CITY OF ALBUQUERQUE

Richard J. Berry, Mayor

October 6, 2017

David Aube, P.E.
Hartman & Majewski Design Group
120 Vassar Dr SE, Suite 100
Albuquerque, NM, 87106

RE: 6th and Haines Redevelopment
Conceptual Grading and Drainage Plan
Stamp Date: 10/5/17
Hydrology File: H14D108

Dear Mr. Aube:

Based upon the information provided in your resubmittal received 10/5/17, the Conceptual Grading and Drainage Plan is approved for action by the DRB on the Site Plan for Building Permit and Site Plan for Subdivision.

Before submitting for Building Permit, please make the following changes:

- On Sheets SDP-3.2, please call change the Basins to "Proposed" from "Existing".
- On Sheets SDP-3.2, please add the finished floor elevation to the main building.
- Please review the Proposed 100 year discharge. I checked Pro 4 and came up with 1.38 cfs instead of your 1.49 cfs.
- Not all basins need a first flush pond. Only Basin Pro 5 needs one since the impervious area increased.
- Please add a curb cut or cuts to allow runoff to inter the first flush pond within the depressed landscape areas.
- Please show the weir calculations for the proposed curb cut or cuts.

If you have any questions, please contact me at 924-3995 or rbrissette@cabq.gov.

Sincerely,

Reneé C. Brissette

Reneé C. Brissette, P.E. CFM
Senior Engineer, Hydrology
Planning Department

Orig: Drainage File

PO Box 1293
Albuquerque
NM 87103
www.cabq.gov

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 1/2016)

Project Title: 6th and Haines Redevelopment Building Permit #: _____ Hydrology File #: H-14-Z

DRB#: 1011292 EPC#: _____ Work Order#: _____

Legal Description: Tracts 71, 52A1A2, 52A1B, MRGCD Map Number 36

City Address: 620 Haines Avenue NW

Applicant: The Design Group Contact: David Aube

Address: 120 Vassar Street SE

Phone#: 505-998-6430 Fax#: 505-242-6881 E-mail: daube@designgroupnm.com

Other Contact: _____ Contact: _____

Address: _____

Phone#: _____ Fax#: _____ E-mail: _____

Check all that Apply:

DEPARTMENT:

x HYDROLOGY/ DRAINAGE

____ TRAFFIC/ TRANSPORTATION

____ MS4/ EROSION & SEDIMENT CONTROL

TYPE OF SUBMITTAL:

