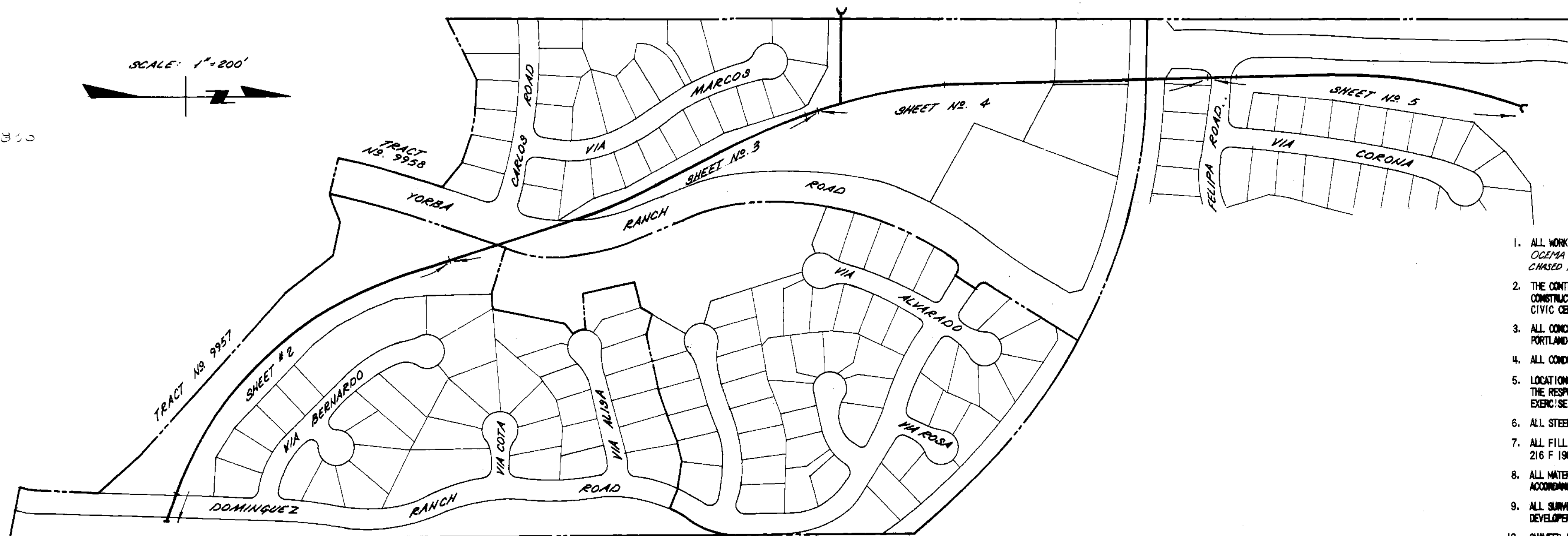
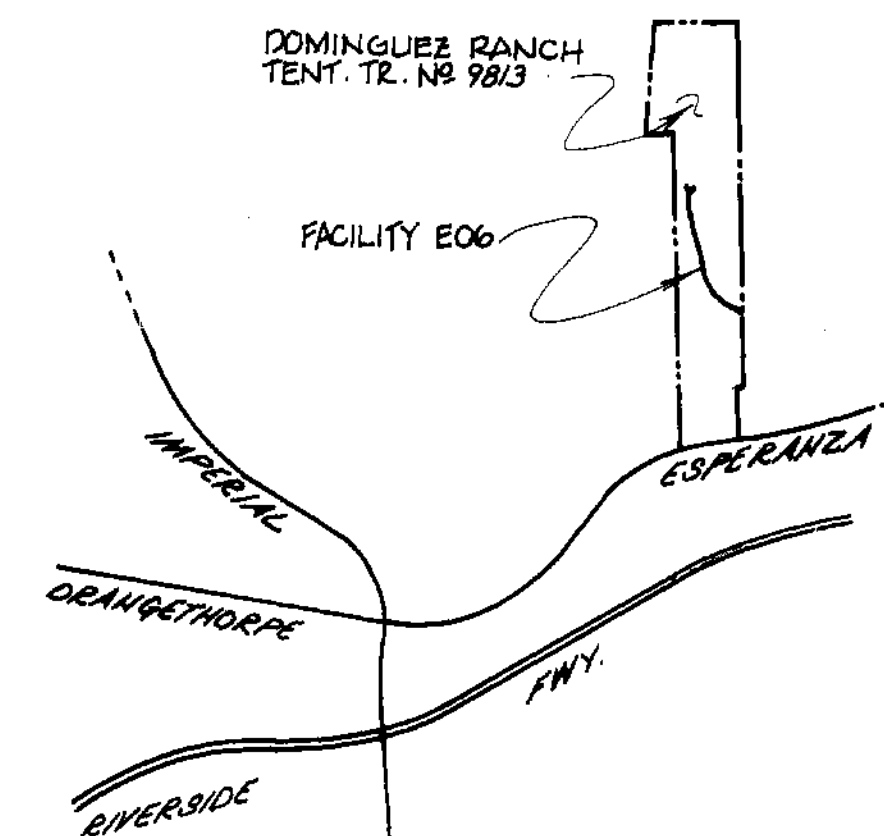


QUANTITY ESTIMATE	
ITEM	QUANTITIES
RECTANGULAR REINF. CONC. CHANNEL	
9' WIDE X 9' HIGH	1014 LF.
13' W X 11' H	510 LF.
13' W X 12' H	850 LF.
REINFORCED CONCRETE BOX	
9' WIDE X 9' HIGH	80 LF.
12' W X 10.5' H	480 LF.
13' W X 12' H	405 LF.
REINFORCED CONCRETE TRANSITIONS	
11.45' W X 9' H TO 9' W X 9' H	60 LF.
9' W X 9' H TO 13' W X 10' H	45 LF.
12' W X 10.5' H TO 13' W X 10' H (B.C.P.)	50 LF.
13' W X 10' H TO 13' W X 13.69' H	30 LF.
13' W X 12' H TO 13' W X 14.27' H	23 LF.
13' W X 12' H TO 10.5' W X 12' H	25 LF.
13' W X 12' H TO 13' W X 14.47' H	35 LF.
13' W X 11' H TO 20' W X 12.01' H	35 LF.
13' W X 13.77' H TO 13' W X 11' H	25 LF.
13' W X 13.91' H TO 13' W X 12' H	20 LF.
13' W X 14.74' H TO 13' W X 12' H	60 LF.
13' W X 16.18' H TO 13' W X 12' H	150 LF.
20' W X 12.01' H TO 20' W X 13.79' H	65 LF.
20' W X 13.79' H TO 65' W X 10' H	80 LF.
13' W X 10' H TO 13' W X 11.50' H	86
OUTLET STRUCTURE	100 LF.
EQUESTRIAN ENTRANCE STRUCTURE	4 EA.
GRouted ROCK RIP RAP PROTECTION	4000 S.F.
CHAIN LINK FENCING	5960 LF.
YARD DRAIN INLET PER SHEET 7	4 EA.
PIPE CONNECTION PER SHEET 7	13 EA.



INDEX MAP ESPERANZA CHANNEL FROM DOMINGUEZ RANCH ROAD TO 800'± U/S OF FELIPA ROAD

- GENERAL NOTES
- ALL WORK TO BE DEDICATED TO THE ORANGE COUNTY FLOOD CONTROL DISTRICT SHALL BE IN CONFORMANCE WITH THE OCEMA STD. SPECIFICATIONS (PUBLIC WORKS CONSTRUCTION, 1976 EDITION) WHICH MAY BE PURCHASED FROM THE DISTRICT AND SHALL BE KEPT ON THE JOB SITE AT ALL TIMES.
 - THE CONTRACTOR SHALL NOTIFY THE DISTRICT'S INSPECTOR AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION BY TELEPHONING 834 3486, OR BY WRITING THE ORANGE COUNTY FLOOD CONTROL DISTRICT, 400 WEST CIVIC CENTER DRIVE, SANTA ANA, CALIFORNIA.
 - ALL CONCRETE IN REINFORCED CONCRETE STRUCTURES SHALL BE 3000 POUNDS PER SQ. INCH, IN 28 DAYS, TYPE II PORTLAND CEMENT CONC., CLASS A.
 - ALL CONDUIT LENGTHS ARE HORIZONTAL PROJECTIONS, UNLESS OTHERWISE SHOWN.
 - LOCATIONS OF PUBLIC UTILITIES SHOWN HAVE BEEN DETERMINED FROM AVAILABLE INFORMATION. HOWEVER IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE TRUE LOCATION OF ANY EXISTING UTILITIES AND TO EXERCISE PROPER PRECAUTIONS TO AVOID INJURY OR DAMAGE THEREOF.
 - ALL STEEL THAT IS TO BE CONTINUOUS SHALL BE LAPPED A MINIMUM OF 30 BAR DIAMETERS.
 - ALL FILL SHALL BE COMPACTED TO 90% RELATIVE COMPACTION AS DETERMINED BY THE CALIFORNIA TEST METHOD NO. 216 F 1963 "FIVE LAYER METHOD". ALL BACKFILL MATERIAL SHALL BE FREE FROM VEGETABLE MATTER.
 - ALL MATERIALS TESTING FOR THE DRAINAGE FACILITIES SHALL BE PROVIDED BY THE CONTRACTOR OR DEVELOPER IN ACCORDANCE WITH THE NUMBER, LOCATION AND FREQUENCY REQUESTED BY THE FLOOD CONTROL DISTRICTS INSPECTOR.
 - ALL SURVEYING REQUIRED FOR VERTICAL AND HORIZONTAL ALIGNMENT SHALL BE PROVIDED BY THE CONTRACTOR OR DEVELOPER AND SUFFICIENT REFERENCE STAKING SHALL BE IN ACCORDANCE WITH THE REQUEST OF DISTRICTS INSPECTOR.
 - CHAMFER ALL EXPOSED EDGES OF CONCRETE 1".
 - A PERMIT FOR WORK WITHIN EXISTING STREET RIGHT OF WAY IS REQUIRED FROM THE ORANGE COUNTY ROAD DEPT. FOR ANY EXCAVATION NECESSARY FOR CONSTRUCTION IN PUBLIC RIGHT OF WAY.
 - CLEARANCE BETWEEN EDGE OF CONCRETE AND REINFORCING STEEL MUST BE 1 1/2 INCHES MINIMUM UNLESS OTHERWISE NOTED. (NOT APPLICABLE TO R.C.P.)
 - ALL REINF. BARS MUST BE SECURELY HELD IN PLACE IN THE FORMS. TWO WAY MATS OF STEEL MUST BE WIRED TOGETHER BOTH WAYS AT ALTERNATE INTERSECTIONS.
 - IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MOUNT THE FLAGPole IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS. THE CONTRACTOR SHALL ASCERTAIN THAT THE POSITION OF THE MOUNTING BOLTS MATCH THE HOLE PATTERN OF THE PARTICULAR MAKE OF GATE ASSEMBLY TO BE INSTALLED.
 - STORM DRAIN BACKFILL FOR ALL FACILITIES WITHIN STREET RIGHT OF WAY IS TO BE PLACED AND COMPACTED UNDER ROAD DEPARTMENT INSPECTION AND MEET OR EXCEED ROAD DEPARTMENT MINIMUM STANDARDS.
 - ALL PIPES TO BE BENDED AND GROUTED.
 - PRIOR TO THE COMMENCEMENT OF CONSTRUCTION THE DEVELOPER'S CONTRACTOR SHALL OBTAIN A PERMIT FROM THE STATE DIVISION OF INDUSTRIAL SAFETY. A COPY OF THE PERMIT SHALL BE KEPT ON THE JOB SITE AT ALL TIMES.
 - FOR TRENCH EXCAVATIONS IN NATIVE SOIL, SHORING SHALL BE PROVIDED TO SATISFY STATE OF CALIFORNIA SAFETY REQUIREMENTS.
 - PRIOR TO EXCAVATION, CONTRACTOR SHALL CONTACT PACIFIC TELEPHONE LOCATING SERVICE (PHONE 633 0811) FOR THEIR SERVICES.
 - THE CONTRACTOR SHALL CONDUCT CONSTRUCTION OPERATIONS IN SUCH A MANNER THAT STORM OR OTHER WATERS MAY PROCEED UNINTERRUPTED ALONG THEIR EXISTING STREET OR DRAINAGE COURSES.
 - IN THE COURSE OF WATER CONTROL, THE CONTRACTOR SHALL CONDUCT CONSTRUCTION OPERATIONS TO PROTECT WATERS FROM POLLUTION WITH FUELS, OILS, BITUMENS OR OTHER HARMFUL MATERIALS.
 - NO CONCRETE SHALL BE PLACED UNTIL THE SOILS ENGINEER HAS CERTIFIED THE SUB-BASE TO BE PROPERLY PREPARED FOR CHANNEL AND CULVERT CONSTRUCTION.



