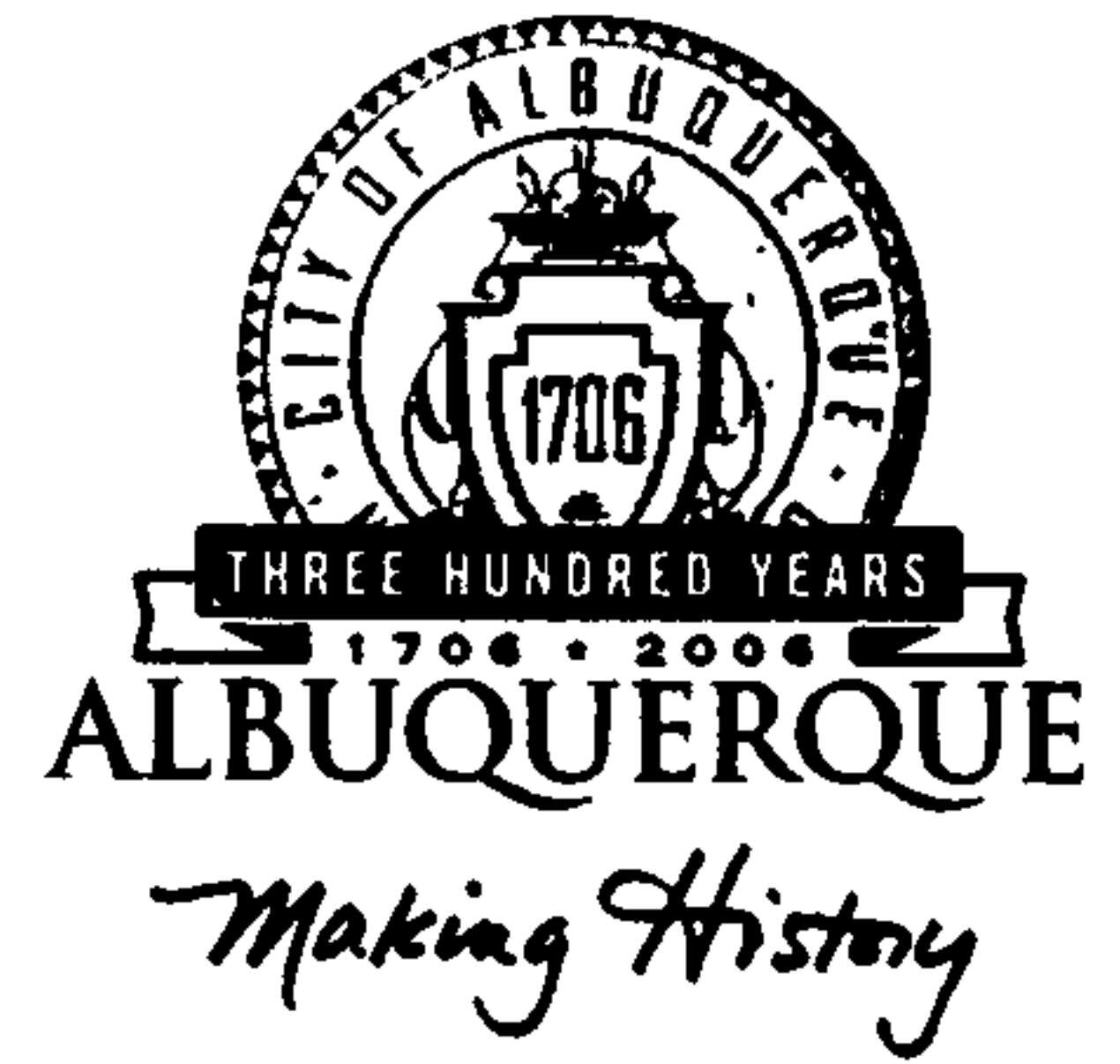


CITY OF ALBUQUERQUE



August 10, 2005

Mario Juarez-Infante, P.E.
Wilson & Company
2600 The American Rd. SE, Suite 100
Rio Rancho, NM 87124

Re: Westside Skate Park Phase 1, 6900 Gonzales Road SW, Site Development Plan

Engineer's Stamp dated 8-08-05 (L10-D13A)

Dear Mr. Juarez-Infante,

Based upon the information provided in your submittal received 8-08-05, the above referenced plan is approved for Paving Permit and Grading Permit. Upon completion of the project, please provide an Engineer Certification for our files.

P.O. Box 1293

This project requires a National Pollutant Discharge Elimination System (NPDES) permit. If you have any questions regarding this permit please feel free to call the DMD Storm Drainage Design section at 768-3654 (Charles Caruso).

Albuquerque

If you have any questions, you can contact me at 924-3981.

New Mexico 87103

Sincerely,

Kristal D. Metro, P.E.
Senior Engineer, Planning Dept.
Development and Building Services

www.cabq.gov

C: Charles Caruso, DMD Storm Drainage Design
File

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 1/28/2003)

PROJECT TITLE: Westside Skate Park, Phase 1 ZONE MAP/DRG. FILE#: K and L 11 Z L-10/D13A

DRB#: _____ EPC#: _____ WORK ORDER #: _____

LEGAL DESCRIPTION: Alamosa Multi-Service Center, Sunset Gardens, Albuquerque, NM

CITY ADDRESS: 6900 Gonzales Road SW

ENGINEERING FIRM: Wilson & Company CONTACT: Jesse Dickson

ADDRESS: 4900 Lang Ave. NW PHONE: (505) 348-4136

CITY, STATE: Albuquerque, NM ZIP CODE: 87109

OWNER: City of Albuquerque – Parks & Recreation CONTACT: Leroy Chavez

ADDRESS: 401 Coors Boulevard, NW PHONE: (505) 831-9600

CITY, STATE: Albuquerque, NM ZIP CODE: 87121

ARCHITECT: Morrow, Reardon, Wilkinson, & Miller CONTACT: Greg Miller

ADDRESS: 210 La Veta NE PHONE: 505.266.2266

CITY, STATE: Albuquerque, NM ZIP CODE: 87108

SURVEYOR: _____ CONTACT: _____

ADDRESS: _____ PHONE: _____

CITY, STATE: _____ ZIP CODE: _____

CONTRACTOR: _____ CONTACT: _____

ADDRESS: _____ PHONE: _____

CITY, STATE: _____ ZIP CODE: _____

CHECK TYPE OF SUBMITTAL:

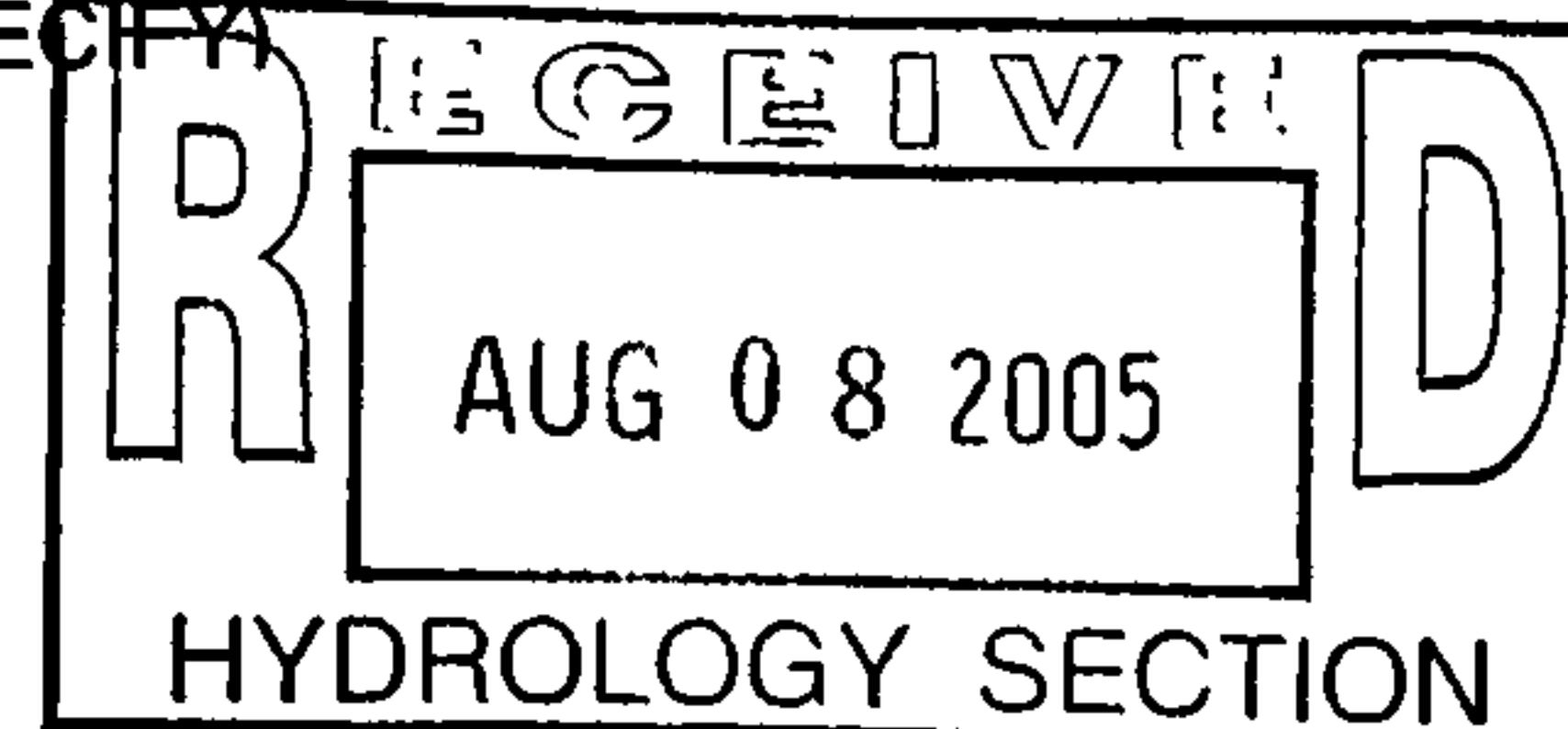
- ☒ DRAINAGE REPORT
☐ DRAINAGE PLAN 1st SUBMITTAL. REQUIRES TCL OR EQUAL
☐ CONCEPTUAL GRADING & DRAINAGE PLAN
☒ GRADING PLAN
☐ EROSION CONTROL PLAN
☐ ENGINEERS CERTIFICATION (HYDROLOGY)
☐ CLOMR/LOMR
☐ TRAFFIC CIRCULATION LAYOUT (TCL)
☐ ENGINEERS CERTIFICATION (TCL)
☒ ENGINEERS CERTIFICATION (DRB, APPR. SITE PLAN)
☐ OTHER

CHECK TYPE OF APPROVAL SOUGHT:

- ☐ SIA / FINANCIAL GUARANTEE RELEASE
☐ PRELIMINARY PLAT APPROVAL
☐ S. DEV. PLAN FOR SUB'D. APPROVAL
☒ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
☐ SECTOR PLAN APPROVAL
☐ FINAL PLAT APPROVAL
☐ FOUNDATION PERMIT APPROVAL
☐ BUILDING PERMIT APPROVAL
☐ CERTIFICATION OF OCCUPANCY (PERM.)
☐ CERTIFICATION OF OCCUPANCY (TEMP.)
☒ GRADING PERMIT APPROVAL
☐ PAVING PERMIT APPROVAL
☐ WORK ORDER APPROVAL
☐ OTHER (SPECIFY)

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ☐ YES
☒ NO
☒ COPY PROVIDED



Date Submitted: June 23, 2005 By: Jesse Dickson

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location and scope of the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following:

1. **Conceptual Grading and Drainage Plan:** Required for approval of Site Development Plans greater than five
2. **Drainage Plans:** Required for building permits, grading permits, paving permits and site plans less than five (5)
3. **Drainage Report:** Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or more.

WILSON & COMPANY

2600 The American Rd. SE, Suite 100
Rio Rancho, NM 87124
505-898-8021
505-898-8501 Fax

Albuquerque
Colorado Springs
Denver
Fort Worth
Houston
Kansas City
Las Cruces
Lenexa
Omaha
Pasadena
Phoenix
Rio Rancho
Salina
San Bernardino
San Diego

Wilson & Company
Latin America, LLC

July 15, 2005

Kristal Metro
Engineering Associate, Planning Dept.
City of Albuquerque – Development and Building Services
P.O. Box 1293
Albuquerque, NM 87103

Kristal,

Please find the enclosed revisions to the drainage report for the Westside Skate Park, Phase I. The revised drawings include the This drainage report was submitted on May 27, 2005 with amended sheets submitted on June 3, 2005.

The enclosed revisions address the City's comments dated June 10, 2005. Specifically:

Comment 1. *Show the proposed and existing storm drain, along with associated inverts, on the grading plan.*

Response: Concur; the proposed and existing storm drain has been included on the grading plan. Inverts have been provided.

Still not shown on grading plan

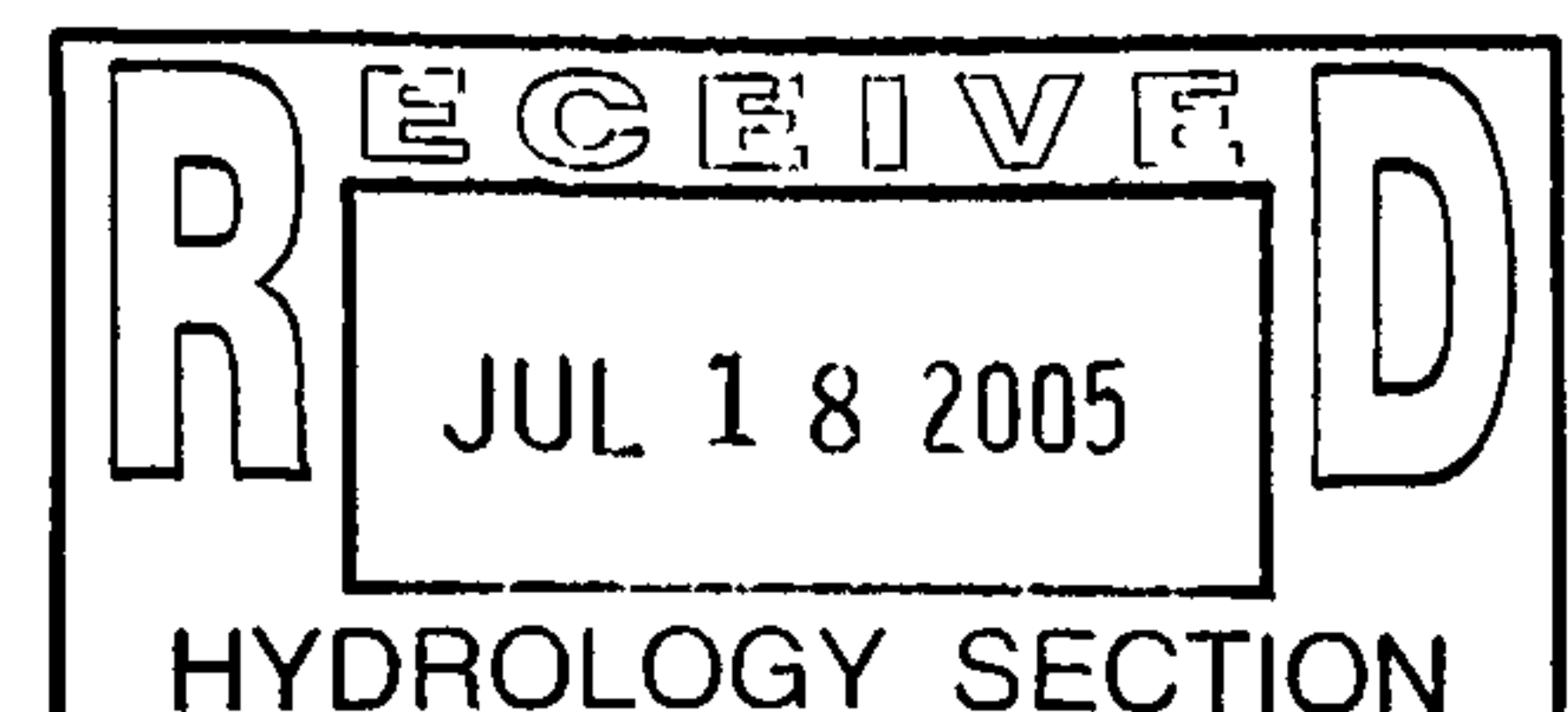
Comment 2. *Why is your pond outfall an earthen berm with a 2" invert? Provide the weir equation.*

