6/24/19
To: Gabriel Hinojosa, PE

This is written to request a master waste water plan amendment for the subject site by expanding Waste Water Area 34-D-1 to include most of the land that is south of the drainage ditch which is north of the subject site and along the south boundary of Country Estates Subdivision as shown in attached exhibit. This request is made in order to provide waste water service to all of the subject site.

12" Sewer 34-D

Proposed Area 34-D-1 consists of 290 acres and includes commercial, mobile home, and residential zoned areas.

The commercial and industrial areas contain 60 acres. The peak flow from this area will be based on 8 persons/acre, an average daily flow of 20 gal/person/day and a peak factor of 3.5. With this design criteria the peak flow for this area will be 0.058 million gallons per day (MGD).

The mobile home area contains 50 acres. The peak flow from this area will be based on 30 persons/acre, an average daily flow of 60 gal/person/day and a peak factor of 3.5. With this design criteria the peak flow for this area will be 0.335 MGD.

The residential area contains 408 lots with the subject site and 33 acres of undeveloped land. The peak flow from this area will be based on 15 persons/acre or 3 persons/lot, an average daily flow of 80 gal/person/day and a peak factor of 3.5. With this design criteria the peak flow for this area will be 0.625 MGD.
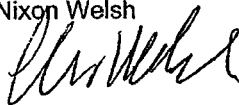
The flow of the proposed Area 34-D-1 would be a total of 1.1 MGD. The existing 12" is set at a slope of 0.2% as shown in as-builts and would have a capacity of 1.1 MGD thus OK.

Said 12" sewer picks up an additional 15 lots (6 ac.) at a peak flow of .07 MGD. The combined total with the subject area would be 1.17 MGD. The existing 12" is set at a slope of 0.31% as shown in Brookhaven 5-Points SS plans. The capacity of this line is 1.28 MGD thus OK.

15" Sewer 34-D

For the 15" line south of Hearn Road an additional 327 equivalent lots (66 acres) are added. The 327 equivalent lots include a 5.8 acre apartment site which produced an equivalent 85 lots (5.8 ac x 22 units/ac x 2 pers per unit = 254 persons for 254/3 = 85 equivalent lots). This produces (327 lots x 3 pers per lot x 80 GPCPD) x PF 4 + 400 GPDPA x 66 ac = 0.31 MGD + 0.03 MGD = 0.34 MGD in addition to the flow from the 12" for a total of 1.51 MGD. The capacity of the 15" is 1.6 MGD for a Manning number of 0.013 thus OK.

Nixon Welsh

NMW:sab

PROPOSED CALALLEN SOUTH
WASTE WATER EXHIBIT

CALLICOATTE RD

PROPOSED CALLICOATTE
NORTH FORCE MAIN

CENTRAL
POWER & LIGHT

HEARN RD LINE

SEWER 34-B

34-C-1
67 AC.

34-F-1
22 AC.

34-B-2
23 AC.

34-B-2
42 AC.

35-C-3
59 AC.

SEWER 34-B

SEWER 34-D

SEWER 34-D

PROPOSED COUNTY RD 52
FORCE MAIN

34-D-2
184 AC.

34-D-1
95 AC.

BASIN 34
117 AC.

34-B-1
117 AC.

35-C-1
74 AC.

35-C-2
110 AC.

34-D-1 REVISED

U.P.R.R.

US HWY 77

SHT. # 6
SHT. # 12

SHT. # 12
SHT. # 13

BASIN 31
2001 AC.

City of Corpus Christi Water Department
Printed: 4/17/2019
Fred Perez, Water Department Representative 361-826-1955

045-15

045-14

055-03

055-02

055-07

D. N. STEVENS WATER TREATMENT

TREATMENT PLANT TRACT

HEARN ANNEX

RUSHING BOULEVARD

IL ZONING TRACT 24 AC

COMMERCIAL ZONING 13 AC

Area 28 AC