

PLANS FOR CONSTRUCTION OF

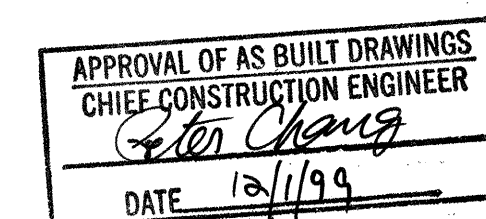
SUNPORT PARK

ALBUQUERQUE, NEW MEXICO

APRIL, 1998

INDEX TO DRAWINGS

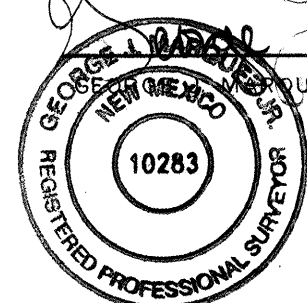
SHEET	TITLE
1	COVER SHEET
2, 2a	PLAT
3	LAYOUT SHEET
4	GRADING PLAN (EAST PORTION)
5	GRADING PLAN (WEST PORTION)
6	AIRCRAFT AVE & TRANSPORT ST. NE STREET PAVING PLAN & PROFILE
7	AIRCRAFT AVE WATERLINE PLAN & PROFILE
8	TRANSPORT ST WATERLINE PLAN & PROFILE
9	SANITARY SEWER - LINE "A" PLAN & PROFILE
10	PRIVATE STORM DRAIN LINE "A" - "D" PLAN & PROFILE
11	PRIVATE STORM DRAIN LINE "E" PLAN & PROFILE
12	MISCELLANEOUS DETAILS
13	MISCELLANEOUS DETAILS
14	TRAFFIC SIGNAL - NOTES & LEGEND
15	AIRCRAFT/UNIVERSITY SIGNAL INSTALLATION, SIGNING & STRIPING PLAN
16	TRAFFIC SIGNAL - CABLES & CONDUITS
17	TRAFFIC SIGNAL - FUNCTIONS & DETECTORS
18	TRAFFIC SIGNAL - MASTARM DETAILS- TYPE III STANDARD
19	TRAFFIC SIGNAL - TYPE III STANDARD - MISCELLANEOUS DETAILS
20	TRAFFIC SIGNAL - MISCELLANEOUS DETAILS
21	TRAFFIC SIGNAL - FOUNDATION DETAILS - TYPE II & III STANDARDS
22	TRAFFIC SIGNAL - MACHINE VISION VEHICLE DETECTOR SYSTEM
23	TRAFFIC CONTROL PLAN
24	TRAFFIC CONTROL PLAN
25	GRADING PLAN AS-BUILT (WEST PORTION)
26	GRADING PLAN AS-BUILT (EAST PORTION)



THESE DRAWINGS HAVE BEEN REVISED BASED ON FIELD DATA AND EVERY REASONABLE ATTEMPT HAS BEEN MADE TO DEPICT CONSTRUCTION AS ACTUALLY PERFORMED. PLEASE SEE SHEETS 25 AND 26.

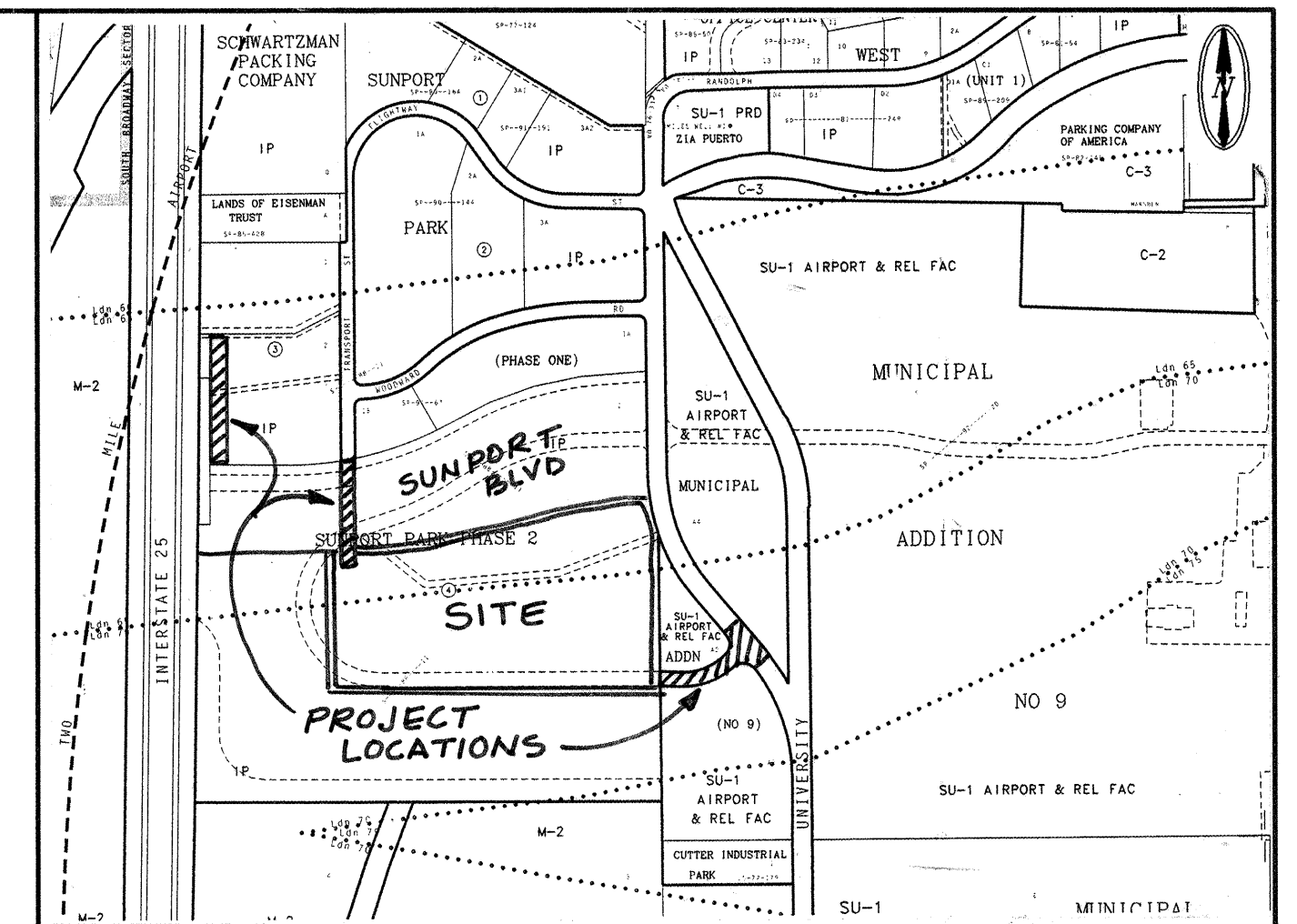
THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR THE CONSTRUCTION SAFETY WHICH SHALL REMAIN THE RESPONSIBILITY OF THE CONTRACTOR.

ALL IDEAS, DESIGNS, ARRANGEMENTS, AND PLANS INDICATED OR REPRESENTED BY THIS INSTRUMENT ARE OWNED BY AND THE PROPERTY OF BRASHER & LORENZ, INC., AND WERE CREATED AND DEVELOPED FOR USE ON AND IN CONNECTION WITH THE SPECIFIED PROJECT. THESE IDEAS, DESIGNS, ARRANGEMENTS OR PLANS SHALL NOT BE USED BY ANY PERSON, FIRM OR CORPORATION FOR ANY PURPOSE WHATSOEVER WITHOUT THE WRITTEN CONSENT OF BRASHER & LORENZ, INC.



DRB 97-68

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Consulting Engineers
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Albuquerque, New Mexico 87110
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VICINITY MAP: M-15 SCALE: 1"=750'

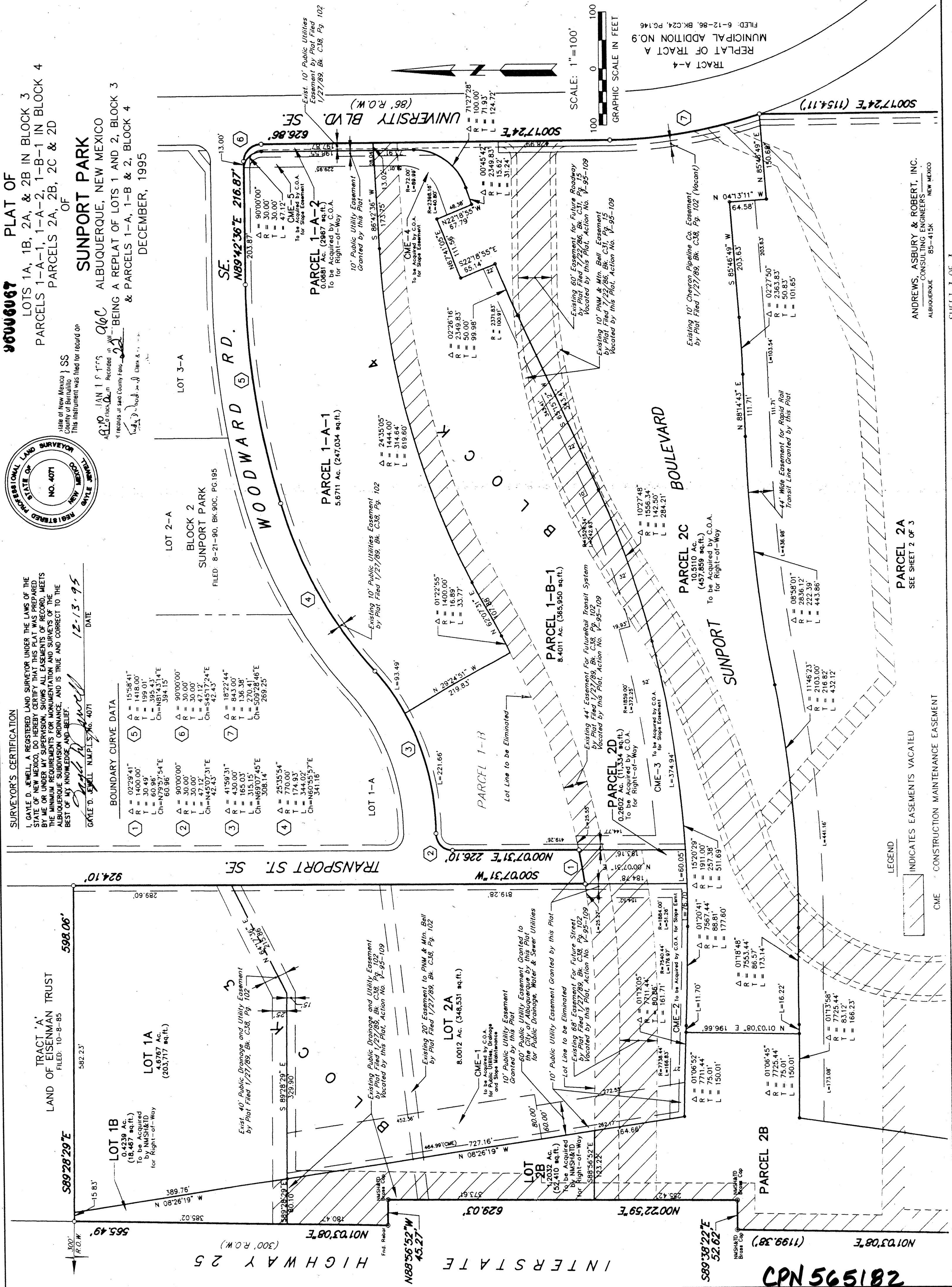
GENERAL NOTES:

- ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED UNDER CONTRACT SHALL, EXCEPT AS OTHERWISE STATED OR PROVIDED FOR HEREON, BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE, STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986* (CDA STD). THROUGH UPDATE NO 6.
- TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM, 260-1990, FOR LOCATION OF EXISTING UTILITIES.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OR SURVEYOR SO THAT THE CONFLICT CAN BE RESOLVED WITH MINIMUM AMOUNT OF DELAY.
- IF ANY UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES ARE SHOWN ON THESE DRAWINGS, THEY ARE SHOWN IN AN APPROXIMATE MANNER ONLY, AND SUCH LINES MAY EXIST WHERE NONE ARE SHOWN. IF ANY SUCH EXISTING LINES ARE SHOWN, THE LOCATION IS BASED UPON INFORMATION PROVIDED BY THE OWNER OF SAID UTILITY, AND THE INFORMATION MAY BE INCOMPLETE, OR MAY BE OBSOLETE BY THE TIME CONSTRUCTION COMMENCES. THE ENGINEER HAS UNDERTAKEN NO FIELD VERIFICATION OF THE LOCATION, DEPTH, SIZE, OR TYPE OF EXISTING UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES. THE CONTRACTOR SHALL INFORM HIMSELF OF THE LOCATION OF ANY UTILITY LINE, PIPELINE, OR UNDERGROUND UTILITY LINE IN OR NEAR THE AREA OF THE WORK IN ADVANCE OF AND DURING EXCAVATION WORK. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE CAUSED BY HIS FAILURE TO LOCATE, IDENTIFY AND PRESERVE ANY AND ALL EXISTING UTILITIES, PIPELINES, AND UNDERGROUND UTILITY LINES. IN PLANNING AND CONDUCTING EXCAVATION, THE CONTRACTOR SHALL COMPLY WITH STATE STATUTES, MUNICIPAL AND LOCAL ORDINANCES, RULES AND REGULATIONS, IF ANY, PERTAINING TO THE LOCATION OF THESE LINES AND FACILITIES.
- THE CONTRACTOR SHALL SECURE A "TOPSOIL DISTURBANCE PERMIT" PRIOR TO BEGINNING CONSTRUCTION.
- THE CONTRACTOR SHALL ASSIST THE ENGINEER/INSPECTOR IN THE RECORDING OF DATA ON ALL UTILITY LINES AND ACCESSORIES AS REQUIRED BY THE OWNERS FOR THE PREPARATION OF "RECORD DRAWINGS". THE CONTRACTOR SHALL NOT COVER UTILITY LINES AND ACCESSORIES UNTIL ALL DATA HAS BEEN RECORDED.
- REFERENCE MADE TO STANDARD DRAWINGS REFER TO ALBUQUERQUE STANDARD DRAWINGS.
- ELECTRONIC MARKER DISCS SHALL BE PLACED IN ACCORDANCE WITH SECTION 170 OF THE CITY OF ALBUQUERQUE, STANDARD SPECIFICATIONS, PUBLIC WORKS CONSTRUCTION.
- WATERLINE CONNECTIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY STD. DWG. 2301.
- WATER METERS ARE TO BE INSTALLED AT ALL SERVICES IN ACCORDANCE WITH CITY STD. DWG. 2362 AND 2363.
- ALL CONSTRUCTION WITHIN CITY RIGHT-OF-WAY OR EASEMENTS MUST BE DONE FROM APPROVED WORK ORDER DOCUMENTS FROM THE CITY OF ALBUQUERQUE AND PREPARED BY BRASHER & LORENZ, INC.
- AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY. AN APPROVED COPY OF THESE PLANS MUST BE SUBMITTED AT THE TIME OF APPLICATION FOR THIS PERMIT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING, IN ADVANCE OF HIS CONSTRUCTION, IF OVERHEAD UTILITY LINES, SUPPORT STRUCTURES, POLES, GUYS, ETC. ARE AN OBSTRUCTION TO CONSTRUCTION OPERATIONS. IF ANY OBSTRUCTION TO CONSTRUCTION OPERATIONS IS EVIDENT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE APPROPRIATE UTILITY OWNER TO REMOVE OR SUPPORT THE UTILITY OBSTRUCTION. ANY COST ASSOCIATED WITH THIS EFFORT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- CONTRACTOR IS TO SUPPORT AND MAINTAIN THE INTEGRITY OF ALL UNDERGROUND TELEPHONE, ELECTRIC CABLES, AND CABLE TELEVISION UTILITIES AT NO ADDITIONAL COST TO THE OWNER. CABLE IS TO BE SUPPORTED EVERY 15' (MINIMUM). CONTRACTOR SHALL COORDINATE WITH AND MAKE NECESSARY PAYMENT (IF ANY) TO UTILITY OWNER FOR DE-ENERGIZATION OF CABLES OR SUPPORT OF CABLES BY THE UTILITY OWNER.
- FIVE (5) WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION THE CONTRACTOR SHALL SUBMIT TO THE CONSTRUCTION COORDINATION DIVISION A DETAILED CONSTRUCTION SCHEDULE. TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL OBTAIN A BARRICADING PERMIT FROM TH CONSTRUCTION COORDINATION DIVISION. THE CONTRACTOR SHALL NOTIFY THE BARRICADE ENGINEER (768-2551) PRIOR TO OCCUPYING AN INTERSECTION. SEE SECTION 19 OF THE SPECIFICATIONS.
- ALL STREET STRIPING ALTERED OR DESTROYED SHALL BE REPLACED WITH PLASTIC REFLECTORIZED PAVEMENT MARKINGS BY THE CONTRACTOR TO LOCATION AS EXISTING OR AS INDICATED ON THE PLANSET.
- ANY WORK OCCURRING IN AN ARTERIAL ROADWAY REQUIRES TWENTY-FOUR (24) HOUR CONSTRUCTION.

REV.	SHEETS	CITY	ENGINEER	DATE	USER	DEPARTMENT	DATE	USER	DEPARTMENT	DATE
ENGINEERS STAMP & SIGNATURE	APPROVALS	ENGINEER	DATE	*****	APPROVED FOR CONSTRUCTION					
DRG Chairman	<i>Robert Chang</i>	<i>Robert Chang</i>	7-27-98		<i>J. R. Cortez</i> City Engineer					
Transportation	<i>Robert Chang</i>	<i>Robert Chang</i>	5-28-98							
Water/Wastewater	<i>R.W. Kane</i>	<i>R.W. Kane</i>	5-27-98							
Hydrology	<i>Robert Chang</i>	<i>Robert Chang</i>	6-20-98							
CIP	<i>Robert Chang</i>	<i>Robert Chang</i>	6-20-98							
Constr. Mngmt.	<i>Robert Chang</i>	<i>Robert Chang</i>	6-20-98		CITY PROJECT NO. 5651.82 SHEET 1 OF 26					
Constr. Coord.	<i>Robert Chang</i>	<i>Robert Chang</i>	6-20-98							

96C-22(3)

22 OF 2426 96C-22(3)



SURVEYOR'S CERTIFICATION

I, GAYLE D. JEWELL, A REGISTERED LAND SURVEYOR UNDER THE LAWS OF THE STATE OF NEW MEXICO, DO HEREBY CERTIFY THAT THE FOREGOING PLAT IS A TRUE AND CORRECT REPRESENTATION OF THE SURVEY MADE BY ME OR UNDER MY SUPERVISION, SHOWS ALL EASEMENTS OF RECORD, MEETS THE MINIMUM REQUIREMENTS FOR MONUMENTATION AND SURVEYS OF THE ALBUQUERQUE SUBDIVISION ORDINANCE, AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

DATE 12-13-95

FILED 5:01 PM 12/13/95

NO. 4071

STATE OF NEW MEXICO

REGISTERED LAND SURVEYOR

NO. 4071

STATE OF NEW MEXICO

REGISTERED LAND SURVEYOR

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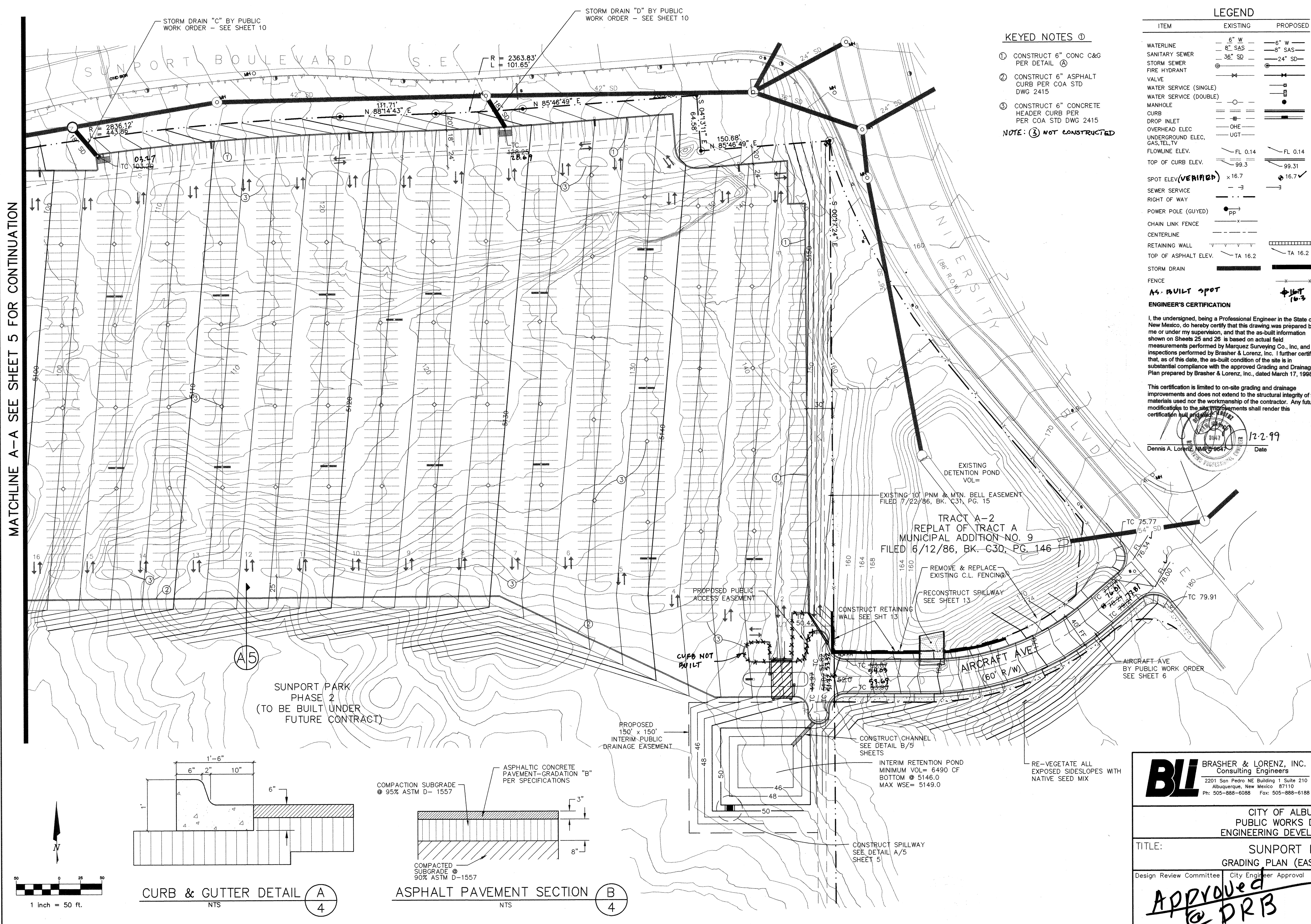
STATE OF NEW MEXICO

REGISTERED LAND SURVEYOR

NO. 4071

STATE OF NEW MEXICO

MATCHLINE A-A SEE SHEET 5 FOR CONTINUATION



KEYED NOTES ①

- ① CONSTRUCT 6" CONC C&G
PER DETAIL (A)
- ② CONSTRUCT 6" ASPHALT
CURB PER COA STD
DWG 2415
- ③ CONSTRUCT 6" CONCRETE
HEADER CURB PER
PER COA STD DWG 2415

NOTE: ③ NOT CONSTRUCTED

ITEM	EXISTING	PROPOSED
WATERLINE	— 6" W — 8" SAS	— 6" W — 8" SAS
SANITARY SEWER	— 36" SD —	— 24" SD —
STORM SEWER	⊙	⊙
FIRE HYDRANT		
VALVE	— — — — —	— — — — —
WATER SERVICE (SINGLE)		— □ —
WATER SERVICE (DOUBLE)		— □ □ —
MANHOLE	— ○ —	— ● —
CURB	— — — — —	— — — — —
DROP INLET	— — — — —	— — — — —
OVERHEAD ELEC	— OHE —	— OHE —
UNDERGROUND ELEC, GAS, TEL, TV	— UGT —	— UGT —
FLOWLINE ELEV.	— FL 0.14	— FL 0.14
TOP OF CURB ELEV.	— 99.3 —	— 99.31 —
SPOT ELEV. (VERIFIED)	× 16.7	× 16.7 ✓
SEWER SERVICE	— — — — —	— — — — —
RIGHT OF WAY	— — — — —	— — — — —
POWER POLE (GU'YED)	— PP —	— — — — —
CHAIN LINK FENCE	— — — — —	— — — — —
CENTERLINE	— — — — —	— — — — —
RETAINING WALL	— — — — —	— — — — —
TOP OF ASPHALT ELEV.	— TA 16.2	— TA 16.2
STORM DRAIN	— — — — —	— — — — —
FENCE	— — — — —	— — — — —
AS-BUILT SPOT		× 16.7 ✓ 16.3
ENGINEER'S CERTIFICATION		

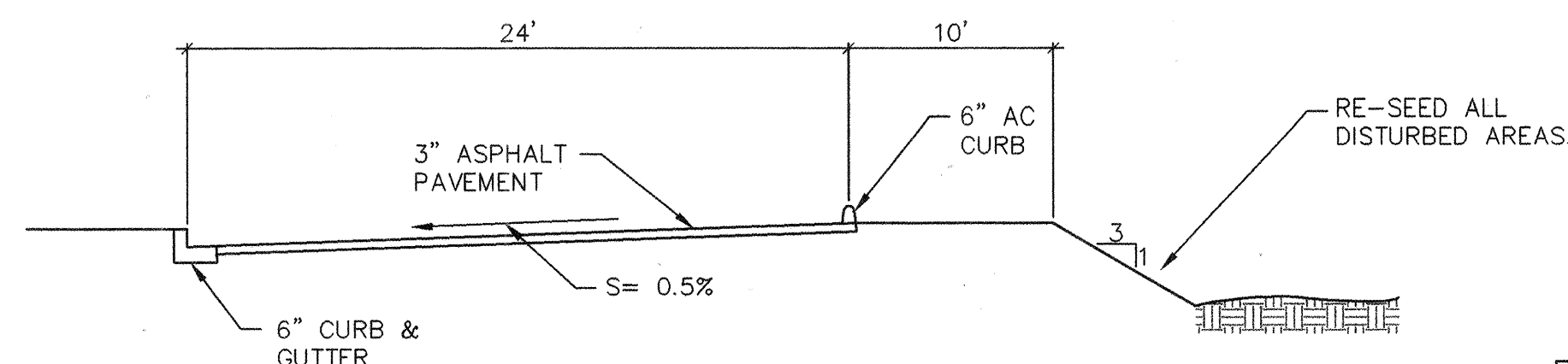
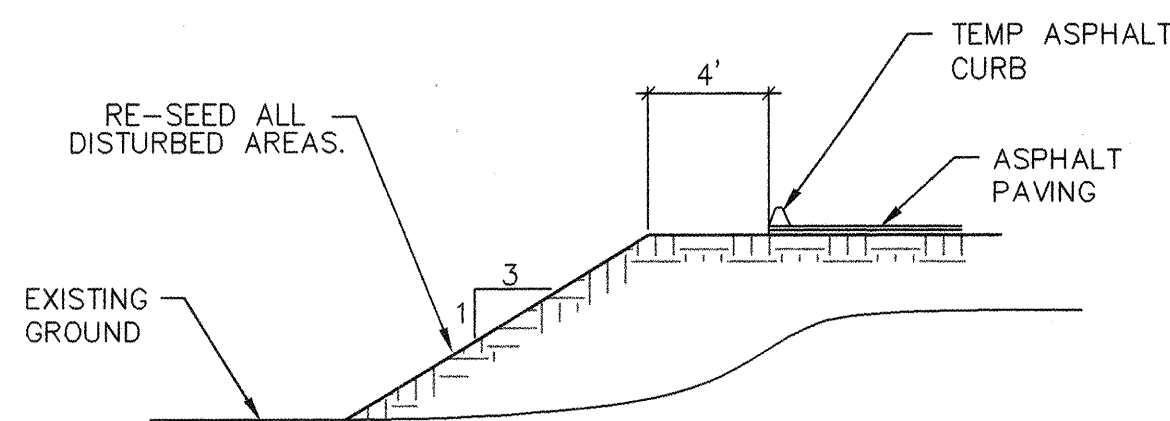
I, the undersigned, being a Professional Engineer in the State of New Mexico, do hereby certify that this drawing was prepared by me or under my supervision, and that the as-built information shown on Sheets 25 and 26 is based on actual field measurements performed by Marquez Surety Co., Inc, and inspections performed by Brasher & Lorenz, Inc. I further certify that, as of this date, the as-built condition of the site is in substantial compliance with the approved Grading and Drainage Plan prepared by Brasher & Lorenz, Inc., dated March 17, 1998.

This certification is limited to on-site grading and drainage improvements and does not extend to the structural integrity of the materials used nor the workmanship of the contractor. Any future modifications to the site improvements shall render this certification null and void.

12.2.99

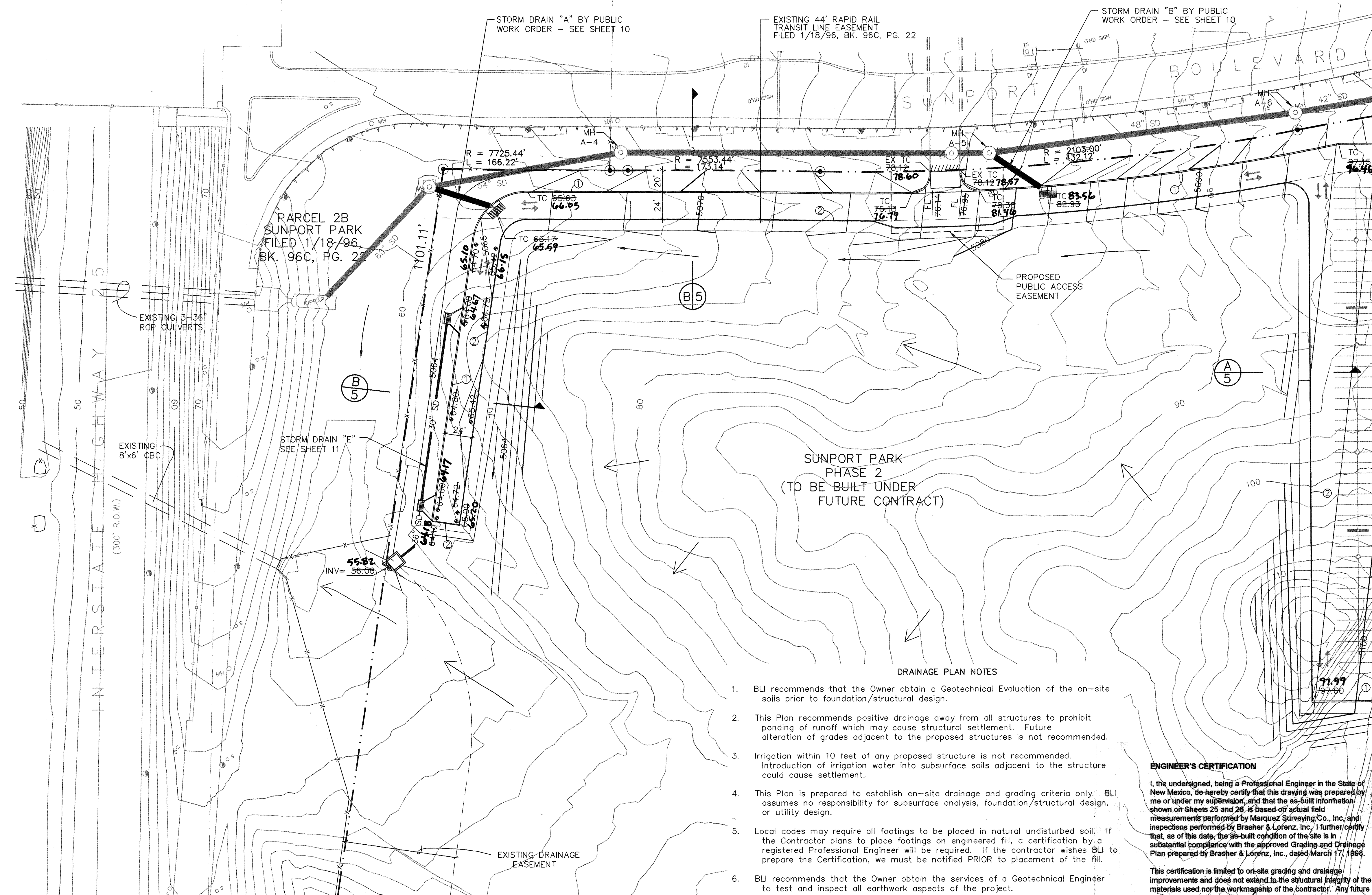
Dennis A. Lorenz, NMP# 9547 Date

[illegible]



FILL SLOPE SECTION A
5

SECTION B
N.T.S. 5



1. BLI recommends that the Owner obtain a Geotechnical Evaluation of the on-site soils prior to foundation/structural design.
2. This Plan recommends positive drainage away from all structures to prohibit ponding of runoff which may cause structural settlement. Future alteration of grades adjacent to the proposed structures is not recommended.
3. Irrigation within 10 feet of any proposed structure is not recommended. Introduction of irrigation water into subsurface soils adjacent to the structure could cause settlement.
4. This Plan is prepared to establish on-site drainage and grading criteria only. BLI assumes no responsibility for subsurface analysis, foundation/structural design, or utility design.
5. Local codes may require all footings to be placed in natural undisturbed soil. If the Contractor plans to place footings on engineered fill, a certification by a registered Professional Engineer will be required. If the contractor wishes BLI to prepare the Certification, we must be notified PRIOR to placement of the fill.
6. BLI recommends that the Owner obtain the services of a Geotechnical Engineer to test and inspect all earthwork aspects of the project.
7. The property boundary shown on this Plan is given for information only to describe the project limits. Property boundary information shown hereon does not constitute a boundary survey. A boundary survey performed by a licensed New Mexico Registered Professional Surveyor is recommended prior to construction.

