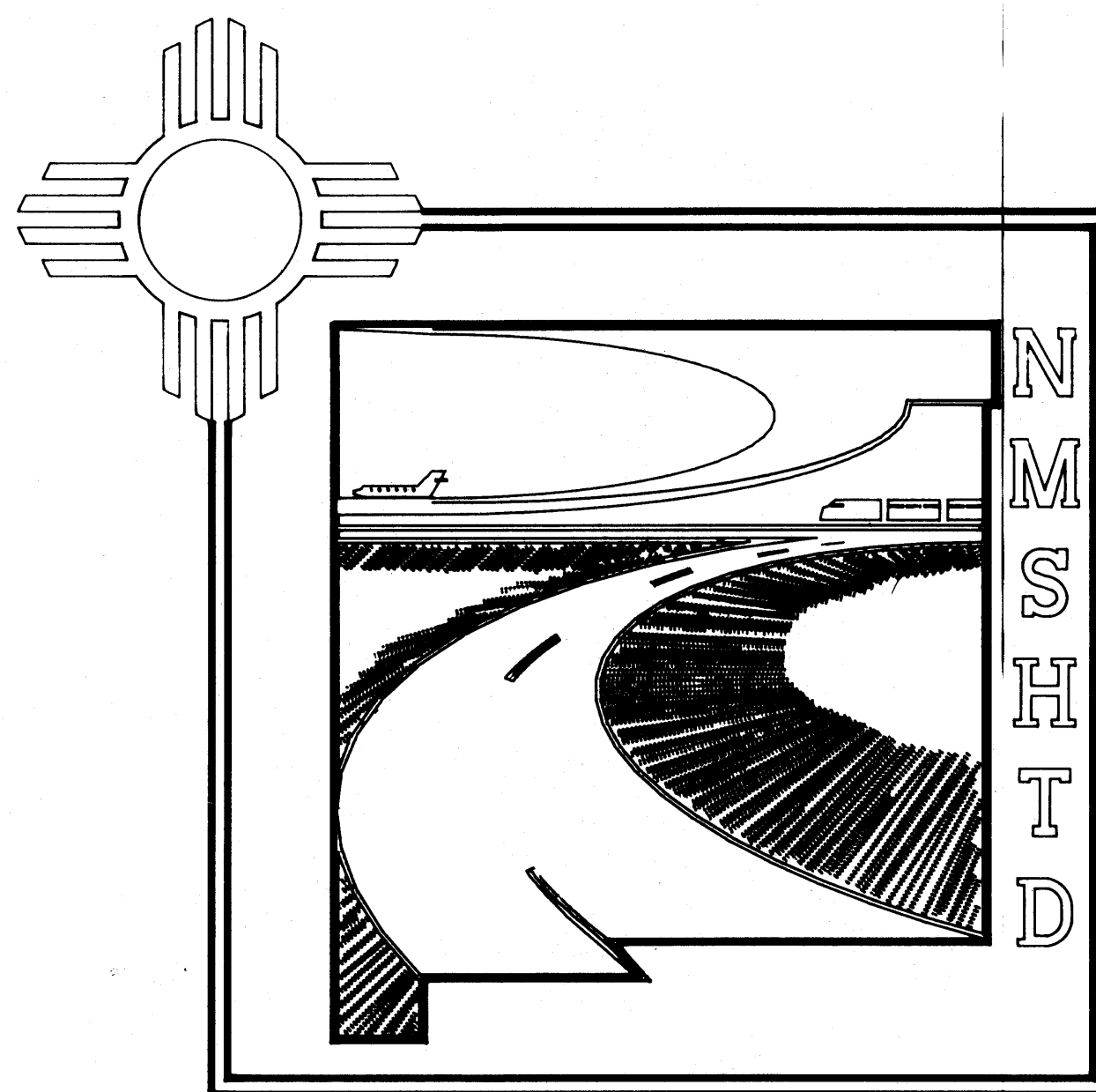


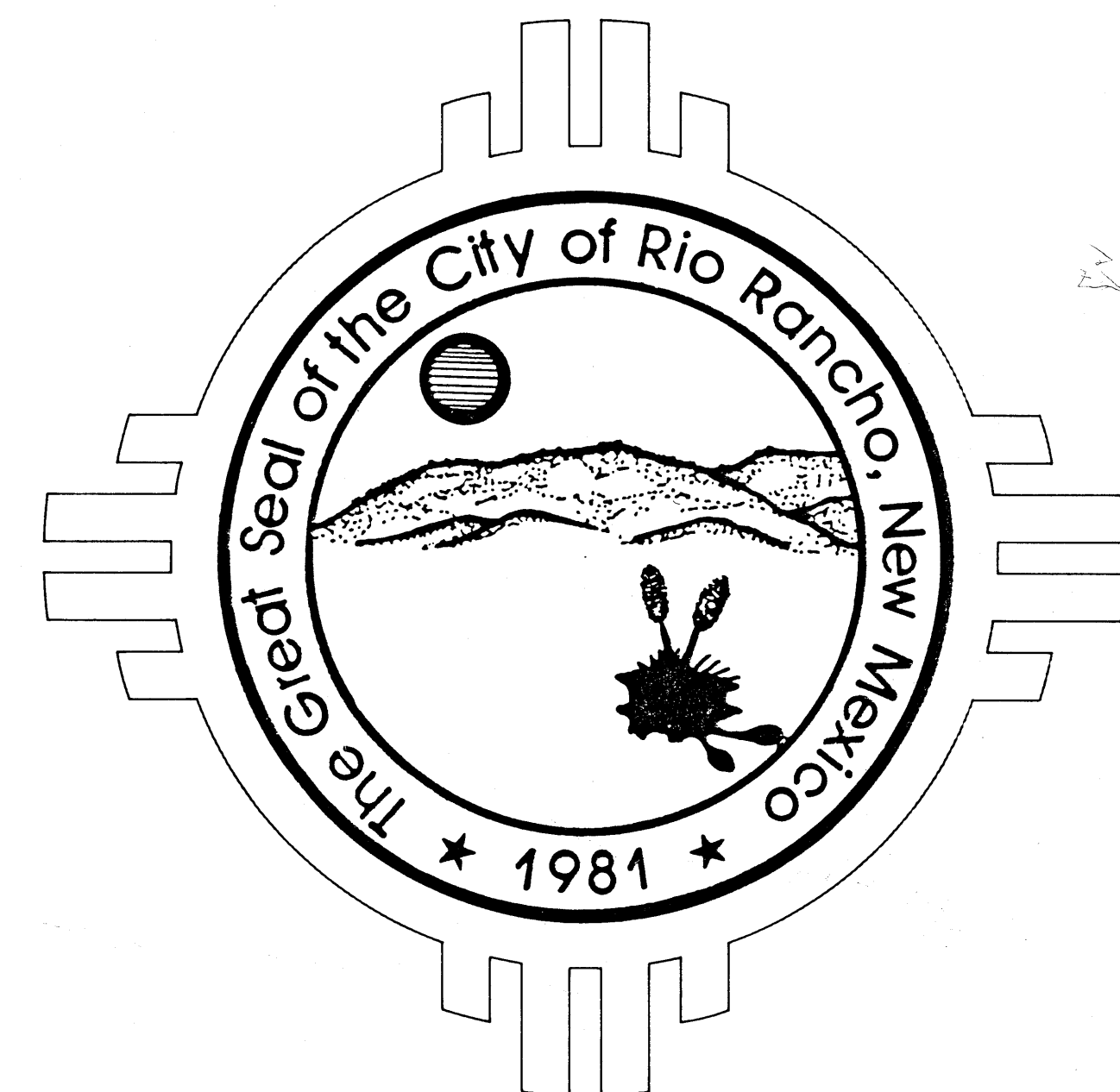
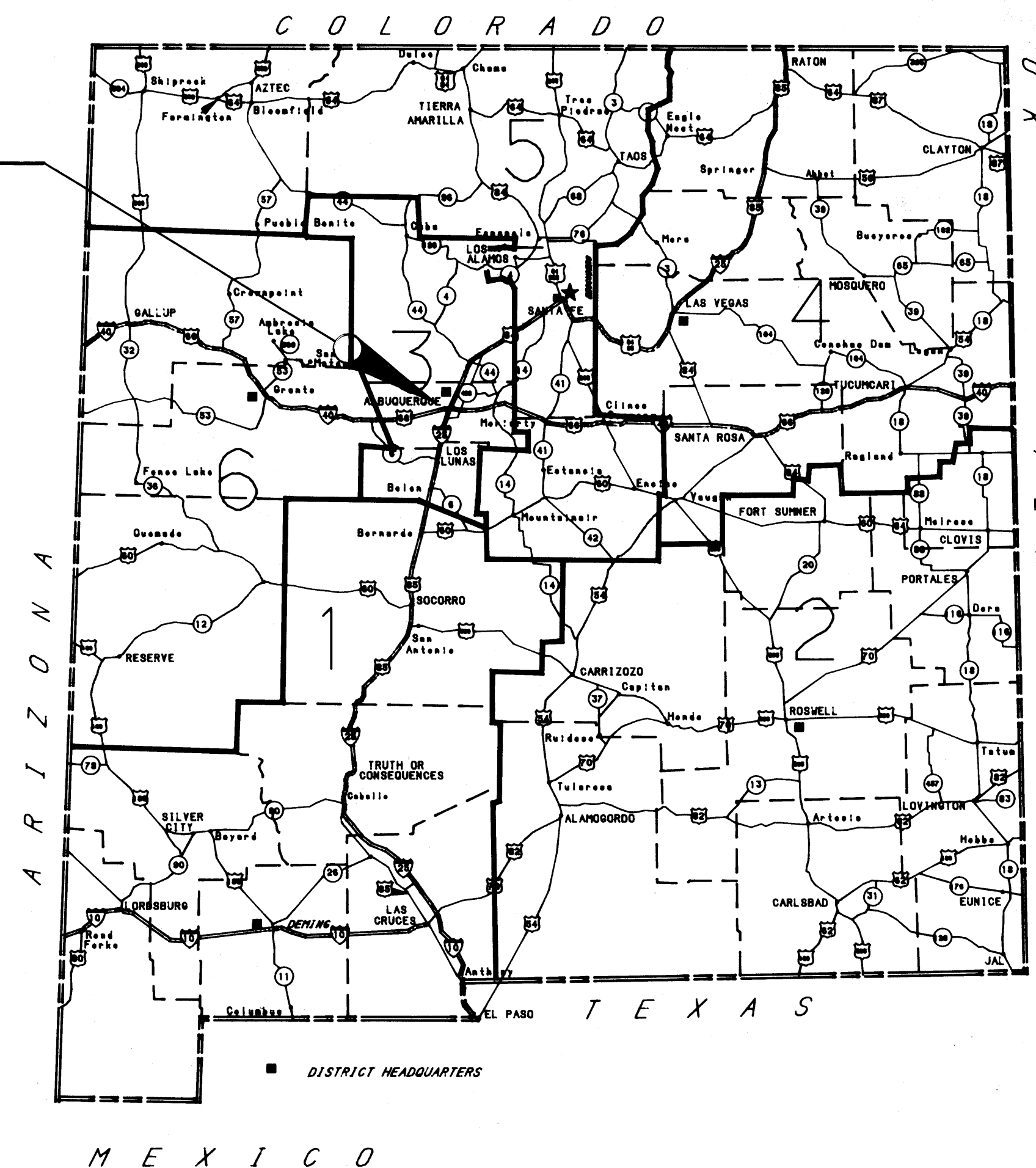
NEW MEXICO STATE HIGHWAY & TRANSPORTATION DEPARTMENT CONSTRUCTION PLANS

SP - PS - 1315(201)

SANDOVAL COUNTY



N.M.P. SP-PS-1315(201)
N.M. S.R. 528 LIGHTING
(RIO RANCHO)



APPROVED: Dale Smith DATE: 6/24/88
PUBLIC SERVICE COMPANY OF NEW MEXICO

APPROVED: R. J. King DATE: 6/27/88
DESIGN DIVISION DIRECTOR
P.E. NO. 5680

APPROVED: Lowell D. Foster DATE: 6/29/88
CITY OF RIO RANCHO

CONVENTIONAL
ON PLAN

RIGHT OF WAY LINE
STATE LINE
COUNTY LINE
LAND GRANT LINE
TOWNSHIP OR RANGE LINE
SECTION LINE
CITY OR TOWN LIMIT
UNFENCED PROPERTY LINE
REFERENCE LINE & POINT
WIRE FENCE
RAIL FENCE
STONE OR ADOBE FENCE
PICKET FENCE
TELEPHONE-TELEGRAPH LINE
PROTECTION DITCH & DIKE
RETAINING WALL
ARROYO
RIVER OR CREEK
IRRIGATION DITCH
CONCRETE SIDEWALK
PRESENT TRAVELED ROAD
TRAIL
RAILROAD-TITLE PAGE
RAILROAD-PLAN PAGE

RIGHT OF WAY LINE
PT 6+73.4
RAILROAD
CATTLEGUARD
HIGHWAY
CATTLEGUARD
BRIDGE
CULVERT
SPILLWAY
HOUSE
VACANT
CHURCH
CEMETERY
SCHOOL
TOWN-TITLE PAGE
BLUFF OR HILL
SURFACING PIT
TREE
WINDMILL
ARTESIAN WELL
SECTION CORNER
BENCH MARK
1235

BRIDGE
PIPE CULVERT
BOX CULVERT
VERTICAL CURVE
DATUM LINE
GROUND ELEVATION
DATUM LINE
GRADE ELEVATION

BOOK NUMBERS
NONE

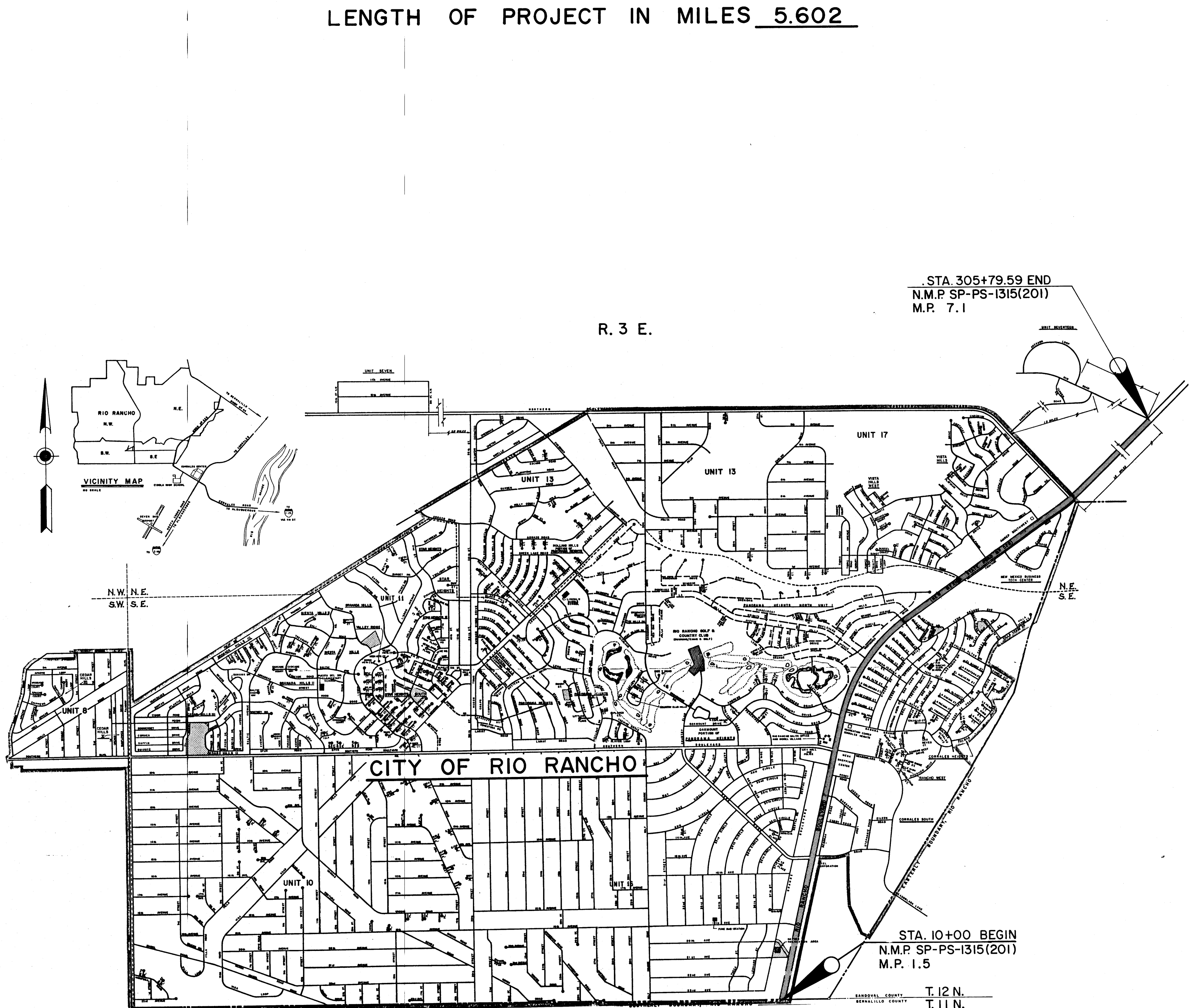
SCALES (PLAN 1"=100'
PROFILE N/A
LAYOUT 1"=2500')

SHIPPING POINTS
ALBUQUERQUE

NEW MEXICO STATE HIGHWAY DEPARTMENT STANDARD
SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
EDITION OF 1984 SHALL GOVERN CONSTRUCTION OF
THIS PROJECT.

LEGEND

THIS CONTRACT
BITUMINOUS SURFACED
GRAVEL SURFACED
GRADED AND DRAINED
UNIMPROVED
PRIMITIVE
CONCRETE SURFACED



TYPE OF CONSTRUCTION

NEW CONSTRUCTION

INSTALLATION OF STREET LIGHTING, INCLUDING
UNDERGROUND CONDUIT, LIGHTING CONTROLLERS,
LUMINAIRES, STANDARDS AND PHOTOCCELL
CONTROLLERS.

F.H.W.A.
Region No.
6

STATE
NEW
MEXICO

N.M.P.
SP-PS-
1315(201)

SHEET
NO.
1-2

TOTAL
SHEETS
17

INDEX OF SHEETS

NUMBER	DESCRIPTION	REV	DATE	SERIAL
1-1	Cover Sheet			
1-2	Vicinity Map and Index of Sheets			
1-3	General Notes, Special Provisions and Supplemental Specifications			
1-4	Summary of Quantities			
	Sub-Total 4			
2-1	Median Standard Location Detail			
2-2	Electrical Details			
2-3	Roadway Lighting Details			
	Sub-Total 3			
3-1 to 3-3	Location Plans			
	Sub-Total 3			
4-1	Construction Traffic Control Plan 4-Lane - No Median			
4-2	Sign Face Details			
4-3	Barricades and Channelization Devices	3-15-80		
4-4	Traffic Control Devices For Construction Summary of Quantities			
	Sub-Total 4			
5-1	Type II and Type III Standards			
5-2	Type "V" Standards	05-13-77		TS-001
5-3	Type "V" Standards	05-01-80		TS-002
	Sub-Total 3			
	Project - Total 17			

THESE PLANS WERE DESIGNED AND / OR ASSEMBLED BY
GANNETT FLEMING / MATOTAN, INC

MICHAEL W. MALLOY
DESIGNER

FEB 27 1981
(505)265-8468
TELEPHONE NO

GENERAL NOTES

1. THE CONTRACTOR SHALL CONFINED HIS OPERATION TO THE CONSTRUCTION LIMITS OF THIS PROJECT AND WILL BE HELD RESPONSIBLE FOR ANY AGREEMENTS NECESSARY OR DAMAGE CAUSED BY HIS EQUIPMENT TO PUBLIC OR PRIVATE PROPERTY.
2. NO SUSPENSION OF TIME ON THIS PROJECT SHALL BE ALLOWED WITHOUT PRIOR DOCUMENTED NOTICE TO THE ENGINEER FROM THE CONTRACTOR CONCERNING A CRITICAL DELAY IN HIS RECEIPT OF MATERIALS.
3. THE CONTRACTOR WILL BE PERMITTED TO CLOSE ONE CONTINUOUS LANE AT A TIME. NO SIMULTANEOUS LANE CLOSURES WILL BE PERMITTED. NO LANE CLOSURES WILL BE PERMITTED BETWEEN THE HOURS OF 4:00 P.M. AND 8:30 A.M. OF THE FOLLOWING DAY.
4. ALL EXISTING UNDERGROUND UTILITIES AS SHOWN ON THE PLANS ARE FROM THE BEST INFORMATION AVAILABLE. THE CONTRACTOR IS TO EXERCISE CARE DURING CONSTRUCTION TO AVOID DISTURBING ANY EXISTING UNDERGROUND UTILITIES. IT SHALL BE HIS RESPONSIBILITY TO COORDINATE WITH THE UTILITY COMPANIES IN ORDER TO PREVENT AND SERVICE DISRUPTION. ANY DISRUPTION OF EXISTING UTILITIES RESULTING FROM THE CONTRACTOR'S CONSTRUCTION EFFORTS WILL BE REPAIRED BY THE CONTRACTOR AND NO SEPARATE MEASUREMENT OR PAYMENT WILL BE MADE, BUT SHALL BE CONSIDERED INCIDENTAL TO THE CONSTRUCTION OF THE PROJECT. UTILITY LOCATOR SERVICE IS REQUIRED BY CALLING 765-1234 48 HOURS IN ADVANCE OF REQUIRED SERVICE.
5. THE CONTRACTOR SHALL RECEIVE NO ADDITIONAL COMPENSATION FOR DELAYS, INCONVENIENCES OR DAMAGE SUSTAINED DUE TO ANY INTERFERENCES FROM SAID UTILITY APPURTENANCES OR THE OPERATION OF MOVING THEM, RESULTING FROM HIS NEGLIGENCE, AS DETERMINED BY THE ENGINEER.
6. NO PAVEMENT CUTS WILL BE PERMITTED. THE CONTRACTOR WILL BE REQUIRED TO PUSH ALL CONDUIT UNDER EXISTING PAVEMENT.
7. THE CONTRACTOR SHALL NOT PARK OR STORE EQUIPMENT WITHIN 30 FEET OF TRAVELED WAY.
8. ANY ITEM NEEDED FOR CONSTRUCTION OF THE PROJECT NOT COVERED BY A PAY ITEM IS TO BE CONSIDERED INCIDENTAL TO THE PROJECT CONSTRUCTION NO ADDITIONAL MEASUREMENT OR PAYMENT WILL BE MADE THEREFOR.

