



OFFSITE IMPROVEMENT REQUIREMENTS

OCTOBER 2001

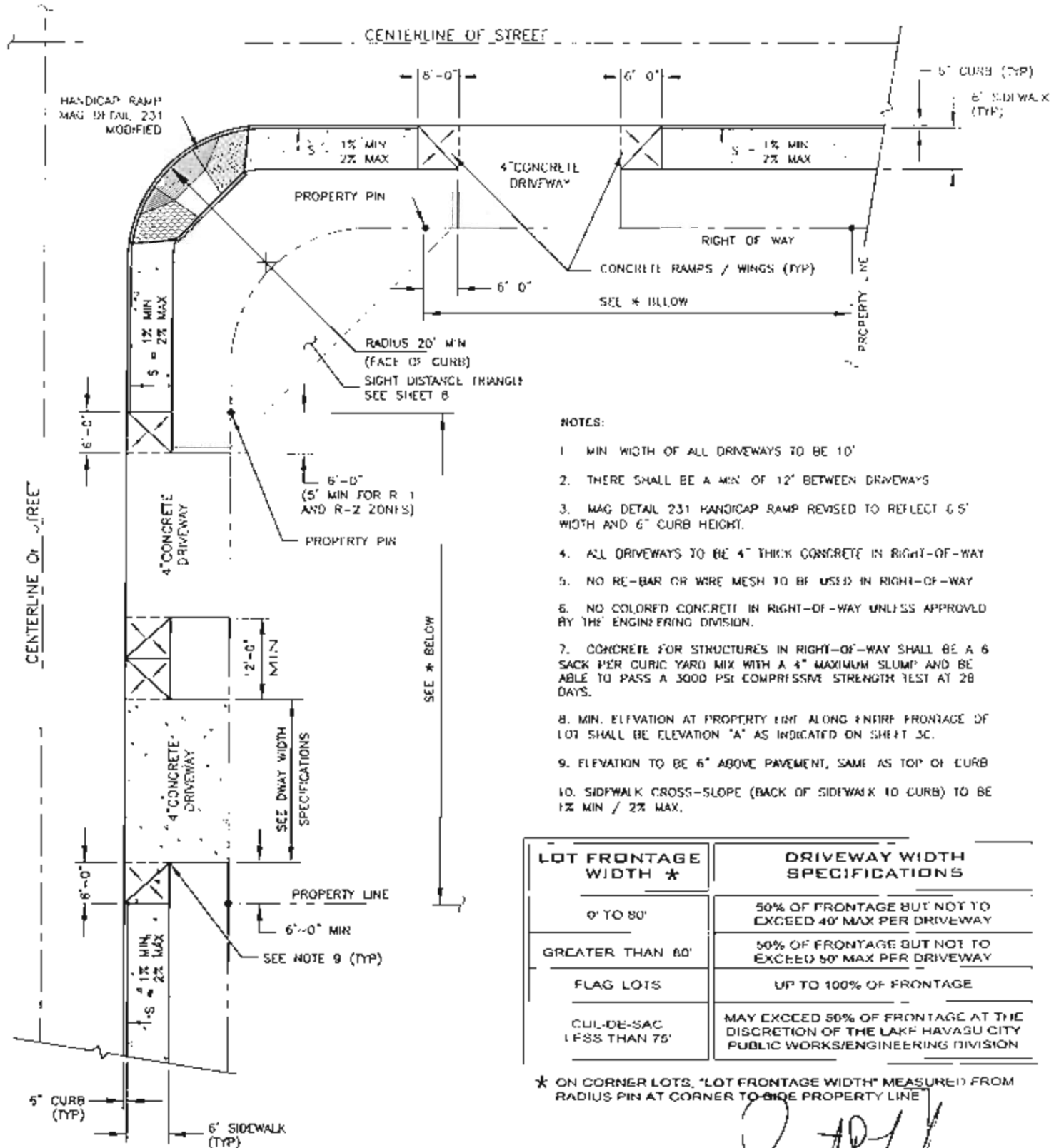
NOTE: ON THE FOLLOWING OFFSITE IMPROVEMENT DETAIL SHEETS, RIGHT-OF-WAY LINES AND PROPERTY LINES ARE SYNONYMOUS.

LAKE HAVASU CITY, ARIZONA

OFF-SITE IMPROVEMENT REQUIREMENTS

SINGLE & MULTIPLE DRIVEWAY-STREET/STREET INTERSECTION DETAILS

RESIDENTIAL (ZONE R-1, R-2, R-MH, R-E, R-A)



NOTES:

1. MIN WIDTH OF ALL DRIVEWAYS TO BE 10'
2. THERE SHALL BE A MIN OF 12' BETWEEN DRIVEWAYS
3. MAG DETAIL 231 HANDICAP RAMP REVISED TO REFLECT 6' WIDTH AND 6" CURB HEIGHT.
4. ALL DRIVEWAYS TO BE 4" THICK CONCRETE IN RIGHT-OF-WAY
5. NO RE-BAR OR WIRE MESH TO BE USED IN RIGHT-OF-WAY
6. NO COLORED CONCRETE IN RIGHT-OF-WAY UNLESS APPROVED BY THE ENGINEERING DIVISION.
7. CONCRETE FOR STRUCTURES IN RIGHT-OF-WAY SHALL BE A 6 SACK PER CURB YARD MIX WITH A 4" MAXIMUM SLUMP AND BE ABLE TO PASS A 3000 PSI COMPRESSIVE STRENGTH TEST AT 28 DAYS.
8. MIN. ELEVATION AT PROPERTY LINE ALONG ENTIRE FRONTAGE OF LOT SHALL BE ELEVATION "A" AS INDICATED ON SHEET 3C.
9. ELEVATION TO BE 6" ABOVE PAVEMENT, SAME AS TOP OF CURB
10. SIDEWALK CROSS-SLOPE (BACK OF SIDEWALK TO CURB) TO BE 1% MIN / 2% MAX.

LOT FRONTAGE WIDTH *	DRIVEWAY WIDTH SPECIFICATIONS
0' TO 80'	50% OF FRONTAGE BUT NOT TO EXCEED 40' MAX PER DRIVEWAY
GREATER THAN 80'	50% OF FRONTAGE BUT NOT TO EXCEED 50' MAX PER DRIVEWAY
FLAG LOTS	UP TO 100% OF FRONTAGE
CUL-DE-SAC LESS THAN 75'	MAY EXCEED 50% OF FRONTAGE AT THE DISCRETION OF THE LAKE HAVASU CITY PUBLIC WORKS/ENGINEERING DIVISION

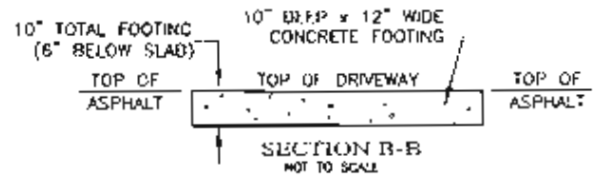
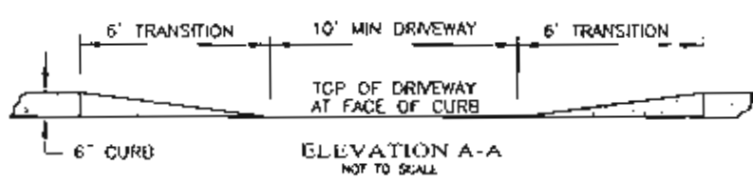
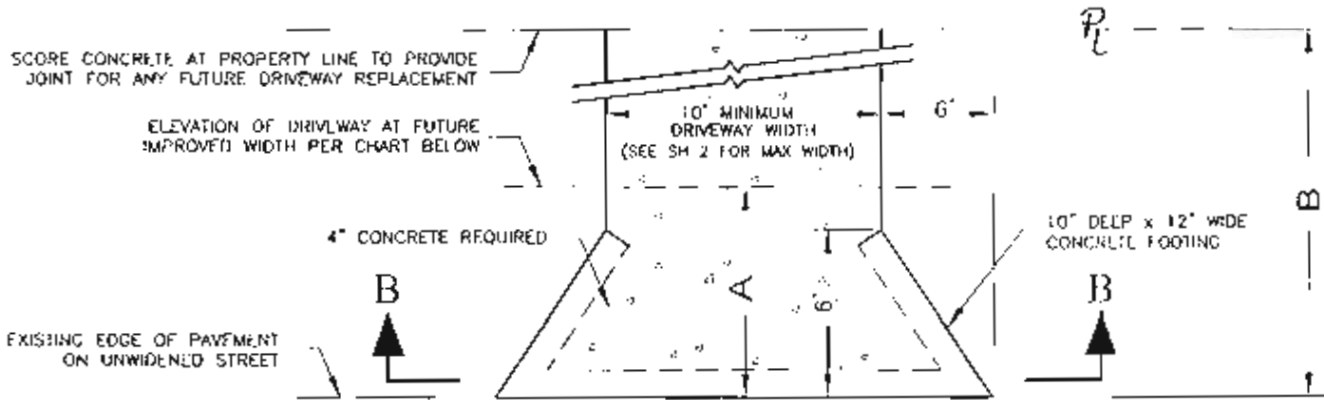
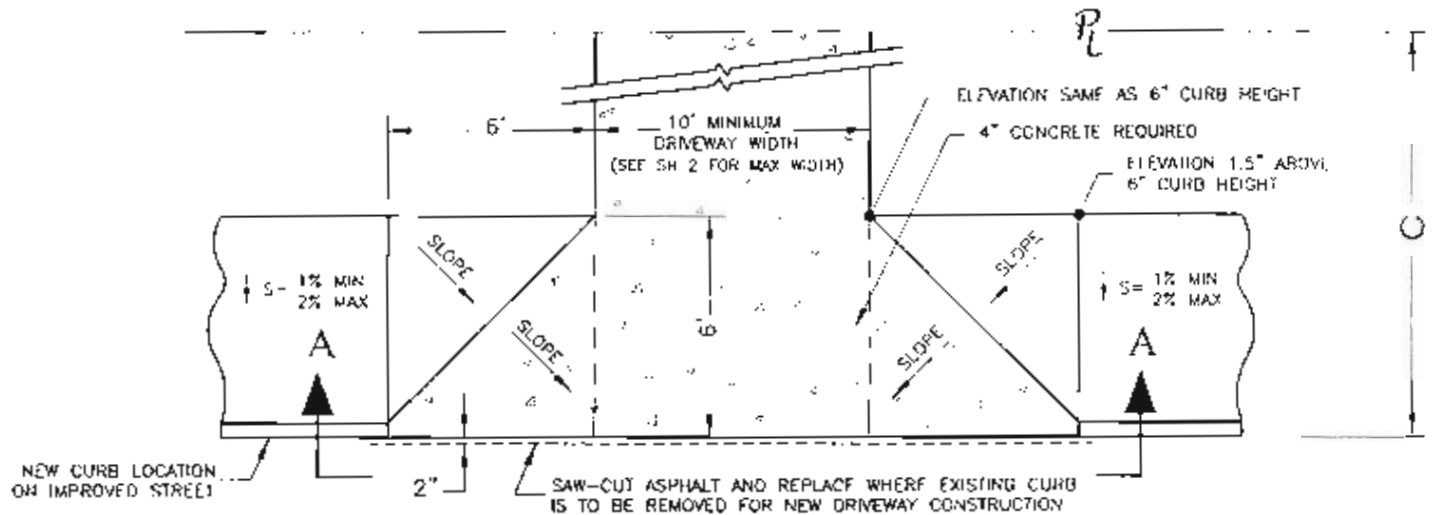
* ON CORNER LOTS, "LOT FRONTAGE WIDTH" MEASURED FROM RADIUS PIN AT CORNER TO SIDE PROPERTY LINE

Robert P. Leuck
 ROBERT P. LEUCK, CITY ENGINEER
 10/2/01
 DATE

LAKE HAVASU CITY, ARIZONA

PUBLIC WORKS DEPARTMENT DRIVEWAY SPECIFICATIONS

(ZONES R-1, R-2, R-E, R-A AND R-MH)

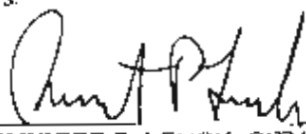


DISTANCE & ELEVATION TABLE ('W' SECTION)
 * ABOVE EXISTING EDGE OF PAVEMENT AT 2% SLOPE (BASED ON 12' EXISTING ASPHALT LAKE)

STREET	DISTANCE A	RISE *	DISTANCE B	DISTANCE C
BOULEVARD	15 FEET	4"	30 FEET	15 FEET
AVENUE	10 FEET	3"	23 FEET	13 FEET
DRIVE	9 FEET	3"	18 FEET	9 FEET

NOTES:

1. ELEVATION AT PROPERTY LINE TO REMAIN 11" ABOVE EDGE OF STREET ON 'W' SECTIONS.
2. CONCRETE FOR STRUCTURES IN RIGHT-OF-WAY SHALL BE A 6 SACK PER CUBIC YARD MIX WITH A 4" MAXIMUM SLUMP AND BE ABLE TO PASS A 3000 PSI COMPRESSIVE STRENGTH TEST AT 28 DAYS.
3. NO COLORED CONCRETE IN RIGHT-OF-WAY UNLESS APPROVED BY THE ENGINEERING DIVISION.
4. SEE SHEET 2 FOR MAXIMUM DRIVEWAY WIDTHS.
5. MINIMUM SPACING BETWEEN DRIVEWAYS TO BE 12'.
6. NO REBAR OR WIRE MESH IN RIGHT-OF-WAY.
7. MINIMUM WIDTH OF ALL DRIVEWAYS TO BE 10'.
8. SIDEWALK CROSS-SLOPE (BACK OF SIDEWALK TO CURB) TO BE 1% MIN / 2% MAX

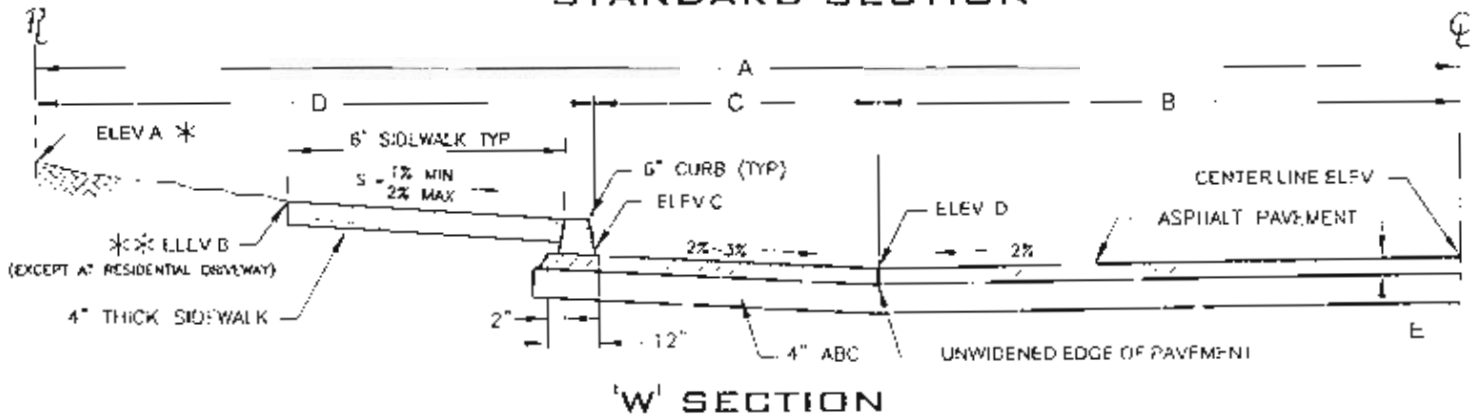
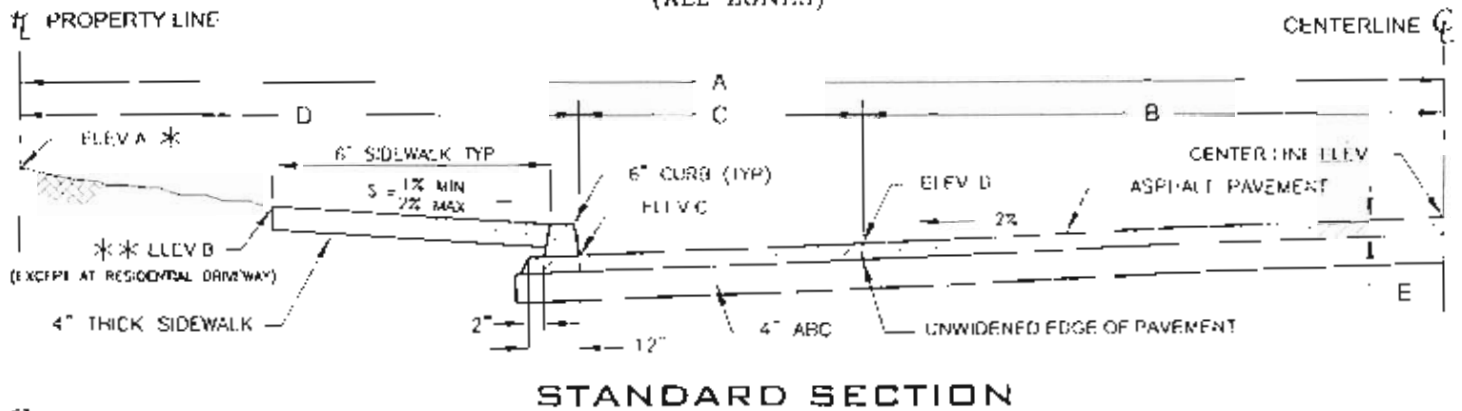

ROBERT P. LEUCK, CITY ENGINEER
 10/2/01
 DATE

LAKE HAVASU CITY, ARIZONA

PUBLIC WORKS DEPARTMENT

STREET AND DRIVEWAY CROSS-SECTION DETAILS AND ELEVATIONS

(ALL ZONES)



FINISHED ELEVATIONS

(SHOWN IN INCHES ABOVE (+) OR BELOW (-) CENTER LINE)

STREET	STANDARD SECTION				'W' SECTION			
	*A (MIN)	**B	C	D	*A (MIN)	**B	C	D
BOULEVARD	+1.5"	+1"	-6.5"	-4.25"	+7"	+6.5"	-1"	-4.25"
AVENUE	+2.5"	+2"	-5.5"	-3"	+8.75"	+8.25"	+0.75"	-3"
DRIVE	+2.75"	+2.25"	-5.25"	-3"	+8.25"	+8"	+0.5"	-3"
CUL-DE-SAC	+3.5"	+3"	-4.5"	-3"	N/A	N/A	N/A	N/A

* UNLESS OTHERWISE APPROVED BY THE PUBLIC WORKS DEPARTMENT

** ELEVATION 'B' AT RESIDENTIAL DRIVEWAY TO BE ELEVATION 'C' + 6" OR EQUAL TO TOP OF CURB ELEVATION

★ FIELD VERIFY UNWIDENED PAVEMENT WIDTH. ADJUST DIMENSION 'B' AND 'C' ACCORDINGLY TO EQUAL 27' TOTAL.

