SBG RECEIVED ON 8/6/98

City of Fort Collins

Current Planning

PROJECT COMMENT SHEET

DATE: July 14, 1998 **DEPT:** TCI

PROJECT: Center Avenue (extension of existing Centre Avenue)

PLANNER:

ENGINEER: Dave Stringer

All comments must be received by: August 4, 1998

TCI of Ft. Collins would look at doing some kind of joint trench with Ft. Collins Light and Power if they are doing a trench.

O.K. COORDINATE W/ LIGHT & POWER. SEE ALSO GEN. NOTE FOR LIGHT & POWER INSTALLATIONS.

Date: 7/27/98 Signature: Dave Stringer

CHECK HERE IF YOU WISH TO RECEIVE COPIES OF REVISIONS

X Plat X Site __Drainage Report __Other_____

X Utility __Redline Utility X Landscape

6

City of Fort Collins

Current Planning

PROJECT COMMENT SHEET

SBG RECEIVED ON 8/6/98

DATE: July 14, 1998 **DEPT:** PSCO

PROJECT: Center Avenue (extension of existing Centre Avenue)

PLANNER:

ENGINEER: Dave Stringer

All comments must be received by: August 4, 1998

ADDED TO GEN. NOTES SH. 1

(1) ALL NEW GAS EXTENSION WORK TO BE COORDINATED BY RICK TRAYNOR, PSCo PLANNER 225-7827.

(2) ONE EXISTING GAS LINE (2" MW STEEL) CROSSES THE PROPOSED EXTENSION OF CENTRE AVE AT APPROXIMATELY 47+00. THIS LINE MAY REQUIRE LOWERING, RELOCATION, ETC. IF GRADES / STORM SEWER INSTALLATION REQUIRES IT.

ADDED LINE, NOTE ON RESPECTIVE SHEET, AND NOTE IN GEN. NOTES.

Date: 7/20/98 Signature: Randy Blank

CHECK HERE IF YOU WISH TO RECEIVE COPIES OF REVISIONS

__Plat __Site __Drainage Report __Other_____

__Utility __Redline Utility __Landscape

PROJECT COMMENT SHEET

City of Fort Collins **Current Planning**

DATE: August 3, 1998 **DEPT: Engineering**

PROJECT: **Centre avenue extension at CSURF**

PLANNER: SBG RECEIVED ON 8/6/98

ENGINEER: **Dave Stringer**

All comments must be received by: 8/4/98

☐ **No Problems**
☐ **Problems or Concerns (see below or attached)**

1. Dedicate rights- of - way and easements with this plat - CSURF DEDICATING BY SEPARATE DOCUM.
2. Remove HOA from general notes – REMOVED.
3. Show roadway and R.O.W. widths on street plans – ADDED
4. Manholes appear to be in curb and gutter – FAXED ACTUAL TO DAVE 8/13/98. SEE ALSO SH. 9
5. Lessen contrast of underground utilities on street plans (TYP) – REMOVED H_2O & SAN. SEN.
6. Show storm sewer pipes in profile section when crossing the roadway prism - ADDED. SEE STORM SH.
7. Reference storm sewer plans on roadway plans – ADDED.
8. What are slopes and widths of bike trail connections do they meet ADA standards? 5%, 10', YES
9. Is let turn bay needed at Bay Street? – FOR HOUSING & APARTMENTS, NEEDED FOR STEEL'S MARK.
10. Show R.O.W., slope and utility easements in cross sections (TYP) – ADDED
11. Maximum slope is 4:1 (TYP) – ADDED LABELS (TYP.)
12. Note to use Georgetown brick on parapet walls – CHANGED.
13. Sheet 28,29 and 30 of 48 see notes – SEE REVISIONS.
14. Verify depth of cover on storm sewer boxes, pipe crossings etc. – ADDED CROSSINGS OF UTIL.
15. Plans show water air relief valves in detail but locations are not indicated on plan view – ADDED
16. Address additional comments as noted on plans – SEE RETURNED COPY
17. Submit redline blue lines with next submittal – O-K.

