CITY OF ALBUQUERQUE, NEW MEXICO

CONSTRUCTION PLANS FOR

STORM DRAINAGE CHANNEL REHABILITATION PHASE I

CITY OF ALBUQUERQUE - PUBLIC WORKS DEPARTMENT

SEPTEMBER, 1992

FINAL DESIGN

INDEX TO DRAWINGS

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APPROVAL OF AS BUILT DRAWINGS
CHIEF CONSTRUCTION ENGINEER
Gene Chang
DATE 1-20-00

GENERAL NOTES

1. ALL WORK DETAILED ON THIS PROJECT SHALL BE DONE IN ACCORDANCE WITH "CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION", 1986 AND ANY REVISIONS AND ADDITIONS IN THE SUPPLEMENTAL SPECIFICATIONS IN THE CONTRACT DOCUMENTS.
2. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES WHEN WORKING NEAR THEIR SYSTEMS. TWO DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE-CALL SYSTEM (260-1990) FOR LOCATION OF EXISTING UTILITIES.
3. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE PROJECT MANAGER SO THAT THE CONFLICT CAN BE RESOLVED WITH MINIMUM AMOUNT OF DELAY.
4. CONTRACTOR SHALL NOTIFY THE ENGINEER NOT LESS THAN SEVEN (7) DAYS PRIOR TO STARTING WORK IN ORDER THAT THE ENGINEER MAY TAKE NECESSARY MEASURES TO INSURE THE PRESERVATION OF SURVEY MONUMENTS. CONTRACTOR SHALL NOT DISTURB PERMANENT SURVEY MONUMENTS WITHOUT THE CONSENT OF THE ENGINEER AND SHALL NOTIFY THE ENGINEER AND BEAR THE EXPENSE OF REPLACING ANY THAT MAY BE DISTURBED WITHOUT PERMISSION. REPLACEMENT SHALL BE DONE ONLY BY THE ENGINEER. WHEN A CHANGE IS MADE IN THE FINISHED ELEVATION OF THE PAVEMENT OF ANY ROADWAY IN WHICH A PERMANENT SURVEY MONUMENT IS LOCATED. CONTRACTOR SHALL AT HIS OWN EXPENSE, ADJUST THE MONUMENT COVER TO THE NEW GRADE UNLESS OTHERWISE SPECIFIED. REFER TO SECTION 4.4 OF THE GENERAL CONDITIONS OF THE STANDARD SPECIFICATIONS.
5. REMOVALS SHALL BE DISPOSED OF OFF-SITE AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
6. THE CONTRACTOR SHALL DISPOSE OF ALL UNSUITABLE MATERIAL IN AN ENVIRONMENTALLY ACCEPTABLE MANNER AT A LOCATION ACCEPTABLE TO THE PROJECT MANAGER. THERE WILL BE NO DIRECT COMPENSATION FOR THIS WORK.
7. CONTRACTOR SHALL PROVIDE A TEMPORARY STORM DRAINAGE SYSTEM (SUBJECT TO APPROVAL BY THE CITY HYDROLOGY DIVISION AND THE CITY CONSTRUCTION PROJECT MANAGER) FOR ALL WORK ON THIS PROJECT. THE TEMPORARY SYSTEM SHALL BE CAPABLE OF SAFELY CONVEYING EXISTING RUNOFF ACROSS THE PROJECT AND DISCHARGING INTO THE EXISTING DRAINAGE SYSTEM.