DIMENSIONS

STREET	R/W	A	B	C	D	E
BOULEVARD	84'	42'	18'★	9'★	15'	2'
AVENUE	70'	35'	12'	10'	13'	2'
DRIVE	60'	30'	12'	9'	9'	2'
CUL-DE-SAC	50'	25'	12'	6'	7'	2'

SPECIAL NOTES:

1. PUBLIC WORKS DEPARTMENT TO DETERMINE STREET CROSS-SECTION.
2. MIN. ELEVATION AT PROPERTY LINE ALONG ENTIRE FRONTAGE OF LOT TO BE IN ACCORDANCE WITH ELEVATION 'A'

NOTES:

1. ALL PAVEMENT WIDENING MUST INCLUDE CURBS.
2. NO ROLL CURBS PERMITTED. SEE SHEET 9 FOR CURB DETAIL.
3. 'W' SECTION ONLY ALLOWED IF APPROVED BY PUBLIC WORKS DEPARTMENT FOR DRAINAGE PURPOSES ONLY.
5. INDICATED CURBS, SIDEWALKS AND WIDENING MAY BE EITHER EXISTING OR FUTURE.
6. SIDEWALK CROSS-SLOPE (BACK OF SIDEWALK TO CURB) TO BE 1% MIN / 2% MAX.

SCALE: NONE

Robert P. Leuck
 ROBERT P. LEUCK, CITY ENGINEER
 10/2/01
 DATE

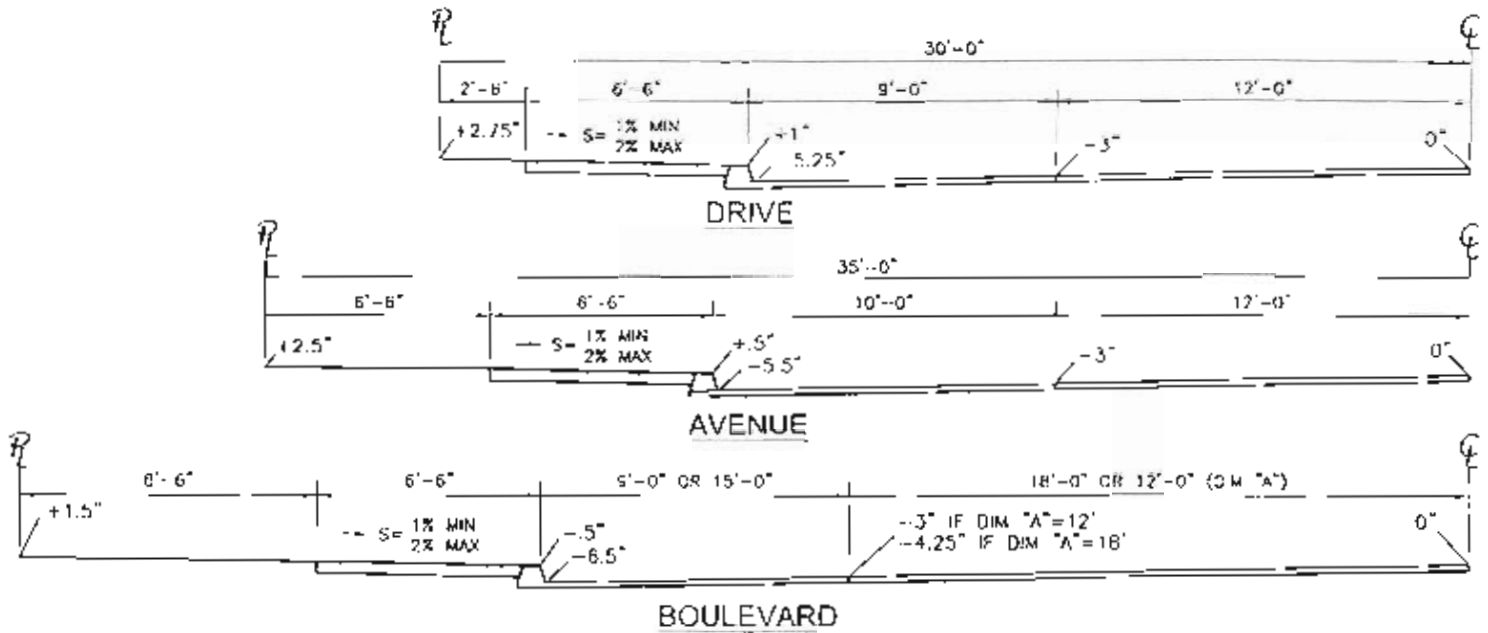
SHEET 38

LAKE HAVASU CITY, ARIZONA

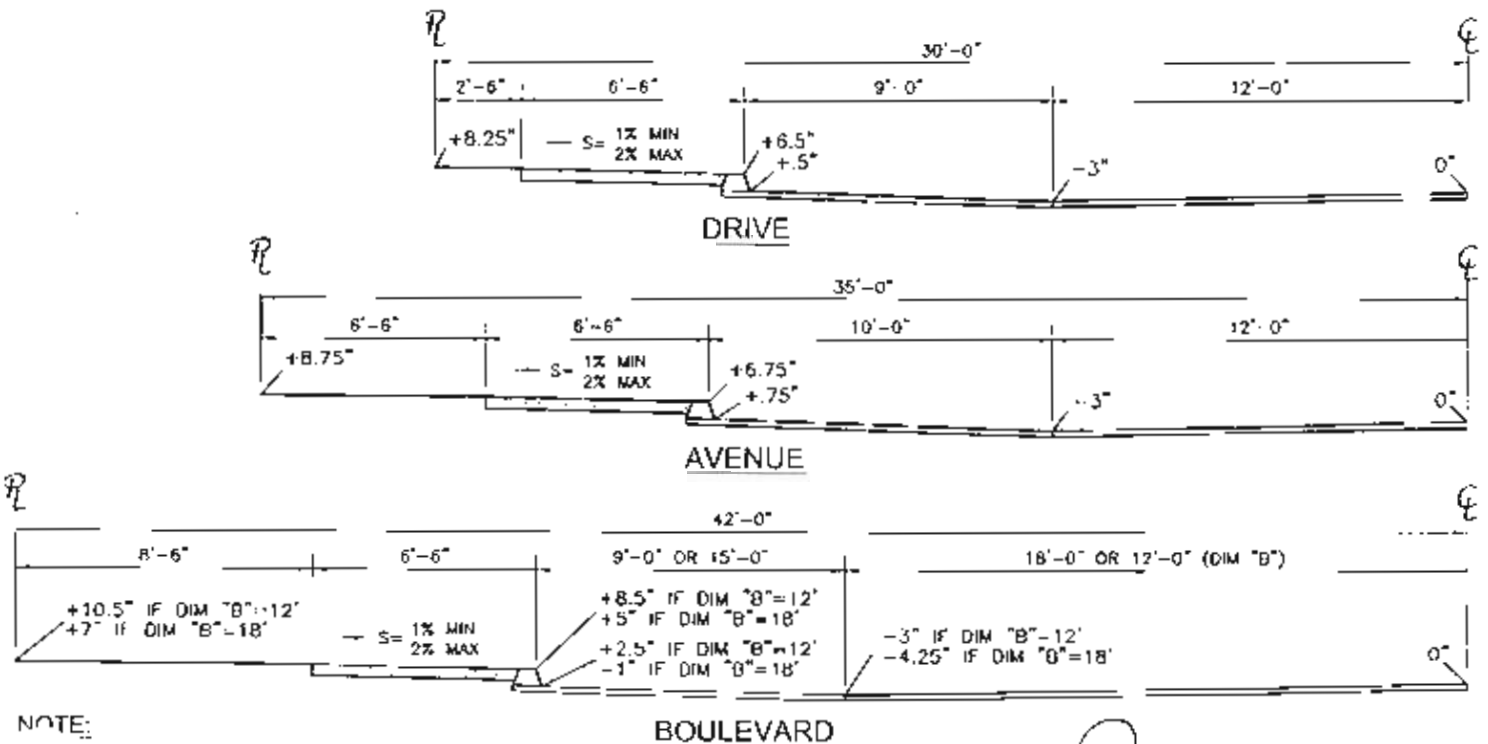
PUBLIC WORKS DEPARTMENT

STREET AND SIDEWALK CROSS-SECTION DETAILS AND ELEVATIONS (ALL ZONES)

STANDARD SECTION



'W' SECTION



NOTE:

1. ALL ELEVATIONS SHOWN IN INCHES
2. ABOVE (+) AND BELOW (Ⓢ)
3. SIDEWALK CROSS-SLOPE (BACK OF SIDEWALK TO CURB) TO BE 1% MIN / 2% MAX

SCALE: NONE

DATE - 01/28/01

Robert P. Leuck
 ROBERT P. LEUCK, CITY ENGINEER

10/2/01
 DATE

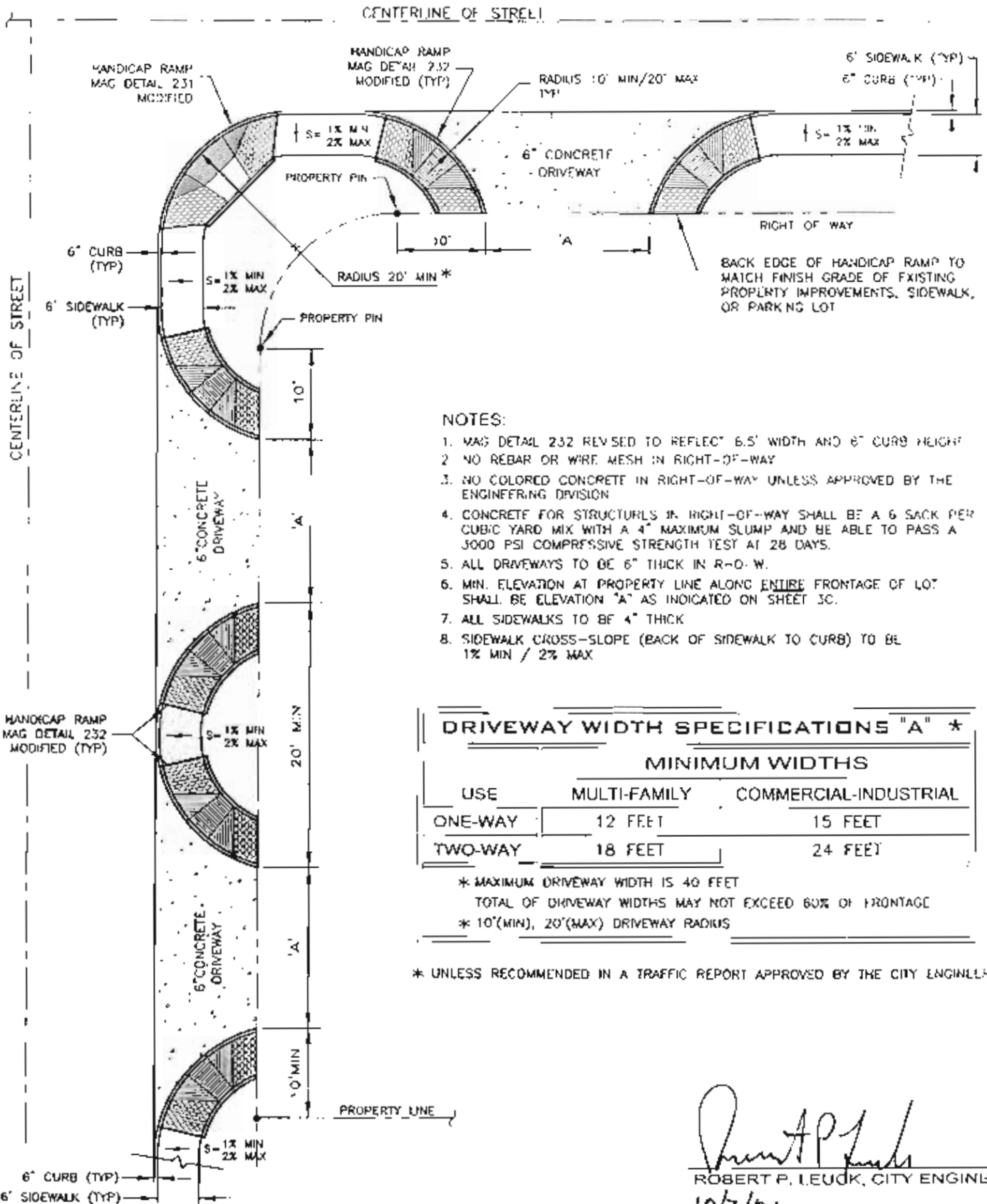
SHEET 3C

LAKE HAVASU CITY, ARIZONA

OFF-SITE IMPROVEMENT REQUIREMENTS

MULTIPLE DRIVEWAY-STREET/STREET INTERSECTION DETAILS

(ZONE R-3 OR GREATER)



NOTES:

1. MAG DETAIL 232 REVISED TO REFLECT 6.5' WIDTH AND 6" CURB HEIGHT
2. NO REBAR OR WIRE MESH IN RIGHT-OF-WAY
3. NO COLORED CONCRETE IN RIGHT-OF-WAY UNLESS APPROVED BY THE ENGINEERING DIVISION
4. CONCRETE FOR STRUCTURES IN RIGHT-OF-WAY SHALL BE A 6 SACK PER CUBIC YARD MIX WITH A 4" MAXIMUM SLUMP AND BE ABLE TO PASS A 3000 PSI COMPRESSIVE STRENGTH TEST AT 28 DAYS.
5. ALL DRIVEWAYS TO BE 6" THICK IN R-O-W.
6. MIN. ELEVATION AT PROPERTY LINE ALONG ENTIRE FRONTAGE OF LOT SHALL BE ELEVATION "A" AS INDICATED ON SHEET 3C.
7. ALL SIDEWALKS TO BE 4" THICK
8. SIDEWALK CROSS-SLOPE (BACK OF SIDEWALK TO CURB) TO BE 1% MIN / 2% MAX

DRIVEWAY WIDTH SPECIFICATIONS "A" *

MINIMUM WIDTHS		
USE	MULTI-FAMILY	COMMERCIAL-INDUSTRIAL
ONE-WAY	12 FEET	15 FEET
TWO-WAY	18 FEET	24 FEET

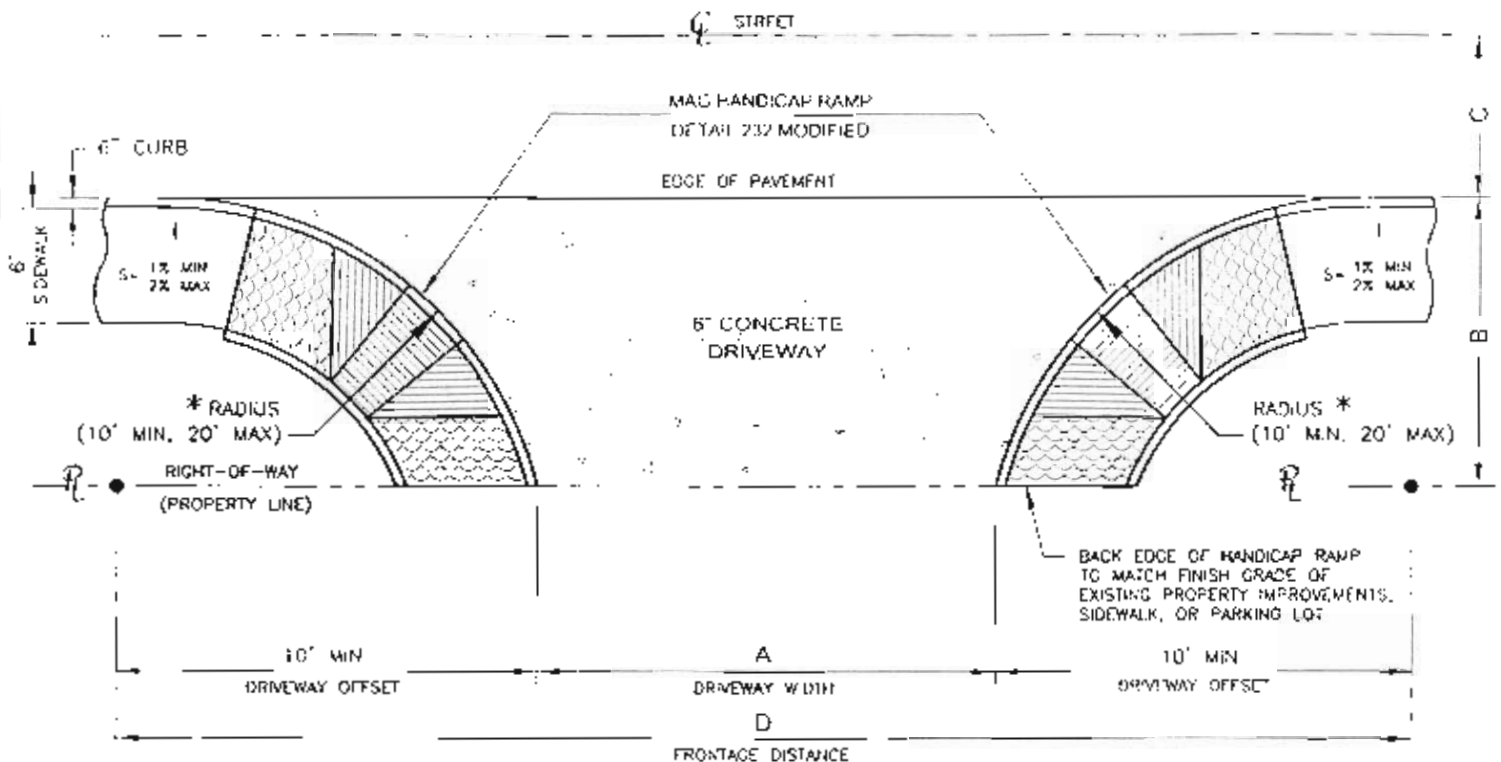
* MAXIMUM DRIVEWAY WIDTH IS 40 FEET
 TOTAL OF DRIVEWAY WIDTHS MAY NOT EXCEED 60% OF FRONTAGE
 * 10'(MIN), 20'(MAX) DRIVEWAY RADII