SUPPLEMENTAL SPECIFICATIONS

CITY OF RIO RANCHO

STS-101-1 MODIFYING SECTION 101 - DEFINITION & TERMS (AUG 87)
STS-105-1 MODIFYING SECTION 105 - CONTROL OF WORK (AUG 87)
STS-106-1 MODIFYING SECTION 106 - CONTROL OF MATERIALS (AUG 87)
STS-107-1 MODIFYING SECTION 107 - LEGAL RELATIONS & RESPONSIBILITY TO PUBLIC (AUG 87)
STS-108-1 MODIFYING SECTION 108 - PROSECUTION & PROGRESS (AUG 87)
STS-109-1 MODIFYING SECTION 109 - MEASUREMENT & PAYMENT (OCT 87)

NEW MEXICO STATE HIGHWAY DEPARTMENT

MODIFYING SECTION 101 - ABBREVIATIONS & DEFINITIONS
MODIFYING SECTION 102 - BIDDING REQUIREMENTS & CONDITIONS (1/14/87)
MODIFYING SECTION 103 - AWARD & EXECUTION OF CONTRACT (1/14/87)
MODIFYING SECTION 105 - CONTROL OF WORK (1/14/87)
MODIFYING SECTION 106 - CONTROL OF MATERIALS (1/14/87)
MODIFYING SECTION 107 - LEGAL RELATIONS & RESPONSIBILITY TO PUBLIC (1/14/87)
MODIFYING SECTION 108 - PROSECUTION & PROGRESS (1/14/87)
MODIFYING SECTION 109 - MEASUREMENT & PAYMENT (1/14/87)
MODIFYING SECTION 203 - EXCAVATION, BORROW AND EMBANKMENT (6/30/86)
MODIFYING SECTION 503 - PORTLAND CEMENT CONCRETE (11/20/86)
MODIFYING SECTION 504 - STEEL REINFORCEMENT (10/29/84)
MODIFYING SECTION 509 - CONCRETE STRUCTURES (2/19/87)
MODIFYING SECTION 702 - TRAFFIC CONTROL DEVICES FOR DETOURS (6/21/87)

NOTE: IN THE EVENT OF CONFLICT BETWEEN THE SUPPLEMENTAL SPECIFICATIONS OF THE CITY OF RIO RANCHO AND THE NEW MEXICO STATE HIGHWAY AND TRANSPORTATION DEPARTMENT THE CITY OF RIO RANCHO DIVISION 100 - GENERAL PROVISIONS WILL GOVERN ON ALL CONTRACTUAL MATTERS. THE NEW MEXICO STATE HIGHWAY AND TRANSPORTATION DEPARTMENT SUPPLEMENTAL SPECIFICATIONS WILL GOVERN ON ALL OTHER DIVISIONS.

SPECIAL PROVISIONS

CITY OF RIO RANCHO

1. TESTS AND INSPECTIONS
2. CONSTRUCTION TRAFFIC CONTROL
3. USE OF APPRENTICES
4. WAGE RATES FOR TRAINEES AND APPRENTICES

NEW MEXICO STATE HIGHWAY DEPARTMENT

FOR MINIMUM WAGE RATES
FOR SUBMISSION OF WEEKLY PAYROLLS (4/4/88)
FOR APPRENTICES (4/26/82)
FOR CONTRACTOR RESPONSIBILITY FOR TAXES IMPOSED BY THE STATE OF NEW MEXICO (12/21/87)
FOR PAYMENTS TO SUBCONTRACTOR (2/25/88)
MODIFYING SECTION 101 - ABBREVIATIONS AND DEFINITIONS (8/12/87)
MODIFYING SECTION 102 - BIDDING REQUIREMENTS AND CONDITIONS (9/29/87)
MODIFYING SECTION 103 - AWARD AND EXECUTION OF CONTRACT (3/10/88)
MODIFYING SECTION 105 - CONTROL OF WORK (7/22/87)
MODIFYING SECTION 106 - CONTROL OF MATERIALS (3/28/84)
MODIFYING SECTION 702 - TRAFFIC CONTROL DEVICES FOR DETOURS (3/23/88)
MODIFYING SECTION 716 - LUMINAIRES (12/12/85)

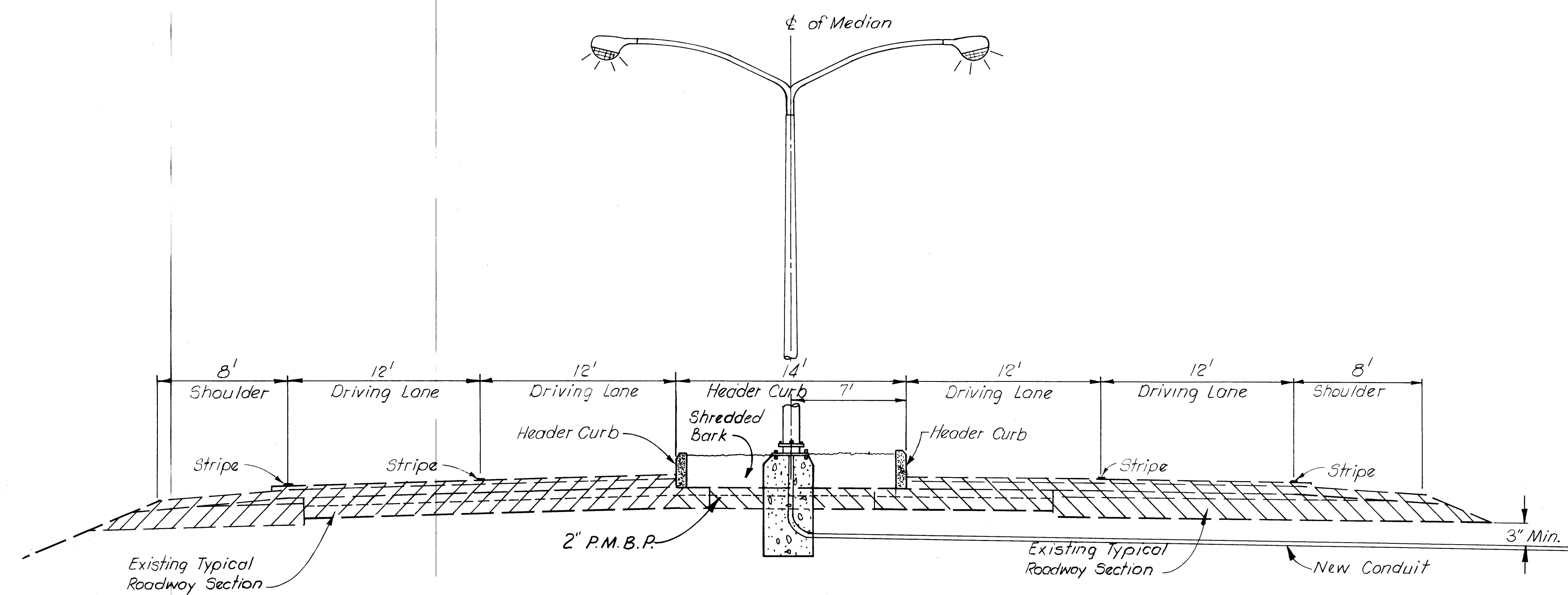
NOTE: IN THE EVENT OF CONFLICT BETWEEN THE SPECIAL PROVISIONS OF THE CITY OF RIO RANCHO AND THE NEW MEXICO STATE HIGHWAY AND TRANSPORTATION DEPARTMENT, THE CITY OF RIO RANCHO DIVISION 100 - GENERAL PROVISIONS WILL GOVERN ON ALL CONTRACTUAL MATTERS. THE NEW MEXICO STATE HIGHWAY AND TRANSPORTATION DEPARTMENT SPECIAL PROVISIONS WILL GOVERN ON ALL OTHER DIVISIONS.

SUMMARY OF QUANTITIES

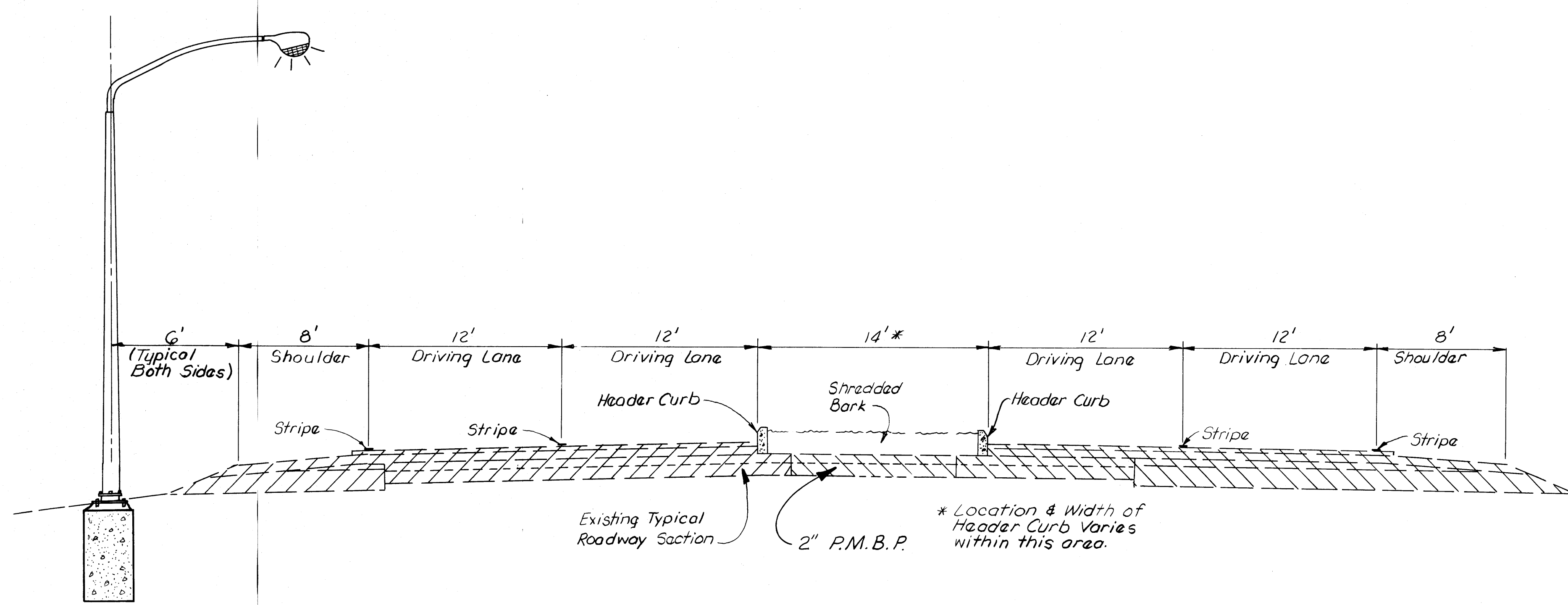
F.H.W.A. Region No.	STATE	N.M.P. SP-PS- 1315(201)	SHEET NO.	TOTAL SHEETS
6	NEW MEXICO		1-4	17

SHEET NO.	ITEM NO.	ITEM	UNIT	LIGHTING		CONSTRUCTION SIGNING														PROJECT TOTAL	
				ESTIMATE	FINAL	ESTIMATE	FINAL	ESTIMATE	FINAL	ESTIMATE	FINAL	ESTIMATE	FINAL	ESTIMATE	FINAL	ESTIMATE	FINAL	ESTIMATE	FINAL	ESTIMATE	FINAL
	504010	REINFORCING BARS - GRADE 40	POUND	5200																5200	
	509050	STRUCTURAL CONCRETE CLASS A	CU. YD.	83																83	
	702000	CONSTRUCTION SIGNING	SQ. FT.			274														274	
	702145	PORTABLE SIGN SUPPORT	EACH			14														14	
	702350	CHANNELIZATION DEVICE - (BARREL) - TYPE "A"	EACH			58														58	
	706035	LOAD CENTER CABINET	EACH	4																4	
	706040	LOAD CENTER CABINET (MODIFY EXISTING)	EACH	3																3	
	707077	TYPE III STANDARD - 30' ARM (EXTENSION ONLY)	EACH	12																12	
	707120	TYPE V STANDARD - 40' (WITH ONE ARM)	EACH	35																35	
	707121	TYPE V STANDARD - 40' (WITH TWO ARMS)	EACH	21																21	
	709025	RIGID ELECTRICAL CONDUIT - 1 1/2"	LIN. FT.	16,000																16,000	
	709050	RIGID ELECTRICAL CONDUIT - 4"	LIN. FT.	1,000																1,000	
	710010	ELECTRICAL PULL BOX	EACH	46																46	
	711224	SINGLE CONDUCTOR # 10	LIN. FT.	14,000																14,000	
	711234	SINGLE CONDUCTOR # 2	LIN. FT.	24,400																24,400	
	711280	SINGLE CONDUCTOR # 8 (BARE)	LIN. FT.	16,000																16,000	
	716021	ROADWAY LUMINAIRE TYPE 400S	EA.	89																89	

F.H.W.A. Region No.	STATE	N.M.P. SP-PS- 1315(201)	SHEET NO.	TOTAL SHEETS
6	NEW MEXICO		2-1	17

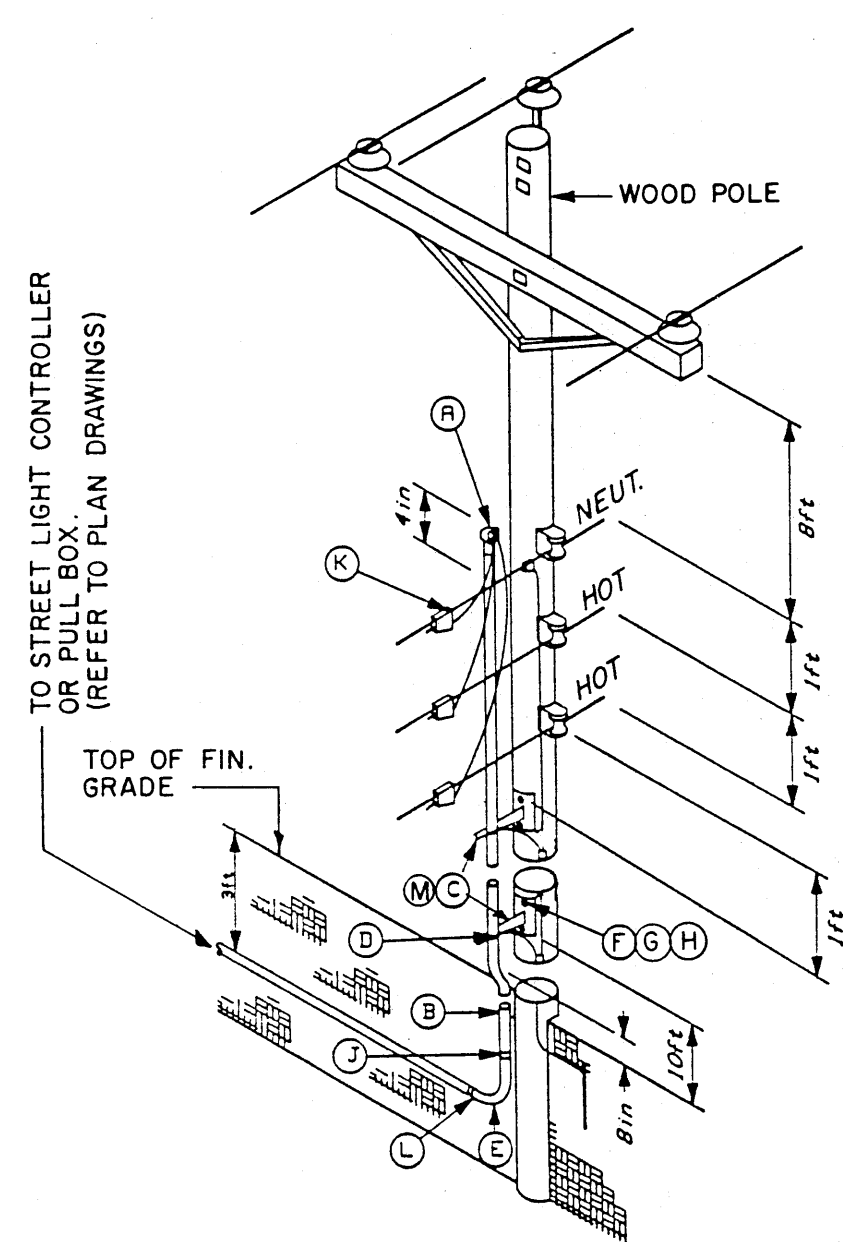


MEDIAN STANDARD LOCATION DETAIL
NOT TO SCALE



ROADSIDE STANDARD LOCATION DETAIL
NOT TO SCALE
Typical For Installation on East & West Side of Road

BRUNING 44 132 68300

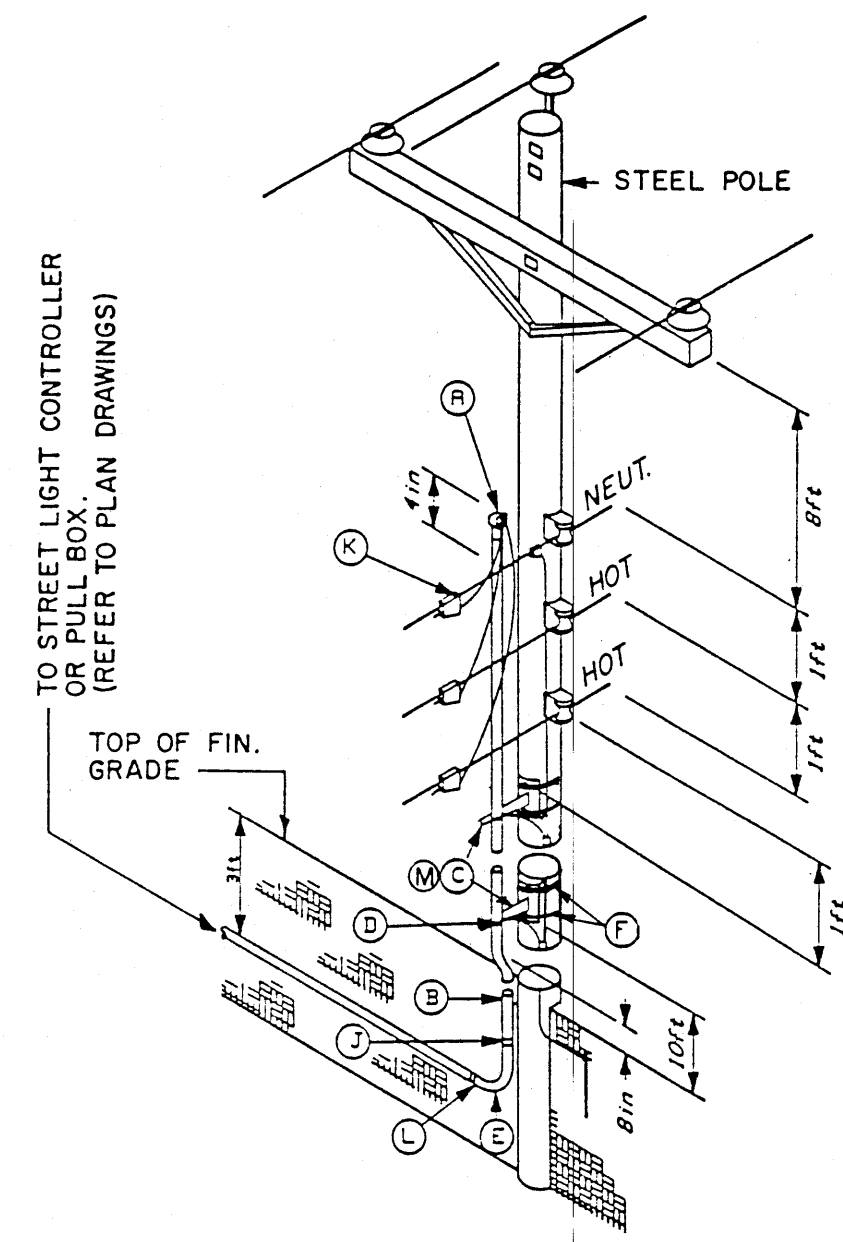


MATERIAL LIST		
ITEM	QUANTITY	DESCRIPTION
A	1 EA.	1-1/2" WEATHER HEAD
B	30 FT.	1-1/2" GALVANIZED RIGID STEEL CONDUIT
C	2 EA.	UNIVERSAL CONDUIT STAND OFF BRACKET
D	2 EA.	1-1/2" CONDUIT STRAP
E	1 EA.	1-1/2" GALVANIZED RIGID STEEL ELBOW, 24" R.
F	4 EA.	5/8" DIA. MACHINE BOLT (LENGTH AS REQ'D)
G	4 EA.	2-1/4" SQUARE WASHER, 5/8" DIA. HOLE
H	4 EA.	5/8" LOCKNUT
J	1 EA.	1-1/2" GALVANIZED COUPLING
* K	3 EA.	LINE TAP
L	1 EA.	1-1/2" PVC TO STEEL CONDUIT ADAPTER
M	2 EA.	#10 - #2 GROUND LUG

* - TO BE PROVIDED AND INSTALLED BY PNM

NOTES:

- POLE GROUNDING SYSTEM TO BE PROVIDED AND INSTALLED BY PNM.
- WEATHERHEAD MINIMUM OF 4 INCHES ABOVE THE NEUTRAL LINE.
- ALL ABOVE-GRADE CONDUIT SHALL BE RIGID METALLIC.