NOTICE TO CONTRACTOR

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. APPROVAL OF THIS PLAN BY THE COUNTY OF ORANGE DOES NOT CONSTITUTE A REPRESENTATION AS TO THE ACCURACY OR COMPLETENESS OF THE LOCATION OR THE EXISTENCE OR NON-EXISTENCE OF ANY UNDERGROUND UTILITY PIPE OR STRUCTURE WITHIN THE LIMITS OF THIS PROJECT. THE CONTRACTOR IS REQUIRED TO TAKE ALL THE DUE PRECAUTIONARY MEANS TO PROTECT THE UTILITY LINES NOT OF RECORD OR NOT SHOWN ON THIS PLAN.

LOCATION MAP (NOT TO SCALE)

MAINTAINED BY O.C.F.C.D. PER AGMT. NO. D78-075

REV. GRADING FOR CHANNEL AT YORBA LINDA BLVD CROSSING	4	J.W. Schwan	5/18/83
REMOVED INLETS @ STA 86+75.00 & 86+90.00 & PLUGGED WINDOWS. ADDED 24" STUBOUT @ STA. 87+87.84. REVISED STUBOUT @ STA 85+48.00 WAS R.C.P.	415	J.W. Schwan	8-20-80
ADDED SEWER CROSSING DETAILS	324	J.W. Schwan	1-26-79
ADDED CONSTRUCTION NOTE 60	5	J.W. Schwan	1-4-79
REVISED JOINT SEAL DETAIL & EQUESTRIAN RAMP AT STEEL	667	J.W. Schwan	1-2-79

REVISIONS			
No.	DESCRIPTION	SHT.	APPROVED DATE
1	REVISED CONSTRUCTION JOINT	6	J.W. Schwan 11-28-78
2	REVISED STATIONING	364	J.W. Schwan 1-4-79
3	REVISED STUB-OUTS	465	J.W. Schwan 1-2-79

BASIS OF BEARINGS
THE BEARING OF N 0° 54' 53" W ALONG THE WESTERLY LINE OF TRACT No. 9958 M.M. 425/1-3, RECORDS OF ORANGE COUNTY, CALIFORNIA.

BENCH MARK 212969 ALUMINUM CAP ESTABLISHED BY O.C.S. ABOUT 19 MILES EAST ALONG THE ATCHISON, TOPEKA AND SANTA FE RAILWAY FROM THE INTERSECTION OF IMPERIAL HIGHWAY TO A CULVERT UNDER CROSSING OF ESPERANZA ROAD, 36 FEET SOUTH OF THE CENTERLINE OF ESPERANZA, 36 FEET WEST OF AN OIL ROAD CROSSING OF THE RAILWAY, 10.7 FEET NORTH OF THE NORTH RAIL OF THE TRACT, SET IN THE TOP OF AND 1 FOOT EAST OF THE WEST END OF A CONCRETE HEADWALL, 57 FEET LOWER THAN THE RAIL, WITNESSED BY STEEL POST AT THE EAST END OF THE HEADWALL. ELEV. 530.670

PREPARED FOR
BROADMOOR HOMES, INC.
17500 REDHILL AVE.
IRVINE, CALIF. 92714
TEL (714) 957-1100

PREPARED BY
VTN CONSOLIDATED
2301 CAMPUS DR
IRVINE CALIF 92713
TEL (714) 833-2450

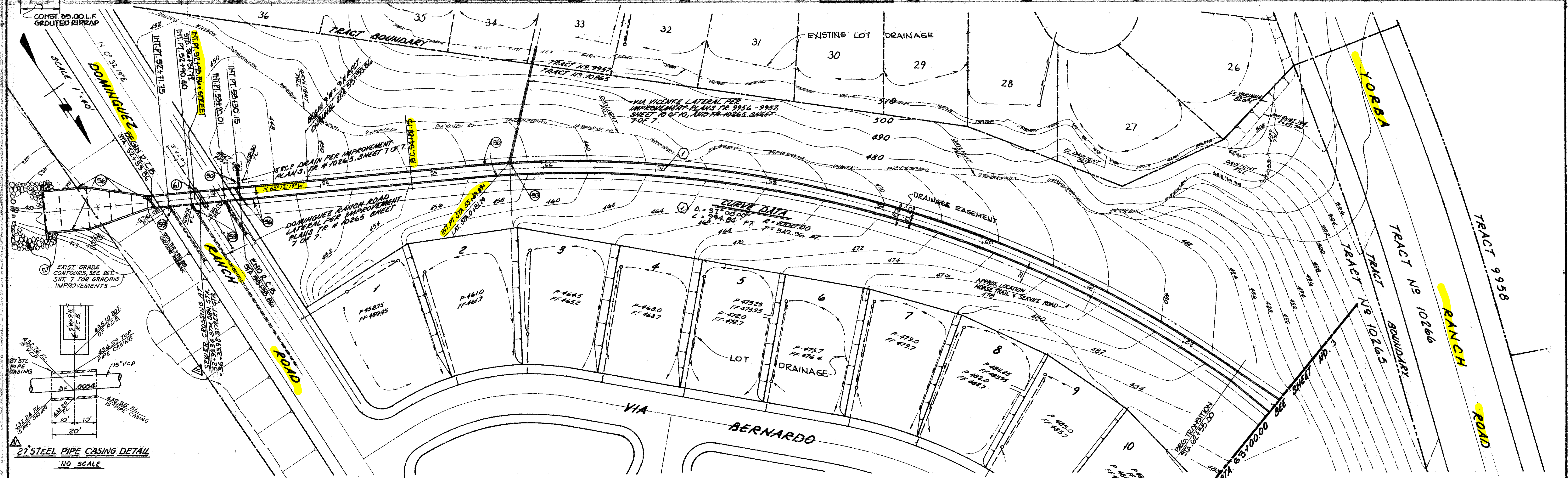
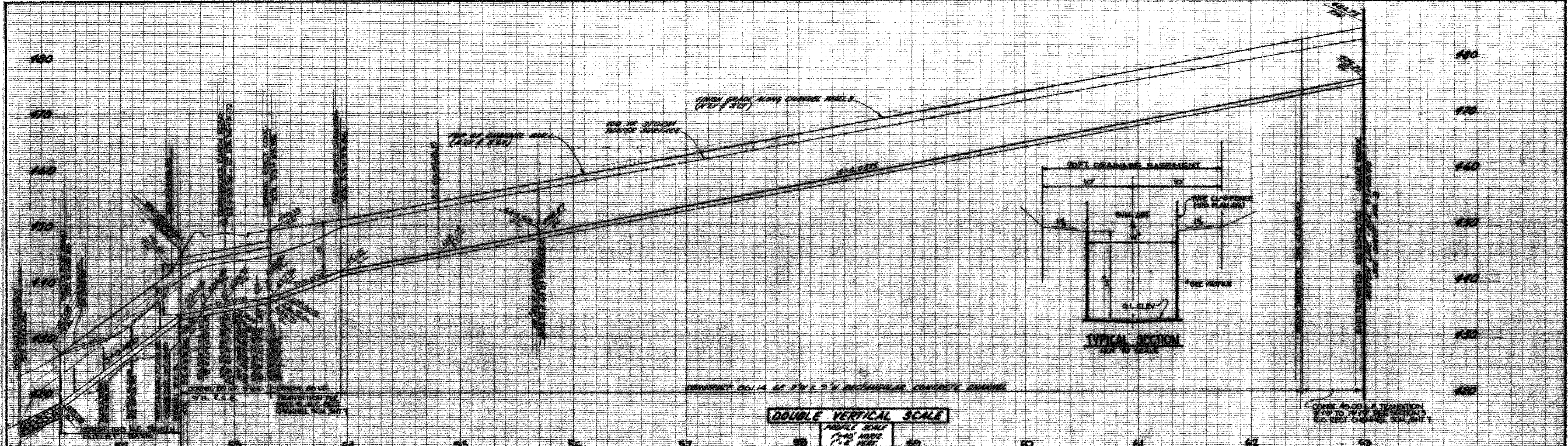
REVISIONS			
No.	DESCRIPTION	SHT.	APPROVED DATE
1	ADDED INLET BASIN CUTOFF WALL DETAIL	6	
2	ADDED REBAR SPACING INLET BASIN WALL	6	
3	REVISED BOTTOM SLAB DIMENSION	6	J.W. Schwan 10-12-78
4	REVISED EQUESTRIAN RAMP REINF. SCHEDULE	6	
5	REVISED LIMITS REINF. SCHEDULE, EQ. ENT. 67-148.85	6	

