



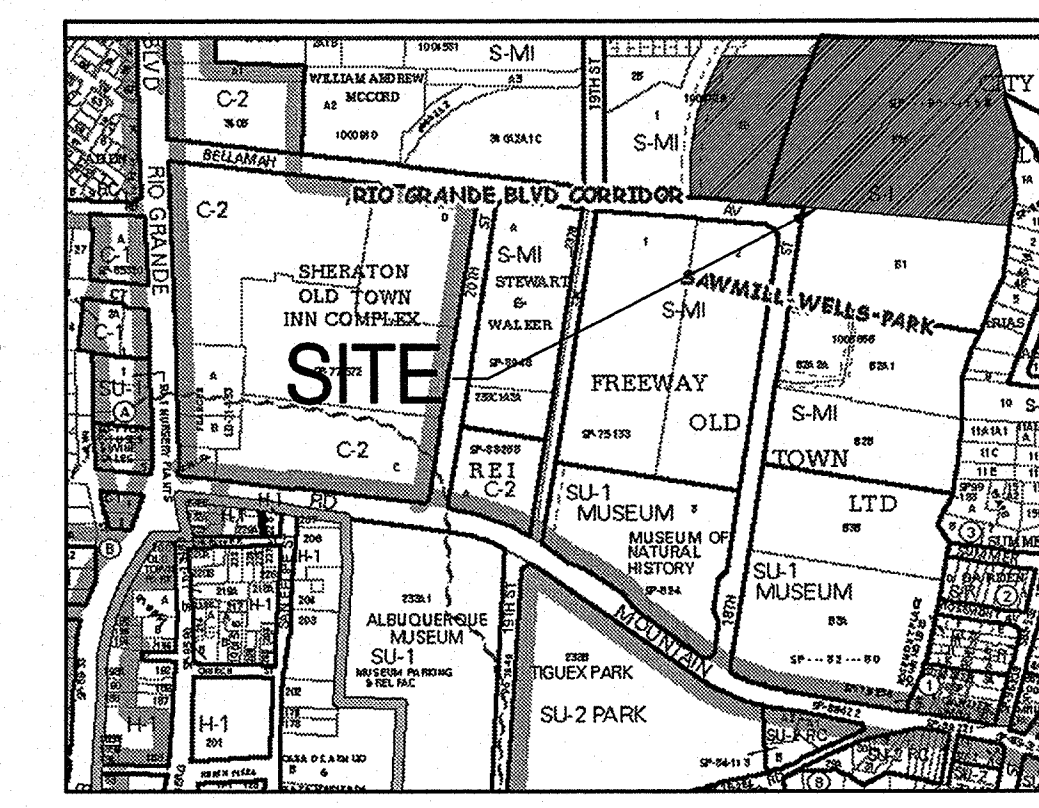
**Sawmill Village**  
1751 Bellamah Avenue, NW  
Albuquerque, New Mexico

REVISIONS

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|--------------|--------------|
| DRAWN BY     | CP           |
| REVIEWED BY  | EJS          |
| DATE         | May 18, 2008 |
| PROJECT NO.  | 06124        |
| DRAWING NAME |              |

