See Standard M-100-1 for STANDARD SYMBOLS

STATE DEPARTMENT OF HIGHWAYS
DIVISION OF HIGHWAYS — STATE OF COLORADO

PLAN AND PROFILE OF PROPOSED

COLORADO PROJECT NO. MP 12-0053-03

STATE HIGHWAY NO. 53

ADAMS COUNTY

FEDERAL ROAD REGION NO	DIVISION	PROJECT NO	SHEET NO.
	COLORADO	MP 12-0053-03	1

AS CONSTRUCTED

NO REVISIONS ☐ REVISED ☐ VOID ☐

REVISIONS

SCALES OF ORIGINAL DRAWINGS

ON PLAN, 1 IN. = 20 FT.

ON PROFILE { 1 IN. = 20 FT. HORIZONTAL
1 IN. = 5 FT. VERTICAL

INDEX OF SHEETS

SHEET NO.	
1	TITLE SHEET
2	STANDARD PLANS LIST
3	TYPICAL SECTIONS AND GENERAL NOTES
4-5	SUMMARY OF APPROXIMATE QUANTITIES
6	TABULATION OF SURFACING, SUMMARY OF EARTHWORK, AND IRRIGATION TABULATION
7	TABULATION OF REMOVALS, RESETS, AND ADJUSTMENTS, SURVEY TIES, AND RIGHT OF WAY PRIOR TO 1990
8-11	ALIGNMENT PLAN AND PROFILE
12-13	TRAFFIC SIGNAL PLANS
14-18	TABULATION OF SIGNING QUANTITIES

STA. 15+00 BEGIN MP 12-0053-03 =

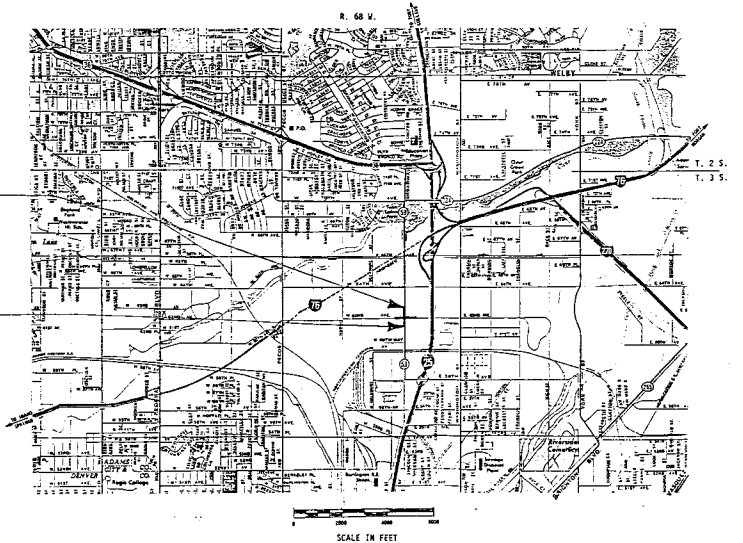
STA. 69+41.88 PROJ. C 12-0053-00 =

MILE POST 0.723

STA. 23+65 END MP 12-0053-03 =

STA. 78+06.88 PROJ. C 12-0053-00 =

MILE POST 0.559



Adams County is acquiring ROW per P. Forster 8/2/90 C. Fray

AS CONSTRUCTED INFORMATION

CONTRACTOR _____

_____ ENGINEER _____
(Project or Resident)

PROJECT STARTED _____

PROJECT COMPLETED _____

AS CONSTRUCTED PLANS APPROVED _____

TITLE _____ DATE _____

AS CONSTRUCTED		
NO REVISIONS	REVISED	VOID

FEDERAL ROAD REGION NO.	DIVISION	PROJECT NO.	SHEET NO.	TOTAL SHEETS
VIII	COLORADO	MP12-0053-03	2	

Plan No.	Title	Page
☒ M-100-1	STANDARD SYMBOLS	1
☐ M-107-1	TEMPORARY EROSION CONTROL	2
☐ M-203-1	APPROACH ROADS, FLARING, CUT SLOPE TREATMENT, BRIDGE & CREST WIDENING	3
☐ M-203-2	DITCH TYPES	4
☐ M-203-10	SUPERELEVATION OF CURVES - CROWNED HIGHWAYS	5
☐ M-203-11	SUPERELEVATION OF CURVES - DIVIDED HIGHWAYS - SHOULDER PIVOT	6
☐ M-203-12	SUPERELEVATION OF CURVES - STREETS	7
☐ M-203-13	SUPERELEVATION OF CURVES - DIVIDED HIGHWAYS - CENTER PIVOT	8
☒ M-206-1	EXCAVATION AND BACKFILL FOR STRUCTURES....(2 SHEETS)	9
☐ M-206-2	EXCAVATION AND BACKFILL FOR BRIDGES	11
☐ M-214-1	PLANTING DETAILS	12
☐ M-412-1	CONCRETE PAVEMENT JOINTS	13
☐ M-504-1	STEEL CRIBBING	14
☐ M-506-1	GABIONS AND SLOPE MATTRESS	15
☐ M-510-1	STRUCTURAL PLATE CULVERT PIPE - H-20 LOADING (2 SHEETS)	16
☐ M-601-1	SINGLE CONCRETE BOX CULVERT	18
☐ M-601-2	DOUBLE CONCRETE BOX CULVERT	19
☐ M-601-3	TRIPLE CONCRETE BOX CULVERT	20
☐ M-601-10	HEADWALL FOR PIPE CULVERTS	21
☐ M-601-11	TYPE "S" SADDLE HEADWALL FOR PIPE CULVERTS	22
☐ M-601-12	HEADWALL, INTERCEPTING HEADWALL AND CULVERT OUTLET PAVING	23
☐ M-601-20	WINGWALLS FOR PIPE OR BOX CULVERTS	24
☒ M-603-1	METAL CULVERT PIPE - H-20 LOADING (2 SHEETS)	25
☒ M-603-2	REINFORCED CONCRETE PIPE	27
☐ M-603-3	PRECAST CONCRETE BOX CULVERT	28
☒ M-603-10	CONCRETE AND METAL END SECTIONS	29
☐ M-604-1	PIPE SEWER IN TRENCH	30
☐ M-604-10	INLET, TYPE C	31
☐ M-604-11	INLET, TYPE D	32
☒ M-604-12	CURB INLET, TYPE R (2 SHEETS)	33
☐ M-604-13	CONCRETE INLET, TYPE 13	35
☐ M-604-20	MANHOLES	36
☐ M-604-21	STEPS FOR MANHOLES & INLETS	37
☐ M-606-1	GUARD RAIL, TYPE 3, W-BEAM (8 SHEETS)	38
☐ M-606-2	GUARD RAIL, TYPE 3, W-BEAM FOR LOCAL ROADS & STREETS (4 SHEETS)	46
☐ M-606-10	GUARD RAIL, TYPE 4, CONCRETE BARRIER, CAST-IN-PLACE	50
☐ M-606-11	GUARD RAIL, TYPE 4, CONCRETE BARRIER, PRECAST-PORTABLE	51

Plan No.	Title	Page
☐ M-607-1	WIRE FENCES AND GATES (2 SHEETS)	52
■ M-607-2	CHAIN LINK FENCE (3 SHEETS)	54
☐ M-607-3	BARRIER FENCE	57
☐ M-607-4	DEER FENCE AND GATE (2 SHEETS)	58
☐ M-607-10	PICKET SNOW FENCE	60
☐ M-608-1	CURB RAMPS	61
☐ M-609-1	CURBS AND GUTTERS	62
☐ M-611-1	CATTLE GUARD - WELDED GRILL UNITS - 10' THRU 42' ROADWAYS (2 SHEETS)	63
☐ M-613-1	HIGHWAY LIGHTING (2 SHEETS)	65
☐ M-615-1	EMBANKMENT PROTECTOR, TYPES 3 & 4	67
☐ M-615-2	EMBANKMENT PROTECTOR, TYPE 5	68
☐ M-616-1	INVERTED SIPHON (ALSO USE M-603 OR M-604 AS REQUIRED)	69
☐ M-620-1	FIELD LABORATORY - CLASS 1	70
☐ M-620-2	FIELD LABORATORY - CLASS 2	71
☐ M-620-11	FIELD OFFICE - CLASS 1	72
☐ M-620-12	FIELD OFFICE - CLASS 2	73

Plan No.	Title	Page
☐ S-612-1	TYPICAL DELINEATOR INSTALLATIONS (4 SHEETS)	75
☐ S-614-1	TYPICAL GROUND SIGN PLACEMENT	79
☐ S-614-2	CLASS I GROUND SIGN INSTALLATIONS	80
☐ S-614-3	CLASS II GROUND SIGN INSTALLATIONS	81
☐ S-614-4	CLASS III SIGNS, LAMINATED ALUMINUM PANELS AND POST SPACING TABLE (2 SHEETS)	82
☐ S-614-5	BREAK-AWAY SIGN SUPPORT DETAILS FOR GROUND SIGNS (2 SHEETS)	84
☐ S-614-6	CONCRETE FOOTINGS AND SIGN ISLANDS FOR CLASS III SIGNS (2 SHEETS)	86
☐ S-614-10	TYPICAL MARKER ASSEMBLY INSTALLATIONS	88
☐ S-614-11	MILEPOST SIGN AND INSTALLATION	89
☐ S-614-12	STRUCTURE NUMBER INSTALLATION (BRIDGE INFORMATION SHEET)	90
☐ S-614-13	STANDARD RAILROAD CROSSING SIGNS AND MARKINGS	91
☐ S-614-20	TYPICAL POLE MOUNT SIGN INSTALLATION	92
☐ S-614-21	CONCRETE BARRIER SIGN POST INSTALLATIONS	93
☐ S-614-22	TYPICAL MULTI-SIGN INSTALLATIONS	94
☐ S-614-30	INTERSTATE ROUTE MARKERS	95
☐ S-614-31	U. S. & COLORADO ROUTE MARKERS	96
☐ S-614-32	AUXILIARY MARKERS	97
☐ S-614-40	TRAFFIC SIGNAL INSTALLATION DETAILS (3 SHEETS)	98
■ S-614-50	TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION (4 SHEETS)	101
☐ S-614-51	BARRICADES, DRUMS, CONCRETE BARRIER (TEMP) & VERTICAL PANELS	105
☒ S-627-1	TYPICAL PAVEMENT MARKINGS (3 SHEETS)	106

THE STANDARD PLAN SHEETS INDICATED HEREON BY A MARKED BOX ARE TO BE USED TO CONSTRUCT THIS PROJECT.

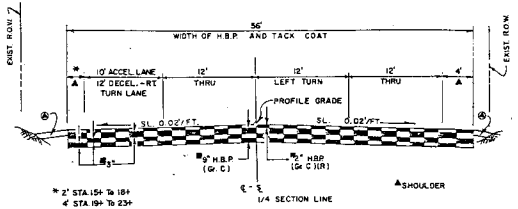
DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS

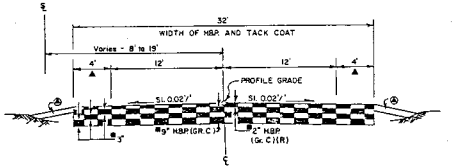
STANDARD PLANS LIST

M & S STANDARDS — JANUARY, 1982

AS CONSTRUCTED			FED ROAD REGION	DIVISION	PROJ NO	SHEET NO	SHEET TOTALS
NO REVISIONS	REVISED	VOID	VIII	COLO.	MPI2-0053-03	3	

TYPICAL SECTIONS

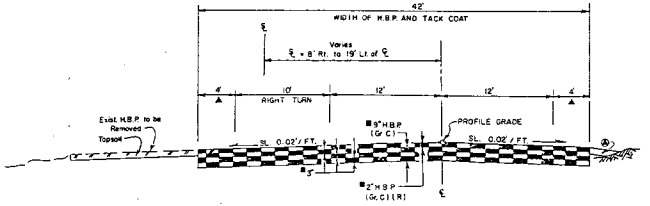




62nd AVE. WEST of BROADWAY

■ APPROXIMATE THICKNESS

⊕ 4" TOPSOIL at 6:1 Slope



62nd AVE. EAST of BROADWAY

GENERAL NOTES

FOR PRELIMINARY PLAN QUANTITIES OF SURFACING MATERIALS, THE FOLLOWING RATES OF APPLICATION WERE USED:

BITUMINOUS PAVEMENT AT 110 LBS. PER SQ. YD. PER INCH
TACK COAT DILUTED ENULSIFIED ASPHALT (SLOW-SETTING) AT
0.10 GAL. PER SQ. YD. (DILUTED)

WERE ORDERED BY THE ENGINEER A TACK COAT OF ENULSIFIED ASPHALT (SLOW SETTING) IS TO BE APPLIED BETWEEN PAVEMENT COURSES TO IMPROVE THE BOND. DILUTED ENULSIFIED ASPHALT FOR TACK COAT SHALL CONSIST OF 1 PART ENULSIFIED ASPHALT AND 1 PART WATER.