____ AS-BUILT CERTIFICATION

X CONCEPTUAL G & D PLAN

____ GRADING PLAN

____ DRAINAGE MASTER PLAN

____ DRAINAGE REPORT

____ CLOMR/LOMR

____ TRAFFIC CIRCULATION LAYOUT (TCL)

____ TRAFFIC IMPACT STUDY (TIS)

____ NEIGHBORHOOD IMPACT ASSESMENT (NIA)

____ EROSION & SEDIMENT CONTROL PLAN (ESC)

____ OTHER (SPECIFY) _____

TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

____ BUILDING PERMIT APPROVAL

____ CERTIFICATE OF OCCUPANCY

____ GRADING/ESC PERMIT APPROVAL

____ PRELIMINARY PLAT APPROVAL

____ SITE PLAN FOR SUB'D APPROVAL

X SITE PLAN FOR BLDG. PERMIT APPROVAL

____ FINAL PLAT APPROVAL

____ SIA/ RELEASE OF FINANCIAL GUARANTEE

____ FOUNDATION PERMIT APPROVAL

____ SO-19 APPROVAL

____ PAVING PERMIT APPROVAL

____ GRADING/ PAD CERTIFICATION

____ WORK ORDER APPROVAL

____ CLOMR/LOMR

____ **PRE-DESIGN MEETING?**

____ OTHER (SPECIFY) _____

IS THIS A RESUBMITTAL?: X Yes ____ No

DATE SUBMITTED: 10-5-17 By: David Aube

COA STAFF: ELECTRONIC SUBMITTAL RECEIVED: ____ FEE RECEIVED: _____

Existing summary

Basin Name	Ex 1	Ex 2	Ex 3	Ex 4	Ex 5	Ex 6
Area (sf)	2502	12402	23343	14484	22021	2608
Area (acres)	0.06	0.28	0.54	0.33	0.51	0.06
%A Land treatment	0	0	0	0	0	0
%B Land treatment	0	0	0	0	0	0
%C Land treatment	0	0	5	20	40	0
%D Land treatment	100	100	95	80	60	100
Soil Treatment (acres)						
Area "A"	0.00	0.00	0.00	0.00	0.00	0.00
Area "B"	0.00	0.00	0.00	0.00	0.00	0.00
Area "C"	0.00	0.00	0.03	0.07	0.20	0.00
Area "D"	0.06	0.28	0.51	0.27	0.30	0.06
Excess Runoff (acre-feet)						
100yr. 6hr.	0.0101	0.0503	0.0925	0.0533	0.0726	0.01
10yr. 6hr.	0.0064	0.0318	0.0580	0.0326	0.0426	0.0067
2yr. 6hr.	0.0038	0.0187	0.0338	0.0183	0.0225	0.0039
100yr. 24hr.	0.0121	0.0598	0.1094	0.0621	0.0827	0.01
Peak Discharge (cfs)						
100 yr.	0.27	1.34	2.48	1.46	2.06	0.28
10yr.	0.18	0.89	1.64	0.95	1.30	0.19
2yr.	0.11	0.53	0.96	0.53	0.69	0.11

6th and Haines Redevelopment

I. PURPOSE AND SCOPE

The purpose of this drainage plan is to present the existing and proposed drainage management plans for the proposed 6th Street and Haines Redevelopment located at the SW Corner of 6th Street NW and Haines Avenue NW. The site is located in Zone Atlas Page H–14–Z. The site is currently fully developed. The proposed modifications include removing several buildings and creating new parking and pedestrian circulation.

II. SITE DESCRIPTION AND HISTORY

The site is currently fully developed. Several building will be removed to allow for the proposed redevelopment.

III. COMPUTATIONAL PROCEDURES

Hydrologic analysis was performed utilizing the design criteria found in the COA–DPM Section 22.2 released in June 1997.

