PUBLIC WORKS/HYDROLOGY

F17/D49A

0000 0000 0455

F17/D49A

25×10

0000 0000 0956

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

October 27, 1993

Dennis Lorenz
Brasher Engineering
11930 Menaul NE #113
Albuquerque, NM 87112

RE: DRAINAGE PLAN FOR AN ADDITION TO L & H TRUCKING (F17-D49A)
REVISION DATED 10/12/93.

Dear Mr. Lorenz:

Based on the information provided on your October 13, 1993 resubmittal, the above referenced site is approved for Building Permit.

Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology.

Please be advised that prior to Certificate of Occupancy release, the following must be submitted:

1. Engineer Certification per the D.P.M. checklist.

2. Copy of the acceptance letter for Work Order No. 4650.

If I can be of further assistance, please feel free to contact me at 768-2667.

Sincerely,

Bernie J. Montoya, CE
Engineer Associate

BJM/dl/WPHYD/7562

xc: Alan Martinez
File

25×10

0000 0000 0457

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

April 15, 1993

Dennis Lorenz
Brahser Engineering
11930 Menaul NE #113
Albuquerque, NM 87112

RE: REVISED DRAINAGE PLAN FOR L & H TRUCKING (F17-D49A) REVISION DATED 3/24/93.

Dear Mr. Lorenz:

Based on the information provided on your April 12, 1993 resubmittal, the above referenced site is approved for Building Permit and Work Order.

Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology.

Also, prior to Certificate of Occupancy release, the following must be submitted:

1. Engineer Certification per the D.P.M. Checklist.

2. Copy of the acceptance letter for Work Order.

If I can be of further assistance, please feel free to contact me at 768-2667.

Sincerely,

Bernie J. Montoya

Bernie J. Montoya, CE
Engineer Associate

BJM/dl/WPHYD/7562

xc: Alan Martinez
File

PUBLIC WORKS DEPARTMENT

Walter H. Nickerson, Jr., P.E.
Assistant Director Public Works

ENGINEERING GROUP

Telephone (505) 768-2500

25×10

0000 0000 0958

BRASHER ENGINEERING INC.

October 12, 1993

Bernie J. Montoya, CE
Engineer Associate
Hydrology Section
Public Works Department
City of Albuquerque
PO Box 1293
Albuquerque, New Mexico 87103

SUBJECT: L & H TRUCKING (F17/D49A)

Dear Bernie:

Submitted herewith for review and approval are 2 copies of the Drainage Plan Update for the subject project. This Plan is updated to add a 30' x 52' building to the project. Since the building is to be constructed over what would have been a paved parking area, no revision to the project hydrology is necessary.

Please process this submittal as soon as possible. If you have any questions, please call.

Sincerely,

BRASHER ENGINEERING, INC.

Dennis A. Lorenz, PE

/dl

11930 MENAUL NE, SUITE 113 ALBUQUERQUE, NEW MEXICO 87112 (505) 296-0422 (505) 296-0466 FAX

25×10

0000 0000 0454

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

March 3, 1993

Dennis Lorenz
Brasher Engineering
11930 Menaul NE #113
Albuquerque, NM 87112

RE: DRAINAGE PLAN FOR L & H TRUCKING (F17-D49A) ENGINEER'S STAMP DATED 2/25/93.

Dear Mr. Lorenz:

Based on the information provided in your February 26, 1993 submittal, listed are some concerns that will need to be addressed prior to final approval:

1. Proposed connection to the existing channel must be processed through D.R.C.

2. T.B.M. must be permanently marked on a location that will not be disturbed.

3. Hydraulics for the proposed inlet and R.C.P. pipe. You must treat the inlet in a sump condition.

4. What type of sediment control do you propose? Water released from the proposed inlet must be sediment free.

5. Identify the portions that are going to be paved with this project.

If I can be of further assistance, please feel free to contact me at 768-2667.