RATES OF APPLICATION SHALL BE AS DETERMINED BY THE ENGINEER AT THE TIME OF APPLICATION.

THE FOLLOWING SHALL BE FURNISHED WITH EACH BITUMINOUS PAVER:

A SKI TYPE DEVICE AT LEAST 30 FEET IN LENGTH.
SHORT SKI OR SHOE.
1000 FEET OF CONTROL LINE AND STAKES.

DEPTH OF MOISTURE-DENSITY CONTROL FOR THIS PROJECT SHALL BE AS FOLLOWS:

FULL DEPTH OF ALL EXCAVATIONS
BASES OF CUTS AND FILLS 0.3 FOOT

THE TYPE OF COMPACTION FOR EARTHWORK SHALL BE AASHTO T99.

EXISTING DITCH LINES ARE TO BE UNIFORMLY GRADED TO DRAIN INTO NEW DITCHES.

UTILITY LINES AS SHOWN ON THE PLAN SHEETS ARE PLOTTED FROM THE BEST AVAILABLE INFORMATION. THE CONTRACTOR'S ATTENTION IS DIRECTED TO PARAGRAPH 107.14 OF THE SUPPLEMENTAL SPECIFICATION CONCERNING UTILITIES. THE CONTRACTOR WILL CALL 534-6700 FOR UTILITY LOCATION AT LEAST 2 WORKING DATS PRIOR TO ANY DIGGING.

IT IS SUGGESTED THAT THE CONTRACTOR INITIATE A REQUEST TO THE PUBLIC SERVICE COMPANY FOR ANY CONSTRUCTION-RELATED TEMPORARY ELECTRICAL POWER SOURCES AS SOON AS POSSIBLE. IN SOME INSTANCES UP TO 30 DATS MAY BE REQUIRED TO PROVIDE THE SOURCES. THE REQUEST IS TO BE PROCESSED THROUGH: PUBLIC SERVICE COMPANY OF COLORADO - STREET LIGHTING AT (303) 534-5305.

ANY LAYER OF BITUMINOUS PAVEMENT THAT IS TO HAVE A SUCCEEDING LAYER PLACED THEREON SHALL BE COMPLETED FULL WIDTH BEFORE SUCCEEDING LAYER IS PLACED.

EXCAVATION REQUIRED FOR COMPACTION OF BASES OF CUTS AND FILLS WILL BE CONSIDERED AS SUBSIDIARY TO THAT OPERATION AND WILL NOT BE PAID FOR SEPARATELY.

THE MINIMUM THICKNESS OF TOPSOIL SHALL BE 4 INCHES. IT IS ESTIMATED THAT 116 CUBIC YARDS WILL BE REQUIRED AND WILL BE OBTAINED FROM AN UNDESIGNATED SOURCE.

*SOIL PREPARATION, SEEDING (NATIVE), *FERTILIZING WITH COMMERCIAL FERTILIZER, AND MULCHING FOR APPROXIMATELY 0.22 ACRES WILL BE REQUIRED FOR THIS PROJECT. FOR MULCHING A WOOD CELLULOSE FIBER SHALL BE APPLIED AT THE RATE OF 1 1/2 TONS PER ACRE IN COMBINATION WITH KOLOR TACKIFIER. THE FOLLOWING TYPES AND RATES SHALL BE USED:

COMMON NAME	BOTANICAL NAME	POUNDS
BUFFALO GRASS (TREATED)	BUCHLOE DACTYLOIDES	14
WESTERN WHEATGRASS	AGROPYRON SMITHII	10
PASTURE WHEATGRASS	AGROPYRON CRISTATUM	1
SIDE-OATS GRAMA	BOUTELOUA CURTIPENDULA	4
WHITE CLOVER	TRIFOLIUM REPENS	1
LITTLE BLUESTEM	ACHILLACHTRIUM SCOPARIUM	3
ROCKY MOUNTAIN PENSTEMON BANDERA	PENSTEMON STRICTUS	1
YARROW	ACHILLEA MILLEFOLIUM	0.5
TOTAL LBS PER ACRE SEEDING		34.5

FERTILIZER	RATE LBS. / ACRE
FERTILIZER (AVAILABLE N)	43
FERTILIZER (AVAILABLE P)	115

PROJECT TOTALS

* SOIL PREPARATION	0.22	ACRES
SEEDING	0.22	ACRES
* FERTILIZER (AVAIL. N)	10	LBS.
* FERTILIZER (AVAIL. P)	25	LBS.
MULCHING (HYDRAULIC)	0.22	ACRES

* FOR INFORMATION ONLY

SUMMARY OF APPROXIMATE QUANTITIES

AS CONSTRUCTED			CDOH	FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.
NO REVISIONS	REVISED	VOID		VIII	COLO.	HP 12-0053-03	4

INDEX BOOK	INDEX PAGE	INDEX SHEET	CONTRACT ITEM NO.	CONTRACT ITEM	UNIT	ROADWAY PLAN	ROADWAY AS CONST.	PROJECT TOTALS PLAN	PROJECT TOTALS AS CONST.
			201	CLEARING AND GRUBBING	L S	1		1	
			202	REMOVAL OF STRUCTURE	EACH	6		6	
			202	REMOVAL OF TREE	EACH	2		2	
			202	REMOVAL OF PIPE	LF	310		310	
			202	REMOVAL OF ASPHALT MAT	SY	430		430	
			202	REMOVAL OF GROUND SIGN	EACH	13		13	
			202	REMOVAL OF FENCE	LF	525		525	
			202	REMOVAL OF GUARD RAIL TYPE 3	LF	30		30	
			203	UNCLASSIFIED EXCAVATION (COMPLETE IN PLACE)	CY	1,531		1,503	
			206	STRUCTURE EXCAVATION	CY	97		97	
			206	STRUCTURE BACKFILL (CLASS 2)	CY	110		110	
			207	TOPSOIL (HAUL)	CY	116		116	
			210	RESET MAILBOX STRUCTURE	EACH	1		1	
			210	RESET WATER SERVICE	EACH	2		2	
			210	RESET FIRE HYDRANT	EACH	1		1	
			210	RESET GROUND SIGN	EACH	2		2	
			210	ADJUST MANHOLE	EACH	4		4	
			210	ADJUST VALVE BOX	EACH	2		2	
			212	SEEDING (NATIVE)	ACRE	00.22		.22	
			213	MULCHING	ACRE	00.22		.22	
			403	HOT BITUMINOUS PAVEMENT (GRADING C) (HAUL AND ASPHALT)	TON	3,871		3,871	
			403	HOT BITUMINOUS PAVEMENT (GRADING C) (HAUL AND ASPHALT) (RUBBERIZED)	TON	834		834	
			411	EMULSIFIED ASPHALT (SLOW-SETTING)	GAL	1,112		1,112	
			412	CONCRETE PAVEMENT (8 INCH)	SY	51		51	
			601	CONCRETE CLASS A (MISCELLANEOUS)	CY	1		1	
			603	12 INCH REINFORCED CONCRETE PIPE	LF	220		220	
			603	15 INCH REINFORCED CONCRETE PIPE	LF	78		78	
			603	12 INCH CORRUGATED STEEL PIPE	LF	114		114	
			604	MANHOLE SPECIAL	EACH	3		3	
			613	2 INCH ELECTRICAL CONDUIT	LF	575		575	
			613	3 INCH ELECTRICAL CONDUIT	LF	20		20	
			614	FLAGGING	HOUR	720		720	

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SUMMARY OF APPROXIMATE QUANTITIES

AS CONSTRUCTED			CDOH	FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.
NO REVISIONS	REVISED	VOID		VIII	COLO.	HP 12-0053-03	5

INDEX BOOK	INDEX PAGE	INDEX SHEET	CONTRACT ITEM NO.	CONTRACT ITEM	UNIT	ROADWAY PLAN	ROADWAY AS CONST.	PROJECT TOTALS PLAN	PROJECT TOTALS AS CONST.
			614	TRAFFIC CONTROL SUPERVISOR	DAY	45		45	
			614	SIGN PANEL (CLASS I)	SF	55		55	
			614	TIMBER SIGN POST 4X4 INCH	LF	58		58	
			614	PEDESTRIAN SIGNAL FACE (16)	EACH	8		8	
			614	TRAFFIC SIGNAL FACE (12-12-12)	EACH	10		10	
			614	TRAFFIC SIGNAL FACE (12-12-12-12)	EACH	2		2	
			614	TRAFFIC SIGNAL FACE (12-12-12-12-12)	EACH	1		1	
			614	PEDESTRIAN PUSH BUTTON	EACH	8		8	
			614	LOOP DETECTOR WIRE	LF	1,420		1,420	
			614	TRAFFIC SIGNAL VEHICLE DETECTOR (MICRO TYPE)	EACH	7		7	
			614	CONSTRUCTION TRAFFIC SIGN (PANEL SIZE A)	EACH	12		12	
			614	CONSTRUCTION TRAFFIC SIGN (PANEL SIZE B)	EACH	4		4	
			614	VERTICAL PANEL	EACH	50		50	
			614	VERTICAL PANEL (WITH LIGHT) (FLASHING)	EACH	10		10	
			614	TRAFFIC CONE	EACH	50		50	
			614	TRAFFIC SIGNAL SPAN WIRE POLE (10 INCH)	EACH	4		4	
			614	TRAFFIC SIGNAL CONTROLLER (TYPE 170)	EACH	1		1	
			625	CONSTRUCTION SURVEYING	L S	1		1	
			626	MOBILIZATION	L S	1		1	
			627	PAVEMENT MARKING PAINT	GAL	7		7	
			627	THERMOPLASTIC PAVEMENT MARKING	SF	1,900		1,900	
			627	PREFORMED PLASTIC PAVEMENT MARKING (60 MILS)	SF	320		320	
				FORCE ACCOUNT					
				==========					
			700	F/A MINOR CONTRACT REVISIONS	F A	1		1	
			700	F/A SURVEY MONUMENTATION	F A	1		1	
			700	F/A POTHOLE UTILITIES	F A	1		1	

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AS CONSTRUCTED		
NO REVISIONS	REVISED	VOID

FED. ROAD STATE	DIVISION	PROJ. NO	SHEET NO	SHEET TOTALS
VIII	COLO	MP12-0053-03	6	

IRRIGATION TABULATION

NOTE NO.	LOCATION	MANHOLE SPECIAL H	ELEVATION RIM	ELEVATION INVERT	PIPE SIZE C.S.P. 6" (LIN. FT.)	C.S.P. 12" (LIN. FT.)	R.C.P. 12" (LIN. FT.)	R.C.P. 15" (LIN. FT.)	FLOW LINE ELEV. IN	FLOW LINE ELEV. OUT	LINE FROM	LINE TO	% GRADE	STRUCT. EXCAV. CU. YDS.	STRUCT. BACKFILL (CL. 2) CU. YDS.		CONC. CL. A (MISC.) CU. YDS.	REMARKS
	BROADWAY																	
MH18	18+90 LT.	2.08	94.18	92.10			84		93.0	92.1	MH19	MH18	1.07	24	22			CONNECT TO EXIST. 12" OUT
MH19	19+76 LT.	1.90	94.9	93.0			136		93.7	93.0	MH21	MH19	0.51	34	35			
MH21	21+17 LT.	1.90	95.6	93.7				78	93.8	93.70	15"	MH21	0.13	25	23			
21B	21+17 LT.				10												0.1	HEADWALL WITH SLIDE GATE
	62ND AVE.																	
10A	9+50 TO 10+64 RT.					114			89.8	89.2				14	30			
	PROJECT TOTALS	*			10	114	220	78						97	110		0.1	

* 3-MANHOLE SPECIAL

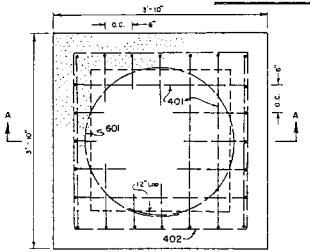
SUMMARY OF EARTHWORK

INDEX BOOK	INDEX PAGE	INDEX SHEET		PLAN CU. YD.	AS CONST. CU. YD.
			UNCLASSIFIED EXCAVATION (C.I.P.)		
			FROM CROSS SECTIONS ROADWAY	1571	
			TOTAL	1571	
			COMPACTION (AASHTO T-99) (FOR INFO ONLY)		
			EMBANKMENT (NET)	413	
			BASE OF CUTS AND FILLS	1,333	
			TOTAL	1,746*	
			WETTING (FOR INFO ONLY)	M GAL	
			COMPACTION TOTAL	78	
			EMBANKMENT MATERIAL		
			FROM CROSS SECTIONS ROADWAY	413	
			TOTAL	413	
			EARTHWORK QUANTITY BALANCE (FOR INFO ONLY)		
				PLAN CU. YD.	AS CONST. CU. YD.
			UNCLASSIFIED EXCAVATION FROM CROSS SECTIONS	1571	
			EMBANKMENT X FACTOR (1.15)	475	
			# EXCESS EXCAVATION	1096	

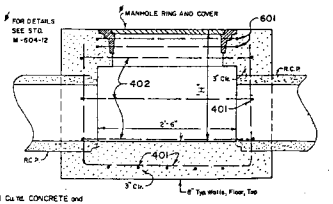
* INCLUDES EXISTING ASPHALT MAT EXCEPT AT 62ND AVE. REALIGNMENT.