Response: The grate inlet capturing flows from Basin P3 is located in a landscaped area. The 12" earthen berm was selected to detain flows upstream of the landscaping features, in an effort to minimize any deposition on these features. The engineer's rationale was that an orifice plate would concentrate ponding and deposition in an area that is readily visible. The berm, on the other hand, is underneath the pedestrian bridge, such that most deposition would be in an obscured location, thus preserving the aesthetic qualities at the site. Flows were modeled as a trapezoidal (Cipoletti) weir using FlowMaster software. Output from this software is provided in this submittal. The general equation for a broad-crested weir has been provided in the drainage report.

✓ Comment 3. *Provide a benchmark.*

Response: Concur; a benchmark has been provided.

Comment 4. *Why not control what enters the inlet from Basin P3 by including an orifice plate?*



**WILSON
& COMPANY**

2600 The American Rd. SE, Suite 100
Rio Rancho, NM 87124
505-898-8021
505-898-8501 Fax

Albuquerque
Colorado Springs
Denver
Fort Worth
Houston
Kansas City
Las Cruces
Lenexa
Omaha
Pasadena
Phoenix
Rio Rancho
Salina
San Bernardino
San Diego

Wilson & Company
Latin America, LLC

Response: See response to comment 2 above.

✓ Comment 5. *Provide a signed and dated engineer's stamp on the grading and drainage plan sheets.*

Response: Concur; the grading and drainage plan sheets have been sealed and dated.

We anticipate that the enclosed revisions satisfy your comments and questions, however, if you need any further information or clarification, please do not hesitate to contact me.

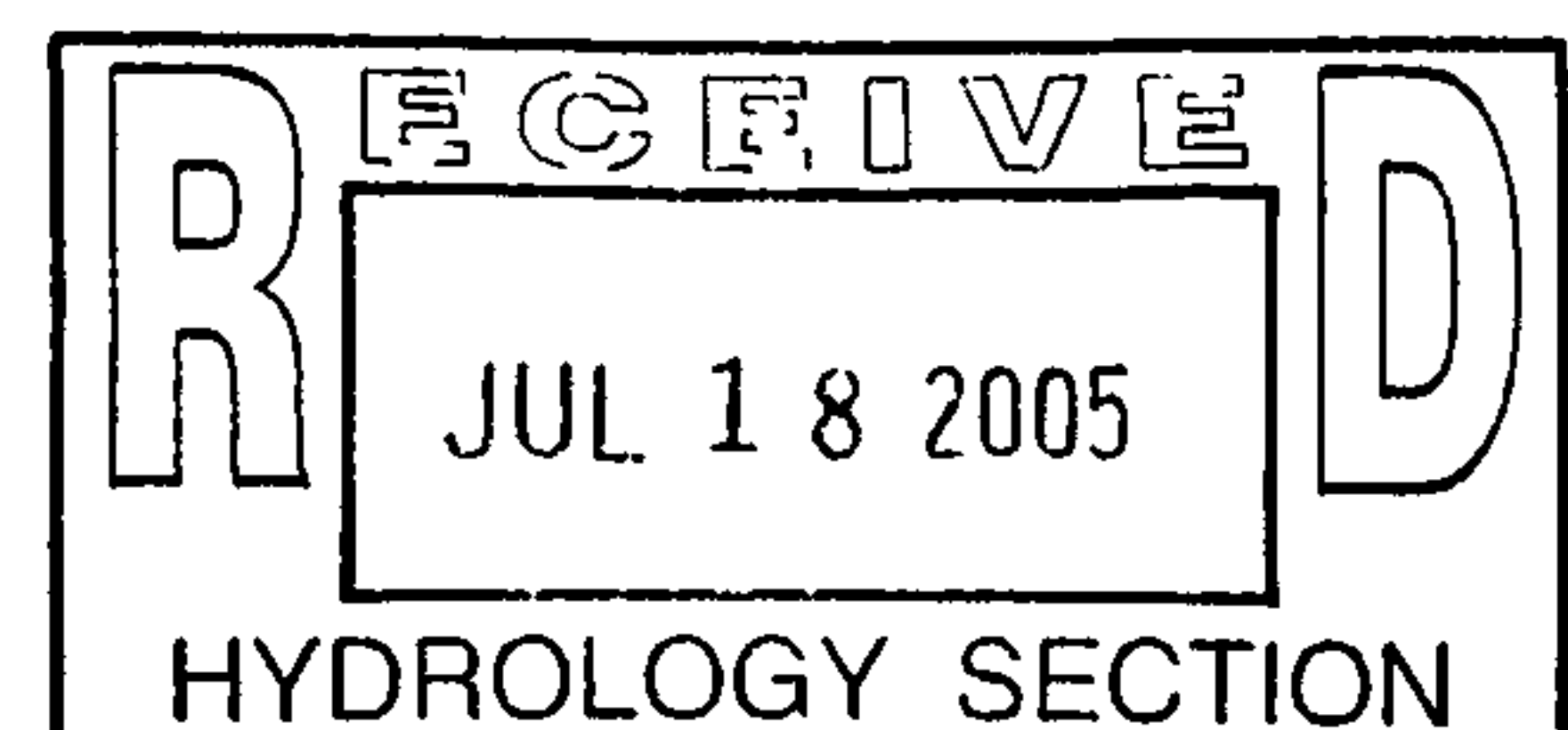
Sincerely,



Jesse S. Dickson
WILSON & COMPANY
Direct: 505.348.4136
Email: jesse.dickson@wilsonco.com

Enclosures

cc: Morrow, Reardon, Wilkinson, & Miller;
file



Westside Skatepark - Trapezoidal Weir Calculation Worksheet for Sharp Crested Cipolletti Weir

