/

CITY OF ALBUQUERQUE, NEW MEXICO

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STORM DRAINAGE IMPROVEMENTS AT NORTH DIVERSION CHANNEL - SECTION I

COMANCHE PUMP STATION

CANDELARIA INTERCEPTOR DITCH

WILLIAM MATOTAN & ASSOCIATES
ENGINEERS

ALBUQUERQUE NEW MEXICO

REGISTERED PROFESSIONAL ENGINEER STATE OF NEW MEXICO No. 1593 WILLIAM L. MATOTAN

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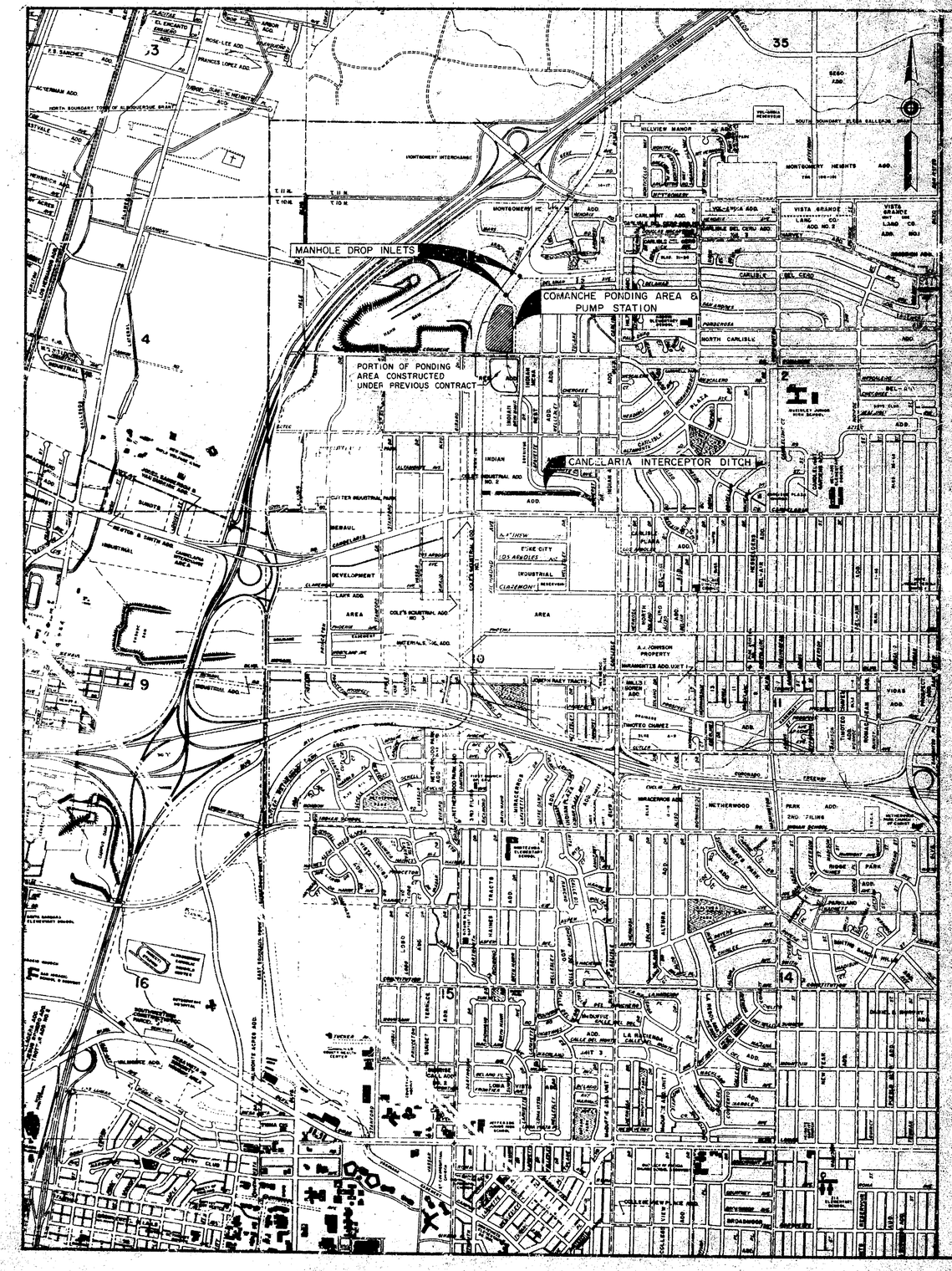
SET Nº. /



GENERAL NOTES

COMANCHE PUMP STATION

1. Bearings shown are referenced to the centerline of the North Diversion Channel.
2. The Contractor shall coordinate any work by others in the construction area with the construction of this contract.
3. Existing grades and profiles may vary from those shown due to recent and current work done by others in the construction area.
4. The Comanche Ponding Area has been excavated and rough graded on a previous contract. Grading work on this contract shall include regrading on the berm road as shown on the road profile, including grading of ditch on east side of ponding area for tree planting, regrading and dressing of side slopes of ponding area, regrading the bottom of the ponding area to obtain a uniform slope between the new contours shown, excavation, embankment and backfill at the pump station, regrading of the access ramp into the ponding area, and all other miscellaneous and appurtenant finish grading as required for a complete and neat-appearing job. Also, all eroded areas on the ponding area slopes shall be cut out with minimum side slopes of 1:1 and backfilled with compacted material.
5. See Sheet 10 for Structural Notes.
6. No grading work will be required on that portion of ponding area previously constructed by others lying south of Comanche Road.
7. See specifications for soil stabilization requirements on bottom and side slopes of Comanche Ponding Area.

CANDELARIA INTERCEPTOR DITCH

1. The Contractor shall coordinate any work required by others in the construction area with the construction of this contract.
2. Curb and gutter shown as existing and not to be removed under this contract which is damaged or displaced by the Contractor shall be removed and replaced by the Contractor at his expense.
3. When abutting new paving to existing, cut back existing paving to a straight line as required to remove any broken or cracked paving and match new paving to existing.
4. Where removal of existing curb and gutter or sidewalk is required, remove back to nearest joint.
5. Existing materials to be removed and paid for on a unit basis shall be measured and quantities approved by the Engineer prior to removing existing materials.
6. Manholes in the construction area are to be adjusted to finish grade under this contract.
7. Existing profiles and grades shown may vary due to recent and current work done by others in the construction area.
8. Connections of new storm sewers to existing manholes or structures shall be subsidiary to construction of storm sewers.
9. All existing utilities shown were taken from record drawings and are located as accurately as possible from information available. It will be the Contractor's responsibility to protect, maintain in service, and at points required verify exact location of these utilities during construction operations of this project.
10. The Contractor shall notify the Telephone Co. by calling 765-7324 before commencing work in areas near underground telephone lines.

LEGEND

SYMBOL	DESCRIPTION
	New finish grade spot elevations.
	Existing spot elevations.
	Valve with valve box.
—W—	Water line.
—G—	Gas line.
—S—	Sanitary Sewer line.
—SS—	Storm Sewer line.
M.H.	Manhole.
P.P. —E—	Overhead power or telephone line with pole.
	Section number or detail letter.
	Sheet where section is shown.
	Sheet where section is taken.

