SP-1

FINAL PLANS

DESIGN DESIGNATION

A.D.T. - 1985 = 17,840
A.D.T. - 2000 = 23,050

D = %
T = %
V = M.P.H.

MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

PLANS FOR PROPOSED

STATE HIGHWAY

FEDERAL AID PROJECT

MONTGOMERY Co.

COUNTY MONTGOMERY
ROUTE I-70
PROJECT I-70-3(77)

Job No. 5-I-70-121

FINAL PLANS

AWARDED JUN 6, 1980 MO. HIGHWAY & TRANSPORTATION COMM.

FULLY LIMITED ACCESS HIGHWAY

THIS SHALL BE A FULLY LIMITED ACCESS HIGHWAY BETWEEN STA * AND STA **. NO ABUTTING OWNER SHALL HAVE THE RIGHT OF DIRECT ACCESS TO SAID HIGHWAY OR ITS RIGHT-OF-WAY EXCEPT THAT ACCESS WILL BE PERMITTED TO ANY ADJACENT OUTER ROADWAY OR SERVICE ROAD TO WHICH ACCESS IS NOT SPECIFICALLY PROHIBITED BY THE SPECIAL SYMBOL DENOTING "NO RIGHT OF ACCESS" AS SHOWN ON THE PLANS. NO ACCESS WILL BE PERMITTED FROM OUTER ROADWAYS AND SERVICE ROADS TO THROUGHWAYS EXCEPT ALONG ROUTES CONSTRUCTED FOR THAT PURPOSE. OUTER ROADWAYS AND SERVICE ROADS, AS THE CASE MAY BE, ARE SO DESIGNATED ON THE PLANS.

- BEGINNING AND ENDING OF LIMITED ACCESS
- LIMITED ACCESS
- NO RIGHT OF ACCESS OR CROSSING OF LINES BEARING THIS SYMBOL WILL BE PERMITTED UNDER ANY CIRCUMSTANCES.

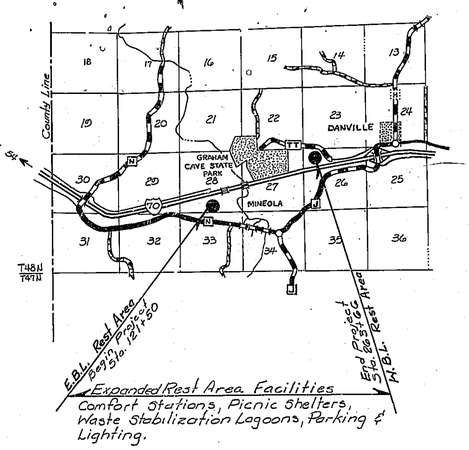
* Sta. 121+50 ** Sta 144+10 E.B.L.
* Sta. 243+50 ** Sta. 252+64 W.B.L.

CONVENTIONAL SIGNS
(USED IN PLANS)

BUILDINGS AND STRUCTURES
GUARD RAIL
CONCRETE RIGHT-OF-WAY MARKER
STEEL RIGHT-OF-WAY MARKER
FENCE
CHAIN LINK
WOVEN WIRE
GATE
UTILITIES
TELEPHONE
POWER
GAS
WATER

NOTE: DASHED OR OPEN SYMBOL INDICATES EXISTING FEATURE

TITLE SHEET LEGEND



Expanded Rest Area Facilities
Comfort Stations, Picnic Shelters, Waste Stabilization Lagoons, Parking & Lighting.

-2Mi. -1Mi. 0.5Mi. 0 1Mi. 2Mi. 3Mi
SCALE

INDEX OF SHEETS

DESCRIRTION	SHEET NO.
TITLE SHEET	1
TYPICAL SECTIONS (1 SHEET)	2
SUMMARY (1 SHEET)	2-A
SUMMARY (5 SHEETS)	2-B
PLAN-PROFILE	3-B
REFERENCE POINTS	
SPECIAL SHEETS	9-22
LIGHTING	
SIGNALS	
SIGNING	23
CULVERT SECTIONS	
BRIDGE DRAWINGS	
STANDARD PLANS INDEX	1 Sheet
CROSS SECTIONS	25-44
COMPUTER DATA	
Computation Sheet	24

LENGTH OF PROJECT

END OF PROJECT	STA. 263+66	
BEGINNING OF PROJECT	STA. 121+50	
APPARENT LENGTH	14216.0	FEET
EQUATIONS AND EXCEPTIONS	None	
TOTAL CORRECTIONS	——	FEET
NET LENGTH OF PROJECT		FEET
STATE LENGTH	2.692	MILES
FEDERAL LENGTH	2.692	MILES

MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

SUBMITTED

CHIEF ENGINEER — DATE

STATE OF MISSOURI ROBERT A. HUNTER NUMBER E-7031 REGISTERED PROFESSIONAL ENGINEER

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED

DIVISION ENGINEER — DATE

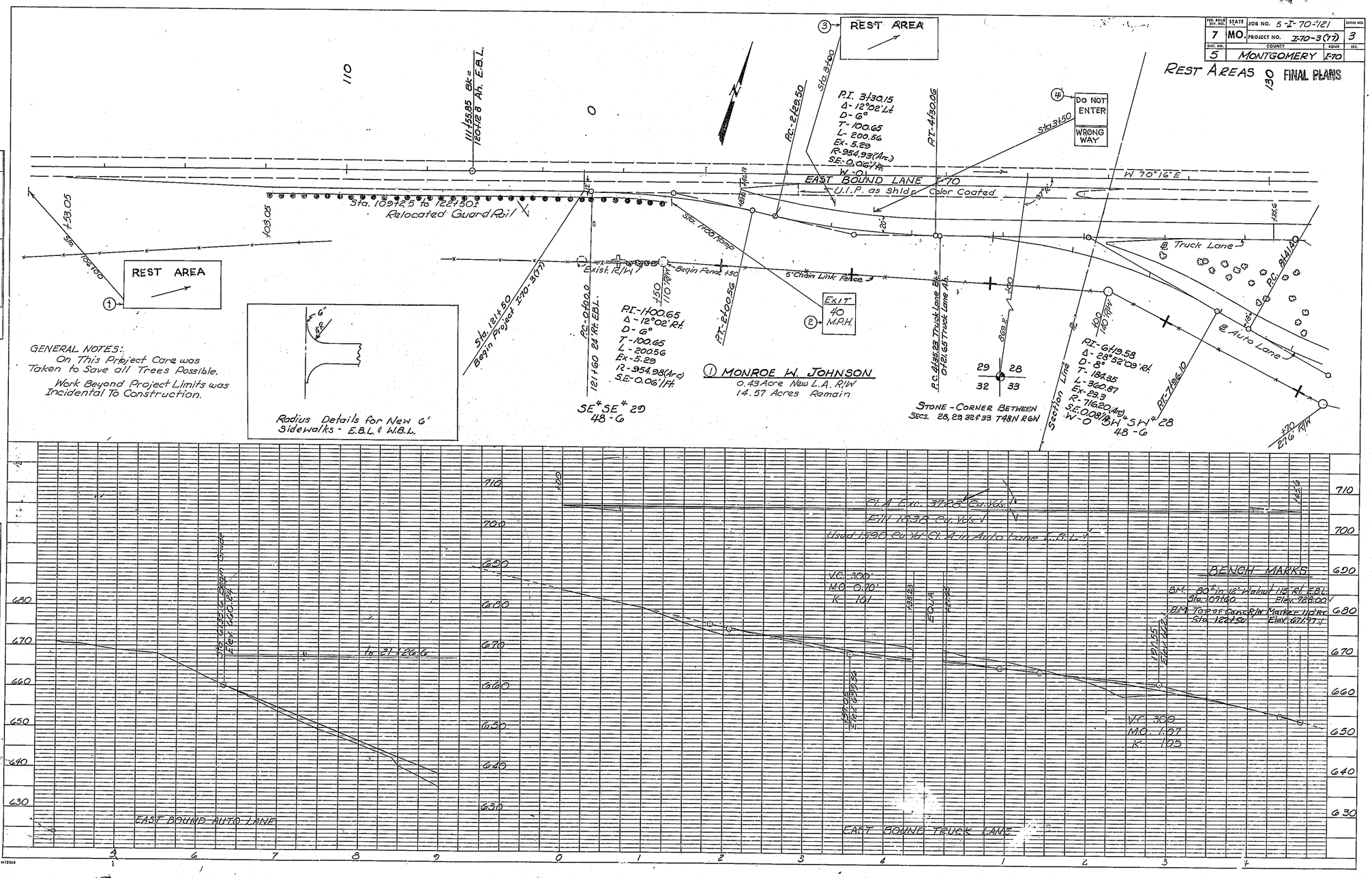
~~272~~ 192

986 24 TO 1

FED. ROAD DIV. NO.	STATE	JOB NO. 5-I-70-121	SHEET NO.
7	MO.	PROJECT NO. I-70-3(77)	3
DIST. NO.	COUNTY	ROUTE	SEC.
5	MONTGOMERY	I-70	

REST AREAS

FINAL PLANS



PLAN — SURVEYED / PLOTTED / NOTE BOOK / NOTES CHECKED / R.C. OF WAY CHECKED / No. — BY: Photo / M. Graham — DATE: 6-77

PROFILE — SURVEYED / PLOTTED / NOTE BOOK / GRADES CHECKED / R.C. OF WAY CHECKED / ELEVATIONS CHECKED / No. — BY: M. Graham — DATE: 6-77

220

222

986 24 TO 1

FINAL PLANS

FED. ROAD DIV. NO.	STATE	JOB NO. 5I-70-121	SHEET NO.
7	MO.	PROJECT NO. I-70-3(77)	4
DIST. NO.	COUNTY	ROUTE	SEC.
5	MONTGOMERY	I-70	

FINAL PLANS

REST AREAS

Sta. 12+39 - 16+63 Lt. Auto Lane 8" Type "S" Curb (Conc.)

Sta. 15+25 62'-68' Lt. Auto Lane 6-8' Steps
Sta. 15+25 129.5'-149' Lt. Auto Lane 16-8' Steps
Sta. 14+50 Lt. Auto Lane 9-6' Steps
Sta. 13+80 Lt. Auto Lane 9-6' Steps
Sta. 12+87 Lt. Auto Lane 9-6' Steps
Sta. 13+37 Lt. Auto Lane 9-4' Steps

Wall to Comf. Sta. 2" x 100' Copper Pipe
Sta. 12+20 @ Auto Lane 18" x 40' Cl. III R.C.P. 2-F.E.S.
Sta. 17+00 @ Auto Lane 18" x 55' Cl. III R.C.P. 2-F.E.S.
Sta. 18+00 @ Auto Lane Sk. 60° R.A. 12" x 110 Cl. III R.C.P.

(5) Sta. 16+00 Lt. Auto Lane 8" x 167' V.C.P.
(6) Sta. 18+03.9 @ Auto Lane 8" x 180' V.C.P.
(11) Sta. 5+10 Lt. @ Lagoon 8" x 234' V.C.P.
(7) Sta. 19+04.6 Rt. Auto Lane 8" x 116' C.I.P. (Incl. 1-15° Elbow)
(9) Sta. 4+90 Lt. Lagoon @ 8" x 11' C.I.P. (Incl. Gate Valve)
(13) Sta. 7+40 Lt. @ Lagoon 8" x 36' C.I.P.
Sta. 3+10 @ Lagoon Service Road 18" x 30' C.M.P.
(2) Sta. 15+40 62' Lt. Auto Lane Std. 604.30 Manhole
(4) Sta. 17+30 38' Lt. Auto Lane Std. 604.30 Manhole
(8) Sta. 19+00 50' Rt. Auto Lane Std. 604.30 Manhole
(10) Sta. 5+05 20 Lt. Lagoon @ Std. 604.30 Manhole

Sta. 5+20 @ Sewer Lagoon Sk. 3" R.A. 18" x 170' C.M.P.
(12) Sta. 7+40 8' Lt. Lagoon @ Std. 604.30 Manhole

Sta. 5+80 Lt. @ Lagoon 8" x 63' C.I.P. (Incl. Gate Valve)
Sta. 6+00 Lt. @ Lagoon 8" x 24' C.I.P. (Incl. Gate Valve)

P.I.- 9+56.17
Δ - 18°12'32" Lt.
D - 8°
T - 114.77
L - 227.61
R - 716.20 (arc)
S.E. - 0.08'/ft.
W - 0

P.I.- 13+68.70
Δ - 10°39'37" Lt.
D 4°
T - 133.64
L - 266.5
S.E. - 0
W - 0

P.I.- 16+36.
Δ - 33°24'01" Lt.
D - 13°
T - 132.23
L - 256.32
S.E. - 0
W - 0

P.I.- 18+96.25
Δ - 14°28'00" Rt.
D - 12°
T - 60.60
L - 120.55
R - 477.46 (arc)
S.E. 0.02'/ft.
W. - 0

P.O.T. - 21+66.6 Car Lane =
P.T. - 19+36.8 Truck Lane

W 70°16' E

EAST BOUND LANE I-70

Exist. 1" Cable Conduit
Exist. 80 x 8" R.S. Conduit
Exist. Truck Parking (U.I.P.)
Exist. 1" Cable Conduit
Relocated
Com. Sta.
Tele. Pad by Other
Handicapped Ramp
Wall Hrs.
Water Hyd.
P.O.T. 12+35.06
5' Chain Link Fence
Ditch Liner
Perm. Esm't.
Spring
Sta. 15+50 Auto Lane = 0+00 Lagoon Service Road
88' x 8" Conduit By Tele. Co.
P.T. 15+01.53
P.C. 15+08.77
Sewer Lagoon Service Road P.I. Sta. 0+55 Δ 78°00' Lt. Radius 50'
20' Drive Gate
5' Chain Link Fence
S.W.B.T. Co. Cable
3 F.B.O.
Perm. Esm't.
1/4 1/4 SEC. LINES
P.T. 19+25.55
P.C. 18+87.55
P.T. 19+03.78
2nd Stage Lagoon
3rd Stage Lagoon
1st Stage Lagoon
Existing
Water Surface
Bottom
Ditch Liner
M.P.&L. Co.
Exist. R/W
Note: For Lagoon Details See Special Sheets.

CONCRETE SIDEWALK (4")
Sta. 12+63 - 16+30, 45' Lt. Auto Lane (4' Wide)
Sta. 13+37 - 14+90, 58'-94' Lt. Auto Lane (4' Wide)
Sta. 14+25 - 14+52, 109' Lt. (4' Wide)
Sta. 14+52 - 15+25, 97'-143' Lt. Auto Lane (4' Wide)
Sta. 14+90 - 15+65, 80'-135' Lt. Auto Lane (6' Wide) (Around Porch)
Sta. 15+25, 150' Lt. Auto Lane (6' Wide)
Sta. 15+25, 43' Lt. Auto Lane Curb (8' Wide)
Sta. 15+25, 14' Lt. Auto Lane Curb (8' Wide)
Sta. 15+25 Lt. Auto Lane (4' Wide) (Walks Between Porch & 6' Walk)
Sta. 15+56 - 16+15, 75' Lt. Auto Lane (6' Wide)
Sta. 16+40 - 50'± Lt. Auto Lane (8' Wide)
Sta. 16+15 - 16+ 50'± Lt. Auto Lane (6' to 8' Width Trans.)
Sta. 12+87 (6' Wide) Shelter to Steps
Sta. 13+37 (4' Wide) Shelter to 4' S.W.
Sta. 13+75 (6' Wide) Shelter to Steps
Sta. 14+54 (6' Wide) Shelter to Steps
Sta. 16+10 (6' Wide) Shelter to 6' S.W.

POWER SUPPLY
120/240 V. Single Phase

SW¼ SW¼ 28
48-6

SE¼ SW¼ 28
48-6

② GRAHAM CAVE FARMS, INC.
3.01 Acres New L.A. R/W.
960.15 Acres Remain
0.85 Acres Perm. Esmt.

PICNIC TABLES AND SHELTERS
Sta. 12+87 62' Lt. Auto Lane
Sta. 13+37 80' Lt. Auto Lane
Sta. 13+75 62' Lt. Auto Lane
Sta. 14+20 117' Lt. Auto Lane
Sta. 14+54 62' Lt. Auto Lane
Sta. 16+10 62' Lt. Auto Lane

BENCH MARKS
B.M. □ on NE. Cor Conc Pad @ Pump Table Lt. of Sta. 10+50 Auto Lane 636.88
B.M. □ on Light Base 42' Rt Sta. 137+ to Elev. 644.58
B.M. □ on Conc Base Fence Cor @ Lagoon 60' Rt. ℄ Sta. 145+ to Elev. 600.84

FINAL SURVEY — ORIGINAL SURVEY — SURVEYED, DRAWN, TEMPLATE, TRACED, AREAS CHECKED — NOTE BOOK — NO. — DATE — BY

201

986 24 TO 1

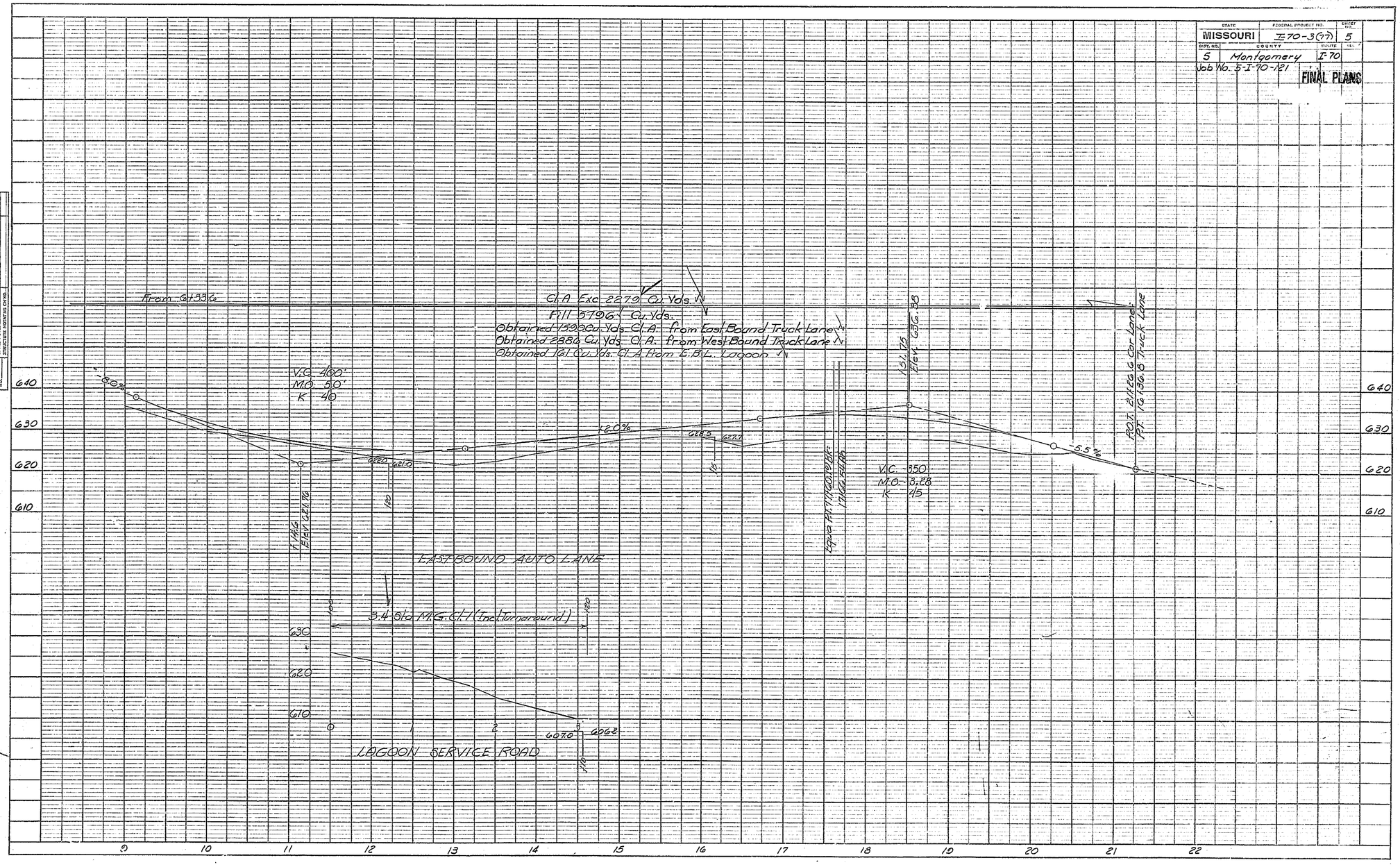
FINAL PLANS

STATE	FEDERAL PROJECT NO.	SHEET NO.
MISSOURI	I-70-3(77)	5

DIST. NO.	COUNTY	ROUTE	SEC.
5	Montgomery	I-70	

Job No. 5-I-70-121

FINAL PLANS



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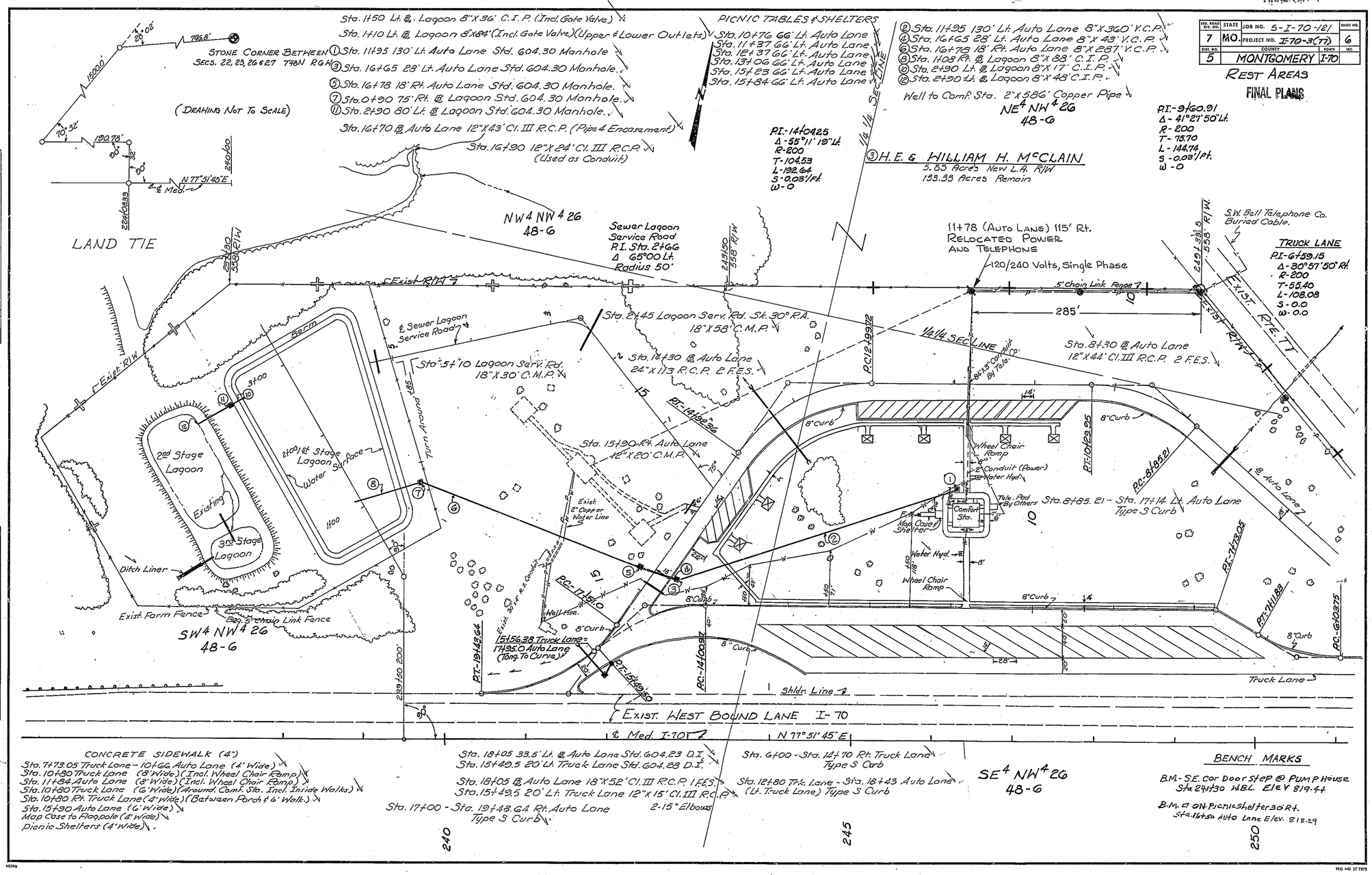
986 24 TO 1

