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File 1981-0098

Project Name: Mesa Beverage Co. – Application for Flood Plain

Date 4/30/02

P r e s e n t	S c a n n e d	<p>A few items are denoted with an asterisk (*), which means they are to be scanned for permanent record on the in some instances, not all entries designated to be scanned by the department are present in the file. There are also documents specific to certain files, not found on the standard list. For this reason, a checklist has been provided.</p> <p>Remaining items, (not selected for scanning), will be marked present on the checklist. This index can serve as a quick guide for the contents of each file.</p> <p>Files denoted with (**) are to be located using the ISYS Query System. Planning Clearance will need to be typed in full, as well as other entries such as Ordinances, Resolutions, Board of Appeals, and etc.</p>
X	X	*Summary Sheet – Table of Contents
X	X	Review Sheet Summary
		Application form
		Review Sheets
X		Receipts for fees paid for anything
		*Submittal checklist
		*General project report
		Reduced copy of final plans or drawings
		Reduction of assessor's map
		Evidence of title, deeds
		*Mailing list to adjacent property owners
		Public notice cards
		Record of certified mail
		Legal description
		Appraisal of raw land
		Reduction of any maps – final copy
		*Final reports for drainage and soils (geotechnical reports)
		Other bound or nonbound reports
		Traffic studies
		Individual review comments from agencies
		*Consolidated review comments list
		*Petitioner's response to comments
		*Staff Reports
		*Planning Commission staff report and exhibits
		*City Council staff report and exhibits
		*Summary sheet of final conditions
		*Letters and correspondence dated after the date of final approval (pertaining to change in conditions or expiration date)
<u>DOCUMENTS SPECIFIC TO THIS DEVELOPMENT FILE:</u>		
		Action Sheet
		Review Sheet Summary
		Review Sheets
X	X	Letter from Merlin Schreiner, Roche Constructors, Inc. to Planning re: floor elevation – 11/16/81
X		Floodplain Permit – general report from Paragon Eng.
X	X	Memo from Ron Rish to Bob Goldin re: comments – 10/15/81
X	X	Memo from Bob Goldin to Ron Rish re: review of revised application-11/16/81
X		Floodplain Permit Application
X	X	Letter from Roche Constructors, Inc. to Wes Painter, Fire Dept. re: agreement that will allow installation of a fire protection system – 10/27/81
X	X	Letter from Robert Gerlofs, Paragon Eng. to Bernard Buescher re: proposed facility in flood plain – 10/28/81

**CITY OF GRAND JUNCTION
FLOODPLAIN PERMIT
FOR
PEPSI COLA BOTTLING COMPANY
140 POWER ROAD**

Prepared by:

**Paragon Engineering Inc.
2784 Crossroads Blvd. Suite 140
Grand Junction, CO 81501
Phone: 243-8896**

Stored Materials

The applicant does not intend to store toxic substances on the site. Stored materials will be housed inside the proposed building. Only substances directly related to the production and bottling of Pepsi Cola and other soft drinks will be stored on the site. Gasoline storage at the site, consisting of two 10,000 gallon tanks will be located at the perimeter of the flood plane and will be provided with protection against discharge during a flood.

Concrete ground will be above to 10' up to 4532.3

Specifications for Construction Materials

Attached are a portion of the Construction Specifications for the proposed project which deal with excavation, filling and grading. The major flood proofing measure to be employed will involve recontouring the existing ground for positive drainage away from buildings and constructing the finish floor of the proposed building above the 100 year flood water level as designated by the U.S. Army Corp of Engineers.

The building will employ steel frame construction, with precast concrete, tilt up walls on a pipe piling reinforced concrete foundation. Reinforced concrete floor slabs will be damp proofed with a 6 mil Visqueen film barrier.

Floodproofing techniques to be employed in the building construction are as follows:

1. Door bulkheads used on doors No. 1 and 20 of the plans shall be of a waterproof design and of aluminum construction. *ok. this*
2. The floor grade of the Assembly Area and the Reception and Office areas shall remain at existing grade. The floor of the Commuter/General Office will be raised 18 inches by constructing a compacted sand fill and a 4 inch reinforced concrete floor. *4532.3*
3. The north interior office wall and the east exterior wall of the existing building shall be waterproofed with a coat of waterproof cement.
4. The horizontal load capacity of the waffle-crete wall panels is rated at 500 psf. The load induced by 18 inches of 100 year "sheet flow area" water is approximately 93.6 psf according to the Architect.

Revised 9/28/81

PEPSI COLA FACILITY
FLOOD PLAIN PERMIT
DOCUMENTS LIST

STRUCTURES:

Existing Structures

Name: Colorado West Meat Packers Facility
Construction Type: Frame, Masonry
Area: 25,000 Square Feet

Finish Floor Elevation: 4550.7 (USGS) To be raised to 4552.3

Proposed Structures

Name: Pepsi Cola Bottling Company
Construction Type: Steel Frame, Precast Concrete, Pile Foundation
Area: 81,600 Square Feet

Finish Floor Elevation: 4552.3 (USGS)

Note: Existing temporary wood fram structures on the site will be removed.

