FOREWORD

UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS' CONSTRUCTION,

OFFSITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA

VOLUME I

The following participating entities of the Clark County, Nevada area have adopted these standard drawings.

CITY OF LAS VEGAS
Adopted by City Council action .....November 4, 1987

CITY OF HENDERSON
Adopted by City Council action .....October 20, 1987

CITY OF NORTH LAS VEGAS
Adopted by City Council action .....November 4, 1987

CITY OF BOULDER CITY
Adopted by City Council action ..... January 26, 1988

CITY OF MESQUITE
Adopted by City Council action ..... January 26, 1988

CLARK COUNTY
Adopted by Board action ..... April 1998

REGIONAL STREET AND HIGHWAY COMMISSION
Adopted by Commission Action .....October 8, 1987

The Uniform Standard Drawings for Public Works Construction may be revised by issuance of revisions or supplements to correct errors and omissions found in these drawings and to reflect advanced thinking and the changing technology of the construction industry. Each revision will supersede any previous pertinent drawing. Upon approval by the RTC, revisions will become effective and be posted on the RTC web-site, www.rtcsouthernnevada.com, by the first day of the month of January and July.

To implement this end a Specifications Committee has been established as a permanent organization to continually study and recommend changes to the standard drawings. Interested parties may address suggested changes and questions to the Regional Transportation Commission, 600 South Grand Central Parkway, Suite 350, Las Vegas, Nevada, 89106-4512.

SECTION LINE

CENTERLINE OR
SURVEY LINE

INTERSECTING CENTERLINE

RIGHT-OF-WAY OR
PROPERTY LINE

CUT LINE-ASPHALT
CONC. OR PCC CONC.

DIRECTION OF FLOW

MISCELLANEOUS TOPOGRAPHIC SYMBOLS

VALVE (INITIALS INDICATE OWNERSHIP AND / OR TYPE)

GAS CATHODE PROTECTION RECTIFIER

R

UTILITY BOX (INITIALS INDICATE OWNERSHIP AND / OR TYPE)

PUBLIC SERVICE UTILITY POLE, LINE TO SHOW DIRECTION OF RUN OF OVERHEAD LINE

POLE WITH GUY ANCHOR

FIRE HYDRANT

FENCE

FLOW LINE OF DITCH OR CHANNEL

EXISTING UTILITY STUB-OUT

TRAFFIC CONTROL SIGN

STREET NAME SIGN

TEST HOLE

CONCRETE BLOCK WALL

FIRE ALARM BOX ON PEDESTAL

FA

CONCRETE MONUMENT

TREE (NO. INDICATES TRUCK DIA. IN INCHES)

NO.

MISCELLANEOUS SYMBOL (ABBREVIATION INDICATES TYPE)

ABBR.

HEDGE (NOTE SIZE & SPECIES)

STEPS (NOTE TYPE AND NO. OF RISERS)

EXISTING BUILDING

EXISTING BUILDING FOUNDATION

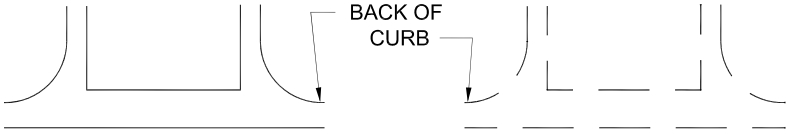
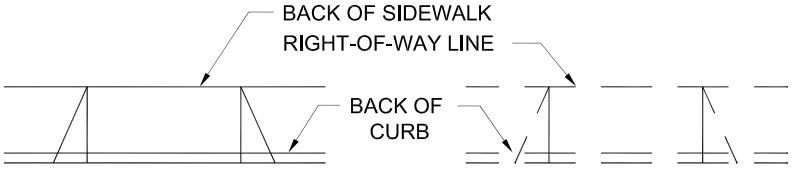
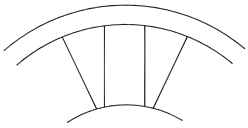
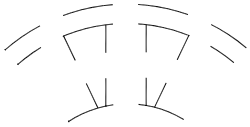
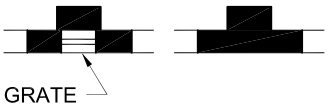
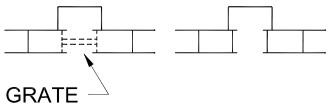
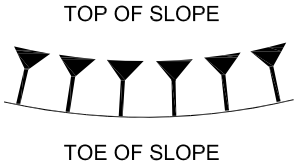
RETAINING WALL

(LOW SIDE)

(HIGH SIDE)

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		SYMBOLS		
		DATE	DWG. NO. 101	PAGE NO. 1

Effective 01/01/09 - 06/30/09

PLAN ONLY	PROPOSED CONSTRUCTION	EXISTING
CURB AND GUTTER		
VALLEY GUTTER		
DRIVEWAY		
WHEELCHAIR RAMP		
DROP INLET		
EDGE OF PAVEMENT		
ELEVATIONS	0.00	(0.00)
CUT OR FILL SLOPES		

NOTE: FUTURE CONSTRUCTION ITEMS ON PLANS SHALL BE INDICATED BY A DASHED LINE AND APPROPRIATE NOTE.

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		SYMBOLS		
		DATE	DWG. NO. 102	PAGE NO. 2

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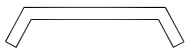
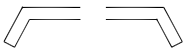
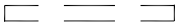
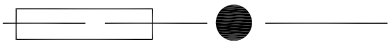
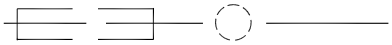
PLAN ONLY	PROPOSED CONSTRUCTION	EXISTING
WING TYPE HEADWALL		
VALLEY GUTTER		
UNDERGROUND UTILITY WITH MANHOLE AND CASING		

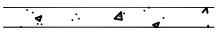
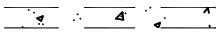
OWNERSHIP INDICATED BY LINE LEGEND

SIZE AND TYPE OF CONDUIT SHALL BE PLACED ON CONDUIT WHEN AVAILABLE

LEGEND

TSI	=	TRAFFIC SIGNAL INTERCONNECT	SS	=	SANITARY SEWER
E	=	ELECTRIC	SD	=	STORM DRAIN
FA	=	FIRE ALARM	W	=	WATER
SL	=	STREET LIGHT	S-G	=	STEEL GAS
CATV	=	CABLE TELEVISION	PL-G	=	PLASTIC GAS
			T	=	TELEPHONE

PROFILE ONLY

CENTERLINE GRADE		
TOP OF CURB OR FLOW LINE		
PIPE		
OR	OR	OR
OR	OR	OR
		

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		SYMBOLS		
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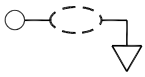
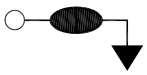
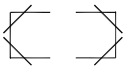
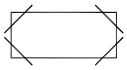
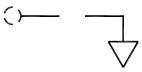
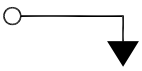
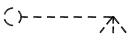
Effective 01/01/09 - 06/30/09

MISCELLANEOUS ELECTRICAL SYMBOLS

PLAN ONLY	EXISTING	PROPOSED CONSTRUCTION
TRAFFIC SIGNAL CONTROLLER		
PULL BOX (INITIALS INDICATE OWNERSHIP AND NUMBER INDICATES SIZE)		
TRAFFIC SIGNAL WITH LUMINAIRE		
TRAFFIC SIGNAL DETECTOR LOOP		
SERVICE POINT, PAD MOUNTED		
7 GAGE LIGHTING STANDARD		
11 GAGE LIGHTING STANDARD		
100 W LUMINAIRE		
150 W LUMINAIRE		
200 W LUMINARE		
250 W LUMINAIRE		
400 W LUMINAIRE		
750 W LUMINAIRE		
TRAFFIC SIGNAL POLE		
SCHOOL FLASHER		

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		SYMBOLS		
		DATE 12-12-96	DWG. NO. 104	PAGE NO. 4

Effective 01/01/09 - 06/30/09

Aban	- Abandon
AIP	- Abandoned in Place
Agg	- Aggregate
Alt	- Alternate
A	- Anode, Gas
ACP	- Asbestos Cement Pipe
AC	- Asphaltic Concrete
Ave	- Avenue
BC	- Back of Curb
BCR	- Back of Curb Radius
BVC	- Beginning of Vertical Curve
BM	- Bench Mark
Bdry Line	- Boundary Line
CATV	- Cable Television
C-C	- Center to Center
℄	- Centerline
CBC	- City of Boulder City
CLV	- City of Las Vegas
COH	- City of Henderson
CM	- City of Mesquite
CNLV	- City of North Las Vegas
CC	- Clark County
CCSD	- Clark County Sanitation District
CO	- Clean Out, Sewer
Comm	- Commercial
Conc, PCC	- Concrete
Const	- Construction or Construct
Cor	- Corner
CMP	- Corrugated Metal Pipe
CSAP	- Corrugated Steel Arch Pipe
CSP	- Corrugated Steel Pipe
C&G	- Curb and Gutter
CIP	- Cast Iron Pipe
Col	- Column
Cu Yd, CY	- Cubic Yard
Cu Ft, CF	- Cubic Feet
Culv	- Culvert
CF	- Curb Face
Dept	- Department
Dia	- Diameter
Dwy	- Driveway
DI	- Drop Inlet
Esmt	- Easement
E/o	- East of
EP	- Edge of Pavement
EO	- Edge of Oil
E	- Electric
EM	- Electric Meter
Elev	- Elevation
Embk	- Embankment
ECR	- End of Curb Return
EC	- End of Curve
EBS	- Cathode Protection Bond Station
ETS	- Cathode Protection Test Station
EVC	- End of Vertical Curve
Exist	- Existing
Ft	- Feet or Foot
FG	- Finish Grade
FA	- Fire Alarm
FH	- Fire Hydrant
℄	- Flow Line
Galv	- Galvanized
GM	- Gas Meter
GR	- Gas Pressure Regulator
PL-G	- Plastic Gas
S-G	- Steel Gas
GB	- Grade Break
Gut	- Gutter
Hdwl	- Headwall
In	- Inch
INT	- Intersection
INV	- Invert
ISL	- Island
JB	- Junction Box
LOC	- Length of Curb
Lt	- Left
LF	- Linear Feet
LVVWD	- Las Vegas Valley Water Dictrict
MH	- Manhole
Max	- Maximum
Min	- Minimum
Mon	- Monolithic
N/o	- North of
NTS	- Not to Scale
OC	- On Center
OG	- Open-Graded Pavement, Original Ground
Pvmt	- Pavement
PI	- Point of Intersection
PRC	- Point of Reverse Curve
PC	- Point of Curve
PT	- Point of Tangency
PCC	- Point of Compound Curve
PCC, Conc	- Portland Cement Concrete

Effective 01/01/09 - 06/30/09

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		ABBREVIATIONS		
		DATE	DWG. NO. 105	PAGE NO. 5

PP	- Power Pole
P	- Power
PL	- Property Line
Prop	- Proposed
PB	- Pull Box
RP	- Radius Point
R	- Radius
RR	- Railroad
Reinf	- Reinforced
RC	- Reinforced Concrete
RCB	- Reinforced Concrete Box
RCP	- Reinforced Concrete Pipe
Reloc	- Relocate
RT	- Right
R/W	- Right-of-way
RD	- Road
SS	- Sanitary Sewer
Sht	- Sheet
S/o	- South of
SW	- Sidewalk
SQ FT, SF	- Square foot
SQ YD, SY	- Square yard
Sta	- Station
SHP	- Steel Highpressure Pipe
SD	- Storm Drain
STD	- Standard
Struct	- Structural or Structure
Surv	- Survey
SL	- Streetlight
T	- Telephone
Temp	- Temporary
TBA	- To Be Adjusted
TBR	- To Be Removed
TC	- Top of Curb
TP	- Top of Pipe
TS	- Traffic Signal
TSI	- Traffic Signal Interconnect
Trans	- Transition
Typ	- Typical
UG	- Underground
Var	- Variable
Vert	- Vertical
VC	- Vertical Curve
VG	- Valley Gutter
VCP	- Vitrified Clay Pipe
W	- Water
WM	- Water Meter
W/o	- West of
Yd	- Yard

Effective 01/01/09 - 06/30/09

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		ABBREVIATIONS		
		DATE	DWG. NO. 106	PAGE NO. 6

	MAJOR COLLECTOR								ARTERIAL							
	Normal Traffic (8.0)				Heavy Traffic (8.5)				Normal Traffic (9.0)				Heavy Traffic (9.5)			
R-Value	SN	AC	T-II	T-I	SN	AC	T-II	T-I	SN	AC	T-II	T-I	SN	AC	T-II	T-I
16	3.35	4.0	4.0	13.5	3.65	4.5	4.0	14.5	4.25	5.0	4.0	18.5	4.55	5.5	4.0	19.5
18	3.30	4.0	4.0	13.0	3.55	4.5	4.0	14.0	4.15	5.0	4.0	17.5	4.45	5.5	4.0	19.0
20	3.20	4.0	4.0	12.0	3.45	4.5	4.0	13.0	4.05	5.0	4.0	16.5	4.35	5.5	4.0	18.0
22	3.10	4.0	4.0	11.5	3.40	4.5	4.0	12.5	3.95	5.0	4.0	16.0	4.25	5.5	4.0	17.0
24	3.05	4.0	4.0	11.0	3.30	4.5	4.0	11.5	3.85	5.0	4.0	15.0	4.15	5.5	4.0	16.0
26	2.95	4.0	4.0	10.0	3.20	4.5	4.0	10.5	3.75	5.0	4.0	14.0	4.05	5.5	4.0	15.0
28	2.90	4.0	4.0	9.5	3.15	4.5	4.0	10.0	3.65	5.0	4.0	13.0	3.95	5.5	4.0	14.0
30	2.80	4.0	4.0	8.5	3.05	4.5	4.0	9.0	3.55	5.0	4.0	12.00	3.85	5.5	4.0	13.5
32	2.75	4.0	4.0	8.0	2.95	4.5	4.0	8.5	3.45	5.0	4.0	11.5	3.75	5.5	4.0	12.5
34	2.65	4.0	4.0	7.0	2.90	4.5	4.0	8.0	3.40	5.0	4.0	11.0	3.65	5.5	4.0	11.5
36	2.60	4.0	4.0	6.5	2.80	4.5	4.0	7.0	3.30	5.0	4.0	10.0	3.55	5.5	4.0	10.5
38	2.50	4.0	4.0	6.0	2.75	4.5	4.0	6.5	3.20	5.0	4.0	9.0	3.45	5.5	4.0	9.5
40	2.45	4.0	4.0	5.5	2.65	4.5	4.0	5.5	3.15	5.0	4.0	8.5	3.35	5.5	4.0	9.0
42	2.40	4.0	4.0	5.0	2.60	4.5	4.0	5.0	3.05	5.0	4.0	7.5	3.30	5.5	4.0	8.5
44	2.35	4.0	4.0	4.5	2.55	4.5	4.0	4.5	2.95	5.0	4.0	7.0	3.20	5.5	4.0	7.5
46	2.25	4.0	4.0	4.0	2.45	4.5	4.0	4.0	2.90	5.0	4.0	6.5	3.10	5.5	4.0	6.5
48	2.20	4.0	7.0	NA	2.40	4.5	7.0	NA	2.80	5.0	4.0	5.5	3.05	5.5	4.0	6.0
50	2.15	4.0	6.5	NA	2.35	4.5	6.5	NA	2.75	5.0	4.0	5.0	2.95	5.5	4.0	5.0
52	2.10	4.0	6.0	NA	2.30	4.5	6.0	NA	2.65	5.0	4.0	4.0	2.90	5.5	4.0	4.5
54	2.05	4.0	5.5	NA	2.20	4.5	5.5	NA	2.60	5.0	7.5	NA	2.80	5.5	4.0	4.0
56	2.00	4.0	5.0	NA	2.15	4.5	5.0	NA	2.55	5.0	7.0	NA	2.75	5.5	7.0	NA
58	1.95	4.0	5.0	NA	2.10	4.5	4.5	NA	2.45	5.0	6.0	NA	2.65	5.5	6.5	NA
60	1.90	4.0	4.5	NA	2.05	4.5	4.0	NA	2.40	5.0	5.5	NA	2.60	5.5	6.0	NA
62	1.85	4.0	4.0	NA	2.00	4.0	5.0	NA	2.35	5.0	5.0	NA	2.50	5.5	5.0	NA
64	1.80	4.0	4.0	NA	1.95	4.0	5.0	NA	2.30	5.0	4.5	NA	2.45	5.5	4.5	NA
66	1.75	4.0	4.0	NA	1.90	4.0	4.5	NA	2.20	5.0	4.0	NA	2.40	5.5	4.0	NA
68	1.70	4.0	4.0	NA	1.85	4.0	4.0	NA	2.15	4.5	5.0	NA	2.35	5.0	5.0	NA
70	1.65	4.0	4.0	NA	1.80	4.0	4.0	NA	2.10	4.5	4.5	NA	2.25	5.0	4.5	NA
72	1.60	4.0	4.0	NA	1.75	4.0	4.0	NA	2.05	4.5	4.0	NA	2.20	5.0	4.0	NA
74	1.55	4.0	4.0	NA	1.70	4.0	4.0	NA	2.00	4.0	5.0	NA	2.15	4.5	5.0	NA
76	1.50	4.0	4.0	NA	1.65	4.0	4.0	NA	1.95	4.0	4.5	NA	2.10	4.5	4.5	NA
78	1.45	4.0	4.0	NA	1.60	4.0	4.0	NA	1.90	4.0	4.0	NA	2.05	4.5	4.0	NA

NOTES:

1. THIS CHART WAS CONSTRUCTED USING THE 1993 AASHTO PAVEMENT DESIGN GUIDE, 1996 NDOT MANUAL AND THE 2000 RTC DESIGN CRITERIA, SECTION 401.01.02 OF THE STANDARD SPECIFICATIONS.
2. A TRAFFIC STUDY MAY BE REQUIRED IF TI > 9.5.
3. AN AVERAGE R-VALUE MAY BE USED IF IT IS REPRESENTATIVE OF ALL PROJECT CONDITIONS.
4. ADDITIONAL DESIGN COMPENSATION IS REQUIRED IF EXPANSIVE SOILS, HYDRO-COLLAPSIBLE SOILS, OR SOLUBLE MATERIALS ARE PRESENT.
5. AC DEPTHS SHOWN ARE MINIMUMS AND 4" MINIMUM TYPE II IS REQUIRED; OTHER COMBINATIONS THAT MEET OR EXCEED THE STRUCTURAL NUMBER REQUIREMENTS ARE ACCEPTABLE.

SPECIFICATION REFERENCE	
401	PLANTMIX BITUMINOUS PAVEMENTS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

PAVEMENT STRUCTURE DESIGN GUIDELINE CHART FOR MAJOR COLLECTOR AND ARTERIAL ROADWAYS

DATE 11-10-04	DWG. NO. 200	PAGE NO. 6.1

Effective 01/01/09 - 06/30/09

	RESIDENTIAL								MINOR COLLECTOR							
	Normal Traffic (5.0)				Heavy Traffic (5.5)				Normal Traffic (6.0)				Heavy Traffic (6.5)			
R-Value	SN	AC	T-II	T-I	SN	AC	T-II	T-I	SN	AC	T-II	T-I	SN	AC	T-II	T-I
16	1.70	2.0	4.0	5.0	2.00	2.5	4.0	6.0	2.25	3.0	4.0	6.5	2.50	3.5	4.0	7.5
18	1.70	2.0	4.0	5.0	1.95	2.5	4.0	5.5	2.20	3.0	4.0	6.0	2.45	3.5	4.0	7.0
20	1.65	2.0	4.0	4.5	1.90	2.5	4.0	5.0	2.15	3.0	4.0	5.5	2.40	3.5	4.0	6.5
22	1.60	2.0	4.0	4.0	1.85	2.5	4.0	4.5	2.05	3.0	4.0	5.0	2.35	3.5	4.0	6.0
24	1.55	2.0	7.5	NA	1.80	2.5	4.0	4.0	2.00	3.0	4.0	4.5	2.25	3.5	4.0	5.0
26	1.50	2.0	7.0	NA	1.75	2.5	7.5	NA	1.95	3.0	4.0	4.0	2.20	3.5	4.0	4.5
28	1.45	2.0	6.5	NA	1.70	2.5	7.0	NA	1.90	3.0	7.5	NA	2.15	3.5	4.0	4.0
30	1.40	2.0	6.0	NA	1.65	2.5	6.5	NA	1.85	3.0	7.0	NA	2.10	3.5	7.5	NA
32	1.35	2.0	5.5	NA	1.60	2.5	6.0	NA	1.80	3.0	6.5	NA	2.05	3.5	7.0	NA
34	1.35	2.0	5.5	NA	1.55	2.5	6.0	NA	1.75	3.0	6.0	NA	2.00	3.5	6.5	NA
36	1.30	2.0	5.0	NA	1.50	2.5	5.5	NA	1.70	3.0	5.5	NA	1.95	3.5	6.0	NA
38	1.25	2.0	5.0	NA	1.45	2.5	5.0	NA	1.65	3.0	5.0	NA	1.85	3.5	5.5	NA
40	1.20	2.0	4.5	NA	1.40	2.5	4.5	NA	1.60	3.0	5.0	NA	1.80	3.5	5.0	NA
42	1.15	2.0	4.0	NA	1.35	2.5	4.0	NA	1.55	3.0	4.5	NA	1.75	3.5	4.5	NA
44	1.15	2.0	4.0	NA	1.35	2.5	4.0	NA	1.55	3.0	4.5	NA	1.70	3.5	4.0	NA
46	1.10	2.0	4.0	NA	1.30	2.0	5.0	NA	1.50	3.0	4.0	NA	1.70	3.5	4.0	NA
48	1.05	2.0	4.0	NA	1.25	2.0	5.0	NA	1.45	3.0	4.0	NA	1.65	3.0	5.0	NA
50	1.05	2.0	4.0	NA	1.20	2.0	4.5	NA	1.40	3.0	4.0	NA	1.60	3.0	5.0	NA
52	1.00	2.0	4.0	NA	1.20	2.0	4.5	NA	1.35	3.0	4.0	NA	1.55	3.0	4.5	NA
54	0.95	2.0	4.0	NA	1.15	2.0	4.0	NA	1.30	3.0	4.0	NA	1.50	3.0	4.0	NA
56	0.95	2.0	4.0	NA	1.10	2.0	4.0	NA	1.30	3.0	4.0	NA	1.45	3.0	4.0	NA
58	0.90	2.0	4.0	NA	1.05	2.0	4.0	NA	1.25	3.0	4.0	NA	1.40	3.0	4.0	NA
60	0.85	2.0	4.0	NA	1.05	2.0	4.0	NA	1.20	3.0	4.0	NA	1.35	3.0	4.0	NA
62	0.85	2.0	4.0	NA	1.00	2.0	4.0	NA	1.15	3.0	4.0	NA	1.35	3.0	4.0	NA
64	0.80	2.0	4.0	NA	0.95	2.0	4.0	NA	1.15	3.0	4.0	NA	1.30	3.0	4.0	NA
66	0.75	2.0	4.0	NA	0.95	2.0	4.0	NA	1.10	3.0	4.0	NA	1.25	3.0	4.0	NA
68	0.75	2.0	4.0	NA	0.90	2.0	4.0	NA	1.05	3.0	4.0	NA	1.20	3.0	4.0	NA
70	0.70	2.0	4.0	NA	0.85	2.0	4.0	NA	1.00	3.0	4.0	NA	1.15	3.0	4.0	NA
72	0.70	2.0	4.0	NA	0.80	2.0	4.0	NA	1.00	3.0	4.0	NA	1.15	3.0	4.0	NA
74	0.65	2.0	4.0	NA	0.75	2.0	4.0	NA	0.95	3.0	4.0	NA	1.10	3.0	4.0	NA
76	0.65	2.0	4.0	NA	0.75	2.0	4.0	NA	0.90	3.0	4.0	NA	1.05	3.0	4.0	NA
78	0.65	2.0	4.0	NA	0.70	2.0	4.0	NA	0.85	3.0	4.0	NA	1.05	3.0	4.0	NA

NOTES:

1. THIS CHART WAS CONSTRUCTED USING THE 1993 AASHTO PAVEMENT DESIGN GUIDE, 1996 NDOT MANUAL AND THE 2000 RTC DESIGN CRITERIA, SECTION 401.01.02 OF THE STANDARD SPECIFICATIONS.
2. AN AVERAGE R-VALUE MAY BE USED IF IT IS REPRESENTATIVE OF ALL PROJECT CONDITIONS.
3. ADDITIONAL DESIGN COMPENSATION IS REQUIRED IF EXPANSIVE SOILS, HYDRO-COLLAPSIBLE SOILS, OR SOLUBLE MATERIALS ARE PRESENT.
4. AC DEPTHS SHOWN ARE MINIMUMS AND 4" MINIMUM TYPE II IS REQUIRED; OTHER COMBINATIONS THAT MEET OR EXCEED THE STRUCTURAL NUMBER REQUIREMENTS ARE ACCEPTABLE.

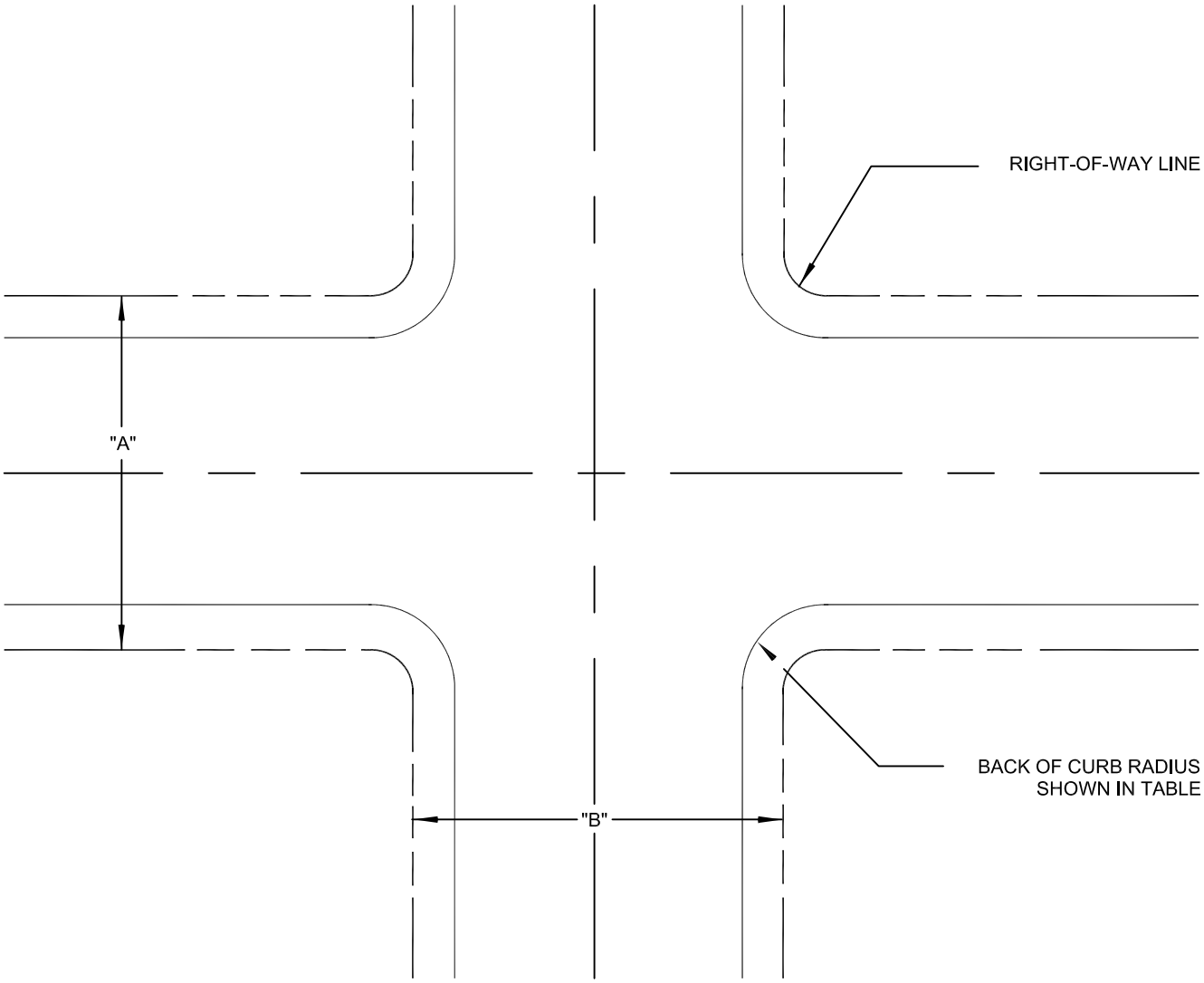
SPECIFICATION REFERENCE	
401	PLANTMIX BITUMINOUS PAVEMENTS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

PAVEMENT STRUCTURE DESIGN GUIDELINE CHART FOR MINOR COLLECTOR AND RESIDENTIAL ROADWAYS

DATE 11-10-04	DWG. NO. 200A	PAGE NO. 6.1A

Effective 01/01/09 - 06/30/09



"A" \ "B"	60' OR LESS	80'	100' OR MORE
60' OR LESS	20'	25'	30'
80'	25'	** 30'	* 30'
100' OR MORE	30'	* 30'	* 30'

NOTES

PROPERTY LINES SHALL BE PARALLEL AND RADIAL TO THE BACK OF CURB AT A DISTANCE CONSISTENT WITH THE STANDARD STREET SECTIONS DRAWING NUMBERS.

*PROPERTY LINE RADIUS SHALL BE A MINIMUM OF 54 FEET.

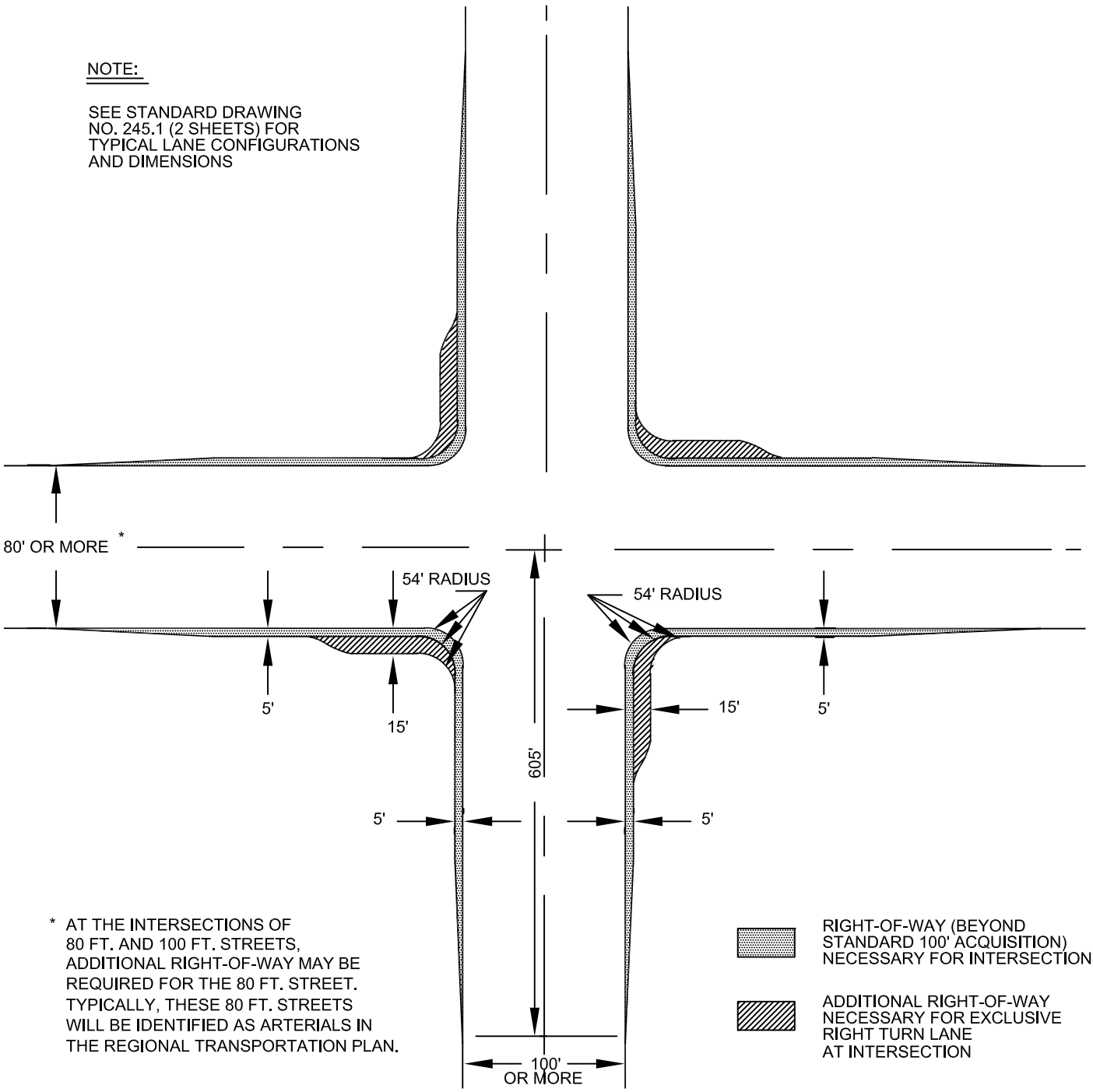
**PROPERTY LINE RADIUS SHALL BE A MINIMUM OF 40 FEET.

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		MINIMUM BACK OF CURB RADIUS		
		DATE 11-10-04	DWG. NO. 201	PAGE NO. 7

Effective 01/01/09 - 06/30/09

NOTE:

SEE STANDARD DRAWING NO. 245.1 (2 SHEETS) FOR TYPICAL LANE CONFIGURATIONS AND DIMENSIONS



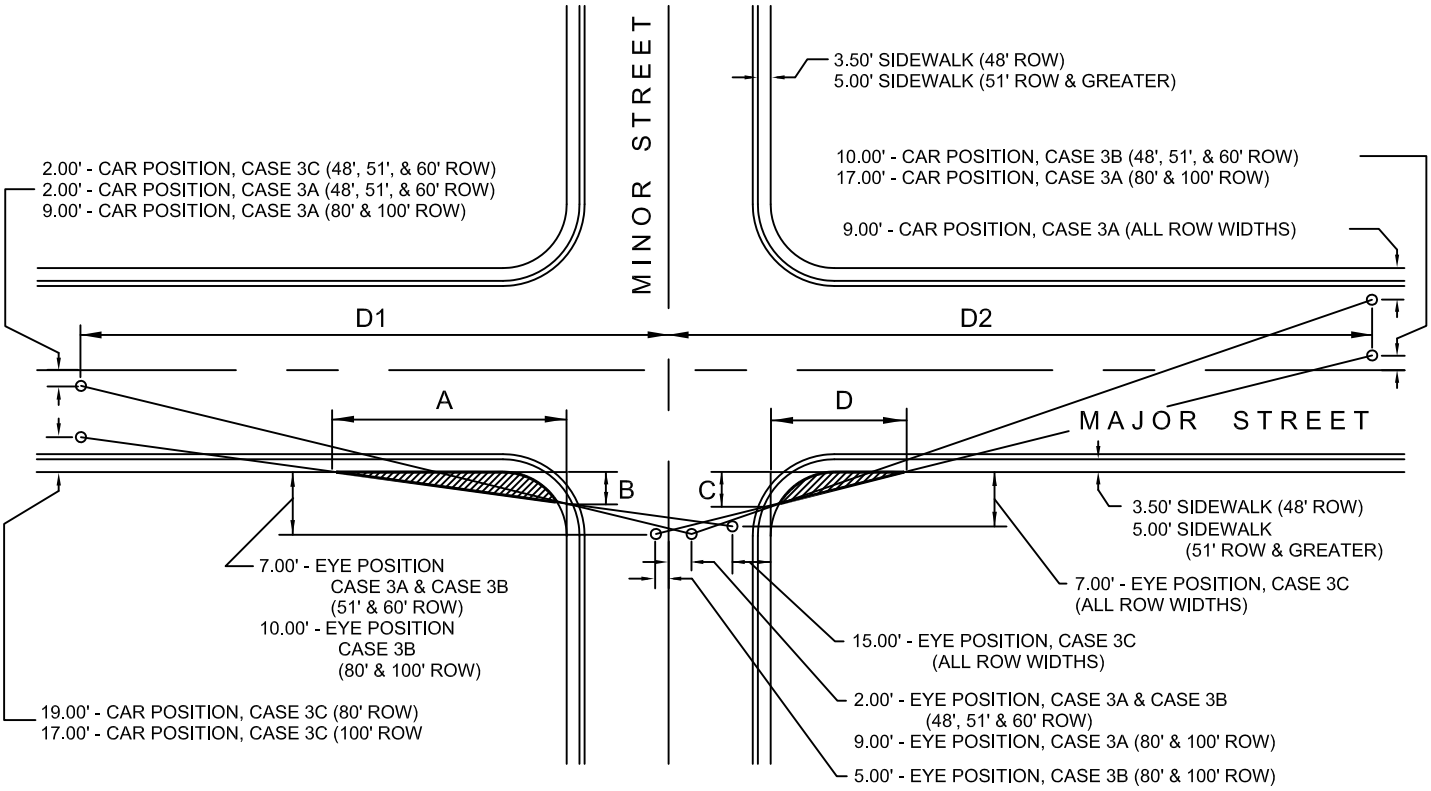
* AT THE INTERSECTIONS OF 80 FT. AND 100 FT. STREETS, ADDITIONAL RIGHT-OF-WAY MAY BE REQUIRED FOR THE 80 FT. STREET. TYPICALLY, THESE 80 FT. STREETS WILL BE IDENTIFIED AS ARTERIALS IN THE REGIONAL TRANSPORTATION PLAN.

RIGHT-OF-WAY (BEYOND STANDARD 100' ACQUISITION) NECESSARY FOR INTERSECTION

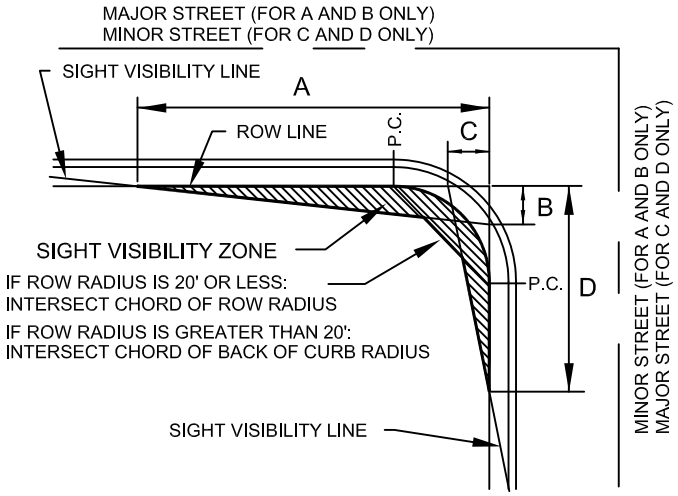
ADDITIONAL RIGHT-OF-WAY NECESSARY FOR EXCLUSIVE RIGHT TURN LANE AT INTERSECTION

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		ADDITIONAL RIGHT-OF-WAY REQUIRED AT MAJOR INTERSECTIONS		
		DATE 7-10-03	DWG. NO. 201.1	PAGE NO. 7.1

Effective 01/01/09 - 06/30/09



INTERSECTION SIGHT VISIBILITY ZONE



TYPICAL INTERSECTION CORNER

NOTE: FOR SIGHT ZONE DIMENSIONS, SEE SETBACK TABLE ON SHEET 2 OF THIS STANDARD DRAWING.

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		SIGHT VISIBILITY ZONES AT INTERSECTIONS		
		DATE 8-21-97	DWG. NO. 201.2 (1 OF 2)	PAGE 7.2

Effective 01/01/09 - 06/30/09

MAJOR ROW / MINOR ROW	48' D1=278'(3A) D1=300'(3C) D2=309'(3A) D2=319'(3B)	51' D1=278'(3A) D1=300'(3C) D2=309'(3A) D2=319'(3B)	60' D1=388'(3A) D1=486'(3C) D2=442'(3A) D2=510'(3B)	80' D1=394'(3A) D1=486'(3C) D2=491'(3A) D2=527'(3B)	100' D1=545'(3A) D1=736'(3C) D2=693'(3A) D2=787'(3B)
48' D1=278'(3A) D1=300'(3C) D2=309'(3A) D2=319'(3B)	A = 53' B = 6' C = 6' D = 42'	A = 39' B = 5' C = 5' D = 31'	A = 66' B = 5' C = 5' D = 55'	A = 100' B = 6' C = 5' D = 36'	A = 184' B = 6' C = 5' D = 53'
51' D1=278'(3A) D1=300'(3C) D2=309'(3A) D2=319'(3B)	A = 51' B = 6' C = 6' D = 40'	A = 37' B = 4' C = 4' D = 29'	A = 64' B = 5' C = 5' D = 53'	A = 98' B = 6' C = 5' D = 34'	A = 182' B = 6' C = 5' D = 51'
60' D1=388'(3A) D1=486'(3C) D2=442'(3A) D2=510'(3B)	A = 46' B = 6' C = 6' D = 50'	A = 33' B = 4' C = 4' D = 37'	A = 56' B = 5' C = 5' D = 48'	A = 90' B = 5' C = 4' D = 30'	A = 174' B = 6' C = 5' D = 47'
80' D1=394'(3A) D1=486'(3C) D2=491'(3A) D2=527'(3B)	N/A	N/A	A = 56' B = 6' C = 6' D = 58'	A = 73' B = 6' C = 6' D = 35'	A = 157' B = 6' C = 6' D = 58'
100' D1=545'(3A) D1=736'(3C) D2=693'(3A) D2=787'(3B)	N/A	N/A	N/A	A = 56' B = 4' C = N/A D = N/A	A = 140' B = 5' C = N/A D = N/A

SETBACK TABLE

GENERAL NOTES

1. EACH CORNER OF EVERY INTERSECTION SHALL HAVE A SIGHT VISIBILITY EASEMENT REGARDLESS OF RIGHT-OF-WAY WIDTH.
2. NO WALLS, FENCES, TREES, SHRUBS, UTILITY APPURTENANCES OR ANY OTHER OBJECT, OTHER THAN TRAFFIC CONTROL DEVICES AND STREET LIGHT POLES, MAY BE CONSTRUCTED OR INSTALLED WITHIN THE SIGHT VISIBILITY ZONE UNLESS SAID OBJECT IS MAINTAINED AT LESS THAN 24 INCHES IN HEIGHT, MEASURED FROM TOP OF CURB, OR WHERE NO CURB EXISTS, A HEIGHT OF 27 INCHES MEASURED FROM THE TOP OF ADJACENT ASPHALT, GRAVEL OR PAVEMENT STREET SURFACE.
3. AT INTERSECTIONS WHERE THE CLASSIFICATION OF MAJOR AND MINOR STREETS CANNOT BE PERMANENTLY ESTABLISHED, EACH LEG OF THE INTERSECTION MUST BE ANALYZED AS IF THE APPROACH LEG IS A MINOR STREET INTERSECTING A MAJOR STREET. THE PORTIONS OF THE SIGHT VISIBILITY ZONE LABELED "N/A" IN THE SETBACK TABLE ARE NOT REQUIRED. AT "T" INTERSECTIONS, THE TERMINATING LEG WILL ALWAYS BE THE MINOR STREET.
4. CURVING ROADWAYS AND ROADWAYS WITH INTERSECTING ANGLES GREATER THAN 10 DEGREES MUST BE ANALYZED USING D1, D2, THE EYE POSITION, AND THE CAR POSITION AS SHOWN IN THE INFORMATION ABOVE.
5. USE OF A SIGHT VISIBILITY ZONE DIFFERENT THAN THAT SHOWN HEREIN SHALL REQUIRE A SIGHT VISIBILITY ANALYSIS PREPARED AND SUBMITTED FOR APPROVAL TO THE LOCAL ENTITY ENGINEER BY A CIVIL ENGINEER REGISTERED IN THE STATE OF NEVADA.
6. THE AREA WITHIN THE LIMITS OF THE ARC AND THE CHORD AT THE CURB RETURN SHALL BE ADDED TO THE SIGHT VISIBILITY ZONE AT EACH CORNER OF EVERY INTERSECTION, EXCEPT FOR 100' x 100' INTERSECTIONS OR GREATER.
7. ON-STREET PARKING SHALL BE PROHIBITED WITHIN AREAS DESIGNATED BY DIMENSIONS "A" AND "D" ON SHEET 1 OF THIS DRAWING, SUBJECT TO THE APPROVAL OF THE TRAFFIC ENGINEER OR DESIGNATED REPRESENTATIVE OF THE ENTITY HAVING JURISDICTION.

BASIS FOR ANALYSIS

THE FOLLOWING CRITERIA WAS AND SHALL BE USED AS THE BASIS FOR DESIGN OF SIGHT VISIBILITY ZONES:

AASHTO PUBLICATION OF "A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS", 1990 EDITION, CHAPTER IX, USING THE MOST RESTRICTIVE SIGHT LINE DERIVED FROM EACH OF THE THREE POSSIBLE CROSSING MANEUVERS (STOPPED CONDITION):

CASE 3A - CROSSING MANEUVER
CASE 3B - LEFT TURN MANEUVER ONTO A MAJOR STREET
CASE 3C - RIGHT TURN MANEUVER ONTO A MAJOR STREET

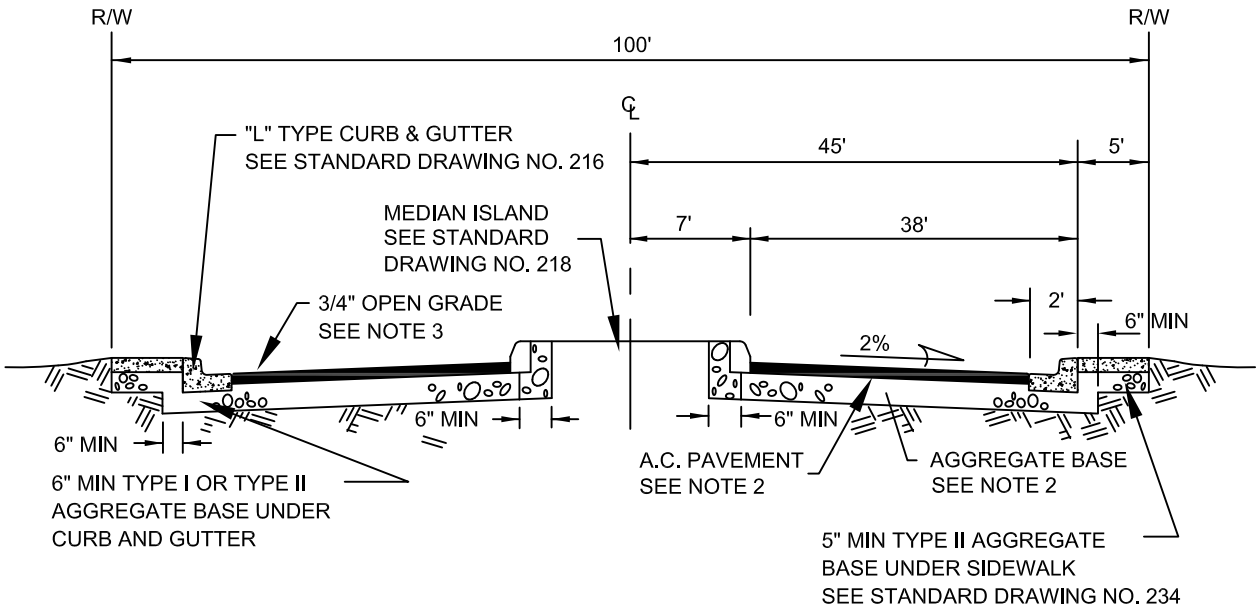
THE ANALYSIS SHOULD USE THE GREATER OF THE FOLLOWING:

DESIGN SPEED = POSTED SPEED LIMIT PLUS FIVE
DESIGN SPEED = POSTED SPEED LIMIT DIVIDED BY 0.85

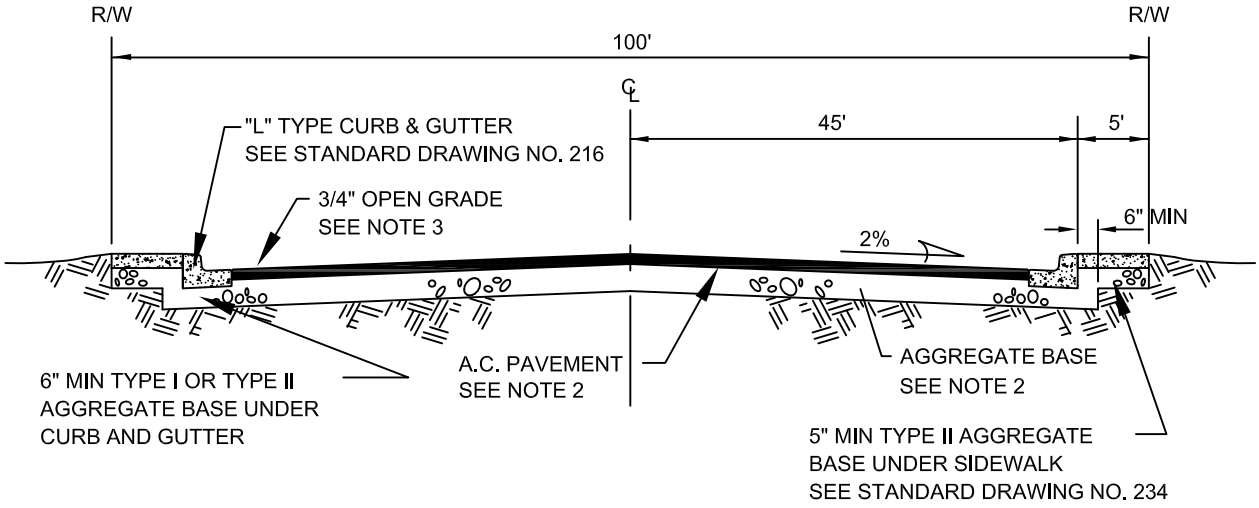
CAR AND EYE POSITIONS ARE AS SHOWN ON SHEET 1 OF THIS DRAWING.

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		SIGHT VISIBILITY ZONES AT INTERSECTIONS		
		DATE 8-21-97	DWG. NO. 201.2 (2 OF 2)	PAGE 7.2A

Effective 01/01/09 - 06/30/09



ARTERIAL WITH
MEDIAN ISLAND



ARTERIAL WITHOUT
MEDIAN ISLAND

NOTES:

1. FINAL A.C. PAVEMENT SURFACE SHALL BE 1/2" MAXIMUM ABOVE LIP OF GUTTER. PAVEMENT SHALL BE FLUSH WITH LIP AT SIDEWALK RAMPS.
2. STRUCTURAL SECTION SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 401 AND STANDARD DRAWING 200.
3. A 3/4" OPEN GRADE IS REQUIRED ON CLARK COUNTY ROADWAYS AND MAY BE REQUIRED IN OTHER JURISDICTIONS AS DETERMINED BY THE ENTITY'S ENGINEER.
4. IF OPEN GRADE IS REQUIRED DENSE GRADE SHALL BE FLUSH WITH LIP OF GUTTER AND FINAL A.C. PAVEMENT SURFACE SHALL BE 3/4" MAXIMUM ABOVE LIP OF GUTTER. FINAL A.C. PAVEMENT SURFACE SHALL BE FLUSH WITH LIP AT SIDEWALK RAMPS.
5. FOG SEAL AND PRIME COAT REQUIRED IN THE CITIES OF LAS VEGAS AND NORTH LAS VEGAS.

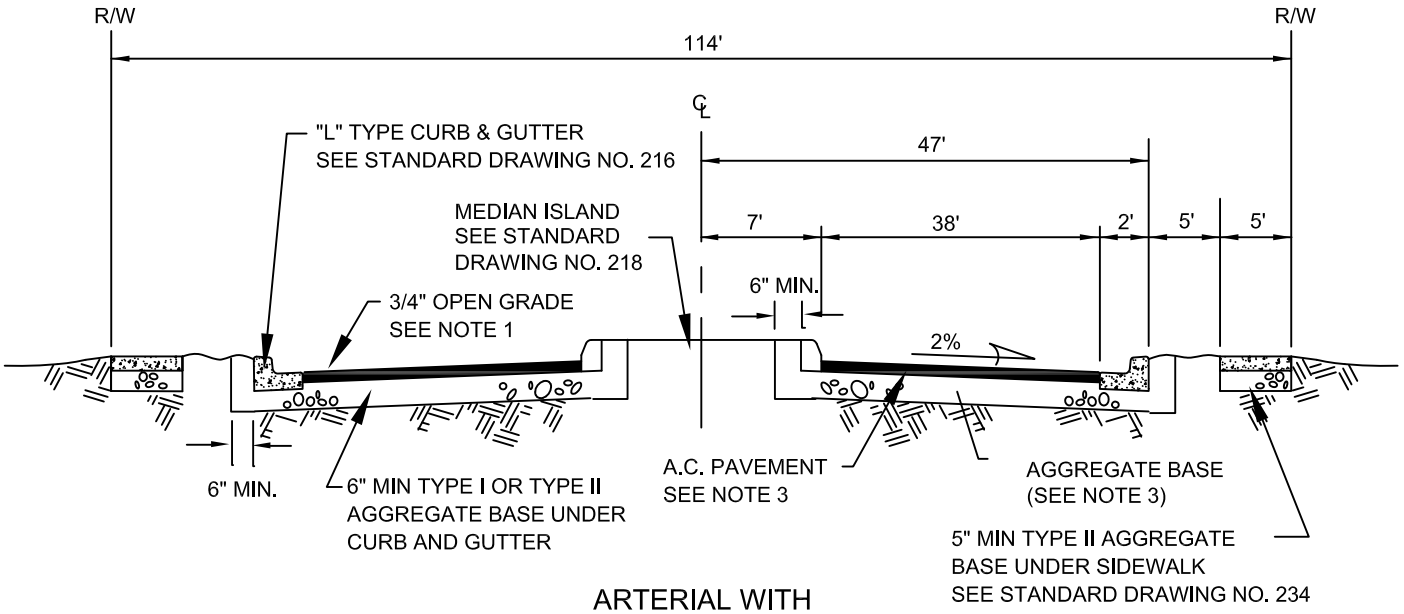
SPECIFICATION REFERENCE	
302	AGGREGATE BASE
401	BITUMINOUS PAVEMENT
403	OPEN GRADE
501	CONCRETE

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

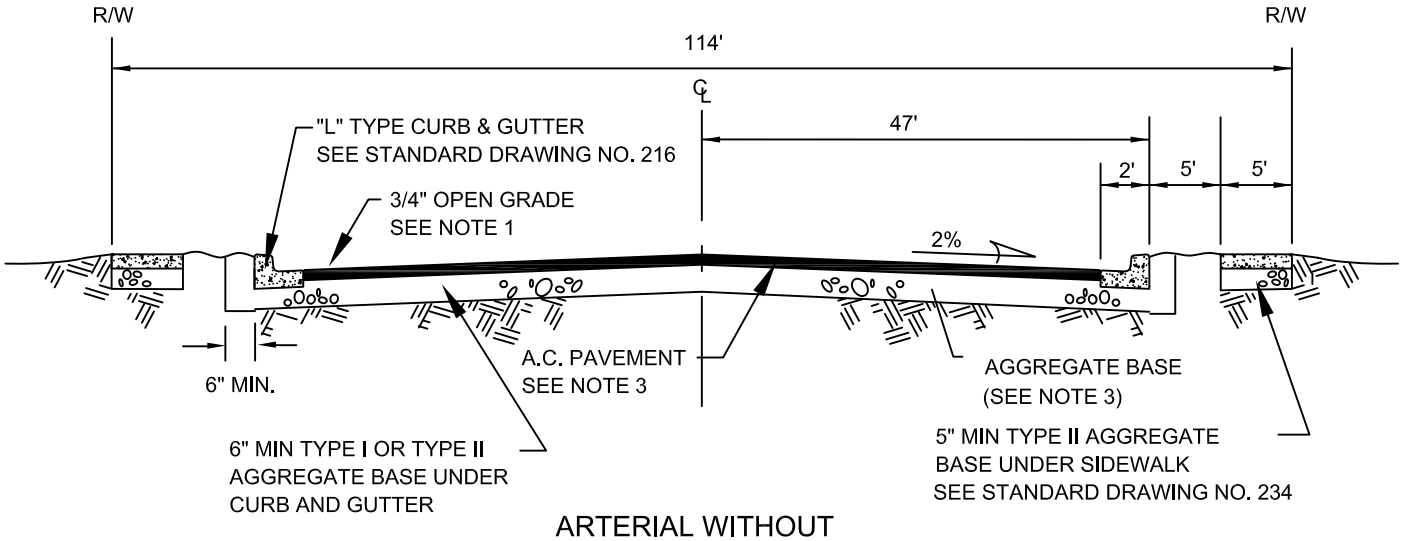
ARTERIAL
URBAN AREA STREET SECTIONS
WITH CURBSIDE SIDEWALK

DATE 11-10-04	DWG. NO. 202	PAGE NO. 8

Effective 01/01/09 - 06/30/09



ARTERIAL WITH
MEDIAN ISLAND



ARTERIAL WITHOUT
MEDIAN ISLAND

NOTES:

1. FINAL A.C. PAVEMENT SURFACE (INCLUDING OPEN GRADE) SHALL BE 3/4" MAXIMUM ABOVE LIP OF GUTTER. PAVEMENT SHALL BE FLUSH WITH LIP AT SIDEWALK RAMPS.
2. DENSE GRADE SHALL BE FLUSH WITH LIP OF GUTTER.
3. STRUCTURAL SECTION SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 401 AND STANDARD DRAWING NO. 200.
4. THIS STANDARD IS AN ALTERNATE STREET SECTION TO BE USED AT LOCATIONS DETERMINED BY EACH LOCAL JURISDICITON. NO ABOVE GROUND OBJECTS SHALL BE PLACED WITHIN THE 5 FOOT SIDEWALK.
5. UNDERGROUND DRY UTILITIES SHOULD BE PLACED IN A UTILITY CORRIDOR UNDER THE SIDEWALK.
6. INCREASE PAVEMENT WIDTH BY 11 FEET ON EACH SIDE OF ROADWAY FOR AN 8 LANE CROSS SECTION.

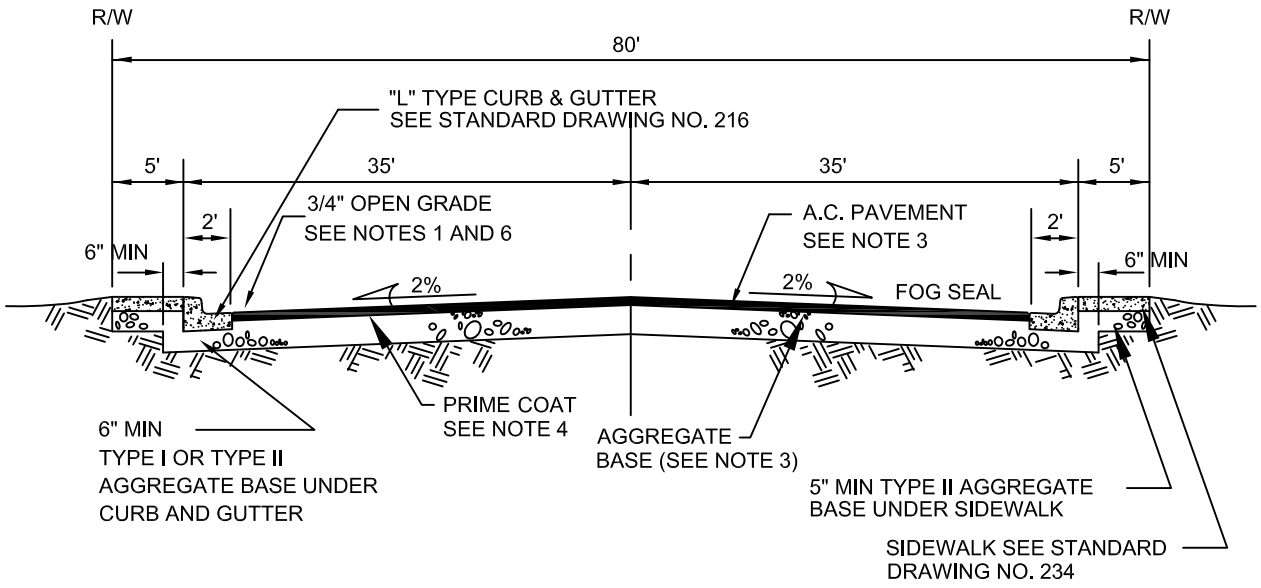
SPECIFICATION REFERENCE	
302	AGGREGATE BASE
401	BITUMINOUS PAVEMENT
403	OPEN GRADE
501	CONCRETE

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

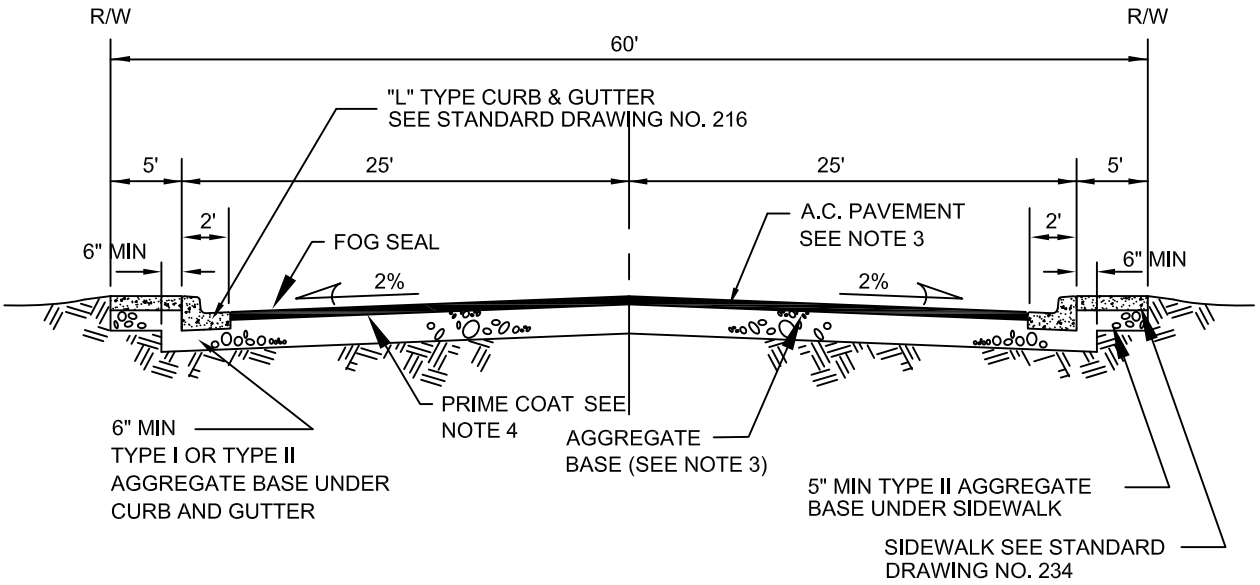
ARTERIAL
ALTERNATE URBAN AREA STREET SECTIONS WITH OFFSET SIDEWALK

DATE 11-10-04	DWG. NO. 202 ALT	PAGE NO. 8.1ALT

Effective 01/01/09 - 06/30/09



MAJOR COLLECTOR



NON-RESIDENTIAL LOCAL
OR MINOR RESIDENTIAL COLLECTOR

NOTES:

1. A.C. PAVEMENT TO BE 1/2" MAXIMUM ABOVE LIP OF GUTTER AFTER COMPACTION. PAVEMENT SHALL BE FLUSH WITH LIP AT SIDEWALK RAMPS.
2. THE GRADE BREAK OCCURING IN THE CROSS SECTION SHALL FALL BETWEEN DRIVING LANES.
3. STRUCTURAL SECTION SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 401 AND STANDARD DRAWING NOS. 200 AND 200A.
4. PRIME COAT IS NOT REQUIRED IN HENDERSON, MESQUITE OR BOULDER CITY WHEN A.C. THICKNESS >= 5 IN.
5. 4 INCH MINUMUM THICKNESS REQUIRED IN HENDERSON, MESQUITE AND BOULDER CITY.
6. 3/4" OPEN GRADE REQUIRED IN CLARK COUNTY. OPEN GRADE IN OTHER JURISDICTIONS AS REQUIRED BY THE ENGINEER.

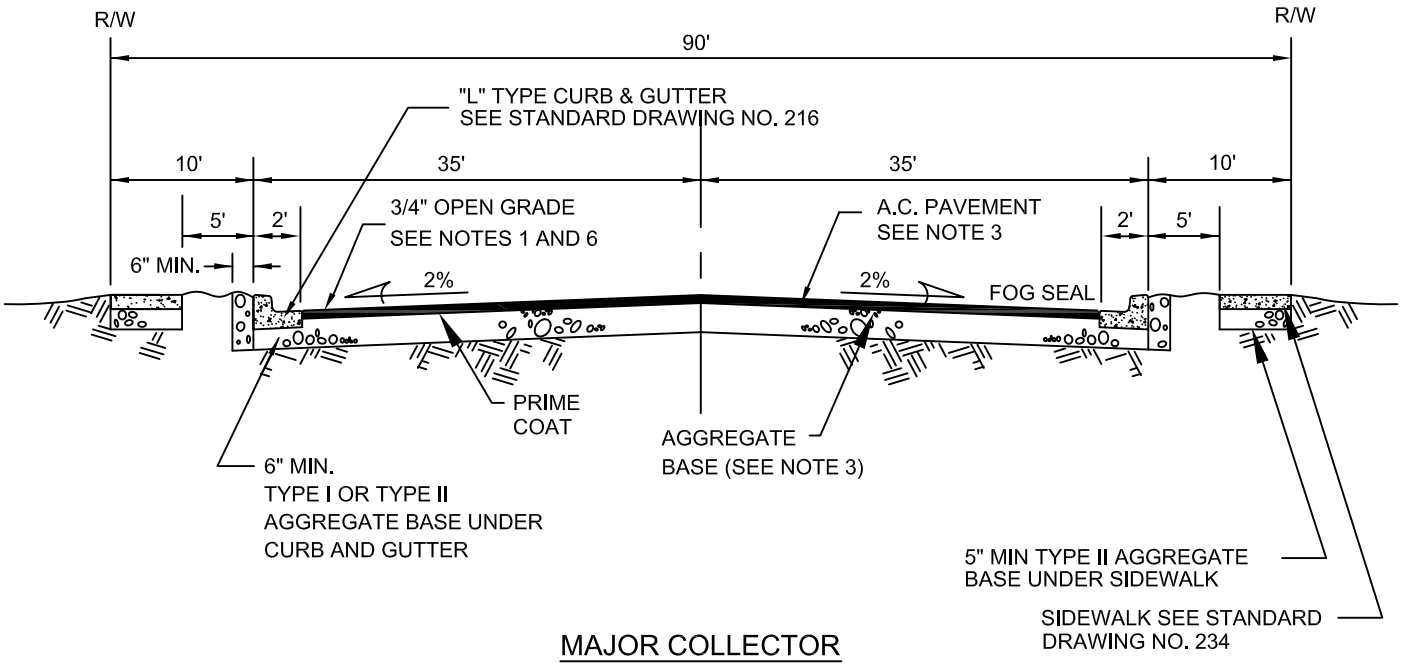
SPECIFICATION REFERENCE	
302	AGGREGATE BASE
401	BITUMINOUS PAVEMENT
406	PRIME COAT
407	FOG SEAL
501	CONCRETE

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

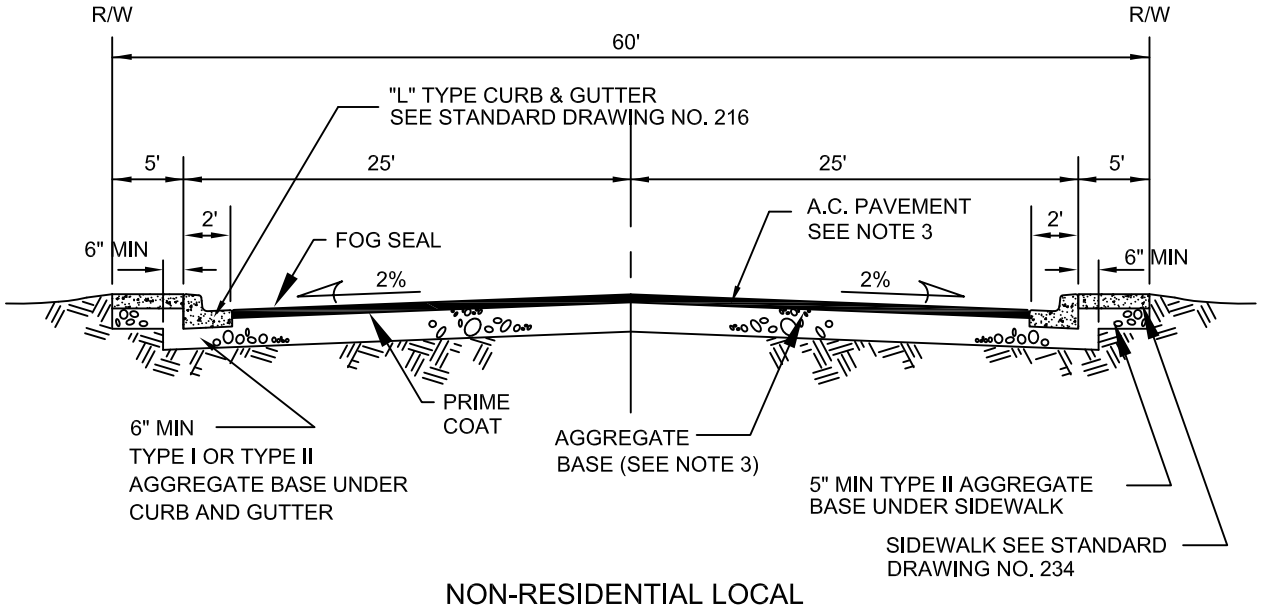
COLLECTOR
URBAN AREA STREET SECTIONS
WITH CURBSIDE SIDEWALK

DATE 11-10-04	DWG. NO. 205	PAGE NO. 11

Effective 01/01/09 - 06/30/09



MAJOR COLLECTOR



NON-RESIDENTIAL LOCAL
OR MINOR RESIDENTIAL COLLECTOR

NOTES:

1. A.C. PAVEMENT TO BE 1/2" MAXIMUM ABOVE LIP OF GUTTER AFTER COMPACTION. PAVEMENT SHALL BE FLUSH WITH LIP AT SIDEWALK RAMPS.
2. THE GRADE BREAK OCCURING IN THE CROSS SECTION SHALL FALL BETWEEN DRIVING LANES.
3. STRUCTURAL SECTION SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 401 AND STANDARD DRAWING NOS. 200 AND 200A.
4. THIS STANDARD IS AN ALTERNATE STREET SECTION TO BE USED AT LOCATIONS DETERMINED BY EACH LOCAL JURISDICITON. NO ABOVE GROUND OBJECTS SHALL BE PLACED WITHIN THE 5 FOOT SIDEWALK.
5. UNDERGROUND DRY UTILITIES SHOULD BE PLACED IN A UTILITY CORRIDOR UNDER THE SIDEWALK.
6. 3/4" OPEN GRADE REQUIRED IN CLARK COUNTY. OPEN GRADE IN OTHER JURISDICTIONS AS REQUIRED BY THE ENGINEER.

SPECIFICATION REFERENCE	
302	AGGREGATE BASE
401	BITUMINOUS PAVEMENT
406	PRIME COAT
407	FOG SEAL
501	CONCRETE

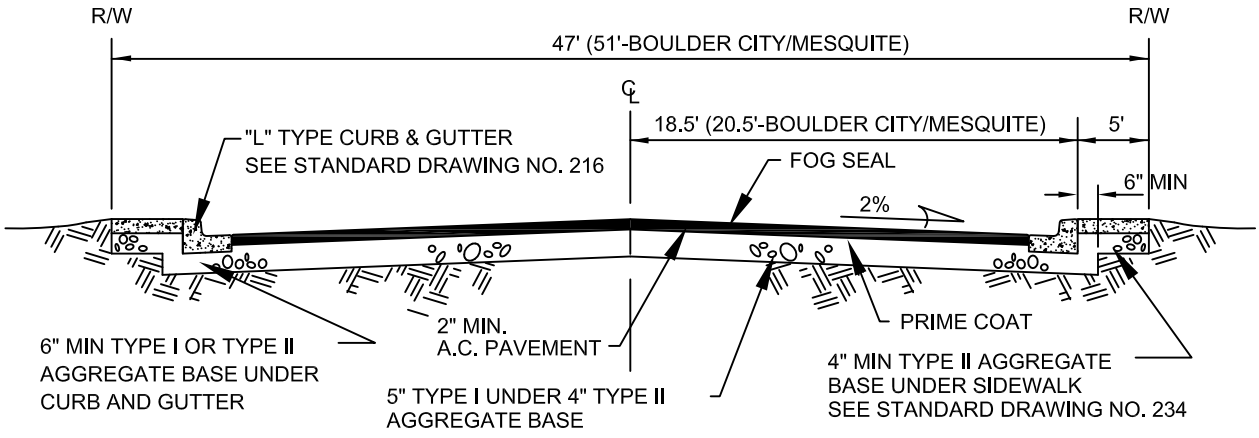
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

CLARK COUNTY, LAS VEGAS AND NORTH LAS VEGAS

COLLECTOR
ALTERNATE URBAN AREA STREET SECTIONS WITH OFFSET SIDEWALK

DATE 11-10-04	DWG. NO. 205 ALT	PAGE NO. 11ALT.

Effective 01/01/09 - 06/30/09



NOTES:

1. FINAL A.C. PAVEMENT SURFACE SHALL BE 1/4" MAXIMUM ABOVE LIP OF GUTTER.
2. STRUCTURAL SECTION SHOWN IS BASED ON A SUBGRADE "R" VALUE OF 20. OTHER STRUCTURAL SECTIONS MAY BE APPROVED IF BASED ON ENGINEERING ANALYSIS BASED ON SUBGRADE "R" OR "CBR" VALUES DETERMINED BY SOIL TESTING. IN NO CASE SHALL THE A.C. THICKNESS BE LESS THAN THAT SHOWN.

SPECIFICATION REFERENCE	
302	AGGREGATE BASE
401	BITUMINOUS PAVEMENT
406	PRIME COAT
407	FOG SEAL
501	CONCRETE

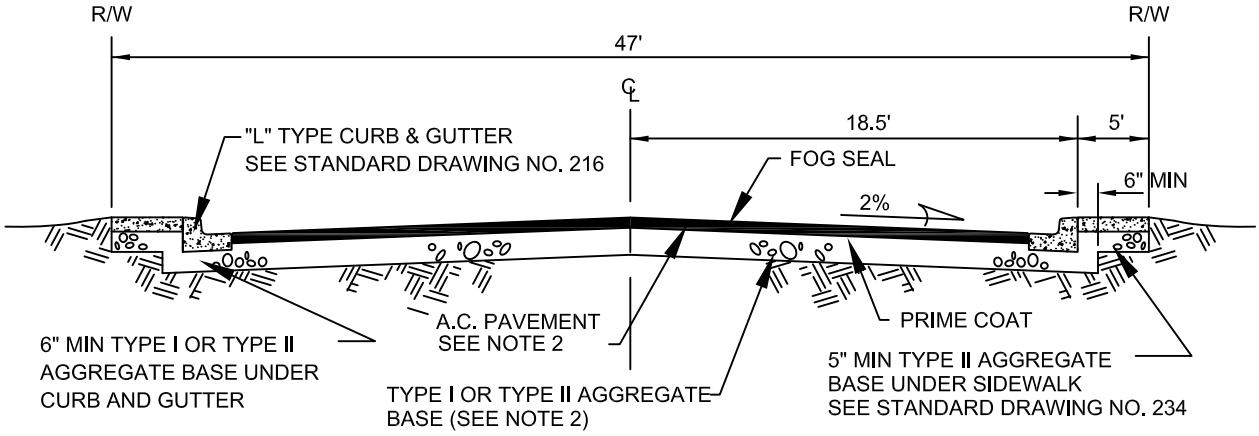
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

HENDERSON, BOULDER CITY, MESQUITE

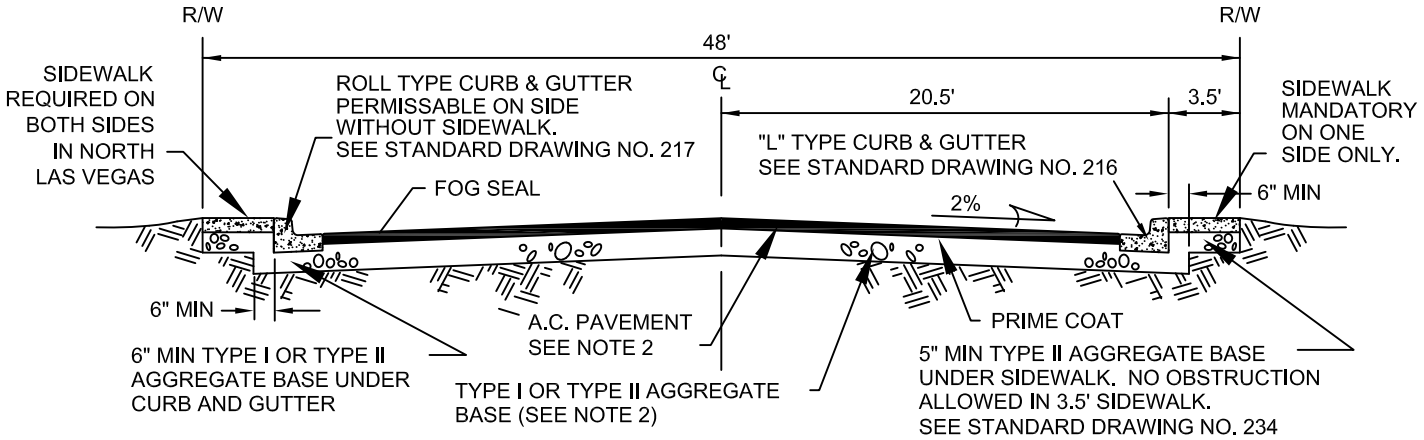
LOCAL RESIDENTIAL URBAN AREA STREET SECTION

DATE 11-10-04	DWG. NO. 206	PAGE NO. 12

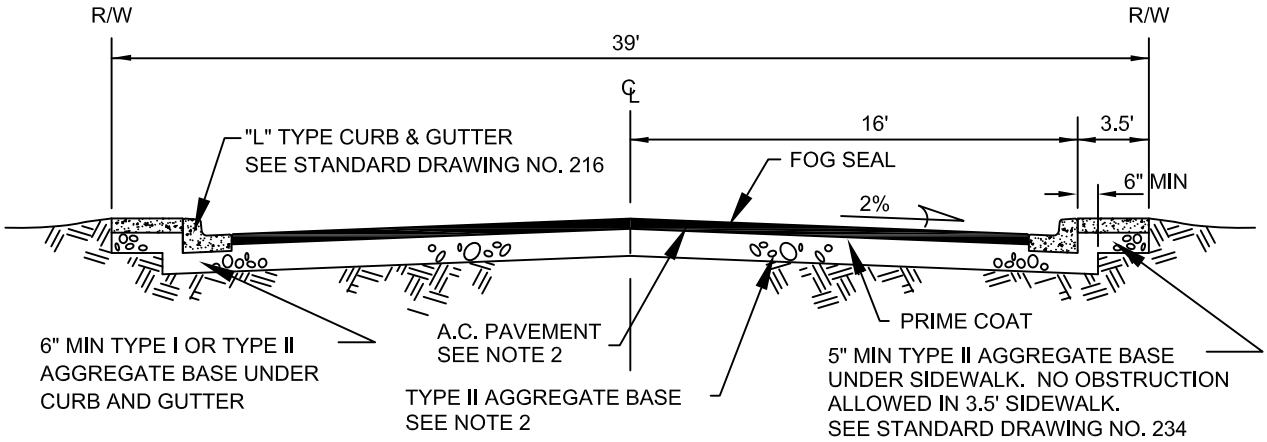
Effective 01/01/09 - 06/30/09



RESIDENTIAL TWO-WAY LOCAL OR CUL-DE-SAC
(OPTION "A")



RESIDENTIAL TWO-WAY LOCAL, CUL-DE-SAC (OPTION "B")
(NOT ALLOWED IN CLV)



RESIDENTIAL ONE-WAY (NOT ALLOWED IN CLV)

NOTES:

1. FINAL A.C. PAVEMENT SURFACE SHALL BE 1/4" MAXIMUM ABOVE LIP OF GUTTER. PAVEMENT SHALL BE FLUSH WITH LIP AT SIDEWALK RAMPS.
2. STRUCTURAL SECTION SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 401 AND STANDARD DRAWING NO. 200A.
3. RESIDENTIAL ONE-WAY STREET SHALL NOT EXCEED ONE THOUSAND FEET OR TWENTY RESIDENTIAL LOTS IN LENGTH WHICHEVER IS LESS.

SPECIFICATION REFERENCE	
302	AGGREGATE BASE
401	BITUMINOUS PAVEMENT
406	PRIME COAT
407	FOG SEAL
501	CONCRETE

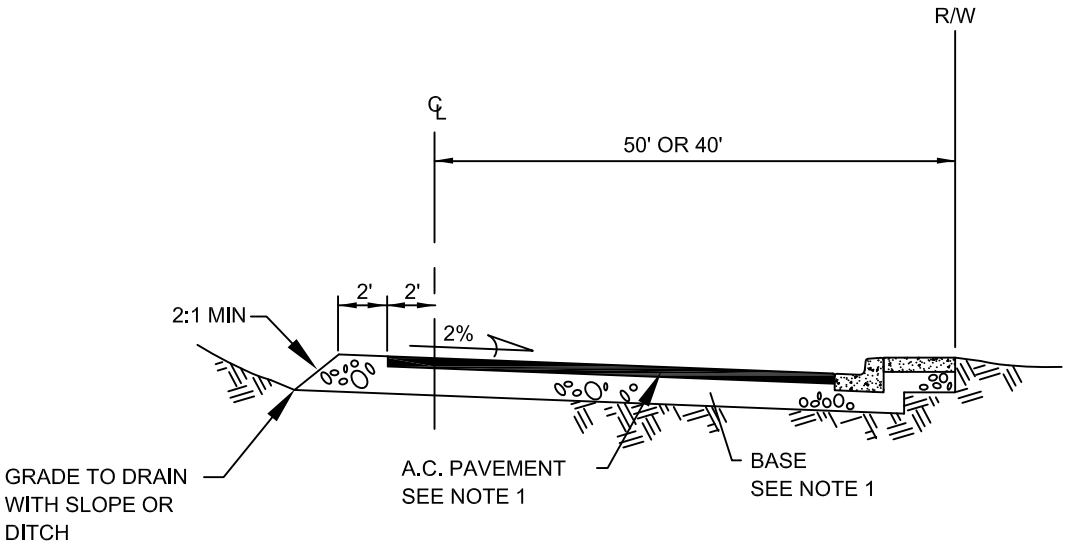
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

CLARK COUNTY, LAS VEGAS AND NORTH LAS VEGAS

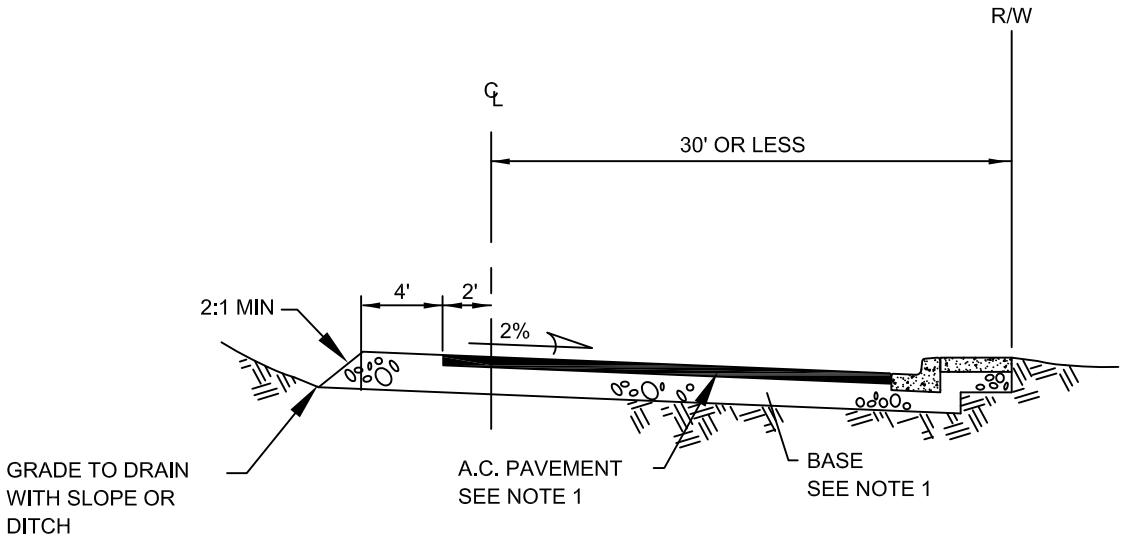
LOCAL RESIDENTIAL
URBAN AREA STREET SECTIONS

DATE 11-10-04	DWG. NO. 207	PAGE NO. 13

Effective 01/01/09 - 06/30/09



ARTERIAL OR MAJOR COLLECTOR



COMMERCIAL/INDUSTRIAL LOCAL
OR MINOR RESIDENTIAL COLLECTOR
OR LOCAL RESIDENTIAL

NOTES:

1. A.C. PAVEMENT AND BASE THICKNESS SHALL BE IN ACCORDANCE TO STANDARD DRAWINGS NUMBER 202 THROUGH 207, WHICHEVER IS APPLICABLE.
2. GREATER WIDTHS MAY BE REQUIRED IF TRAFFIC WARRANTS, AS DETERMINED BY THE ENGINEER.

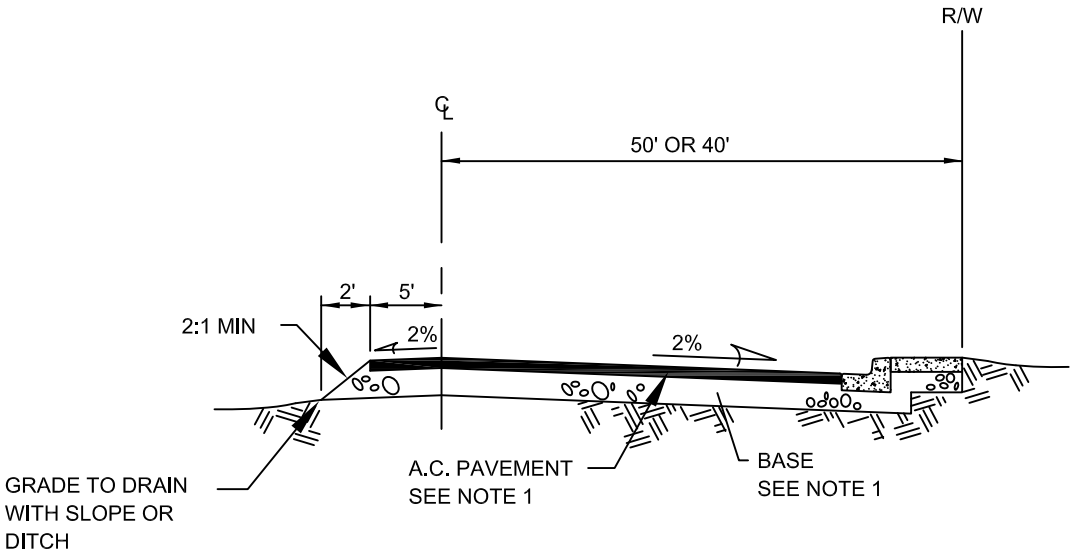
SPECIFICATION REFERENCE	
302	AGGREGATE BASE
401	BITUMINOUS PAVEMENT
406	PRIME COAT
407	FOG SEAL
501	CONCRETE

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

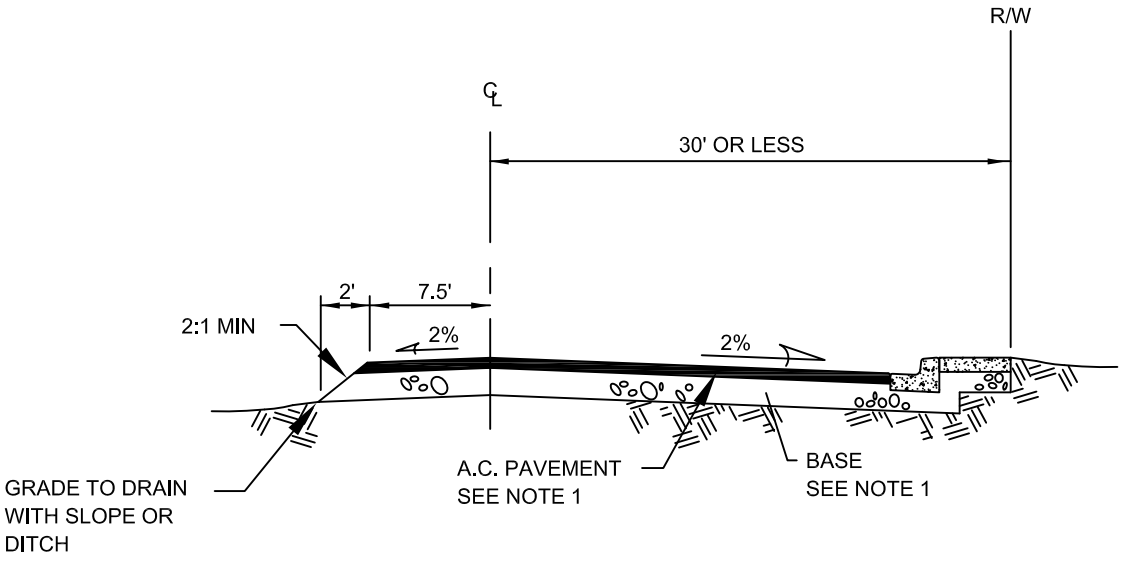
HALF STREET CONSTRUCTION SECTIONS

DATE	DWG. NO. 208	PAGE 14

Effective 01/01/09 - 06/30/09



ARTERIAL OR MAJOR COLLECTOR



COMMERCIAL/INDUSTRIAL LOCAL
OR MINOR RESIDENTIAL COLLECTOR
OR LOCAL RESIDENTIAL

NOTES:

1. A.C. PAVEMENT AND BASE THICKNESS SHALL BE IN ACCORDANCE TO STANDARD DRAWINGS NUMBER 202 THROUGH 207, WHICHEVER IS APPLICABLE.
2. GREATER WIDTHS MAY BE REQUIRED IF TRAFFIC WARRANTS, AS DETERMINED BY THE ENGINEER.

SPECIFICATION REFERENCE	
302	AGGREGATE BASE
401	BITUMINOUS PAVEMENT
406	PRIME COAT
407	FOG SEAL
501	CONCRETE

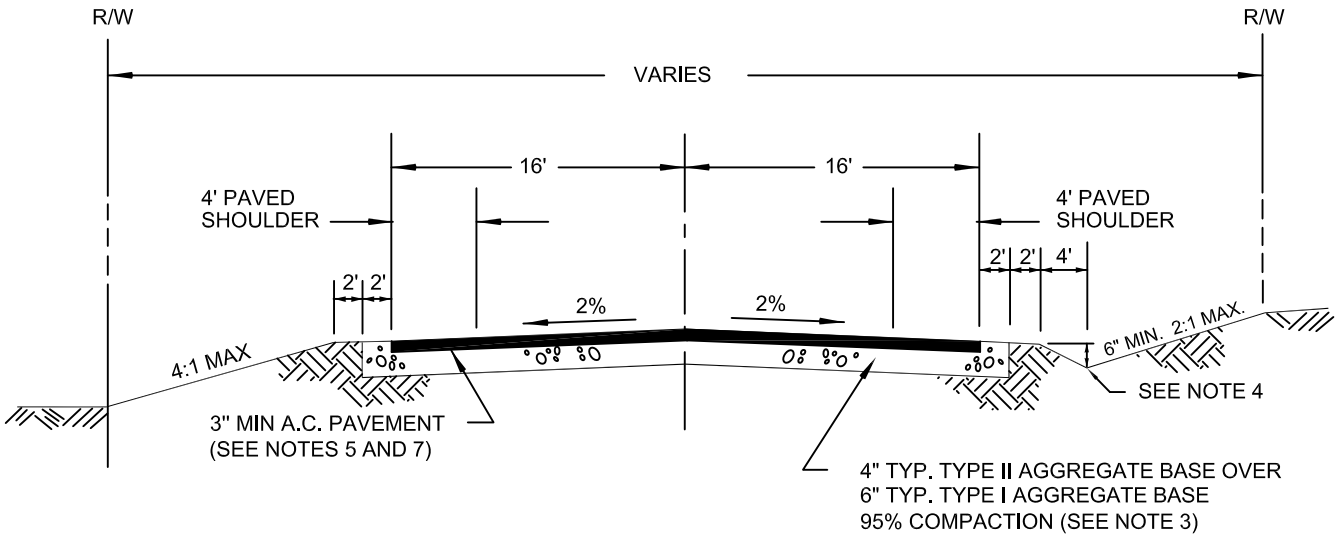
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

CLARK COUNTY ONLY

HALF STREET CONSTRUCTION SECTIONS

DATE 8-12-99	DWG. NO. 208.1	PAGE 14.1

Effective 01/01/09 - 06/30/09



NOTES:

1. INTERSECTIONS SHALL HAVE 34 FOOT MINIMUM EDGE OF A.C. RETURN RADII.
2. COMPACTION OF AGGREGATE BASE AND SUBGRADE PREPARATION SHALL BE IN ACCORDANCE WITH THE UNIFORM STANDARD SPECIFICATIONS.
3. STRUCTURAL SECTION SHOWN IS BASED ON A SUBGRADE "R" VALUE OF 20. OTHER STRUCTURAL SECTIONS MAY BE APPROVED IF BASED ON ENGINEERING ANALYSIS BASED ON "R" OR "CBR" VALUES DETERMINED BY SOIL TESTING.
4. CULVERTS MAY BE REQUIRED AT DRIVEWAYS.
5. A.C. PAVEMENT SHALL BE IN ACCORDANCE WITH SECTION 401 OF THE UNIFORM STANDARD SPECIFICATIONS. ALTERNATE PAVING MATERIALS MAY BE USED AT THE DISCRETION OF THE ENTITY.
6. PAVEMENT MARKINGS MAY BE REQUIRED AND INCLUDE DOUBLE YELLOW CENTERLINE, RAISED PAVEMENT MARKERS OR YELLOW PAINT, AND 4' OFFSET WHITE PAINTED EDGELINES.
7. PAVEMENT WIDTH AND PAVEMENT THICKNESS MAY BE REDUCED TO 28 FEET (14 FEET EACH DIRECTION) AND 2 INCHES RESPECTIVELY BASED UPON A DETERMINATION BY THE LOCAL ENTITY THAT THE REDUCED WIDTH AND THICKNESS WILL PROVIDE SATISFACTORY LIFE AND A SAFE ROADWAY.

SPECIFICATION REFERENCE	
302	AGGREGATE BASE
401	BITUMINOUS PAVEMENT

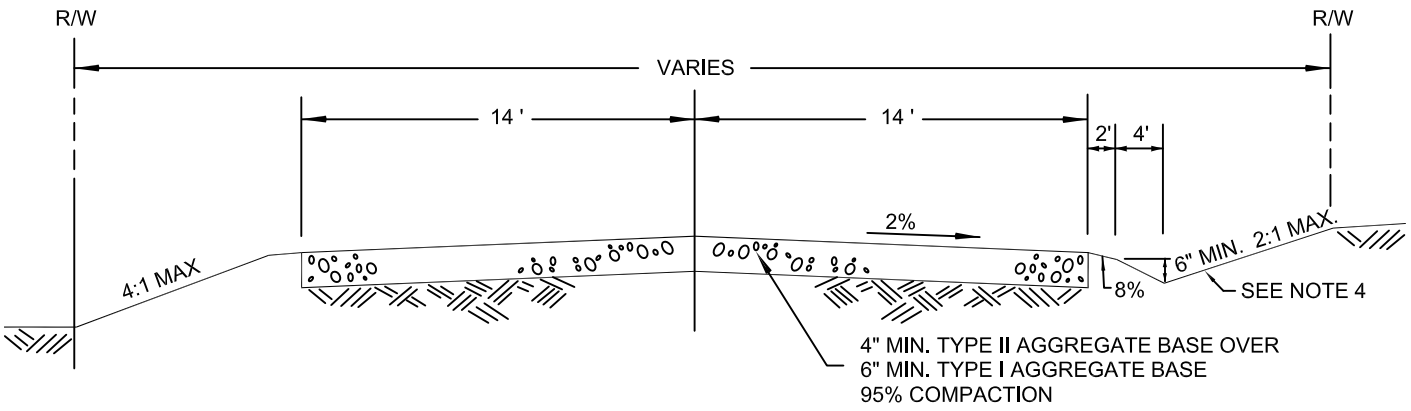
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

ACCESS ROADS

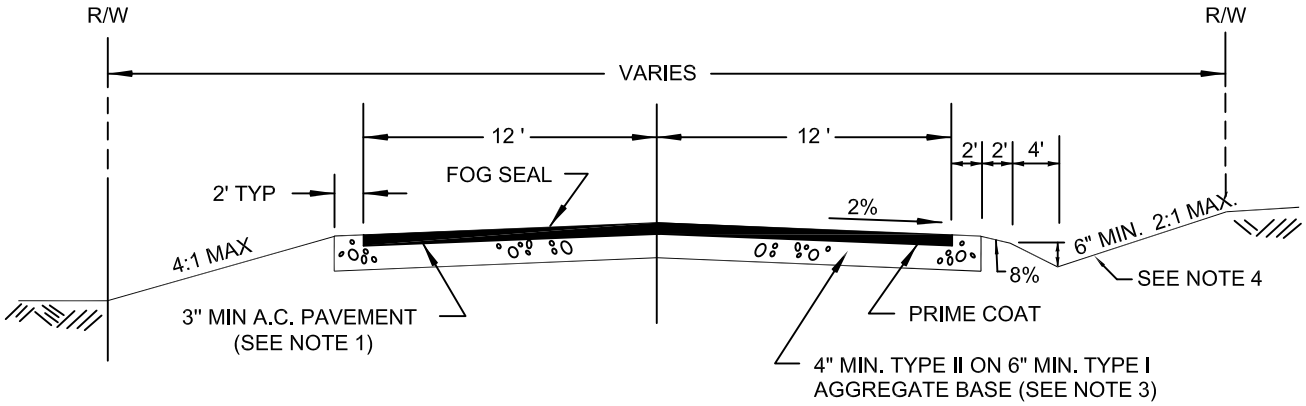
(FOR USE IN HYDROGRAPHIC BASIN NO. 212)
(PM-10 NON-ATTAINMENT AREAS)

DATE	5-20-04	DWG. NO.	209	PAGE NO.	15

Effective 01/01/09 - 06/30/09



GRAVEL



PAVED

NOTES:

1. INTERSECTIONS SHALL HAVE 25 FOOT MINIMUM EDGE OF OIL RADII.
2. COMPACTION OF AGGREGATE BASE AND SUBGRADE PREPARATION SHALL BE IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS".
3. STRUCTURAL SECTION SHOWN IS BASED ON A SUBGRADE "R" VALUE OF 20. OTHER STRUCTURAL SECTIONS MAY BE APPROVED IF BASED ON ENGINEERING ANALYSIS BASED ON "R" OR "CBR" VALUES DETERMINED BY SOIL TESTING. IN NO CASE SHALL THE A.C. THICKNESS BE LESS THAN THAT SHOWN, NOR SHALL THE BASE BE LESS THAN 4".
4. CULVERTS MAY BE REQUIRED AT DRIVEWAYS.

SPECIFICATION REFERENCE	
302	AGGREGATE BASE
401	BITUMINOUS PAVEMENT
406	PRIME COAT
407	FOG SEAL

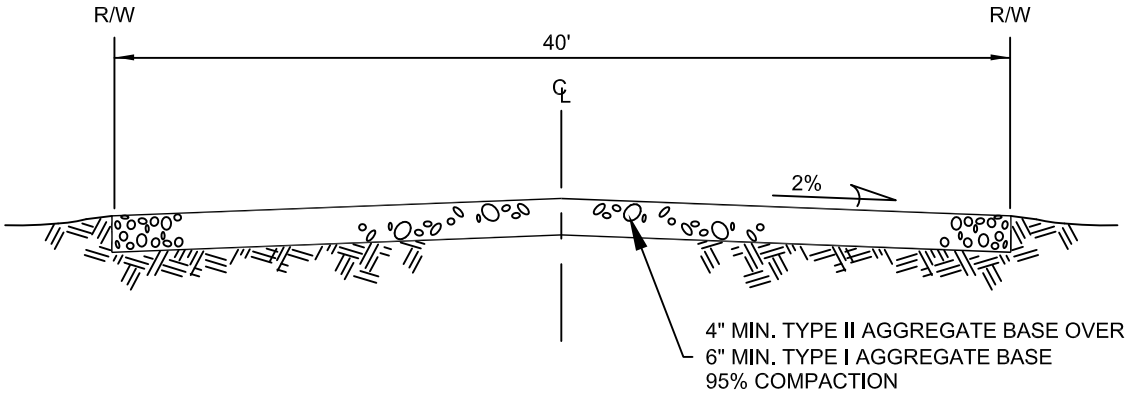
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

ACCESS ROADS

(FOR USE IN PM-10 COMPLIANT AREAS)

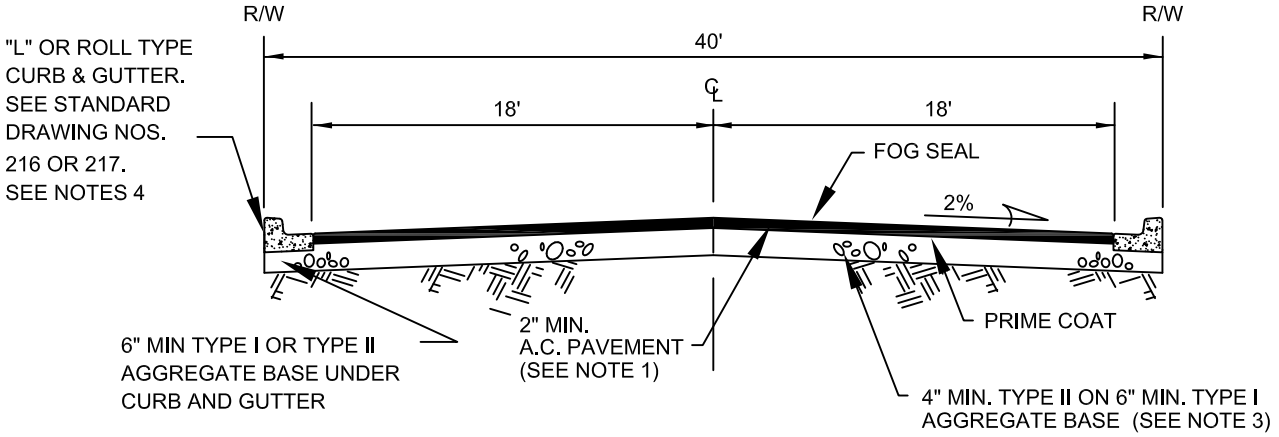
DATE 12-14-00	DWG. NO. 209A	PAGE NO. 15A

Effective 01/01/09 - 06/30/09



GRAVEL

(THIS SECTION NOT FOR USE IN PM-10 NON-ATTAINMENT AREAS)



PAVED

NOTES:

1. INTERSECTIONS SHALL HAVE 25 FOOT MINIMUM EDGE OF OIL RADII OR 20 FOOT MINIMUM BACK OF CURB RADII.
2. COMPACTION OF AGGREGATE BASE AND SUBGRADE PREPARATION SHALL BE IN ACCORDANCE WITH THE "STANDARD SPECIFICATION".
3. STRUCTURAL SECTION SHOWN IS BASED ON A SUBGRADE "R" VALUE OF 20. OTHER STRUCTURAL SECTIONS MAY BE APPROVED IF BASED ON ENGINEERING ANALYSIS BASED ON "R" OR "CBR" VALUES DETERMINED BY SOIL TESTING. IN NO CASE SHALL THE A.C. THICKNESS BE LESS THAN THAT SHOWN, NOR SHALL THE BASE BE LESS THAN 4" EXCEPT THAT THE BASE SHALL NOT BE LESS THAN 10" IN NORTH LAS VEGAS.
4. ALLOW IN CITY OF NORTH LAS VEGAS ONLY WITH EXPRESS WRITTEN PERMISSION FROM THE CITY ENGINEER.

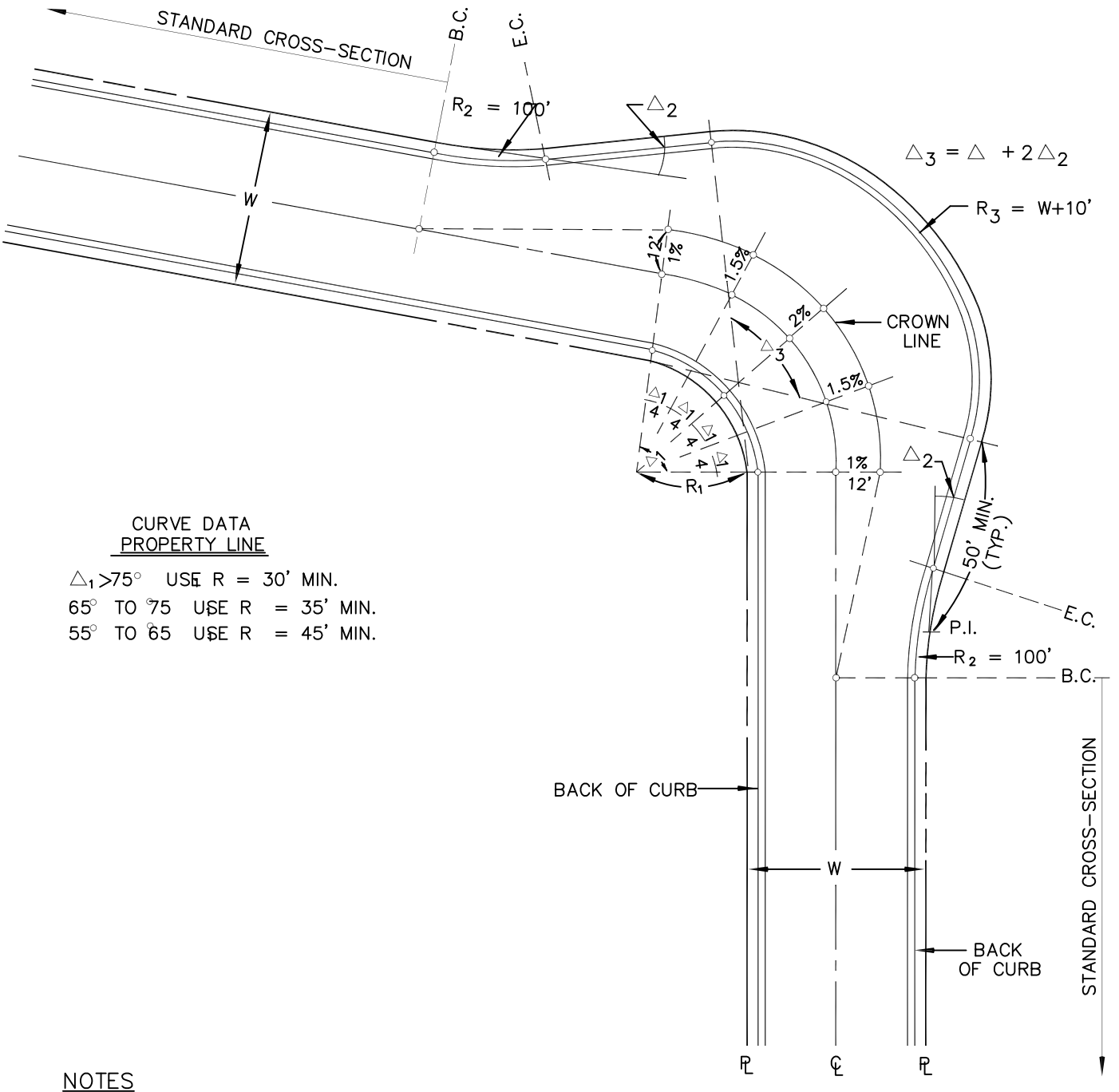
SPECIFICATION REFERENCE	
302	AGGREGATE BASE
401	BITUMINOUS PAVEMENT
406	PRIME COAT
407	FOG SEAL
501	CONCRETE

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

PRIVATE STREET SECTIONS

DATE 12-14-00	DWG. NO. 210	PAGE 16

Effective 01/01/09 - 06/30/09



CURVE DATA
PROPERTY LINE

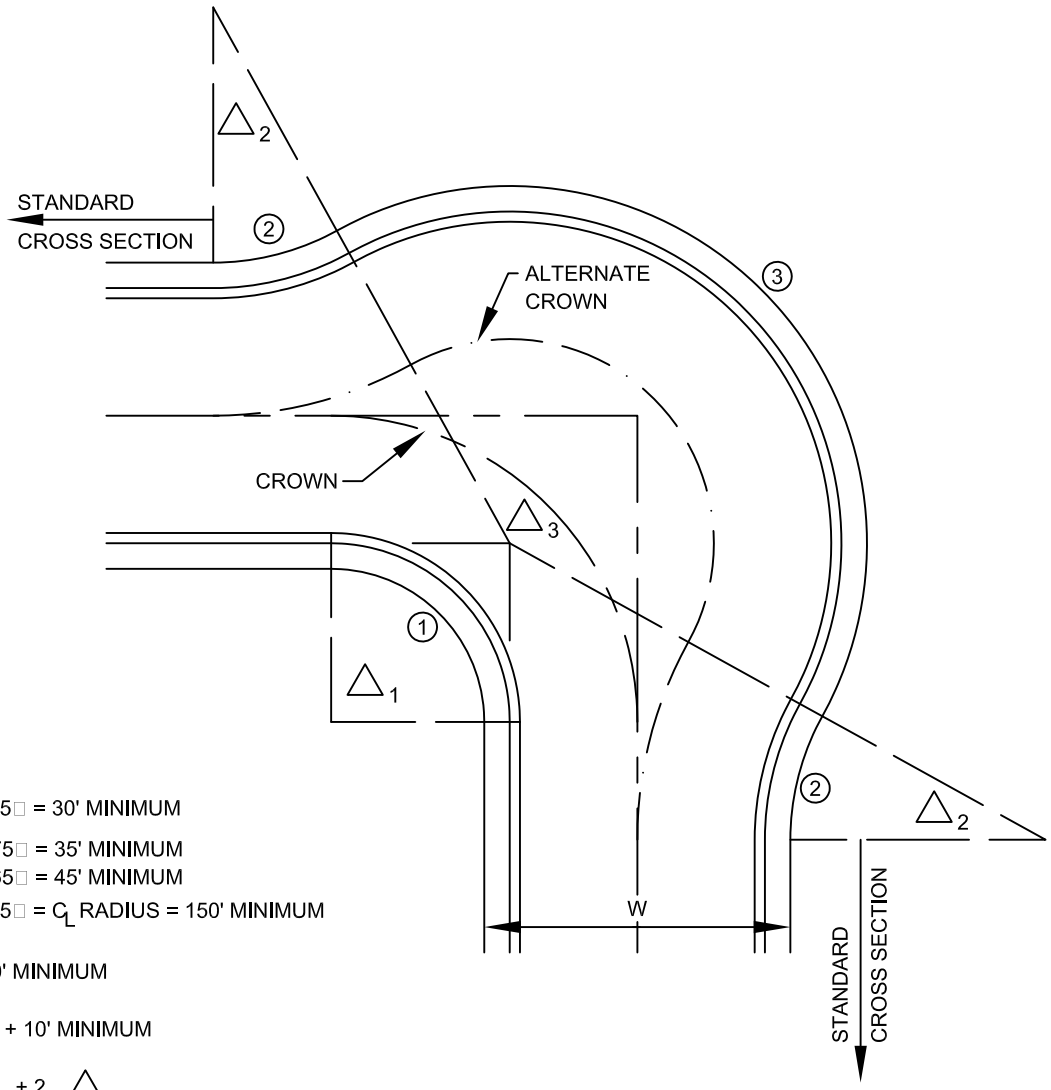
$\triangle_1 > 75^\circ$ USE R = 30' MIN.
65° TO 75° USE R = 35' MIN.
55° TO 65° USE R = 45' MIN.

