Melissa building and construction zoning ordinances, as applicable to site planning. The Engineering Site Plan shall be limited to and contain only the following information:
- ( ) ( ) Variances from applicable building and construction and zoning ordinance shall be listed in tabular form along with the specific requirement for which the variance is requested.
- ( ) ( ) Provide the General Purpose and Description statement of the property zoning above the title block.
- ( ) ( ) Identify the proposed use from the Schedule of Uses found in Section 20 of the Zoning Ordinance. If the intended use does not match any use listed in Section 20 of the Zoning Ordinance, propose a zoning classification. City council will make the ultimate determination regarding the zoning district or districts within which such use should be permitted.

**(5) Building and Construction Code**

**Building and Construction Code Section 3.200 - Building Permits Required**

The following permits/fees related to site development may apply. Additional permits related to construction of improvements may apply.

- ( ) ( ) Demolition Permit

- Irrigation Permit
- Fence Permit
- Underground Fuel Storage Tank Permit
- Sidewalk, Driveway, & Culvert Installation Permit
- Sign Permit
- Street Excavation Permit
- Street Excavation Permit
- Water tap fees
- Sewer tap fees

**Building and Construction Code Section 3.300 – Building Setback Lines**

- Building Setback Lines

**Building and Construction Code Section 3.400 – Curbs and Gutter Construction Standards**

- Concrete Curb and Gutter on City Streets

**Building and Construction Code Section 3.500 – Sidewalk, Driveway, and Culvert Installations**

- Sidewalk, Driveway, and Culvert standards

**Building and Construction Section 3.600 – Flood Prevention Regulations**

In order to create a permanent record, incorporate the following information into the Engineering Site Plan:

- Elevation of the lowest floor of all new and substantially improved structures certified by a registered professional engineer or architect;
- Elevation in relation to mean sea level to which any non-residential structure shall be flood-proofed;
- A certificate from a registered professional engineer or architect that the non-residential flood-proofed structure shall meet the flood-proofing criteria of 3.618(b) of the Building and Construction code of the City of Melissa;
- Description of the extent to which any watercourse or natural drainage will be altered or relocated as a result of proposed development;
- Enclosure water-proofing requirements per 3.618 (c);
- Standards for Areas of Shallow Flooding (AO/AH Zones) are met per 3.620 (b),
- Provide drainage paths around structures on slopes in AO/AH Zones to guide flood waters around and away from proposed structures.
- Encroachment of floodways is prohibited.

**Building and Construction Code Section 3.700 – Fence Regulations**

- type of fence (i.e., style, material, and design);
- height of fence;
- graphic outline of the entire property and improvements (structures) thereon with proposed fence being clearly indicated;
- rear yard requirements – eight foot maximum except tennis courts – ten foot maximum; five foot dog-ear required at driveway intersection with alley;
- side yard requirements - eight foot maximum height;

( ) ( ) Front yard requirements – Only decorative fence (e.g., wrought iron, wood, masonry) may be erected in the front yard building set back area, and only if the following requirements are met: (1) no front yard fence shall be erected to a height of greater than three (3) feet above the finished lot grade; (2) Front yard fence material shall not be of wire, mesh, or chain link. Samples of all other materials to be used shall be approved by the City building official; (3) The solid area of the front yard fence shall not exceed fifty (50) per cent of the total area of the fence, with no massing of solid material widths greater than six (6) inches, except for corners or posts; (4) no front yard fence shall be constructed on a corner lot that does not afford proper visual clearance approved by the City building official for traffic approaching the intersection in either direction. Proper visual clearance shall be maintained for a distance of not less than thirty (30) feet on each street.

( ) ( ) Reverse frontage corner lot requirements – no closer than 15 feet in side yard adjacent to side property line or at a height greater than eight feet.

( ) ( ) If barbed wire is used, the lowest strand shall not be less than six and one-half (6 ½) feet above ground level.

**Building and Construction Code Section 3.1000 – Sign Regulations**

( ) ( ) Signs shall comply with the Sign Specifications and Design requirements of Section 3.1007.

( ) ( ) Sign measurements shall comply with size requirements as determined by section 3.1008.