08 702 0270 21

AS BUILT

ALBUQUERQUE, NEW MEXICO

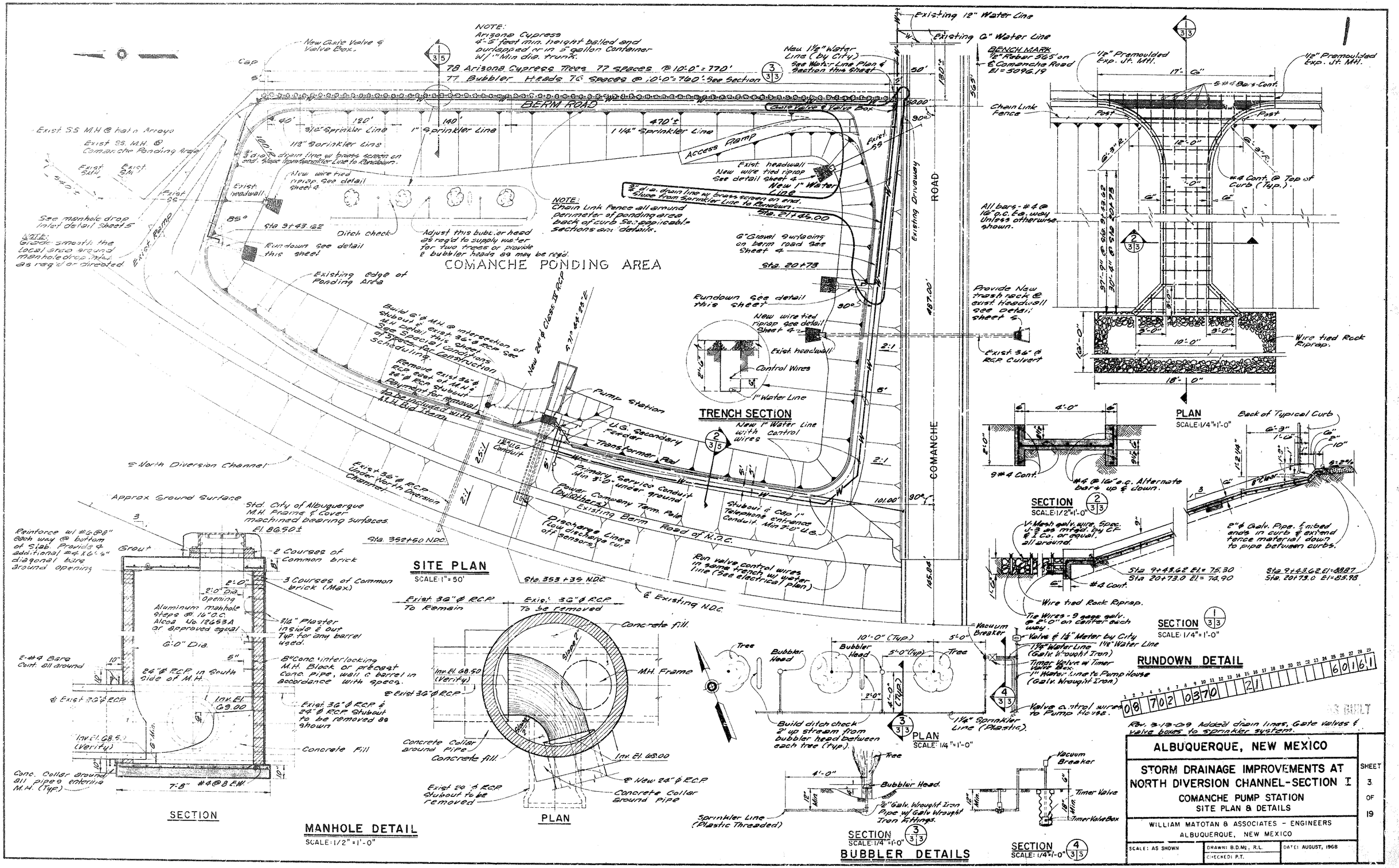
STORM DRAINAGE IMPROVEMENTS AT NORTH DIVERSION CHANNEL-SECTION I

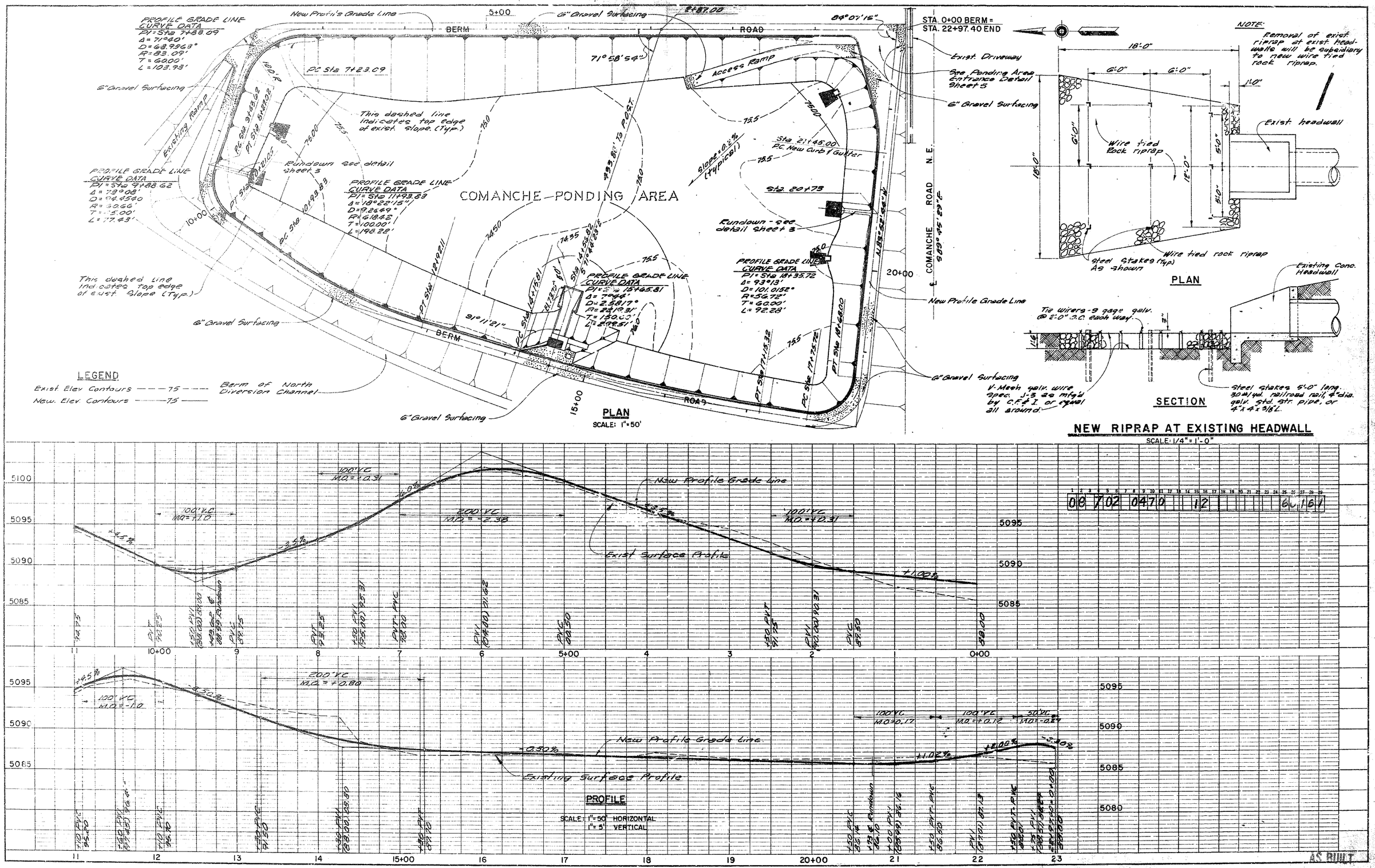
LOCATION MAP & GENERAL NOTES

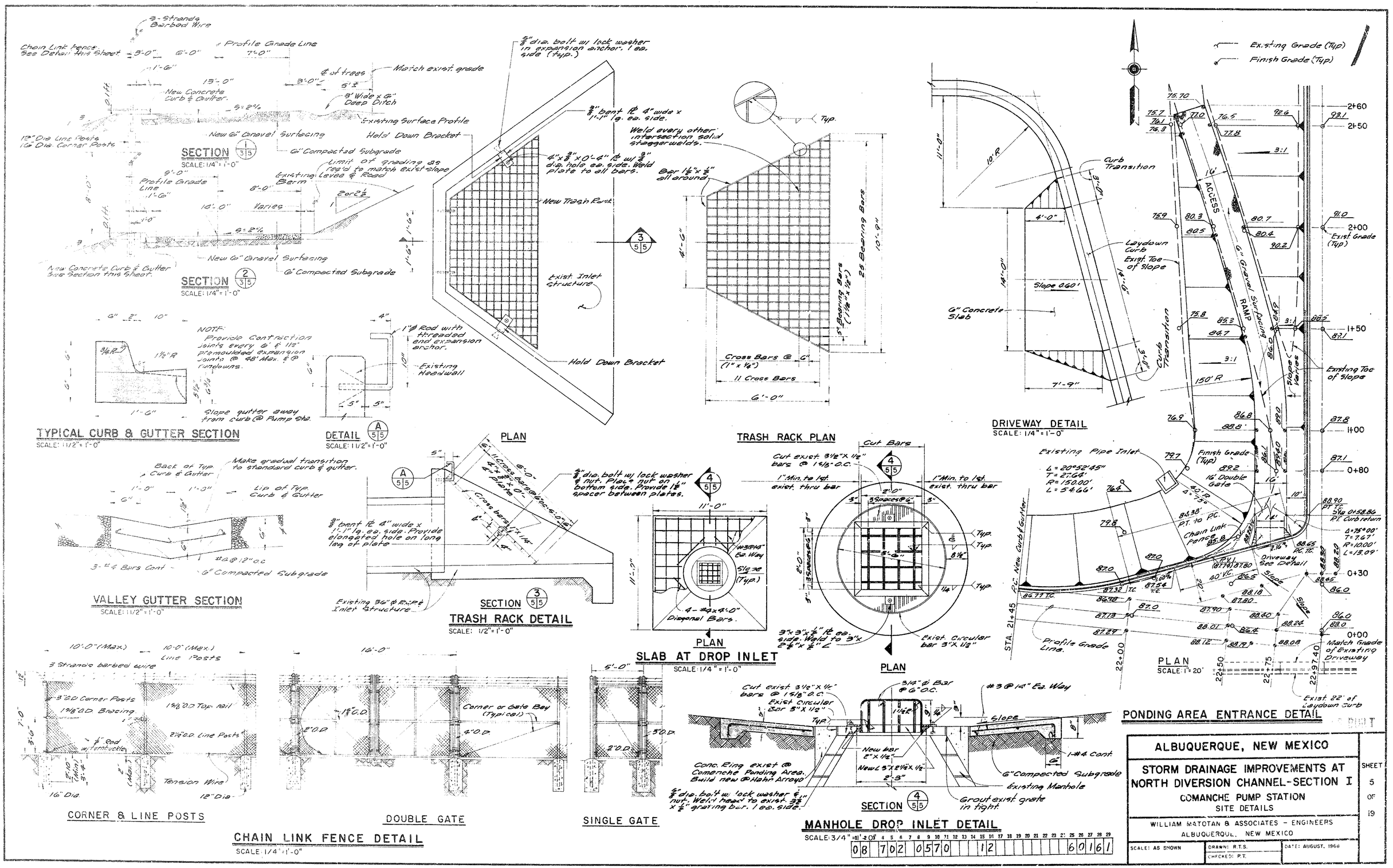
WILLIAM MATOTAN & ASSOCIATES - ENGINEERS
ALBUQUERQUE, NEW MEXICO

SCALE: 1" = 1000'
DRAWN: B.D.MG
CHECKED: P.T.
DATE: AUGUST, 1968

SHEET 2 OF 19


COMANCHE PONDING AREA
SITE PLAN
SCALE: 1" = 50'
NOTE:
Arizona Cypress
4'-5 feet min. height balled and burlapped or in 5 gallon Container w/ 1" Min dia. trunk.
78 Arizona Cypress Trees 77 Spaces @ 10'-0" = 770'
77 Bubbler Heads 76 Spaces @ 10'-0" = 760' See Section
BERM ROAD
Access Ramp
Existing Driveway
COMANCHE ROAD
Existing 12" Water Line
Existing 6" Water Line
BENCH MARK
1/2" Rebar 5365' on Comanche Road
El = 5096.19
New 1 1/2" Water Line (by City)
See Water Line Plan & Section this Sheet
New 1" Water Line
Exist. headwall
New wire tied riprap See detail Sheet 4
3/4" dia. drain line w/ brass screen on end. Slope from Sprinkler Line to Rundown.
NOTE:
Chain Link Fence all around perimeter of ponding area back of curb See applicable sections and details.
Adjust this bubbler head as req'd to supply water for two trees or provide 2 bubbler heads as may be req'd.
Ditch check
Rundown See detail this sheet
6" Gravel surfacing on berm road See Sheet 4
Existing edge of Ponding Area
Build 6'-8" M.H. @ intersection of Stubout & exist. 36" RCP See M.H. Detail this Sheet. See Special Conditions of Specs. for Construction Scheduling.
Remove exist. 36" & 24" RCP out of M.H. & 24" RCP Stubout. Payment for removal to be included with M.H. Bid Item.
New 24" Class III RCP
Pump Station
U.G. Secondary Feeder
Transformer Pad
Primary Service Conduit Min 3'-0" under ground
Power Company Term. Pole
Existing Berm Road of N.D.C.
Discharge Lines (low discharge cut off sensors)
Run valve control wires in same trench w/ water line (See electrical plan)
Stubout & Cap 1" Telephone entrance Conduit. Min 3'-0" U.G.
Exist. 36" Ø R.C.P. Culvert
Provide New trash rack @ exist. Headwall see detail Sheet 5
Wire tied Rock Riprap.
Exist. 36" Ø R.C.P. Under North Diversion Channel
℄ North Diversion Channel
℄ Existing N.D.C.
Sta. 352+60 N.D.C.
Sta. 353+35 N.D.C.
Sta. 21+45.00
Sta. 20+73
Sta. 9+43.62
Exist SS M.H. @ Main Arroyo
Exist SS M.H. @ Comanche Ponding Area
See manhole drop inlet detail Sheet 5
NOTE: Grade smooth the local area around manhole drop inlet as req'd or directed
New Gate Valve & Valve Box.
Gate Valve & Valve Box
Chain Link Fence
Post
12" Premoulded Exp. Jt. Mtl.
17'-6"
#4 Cont. @ Top of Curb (typ.).
All bars - #4 @ 16" o.c. Ea. way Unless otherwise shown.
Approx Ground Surface
Std. City of Albuquerque M.H. Frame & Cover machined bearing surfaces. El. 86.50±
Reinforce w/ #6 @ 8" each way @ bottom of slab. Provide 4 additional #4 x 6'-6" diagonal bars around opening
Grout
2 Courses of Common brick
3 Courses of Common brick (Max)
2'-0" Dia. Opening
Aluminum manhole steps @ 16" o.c. Alcoa No 12453A or approved equal
6'-0" Dia.
3/4" Plaster inside & out Typ for any barrel used.
8" Conc. interlocking M.H. Block or precast Conc. pipe, wall & barrel in accordance with specs.
24" Ø R.C.P. in South side of M.H.
Inv. El. 69.00
Exist. 36" Ø R.C.P. & 24" Ø R.C.P. Stubout to be removed as shown
Concrete Fill
Conc. Collar around all pipes entering M.H. (Typ.)
7'-8" #4 @ 8 E.W.
SECTION
Exist. 36" Ø R.C.P. To Remain
Exist. 36" Ø R.C.P. To be removed
Concrete fill.
M.H. Frame
Inv. El. 68.50 (Verify)
Concrete Collar around Pipe
Inv. El. 68.00
New 24" Ø R.C.P.
Concrete Collar Around Pipe
Exist. 24" Ø R.C.P. Stubout to be removed
PLAN
MANHOLE DETAIL
SCALE: 1/2" = 1'-0"
TRENCH SECTION
New 1" Water Line with control wires
Control Wires
1" Water Line
Sprinkler Line (Plastic Threaded)
Tree
Bubbler Head
10'-0" (Typ.)
5'-0" (typ.)
Vacuum Breaker
1 1/2" Water Line (Galv. Wrought Iron)
Timer Valve w/ Timer Valve Box.
1" Water Line to Pump House (Galv. Wrought Iron)
Valve control wires to Pump House.
1 1/4" Sprinkler Line (Plastic).
Build ditch check 2' up stream from bubbler head between each tree (typ.)
PLAN
SCALE: 1/4" = 1'-0"
Bubbler Head.
1/2" Galv. Wrought Iron Pipe w/ Galv. Wrought Iron Fittings.
Timer Valve
Timer Valve Box
SECTION
SCALE: 1/4" = 1'-0"
BUBBLER DETAILS
Back of Typical Curb
9#4 Cont.
#4 @ 16" o.c. Alternate bars up & down.
SECTION
SCALE: 1/2" = 1'-0"
V-Mesh galv. wire. Spec. J-3 as mfgd. by CF & I Co. or equal. all around.
#4 Cont.
Wire tied Rock Riprap.
Tie Wires - 9 gage galv. @ 2'-0" on center each way.
Sta. 9+43.62 El. = 75.30
Sta. 20+73.0 El. = 74.90
Sta. 9+43.62 El. = 88.87
Sta. 20+73.0 El. = 85.98
2" Ø Galv. Pipe. Embed ends in curb & extend fence material down to pipe between curbs.
SECTION
SCALE: 1/4" = 1'-0"
RUNDOWN DETAIL
Rev. 3-13-69 Added drain lines, Gate Valves & valve boxes to sprinkler system.
AS BUILT
ALBUQUERQUE, NEW MEXICO
STORM DRAINAGE IMPROVEMENTS AT NORTH DIVERSION CHANNEL-SECTION I
COMANCHE PUMP STATION
SITE PLAN & DETAILS
WILLIAM MATOTAN & ASSOCIATES - ENGINEERS
ALBUQUERQUE, NEW MEXICO
SCALE: AS SHOWN
DRAWN: B.D.M.; R.L.
CHECKED: P.T.
DATE: AUGUST, 1968
SHEET 3 OF 19


PROFILE GRADE LINE CURVE DATA
PI = Sta 7+88.09
Δ = 71°40'
D = 68.9969°
R = 83.09'
T = 60.00'
L = 103.93'
New Prof'l's Grade Line
5+00
6" Gravel Surfacing
BERM
ROAD
84°07'15"
STA. 0+00 BERM = STA. 22+97.40 END
Exist. Driveway
See Ponding Area Entrance Detail Sheet 5
PC Sta 7+23.09
71°58'54"
Access Ramp
Existing Ramp
This dashed line indicates top edge of exist. slope. (Typ.)
Rundown See detail sheet 3
PROFILE GRADE LINE CURVE DATA
PI = Sta 11+93.83
Δ = 18°22'15"
D = 9.2649°
R = 618.42'
T = 100.00'
L = 198.28'
COMANCHE-PONDING AREA
Sta 21+45.00 P.C. New curb & Gutter
Sta 20+75
Rundown - See detail sheet 3
PROFILE GRADE LINE CURVE DATA
PI = Sta 18+35.72
Δ = 93°13'
D = 101.0152°
R = 56.712'
T = 60.00'
L = 92.28'
PROFILE GRADE LINE CURVE DATA
PI = Sta 15+65.81
Δ = 70°44'
D = 25.817°
R = 221.91'
T = 150.00'
L = 278.51'
PROFILE GRADE LINE CURVE DATA
PI = Sta 9+88.62
Δ = 73°00'
D = 114.4540
R = 50.66'
T = 35.00'
L = 77.43'
10+00
20+00
15+00
91°11'21"
BERM
ROAD
6" Gravel Surfacing
New Profile Grade Line
COMANCHE ROAD N.E.
S 89°45'23" E
N 89°45'23" W
LEGEND
Exist Elev Contours ---75---
New. Elev. Contours ——75——
Berm of North Diversion Channel
PLAN
SCALE: 1"=50'
NOTE: Removal of exist. riprap at exist. headwalls will be subsidiary to new wire tied rock riprap.
18'-0"
6'-0"
1'-0"
Exist. headwall
Wire tied Rock riprap
Steel Stakes (typ) As shown
Wire tied rock riprap
PLAN
Existing Conc. Headwall
Tie wires - 9 gage galv. @ 2'-0" o.c. each way.
V-Mesh galv. wire spec. J-3 as mfg'd by C.F. & I. or equal all around.
Steel stakes 5'-0" long. 30 lb/yd. railroad rail, 4" dia. galv. std. str. pipe, or 4"x4"x3/8" L.
SECTION
NEW RIPRAP AT EXISTING HEADWALL
SCALE: 1/4" = 1'-0"
New Profile Grade Line
Exist Surface Profile
100' VC M.O. = +0.31
100' VC M.O. = +1.0
200' VC M.O. = -2.38
100' VC M.O. = +0.31
+4.5%
+3.5%
+1.00%
5100
5095
5090
5085
5080
11
10+00
9
8
7
6
5+00
4
3
2
1
0+00
12
13
14
15+00
16
17
18
19
20+00
21
22
23
200' VC M.O. = +0.80
100' VC M.O. = -1.0
+4.5%
+3.0%
-0.50%
+1.02%
+0.08%
-3.20%
100' VC M.O. = -0.17
100' VC M.O. = +0.12
50' VC M.O. = -0.24
Existing Surface Profile
PROFILE
SCALE: 1"=50' HORIZONTAL
1"=5' VERTICAL
08 702 0470 12 64,164
AS BUILT
PLAN
PROFILE
NOTE BOOK
No.
COMANCHE PUMP STATION PLAN & PROFILE - BERM ROAD
SHEET 4 OF 19



ALBUQUERQUE, NEW MEXICO

STORM DRAINAGE IMPROVEMENTS AT NORTH DIVERSION CHANNEL-SECTION I

COMANCHE PUMP STATION

SITE DETAILS

WILLIAM MATOTAN & ASSOCIATES - ENGINEERS
ALBUQUERQUE, NEW MEXICO

SCALE: AS SHOWN | DRAWN: R.T.S. | CHECKED: P.T. | DATE: AUGUST, 1968

SHEET 5 OF 19

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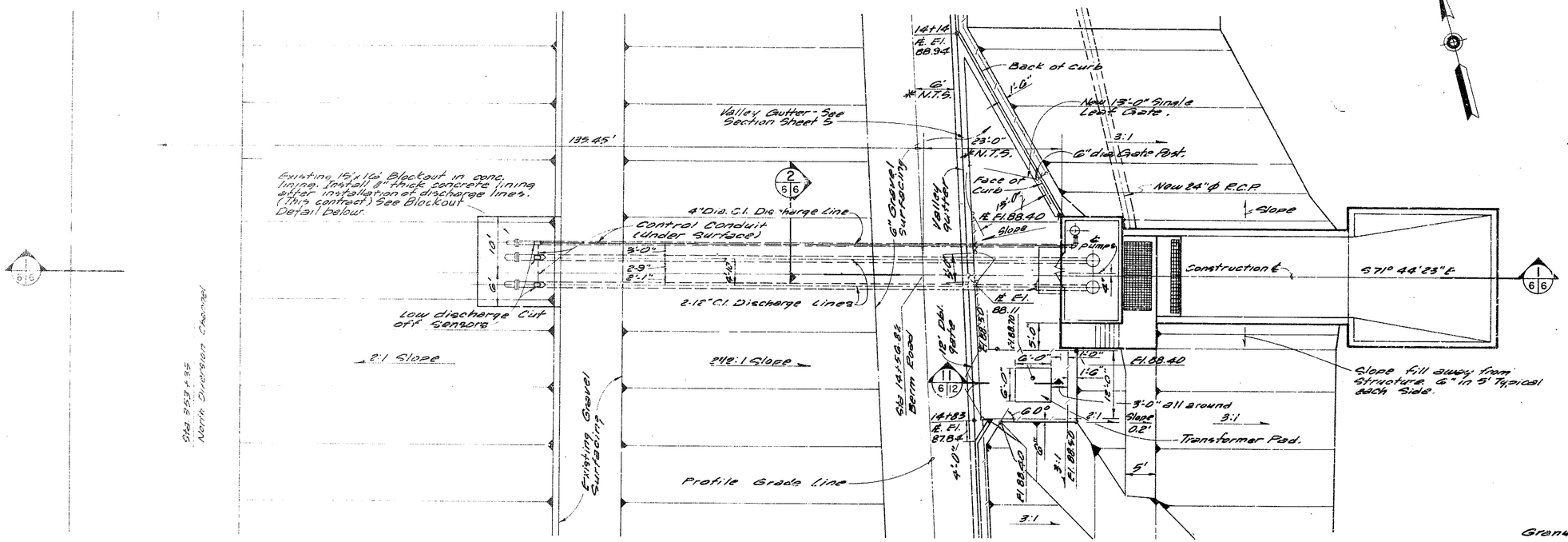
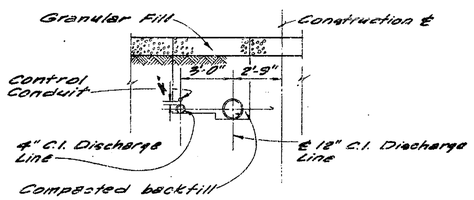
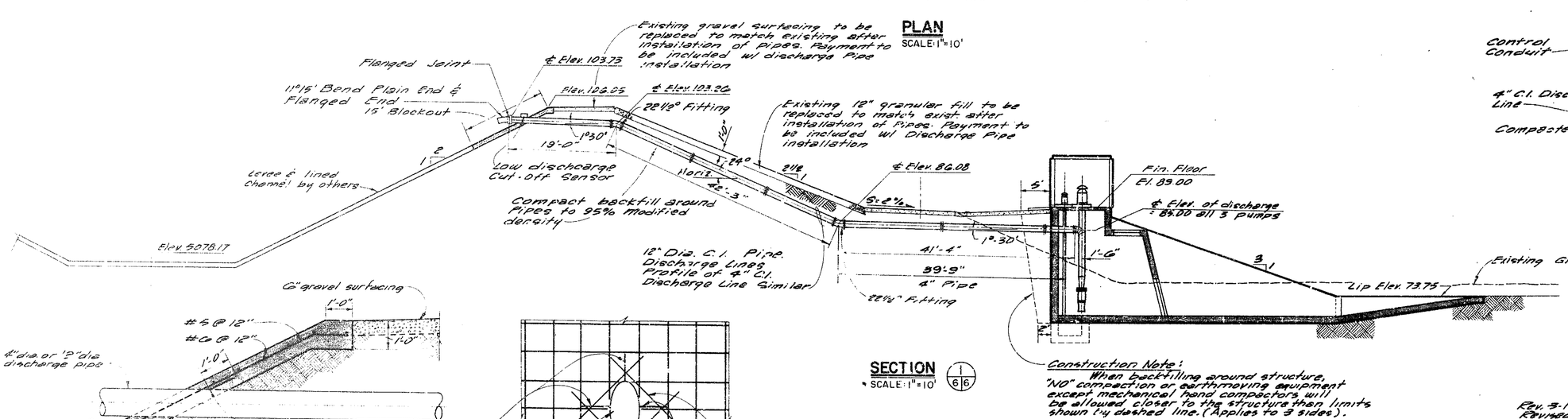


PLAN
SCALE: 1" = 10'

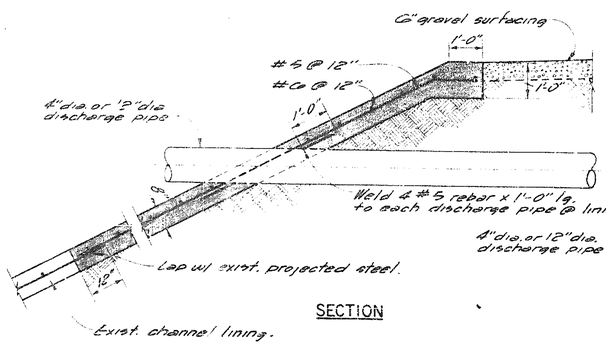


SECTION (2/6 6)
SCALE: 1/4" = 1'-0"



SECTION (1/6 6)
SCALE: 1" = 10'

Construction Note:
When backfilling around structure, "NO" compaction or earthmoving equipment except mechanical hand compactors will be allowed closer to the structure than limits shown by dashed line. (Applies to 3 sides).