DIVISION 2
SECTION 2C
EXCAVATION, FILLING & GRADING

I. GENERAL

A. Scope

1. This specification covers all labor, materials and equipment required to complete fine grading, building excavation, site protection, and clean-up herein specified.

II. MATERIALS

A. Backfill

1. Fill brought to the site to be used for backfill must be free of organic matter such as leaves, grass, roots and other objectionable materials. Fill used shall be submitted to Architect for approval and shall have a plasticity index of less than ten (10). All backfill material shall be capable of being compacted to densities as herein specified. If densities cannot be met, backfill shall be removed and new material laid and compacted to meet densities.

B. Topsoil - Stripped and Stored

1. The topsoil stripped and stored to be re-used on the site will be mounded in a location convenient for the Contractor.
2. Before re-use the topsoil will be free of debris, cinders, combustibles, frost, ice, roots, sod, wood, organic material or stones larger than 2" in diameter.

C. Gravel, or Crushed Stone Under Concrete Floors

1. Gravel or crushed stone shall be of limited capillarity. Material which passes a 1-inch sieve and is retained on a 1/4-inch sieve may be assumed to be of limited capillarity.
2. All gravel or crushed stone required under concrete floors to be furnished by excavation contractor, unless otherwise directed by the General Contractor.

III. INSTALLATION

A. Demolition

1. Remove any existing concrete floors, approaches, etc., not designated to be used for new site.

B. Clearing and Grubbing

1. Clearing will consist of the felling, cutting up and the satisfactory disposal of trees and other vegetation designed for removal within the project area. Trees shall be felled in such a manner that will prevent damage to trees left standing, to existing structures, utilities, paved roadways, curbs and walkways, and with due regard to the safety of employees and others.
2. All stumps, roots, buried logs and other miscellaneous buried debris occurring within the limits of the excavation will be removed as part of the grubbing operations and disposed of as specified herein. The area where clearing and grubbing takes place shall be smoothed to conform to the surrounding contours so that no ponding occurs.

C. Excavation

1. Provide all labor, materials, tools, accessories and equipment necessary to complete the excavation for all footings, etc. Excavate for footings to the exact depth and of the exact size as indicated on the drawings.
2. Allow for proper working clearance on all formed walls. Bottoms of all trenches and excavations for walls and footings shall be level and square cut. Soil or loose dirt encountered at the bottom of excavations shall be removed prior to placing concrete.
3. Compaction around building foundations, all interior drains and retaining walls shall be done with mechanical hand compactor. Compaction in other areas shall be by best method available to achieve compaction requirements of this division.
4. Each subcontractor is responsible for all backfill and compaction on their portion of the work. Compaction done by subcontractors will be supervised by the General Contractor's superintendent and must meet his approval and the required densities specified.
5. Extreme care shall be taken to insure against any damage or displacement of walls or footings. It is the responsibility of the job superintendent to determine when backfilling of retaining walls can commence.

D. Controlled Earthwork

1. Where depth of fill below new floor slabs is 4'-0", the following procedure shall be followed: All vegetable matter shall be removed from the area to be filled. The surface shall be scarified to 6" depth and until the surface is free from ruts, hummocks, or other uneven features which could prevent uniform compaction. The surface shall then be compacted to densities herein specified. Material to be used for fill shall be free from all vegetable matter, debris, or rocks having a diameter of more than 2". The fill material shall be placed in level, uniform layers of 8" thickness and compacted at specified density. Each layer shall be thoroughly blade-mixed during the spreading to insure uniformity of material in each layer. Fill shall continue to be placed and compacted in 8" layers until desired grade is achieved.

E. Compaction

1. Areas where new construction is to take place shall be compacted to a minimum of 97% Standard Proctor density for fill materials other than sand. For sand fill, compaction shall be to 80% of relative density. Contractor shall furnish tests to verify this condition as specified in Section 1C 'Testing'.
2. Fill upon which a floor slab is to be placed will be kept moist within the moisture ranges above, until the foundation and slab are placed and shall not be allowed to dry out.

F. Finish Grading

1. Grading shall include spreading and leveling the excess excavated materials, and additional fill hauled to the site if needed to bring grading up to level preparatory to planting or paving as shown on the drawings. Grading shall be brought to grade lines that are indicated on the drawings. Grading shall be placed to a tolerance of (0.10) feet of final grade.
2. It is the intent of the drawings that positive water drainage be provided around and away from the buildings.

3. Although it is not always possible to obtain on flat sites the following is to be the general intent when grading for drainage:

a. Minimum Gradient:

- (1) Paved Surface 1/8 inch per ft (1%)
- (2) Earth 1/4 inch per ft (2%)
- (3) Earth Drainage Swales . . (1½%)

b. Maximum Gradient:

- (1) Earth within 6 ft of Building . . 1 in. per ft. (8%)
- (2) Earth Banks 3 to 1 ratio
- (3) Earth Drainage Swales 10%

c. Low spots which hold water are not permitted.

- d. Slope grade down and away from building in all directions for a distance of 8 to 10 feet on all sides of building.

G. Location of Service Lines

1. Before backfilling is done, mark on a set of "As Built" drawings the location of all sewer, gas, water or other service lines, clean-outs, etc., which may later be covered. These drawings shall be delivered to the Owner before final payment of the contract amount.