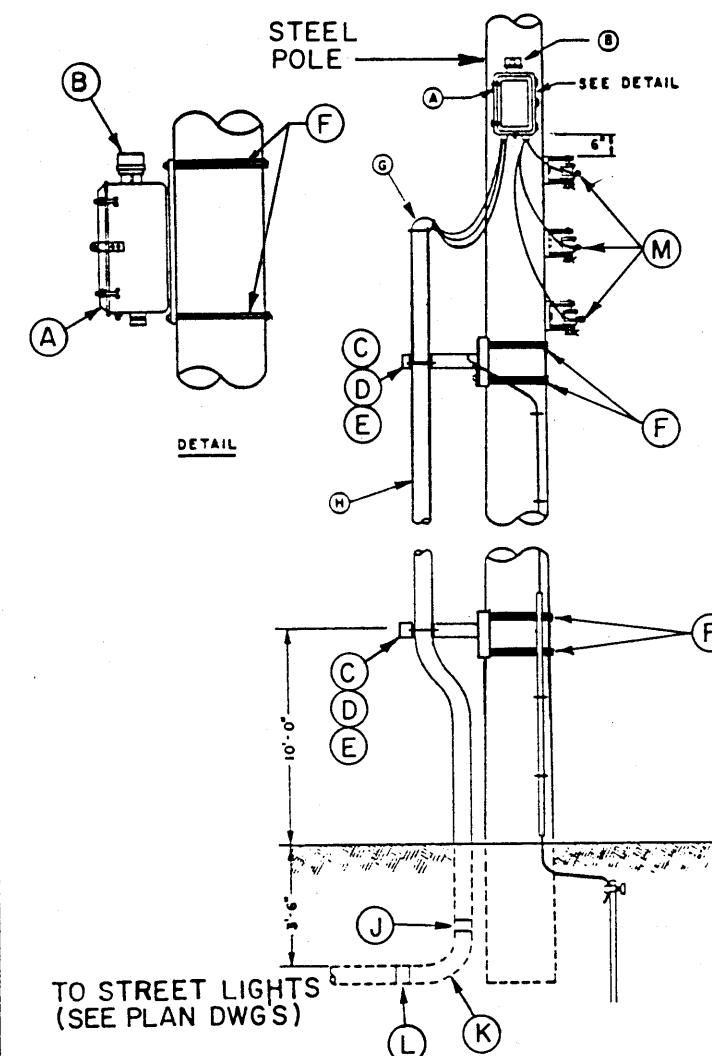


MATERIAL LIST		
ITEM	QUANTITY	DESCRIPTION
A	1 EA.	1-1/2" WEATHER HEAD
B	30 FT.	1-1/2" GALVANIZED RIGID STEEL CONDUIT
C	2 EA.	UNIVERSAL CONDUIT STANDOFF BRACKET
D	2 EA.	1-1/2" CONDUIT STRAP
E	1 EA.	1-1/2" GALVANIZED RIGID STEEL ELBOW, 24" R.
F	4 EA.	STAINLESS STEEL STRAP MATERIAL
G	-	NOT USED
H	-	NOT USED
J	1 EA.	1-1/2" GALVANIZED COUPLING
* K	3 EA.	LINE TAP
L	1 EA.	1-1/2" PVC TO STEEL CONDUIT ADAPTER
M	2 EA.	#10 - #2 GROUND LUG

* - TO BE PROVIDED AND INSTALLED BY PNM

NOTES:

- POLE GROUNDING SYSTEM TO BE PROVIDED AND INSTALLED BY PNM.
- WEATHERHEAD MINIMUM OF 4 INCHES ABOVE THE NEUTRAL LINE.
- ALL ABOVE-GRADE CONDUIT SHALL BE RIGID METALLIC.



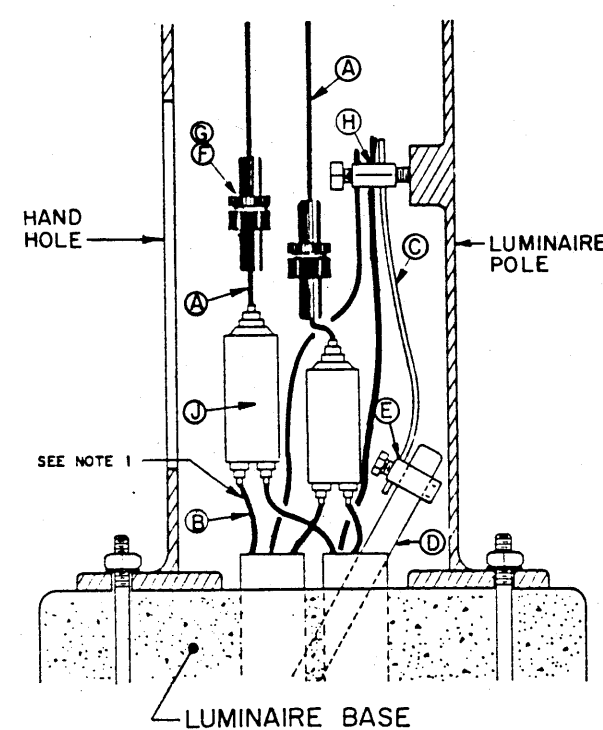
NOTES:

- LEAVE 18" TO 24" TAIL FROM EDGE OF CONDUIT STUBOUT.
- APPLY SIMILAR DETAIL LESS FUSES FOR ANY OTHER LUMINAIRE POLES.

MATERIAL LIST		
ITEM	QUANTITY	DESCRIPTION
A	1 EA.	30A CONTACTOR, 2P, 240V, 2/120V COIL, WITH 20A CKT. BKR. 2P, 600V, NEMA 3R ENCLOSURE WITH MOUNTING BRACKET
B	1 EA.	PHOTOCELL, 120V
C	2 EA.	UNIVERSAL CONDUIT STANDOFF BRACKET
D	2 EA.	1-1/2" CONDUIT STRAP
E	2 EA.	#10 - #2 GROUND STRAP
F	6 EA.	STAINLESS STEEL STRAP MATERIAL
G	1 EA.	1-1/2" WEATHER HEAD
H	30 FT.	1-1/2" GALVANIZED RIGID STEEL CONDUIT
J	1 EA.	1-1/2" GALVANIZED COUPLING
K	1 EA.	1-1/2" GALV. RIGID STEEL ELBOW, 24" R.
L	1 EA.	1-1/2" PVC TO STEEL CONDUIT ADAPTER
* M	3 EA.	LINE TAP

* - TO BE PROVIDED AND INSTALLED BY PNM

POLE RISER DETAIL 1



MATERIAL LIST		
ITEM	QUANTITY	DESCRIPTION
A	40 FT.	#10 AWG LUMINAIRE WIRE, 600V INSULATION
B	AS REQ'D.	INCOMING/OUTGOING WIRES (REFER TO PLANS)
C	3 FT.	#8 BARE COPPER WIRE
* D	1 EA.	5/8" DIA. X 8 FT. GROUND ROD
E	1 EA.	5/8" DIA. GROUND ROD CLAMP
F	2 EA.	FUSEHOLDER
G	2 EA.	LIMITRON FUSE, 5A, TWISTLOCK
** H	1 EA.	LUMINAIRE POLE GROUNDING LUG
J	2 EA.	3-WAY CONNECTORS

* - INCLUDED IN LUMINAIRE BASE INSTALLATION
** - FURNISHED WITH LUMINAIRE POLE

NOTES:

- LEAVE 18" TO 24" TAIL FROM EDGE OF CONDUIT STUBOUT.
- TO BE USED IN ALL LUMINAIRE POLES.

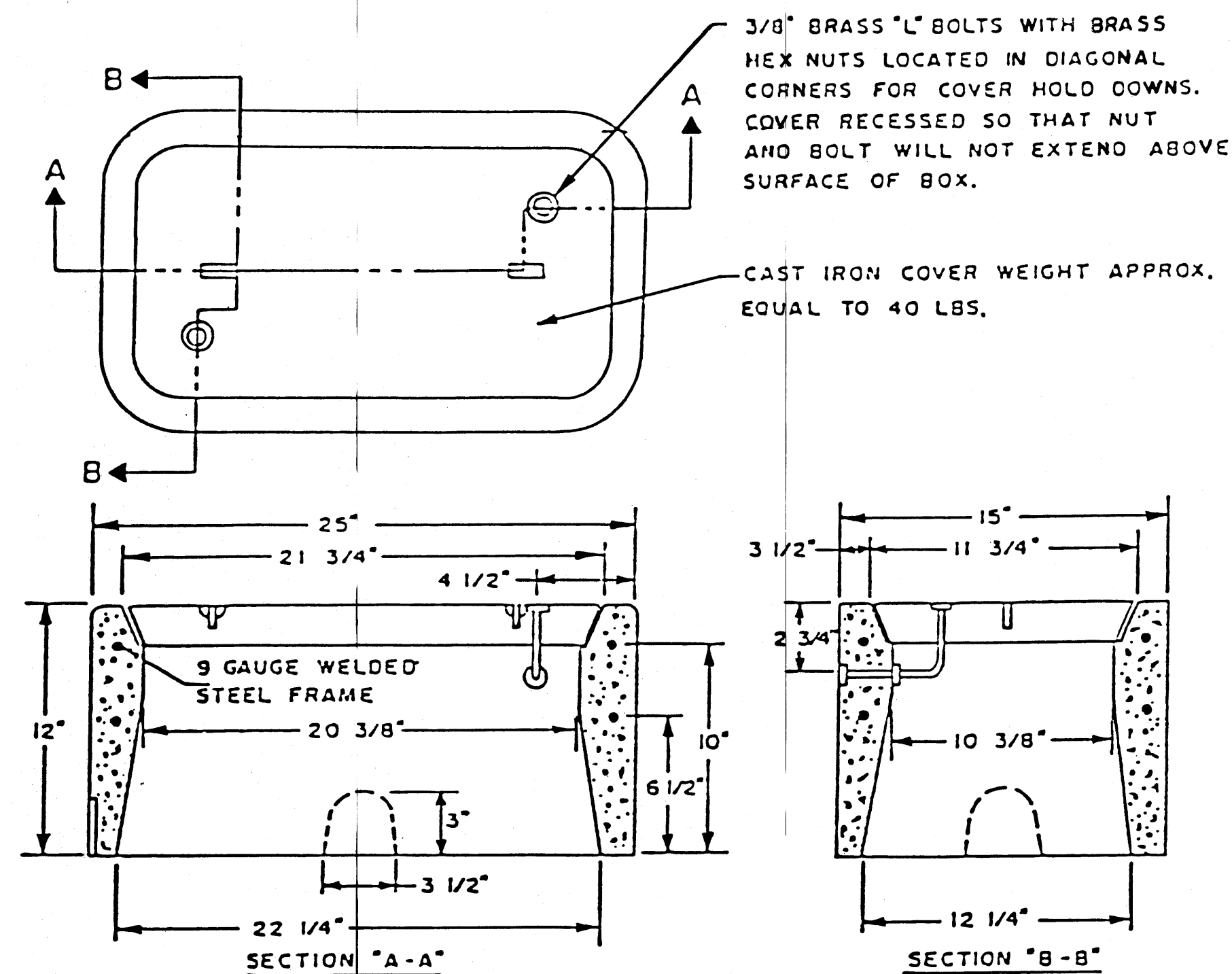
POLE RISER DETAIL 1A

POLE RISER DETAIL 2

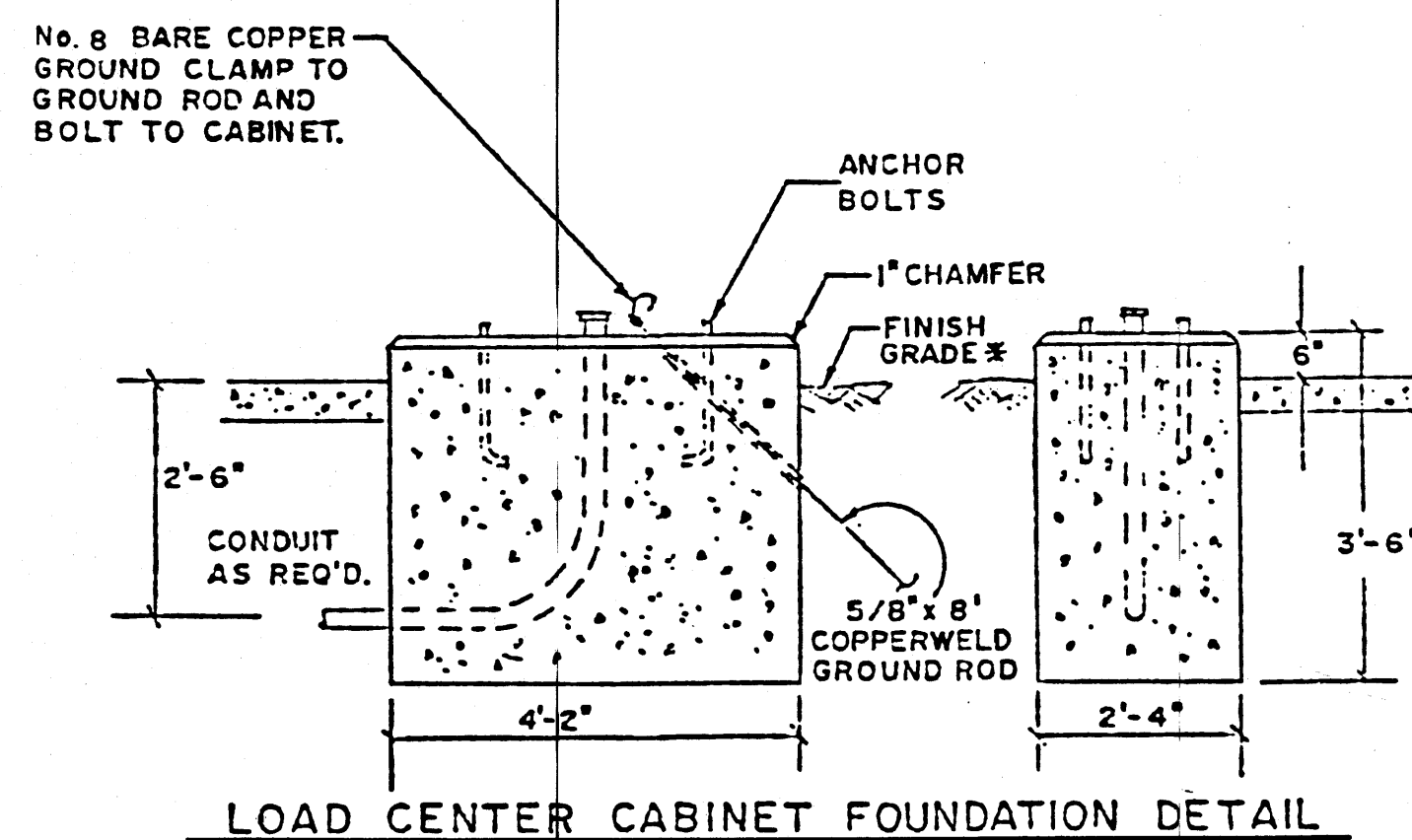
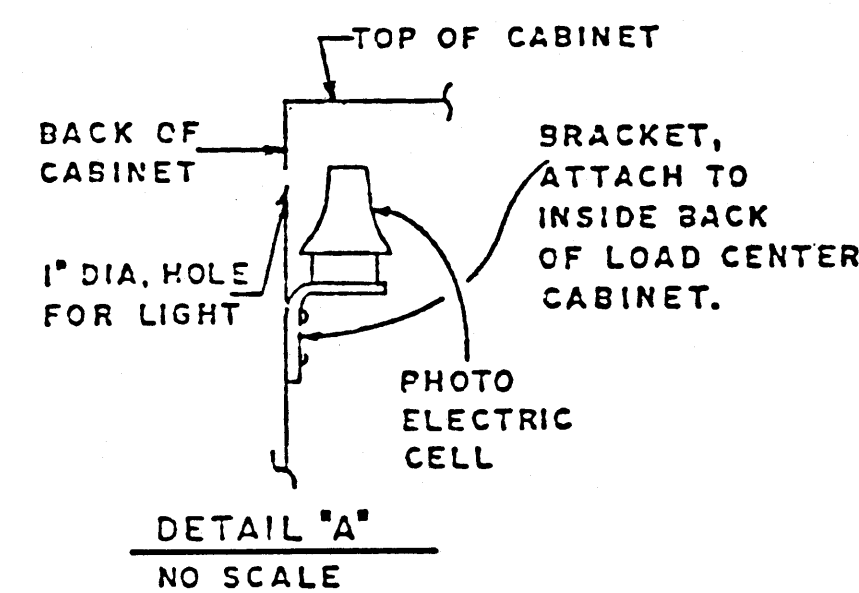
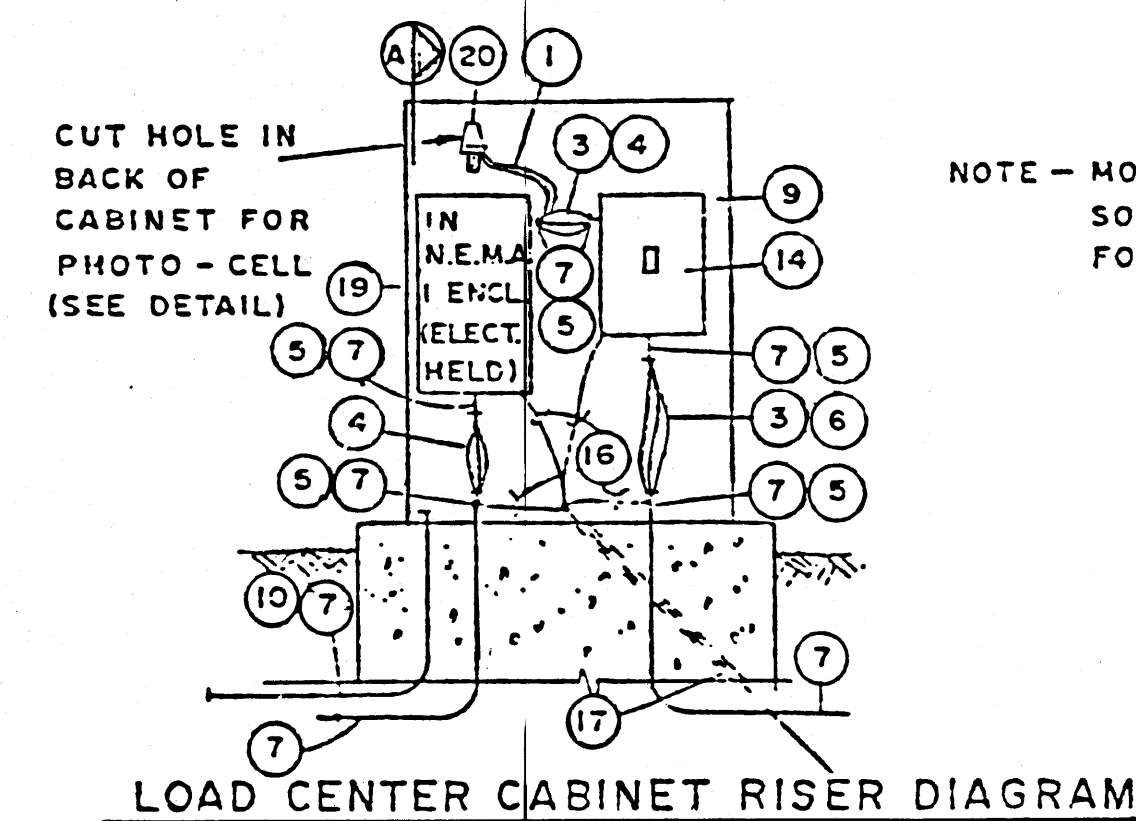
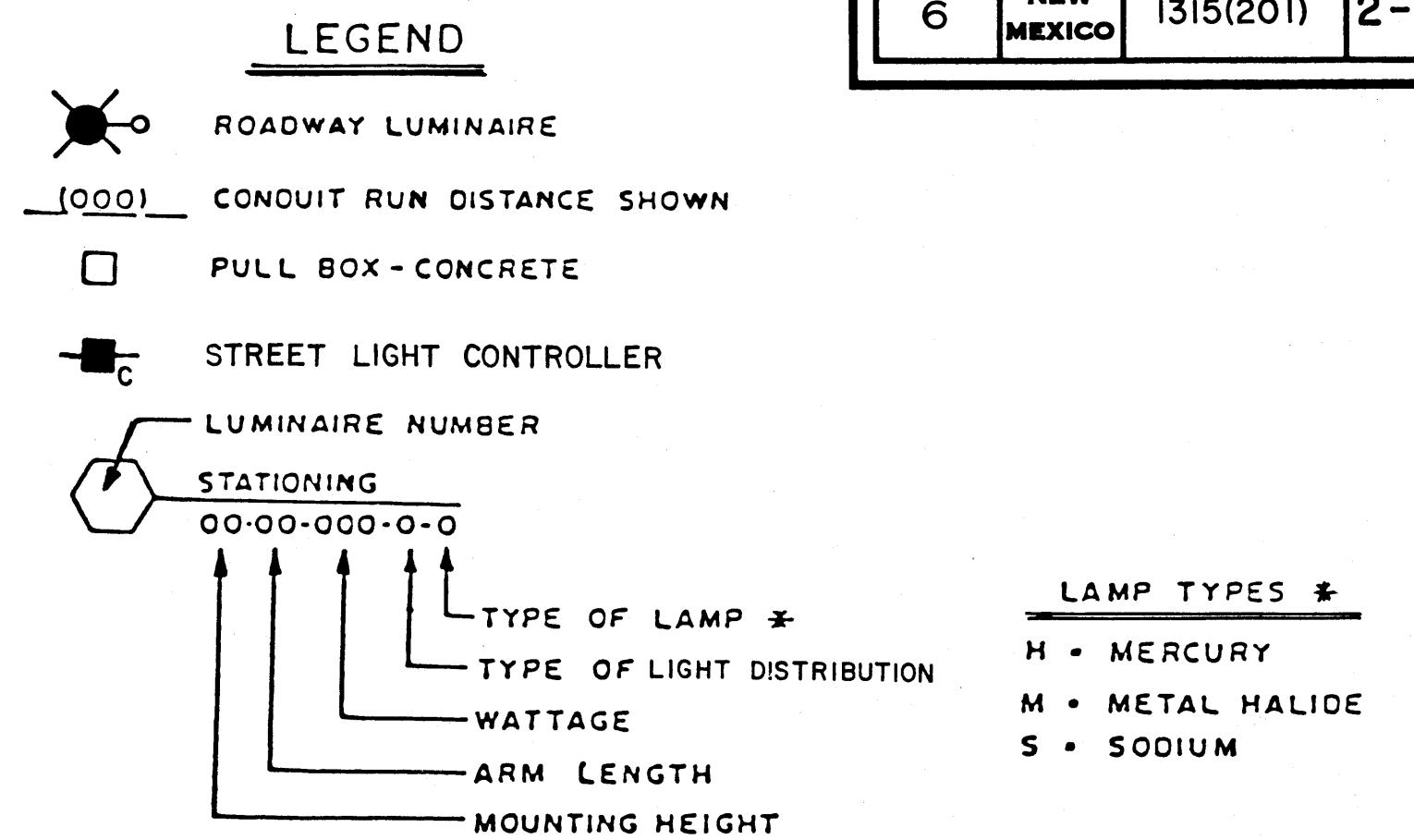
INCIDENTAL FUSE PROVISION DETAIL 3

No.	DESCRIPTION	DATE	BY
REVISIONS			
CITY OF RIO RANCHO, N.M.			
NEW MEXICO STATE ROAD 528 STREET LIGHTING			
ELECTRICAL DETAILS			
GANNETT FLEMING / MATOTAN, INC. ENGINEERS & PLANNERS ALBUQUERQUE, NEW MEXICO FEB 27 1988			
ENGR'S FILE No. 25596	DRAWN: R.A.-J.W. CHECKED: M.W.M.	DATE: JUNE 1988 SCALE: NONE	

F.H.W.A. Region No.	STATE	N.M.P. SP-PS- 1315(201)	SHEET NO.	TOTAL SHEETS
6	NEW MEXICO		2-3	17



ELECTRICAL PULL BOX



IN THE EVENT THE SUPPLIED CABINET WOULD OVERLAP THE SIDES OF ABOVE FOUNDATION, THE FOUNDATION SHALL BE INCREASED IN SIZE AS DIRECTED BY THE ENGINEER.