NOTES

1. USE NORMAL SECTION FROM INNER CURB TO CENTER LINE.
2. FROM CROWN LINE TO OUTER CURB, THE STANDARD SLOPE IS 2%.
3. SUPERELEVATION PERCENTAGES SHOWN ARE A STRAIGHT GRADE FROM CENTER LINE TO CROWN LINE.
4. ELEVATIONS ARE REQUIRED WHERE CIRCLES ( ) ARE SHOWN.
5. KNUCKLES ARE NOT ALLOWED ON MAJOR COLLECTOR OR ARTERIAL STREETS.

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		KNUCKLE		
		DATE	DWG. NO. 211	PAGE NO. 17

Effective 01/01/09 - 06/30/09



① BCR

$\triangle_1$ > 75° = 30' MINIMUM

65° TO 75° = 35' MINIMUM

45° TO 65° = 45' MINIMUM

$\triangle_1$ < 45° = C_L RADIUS = 150' MINIMUM

② BCR = 50' MINIMUM

③ BCR = W + 10' MINIMUM

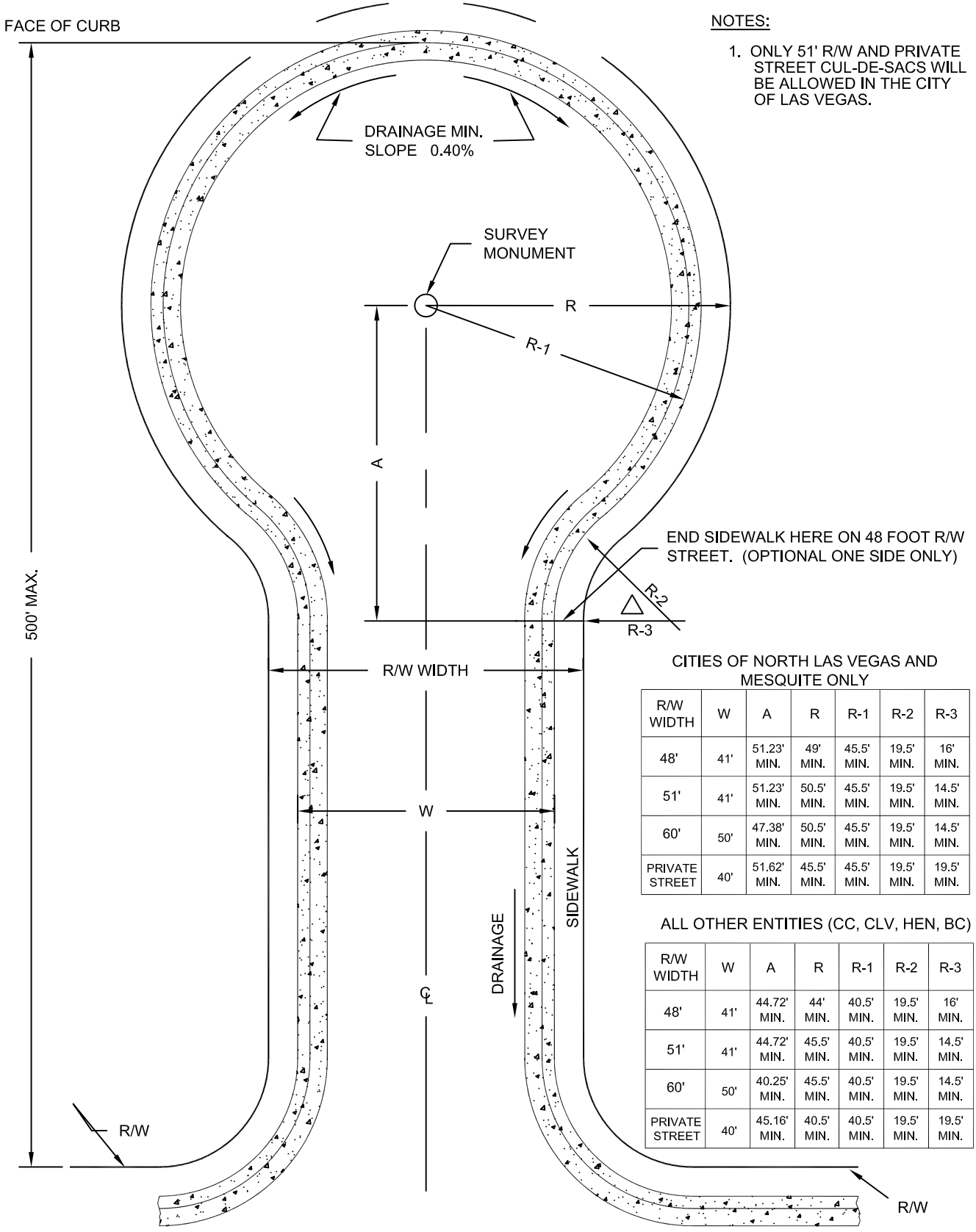
$\triangle_3 = \triangle_1 + 2\ \triangle_2$

NOTES:

1. USE 2 % SLOPE FROM INNER CURB TO CROWN LINE.
2. FROM CROWN LINE TO OUTER CURB, THE STANDARD SLOPE IS 0.90% (MIN).
3. ELEVATIONS REQUIRED ALONG CURBS (3) AND CROWN EVERY 1/4 (MIN).
4. KNUCKLES ARE ALLOWED ON RESIDENTIAL STREETS ONLY.
5. MINIMUM SLOPE ALONG THE BACK OF CURB OF CURVES (2) AND (3) SHALL BE 0.60% (MIN).
6. SPECIAL KNUCKLE DESIGNS INCLUDING LANDSCAPED MEDIAN ISLAND MAY BE PERMITTED, IF APPROVED BY THE COUNTY ENGINEER.

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		CLARK COUNTY ONLY KNUCKLE - TYPE I		
		DATE 8-12-99	DWG. NO. 211.1	PAGE 17.1

Effective 01/01/09 - 06/30/09



NOTES:

1. ONLY 51' R/W AND PRIVATE STREET CUL-DE-SACS WILL BE ALLOWED IN THE CITY OF LAS VEGAS.

CITIES OF NORTH LAS VEGAS AND MESQUITE ONLY

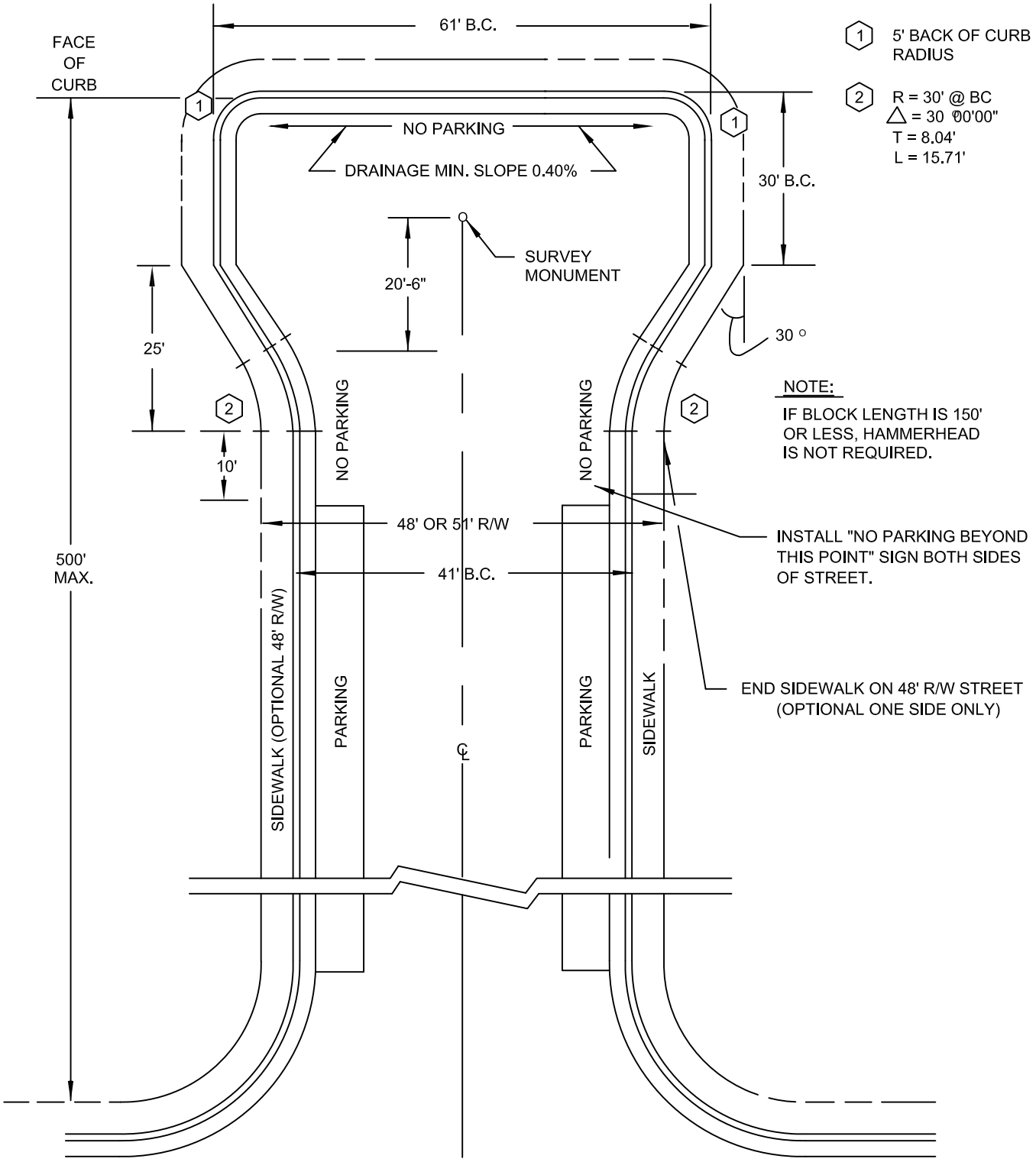
R/W WIDTH	W	A	R	R-1	R-2	R-3
48'	41'	51.23' MIN.	49' MIN.	45.5' MIN.	19.5' MIN.	16' MIN.
51'	41'	51.23' MIN.	50.5' MIN.	45.5' MIN.	19.5' MIN.	14.5' MIN.
60'	50'	47.38' MIN.	50.5' MIN.	45.5' MIN.	19.5' MIN.	14.5' MIN.
PRIVATE STREET	40'	51.62' MIN.	45.5' MIN.	45.5' MIN.	19.5' MIN.	19.5' MIN.

ALL OTHER ENTITIES (CC, CLV, HEN, BC)

R/W WIDTH	W	A	R	R-1	R-2	R-3
48'	41'	44.72' MIN.	44' MIN.	40.5' MIN.	19.5' MIN.	16' MIN.
51'	41'	44.72' MIN.	45.5' MIN.	40.5' MIN.	19.5' MIN.	14.5' MIN.
60'	50'	40.25' MIN.	45.5' MIN.	40.5' MIN.	19.5' MIN.	14.5' MIN.
PRIVATE STREET	40'	45.16' MIN.	40.5' MIN.	40.5' MIN.	19.5' MIN.	19.5' MIN.

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		CUL-DE-SAC		
		DATE 6-8-00	DWG. NO. 212	PAGE 18

Effective 01/01/09 - 06/30/09

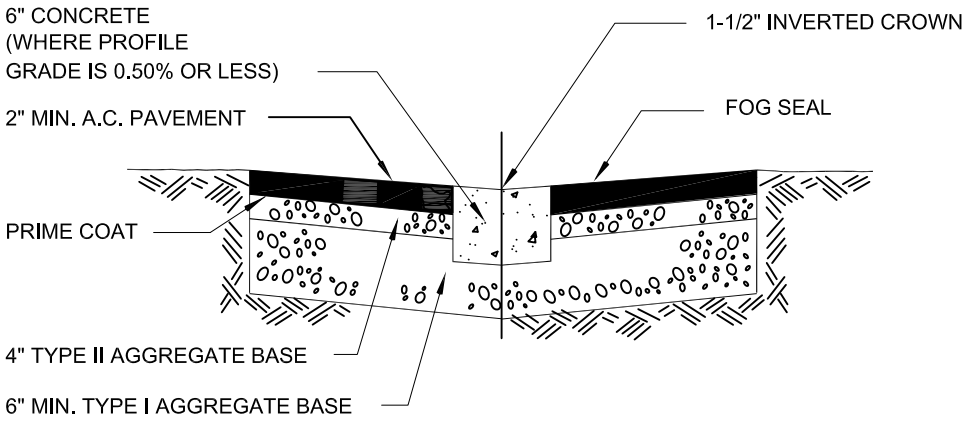


NOTE:

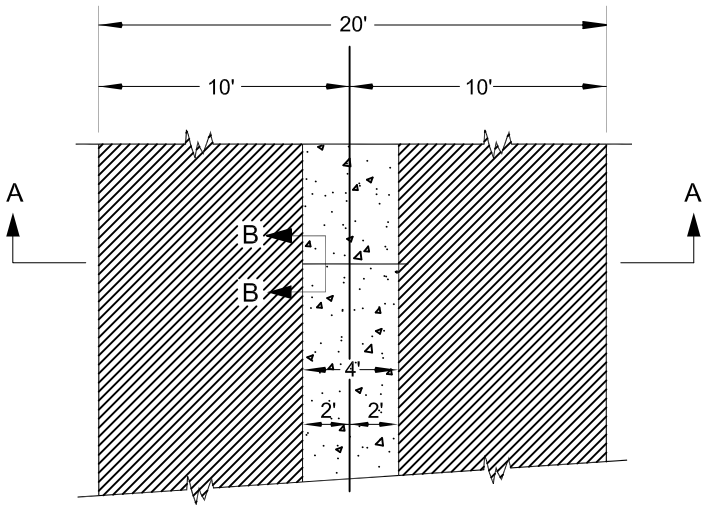
USE OF THE HAMMERHEAD WILL BE ALLOWED IN SINGLE FAMILY RESIDENTIAL DWELLING AREAS ONLY.

SPECIFICATION REFERENCE	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
	CLARK COUNTY ONLY
	HAMMERHEAD
	DATE 11-10-04 | DWG. NO. 213 | PAGE NO. 19

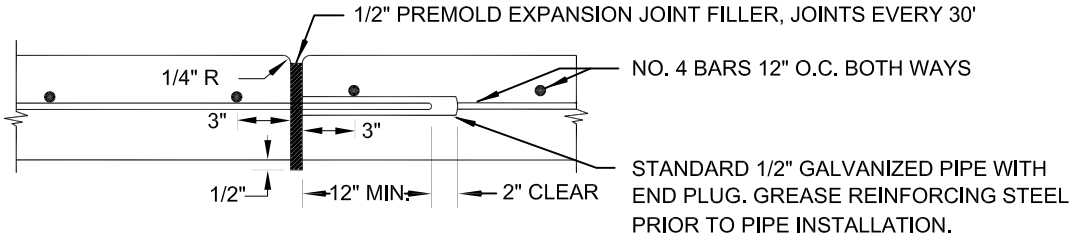
Effective 01/01/09 - 06/30/09



SECTION A-A



PLAN



SECTION B-B

SPECIFICATION REFERENCE	
302	AGGREGATE BASE
501	CONCRETE
505	REINFORCING STEEL
707	JOINT MATERIAL

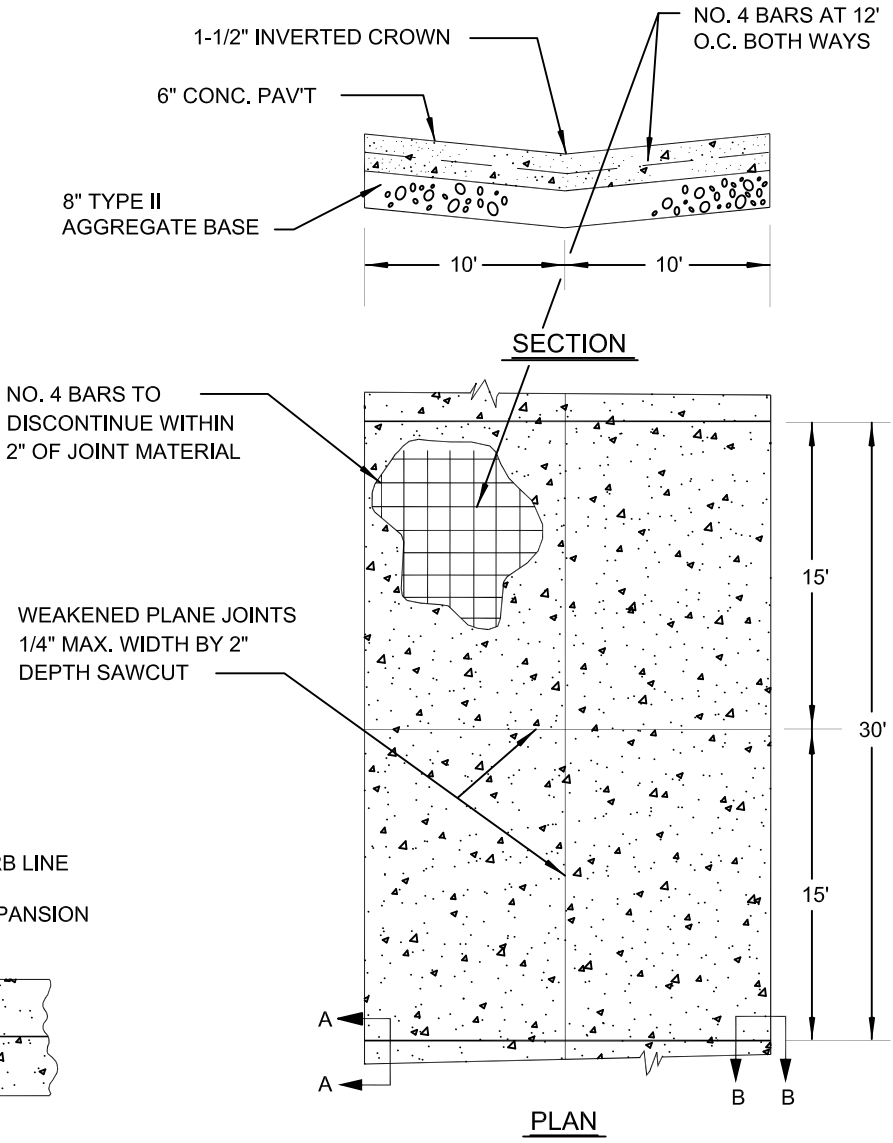
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

EXCEPT CLARK COUNTY

ALLEY

DATE 12-14-00	DWG. NO. 214	PAGE NO. 20

Effective 01/01/09 - 06/30/09



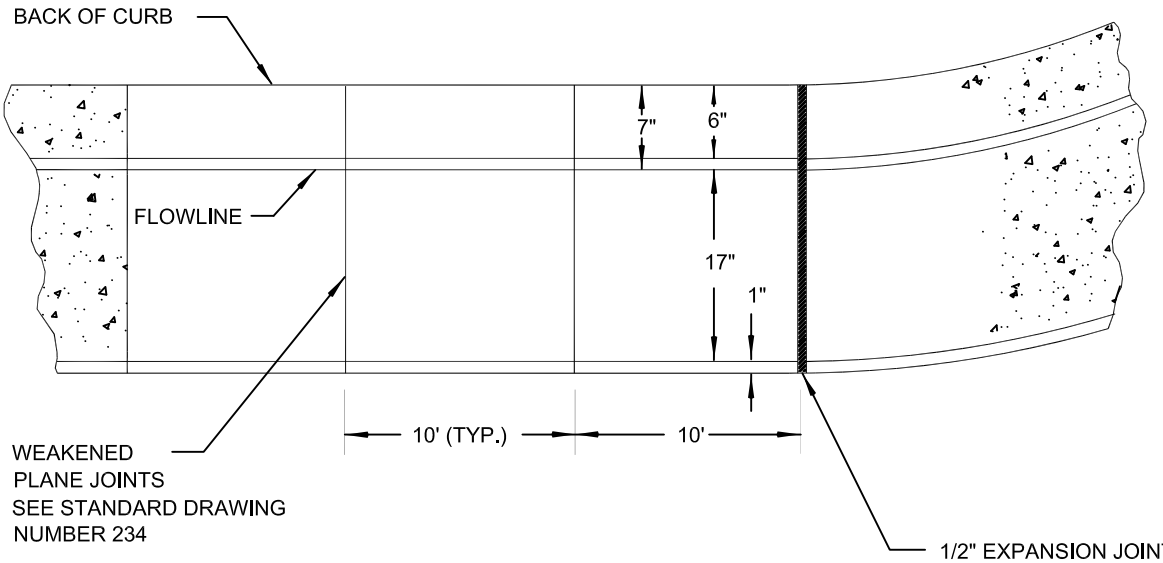
SPECIFICATION REFERENCE	
302	AGGREGATE BASE
501	CONCRETE
505	REINFORCING STEEL
707	JOINT MATERIAL

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

EXCEPT CLARK COUNTY
ALLEY, CONCRETE

DATE 12-14-00	DWG. NO. 215	PAGE NO. 21

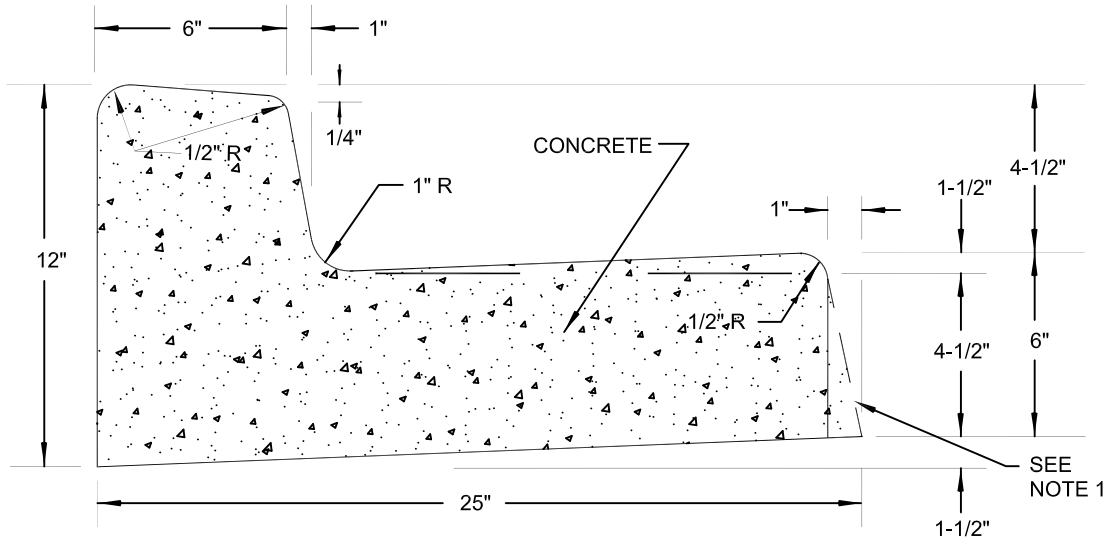
Effective 01/01/09 - 06/30/09



PLAN

NOTES:

1. 1" BATTER ON GUTTER FACE OPTIONAL.
2. WHERE LONGITUDINAL SLOPE IS LESS THAN 0.4%, THE FLOW LINE SHALL BE WATER TESTED.



TYPICAL SECTION

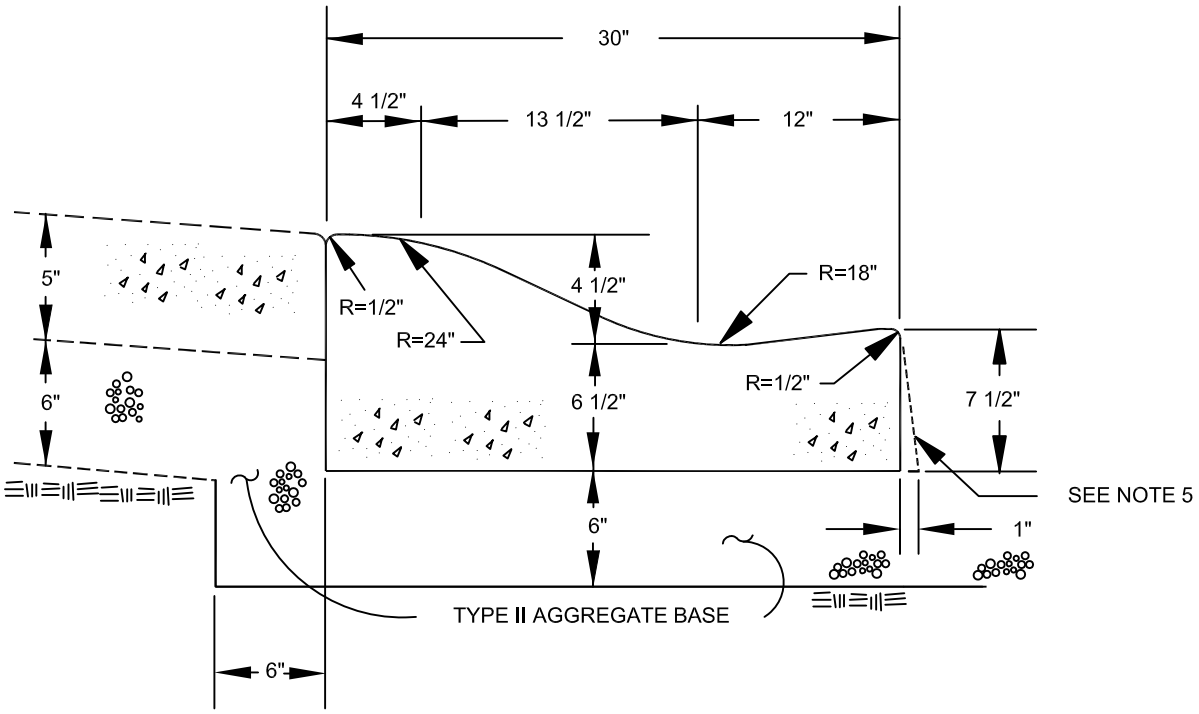
SPECIFICATION REFERENCE	
501	CONCRETE
502	CONCRETE STRUCTURES
707	JOINT MATERIAL

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

"L" TYPE
CURB AND GUTTER

DATE 12-14-00	DWG. NO. 216	PAGE NO. 22

Effective 01/01/09 - 06/30/09



NOTES:

1. USE OF ROLL CURB MAY BE RESTRICTED BY SURFACE DRAINAGE CONSIDERATIONS.
2. SIDEWALK CONSTRUCTED CONTIGUOUS TO ROLL CURB SHALL BE 5 INCHES THICK (MIN).
3. WHERE LONGITUDINAL SLOPE IS LESS THAN 0.4% THE FLOW LINE SHALL BE WATER TESTED.
4. CONSTRUCT 1/2" EXPANSION JOINT AT ALL COLD JOINTS, AT BEGINNING AND END OF CURB RETURNS, AND AT 300 FT. MAX. INTERVALS FOR EXTRUDED CURB AND 30 FT. MAX. INTERVALS FOR FORMED CURB. WEAKENED PLANE JOINTS SHALL BE FORMED AT THE REMAINING 15 FT. INTERVALS. SEE STD. DWG. NO. 234 FOR JOINT DETAILS.
5. ONE INCH BATTER AT CURB FACE IS OPTIONAL.
6. CITY OF LAS VEGAS COUNCIL APPROVAL REQUIRED FOR USE OF 30" ROLL CURB IN THE CITY OF LAS VEGAS.
7. IN NORTH LAS VEGAS, ROLL CURBS ARE PROHIBITED IN AREAS WHERE FLOW LINE GRADIENT IS LESS THAN 0.8% UNLESS OTHERWISE APPROVED BY CITY ENGINEER.
8. ALL UTILITY BOXES AND COVERS ADJACENT TO ROLL CURB SHALL BE HS-20 RATED "TRAFFIC BEARING" TYPE

SPECIFICATION REFERENCE	
320	AGGREGATE BASE
501	CONCRETE
502	CONCRETE STRUCTURES
707	JOINT MATERIAL

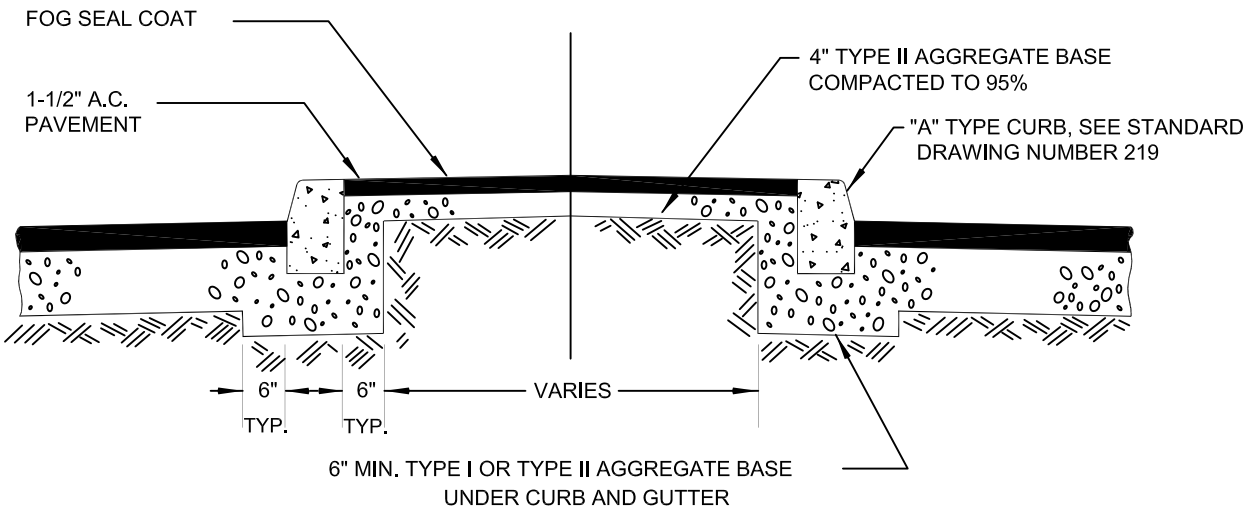
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

CLARK COUNTY, LAS VEGAS , NORTH LAS VEGAS, AND HENDERSON ONLY

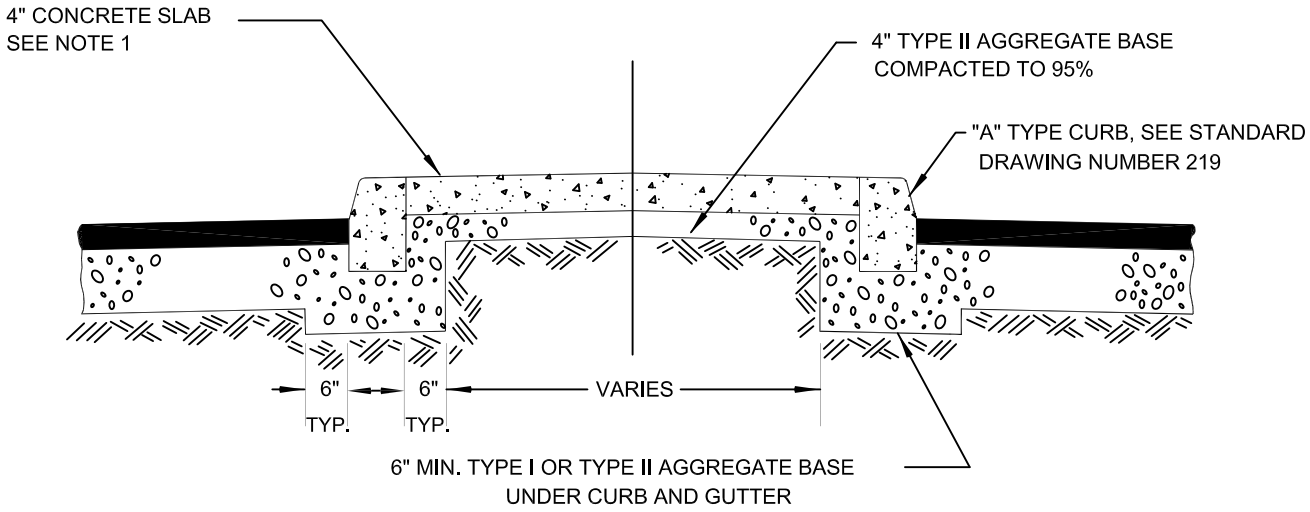
30" ROLL CURB
RESIDENTIAL AREA

DATE 11-10-04	DWG. NO. 217A	PAGE NO. 23A

Effective 01/01/09 - 06/30/09



AC MEDIAN



PCC MEDIAN

NOTES:

1. CONSTRUCT WEAKENED PLANE JOINT IN CURB AND SLAB AT SAME LOCATION EVERY 10'; CONSTRUCT EXPANSION JOINTS EVERY 300' FOR CONCRETE SLAB TO MATCH CURB JOINTS. FOR JOINT DETAILS SEE STANDARD DRAWING NUMBER 234.
2. "L" -TYPE CURB AND GUTTER PER STANDARD DRAWING NUMBER 221 IS REQUIRED IN THE CITY OF HENDERSON AND MAY BE REQUIRED FOR DRAINAGE CONSIDERATIONS.
3. WHEN CURB MACHINE IS USED TO PLACE CURB, A 2" MINIMUM LEVELING COURSE OF TYPE II AGGREGATE BASE IS REQUIRED.

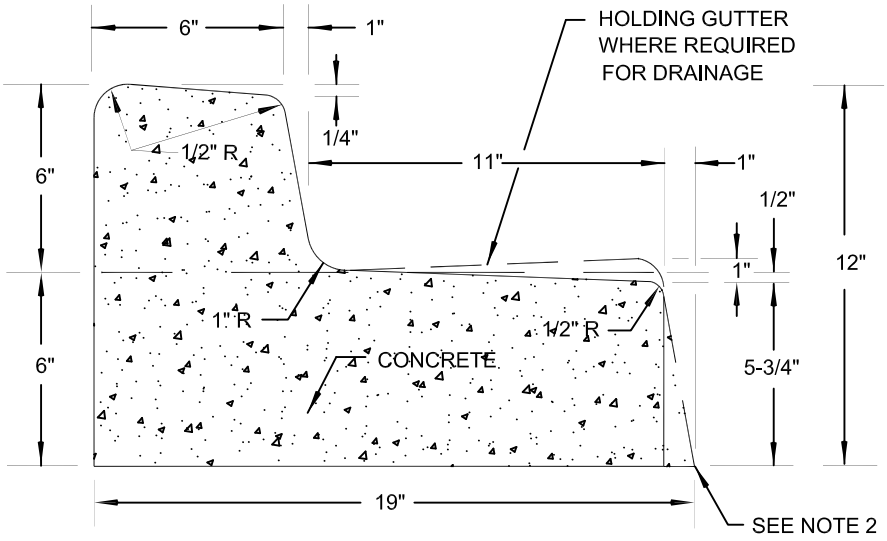
SPECIFICATION REFERENCE	
302	AGGREGATE BASE
501	CONCRETE

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

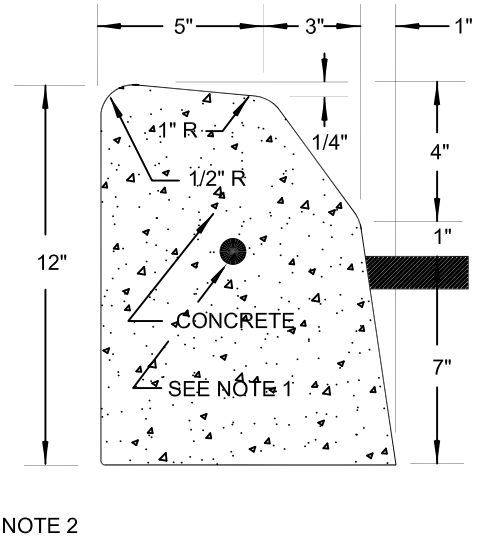
MEDIAN ISLAND TYPICAL SECTION

DATE 12-14-00	DWG. NO. 218	PAGE NO. 24

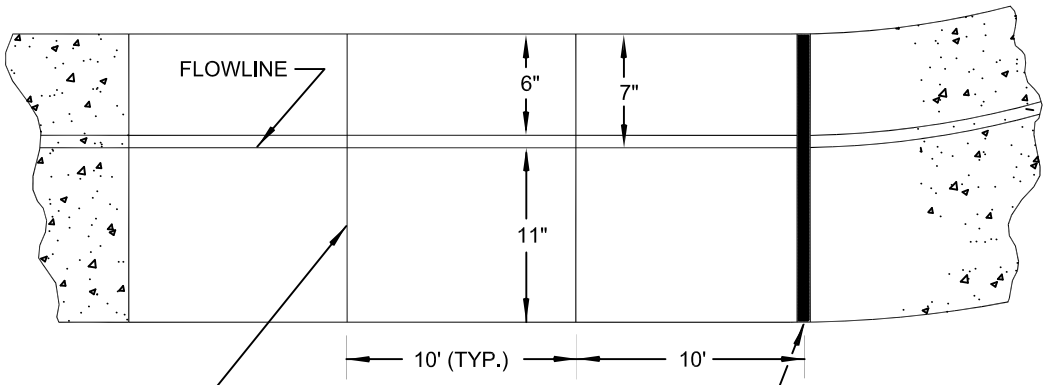
Effective 01/01/09 - 06/30/09



"L" CURB SECTION



"A" CURB SECTION



WEAKENED
PLANE JOINTS
SEE STANDARD DRAWING
NUMBER 234

TYPICAL PLAN

1/2" EXPANSION JOINT AT ALL COLD JOINTS, AT BEGINNING AND END OF RETURN AND AT 300' MAX. INTERVALS FOR EXTRUDED CURB AND 30' MAX. INTERVALS FOR FORMED CURB. FOR JOINT DETAIL SEE STANDARD DRAWING NUMBER 234

NOTES:

1. CONTINUOUS NO. 4 BAR REQUIRED IN NOSE OF MEDIAN ONLY.
2. 1" BATTER ON GUTTER FACE OPTIONAL.

SPECIFICATION REFERENCE	
302	AGGREGATE BASE COURSE
501	CONCRETE
707	JOINT MATERIAL

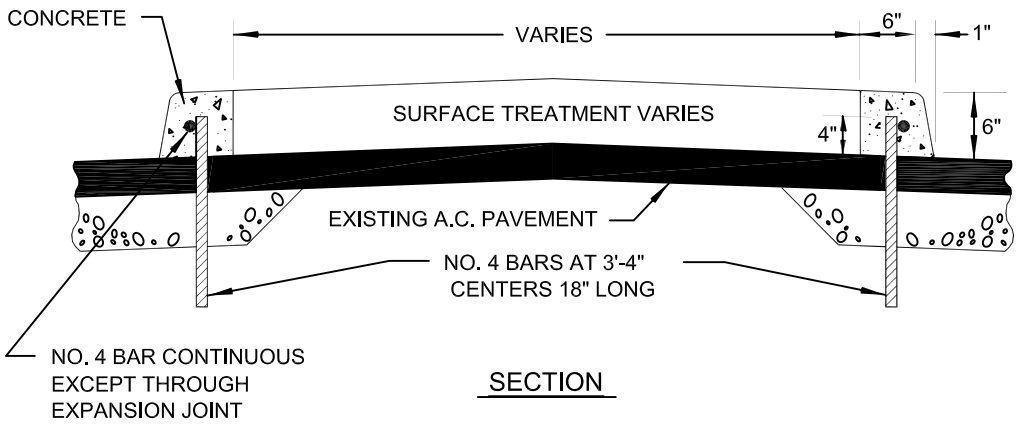
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

"A" AND "L" TYPE ISLAND CURB

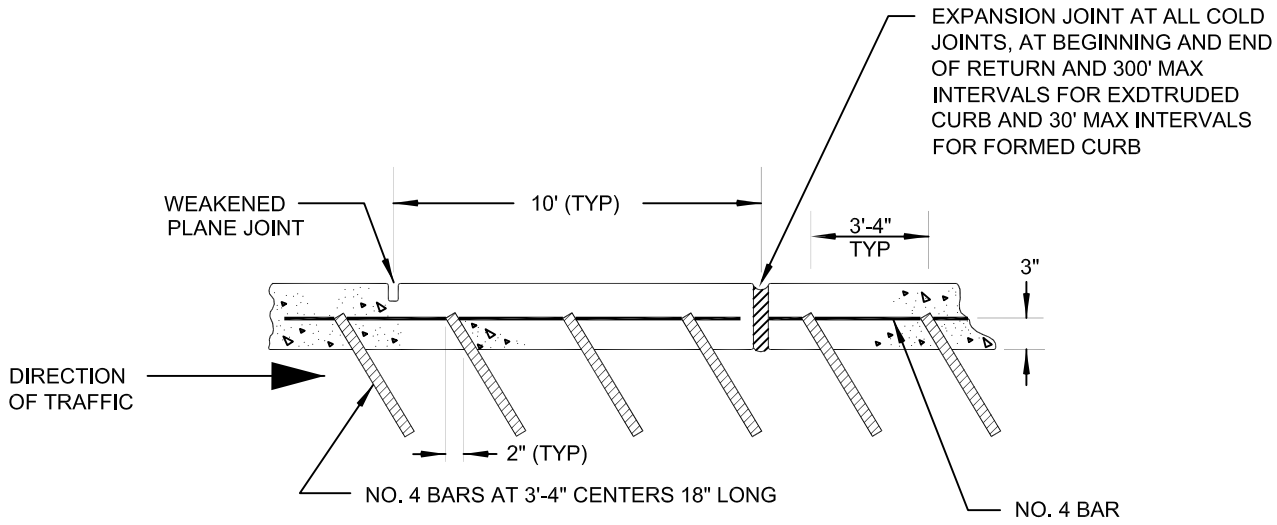
DATE 12-14-00	DWG. NO. 219	PAGE NO. 25

Effective 01/01/09 - 06/30/09

1/2" RADIUS ROUNDED EDGE ON ALL EXPOSED CORNERS



SECTION



SIDE VIEW

NOTES:

1. FOR EXPANSION JOINT AND WEAKENED PLANE JOINT DETAIL, SEE STANDARD DRAWING NO. 234.
2. WEAKENED PLANE JOINTS EVERY 10' STAGGER WITH NO. 4 BARS.
3. ALL REINFORCING STEEL SHALL HAVE 2" CLEAR COVER UNLESS OTHERWISE SHOWN.
4. WHEN APPROVED BY THE ENGINEER/ENTITY, STRUCTURAL EPOXY ADHESIVE MAY BE USED IN LIEU OF NUMBER 4 DOWEL BAR EXCEPT AT CURB NOSE AND WITHIN 2 FEET OF ANY POINT OF CURVATURE.

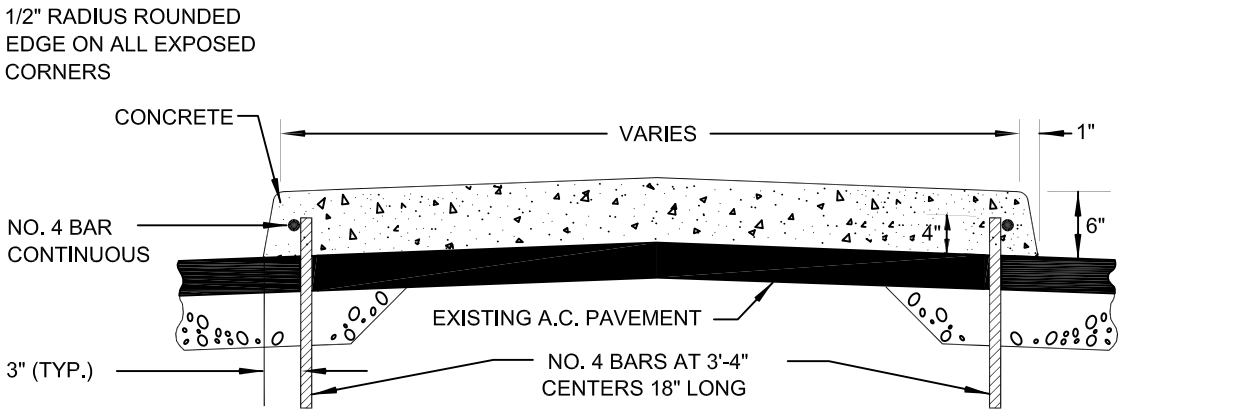
SPECIFICATION REFERENCE	
501	CONCRETE
505	REINFORCING STEEL
707	JOINT MATERIAL

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

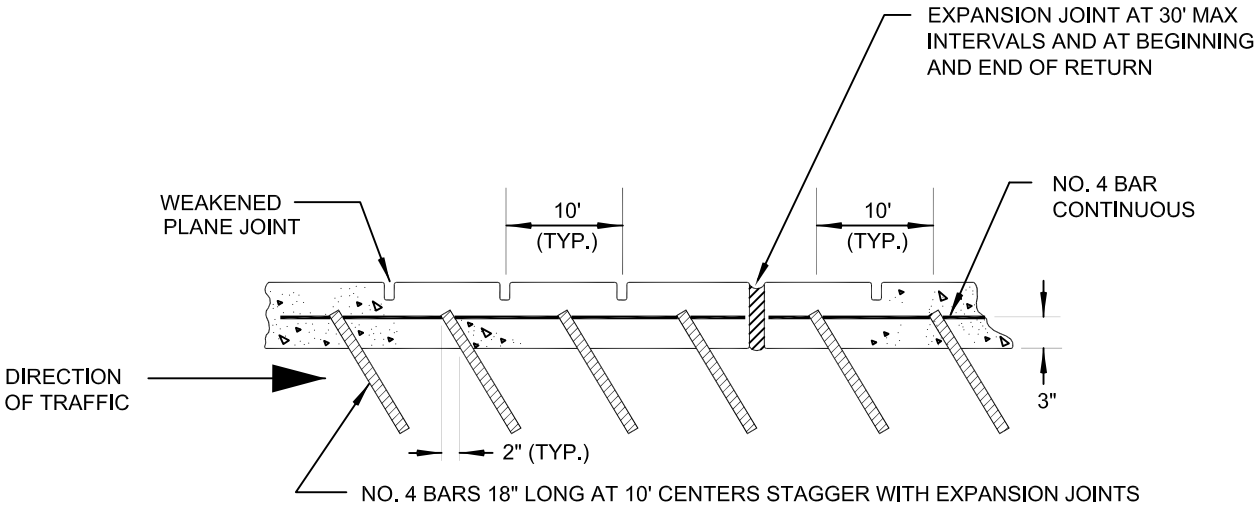
TACK ON ISLAND CURB

DATE 01-13-05	DWG. NO. 220	PAGE NO. 26

Effective 01/01/09 - 06/30/09



SECTION



SIDE VIEW

NOTES:

1. FOR EXPANSION JOINT AND WEAKENED PLANE JOINT DETAIL, SEE STANDARD DRAWING NO. 234.
2. WHEN APPROVED BY THE ENGINEER/ENTITY, STRUCTURAL EPOXY ADHESIVE MAY BE USED IN LIEU OF NUMBER 4 DOWEL BAR EXCEPT AT CURB NOSE AND WITHIN 2 FEET OF ANY POINT OF CURVATURE.

SPECIFICATION REFERENCE	
501	CONCRETE
505	REINFORCING STEEL
707	JOINT MATERIAL

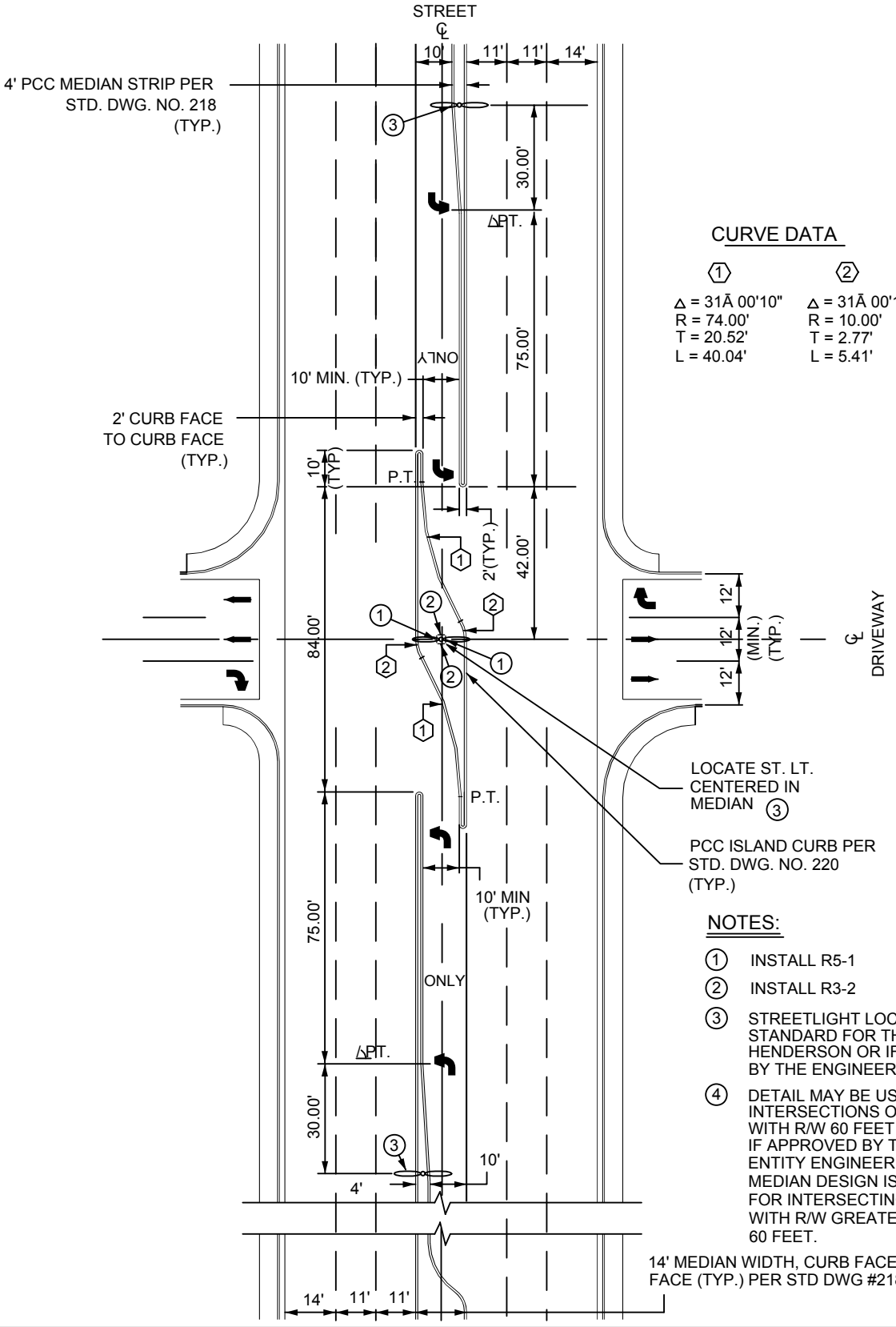
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

EXCEPT CITY OF HENDERSON

TACK ON ISLAND

DATE 01-13-05	DWG. NO. 221	PAGE NO. 27

Effective 01/01/09 - 06/30/09



CURVE DATA

1	2
Δ = 31Ā 00'10"	Δ = 31Ā 00'10"
R = 74.00'	R = 10.00'
T = 20.52'	T = 2.77'
L = 40.04'	L = 5.41'

NOTES:

1. INSTALL R5-1
2. INSTALL R3-2
3. STREETLIGHT LOCATION STANDARD FOR THE CITY OF HENDERSON OR IF SPECIFIED BY THE ENGINEER.
4. DETAIL MAY BE USED FOR INTERSECTIONS OF STREETS WITH R/W 60 FEET OR LESS IF APPROVED BY THE ENTITY ENGINEER. SPECIAL MEDIAN DESIGN IS REQUIRED FOR INTERSECTING STREETS WITH R/W GREATER THAN 60 FEET.

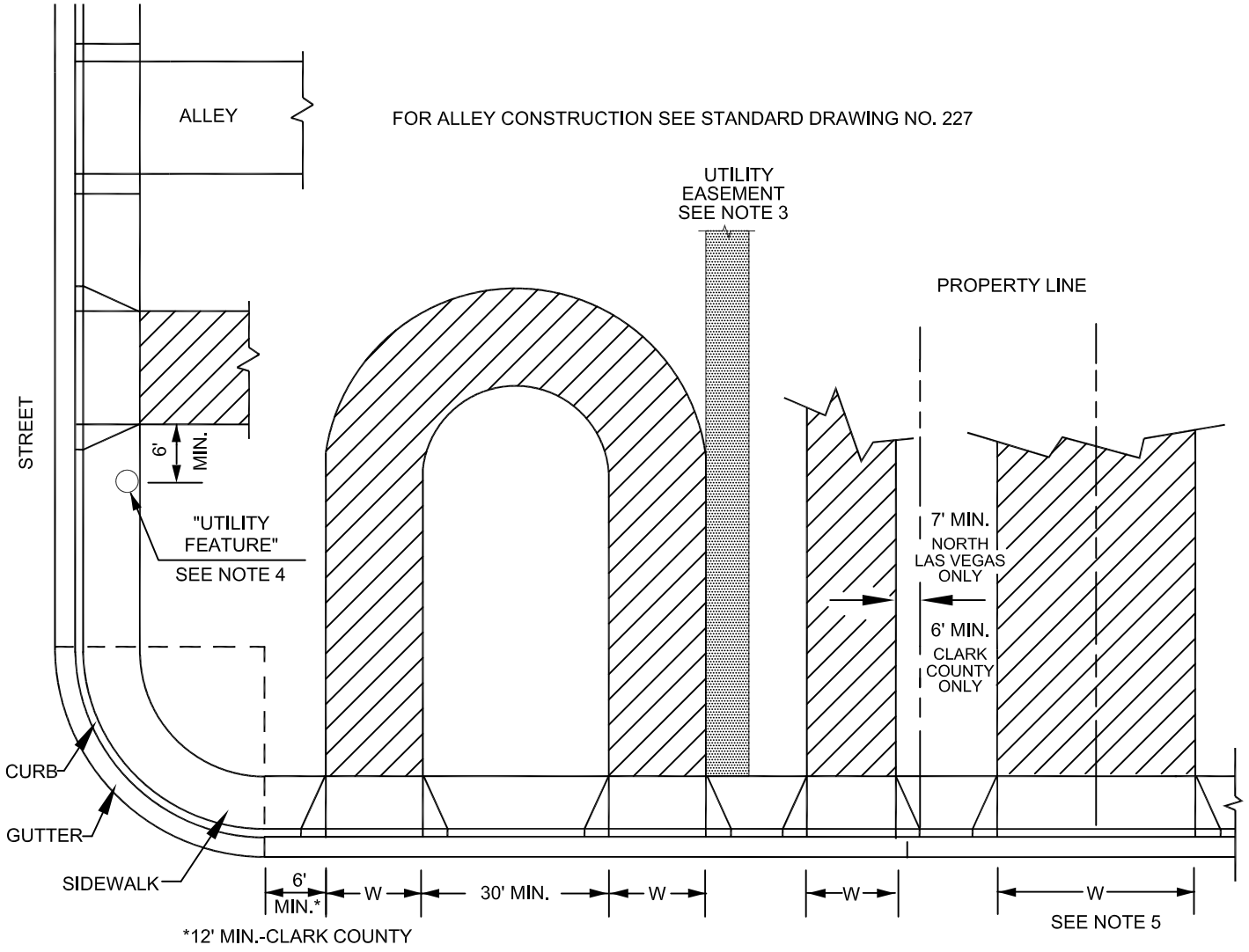
SPECIFICATION REFERENCE	

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

CHANNELIZED MEDIAN DETAIL FOR COMMERCIAL DRIVEWAYS OR INTERSECTING STREETS

DATE 6-8-06	DWG. NO. 221.1	PAGE 27.1

Effective 01/01/09 - 06/30/09



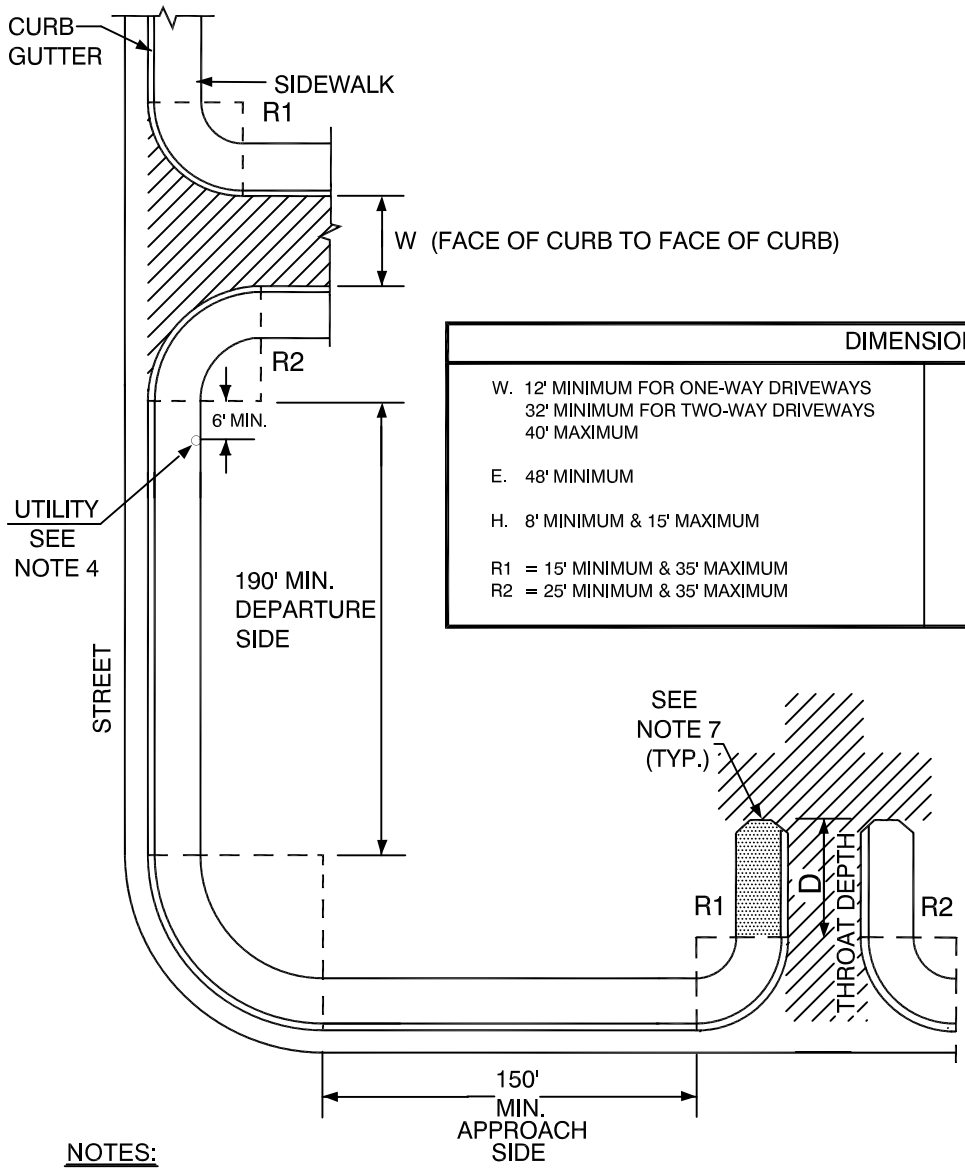
W = WIDTH OF DRIVEWAY = 12' MIN.,
16' MAX. FOR 1 OR 2 CAR GARAGE, OR
28' MAX. FOR 3+ GARAGE

NOTES:

1. ALL RESIDENTIAL PROPERTIES MAY HAVE ONLY ONE CURB CUT EXCEPT CIRCULAR DRIVEWAYS AS SHOWN.
2. LOCAL ORDINANCES MAY APPLY AND SHALL HAVE PREFERENCE.
3. NO DRIVEWAY SHALL BE LOCATED WHOLLY OR PARTIALLY, ON OR OVER A UTILITY EASEMENT WHICH RUNS PERPENDICULAR TO THE CURB LINE.
4. NO DRIVEWAY SHALL BE LOCATED WITHIN 6 FEET OF A LIGHT POLE (UNLESS ACCEPTED BY THE ENTITY TRAFFIC ENGINEER), FIRE HYDRANT, MAIL BOX, ABOVE-GROUND ELECTRICAL TRANSFER BOX, BLOCK WALL HIGHER THAN 2 FEET, OR THE CURB RETURN AT A STREET INTERSECTION OR ALLEY.
5. COMMON DRIVEWAY CONSTRUCTION MAY BE PERMITTED AT ANY TWO RESIDENTIAL PROPERTIES OF 60 FEET IN WIDTH OR LESS. THE WIDTH OF THE JOINT DRIVEWAY SHALL BE A MAXIMUM OF 24 FEET. A JOINT DRIVEWAY AGREEMENT SHALL BE REQUIRED. (EXCEPT CLARK COUNTY)
6. GEOMETRICS APPLY TO NEW CONSTRUCTION ONLY, AND MAY VARY IN EXISTING SUBDIVISIONS SUBJECT TO APPROVAL OF THE ENGINEER.
7. MULTI-FAMILY RESIDENTIAL AND ALL NON-RESIDENTIAL DRIVEWAYS SHALL CONFORM TO THE COMMERCIAL DRIVEWAY STANDARDS.
8. ALL DRIVEWAY LOCATIONS SHALL BE SUBJECT TO REVIEW AND APPROVAL BY THE ENGINEER.
9. FOR CURB DEPRESSION AND DRIVEWAY APRON DETAIL, SEE STD. DWG. NO. 223.

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		RESIDENTIAL DRIVEWAY GEOMETRICS		
		DATE 8-12-99	DWG. NO. 222	PAGE NO. 28

Effective 01/01/09 - 06/30/09



DIMENSIONS	
W. 12' MINIMUM FOR ONE-WAY DRIVEWAYS 32' MINIMUM FOR TWO-WAY DRIVEWAYS 40' MAXIMUM	D. THROAT DEPTH 25' MINIMUM 50' MINIMUM FOR PARKING LOTS > 50 PARKING SPACES 75' MINIMUM FOR PARKING LOTS 51 TO 100 PARKING SPACES 100' MINIMUM FOR PARKING LOTS 101 TO 200 PARKING SPACES 150' MINIMUM FOR PARKING LOTS > 201 PARKING SPACES
E. 48' MINIMUM	
H. 8' MINIMUM & 15' MAXIMUM	
R1 = 15' MINIMUM & 35' MAXIMUM R2 = 25' MINIMUM & 35' MAXIMUM	

NOTES:

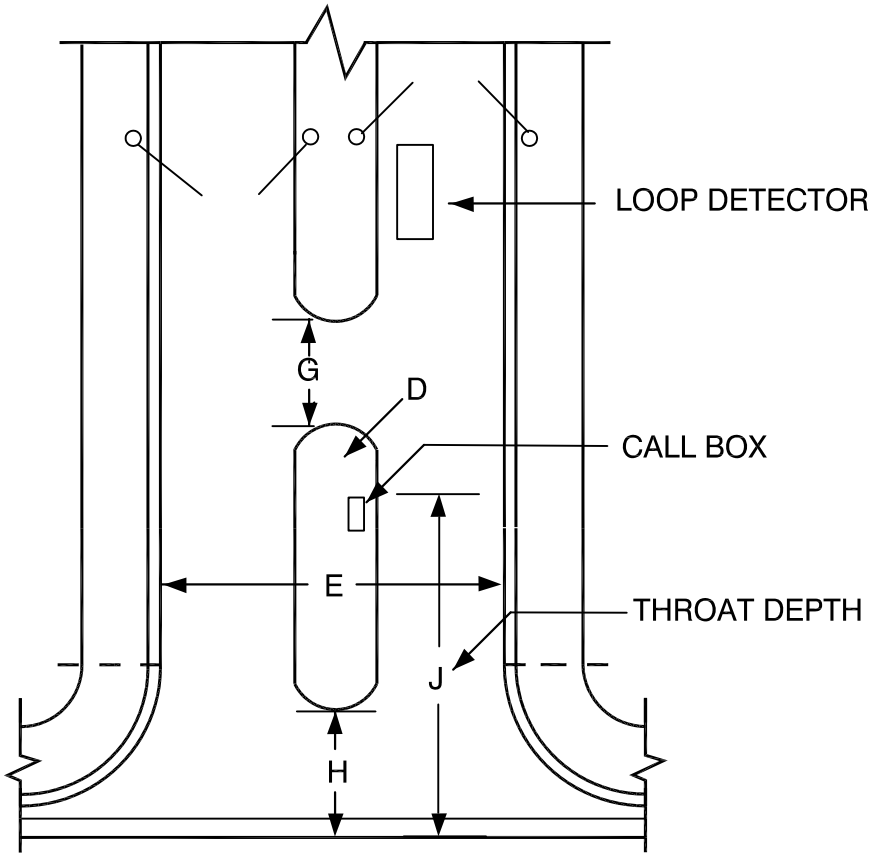
1. COMMERCIAL AND MULTI-FAMILY DRIVEWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STANDARD DRAWING NUMBERS 224, 225, 228, 235 AND 235.1.
2. LOCAL ORDINANCES AND POLICIES MAY APPLY AND SHALL HAVE PRECEDENCE. SEE NDOT ACCESS POLICY FOR STATE ROADWAYS.
3. THE TOTAL WIDTH "W" OF DRIVEWAY CURB OPENINGS SHALL NOT EXCEED 65% OF FRONT FOOTAGE.
4. NO DRIVEWAY SHALL BE LOCATED WITHIN 6 FEET OF A LIGHT POLE (UNLESS APPROVED BY THE ENTITY TRAFFIC ENGINEER), FIRE HYDRANT, MAIL BOX, ABOVE-GROUND ELECTRICAL TRANSFER BOX, OR BLOCK WALL HIGHER THAN 2 FEET.
5. THE CENTERLINES OF THE DRIVEWAYS ON OPPOSITE SIDES OF THE STREET AT A MEDIAN OPENING SHOULD BE WITHIN 10' FROM EACH OTHER AT THE MEDIAN OPENING.
6. GEOMETRICS APPLY TO NEW CONSTRUCTION ONLY, AND EXCEPTIONS MAY BE GRANTED BY THE APPROVAL OF THE AGENCY TRAFFIC ENGINEER BASED ON SITE CONSTRAINTS.
7. HANDICAPPED ACCESSIBLE SIDEWALKS SHALL BE PROVIDED ADJACENT TO DRIVEWAYS TO THE P.C. OF THE ONSITE CURB RETURN, MINIMUM, OR AT AN ALTERNATE LOCATION.
8. WHEN A PROPERTY LINE FALLS IN A MEDIAN OPENING A JOINT DRIVEWAY AGREEMENT SHALL BE REQUIRED OR NO DRIVEWAY WILL BE ALLOWED.

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		COMMERCIAL AND MULTI-FAMILY DRIVEWAY GEOMETRICS		
		DATE 02-09-06	DWG. NO. 222A	SHEET 1 OF 2

Effective 01/01/09 - 06/30/09

DIMENSIONS
J. THROAT DEPTH FOR SECURITY GATE 50' MINIMUM FOR 1 TO 49 HOMES OR APT. UNITS TO VISITOR CALL BOX. 100' MINIMUM FOR 50 TO 100 HOMES OR APT. UNITS TO VISITOR CALL BOX. GREATER THAN 100 HOMES OR APT. UNITS REQUIRE TRAFFIC STUDY

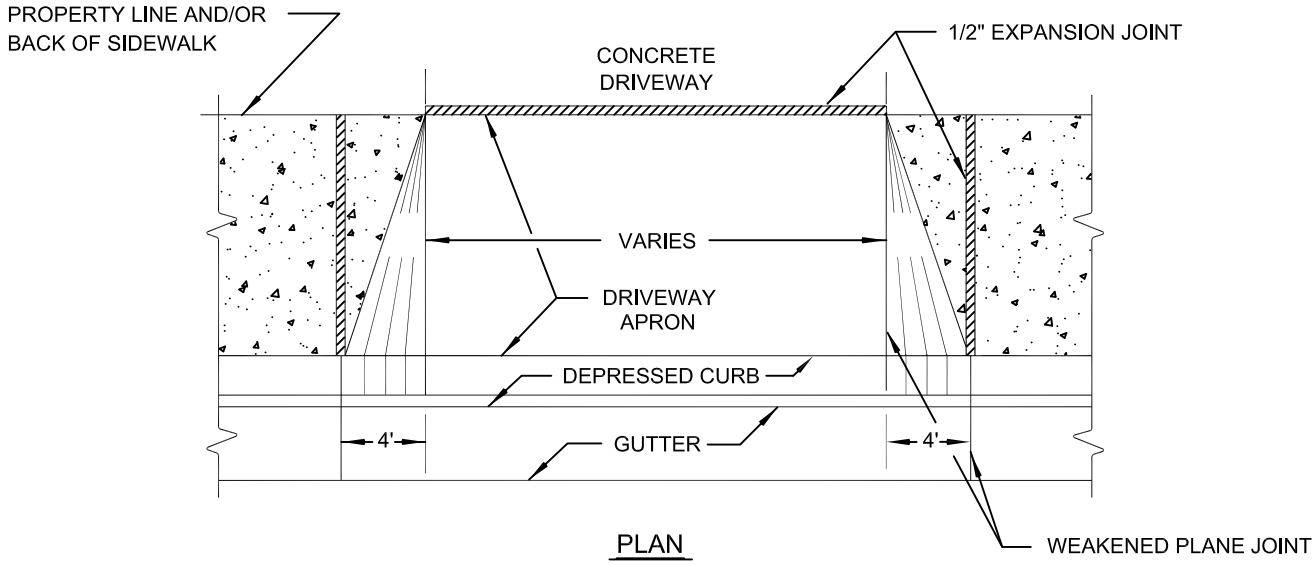
DIMENSIONS FOR SECURITY GATE CONTROLLED DRIVEWAY DETAIL
D. ISLAND : LENGTH-20' MINIMUM WIDTH- 4' MINIMUM G. 15' MINIMUM E. 48' MINIMUM H. 8' MINIMUM & 15' MAXIMUM



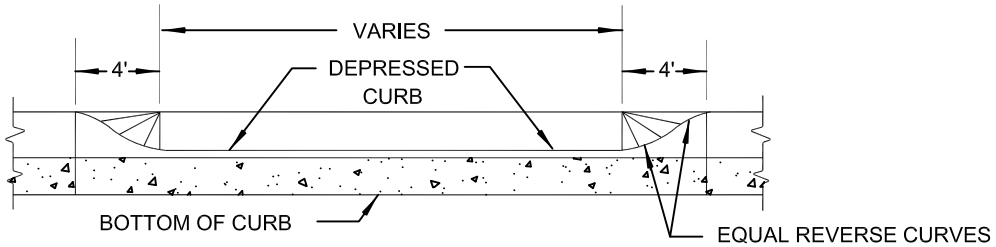
DETAIL FOR SECURITY GATE
CONTROLLED DRIVEWAYS

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		COMMERCIAL AND MULTI-FAMILY SECURITY GATE GEOMETRICS		
		DATE 02-09-06	DWG. NO. 222A	SHEET 2 OF 2

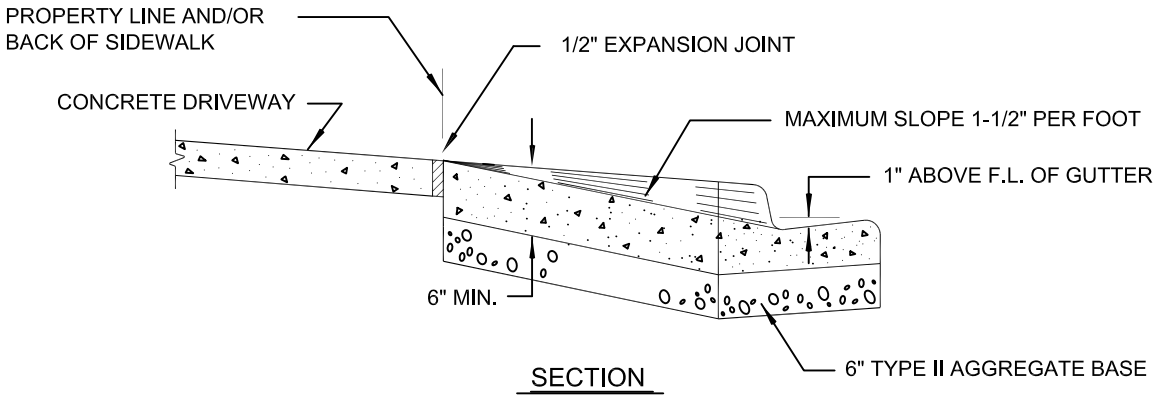
Effective 01/01/09 - 06/30/09



PLAN



ELEVATION



SECTION

NOTES:

1. WHEN CONSTRUCTING DRIVEWAY WHERE CURB AND GUTTER EXISTS, COMPLETELY REMOVE INTERFERING PORTIONS OF EXISTING CURB AND GUTTER. DRIVEWAYS MAY BE MONOLITHIC TO A.C. LINE.
2. WEAKENED PLANE JOINTS SHALL BE UNIFORMLY PLACED BETWEEN 5' AND 7' INTERVALS, SEE STANDARD DRAWING NO. 234.

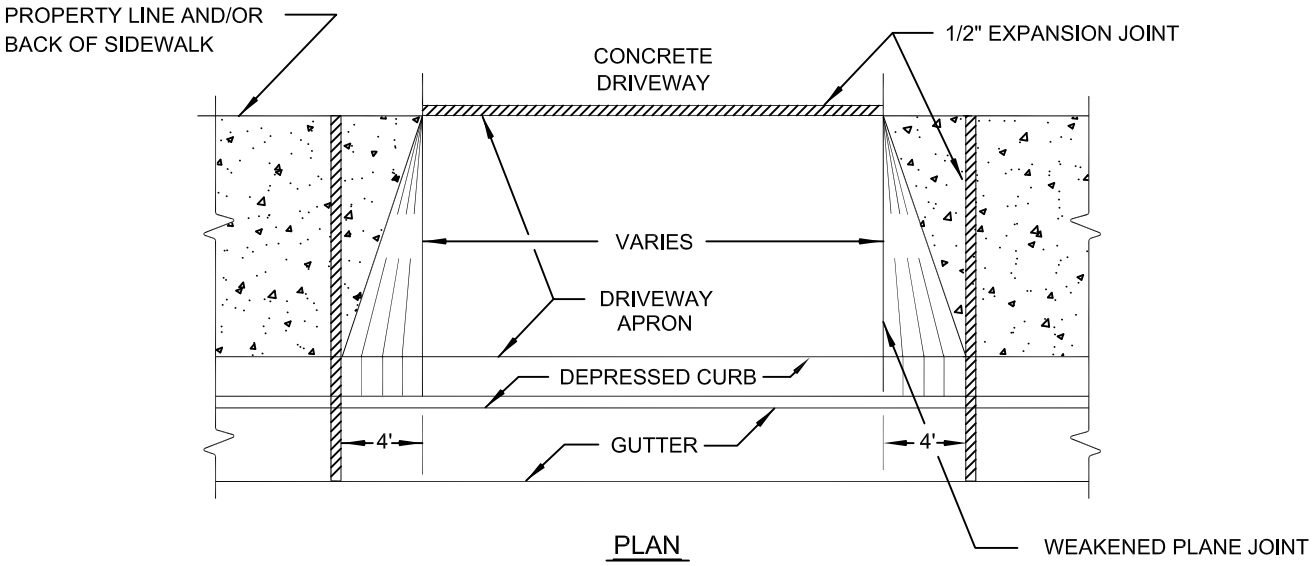
SPECIFICATION REFERENCE	
302	AGGREGATE BASE
501	CONCRETE
502	CONCRETE STRUCTURES
707	JOINT MATERIAL

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

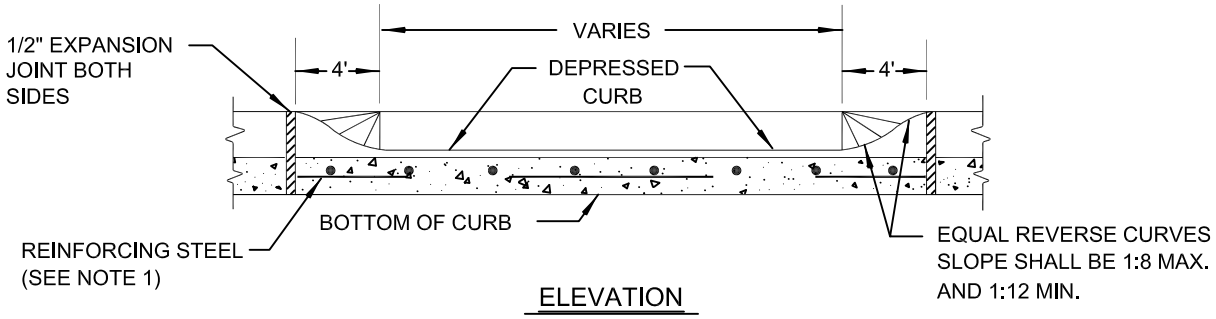
RESIDENTIAL DRIVEWAY

DATE 12-14-00	DWG. NO. 223	PAGE NO. 29

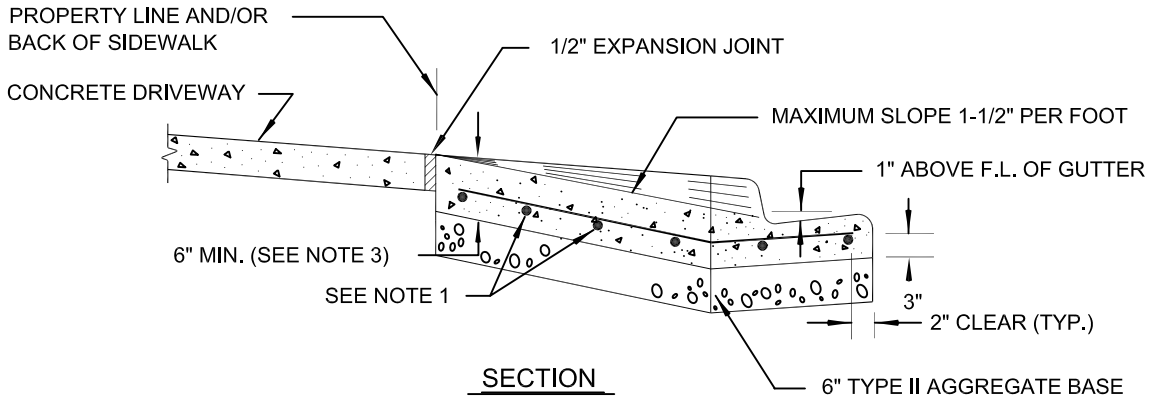
Effective 01/01/09 - 06/30/09



PLAN



ELEVATION



SECTION

NOTES:

1. NO. 4 BARS AT 16" O.C. BOTH WAYS EXTENDING INTO GUTTER. NO. 4 BARS SHALL BE PLACED 3" ABOVE BOTTOM OF CONCRETE SUPPORTED BY NON-FERROUS CHAIRS APPROVED BY THE ENGINEER.
2. WHEN CONSTRUCTING DRIVEWAY WHERE CURB AND GUTTER EXISTS, COMPLETELY REMOVE INTERFERING PORTIONS OF EXISTING CURB AND GUTTER. DRIVEWAY SHALL BE MONOLITHIC TO A.C. LINE.
3. DRIVEWAY THICKNESS FOR INDUSTRIAL USE SHALL BE 8" MIN.
4. WEAKENED PLANE JOINTS SHALL BE EQUALLY SPACED AT 15' MAX. INTERVALS, SEE STANDARD DRAWING NO. 234.

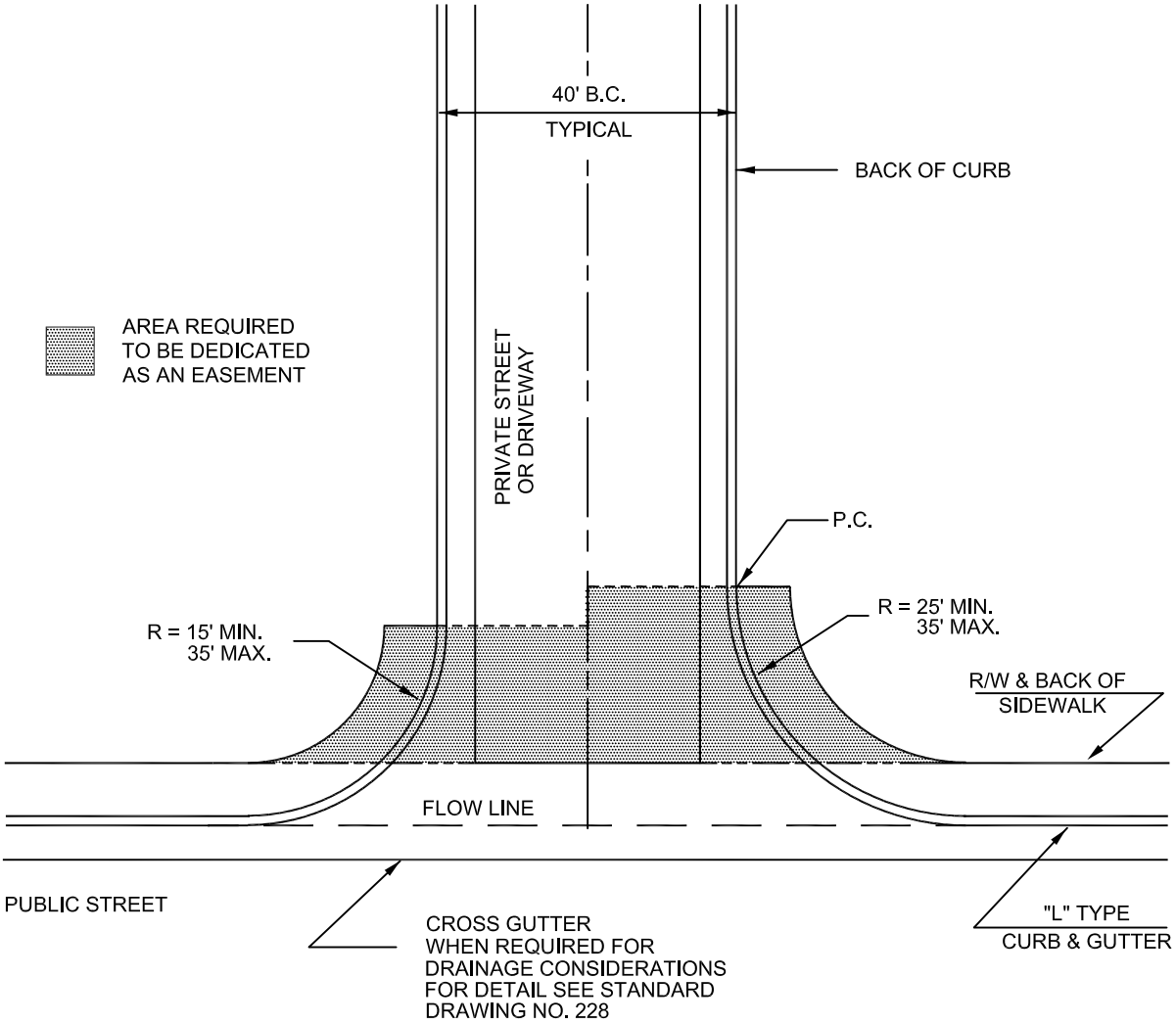
SPECIFICATION REFERENCE	
302	AGGREGATE BASE
501	CONCRETE
502	CONCRETE STRUCTURES
505	REINFORCING STEEL
707	JOINT MATERIAL

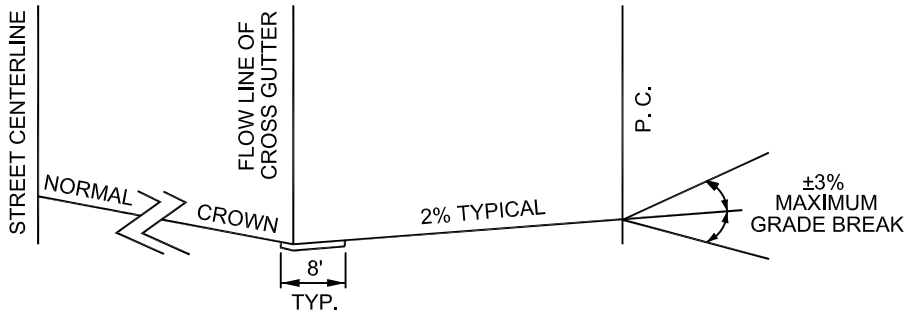
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

COMMERCIAL AND INDUSTRIAL DRIVEWAY (OPTION A)

DATE 12-14-00	DWG. NO. 224	PAGE NO. 30

Effective 01/01/09 - 06/30/09





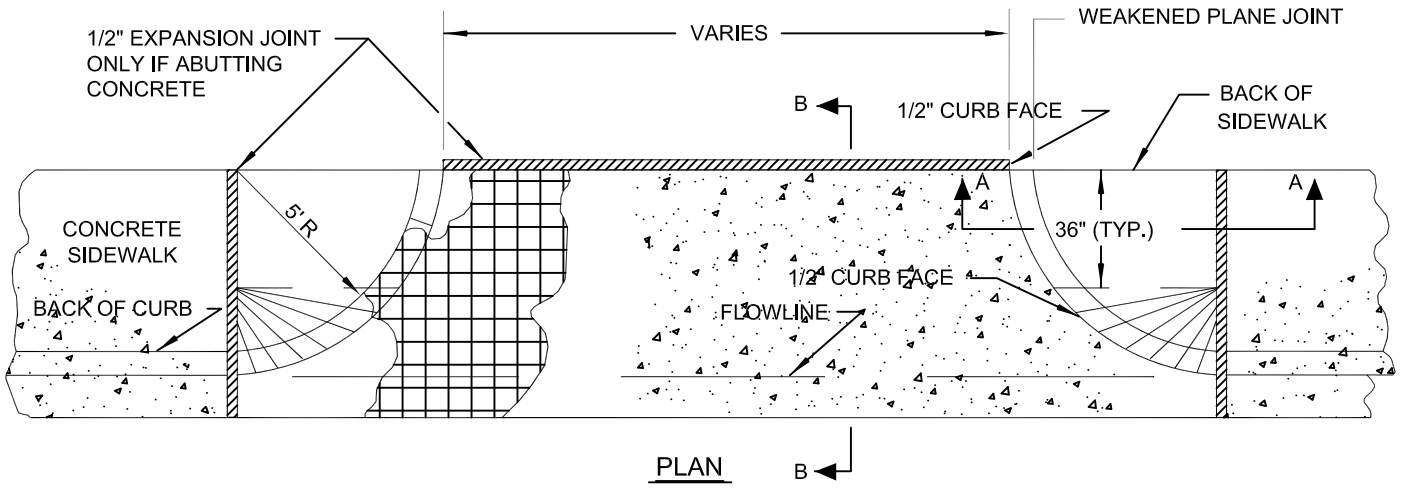
TYPICAL CROSS SECTION

NOTES:

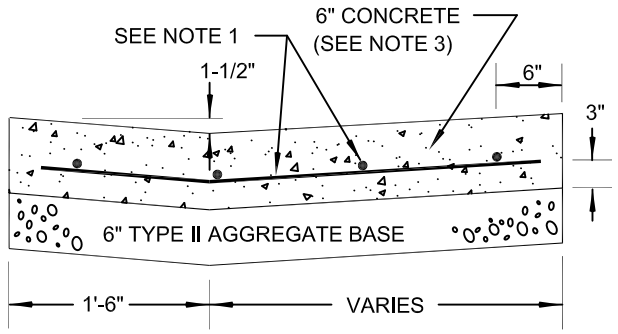
1. SEPARATION OF PEDESTRIAN AND VEHICLE TRAFFIC MUST BE MAINTAINED ON SITE.
2. FOR GRADE CHANGES GREATER THAN 3%, VERTICAL CURVES OF AT LEAST 10 FEET MUST BE USED.
3. WHEELCHAIR RAMPS SHALL BE CONSTRUCTED IN THE CURB RETURN IN ACCORDANCE WITH STANDARD DRAWING NO. 235.

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		COMMERCIAL AND INDUSTRIAL DRIVEWAY (OPTION B) OR PRIVATE STREET ACCESS		
		DATE 2-11-93	DWG. NO. 225	PAGE NO. 31

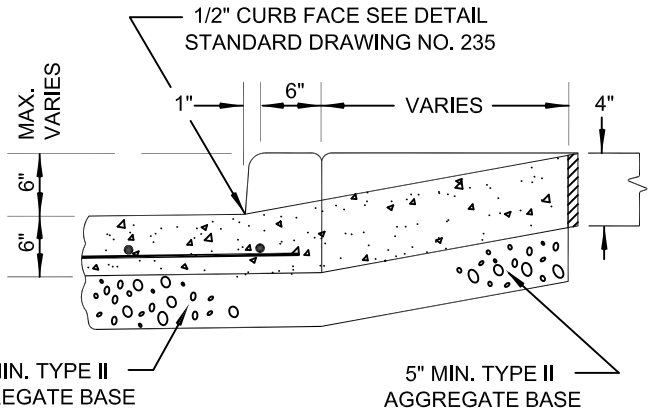
Effective 01/01/09 - 06/30/09



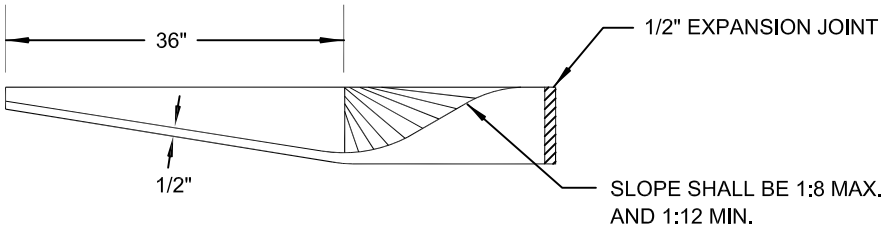
PLAN



SECTION B-B



SECTION A-A



WHEELCHAIR RAMP CURB FACE PROFILE

1. NO. 4 BARS AT 16" O.C. BOTH WAYS EXTENDING INTO GUTTER. NO. 4 BARS SHALL BE PLACED 3" ABOVE BOTTOM OF CONCRETE SUPPORTED BY NON-FERROUS CHAIRS APPROVED BY THE ENGINEER.
2. WHEN CONSTRUCTING DRIVEWAY WHERE CURB AND GUTTER EXISTS, COMPLETELY REMOVE INTERFERING PORTIONS OF EXISTING CURB AND GUTTER. DRIVEWAY SHALL BE MONOLITHIC TO A.C. LINE.
3. DRIVEWAY THICKNESS FOR INDUSTRIAL USE SHALL BE 8" MIN.
4. WEAKENED PLANE JOINTS SHALL BE EQUALLY SPACED AT 15' MAX. INTERVALS.
5. THIS DRIVEWAY DESIGN SHALL ALSO BE USED FOR ALLEY INTERSECTIONS, 8" MIN. THICKNESS.
6. SPECIAL DESIGNS SUBJECT TO APPROVAL OF THE ENGINEER.

SPECIFICATION REFERENCE	
302	AGGREGATE BASE
501	CONCRETE
502	CONCRETE STRUCTURES
505	REINFORCING STEEL
707	JOINT MATERIAL

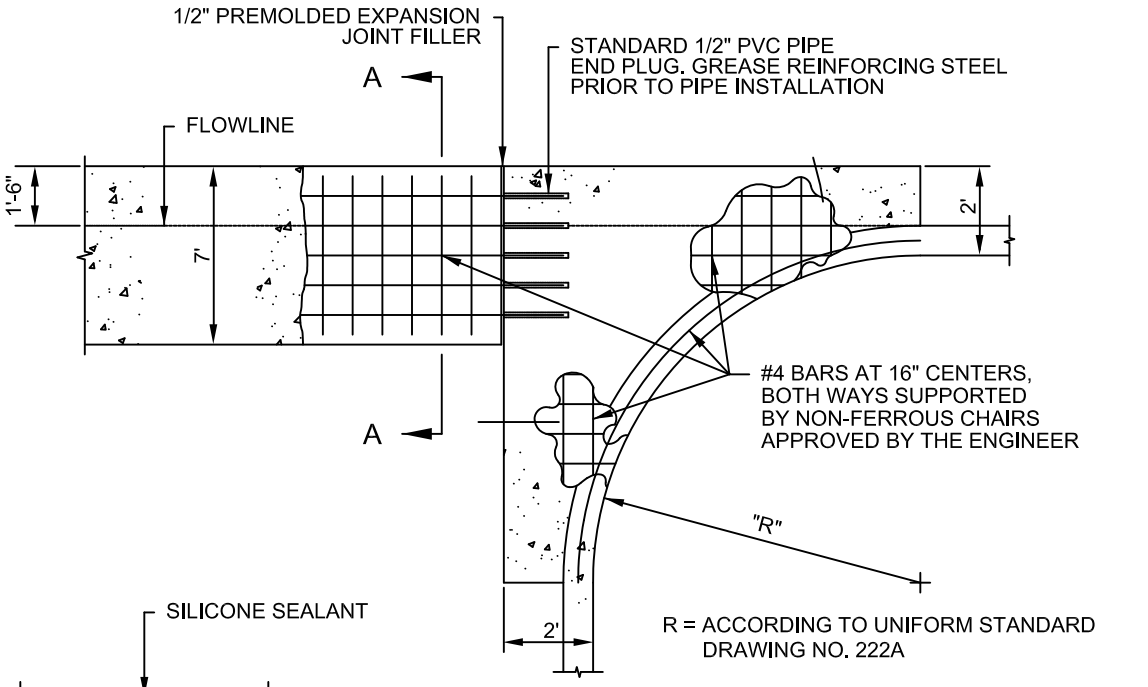
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

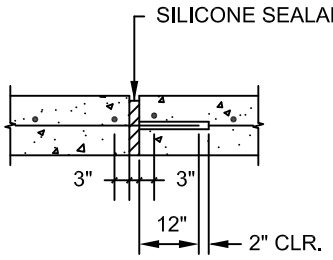
(ALLOWABLE IN NORTH LAS VEGAS ONLY)

COMMERCIAL AND INDUSTRIAL DRIVEWAY (OPTION C)

DATE 12-14-00	DWG. NO. 226	PAGE NO. 32

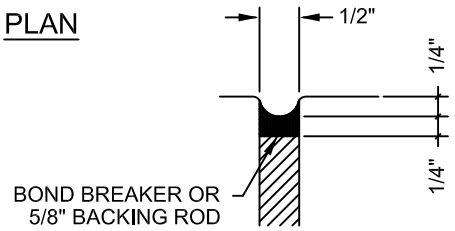
Effective 01/01/09 - 06/30/09



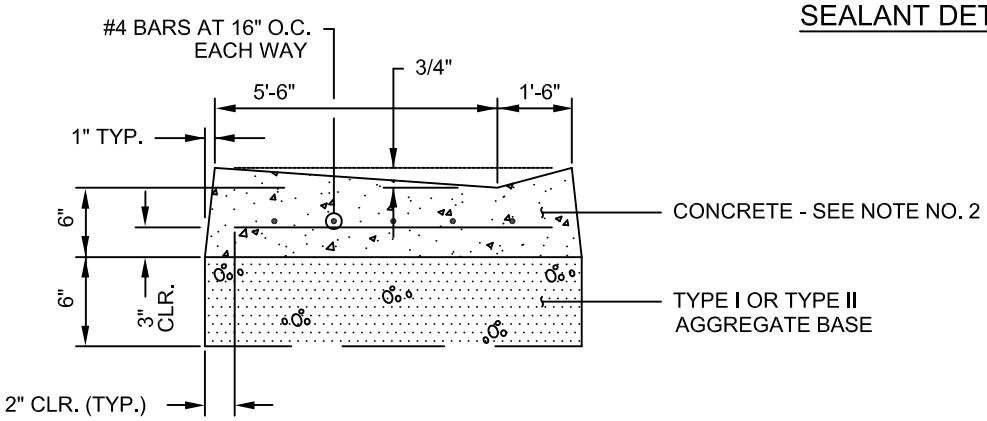


JOINT DETAIL

PLAN



SEALANT DETAIL



SECTION A-A

NOTES:

1. FINISHED ASPHALT CONCRETE SURFACE TO BE FLUSH WITH CROSS GUTTER LIP.
2. ADJACENT SPANDREL SHALL BE 6" THICK P.C.C.

SPECIFICATION REFERENCE	
302	AGGREGATE BASE
501	CONCRETE
502	CONCRETE STRUCTURES
505	REINFORCING STEEL
707	EXPANSION JOINT MATERIAL
TT-S-00153A CLASS A SEALANT	

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

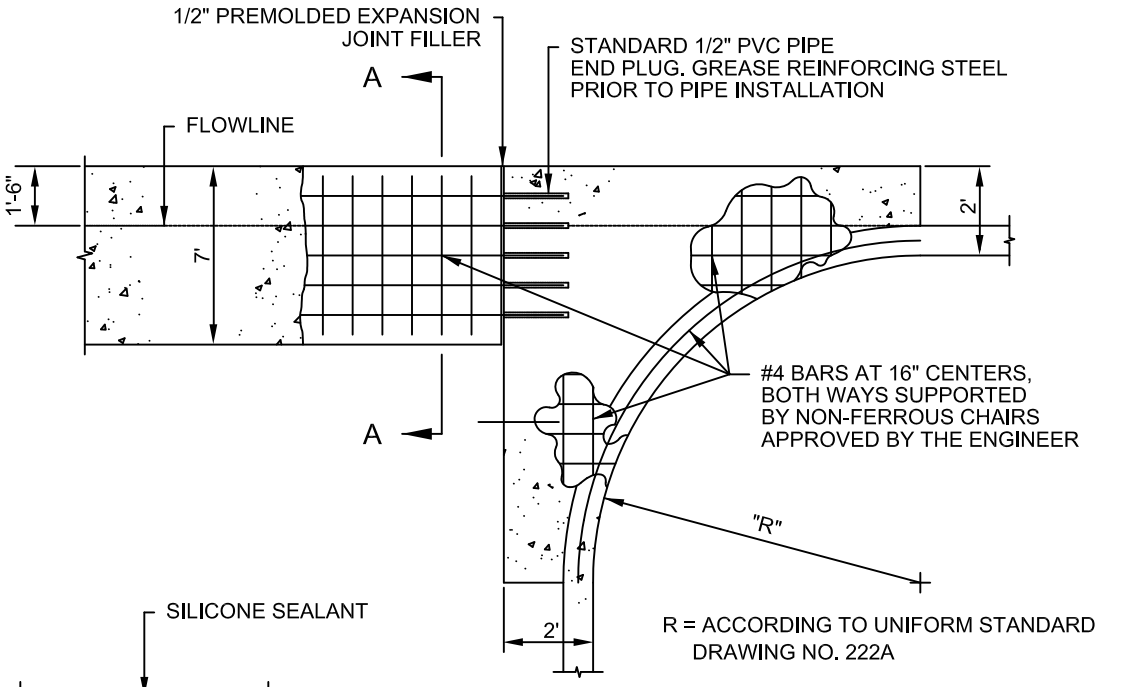
(HENDERSON ONLY)

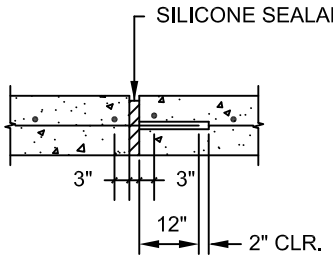
LIGHT DUTY COMMERCIAL DRIVEWAY

(OFFICES, CHURCHES, SCHOOLS, RESTAURANTS, ETC.)

DATE 12-14-00	DWG. NO. 226.1	PAGE 32.1

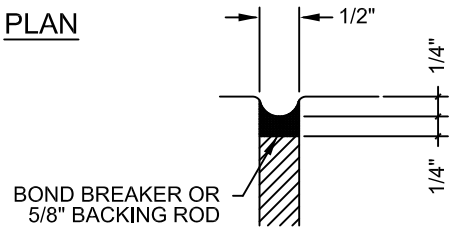
Effective 01/01/09 - 06/30/09



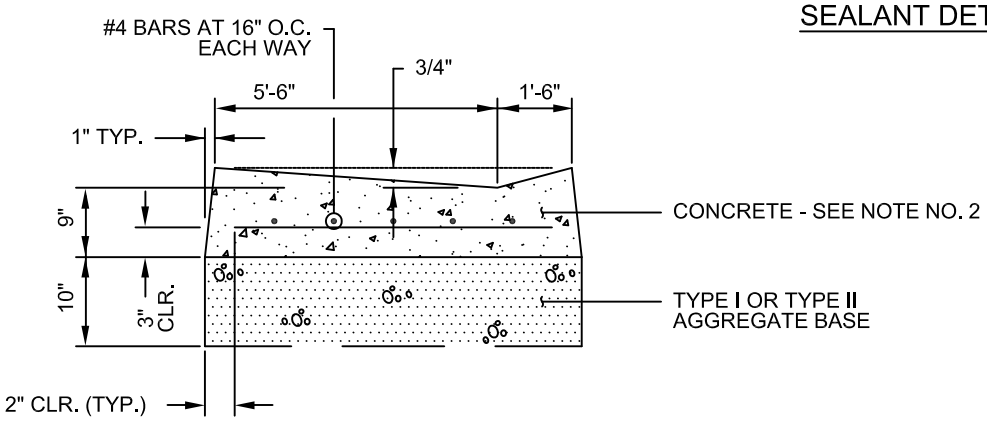


JOINT DETAIL

PLAN



SEALANT DETAIL



SECTION A-A

NOTES:

1. FINISHED ASPHALT CONCRETE SURFACE TO BE FLUSH WITH CROSS GUTTER LIP.
2. ADJACENT SPANDREL SHALL BE 9" THICK P.C.C.

SPECIFICATION REFERENCE	
302	AGGREGATE BASE
501	CONCRETE
502	CONCRETE STRUCTURES
505	REINFORCING STEEL
707	EXPANSION JOINT MATERIAL
TT-S-00153A CLASS A SEALANT	

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

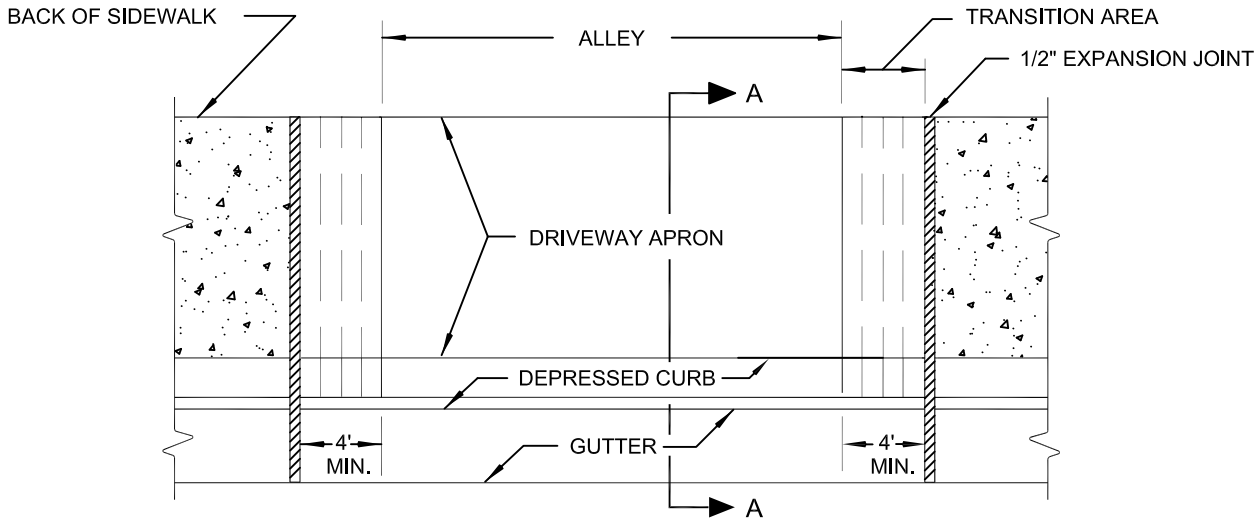
(HENDERSON ONLY)

HEAVY DUTY COMMERCIAL DRIVEWAY

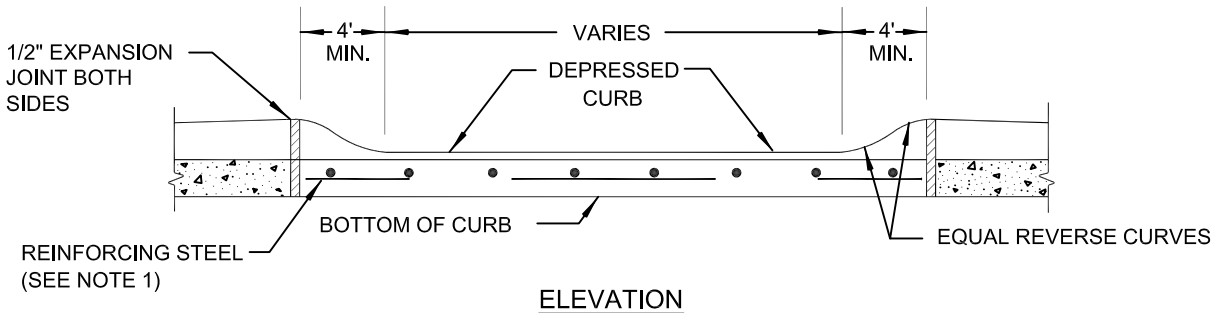
(SERVICE STATIONS, INDUSTRIAL, LOADING DOCKS, ETC.)

