# **EDMONTON**

# **LOT GRADING GUIDELINES**

#### **RESIDENTIAL PROPERTIES**

#### Introduction

The <u>Drainage Bylaw No.16200</u> came into effect on June 1, 2013 (replacing previous versions of the Surface Drainage Bylaw No. 11501). This Bylaw requires that all single family, semi-detached and rowhouse residential properties are graded in accordance with an Approved Lot Grading Plan.

#### **Definition**

Residential Lot Grading is shaping and sloping the land to direct surface drainage away from buildings and towards a City right of way.

#### **Purpose**

The purpose of lot grading is to provide good drainage away from buildings for the benefit of property owners.

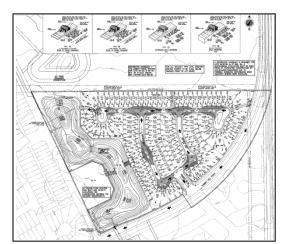
The purpose of the Drainage Bylaw No. 16200 is to regulate surface drainage on private and public land.

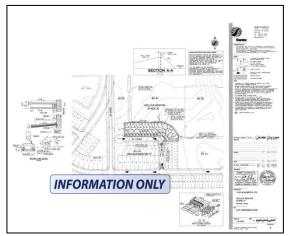
# **Lot Grading Plans**

Lot Grading Plans have been part of the approval process for residential properties since 1989. The plans are required for all new developments and are approved by Drainage Services on behalf of the City Manager. Lot Grading Plans specify design elevations, surface gradients, lot types, swale locations, and other drainage related information required for lot grading.

A Lot Grading Plan establishes the grading relationship between adjacent properties and its approval is an effective basis for the control of surface drainage.

Due to the topography of most neighbourhoods, approved lot-to-lot drainage will occur.





A Lot Grading Plan provides detail information on how each lot should be graded



#### **Documentation**

- Drainage Bylaw No. 16200
- City of Edmonton Design and Construction Standards Manual
- Alberta Building Code

#### **LOT GRADING APPROVAL PROCEDURE**

Lot development including buildings, concrete driveways and walkways must be completed before applying for grading approval.

There are two stages of <u>Lot Grading Approval</u>. Generally, the homebuilder assumes responsibility for Rough Grade (under the terms of the sale contract) and the homeowner completes the Final Grade approval.

Regardless of who applies for grade approval, the Municipal Government Act states that a Property Owner is responsible for all activities and approvals related to his property.

## **Rough Grade**

This stage includes backfilling the foundation walls with material native to the site (or equivalent) and shaping of the lot to conform to the approved Lot Grading Plan, within acceptable tolerances. The Rough Grade should be approved within 18 months of the issuance of a building permit for a lot.







Grade stakes indicate the off-set and the design elevations for topsoil

Grading in progress at rough grade stage

## Rough Grade Approval Procedure

- The builder has the lot surveyed by a Professional acceptable to the City Manager (eg. <u>Alberta Land Surveyor</u>, <u>Professional Engineer</u>, <u>Registered Architect</u> or <u>Professional Technologist</u>) who prepares a Lot Grading Certificate.
- 2. The Lot Grading Certificate is then submitted to Drainage Services for approval. The applicant must provide information for their preferred method of contact (fax, email or mail) to receive a Lot Grading Inspection Report.
- 3. A Lot Grading Inspector will conduct a site inspection to verify that the lot is graded in accordance



with the approved Lot Grading Plan and the Lot Grading Guidelines. The inspection is usually done within **5 working days** from receipt of the certificate, depending on workload and weather conditions.

- 4. The applicant will receive an Inspection Report indicating that the Rough Grade has been **Passed** (approved) or **Failed** (deficiencies exist).
- 5. The builder must correct any deficiencies within **60 days** and call **311** to notify Drainage Services for re-inspection. If resubmission of a Lot Grading Certificate is requested, re-inspection cannot occur until receipt of the new Lot Grading Certificate.
- 6. Deficiency items are labeled "left", "right", "front" and "back". Orientation of these labels is determined by facing the front entrance of the home from the street.
- 7. The applicant and property owner will both be notified when the Rough Grade is approved,

The builder or property owner can choose to skip the **Rough Grade Approval Procedure** and proceed directly to the **Final Grade Approval Procedure**.



Rough grades are done in the backyards of these two lots

#### **Final Grade Stage**

This stage must be completed within **one year** of the Rough Grade Approval. The rough grade has been left approximately 7 to 20 cm below final grade for topsoil placement. The topsoil should be smoothly spread out, compacted and ready for sod, liners, or rocks etc.

