

J1 FILE NAMING CONVENTION FOR ENGINEERING DRAWINGS

Refer to Annex1 for Drawings Series and Engineering Drawings Names. Engineering Drawings uploaded to ePlan shall follow the following naming convention at Cycle 1. Please ensure not to change the name of the Engineering Drawings once it is uploaded in the ePLAN. If the file name is changed, it creates confusion and for the same file rather than having different versions of the same file we have additional files, and is not acceptable.

e.g. 101 129302 01 - General Plan

“101” for the drawing series

“129302” for the City’s AMANDA number

“01” for the phase

“General Plan” is the name of the Engineering Drawing

J2 ENGINEERING DRAWINGS

J2.1 Specifications for Engineering Drawings

1) Size: Drawings shall be A1 Metric (594 mm x 841 mm).

Format: AutoCAD, PDF and TIFF files are required at Accepted for Signature stage and also at Accepted for Maintenance stage. When Engineering Drawings are Accepted (batched stamped) by the City, the Engineer shall produce the TIFF files from the Accepted Drawings.

2) Mapping Co-ordinates:

The City of Markham’s operational co-ordinate system is Universal Transverse Mercator (UTM), Ontario Zone 17N, North American Datum 1983 (NAD83). All CAD files will be drawn using this co-ordinate system.

Setting	Value
Datum	North American Datum 1983 (NAD83)
Projection	Universal Transverse Mercator (UTM)
Zone	17N

Within the geographic vicinity of the City of Markham, metric co-ordinate values are in the range of $\pm 4,860,000$ metres (northing) along the Y-axis and $\pm 637,000$ metres (easting) along the X-axis.

All CAD files, when referenced together, shall represent the final work in its entirety.

3) Scanned images will adhere to the following specifications:

- Records shall be scanned into TIFF Group 4 Format (.tif)
- Quality of scans shall be such that all line types and City’s Facility ID’s can be easily differentiated with a minimum scan resolution of 400 dots per inch (DPI)
- Image size shall be at 1:1 scale with original record, and printed items shall maintain original drawing scale
- Orientation of the Title Block and/or Descriptive Test shall be horizontal

Section J - Drafting & Drawing Requirements

- Drawing text of 5 points or higher shall be legible and all characters easily differentiated on scanned image
- Full size scanners shall be used in processing scan
- Microfilming is not accepted
- Scanners shall contain adaptive area thresh-holding ability
- Image shall not be skewed where an acceptable skew is limited to ½ degree
- Minimum 25 mm white space border shall be provided around image, where image is defined as the area within the drawing neat-line

J2.2 General Drawing Requirements

- 1) Prior to the 1st Engineering Drawings submission, the Consulting Engineer shall request the City for City's Facility ID numbers and include the same in all Engineering Drawings and Design Sheets, for the following:
 - Sanitary Maintenance holes (including Control MHs at the property line)
 - Storm Maintenance holes (including Control MHs at the property line)
 - Hydrants (except within a site plan)
 - Valves (including valves in chambers but excluding V&B at the property line)
 - Chambers
 - Streetlight Poles (Note: these are not Pole Tag IDs)
- 2) Drawings shall be to scale (metric) as follows:

▪ General Plans	1 : 1000
▪ Storm and Sanitary Drainage Plans	1 : 1000
▪ External Drainage Area Plans	1 : 2000 (a scale not exceeding 1: 5000 may be accepted for large external drainage areas)
▪ Grading Plans	1 : 500
▪ Plan & Profiles	1 : 500 Horizontal 1 : 100 Vertical
▪ Site Alteration Plans	1 : 1000 (or as appropriate for the site)
▪ Stormwater Management Ponds and associated plans	1 : 500
▪ Composite Utility Plans	1 : 500
▪ Pavement Markings & Signage Plans	1 : 500
▪ Traffic Management Plans	1 : 500
▪ Construction Management Plans	1 : 500
▪ Shoring & Excavation Plans	1 : 500
▪ Electrical Design Drawings	1 : 1000
▪ Design Sheets	As appropriate
▪ Details Sheets	As appropriate