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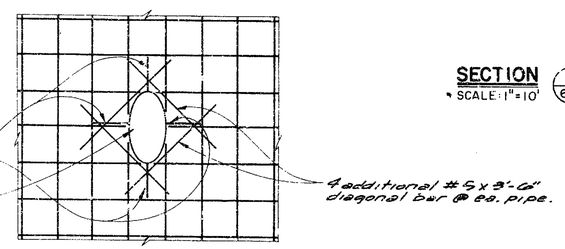


PLAN

BLOCKOUT DETAIL
SCALE: 1/2" = 1'-0"

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
0	8		7	0	2		0	6	7	0					0	8												

Rev. 3-13-69
Revised Fence & Pump House.

AS BUILT

ALBUQUERQUE, NEW MEXICO

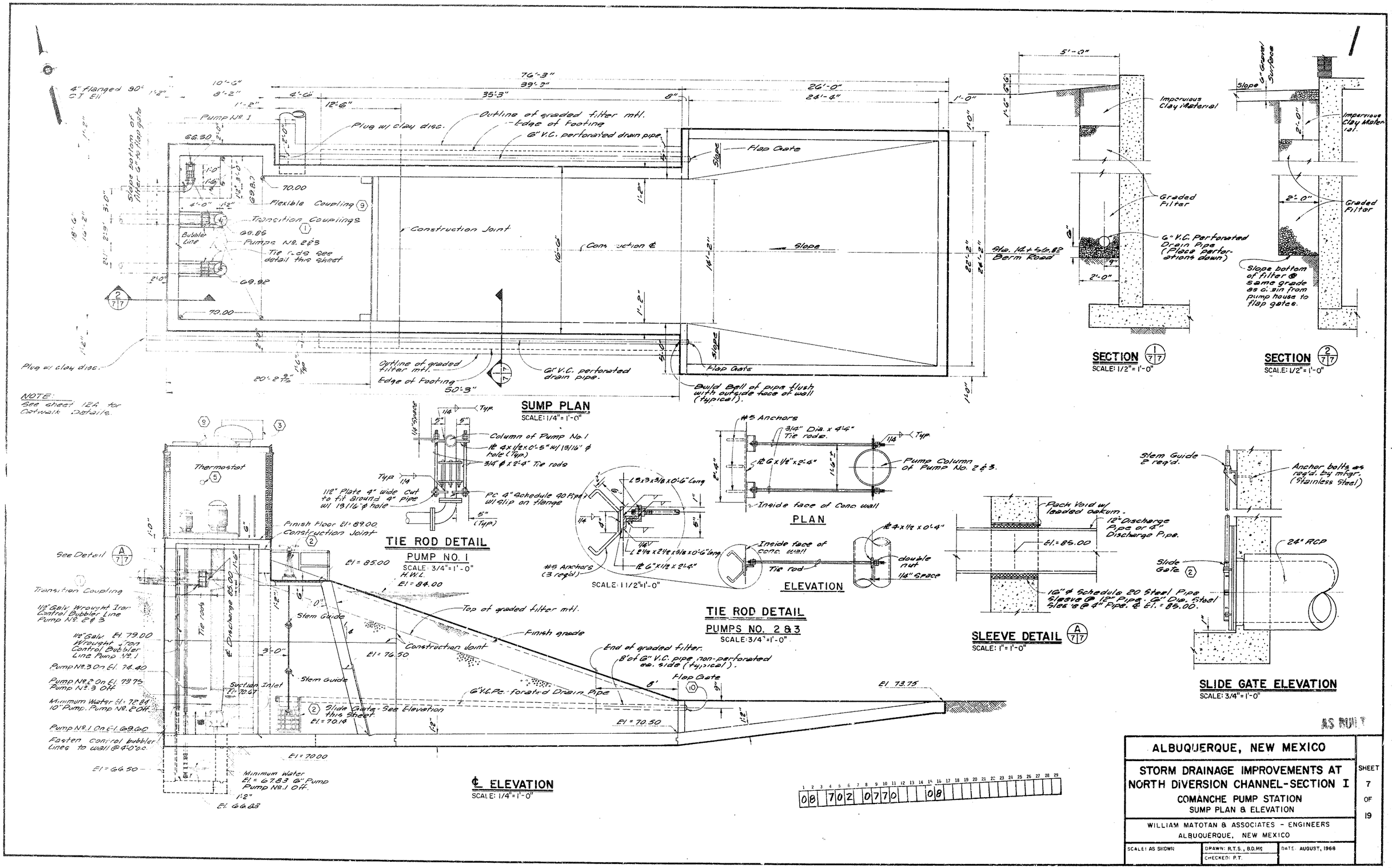
STORM DRAINAGE IMPROVEMENTS AT NORTH DIVERSION CHANNEL-SECTION I

COMANCHE PUMP STATION
LAYOUT PLAN & SECTION

WILLIAM MATOTAN & ASSOCIATES - ENGINEERS
ALBUQUERQUE, NEW MEXICO

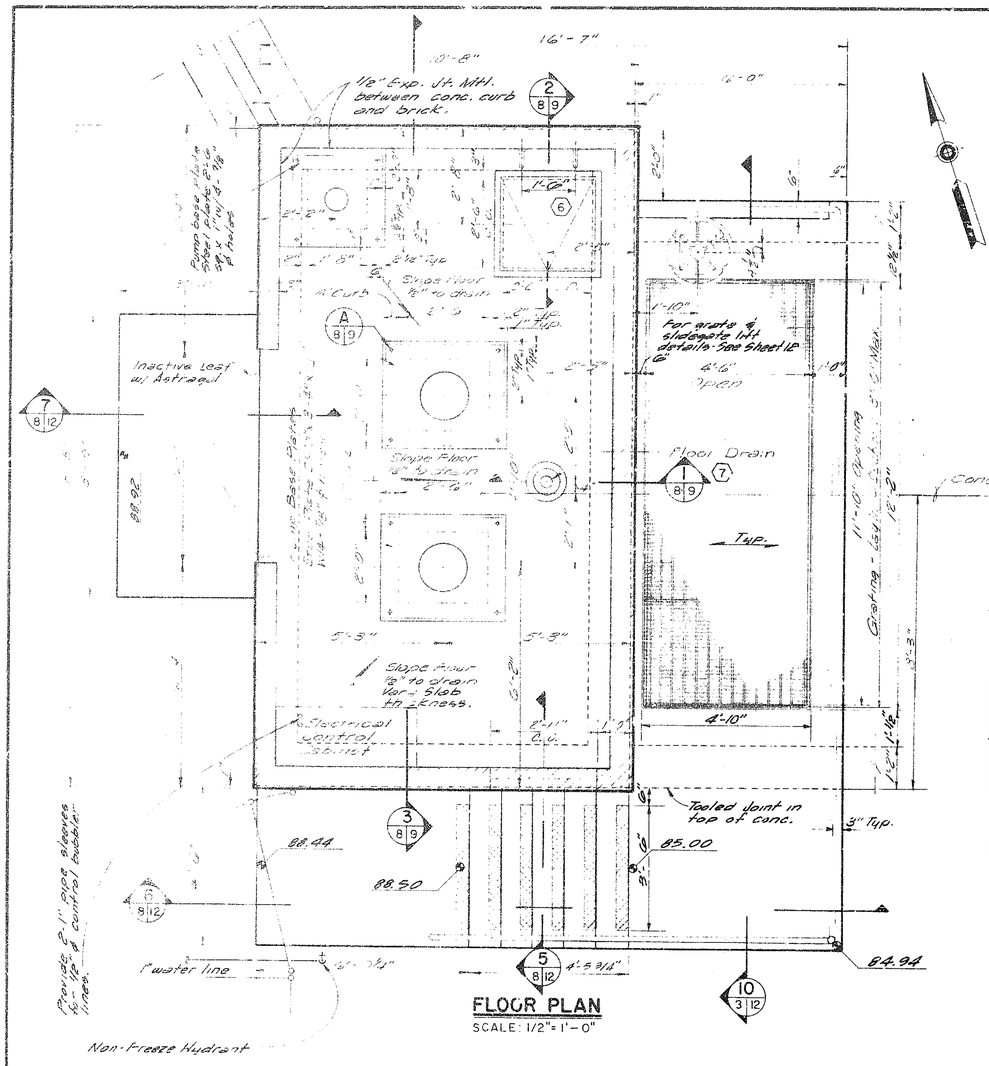
SCALE: AS SHOWN	DRAWN: R.L.	DATE: AUGUST, 1968
	CHECKED: P.T.	

SHEET 6 OF 19

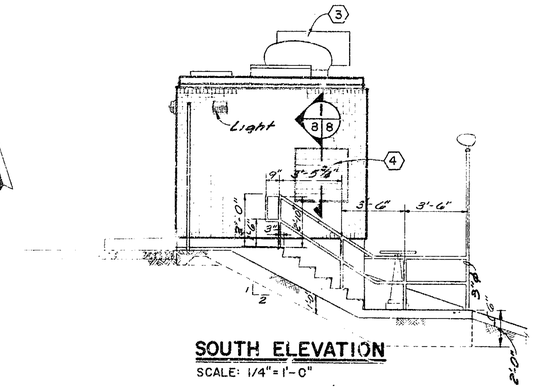


AS BUILT

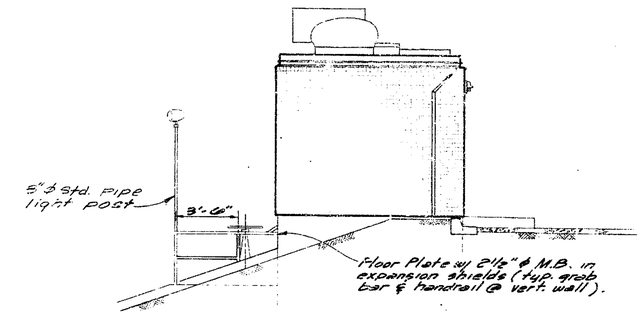
ALBUQUERQUE, NEW MEXICO		SHEET 7 OF 19
STORM DRAINAGE IMPROVEMENTS AT NORTH DIVERSION CHANNEL-SECTION I COMANCHE PUMP STATION SUMP PLAN & ELEVATION		
WILLIAM MATOTAN & ASSOCIATES - ENGINEERS ALBUQUERQUE, NEW MEXICO		
SCALE: AS SHOWN	DRAWN: R.T.S., B.D.M. / CHECKED: P.T.	DATE: AUGUST, 1968



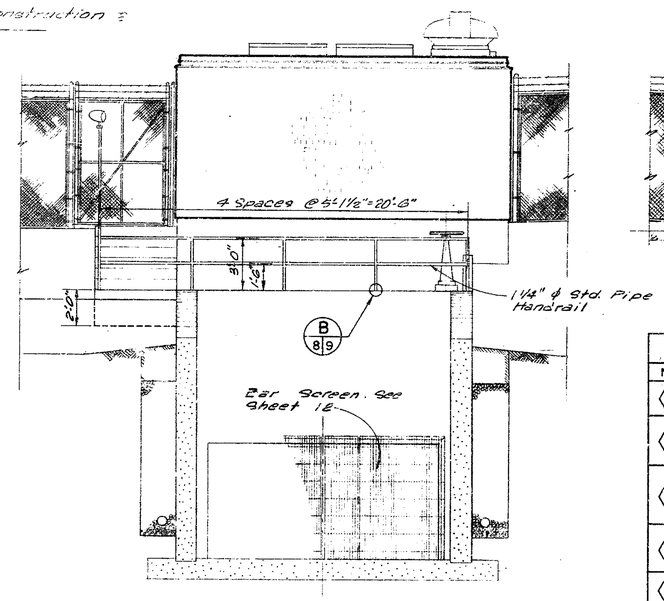
FLOOR PLAN
SCALE: 1/2" = 1'-0"



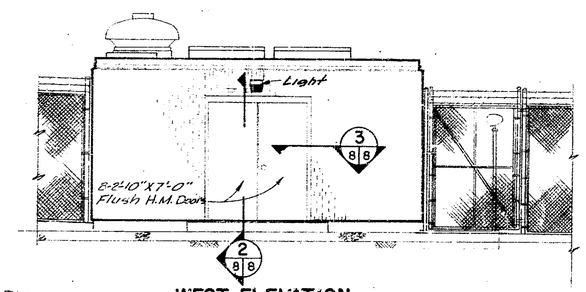
SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



NORTH ELEVATION
SCALE: 1/4" = 1'-0"



EAST ELEVATION
SCALE: 1/4" = 1'-0"

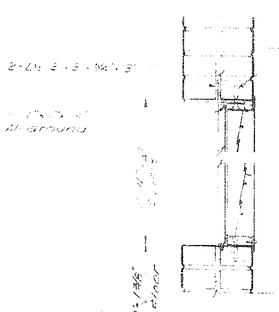


WEST ELEVATION
SCALE: 1/4" = 1'-0"

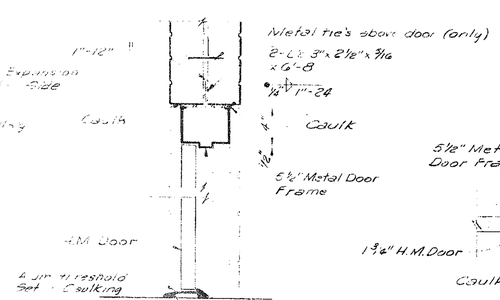
EQUIPMENT SCHEDULE

Nº.	DESCRIPTION
1	Transition couplings - "Smith-Blair" No. 433 cast coupling for nominal 12" steel to cast iron pipe, or approved equal.
2*	Slide Gate - "Armco" Heavy Duty Slide Gate No. 35-05C 24" gate w/spigotback 1-1/2" bronze stem & HPB24 lift, or approved equal. Gate shall have bronze seating faces, fully machined contact surfaces, adjustable bronze wedges, cast iron slide, seat, & guide bars and bronze thrust nut.
3	Power Roof Supply Fan - curb-base mounted, V-belt drive, backdraft shutter, capacity to deliver 4500 cfm at 0.20 in. at 5000 ft. elevation; 3/4 HP, 1750 rpm, 460 volt, 60 cycle, three phase, totally enclosed, ball bearing motor. Furnish complete with unit mounted disconnect switch and bird screen. "Jenn Air" Model No. 302AK (supply), or approved equal.
4	Motor Operated Shutter - Aluminum shutter blades w/felt strip seals for tight closing, interconnecting linkage, spring return damper motor mounted on frame. Nominal size 30 for use with 115 volt single phase current. "American Blower" 75PP304W, or approved equal.
5	Thermostat - Line voltage, cooling type set to energize the supply fan & open the motor operated damper at 100° F, with 60° - 120° adjustable range. "Honeywell" T42B, or approved equal.
6	Manhole Cover - "Neenah" R-4660-NH cast iron, solid lid, light duty, w/30" square opening & Type "T" hinges. Provide safety chain & catch on wall to latch lid open with Type A locking device & padlock.
7	Floor Drain - "Zurn" Z-500 cast iron drain for 3" pipe, or approved equal.
8	Roof Drain - "Zurn" Z6-180 cast iron drain w/12 sq. in. open area for 3" pipe, or approved equal.
9	Flexible Coupling "Dresser" Style 38 coupling for steel pipe. Size 4" S (4 bolts) or approved equal.
10*	Flap Gate - "Armco" Model 20C 6" gate w/spigotback, bronze seating faces, hinge bolts & bushings, and galvanized hinge bars, or approved equal.

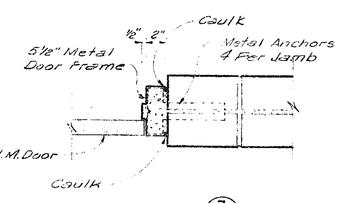
* See Structural Notes Sheet 10 for anchor bolts.



SECTION 1/8
SCALE: 1 1/2" = 1'-0"



SECTION 2/8
SCALE: 1 1/2" = 1'-0"



SECTION 3/8
SCALE: 1 1/2" = 1'-0"

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29

0 8 | 7 0 2 | 0 8 7 0 | | 0 8

AS BUILT

ALBUQUERQUE, NEW MEXICO

STORM DRAINAGE IMPROVEMENTS AT NORTH DIVERSION CHANNEL-SECTION I

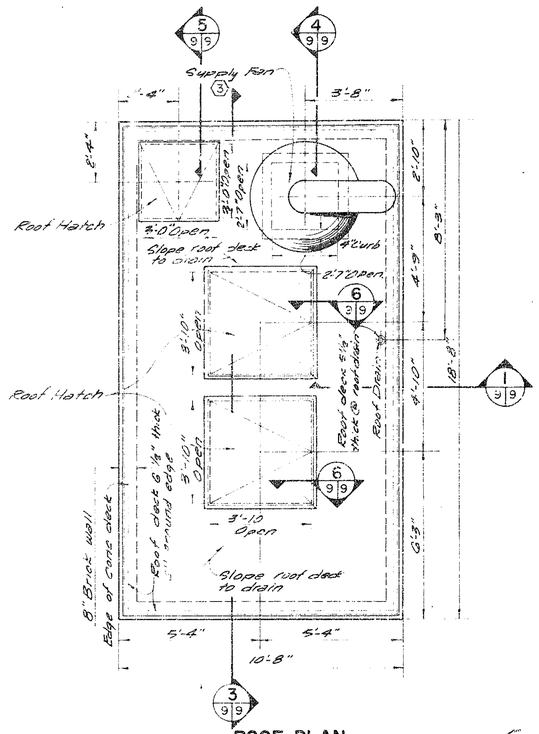
COMANCHE PUMP STATION

FLOOR PLAN & ELEVATIONS

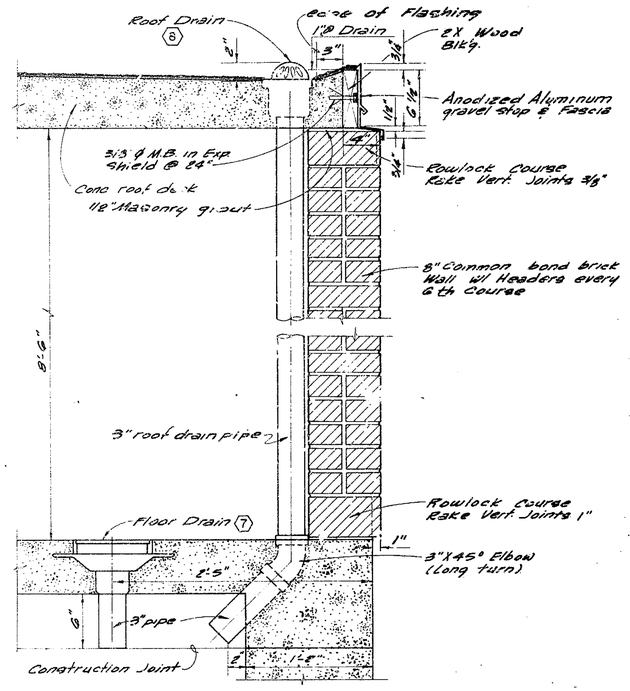
WILLIAM MATOTAN & ASSOCIATES - ENGINEERS
ALBUQUERQUE, NEW MEXICO

SCALE: AS SHOWN	DRAWN: R.S.T., R.L.	DATE AUGUST, 1968
	CHECKED: P.T.	