( ) ( ) Specify type of sign as defined in Sections 3.1009 a through 3.1009 o.

- \_\_\_\_\_ a. Awning Sign
- \_\_\_\_\_ b. Banner Sign
- \_\_\_\_\_ c. Inflatable Sign
- \_\_\_\_\_ d. Monument (Individual) Sign
- \_\_\_\_\_ e. Monument (Internal) Sign
- \_\_\_\_\_ f. Monument (Unified Development) Sign
- \_\_\_\_\_ g. Panel (Kiosk) Sign
- \_\_\_\_\_ h. Projecting Sign
- \_\_\_\_\_ i. Roof (Secondary) Sign
- \_\_\_\_\_ j. Sandwich Board Sign
- \_\_\_\_\_ k. Subdivision Identity Sign
- \_\_\_\_\_ l. Subdivision Monumentation
- \_\_\_\_\_ m. Wall Sign
- \_\_\_\_\_ n. Wood Frame Sign
- \_\_\_\_\_ o. Scoreboard

( ) ( ) All signs shall meet the definition, time, place, manner, and all other requirements of the Sign Regulations for each respective type of sign proposed to be installed. Refer to Article 3.10000 for sign requirements.

**Section 3.1018 Sign Coordination Plan**

( ) ( ) Sign coordination plan is required for consideration by the Planning and Zoning Commission.

( ) ( ) Elevations of signs illustrating the material of construction, colors, lighting, font of letters, and dimensions of signs. If the sign is to be attached to a building, the elevation shall be a composite of the sign and the building.

( ) ( ) Elevations depicting the size of the signs in relation to the size of the buildings within the development;

( ) ( ) A detailed plan of the site, illustrating the location of existing and proposed signs on the property and the properties within 200 feet of the site along the nearest right of way to the proposed sign.

( ) ( ) Other information to illustrate the consistency and uniformity of the signs.

( ) ( ) For unified development signs, the sign coordination plan shall identify a unified development zone. Only those properties and businesses included within the unified development zone shall be included on the unified development signs erected within the unified development zone.

( ) ( ) The sign coordination plan shall be submitted to the City for review with a concept plan, preliminary site plan, site plan or final plat of the property.

( ) ( ) A sign coordination plan required of specified signs shall be submitted to the Planning and Zoning Commission. The Planning and Zoning Commission will forward their recommendations to the City Council for action. The City Council may approve or deny the plan. The City Council's decision is final.

**Building and Construction Code Section 3.1100 – Street Excavations**

( ) ( ) Identify proposed street, alley or easement location where any excavation, cut, or bore is proposed.

( ) ( ) All street or alley cuts or bores shall be repaired per City of Melissa Standard Details.

**Building and Construction Section 3.1200 – Off-Street Parking Requirements**

( ) ( ) Off street parking requirements shall comply with the zoning ordinance. Parking shall be with asphalt or reinforced concrete unless other specified in the zoning ordinance 12.300 Section 22.

**Building and Construction Code Section 3.1300 – Building Numbers**

( ) ( ) All building numbers fronting on any street or alley in the City shall be numbered in some conspicuous place that can be clearly seen from the street or road fronting such property. Show proposed location of building numbering.

**(6) Fire Protection Code**

( ) ( ) Marking of fire lanes or fire apparatus roads on public or private property within the City of Melissa shall be in accordance with the requirements of the 2003 IFC with COG Amendments Plan B and at the direction of the Fire Chief. Fire lanes and fire apparatus access roads shall be marked with approved signs or other approved notices and maintained for such purpose so as to identify the road or lane and prohibit the obstruction thereof.

( ) ( ) A fire lane on a public street or in a parking facility shall be marked as directed by the fire chief and all curbs or pavement of fire lanes must be painted red and conspicuously and legibly marked with the warning "fire lane/tow away zone" in white letters at least three inches tall, at intervals not exceeding fifty feet.

( ) ( ) Hydrant locations shall be identified by the installation of reflective markers.