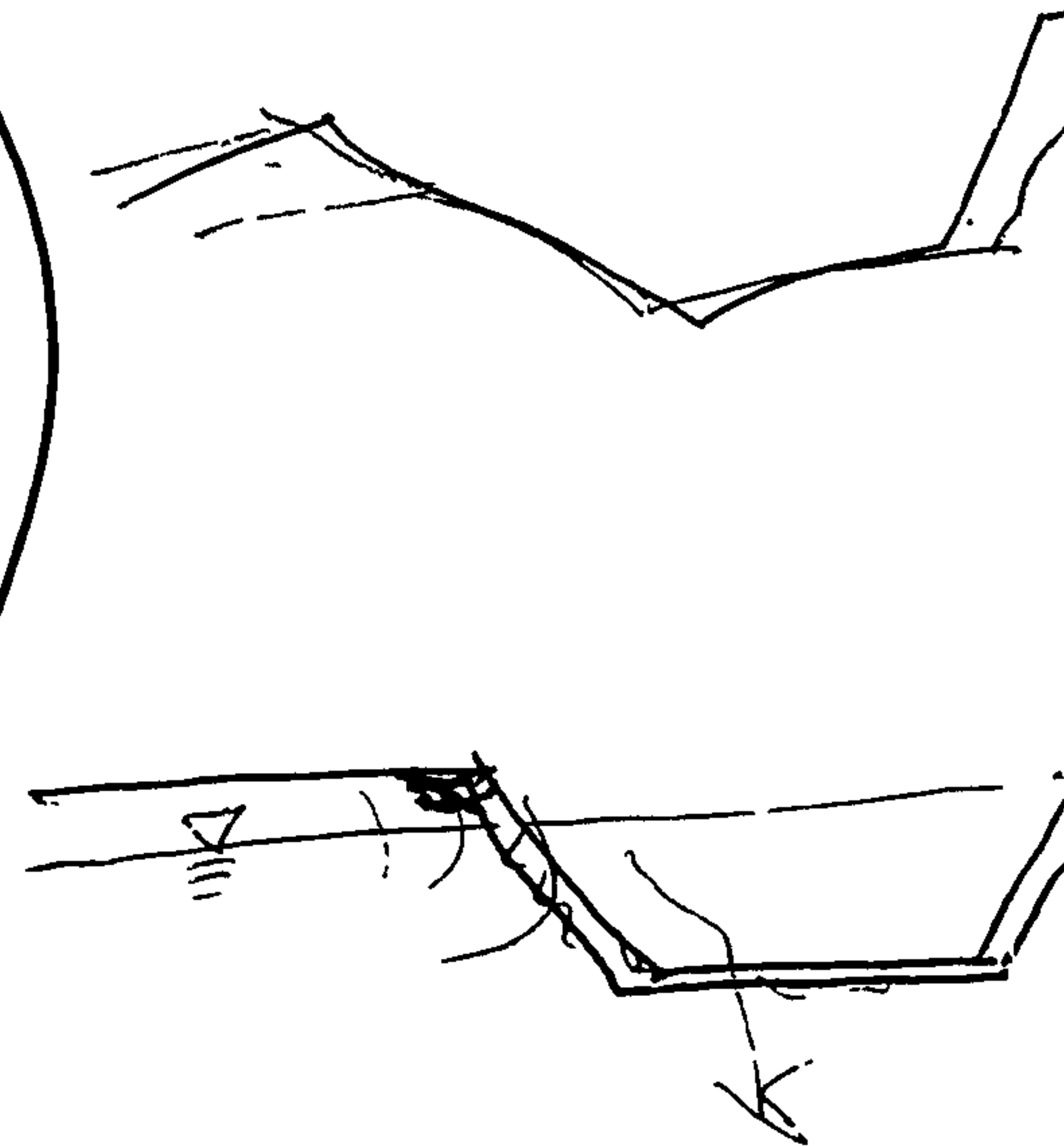
Project Description	
Worksheet	Weir - 1
Type	Sharp Crested Cipolletti
Solve For	Discharge

Input Data	
Headwater Elevat	1.00 ft
Crest Elevation	0.00 ft
Tailwater Elevatio	0.25 ft
Discharge Coeffc	3.33 US
Crest Length	1.00 ft

Results	
Discharge	3.16 cfs
Headwater Height Above	1.00 ft
Tailwater Height Above	0.25 ft
Equal Side Slopes	0.25 H : V
Flow Area	1.3 ft ²
Velocity	2.53 ft/s
Wetted Perimeter	3.06 ft
Top Width	1.50 ft