APPROVALS			
No.	DESCRIPTION	SHT.	APPROVED DATE
1	FOR FIRE PROTECTION		
2	COUNTY MARSHAL		

PREPARED UNDER THE SUPERVISION OF	
J.W. Schwan	DATE 11/28/78
AGREEMENT	
No. D 78-075	

COUNTY OF ORANGE	
EMA DEVELOPMENT DIVISION	
APPROVED	
BY J.W. Schwan	DATE 8-29-78
ENGINEERING SERVICES	

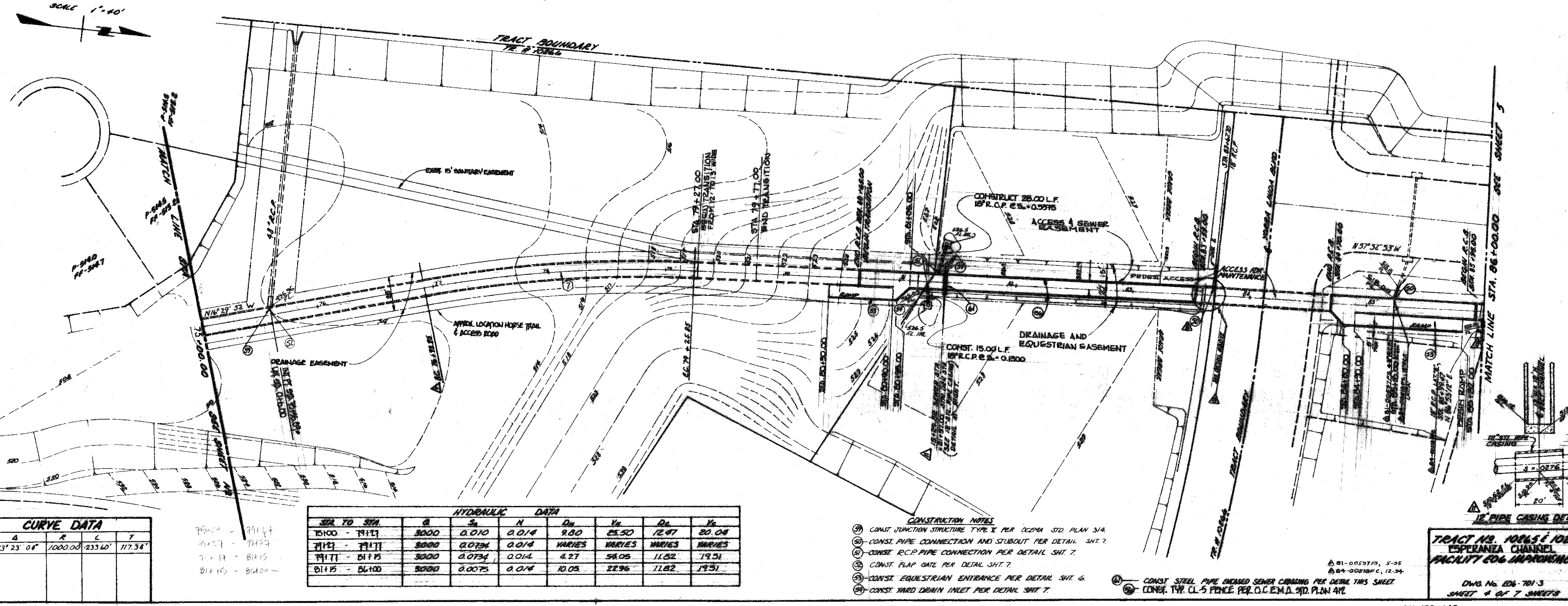
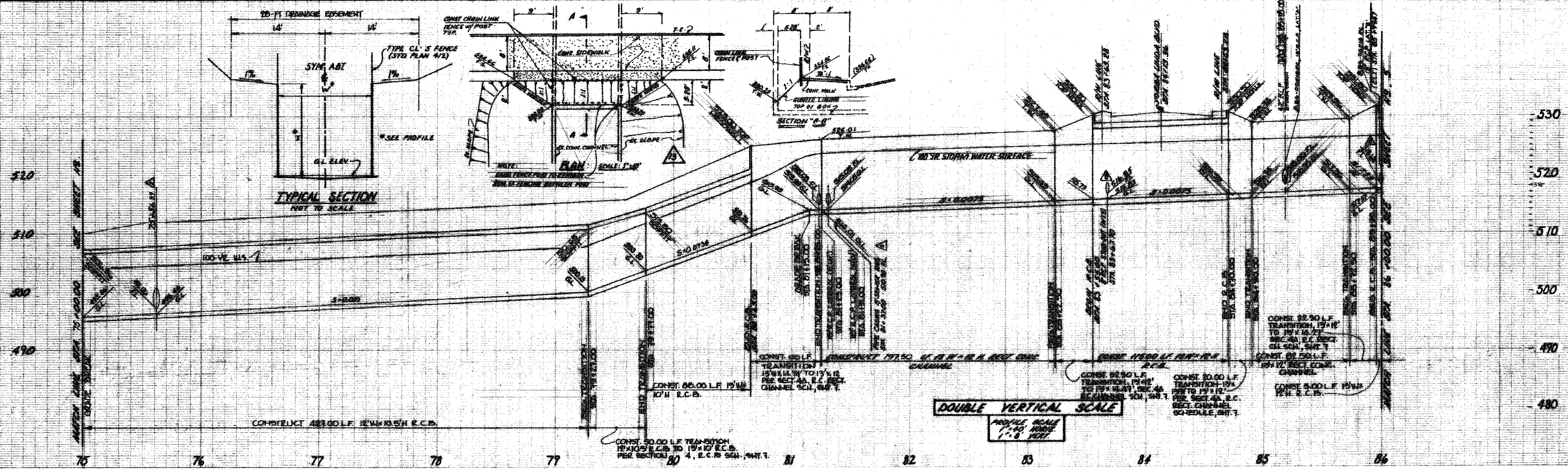
IMPROVEMENT PLANS	
TITLE SHEET	
ESPERANZA CHANNEL	
FACILITY E06	
DWG. E06-701-3	
SHEET 1 OF 7 SHEETS	

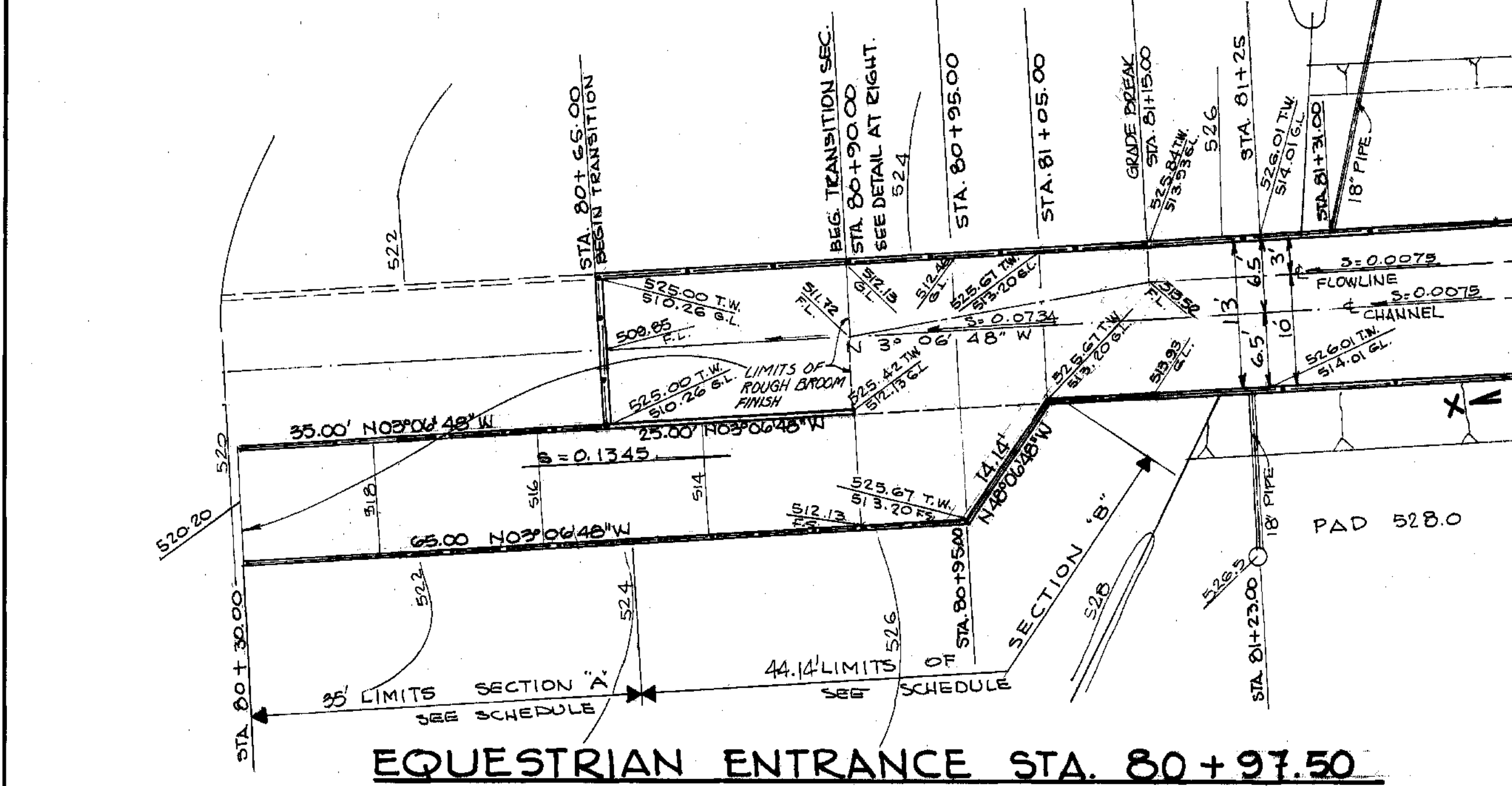
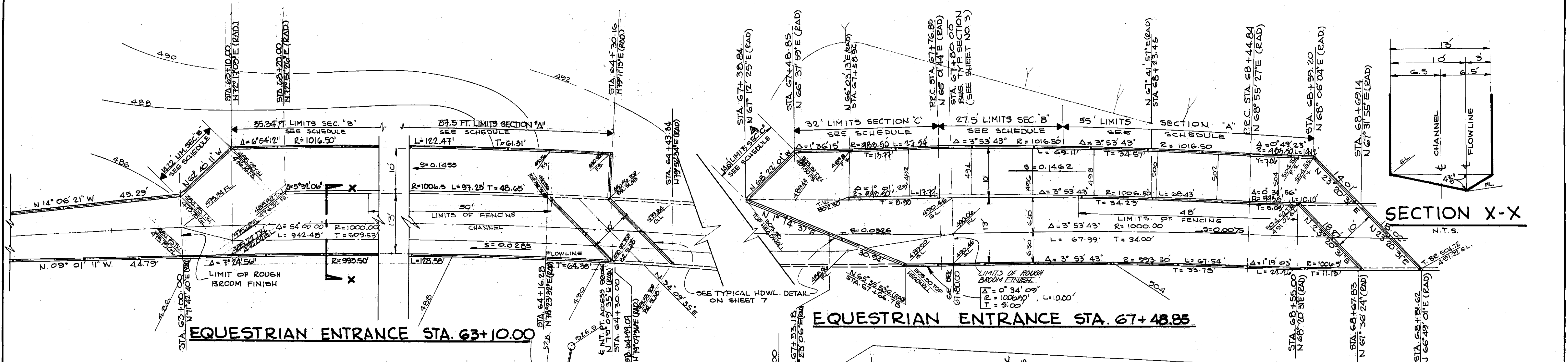


- CONSTRUCTION NOTES**
- ① CONSTRUCT PIPE CONNECTION PER DETAIL SHEET 7.
 - ② CONSTRUCT JUNCTION STRUCTURE PER O.C.E.M.A. STD. PLAN 314.
 - ③ CONSTRUCT STEEL PIPE ENCASED SEWER CROSSING PER DETAIL THIS SHEET.
 - ④ CONSTRUCT GROUNDED ROCK RIP-RAP PROTECTION PER DETAIL SHEET 7.
 - ⑤ CONSTRUCT TYP. CL-5 FENCE PER STD. PLAN 412.
 - ⑥ CONSTRUCT OUTLET BASIN PER DETAIL SHT. 7.