\# EXCESS EXCAVATION SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND BE DISPOSED OF BY HIM.

DETAILS OF MANHOLE SPECIAL

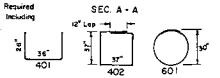


PLAN VIEW



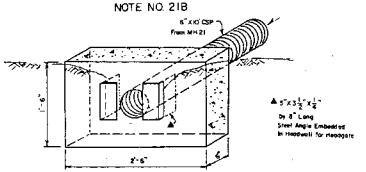
APPROX. 1 CU. YD. CONCRETE and 113 Lbs. STEEL Required for 1 MANHOLE Including Volume of Pipes

SEC. A - A



BAR BENDING DIAGRAMS

HEADWALL DETAILS NOTE NO. 21B



TABULATION OF SURFACING

STATION TO STATION	HOT BITUMINOUS PAVEMENT (GRADING C) 3RD BOTTOM	(HAUL AND ASPHALT) TONS 3RD MIDDLE	3RD TOP	(GR. C)(H & A)(R) TONS 2ND
= BROADWAY =				
15+00 TO 17+00	172	156	156	104
17+00 TO 18+82	191	174	174	116
@ 18+82 TO 19+86	168	153	153	102
19+86 TO 21+40	174	158	158	106
21+40 TO 23+65	204	185	185	124
= 62ND AVE.=				
3+00 TO 5+51	156	141	141	94
6+37 TO 8+03	124	112	112	75
8+03 TO 10+52	186	169	169	113
SUB-TOTALS	1,375	1,248	1,248	
PROJECT TOTALS		3,871		834

NOTE: THE BOTTOM LAYER OF H.B.P. GR. C QUANTITY INCLUDES 10% FOR LEVELING.

IT IS ESTIMATED THAT 1112 GALS. OF EMULSIFIED ASPHALT (S-E) WILL BE REQUIRED FOR THIS PROJECT.

@ INCLUDES 62ND AVE. RETURNS

51 SQ.YDS. CONCRETE PAVEMENT (8 INCH) REQ'D. FOR BUS PAD AT STA 18+ RT.

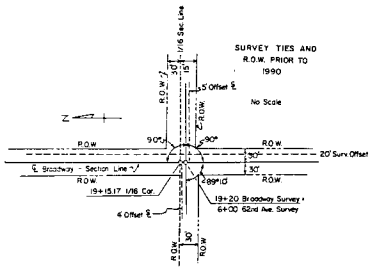
STATE OF COLORADO
DEPARTMENT OF HIGHWAYS
STANDARD FORM
FORM 126
FEB 1984

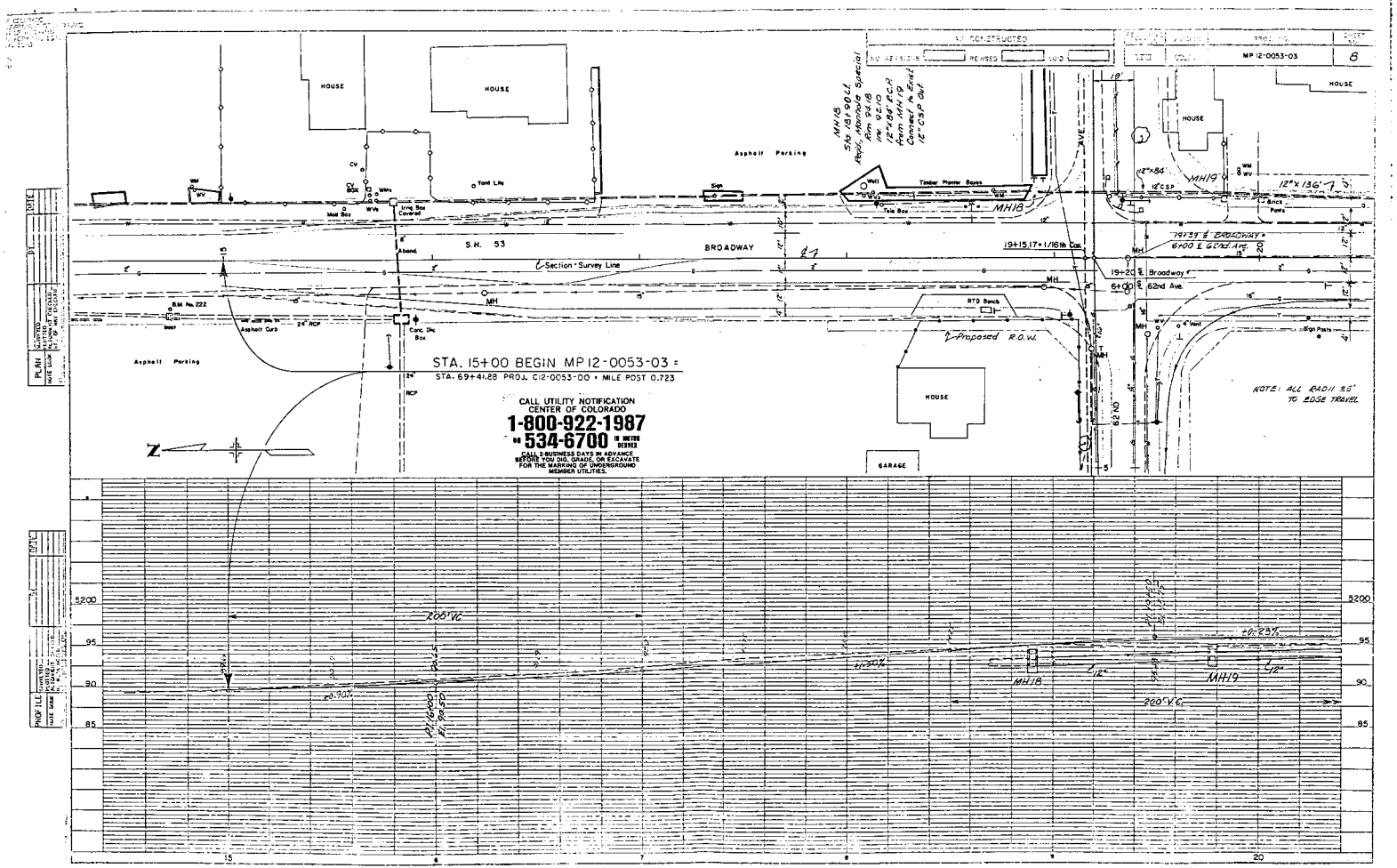
AS CONSTRUCTED		
NO REVISIONS	REVISED	VOID

FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTAL
VIII	COLO.	MP 12-0053-03	7	

TABULATION OF REMOVALS, RESETS AND ADJUSTMENTS

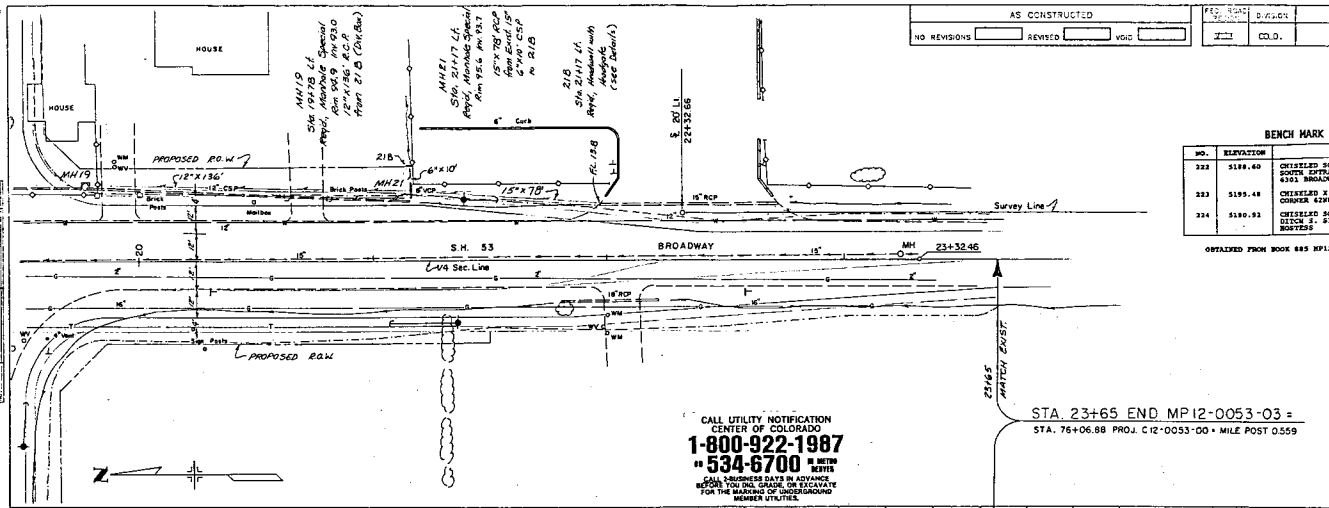
LOCATION STATION	SIDE	REMOVAL OF STR. EACH	TREE EACH	PIPE LIN.FT	ASPH. MAT SQ. YD.	GROUND SIGN EACH	FENCE LIN.FT.	GUARD RAIL TYPE 3 LIN.FT.		RESET FIRE HYD. EACH	WATER SERVICE EACH	MAILBOX STR. EACH		ADJUST MANHOLE EACH	VALVE BOX EACH		REMARKS
BROADWAY																	
15+83	Rt.-Lt.			44													8" Aband. Irrig. Pipe
16+25	Rt.													1			
18+60	Lt.									1							
18+72	Rt.					1											
18+95	Rt.													1			
19+05	Rt.					1											
18+32 to 19+12	Rt.						102										
19+25 to 19+44	Lt.							30									
19+35	Rt.													2			
19+50	Rt.														1		
19+32 to 20+00	Lt.	* 2	1			1	60										* Brick Gate Posts
18+90 to 19+76	Lt.			83		2											12" Irrig. Pipe
19+62	Rt.					1											
20+31	Rt.					1											
20+50	Lt.											1					
20+63 to 21+12	Lt.	* 2					32										
19+80 to 21+17	Lt.			142													138' = 12" CSP, 4' = 16" RCP
21+80 to 22+22	Rt.			41							2				1		18" Side Drain
22+60	Rt.					1											
62ND AVENUE																	
6+30 to 9+50	Rt.						331										
6+30 to 10+00	Lt.				430												
6+60	Rt.		1														
7+45 to 7+90	Rt.	2															Brick Grill and Frame Shed
PROJECT TOTALS		6	2	310	430	8	525	30		1	2	1		4	2		