RECORD DRAWING

REV	SHEETS	CITY ENGR	DATE	USER DEPT.	DATE	USER DEPT.	DATE

APPROVAL OF REVISIONS

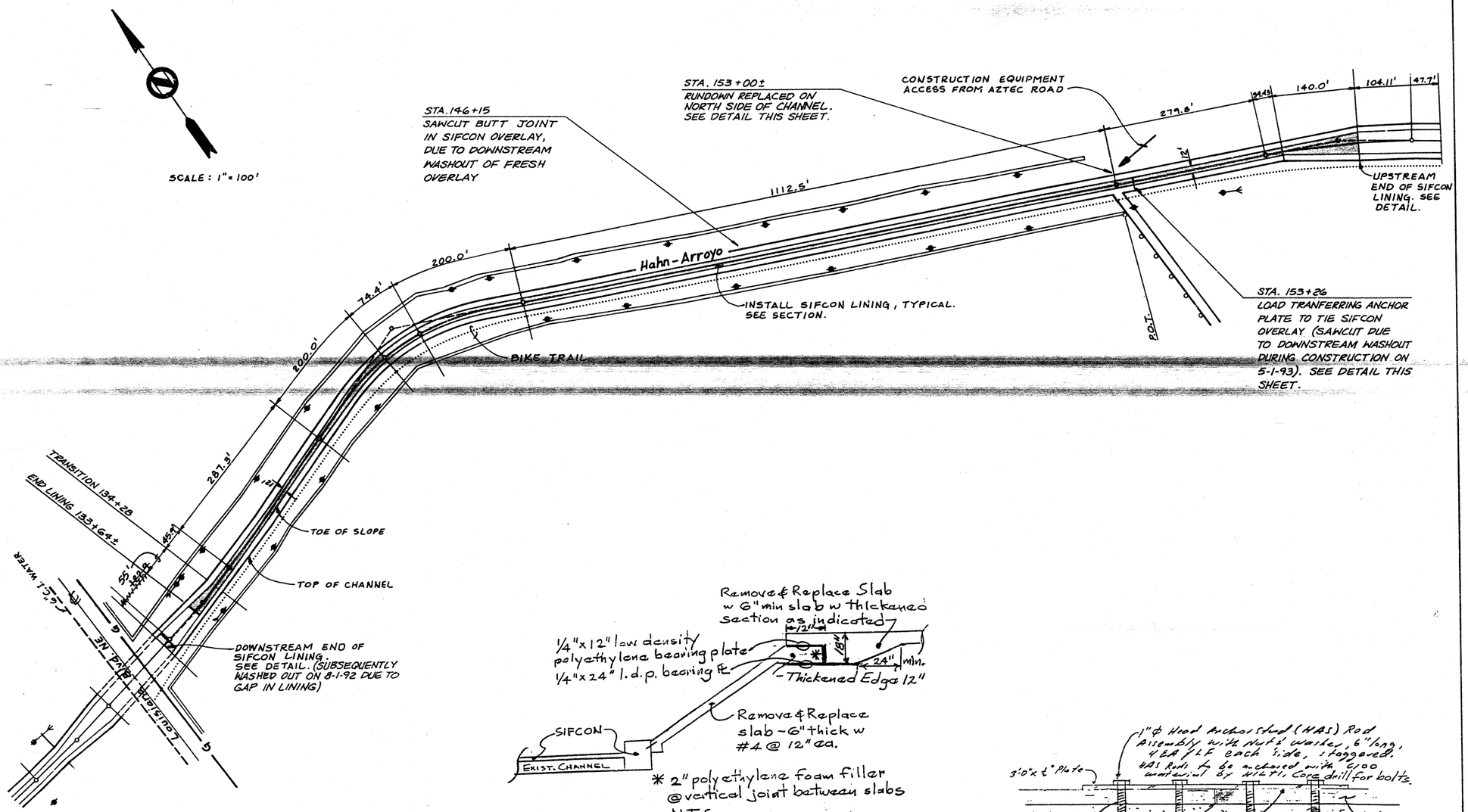
MARK S. HOLSTAD NEW MEXICO No. 7288 REGISTERED PROFESSIONAL ENGINEER

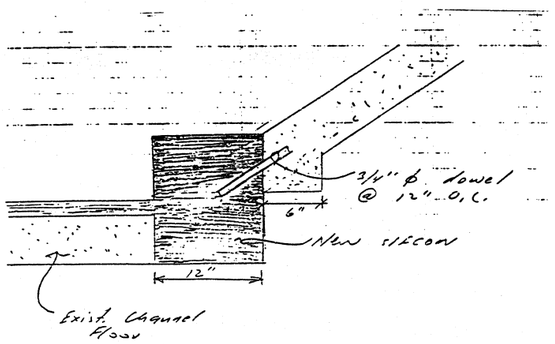
Grainer, Inc.
5971 JEFFERSON BLVD. NE
SUITE 101
ALBUQUERQUE, NM 87109
(505) 345-3999

APPROVED FOR CONSTRUCTION
Russell E. Dick
10-5-92

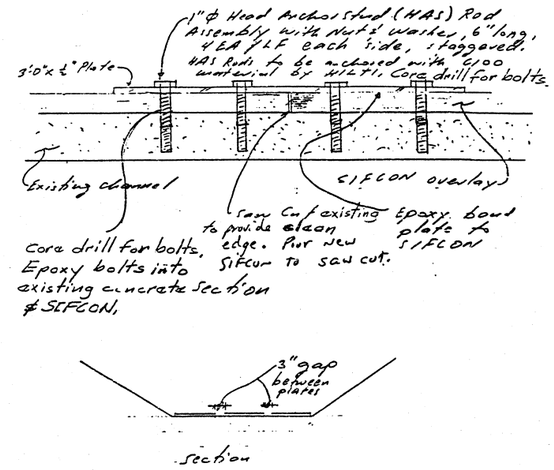
DRAWING NO.
CITY PROJECT 4171-90

SHEET 1 OF 6





RUNDOWN CONNECTION TO HAHN



LOAD TRANSFERRING ANCHOR PLATE STA 153+26

NOTE

CONSTRUCTION EQUIPMENT ACCESS TO THE HAHN ARROYO WILL BE TYPICALLY FROM THE NORTH SIDE OR 1500' ± UPSTREAM WHERE THE HAHN ARROYO INTERSECTS DELLWOOD ROAD. UNDER NO CIRCUMSTANCES WILL CONSTRUCTION ACTIVITIES INTERFERE WITH USE OF THE BIKE TRAIL ON THE SOUTH SIDE OF THE HAHN ARROYO.