FINAL PLANS

FED. ROAD DIV. NO.	STATE	JOB NO. 5-I-70-121	SHEET NO.
7	MO.	PROJECT NO. I-70-3(77)	6
DIST. NO.	COUNTY	ROUTE	SEC.
5	MONTGOMERY	I-70	

REST AREAS

FINAL PLANS



FINAL SURVEY	BY	DATE
NOTE BOOK		
NO.		
SURVEYED		
PLOTTED		
TRAVERSE		
AREAS		
AREAS CHECKED		

ORIGINAL SURVEY	BY	DATE
	Photo M. Graham	6-77
		6-77
NOTE BOOK		
NO.		
SURVEYED		
PLOTTED		
TRAVERSE		
AREAS		
AREAS CHECKED		

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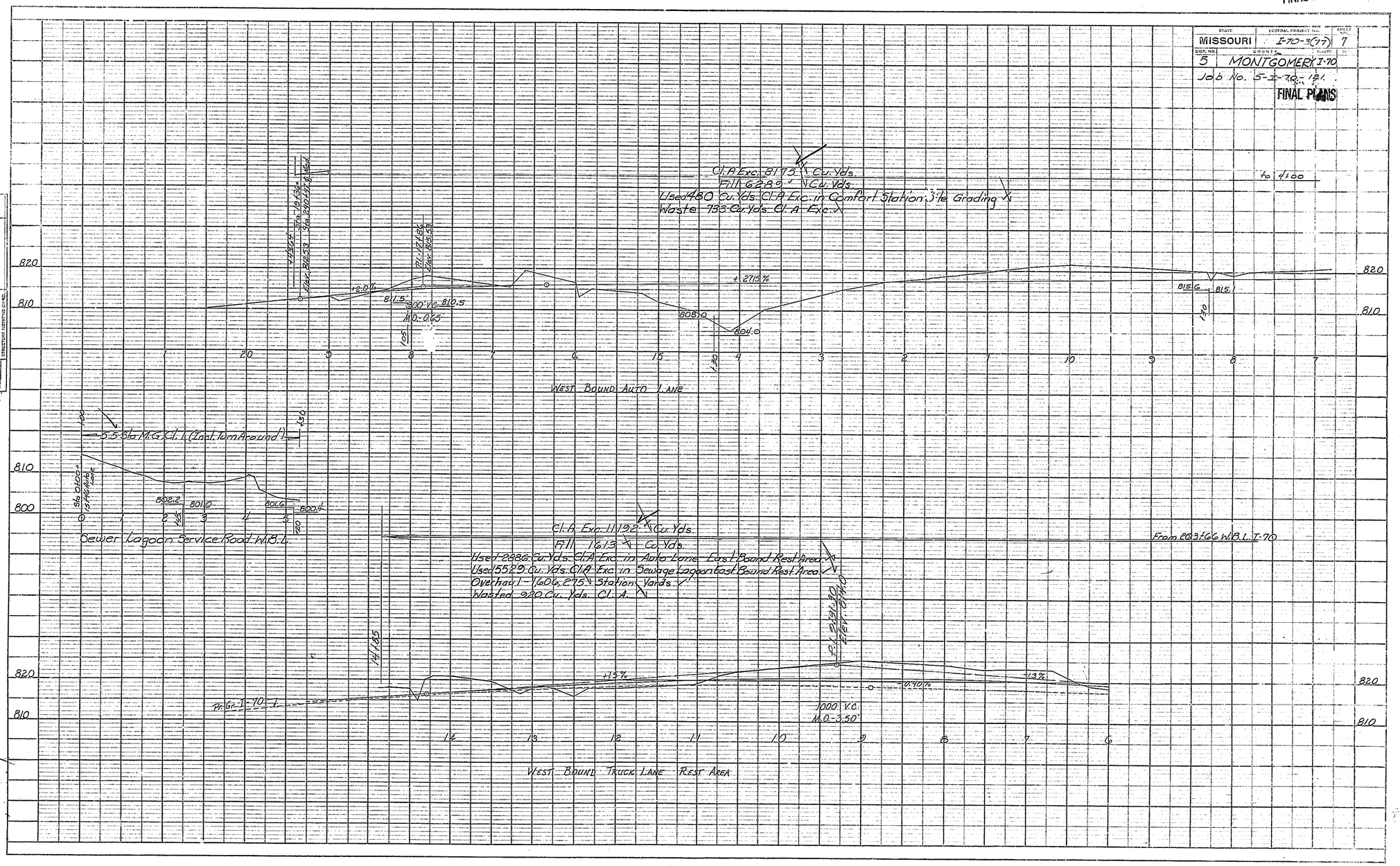
986 24 TO 1

FINAL PLANS

STATE	FEDERAL PROJECT NO.	SHEET NO.
MISSOURI	I-70-3(77)	7
DIST. NO. 5	COUNTY MONTGOMERY	ROUTE I-70

Job No. 5-I-70-121

FINAL PLANS



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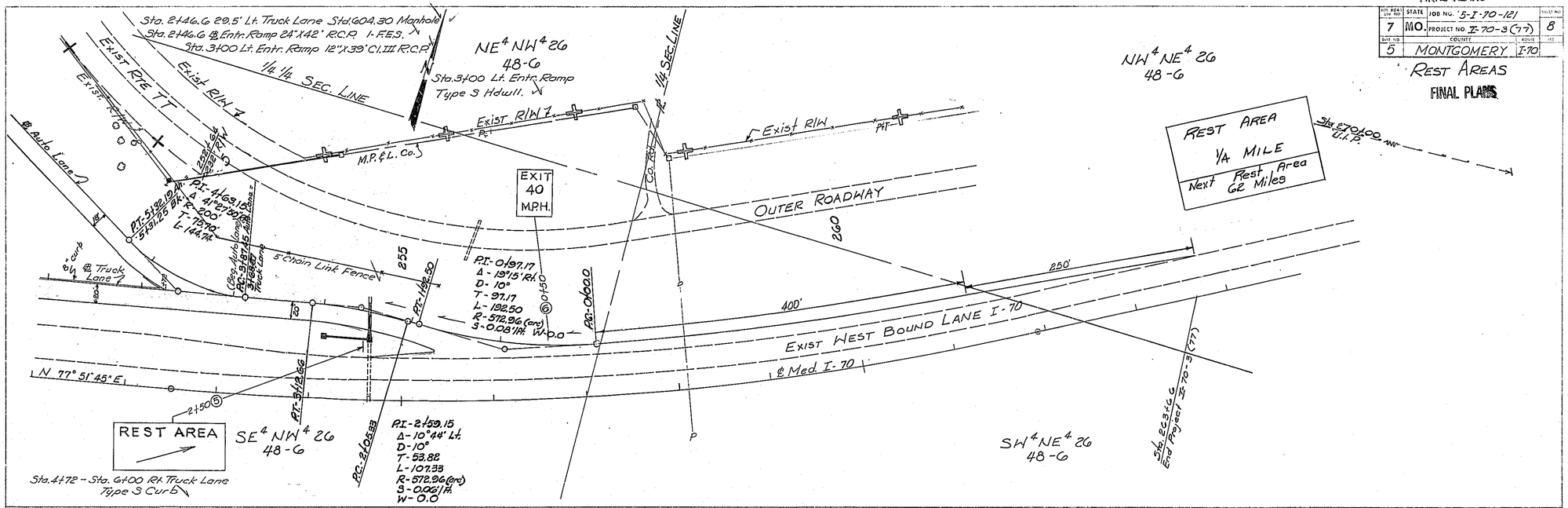
986 24 TO 1

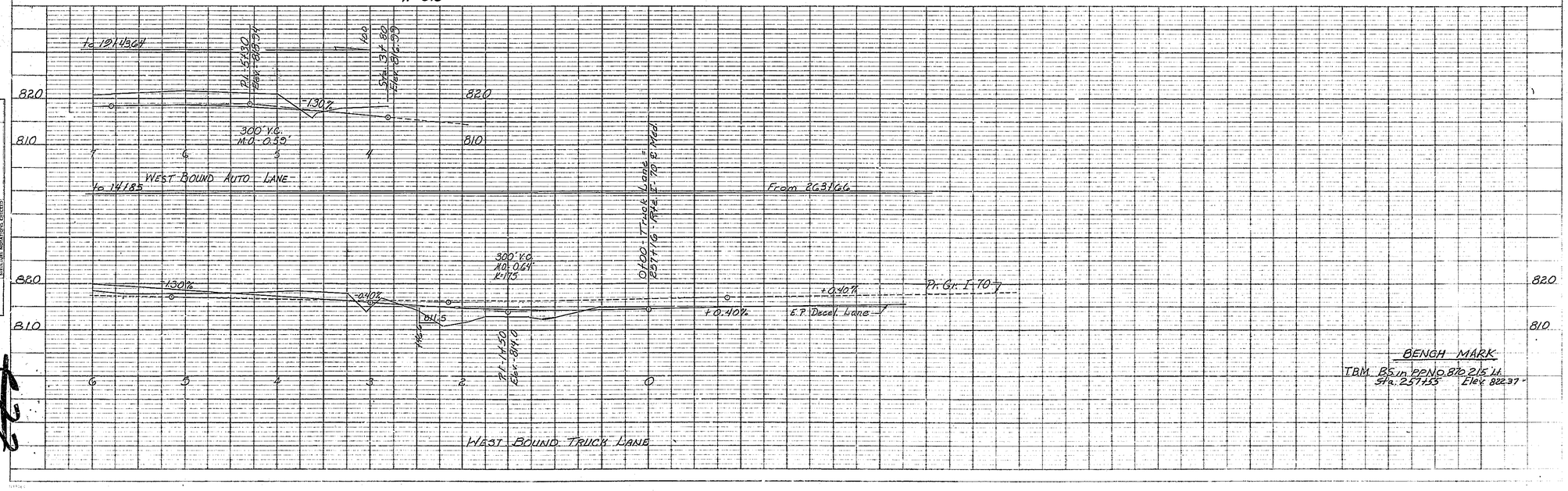
FINAL PLANS

FED. ROAD DIV. NO.	STATE	JOB NO. 5-I-70-121	SHEET NO.
7	MO.	PROJECT NO. I-70-3(77)	8
DIST. NO.	COUNTY	ROUTE	SEC.
5	MONTGOMERY	I-70	

REST AREAS

FINAL PLANS





PLAN — SURVEYED / PLOTTED / NOTE BOOK / AUGMENTED CHECKED / PLOTTING CHECKED / No. — Photo M. Graham 6-77

PROFILE — SURVEYED / PLOTTED / NOTE BOOK / AUGMENTED / PLOTTING CHECKED / No. — Photo M. Graham 6-77

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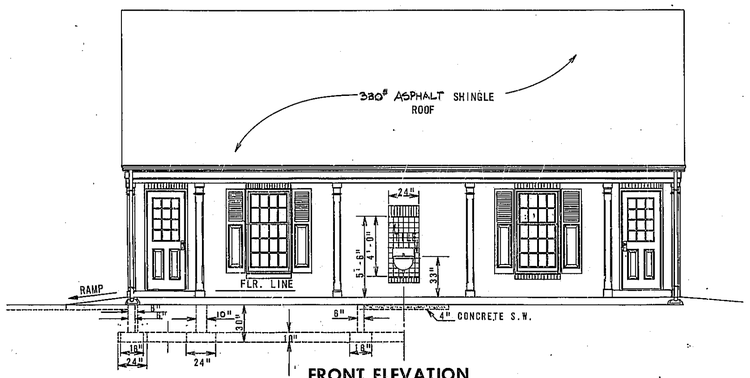
986 24 TO 1

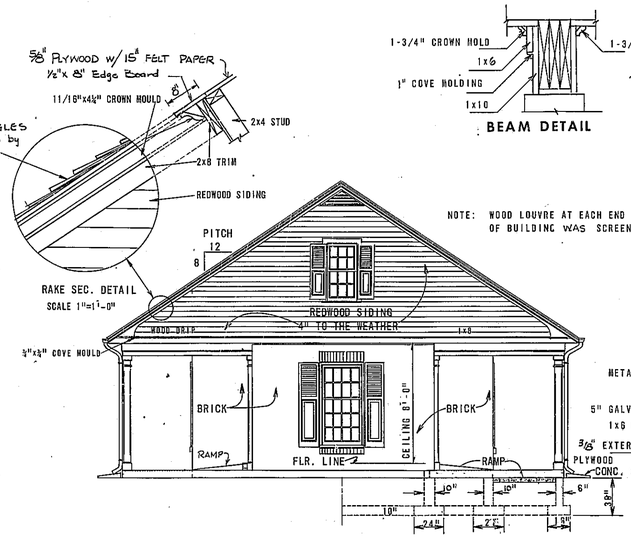
FINAL PLANS

FED. AID & DIV. NO.	STATE	JOB NO. S-I-70-121	SHEET NO.
7	MO.	PROJECT NO. I-70-3 (77)	9
DIST. NO.	COUNTY	ROUTE	SEC.
5	MONTGOMERY	I-70	

FINAL PLANS

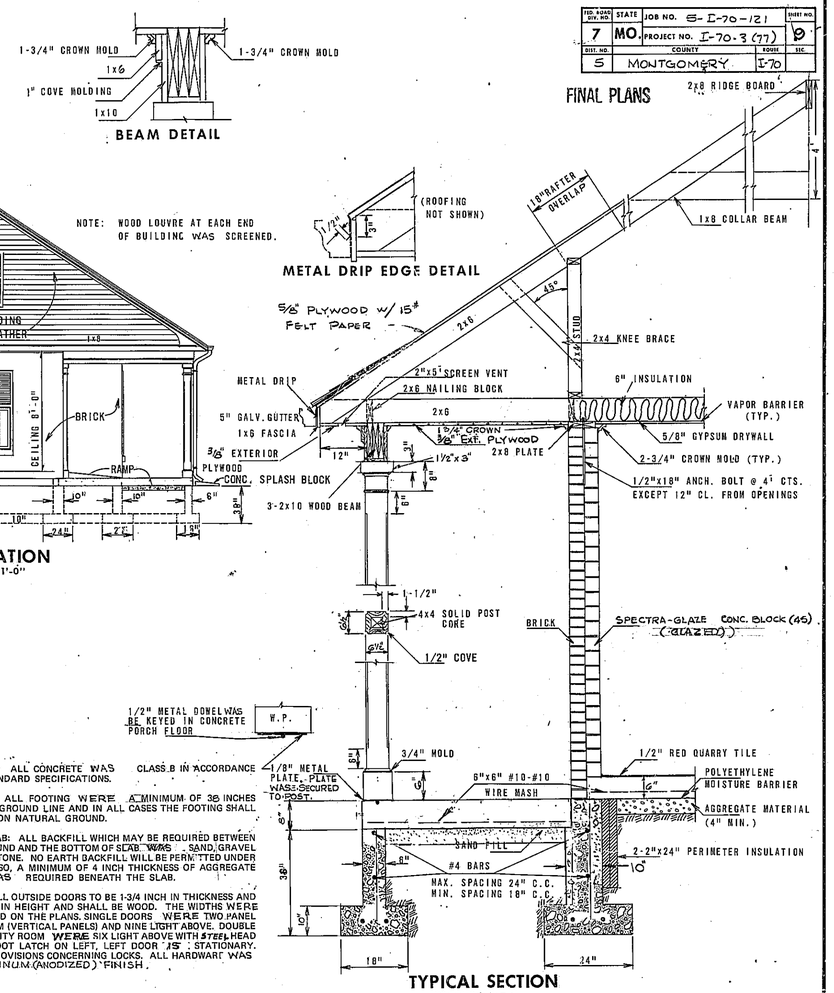


FRONT ELEVATION
SCALE 1/4" = 1'-0"

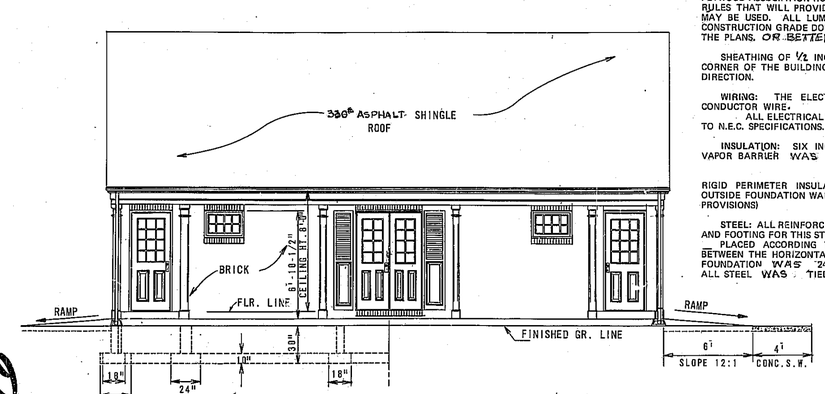


SIDE ELEVATION
SCALE 1/4" = 1'-0"

NOTE: WOOD LOUVRE AT EACH END OF BUILDING WAS SCREENED.



TYPICAL SECTION
SCALE 3/4" = 1'.



BACK ELEVATION
SCALE 1/4" = 1'-0"

GENERAL NOTES:

LUMBER: ALL LUMBER SIZES SHOWN ARE COMMERICAL SIZES AND WAS SAS. KILN DRIED AND GRADED AS SHOWN IN THE PLANS. LUMBER DID CONFORM TO THE LATEST STANDARD GRADING AND DRESSING RULES FOR DOUGLAS FIR, AS PUBLISHED BY THE WEST COAST LUMBERMEN'S ASSOCIATION, OR THE LATEST STANDARD GRADING RULES, AS PUBLISHED BY THE SOUTHERN PINE INSPECTION BUREAU. PLYWOOD GRADING WAS IN ACCORDANCE TO THE DOUGLAS FIR PLYWOOD ASSOCIATION RULES. ANY CURRENT COMMERCIAL GRADING RULES THAT WILL PROVIDE MATERIALS OF AN APPROVED QUALITY MAY BE USED. ALL LUMBER WAS NO. 3 SOUTHERN PINE OR CONSTRUCTION GRADE DOUGLAS FIR OR AS OTHERWISE SPECIFIED ON THE PLANS. OR BETTER GRADE

SHEATHING OF 1/2 INCH PLYWOOD WAS REQUIRED AT EACH CORNER OF THE BUILDING FOR A MINIMUM OF FOUR FEET IN EACH DIRECTION.

WIRING: THE ELECTRICAL WIRING WAS MIN. NO. 12 CONDUCTOR WIRE.
ALL ELECTRICAL WIRING WAS INSTALLED TO CONFORM TO N.E.C. SPECIFICATIONS.

INSULATION: SIX INCH FIBERGLASS INSULATION BATTS WITH VAPOR BARRIER WAS REQUIRED IN THE CEILING.

TWO INCH THICK BY 24 INCH DEEP RIGID PERIMETER INSULATION WAS PLACED AROUND THE OUTSIDE FOUNDATION WALL AS SHOWN ON THE PLANS. (SEE SPECIAL PROVISIONS)

STEEL: ALL REINFORCING STEEL REQUIRED FOR THE FOUNDATION AND FOOTING FOR THIS STRUCTURE WAS #4 BAR SIZE AND WAS PLACED ACCORDING TO THE PLAN. THE MAXIMUM SPACING BETWEEN THE HORIZONTAL AND VERTICAL BARS REQUIRED IN THE FOUNDATION WAS 24 INCHES. ALL LAPS WERE 12 INCHES. ALL STEEL WAS TIED SECURELY.

CONCRETE: ALL CONCRETE WAS CLASS B IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

FOOTING: ALL FOOTING WERE A MINIMUM OF 38 INCHES BELOW FINISH GROUND LINE AND IN ALL CASES THE FOOTING SHALL REST FIRMLY ON NATURAL GROUND.

FLOOR SLAB: ALL BACKFILL WHICH MAY BE REQUIRED BETWEEN NATURAL GROUND AND THE BOTTOM OF SLAB WAS SAND, GRAVEL OR CRUSHED STONE. NO EARTH BACKFILL WILL BE PERMITTED UNDER BUILDING. ALSO, A MINIMUM OF 4 INCH THICKNESS OF AGGREGATE MATERIAL WAS REQUIRED BENEATH THE SLAB.