DATE 12-14-00	DWG. NO. 226.2	PAGE 32.2

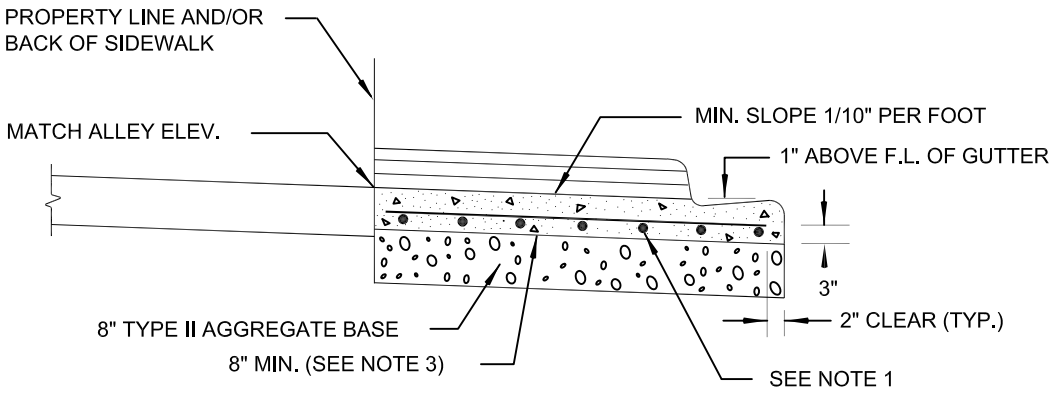
Effective 01/01/09 - 06/30/09



PLAN



ELEVATION



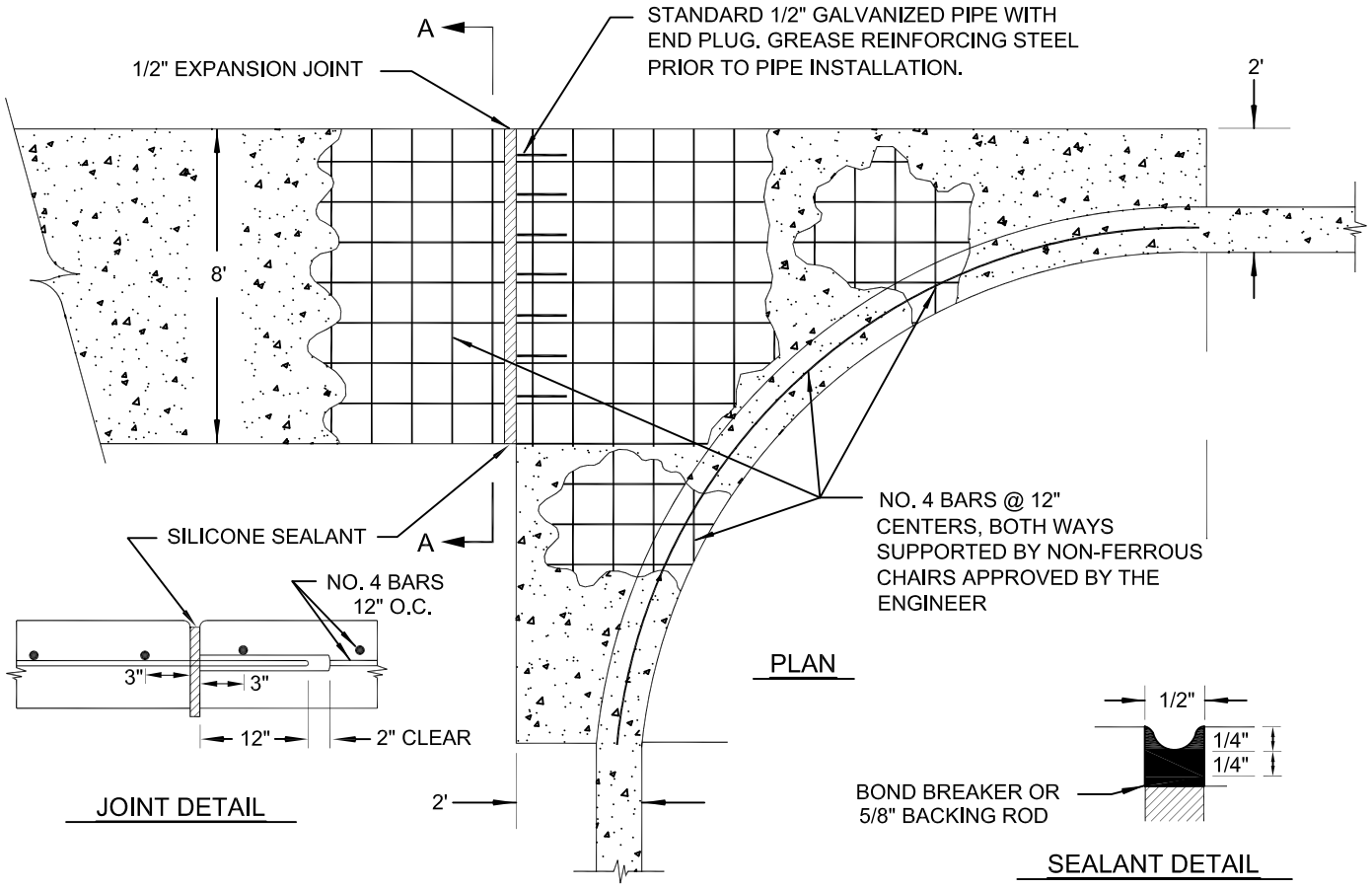
SECTION A-A

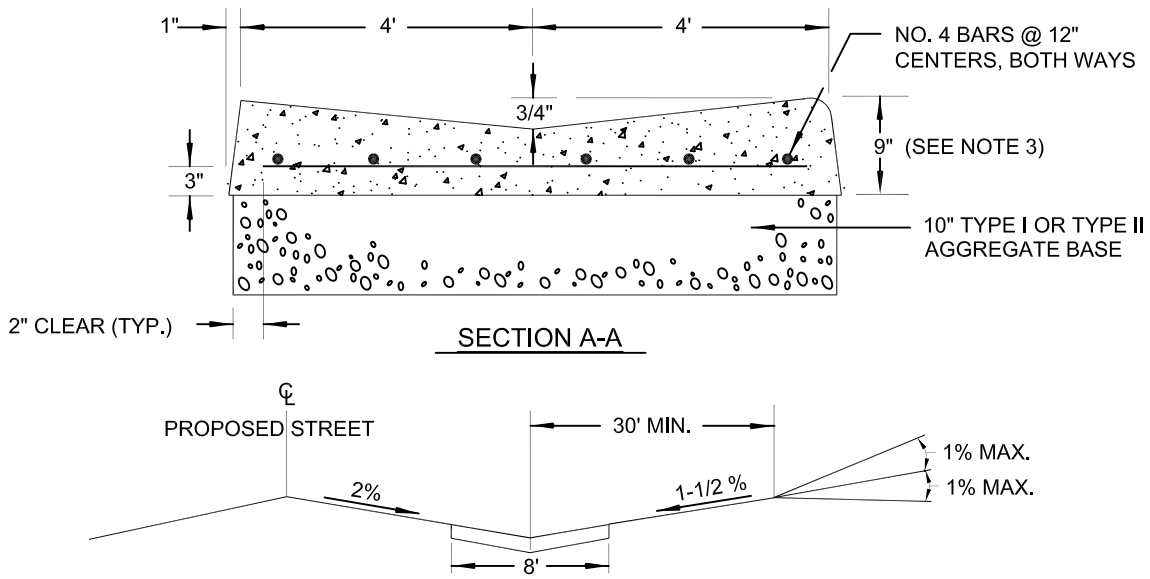
NOTES:

1. NO. 4 BARS AT 16" O.C. BOTH WAYS CONTINUOUS THROUGH GUTTER. NO. 4 BARS SHALL BE PLACED 3" ABOVE BOTTOM OF CONCRETE.
2. WHEN CONSTRUCTING DRIVEWAY WHERE CURB AND GUTTER EXISTS, COMPLETELY REMOVE INTERFERING PORTIONS OF EXISTING CURB AND GUTTER. DRIVEWAY SHALL BE MONOLITHIC TO A.C. LINE.
3. DRIVEWAY THICKNESS SHALL BE 8" MIN.

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		CITY OF LAS VEGAS ONLY		
		DEPRESSED ALLEY DRIVEWAY		
		DATE 12-14-00	DWG. NO. 227	PAGE NO. 33

Effective 01/01/09 - 06/30/09





TYPICAL PROFILE AT LOCAL RESIDENTIAL STREET INTERSECTIONS

NOTES:

1. FINISHED ASPHALT CONCRETE SURFACE TO BE FLUSH WITH CROSS GUTTER LIP.
2. CONSTRUCTION OF CROSS GUTTER IS NOT ALLOWED ACROSS MAJOR COLLECTOR OR ARTERIAL STREETS.
3. ADJACENT SPANDREL SHALL BE 9" THICK P.C.C.

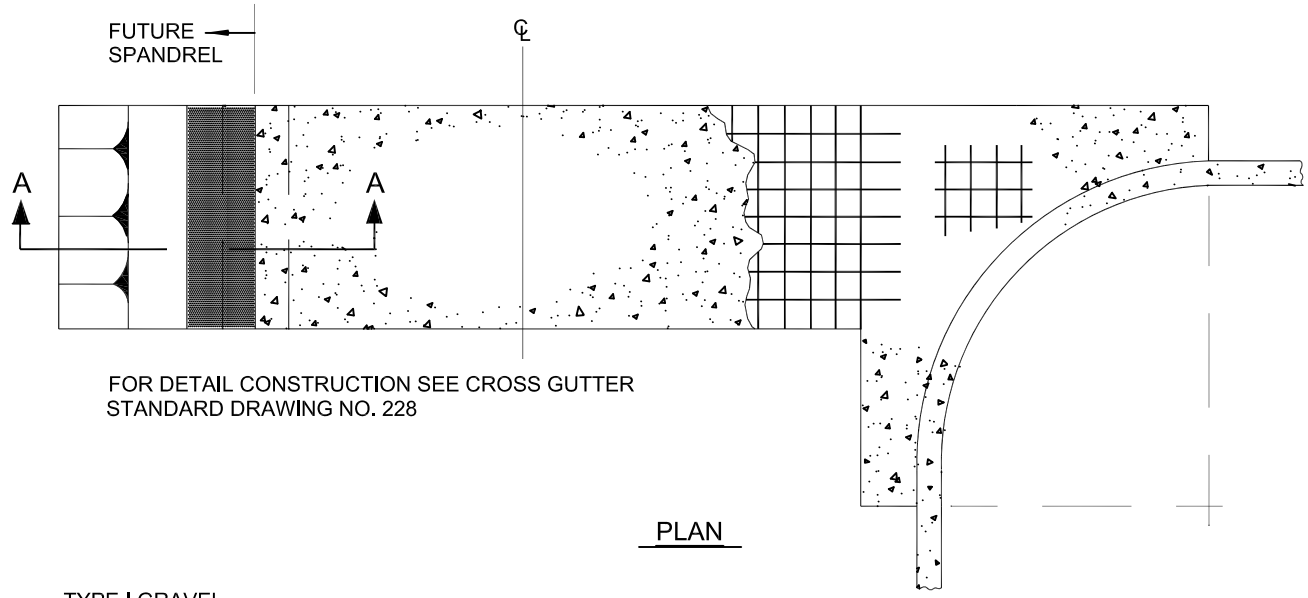
SPECIFICATION REFERENCE	
302	AGGREGATE BASE
501	CONCRETE
502	CONCRETE STRUCTURES
505	REINFORCING STEEL
707	EXPANSION JOINT MATERIAL
TT-S-00153A CLASS A SEALANT	

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

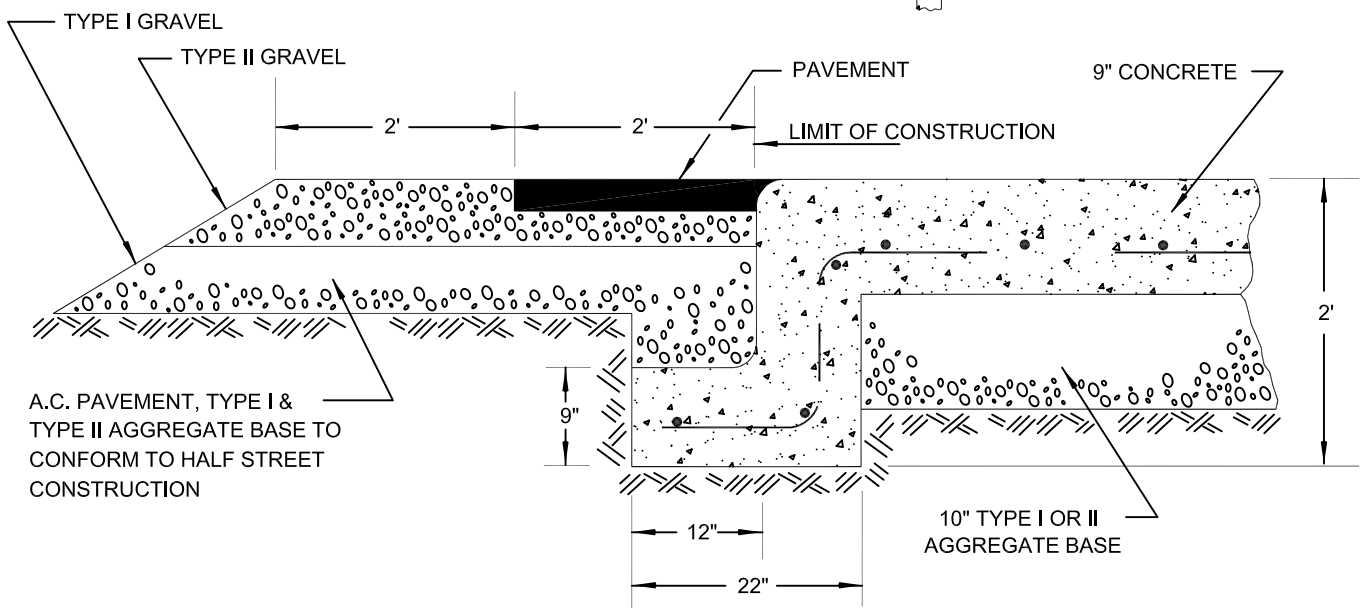
CROSS GUTTER

DATE 12-14-00	DWG. NO. 228	PAGE NO. 34

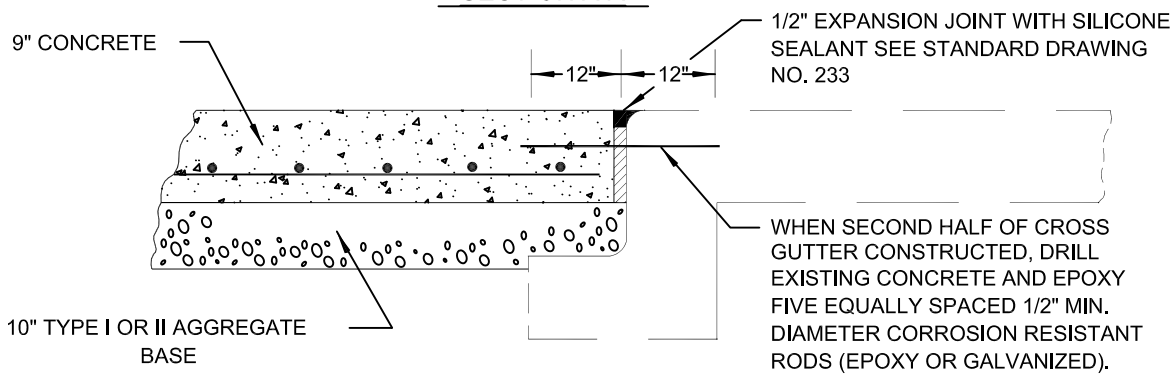
Effective 01/01/09 - 06/30/09



PLAN



SECTION A-A



DETAIL FOR FUTURE CONSTRUCTION

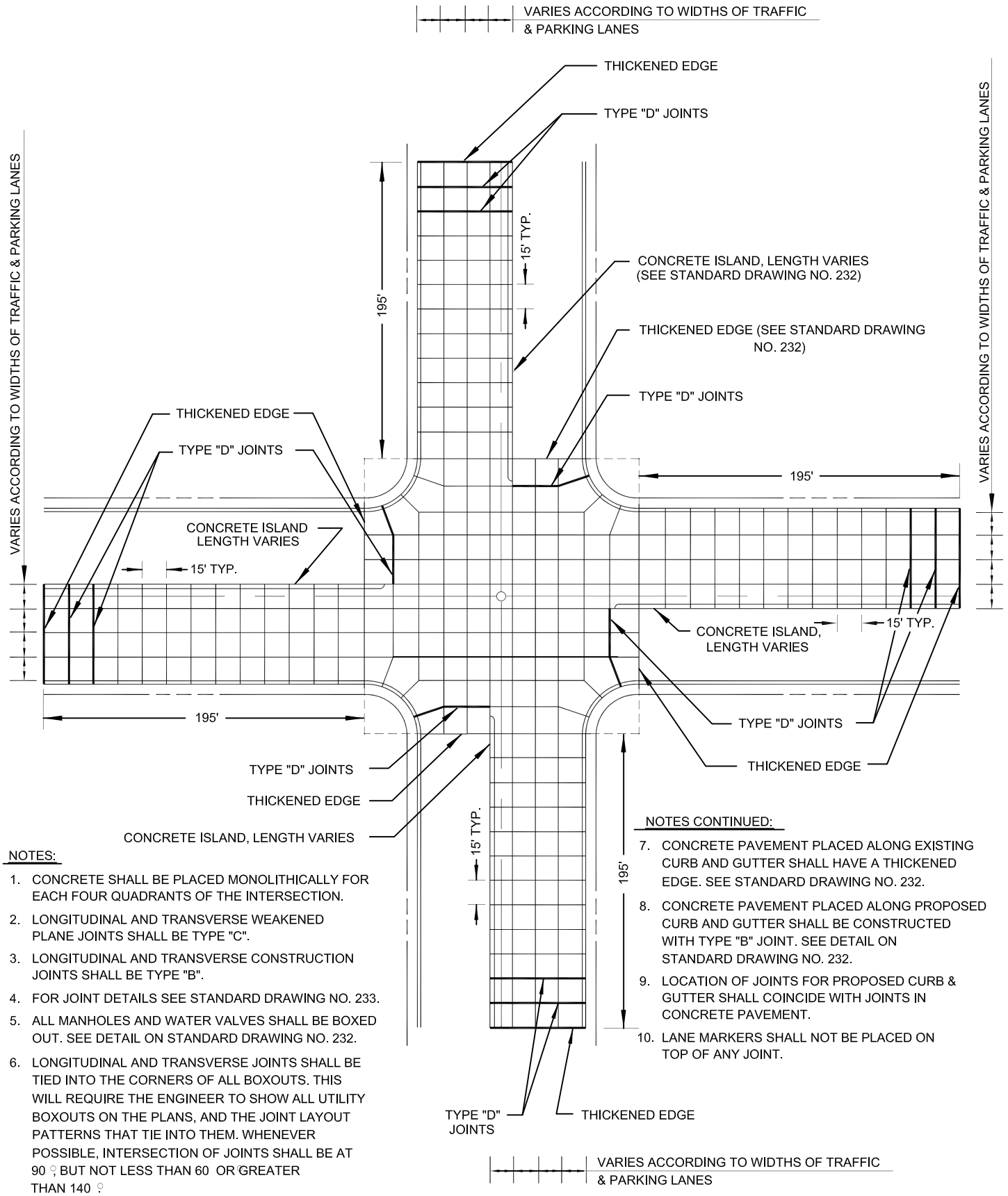
SPECIFICATION REFERENCE	
302	AGGREGATE BASE
501	CONCRETE
502	CONCRETE STRUCTURES
505	REINFORCING STEEL
707	EXPANSION JOINT MATERIAL
TT-S-00153A CLASS A SEALANT	

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

HALF STREET CROSS GUTTER

DATE	DWG. NO. 229	PAGE NO. 35

Effective 01/01/09 - 06/30/09



NOTES:

1. CONCRETE SHALL BE PLACED MONOLITHICALLY FOR EACH FOUR QUADRANTS OF THE INTERSECTION.
2. LONGITUDINAL AND TRANSVERSE WEAKENED PLANE JOINTS SHALL BE TYPE "C".
3. LONGITUDINAL AND TRANSVERSE CONSTRUCTION JOINTS SHALL BE TYPE "B".
4. FOR JOINT DETAILS SEE STANDARD DRAWING NO. 233.
5. ALL MANHOLES AND WATER VALVES SHALL BE BOXED OUT. SEE DETAIL ON STANDARD DRAWING NO. 232.
6. LONGITUDINAL AND TRANSVERSE JOINTS SHALL BE TIED INTO THE CORNERS OF ALL BOXOUTS. THIS WILL REQUIRE THE ENGINEER TO SHOW ALL UTILITY BOXOUTS ON THE PLANS, AND THE JOINT LAYOUT PATTERNS THAT TIE INTO THEM. WHENEVER POSSIBLE, INTERSECTION OF JOINTS SHALL BE AT 90 ♀ BUT NOT LESS THAN 60 ♀ OR GREATER THAN 140 ♀

NOTES CONTINUED:

7. CONCRETE PAVEMENT PLACED ALONG EXISTING CURB AND GUTTER SHALL HAVE A THICKENED EDGE. SEE STANDARD DRAWING NO. 232.
8. CONCRETE PAVEMENT PLACED ALONG PROPOSED CURB AND GUTTER SHALL BE CONSTRUCTED WITH TYPE "B" JOINT. SEE DETAIL ON STANDARD DRAWING NO. 232.
9. LOCATION OF JOINTS FOR PROPOSED CURB & GUTTER SHALL COINCIDE WITH JOINTS IN CONCRETE PAVEMENT.
10. LANE MARKERS SHALL NOT BE PLACED ON TOP OF ANY JOINT.

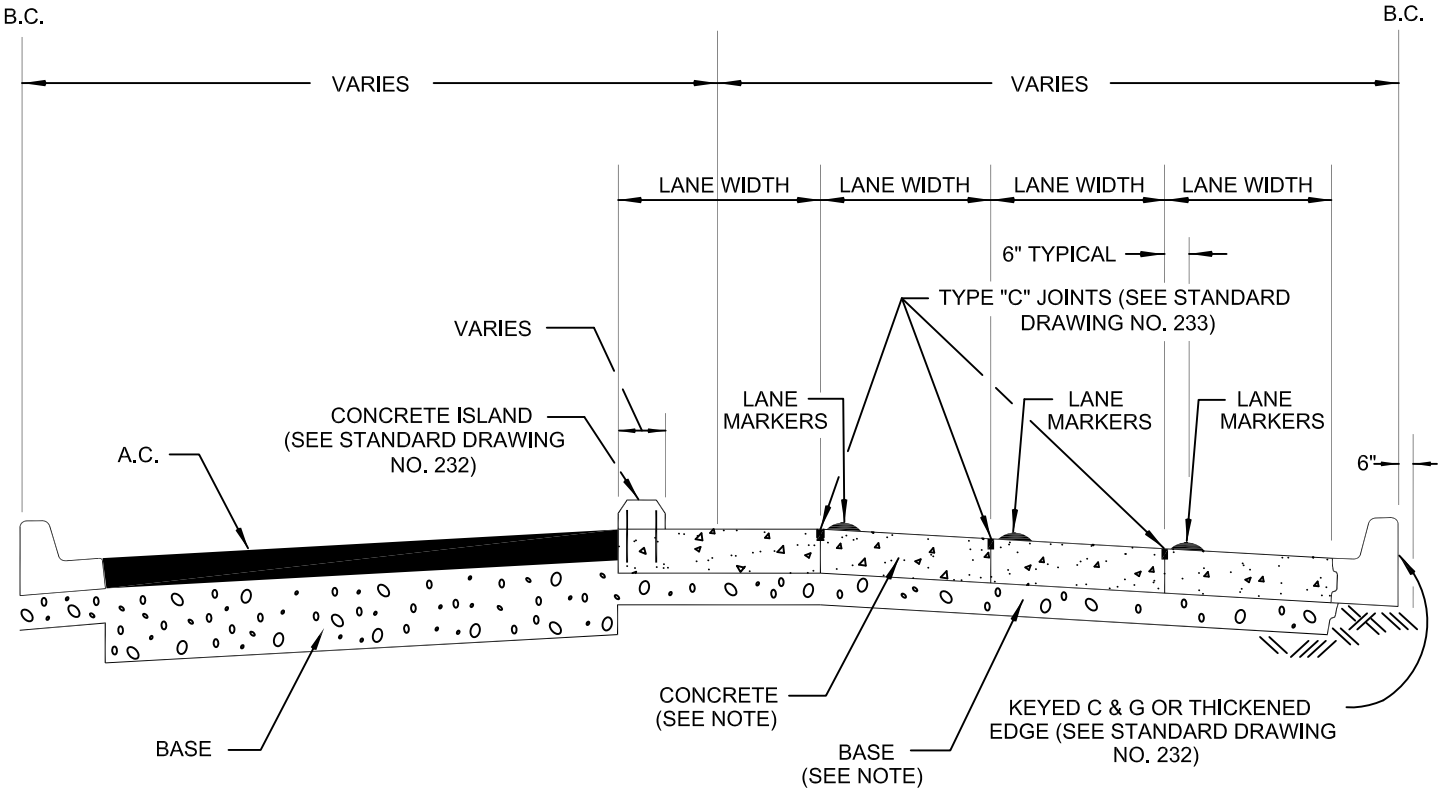
SPECIFICATION REFERENCE	
409	CONCRETE PAVEMENT
501	CONCRETE

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

CONCRETE PAVEMENT INTERSECTION TYPICAL LAYOUT

DATE	DWG. NO. 230	PAGE NO. 36

Effective 01/01/09 - 06/30/09



NOTE:

CONCRETE AND BASE THICKNESS TO BE DETERMINED BY ENGINEERING ANALYSIS BASED ON TRAFFIC CONDITIONS, SUBGRADE STRENGTH, QUALITY OF BASE, AND FLEXURAL STRENGTH OF CONCRETE.

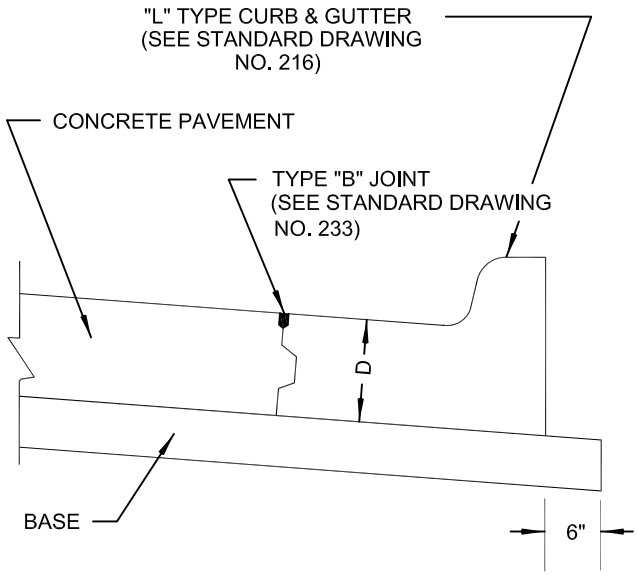
SPECIFICATION REFERENCE	
302	AGGREGATE BASE
409	CONCRETE PAVEMENT
501	CONCRETE
633	PAVEMENT MARKERS
707	JOINT MATERIAL

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

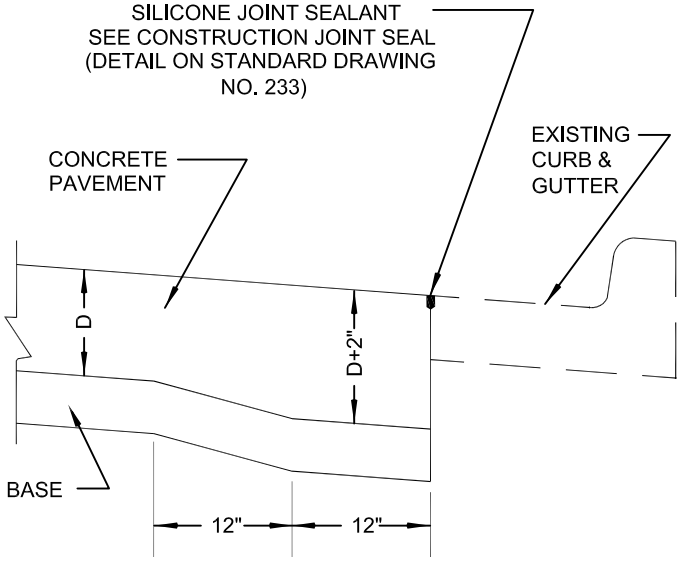
CONCRETE PAVEMENT
TYPICAL ROADWAY SECTION

DATE	DWG. NO. 231	PAGE NO. 37

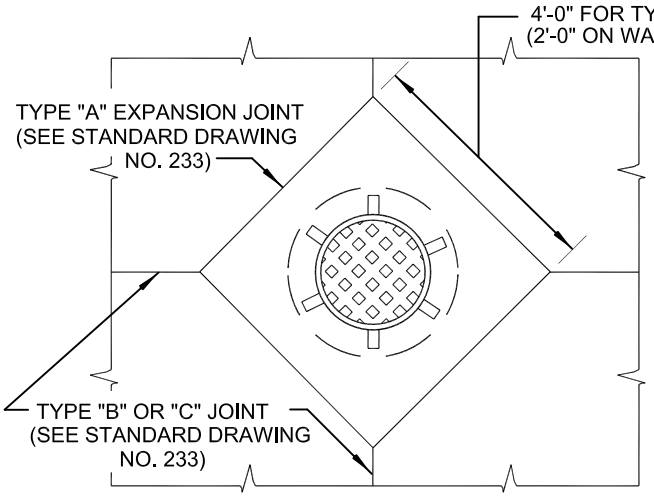
Effective 01/01/09 - 06/30/09



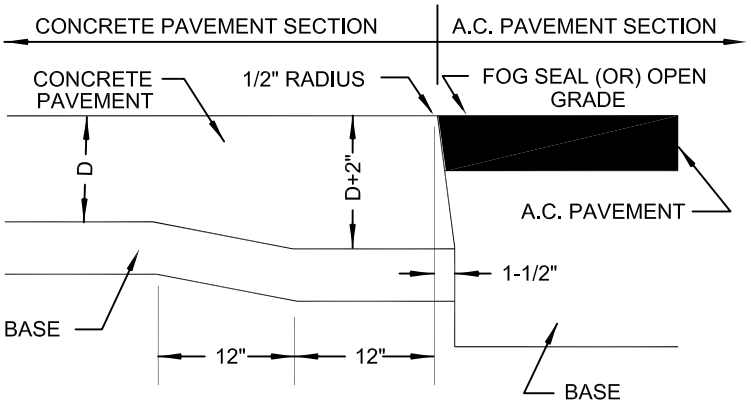
CURB & GUTTER JOINT DETAIL
PROPOSED CURB & GUTTER



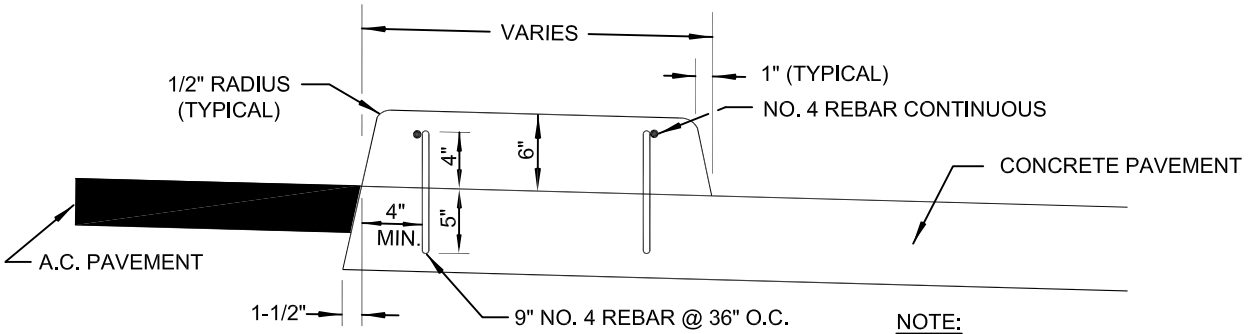
CURB & GUTTER JOINT DETAIL
EXISTING CURB & GUTTER



BOXOUT DETAIL



THICKENED EDGE DETAIL



TACK ON CONCRETE ISLAND DETAIL

NOTE:

TRANSVERSE WEAKENED PLANE JOINTS
TO MATCH JOINTS IN CONCRETE PAVEMENT
(SEE DETAIL STANDARD DRAWING NO. 234)

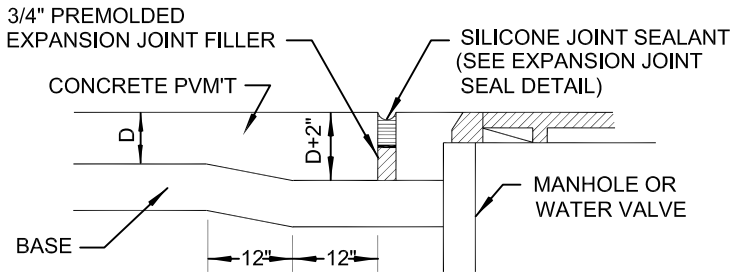
SPECIFICATION REFERENCE	
409	CONCRETE PAVEMENT
501	CONCRETE
505	REINFORCING STEEL
TT-S-00153A CLASS A SEALANT	

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

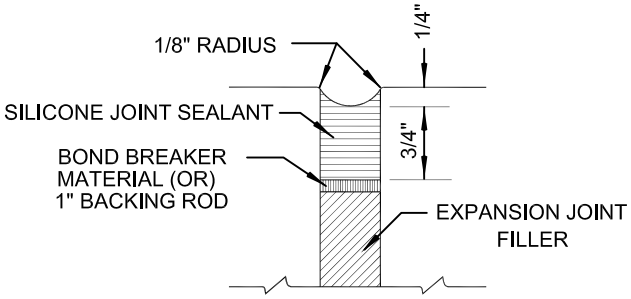
CONCRETE PAVEMENT CONSTRUCTION DETAILS

DATE	DWG. NO. 232	PAGE NO. 38

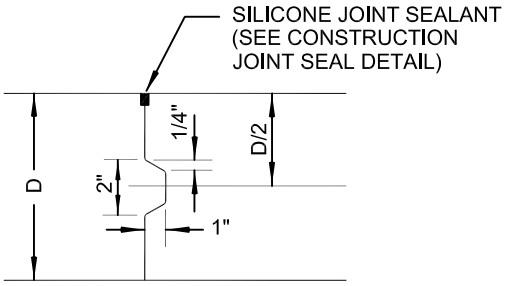
Effective 01/01/09 - 06/30/09



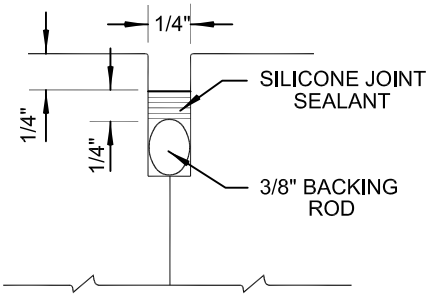
TYPE "A" EXPANSION JOINT DETAIL
BOXOUT



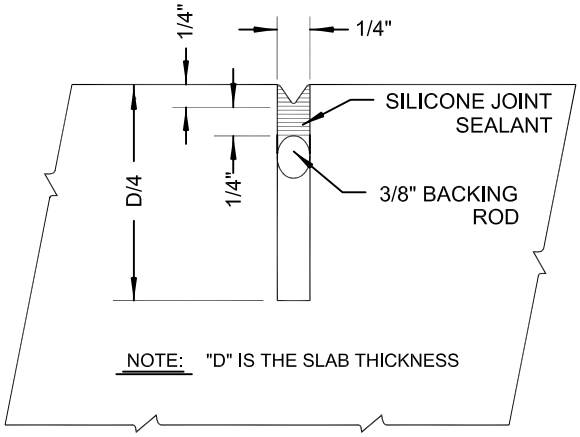
EXPANSION JOINT SEAL DETAIL



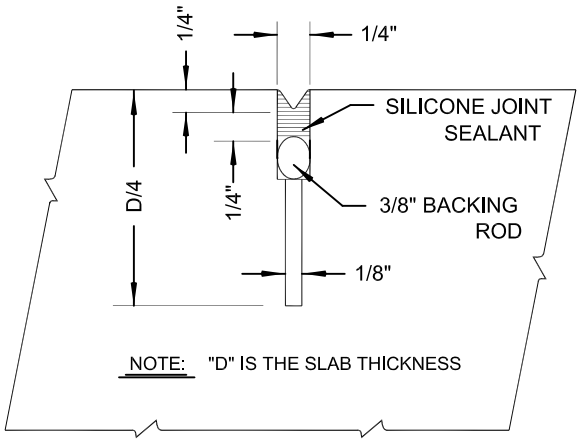
TYPE "B" CONSTRUCTION JOINT DETAIL
KEYWAY



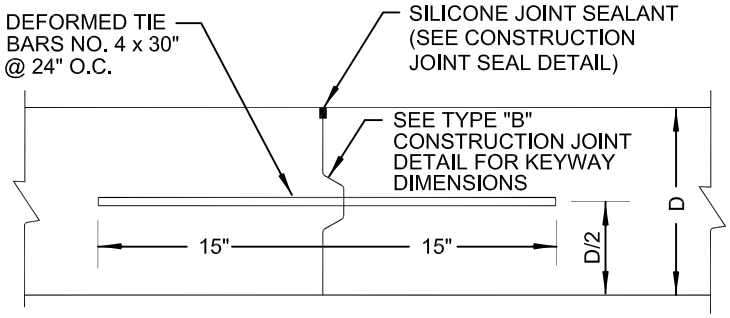
CONSTRUCTION JOINT SEAL DETAIL



TYPE "C" WEEKENED PLANE JOINT DETAIL
SINGLE SAW-CUT



TYPE "C" WEEKENED PLANE JOINT DETAIL
DOUBLE SAW-CUT



TYPE "D" TIED CONSTRUCTION JOINT DETAIL

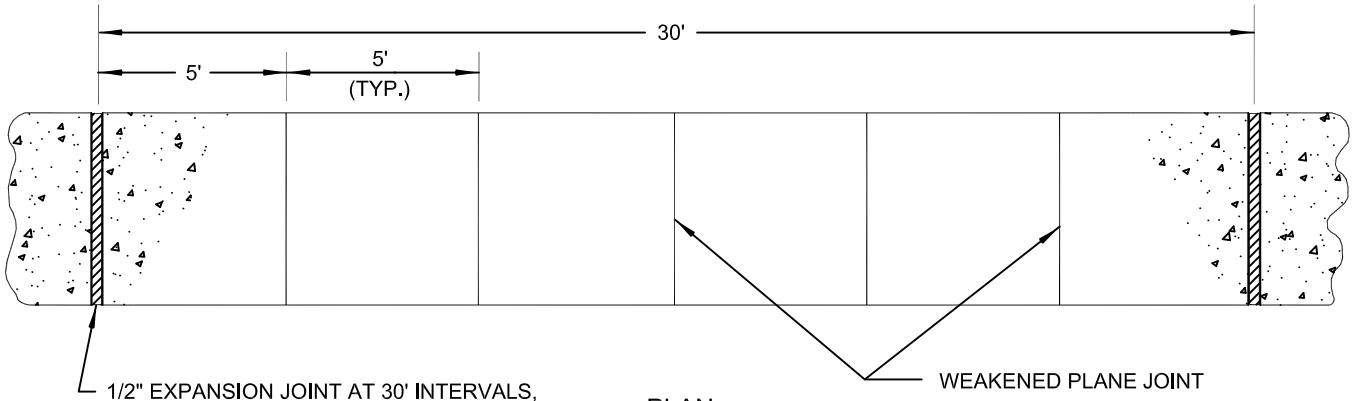
SPECIFICATION REFERENCE	
409	CONCRETE PAVEMENT
707	JOINT MATERIAL
TT-S-00153A CLASS A SEALANT	

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

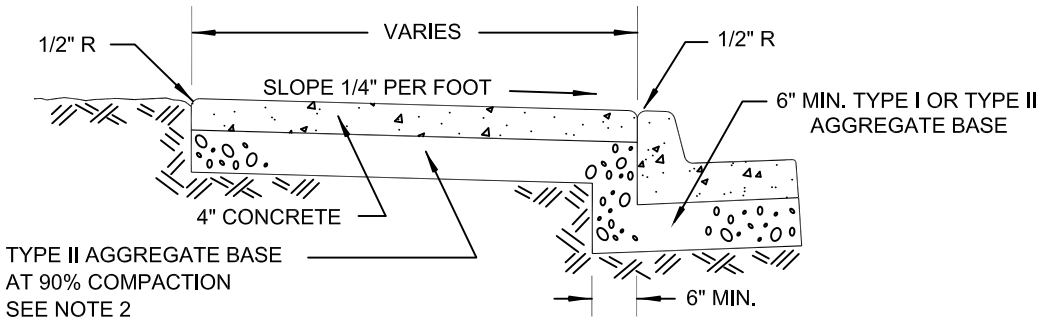
CONCRETE PAVEMENT JOINT DETAILS

DATE	DWG. NO. 233	PAGE NO. 39

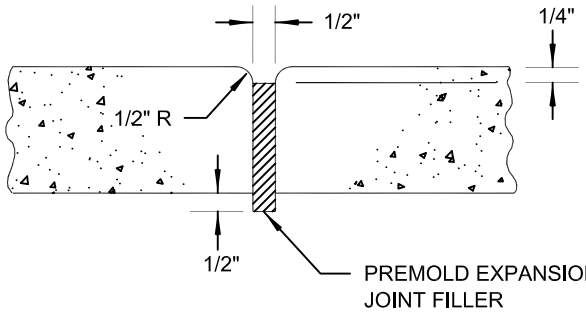
Effective 01/01/09 - 06/30/09



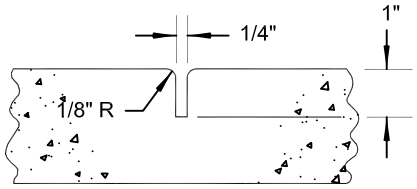
PLAN



TYPICAL SECTION



EXPANSION JOINT



WEAKENED PLANE JOINT

NOTES:

1. ON ALL CURB RETURNS A 1/2" EXPANSION JOINT SHALL BE CONSTRUCTED BETWEEN THE BACK OF CURB AND THE SIDEWALK FOR THE ENTIRE LENGTH OF THE RETURN.
2. THE TYPE II AGGREGATE BASE THICKNESS IS SHOWN ON THE TYPICAL SECTION DRAWINGS 202 - 207.
3. LONGITUDINAL WEAKENED PLANE JOINT REQUIRED AT MIDPOINT OF SIDEWALK 10' OR WIDER.

SPECIFICATION REFERENCE	
302	AGGREGATE BASE
501	CONCRETE
502	CONCRETE STRUCTURES
707	JOINT MATERIAL

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

SIDEWALK

DATE 12-14-00	DWG. NO. 234	PAGE NO. 40

Effective 01/01/09 - 06/30/09

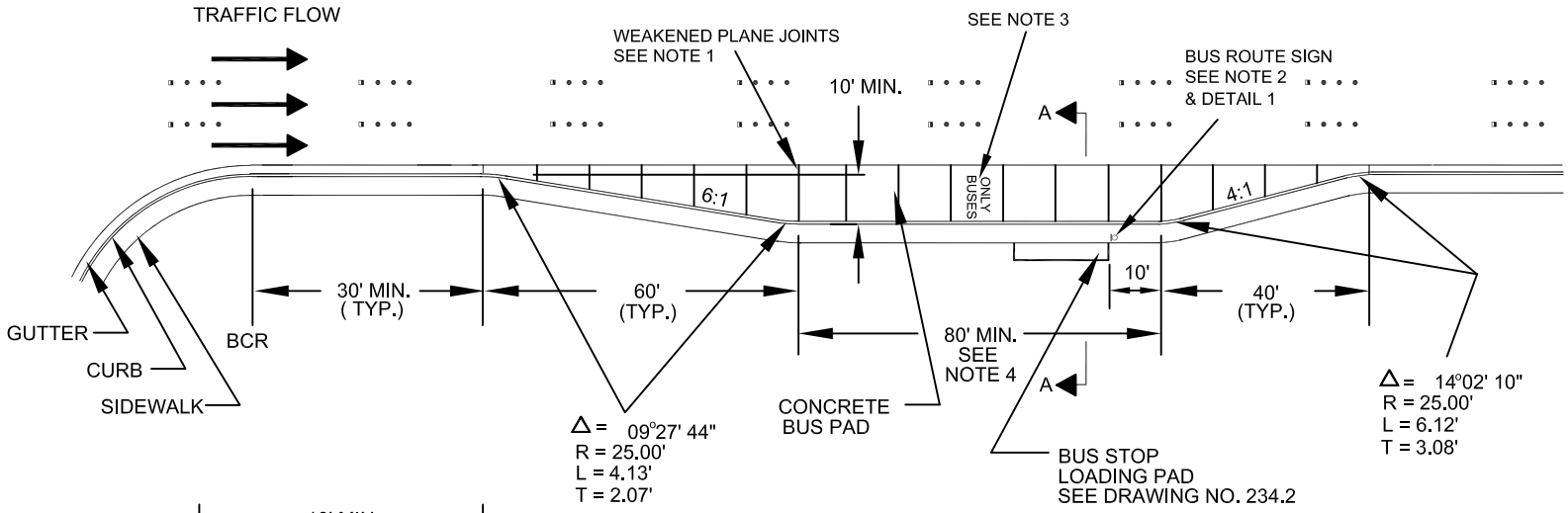
SPECIFICATION REFERENCE

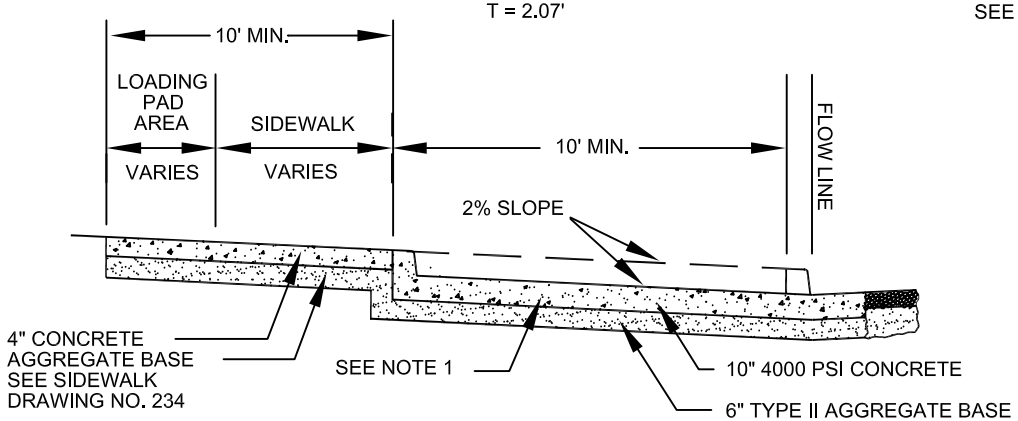
302	AGGREGATE BASE
501	CONCRETE
502	CONCRETE STRUCTURES

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

TYPICAL BUS TURN-OUT

DATE 11-13-08 | DWG. NO. 234.1





SECTION A-A

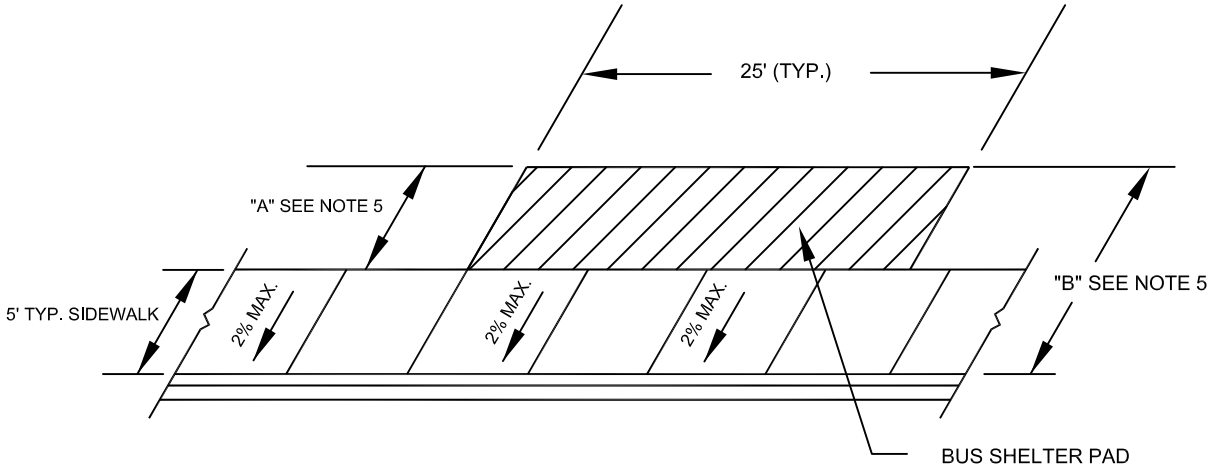
CAT
CITIZENS AREA TRANSIT

(ROUTE #)

DETAIL 1
BUS ROUTE
SIGN

NOTES:

1. CONCRETE BUS PAD SHALL BE MONOLITHIC. TRANSVERSE WEAKENED PLANE JOINTS SHALL BE INSTALLED AT 10' INTERVALS AND AS DETAILED IN STANDARD DRAWING NO. 233, TYPE "C".
2. BUS ROUTE SIGN SHALL BE INSTALLED AT THE DOWNSTREAM END OF BUS STOP LOADING PAD.
3. A MINIMUM OF ONE SET OF PAVEMENT MARKINGS CONTAINING THE "BUSES ONLY" SYMBOL SHALL BE PLACED IN THE TURN-OUT AREA. EXACT LOCATION TO BE DETERMINED BY THE ENGINEER.
4. ADDITIONAL STORAGE AREA WILL BE REQUIRED WHEN MORE THAN ONE BUS IS EXPECTED TO OCCUPY THE TURN-OUT AT THE SAME TIME.
5. ALTERNATE CONCRETE AND BASE THICKNESSES MAY BE SUBSTITUTED, BUT MUST BE SUPPORTED BY ENGINEERING ANALYSIS AND APPROVED BY THE ENGINEER.
6. TURN-OUT SURFACE SHALL BE TEXTURED IN ACCORDANCE WITH UNIFORM STANDARD SPECIFICATION NO. 409.03.08. FLOW LINE SHALL NOT BE TEXTURED, BUT SHALL BE A TROWELED SURFACE.



ADDITIONAL AREA REQUIRED BEHIND TYPICAL 5 FT. SIDEWALK FOR BUS SHELTER PAD

NOTES:

1. SIDEWALK RAMP MAY BE REQUIRED TO BE CONSTRUCTED IN THOSE LOCATIONS WHERE THE BUS STOP WOULD OTHERWISE BE INACCESSIBLE AS DEFINED BY THE AMERICANS WITH DISABILITIES ACT. SEE DRAWING NO. 235, SHEET 4 OF 4 FOR SIDEWALK RAMP DETAILS.
2. ADDITIONAL RIGHT-OF-WAY OR EASEMENT IS REQUIRED FOR BUS SHELTER PAD AND VARIABLE HEIGHT CURB AT BACK OF SIDEWALK RAMP AND SHALL BE DEDICATED TO THE LOCAL ENTITY.
3. AGGREGATE BASE AND CONCRETE FOR LOADING PAD SHALL BE THE SAME AS REQUIRED FOR SIDEWALK. SEE DRAWING NO. 234.
4. BUS SHELTER PAD CONNECTION TO DETACHED SIDEWALK CONDITION SHALL BE DETERMINED BY THE ENTITIES.
5. "A" = 10', "B" = 15' UNLESS BUS TURNOUT IS CONSTRUCTED PER STANDARD DRAWINGS 234.1 OR 234.3, THEN "A" = 5', "B" = 10'.

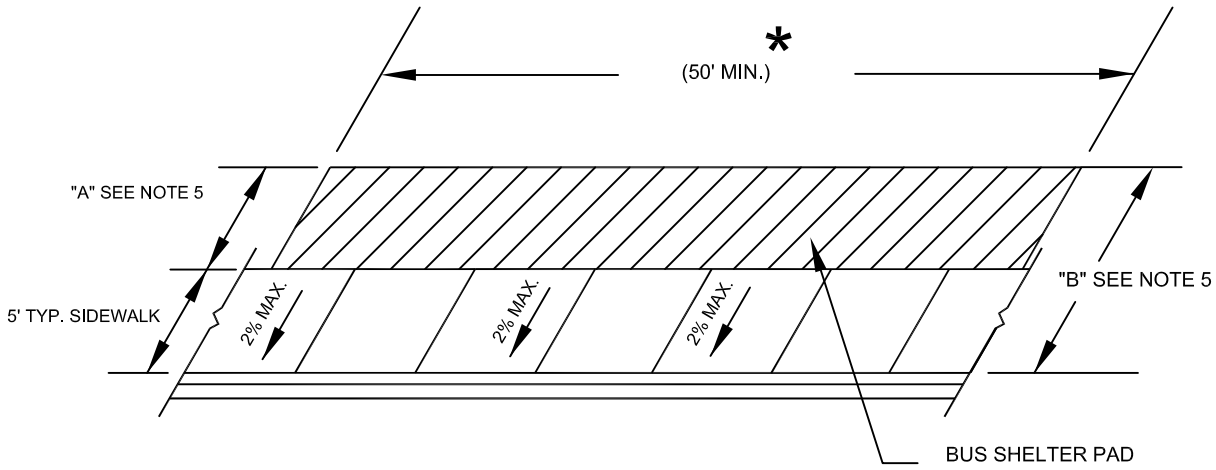
SPECIFICATION REFERENCE	
302	AGGREGATE BASE
501	CONCRETE
502	CONCRETE STRUCTURES

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

TYPICAL BUS STOP PASSENGER LOADING AND SHELTER PADS

DATE 11-13-08 | DWG. NO. 234.2

Effective 01/01/09 - 06/30/09



ADDITIONAL AREA REQUIRED BEHIND TYPICAL 5 FT. SIDEWALK FOR BUS SHELTER PAD

* ADDITIONAL 25 FEET MAY BE REQUIRED BY RTC.

NOTES:

1. SIDEWALK RAMP MAY BE REQUIRED TO BE CONSTRUCTED IN THOSE LOCATIONS WHERE THE BUS STOP WOULD OTHERWISE BE INACCESSIBLE AS DEFINED BY THE AMERICANS WITH DISABILITIES ACT. SEE DRAWING NO. 235, SHEET 4 OF 4 FOR SIDEWALK RAMP DETAILS.
2. ADDITIONAL RIGHT-OF-WAY OR EASEMENT IS REQUIRED FOR BUS SHELTER PAD AND VARIABLE HEIGHT CURB AT BACK OF SIDEWALK RAMP. AND SHALL BE DEDICATED TO THE LOCAL ENTITY.
3. AGGREGATE BASE AND CONCRETE FOR LOADING PAD SHALL BE THE SAME AS REQUIRED FOR SIDEWALK. SEE DRAWING NO. 234.
4. BUS SHELTER PAD CONNECTION TO DETACHED SIDEWALK CONDITION SHALL BE DETERMINED BY THE ENTITIES.
5. "A" = 10', "B" = 15' UNLESS BUS TURNOUT IS CONSTRUCTED PER STANDARD DRAWINGS 234.1 OR 234.3, THEN "A" = 5', "B" = 10'.

SPECIFICATION REFERENCE	
302	AGGREGATE BASE
501	CONCRETE
502	CONCRETE STRUCTURES

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

TYPICAL DOUBLE BUS STOP PASSENGER LOADING AND SHELTER PADS

DATE 11-13-08 | DWG. NO. 234.2A

Effective 01/01/09 - 06/30/09

NOTES:

1. IF ARTICULATED BUSES ARE EXPECTED TO SERVICE BUS STOP, DISTANCE FROM END OF ENTRY TAPER TO THE END OF THE BUS STOP LOADING PAD SHALL BE INCREASED TO 70 FT. MIN. AND THE RIGHT TURN STORAGE LANE LENGTH SHALL BE INCREASED TO 120 FT. MIN.
2. WHERE ADDITIONAL MOTORIST GUIDANCE IS DEEMED NECESSARY BY THE ENGINEER, INSTALL ARROW AND "ONLY" SYMBOL PAVEMENT MARKINGS FOR THE LENGTH OF THE STORAGE LINE. SYMBOLS SHALL BE APPROVED TYPE I PAVEMENT MARKING FILM.
3. STORAGE LANE LINE SHALL BE APPROVED TYPE II PAVEMENT MARKING FILM, OR IF APPROVED BY THE ENGINEER, RAISED PAVEMENT MARKERS MAY BE USED.
4. REVERSE CURVE TRANSITION MAY BE USED SUBJECT TO THE APPROVAL OF THE ENGINEER.

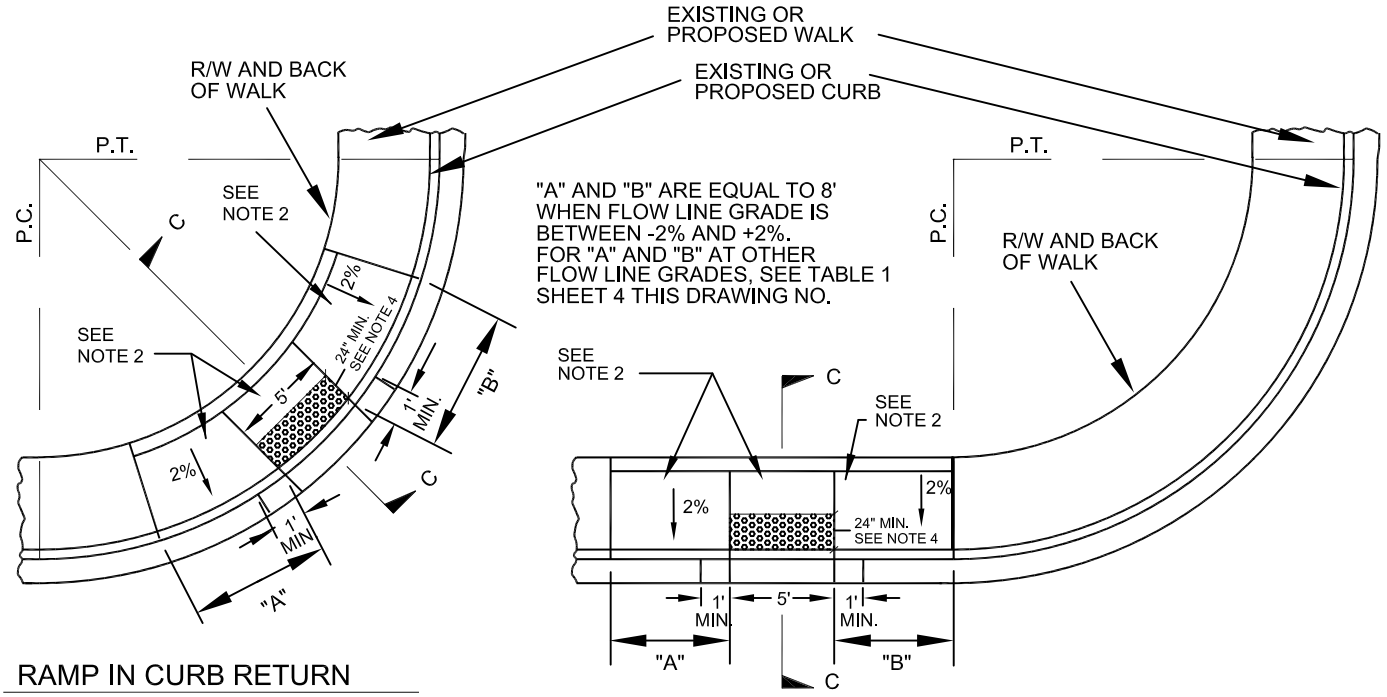
SPECIFICATION REFERENCE	
302	AGGREGATE BASE
501	CONCRETE
502	CONCRETE STRUCTURES
628	PAINTING TRAFFIC STRIPING,
	PAVEMENT MARKINGS...

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

BUS STOP PLACEMENT WITHIN EXCLUSIVE RIGHT TURN LANE FOR COMMERCIAL PROPERTIES

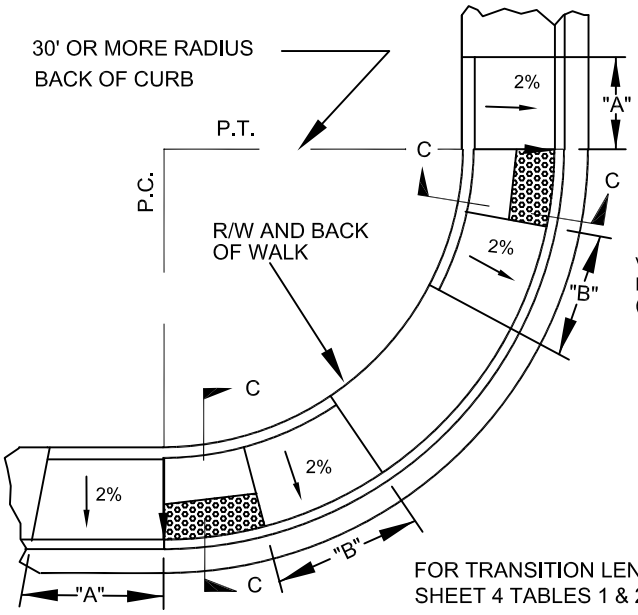
DATE 05-19-05	DWG. NO. 234.3	PAGE 40.3

Effective 01/01/09 - 06/30/09



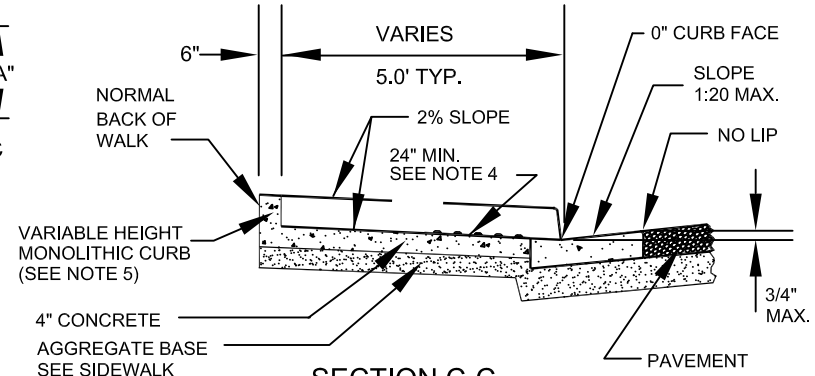
RAMP IN CURB RETURN

RAMP OUTSIDE CURB RETURN

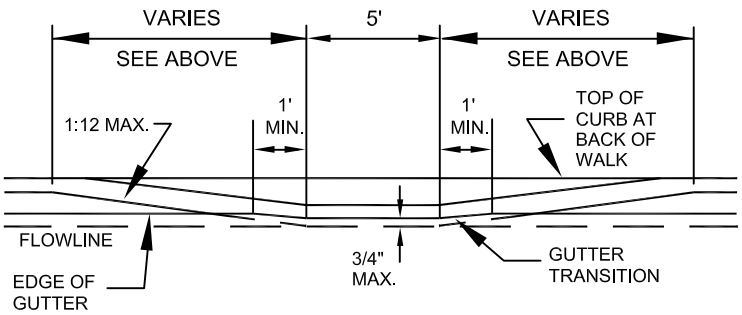


FOR TRANSITION LENGTHS, SEE SHEET 4 TABLES 1 & 2

PAIRED RAMP IN CURB RETURN



SECTION C-C



PROFILE

NOTES:

1. SIDEWALK RAMPS OUTSIDE OF THE CURB RETURN SHALL BE LOCATED ADJACENT TO THE RETURN UNLESS OTHERWISE APPROVED.
2. RAMPS SHALL BE CONSTRUCTED WITH A ROUGH BROOM FINISH TRANSVERSE TO THE SLOPE OF THE RAMP.
3. WHEN CONSTRUCTING RAMP WHERE CURB & GUTTER EXISTS, COMPLETELY REMOVE INTERFERING PORTIONS OF EXISTING CURB & GUTTER.
4. DETECTABLE WARNING CONSISTING OF RAISED TRUNCATED DOMES WHICH COMPLY WITH DETAILS ON SHEET 4 OF THIS DRAWING NO. AND CONTRASTING VISUALLY WITH ADJOINING SURFACES SHALL BE PLACED ON BOTTOM PORTION OF RAMP EXTENDING THE FULL WIDTH OF THE RAMP AND TO A MINIMUM DEPTH OF 24 INCHES. PAVER BLOCKS PERMITTED ONLY IN THE CITY OF BOULDER CITY FOR DETECTABLE WARNING AREAS.
5. CURB MAY BE PLACED AND IS PREFERRED BEHIND BACK OF WALK IF SUFFICIENT RIGHT-OF-WAY OR EASEMENTS EXIST AND AS APPROVED BY THE ENGINEER.

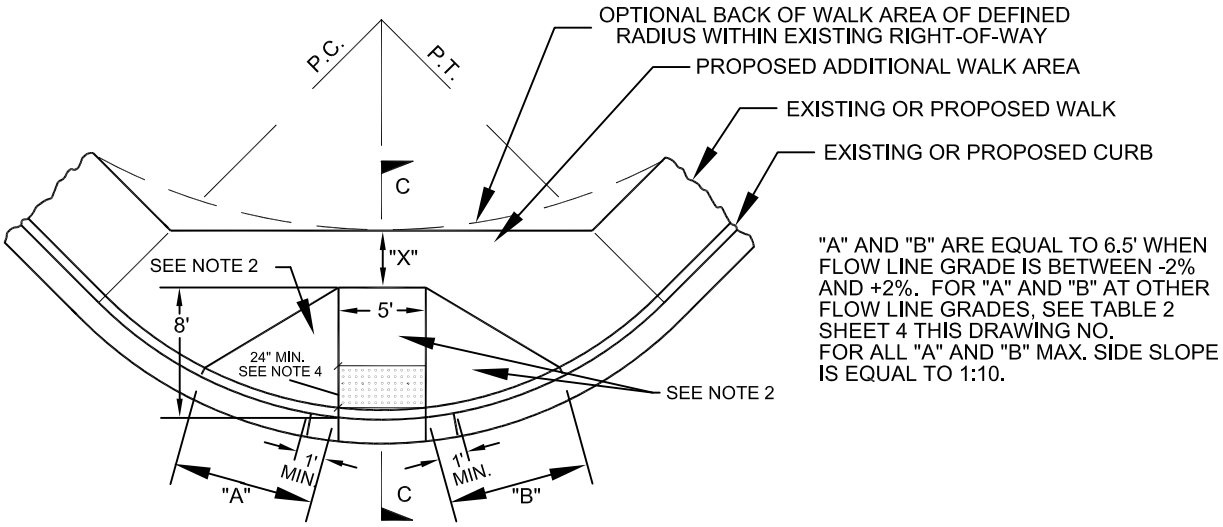
SPECIFICATION REFERENCE	
302	AGGREGATE BASE
501	CONCRETE
502	CONCRETE STRUCTURES

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

SIDEWALK RAMP
CASE I

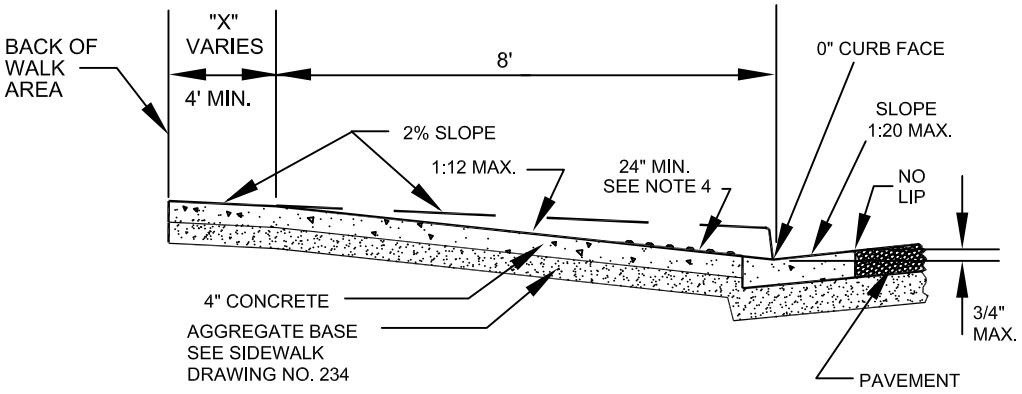
DATE 11-8-07	DWG. NO. 235 (1 OF 4)	

Effective 01/01/09 - 06/30/09

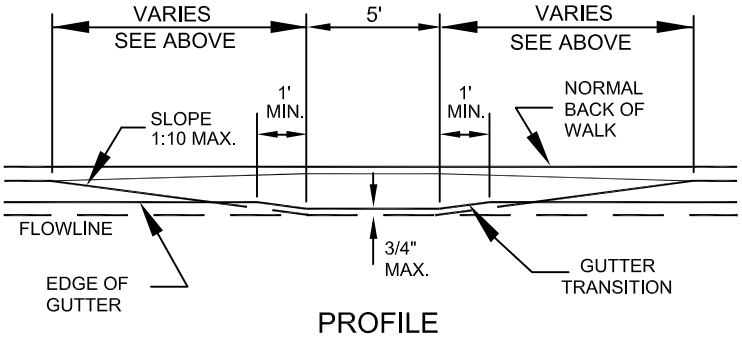


RAMP IN CURB RETURN

(NO BACK OF WALK DEPRESSION)



SECTION C-C



PROFILE

CASE II SHALL BE USED WHERE R/W AND FIELD CONDITIONS PERMIT.

NOTES:

1. SIDEWALK RAMP WITHIN CURB RETURN SHALL BE L0CATED AT THE MIDPOINT OF CURB RETURN UNLESS OTHERWISE APPROVED.
2. RAMPS SHALL BE CONSTRUCTED WITH A ROUGH BROOM FINISH TRANSVERSE TO THE SLOPE OF THE RAMP.
3. WHEN CONSTRUCTING RAMP WHERE CURB & GUTTER EXISTS, COMPLETELY REMOVE INTERFERING PORTIONS OF EXISTING CURB & GUTTER.
4. DETECTABLE WARNING CONSISTING OF RAISED TRUNCATED DOMES WHICH COMPLY WITH DETAILS ON SHEET 4 OF THIS DRAWING NO. AND CONTRASTING VISUALLY WITH ADJOINING SURFACES SHALL BE PLACED ON BOTTOM PORTION OF RAMP EXTENDING THE FULL WIDTH OF THE RAMP AND TO A MINIMUM DEPTH OF 24 INCHES. PAVER BLOCKS PERMITTED ONLY IN THE CITY OF BOULDER CITY FOR DETECTABLE WARNING AREAS.

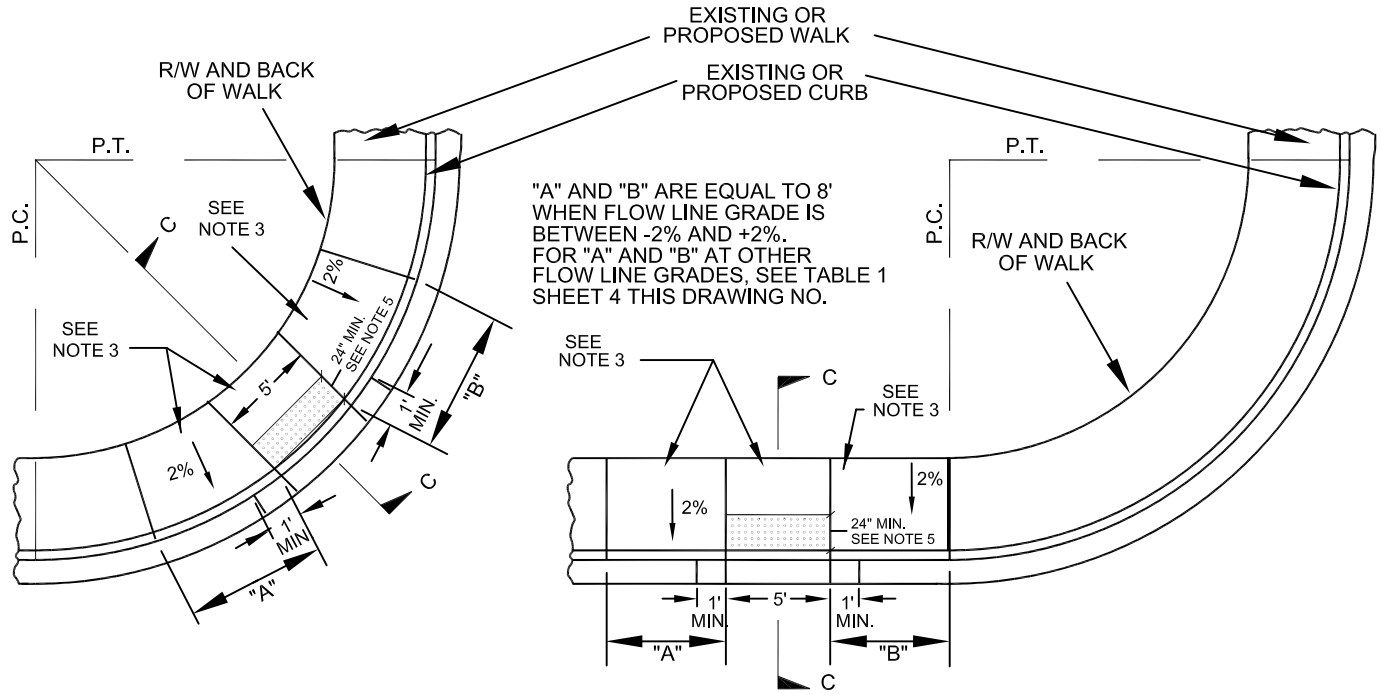
SPECIFICATION REFERENCE	
302	AGGREGATE BASE
501	CONCRETE
502	CONCRETE STRUCTURES

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

SIDEWALK RAMP
CASE II

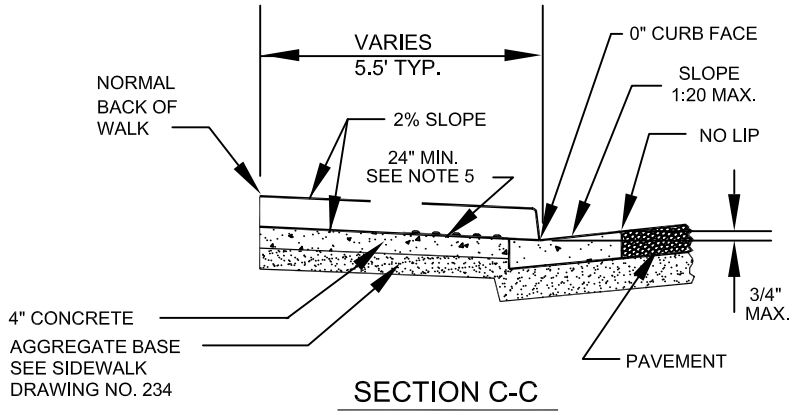
DATE 11-10-04	DWG. NO. 235 (2 OF 4)	PAGE 41A

Effective 01/01/09 - 06/30/09

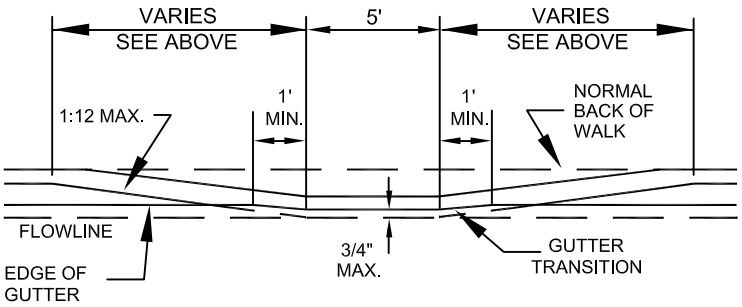


RAMP IN CURB RETURN

RAMP OUTSIDE CURB RETURN



SECTION C-C



PROFILE

CASE III TO BE USED FOR AREAS WHERE OBSTRUCTION (I.E. BLOCK WALL) EXISTS AT BACK OF WALK ONLY WHEN APPROVED BY THE ENGINEER.

NOTES:

1. SIDEWALK RAMP WITHIN CURB RETURN SHALL BE L0CATED AT THE MIDPOINT OF CURB RETURN UNLESS OTHERWISE APPROVED.
2. SIDEWALK RAMPS OUTSIDE OF THE CURB RETURN SHALL BE LOCATED ADJACENT TO THE RETURN UNLESS OTHERWISE APPROVED.
3. RAMPS SHALL BE CONSTRUCTED WITH A ROUGH BROOM FINISH TRANSVERSE TO THE SLOPE OF THE RAMP.
4. WHEN CONSTRUCTING RAMP WHERE CURB & GUTTER EXISTS, COMPLETELY REMOVE INTERFERING PORTIONS OF EXISTING CURB & GUTTER.
5. DETECTABLE WARNING CONSISTING OF RAISED TRUNCATED DOMES WHICH COMPLY WITH DETAILS ON SHEET 4 OF THIS DRAWING NO. AND CONTRASTING VISUALLY WITH ADJOINING SURFACES SHALL BE PLACED ON BOTTOM PORTION OF RAMP EXTENDING THE FULL WIDTH OF THE RAMP AND TO A MINIMUM DEPTH OF 24 INCHES. PAVER BLOCKS PERMITTED ONLY IN THE CITY OF BOULDER CITY FOR DETECTABLE WARNING AREAS.

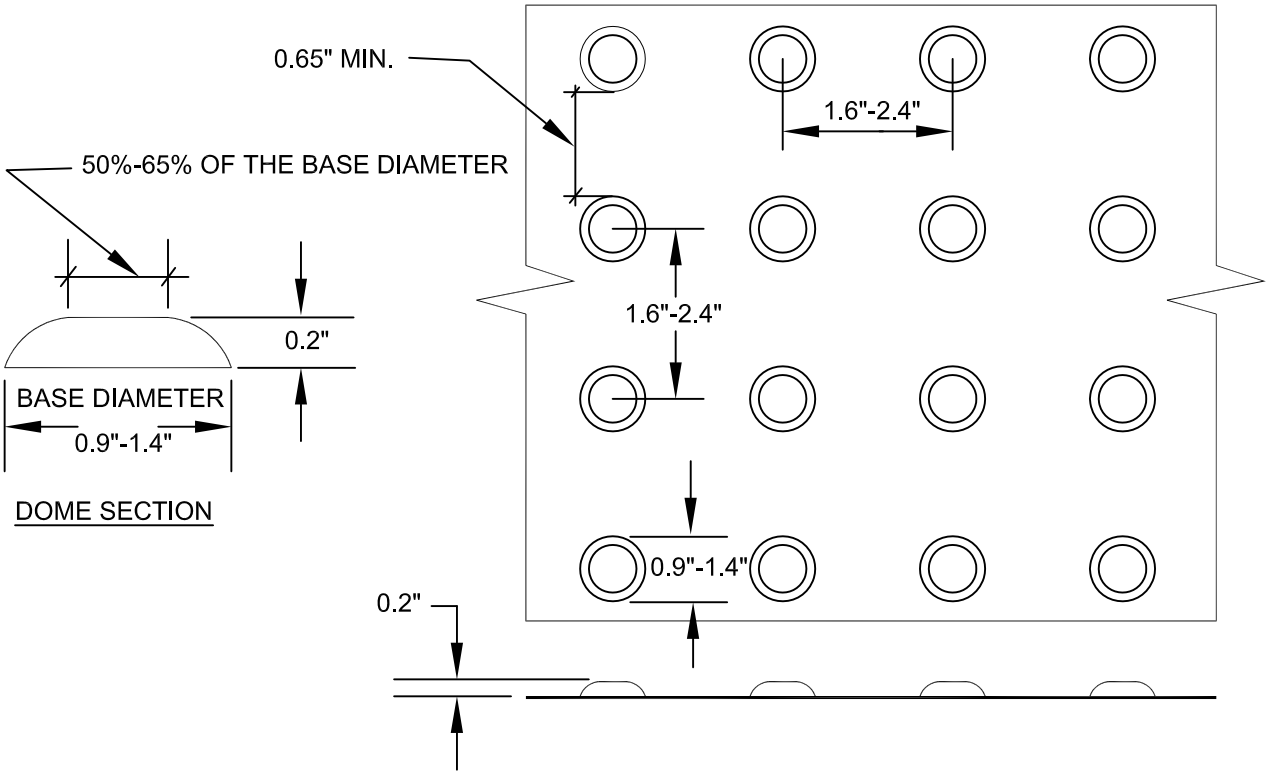
SPECIFICATION REFERENCE	
302	AGGREGATE BASE
501	CONCRETE
502	CONCRETE STRUCTURES

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

SIDEWALK RAMP
CASE III

DATE 11-10-04	DWG. NO. 235 (3 OF 4)	PAGE 41B

Effective 01/01/09 - 06/30/09



DETECTABLE WARNING DETAILS (TRUNCATED DOMES)

GRADE (%) "B" TO "A"	"A" (FT) MIN.	"B" (FT) MIN.
-6 TO -5.01	4.5	21.5
-5 TO -4.01	4.5	15.0
-4 TO -3.01	4.5	12.0
-3 TO -2.01	4.5	9.5
-2 TO 2	8.0	8.0
2.01 TO 3	9.5	4.5
3.01 TO 4	12.0	4.5
4.01 TO 5	15.0	4.5
5.01 TO 6	21.5	4.5

TABLE 1. TRANSITION LENGTHS FOR 1:12 SIDE SLOPES

GRADE (%) "B" TO "A"	"A" (FT) MIN.	"B" (FT) MIN.
-6 TO -5.01	4.0	12.5
-5 TO -4.01	4.0	10.0
-4 TO -3.01	4.0	8.5
-3 TO -2.01	4.0	7.5
-2 TO 2	6.5	6.5
2.01 TO 3	7.5	4.0
3.01 TO 4	8.5	4.0
4.01 TO 5	10.0	4.0
5.01 TO 6	12.5	4.0

TABLE 2. TRANSITION LENGTHS FOR 1:10 SIDE SLOPES

NOTE:

CHARTS APPLY TO CURB WITH 6" CURB FACE.
IF CURB HAS GREATER THAN A 6" CURB FACE,
A SPECIAL DESIGN IS REQUIRED.

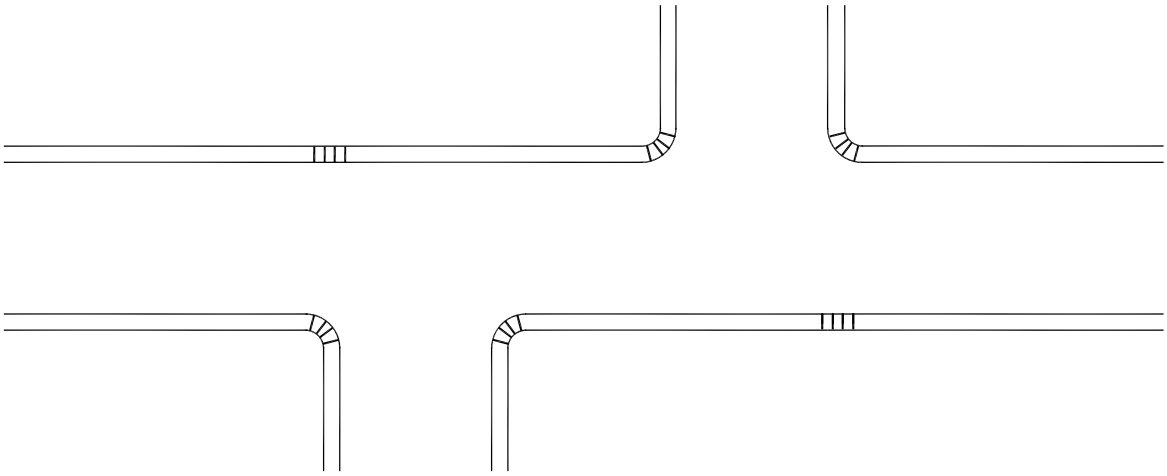
SPECIFICATION REFERENCE	
302	AGGREGATE BASE
501	CONCRETE
502	CONCRETE STRUCTURES

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

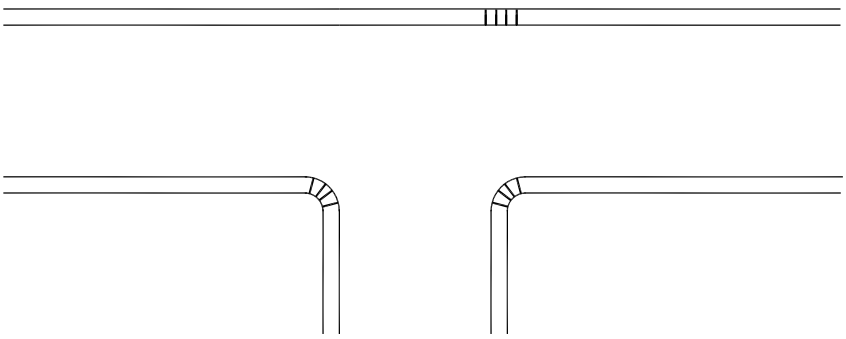
SIDEWALK RAMP DETAILS

DATE 6-8-06	DWG. NO. 235 (4 OF 4)	PAGE 41C

Effective 01/01/09 - 06/30/09



OFFSET "T"



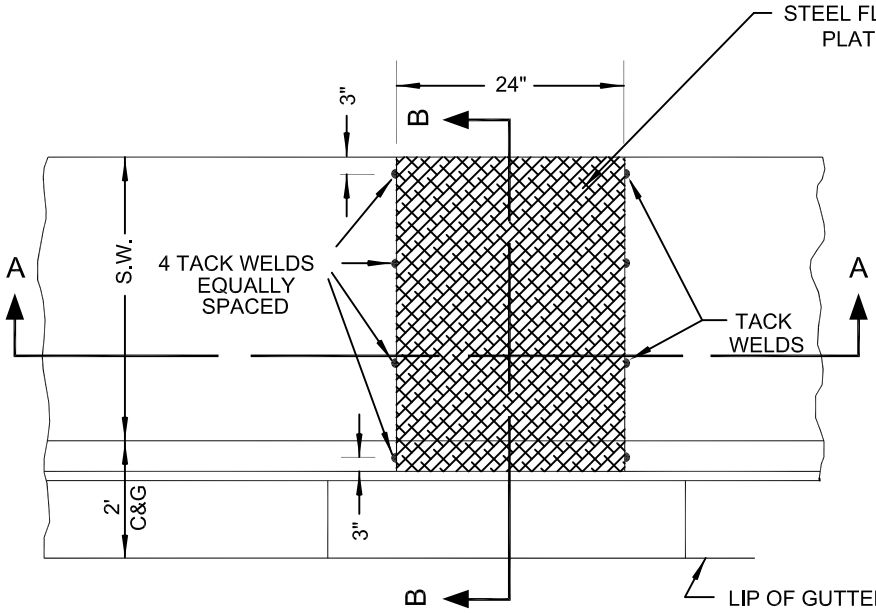
ISOLATED "T"

NOTES:

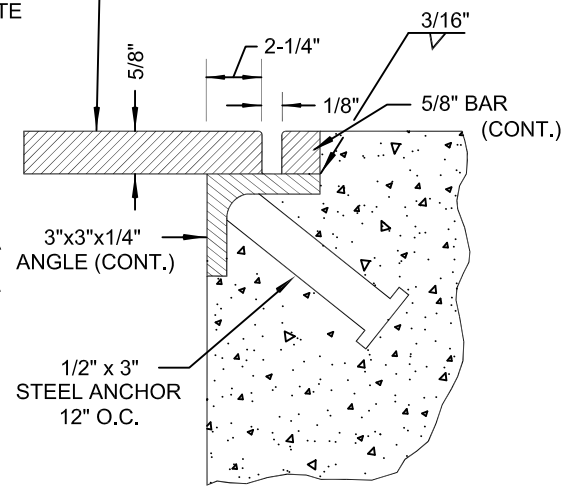
1. THE TYPICAL LOCATIONS OF SIDEWALK RAMPS SHOWN ABOVE ARE INTENDED TO MEET THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA). AT LEAST ONE SIDEWALK RAMP SHALL BE CONSTRUCTED OPPOSITE THE INTERSECTING ROADWAY. ADDITIONAL SIDEWALK RAMPS MAY BE REQUIRED BY THE ENGINEER TO PROVIDE A CONTINUOUS UNOBSTRUCTED PEDESTRIAN CIRCULATION PATH AS DEFINED BY THE ADA.
2. SIDEWALK RAMP LOCATIONS SHOWN ARE FOR INTERSECTIONS WITH UNMARKED CROSSWALKS. IF A PEDESTRIAN CROSSING AREA IS MARKED, SIDEWALK RAMPS SHALL BE LOCATED WITHIN THE MARKED CROSSWALKS AS APPROVED BY THE ENGINEER.

Effective 01/01/09 - 06/30/09

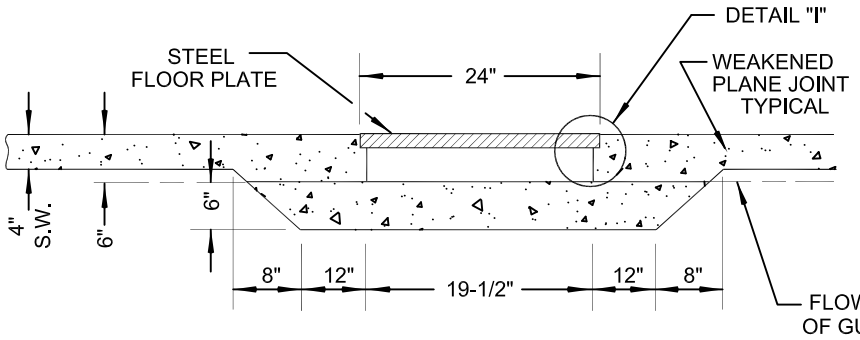
SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		SIDEWALK RAMP LOCATION "T" INTERSECTIONS		
		DATE 6-13-96	DWG. NO. 235.1	PAGE 41.1



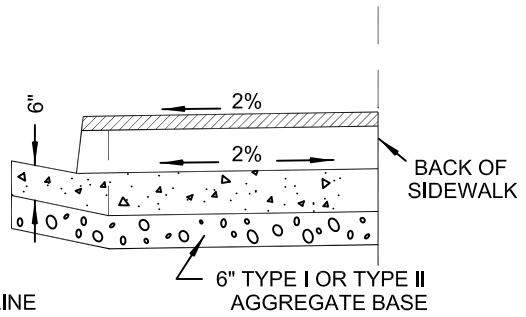
PLAN



DETAIL "I"



SECTION A-A



SECTION B-B

NOTES:

1. IF WIDTH OF PLATE IS GREATER THAN 24", A SPECIAL DESIGN IS REQUIRED.
2. ALL EXPOSED METAL PARTS SHALL BE GALVANIZED AND ALL GALVANIZING DAMAGED BY FABRICATION OR INSTALLATION SHALL RECEIVE TWO COATS OF ALUMINUM PAINT (GALVONOX OR EQUAL).

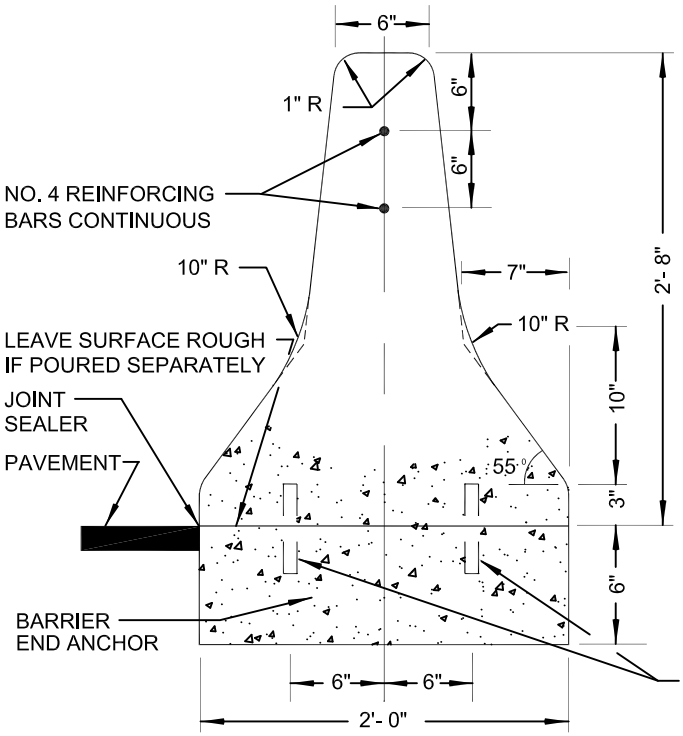
SPECIFICATION REFERENCE	
302	BASE AGGREGATES
501	CONCRETE
710	STRUCTURAL STEEL

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

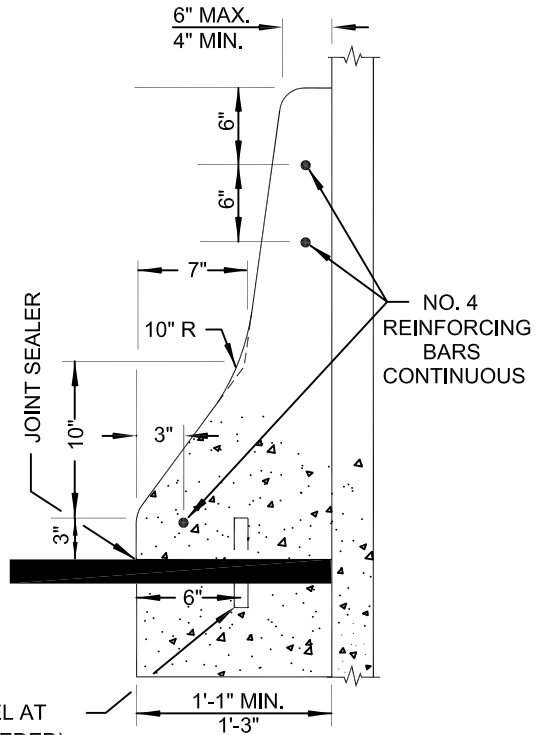
SIDEWALK DRAIN

DATE	DWG. NO. 236	PAGE NO. 42

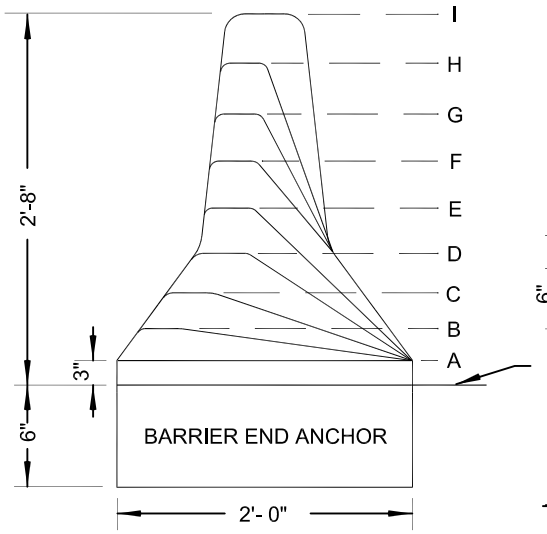
Effective 01/01/09 - 06/30/09



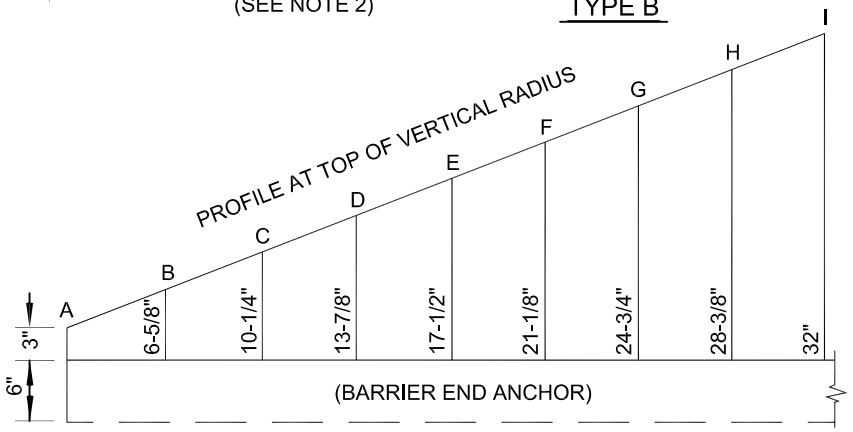
TYPE A



TYPE B



TRANSITION DETAIL



TRANSITION OF END OF BARRIER

TO BE USED ONLY IF END IS FLARED

CONCRETE BARRIER RAIL
FLARE RATES

OPERATING SPEED	FLARE RATE
60	17:1 MAX
50	14:1
40	11:1

NOTES:

1. TRANSVERSE JOINTS WITH 1" PREMOLDED EXPANSION JOINT FILLER OR 1" OPEN TRANSVERSE JOINTS SHALL BE PLACED AT STRUCTURES. JOINTS IN BARRIER RAIL OVER A STRUCTURE SHALL BE AT THE SAME LOCATION AND OF THE SAME DIMENSION AS THOSE IN THE STRUCTURE.
2. BITUMINOUS PAVING REQUIRED: PAVING SHALL BUTT AGAINST THE BARRIER RAIL END ANCHOR SECTION AND SHALL EXTEND FULL WIDTH UNDER THE NORMAL BARRIER RAIL SECTION PLUS 6" MINIMUM 6-INCH DEEP BARRIER. END ANCHORS SHALL BE CONSTRUCTED IN THE FIRST AND LAST 10 LINEAR FEET OF THE FULL HEIGHT BARRIER RAIL RUN. IF TRANSITIONS ARE USED, THE ANCHOR SHALL BE EXTENDED UNDER THE TRANSITION.

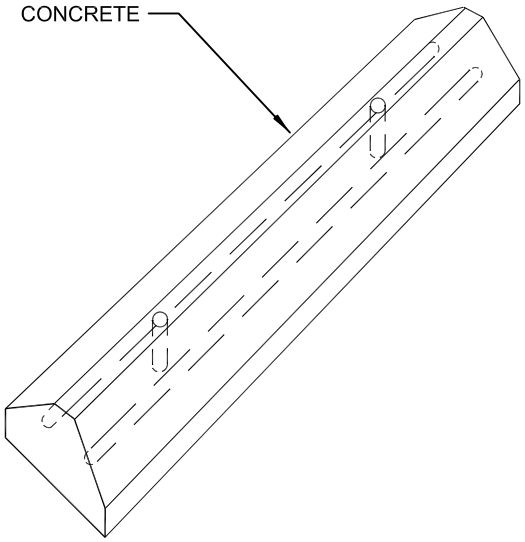
SPECIFICATION REFERENCE	
501	CONCRETE
502	CONCRETE STRUCTURES

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

CONCRETE BARRIER RAIL

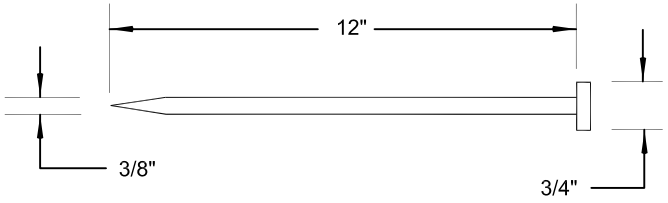
DATE 12-14-00	DWG. NO. 237	PAGE NO. 43

Effective 01/01/09 - 06/30/09

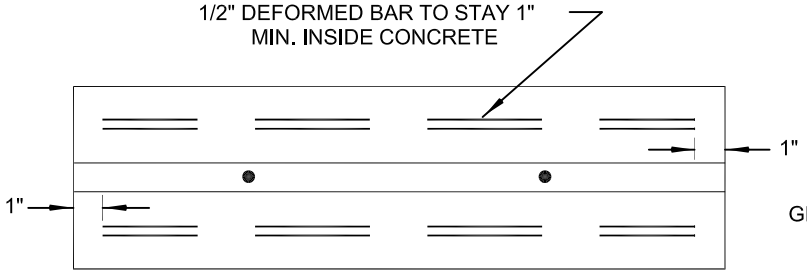


NOTES:

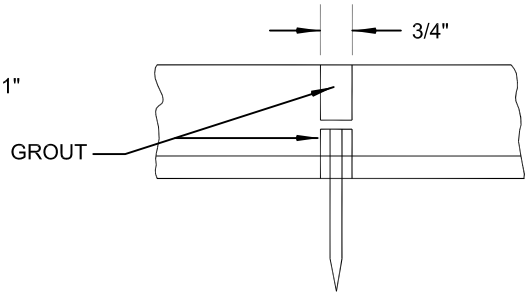
1. PRECAST BUMPER BLOCK TO BE USED IN PARKING LOTS ONLY.
2. GROUT HOLE BEFORE DRIVING SPIKE. AFTER DRIVING SPIKE, FILL HOLE WITH CONCRETE MORTAR AND FINISH FLUSH WITH TOP.



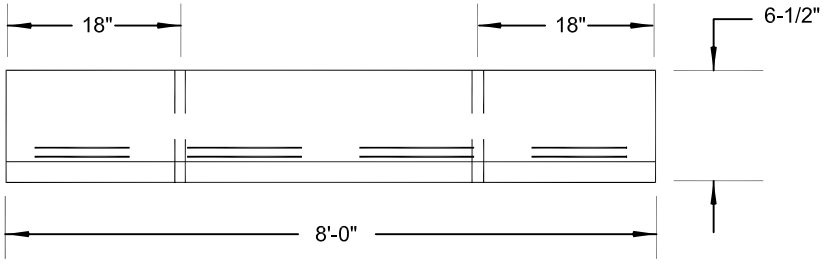
STEEL WIRE BRIDGE SPIKE



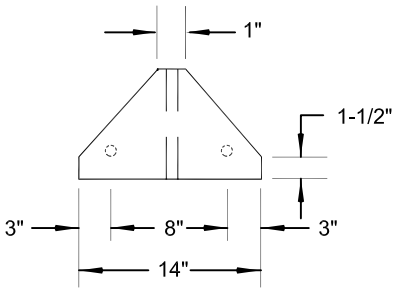
TOP VIEW



HOLE DETAIL



SIDE VIEW



END VIEW

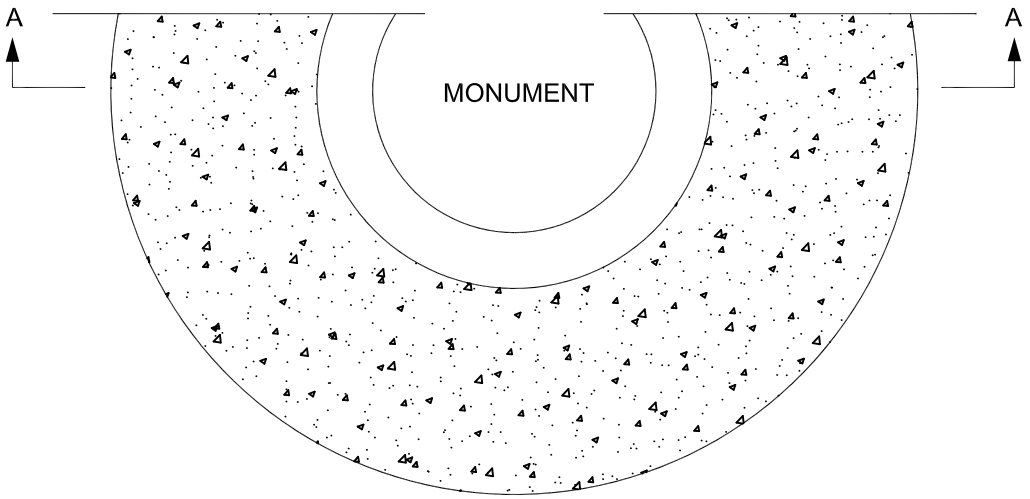
SPECIFICATION REFERENCE	
501	CONCRETE
505	REINFORCING STEEL

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

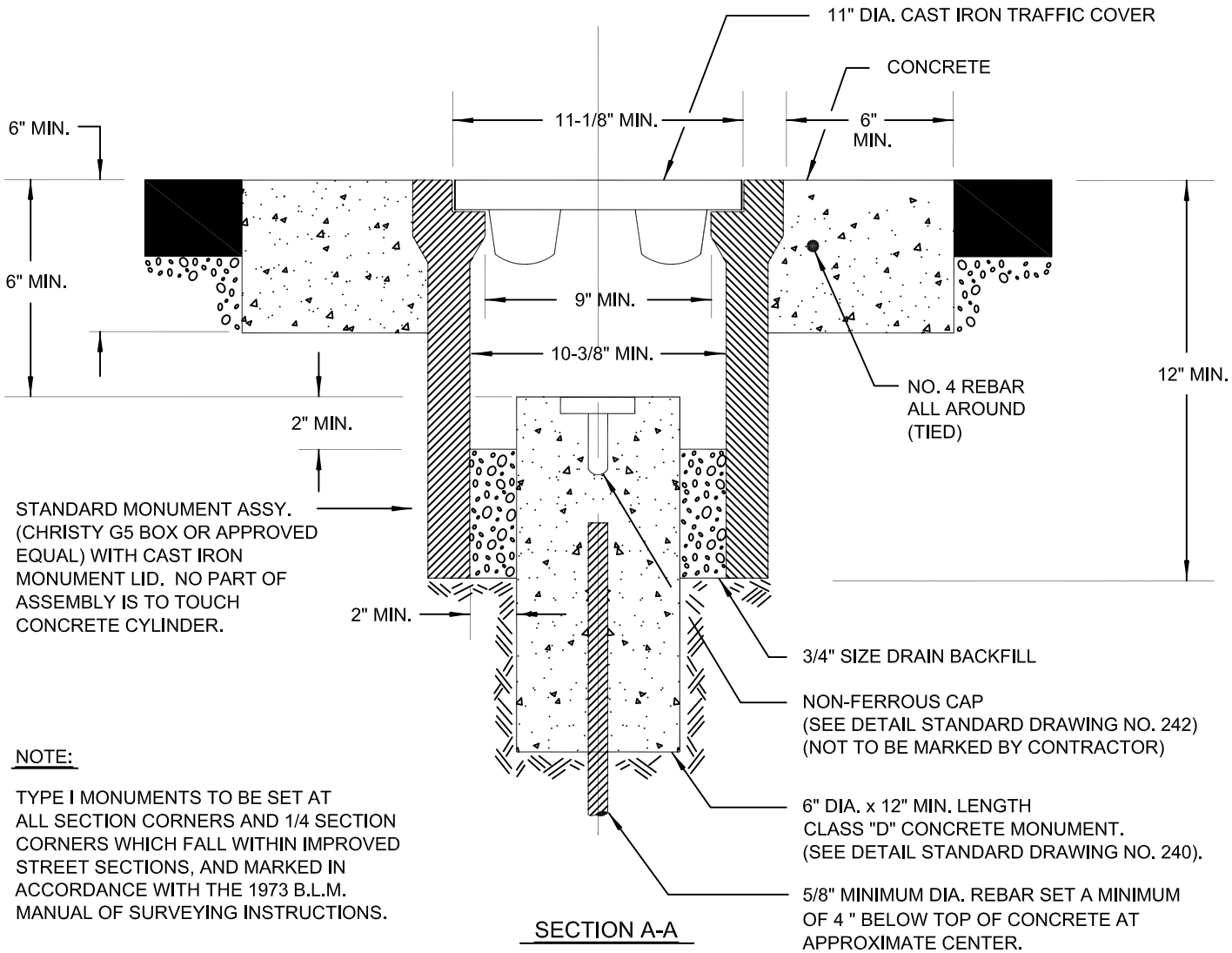
PRECAST BUMPER BLOCK

DATE 12-14-00	DWG. NO. 238	PAGE NO. 44

Effective 01/01/09 - 06/30/09



PLAN



SECTION A-A

NOTE:

TYPE I MONUMENTS TO BE SET AT ALL SECTION CORNERS AND 1/4 SECTION CORNERS WHICH FALL WITHIN IMPROVED STREET SECTIONS, AND MARKED IN ACCORDANCE WITH THE 1973 B.L.M. MANUAL OF SURVEYING INSTRUCTIONS.

SPECIFICATION REFERENCE	
501	CONCRETE
621	MONUMENTS
704	BASE AGGREGATE

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

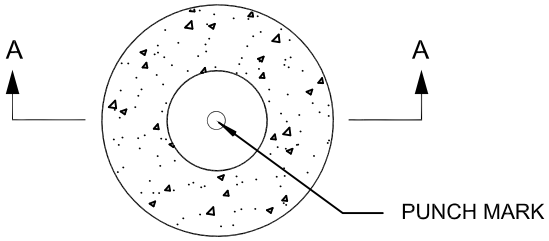
TYPE I MONUMENT

DATE 12-14-00	DWG. NO. 239	PAGE NO. 45

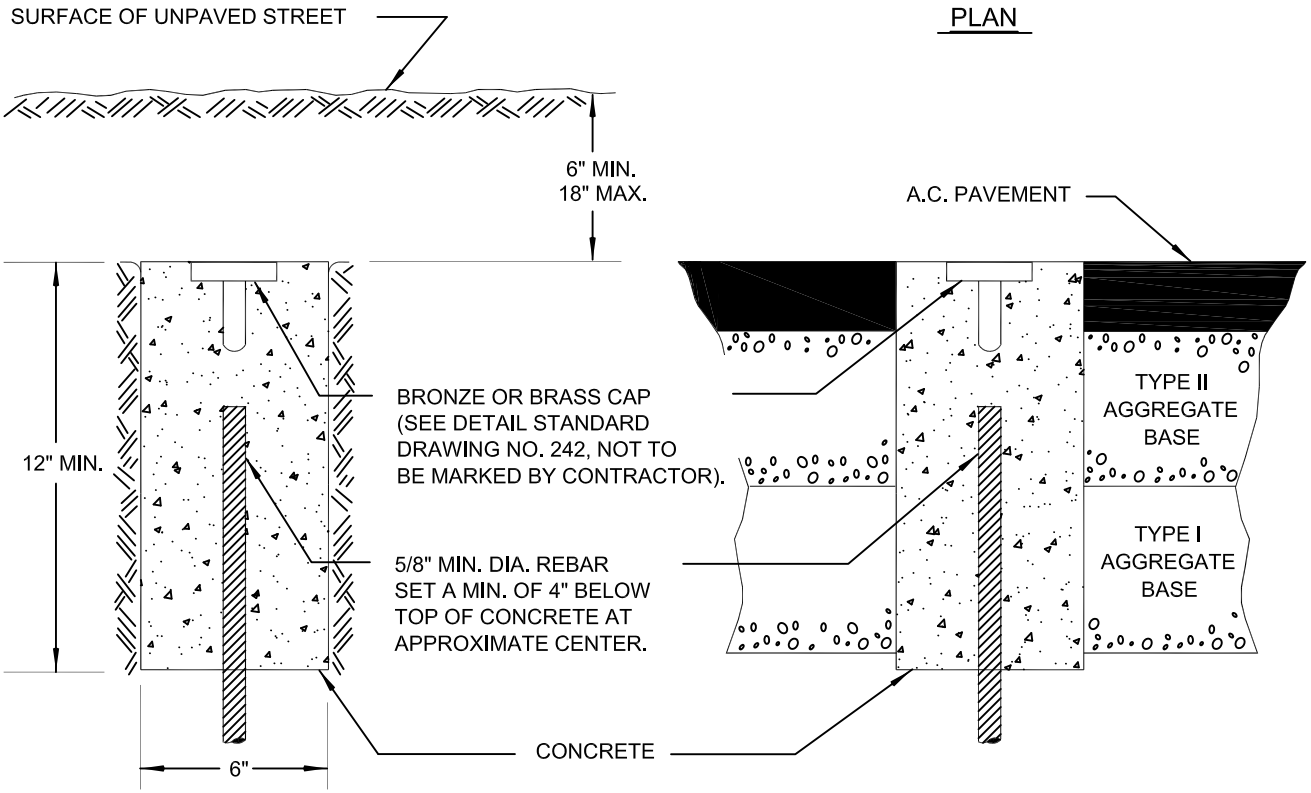
Effective 01/01/09 - 06/30/09

NOTES:

1. TYPE II-A MONUMENTS TO BE SET AT ALL SECTION CORNERS, 1/4 SECTION CORNERS AND 1/16 SECTION CORNERS WHICH FALL WITHIN UNIMPROVED STREET SECTIONS.
2. TYPE II-B MONUMENTS TO BE SET AT ALL 1/16 SECTION CORNERS WHICH FALL WITHIN IMPROVED STREET SECTIONS.
3. ALL TYPE II MONUMENTS ARE TO BE MARKED IN ACCORDANCE WITH THE 1973 B.L.M. MANUAL OF SURVEYING INSTRUCTIONS.
4. 6" x 6" SQUARE MONUMENTS ARE ALSO ACCEPTABLE.
5. IF MONUMENTS ARE TO BE "PRECAST" THEY ARE TO BE EMBEDDED IN FRESH CONCRETE TO PREVENT MOVEMENT.
6. THE COUNTY/CITY SURVEYOR MAY REQUIRE TYPE II MONUMENTS IN ADDITIONAL LOCATIONS.