Section J - Drafting & Drawing Requirements

- 3) All design and construction shall be referenced to a minimum of two City's benchmarks. Elevations shall be geodetic and related to City's datum and the benchmark shall be described on the drawings
- 4) Work on the drawings shall be done neatly and legibly
- 5) Drawings shall include the signed and dated seal of the Professional Engineer responsible for the design
- 6) All horizontal and vertical dimensions shall be provided in metres to two (2) decimal places
- 7) All drawings shall utilize the City's standard Title Block. The Title Block must be placed at the bottom right-hand corner of the drawing
- 8) The drawings shall include General Notes for General Plans (as per Engineering Drawings MR35AA to MR35DD) and General Notes for Site Alteration Plans (as per Engineering Drawings MR35CC)
- 9) General Notes for Composite Utility Plans shall be as given in Section 'G'
- 10) A key plan shall be included on each engineering drawing immediately above the title block and shall indicate the area included in the specific drawings
- 11) The lot/block numbering on the plan shall correspond to the Registered Plan
- 12) Street names shall be written outside of the road allowances. For Grading Plans, however, the street names shall be written in the boulevards
- 13) The centreline and the centreline chainage shall be shown on all plans. The chainage shall be calculated based on the plan proposed for registration

If the plans are amended or altered after they have been accepted by the Director of Engineering, the date of same shall be noted in the revision block and shall be resubmitted to the Director of Engineering for acceptance.

J2.3 Cover Sheet and Index Drawings

The Cover Sheet and Index Drawings shall include a key plan of sufficient size to show the locations of the various drawings for the project. The key plan shall include street names and a nearby major intersection. In addition, a drawing index shall be included indicating the title, chainage and drawing number.

The cover page shall also include the details of:

- 1) Owner
- 2) Consulting Engineer
- 3) Mayor
- 4) Director of Engineering
- 5) City's File numbers (Amanda XX XXXXXX XXX XX and 19 TM numbers)
- 6) MECP ECA and DWWP numbers

Section J - Drafting & Drawing Requirements**J2.4 General Notes**

The General Notes page must include the City's General Notes (as per the Standard Drawings: MR35AA to MR35DD), as well as any project specific notes.

J2.5 General Plans

General plans showing above and below ground services and appurtenances shall indicate, but not be limited to, the following:

- 1) All below ground services and appurtenances
- 2) Barricades
- 3) Fencing, both private and acoustic fences
- 4) Existing trees in accurate canopy
- 5) Retaining walls, swales, berms, 3:1 slopes
- 6) Rear lot/block catchbasins
- 7) Any required easements including dimensions and descriptions
- 8) Driveway locations
- 9) Bus stop platforms
- 10) City's Facility ID numbers (provided by the City's Asset Management Department)
- 11) Show design cross section locations

J2.6 Storm and Sanitary Drainage Area Plans

Storm Drainage Area Plan shall illustrate the contributing storm flows to be conveyed by the proposed sewers. Information on the storm drainage area plans shall match with the corresponding storm design sheet. Storm drainage areas shall be compatible with the Grading Plans, and the City's latest contour mapping. There shall be a Minor Storm Drainage Plan and a Major Storm Drainage Plan, with corresponding design sheets. The drainage plans shall indicate, but not be limited to, the following:

- 1) Existing contours
- 2) Runoff coefficients and areas (ha) of drainage catchments for each segment of storm sewer. Calculations for weighted average runoff coefficients shall be provided
- 3) External tributary areas (ha) and Runoff coefficients and/or the external flow at each entry point. This should match the information on the Master Storm Drainage Area Plan
- 4) Direction of overland flow in the existing and proposed conditions
- 5) Overland flow route
- 6) Culverts and other drainage appurtenances
- 7) Any catchbasins or swales on the lots or blocks required to pick up the runoff
- 8) Temporary or permanent quantity and quality storm water management facilities, if applicable
- 9) Drainage patterns of adjacent lands
- 10) Street names

Section J - Drafting & Drawing Requirements

- 11) Sewer information (ie: sizes, lengths, materials, lengths and slopes)
- 12) Directions of flow in the sewers
- 13) Location of Major Storm Capture points, if any
- 14) Where a separate Major Storm Drainage Area Plan is required, show the contributing area and contributing flow to be captured at the major storm capture points, and calculation for the inlet structure capacity.