* UNLESS RECOMMENDED IN A TRAFFIC REPORT APPROVED BY THE CITY ENGINEER


 ROBERT P. LEUCK, CITY ENGINEER
 10/2/01
 DATE

LAKE HAVASU CITY, ARIZONA

OFF-SITE IMPROVEMENT REQUIREMENTS DRIVEWAY/STREET INTERSECTION DETAILS (ZONE R-3 OR GREATER)



(NOTE: FRONTAGE DISTANCE ON CORNER LOTS MEASURED FROM RADIUS P.A. TO SIDE PROPERTY LINE)

* UNLESS RECOMMENDED IN A TRAFFIC REPORT APPROVED BY THE CITY ENGINEER

DRIVEWAY WIDTH SPECIFICATIONS (A)

USE	MINIMUM WIDTHS	
	MULTI-FAMILY	COMMERCIAL-INDUSTRIAL
ONE-WAY	12 FEET	15 FEET
TWO-WAY	18 FEET	24 FEET

MAXIMUM DRIVEWAY WIDTH IS 40 FEET

TOTAL OF DRIVEWAY WIDTHS MAY NOT EXCEED 60% OF FRONTAGE (D)

* 10' (MIN), 20' (MAX) DRIVEWAY RADIUS

STREET WIDTH DATA

STREET TYPE	B	C
BOULEVARD	15 FEET	27 FEET
AVENUE	13 FEET	22 FEET
DRIVE	9 FEET	21 FEET
CUL-DE-SAC	7 FEET	18 FEET

NOTES:

- ALL SIDEWALKS TO BE 4" THICK CONCRETE
- ALL DRIVEWAYS TO BE 6" THICK CONCRETE
- NO REBAR OR WIRE MESH IN RIGHT-OF-WAY
 3 DETAIL 232 REVISED TO REFLECT 6.5" WIDTH AND 6" CURB HEIGHT
- COLORED CONCRETE IN RIGHT-OF-WAY UNLESS APPROVED BY THE ENGINEERING DIVISION
- CONCRETE FOR STRUCTURES IN RIGHT-OF-WAY SHALL BE A 6 SACK PER CUBIC YARD MIX WITH A 4" MAXIMUM SLUMP AND BE ABLE TO PASS A 3000 PSI COMPRESSIVE STRENGTH TEST AT 28 DAYS
- SIDEWALK CROSS-SLOPE (BACK OF SIDEWALK TO CURB) TO BE 1% MIN / 2% MAX

SCALE: NONE

Robert P. Leuck
 ROBERT P. LEUCK, CITY ENGINEER
 10/2/01
 DATE

SHEET 5

LAKE HAVASU CITY, ARIZONA

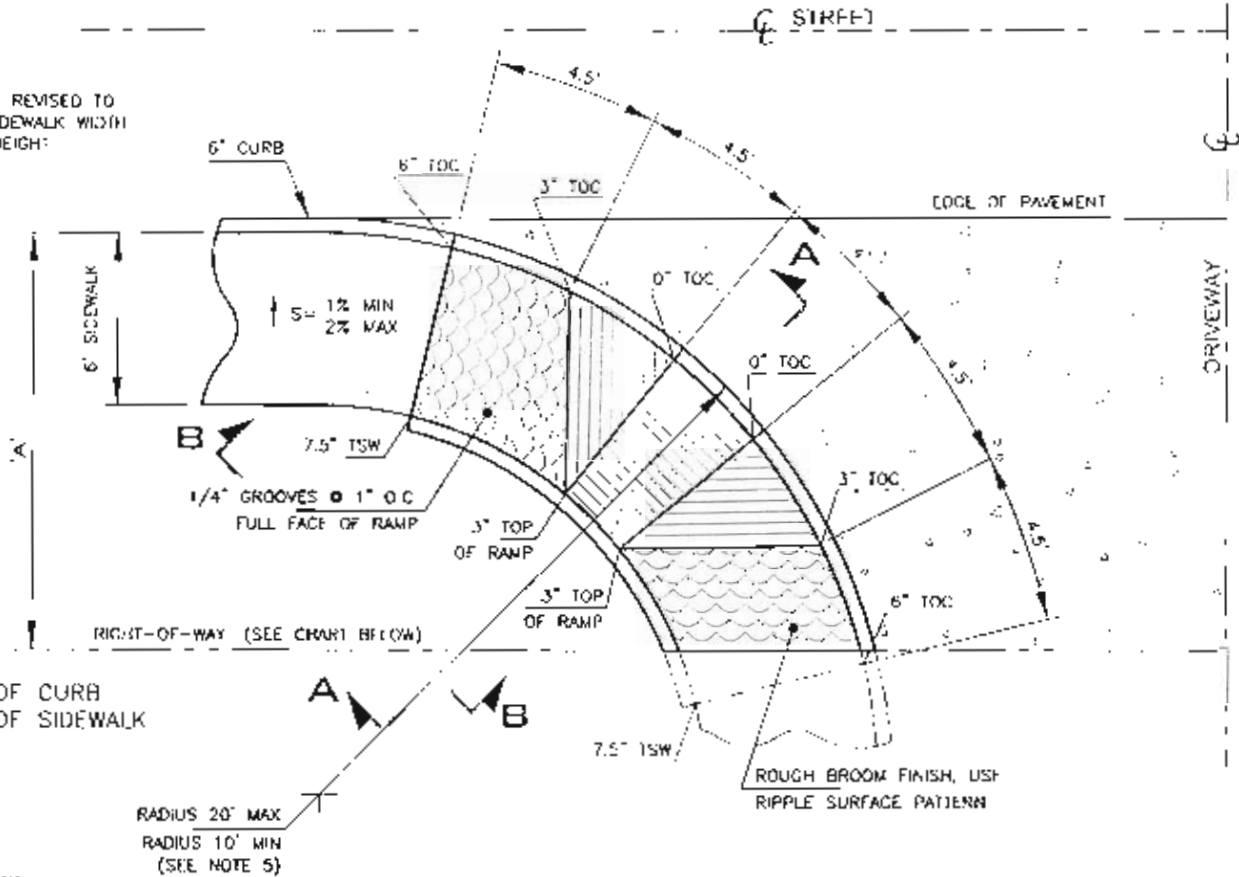
OFF-SITE IMPROVEMENT REQUIREMENTS

HANDICAP RAMP MAG DETAIL 232 (MODIFIED)

THIS DETAIL FOR DRIVEWAY/STREET INTERSECTIONS

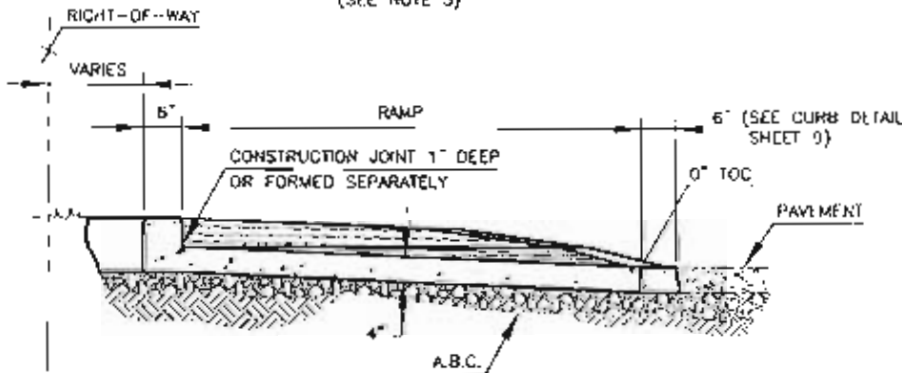
NOTE:

MAG DETAIL 232 REVISED TO REFLECT 6' 5" SIDEWALK WIDTH AND 6" CURB HEIGHT



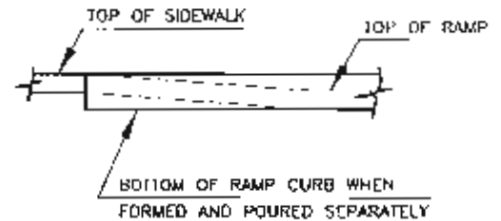
TCC - TOP OF CURB
TSW - TOP OF SIDEWALK

RADIUS 20' MAX
RADIUS 10' MIN
(SEE NOTE 5)



SECTION A-A

ROTATED 45° CW



VIEW B-B

ROTATED 45° CCW

NOTES:

1. RAMP MUST HAVE GROOVE SLOPING RAMP FACE PER MAG DETAIL 232
2. CENTER OF HANDICAP RAMP TO BE ORIENTED 45° TO THE CENTERLINE OF STREET
3. CONCRETE STRUCTURES IN RIGHT-OF-WAY SHALL BE A 6 SACK PER CUBIC YARD MIX WITH A 4" MAX SLUMP AND BE ABLE TO PASS A 3000 PSI COMPRESSIVE STRENGTH TEST AT 28 DAYS
4. ALL SIDEWALKS TO BE 4" THICK CONCRETE.
5. HANDICAP RAMP RADIUS TO BE 10' MIN TO 20' MAX UNLESS OTHERWISE RECOMMENDED IN A TRAFFIC REPORT APPROVED BY THE CITY ENGINEER
NO COLORED CONCRETE IN RIGHT-OF-WAY UNLESS APPROVED BY THE ENGINEERING DIVISION
7. NO REBAR OR WIRE MESH IN RIGHT-OF-WAY.
8. CONTROL ELEVATIONS SHOWN ARE IN RELATION TO TOP OF CURB AT 0" OR 6" FOR TOC AND ARE LOCATED RADIALLY
9. SIDEWALK CROSS-SLOPE (BACK OF SIDEWALK TO CURB) TO BE 1% MIN / 2% MAX

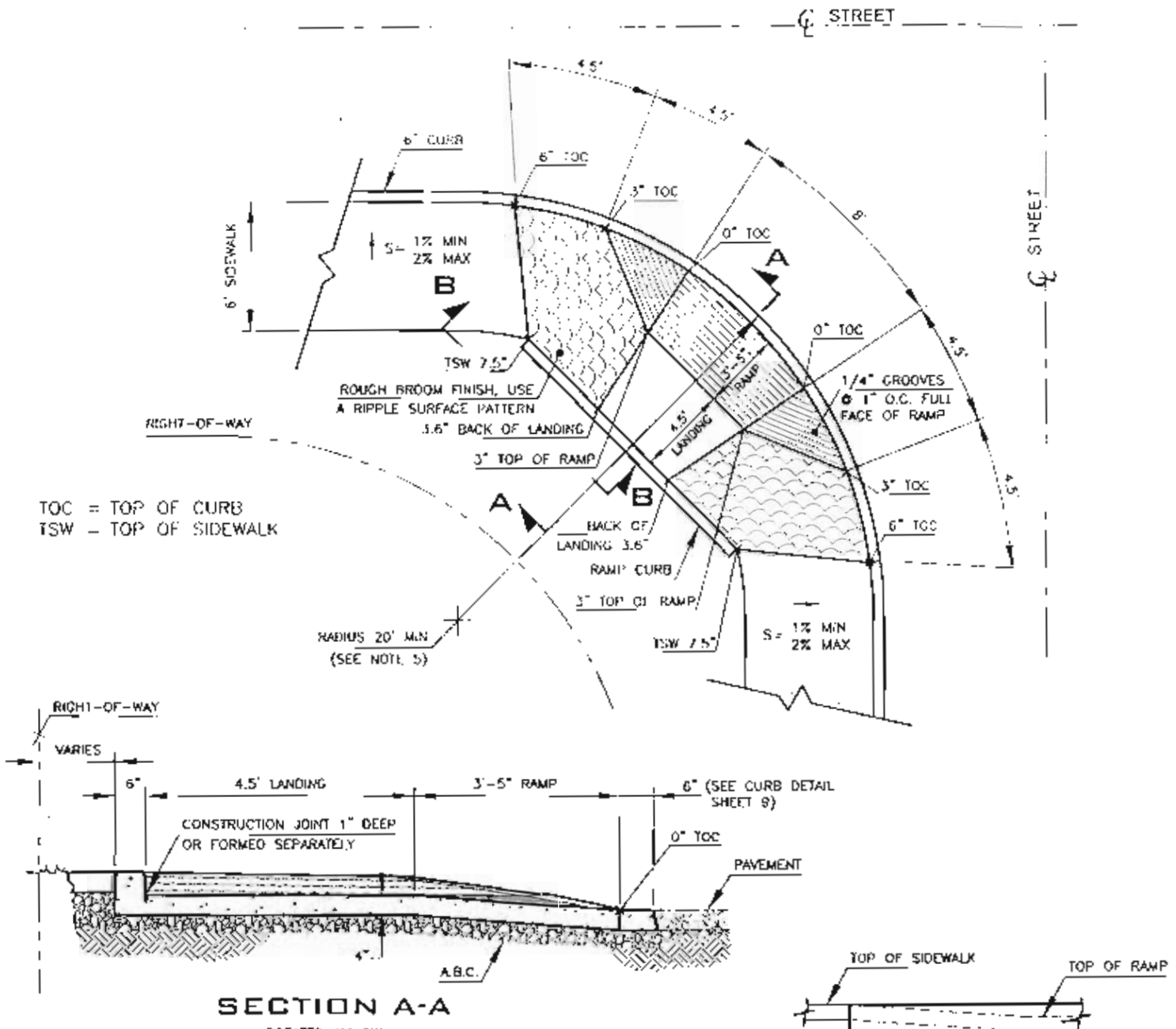
DIM 'A' - RIGHT OF WAY	
STREET TYPE	WIDTH
BOULEVARD	15'
AVENUE	13'
DRIVE	9'
OTHER	7'

Robert P. Leuck
ROBERT P. LEUCK, CITY ENGINEER

10/2/01
DATE

LAKE HAVASU CITY, ARIZONA

OFF-SITE IMPROVEMENT REQUIREMENTS HANDICAP RAMP MAG DETAIL 231 (MODIFIED) THIS DETAIL FOR STREET/STREET INTERSECTIONS (ALL ZONES)



SECTION A-A
ROTATED 45° CW

VIEW B-B
ROTATED 45° CCW

NOTES:

1. RAMP MUST HAVE GROOVE SLOPING RAMP FACE PER MAG DETAIL 234
2. CENTER OF HANDICAP RAMP TO BE ORIENTED 45° TO THE CENTERLINE OF STREET
3. CONCRETE STRUCTURES IN RIGHT-OF-WAY SHALL BE A 6 SACK PER CUBIC YARD MIX WITH A 4" MAX SLUMP AND BE ABLE TO PASS A 3000 PSI COMPRESSIVE STRENGTH TEST AT 28 DAYS
4. ALL SIDEWALKS TO BE 4" THICK.
5. HANDICAP RAMP RADIUS TO BE 20' MIN UNLESS OTHERWISE RECOMMENDED IN A TRAFFIC REPORT APPROVED BY THE CITY ENGINEER
6. NO COLORED CONCRETE IN RIGHT-OF-WAY UNLESS APPROVED BY THE ENGINEERING DIVISION
7. NO REBAR OR WIRE MESH IN RIGHT-OF-WAY.
8. CONTROL ELEVATIONS SHOWN ARE IN RELATION TO TOP OF CURB AT 0" OR 6" FOR TOC AND ARE LOCATED RADIALY
9. SIDEWALK CROSS-SLOPE (BACK OF SIDEWALK TO CURB) TO BE 1% MIN / 2% MAX