DOORS: ALL OUTSIDE DOORS TO BE 1-3/4 INCH IN THICKNESS AND 6 FEET-8 INCH IN HEIGHT AND SHALL BE WOOD. THE WIDTHS WERE AS SPECIFIED ON THE PLANS. SINGLE DOORS WERE TWO PANEL AT THE BOTTOM (VERTICAL PANELS) AND NINE LIGHT ABOVE. DOUBLE DOORS TO UTILITY ROOM WERE SIX LIGHT ABOVE WITH STEEL HEAD LATCH AND FOOT LATCH ON LEFT. LEFT DOOR IS STATIONARY. SEE SPECIAL PROVISIONS CONCERNING LOCKS. ALL HARDWARE WAS SATIN ALUMINUM (ANODIZED) FINISH.

AUTOMATIC DOOR CLOSERS: ALL OUTSIDE DOORS EXCEPT THE DOORS TO THE UTILITY ROOMS WERE EQUIPPED WITH AUTOMATIC DOOR CLOSERS.

WOOD SHUTTERS:
ALL SHUTTERS REQUIRED FOR THIS PROJECT WERE WOOD AND WAS MADE FROM CLEAR PINE 1-1/4 INCH THICK. THE MAXIMUM WIDTH WAS 16" OR ONE HALF THE WIDTH OF THE DOOR OR WINDOW ON WHICH THE SHUTTER IS TO BE INSTALLED. THE SIZE OF THE WINDOWS AND DOORS WILL DETERMINE THE HEIGHT OF THE SHUTTER. THE TOP PART SHALL BE LOUVERED AND THE BOTTOM WAS PANELED. THE TOP OF THE BOTTOM SASH WAS THE DIVISION POINT BETWEEN THE LOUVRE AND THE PANEL. WINDOWS AND DOORS WERE EQUIPPED WITH SHUTTERS ARE INDICATED ON THE PLANS.

DATE	BY	
		SURVEYED
		PLOTTED
		TEMPLATE
		AREAS CHECKED
FINAL SURVEY		NOTE BOOK
		NO.

DATE	BY	
		SURVEYED
		PLOTTED
		TEMPLATE
		AREAS CHECKED
ORIGINAL SURVEY		NOTE BOOK
		NO.

MISSOURI STATE HIGHWAY COMMISSION

COMBINATION - TOOL SHED AND COMFORT STATION

TYPICAL SECTION & ELEVATIONS

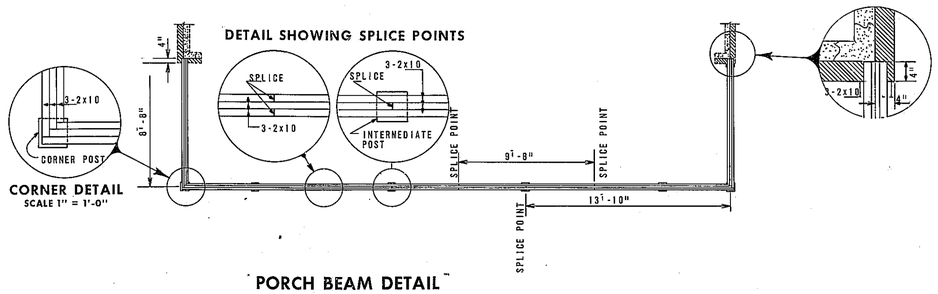
SHEET 1 OF 4

RED MO 17 1973

986 24 TO 1

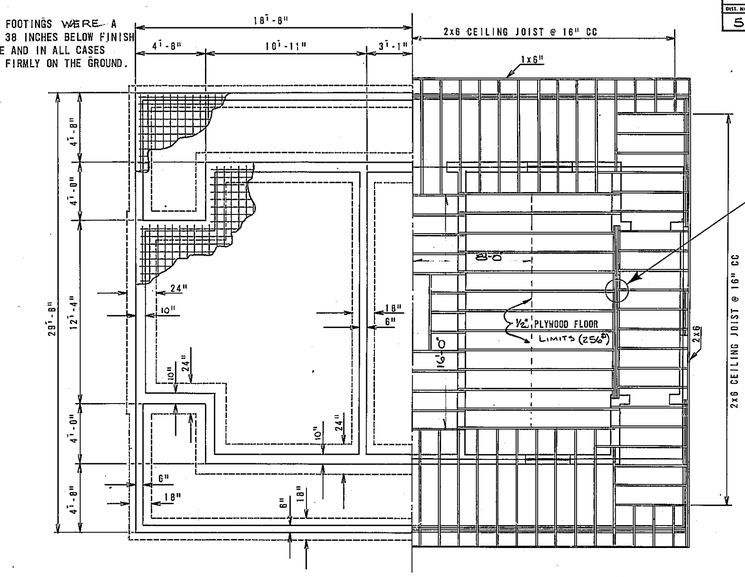
FINAL PLANS

FED. ROAD DIV. NO.	STATE	JOB NO. 5-I-70-121	SHEET NO.
7	MO.	PROJECT NO. I-70-3 (77)	10
DIST. NO.	COUNTY	ROUTE	SEC.
5	MONTGOMERY	I-70	

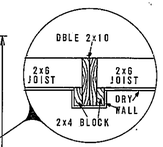


PORCH BEAM DETAIL

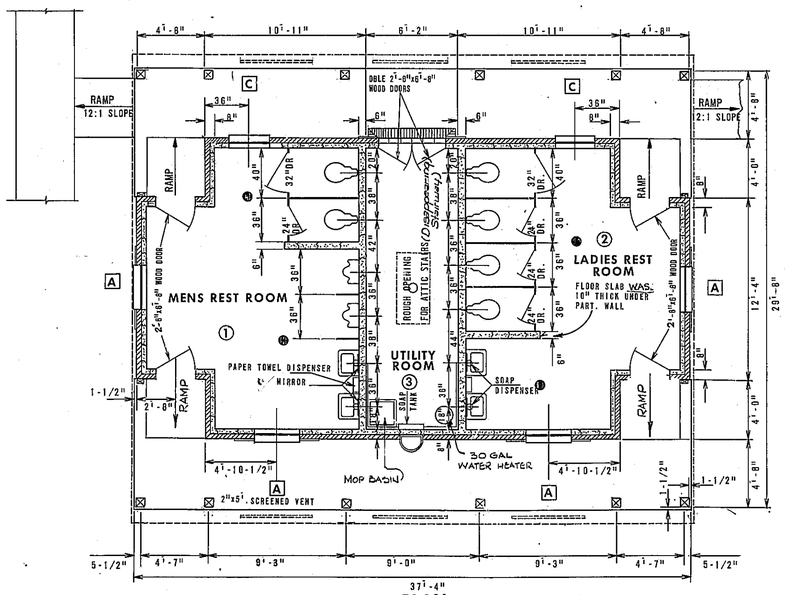
NOTE: ALL FOOTINGS WERE A MINIMUM OF 38 INCHES BELOW FINISH GROUND LINE AND IN ALL CASES DOES REST FIRMLY ON THE GROUND.



FOUNDATION & FOOTING
SCALE 1/4" = 1'-0"



CEILING DETAIL
SCALE 1/4" = 1'-0"



PLAN
SCALE 1/4"=1'-0"

ROOM SCHEDULE									
NO	ROOM	FLOOR	WALLS	CEILING	TRIM	TYPE	CEILING TRIM	REMARKS
1	MEN	RED QUARRY TILE	GLAZED BLOCK	DRY WALL	PINE	COLONIAL	3" CROWN	SEE DETAILS
2	LADIES	RED QUARRY TILE	GLAZED BLOCK	DRY WALL	PINE	COLONIAL	3" CROWN	SEE DETAILS
3	UTILITY	CONCRETE	GLAZED BLOCK	DRY WALL	PINE	COLONIAL	-	SEE DETAILS

WINDOW SCHEDULE				
NO.	TYPE	AM'T	ROUGH OPNG.	REMARKS
A	DBLE HUNG 3656 WD WITH INSULATED GLASS WITH MUNTIN BARS 8 LIGHT ABOVE/12 LIGHT BELOW	4	3'-6 1/8" x 5'-9 1/4"	WINDOWS WERE EQUIPPED WITH SCREENS. GLASS WAS OBSCURE. VINYL CLAD
B	DBLE HUNG 2042 WD WITH MUNTIN BARS 6 LIGHT ABOVE 6 LIGHT BELOW	2	2'-2 1/8" x 4'-5 1/4"	WINDOWS WERE EQUIPPED WITH SCREENS. GLASS WAS CLEAR (IN EACH END OF ATTIC) VINYL CLAD
C	AWNING, AN351 WITH DBLE GLAZING PANEL AND MUNTIN BARS, 8 LIGHT	2	3'-5 3/8" x 1'-5"	WINDOWS WERE EQUIPPED WITH SCREENS. GLASS WAS OBSCURE. VINYL CLAD

NOTE: WINDOWS WERE WOOD, INSIDE TRIM CLEAR PINE (COLONIAL) WITH WOOD WINDOW STOOLS. NO INSIDE TRIM REQUIRED FOR ATTIC WINDOWS. WINDOWS WERE ANDERSON APPROVED EQUAL.

DOOR SCHEDULE						
DOOR SIZE	TYPE	THKNS	NO	RM. LOC.	REMARKS
2'-8"x6'-8"	WOOD	1-3/4"	3	1 & 2	GLASS WAS OBSCURE 2 PANEL BELOW-EIGHT LIGHT ABOVE
DBLE 2'-8"x6'-8"	WOOD	1-3/4"	1	3	GLASS WAS CLEAR 2 PANEL BELOW-EIGHT LIGHT ABOVE

STEEL LINTELS				
OPNG.		BEARING ON WALL	NO.	REMARKS
6'	6"x3-1/2"x3/8"x6'	6"	2	SEE BELOW
2'-8"	2-1/2"x3-1/2"x1/4"x5'-8"	8"	3	SEE BELOW
2'-3'	3-1/2"x3-1/2"x1/4"x3'-8"	4-1/2"	5	SEE BELOW

NOTE: ALL WINDOW AND DOOR OPENINGS TO HAVE STEEL LINTELS FOR BOTH INSIDE AND OUTSIDE WALLS BEFORE STEEL LINTEL WERE ORDERED BY THE CONTRACTOR. NO NOTE REQUIRED TO VERIFY EXACT LENGTH OF LINTELS USED.

MISSOURI STATE HIGHWAY COMMISSION

COMBINATION - TOOL SHED AND COMFORT STATION

PORCH BEAM DETAIL, PLAN, FOUNDATION & FOOTING DETAIL and CEILING DETAIL

SHEET OF

DATE	BY	
		SURVEYED
		PLOTTED
		TEMPLATE
		AREAS
		AREAS CHECKED

FINAL SURVEY — NOTE BOOK NO.

DATE	BY	
		SURVEYED
		PLOTTED
		TEMPLATE
		AREAS
		AREAS CHECKED

ORIGINAL SURVEY — NOTE BOOK NO.

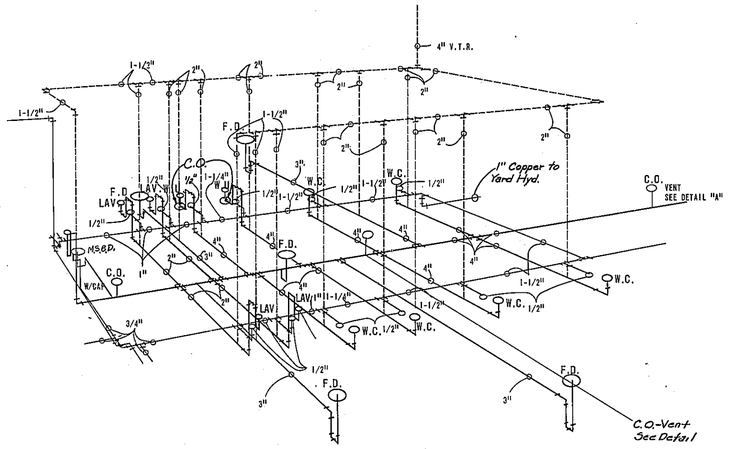
~~R-2~~ 207

986 24 TO 1

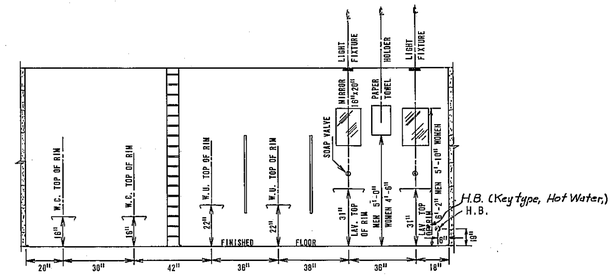
FINAL PLANS

FED. ROAD DIV. NO.	STATE	JOB NO. 5-I-70-121	SHEET NO.
7	MO.	PROJECT NO. I-70-3 (77)	11
DIST. NO.	COUNTY	ROUTE	SEC.
5	MONTGOMERY	I-70	

FINAL PLANS

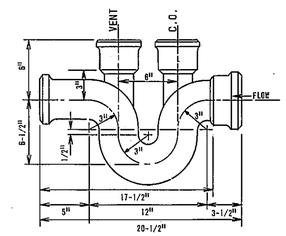


PLUMBING LAYOUT
(NO SCALE)

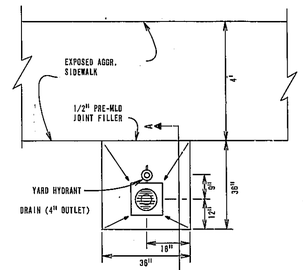


TYPICAL FIXTURE ELEVATIONS

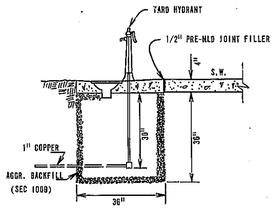
RUNNING TRAP WITH SINGLE VENT AND CLEANOUT



PLUMBING LAYOUT DETAIL "A"
H5-67 or EQUIV.



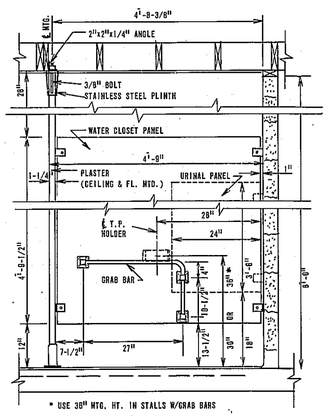
PLAN



SECTION A-A

NOTE: NO DIRECT PAYMENT FOR 1" COPPER-RISER PIPE, DRAIN, SIDEWALK BASE, FITTINGS, AGGREGATE, OR EXCAVATION.

YARD HYDRANT INSTALLATION

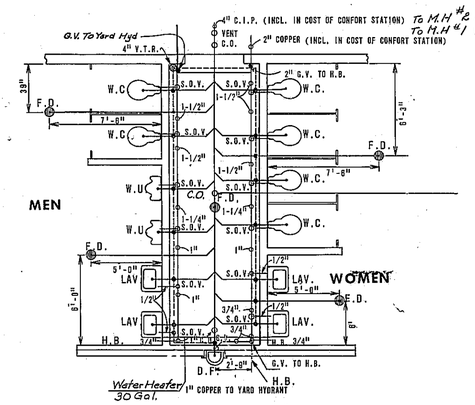


TYPICAL SECTION

SYMBOLS

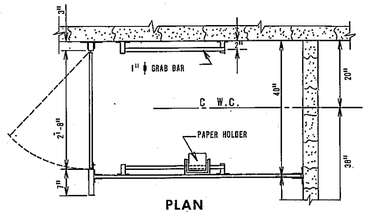
C.O.----CLEAN OUT
D.F.----DRINKING FOUNTAIN
F.D.----FLOOR DRAIN
H.B.----HOSE BIBB
LAV.----LAVATORY
W.U.----WALL URINAL
V.T.R.---VENT THROUGH ROOF
W.C.----WATER CLOSET
G.V.----GATE VALVE
R.T.----RUNNING TRAP W/ CLEANOUT & VENT
S.O.V.---SHUT-OFF VALVE
W.H. WATER HEATER (30 GAL).

NOTES: COLD WATER SUPPLY LINES ONLY REQUIRED.
DOORS ON STALLS WITH GRAB RAIL SHALL SWING OUT.
SEE OTHER DRAWINGS FOR BLDG. DIMENSIONS.
ALL HOSE BIBBS ARE KEY OPERATED.
EXTERIOR HOSE BIBBS SHALL ALSO BE FROST-PROOF.



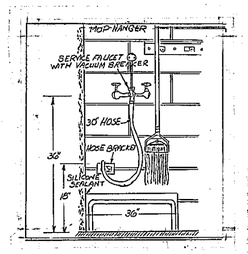
PLUMBING PLAN
1/4" = 1'.

NOTES:
1. COLD WATER SUPPLY LINE TO WATER HEATER SIZE OF PIPE AS REQ'D. BY MAUF. OF HEATER
2. EACH FIXTURE SUPPLY LINE IS ½" COPPER WITH A SHUTOFF VALVE AND AN AIR CHAMBER.
3. SHUTOFF VALVE FOR DRINKING FOUNTAIN WAS LOCATED IN THE UTILITY ROOM.



PLAN

METAL TOILET PARTITIONS
3/4" = 1'



MOP SERVICE BASIN
(See Special Provisions)

MISSOURI STATE HIGHWAY COMMISSION

COMBINATION - TOOL SHED & COMFORT STATION

PLUMBING, YARD HYDRANT, and FIXTURE ELEVATIONS

SHEET OF

NO HO 17 1975

DATE | BY | SURVEYED | DRAWN | TEMPLATE | AREAS | AREAS CHECKED | FINAL SURVEY | NOTE BOOK | NO.

208

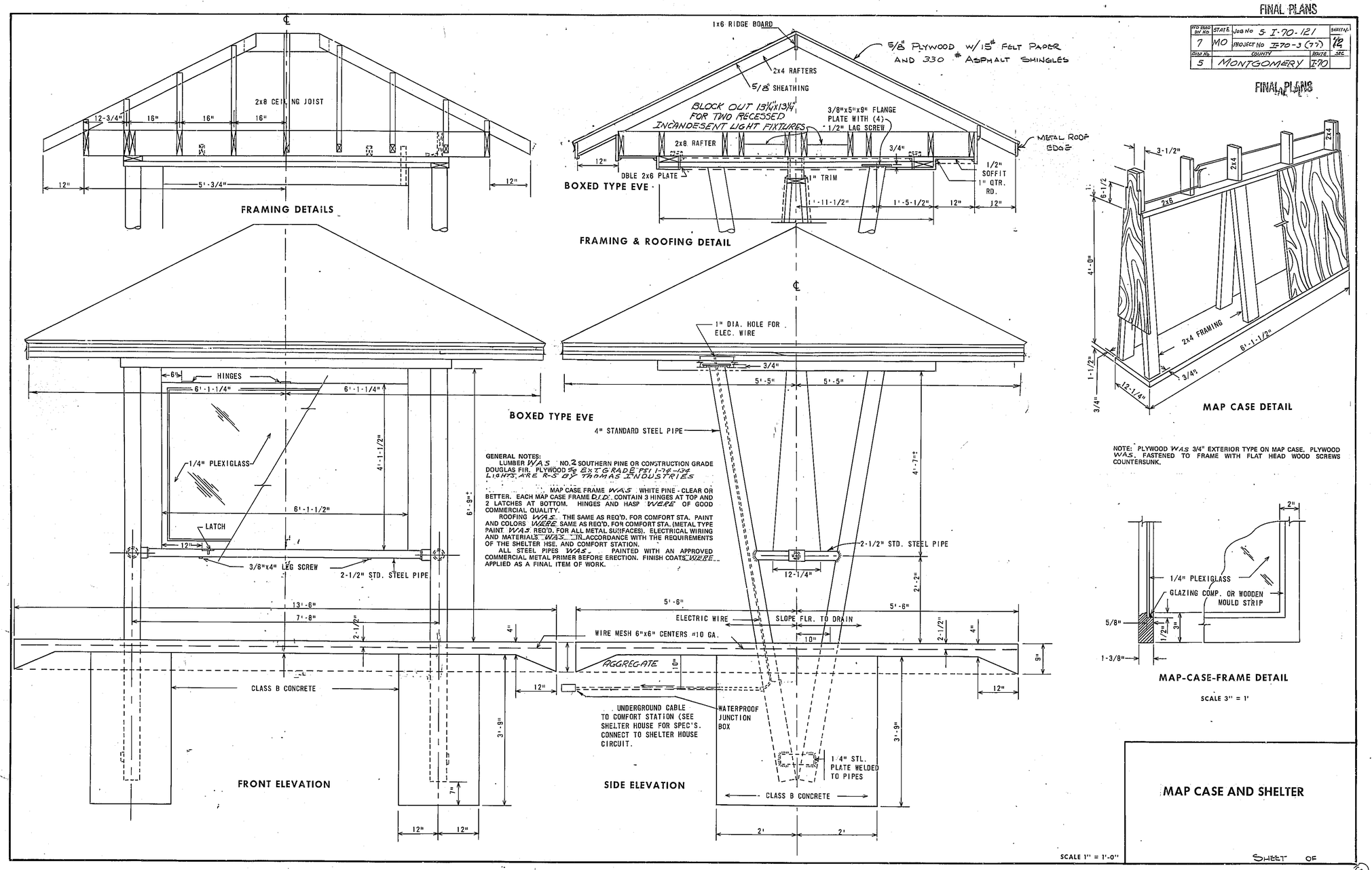
122

986 24 TO 1

FINAL PLANS

FED ROAD DIV NO	STATE	JOB NO S. I-70-121	SHEET NO
7	MO	PROJECT NO I-70-3 (77)	12
DIST NO	COUNTY	ROUTE	SEC
5	MONTGOMERY	I-70	

FINAL PLANS



GENERAL NOTES:

LUMBER WAS NO. 2 SOUTHERN PINE OR CONSTRUCTION GRADE DOUGLAS FIR. PLYWOOD WAS EXT GRADE PER 1-74-124 LIGHTS ARE R-S BY THOMAS INDUSTRIES

MAP CASE FRAME WAS WHITE PINE - CLEAR OR BETTER. EACH MAP CASE FRAME DID CONTAIN 3 HINGES AT TOP AND 2 LATCHES AT BOTTOM. HINGES AND HASP WERE OF GOOD COMMERCIAL QUALITY.