IV. PRECIPITATION

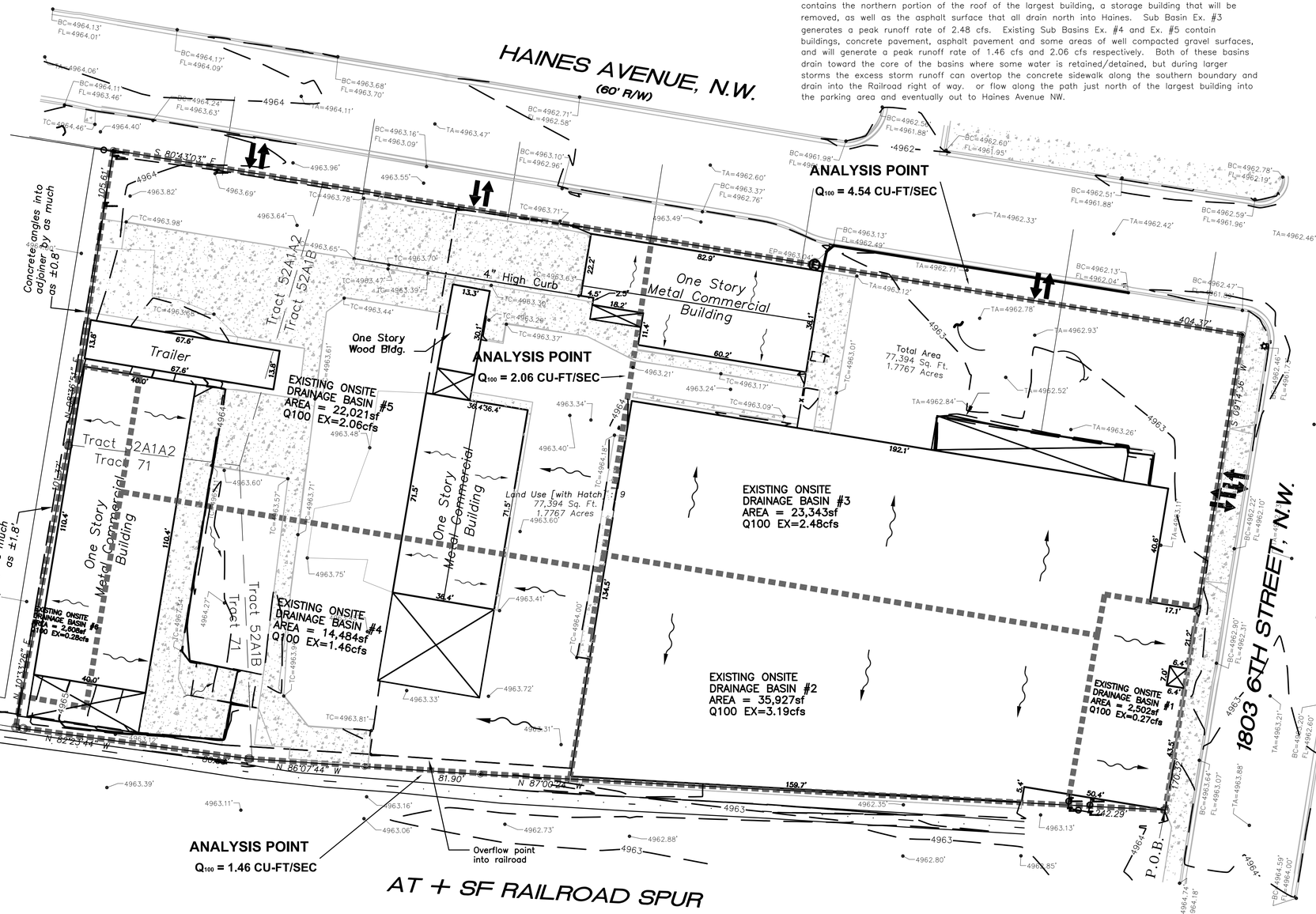
The 100–yr. 6–hr duration storm was used as the design storm for this analysis. This site is within Zone 2 as identified in the DPM Section 22.2. Tables within the section were used to establish the 6–hr precipitation, excess precipitation and peak discharge.

V. EXISTING DRAINAGE CONDITIONS OVERVIEW

The existing project site is located on the south west corner of 6th and Haines Ave, just north of the railroad tracks before I–40 in downtown Albuquerque, barricaded by an existing fence to the west. The existing site accommodates four, one–story metal buildings, a one–story wood building, and a trailer. The largest of the buildings occupies the entirety of the lower SE quadrant of the lot. The second largest metal building lies in the SW corner, running vertically along the western fence. A trailer sits perpendicular at the northern end of the building. The third metal building is accessed from Haines Ave., and sits horizontally, half–way between 6th Street and the fence. The 4th metal building runs vertically and is positioned between the largest and second largest metal buildings directly in the middle of the lot, and to the north, a covered area connects it to the small, wood building. The previous identified buildings have ample, concreted space encompassing all four sides. The rest of the lot (approx. 40%) consists of concrete or asphalt in various states of aging and degradation.

The site is approximately 1.78 acres with most of the runoff directed either towards Haines Ave. to the north or the railroad tracks to the south, small amounts of roof drains directly towards the east and west from the two buildings that will remain throughout the redevelopment.