PLAN



SECTION A-A
TYPE II-A
UNPAVED STREET

SECTION A-A
TYPE II-B
PAVED STREET

SPECIFICATION REFERENCE	
501	CONCRETE
621	MONUMENTS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

TYPE II MONUMENT

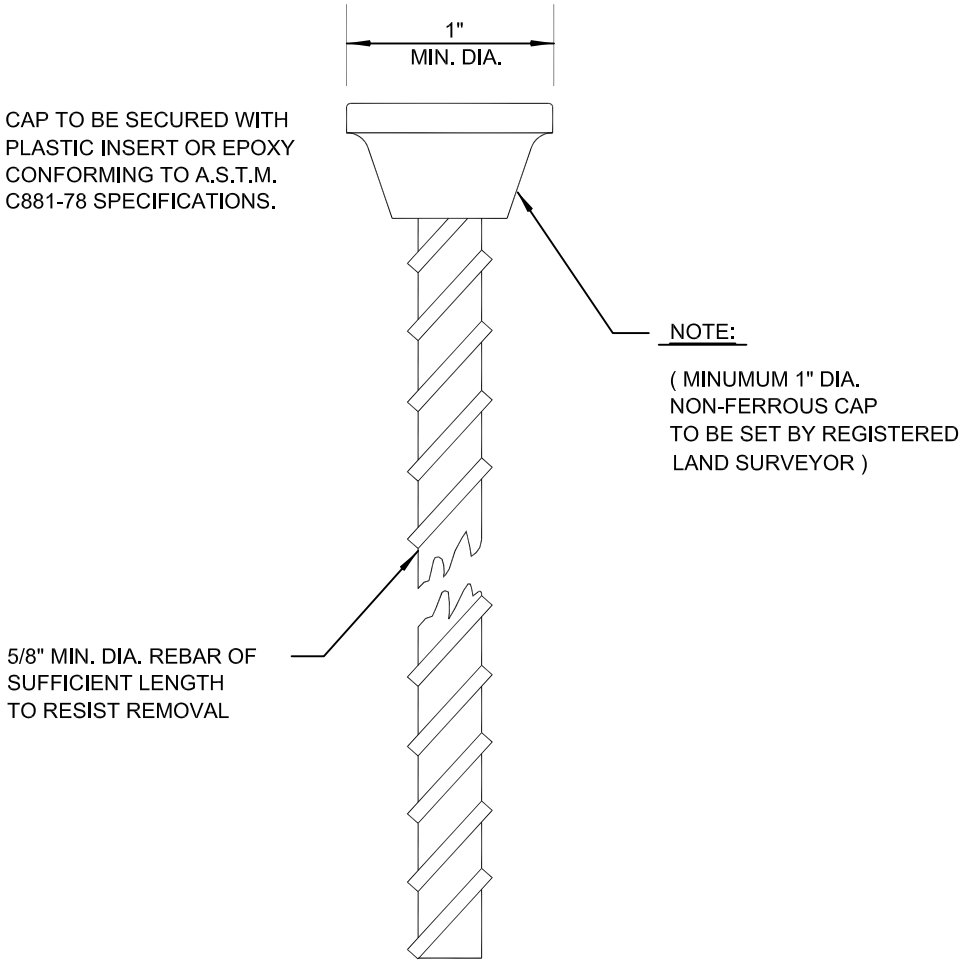
DATE 12-14-00	DWG. NO. 240	PAGE NO. 46

Effective 01/01/09 - 06/30/09

NOTES:

1. TYPE III MONUMENTS TO BE SET AT ALL CENTERLINE CONTROL POINTS NOT OTHERWISE IDENTIFIED BY A TYPE I OR TYPE II MONUMENT, INCLUDING STREET INTERSECTIONS, POINTS OF CURVATURE, POINTS OF TANGENCY, POINTS OF INTERSECTION AND CENTERS OF HAMMERHEAD TURNAROUNDS OR CIRCULAR CUL-DE-SACS.

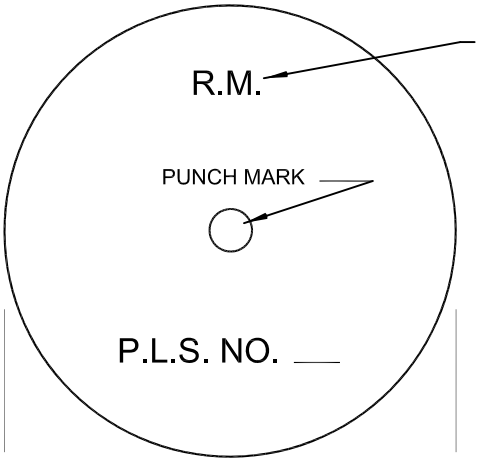
2. THE REGISTERED LAND SURVEYOR'S NUMBER, AND A PUNCH MARK ARE TO APPEAR ON THE SURFACE OF THE CAP.



TYPE III MONUMENT

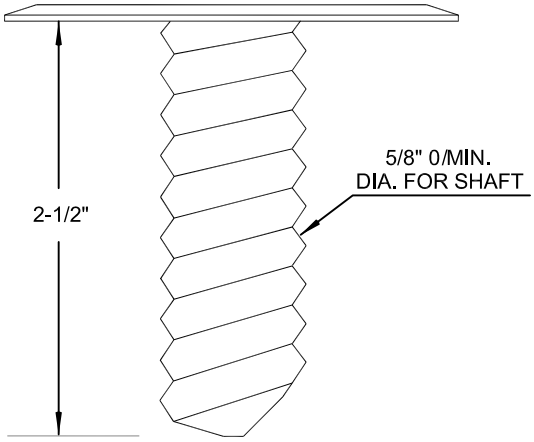
SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
621	MONUMENTS			
		TYPE III MONUMENT		
		DATE	DWG. NO. 241	PAGE NO. 47

Effective 01/01/09 - 06/30/09

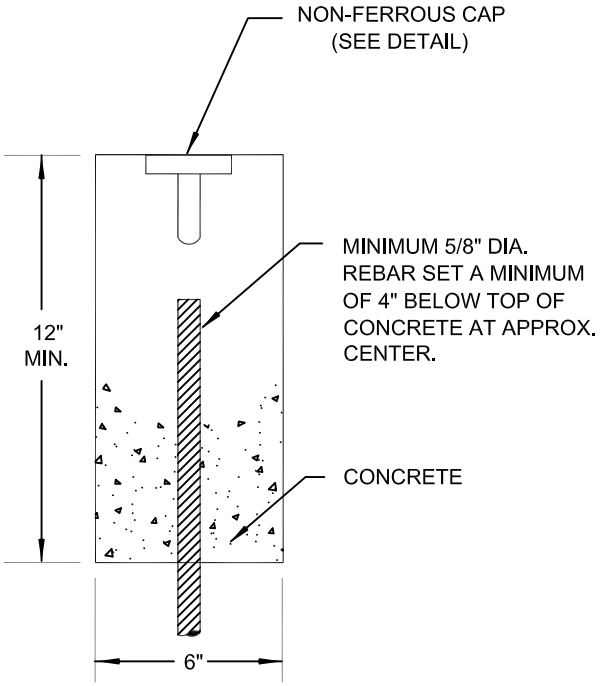


NOTES:

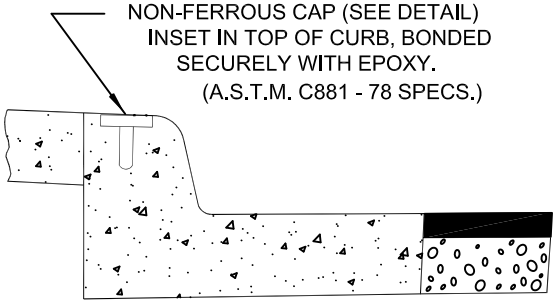
1. FOUR (4) TYPE IV REFERENCE MONUMENTS TO BE SET WITHIN A RADIUS OF TWENTY (20) TO ONE HUNDRED (100) FEET FROM ALL TYPE I, II, AND III MONUMENTS.
2. THE TIE DISTANCE AND THE INITIALS R.M. ARE TO BE STAMPED ON THE CAP, FOR TYPE IV MONUMENTS.
3. NON-FERROUS CAP TO BE MADE FROM CAST VIRGIN METAL IN ONE PIECE, FREE FROM CASTING IMPERFECTIONS, WITH CORRUGATED SHAFT.
4. TYPE III AND TYPE IV MONUMENT CAP DIAMETER MAY BE REDUCED TO 1".



DETAIL
STANDARD CAP



TYPE IV-B MONUMENT
NO CURB & GUTTER



TYPE IV-A MONUMENT
EXISTING CURB & GUTTER

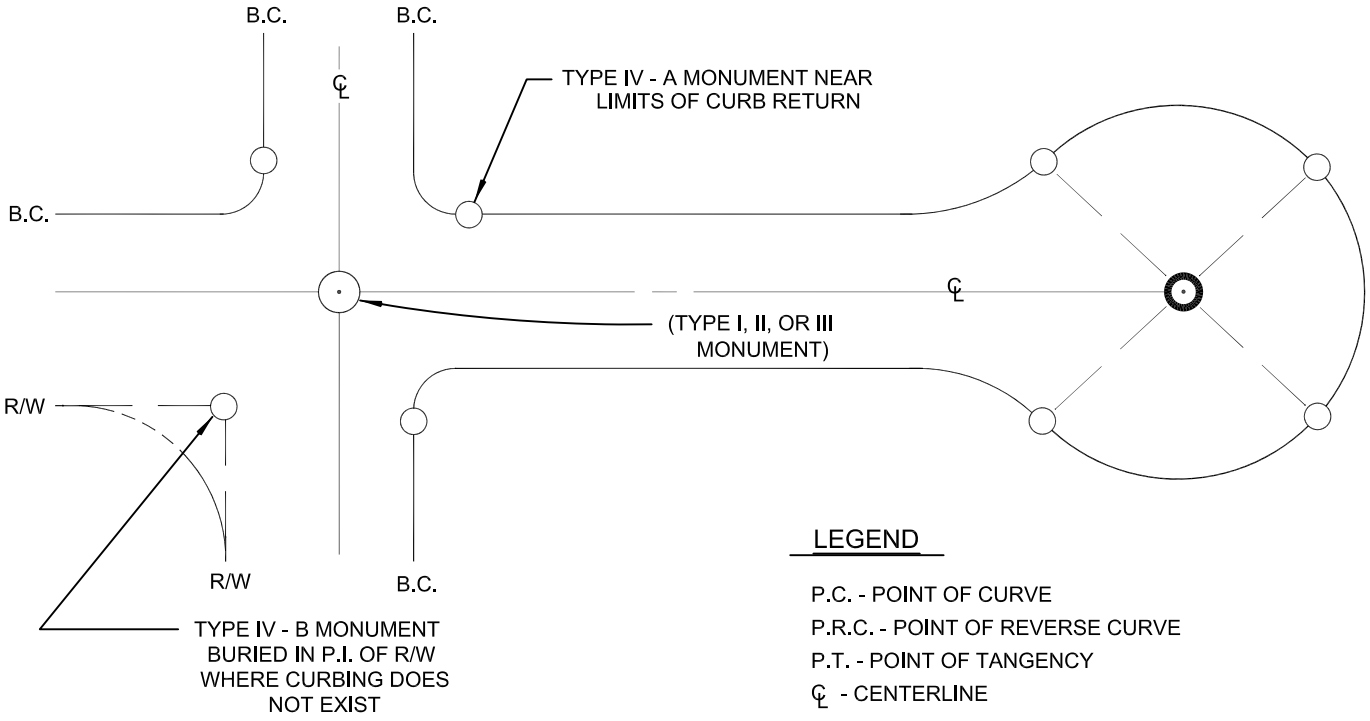
SPECIFICATION REFERENCE	
501	CONCRETE
621	MONUMENTS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

TYPE IV MONUMENT

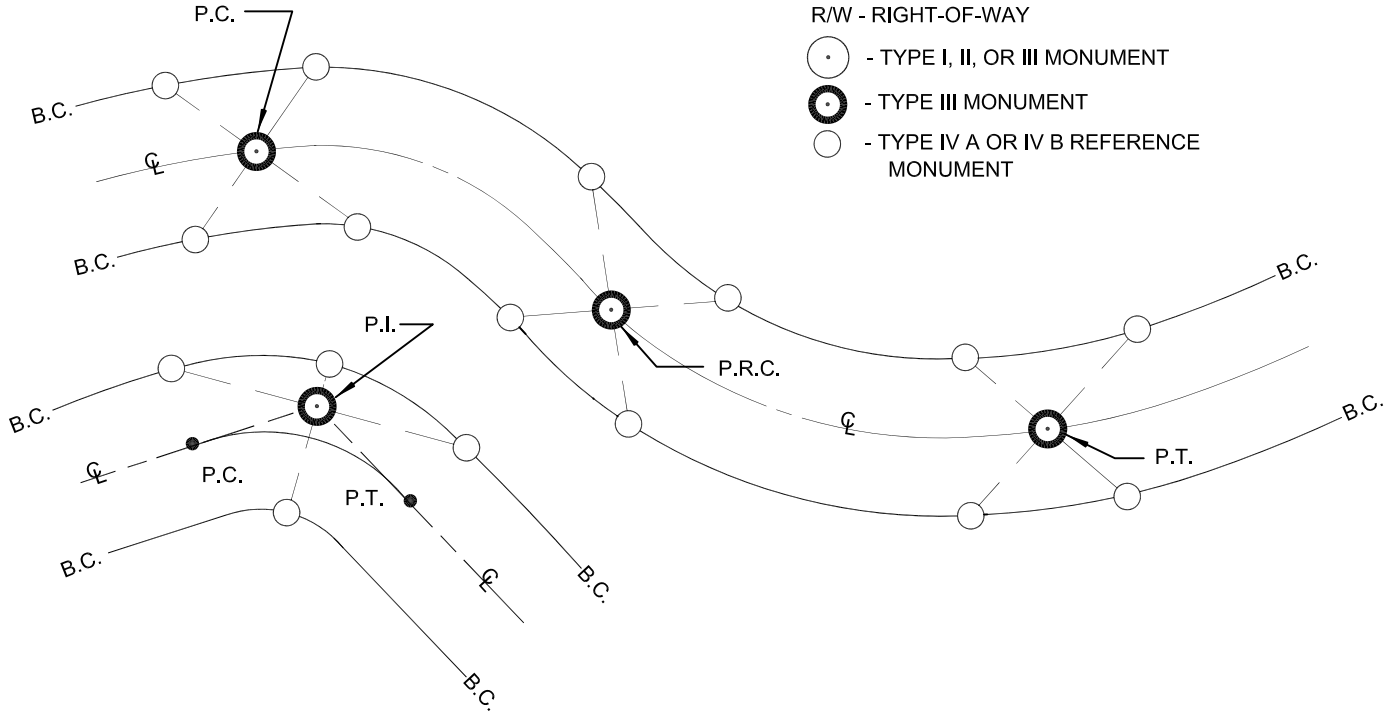
DATE 12-14-00	DWG. NO. 242	PAGE NO. 48

Effective 01/01/09 - 06/30/09



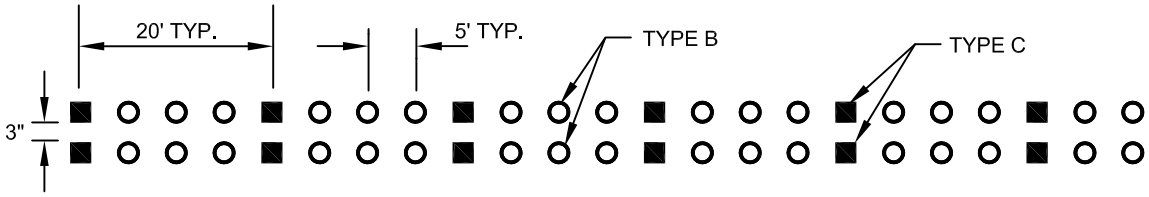
LEGEND

P.C. - POINT OF CURVE
P.R.C. - POINT OF REVERSE CURVE
P.T. - POINT OF TANGENCY
℄ - CENTERLINE
B.C. - BACK OF CURB
P.I. - POINT OF INTERSECTION
R/W - RIGHT-OF-WAY
- TYPE I, II, OR III MONUMENT
- TYPE III MONUMENT
- TYPE IV A OR IV B REFERENCE MONUMENT

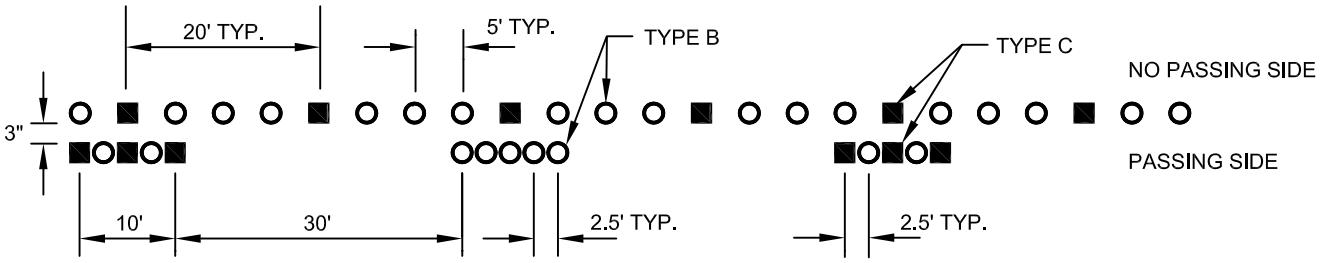


SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		TYPICAL MONUMENT LOCATION		
		DATE	DWG. NO. 243	PAGE NO. 49

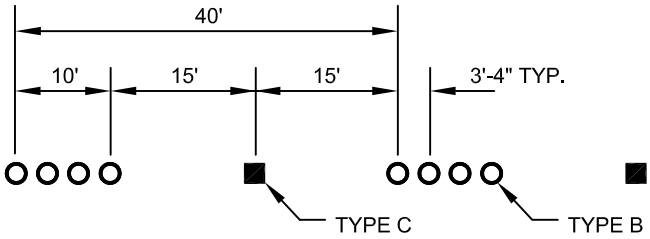
Effective 01/01/09 - 06/30/09



TYPE 1 CENTERLINE



TYPE 2 CENTERLINE



TYPE 3 CENTERLINE

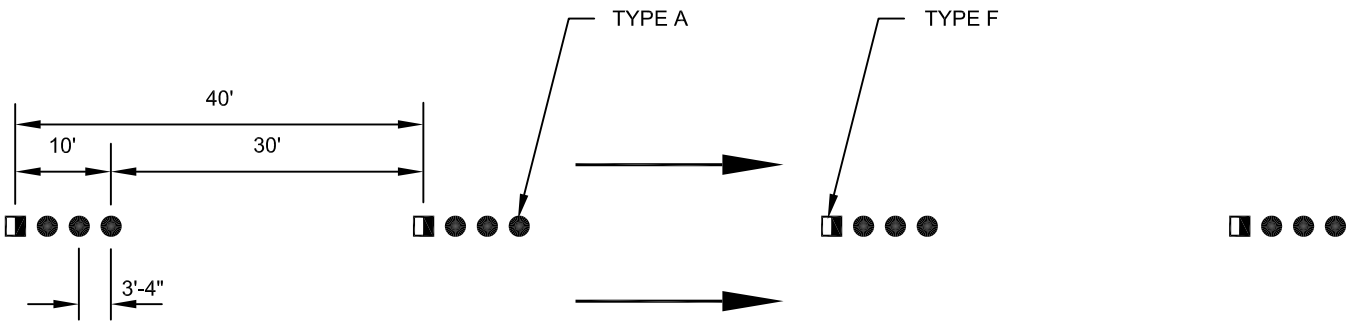
SPECIFICATION REFERENCE	
633	PAVEMENT MARKERS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

TYPICAL CENTERLINE DELINEATION

DATE 6-11-93	DWG. NO. 244	PAGE NO. 50

Effective 01/01/09 - 06/30/09



TYPE 4 LANE LINE

(DIVIDED, UNDIVIDED OR ONE-WAY ROADWAY)

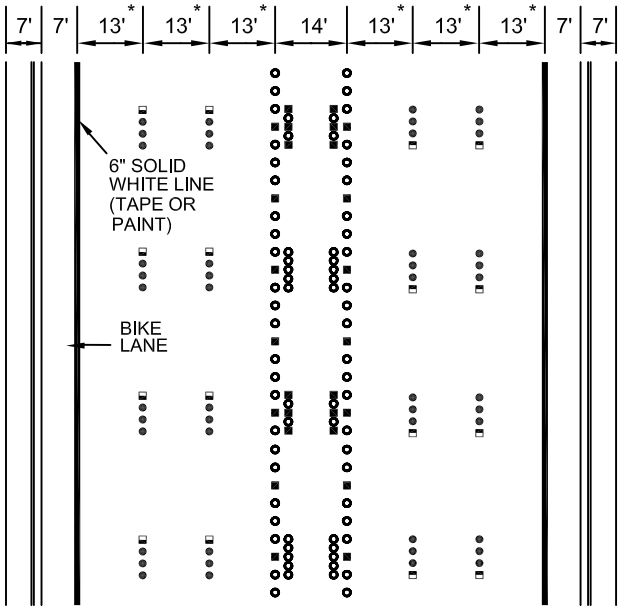
SPECIFICATION REFERENCE	
633	PAVEMENT MARKERS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

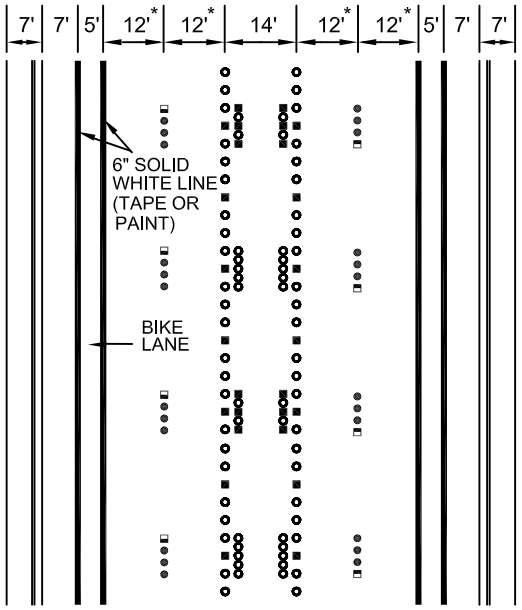
TYPICAL LANE LINE DELINEATION

DATE 4-8-99	DWG. NO. 244A	PAGE NO. 50A

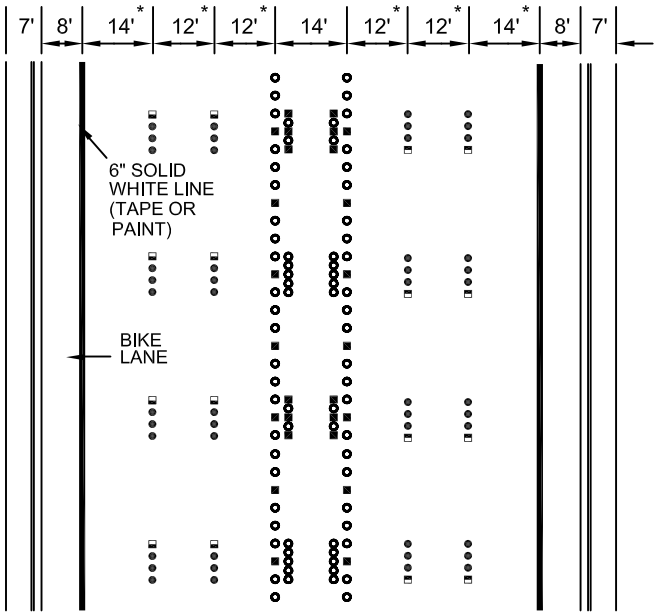
Effective 01/01/09 - 06/30/09



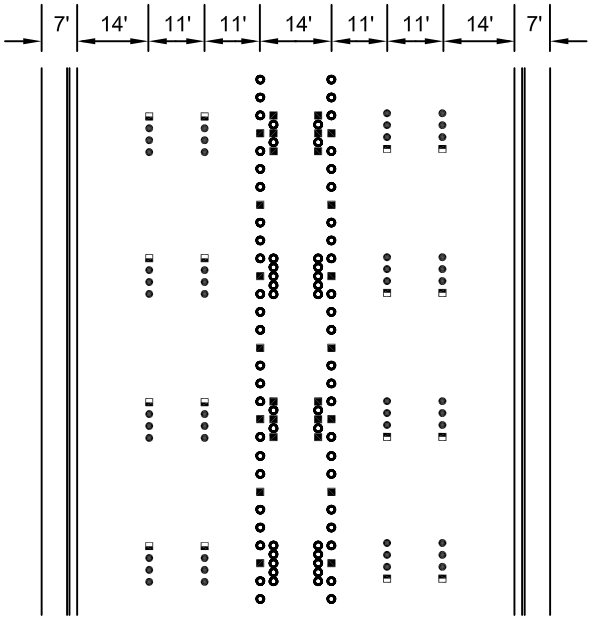
120 FT. STREET WITH BIKE LANE
(WITHOUT PARKING)



100 FT. STREET WITH BIKE LANE
(WITH PARKING/EMERGENCY LANE)



120 FT. STREET WITH BIKE LANE
(WITHOUT PARKING)



100 FT. STREET WITH SHARED
BIKE/VEHICLE LANE (WITHOUT PARKING)

* THE WIDTH OF TRAVEL LANES ADJACENT TO BIKE LANES MAY VARY FROM 12 FT. TO 16 FT. WIDTHS OF INTERIOR TRAVEL LANES MAY VARY FROM 11 FT. TO 13 FT.

NOTES:

1. LANE LINE DELINEATION SHALL COMPLY WITH STANDARD DRAWING NOS. 244 & 244A.
2. IN SOME CASES, A MEDIAN WILL EXIST INSTEAD OF TWO-WAY LEFT TURN LANE.
3. BIKE LANES MUST BE A MINIMUM OF 4 FT. AND NO GREATER THAN 8 FT. WIDE; HOWEVER, A WIDTH OF 5 FT. IS PREFERRED.
4. WHERE 6 FT. SIDEWALK EXISTS, WIDTH OF MEDIAN MAY BE REDUCED BY 2 FT. OR TRAVEL LANES MAY BE REDUCED TO 11 FT.
5. ALL CURB LANES ARE MEASURED TO LIP OF GUTTER OR EDGE OF PAVEMENT IF CURB AND GUTTER DO NOT EXIST.

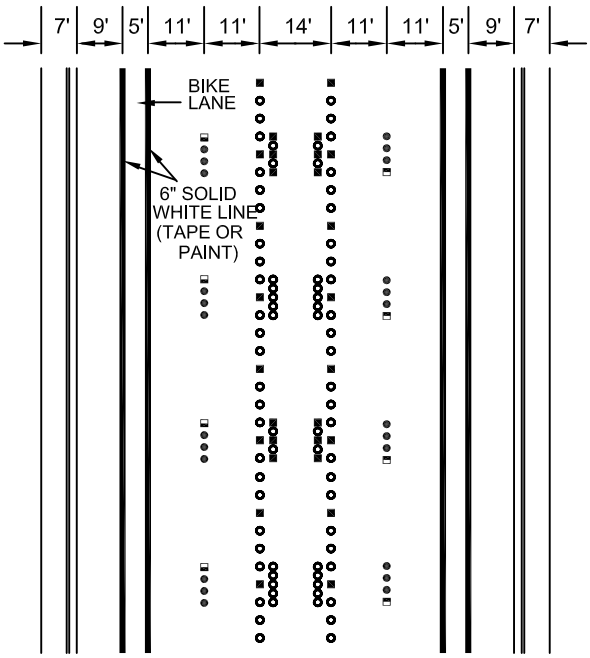
SPECIFICATION REFERENCE	
628	PAINTING TRAFFIC STRIPING
633	PAVEMENT MARKERS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

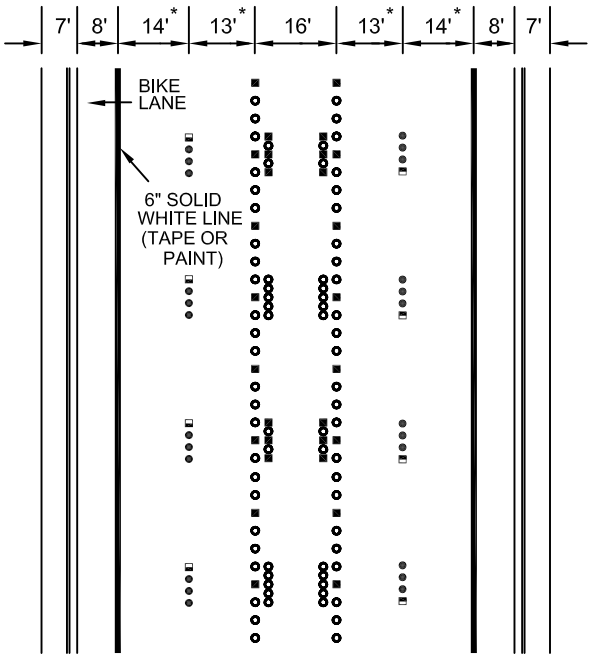
TYPICAL DELINEATION FOR ROADWAYS 100 FT. OR GREATER RIGHT-OF-WAY WITH CURBSIDE SIDEWALK

DATE 7-10-03	DWG. NO. 244.1	PAGE NO. 50.1

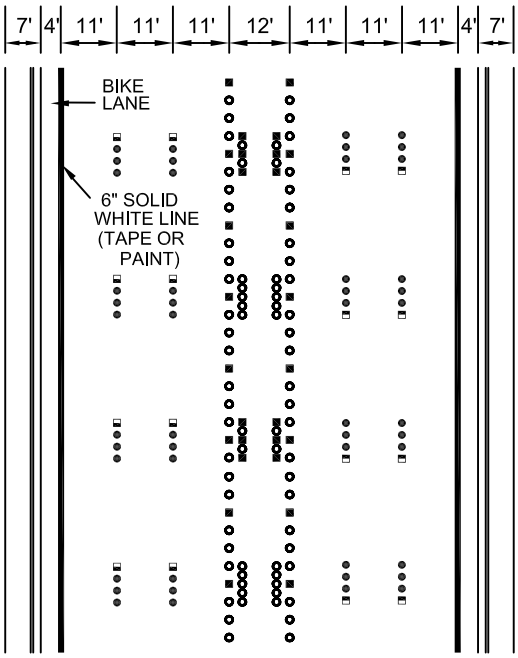
Effective 01/01/09 - 06/30/09



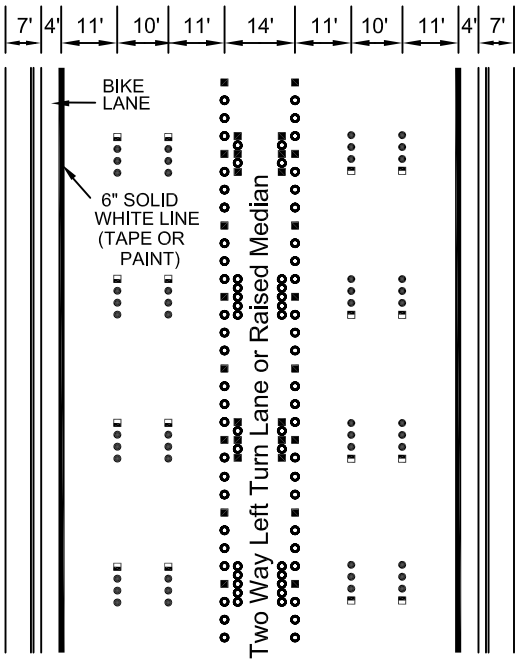
100 FT. STREET WITH BIKE LANE
(WITH PARKING/EMERGENCY LANE)



100 FT. STREET WITH BIKE LANE
(WITHOUT PARKING/EMERGENCY LANE)



100 FT. STREET WITH BIKE LANE
(WITHOUT PARKING/EMERGENCY LANE)



100 FT. STREET WITH BIKE LANE
(WITHOUT PARKING/EMERGENCY LANE)

NOTES:

1. LANE LINE DELINEATION SHALL COMPLY WITH STANDARD DRAWING NOS. 244 & 244A.
2. IN SOME CASES, A MEDIAN WILL EXIST INSTEAD OF TWO-WAY LEFT TURN LANE.
3. BIKE LANES MUST BE A MINIMUM OF 4 FT. AND NO GREATER THAN 8 FT. WIDE; HOWEVER, A WIDTH OF 5 FT. IS PREFERRED.
4. WHERE 6 FT. SIDEWALK EXISTS, WIDTH OF MEDIAN MAY BE REDUCED BY 2 FT. OR TRAVEL LANES MAY BE REDUCED TO 11 FT.
5. ALL CURB LANES ARE MEASURED TO LIP OF GUTTER OR EDGE OF PAVEMENT IF CURB AND GUTTER DO NOT EXIST.

* THE WIDTH OF TRAVEL LANES ADJACENT TO BIKE LANES MAY VARY FROM 12 FT. TO 16 FT. WIDTHS OF INTERIOR TRAVEL LANES MAY VARY FROM 11 FT. TO 13 FT.

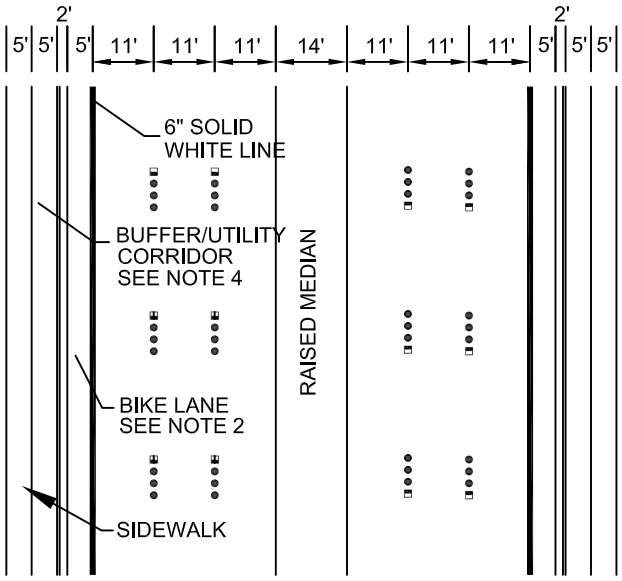
SPECIFICATION REFERENCE	
628	PAINTING TRAFFIC STRIPING
401	PAVEMENT MARKERS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

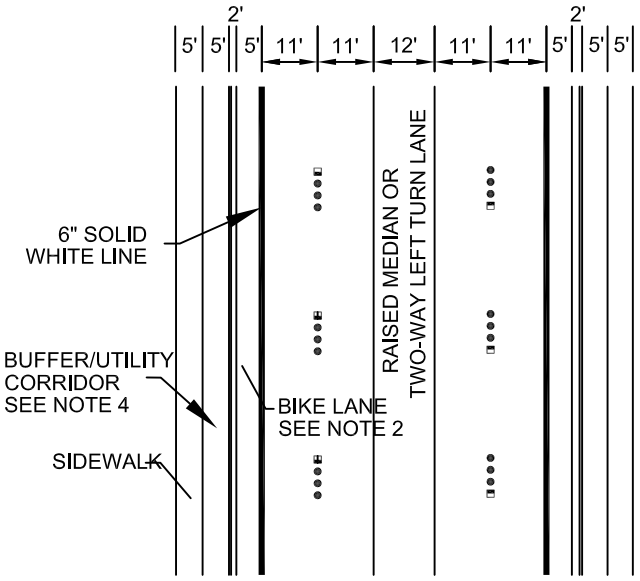
TYPICAL DELINEATION FOR ROADWAYS 100 FT. RIGHT-OF-WAY WITH CURBSIDE SIDEWALK

DATE 3-9-06	DWG. NO. 244.1A	PAGE NO. 50.1A

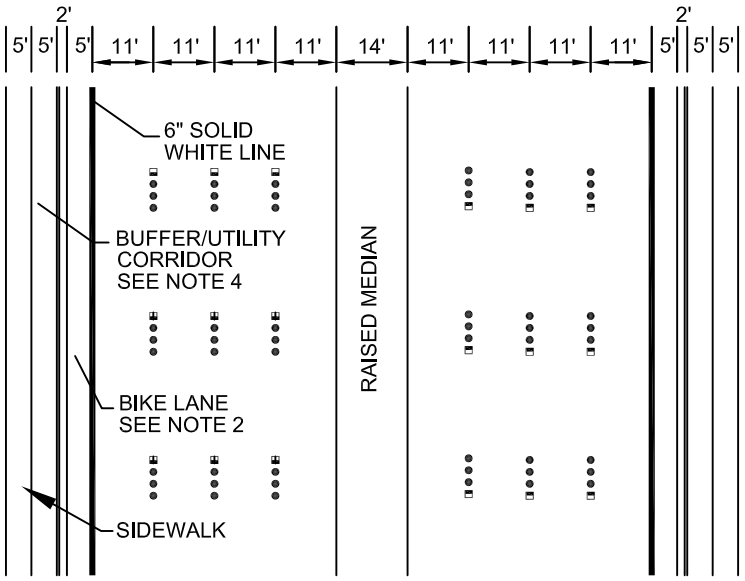
Effective 01/01/09 - 06/30/09



114 FT. STREET



90 FT. STREET



136 FT. STREET

NOTES:

1. LANE LINE DELINEATION SHALL COMPLY WITH STANDARD DRAWING NO. 244 & 244A.
2. BIKE LANES TO BE PROVIDED IF SEGMENT CONNECTS TO OTHER BIKE LANES OR IF ROADWAY SEGMENT IS 1 MILE OR GREATER. IF BIKE LANE IS NOT PROVIDED, TRAVEL LANES SHOULD REMAIN AT DIMENSIONS SHOWN SO A BICYCLE LANE COULD BE PROVIDED IN THE FUTURE. SEE DRAWING NUMBER 246.1 FOR BIKE LANE SIGNING AND STRIPING DETAILS.
3. ALL CURB LANES ARE MEASURED TO LIP OF GUTTER OR EDGE OF PAVEMENT IF CURB AND GUTTER DO NOT EXIST.
4. CONTACT THE LOCAL JURISDICTIONAL FOR DEVELOPMENT REQUIREMENTS FOR THE AREA BETWEEN THE CURB AND SIDEWALK.

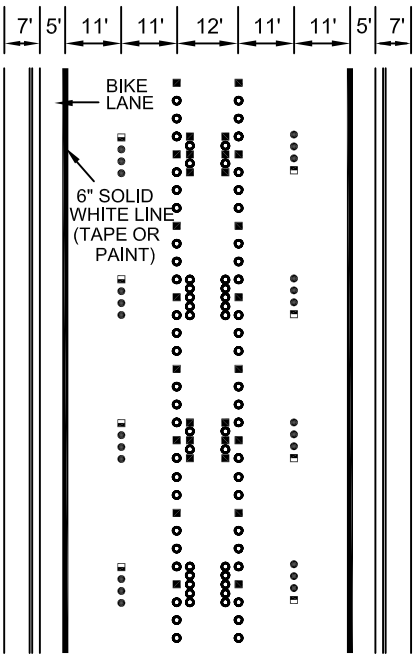
SPECIFICATION REFERENCE	
628	PAINTING TRAFFIC STRIPING
633	PAVEMENT MARKERS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

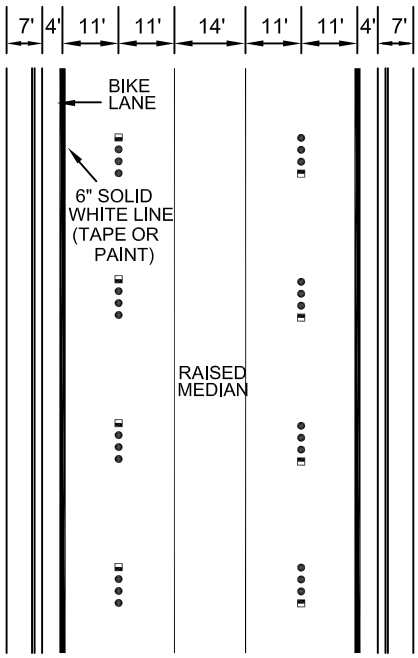
TYPICAL DELINEATION FOR ALTERNATE ROADWAYS WITH OFFSET SIDEWALK

DATE	DWG. NO.	PAGE NO.
7-10-03	244.1 ALT	50.1ALT

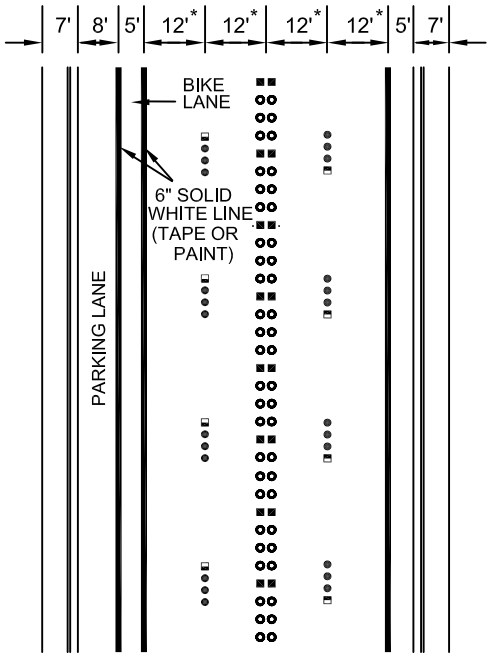
Effective 01/01/09 - 06/30/09



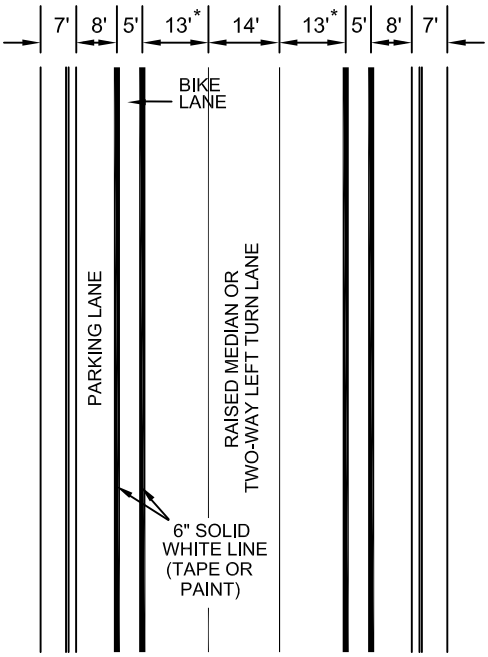
80 FT. STREET WITH BIKE LANE
(WITHOUT PARKING/EMERGENCY LANE)



80 FT. STREET WITH BIKE LANE
(WITHOUT PARKING/EMERGENCY LANE)



80 FT. STREET WITH BIKE LANE
(WITH PARKING ON ONE SIDE)



80 FT. STREET WITH BIKE LANE
(WITH PARKING ON BOTH SIDES)

* THE WIDTH OF TRAVEL LANE MAY VARY FROM 11 FT. TO 13 FT.

NOTES:

1. LANE LINE DELINEATION SHALL COMPLY WITH STANDARD DRAWING NOS. 244 & 244A.
2. BIKE LANES MUST BE A MINIMUM OF 4 FT. AND NO GREATER THAN 8 FT. WIDE; HOWEVER, A WIDTH OF 5 FT. IS PREFERRED.
3. WHERE 6 FT. SIDEWALK EXISTS, WIDTH OF MEDIAN MAY BE REDUCED BY 2 FT. OR TRAVEL LANES MAY BE REDUCED TO 11 FT.
4. ALL CURB LANES ARE MEASURED TO LIP OF GUTTER OR EDGE OF PAVEMENT IF CURB AND GUTTER DO NOT EXIST.

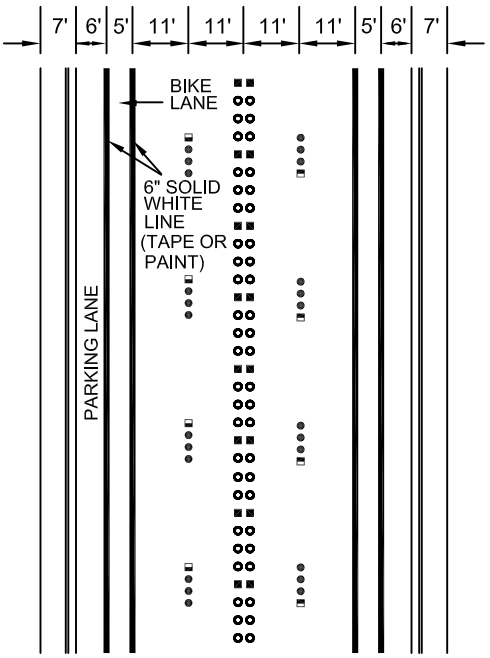
SPECIFICATION REFERENCE	
628	PAINTING TRAFFIC STRIPING
633	PAVEMENT MARKERS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

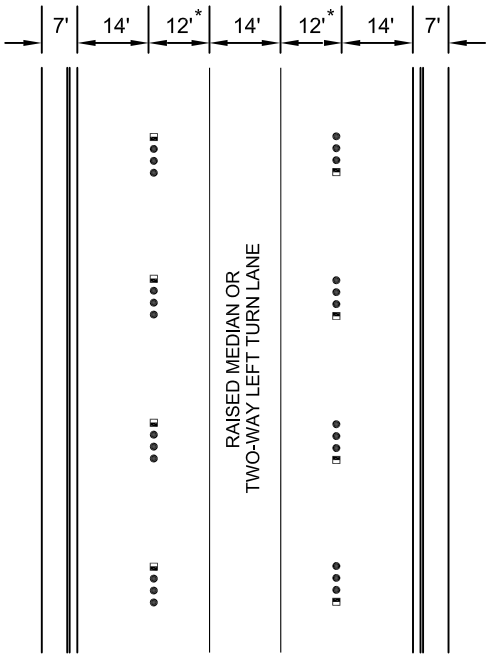
TYPICAL DELINEATION FOR ROADWAYS 80 FT. RIGHT-OF-WAY WITH CURBSIDE SIDEWALK

DATE 7-10-03	DWG. NO. 244.2	PAGE NO. 50.2

Effective 01/01/09 - 06/30/09



80 FT. STREET WITH BIKE LANE
(WITH PARKING ON BOTH SIDES)



* WIDTH OF TRAVEL LANE MAY VARY FROM 11 FT. TO 12 FT.

80 FT. STREET WITH SHARED BIKE/VEHICLE LANE
(WITHOUT PARKING/EMERGENCY LANE)

NOTES:

1. LANE LINE DELINEATION SHALL COMPLY WITH STANDARD DRAWING NO. 244 & 244A.
2. BIKE LANES MUST BE A MINIMUM OF 4 FT. AND NO GREATER THAN 8 FT. WIDE; HOWEVER, A WIDTH OF 5 FT. IS PREFERRED.
3. WHERE 6 FT. SIDEWALK EXISTS, WIDTH OF MEDIAN MAY BE REDUCED BY 2 FT. OR TRAVEL LANES MAY BE REDUCED TO 11 FT.
4. ALL CURB LANES ARE MEASURED TO LIP OF GUTTER OR EDGE OF PAVEMENT IF CURB AND GUTTER DO NOT EXIST.

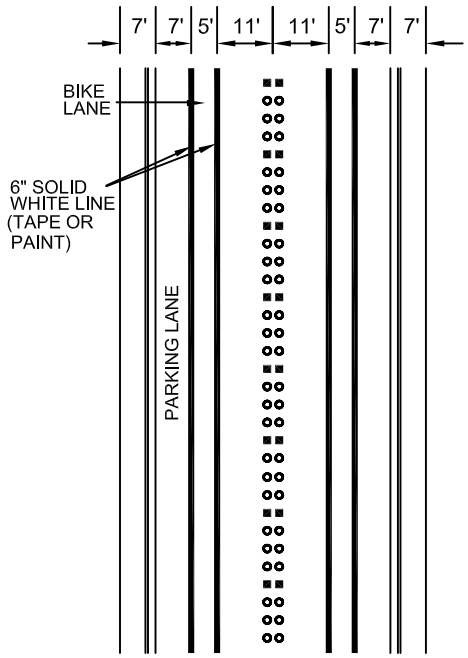
SPECIFICATION REFERENCE	
628	PAINTING TRAFFIC STRIPING
633	PAVEMENT MARKERS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

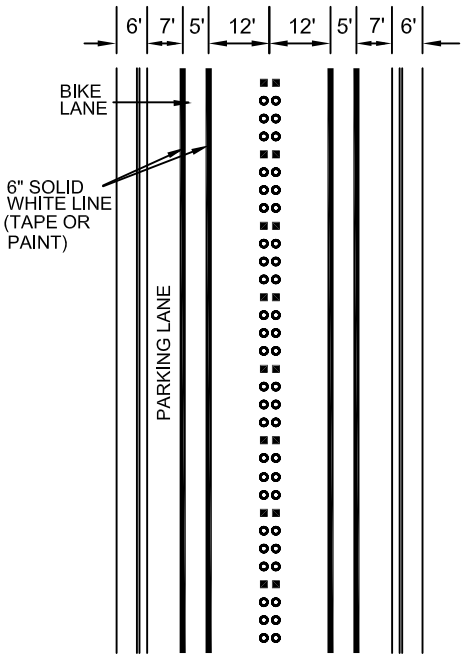
TYPICAL DELINEATION FOR ROADWAYS 80 FT. RIGHT-OF-WAY WITH CURBSIDE SIDEWALK

DATE	7-10-03	DWG. NO.	244.2A	PAGE NO.	50.2A

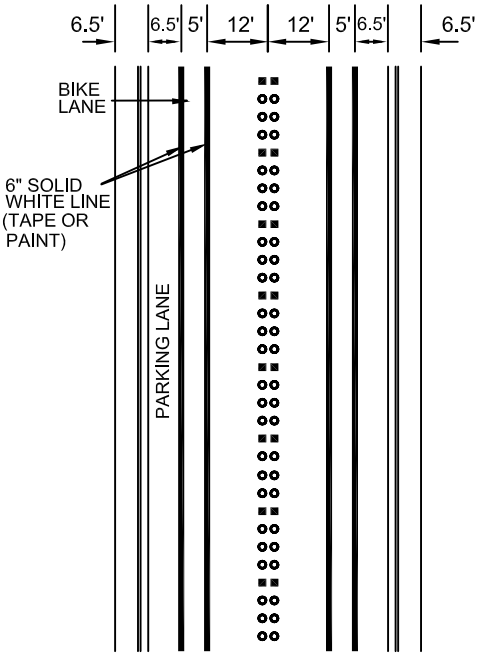
Effective 01/01/09 - 06/30/09



ALTERNATE A



ALTERNATE B



ALTERNATIVE C

NOTES:

1. LANE LINE DELINEATION SHALL COMPLY WITH STANDARD DRAWING NO. 244 & 244A.
2. BIKE LANES MUST BE A MINIMUM OF 4 FT. AND NO GREATER THAN 8 FT. WIDE; HOWEVER, A WIDTH OF 5 FT. IS PREFERRED.
3. ALL CURB LANES ARE MEASURED TO LIP OF GUTTER OR EDGE OF PAVEMENT IF CURB AND GUTTER DO NOT EXIST.

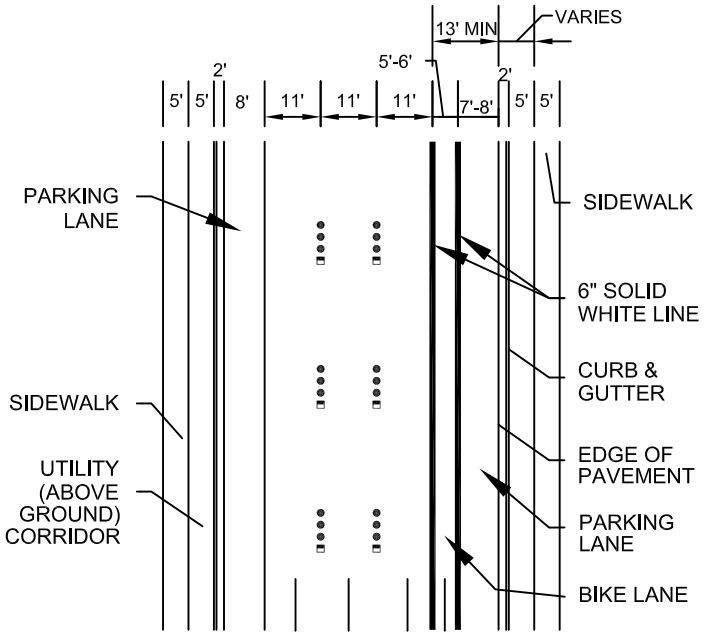
SPECIFICATION REFERENCE	
628	PAINTING TRAFFIC STRIPING
633	PAVEMENT MARKERS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

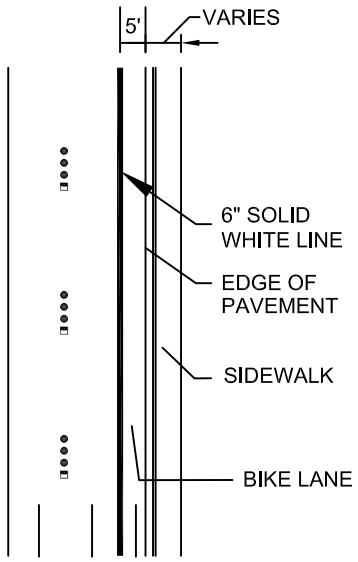
TYPICAL DELINEATION FOR BIKE FACILITIES 60 FT. RIGHT-OF-WAY (PARKING ON BOTH SIDES)

DATE	DWG. NO.	PAGE NO.
6-8-95	244.3	50.3

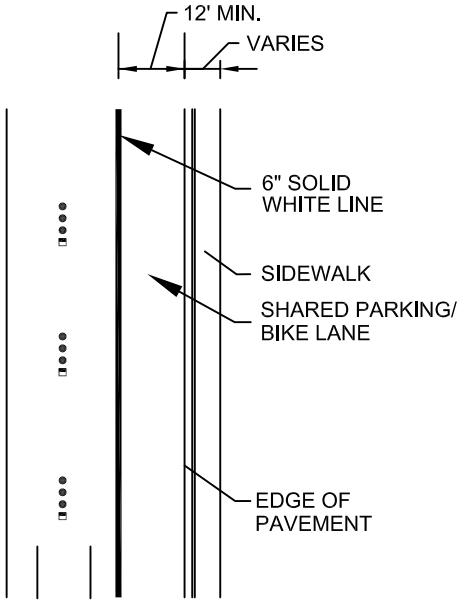
Effective 01/01/09 - 06/30/09



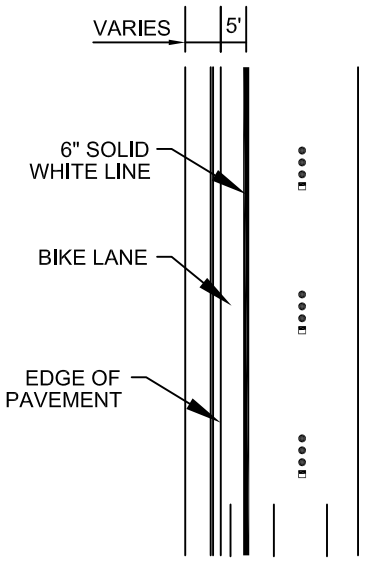
ONE-WAY STREET WITH BIKE LANE
(WITH PARKING ON RIGHT SIDE)



ONE-WAY STREET WITH BIKE LANE
(WITHOUT PARKING ON RIGHT SIDE)



ONE-WAY STREET WITH SHARED
BIKE/PARKING LANE



ONE-WAY STREET WITH LEFT-SIDE
BIKE LANE (SEE NOTE 4)

NOTES:

1. LANE LINE DELINEATION SHALL COMPLY WITH STANDARD DRAWING NO. 244 & 244A.
2. BIKE LANES MUST BE A MINIMUM OF 5 FEET WHERE ADJACENT TO A PARKING LANE, 4 FEET MINIMUM IN OTHER CASES AND NO GREATER THAN 8 FEET WIDE.
3. ALL CURB LANES ARE MEASURED TO THE EDGE OF PAVEMENT. THE TOP OF PAVEMENT SHALL BE FLUSH WITH GUTTER.
4. BICYCLE LANE SHALL BE ON RIGHT SIDE OF ONE-WAY ROADWAYS, EXCEPT IN LIMITED SITUATIONS, SUCH AS WHEN THERE ARE SIGNIFICANTLY LESS POTENTIAL CONFLICTS ALONG THE LEFT SIDE OF THE ROADWAY OR WHEN SIGNIFICANT BICYCLE TRIP GENERATION ARE ALONG THE LEFT SIDE OF THE ROADWAY.
5. SEE DRAWING NO. 244.5 FOR BIKE LANE SIGNAGE DETAILS.

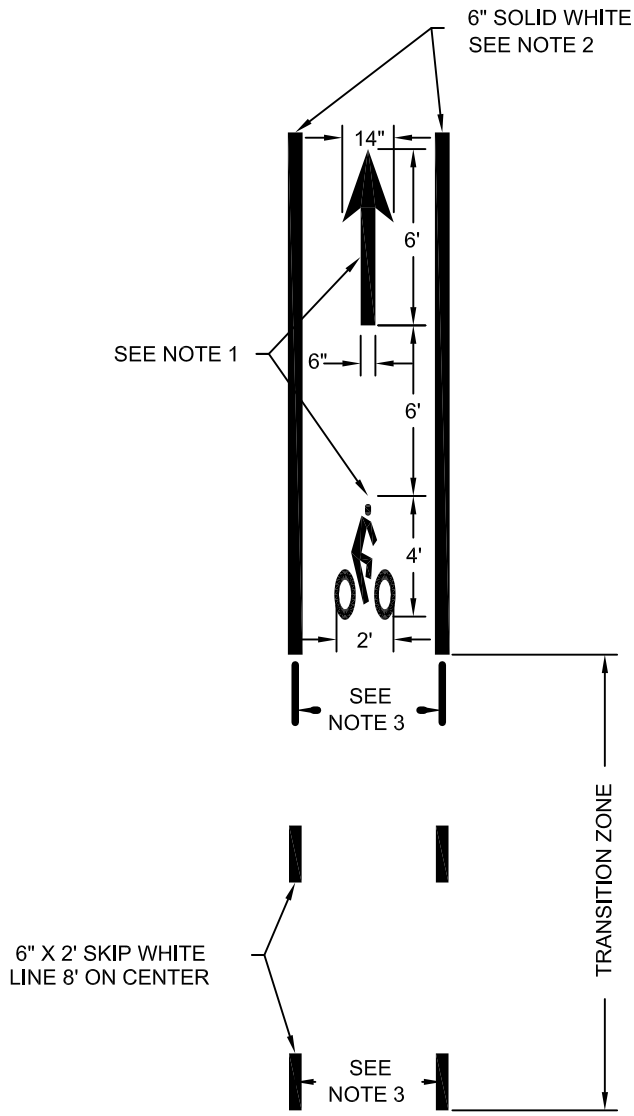
SPECIFICATION REFERENCE	
628	PAINTING TRAFFIC STRIPING
633	PAVEMENT MARKERS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

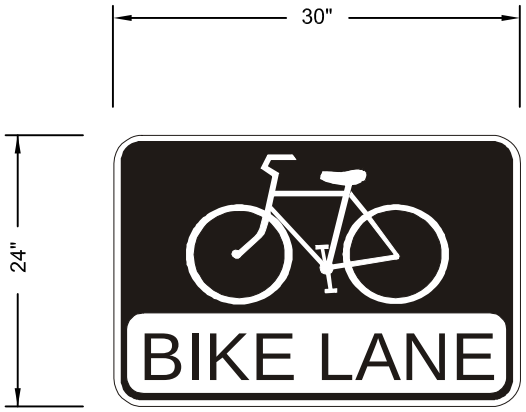
BICYCLE LANE DELINEATION ON ONE-WAY STREET

DATE	7-10-03	DWG. NO.	244.4	PAGE NO.	50.4

Effective 01/01/09 - 06/30/09



BIKE LANE DELINEATION AND LEGEND



R3-17

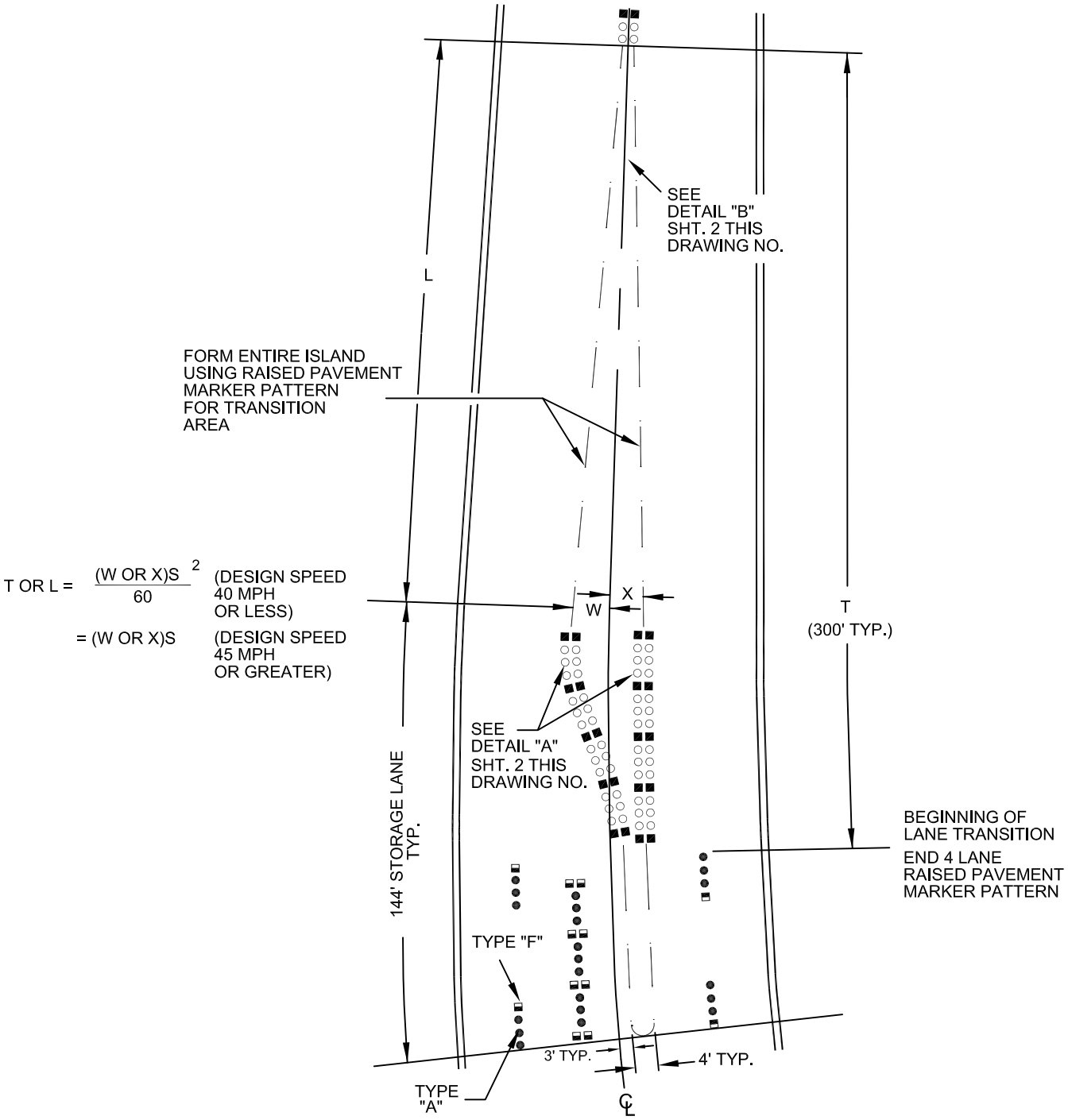
BIKE LANE SIGNAGE

NOTES:

1. BIKE LANE LEGENDS SHALL BE APPROVED TYPE I PAVEMENT MARKING FILM AND SHALL BE SLIP RESISTANT.
2. BIKE LANE LINES SHALL BE APPROVED TYPE II PAVEMENT MARKING FILM AND SHALL BE SLIP RESISTANT.
3. BIKE LANES MUST BE A MINIMUM OF 5 FEET WHEN ADJACENT TO A PARKING LANE, 4 FEET MINIMUM IN OTHER CASES AND NO GREATER THAN 8 FT WIDE; HOWEVER A WIDTH OF 5 FEET IS PREFERRED.
4. BICYCLE LANE DELINEATION, LEGEND, AND SIGNING SHALL CONFORM TO THE MUTCD LATEST EDITION.
5. PER THE MUTCD LATEST EDITION, BICYCLE LANE SIGNS SHALL BE USED IN ADVANCE OF THE BEGINNING OF A MARKED BICYCLE LANE.
6. THE BIKE LANE SIGNAGE SHALL BE CLASS 6 SHEETING.

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		BICYCLE LANE DELINEATION, LEGEND, AND SIGNAGE		
		DATE 3-9-06	DWG. NO. 244.5	PAGE NO. 50.5

Effective 01/01/09 - 06/30/09



NOTE:

SEE SHEET 3 THIS DRAWING NUMBER IF PATTERN IS TO BE USED AT A GORE POINT TO DIVIDE TRAFFIC MOVING IN SAME DIRECTION.

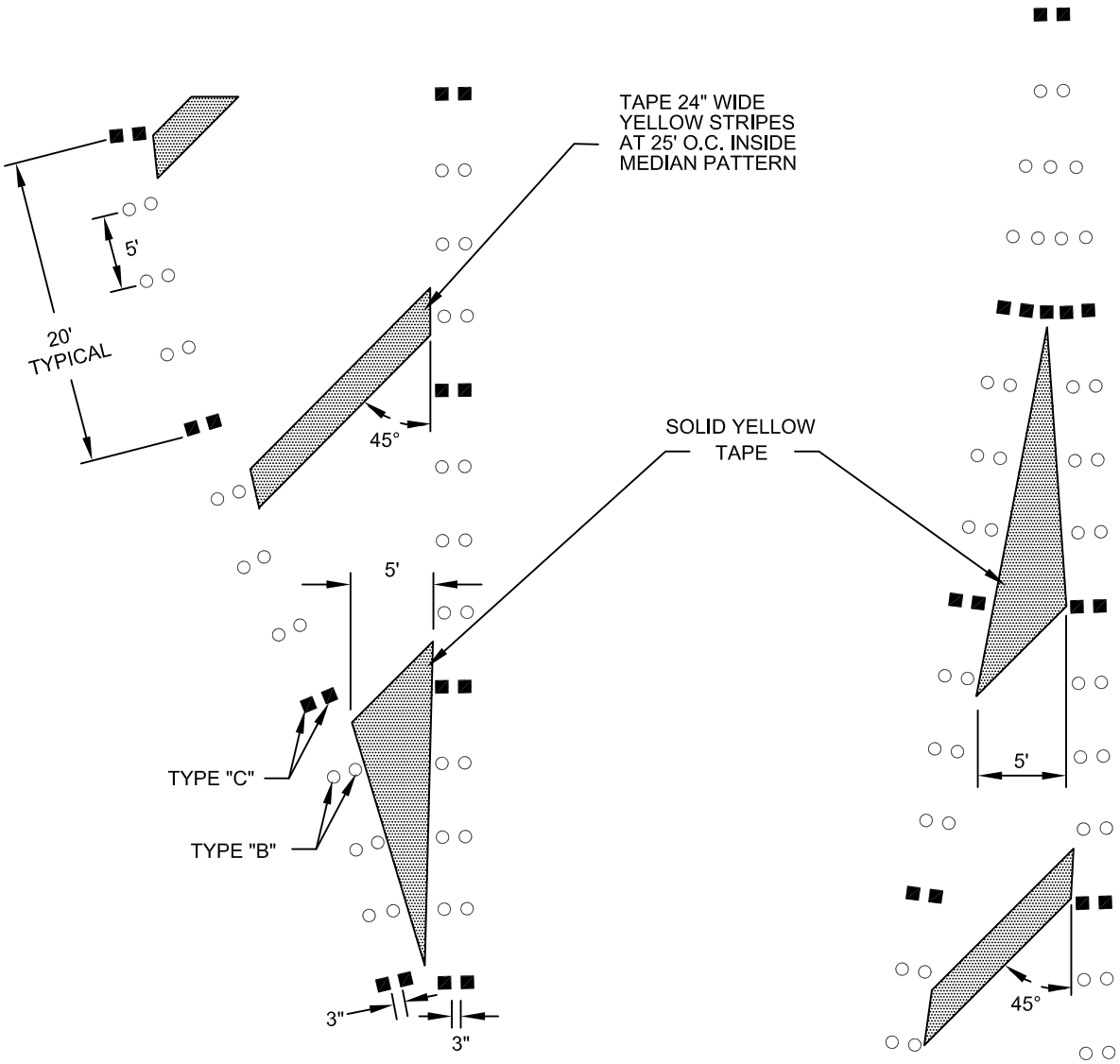
SPECIFICATION REFERENCE	
628	PAINTING TRAFFIC STRIPING
633	PAVEMENT MARKERS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

TYPICAL LANE DELINEATION IN TRANSITION SECTIONS

DATE 6-11-93 | DWG. NO. 245 (1 OF 3) | PAGE NO. 51

Effective 01/01/09 - 06/30/09



DETAIL "A"

DETAIL "B"

NOTE:

PAINT MAY BE USED IN LIEU OF TAPE AND/OR RAISED PAVEMENT MARKERS AT THE DISCRETION OF THE ENGINEER.

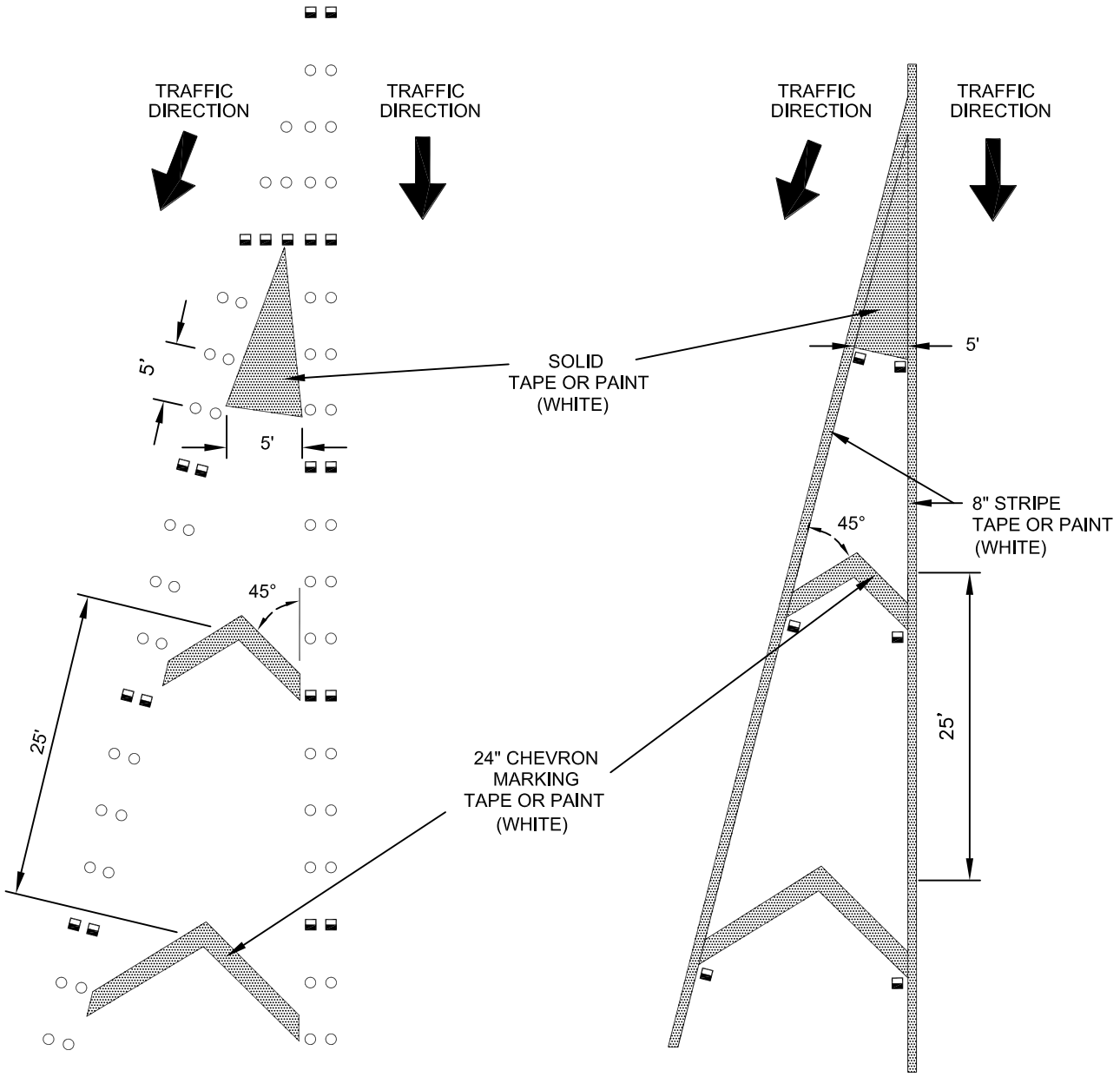
SPECIFICATION REFERENCE	
628	PAINTING TRAFFIC STRIPING
633	PAVEMENT MARKERS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

DETAILS FOR TYPICAL LANE DELINEATION IN TRANSITION SECTIONS

DATE 6-11-93	DWG. NO. 245 (2 OF 3)	PAGE NO. 51A

Effective 01/01/09 - 06/30/09



PAVEMENT MARKER DETAIL

TAPE OR PAINT DETAIL

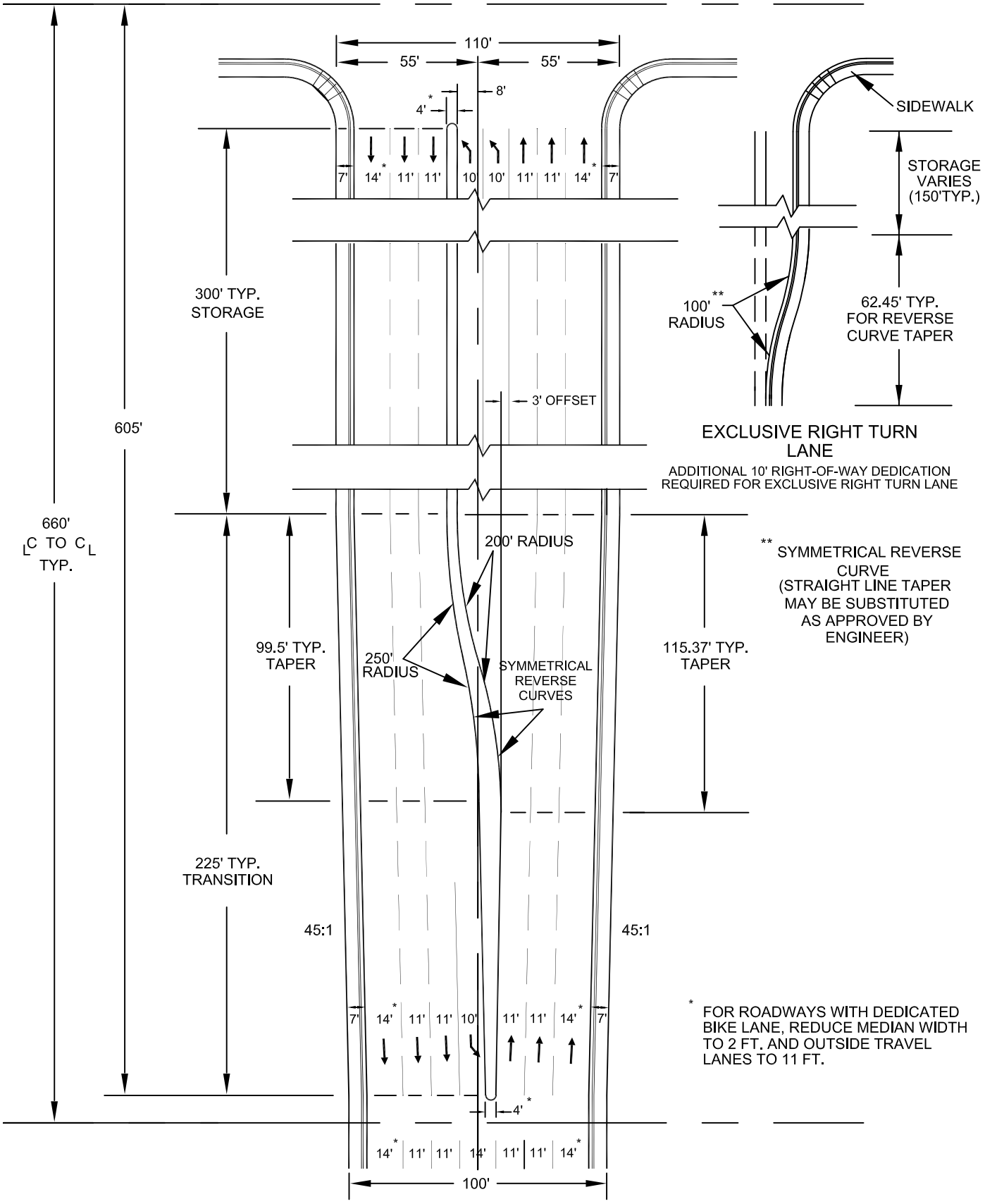
SPECIFICATION REFERENCE	
628	PAINTING TRAFFIC STRIPING
633	PAVEMENT MARKERS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

TYPICAL LANE DELINEATION IN TRANSITION SECTIONS WHERE TRAFFIC FLOW IN SAME DIRECTION

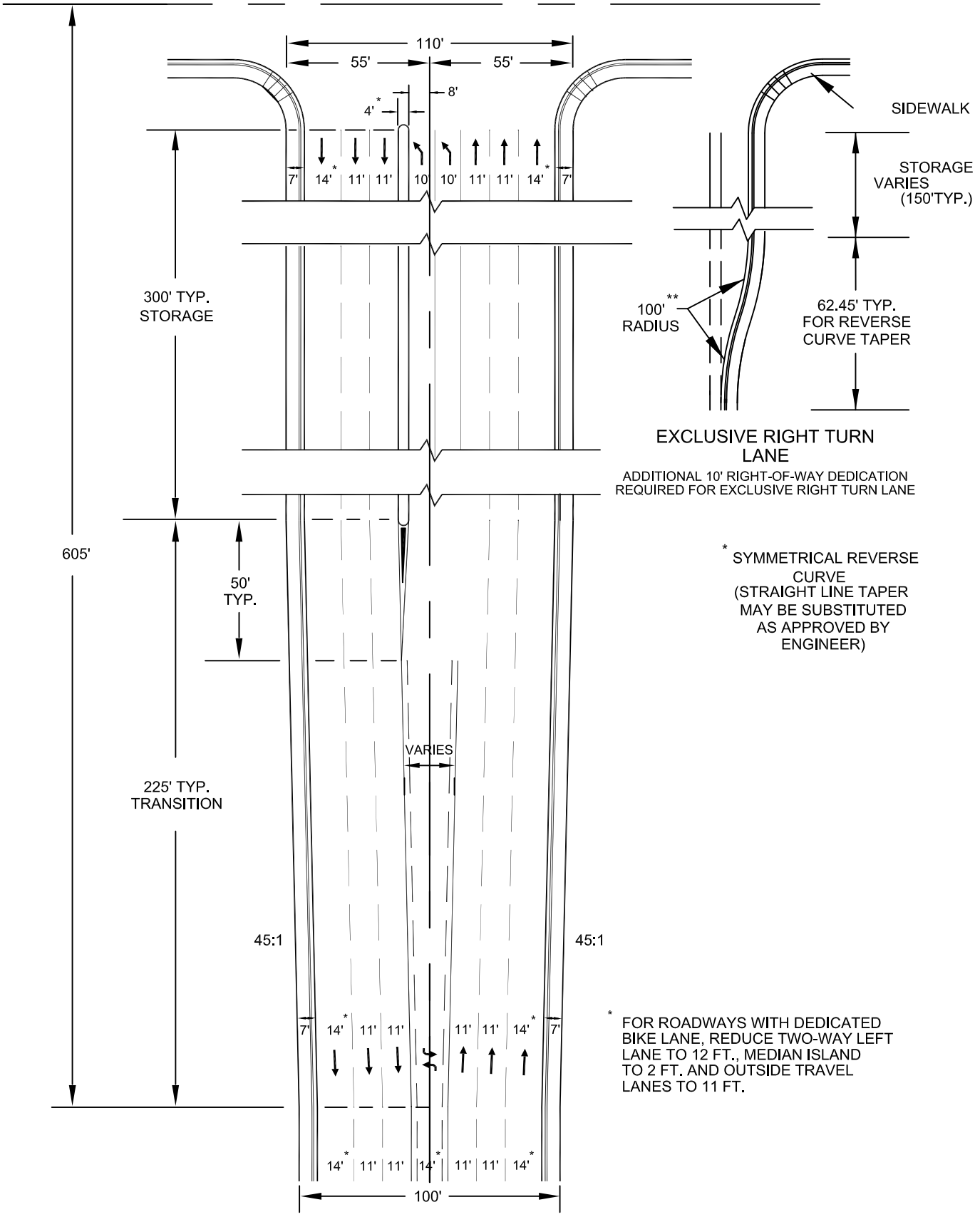
DATE 6-11-93	DWG. NO. 245 (3 OF 3)	PAGE NO. 51B

Effective 01/01/09 - 06/30/09



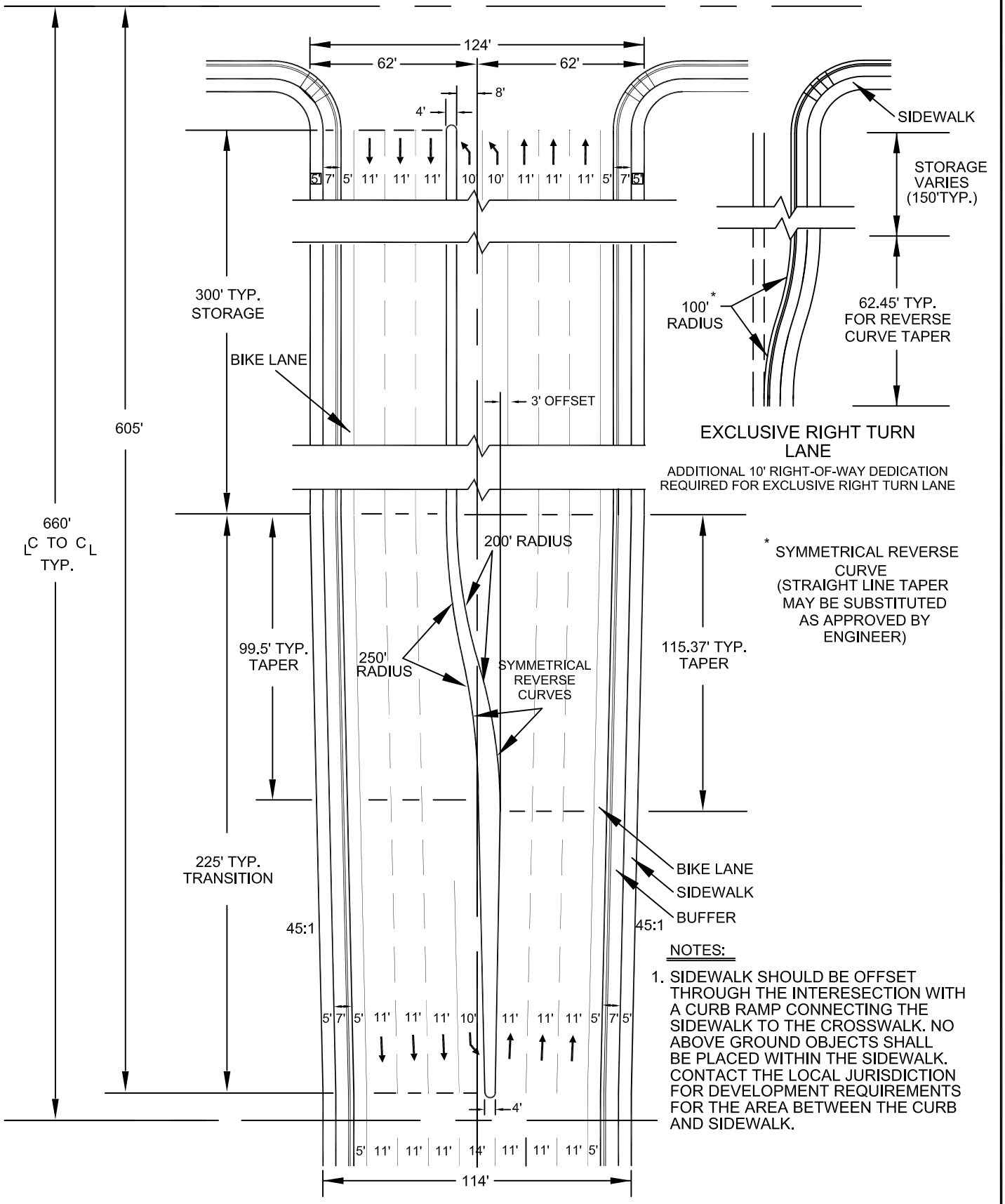
SPECIFICATION REFERENCE	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
	TYPICAL LANE CONFIGURATION FOR MAJOR STREET INTERSECTIONS AND MEDIAN DETAIL CASE I - WITH CURBSIDE SIDEWALK
	DATE 7-10-03 | DWG. NO. 245.1 (1 OF 2) | PAGE NO. 51.1

Effective 01/01/09 - 06/30/09



SPECIFICATION REFERENCE	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
	TYPICAL LANE CONFIGURATION FOR MAJOR STREET INTERSECTIONS AND MEDIAN DETAIL CASE II - WITH CURBSIDE SIDEWALK
	DATE 7-10-03 | DWG. NO. 245.1 (2 OF 2) | PAGE NO. 51.1A

Effective 01/01/09 - 06/30/09

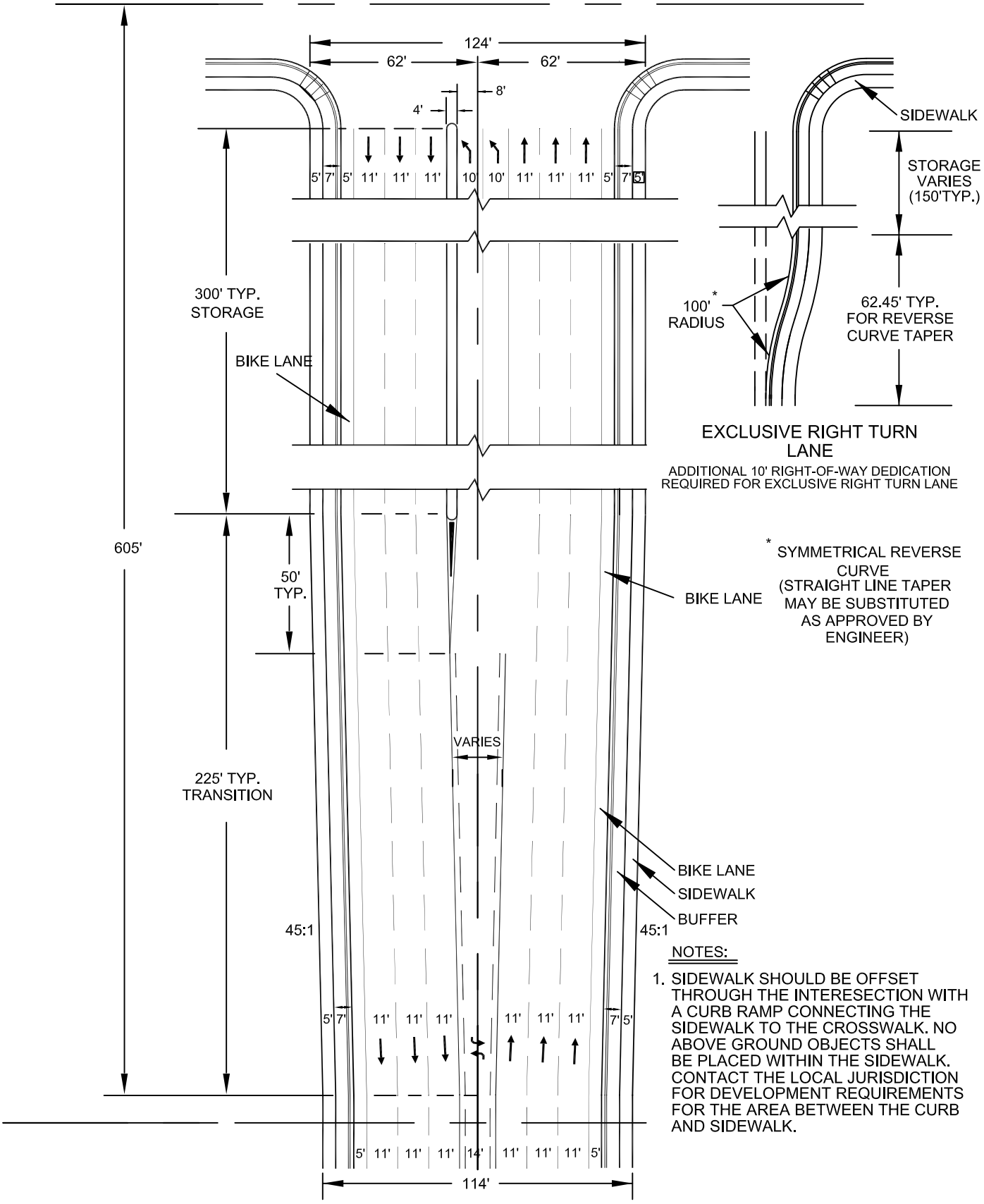


NOTES:

1. SIDEWALK SHOULD BE OFFSET THROUGH THE INTERESECTION WITH A CURB RAMP CONNECTING THE SIDEWALK TO THE CROSSWALK. NO ABOVE GROUND OBJECTS SHALL BE PLACED WITHIN THE SIDEWALK. CONTACT THE LOCAL JURISDICTION FOR DEVELOPMENT REQUIREMENTS FOR THE AREA BETWEEN THE CURB AND SIDEWALK.

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		TYPICAL LANE CONFIGURATION FOR MAJOR STREET INTERSECTIONS AND MEDIAN DETAIL CASE I - WITH OFFSET SIDEWALK		
		DATE 7-10-03	DWG. NO. 245.1 ALT (1 OF 2)	PAGE NO. 51.1ALT

Effective 01/01/09 - 06/30/09

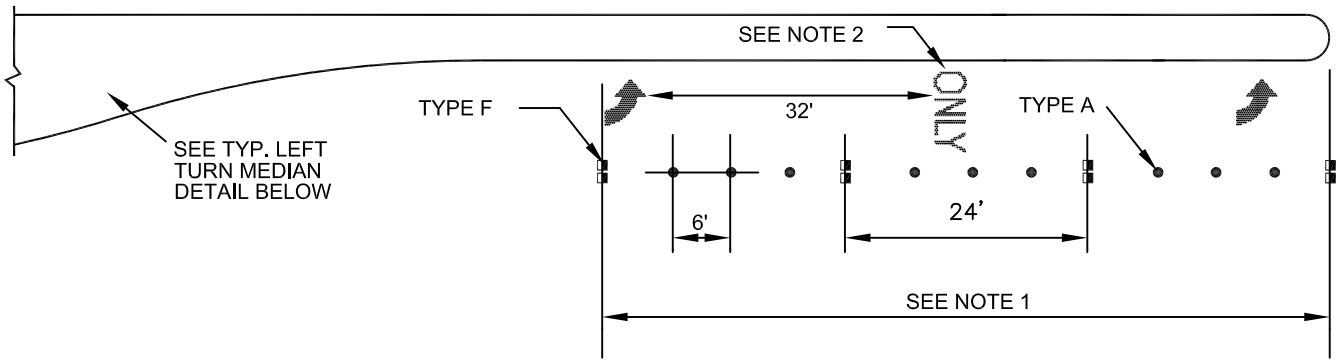


NOTES:

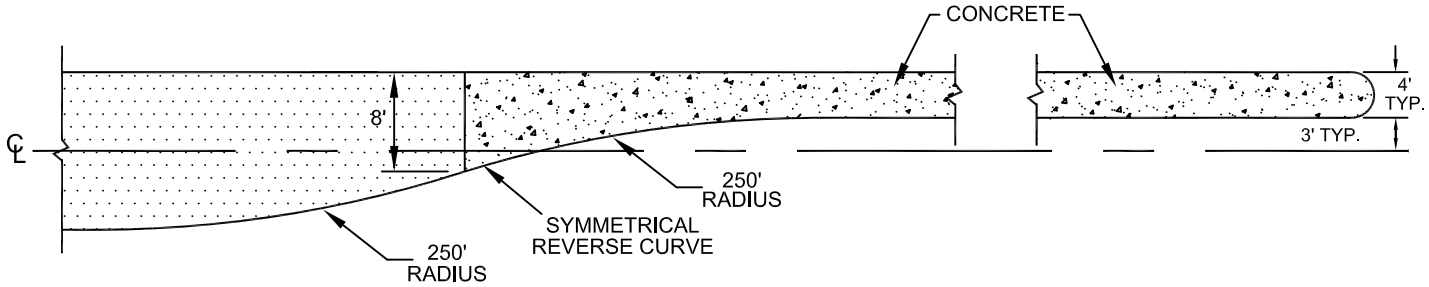
1. SIDEWALK SHOULD BE OFFSET THROUGH THE INTERESECTION WITH A CURB RAMP CONNECTING THE SIDEWALK TO THE CROSSWALK. NO ABOVE GROUND OBJECTS SHALL BE PLACED WITHIN THE SIDEWALK. CONTACT THE LOCAL JURISDICTION FOR DEVELOPMENT REQUIREMENTS FOR THE AREA BETWEEN THE CURB AND SIDEWALK.

SPECIFICATION REFERENCE	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
	TYPICAL LANE CONFIGURATION FOR MAJOR STREET INTERSECTIONS AND MEDIAN DETAIL CASE II - WITH OFFSET SIDEWALK
	DATE 7-10-03 | DWG. NO. 245.1 ALT (2 OF 2) | PAGE NO. 51.1AALT

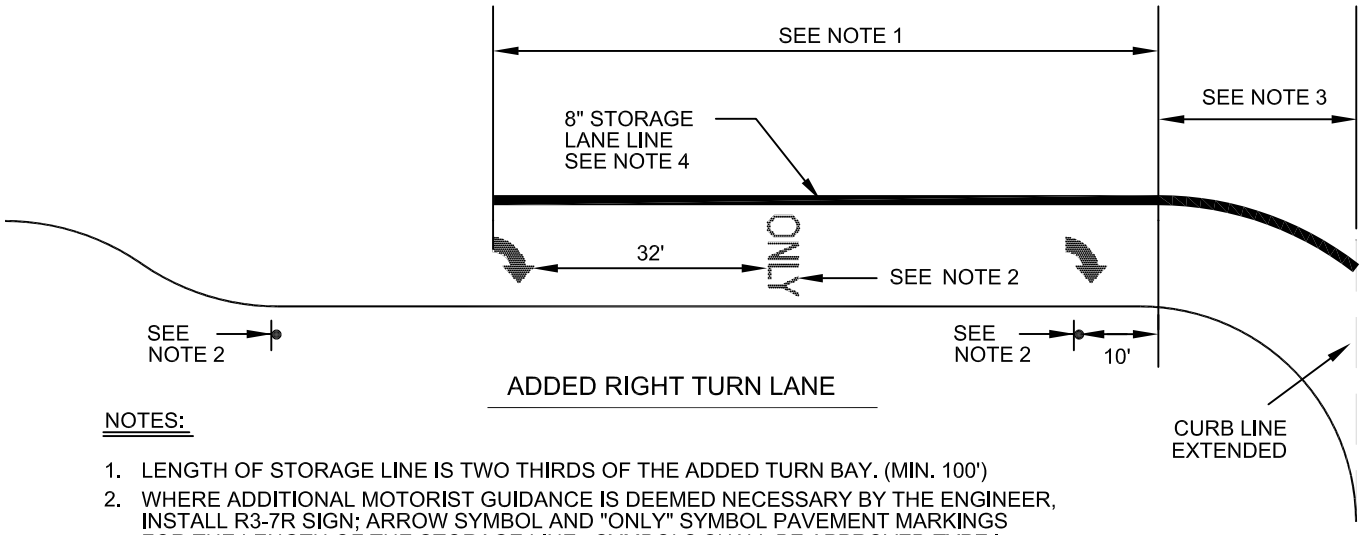
Effective 01/01/09 - 06/30/09



ADDED LEFT TURN LANE



TYPICAL LEFT TURN MEDIAN DETAIL



ADDED RIGHT TURN LANE

NOTES:

1. LENGTH OF STORAGE LINE IS TWO THIRDS OF THE ADDED TURN BAY. (MIN. 100')
2. WHERE ADDITIONAL MOTORIST GUIDANCE IS DEEMED NECESSARY BY THE ENGINEER, INSTALL R3-7R SIGN; ARROW SYMBOL AND "ONLY" SYMBOL PAVEMENT MARKINGS FOR THE LENGTH OF THE STORAGE LINE. SYMBOLS SHALL BE APPROVED TYPE I PAVEMENT MARKING FILM.
3. APPROVED TYPE II PAVEMENT MARKING FILM OR RAISED PAVEMENT MARKERS MAY BE USED FOR ADDITIONAL GUIDANCE AT THE DISCRETION OF THE ENGINEER.
4. STORAGE LANE LINE SHALL BE APPROVED TYPE II PAVEMENT MARKING FILM OR IF APPROVED BY THE ENGINEER, RAISED PAVEMENT MARKERS MAY BE USED.

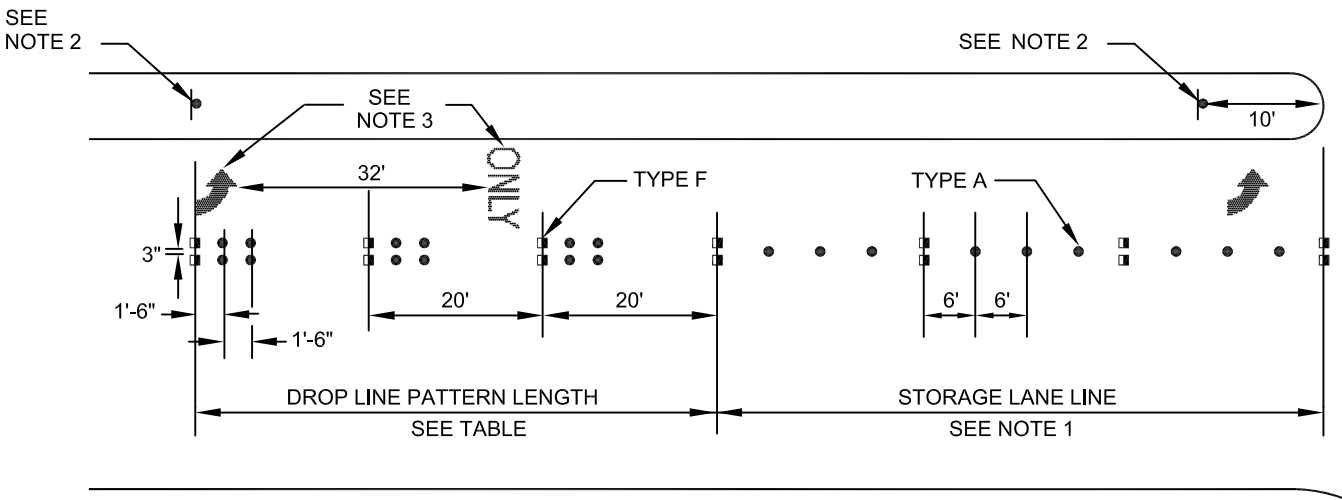
SPECIFICATION REFERENCE	
633	PAVEMENT MARKERS
628	PAINTING TRAFFIC STRIPING,
	PAVEMENT MARKINGS...

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

STANDARD PAVEMENT MARKERS ADDED TURN LANE

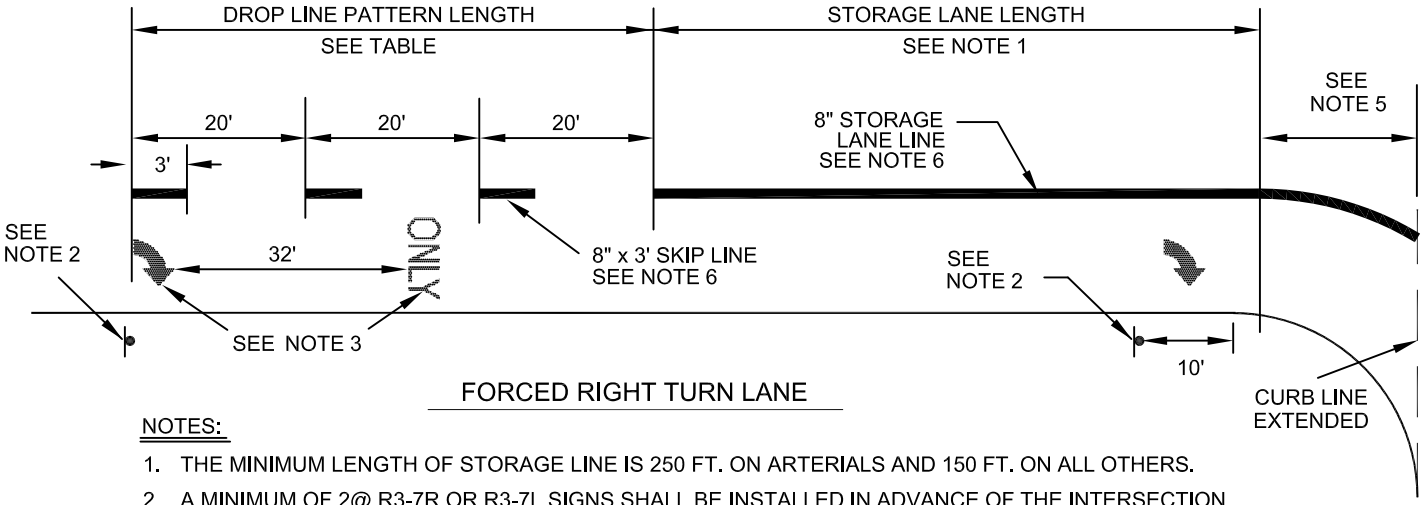
DATE 4-8-99	DWG. NO. 246	PAGE NO. 52

Effective 01/01/09 - 06/30/09



TYP. DROP LINE LENGTHS	
POSTED SPEED (MPH)	LENGTH (FT)
25	240
30	320
35	400
40	480
45	560
50	640
55	720

FORCED LEFT TURN LANE



FORCED RIGHT TURN LANE

NOTES:

1. THE MINIMUM LENGTH OF STORAGE LINE IS 250 FT. ON ARTERIALS AND 150 FT. ON ALL OTHERS.
2. A MINIMUM OF 2@ R3-7R OR R3-7L SIGNS SHALL BE INSTALLED IN ADVANCE OF THE INTERSECTION AT DISTANCES APPROVED BY THE ENGINEER. RECOMMENDED LOCATIONS ARE SHOWN ABOVE.
3. ONE SET OF PAVEMENT MARKINGS CONTAINING ONE ARROW SYMBOL AND ONE "ONLY" SYMBOL SHALL BE PLACED AT THE BEGINNING OF THE DROP LANE.
4. WHERE ADDITIONAL MOTORIST GUIDANCE IS DEEMED NECESSARY BY THE ENGINEER, ADDITIONAL ARROW AND "ONLY" SYMBOL PAVEMENT MARKINGS AND OVERHEAD MOUNTED R3-5 SIGNS MAY BE INSTALLED. SYMBOLS SHALL BE APPROVED TYPE I PAVEMENT MARKING FILM.
5. APPROVED TYPE II PAVEMENT MARKING FILM OR RAISED PAVEMENT MARKERS MAY BE USED FOR ADDITIONAL GUIDANCE AT THE DISCRETION OF THE ENGINEER.
6. STORAGE LANE LINE AND SKIP LINES SHALL BE APPROVED TYPE II PAVEMENT MARKING FILM OR IF APPROVED BY THE ENGINEER, RAISED PAVEMENT MARKERS MAY BE USED.

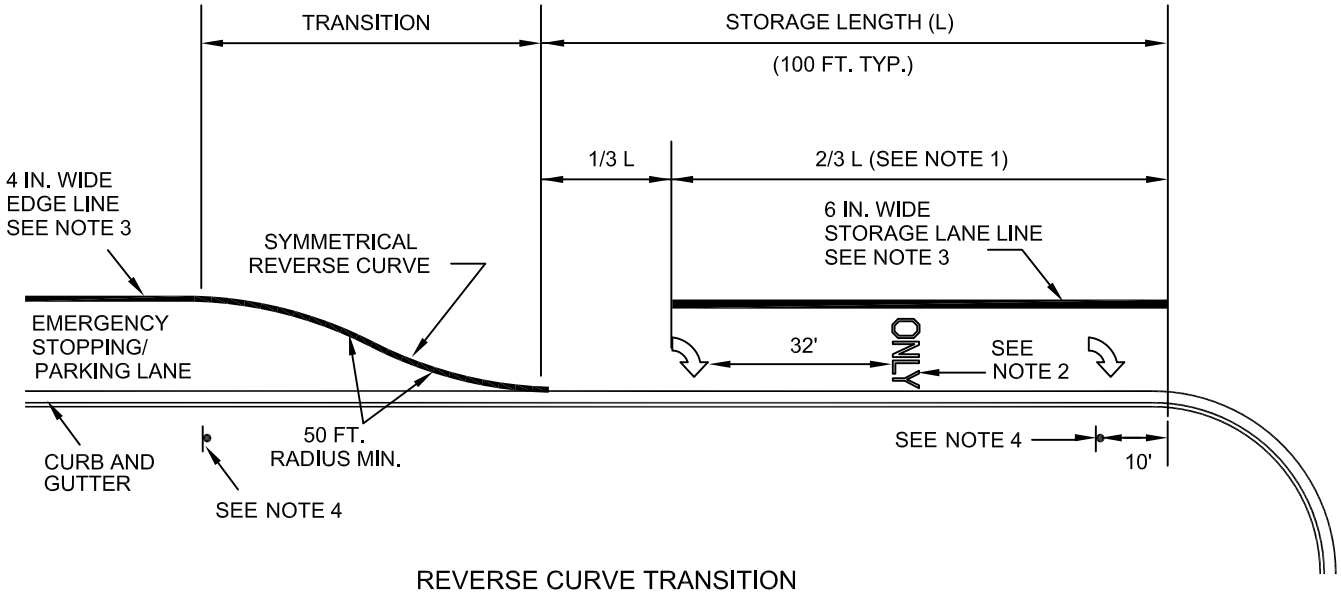
SPECIFICATION REFERENCE	
633	PAVEMENT MARKERS
628	PAINTING TRAFFIC STRIPING,
	PAVEMENT MARKINGS...

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

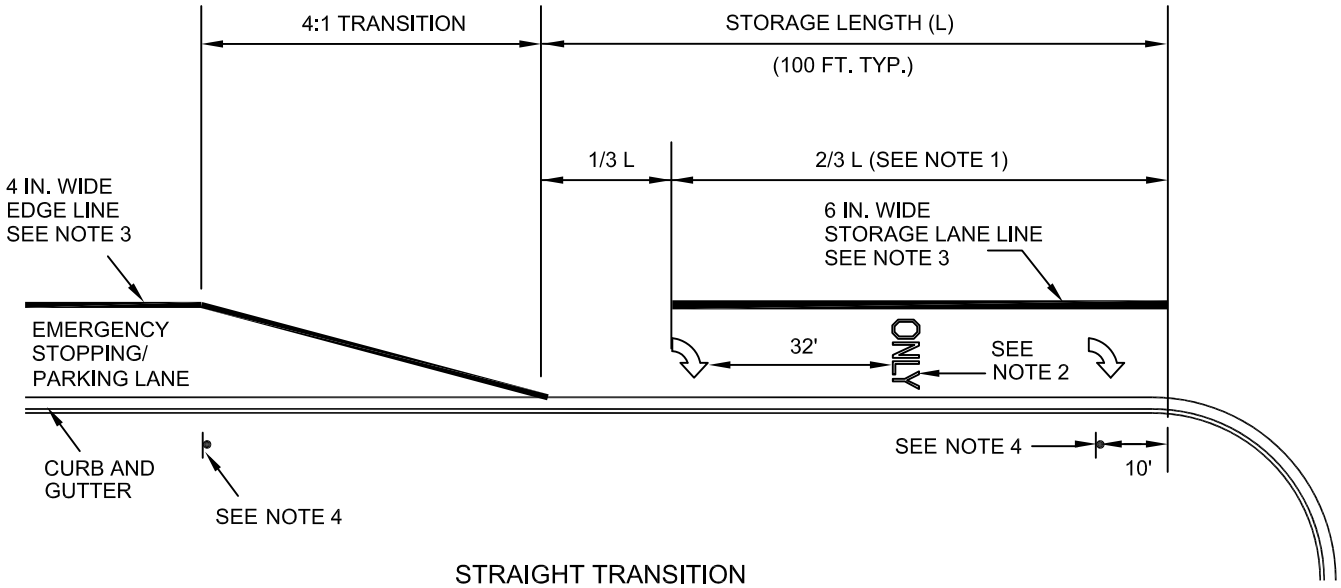
STANDARD PAVEMENT MARKERS FORCED TURN LANE

DATE 4-8-99	DWG. NO. 246A	PAGE NO. 52A

Effective 01/01/09 - 06/30/09



REVERSE CURVE TRANSITION



STRAIGHT TRANSITION

NOTES:

1. LENGTH OF STORAGE LANE LINE IS TWO THIRDS OF THE TURN LANE STORAGE LENGTH.
2. WHERE ADDITIONAL MOTORIST GUIDANCE IS DEEMED NECESSARY BY THE ENGINEER, INSTALL ARROW AND "ONLY" SYMBOL PAVEMENT MARKINGS FOR THE LENGTH OF THE STORAGE LINE.
3. PAVEMENT MARKINGS SHALL BE TYPE 2 TAPE OR PAINT AS DIRECTED BY THE ENGINEER.
4. INSTALL "NO PARKING" SIGNS FOR ENTIRE LENGTH OF TURN LANE. WHERE ADDITIONAL MOTORIST GUIDANCE IS DEEMED NECESSARY BY THE ENGINEER, INSTALL R3-7R SIGNS.