**DRAINAGE  
MANAGEMENT  
PLAN**



VICINITY MAP  
ZONE ATLAS PAGE J-13-Z

**STORM DRAIN PIPE TABLE**

| PIPE #         | Contributing Basins and Storm Drains | Size in. | Slope | Capacity cfs | ACTUAL FLOW |          |
|----------------|--------------------------------------|----------|-------|--------------|-------------|----------|
|                |                                      |          |       |              | Flow cfs    | Flow cfs |
| <b>NORTH</b>   |                                      |          |       |              |             |          |
| SD1            | BSN 2                                | 18       | 0.50% | 7.43         | 3.57        |          |
| SD2            | BSN 5                                | 8        | 0.50% | 0.85         | 0.48        |          |
| SD3            | BSN 2,5                              | 18       | 1.00% | 10.50        | 4.05        |          |
| SD4            | BSN 1,2,5                            | 18       | 1.00% | 10.50        | 7.42        |          |
| <b>CENTRAL</b> |                                      |          |       |              |             |          |
| SD5            | SD6,15 + BSN19                       | 30       | 1.00% | 41.02        | 25.65       |          |
| SD6            | SD7,21 + BSN3                        | 30       | 0.50% | 29.00        | 20.92       |          |
| SD7            | SD8, BSN9                            | 24       | 0.50% | 16.00        | 14.20       |          |
| SD8            | SD9,20 + BSN10                       | 24       | 0.50% | 16.00        | 13.92       |          |
| SD9            | BSN 11,12,14                         | 24       | 0.50% | 16.00        | 9.36        |          |
| SD10           | BSN 12                               | 18       | 0.50% | 7.43         | 4.37        |          |
| SD11           | BSN 14                               | 12       | 0.50% | 2.52         | 1.75        |          |
| SD12           | SD13 + BSN4                          | 18       | 1.00% | 10.50        | 4.79        |          |
| SD13           | BSN 6,7                              | 12       | 1.00% | 3.56         | 3.33        |          |
| SD14           | BSN 7                                | 12       | 0.50% | 2.52         | 2.13        |          |
| SD15           | BSN 8,13                             | 18       | 1.00% | 10.50        | 3.93        |          |
| SD16           | BSN 13                               | 12       | 1.00% | 3.56         | 2.25        |          |
| SD20           | BSN 21                               | 12       | 1.00% | 3.56         | 1.92        |          |
| SD21           | SD12 + BSN20                         | 18       | 1.00% | 10.50        | 5.81        |          |
| <b>WEST</b>    |                                      |          |       |              |             |          |
| SD17           | BSN 15,16                            | 12       | 2.00% | 5.04         | 3.81        |          |
| SD18           | BSN 15                               | 8        | 1.00% | 1.21         | 0.68        |          |
| SD19           | BSN 16                               | 12       | 1.00% | 3.56         | 3.13        |          |

