

J1 ENGINEERING DRAWINGS

J1.1 Specifications for Engineering Drawings

- 1) Size: Drawings shall be A1 Metric (594 mm x 841 mm).
Format: AutoCAD and TIFF files are required at Accepted for Signature stage and also at Accepted for Maintenance (“As-Constructed”) stage. The TIFF files at the Accepted for Signature stage shall be scanned from the signed accepted drawings.
- 2) Scanned images will adhere to the following specifications:
 - Records shall be scanned into TIFF Group 4 Format (.tif)
 - Images larger than 10 Megabytes in size shall also be compressed into MRSID (.sid) format
 - 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
 - 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

J1.2 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 Manholes (including Control MHs at the property line)
 - Storm Manholes (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
- 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)

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- 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
- 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) Rubber stamps shall not be used except for the Engineer's seal
 - 7) Nothing shall be affixed to the drawings with tape or adhesive
 - 8) All horizontal and vertical dimensions shall be provided in metres to two (2) decimal places
 - 9) 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
 - 10) The drawings shall include General Notes for General Plans (as per Engineering Drawings MR35A to MR35F) and General Notes for Site Alteration Plans (as per Engineering Drawings MP14)
 - 11) General Notes for Composite Utility Plans shall be as given in Section 'G'
 - 12) 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
 - 13) The lot/block numbering on the plan shall correspond to the Registered Plan
 - 14) Street names shall be written outside of the road allowances. For Grading Plans, however, the street names shall be written in the boulevards
 - 15) 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.

J1.3 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. 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 XX and 19 TM numbers)

J1.4 General Notes

The General Notes page must include the City's General Notes (as per the Standard Drawings: MR35A to MR35F), as well as any project specific notes.

J1.5 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
- 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)

J1.6 Storm and Sanitary Drainage Area Plans

Drainage Area plans shall indicate the total area to be drained by the proposed sewers. The storm drainage plan shall be compatible with the Grading Plans and the City's latest contour mapping. The drainage plans shall indicate, but not be limited to, the following:

- 1) Runoff coefficients and areas (ha) of drainage catchments including for each segment of storm sewer
- 2) Existing and proposed contours only, whichever applicable
- 3) Runoff coefficients and areas (ha) of tributary areas outside the development (external areas) and for each section of the storm sewers
- 4) Direction of runoff

- 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
- 11) Sewer sizes, lengths and slopes
- 12) Directions of flow in the sewers
- 13) 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

In addition to the above, hydrologic 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.

J1.7 External 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 External Storm Drainage Area Plan:

- 1) Limits of tributary area
- 2) Area in hectares
- 3) Runoff coefficient (existing and ultimate)
- 4) Time of concentration
- 5) Direction of major and minor flows
- 6) Sewer sizes, lengths and slope, if applicable

The following information shall be shown on the External 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

J1.8 Grading Plans

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

- 1) Proposed finished floor elevations for each residential lots and blocks
- 2) Existing contours at 0.5 m intervals unless clarity of presentation dictates otherwise
- 3) 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

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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.

- 4) 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
- 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
- 9) Grate and invert elevations at all rear lot and ditch inlet catchbasins
- 10) Easements including dimensions and descriptions
- 11) Existing trees and preservation notes
- 12) Fencing, both private and acoustic fencing
- 13) Retaining walls
- 14) Hydrants, valve boxes, chambers, catchbasins, curbs and sidewalks
- 15) 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
- 16) All lots and blocks within the Subdivision
- 17) Numbering of all lots and blocks shall conform to the registered M-Plan
- 18) Type of units (back split, front draining, walkout, etc.)
- 19) Engineered fill lots
- 20) Proposed driveway locations
- 21) Drainage types in accordance with typical details
- 22) Cut-off swales and catchbasins to intercept interim block drainage and external drainage

J1.9 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) Manhole, 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
- 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.

J1.10 Site Alteration Plan

Site Alteration Plan shall indicate the following:

- 1) The General Notes (as per the Standard Drawings) as well as any project specific notes
- 2) All trees to be preserved or removed
- 3) Sediment control fence and tree preservation fence
- 4) Topsoil stock piles with fencing all around
- 5) All relevant City's standards shall be used
- 6) Stamp for Urban Design for Department's acceptance
- 7) Location and details of Sediment Control Pond, if applicable
- 8) Discharge outlet details
- 9) Swales and rock check dams
- 10) Construction access (Region's permit number, if access is from the Region's road)
- 11) All City Standards and OPSDs shall be noted on the drawings

J1.11 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 “AS-CONSTRUCTED” DRAWINGS

J2.1 General

Prior to Acceptance for Maintenance by the City, the Consulting Engineer shall produce a complete set of “As-Constructed” drawings in accordance with City's “As-Constructed” drawing requirements.