( ) ( ) Provide needed fire flow calculation per attached worksheet

**(7) Comprehensive Zoning Ordinance**

Designate zoning classification of the Site:

- \_\_\_\_\_ a. A - Agricultural District
- \_\_\_\_\_ b. SF-1 - Single Family Residential District 1
- \_\_\_\_\_ c. SF-2 - Single Family Residential District 2
- \_\_\_\_\_ d. SF-3 - Single Family Residential District 3
- \_\_\_\_\_ e. MF – Multi-Family Dwelling District
- \_\_\_\_\_ f. MH – Manufactured Home Park District
- \_\_\_\_\_ g. C-1 – Restricted Commercial District
- \_\_\_\_\_ h. C-2 – General Commercial District

- \_\_\_\_\_ i. I-1 – Light Industrial District
- \_\_\_\_\_ j. I-2 – Heavy Industrial District
- \_\_\_\_\_ k. PD – Planned Development District (if PD, attach a copy of the PD ordinance for the site)
- \_\_\_\_\_ l. FP – Flood Plain District

**Comprehensive Zoning Ordinance Section 20**

( ) ( ) identify the proposed use of the property as listed in Section 20 of the zoning regulations;

**Comprehensive Zoning Ordinance Section 21**

( ) ( ) In tabular form, present zoning district requirements as listed in Section 21 and parking requirements as defined in Section 20 of the Zoning Ordinance and the site plan provisions to demonstrate compliance with all zoning requirements.

**Comprehensive Zoning Ordinance Section 22**

- ( ) ( ) All retail, commercial and industrial structures having three thousand (3,000) square feet or more of gross floor area, either in the building or lot, shall provide and maintain off-street parking facilities for the loading and unloading of merchandise and goods at a ratio of at least one (1) space for each twenty thousand (20,000) square feet of gross floor area. A loading space shall consist of an area of a minimum of ten (10) by twenty-five (25) feet. All drives and approaches shall provide adequate space and clearances to allow for the maneuvering of truck off-street.
- ( ) ( ) Kindergartens, child care centers, nursery schools, and similar child training and care establishments shall provide paved off-street loading and unloading space on a private drive to accommodate one (1) motor vehicle for each (10) students or children cared for by the establishment.
- ( ) ( ) Loading docks and areas shall be located within the building or on the lot adjacent to a public alley or private service drive.
- ( ) ( ) Uses not listed in Section 20 of the Zoning Ordinance shall provide required off-street parking according to the most similar use listed in the Schedule of Uses, as determined by the City Council.
- ( ) ( ) Off-site parking shall be provided in accordance with Section 20 of the Zoning Ordinance for all uses at the time any building or structure is erected or structurally altered.
- ( ) ( ) Compute the required number of parking spaces as defined in Section 22.8 of the Zoning Ordinance. Show parking space calculation on the Engineering Site Plan to demonstrate compliance with the Zoning Ordinance.
- ( ) ( ) Handicapped parking spaces shall be provided in accordance with State and Federal requirements.
- ( ) ( ) All parking spaces shall be located on the same lot with the building or use served, except as allowed in Section 22.9 of the Zoning Ordinance. If an exception is requested, present the requested exception on the Engineering Site Plan and demonstrate compliance in accordance with the exception.
- ( ) ( ) Required off street parking and loading spaces shall be used only for the respective purposes and shall not be used for storage or display of boats, trailers, campers, motor vehicles or other goods, materials, or products for sale.
- ( ) ( ) Parking spaces shall be permanently and clearly identified by stripes, buttons, tiles, curbs, barriers, or other approved methods. Non permanent markings such as paint, shall be regularly maintained to ensure continuous clear identification of the spaces. Handicapped parking shall be in accordance with the State of Texas requirements.

**Comprehensive Zoning Ordinance Section 23**

( ) ( ) Only one main building for one family and duplex use with permitted accessory building may be located upon a lot or unplatted tract. Every means of access shall have a minimum width of twenty-five (25) feet. Where a lot is used for retail and dwelling purposes, more than one (1) main building may be located upon the lot but only when such buildings conform to all the open space, parking and density requirements applicable to the uses and districts. Whenever two or more main buildings, or portions thereof, are placed on a single lot or tract and such buildings do not face upon a public street, the same may be permitted when the site plan for such development is recommended by the Planning and Zoning Commission and approved by the City Council so as to comply with the normal requirements for platting. No parking area storage area, or required open space for one building shall be computed as being the open space, yard or area requirements for another dwelling or other use.

