

A normal subdivision has 4½ to five dwelling units per acre, says John Turner of BWF Developments. East Clayton is putting 14 to 15 units on each acre, including multi-family developments.

Counting only single family homes, “we’re probably 50- to 60-per-cent higher density” than the norm, Turner says, with between seven and eight lots per acre.

Large lots in East Clayton are 4,500 square feet,

GOING FOR DENSITY

compared with a typical Surrey lot of 6,000 square feet. Small lots in East Clayton are 3,700 square feet.

The houses themselves are about the same size as those in conventional subdivisions — 1,850 to 2,400 square of developed space, plus basement.

Phase one of East Clayton includes 143 single-family

homes, 23 detached strata units and 72 townhouses.

“The process of development in Surrey is reserved, I believe, for the development community,” McLennan goes on. “It’s not designed for use by the public.

“They have all these different ways of making the process very amicable to the development community but very, very foreign to people like me.”

That sets his teeth on edge.

“It’s the little guys like me that make up that city, eh, and that pay the taxes. A lot of those developers, I’m pretty sure, don’t even live in Surrey.”

While McLennan is disgruntled with what’s taking place in East Clayton, he is content to stay put on his property — on a stretch of 68th Avenue that’s expected to be part of a future development phase — while sniping at city hall on a host of issues and fending off developer pressure to sell.

He’s campaigning for sidewalks to be built on 192nd Avenue, complaining about sidewalks in Phase One of East Clayton that have been cracked and crushed by heavy equipment, pointing out construction garbage left along roadsides, lobbying for sewer service to be extended to properties that are still on septic systems.

McLennan says he has repeatedly complained to council, on behalf of himself and neighbours, that developers are using high-pressure tactics to get holdout land owners to sell. The most common tactic is the suggestion that if they don’t sell now, they’ll be stuck with land-use designations that will make it impossible to sell in the future.

His complaints fall on deaf ears, but he says he’s not giving in to the developers. “I just tell them, ‘Don’t phone me, don’t threaten me any more, I don’t want to talk to you.’

“I’m not in a big hurry to go anywhere. I’d like to have some sidewalks in front of my house and I’d like to be off the septic system, and if that was to happen I could quite conceivably live here the rest of my life. I don’t really care.

“I’ll just sit where I am.”

Most East Clayton land owners were less combative than Alexander and McLennan. They didn’t concern themselves as much with the shape of developments to come. They sold their land, and they moved on.

Showing the trump card

Condon argues that with sustainable development, we can not only save the planet, we can save money while we’re at it.

The vision of East Clayton that emerged from the second charrette had narrower-than-normal streets to minimize the use of land. The majority of streets would have back lanes and driveways and garages in the rear.

Driveways would be porous so they could absorb water. Lots would be smaller, and each one would have gravel or crushed-rock pits under the lawn to help absorb water. Much of the hard clay would be dug out and trucked away, replaced by extra topsoil.

The streets would have no curbs and the shoulders would be soft, the better to absorb more water. Alongside each road would be swales — shallow depressions that can act as waterways in wet weather.

Fifty per cent of the land would be paved or built over, the same as in a “normal” subdivision. But the housing density would be up to four times greater, and the land’s ability to suck up water and then release it gradually would be “juiced” by infiltration-enhancing techniques to 90 per cent of the capacity of undeveloped land.

The housing mix would include single-family homes on several lot sizes — all of them smaller than the norm — as well as duplexes, triplexes and multi-family dwellings, including social and market housing. Parks and pathways would be designed into the neighbourhood. It would be laid out in grids, not cul-de-sacs.

The smaller lots and narrower roads would save a fortune in land costs. There would be no curbs, gutters or storm drains because the land would be drained naturally, saving another fortune in infrastructure costs.

Condon concluded East Clayton homes could be built for \$90,000 to \$100,000 less per dwelling unit than in a standard subdivision. That would be the trump card for sustainable development, because it provided incentive for change.

“You want to save the planet, it’s going to cost tax dollars. But this showed, we believed conclusively, that in order to get to sustainability, the challenge was to spend less money, not more.

“It’s dead simple. If you’re getting four times as many houses on an acre, then you save 75 per cent of the land costs on a per-dwelling-unit basis.

“Another chunk of it, about a third, was a consequence of reducing the per-dwelling-unit cost of infrastructure, which is essentially the streets and the pipes.

“And then, if you have two or three dwellings in a single building you save a little bit more because you’re only hooking up with one sewer pipe and with one utility piece to get to the building rather than two or three.