These drawings shall be sealed and signed by a Registered Professional Engineer and labelled “As-Constructed” and dated.

Upon completion of construction and prior to Acceptance for Maintenance by the City, “As-Constructed” drawings shall be submitted to the Director of Engineering for their permanent records. These drawings shall also be submitted in digital format, as described at the end of this Section.

“As-Constructed” sewer design sheets shall also be provided in digital spreadsheet format and also included in the drawing sets.

Information required for the “As-Constructed” engineering drawings include:

- Verification of location and survey of invert elevations of all sewers, manholes, catchbasins and rear yard catchbasins. In the case of manholes on easements, ditch inlet catchbasins and rear yard catchbasins, the rim elevation is also required

- Distance between sewer manholes, 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

Where there is a major difference between the design and “As-Constructed” data, the Consulting Engineer is required, in writing, to explain the discrepancy and verify that the “As-Constructed” discrepancy does not adversely affect the intent of the services.

J2.2 Storm Sewers

All sewer invert elevations, if different from the proposed, shall be indicated on the “As-Constructed” drawings. 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 manhole 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 “As-Constructed” drawings, if different from the proposed:

- Type of manhole
- Pipe size
- Grade of sewer
- Type of pipe material
- Class of pipe
- Type of bedding

J2.3 Stormwater Management Facilities

All SWM facility invert elevations and storage volumes, if different from the proposed, shall be indicated on the “As-Constructed” drawings.

The design versus ‘as-constructed’ storage volumes and discharge rates shall be shown on “As-Constructed” drawings.

“As-Constructed” SWM drawings 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 ‘as-constructed’ drawings shall be used as the baseline to indicate accumulated sediment levels, later at the time of Assumption.

J2.4 Sanitary Sewers

All sewer invert elevations, if different from the proposed, shall be indicated on the “As-Constructed” drawings. If the difference is greater than 150 mm, affected portions of sewer (in profile) shall be redrawn.

Any manhole 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 “As-Constructed” drawings, if different from the proposed:

- Type of manhole
- Pipe size

- Grade of pipe
- Tee chainage from downstream manhole
- Type of pipe material
- Class of pipe
- Type of pipe bedding
- Original ground at centre profile to remain on all plans

J2.5 Watermains

All watermain elevations, if different from the proposed shall be indicated on the “As-Constructed” drawings. 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, manholes, catchbasins, etc.

“As-Constructed” information to include ties and elevations to all stubs.

The following shall be indicated on the “As-Constructed” drawings, if different from the proposed:

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

J2.6 Electrical Design Drawings

“As-Constructed” 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

J2.7 Standards for “As-Constructed” Drawings Submissions

- 1) All “As-Constructed” drawings to be submitted for the Acceptance for Maintenance shall require digital (AutoCAD), scanned images and hard copies (paper). All copies shall have the “As-Constructed” information on them.
- 2) The AutoCAD version shall be the latest version as confirmed by the Asset Management Department.
- 3) The scanned images shall adhere to the following specifications:
 - Records shall be scanned into TIFF Group 4 Format (.tif)
 - Images larger than 10 MB in size shall be compressed into MRSID (.sid) format
 - Quality of scans 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
 - 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
 - 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
- 4) File Naming Convention for AutoCAD Files

Each file name shall begin with the Amanda Subdivision number (City to provide) followed by the drawing number (applicable for all non-reference files), Subdivision name, drawing name (the drawing name must be a Street Name in the case of plan/profiles) followed by (if applicable):

- Stationing (in brackets)
- Sheet number
- AB (for As Built) or R# (for Revisions after the As Built has been submitted with # being completed with the appropriate Revision Number)
- Drawing Extension (PAR or CHILD)

Append “PAR” to each file that is a “parent” file with REFERENCE files attached to it.
Append “CHILD” to the end of any file that is referenced by a “Parent” file.

Example:

Reference Drawings (CHILD)

Year-Subdivision#-Phase#-Reference Plan Name-CHILD.dwg

(11-123456-01-Reference Plan-CHILD.dwg)

Plan and Profile Drawings (PARENT)

Year-Subdivision#-Phase#-Drawing#-Street Name (Stationing)-PAR.dwg

(11-123456-01-401-Stonebridge Drive (Sta 0+000 to 0+200)-PAR.dwg)

Other Drawings (PARENT)

Year-Subdivision#-Phase#-Drawing#-Drawing Name-PAR.dwg

(11-123456-01-General Plan-PAR.dwg)

- Length of the file name: Maximum 100 Characters.
- Following Characters may be allowed in the files :
 - ‘ _ ’ (Underscore)
 - ‘ - ’ (Hyphen)
 - ‘ # ’ (Hash)
 - ‘ \$ ’ (Dollar)
 - ‘ , ’ (Comma)
 - ‘ ’ (White space)
 - ‘ . ’ (Period)
 - ‘ + ’ (Plus Sign)
 - ‘ () ’ (Brackets)
- Any Characters, OTHER THAN THOSE LISTED ABOVE, are not allowed. Also any other special characters in the ASCII map, OTHER THAN ABOVE characters, are not allowed.