Date: 7-30-98 Signature: David Stringer

PLEASE SEND COPIES OF MARKED REVISIONS:

☐ PLAT
☐ SITE
☐ UTILITY
☐ LANDSCAPE

City of Fort Collins
ENGINEERING

PROJECT COMMENT SHEET

DATE: September 16, 1998 DEPT: ENGINEERING
PROJECT: CENTRE AVE EXTENSION
PLANNER: Ted Shepard
ENGINEER: Dave Stringer

Plat : Is the right - of- way from the existing Research Bldv. to the East Line of the southwest quarter been recorded as access easement? If so this needs to platted as right - of- way.
IT WAS RECORDED AS RIGHT - OF - WAY.

1. Storm sewer crossing at Sherwood Laterial as shown is not acceptable. Manholes are in the pavement section. If the storm sewer cannot be relocated then the section of pavement from approximately station 31+00 to 32+50 shall be concrete pavement. THE ROAD WAS RAISED IN ORDER TO KEEP THE STORM SEWER MANHOLES OUT OF THE PAVEMENT SECTION.

2. See other minor redline comments on plan sheets.

Date: Sept 16 1998 Signature: Dave Stringer

PLEASE SEND COPIES OF MARKED REVISIONS:
- ☐ PLAT
- ☐ SITE
- ☐ UTILITY
- ☐ LANDSCAPE

City of Fort Collins

ENGINEERING

COPY

PROJECT COMMENT SHEET

DATE: November 2, 1998 **DEPT: ENGINEERING**
PROJECT: CENTRE AVE EXTENSION
PLANNER: Ted Shepard
ENGINEER: Dave Stringer

1. Show driveway grades at NRRC site with percent slope from Centre Ave. to their parking lot.
pavement.
2. Are driveway grades at Green houses ok with CSU ? 10% is steep
3. Need to add weep hole locations and details to wing walls.
4. See other minor redline comments on plan sheets.

Date: 11-2-98 Signature: David Stringer

PLEASE SEND COPIES OF MARKED REVISIONS:

- ☐ PLAT
- ☐ SITE
- ☐ UTILITY
- ☐ LANDSCAPE

Utilities
light & power • stormwater • wastewater • water

City of Fort Collins

Greg Koch, Project Manager
Lidstone and Anderson, Inc.
760 Whalers Way, Suite B-200
Fort Collins, Colorado 80525

November 20, 1998

Dear Greg:

The City of Fort Collins Stormwater Department (the City) has completed a review of your report entitled "Hydraulic Evaluation and Design of the Centre Avenue Bridge at Spring Creek, Fort Collins, Colorado (Based on the City of Fort Collins Fully-Developed Condition Hydrology)" dated November 3, 1998.

The following comments are presented for your review. To save time and effort, it is suggested that you only submit the modified pages. We will incorporate these pages in the report we currently have. The comments are presented according to report section.