ROOFING WAS THE SAME AS REQ'D. FOR COMFORT STA. PAINT AND COLORS WERE SAME AS REQ'D. FOR COMFORT STA. (METAL TYPE PAINT WAS REQ'D. FOR ALL METAL SURFACES). ELECTRICAL WIRING AND MATERIALS WAS IN ACCORDANCE WITH THE REQUIREMENTS OF THE SHELTER HSE. AND COMFORT STATION.

ALL STEEL PIPES WAS PAINTED WITH AN APPROVED COMMERCIAL METAL PRIMER BEFORE ERECTION. FINISH COATS WERE APPLIED AS A FINAL ITEM OF WORK.

NOTE: PLYWOOD WAS 3/4" EXTERIOR TYPE ON MAP CASE. PLYWOOD WAS FASTENED TO FRAME WITH FLAT HEAD WOOD SCREWS COUNTERSUNK.

SCALE 1" = 1'-0"

MAP CASE AND SHELTER

SHEET OF

3

~~238~~ 209

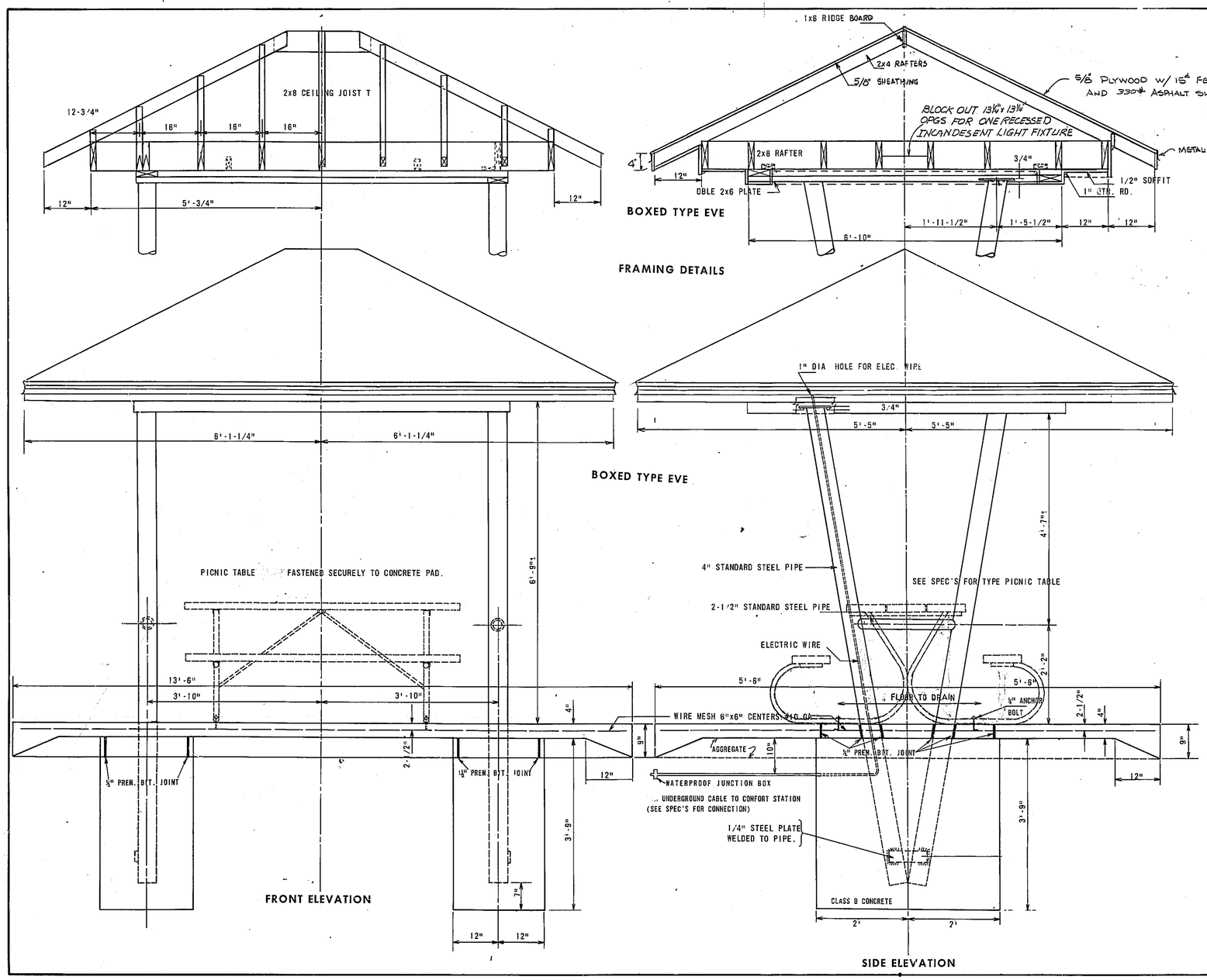
986 24 TO 1

FINAL PLANS

FED. ROAD DIV. No.	STATE	FEDERAL PROJECT No. & SEC.	FISCAL YEAR	SHEET No.
7	MO.	I-70-3(77)		13
DIST. 5	COUNTY MONTGOMERY		ROUTE I-70	SEC.

Job No. 5-I-70-121

FINAL PLANS



GENERAL NOTES:

LUMBER WAS NO. 2 SOUTHERN PINE OR CONSTRUCTION GRADE DOUGLAS FIR. PLYWOOD WAS EXT. GRADE PS1-74-13 4". LIGHTS ARE R-5 BY THOMAS INDUSTRIES.

ROOFING WAS THE SAME AS REQ'D. FOR COMFORT STA. PAINT AND COLORS WERE SAME AS REQ'D. FOR COMFORT STA. (METAL TYPE PAINT WAS REQ'D. FOR ALL METAL SURFACES). ELECTRICAL WIRING AND MATERIALS WERE IN ACCORDANCE WITH THE REQUIREMENTS OF THE SHELTER HSE. AND COMFORT STATION.

ALL STEEL PIPES WERE PAINTED WITH AN APPROVED COMMERCIAL METAL PRIMER BEFORE ERECTION. FINISH COATS WERE APPLIED AS A FINAL ITEM OF WORK.

SPECIFICATIONS FOR METAL PICNIC TABLE

FRAMES: 1 1/4 INCH NOMINAL STEEL PIPE (1.660 OD x 1.380 ID). CROSSBRACING WAS INCH NOMINAL STEEL. FRAMES ELECTRIC WELDED CONSTRUCTION. FRAME FINISH WAS HOT DIPPED GALVANIZED FINISH AFTER FABRICATION. STEEL BOLTS, NUTS AND LOCK WASHERS DID HAVE .0003 ZINC ELECTROPLATED FINISH. TABLES BE ANCHORED SECURELY TO THE CONCRETE SLAB BY MEANS OF 4 1/4 INCH ANCHOR BOLTS, AS INDICATED ON THE PLANS.

SEATS AND TOPS: TOPS DID CONSIST OF THREE EACH 2 x 10 ALUMN-A-PLANK. ALUMN-A-PLANK WAS ALLOY 6063-T6, WITH 204RI ANODIZED FINISH (CLEAR). 2 x 10 DIE FORMED, MACHINE ANODIZED FINISH END CAPS WERE POP-RIVETED TO ENDS FOR SMOOTH FINISH. TOP PLANKS AND SEATS WERE ATTACHED TO FRAME BY MEANS OF ALL ALUMINUM BOLT CLIPS. TABLE WERE SIX FEET IN LENGTH AND HAVE PORTABLE DESIGN. PICNIC TABLES WERE MANUFACTURED WITH KILGORE CORPORATION, MEXICO FORGE REEDSVILLE PA. 17084

PICNIC TABLE SHELTER

SCALE 1" = 1'-0"

SHEET OF

1

210

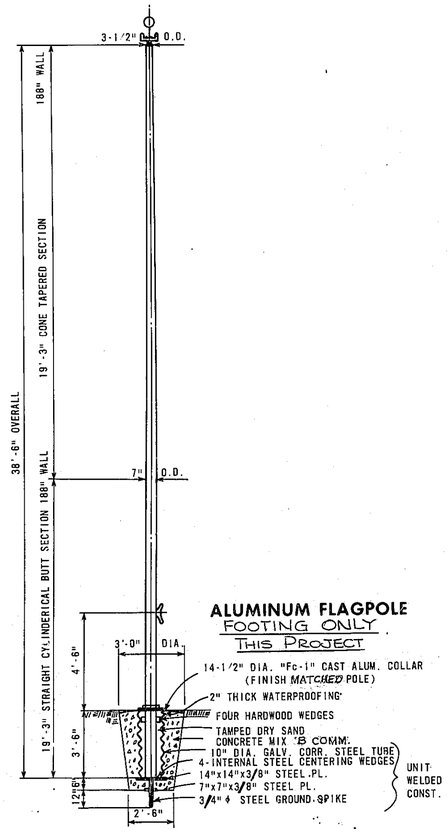
986 24 TO 1

FINAL PLANS

FED. ROAD DIV. NO.	STATE	FEDERAL PROJECT No. & SEC.	TOTAL SHEETS	SHEET No.
7	MO.	I-70-3(77)		14
RUT NO.	COUNTY		ROUTE	SEC
5	MONTGOMERY	I-70		

Job No. 5-I-70-121

FINAL PLANS



ALUMINUM FLAGPOLE
FOOTING ONLY
THIS PROJECT

SPECIFICATIONS & GENERAL NOTES

BALL SHALL BE 8" DIA. x #14 GA. SPUN GOLD ANODIZED ALUMINUM BALL MOUNTED ON A 3/4 IN. SEAMLESS ALUMINUM TUBING WHICH SLIPS OVER FINIAL IN THE REVOLVING TRUCK.

TRUCK SHALL BE SINGLE SHEAVE NON FOULING. BALL BEARING REVOLVING TRUCK WITH ALUMINUM BODY - ALUMINUM SPINDLE WITH BALL BEARING RACES CONTAINING TWENTY SIX 3/8" DIA. STAINLESS STEEL BALLS. TRUCK IS ACCURATELY MACHINED AND BALANCED AND IS FITTED WITH ONE 2-1/2" DIA. NYLON-BUSHED ALUMINUM SHEAVES ON 3/8" DIA. DURAL PINS.

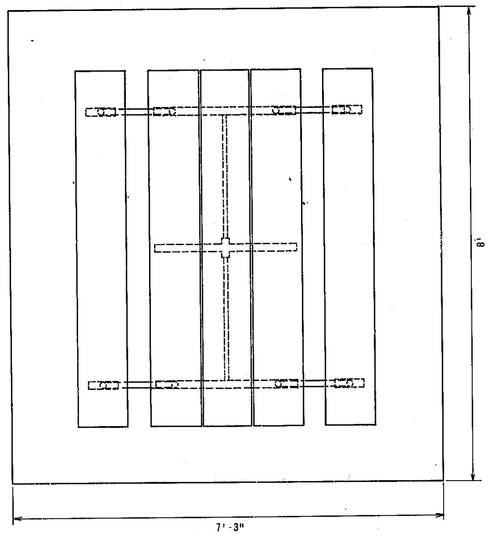
HALYARDS. ONE SET, EACH WITH FOUR ALUMINUM SWIVEL SNAPS & VINYL COVERS FOR SNAPS. 5/16" DIA BRAIDED POLYPROPYLENE ROPE HALYARDS.

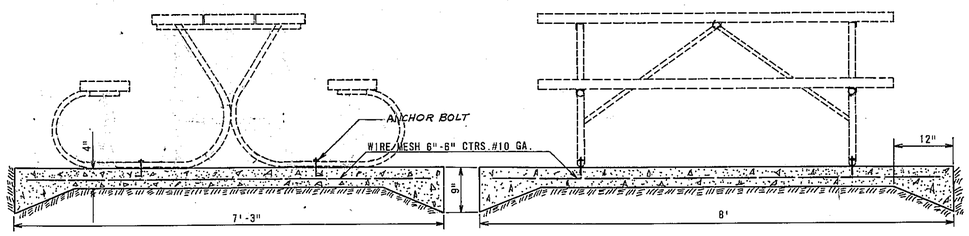
CLEAT SHALL BE 9" LONG CAST ALUMINUM CLEATS. EACH ATTACHED TO POLE WITH TWO 3/8" FLATHEAD DURAL MACHINE SCREWS (FINISH TO MATCH POLE).

GROUND TUBE SHALL BE 10" I.D. x #16 GA. GALVANIZED CORRUGATED STEEL GROUND TUBE WITH WELDED STEEL BOTTOM PLATE. LOWER WELDED STEEL INTERNAL CENTERING WEDGES AND 3/4" DIA. STEEL LIGHTNING SPIKE WELDED TO STEEL BOTTOM SUPPORT PLATE.

LUSTRATED FINISH. THE EXTERIOR SURFACE OF EXPOSED PORTION OF FLAGPOLE SHALL HAVE A FINE GRIT MACHINE SATIN BRUSH FINISH AND THEN BE HEAVILY WAXED

PAINTING. THE UNEXPOSED SURFACE OF FLAGPOLE BELOW GRADE SHALL RECEIVE A HEAVY COAT OF BLACK ASPHALTUM PAINT INSIDE AND OUTSIDE BEFORE SHIPMENT.





SPECIFICATIONS FOR METAL PICNIC TABLE
FRAMES: 1 1/4 INCH NOMINAL STEEL PIPE (1.660 OD x 1.380 ID). CROSSBRACING WAS 3/4 INCH NOMINAL STEEL. FRAMES ELECTRIC WELDED CONSTRUCTION. FRAME FINISH WAS HOT DIPPED GALVANIZED FINISH AFTER FABRICATION. STEEL BOLTS, NUTS AND LOCK WASHERS HAD .0003 ZINC ELECTROPLATED FINISH. TABLES WERE ANCHORED SECURELY TO THE CONCRETE SLAB BY MEANS OF 4 1/4 INCH ANCHOR BOLTS, AS INDICATED ON THE PLANS.
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ALUMINUM FLAGPOLE - PICNIC TABLE & BASE

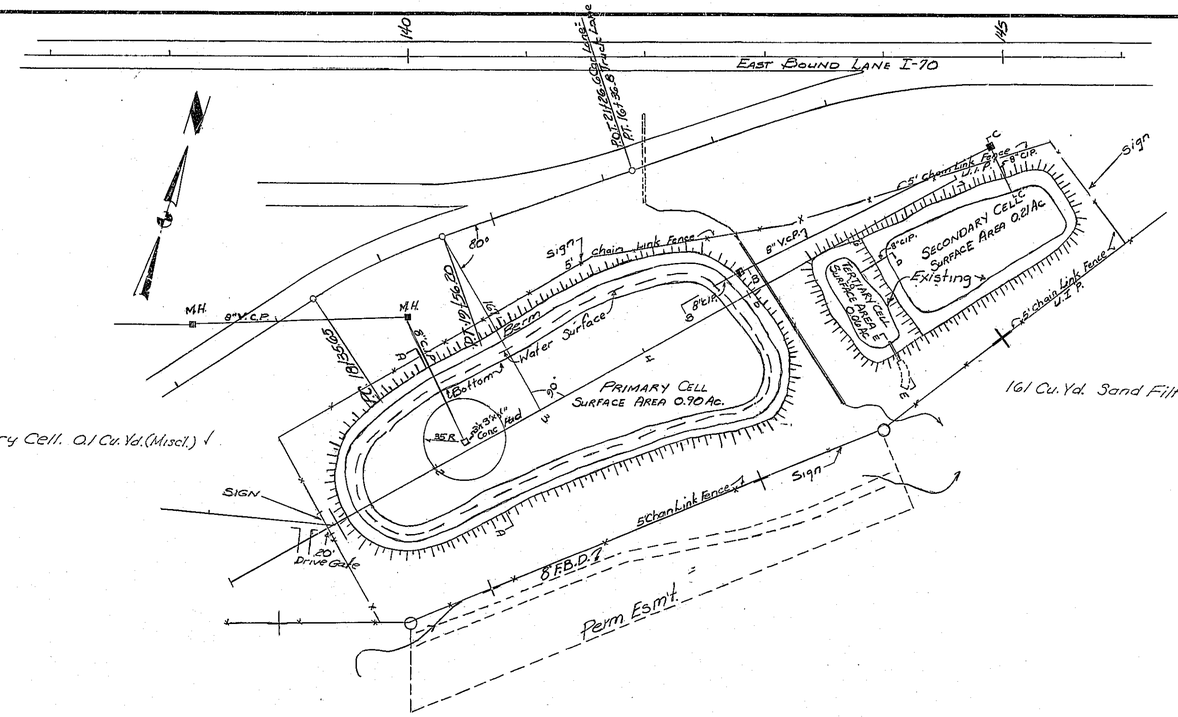
211

986 24 TO 1

FINAL PLANS

FED. ROAD DIV. NO.	STATE	JOB NO. 5-I-70-121	SHEET NO.
7	MO.	PROJ. NO. I-70-3(77)	15
DIST. NO.	COUNTY	ROUTE	SEC.
5	MONTGOMERY	I-70	

FINAL PLANS



3'x3'x4" Conc. Pad in Primary Cell. 0.1 Cu. Yd. (Misc.)

161 Cu. Yd. Sand Filter (Tertiary Cell)

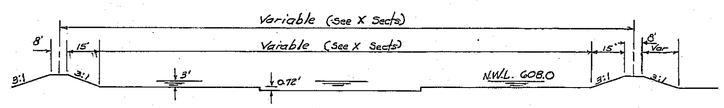
KEEP OUT
WASTE
STABILIZATION
LAGOON

36"
24"

Sign was furnished and erected by State Maintenance forces

Note:
All cells were treated with soil sterilant to an elevation one foot above normal water surface.

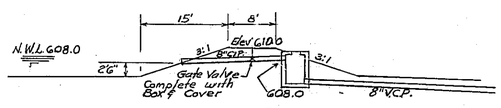
26.2 Tons Bentonite (E.B.L. Cells)



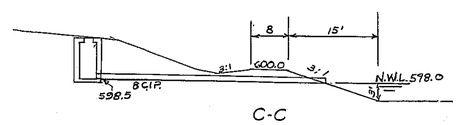
A-A

See Sheet No. 17
E-E

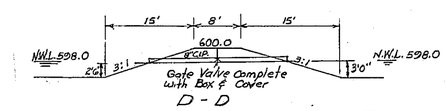
EXCAVATION
Cl. A Exc. 9463 Cu. Yds.
Fill 13456 Cu. Yds.
Obtained 5529 Cu. Yds from West Bound Truck Lane.
Obtained 1332 Cu. Yds from West Bound Sewage Lagoon
Used 161 Cu. Yd. in East bound Auto Lane.



B-B



C-C



D-D

DETAILS OF SEWAGE LAGOON

SPECIAL SHEET NO.

Sheet 1 of 3

FINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
	TEMPLATE		
	AREAS		
	AREAS CHECKED		
	NOTE BOOK		
	SITE BOOK		
	NO.		

ORIGINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
	TEMPLATE		
	AREAS		
	AREAS CHECKED		
	NOTE BOOK		
	SITE BOOK		
	NO.		

212

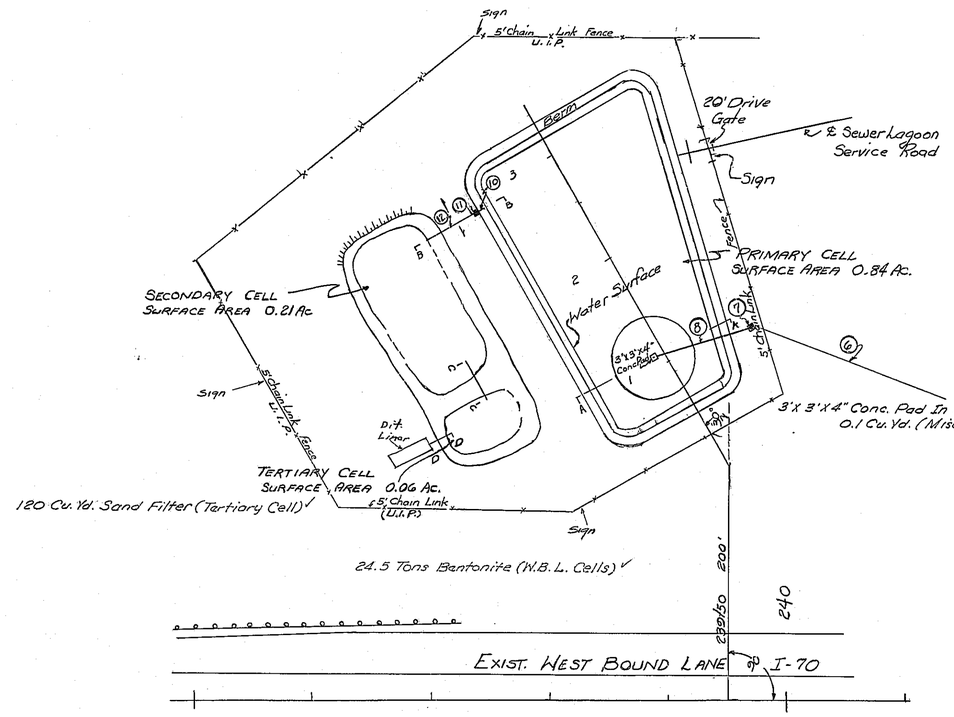
986 24 TO 1

FINAL PLANS

FED. ROAD DIV. NO.	STATE	JOB NO. 5-I-70-121	SHEET NO.
7	MO.	PROJ. NO. I-70-3 (77)	16
DIST. NO.	COUNTY	ROUTE	SEC.
5	MONTGOMERY	I-70	

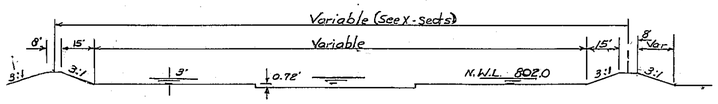
WEST BOUND LANE
REST AREA

FINAL PLANS



Signs to be furnished and erected by State Maintenance forces

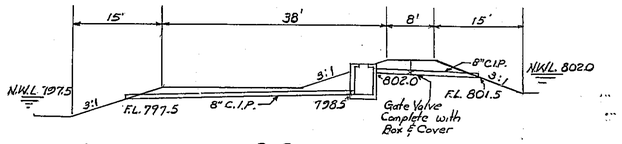
Note:
All cells were treated with soil sterilant to an elevation one foot above normal water surface.