For the purpose of this conceptual drainage plan, the projected site has been broken up into 6 sub–basins. Sub–basin Ex. #1 is a small roof area that creates a peak runoff rate of .27 cfs that will flow directly onto 6th Street NW. Sub–basin Ex. #2 is a south side of the largest existing building to remain and creates a peak runoff rate of 1.34 cfs that will drain directly into the railroad right of way. Sub–basin Ex. #6 is the western side of the SW corner metal building and has a peak runoff rate of .28 cfs that will drain west over the fence. Existing Sub Basin Ex. #3 contains the northern portion of the roof of the largest building, a storage building that will be removed, as well as the asphalt surface that all drain north into Haines. Sub Basin Ex. #3 generates a peak runoff rate of 2.48 cfs. Existing Sub Basins Ex. #4 and Ex. #5 contain buildings, concrete pavement, asphalt pavement and some areas of well compacted gravel surfaces, and will generate a peak runoff rate of 1.46 cfs and 2.06 cfs respectively. Both of these basins drain toward the core of the basins where some water is retained/detained, but during larger storms the excess storm runoff can overtop the concrete sidewalk along the southern boundary and drain into the Railroad right of way. or flow along the path just north of the largest building into the parking area and eventually out to Haines Avenue NW.

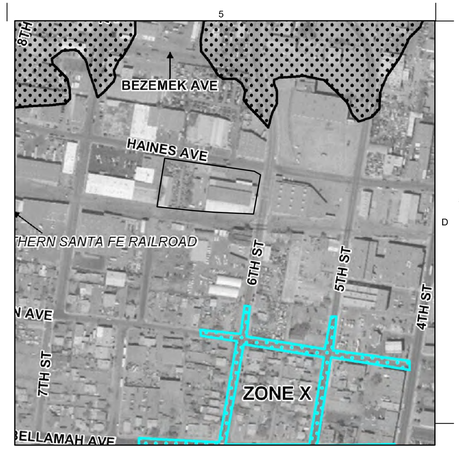


GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

A1 CONCEPTUAL EXISTING DRAINAGE PLAN
SCALE: 1" = 20'–0"



C6 FLOOD ZONE MAP
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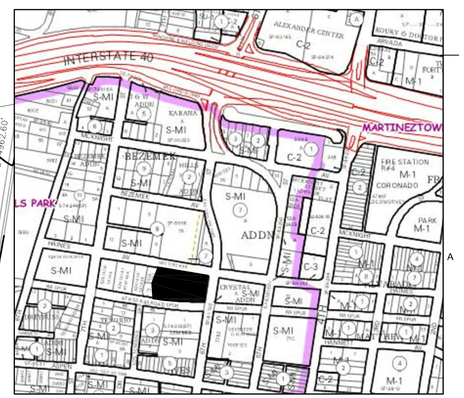

A6 ZONE ATLAS PAGE
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DAVID A. AUBE — STATE OF NEW MEXICO — 14221 — REGISTERED PROFESSIONAL ENGINEER
10-5-17