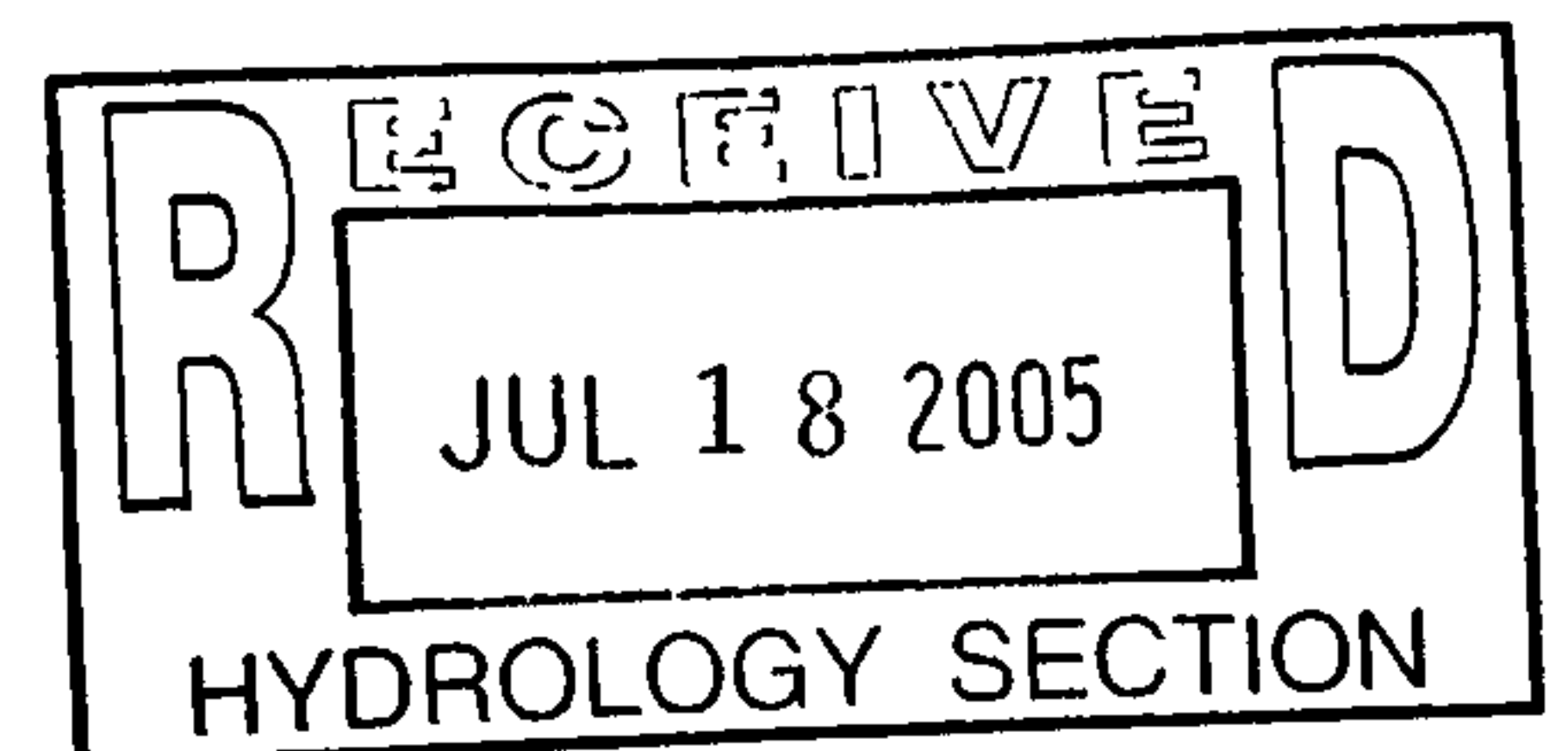
← Usually $C = 3.367$

← $Q_{\text{allowed}} = 3.2 \text{ cfs}$



Why not calculating
for a broad weir?
According to plan,

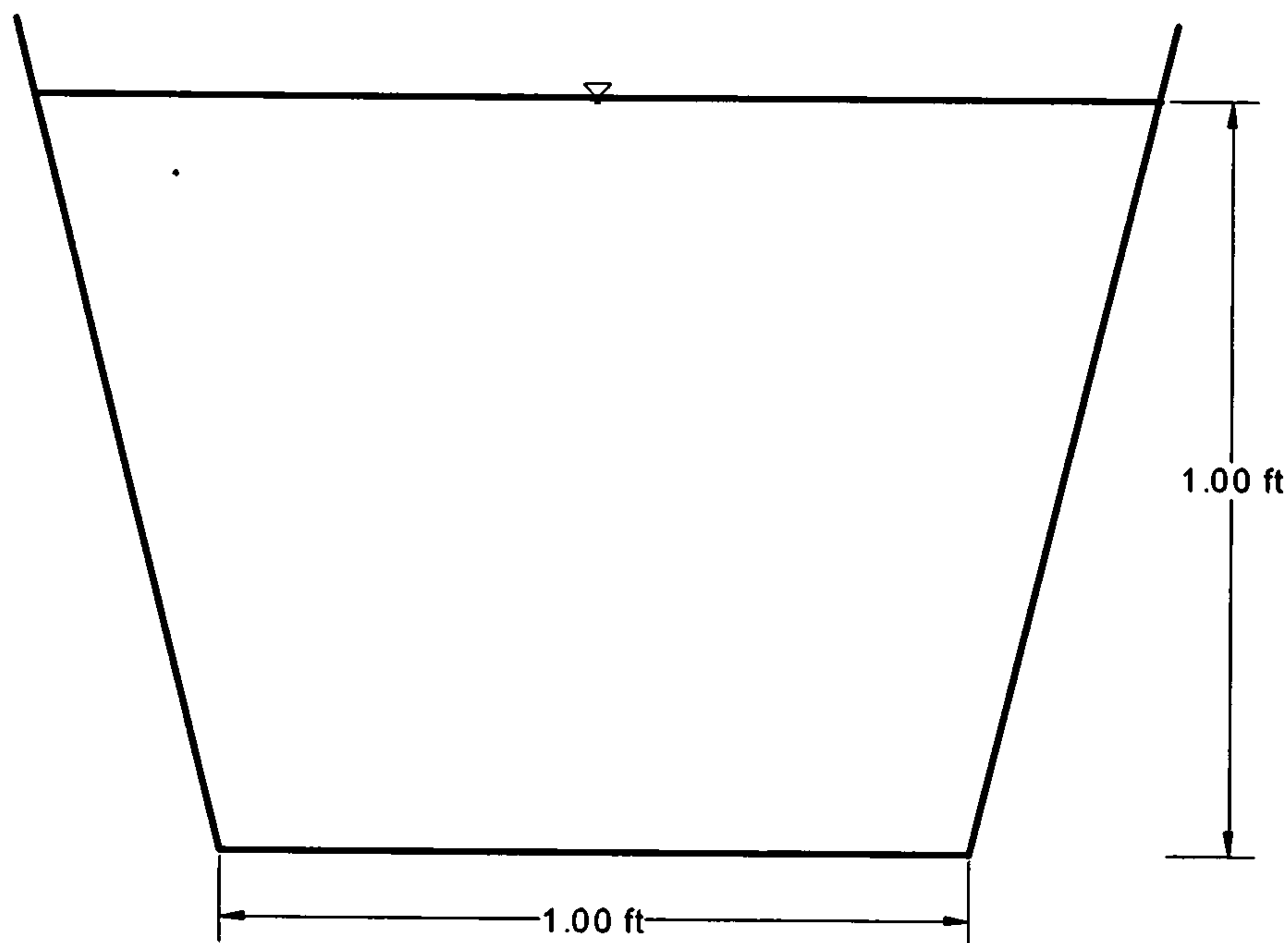
$$Q = C_d L_r H_r^{3/2}$$



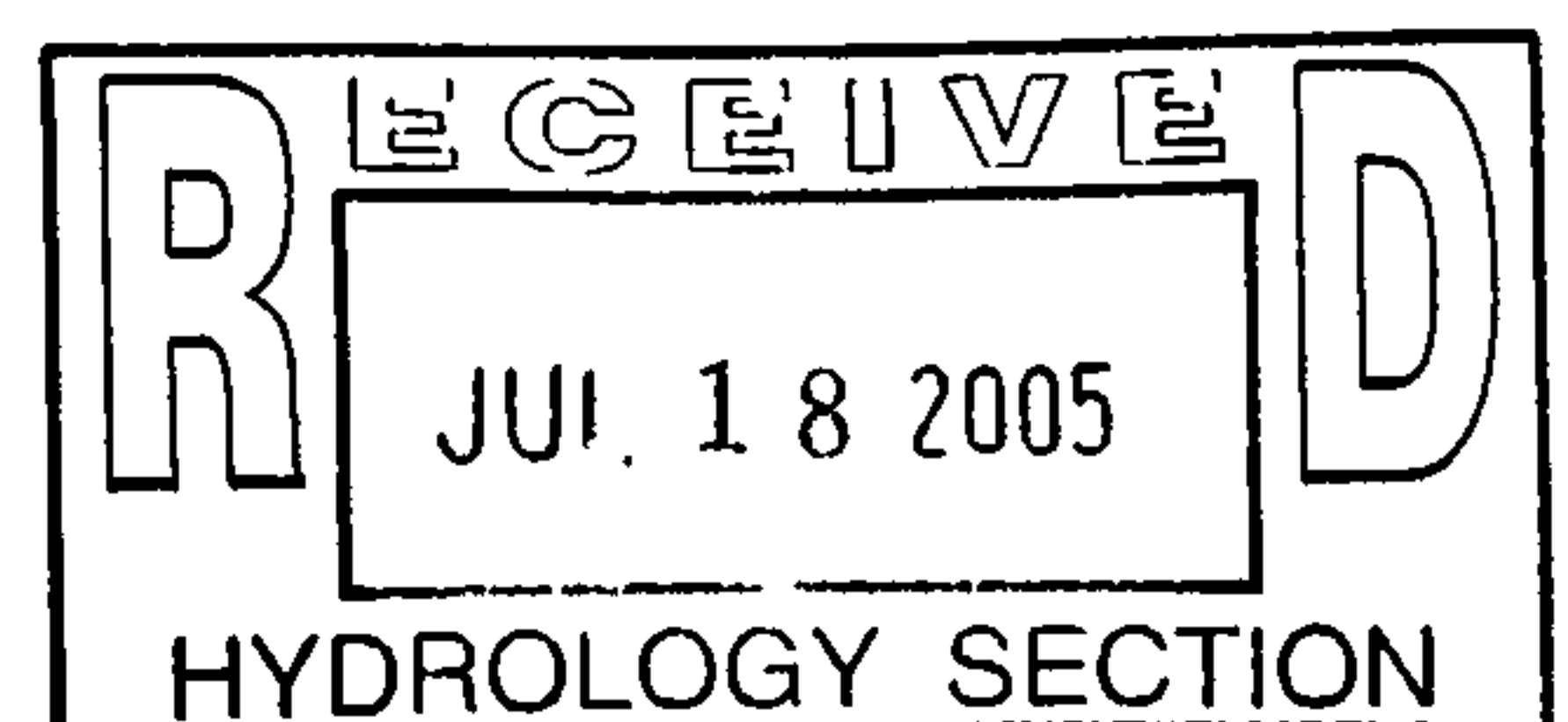
Cross Section
Cross Section for Sharp Crested Cipolletti Weir