H. Inspection

1. The grading contractor, before starting any work, shall carefully examine the work to be performed, and report to the Owner, in writing, any and all conditions which, in his opinion, will affect the satisfactory execution of said work. Extras allowed for unforeseen ground conditions will apply only if provided for in the contract documents.

I. Clean Up

1. At completion of the job, repair damages to adjacent areas incurred during construction and leave the property in a neat and clean condition. All waste and debris accumulating on the job shall be removed.

Watercourse Alterations

(See Attached Plan)

No alteration will be made in the existing course of the River.

Narrative

This description is based on information from the Flood Hazard Information Study as prepared by the U.S. Army Corps of Engineers, November 1976, and the Preliminary Flood Insurance Study as prepared by the Federal Emergency Management Agency, February, 1981, and the Flood Insurance Study as prepared by the U.S. Department of Housing and Urban Development.

The project site is identified on Sheet 327 Plate 323 of the Flood Hazard Information Study as being in a 100 Year Sheet Flow Area. Sheet flow areas have been characterized by the U.S. Army Corp of Engineers as areas subject to "broad shallow overland flow generally less than 2 feet deep". Water velocities have been predicted in sheet flow from 1 - 3 feet per second.

Water surface elevations have been computed by the U.S. Army Corp of Engineers with and without floodway protection. Computed values are shown below.

FLOODWAY DATA

Station	Water Surface Elevation		
	With Floodway	Without Floodway	Difference Feet
385.23	4549.8	4550.7	0.9
385.37	4550.9	4551.5	0.6

The Floodway is defined as that portion of the designated flood plain which is required to carry and discharge a 100 year flood without cumulatively increasing the water surface elevation more than one foot at any point.

The flood fringe area is that part of the flood plane which if completely filled in will cause an increase in the elevation of the 100 year flood by no more than one foot at any point, and is the area between the 100 year floodway and the boundary of the 100 year flood.

The fill material for the site will occupy less than 20% of the flood fringe area. At no point in the cross-section of the 100 year flood plain does the fill amount to more than 50% of the fringe area. Therefore the effect of the proposed site development would be to raise the water level at station 385.37 by 0.3 feet to an elevation of 4551.2 feet (U.S. Army Corps of Engineers Datum).

The velocity in the flood fringe area is estimated to be between 1 foot per second and 3 feet per second. The increase in velocity due to the importation of fill is expected to be less than 1.0 feet per second during the 100 year flood.

Finish floor elevations will be constructed above 100 year flood levels even if the flood fringe area were to be completely filled in. The proposed building is 240' x 320'. The proposed paved parking lot will be approximately 200,000 square feet. The parking lot will be located at an elevation of 4550'.

At this time the applicant does not plan to modify river banks or change the channel configuration to protect the site. Erosion and scour rates will not be changed from present rates.

Toxic or hazardous materials will not be stored at the site.

100 Year Flood Event Access Routes

Access to the Site during a 100 year flood will be along Powers Road, which lies entirely outside the flood plane in the area of the site. The driveway to the building and parking area will be flooded to a depth of between 0.5 and 1.5 feet during the 100 year flood event.

Utility Flood Proofing

Utility flood proofing measures incorporated in the development of this site include:

- 1) Installation of back flow prevention devices in the domestic waterline service.
- 2) Provision for power transformer pad at an elevation above the 100 year flood plane.
- 3) Provision for gas meter and regulator at a point outside the 100 year flood plane.
- 4) Provision for water tight manholes in sewer lines on the site.

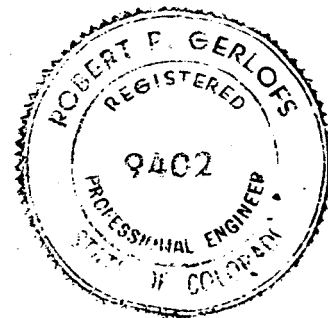
Gaslines and powerlines will be provided by Public Service Company of Colorado for the proposed development. Water service will be provided by Ute Water, and sanitary sewer service will be extended to flow into an existing sanitary sewer line. Service will be installed in accordance with standards of the respective utility.

Flood Plane/Hazard Boundary Map

Submitted with this application is a copy of the U.S. Army Corp of Engineers Flooded Areas Map No. 327. This map clearly shows the subject property outside the 100 Year Floodway.

Floatables

It is not anticipated that any floatables will be stored in the parking area or grounds which lie inside the flood plane. Any floatable materials in the yard will remain in the yard during a 100 year flood since a six foot fence will be placed around the parking area. The fence which will stand at least four feet above the 100 year flood plane will trap all incidental floating materials.