AS CONSTRUCTED
NO REVISIONS
REVISED
NO
MP 12-0053-03
8
HOUSE
HOUSE
HOUSE
HOUSE
HOUSE
GARAGE
Asphalt Parking
Asphalt Parking
Yard Lite
Sign
Timber Planter Boxes
Tele Box
Mail Box
Irrig. Box Covered
Aband.
S.H. 53
BROADWAY
Section - Survey Line
B.M. No. 222
Asphalt Curb
24" RCP
Conc. Dis. Box
RTD Bench
Proposed R.O.W.
19+15.17 = 1/16th Cor.
19+20 ℄ Broadway
6+00 ℄ 62nd Ave.
19+39 ℄ BROADWAY = 6+00 ℄ 62nd Ave.
62ND AVE
Sign Posts
Brick Posts
12"x84'
12" CSP
12"x136'
MH19
MH18
MH19 Sta. 18+90 Lt. Appr. Manhole Special Rim 92.18 Inv. 82.10 12" CSP Rcp From MH18 Connect to Exist. 12" CSP Out
STA. 15+00 BEGIN MP 12-0053-03 =
STA. 69+41.88 PROJ. C12-0053-00 = MILE POST 0.723
CALL UTILITY NOTIFICATION CENTER OF COLORADO
1-800-922-1987
or 534-6700 IN METRO DENVER
CALL 2 BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.
NOTE: ALL RADII 25' TO EDGE TRAVEL
N
200' V.C.
R=1600
R=1600
+0.90%
-1.30%
+0.23%
MH18
MH19
5200
95
90
85
15
6
7
8
9
20
PLAN
PROFILE
DATE
BY
REVISIONS
SURVEYED
DRAWN
CHECKED
NOTE SCALE

AS CONSTRUCTED				
NO REVISIONS	REVISED	VOID		

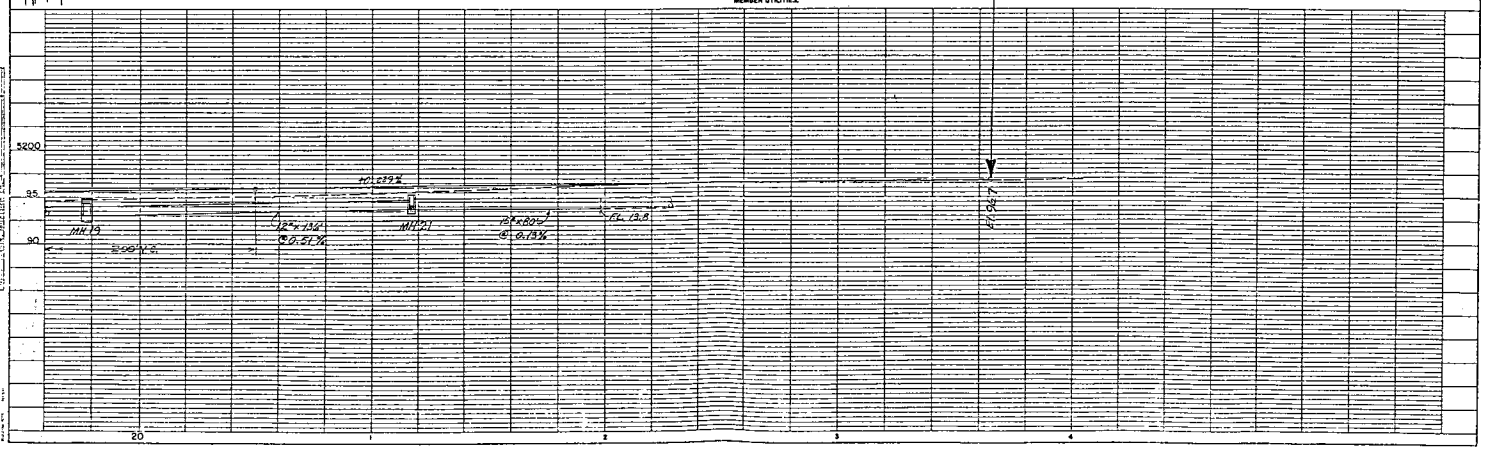
FED. ROAD SYSTEM	DIVISION	PROJ. NO.	SHEET NO.
	COLO.	MP12-0053-03	9



BENCH MARK INFORMATION

NO.	ELEVATION	DESCRIPTION
222	5188.60	CHISELED SQUARE N.E. CORNER INLET AT SOUTH ENTRANCE TO CENTRAL MOTIVE POWER 4301 BROADWAY
223	5195.48	CHISELED X ON S. BOLT FIRE HYDRANT N.E. CORNER 42ND AND BROADWAY
224	5190.92	CHISELED SQUARE ON HEADWALL FOR IRRIG. DITCH S. SIDE 42ND AT WEST ENTRANCE TO NORTESS

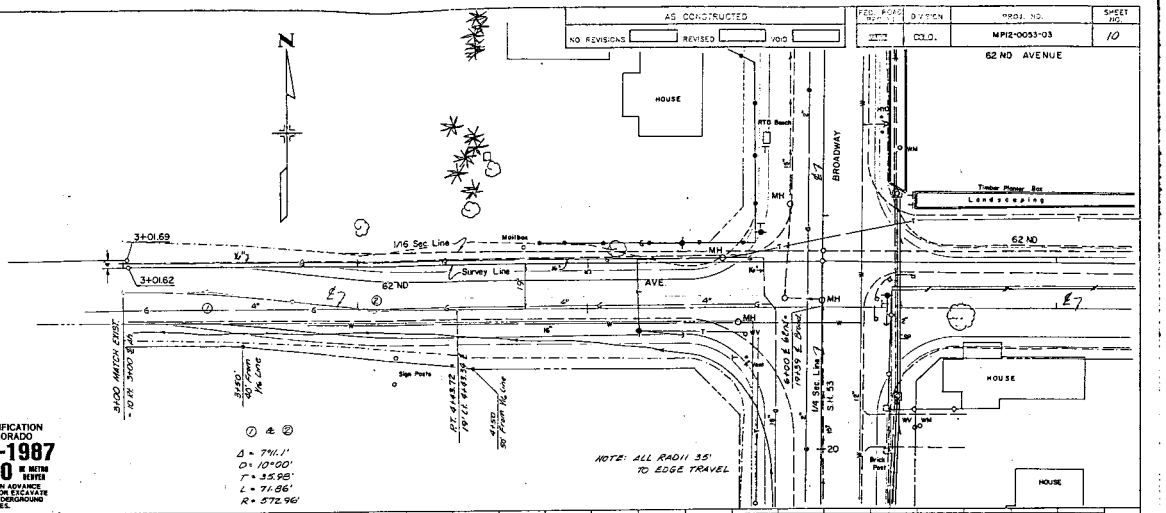
OBTAINED FROM BOOK 885 MP12-0053-03 (42ND AT BROADWAY)



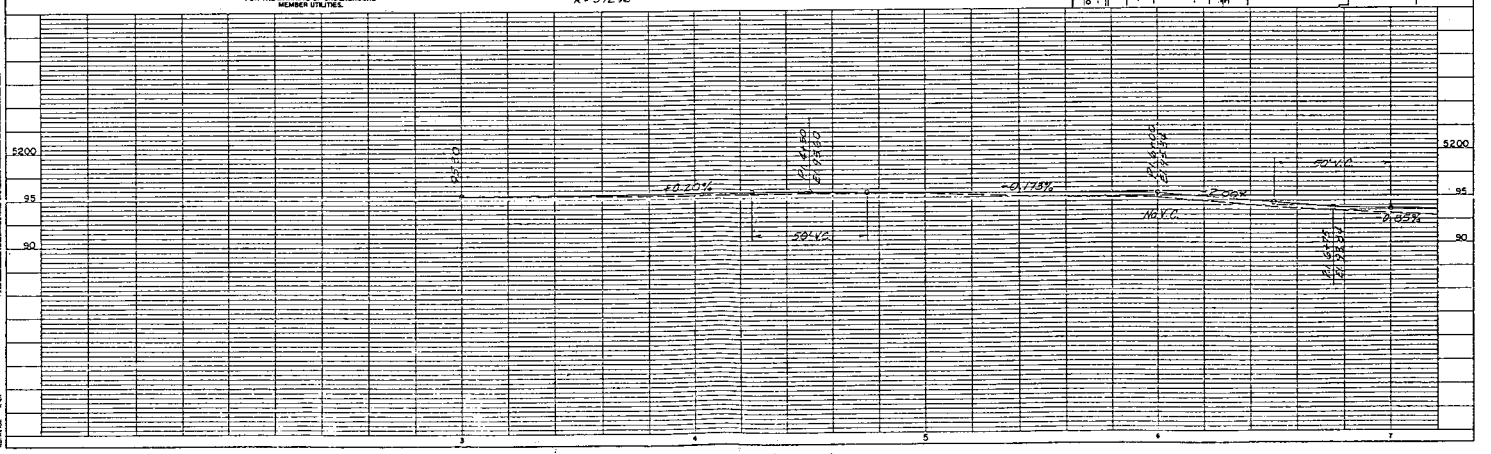
COLORADO
DEPARTMENT OF HIGHWAYS
DIV. OF HIGHWAYS
FORM NO. 1341
JY. 1960

AS CONSTRUCTED						
NO REVISIONS		REVISED		VOID		

FED. ROAD INVENTORY	DIVISION	PROJ. NO.	SHEET NO.
	COLO.	MPIZ-0053-03	10



CALL UTILITY NOTIFICATION
CENTER OF COLORADO
1-800-922-1987
534-6700 IN METRO DENVER
CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.



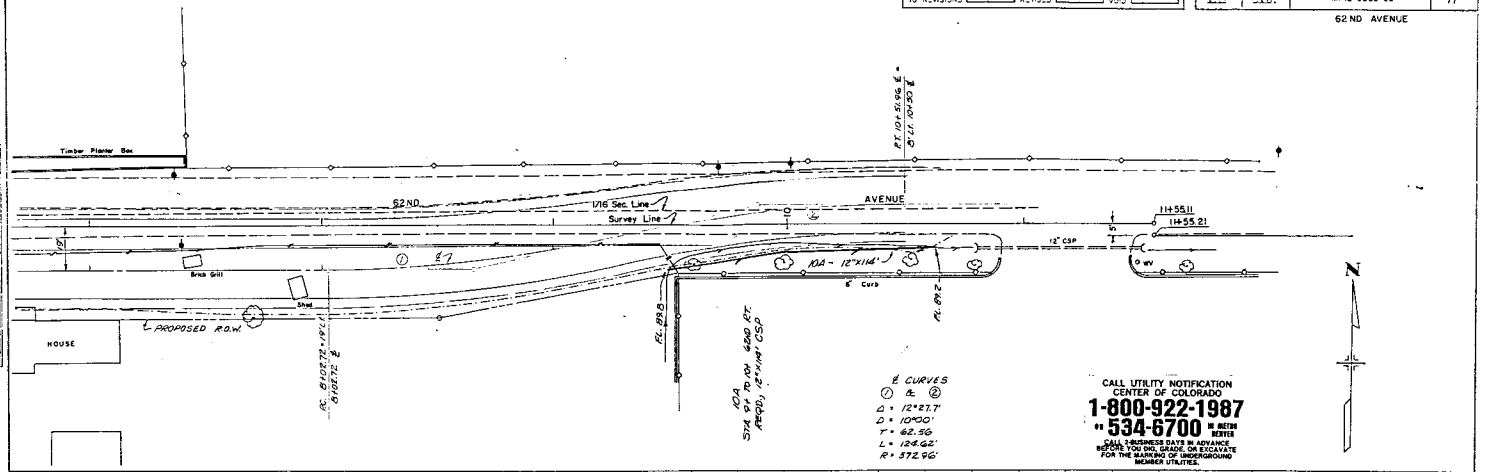
PLAN	NOTE BOOK	NO.	WRITTEN	PLOTTED	PLOTTED AT VERTICAL	BY	DATE

PROFILE	NOTE BOOK	NO.	WRITTEN	PLOTTED	PLOTTED AT HORIZ.	PLOTTED AT VERTICAL	BY	DATE

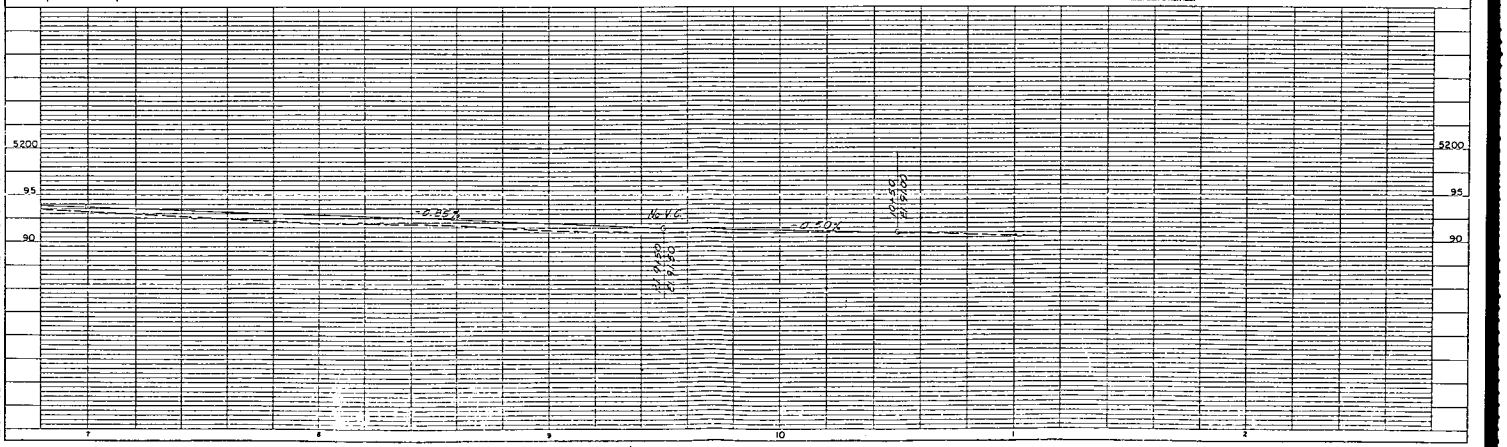
COLORADO
DEPARTMENT OF HIGHWAYS
PROJECT NO. MP12-0053
DATE NO. 1-24-
1982

AS CONSTRUCTED					
NO REVISIONS	REVISED	VOID	FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.
				COLO.	MP12-0053-03	11

62 ND AVENUE



CALL UTILITY NOTIFICATION CENTER OF COLORADO
1-800-922-1987
or **534-6700** IN METRO DENVER
CALL 2 BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.