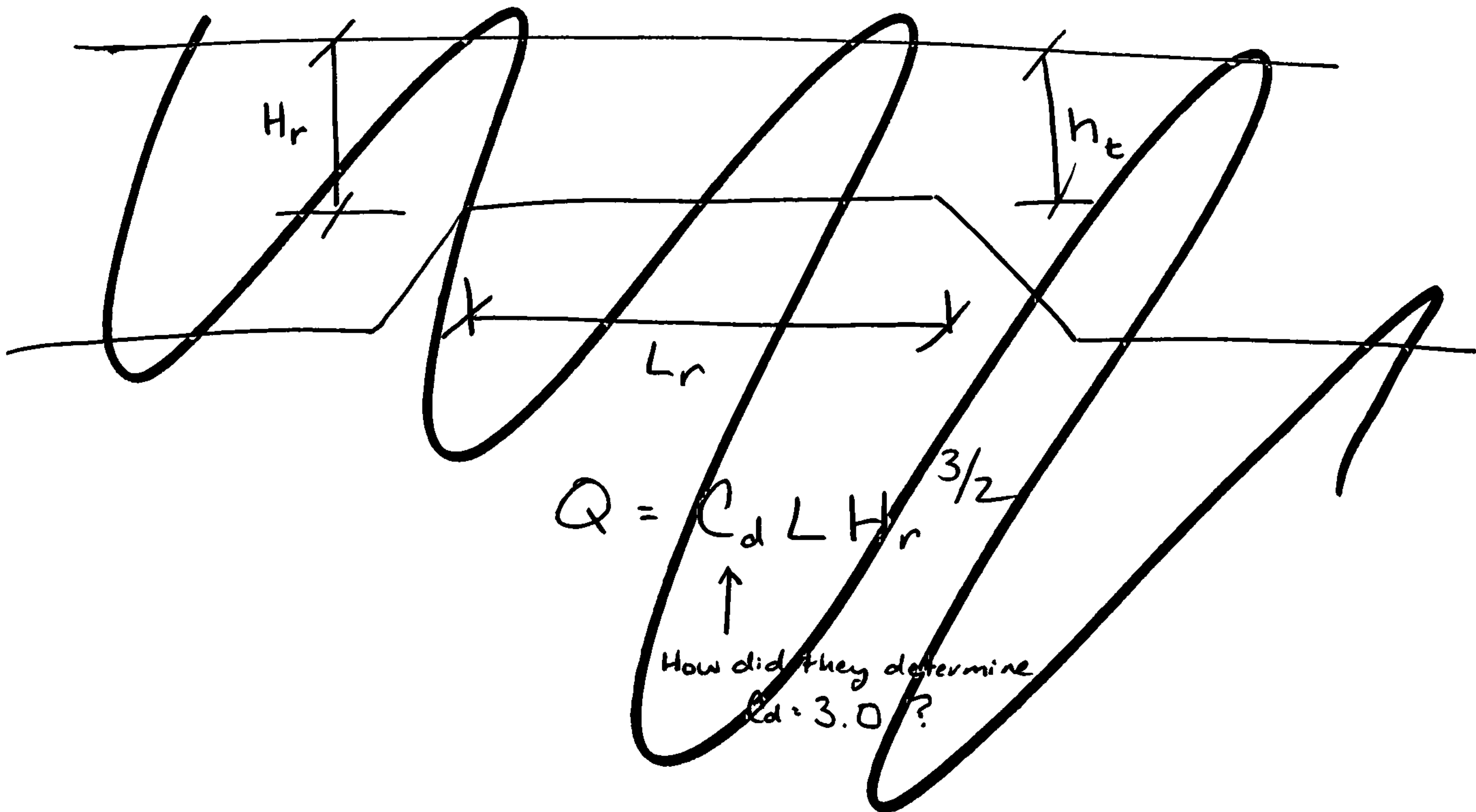
Project Description	
Worksheet	Weir - 1
Type	Sharp Crested Cipolletti
Solve For	Discharge

Section Data	
Discharge	3.16 cfs
Headwater Elevat	1.00 ft
Crest Elevation	0.00 ft
Tailwater Elevatio	0.25 ft
Discharge Coeffic	3.33 US
Crest Length	1.00 ft



V:1
H:1
NTS

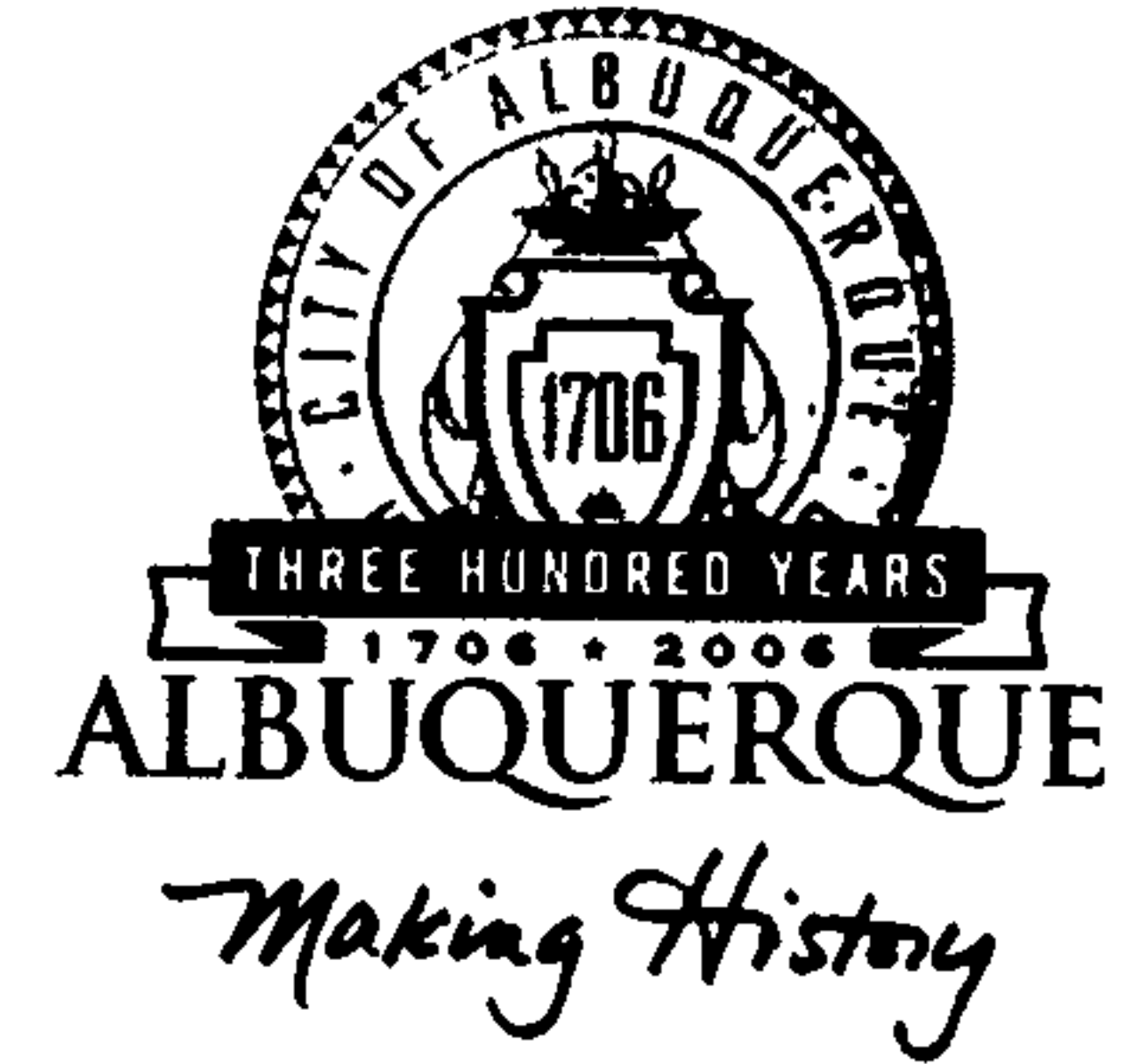




$$Q = C_d L H_r^{3/2}$$

↑
How did they determine
 $C_d = 3.0$?

CITY OF ALBUQUERQUE



July 28, 2005

Mario Juarez-Infante, P.E.
Wilson & Company
2600 The American Rd. SE, Suite 100
Rio Rancho, NM 87124

Re: Westside Skate Park Phase 1, 6900 Gonzales Road SW, Site Development Plan

Engineer's Stamp dated 6-02-05 (L10-D13A)

Dear Mr. Juarez-Infante,

Based upon the information provided in your submittal received 7-18-05, the above referenced plan is approved for Site Development Plan for Building Permit action by the DRB. However, the above referenced plan cannot be approved for Grading and Paving Permit until the following comments are addressed:

P.O. Box 1293

1. The 18" wide spillway must be hardlined.
2. Show the proposed and existing storm drain, along with associated inverts, on the grading plan (sheets 5 and 6).
3. Clearly indicate the ponding area on the grading plan (sheet 6).