HYDRAULIC DATA							
STA. TO STA.	Q	S ₀	N	D ₀	V ₀	D _c	V _c
91+40.21-91+28.21	3000	0.0375	0.014	8.01	41.61	15.11	22.06
91+28.21-91+08.21	3000	0.075	0.014	6.08	54.79	15.11	22.06
91+08.21-60+00	3000	0.0375	0.014	8.01	41.61	15.11	22.06

TRACT NO. 10265 & 10266
 ESPERANZA CHANNEL
 FACILITY EOG IMPROVEMENTS
 DWG. E06-T01-3
 SHEET 2 OF 7 SHEETS

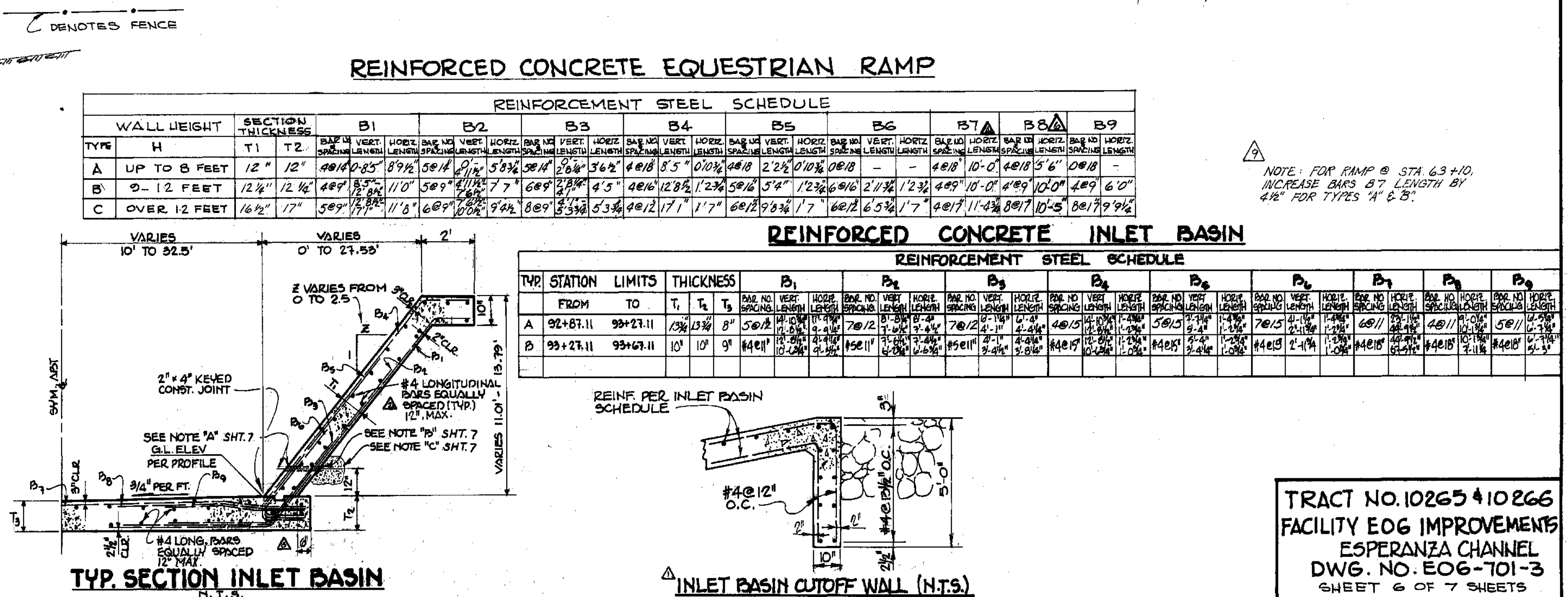
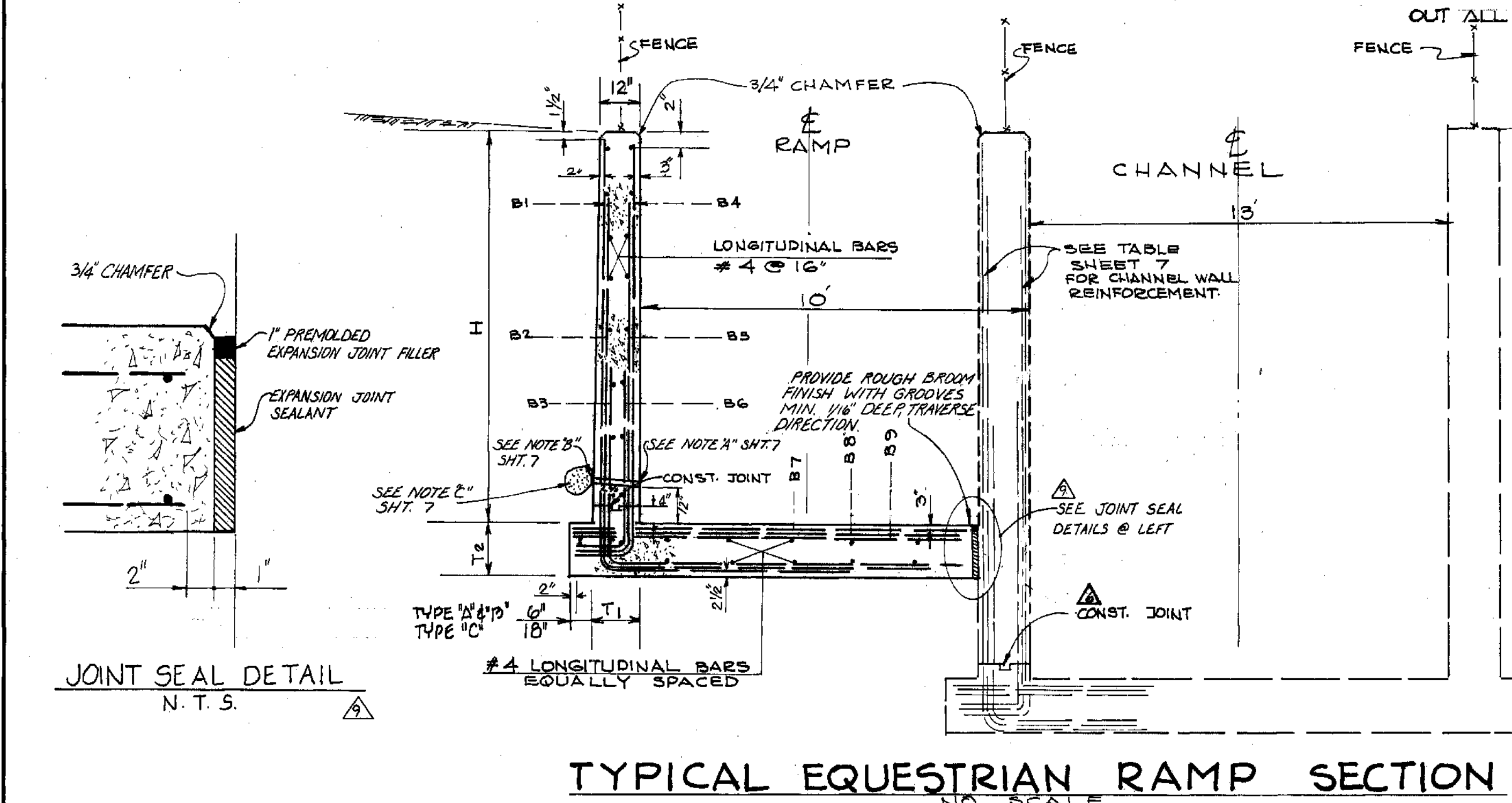
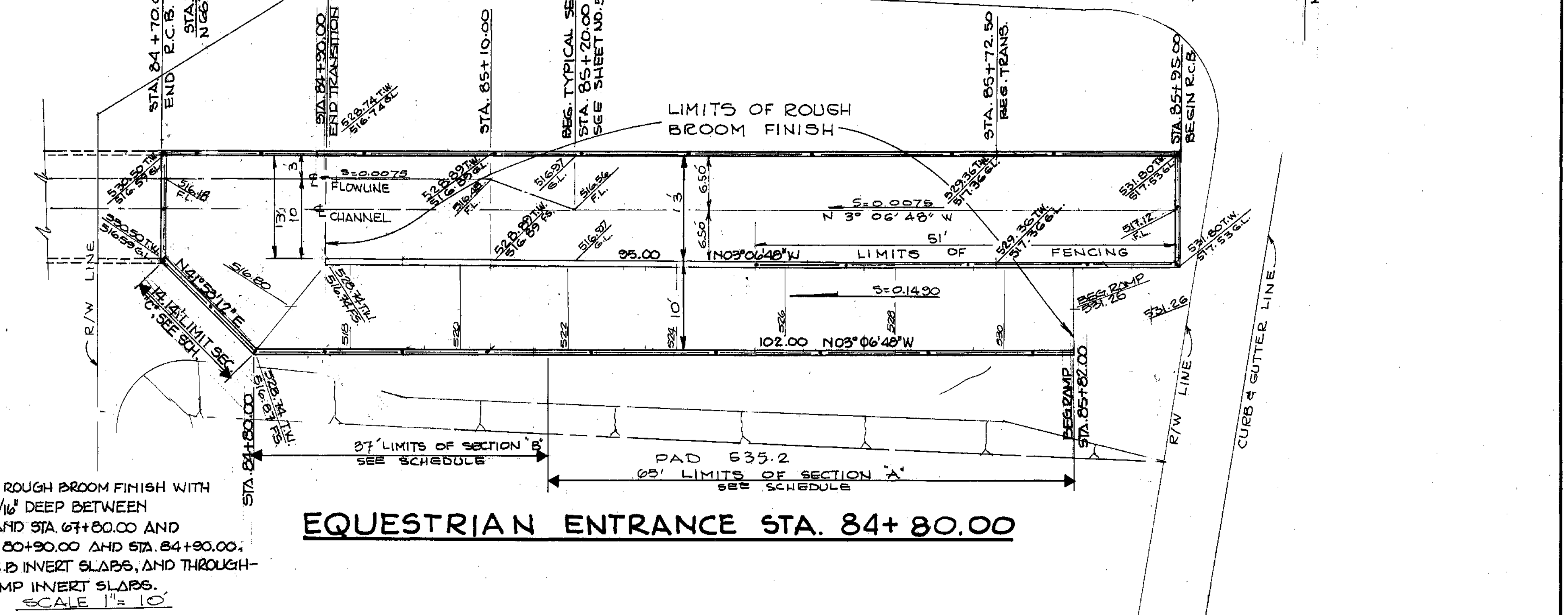




NOTE: PROVIDE ROUGH BROOM FINISH WITH GROOVES MIN. 1/16" DEEP BETWEEN STA. 63+00.00 AND STA. 67+80.00 AND BETWEEN STA. 80+90.00 AND STA. 84+90.00. CHANNEL & R.C.B. INVERT SLABS, AND THROUGH-OUT ALL RAMP INVERT SLABS.