PLAN
DATE
BY
CHECKED
PLOTTED
DATE WORK COMPLETED
NO. OF MILES CHECKED
NO. OF MILES CALCULATED

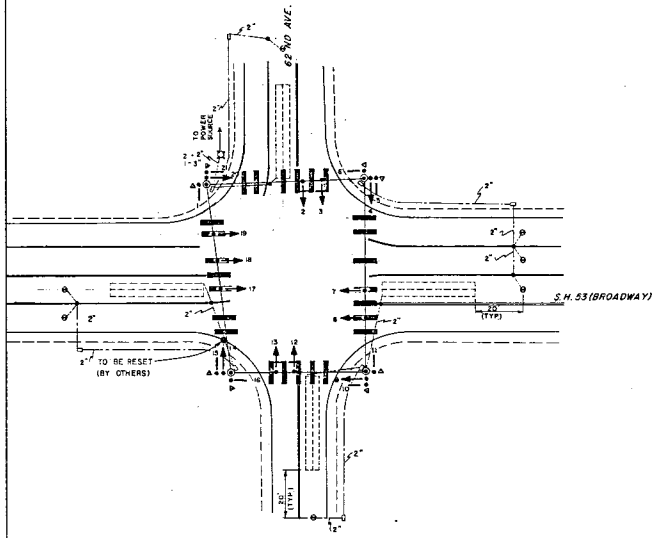
PROFILE
DATE
BY
CHECKED
PLOTTED
DATE WORK COMPLETED
NO. OF MILES CHECKED
NO. OF MILES CALCULATED

TRAFFIC SIGNAL PLAN
S.H. 53 (BROADWAY) & 62th AVE.

FEDERAL AID PROJ. NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
STP	COLORADO	MP12-0053-03	12	

AS CONSTRUCTED

NO REVISIONS ☐ REVISED ☐ VOID ☐



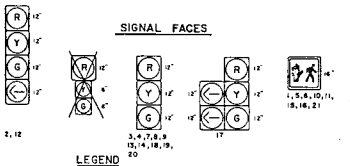
SIGNAL PHASING

Ø 1
Ø 2 NB THRU
Ø 3
Ø 4 EB
Ø 5 NB LT
Ø 6 SB THRU
Ø 7
Ø 8 WB

NOTES

1. Loop detector wire shall be duct type.
2. All pull boxes shall be concrete and 24 inches in diameter unless otherwise noted on the plans.
3. All backplates shall be louvered type.
4. Signal poles shall be painted with polyurethane enamel #622 Fir Green with the appropriate primer.
5. Head #7 shall be wired for future left turn phase.
6. Controller 170/332.

SIGNAL FACES



LIST OF MATERIALS

ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY
613	2 INCH ELECTRICAL CONDUIT	LF	575
613	3 INCH ELECTRICAL CONDUIT	LF	20
614	PEDESTRIAN SIGNAL FACE (16)	EACH	8
614	TRAFFIC SIGNAL FACE (12,12,12)	EACH	10
614	TRAFFIC SIGNAL FACE (12,12,12,12)	EACH	2
614	TRAFFIC SIGNAL FACE (12,12,12,12,12)	EACH	1
614	LOOP DETECTOR WIRE	LF	1420
614	TRAFFIC SIGNAL VEHICLE DETECTOR (MICRO TYPE)	EACH	7
614	PEDESTRIAN PUSH BUTTON	EACH	8
614	TRAFFIC SIGNAL SPAN WIRE POLE (10")	EACH	4
614	TRAFFIC SIGNAL CONTROLLER (TYPE 170)	EACH	1

LEGEND

Traffic Signal Span Wire Pole
Traffic Signal Pole with Mast Arm
Traffic Signal Face
Traffic Signal Face with Backplate
Pedestrian Signal Face
Pedestal Mounted Signal
Traffic Signal Controller and Cabinet
Pedestrian Push Button
Electrical Conduit with Pull Box
Loop Detector Wire
Luminaire
Power Pole
Fire Hydrant
Pull Box - Special
Micro Loop

Scale in Feet
0 20 40 60

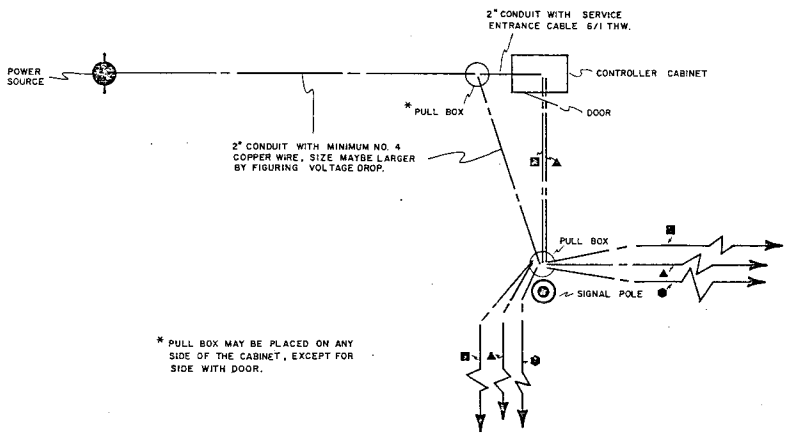
THE COLORADO DEPARTMENT OF HIGHWAYS
DIVISION OF HIGHWAYS
DISTRICT VI
TRAFFIC ENGINEERING SECTION
— MAY 1990 —
KMH

(53-000.648)

AS CONSTRUCTED			FED.ROAD REGION	DIVISION	PROJ. NO	SHEET NO.	SHEET TOTALS
NO REVISIONS	REVISED	VOID	VIII	COLO.	MP12-0053-03	13	

POWER SOURCE DETAILS FOR SIGNALS WITH LUMINAIRES

NO SCALE



NOTES

1. See Standards M-613-1 & S-614-40.
2. Luminaires tobe furnished and installed by PSCO.
3. For street light luminaires on span wire installations - two (2) number 12 AGW copper TW insulated building wires shall be installed by the contractor from the end of the luminaire arm, through the pole, along the span wire cable to the signal pole nearest the controller cabinet, thru the pole with approximately 5 feet of extra wiring coiled in the pull box at the base of the pole.
4. For street light luminaires on mast arm installations - two (2) number 12 AGW copper TW insulated building wires shall be installed by the contractor from the end of the luminaire arm, through the pole with approximately 5 feet of extra wiring coiled in the pull box at the base of pole. The contractor shall also install the same size wiring from the pull box at the base of the signal pole nearest the controller cabinet through conduit network to the pull boxes at other signal poles with luminaires.
5. All wiring for luminaires shall be included in work and not paid for separately.
6. All splices of luminaire wiring shall be done by PSCO.
7. Wiring for street light luminaires shall be tagged per standard specifications.
8. 40ft of extra No. 4 wire shall be coiled at the base of the power source.

■ 2" CONDUIT FOR LOOP DETECTOR WIRE, PEDESTRIAN PUSH BUTTONS, AND COMMUNICATION LINES.

▲ 3" CONDUIT FOR TRAFFIC SIGNAL FIELD WIRES.

● 2" CONDUIT FOR LUMINAIRE WIRING. TO BE PROVIDED BY PSCO. TO BE INSTALLED BY THE CONTRACTOR, PAID FOR UNDER THE ITEM CONDUIT (INSTALL ONLY) CONTACT CHERI WEERS OF PSCO STREET LIGHTING FOR CONDUIT DELIVERLY AT 571-2505.

E OF COLORADO
E DEPARTMENT OF HIGHWAYS
SION OF HIGHWAYS
H. FORM NO. 828
1963

AS CONSTRUCTED			FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
NO REVISIONS	REVISED	VOID	VIII	COLO.	MP 12-0053-03	14	

TABULATION OF SIGNING QUANTITIES

ITEM NO.	ITEM	UNIT	PROJECT TOTALS
202	REMOVAL OF GROUND SIGN	EACH	5
210	RESET GROUND SIGN	EACH	2
613	2 INCH ELECTRICAL CONDUIT	LF	575
613	3 INCH ELECTRICAL CONDUIT	LF	20
614	SIGN PANEL (CLASS I)	SQ. FT.	55
614	TIMBER SIGN POST 4" X 4"	LF	58
614	CONSTRUCTION TRAFFIC SIGN (A)	EACH	12
614	CONSTRUCTION TRAFFIC SIGN (B)	EACH	4
614	TRAFFIC CONE	EACH	50
614	VERTICAL PANEL	EACH	50
614	VERTICAL PANEL (LIGHT) (F)	EACH	10
614	PAVEMENT MARKING PAINT	GAL	7
614	THERMOPLASTIC PVMT MKG	SQ FT	1,900
614	PLASTIC PVMT MKG	SQ FT	320

SCHEDULE OF CONSTRUCTION TRAFFIC SIGNS

SIGNS						OTHER DEVICES	
SIGN CODE	LEGEND	DIMENSIONS	PANEL SIZE A	PANEL SIZE B	PANEL SIZE C	ITEM	QUANTITY
36W20-1	ROAD/CONSTRUCTION/(DIST.)	36" X 36"	4			TRAFFIC CONES 28"	50
36W20-4	ONE LANE/ROAD/(DIST)	36" X 36"	4			VERTICAL PANELS	50
36W20-7a	FLAGGER SYMBOL	36" X 36"	4			VERTICAL PANELS (LIGHT) (F)	10
60G20-1	END/CONSTRUCTION	60" X 24"		4			
36R3-2	NO LEFT TURN SYMBOL	36" X 36"	4				
		SIGN TOTALS	12	4			

FOR CONSTRUCTION SIGNING SEE STANDARD S-614-50 CASE. V.

PAVEMENT MARKING QUANTITIES

S.H. 53 (BROADWAY)

THERMOPLASTIC PAVEMENT MARKING - (FOR 8" CHANNELIZING AND DOUBLE 4" YELLOW)

WHITE 600 SQ.FT.
YELLOW 1,300 SQ.FT.

PREFORMED PLASTIC PAVEMENT MARKING (60 MILS) - (FOR CROSSWALK BARS AND LEFT TURN ARROWS)

WHITE 320 SQ.FT.