5) File Naming Convention for TIFF Files

Each file name shall begin with the Amanda Subdivision number (City to provide) followed by the drawing number, Subdivision name, drawing name (the drawing name must be a Street Name in the case of plan/profiles) followed by (if applicable):

- Stationing (in brackets)
- Sheet number
- AB (for As Built) or R# (for Revisions after the As Built has been submitted with # being completed with the appropriate Revision Number)

Example:Year-Subdivision#-Phase#-Drawing#-Subdivision Name-Drawing Name
(stationing if applicable)

11-123456-01-100-Humboldt Properties-Orientation Plan & General Notes.tif

- 6) The Cover Sheet shall be labelled “As-Constructed” as shown in Figure 1 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).

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- 7) The MOE approval numbers for any and all works shall be indicated on the Index Sheet and General Plans in the area directly above the title block (see Figure 2). The City File Number shall be indicated on all plans in the area directly below the title block (see Figure 2).
- 8) All drawings except for Typical Details, Storm and Sanitary Drainage plans shall be revised and submitted "As-Constructed" and labelled as such on the title block (see Figure 2). Site Alteration Plans may be omitted from the "As-Constructed" Submission.
- 9) Typical Details as well as Storm and Sanitary Drainage plans shall be submitted for Acceptance for Maintenance purposes and labelled as such in the title block (see Figure 2).
- 10) The Revisions block within the title block of all drawings shall have an entry indicating that the drawing is "As-Constructed" with the date (see Figure 2).
- 11) The City Reviewed Block or Director's Signature Block within the title block of all drawings shall have the typed name of the original City reviewer and original date reviewed (see Figure 2).
- 12) The Consulting Engineer shall add his/her seal with signature and date to all submitted drawings.
- 13) All lot numbers, block numbers and street names shall be as per the Registered Plan.
- 14) Remove temporary items and notes pertaining to temporary items (Example: temporary fence, temporary road barricades).
- 15) Grading Plans need only show major changes in grading design or changes in direction of runoff, including the addition or deletion of retaining walls.
- 16) Revise all invert elevations, slopes, lengths of pipe, pipe size, pipe class and locations of storm sewer, FDC sewer (if applicable), sanitary sewer, rear lot catch basins and house connections on both plan and profiles. It is only necessary to redraw pipes in profile view if invert exceeds 0.15 m.
- 17) Verify all "As-Constructed" pipe capacities are still efficient.
- 18) The locations of any manholes, catch basins, valve chambers, etc. which have been installed in a different location from that indicated on the original design drawings shall be updated.
- 19) Review all Composite Utility Plans (CUPs) including electrical street lighting drawings for all above ground utilities, features, driveways, sidewalks, mailboxes and for all underground services and ensure locations are updated if installed in different locations from what original design plans indicate.
- 20) Include references to adjacent projects if possible.
- 21) Storm water management pond drawings are to be included and revised as per City of Markham Stormwater Management Facility Assumption Requirements.