WATER SURFACE PROFILES
VERSION OF NOVEMBER 1976
UPDATED APRIL 1980

RUN DATE 11 APR 80 TIME 12.13.13

* U.S. ARMY CORPS OF ENGINEERS *
* THE HYDROLOGIC ENGINEERING CENTER *
* 409 SECOND STREET, SUITE D *
* DAVIS, CALIFORNIA 95616 *
* (916) 340-2105 (FTS) 448-2105 *

```
X      X  XXXXXXXX  XXXXX      XXXXX
X      Y  Y          Y          X
X      X  X          Y          X
XXXXXXXX XXXX      X          XXXXX
X      X  X          X          X
X      X  X          X          X
X      Y  XXXXXXXX  XXXXX      XXXXXXXX
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*CC: Ed Bennet
9-28-81*

11 APR 80 12.13.13

FLOODWAY DATA, COLORADO RIVER
PROFILE NO. 2

STATION	FLOODWAY SECTION			WATER SURFACE ELEVATION			
	WIDTH	AREA	MEAN VELOCITY	WITH FLOODWAY	WITHOUT FLOODWAY	DIFFERENCE	
	379.390	1629 1440	13609 11734	5.0 7.0	4512.8 4512.9	4512.7	.1
	379.520	1350.	10076.	8.1	4513.5	4513.4	.1
	379.670	1720.	8660.	9.5	4514.3	4514.3	0.
	379.820	2150.	10271.	8.0	4515.7	4515.4	.3
	380.030	2300.	13067.	6.3	4517.5	4517.5	0.
A	380.810	2500.	20049.	4.1	4523.0	4522.8	.2
	381.050	1950.	14445.	5.7	4523.8	4523.6	.2
	381.150	2160.	13356.	6.1	4524.4	4524.2	.2
B	381.250	2460.	12329.	6.7	4525.5	4525.4	.1
C	381.750	1080.	12417.	6.6	4531.2	4531.1	.1
D	382.240	1370.	13211.	6.2	4534.2	4533.8	.4
E	382.980	2320.	19245.	4.3	4538.1	4537.2	.9
F	383.470	1900.	16961.	4.3	4540.0	4539.1	.9
G	384.260	2775 2000	16298 15640	5.0 5.2	4544.1 4544.2	4544.1	.1
H	384.930	1420.	10493.	7.8	4548.4	4547.3	1.1
I	385.230	1670.	12737.	6.4	4549.8	4548.9	.9
	385.370	1162.	8183.	10.0	4550.9	4550.5	.4
	385.500	1010.	10163.	8.1	4553.4	4553.4	0.
	385.520	826.	8006.	10.2	4553.4	4553.4	0.
	385.530	827.	8129.	10.1	4553.6	4553.6	0.
	385.550	828.	8260.	9.9	4553.7	4553.7	0.
	385.560	829.	8371.	9.8	4553.9	4553.9	0.
J	385.600	920.	12006.	6.8	4554.9	4554.9	0.
	385.790	940.	8588.	9.5	4555.4	4555.5	-.1
K	386.160	1400.	13540.	6.1	4559.5	4559.5	0.
L	386.570	800.	9777.	8.4	4561.6	4561.6	0.
	386.700	720.	6044.	10.4	4562.3	4562.2	.1
	386.710	714.	8502.	7.4	4563.6	4563.4	.2
	386.720	714.	8266.	7.6	4563.7	4563.5	.2
	386.780	630.	6386.	9.9	4563.6	4563.6	0.
	386.820	579.	6031.	10.4	4564.6	4564.2	.4
	386.830	580.	6138.	10.3	4564.7	4564.4	.3

Marks are per April 22, 1980 Ltv. to Enstrom

Downstream Appister Drain

Vicinity downstream limit of Grand Junction

	4542.000	3410.000	4544.000	3430.000	4544.000	3450.000	4550.000	4455.000	4553.700	4490.000
GR	4545.600	3470.000	4546.000	3750.000	4548.000	3950.000	4550.000	4455.000	1450.000	3120.000
ET	-0.	-0.	9.100	-0.	-0.	-0.	-0.	-0.	-0.	-0.
X1	385.230	51.000	1450.000	3150.000	1500.000	1550.000	1584.000	-0.	-0.	-0.
X5	1.000	-0.	4549.800	-0.	-0.	-0.	-0.	-0.	-0.	-0.
GR	4570.000	0.	4560.000	15.000	4550.000	40.000	4557.000	50.000	4550.000	60.000
GR	4550.000	85.000	4548.000	310.000	4548.000	400.000	4546.000	500.000	4545.000	600.000
GR	4546.000	700.000	4548.000	890.000	4548.000	1130.000	4547.000	1300.000	4548.000	1440.000
GR	4549.100	1450.000	4548.000	1470.000	4540.000	1495.000	4535.900	1500.000	4535.900	1590.000
GR	4539.900	1610.000	4539.900	1660.000	4535.900	1670.000	4535.900	1730.000	4540.000	1740.000
GR	4544.000	1750.000	4543.000	1830.000	4544.000	1910.000	4544.400	1970.000	4544.000	2030.000
GR	4542.000	2050.000	4537.000	2070.000	4537.000	2120.000	4542.000	2130.000	4544.000	2150.000
GR	4542.000	2160.000	4537.000	2180.000	4537.000	2260.000	4542.000	2270.000	4546.000	2325.000
GR	4546.800	2360.000	4546.000	2380.000	4544.000	2415.000	4538.500	2440.000	4538.500	2560.000
GR	4544.000	2590.000	4546.000	2600.000	4546.000	2400.000	4545.200	2840.000	4546.000	2870.000
GR	4546.000	3020.000	4544.000	3030.000	4539.000	3040.000	4539.000	3100.000	4544.000	3110.000
GR	4552.000	3130.000	4553.000	3150.000	4552.000	3170.000	4550.900	3450.000	4552.000	3660.000
GR	4556.200	3730.000	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.
ET	-0.	-0.	9.100	-0.	-0.	-0.	-0.	-0.	1400.000	2600.000

11 APR 80 12.13.13

X1	345.370	37.000	1320.000	2565.000	520.000	1550.000	739.000	-0.	-0.	-0.