- ( ) ( ) On corner lots, the front yard setback shall be observed along the frontage of both intersecting streets (unless shown otherwise on an approved final plat).
- ( ) ( ) Where the frontage on one side of a street between two intersecting streets is divided by two or more zoning districts, the front yard shall comply with the requirements of the most restrictive district for the entire frontage.
- ( ) ( ) Where a building line has been established by a plat approved by the City Council or by ordinance and such line requires a greater or lesser front yard setback than is prescribed by this ordinance for the district in which the building line is located, the required front yard shall comply with the building line so established by such ordinance or plat provided not such building line shall be less than 20 feet except as provided in a PD.
- ( ) ( ) The front yard shall be measured from the property line to the front face of the building, covered porch, covered terrace or attached accessory buildings. Eaves and roof extensions or a porch without posts or columns may project into the required front yard for a distance not to exceed four (4) feet and subsurface structures, platforms, or slabs may not project into the front yard to a height greater than thirty (30) inches above the average grade of the yard.
- ( ) ( ) Where lots have double frontage, running through from one street to another, a required front yard shall be provided on both streets unless a building line for accessory building has been established along one frontage on the plat or by ordinance, in which even only one required front yard need be observed.
- ( ) ( ) Visual clearance shall be provided in all zoning districts so that no fence, wall, architectural screen, earth mounding or landscaping obstructs the vision of a motor vehicle driver approaching any street alley, or driveway intersection.
- ( ) ( ) On any corner lot for which front and side yards are required herein, no wall, fence, structure, sign, tree, or other planting slope terrace or embankment may be maintained higher than three (3) feet above the street grade so as to cause danger or hazard to traffic by obstructing the view of the intersection from a point thirty (30) feet back from the right of way corner.
- ( ) ( ) Gasoline service station pump islands may not be located nearer than eighteen (18) feet to the front property line. An unenclosed canopy for gasoline filling station may extend beyond the front building line but shall never be closer than ten (10) feet to the property line.
- ( ) ( ) Where a future right of way line has been established for future widening of opening of a street or thoroughfare upon which a lot abuts, the front or side yard shall be measured from the future right of way line.
- ( ) ( ) Every part of a required side yard shall be open and unobstructed except for (1) accessory buildings as permitted in the Zoning Ordinance; (2) the ordinary projections of window sills, belt courses, cornices, and other architectural features not more than twelve (12) inches into the required side yard; and (3) roof eaves projecting not more than thirty-six (36) inches into the required side yard. Balconies shall not project into the required side yard.
- ( ) ( ) For multi-family structures in the MF and PD districts, a minimum side yard, or space between adjoining buildings, shall be thirty (30) feet between building walls when such walls have openings for windows or access, and twenty (20) feet when no openings exist.
- ( ) ( ) When a non-residentially zoned lot or tract abuts upon a zoning district boundary line dividing that lot or tract from a residentially zoned lot or tract, a minimum side yard of ten (10) feet shall be provided on the nonresidential property. An opaque wood fence or masonry wall having a minimum height of six (6) feet above the average grade of the residential property shall be constructed on non-residential property adjacent to the common side (or rear) property line.
- ( ) ( ) The required rear yard shall be open and unobstructed from a point thirty (30) inches above the average elevation of the graded rear yard, except for accessory buildings as permitted herein. Eaves, covered porches, and roof extensions without structural support in the rear yard may extend into the rear yard a distance not to exceed four (4) feet. Balconies shall not project into the required rear yard.
- ( ) ( ) Refer to Section 23.5 of the Zoning Ordinance for Swimming Pool Regulations. All swimming pools shall conform to Melissa's Zoning Ordinance.

**Comprehensive Zoning Ordinance Section 24 - Accessory Buildings**

- ( ) ( ) Accessory buildings shall not be greater in height than the main structure.

**Comprehensive Zoning Ordinance Section 270-A - Landscaping**

- ( ) ( ) The minimum landscaping area for non-residential districts shall be not less than ten (10) percent of the pavement area on the Site. Landscaping area shall include landscaping along street ROW, interior parking lot landscaping, landscaping for corner lots, and landscaping/screening for parking lots adjacent to residential areas.