MATERIAL LIST: LOAD CENTER CABINET

DESCRIPTION	ITEM NO.
3 - #12 WIRE	1
2 WIRE & 1-GROUND, 240 VOLT SINGLE PHASE SECONDARY	2
CIRCUIT WIRES	3
CONDUIT STUB OUT 6" WITH BUSHING	4
PUBLIC SERVICE CO. OF NEW MEXICO INCOMING WIRES	5
1-1/2" RIGID ELECTRICAL CONDUIT	6
LOAD CENTER CABINET (STREET LIGHTING CONTR) NEMA 3R	7
1-1/2" CONDUIT, STUB OUT 5' AND CAP	8
NEMA 1 ENCLOSED CIRCUIT BREAKER	9
NO. 8 AWG BARE SOLID WIRE (COPPER)	10
5/8" DIAMETER X 8'-0" COPPERWELD GROUND ROD AND CLAMP	11
NEMA 1 ENCLOSED LIGHTING CONTACTOR	12
PHOTOELECTRIC CONTROLLER, FACING NORTH, 240 VOLT SINGLE PHASE	13
	14
	15
	16
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	18
	19
	20
	21
	22

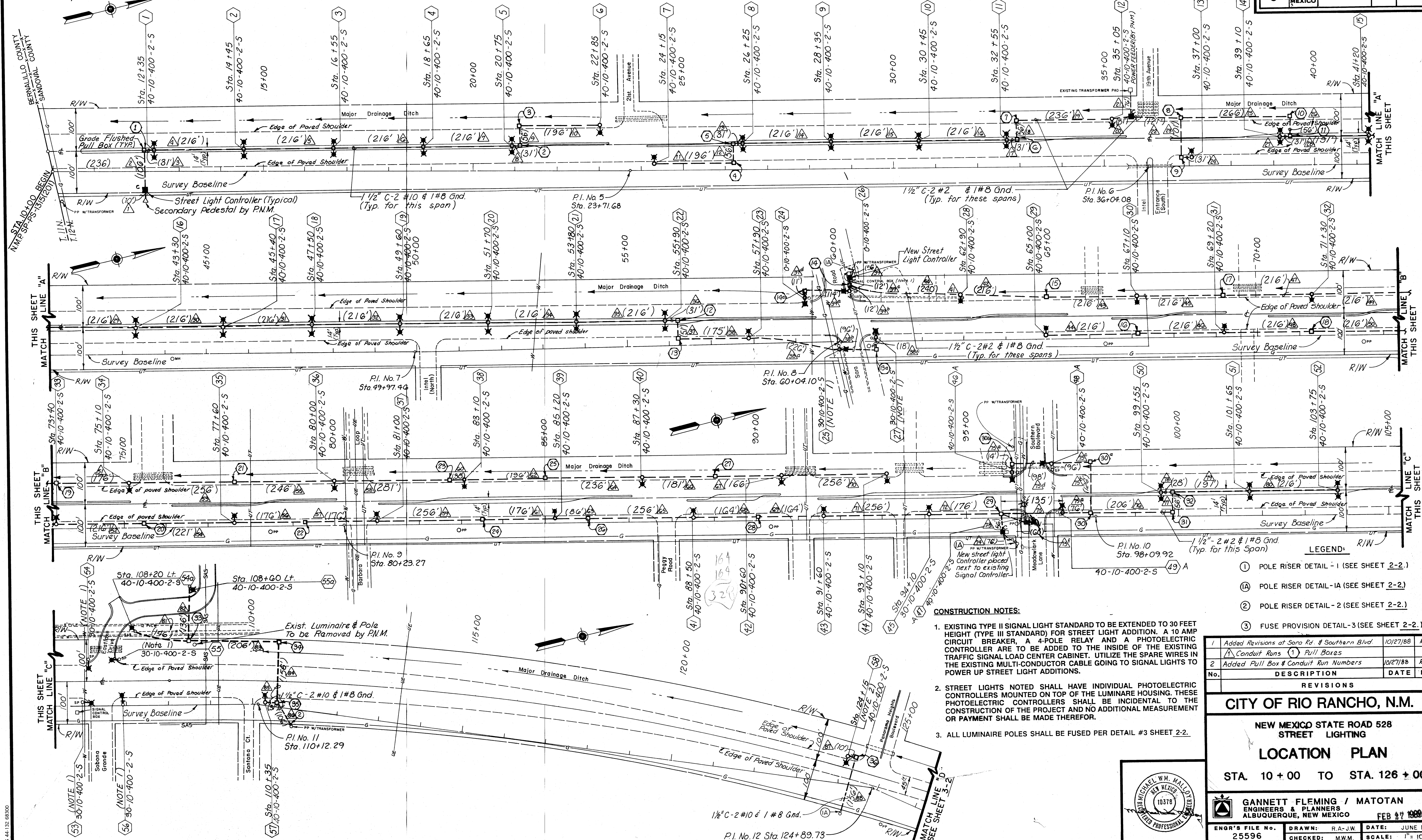
*** ADAPTER TABLE**

CONTROLLER VICINITY	MAT'L LIST ITEM NO.	RATING DESCRIPTION
COUNTY LINE	4	2 #10 & 1 #8 BARE GROUND
	14	30 A, 240 V, 2 P, 10 KAIC
	19	30 A, 240 V, 2 P
19TH AVE.	4	2 #2 & 1 #8 BARE GROUND
	14	70 A, 240 V, 2 P, 10 KAIC
	19	100 A, 240 V, 2 P
SARA ROAD	4	2 #2 & 1 #8 BARE GROUND
	14	40 A, 240 V, 2 P, 10 KAIC
	19	60 A, 240 V, 2 P
SOUTHERN BLVD.	4	2 #2 & 1 #8 BARE GROUND
	14	40 A, 240 V, 2 P, 10 KAIC
	19	60 A, 240 V, 2 P

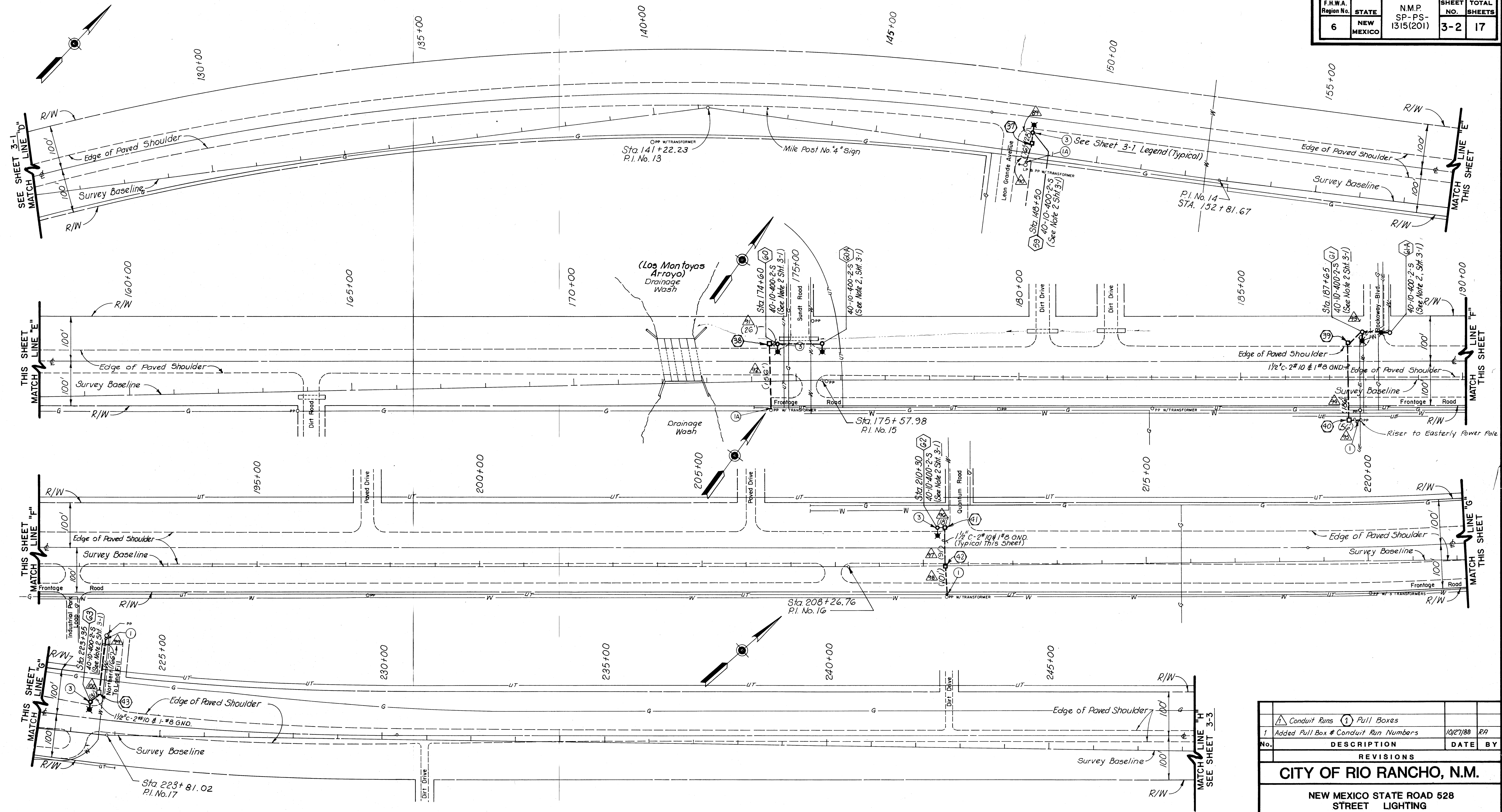
3			
2			
1			
No.	DESCRIPTION	DATE	BY
REVISIONS (OR CHANGE NOTICES)			
NEW MEXICO STATE HIGHWAY DEPARTMENT TRAFFIC DESIGN SECTION ROADWAY LIGHTING DETAILS			
CITY OF RIO RANCHO, N.M.			
NEW MEXICO STATE ROAD 528 STREET LIGHTING			
FEB 27 1989			

This Project Begins in T.12N, R.3E.
Sandoval County, New Mexico

F.H.W.A. Region No.	STATE	N.M.P. SP-PS- 1315(201)	SHEET NO.	TOTAL SHEETS
6	NEW MEXICO		3-1	17



F.H.W.A. Region No.	STATE	N.M.P. SP-PS- 1315(201)	SHEET NO.	TOTAL SHEETS
6	NEW MEXICO		3-2	17



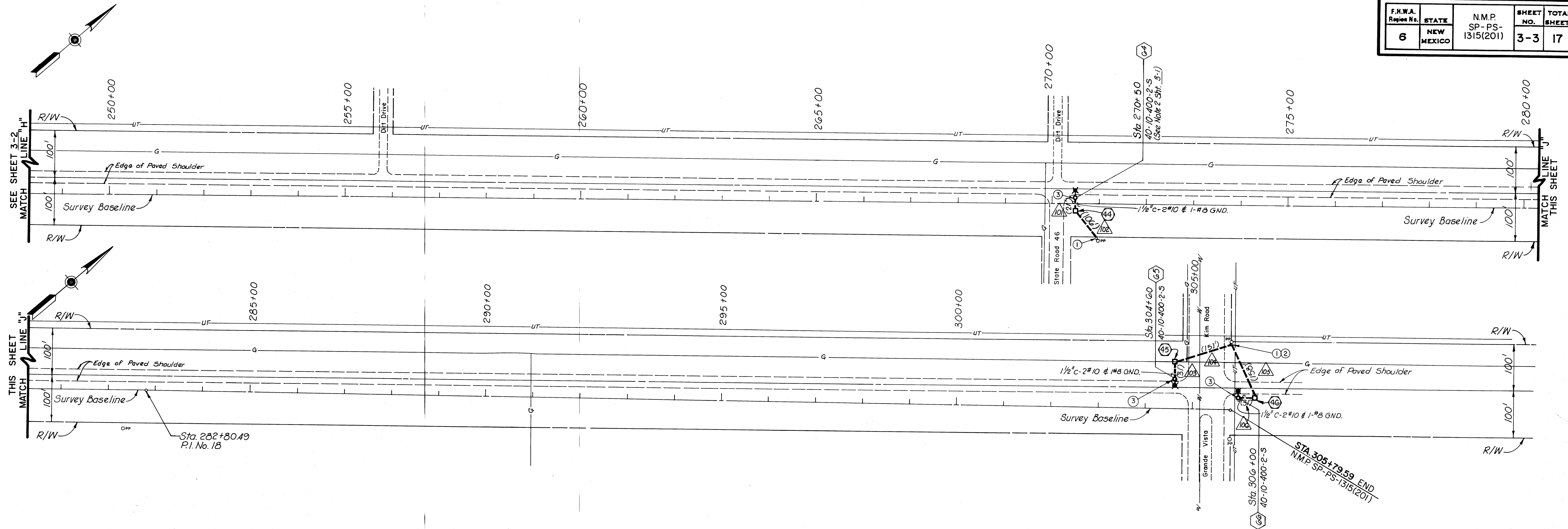
1. ALL LUMINAIRE POLES SHALL BE FUSED PER
DETAIL #3 SHEET 2-2.

REVISIONS			
No.	DESCRIPTION	DATE	BY
1	Added Pull Box # Conduit Run Numbers	10/27/88	RA
CITY OF RIO RANCHO, N.M.			
NEW MEXICO STATE ROAD 528 STREET LIGHTING			
LOCATION PLAN			
STA. 126 + 00 TO STA. 248 + 00			
GANNETT FLEMING / MATOTAN ENGINEERS & PLANNERS ALBUQUERQUE, NEW MEXICO FEB 27 1988			
ENGR'S FILE NO. 25596	DRAWN: J.W. CHECKED: M.W.M.	DATE: JUNE 1988 SCALE: 1" = 100'	



DRAWING 44-132 68500

F.H.W.A. Region No.	STATE	N.M.P. SP-PS- 1315(201)	SHEET NO.	TOTAL SHEETS
6	NEW MEXICO		3-3	17



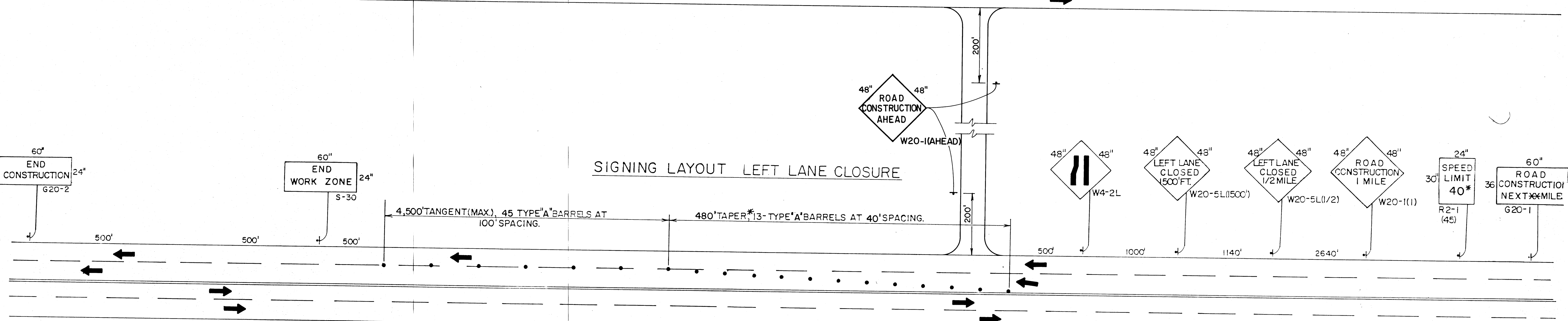
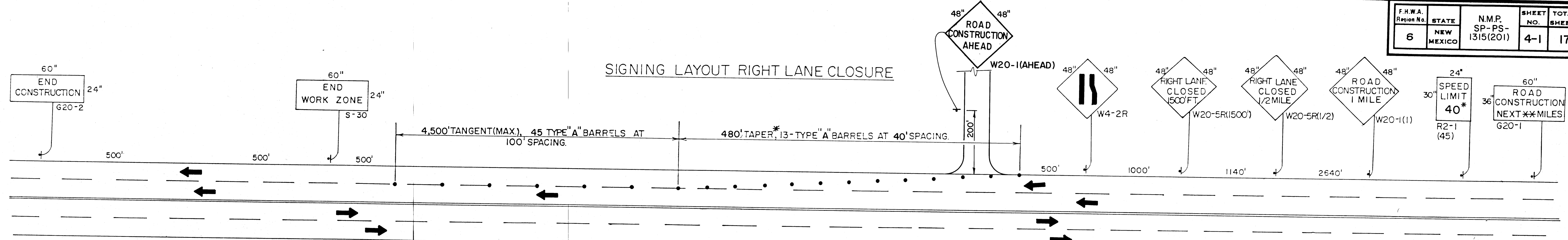
CONSTRUCTION NOTES:

- ALL LUMINAIRE POLES SHALL BE FUSED PER
DETAIL #3 SHEET 2-2.

REVISIONS			
No.	DESCRIPTION	DATE	BY
1	Added Pull Box & Conduit Run Numbers	10/27/88	R.A.
CITY OF RIO RANCHO, N.M.			
NEW MEXICO STATE ROAD 528 STREET LIGHTING			
LOCATION PLAN			
STA. 248 + 00 TO STA.305+79.59			
GANNETT FLEMING / MATOTAN ENGINEERS & PLANNERS ALBUQUERQUE, NEW MEXICO			
FEB 27 1989			
ENGR'S FILE NO. 25596		DRAWN: J.W. CHECKED: M.W.M.	DATE: JUNE 1988 SCALE: 1"=100'

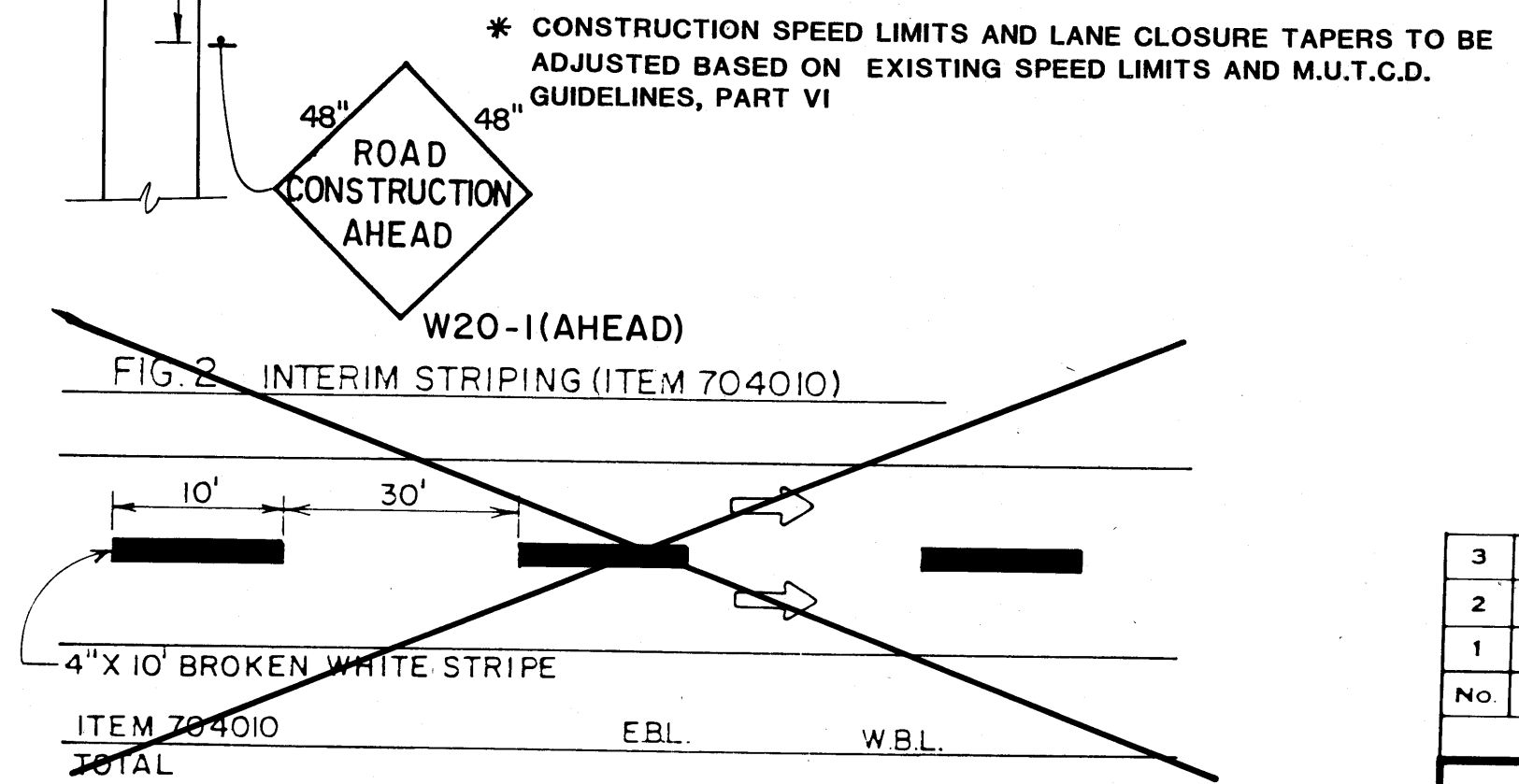
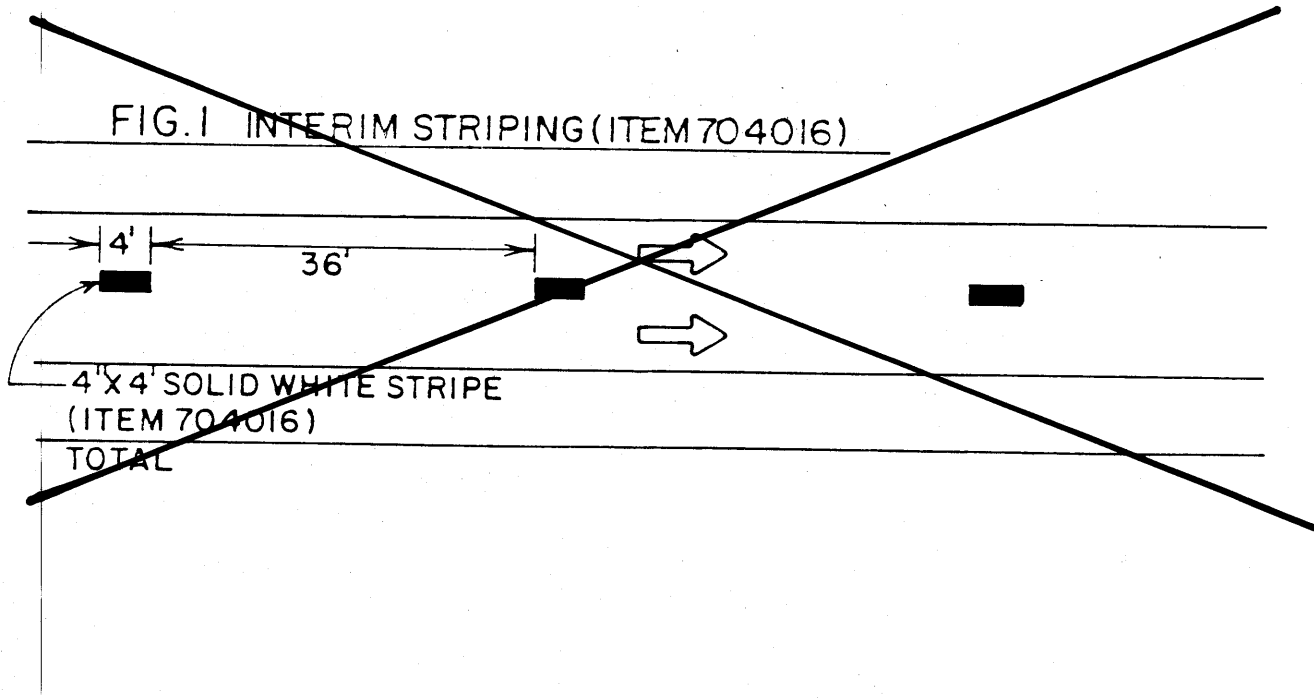