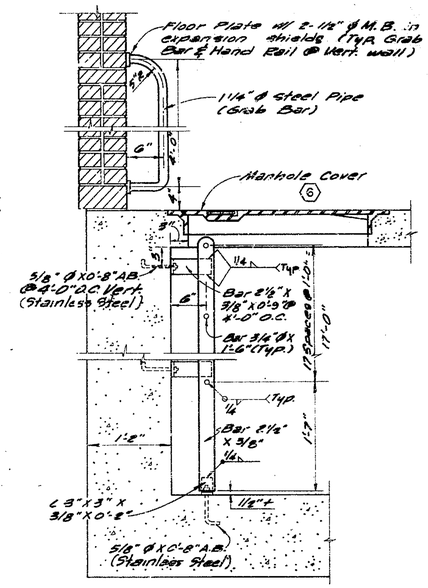
SHEET 8 OF 19



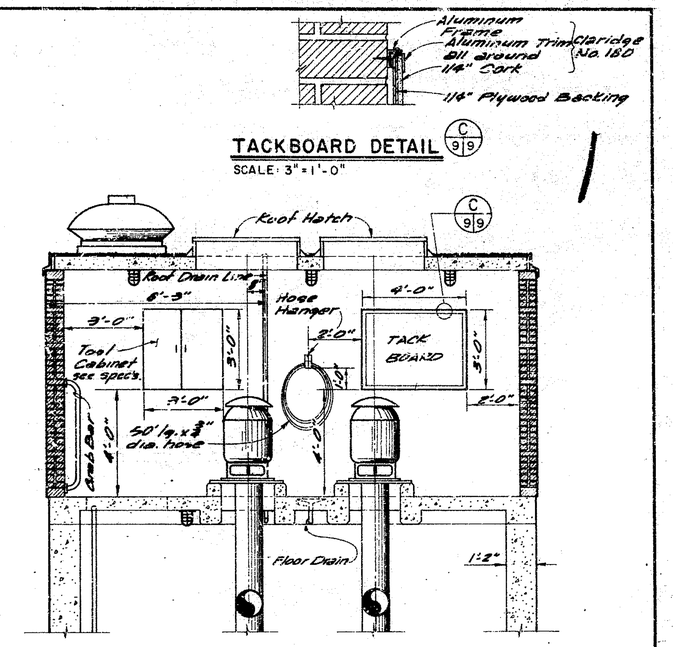
ROOF PLAN
SCALE: 3/8" = 1'-0"



SECTION
SCALE: 1/2" = 1'-0"

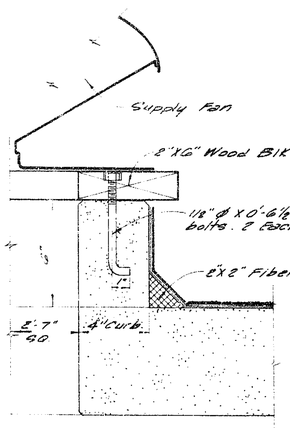


SECTION
SCALE: 1" = 1'-0"

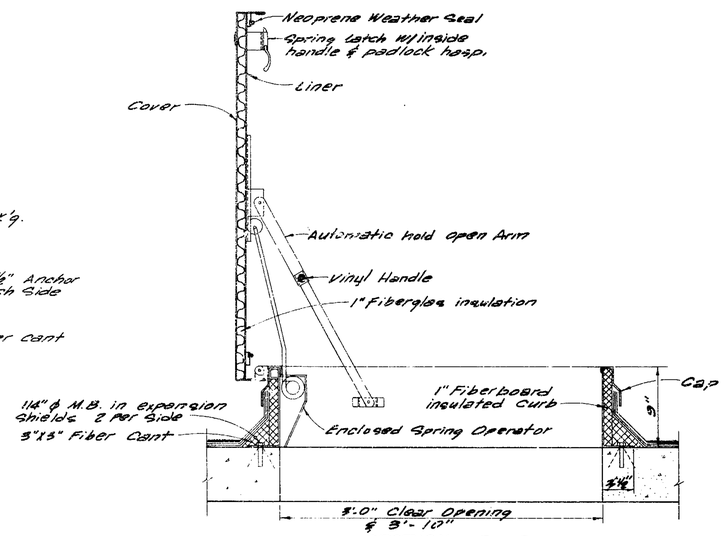


TACKBOARD DETAIL
SCALE: 3" = 1'-0"

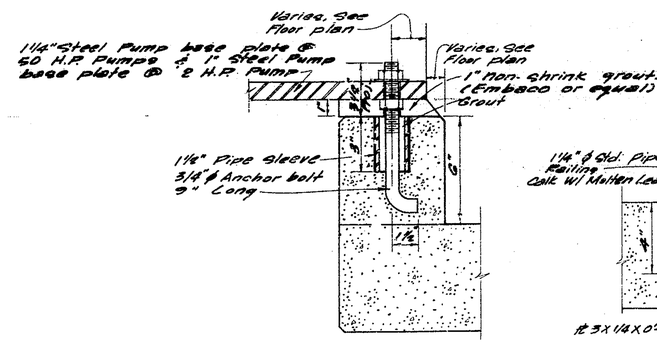
SECTION
SCALE: 3/8" = 1'-0"



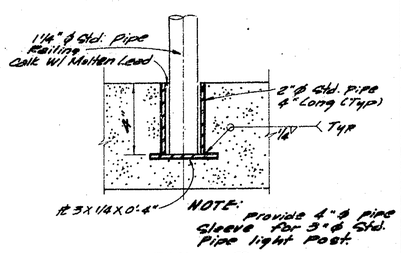
SECTION
SCALE: 3" = 1'-0"



SECTION
SCALE: 1-1/2" = 1'-0"



DETAIL
SCALE: 3" = 1'-0"



DETAIL
SCALE: 3" = 1'-0"

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
0	8		7	0	2		0	9	7	0				0	8													

ALBUQUERQUE, NEW MEXICO

STORM DRAINAGE IMPROVEMENTS AT NORTH DIVERSION CHANNEL-SECTION I

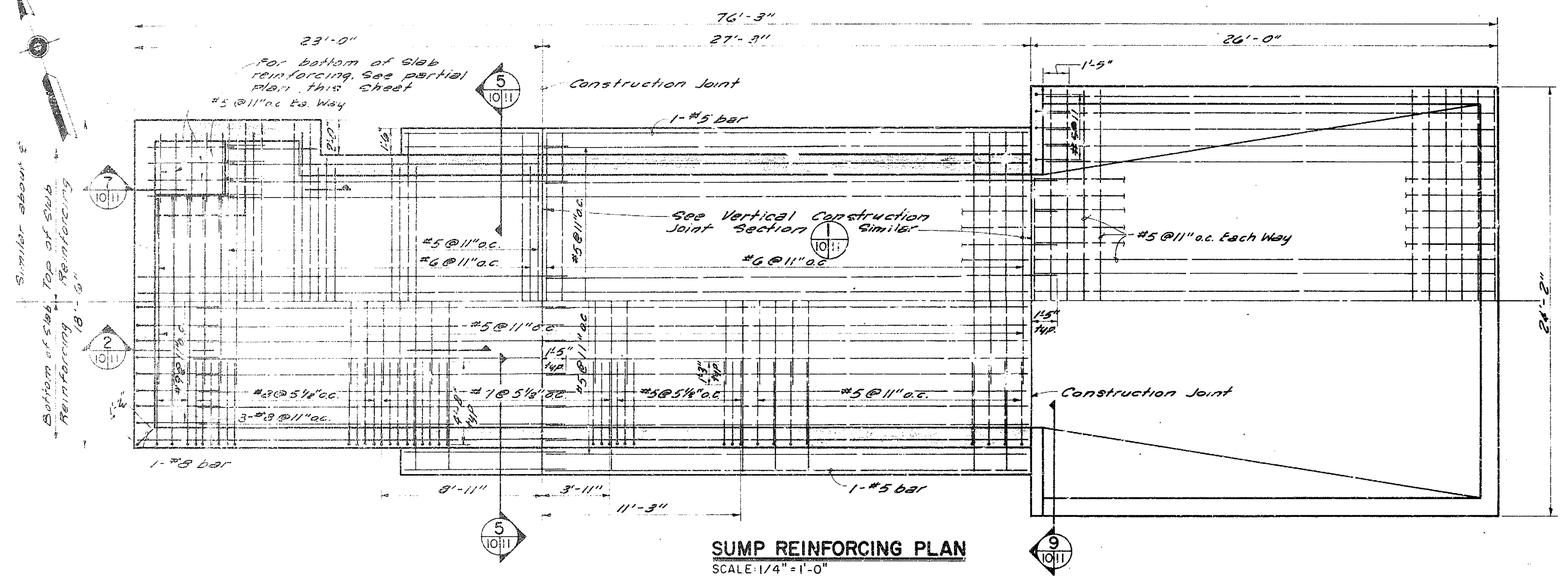
COMANCHE PUMP STATION

SECTIONS & DETAILS

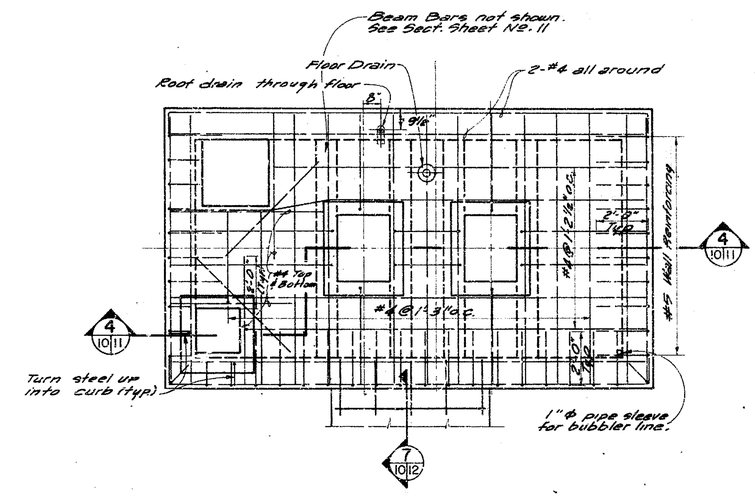
WILLIAM MATOTAN & ASSOCIATES - ENGINEERS
ALBUQUERQUE, NEW MEXICO

SCALE: AS SHOWN | DRAWN: R.L. | CHECKED: P.T. | DATE: AUGUST, 1968

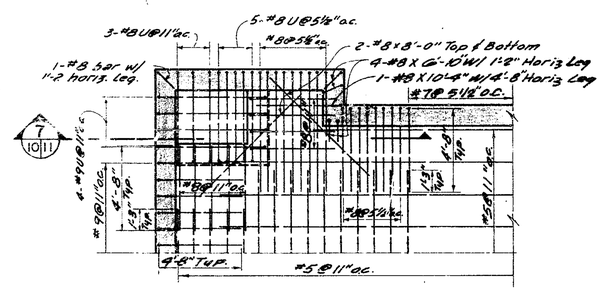
SHEET 9 OF 19



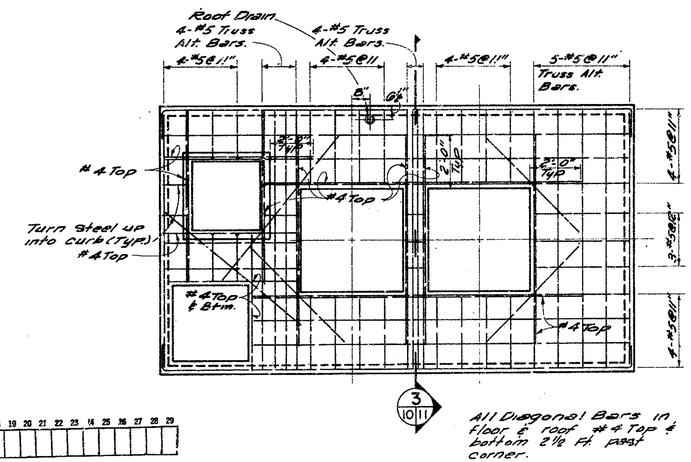
SUMP REINFORCING PLAN
SCALE: 1/4" = 1'-0"



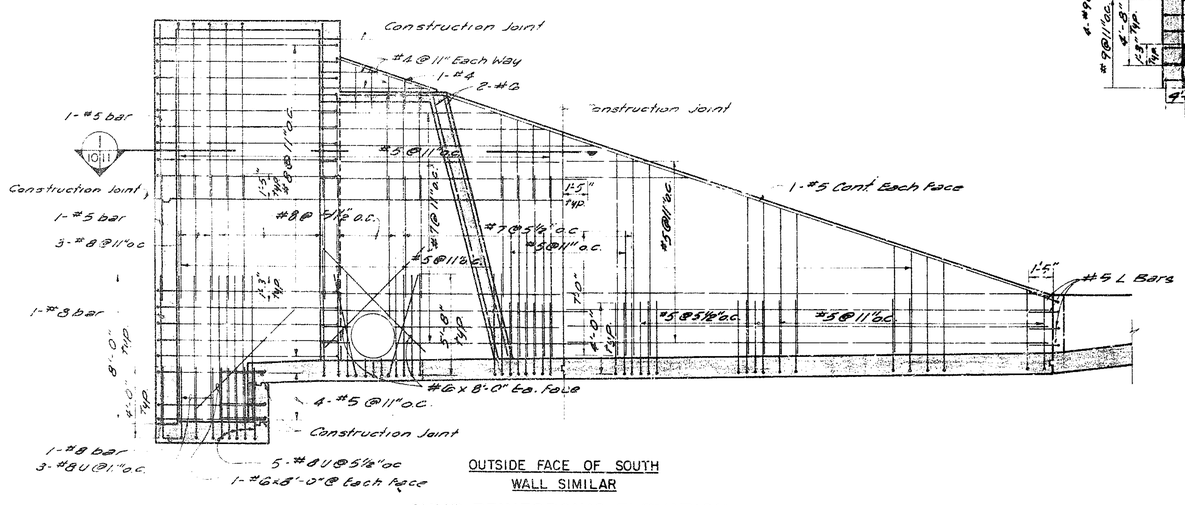
FLOOR REINFORCING PLAN
SCALE: 3/8" = 1'-0"



PARTIAL SUMP PLAN
BOTTOM OF SLAB REINFORCING
SCALE: 1/4" = 1'-0"



ROOF REINFORCING PLAN
SCALE: 3/8" = 1'-0"



OUTSIDE FACE OF SOUTH WALL SIMILAR

SUMP REINFORCING ELEVATION
OUTSIDE FACE OF NORTH WALL
SCALE: 1/4" = 1'-0"

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
0	8		7	0	2		1	0	7	0				0	8													

NOTES:

1. All concrete shall have an f'c = 3000 psi at 28 days.
2. All reinforcing steel shall have a minimum allowable tensile stress of 20,000 psi.
3. All corners and wall intersections not shown shall have angle bars which lap adjacent bars by 24 bar diameters. The angle bars shall be equal to the size of the smallest bars in the intersection.
4. Below elevation 84.0 only those construction joints shown may be used and they shall be keyed and have continuous P.V.C. water stops.
5. All reinforcing shall be placed exactly as shown with respect to position in the walls and floors and roof.
6. No backfill shall be placed around the structure until the pumphouse floor and trash rack floor and wall are in place and have cured for 7 days.
7. All exposed concrete corners shall be chamfered 3/4".
8. All anchor bolts, bolts, nuts and washers below elevation 83.00 shall be stainless steel.

