

MUNICIPALITY OF MONROEVILLE
COMPREHENSIVE LAND IMPROVEMENT CODE (CLIC)
COUNCIL WORK SESSION
NOVEMBER 3, 2011

PROPOSED ORDINANCES

- Subdivision & Land Development (SALDO) – Public Hearing Item
- Stormwater Management
- Street Construction Specifications, Traffic Standards and Review Process for the Acceptance of Streets.
- Land Disturbance Regulations
- Timber Harvesting Regulations
- Standards for Construction

COUNCIL QUESTION & ANSWERS

- See Attachment

CHANGES & ADDITIONS

- See Attachment

COMPREHENSIVE LAND IMPROVEMENT CODE (CLIC)
Council Questions

Subdivision & Land Development Ordinance

1. Q - Mr. Erb - Pg 40 004-17.b.3.c - Land below the 100 year flood elevation may be accepted if it is suitable for recreation uses. Passive use?

A – Recreation uses, specifically passive recreation which refers to the use of land in a largely undeveloped state as a place for appreciation of nature and preservation of wilderness and wildlife, are ideal ways to use floodplains to benefit the public while protecting their functionality. Valley Park & the Penn Hall Fields are within the 100-year floodplain and are used extensively by the public as a skate park/soccer field/bmx track and soccer field respectively. Accordingly acceptance of similar lands is viewed positively. The Municipality is not required to accept these lands and at least 50% must be above flood elevation.

2. Q - Mr. Erb - Pg 41 004-17.c.4.a – c - Can you talk this through from a BMP and flow perspective, specifically related to the impervious ground points in b, and the suggestion of the use of above-grade planters in lieu of tree grates? How much water does a full grown tree absorb? This can be accomplished with a giant bowl (i.e. planters). Also how do fountains etc in C help in managing water flows?

A – These requirements apply to the creation of open spaces for non-residential development and thus are not related directly to stormwater management, hence water management is not a primary concern for these regulations. The intent is to provide respite from a “concrete jungle” by requiring developers to include outdoor seating, vegetation, fountains, art, etc. These areas do allow water infiltration, filtering, transpiration by the plants, reduce the imperviousness of a site, and may provide opportunities for stormwater BMP’s but these are only secondary benefits, not the intended benefit.

3. Q - Mr. Erb - Pg 43 004-18.c - From a practical standpoint what does this mean? If someone wants to build a development that we clearly are unable to provide Policing/ PW and other services are we truly able to say no? What does the MPC say regarding this topic?

A – The intent of this requirement is simply to attempt to foster communication regarding the availability of public services. This item originated in the Allegheny County SALDO and would be much more applicable to a more rural area where

explosive growth occurs and limited community services exist. In Monroeville's nearly built-out situation we are unlikely to see a development of such scale that sufficient services do not exist. We do not believe that we can actually deny development based on this criterion, however there are regulatory requirements outside of the SALDO that preclude development where inadequate access to utilities exist, such as sewage facilities. The MPC does not address denial of development based on lack of services.

4. Q - Mr. Erb – Pg 43 004-19.b.4&5 - There are two recent developments, one that has potentially exacerbated existing drainage issues. There was to be remediation by the developer. It is unclear that this occurred – onsite improvements occurred but fuller area remediation did not even though the potential for problems was identified prior to development construction. The second site did not connect to existing streets thus creating a series of cul-de-sacs that has only one ingress and egress point, compounded by an already crowded area that it connects to with similar problems. “Reserve Strips”, presumably this means that no new site can corner a piece of land to require that future development must connect to any development.

A – This section is related to transportation alone and does not encompass drainage issues which are addressed under the Stormwater Management Ordinance.

With respect to connections to existing streets item 004-19.C.5 does require new streets to connect to existing streets where possible but given the topography of the Municipality, the shape of parcels developed, and other issues, creating multiple access points to a development may not be possible. Because local roads are to be designed to discourage through traffic the single access point can be viewed as a positive. Item 004-19.C.2 does require that connections to existing streets not adversely affect traffic.

With respect to cul-de-sacs given the topography of the Municipality, the shape of parcels developed, the desire of many home buyers to live on cul-de-sacs, and other factors the authors did not view cul-de-sacs negatively. Furthermore because local roads are to be designed to discourage through traffic the cul-de-sacs are in a sense positives.

“Reserve strips” are informal declarations that land will be set-aside for future roads which do not formally protect that land for such use and are therefore not permitted.

5. Q - Mr. Erb - Pg 44 004-19.c.4 – This seems contrary to current emphasis on SMART development planning that includes higher density mixed use, more open space and fewer cul-de-sacs. Help me understand the logic here.