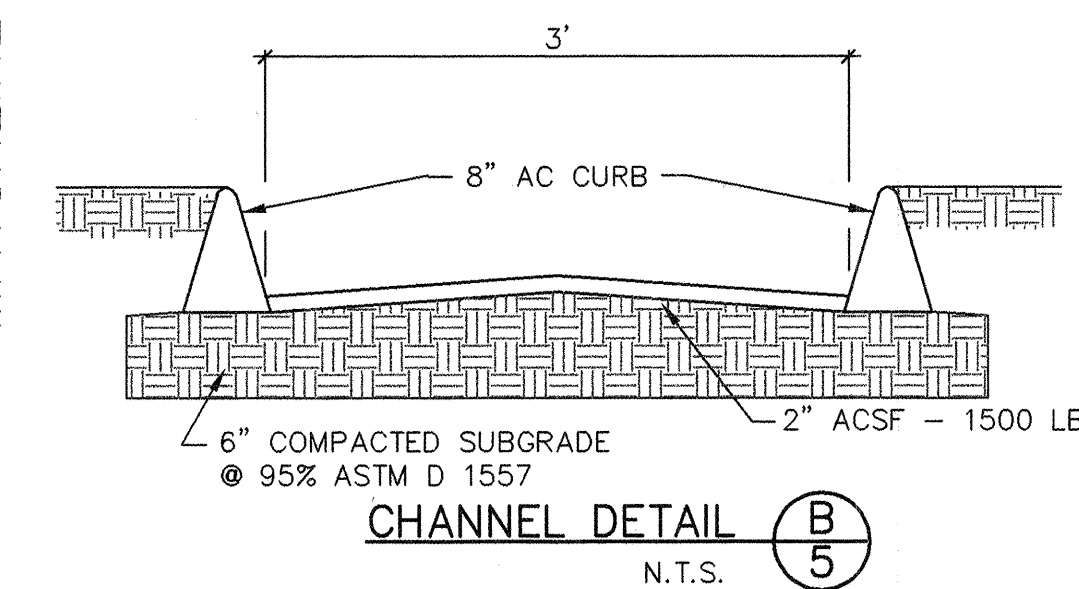
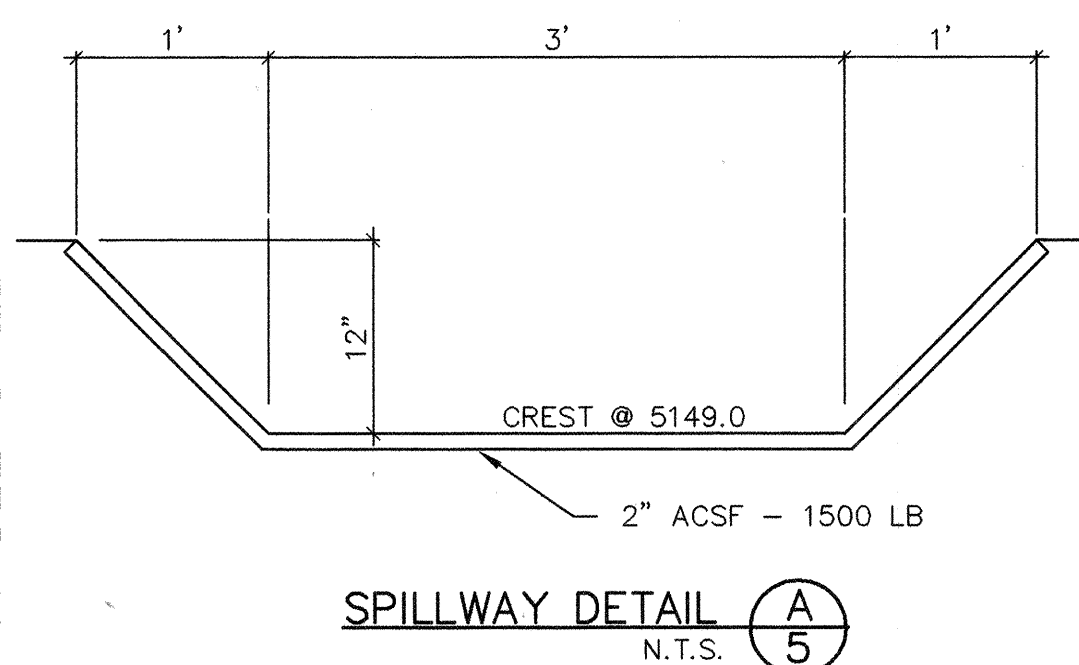
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Dennis A. Lorenz, NMPE 9647 Date 12.2.99

LEGEND		
ITEM	EXISTING	PROPOSED
WATERLINE	— 6" W — — 8" SAS —	— 6" W — — 8" SAS —
SANITARY SEWER	— 36" SD —	— 24" SD —
STORM SEWER	⊗	⊗
FIRE HYDRANT	⋈	⋈
VALVE		
WATER SERVICE (SINGLE)	— ○ —	— □ —
WATER SERVICE (DOUBLE)	— ○ —	— □ —
MANHOLE	— ○ —	— ● —
CURB	— — — — —	— — — — —
DROP INLET	— — — — —	— — — — —
OVERHEAD ELEC	— OHE —	— OHE —
UNDERGROUND ELEC.	— UGT —	— UGT —
FLOWLINE ELEV.	— FL 0.14 —	— FL 0.14 —
TOP OF CURB ELEV.	— 99.3 —	— 99.31 —
SPOT ELEV. (VERIFIED)	× 16.7	× 16.7 ✓
SEWER SERVICE	— → —	— → —
RIGHT OF WAY	— — — — —	— — — — —
POWER POLE (GUYYED)	— PP —	— PP —
CHAIN LINK FENCE	— — — — —	— — — — —
CENTERLINE	— — — — —	— — — — —
RETAINING WALL	— V — V — V — V —	— V — V — V — V —
TOP OF ASPHALT ELEV.	— TA 16.2 —	— TA 16.2 —
STORM DRAIN	[REDACTED]	
FENCE	— X — X —	— X — X —
AS-BUILT SPOT		
⊕ 16.7		

- ① CONSTRUCT 6" CONC C&G
PER DETAIL (A) SHEET 5
- ② CONSTRUCT 6" ASPHALT
CURB PER COA STD
DWG 2415
- ③ CONSTRUCT 6" CONCRETE
HEADER CURB PER
PER COA STD DWG 2415
- ④ CONSTRUCT CONCRETE
RETAINING WALL



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Albuquerque, New Mexico 87110

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CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

TITLE: SUNPORT PARK
GRADING PLAN (WEST PORTION)

Design Review Committee

City Engineer Approval

APPROVED

APPROVED

DESIGN REVIEW COMMITTEE

@ DRB

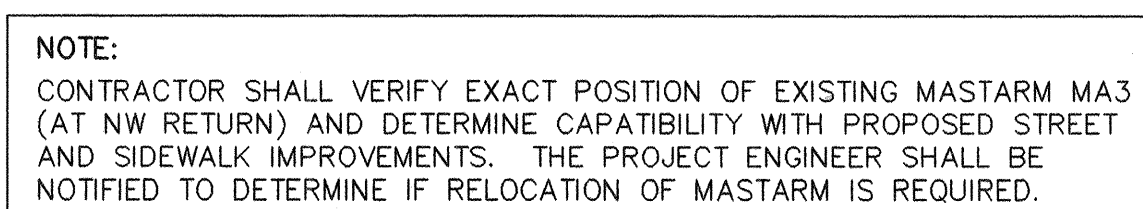
City Project No.	5651.82	Zone Map No.	M-15	Sheet	5	Of	26 16
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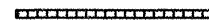
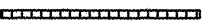
SUNPORT.DWG 3/2/98 1"=50'

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5651.82	Zone Map No. M-15
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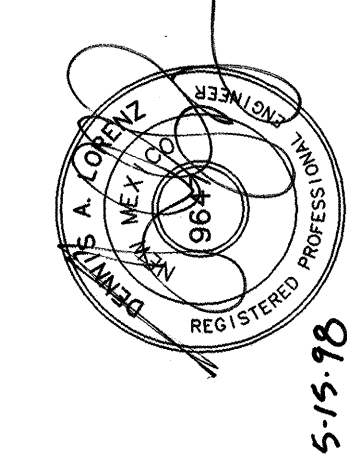
Sheet	5	Of	26 16
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ITEM	EXISTING	PROPOSED
WATERLINE	— 6" W —	— 6" W —
SANITARY SEWER	— 8" SAS —	— 8" SAS —
STORM SEWER	— 36" SD —	— 24" SD —
FIRE HYDRANT	⊙	⊙
VALVE		
WATER SERVICE (SINGLE)		
WATER SERVICE (DOUBLE)		
MANHOLE	— ○ —	— ● —
CURB		
DROP INLET		
OVERHEAD ELEC.	— OHE —	— OHE —
UNDERGROUND ELEC.	— UGT —	— UGT —
GAS, TEL, TV		
FLOWLINE ELEV.	 FL 0.14	 FL 0.14
TOP OF CURB ELEV.	 99.3	 99.31
SPOT ELEV.	× 16.7	◆ 16.7
SEWER SERVICE	— ⌋ —	— ⌋ —
RIGHT OF WAY	— · · —	— · · —
POWER POLE (GUYED)	● (PP)	
CHAIN LINK FENCE	— x —	
CENTERLINE	— - - —	
RETAINING WALL		
TOP OF ASPHALT ELEV.	 TA 16.2	 TA 16.2
TRAFFIC SIGNAL PULL BOX		
MAST ARM		
PEDESTAL	— ⊙ —	

KEYED NOTES ○

1. CONSTRUCT WHEELCHAIR RAMP PER STD DWG. 2441 (CASE II).
2. CONSTRUCT UNI-DIRECTIONAL WHEELCHAIR RAMP PER STD DWG. 2426.
3. CONSTRUCT STD CURB & GUTTER PER STD DWG. 2415 USE 3/4" INVERT.
4. CONSTRUCT 6' SIDEWALK, SOUTH SIDE ONLY.
5. 50' CROWN TRANSITION.
6. CONSTRUCT VALLEY GUTTER PER STD DWG. 2420.
7. ABUTMENT WALL.
8. TRANSITION FROM 8" STD C&G TO 6" C&G THRU CURB RETURN.
9. REGRADE EXISTING MANHOLE PER STD DWG. 2460.
10. PRIVATE RETAINING WALL - NIC.
11. CONSTRUCT HAMMERHEAD TURN-AROUND PER STD DWG 2512.
13. EDGE OF PAVEMENT
14. CONSTRUCT CURB ACCESS RAMP PER DETAIL 
15. TRAFFIC SIGNAL PULL BOX TO BE RESET. SEE SHEET 14.
16. EXISTING WHITE LANE STRIPING TO BE OBLITERATED. SEE SHEET 14
17. PROVIDE 3' CURB BREAK AT CHANNEL INLET PER DETAIL 
18. CONSTRUCT VALLEY GUTTER PER STD DWG 2420

[illegible]

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Consulting Engineers

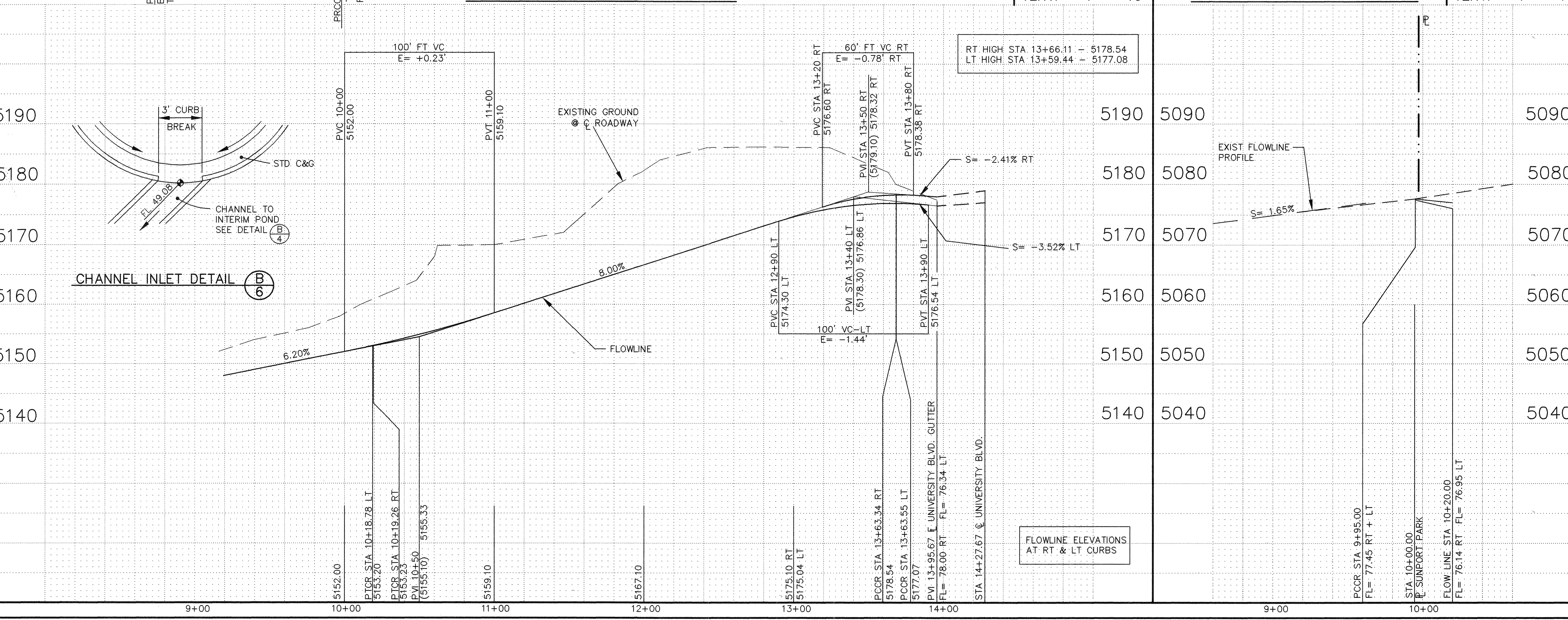
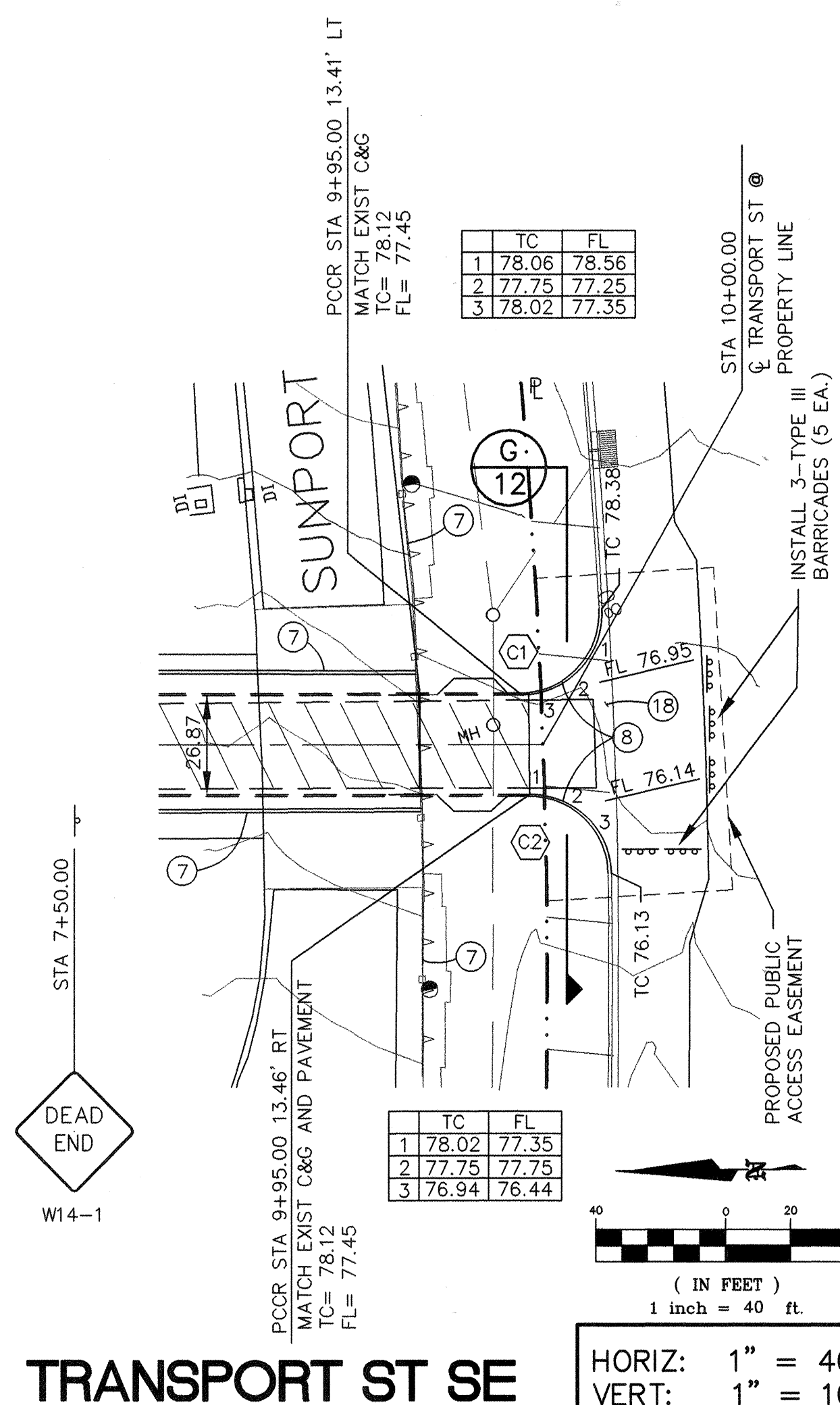
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Ph: 505-888-6088 Fax: 505-888-6188

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

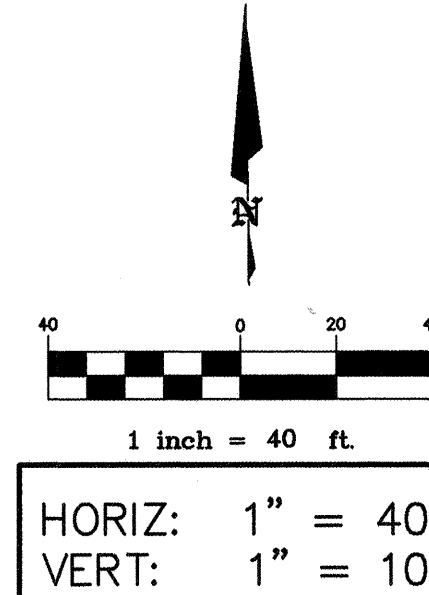
TITLE: SUNPORT PARK
AIRCRAFT AVE. & TRANSPORT ST. NE
STREET PAVING PLAN & PROFILE

Design Review Committee	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.
				

City Project No.	Zone Map No.	Sheet	Of
5651.82	M-15	6	26 24



1. VALVES, HYDRANTS AND APPURTENANCES OF THE CITY WATER SYSTEM SHALL BE OPERATED BY CITY PERSONNEL ONLY.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TIMING AND COORDINATION OF WATER SHUTOFF. AT LEAST FIVE (5) WORKING DAYS PRIOR TO CONSTRUCTION, CONTRACTOR SHALL CONTACT THE WATER SYSTEMS DIVISION, 857-8200, TO INITIATE IMPLEMENTATION OF THE NON-PRESSURIZED CONNECTION PLAN.
3. SYSTEM SHUTDOWN SHALL BE ACCOMPLISHED BY CLOSING VALVE (A).
4. ANTICIPATED SHUTDOWN DURATION IS 8 HOURS.



RESTRAINED JOINT LENGTHS
10" TEE L= 73'

[illegible]

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CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

TITLE: SUNPORT PARK
AIRCRAFT AVE. SE
WATERLINE PLAN & PROFILE

DESIGN REVIEW COMMITTEE

APPROVED

JUL 29 1998

DESIGN
REVIEW COMMITTEE

e	City Engineer Approval
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Last Design Update	Last Design Update
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City Project No.	5651.82
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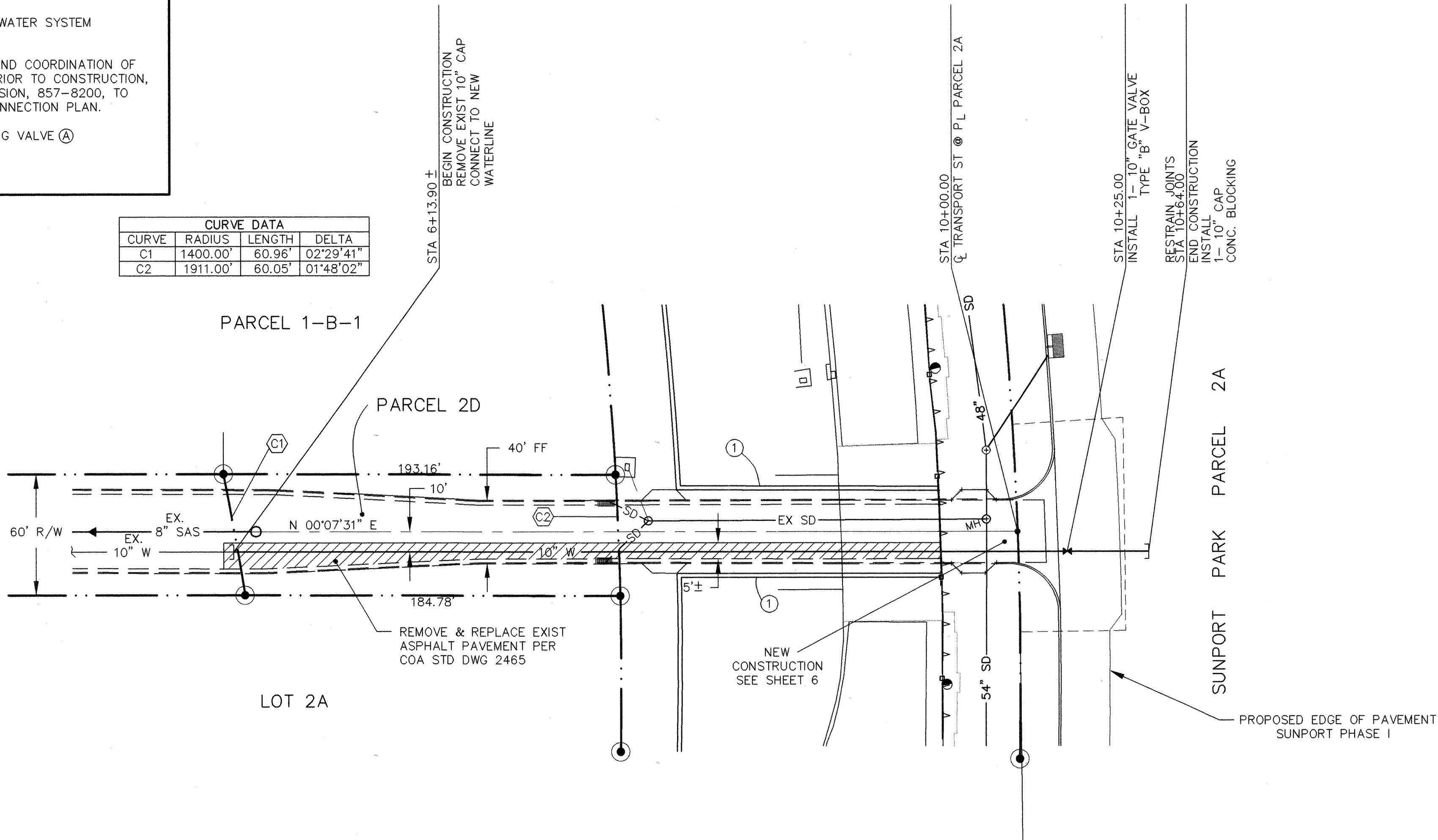
Zone Map No.
M-15

Sheet	7	Of	26 24
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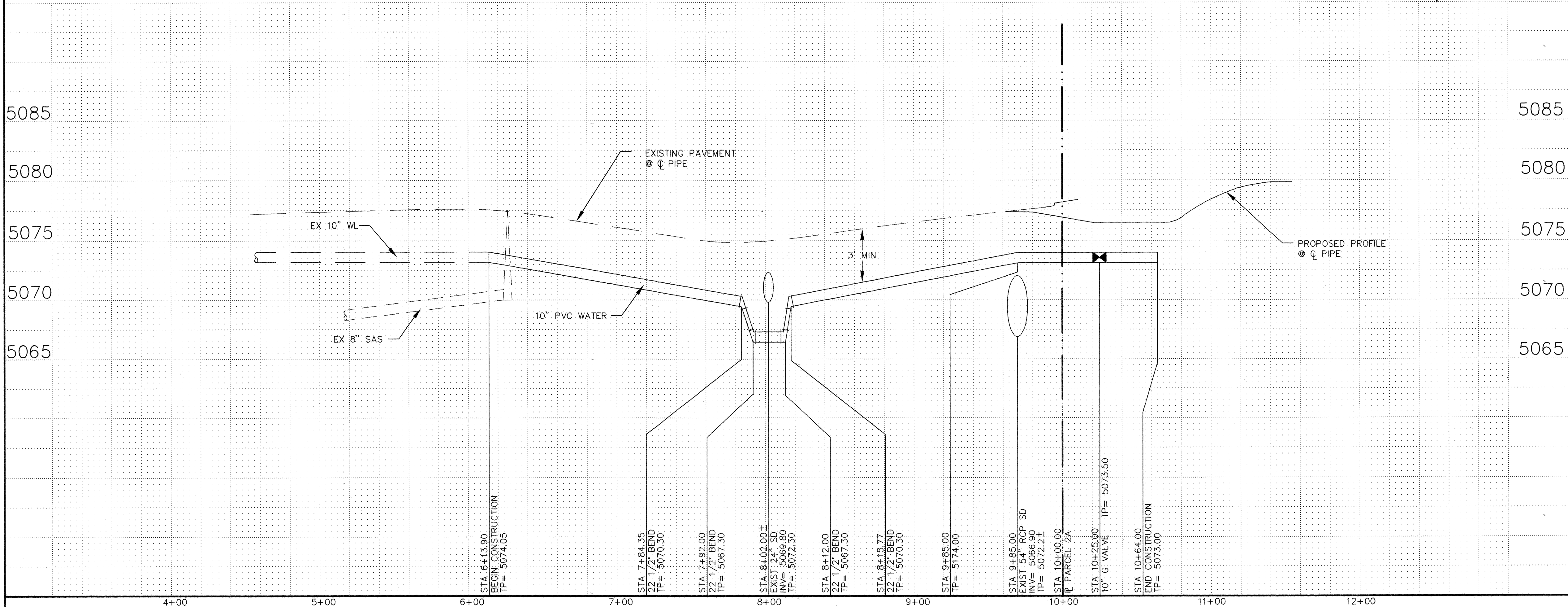
WATER SHUT-OFF PLAN

1. VALVES, HYDRANTS AND APPURTENANCES OF THE CITY WATER SYSTEM SHALL BE OPERATED BY CITY PERSONNEL ONLY.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TIMING AND COORDINATION OF WATER SHUTOFF. AT LEAST FIVE (5) WORKING DAYS PRIOR TO CONSTRUCTION, CONTRACTOR SHALL CONTACT THE WATER SYSTEMS DIVISION, 857-8200, TO INITIATE IMPLEMENTATION OF THE NON-PRESSURIZED CONNECTION PLAN.
3. SYSTEM SHUTDOWN SHALL BE ACCOMPLISHED BY CLOSING VALVE (A)
4. ANTICIPATED SHUTDOWN DURATION IS 8 HOURS.

CURVE DATA			
CURVE	RADIUS	LENGTH	DELTA
C1	1400.00'	60.96'	02°29'41"
C2	1911.00'	60.05'	01°48'02"



TRANSPORT ST SE



LEGEND

ITEM	EXISTING	PROPOSED
WATERLINE	6" W	6" W
SANITARY SEWER	8" SAS	8" SAS
STORM SEWER	36" SD	24" SD
FIRE HYDRANT		
VALVE		
WATER SERVICE (SINGLE)		
WATER SERVICE (DOUBLE)		
MANHOLE		
CURB		
DROP INLET		
OVERHEAD ELEC.	OHE	
UNDERGROUND ELEC.	UGT	
GAS, TEL, TV		
FLOWLINE ELEV.	FL 0.14	FL 0.14
TOP OF CURB ELEV.	99.3	99.31
SPOT ELEV.	x 16.7	16.7
SEWER SERVICE		
RIGHT OF WAY		
POWER POLE (GUYPED)	PP	
CHAIN LINK FENCE	x	
CENTERLINE		
RETAINING WALL		
TOP OF ASPHALT ELEV.	TA 16.2	TA 16.2

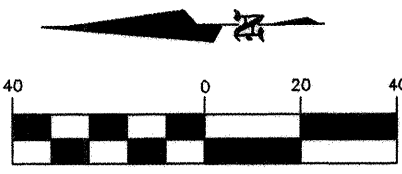
RESTRAINED JOINT LENGTHS

10" TEE L= 73'

10" VALVE L= 115'

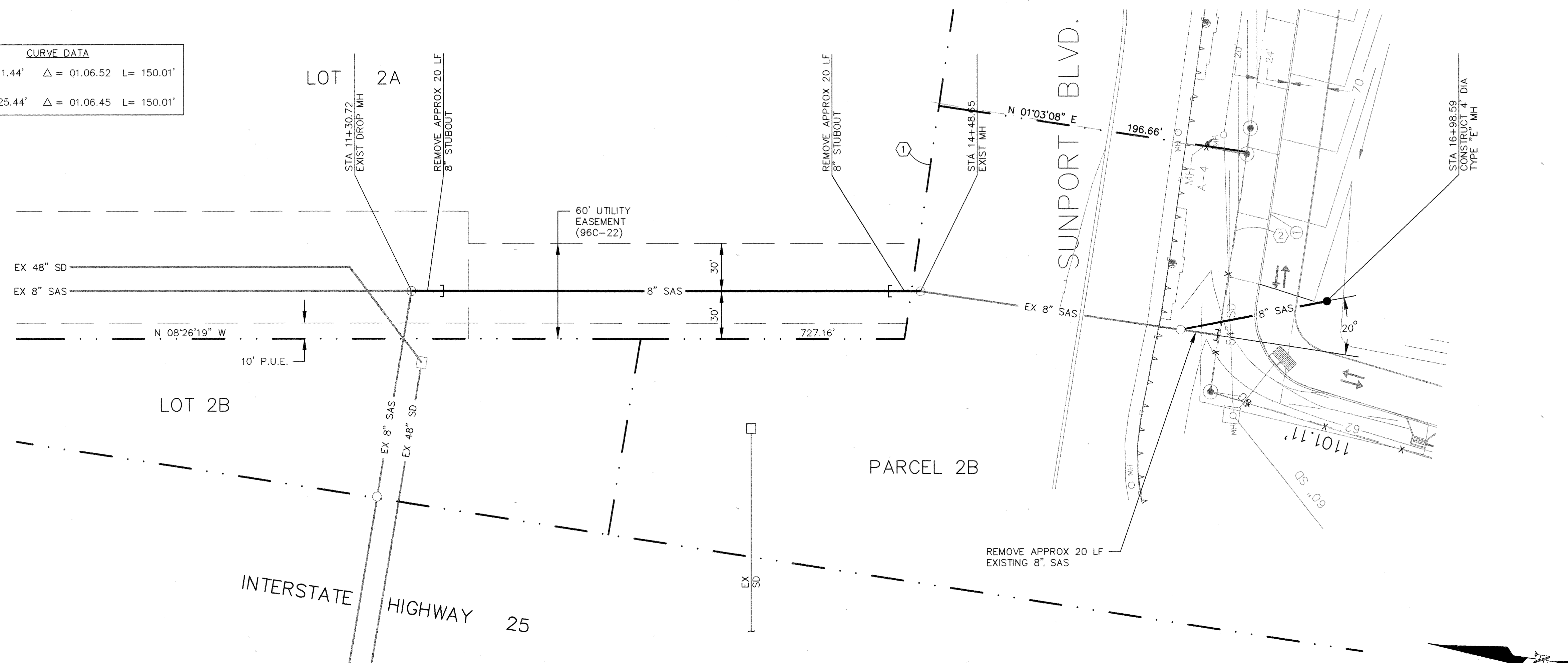
KEYED NOTES

1. ABUTMENT WALL



HORIZ: 1" = 40'
VERT: 1" = 5'

AS BUILT INFORMATION	
CONTRACTOR	BRASHER & LORENZ, INC.
DATE	4-1999
DESIGNED BY	BRASHER & LORENZ, INC.
DATE	4-1999
CHECKED BY	BRASHER & LORENZ, INC.
DATE	4-1999
MICRO-FILM INFORMATION	
RECORDED BY	
DATE	
SURVEY INFORMATION	
FIELD NOTES	
NO.	BY
DATE	
ENGINEER'S SEAL	
NO.	DATE
REVISIONS	BY
DESIGN	
DESIGNED BY	S.K.M.
DATE	5/97
DRAWN BY	A.S.C.
DATE	5/97
CHECKED BY	D.A.L.
DATE	5/97
CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP SUNPORT PARK TRANSPORT ST. SE WATERLINE PLAN & PROFILE	
Design Review Committee	City Engineer Approval
Mo./Day/Yr.	Mo./Day/Yr.
City Project No.	5651.82
Zone Map No.	M-15
Sheet	8
Of	24



HORIZ:	1" = 40'
VERT:	1" = 10'

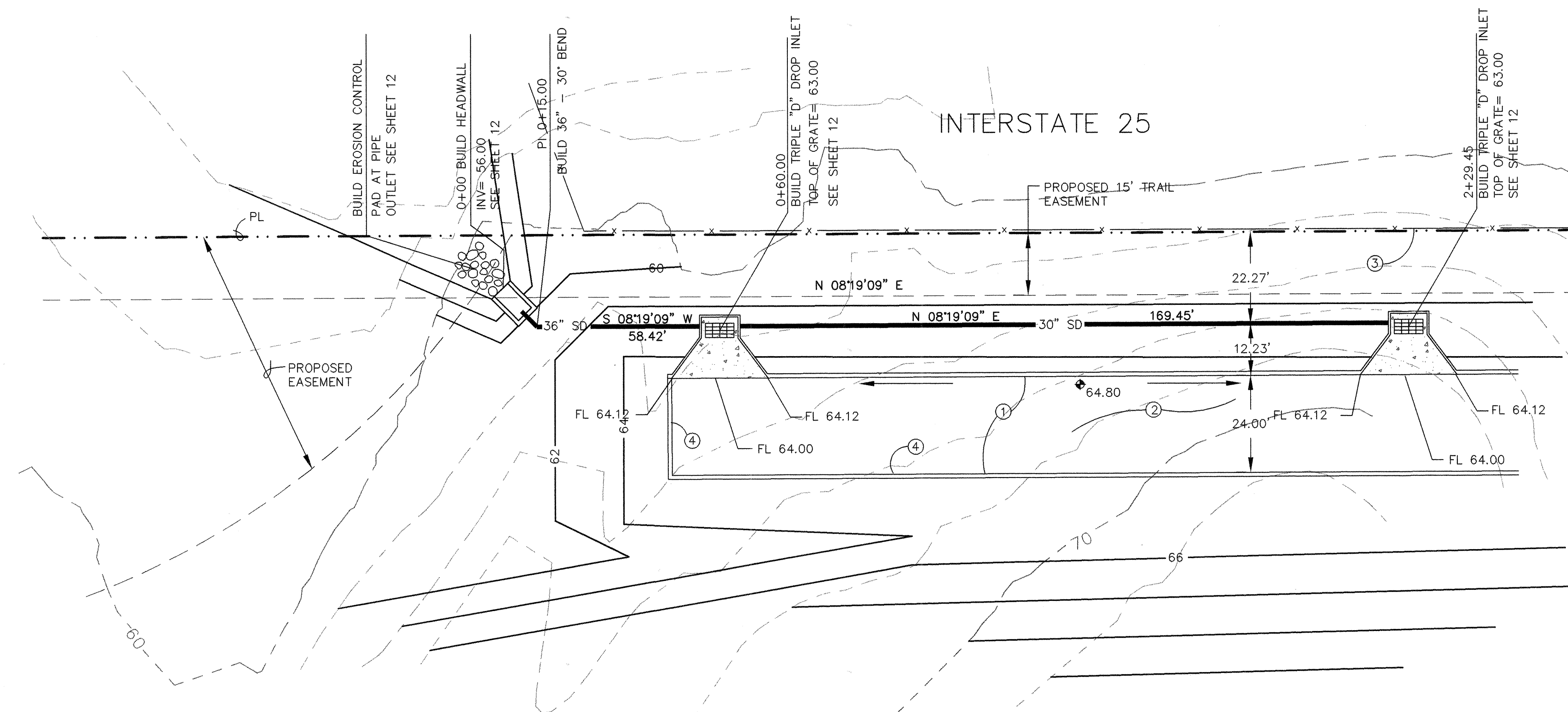


 DESIGN REVIEW COMMITTEE APPROVED JUL 29 1988 DESIGN REVIEW COMMITTEE	City Engineer Approval	Last Design Update	Mo./Day/Yr.	Mo./Day/Yr.