In addition to the above, hydraulic modelling parameters related to drainage modelling and design (e.g., percentage impervious) shall be documented in the Stormwater Management Report according to the City's Stormwater Management Guidelines.

Sanitary Drainage Area Plan shall illustrate the contributing sanitary flows to be conveyed by the proposed sewers. Information on the sanitary drainage area plans shall match with the corresponding sanitary design sheet. The sanitary drainage area plans shall indicate, but not be limited to, the following:

- 1) Sewer information (ie: sizes, lengths, materials, lengths and slopes)
- 2) Directions of flow in the sewers
- 3) Street names
- 4) Sanitary Drainage area, population and corresponding flow per population for residential or flow per hectare for institutional/industrial/commercial for each section of the sanitary sewer within the development
- 5) External tributary areas, population, and flow at each entry point. This should match the information on the Master Sanitary Drainage Area Plan

J2.7 Master Storm and Sanitary Drainage Area Plans

Separate drawings shall be prepared to show the external storm and sanitary drainage areas.

The following information shall be shown on the Master Storm Drainage Area Plan:

- 1) Limits of tributary area
- 2) Area in hectares
- 3) Runoff coefficient (existing and ultimate)
- 4) Contributing flow to the proposed development at the boundary
- 5) Time of concentration
- 6) Direction of major and minor flows
- 7) Sewer sizes, lengths and slope, if applicable

The following information shall be shown on the Master Sanitary Drainage Area Plan:

- 1) Limits of tributary area
- 2) Area in hectares
- 3) Equivalent population
- 4) Contributing flow (including infiltration)
- 5) Sewer sizes, lengths and slope, if applicable

J2.8 Grading Plans

Grading Plans shall indicate, but not be limited to, the following:

- 1) Existing contours at 0.5 m intervals unless clarity of presentation dictates otherwise
- 2) Existing contours and elevations within the plan and externally (at least 30.0 m for Subdivisions and 5.0 m for Site Plans). The external contours shall be extended far enough to determine the existing drainage pattern. In addition to the above, Grading Plans for parks shall indicate existing contours at 0.5 m intervals along with all existing trees, structures, watercourses, etc.
- 3) Proposed elevations at the following locations:
 - at intersections, all curb radius, grades and slopes, including top of catchbasin grades
 - along the centre line of all existing or proposed roads (maximum 25 m apart)
 - vertical curves at 10 m intervals
 - at the corners of each lots and blocks
 - at frequent intervals along block property lines
 - proposed contours for grading within large blocks and parks
 - any other points necessary to give proper picture of the proposed drainage scheme including tops of catchbasins, inverts of swales, and top and bottom of retaining walls
- 4) Extent of ponding area with contour at Major Storm Capture Points, or site low points, ensuring ponding contour does not encroach private property
- 5) Percent Street grades for all roads within the development. The distance of the particular grade shall also be included
- 6) Slope of side-yards
- 7) Flow direction (by arrows)
- 8) Overland flow route, Direction of existing and proposed overland flow
- 9) Overland flow arrows, internal and external of the proposed development.
- 10) Grate and invert elevations at all rear lot and ditch inlet catchbasins
- 11) Easements including dimensions and descriptions
- 12) Existing trees and preservation notes
- 13) Fencing, both private and acoustic fencing
- 14) Retaining walls: If the retaining wall exceeds one metre in exposed height and is adjacent to space used by the public, adjacent to access points, to a building or private property to which the public is admitted, a building permit will be required. The applicant must contact City of Markham's Building Department to determine the review, certification, permit issuance and inspection process.
- 15) Hydrants, valve boxes, chambers, catchbasins, curbs and sidewalks
- 16) In built-up areas, all existing lots and blocks adjacent to the proposed Subdivision showing existing grades, existing first floor elevations, location of existing dwellings and drainage patterns
- 17) All lots and blocks within the Subdivision

Section J - Drafting & Drawing Requirements

- 18) Numbering of all lots and blocks shall conform to the registered M-Plan
- 19) Type of units (back split, front draining, walkout, etc.)
- 20) Engineered fill lots
- 21) Proposed driveway locations
- 22) Lot Drainage types in accordance with typical details
- 23) Cut-off swales and catchbasins to intercept interim block drainage and external drainage