If rocks, wood chips or other porous decorative material is planned, the clay base (rough grade) must be raised to final grade before placing the decorative material. Rocks or wood chips do not make up for the 7 to 20 cm of final grade, since surface water can flow through those materials.

The owner of a lot located adjacent to a lake (Stormwater Management Facility), walkway or ravine must comply with the terms and conditions of any Easement, Right-of-Way, Caveat or Restrictive Covenant registered in favour of the City of Edmonton.

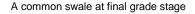


#### • Final Grade Approval Procedure

1. The owner has the lot surveyed by a Professional acceptable to the City Manager (eg. <u>Alberta Land Surveyor</u>, <u>Professional Engineer</u>, <u>Registered Architect</u> or <u>Professional Technologist</u>) who prepares a Lot Grading Certificate.

- 2. The Lot Grading Certificate is then submitted to Drainage Services for approval. The homeowner must provide information for their preferred method of contact (fax, email or mail) to receive a Lot Grading Inspection Report.
- 3. A Lot Grading Inspector will conduct a site inspection to verify that the lot is graded in accordance with the approved Lot Grading Plan and the Lot Grading Guidelines. This is usually done within **5** working days from receipt of the certificate, depending on workload and weather conditions.
- 4. The homeowner will receive an Inspection Report indicating that the Final Grade has been **Passed** (approved) or **Failed** (deficiencies exist).
- 5. The homeowner must correct any deficiencies within **60 days** and call **311** to notify Drainage Services for re-inspection. If resubmission of Lot Grading Certificate is requested, re-inspection cannot occur until receipt of the new Lot Grading Certificate.
- 6. Deficiency items are labeled "left", "right", "front" and "back". Orientation of these labels is determined by facing the front entrance of the home from the street.
- 7. The homeowner will receive an approval report and the Lot Grading Certificate when Final Grade is approved.







Sod and topsoil at final grade stage



Final grade stage adjacent to an undeveloped lot

#### **Lot Grading Inspection Fees**

A lot grading inspection fee of \$135 per dwelling unit, paid at the time the building permit is issued, covers the cost of all rough and final grade inspections for single detached and semi-detached (duplex) housing. Inspection fees are outlined in Schedule D of the <a href="Drainage Bylaw No. 16200">Drainage Bylaw No. 16200</a>.

#### LOT GRADING REQUIREMENTS FOR ROUGH AND FINAL GRADE APPROVAL

#### **Drainage Rights of Way, Easements or Restrictive Covenants**

Grading for any property that has a Restrictive Covenant, Easement Agreement or Utility Right of Way in which the City has an interest must be in compliance with the terms and conditions of the registered documents. (eg. drainage swales, irrigation systems, decorative ponds, swimming pools, lake lots, etc.)

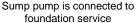


#### **Site Servicing**

Each property must dispose of water from the roof and the foundation drainage systems in the manner specified by the <u>site servicing requirements</u>:

- Foundation Service: the weeping tile must be connected to the foundation sewer service.
- Storm Service: downspouts and the weeping tile must be connected to the storm sewer service.











Downspout and sump pump are connected to storm service

Typical connections for downspouts to storm service

For more information about Site Servicing Requirements, contact Drainage Services, <u>Water and Sewer Servicing</u> at **780-496-5444** or email <u>wass.drainage@edmonton.ca</u>.

#### **Design Grades**

Approved Lot Grading Plans have proposed design grades at specific, discrete locations for each lot and the Lot Grading Certificate has as-built elevations taken at the same, specific locations as well as additional locations. (See certificate requirements on pages 16 & 17).

Note: Grading for common property lines must be consistent from grade point to grade point without obstructions or low areas.

Acceptable as-built tolerances (from design grades):

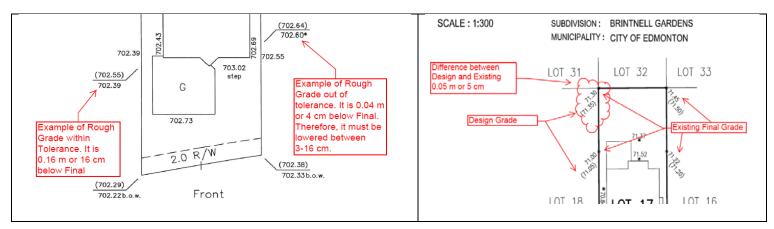
#### Rough Grade:

Between 7 cm and 20 cm below final grade for clay Example: Design Grade 682.25 m; Existing Grade 682.10 m = 15 cm below design grade.