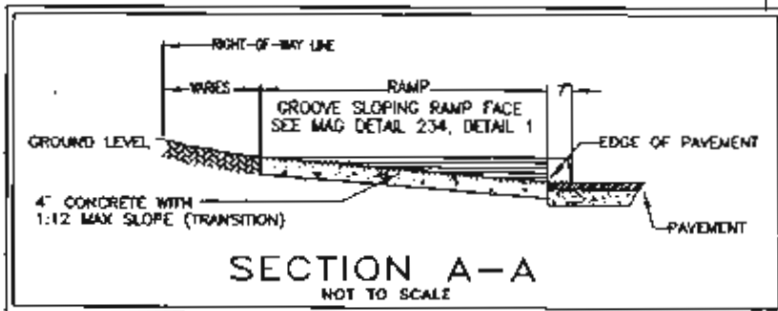
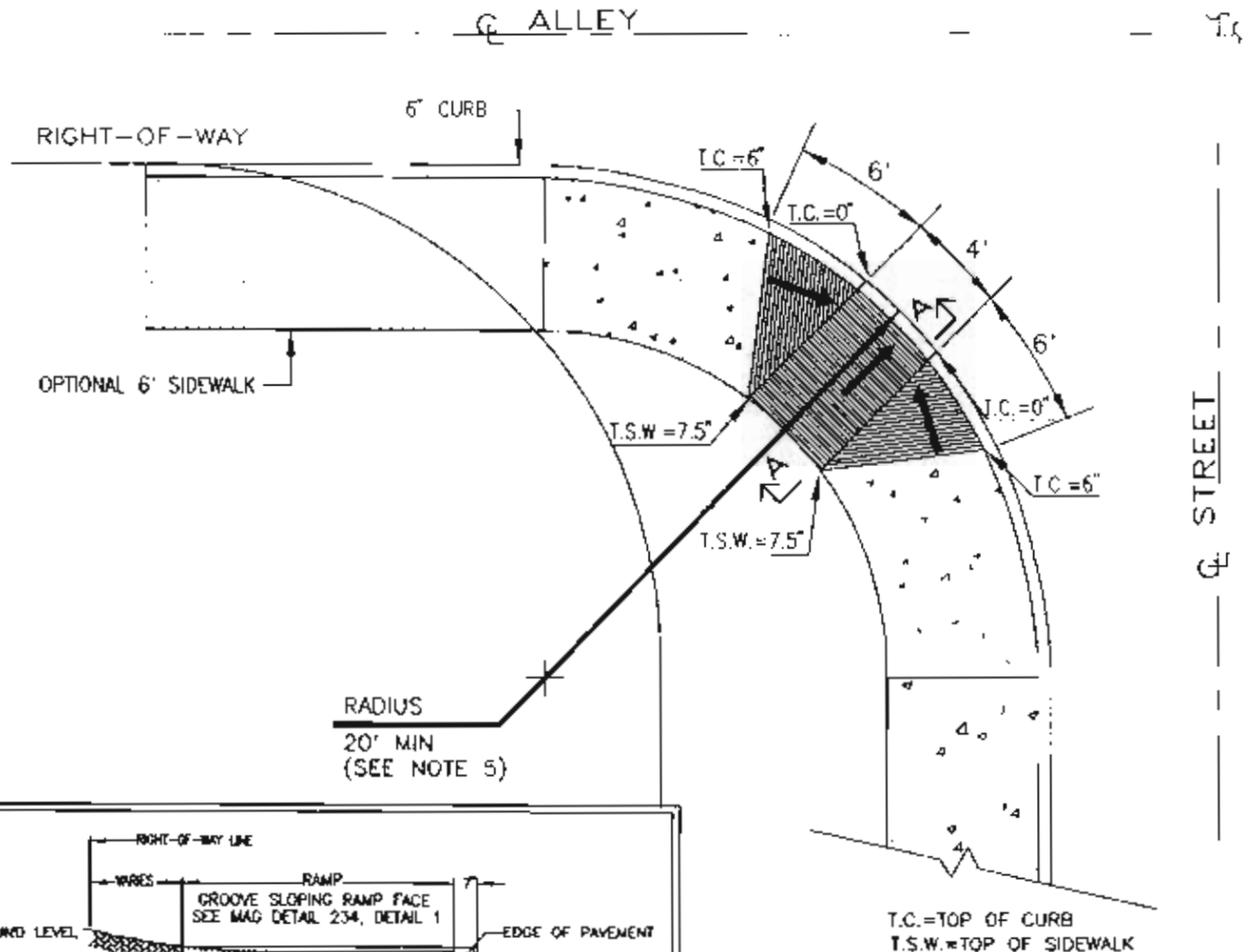
SCALE: NONE

JLR - 09/28/01

Robert P. Leuck
ROBERT P. LEUCK, CITY ENGINEER
10/2/01
DATE

SHEET 7

LAKE HAVASU CITY, ARIZONA
OFF-SITE IMPROVEMENT REQUIREMENTS
HANDICAP RAMP MAG DETAIL 234 (MODIFIED)
THIS DETAIL FOR STREET/ALLEY INTERSECTIONS



NOTES:

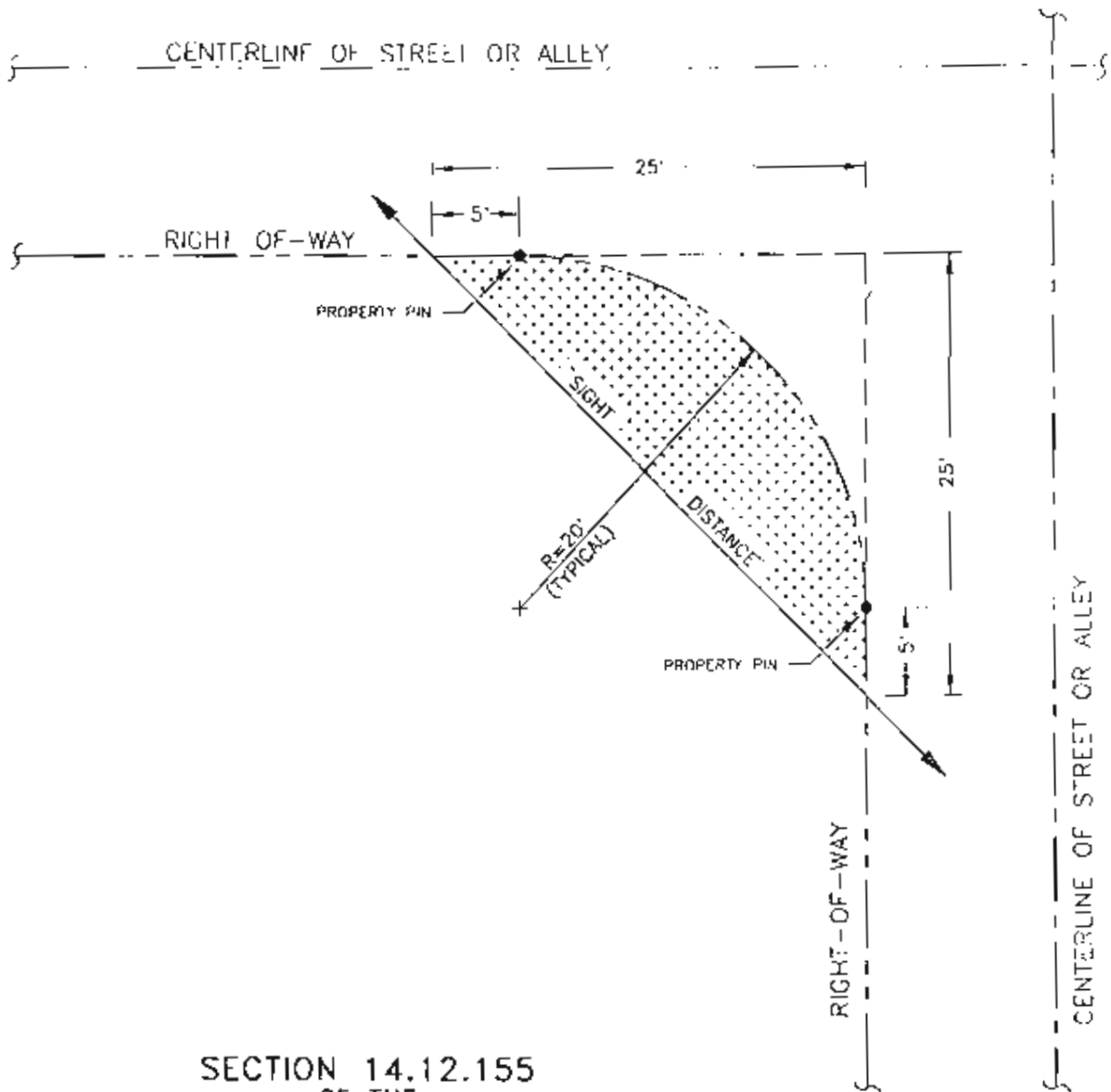
1. RAMP **MUST** HAVE GROOVE SLOPING RAMP FACE PER MAG DETAIL 234
2. CENTER OF HANDICAP RAMP TO BE ORIENTED 45° TO THE CENTER LINE OF STREET.
3. CONCRETE STRUCTURES IN RIGHT-OF-WAY SHALL BE A 6 SACK PER CUBIC YARD MIX WITH A 4" MAX. SLUMP AND BE ABLE TO PASS A 3000 PSI COMPRESSIVE STRENGTH TEST AT 28 DAYS.
4. ALL SIDEWALKS TO BE 4" THICK.
5. UNLESS RECOMMENDED IN A TRAFFIC REPORT APPROVED BY THE CITY ENGINEER.
6. ARROWS DENOTE 1:12 MAXIMUM SLOPE.
7. NO COLORED CONCRETE IN RIGHT-OF-WAY UNLESS APPROVED BY THE ENGINEERING DIVISION.
8. NO REBAR OR WIRE MESH IN RIGHT-OF-WAY.

ROBERT P. LEUCK, CITY ENGINEER

2/5/97
DATE

SCALE: NONE

LAKE HAVASU CITY, ARIZONA
ZONING CODE SECTION 14.12.155
SIGHT DISTANCE TRIANGLE



SECTION 14.12.155
 OF THE
 LAKE HAVASU CITY ZONING CODE

NO CONSTRUCTION INTERFERING WITH SIGHT LINES BETWEEN 2 AND 6 FEET ABOVE THE CENTERLINE OF THE STREETS OR ALLEYS SHALL BE PLACED OR PERMITTED TO REMAIN ON ANY CORNER LOT WITHIN THE TRIANGULAR AREA FORMED BY THE STREET OR ALLEY PROPERTY LINES AND A LINE CONNECTING THEM AT POINTS 25 FEET FROM THE INTERSECTION OF THE STREET OR ALLEY LINES, OR IN THE CASE OF A ROUNDED PROPERTY CORNER, FROM THE INTERSECTION OF THE STREET OR ALLEY PROPERTY LINES EXTENDED.

Robert P. Leuck
 ROBERT P. LEUCK, CITY ENGINEER

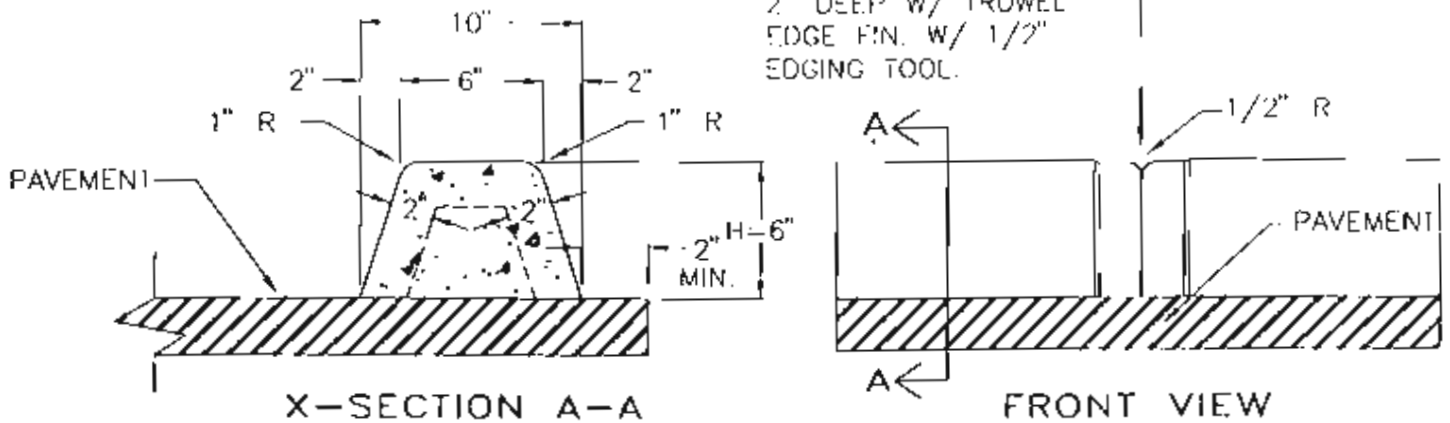
10/19/01
 DATE

SCALE: 1" = 10'

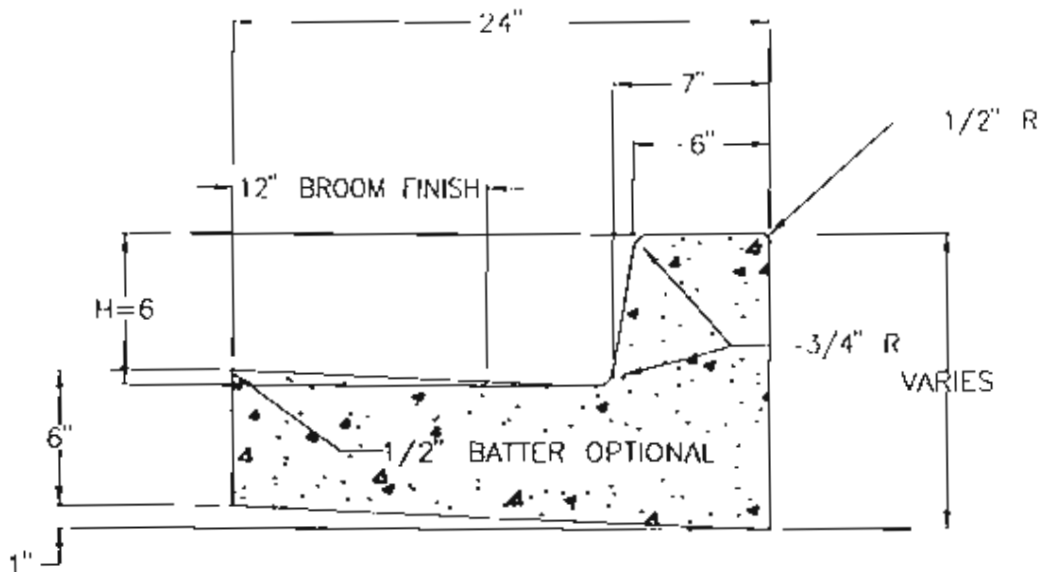
SHEET 8

LAKE HAVASU CITY, ARIZONA
OFF-SITE IMPROVEMENT REQUIREMENTS
VERTICAL CURB DETAIL AND MAG CURB DETAIL 220

PROVIDE JOINT @ 10' —
 O.C. CUT WET CONC
 2" DEEP W/ TROWEL
 EDGE FIN. W/ 1/2"
 EDGING TOOL.



VERTICAL CURB
TYPE "6-A"



MAG DETAIL 220 VERTICAL CURB AND GUTTER
TYPE "A"

MAG DETAIL 220 NOTES:

1. ALL EXPOSED SURFACES TO BE TROWEL FINISHED EXCEPT AS SHOWN, SEE SECTION 340.
2. H=6" OR AS SPECIFIED ON PLANS.
3. CONTRACTION JOINT SPACING 10' MAX.
4. EXPANSION JOINT AS PER MAG STD. SECT. 340.
5. CONCRETE FOR STRUCTURES IN R-O-W SHALL BE A 6 SACK PER CUBIC YARD MIX WITH A 4" MAXIMUM SLUMP AND BE ABLE TO PASS A 3000 PSI COMPRESSIVE STRENGTH TEST AT 28 DAYS.