AS BUILT INFORMATION
CONTRACTOR TRIAD
WORK INSPECTOR'S ACCEPTANCE BY N/A DATE
FIELD VERIFICATION BY TONY ARCHULETA DATE 7/93
DRAWINGS CORRECTED BY COA DATE
MICRO-FILM INFORMATION BY GREINER DATE 11/93
RECORDED BY DATE
NO

BENCH MARKS

SURVEY INFORMATION
FIELD NOTES
NO. BY DATE

ENGINEER'S SEAL
MARK S. HOLSTAD NEW MEXICO No. 7238 REGISTERED

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	DATE 6/92
		DESIGNED BY KWW	DATE 6/92
		DRAWN BY MLS	DATE 6/92
		CHECKED BY MSH	

RECORD DRAWINGS

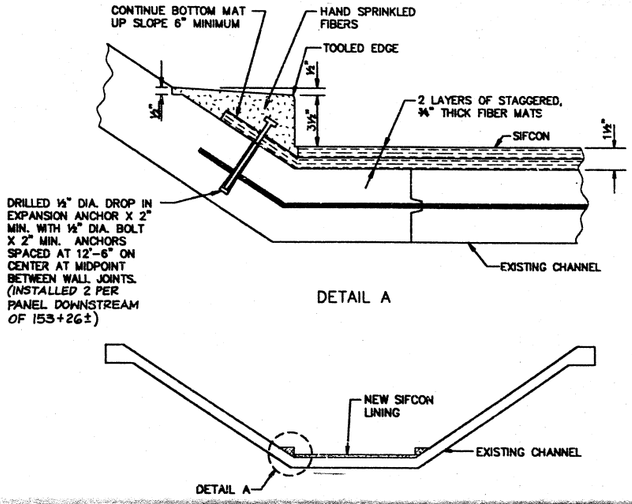
THESE DRAWINGS HAVE BEEN REVISED TO REFLECT AS-CONSTPUCTED CONDITIONS IN ACCORDANCE WITH INFORMATION FURNISHED BY THE CONTRACTOR (TRIAD BUILDERS OF NM) AND THE CITY OF ALBUQUERQUE, WHICH PERFORMED ON-SITE INSPECTION DURING CONSTRUCTION. THERE WERE NO CONSTRUCTION SURVEYS.

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

TITLE: STORM DRAINAGE CHANNEL REHABILITATION - PHASE I
SIFCON LINING - HAHN ARROYO - PENNSYLVANIA TO LOUISIANA

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
DRC CHAIRMAN		10-5-92	WATER	R.W. Kane	4-28-9
TRANSPORTATION	N/A RHD	9-25-92	WASTE WATER	R.W. Kane	4-28-9
HYDROLOGY		9/28/92			

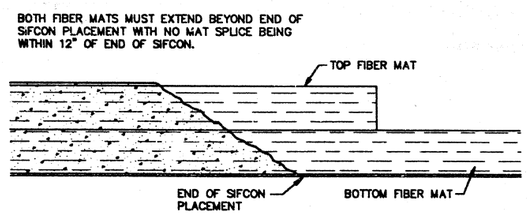
PROJECT NO. 4171.90 | MAP NO. G-19 | SHEET 3 OF 6



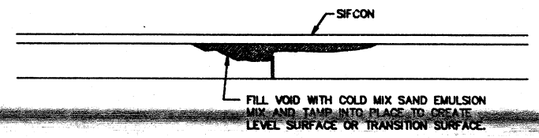
DETAIL A

SECTION

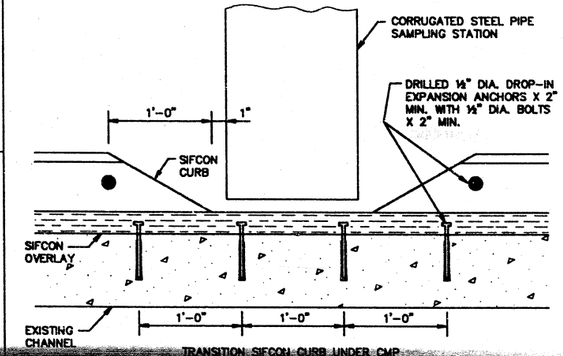
SLURRY INFILTRATED FIBER CONCRETE (SIFCON) LINING



SECTION OF CONSTRUCTION JOINT



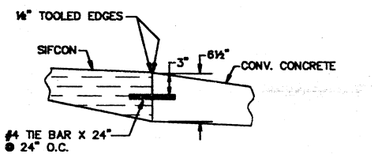
SECTION DETAIL AT CHANNEL IRREGULARITIES, SPALLS, AND OFFSETS



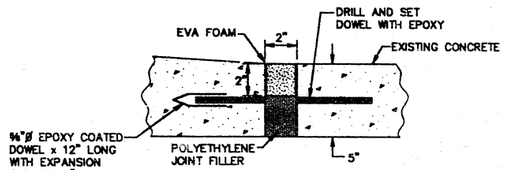
LONGITUDINAL SECTION AT CMP SAMPLING STATION

NOTES:

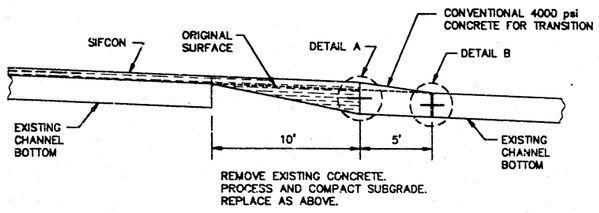
1. FIBER MATS MUST BE STAGGERED SUCH THAT EDGES AND ENDS OF TOP LAYERED MATS DO NOT COINCIDE WITH EDGES AND ENDS OF UNDERLYING MATS.
2. INSTALL VANDAL PLATES OVER EVA FOAM JOINTS AT BOTH UPSTREAM AND DOWNSTREAM LOCATIONS.