Albuquerque

If you have any questions, you can contact me at 924-3981.

New Mexico 87103

Sincerely,

Kristal D. Metro
Engineering Associate, Planning Dept.
Development and Building Services

www.cabq.gov

C: File

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 1/28/2003)

PROJECT TITLE: Westside Skate Park, Phase 1 ZONE MAP/DRG. FILE#: K-and-L-11-2 L-10/D13A

DRB#: _____ EPC#: _____ WORK ORDER #: _____

LEGAL DESCRIPTION: Alamosa Multi-Service Center, Sunset Gardens, Albuquerque, NMCITY ADDRESS: 6900 Gonzales Road SWENGINEERING FIRM: Wilson & CompanyCONTACT: Jesse DicksonADDRESS: 4900 Lang Ave. NWPHONE: (505) 348-4136CITY, STATE: Albuquerque, NMZIP CODE: 87109OWNER: City of Albuquerque - Parks & RecreationCONTACT: Leroy ChavezADDRESS: 401 Coors Boulevard, NWPHONE: (505) 831-9600CITY, STATE: Albuquerque, NMZIP CODE: 87121ARCHITECT: Morrow, Reardon, Wilkinson, & MillerCONTACT: Greg MillerADDRESS: 210 La Veta NEPHONE: 505.266.2266CITY, STATE: Albuquerque, NMZIP CODE: 87108

SURVEYOR: _____

CONTACT: _____

ADDRESS: _____

PHONE: _____

CITY, STATE: _____

ZIP CODE: _____

CONTRACTOR: _____

CONTACT: _____

ADDRESS: _____

PHONE: _____

CITY, STATE: _____

ZIP CODE: _____

CHECK TYPE OF SUBMITTAL:**CHECK TYPE OF APPROVAL SOUGHT:**

- ☒ DRAINAGE REPORT
☐ DRAINAGE PLAN 1st SUBMITTAL. REQUIRES TCL OR EQUAL
☐ CONCEPTUAL GRADING & DRAINAGE PLAN
☒ GRADING PLAN
☐ EROSION CONTROL PLAN
☐ ENGINEERS CERTIFICATION (HYDROLOGY)
☐ CLOMR/LOMR
☐ TRAFFIC CIRCULATION LAYOUT (TCL)
☐ ENGINEERS CERTIFICATION (TCL)
☒ ENGINEERS CERTIFICATION (DRB, APPR. SITE PLAN)
☐ OTHER

- ☐ SIA / FINANCIAL GUARANTEE RELEASE
☐ PRELIMINARY PLAT APPROVAL
☐ S. DEV. PLAN FOR SUB'D. APPROVAL
☒ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
☐ SECTOR PLAN APPROVAL
☐ FINAL PLAT APPROVAL
☐ FOUNDATION PERMIT APPROVAL
☐ BUILDING PERMIT APPROVAL
☐ CERTIFICATION OF OCCUPANCY (PERM.)
☐ CERTIFICATION OF OCCUPANCY (TEMP.)
☒ GRADING PERMIT APPROVAL
☐ PAVING PERMIT APPROVAL
☐ WORK ORDER APPROVAL
☐ OTHER (SPECIFY)

WAS A PRE-DESIGN CONFERENCE ATTENDED:

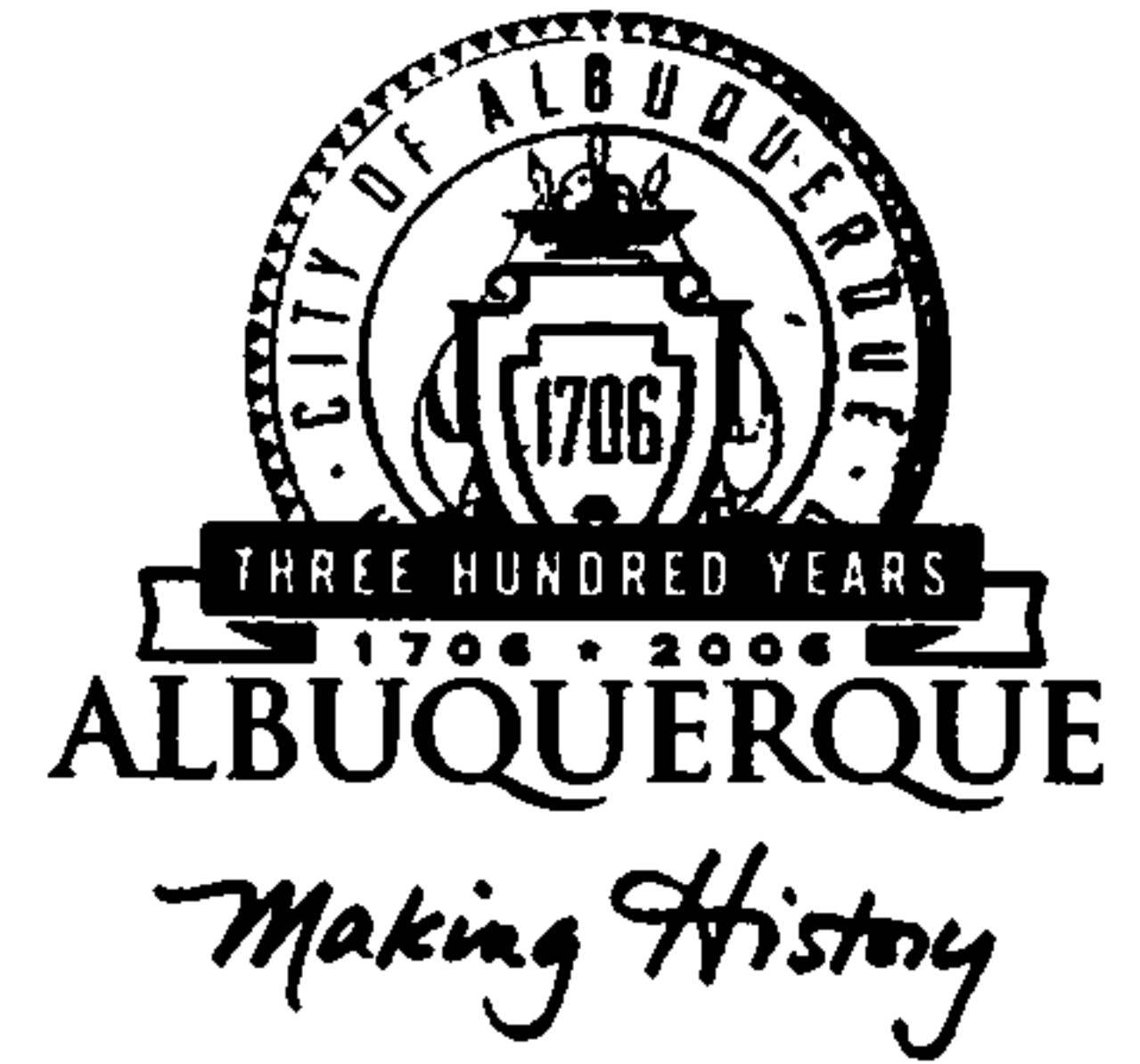
- ☐ YES
☒ NO
☒ COPY PROVIDED

Date Submitted: June 23, 2005By: Jesse Dickson

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location and scope of the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following:

1. **Conceptual Grading and Drainage Plan:** Required for approval of Site Development Plans greater than five
2. **Drainage Plans:** Required for building permits, grading permits, paving permits and site plans less than five (5)
3. **Drainage Report:** Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or more.