J2.9 Plan and Profile Drawings

Plan and Profile drawings shall indicate the following:

- 1) Add the following Notes to all Plan & Profile drawings:
 - 100YR HGL is the obvert of storm pipe unless otherwise noted
 - 100YR HGL is minimum 0.5 m below bottom of basement slab elevation
- 2) All below ground services and appurtenances, including the type of service (watermain, sanitary or storm), diameter, length, grade and direction of flow, etc.
- 3) Class of pipe shall be shown on the profile portion of the drawings only. Only the type and diameter shall be shown in the plan portion
- 4) Roads, including curbs, gutters, sidewalks, etc. and the ROW dimensions in plan view
- 5) Barricades
- 6) Fencing, both private and acoustic fencing
- 7) Retaining walls
- 8) Rear lot/block catchbasins
- 9) Any required easements including dimensions and descriptions
- 10) Driveway locations
- 11) Bus stop platforms
- 12) Existing contours within open space blocks (i.e. block valley trunk sewers, etc.) only
- 13) Street names
- 14) Maintenance hole, Hydrant, Valve and Chamber ID's in both plan and profile views
- 15) Temporary or permanent quantity and quality storm water management facilities
- 16) Culverts and other drainage appurtenances
- 17) Where two or more sheets are required for one street, match lines must be used with no overlap or duplication of information
- 18) Where intersecting streets are shown, only the intersecting street name and the diameter of the pipe and direction of flow of the intersecting sewers shall be shown. This also applies to easements for which a separate plan and profile has been drawn
- 19) Where possibility of conflict with other services exists, connections shall be plotted on the profile
- 20) Gutter drainage details for temporary turning radii and cul-de-sacs

Section J - Drafting & Drawing Requirements

- 21) Where possible, the profile shall be a vertical projection of the plan
- 22) East-west streets shall be drawn such that the north arrow points to the top of the plan
- 23) 1 : 100-Year HGL in profiles
- 24) North-south streets shall be drawn such that the north arrow points to left or right of the plan
- 25) Chainage shall be shown from left to right on the drawings. Also show proposed and existing grades every 25 m intervals
- 26) All City Standards and OPSDs shall be noted on the drawings

Requirements for stormwater management facility plans and profiles are indicated in the City's Stormwater Management Guidelines and the Engineering Standards.

J2.10 Site Alteration Plans

Refer to Section L – Site Alteration Guidelines for the drawing requirements.

J2.11 Composite Utility Plans and Pavement Marking & Signage Plans

Refer to Section G – Composite Utility Plans and Pavement Marking & Signage Plans for the drawings requirements.

J2.12 Detail Drawings

Detail Drawings shall include the following:

- 1) Right-of-way cross sections
- 2) Detail design cross sections, with reference to the drawings
- 3) City standard drawings
- 4) OPSD standard drawings and specifications
- 5) Project specific standard drawings and details
- 6) Shop drawings shall be stamped by a Professional Engineer of the discipline. Structural details shall be stamped, signed, and dated by a structural Professional Engineer.

J3 RECORD DRAWINGS AND DOCUMENTS

J3.1 General

Before Acceptance for Maintenance by the City, the Consulting Engineer shall produce a complete set of Record Drawings and Documents.

Record Drawings and Documents shall be as per Professional Engineers of Ontario, as amended and labeled **Record**, in the Title box.

Upon completion of construction and before Acceptance for Maintenance by the City, Record Drawings and Documents shall be submitted to the Director of Engineering for the City's permanent records. These Record Drawings and Documents shall also be submitted in digital format, as described at the end of this Section.

Record sewer design sheets shall also be provided in digital spreadsheet format and included in the drawing sets.

Information required for the Record Drawings and Documents includes, but not limited to:

1. Registered street names and municipal property addresses to be included in all Record Drawings and Documents;
2. Verification of location and survey of invert elevations of all sewers, maintenance holes, catchbasins and rear yard catchbasins. In the case of maintenance holes on easements, ditch inlet catchbasins, and rear yard catchbasins, the rim elevation is also required;
3. Distance between sewer maintenance holes, including pipe sizes and calculated sewer grades. Sewer lengths shall be shown to the nearest 0.1 m and sewer grades calculated to two decimal places; and
4. Include all service connections (SAN/STM) inverts/elevations at the property line.
5. Where there is a major difference between the Accepted Design and Record Drawings and Documents, the Consulting Engineer is required to explain, in writing, the discrepancy and verify that the Record discrepancy does not adversely affect the intent of the original Design, as accepted by the City.