DETAIL A

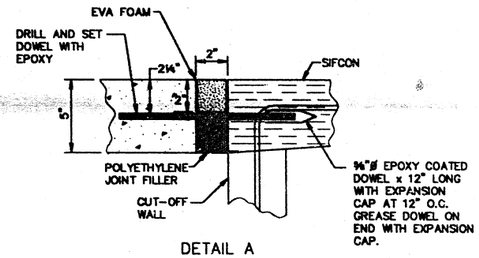


DETAIL B

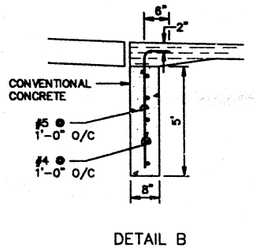


SECTION

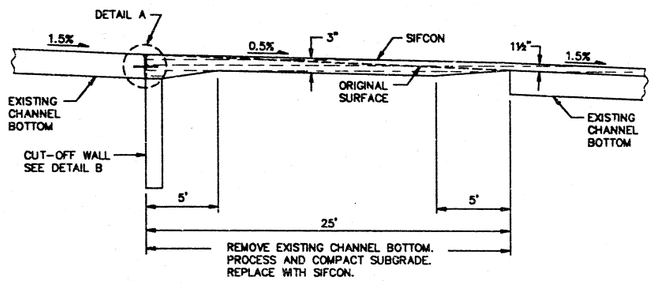
SIFCON OVERLAY SECTION AT DOWNSTREAM TIE TO EXISTING CHANNEL



DETAIL A



DETAIL B



SECTION

SIFCON OVERLAY SECTION AT UPSTREAM TIE TO EXISTING CHANNEL

RECORD DRAWING

Greiner, Inc.

AS BUILT INFORMATION
CONTRACTOR TRIAD DATE
STAKED BY N/A
FIELD NOTES BY JOEY ARCHULETA DATE 7/93
VERIFICATION BY COA DATE
COMPILED BY GREINER DATE 11/93
MICRO-FILM INFORMATION
RECORDED BY DATE

BENCH MARKS

SURVEY INFORMATION
FIELD NOTES

NO.	BY	DATE

ENGINEER'S SEAL
MARK S. HOLSTAD NEW MEXICO No. 7288 REGISTERED PROFESSIONAL ENGINEER

NO.	REMARKS	BY	DATE
	DESIGN		DATE 7/92
	REVISIONS		DATE 7/92
			DATE 7/92

DESIGNED BY: K.W.W. PROJECT #
DRAWN BY: J.L.R.
CHECKED BY: M.S.H.

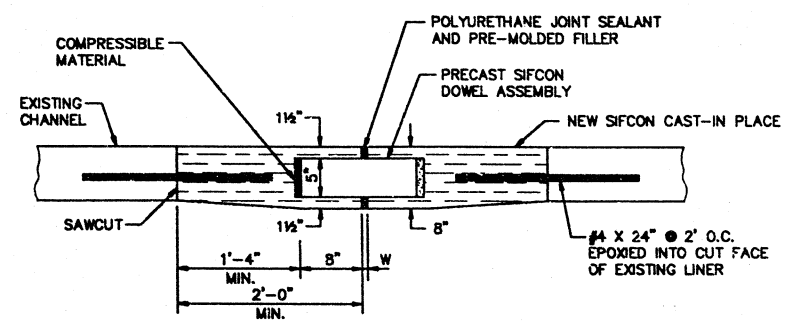
CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

TITLE: STORM DRAINAGE CHANNEL REHABILITATION PHASE I

DETAIL SHEET - SIFCON LINING

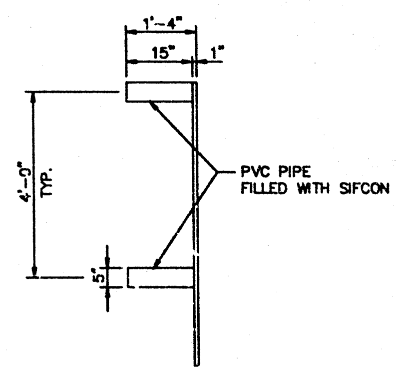
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
DRC Chairman		10-5-92	Water	R.W. Kane	9-28-92
Transportation	N/A	9-25-92	Waste Water	R.W. Kane	9-28-92
Hydrology		9/24/92			

PROJECT 417.92 MAP NO. SHEET OF

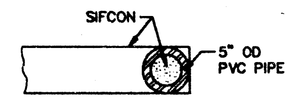


W=: ¾" IF CONSTRUCTED NOV.-APR.
½" IF CONSTRUCTED MAY-OCT.