Sincerely,

Bernie J. Montoya

Bernie J. Montoya, CE
Engineering Assistant

BJM/dl/WPHYD/7562

xc: File

PUBLIC WORKS DEPARTMENT

Walter H. Nickerson, Jr., P.E.
Assistant Director Public Works

ENGINEERING GROUP

Telephone (505) 768-2500

25 x 10

0000 0000 0960

DRAINAGE INFORMATION SHEET

PROJECT TITLE: L+H TRUCKING ZONE ATLAS/DRNG. FILE #: F17/49A

DRB #: — EPC #: — WORK ORDER #: —

LEGAL DESCRIPTION: LOT 1-A-2 REINDEER ADDN

CITY ADDRESS: BOGAN AVE NE

ENGINEERING FIRM: BRASHER ENGINEERING CONTACT: D. LORENZ

ADDRESS: 11930 MENAUL # 113 PHONE: 296 0422

OWNER: LH TRUCKING CONTACT: L. ATKINSON

ADDRESS: PO BOX 27497 87125 PHONE: 345-2687

ARCHITECT: NA CONTACT:

ADDRESS: PHONE:

SURVEYOR: ALDRICH LAND SURVEYING CONTACT: T. ALDRICH

ADDRESS: 4406 TOWNER NE PHONE: 884-1990

CONTRACTOR: NA CONTACT:

ADDRESS: PHONE:

TYPE OF SUBMITTAL:

- ___ DRAINAGE REPORT
- X DRAINAGE PLAN
- ___ CONCEPTUAL GRADING & DRAINAGE PLAN
- ___ GRADING PLAN
- ___ EROSION CONTROL PLAN
- ___ ENGINEER'S CERTIFICATION
- ___ OTHER _____

PRE-DESIGN MEETING:

- X YES
- ___ NO
- X COPY PROVIDED

RECEIVED FEB 26 1993 HYDROLOGY DIVISION

CHECK TYPE OF APPROVAL SOUGHT:

- ___ SKETCH PLAT APPROVAL
- ___ 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
- X BUILDING PERMIT APPROVAL
- ___ CERTIFICATE OF OCCUPANCY APPROVAL
- ___ GRADING PERMIT APPROVAL
- ___ PAVING PERMIT APPROVAL
- ___ S.A.D. DRAINAGE REPORT
- ___ DRAINAGE REQUIREMENTS
- ___ OTHER _____ (SPECIFY)

DATE SUBMITTED: 2-26-93

BY: DENNIS LORENZ

Q: CIA (104.63)(2.05)

25×10

0000 0000 0461

DRAINAGE INFORMATION SHEET

PROJECT TITLE: L+H TRUCKING ZONE ATLAS/DRNG. FILE #: F17 1049A

DRB #: — EPC #: — WORK ORDER #: —

LEGAL DESCRIPTION: LOT 1-A-2 REINDEER ADDN

CITY ADDRESS: BOGAN AVE NE

ENGINEERING FIRM: BRASHER ENGINEERING CONTACT: D. LORENZ

ADDRESS: 11930 MENAUL # 113 PHONE: 296 0422

OWNER: LH TRUCKING CONTACT: L. ATKINSON

ADDRESS: PO BOX 27497 87125 PHONE: 345-2687

ARCHITECT: NA CONTACT:

ADDRESS: PHONE:

SURVEYOR: ALDRICH LAND SURVEYING CONTACT: T. ALDRICH

ADDRESS: 4406 TOWNER NE PHONE: 884-1990

CONTRACTOR: NA CONTACT:

ADDRESS: PHONE:

TYPE OF SUBMITTAL:

- ___ DRAINAGE REPORT
- X DRAINAGE PLAN
- ___ CONCEPTUAL GRADING & DRAINAGE PLAN
- ___ GRADING PLAN
- ___ EROSION CONTROL PLAN
- ___ ENGINEER'S CERTIFICATION
- ___ OTHER _____

PRE-DESIGN MEETING:

- X YES
- ___ NO
- X COPY PROVIDED

CHECK TYPE OF APPROVAL SOUGHT:

- ___ SKETCH PLAT APPROVAL
- ___ 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
- X BUILDING PERMIT APPROVAL
- ___ CERTIFICATE OF OCCUPANCY APPROVAL
- ___ GRADING PERMIT APPROVAL
- ___ PAVING PERMIT APPROVAL
- ___ S.A.D. DRAINAGE REPORT
- ___ DRAINAGE REQUIREMENTS
- ___ OTHER _____ (SPECIFY)

DATE SUBMITTED: 10-12-93

BY: DENNIS LORENZ

OCT 13 1993 POLICY DIVISION

25 x 10

Location	10 - YEAR			
	Peak Discharge (c.f.s.) / Overland Flow	Flow Depth (ft.)	Velocity (ft./sec.)	Peak Discharge (c.f.s.) / Overland Flow
ON CHEROKEE ROAD AT SAN MATEO (AP 2003)	43 / 27	.43	4.4	95 / 60
ON COMANCHE ROAD 500' EAST OF CARLISLE BLVD. (AP 2004)	47 / 0	0	0	121 / 36
ON SAN MATEO BLVD. AT LINCOLN ROAD (AP 2201)	21 / 0	0	0	71 / 0
ALONG EAST I-25 FRONTAGE ROAD AT JEFFERSON STREET (AP 2202)	51 / 0	0	0	173 / 88
ALONG EAST I-25 FRONTAGE FOAD AT MCLEOD ROAD (AP 2203)	51 / 0	0	0	216 / 146
ALONG EAST I-25 FRONTAGE ROAD AT GRANTLINE CHANNEL (AP 2204)	38 / 38	.45	2.6	167 / 167
ON SAN MATEO BLVD. AT MC LEOD ROAD (AP 2301)	15 / 0	0	0	43 / 11
ON SAN MATEO BLVD. 100' SOUTH OF GRANT LINE CHANNEL (AP 2302)	37 / 37	.42	3.1	82 / 82
ON PALOMAS DRIVE AND I-40 CHANNEL (AP 2401)	29 / 29	.52	3.3	58 / 58
ON SAN MATEO PL. AND I-40 CHANNEL (AP 2501)	46 / 46	.53	5.0	98 / 98
ON PROSPECT AVENUE AT SAN MATEO BLVD. (AP 2601)	38 / 0	0	0	77 / 0
ALONG EAST I-25 FRONTAGE ROAD AT LINCOLN ROAD (AP 2701)	48 / 48	.46	3.2	146 / 146
ON LOS ARBOLES ROAD AT MONTCLAIRE DRIVE (AP 2801)	79 / 0	0	0	148 / 47
ON CANDELARIA INTERCEPTOR DITCH AT AMHERST DRIVE (AP 2802)	117 / 0	0	0	271 / 96
ON CARLISLE BLVD. SOUTH OF COMANCHE ROAD (AP 2901)	22 / 22	.34	4.8	42 / 42