J3.2 Storm Sewers

All sewer invert elevations, if different from the proposed, shall be indicated on the Record Drawings and Documents. If the difference is greater than 150 mm, affected portions of sewer (in profile) shall be redrawn. Hydraulic calculations shall be provided, reflecting these changes, for review and acceptance.

Any maintenance hole locations that differ by more than 2.0 m from the proposed location shall be redrawn in both plan and profile.

The following shall be indicated on the Record Drawings and Documents, if different from the proposed:

- Type of maintenance hole
- Pipe size
- Grade of sewer
- Type and class of pipe material
- Type of bedding

Section J - Drafting & Drawing Requirements

- Original ground at centre profile to remain on all plans
- Remove all references to proposed works or planned construction activities

J3.3 Stormwater Management Facilities

All SWM facility invert elevations and storage volumes, if different from the proposed, shall be indicated on the Record Drawings and Documents .

The design versus 'as-constructed' storage volumes and discharge rates shall be shown on Record Drawings and Documents .

Record Drawings and Documents shall confirm that the proposed SWM facility design (storage and discharge) is not compromised, otherwise the SWM facility shall be retrofitted accordingly prior to Acceptance for Maintenance.

The SWM facility Record Drawings and Documents shall be used as the baseline to indicate accumulated sediment levels, later at the time of Assumption.

J3.4 Sanitary Sewers

All sewer invert elevations, if different from the proposed, shall be indicated on the Record Drawings and Documents. If the difference is greater than 150 mm, affected portions of sewer (in profile) shall be redrawn.

Any maintenance hole location that differs by more than 2.0 m from the proposed location shall be redrawn both in plan and profile.

The following shall be indicated on the Record Drawings and Documents, if different from the proposed:

- Type of maintenance hole
- Pipe size
- Grade of sewer
- Type and class of pipe material
- Type of bedding
- Original ground at centre profile to remain on all plans
- Remove all references to proposed works or planned construction activities

J3.5 Watermains

All watermain elevations, if different from the proposed shall be indicated on the Record Drawings and Documents. If the difference is greater than 150 mm, the affected portions of watermain (in profile) shall be redrawn.

All alignment changes greater than 150 mm to have offsets revised in plan. If the alignment changes exceed 0.5 m, watermain shall be redrawn in plan as well as indicate revised offsets.

All watermain valves shall be tied to permanent features such as buildings, maintenance holes, catchbasins, etc.

Record Drawings and Documents information to include ties and elevations to all stubs.

The following shall be indicated on the Record Drawings and Documents, if different from the proposed:

Section J - Drafting & Drawing Requirements

- Type of valves and hydrants
- Pipe size
- Type and class of pipe material
- Type of bedding
- All fitting changes (bends, reducers, blocking, restrained joints, etc.)
- Original ground profile over watermain (if applicable) to remain
- Remove all references to proposed works or planned construction activities

J3.6 Electrical Design Drawings

Record Drawings and Documents of Electrical Design Drawings shall be submitted along with Engineering Drawings and shall include the following:

- Final street names
- All cable locations dimensioned to property lines for offsets on plan views. Any cable installed deeper than the standard depth or at a non-standard off-set (locations different than those approved on the standard Road Cross-sections) shall be clearly labelled (depth and/or off-set) and identified as revisions on the drawing title block
- All pole locations dimensioned from a property line for off-set and from a private property line projection (unless located on property line projection)
- All road crossings with a dimensioned off-set to the closest property line projection
- All accepted/installed pole numbers at each pole location on the plan views
- Clearly show the supply transformers and disconnects for each streetlight/traffic signal circuit (Pole breaker or Pedestal)
- All pole types/heights and fixture types/wattages labelled either directly on the plan or symbolized with descriptions in the Legend on each plan view drawing