X3	10.000	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.	-0.
GR	4570.000	0.	4560.000	25.000	4550.000	60.000	4552.000	65.000	4550.000	75.000
GR	4552.000	90.000	4552.000	870.000	4550.000	890.000	4549.000	1050.000	4550.000	1210.000
GR	4550.700	1320.000	4550.000	1435.000	4544.000	1450.000	4539.400	1470.000	4539.400	1600.000
GR	4544.000	1415.000	4546.000	1670.000	4547.200	1800.000	4546.000	1980.000	4546.000	2210.000
GR	4544.000	2220.000	4540.300	2260.000	4540.300	2530.000	4544.000	2545.000	4552.000	2565.000
GR	4554.000	2710.000	4554.000	2890.000	4552.000	3180.000	4551.400	3200.000	4552.000	3235.000
GR	4552.700	3370.000	4552.000	3470.000	4549.800	3490.000	4552.000	3510.000	4554.000	3610.000
GR	4556.000	3415.000	4556.900	3680.000	-0.	-0.	-0.	-0.	-0.	-0.
ET	-0.	-0.	9.100	-0.	-0.	-0.	-0.	-0.	1490.000	2500.000

STATION SECTION	COMPUTED WATER SURFACE		REACH BETWEEN SECTION X-LOCN FT	ROADWAY ELEV AT BRIDGE ELTED	LOW CHORD BRIDGE ELIC	STREAM BOTTOM ELEV ELMIN	STATION		VELOCITY/ FT/SEC VCH	DIST FROM BEGIN SECTION TO WATER GROUND INTERSECTION STA	WATER GROUND INTERSECTION ENDST
	CENSEL	TORWID FT					STCHL	STCHR			
381.250	4525.37	2439.98	528.00	0.	0.	4513.00	1000.00	1570.00	10.53	60.60	2550.57 82
381.250	4525.45	2440.00	528.00	0.	0.	4513.00	1000.00	1570.00	10.41	70.00	2530.00 82
381.750	4531.11	2151.66	2640.00	0.	0.	4516.50	0.	560.00	8.25	91.13	2242.78 82
381.750	4531.18	1080.00	2640.00	0.	0.	4516.50	0.	560.00	8.96	120.00	1200.00 82
382.240	4533.80	2968.69	2587.00	0.	0.	4514.90	0.	600.00	7.69	52.40	3021.09 82
382.240	4534.18	1370.00	2587.00	0.	0.	4514.90	0.	600.00	8.23	80.00	1450.00 82
382.980	4537.20	3609.24	3907.00	0.	0.	4521.40	2170.00	2620.00	6.54	26.99	3636.23 82
382.980	4538.07	2320.00	3907.00	0.	0.	4523.40	2170.00	2620.00	7.33	300.00	2620.00 82
383.470	4539.11	1891.43	2587.00	0.	0.	4522.30	1375.00	1910.00	8.34	14.43	1905.86 82
383.470	4540.05	1900.00	2587.00	0.	0.	4522.30	1375.00	1910.00	7.23	200.00	2100.00 82
384.260	4544.11	2775.26	4171.00	0.	0.	4526.80	3050.00	4710.00	5.79	1800.00	4575.28 82
384.260	4544.02	2775.04	4171.00	0.	0.	4526.80	3050.00	4710.00	5.87	1800.00	4575.04 82
384.930	4547.24	3813.29	3538.00	0.	0.	4531.00	2650.00	3515.00	5.45	64.91	3878.21 82
384.930	4548.30	1420.00	3538.00	0.	0.	4533.90	2650.00	3515.00	8.53	2580.00	4000.00 82
385.230	4548.90	2908.35	1594.00	0.	0.	4535.90	1450.00	3150.00	6.97	208.51	3122.26 82
385.230	4549.80	1670.00	1594.00	0.	0.	4535.90	1450.00	3150.00	6.44	1450.00	3120.00 82
385.370	4550.54	1214.94	739.00	0.	0.	4539.40	1320.00	2565.00	10.60	1346.41	2561.35 82
385.370	4550.93	1162.32	739.00	0.	0.	4539.40	1320.00	2565.00	10.02	1400.00	2562.32 82
385.500	4553.36	1504.95	696.00	0.	0.	4541.00	1270.00	2500.00	7.77	1349.57	2854.52 82
385.500	4553.25	1010.00	696.00	0.	0.	4541.00	1270.00	2500.00	8.07	1490.00	2500.00 82
385.520	4553.40	810.32	220.00	4562.10	4559.00	4541.00	1330.00	2210.00	10.16	1353.08	2179.40 82
385.520	4553.32	809.77	220.00	4562.10	4559.00	4541.00	1330.00	2210.00	10.24	1353.38	2179.16 82
385.530	4553.56	811.30	36.00	4562.10	4559.00	4541.00	1330.00	2210.00	10.01	1352.53	2179.83 82
385.530	4553.48	810.80	36.00	4562.10	4559.00	4541.00	1330.00	2210.00	10.09	1352.81	2179.61 82
385.550	4553.73	812.37	40.00	4562.10	4559.00	4541.00	1330.00	2210.00	9.86	1351.93	2180.30 82
385.550	4553.65	811.90	40.00	4562.10	4559.00	4541.00	1330.00	2210.00	9.93	1352.19	2180.09 82
385.560	4553.88	813.27	36.00	4562.10	4559.00	4541.00	1330.00	2210.00	9.73	1351.43	2180.70 82
385.560	4553.81	812.83	36.00	4562.10	4559.00	4541.00	1330.00	2210.00	9.80	1351.68	2180.50 82
385.600	4554.89	1769.84	110.00	0.	0.	4540.00	1280.00	2330.00	6.71	1359.87	3323.88 82
385.600	4554.81	920.00	110.00	0.	0.	4540.00	1280.00	2330.00	6.71	1359.87	3323.88 82

STATION SECTION	COMPUTED CRS WATER SURFACE ELEV	CRITICAL WATER SURFACE ELEV	TOP WIDTH WATER FT. TYPICAL	FT DEPTH	CHANNEL VELOCITY VCH FT/SEC	MIN ELEV TOP OF ROAD ELEV	BRIDGE DECK ELEV ELLC	CHANNEL BOTTOM ELEV	CHANNEL REACH LENGTH X LCH FEET	WEIR FLOW AT BRIDGE CFS	SLOPE/CAPACITY OF CHL SECTION .01K	TOTAL DISCHARGE CFS