SITE DEVELOPMENT PLAN FOR BUILDING PERMIT

PROJECT NAME

6TH & HAINES IMPROVEMENTS

1803 6TH ST NW
ALBUQUERQUE, NM 87102

NEW MEXICO CAPITAL PARTNERS

REVISIONS

NO.	DATE	DESCRIPTION

Drawn by	MAS
Checked by	DAA
Date	06/29/2017
Project number	

SHEET TITLE

CONCEPTUAL DRAINAGE PLAN EXISTING CONDITIONS

SHEET NUMBER

SDP-3.1

SHEET 3 OF 10

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Proposed summary

Basin Name	Pro 1	Pro 2	Pro 3	Pro 4	Pro 5	Pro 6
Area (sf)	2502	12402	23343	14484	22021	2608
Area (acres)	0.06	0.28	0.54	0.33	0.51	0.06
%A Land treatment	0	0	0	0	0	0
%B Land treatment	0	0	10	22	18	0
%C Land treatment	0	0	15	0	0	0
%D Land treatment	100	100	75	78	82	100
Soil Treatment (acres)						
Area "A"	0.00	0.00	0.00	0.00	0.00	0.00
Area "B"	0.00	0.00	0.05	0.07	0.09	0.00
Area "C"	0.00	0.00	0.08	0.00	0.00	0.00
Area "D"	0.06	0.28	0.40	0.26	0.41	0.06
Excess Runoff (acre-feet)						
100yr. 6hr.	0.0101	0.0503	0.0821	0.0506	0.0791	0.01
10yr. 6hr.	0.0064	0.0318	0.0496	0.0307	0.0484	0.01
2yr. 6hr.	0.0038	0.0187	0.0276	0.0172	0.0274	0.00
100yr. 24hr.	0.0121	0.0598	0.0955	0.0592	0.0930	0.01
Peak Discharge (cfs)						
100 yr.	0.27	1.34	2.26	1.39	2.16	0.28
10yr.	0.18	0.89	1.45	0.88	1.39	0.19
2yr.	0.11	0.53	0.80	0.49	0.78	0.11
First Flush Ponding Voulme (cf)	91.7	454.7	641.9	414.2	662.1	95.6
First Flush Acre Feet	0.0021	0.0104	0.0147	0.0095	0.0152	0.0022

VI. DRAINAGE MANAGEMENT PLAN

The site will have several of the existing buildings removed in preparation for the new site configuration.

Proposed Sub-basins Pro #1, #2, #3 and #6 will be the locations of the two existing buildings to remain on the property. These are the existing largest and second largest buildings occupying the SE and SW corners, respectively. Both buildings sit on top of 3-4 feet of concrete base, eliminating any concern for flooding. The site is not located within a defined FEMA Flood zone.

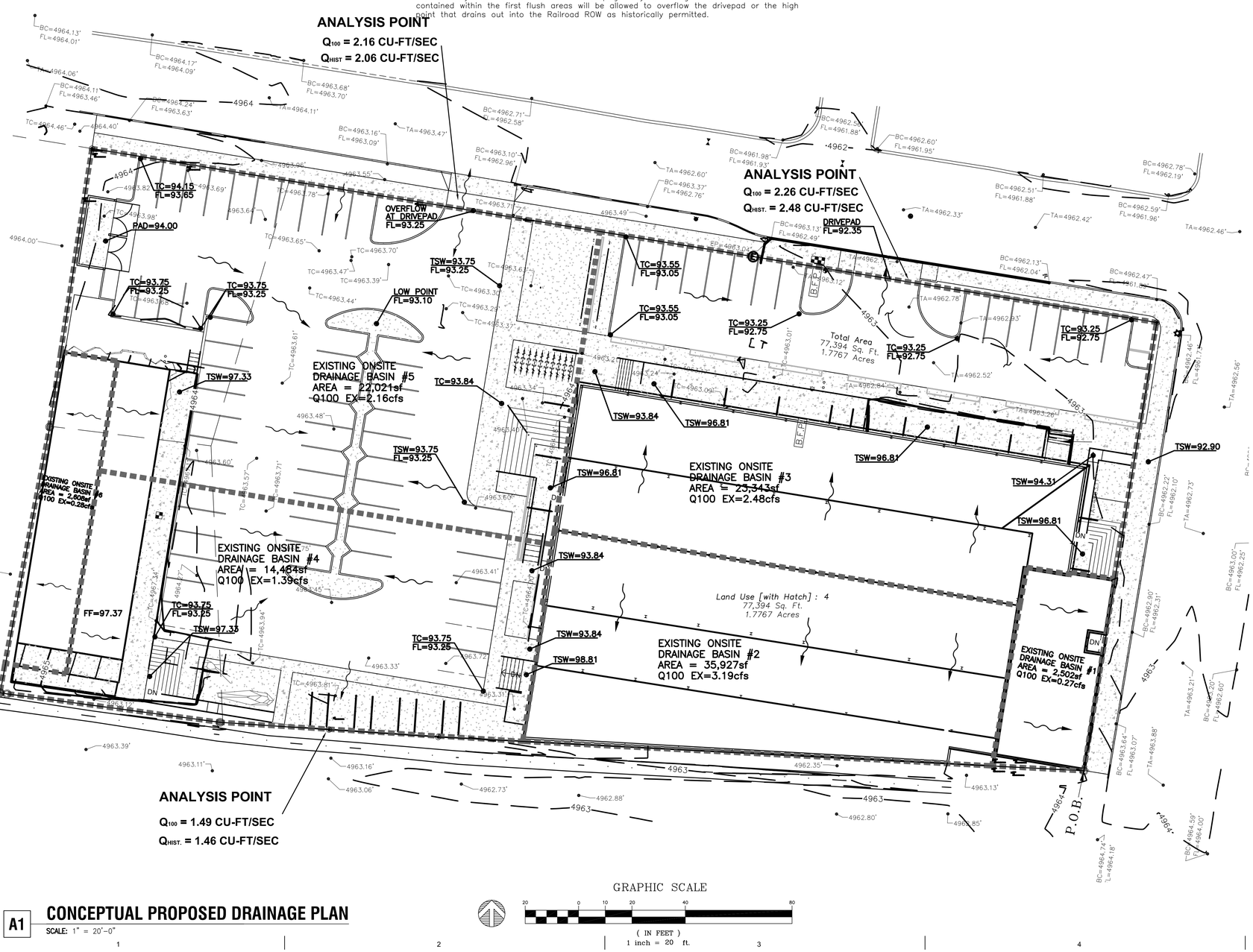
Proposed Sub-basins Pro. #3 will have a reduced peak runoff rate from that of the existing site since water runoff will be tempered by additional landscape throughout. Sub-basin Pro. #3 will have a north-bound peak runoff rate of 2.26 cfs and will drain through the drivepad into Haines. Some of the storm runoff water draining from the pitched roof will be harvested by landscape directly underneath the path of the runoff. Much of the remaining runoff will be abated from draining onto Haines Ave. by the additional landscape book-ending the parking lot exit. First Flush will be accounted for by landscaping buffers distributed around the parking areas, tree islands at each end of the center lot, and end isles near the driveway to the parking lot at the northern end. There is also a landscaping buffer running along Haines Ave between the Sidewalk and curb that will be used to harvest storm runoff and to contain the first flush.

