



CENTERLINE

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Cornerstone Transitional Housing Sewer Location Exception Request

TO: Growth Management
FROM: Lawrence M. Kostaneski, PE
DATE: December 20, 2006

RE: Cornerstone Transitional Housing Project.

CC: Development Team

Message:

This is a request to encroach into an existing sanitary sewer easement on Tract 6 Signal Heights Sec 1 T1N R7E by encasing an existing 8" PVC sewer main under the proposed building. See attached.

The nature of a project or site challenges are not usually arguments for relaxation of certain standards. But in this instance it seems appropriate. The fact is that private investment can't be profitable at this location. The soils issue, when combined with the small footprint, creates an economically untenable site.

But government investment uses social value as part of the viability equation. In this case a transitional housing facility for single moms is considered a worthwhile cause, making this challenged site worth some investment. But the funding is limited.

So making use of a challenged site with a project of worthwhile social value would seem a logical candidate for some creative solutions. Three options (black) are shown on the attached drawing. Unit prices used: \$30/lf sewer; \$3,000/MH, 18" RCP \$60/ft. Totals include engineering fees ~ 10%.

Sewer: An existing 8" PVC sewer main (magenta) transects the site, cutting it virtually in half. Neither half is large enough for development. Re-routing the sewer is the obvious answer, but when a building and parking lot are added, the result becomes an accessibility issue.

The included drawing shows Option A east around the building. It would run through a proposed fenced playground area. The existing north manhole would be jettied from the manhole north in Myrtle. The fence would have a gate that would provide a 12 ft wide path to the manhole in the NE corner, which could be used to jet from the other direction. This is not the desired practice but it's used occasionally. But the route has obstacles, namely the proposed playground.. \$19,500

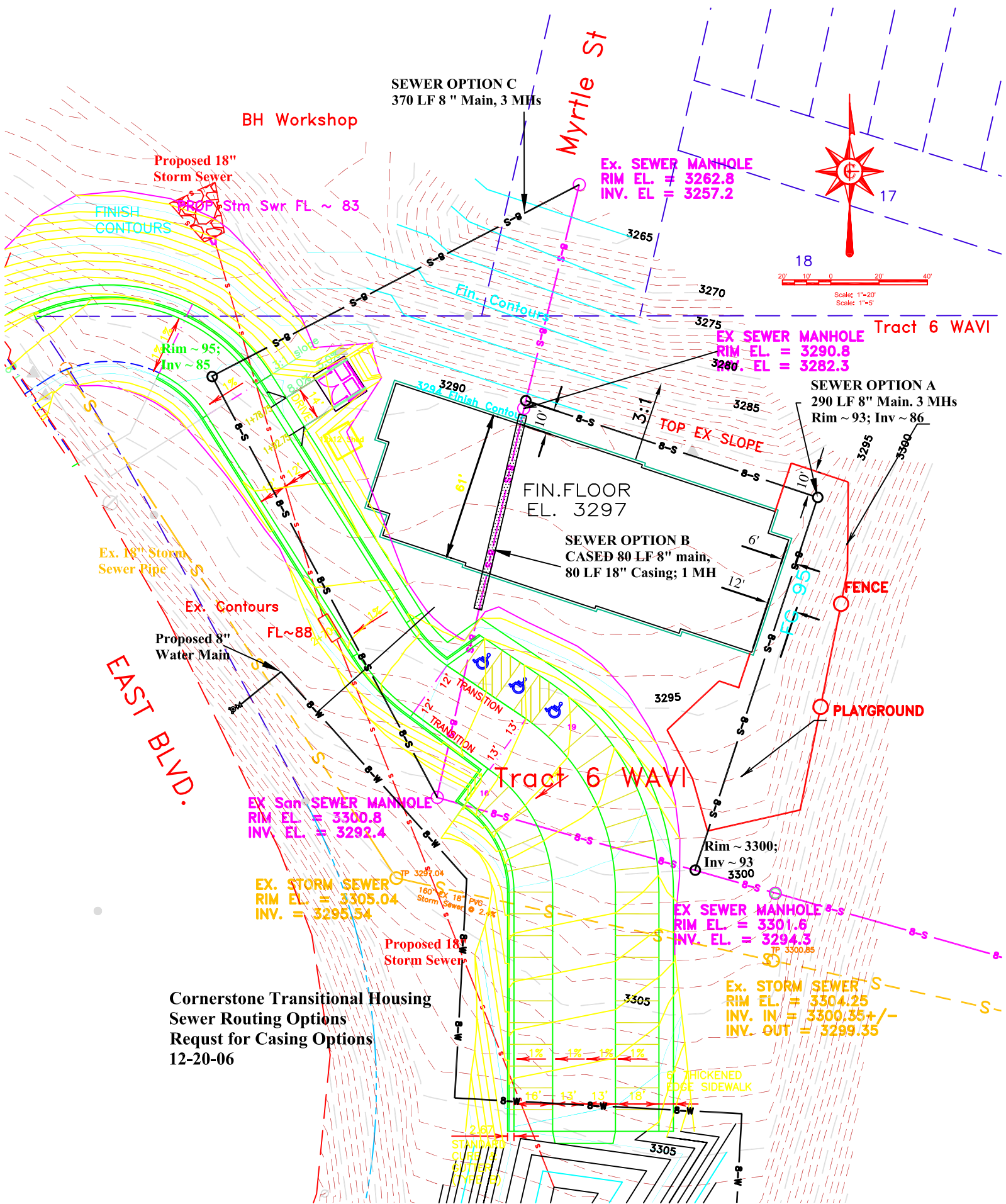
Option B takes a page from the creek, railroad and highway crossing playbook. The existing sewer cased under the building would eliminate all access issues except for the manhole at the north side of the building. The casing would be Reinforced Concrete Pipe (RCP), which would also eliminate any corrosion issues. This is not functionally different than casing under a railroad or interstate. The sewer is a non-pressure line that adds a level of safety.. \$11,200.