A-A

EXCAVATION

Cl. A Exc. 8403 Cu. Yds.
Cl. C Exc. 5150 Cu. Yds.
Fill 2919 Cu. Yds.
Wasted 3568 Cu. Yds. Cl. A Exc.
Wasted 5150 Cu. Yds. Cl. C Exc.
Used 1332 Cu. Yds. Cl. A Exc.
in E.B. Sewage Lagoon
Overhaul 262,491 Sta. Yds.



B-B

Use In Place
C-C

See Sheet No 17
D-D

DETAIL OF SEWAGE LAGOON
Sheet 2 of 3

FINAL SURVEY	SURVEYED. PLOTTED. TEMPLATE. AREAS. AREAS CHECKED.	BY	DATE
NOTE BOOK NO.			

ORIGINAL SURVEY	SURVEYED. PLOTTED. TEMPLATE. AREAS. AREAS CHECKED.	BY	DATE
NOTE BOOK NO.			

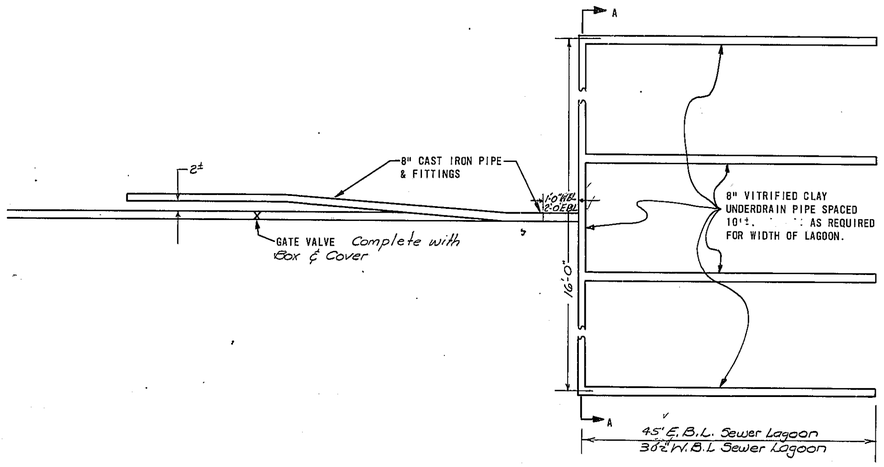
~~224~~ 213

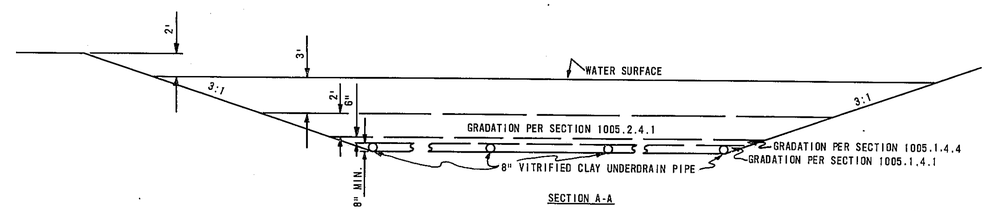
986 24 TO 1

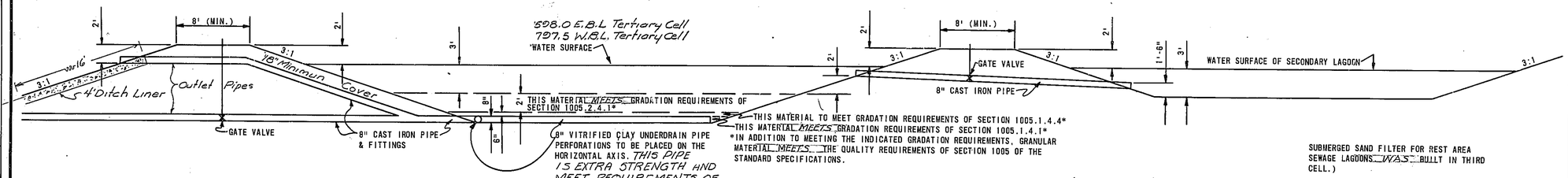
FINAL PLANS

FED. ROAD DIV. NO.	STATE	JOB NO 5-I-70-121	SHEET NO
7	MO.	PROJECT NO. I-70-3(77)	17
DIST. NO.	COUNTY	ROUTE	SEC
5	MONTGOMERY	I-70	

FINAL PLANS







E.B.L. Sec. E-E
W.B.L. Sec. D-D

DETAILS OF SEWAGE LAGOON
Sheet 3 of 3

FINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
	CHECKED		
	AREAS		
	NOTE BOOK		
	NO.		

ORIGINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
	CHECKED		
	AREAS		
	NOTE BOOK		
	NO.		

214

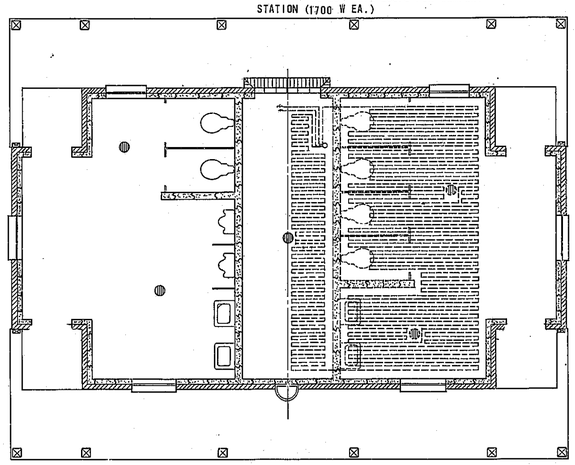
986 24 TO 1

FINAL PLANS

FED. ROAD DIV. NO.	STATE	JOB NO. 5-I-70-121	SHEET NO.
7	MO.	PROJECT NO. I-70-3 (77)	18
DIST. NO.	COUNTY	ROUTE	SEC.
5	MONTGOMERY	I-70	

FINAL PLANS

NOTE: NOMINAL LOOP SPACING 2-1/2". MAINTAIN MINIMUM HORIZONTAL CLEARANCE FROM WALLS AND PLUMBING PIPES THRU FLOOR. 6" TWO COMPLETE LOOPS FOR COMFORT STATION (1700 W EA.)

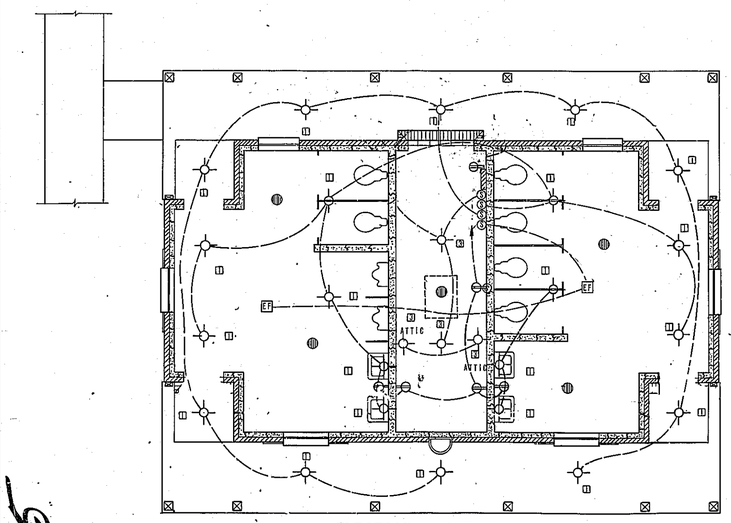


HEATING CABLE DETAIL
HALF SECTION

LIGHT FIXTURE SCHEDULE

NO.	CAT. NO.	TYPE	SIZE	AMT.	REMARKS
1	R5 RSW-R51	RECESSED HOUSING TRIM AND GLASS	8½"x8½"x5½"	22	1-100 WATT. PREWIRED. TRIM SATIN ALUMINUM WITH OPAL GLASS.
3		SINGLE PORCELAIN		4	100-WATT BULB-2 IN ATTIC

NOTE: THE ABOVE LIGHT FIXTURES ARE BASED ON ITEMS SELECTED FROM THOMAS INDUSTRIES, INC.



ELECTRICAL DETAIL

NOTE:
Light Fixture Locations Are Approximate

FINAL SURVEY	SUBMITTED	BY	DATE
	SURVEYED		
	TEMPLATE		
	FIELD		
	AREAS CHECKED		
NOTE BOOK			
NO.			

ORIGINAL SURVEY	SUBMITTED	BY	DATE
	SURVEYED		
	TEMPLATE		
	FIELD		
	AREAS CHECKED		
NOTE BOOK			
NO. 1-17			

~~226~~ 212

MISSOURI STATE HIGHWAY COMMISSION

COMBINATION-TOOL SHED and COMFORT STATION

ELECTRICAL and HEATING DETAILS

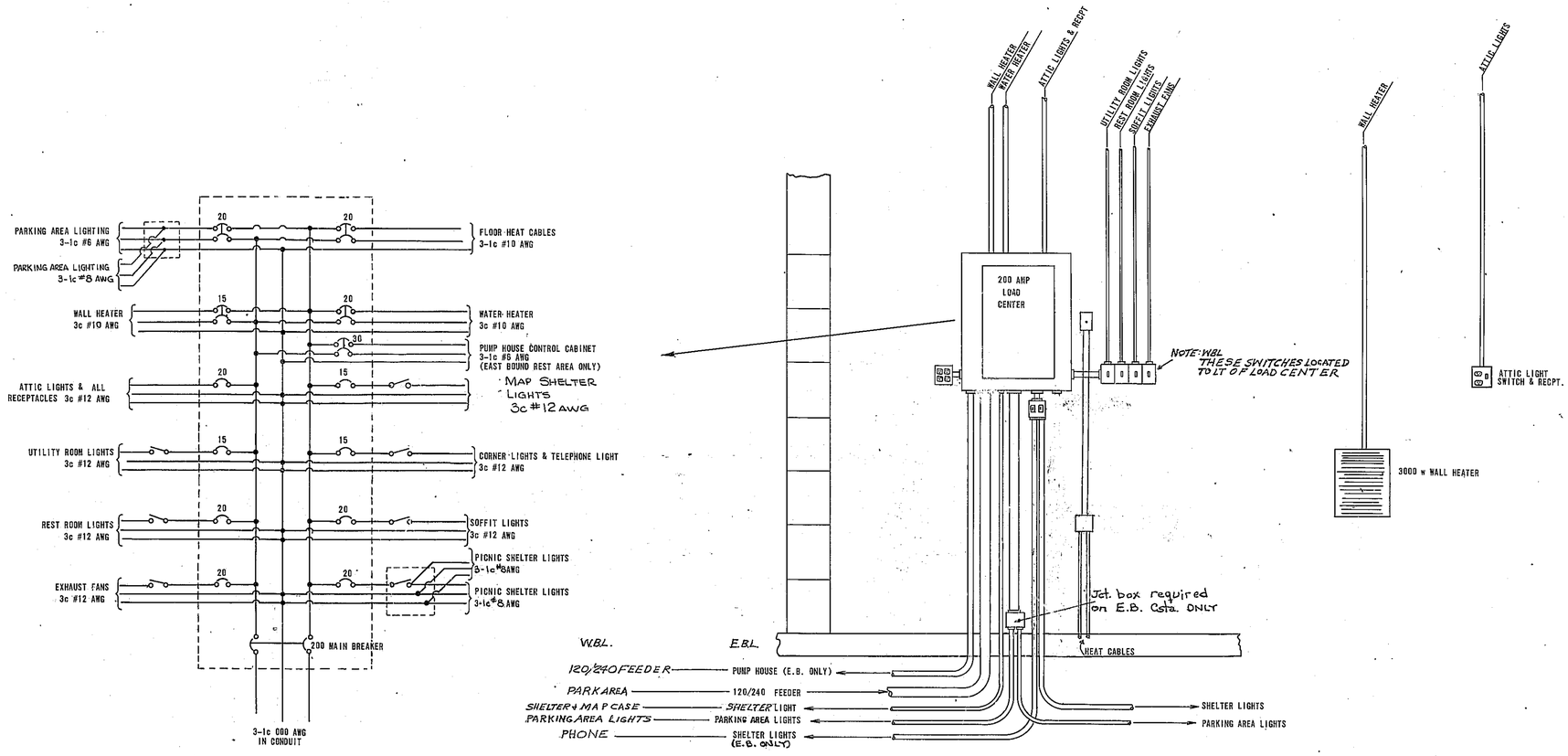
REQ. NO. 1T 7975

986 24 TO 1

FINAL PLANS

FED. ROAD DIV. NO.	STATE	JOB NO.	SHEET NO.
7	MO.	PROJ. NO. I-70-3 (77)	19
DIST. NO.	COUNTY	ROUTE	SEC
5	MONTGOMERY	I-70	

FINAL PLANS



UTILITY ROOM OF COMFORT STATION

MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

COMFORT STATION

ELECTRICAL

FINAL SURVEY	BY	DATE
NOTE BOOK	SURVEYED	
	PLOTTED	
	TEMPLATE	
	AREAS	
NO.	AREAS CHECKED	

ORIGINAL SURVEY	BY	DATE
NOTE BOOK	SURVEYED	
	PLOTTED	
	TEMPLATE	
	AREAS	
NO.	AREAS CHECKED	

237

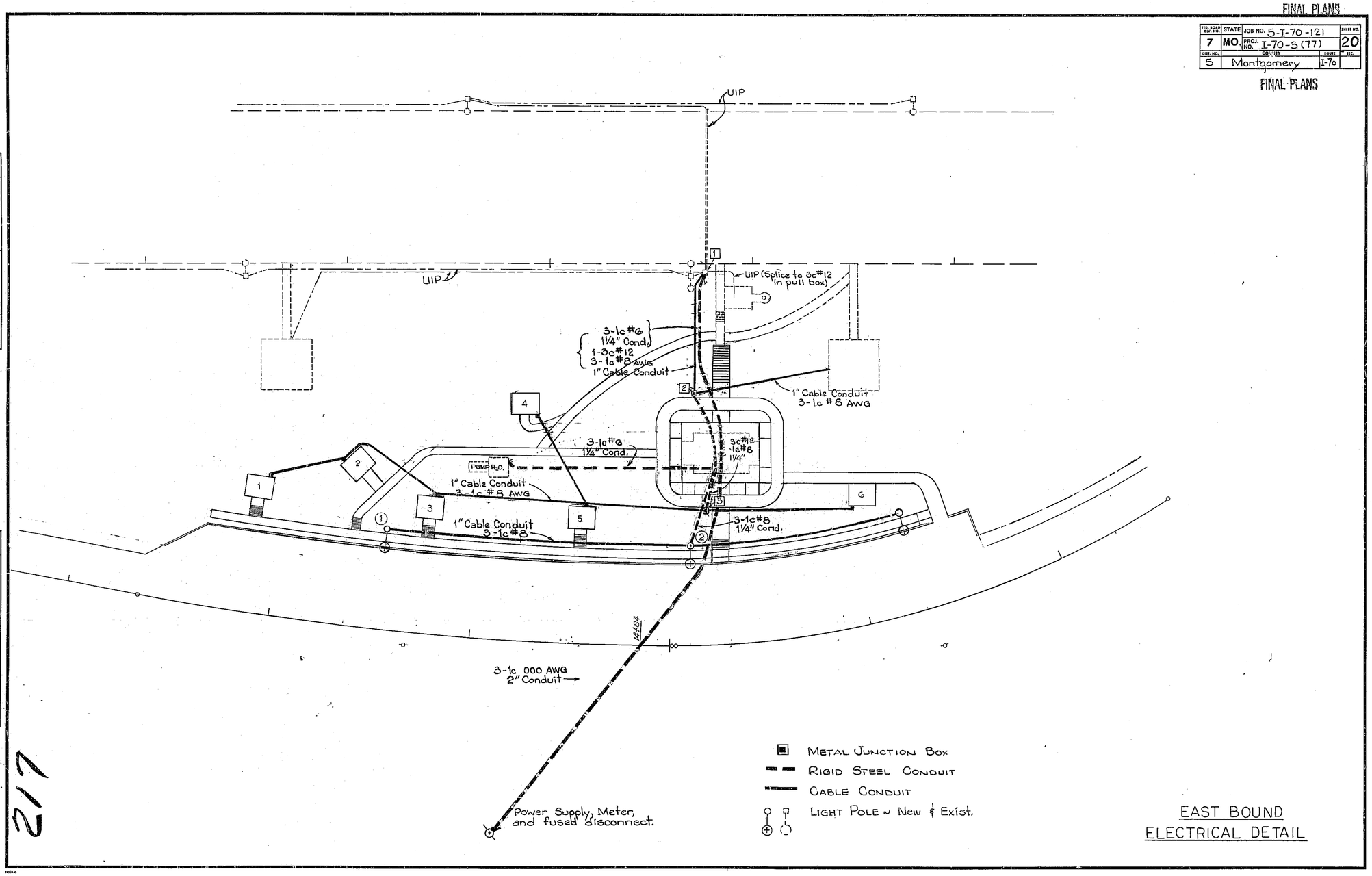
216

986 24 TO 1

FINAL PLANS

FED. ROAD DIV. NO.	STATE	JOB NO. 5-I-70-121	SHEET NO.
7	MO.	PROJ. NO. I-70-3(77)	20
DIST. NO.	COUNTY	ROUTE	SEC.
5	Montgomery	I-70	

FINAL PLANS



EAST BOUND
ELECTRICAL DETAIL

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
	TRIAL PLATE		
	AREAS		
NO.	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
	TRIAL PLATE		
	AREAS		
NO.	AREAS CHECKED		

~~238~~ 217

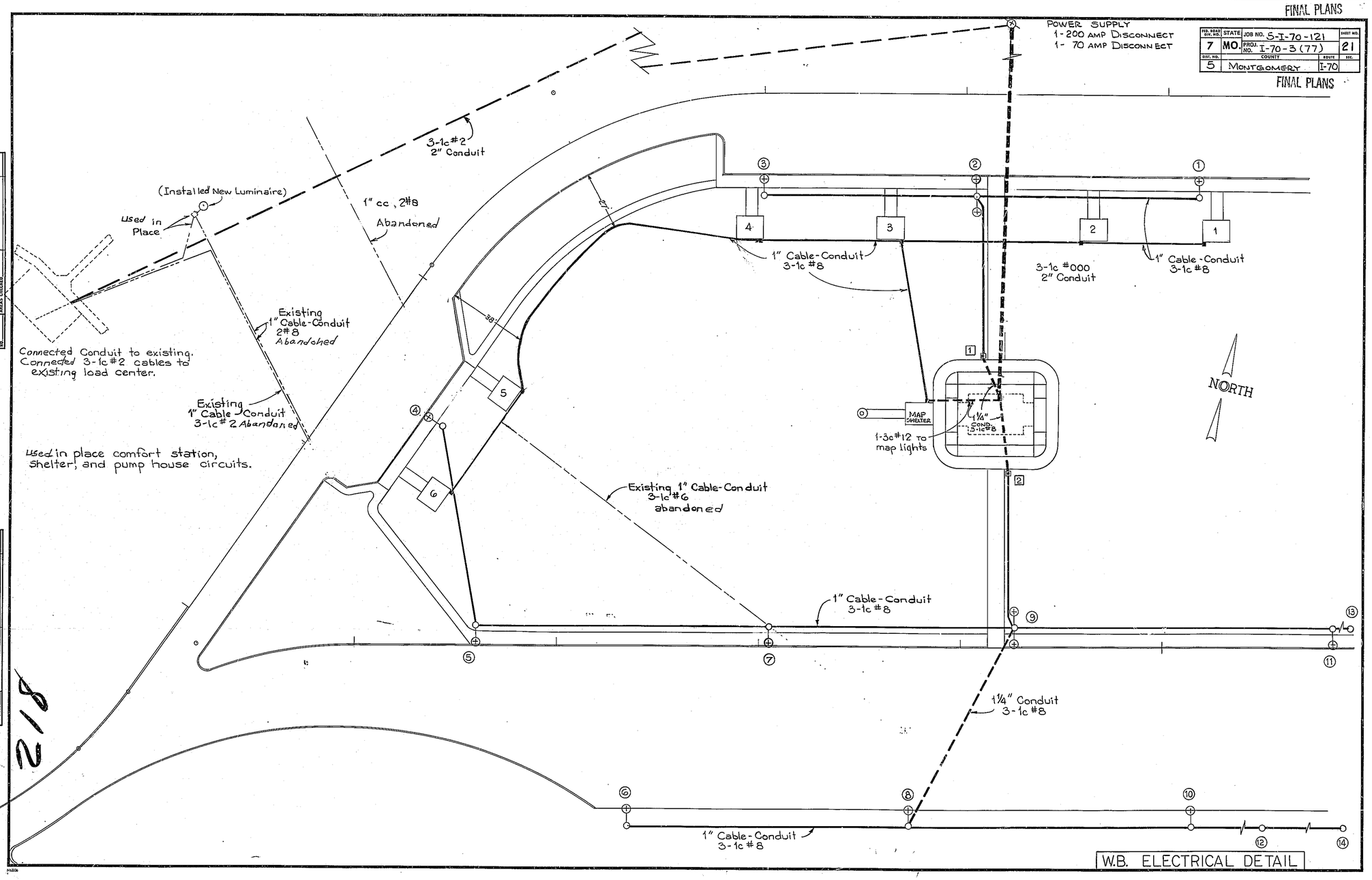
20

986 24 TO 1

FINAL PLANS

FED. ROAD DIV. NO.	STATE	JOB NO. 5-I-70-121	SHEET NO.
7	MO.	PROJ. NO. I-70-3(77)	21
DIST. NO.	COUNTY	ROUTE	SEC.
5	MONTGOMERY	I-70	

FINAL PLANS



W.B. ELECTRICAL DETAIL

FINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		
NOTE BOOK		
NO.		

ORIGINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		
NOTE BOOK		
NO.		