Robert P. Leuck

ROBERT P. LEUCK, CITY ENGINEER

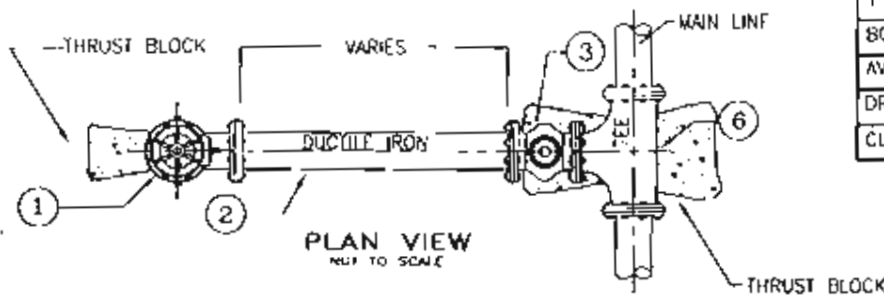
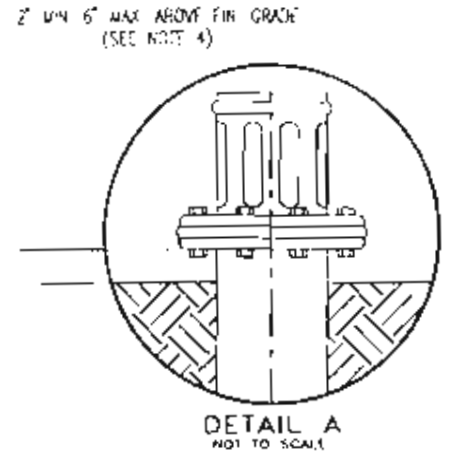
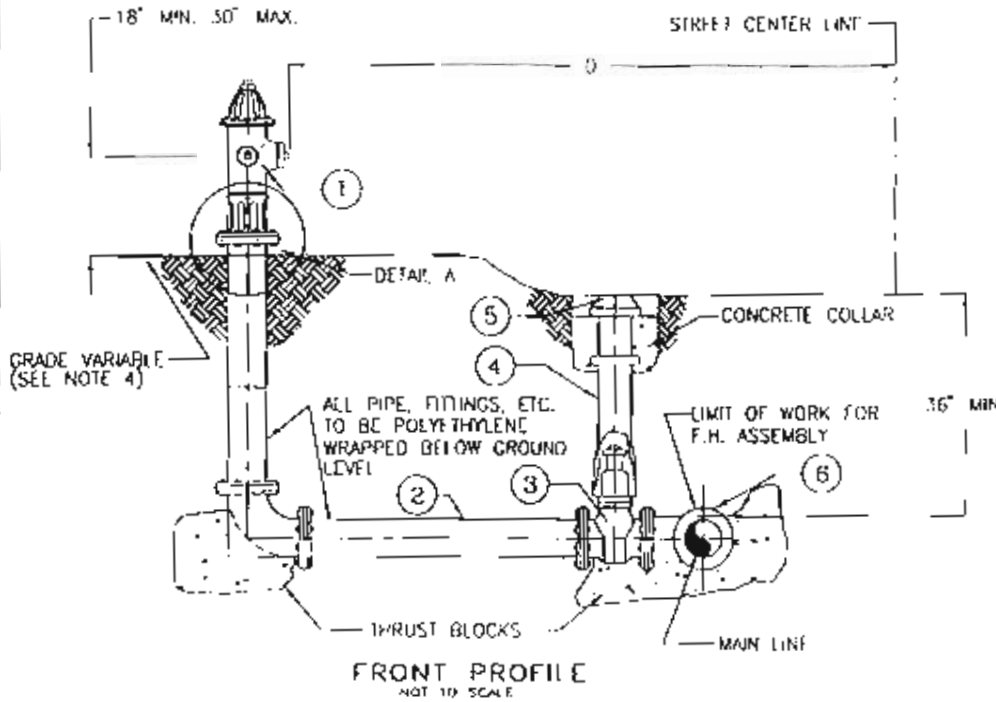
10/19/01
DATE

SCALE: NONE

SHEET 9

LAKE HAVASU CITY ARIZONA

LAKE HAVASU CITY WATER DIVISION STANDARD 6" FIRE HYDRANT DETAIL MAG DETAIL NO. 360 (MODIFIED)



TYPE OF STREET	"0"
BOULEVARD	34'-0"
AVENUE	29'-0"
DRIVE (SEE NOTE 9)	28'-0"
CUL-DE-SAC (SEE NOTE 1 & 9)	25'-0"

ITEM NO.	NO. REQ'D	SIZE AND DESCRIPTION	MATERIAL SPECS	REMARKS
1	1	6" FIRE HYDRANT W/ BURYELL, FLANGED	AS PER FIRE HYDRANT SPECS	MUELLER CENTURION
2	1	6" SPOOL, FLANGED, LENGTH TO FIT	DUCTILE IRON	CEMENT LINED IF C.I.
3	1	6" FLANGED RESILIENT SEAT GATE VALVE	MUELLER	OR EQUAL
4	1	6" GATE WELL	P.V.C.	PER DETAIL DWG.
5	1	6" GATE WELL CAP	DUCTILE IRON	MARKED "WATER"
6	1	MAIN SIZE X 6" FLANGED TEE	STAINLESS STEEL/DUCTILE IRON	SEE NOTE 3

NOTES:

- FIRE HYDRANTS SHALL BE LOCATED 42'-0" FROM CENTERLINE IN CUL-DE-SAC HEADS.
- ALL HYDRANT GATE VALVES TO BE LOCATED IN PAVEMENT IN HEAD OF CUL-DE-SAC STREETS.
- STAINLESS STEEL TAPPING SLEEVE AND TAPPING VALVE REQUIRED ON EXISTING MAINS. D.I. TEE AND RESILIENT SEAT GATE VALVE REQUIRED ON NEW MAINS.
- FINISHED GRADE TO BE DETERMINED BY THE PUBLIC WORKS DEPARTMENT.
- FIRE HYDRANTS SHALL BE TRAFFIC MODELS AND HAVE 1-4 1/2" AND 2-2 1/2" OPENINGS W/ NATIONAL THREAD STANDARD. FIRE HYDRANTS TO BE PAINTED CATERPILLAR YELLOW (2 COATS).
- ALL FIRE HYDRANTS TO MEET A.W.W.A.-C-502, DRY BARREL FIRE HYDRANTS.
- ALL THRUST BLOCKS PER MAG DETAIL 380.
- 10' WIDE X 5' DEEP FIRE HYDRANT EASEMENT REQUIRED WHERE BACK OF HYDRANT IS LESS THAN 3' FROM RIGHT-OF-WAY LINE.

ROBERT P. LEUCK, CITY ENGINEER

10/19/01
DATE

SCALE: NONE

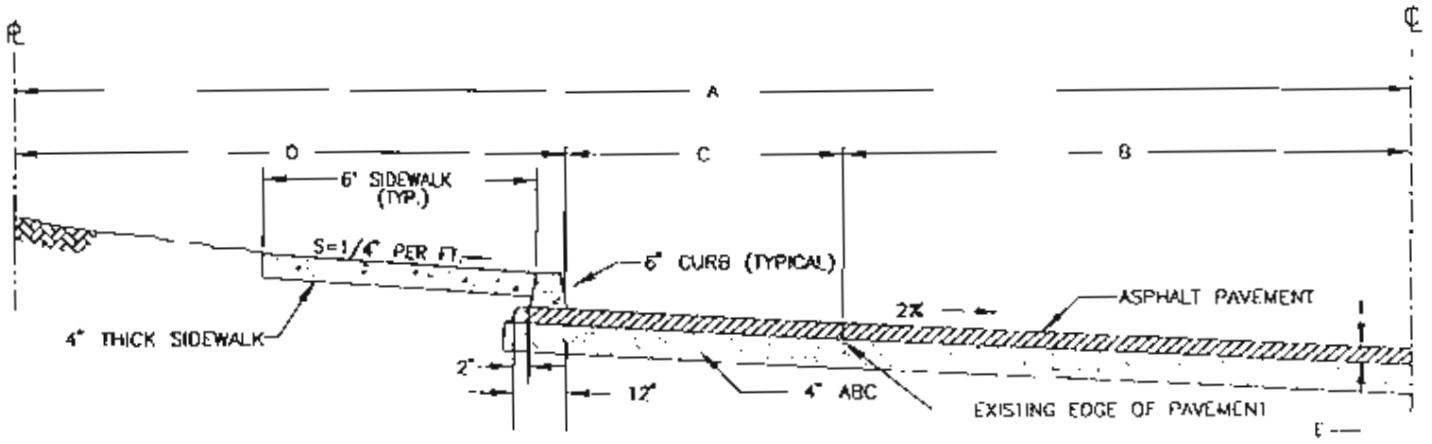
DANIEL FRANKS - MARCH 1998

SHEET 10

LAKE HAVASU CITY, ARIZONA

OFF-SITE IMPROVEMENT REQUIREMENTS

STANDARD STREET "V" SECTION DETAIL



"V" SECTION

STREET	R/W	A	B	C	D	E
BOULEVARD	84'	42'	18'	9'	15'	2"
AVENUE	70'	35'	12'	10'	13'	2"
DRIVE	60'	30'	12'	9'	9'	2"
CUL-DE-SAC	50'	25'	12'	6'	7'	2"

NOTES:

1. ALL PAVEMENT WIDENING MUST INCLUDE CURBS.
2. NO ROLL CURBS PERMITTED.
3. SEE SHEET 9 FOR CURB DETAIL.
4. "V" SECTION ONLY ALLOWED IF APPROVED BY CITY ENGINEER FOR DRAINAGE PURPOSES ONLY.

Robert P. Leuck

ROBERT P. LEUCK, CITY ENGINEER

10/19/01
DATE

SCALE: NONE

SHEET 11

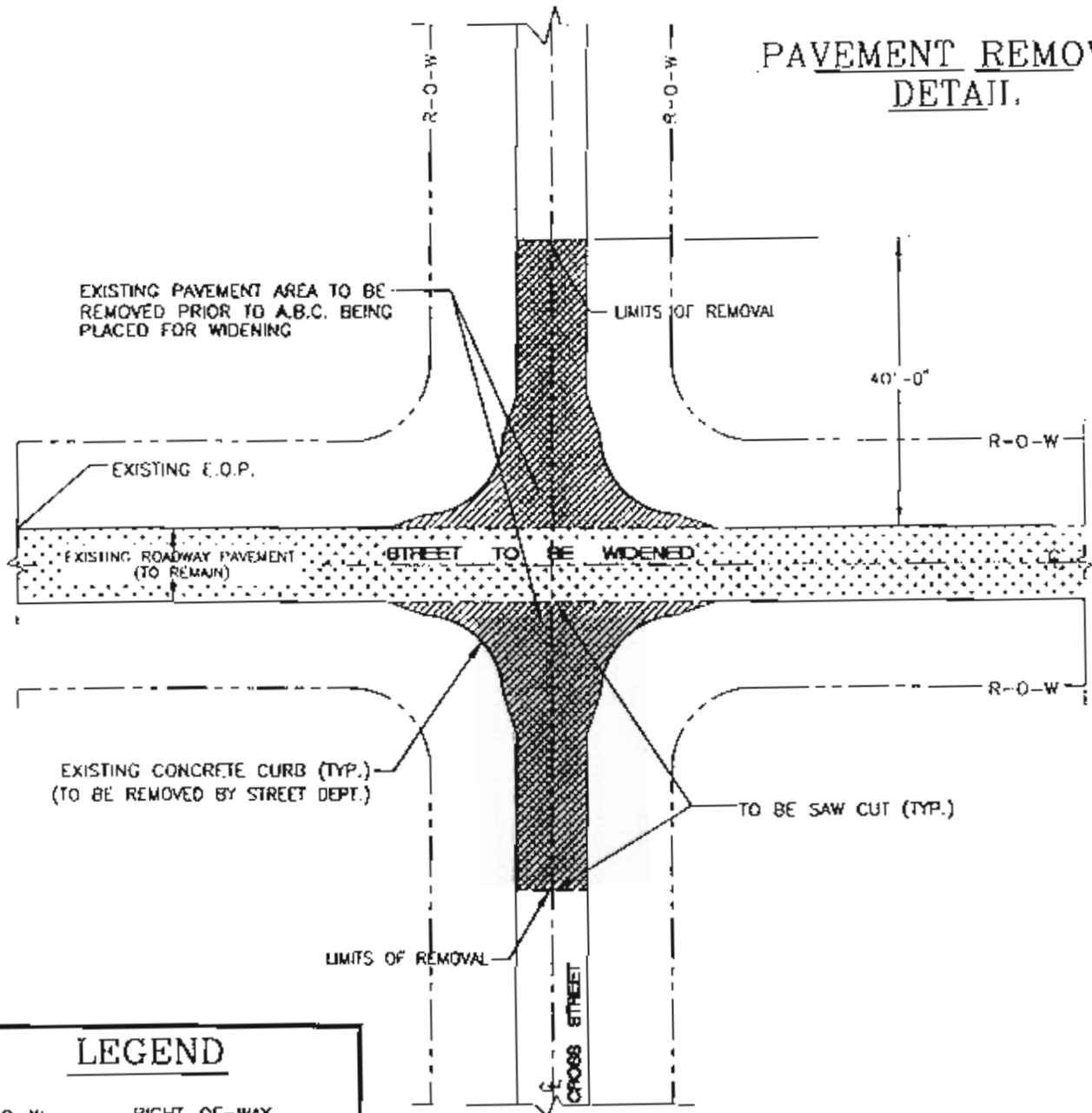
LAKE HAVASU CITY, ARIZONA

PUBLIC WORKS DEPARTMENT STREET STANDARD



TYPICAL STREET WIDENING DETAILS

DETAIL 1

PAVEMENT REMOVAL DETAIL.



LEGEND

- | | |
|---|---|
| R-O-W | RIGHT-OF-WAY |
| ⊕ | CENTER LINE |
| E.O.P. | EDGE OF PAVEMENT |
|  | EXIST. PAVEMENT AREA TO BE REMOVED PRIOR TO GRADING |
|  | EXISTING PAVEMENT ON STREET TO BE WIDENED (TO REMAIN) |
| --- | SAW CUT PAVEMENT |

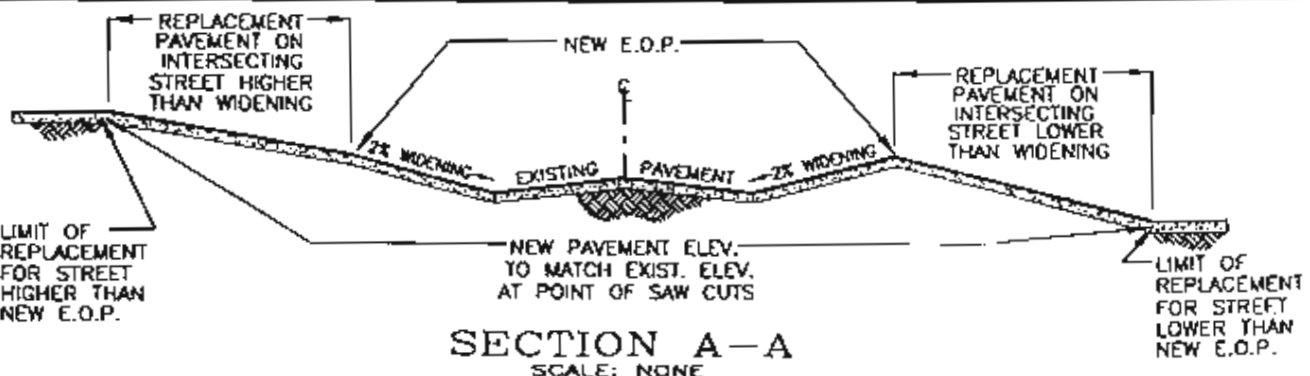
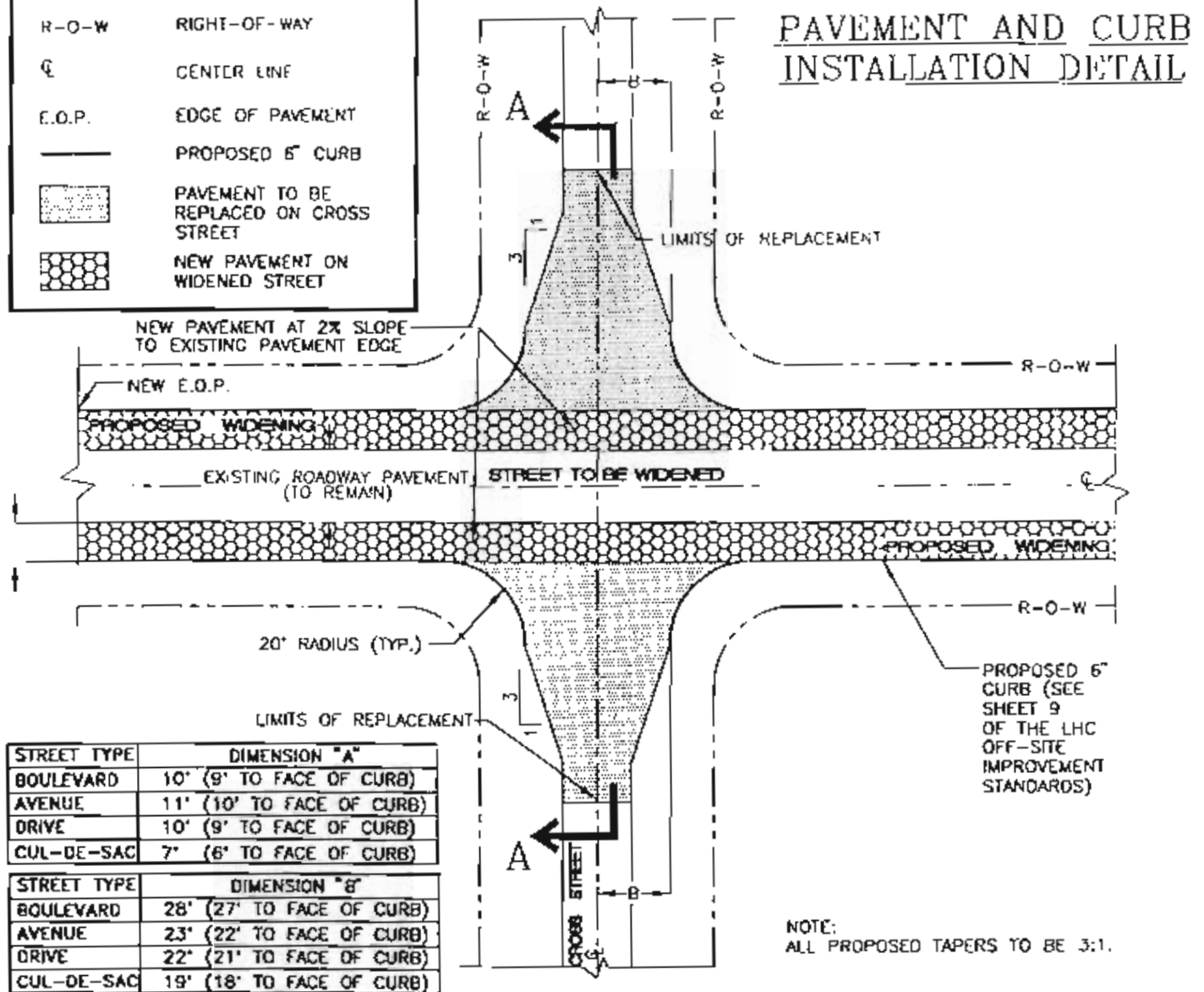
LAKE HAVASU CITY, ARIZONA