CITY OF ALBUQUERQUE



June 10, 2005

Mario Juarez-Infante, P.E.
Wilson & Company
2600 The American Rd. SE, Suite 100
Rio Rancho, NM 87124

Re: Westside Skate Park Phase 1, 6900 Gonzales Road SW, Site Development Plan

Engineer's Stamp dated 6-02-05 (L10-D13A)

Dear Mr. Juarez-Infante,

Based upon the information provided in your submittal received 5-27-05, the above referenced plan is approved for Site Development Plan for Building Permit action by the DRB. However, the above referenced plan cannot be approved for Building Permit until the following comments are addressed:

P.O. Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

1. Show the proposed and existing storm drain, along with associated inverts, on the grading plan.
2. Why is your pond outfall an earthen berm with a 2" invert? Provide the weir equation.
- ✓ 3. Provide a benchmark.
4. Why not control what enters the inlet from Basin P3 by including an orifice plate?
5. Provide a signed and dated engineer's stamp on the grading and drainage plan sheets.

If you have any questions, you can contact me at 924-3986.

Sincerely,

Kristal D. Metro
Engineering Associate, Planning Dept.
Development and Building Services

C: File

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 1/28/2003)

PROJECT TITLE: Westside Skate Park, Phase 1 ZONE MAP/DRG. FILE#: ~~K-L-TT-Z~~ L-10/D13A
DRB#: _____ EPC#: _____ WORK ORDER #: _____

LEGAL DESCRIPTION: Alamosa Multi-Service Center, Sunset Gardens, Albuquerque, NM

CITY ADDRESS: 6900 Gonzales Road SW

ENGINEERING FIRM: Wilson & Company

CONTACT: Jesse Dickson

ADDRESS: 4900 Lang Ave. NW

PHONE: (505) 348-4136

CITY, STATE: Albuquerque, NM

ZIP CODE: 87109

OWNER: City of Albuquerque - Parks & Recreation

CONTACT: Leroy Chavez

ADDRESS: 401 Coors Boulevard, NW

PHONE: (505) 831-9600

CITY, STATE: Albuquerque, NM

ZIP CODE: 87121

ARCHITECT: Morrow, Reardon, Wilkinson, & Miller

CONTACT: Greg Miller

ADDRESS: 210 La Veta NE

PHONE: 505.266.2266

CITY, STATE: Albuquerque, NM

ZIP CODE: 87108

SURVEYOR: _____

CONTACT: _____

ADDRESS: _____

PHONE: _____

CITY, STATE: _____

ZIP CODE: _____

CONTRACTOR: _____

CONTACT: _____

ADDRESS: _____

PHONE: _____

CITY, STATE: _____

ZIP CODE: _____

CHECK TYPE OF SUBMITTAL:

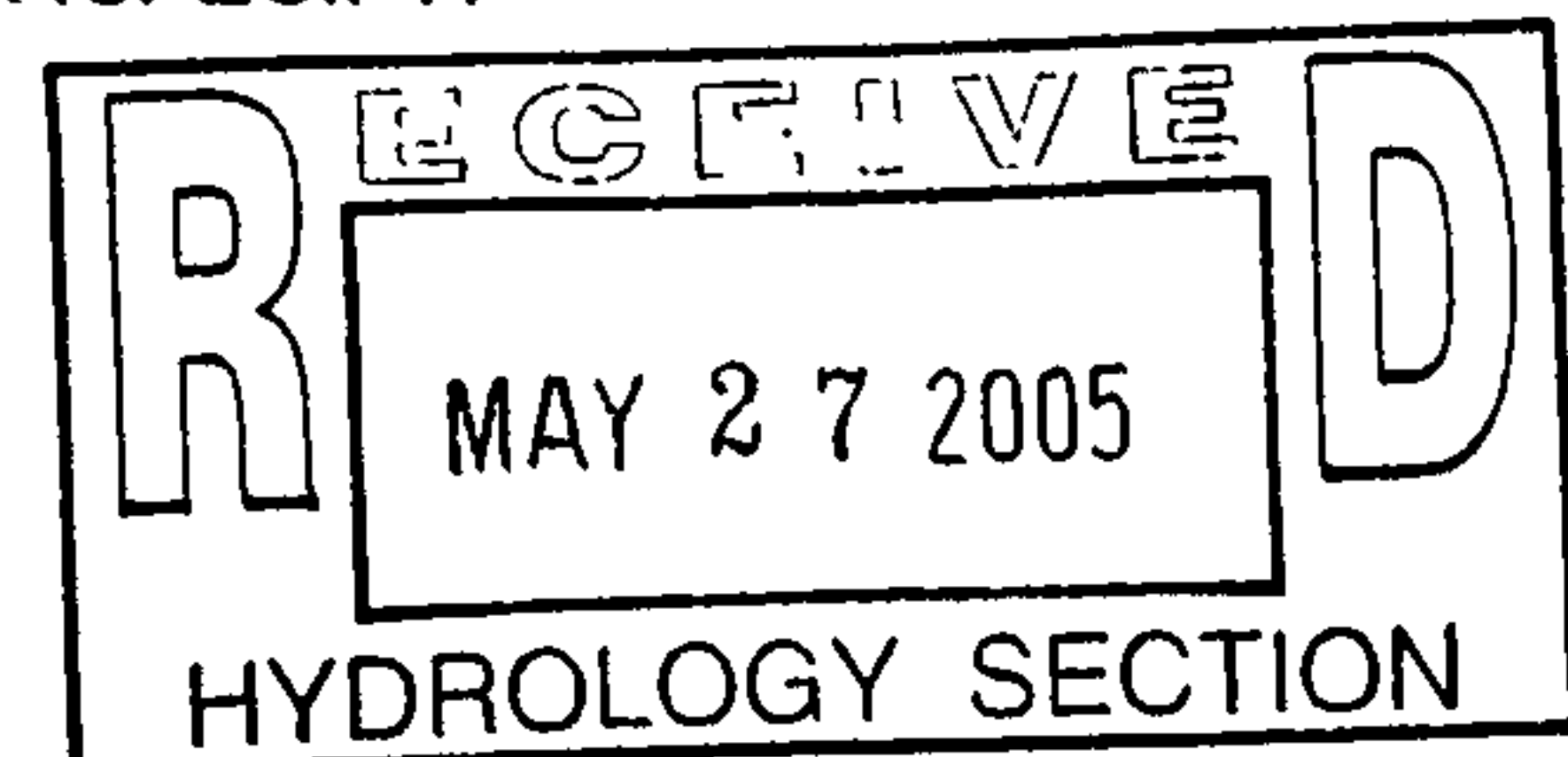
- ☒ DRAINAGE REPORT
- ☒ DRAINAGE PLAN 1st SUBMITTAL. REQUIRES TCL OR EQUAL
- ☐ CONCEPTUAL GRADING & DRAINAGE PLAN
- ☒ GRADING PLAN
- ☐ EROSION CONTROL PLAN
- ☒ ENGINEERS CERTIFICATION (HYDROLOGY)
- ☐ CLOMR\LOMR
- ☐ TRAFFIC CIRCULATION LAYOUT (TCL)
- ☐ ENGINEERS CERTIFICATION (TCL)
- ☐ ENGINEERS CERTIFICATION (DRB. APPR. SITE PLAN)
- ☐ OTHER

CHECK TYPE OF APPROVAL SOUGHT:

- ☐ SIA / FINANCIAL GUARANTEE RELEASE
- ☐ PRELIMINARY PLAT APPROVAL
- ☐ S. DEV. PLAN FOR SUB'D. APPROVAL
- ☒ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
- ☐ SECTOR PLAN APPROVAL
- ☐ FINAL PLAT APPROVAL
- ☐ FOUNDATION PERMIT APPROVAL
- ☐ BUILDING PERMIT APPROVAL
- ☐ CERTIFICATION OF OCCUPANCY (PERM.)
- ☐ CERTIFICATION OF OCCUPANCY (TEMP.)
- ☒ GRADING PERMIT APPROVAL
- ☐ PAVING PERMIT APPROVAL
- ☐ WORK ORDER APPROVAL
- ☐ OTHER (SPECIFY)

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ☐ YES
- ☒ NO
- ☒ COPY PROVIDED



Date Submitted: May 25, 2005

By: Jesse Dickson

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location and scope of the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following:

1. **Conceptual Grading and Drainage Plan:** Required for approval of Site Development Plans greater than five
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