**Proposed Ultimate Development Conditions Basin Data Table**

This table is based on the DPM Section 22.2, Zone 2

| Basin ID    | Area (SQ. FT) | Area (AC.) | Land Treatment Percentages |       |      |        | Q(100) (cfs/ac.) | Q(100) (CFS) | V(100) (inches) | V(100) (CF) |
|-------------|---------------|------------|----------------------------|-------|------|--------|------------------|--------------|-----------------|-------------|
|             |               |            | A                          | B     | C    | D      |                  |              |                 |             |
| Tract B-2-A | 226055        | 7.46       | 0.0%                       | 5.0%  | 5.0% | 90.0%  | 4.50             | 33.58        | 2.00            | 37742       |
| BASIN 1     | 32962         | 0.76       | 0.0%                       | 10.0% | 0.0% | 90.0%  | 4.46             | 3.37         | 1.99            | 5455        |
| BASIN 2     | 34871         | 0.80       | 0.0%                       | 10.0% | 0.0% | 90.0%  | 4.46             | 3.57         | 1.99            | 5771        |
| BASIN 3     | 8640          | 0.20       | 0.0%                       | 5.0%  | 0.0% | 95.0%  | 4.58             | 0.91         | 2.05            | 1478        |
| BASIN 4     | 13870         | 0.32       | 0.0%                       | 5.0%  | 0.0% | 95.0%  | 4.58             | 1.46         | 2.05            | 2373        |
| BASIN 5     | 4709          | 0.11       | 0.0%                       | 10.0% | 0.0% | 90.0%  | 4.46             | 0.48         | 1.99            | 779         |
| BASIN 6     | 11415         | 0.26       | 0.0%                       | 5.0%  | 0.0% | 95.0%  | 4.58             | 1.20         | 2.05            | 1953        |
| BASIN 7     | 20804         | 0.48       | 0.0%                       | 10.0% | 0.0% | 90.0%  | 4.46             | 2.13         | 1.99            | 3443        |
| BASIN 8     | 16442         | 0.38       | 0.0%                       | 10.0% | 0.0% | 90.0%  | 4.46             | 1.68         | 1.99            | 2721        |
| BASIN 9     | 2706          | 0.06       | 0.0%                       | 5.0%  | 0.0% | 95.0%  | 4.58             | 0.28         | 2.05            | 463         |
| BASIN 10    | 25127         | 0.58       | 0.0%                       | 5.0%  | 0.0% | 95.0%  | 4.58             | 2.64         | 2.05            | 4299        |
| BASIN 11    | 30743         | 0.71       | 0.0%                       | 5.0%  | 0.0% | 95.0%  | 4.58             | 3.23         | 2.05            | 5260        |
| BASIN 12    | 42740         | 0.98       | 0.0%                       | 10.0% | 0.0% | 90.0%  | 4.46             | 4.37         | 1.99            | 7073        |
| BASIN 13    | 21398         | 0.49       | 0.0%                       | 5.0%  | 0.0% | 95.0%  | 4.58             | 2.25         | 2.05            | 3661        |
| BASIN 14    | 22668         | 0.52       | 0.0%                       | 55.0% | 0.0% | 45.0%  | 3.37             | 1.75         | 1.38            | 2612        |
| BASIN 15    | 6813          | 0.16       | 0.0%                       | 15.0% | 0.0% | 85.0%  | 4.34             | 0.68         | 1.92            | 1090        |
| BASIN 16    | 29822         | 0.68       | 0.0%                       | 5.0%  | 0.0% | 95.0%  | 4.58             | 3.13         | 2.05            | 5102        |
| BASIN 17    | 12858         | 0.30       | 0.0%                       | 65.0% | 0.0% | 35.0%  | 3.13             | 0.92         | 1.25            | 1338        |
| BASIN 18    | 62175         | 1.43       | 0.0%                       | 10.0% | 0.0% | 90.0%  | 4.46             | 6.36         | 1.99            | 10290       |
| BASIN 19    | 7620          | 0.17       | 0.0%                       | 5.0%  | 0.0% | 95.0%  | 4.58             | 0.80         | 2.05            | 1304        |
| BASIN 20    | 9458          | 0.22       | 0.0%                       | 0.0%  | 0.0% | 100.0% | 4.70             | 1.02         | 2.12            | 1671        |
| BASIN 21    | 8464          | 0.19       | 0.0%                       | 15.0% | 0.0% | 85.0%  | 4.34             | 0.84         | 1.92            | 1354        |
| TOTAL       | 426303        | 9.79       | 0.0%                       | 12.2% | 0.0% | 87.8%  | 4.40             | 43.10        | 1.96            | 69490       |

**GRADING AND DRAINAGE NARRATIVE**

**Site Location and Background Information**

The purpose of this submittal is to present a drainage and grading plan for the proposed Sawmill Village development to the North of Bellamah and 18th street. The design site proposes mixed use development. There will be some residential townhomes, and some commercial sites. The site is in rainfall zone 2 as defined by figure A-1 of the DPM section 22. The existing legal description of the site is Tract 2-D, Arbolera De Vida and Lot B-2-A, Duke City Lumber Company Addition. Please see the vicinity map on this sheet for a graphic depiction of the site location. This conceptual grading and drainage plan is submitted in support of site plan approval.

The Sawmill Master Drainage Plan Area, prepared by Bohannon Huston Inc., addresses drainage off the western site and the surrounding area to the west and north (city hydrology file: H13-025). This submittal integrates the eastern Lot B-2-A into the Sawmill Master Drainage Plan and modifies the pond construction to be in compliance with the guidance and recommendations set forth in that report.

**Existing Conditions**

This entire site (Tracts 2-D & B-2-A) is approximately 10 acres and is an old industrial sawmill. The natural slope of the site is very flat. The slope across the site is less than 1% from the northeast to the southwest. There is an existing pond north of Tract 2-D that is part of the Sawmill Master Drainage Plan. It currently discharges into the storm drain in Bellamah at a maximum flow of 4 C.F.S. The site is approximately level with Bellamah and the surrounding properties.