“The social benefit is that people have more affordable housing. The environmental benefit is, the air is cleaner because people are driving less per capita, and the water is cleaner because you’ve got this new attitude towards storm-drain technology.”

Reaching a compromise

The question, Condon agrees, is whether the public will buy into a place like East Clayton.

The answer appears to be a conditional “yes” — at least in a hot real estate market. But developers and real estate professionals are not sure how well East Clayton would sell in less buoyant conditions.

Townline Homes’ 23 homes in Phase One

of Clayton Village sold out fast. But “the jury’s still out whether our sales success has been based on sustainability,” says Townline principal Rick Ilich.

Although a handful of potential buyers have contacted Townline because of the sustainable community aspect, most buyers are “not that cognizant or motivated” by it, Ilich says. Once they’re told about it, “they’re interested and they’re asking questions.”

For Townline, a large builder putting up homes in half a dozen subdivisions at a time, East Clayton’s quirks have meant higher building costs, and Ilich said profit margins for phase one are down from other projects.

John Titus of HomeLife Benchmark Titus Realty, who handles sales for Townline, says sustainability is “a point of interest” for home buyers. But for most, it’s neither a handicap nor a sale-clincher.

Titus got involved in the planning for East Clayton about the time of the second charrette, when the development industry began to get drawn into the process.

“I was involved in some of those meetings with the fellows from the university and their original concepts, which involved grass roofs, rain barrels and \$400,000 homes built next to \$200,000 homes,” he says.

“I understand the reasons for all that. But

project did incorporate all of these sustainability principles and is selling very, very well,” he says.

That means that people who argue that our suburbs look the way they do because that’s what the people want “are not entirely correct.” Condon believes people buy into traditional suburbs because they’re not offered anything better.

“We have the power to provide them better choices,” he argues, “choices that are more affordable, more ecological, better communities to live in, better places for their kids, easier places to get around — in other words they’re buying into a community, not a subdivision.”

John Turner is on Condon’s side, as long as things stay practical.

Turner is land development manager for BFW Developments, the company behind East Clayton. BFW is half owned by Milan Ilich’s Progressive Group and half by the Benchmark Group, a major house builder in the lower Fraser Valley that has recently become a force in commercial real estate.

Turner has been involved in the engineering and design of subdivisions for 30 years, and has been realizing that some of the



East Clayton homes are equipped with dual drainage systems: crushed rock pits under the lawns that hold and store rain water, and storm sewer connections to handle any overflow.

obviously from a marketing standpoint, you just can’t sell that kind of situation.”

Titus recalls heated debates over rear laneways, which are not a big hit with the building industry.

“Could we sell the lots for more money if the laneway wasn’t there?” he asks, rhetorically. “Yes. If the garages were out front, would that add value? Yes. And would the lots be cheaper to develop and wouldn’t they be bigger if there weren’t laneways? All the answers to those questions are yes.”

But if the builders had to compromise, so did the academics.

“The end result is not everything the university fellows wanted,” Titus says, “but I think for where we are today, taking a step in the right direction towards fully sustainable development, I think this is a good initial step.”

Titus’s sales staff has been selling the house-buying public on the value of natural drainage, using lanes to get cars off the streets and, once development proceeds a bit farther, being able to walk to shops and schools, the neighbourhood rec centre or the library.

He agrees with Ilich and Townline marketing head Shannon Vrlak that in a market this hot, you can’t tell whether sustainability will sell homes or not. But, he adds, “This is probably the fastest-selling subdivision in B.C. for at least 10 to 15 years. If you had a poker hand, that’s like holding four aces.”

Buying into a community

Condon got some of what he wanted and he’s happy about that.

“The good news is that the East Clayton

drainage principles in vogue when he got started were wrong-headed; so much of the land is paved that it can no longer cope with the rainfall.

“We’re flooding the lowlands,” he said. “They’ve just had to raise the dikes on the Serpentine to protect the farmlands.”

After Condon approached Surrey council, Turner says, he was asked to take a look at a proposal for a five-acre (two-hectare) test project. “I told them, ‘You’ll never find out whether it works or not if you do a five-acre project. You’ve got to do a whole neighbourhood.’

“So Surrey checked with the owners of these properties and proposed to them that we do a sustainable neighbourhood here, and they got the majority of the people who owned the land at that time to agree to it. So that was the start of the East Clayton sustainable neighbourhood.”

The high cost of lanes

Turner shares the builders’ concern about reintroducing back lanes. He says they’re among the reasons homes in East Clayton turned out to be no cheaper than homes anywhere else.

Yes, there are savings, especially on the amount of land used. But there are extra expenses, too.