J3.7 Standards for Record Drawings and Documents Submissions

- 1) All Record Drawings to be submitted for the Acceptance for Maintenance shall require digital (AutoCAD) images files. All Engineering Drawings shall be labeled with “**RECORD DRAWINGS**” at an appropriate location near the signature block.
- 2) The Cover Sheet shall be labelled “Record Drawings” and shall indicate the City File Number, M-Plan and/or R-Plan number. The draft plan number shall be removed. The Cover Sheet shall have a list of all drawings being submitted in bold and all drawings not required screened back. See Figure 1 at the end of Section J.
- 3) The AutoCAD version shall be the latest version (as confirmed by the City). All drawings shall be binded.
- 4) The image files shall adhere to the following specifications:
 - Records shall be TIFF Group 4 Format (.tif)
 - Images larger than 10 MB in size shall be compressed into MRSID (.sid) format
 - Quality of image files shall be such that all line types can be easily differentiated with a minimum scan resolution of 400 dots per inch (DPI)
 - Image size shall be at 1:1 scale. Original record and printed items shall maintain original drawing scale

Section J - Drafting & Drawing Requirements

- Orientation of the Title Block and/or Descriptive Text shall be horizontal
- Drawing text of 5 points or higher shall be legible and all characters easily differentiated on scanned image
- Microfilming is not accepted
- Minimum 25 mm white space border shall be provided around image, where image is defined as the area within the drawing neat-line

Failure to comply with the above Record Drawings and Documents Submission requirements will result in a delay in Acceptance for Maintenance and return of the Letter of Credit. Comments regarding revisions to the submission will be noted on the Engineer's submitted drawing set and returned to the sender. The consultant will be sent a notice of confirmation and acceptance of submission once all the requirements are satisfied.

J4 INFRASTRUCTURE RECORDS TEMPLATE

The Consulting Engineer generating infrastructure records shall submit the said records in hard copy original and digital formats. An infrastructure record shall mean a drawing, plan, picture, report, study and document and/or other that refer to a tangible asset or area of interest that the City may own and/or operate. Each template can store up to 50 metadata entries with each entry representing a unique piece of information within a given submission. Details of the type of information captured are provided for within an Excel Format (INFRASTRUCTURE RECORDS TEMPLATE), a soft copy can be obtained from the Engineering Department (Municipal Inspection).

J4.1 Engineering Submission Required Documents for Various Development Applications

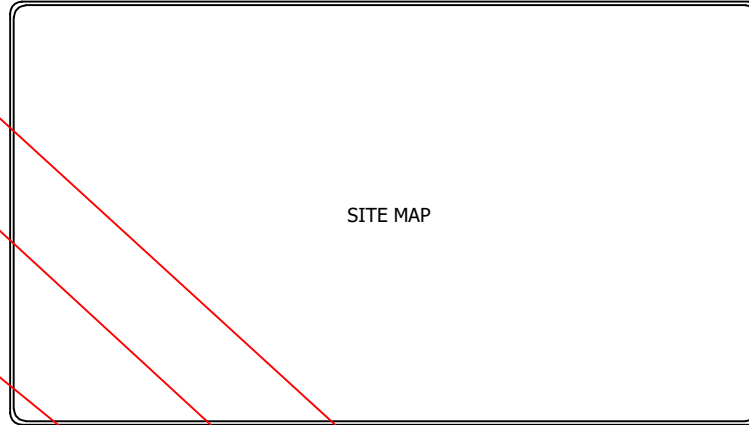
For a description of the required Engineering drawings/documents for various types of Development applications, please refer to [Engineering Submission Required Documents \(Annex 1\)](#).

PROJECT NAME
CITY OF MARKHAM
SAMPLE COVER SHEET

MECP ECA #XXXXXX MECP WWP #XXXXXX

Edge of Paper

Edge of Paper



KEY PLAN TO SHOW MAJOR INTERSECTION AND STREET NAMES

NORTH ARROW

MIN. 5.0"

CITY STAMP BLOCK (MIN. 3.0" x 5.0")

CHANGE TITLE OF DRAWINGS SET TO READ "RECORD DRAWINGS"

CHANGE DATE TO INDICATE "RECORD DRAWINGS" SUBMISSION DATE

ADD CITY FILE # AND PLAN AND/OR R PLAN

MIN. 3.0"

KEY PLAN

BENCH MARK:
(MIN. TWO FOR SUBDIVISION AND ONE FOR SITE PLAN)

LEGEND:

NOTES (IF REQUIRED):

RECORD DRAWINGS

ADD "RECORD DRAWINGS" STAMP ABOVE SUBMISSION BOX

ADD "RECORD DRAWINGS" SUBMISSION INFORMATION TO SUBMISSION BOX

No.	DESCRIPTION	DATE
4.		
3.		
2.		
1.		