SECTION

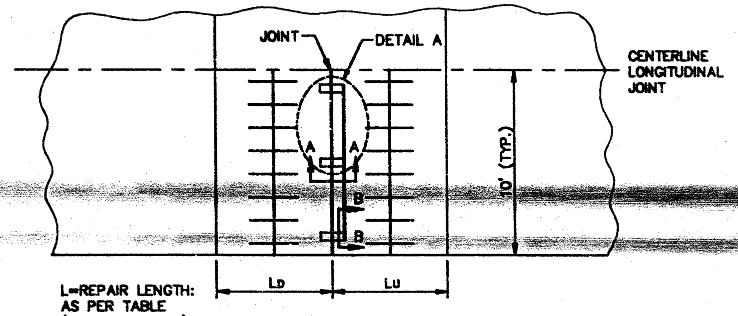


DETAIL A
PRECAST SIFCON DOWEL ASSEMBLY



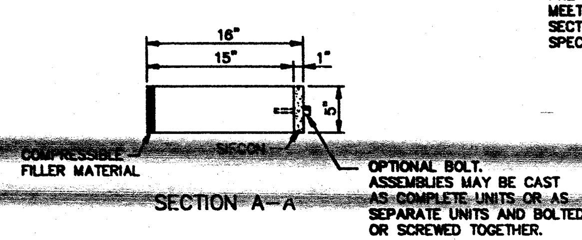
SECTION B-B

- JOINT SEALANT SHALL FOLLOW THE REQUIREMENTS AS DETAILED IN REPAIR TYPE II-A.
- PRE-MOLDED JOINT FILLER SHALL MEET THE REQUIREMENTS OF SECTION 107.3.1 OF THE SPECIFICATIONS.



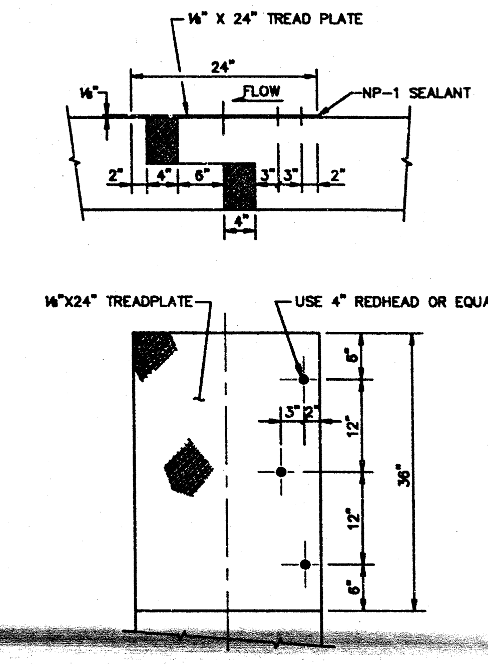
L=REPAIR LENGTH: AS PER TABLE (D-DOWNSTREAM) (U-UPSTREAM)

PLAN



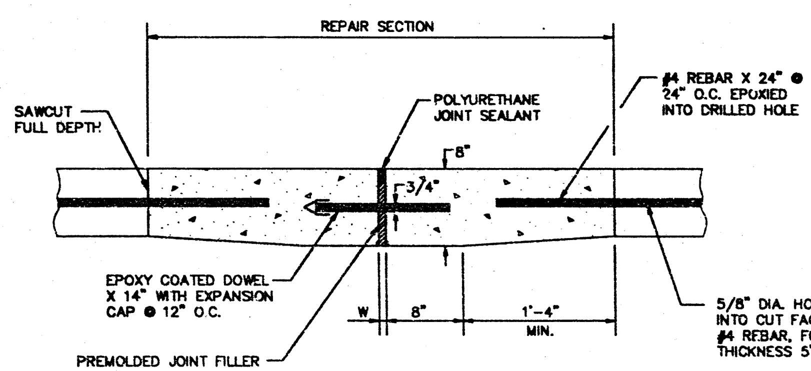
SECTION A-A

REPAIR TYPE I-A
SLURRY INFILTRATED FIBER CONCRETE (SIFCON) JOINT REPAIR



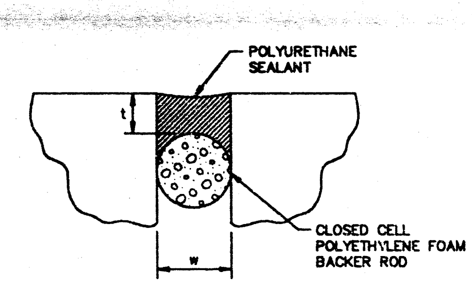
JOINT VANDAL PLATE DETAILS

- JOINT SEALANT SHALL FOLLOW THE REQUIREMENTS AS DETAILED IN REPAIR TYPE II-A.
- PRE-MOLDED JOINT FILLER SHALL MEET THE REQUIREMENTS OF SECTION 107.3.1 OF THE SPECIFICATIONS.