A – Local streets are primarily meant to provide access to residential lots where homeowners generally value peace, quiet, and safety and thus lower traffic at slower speeds is preferred. Mixed use development is being accommodated in the new Zoning Ordinance however the roads serving these developments by their very nature will be higher volume and more interconnected and will serve as Collector streets which are meant to facilitate through traffic at higher speeds. Refer to section 002-1 of the Street & Traffic Standards Ordinance regarding roadway classifications.

6. Q - Mr. Erb – Pg 44 004-20.b.1 & DT-72 & 004-20.b.3 - Where are the monuments being placed? Am I understanding this correctly in a sidewalk area where feasible, otherwise in the road? Are there new electronic mechanisms for surveying based on underground monuments? How does 3 fit with the rest of this placement?

A – These regulations came from the Allegheny County SALDO. In Monroeville monuments are generally placed along property lines outside of the pavement and sidewalk and provide lasting reference points for surveying. With the advent of modern surveying technology monuments are not as critical as they once were and thus far fewer are needed. Markers are temporary in comparison to monuments and generally consist of rebar hammered into the ground, often referred to as survey pins. Pins mark the property corners generally and can also be used as reference points for surveying.

Stormwater Management Ordinance

1. Q - Mr. Erb - Not sure where it is, but there is discussion of storm water facility egress requiring garbage catches. If this were in place today, how would it work in an area like the Levin hill site which would put these catches and entrance to them under significant water levels? The Levin site uses ingress to capture the garbage.

A – Section 004-3 starting on page 23 mentions trash racks in a few places. In the past trash racks, essentially screens, were meant to keep debris from entering the stormwater conveyance system. More often the trash racks cause debris blockages in detention ponds and tanks instead of preventing them and thus this Ordinance limits their use except where required to preclude children or animals from entering the storm sewer. The Levin site has trash racks on the detention pond outlets to screen out debris, in the past these trash racks have clogged and required maintenance.

2. Q - Mr. Erb - Page 33 004-3.e.4.e.4 - Explain how the Basins and ponds are distinct from emergency spillways. Also can permeable materials be used to comply with the requirements of this item?

A – Basins/ ponds are basically containers which hold excess stormwater runoff and release it over an extended duration, analogous to a bathtub. Emergency spillways are essentially overflows on the basins/ponds, like the overflow on your bathtub. Emergency spillways can be a channel near the top of the basin/pond embankments or an extra concrete structure in the basins/ponds. The emergency spillway is meant to direct overflows to a chosen location in a manner that does not damage the basin/pond should a tremendous rain event or blockage occur. Item e.4 on page 33 refers to pond embankments. While the embankment is typically clay soil which is somewhat permeable and supports vegetation the embankment is meant to hold water and truly permeable materials are not suitable.

3. Q - Mr. Erb - Page 37 005-1.c.a,b - Is there any conflict with the MPC regulations? MPC requires accepting roads. Are there any requirements for property stormwater improvements? For instance Haymaker Point has an extensive detention and drainage system. How would that site change if it were built under the new requirements?

A – The MPC has no requirement for accepting storm sewers. The Haymaker Pointe site likely would not change with respect to Municipal acceptance. As it stands once accepted Haymaker Pointe will consist of Municipally-owned stormwater infrastructure that supports the roadway system as well as private stormwater pipes and BMP's that support the private homes. With respect to the actual stormwater management design likely the site would require a greater volume of BMP and stormwater detention facilities.

4. Q - Mr. Erb - Page 23 004-3.a - How does this requirement impact or supersede any of the regulations that follow?

A – The resources mentioned are design guides which can be utilized in order to meet the objectives of this Ordinance. The Ordinance has priority over the resources however they do not really affect one another in terms of regulations.

5. Q - Mr. Erb - Page 31 004-3.e.3.b - Ought these underground detention facilities be encouraged? In other words do they have additional benefits beyond what we typically consider? For instance the ground everywhere is clay. Clay acts more like a bowl than a good absorption medium. The underground facilities can be designed to ease water into the rivers fed by the detention basin.

A – Underground facilities, (tanks) are more expensive to construct and more difficult to inspect and maintain and hence are not necessarily encouraged, but they have the benefit of not requiring land as ponds do. Because ponds and underground tanks both ultimately consist of holes dug in clay they both have similar limitations with respect to infiltration. Ponds are superior to tanks however in that they have a larger surface area for infiltration and evaporation, are open to the atmosphere, support vegetation which cleans and absorbs water, and provide wildlife habitat. Rain gardens also known as bioretention areas excel beyond both tanks and ponds with respect to infiltration and water cooling and cleansing due to their created soils and abundance of plants in a compact footprint.