#### Final Grade:

- Between 0 cm to 10 cm below final grade for topsoil Note: ("0 cm" is approved design) Example: Design Grade 682.25 m; Existing Grade 682.20 m = 5 cm below design grade.
- Between 10 cm to + 10 cm below or above final grade for finished landscaping (sod, concrete)

Example: Design Grade 682.25 m; Existing Grade 682.30 m = 5 cm above design grade.



Lot grading certificate at rough grade stage

Lot grading certificate at final grade stage

**Note:** At Final Grade, the surface elevation **below** the decorative rock, washed rock or wood chips, must be within the acceptable tolerance.

- The Lot Grading Inspector has the discretion to accept elevations that are not within tolerance when:
  - a lot is graded to match the existing walkway, lake, park, curb, sidewalk, road or lane maintaining a positive surface drainage.
  - a lot is graded to match an adjacent property and has positive on-site surface drainage that also works with the adjacent property.

#### **Minimum Grade from Foundation Walls**

A sloped surface is required to effectively drain water away from the foundation walls, including areas under steps and decks.

Refer to the Lot Grading Detail Drawings for more information.

- Minimum grade requirements:
  - □ 10% for 2 meters Minimum 20 cm drop for soft surface / landscaping (eg. clay, topsoil or sod)
  - Minimum 15 cm drop for a side yard less than 1.5 meters for soft surface / landscaping (eg. clay, topsoil or sod)

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□ 0.75% for hard surface or other impervious surface treatment (eg. concrete or asphalt).



Rough grading slopes towards the common drainage swale



Positive grade away from foundation at window well





Slope away from the foundation wall below a future deck



Rough grade adjacent to a vacant lot



Rough grade drains water away from the wall



A decorative hard surface at 0.75% minimum slope



Good final grade drains water in the common swale



Pre-grading backfill for a future front deck

Exterior deck skirting removed to backfill under a front deck

Backfill under a front step



## **Drainage Swales**

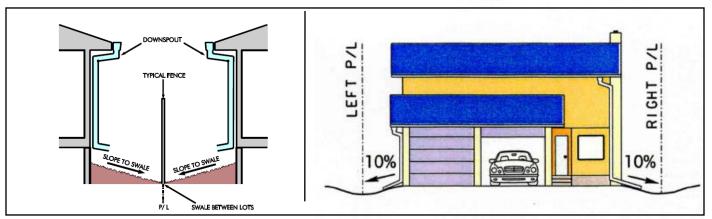
Swale: a shallow, and often wet, tract of land that is sloped to convey surface drainage towards a City right-of-way

Shared drainage swales are located on common property lines. The grading of the drainage swale down a common property line must allow for 10% slope from the foundation walls of adjacent houses and must provide drainage functionality for both properties.

Internal 'side-lot' swales are built in locations where a common property swale cannot be constructed due to poor foundation grading on an adjacent property (In-Fill Development). See Page 25.

Internal 'rear-lot' swales are located in the backyard of lots that drain from rear to front. A rear internal swale is formed where the forward slope of the lot meets the rearward slope of the foundation grading and directs surface drainage to the side-lot swales where the water will drain towards a City right-of-way.

Swales must provide a minimum of 15 cm of unobstructed width and a minimum depth of 10 cm for surface drainage within each property.



These examples of typical common drainage swales between lots illustrate how downspouts and swales direct water away from the walls



A common swale between rough and final grade stages



A rough grade swale adjacent to an undeveloped lot.





Swale conveys water during heavy rain



A light rain proves that the swale drains properly



Rain left a dominant track in the swale between these lots



Typical rear-to-front surface drainage design



Typical split surface drainage design

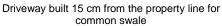




Internal swale at final grade stage (with string lines as a guide) directs surface water towards the side common property swale.