25X10

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0000 0000 0463

PROJECT NAME LH TRUCKING JOB NO. 90043

SUBJECT INLET / SD DESIGN

BY DL CHECKED BY DATE 2-25-93 PAGE 1 OF 3

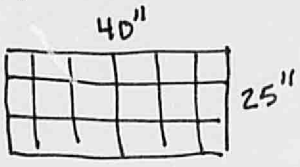
TOTAL FLOWRATE

AT INLET $Q_{100} = Q_{DEV\ SITE} + Q_{UNDEV\ OFFSITE}$

$= 9.3 + 6.3 = \underline{\underline{15.6}}$ CFS

CHECK INLET CAPACITY

TYPE 'D' INLET



USE WEIR EQN

$Q = 3.33 L H^{3/2}$

$L = 130" = 10.83'$

$Q = 15.6$ CFS

⇒ FIND H: $H = \left(Q/3.33L\right)^{2/3} = \underline{\underline{0.57'}}$

1.0' AVAILABLE PRIOR TO OVERFLOW TO GRANT LINE CHANNEL

CHECK 24" SD CAPACITY

USE MANNING'S $Q = \frac{1.49}{n} A R^{2/3} S^{1/2}$

$A = 3.14$ SF

$P = 6.28'$

$R = 0.5$

$n = 0.013$

$S = 1\%$

$\underline{\underline{Q = 22.7 \text{ CFS}}}$

ALLOWS $\frac{22.7}{15.6} = 1.5$ FS AGAINST KLOGGING

25×10

0000 0000 0964

PROJECT NAME LH TRUCKING JOB NO. 90043

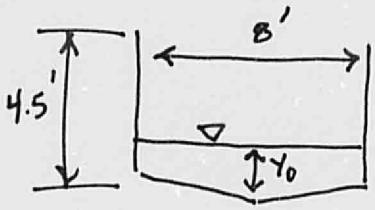
SUBJECT CHANNEL W.S.

BY DL CHECKED BY 1 DATE 2-25-93 PAGE 2 OF 3

FIND GRANT LINE CHANNEL W.S.E.

Q CHANNEL = 167 CFS PER AMDS

FIND WSE BY MANNING'S:



$S = 0.015$ $Fr = 2.1$

$n = 0.013$ $V = 14.5$ FPS

$A = 11.5$ SF $Y_0 = 1.44'$

$P = 10.9'$

100 YR WSE = INV + Y_0 = 9.00

TOP OF CHANNEL = 12.0

INV 24" SD = 7.9

TOP 'D' INLET GRATE = 11.0

APR 12 1996 HYDROLOGY DIVISION

25×10

0000 0000 0965

PROJECT NAME L & H TRUCKING JOB NO. 90043

SUBJECT INLET / SD DESIGN

BY DL CHECKED BY _____ DATE 3-23-93 PAGE 3 OF 3

CHECK INLET GRATE CAPACITY BY ORIFACE EQN

$Q = CA\sqrt{2gh}$

$Q_{100} = 15.6$ CFS

$A = 40'' \times 25'' = 6.9$ SF

ASSUME OPEN AREA $= 0.8A = 5.5$ SF

$C = 0.6$ CONSERVATIVE PER BRATER-KING

$g = 32.2$ F/S^2

SOLVE FOR REQD h:

$h = Q^2 / 2gC^2A^2 = \underline{\underline{0.33 \text{ FT}}}$ (1.0 FT AVAILABLE)

CHECK SD PIPE INLET BY ORIFACE EQN

$Q = CA\sqrt{2gh}$

SD = 24" ϕ

$A = 3.14$ SF

$C = 0.6$

$Q = 15.6$ CFS

SOLVE FOR REQD h:

$h = \frac{Q^2}{2gC^2A^2} = \underline{\underline{1.1 \text{ FT}}}$ (3' AVAILABLE)

HYDROLOGY DIVISION

25 × 10

0000 0000 0986

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
UTILITY DEVELOPMENT DIVISION/HYDROLOGY SECTION

PRE-DESIGN CONFERENCE

DRAINAGE FILE/ZONE ATLAS PAGE NO.: F17 DATE: 1/14/93

EPC NO.: _____ DRB NO.: _____ ZONE: _____

SUBJECT: L-H TRUCKING

STREET ADDRESS: _____

LEGAL DESCRIPTION: Lot 1A2, Reindeer Addn

APPROVAL REQUESTED:

____	PRELIMINARY PLAT	____	FINAL PLAT
____	SITE DEVELOPMENT PLAN	X	BUILDING PERMIT
____	GRADING/PAVING PERMIT	____	OTHER

ATTENDANCE:	WHO	REPRESENTING
	DENNIS LORENZ	
	FRED J. AGUIRRE	

FINDINGS:
A DRAINAGE PLAN IS REQUIRED FOR BUILDING PERMIT SIGN-OFF. THE MAJOR ~~ISSUES~~ ISSUE TO BE ADDRESSED IS THE STABILITY OF THE ADJACENT ARROYO. IF THE ARROYO IS UNIMPROVED A PRECENT LINE WILL NEED TO BE ESTABLISHED. ADDITIONALLY, DISCHARGE TO AN UNLINED ARROYO MUST ~~BE IN~~ BE ~~CAUSE EROSION~~ ~~BE~~ PROTECTED FROM EROSION.