NOTE:

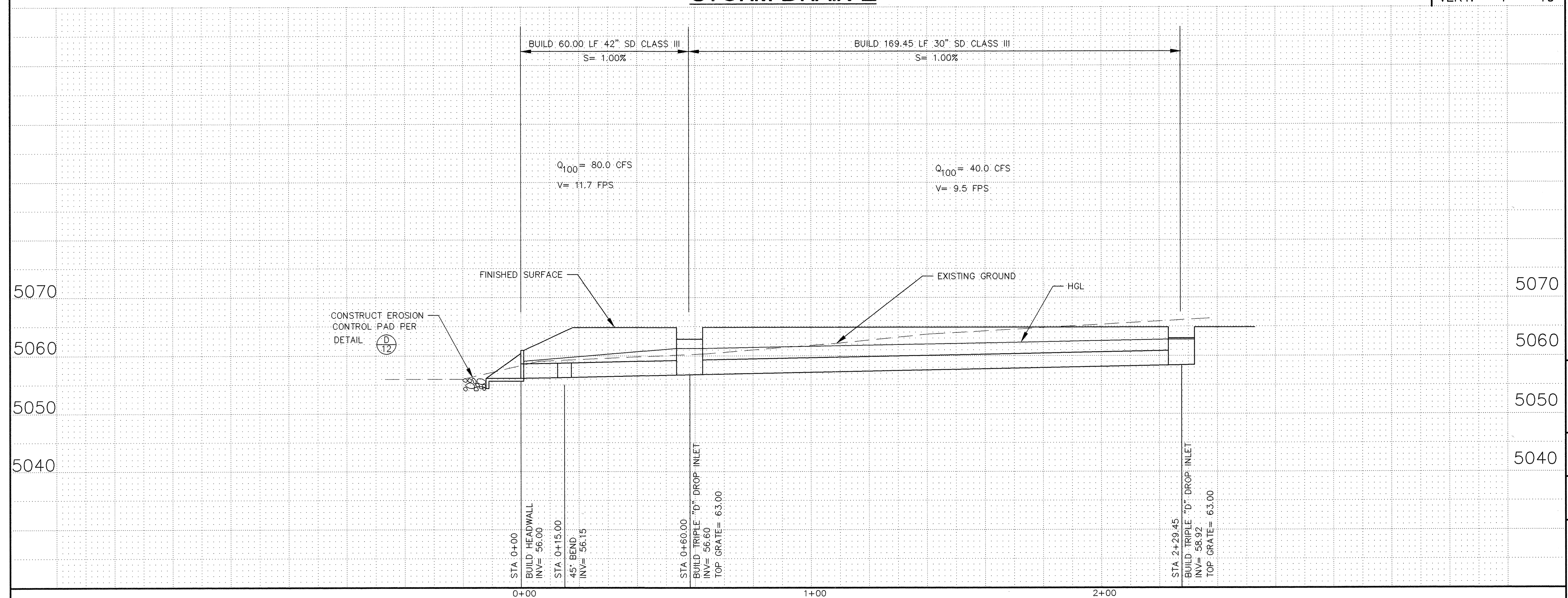
1. ALL STATIONING IS BASED ON CENTERLINE OF SAS PIPE UNLESS OTHERWISE NOTED.

[illegible]



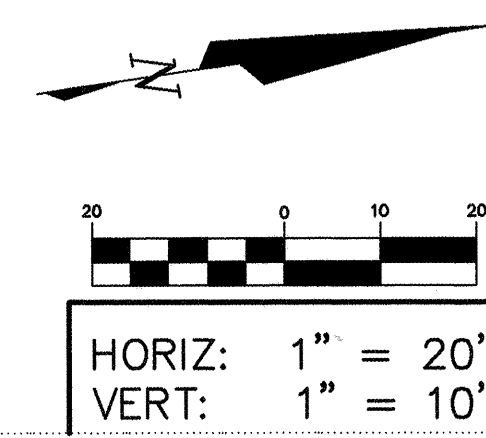
PRIVATE – NOT IN THIS CONTRACT
SHOWN FOR INFORMATION ONLY

STORM DRAIN E



LEGEND		
ITEM	EXISTING	PROPOSED
WATERLINE	6" W	6" W
SANITARY SEWER	8" SAS	8" SAS
STORM SEWER	36" SD	24" SD
FIRE HYDRANT	⊗	⊗
VALVE	⋈	⋈
WATER SERVICE (SINGLE)	—	—
WATER SERVICE (DOUBLE)	—	—
MANHOLE	○	●
CURB	—	—
DROP INLET	—	—
OVERHEAD ELEC.	OHE	OHE
UNDERGROUND ELEC., GAS, TEL, TV	UGT	UGT
FLOWLINE ELEV.	FL 0.14	FL 0.14
TOP OF CURB ELEV.	99.3	99.31
SPOT ELEV.	x 16.7	16.7
SEWER SERVICE	—	—
RIGHT OF WAY	—	—
POWER POLE (GUYP)	PP	PP
CHAIN LINK FENCE	—	—
CENTERLINE	—	—
RETAINING WALL	—	—
TOP OF ASPHALT ELEV.	TA 16.2	TA 16.2

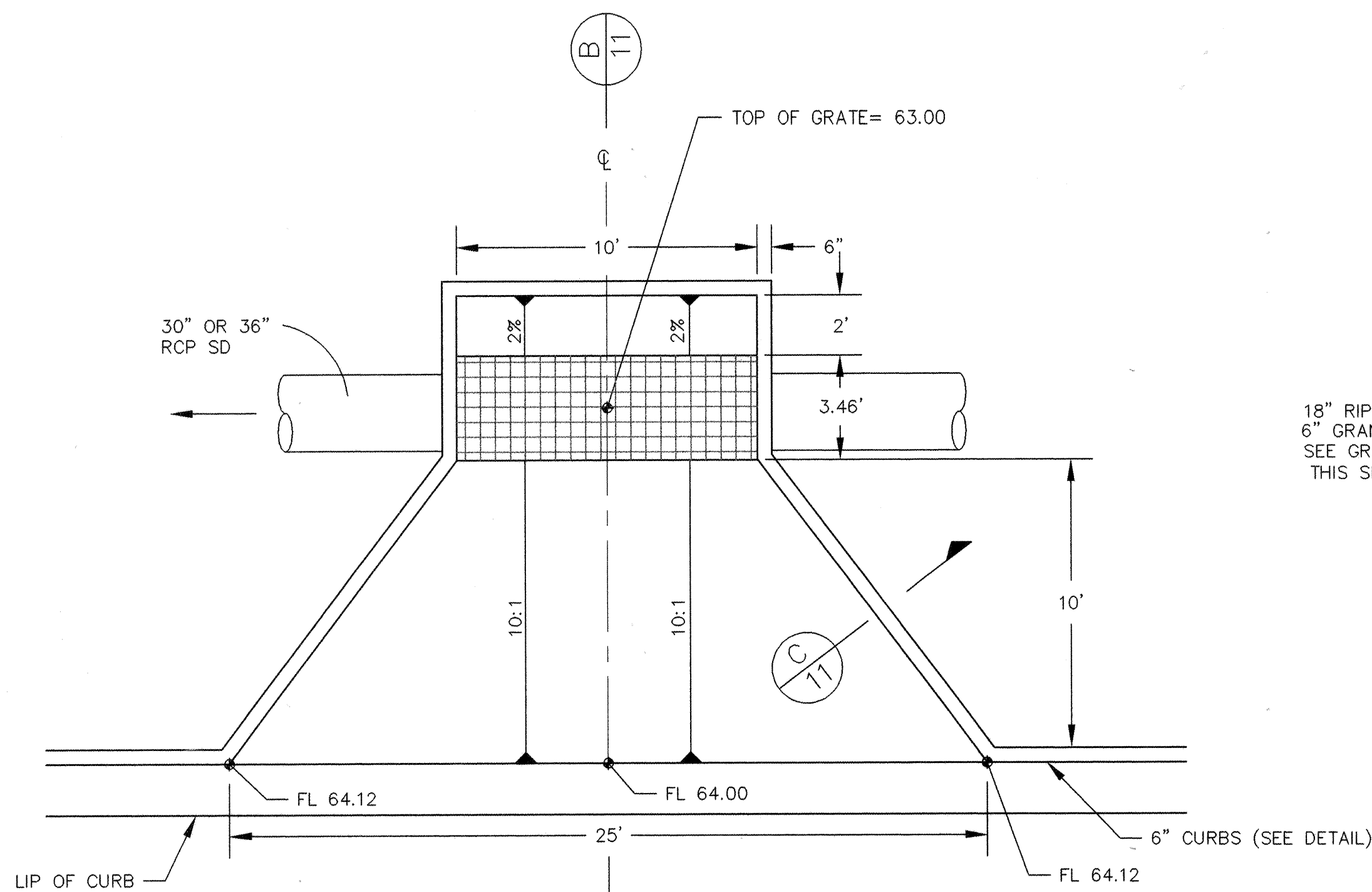
- KEYED NOTES ○
- 6" CONC CURB & GUTTER BY OTHERS – NOT IN CONTRACT.
 - ASPHALT PAVING BY OTHERS – NOT IN CONTRACT.
 - EXISTING CHAIN LINK FENCE.
 - 6" AC CURB BY OTHERS – NOT IN CONTRACT.



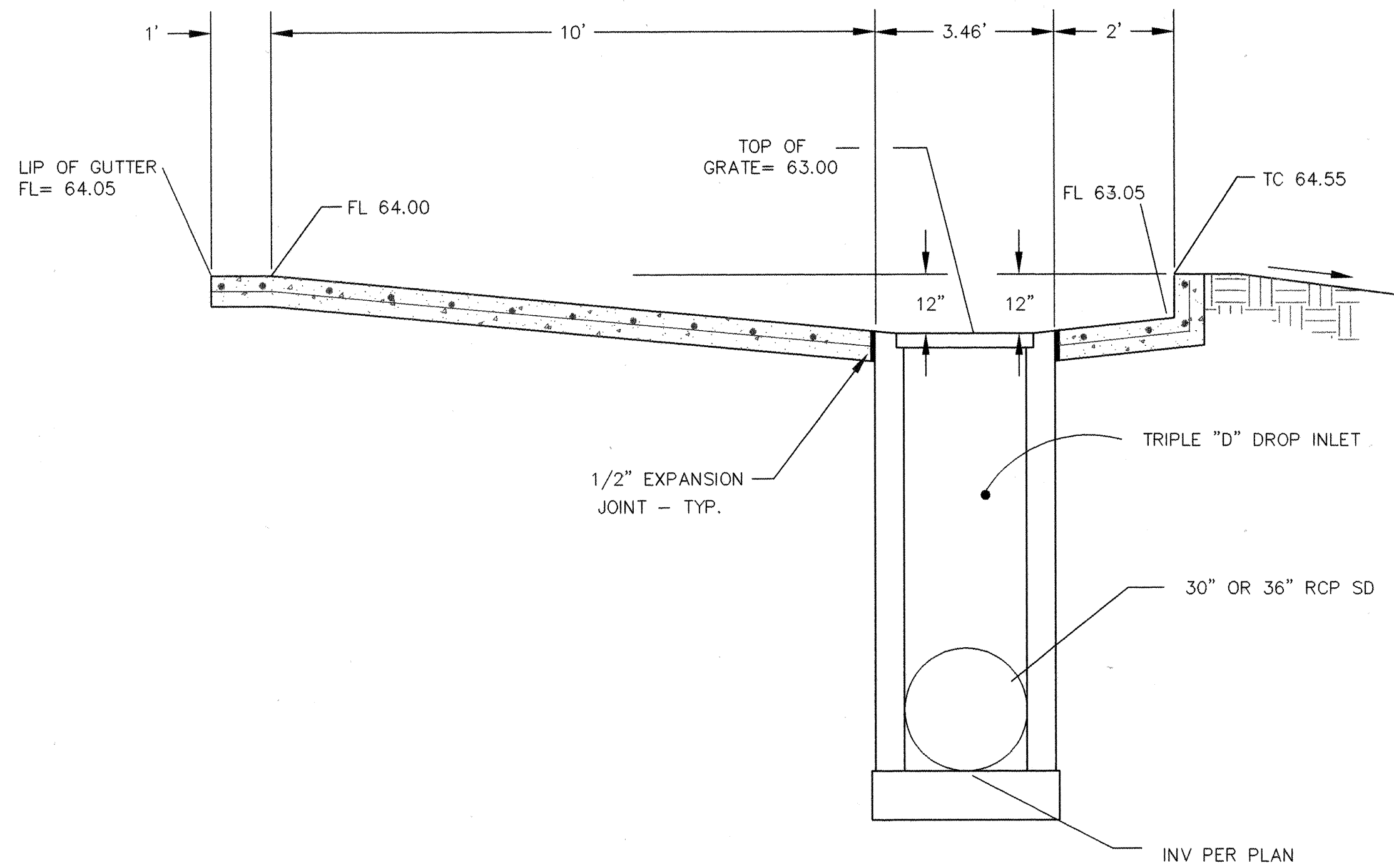
BLI BRASHER & LORENZ, INC.
Consulting Engineers
2201 San Pedro NE Building 1 Suite 210
Albuquerque, New Mexico 87110
Ph: 505-888-6088 Fax: 505-888-6188

CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP	
TITLE: SUNPORT PARK PRIVATE STORM DRAIN E	
Design Review Committee APPROVED JUL 29 1998	City Engineer Approval
Mo./Day/Yr.	Mo./Day/Yr.
City Project No. 5651.82	Zone Map No. M-15
Sheet 11	Of 24

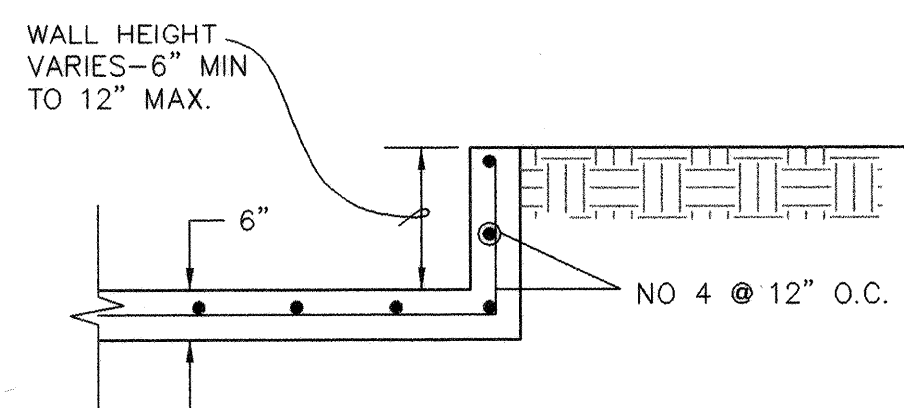
AS BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL		REVISIONS		DESIGNED BY		DRAWN BY		CHECKED BY	
CONTRACTOR	DATE	WORK	DATE	NO.	BY	DATE	DATE	NO.	DATE	DESIGNED BY	DATE	DRAWN BY	DATE	CHECKED BY	DATE
CONTRACTOR: Marquez Surveying Co., Inc.	DATE: 4-1999	WORK: ENGINEERS INC. STAMPED HV-14 RESET 1974	DATE: 7/97							S.M.	3/97	A.S.C.	3/97	D.A.L.	3/97
FIELD ACCEPTANCE BY	DATE	FLUSH WITH THE GROUND, LOCATED ABOUT													
DRAWINGS	DATE	350 FT SOUTH OF VIEWPOINT ROAD, 0.15													
CORRECTED BY	DATE	MILES WEST OF YALE BLVD.													
RECORDED BY	DATE	ELEVATION= 5259.9													



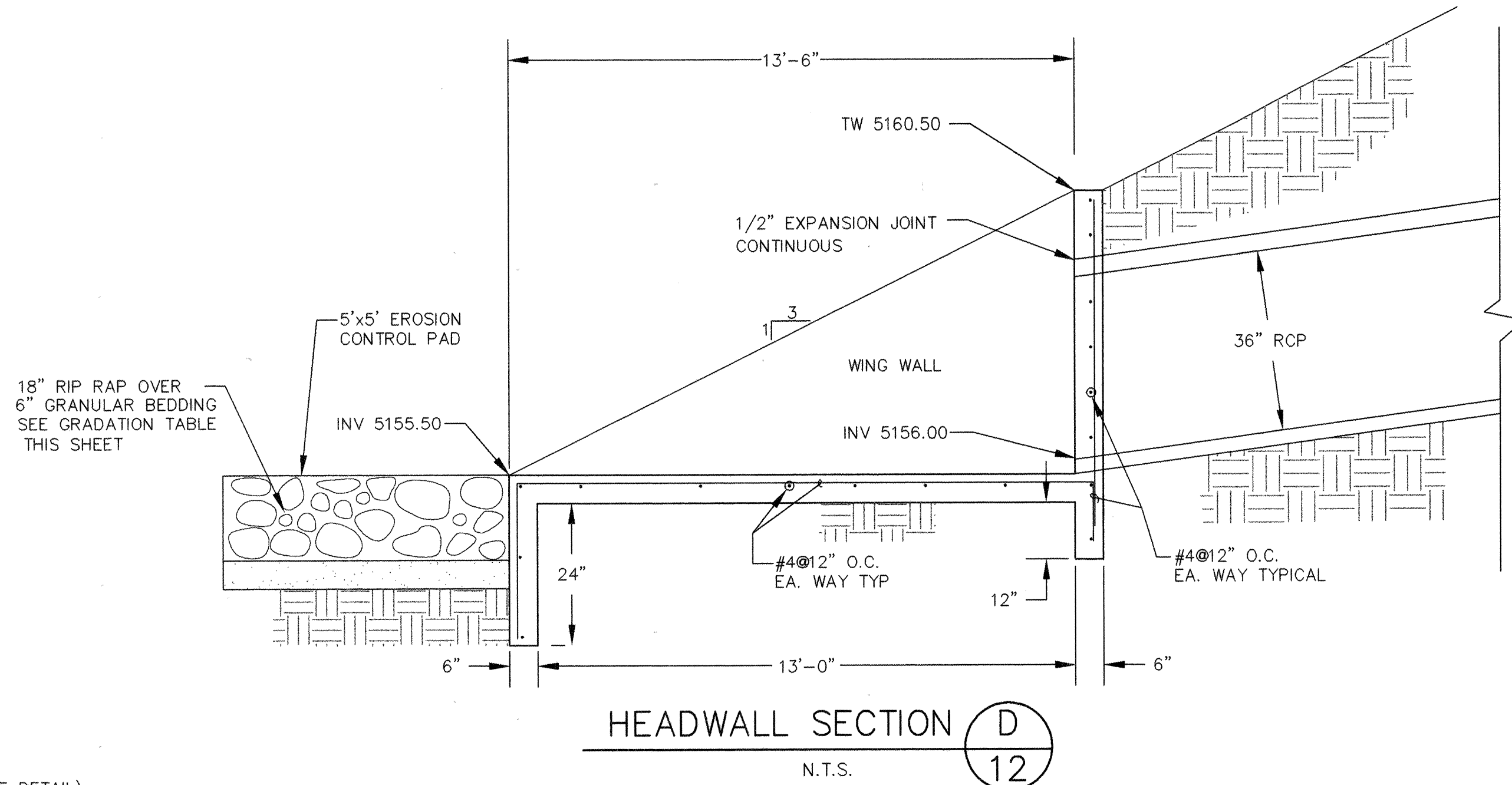
CHANNEL INLET DETAIL (A) SCALE 1" = 40'



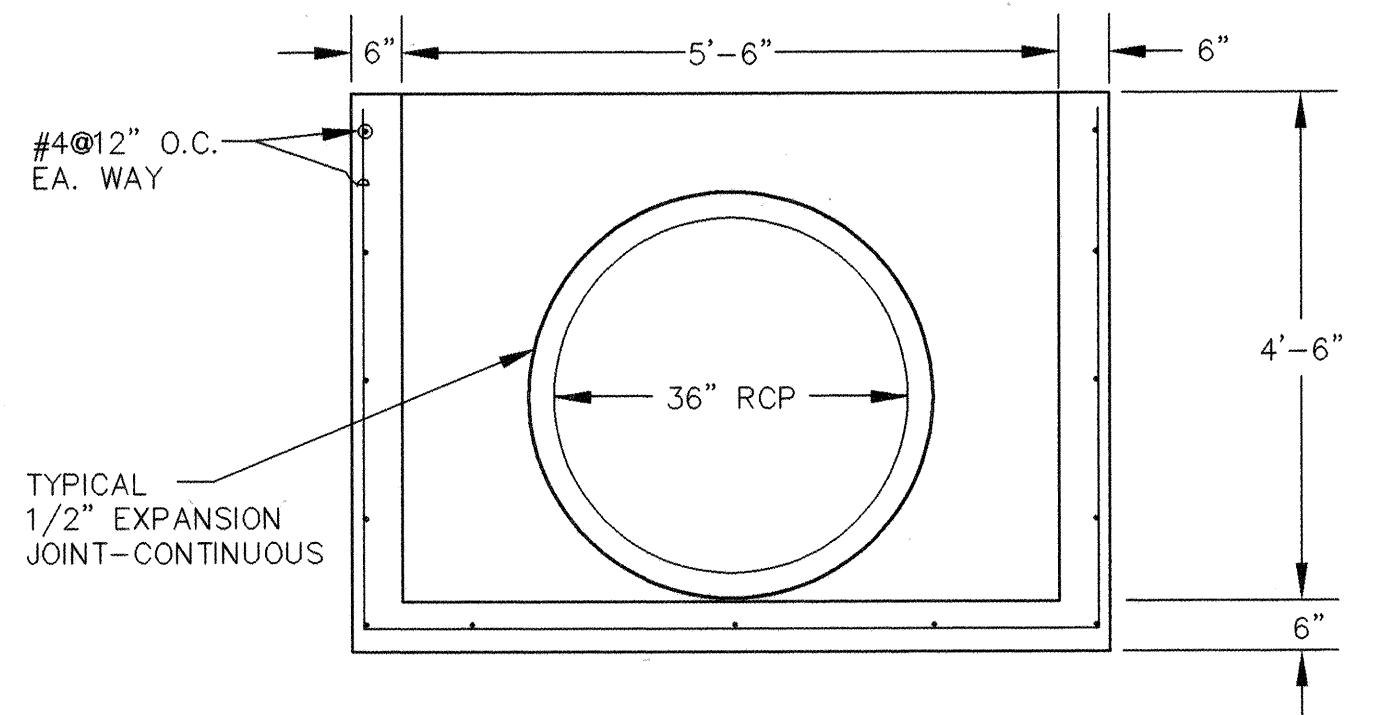
CHANNEL INLET SECTION (B) SCALE 1" = 2'



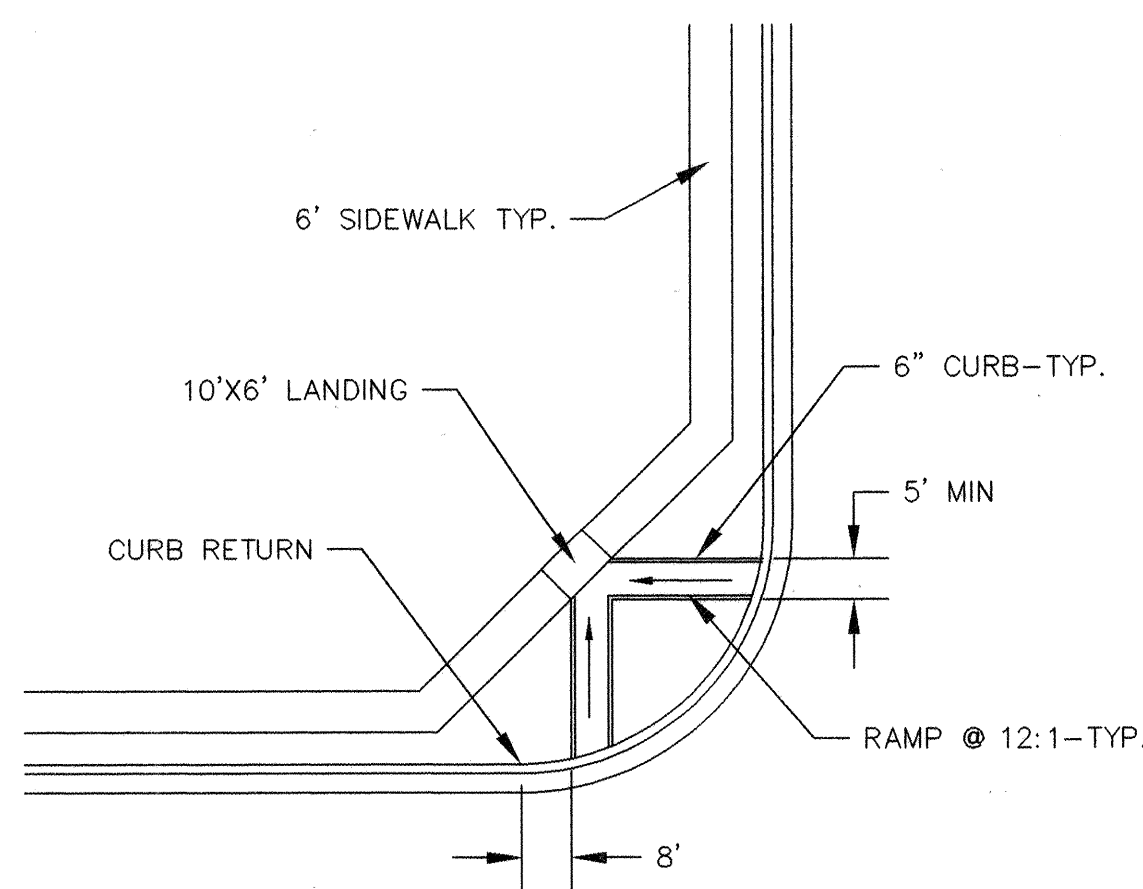
CHANNEL WALL SECTION (C) SCALE 1" = 2'



HEADWALL SECTION (D) N.T.S.

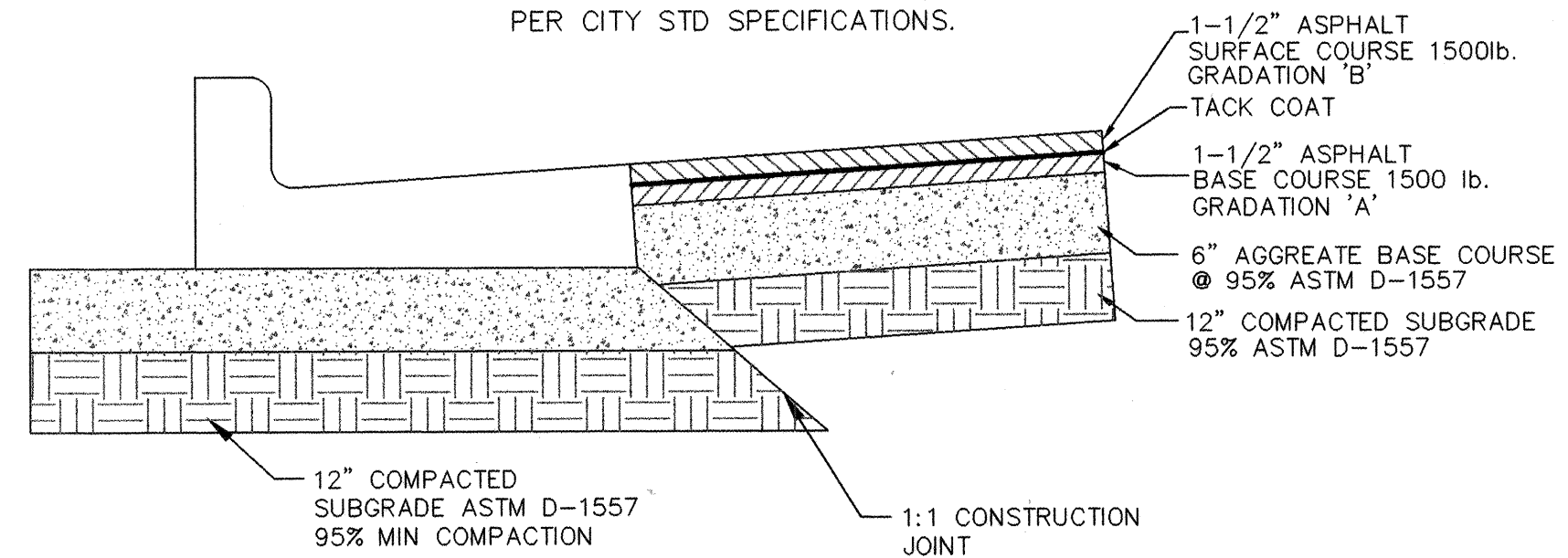


HEADWALL SECTION (E) N.T.S.



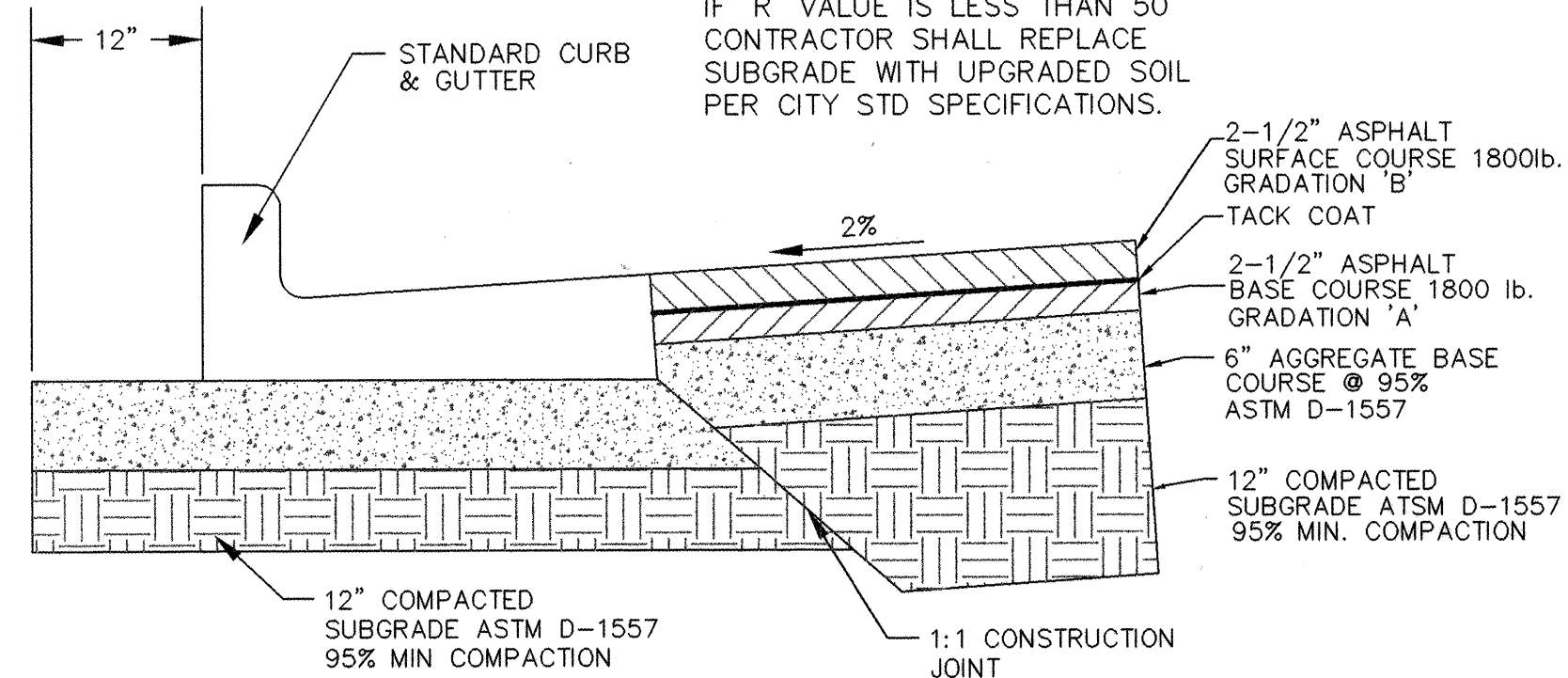
CURB ACCESS RAMP DETAIL (F) N.T.S.

NOTE (A): IF 'R' VALUE IS LESS THAN 50 CONTRACTOR SHALL REPLACE SUBGRADE WITH UPGRADED SOIL PER CITY STD SPECIFICATIONS.



TRANSPORT PAVEMENT SECTION (G) N.T.S.

NOTE (A): IF 'R' VALUE IS LESS THAN 50 CONTRACTOR SHALL REPLACE SUBGRADE WITH UPGRADED SOIL PER CITY STD SPECIFICATIONS.

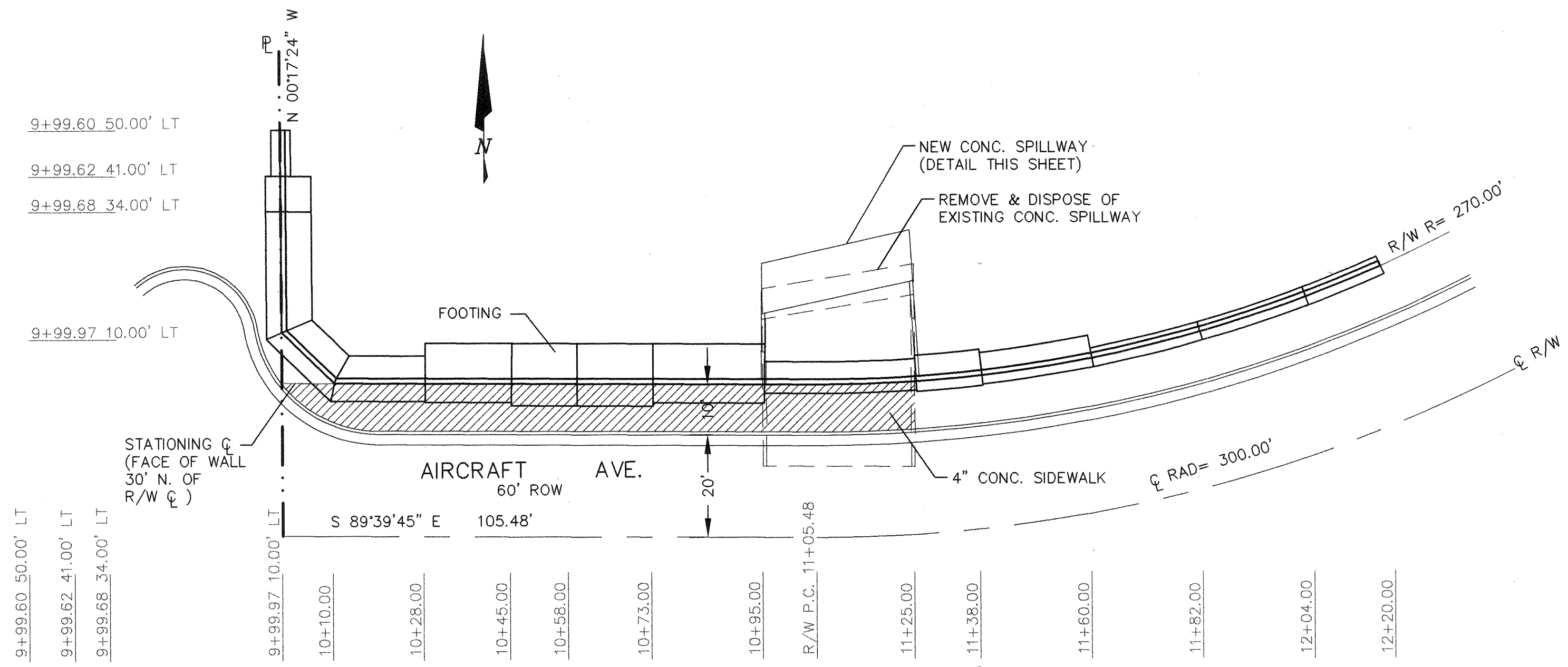


AIRCRAFT PAVEMENT SECTION (H) N.T.S.