SCALE 1" = 10'

⌄ DENOTES FENCE

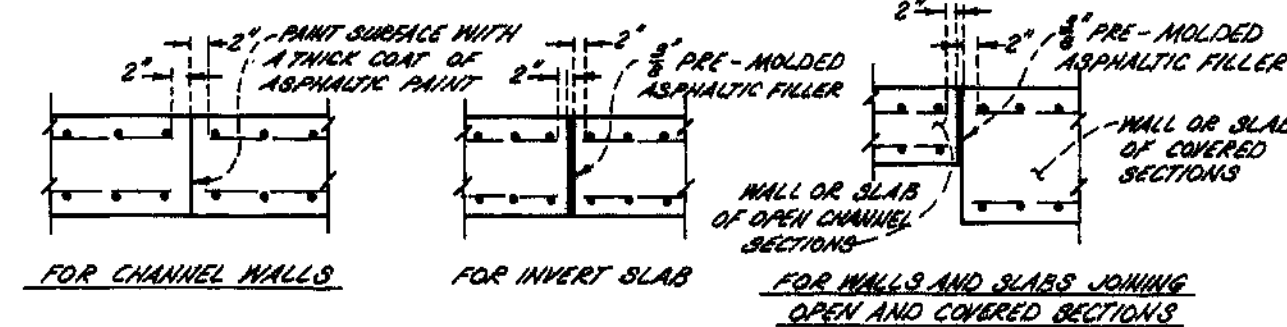
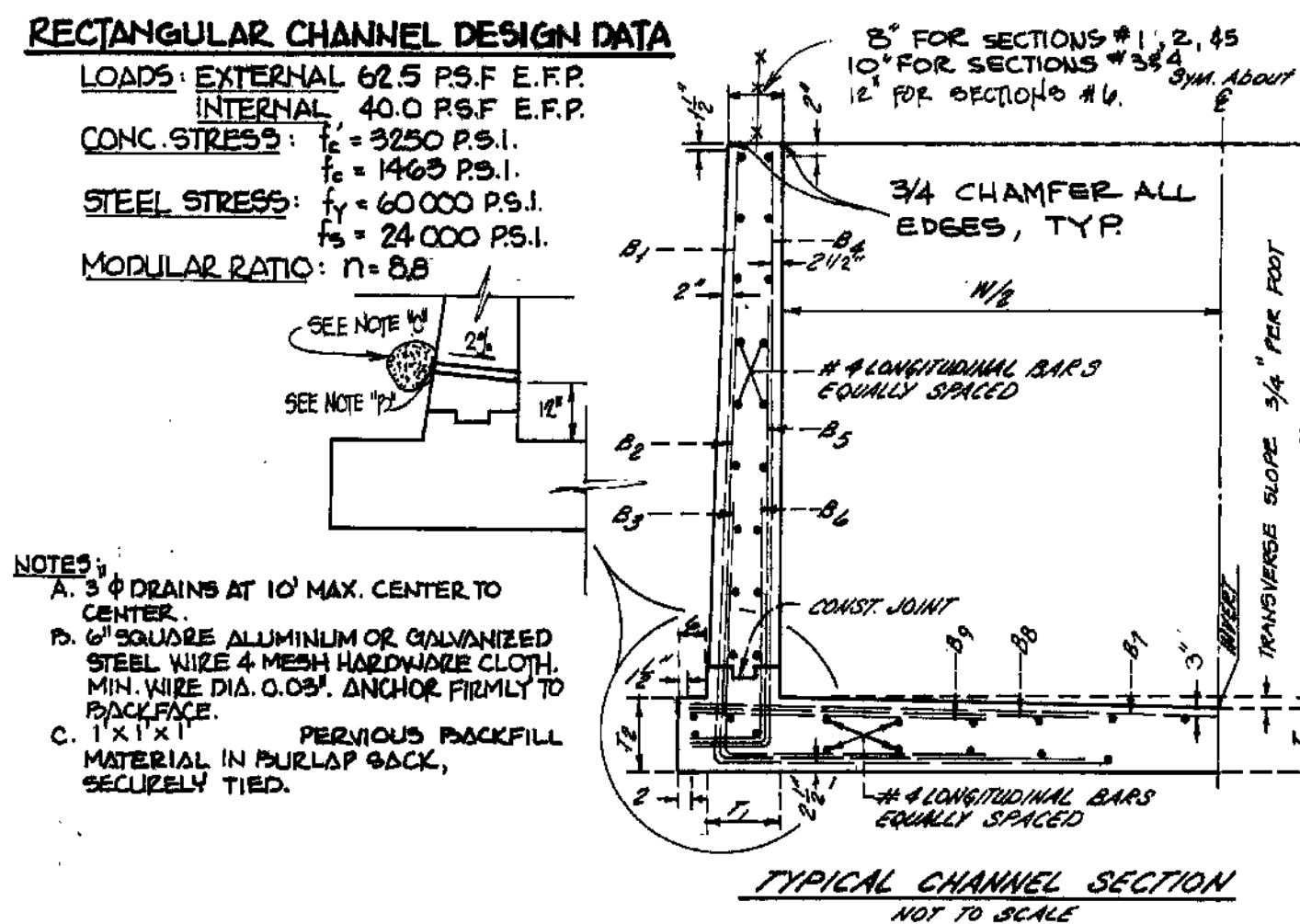


SECTION	SECTION DATA					QUANTITIES		REINFORCEMENT STEEL SCHEDULE																								LONGITUDINAL BARS													
	STATION LIMITS		SIZE		THICKNESS (INCHES)	CONCRETE CUM. VOL. YD.	STEEL CUM. WT. LBS.	B ₁				B ₂				B ₃				B ₄				B ₅				B ₆						B ₇				B ₈				B ₉			
								HEAT		HEAT		HEAT		HEAT		HEAT		HEAT		HEAT		HEAT		HEAT		HEAT		HEAT		HEAT				HEAT		HEAT		HEAT		HEAT		HEAT			
								NO.	SIZE	NO.	SIZE	NO.	SIZE	NO.	SIZE	NO.	SIZE	NO.	SIZE	NO.	SIZE	NO.	SIZE	NO.	SIZE	NO.	SIZE	NO.	SIZE	NO.	SIZE			NO.	SIZE	NO.	SIZE	NO.	SIZE	NO.	SIZE	NO.	SIZE	NO.	SIZE
1	51+75.00 - 52+58.00	9.0	9.0	8	9	0.75	114.3	40#11	9-4#	5-8"	40#11	3-9"	4-6"	50#11	2-4#	2-10#	40#6	9-4#	0-10#	40#6	3-6#	0-10#	40#10	4-9#	0-11#	50#10	2-6#	0-11#	50#13	15-3#	40#3	6-1#	40#13	4-2#	48	24	18								
2	52+58.00 - 53+100.00	13.0	10.0	9#	8	0.95	145.0	40#14	0-5#	7-8#	60#14	5-4#	5-2#	60#14	2-7#	3-3#	40#10	0-5#	0-11#	50#10	4-9#	0-11#	50#10	2-6#	0-11#	50#13	15-3#	40#3	6-1#	40#13	4-2#	48	24	24											
3	53+100.00 - 54+25.00	12.0	11#	11#	8#	1.28	215.2	50#12	0-7#	8-10	60#12	5-6#	6-4#	60#12	2-11"	3-8#	40#10	0-7#	1-1#	50#10	6-1#	1-1#	50#10	3-6#	1-1#	70#10	15-8"	50#16	15-8"	40#6	5-6#	58	32	26											
4	54+25.00 - 55+125.00	12.0	11#	11#	8#	1.28	215.2	50#12	0-7#	8-10	60#12	5-6#	6-4#	60#12	2-11"	3-8#	40#10	0-7#	1-1#	50#10	6-1#	1-1#	50#10	3-6#	1-1#	70#10	15-8"	50#16	15-8"	40#6	5-6#	58	32	26											
4A	55+125.00 - 56+100.00	13.0	14.0	10#	10#	1.73	308.9	50#12	14-3#	8-3#	70#12	7-3"	8-7"	70#12	3-8#	4-7#	40#15	4-0#	1-3#	50#15	7-9#	1-3#	70#15	4-10#	1-3#	80#10	16-4"	80#10	16-4"			78	48	30											
5	56+100.00 - 59+190.00	13.0	11.0	10#	8	1.15	274.0	40#11	11-6#	7-10"	50#11	6-3#	5-9"	60#11	3-9#	3-9#	40#16	11-6#	1-1#	50#16	5-2#	1-1#	60#16	2-8#	1-1#	60#14	15-6"	40#14	15-6"	40#14	5-3#	52	28	24											
6	59+190.00 - 60+125.00	20.0	14.0	13#	8	1.89	321.2	50#12	14-9#	11-9#	70#12	7-3"	7-8#	70#12	3-8#	4-8#	40#15	14-9#	1-3#	50#15	7-9#	1-3#	70#15	4-10#	1-3#	60#11	23-0"	40#11	8-4#	50#11	6-8#	90	48	42											

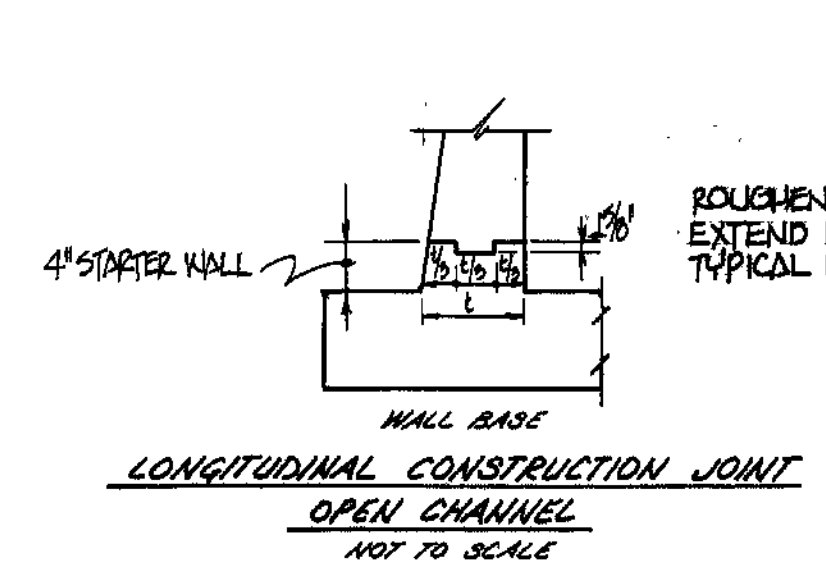
LOADS: EXTERNAL 62.5 PSF E.F.P.
INTERNAL 40.0 PSF E.F.P.
CONC. STRESS: $f_c = 3250$ P.S.I.
 $f_c = 1463$ P.S.I.
STEEL STRESS: $f_y = 60,000$ P.S.I.
 $f_s = 24,000$ P.S.I.
MODULAR RATIO: $n = 8.8$

NOTES:

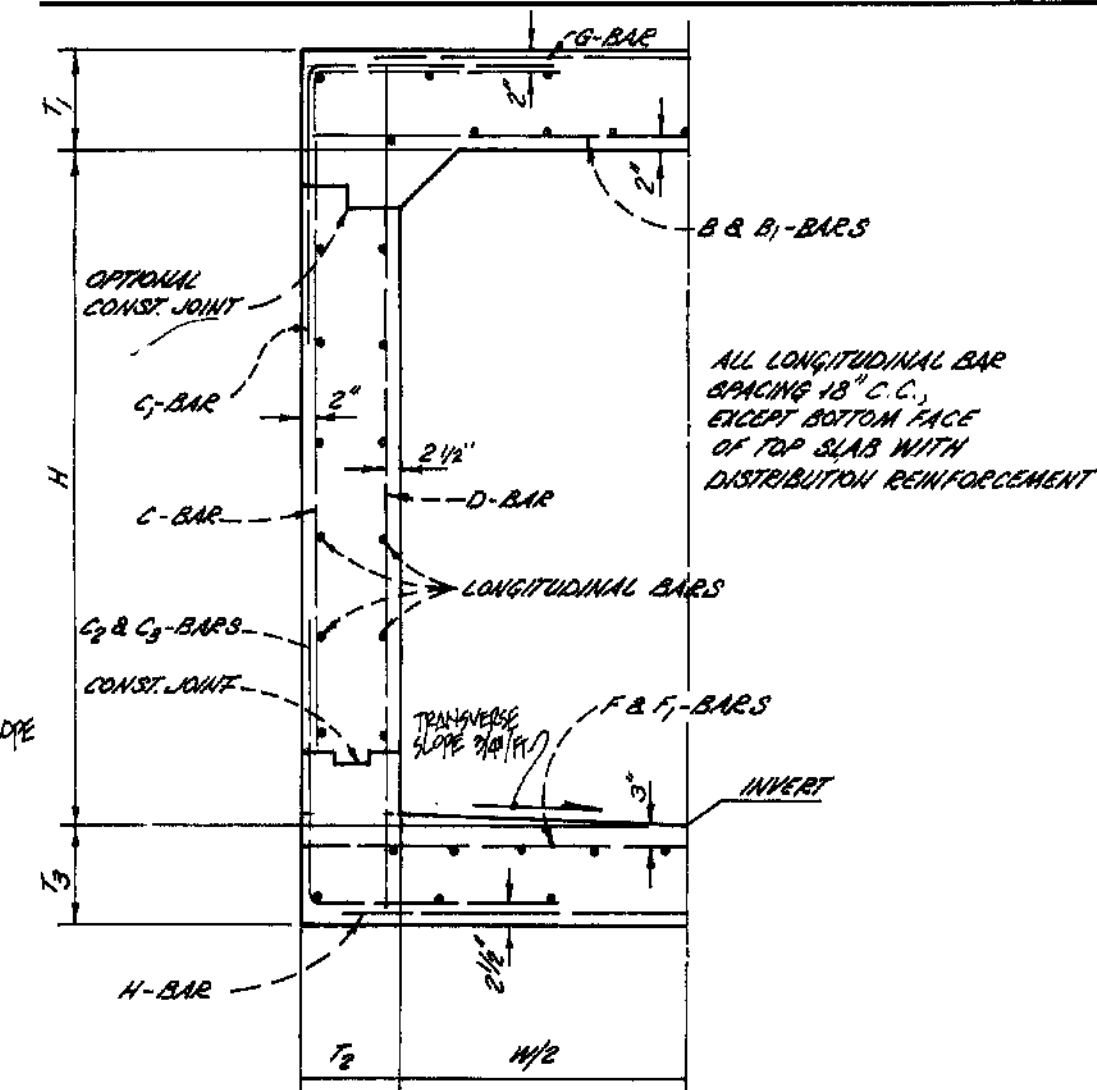
- A. 3 ϕ DRAINS AT 10' MAX. CENTER TO CENTER.
- B. 6" SQUARE ALUMINUM OR GALVANIZED STEEL WIRE 4 MESH HARDWARE CLOTH. MIN. WIRE DIA. 0.03". ANCHOR FIRMLY TO BACKFACE.
- C. 1'x1' PERVIOUS BACKFILL MATERIAL IN BURLAP BAG, SECURELY TIED.



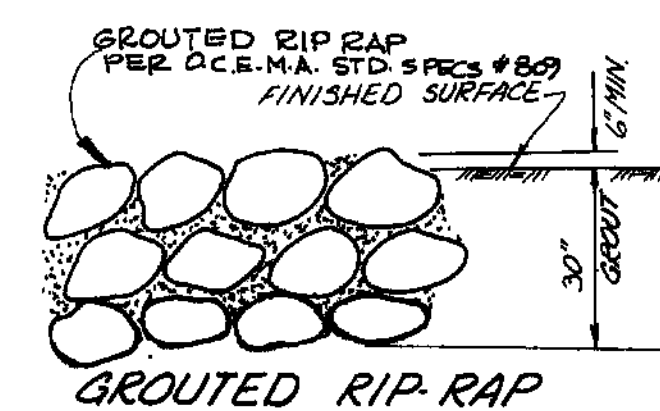
NOT TO SCALE



CG-BAE



NO SCALE

[illegible]

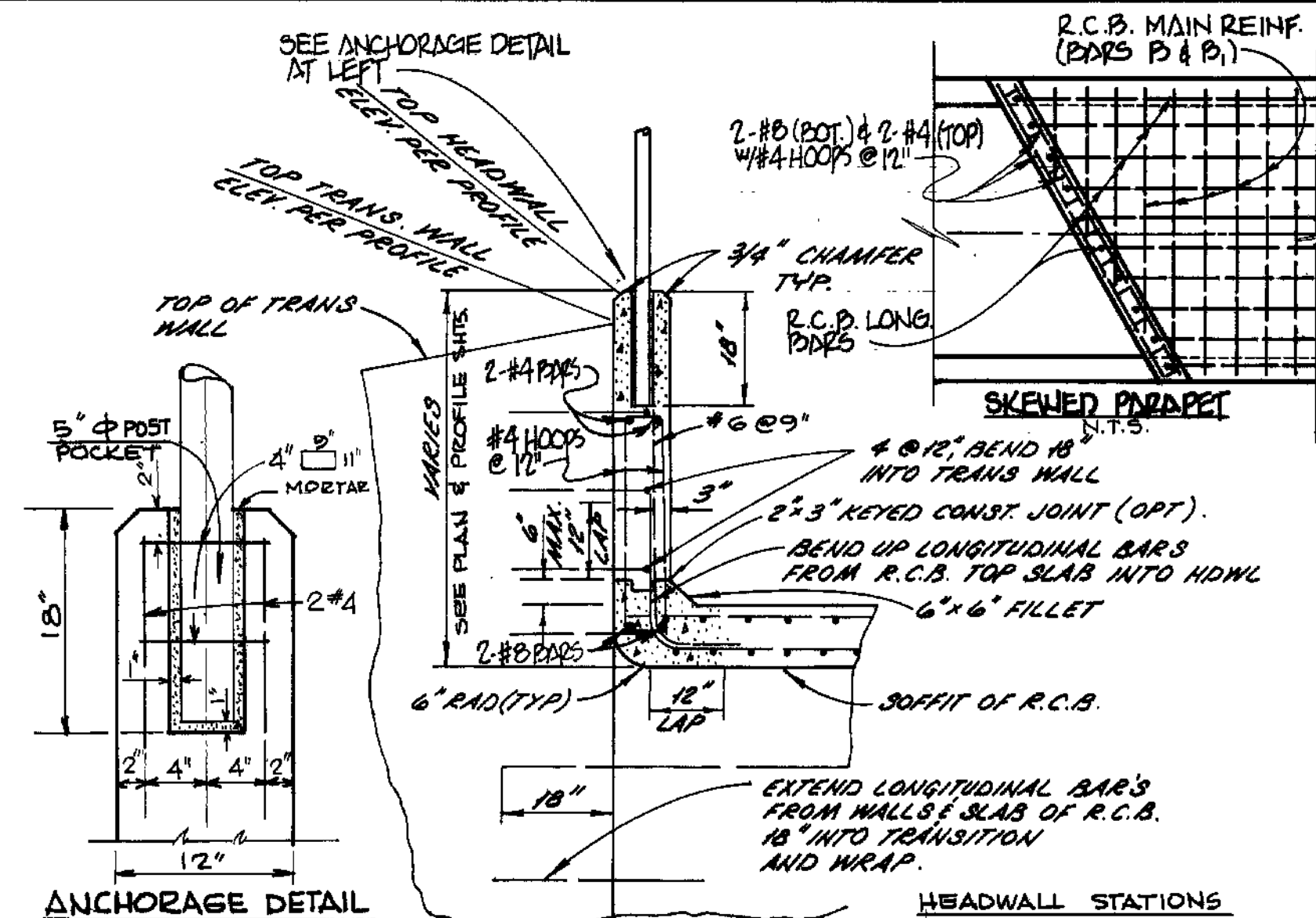
NOTE: GRouted RIPRAP PER OCEMA. STD. PLAN 809
EXCEPT AS NOTED HEREON.

GRADUATION

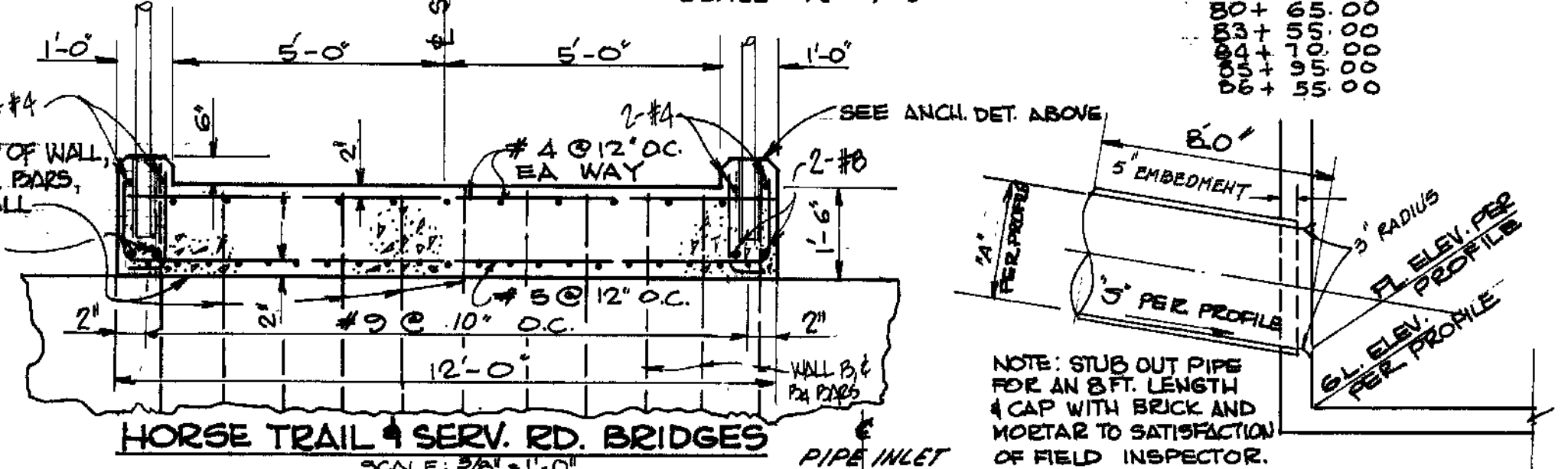
<u>% LIGHTER BY WEIGHT</u>	<u>LIMITS OF STONE WEIGHT (L.B.)</u>
100	2200-880
50	650-440
15	345-138

- STONE SHALL BE BRUSHED UNTIL FROM ONE-FOURTH TO ONE-HALF OF THE DEPTH OF SURFACE STONE IS EXPOSED.

REINFORCEMENT STEEL CONCRETE

[illegible]

SCALE: $\frac{1}{2}" = 1'-0"$



N.T.S.

STANDARD VERT. REINF. PLUS ADDITIONAL 5 BARS CORRESPONDING IN SIZE & NUMBER TO BARS CUT BY THE OPENING. PLACE HALF ON EACH SIDE. EXTEND THE ADDITIONAL BARS INTO THE FISTING THE SAME AS OTHER WALL REINFORCING TO A MINIMUM OF 60 BAR DIA ABOVE THE TOP OF UTILITY OPENING IF WALL HEIGHT PERMITS. BUNDLE BARS AS REQUIRED.