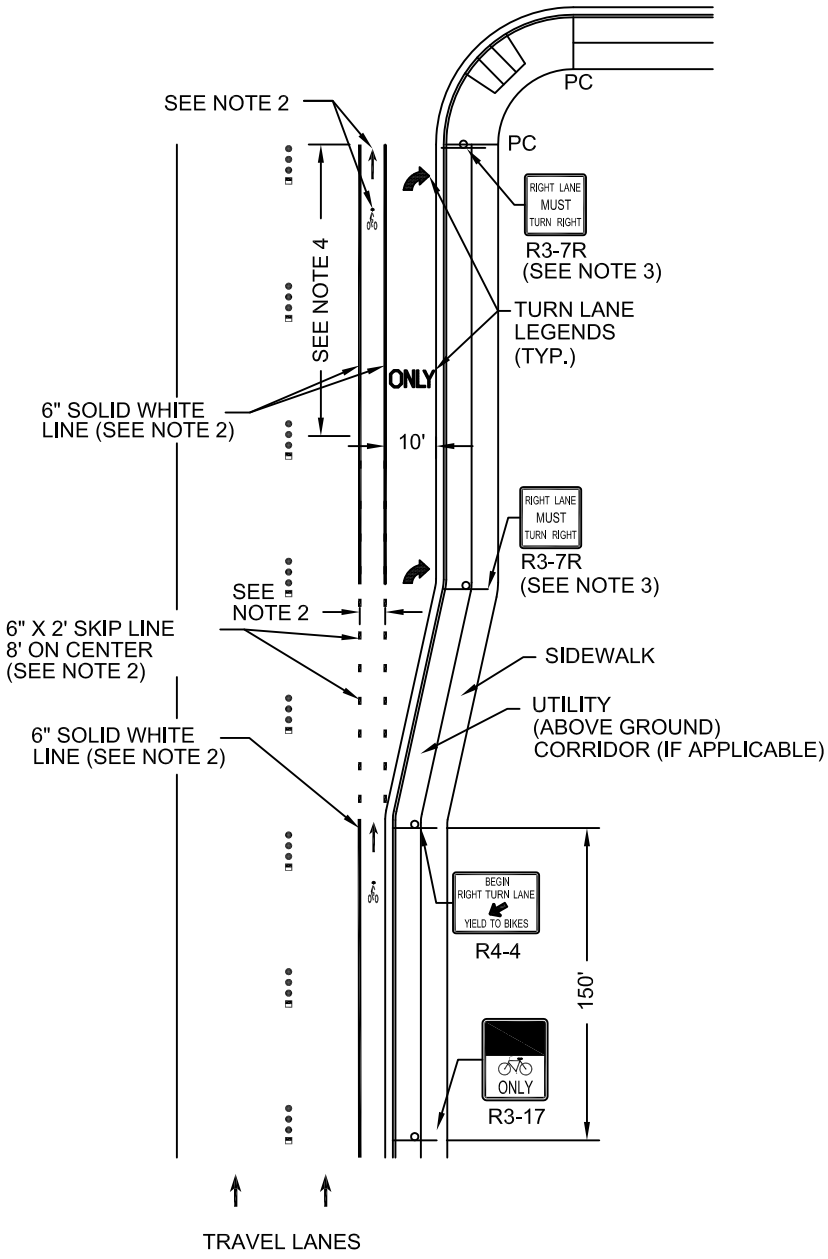
SPECIFICATION REFERENCE	
633	PAVEMENT MARKERS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

PAVEMENT MARKING AND SIGNAGE
RIGHT TURN LANE AT MINOR INTERSECTIONS
(ARTERIALS WITH EMERGENCY/PARKING LANE)

DATE 7-10-03	DWG. NO. 246B	PAGE NO. 52B

Effective 01/01/09 - 06/30/09



NOTES:

1. STORAGE LENGTH TO BE DETERMINED BY TRAFFIC ENGINEER.
2. SEE DRAWING NO. 244.5 FOR BIKE LANE LEGEND AND SIGNAGE.
3. WHERE ADDITIONAL MOTORIST GUIDANCE IS DEEMED NECESSARY BY THE TRAFFIC ENGINEER, INSTALL R3-7R SIGN, ARROW SYMBOL AND "ONLY" SYMBOL PAVEMENT MARKINGS FOR THE LENGTH OF THE STORAGE LINE. APPROVED TYPE I PAVEMENT MARKING FILM SHALL BE USED FOR SYMBOL MARKINGS.
4. SEE DRAWING NO. 246 NOTE 1 FOR STANDARD PAVEMENT MARKERS ADDED TURN LANE.

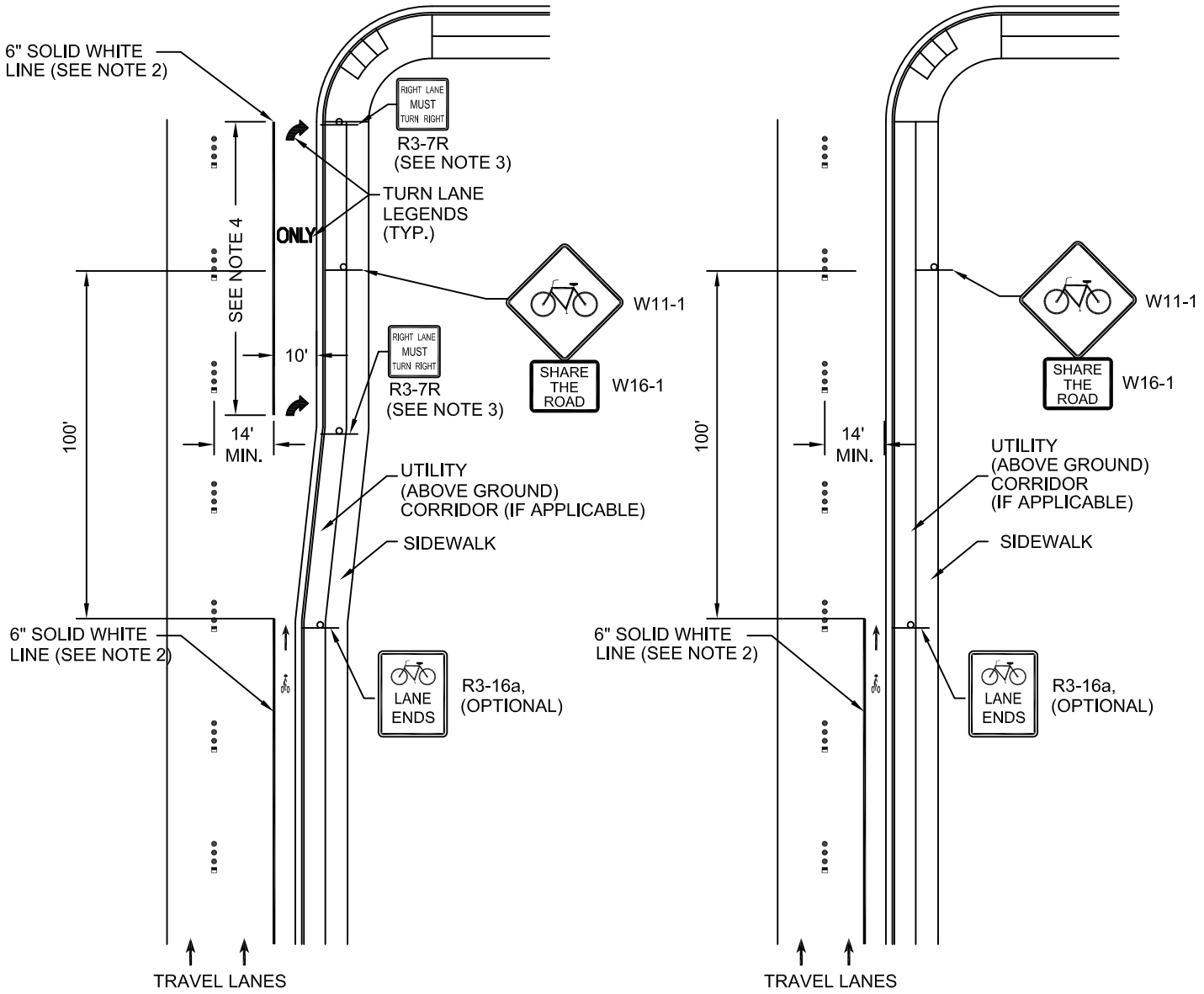
SPECIFICATION REFERENCE	
628	PAINTING TRAFFIC STRIPING
633	PAVEMENT MARKERS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

BICYCLE LANE APPROACH TO INTERSECTION WITH EXCLUSIVE RIGHT TURN LANE

DATE	7-10-03	DWG. NO.	246.1	PAGE NO.	52.1

Effective 01/01/09 - 06/30/09



WITH EXCLUSIVE RIGHT-TURN LANE

WITHOUT EXCLUSIVE RIGHT-TURN LANE

NOTES:

1. STORAGE LENGTH TO BE DETERMINED BY TRAFFIC ENGINEER.
2. SEE DRAWING NUMBER 244.5 FOR BIKE LANE LEGEND AND SIGNAGE.
3. WHERE ADDITIONAL MOTORIST GUIDANCE IS DEEMED NECESSARY BY THE ENGINEER, INSTALL R3-7R SIGN, ARROW SYMBOL AND "ONLY" SYMBOL PAVEMENT MARKINGS FOR THE LENGTH OF THE STORAGE LINE. APPROVED TYPE I PAVEMENT MARKING FILM SHALL BE USED FOR SYMBOL MARKINGS.
4. SEE DWG. 246 NOTE 1 FOR STANDARD PAVEMENT MARKERS ADDED TURN LANE.
5. THE ABOVE DETAIL SHOULD BE FOLLOWED IN SITUATIONS WHERE THERE IS NOT ADEQUATE SPACE TO PROVIDE A SEPARATE BICYCLE LANE.

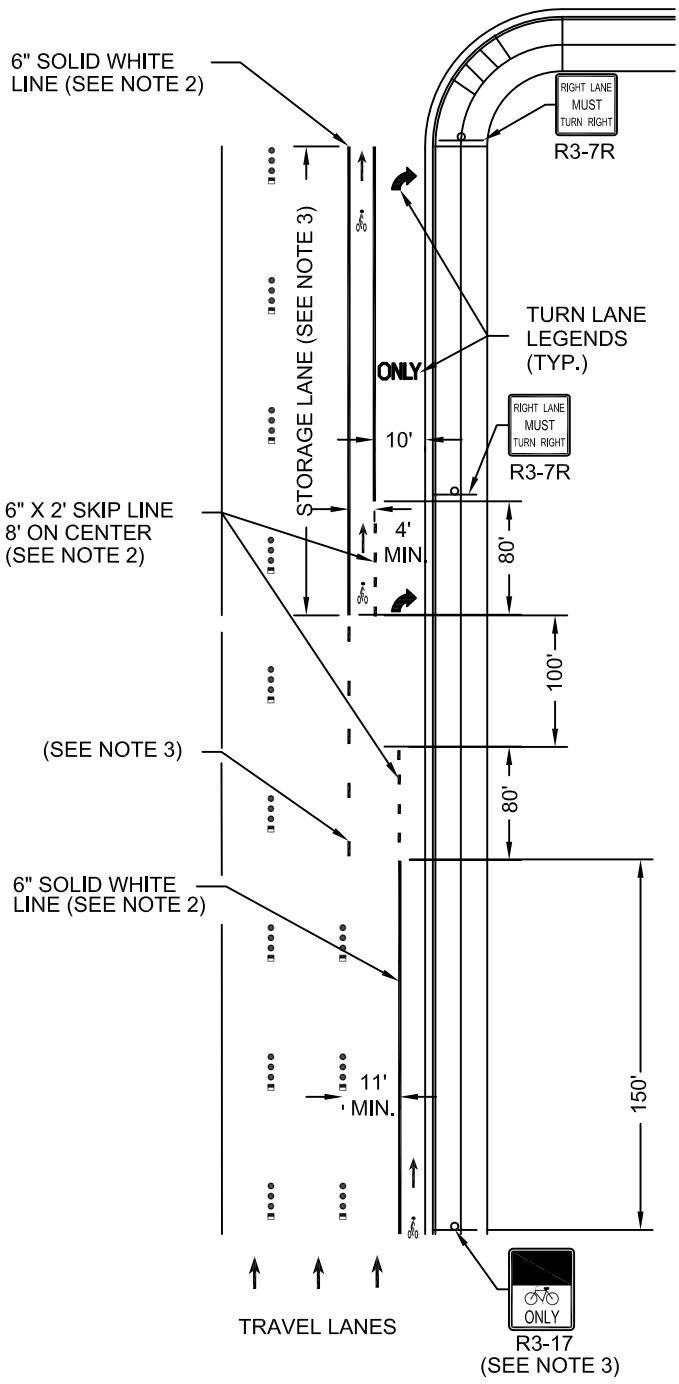
SPECIFICATION REFERENCE	
628	PAINTING TRAFFIC STRIPING
633	PAVEMENT MARKERS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

BICYCLE LANE TRANSITION TO SHARED LANE AT INTERSECTION

DATE	7-10-03	DWG. NO.	246.2	PAGE NO.	52.2

Effective 01/01/09 - 06/30/09



NOTES:

1. FORCED RIGHT-TURN LANES AND LONG RIGHT TURN POCKETS ARE NOT DESIRABLE FOR BICYCLISTS AND SHOULD BE AVOIDED WHEN POSSIBLE.
2. SEE DRAWING NO. 244.5 FOR BIKE LANE DELINEATION, LEGEND, AND SIGNAGE DETAILS.
3. SEE DRAWING NO. 246A FOR DETAILS ON THE FORCED TURN LANE.

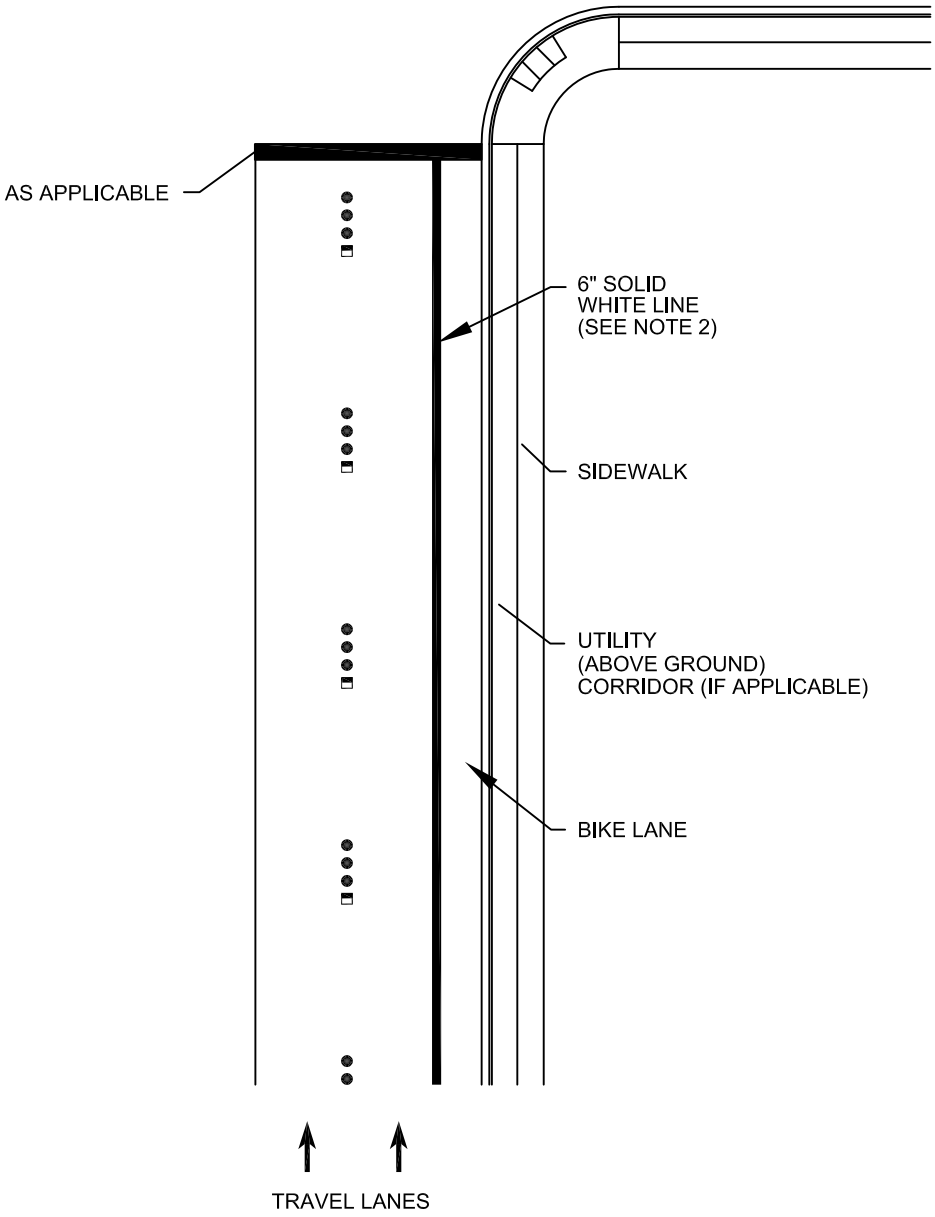
SPECIFICATION REFERENCE	
628	PAINTING TRAFFIC STRIPING
633	PAVEMENT MARKERS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

BICYCLE LANE AT A RIGHT TURN DROP LANE

DATE	7-10-03	DWG. NO.	246.3	PAGE NO.	52.3

Effective 01/01/09 - 06/30/09



NOTES:

1. A SOLID BICYCLE LANE STRIPE SHOULD CONTINUE ACROSS DRIVEWAY ACCESS POINTS.
2. SEE DRAWING NO. 244.5 FOR BIKE LANE LEGEND AND SIGNAGE DETAILS.

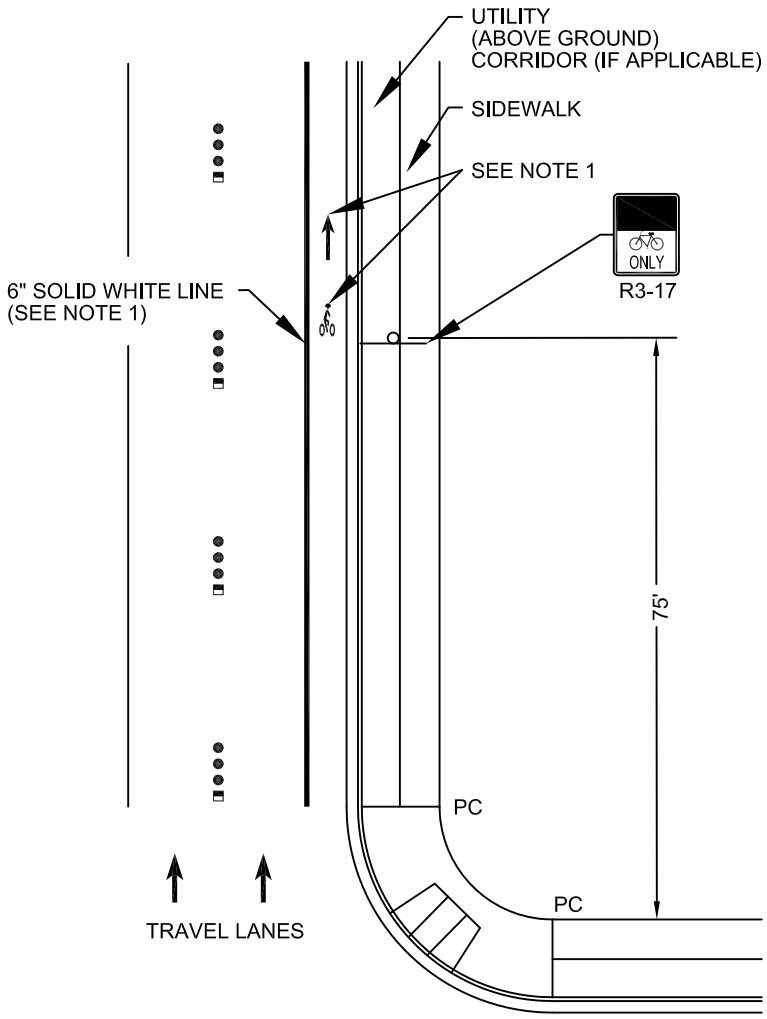
SPECIFICATION REFERENCE	
628	PAINTING TRAFFIC STRIPING
633	PAVEMENT MARKERS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

BICYCLE LANE DELINEATION AT APPROACH TO INTERSECTION WITHOUT EXCLUSIVE RIGHT-TURN LANE

DATE 7-10-03	DWG. NO. 246.4	PAGE NO. 52.4

Effective 01/01/09 - 06/30/09



NOTES:

1. SEE DRAWING NUMBER 244.5 FOR BIKE LANE LEGEND AND SIGNAGE DETAILS.
2. USE 2 FOOT LONG SKIP LINE, 8 FEET ON CENTER, FOR LOCATIONS WITH BUS STOPS. FOR TYPICAL BUS STOP, TRANSITION FROM SOLID LINE TO SKIP LINE FOR 150 FEET CENTERED ON BUS STOP.

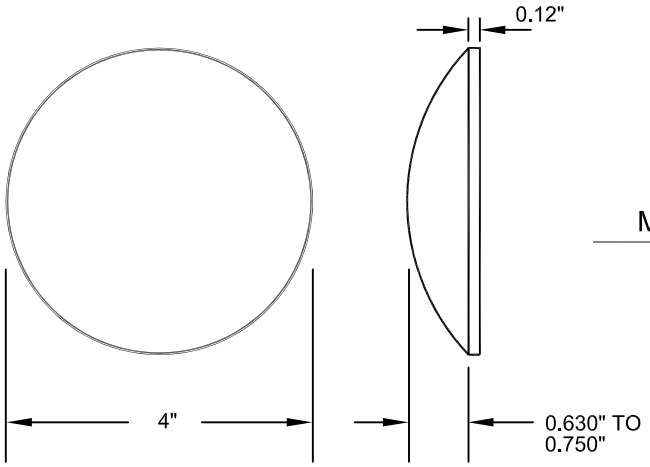
SPECIFICATION REFERENCE	
628	PAINTING TRAFFIC STRIPING
633	PAVEMENT MARKERS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

BICYCLE LANE DEPARTURE FROM INTERSECTIONS

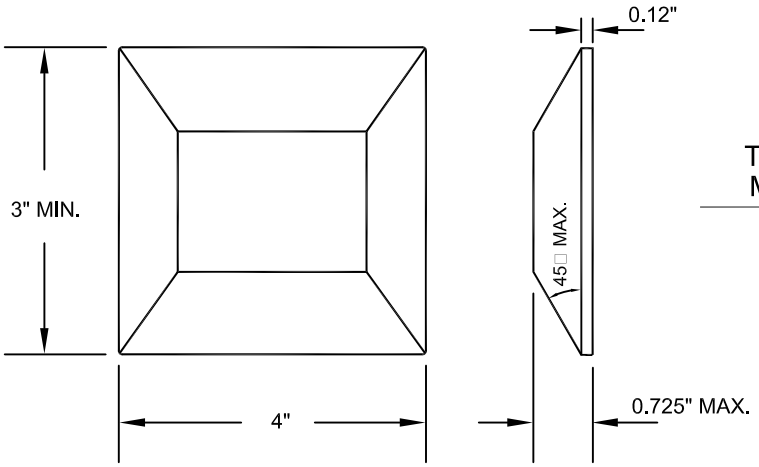
DATE 7-10-03	DWG. NO. 246.5	PAGE NO. 52.5

Effective 01/01/09 - 06/30/09



TYPE A & B
MARKER DETAIL

(NON-REFLECTIVE)



TYPE C, D, E & F
MARKER DETAIL

(REFLECTIVE)

LANE MARKER SCHEDULE

TYPE A	●	CIRCULAR WHITE CERAMIC MARKER
TYPE B	○	CIRCULAR YELLOW CERAMIC MARKER
TYPE C	■	TWO WAY YELLOW REFLECTOR
TYPE D	◪	ONE WAY YELLOW REFLECTOR, YELLOW TOWARD ONCOMING TRAFFIC
TYPE E	□	ONE WAY WHITE REFLECTOR, WHITE TOWARD ONCOMING TRAFFIC
TYPE F	◨	TWO WAY WHITE AND RED REFLECTOR, WHITE TOWARD ONCOMING TRAFFIC

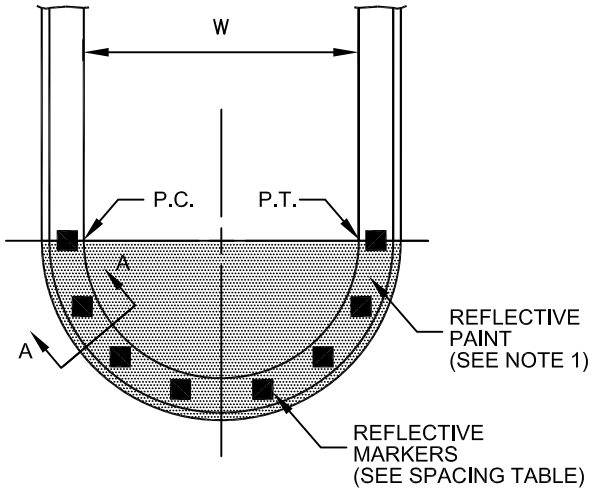
SPECIFICATION REFERENCE	
633	PAVEMENT MARKERS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

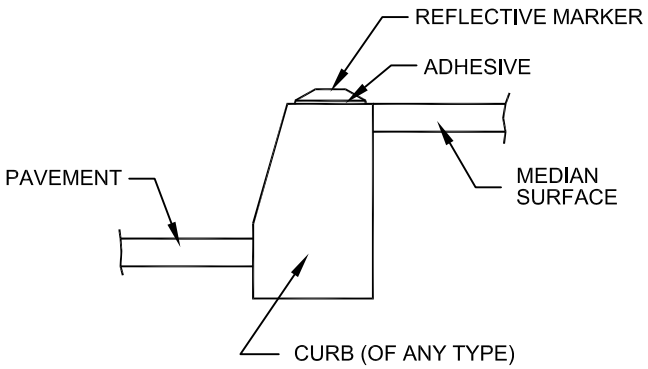
MARKER DETAILS AND LANE MARKER SCHEDULE

DATE 5-13-99	DWG. NO. 247	PAGE NO. 53

Effective 01/01/09 - 06/30/09



PLAN



SECTION A-A

SPACING TABLE

"W"	NUMBER OR REFLECTORS PER MEDIAN NOSE *
1.0' TO 2.0'	3
2.0' TO 3.0'	4
3.0' TO 4.0'	5
4.0' & GREATER	1 EACH FOR EVERY 1.0' OF CURB LENGTH

* 1 MARKER EACH SHALL BE PLACED ON THE P.C. AND THE P.T. OF THE MEDIAN NOSE; ALL OTHERS SPACED EQUALLY BETWEEN P.T. & P.C.

NOTES:

1. ENTIRE MEDIAN SHALL BE PAINTED WITH REFLECTIVE PAINT, OF SAME COLOR AS REFLECTIVE MARKERS, FROM THE MEDIAN NOSE BACK 5 FEET OR TO THE P.C., WHICHEVER IS GREATER.
2. REFLECTIVE PAVEMENT MARKERS USED ON MEDIAN SHALL CONFORM TO STANDARD DRAWING NO. 247.
3. ORIENTATION OF THE REFLECTIVE MARKERS FACES SHALL BE MADE IN THE FIELD TO ENSURE THAT MARKERS ARE AIMED AT APPROACHING VEHICLES TO BEST ADVANTAGE, ESPECIALLY IN HORIZONTALLY CURVED ROAD SECTIONS.

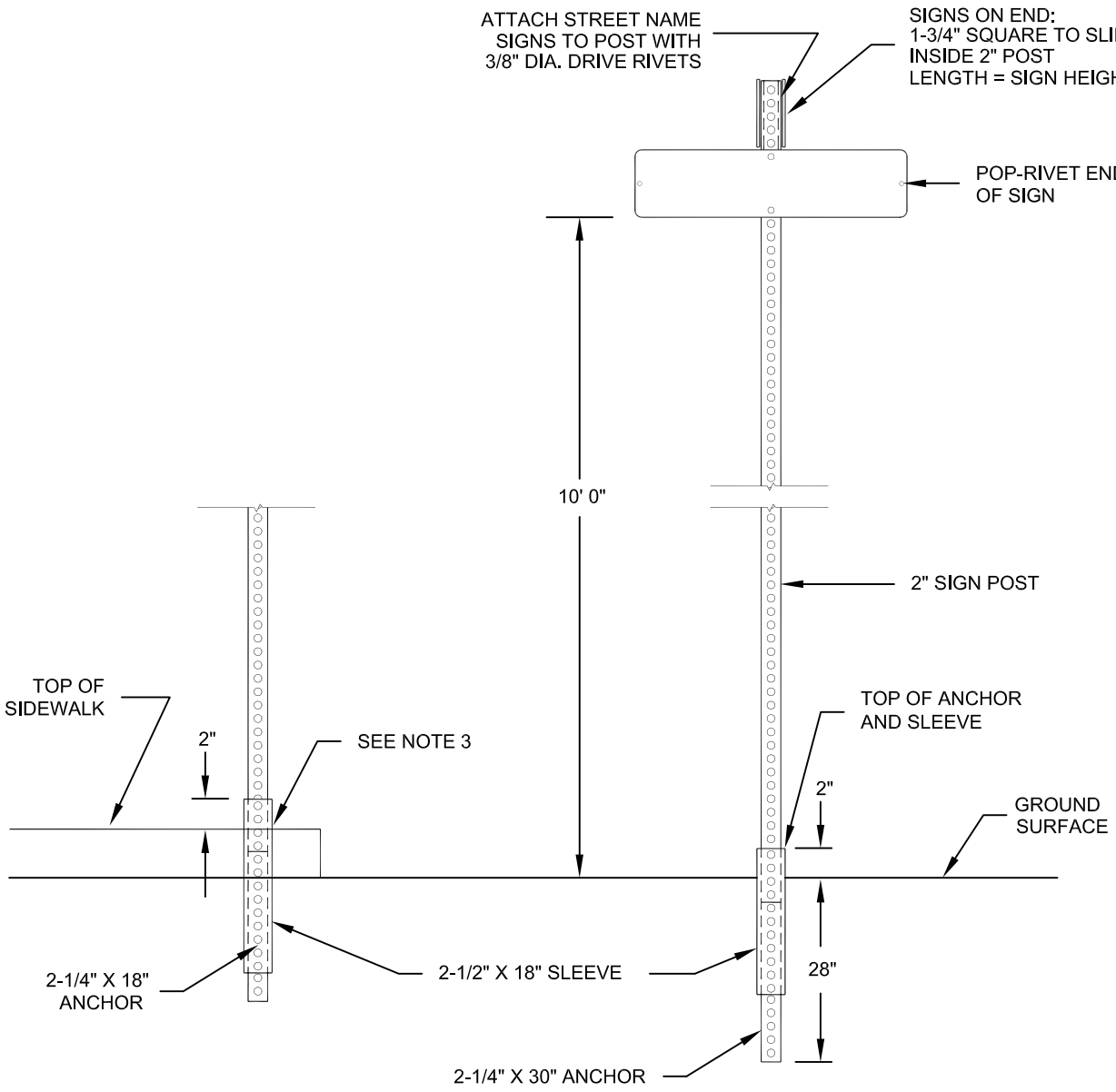
SPECIFICATION REFERENCE	
628	PAINTING TRAFFIC STRIPING
633	REFLECTIVE PAVEMENT MARKERS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

MEDIAN NOSE MARKINGS

DATE 6-11-93	DWG. NO. 248	PAGE NO. 54

Effective 01/01/09 - 06/30/09



NOTES:

1. ALL COMPONENTS SHALL BE SQUARE POST, PERFORATED ON ALL FOUR SIDES.
2. ATTACH ANCHOR AND SLEEVE TOGETHER PRIOR TO DRIVING INTO GROUND. LEAVE AT LEAST ONE HOLE, BUT NO MORE THAN TWO, ABOVE GROUND OR ABOVE SIDEWALK.
3. FOR SIDEWALK INSTALLATION, DRILL SIDEWALK WITH A 3" HOLE, THE CENTER TO BE 6" FROM BACK OF SIDEWALK.
4. ATTACH POST TO ANCHORING SYSTEM BY USING AT LEAST TWO 3/8" DIA. DRIVE RIVETS.
5. PROVIDE 4" MINIMUM LAP BETWEEN POST AND THE ANCHOR/SLEEVE ASSEMBLY.
6. ALL STREET NAME SIGNS SHALL BE 9 INCH STANDARD IN THE CITY OF MESQUITE ONLY.

SPECIFICATION REFERENCE	
631	STREET NAME SIGNS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

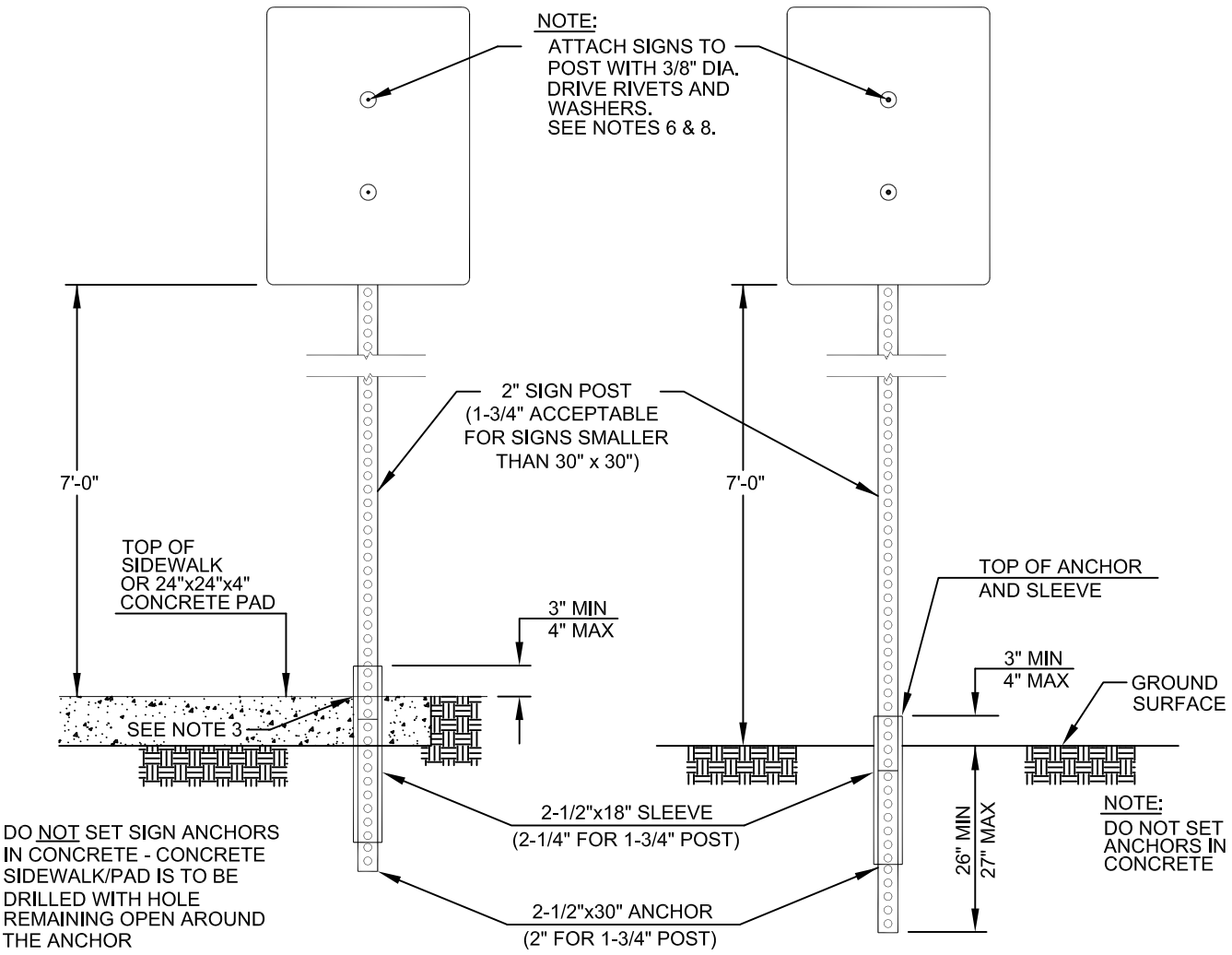
STANDARD STREET NAME SIGN POST INSTALLATION

DATE	5-20-04	DWG. NO.	249	PAGE NO.	55

Effective 01/01/09 - 06/30/09

URBAN INSTALLATIONS
SEE NOTE 9

RURAL INSTALLATIONS
(NO LANDSCAPING)



NOTES:

1. ALL COMPONENTS SHALL BE MINIMUM 12 GA. SQUARE POST WITH 7/16" PUNCHED THRU HOLES @ 1' ON CENTER, ON ALL FOUR SIDES. ANCHORS SHALL BE TWO PIECE BREAKAWAY ANCHORS.
2. ATTACH ANCHOR AND SLEEVE TOGETHER PRIOR TO DRIVING INTO GROUND. LEAVE AT LEAST TWO HOLES, BUT NO MORE THAN THREE HOLES ABOVE GROUND OR ABOVE SIDEWALK.
3. FOR SIDEWALK INSTALLATION, DRILL SIDEWALK AND CONCRETE PAD INSTALLATION, DRILL A 3" TO 4" DIA. HOLE (DEPENDENT UPON ANCHOR SIZE), THE CENTER TO BE 6" FROM THE BACK OF SIDEWALK.
4. ATTACH POST TO ANCHORING SYSTEM BY USING AT LEAST TWO 3/8" DIA. DRIVE RIVETS.
5. PROVIDE 4" MINIMUM LAP BETWEEN BOTTOM OF POST AND THE BOTTOM OF THE ANCHOR/SLEEVE ASSEMBLY.
6. SIGNS LARGER THAN 24"x30" REQUIRE 3/8" x 1-1/2" FENDER WASHERS UNDER DRIVE RIVETS.
7. "U-CHANNEL" POSTS ARE NOT ACCEPTABLE.
8. BOLTS IN LIEU OF DRIVE RIVETS ARE NOT ACCEPTABLE.
9. ALL URBAN SIGN INSTALLATIONS ARE TO BE INSTALLED IN A CONCRETE SIDEWALK, OR IN A CONCRETE PAD (24"x24"x4") WHEN NO SIDEWALK EXISTS.
10. INSTALLATION OF SIGNS SHALL MEET LATEST ADA REQUIREMENTS.
11. SIGNS SHALL HAVE A STICKER AT THE BACK WITH THE NAME OF THE CONTRACTOR AND THE DATE OF INSTALLATION.

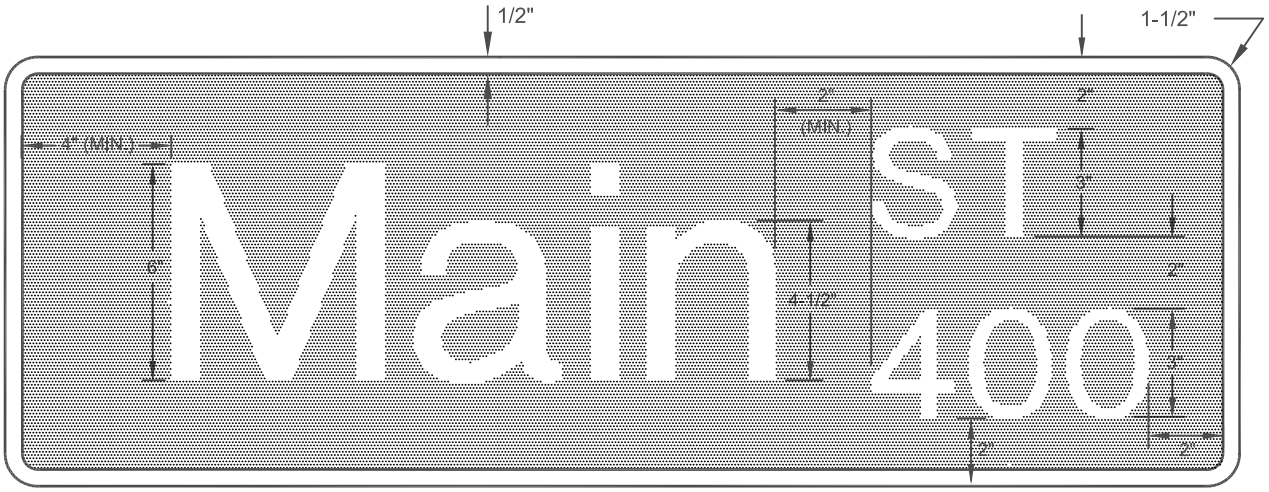
SPECIFICATION REFERENCE	
631	STREET NAME SIGNS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

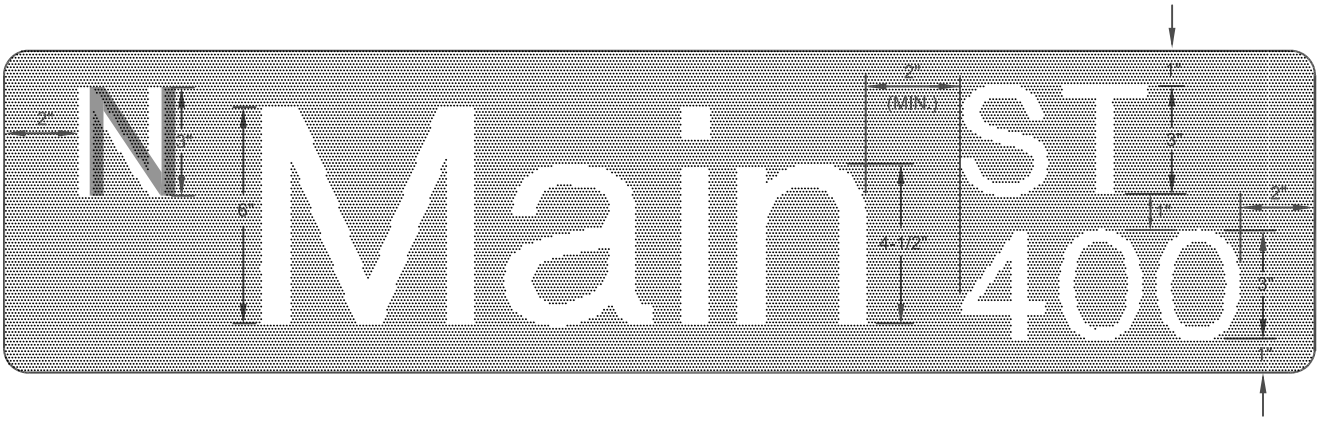
SIGN INSTALLATION DETAIL

DATE 11-10-04	DWG. NO. 249A	PAGE NO. 55A

Effective 01/01/09 - 06/30/09



12" (MAJOR STREETS)



9" (MINOR STREETS)

NOTES:

1. SIGN SHALL BE WHITE LETTERS AND NUMBERS ON GREEN BACKGROUND. (THE CITY OF NORTH LAS VEGAS BACKGROUND IS BLUE.) CUT-OUT LETTERS AND NUMBERS ARE NOT ACCEPTABLE (EXCEPT FOR THE BLOCK NUMBER).
2. REFLECTIVE SHEETING MATERIAL SHALL BE CLASS 6.
3. PRIMARY COPY FOR 9" AND 12" SIGNS SHALL BE 6" SERIES 'C' UPPERCASE WITH 4 1/2' SERIES 'C' LOWERCASE; HOWEVER, WHEN DESCENDERS ARE REQUIRED ON 9" SIGNS, PRIMARY COPY SHALL BE 5 1/2". ORDINAL, SUFFIX AND BLOCK NUMBER SHALL BE 3" SERIES 'C' UPPERCASE. (ORDINAL MAY BE OMITTED FROM 12" SIGNS, EXCEPT IN CLARK COUNTY.) SPACING BETWEEN LETTERS SHALL BE AS ON SHEET 2 OF THIS DRAWING.
4. THE SIGN SHALL HAVE A MINIMUM LENGTH OF 30". WHERE EXTRA LENGTH IS REQUIRED, IT SHALL BE PROVIDED IN 6" INCREMENTS. GROUND MOUNTED SIGNS SHALL HAVE A MAXIMUM LENGTH OF 42".
5. BOTH SIGNS PLACED ON MAJOR STREETS WITH RIGHTS-OF-WAY 80' OR GREATER SHALL HAVE A HEIGHT OF 12"; SIGNS PLACED ON MINOR STREETS WITH RIGHTS-OF-WAY OF LESS THAN 80' SHALL HAVE A HEIGHT OF 9".
6. 12" SIGNS SHALL HAVE A 1/2" WHITE BORDER AT THE EDGE.
7. SIGN BLANKS SHALL HAVE ROUNDED CORNERS.

SPECIFICATION REFERENCE	
631	STREET NAME SIGNS
716	SIGN MATERIALS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

STREET NAME SIGNS
FACE COPY

DATE	6-8-06	DWG. NO.	250 (1 OF 2)	PAGE NO.	56

Effective 01/01/09 - 06/30/09

SPACING OF STREET NAME SIGN LEGENDS

SPACING FOR STREET NAME SIGN LEGENDS SHALL BE OBTAINED BY MODIFICATION TO THE REQUIREMENTS OF THE FHWA STANDARD SPACING CHART FOR 6" UPPERCASE LETTERS. THE FOLLOWING STEPS SHALL BE USED TO DETERMINE REQUIRED SPACING:

1. SIGN LAYOUT COMPUTER SOFTWARE SHALL BE EVALUATED TO DETERMINE THE "CORRECTION FACTOR" NECESSARY FOR LAYOUT SOFTWARE LETTER SPACING TO BE APPROXIMATELY EQUAL TO THE FHWA STANDARD SPACING FOR UPPERCASE LETTERS.
2. CORRECTION FACTOR SHALL BE USED TO ADJUST THE SPACING FOR THE LOWERCASE LETTERS.
3. SPACING FOR STREET NAME SIGN LEGENDS SHALL BE EQUAL TO 110% OF THE "CORRECTED" LAYOUT SOFTWARE LETTER SPACING.

(SAME STEPS ARE TO BE FOLLOWED WHEN FONT SIZE OF LEGEND IS REDUCED IN ORDER NOT TO EXCEED THE MAXIMUM LENGTH LIMITATIONS.)

IF LEGEND SPACED ACCORDING TO RECOMMENDED PROCEDURE ABOVE EXCEEDS THE MAXIMUM ALLOWABLE SIGN LENGTH (42" FOR GROUND-MOUNTED), THE FOLLOWING ACTIONS, LISTED IN PRIORITY ORDER, SHALL BE TAKEN TO REDUCE LENGTH OF THE SIGNBLANK.

A. REDUCE THE FONT TO 5 1/2" SERIES 'C'.
B. REDUCE THE SPACING TO 100% OF THE "FEDERAL STANDARD".
C. REDUCE THE FONT TO 5 1/2" SERIES "B".
D. CONSIDER ABBREVIATING ANY LEGEND WORDS WHICH ARE EXTREMELY COMMON (I.E., "MTN" FOR "MOUNTAIN") SUCH ABBREVIATIONS MUST BE APPROVED BY THE TRAFFIC ENGINEER AND THE FIRE DEPARTMENT.
E. REDUCE THE LEADING AND TRAILING BLANK GREEN SPACE BY 50%.
F. CONSTRUCT THE SIGN ACCORDING TO THE STANDARD SPACING WHICH WILL BE GREATER THAN 42" IN LENGTH, AND MOUNT ON A STREETLIGHT POLE OR OTHER ELEVATED MOUNT AS APPROVED BY THE TRAFFIC ENGINEER WITH APPROPRIATE SIGN BRACING AND MOUNTING HARDWARE.

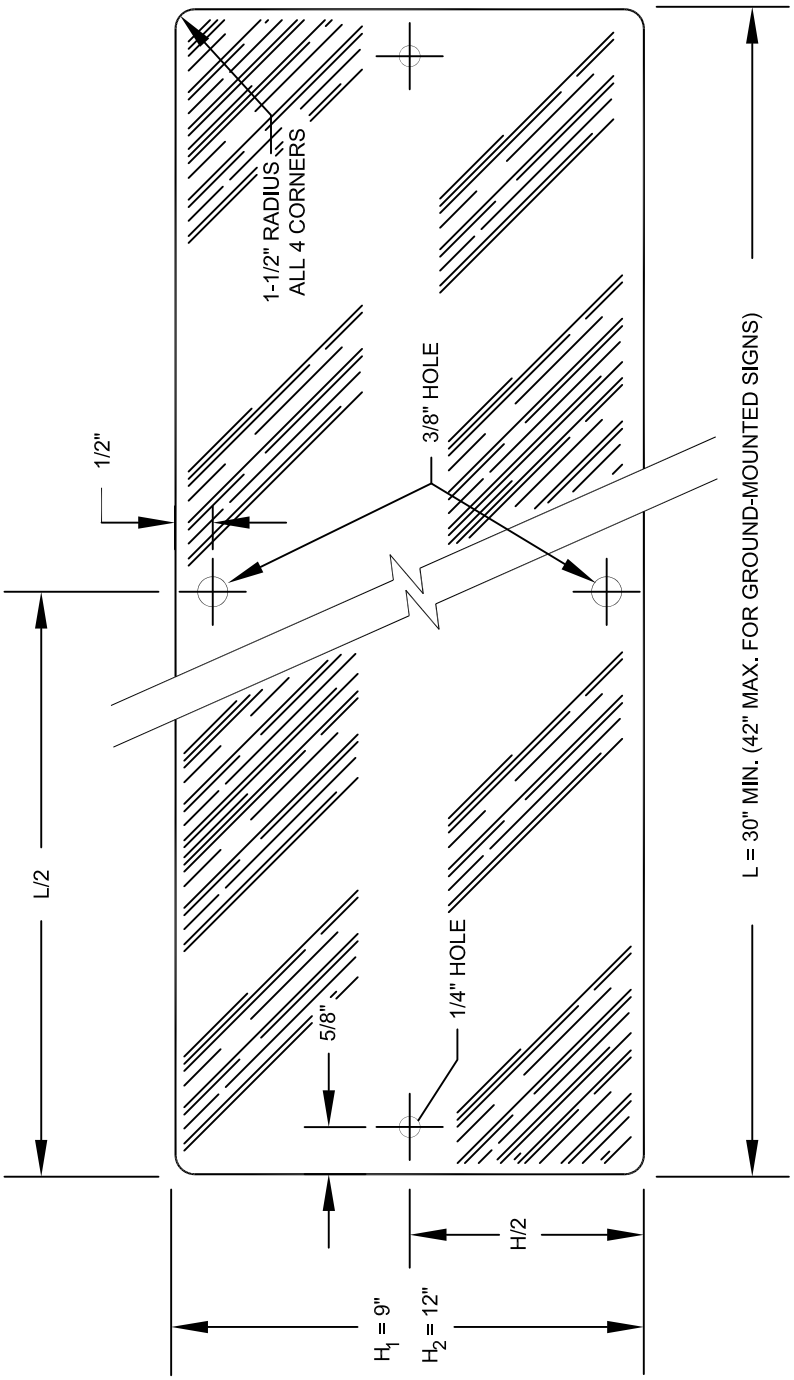
SPECIFICATION REFERENCE	
631	STREET NAME SIGNS
716	SIGN MATERIALS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

STREET NAME SIGNS
LETTER SPACING

DATE 6-12-97	DWG. NO. 250 (2 OF 2)	PAGE 56A

Effective 01/01/09 - 06/30/09



ALUMINUM BLANK

5052-H38 OR 6061-T6, HEAT-TREATED, HIGH TENSILE, DEGREASED AND ALODINE 1200 FINISH.
THICKNESS TO BE 0.080" FOR SIGNS LESS THAN 36" AND 0.100" FOR SIGNS 36" AND LONGER.

NOTE:

1. FOR SIGN FACE SPECIFICATIONS SEE STANDARD DRAWING NO. 250.

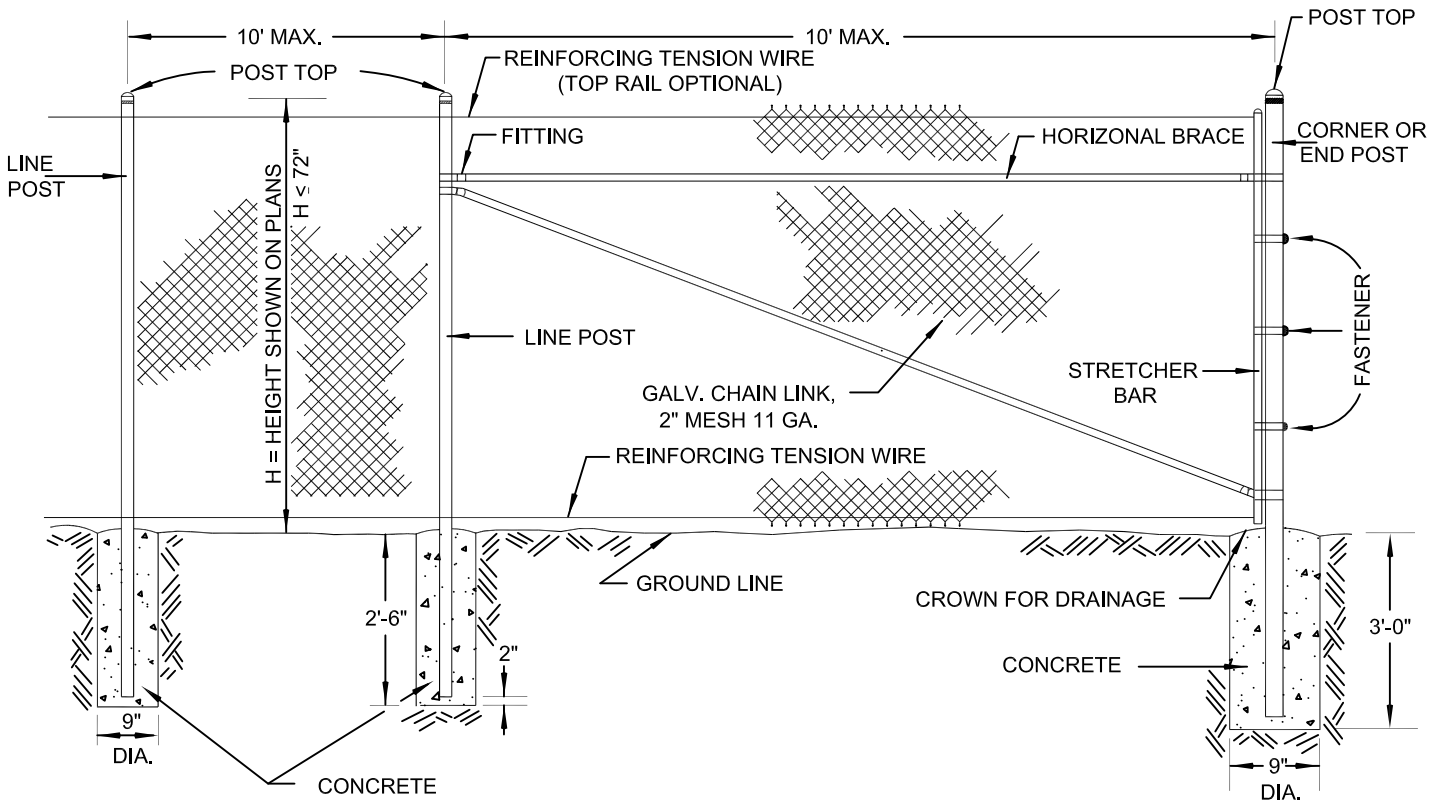
SPECIFICATION REFERENCE	
631	STREET NAME SIGNS
716	SIGN MATERIALS

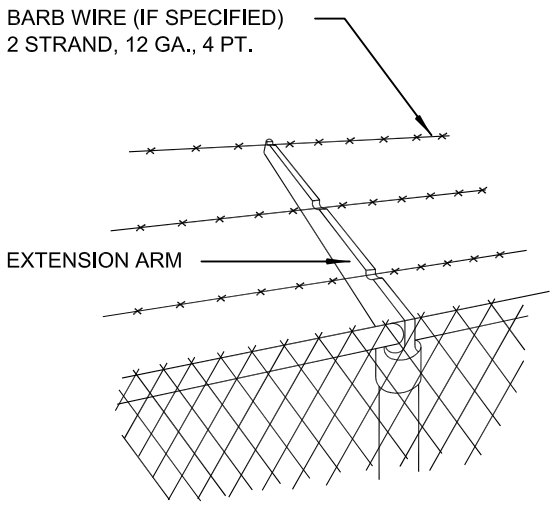
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

STREET NAME SIGN BLANKS

DATE	6-8-06	DWG. NO.	251	PAGE	57

Effective 01/01/09 - 06/30/09





EXTENSION ARM & BARBED WIRE

NOTES:

1. FENCING SHALL BE CHAIN LINK AND SHALL CONSIST OF GALVANIZED CHAIN LINK FABRIC ON STEEL POSTS.
   - (A) ALL POSTS TOPS SHALL BE FITTED WITH SUITABLE FINIALS.
   - (B) BRACES SHALL BE SPACED APPROXIMATELY 12" BELOW TOP OF TERMINAL POSTS AND SHALL EXTEND FROM END, GATE, OR CORNER POSTS TO FIRST ADJACENT LINE POST.
   - (C) ALL FITTINGS SHALL BE HOT-DIPPED GALVANIZED MALLEABLE, CAST IRON, OR PRESSED STEEL.
   - (D) TOP AND BOTTOM SELVAGES OF THE FENCE SHALL HAVE A TWISTED AND BARBED FINISH.
2. BARBED WIRE, EXTENSION ARMS, AND TOP HORIZONTAL RAILS SHALL BE INSTALLED ONLY WHEN SHOWN ON THE PLANS AND/OR CALLED FOR IN THE SPECIAL PROVISIONS.

TABLE I

FOR CHAIN LINK FENCE 72" AND LESS

LOCATION	MIN. SIZE	MIN. WEIGHT
END, CORNER & PULL	2.351 O.D.	3.10
LINE	2.00 O.D.	2.72
BRACES	1.630 O.D.	2.27
TOP RAIL	1.630 O.D.	2.27

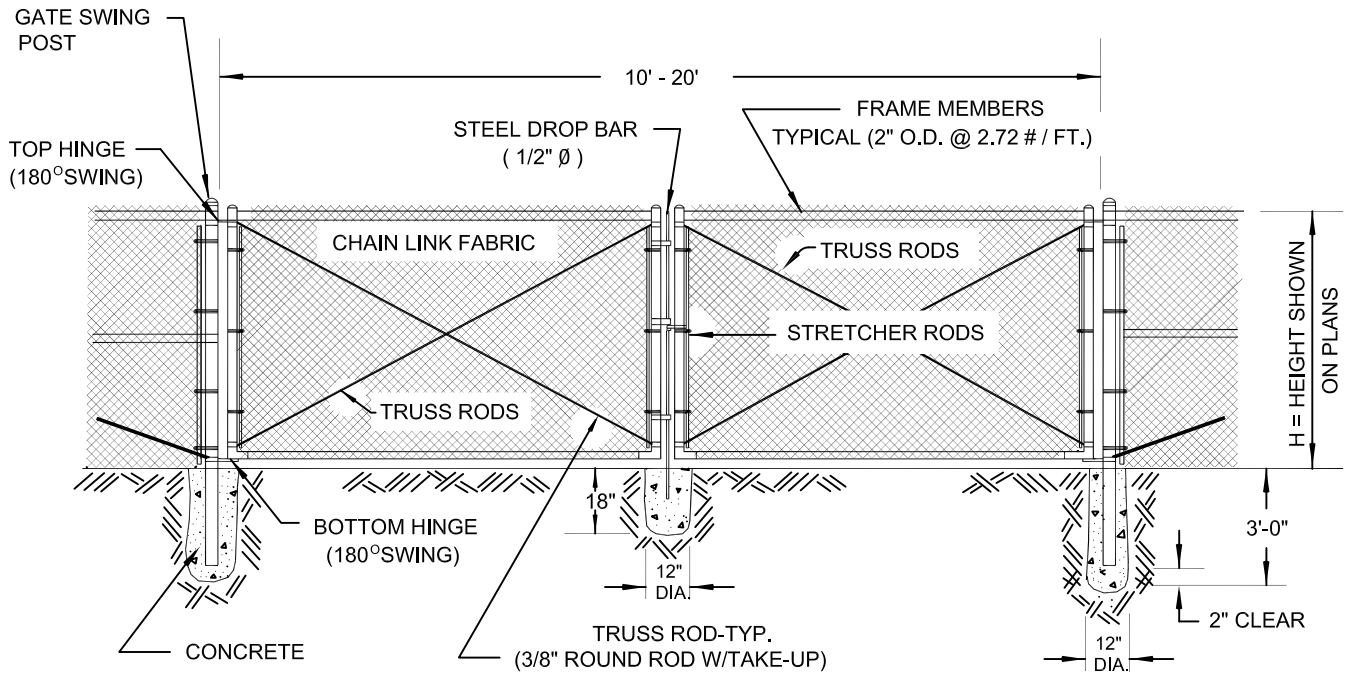
SPECIFICATION REFERENCE	
501	CONCRETE
616	FENCING

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

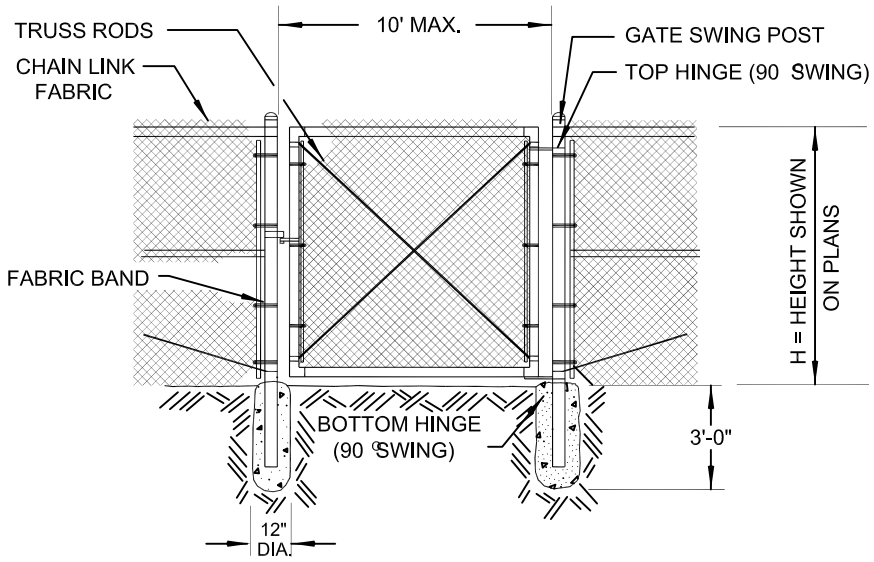
CHAIN LINK FENCE (72" HIGH OR LESS)

DATE 12-14-00	DWG. NO. 252	PAGE NO. 58

Effective 01/01/09 - 06/30/09



DOUBLE SWING GATE



SINGLE GATE

GATE SWING POST DIA.	
GATE SIZE	PIPE DIA.
6' AND LESS	3"O.D. - 5.79 LBS./FT.
6' - 10'	4"O.D. - 9.10 LBS./FT.

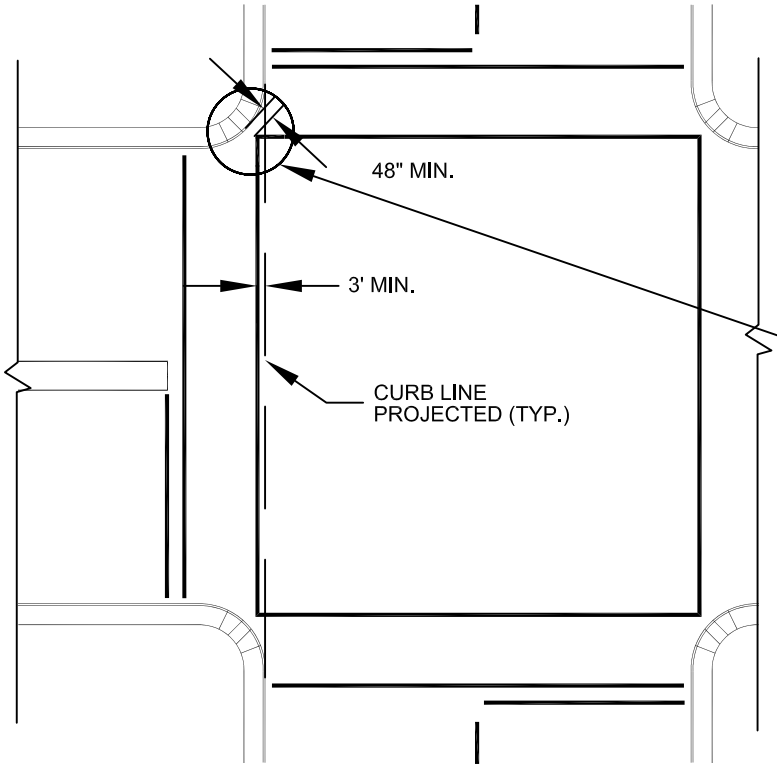
SPECIFICATION REFERENCE	
501	CONCRETE
616	FENCING

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

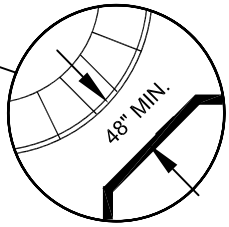
CHAIN LINK GATES

DATE 12-14-00	DWG. NO. 253	PAGE NO. 59

Effective 01/01/09 - 06/30/09



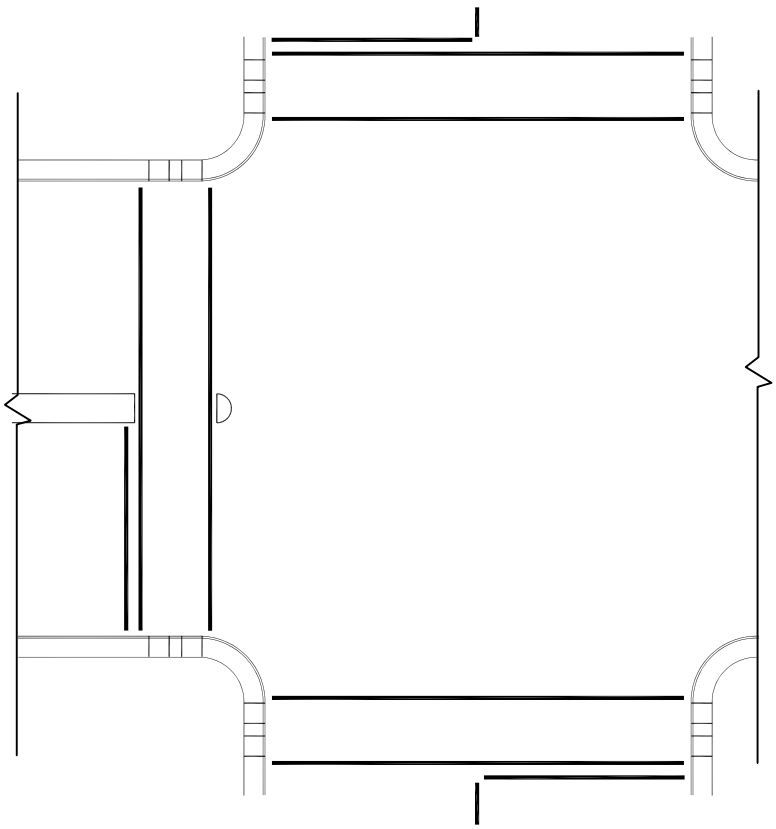
TYPICAL MARKING
CURB RAMP IN
MIDDLE OF
CURB RETURN



OPTIONAL DETAIL

NOTE:

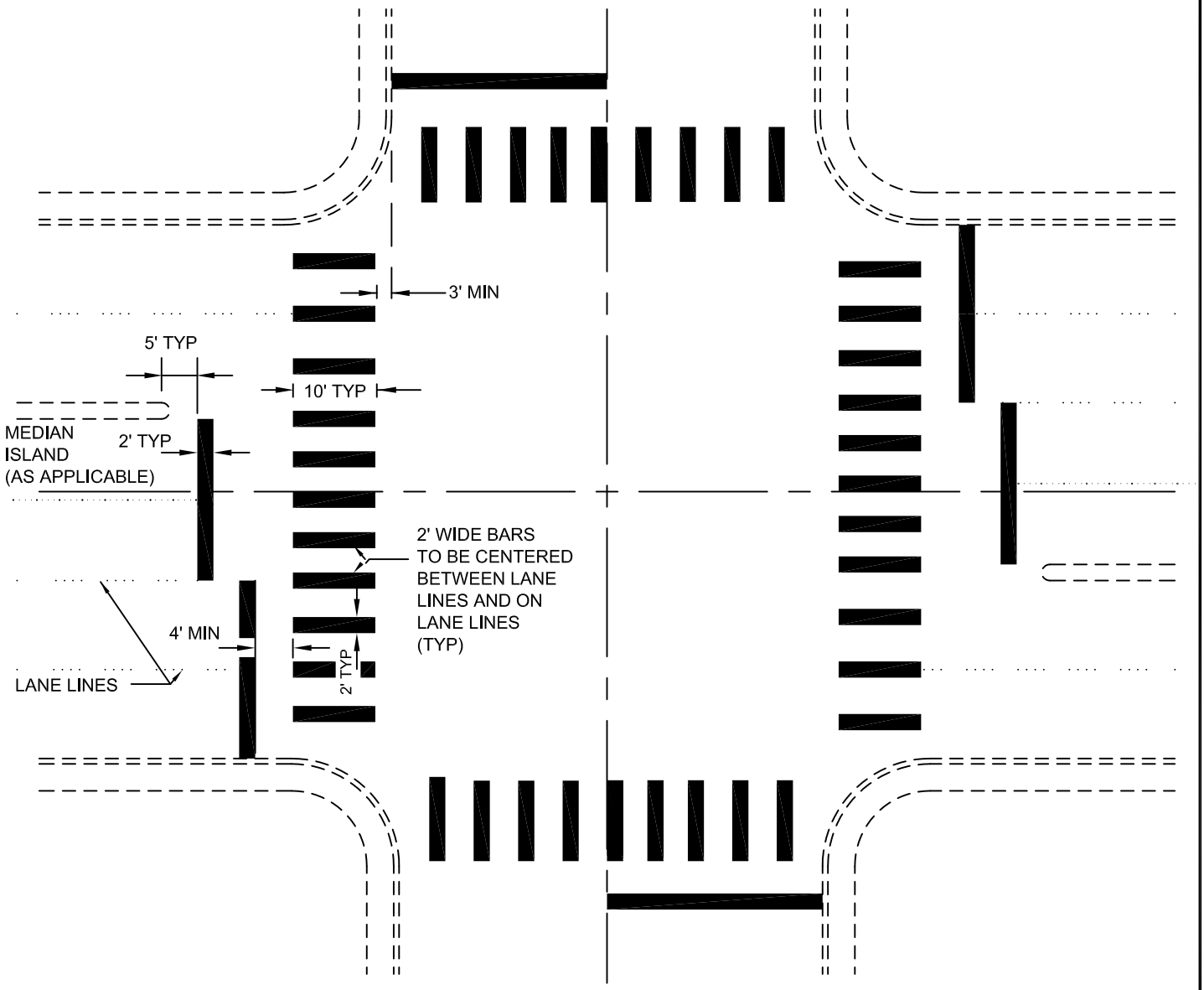
USE MARKING PER OPTIONAL DETAIL IF NECESSARY TO OBTAIN 3' MINIMUM CLEARANCE BETWEEN CROSSWALK AND CURB LINE PROJECTED.



TYPICAL MARKING
CURB RAMP
ADJOINING
CURB RETURN

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		CROSSWALK MARKINGS (EXCEPT CLARK COUNTY)		
		DATE 8-12-99	DWG. NO. 254	PAGE 59.1

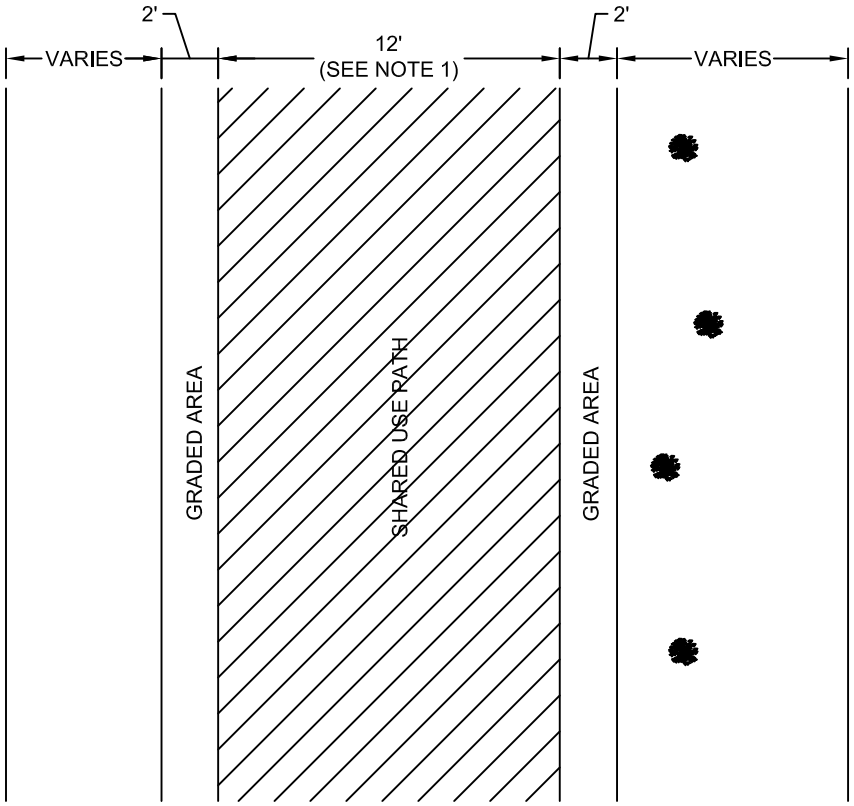
Effective 01/01/09 - 06/30/09

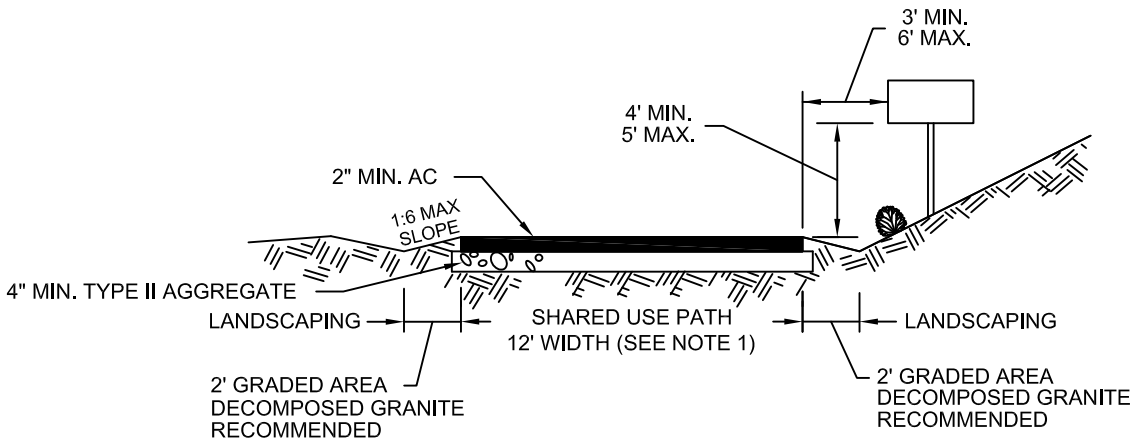


TYPICAL CROSSWALK
STRIPING DETAIL

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		EXCEPT CITY OF LAS VEGAS CROSSWALK MARKINGS		
		DATE 6-14-01	DWG. NO. 254A	PAGE 59.1A

Effective 01/01/09 - 06/30/09





NOTES:

1. 12 FOOT WIDTH IS RECOMMENDED. 10 FOOT WIDTH IS ALLOWABLE ALONG A PATH PARALLEL TO A ROADWAY OR WHERE SPACE IS LIMITED. PAVEMENT AND BASE DEPTH WILL VARY BASED ON SOIL CONDITIONS. PORTLAND CEMENT CONCRETE MAY BE USED INSTEAD OF ASPHALT.
2. SEE DRAWING NUMBER 255.1 FOR SHARED USE PATH ALONG A ROADWAY.
3. SEE THE GUIDE FOR THE DEVELOPMENT OF BICYCLE FACILITIES, AASHTO 1999, AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR ADDITIONAL GUIDELINES AND STANDARDS.
4. SEE LOCAL JURISDICTIONS FOR LANDSCAPING REQUIREMENTS.

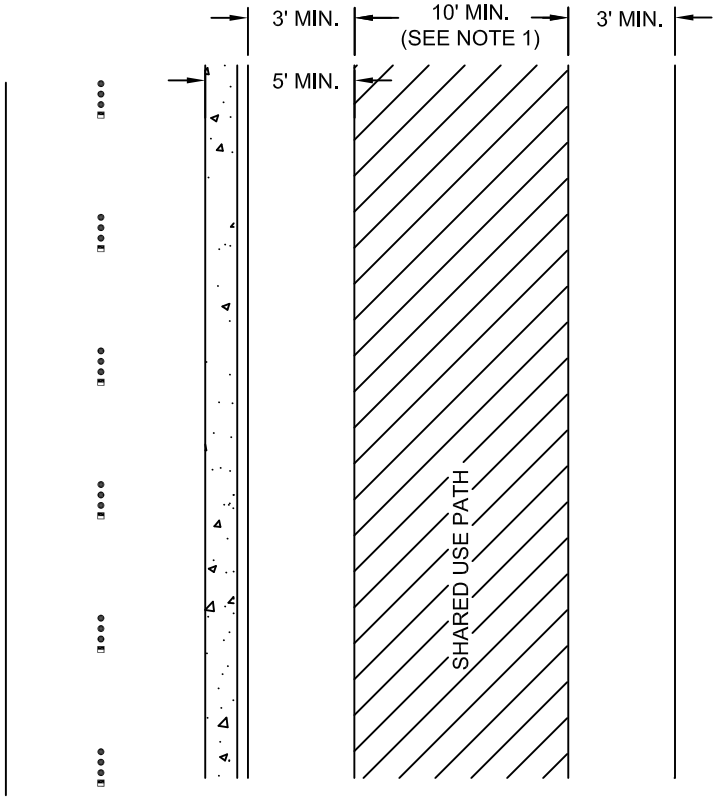
SPECIFICATION REFERENCE	
628	PAINTING TRAFFIC STRIPING
633	PAVEMENT MARKERS

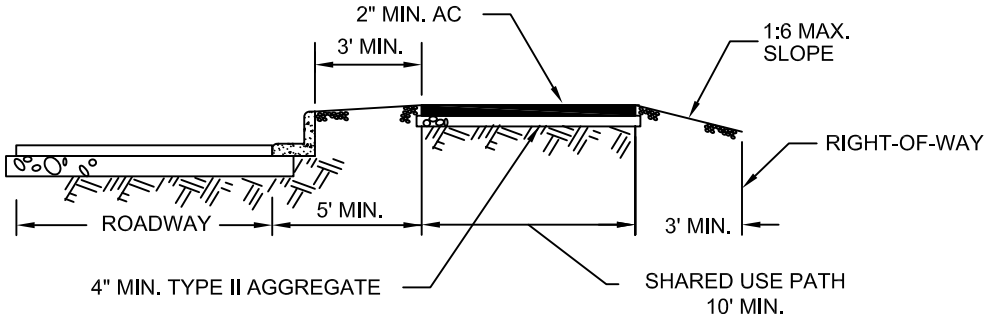
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

SHARED USE PATH

DATE	7-10-03	DWG. NO.	255	PAGE NO.	59.2

Effective 01/01/09 - 06/30/09





NOTES:

1. 12 FOOT WIDTH IS RECOMMENDED. 10 FOOT WIDTH IS ALLOWABLE ALONG A PATH PARALLEL TO A ROADWAY OR WHERE SPACE IS LIMITED. PAVEMENT AND BASE DEPTH WILL VARY BASED ON SOIL CONDITIONS. PORTLAND CEMENT CONCRETE (PCC) MAY BE USED INSTEAD OF ASPHALT AND PCC MAY BE REQUIRED BY THE LOCAL JURISDICTION.
2. SEE DRAWING NUMBER 255 FOR SHARED USE PATH NOT ALONG A ROADWAY.
3. SEE THE GUIDE FOR THE DEVELOPMENT OF BICYCLE FACILITIES, ASSHTO 1999, AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR ADDITIONAL GUIDELINES AND STANDARDS.
4. SEE LOCAL JURISDICTIONS FOR LANDSCAPING REQUIREMENTS.
5. 3 FOOT LATERAL CLEARANCE RECOMMEDNED BETWEEN EDGE OF PATH AND A FIXED OBJECT, 2 FOOT MINIMUM.
6. IF 16 FEET IS NOT AVAILABLE FROM THE BACK OF CURB TO THE RIGHT-OF-WAY LINE, A BICYCLE LANE/ROUTE AND THE SIDEWALK WILL SUBSTITUTE FOR THE PATH. PLACE A PATH ENDS SIGN (W9) 25 FEET IN ADVANCE OF THE PATH ENDING.

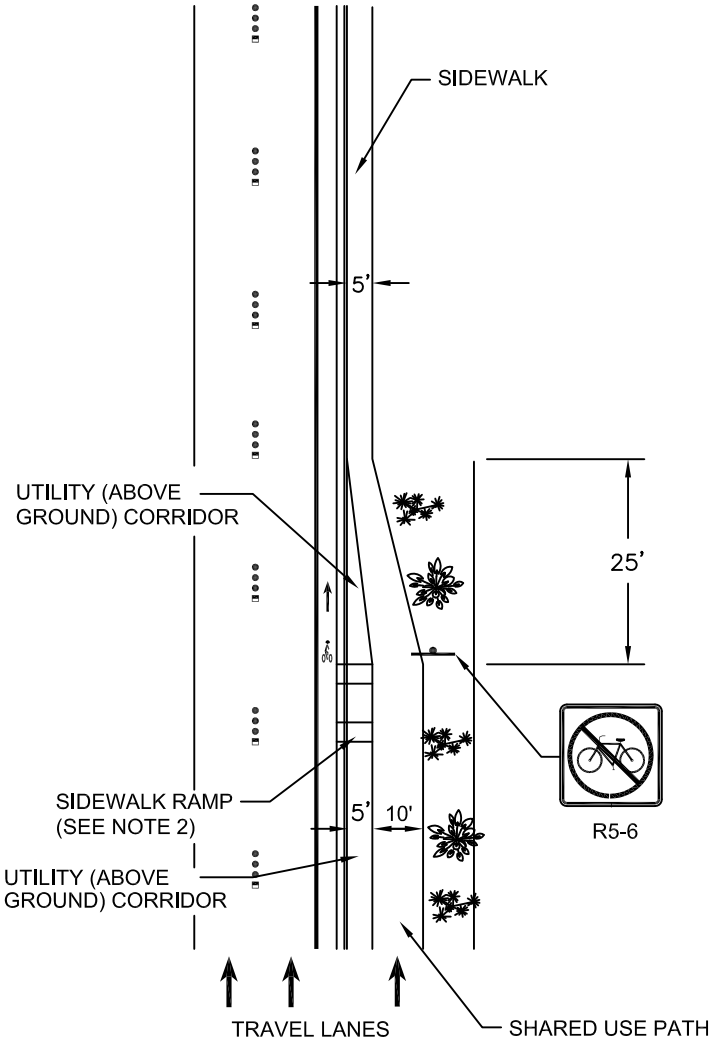
SPECIFICATION REFERENCE	
628	PAINTING TRAFFIC STRIPING
633	PAVEMENT MARKERS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

SHARED USE PATH ALONG A ROADWAY

DATE 7-10-03	DWG. NO. 255.1	PAGE NO. 59.3

Effective 01/01/09 - 06/30/09



NOTES:

1. USE ENGINEERING JUDGEMENT TO APPLY THIS DETAIL TO SIMILAR SCENARIOS.
2. SEE DRAWING NO. 235, CASE III, FOR SIDEWALK RAMP DETAILS.

SPECIFICATION REFERENCE	
628	PAINTING TRAFFIC STRIPING
633	PAVEMENT MARKERS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

TYPICAL TRANSITION SECTION FROM SHARED USE PATH ALONG ROADWAY TO SIDEWALK

DATE	7-10-03	DWG. NO.	255.2	PAGE NO.	59.4

Effective 01/01/09 - 06/30/09

SIGN SIZES FOR SHARED-USE PATHS

MUTCD CODE	SIGN	MINIMUM SIGN SIZE (IN)
R1-1	STOP	18 X 18
R1-2	YIELD	24 X 24 X 24
R3-16, 16A, 17, 17A	BICYCLE LANE	24 X 30
R4-1, 2, 3, 7	MOVEMENT RESTRICTION	12 X 18
R4-4	BEGIN RIGHT TURN LANE YIELD TO BIKES	36 X 30
R5-3	NO MOTOR VEHICLES	24 X 24
R5-6	BICYCLE PROHIBITION	24 X 24
R7-9, 9A	NO PARKING BIKE LANE	12 X 18
R9-3A	PEDESTRIANS PROHIBITED	18 X 18
R9-5, 6	BICYCLE REGULATORY	12 X 18
R9-7	SHARED-USE PATH RESTRICTION	12 X 18
R15-1	RAILROAD CROSSBUCK	24 X 4.5
W1-1, 2, 3, 4, 5	TURN AND CURVE WARNING	18 X 18
W1-6, 7	ARROW WARNING	24 X 12
W2-1, 2, 3, 4, 5	INTERSECTION WARNING	18 X 18
W3-1A, 2A, 3	STOP, YIELD, SIGNAL AHEAD	18 X 18
W5-2A	ROAD NARROWS	18 X 18
W5-4	BIKEWAY NARROWS	18 X 18
W7-5	HILL SIGN	18 X 18
W8-1, 2	BUMP OR DIP	18 X 18
W8-10	BICYCLE SURFACE CONDITION	18 X 18
W10-1	ADVANCE GRADE CROSSING	18 DIA.
W11-1	BICYCLE CROSSING	18 X 18
W12-2	LOW CLEARANCE	18 X 18
W16-1	SHARE THE ROAD PLAQUE	24 X 30
D1-1	SUPPLEMENTAL BIKE ROUTE PLAQUE	24 X 6
D4-3	BICYCLE PARKING	12 X 18
D11-1	BIKE ROUTE	24 X 18
M1-8	BIKE ROUTE MARKER	12 X 18
M1-9	BIKE ROUTE MARKER	18 X 24
M4-11, 12, 13	SUPPLEMENTAL BICYCLE ROUTE GUIDE	12 X 4
M7-1, 2, 3, 4, 5, 6, 7	ROUTE MARKER SUPPLEMENTAL PLAQUES	12 X 9

NOTES:

1. SIGN TABLE INSERTED FROM MUTCD FOR REFERENCE. SEE CURRENT MUTCD FOR UPDATED INFORMATION.
2. SIGNS R3-16(A), R3-17(A), R4-4, W5-2A, AND W16-1 NOT USED FOR SHARED USE PATHS.

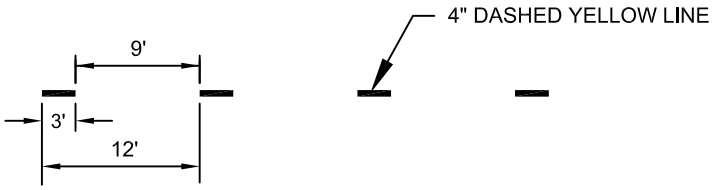
SPECIFICATION REFERENCE	
628	PAINTING TRAFFIC STRIPING
633	PAVEMENT MARKERS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

SIGN SIZES FOR
SHARED USE PATH

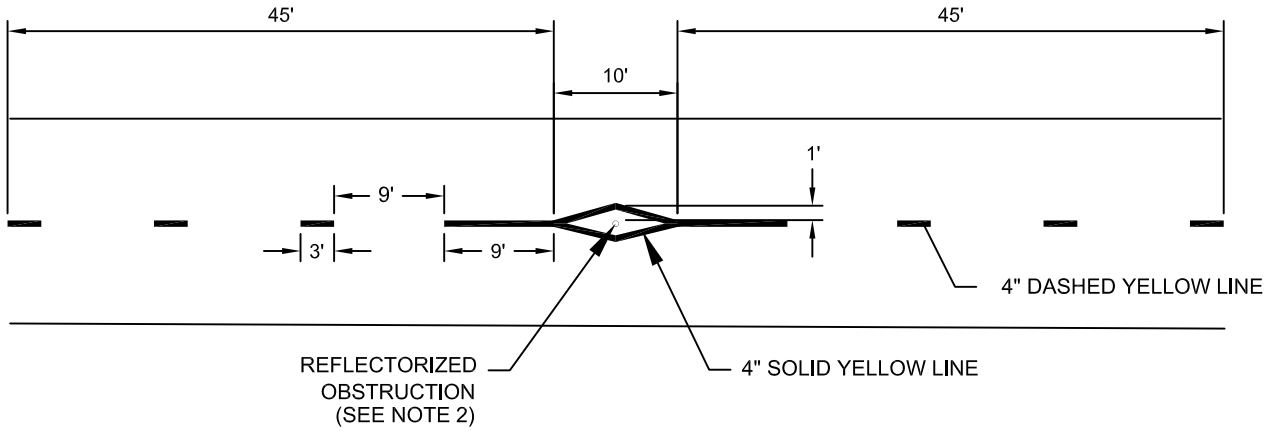
DATE 7-10-03	DWG. NO. 255.3	PAGE NO. 59.5

Effective 01/01/09 - 06/30/09

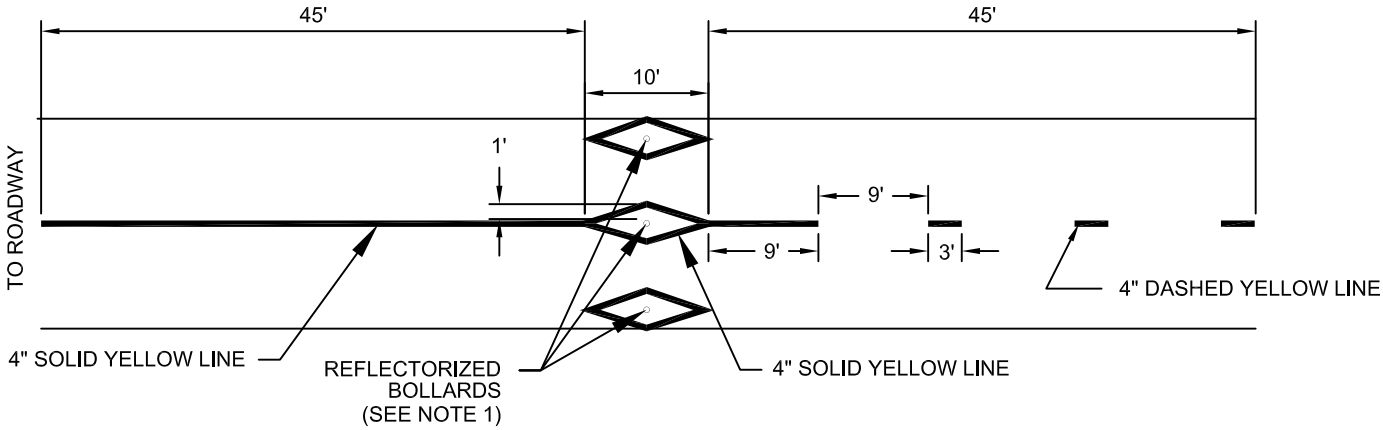


CENTERLINE DELINEATION
PASSING PERMITTED
(SEE NOTE 3)

CENTERLINE DELINEATION
PASSING PROHIBITED
(SEE NOTE 3)



TYPICAL CENTERLINE DELINEATION AROUND OBSTRUCTION



TYPICAL CENTERLINE DELINEATION AT THE BEGINNING AND END OF A SHARED USE PATH

NOTES:

1. USE BOLLARDS ONLY AT LOCATIONS WHERE UNAUTHORIZED ACCESS IS ANTICIPATED. INSTALL EITHER 1 OR 3 (5 FOOT SPACING DESIRABLE) SIX-INCH DIAMETER BY 3 FT. TALL REFLECTORIZED BOLLARDS WHEN NECESSARY. CENTERLINE DELINEATION SHOULD BE PROVIDED AT APPROACH TO INTERSECTION EVEN WHEN BOLLARD IS NOT PROVIDED.
2. ANY OBSTRUCTION IN PATH SHOULD BE REMOVED. IF OBSTRUCTION CANNOT BE REMOVED, OBSTRUCTION MUST BE REFLECTORIZED.
3. USE CENTERLINE DELINEATION AT APPROACHES TO INTERSECTIONS AND AROUND OSTRUCTIONS IN ALL CASES. ONLY USE CENTERLINE DELINEATION IN OTHER CASES WHERE CONFLICTS BETWEEN USERS TRAVELING IN OPPOSITE DIRECTIONS ARE ANTICIPATED.

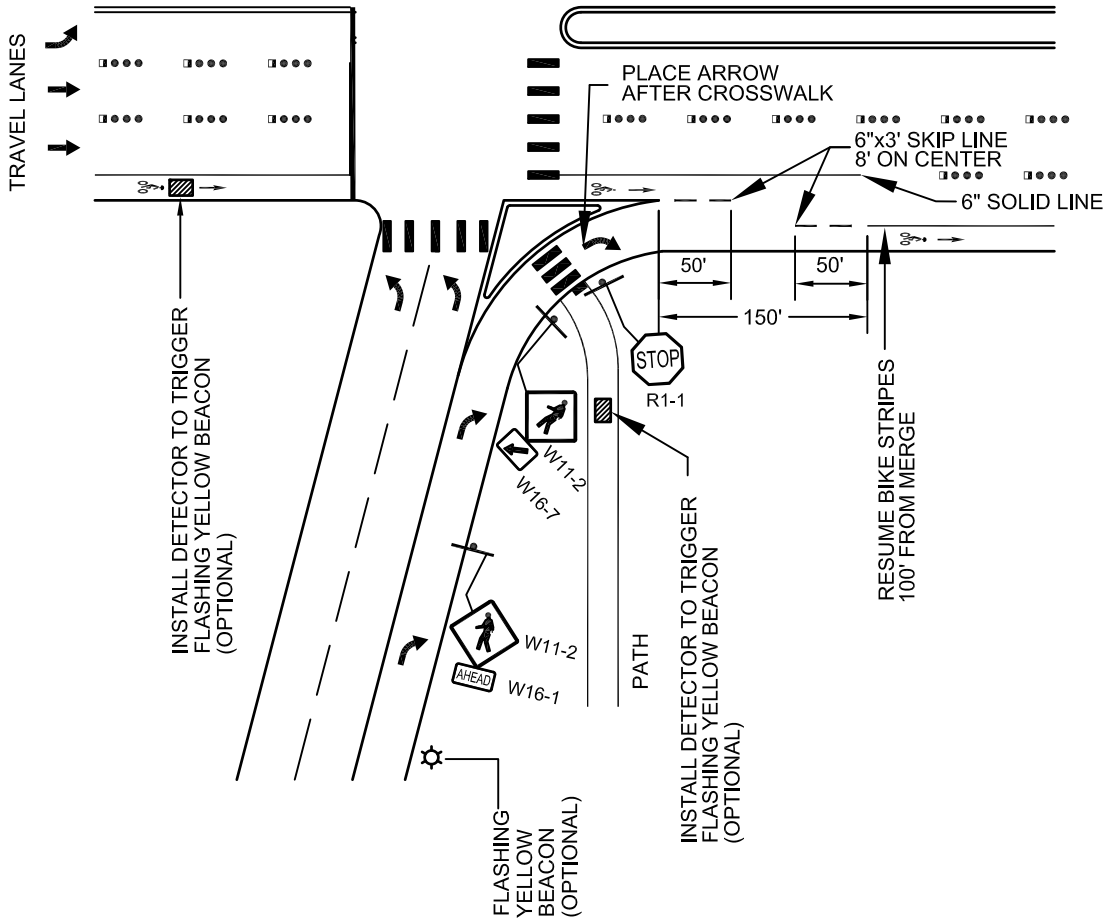
SPECIFICATION REFERENCE	
628	PAINTING TRAFFIC STRIPING
633	PAVEMENT MARKERS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

DELINEATION AND BOLLARED USAGE ON SHARED USE PATH

DATE	7-10-03	DWG. NO.	255.4	PAGE NO.	59.6

Effective 01/01/09 - 06/30/09



NOTES:

1. USE ENGINEERING JUDGEMENT TO APPLY THIS DETAIL TO SIMILAR SCENARIOS.
2. CONTACT AGENCY'S TRAFFIC ENGINEER TO VERIFY IF AGENCY PREFERS TO USE A W11-1 (BICYCLE) SIGN IN PLACE OF THE W11-2 SIGN.

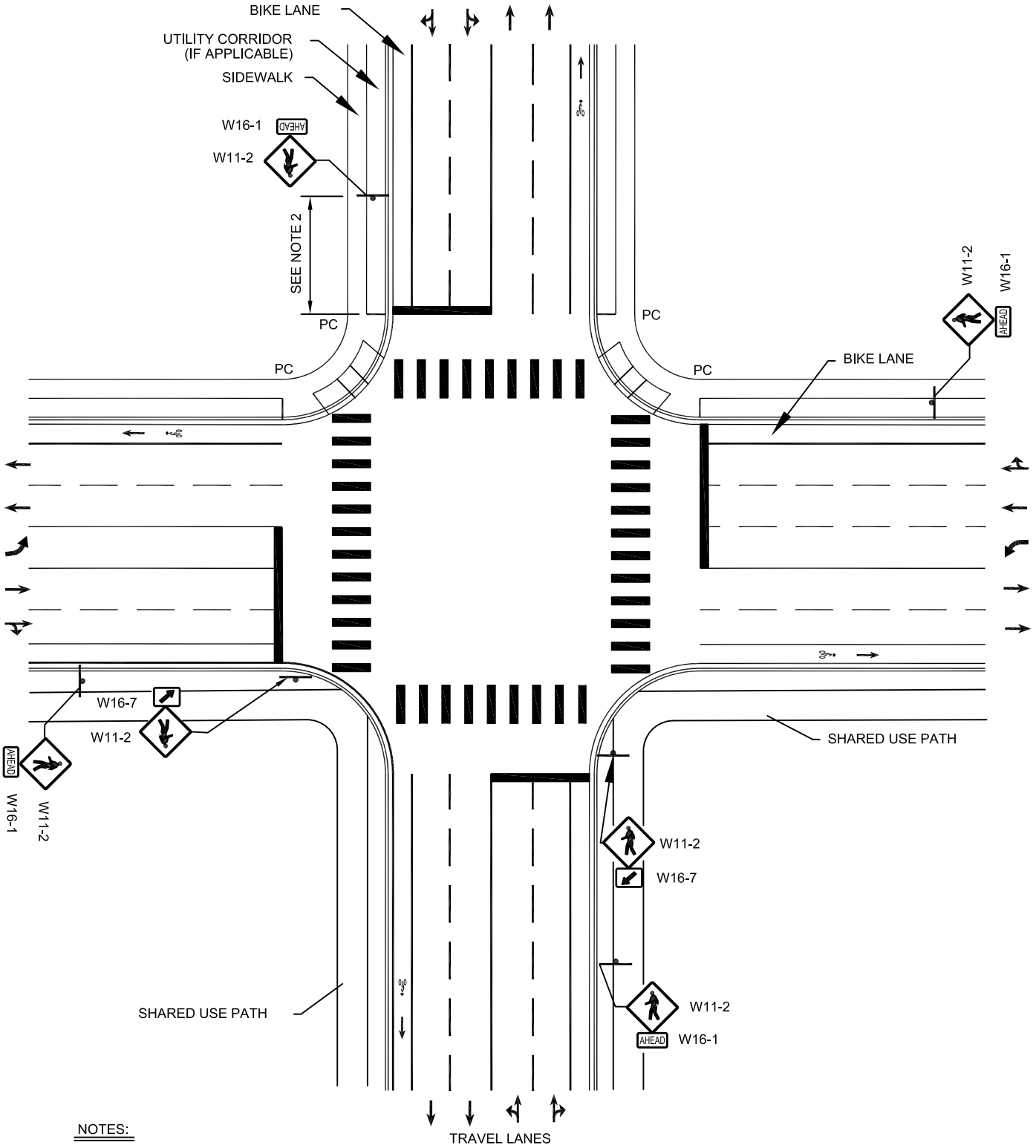
SPECIFICATION REFERENCE	
628	PAINTING TRAFFIC STRIPING
633	PAVEMENT MARKERS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

SHARED USE PATH CROSSING OF FREE RIGHT TURN LANE

DATE	7-10-03	DWG. NO.	256	PAGE NO.	59.7

Effective 01/01/09 - 06/30/09



NOTES:

1. USE ENGINEERING JUDGMENT TO APPLY THIS DETAIL TO SIMILAR SCENARIOS.
2. SEE MUTCD TABLE 2C-4 FOR ADVANCED WARNING PLACEMENT.
3. INSTALL BOLLARDS ONLY AT LOCATIONS WHERE UNAUTHORIZED ACCESS IS ANTICIPATED. INSTALL EITHER 1 OR 3 SIX INCH DIAMETER BY 3 FEET TALL BOLLARDS WHEN REQUIRED.
4. SEE DRAWING NO. 201.2 FOR SIGHT VISIBILITY ZONES AT INTERSECTIONS.
5. CONTACT AGENCY'S TRAFFIC ENGINEER TO VERIFY IF AGENCY PREFERS TO USE A W11-1 (BICYCLE) SIGN IN PLACE OF THE W11-2 SIGN.

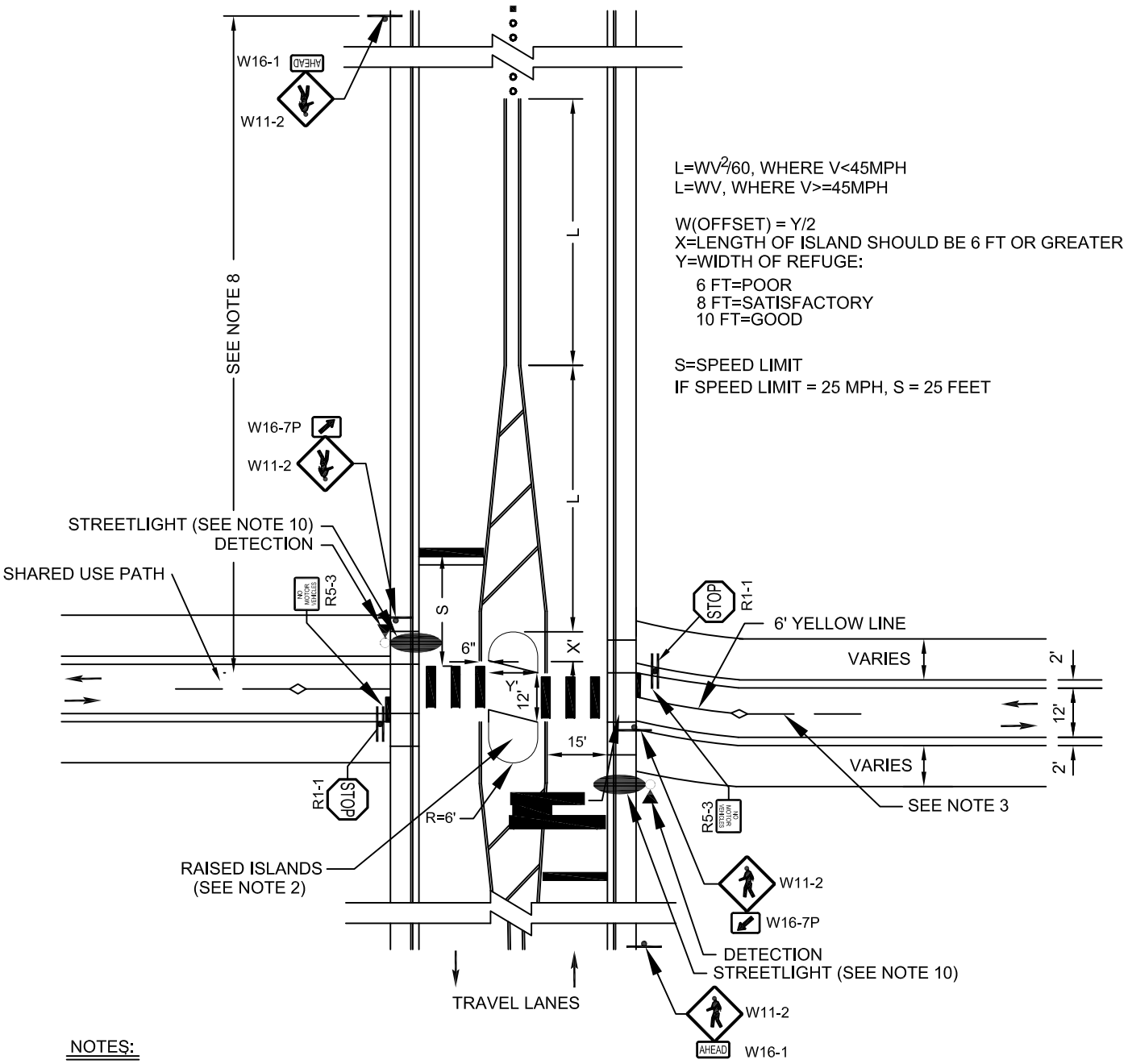
SPECIFICATION REFERENCE	
628	PAINTING TRAFFIC STRIPING
633	PAVEMENT MARKERS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

TYPICAL SIGNAGE FOR SHARED USE PATH AT INTERSECTION

DATE	7-10-03	DWG. NO.	256.1	PAGE NO.	59.8

Effective 01/01/09 - 06/30/09



NOTES:

1. USE ENGINEERING JUDGEMENT TO APPLY THIS DETAIL TO SIMILAR SCENARIOS.
2. SEE DRAWING NO. 218, 248 FOR MEDIAN ISLAND. A 15 DEGREE SKEW ANGLING IN DIRECTION OF ONCOMING TRAFFIC IS DESIRABLE.
3. SEE DRAWING NO. 255.4 FOR BOLLARDS AND CENTERLINE DELINEATION.
4. SEE DRAWING NO. 235, CASE III, FOR SIDEWALK RAMPS (USE PATH WIDTH FEET INSTEAD 5 FEET).
5. SEE DRAWING NO. 254 AND 254A FOR CROSSWALKS.
6. SEE DRAWING NO. 255.3 FOR SIGN SIZES FOR SHARED USE PATHS.
7. SEE DRAWING NO. 345 (2 OF 3) FOR DELINEATION IN TRANSITION SECTIONS.
8. SEE TABLE 2C-4 IN MUTCD 2000 FOR ADVANCE PLACEMENT OF WARNING SIGNS.
9. SEE PAGE 654 TO 680 IN AASHTO HIGHWAYS AND STREETS 2001 FOR SIGHT VISABILITY ZONES (SIGHT TRIANGLES).
10. SEE STREET LIGHTING SECTION.
11. CONTACT AGENCY'S TRAFFIC ENGINEER TO VERIFY IF AGENCY PREFERS TO USE A W11-1 (BICYCLE) SIGN IN PLACE OF THE W11-2 SIGN.

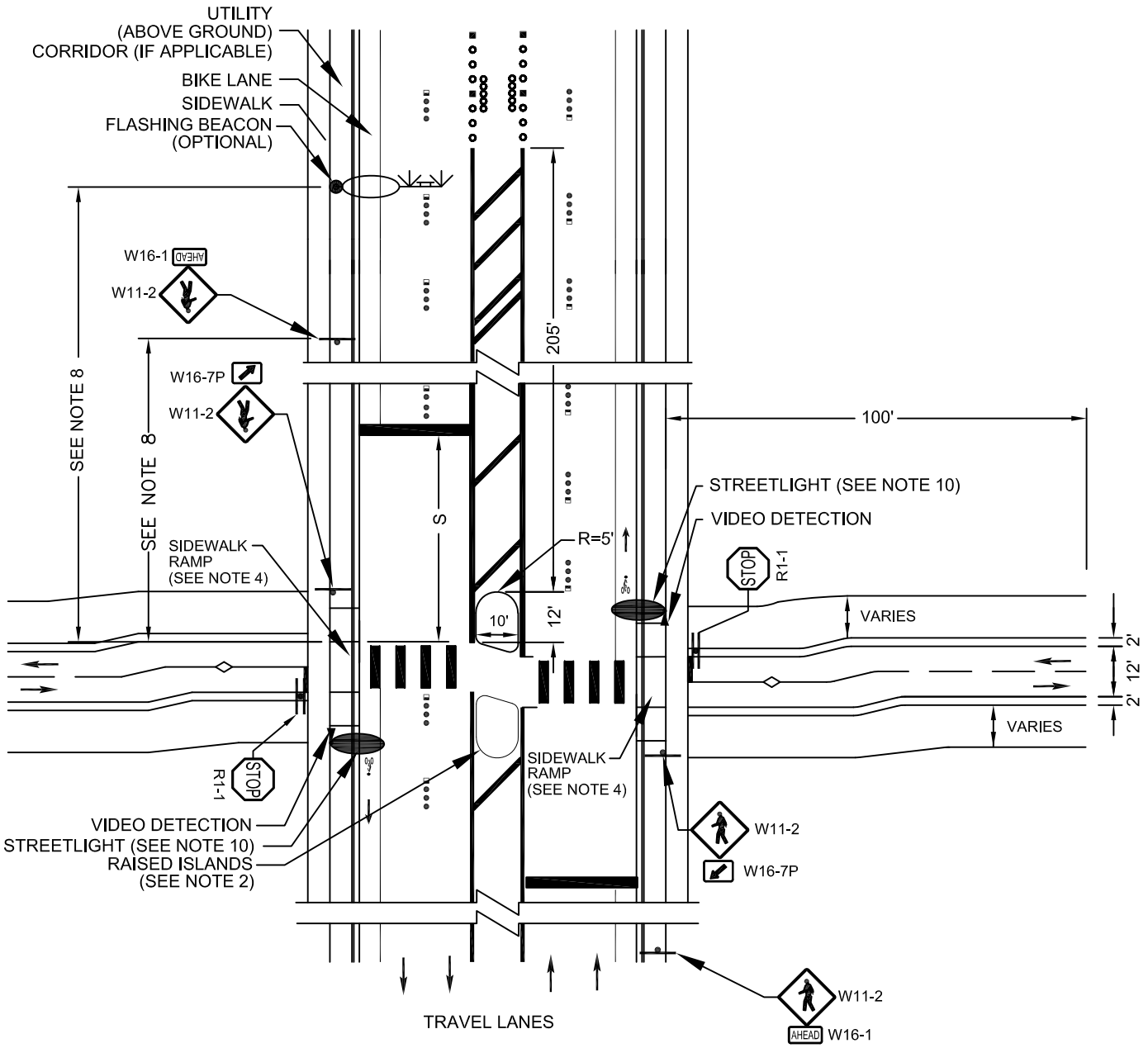
SPECIFICATION REFERENCE	
628	PAINTING TRAFFIC STRIPING
633	PAVEMENT MARKERS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

SHARED USE PATH CROSSING TWO LANE ROADWAY

DATE	7-10-03	DWG. NO.	256.2	PAGE NO.	59.9

Effective 01/01/09 - 06/30/09



NOTES:

1. USE ENGINEERING JUDGEMENT TO APPLY THIS DETAIL TO SIMILAR SCENARIOS.
2. SEE DRAWING NO. 218, 248, AND 256.2 FOR MEDIAN ISLAND.
3. SEE DRAWING NO. 255.4 FOR BOLLARDS AND CENTERLINE STRIPING.
4. SEE DRAWING NO. 235, CASE III, FOR SIDEWALK RAMPS (USE 12 FEET INSTEAD 5 FEET).
5. SEE DRAWING NO. 254 AND 254A FOR CROSSWALKS.
6. SEE DRAWING NO. 255.3 FOR SIGN SIZES FOR SHARED USE PATHS.
7. SEE DRAWING NO. 345 (2 OF 3) FOR DELINEATION IN TRANSITION SECTIONS.
8. SEE TABLE 2C-4 IN MUTCD 2000 FOR ADVANCE PLACEMENT OF WARNING SIGNS.
9. SEE PAGE 654 TO 680 IN AASHTO HIGHWAYS AND STREETS 2001 FOR SIGHT VISABILITY ZONES (SIGHT TRIANGLES).
10. SEE STREET LIGHTING SECTION.
11. CONTACT AGENCY'S TRAFFIC ENGINEER TO VERIFY IF AGENCY PREFERS TO USE A W11-1 (BICYCLE) SIGN IN PLACE OF THE W11-1 SIGN.