6. Q - Mr. Erb - Page 37 005-1-4 - My concern with the questions above for this section is it replication of Ilini or more dramatically Glen Wood problems.

A – Both of the developments mentioned pre-date stormwater management regulations. Current regulations will require stormwater to be managed via sufficient drainage systems. This section states that the Municipality reserves the right to deny acceptance of stormwater facilities should there be questions regarding the adequacy of those facilities.

7. Q - Mr. Erb - Page e 39 005-2.a3.a - The reserve/bonding requirement is important. The questions above related to ability to drive development consistent with overall Municipal goals by building in mitigation into new developments are still critical. The reserve funds, as we know won't last in perpetuity.

A – This is more a policy issue for Council. This maintenance fund feature existed in the previous Stormwater Management Ordinance however it was never utilized. Management of the funds, should they be collected, is also outside of the scope of this document.

Timber Harvesting Ordinance

1. Q - Mr. Erb - What about Trees in Utility Easements? The net effect is similar in spirit if not in specifics.

A – Utility easements are not specifically addressed by this Ordinance however timber harvesting includes all tree removal not specifically exempted of which utility easement work is not. Thus, tree removal on a utility easement would be regulated. What is unclear is whether the Public Utility Commission would supersede local law when it comes to keeping easements for power and gas lines

clear of trees for safety purposes, it is likely that the PUC would dictate. This question of land use rights is a more appropriate question for the Solicitor.

2. Mrs. Drumheller - Article II, Permit Procedures, where criteria are listed for timber harvesting operation, Section C, 2. "The operation will take place on any land EXCEEDING a 4H:1V slope". I interpreted this as an operation that would require a permit. However, Article III, Minimum Standards where criteria is mentioned that would be a minimum standard for issuing a timber harvesting permit, Section A, 3. "The clear-cutting or seed tree cutting methods or any other method deemed by the Municipality to be similarly intensive may not be performed on areas with a slope EXCEEDING 4H:1V out of a concern for destabilizing the earth. I took this to mean one needs a permit for a slope exceeding 4 to 1, however, our minimum standards would not allow the permit. If I understood this correctly, those two sections were incompatible with each other.

A – Section 002-1.C.2 stipulates that timbering a slope greater than 4:1 requires a Major Timber Harvesting Permit which is a more intensive approval process. Section 003-1.A.3 specifies that if you timber a slope greater than 4:1, for which you must obtain a Major Timber Harvesting Permit, you can only employ a low-intensity timbering method such as selective cutting or shelterwood cutting. So the two sections are not incompatible. Section 003-1.A.3 will be reworded to make this clearer.

3. Q - Mrs. Drumheller – Under the same Article III, Minimum Standards, I believe Section A, 5. "Buffer zones shall be maintained on the property on which the timber harvesting operation is being conducted (a, along abutting properties and streets: 25 feet, b, around wetlands, vernal pools, etc 150 foot buffer shall exist), I would like to know if by using the phrase, "shall be maintained", that previous timber cutting before the update of this ordinance is eligible to be examined, because of that phrase.

A – This Ordinance would not address previous timbering on a site, it cannot be retroactive. There are state regulations in the revised Chapter 102 regulations that now contain provisions regarding buffers along water bodies. This proposed Ordinance was modified when those regulations came out to ensure congruity.

Land Disturbance Ordinance

1. Q - Mr. Erb - Page 2 002-1.c - Please describe 10k Cubic yards in terms of something people can understand. E.g. Enough dirt to fill Heinz field.

A – 10,000 cubic yards would be roughly equivalent to filling 2 floors of the Municipal building with earth.

2. Q - Mr. Erb - Page 3 002-4.a.1,4 How much potential for this exists in Monroeville? We've had major landslides throughout SW PA. Even in Monroeville Kohl's wall had problems, new developments in Monroeville have had landslide problems during construction. The whole Thompson Hill issue is a problem of landslide. How much impact can engineering Geotech really have on stopping landslides in particular?

A – Landslide-prone, subsidence-prone, and steep slopes account for roughly 85% of the area of Monroeville. Geotechnical engineering cannot prevent landslides but can limit the extent to which earth movements are initiated by development. The Municipality wants to require geotechnical engineering in sensitive areas in order to minimize earth movements and thus to protect the public, the environment, the adjacent properties and to limit Municipal liability. If no geotechnical engineering were required the level of safety would be lessened.