THE VERTICAL AT THE BASE

IN ALL SECTIONS THE HEIGHT OF MAINTAIN A 30"

7. CONCRETE QUANTITY

8. IF WALL THICKNESS

—2-8" A x 4'-0" TOT. &

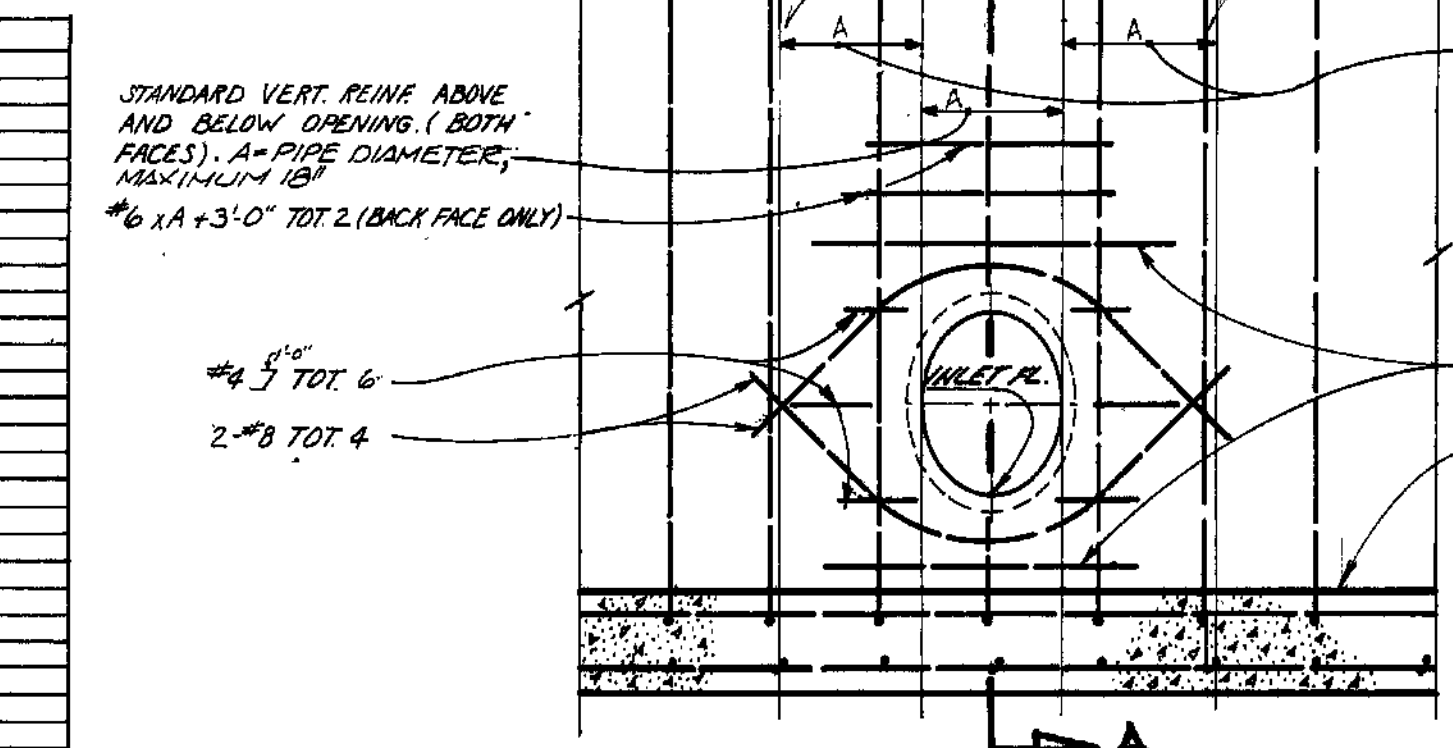
GRADE LINE

HORIZ. REINF. TO BE STANDARD EXCEPT AS SHOWN.

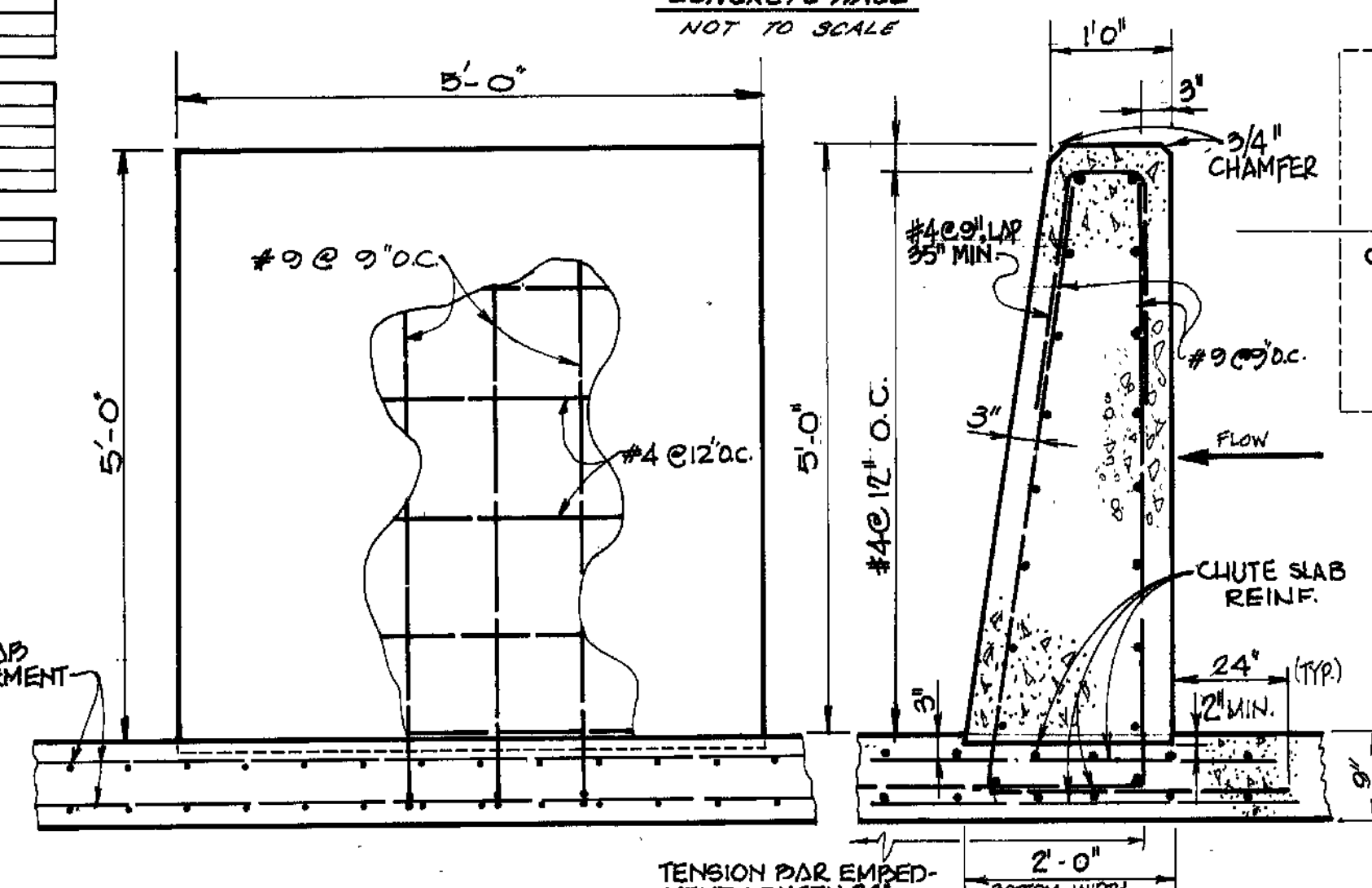
ALL REINF. TO CLEAR OPENING BY 2" MIN.

EXPANSION JOINTS SHALL NOT BE LOCATED WITHIN THE LIMITS OF SPECIAL REINFORCING (MINIMUM OF 30")

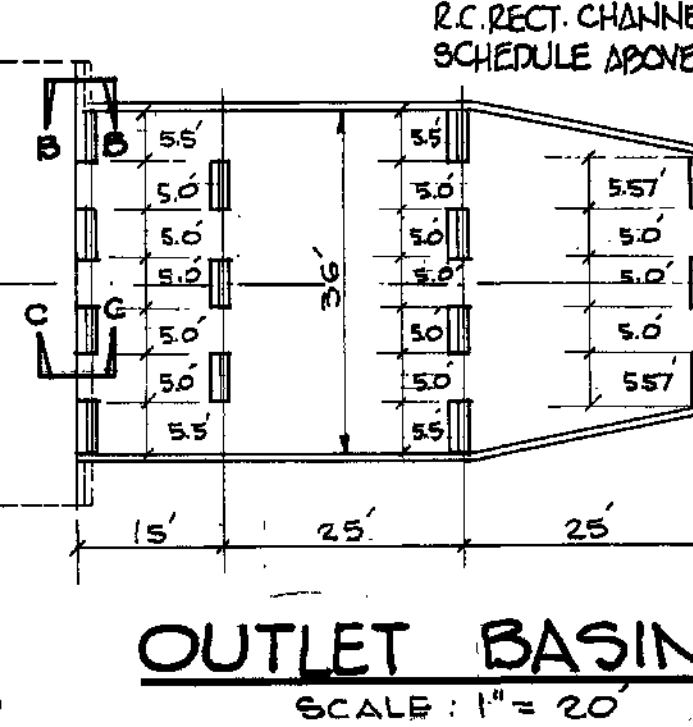
LIMITS OF SPECIAL REINF. 3 PIPE DIAMETERS 'A' AT 54.4M. ABOVE PIPE CENTERLINE.



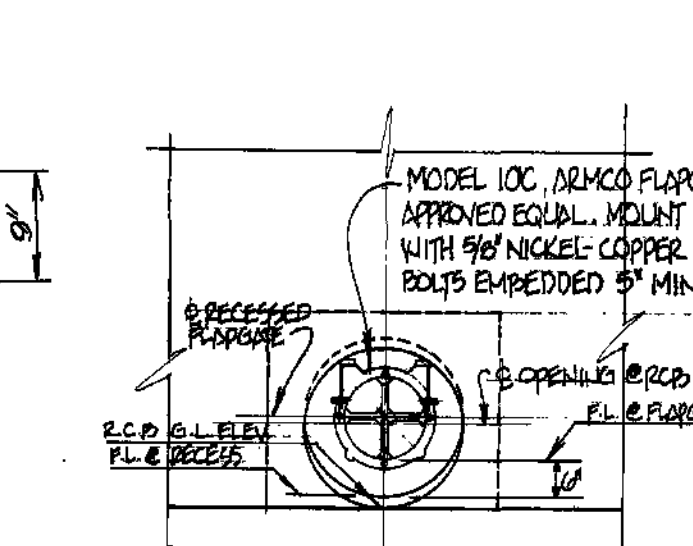
CONCRETE WALL



N.T.S.