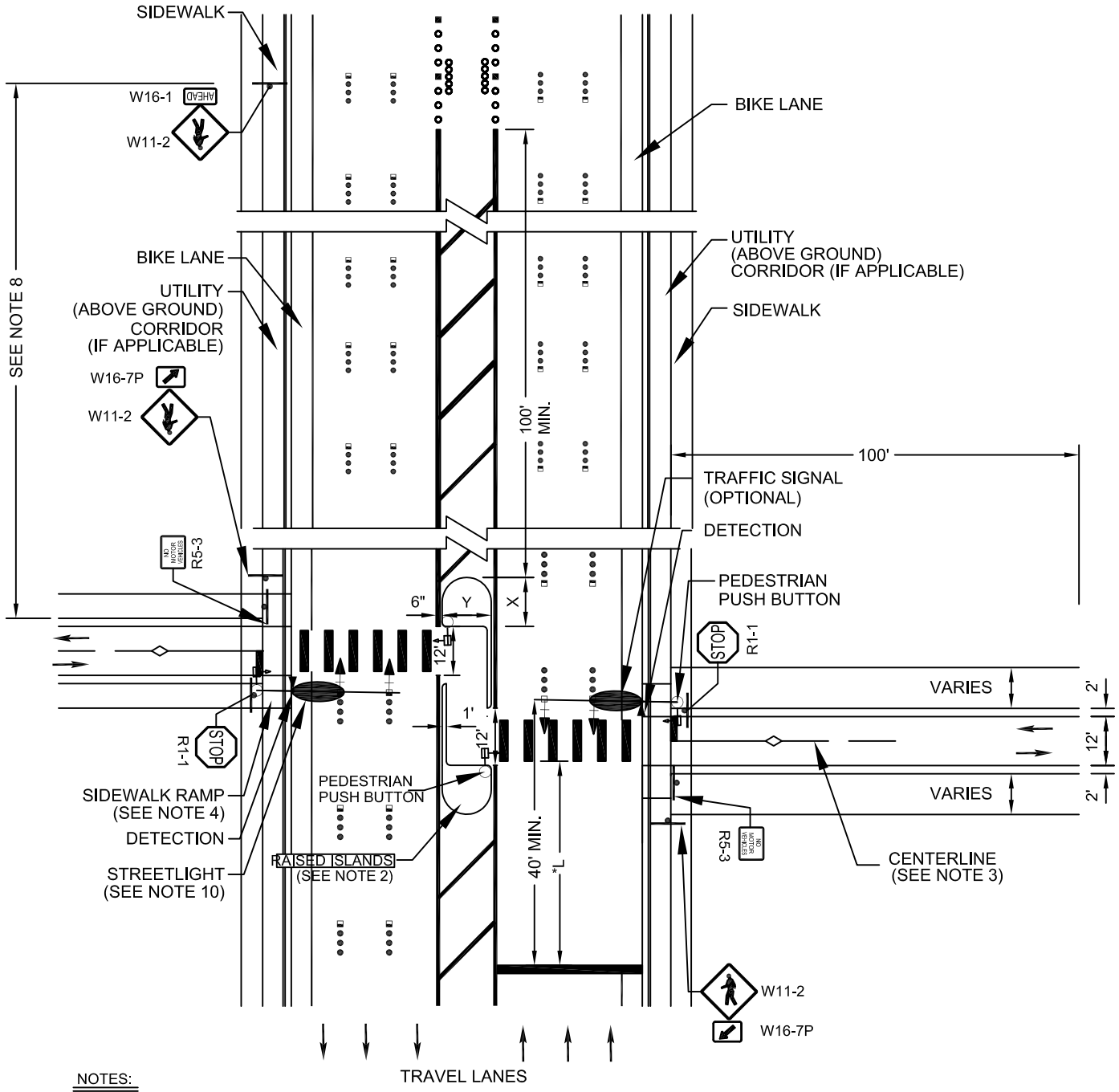
SPECIFICATION REFERENCE	
628	PAINTING TRAFFIC STRIPING
633	PAVEMENT MARKERS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

SHARED USE PATH CROSSING
4 LANE ROADWAY

DATE	7-10-03	DWG. NO.	256.3	PAGE NO.	59.15

Effective 01/01/09 - 06/30/09



NOTES:

1. USE ENGINEERING JUDGEMENT TO APPLY THIS DETAIL TO SIMILAR SCENARIOS.
2. SEE DRAWING NO. 218, 248, AND 256.2 FOR MEDIAN ISLAND.
3. SEE DRAWING NO. 255.4 FOR BOLLARDS AND CENTERLINE STRIPING.
4. SEE DRAWING NO. 235, CASE III, FOR SIDEWALK RAMPS (USE 12 FEET INSTEAD 5 FEET).
5. SEE DRAWING NO. 254 AND 254A FOR CROSSWALKS.
6. SEE DRAWING NO. 255.3 FOR SIGN SIZES FOR SHARED USE PATHS.
7. SEE DRAWING NO. 345 (2 OF 3) FOR DELINEATION IN TRANSITION SECTIONS.
8. SEE TABLE 2C-4 IN MUTCD 2000 FOR ADVANCE PLACEMENT OF WARNING SIGNS.
9. SEE PAGE 654 TO 680 IN AASHTO HIGHWAYS AND STREETS 2001 FOR SIGHT VISABILITY ZONES (SIGHT TRIANGLES).
10. SEE STREET LIGHTING SECTION.
11. CONTACT AGENCY'S TRAFFIC ENGINEER TO VERIFY IF AGENCY PREFERS TO USE A W11-1 (BICYCLE) SIGN IN PLACE OF THE W11-1 SIGN.

* L=SPEED LIMIT

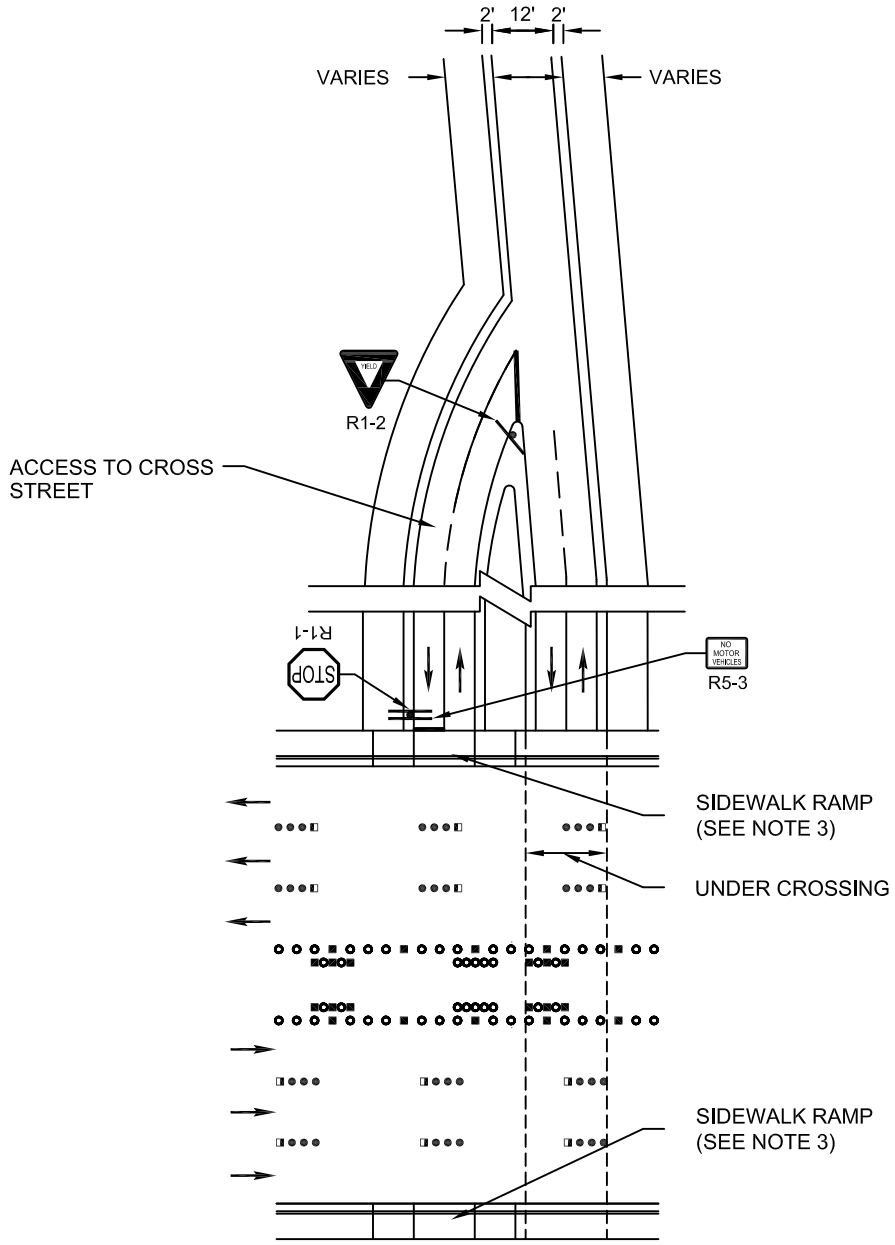
SPECIFICATION REFERENCE	
628	PAINTING TRAFFIC STRIPING
633	PAVEMENT MARKERS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

SHARED USE PATH CROSSING
6 LANE ROADWAY

DATE	7-12-07	DWG. NO.	256.4	PAGE NO.	59.25

Effective 01/01/09 - 06/30/09



NOTES:

1. USE ENGINEERING JUDGEMENT TO APPLY THIS DETAIL TO SIMILAR SCENARIOS.
2. SEE DRAWING NO. 255.4 FOR BOLLARDS AND CENTERLINE STRIPING.
3. SEE DRAWING NO. 235, CASE III, FOR SIDEWALK RAMPS (USE 12 FEET INSTEAD 5 FEET OF CENTER SECTION OF SIDEWALK).
4. SEE DRAWING NO. 255.3 FOR SIGN SIZES FOR SHARED USE PATHS.
5. SEE TABLE 2C-4 IN MUTCD FOR ADVANCE PLACEMENT OF WARNING SIGNS.
6. SEE DRAWING NO. 256.4 FOR THE AN MID-BLOCK AT-GRADE CROSSING DESIGN.
7. A MINIMUM 8 FOOT CLEARANCE IS REQUIRED FOR THE UNDER CROSSING. GRADES GREATER THAN 5 PERCENT ARE UNDESIRABLE. SEE THE 1999, OR CURRENT EDITION, AASHTO GUIDE FOR THE DEVELOPMENT OF BICYCLE FACILITIES FOR GRADE RESTRICTIONS IF A 5 PERCENT GRADE IS EXCEEDED.

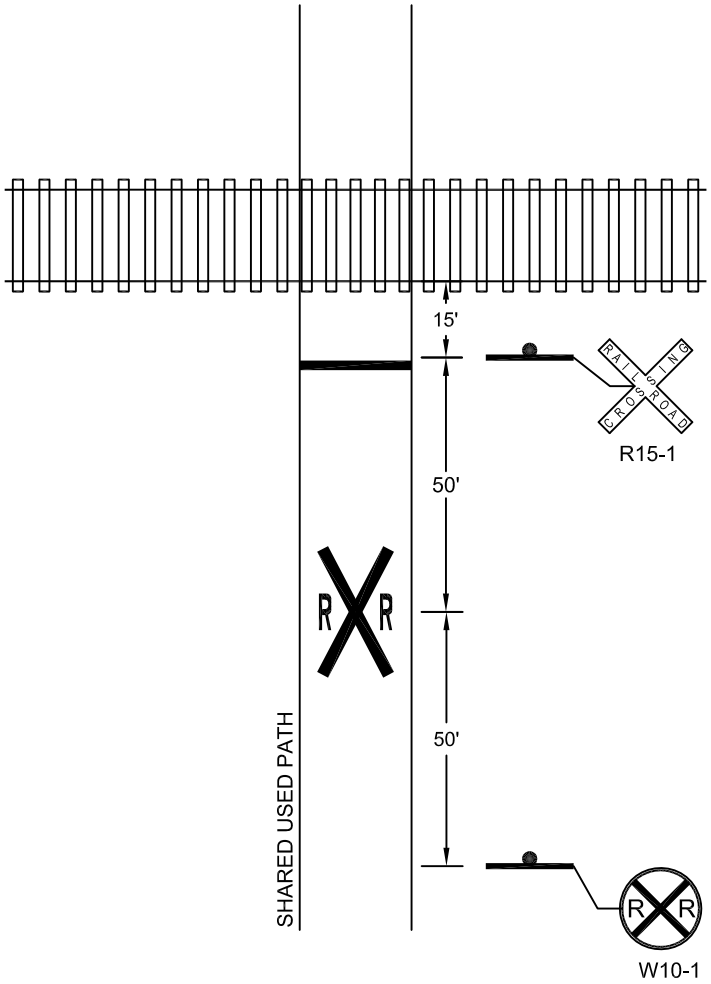
SPECIFICATION REFERENCE	
628	PAINTING TRAFFIC STRIPING
633	PAVEMENT MARKERS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

SHARED USE PATH UNDER CROSSING

DATE	7-10-03	DWG. NO.	256.5	PAGE NO.	59.35

Effective 01/01/09 - 06/30/09



NOTES:

1. USE ENGINEERING JUDGEMENT TO APPLY THIS DETAIL TO SIMILAR SCENARIOS.
2. SEE MUTCD 2000 FOR GUIDELINES REFERENCED IN FIGURE.

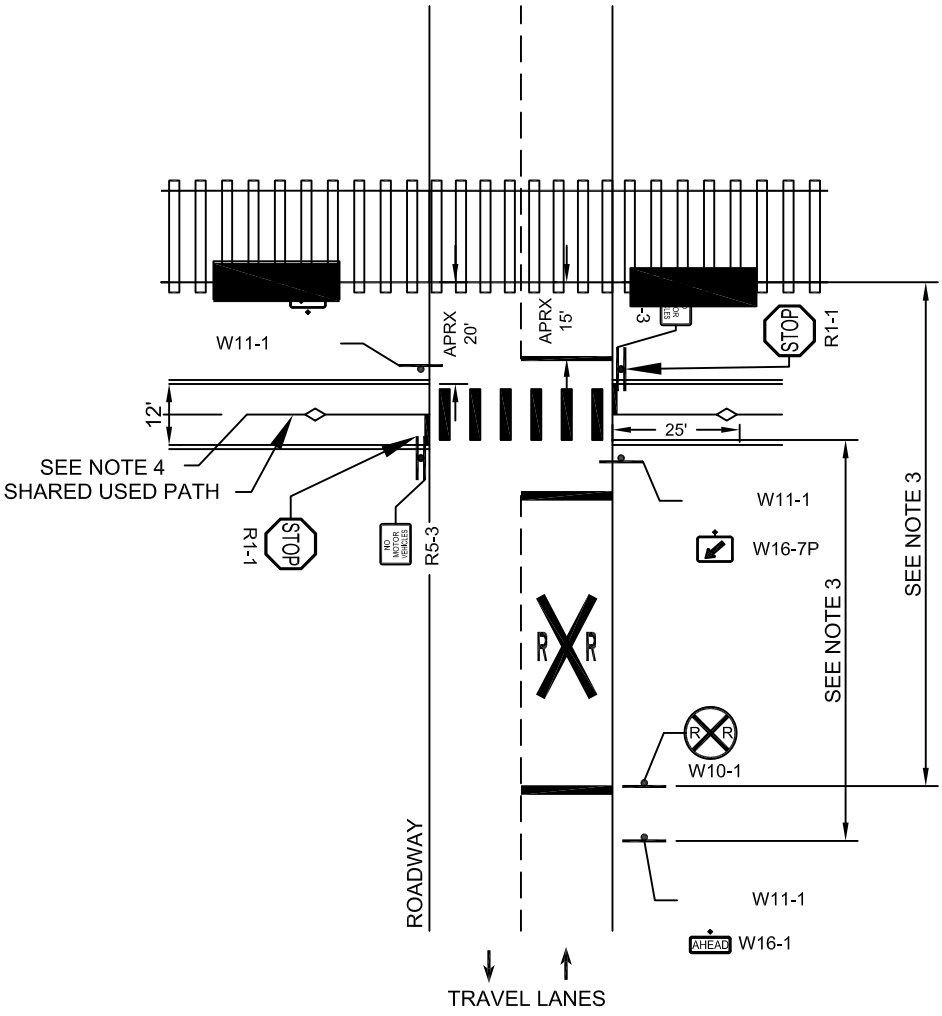
SPECIFICATION REFERENCE	
628	PAINTING TRAFFIC STRIPING
633	PAVEMENT MARKERS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

SHARED USE PATH CROSSING RAILROAD

DATE	7-10-03	DWG. NO.	256.6	PAGE NO.	59.45

Effective 01/01/09 - 06/30/09



NOTES:

1. USE ENGINEERING JUDGEMENT TO APPLY THIS DETAIL TO SIMILAR SCENARIOS.
2. SEE DRAWING NO. 1-5 FOR CROSSWALK STRIPING GUIDELINES.
3. SEE MUTCD 2000 FOR ADVANCED PLACEMENT OF WARNING SIGNS IN TABLE 2C-4.
4. SEE DRAWING NO. 255.5 FOR BOLLARDS AND CENTERLINE STRIPING.
5. SEE DRAWING NO. 256.2 - 256.4 FOR ADDITIONAL CROSSING DETAILS.

SPECIFICATION REFERENCE	
628	PAINTING TRAFFIC STRIPING
633	PAVEMENT MARKERS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

TYPICAL DELINEATION FOR SHARED USE PATH PARALLEL TO RAILROAD CROSSING A ROADWAY

DATE	7-10-03	DWG. NO.	256.7	PAGE NO.	59.55

Effective 01/01/09 - 06/30/09

1. INSTALL STREETLIGHT STANDARDS AT INTERSECTIONS INCLUDING "L" AND "T" TYPES, PER STANDARD DRAWINGS 301 THROUGH 310 IN ACCORDANCE WITH THE APPROPRIATE RIGHT-OF-WAY.

2. STREET CLASSIFICATION AND STREETLIGHT STANDARD APPLICATION SHALL BE AS LISTED IN TABLE 1 BELOW. ACTUAL LUMINAIRE WATTAGE AND/OR STREETLIGHT STANDARD SPACING MAY BE VARIED BY THE ENGINEER, WHEN SUPPORTED BY AN APPROVED LIGHTING STUDY IN ACCORDANCE WITH THE IES RECOMMENDED PRACTICE FOR ROADWAY LIGHTING IN ORDER TO MEET CURRENT AND FUTURE TRAFFIC CONTROL NEEDS AND APPROVED BY THE RESPECTIVE AGENCY. AVERAGE LEVELS ARE MAINTAINED LEVELS AT A 0.8 MAINTENANCE FACTOR (0.82 FOR CLARK COUNTY) IN FOOTCANDLES MEASURED HORIZONTALLY AT THE SURFACE.

TABLE 1

CLASSIFICATION	R/W	DWG	LUMINAIRE	LEVEL	AVERAGE IES LIGHTING AVG./MIN	IES UNIFORMITY
MAJOR ARTERIAL		100' OR MORE	---	250W HPS	1.58 FC	3:1
INTERMEDIATE COLLECTOR		80'	---	150W HPS 250W HPS (CLARK COUNTY & COH ONLY)	0.84 FC	4:1
LOCAL		60'	---	150W HPS 100W HPS (CLARK COUNTY & COH ONLY)	0.38 FC	6:1
RESIDENTIAL		51' OR LESS	---	100W HPS	0.38 FC	6:1

3. NEW STREETLIGHT STANDARDS INSTALLED ADJACENT TO OR OPPOSITE FROM EXISTING STREETLIGHTS SHALL MATCH THE EXISTING LOCATION, SPACING, POLE AND LUMINAIRE TYPES UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

4. STREETLIGHT STANDARDS INSTALLED ON 60' OR LESS RIGHT-OF-WAYS MAY BE INSTALLED ON EITHER SIDE OF ROADWAY AS DIRECTED BY THE ENGINEER.

5. TRAFFIC SIGNAL FOUNDATIONS AND ADAPTOR PLATES MAY BE REQUIRED AT INTERSECTIONS AS DIRECTED BY THE ENGINEER.

6. AT LEAST ONE STREETLIGHT SHALL BE REQUIRED IN THE BULB SECTION OF A CUL-DE-SAC OR HAMMERHEAD. LOCATION SHALL BE AS REQUIRED BY THE ENGINEER.

* PROFESSIONAL ELECTRICAL ENGINEER STAMP ON FILE.

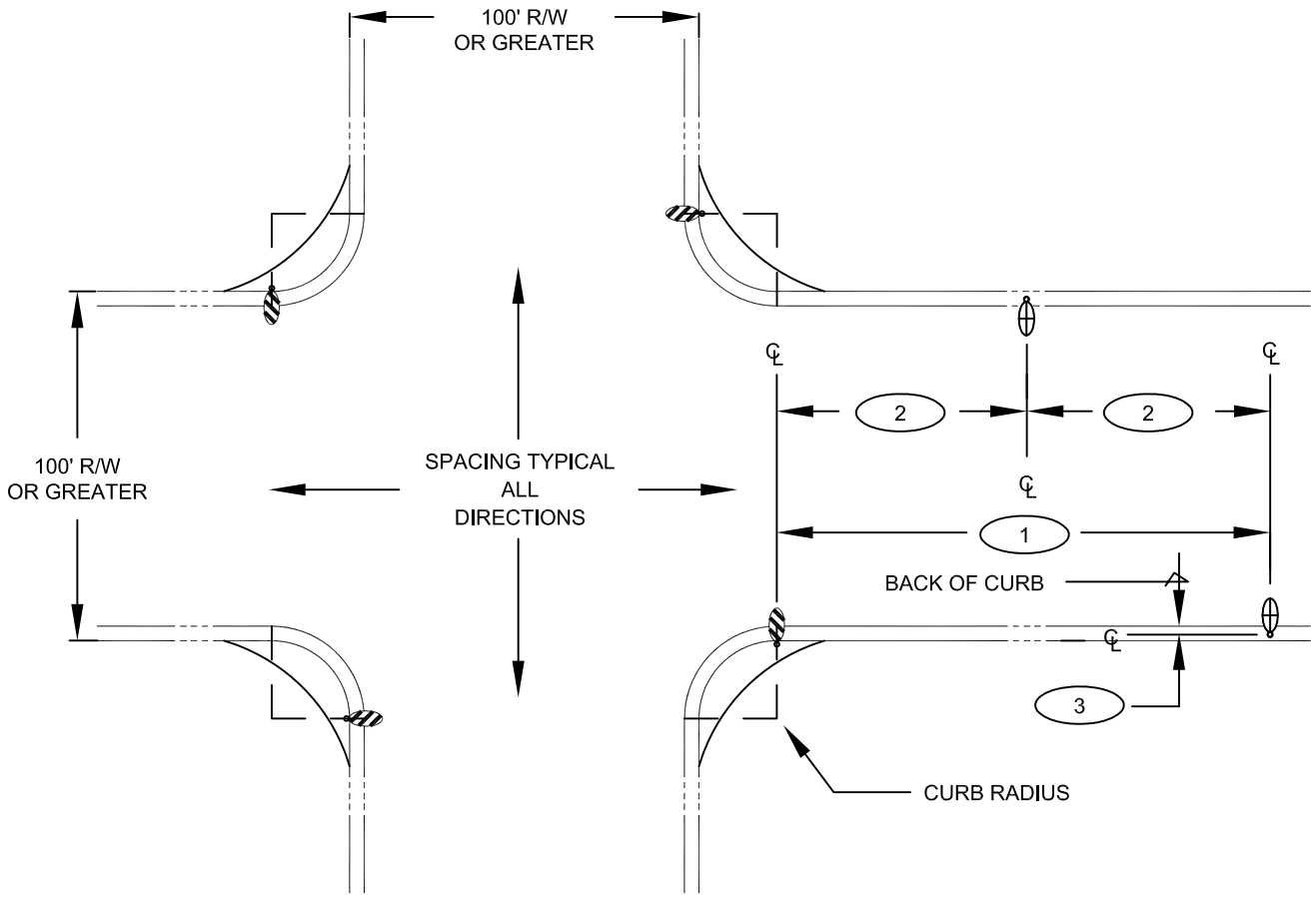
SPECIFICATION REFERENCE	
623	TRAFFIC SIGNALS & STREETLIGHTING

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

STREETLIGHT LOCATION GENERAL NOTES

DATE 2-08-07 | DWG. NO. 300

Effective 01/01/09 - 06/30/09



NOTES:

1. SEE GENERAL NOTES STANDARD DRAWING NO. 300.
2. AN APPROVED LIGHTING STUDY PER NOTE 2, STANDARD DRAWING NO. 300, IS REQUIRED FOR RIGHT-OF-WAY GREATER THAN 100 FEET.
3. CITY OF HENDERSON AND BOULDER CITY REQUIRE STREETLIGHTING IN THE MEDIAN FOR RIGHTS-OF-WAY 100 FEET OR GREATER. SEE STANDARD DRAWING NO. 312. IN THE ABSENCE OF A MEDIAN, STREETLIGHT LOCATION SHALL BE THE SAME AS THE OTHER ENTITIES.

POLE LOCATION TABLE		
KEYED NOTE / ENTITY	CLV NLV MES	HND BC
1	160'	(SEE NOTE 3)
2	80'	(SEE NOTE 3)
3	(SEE DRAWING NO. 320)	N/A

SPECIFICATION REFERENCE	
623	TRAFFIC SIGNALS & STREETLIGHTING

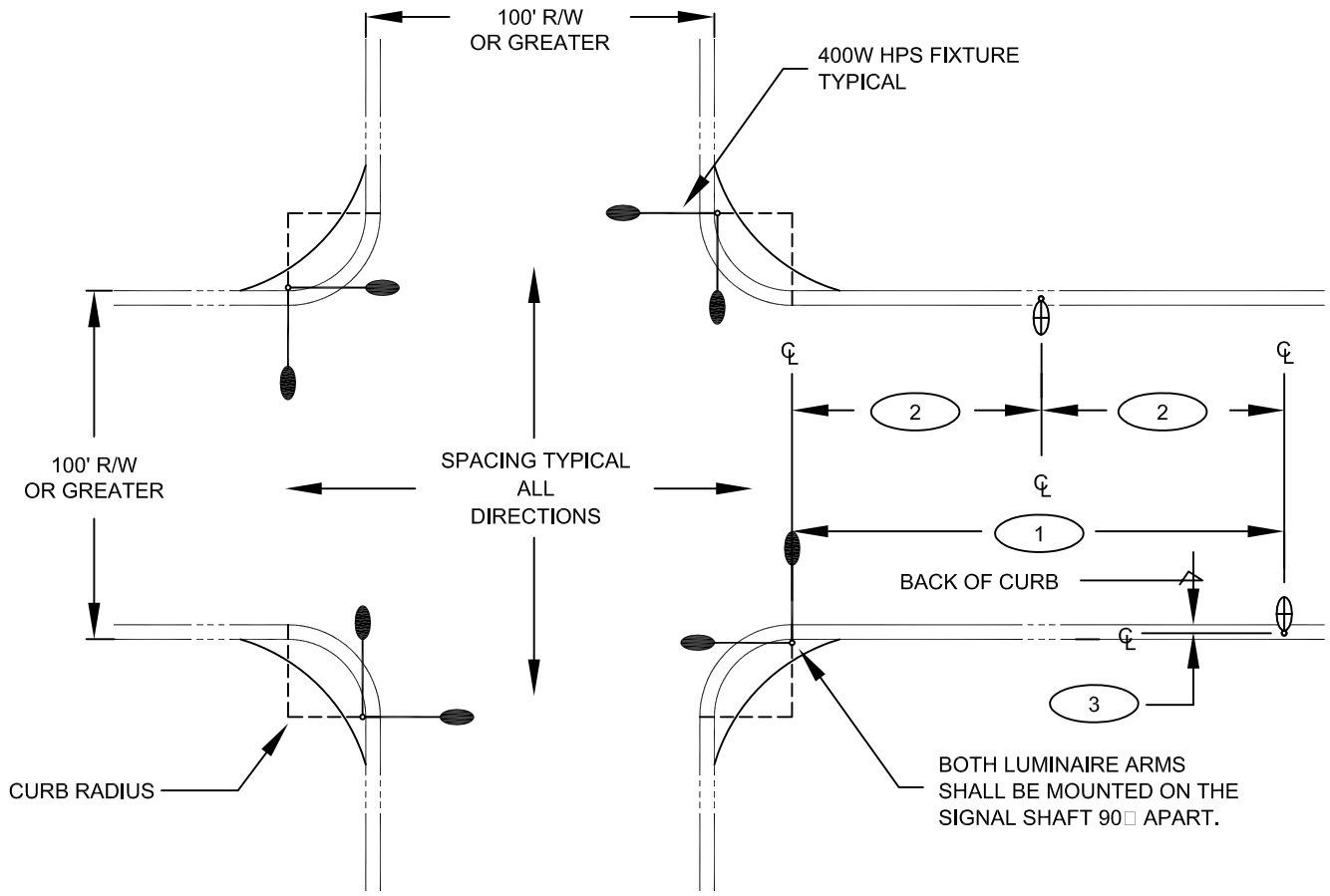
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

STREETLIGHT LOCATIONS AT INTERSECTIONS 100' OR GREATER/100' OR GREATER RIGHT-OF-WAY

(EXCEPT CLARK COUNTY)

DATE	8-12-99	DWG. NO.	301	PAGE NO.	61

Effective 01/01/09 - 06/30/09



NOTES:

1. SEE GENERAL NOTES STANDARD DRAWING NO. 300.
2. AN APPROVED LIGHTING STUDY PER NOTE 2, STANDARD DRAWING NO. 300, IS REQUIRED FOR RIGHT-OF-WAY GREATER THAN 100 FEET.
3. WITH THE ENGINEER'S APPROVAL, A SECOND LUMINAIRE MOUNTING PLATE MAY BE FIELD WELDED BY A CERTIFIED WELDER.
4. ALL LUMINAIRE MAST ARMS FOR 400W FIXTURES SHALL BE 15 FT. LONG AND INSTALLED PER STANDARD DRAWING NO. 404.406 UNLESS OTHERWISE SPECIFIED BY THE ENGINEER.

POLE LOCATION TABLE	
KEYED NOTE / ENTITY	CC
1	120'
2	60'
3	(SEE DRAWING NO. 320)

* PROFESSIONAL ELECTRICAL ENGINEER STAMP ON FILE

SPECIFICATION REFERENCE	
623	TRAFFIC SIGNALS & STREETLIGHTING

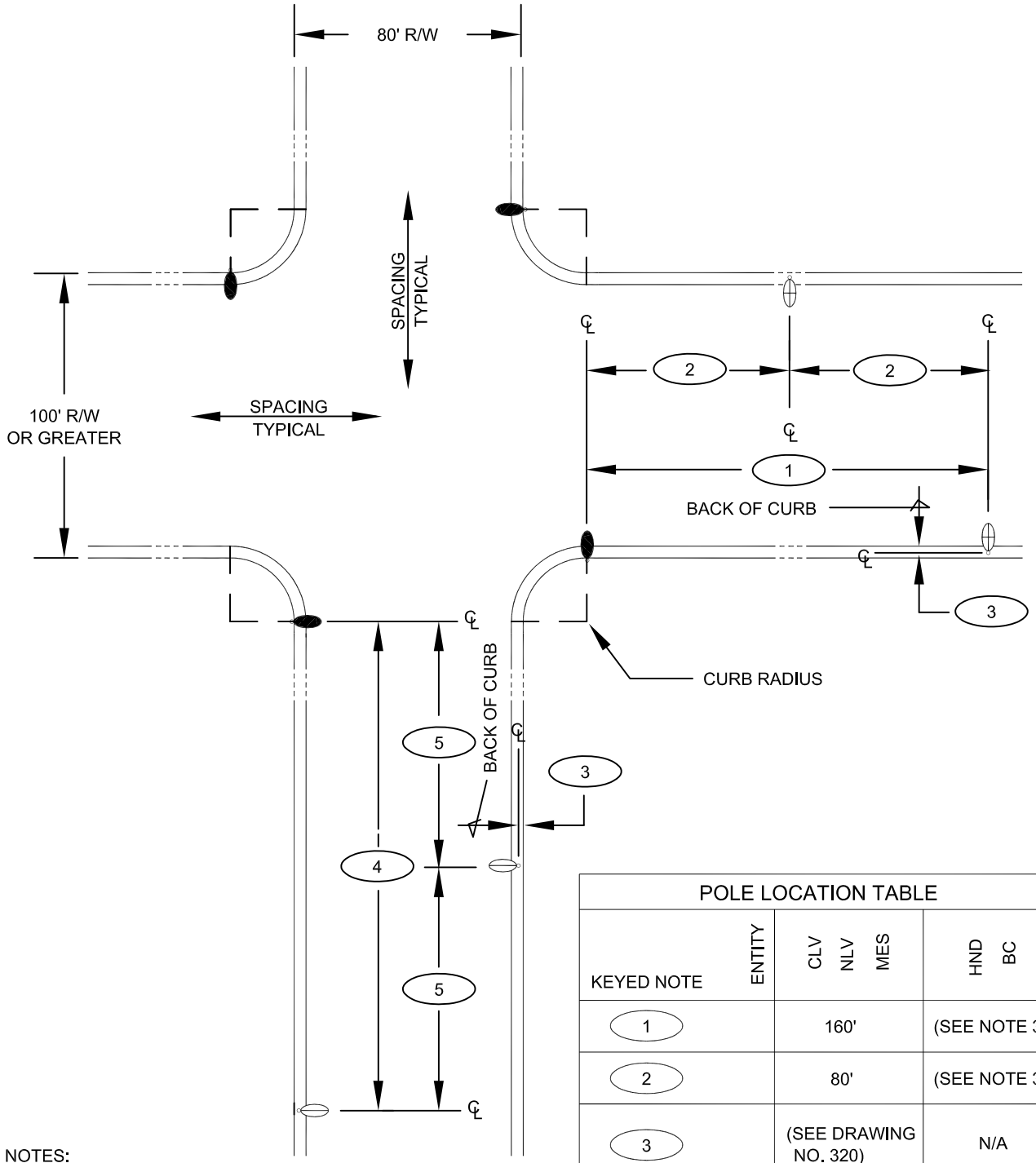
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

CLARK COUNTY ONLY

STREETLIGHT LOCATIONS AT INTERSECTIONS 100' OR GREATER/100' OR GREATER RIGHT-OF-WAY

DATE	9-12-02	DWG. NO.	301.1	PAGE NO.	61.1

Effective 01/01/09 - 06/30/09



POLE LOCATION TABLE		
KEYED NOTE / ENTITY	CLV NLV MES	HND BC
1	160'	(SEE NOTE 3)
2	80'	(SEE NOTE 3)
3	(SEE DRAWING NO. 320)	N/A
4	170'	170'
5	85'	85'

NOTES:

1. SEE GENERAL NOTES STANDARD DRAWING NO. 300.
2. AN APPROVED LIGHTING STUDY PER NOTE 2, STANDARD DRAWING NO. 300, IS REQUIRED FOR RIGHT-OF-WAY GREATER THAN 100 FEET.
3. CITY OF HENDERSON AND BOULDER CITY REQUIRE STREETLIGHTING IN THE MEDIAN FOR RIGHTS-OF-WAY 100 FEET OR GREATER. SEE STANDARD DRAWING NO. 312. IN THE ABSENCE OF A MEDIAN, STREETLIGHT LOCATION SHALL BE THE SAME AS THE OTHER ENTITIES.

SPECIFICATION REFERENCE	
623	TRAFFIC SIGNALS & STREETLIGHTING

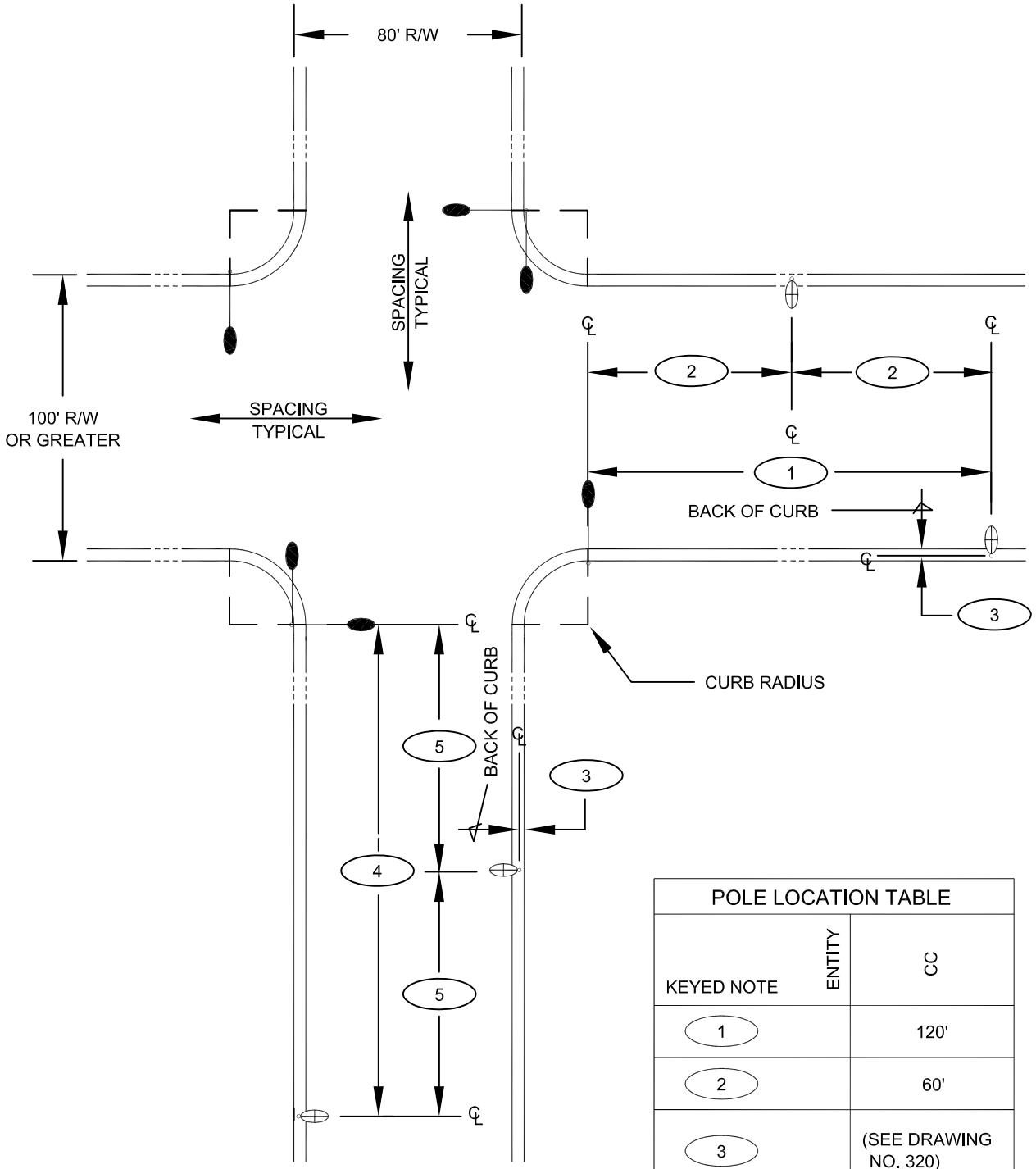
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

STREETLIGHT LOCATIONS AT INTERSECTIONS 100' OR GREATER/80' RIGHT-OF-WAY

(EXCEPT CLARK COUNTY)

DATE 8-12-99	DWG. NO. 302	PAGE NO. 62

Effective 01/01/09 - 06/30/09



POLE LOCATION TABLE	
KEYED NOTE / ENTITY	CC
1	120'
2	60'
3	(SEE DRAWING NO. 320)
4	170'
5	85'

NOTES:

1. SEE GENERAL NOTES STANDARD DRAWING NO. 300.
2. AN APPROVED LIGHTING STUDY PER NOTE 2, STANDARD DRAWING NO. 300, IS REQUIRED FOR RIGHT-OF-WAY GREATER THAN 100 FEET.
3. ALL LUMINAIRE MAST ARMS FOR 400W FIXTURES SHALL BE 15 FT. LONG AND INSTALLED PER STANDARD DRAWING NO. 404.406 UNLESS OTHERWISE APPROVED BY THE ENGINEER.

SPECIFICATION REFERENCE	
623	TRAFFIC SIGNALS & STREETLIGHTING

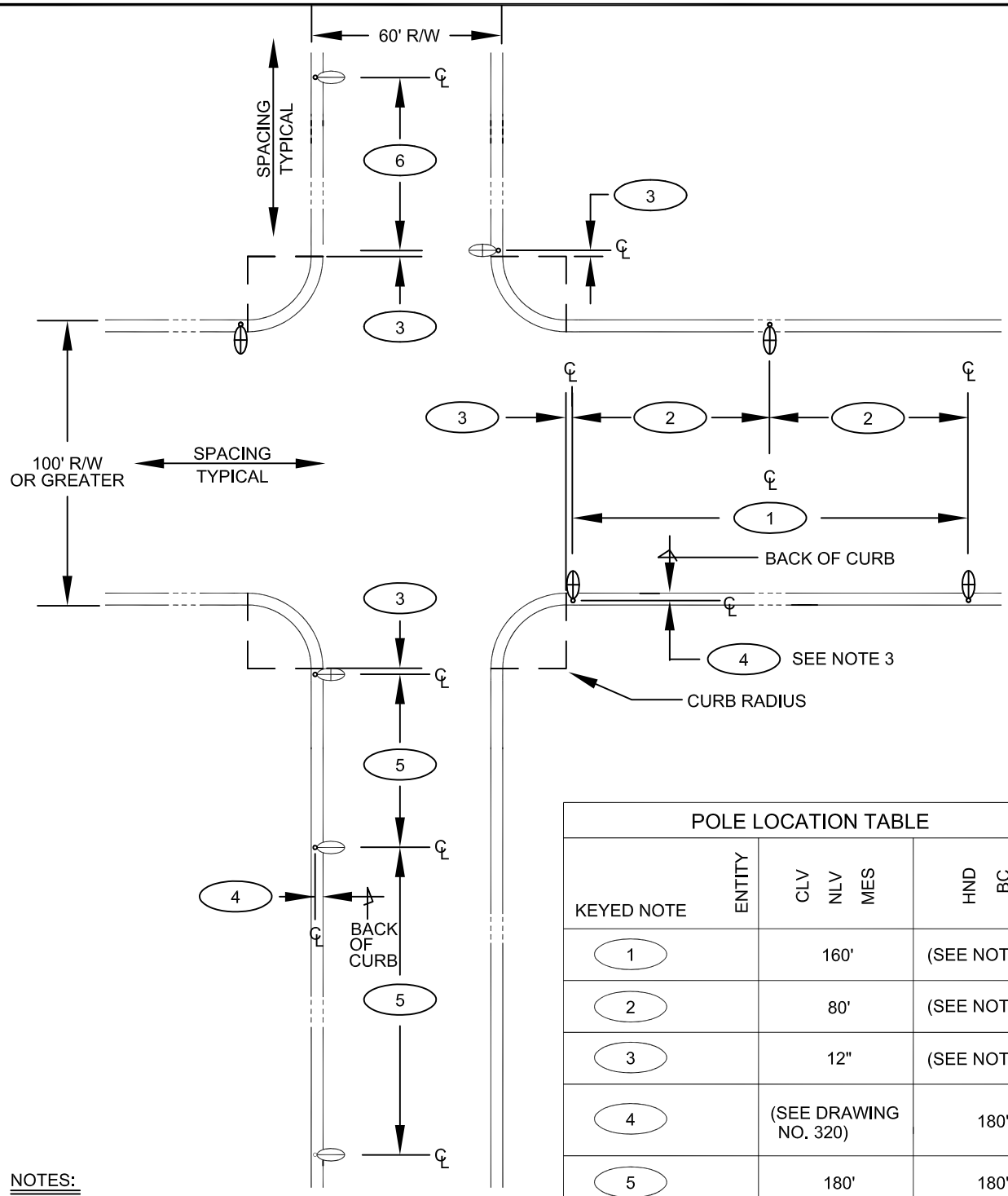
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

CLARK COUNTY ONLY

STREETLIGHT LOCATIONS AT INTERSECTIONS 100' OR GREATER/80' RIGHT-OF-WAY

DATE	9-12-02	DWG. NO.	302.1	PAGE NO.	62.1

Effective 01/01/09 - 06/30/09



POLE LOCATION TABLE		
KEYED NOTE / ENTITY	CLV NLV MES	HND BC
1	160'	(SEE NOTE 3)
2	80'	(SEE NOTE 3)
3	12"	(SEE NOTE 3)
4	(SEE DRAWING NO. 320)	180'
5	180'	180'
6	90'	90'

NOTES:

1. SEE GENERAL NOTES STANDARD DRAWING NO. 300.
2. AN APPROVED LIGHTING STUDY PER NOTE 2, STANDARD DRAWING NO. 300 IS REQUIRED FOR RIGHT-OF-WAY GREATER THAN 100 FEET.
3. CITY OF HENDERSON AND BOULDER CITY REQUIRE STREETLIGHTING IN THE MEDIAN FOR RIGHTS-OF-WAY 100 FEET OR GREATER. SEE STANDARD DRAWING NO. 312. IN THE ABSENCE OF A MEDIAN, STREETLIGHT LOCATION SHALL BE THE SAME AS THE OTHER ENTITIES.

* PROFESSIONAL ELECTRICAL ENGINEER STAMP ON FILE.

SPECIFICATION REFERENCE	
623	TRAFFIC SIGNALS & STREETLIGHTING

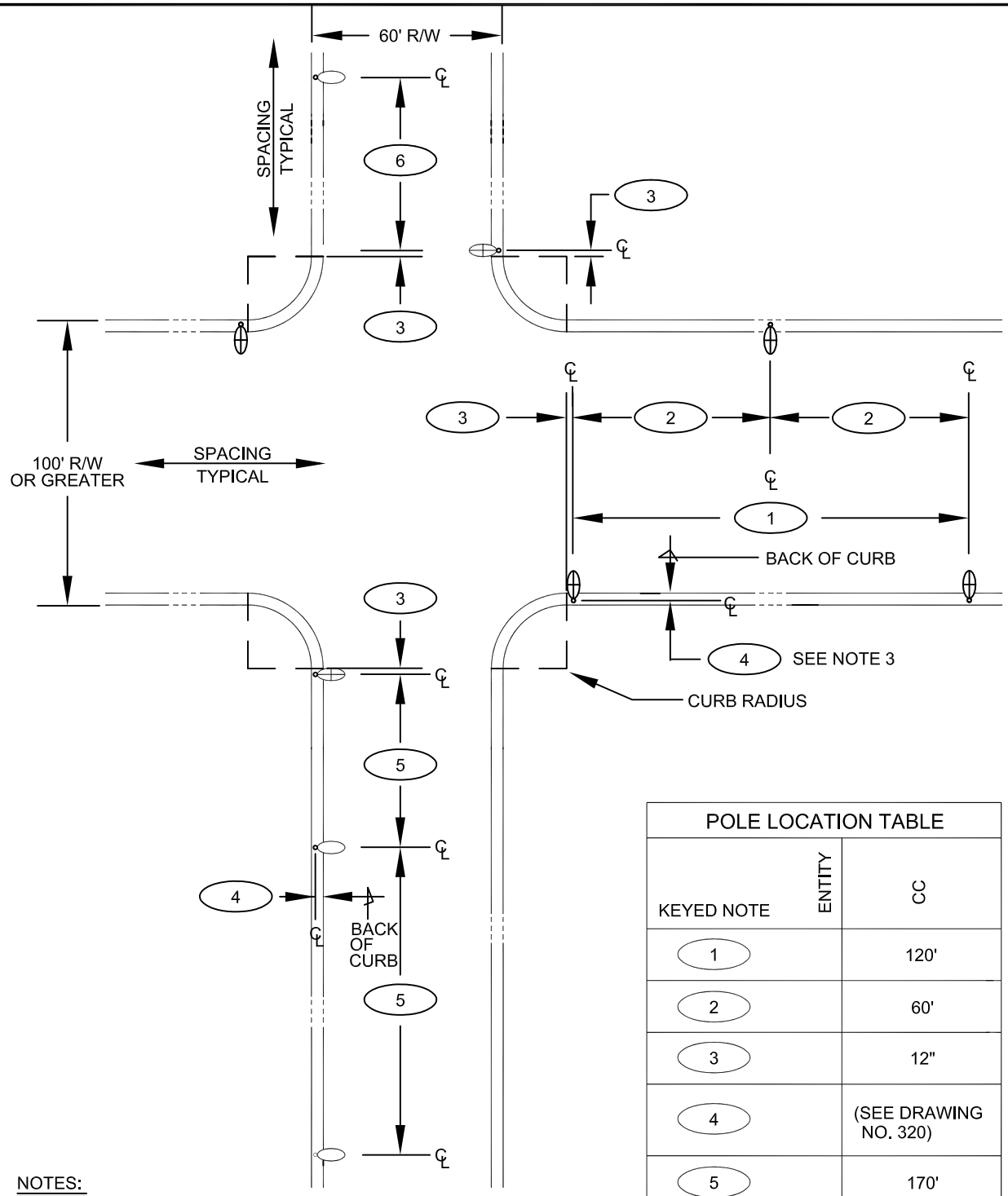
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

STREETLIGHT LOCATIONS AT INTERSECTIONS 100' OR GREATER/60' RIGHT-OF-WAY

(EXCEPT CLARK COUNTY & HENDERSON)

DATE 2-08-07 | DWG. NO. 303

Effective 01/01/09 - 06/30/09



POLE LOCATION TABLE	
KEYED NOTE / ENTITY	CC
1	120'
2	60'
3	12"
4	(SEE DRAWING NO. 320)
5	170'
6	170'

NOTES:

1. SEE GENERAL NOTES STANDARD DRAWING NO. 300.
2. AN APPROVED LIGHTING STUDY PER NOTE 2, STANDARD DRAWING NO. 300 IS REQUIRED FOR RIGHT-OF-WAY GREATER THAN 100 FEET.
3. IF INTERSECTION IS SIGNALIZED, 400 WATT LUMINAIRES SHALL BE INSTALLED ON ALL CORNERS AND DUAL ARM CONFIGURATION SHALL BE USED FOR 100 FT. RIGHT-OF-WAY SIMILAR TO STANDARD DRAWING NO. 302.1 IN CLARK COUNTY. USE SIGLE ARM CONFIGURATION PER DRAWING 302 IN HENDERSON.

* PROFESSIONAL ELECTRICAL ENGINEER STAMP ON FILE.

SPECIFICATION REFERENCE	
623	TRAFFIC SIGNALS & STREETLIGHTING

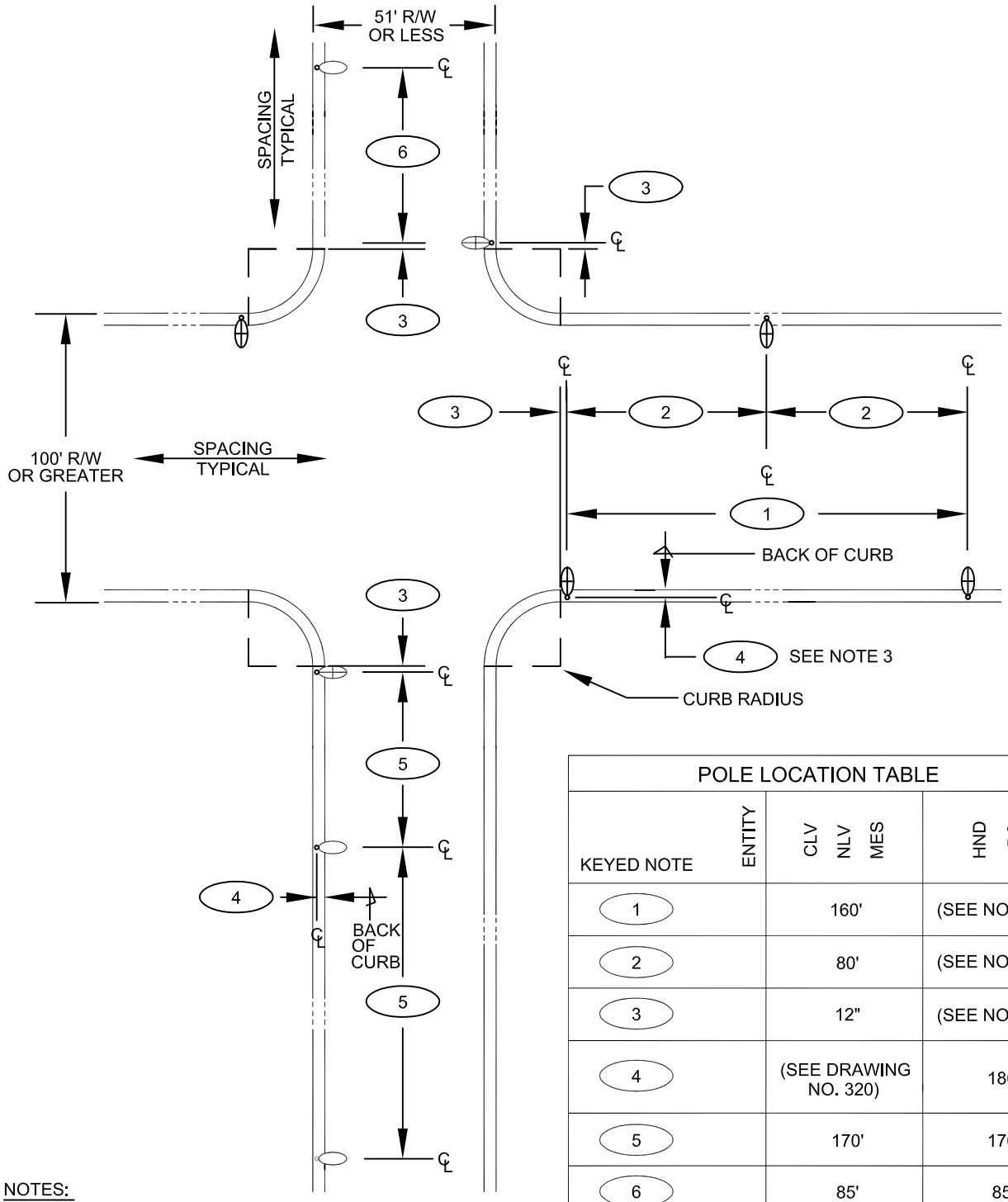
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

CLARK COUNTY & HENDERSON ONLY

STREETLIGHT LOCATIONS AT INTERSECTIONS 100' OR GREATER/60' RIGHT-OF-WAY

DATE 2-08-07 | DWG. NO. 303.1

Effective 01/01/09 - 06/30/09



POLE LOCATION TABLE		
KEYED NOTE / ENTITY	CLV NLV MES	HND BC
1	160'	(SEE NOTE 3)
2	80'	(SEE NOTE 3)
3	12"	(SEE NOTE 3)
4	(SEE DRAWING NO. 320)	180'
5	170'	170'
6	85'	85'

NOTES:

1. SEE GENERAL NOTES STANDARD DRAWING NO. 300.
2. AN APPROVED LIGHTING STUDY PER NOTE 2, STANDARD DRAWING NO. 300 IS REQUIRED FOR RIGHT-OF-WAY GREATER THAN 100 FEET. ADEQUATE INTERSECTION LIGHTING SHALL ALSO BE ADDRESSED IN THE LIGHTING STUDY.
3. CITY OF HENDERSON AND BOULDER CITY REQUIRE STREETLIGHTING IN THE MEDIAN FOR RIGHTS-OF-WAY 100 FEET OR GREATER. SEE STANDARD DRAWING NO. 312. IN THE ABSENCE OF A MEDIAN, STREETLIGHT LOCATION SHALL BE THE SAME AS THE OTHER ENTITIES.

* PROFESSIONAL ELECTRICAL ENGINEER STAMP ON FILE.

SPECIFICATION REFERENCE	
623	TRAFFIC SIGNALS & STREETLIGHTING

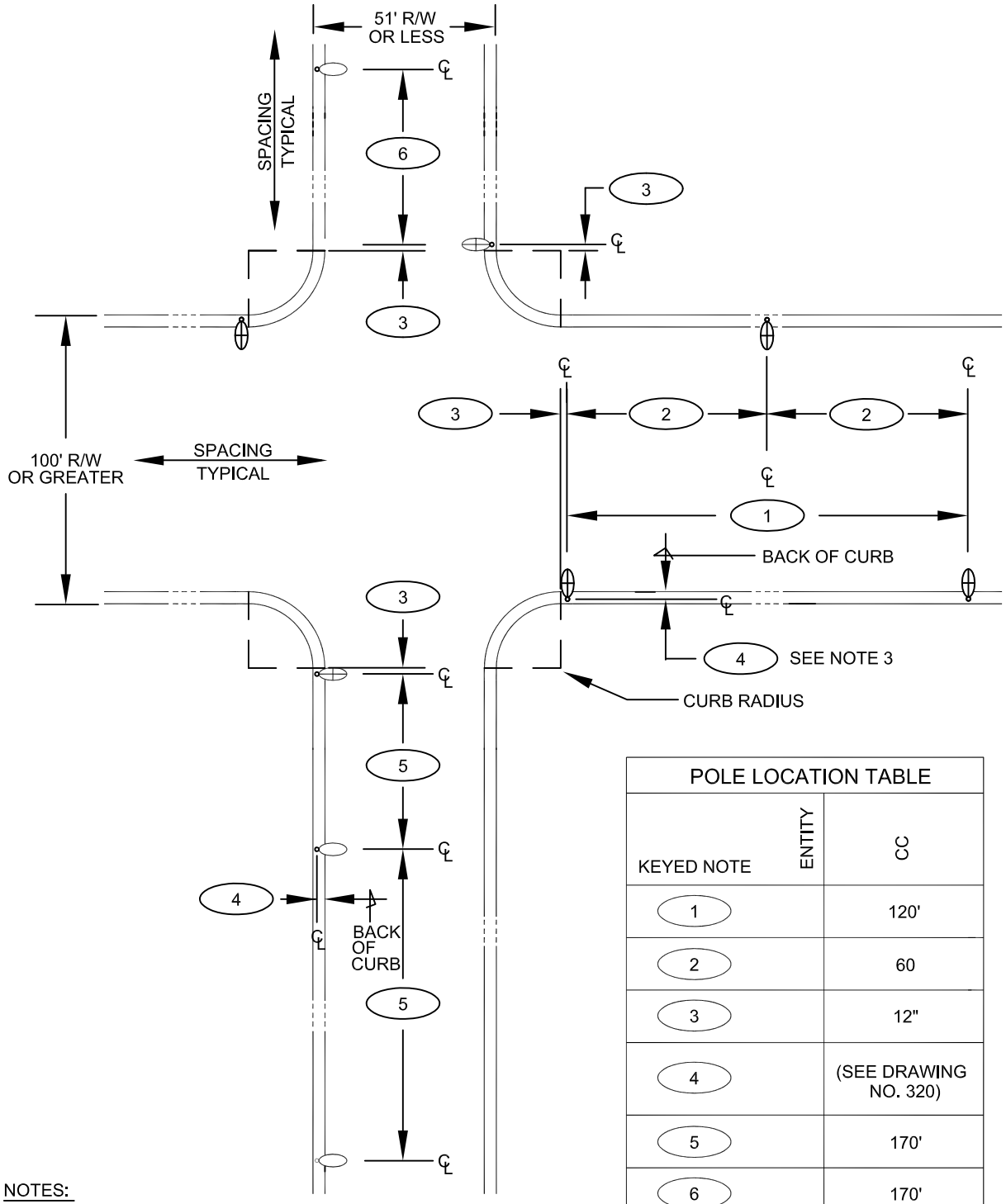
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

STREETLIGHT LOCATIONS AT INTERSECTIONS 100' OR GREATER/51' OR LESS RIGHT-OF-WAY

(EXCEPT CLARK COUNTY & HENDERSON)

DATE 2-08-07 | DWG. NO. 304

Effective 01/01/09 - 06/30/09



POLE LOCATION TABLE	
KEYED NOTE / ENTITY	CC
1	120'
2	60
3	12"
4	(SEE DRAWING NO. 320)
5	170'
6	170'

NOTES:

1. SEE GENERAL NOTES STANDARD DRAWING NO. 300.
2. AN APPROVED LIGHTING STUDY PER NOTE 2, STANDARD DRAWING NO. 300 IS REQUIRED FOR RIGHT-OF-WAY GREATER THAN 100 FEET. ADEQUATE INTERSECTION LIGHTING SHALL ALSO BE ADDRESSED IN THE LIGHTING STUDY.
3. IF INTERSECTION IS SIGNALIZED, 400 WATT LUMINAIRES SHALL BE INSTALLED ON ALL CORNERS AND DUAL ARM CONFIGURATION SHALL BE USED FOR 100 FT. RIGHT-OF-WAY SIMILAR TO STANDARD DRAWING NO. 302.1 IN CLARK COUNTY. USE SINGLE ARM CONFIGURATION PER DRAWING 302 IN HENDERSON.

* PROFESSIONAL ELECTRICAL ENGINEER STAMP ON FILE.

SPECIFICATION REFERENCE	
623	TRAFFIC SIGNALS & STREETLIGHTING

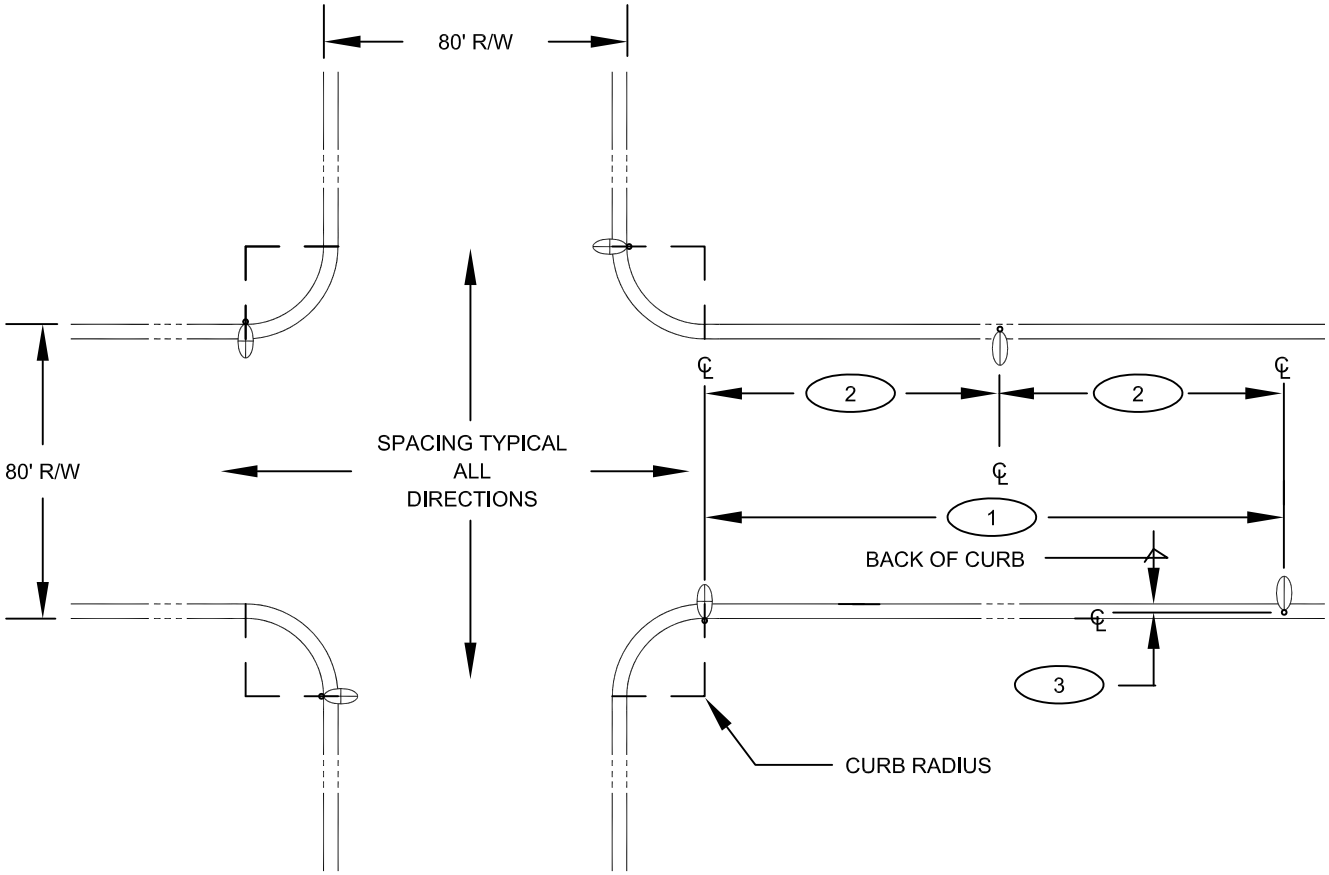
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

CLARK COUNTY & HENDERSON ONLY

STREETLIGHT LOCATIONS AT INTERSECTIONS 100' OR GREATER/51' OR LESS RIGHT-OF-WAY

DATE 2-08-07 | DWG. NO. 304.1

Effective 01/01/09 - 06/30/09



NOTE:

SEE GENERAL NOTES STANDARD DRAWING NO. 300.

POLE LOCATION TABLE	
KEYED NOTE / ENTITY	ALL ENTITIES (EXCEPT CC)
1	170'
2	85'
3	(SEE DRAWING NO. 320)

SPECIFICATION REFERENCE	
623	TRAFFIC SIGNALS & STREETLIGHTING

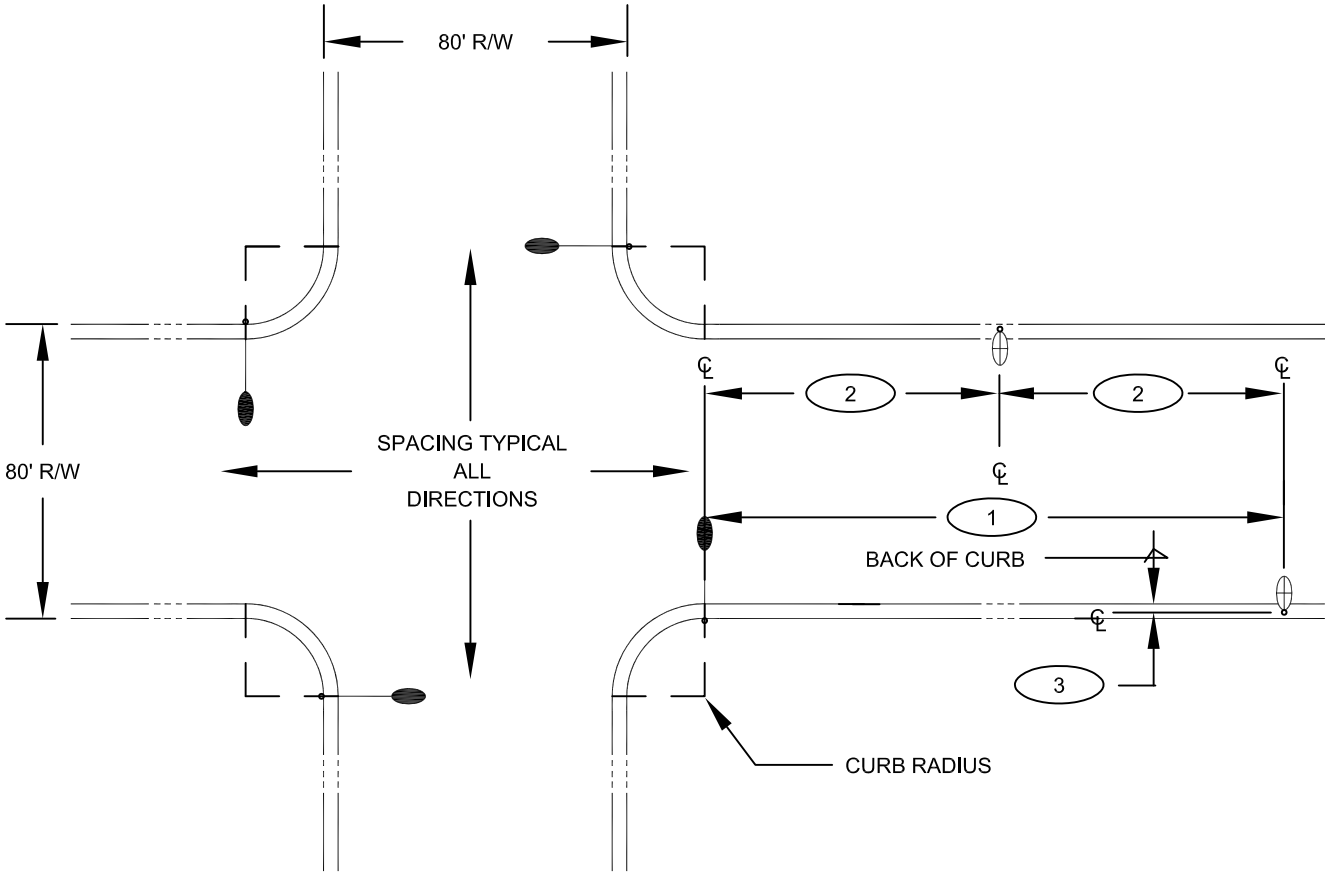
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

STREETLIGHT LOCATIONS AT INTERSECTIONS 80'/80' RIGHT-OF-WAY

(EXCEPT CLARK COUNTY)

DATE 8-12-99	DWG. NO. 305	PAGE NO. 65

Effective 01/01/09 - 06/30/09



NOTE:

SEE GENERAL NOTES STANDARD DRAWING NO. 300.

POLE LOCATION TABLE	
KEYED NOTE / ENTITY	CLARK COUNTY
1	170'
2	85'
3	(SEE DRAWING NO. 320)

SPECIFICATION REFERENCE	
623	TRAFFIC SIGNALS & STREETLIGHTING

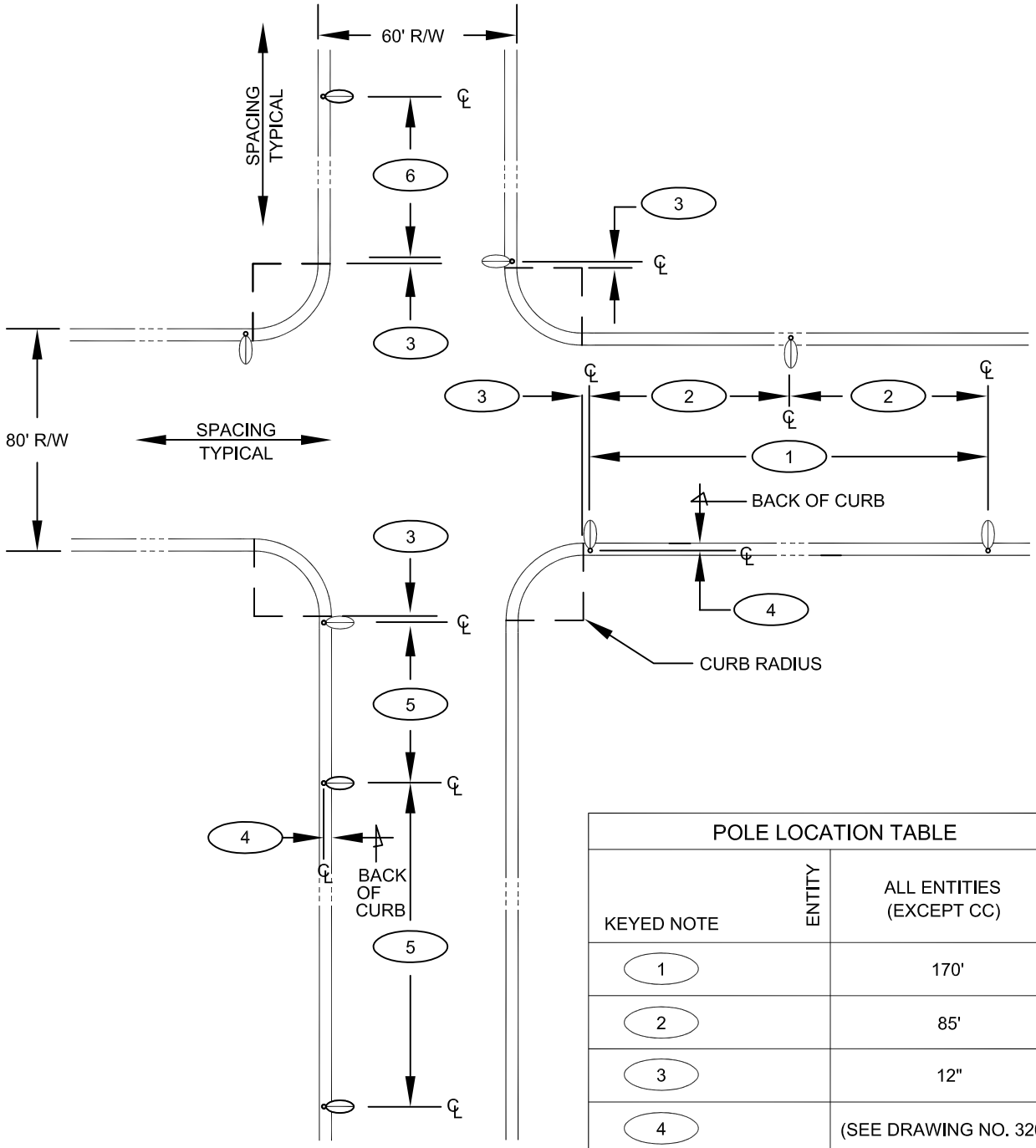
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

CLARK COUNTY ONLY

STREETLIGHT LOCATIONS AT INTERSECTIONS 80'/80' RIGHT-OF-WAY

DATE 8-12-99	DWG. NO. 305.1	PAGE NO. 65.1

Effective 01/01/09 - 06/30/09



POLE LOCATION TABLE	
KEYED NOTE / ENTITY	ALL ENTITIES (EXCEPT CC)
1	170'
2	85'
3	12"
4	(SEE DRAWING NO. 320)
5	180'
6	90'

NOTE:

SEE GENERAL NOTES STANDARD DRAWING NO. 300.

* PROFESSIONAL ELECTRICAL ENGINEER STAMP ON FILE.

SPECIFICATION REFERENCE	
623	TRAFFIC SIGNALS & STREETLIGHTING

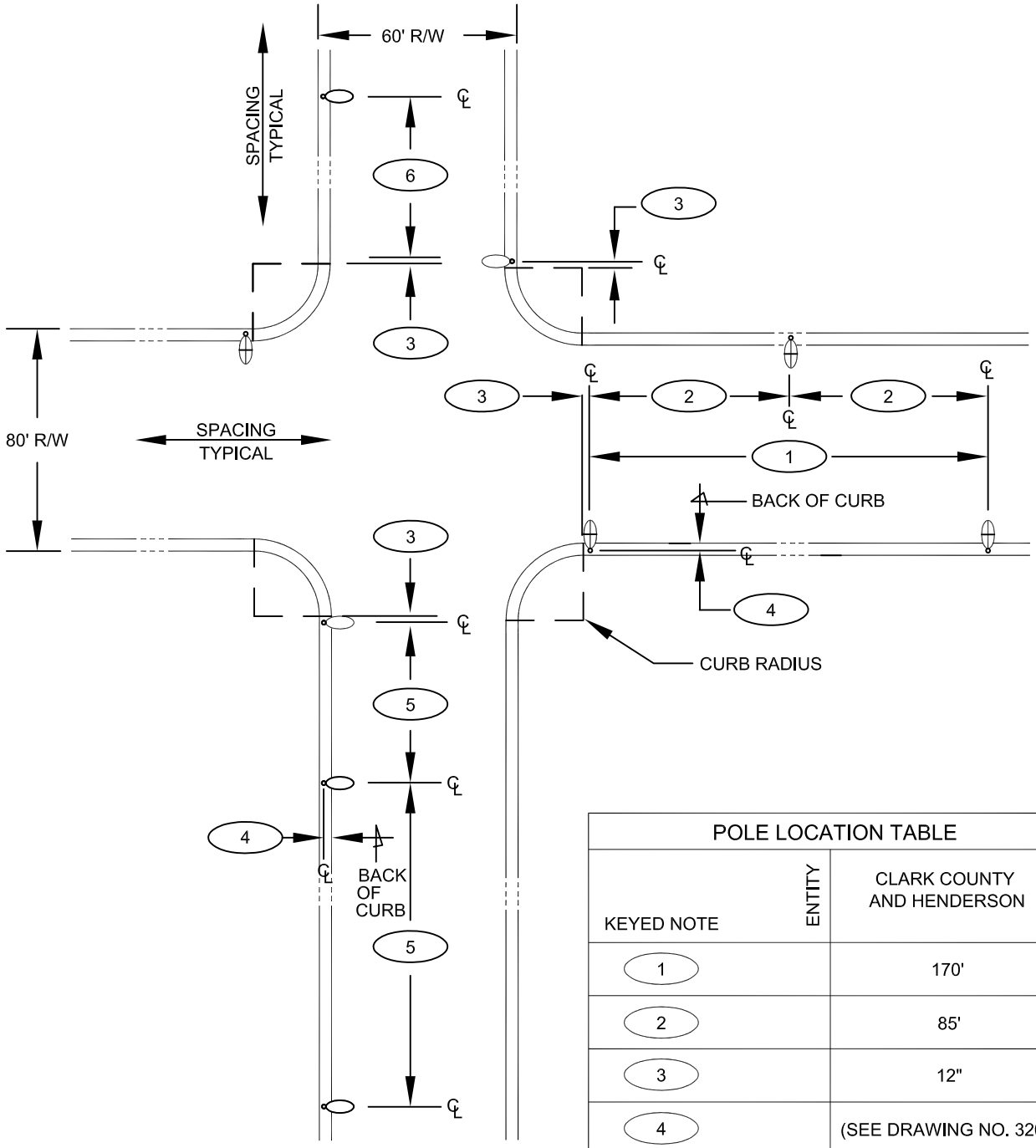
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

STREETLIGHT LOCATIONS AT INTERSECTIONS 80'/60' RIGHT-OF-WAY

(EXCEPT CLARK COUNTY & HENDERSON)

DATE 2-08-07 | DWG. NO. 306

Effective 01/01/09 - 06/30/09



POLE LOCATION TABLE	
KEYED NOTE / ENTITY	CLARK COUNTY AND HENDERSON
1	170'
2	85'
3	12"
4	(SEE DRAWING NO. 320)
5	170'
6	85'

NOTE:

1. SEE GENERAL NOTES STANDARD DRAWING NO. 300.
2. IF THE INTERSECTION IS SIGNALIZED, 400 WATT LUMINAIRES SHALL BE INSTALLED ON ALL CORNERS.

* PROFESSIONAL ELECTRICAL ENGINEER STAMP ON FILE.

SPECIFICATION REFERENCE	
623	TRAFFIC SIGNALS & STREETLIGHTING

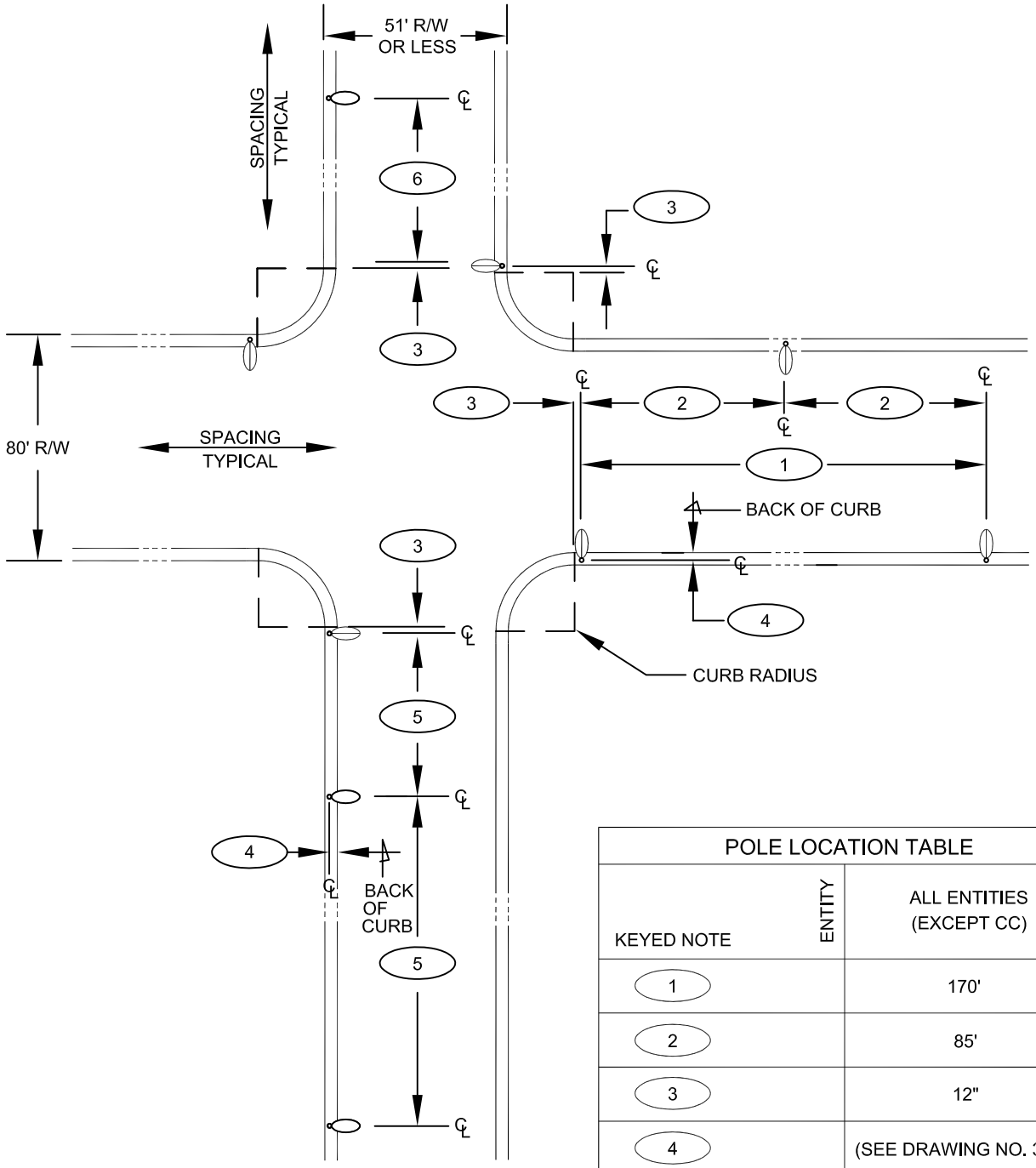
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

CLARK COUNTY & HENDERSON ONLY

STREETLIGHT LOCATIONS AT INTERSECTIONS 80'/60' RIGHT-OF-WAY

DATE 2-08-07 | DWG. NO. 306.1

Effective 01/01/09 - 06/30/09



POLE LOCATION TABLE	
KEYED NOTE / ENTITY	ALL ENTITIES (EXCEPT CC)
1	170'
2	85'
3	12"
4	(SEE DRAWING NO. 320)
5	170'
6	85'

NOTE:

SEE GENERAL NOTES STANDARD DRAWING NO. 300.

* PROFESSIONAL ELECTRICAL ENGINEER STAMP ON FILE.

SPECIFICATION REFERENCE	
623	TRAFFIC SIGNALS & STREETLIGHTING

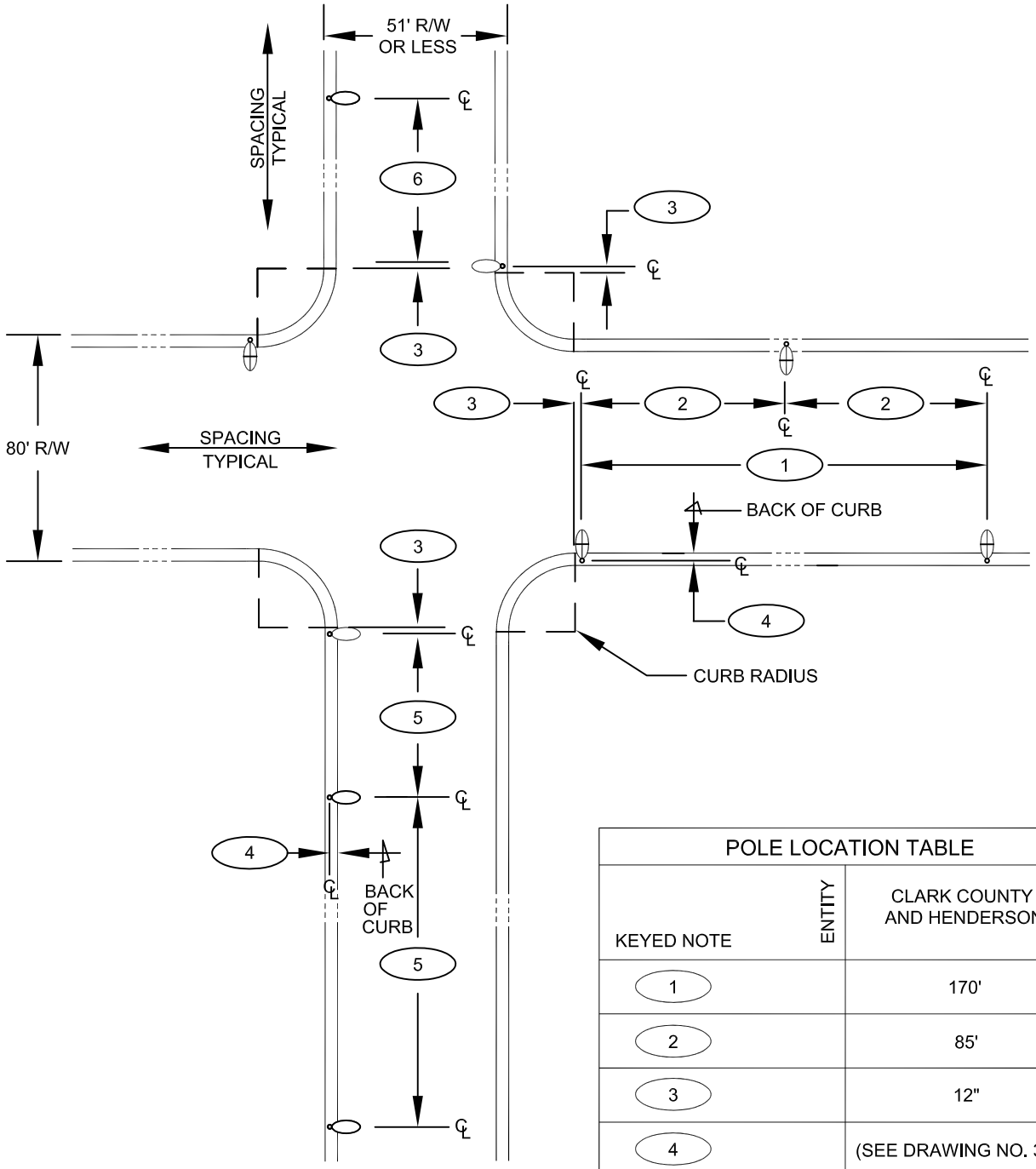
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

STREETLIGHT LOCATIONS AT INTERSECTIONS 80'/51' OR LESS RIGHT-OF-WAY

(EXCEPT CLARK COUNTY & HENDERSON)

DATE 2-08-07 | DWG. NO. 307

Effective 01/01/09 - 06/30/09



POLE LOCATION TABLE	
KEYED NOTE / ENTITY	CLARK COUNTY AND HENDERSON
1	170'
2	85'
3	12"
4	(SEE DRAWING NO. 320)
5	170'
6	85'

NOTE:

1. SEE GENERAL NOTES STANDARD DRAWING NO. 300.
2. IF INTERSECTION IS SIGNALIZED, 400 WATT LUMINAIRES SHALL BE INSTALLED ON ALL CORNERS.

* PROFESSIONAL ELECTRICAL ENGINEER STAMP ON FILE.

SPECIFICATION REFERENCE	
623	TRAFFIC SIGNALS & STREETLIGHTING

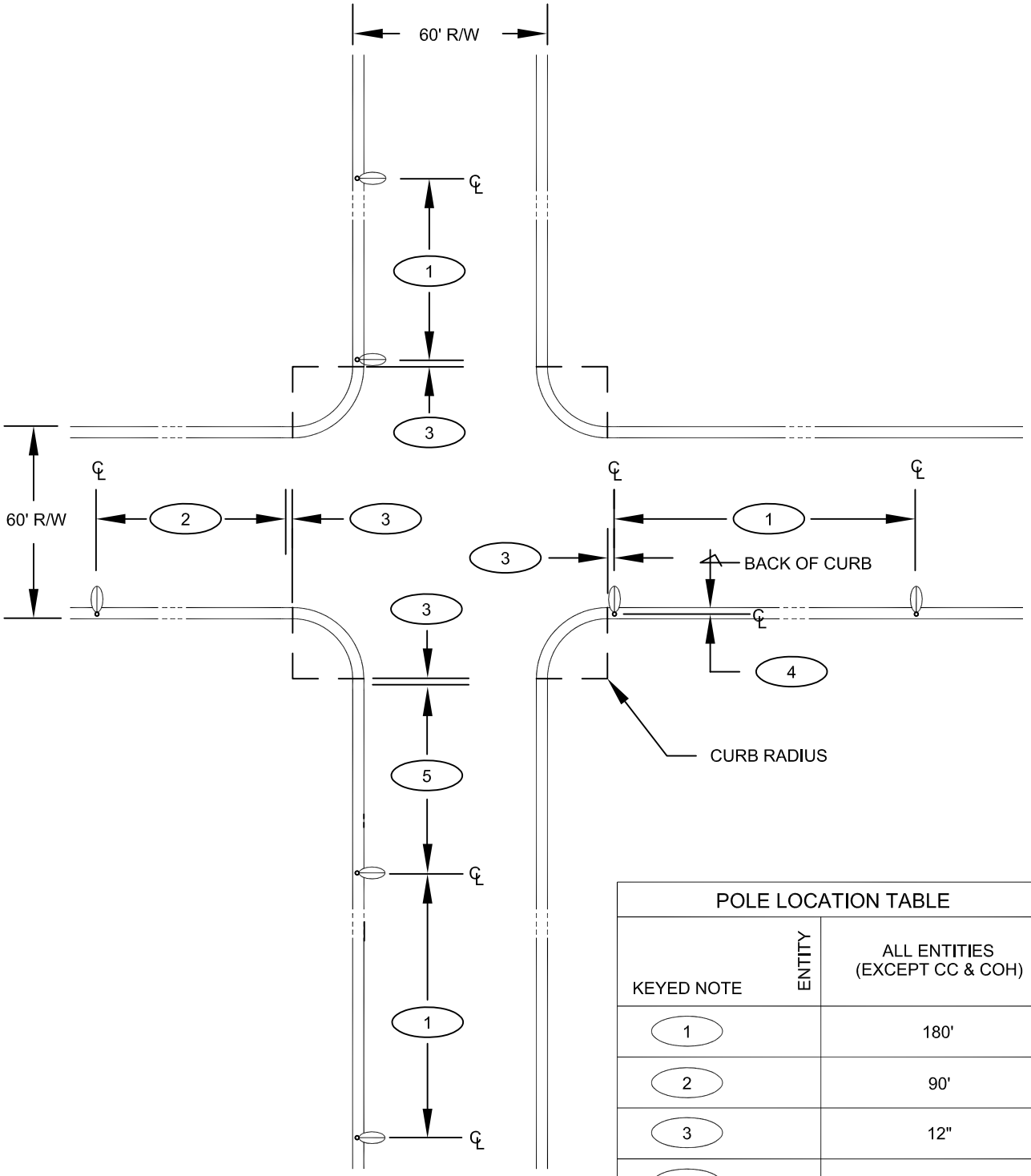
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

CLARK COUNTY & HENDERSON ONLY

STREETLIGHT LOCATIONS AT INTERSECTIONS 80'/51' OR LESS RIGHT-OF-WAY

DATE 2-08-07 | DWG. NO. 307.1

Effective 01/01/09 - 06/30/09



POLE LOCATION TABLE	
KEYED NOTE / ENTITY	ALL ENTITIES (EXCEPT CC & COH)
1	180'
2	90'
3	12"
4	(SEE DRAWING NO. 320)
5	90'

NOTE:

SEE GENERAL NOTES STANDARD DRAWING NO. 300.

* PROFESSIONAL ELECTRICAL ENGINEER STAMP ON FILE.

SPECIFICATION REFERENCE	
623	TRAFFIC SIGNALS & STREETLIGHTING

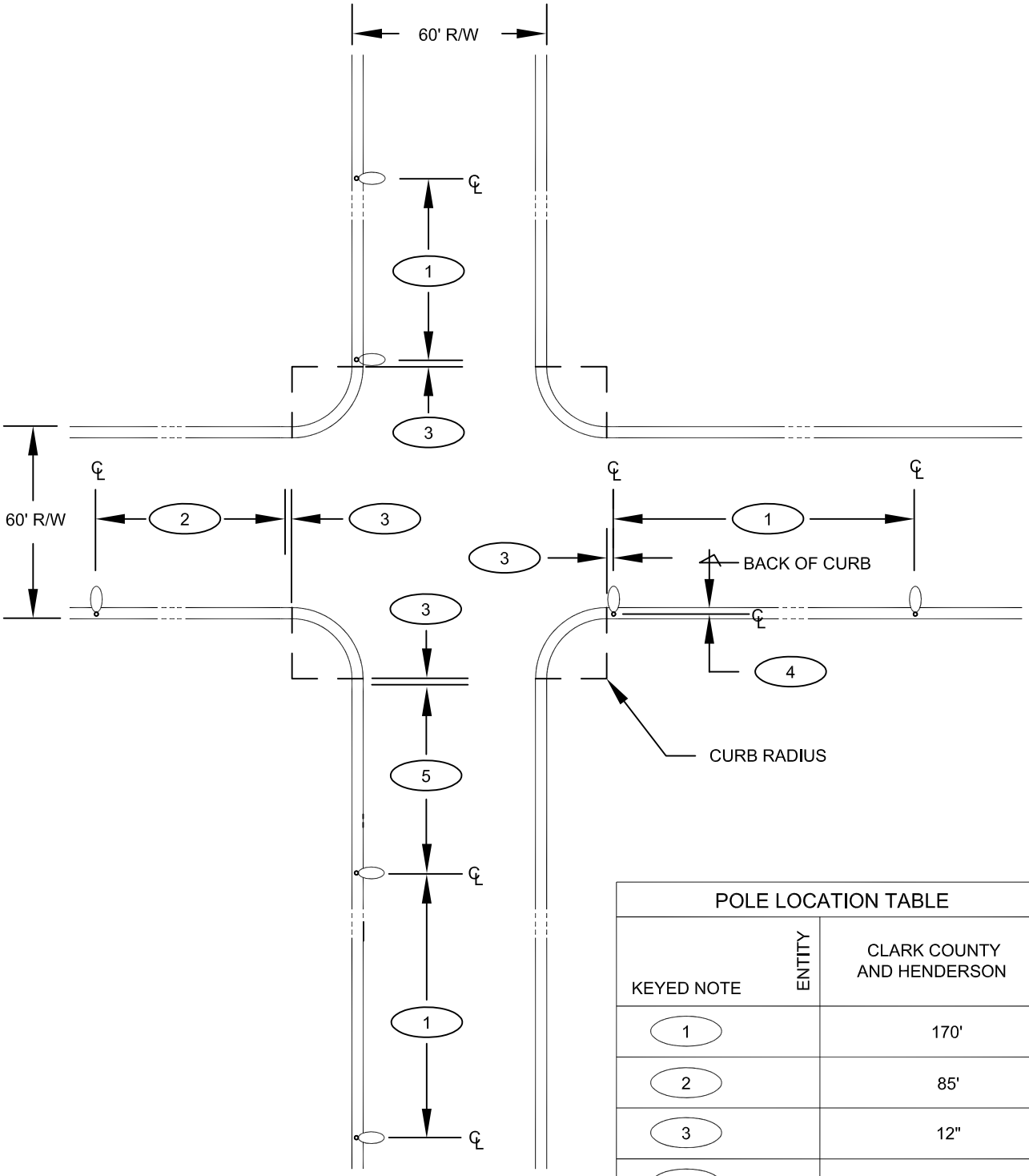
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

STREETLIGHT LOCATIONS AT INTERSECTIONS 60'/60' RIGHT-OF-WAY

(EXCEPT CLARK COUNTY & HENDERSON)

DATE 2-08-07 | DWG. NO. 308

Effective 01/01/09 - 06/30/09



POLE LOCATION TABLE	
KEYED NOTE / ENTITY	CLARK COUNTY AND HENDERSON
1	170'
2	85'
3	12"
4	(SEE DRAWING NO. 320)
5	85'

NOTE:

SEE GENERAL NOTES STANDARD DRAWING NO. 300.

* PROFESSIONAL ELECTRICAL ENGINEER STAMP ON FILE.

SPECIFICATION REFERENCE	
623	TRAFFIC SIGNALS & STREETLIGHTING

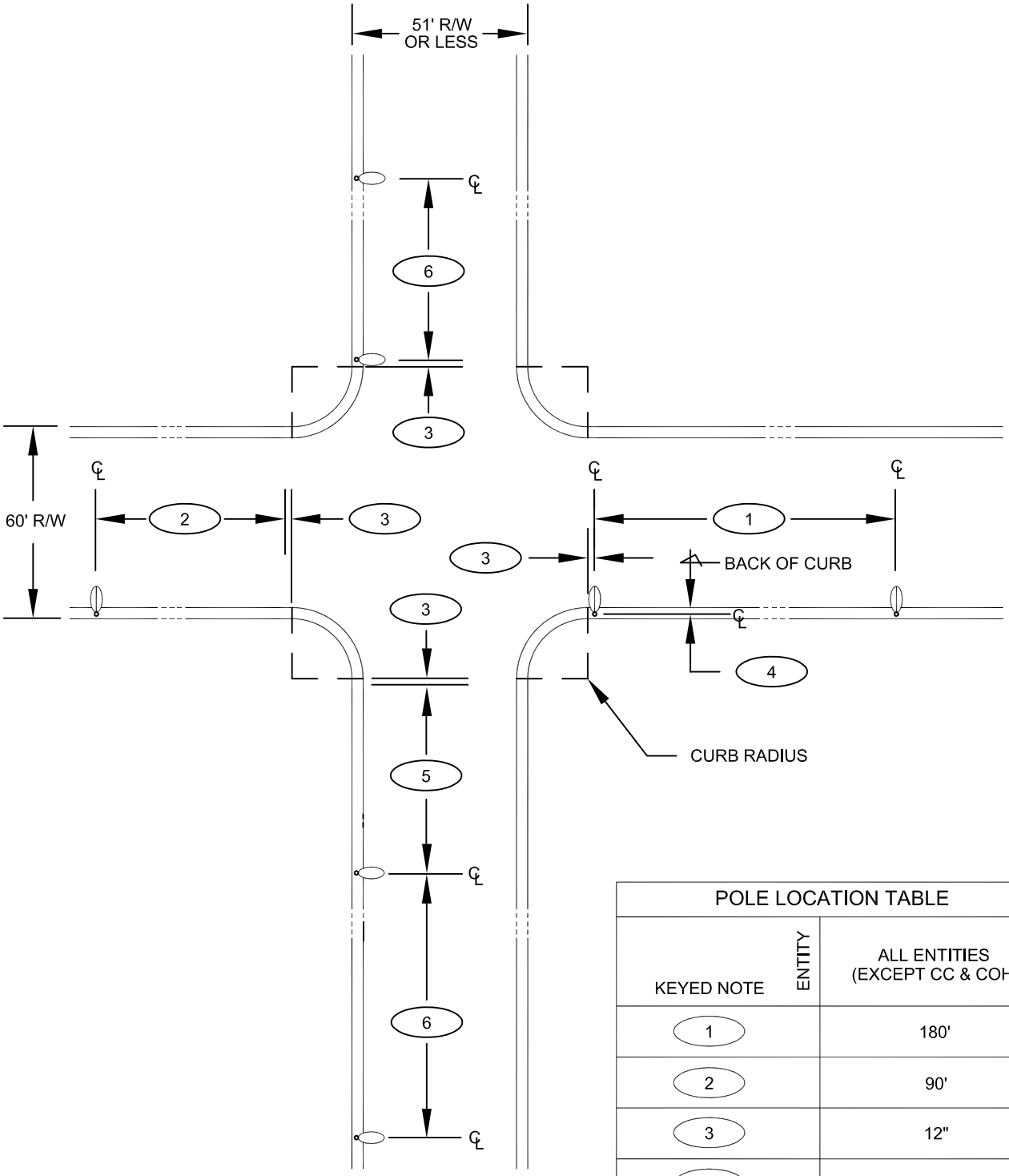
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

CLARK COUNTY & HENDERSON ONLY

STREETLIGHT LOCATIONS AT INTERSECTIONS 60'/60' RIGHT-OF-WAY

DATE 2-08-07 | DWG. NO. 308.1

Effective 01/01/09 - 06/30/09



POLE LOCATION TABLE	
KEYED NOTE / ENTITY	ALL ENTITIES (EXCEPT CC & COH)
1	180'
2	90'
3	12"
4	(SEE DRAWING NO. 320)
5	85'
6	170'

NOTE:
SEE GENERAL NOTES STANDARD DRAWING NO. 300.

* PROFESSIONAL ELECTRICAL ENGINEER STAMP ON FILE.

SPECIFICATION REFERENCE	
623	TRAFFIC SIGNALS & STREETLIGHTING

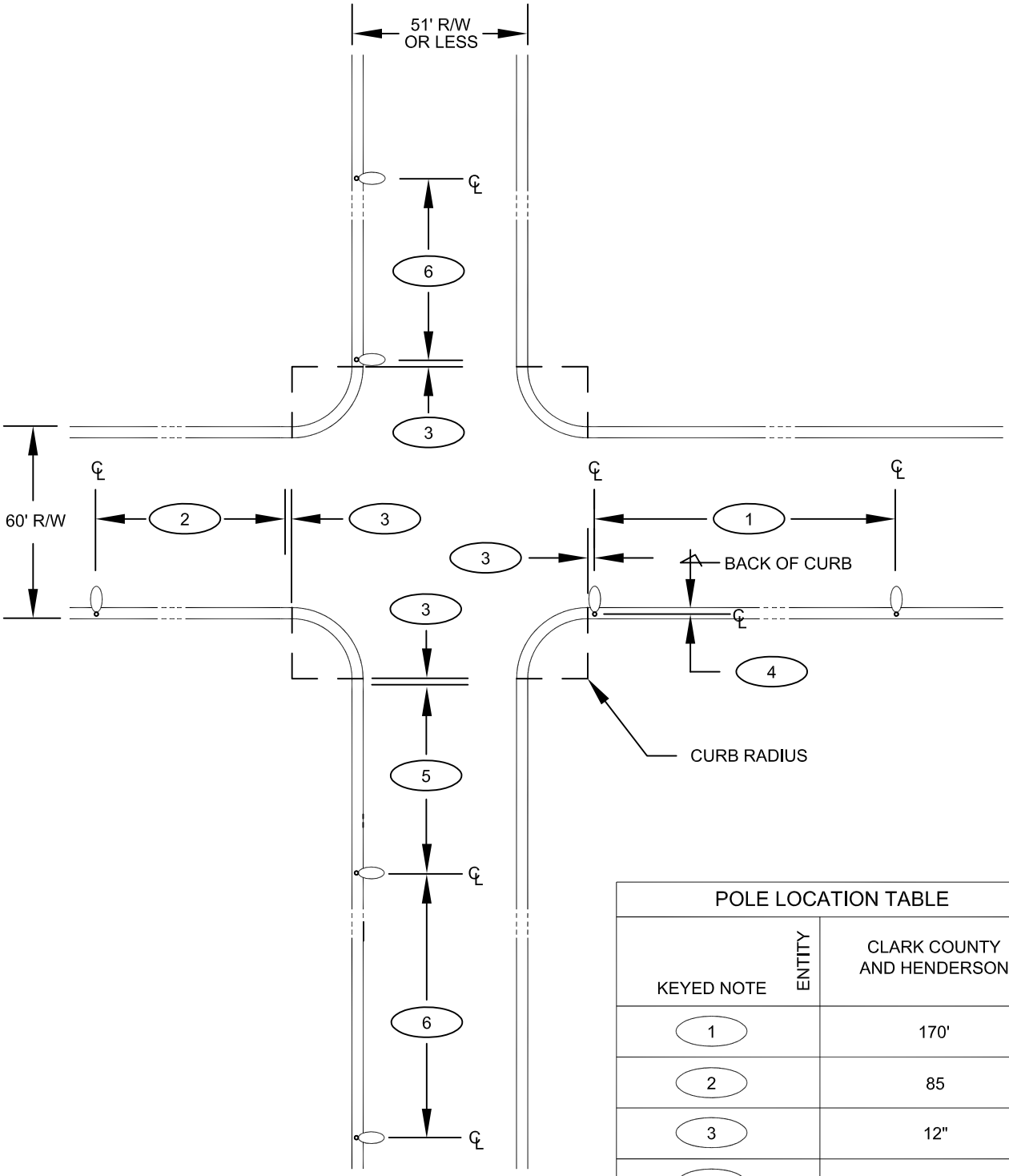
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

STREETLIGHT LOCATIONS AT INTERSECTIONS 60'/51' OR LESS RIGHT-OF-WAY

(EXCEPT CLARK COUNTY & HENDERSON)

DATE 2-08-07 | DWG. NO. 309

Effective 01/01/09 - 06/30/09



POLE LOCATION TABLE	
KEYED NOTE / ENTITY	CLARK COUNTY AND HENDERSON
1	170'
2	85
3	12"
4	(SEE DRAWING NO. 320)
5	85'
6	170'

NOTE:

SEE GENERAL NOTES STANDARD DRAWING NO. 300.

* PROFESSIONAL ELECTRICAL ENGINEER STAMP ON FILE.

SPECIFICATION REFERENCE	
623	TRAFFIC SIGNALS & STREETLIGHTING

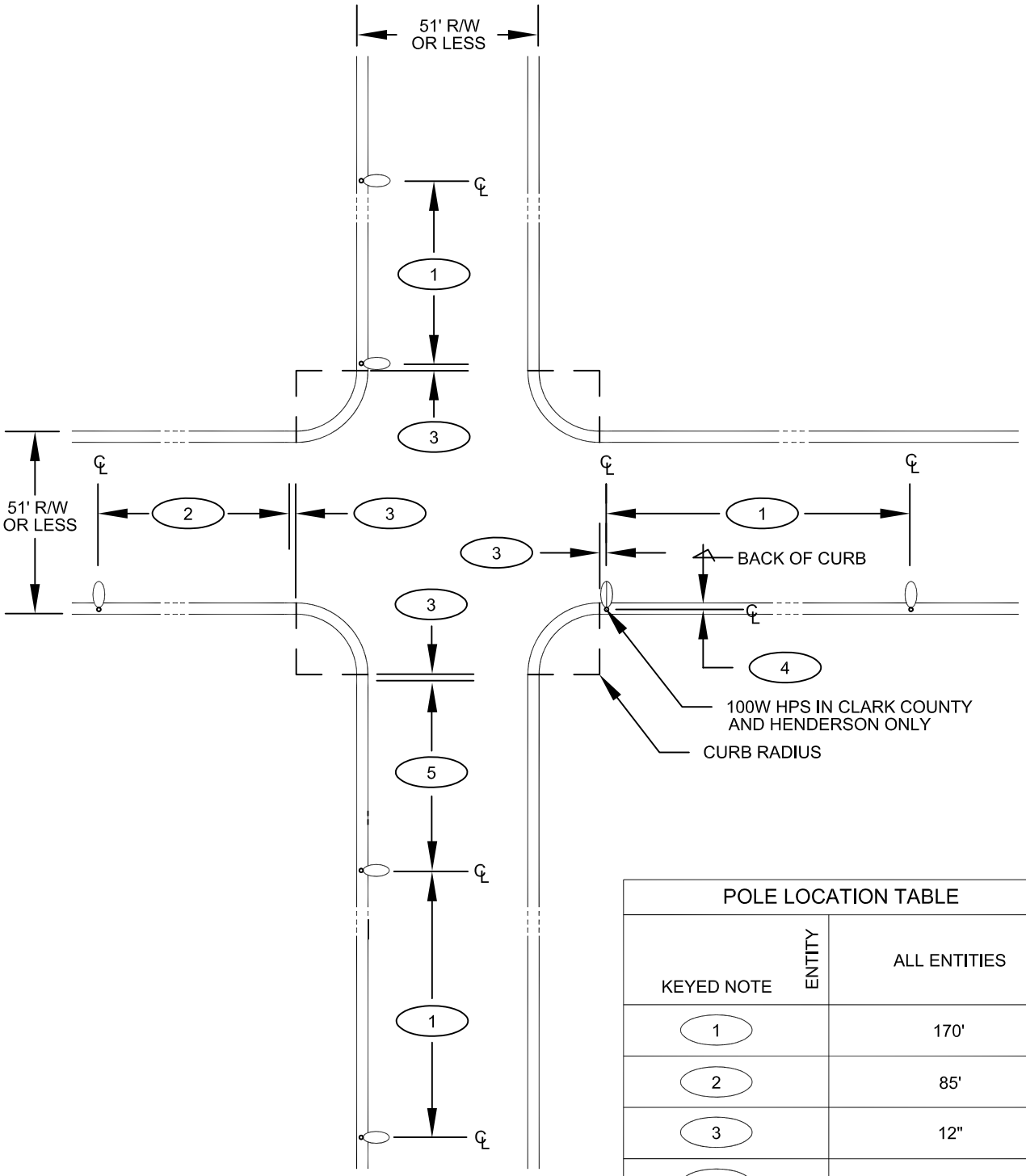
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

CLARK COUNTY & HENDERSON ONLY

STREETLIGHT LOCATIONS AT INTERSECTIONS 60'/51' OR LESS RIGHT-OF-WAY

DATE 2-08-07 | DWG. NO. 309.1

Effective 01/01/09 - 06/30/09



POLE LOCATION TABLE	
KEYED NOTE / ENTITY	ALL ENTITIES
1	170'
2	85'
3	12"
4	(SEE DRAWING NO. 320)
5	85'

NOTE:

SEE GENERAL NOTES STANDARD DRAWING NO. 300.