The undersigned agrees that the above findings are summarized accurately and are only subject to change if further investigation reveals that they are not reasonable or that they are based on inaccurate information.

SIGNED:	Fred Aguirre	SIGNED:	[illegible]
TITLE:		TITLE:	
DATE:	1/14/93	DATE:	1-14-93

NOTE PLEASE PROVIDE A COPY OF THIS PRE-DESIGN FORM WITH THE DRAINAGE SUBMITTAL.

25 x 10

0000 0000 0967

SUPPLEMENTAL CALCULATIONS

FOR

L & H TRUCKING

Prepared by:

BRASHER ENGINEERING, INC.

February 1993

APR 12 1993

DENNIS A. LORENZ
NEW MEXICO
REGISTERED PROFESSIONAL ENGINEER

2-25-93
3-24-93

25×10

0000 0000 0968

BRASHER ENGINEERING INC.

March 24, 1993

Bernie J. Montoya
Engineering Assistant/Hydrology Section
Public Works Department
City of Albuquerque
P.O. Box 1293
Albuquerque, New Mexico 87103

SUBJECT: L & H TRUCKING (F-17/D49A)
BEI Job 90043

Dear Bernie:

Submitted herewith for review and approval for building permit is one copy of the revised Grading and Drainage Plan for the subject project. The Supplemental calculations have been updated to analyze the proposed inlet in a sump condition. All other comments listed in your March 3, 1993 letter are addressed by plan revision. I have also included one copy of the DRC drawings for construction of the drop inlet and storm drain connection to the Grant Line channel.

If you have any questions or need additional information, please call.

BRASHER ENGINEERING, INC.

Sincerely,

Dennis A. Lorenz, PE

/dl
encl

11930 MENAUL NE, SUITE 113 ALBUQUERQUE, NEW MEXICO 87112 (505) 296-0422 (505) 296-0466 FAX

25×10

0000 0000 0969

DRAINAGE INFORMATION SHEET

PROJECT TITLE: L+H TRUCKING ZONE ATLAS/DRNG. FILE #: F17/D494

DRB #: — EPC #: — WORK ORDER #: —

LEGAL DESCRIPTION: LOT 1-A-2 REINDEER ADDN

CITY ADDRESS: BOGAN AVE NE

ENGINEERING FIRM: BRASHER ENGINEERING CONTACT: D. LORENZ

ADDRESS: 11930 MENAUL # 113 PHONE: 296 0422

OWNER: LH TRUCKING CONTACT: L. ATKINSON

ADDRESS: PO BOX 27497 87125 PHONE: 345-2687

ARCHITECT: NA CONTACT:

ADDRESS: PHONE:

SURVEYOR: ALDRICH LAND SURVEYING CONTACT: T. ALDRICH

ADDRESS: 4406 TOWNER NE PHONE: 884-1990

CONTRACTOR: NA CONTACT:

ADDRESS: PHONE:

TYPE OF SUBMITTAL:

___ DRAINAGE REPORT
X DRAINAGE PLAN
___ CONCEPTUAL GRADING & DRAINAGE PLAN
___ GRADING PLAN
___ EROSION CONTROL PLAN
___ ENGINEER'S CERTIFICATION
___ OTHER _____

PRE-DESIGN MEETING:

X YES
___ NO
X COPY PROVIDED

CHECK TYPE OF APPROVAL SOUGHT:

___ SKETCH PLAT APPROVAL
___ 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
X BUILDING PERMIT APPROVAL
___ CERTIFICATE OF OCCUPANCY APPROVAL
___ GRADING PERMIT APPROVAL
___ PAVING PERMIT APPROVAL
___ S.A.D. DRAINAGE REPORT
___ DRAINAGE REQUIREMENTS
___ OTHER _____ (SPECIFY)

DATE SUBMITTED: 3-24-93

BY: DENNIS LORENZ

RECEIVED APR 12 1993

25×10

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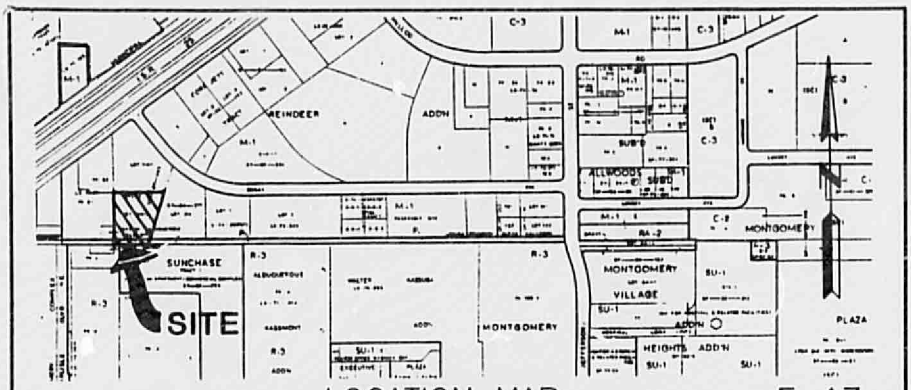
OF THE ORIGINAL DOCUMENT.



LOCATION MAP F-17

NOTICE TO CONTRACTOR

1. All work detailed on these plans to be performed under contract, and unless stated otherwise or provided for hereon, shall be constructed in accordance with the City of Albuquerque Standard Specifications, Public Works Construction, 1986 Edition, with updates.

2. Two working days prior to any excavation, the contractor must contact New Mexico One Call, 260-1990, for location of existing utilities.

3. Prior to construction, the contractor shall excavate and verify the horizontal and vertical location of existing utilities being connected to and all potential obstructions. Should a conflict exist, the contractor shall notify the Engineer so that the conflict can be resolved with a minimum amount of delay.

4. Three (3) working days prior to beginning construction the Contractor shall submit to the Construction Co-ordination Division a detailed construction schedule. Two (2) working days prior to construction the contractor shall obtain a barricading permit from the construction Co-ordination Division. Contractor shall notify Barricade Engineer (768-2551) prior to occupying an Intersection. See Section 19 of the specifications.