**Proposed Conditions**

Under proposed conditions the site will slope slightly to the pond north of Tract 2-D and utilize storm drain systems to convey runoff to the pond w/ functional surface slopes. The site will be mostly impervious treatment D and the rest landscaped treatment B and C. The Sawmill Master Drainage Plan sees the existing pond as a retention system to be conservative. The pond is a retention pond to elevation 4954 at which it can discharge 4 C.F.S. in a detention condition. The existing pond is sized to accept runoff from the Tract 2-D (the portion of the site west of 18th St.). The pond expansion is sized to accept additional runoff from Lot B-2-A. With this project, we propose to expand the volume of the existing pond by approximately 59,000 CF. This expansion can be accomplished without lowering the pond bottom. Accordingly, the depth of retained water below the invert of the outlet pipe will not be increased with this project. The proposed pond expansion volume exceeds the 100yr, 6hr storm volume generated by tract B-2-A.

**Flood plain**

In accordance with FEMA community map panel #35001C0331 E, the site is not located within a flood plain.

**Offsite Flows**

There are no significant upstream offsite flows which will impact this site.

**Conclusions**

This drainage submittal has been prepared in accordance with City of Albuquerque requirements. This plan clearly demonstrates the proposed, general surface grading and drainage. The implementation of this design will result in the safe passage of the 100 year storm event. With this submittal we request hydrology department approval of this Grading and Drainage Plan for building permit.

**INLET TABLE**

| Inlet # | Inlet Type                           | Top of Grate | Actual Flow | Avail Head ft | Capacity |
|---------|--------------------------------------|--------------|-------------|---------------|----------|
| IN1     | 2'x2' Nyloplast Road & Highway Grate | 57.07        | 3.37        | 0.5           | 6.00     |
| IN2     | 2'x2' Nyloplast Road & Highway Grate | 58.00        | 3.57        | 0.5           | 6.00     |
| IN3     | 2'x2' Nyloplast Road & Highway Grate | 58.38        | 0.91        | 0.5           | 6.00     |
| IN4     | 2'x2' Nyloplast Road & Highway Grate | 58.38        | 1.46        | 0.5           | 6.00     |
| IN5     | 2'x2' Nyloplast Road & Highway Grate | 58.76        | 0.48        | 0.5           | 6.00     |
| IN6     | 2'x2' Nyloplast Road & Highway Grate | 59.15        | 1.20        | 0.5           | 6.00     |
| IN7     | 2'x2' Nyloplast Road & Highway Grate | 59.16        | 2.13        | 0.5           | 6.00     |
| IN8     | 2'x2' Nyloplast Road & Highway Grate | 57.97        | 1.68        | 0.5           | 6.00     |
| IN9     | 2'x2' Nyloplast Road & Highway Grate | 59.39        | 0.28        | 0.5           | 6.00     |
| IN10    | 2'x2' Nyloplast Road & Highway Grate | 58.64        | 2.64        | 0.5           | 6.00     |
| IN11    | 2'x2' Nyloplast Road & Highway Grate | 58.45        | 3.23        | 0.5           | 6.00     |
| IN12    | 2'x2' Nyloplast Road & Highway Grate | 58.81        | 4.37        | 0.5           | 6.00     |
| IN13    | 2'x2' Nyloplast Road & Highway Grate | 57.97        | 2.25        | 0.5           | 6.00     |
| IN14    | 24" Standard Nyloplast Grate         | 58.80        | 1.75        | 0.5           | 3.60     |
| IN15    | 2'x2' Nyloplast Road & Highway Grate | 57.90        | 0.68        | 0.5           | 6.00     |
| IN16    | 2'x2' Nyloplast Road & Highway Grate | 57.75        | 3.13        | 0.5           | 6.00     |
| IN19    | 2'x2' Nyloplast Road & Highway Grate | 57.30        | 0.80        | 0.5           | 6.00     |
| IN20    | 2'x2' Nyloplast Road & Highway Grate | 57.15        | 1.02        | 0.5           | 6.00     |
| IN21    | 18" Pedestrian Nyloplast Grate       | 57.00        | 0.84        | 0.5           | 2.20     |

\* The actual head available varies with each inlet, but in no case is the available head less than 0.5'.

**LEGEND**

- PROPERTY LINE
- EXISTING CONTOURS
- BASIN BOUNDARY
- PROPOSED DIRECTION OF FLOW
- WATER BLOCK
- PROPOSED INDEX CONTOURS
- PROPOSED INTER CONTOURS
- PROPOSED STORM DRAIN INLET