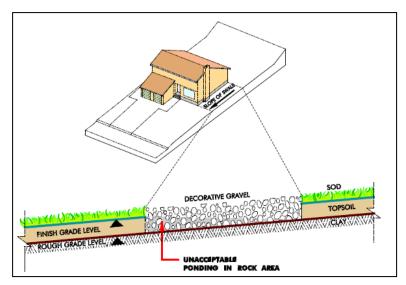




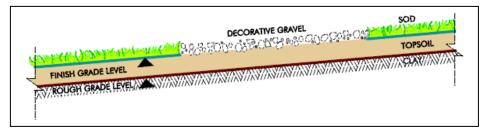




A sidewalk must allow 15 cm from the property line for a drainage swale



Placing decorative rock on the clay (rough grade) creates a place for ponding



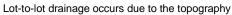
As this base has been raised to match the final grade design before placing decorative rock, ponding can be minimized or eliminated





This rough grade base has been raised to match the final grade before placing decorative rock. Ponding will be minimized or eliminated







Registered easements or right-of-ways allow for concrete or grass drainage swales on private property



Concrete swale in drainage easement or right-of-way



Concrete swale in drainage easement or right-of-way

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Concrete swale with a catch basin and temporary sediment control

# Minimum slope requirements for drainage swales:

- □ 1.5% for a grass drainage swale
- □ 0.75% for a concrete drainage swale







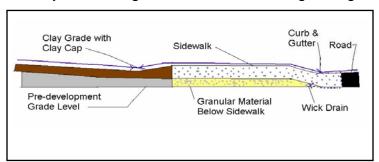


A string-line is used as a guide for the grass swale which has a minimum of 1.5% slope

A concrete swale between lots with minimum of 0.75% slope

#### **Backfill at Back of Concrete Walks or Paved Lanes**

To reduce water infiltration into the granular base of concrete walks and paved lanes, non-granular backfill must be placed to the top (the surface) of the concrete or asphalt. This will enhance the long term performance of the walk or lane by minimizing water infiltration through the granular base.



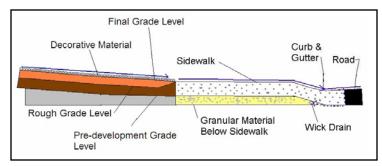
Typical Clay Cap with sidewalk at rough grade





Clay cap is graded at Rough Grade Stage to meet the requirement for interim pooling behind the public sidewalk / curb





Typical Clay Cap with sidewalk at final grade



Compacted road-crush gravel, set to final grade, directs water over the sidewalk to the street

#### **Downspouts**

The downspout must have an elbow with an extension or a concrete splash pad to convey surface drainage past the foundation excavation zone. The downspout elbow should be directed away from the foundation walls and towards the drainage swales.









Downspout with extension under concrete

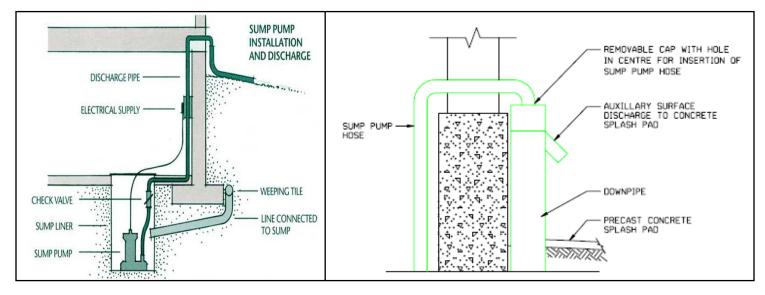
#### **Sump Pump Discharge**

The sump pump is part of the building's foundation drainage system and has been a requirement since 1988.

Since 2006, all new developments involving single detached, semi-detached or duplex houses must provide "<u>Foundation Drain Discharge Collection Systems</u>". These properties must connect the foundation drainage system to the foundation service.

The sump pump discharges subsurface water, collected from the weeping tile, to the surface or directly to a Storm or Foundation Sewer service. If the sump pump discharges to the surface, it is important to provide a splash pad at the discharge point. The splash pad minimizes soil erosion and re-circulation of subsurface water down the foundation wall and back into the weeping tile system. The splash pad should be directed to drain towards a drainage swale. If a sump pump discharge hose is used, it should be disconnected in winter to prevent freezing in the hose.





1988 - 2005 typical sump pump discharge





Sump pump discharge pipe is connected to the foundation service



Typical residential sump-well with installed sump pump

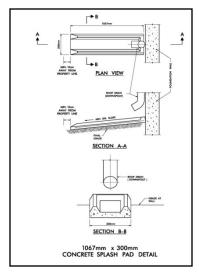
## **Splash Pads**

Splash pads convey roof water and subsurface water past the foundation excavation zone and away from the foundation walls. They minimize soil erosion and water recycling through the foundation drainage system. The recommended standard concrete splash pad is 30 cm x 107 cm.

If direct connection to a Storm or a Foundation Service is not available, splash pads could be placed:

- □ Beneath all downspouts draining onto soft landscaping (sod, topsoil or mulch).
- □ Beneath the sump pump discharge outlet where it is draining onto soft landscaping (sod, topsoil or mulch).