( ) ( ) Landscaping along street ROW. A landscaped edge shall be provided adjacent to all streets. The landscaped edge shall be a minimum of 10 feet wide exclusive of existing or future street ROW, except for along SH5, SH121, and US75 where a minimum landscaped edge of 25 feet is required exclusive of existing or future ROW. Within the landscaped edge, a minimum of one shade tree (3" caliper minimum) or an approved ornamental tree shall be planted for each 500 square feet, or fraction thereof, of landscaped edge area.

( ) ( ) Landscaping along street ROW. The landscaped edge may be reduced in the Restricted Commercial (C-1) district to no less than two feet (except along SH5, SH121, and US75). In such case, a minimum of one shade tree or approved ornamental shall be planted for each fifty feet of frontage on any public street.

( ) ( ) Landscaping along street ROW. Where parking lots and drives abut the landscaped edge, ten shrubs (5 gallon minimum) shall be placed per 500 square feet of landscaped edge. A berm may be placed within the landscaped edge in lieu of the required shrubs; however a headlight screen must be accommodated, if required. The berm must be 42 inches above the average grade of the street and parking lot curbs. The slope of the berm shall not exceed 3 to 1 grade.

( ) ( ) Landscaping along street ROW. If the parking lot is located 50 feet or more from the street right of way line, no shrubs or berms will be required unless required for a headlight screen.

( ) ( ) Landscaping along street ROW. Any permeable surface not occupied by trees, shrubs, planting beds, signs, or other permitted fixtures shall be planted with turf or other living ground cover.

( ) ( ) Interior Parking Lot Landscaping. Interior landscaping shall include all areas within the paved boundaries of the parking lot as well as planting islands, curbed areas, corner lots, parking spaces and all interior driveways and aisles except those with no parking spaces located on either side. Landscaped areas outside of the parking lot may not be used to meet the interior landscaping requirement.

( ) ( ) Interior Parking Lot Landscaping. There shall be eight square feet of interior landscaping for each parking space (180 sq. ft.) or fraction thereof.

( ) ( ) Interior Parking Lot Landscaping. There shall be a minimum of one shade tree (4" caliper minimum) or an approved ornamental tree for every twenty parking spaces.

( ) ( ) Interior Parking Lot Landscaping. All landscaped areas shall be protected by a raised six inch concrete curb. Pavement shall not be placed in closer than the drip line of the tree, at the time of installation.

( ) ( ) Interior Parking Lot Landscaping. Where an existing parking area is altered or expanded to increase the number of spaces to more than twenty, interior landscaping shall be provided on the new portion of the lot in accordance with the above standards.

( ) ( ) Landscaping for Corner Lots at the intersection of two major or larger thoroughfares. A minimum 15 foot wide landscaped edge shall be located along the street ROW beginning at the corner and extending 175 feet or to the closest driveway. Beyond this point, the landscaped edge may be gradually reduced (over a distance of 25 feet) to 10 feet in width.

( ) ( ) Landscaping for Corner Lots at the intersection of two major or larger thoroughfares. If a right turn lane is needed, as determined by the City Engineer, additional ROW shall be dedicated and the landscaped edge may be reduced to a minimum of 7.5 feet beyond the edge of the new ROW line.

( ) ( ) Landscaping for Corner Lots at the intersection of two major or larger thoroughfares. A minimum landscaped area of approximately 900 square feet shall be located at each corner of the intersection of the corner lot. This landscaped area shall be provided within the area measured a minimum distance of 40 feet from the projected corner of the intersection on both sides of the lot. No trees shall be planted in this area.

( ) ( ) Landscaping/Screening for parking lots adjacent to residential areas. Where parking is within 50 feet of residentially zoned property and is not screened from view by a screening wall as specified in Section 23.3(c), a continuous screen of shrubs (5 gallon minimum) must be placed adjacent to the parking. The required landscaping shall comply with the following requirements:

( ) ( ) Landscaping/Screening for parking lots adjacent to residential areas. The required shrubs shall create a minimum 42 inch high screen at the time of installation.