218

986 24 TO 1

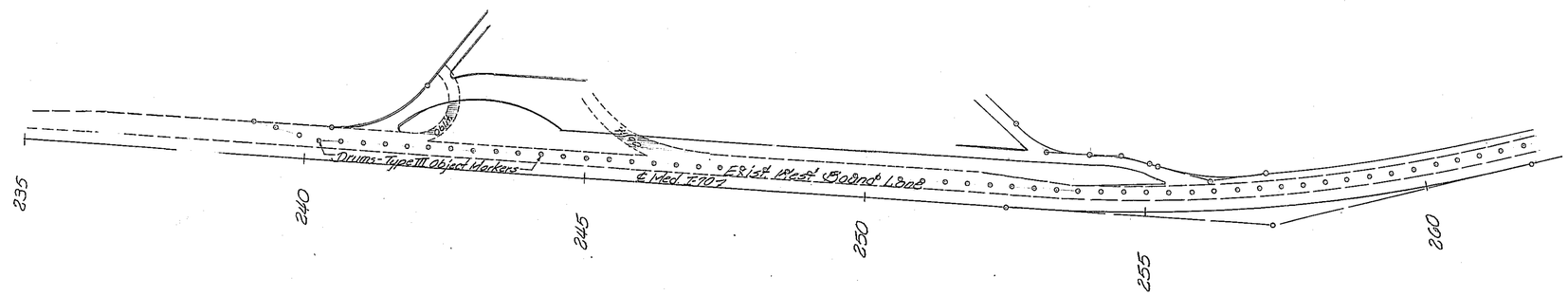
FINAL PLANS

FED. ROAD DIV. NO.	STATE	JOB NO. 5-I-70-121	SHEET NO.
7	MO.	PROJ. NO. I-70-3(77)	22
DIST. NO.	COUNTY	ROUTE	SEC.
5	MONTGOMERY	I-70	

FINAL PLANS

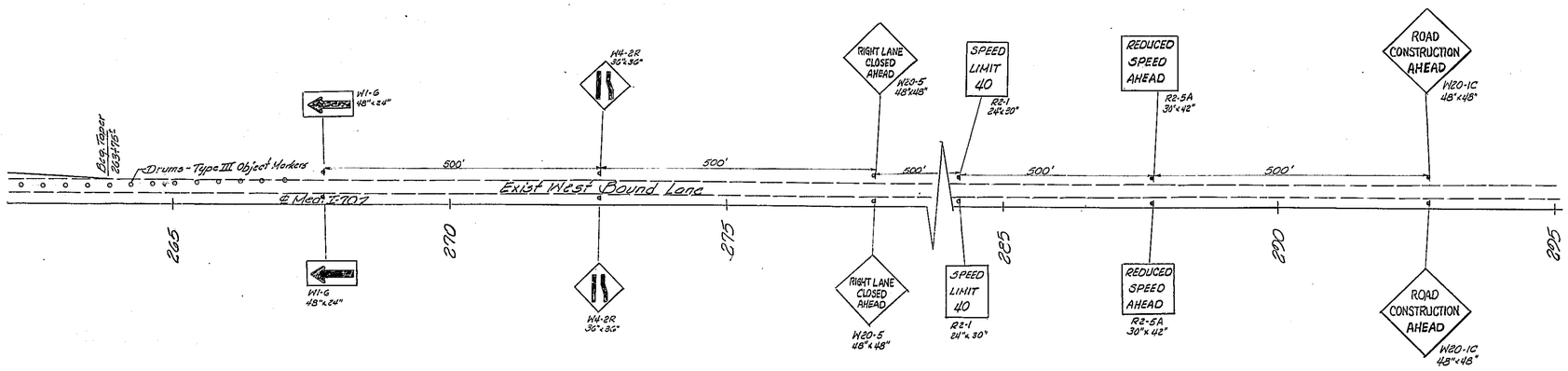
FINAL SURVEY			
NOTE BOOK	SURVEYED		
	PLOTTED		
	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

	BY	DATE



ORIGINAL SURVEY			
NOTE BOOK	SURVEYED		
	PLOTTED		
	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

	BY	DATE



TRAFFIC CONTROL PLANS
SPECIAL SHEET

~~244~~ 219

986 24 TO 1

SP-29
8-70

FINAL PLANS

FED. ROAD DIV. NO.	STATE	FEDERAL PROJECT No. & SEC.	SHEET NO.
5	MO.	I 70-3(77)	23
DIST. NO.	COUNTY		
5	MONTGOMERY	I-70	

Job No. 5-I-70-121 FINAL PLANS

SIGNS					WOOD POSTS				PIPE POSTS *TOTAL INCLUDES STUB LENGTH WHEN APPLICABLE						STRUCTURAL STEEL POSTS *TOTAL INCLUDES STUB LENGTH WHEN APPLICABLE						3" ZEE ASSEMBLY			BASE PLATE	ASSEMBLY CROSS-BARS 2" X 3/8" BARS @ 2.55 LBS/LIN.FT.				TOTAL WOOD POSTS		ITEM 903-12.40 BRKAWY. ASSEMBLY	ITEM 903-12.10 TOTAL STRUCT. STL. POST	ITEM 903-12.20 TOTAL PIPE POSTS	ITEM 903-10.10 CONCRETE FTG'S EMBEDDED	ITEM 903.10.20 CONCRETE FTG'S BOLT DOWN	ITEM 903-10.30 CONCRETE FTG'S MTL SLV	HORZ. CLEAR. IF NOT STD	DELINEATORS, MILEPOSTS, CONDUIT, CONDUCTOR CABLE, TRENCHING & BACKFILLING, CONTROL STATION, PULL BOXES AND OTHER REQUIRED ITEMS.
SIGN NO.	STATION	SIGN DT'L SHT NO.	LOCATION	SIGN SIZE	POST SIZE IN.	POST NO. 1 LIN.FT.	POST NO. 2 LIN.FT.	TOTAL LIN.FT.	PIPE SIZE IN.	POST NO. 1 LIN.FT.	POST NO. 2 LIN.FT.	TOTAL LIN.FT.	LBS. PER FT.	TOTAL LBS.	POST DESIGN NO.	POST NO. 1 LIN.FT.	POST NO. 2 LIN.FT.	POST NO. 3 LIN.FT.	TOTAL LIN.FT.	LBS. PER FT.	TOTAL LBS.	NO. EACH	POST SPACE	TOTAL LBS.	LBS.	NO. EACH	LENGTH IN.	TOTAL LIN.FT.	TOTAL LBS.	4"x6"	6"x6"	EACH	POUNDS	POUNDS	CU. YDS.	CU. YDS.	EACH		
1	100+00		F.S.L.	Exist. 12'x5'											1	15'-10"	13'-11"		29'-9"	8.5	253											2	253		0.30			30'	
2	1+00		Ramp	Exist. 4'x5'					3	17'-3"	18'-0"	35'-3"	7.58	267																		2		267	0.27				
3	3+00		Ramp	Exist. 12'x5'											1	16'-9"	14'-9"		31'-6"	8.5	268											2	268		0.29			2'	
4	3+50		Ramp	Exist. 4'x5'					3.5	20'-0"	10'-6"	30'-6"	9.11	360																		2		360	0.74				
5	2+50		Ramp	Exist. 12'x5'											1	16'-9"	14'-9"		31'-6"	8.5	268											2	268		0.29			2'	
6	0+50		Ramp	Exist. 4'x5'					3	17'-9"	17'-9"	35'-6"	7.58	269																		2		269	0.27				
																															Sub-Totals	12	785	896	2.16				
																															Totals	12	790	900	2.2				

FINAL SURVEY
SURVEYED: 7-17-81
PLOTTED: 7-17-81
NOTE BOOK NO.
AREA LINE AREA
BY: Don Clapp
AREA: Glen Bishop

ORIGINAL SURVEY
SURVEYED
PLOTTED
NOTE BOOK NO.
AREA LINE AREA
BY
DATE

2442
2220

986 24 TO 1

SP-2
MAY 1980

MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION
STANDARD PLANS

FED ROAD DIVISION		PROJECT	SHEET NO
7	MO.	I-70-3(77)	24
DIST NO		COUNTY	ROUTE
5		MONTGOMERY	I-70

✓	NO.	DESCRIPTION
✓	203.00D	EXCAVATION & EMBANKMENT
	203.02B	UNDERGRADING
	203.10	TABULATED EARTHWORK & SECTION DATA
✓	203.20	SUPERELEVATION SPIRALS & WIDENING (UNDIVIDED)
	203.21	SUPERELEVATION SPIRALS & WIDENING (DIVIDED)
	203.30A	ENTRANCES & APPROACHES (LESS THAN 400 ADT)
	203.31B	ENTRANCES & APPROACHES (GREATER THAN 400 ADT - NO SAFETY ZONE)
	203.32C	ENTRANCES & APPROACHES (GREATER THAN 400 ADT - SAFETY ZONE)
	203.35	MAILBOX TURNOUTS
✓	203.40D	TYPICAL DETAILS-RAMPS FOR INTERCHANGES (NO SAFETY ZONE)
	203.41D	TYPICAL DETAILS-RAMPS FOR INTERCHANGES (SAFETY ZONE)
	203.50H	TYPICAL CROSS-OVERS (DIVIDED HIGHWAYS)
	204.00A	EMBANKMENT CONTROL MEASURING DEVICES
	502.00F	CONCRETE PAVEMENT APPURTENANCES
	502.10B	DOWEL SUPPORTING UNITS
	502.20	CONCRETE APPROACH SLABS TO RAILROAD CROSSINGS
	503.00G	CONCRETE APPROACH SLABS TO BRIDGES (ALSO INCLUDE 502.00)
	602.00A	RIGHT-OF-WAY & DRAIN MARKERS
	604.05	PIPE CULVERT HEADWALLS - TYPE S
	604.10A	HEADWALL-WITH ENERGY DISSIPATOR - 18"
	604.11A	HEADWALL-WITH ENERGY DISSIPATOR - 24"
	604.12A	HEADWALL-WITH ENERGY DISSIPATOR - 30"
	604.13A	HEADWALL-WITH ENERGY DISSIPATOR - 36"
	604.14A	HEADWALL-WITH ENERGY DISSIPATOR - 42"
	604.15A	HEADWALL-WITH ENERGY DISSIPATOR - 48"
	604.20A	DROP INLET TYPE B
	604.21	DROP INLET TYPE C
	604.22	DROP INLET - TYPE D
	604.23	DROP INLET - TYPE E
	604.24	DROP INLET - TYPE EE
	604.25	DROP INLET - TYPE F
	604.26A	DROP INLET - TYPE G
	604.27A	DROP INLET - TYPE S (3 SHEETS)
	604.28B	DROP INLET - TYPE T (ALSO INCLUDE 614.30)
	604.29A	DROP INLET - TYPE X
✓	604.30C	CONCRETE MANHOLES (ALSO INCLUDE 614.30)
	604.40C	PIPE COLLARS
	605.10A	CLASS A UNDERDRAINS
✓	606.00M	GUARD RAIL (2 SHEETS)
	606.20E	BRIDGE ANCHOR SECTION (BRUSH CURB)(ALSO INCLUDE 606.00)
	606.21C	BRIDGE ANCHOR SECTION - CURB TYPE (ALSO INCLUDE 606.00)
	606.22B	BRIDGE ANCHOR SECTION (SAFETY BARRIER CURB)(INCLUDE 606.00)
	606.30C	TERMINAL SECTION (ALSO INCLUDE 606.00)
	606.40A	GUARD CABLE
	606.50	GUARD FENCE
✓	607.10M	CHAIN LINK FENCE
	607.11A	CHAIN LINK FENCE FOR RETAINING WALLS
	607.20D	WOVEN WIRE FENCE (ALSO INCLUDE 607.10)

✓	NO.	DESCRIPTION
	608.00A	PAVED APPROACHES
✓	608.10E	CONCRETE SIDEWALK & WHEELCHAIR RAMPS
✓	608.20A	CONCRETE STEPS
✓	609.00F	CONCRETE CURB - CURB & GUTTER - GUTTER
	609.15A	PAVED DITCHES
	609.40D	DRAIN BASIN, SHLDR. PAVING & FILL SLOPE AT BR. ENDS
	609.60A	DITCH LINER
	609.70A	ROCK LINING FOR CULVERT OUTLETS
	610.20C	BRICK MANHOLES (ALSO INCLUDE 614.30)
	611.60F	CONCRETE SLOPE PROTECTION
	612.10J	BARRICADES AND FLASHER SIGNS
	612.20M	STANDARD CONSTRUCTION SIGNS (5 SHEETS) (ALSO INCLUDE 903.00)
✓	612.30	TRAFFIC CONTROL DEVICES (2 SHEETS) (ALSO INCLUDE 903.00)
✓	614.10F	CURB INLETS, GRATES & BEARING PLATES
✓	614.30B	MANHOLE FRAMES & COVERS
	615.00	OFFICE FOR ENGINEER
	617.00N	CONCRETE MEDIAN BARRIER (3 SHEETS)
	702.01D	16" CONCRETE PILES (APPROVED TYPES) (2 SHEETS)
	702.02A	CAST-IN-PLACE CONCRETE PILES (APPROVED TYPES)
	703.15C	CONCRETE BOX CULVERTS, H15 LOADING (3 SHEETS) (INCL. 706.35)
	703.16B	CONCRETE BOX CULVERTS, H15 LOADING (3 SHEETS) (FLARED WINGS) (INCL.
		706.35)
	703.20C	CONCRETE BOX CULVERTS, HS20 LOADING (3 SHEETS) (INCL. 706.35)
	703.21B	CONCRETE BOX CULVERTS, HS20 LOADING (3 SHEETS) (FLARED WINGS) (INCL.
		706.35)
	703.24C	CONCRETE BOX CULVERTS, SKEW DATA (703.15, 703.20, 703.30) (INCL. 706.35)
	703.25B	CONCRETE BOX CULVERTS SKEW DATA (703.16 & 703.21) (3 SHEETS) (FLARED
		WINGS) (INCL. 706.35)
	703.30B	CONCRETE BOX CULVERTS, 4' SPANS & LESS - ALL LOADING (INCL. 706.35)
	703.35B	CONCRETE BOX CULVERTS, CUTTING DETAILS (STRAIGHT WINGS) (INCL. 706.35)
	703.36A	CONCRETE BOX CULVERTS, CUTTING DETAILS (FLARED WINGS) (INCL. 706.35)
	703.50C	CONCRETE DOUBLE BOX STRUCTURE - SQUARE (INCL. 706.35)
	703.51B	CONCRETE DOUBLE BOX STRUCTURE - SKEWED (INCL. 706.35)
	703.52A	CONCRETE DOUBLE BOX STRUCTURE - CUT SECTIONS (INCL. 706.35)
	703.53B	DOUBLE BOX STRUCTURE TOP SLAB REINF. H15 LOADING (6 SHEETS)
	703.54B	DOUBLE BOX STRUCTURE TOP SLAB REINF. H20 OR HS20 LOADING (6 SHEETS)
	703.55	CONCRETE DOUBLE BOX STRUCTURE (FLARED WINGS) SQUARE (INCL. 706.35)
	703.56	CONCRETE DOUBLE BOX STRUCTURE (FLARED WINGS) SKEWED (INCL. 706.35)
	703.60A	CONCRETE BOX STRUCTURE - PIPE INLET
	706.30C	REINFORCING BAR SUPPORTS
	706.35B	BAR SUPPORTS FOR CONCRETE REINFORCEMENT
	712.40A	STEEL DAMS FOR BRIDGES (6" CHANNEL)
	712.41A	STEEL DAMS FOR BRIDGES (4" CHANNEL)
	712.42	FILLET WELDED TEE JOINT TEST
	717.11B	TIMBER BRIDGES - 11' ROADWAY
	717.15B	TIMBER BRIDGES - 15' ROADWAY
	717.20	TIMBER BRIDGES, 20' ROADWAY (9' to 19' SPANS)
	725.31A	METAL CURTAIN WALL AND METAL INLETS
✓	726.30B	CULVERT INSTALLATION METHODS
	731.00K	PRECAST MANHOLES (ALSO INCLUDE 614.30)
	731.10D	PRECAST DROP INLETS (4 SHEETS) (ALSO INCLUDE 614.30 & 614.10)
✓	732.00G	FLARED END SECTION (2 SHEETS)
	805.00A	EROSION CONTROL NETTING (INSTALLATION) TYPE I & TYPE II
	806.02	STAPLE PLACEMENT FOR TYPE III NETTING

✓	NO.	DESCRIPTION FINAL PLANS
		HIGHWAY LIGHTING
✓	901.00F	POLES & APPURTENANCES - 30' (3 SHEETS)
	901.01L	POLES & APPURTENANCES - 45' (3 SHEETS)
	901.05A	CONTROL PANEL CABINET DETAILS (2 SHEETS) (NOTE BELOW)
	901.12A	POLE MOUNT. CONT. STA.-SECONDARY SERV.-480 V MULTI. CIR. (NOT METERED)
	901.15A	POLE MOUNT. CONT. STA.-SEC. SERV.-120, 240, & 480 V MULTI. CIR.
	901.16A	POLE MOUNT. CONT. STA.-SEC. SERV.-480 V MULTI. CIR. (METERED)
	901.18B	POLE MOUNT. CONT. STA.-SEC. SERV.-120/240 V MULTI. CIR
	901.19A	POLE MOUNT. CONT. STA.-SEC. SERV.-240 V MULTI. CIR. (NOT METERED)
	901.20A	POLE MOUNT. CONT. STA.-SEC. SERV.-120/240 V MULTI. CIR. (SIG. METERED)
	901.22A	POLE MOUNT. CONT. STA.-SEC. SERV.-120/240 & 480 V MULTI. CIR. (BOTH
		METERED)
	901.23A	POLE MOUNT. CONT. STA.-SEC. SERV.-240 V MULTI. CIR. (METERED)
	901.24A	POLE MOUNT. CONT. STA.-SEC. SERV.-240 V MULTI. CIR. (LT'S & SIGS-BOTH
		METERED)
	901.25	BASE MOUNT. CONT. STA.-SEC. SERV.120-240 V MULTI. CIR.
	NOTE:	ALSO INCLUDE 901.05 WITH 901.12 THROUGH 901.25 EXCEPT 901.18
		TRAFFIC SIGNALS
	902.00B	SIGNAL HEADS, LENSES AND MOUNTING
✓	902.10B	PULL BOXES, CONTROLLERS, COND. INSTAL., POWER SUPPLY
	902.21	TELEPHONE INTERCONNECT
	902.30B	CONCRETE BASES
	902.40B	TUBULAR STEEL POST
	902.50B	DETECTORS
	902.60B	SPAN WIRE DETAILS
		HIGHWAY SIGNING
✓	903.00A	STANDARD ALPHABETS (SILK SCREEN - 5 SHEETS)
✓	903.01A	ALPHABETS (CUT OUT - 5 SHEETS)
✓	903.02N	HIGHWAY SIGNING (7 SHEETS)
✓	903.03X	SIGN MOUNTING DETAILS (7 SHEETS)
	903.04A	WEIGH STATION SIGNING
	903.05A	TUBULAR SPAN SUPPORT - ONE TUBE, TYPE S
	903.06A	TUBULAR SPAN SUPPORT - TWO TUBE, TYPE S
	903.07A	TUBULAR CANTILEVER SUPPORTS, TYPE C
	903.08B	TUBULAR BUTTERFLY SUPPORTS, TYPE B
	903.09C	LIGHTING SUPPORT BRACKET
	903.10M	SIGN TRUSSES - OVERHEAD ALUMINUM (8 SHEETS)
	903.12G	SIGN TRUSSES - BUTTERFLY & CANTILEVER - STEEL (7 SHEETS)
	903.60L	SIGN TRUSSES - OVERHEAD STEEL (7 SHEETS)
	903.70A	SPAN WIRE DETAILS

NOTES: Plans for this project were developed using Drawings from this index. Plans issued for this project contain the Drawings checked. If any Drawing(s) is missing, it will be furnished upon notification and its omission will not be cause for claim on this project.

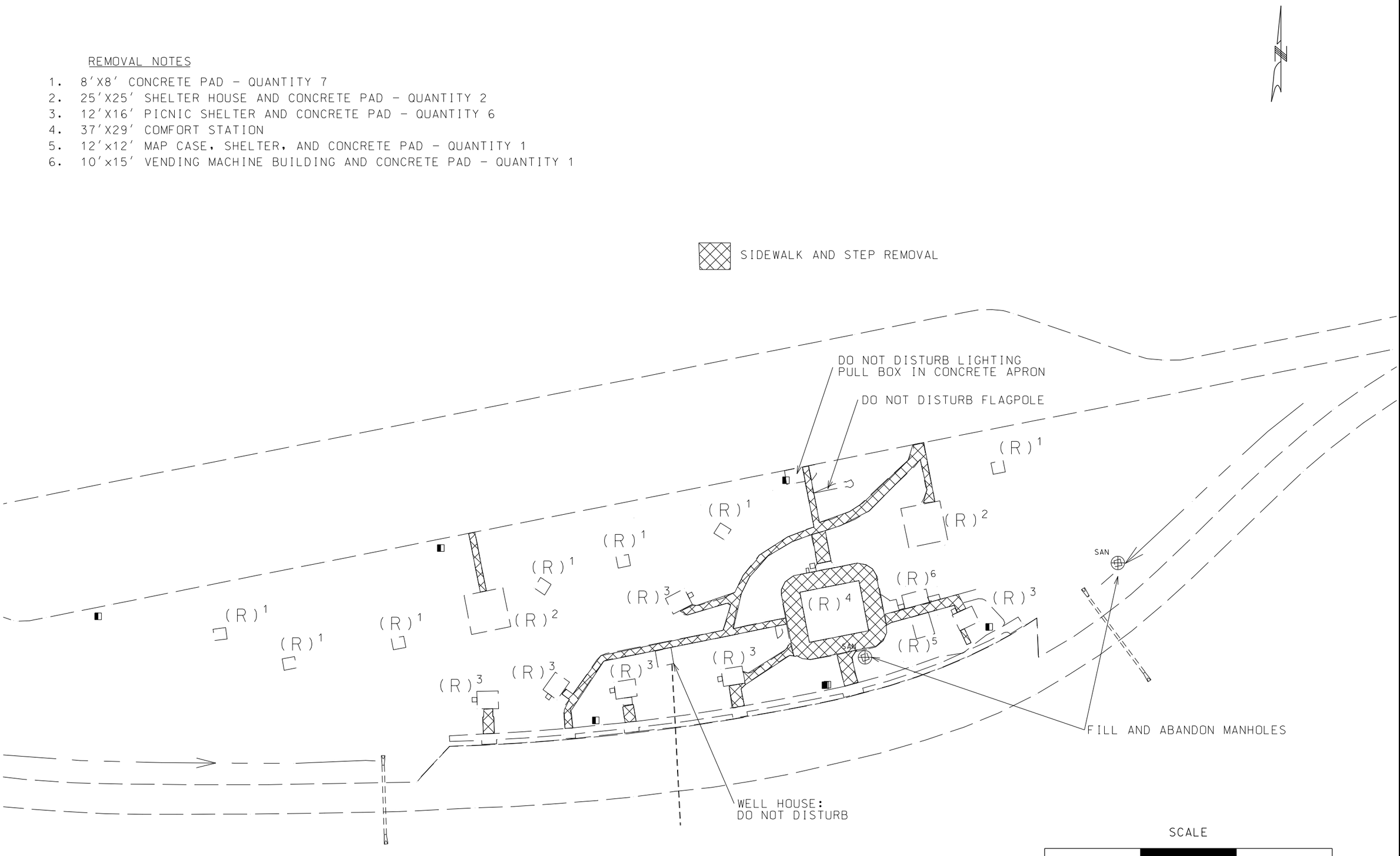
221

986 24 TO 1

I-70 EASTBOUND MINEOLA REST AREA

REMOVAL NOTES

1. 8'X8' CONCRETE PAD - QUANTITY 7
2. 25'X25' SHELTER HOUSE AND CONCRETE PAD - QUANTITY 2
3. 12'X16' PICNIC SHELTER AND CONCRETE PAD - QUANTITY 6
4. 37'X29' COMFORT STATION
5. 12'x12' MAP CASE, SHELTER, AND CONCRETE PAD - QUANTITY 1
6. 10'x15' VENDING MACHINE BUILDING AND CONCRETE PAD - QUANTITY 1



"THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT."