379.820	4515.41	0.	2444.00	15.31	11.36	0.	0.	4507.10	792.00	0.	21836.55	82000.0
379.820	4515.66	0.	2150.00	15.56	11.16	0.	0.	4507.10	792.00	0.	22499.81	82000.0
380.030	4517.47	0.	2483.45	16.17	10.72	0.	0.	4507.30	1109.00	0.	18202.64	82000.0
380.030	4517.51	0.	2300.00	16.21	11.17	0.	0.	4507.30	1109.00	0.	17901.92	82000.0
380.810	4522.77	0.	2637.53	13.97	4.89	0.	0.	4507.30	4118.00	0.	31319.05	82000.0
380.810	4522.97	0.	2500.00	14.17	4.96	0.	0.	4507.30	4118.00	0.	31454.79	82000.0
381.050	4523.58	0.	2332.05	12.38	7.21	0.	0.	4517.20	1267.00	0.	24476.62	82000.0
381.050	4523.76	0.	1950.00	12.56	7.11	0.	0.	4517.20	1267.00	0.	25061.23	82000.0
381.150	4524.20	0.	2272.87	12.10	9.30	0.	0.	4517.10	528.00	0.	16568.44	82000.0
381.150	4524.36	0.	2160.00	12.26	9.18	0.	0.	4517.10	528.00	0.	17140.65	82000.0
381.250	4525.37	0.	2449.98	12.37	10.53	0.	0.	4517.00	528.00	0.	15254.13	82000.0
381.250	4525.45	0.	2460.00	12.45	10.41	0.	0.	4517.00	528.00	0.	15509.08	82000.0
381.750	4531.11	0.	2151.66	14.61	8.25	0.	0.	4517.50	2640.00	0.	22413.10	82000.0
381.750	4531.18	0.	1080.00	14.68	8.96	0.	0.	4517.50	2640.00	0.	21265.60	82000.0
382.240	4533.80	0.	2968.69	18.90	7.69	0.	0.	4517.90	2587.00	0.	28019.47	82000.0
382.240	4534.18	0.	1370.00	19.28	8.23	0.	0.	4517.90	2587.00	0.	26735.11	82000.0
382.980	4537.20	0.	3609.24	15.80	6.54	0.	0.	4527.40	3907.00	0.	28470.67	82000.0
382.980	4538.07	0.	2320.00	14.67	7.33	0.	0.	4527.40	3907.00	0.	26374.16	82000.0
383.470	4539.11	0.	1891.43	16.81	8.34	0.	0.	4527.30	2587.00	0.	23813.63	82000.0
383.470	4540.05	0.	1900.00	17.75	7.23	0.	0.	4527.30	2587.00	0.	28564.81	82000.0
384.260	4544.11	0.	2775.28	17.31	5.79	0.	0.	4527.80	4171.00	0.	25164.78	82000.0
384.260	4544.02	0.	2775.04	17.22	5.87	0.	0.	4527.80	4171.00	0.	24635.47	82000.0
384.930	4547.28	0.	3813.29	16.28	5.45	0.	0.	4537.90	3538.00	0.	29146.82	82000.0
384.930	4548.34	0.	1420.00	14.44	8.53	0.	0.	4537.90	3538.00	0.	19913.35	82000.0
385.230	4548.90	0.	2908.35	13.00	6.97	0.	0.	4537.90	1584.00	0.	17722.95	82000.0
385.230	4549.80	0.	1670.00	13.90	6.44	0.	0.	4537.90	1584.00	0.	20814.77	82000.0
385.370	4550.54	0.	1214.94	11.14	10.60	0.	0.	4537.40	739.00	0.	11264.04	82000.0
385.370	4550.93	0.	1162.32	11.53	10.02	0.	0.	4537.40	739.00	0.	12723.26	82000.0
385.500	4553.36	0.	1504.95	12.36	7.77	0.	0.	4547.00	686.00	0.	19592.78	82000.0

CITY OF GRAND JUNCTION, COLORADO

MEMORANDUM

Reply Requested

Yes No

Date

Oct. 15, 1981

To: ~~(FOIA)~~ Bob Goldin

From: ~~(FOIA)~~ Ron Rish *RRR*

SUBJECT: Floodplain Permit Application - Mesa Beverage Company

As requested, I have reviewed the application for the above as received on October 8, 1981, and I have the following comments:

1. The engineering report is complete and all the recommendations are acceptable:
 - a. Constructing the finish floors of the buildings above the 100 year flood level and recontouring the ground for positive drainage away from the buildings.
 - b. Making no alternation in the course of the river, not modifying the riverbanks and not changing the channel configuration.
 - c. Having the fill material for the site occupying less than 20% of the available flood fringe area so as to only raise the flood level 0.3 feet (theoretically) downstream.
 - d. Provide utility flood proofing measures as delineated in the report.
2. The one single problem with the application is the apparent contention that the U.S. Corps of Engineers Flood Hazard Information data is not to U.S.G.S. datum but is 1.5 ft. below the U.S.G.S. datum. I cannot accept this without significant documentation from the U.S. Corps of Engineers.

The Corps Flood Hazard Information plates mapping are based on April, 1975 ortho-photo map provided by U.S. Bureau of Reclamation. The U.S. Bureau of Reclamation "ortho-photo map topography" dated April 13, 1975 (Sheet 327 of 488) clearly states "U.S.C & G.S. Datum" on the map.

Using the U.S.G.S. elevation for the buildings floors results in the 100 year flood being 4551.30-4550.70 = 0.60 ft. above the buildings floors. This conflicts with the recommendation to keep the building floors above the 100 year flood level.