PUBLIC WORKS DEPARTMENT STREET STANDARD TYPICAL STREET WIDENING DETAILS DETAIL 2

LEGEND

R-O-W	RIGHT-OF-WAY
⊥	CENTER LINE
E.O.P.	EDGE OF PAVEMENT
—	PROPOSED 6" CURB
	PAVEMENT TO BE REPLACED ON CROSS STREET
	NEW PAVEMENT ON WIDENED STREET

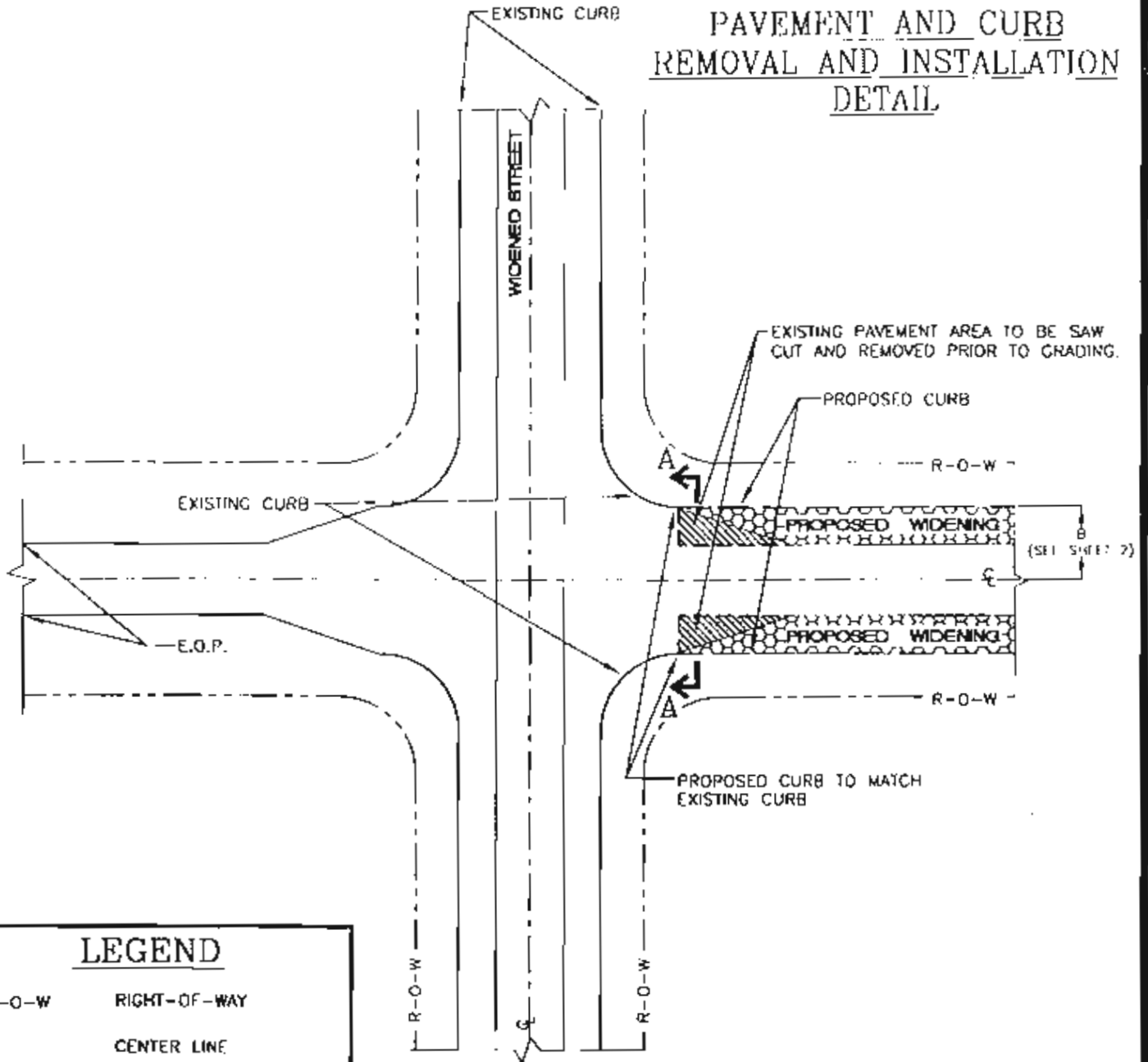
PAVEMENT AND CURB INSTALLATION DETAIL



LAKE HAVASU CITY, ARIZONA

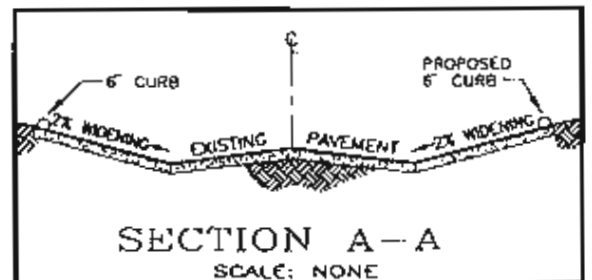
PUBLIC WORKS DEPARTMENT STREET STANDARD TYPICAL STREET WIDENING DETAILS DETAIL 3

PAVEMENT AND CURB REMOVAL AND INSTALLATION DETAIL



LEGEND

R-O-W	RIGHT-OF-WAY
⊕	CENTER LINE
E.O.P.	EDGE OF PAVEMENT
— — —	PROPOSED 6" CURB
— — —	EXISTING 6" CURB
- - - -	SAW CUT PAVEMENT
▨	PAVEMENT TO BE REMOVED & REPLACED ON STREET TO BE WIDENED
⊙	NEW PAVEMENT ON WIDENED STREET





LAKE HAVASU CITY, ARIZONA

PUBLIC WORKS DEPARTMENT STREET STANDARD

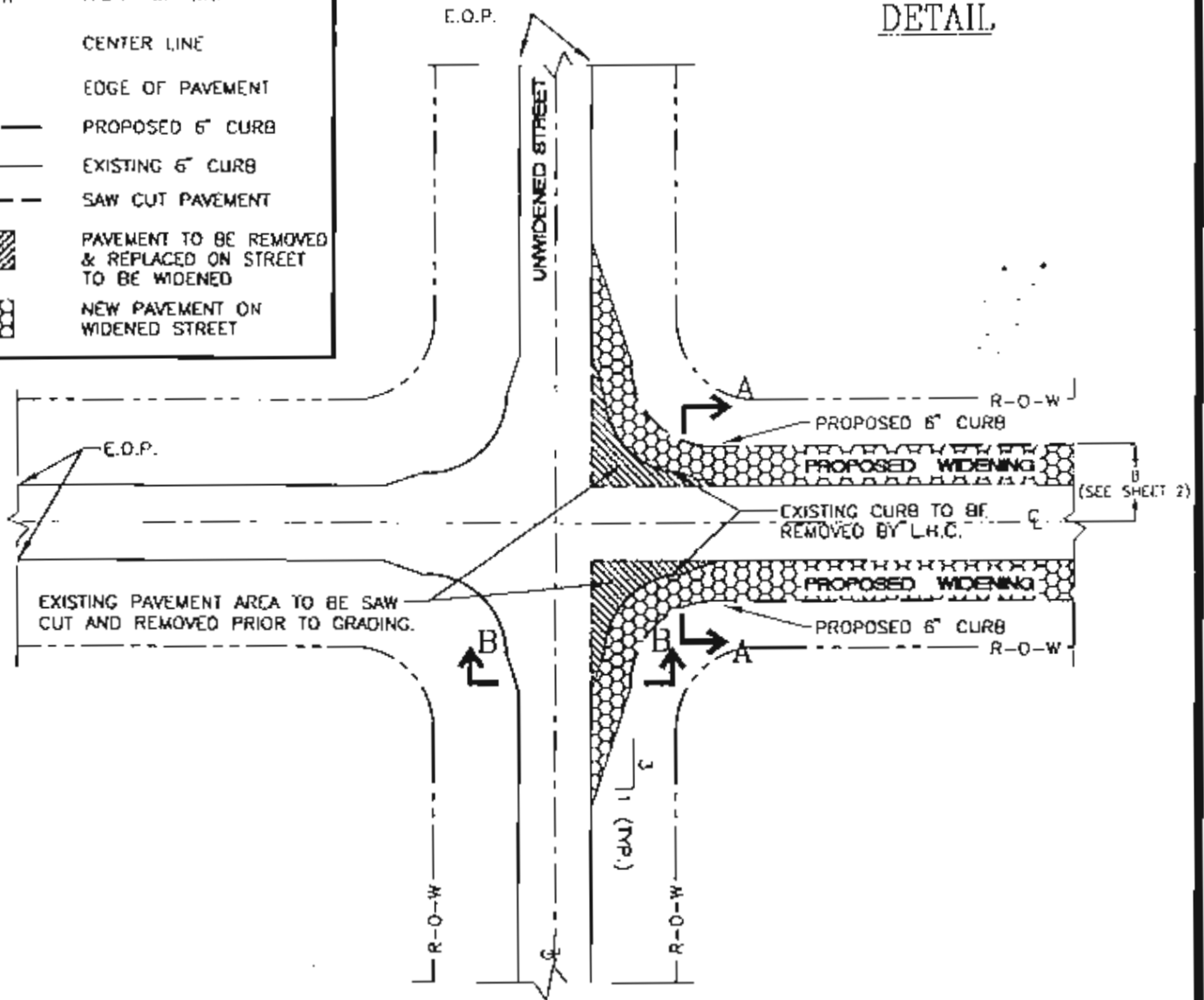
TYPICAL STREET WIDENING DETAILS

DETAIL 4

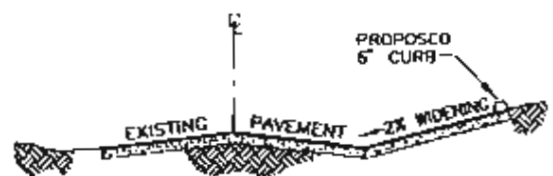
LEGEND

R-O-W	RIGHT-OF-WAY
⊥	CENTER LINE
E.O.P.	EDGE OF PAVEMENT
— — —	PROPOSED 6" CURB
— — —	EXISTING 6" CURB
— — —	SAW CUT PAVEMENT
	PAVEMENT TO BE REMOVED & REPLACED ON STREET TO BE WIDENED
	NEW PAVEMENT ON WIDENED STREET

PAVEMENT AND CURB REMOVAL AND INSTALLATION DETAIL



SECTION A-A
SCALE: NONE



SECTION B-B
SCALE: NONE



LAKE HAVASU CITY, ARIZONA

PUBLIC WORKS DEPARTMENT STREET STANDARD

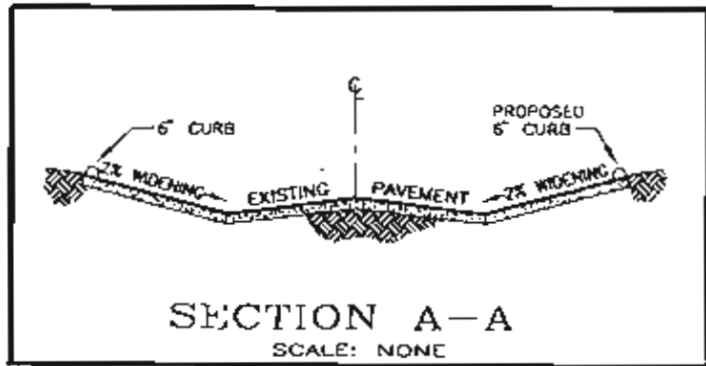
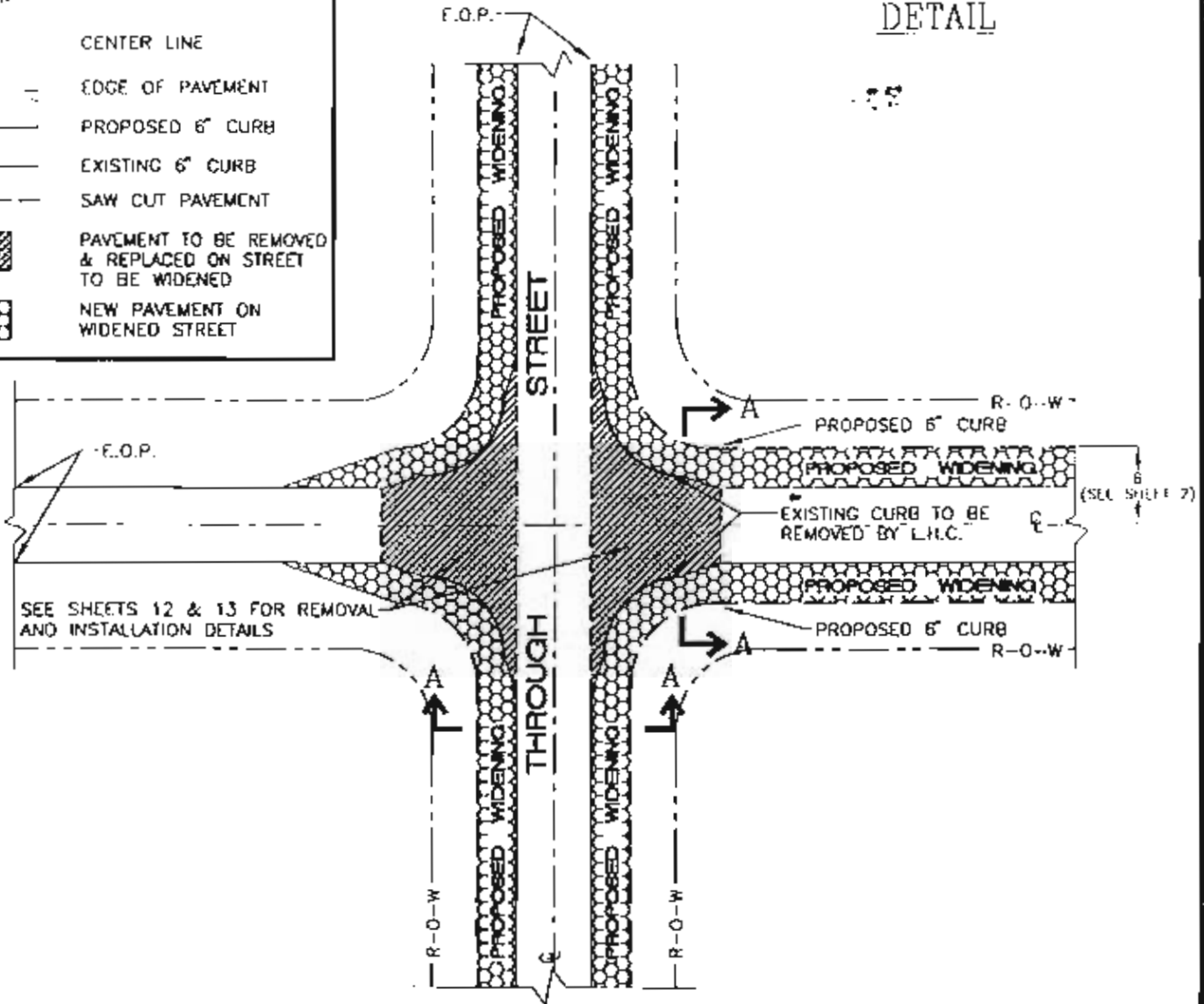
TYPICAL STREET WIDENING DETAILS

DETAIL 5

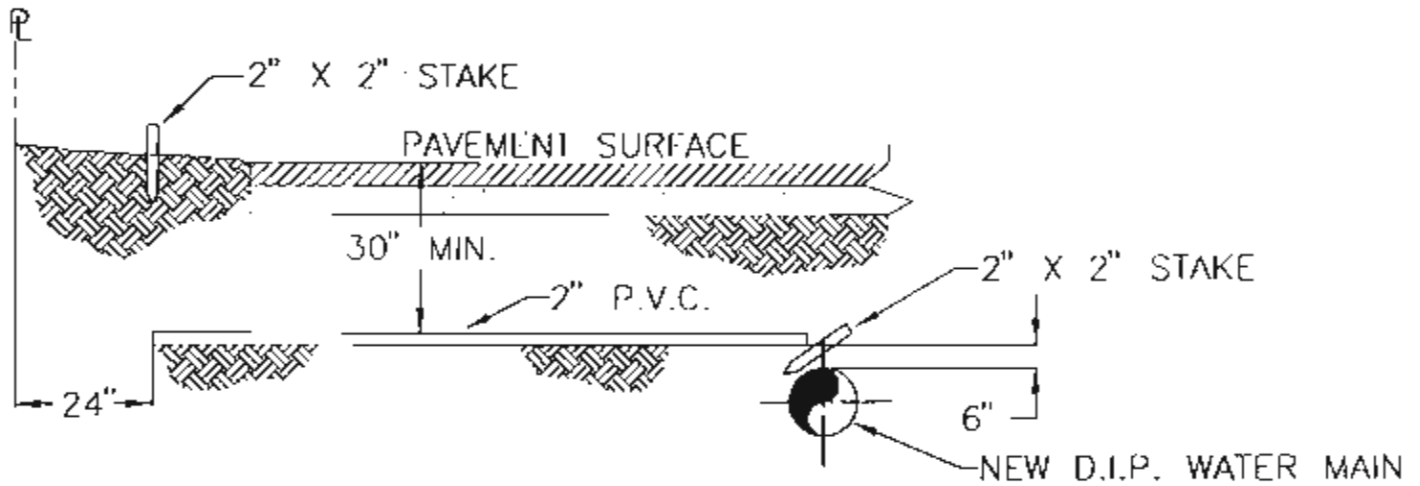
LEGEND

- R-O-W RIGHT OF-WAY
- ⊕ CENTER LINE
- E.O.P. EDGE OF PAVEMENT
- — — — — PROPOSED 6" CURB
- — — — — EXISTING 6" CURB
- - - - - SAW CUT PAVEMENT
-  PAVEMENT TO BE REMOVED & REPLACED ON STREET TO BE WIDENED
-  NEW PAVEMENT ON WIDENED STREET