DATE PREPARED	5/18/2011
ROUTE	I-70
STATE	MO
DISTRICT	3
SHEET NO.	
COUNTY	MONTGOMERY
JOB NO.	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

I-70 WESTBOUND MINEOLA REST AREA

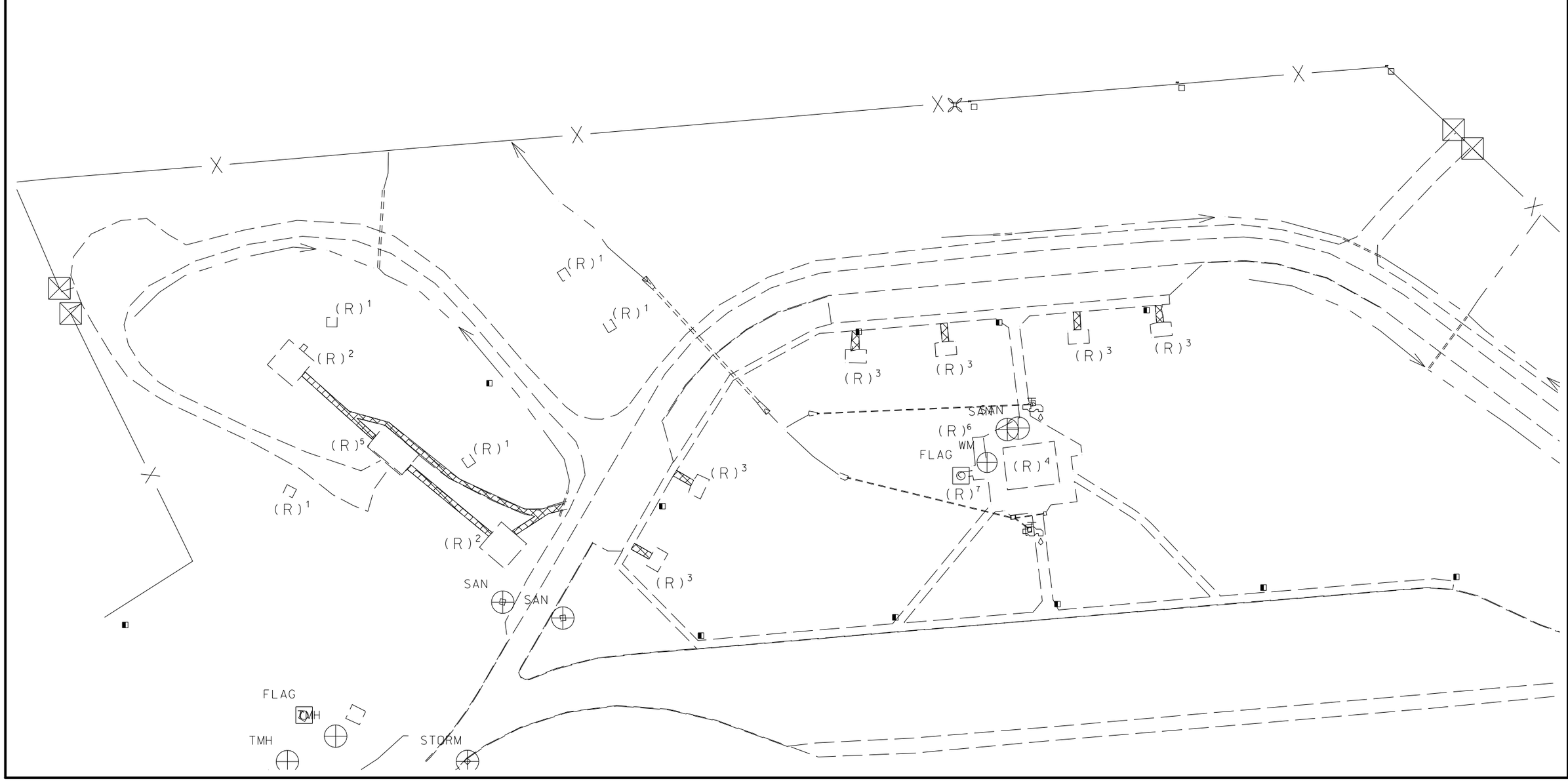
REMOVAL NOTES

1. 8'X8' CONCRETE PAD - QUANTITY 5
2. 25'X25' SHELTER HOUSE AND CONCRETE PAD - QUANTITY 2
3. 10'X16' PICNIC TABLE SHELTER AND CONCRETE PAD - QUANTITY 6
4. 37'X29' COMFORT STATION
5. 24'X13' COMFORT STATION / TOOL SHED
6. 10'X15' VENDING BUILDING
7. 14'X6' MAP CASE, SHELTER, FLAGPOLE, CONCRETE PAD

SIDEWALK REMOVAL

SCALE

0 60 120 180



"THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT."

DATE PREPARED 5/18/2011	
ROUTE I-70	STATE MO
DISTRICT 3	SHEET NO.
COUNTY MONTGOMERY	
JOB NO.	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

B-8-4

INDEX OF SHEETS

TITLE SHEET ---------- 1
SUMMARY (1 SHEET) ---------- 2A
SITE PLAN & B-SHEETS ---------- 3-4
COMFORT STATION DETAILS ------- 5-7
SHELTER HOUSE DETAILS ------- 8
WELL & PUMP HOUSE DETAILS --- 9-10
LAGOON DETAILS ---------- 11
SEWER LINE DETAILS ---------- 12
PICNIC TABLE & BASE DETAILS --- 13
~~SANITARY SEWER CULVERT SHEET 14~~
STD DWG-S ---------- 11 Sheets
SPECIAL & COMP. SH. # 14 to SH. # 21

DESIGN DESIGNATION

A.D.T. (19) =
A.D.T. (1990) = 14,550
D.H.V. (19) =
D = 50 %
T = %
V = m.p.h.
Usage = 12 %

MISSOURI
STATE HIGHWAY COMMISSION
PLAN AND PROFILE
OF PROPOSED
STATE ROAD

FEDERAL AID PROJECT

MONTGOMERY COUNTY

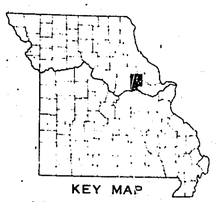
COUNTY
MONTGOMERY
STATE ROUTE NO.
I-70
PROJECT NO.
I-70-3(59)163

REST AREA IMPROVEMENTS
FINAL PLANS

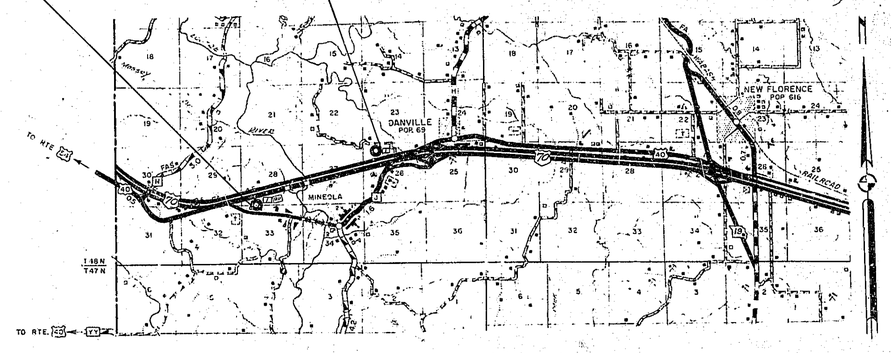
Project I-70-3(59)163
Picnic Shelters, Rest Rooms, Deep Wells, Waste Stabilization Lagoons & Roadway Lighting

EBL Rest Area

WBL Rest Area



KEY MAP
SHOWING LOCATION OF COUNTY



CONVENTIONAL SYMBOLS

STATE LINE
COUNTY LINE
CITY LIMITS
TOWNSHIP OR RANGE LINE
OTHER LAND SURVEY LINES
FENCE LINE
GUARD RAIL
PROPERTY LINE
RIGHT OF WAY LINE
RIGHT OF WAY MARKER
RAILROAD
SURVEY CENTER-LINE
CULVERT
OVERHEAD TELEPHONE NEW
OVERHEAD TELEPHONE EXIST.
EXISTING BUILDINGS & STRUCTURES
GROUND LINE
GRADE LINE
OVERHEAD POWER-EXIST.
OVERHEAD POWER-NEW
UNDERGROUND GAS-NEW
UNDERGROUND WATER-EXIST

TITLE SHEET LEGEND

INTERCHANGE
GRADE SEPARATION
CONSTRUCTION IDENTIFICATION SIGNS

LIGHTING SYMBOLS

250 WATT MERCURY VAPOR LUMINAIRE
BRACKET ARM
BUTT BASE LIGHT STANDARD
NEW CONDUIT UNDER ROADWAY (PUSHED)
CABLE CONDUIT. HACHURES DENOTE NO. OF WIRES
SUBSTATION POLE
CONCRETE HANDHOLE

TREE SYMBOLS

EXISTING NATIVE TREE
PROPOSED FUTURE BEAUTIFICATION PLANTING

STATE OF MISSOURI
H. J. SNIDER
NUMBER
E-623
REGISTERED PROFESSIONAL ENGINEER

SUBMITTED BY DATE

CHIEF ENGINEER
MISSOURI STATE HIGHWAY COMMISSION
DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

APPROVED:

DIVISION ENGINEER DATE

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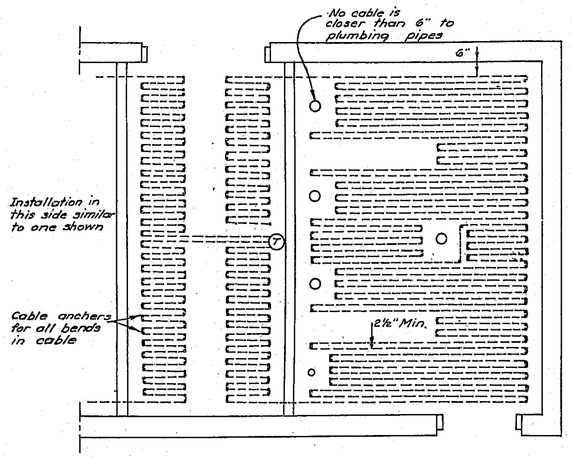
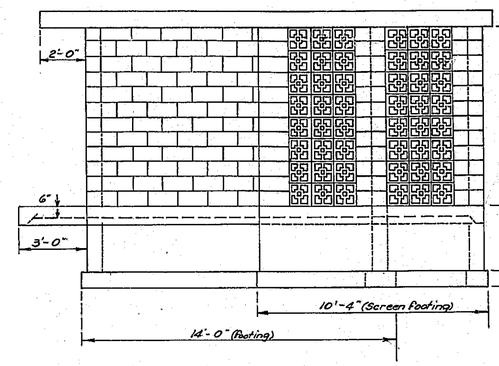
FINAL PLANS

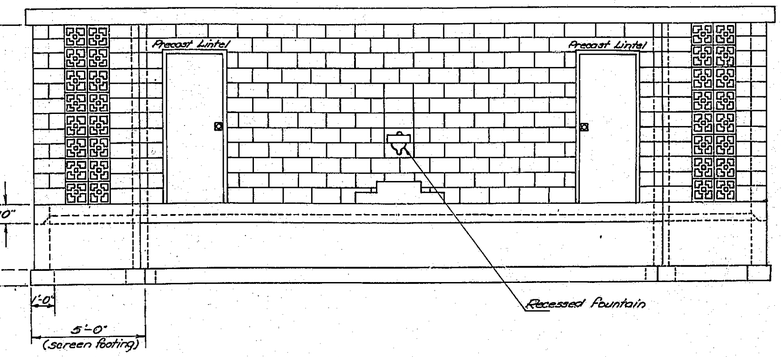
5 MO I-70-3(59)163 5
5 MONTGOMERY I-70



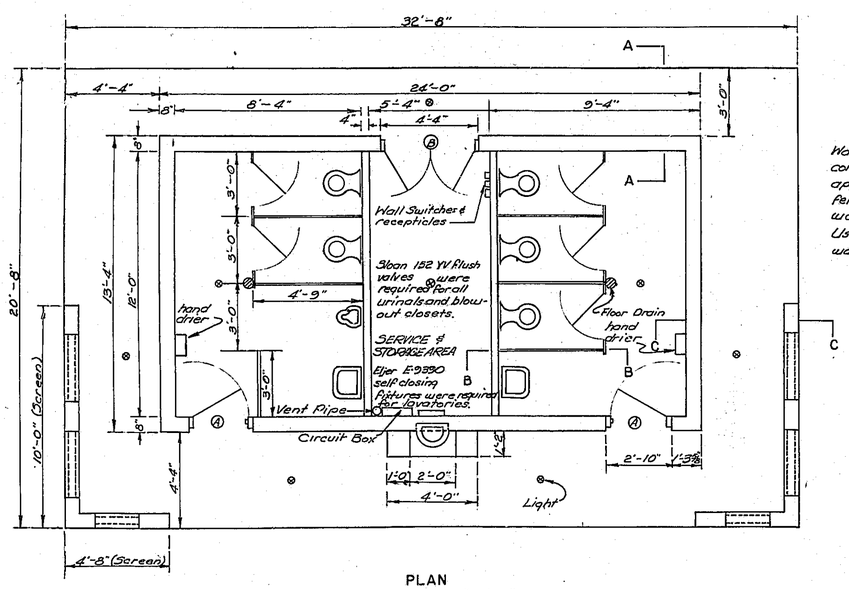
PLAN SHOWING HEATING CABLE INSTALLATION
SCALE 1/2" = 1'



END ELEVATION
SCALE 3/8" = 1'-0"

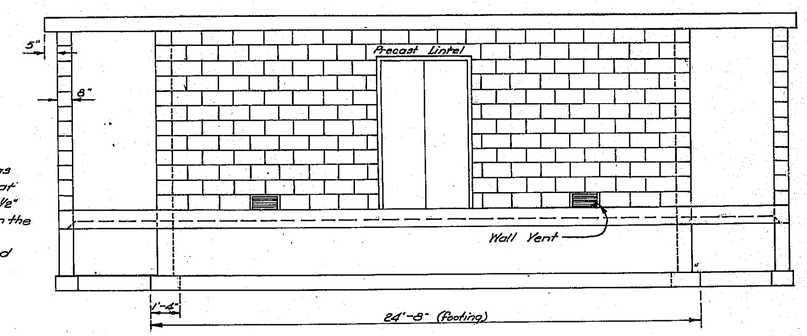


FRONT ELEVATION
SCALE 3/8" = 1'-0"



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

Walkway around Comfort Station was constructed using troweled joints at approximately 4 foot intervals and ½" felt expansion joint material between the walls and walkway.
Used 4" sand cushion under floors and walkway around Comfort Station.



BACK ELEVATION
SCALE 3/8" = 1'-0"

COMBINATION TOOL SHED AND COMFORT STATION

Sheet No. 1 of 3

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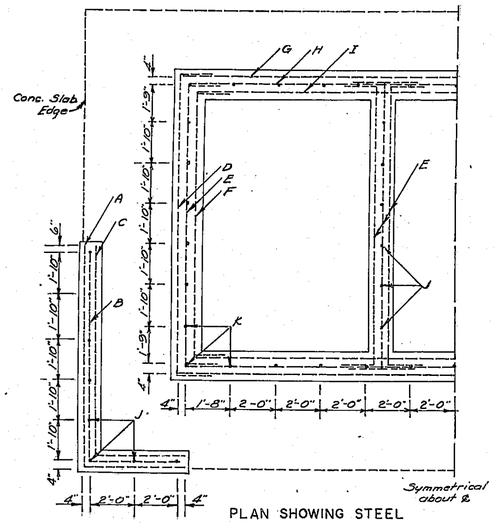
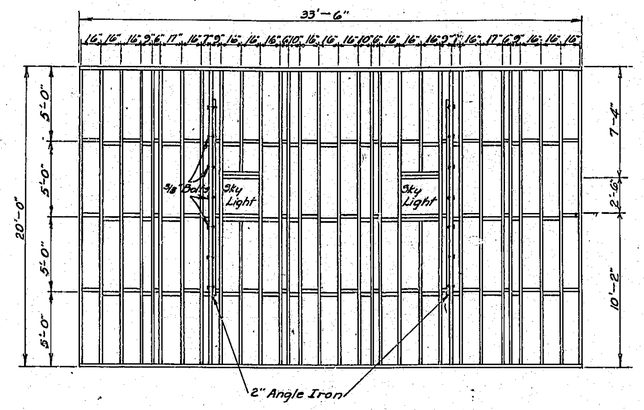
FINAL PLANS

B-5-4

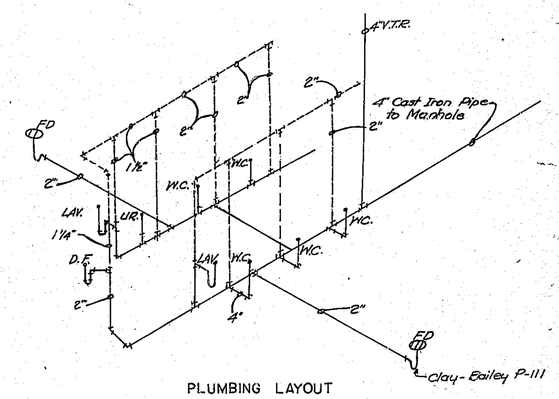
5 MD I-70-3(59)143 6
5 MONTGOMERY I-70



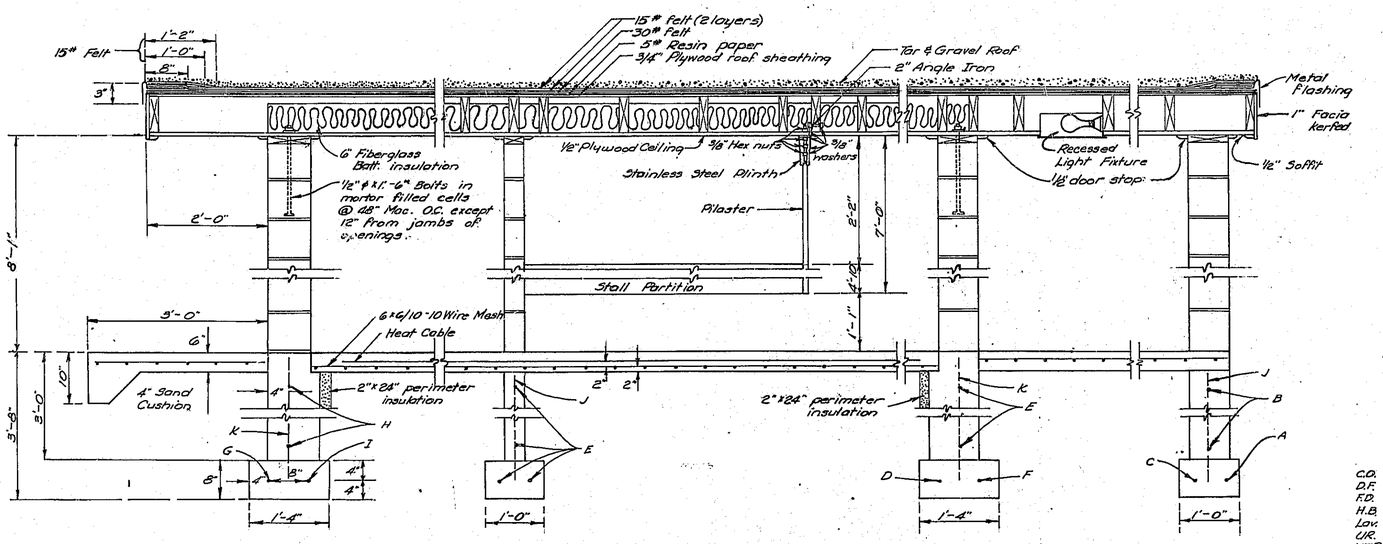
PLAN SHOWING STEEL



PLAN OF ROOF FRAMING



PLUMBING LAYOUT

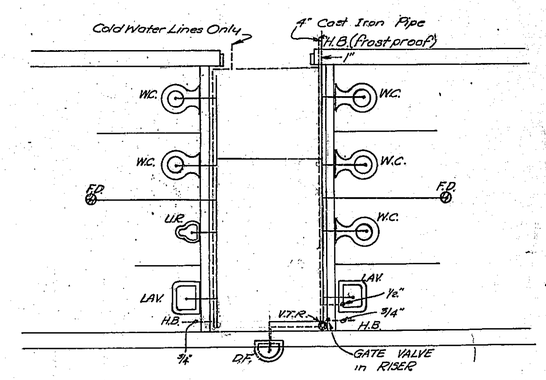


SECTION A—A

SECTION B—B

SECTION C—C

TYPICAL SECTIONS



PLUMBING PLAN

SYMBOLS

C.O. . . . Clean Out
D.F. . . . Drinking Fountain
F.D. . . . Floor Drain
H.B. . . . Hose Bibb
Lav. . . . Lavatory
U.R. . . . Urinal Riser
V.T.R. . . . Vent through Roof
W.C. . . . Water Closet

COMBINATION TOOL SHED AND COMFORT STATION

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FINAL PLANS

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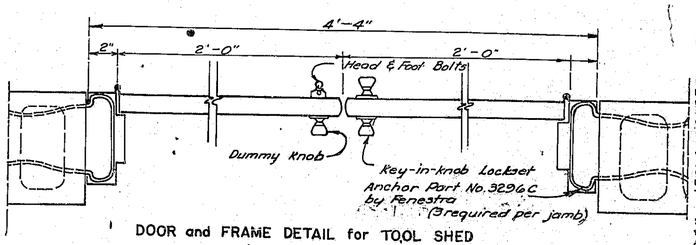
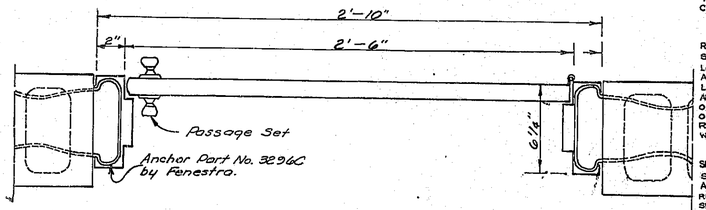
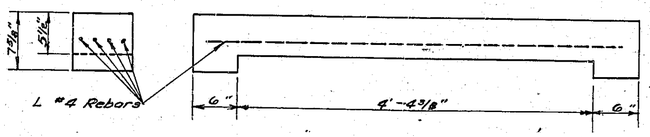
5 MONTGOMERY I-70



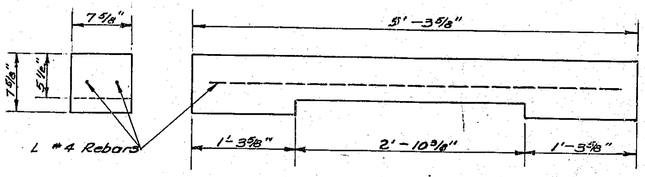
DOOR and FRAME DETAIL for TOOL SHED
1 – Required



DOOR and FRAME DETAIL for COMFORT STATIONS
2 – Required



DETAIL of PRECAST LINTEL for TOOL SHED DOOR
1 – Required



DETAIL of PRECAST LINTEL for COMFORT STATION DOORS
2 – Required

NO SCALE

GENERAL NOTES

LUMBER: ALL LUMBER USED WAS COMMERCIAL SIZE AND CONSTRUCTION GRADE. PLYWOOD USED WAS GRADED IN ACCORDANCE WITH DOUGLAS FIR PLYWOOD ASSOCIATION RULES.