AS BUILT

ALBUQUERQUE, NEW MEXICO

STORM DRAINAGE IMPROVEMENTS AT NORTH DIVERSION CHANNEL-SECTION I

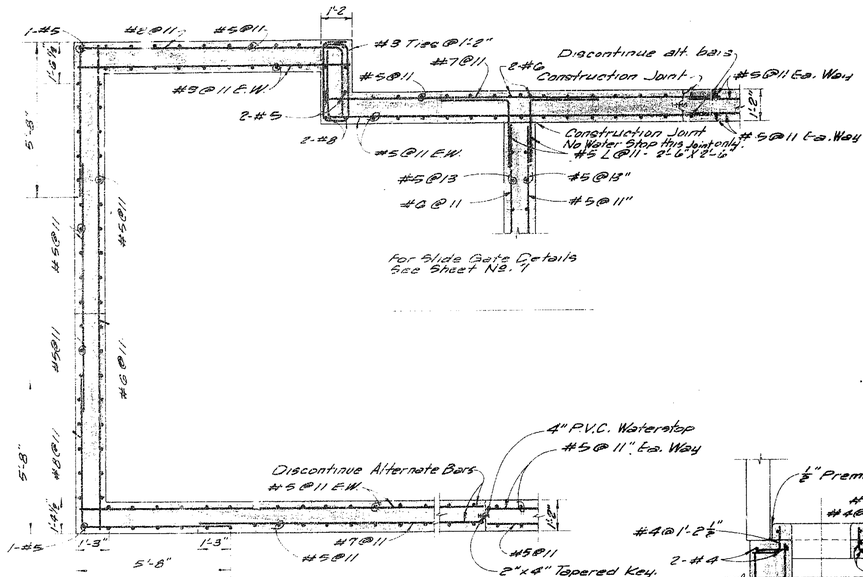
COMANCHE PUMP STATION

REINFORCING PLANS & ELEVATION

WILLIAM MATOTAN & ASSOCIATES - ENGINEERS
ALBUQUERQUE, NEW MEXICO

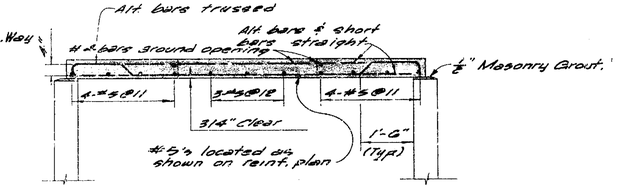
SCALE: AS SHOWN	DRAWN: R.T.S., R.L.	DATE: AUGUST, 1968
	CHECKED: P.T.	

SHEET 10 OF 19



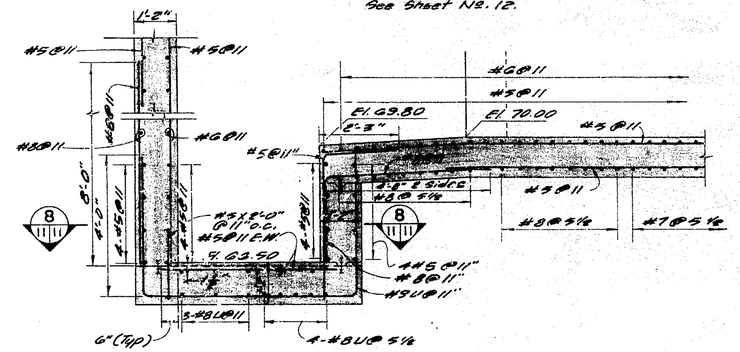
SECTION 1/10|11
SCALE: 3/8"=1'-0"

For Entry Pad Stair & Landing Dowels
See Sheet No. 12.

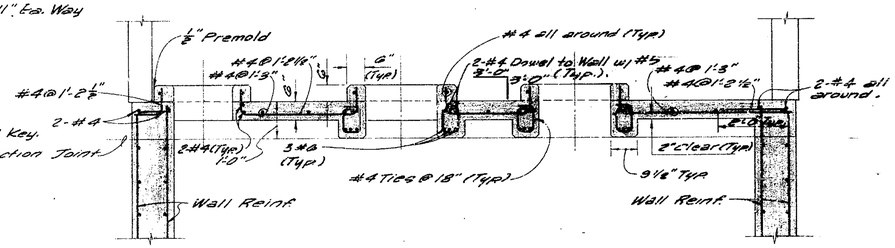


SECTION 3/10|11
SCALE: 1/2"=1'-0"

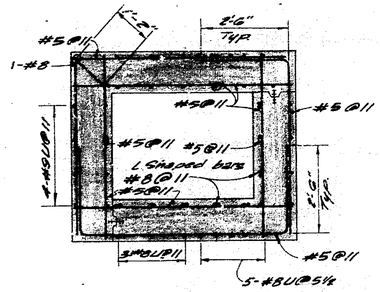
For Sump Screen Frame
See Sheet No. 12.



SECTION 7/10|11
SCALE: 1/2"=1'-0"

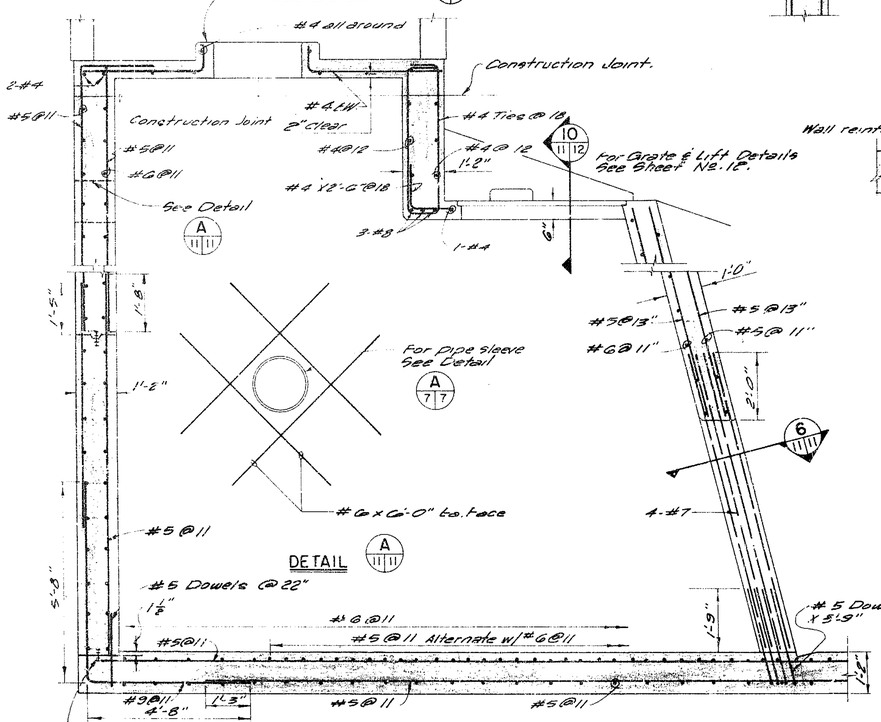


SECTION 4/10|11
SCALE: 1/2"=1'-0"



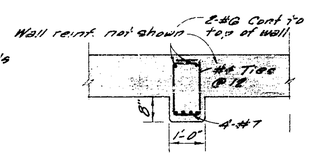
SECTION 8/10|11
SCALE: 1/2"=1'-0"

For Anchor Bolts See Detail. A/11|9

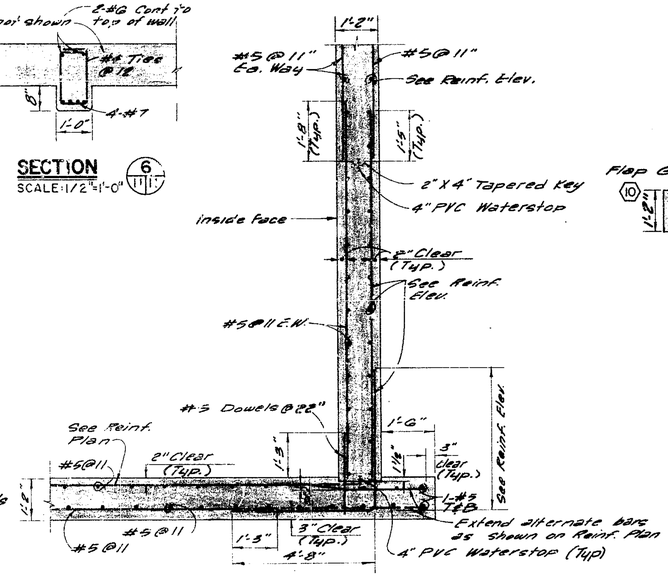


DETAIL A/11|11

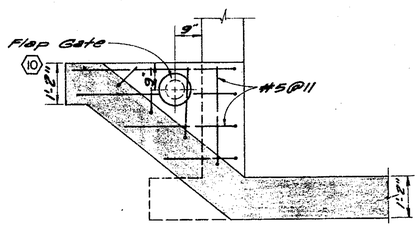
SECTION 2/10|11
SCALE: 1/2"=1'-0"



SECTION 6/10|11
SCALE: 1/2"=1'-0"



SECTION 5/10|11
SCALE: 1/2"=1'-0"



SECTION 9/10|11
SCALE: 1/2"=1'-0"

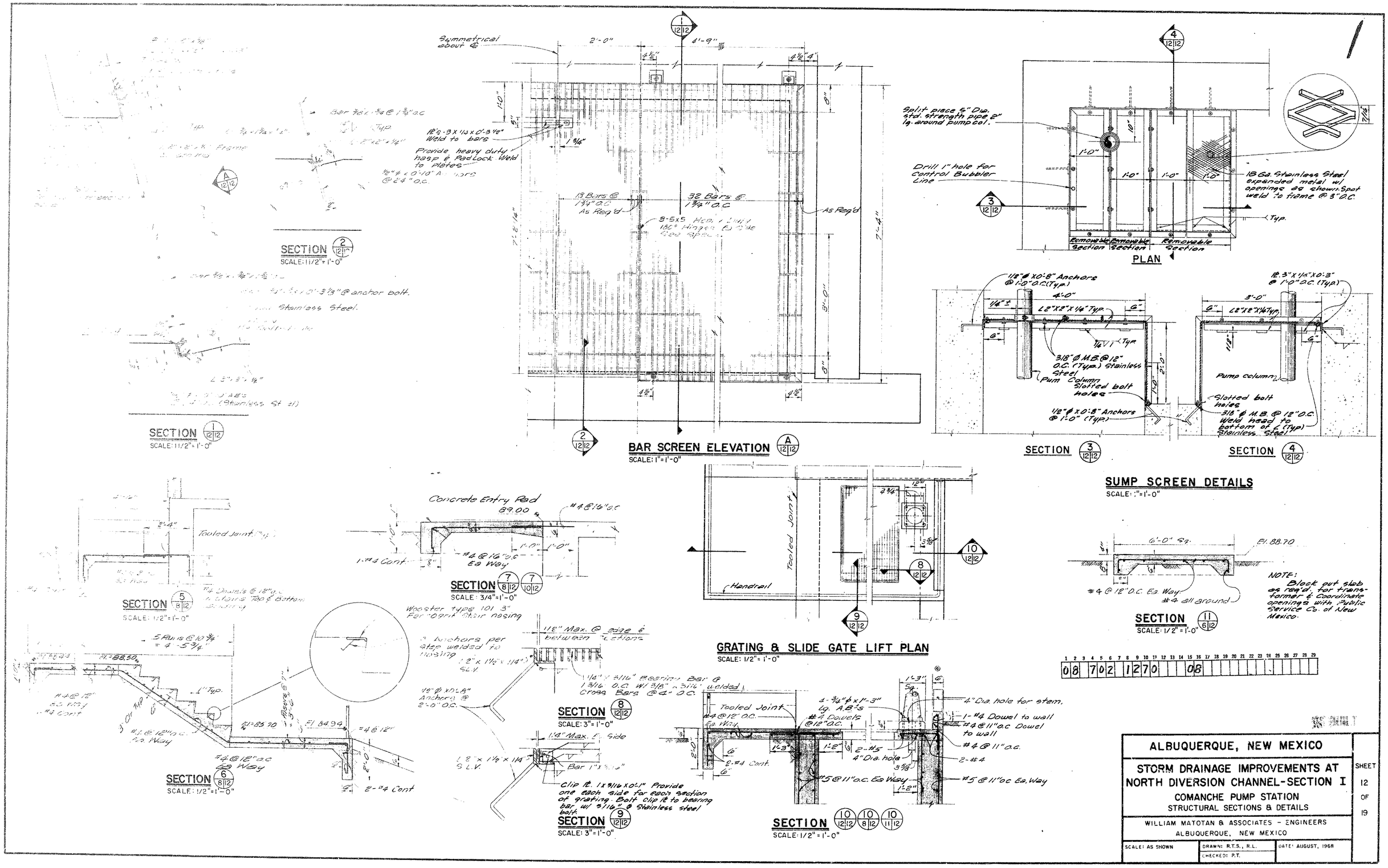
AS BUILT

NOTE: See other sheets for frames, anchor bolts, anchor plates etc. to be cast in concrete walls when pouring.

ALBUQUERQUE, NEW MEXICO		SHEET 11 OF 19
STORM DRAINAGE IMPROVEMENTS AT NORTH DIVERSION CHANNEL-SECTION I COMANCHE PUMP STATION REINFORCING SECTIONS		
WILLIAM MATOTAN & ASSOCIATES - ENGINEERS ALBUQUERQUE, NEW MEXICO		
SCALE: AS SHOWN	DRAWN: R.L. CHECKED: P.T.	DATE: AUGUST, 1968

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29

08 702 11170 08



ALBUQUERQUE, NEW MEXICO

STORM DRAINAGE IMPROVEMENTS AT NORTH DIVERSION CHANNEL-SECTION I

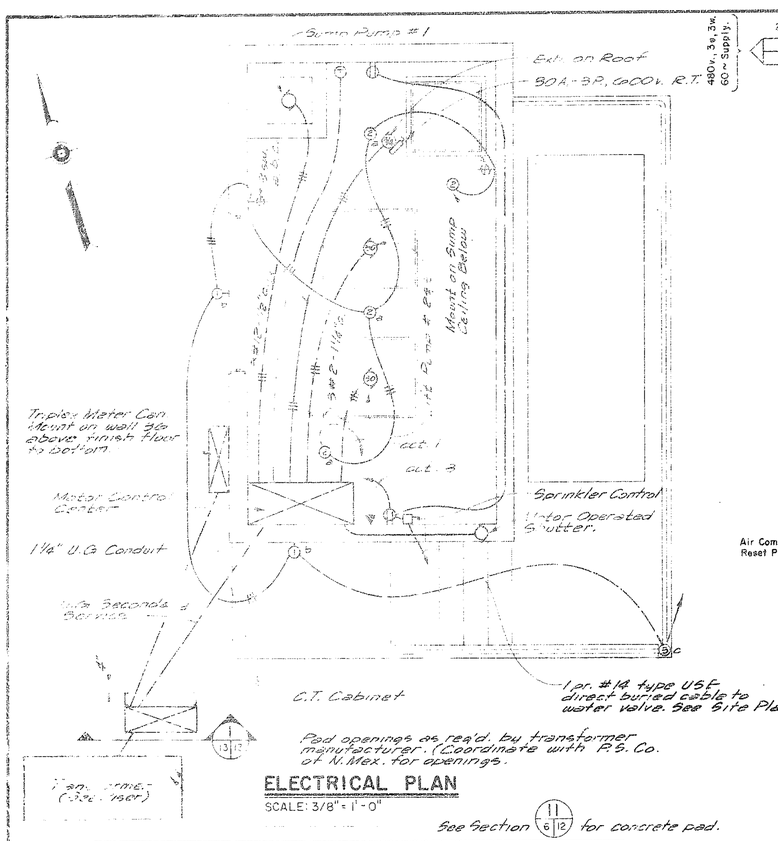
COMANCHE PUMP STATION

STRUCTURAL SECTIONS & DETAILS

WILLIAM MATOTAN & ASSOCIATES - ENGINEERS
ALBUQUERQUE, NEW MEXICO

SCALE: AS SHOWN	DRAWN: R.T.S., R.L.	DATE: AUGUST, 1968
	CHECKED: P.T.	

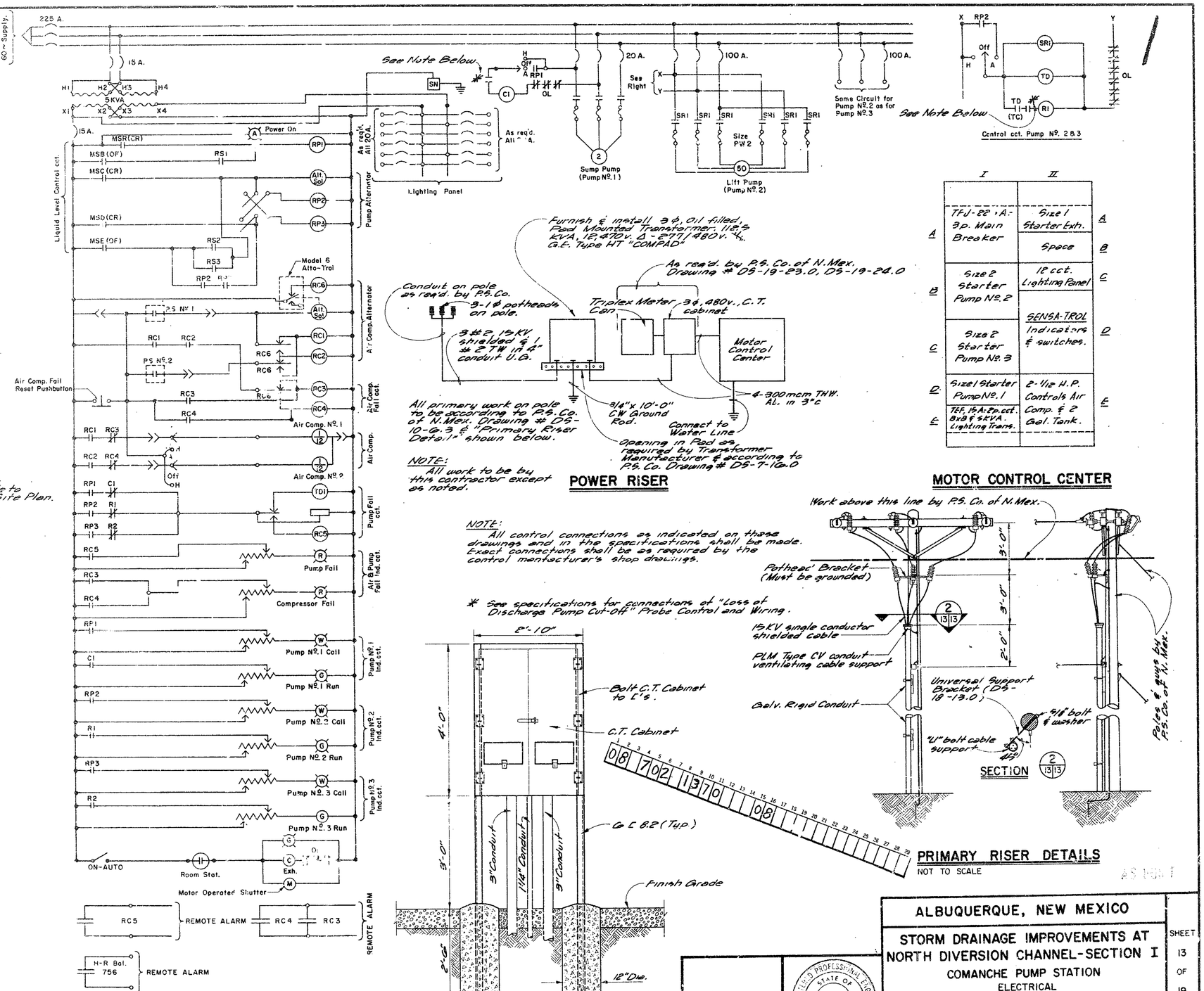
SHEET 12 OF 19



ELECTRICAL PLAN

SCALE: 3/8" = 1'-0"

See Section 11/6|12 for concrete pad.