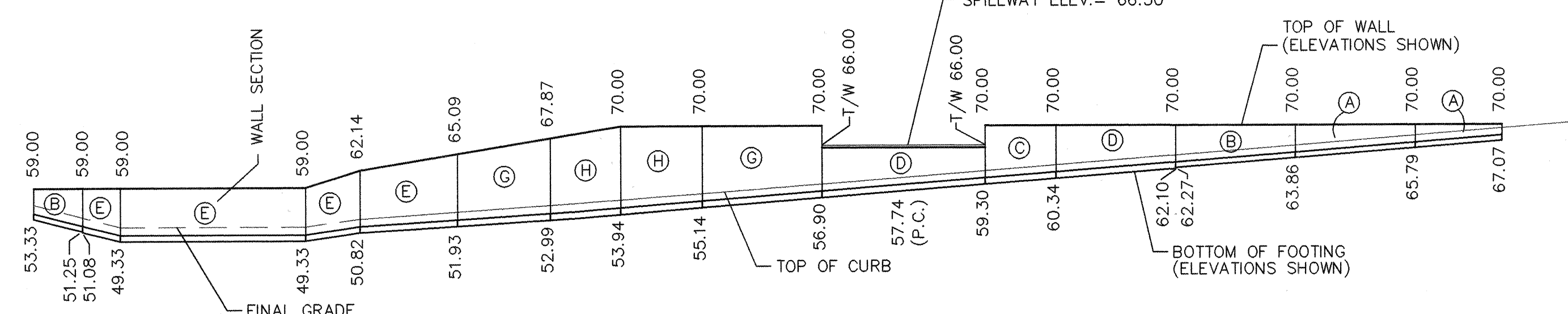
GRADATION FOR RIP RAP	
MIN DIMENSION	%SMALLER BY WEIGHT
12"	70-100
9"	50-70
6"	35-50
2"	2-10
GRADATION FOR GRANULAR BEDDING	
SIEVE SIZE	%SMALLER BY
12"	90-100
3/4"	20-90
#4	0-20
#16	---
#50	---
#100	---
#200	---
All rip-rap shall be angular rock and free from creaks. No shale, no broken concrete and no cobble will be accepted.	

BLI BRASHER & LORENZ, INC. Consulting Engineers
2201 San Pedro NE Building 1 Suite 210
Albuquerque, New Mexico 87110
Ph: 505-888-6088 Fax: 505-888-6188

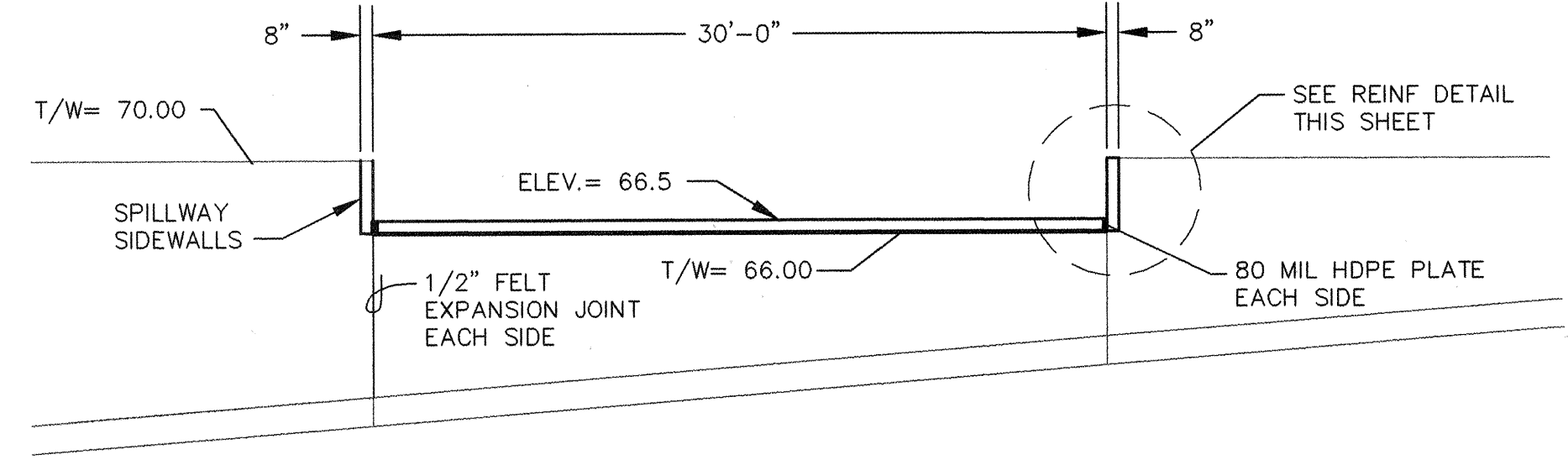
CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP			
TITLE: SUNPORT PARK MISCELLANEOUS DETAILS			
Design Review Committee APPROVED JUL 29 1998 DESIGN REVIEW COMMITTEE	City Engineer Approval	Mo./Day/Yr.	Mo./Day/Yr.
City Project No. 5651.82	Zone Map No. M-15	Sheet 12	Of 24



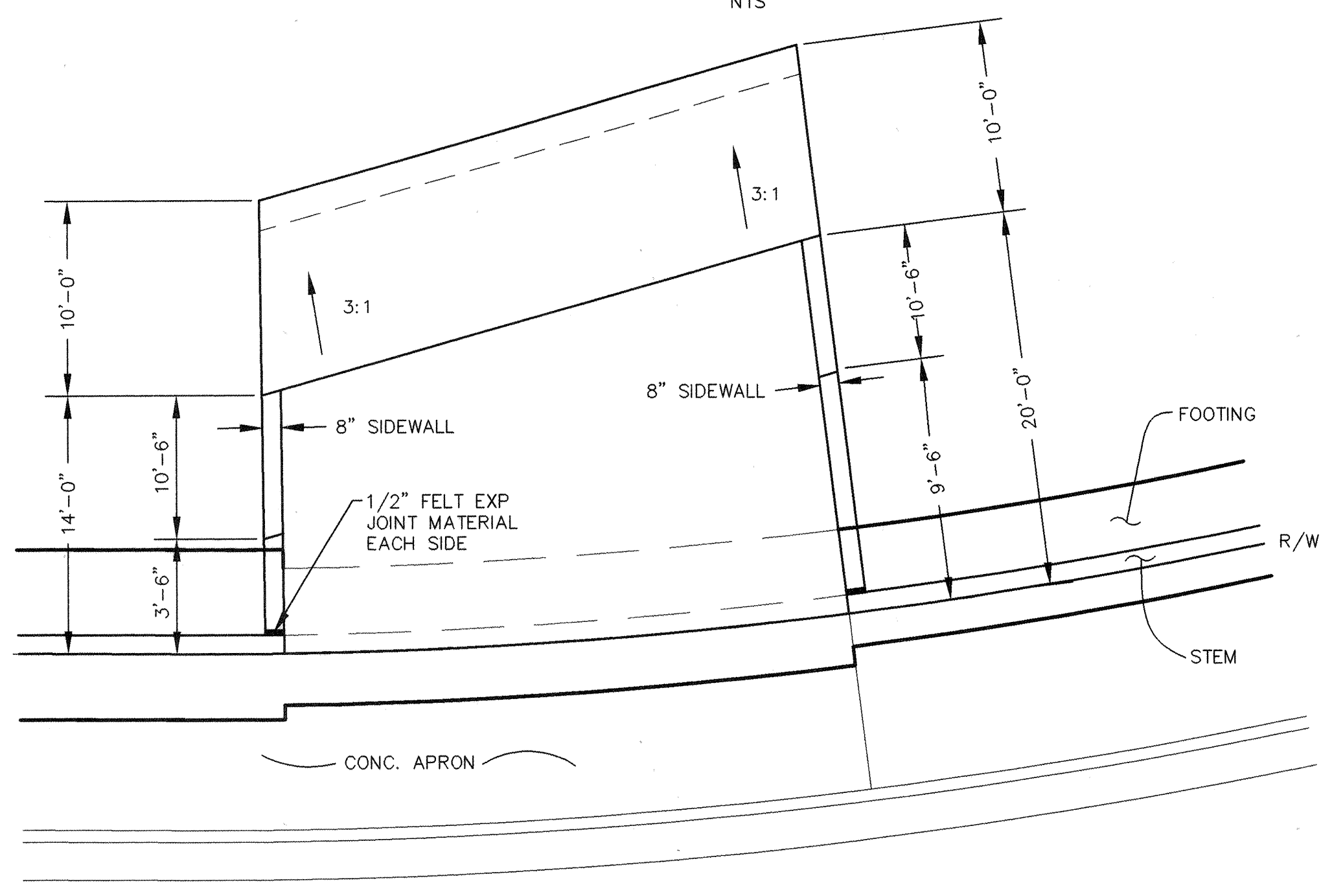
RETAINING WALL - PLAN
SEE PLAN & PROFILE SHEET FOR
AIRCRAFT AVE. PAVING



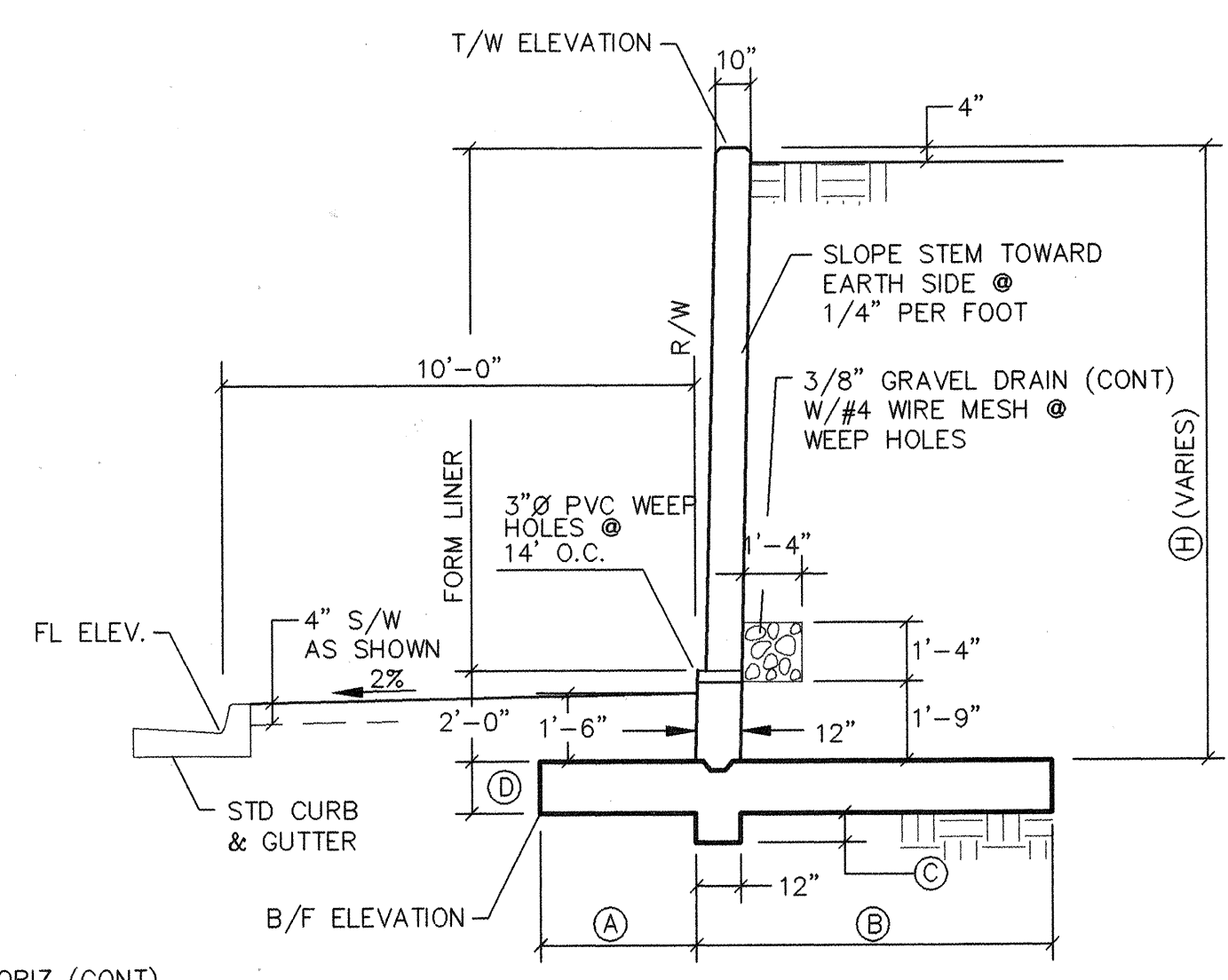
RETAINING WALL - ELEVATION



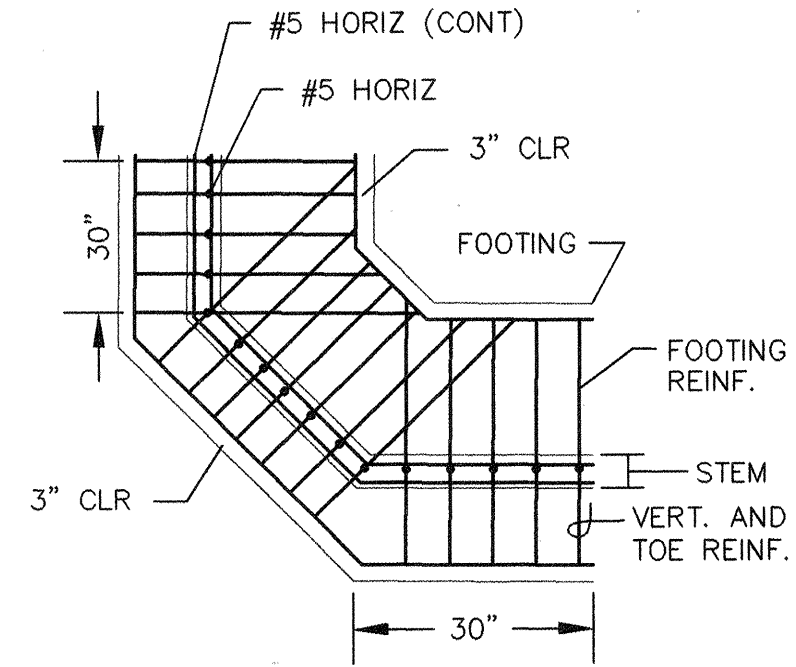
SPILLWAY - ELEVATION



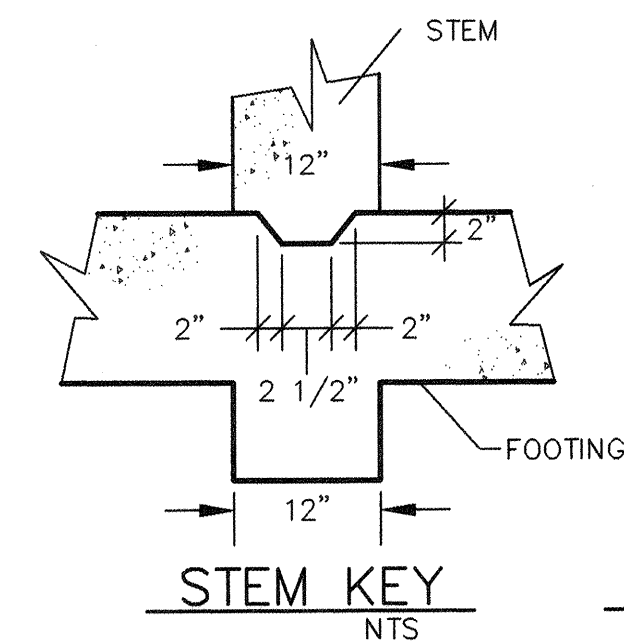
SPILLWAY - PLAN



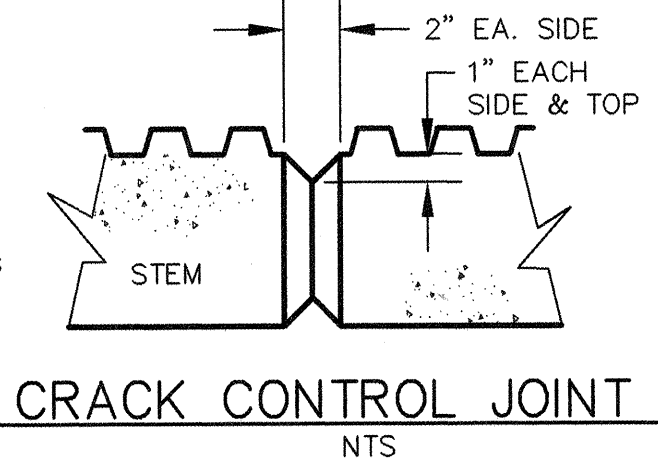
SECTION



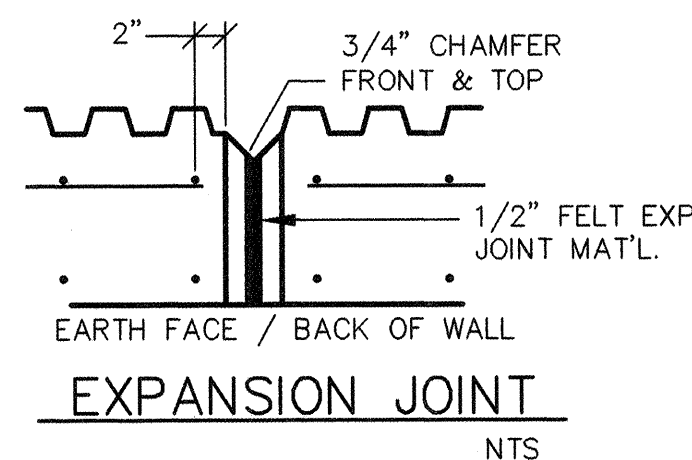
CORNER REINFORCEMENT DETAIL



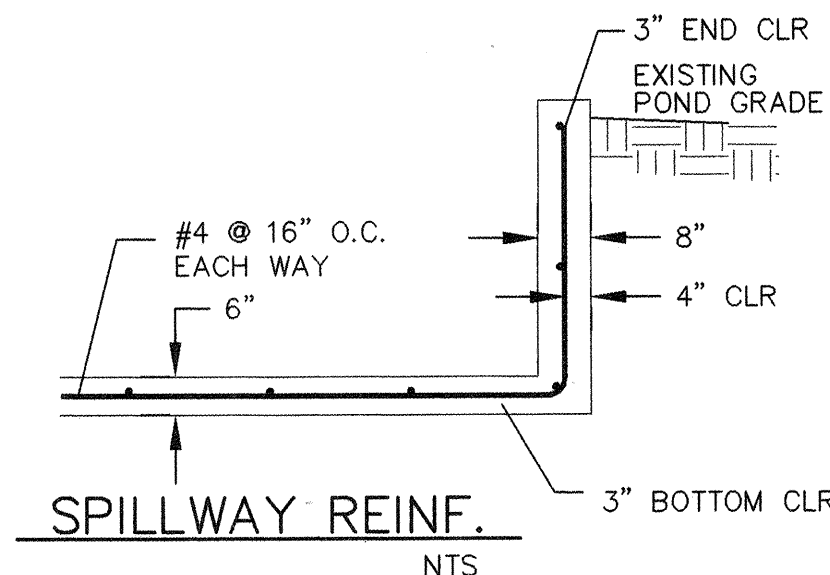
STEM KEY



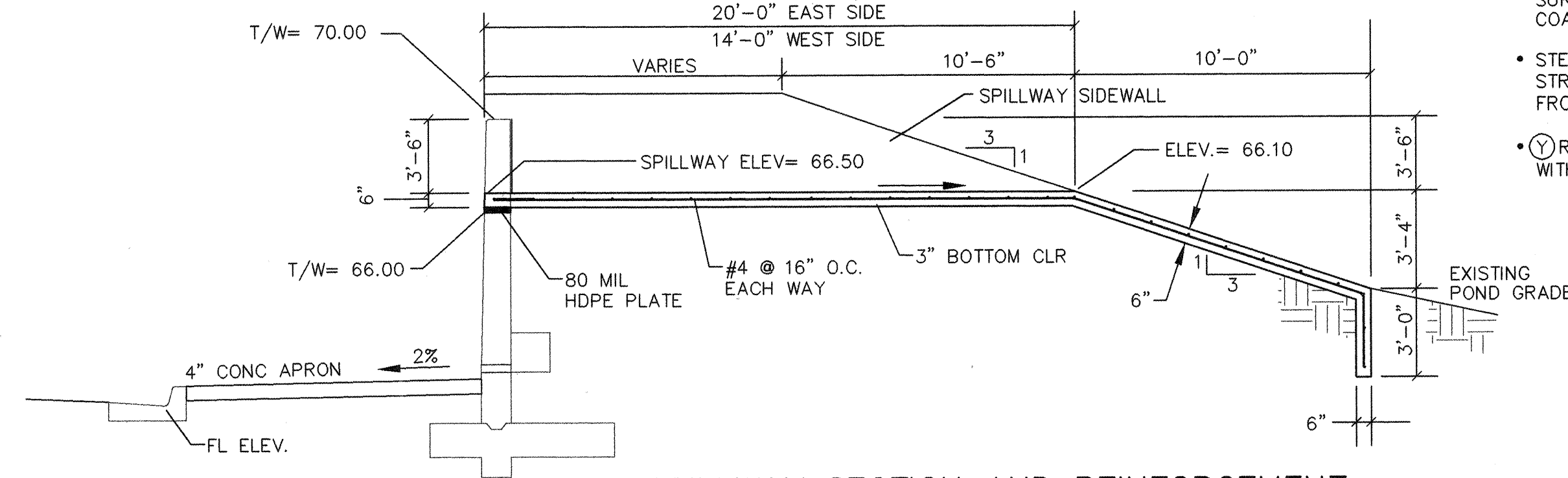
CRACK CONTROL JOINT



EXPANSION JOINT



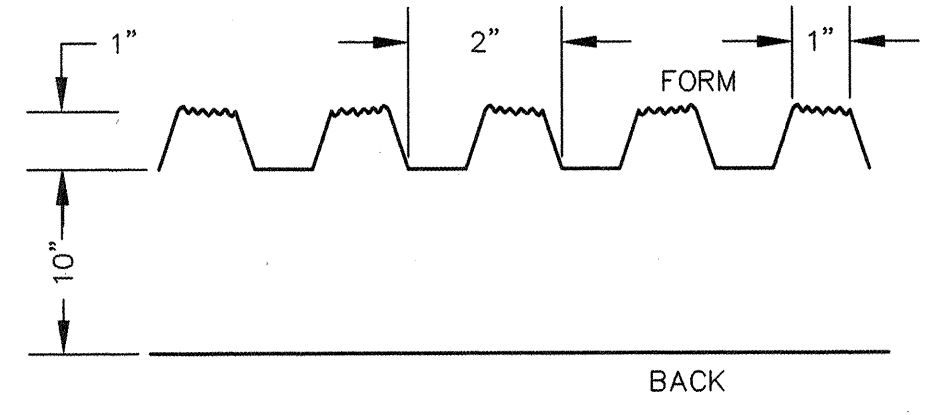
SPILLWAY REINF.



SPILLWAY SECTION AND REINFORCEMENT

- NOTES**
- f'_c = 4000 psi @ 28 DAYS; MAX. AGGREGATE SIZE = 3/4"
 - f_y = 60,000 psi (ASTM A-615 GR.60)
 - FOOTING SUBGRADE AND BASE SHALL BE EXCAVATED TO UNDISTURBED MATERIAL AND BACKFILLED IN 8" LIFTS COMPACTED TO 95% MOD. PROCTOR PER ASTM D-1557
 - 1/2" FELT EXPANSION JOINTS SHALL BE INSTALLED AT 30' ON CENTER AND/OR AT SECTION CHANGE.
 - ALL CONCRETE VERTICAL SURFACES TO BE BACKFILLED SHALL BE COATED W/EMULSIFIED ASPHALT
 - STEM CRACK CONTROL JOINTS ARE TO BE STRUCK OR FORMED @ 10' O.C. ON BACK, FRONT, AND TOP OF STEM
 - REINFORCEMENT MAY BE SUBSTITUTED WITH EXTENSION OF (X) REINFORCEMENT

- WALLS ARE DESIGNED ASSUMING: UNIT WEIGHT OF BACKFILL = 115 PCF CONCRETE/SOIL COEFF. OF FRICTION = 0.35 ALLOWABLE SOIL BEARING PRESSURE = 1500 PSF ACTIVE PRESSURE = 44 PSF/FT SLOPE ACTIVE PRESSURE = 44 PSF/FT PASSIVE PRESSURE = 400 PSF/FT
- STEM KEY IS REQUIRED IF STEM IS NOT POURED MONOLITHIC WITH FOOTING
- FRONT FACE OF STEM SURFACE AS INDICATED IN DRAWINGS SHALL BE FORMED USING GREENSTREAK ARCHITECTURAL FORM LINERS PATTERN NO. 367, FRACTURED RIB RUNNING VERTICALLY, AS MFR'D. BY GREENSTREAK PLASTIC PRODUCTS CO., INC., OR EQUIVALENT TO BE APPROVED BY THE ENGINEER. LINER MOCK-UP, FABRICATION, PREPARATION, INSTALLATION, AND REMOVAL TO COMPLY WITH MFR'S. RECOMMENDATIONS.



CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

TITLE: SUNPORT PARK
MISCELLANEOUS DETAILS - RETAINING WALL & SPILLWAY

DESIGN REVIEW COMMITTEE City Engineer Approval

APPROVED JUL 29 1998

City Project No. 5651.82 Zone Map No. M-15 Sheet 13 Of 24

AS BUILT INFORMATION

CONTRACTOR: *Maquere Surveying & Eng.* DATE: *4-1999*

INSPECTOR: *Maquere Surveying & Eng.* DATE: *4-1999*

FIELD ENGINEER: *Maquere Surveying & Eng.* DATE: *4-1999*

REVISIONS

NO. DATE BY

DESIGNED BY: DAL DATE: 6/98
DRAWN BY: MDT DATE: 6/98
CHECKED BY: DAL DATE: 6/98

ENGINEER'S SEAL

P.L. BRASHER
NEW MEXICO
REGISTERED PROFESSIONAL ENGINEER
No. 12282
Exp. 12/31/00

SURVEY INFORMATION

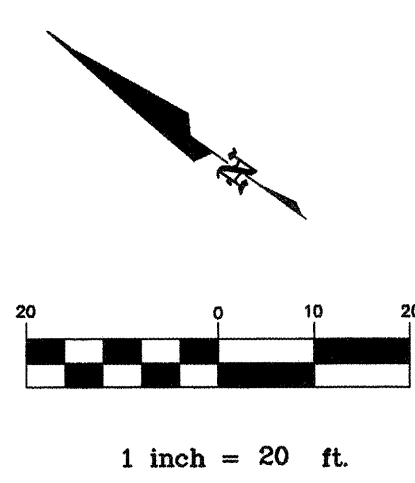
ACS BRASS TABLET (CASTINGS: LIMBAUGH ENGINEERS INC. STAMPED HV-14 REST 1974 ACS) SET IN TOP OF A CONCRETE POST FLUSH WITH THE GROUND. LOCATED ABOUT 350 FT SOUTH OF VIEWPOINT ROAD, 0.15 MILES WEST OF YALE BLVD.

ELEVATION = 5259.9

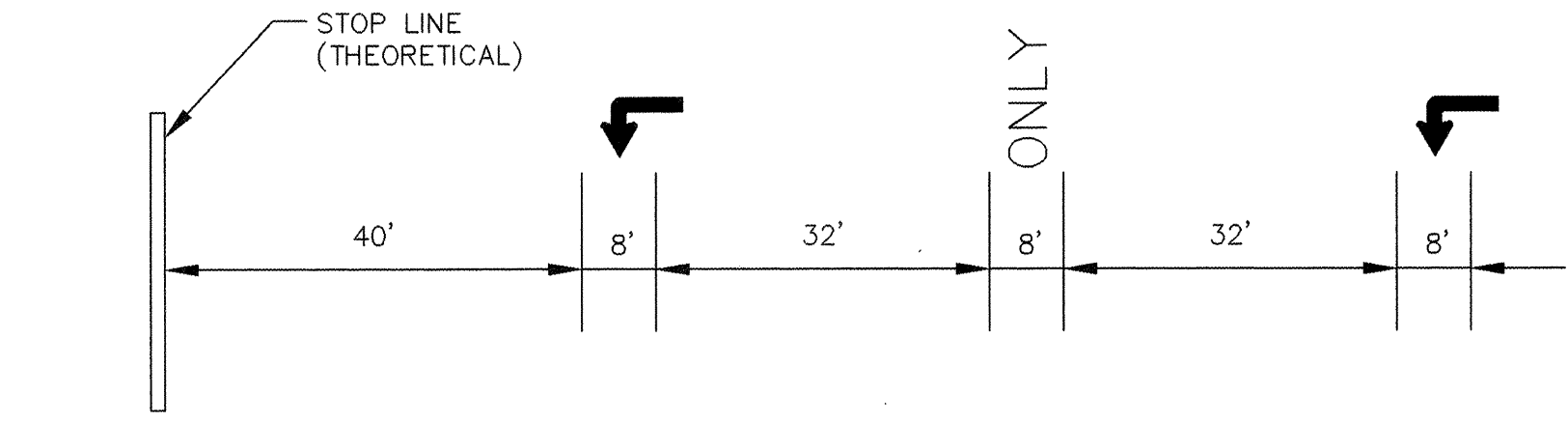
1. ALL WORK ON THESE PLANS TO BE PERFORMED UNDER THIS CONTRACT SHALL CONFORM TO THE CURRENT NATIONAL ELECTRIC CODE, THE STANDARDS OF THE NATIONAL BOARD OF FIRE UNDERWRITERS FOR ELECTRICAL WIRING AND APPARATUS, AND THE CITY'S TRAFFIC ENGINEERING OPERATIONS THIRD DRAFT SPECIFICATIONS (JUNE 1994).
2. LOCATIONS OF CONDUITS, FOUNDATIONS, CONTROL CABINETS, POLES, PULL BOXES, MANHOLES, AND SPLICE CABINETS SHOWN ON THE PLANS ARE SCHEMATIC AND SHALL BE ADJUSTED IN THE FIELD TO MAXIMIZE CLEAR SPACE AVAILABLE FOR PEDESTRIANS AND WHEELCHAIRS TO COMPLY WITH THE AMERICANS WITH DISABILITIES ACT. THE CONTRACTOR SHALL MEET WITH THE CITY'S TRAFFIC ENGINEERING OPERATIONS PERSONNEL IN THE FIELD AT ALL LOCATIONS TO SPOT EQUIPMENT BEFORE BEGINNING THE WORK. ALL SUCH EQUIPMENT SHALL BE INSTALLED WITHIN THE RIGHT-OF-WAY.
3. THE CONTRACTOR IS WARNED THAT EXISTING CONDUITS MAY CONTAIN AC POWER AND CAUTION SHALL BE EXERCISED IN INTERCEPTING OR INSTALLING CABLE IN EXISTING CONDUIT.
4. THE CONTRACTOR SHALL BORE, DRILL, OR PUSH WHEN CROSSING EXISTING PAVEMENTS AND ANY DRIVEWAYS FOR SIDE STREET CROSSINGS. BEFORE CONDUIT CAN BE BORED, DRILLED, OR PUSHED THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES. THE CONTRACTOR SHALL LOCATE AND EXPOSE GAS LINES WHICH CROSS ANY PROPOSED BORES. THESE EXCAVATIONS SHALL REMAIN OPEN UNTIL AFTER THE BORE IS COMPLETE. CONTRACTOR SHALL REMOVE AND REPLACE IN KIND ANY SIDEWALK OR PAVEMENT REQUIRED TO EXPOSE SUCH LINES. THE CONTRACTOR MAY CUT, TRENCH, AND REPLACE EXISTING PAVEMENT ONLY WHEN APPROVED BY THE PROJECT MANAGER.
5. SPLICING OF COMMUNICATIONS CABLE WILL NOT BE PERMITTED IN PULL BOXES. SPLICING OF COMMUNICATIONS CABLE (CONNECTIONS) WILL BE PERMITTED ONLY AT SPLICE CABINETS OR CONTROLLER CABINETS WITH SPLICE BARS. SPLICING OF TRAFFIC SIGNALS MCC WILL BE PERMITTED IN LARGE PULL BOXES INCLUDING LARGE MEDIAN PULL BOXES. SPLICING OF VIDEO DETECTION COAXIAL CABLE WILL NOT BE PERMITTED FROM THE MASTARM BASE TO THE CONTROLLER CABINET. SPLICING OF OPTICAL DETECTOR CABLE WILL NOT BE PERMITTED FROM THE DETECTOR TO THE CONTROLLER CABINET.
6. ALL LOOP LEAD-IN CABLES SHALL BE TAGGED AT THE CONTROL CABINET TO IDENTIFY EACH CABLE BY PHASE AND LOOP NUMBER. ALL VIDEO DETECTION COAXIAL AND POWER CABLES SHALL BE TAGGED AT THE CONTROL CABINET TO IDENTIFY EACH CABLE BY CAMERA NUMBER AND LOCATION. ALL OPTICAL DETECTOR CABLE SHALL BE TAGGED AT THE CONTROL CABINET TO IDENTIFY EACH BY DIRECTION AND LOCATION.
7. ALL PULL BOXES SHALL BE REINFORCED POLYMER MORTAR HEAVY DUTY TYPE WITH REINFORCED POLYMER MORTAR HEAVY DUTY COVERS. CONCRETE COVERS, STEEL COVERS, AND CONCRETE PULL BOXES WILL NOT BE ACCEPTABLE.
8. THE CONTRACTOR SHALL NOTIFY THE CITY OF ALBUQUERQUE TRAFFIC ENGINEERING OPERATIONS(857-8000) THREE WORKING DAYS IN ADVANCE OF ANY ANTICIPATED WORK ON SIGNALS, LIGHTING, AND POWER SERVICES. TRAFFIC ENGINEERING OPERATIONS PERSONNEL WILL ASSIST THE CONTRACTOR IN FIELD LOCATION OF EQUIPMENT, COLOR CODING OF WIRING, AND MUST BE PRESENT WHEN SIGNALS AND LIGHTING ARE SHUT-OFF OR TURNED ON. THE CONTRACTOR SHALL ALSO NOTIFY THE CITY OF ALBUQUERQUE TRAFFIC ENGINEERING OPERATIONS EACH TIME A TRAFFIC SIGNAL CONTROL DOOR IS OPENED.
9. THE CONTRACTOR SHALL NOTIFY PUBLIC SERVICE COMPANY 30 DAYS IN ADVANCE OF ANTICIPATED POWER SERVICE CONNECTIONS. THE CONTRACTOR SHALL COORDINATE WITH PUBLIC SERVICE COMPANY TO ESTABLISH ELECTRICAL SERVICE IN THE CITY'S NAME. THE CONTRACTOR SHALL PAY THE LOCAL POWER COMPANY ALL COSTS TO PROVIDE ELECTRICAL SERVICE. THIS WORK WILL BE CONSIDERED INCIDENTAL TO CONSTRUCTION.
10. THE CONTRACTOR SHALL REMOVE ALL CONFLICTING SIGNING AND DELIVER TO THE CITY TRAFFIC ENGINEERING YARDS WHEN TRAFFIC SIGNALS ARE PUT INTO OPERATION.
11. LIVE UNUSED CONDUCTORS WILL NOT BE ALLOWED AT MASTARM POLES AND PEDESTAL POLES. ALL SUCH UNUSED CONDUCTORS SHALL BE DISCONNECTED AT THE LARGE PULL BOX ADJACENT TO THE POLE.
12. IF TRENCH WIDTHS LESS THAN 12" ARE PROPOSED BY THE CONTRACTOR, APPROVED COMPACTION METHODS SHALL BE USED DURING BACKFILL TO PREVENT LATENT TRENCH FAILURES. THE CONTRACTOR SHALL USE GROUT OR LEAN FILL AS APPROVED BY THE PROJECT MANAGER IN LIEU OF EARTH BACKFILL.
13. FOR CONDUITS CONTAINING ONLY LOW VOLTAGE COMMUNICATIONS CABLES, THE REQUIREMENTS FOR A SINGLE CONDUCTOR BARE COPPER #8 AWG MAY BE WAIVED WHERE PERMITTED BY THE NATIONAL ELECTRIC CODE.
14. THE CITY OF ALBUQUERQUE TRAFFIC ENGINEERING OPERATIONS PERSONNEL WILL PROVIDE TRAFFIC SIGNAL TIMING PLANS AND WILL PROGRAM TRAFFIC SIGNAL CONTROLLERS.
15. EXISTING CONDUITS TO BE REMOVED OR ABANDONED SHALL HAVE ALL WIRING REMOVED.
16. EXISTING CONDUITS SHALL BE REPAIRED, ADJUSTED, OR REPLACED AS DIRECTED BY THE PROJECT MANAGER WHERE ELECTRICAL PILLBOXES OR TRAFFIC MANHOLES ARE INSTALLED OR REPLACED.
17. CONTRACTOR SHALL COIL EXCESS INTERCONNECT CABLE AT ALL NEW OR EXISTING TRAFFIC MANHOLES BETWEEN SPLICE CABINET OR CONTROL CABINETS WITH SPLICE BARS. IF MORE THAN ONE MANHOLE EXISTS BETWEEN SPLICE CABINETS OR CONTROL CABINETS WITH SPLICE BARS, THEN COILING IS ONLY REQUIRED AT ONE OF THE MANHOLES. THE FOLLOWING QUANTITIES OF COMMUNICATION CABLE SHALL BE COILED:
 - 12 PAIR - 50 FT.
 - 25 PAIR - 50 FT.
 - 50 PAIR - 25 FT.
 - 75 PAIR - 25 FT.
18. THE CONTRACTOR SHALL PROVIDE OFF-DUTY POLICE OFFICERS TO DIRECT TRAFFIC WHEN SIGNALS ARE TURNED OFF.
19. ALL DATA SHOWN HEREIN CONCERNING EXISTING UTILITIES HAS BEEN OBTAINED FROM "AS-BUILT" DRAWINGS AND FROM FIELD OBSERVATIONS WHICH MAY OR MAY NOT BE ACCURATE. THE CONTRACTOR WILL BE RESPONSIBLE FOR EXPLORATORY TRENCHING. IF NECESSARY, TO MORE SPECIFICALLY LOCATE UTILITY LINES. COST OF LOCATING UTILITY LINES INCLUDING EXPLORATORY TRENCHING WILL BE CONSIDERED INCIDENTAL TO CONSTRUCTION.
20. THE CONTRACTOR SHALL VIDEO TAPE THE EXISTING TRAFFIC SIGNAL EQUIPMENT IN VHS FORMAT AND REVIEW THE TAPE WITH CITY OF ALBUQUERQUE TRAFFIC ENGINEERING OPERATIONS PERSONNEL PRIOR TO BEGINNING ANY REMOVALS OF SIGNAL EQUIPMENT. THE TAPE SHALL BECOME THE PROPERTY OF THE CITY AND MAY BE USED TO RESOLVE ANY QUESTIONS RELATED TO THE ORIGINAL CONDITION AND QUALITY OF EXISTING EQUIPMENT. THE EXISTING TRAFFIC SIGNAL EQUIPMENT INCLUDING POLES, CONTROLLER CABINETS, CONFLICT MONITORS, AND DETECTORS SHALL BE DELIVERED TO THE CITY OF ALBUQUERQUE TRAFFIC ENGINEERING YARD ON PINO ROAD NE.
21. INTERCONNECT CABLES SHALL COMPLY WITH REA SPECIFICATION PE-22. INTERCONNECT CABLE SHALL CONTAIN THE NUMBER OF WIRE PAIRS SHOWN ON THE PLANS AND THE INDIVIDUAL CONDUCTORS SHALL BE 19 AWG SOLID.
22. ALL SIGNAL ASSEMBLIES, PEDESTRIAN SIGNALS, PEDESTRIAN PUSH BUTTONS, CABINETS, AND FITTINGS SHALL COMPLY WITH THE CITY OF ALBUQUERQUE TYPE AND COLOR REQUIREMENTS.