SCALE : 1" = 20'

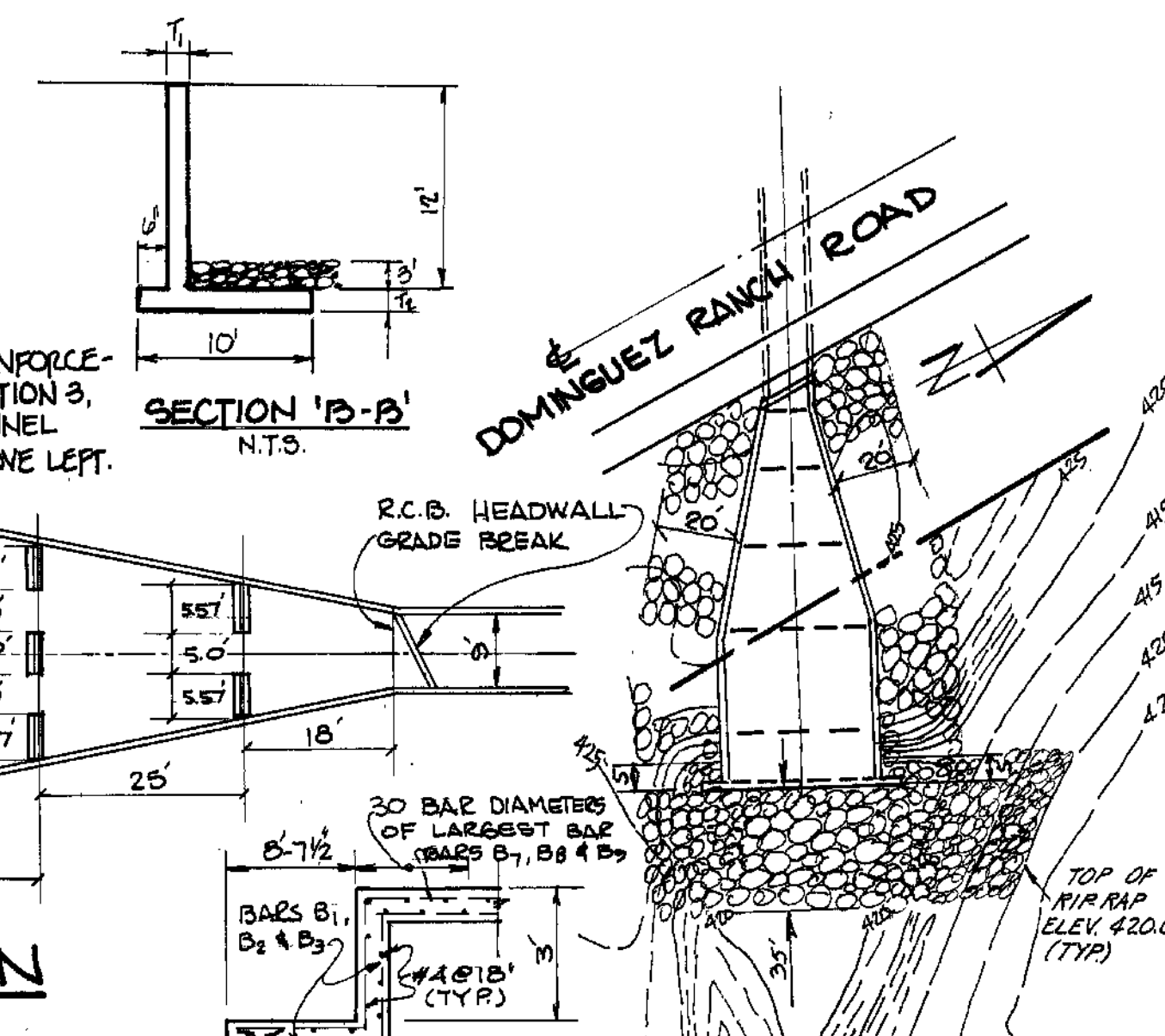


1. ALL BAR BENDS AND HOOKS SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE'S "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" SECTION 804.
2. PLACING OF REINFORCEMENT SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE'S "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" SECTION 805.
3. TRANSVERSE CONSTRUCTION JOINTS SHALL NOT BE PLACED WITHIN 30 INCHES OF MAJOR OR JUNCTION STRUCTURE OPENINGS.
4. TRANSVERSE CONSTRUCTION JOINTS IN WALLS AND SLABS SHALL BE IN THE SAME PLANE. NO STAGGERING OF JOINTS WILL BE PERMITTED. TRANSVERSE CONSTRUCTION JOINTS SHALL BE NORMAL OR RADIAL TO THE CENTERLINE OF CONSTRUCTION.
5. THE TRANSVERSE REINFORCING STEEL SHALL TERMINATE ONE AND ONE HALF INCHES FROM THE CONCRETE SURFACES UNLESS OTHERWISE SHOWN ON THE STRUCTURAL DETAILS.
6. EXPOSED EDGES OF CONCRETE MEMBERS SHALL BE ROUNDED OR BEVELED.
7. NO SPLICES IN TRANSVERSE STEEL REINFORCEMENT WILL BE PERMITTED OTHER THAN SHOWN ON THE DRAWING WITHOUT APPROVAL OF THE ENGINEER. NO MORE THAN TWO SPLICES WILL BE PERMITTED IN ANY LONGITUDINAL BAR BETWEEN TRANSVERSE JOINTS. SPLICES SHALL BE STAGGERED.
8. CHANNEL INVERT CONCRETE SHALL BE CLASS 550-B-750.
9. CHANNEL INVERT SURFACE SHALL BE GIVEN A STEEL TROWEL FINISH EXCEPT WHERE SPECIAL FINISH FOR EQUESTRIAN TRAIL IS REQUIRED.

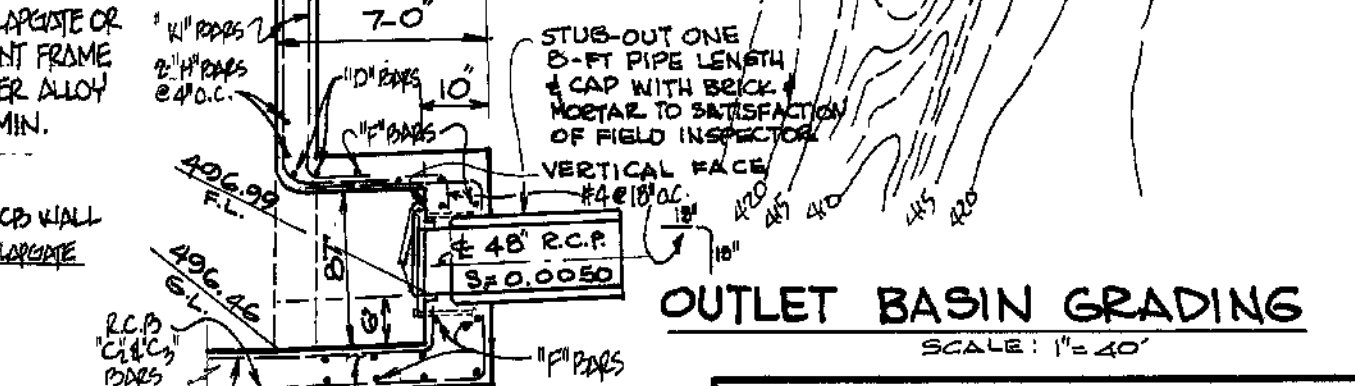
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1. LONGITUDINAL STEEL SHALL TERMINATE TWO INCHES FROM TRANSVERSE CONSTRUCTION JOINTS.
2. TRANSVERSE JOINTS SHALL BE SPACED NOT TO EXCEED 50 FEET NOR BE LESS THAN 10 FEET, MEASURED ALONG THE CENTERLINE OF CONSTRUCTION, EXCEPT AS OTHERWISE SHOWN ON THE DRAWINGS.
3. TRANSVERSE JOINTS SHALL BE PLACED AT THE JUNCTION OF RECTANGULAR OPEN CHANNEL SECTIONS WITH CLOSED CONDUIT SECTIONS.
4. ALL RECTANGULAR OPEN CHANNEL WALLS SHALL BE JOINED IN ACCORDANCE WITH STANDARD DRAWING #22, EXCEPT AS OTHERWISE SHOWN ON THE DRAWINGS.
5. UNLESS OTHERWISE SHOWN ON THE DRAWINGS, IN CURVED SECTIONS THE MAXIMUM SPACING OF BARS SHALL NOT EXCEED THAT SHOWN ON THE TYPICAL SECTIONS. STEEL SHALL BE PLACED RADIALLY FROM THE MAXIMUM SPACING.
6. AT THE BEGINNING AND ENDING OF ALL TURNS, A COMPLETE CURTAIN OF REINFORCEMENT COMPOSED OF B_1 , B_2 , AND B_3 BARS SHALL BE PLACED THREE INCHES FROM THE TRANSVERSE CONSTRUCTION JOINT.

1. LONGITUDINAL STEEL SHALL BE CONTINUOUS AND EXTEND THROUGH ALL CONSTRUCTION JOINTS.
2. UNLESS OTHERWISE SHOWN ON THE DRAWINGS TRANSVERSE JOINT KEYWAYS (IN BOTH SLABS AND WALLS), AS DETAILED FOR LONGITUDINAL KEYWAYS AT THE TOP OF THE WALLS, SHALL BE PLACED AT THE END OF EACH POUR, BUT THE SPACING THEREOF SHALL NOT EXCEED 50 FEET OR BE LESS THAN 40 FEET. ALL CONSTRUCTION JOINTS IN BOTTOM SLAB, TOP SLAB, AND SIDE WALLS SHALL BE IN THE SAME PLANE. NO STAGGERING OF JOINTS WILL BE PERMITTED.
3. UNLESS OTHERWISE SHOWN ON THE DETAILS, IN CURVED SECTIONS TRANSVERSE BARS SHALL BE PLACED RADICALLY, STRAIGHT TRANSVERSE BARS IN TOP AND BOTTOM SLABS SHALL BE SPACED AS SHOWN ON THE TYPICAL SECTIONS, SPACING SHALL BE AT THE CENTERLINE OF CONSTRUCTION FOR SIMILARLY CURVED BARS. STRAIGHT J- AND L-BARS IN WALLS SHALL BE SPACED AS SHOWN ON THE TYPICAL SECTIONS, WITH THE SPACING MEASURED BETWEEN THE VERTICAL LEGS OF BARS.
4. AT THE BEGINNING AND ENDING OF ALL POURS, A CERTAIN OF REINFORCEMENT COMPOSED OF B, C, C_2 , D, F, G AND H BARS SHALL BE PLACED THREE INCHES FROM THE TRANSVERSE CONSTRUCTION JOINT.
5. THE VERTICAL WALL STEEL IN INTERIOR WALLS AND IN THE INTERIOR FACE OF EXTERIOR WALLS MAY BE SPLICED AT THE CONSTRUCTION JOINT AT THE BASE OF THE WALL. THE SPLICE SHALL BE 20 BAR DIAMETERS IN LENGTH.
6. IN ALL SECTIONS LAP C AND C_2 BARS, THE VERTICAL LENGTH OF C AND C_2 BARS HAS BEEN CALCULATED FOR A FOUR INCH STARTER WALL. IF THE HEIGHT OF THE STARTER WALL IS VARIED, THE VERTICAL LENGTH OF THE C AND C_2 BARS SHALL BE VARIED CORRESPONDINGLY SO AS TO MAINTAIN A 30 DIAMETER LAP BETWEEN THE TWO BARS. THE LAPS SHALL BE BASED ON THE SMALLER BAR.
7. CONCRETE QUANTITIES ARE BASED ON A SIX-BY-SIX-INCH FILLET AND THE STEEL QUANTITIES DO NOT INCLUDE ANY OPTIONAL SPLICES.
8. IF WALL THICKNESS IS SIX INCHES, PLACE REINFORCEMENT AT THE CENTERLINE OF THE WALL.



N.T.S.



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SHEET 7 OF 7 SHEETS

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