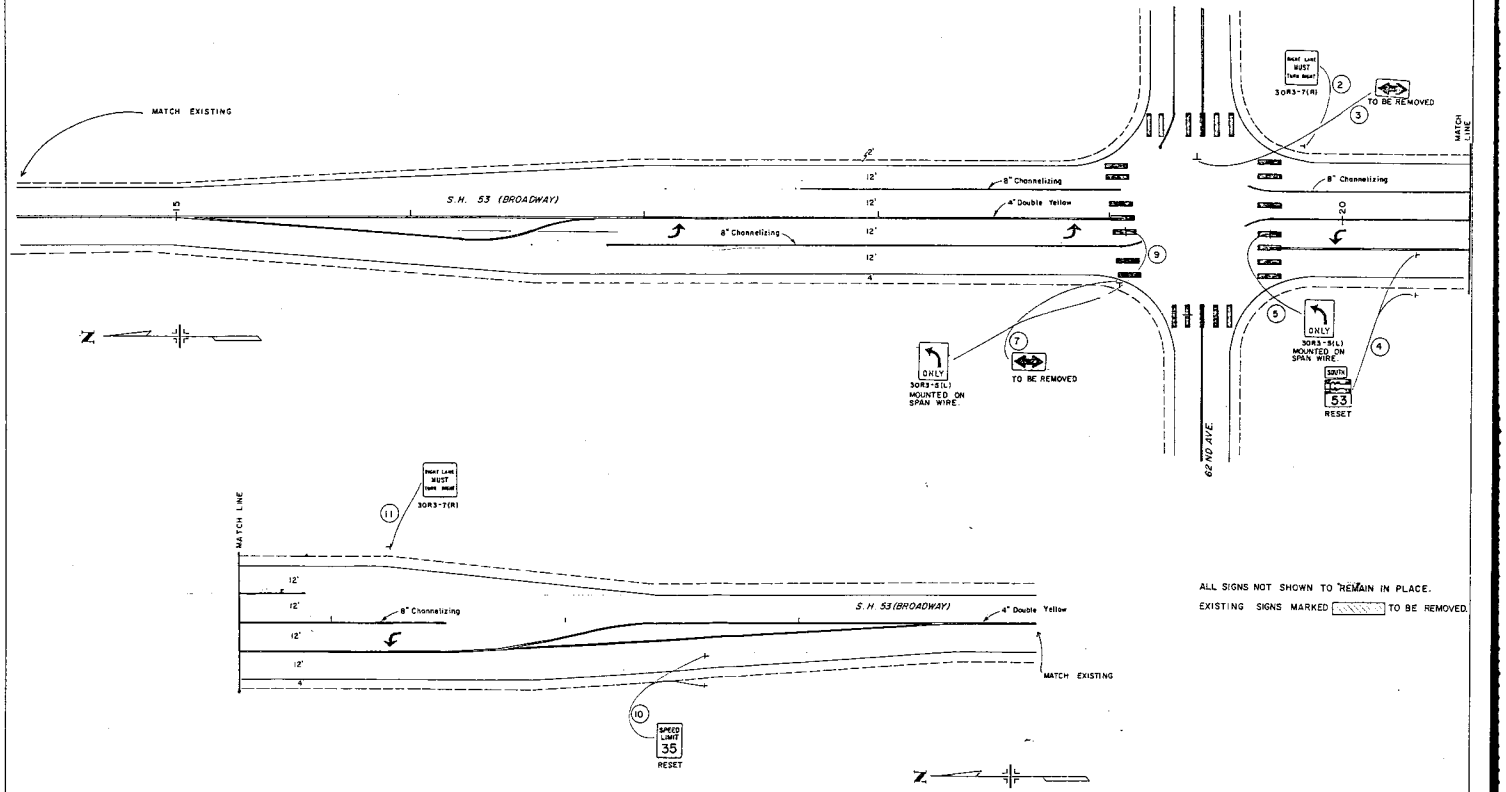
62 ND AVE.

PAVEMENT MARKING PAINT

WHITE 2 GALS
YELLOW 5 GALS

SIGNING AND STRIPING PLAN
BROADWAY

AS CONSTRUCTED					
NO REVISIONS	REVISED	VOID	FED. ROAD REGION	DIVISION	PROJECT NO	SHEET NO	SHEET TOTALS
			VIII	COLO	MP 12-0053-03	15	

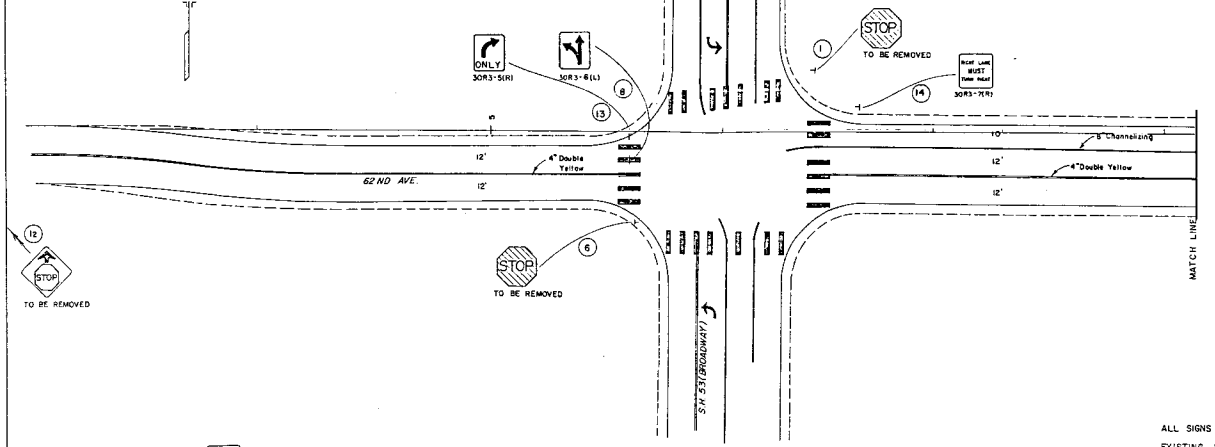


SIGNING AND STRIPING PLAN

62 ND AVE.

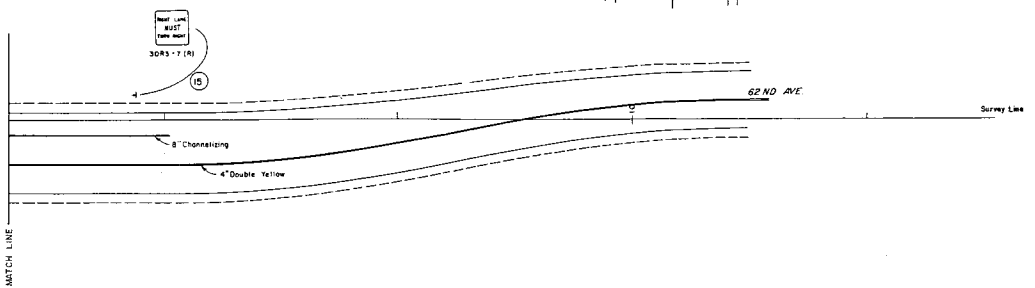
AS CONSTRUCTED		
NO REVISIONS	REVISED	VOID

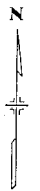
FED. HIGHWAY REGION	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
VIII	COLO.	MP 12-0053-03	16	



ALL SIGNS NOT SHOWN TO REMAIN IN PLACE.

EXISTING SIGNS MARKED ▨ TO BE REMOVED.





STATE OF COLORADO
STATE DEPARTMENT OF HIGHWAYS
DIVISION OF HIGHWAYS
D. S. H. FORM NO. 822
DEC. 1983

AS CONSTRUCTED							
NO REVISIONS	REVISED	VOID	FED. ROAD REGION	DIVISION	PROJ. NO	SHEET NO	TOTAL SHEETS
				COLO.	MP 12-0053-03	17	

TABULATION OF SIGNS

SIGN NO.	SIGN CODE	STATION	SIGN PANEL SIZE	BACK-GROUND COLOR	REMOVE GROUND SIGN (EACH)	RESET GROUND SIGN (EACH)	NO. OF POSTS	LENGTH OF POST	POST TYPE (LIN. FT.) 4 x 4 TIMBER	6 x 6 TIMBER	M6x12 BEAM	M6x15 BEAM	M8x18 BEAM	M8x21 BEAM	M10x22 BEAM	M10x28 BEAM	M12x35 BEAM	M12x40 BEAM	U-2	PANEL MOUNTING TYPE (EACH) 1	2	3	4	5	6	7	8	FOAM PANEL TYPE (SQ. FT.) CLASS I	CLASS II	CLASS III
1		6+40 62ND AVE.			1																									
2	30R3-7(R)	19+83 BROADWAY	30"X 30"	WHITE			1	14'-6"	14.5																			6.25		
3		19+38 BROADWAY			1																									
4		20+32 BROADWAY				1																								
5	30R3-5(L)	SPAN WIRE	30"X 36"	WHITE				MOUNTED ON SPAN WIRE																				7.50		
6		5+60 62ND AVE			1																									
7		19+05 BROADWAY			1																									
8	30R3-6(L)	SPAN WIRE	30"X 36"	WHITE				MOUNT ON SPAN WIRE																				7.50		
9	30R3-5(L)	SPAN WIRE	30"X 36"	WHITE				MOUNT ON SPAN WIRE																				7.50		
10		22+60 BROADWAY				1																								
11	30R3-7(R)	21+24 BROADWAY	30"X 30"	WHITE			1	14'-6"	14.5																			6.25		
12		62ND AVE			1																									
13	30R3-5(R)	SPAN WIRE	30"X 36"	WHITE				MOUNT ON SPAN WIRE																				7.5		
14	30R3-7(R)	6+58 62ND AVE.	30"X 30"	WHITE			1	14'-6"	14.5																			6.25		
15	30R3-7(R)	8+88 62ND AVE.	30"X 30"	WHITE			1	14'-6"	14.5																			6.25		
		TOTALS			5	2		58	58																			55		

NOTES:

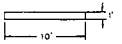
1. POST LENGTHS ARE APPROXIMATE ONLY. EXACT LENGTHS TO BE DETERMINED BY THE ENGINEER.

AS CONSTRUCTED		
NO REVISIONS	REVISED	VOID

FEDERAL AID PROJECT NO.	DISTRICT	PROJ. NO	SHEET NO.	TOTAL SHEETS
	COLORADO	MP 12-0053-03	13	

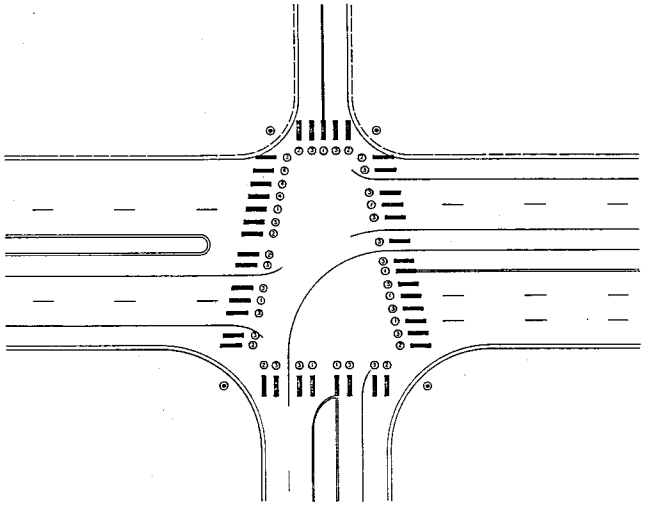
TYPICAL PAVEMENT MARKINGS
LONGITUDINAL (CONTINENTAL) TYPE CROSSWALKS

CROSSWALK LINE DETAIL



GENERAL NOTES

Center crosswalks on handicap ramps where such ramps are provided. At signalized intersections having no handicap ramps, center crosswalks on signal poles wherever practical, as shown.



LAYOUT KEY

1. Center on lane line or centerline.
2. Center on extended flow line.
3. Center between adjacent lines.
4. Lines and spaces to approximate adjacent pattern.