W=: 3/4" IF CONSTRUCTED NOV.-APR.
1/2" IF CONSTRUCTED MAY-OCT.

REPAIR TYPE I-B
CONVENTIONAL CONCRETE JOINT REPAIR



- REMOVE ALL DEBRIS IN JOINT TO DEPTH OF WATERSTOP OR AS DEEP AS PRACTICAL IF THERE IS NO WATERSTOP.
- CLEAN AND SEAL JOINT IN ACCORDANCE WITH SECTIONS 107.4.1.2 OF THE SPECIFICATIONS.
- CONTINUE SEALANT 1' UP SIDE WALL JOINTS.
- CRACKS OF LESS THAN 1/4" WIDTH THAT ARE REQUIRED TO BE SEALED SHALL BE ROUTED TO A MINIMUM WIDTH OF 3/8" AND A DEPTH OF 3/8". BACKER TAPE MEETING REQUIREMENTS OF SECTION 107 OF THE SPECIFICATIONS SHALL BE USED IN PLACE OF THE BACK ROD.

"w" JOINT WIDTH, INCHES	"t" NOMINAL SEALANT DEPTH, INCHES	BACKER ROD DIAMETER, INCHES
¼	¼	⅜
½	¼	¾
¾	⅜	1
1	½	1¼
1¼	½	1½
1½	½	2

REPAIR TYPE II-A
POLYURETHANE SEALANT FOR EXPANSION AND CONTRACTION JOINTS AND CRACKS

AS BUILT INFORMATION
CONTRACTOR TRIAD DATE
STAKED BY N/A DATE
INSPECTED BY TONY ARCHULETA DATE 7/93
FIELD VERIFICATION BY COA DATE
DRAWINGS CORRECTED BY GREINER DATE 11/93
MICRO-FILM INFORMATION
RECORDED BY DATE

BENCH MARKS

SURVEY INFORMATION
FIELD NOTES

NO.	BY	DATE

ENGINEER'S SEAL
MARK E. HOLSTAD, NEW MEXICO, No. 7288, REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REMARKS / REVISIONS / DESIGN	BY

DESIGNED BY: K.W.W. DATE 7/92
DRAWN BY: J.L.R. DATE 7/92
CHECKED BY: M.S.H. DATE 7/92
PROJECT NO.

RECORD DRAWING

Greiner, Inc.

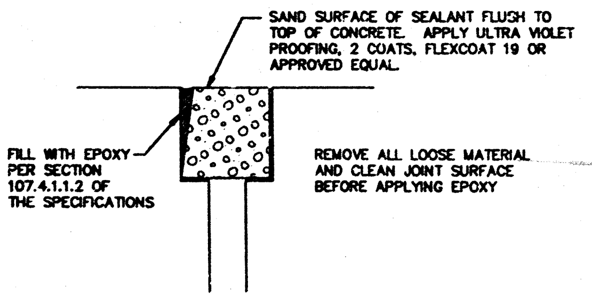
CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

TITLE: STORM DRAINAGE CHANNEL REHABILITATION PHASE I

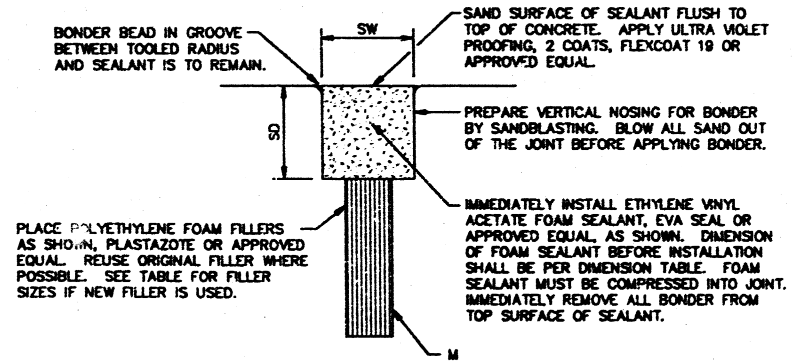
DETAIL SHEET - CHANNEL REPAIR

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
DRC Chairman	[signature]	10-5-92	Water	R.W. Kane	9-28-92
Transportation	N/A RHD	9-28-92	Waste Water	R.W. Kane	9-28-92
Hydrology	[signature]	9/28/92			