REVISIONS

MARKHAM
THE CORPORATION OF THE CITY OF MARKHAM
ENGINEERING DEPARTMENT

NAME OF THE PROJECT

LOGO, NAME, AND CONTACT DETAILS OF THE CONSULTING FIRM

NAME OF THE DRAWING (E.G. "GRADING PLAN")

DESIGN BY: X.X	CHECKED BY: X.X	ENGINEER'S PROJECT NO.
DRAWN BY: X.X	CHECKED BY: X.X	ABC
SCALE: 1:XXX		DRAWING NO. XYZ
DATE: MONTH/DATE (00)/YEAR (0000)		

ADD CITY FILE #

RECORD DRAWINGS
DATE
CITY FILE #
MPLAN/RPLAN #

DRAWINGS BEING SUBMITTED IN "RECORD" DRAWING SET SHOULD BE DARK TEXT.

DRAWINGS NOT BEING SUBMITTED IN "RECORD" DRAWING SET SHOULD BE LIGHT TEXT.

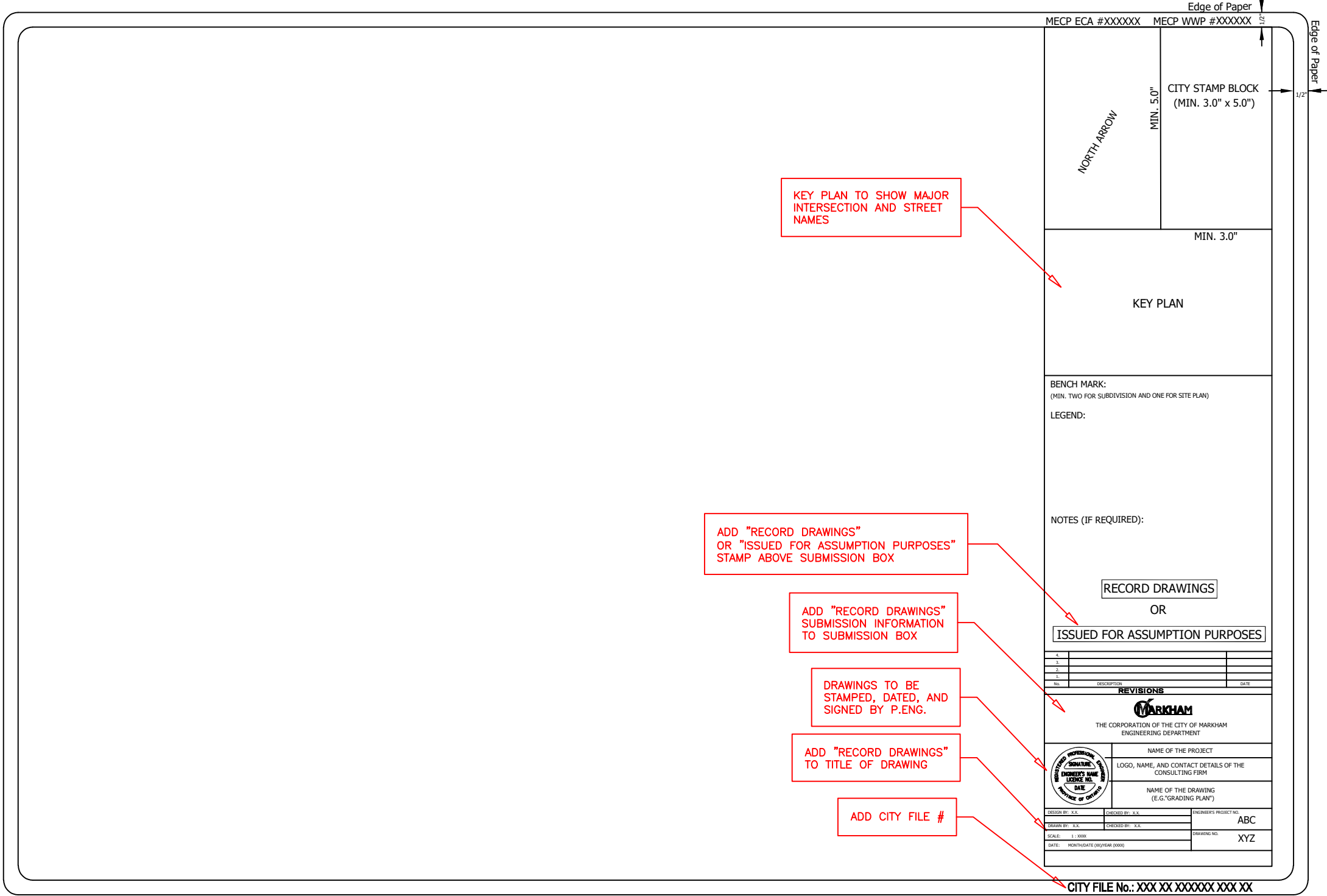
DRAWING LIST:

- | | |
|--------------------------------------|--|
| 100 GENERAL NOTES & ORIENTATION PLAN | 801 PAVEMENT MARKING AND SIGNAGE PLAN |
| 101 GENERAL PLAN | 901 TRAFFIC CONTROL SIGNALS AND INTERSECTION ILLUMINATION PLAN |
| 201 STORM DRAINAGE PLAN | 1001 STORMWATER MANAGEMENT FACILITY AND DETAIL |
| 301 SANITARY DRAINAGE PLAN | 1101 DESIGN SHEETS |
| 401 GRADING PLAN | 1201 DETAIL DRAWING |
| 501 PLAN AND PROFILE | 1301 MISCELLANEOUS |
| 601 SITE ALTERATION PLAN AND DETAIL | 2001 STREET LIGHTING DRAWING |
| 701 COMPOSITE UTILITY PLAN | |

CONSULTING ENGINEER	OWNER	MUNICIPALITY
XXXX	XXXX	XXXX
XXXX	XXXX	XXXX
XXXX	XXXX	XXXX
XXXX	XXXX	XXXX

CITY FILE No.: XXX XX XXXXXX XXX XX

FIGURE 1



KEY PLAN TO SHOW MAJOR INTERSECTION AND STREET NAMES

ADD "RECORD DRAWINGS" OR "ISSUED FOR ASSUMPTION PURPOSES" STAMP ABOVE SUBMISSION BOX

ADD "RECORD DRAWINGS" SUBMISSION INFORMATION TO SUBMISSION BOX

DRAWINGS TO BE STAMPED, DATED, AND SIGNED BY P.ENG.

ADD "RECORD DRAWINGS" TO TITLE OF DRAWING

ADD CITY FILE #

Edge of Paper
MECP ECA #XXXXXX MECP WWP #XXXXXX

NORTH ARROW
MIN. 5.0"
CITY STAMP BLOCK (MIN. 3.0" x 5.0")

MIN. 3.0"
KEY PLAN

BENCH MARK:
(MIN. TWO FOR SUBDIVISION AND ONE FOR SITE PLAN)

LEGEND:

NOTES (IF REQUIRED):

RECORD DRAWINGS
OR
ISSUED FOR ASSUMPTION PURPOSES

No.	DESCRIPTION	DATE

REVISIONS
MARKHAM
THE CORPORATION OF THE CITY OF MARKHAM
ENGINEERING DEPARTMENT

	NAME OF THE PROJECT
	LOGO, NAME, AND CONTACT DETAILS OF THE CONSULTING FIRM
	NAME OF THE DRAWING (E.G. "GRADING PLAN")

DESIGN BY: X.X.	CHECKED BY: X.X.	ENGINEER'S PROJECT NO.
DRAWN BY: X.X.	CHECKED BY: X.X.	ABC
SCALE: 1:XXXX		DRAWING NO.
DATE: MONTH/DATE (00)/YEAR (0000)		XYZ

CITY FILE No.: XXX XX XXXXXX XXX XX

FIGURE 2