WALL VENTS: WALL VENTS WERE 16 1/2" x 7 3/4" x 4" CAST ALUMINUM WITH HINGED BLADE SHUTTERS AS MANUFACTURED BY RIESNER VENT BRICK CORP.

PAINT: THE INSIDE WALLS WERE PAINTED WITH RV.A. VINYL PRIMER MIXED WITH CLING BLOCK FILLER. THE INSIDE WALLS WERE THEN PAINTED WITH ONE COAT OF COOKS COROFLEK CB-628 (LARGE FLEK) AND ONE COAT OF COOKS ARMOR-TILE CLEAR # 920-C-230. THE CEILING WAS PAINTED WITH TWO COATS OF WHITE LATEX. EXTERIOR WALLS AND CONCRETE BLOCK FRAME AROUND SCREENS WERE PAINTED WITH ONE COAT OF "THOROSEAL" SEALER FOLLOWED WITH TWO COATS OF "THOROSHEEN" CONSISTING OF ONE PART # 535 SURF GREEN AND ONE PART WHITE AS MANUFACTURED BY STANDARD DRY WALL PRODUCTS INC. CUT OUT BLOCK IN SCREENS WERE PAINTED WITH ONE COAT OF "THOROSHEEN" WHITE. ALL EXTERIOR WOOD SURFACES WERE PRIMED WITH ONE COAT OF COOKS GRIP BOND, EXTERIOR WOOD SURFACES, DOORS AND DOOR FRAMES WERE THEN PAINTED WITH TWO COATS OF COOKS 801 DEEP GREEN.

SEALER: THE CONCRETE FLOOR WAS TROWELED SMOOTH WITH A STEEL TROWEL. THE CONTRACTOR THEN APPLIED, ACCORDING TO MANUFACTURERS RECOMMENDATIONS TWO COATS OF THOMPSONS WATER SEAL, AS MANUFACTURED BY E.A. THOMPSON CO.

WIRING: THE ELECTRICAL WIRING USED WAS NO. 12 CONDUCTOR WIRE ENCASED IN CONDUIT. ALL ELECTRICAL WIRING CONFORMED TO S.H.C. SPECIFICATIONS. LIGHT FIXTURES WERE RECESSED IN CEILING, USING 100 WATT BULBS INSIDE AND OUTSIDE.

ROOFING: THE ROOF CONSISTS OF ONE LAYER OF #5 SHEATHING PAPER, ONE LAYER OF 30# ASPHALT FELT, AND TWO LAYERS OF 15# FELT. EACH COURSE WAS SEALED WITH HOT ASPHALT ROOF COATING PRIOR TO APPLICATION OF THE NEXT LAYER. FIRST LAYER OF 5# SHEATHING PAPER WAS LAPPED 4" AND NAILED WITH 7/8" GALVINIZED ROOFING NAILS. THE NEXT LAYER OF 30# ASPHALT FELT WAS LAPPED 4" AND THE NEXT TWO LAYERS OF 15# ASPHALT FELT WERE LAPPED 19". THE TOP COURSE RECEIVED TWO COATS OF HOT ASPHALT ROOF COATING, AFTER WHICH MERAMEC RIVER GRAVEL WAS APPLIED.

SKYLIGHTS: SKYLIGHTS USED WERE HUNTER, MODEL 5-403. SIZE 30 1/2" X 30 1/2", PALE GREEN; EXHAUST CAPACITY 1600 C.F.M. AS MANUFACTURED BY HUNTER ENGINEERING CO. TYPE SQUIRREL CAGE EXHAUST BLOWER IS MOUNTED ON THE INSIDE RISE OF SKYLIGHT AND IS PROVIDED WITH AN ALUMINUM HOODED BUTTERFLY VALVE FOR EXHAUSTING.

METAL DOORS: DOORS WERE FENESTRA, 1 3/8" FULL FLUSH METAL DOORS, # 2268 FOR REST ROOMS AND # 2068 FOR TOOL SHED. REST ROOM DOORS HAVE # 5407 YALE AND TOWNE PASSAGE SETS WITH LITCHFIELD KNOBS AND FINISH LY-4B. TOOL SHED DOOR HAS # 5407 YALE AND TOWNE LOCK SETS ON THE ACTIVE DOOR, AND HEAD AND FOOT BOLTS ON THE INACTIVE DOOR. LOCK SETS MEET FEDERAL SPECS. NO. 161 EQUIPPED WITH LITCHFIELD KNOBS, FINISH LY-4B. STRIKE PLATE (MEETING AMERICAN STANDARD ASSOCIATION SPEC. NO. 4571. LOCKS ARE MASTER KEYED TO KEY NO. 227064 V.O.

WASTE RECEPTACLES: LAWSON DOME RECEPTICLES WERE FURNISHED FOR EACH REST ROOM.

INSULATION: SIX INCH FIBER GLASS INSULATION BATTS WITH VAPOR BARRIER WERE PLACED IN CEILINGS. THE VOIDS IN THE MASONRY UNITS OF WALLS WERE FILLED WITH "ZONOLITE" WATER REPELLANT MASONRY FILL. TWO INCH THICK BY TWO FEET DEEP RIGID PERIMETER INSULATION WAS PLACED ON THE INSIDE OF THE OUTSIDE FOUNDATION WALLS. PERIMETER INSULATION USED WAS "DORVON" MOLDED POLYSTYRENE AS MANUFACTURED BY DOW CHEMICAL CO.

PLUMBING: STOOLS WERE CAST ALUMINUM BLOWOUT CLOSETS "SMITHSON MODEL A-100" MANUFACTURED BY THE ALUMINUM PLUMBING FIXTURE CORP. URINALS ARE AMERICAN STANDARD "BERING" No. P-6281 VITROUS CHINA WITH 3/4" TOP SPUD, 1 1/2" O.D. TAIL PIECE AND NO. 185 ROYAL FLUSH VALVES, MANUFACTURED BY CRANE CO. VACUUM BREAKERS WERE INSTALLED ON ALL STOOLS AND URINALS. LAVATORIES WERE 20" x 18" P-4867 REGALYN MANUFACTURED BY AMERICAN STANDARD. DRINKING FOUNTAINS WERE No. 5907 AC, MANUFACTURED BY HALSEY W. TAYLOR CO. THE PLUMBING INCLUDES A 4" DIAMETER CAST IRON VENT PIPE AND A 4" DIAMETER CAST IRON SOIL PIPE CONNECTED TO SEWER MANHOLE. HOSE BIB ON BACK OF COMF. STA. IS FROST PROOF AND IS PROVIDED WITH A CUT-OFF VALVE INSIDE THE TOOL SHED. HOSE BIBS IN REST ROOMS ARE ALSO PROVIDED WITH CUT-OFF VALVES IN TOOL SHED. COPPER TUBING WITH BRASS CONNECTIONS WAS REQUIRED FOR WATER SUPPLY.

HAND DRIERS: THE HAND DRIERS WERE No. A4, 230V, 11 AMP, MANUFACTURED BY WORLD DRYER CORP. THE HAND DRIERS WERE SURFACE MOUNTED WITH A FULL REVOLVING NOZZLE.

HEATING: THE CONCRETE SLAB WAS CONSTRUCTED IN TWO POURS. A 4" SLAB WAS POURED ON WHICH THE HEATING CABLE WAS INSTALLED. CABLE ANCHORS NO. 7232 AS MANUFACTURED BY ELECTROMODE DIVISION OF COMMERCIAL CONTROLS CORP. WERE USED TO ANCHOR THE CABLE TO FLOOR SLAB. A 2" SLAB WAS THEN POURED OVER THE CABLE TO FINISH FLOOR LEVEL. THE HEATING CABLE WAS NO. S-212, 1200 W, 240 V MANUFACTURED BY SUNWARM CO. SPACING BETWEEN CABLE RUNS WAS 2 1/2". THE THERMOSTAT IS MOUNTED IN THE TOOL SHED. THE THERMOSTAT IS WHITE-RODGERS NO. 1A66-H1, 240V, 2 P, 22 A, 55° - 85° F. ALL WIRING TO THERMOSTAT AND POWER SOURCE WAS INCLOSED IN CONDUIT.

STALL PARTITION: STALL PARTITIONS WERE TYPE AC CEILING AS MANUFACTURED BY ROBART PARTITIONS INC. THE PILASTERS WERE 7' LONG AND ALLOW 1'-1" CLEARANCE BETWEEN BOTTOM OF STALL PARTITION AND THE FLOOR. ALL STALL SCREENS, DOORS, DIVIDING PANELS, AND PILASTERS WERE CONSTRUCTED BY GALVINIZED BONDERIZED STEEL. FINISH WAS BAKED ON SYNTHETIC ENAMEL. COLOR OF STALL SCREENS, DIVIDING PANELS, PILASTERS AND DOORS WAS GREEN NO. 11716 AS SHOWN ON ROBART PARTITIONS INC. COLOR CHART. ALL HARDWARE WAS STAINLESS STEEL. ALL DOORS WERE EQUIPPED WITH A COAT HOOK, RUBBER DOOR STOP AND INSIDE LATCH. CONTRACTOR INSTALLED A ROLL TYPE TISSUE PAPER HOLDER IN EACH STALL.

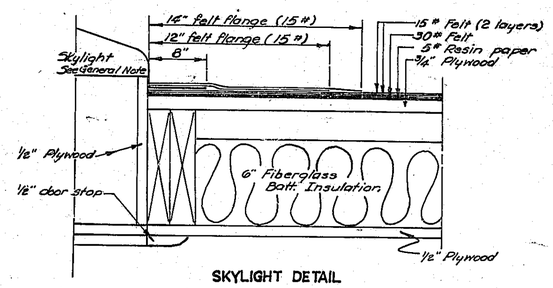
ELECTRICAL SERVICE: SEE SCHEMATIC ELECTRICAL DIAGRAM.

STEEL SCHEDULE

Straight Rebars				Bent Rebars		Spacing		Remarks
No.	Size	Length	Quan.	Length	Quan.	Spacing		
A	#4			14'-8"	2	as shown		Bend as shown
B	#4		1	13'-8"	4	"	"	Bend as shown
C	#4			13'-4"	2	"	"	Bend as shown
D	#4			16'-4"	2	"	"	Right angles 1'-6" from each end
E	#4			15'-8"	12	"	"	Right angles 1'-6" from each end
F	#4			15'-0"	2	"	"	Right angles 1'-6" from each end
G	#4	24'-0"	2			"	"	
H	#4	23'-4"	4			"	"	
I	#4	22'-8"	2			"	"	
J	#4	2'-10"	28			"	"	
K	#4	3'-2"	36			"	"	
L	#4	5'-0"	8			"	"	Rebars for precast lintel

DOOR SCHEDULE

No.	Size	Hardware	Remarks
A	1 3/8" x 2'-6" x 6'-8"	# 5407 Passage Set	Single Steel Door
B	1 3/8" x 2'-0" x 6'-8"	# 5407 Lockset-Head/Foot Bolt	Pair Steel Door



SKYLIGHT DETAIL

COMBINATION TOOL SHED
AND
COMFORT STATION

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FINAL PLANS

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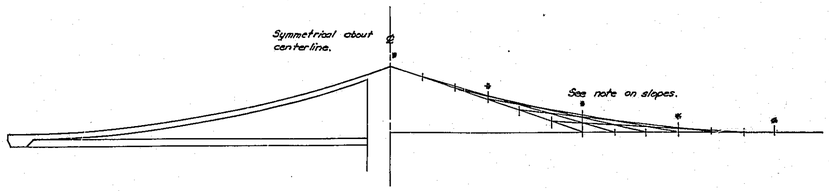
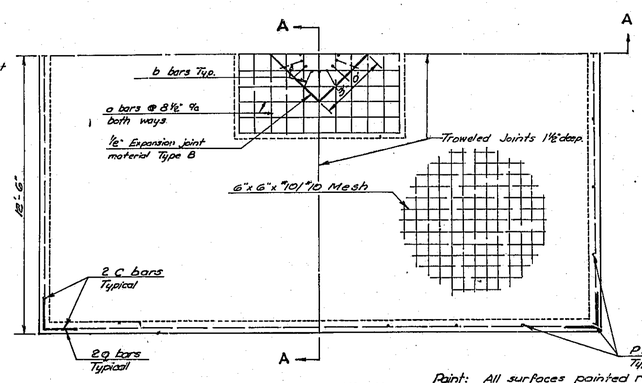
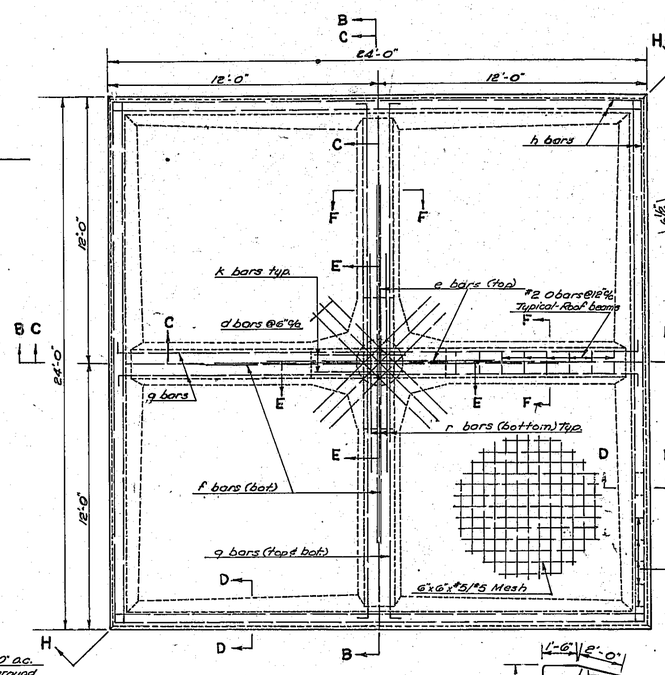
5 MONTGOMERY I-70



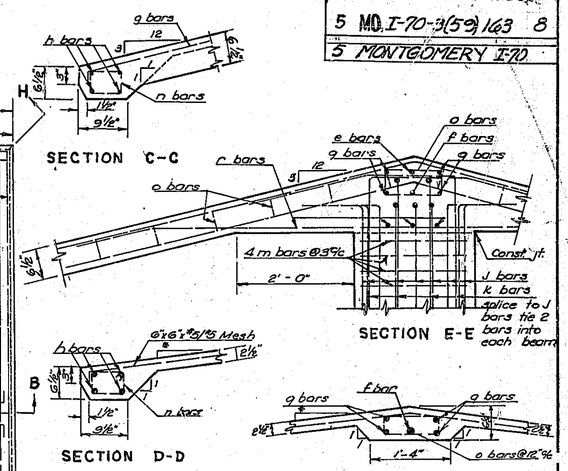
SECTION H-H
Scale 3/8" = 1'-0"



FOUNDATION PLAN.



ROOF PLAN

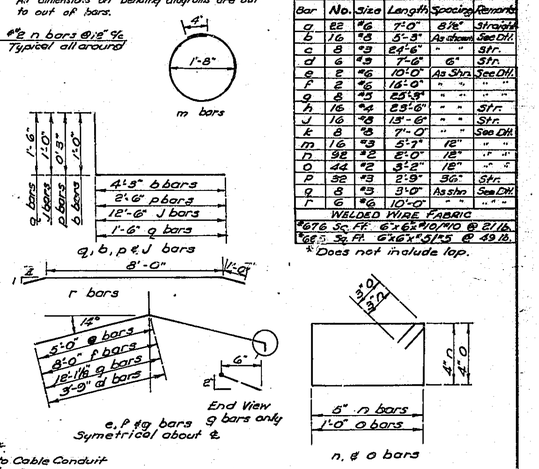


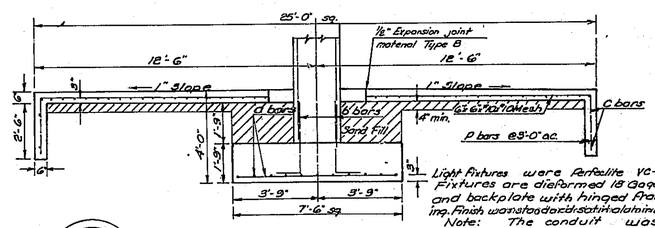
* Slopes normal to outside edge:
Level at outside edge.
¾" in 12" @ 3' from outside edge.
1½" in 12" @ 6' from outside edge.
2¼" in 12" @ 9' from outside edge.
3" in 12" @ 12' from outside edge.

All dimensions on bending diagrams are out to out of bars.

REINFORCING STEEL					
Bar	No.	Size	Length	Spacing	Remarks
a	22	#6	7'-0"	8½"	Straight
b	16	#8	5'-3"	As shown	See Dtl.
c	8	#3	24'-6"	" "	Str.
d	6	#3	7'-6"	6"	Str.
e	2	#6	10'-0"	As Shn.	See Dtl.
f	2	#6	16'-0"	" "	" "
g	8	#3	25'-9"	" "	" "
h	16	#4	25'-6"	" "	Str.
J	16	#8	15'-6"	" "	Str.
k	2	#8	7'-0"	" "	See Dtl.
m	16	#3	5'-7"	12"	" "
n	92	#2	2'-0"	12"	" "
o	44	#2	3'-2"	12"	" "
p	32	#3	2'-9"	36"	Str.
q	8	#3	3'-0"	As shn	See Dtl.
r	6	#6	10'-0"	"	" "
WELDED WIRE FABRIC					
#676 Sq. Ft.		6"x 6"x #10/#10 @ 21 lb.			
#66.5 Sq. Ft.		6"x 6"x #5/#5 @ 49 lb.			

* Does not include lap.



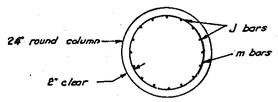


SECTION A-A

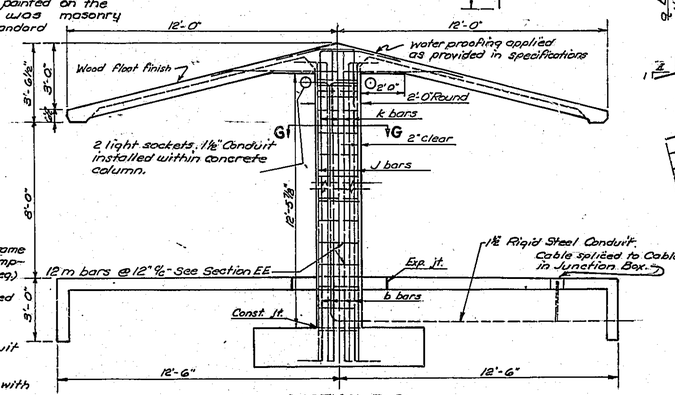
Light Fixtures were Perfolite VC-40 (100 watt) Fixtures are diaformed 18 Gage aluminum frame and backplate with hinged frame for relamping. Finish wash load distinct aluminum, anodized (E reg.)

Note: The conduit was of a standard weight, hot dipped galvanized inside and outside, rigid conduit conforming to the requirements of American Std. Assn. Specs. for rigid Conduit, Designation C80.1. All conduit runs were concealed as shown. Conduits at boxes were fitted with threaded joint box connectors, treated with white lead. The conduit system was grounded and all terminals were bushed. The wiring was #10 pole and bracket cable placed in the conduit as shown.

Paint: All surfaces painted recieved one coat of "Thoroseal" masonry sealer prior to the application of paint. Two coats #599 Myrtle Green were applied on the column. Two coats of 1 part #535 Surf Green, & 1 part white. were painted on the underside of the shelter roof. All paint was masonry type paint "Thorosheen", Manufactured by Standard Dry Wall Products Inc.



SECTION G-G



SECTION B-B

CONCRETE SHELTER HOUSE

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