CONTROL DIAGRAMS

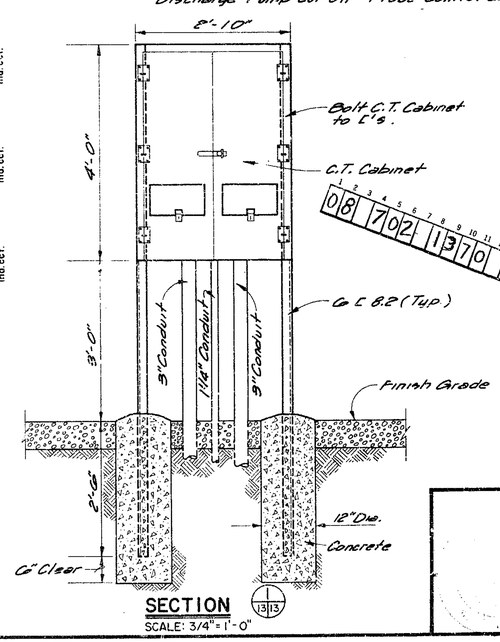
POWER RISER

	I	II	
A	TFJ-22 "A" 3p. Main Breaker	Size 1 Starter Exh.	A
		Space	B
B	Size 2 Starter Pump Nº. 2	18 cct. Lighting Panel	C
C	Size 2 Starter Pump Nº. 3	SENSA-TROL Indicators & switches.	D
D	Size 1 Starter Pump Nº. 1	2-1½ H.P. Controls Air Comp. & 2 Gal. Tank.	E
E	TEF, 15A-2p. cct. 8x8 & 5KVA. Lighting Trans.		

MOTOR CONTROL CENTER

NOTE: All control connections as indicated on these drawings and in the specifications shall be made. Exact connections shall be as required by the control manufacturer's shop drawings.

* See specifications for connections of "Loss of Discharge Pump Cut-Off" Probe Control and Wiring.



SECTION

SCALE: 3/4" = 1'-0"

PRIMARY RISER DETAILS

NOT TO SCALE

SYMBOL LEGEND

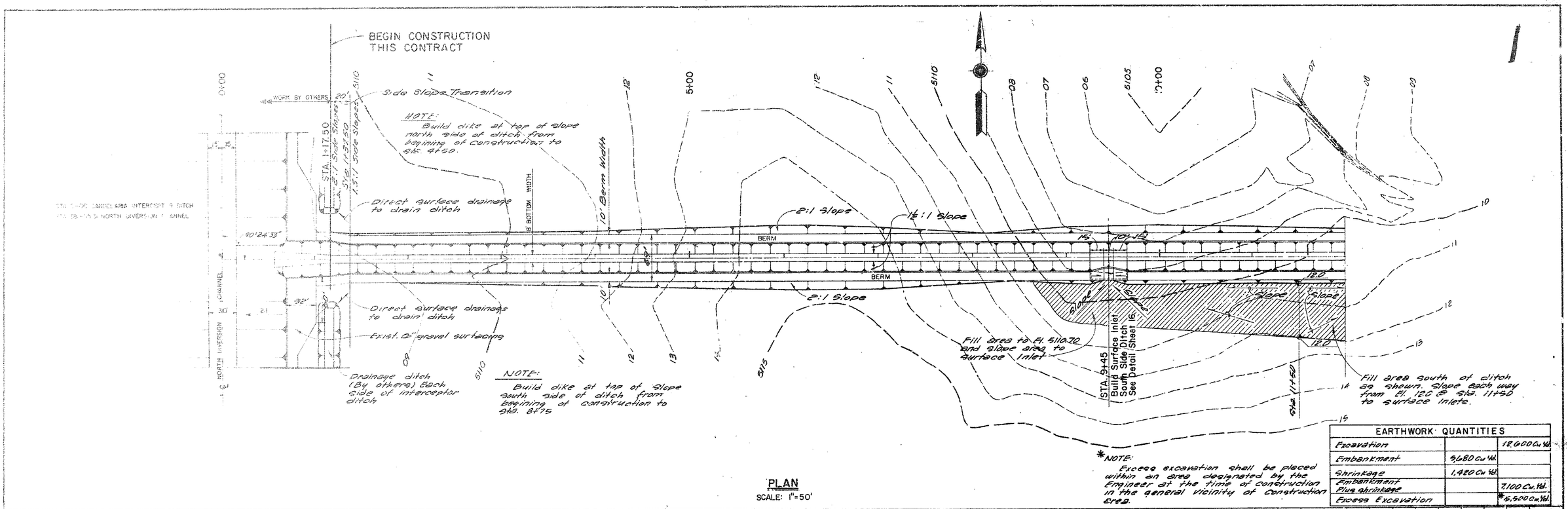
SYMBOL	DESCRIPTION
	Ceiling outlet & fixture, incandescent
	Bracket outlet & fixture, incandescent.
	Wall switch, single pole light switch.
	Wall switch w/ pilot light.
	Hubbell #1297 (#1298 3-way) } up 52"
	Thermal switch
	Duplex convenience outlet, up 12" or as noted.
	Thermostat, up 5'-6"
	Special outlet up 12" or as noted.
	Motor
	Branch circuit in walls or ceiling.
	Branch circuit in walls or under floor
	Home run.
—T—	Telephone conduit, min. 1" w/ pull wire.

FIXTURE SCHEDULE

Nº.	DESCRIPTION	MOUNTING	LAMP
1.	HOLOPHANE # 400. - T.P.-CG	Wall-up 7'-6"	1-150 IF
2	ART METAL #2086-2.	Clg. Surface.	1-200 IF
3	STOLICO # GD 8501 L-XW with slip fitter, w/ wire guard 8550.	On railing corner pole.	1-500 T3Q/ CL-120.

REGISTERED PROFESSIONAL ENGINEER — STATE OF NEW MEXICO — No. 1593 — WILLIAM L. MATOTAN

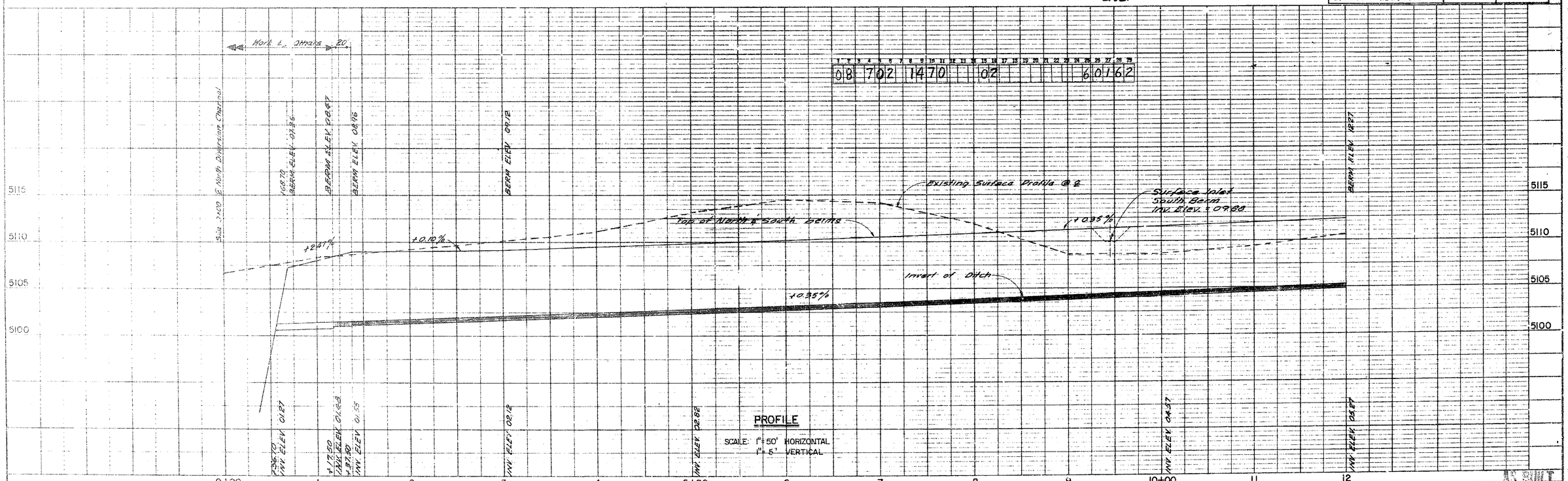
ALBUQUERQUE, NEW MEXICO		SHEET 13 OF 19
STORM DRAINAGE IMPROVEMENTS AT NORTH DIVERSION CHANNEL-SECTION I COMANCHE PUMP STATION ELECTRICAL		
WILLIAM MATOTAN & ASSOCIATES - ENGINEERS ALBUQUERQUE, NEW MEXICO		
SCALE: AS SHOWN	DRAWN: B.D.MC CHECKED: W.D.P.	DATE: AUGUST, 1968



PLAN
SCALE: 1"=50'

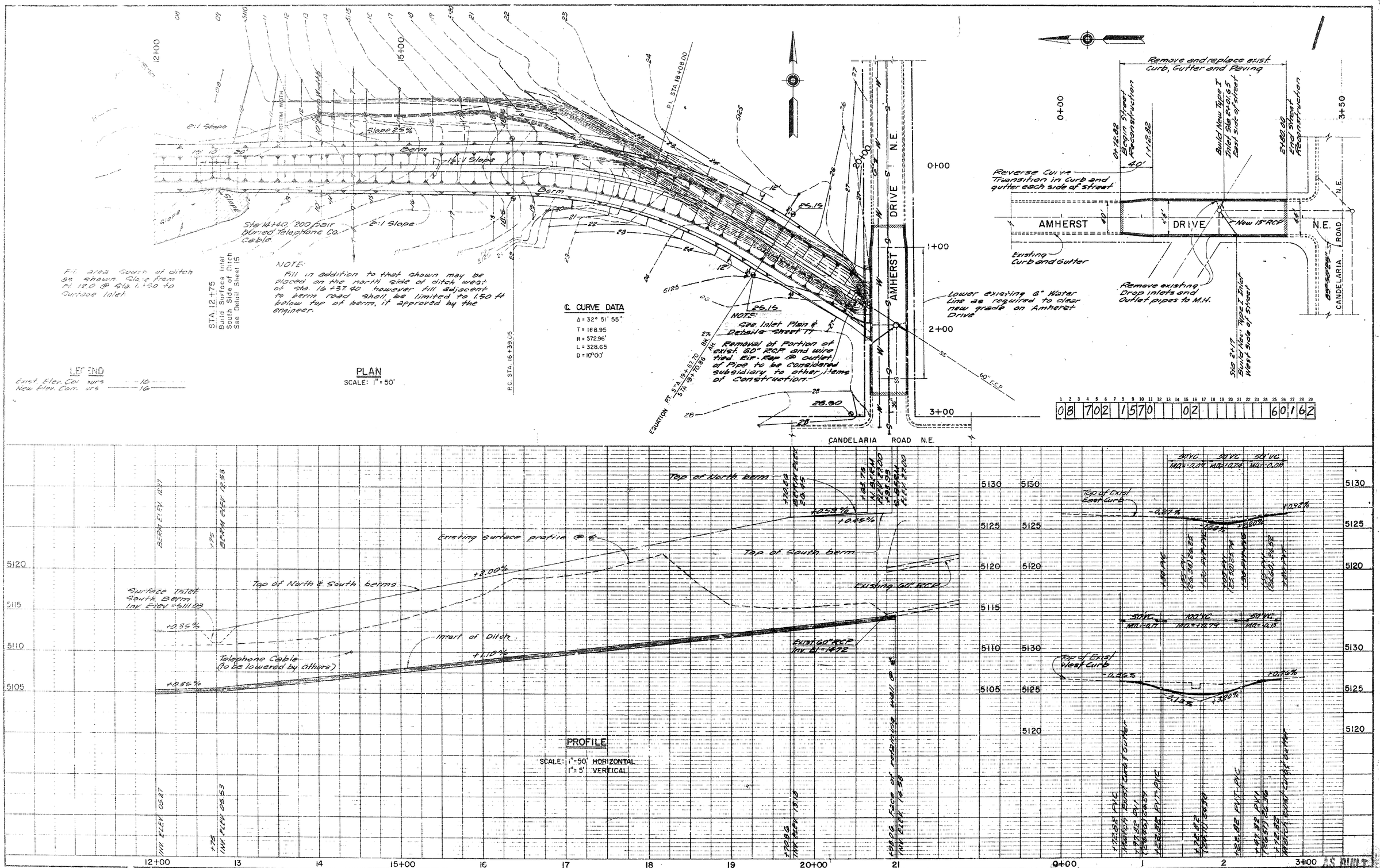
*NOTE:
Excess excavation shall be placed within an area designated by the Engineer at the time of construction in the general vicinity of construction area.

EARTHWORK QUANTITIES		
Excavation		12,600 Cu. Yd.
Embankment	5,680 Cu. Yd.	
Shrinkage	1,420 Cu. Yd.	
Embankment Plus shrinkage		7,100 Cu. Yd.
Excess Excavation		*6,500 Cu. Yd.

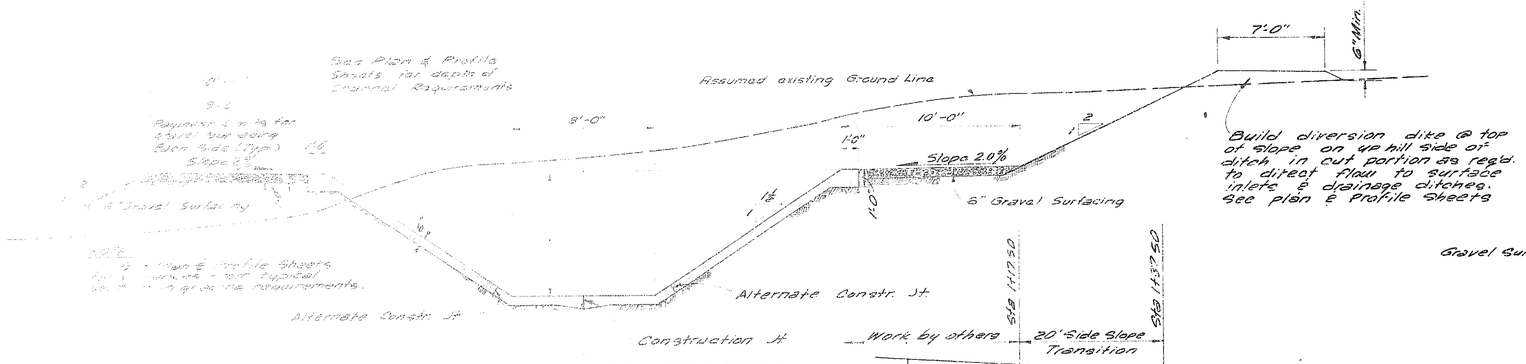


PROFILE
SCALE: 1"=50' HORIZONTAL
1"=5' VERTICAL

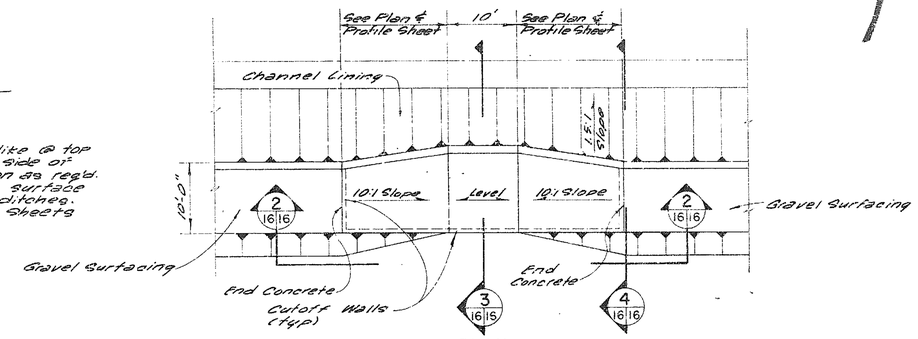
AS BUILT



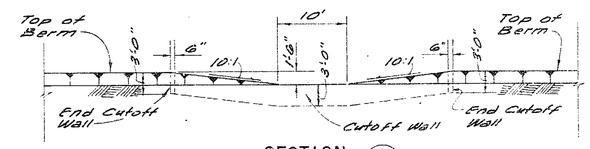
CANDELARIA - INTERCEPTOR DITCH PLAN & PROFILE SHEET 15 OF 19



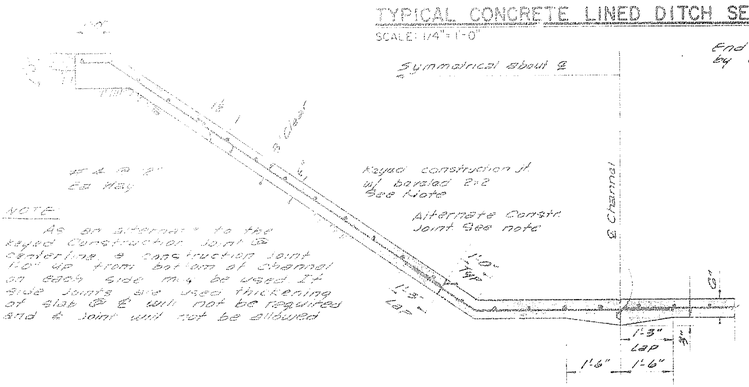
TYPICAL CONCRETE LINED DITCH SECTION
SCALE: 1/4"=1'-0"