( ) ( ) Landscaping/Screening for parking lots adjacent to residential areas. Drought and freeze resistant shrubs shall be used including those listed in Section 27-A.2 E. (2).

( ) ( ) All landscaping shall meet the American Association of Nurseryman, Inc. "American Standard for Nursery Stock" (latest edition).

Multi-family landscaping requirements (to be added to checklist as necessary)

( ) ( ) Landscape Maintenance requirements. An automatic irrigation system shall be installed in all required landscaped areas and all front yards along thoroughfares.

( ) ( ) Landscape Maintenance requirements. Any developer desiring to install and maintain landscaping materials and irrigation facilities within the City ROW must first enter into and execute a "Median Right of Way Landscape and Irrigation Agreement."

( ) ( ) Landscape Maintenance requirements. Entryway or amenity features within City ROW may be maintained by a Commercial Property Owners Association. Documents shall be submitted, reviewed, and approved by the City.

( ) ( ) Refer to 27-A.5 F. of the Zoning Ordinance for procedures to measure existing trees, if applicable to site development.

( ) ( ) Refer to 27-A.6 of the Zoning Ordinance for Recommended Trees for New Plantings.

( ) ( ) Landscape/Irrigation Plan Approval. Landscape and irrigation plans shall be submitted with all nonresidential, multifamily, and retirement housing development submissions. Landscape/irrigation plans shall ensure proper location of vegetation within public rights of way, preserve visibility triangles, maintain overall integrity and intent of living screens, and promote ornamental planting within the City.

( ) ( ) Landscape/Irrigation Plan Approval. Submission of landscape and irrigation plans for areas which include public rights of way, parks, and greenbelts shall be made to the City Council until the Department of Community Development, Public Works, and Parks and Recreation department are in place. All other submissions shall be made to the City Council until the Community Development department is in place. City staff shall evaluate the appropriateness of the landscape and irrigation plan and may approve them, or approve them subject to stipulations.

( ) ( ) Landscape/Irrigation Plan Approval. Landscape and Irrigation "As Built" plans shall be submitted to the City for areas which include public ROW, parks, and greenbelts. As-built drawings shall be drawn to a suitable scale before the certificate of occupancy is issued.

( ) ( ) Refer to Section 27-A.8 of the Zoning Ordinance for Tree preservation and Protection requirement, if applicable.

( ) ( ) Refer to Section 27-A.9 of the Zoning Ordinance for Installation Practices for areas to be dedicated to the City, if applicable.

( ) ( ) Refer to Section 27-A.10 of the Zoning Ordinance for Tree Removal Permit information, if applicable.

**(8) Location map:**

( ) ( ) a. location map of the site at a scale of one inch to two thousand (2,000) feet showing existing and proposed major features covering an area of at least one mile in all directions from the site.

**(9) Acceptance block:**

( ) ( ) a. Site Plans for which no variances are requested shall include the following certificate placed on the Engineering Site Plan by the developer.

**"Accepted for Construction"**

\_\_\_\_\_  
City Engineer, Date  
City of Melissa, Texas

\_\_\_\_\_  
Planning Director Date  
City of Melissa, Texas

( ) ( ) a. Site Plans for which variances are requested shall include the following certificate placed on the Engineering Site Plan by the developer.

**"Accepted for Construction"**

\_\_\_\_\_  
City Engineer Date  
City of Melissa, Texas

\_\_\_\_\_  
Planning Director Date  
City of Melissa, Texas

\_\_\_\_\_  
Chairman, Planning & Zoning      Date  
City of Melissa, Texas

\_\_\_\_\_  
Mayor, City Council      Date  
City of Melissa, Texas

**(10) Design Topography**

( ) ( ) a.      Topography to be shown with mean sea level contour intervals of two (2) feet.

FIRE FLOW CALCULATION WORKSHEET

# NEEDED FIRE FLOW

## 300. GENERAL:

This item develops Needed Fire Flows for selected locations throughout the city, which are used in the review of subsequent items of this Schedule. The calculation of a Needed Fire Flow (NFF<sub>i</sub>) for a subject building in gallons per minute (gpm) considers the Construction (C<sub>i</sub>), Occupancy (O<sub>i</sub>), Exposure (X<sub>i</sub>) and Communication (P<sub>i</sub>) of each selected building, or fire division, as outlined below.