1. REMOVAL OF EXISTING PULL BOXES, CONDUITS, OR OTHER SIGNAL EQUIPMENT FOR INSTALLATION OF NEW SIGNAL EQUIPMENT.
2. CABLE TESTING AND DIAGRAMS.
3. BORING, DRILLING, PUSHING, AND TRENCHING, INCLUDING REMOVAL AND REPLACEMENT OF PAVEMENT, SIDEWALKS, DRIVE PADS, VALLEY GUTTERS, WHEELCHAIR RAMPS, CURB & GUTTER, AND LANDSCAPING (INCLUDING SPRINKLERS). FOR INSTALLATION OF PULL BOXES, CONDUITS, AND SIGNAL FOUNDATIONS, EXCEPT AS NOTED ON THE PLANS.
4. LOCATION OF UTILITY LINES INCLUDING EXPLORATORY TRENCHING AND EXPOSING OF GAS LINES WHEN BORING.
5. DESIGN, MATERIALS, INSTALLATION AND REMOVAL OF SAFETY BARRIER FOR SHIELDING EQUIPMENT OR MATERIAL.
6. APPRISING PUBLIC THROUGH THE LOCAL NEWS MEDIA.
7. HAULING OF MATERIAL TO BE DISPOSED TO CITY LANDFILL.
8. REMOVAL, SALVAGE, AND TRANSPORTATION OF EXISTING SIGNAL EQUIPMENT TO THE TRAFFIC ENGINEERING OPERATIONS YARD.
9. LEAN FILL FOR CONDUIT TRENCHES.
10. PULL BOX ADJUSTMENT TO GRADE.
11. OFF-DUTY POLICE OFFICER FOR TRAFFIC CONTROL.
12. REMOVAL AND REPLACEMENT IN KIND OR BETTER OF LANDSCAPING INCLUDING SPRINKLERS, FOR INSTALLATION OF PULL BOXES, CONDUITS AND SIGNAL FOUNDATIONS.
13. COST FOR PUBLIC SERVICE COMPANY TO PROVIDE ELECTRICAL SERVICE.

	CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP																								
TITLE: SUNPORT PARK TRAFFIC SIGNAL NOTES & LEGEND																									
DESIGN REVIEW COMMITTEE JUL 29 1998 DESIGN REVIEW COMMITTEE	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%; text-align: center; vertical-align: top;">CITY ENGINEER APPROVAL</td> <td style="width: 10%; text-align: center; vertical-align: middle;">LAST DESIGN UPDATE</td> <td style="width: 30%; text-align: center; vertical-align: top;">MO./DAY/YR.</td> <td style="width: 30%; text-align: center; vertical-align: top;">MO./DAY/YR.</td> </tr> <tr><td style="height: 30px;"></td><td></td><td></td><td></td></tr> <tr><td style="height: 30px;"></td><td></td><td></td><td></td></tr> <tr><td style="height: 30px;"></td><td></td><td></td><td></td></tr> <tr><td style="height: 30px;"></td><td></td><td></td><td></td></tr> <tr><td style="height: 30px;"></td><td></td><td></td><td></td></tr> </table>	CITY ENGINEER APPROVAL	LAST DESIGN UPDATE	MO./DAY/YR.	MO./DAY/YR.																				
CITY ENGINEER APPROVAL	LAST DESIGN UPDATE	MO./DAY/YR.	MO./DAY/YR.																						
CITY PROJECT NO.	ZONE MAP NO.	SHEET	OF																						
5651.82	M-15	14	26																						



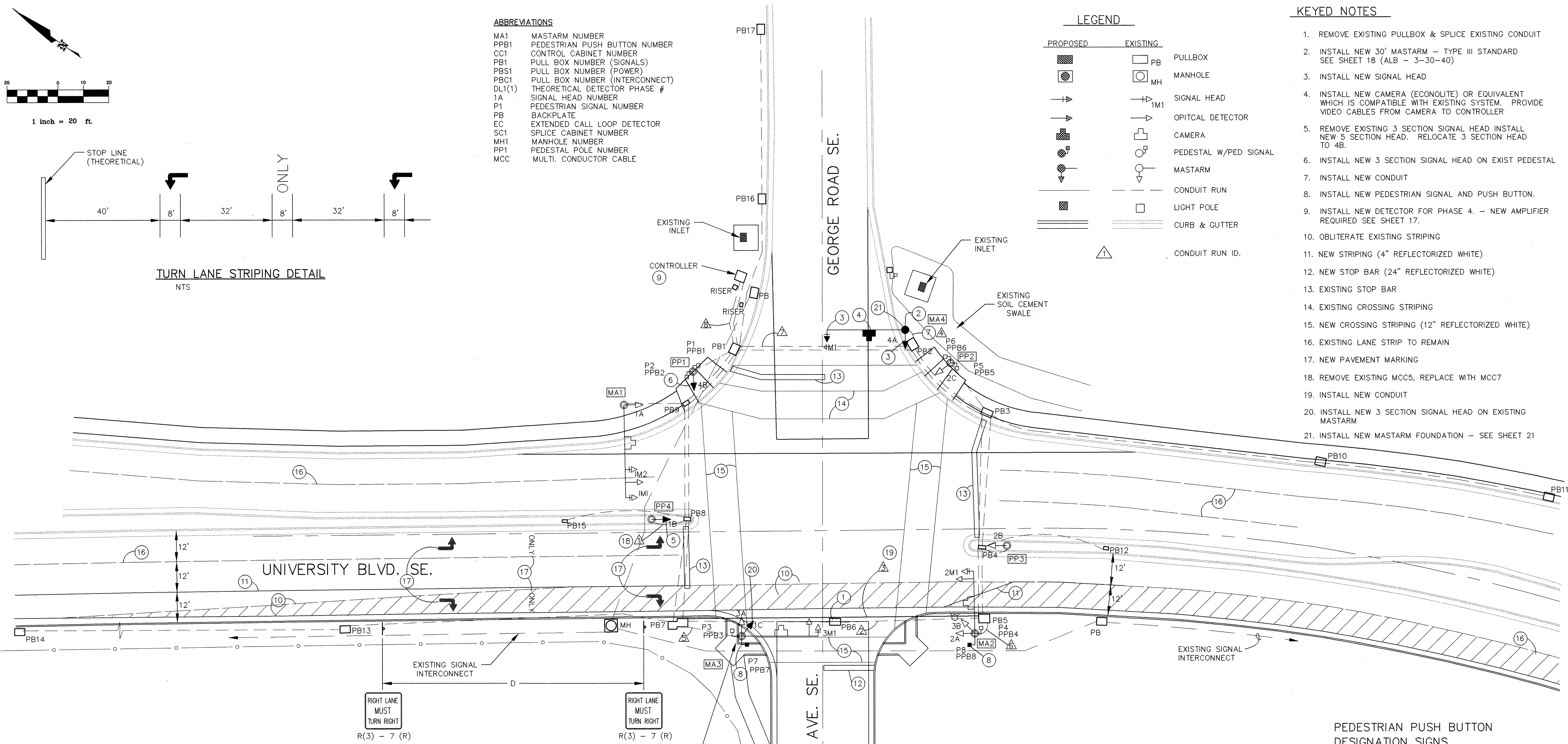
TURN LANE STRIPING DETAIL
NTS



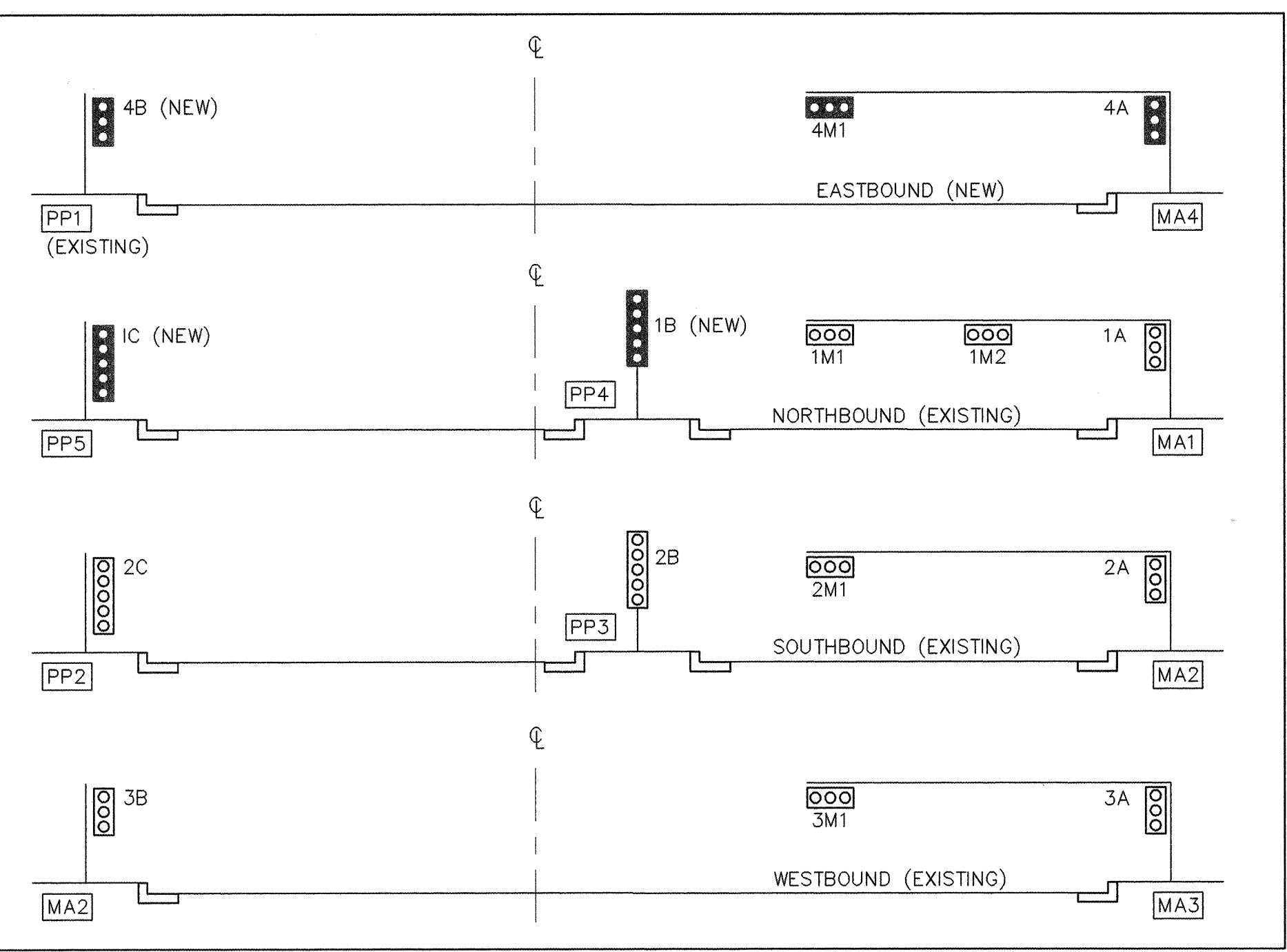
- ABBREVIATIONS**
- MA1 MASTARM NUMBER
 - PPB1 PEDESTRIAN PUSH BUTTON NUMBER
 - CC1 CONTROL CABINET NUMBER
 - PB1 PULL BOX NUMBER (SIGNALS)
 - PBS1 PULL BOX NUMBER (POWER)
 - PBC1 PULL BOX NUMBER (INTERCONNECT)
 - DL1(1) THEORETICAL DETECTOR PHASE #
 - 1A SIGNAL HEAD NUMBER
 - P1 PEDESTRIAN SIGNAL NUMBER
 - PB BACKPLATE
 - EC EXTENDED CALL LOOP DETECTOR
 - SC1 SPLICE CABINET NUMBER
 - MH1 MANHOLE NUMBER
 - PP1 PEDESTAL POLE NUMBER
 - MCC MULTI-CONDUCTOR CABLE

- LEGEND**
- | PROPOSED | EXISTING | DESCRIPTION |
|----------|----------|-----------------------|
| [Symbol] | [Symbol] | PULLBOX |
| [Symbol] | [Symbol] | MANHOLE |
| [Symbol] | [Symbol] | SIGNAL HEAD |
| [Symbol] | [Symbol] | OPTICAL DETECTOR |
| [Symbol] | [Symbol] | CAMERA |
| [Symbol] | [Symbol] | PEDESTAL W/PED SIGNAL |
| [Symbol] | [Symbol] | MASTARM |
| [Symbol] | [Symbol] | CONDUIT RUN |
| [Symbol] | [Symbol] | LIGHT POLE |
| [Symbol] | [Symbol] | CURB & GUTTER |
| [Symbol] | [Symbol] | CONDUIT RUN ID. |

- KEYED NOTES**
1. REMOVE EXISTING PULLBOX & SPLICE EXISTING CONDUIT
 2. INSTALL NEW 30' MASTARM - TYPE III STANDARD SEE SHEET 18 (ALB - 3-30-40)
 3. INSTALL NEW SIGNAL HEAD
 4. INSTALL NEW CAMERA (ECONOLITE) OR EQUIVALENT WHICH IS COMPATIBLE WITH EXISTING SYSTEM. PROVIDE VIDEO CABLES FROM CAMERA TO CONTROLLER
 5. REMOVE EXISTING 3 SECTION SIGNAL HEAD. INSTALL NEW 5 SECTION HEAD. RELOCATE 3 SECTION HEAD TO 4B.
 6. INSTALL NEW 3 SECTION SIGNAL HEAD ON EXIST PEDESTAL
 7. INSTALL NEW CONDUIT
 8. INSTALL NEW PEDESTRIAN SIGNAL AND PUSH BUTTON.
 9. INSTALL NEW DETECTOR FOR PHASE 4. - NEW AMPLIFIER REQUIRED SEE SHEET 17.
 10. OBLITERATE EXISTING STRIPING
 11. NEW STRIPING (4" REFLECTORIZED WHITE)
 12. NEW STOP BAR (24" REFLECTORIZED WHITE)
 13. EXISTING STOP BAR
 14. EXISTING CROSSING STRIPING
 15. NEW CROSSING STRIPING (12" REFLECTORIZED WHITE)
 16. EXISTING LANE STRIP TO REMAIN
 17. NEW PAVEMENT MARKING
 18. REMOVE EXISTING MCC5, REPLACE WITH MCC7
 19. INSTALL NEW CONDUIT
 20. INSTALL NEW 3 SECTION SIGNAL HEAD ON EXISTING MASTARM
 21. INSTALL NEW MASTARM FOUNDATION - SEE SHEET 21

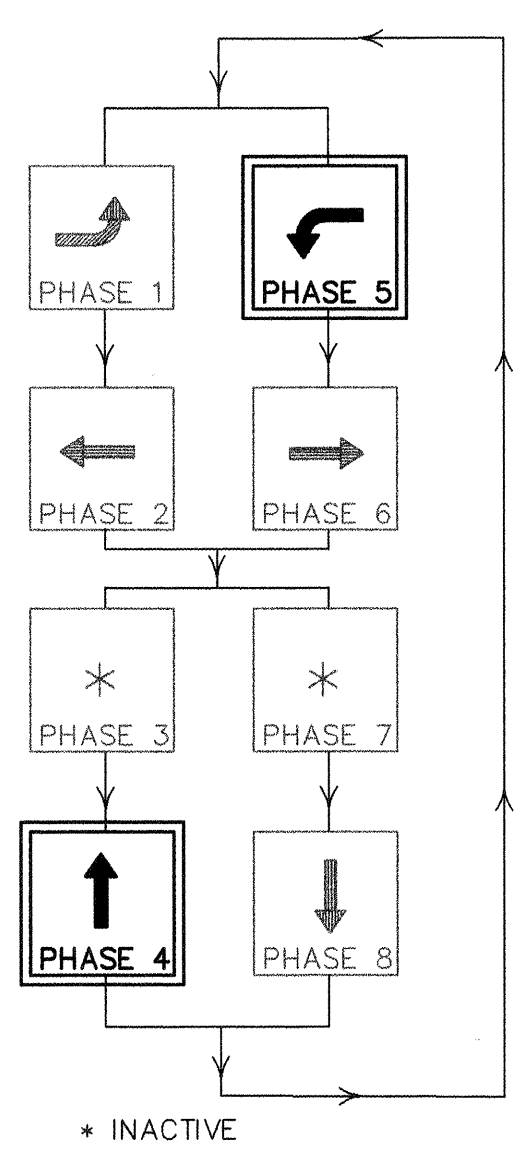


TRAFFIC SIGNAL CONFIGURATION BY APPROACH

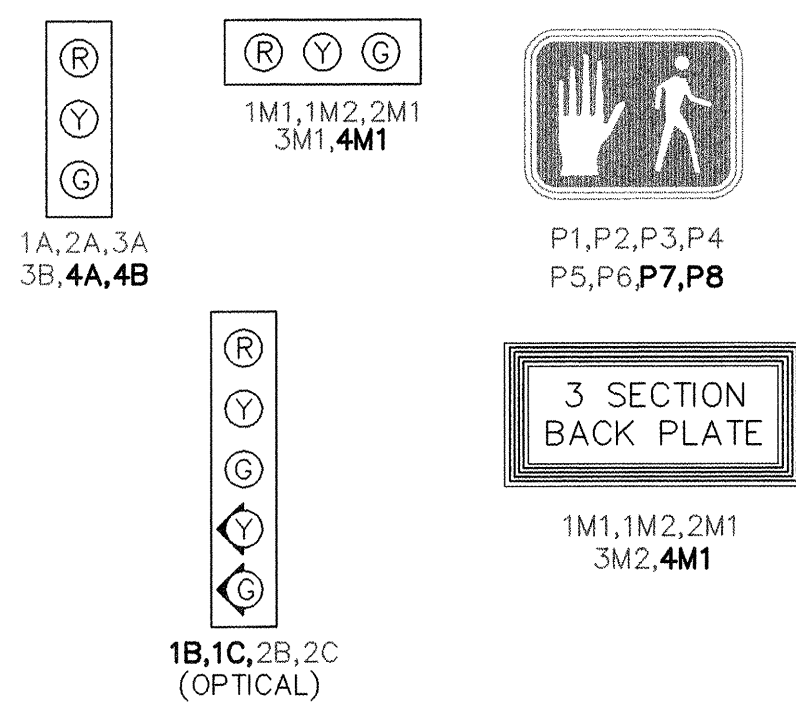


NOTE:
CONTRACTOR SHALL VERIFY EXACT POSITION OF EXISTING MASTARM MA3 (AT NW RETURN) AND DETERMINE CAPABILITY WITH PROPOSED STREET AND SIDEWALK IMPROVEMENTS. THE PROJECT ENGINEER SHALL BE NOTIFIED TO DETERMINE IF RELOCATION OF THE MASTARM IS REQUIRED.

SIGNAL PHASING



TYPICAL SIGNAL FACE LENS ARRANGEMENTS



CONDUIT LENGTH, SIZE, AND TYPE CONDUIT FILL BY CONTRACTOR LENGTH AND TYPE

ABBREVIATIONS

CC 6	COMMUNICATION CABLE—6 PAIR
CC 12	COMMUNICATION CABLE—12 PAIR
MA	MASTARM
MCC	MULTI CONDUCTOR CABLE
PB	PULL BOX
PP	PEDESTAL POLE
PPB	PEDESTRIAN PUSH BUTTON
REC	RIGID ELECTRIC CONDUIT
SCC	SINGLE CONDUCTOR CABLE
CAM	VIDEO CAMERA
*	EXISTING CONDUIT RUN

TS-4A.DWG 4/15/98 1"=10'

DETECTOR RACK ASSIGNMENTS

[illegible][illegible]

* INCIDENTAL TO CONSTRUCTION

INSTALL AMPLIFIER CARD

CONDUCTOR			RING 1 – MULTI CONDUCTOR CABLE 20		RING 2 – MULTI CONDUCTOR CABLE 20	
CONDUCTOR NUMBER	BASE COLOR	TRACER	FUNCTION	FIELD CONNECTION	FUNCTION	FIELD CONNECTION
1	BLACK	—	SPARE	SPARE	SPARE	SPARE
2	WHITE	—	SPARE	SPARE	SPARE	SPARE
3	RED	—	PHASE 1 RED	SPARE	PHASE 5 RED	SPARE
4	GREEN	—	PHASE 1 GREEN	GREEN LEFT TURN ARROW 2B, 2C	PHASE 5 GREEN	GREEN LEFT TURN ARROW 1B, 1C
5	ORANGE	—	PHASE 1 YELLOW	YELLOW LEFT TURN ARROW 2B, 2C	PHASE 5 YELLOW	YELLOW LEFT TURN ARROW 1B, 1C
6	BLUE	—	SPARE	SPARE	SPARE	SPARE
7	WHITE	BLACK	SPARE	SPARE	SPARE	SPARE
8	RED	BLACK	PHASE 2 RED	RED BALL 1A, 1B, 1M1, 1M2	PHASE 6 RED	RED BALL 2A, 2B, 2C, 2M1
9	GREEN	BLACK	PHASE 2 GREEN	GREEN BALL 1A, 1B, 1M1, 1M2	PHASE 6 GREEN	GREEN BALL 2A, 2B, 2C, 2M1
10	ORANGE	BLACK	PHASE 2 YELLOW	YELLOW BALL 1A, 1B, 1M1, 1M2	PHASE 6 YELLOW	YELLOW BALL 2A, 2B, 2C, 2M1
11	BLUE	BLACK	PHASE 2 WALK	PEDESTRIAN WALK P1, P6	PHASE 6 WALK	SPARE
12	BLACK	WHITE	PHASE 2 DON'T WALK	PEDESTRIAN DON'T WALK P1, P6	PHASE 6 DON'T WALK	SPARE
13	RED	WHITE	PHASE 3 RED	SPARE	PHASE 7 RED	SPARE
14	GREEN	WHITE	PHASE 3 GREEN	SPARE	PHASE 7 GREEN	SPARE
15	BLUE	WHITE	PHASE 3 YELLOW	SPARE	PHASE 7 YELLOW	SPARE
16	BLACK	RED	PHASE 4 RED	RED BALL 4A, 4B, 4M1	PHASE 8 RED	RED BALL 3A,3B,3M1
17	WHITE	RED	PHASE 4 GREEN	GREEN BALL 4A, 4B, 4M1	PHASE 8 GREEN	GREEN BALL 3A,3B,3M1
18	ORANGE	RED	PHASE 4 YELLOW	YELLOW BALL 4A, 4B, 4M1	PHASE 8 YELLOW	YELLOW BALL 3A,3B,3M1
19	BLUE	RED	PHASE 4 WALK	PEDESTRIAN WALK P4, P5	PHASE 8 WALK	PEDESTRIAN WALK P2, P3
20	RED	GREEN	PHASE 4 DON'T WALK	PEDESTRIAN DON'T WALK P4, P5	PHASE 8 DON'T WALK	PEDESTRIAN DON'T WALK P2, P3

NOTES:

- 1/ IDENTIFY CONDUCTORS LISTED AS "115 VOLTS"
- 2/ WRAP RING 2 CABLE AT EACH SPLICE POINT WITH COLORED ELECTRICAL TAPE. THE IDENTIFICATION MARKING SHALL BE PROVIDED ON EACH RING 2 CABLE AT EACH SPLICE BOX AND LOCATED 6" BACK FROM THE END.
- 3/ IDENTIFY CONDUCTORS LISTED AS "PPB - LOW VOLTAGE" AT EACH SPLICE POINT. FIVE (5) CONDUCTOR CABLE SHALL BE 24 VOLTS AND USED FOR PUSH BUTTONS ONLY.

FUNCTION CHART - 24 VOLT CIRCUIT

MULTI CONDUCTOR CABLE 5			
CONDUCTOR NUMBER	BASE COLOR	FUNCTION	FIELD CONNECTION
1	BLACK	PHASE 2 PPB	PPB2 & PPB5
2	WHITE	COMMON	PPB1 THRU PPB6
3	RED	PHASE 4 PPB	PPB4 & PPB6
4	GREEN	PHASE 6 PPB	PPB7 & PPB8
5	ORANGE	PHASE 8 PPB	PPB1 & PPB3

 CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP													
TITLE: SUNPORT PARK TRAFFIC SIGNAL FUNCTIONS & DETECTORS VIDEO DETECTION VERSION													
DESIGN REVIEW COMMITTEE APPROVED JUL 29 1998 DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL	LAST DESIGN UPDATE	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 5px;">MO./DAY/YR.</td> <td style="padding: 5px;">MO./DAY/YR.</td> </tr> <tr><td style="height: 20px;"></td><td style="height: 20px;"></td></tr> <tr><td style="height: 20px;"></td><td style="height: 20px;"></td></tr> <tr><td style="height: 20px;"></td><td style="height: 20px;"></td></tr> <tr><td style="height: 20px;"></td><td style="height: 20px;"></td></tr> </table>	MO./DAY/YR.	MO./DAY/YR.								
MO./DAY/YR.	MO./DAY/YR.												
CITY PROJECT NO. 5651.82		ZONE MAP NO. M-15	SHEET 17										
		OF 26											

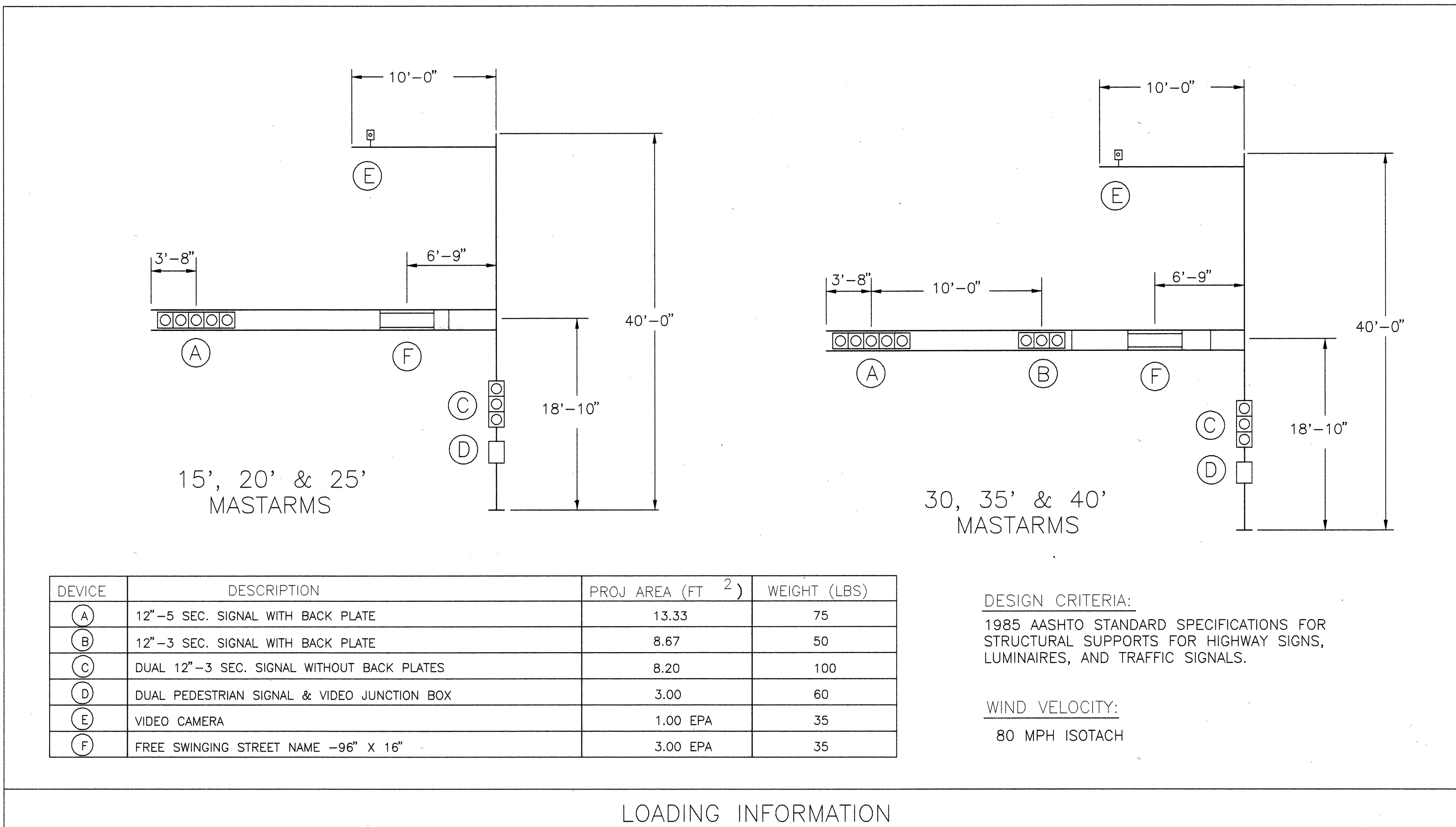
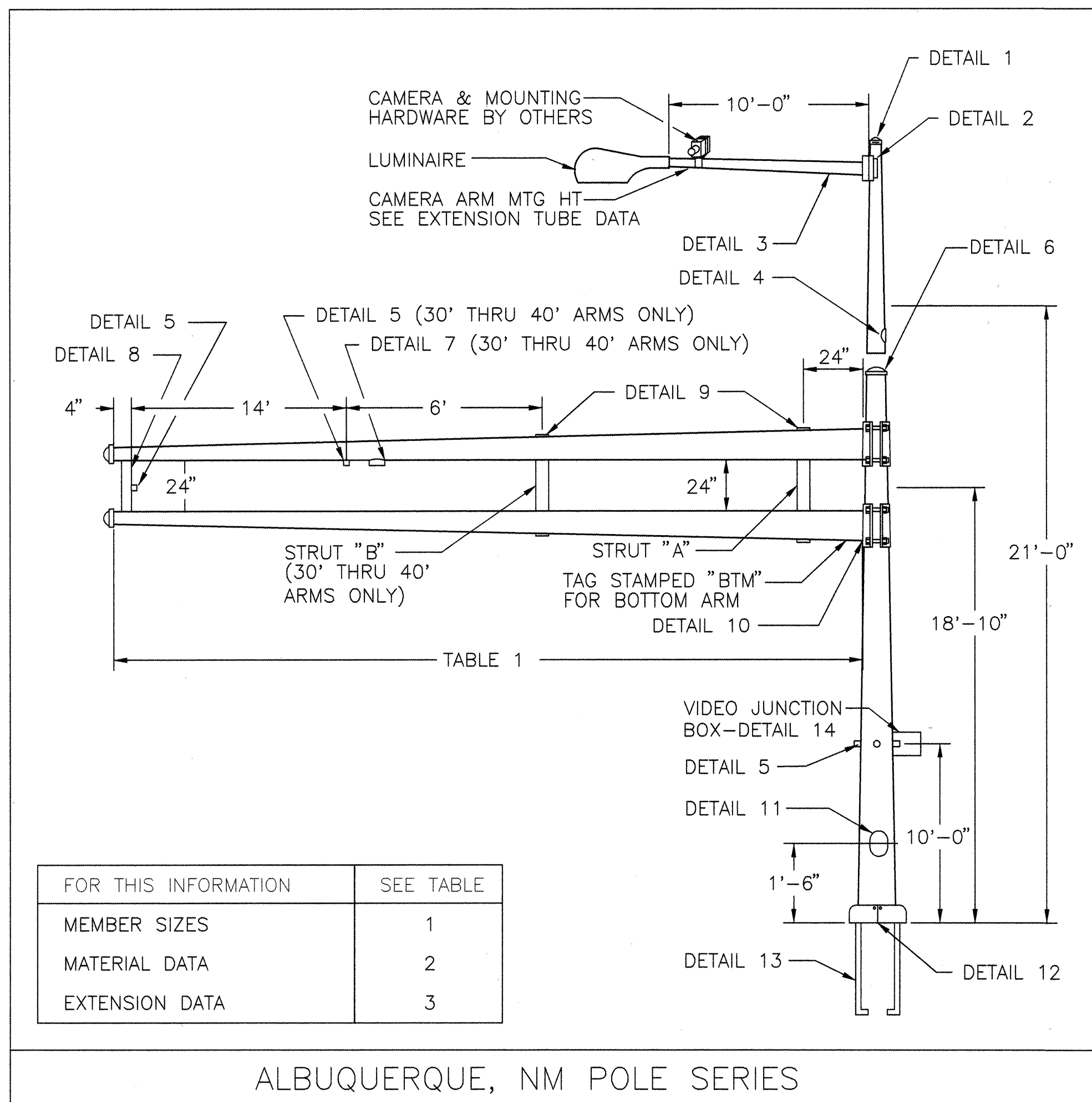
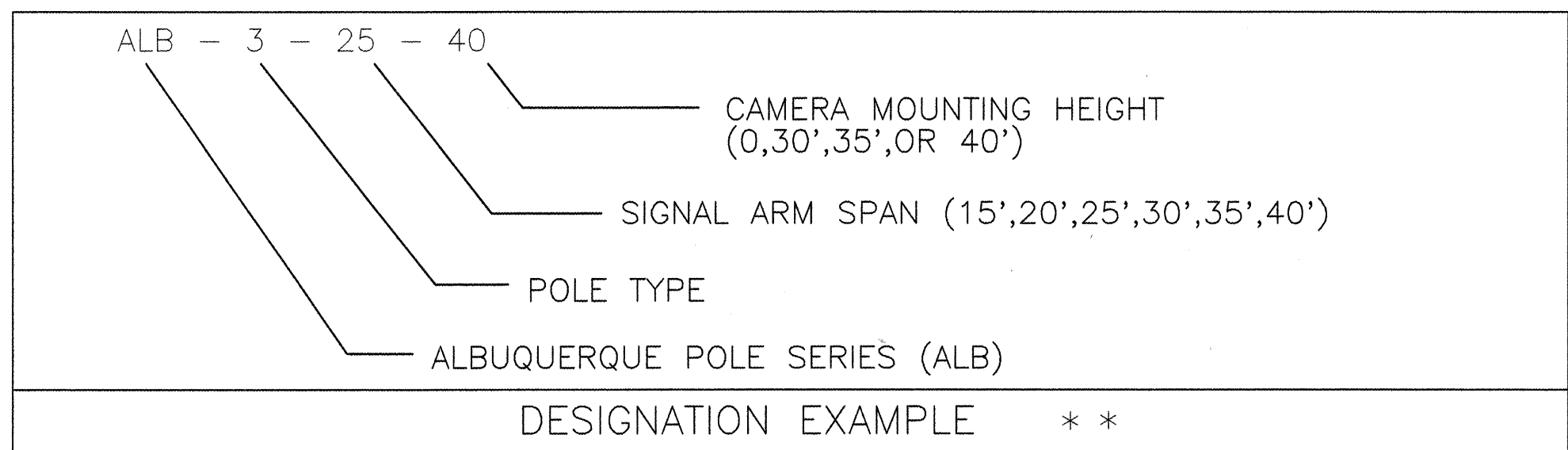