* PROFESSIONAL ELECTRICAL ENGINEER STAMP ON FILE.

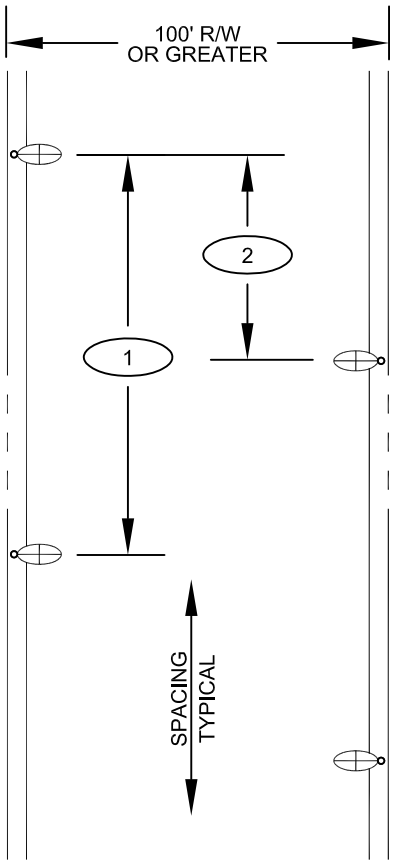
SPECIFICATION REFERENCE	
623	TRAFFIC SIGNALS & STREETLIGHTING

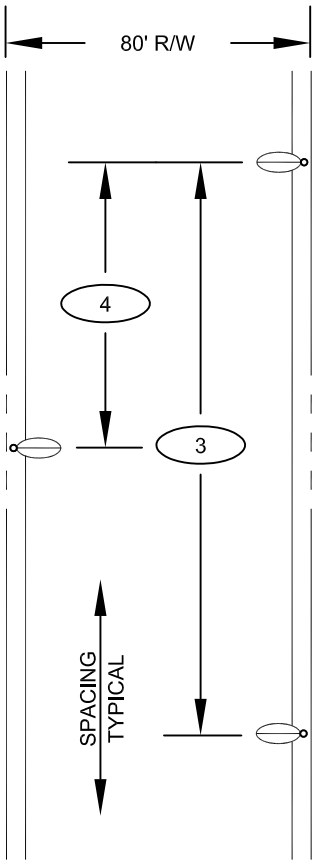
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

STREETLIGHT LOCATIONS AT INTERSECTIONS 51' OR LESS/51' OR LESS RIGHT-OF-WAY

DATE 2-08-07 | DWG. NO. 310

Effective 01/01/09 - 06/30/09





POLE LOCATION TABLE	
KEYED NOTE / ENTITY	ALL ENTITIES (EXCEPT CC)
1	160'
2	80'
3	170'
4	85'

NOTES:

1. SEE GENERAL NOTES STANDARD DRAWING NO. 300.
2. AN APPROVED LIGHTING STUDY PER NOTE 2, STANDARD DRAWING NO. 300, IS REQUIRED FOR RIGHT-OF-WAY GREATER THAN 100 FEET.

SPECIFICATION REFERENCE	
623	TRAFFIC SIGNALS & STREETLIGHTING

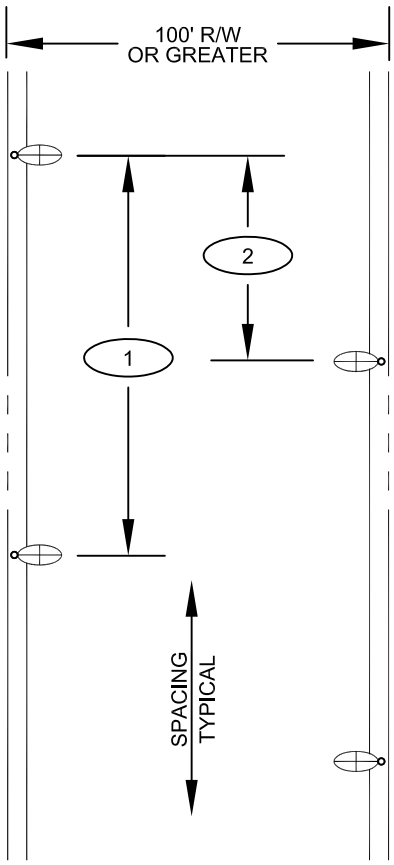
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

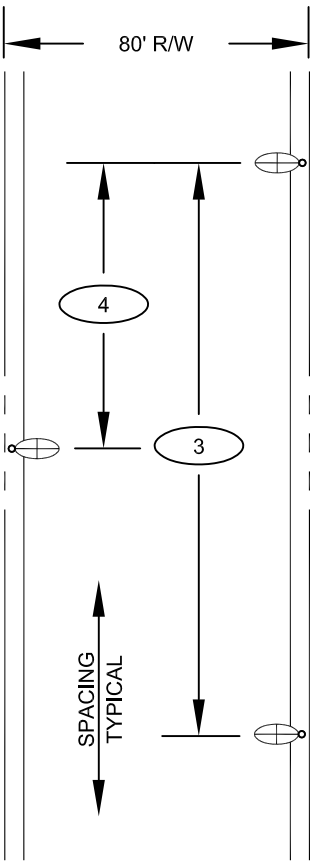
STREETLIGHT STANDARDS MAXIMUM SPACING (80 FT. OR GREATER RIGHT-OF-WAY)

(EXCEPT CLARK COUNTY)

DATE 8-12-99	DWG. NO. 311	PAGE NO. 71

Effective 01/01/09 - 06/30/09





POLE LOCATION TABLE	
KEYED NOTE / ENTITY	CLARK COUNTY
1	120'
2	60'
3	170'
4	85'

NOTES:

1. SEE GENERAL NOTES STANDARD DRAWING NO. 300.
2. AN APPROVED LIGHTING STUDY PER NOTE 2, STANDARD DRAWING NO. 300, IS REQUIRED FOR RIGHT-OF-WAY GREATER THAN 100 FEET.

SPECIFICATION REFERENCE	
623	TRAFFIC SIGNALS & STREETLIGHTING

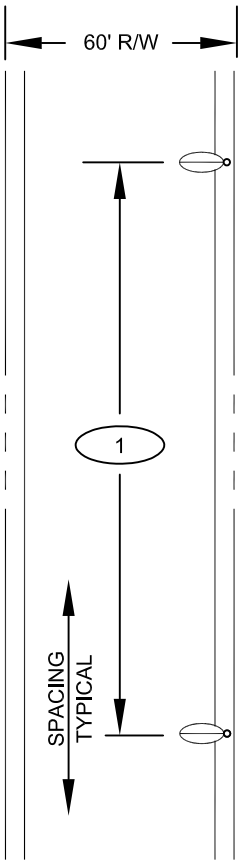
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

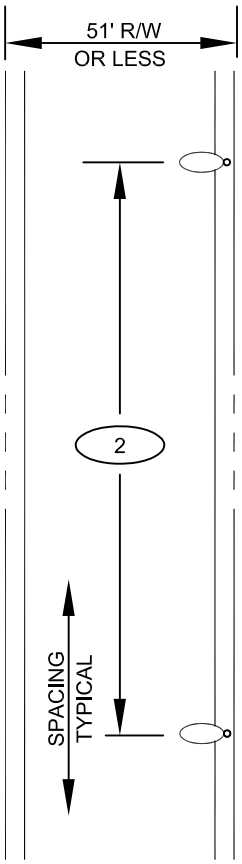
CLARK COUNTY ONLY

STREETLIGHT STANDARDS MAXIMUM SPACING (80 FT. OR GREATER RIGHT-OF-WAY)

DATE 8-12-99	DWG. NO. 311.1	PAGE NO. 71.1

Effective 01/01/09 - 06/30/09





POLE LOCATION TABLE	
KEYED NOTE / ENTITY	ALL ENTITIES (EXCEPT CC & COH)
1	180'
2	170'

NOTES:

1. SEE GENERAL NOTES STANDARD DRAWING NO. 300.

* PROFESSIONAL ELECTRICAL ENGINEER STAMP ON FILE.

SPECIFICATION REFERENCE	
623	TRAFFIC SIGNALS & STREETLIGHTING

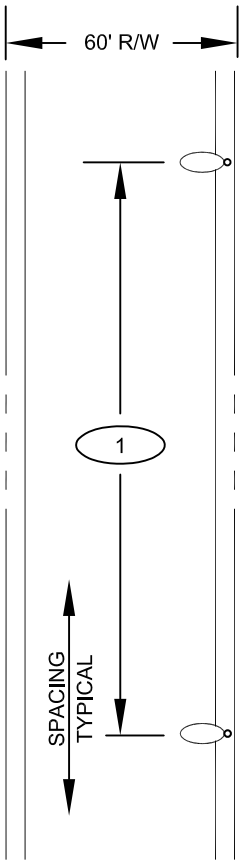
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

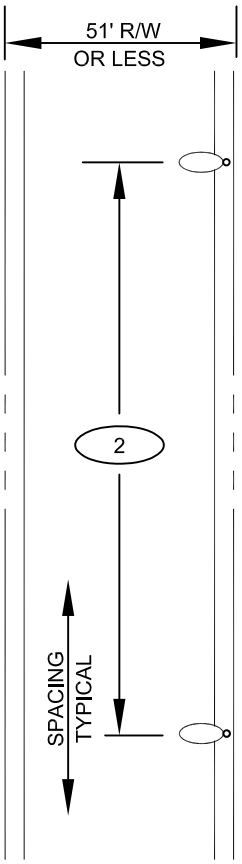
STREETLIGHT STANDARDS MAXIMUM SPACING (60 FT. OR LESS RIGHT-OF-WAY)

(EXCEPT CLARK COUNTY & HENDERSON)

DATE 2-08-07 | DWG. NO. 311A

Effective 01/01/09 - 06/30/09





POLE LOCATION TABLE	
KEYED NOTE / ENTITY	CLARK COUNTY & HENDERSON
1	170'
2	170'

NOTES:

1. SEE GENERAL NOTES STANDARD DRAWING NO. 300.

* PROFESSIONAL ELECTRICAL ENGINEER STAMP ON FILE.

SPECIFICATION REFERENCE	
623	TRAFFIC SIGNALS & STREETLIGHTING

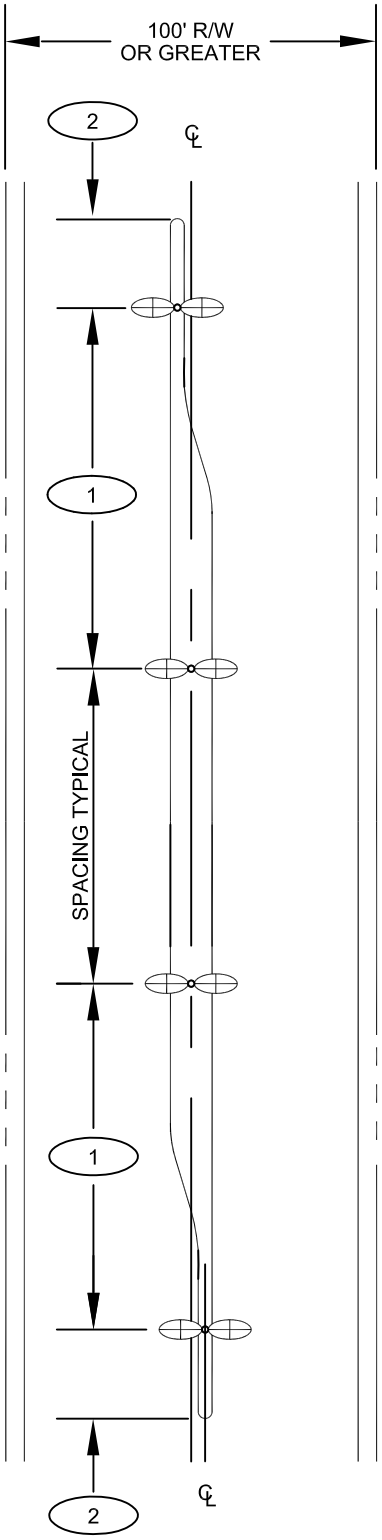
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

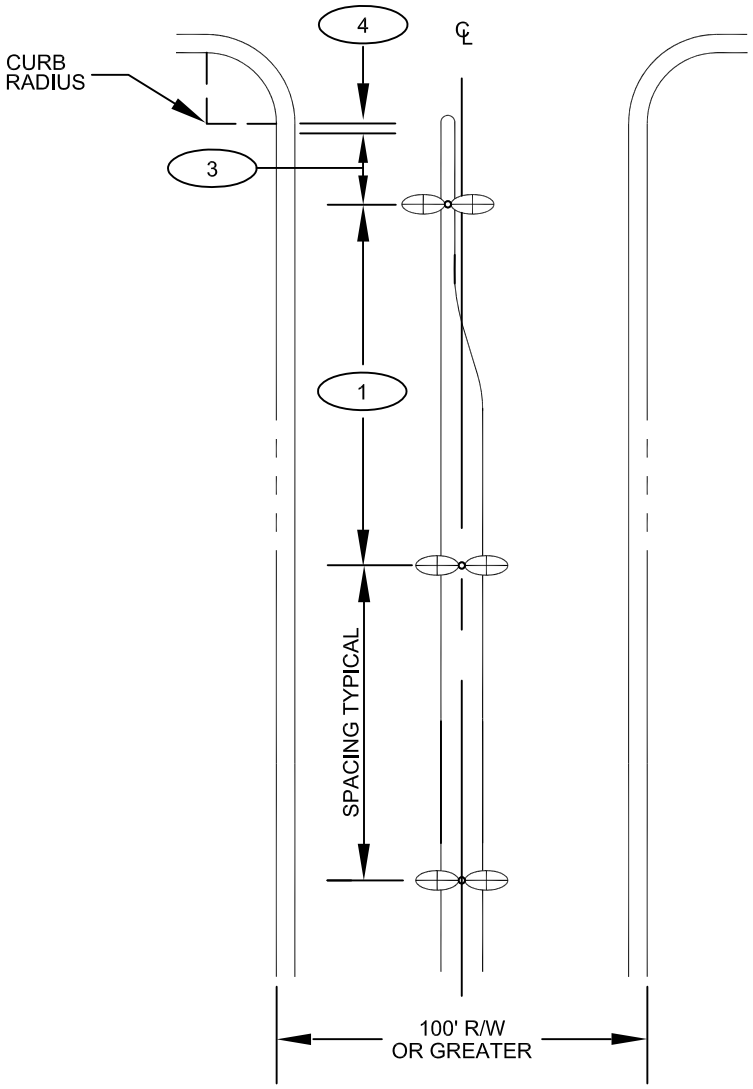
CLARK COUNTY & HENDERSON ONLY

STREETLIGHT STANDARDS MAXIMUM SPACING (60 FT. OR LESS RIGHT-OF-WAY)

DATE 2-08-07 | DWG. NO. 311.1A

Effective 01/01/09 - 06/30/09





SPACING FOR SIGNALIZED INTERSECTIONS

POLE LOCATION TABLE		
KEYED NOTE / ENTITY	ALL ENTITIES (EXCEPT CC)	CLARK COUNTY
* 1	160'	120'
2	10'	10' (MIN.)
3	80'	120'
4	12"	12"

NOTES:

1. SEE GENERAL NOTES STANDARD DRAWING NO. 300.
2. AN APPROVED LIGHTING STUDY PER NOTE 2, STANDARD DRAWING NO. 300, IS REQUIRED FOR RIGHT-OF-WAY GREATER THAN 100 FEET.

* DISTANCE LISTED INDICATES MAXIMUM SPACING. LIGHTING STANDARDS SHALL BE EQUIDISTANT AFTER LOCATING THE END OF ISLAND POLES.

SPECIFICATION REFERENCE	
623	TRAFFIC SIGNALS & STREETLIGHTING

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

STREETLIGHT LOCATIONS ON TRAFFIC ISLANDS 100' OR GREATER RIGHT-OF-WAY

DATE 8-12-99	DWG. NO. 312	PAGE NO. 72

Effective 01/01/09 - 06/30/09

1. ALL STREETLIGHT STANDARDS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PROVISIONS OF THE STANDARD SPECIFICATIONS AND AS INDICATED ON THESE DRAWINGS.

2. ALL COMPONENTS OF THE STREETLIGHT STANDARD INCLUDING THE POLE, ARM, HANDHOLE COVER, BASE COVER AND THE POLE CAP SHALL BE FERROUS METAL AND HOT-DIP GALVANIZED AFTER CONSTRUCTION IN ACCORDANCE WITH ASTM A123; ALUMINUM OR ALUMINUM ALLOY IS NOT ACCEPTABLE. FLAWS IN THE APPEARANCE OF THESE GALVANIZED COMPONENTS (i.e. "TIGER-STRIPED, "ZEBRA-STRIPED"), SHALL BE CAUSE FOR REJECTION. NON-METALLIC TYPE BASE COVERS MAY BE ACCEPTABLE AND SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. CONCRETE POLES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

3. ALL FASTENING HARDWARE SHALL BE NON-CORROSIVE, CADMIUM-PLATED, OR EQUAL, APPROVED BY THE ENGINEER. FASTENERS SHALL BE OF THE SIZE AND CONFIGURATION NOTED ON THE DRAWINGS.

4. CONCRETE POLE FOUNDATIONS SHOULD BE POURED AGAINST UNDISTURBED, NATURAL SOIL OR IF FORMING MATERIAL IS USED IT SHALL BE STRIPPED AWAY FROM THE FOUNDATION AT LEAST ONE (1) FOOT BELOW FINISHED GRADE.

5. POLES SHALL BE INSTALLED ON CONCRETE FOUNDATIONS WITH ANCHOR BOLTS. EACH BOLT SHALL BE INSTALLED WITH TWO (2) HEX NUTS AND TWO (2) FLAT WASHERS. EXCEPT FOR "H" AND "L" FOUNDATIONS, THE ANCHOR BOLTS SHALL BE 1" X 36" X 4" FOR ELEVEN (11) GAGE POLES AND 1 1/8" X 40" X 4" FOR SEVEN (7) GAGE POLES. THE ANCHOR BOLTS, NUTS AND WASHERS SHALL BE HOT-DIP GALVANIZED. THE POLE SHALL BE PLUMBED PRIOR TO PLACING THE GROUT OR CONCRETE CAP. USE OF GROUT OR CONCRETE FOR CAP SHALL BE DESIGNATED BY ENTITY ENGINEER. SHIMS OR WEDGES OF ANY KIND ARE NOT ACCEPTABLE TO PLUMB THE POLE AFTER THE CAP HAS BEEN PLACED.

6. ALL UNDERGROUND CONDUIT INSTALLED SHALL HAVE RED, CONTINUOUS MARKING TAPE INSTALLED IN THE TRENCH AT 12" BELOW FINISHED GRADE.

7. WHERE SIGNALS AND STANDARDS ARE INSTALLED UNDER OVERHEAD POWER LINES, CLEARANCES SHALL BE PER NATIONAL ELECTRICAL SAFETY CODE SECTION 234 REQUIREMENTS. INSTALL STRAIGHT ARM STREETLIGHT ASSEMBLIES WHERE ADDITIONAL CLEARANCE IS REQUIRED.

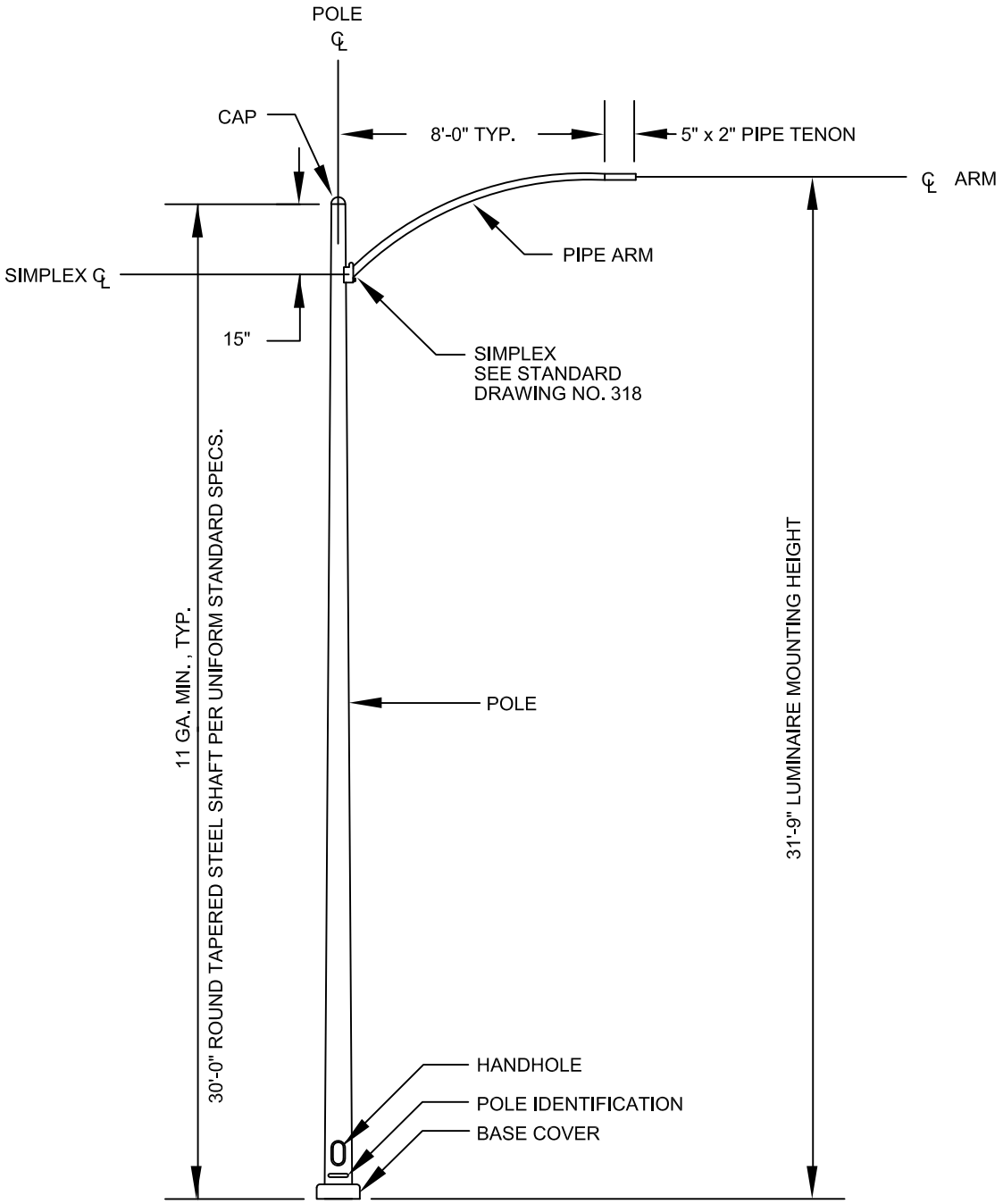
Effective 01/01/09 - 06/30/09

SPECIFICATION REFERENCE	
623	TRAFFIC SIGNALS & STREETLIGHTING

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

STREETLIGHT STANDARD GENERAL NOTES

DATE 7-8-04	DWG. NO. 313	PAGE NO. 73



NOTES:

1. SEE GENERAL NOTES STANDARD DRAWING NO. 313.
2. SEE STANDARD DRAWING NO. 319 FOR DETAIL OF POLE BASE.
3. SEE STANDARD DRAWING NO. 318 FOR DETAIL OF POLE CAP.

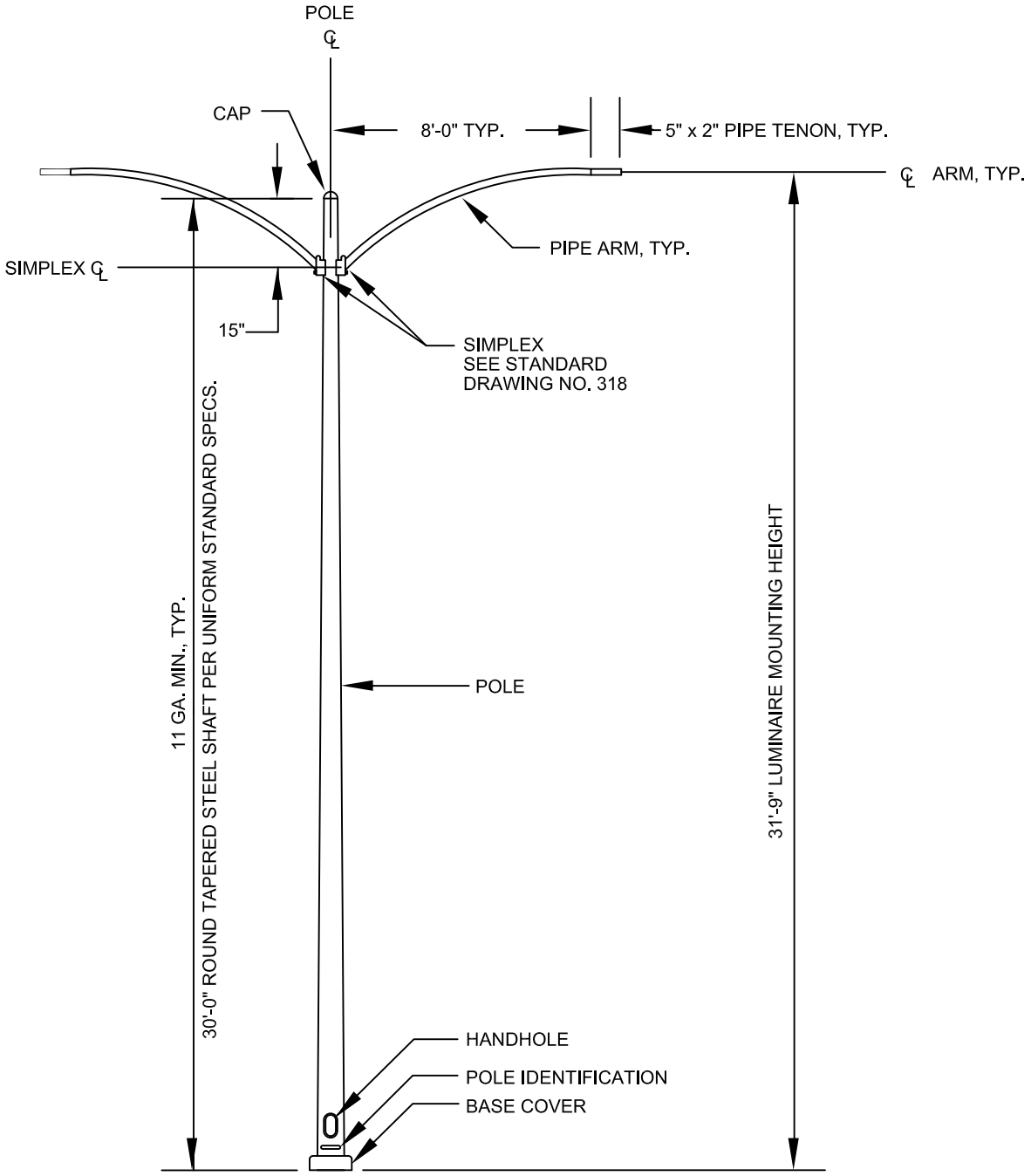
SPECIFICATION REFERENCE	
506	STEEL STRUCTURES
623	TRAFFIC SIGNALS & STREETLIGHTING
715	GALVANIZING

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

STREETLIGHT STANDARD WITH 2" PIPE ARM

DATE 12-12-96	DWG. NO. 314	PAGE NO. 74

Effective 01/01/09 - 06/30/09



NOTES:

1. SEE GENERAL NOTES STANDARD DRAWING NO. 313.
2. SEE STANDARD DRAWING NO. 319 FOR DETAIL OF POLE BASE.
3. SEE STANDARD DRAWING NO. 318 FOR DETAIL OF POLE CAP.

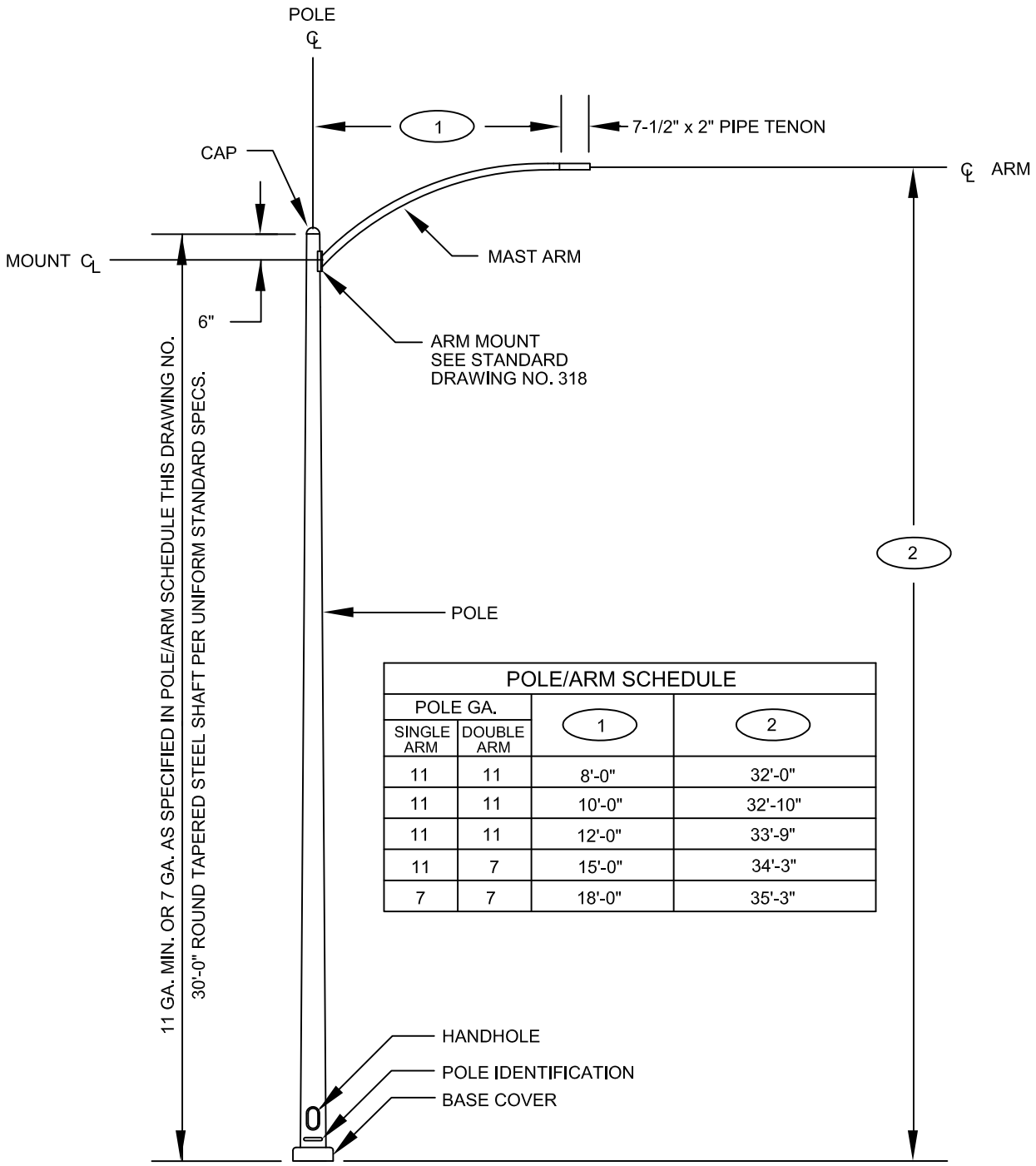
SPECIFICATION REFERENCE	
506	STEEL STRUCTURES
623	TRAFFIC SIGNALS & STREETLIGHTING
715	GALVANIZING

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

STREETLIGHT STANDARD WITH DOUBLE 2" PIPE ARM

DATE 12-12-96	DWG. NO. 315	PAGE NO. 75

Effective 01/01/09 - 06/30/09



POLE/ARM SCHEDULE			
POLE GA.		1	2
SINGLE ARM	DOUBLE ARM		
11	11	8'-0"	32'-0"
11	11	10'-0"	32'-10"
11	11	12'-0"	33'-9"
11	7	15'-0"	34'-3"
7	7	18'-0"	35'-3"

NOTES:

1. SEE GENERAL NOTES STANDARD DRAWING NO. 313.
2. SEE STANDARD DRAWING NO. 319 FOR DETAIL OF POLE BASE.
3. SEE STANDARD DRAWING NO. 318 FOR DETAIL OF POLE CAP.

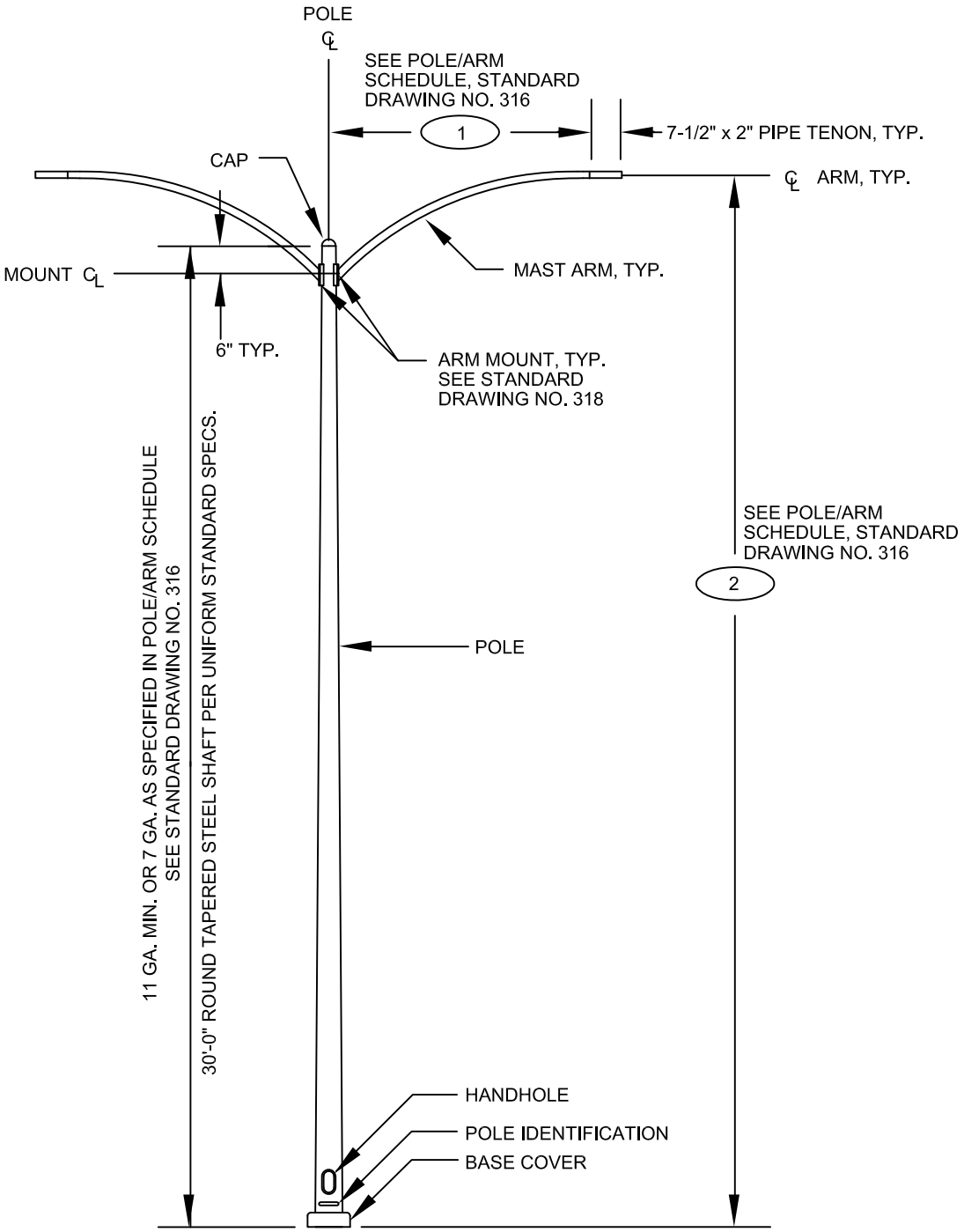
SPECIFICATION REFERENCE	
506	STEEL STRUCTURES
623	TRAFFIC SIGNALS & STREETLIGHTING
715	GALVANIZING

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

STREETLIGHT STANDARD WITH TAPERED MAST ARM

DATE 12-12-96 | DWG. NO. 316 | PAGE NO. 76

Effective 01/01/09 - 06/30/09



NOTES:

1. SEE GENERAL NOTES STANDARD DRAWING NO. 313.
2. SEE STANDARD DRAWING NO. 319 FOR DETAIL OF POLE BASE.
3. SEE STANDARD DRAWING NO. 318 FOR DETAIL OF POLE CAP.

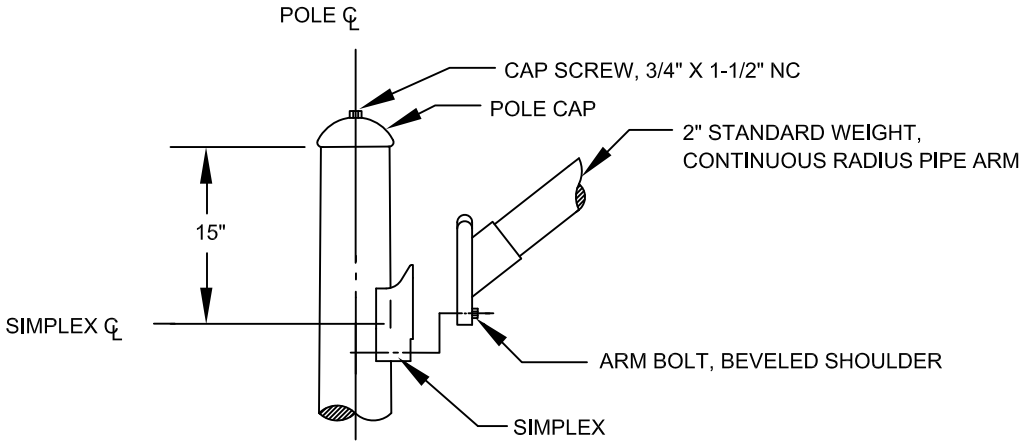
SPECIFICATION REFERENCE	
506	STEEL STRUCTURES
623	TRAFFIC SIGNALS & STREETLIGHTING
715	GALVANIZING

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

STREETLIGHT STANDARD WITH DOUBLE TAPERED MAST ARM

DATE 12-12-96	DWG. NO. 317	PAGE NO. 77

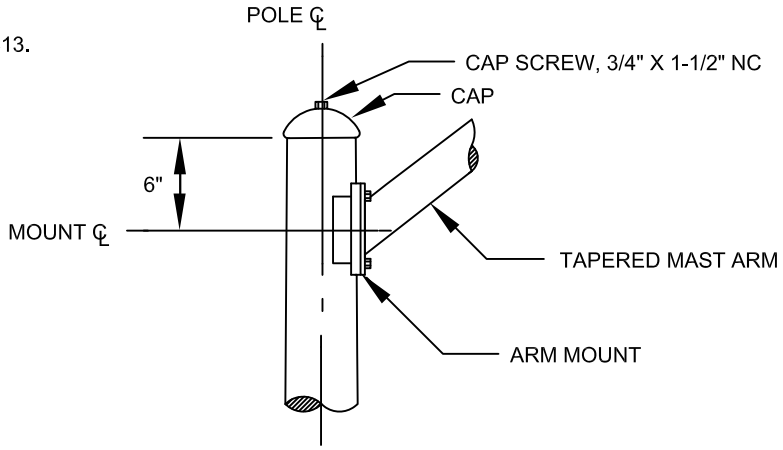
Effective 01/01/09 - 06/30/09

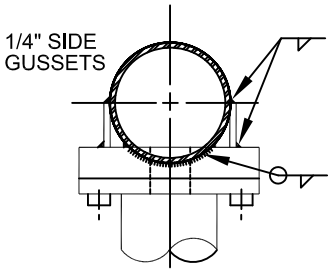


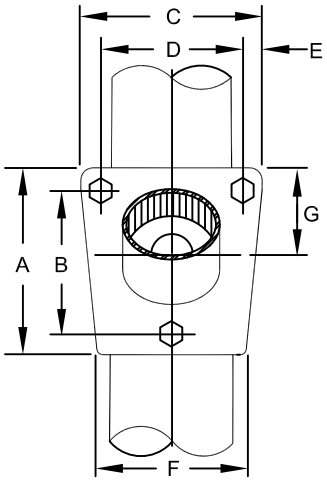
PIPE ARM

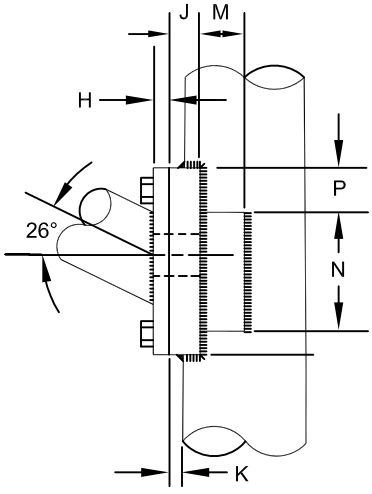
NOTE:

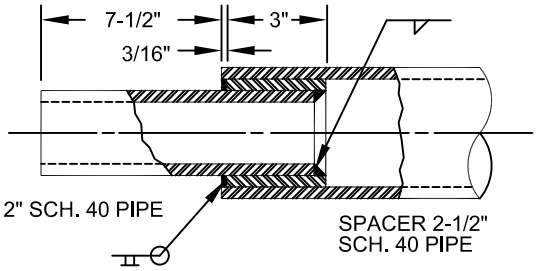
SEE GENERAL NOTES
STANDARD DRAWING NO. 313.











TENON DETAIL

MAST ARM	A	B	C	D	E	F	G
8'-15' INCL.	7-1/2"	5-3/4"	6-3/8"	4-5/8"	7/8"	5"	3-3/8"
15'-18' INCL.	9"	7"	8"	6"	1"	6"	4"

MAST ARM	H	J	K	L	M	N	N
8'-15' INCL.	1/2"	1"	5/16"	5/8"-11x1/2"	1-1/2"	5"	1-5/8"
15'-18' INCL.	3/4"	1"	5/16"	3/4"-10x1-3/4"	2"	5"	1-3/4"

MAST ARM AND DETAILS

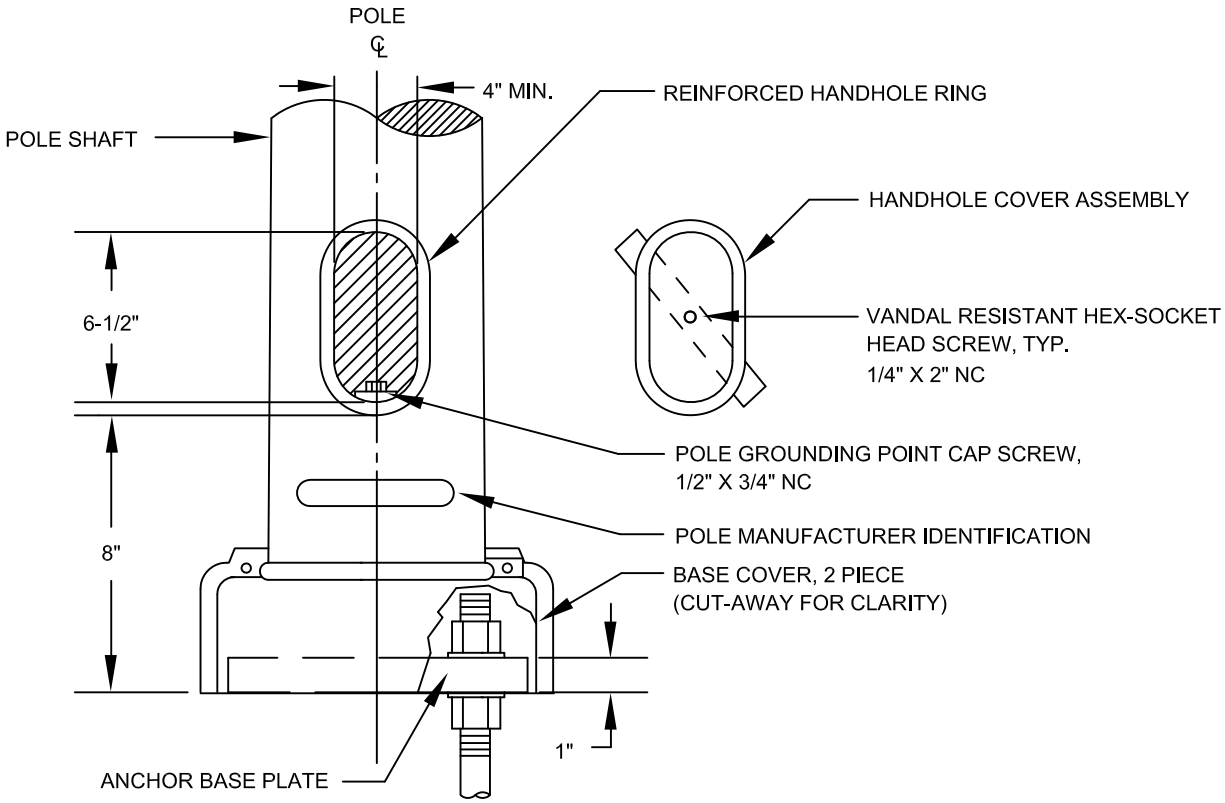
SPECIFICATION REFERENCE	
506	STEEL STRUCTURES
623	TRAFFIC SIGNALS & STREETLIGHTING
715	GALVANIZING

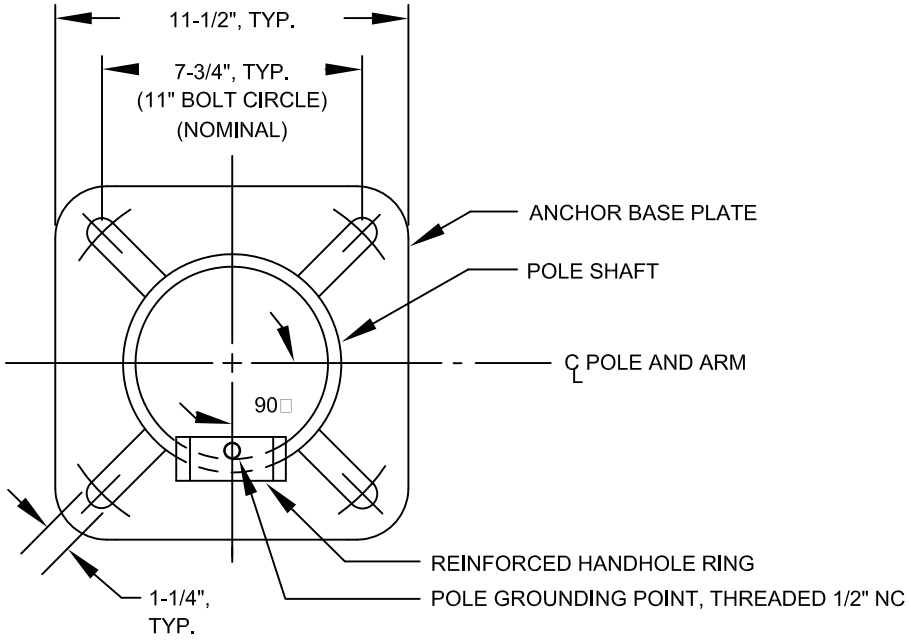
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

POLE TOP AND ARM MOUNTING DETAILS

DATE 12-12-96	DWG. NO. 318	PAGE NO. 78

Effective 01/01/09 - 06/30/09





NOTES:

1. SEE GENERAL NOTES STANDARD DRAWING NO. 313
2. HANDHOLE SHALL FACE AWAY FROM ONCOMING TRAFFIC.

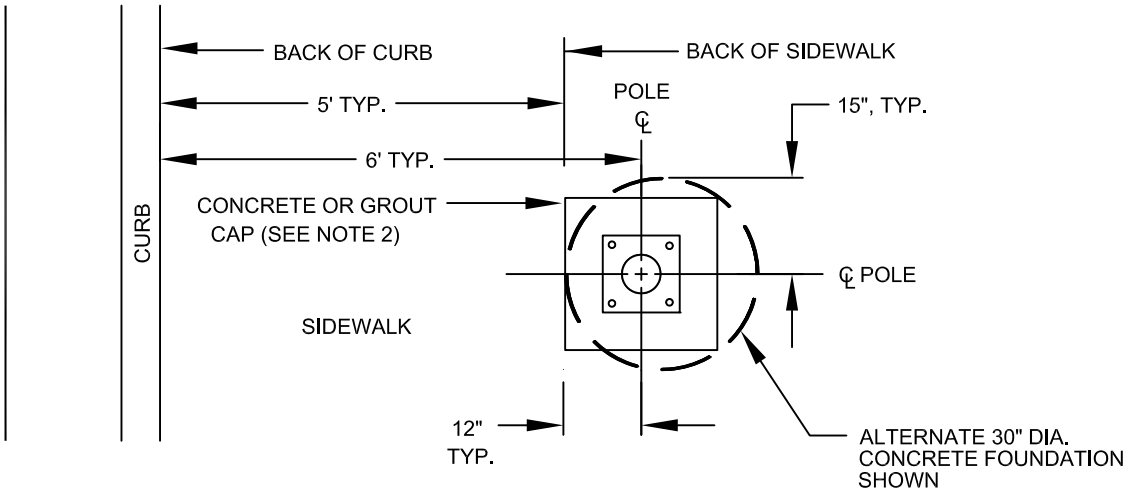
SPECIFICATION REFERENCE	
506	STEEL STRUCTURES
623	TRAFFIC SIGNALS & STREETLIGHTING
715	GALVANIZING

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

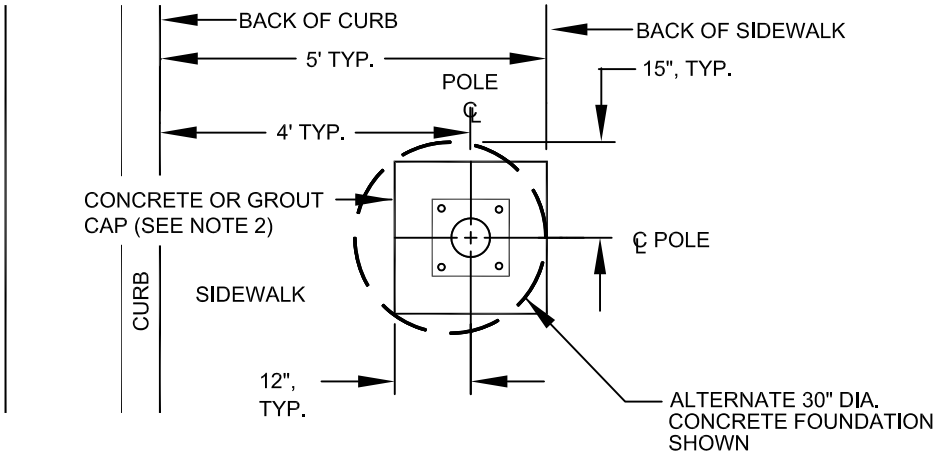
LOWER POLE DETAILS FOR PIPE AND MAST ARM POLES

DATE 12-12-96	DWG. NO. 319	PAGE NO. 79

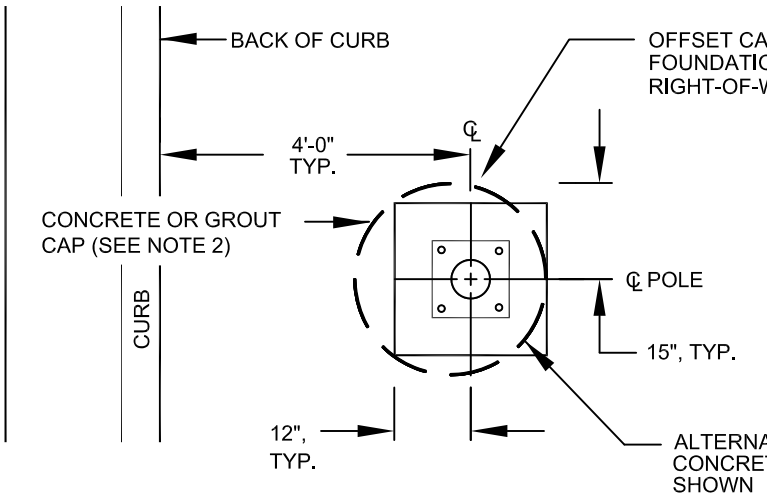
Effective 01/01/09 - 06/30/09



BEHIND CURBSIDE SIDEWALK



BACK PORTION OF CURBSIDE SIDEWALK (NOT FOR NEW CONSTRUCTION)



NOTES:

1. FOUNDATIONS SHALL BE LOCATED OUTSIDE OF THE SIDEWALK WHENEVER FEASIBLE. A CLEARANCE OF 36" SHALL BE MAINTAINED ON SIDEWALK TO COMPLY WITH THE AMERICANS WITH DISABILITIES ACT.
2. FOUNDATION CAP SHALL BE CONCRETE OR GROUT AS DESIGNATED BY THE ENTITY ENGINEER.

OPEN AREA OR BETWEEN CURB AND SIDEWALK

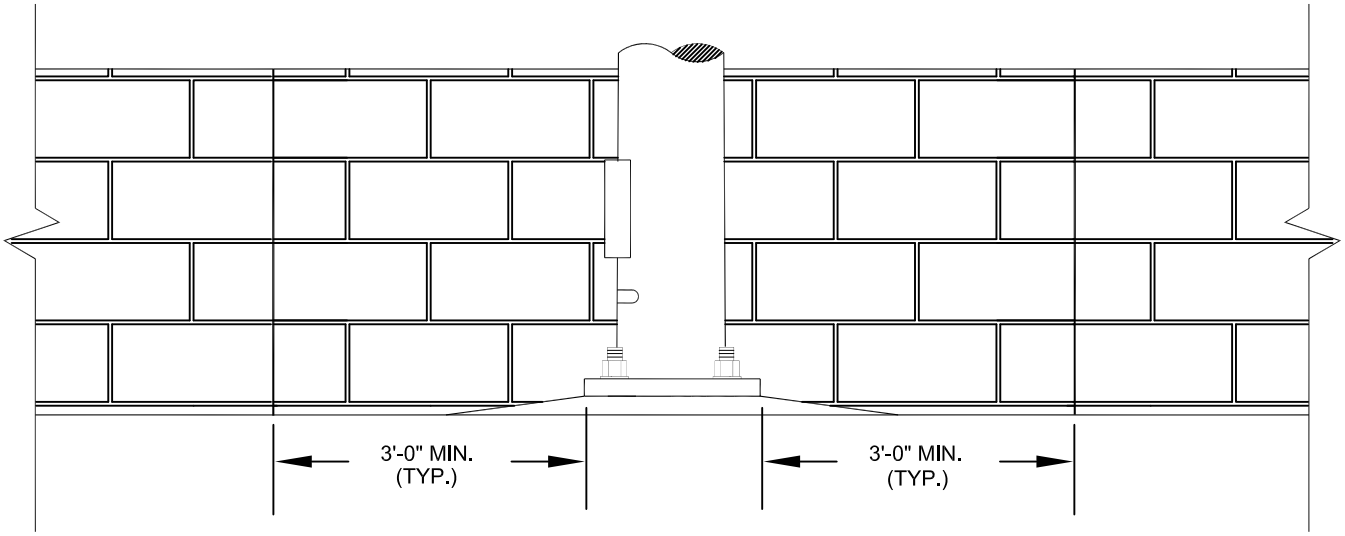
SPECIFICATION REFERENCE	
501	PORTLAND CEMENT CONCRETE
623	TRAFFIC SIGNALS & STREETLIGHTING

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

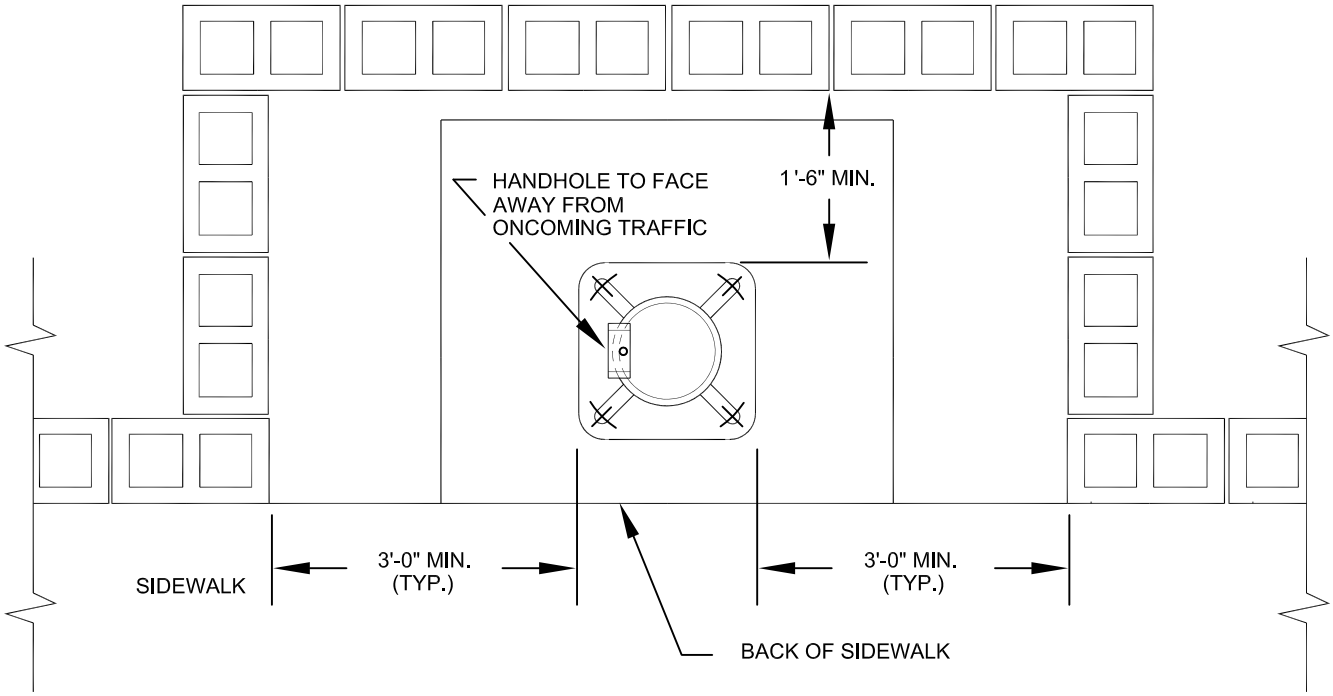
LIGHTING STANDARD SETBACK

DATE	7-8-04	DWG. NO.	320	PAGE NO.	80

Effective 01/01/09 - 06/30/09



ELEVATION



PLAN

NOTE:

POLE BASE COVERS SHALL BE FURNISHED AND INSTALLED FOR ALL POLES PER THE STANDARD SPECIFICATIONS AND DRAWINGS.

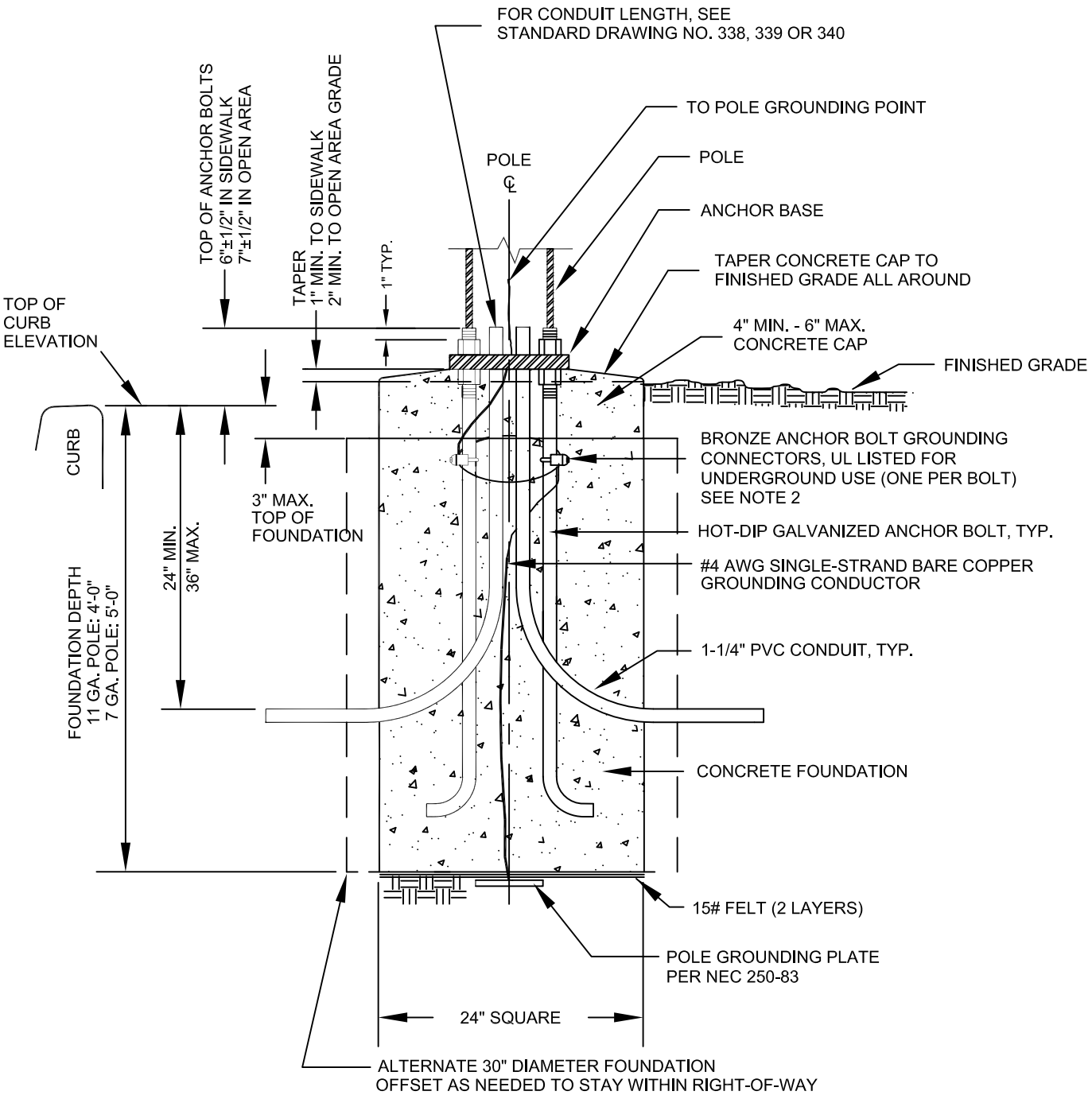
SPECIFICATION REFERENCE	
623	TRAFFIC SIGNALS & STREETLIGHTING

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

LIGHTING STANDARD SETBACK FROM BLOCK WALL

DATE 5-13-99	DWG. NO. 320A	PAGE NO. 80A

Effective 01/01/09 - 06/30/09



NOTES:

1. SEE GENERAL NOTES STANDARD DRAWING NO. 313
2. CONTINUOUS BARE COPPER GROUNDING CONDUCTOR SHALL BE LOOPED AROUND ANCHOR BOLTS ONE TIME AND CONNECTED TO EACH ANCHOR BOLT BEFORE CONTINUING DOWN TO THE POLE GROUNDING PLATE.
3. FOUNDATION CAP SHALL BE CONCRETE OR GROUT AS DESIGNATED BY THE ENTITY ENGINEER.

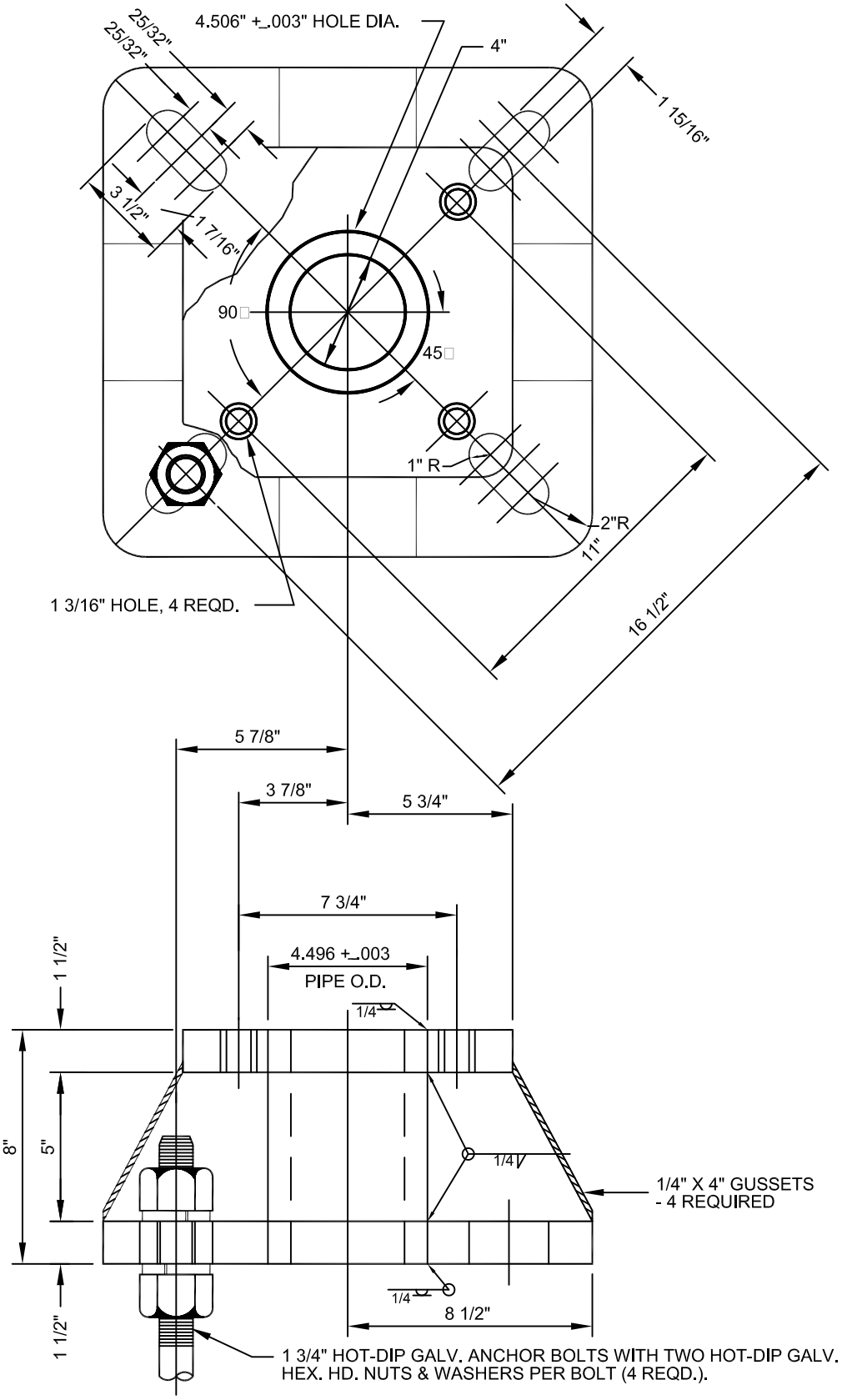
SPECIFICATION REFERENCE	
501	PORTLAND CEMENT CONCRETE
623	TRAFFIC SIGNALS & STREETLIGHTING

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

LIGHTING STANDARD FOUNDATION

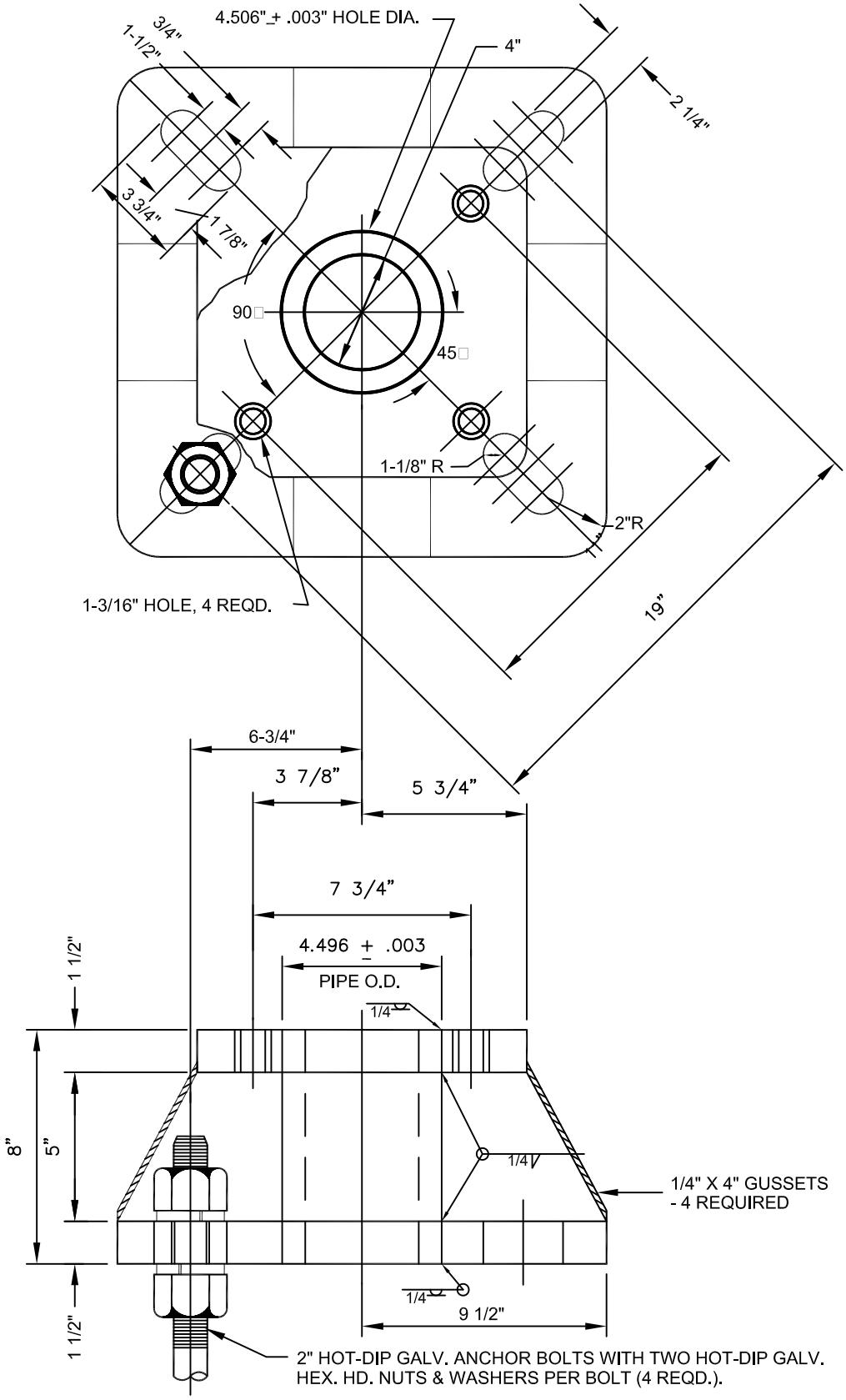
DATE 7-8-04	DWG. NO. 321	PAGE NO. 81

Effective 01/01/09 - 06/30/09



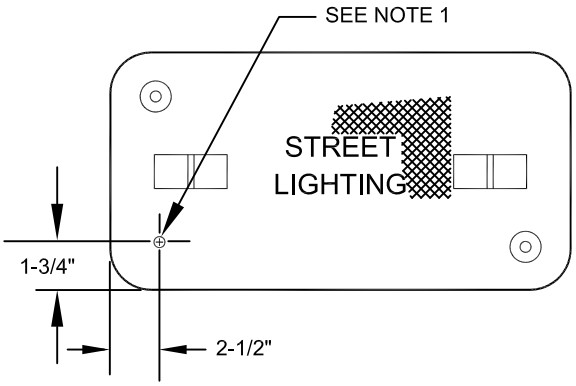
SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		BASE ADAPTOR PLATE FOR 16-1/2" BOLT CIRCLE FOUNDATION		
		DATE 12-12-96	DWG. NO. 322	PAGE NO. 82

Effective 01/01/09 - 06/30/09

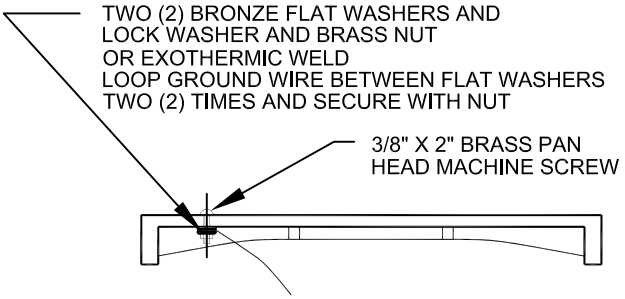


SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		BASE ADAPTOR PLATE FOR 19" BOLT CIRCLE FOUNDATION		
		DATE 12-12-96	DWG. NO. 322A	PAGE NO. 82A

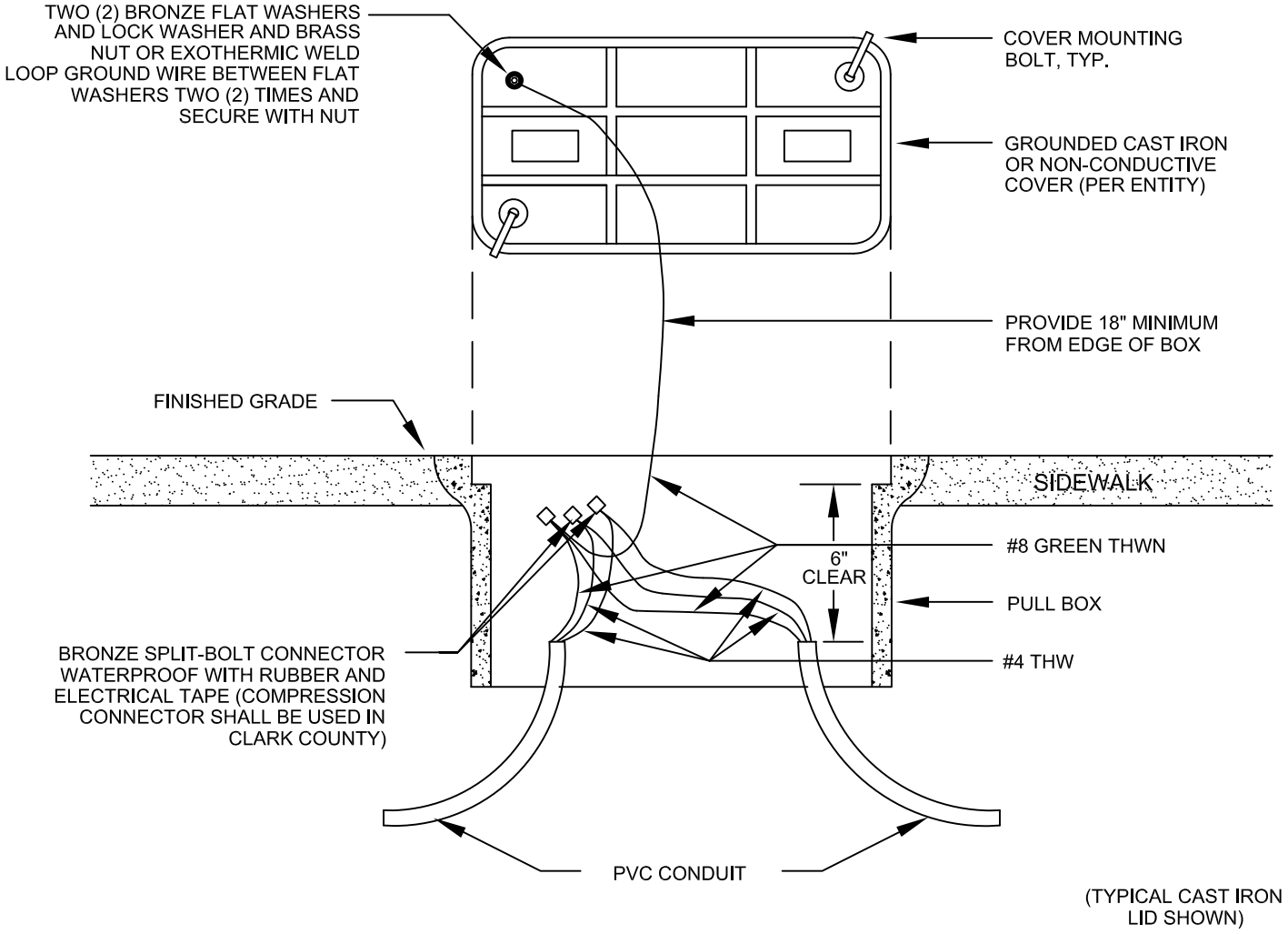
Effective 01/01/09 - 06/30/09



PULL BOX COVER - TOP VIEW



PULL BOX COVER - SIDE VIEW



(TYPICAL CAST IRON
LID SHOWN)

NOTES:

1. PULL BOX LID SHOULD BE TAPPED WITH A 3/8" X 16 COURSE THREAD TAP.
2. FOR TYPICAL NO. 7 PULL BOX COVER GROUNDING, SEE STANDARD DRAWING NO. 327.

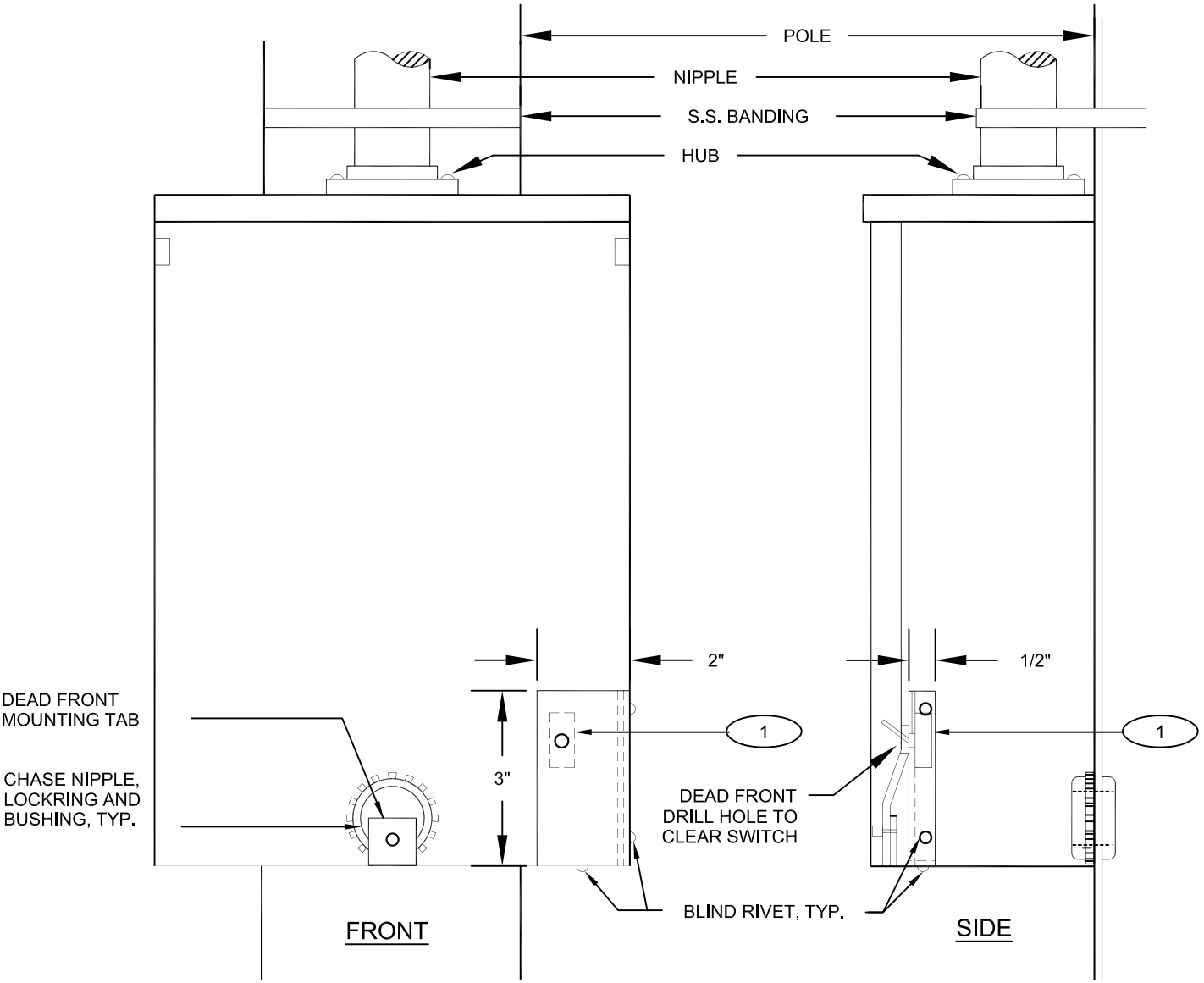
SPECIFICATION REFERENCE	
623	TRAFFIC SIGNALS & STREETLIGHTING

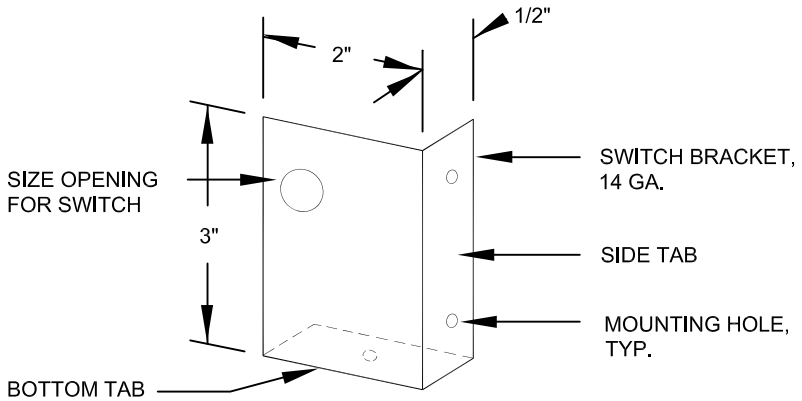
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

PULL BOX COVER BONDING DETAIL

DATE 12-12-96	DWG. NO. 323	PAGE NO. 83

Effective 01/01/09 - 06/30/09





SWITCH BRACKET

KEYED NOTE:

1 SINGLE POLE, SINGLE THROW ON-OFF, 10 AMP, 125 VAC SWITCH, SEALED, WITH 5 IN. WIRE LEADS

SPECIFICATION REFERENCE	
623	TRAFFIC SIGNALS & STREETLIGHTING

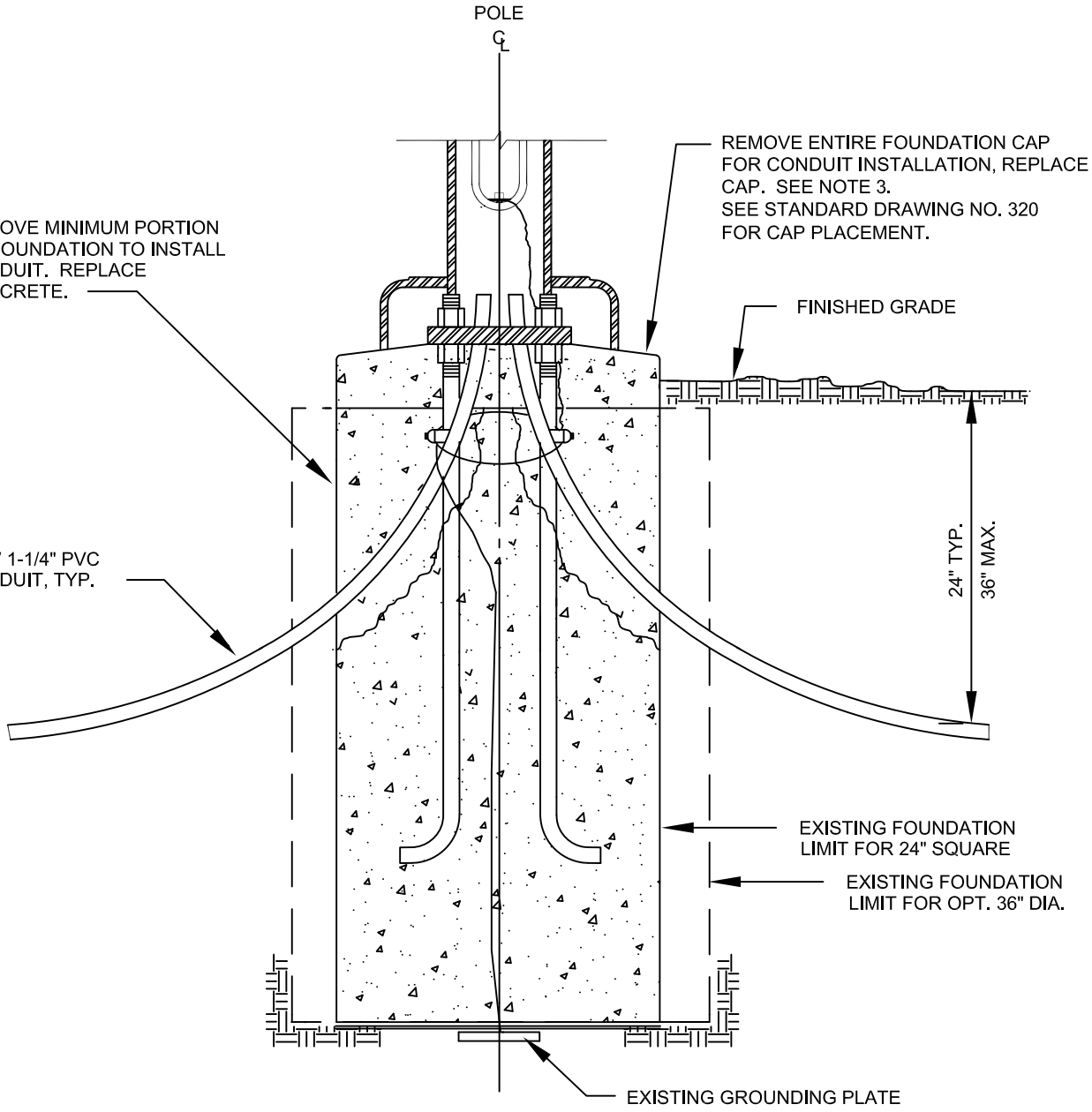
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

BYPASS SWITCH BRACKET FOR POLE MOUNTED STREETLIGHTING SERVICE

(CITY OF MESQUITE ONLY)

DATE 4-13-00	DWG. NO. 324	PAGE NO. 84

Effective 01/01/09 - 06/30/09



NOTES:

1. WHEN NO GROUNDING ELECTRODE EXISTS, 5/8 IN. DIA. SOLID COPPER GROUNDING ROD, 8 FT. IN LENGTH, SHALL BE INSTALLED.
2. ANCHOR BOLTS SHALL BE CONTINUOUS AND HAVE A MINIMUM 1 IN. FREE THREAD.
3. FOUNDATION CAP SHALL BE CONCRETE OR GROUT AS DESIGNATED BY ENTITY ENGINEER.

SPECIFICATION REFERENCE	
501	PORTLAND CEMENT CONCRETE
623	TRAFFIC SIGNALS & STREETLIGHTING

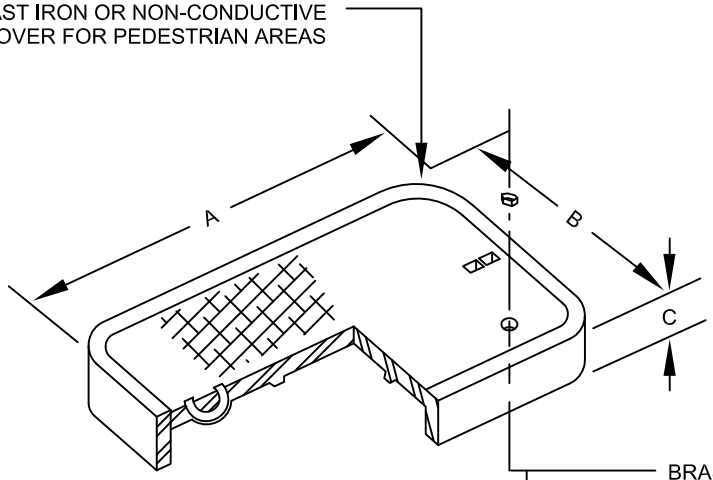
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

MODIFIED EXISTING STREETLIGHT FOUNDATION FOR INSTALLATION OF UNDERGROUND CONDUIT

(CITY OF LAS VEGAS AND CLARK COUNTY ONLY)

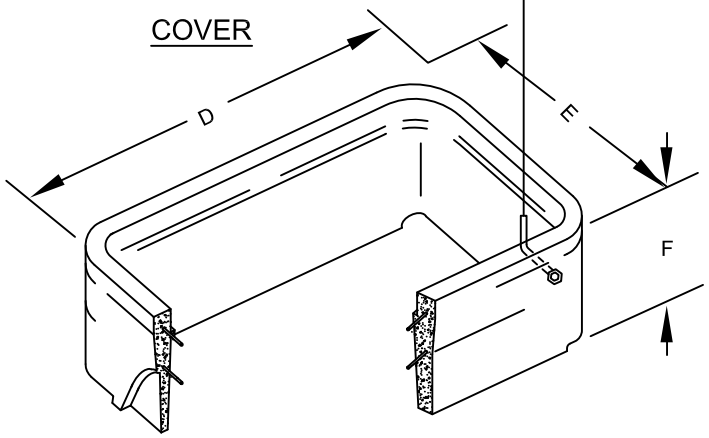
DATE 7-8-04	DWG. NO. 325	PAGE NO. 85

Effective 01/01/09 - 06/30/09

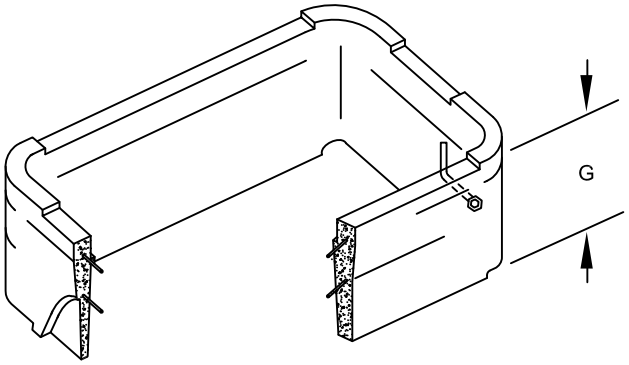


BRASS "L" BOLT AND NUT

COVER



BODY



EXTENSION

AS SPECIFIED BY THE ENGINEER

PULL BOX			
	SIZE (COMMERCIAL DESIGNATION)		
	3-1/2	5	7
A	15	21-3/4	30-5/8
B	10	11-3/4	17-5/8
C	3/4	2	2
D	19-3/8	25	34-3/4
E	14-3/8	15	21-3/4
F	12	12	12
G	N/A	10-1/4	11-1/2

NOMINAL DIMENSION IN INCHES

NOTES:

1. COVERS INSTALLED IN TRAFFIC AND OPEN AREAS ACCESSIBLE TO TRAFFIC SHALL BE PER STANDARD DRAWING NO. 327.
2. SEE STANDARD DRAWING NO. 323 FOR COVER GROUNDING.

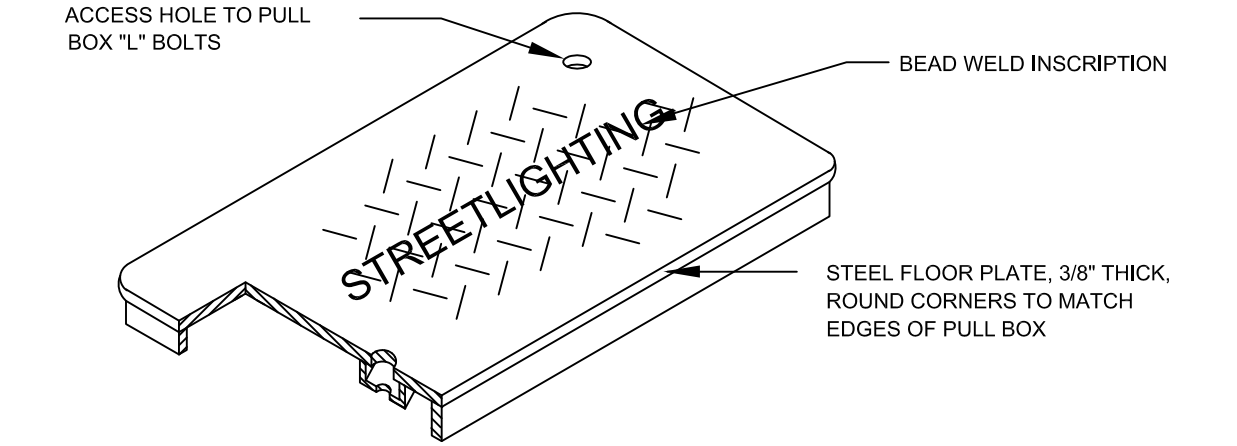
SPECIFICATION REFERENCE	
503	PRECAST PRESTRESSED CONCRETE
	MEMBERS
623	TRAFFIC SIGNALS & STREETLIGHTING

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

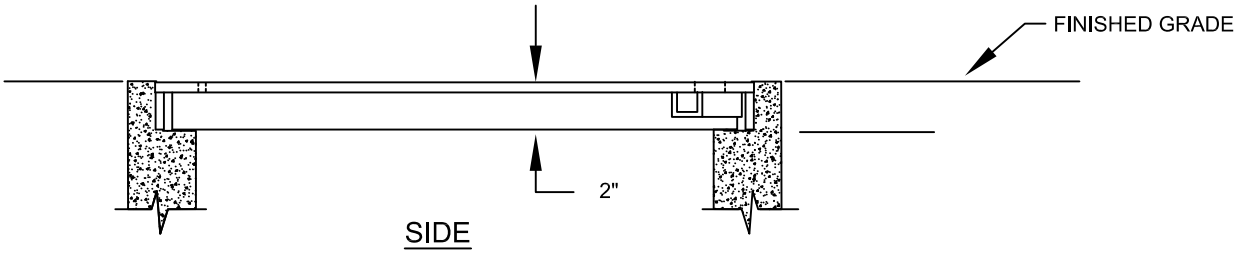
PRECAST REINFORCED CONCRETE PULL BOX

DATE 12-12-96	DWG. NO. 326	PAGE NO. 86

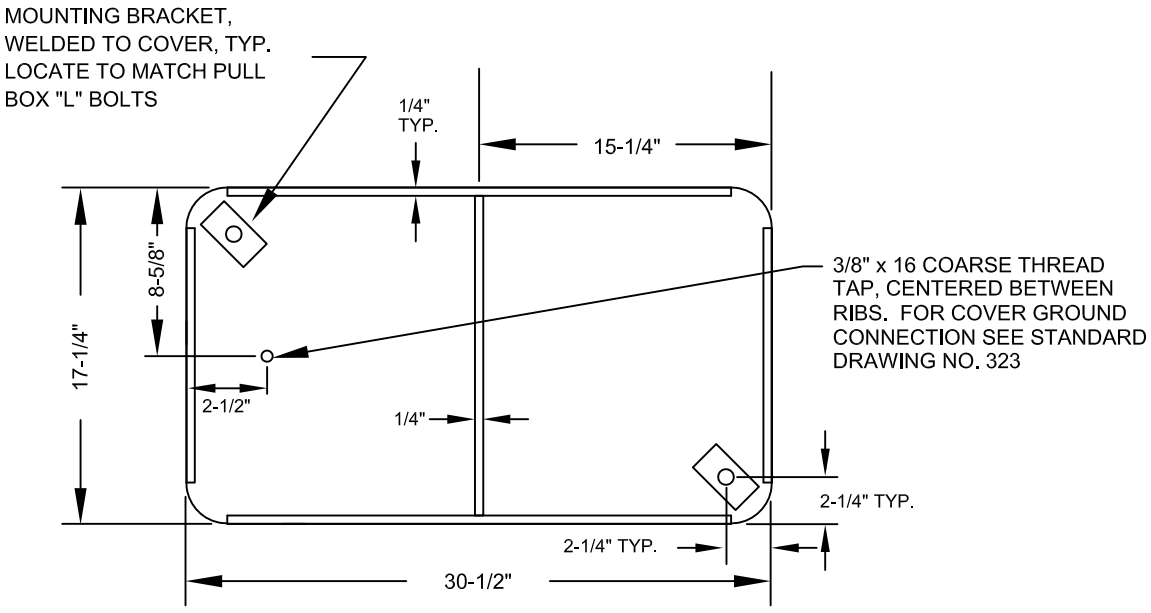
Effective 01/01/09 - 06/30/09



COVER



SIDE



BOTTOM

NOTES:

1. COVER USED IN TRAFFIC AND OPEN AREAS ACCESSIBLE TO TRAFFIC ONLY.
2. TYPICAL NO. 7 PULL BOX COVER SHOWN. SUBMIT OTHERS TO THE ENGINEER FOR APPROVAL.
3. ALL TRAFFIC AND OPEN AREA COVERS SHALL BE H 20 RATED.

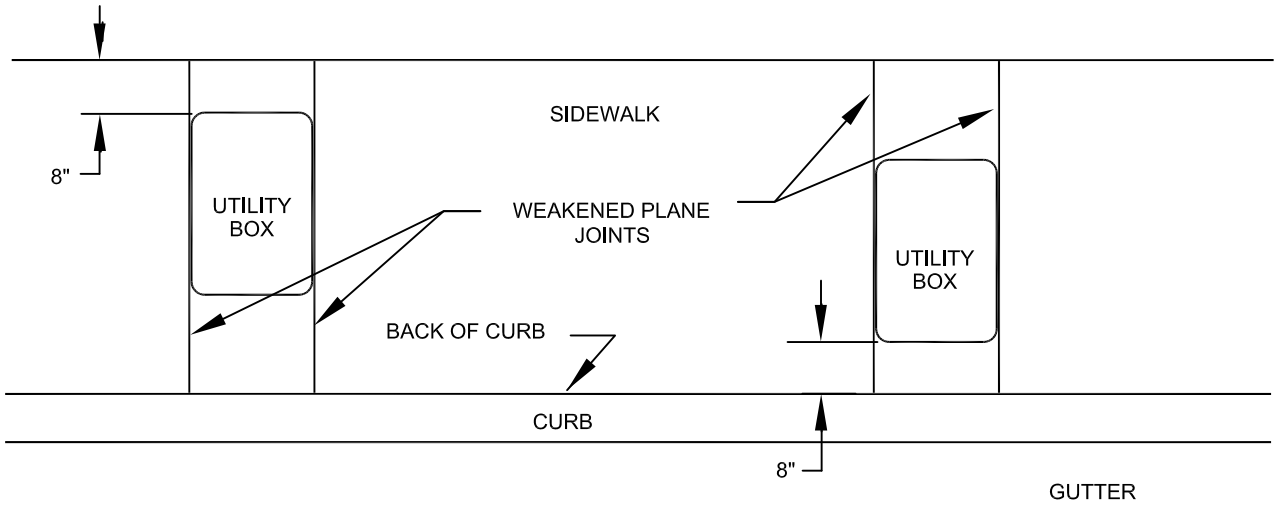
SPECIFICATION REFERENCE	
506	STEEL STRUCTURES
623	TRAFFIC SIGNALS & STREETLIGHTING

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

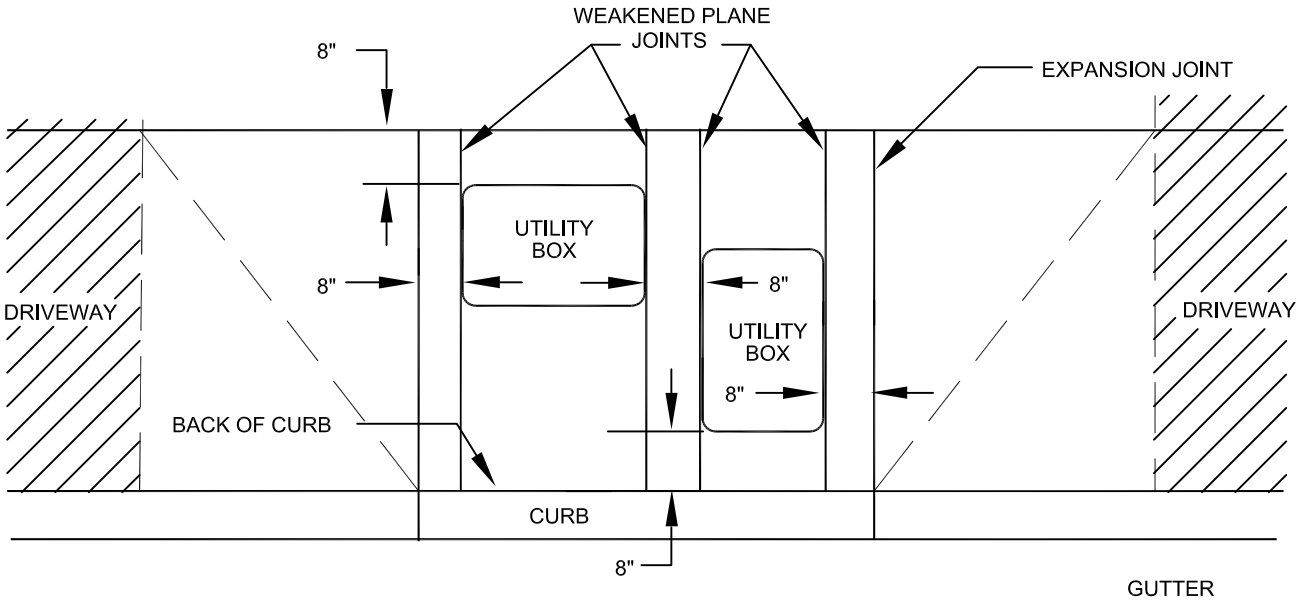
PULL BOX STREET COVER

DATE 12-12-96	DWG. NO. 327	PAGE NO. 87

Effective 01/01/09 - 06/30/09



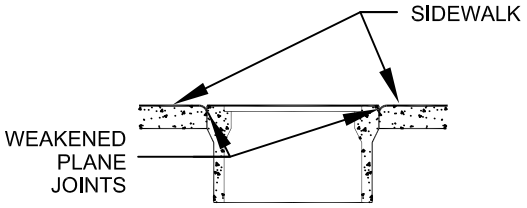
UTILITY BOXES IN SIDEWALK



UTILITY BOXES BETWEEN DRIVEWAYS

NOTE:

1. PROVIDE A MINIMUM OF 8" AROUND ALL BOXES. ANY BOX SHALL NOT BE PLACED WITHIN 3'-3" OF FIRE HYDRANTS IN DRIVEWAYS OR DRIVEWAY APRONS. THIS DRAWINGS IS NOT INTENDED TO LIMIT THE NUMBER OF BOXES BETWEEN DRIVEWAYS TO TWO.
2. FOR WATER SERVICE BOXES, REFER TO UDACS PLATE 1A-1D.



TYPICAL SECTION

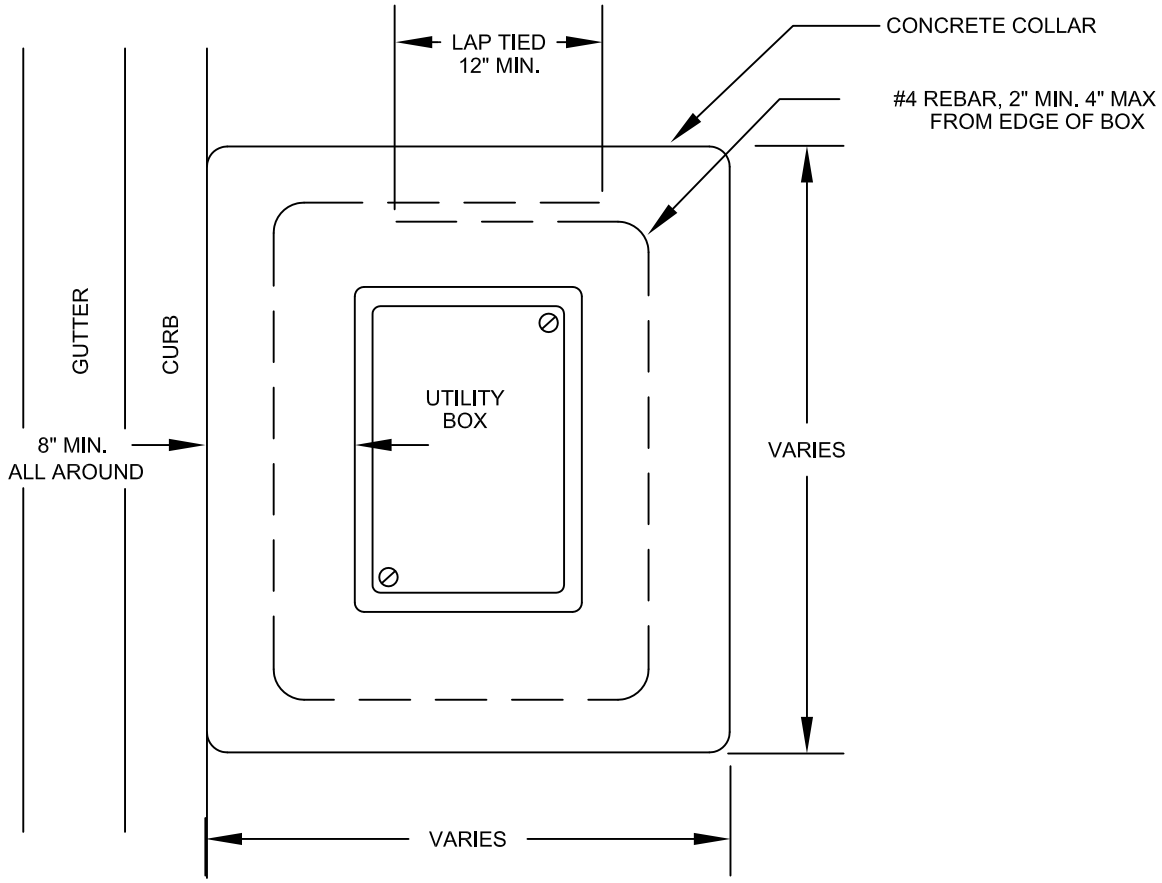
SPECIFICATION REFERENCE	
505	REINFORCING STEEL
623	TRAFFIC SIGNALS & STREETLIGHTING

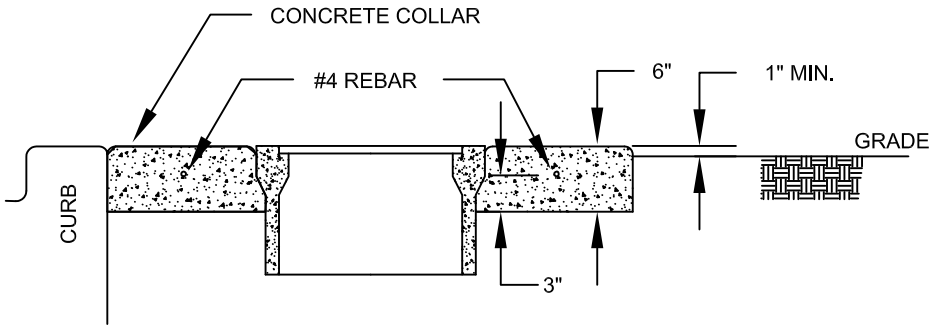
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

UTILITY PULL BOX LOCATIONS SIDEWALK AND BETWEEN DRIVEWAYS

DATE 04-12-07 | DWG. NO. 328

Effective 01/01/09 - 06/30/09





TYPICAL SECTION

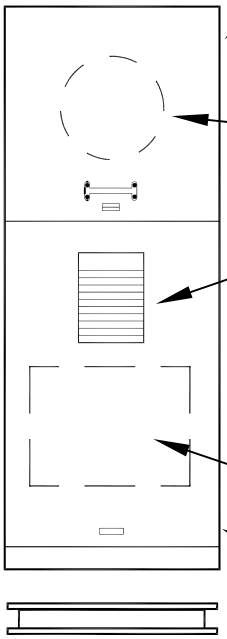
SPECIFICATION REFERENCE	
501	PORTLAND CEMENT CONCRETE
505	REINFORCING STEEL
623	TRAFFIC SIGNALS & STREETLIGHTING

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

CONCRETE AROUND PULL BOXES IN UNDEVELOPED AREAS

DATE 12-12-96	DWG. NO. 329	PAGE NO. 89

Effective 01/01/09 - 06/30/09



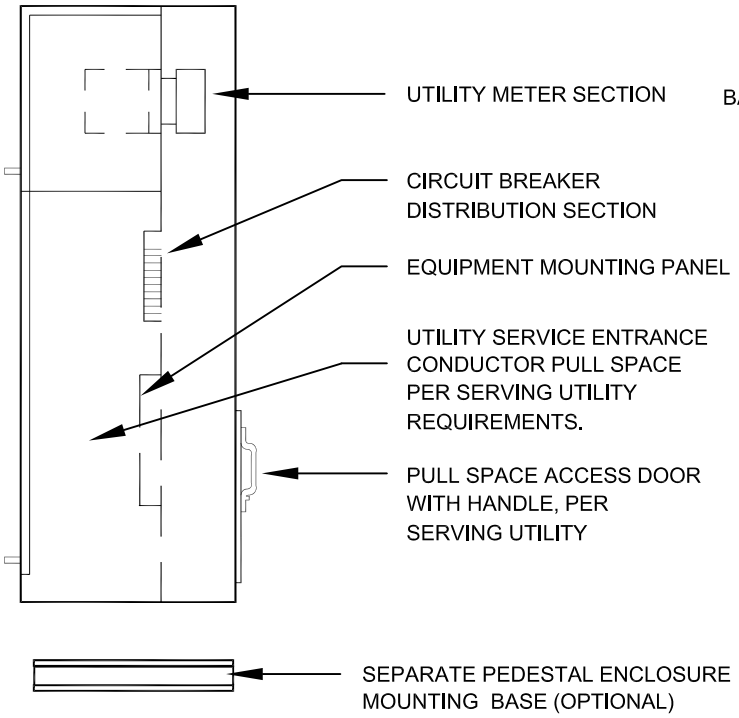
SERVICE PEDESTAL ENCLOSURE, 12 GA. SHEET METAL BODY AND EQUIPMENT MOUNTING PANEL, 14 GA. FRONT COVER(S) AND 16 GA. MIN. FOR ALL OTHER PANELS. ALL SHEET METAL SHALL BE FINISHED WITH ZINC CHROMATE PRIMER AND GREEN BAKED ENAMEL OR POWDER COAT FINISH. METERING SECTION PER P.U.E.S.E.R. STANDARDS.