PAVEMENT AND CURB REMOVAL AND INSTALLATION DETAIL



LAKE HAVASU CITY, ARIZONA
PUBLIC WORKS DEPARTMENT WATER STANDARD
WATER SERVICE CONDUIT DETAIL



WATER SERVICE CONDUIT DETAIL

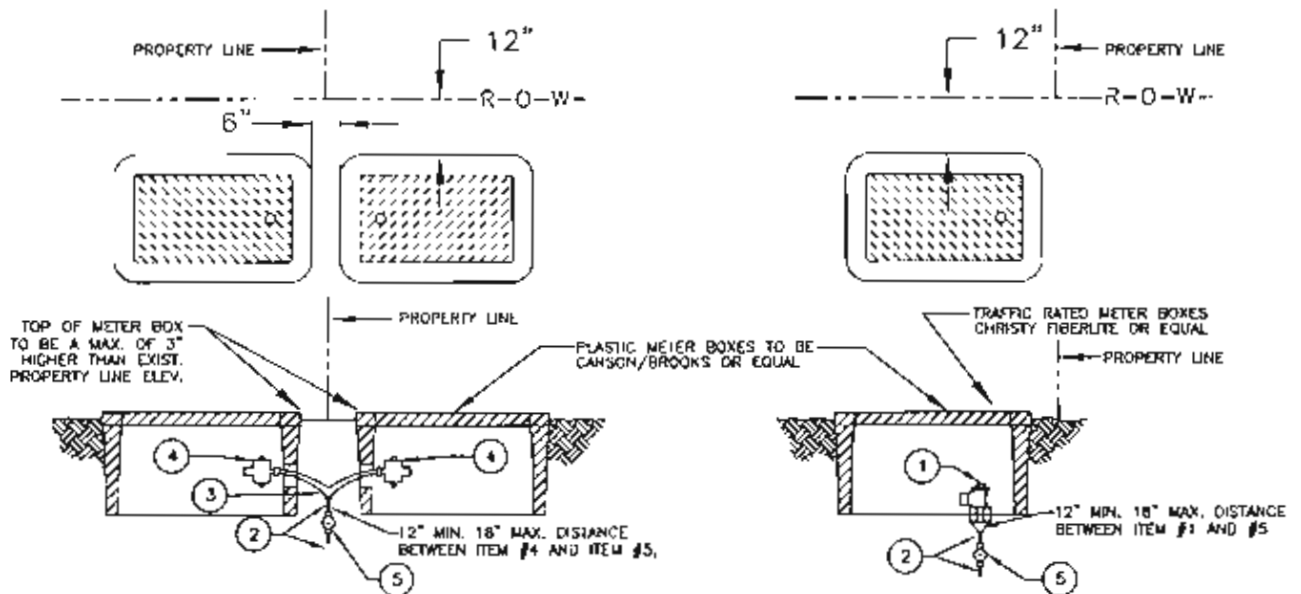
SCALE: NONE

NOTE:

1. TO BE INSTALLED ON WIDENED STREETS FOR FUTURE WATER SERVICES WHEN ACTIVE SERVICES ARE NOT INSTALLED.
2. ALL WATER SERVICES MUST BE INSTALLED IN CONDUIT.

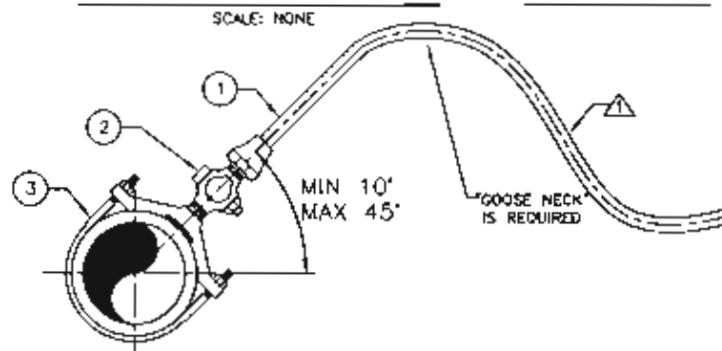
LAKE HAVASU CITY, ARIZONA

PUBLIC WORKS DEPARTMENT WATER STANDARD SERVICE CONNECTION AND TERMINATION DETAILS



SERVICE TERMINATION DETAIL TABLE			
ITEM NO.	SIZE AND DESCRIPTION	MATERIAL SPECS.	REMARKS
1	1" ANGLE METER STOP	FORD BA43-444W	OR EQUAL
2	1" COPPER TUBE	TYPE - "K"	OR EQUAL
3	1" SERVICE TEE	FORD T884-334-9	OR EQUAL
4	BALL MILLER VALVE	FORD B13-332W	OR EQUAL
5	1" BALL VALVE	FORD B44-444	OR EQUAL

SERVICE TERMINATION DETAILS



SERVICE CONNECTION DETAIL TABLE

ITEM NO.	SIZE AND DESCRIPTION	MATERIAL SPECS.	REMARKS
1	1" X REQUIRED LENGTH	COPPER TUBE TYPE "K"	OR EQUAL
2	1" CORP STOP	FORD FB-1000-4	OR EQUAL
3	1" MAIN SIZE DBL STRAP SADDLE	FORD 202 B SADDLE W/ 1" CC THREAD	

NOTE: ALL COPPER TUBING WILL BE SLEEVED WITH MIN. 8 MIL. POLY WRAP

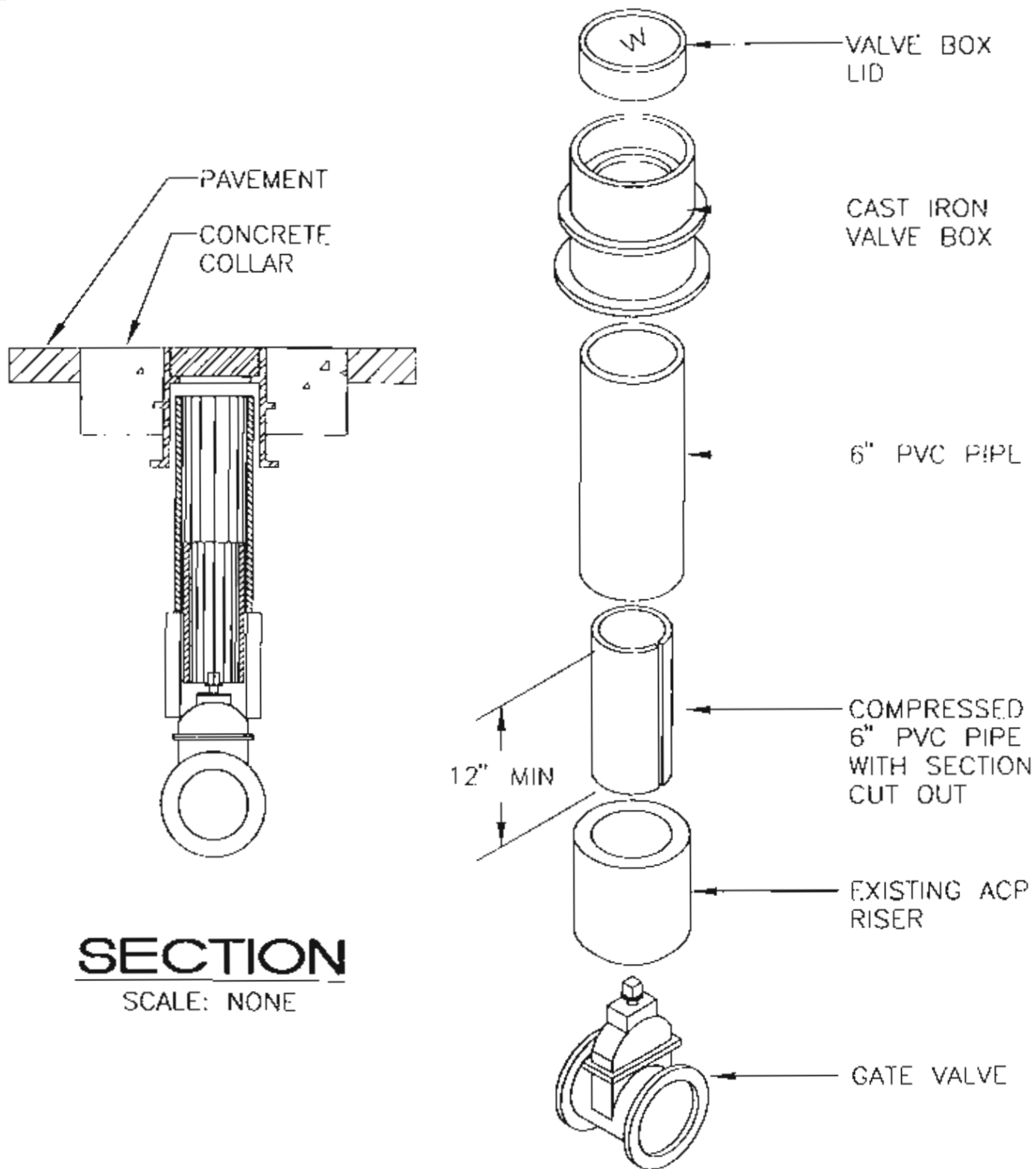
SERVICE CONNECTION DETAILS

SCALE: NONE

JERRY TUMA - JULY 2004

SHEET 18

LAKE HAVASU CITY, ARIZONA
PUBLIC WORKS DEPARTMENT WATER STANDARD
TYPICAL VALVE RISER DETAIL



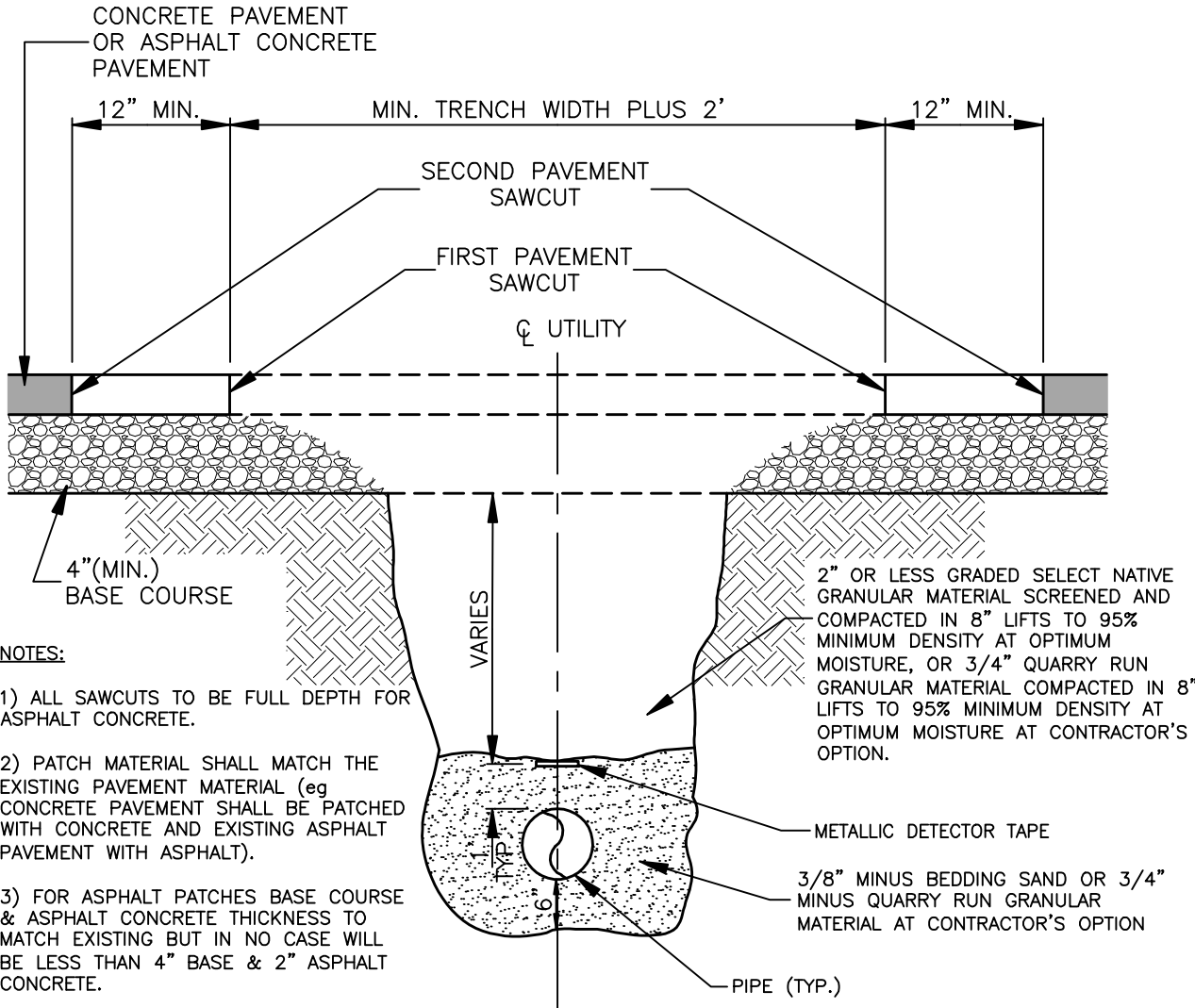
SECTION

SCALE: NONE

EXPLODED VIEW

SCALE: NONE

LHC UTILITY TRENCH/PATCH DETAIL



NOTES:

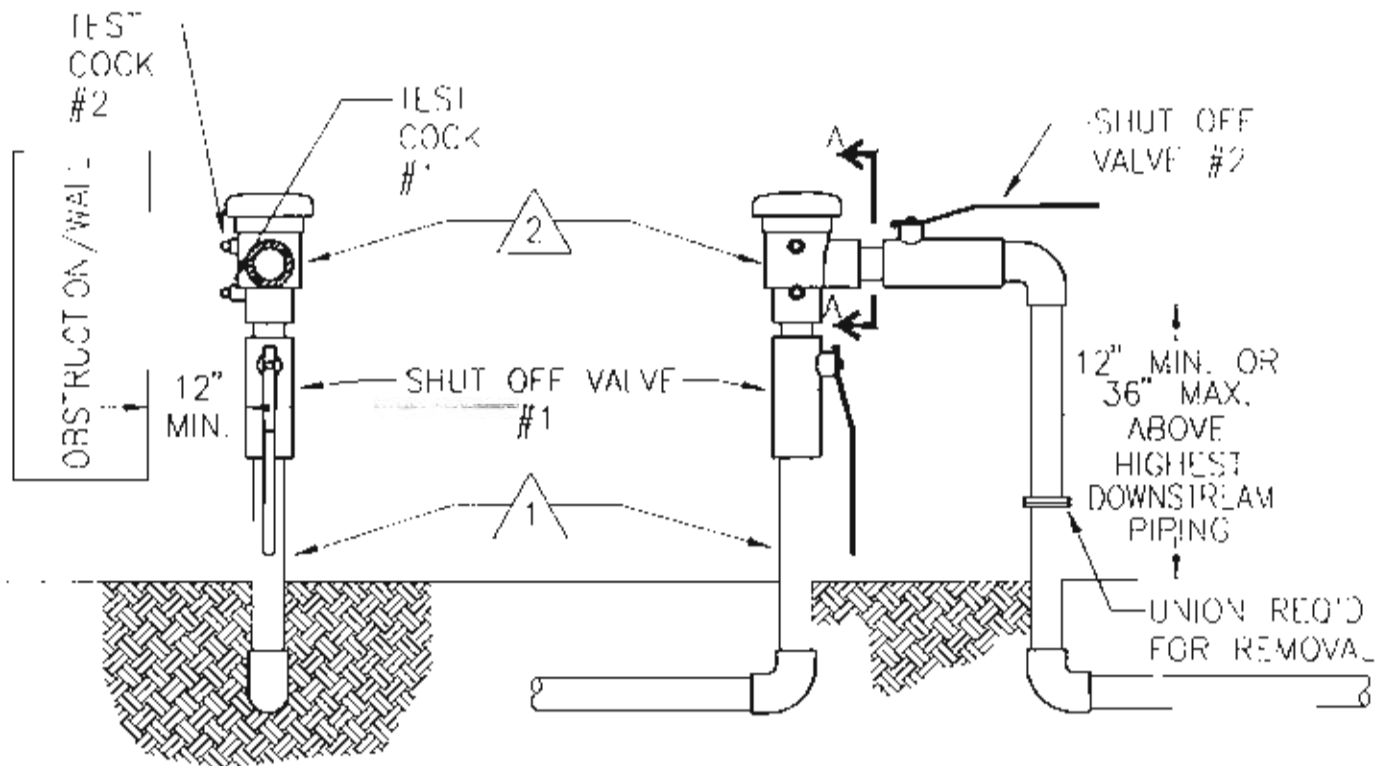
- 1) ALL SAWCUTS TO BE FULL DEPTH FOR ASPHALT CONCRETE.
- 2) PATCH MATERIAL SHALL MATCH THE EXISTING PAVEMENT MATERIAL (eg CONCRETE PAVEMENT SHALL BE PATCHED WITH CONCRETE AND EXISTING ASPHALT PAVEMENT WITH ASPHALT).
- 3) FOR ASPHALT PATCHES BASE COURSE & ASPHALT CONCRETE THICKNESS TO MATCH EXISTING BUT IN NO CASE WILL BE LESS THAN 4" BASE & 2" ASPHALT CONCRETE.
- 4) ALL EXISTING VERTICAL ASPHALT JOINTS SHALL BE TACKED.
- 5) CONCRETE PAVEMENT REMOVALS SHALL BE TO THE NEAREST EXISTING JOINT (eg FULL PANEL REMOVAL AND REPLACEMENT).
- 6) TRENCHES ARE SHOWN TO DIAGRAM PATCHING REQUIREMENTS. TRENCHES SHALL BE CONSTRUCTED TO MEET OSHA REQUIREMENTS.
- 7) PAVEMENT REMOVAL BETWEEN FIRST AND SECOND SAW CUT SHALL BE REMOVED AT TIME OF HOT MIX PATCHING.
- 8) THOROUGHLY COMPACT MATERIAL WITH VIBRATORY EQUIPMENT OR BY WHEEL ROLLING. DENSITY TESTING SHALL BE AT THE EXPENSE OF THE CONTRACTOR AND A COPY OF RESULTS SHALL BE PROVIDED TO THE CITY.
- 9) MONITOR & MAINTAIN SURFACE CONDITION AND PERFORM ASPHALT REPAIRS UNDER 1-YEAR WARRANTY PROVIDED THROUGH PERMIT.