F.H.W.A. Region No.	STATE	N.M.P. SP-PS- 1315(201)	SHEET NO.	TOTAL SHEETS
6	NEW MEXICO		4-1	17



NOTES:

- ALL SIGNS SHALL BE MOUNTED ON APPROVED PORTABLE SIGN SUPPORTS.
- SIGNS G20-1, G20-2 AND R2-1 SHALL BE PLACED AT THE PROJECT LIMITS AND REMAIN IN PLACE THROUGH THE DURATION OF THE PROJECT OR AS DIRECTED BY THE PROJECT MANAGER.
- THE CONTRACTOR WILL BE PERMITTED TO CLOSE ONE CONTINUOUS LANE AT A TIME. NO SIMULTANEOUS LANE CLOSURES WILL BE PERMITTED. NO LANE CLOSURES WILL BE PERMITTED BETWEEN THE HOURS OF 4:00 P.M. AND 8:30 A.M. OF THE FOLLOWING DAY.
- FOR FURTHER INFORMATION AND DETAIL, SEE THE STANDARD HIGHWAY DESIGN MANUAL AND THE CURRENT ADDITION OF THE M.U.T.C.D.
- ALL "W" CODE SIGNS ARE BLACK LEGEND WITH REFLECTIVE YELLOW BACKGROUND.
- THE CONTRACTOR IS TO PROVIDE W20-1(AHEAD) WARNING SIGN ON ALL SIDE STREETS IN THE CONSTRUCTION ZONE, OR AS DIRECTED BY THE PROJECT MANAGER



No.	DESCRIPTION	DATE	BY
3			
2			
1			

REVISIONS (OR CHANGE NOTICES)

**NEW MEXICO
STATE HIGHWAY DEPARTMENT
TRAFFIC DESIGN SECTION
CONSTRUCTION TRAFFIC CONTROL PLAN
4 - LANE**

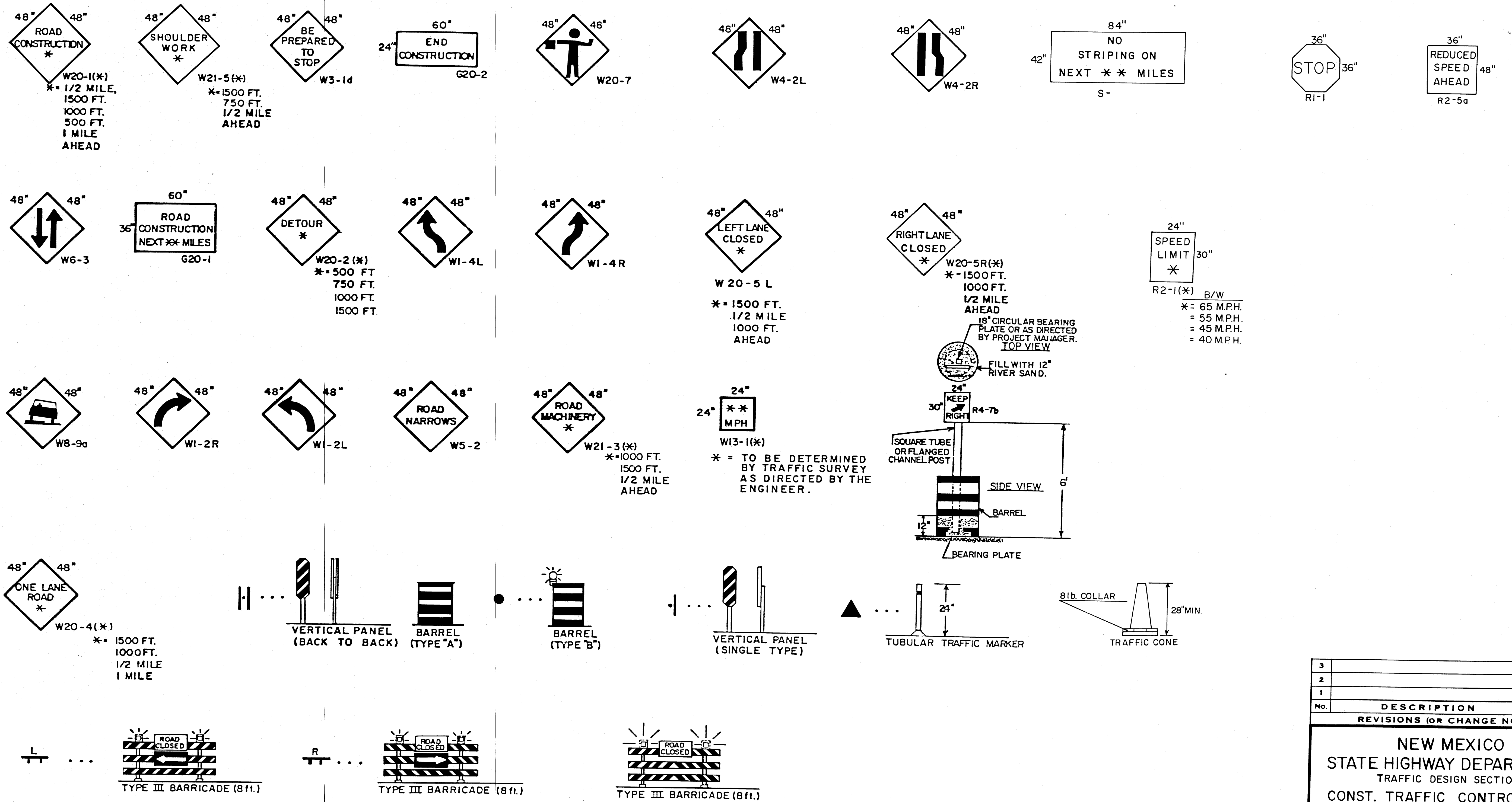
CITY OF RIO RANCHO, N.M.

**NEW MEXICO STATE ROAD 528
STREET LIGHTING
FEB 27 1989**

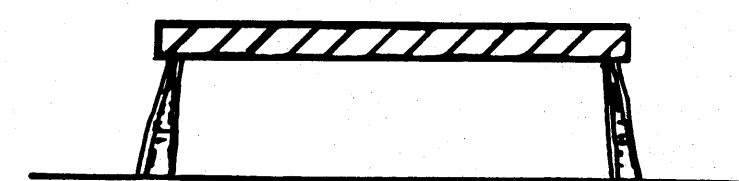
F.H.S.A. Project No.	STATE	N.M.P. SP-PS-1315(201)	SHEET NO.	TOTAL SHEETS
6	NEW MEXICO		4-2	17

SIGN FACE DETAILS *

* - NOT ALL SIGNS ARE UTILIZED IN THESE PLANS.

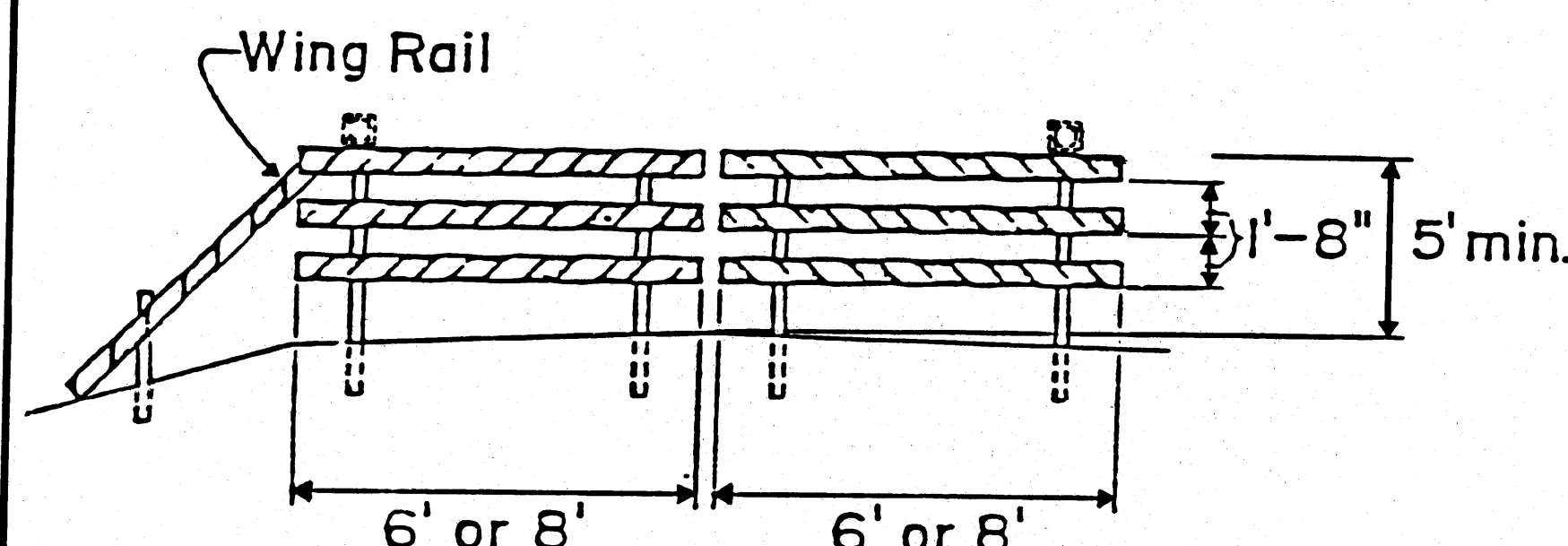


No.	DESCRIPTION	DATE	BY
3			
2			
1			
REVISIONS (OR CHANGE NOTICES)			
NEW MEXICO STATE HIGHWAY DEPARTMENT			
TRAFFIC DESIGN SECTION			
CONST. TRAFFIC CONTROL PLAN			
SIGN FACE DETAILS AND			
SEQUENCE OF CONSTRUCTION			
NEW MEXICO STATE ROAD NO. 528			
STREET LIGHTING			
FEB 27 1989			



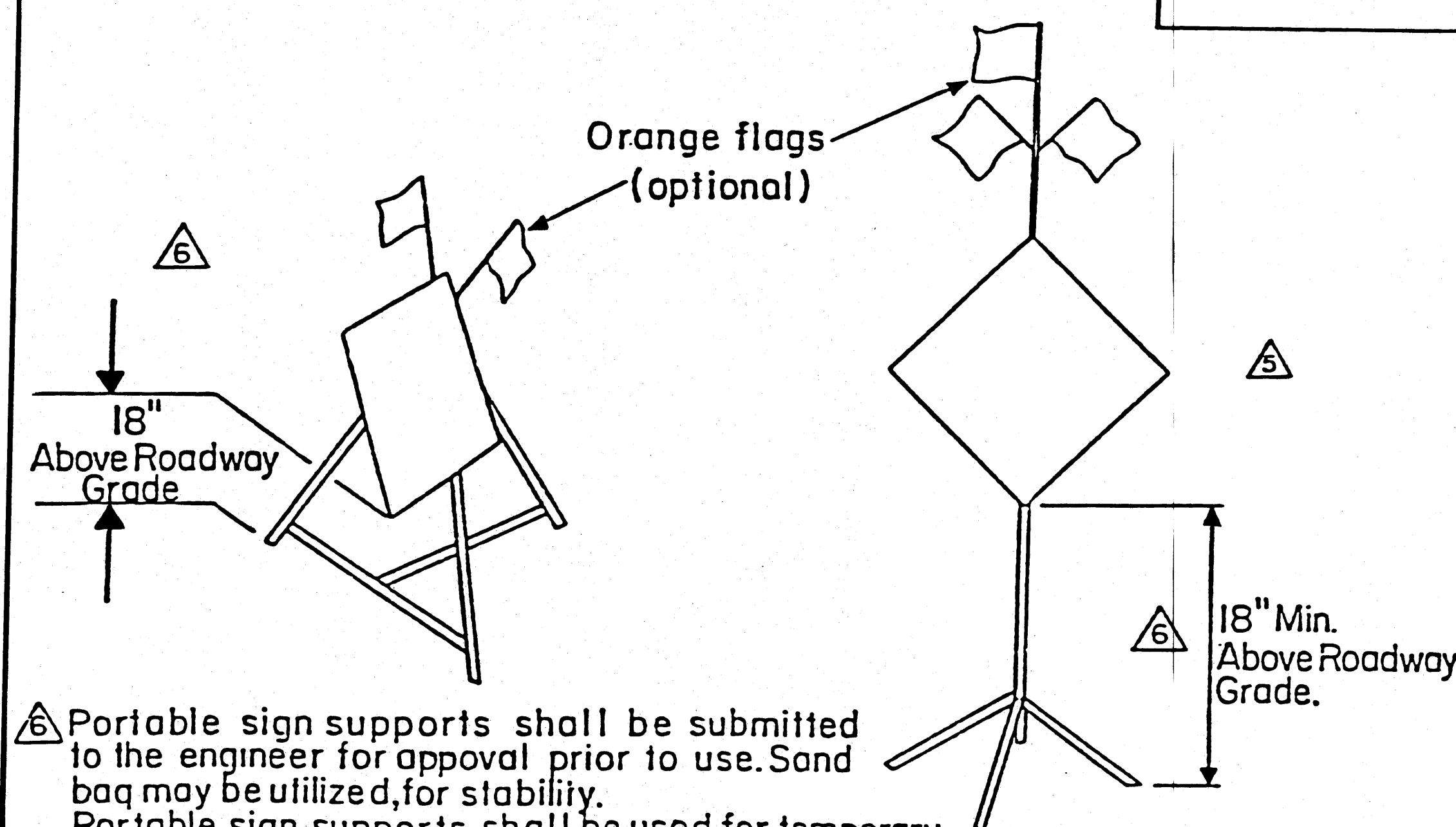
Stands may be detachable for portability. Type "I" Barricades have two (2) reflectorized rail faces (one in each direction). The stand materials may be metal, wood or other suitable light weight materials of structural soundness.

TYPICAL
TYPE "I" BARRICADE



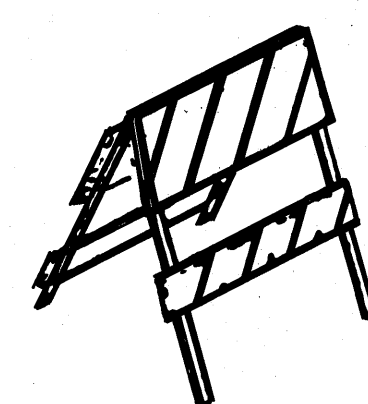
Type "III" Barricades have 3 reflectorized rail faces when facing traffic in one direction; 6 if facing traffic in two directions. Wing Rail may be fitted to the back of the top rail attached by two $\frac{5}{16}$ " bolts, nuts, and washers.

TYPICAL
FIXED TYPE "III" BARRICADE



Portable sign supports shall be submitted to the engineer for approval prior to use. Sand bag may be utilized for stability. Portable sign supports shall be used for temporary or moving construction operation only.

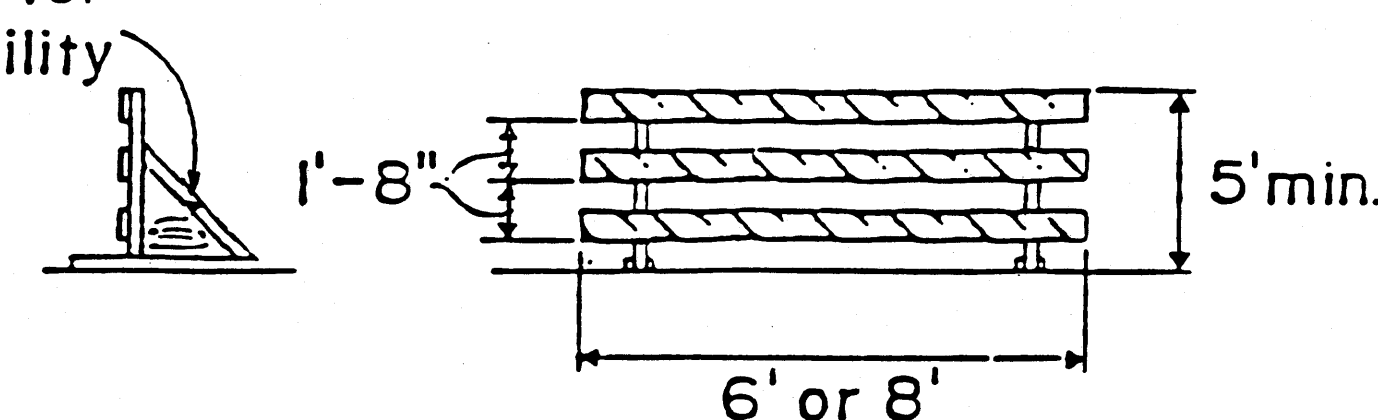
PORTABLE SIGN SUPPORT (TYPICAL)



Type "II" Barricades have four (4) reflectorized rail faces (two in each direction). Folding stands shall be of materials similar to Type "I" Barricade stands.

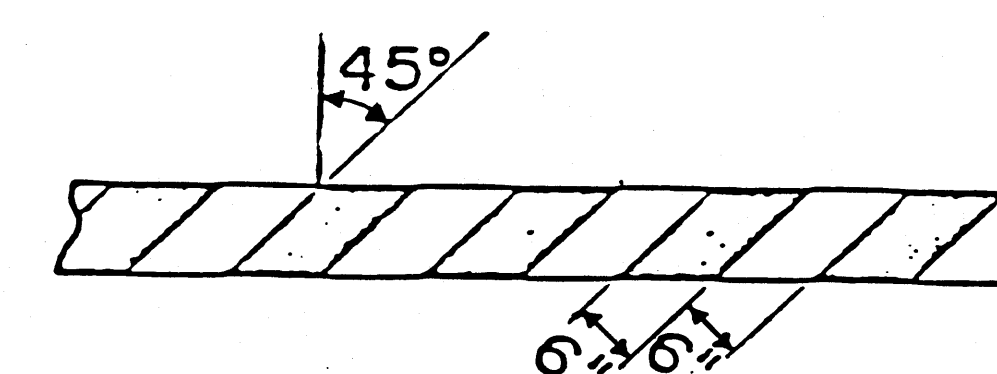
TYPICAL
TYPE "II" BARRICADE

Sand bags for added stability



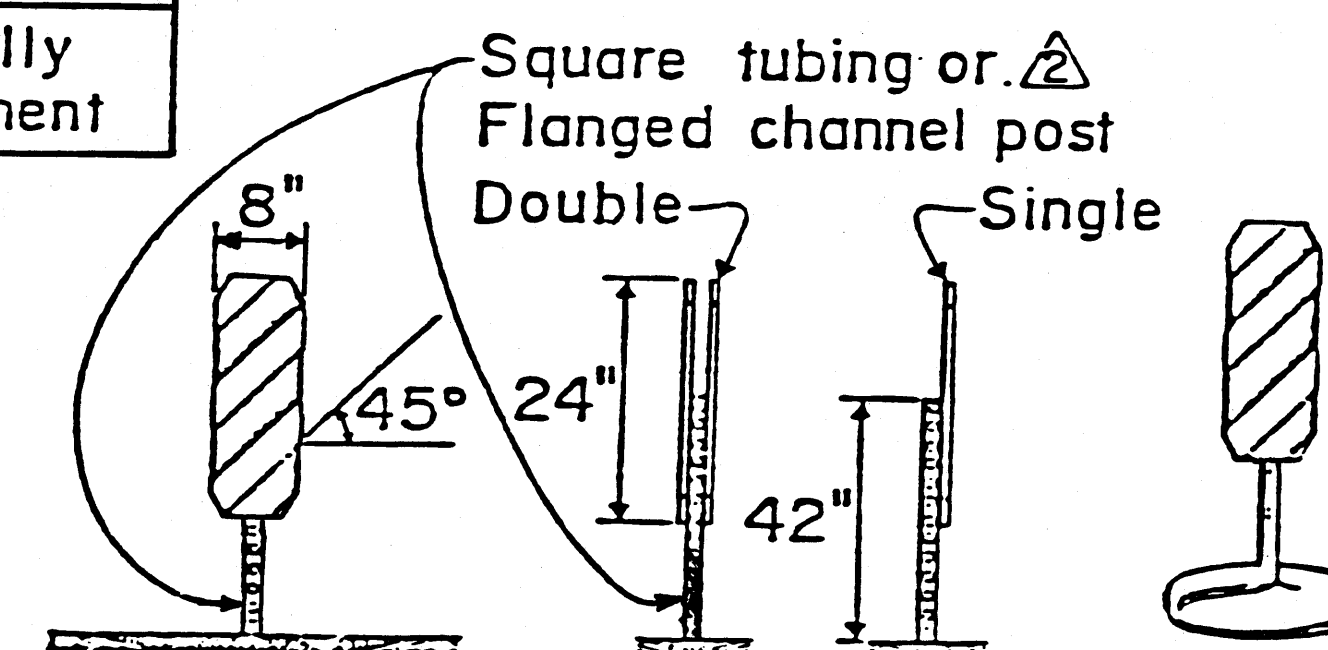
Type "III" Barricade framing and supports shall be 2"x2" min.-12Ga., square metal tubing or driven down posts.