TABLE 1: POLE AND MASTARM SCHEDULE																									
DESIGNATION (SEE EXAMPLE ABOVE)				POLE DATA				BASE PLATE DATA				ANCHOR BOLT DATA				MASTARM DATA				ARM ATTACHMENT DATA					
POLE SERIES	POLE TYPE	SIGNAL ARM SPAN (FT)	CAMERA MOUNTING HEIGHT 0=NO CAMERA	BASE DIA	TOP DIA	LENGTH	GA	CIRCLE "C"	THK "G"	BC RANGE		BOLT CIRCLE	DIAMETER "K"	LENGTH "J"	HOOK "H"	FIXED END DIA	FREE END DIA	GA	LENGTH (FT)	"A"	"B"	"C"	"D"	"E"	
										BC1	BC2														
ALB	2	15	0, 30, 35, 40	10.00"	7.06"	21'-0"	7	23.00"	1.50"	16.00"	19.00"	16.00"	1.50"	54"	6"	5.80"	3.70"	11	15	7.25"	9.44"	10.81"	10.38"	1.00"—8UNC X 8.00"	
ALB	2	20	0, 30, 35, 40	10.00"	7.06"	21'-0"	7	23.00"	1.50"	16.00"	19.00"	16.00"	1.50"	54"	6"	6.50"	3.70"	11	20	7.25"	9.44"	10.81"	10.38"	1.00"—8UNC X 8.00"	
ALB	2	25	0, 30, 35, 40	10.00"	7.06"	21'-0"	7	23.00"	1.50"	16.00"	19.00"	16.00"	1.50"	54"	6"	7.00"	3.50"	11	25	7.25"	9.44"	10.81"	10.38"	1.00"—8UNC X 8.00"	
ALB	2	30	0, 30, 35, 40	12.00"	9.06"	21'-0"	5	23.00"	1.50"	16.00"	19.00"	16.00"	1.50"	54"	6"	7.72"	3.52"	7	30	9.25"	11.44"	13.81"	12.38"	1.00"—8UNC X 9.00"	
ALB	2	35	0, 30, 35, 40	12.00"	9.06"	21'-0"	5	23.00"	1.50"	16.00"	19.00"	16.00"	1.50"	54"	6"	8.30"	3.40"	7	35	9.25"	11.44"	13.81"	12.38"	1.00"—8UNC X 9.00"	
ALB	2	40	0, 30, 35, 40	12.00"	9.06"	21'-0"	5	23.00"	1.50"	16.00"	19.00"	16.00"	1.50"	54"	6"	9.00"	3.40"	7	40	9.25"	11.44"	13.81"	12.38"	1.00"—8UNC X 9.00"	

TABLE 2: MATERIAL DATA					
COMPONENT	ASTM DESIGNATION	MIN. YIELD (KSI)	COMPONENT	ASTM DESIGNATION	MIN YIELD (KSI)
POLE TUBE	A595 GR A	55	SIGNAL ARM CLAMP	A36	36
BASE PLATE	A36	36	SIGNAL ARM CONN BOLTS	A325 *	
MAST ARM TUBE	A595 GR A	55	CAMERA ARM PLATES	A36	36
CAMERA ARM TUBE	A595 GR A	55	GALVANIZING	A123 & A153	
POLE EXTENSION	A595 GR A	55			
ANCHOR BOLTS AASHTO M314 GR. 55					
* LUBRICATE IN FIELD IF NECESSARY IN LIEU OF THE REQUIREMENT IN A325					

TABLE 3: EXTENSION TUBE DATA					
MASTARM LENGTH (FT)	CAMERA MTG HT (FT)	EXTENSION TUBE			
		BASE DIA	TOP DIA	LENGTH (FT)	GAUGE
15-20	30	7.00	5.74	9.0	11
	35	7.00	5.04	14.0	11
	40	7.00	4.34	19.0	11
30-40	30	9.00	7.74	9.0	11
	35	9.00	7.04	14.0	11
	40	9.00	6.34	19.0	11



** POLE SHAFTS SHALL BE MARKED "ALB" "15-25" OR "30-40", AND DATE OF FABRICATION (MONTH/YEAR).

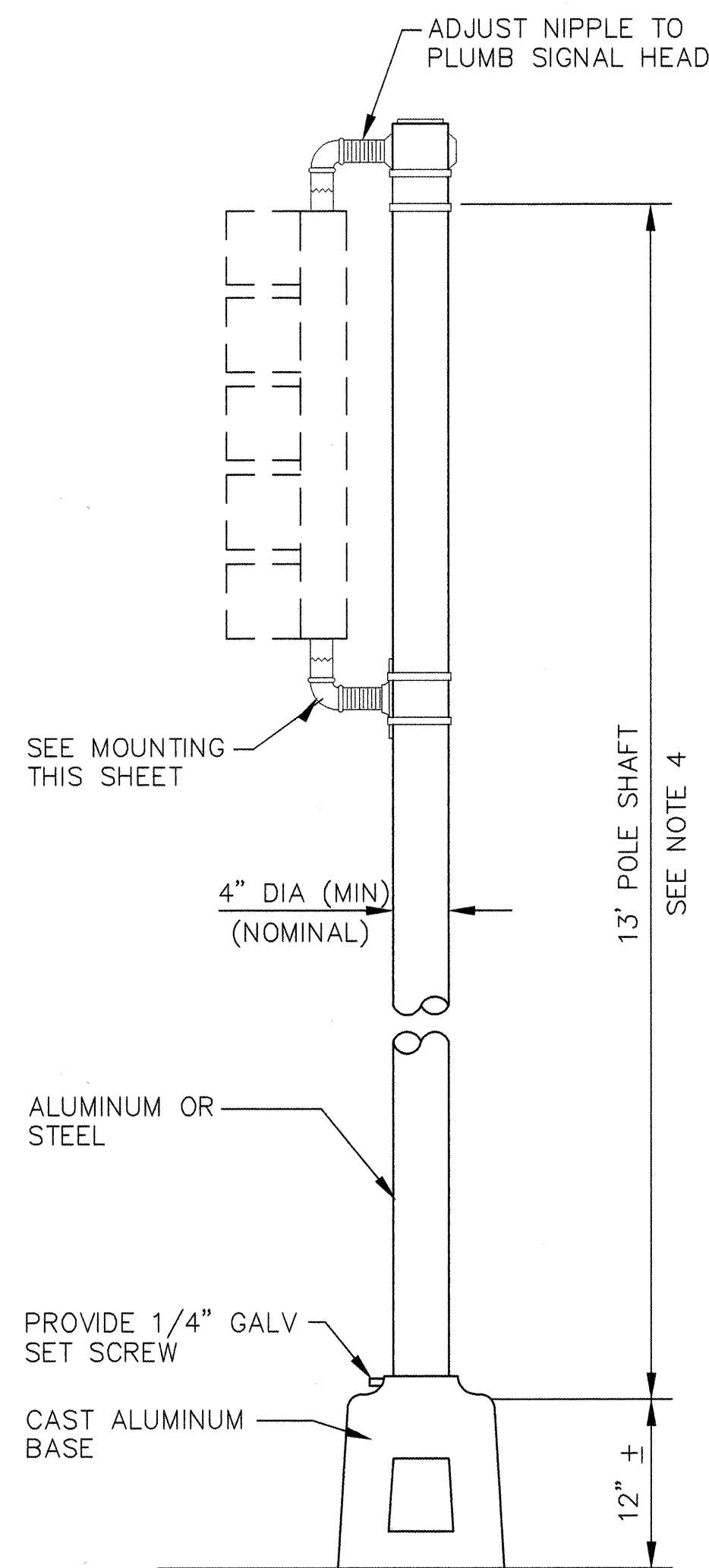
FINISH:

☒ GALVANIZED

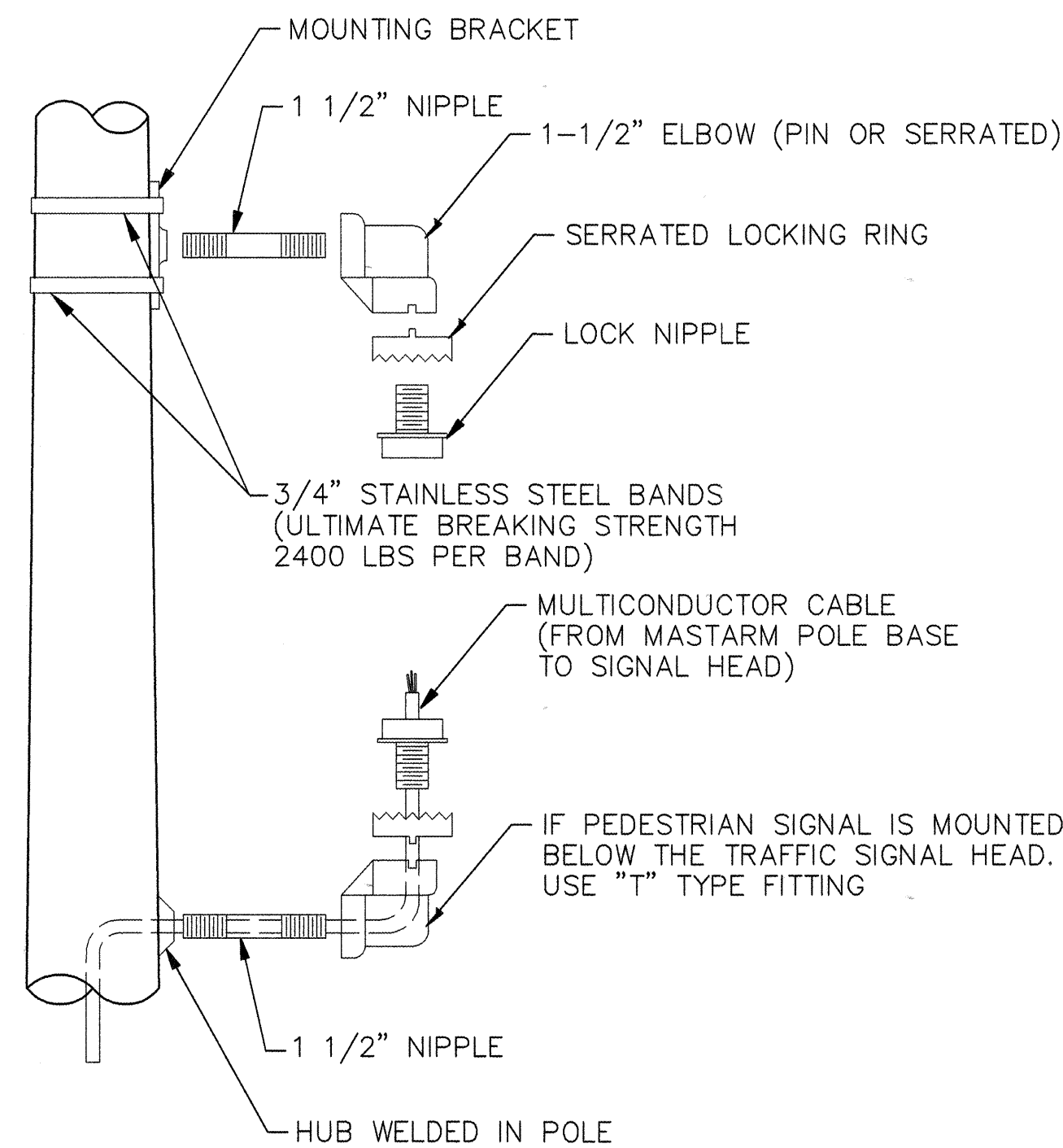
☐ POWDER COATED

COLOR _____

CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP			
TITLE: SUNPORT PARK TRAFFIC SIGNAL MASTARM DETAILS TYPE III STANDARD			
DESIGN REVIEW COMMITTEE APPROVED JUL 29 1993	CITY ENGINEER APPROVAL	MO./DAY/YR.	MO./DAY/YR.
CITY PROJECT NO. 5651.82	ZONE MAP NO. M-15	SHEET 18	OF 24

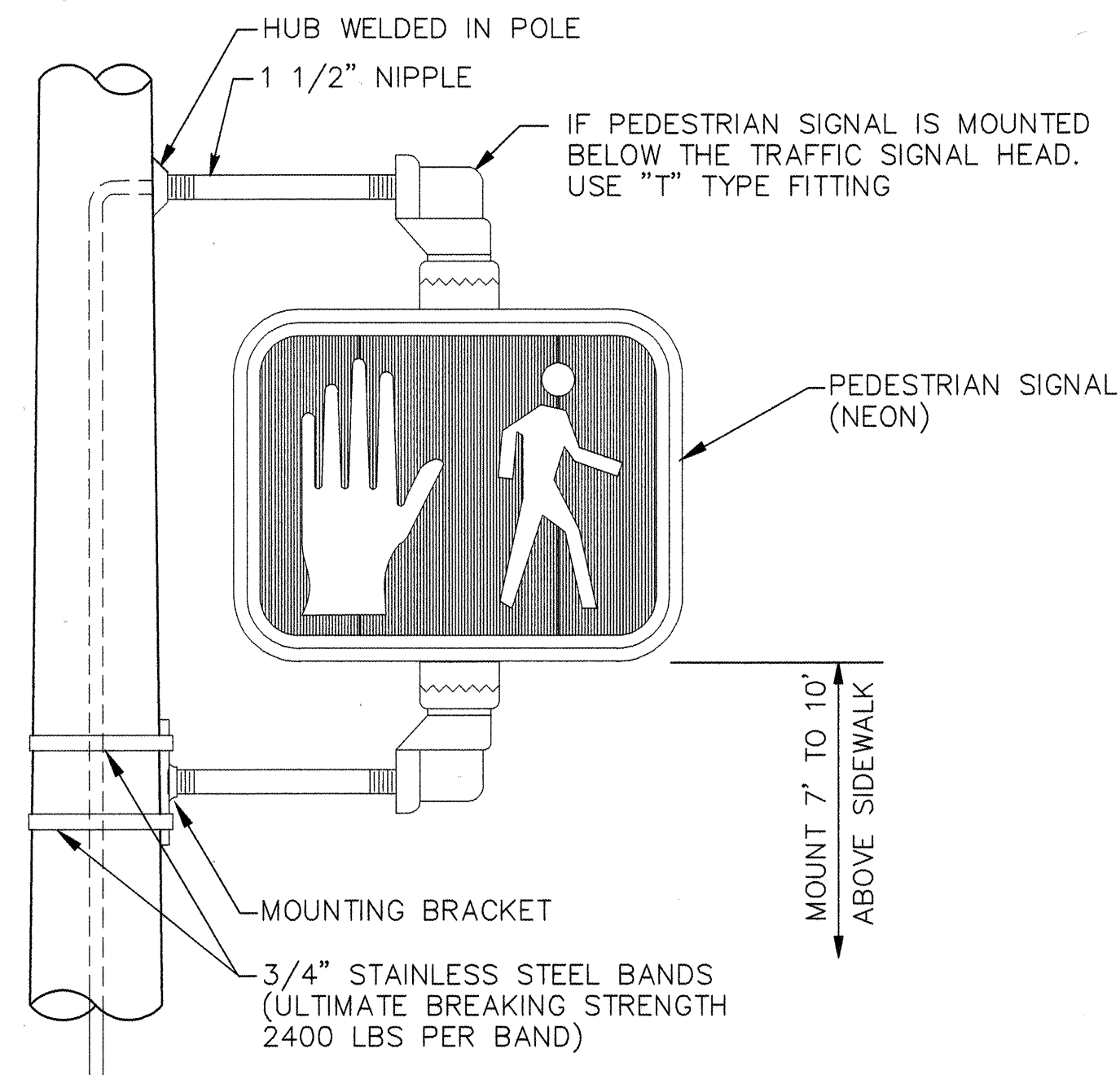


PEDESTAL POLE DETAILS

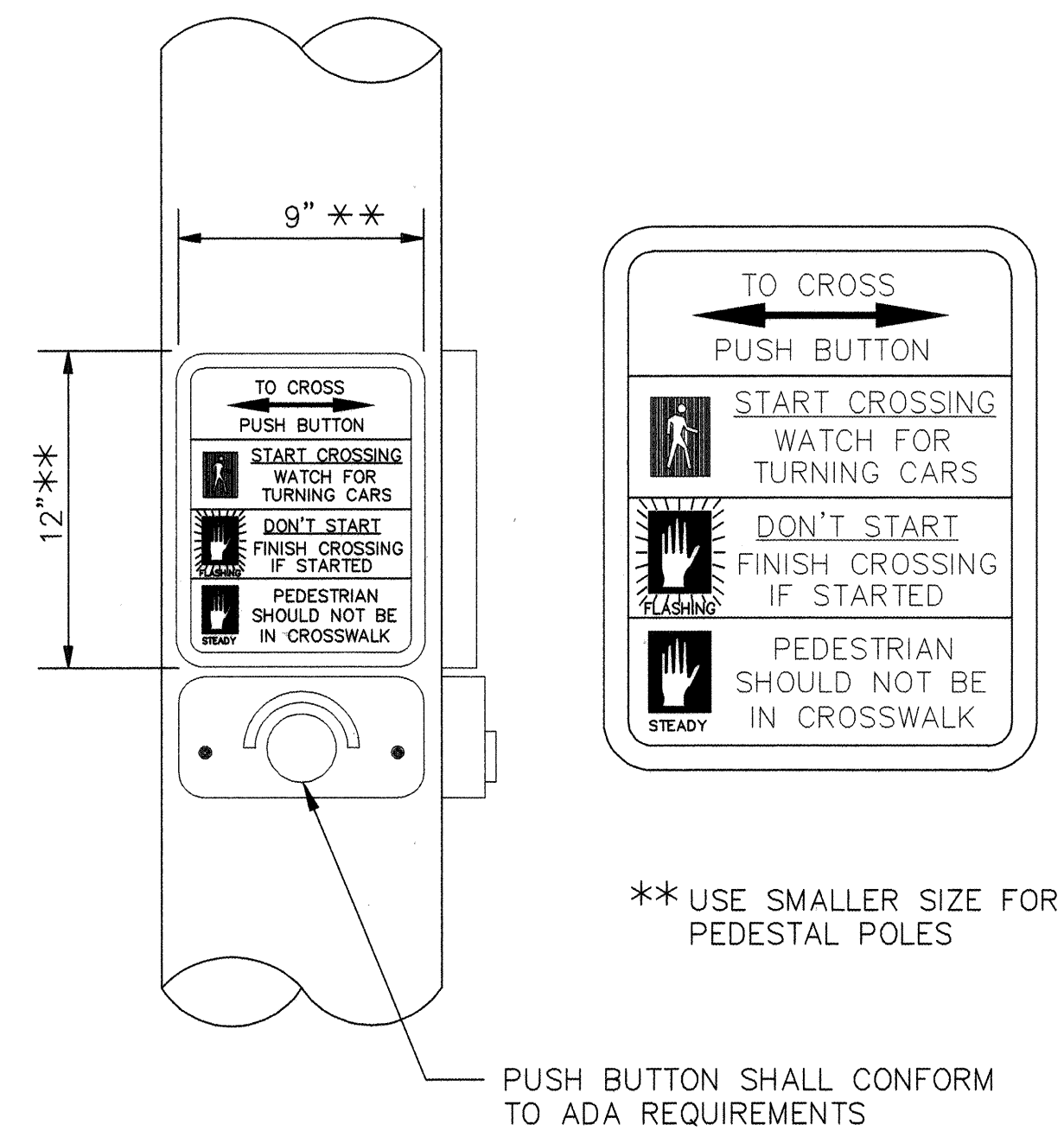


SIDE VIEW

MOUNTING DETAIL



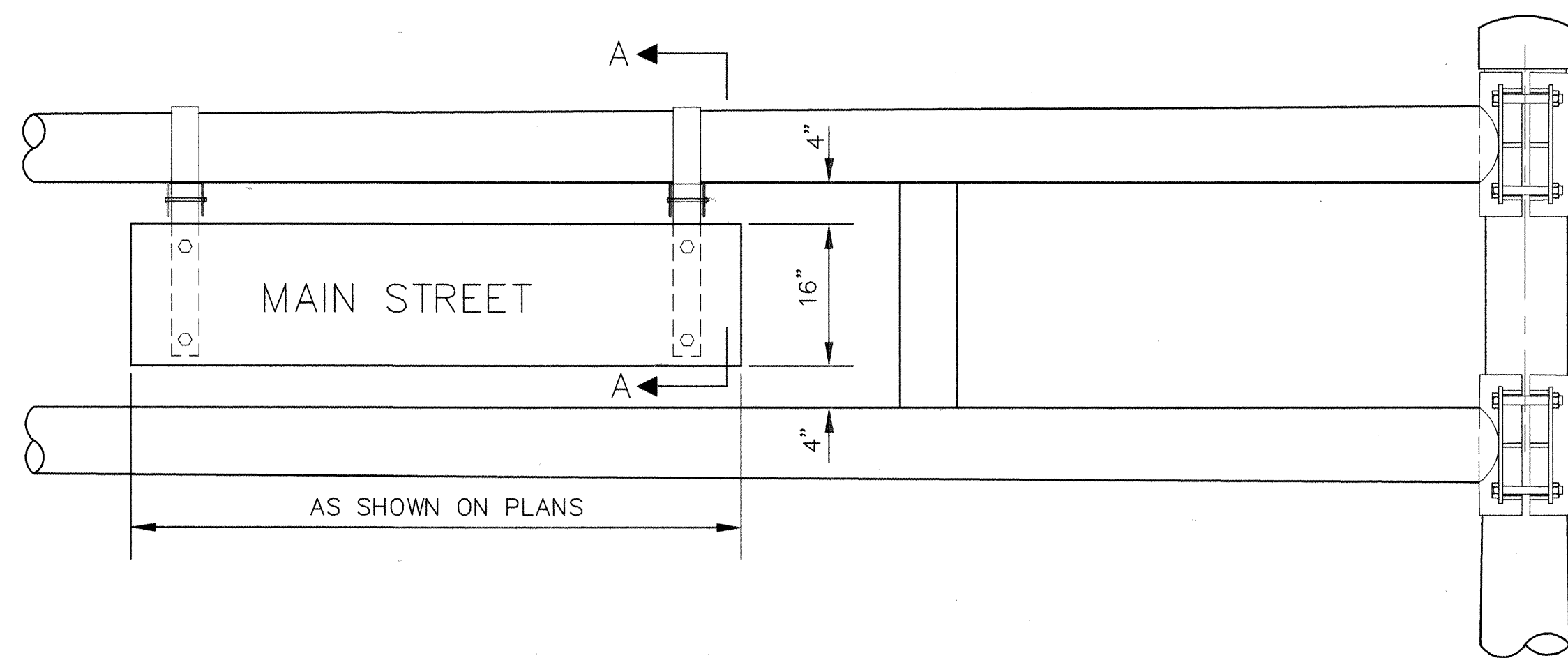
PEDESTRIAN SIGNAL DETAILS



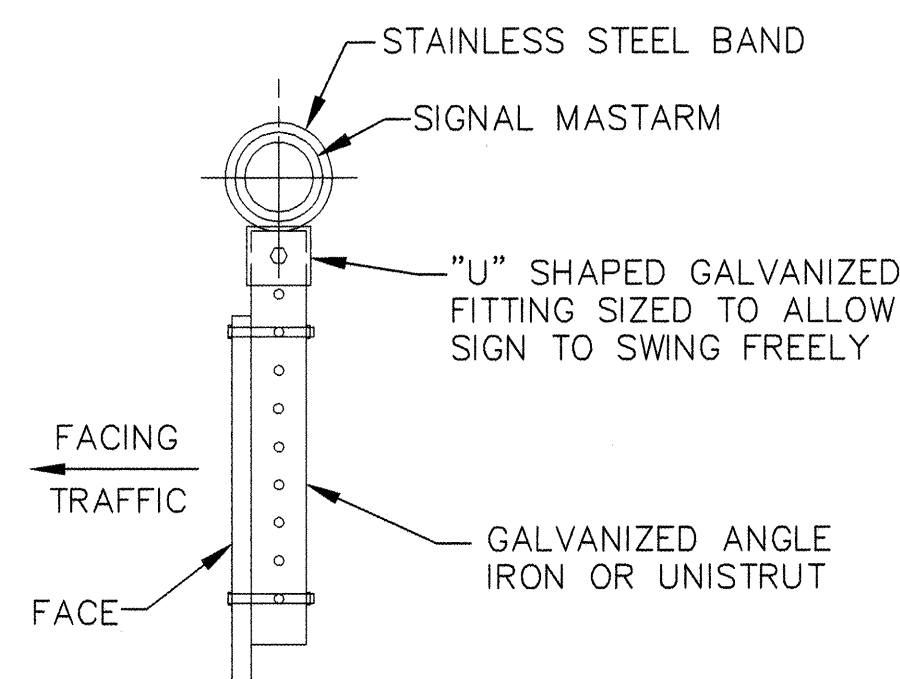
PUSH BUTTON DETAIL

NOTES:

- STREET NAME SIGNS REQUIRED AS SHOWN ON PLANS.
- STREET NAME SIGN SHALL BE 16" WIDE WITH 8" SERIES "C" LETTERS. SIGN SHALL BE NO MORE THAN 12 SQUARE FEET TOTAL AREA AND SHALL HAVE HIGH INTENSITY REFLECTIVE LEGEND, 1" BORDER AND BACKGROUND COLORS: WHITE ON GREEN, SIGN PANELS SHALL BE SINGLE SHEET 6061-T6 ALUMINUM .120 MINIMUM THICKNESS.
- PEDESTRIAN ACTUATED CROSSING SHALL BE A MAXIMUM OF 42" (1065 mm) ABOVE THE FINISHED PUBLIC SIDEWALK. A STABLE, FIRM, AND SLIP-RESISTANT AREA - 30"x48" (915 mm x 1220 mm) - SHALL BE PROVIDED TO ALLOW FOR A FORWARD OR A PARALLEL APPROACH TO THE CONTROLS. WHERE A PARALLEL IS PROVIDED, CONTROLS SHALL BE WITHIN 10" (255 mm) HORIZONTALLY OF AND CENTERED ON THE CLEAR GROUND SPACE.
- FOR INSTALLATIONS WITH ONLY PEDESTRIAN SIGNALS, CUT SHAFT TO 9'. USE 15' SHAFT FOR PEDESTAL POLES REQUIRING BOTH 5-SECTION SIGNAL ASSEMBLIES AND PEDESTRIAN SIGNALS.