“East Clayton is a lot more expensive to produce than any other neighbourhood in Surrey,” Turner says.

“The lanes are very expensive. They’re one of the principles that Patrick wanted. He thinks that makes a sustainable neighbourhood. I don’t know if it does or not.

“I know the buying public doesn’t necessarily like lanes. A lane lot costs you about \$10,000 to \$15,000 more to produce than a normal front-loaded lot.

“The front-loaded lots definitely sell much better, and the builders can get a much higher value for them. If they had their choice, these builders would not build any rear-lane lots at all. But through the approval process, we’re forced to have at least 60 per cent lane lots.”

Perhaps the biggest reason homes in East Clayton cost no less than homes elsewhere is drainage. In the final design stages, the city backed away from going without a conventional storm drain system. So the cost of storm sewers was added to the project. But many other sustainable-development designs stayed, and they also cost money.

Some costs were recouped through green infrastructure grants from the federal and provincial governments, but not enough to reduce East Clayton’s costs to the norm or lower.

“We’ve had to build a duplicate system here,” Turner says during a walking tour of East Clayton. “We’ve got the standard system in the road for storm sewer. Plus we’ve got these on-site detention systems. This is one right here.”

He pauses at the tiny front yard of a Townline showhome. A grate, a small manhole-like structure and a section of pipe all poke out of the lawn.

“Down eight feet under the ground here, we’ve built an on-site detention system that will pick up all of this water, hold it there, and then it will overflow if it can’t take any more water, into the storm sewer system.

“Basically, we’ve dug a pit and it’s filled with gravel and wrapped in a filter cloth. That’s really all it is, and it’s got an overflow mechanism. The water will run into that, and it will be retained there as long as possible.

“This time of year it will work fine; in the summer and spring and fall it should be adequate. In the winter time, when you get long-term rain events, it won’t work. Then the conventional system will take over and handle the water.”

In Phase Two, similar pits will be dug into the boulevards instead of the lawns, where the city can keep an eye on them. But the boulevard pits will provide a challenge for the dozens of trucks and pieces of heavy equipment that move in and out of a subdivision under construction, cracking sidewalks, crushing curbs and gouging deep ruts in the shoulders.

Still, it’s a necessary move, Turner says. When the pits are on private property — individual lots — there’s no guarantee that the owners will maintain them. Some might decide they’re too much trouble and fill them in. “The city would never know. So these things may or may not work in four or five years.”

Getting rid of storm sewers

Condon wanted to see curbless, gutterless roads with soft shoulders and swales in East Clayton, the better to absorb the rain.

That was dismissed because it was thought to be unmarketable. It was replaced with “infiltration streets” that have curbs with multiple slots cut through them that channel runoff water into grassy areas on both sides of the street.

It’s another area where Condon’s theories clashed with the hard-headed practicality of builders and developers.

Soft streets are “a great idea, but nobody will buy it,” says Turner.

“You can build a subdivision without curbs if you’re building one unit or two units per acre. But you build at this density” — he waves at a half-built block that’s gridlocked with semis, backhoes and cement trucks — “and you see how much equipment goes in here.

“Any system that we built into the boulevards, they would just tear it apart. It would be unfunctional within weeks. You have a little swale here and you get a 70,000-pound concrete truck, that swale is not going to be there after he’s done.”

With that much controversy over fairly small steps toward sustainable standards, it’s not clear at what point Surrey will be prepared to accept a design without storm sewers, if ever.

McCallum indicates Surrey went with a dual drainage system in Phase One because it didn’t want to get sued again.

“Where’s the liability down the road if it doesn’t work?” he asks. “We’re doing dual systems to see how it’s going to work and see in fact whether the natural drainage will work.”

Chief planner Murray Dinwoodie won’t say directly when — or even whether — future phases of East Clayton will be built without storm sewers.

“The intention would be to develop drainage systems that allow the natural environment to be sustained without any impact,” he says, a bit ambiguously.

Clear-cutting the site, again

There has been no compromise with the East Clayton soil. Much of the hard clay is being dug out and trucked away after the land is cleared.

Normally when a developer gets a project started, he clears the land and cuts in the roads first. The material he digs up — at East Clayton, mainly clay with a little bit of top soil — is dumped on the lots, where it gets mixed up with existing top soil.

When the builder excavates the lot he digs up more clay with a little soil. It all gets mixed together. “So you get clay and topsoil mixed together, which usually turns into a hard, impervious surface,” says Turner.

In East Clayton, both the developer and the builders were required to retain all the topsoil and haul all the clay off-site. When the lots are back-filled, it’s with nothing but topsoil.

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