PROJECT | MAP NO. | SHEET OF



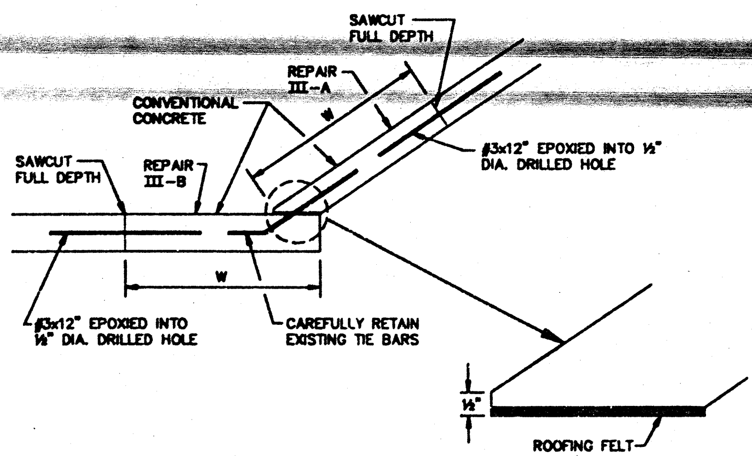
REPAIR TYPE II-B
EPOXY REPAIR OF DE-BONDED EVA FOAM

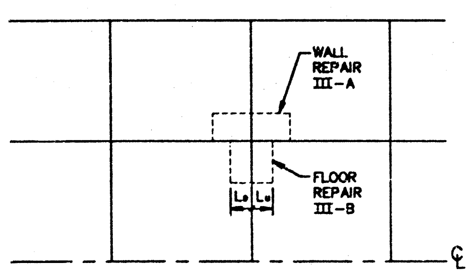


REPAIR TYPE II-C
EVA FOAM SEALANT FOR EXPANSION JOINTS

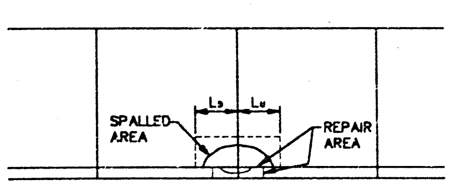
FILLER AND SEALANT DIMENSION TABLE

FILLER SIZE (M)		SEALANT BLOCK-OUT (SW)	(SD)	SEALANT ORDER SIZE	
WIDTH	DEPTH	WIDTH	DEPTH	WIDTH	DEPTH
2"	4"	2"	2"	2½"	2"
3"	3½"	3"	2½"	3¼"	2½"





CHANNEL PLAN VIEW

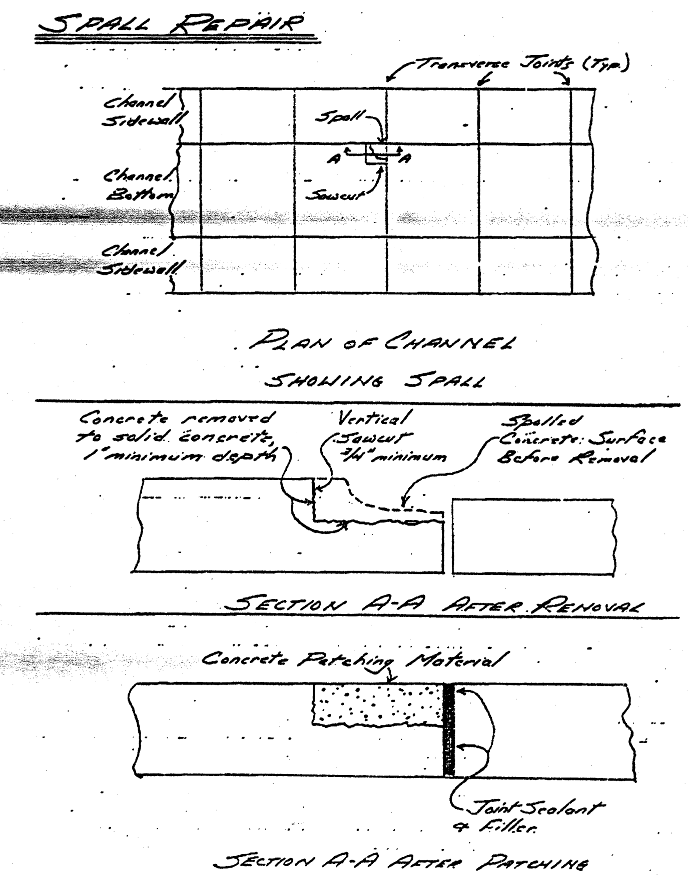


CHANNEL LONGITUDINAL SECTION

- BRING SUBGRADE UNDER PATCH AREA TO PROPER GRADE AND COMPACTION BEFORE PLACING CONCRETE. (INCIDENTAL)
- #3 TIE BARS ARE TO BE PLACED AT 24" O.C. ALONG ALL EDGES EXCEPT JOINTS (INCIDENTAL)