Splash pad detail drawing shows installation

The splash pad conveys water from the sump pump discharge pipe past the foundation excavation zone

#### **Downspout and Foundation Drainage Surface Discharge**

- Discharge points must be located within the property a minimum distance of:
  - □ 15 cm from an adjacent private property
  - □ 30 cm from an adjacent City property





Downspout extensions discharge water to the swale at the common property line

## **Grading for Detached Garages / Buildings**

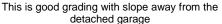
The parking / garage pad for a detached garage or other building must be elevated to provide positive slope away from the building. Surface drainage must be directed towards the internal and side-lot swales and/or the City Right-of-Way.

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An internal drainage swale is required between the house and the detached garage. A Lot Grading Certificate must include the elevation of all concrete pads.









An internal swale is built between the detached garage and the house



A retaining wall / grade beam is built for future garage construction







Garage pads (at rough and final grade stages) have been built with retaining walls for future garages

#### **Lot Grading Certificates**

A Lot Grading Certificate is required for Grade approvals for all developments and **MUST** display the following information:

- Title Rough Lot Grading Certificate or Final Lot Grading Certificate
- 'Revised' added to certificate titles for revised certificate submissions
- Survey or re-survey date
- Lot type, obtained from the approved Lot Grading Plan e.g. Type A, Type B, Type D, Type D/T, Type W, Type W/T etc.
- Certification by a Professional acceptable to the City Manager (eg. <u>Alberta Land Surveyor</u>, <u>Professional Engineer</u>, <u>Registered Architect</u> or <u>Professional Technologist</u>)
- Name of the company or individual that produced the Certificate
- Proof of Professional Liability Insurance (for errors and omissions) for the corporation or individual named on the Certificate
- Legal Description and Municipal Address of the property
- Surface Condition of the Lot such as clay, topsoil, sod or landscaped
- A note indicating that the Lot Grading is subject to the approval of the Local Authority
- Design and as-built property line, and side-lot internal swale invert elevations referenced to metric geodetic datum, with an asterisk (\*) designating existing elevations that exceed the grade tolerance
- Reference to the Alberta Survey Control Monument that was used to obtain as-built elevations

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 As-built elevations of structures such as retaining walls, sidewalks, driveways, fences and garage/parking pads



 As-built property line and any side-lot internal swale invert elevations opposite the corners of the building, for locations that are more than 3 metres from a design point

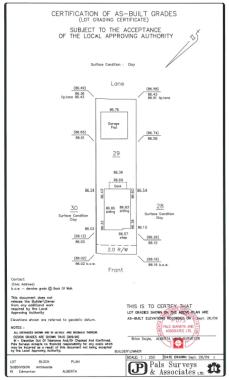
- Any break point elevation
- Corner and rear foundation grade as-built elevations, including an additional elevation 2 metres from the back of the house
- Drainage Easements and Right-of-Ways with as-built invert and lip elevations, as required, for any concrete or grass drainage swale
- Detail Survey of lake lot with all structure or feature locations and as-built elevations within the Maintenance and Overflow Area
- Lot Orientation is Portrait, with the rear of the lot at the top of the page and the "FRONT" of the lot labelled
- Presentation on 8 ½" x 14" (legal size) format
- Scale of drawing
- House and Garage/parking pad layout
- North Arrow
- Legend
- Name and information for the applicant's preferred method to receive inspection reports or grading approval (mail, fax or email)
- Sworn oath validating the accuracy of the as-built elevations obtained by closed level circuit related to known elevations of benchmarks referenced to geodetic datum.

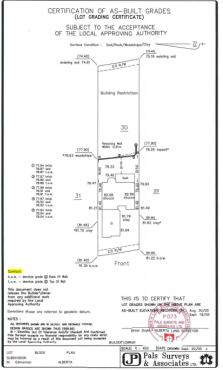
The Lot Grading Inspector could ask for a new or revised Lot Grading Certificate when any of the following occurs:

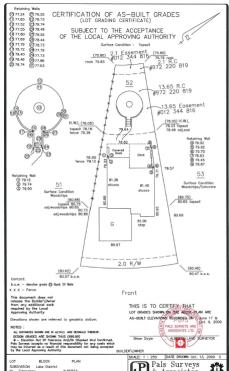
- ➤ Errors (incomplete or unclear information on the Lot Grading Certificate)
- Verification of as-built elevations if the as-built elevations on the Lot Grading Certificate are not within tolerances
- Verification of as-built elevations, if requested by the inspector, due to substantial re-grading
- > Discrepancies or errors in design and/or as-built elevations that require confirmation
- Red-line revisions to the Lot Grading Plan that are not reflected on the Lot Grading Certificate
- Application for partial approval on final grade (eg. an approval for front landscaping when the backyard is still in rough grade)