DENNIS A. LOBATO NEW MEXICO 7617 REGISTERED PROFESSIONAL ENGINEER

3-22-93

PROJECT BENCH MARK
STANDARD NMSHC BRASS CAP STAMPED 'NMSHC I-25-18' ELEVATION 5125.7 FEET

APPROVED FOR RECORD DRAWINGS	APPROVED FOR CONSTRUCTION
ASST. CITY ENGINEER FIELD DATE	A.C.E. ENGINEER DATE

CITY OF ALBUQUERQUE

APPROVALS	ENGINEER	DATE
DRC CHAIRPERSON		
WATER /W.WATER		
TRANSPORTATION		
HYDROLOGY		

L & H TRUCKING

STORM DRAIN CONNECTION AT GRANT LINE CHANNEL

PROJECT NO. 4650

MAP NO. F-17

SHEET 1 OF 3

25×10 32×10

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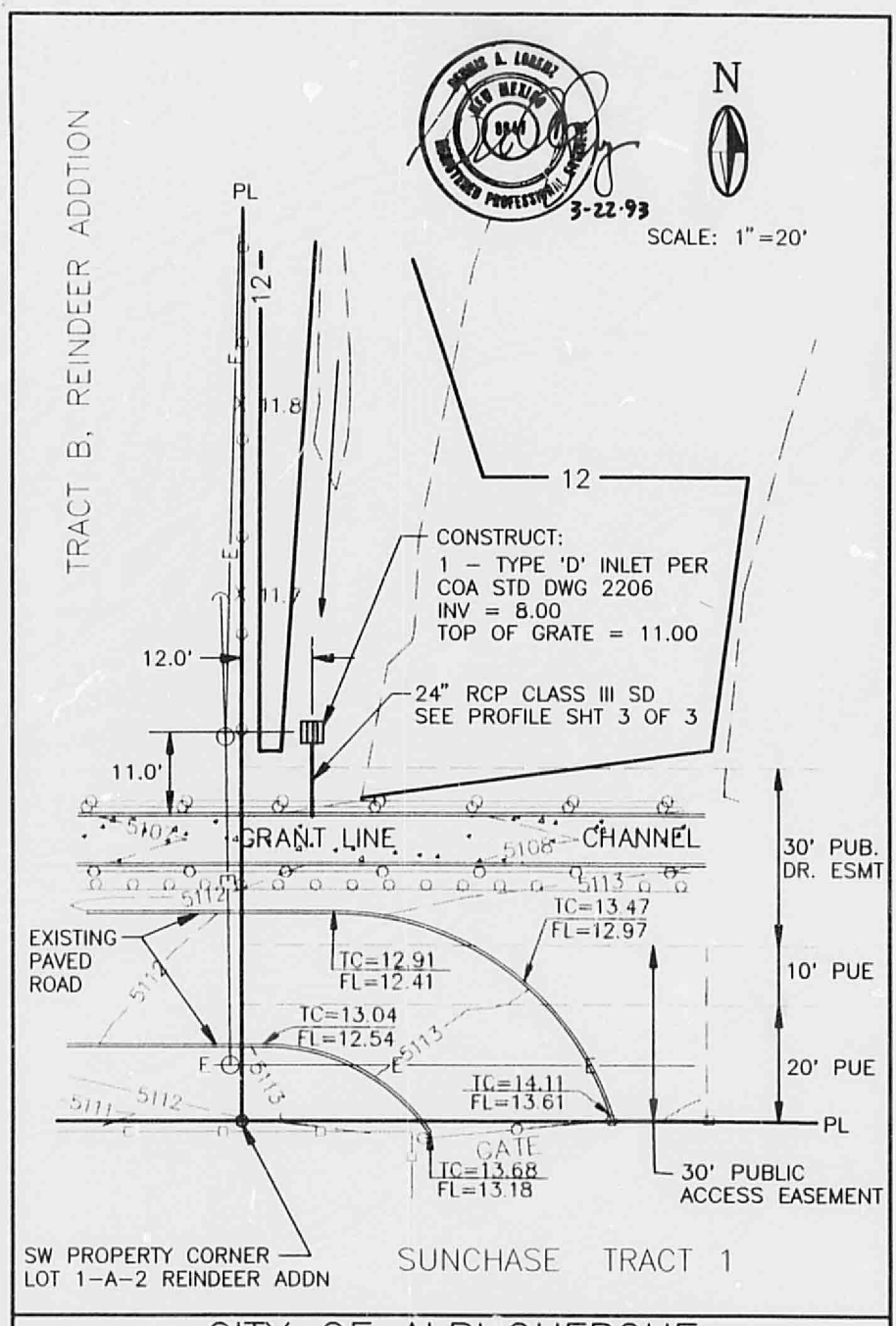
OF THE ORIGINAL DOCUMENT.