REPAIR TYPE III-A AND B
SPALL REPAIR

SECTION	CROSS STREET	STATION	REPAIR	L_D	L_U	COMMENTS
EA6JM1	I-40					
	INFLOW FROM I-40 RUNDOWN	5+00	I-A	3'	2'	1 & 2 upstream side only
	GROUND WATER WEEPHOLES	6+00	I-A,II-A,Spall repair(sp.r)	5'	2'	1&2 & 7
		7+00	I-B,II-A,Sp.r			1&2
		8+00	I-B,II-A,Sp.r	3'	3'	1&2 &6
		8+60	I-B,II-A,Sp.r			1&2
		9+00	I-A,II-A,Sp.r			1&2
		10+00	II-A,Sp.r			
		10+30	I-A			1&2
		11+10	I-A			1 UPSTREAM, 3 :2 DOWNSTREAM
		12+10	I-A,II-A,sp.r			2&3
		13+20	II-A			
		14+20	I-B			2&4
		15+40	II-A,III-A,sp.r			8
		16+20	I-B,IIIA,sp,r	2'	3'	2&4 &9
	PENNSYLVANIA					
		17+10	IIA,sp.r			
		18+40	IIA,IIB,sp.r			
EA6JM2		18+60	IIA			
		19+00	IB	2.5'	2.5'	Between existing transverse sawcuts
		19+50	IIB			10
		20+00	IA			
		20+60	IIA,sp.r			
		21+00	IIA			
		22+00	IA	5'	5'	
		23+00	IIB			11
		24+00	IIC			6 & 12
		25+00	IA			
		26+00	IB			
		27+00	IIA			
		28+00	IB	3'	2.5'	
EA6JM3	HENDOLA	29+70	IIA			
		30+20	IIB,IIIB,IIA	1'	1'	2s.side,w=1'&13
		31+20	IB			
		32+20	IIB,sp.r			14
		33+20	IIA,sp.r			
		34+20	IA	3'	2.5'	
		35+20	IIIB,IIA,sp.r			2 s.side;w=1'
		36+20	IA	10'	4.5'	6



RECORD DRAWINGS

THESE DRAWINGS HAVE BEEN REVISED TO REFLECT AS-CONSTRUCTED CONDITIONS IN ACCORDANCE WITH INFORMATION FURNISHED BY THE CONTRACTOR (TRIAD BUILDERS OF NM) AND THE CITY OF ALBUQUERQUE, WHICH PERFORMED ON-SITE INSPECTION DURING CONSTRUCTION. THERE WERE NO CONSTRUCTION SURVEYS.

NOTES:

① REPAIR CENTER 27'(±) BETWEEN OUTSIDE LONGITUDINAL JOINTS AND RESEAL OUTER 2'(±) OF TRANSVERSE JOINT BETWEEN WALL AND LONGITUDINAL JOINT (PERTINENT TO STATIONS 5+00 THROUGH 11+10.)

② CAREFULLY REMOVE CONCRETE ALONG LONGITUDINAL JOINTS TO MAINTAIN TRANSVERSE REBAR. CLEAN THIS REBAR AND PLACE REHABILITATION CONCRETE AROUND IT.

③ REPAIR CENTER 30'(±) BETWEEN OUTSIDE LONGITUDINAL JOINTS AND RESEAL OUTER 5'(±) OF TRANSVERSE JOINT BETWEEN WALL AND OUTSIDE LONGITUDINAL JOINT (PERTINENT TO STATIONS 11+10 THROUGH 13+70.)

④ REPAIR CENTER 38.5'(±) BETWEEN OUTSIDE LONGITUDINAL JOINTS AND RESEAL 2'(±) OF TRANSVERSE JOINT BETWEEN WALL AND OUTSIDE LONGITUDINAL JOINT (PERTINENT TO STATIONS 14+20 THROUGH 19+00)

⑤ STATION NUMBERS ARE BASED UPON EXISTING PAINTED STATION MARKINGS AT THE TOP OF THE NORTH SLOPE WALLS.

⑥ PLACE VANDAL PLATES AT THESE JOINTS. SEGMENT PLATE LENGTHS TO 1/3 CHANNEL WIDTH.

⑦ II-A IS FROM LONGIT. JT. TO WALL.

⑧ III-A IN VERTICAL WALL S. SIDE.

⑨ II-A OUTSIDE LONGT. JTS. BOTH SIDES.

⑩ 33' VANDAL PLATES

⑪ 18' VANDAL PLATES

⑫ 18' VANDAL PLATES

⑬ 19' VANDAL PLATES

⑭ 18' VANDAL PLATES

AS BUILT INFORMATION
CONTRACTOR TRIAD
WORK STAKED BY N/A
INSPECTOR'S ACCEPTANCE BY TONY ARCHULETA DATE 7/93
VERIFICATION BY COA
CORRECTED BY GREINER DATE 11/93
MICRO-FILM INFORMATION
RECORDED BY DATE

BENCH MARKS

SURVEY INFORMATION
FIELD NOTES
NO. BY DATE

ENGINEER'S SEAL
MARK S. HOLSTAD
NEW MEXICO
No. 7288
REGISTERED PROFESSIONAL ENGINEER

REMARKS
REVISIONS
DESIGN
NO. DATE BY
DESIGNED BY: K.W.W. DATE 7/92
DRAWN BY: J.L.R. DATE 7/92
CHECKED BY: M.S.H. DATE 7/92
PROJECT NO.

Greiner, Inc.

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

TITLE: STORM DRAINAGE CHANNEL REHABILITATION PHASE I

DETAIL SHEET - CHANNEL REPAIR

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
DRC Chairman		10-5-92	Water	R.W. Kane	9-28-92
Transportation	N/A CHP	9-28-92	Waste Water	R.W. Kane	9-28-92
Hydrology		9/28/92			

PROJECT NO. 4171.92 | MAP NO. N/A | SHEET 6 OF 6