3. Q - Mr. Erb - Page 8 002-13.a Great in principle. Who watches this on our side, or is it purely voluntary compliance?

A – The majority of these requirements are basically erosion and sedimentation control measures that are regulated at the Federal, State, and local level. The Allegheny County Conservation District has the primary responsibility for enforcing the Federal and State regulations. The Municipality augments that enforcement as best as possible with the available staffing.

4. Q - Mr. Erb - Page 11 003-1.a.1 - Do we have sites that use this standard at all currently? Do any sites in SW PA have this 45° cut in place? Is there really an area that has sufficient structure to make these cuts without major Goetech reconstruction?

A – The maximum fill slope of 2:1 is a 26° slope which comprises both the cut and fill slopes at the Levin site for example. The maximum cut slope of 1.5:1 is a 34° slope and is not quite as common although portions of the rock cut slopes behind the Cochran Megacenter are 1.5:1. The 1:1 is a 45° slope and is less common because it generally must be cut into rock, a lot of times these cuts get replaced with vertical walls instead. The cut slopes are excavated into stable earth and they generally are only made if a geotechnical engineer certifies that the resulting slope is stable, there is not really any reconstruction required for a cut slope.

5. Q - Mr. Erb - Page 12 003.17 - Is this contradictory to the 1: 1 cut ratio? This is 3:1 isn't it? Please answer this in the context of 003-1.a.1. How is cut versus fill different in terms of earth structure? Given the landslide prone area we live in, how does 1:1 cut equate to 3:1 grade?

A – These are two different requirements. Section 003-1.A.1 stipulates maximum slopes left after alteration of the land. Section 003-1.A.17 is basically a restatement of portions of section 002-4.A requiring a geotechnical engineer to get involved in designing earthmoving in sensitive areas. Items 003-1.A.13 and 003-1.A.17 are duplicative to 002-4 and will be deleted. The 30% mentioned in 003-1.A.17 is a 3.33:1 slope, however it is now a moot point as that line has been deleted. What we are saying is that even if you create a fill slope that is flatter than the maximum if you are moving earth in a landslide-prone area we want you to have a geotechnical engineer design the operation. Cut is generally accepted as more stable than fill because it is usually virgin ground which is naturally “cemented” together whereas fill is disturbed soil that is not “cemented” together. If the final question is asking whether a 3:1 fill is more stable than a 1:1 cut it is impossible to say, it would depend on the materials and methods of construction.

Street And Traffic Standards Ordinance

1. Q - Mr. Erb - Page 3 002-2.b.4 - How long can the temporary turn around last? Does the described radius meet standards for emergency vehicles? We currently don't allow for hammerheads, it is unclear based on description whether or not this doesn't simply produce “temporary” hammerheads. 002-2.b.5 would imply that this concern is addressed, but I want to make sure.

A – This would depend on the specifics of the development however replacement with a permanent roadway would relate to the MPC regulations for the completion deadline for development, Municipal bonding, and Municipal acceptance. Requirements for this type of roadway would be agreed upon before development. The fact that a 25 foot radius is required would preclude hammerheads as in essence a 50 foot diameter cul-de-sac is required.

**COMPREHENSIVE LAND IMPROVEMENT CODE (CLIC)
CHANGES AND ADDITIONS**

Stormwater Management

New Section 004-3 I – Rock Sumps

The use of rock sumps or other similar measures for runoff infiltration will not be permitted in the Municipality due to the potential for clogging and the need for significant maintenance.

Old Section 004-3 I – Storm Sewer Criteria becomes New Section 004-3 J

Street & Traffic Standards

Section 002-2.B.1 add an “a” between “serving” and “residential”.

Section 002-9.D.4 change “Heavy Duty” to “Heavy Duty Local”

Section 002-10 add item D “Concrete curbing may be permitted with the Municipality’s consent where its use is deemed advantageous to wedge curb due to special circumstances.”

Land Disturbance

Delete 003-1.13 “Any work proposed in an area of landslide-prone soils...”

Delete 003-1.17 “No grading shall occur in landslide-prone areas...”

Section 002-6.A.8.c replace “in diameter (measured two feet above the ground)” with “DBH”

Timber Harvesting

Section 003-1.3

Replace with “The clear-cutting or seed-tree cutting methods or any other method deemed by the Municipality to be similarly intensive may not be performed on areas with a slope exceeding 4H:1V out of a concern for destabilizing the earth. These methods may also not be performed unless the Forest Management Plan indicates that method is required to manage the specific species composition of the site. Timber harvesting on slopes exceeding 4H:1V or utilizing the clear-cutting or seed-tree cutting methods or any other method deemed by the Municipality to be similarly intensive requires a Major Timber Harvesting Permit in accordance with Section 002-1.C.