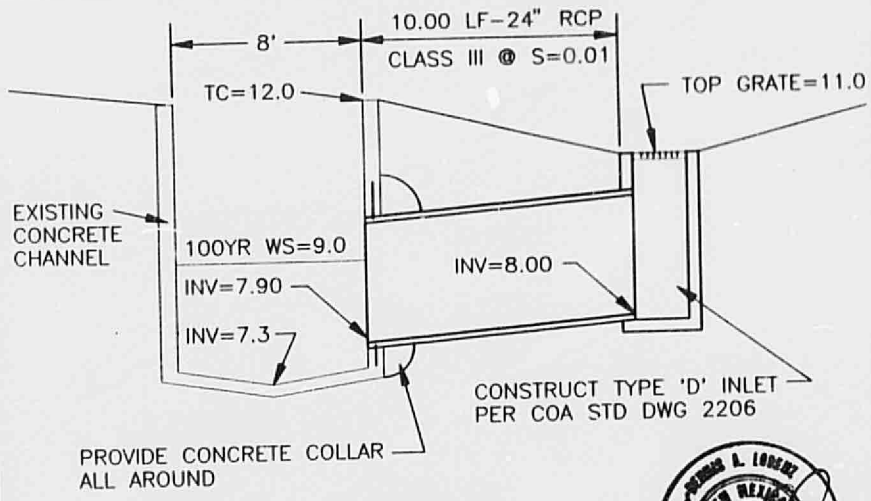


CITY OF ALBUQUERQUE

APPROVALS	ENGINEER	DATE	L & H TRUCKING STORM DRAIN CONNECTION AT GRANT LINE CHANNEL	
DRC CHAIRPERSON				
WATER /W.WATER				
TRANSPORTATION			PROJECT NO. 4650	MAP NO. F-17
HYDROLOGY				SHEET 2 OF 3

25×10 32×10

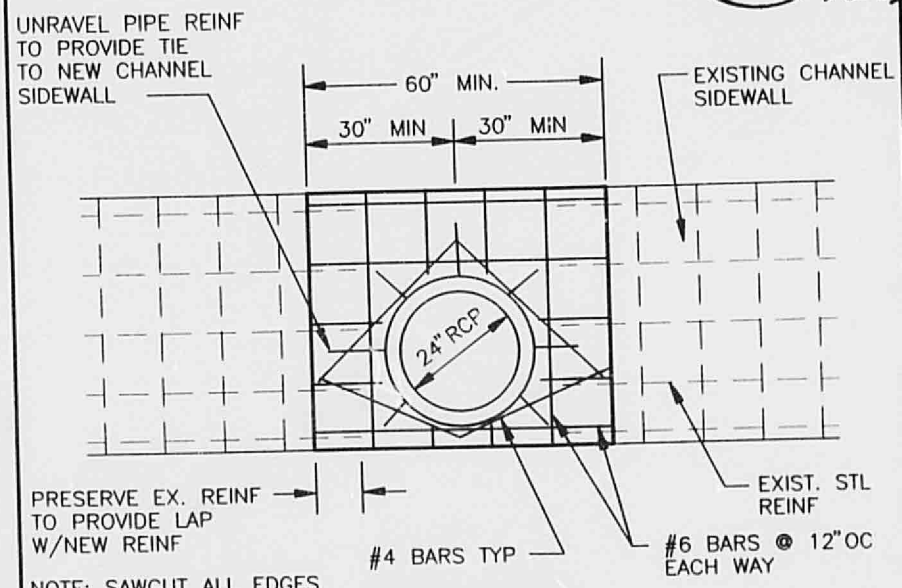
0000 0000 0972
OF THE ORIGINAL DOCUMENT.



PROFILE

SCALES: 1"=5' H 1"=2' V

3-22-93



NOTE: SAWCUT ALL EDGES TO PROVIDE CLEAN INSIDE JOINTS

ELEVATION

SCALE: 1"=2'

CITY OF ALBUQUERQUE

APPROVALS	ENGINEER	DATE	L & H TRUCKING STORM DRAIN CONNECTION AT GRANT LINE CHANNEL	
DRC CHAIRPERSON				
WATER /W.WATER				
TRANSPORTATION			PROJECT NO. 4650	MAP NO. F-17
HYDROLOGY				SHEET 3 OF 3

25×10 32×10

0000 0000 0473

PLANS/PLATS ON FILE

FILE DESC: F17/D49A

PLANS/PLATS 3

25×10

0000 0000 0974

25x10