REPORT

1. Section 1.1, Please include a brief description of the 1997 flood (Precip – 14.5 inches in 31 hours, Q at this site was 8,250 cfs based on USGS indirect measurements – more than twice as large as 500-year existing condition flows, overtopping of BNRR and flooding of trailer court) Please also describe how this project was designed (blockage, worst-case scenario analysis) based on the knowledge of what occurred at this site during the 1997 flood and the heightened public awareness of flooding potential in this area. This information is critical for long-term documentation of the planning by both the City and the developer regarding this site.
2. Please provide a north arrow and scale on Figure 2.2, page 9.
3. Page 12, Sect. 3.3, last sentence, The FIS omitted a backwater area for the "500-year" not the "100-year" as stated in the text. Please verify and revise text as needed. See additional suggested wording as clarification in the text.
4. Page 13, third paragraph, last sentence, please review and modify as necessary the peak discharge into the downstream portion of the pond. Our review has the discharge at 731.5 cfs.
5. Page 14, third paragraph, second to last sentence, please review and modify as necessary the calculations for the equivalent Manning's *n* value. Our review has the value at 0.0504.
6. Page 17, fourth paragraph, second paragraph, please review and modify as necessary the Centre Avenue embankment water surface elevation of "4994.6 ft". The Extran output has it at "4995.6 ft".
7. Page 18, Table 4.2, Return Period 10-years, Centre Avenue, Baseline, please review and modify as necessary the value 4991.6. Extran has the value at 4991.5.
8. Page 19, please expand on the reasoning behind our decision to not run a "Post-Project" SWMM with the Extran "Post-Project" results for the two ponds. It will be helpful for future reference.
9. Page 22, Table 4.6, HEC-2 Cross-Section, Channel Velocity, please review and modify as necessary the Post-Project condition for cross-section 18770, and the Baseline condition, Post-Project condition, and Change in Channel Velocity for cross-section 19337. These values do not appear to agree with the HEC-2 output.
10. Page 24, Table 4.7, HEC-2 cross-section, please replace number "18700" with "18770".

700 Wood St. • P.O. Box 580 • Fort Collins, CO 80522-0580 • (970) 2216700 • FAX (970) 221-6619 • FAX (970) 221-6593 • TDD (970) 224-6003

11. Please provide a copy of the referenced report "Spring Creek Floodplain Management Study, L&A, 1998". We still need to have the write-up on this previous work for our files.

SHEET 1 – Baseline Condition Floodplain and Floodway Map

12. Please review and modify as necessary the northern portion of the area between cross-sections 17380 and 18075. The floodplain/floodway boundary/line does not appear to follow the water surface elevation 4994.7 feet.

SHEET 2 and 4

13. Please adjust floodplain mapping on south side of pond to ignore the small berm in order to be consistent with the FEMA mapping (per phone conversation 11-18-98). Also please adjust the same area on Sheet 4

TECHNICAL ADDENDUM

14. Please include documentation of the calculations for the equivalent orifices representing the orifice on the southern 84" RCP at the BNRR.
15. Please explain how the initial two points on the "D/S Pond Stage-Area-Storage Curve" were developed in Section A.1 "Background Information and Calculations" (i.e., 0.06 and 0.86 ac-ft, when there is nothing under the "Sum Area" columns).
16. Please review and modify as necessary the element numbers for the orifice openings to element 12 on the "Extran Schematic Diagram – Pre-Project Condition Calibration Model" in Section A.1 "Background Information and Calculations".
17. Please show calculations/documentation of stage-discharge for the southern 84" RCP with the new grate and the bike trail culvert which were included in the stage-storage-discharge table in Section A.1 "Background Information and Calculations".
18. Please include depth-area documentation for the baseline condition for the upstream and downstream (split) ponds.
19. Please provide documentation for cross-section 18700 utilized in the Extran Baseline conditions.
20. Please provide documentation for cross-section 18770 utilized in the HEC-2 Post-project runs.
21. Please review and modify as necessary the hydrologic status of Arthur's Ditch in the current SWMM.

In reviewing the material submitted by the Sear-Brown Group for Centre Avenue, it appears their design of the irrigation canals includes stormwater – which may be different from the hydrologic assumptions in your submittal. Please coordinate with the Sear-Brown Group to ascertain the specifics on this issue, and make any necessary modifications.

As always, the City appreciates the time and effort put forth to prepare a report such as this. Your dedication to quality work is greatly appreciated. If you wish to discuss the above comments, please do not hesitate to call us at 221-6700.

Sincerely,

Susan L. Duba Hayes

Susan Duba Hayes
Senior Stormwater Engineer, Master Planning

Sincerely,

Marsha Hilmes

Marsha Hilmes
Floodplain Administrator

CC: Kathleen Byington, CSURF