17 March 2015







Typical lot grading certificate at rough grade stage

Typical and lake-lot grading certificates at final grade stage

## **Compliance with Encumbrances and Lake Lots**

Owners must comply with the terms and conditions of any restrictive covenant, easement agreement, utility right-of-way or any other document registered on their certificate of title which are intended to protect drainage structures, ditches, swales, overflow areas, slopes, or other drainage features.

Properties located adjacent to Stormwater Management Lakes require the Lot Grading Certificate to display the location and elevation of all features constructed within the maintenance and overflow area. (see examples above) Features to note include, but are not limited to: decks, fire-pits, ponds, paths, bridges, retaining walls, buildings, raised gardens or unusual grade alterations. Inclusion of these details will enable Drainage Services to evaluate the impact these features have on drainage and water storage requirements. This information must be included on the Lot Grading Certificate when requesting an inspection or re-inspection.

NOTE: No person shall install or permit to be installed any irrigation system on any slope unless the installation has been approved by the City Manager.





A stormwater management lake at normal water level. Sign shows the location of the designed high water level



After a rainstorm, the level of the stormwater management lake rises inside the right-of-way that is registered on these private properties





Development is regulated with a restrictive covenant to protect the stability of the top of bank





Walkways are flooded after rain events, as designed, to manage stormwater

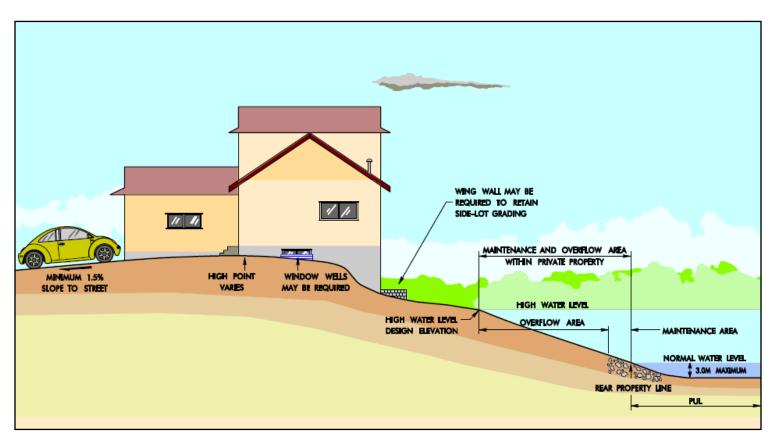




Stormwater management lakes are developed to manage surface water in new areas



Dry-pond recreation areas accumulate stormwater during rain events to control water volumes flowing into the storm sewer system



Stormwater management facility (lake) typical cross section





These retaining walls are built within the easement



High water levels are indicated with signs and marked on the ground



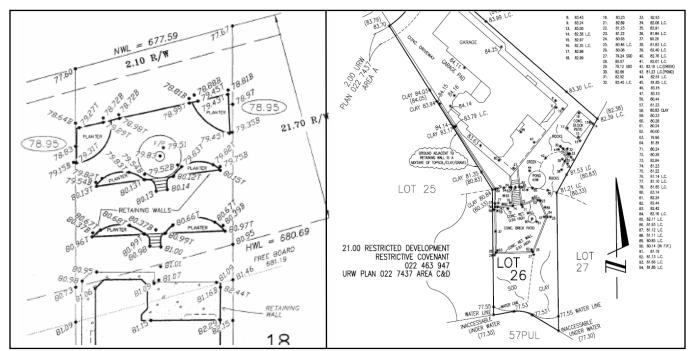
Retaining walls are built inside and outside the Easement



A wall exceeds 1 m in height tolerance is a violation

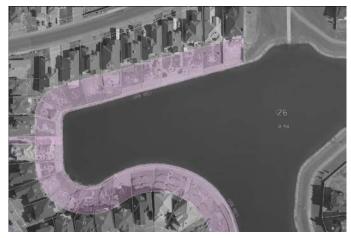


After a rain event, this stormwater management lake left the highest water level mark on the fence



Lot grading certificates for lake lots include all features developed within the restrictive covenant area