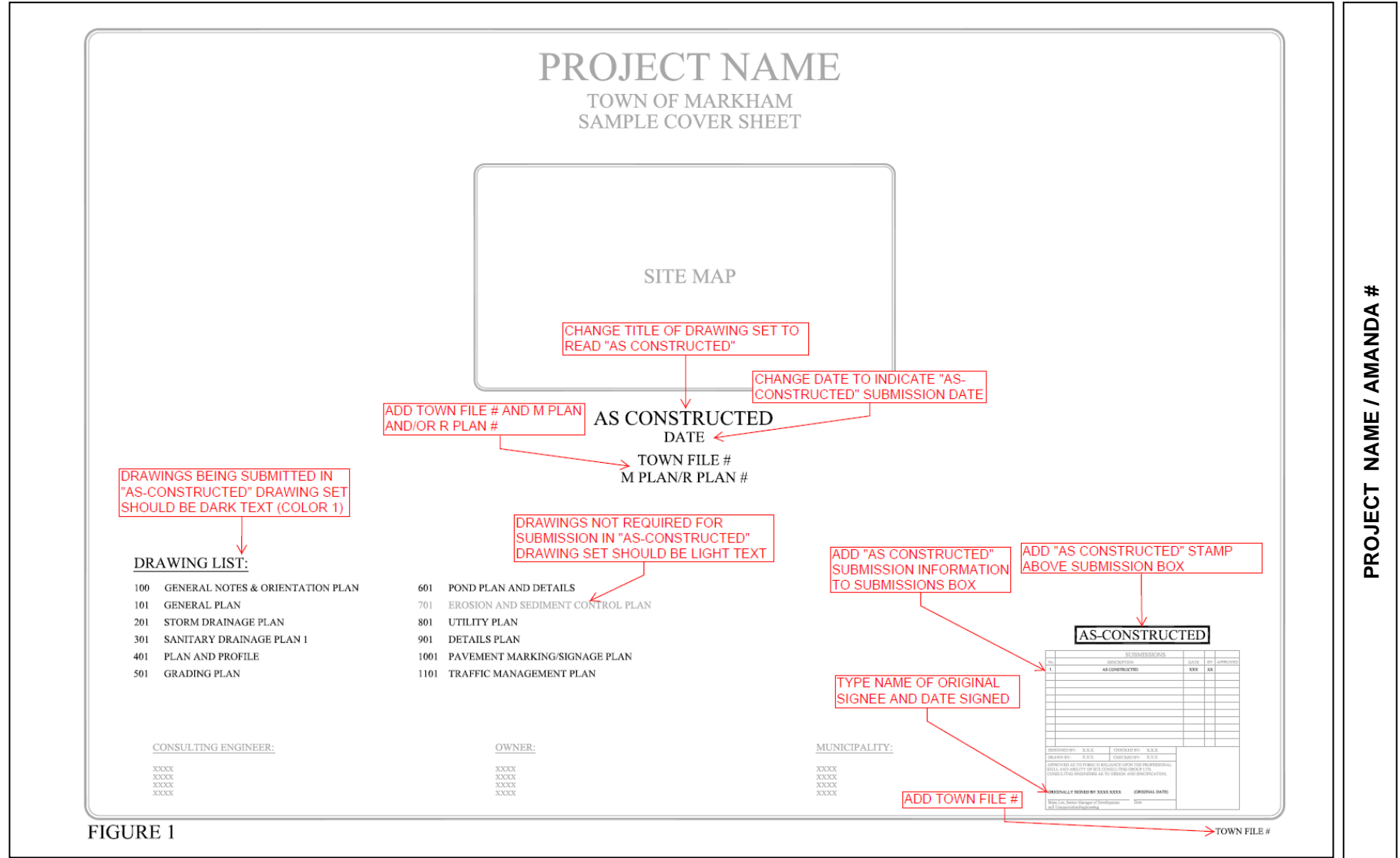
Failure to comply with the above "As-Constructed" Submission requirements will result in a delay in Acceptance for Maintenance and return of the Letter of Credit. Comments regarding revisions to the submission will be noted on the Engineer's submitted drawing set and returned to the sender. When all City of Markham "As-Constructed" requirements have been satisfied, the consultant will be sent a notice of confirmation and acceptance of submission.

Section J - Drafting & Drawing Requirements**J3 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).

J3.1 Engineering Submission Required Documents

Refer to the [Engineering Submission Required Documents \(Annex 1\)](#) for details.



PROJECT NAME / AMANDA #

ADD MOE APPROVAL# → MOE APPROVAL #

ADD "AS-CONSTRUCTED" OR "ISSUED FOR ASSUMPTION PURPOSES" STAMP ABOVE SUBMISSIONS BOX

ADD "AS-CONSTRUCTED" SUBMISSION INFORMATION TO SUBMISSIONS BOX

ADD "AS CONSTRUCTED" TO TITLE OF DRAWING

TYPE NAME OF ORIGINAL SIGNEE AND DATE SIGNED

ADD TOWN FILE # → TOWN FILE #

KEY PLAN

BENCHMARK: ELEV. XXX.XX

LEGEND:

LEGEND TEXT GOES HERE WITH SYMBOLS

GENERAL NOTES

GENERAL NOTES GOES HERE

AS-CONSTRUCTED
OR
ISSUED FOR ASSUMPTION PURPOSES

REVISIONS				
NO.	DESCRIPTION	DATE	BY	APPROVED
1.	AS CONSTRUCTED	XXX XX		

CONSULTING ENGINEER

TOWN OF MARKHAM

CLIENT LOGO

PROJECT NAME
AS-CONSTRUCTED

DRAWING NAME

DATE	DRAWN BY	DRAWN BY	CHECKED BY	CHECKED BY
XXXX	XXXX	XXXX	XXXX	XXXX

APPROVED AS TO TRUE IN RELIANCE UPON THE INFORMATION PROVIDED AND ACCORDING TO THE SPECIFICATIONS AND REQUIREMENTS OF THE TOWN OF MARKHAM AS TO DESIGN AND SPECIFICATION

CONSULTING ENGINEER: XXXX

ORIGINAL DATE: XX

DESIGNED BY: XX

FIGURE 2