STREET NAME SIGN DETAILS



SECTION "A-A"

FINISH:

☐	GALVANIZED
☐	POWDER COATED
COLOR _____	

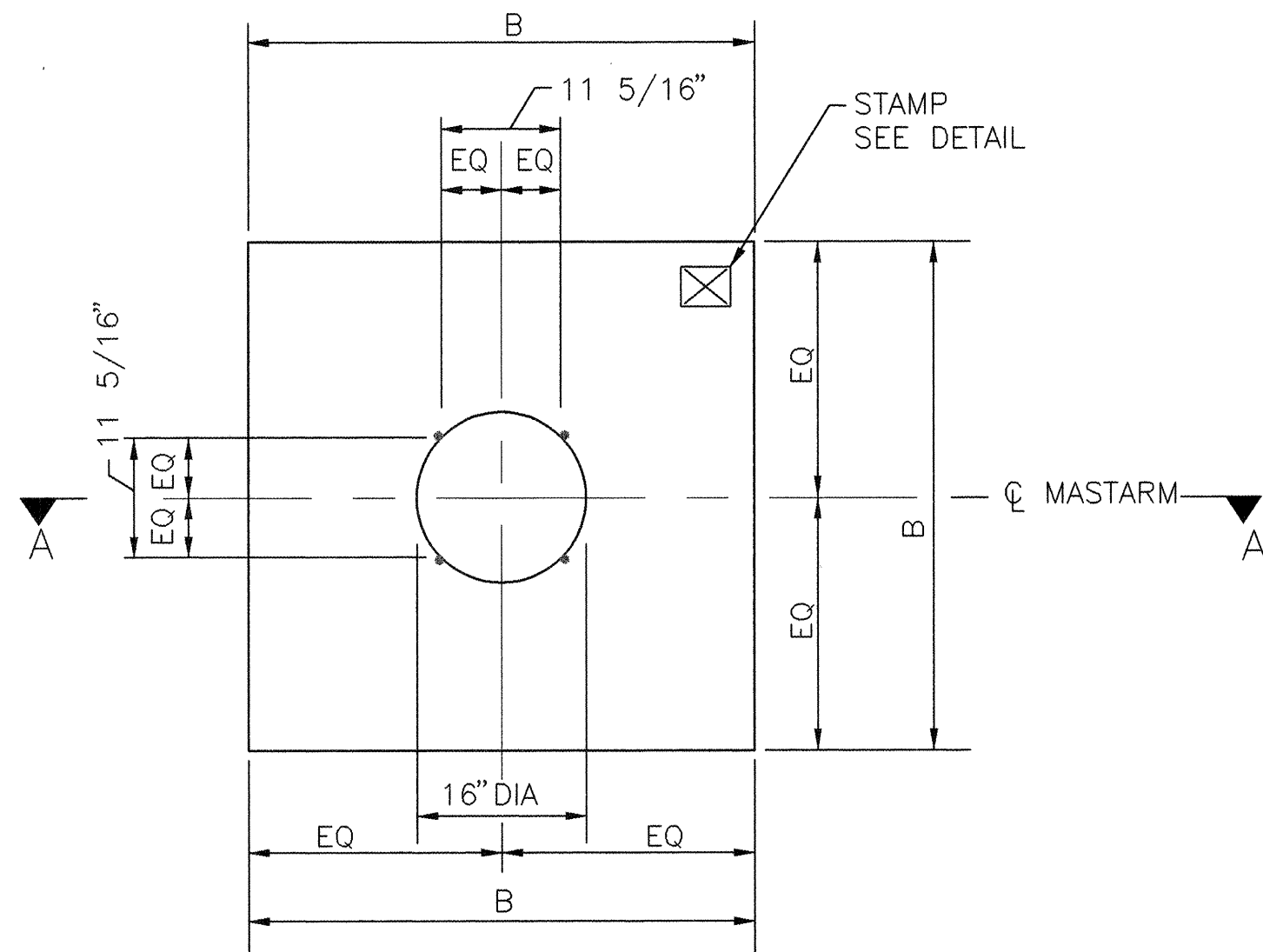
AS-BUILT INFORMATION				BENCH MARKS				SURVEY INFORMATION				ENGINEER'S SEAL			
CONTRACTOR	DATE	CONTRACTOR	DATE	CONTRACTOR	DATE	CONTRACTOR	DATE	CONTRACTOR	DATE	CONTRACTOR	DATE	CONTRACTOR	DATE	CONTRACTOR	DATE
WORK	DATE	WORK	DATE	WORK	DATE	WORK	DATE	WORK	DATE	WORK	DATE	WORK	DATE	WORK	DATE
BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE
ACCEPTANCE BY	DATE	ACCEPTANCE BY	DATE	ACCEPTANCE BY	DATE	ACCEPTANCE BY	DATE	ACCEPTANCE BY	DATE	ACCEPTANCE BY	DATE	ACCEPTANCE BY	DATE	ACCEPTANCE BY	DATE
FIELD NO.	DATE	FIELD NO.	DATE	FIELD NO.	DATE	FIELD NO.	DATE	FIELD NO.	DATE	FIELD NO.	DATE	FIELD NO.	DATE	FIELD NO.	DATE
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NO.	DATE	NO.	DATE	NO.	DATE	NO.	DATE	NO.	DATE	NO.	DATE	NO.	DATE	NO.	DATE

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

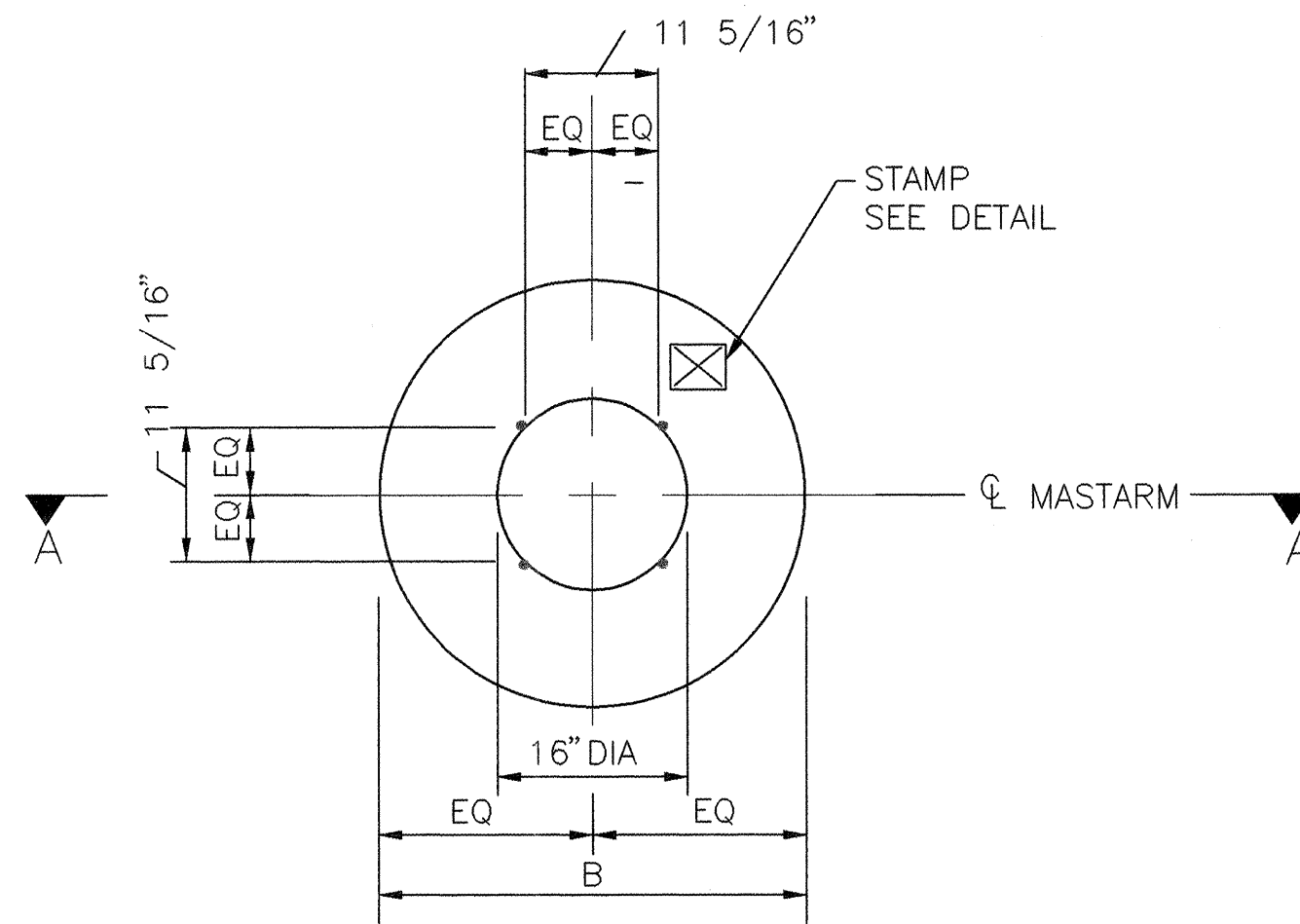
TITLE: SUNPORT PARK
TRAFFIC SIGNAL
MISCELLANEOUS DETAILS

DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL	LAST DESIGN UPDATE	MO./DAY/YR.	MO./DAY/YR.
APPROVED JUL 29 1998 DESIGN REVIEW COMMITTEE				

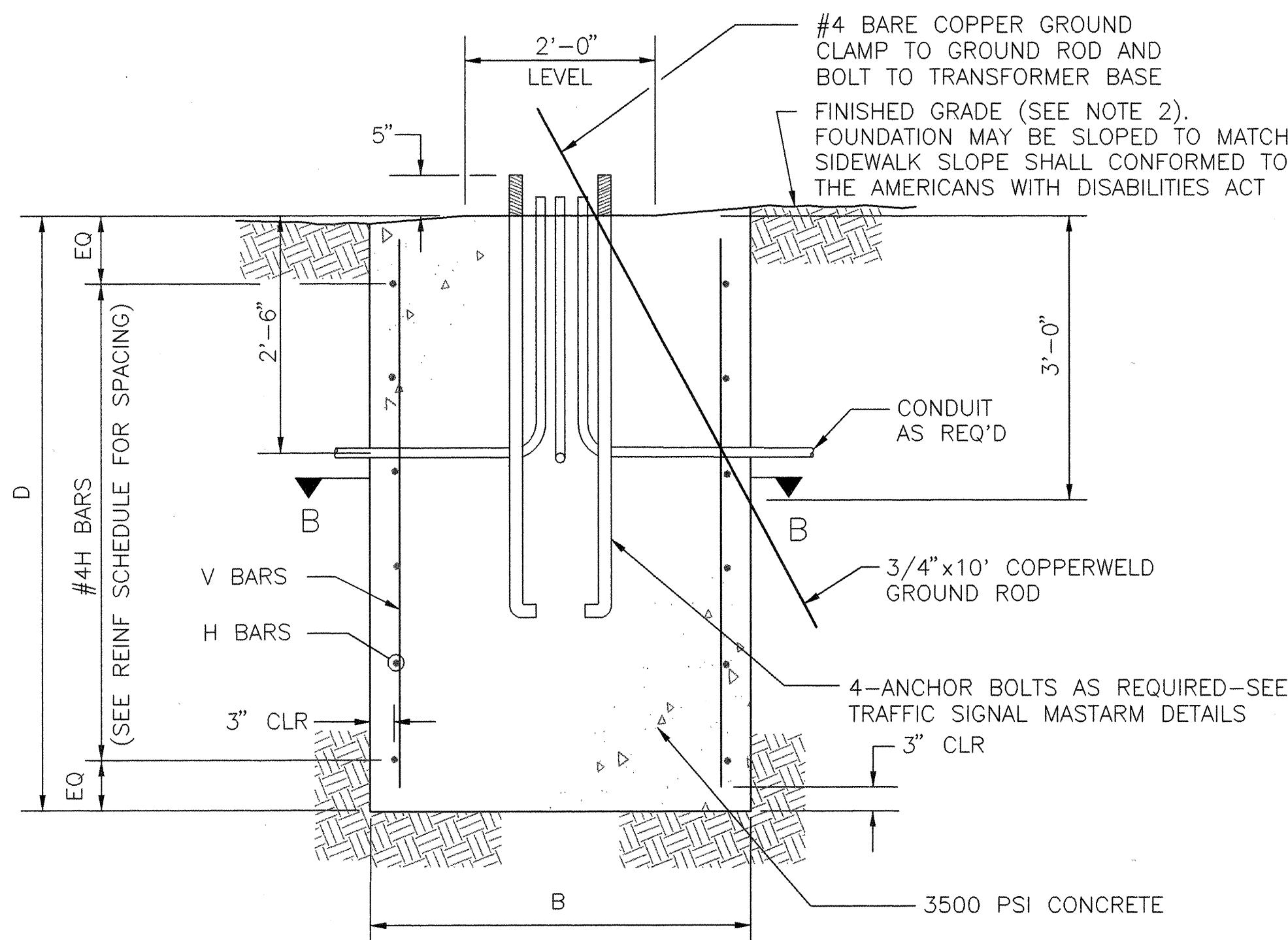
CITY PROJECT NO.	ZONE MAP NO.	SHEET	OF
5651.82	M-15	20	24



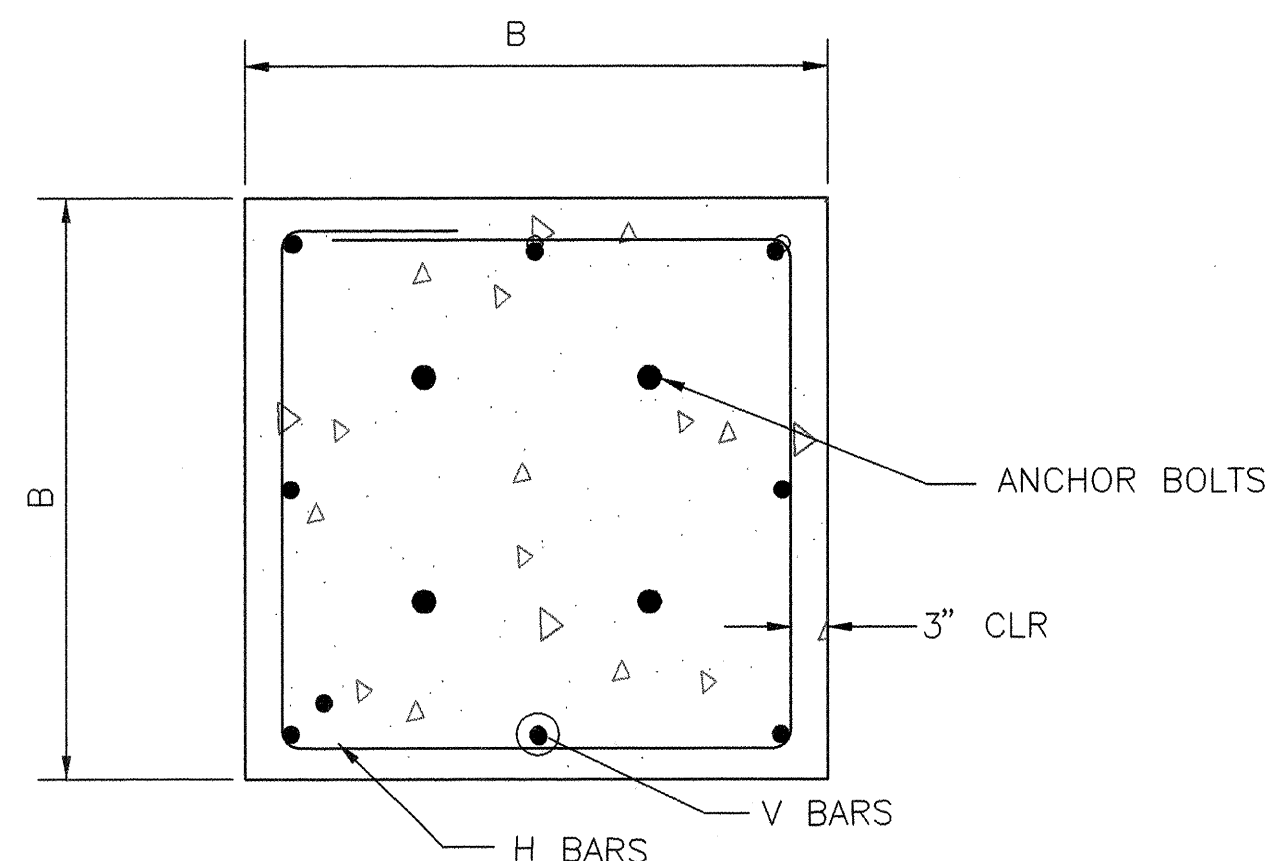
PLAN VIEW (SQUARE)
NOT TO SCALE



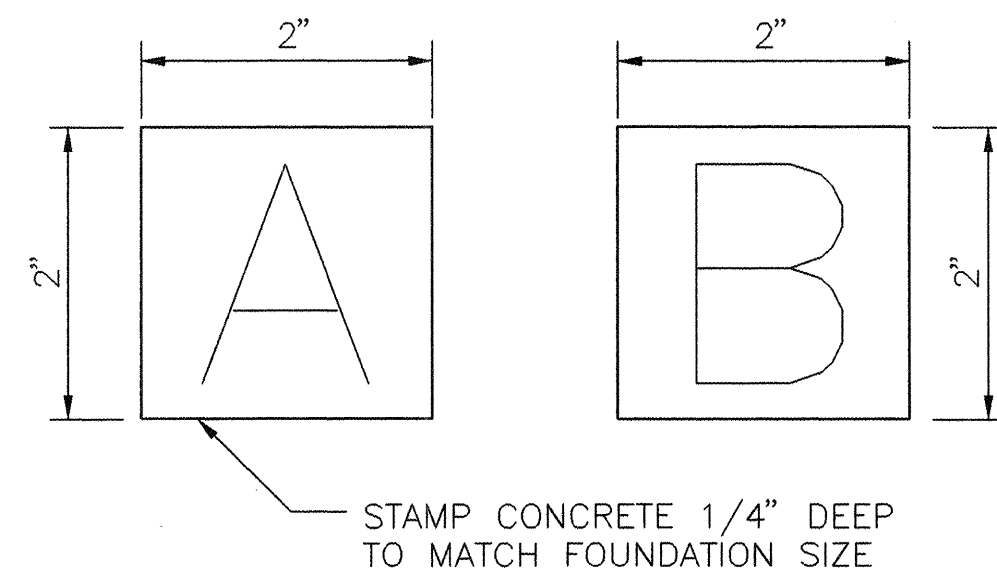
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NOT TO SCALE



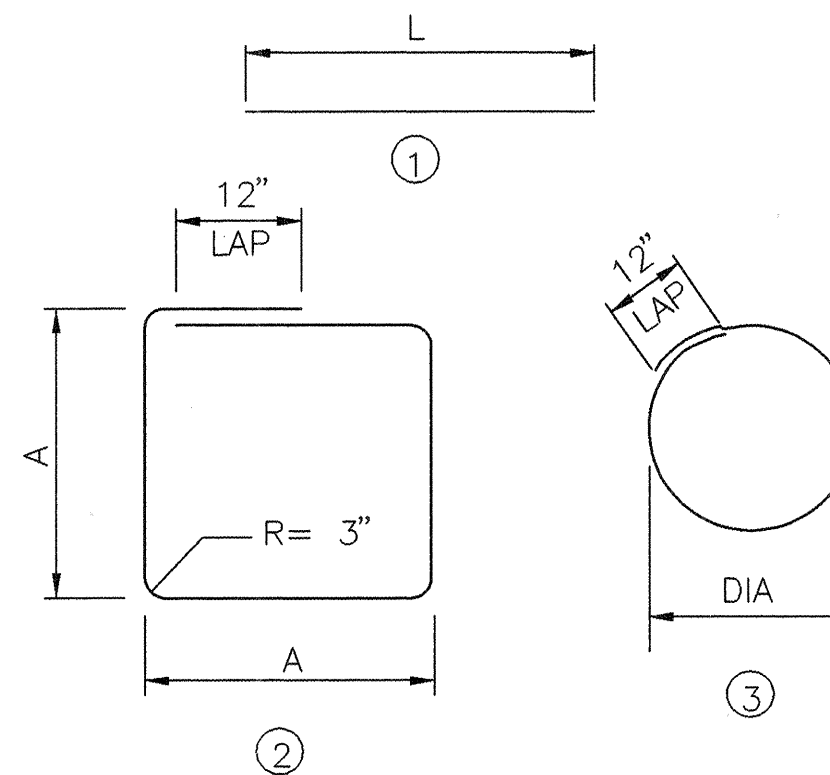
SECTION A-A (ROUND OR SQUARE)
NOT TO SCALE



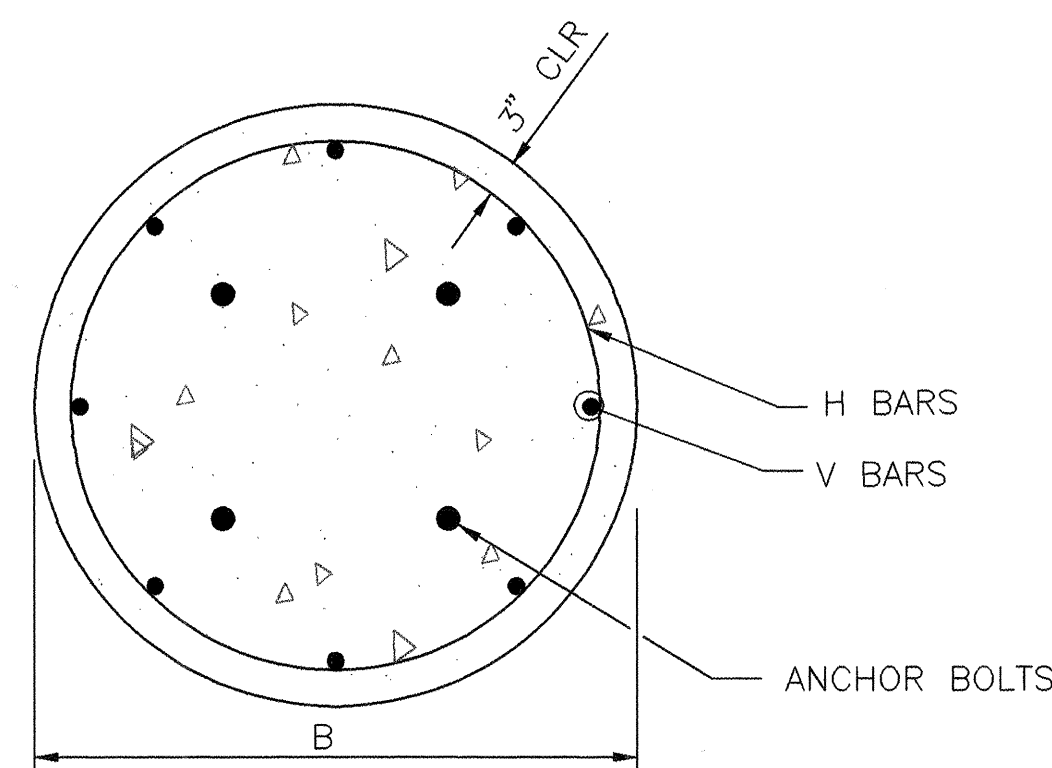
SECTION B-B (SQUARE)
NOT TO SCALE



STAMP DETAIL
NO SCALE



BAR BENDING DIAGRAM



SECTION B-B (ROUND)
NOT TO SCALE

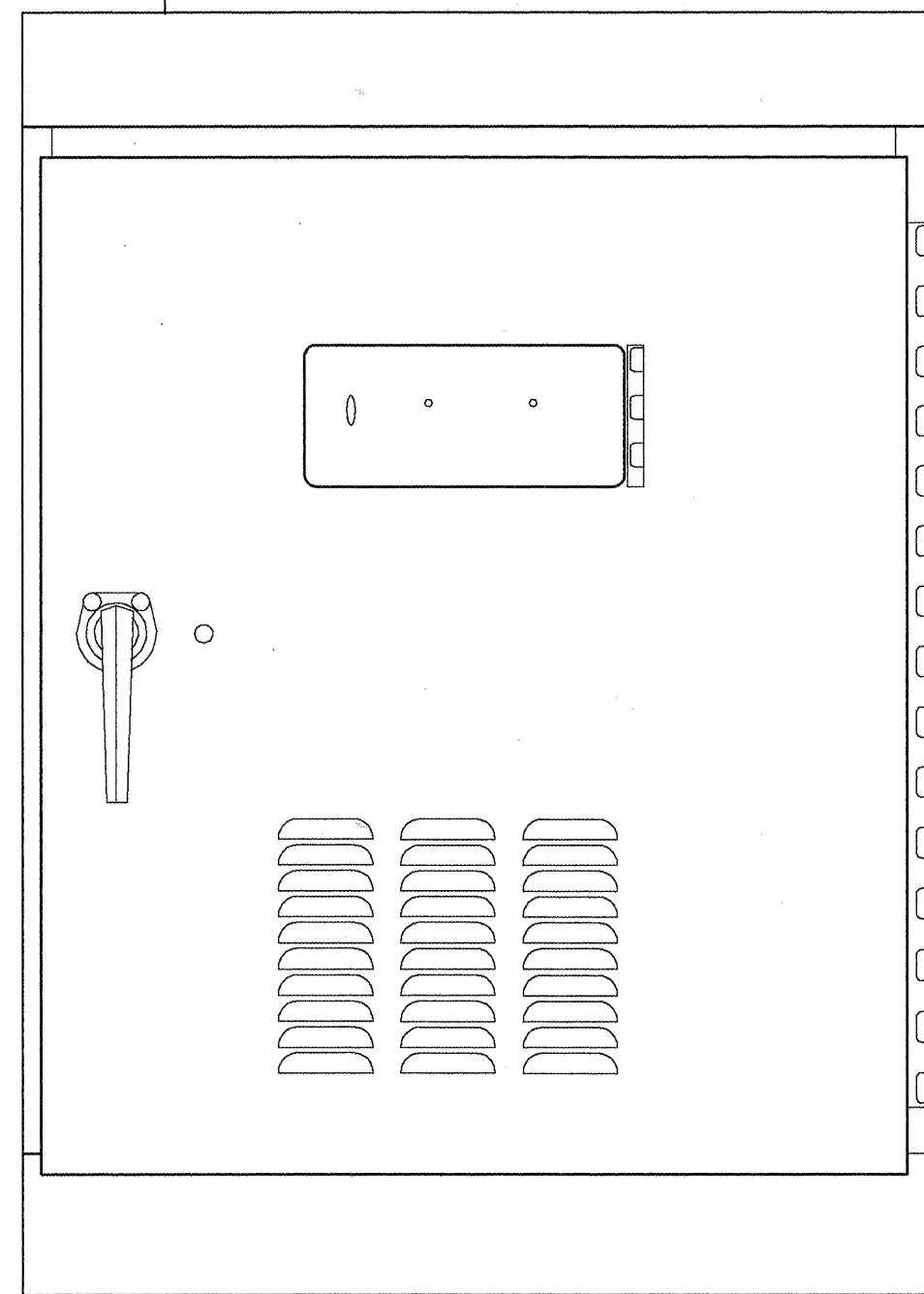
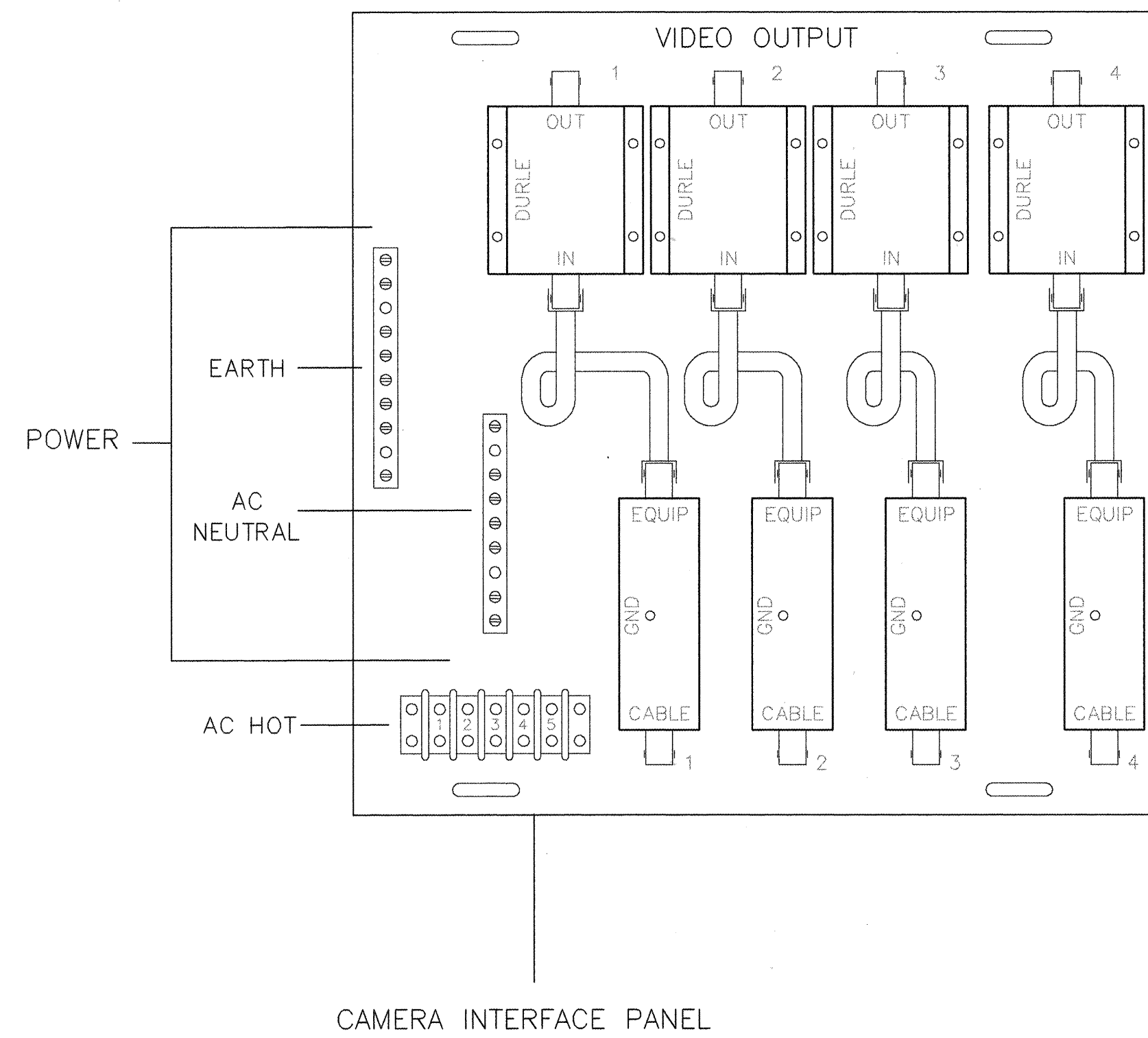
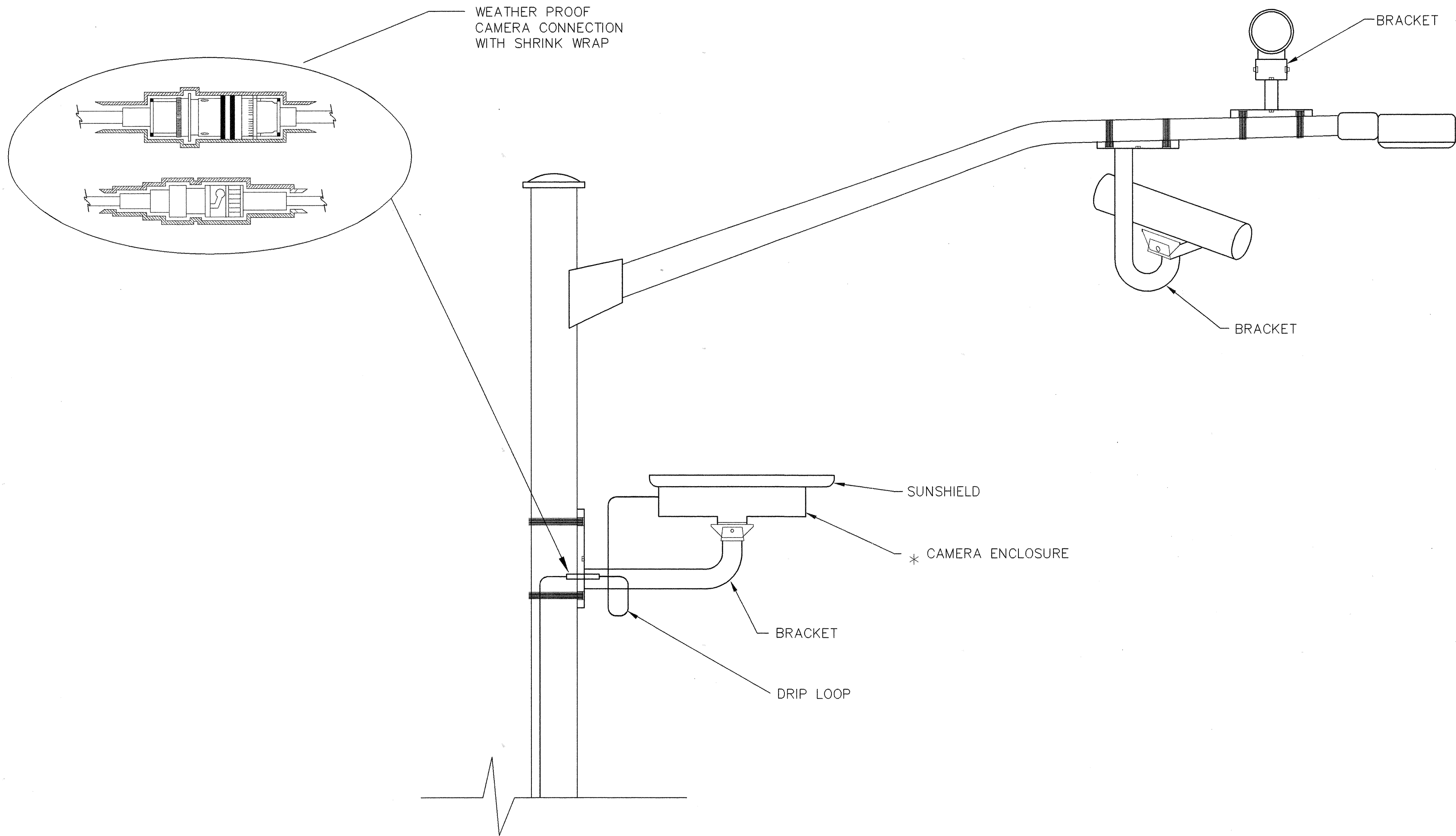
FOUNDATION TYPE	SIGNAL ARM SPAN(FT)	DIMENSION		REINFORCING		REBAR POUNDS	3500 PSI CONCRETE CUBIC YARDS	NOTES
		B (WIDTH)	D (DEPTH)	V BARS MARK	H BARS MARK			
TYPE A (SQUARE)	15	3'-6"	5'-0"	#4V2	#3H2	49.1	2.27	
	20	"	"	"	"	"	"	
	25	"	"	"	"	"	"	
TYPE B (SQUARE)	30	4'-0"	6'-3"	#5V1	#3H1	82.6	3.70	
	35	"	"	"	"	"	"	
	40	"	"	"	"	"	"	
TYPE A (ROUND)	15	2'-6"	8'-6"	#6V4	#3H4	98.1	1.55	ROUND SHAPE TO BE USED ONLY WHERE SPECIFICALLY NOTED ON PLANS OR WHEN APPROVED BY THE PROJECT MANAGER.
	20	"	"	"	"	"	"	
	25	"	"	"	"	"	"	
TYPE B (ROUND)	30	3'-0"	11'-9"	#7V3	#3H3	179.7	3.08	
	35	"	"	"	"	"	"	
	40	"	"	"	"	"	"	

REINFORCING SCHEDULE (GRADE 60 BARS)					
MARK	QUANT	TYPE	SIZE	LENGTH	COMMENTS
#5V1	8	1	5	5'-9"	A = 42", TIES AT 14" OC A = 36", TIES AT 12" OC DIA = 30", TIES AT 12" OC DIA = 24", TIES AT 12" OC
#4V2	8	1	4	4'-6"	
#7V3	6	1	7	11'-3"	
#6V4	6	1	6	8'-0"	
#3H1	6	2	3	15'-4"	
#3H2	5	2	3	13'-4"	
#3H3	12	3	3	9'-3"	
#3H4	9	3	3	7'-8"	

TRAFFIC SIGNAL MASTARM FOUNDATION NOTES

- REFER TO THE PLANS FOR LOCATIONS OF TRAFIC SIGNAL MASTARM FOUNDATIONS.
- FINISHED GRADE FOR THE FOUNDATIONS SHALL BE ESTABLISHED IN THE FIELD BY THE PROJECT MANAGER.
- THE FOUNDATIONS SHOWN HERE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, CURRENT REVISION.
- CONCRETE SHALL BE 3500 PSI FOR EXTERIOR STRUCTURES. REFER TO TABLE 101.C OF THE SPECIFICATIONS.
- REINFORCING STEEL SHALL CONFORM TO ASTM A-615 GRADE 60.
- THE TOP 6 INCHES OF THE FOUNDATION PEDESTAL SHALL BE FORMED TO THE DIMENSIONS SHOWN ON THIS SHEET TO FORM NEAT LINES. CONCRETE BELOW 6 LINES MAY BE CAST AGAINST THE EARTH.
- THE CONCRETE SHALL GAIN 80% OF THE DESIGN STRENGTH PRIOR TO INSTALLING THE TRAFFIC SIGNAL MASTARM.
- ALL FOUNDATIONS SHALL INCLUDE COPPERWELD GROUND RODS. ALL GROUND RODS SHALL BE 3/4" DIA X 10'-0" AND WILL BE CONSIDERED INCIDENTAL TO THE FOUNDATIONS BID ITEMS.
- ALL FOUNDATIONS SHALL BE STAMPED EITHER "A" OR "B" TO SHOW TYPE CONSTRUCTED (SEE STAMP DETAIL).

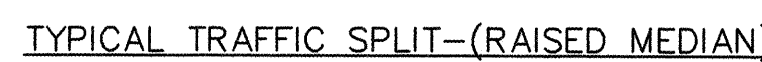
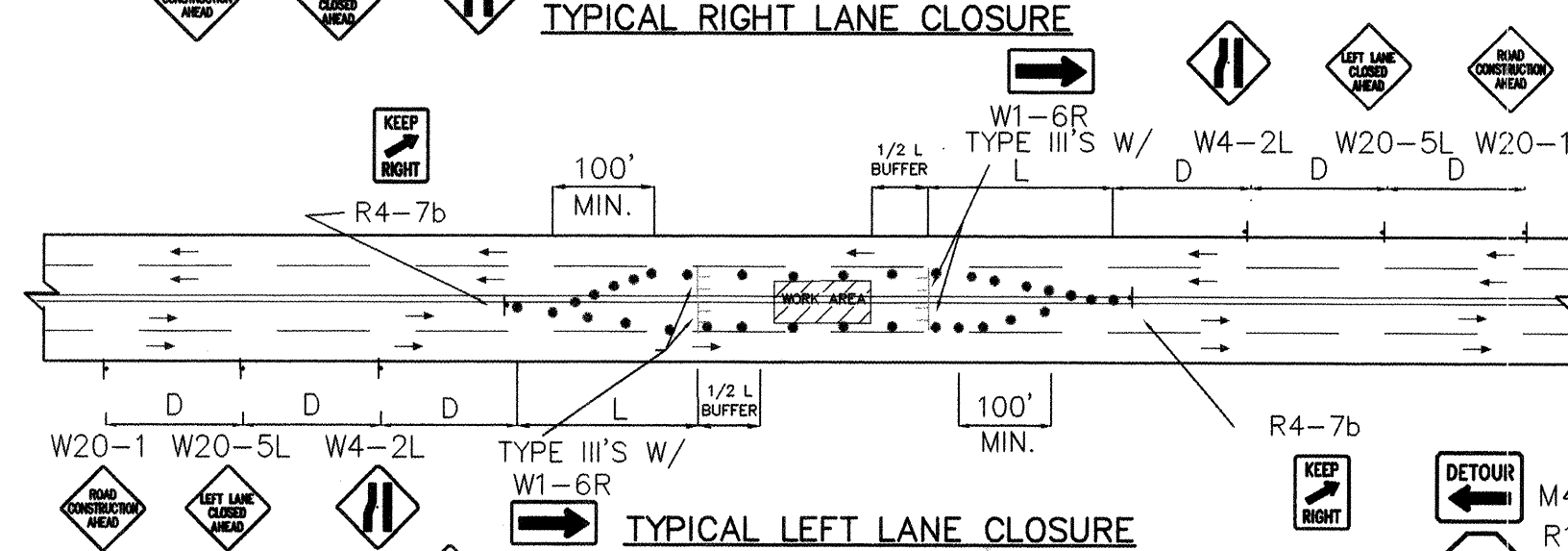
CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP			
TITLE: SUNPORT PARK TRAFFIC SIGNAL FOUNDATION DETAILS TYPE II AND TYPE III STANDARDS			
DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL	MO./DAY/YR.	MO./DAY/YR.
CITY PROJECT NO.	ZONE MAP NO.	SHEET	OF
5651.82	M-15	21	24



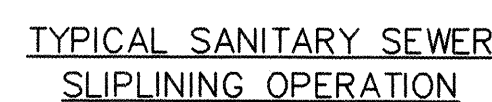
* CAMERA SHALL BE ROTATED INSIDE THE ENCLOSURE AFTER INSTALLATION, TO ALIGN HORIZON AT HORIZONTAL PLANE.

CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP			
TITLE: SUNPORT PARK TRAFFIC SIGNAL MACHINE VISION VEHICLE DETECTOR SYSTEMS			
DESIGN REVIEW COMMITTEE 	CITY ENGINEER APPROVAL 	MO./DAY/YR. 	MO./DAY/YR.
LAST DESIGN UPDATE 	DESIGNED BY COA DRAWN BY COA CHECKED BY COA	DATE 8-97 DATE 8-97 DATE 8-97	NO. OF SHEETS 22 OF 24
CITY PROJECT NO. 5651.82	ZONE MAP NO. M-15	SHEET 22	OF 24

ENGINEER'S SEAL		SURVEY INFORMATION		BENCH MARKS		AS-BUILT INFORMATION		
 515-78		FIELD NOTES						
		NO.	BY	DATE	ACS BRASS TABLET CASTINGS: "LIMBAUGH ENGINEERS INC. STAMPED HV-14 RESET 1974"		CONTRACTOR <i>Mirquez Surveying Co. Inc.</i>	DATE
					ACS" SET IN TOP OF A CONCRETE POST FLUSH WITH THE GROUND. LOCATED ABOUT 350 FT SOUTH OF VIEWPOINT ROAD, 0.15 MILES WEST OF YALE BLVD.		WORK BY: <i>Mirquez Surveying Co. Inc.</i>	DATE
					ELEVATION= 5259.9		INSPECTOR: <i>Mirquez Surveying Co. Inc.</i>	DATE
							ACCEPTANCE BY: <i>Mirquez Surveying Co. Inc.</i>	DATE
NO. DATE		REVISIONS				FIELD DRAWING BY: <i>Mirquez Surveying Co. Inc.</i>		DATE
		DESIGN				DRAWINGS CORRECTED BY: <i>Mirquez Surveying Co. Inc.</i>		DATE
DESIGNED BY COA		DATE 8-97				RECORDED BY		
DRAWN BY COA		DATE 8-97				NO.		
CHECKED BY COA		DATE 8-97						

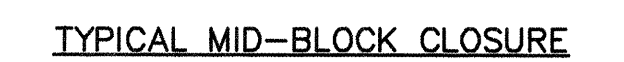
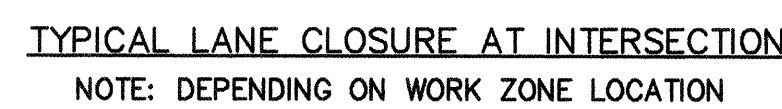


- TRAFFIC SPLIT NOTES:
1. THE OFFSET DISTANCE MUST BE CALCULATED IN ALL SHIFTING TAPERS. THE OFFSET DISTANCES SHALL INCLUDE LANE WIDTHS PLUS MEDIAN WIDTHS.
 2. 1/2 L IS MINIMUM DISTANCE FOR SHIFTING TAPERS.
 3. REVERSE CURVES MAY BE IMPLEMENTED. ALL CURVE DATA SHALL BE CALCULATED.
 4. MEDIAN REMOVAL SHALL BE REQUIRED IF 1/2 L OR REVERSE CURVE IS NOT SUFFICIENT. MEDIAN REMOVAL SHALL TAKE PLACE BEFORE SPLITS.
 5. REDUCED SPEED MAY BE CONSIDERED.
 6. * USE W1-3 FOR 30 MPH OR LESS, W1-4 FOR SPEED 35 MPH OR GREATER.



- ALL PITS TO HAVE TYPE-A FLASHING LIGHTS
- ALL PITS TO HAVE FLAGLINE.

NOTE:
MAY REQUIRE LEFT LANE
CLOSURE DEPENDING ON
FIELD CONDITIONS.



NOTE: (R1-1) BASED ON FIELD CONDITIONS



NOTE: (R1-1) BASED ON FIELD CONDITIONS.



NOTE: (R1-1) BASED ON FIELD CONDITIONS.

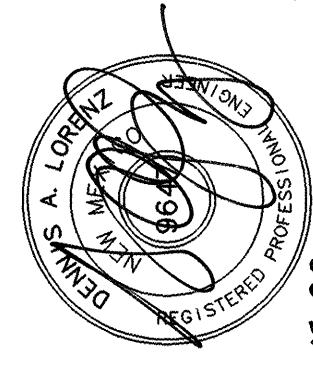


CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

TITLE: SUNPORT PARK
TRAFFIC CONTROL PLAN

Design Review Committee 		City Engineer Approval	Last Design Update _____ _____ _____ _____ _____	Mo./Day/Yr. _____ _____ _____ _____ _____	Mo./Day/Yr. _____ _____ _____ _____ _____
City Project No. 5651.82		Zone Map No. M-15	Sheet 23	Of 26 24	

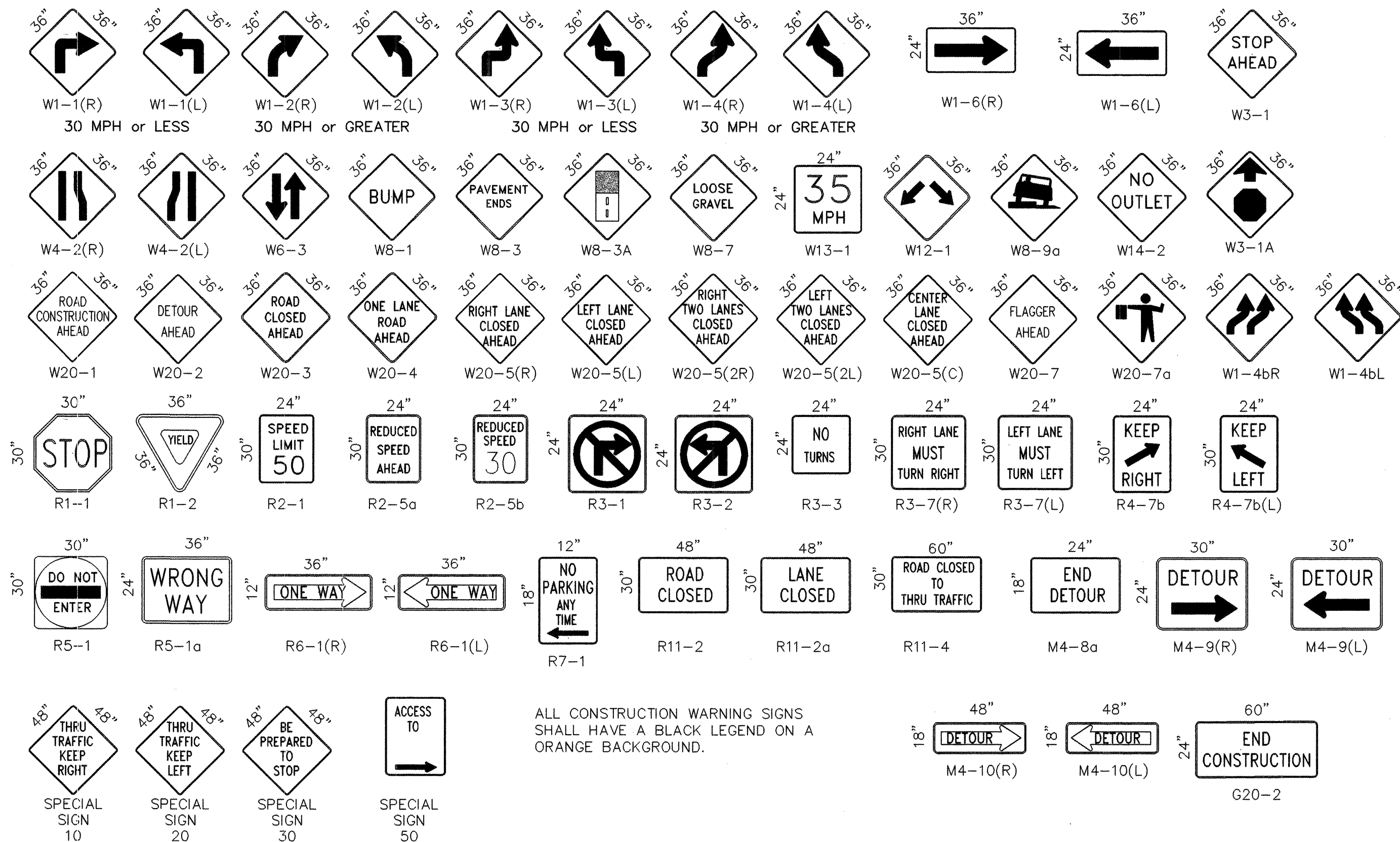
SURVEY INFORMATION		BENCH MARKS	AS BUILT INFORMATION	
NO.	FIELD NOTES		CONTRACTOR	WORK STARTED BY
	DATE	ACS BRASS TABLET (CASTINGS: "LIMBAUGH ENGINEERS INC. STAMPED HV-14 RESET 1974	<i>MARQUEZ</i>	<i>SURVEYING Co Inc</i>
		ACS" SET IN TOP OF A CONCRETE POST	<i>MARQUEZ</i>	<i>SURVEYING Co Inc</i> DATE 4-1989
		FLUSH WITH THE GROUND. LOCATED ABOUT 350 FT SOUTH OF VIEWPOINT ROAD, 0.15 MILES WEST OF YALE BLVD.	FIELD INFORMATION BY	DATE
		ELEVATION= 5259.9	<i>MARQUEZ</i>	<i>SURVEYING Co Inc</i> DATE 6-22-99
			DRAWINGS CORRECTED BY	DATE
			MICRO-FILM INFORMATION	
			RECORDED BY	DATE
			NO.	

[illegible]

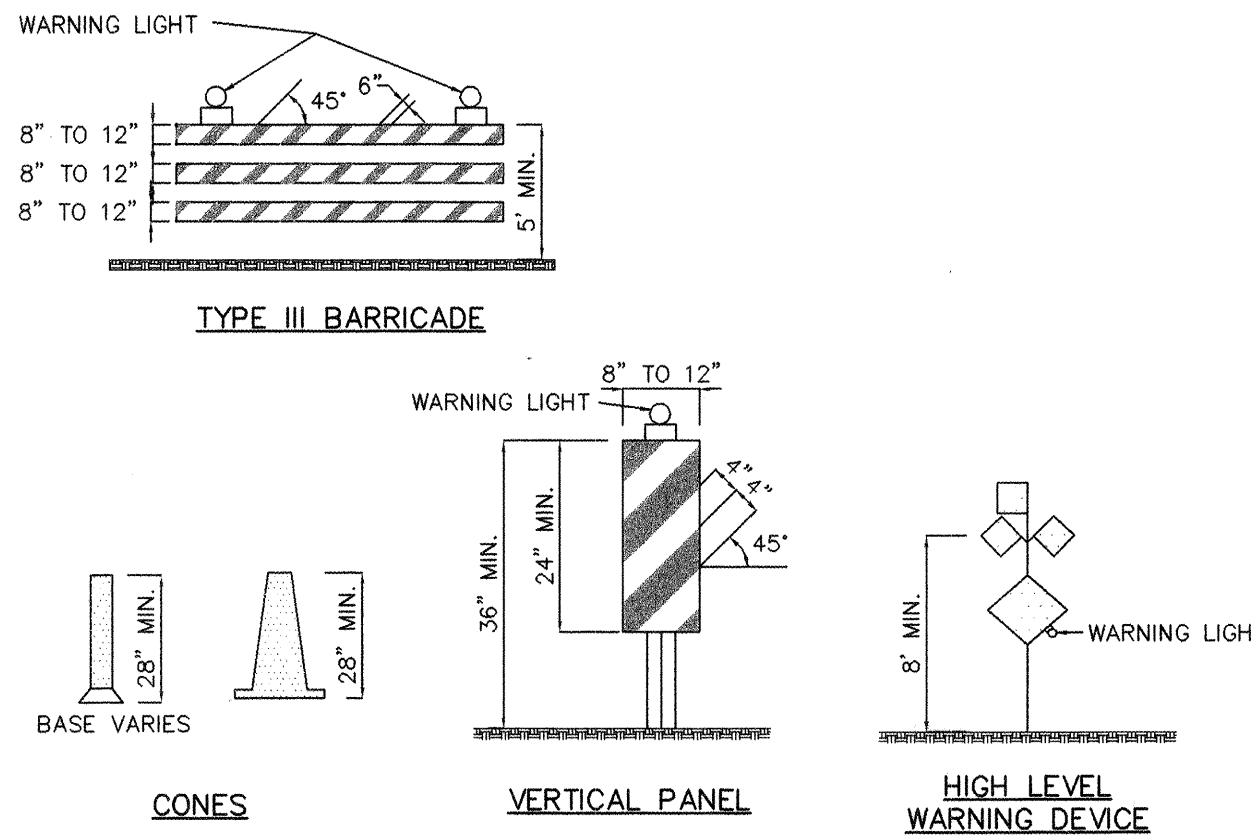
CONSTRUCTION TRAFFIC CONTROL GENERAL NOTES

1. CONTRACTOR MUST OBTAIN FROM CONSTRUCTION COORDINATION AN EXCAVATION/BARRICADING PERMIT BEFORE ENGAGING IN ANY CONSTRUCTION, MAINTENANCE OR REPAIR WORK IN ANY OF THE CITY OF ALBUQUERQUE'S RIGHTS-OF-WAY. EMERGENCY WORK THAT WOULD PRESERVE LIFE OR PROPERTY IS EXCLUDED WITH THE UNDERSTANDING, THAT A PERMIT SHALL BE OBTAINED WITHIN 24 TO 48 HOURS.
2. CONTRACTOR SHALL AT THE TIME OF PERMIT REQUEST, SUBMIT FOR APPROVAL BY CONSTRUCTION COORDINATION, A TRAFFIC CONTROL PLAN DETAILING ALL EXISTING TOPOGRAPHY SUCH AS LANE WIDTHS, DRIVEWAYS, AND BUSINESS/RESIDENTIAL ACCESSES. THE TRAFFIC CONTROL PLAN SHALL INCLUDE ALL PHASES OF WORK AND SCHEDULES INVOLVED IN THE CONSTRUCTION PROJECT. ANY SEPARATE PHASES OF A CONSTRUCTION PROJECT SHALL BE GIVEN AN INDIVIDUAL PERMIT EACH. BLANKET PERMITS WILL NOT BE ISSUED.
3. THESE TYPICAL TRAFFIC CONTROL PLANS DO NOT REFLECT THE EXISTING TOPOGRAPHY SUCH AS DRIVEWAYS, LANE WIDTHS, AND BUSINESS/RESIDENTIAL ACCESSES. EVERY LOCATION THAT REQUIRES CONSTRUCTION TRAFFIC CONTROL SHALL BE GIVEN A DETAILED TRAFFIC CONTROL PLAN SHOWING ALL EXISTING TOPOGRAPHY.
4. CONSTRUCTION SHALL NOT BEGIN UNLESS A TRAFFIC CONTROL PLAN HAS BEEN APPROVED AND VERIFIED BY CONSTRUCTION COORDINATION.
5. CONSTRUCTION COORDINATION SHALL BE NOTIFIED 48 HOURS PRIOR TO ANY TRAFFIC CONTROL CHANGES NEEDED BY CONTRACTOR, THAT WERE NOT PREVIOUSLY APPROVED. THESE TRAFFIC CONTROL CHANGES SHALL BE REQUESTED IN WRITING ACCOMPANIED WITH A TRAFFIC CONTROL PLAN REFLECTING SUCH CHANGES.
6. ALL CONSTRUCTION TRAFFIC CONTROL DEVICES SHALL COMPLY TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INSTALL, SERVICE AND MAINTAIN ALL TRAFFIC CONTROL DEVICES. TRAFFIC CONTROL DEVICES SHALL NOT BE REMOVED OR ALTERED IN ANY WAY WITHOUT THE APPROVAL OF CONSTRUCTION COORDINATION, PER SECTION 6A-4 OF THE MUTCD, LATEST EDITION.
7. THE CONSTRUCTION TRAFFIC CONTROL INITIAL SET-UP SHALL BE BY AN AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION (ATSSA) CERTIFIED WORKSITE TRAFFIC SUPERVISOR. THE MAINTENANCE AND SERVICING SHALL ALSO BE DONE BY AN ATSSA CERTIFIED WORKSITE TRAFFIC SUPERVISOR OR EQUIVALENT.
8. CONTRACTOR IS RESPONSIBLE TO MAINTAIN AND SERVICE ALL TRAFFIC CONTROL DEVICES 24 HOURS A DAY, 7 DAYS A WEEK THROUGHOUT LENGTH OF PROJECT. CONTRACTOR IS RESPONSIBLE THAT ALL TRAFFIC CONTROL DEVICES COMPLY WITH THE MUTCD, LATEST EDITION.
9. ALL ADVANCE WARNING SIGNS SHALL BE DOUBLE INDICATED WHENEVER THERE ARE MULTI-LANE TRAFFIC IN ANY ONE GIVEN DIRECTION AND THERE IS SUFFICIENT MEDIAN SPACE.
10. ALL BARRICADES IN ALL TAPERS AND TANGENTS SHALL BE PLACED APART, A DISTANCE MEASURED IN FEET, EQUAL TO THAT OF THE POSTED SPEED LIMIT. NO EXCEPTIONS UNLESS APPROVED BY CONSTRUCTION COORDINATION PER MUTCD SECTION 6A-4.
11. CONTRACTOR SHALL NOT BEGIN WORK BEFORE 7:00 A.M. OR END WORK AFTER 7:00 P.M. WITHOUT THE APPROVAL OF CONSTRUCTION COORDINATION.
12. CONTRACTOR IS RESPONSIBLE TO PROVIDE CONSTRUCTION COORDINATION, A WEEKLY LOG OF DAILY INSPECTIONS OF BARRICADE AND MAINTENANCE SCHEDULES ON PROJECTS THAT ARE OVER ONE WEEK DURATION.
13. EQUIPMENT OR MATERIALS SHALL NOT BE STORED WITHIN 15 FEET OF A TRAVELLED TRAFFIC LANE DURING NON-WORKING HOURS WITHOUT THE APPROVAL OF CONSTRUCTION COORDINATION.
14. CONTRACTOR SHALL PROVIDE AND MAINTAIN A SAFE AND ADEQUATE MEANS OF CHANNELIZING PEDESTRIAN TRAFFIC AROUND AND THROUGH THE CONSTRUCTION AREA.
15. CONTRACTOR IS RESPONSIBLE FOR OBLITERATION OF ANY CONFLICTING STRIPING AND RESPONSIBLE FOR ALL TEMPORARY STRIPING.
16. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL FACILITIES, BUSINESSES AND/OR RESIDENTS AT ALL TIMES.
17. CONTRACTOR SHALL PROVIDE ACCESS SIGNS FOR BUSINESSES LOCATED WITHIN THE CONSTRUCTION AREA UNDER THE SUPERVISION OF CONSTRUCTION COORDINATION. EACH ACCESS SIGN SHALL HAVE 5 INCH, WHITE OPAQUE LETTERING ON BLUE REFLECTORIZED BACKGROUND. ACCESS SIGNS SHALL BE CONSIDERED INCIDENTAL TO THE BID AND NOT PART OF THE CONTRACT UNLESS OTHERWISE STATED. NO MORE THAN 3 BUSINESSES SHALL BE LISTED ON A ACCESS SIGN. SHOPPING CENTERS AND MALLS SHALL BE LISTED AS SUCH.
18. ALL ADVANCE WARNING SIGNS SHALL MEET THE MINIMUM REFLECTIVE INTENSITY REQUIREMENTS SET FORTH BY THE CITY OF ALBUQUERQUE. CONSTRUCTION COORDINATION SHALL DETERMINE ALL REQUIREMENTS AND APPROVE OR DISAPPROVE ANY ADVANCE WARNING SIGN PER SECTION 6A-4 OF THE MUTCD, LATEST EDITION.
19. 24 HOURS PRIOR TO OCCUPYING OR CLOSING OF A RIGHT-OF-WAY, CONTRACTOR SHALL NOTIFY: POLICE, FIRE DEPARTMENT, SCHOOLS, HOSPITALS, TRANSIT AUTHORITY, BUSINESSES AND/OR RESIDENTS THAT WILL BE AFFECTED BY THE CONSTRUCTION.
20. ANY FIELD ADJUSTMENTS SHALL BE APPROVED BY CONSTRUCTION COORDINATION.
21. EXCAVATIONS SHALL BE PLATED, TEMPORARILY PATCHED OR RESURFACED PRIOR TO OPENING OF TRAFFIC. A MINIMUM OF 11 FEET SHALL BE PROVIDED FOR TRAFFIC IN ANY GIVEN DIRECTION. CONTRACTOR IS RESPONSIBLE FOR ANY WORK INVOLVED IN SATISFYING THESE REQUIREMENTS.
22. CONTRACTOR SHALL AT ALL TIMES COMPLY WITH THE FOLLOWING:
1. STANDARDS AND REQUIREMENTS SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
 2. THE CITY OF ALBUQUERQUE TRAFFIC CODE, LATEST EDITION.
 3. SECTION 19 OF THE CITY OF ALBUQUERQUE'S STANDARD SPECIFICATIONS FOR PUBLIC WORK CONSTRUCTION, AS WELL AS OTHER SECTIONS.
23. FAILURE TO COMPLY WITH ANY OF THE ABOVE MENTIONED, WILL BE ADEQUATE CAUSE TO CEASE ALL WORK ON ANY CONSTRUCTION PROJECT. WORK WILL NOT RESUME UNTIL ALL REQUIREMENTS ARE ADDRESSED AND APPROVED BY CONSTRUCTION COORDINATION.
24. ALL TRAFFIC CONTROL DEVICES SHALL BE KEPT IN NEW-CLEAN CONDITION. WASHING OF EQUIPMENT IS INCIDENTAL TO IT'S PLACEMENT AND MAINTENANCE.
25. TRAFFIC CONTROL STANDARDS APPLY ONLY WHERE THE CONSTRUCTION TRAFFIC CONTROL PLANS ARE NOT SPECIFIC.
26. ADVANCE WARNING SIGNS SHALL BE 36"x36" WITH SUPER ENGINEERING GRADE SHEETING OR BETTER.
27. CONTRACTOR SHALL MAINTAIN A MINIMUM OF ONE LANE IN ALL DIRECTIONS OF THE UNIVERSITY BOULEVARD/GEORGE ROAD INTERSECTION AT ALL TIMES. IF THIS CANNOT BE ACCOMPLISHED, THEN ALL WORK INVOLVING PARTIAL OR FULL ROAD CLOSURES SHALL OCCUR AT NIGHT BETWEEN 7:00 P.M. AND 6:00 A.M.

SIGN FACE DETAILS



ALL CONSTRUCTION WARNING SIGNS SHALL HAVE A BLACK LEGEND ON A ORANGE BACKGROUND.



LEGEND

- WORK AREA
- BARRICADE - TYPE I, TYPE II, OR BARREL
 - BARRICADE - TYPE III
 - X VERTICAL PANEL
 - + WARNING SIGN
 - D DISTANCE BETWEEN SIGNS - A DISTANCE MEASURED IN FEET EQUAL TO A VALUE OF TEN TIMES THE SPEED LIMIT OF THE STREET
 - FLAGMAN POSITION
 - S SPACING BETWEEN BARRICADES- A DISTANCE MEASURED IN FEET EQUAL TO THE SPEED LIMIT OF THE STREET
 - L TAPER LENGTH - SEE CHART BELOW

THE TANGENT LENGTH IS EQUAL TO THE TAPER LENGTH FOR A GIVEN STREET.

TAPER REQUIREMENTS

SPEED LIMIT (MPH)	TAPER LENGTH (L) (FEET)			MINIMUM NUMBER OF DEVICES FOR TAPER	MAXIMUM DEVICE SPACING IN FEET	
	10' LANE	11' LANE	12' LANE		ALONG TAPER	AFTER TAPER
20	70	75	80	5	20	20
25	105	115	125	6	25	25
30	150	165	180	7	30	30
35	205	225	245	8	35	35
40	270	295	320	9	40	40
45	450	495	540	13	45	45
50	500	550	600	13	50	50
55	550	605	660	13	55	55

RECOMMENDED SIGN SPACING(D) FOR ADVANCE WARNING SIGN SERIES

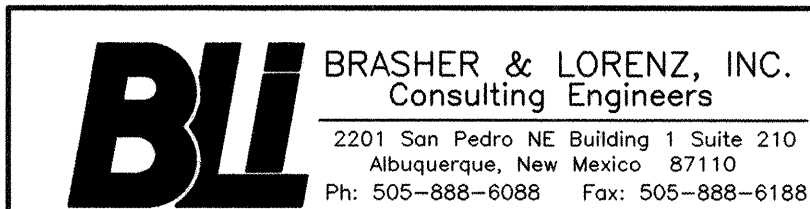
SPEED MILES PER HOUR	MINIMUM DISTANCE IN FEET	
	BETWEEN SIGNS	FROM LAST SIGN TO TAPER
0-20	10 X SPEED LIMIT	10 X SPEED LIMIT
25-30	10 X SPEED LIMIT	10 X SPEED LIMIT
30-35	10 X SPEED LIMIT	10 X SPEED LIMIT
40-45	10 X SPEED LIMIT	10 X SPEED LIMIT
50-60	10 X SPEED LIMIT	10 X SPEED LIMIT

TAPER CRITERIA

TYPE OF TAPER	TAPER LENGTH
UPSTREAM TAPER:	
MERGING TAPER	L MINIMUM
SHIFTING TAPER	1/2 L MINIMUM
SHOULDER TAPER	1/2 L MINIMUM
TWO-WAY TRAFFIC TAPER	100 FEET MAXIMUM
DOWNSTREAM TAPERS	100 FEET PER LANE

TAPER LENGTH COMPUTATION

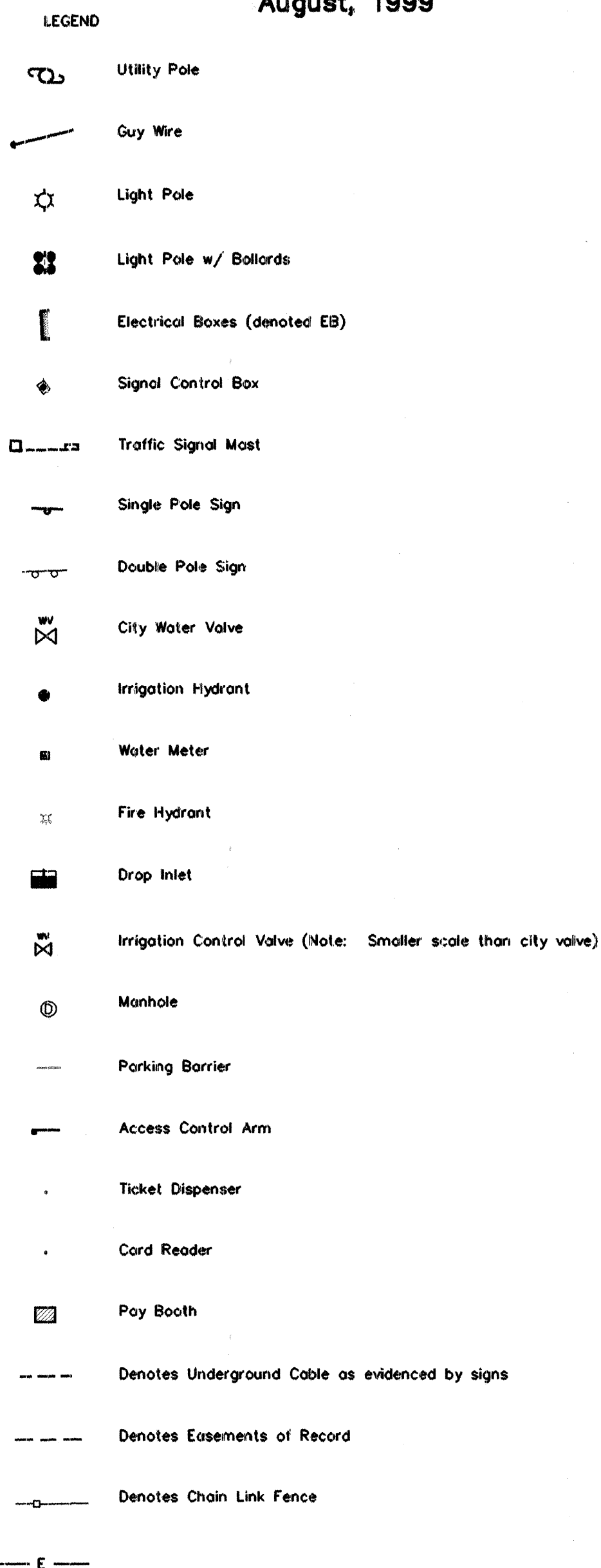
SPEED LIMIT	
40 MPH OR LESS	$L = \frac{WS^2}{60}$
45 MPH OR GREATER	$L = W \times S$
L = TAPER LENGTH W = WIDTH OF OFFSET IN FEET S = POSTED SPEED OR OFF-PEAK 85-PERCENTILE SPEED IN MPH	



CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

TITLE: SUNPORT PARK
TRAFFIC CONTROL PLAN

Design Review Committee		City Engineer Approval		Mo./Day/Yr.	Mo./Day/Yr.
APPROVED		JUL 29 1998			
DESIGN REVIEW COMMITTEE		Last Design Update			
City Project No.		Zone Map No.		Sheet	Of
5651.82		M-15		24	24



I, the undersigned, being a Professional Engineer in the State of New Mexico, do hereby certify that this drawing was prepared by me or under my supervision, and that the as-built information shown on Sheets 25 and 28 is based on actual field measurements performed by Marquez Surveying Co., Inc, and inspections performed by Brasher & Lorenz, Inc. I further certify that, as of this date, the as-built condition of the site is in substantial compliance with the approved Grading and Drainage Plan prepared by Brasher & Lorenz, Inc., dated March 17, 1998.

This certification is limited to on-site grading and drainage improvements and does not extend to the structural integrity of the materials used nor the workmanship of the contractor. Any future modifications to the site improvements shall render this certification null and void.

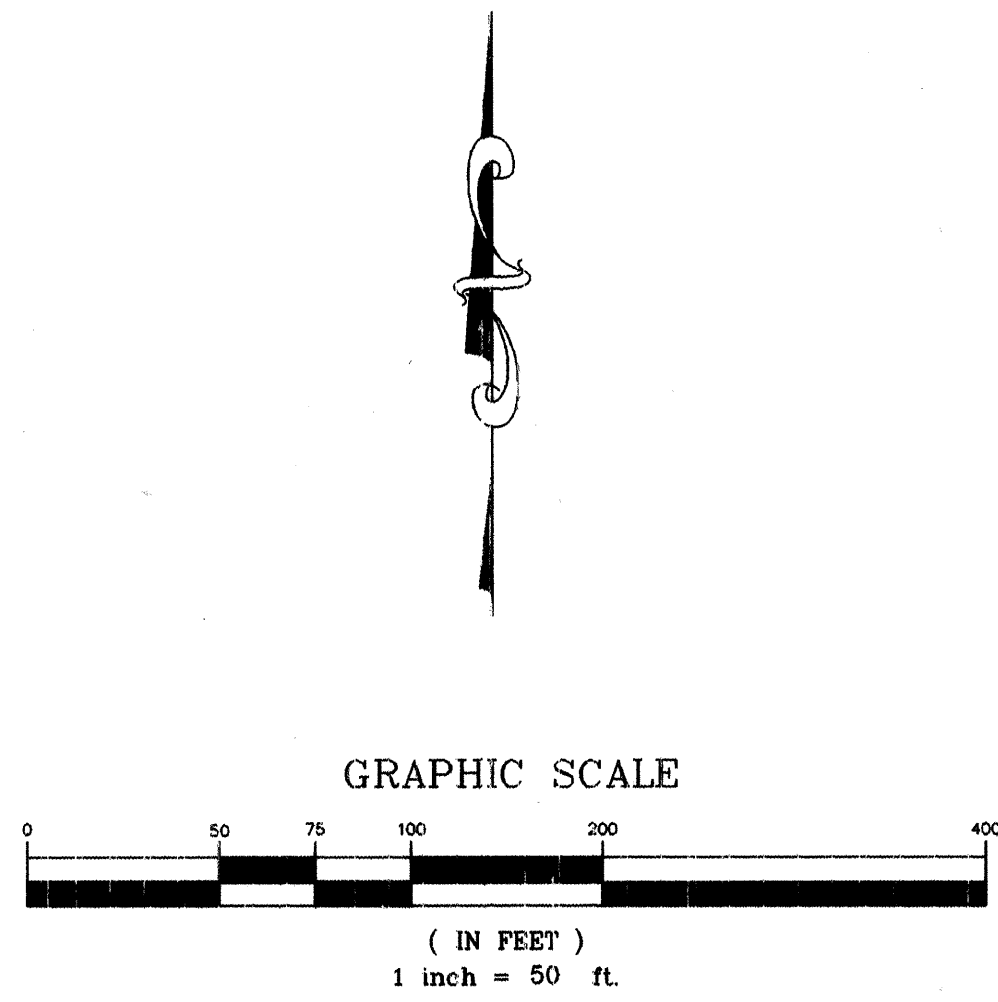
 12.2.99
Dennis A. Lorenz, NMPE 9547 Date

Marquez Surveying Co., Inc.

Main Office: 902 Fifth Street, NW
Albuquerque, NM 87102
505 842-6579 Fax: 246-9106

Western Branch: P. O. Box 11
Bluewater, NM 87030
505 876-2684

As-Built
Sunport Park
Phase I
August, 1999



ENGINEER'S CERTIFICATION

I, the undersigned, being a Professional Engineer in the State of New Mexico, do hereby certify that this drawing was prepared by me or under my supervision, and that the as-built information shown on Sheets 25 and 26 is based on actual field measurements performed by Marquez Surveying Co., Inc. and inspections performed by Brasher & Lorenz, Inc. I further certify that, as of this date, the as-built condition of the site is in substantial compliance with the approved Grading and Drainage Plan prepared by Brasher & Lorenz, Inc., dated March 17, 1998.

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Dennis A. Lorenz, NMPE 9641
Date 12-2-99

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