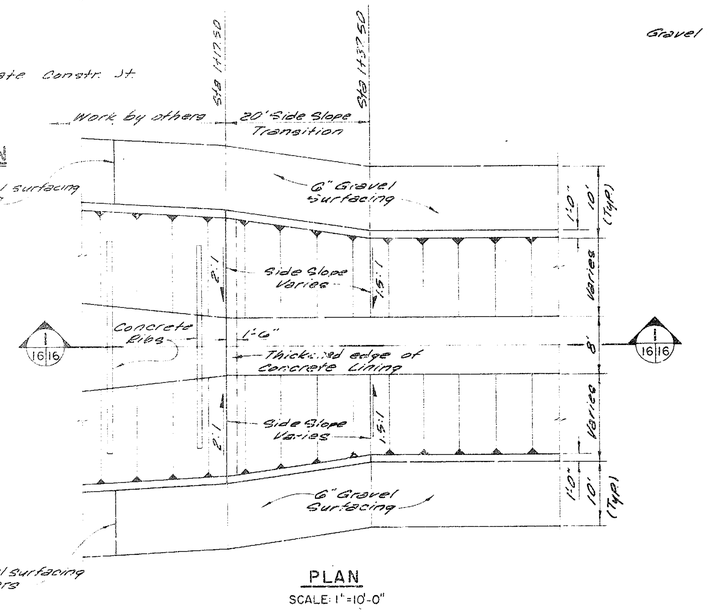
PLAN
SCALE: 1"=10'-0"



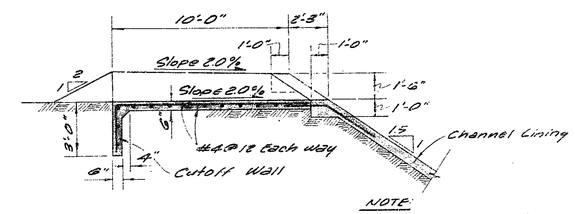
SECTION (2 | 16 16)
SCALE: 1"=10'-0"



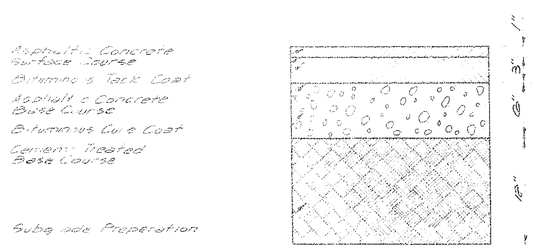
CONCRETE LINING DETAIL
SCALE: 1/4"=1'-0"



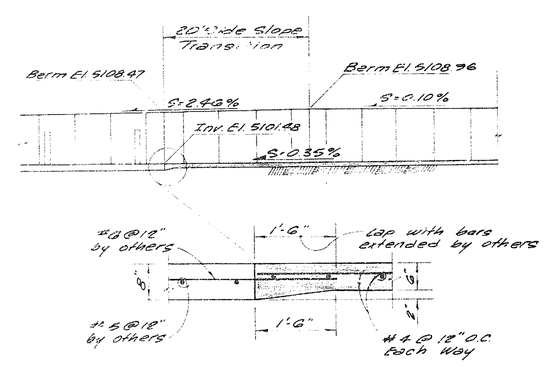
PLAN
SCALE: 1"=10'-0"



SECTION (3 | 16 16)
SCALE: 1/4"=1'-0"

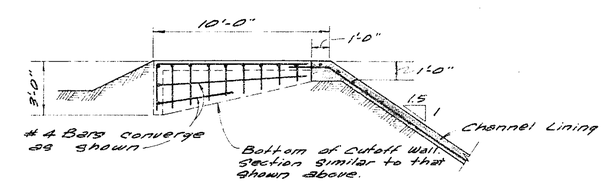


PAVING SECTION-AMHERST DRIVE N.E.
NO SCALE



SECTION (1 | 16 16)
SCALE: 1"=10'-0"

CONNECTION AT NORTH DIVERSION CHANNEL INLET



SECTION (4 | 16 16)
SCALE: 1/4"=1'-0"

TYPICAL SIDE DITCH INLET

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
0	8		7	0	2		1	6	7	0				0	2													

ALBUQUERQUE, NEW MEXICO

STORM DRAINAGE IMPROVEMENTS AT NORTH DIVERSION CHANNEL-SECTION I

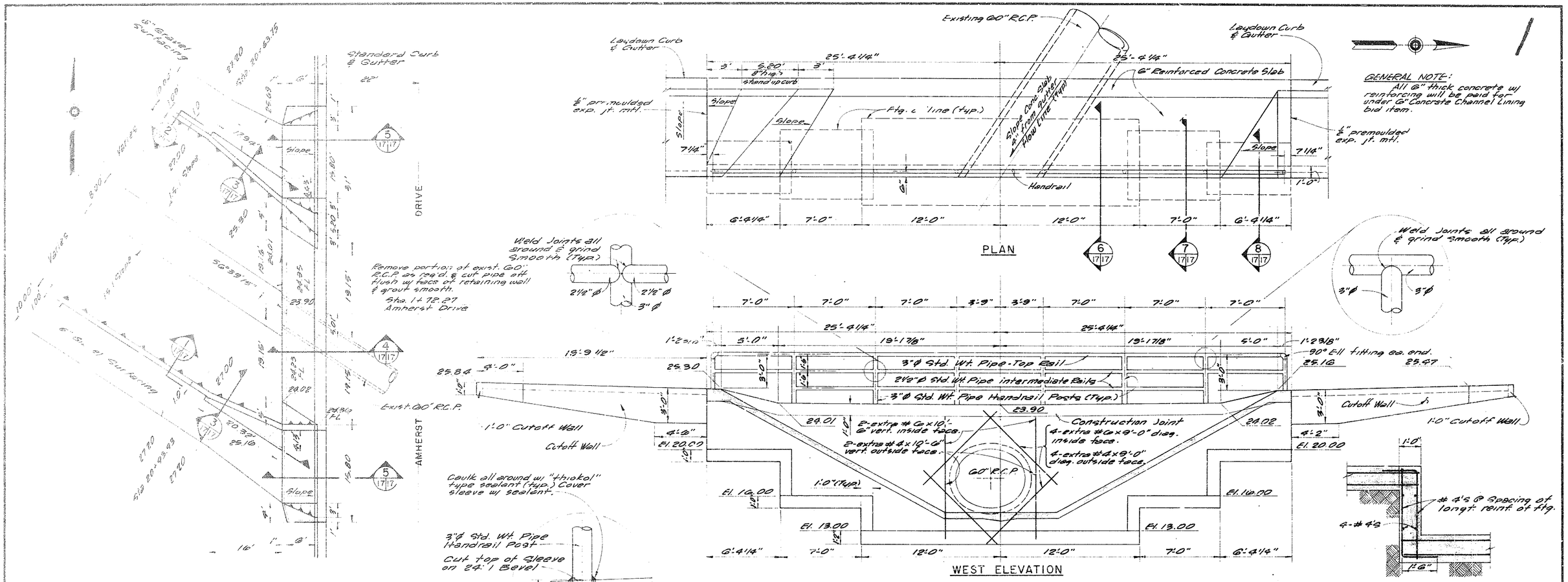
CANDELARIA INTERCEPTOR DITCH

SECTIONS & DETAILS

WILLIAM MATOTAN & ASSOCIATES – ENGINEERS
ALBUQUERQUE, NEW MEXICO

SCALE	DRAWN R.L.	DATE
AS SHOWN	CHECKED J.A.A.	

SHEET 16 OF 19


Existing 60" R.C.P.
Laydown Curb & Gutter
Standard Curb & Gutter
6" Reinforced Concrete Slab
Slope Conc. Slab 4" from gutter How line (typ.)
Flg. ℄ line (typ.)
Handrail
Slope
PLAN
GENERAL NOTE:
All 6" thick concrete w/ reinforcing will be paid for under 6" Concrete Channel Lining bid item.
Weld Joints all around & grind smooth (Typ.)
Remove portion of exist. 60" R.C.P. as req'd. & cut pipe off flush w/ face of retaining wall & grout smooth.
Sta. 1+72.27 Amherst Drive
3"ø Std. Wt. Pipe-Top Rail
2½"ø Std. Wt. Pipe Intermediate Rails
3"ø Std. Wt. Pipe Handrail Posts (Typ.)
90° Ell fitting ea. end.
Cutoff Wall
1'-0" Cutoff Wall
Construction Joint
2-extra #6x10'-6" vert. inside face.
2-extra #4x10'-6" vert. outside face.
4-extra #6x9'-0" diag. inside face.
4-extra #4x9'-0" diag. outside face.
60" R.C.P.
WEST ELEVATION
RETAINING WALL
SCALE: 1/4" = 1'-0"
STEP FOOTING DETAIL
SCALE: 1/2" = 1'-0"
#4's @ spacing of longt. reinf. of ftg.
AMHERST DRIVE
Exist. 60" R.C.P.
Caulk all around w/ "thiokol" type sealant (typ.) Cover sleeve w/ sealant.
3"ø Std. Wt. Pipe Handrail Post
Cut top of sleeve on 24:1 Bevel
Pc-4" Std. Wt. Pipe Sleeve Molten Lead
Slope ¼"/ft.
Reinforcing @ stand up curb.
#4's @ 12 Ea. Way
Std. Lay down Curb & Gutter
Similar except Opposite hand & Not to Scale
Channel Lining
Varies see Elevation
Construction Joint
Existing 60" R.C.P.
#5x10'-10" @ 20"
3/4" Premoulded exp. Joint mat'l. Fill top 3/4" w/ Joint sealer. (Typ.)
#6x5'-9" @ 20"
#4 dowels @ 24
Key formed from beveled 2x6 (Typ.)
#5x7'-10" @ 15"
#6 @ 7½"
#5x3'-9" @ 7½"
#4 dowels @ 30"
#4 dowels @ 24"
#4x2'-9" @ 18"
INLET PLAN
SCALE 1" = 10'-0"
SECTION
SCALE 1/4" = 1'-0"
SECTION
SCALE 1/2" = 1'-0"
SECTION
SCALE: 1/2" = 1'-0"
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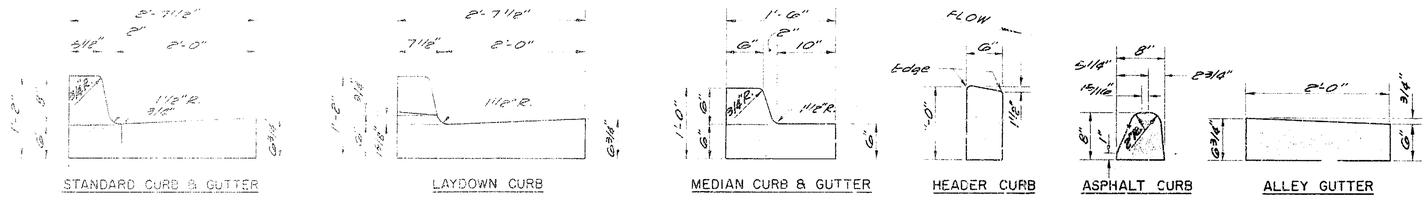
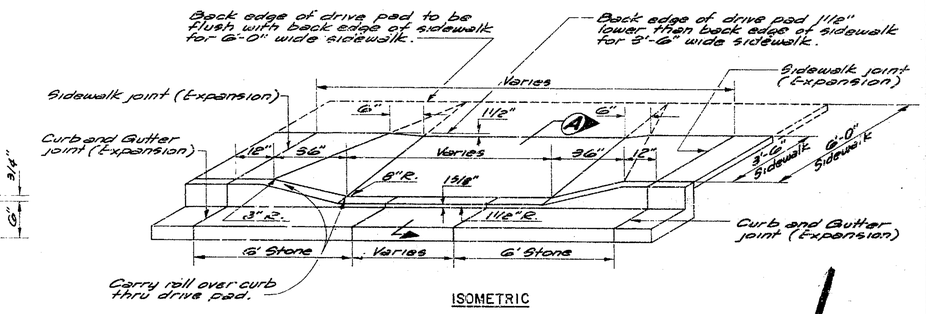
REVISED 2/7/69
ALBUQUERQUE, NEW MEXICO
STORM DRAINAGE IMPROVEMENTS AT NORTH DIVERSION CHANNEL-SECTION I
CANDELARIA INTERCEPTOR DITCH
INLET & RETAINING WALL DETAILS
WILLIAM MATOTAN & ASSOCIATES - ENGINEERS
ALBUQUERQUE, NEW MEXICO
SCALE: AS SHOWN
DRAWN R.L.
CHECKED P.T.
DATE AUGUST 1968
SHEET 17 OF 19
08 702 1770 02



TYPICAL CURB & GUTTER DETAILS



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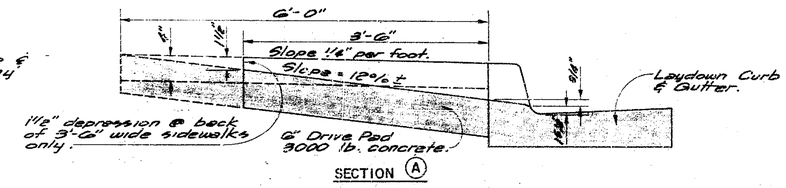
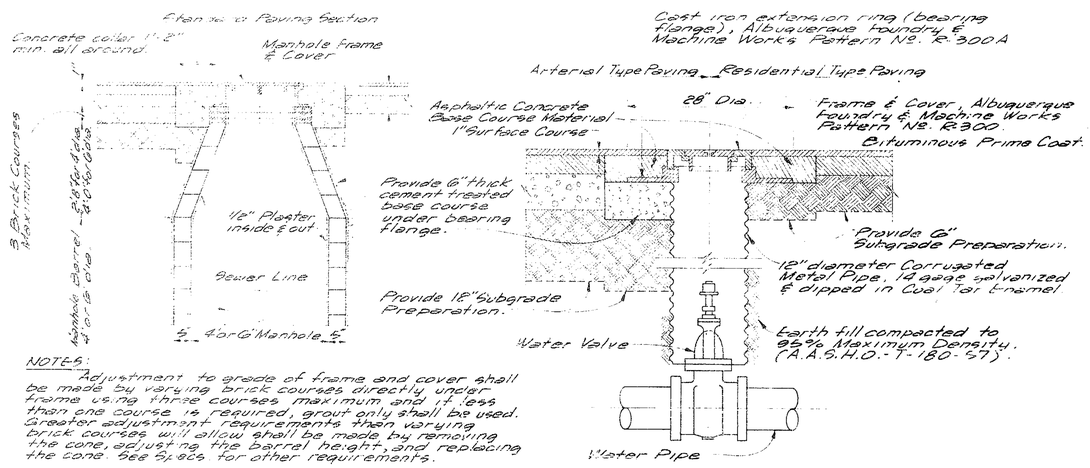


SECTION (A)

TYPICAL DRIVEWAY & LAY DOWN CURB

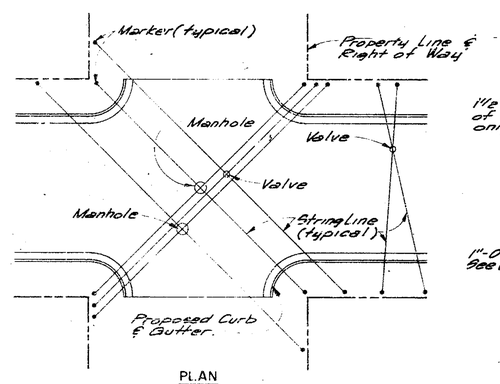


NOTES:

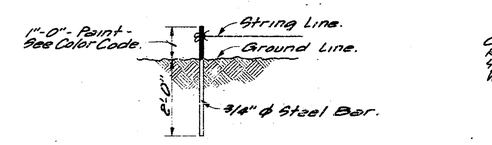
Adjustment to grade of frame and cover shall be made by varying brick courses directly under frame using three courses maximum and if less than one course is required, grout only shall be used. Greater adjustment requirements than varying brick courses will allow shall be made by removing the cone, adjusting the barrel height, and replacing the cone. See S.B.C.S. for other requirements.