MINIMUM TRENCH WIDTH TABLE

PIPE DIAMETER	MINIMUM WIDTH	MINIMUM BETWEEN FIRST SAWCUTS	MINIMUM BETWEEN SECOND SAWCUTS	CONCRETE PAVEMENT
<8 IN.	24"	4'	6'	SECOND SAWCUT SHALL BE AT EXISTING JOINTS SEE NOTE #5
8IN. - 12IN.	30"	4'-6"	6'-6"	
14IN. - 18IN.	36"	5'	7'	
20IN. - 21IN.	42"	5'-6"	7'-6"	
24IN. - 36IN.	1.25 (PIPE OD) PLUS 12IN.	MIN. WIDTH PLUS 2'	MIN. WIDTH PLUS 4'	
>36IN.	PER PLANS	MIN. WIDTH PLUS 2'	MIN. WIDTH PLUS 4'	

LAKE HAVASU CITY, ARIZONA

LAKE HAVASU CITY WATER DIVISION STANDARD PRESSURE VACUUM BREAKER ASSEMBLY (PVB) INSTALLATION




SECTION A-A

△ 1 - ALL PIPING ABOVE GROUND TO BE BRASS OR COPPER (TYPE K).

△ 2 USC FCCCR APPROVED ASSEMBLY.

- NOTES:
1. ALL ASSEMBLIES TO BE LOCATED ON PRIVATE PROPERTY.
 2. NOT APPROVED FOR SERVICE PROTECTION.

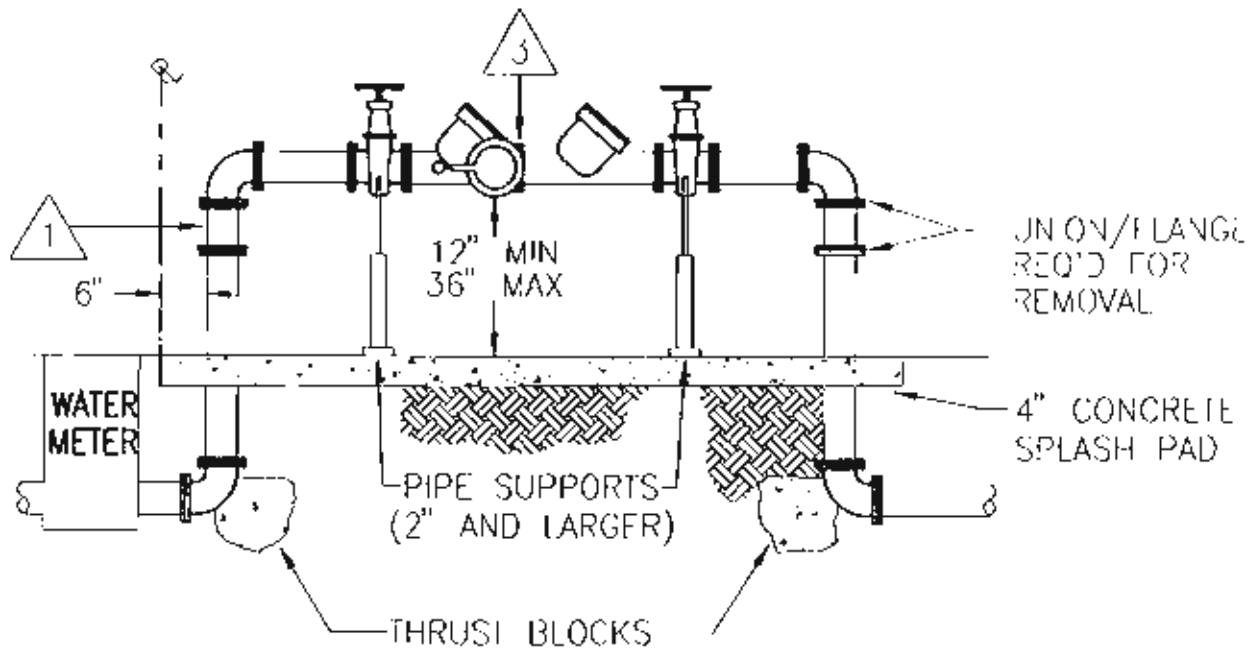
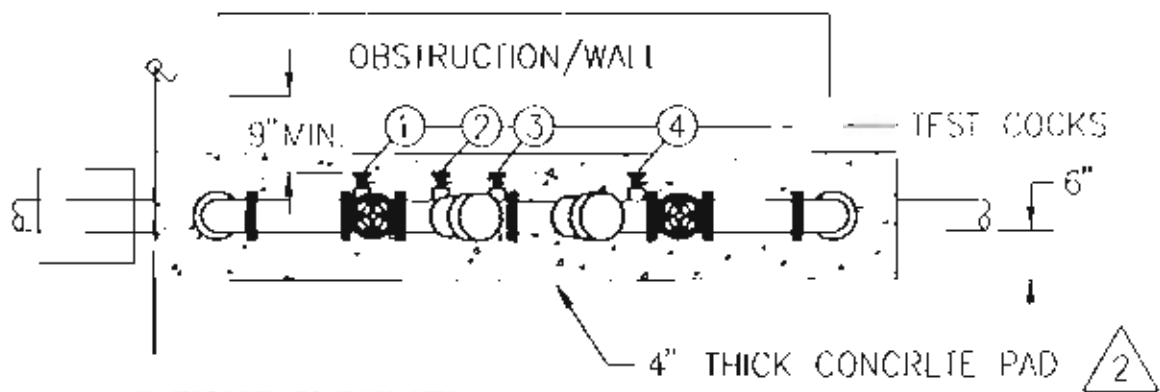

 ROBERT P. LEUCK, CITY ENGINEER
 7/26/95
 DATE

SCALE: 1" = 2'

SHEET 1

LAKE HAVASU CITY, ARIZONA

LAKE HAVASU CITY WATER DIVISION STANDARD REDUCED PRESSURE ASSEMBLY (RPA) INSTALLATION



- △ 1 - ALL PIPING ABOVE GROUND TO BE BRASS, COPPLR (TYPE K) OR D.I.P.
- △ 2 - CONCRETE PAD TO BE 2500 PSI.
- △ 3 - USC-FCCCHR APPROVED ASSEMBLY.

NOTE: ALL ASSEMBLIES TO BE LOCATED ON PRIVATE PROPERTY.

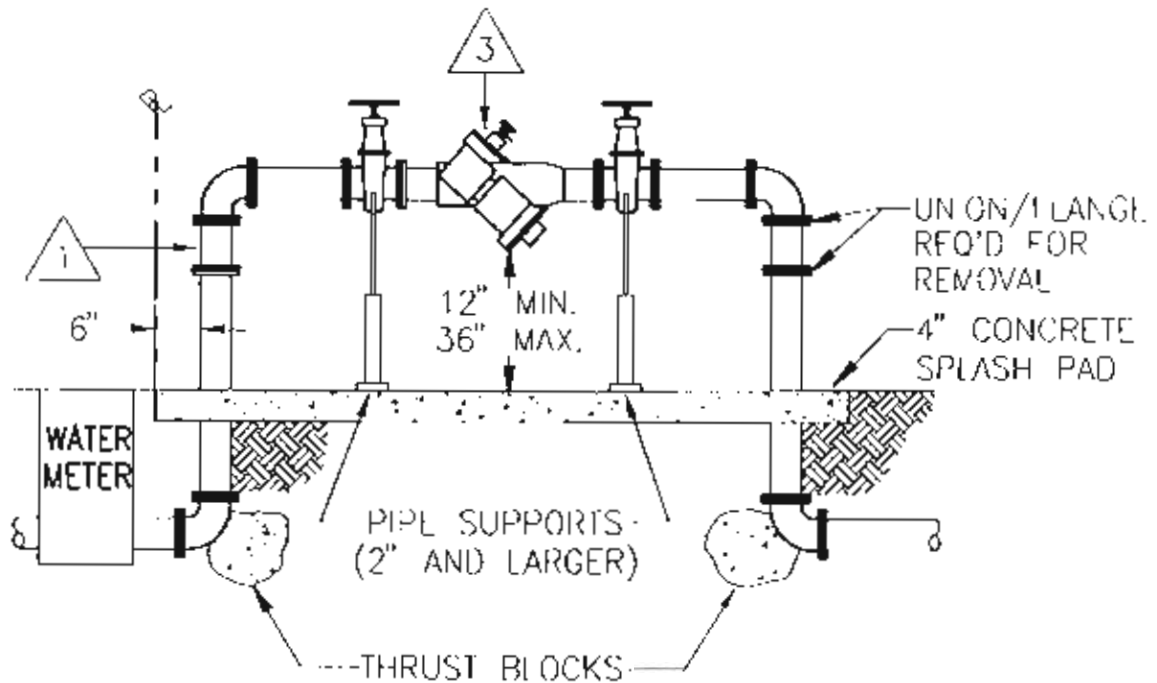
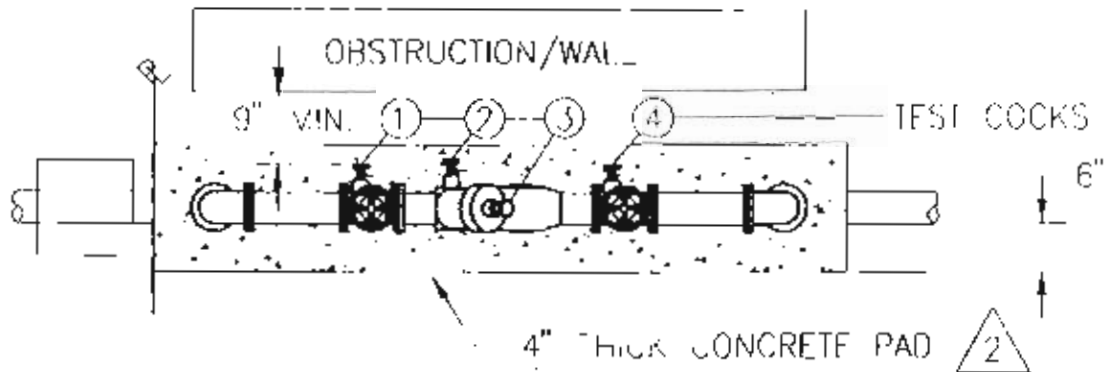
Robert P. Leuck
 ROBERT P. LEUCK, CITY ENGINEER
 7/28/15
 DATE

SCALE: 1" = 2'

SHEET 2

LAKE HAVASU CITY, ARIZONA

LAKE HAVASU CITY WATER DIVISION STANDARD DOUBLE CHECK VALVE ASSEMBLY (DCVA) INSTALLATION



- △ 1 - ALL PIPING ABOVE GROUND TO BE BRASS, COPPER (TYPE K) OR D.I.P.
- △ 2 - CONCRETE PAD TO BE 2500 PSI.
- △ 3 - USC-FCCOHR APPROVED ASSMBLY.

NOTE: ALL ASSEMBLIES TO BE
LOCATED ON PRIVATE PROPERTY.

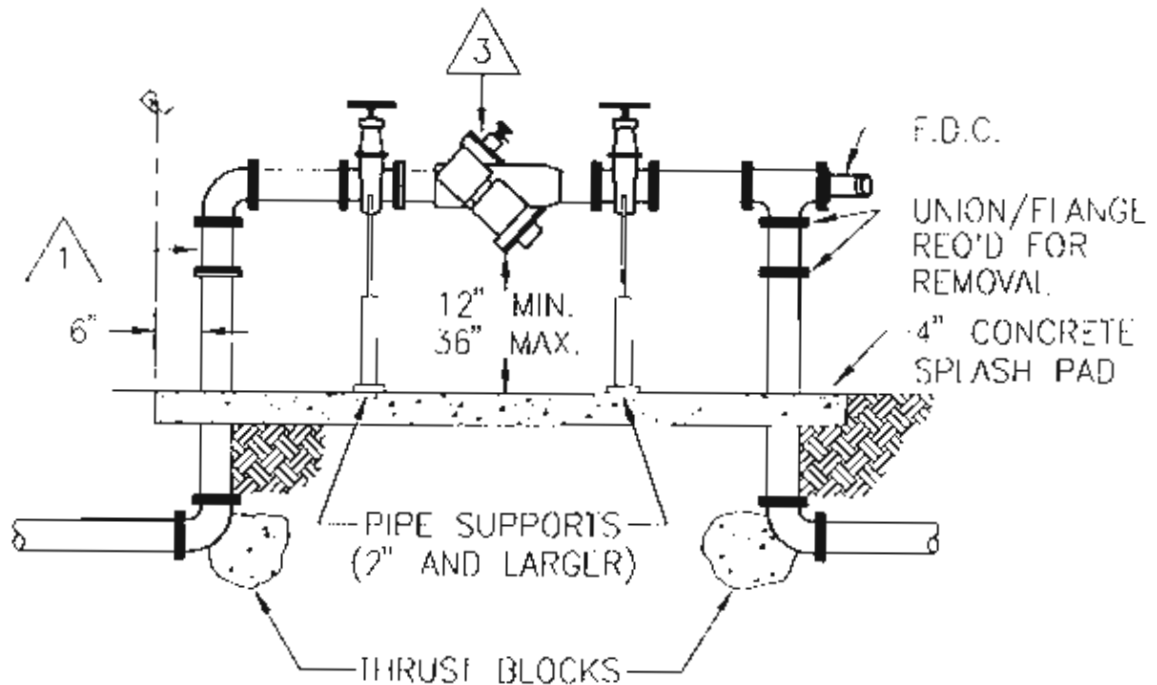
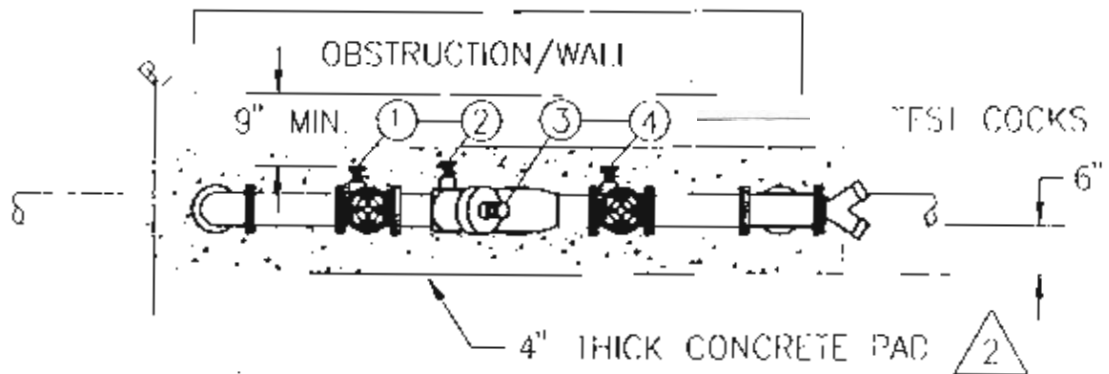
Robert P. Luck
ROBERT P. LUCK, CITY ENGINEER
2/28/95
DATE

SCALE: 1" = 2'

SHEET 3

LAKE HAVASU CITY, ARIZONA

LAKE HAVASU CITY WATER DIVISION STANDARD DOUBLE CHECK VALVE ASSEMBLY (DCVA) WITH FIRE DEPT. CONNECTION (F.D.C.) INSTALLATION



1 - ALL PIPING ABOVE GROUND TO BE BRASS, COPPER (TYPE K) OR D.I.P.

2 - CONCRETE PAD TO BE 2500 PSI.

3 - USC-FCCCHR APPROVED ASSEMBLY.

NOTE: ALL ASSEMBLIES TO BE
LOCATED ON PRIVATE PROPERTY.

Robert P. Lluck
ROBERT P. LLUCK, CITY ENGINEER
DATE: 7/28/95

SCALE: 1" = 2'

SHEET 4