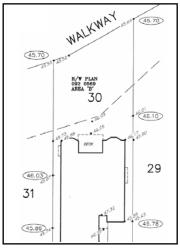




The pink area outlined in this aerial photo is the restrictive covenant area for these lake lots



Development is regulated in restrictive covenant areas for lake lots



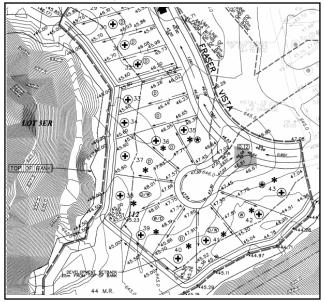
Restrictive Covenant area is shown on the lot grading certificate for a top of bank Lot

#### RESTRICTIVE COVENANTS:



- LOTS 1 THRU 8, BLOCK 10 18m TOP OF BANK SETBACKS. NO BUILDING ENVELOP ALLOWED WITHIN AREA.
- LOTS 1 THRU 8, BLOCK 10 30m TOP OF BANK SETBACK. NO SWIMMING POOLS AND UNDERGROUND SPRINKLER SYSTEMS ALLOWED.
- 3. LOTS 1 THRU 8, BLOCK 10 AND LOTS 1 THRU 5 BLOCK 11 90m TOP OF BANK SETBACK. ALL POOLS AND/OR ORNAMENTAL PONDS OF ANY KIND ARE TO BE DESIGNED AND CONSTRUCTED TO ENSURE NO WATER LEAKAGE INTO UNDERLYING SUBSURFACE SOILS. NO UNDERGROUND SPRINKLER SYSTEMS ALLOWED.
- 4. LOTS 1 THRU 5, BLOCK 11 LOWEST OPENING ELEVATION AT THE HOUSE IS 677.62 AND LOWEST BOTTOM OF FOOTING ELEVATION IS 676.82.

Lot Grading Plan has a detailed note for the restrictive covenant



Top of bank restriction areas may be shown on the lot grading plan



Irrigation systems are not permitted for top of bank locations



22 March 2015

## **Grade Differential and Retaining Walls**

Lot Grading with substantial grade differences, from the side of the house to the rear of the house, usually occurs on properties designed for walk-out basements. These homes may require retaining walls at the owner's expense at the rear corners of the house or on the side lot. These retaining features are usually indicated on the plot plan and on the Lot Grading Plan.

Common property fences may not be used to retain raised beds or other landscape features. Fences are not retaining walls.



These lots have a large grade differential at the common drainage swale



A retaining wall attached to the walk-out basement



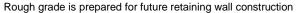
A retaining wall has been built to control surface drainage at this 'walk-out' development



A retaining wall on one side supports the common property swale between these two 'walk-out' developments

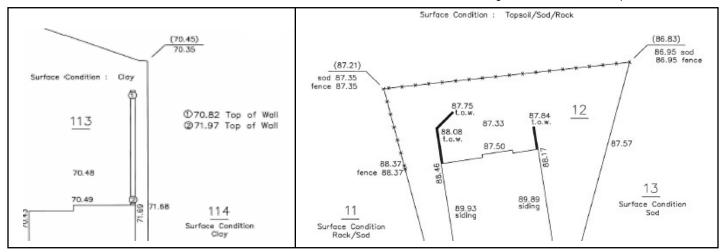








A retaining wall location is marked on the ground and will be built to control the surface drainage in this 'walk-out' development



Retaining wall locations and elevations must be indicated on lot grading certificates at both rough and final grade stage



Retaining wall at driveway to control cross-lot drainage



Retaining wall at driveway reduces steepness to the common swale



24 March 2015

#### **In-Fill Housing Developments**

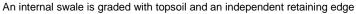
In-fill housing is the re-development of an existing residential property. When redevelopment occurs the owner must submit a lot grading design to the Lot Grading section of Drainage Services. This plan must be approved by Drainage Services prior to the construction of any buildings, additions to buildings, or alterations of surface drainage on the premises.

Grading for In-Fill Housing must convey surface drainage to a City right-of-way via drainage swales that are constructed entirely within the property. Retaining walls must be constructed to support any elevation difference between a re-developed property and adjacent private properties. Retaining walls may not touch or be supported by existing common property fences and must project below existing ground level of an adjacent property. Permeable walls require a water-proof liner to prevent seepage.