I called Ed Bennett of Paragon Engineers and Ron Choate of Roche Constructors and related the above today.

On another matter concerning the same project, I would appreciate your notifying the Building Department that no plans or engineering analysis has been submitted to me to show how they intend to serve these buildings with sanitary sewer. An existing 6 inch sewer and a sewage lift station is involved so the matter is not straightforward.

cc: Hollinger
Patterson
Sterry



Planning Department

Mesa Bev F.P. File

Post Office Box 1727
Greeley, Colorado 80632

October '27, 1981

Grand Junction Fire Department
330 So. 6th Street
Grand Junction, Colorado

Attn: Battalion Chief - Wes Painter

RE: Fire Flow Survey
Mesa Beverage Co.

Dear Mr. Painter:

As you are aware, the original contract documents of the above mentioned project did not allow for adequate fire protection as required by the City of Grand Junction. Through negotiations with the owner we feel we have reached an agreement that will allow us to install a fire protection system which will bring this project into full compliance with all local and state building codes. It is our intent in this letter to guarantee that the new Mesa Bottling facility will conform to any codes and/or regulations regarding fire protection.

To explain in detail, the new building and existing offices will be fully sprinkled by a licensed fire sprinkler company. The sprinkler system will be designed to operate on 1,000 G.P.M. @40 PSI. Ute Water can supply 1,500 G.P.M. @40PSI from the Brock's subdivision. We will install a 10" diameter asbestos cement line from Brock's subdivision to the meter vault as shown on the drawings. Also we will install a continuous 8" loop with three fire hydrants at designated locations as directed by yourself.

We hope that this letter meets your requirements in order that we might be able to obtain our building permit and begin construction as soon as possible. If you have any questions, please call me at 241-7206.

Respectfully Submitted,

ROCHE CONSTRUCTORS, INC.

Merlin Schreiner
Merlin Schreiner,
Project Superintendent

*all records - 10-27-81
Wes Painter*

MS:1b

8103C

2424 6th Avenue
Phone (303) 356 3611

P.O. Box 2940
Grand Junction, CO.
81502

98-81

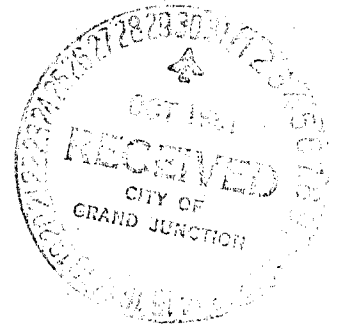


PARAGON ENGINEERING, INC.

2784 Crossroads Blvd., Suite 104
Grand Junction, Colorado 81501 (303) 243-8966

Mose
Bew
FP
File

October 28, 1981



Bernard A. Buescher
200 North 6th Street
Grand Junction, CO 81501

Dear Mr. Buescher:

During our recent work for you on a flood plain permit for you it appears, using U.S.G.S. elevations, that your proposed facility is in the flood plain. However, it is our contention that the flood plain maps are not on the U.S.G.S. datum, contrary to what is stated on the flood plain maps, and that when we surveyed your facility using the flood map datum your facility is above the flood plain.

The City Engineer has asked that this difference in datum be verified by a different method than we have already used, we related to a point on the bridge across the river. In this regard, we have requested copies from the Bureau of Reclamation of all of the bench marks which were used in preparing the contour maps which were used for the flood study.

We have already spent considerable time with survey crews attempting to verify that your facility is above the flood plain. We have exceeded our original estimate to you by at least \$1,000.00.

In order to provide the type of information required by the City Engineer in a format acceptable to him, we could easily invest another \$1,000.00 of your money. The benchmarks used by the Bureau are Number 5 rebar with a metal tag. They are difficult to locate and many are missing. We will try to find a benchmark as close as possible to the U.S.G.S. benchmark we are using, which is a brass survey marker at First and Grand.