## 310. CONSTRUCTION FACTOR (C<sub>i</sub>):

That portion of the Needed Fire Flow attributed to the construction and area of the selected building is determined by the following formula:

$$C_i = 18F (A_i)^{0.5}$$

F = Coefficient related to the class of construction:

F = 1.5 for Construction Class 1\* (Frame)

= 1.0 for Construction Class 2\* (Joisted Masonry)

= 0.8 for Construction Class 3\* (Non-Combustible) and

Construction Class 4\* (Masonry Non-Combustible)

= 0.6 for Construction Class 5\* (Modified Fire Resistive)

and Construction Class 6\* (Fire Resistive)

A<sub>i</sub> = Effective\* area

In buildings with mixed construction a value, C<sub>im</sub>, shall be calculated for each class of construction using the effective area of the building. These C<sub>im</sub> values are multiplied by their individual percentage of the total area. The C<sub>i</sub> applicable to the entire building is the sum of these values. However, the value of the C<sub>i</sub> shall not be less than the value for any part of the building based upon its own construction and area.

The maximum value of C<sub>i</sub> is limited by the following:

8,000 gpm for Construction Classes 1 and 2

6,000 gpm for Construction Classes 3, 4, 5 and 6

6,000 gpm for a 1-story building of any class of construction

The minimum value of C<sub>i</sub> is 500 gpm. The calculated value of C<sub>i</sub> shall be rounded to the nearest 250 gpm.

**320. OCCUPANCY FACTOR ( $O_i$ ):**

The factors below reflect the influence of the occupancy in the selected building on the Needed Fire Flow:

OCCUPANCY COMBUSTIBILITY CLASS*	OCCUPANCY FACTOR ( $O_i$ )
C-1* (Non-Combustible)	
C-2* (Limited Combustible)	0.75
C-3* (Combustible)	0.85
C-4* (Free Burning)	1.00
C-5* (Rapid Burning)	1.15
	1.25

**330. EXPOSURE ( $X_i$ ) AND COMMUNICATION ( $P_i$ ) FACTORS:**

The factors developed in this item reflect the influence of exposed and communicating buildings on the Needed Fire Flow. A value for ( $X_i + P_i$ ) shall be developed for each side of the subject building:

$$(X + P)_i = 1.0 + \sum_{i=1}^n (X_i + P_i), \text{ maximum } 1.75, \text{ where } n = \text{number of sides of subject building.}$$

**A. Factor for Exposure ( $X_i$ ):**

The factor for  $X_i$  depends upon the construction and length-height value\* (length of wall in feet, times height in stories) of the exposed building and the distance between facing walls of the subject building and the exposed building, and shall be selected from Table 330.A.

\*When an asterisk is shown next to a term in this item, the term is defined in greater detail in the Specific Commercial Property Evaluation Schedule.

**TABLE 330.A FACTOR FOR EXPOSURE (X<sub>i</sub>)**

Construction of Facing Wall of Subject Building	Distance Feet to the Exposed Building	Length-Height of Facing Wall of Exposed Building	Construction of Facing Wall of Exposed Building Classes.			
			1, 3	2, 4, 5, & 6		
				Unprotected Openings	Semi-Protected Openings (wired glass or outside open sprinklers)	Blank Wall
Frame, Metal or Masonry with Openings	0-10	1-100	0.22	0.21	0.16	0
		101-200	0.23	0.22	0.17	0
		201-300	0.24	0.23	0.18	0
		301-400	0.25	0.24	0.19	0
		Over 400	0.25	0.25	0.20	0
	11-30	1-100	0.17	0.15	0.11	0
		101-200	0.18	0.16	0.12	0
		201-300	0.19	0.18	0.14	0
		301-400	0.20	0.19	0.15	0
		Over 400	0.20	0.19	0.15	0
	31-60	1-100	0.12	0.10	0.07	0
		101-200	0.13	0.11	0.08	0
		201-300	0.14	0.13	0.10	0
		301-400	0.15	0.14	0.11	0
		Over 400	0.15	0.15	0.12	0
	61-100	1-100	0.08	0.06	0.04	0
		101-200	0.08	0.07	0.05	0
		201-300	0.09	0.08	0.06	0
		301-400	0.10	0.09	0.07	0
		Over 400	0.10	0.10	0.08	0
Blank Masonry Wall	Facing Wall of the Exposed Building Is Higher Than Subject Building: Use the above table EXCEPT use only the Length-Height of Facing Wall of the Exposed Building ABOVE the Height of the Facing Wall of the Subject Building. Buildings five stories or over in Height, consider as five stories.					
	When the Height of the Facing Wall of the Exposed Building is the Same or Lower than the Height of the Facing Wall of the Subject Building, X <sub>i</sub> = 0.					