TYPICAL
MOVABLE TYPE "III" BARRICADE



Rail shall be $\frac{1}{2}$ " min. 5 ply sign grade plywood or 2"x8" S4S quality wood. On Types "I" and "II", metal rails, if used, must be light weight material, commensurate with structural soundness. Stripes shall slant downward at 45° toward the side which traffic is to pass.

DETAIL OF BARRICADE
RAIL STRIPING

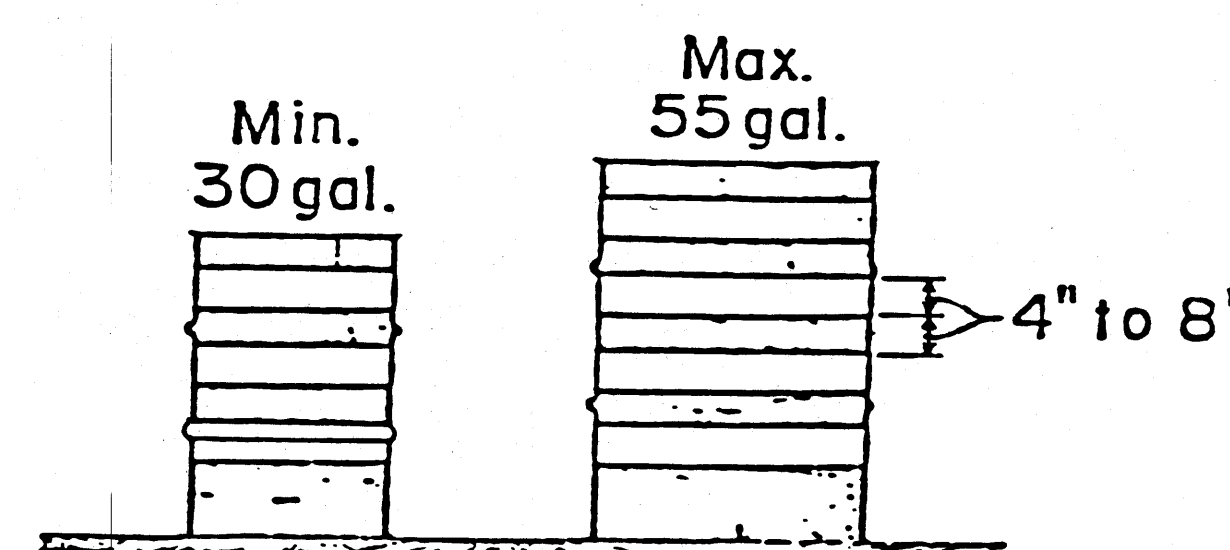


Panels to be 0.060 min., 6061-T6, or 5052-H38 aluminum alloy mounted on $\frac{1}{2}$ " min. square steel tubing post or 1.33 $\frac{1}{4}$ " min. flanged channel post. Stripes shall slant downward at 45° toward the side which traffic is to pass. For temporary installation the post may be set to 3 ft. below ground or the panels may be mounted on stanchions.

CHANNELIZATION DEVICES
(VERTICAL PANELS)

BARRICADES - CHARACTERISTICS

	I	II	III
WIDTH OF RAIL	8"min.-12"max.	8"min.-12"max.	8"min.-12"max.
LENGTH OF RAIL	6' to 8'	3'min.-4'max.	6' or 8'
WIDTH OF STRIPES	6 ins.	6 ins.	6 ins.
HEIGHT	3 ft. min.	3 ft. min.	5 ft. min.
TYPE OF FRAME	Demountable or heavy "A" frame	Light "A" frame	Posts or skids
FLEXIBILITY	Essentially movable	Portable	Essentially permanent



With three (3) orange stripes minimum and alternating white stripes, all reflective tape or sheeting.

CHANNELIZATION DEVICES
(BARRELS)

GENERAL NOTES

- All signs, sign materials, beacons, and barricade warning lights shall conform to the standards set forth in the M.U.T.C.D. 1978 edition.
- The entire area of orange and white stripes shall be reflectorized on all barricades, barrels, vertical panels or other channelization devices when used on construction, detours, or participating connections, by use of reflective sheeting or tape.
- Red and white barricades may be used to mark the end of a road, street, or highway where there is no crossroad or outlet at locations considered permanent and semi permanent closures or termination of roadways.
- Flashing beacons or steady burn lights, when used on barricades, shall be positioned above the top rail of the barricade, facing traffic.
- High intensity flashing beacons shall be used to mark obstructions or hazards. Type "C" steady burn light may be used for delineation at night.
- All barricade framing and supports, other than galvanized metal, shall be painted white.

THIS SERIAL REVISED: 3-15-80

REVISIONS (OR CHANGE NOTICES)	DATE	BY
REVISOR PORT. SIGN SUPPORT DETAILS	3/15/80 T.G.M.	
REVISOR PORT. SIGN SUPPORT DETAILS	1/21/82 T.G.M.	
REVISOR NOTE No. 1	9/24/75 T.G.M.	
ADDED 5052-H38 ALUMINUM ALLOY	5-9-72 T.G.M.	
ADDED FLANGED CHANNEL POST	5-4-76 T.G.M.	
REMOVED SIGN CLEARANCE DIMENSION	12-6-77 T.G.M.	
IDENT NO.	DESCRIPTION	DATE

NEW MEXICO
STATE HIGHWAY DEPARTMENT
BARRICADES AND
CHANNELIZATION
DEVICES

NEW MEXICO STATE ROAD NO. 528
STREET LIGHTING FEB 27 1980

NOTES.

1.) TRAFFIC CONTROL PLAN AND QUANTITIES MAY VARY AS FIELD CONDITIONS DICTATE. THE CONTRACTOR WILL BE PAID FOR ACTUAL QUANTITIES USED. PLACING, RELOCATION, AND MAINTENANCE OF TRAFFIC CONTROL DEVICES AS SHOWN ON THE PLAN, OR AS DIRECTED BY THE PROJECT MANAGER ARE TO BE INCIDENTAL TO THE UNIT BID PRICE.

2.) ALL TRAFFIC CONTROL DEVICES FOR DETOURS SHALL COMPLY WITH STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION - SECTION 702 (1984 EDITION) AND CHAPTER VI OF THE 1978 EDITION MUTCD .

3.) ALL CONSTRUCTION SIGNING SHALL BE BLACK ON REFLECTIVE ORANGE UNLESS OTHERWISE SPECIFIED. ALL CONSTRUCTION BARRICADES AND CHANNELIZATION DEVICES SHALL BE ORANGE ON WHITE REFLECTORIZED UNLESS OTHERWISE SPECIFIED.

4.) ~~BID ITEM - (STEEL POSTS AND BASE POSTS FOR DETOUR SIGNS) THE CONTRACTOR SHALL HAVE THE OPTION OF SUPPLYING EITHER THE FLANGED CHANNEL OR THE DRIVEDOWN POST AS PER NEW MEXICO STANDARD SERIALS. REFER TO SERIALS SN 75-1 TBAC-001-10 AND TBAC-002-11.~~

S.) BID ITEM - (TYPE III BARRICADE - 6' OR 8'). TYPE III BARRICADES SHALL BE ORANGE ON WHITE REFLECTORIZED, ATTACHED TYPE "A" FLASHING BEACONS. PLYWOOD ARROW AND ROAD CLOSED SIGNS ARE TO BE INCIDENTAL TO BID PRICE. BID UNIT - PER EACH.

~~6.) BID ITEM - (TYPE I BARRICADE-8'). TYPE I BARRICADE SHALL BE ORANGE ON WHITE REFLECTORIZED. ATTACHED HIGH INTENSITY FLASHING BEACON ARE TO BE INCIDENTAL TO BID PRICE. BID UNIT - PER EACH.~~

7.) BID ITEM - (VERTICAL PANELS, SINGLE TYPE OR BACK TO BACK 8" X 24"). VERTICAL PANELS SHALL BE ORANGE ON WHITE REFLECTORIZED SHEETING .060 MIN 6061 T-6. PANELS TO BE MOUNTED ON DRIVE-DOWN POST EITHER 3" DRIVE OR ON STANCHION. BID UNIT - PER EACH.

g.) FLAGGING SHALL BE PROVIDED FOR SAFETY AND/OR AS DIRECTED BY THE PROJECT MANAGER. FLAGGERS SHALL USE STOP/SLOW PADDLES (18"x18" MIN.) IN ACCORDANCE WITH THE MUTCD. THE FLAGGER, APPLICABLE SIGNS AND OTHER RELATED ITEMS SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION, NO PAYMENT OR MEASUREMENT WILL BE MADE THEREFORE.

9.) BID ITEM - (CHANNELIZATION DEVICE BARRFL TYPE "A" OR TYPE "B"). CHANNELIZATION DEVICE BARRELS SHALL BE ORANGE ON WHITE REFLECTORIZED. TYPE "A" REQUIRES NO BEACON. TYPE "B" SHALL BE EQUIPPED WITH BEACON AS SPECIFIED IN THE STANDARDS AND SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, SECTION 702.021 (g), 1984 EDITION.

(Q) THE PROVISIONS AS INCLUDED IN THE PLANS AND SPECIFICATIONS FOR HANDLING AND CONTROLLING TRAFFIC DURING CONSTRUCTION OF THE PROJECT MAY BE CHANGED BY THE DISTRICT HIGHWAY ENGINEER IF, BECAUSE OF FIELD CONDITION AS ACTUALLY ENCOUNTERED, SUCH CHANGES ARE DESIRABLE AT THE DISCRETION OF THE PROJECT MANAGER. THESE CHANGES WILL BE MADE BY WRITTEN INSTRUCTION TO THE CONTRACTOR, AND SHALL BE CONSIDERED AN AMENDMENT TO THE PLANS AND SPECIFICATION AS OF THE DATE OF THE CHANGE.

II.) THE CONTRACTOR SHALL SUBMIT ANY PROPOSED CHANGES IN THE TRAFFIC CONTROL PLAN TO THE DISTRICT HIGHWAY ENGINEER FOR APPROVAL.

12) NO PAYMENT WILL BE MADE FOR ANY ADDITIONAL COST RESULTING FROM APPROVED TRAFFIC CONTROL PLAN CHANGES REQUESTED BY THE CONTRACTOR.

~~13) ITEM 704010 IS INCLUDED FOR PAVEMENT STRIPING BETWEEN SURFACING LIFTS AS DIRECTED BY THE PROJECT MANAGER.~~

~~(4) BID ITEM (SAND BARREL VEHICULAR IMPACT ATTENUATOR UNIT). SAND BARREL VEHICULAR ATTENUATOR UNLESS OTHERWISE SPECIFIED, SHALL BECOME THE PROPERTY OF STATE OF NEW MEXICO AT COMPLETION OF CONSTRUCTION AND SHALL NOT REVERT TO THE CONTRACTOR. THIS ITEM SHALL BE DELIVERED AND STOCK-PILED AT LOCATIONS DIRECTED BY THE PROJECT MANAGER.~~

15.) THE CONTRACTOR SHALL HAVE A RESPONSIBLE PERSON ON SITE DURING WORKING HOURS AND ON CALL DURING NON WORKING HOURS TO INSPECT AND MAINTAIN PROJECT TRAFFIC CONTROL, OR AS DIRECTED BY PROJECT MANAGER.

(5) ALL NON-APPLICABLE SIGNING SHALL BE REMOVED OR COVERED COMPLETELY WITH AN OPAQUE NON-LIGHT TRANSMITTING MATERIAL. ALL REMAINING, NON-APPLICABLE TRAFFIC CONTROL DEVICES ARE TO BE REMOVED AND STORED AT LOCATIONS DESIGNATED BY THE PROJECT MANAGER.

~~7.) BID ITEM - (PRECAST CONCRETE WALL BARRIER). PRECAST CONCRETE WALL BARRIER WHEN USED FOR TRAFFIC CONTROL PURPOSES, SHALL BECOME THE PROPERTY OF THE STATE OF NEW MEXICO AT COMPLETION OF THE PROJECT. PRECAST CONCRETE WALL BARRIER SHALL NOT REVERT TO THE CONTRACTOR OR UNLESS OTHERWISE SPECIFIED.~~

PRECAST CONCRETE WALL BARRIER SHALL BE FABRICATED IN EITHER 10' UNITS OR 12.5' UNITS TO THE DIMENSIONS SHOWN ON PLANS. ALL PRECAST CONCRETE WALL BARRIER UTILIZED IN THE WORK SHALL BE OF THE SAME LENGTH AND DESIGN, INTERMIXING WILL NOT BE ALLOWED. WORK SHALL BE DONE IN ACCORDANCE WITH APPLICABLE PROVISIONS OF SECTION 503 - PORTLAND CEMENT CONCRETE, SECTION 504.022(C) - STEEL REINFORCEMENT.

WHEN NEW PRECAST CONCRETE WALL BARRIER IS CALLED FOR ON PLAN, THE WALL BARRIER SHALL BE DELIVERED TO THE DESIGNATED AREA AND SITE AT COMPLETION OF WORK. CONTRACTOR IS TO UNLOAD AND STOCKPILE PRECAST CONCRETE WALL BARRIER AS DIRECTED BY THE PROJECT MANAGER. HAULING AND STOCKPILING OF NEW PRECAST CONCRETE WALL BARRIER TO DESIGNATED AREA AND SITE SHALL BE INCIDENTAL TO THE ITEM FOR PRECAST CONCRETE WALL BARRIER. THE DESIGNATED AREA IS

SUMMARY OF QUANTITIES.

INCIDENTAL TO ITEM 702000	CLEANING OF REFLECTIVE SURFACES ON TRAFFIC CONTROL DEVICES
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NEW MEXICO
STATE HIGHWAY DEPARTMENT
TRAFFIC DESIGN PLAN

TRAFFIC CONTROL DEVICES FOR CONSTRUCTION SUMMARY OF QUANTITIES

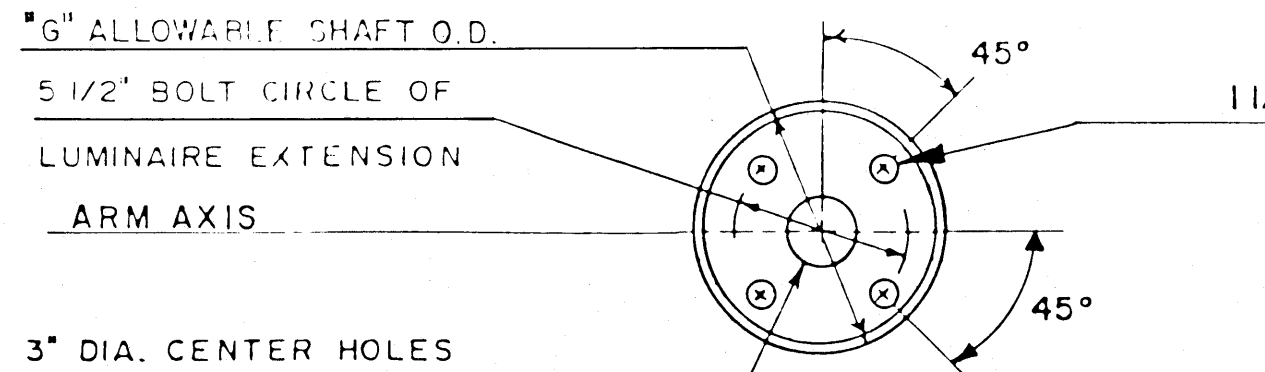
NEW MEXICO STATE ROAD NO. 528

STREET LIGHTING

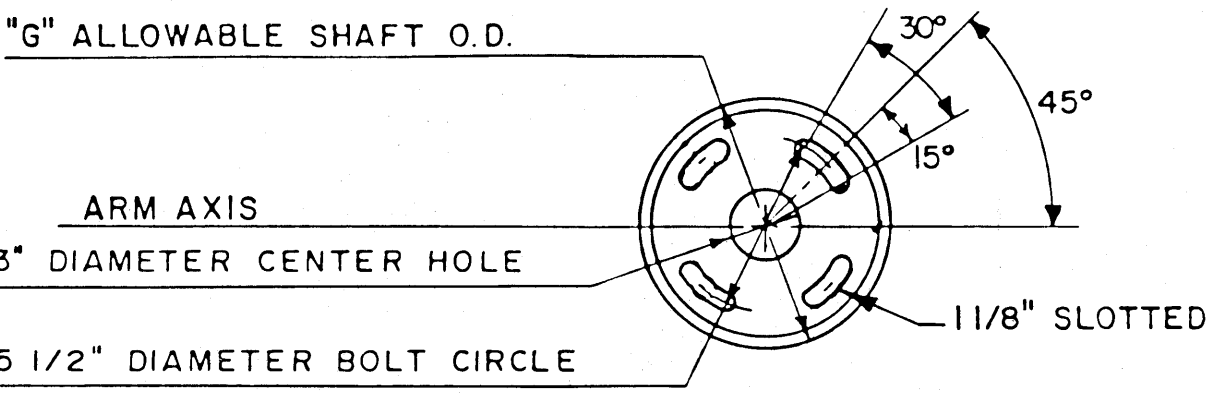
FEB 27 1989

() SIGN (S) AND/OR SUPPORT () USED IN OTHER CONSTRUCTION PHASE (S). NO ADDITIONAL PAYMENT THEREFORE.

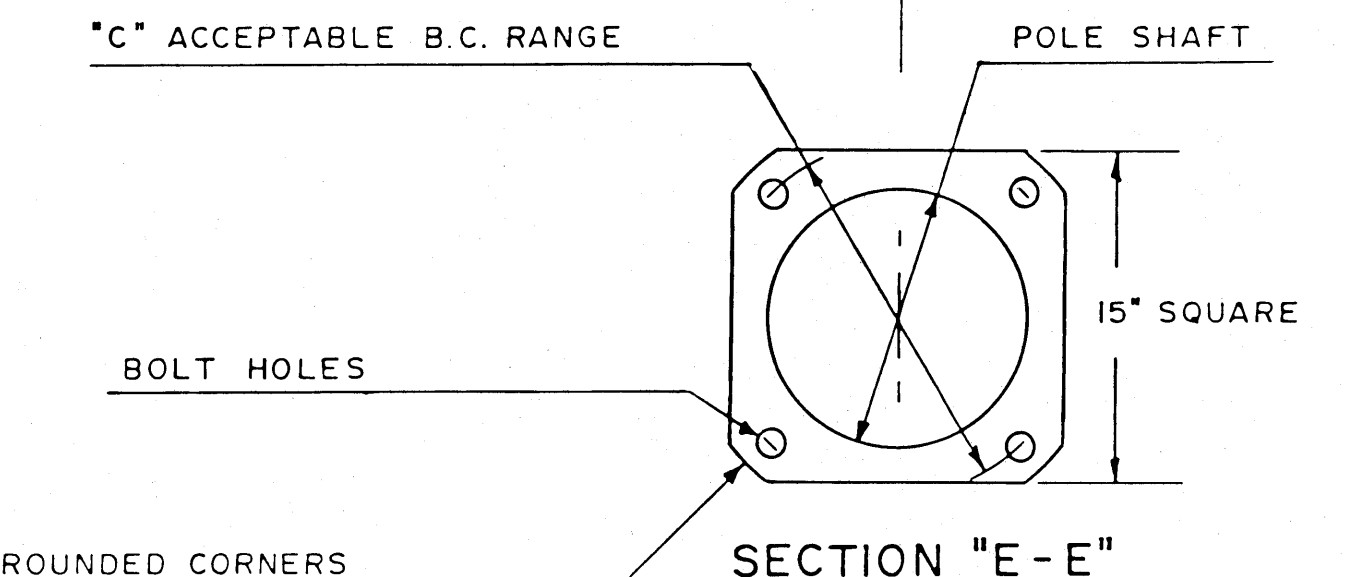
* NO ADDITIONAL POST NEEDED. SIGN TO BE MOUNTED ON COMMON POST WITH ANOTHER SIGN.