See Standard M-100-A for STANDARD SYMBOLS

STATE DEPARTMENT OF HIGHWAYS
DIVISION OF HIGHWAYS — STATE OF COLORADO

FEDERAL PLAN PROJ. NO.	DATE	PROJECT NO	SHEET NO
	COLORADO	MP12-0053-03	1

AS CONSTRUCTED					
NO REVISIONS		REVISED		VOID	

INDEX OF SHEETS

PLAN AND PROFILE OF PROPOSED

COLORADO PROJECT NO. MP12-0053-03

STATE HIGHWAY NO. 53

ADAMS COUNTY

SCALES OF ORIGINAL DRAWINGS

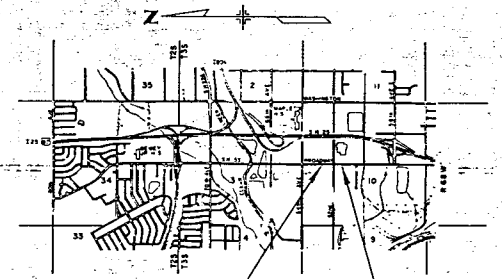
ON PLAN, 1 IN. = 50 FT.
ON PROFILE { 1 IN. = 50 FT. HORIZONTAL
1 IN. = 5 FT. VERTICAL

FIELD INSPECTION
DATE SEP 6 1989
ROADWAY PLANS

TABULATION OF LENGTH

STATION	ROADWAY	
Sta. Beg. MP12-0053-03 Sta. 69+50.88 on C12-0053-00 Sta. End MP12-0053-03 Sta. 77+33.88 on C12-0053-00	Lin. Ft.	
ROADWAY TOTAL	Lin. Ft.	
SUMMARY		
	Lin. Ft.	Miles
Total Net & Gross Length of Roadway		

Design Speed as Posted
Design Traffic Volume DHV =
ADT =



STA. BEGIN PROJECT MP12-0053-03
STA. 69+50.88 ON C12-0053-00

STA. END PROJECT MP12-0053-03
STA. 77+33.88 ON C12-0053-00

AS CONSTRUCTED INFORMATION

CONTRACTOR _____
_____ ENGINEER _____
(Project or Resident)
PROJECT STARTED _____
PROJECT COMPLETED _____
AS CONSTRUCTED PLANS APPROVED _____
TITLE DATE

D.C.S. DIST. 6

AS CONSTRUCTED		
NO REVISIONS	REVISED	VOID

FEDERAL ROAD REGION NO.	DIVISION	PROJECT NO.	SHEET NO.	TOTAL SHEETS
VIII	COLORADO	MP12-0053-03	2	

Plan No.	Title	Page
■ M-100-1	STANDARD SYMBOLS	1
□ M-107-1	TEMPORARY EROSION CONTROL	2
□ M-203-1	APPROACH ROADS, FLARING, CUT SLOPE TREATMENT, BRIDGE & CREST WIDENING	3
□ M-203-2	DITCH TYPES	4
□ M-203-10	SUPERELEVATION OF CURVES - CROWNED HIGHWAYS	5
□ M-203-11	SUPERELEVATION OF CURVES - DIVIDED HIGHWAYS - SHOULDER PIVOT	6
□ M-203-12	SUPERELEVATION OF CURVES - STREETS	7
□ M-203-13	SUPERELEVATION OF CURVES - DIVIDED HIGHWAYS - CENTER PIVOT	8
■ M-206-1	EXCAVATION AND BACKFILL FOR STRUCTURES (2 SHEETS)	9
□ M-206-2	EXCAVATION AND BACKFILL FOR BRIDGES	11
□ M-214-1	PLANTING DETAILS	12
□ M-412-1	CONCRETE PAVEMENT JOINTS	13
□ M-504-1	STEEL CRIBBING	14
□ M-506-1	GABIONS AND SLOPE MATTRESS	15
□ M-510-1	STRUCTURAL PLATE CULVERT PIPE - H-20 LOADING (2 SHEETS)	16
□ M-601-1	SINGLE CONCRETE BOX CULVERT	18
□ M-601-2	DOUBLE CONCRETE BOX CULVERT	19
□ M-601-3	TRIPLE CONCRETE BOX CULVERT	20
□ M-601-10	HEADWALL FOR PIPE CULVERTS	21
□ M-601-11	TYPE "S" SADDLE HEADWALL FOR PIPE CULVERTS	22
□ M-601-12	HEADWALL, INTERCEPTING HEADWALL AND CULVERT OUTLET PAVING	23
□ M-601-20	WINGWALLS FOR PIPE OR BOX CULVERTS	24
■ M-603-1	METAL CULVERT PIPE - H-20 LOADING (2 SHEETS)	25
■ M-603-2	REINFORCED CONCRETE PIPE	27
□ M-603-3	PRECAST CONCRETE BOX CULVERT	28
■ M-603-10	CONCRETE AND METAL END SECTIONS	29
□ M-604-1	PIPE SEWER IN TRENCH	30
□ M-604-10	INLET, TYPE C	31
□ M-604-11	INLET, TYPE D	32
□ M-604-12	CURB INLET, TYPE R (2 SHEETS)	33
□ M-604-13	CONCRETE INLET, TYPE 13	35
□ M-604-20	MANHOLES	36
□ M-604-21	STEPS FOR MANHOLES & INLETS	37
□ M-606-1	GUARD RAIL, TYPE 3, W-BEAM (8 SHEETS)	38
□ M-606-2	GUARD RAIL, TYPE 3, W-BEAM FOR LOCAL ROADS & STREETS (4 SHEETS)	46
□ M-606-10	GUARD RAIL, TYPE 4, CONCRETE BARRIER, CAST-IN-PLACE	50
□ M-606-11	GUARD RAIL, TYPE 4, CONCRETE BARRIER, PRECAST-PORTABLE	51

Plan No.	Title	Page
□ M-607-1	WIRE FENCES AND GATES (2 SHEETS)	52
■ M-607-2	CHAIN LINK FENCE (3 SHEETS)	54
□ M-607-3	BARRIER FENCE	57
□ M-607-4	DEER FENCE AND GATE (2 SHEETS)	58
□ M-607-10	PICKET SNOW FENCE	60
■ M-608-1	CURB RAMPS	61
■ M-609-1	CURBS AND GUTTERS	62
□ M-611-1	CATTLE GUARD - WELDED GRILL UNITS - 10' THRU 42' ROADWAYS (2 SHEETS)	63
□ M-613-1	HIGHWAY LIGHTING (2 SHEETS)	65
□ M-615-1	EMBANKMENT PROTECTOR, TYPES 3 & 4	67
□ M-615-2	EMBANKMENT PROTECTOR, TYPE 5	68
□ M-616-1	INVERTED SIPHON (ALSO USE M-603 OR M-604 AS REQUIRED)	69
□ M-620-1	FIELD LABORATORY - CLASS 1	70
□ M-620-2	FIELD LABORATORY - CLASS 2	71
□ M-620-11	FIELD OFFICE - CLASS 1	72
□ M-620-12	FIELD OFFICE - CLASS 2	73

Plan No.	Title	Page
□ S-612-1	TYPICAL DELINEATOR INSTALLATIONS (4 SHEETS)	75
□ S-614-1	TYPICAL GROUND SIGN PLACEMENT	79
□ S-614-2	CLASS I GROUND SIGN INSTALLATIONS	80
□ S-614-3	CLASS II GROUND SIGN INSTALLATIONS	81
□ S-614-4	CLASS III SIGNS, LAMINATED ALUMINUM PANELS AND POST SPACING TABLE (2 SHEETS)	82
□ S-614-5	BREAK-AWAY SIGN SUPPORT DETAILS FOR GROUND SIGNS (2 SHEETS)	84
□ S-614-6	CONCRETE FOOTINGS AND SIGN ISLANDS FOR CLASS III SIGNS (2 SHEETS)	86
□ S-614-10	TYPICAL MARKER ASSEMBLY INSTALLATIONS	88
□ S-614-11	MILEPOST SIGN AND INSTALLATION	89
□ S-614-12	STRUCTURE NUMBER INSTALLATION (BRIDGE INFORMATION SHEET)	90
□ S-614-13	STANDARD RAILROAD CROSSING SIGNS AND MARKINGS	91
□ S-614-20	TYPICAL POLE MOUNT SIGN INSTALLATION	92
□ S-614-21	CONCRETE BARRIER SIGN POST INSTALLATIONS	93
□ S-614-22	TYPICAL MULTI-SIGN INSTALLATIONS	94
□ S-614-30	INTERSTATE ROUTE MARKERS	95
□ S-614-31	U. S. & COLORADO ROUTE MARKERS	96
□ S-614-32	AUXILIARY MARKERS	97
□ S-614-40	TRAFFIC SIGNAL INSTALLATION DETAILS (3 SHEETS)	98
■ S-614-50	TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION (4 SHEETS)	101
□ S-614-51	BARRICADES, DRUMS, CONCRETE BARRIER (TEMP) & VERTICAL PANELS	105
■ S-627-1	TYPICAL PAVEMENT MARKINGS (3 SHEETS)	106

THE STANDARD PLAN SHEETS INDICATED HEREON BY A MARKED BOX ARE TO BE USED TO CONSTRUCT THIS PROJECT.

DEPARTMENT OF HIGHWAYS
STATE OF COLORADO
DIVISION OF HIGHWAYS

STANDARD PLANS LIST

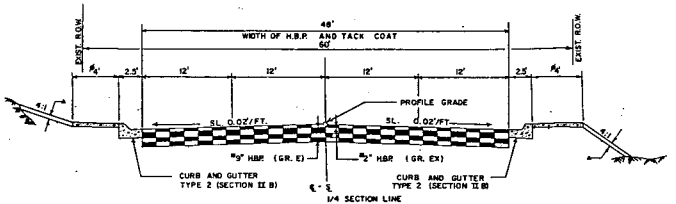
M & S STANDARDS — JANUARY, 1982

ORIGINAL

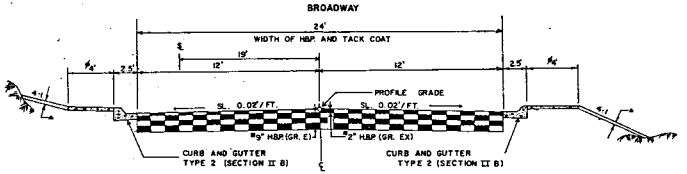
OF COLORADO
DEPARTMENT OF HIGHWAYS
ON OF HIGHWAYS
H. FORM NO. 126
EB. 1964

AS CONSTRUCTED			FED ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.	SHEET TOTALS
NO REVISIONS	REVISED	VOID	VIII	COLO.	MP12-0053-03	3	

TYPICAL SECTIONS



TYPICAL SECTION
BROADWAY

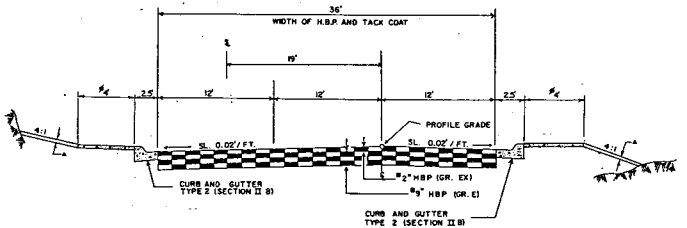


#4" CONCRETE SIDEWALK

TYPICAL SECTION
62nd AVE WEST OF BROADWAY

* APPROXIMATE THICKNESS

▲ 4" TOPSOIL



TYPICAL SECTION
62nd AVE EAST OF BROADWAY

GENERAL NOTES

FOR PRELIMINARY PLAN QUANTITIES OF SURFACING MATERIALS, THE FOLLOWING RATES OF APPLICATION WERE USED:

BITUMINOUS PAVEMENT AT 110 LBS. PER SQ. YD. PER INCH
TACK COAT DILUTED EMULSIFIED ASPHALT (SLOW-SETTING) AT
0.10 GAL. PER SQ. YD. (DILUTED)

WHEN ORDERED BY THE ENGINEER A TACK COAT OF EMULSIFIED ASPHALT (SLOW SETTING) IS TO BE APPLIED BETWEEN PAVEMENT COURSES TO IMPROVE THE BOND. DILUTED EMULSIFIED ASPHALT FOR TACK COAT SHALL CONSIST OF 1 PART EMULSIFIED ASPHALT AND 1 PART WATER.

RATES OF APPLICATION SHALL BE AS DETERMINED BY THE ENGINEER AT THE TIME OF APPLICATION.

THE FOLLOWING SHALL BE FURNISHED WITH EACH BITUMINOUS PAVER:

A SKI TYPE DEVICE AT LEAST 30 FEET IN LENGTH.
SHORT SKI OR SHOE.
1000 FEET OF CONTROL LINE AND STAKES.

DEPTH OF MOISTURE-DENSITY CONTROL FOR THIS PROJECT SHALL BE AS FOLLOWS:

FULL DEPTH OF ALL EMBANKMENTS
BASES OF CUTS AND FILLS 0.5 FOOT

THE TYPE OF COMPACTION FOR EARTHWORK SHALL BE AASHTO T99.

EXISTING DITCH LINES ARE TO BE UNIFORMLY GRADED TO DRAIN INTO NEW DITCHES.

UTILITY LINES AS SHOWN ON THE PLAN SHEETS ARE PLOTTED FROM THE BEST AVAILABLE INFORMATION. THE CONTRACTOR'S ATTENTION IS DIRECTED TO PARAGRAPH 107.18 OF THE STANDARD SPECIFICATION CONCERNING UTILITIES. THE CONTRACTOR WILL CALL 534-6700 FOR UTILITY LOCATION AT LEAST 2 WORKING DATS PRIOR TO ANY DIGGING.