**330. EXPOSURE (X<sub>i</sub>) AND COMMUNICATION (P<sub>i</sub>) FACTORS: (Continued)**

**B. Factor for Communications (P<sub>i</sub>):**

The factor for P<sub>i</sub> depends upon the protection for communicating party wall\* openings and the length and construction of communications between fire divisions\* and shall be selected from Table 330.B. When more than one communication type exists in any one side wall, apply only the largest factor P<sub>i</sub> for that side. When there is no communication on a side, P<sub>i</sub> = 0.

\*When an asterisk is shown next to a term in this item, the term is defined in greater detail in the Specific Commercial Property Valuation Schedule.

**TABLE 330.B FACTOR FOR COMMUNICATIONS ( $P_i$ )**

Description of Protection of Passageway Openings	Fire Resistive, Non-Combustible or Slow-Burning Communications				Communications with Combustible Construction					
	Open		Enclosed		Open			Enclosed		
	Any Length	10 Ft. or Less	11 Ft. to 20 Ft.	21 Ft. to 50 Ft. +	10 Ft. or Less	11 Ft. to 20 Ft.	21 Ft. to 50 Ft. +	10 Ft. or Less	11 Ft. to 20 Ft.	21 Ft. to 50 Ft. +
Unprotected	0	+ +	0.30	0.20	0.30	0.20	0.10	+ +	+ +	0.30
Single Class A Fire Door at One End of Passageway	0	0.20	0.10	0	0.20	0.15	0	0.30	0.20	0.10
Single Class B Fire Door at One End of Passageway	0	0.30	0.20	0.10	0.25	0.20	0.10	0.35	0.25	0.15
Single Class A Fire Door at Each End or Double Class A Fire Doors at One End of Passageway	0	0	0	0	0	0	0	0	0	0
Single Class B Fire Door at Each End or Double Class B Fire Doors at One End of Passageway	0	0.10	0.05	0	0	0	0	0.15	0.10	0

+ For over 50 feet,  $P_i = 0$ .

+ + For unprotected passageways of this length, consider the 2 buildings as a single Fire Division.

**Note:** When a party wall has communicating openings protected by a single automatic or self-closing Class B fire door, it qualifies as a division wall\* for reduction of area.

**Note:** Where communications are protected by a recognized water curtain, the value of  $P_i$  is 0.

\*When an asterisk is shown next to a term in this item, the term is defined in greater detail in the Special Commercial Property Evaluation Schedule.

### 340. CALCULATION OF NEEDED FIRE FLOW (NFF<sub>i</sub>):

$$NFF_i = (C_i)(O_i)[1.0 + (X + P)_i]$$

When a wood shingle roof covering on the building being considered, or on exposed buildings, can contribute to spreading fires, add 500 gpm to the Needed Fire Flow.

The Needed Fire Flow shall not exceed 12,000 gpm nor be less than 500 gpm.

The Needed Fire Flow shall be rounded off to the nearest 250 gpm if less than 2,500 gpm and to the nearest 500 gpm if greater than 2,500 gpm.

**Note 1:** For 1- and 2-family dwellings not exceeding 2 stories in height, the following Needed Fire Flows shall be used:

DISTANCE BETWEEN BUILDINGS	NEEDED FIRE FLOW
Over 100'	500 gpm
31-100'	750
11-30'	1,000
10' or less	1,500

**Note 2:** Other habitational buildings, up to 3,500 gpm maximum.