- Create a plan that defines how your lot will convey surface drainage to a City right of way without draining onto adjacent private properties. Internal side-lot swales are usually needed to achieve this requirement.
- Confirm the site servicing requirements for roof drainage and subsurface water drainage. Contact
  Drainage Services, Water and Sewer Servicing at 780-496-5444 or email
  <a href="mailto:wass.drainage@edmonton.ca">wass.drainage@edmonton.ca</a> for location and elevation information for an existing storm or
  foundation service.
- In the absence of a Storm service, ensure that downspouts are properly located to direct surface drainage towards a public right-of-way.
- Provide a positive slope of 10% away from the foundation walls.
- Internal drainage swales must provide a minimum slope of 1.5%, a minimum depth of 10 cm and a minimum width of 15 cm.
- Ensure that steps and decks are backfilled to the foundation walls.
- Ensure window wells are in place and set to final grade.









An internal swale with sod











A common swale created when neighbouring owners work together

Grading approvals are arranged by submitting a Lot Grading Certificate to the Lot Grading Section of Drainage Services at lot.grading@edmonton.ca

#### **Lot Grading Maintenance**

Final Grade Approval is based on the site conditions observed during the lot grading inspection After Final Grade Approval has been issued, the property owner is responsible to maintain the surface grading in perpetuity. The City of Edmonton may, at any time, require the property owner to repair the surface grading if alterations or settlements result in surface drainage problems.



Settlement on drainage swales should be repaired



Re-circulation of ground water due to settlement and sump pump hose location







Settlement creates negative grade towards the foundation and can lead to drainage problems





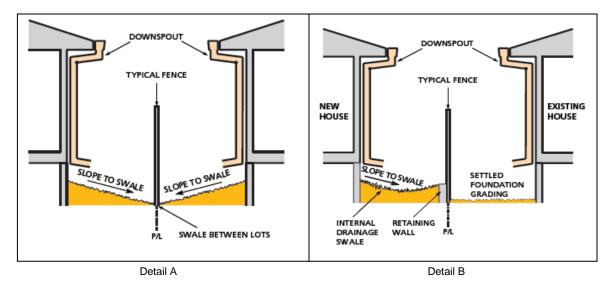
Grading repairs for settlement at foundation walls and property line swale will be needed however, consultation with adjacent owners is advised to avoid problems

## Relandscaping / Regrading in Mature neighbourhoods.

Consulting with adjacent property owners is very important in consideration of grade changes or downspout location changes that affect how stormwater is managed between neighbouring lots. Common property lines may be considered the ideal location to convey surface drainage off a lot (Detail A). However, in some situations the existing grading will not convey surface drainage towards a City right-of-way. An internal drainage swale may be the solution to that situation (Detail B).

Note: Because common property fences may not be used as retaining walls, any retaining features must be supported independently from a common property fence.





Property owners must be aware that any grade change or discharge location change that directs surface drainage towards an adjacent private property is a bylaw violation. Grading must conform to the requirements for protecting buildings and draining lots provided in the Drainage Bylaw Part V Section 44.

#### **Enforcement**

Reports or Notices will be utilized to convey notification of impending enforcement to the property owner. Subsequent fines may then be imposed for those properties that do not comply with the Lot Grading Guidelines or the <u>Drainage Bylaw No. 16200</u>.

In consideration of enforcing the bylaw, the City takes into account practical concerns, existing conditions, and complaints or inquires. The City does not provide any funding for repairing surface grading.

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#### FOR MORE INFORMATION

#### **Lot Grading Details and Drawings**

 Single Family and Duplex Residential Lot Types A, B, C, D, & W

#### **Pamphlet Series**

- "Lot Grading Inspections" Residential Properties
- "Lot Grading Inspections"Final Grade Stage
- "Lot Grading Maintenance" After Final Grade Stage



#### **CONTACT INFORMATION**

#### **Telephone Numbers**

Financial Services and Utilities Department, Drainage Services

**780-496-5576** – Lot Grading (8:00am - 4:30pm Monday to Friday)

780-496-5454 - Drainage Services Reception

**780-496-2865** – Lot Grading Fax

780-496-5444 - Water and Sewer Servicing Information

– Drainage and Sewer Trouble, Re-Inspection Request, General Inquires (24 Hours)

#### **Mailing Address**

City of Edmonton, Financial Services and Utilities Drainage Services, Lot Grading 5th Floor, Century Place 9803 – 102A Avenue NW Edmonton, Alberta, Canada T5J 3A3

#### **Internet Addresses**

- http://edmonton.ca/business\_economy/lot-grading-commercial.aspx
- www.edmonton.ca/lotgrading

#### **Email Addresses**

- □ Lot.Grading@edmonton.ca
- □ Wass.Drainage@edmonton.ca







29 March 2015