Option C is west around the building. This has 2 conflict points with a proposed storm sewer outfall. It is also the most expensive solution BH Workshop has only reluctantly allowed encroachment from grading and will not welcome another permanent intrusion. \$22,100

After examining all options the most desirable from both a cost and operations/maintenance perspective is encasing the existing sewer main under the proposed building as shown on the included drawing. While perhaps unconventional, it is the most straightforward solution if the goal is to allow this worthwhile project to proceed with a minimum amount of disruption to the existing sewer system and adjacent land.

Please call with questions. Thanks.

END



SEWER OPTION C
370 LF 8" Main, 3 MHS

BH Workshop

Myrtle St

Ex. SEWER MANHOLE
RIM EL. = 3262.8
INV. EL. = 3257.2



Proposed 18" Storm Sewer

Prop. Stm Swr FL ~ 83

FINISH CONTOURS

Rim ~ 95;
Inv ~ 85

Tract 6 WAVI
EX SEWER MANHOLE
RIM EL. = 3290.8
INV. EL. = 3282.3

SEWER OPTION A
290 LF 8" Main, 3 MHS
Rim ~ 93; Inv ~ 86

FIN. FLOOR
EL. 3297

SEWER OPTION B
CASED 80 LF 8" main,
80 LF 18" Casing; 1 MH

Ex. 18" Storm Sewer Pipe

Ex. Contours

Proposed 8" Water Main

EAST BLVD.

EX San SEWER MANHOLE
RIM EL. = 3300.8
INV. EL. = 3292.4

EX. STORM SEWER
RIM EL. = 3305.04
INV. = 3295.54

Proposed 18" Storm Sewer

Rim ~ 3300;
Inv ~ 93

EX SEWER MANHOLE
RIM EL. = 3301.6
INV. EL. = 3294.3

EX. STORM SEWER
RIM EL. = 3304.25
INV. IN = 3300.35 +/-
INV. OUT = 3299.35

Cornerstone Transitional Housing
Sewer Routing Options
Request for Casing Options
12-20-06

6" THICKENED
EDGE SIDEWALK

STANDARD
CURE
BUTTER
EMULSION