MANHOLE REGRADING DETAIL

VALVE BOX REGRADING DETAIL



PLAN

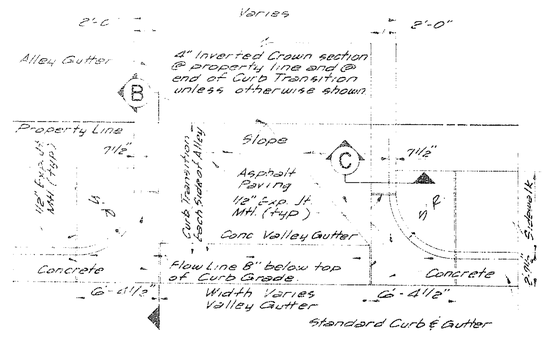


MARKER DETAIL

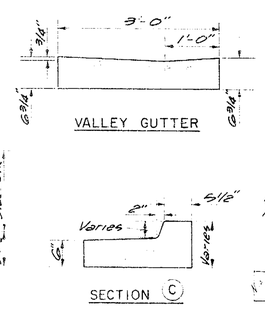
COLOR CODE

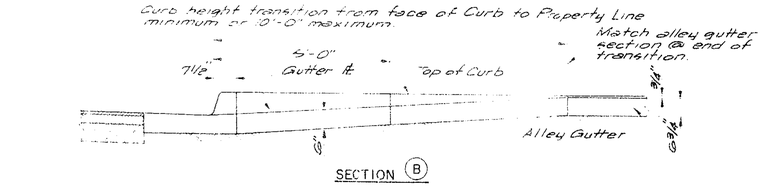
Green	Gas
Red	Sanitary Sewer
Yellow	Storm Sewer
White	Water

PLAN FOR LOCATING UNDERGROUND UTILITIES



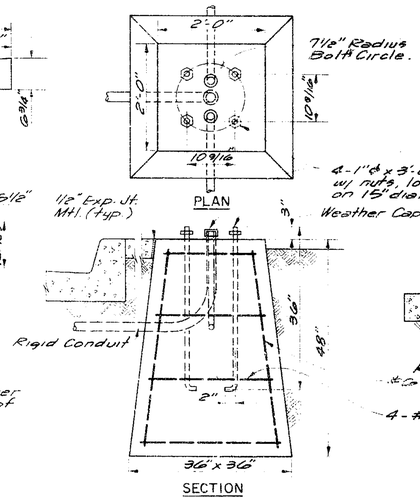
PLAN





SECTION (B)

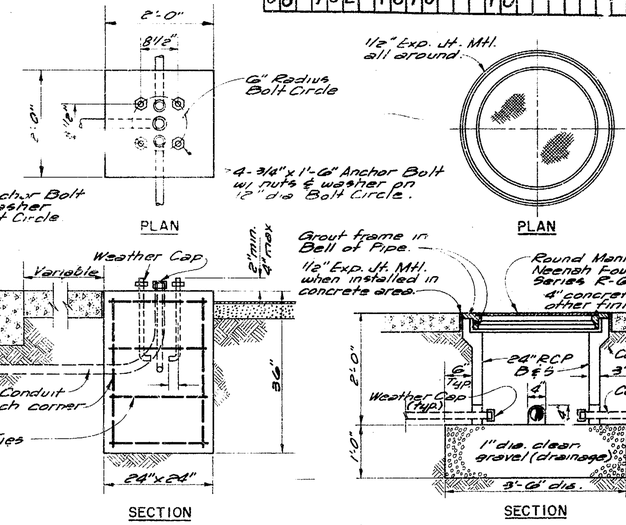
TYPICAL ALLEY INTERSECTION



PLAN

SECTION

MAST ARM

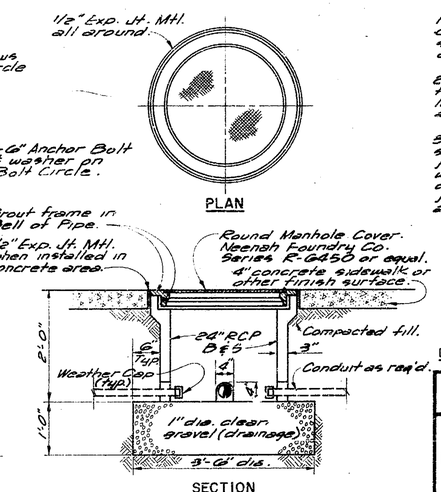


PLAN

SECTION

PEDESTAL

TRAFFIC LIGHT FOUNDATION DETAILS



PLAN

SECTION

CONDUIT JUNCTION BOX DETAIL

GENERAL NOTES

1. Curb & Gutter. Provide contraction joints at 6' o.c. Provide 1/2" preformed expansion joints at 48' o.c. maximum, at curb returns and at each side of driveways.

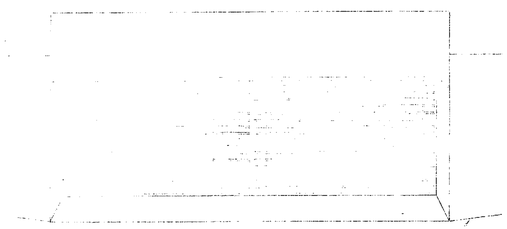
2. Driveways. 18' to 36' long to have 1/2" preformed expansion joint at centerline. Driveways longer than 36' to have expansion joints spaced at 18' o.c. maximum.

3. Sidewalks to be 4" thick with a transverse slope of 1/4" per foot. 1/2" preformed expansion joints shall be provided at 18' o.c. maximum and where sidewalks abut existing walks, buildings, driveways or other construction. Contraction joints to be provided at same spacing and location as joints in Curb & Gutter.

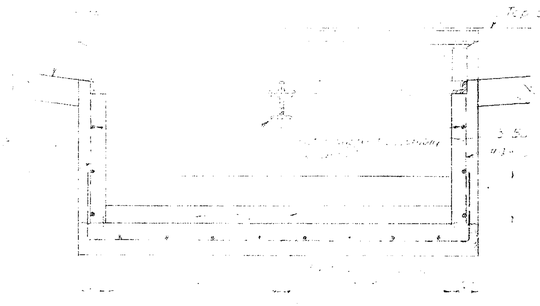
AS BUILT

DISREGARD NOTES AND DETAILS NOT APPLICABLE TO THIS CONTRACT.

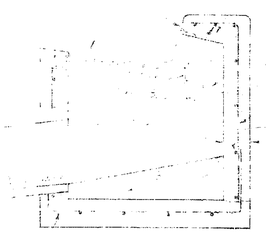
ALBUQUERQUE, NEW MEXICO	
STORM DRAINAGE IMPROVEMENTS AT NORTH DIVERSION CHANNEL - SECTION I CANDELARIA INTERCEPTOR DITCH STANDARD DETAILS	SHEET 18 OF 19
WILLIAM MATOTAN & ASSOCIATES - ENGINEERS ALBUQUERQUE, NEW MEXICO	
SCALE: NOT TO SCALE / DRAWN: B.D.M. / CHECKED: J.A. / DATE:	



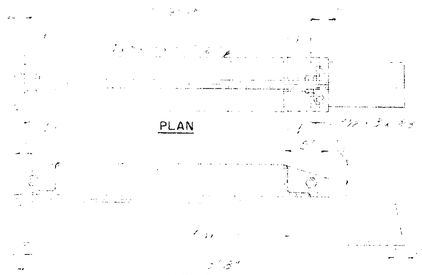
PLAN



LONGITUDINAL SECTION



TRANSVERSE SECTION

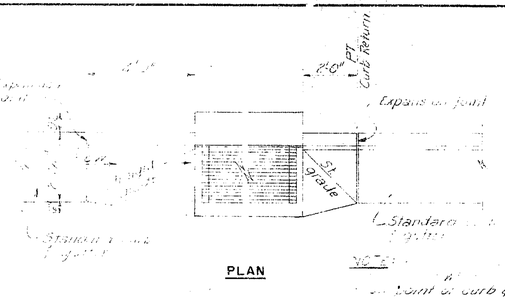


PLAN

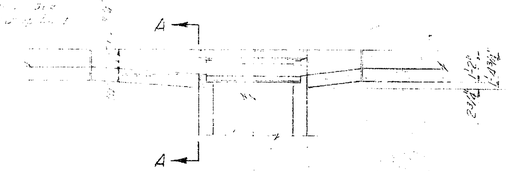
ELEVATION

CENTER SUPPORT ASSEMBLY

TYPE II DROP INLET DETAILS

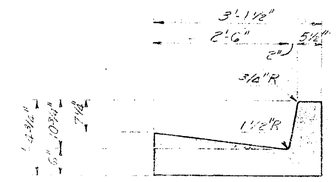


PLAN



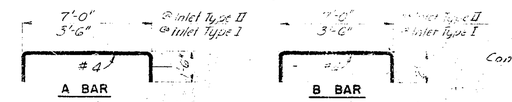
LONGITUDINAL SECTION

DETAIL FOR PLACING DROP INLET

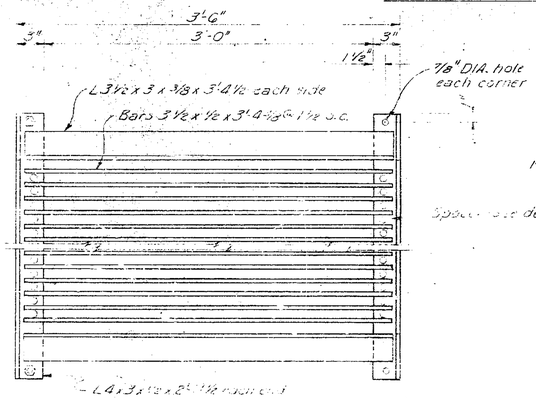


SECTION A-A

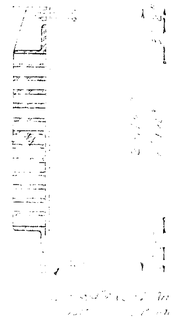
ANCHOR DETAIL



BAR BENDING DETAILS



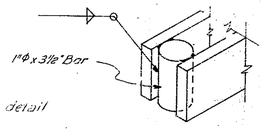
PLAN



SECTION

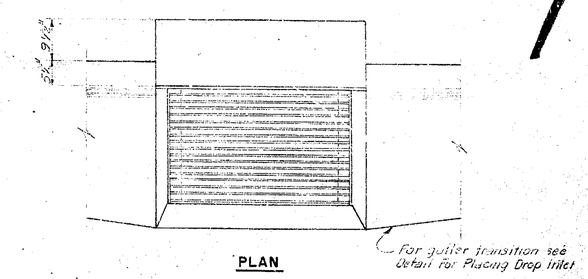
NOTE: Frame & center support to be welded construction.

FRAME AND GRATING DETAILS

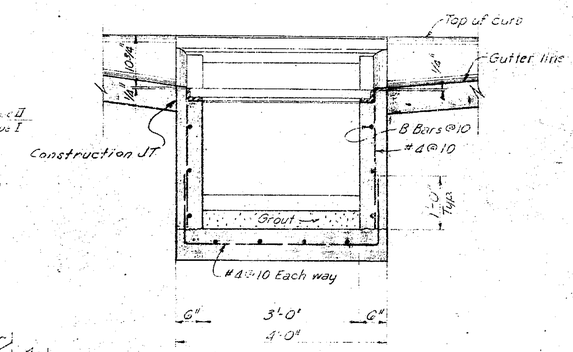


SPACER DETAIL

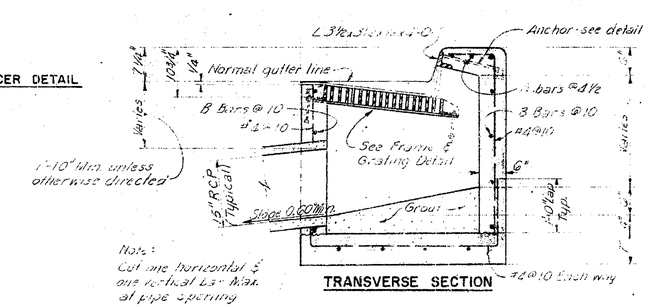
DETAILS TYPICAL TO DROP INLETS TYPE I & II



PLAN



LONGITUDINAL SECTION



Note: Cut one horizontal & one vertical L3" max. at pipe opening

TRANSVERSE SECTION

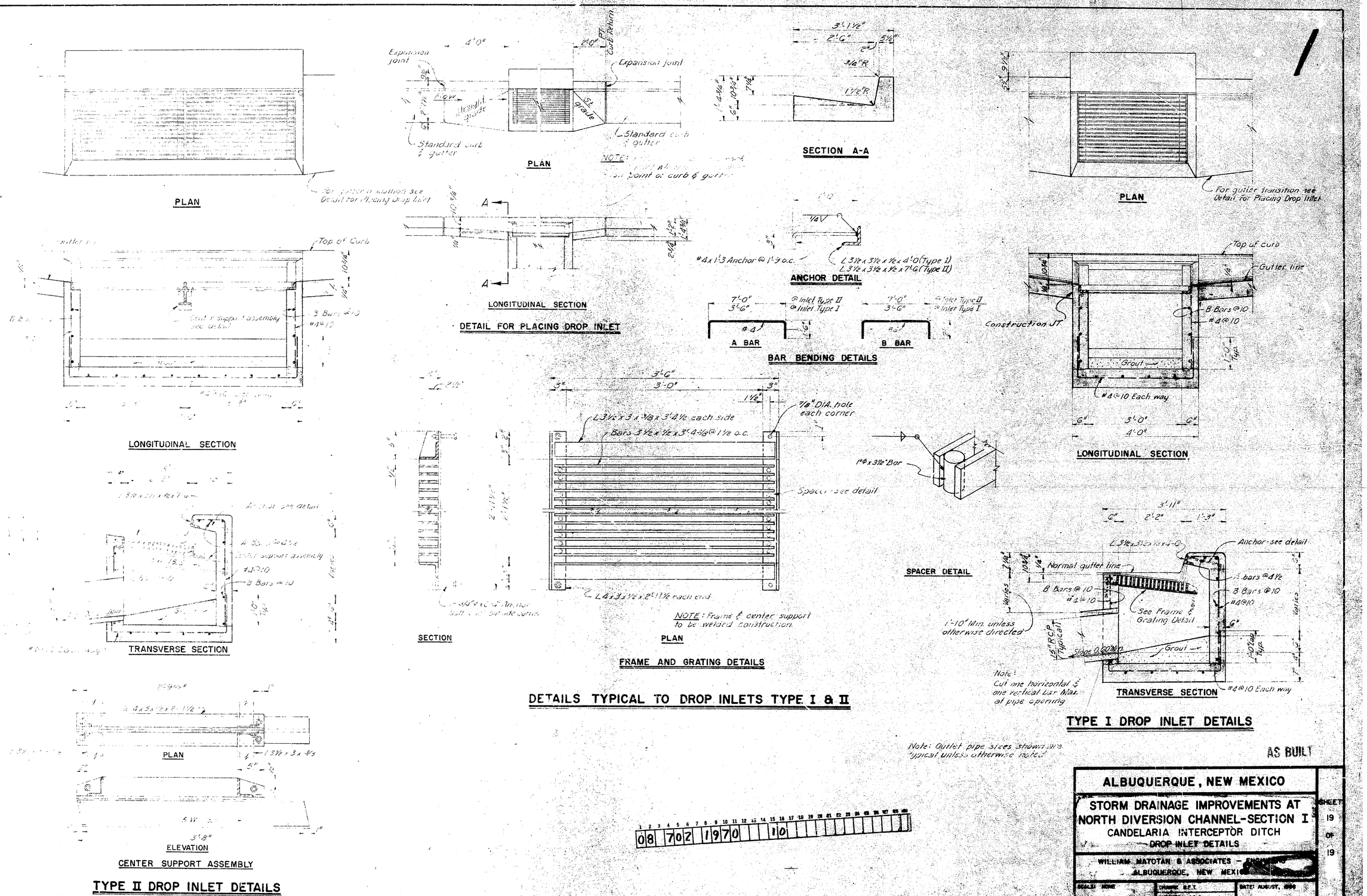
TYPE I DROP INLET DETAILS

Note: Outlet pipe sizes shown are typical unless otherwise noted.

AS BUILT

ALBUQUERQUE, NEW MEXICO	
STORM DRAINAGE IMPROVEMENTS AT NORTH DIVERSION CHANNEL-SECTION I CANDELARIA INTERCEPTOR DITCH DROP INLET DETAILS	SHEET 19 OF 19
WILLIAM MATOTAN & ASSOCIATES – ENGINEERS ALBUQUERQUE, NEW MEXICO	
SCALE: NONE / DRAWN: B.E.T. / CHECKED: J.A.A.	DATE: AUGUST, 1968

08 702 1970 10


PLAN
For gutter transition see Detail for Placing Drop Inlet
Expansion joint
Flow
Standard curb & gutter
PLAN
SECTION A-A
NOTE:
PLAN
For gutter transition see Detail for Placing Drop Inlet
Top of Curb
Gutter line
Construction JT.
B Bars @10
#4@10
Grout
#4@10 Each way
LONGITUDINAL SECTION
LONGITUDINAL SECTION
DETAIL FOR PLACING DROP INLET
#4x1'-3 Anchor @ 1'-9 o.c.
L 3½ x 3½ x ½ x 4'-0 (Type I)
L 3½ x 3½ x ½ x 7'-6 (Type II)
ANCHOR DETAIL
A BAR
B BAR
BAR BENDING DETAILS
L 3½ x 3 x 3/8 x 3'-4½ each side
Bars 3½ x ½ x 3'-4 3/8 @ 1½ o.c.
7/8" DIA. hole each corner
1"Φ x 3½" Bar
Spacer - see detail
L 4 x 3 x ½ x 2'-11½ each end
SECTION
PLAN
NOTE: Frame & center support to be welded construction.
FRAME AND GRATING DETAILS
SPACER DETAIL
Anchor - see detail
Normal gutter line
See Frame & Grating Detail
1'-10" Min. unless otherwise directed
Slope 0.02 Min.
Grout
Note: Cut one horizontal & one vertical bar Max. at pipe opening
TRANSVERSE SECTION
#4@10 Each way
TYPE I DROP INLET DETAILS
Note: Outlet pipe sizes shown are "typical unless otherwise noted."
TRANSVERSE SECTION
PLAN
ELEVATION
CENTER SUPPORT ASSEMBLY
TYPE II DROP INLET DETAILS
DETAILS TYPICAL TO DROP INLETS TYPE I & II
AS BUILT
ALBUQUERQUE, NEW MEXICO
STORM DRAINAGE IMPROVEMENTS AT NORTH DIVERSION CHANNEL-SECTION I
CANDELARIA INTERCEPTOR DITCH
DROP INLET DETAILS
WILLIAM MATOTAN & ASSOCIATES - ENGINEERS
ALBUQUERQUE, NEW MEXICO
SCALE: NONE
DRAWN: R.E.T.
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SHEET 19 OF 19
08 702 1970 10