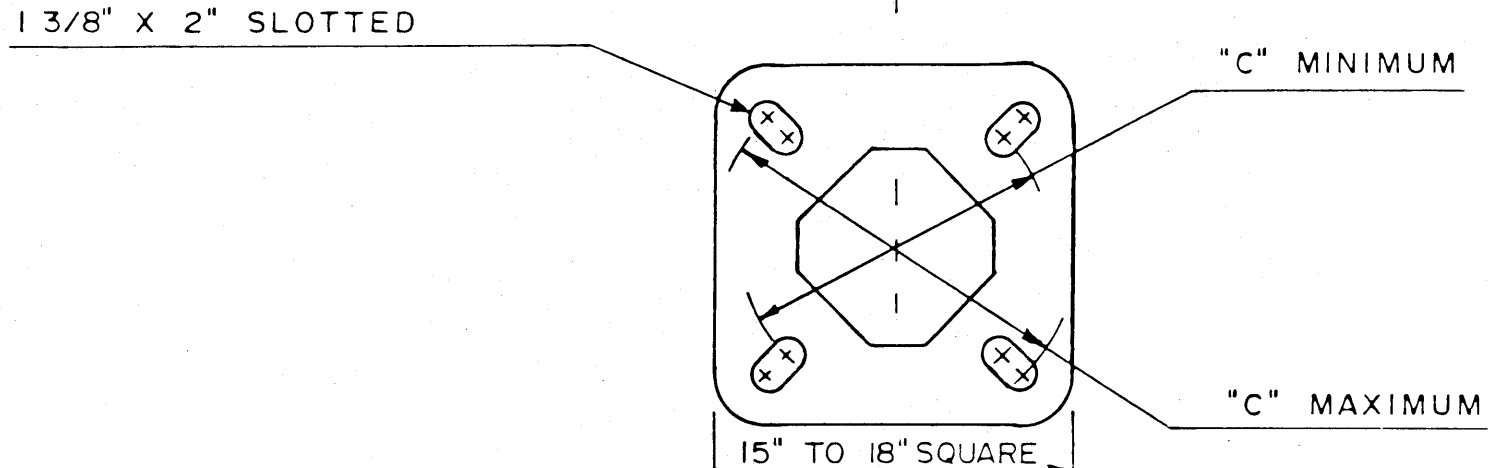
SECTION "D-D"



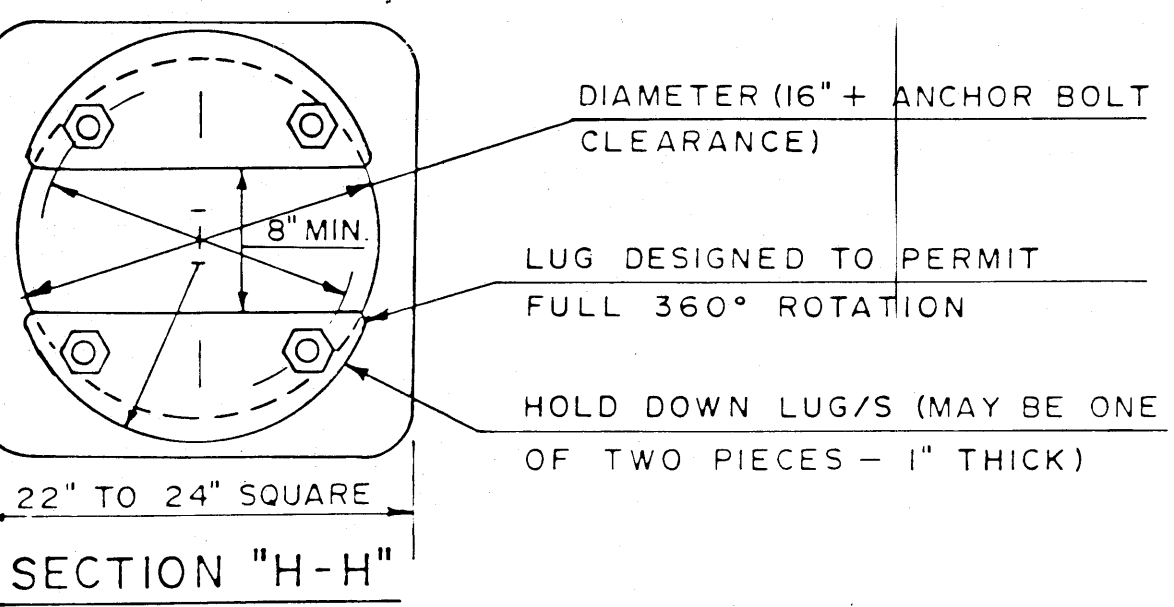
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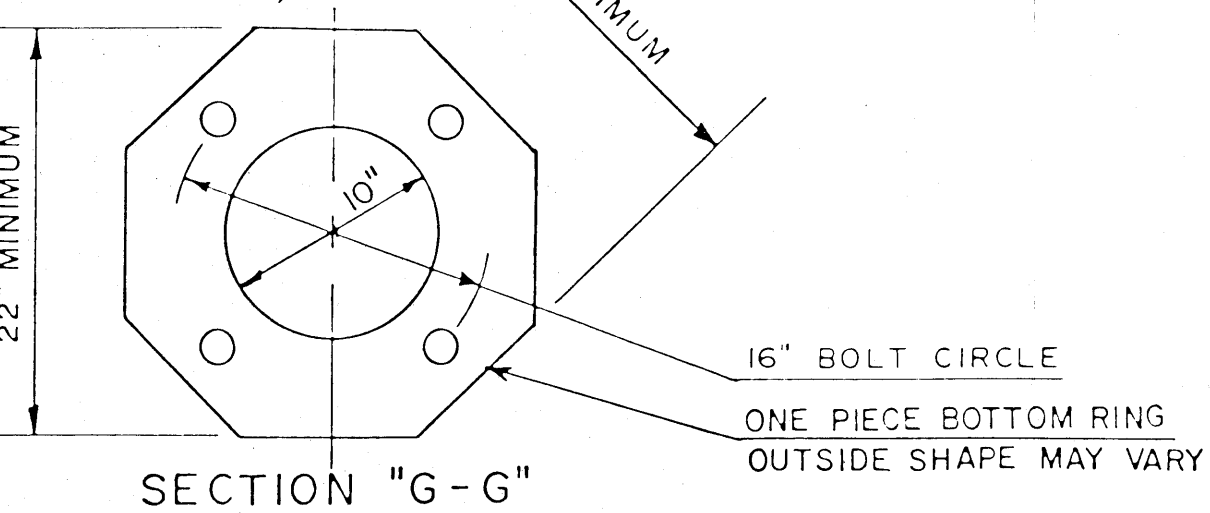
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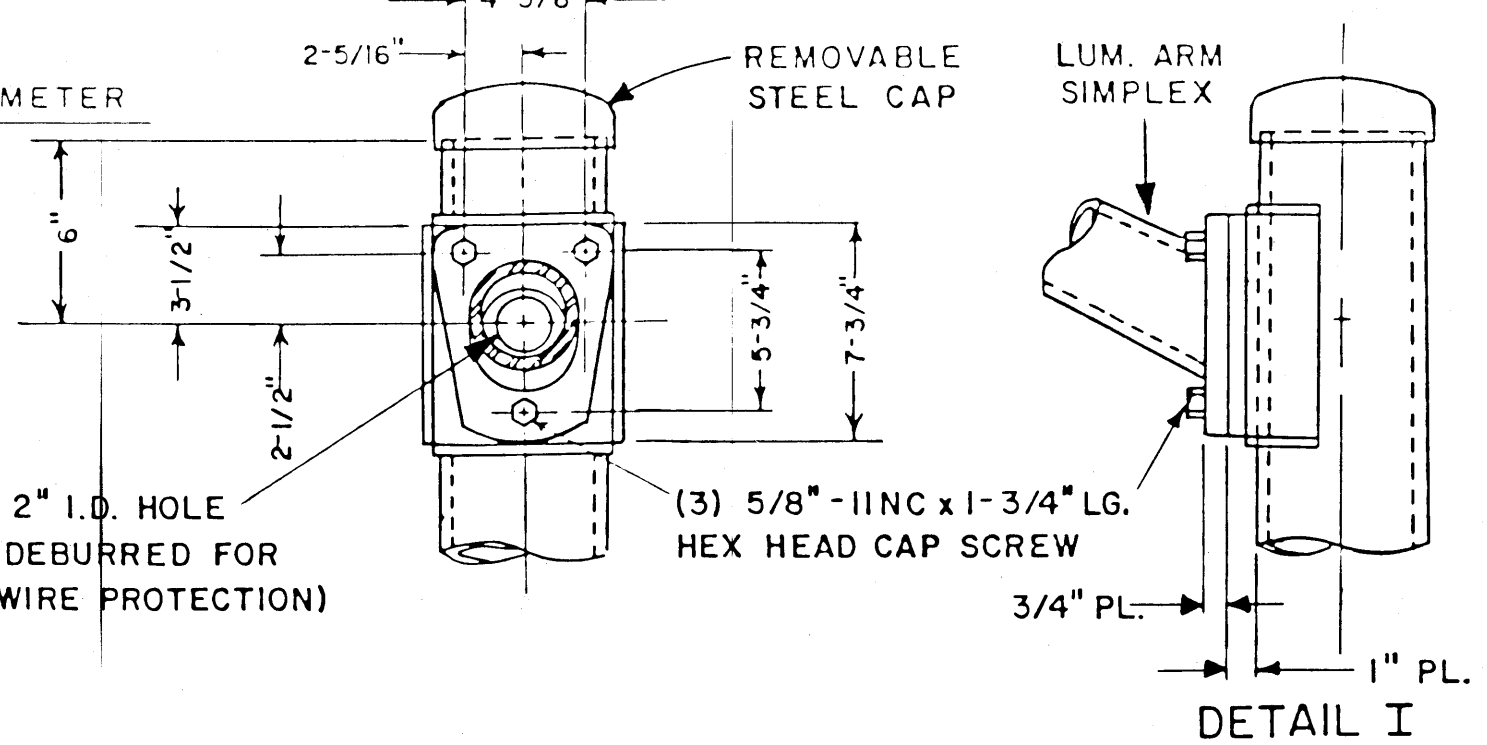
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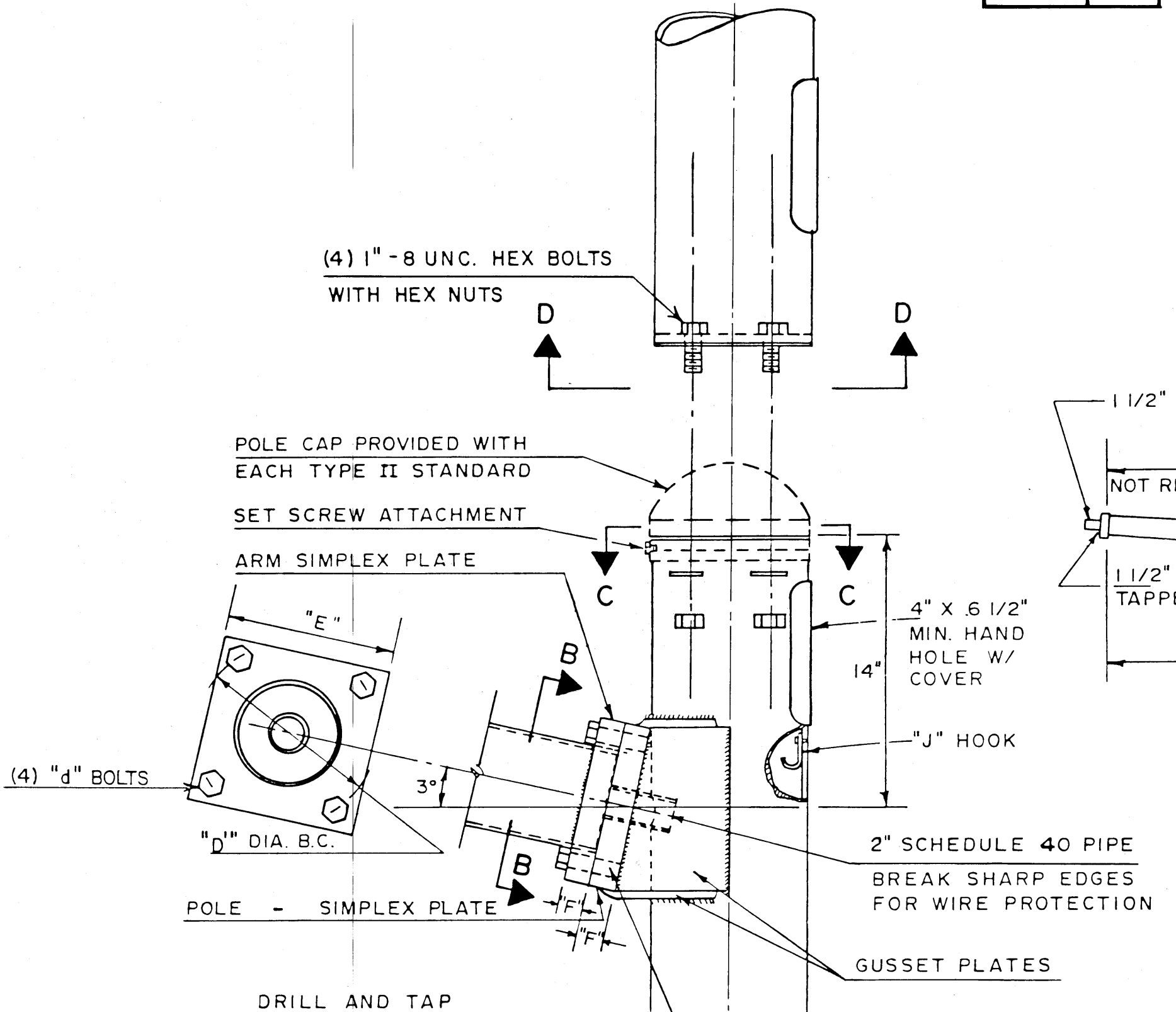
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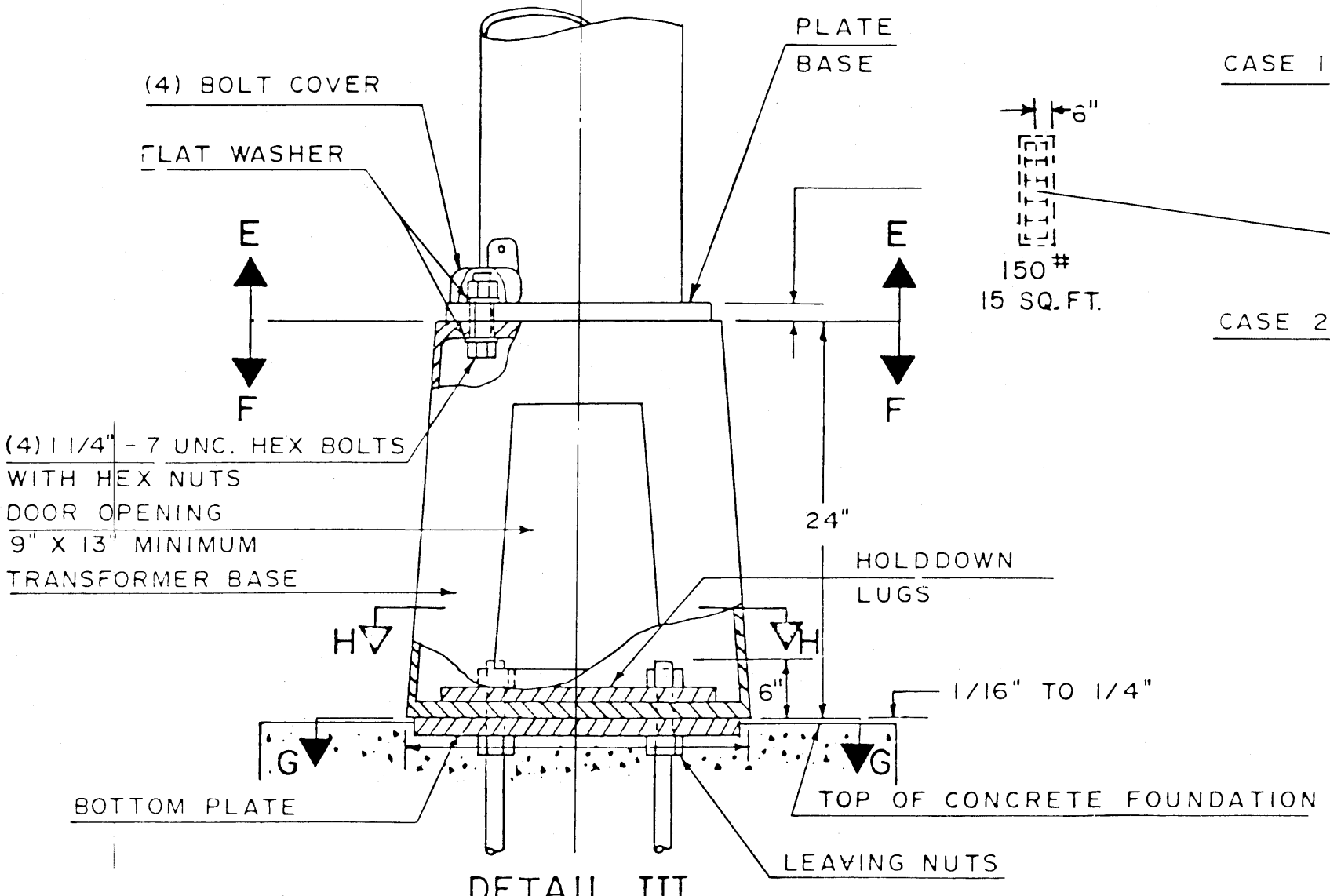
SECTION "G-G"



DETAIL I



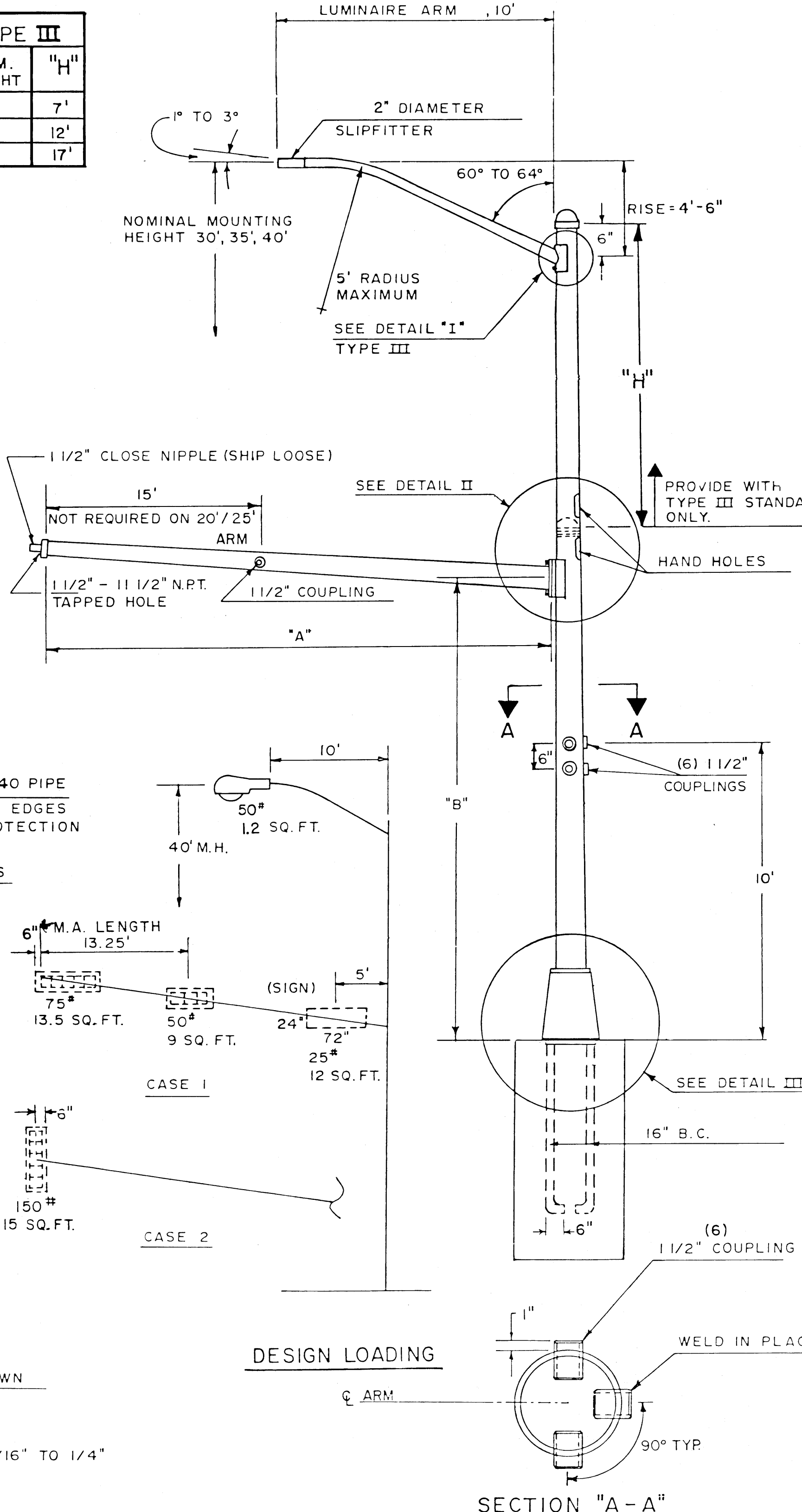
DETAIL II



DETAIL III

TYPE III	"H"
NOM. HEIGHT	
30'	7'
35'	12'
40'	17'

	"A"	"B"	"C" DIAMETER	"D" DIAMETER	"E"	"F"	ARM CONNECTING BOLT "G"	ANCHOR BOLTS	"G"
CLASS 1	20, 25, 30	18'	13 1/2" TO 15 1/2"	11"	10 1/2"	1"	1" - 8 N.C.	1 1/2" DIA. x 60" x 6"	8 1/2" ± 3/16"
CLASS 2	35, 40	17'	14 1/2" TO 16 1/2"	13"	13"	1 1/4"	1 1/4" - 7 N.C.	1 3/4" DIA. x 60" x 6"	9 1/2" ± 3/16"



NOTES

- SHAFTS AND ARMS SHALL BE STEEL OF 40,000 P.S.I. MINIMUM YIELD AFTER FABRICATION. SHAFTS MINIMUM THICKNESS OF NO. 7 GAUGE (0.1793") AND SIGNAL ARMS MIN. THICKNESS OF NO. 11 GAUGE (0.1196") LINEAR TAPER OF 0.14"/FT.
- TRANSFORMER BASES SHALL BE STEEL OF 33,000 P.S.I. MINIMUM YIELD AND A MINIMUM THICKNESS OF NO. 7 GAUGE (0.1793")
- BASE PLATES AND SIMPLEX PLATES SHALL BE PER ASTM A-36.
- SHAFTS, ARMS, PLATES AND BASES SHALL BE HOT DIPPED GALVANIZED PER ASTM A-123.
- HARDWARE AND ANCHOR BOLTS SHALL BE PER ASTM A-307 OR A-325 HOT DIPPED GALVANIZED PER ASTM A-153.
- STRUCTURAL DESIGN SHALL BE AS PER AASHTO STANDARD SPECIFICATIONS OF STRUCTURAL SUPPORTS FOR HIGHWAY SIGN LUMINAIRES AND TRAFFIC SIGNALS (LATEST EDITION)
- BOTTOM PLATES SHALL BE ATTACHED TO ANCHOR BOLTS AND LEVELED PRIOR TO POURING FOUNDATION. SURFACES THAT WILL CONTACT CONCRETE SHALL BE COATED WITH SUITABLE MATERIAL TO PREVENT ADHESION AND ALLOW REMOVAL OF PLATE.