Sub-basin Pro. #4 and #5 lay flat and will collect water until it overtops and flows out towards the south following the same pattern as the existing conditions. The sub-basins have a respective 1.39 cfs and 2.16 cfs peak runoff rate. There will be many local depressions for the containment of the MS4 First Flush volumes scattered throughtout the basins. These additional landscapes trenched to specifically collect drainage, will allow for a larger amount of absorption to occur, before any resulting overflow. Ponding of water within the parking lot will be minimized once the landscaping is better defined in a latter phase of the design efforts. The design will account for the necessary first flush volumes within landscaping. Any remaining runoff that is not contained within the first flush areas will be allowed to overflow the drivepad or the high point that drains out into the Railroad ROW as historically permitted.

VI. CONCLUSIONS

In summary, the considerable addition of landscaping throughout the property and along the street, as well as, the preexisting condition of the buildings three and four-foot concrete platform eliminates any concern for extensive runoff causing flooding to the on-site buildings. Downstream users will no be affected as the current conditions and the proposed conditions generate very similar peak runoff rates. The addition of on site retention for first flush volumes will actually reduce the excess runoff from current rates and volumes. This will be further developed in the Building Permit phase of the design efforts.

TREE ISLANDS TO HAVE OPENINGS TO ALLOW FOR STORM RUNOFF FROM PARKING AREAS TO ENTER LANDSCAPING AREAS. TYPICAL



GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
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A1 CONCEPTUAL PROPOSED DRAINAGE PLAN

SCALE: 1" = 20'-0"

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Project number	

SHEET TITLE

CONCEPTUAL DRAINAGE PLAN PROPOSED CONDITIONS

SHEET NUMBER

SDP-3.2

SHEET 4 OF 10