IT IS SUGGESTED THAT THE CONTRACTOR INITIATE A REQUEST TO THE PUBLIC SERVICE COMPANY FOR ANY CONSTRUCTION-RELATED TEMPORARY ELECTRICAL POWER SOURCES AS SOON AS POSSIBLE. IN SOME INSTANCES UP TO 36 DATS MAY BE REQUIRED TO PROVIDE THE SOURCES. THE REQUEST IS TO BE PROCESSED THROUGH PUBLIC SERVICE COMPANY OF COLORADO - STREET LIGHTING AT (303) 571-3303.

ANY LAYER OF BITUMINOUS PAVEMENT THAT IS TO HAVE A SUCCEEDING LAYER PLACED THEREON SHALL BE COMPLETED FULL WIDTH BEFORE SUCCEEDING LAYER IS PLACED.

EXCAVATION REQUIRED FOR COMPACTION OF BASES OF CUTS AND FILLS WILL BE CONSIDERED AS SUBSIDIARY TO THAT OPERATION AND WILL NOT BE PAID FOR SEPARATELY.

THE MINIMUM THICKNESS OF TOPSOIL SHALL BE 4 INCHES. IT IS ESTIMATED THAT CUBIC YARDS WILL BE REQUIRED AND WILL BE OBTAINED FROM AN UNDESIGNATED SOURCE.

*SOIL PREPARATION, SEEDING (MULTIPS), *FERTILIZING WITH COMMERCIAL FERTILIZER, AND MULCHING FOR APPROXIMATELY ACRES WILL BE REQUIRED FOR THIS PROJECT. FOR MULCHING A WOOD CELLULOSE FIBER SHALL BE APPLIED AT THE RATE OF 1 1/2 TONS PER ACRE IN COMBINATION WITH MULCH TACKIFIER. THE FOLLOWING TYPES AND RATES SHALL BE USED:

COMMON NAME	BOTANICAL NAME	POUNDS
BUFFALO GRASS (TREATED)	BOUTELOUA DACTYLOIDES	14
WESTERN WHEATGRASS	AGROPYRON SMITHII	18
FAIRWAY WHEATGRASS	AGROPYRON CRISTATUM	3
SIDE-OATS GRAMA	BOUTELOUA CURTIPENDULA	4
WHITE CLOVER	TRIFOLIUM REPENS	1
LITTLE BLUESTEM	SCHIZACHYRIUM SCOPARIUM	3
ROCKY MOUNTAIN		
PENSTEMON BARBERA	PENSTEMON STRICTUS	1
YARROW	ACHILLEA MILLEFOLIUM	0.12
TOTAL PLS PER ACRE SEEDING		34.5

FERTILIZER	RATE LBS. / ACRE
FERTILIZER (AVAILABLE N)	45
FERTILIZER (AVAILABLE P)	115

PROJECT TOTALS

* SOIL PREPARATION	ACRES	
SEEDING	ACRES	
* FERTILIZER (AVAIL. N)	LBS.	
* FERTILIZER (AVAIL. P)	LBS.	
MULCHING (HYDRAULIC)	ACRES	

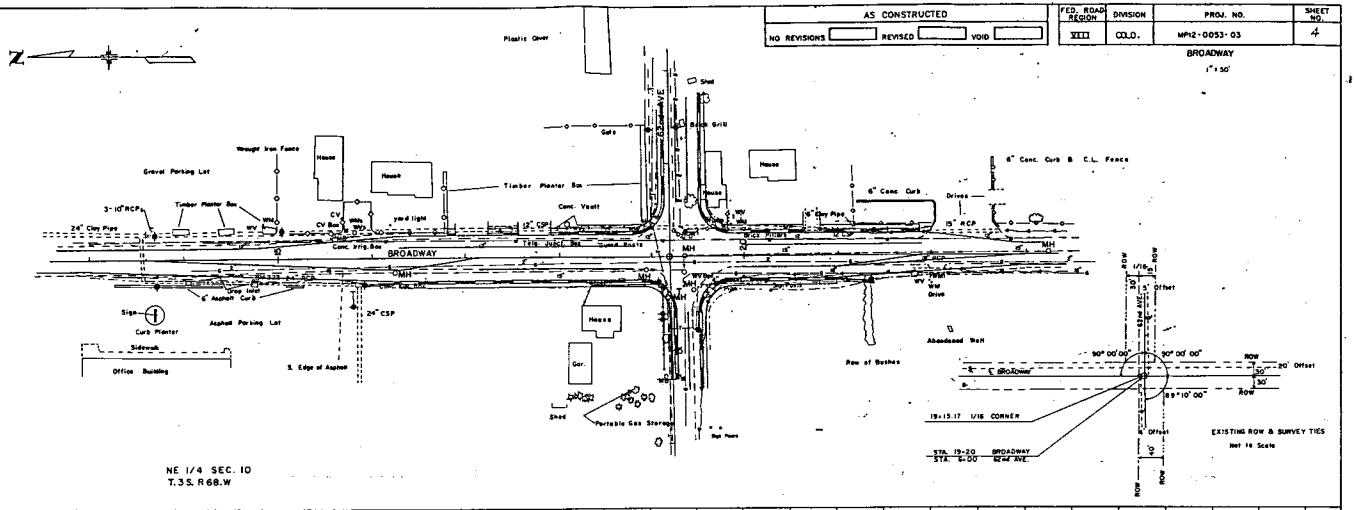
* FOR INFORMATION ONLY

COLORADO
DEPARTMENT OF HIGHWAYS
DIV. OF HIGHWAYS
FORM NO. 1341
1963

AS CONSTRUCTED					
NO REVISIONS		REVISED		VOID	

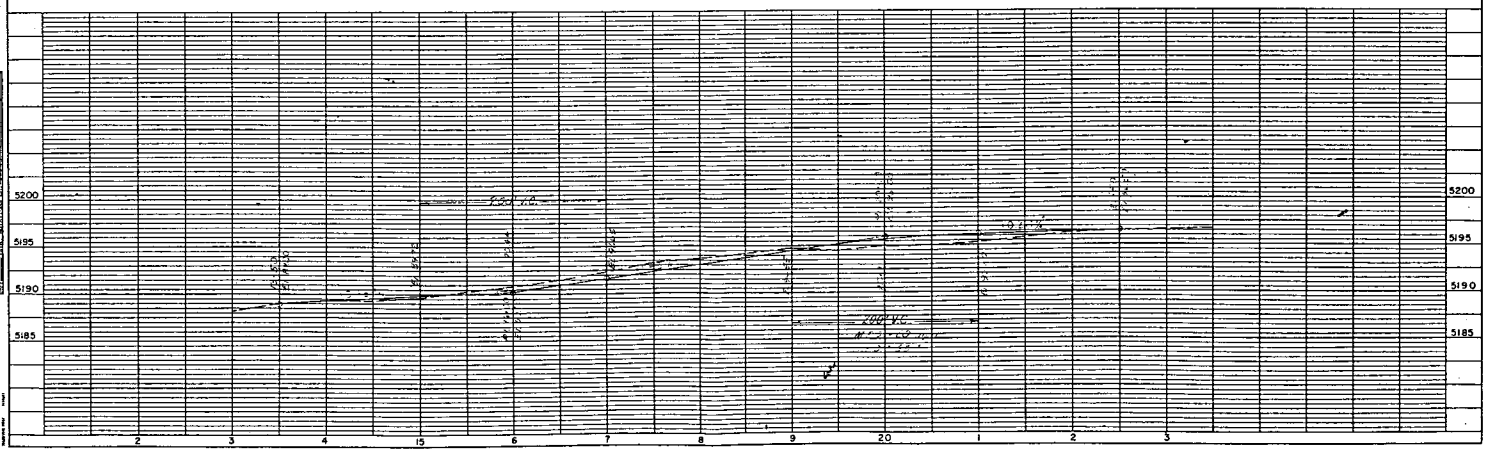
FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.
VIII	COLO.	MPI2-0053-03	4

BROADWAY
1" = 50'



PLAN	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	CHECKED		

PROFILE	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	CHECKED		

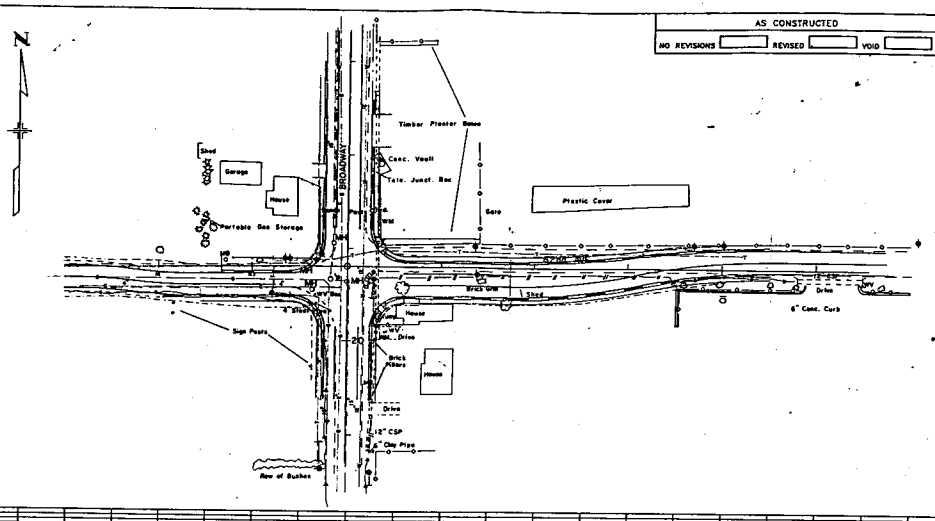


COLORADO
DEPARTMENT OF HIGHWAYS
DIVISION OF HIGHWAYS
FORM NO. 134
1963

AS CONSTRUCTED		
NO REVISIONS	REVISED	VOID

FED. ROAD REGION	DIVISION	PROJ. NO.	SHEET NO.
VIII	COLO.	MP12-0053-03	5

62nd AVE



PLAN	DATE	BY
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PLOTTED		
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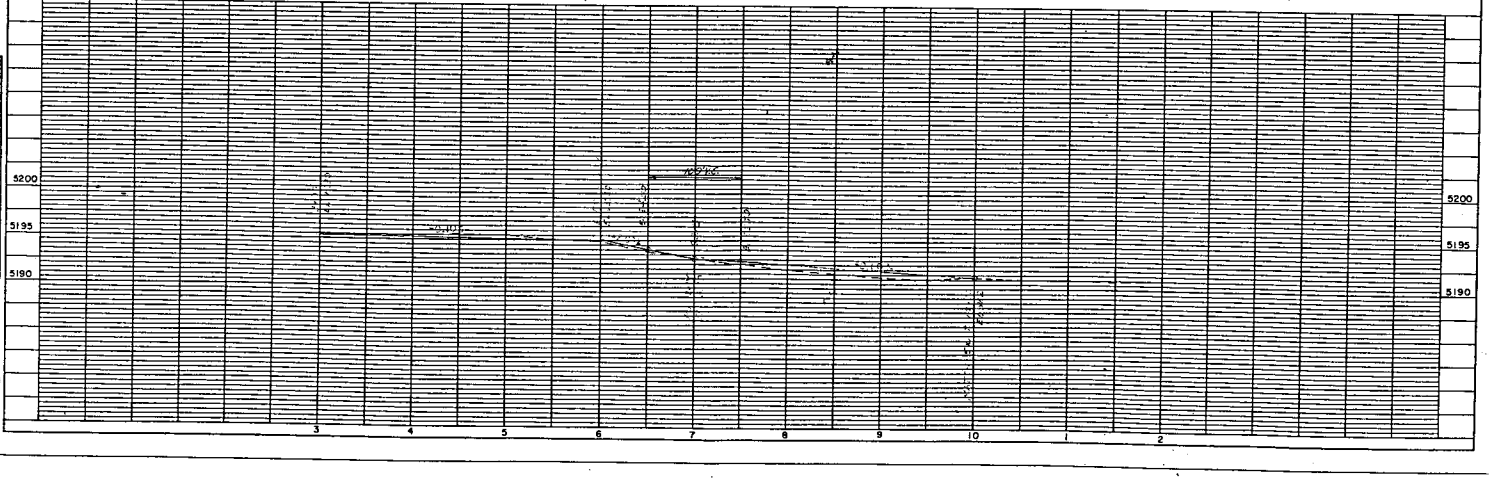
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