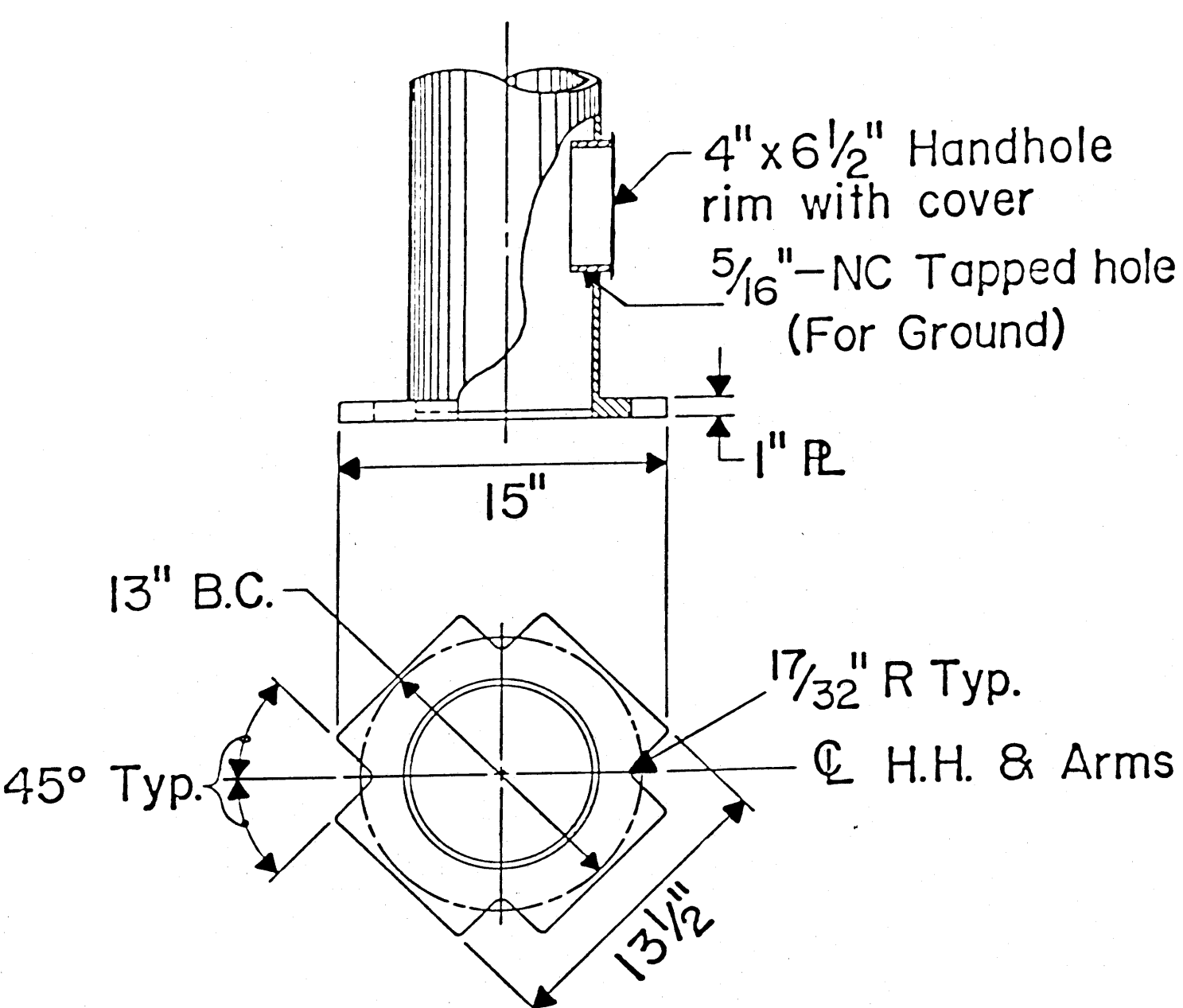
No.	DESCRIPTION	DATE	BY
3			
2			
1			

NEW MEXICO
STATE HIGHWAY DEPARTMENT
TRAFFIC DESIGN SECTION
TYPE II AND TYPE III
STANDARDS

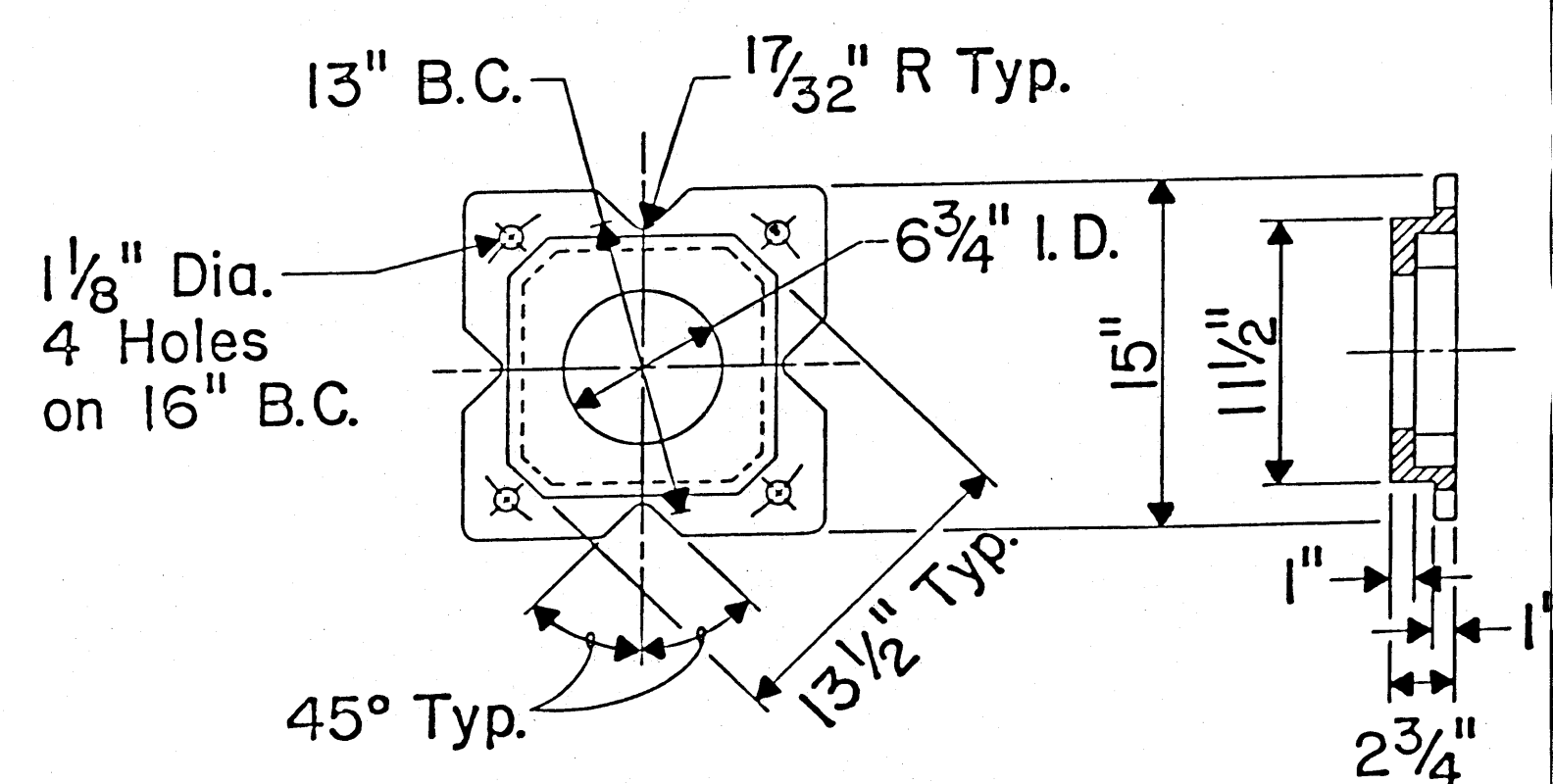
CITY OF RIO RANCHO, N.M.

NEW MEXICO STATE ROAD 528
STREET LIGHTING FEB 27 1989

F.H.W.A. Region No.	STATE	N.M.P. SP-PS- 1315(201)	SHEET NO.	TOTAL SHEETS
6	NEW MEXICO		5-3	17

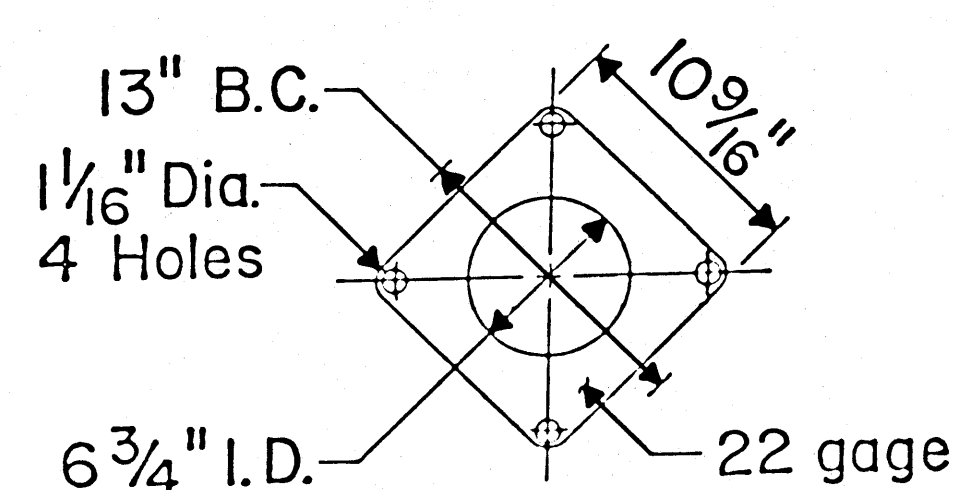


POLE BASE

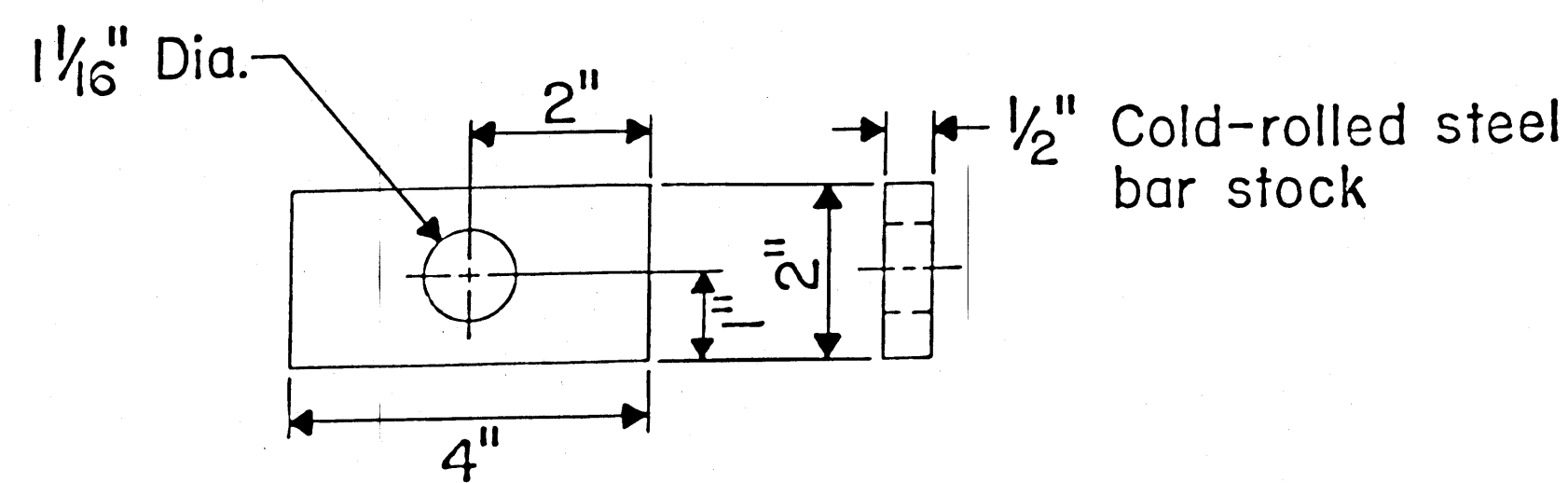


GROUND BASE CASTING

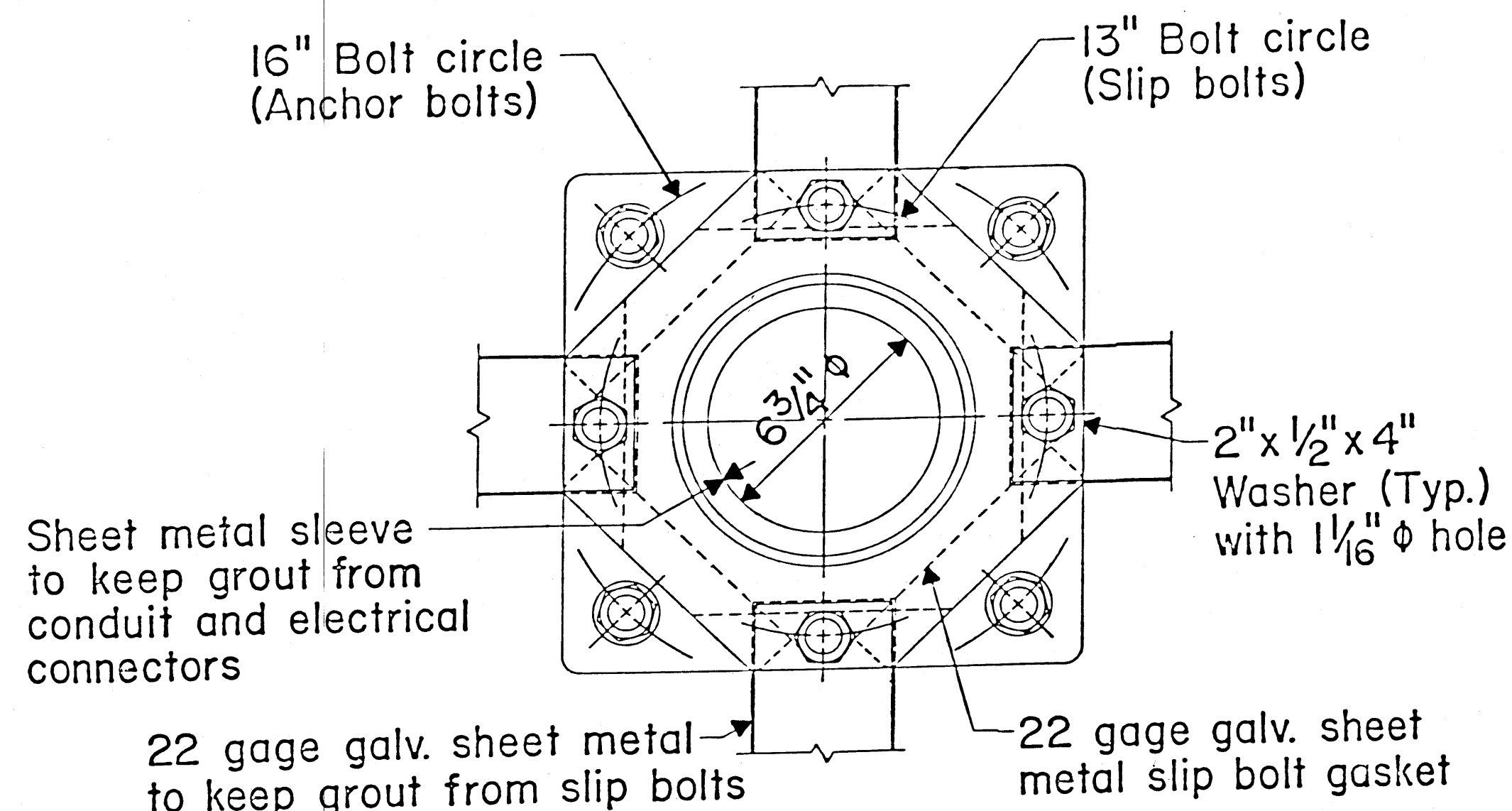
Mat'l cast steel ASTM A-27 grade 70-40



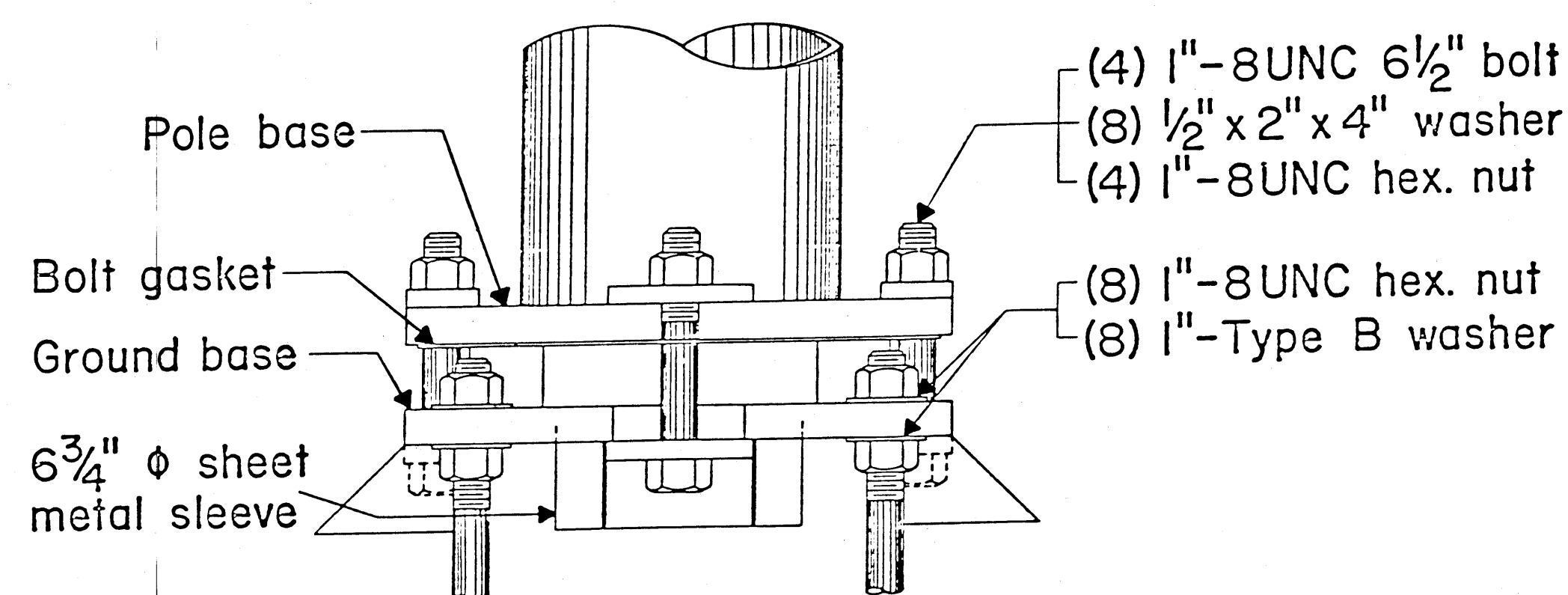
BOLT GASKET



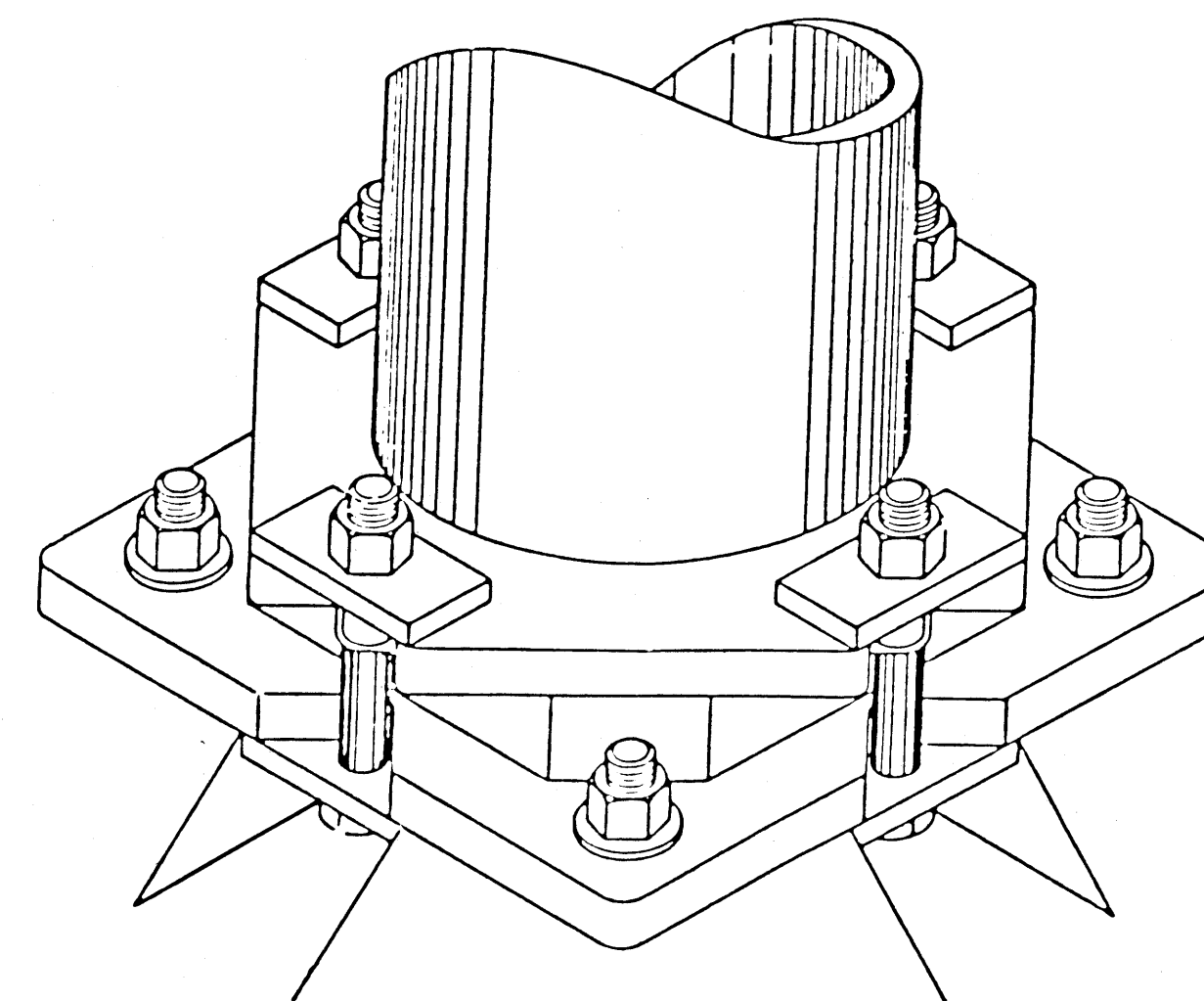
WASHER



PLAN



ELEVATION



ISOMETRIC

ASSEMBLY PROCEDURE

1. Assemble pole, mastarm and luminaire in accordance with suppliers recommendations for type V luminaire standard.
2. Fit ground base to luminaire standard as shown on assembly drawing.
3. Fit 1"-8UNC hex nut on each anchor bolt with 2 1/2" of threads above nut. Place 1" type B washer on anchor bolts above hex nuts.
4. Place luminaire standard assembly on anchor bolts. Fit 1" washer and hex nut on each anchor bolt with approximately 1/4" of threads showing above upper hex nut.
5. Align luminaire standard by bringing up the lower hex nuts.
6. Torque anchor bolts to 175 ft.-lbs. and center punch threads at nut.
7. Loosen and retorqued 1" slip-joint nuts to 150 lbs. Center punch threads at nut.
8. Place sheet metal sleeve around the conduit and the sheet metal inserts behind slip-joint bolts. Then grout the space beneath the ground base.

3			
2			
1	Revised Ser Number	5-1-80 AO	
No	DESCRIPTION	DATE	B
REVISIONS (OR CHANGE NOTICE)			
NEW MEXICO STATE HIGHWAY DEPARTMENT TYPE "V" STANDARD STEEL SLIP BASE CITY OF RIO RANCHO, N.			
NEW MEXICO STATE ROAD 528 STREET LIGHTING FEB 27			
SERIAL TS-002-01			