I realize that time is of the essence from your standpoint. We are proceeding as rapidly as possible to resolve this matter.

One thing which you should be aware of is that if we are wrong and there is not a datum difference, your facility is in the flood plain and you have a major problem.

Very truly yours,

Robert P. Gerlofs

RPG:emb

cc: Ron Rish, City Engineer
Ron Choate, Roche Const.

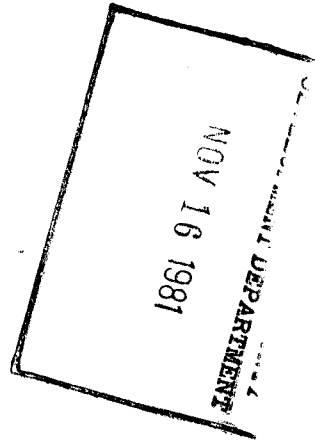
cc: Bob Goldin
Jim Patterson
Dick Hollinger

Ron
10-30-81

#98-81



Post Office Box 1727
Greeley, Colorado 80632



November 16, 1981

City-County Development Dept.
Attn: Bob Goldin
Grand Junction, Colorado

RE: Flood Plain Permit
Mesa Beverage

Dear Bob:

The floodplain permit application submitted by Paragon Engineering Inc. did not specify steps taken to floodproof the gasoline storage tanks and did not call out the new finish floor elevation at the computer room.

The following steps will be taken:

1. The gasoline storage tanks will be protected by a reinforced concrete retaining wall. The retaining wall will contain any fuel spillage and protect the tanks from flood damage. The elevation at the top of the wall will be no less than 4552.3 feet above sea level.
2. The finish floor elevation of the computer room will be 4552.3 feet.

If you have further questions please call me at 241-7206.

Respectfully Submitted,

ROCHE CONSTRUCTORS, INC.

A handwritten signature in cursive script that reads 'Merlin Schreiner'.

Merlin Schreiner,
Superintendent

MS:1b

8103C

2424 6th Avenue

Phone (303) 356 3611

MEMORANDUM

Reply Requested
Yes No

Date

Nov. 16, 1981

To: (From:) Bob Goldin

From: (To:)

Ron Rish



Subject: Revised Flood Plain Permit Application-Mesa Beverage Co.

As requested, I have reviewed the revised application for the above as received on November 11, 1981, and I have the following comments:

1. The engineering report is complete and all the recommendations are acceptable:
 - a. Constructing the finish floors of the buildings above the 100 year flood level and recontouring the ground for positive drainage away from the buildings.
 - b. Making no alternation in the course of the river, not modifying the riverbanks and not changing the channel configuration.
 - c. Having the fill material for the site occupying less then 20% of the available flood fringe area so as to only raise the flood level 0.3 feet (theoretically) downstream.
 - d. Provide utility flood proofing measures as delineated in the report.
2. As discussed with you last Friday, apparently a portion of the existing building which is not being utilized initially, will not have the floors raised above the 100 year flood level but instead will be "Floodproofed". Waterproof door bulkheads and wall waterproofing is discussed in the application. I recommend that since there is no control over future use of the building space, that any area of the existing building which is not to have the floors raised to above the 100 year flood level shall be floodproofed in accordance with "Flood Proofing Regulations" by U.S. Corps of Engineers, June, 1972. You have a copy of that document in your office. The project architects and the Building Inspection Department should probably compare details to check conformance with those regulations.
3. The "protection" around the two 10,000 gallon storage tanks should probably be a concrete wall which will be higher than the 100 year flood level. This wall would keep the gasoline in during a spillage and the water from floating the tanks away during a flood.
4. I am by copy of this memo requesting that Paragon share with me any data they may obtain from the Bureau of Reclamation which might establish any different datum for the flood mapping other than U.S.G.S. datum. This issue could have very significant impact on the entire Grand Valley's flood plain administration program.

cc - Bernard Buescher
Ron Choate-Roche Constructors
Ed Bennett-Paragon Engineering
Dick Hollinger
Jim Patterson
File