UTILITY METER SECTION, 125 OR 200 AMP AS NEEDED, 120/240 VOLT, 1 PHASE, 3 WIRE. THE SECTION SHALL HAVE A HINGED COVER WITH PADLOCK TAB.

CIRCUIT BREAKER DISTRIBUTION SECTION, 125 OR 200 AMP AS NEEDED, 120/240 VOLT, 1 PHASE, 3 WIRE. THE SECTION SHALL BE COMPLETE WITH SEPARATE DEAD FRONT, COPPER BUSSING, SPACE FOR A MINIMUM OF TEN FULL SIZE (1") GE TYPE PLUG-IN CIRCUIT BREAKERS (EXCLUDING MAIN BREAKER), COPPER NEUTRAL/GROUNDING BUS AND MAIN BREAKER AS SPECIFIED BY THE ENGINEER. THE SECTION SHALL BE FACTORY WIRED TO THE METER SECTION WITH THE APPROPRIATE SIZE COPPER CONDUCTORS.

EQUIPMENT MOUNTING PANEL, 10" H X 12" W MIN., OPEN OR ENCLOSED, FOR LIGHTING CONTACTORS AS NEEDED.

DISTRIBUTION AND EQUIPMENT SECTION COVER WITH PADLOCK TAB.



UTILITY METER SECTION

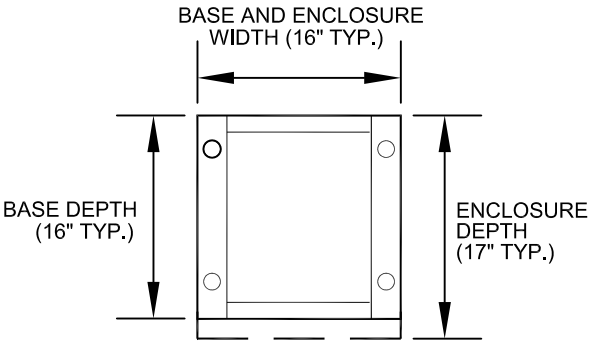
CIRCUIT BREAKER DISTRIBUTION SECTION

EQUIPMENT MOUNTING PANEL

UTILITY SERVICE ENTRANCE CONDUCTOR PULL SPACE PER SERVING UTILITY REQUIREMENTS.

PULL SPACE ACCESS DOOR WITH HANDLE, PER SERVING UTILITY

SEPARATE PEDESTAL ENCLOSURE MOUNTING BASE (OPTIONAL)



TYPICAL MOUNTING BASE DETAIL

(DIMENSIONS MAY VARY DEPENDING ON MANUFACTURER)

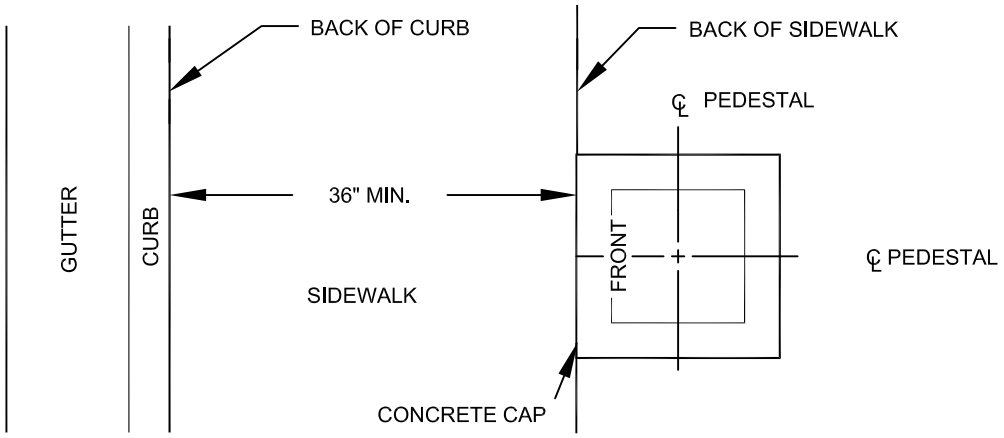
SPECIFICATION REFERENCE	
506	STEEL STRUCTURES
623	TRAFFIC SIGNALS & STREETLIGHTING

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

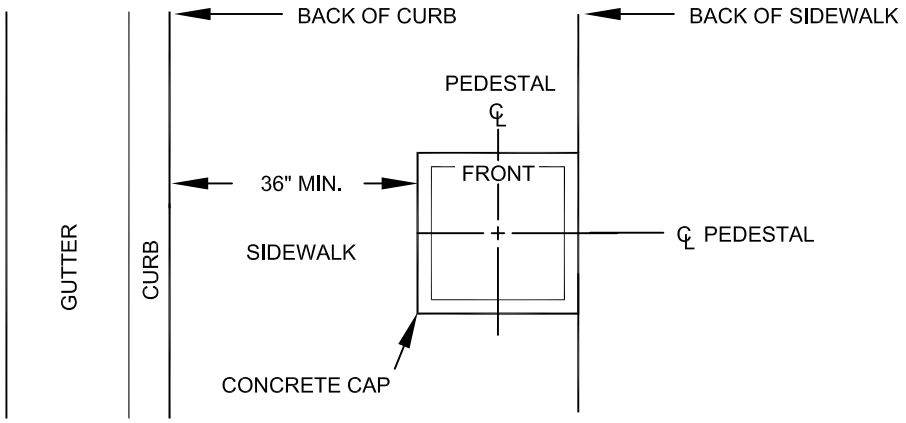
SINGLE METER SERVICE PEDESTAL

DATE 8-12-99	DWG. NO. 330	PAGE NO. 90

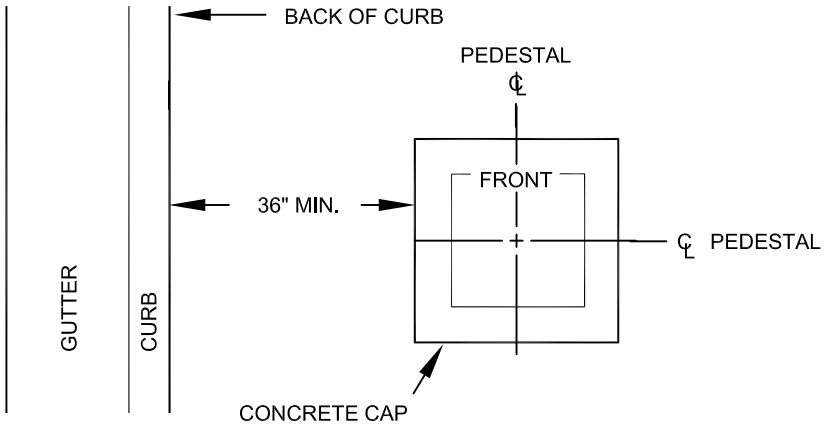
Effective 01/01/09 - 06/30/09



BEHIND SIDEWALK (FOR WIDTHS LESS THAN 5 FT.)



BACK PORTION OF SIDEWALK (FOR WIDTHS OF 5 FT. OR GREATER)



OPEN AREA

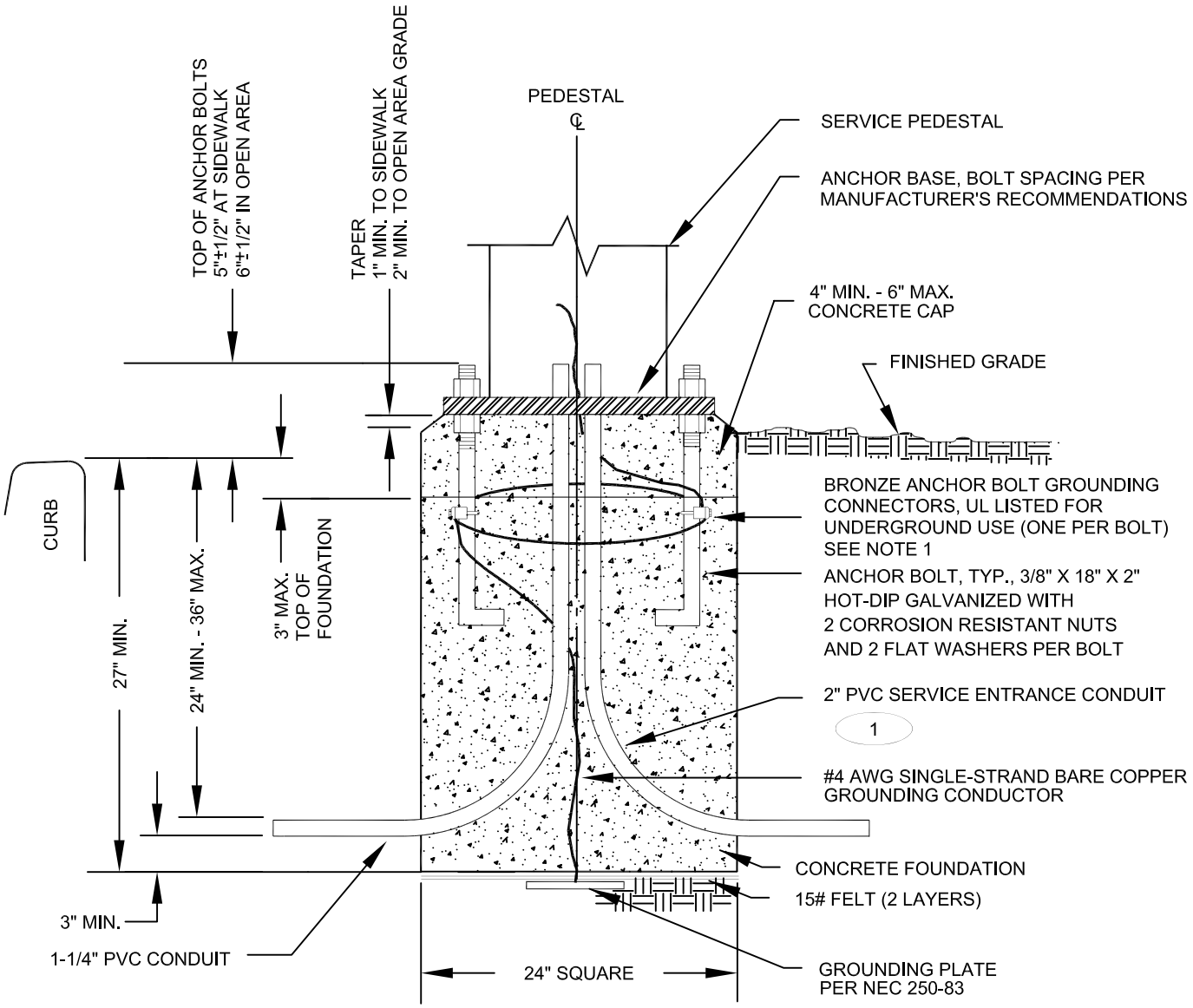
SPECIFICATION REFERENCE	
501	PORTLAND CEMENT CONCRETE
623	TRAFFIC SIGNALS & STREETLIGHTING

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

SERVICE PEDESTAL SETBACK

DATE 12-12-96	DWG. NO. 331	PAGE NO. 91

Effective 01/01/09 - 06/30/09



1 125 AMP SERVICE: 2" CONDUIT, 2 #1 THW AND 1 #6 WHITE THW
200 AMP SERVICE: 2" CONDUIT, 2 #3/0 THW AND 1 #2 WHITE THW

NOTES:

1. BARE COPPER GROUNDING CONDUCTOR SHALL BE LOOPED AROUND ANCHOR BOLTS ONE TIME AND CONNECTED TO EACH ANCHOR BOLT BEFORE CONTINUING DOWN TO THE GROUNDING PLATE.
2. CABINET COVERS SHALL BE PARALLEL WITH CURB.
3. IN AREAS WHERE R/W PERMITS, THE CONCRETE BASE SHALL BE PLACED AT AT THE BACK EDGE OF THE SIDEWALK.
4. CABINET COVERS SHALL OPEN TOWARDS THE STREET WHEN CABINETS ARE LOCATED AT BACK OF WALK. CABINET COVERS SHALL OPEN PARALLEL TO THE SIDEWALK FACING THE DIRECTION OF TRAFFIC WHEN LOCATED WITHIN THE SIDEWALK.
5. WIRE SIZES ARE BASED ON UNDERGROUND FEED.
6. WIRE SIZES SHALL BE INCREASED FOR VOLTAGE DROP LIMITATION WHEN RUN IS LONG.

SPECIFICATION REFERENCE	
501	PORTLAND CEMENT CONCRETE
623	TRAFFIC SIGNALS & STREETLIGHTING

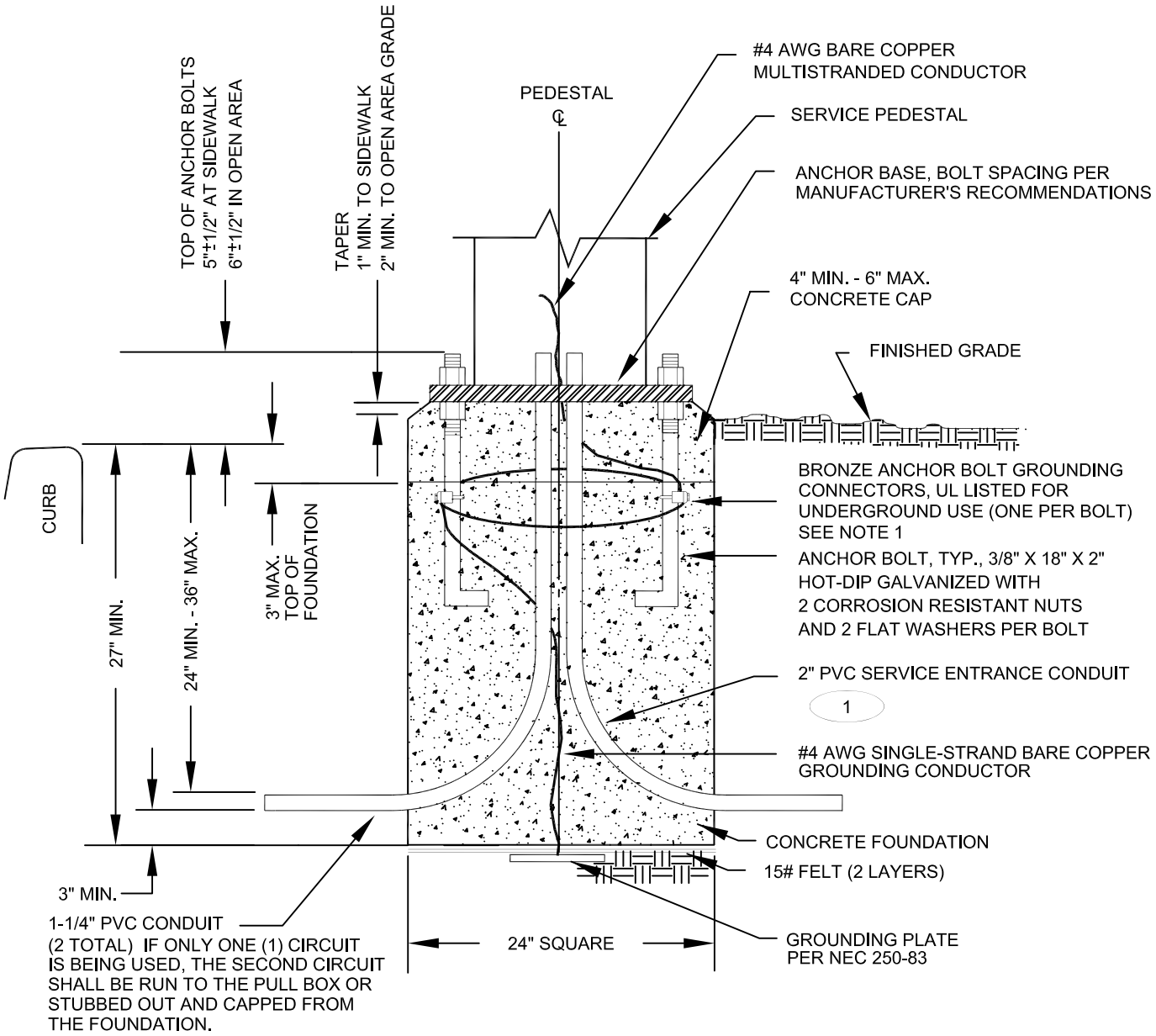
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

SERVICE PEDESTAL FOUNDATION

(EXCEPT CLARK COUNTY AND CITY OF LAS VEGAS)

DATE 2-10-00	DWG. NO. 332	PAGE NO. 92

Effective 01/01/09 - 06/30/09



1 125 AMP SERVICE: 2" CONDUIT, 2 #1/0 THW AND 1 #1/0 WHITE THW
200 AMP SERVICE (CLARK COUNTY): 2" CONDUIT, 2 #4/0 THW AND 1 #4/0 WHITE THW
200 AMP SERVICE (LAS VEGAS): 2" CONDUIT, 2 #3/0 THW AND 1 #3/0 WHITE THW

NOTES:

1. BARE COPPER GROUNDING CONDUCTOR SHALL BE LOOPED AROUND ANCHOR BOLTS ONE TIME AND CONNECTED TO EACH ANCHOR BOLT BEFORE CONTINUING DOWN TO THE GROUNDING PLATE.
2. CABINET COVERS SHALL BE PARALLEL WITH CURB.
3. IN AREAS WHERE R/W PERMITS, THE CONCRETE BASE SHALL BE PLACED AT AT THE BACK EDGE OF THE SIDEWALK.
4. CABINET COVERS SHALL OPEN TOWARDS THE STREET WHEN CABINETS ARE LOCATED AT BACK OF WALK. CABINET COVERS SHALL OPEN PARALLEL TO THE SIDEWALK FACING THE DIRECTION OF TRAFFIC WHEN LOCATED WITHIN THE SIDEWALK.
5. WIRE SIZES ARE BASED ON UNDERGROUND FEED.
6. WIRE SIZES SHALL BE INCREASED FOR VOLTAGE DROP LIMITATION WHEN RUN IS LONG.

SPECIFICATION REFERENCE	
501	PORTLAND CEMENT CONCRETE
623	TRAFFIC SIGNALS & STREETLIGHTING

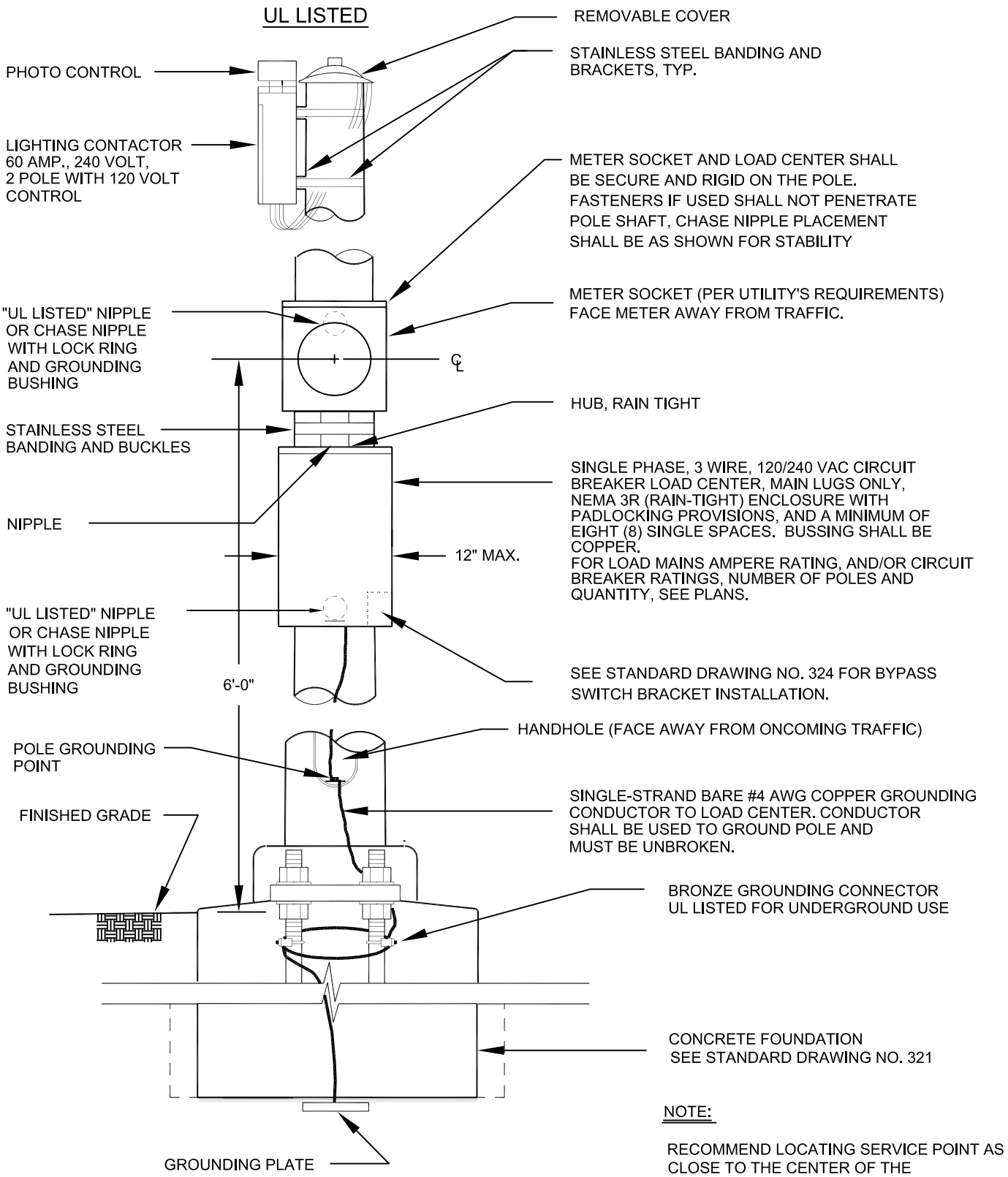
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

CLARK COUNTY AND CITY OF LAS VEGAS

SERVICE PEDESTAL FOUNDATION

DATE 2-10-00	DWG. NO. 332.1	PAGE NO. 92.1

Effective 01/01/09 - 06/30/09



SPECIFICATION REFERENCE	
623	TRAFFIC SIGNALS & STREETLIGHTING

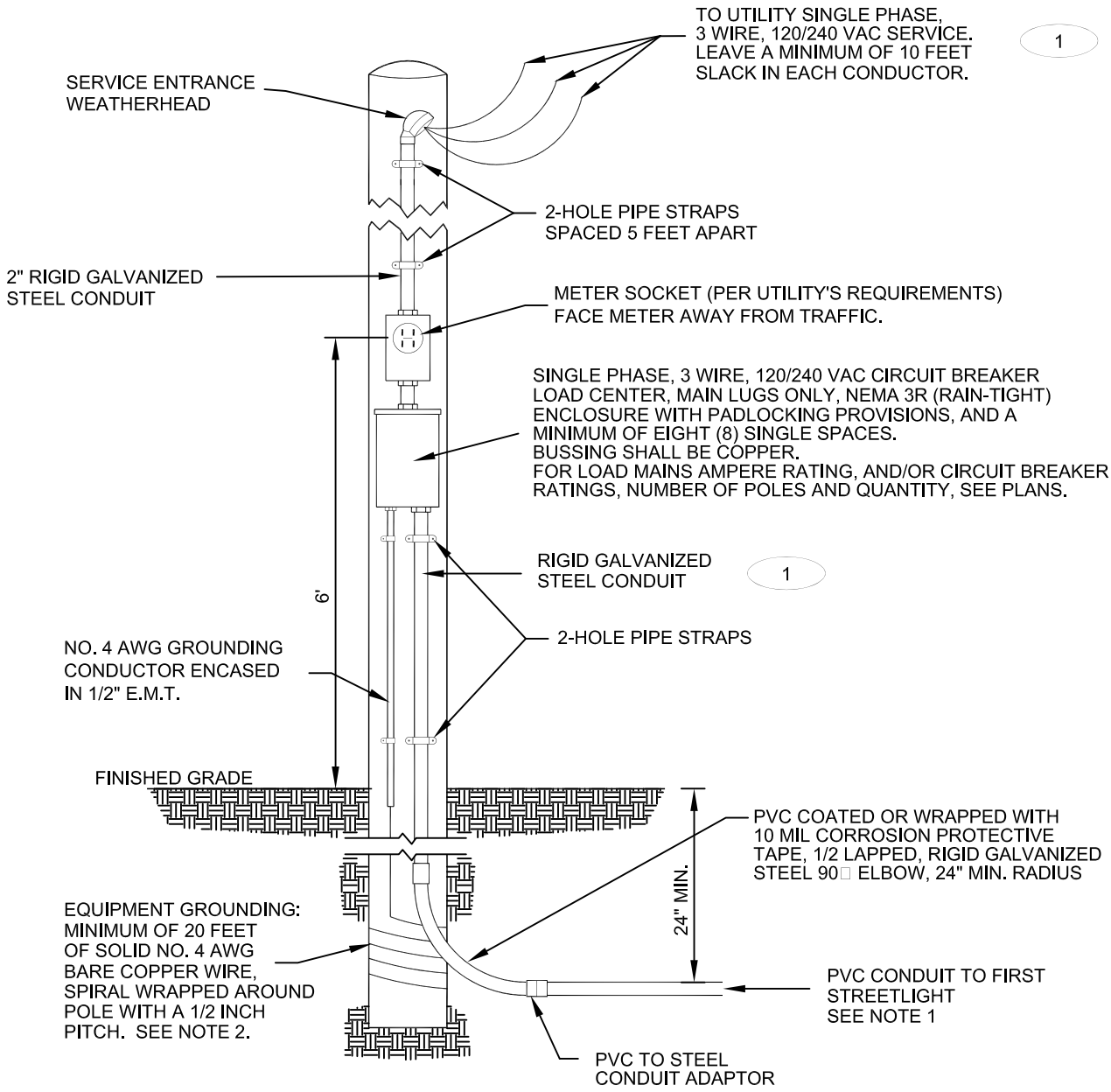
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

STREETLIGHTING SERVICE POINT LOCATED ON STREETLIGHT STANDARD

(CITY OF MESQUITE ONLY)

DATE 4-13-00	DWG. NO. 333	PAGE NO. 93

Effective 01/01/09 - 06/30/09



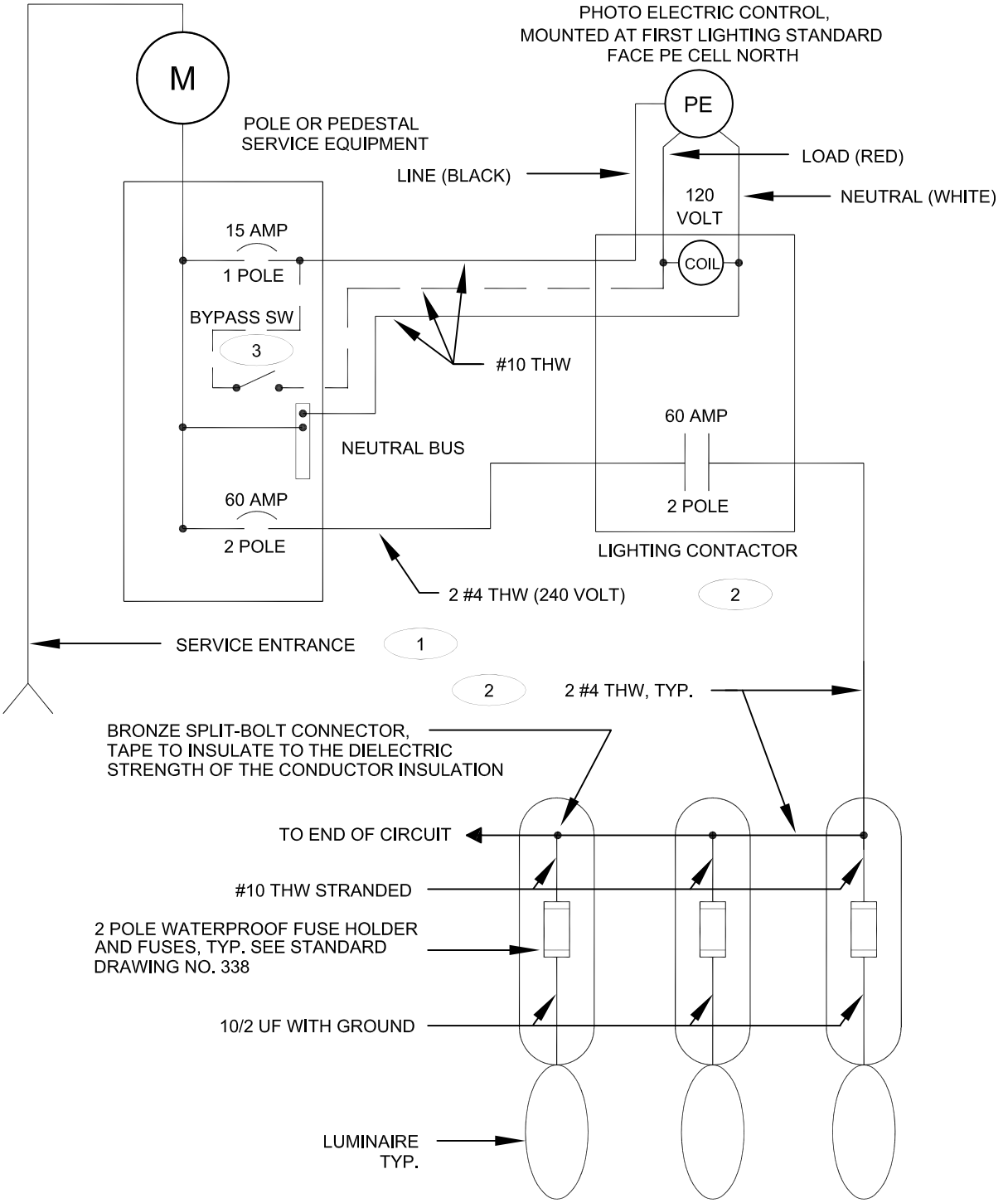
1 125 AMP SERVICE: 2" CONDUIT, 2 #1/0 THW AND 1 #4 WHITE THW
200 AMP SERVICE: 2" CONDUIT, 2 250 KCMIL THW AND 1 #1/0 WHITE THW
(0.82 DERATE HAS BEEN APPLIED FOR AMBIENT TEMPERATURE)

NOTES:

1. ALL WIRES TO BE COPPER; SEE PLANS FOR QUANTITY AND GAGES.
2. WITH ENGINEER'S APPROVAL, AN 8 FT. BY 5/8 IN. COPPER-CLAD GROUNDING ROD MAY BE USED.
3. ALL CONDUIT FITTINGS TO BE WATER-TIGHT.

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		TEMPORARY APPLICATION 120/240 VAC SERVICE ON WOOD POLE OVERHEAD SERVICE		
		DATE 8-12-99	DWG. NO. 334	PAGE 94

Effective 01/01/09 - 06/30/09



1 125 AMP SERVICE: 2" CONDUIT, 2 #1 THW AND 1 #6 WHITE THW
200 AMP SERVICE: 2" CONDUIT, 2 #3/0 THW AND 1 #2 WHITE THW
FOR POLE SERVICE, WIRE SIZES SHALL BE TEMPERATURE DERATED.

2 GROUNDING AND BONDING CONDUCTORS OMITTED FOR CLARITY,
SEE STANDARD DRAWING NOS. 336 AND 337.

3 SINGLE POLE, SINGLE THROW, ON-OFF, 10 AMP, 125 VAC SWITCH, SEALED, WITH 5 IN. LEADS

SPECIFICATION REFERENCE	
623	TRAFFIC SIGNALS & STREETLIGHTING

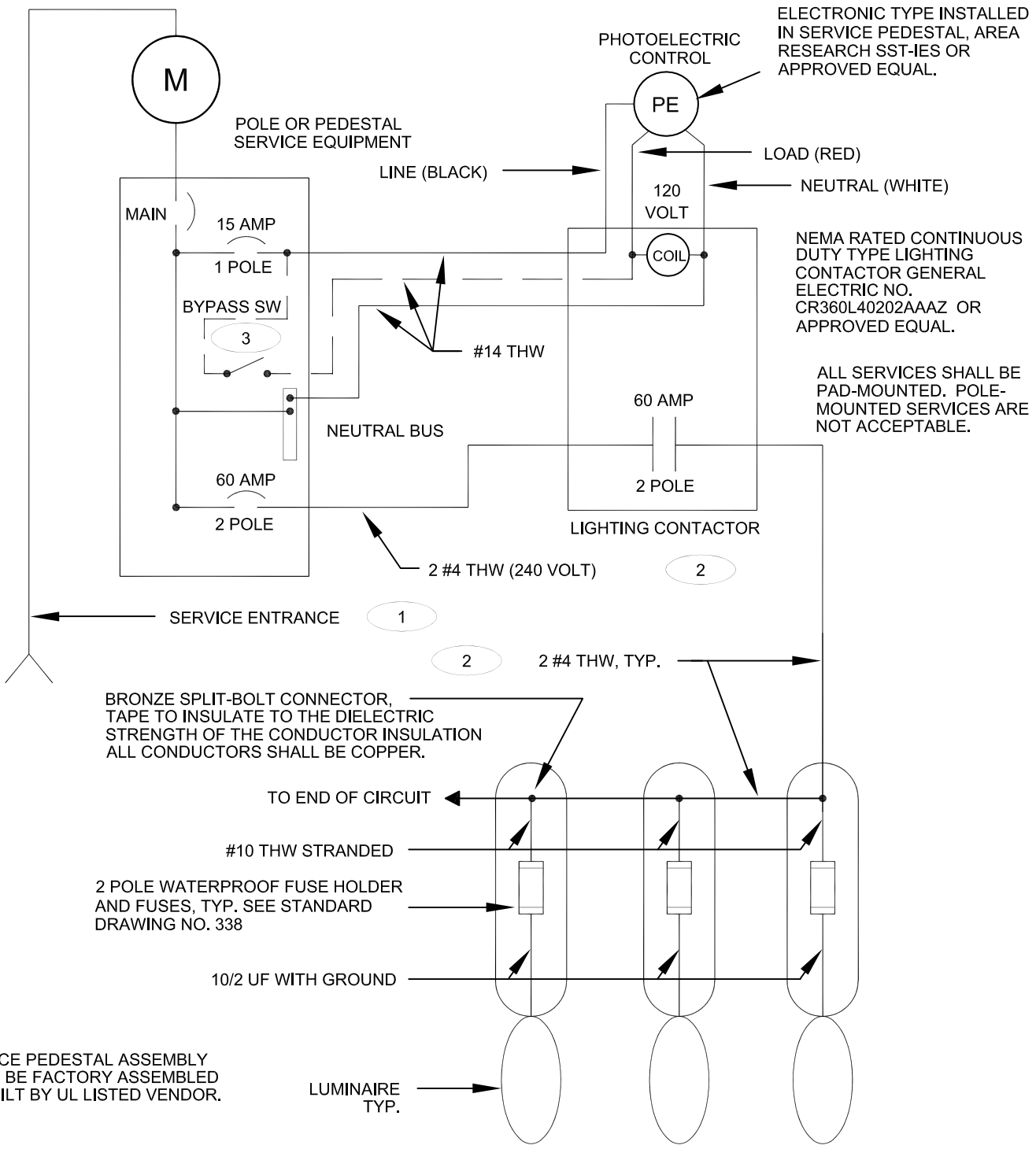
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

STREETLIGHT CIRCUIT ONE LINE DIAGRAM

(EXCEPT CLARK COUNTY AND CITY OF LAS VEGAS)

DATE 2-10-00	DWG. NO. 335	PAGE NO. 95

Effective 01/01/09 - 06/30/09



NOTE:

SERVICE PEDESTAL ASSEMBLY SHALL BE FACTORY ASSEMBLED OR BUILT BY UL LISTED VENDOR.

1 FOR CONDUIT SIZE AND WIRING REQUIREMENTS FOR STREETLIGHT SERVICE, SEE STANDARD DRAWING NO. 332.1.

2 GROUNDING AND BONDING CONDUCTORS OMITTED FOR CLARITY, SEE STANDARD DRAWING NOS. 336 AND 337.

3 SINGLE POLE, SINGLE THROW, ON-OFF, 15 AMP, 125 VAC SWITCH, SEALED, WITH 5 IN. LEADS

SPECIFICATION REFERENCE	
623	TRAFFIC SIGNALS & STREETLIGHTING

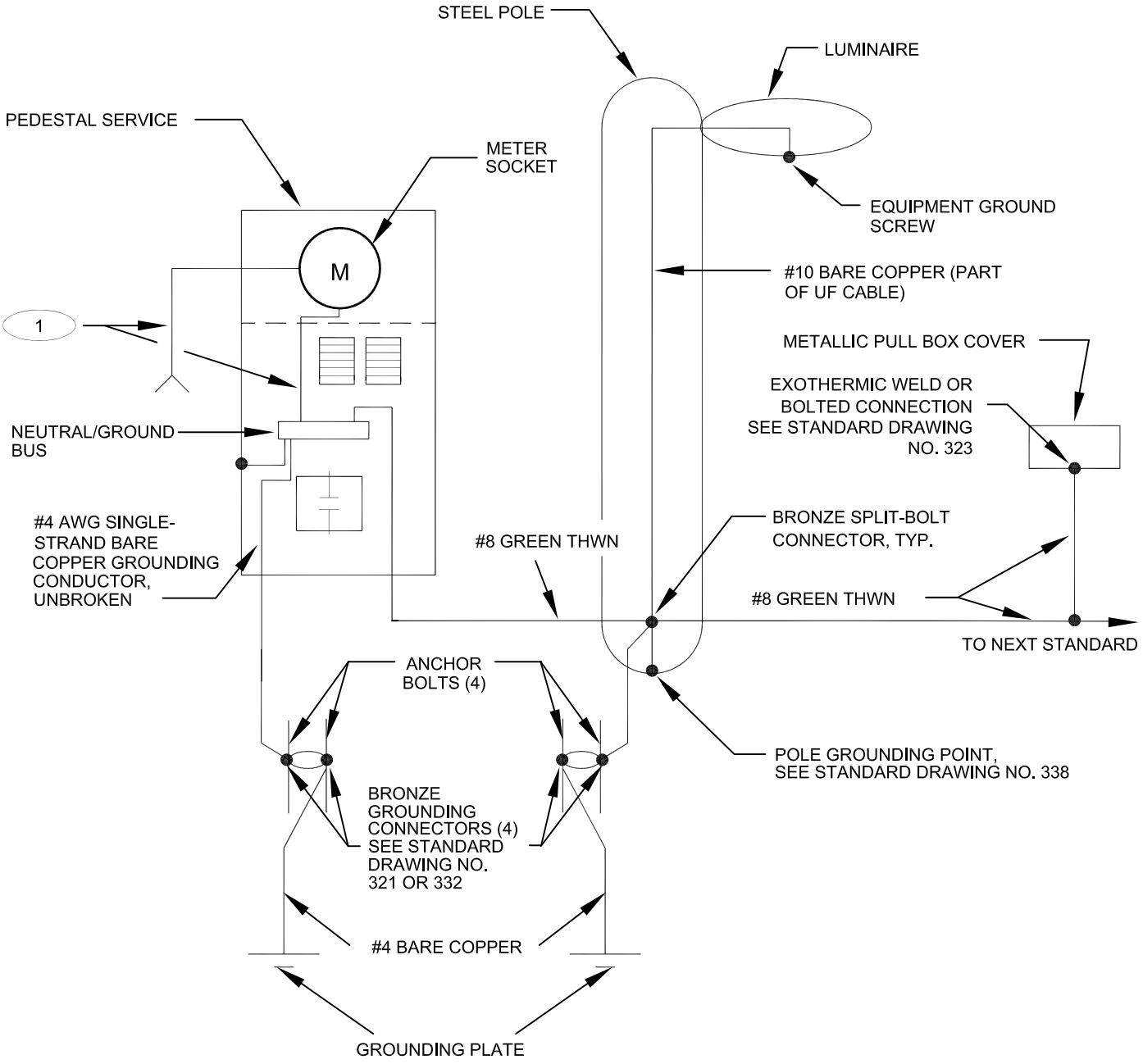
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

CLARK COUNTY AND CITY OF LAS VEGAS

STREETLIGHT CIRCUIT ONE LINE DIAGRAM

DATE 2-10-00	DWG. NO. 335.1	PAGE NO. 95.1

Effective 01/01/09 - 06/30/09



1 FOR CONDUIT SIZE AND WIRING REQUIREMENTS FOR STREET LIGHT SERVICE, SEE STANDARD DRAWING NO. 332.1 FOR LAS VEGAS AND CLARK COUNTY ONLY AND 332 FOR ALL OTHER ENTITIES.

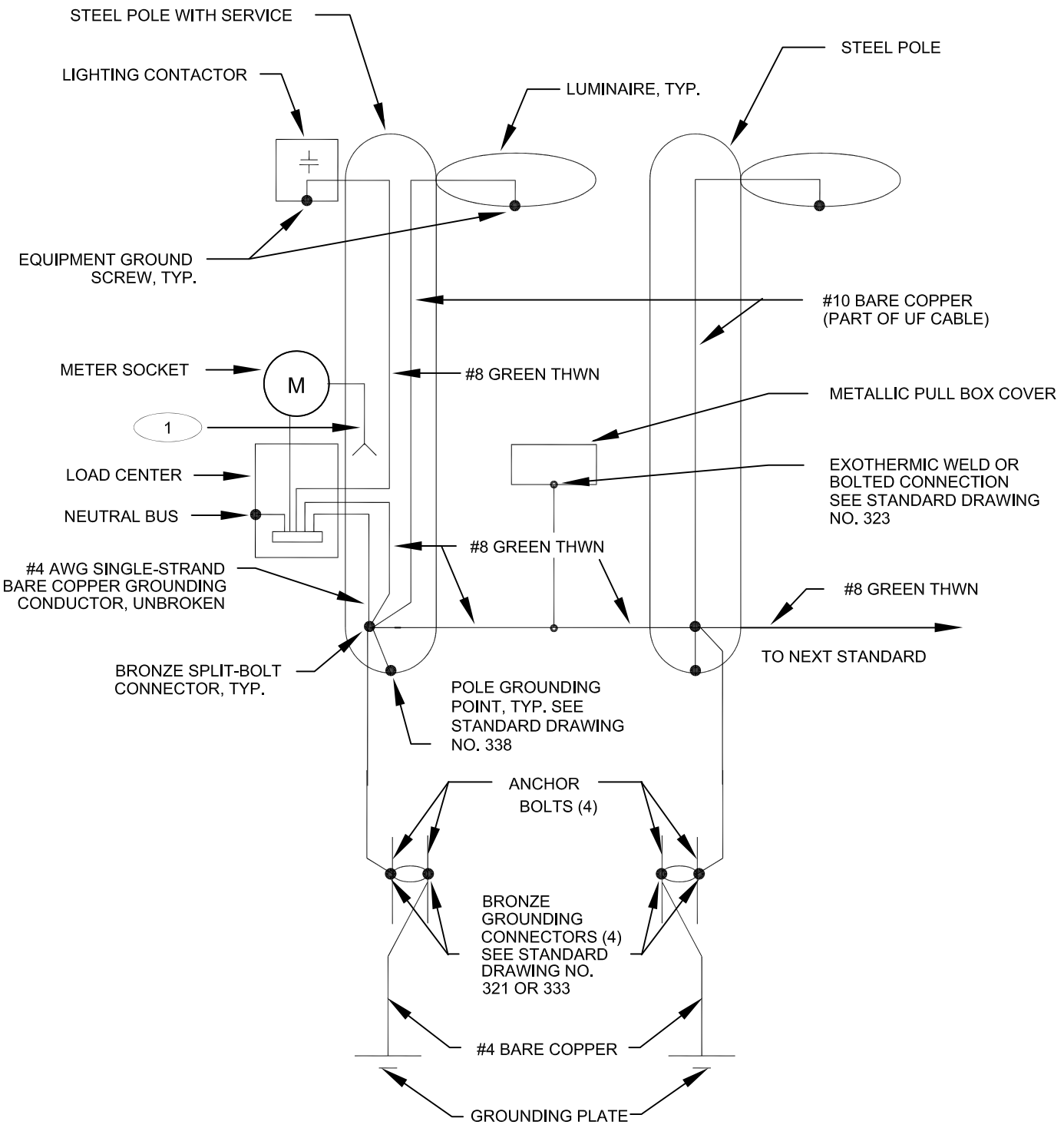
SPECIFICATION REFERENCE	
623	TRAFFIC SIGNALS & STREETLIGHTING

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

SYSTEM GROUNDING PLAN WITH PEDESTAL SERVICE

DATE 2-10-00	DWG. NO. 336	PAGE NO. 96

Effective 01/01/09 - 06/30/09



1 125 AMP SERVICE: 1 #4 WHITE THW
200 AMP SERVICE: 1 #1/0 WHITE THW

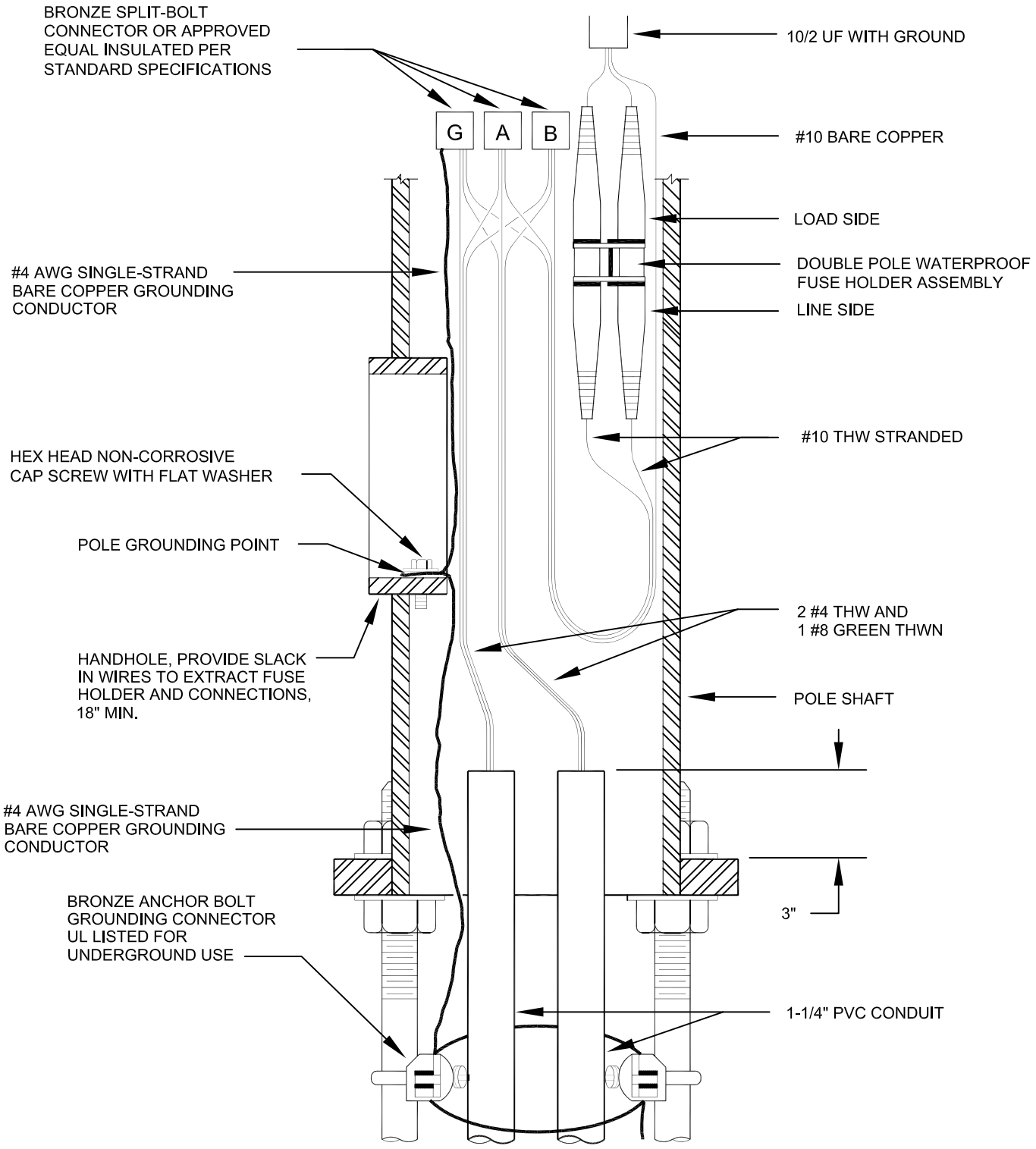
SPECIFICATION REFERENCE	
623	TRAFFIC SIGNALS & STREETLIGHTING

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

SYSTEM GROUNDING PLAN WITH POLE MOUNTED SERVICE

DATE 8-12-99	DWG. NO. 337	PAGE NO. 97

Effective 01/01/09 - 06/30/09



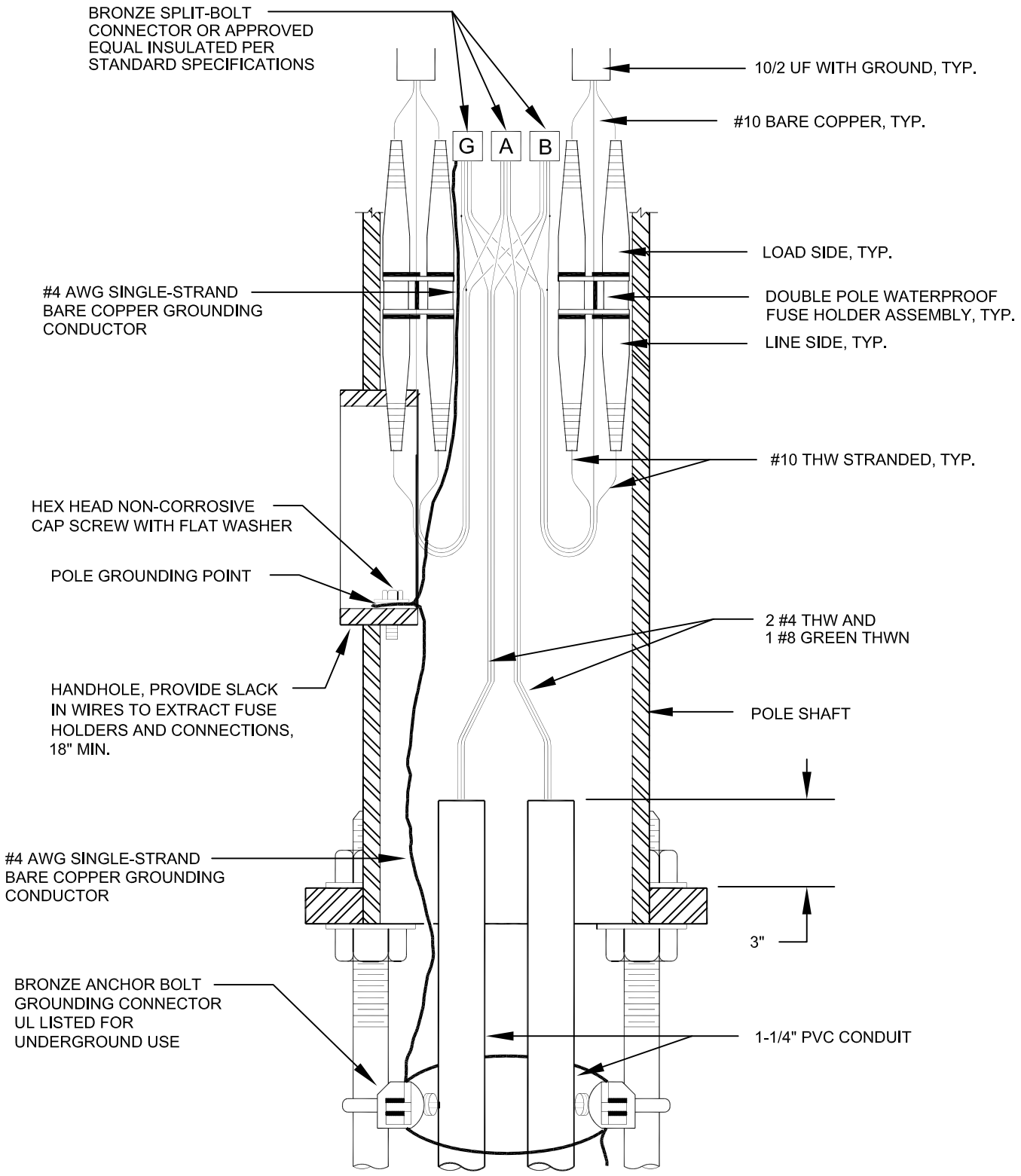
SPECIFICATION REFERENCE	
623	TRAFFIC SIGNALS & STREETLIGHTING

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

LIGHTING STANDARD WIRING DIAGRAM, 240 VOLT, 2 WIRE

DATE 12-12-96	DWG. NO. 338	PAGE NO. 98

Effective 01/01/09 - 06/30/09



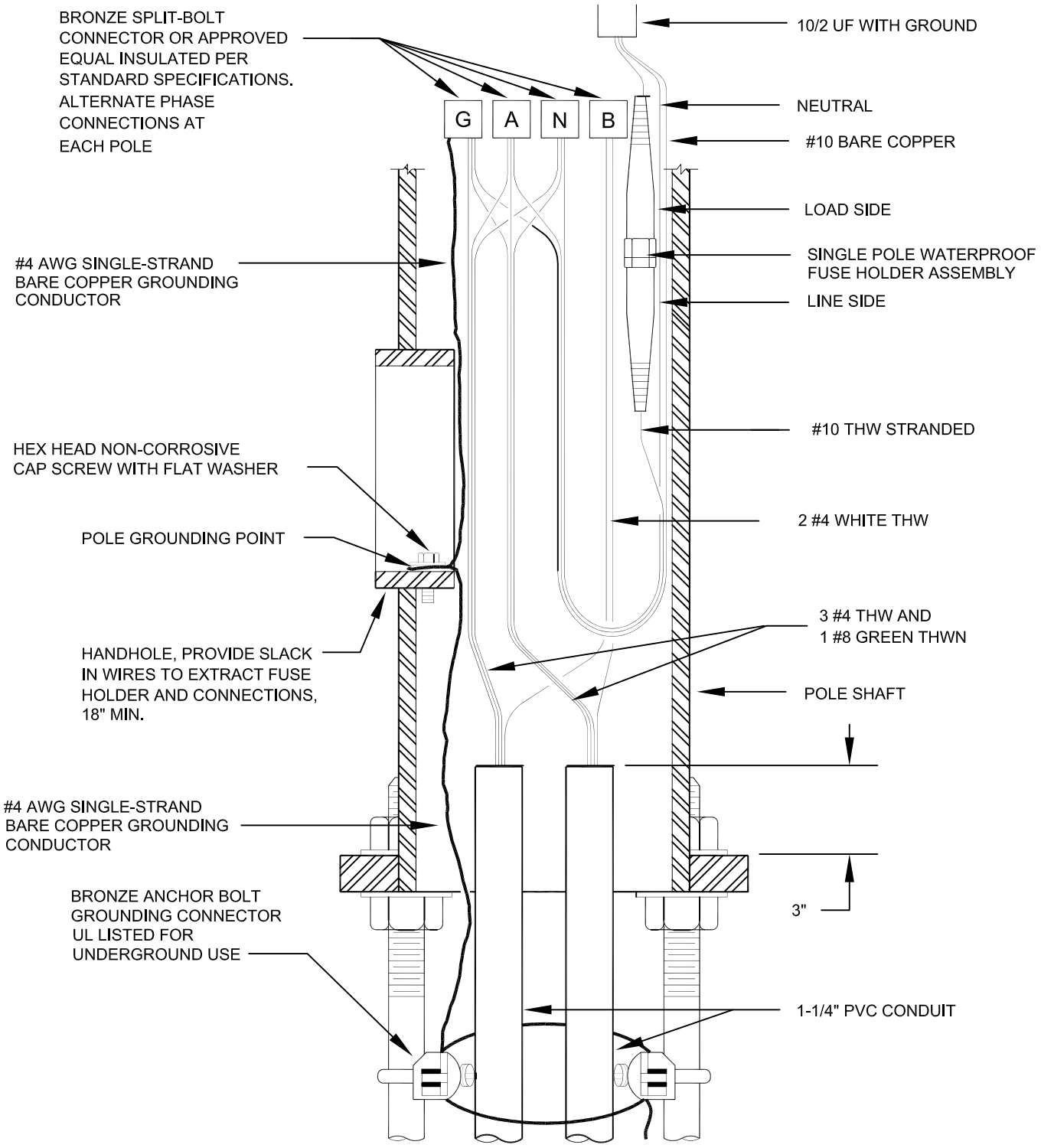
SPECIFICATION REFERENCE	
623	TRAFFIC SIGNALS & STREETLIGHTING

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

TWIN LIGHTING STANDARD WIRING DIAGRAM, 240 VOLT, 2 WIRE

DATE 12-12-96	DWG. NO. 339	PAGE NO. 99

Effective 01/01/09 - 06/30/09



SPECIFICATION REFERENCE	
623	TRAFFIC SIGNALS & STREETLIGHTING

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

LIGHTING STANDARD WIRING DIAGRAM
120 VOLT, 1 PHASE, 3 WIRE

DATE 12-12-96	DWG. NO. 340	PAGE NO. 100

Effective 01/01/09 - 06/30/09

MANHOLE NOTES:

1. MANHOLE MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF SECTION 609, "CATCH BASINS, MANHOLES AND INLETS" OF THE "STANDARD SPECIFICATIONS".

2. REINFORCING STEEL SHALL BE AS SHOWN, WIRED TIGHTLY AT ALL INTERSECTIONS AND EMBEDDED AT LEAST ONE (1) INCH CLEAR UNLESS OTHERWISE NOTED.

3. EXCAVATION SHALL BE AS NEARLY VERTICAL AS POSSIBLE (SHEET AND SHORE, IF SOIL CONDITIONS REQUIRE), IN EXISTING STREET SECTIONS, ALLEY SECTIONS AND CONFINED AREAS SUCH AS LIMITED EASEMENTS OR ADJACENT TO STRUCTURES. NATURAL ANGLE OF REPOSE WILL ALLOW IN ALL OTHER AREAS.

4. MANHOLE DESIGN FOR PIPE LARGER THAN SIXTY (60) INCHES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

5. MANHOLE DESIGN FOR DEPTHS EXCEEDING EIGHTEEN (18) FEET SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

6. TYPE AND SIZE OF MANHOLE TO BE CONSTRUCTED IN A PARTICULAR LOCATION SHALL BE DETERMINED BY THE PIPE SIZE, ALIGNMENT AND GRADE AS FOLLOWS:

TYPE I

FORTY-EIGHT (48) INCH SIZE
- A. ALL CASES FOR PIPE EIGHTEEN (18) INCHES AND SMALLER.
- B. TWENTY-FOUR (24) INCHES AND SMALLER PIPE ON TANGENT LINE AND GRADE.

SIXTY (60) INCH SIZE
- A. TWENTY-SEVEN (27) INCH THROUGH THIRTY-SIX (36) INCH PIPE ON TANGENT LINE AND GRADE.
- B. TWENTY-ONE (21) INCH THROUGH TWENTY-SEVEN (27) INCH PIPE AT ANGLE POINTS AND CHANGES IN GRADE OR PIPE SIZE.

TYPE I-A

USED IN PLACE OF TYPE I WHEN COVER ABOVE CONDUIT IS LIMITED, AND WHEN APPROVED BY THE ENGINEER.

TYPE II

FORTY-EIGHT (48) INCH SIZE
- A. THIRTY (30) INCH THROUGH SIXTY (60) INCH PIPE ON TANGENT LINE WITH A CHANGE IN GRADE OR PIPE SIZE.

SPECIFICATION REFERENCE	
501	CONCRETE
609	CATCH BASINS, MANHOLES &
	INLETS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

STORM DRAIN
MANHOLES GENERAL NOTES

DATE 2-9-06	DWG. NO. 401	SHT 1 OF 2

Effective 01/01/09 - 06/30/09

MANHOLE NOTES (CONTINUED):

TYPE III

TANGENT
SIXTY (60) INCH SIZE
A. THIRTY-NINE (39) INCH THROUGH SIXTY (60) INCH PIPE ON TANGENT LINE AND GRADE WITH NO CHANGE IN PIPE SIZE.

ANGLE POINT
SIXTY (60) INCH SIZE
A. THIRTY (30) INCH THROUGH SIXTY (60) INCH PIPE AT THE ANGLE POINT IN LINE.

7. PRECAST MANHOLE COMPONENTS SHALL CONFORM TO ASTM C-478.

8. DISTANCE BETWEEN THE TOP OF MANHOLE AND FIRST STEP SHALL BE A MAXIMUM OF SIXTEEN (16) INCHES. MANHOLE STEPS SHALL BE GROUTED IN PLACE.

9. (CLARK COUNTY ONLY) DISTANCE BETWEEN MANHOLES SHALL BE A MAXIMUM OF FOUR HUNDRED (400) FEET.

10. MANHOLE SPACING SHALL BE REFERRED TO THE WASTE WATER COLLECTION STANDARDS.

SPECIFICATION REFERENCE	
501	CONCRETE
609	CATCH BASINS, MANHOLES &
	INLETS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

STORM DRAIN
MANHOLES GENERAL NOTES

DATE 2-9-06	DWG. NO. 401	SHT 2 OF 2

Effective 01/01/09 - 06/30/09

DROP INLET NOTES:

1. ALL DROP INLETS, REGARDLESS OF TYPE, SHALL BE LOCATED SUCH THAT THE CURB OPENING (OR GRATE) IS A MINIMUM OF TEN (10) FEET FROM THE NEAREST P.C. OR P.T. OF THE CURRENT OR FUTURE CURB RETURN.

2. FOR CURB RETURNS WHERE A LOW POINT CONDITION EXIST OR IS PROPOSED AT THE P.C. OR P.T., THE CURB PROFILE SHALL BE DESIGNED SUCH THAT THE LOW POINT COINCIDES WITH THE CURB OPENING AS SPECIFIED ON NOTE NO. 1.

3. IF DRIVEWAYS OR UTILITIES EXIST, THE ENTITY ENGINEER SHALL APPROVE THE LOCATION OF THE DROP INLET.

SPECIFICATION REFERENCE	
501	CONCRETE
609	CATCH BASINS, MANHOLES &
	INLETS

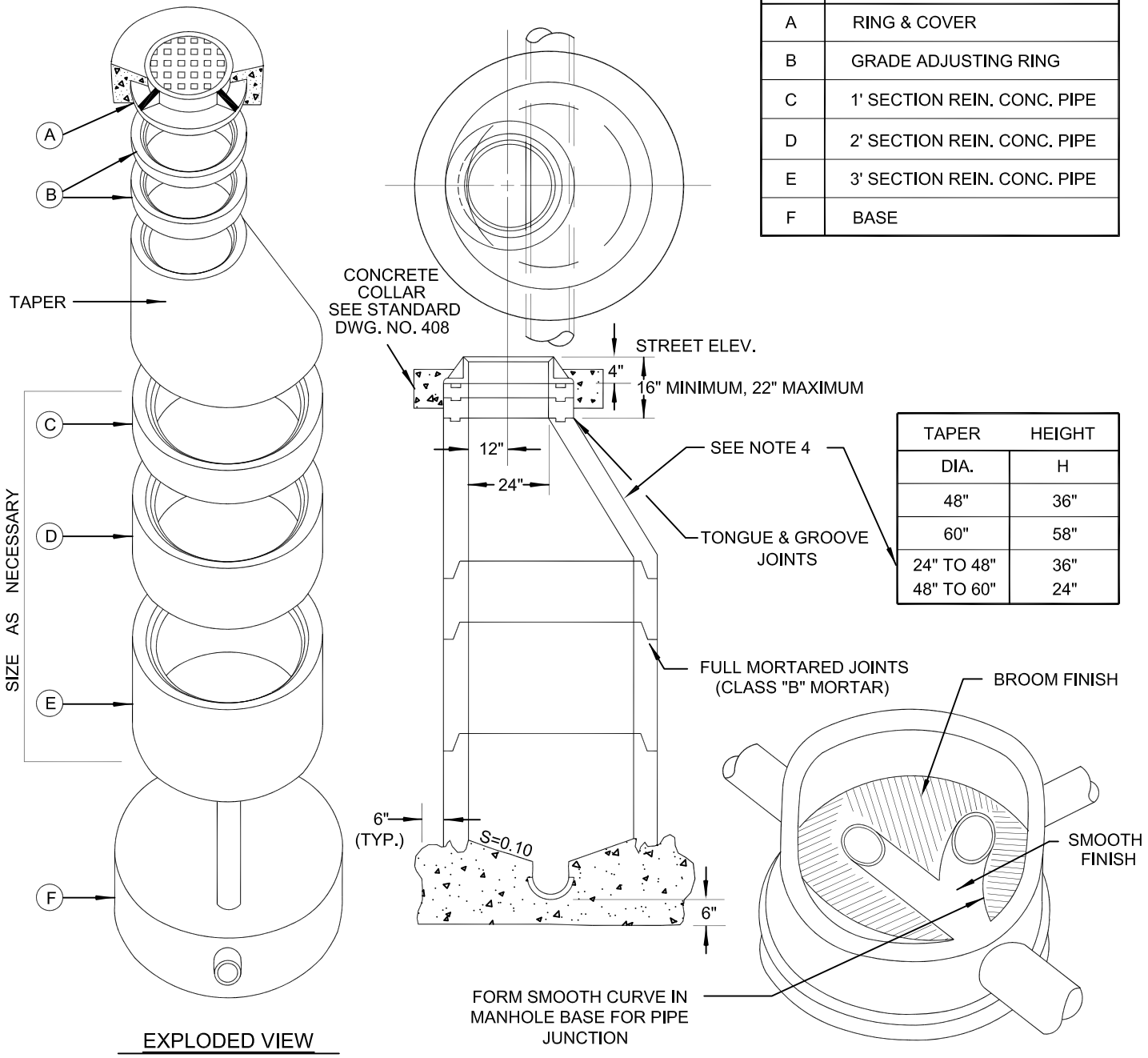
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

STORM DRAIN DROP INLET GENERAL NOTES

DATE 2-9-06	DWG. NO. 402	PAGE 102

Effective 01/01/09 - 06/30/09

SYM.	ITEM
A	RING & COVER
B	GRADE ADJUSTING RING
C	1' SECTION REIN. CONC. PIPE
D	2' SECTION REIN. CONC. PIPE
E	3' SECTION REIN. CONC. PIPE
F	BASE



TAPER DIA.	HEIGHT H
48"	36"
60"	58"
24" TO 48"	36"
48" TO 60"	24"

EXPLODED VIEW

ISOMETRIC VIEW

NOTES:

1. IN UNIMPROVED NON-TRAFFIC AREAS, TOP OF MANHOLE SHALL BE 6" TO 9" ABOVE GRADE.
2. PIPES SHALL NOT PROTRUDE MORE THAN 3" INSIDE OF MANHOLE SECTION. CONSTRUCT WATER TIGHT CONNECTION TO MANHOLE.
3. PIPE SECTION LENGTHS ARRANGED TO FIT DEPTH.
4. AN OPTIONAL TWO PIECE 24" TO 48" AND 48" TO 60" CONE MAY BE USED.

SPECIFICATION REFERENCE	
501	CONCRETE & MORTAR
609	CATCH BASINS, MANHOLES & INLETS

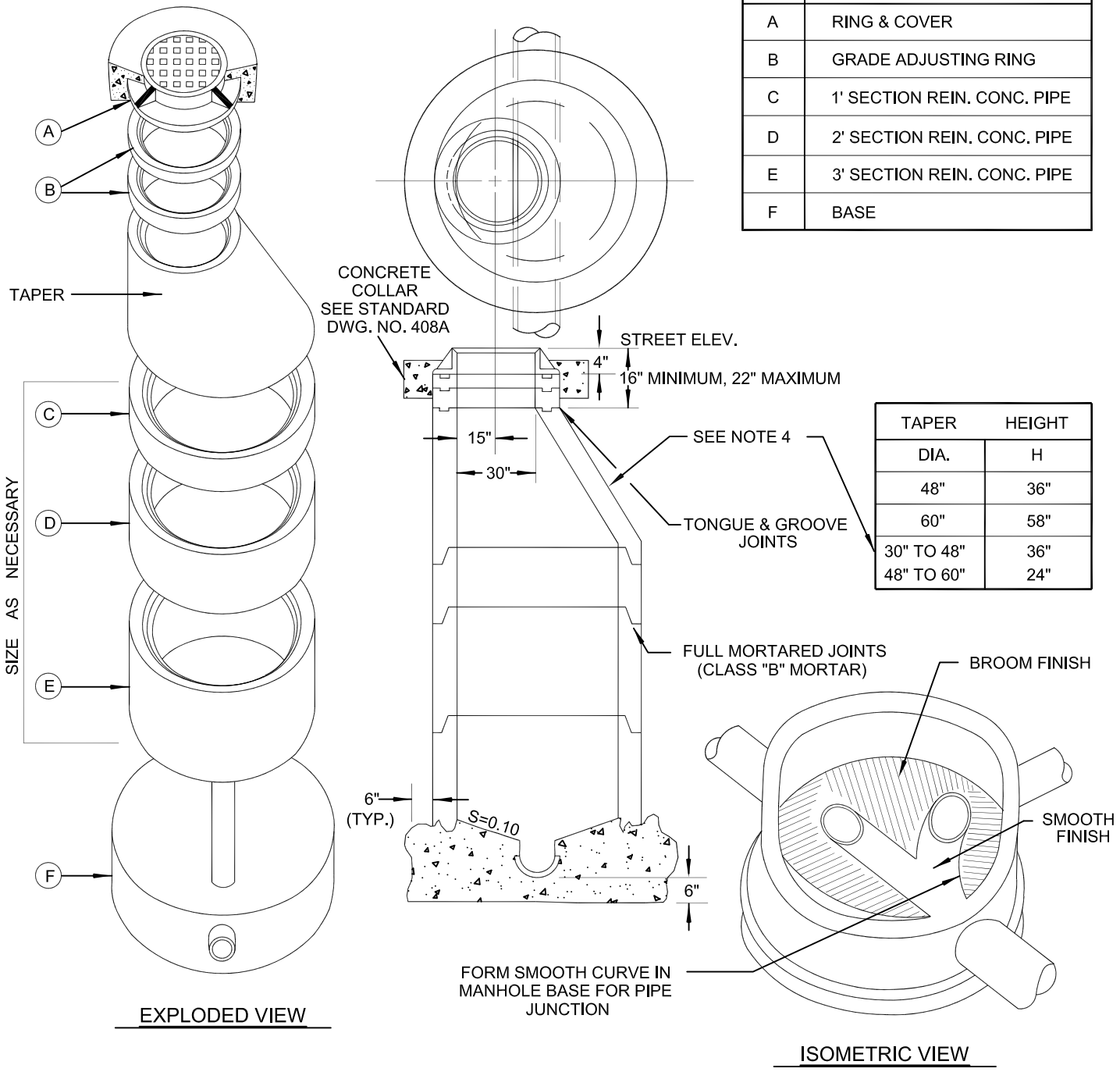
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

TYPE I MANHOLE

DATE 11-10-05	DWG. NO. 403	PAGE NO. 103

Effective 01/01/09 - 06/30/09

SYM.	ITEM
A	RING & COVER
B	GRADE ADJUSTING RING
C	1' SECTION REIN. CONC. PIPE
D	2' SECTION REIN. CONC. PIPE
E	3' SECTION REIN. CONC. PIPE
F	BASE



TAPER DIA.	HEIGHT H
48"	36"
60"	58"
30" TO 48"	36"
48" TO 60"	24"

EXPLODED VIEW

ISOMETRIC VIEW

NOTES:

1. IN UNIMPROVED NON-TRAFFIC AREAS, TOP OF MANHOLE SHALL BE 6" TO 9" ABOVE GRADE.
2. PIPES SHALL NOT PROTRUDE MORE THAN 3" INSIDE OF MANHOLE SECTION. CONSTRUCT WATER TIGHT CONNECTION TO MANHOLE.
3. PIPE SECTION LENGTHS ARRANGED TO FIT DEPTH.
4. AN OPTIONAL TWO PIECE 30" TO 48" AND 48" TO 60" CONE MAY BE USED.
5. THE USE OF A 30" RING AND COVER SHALL BE APPROVED BY THE ENTITY ENGINEER.

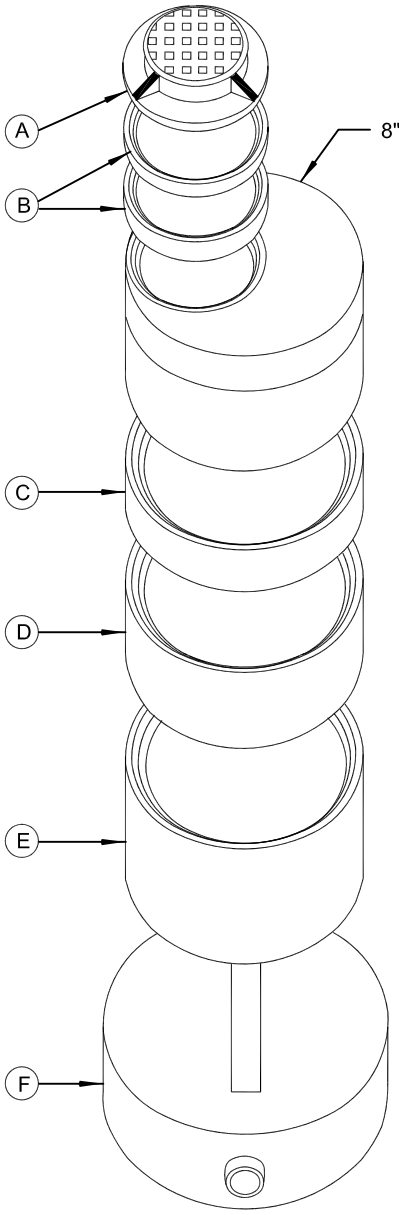
SPECIFICATION REFERENCE	
501	CONCRETE & MORTAR
609	CATCH BASINS, MANHOLES & INLETS

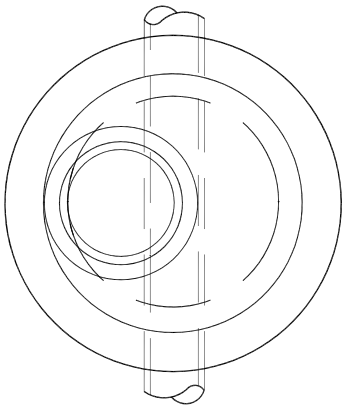
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

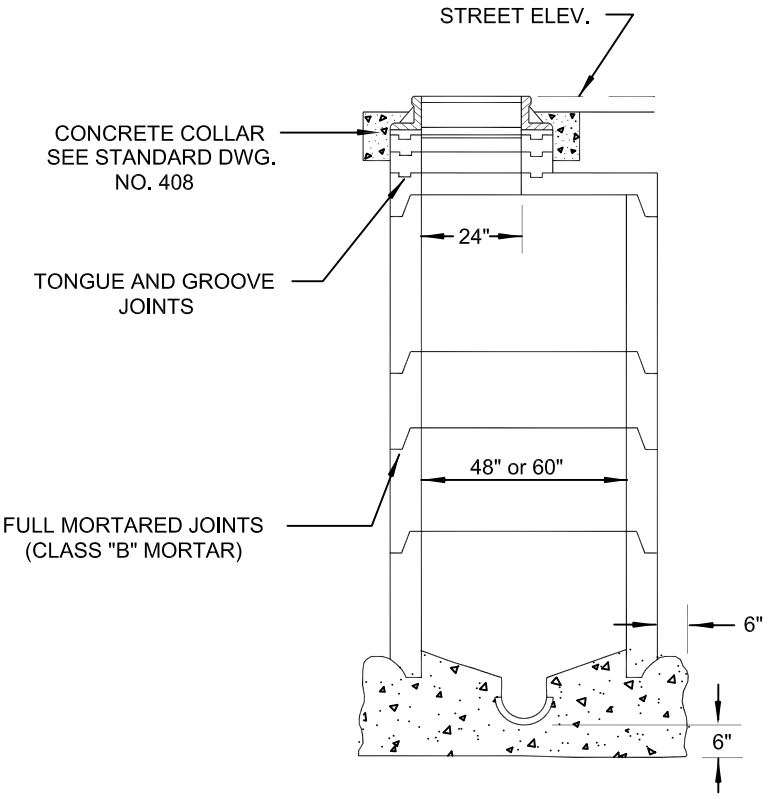
TYPE I MANHOLE
30" RING AND COVER

DATE 11-10-05	DWG. NO. 403A	PAGE NO. 103A

Effective 01/01/09 - 06/30/09







SYM.	ITEM
A	RING & COVER
B	GRADE ADJUSTING RING
C	1' SECTION REIN. CONC. PIPE
D	2' SECTION REIN. CONC. PIPE
E	3' SECTION REIN. CONC. PIPE
F	BASE

NOTE:

1. PIPE SECTION LENGTHS ARRANGED TO FIT DEPTH.

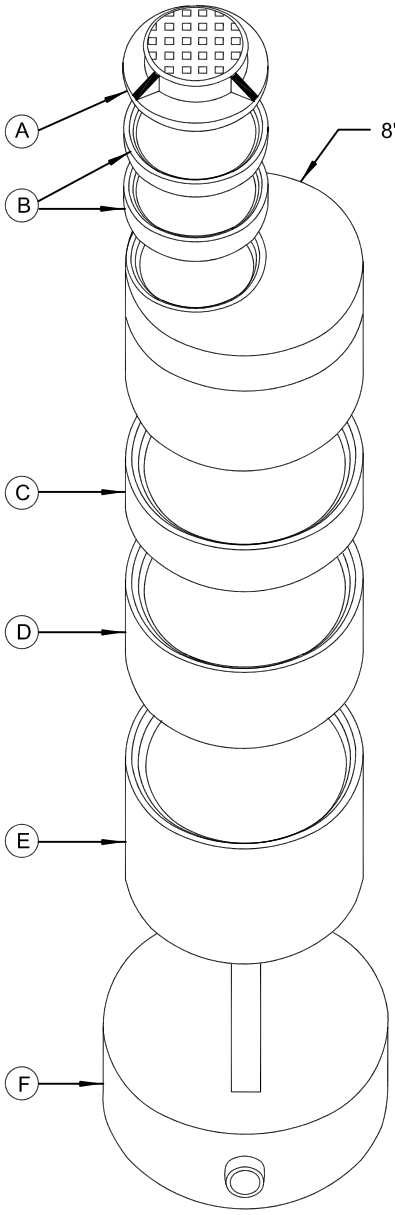
SPECIFICATION REFERENCE	
501	CONCRETE & MORTAR
609	CATCH BASINS, MANHOLES & INLETS

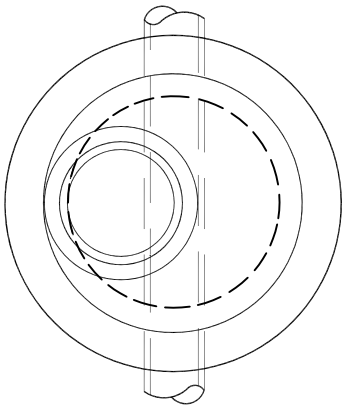
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

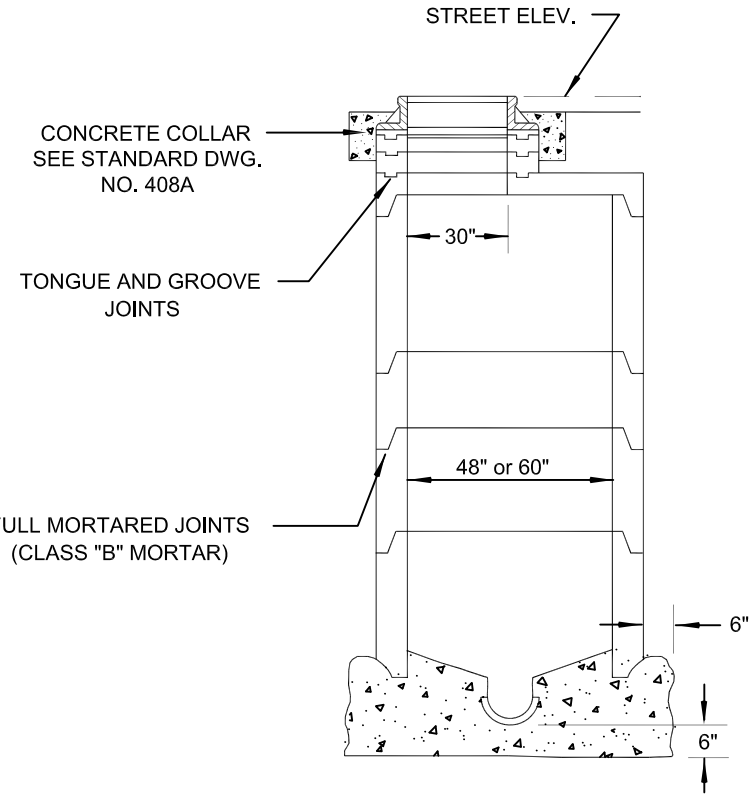
TYPE IA MANHOLE

DATE 11-10-05	DWG. NO. 404	PAGE NO. 104

Effective 01/01/09 - 06/30/09







SYM.	ITEM
A	RING & COVER
B	GRADE ADJUSTING RING
C	1' SECTION REIN. CONC. PIPE
D	2' SECTION REIN. CONC. PIPE
E	3' SECTION REIN. CONC. PIPE
F	BASE

NOTE:

1. PIPE SECTION LENGTHS ARRANGED TO FIT DEPTH.
2. THE USE OF A 30" RING AND COVER SHALL BE APPROVED BY THE ENTITY ENGINEER.

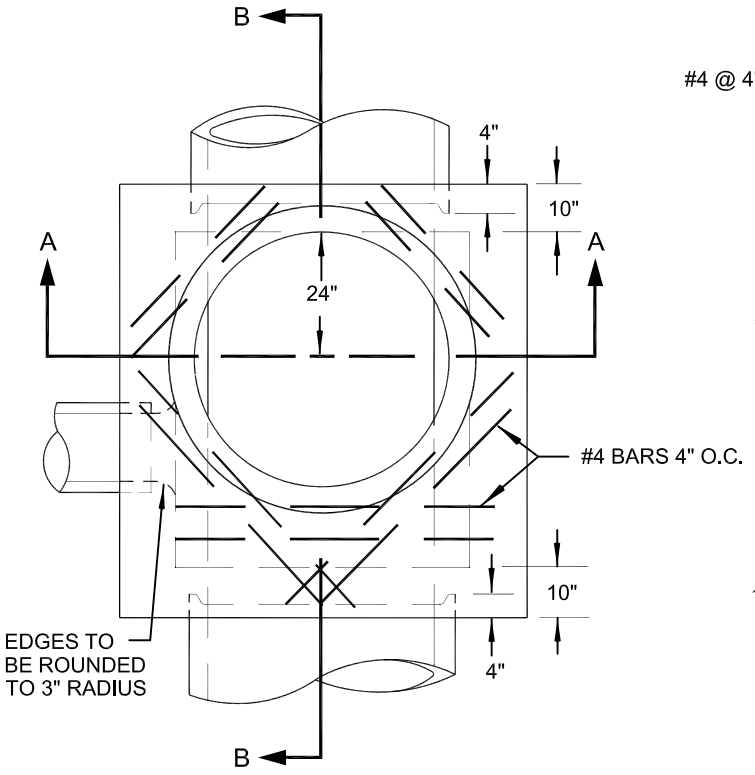
SPECIFICATION REFERENCE	
501	CONCRETE & MORTAR
609	CATCH BASINS, MANHOLES & INLETS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

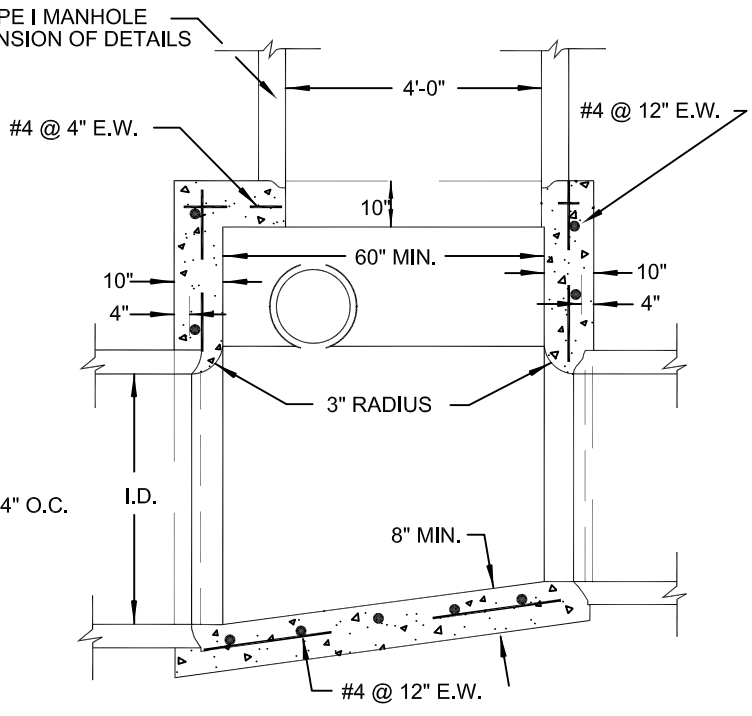
TYPE IA MANHOLE
30" RING AND COVER

DATE 11-10-05	DWG. NO. 404A	PAGE NO. 104A

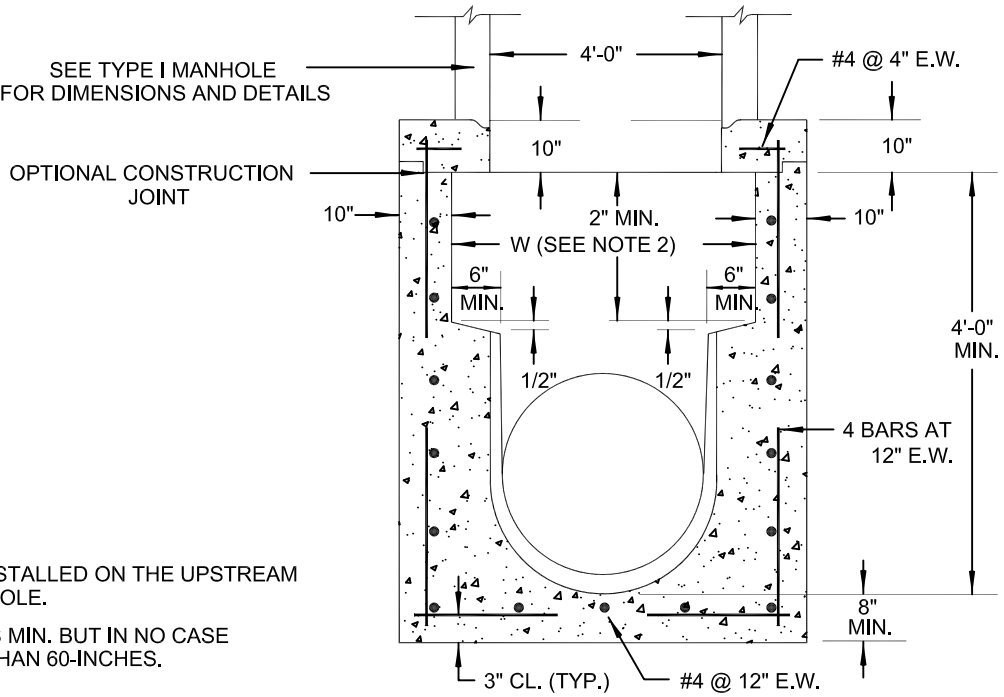
Effective 01/01/09 - 06/30/09



PLAN



SECTION B-B



SECTION A-A

NOTES:

1. STEPS SHALL BE INSTALLED ON THE UPSTREAM WALL OF THE MANHOLE.
2. W = I.D. + 12-INCHES MIN. BUT IN NO CASE SHALL W BE LESS THAN 60-INCHES.

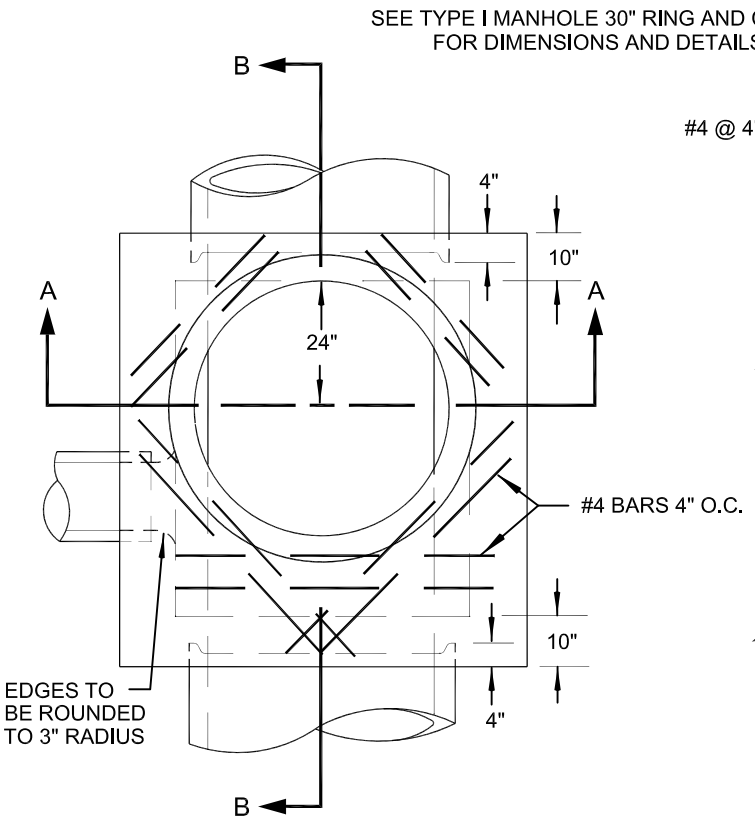
SPECIFICATION REFERENCE	
501	CONCRETE AND MORTAR
505	REINFORCING STEEL
609	CATCH BASINS, MANHOLES & INLETS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

TYPE II MANHOLE

DATE	DWG. NO. 405	PAGE NO. 105

Effective 01/01/09 - 06/30/09



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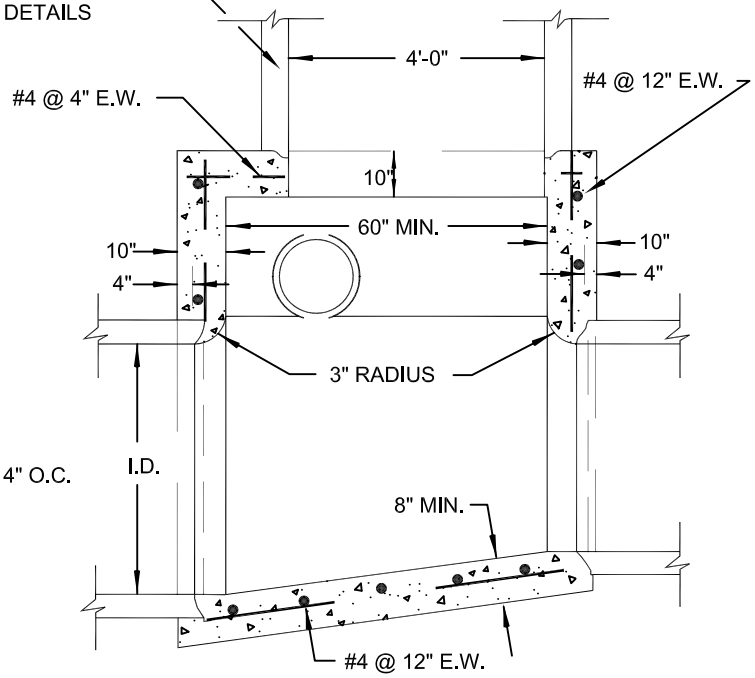
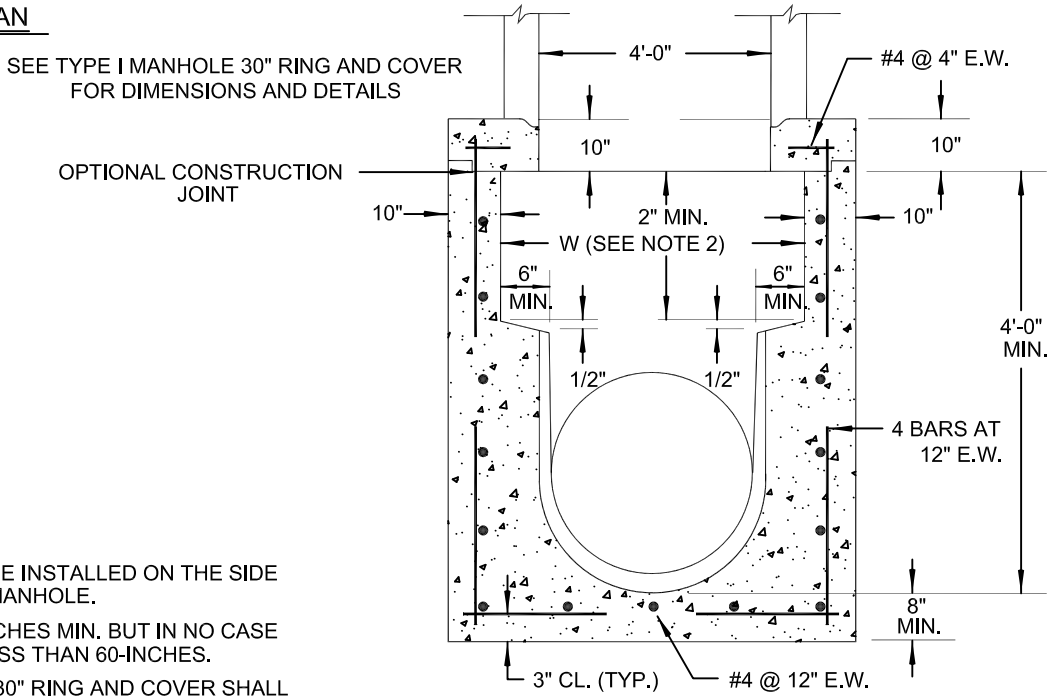


SECTION B-B



SECTION A-A

NOTES:

1. STEPS SHALL BE INSTALLED ON THE SIDE WALL OF THE MANHOLE.
2. W = I.D. + 12-INCHES MIN. BUT IN NO CASE SHALL W BE LESS THAN 60-INCHES.
3. THE USE OF A 30" RING AND COVER SHALL BE APPROVED BY THE ENTITY ENGINEER.

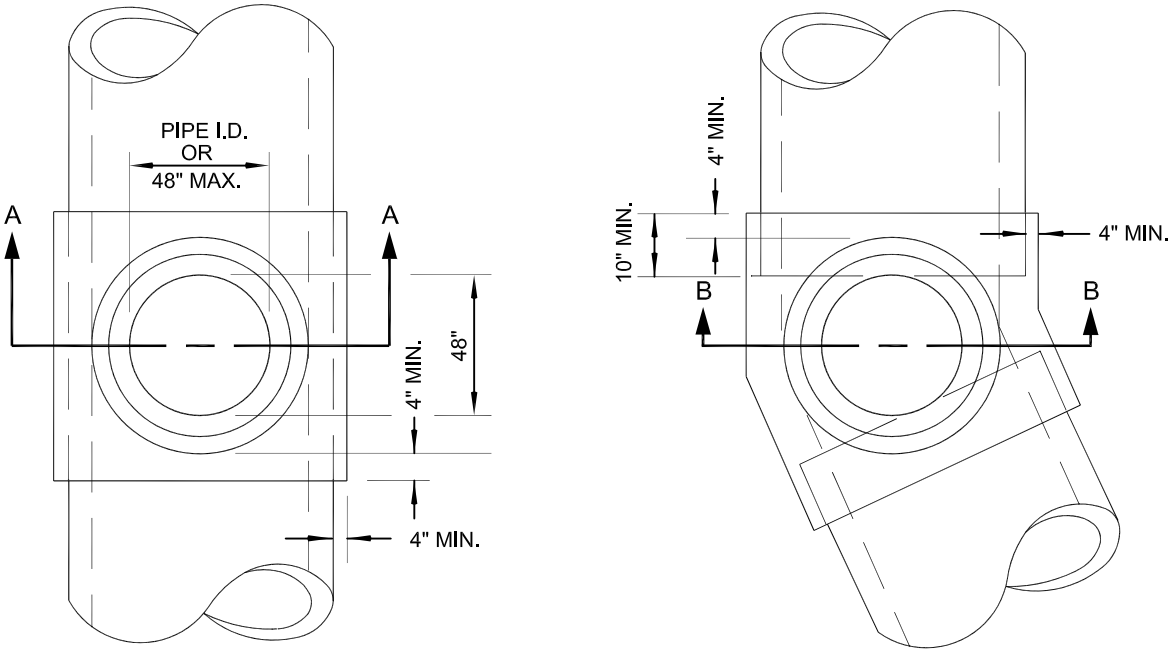
SPECIFICATION REFERENCE	
501	CONCRETE AND MORTAR
505	REINFORCING STEEL
609	CATCH BASINS, MANHOLES & INLETS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

TYPE II MANHOLE
30" RING AND COVER

DATE 11/10/05	DWG. NO. 405A	PAGE NO. 105A

Effective 01/01/09 - 06/30/09



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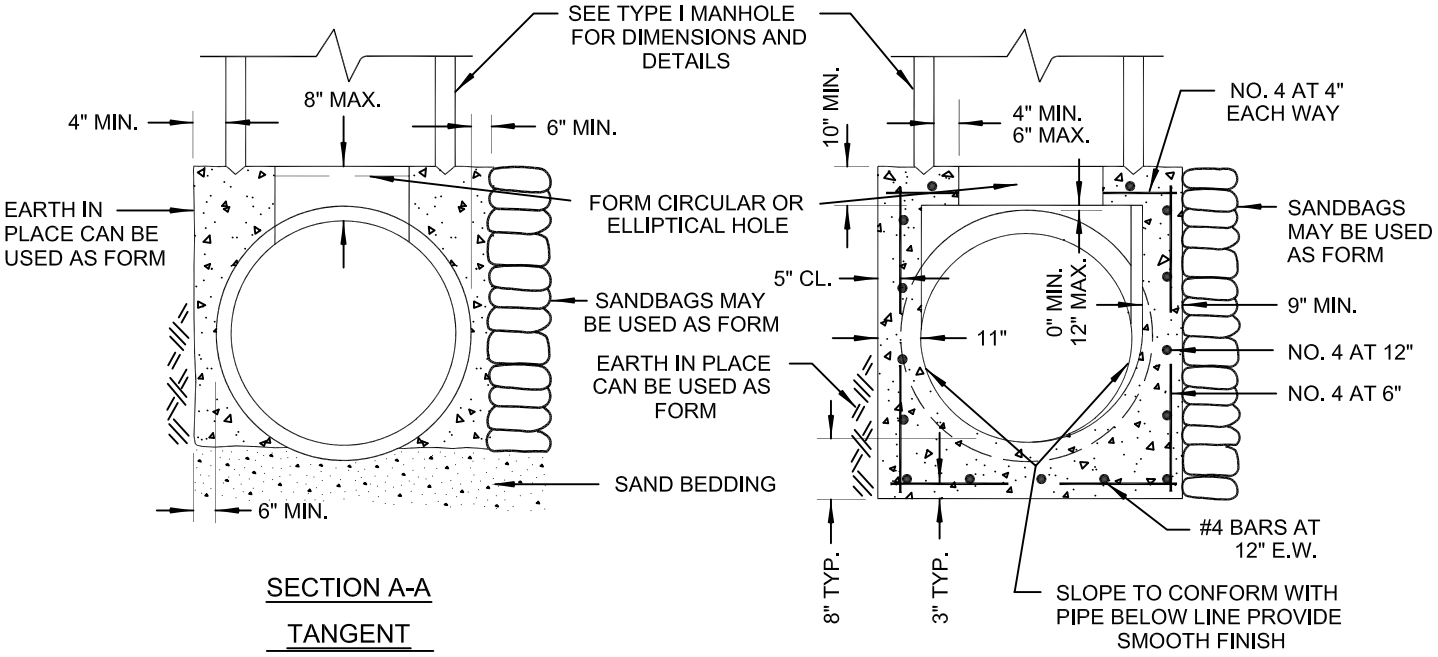


SECTION A-A

TANGENT

SECTION B-B

ANGLE POINT

NOTE:

1. STEPS SHALL BE INSTALLED ON THE UPSTREAM WALL OF THE MANHOLE.

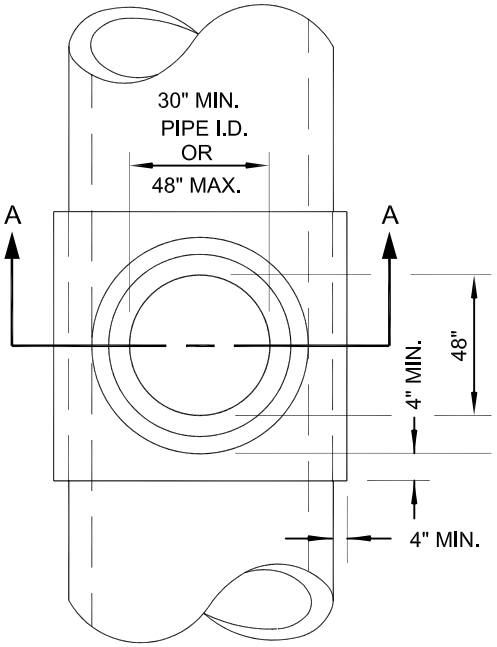
SPECIFICATION REFERENCE	
501	CONCRETE
505	REINFORCING STEEL
609	CATCH BASINS, MANHOLES & INLETS

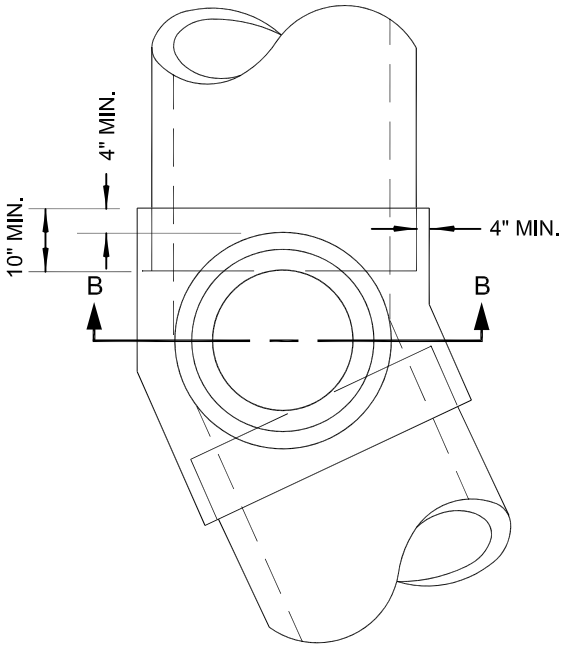
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

TYPE III MANHOLE

DATE	DWG. NO. 406	PAGE NO. 106

Effective 01/01/09 - 06/30/09





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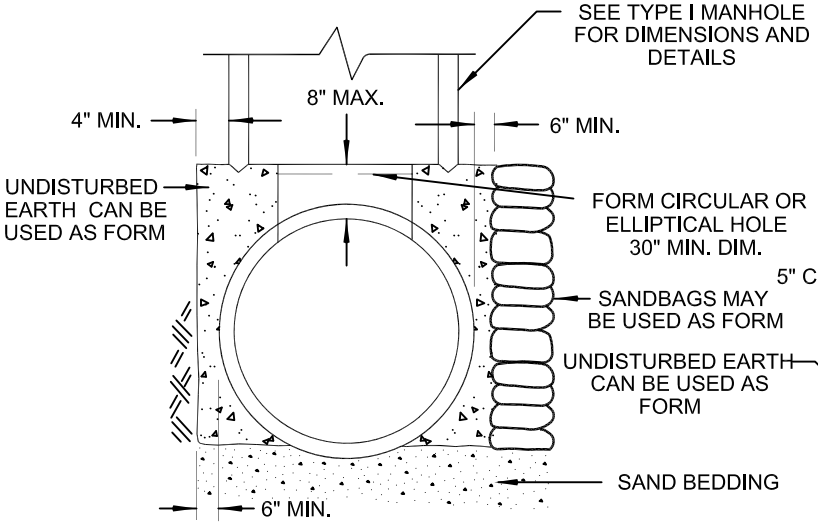
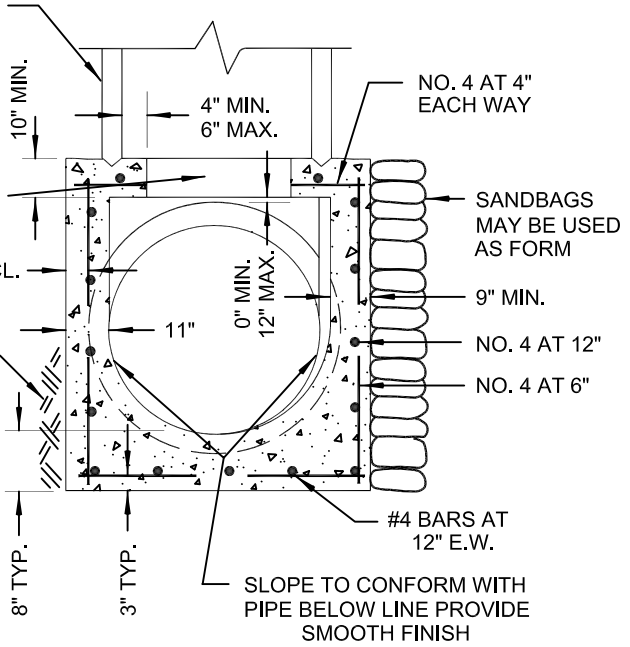


SECTION A-A

TANGENT



SECTION B-B

ANGLE POINT

NOTE:

1. STEPS SHALL BE INSTALLED ON THE UPSTREAM WALL OF THE MANHOLE.
2. THE USE OF A 30" RING AND COVER SHALL BE APPROVED BY THE ENTITY ENGINEER.

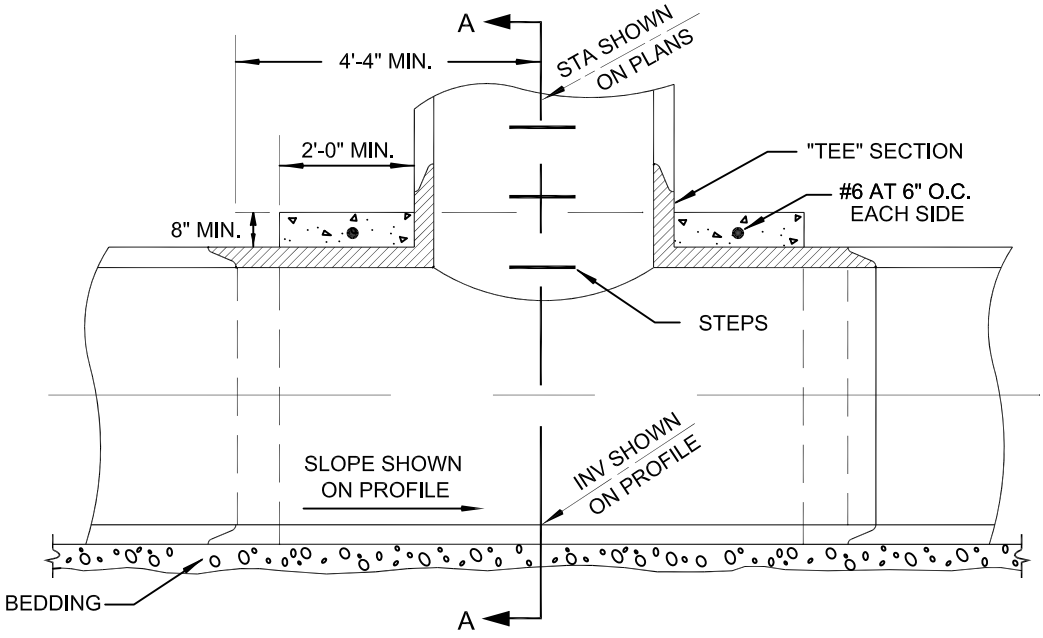
SPECIFICATION REFERENCE	
501	CONCRETE
505	REINFORCING STEEL
609	CATCH BASINS, MANHOLES & INLETS

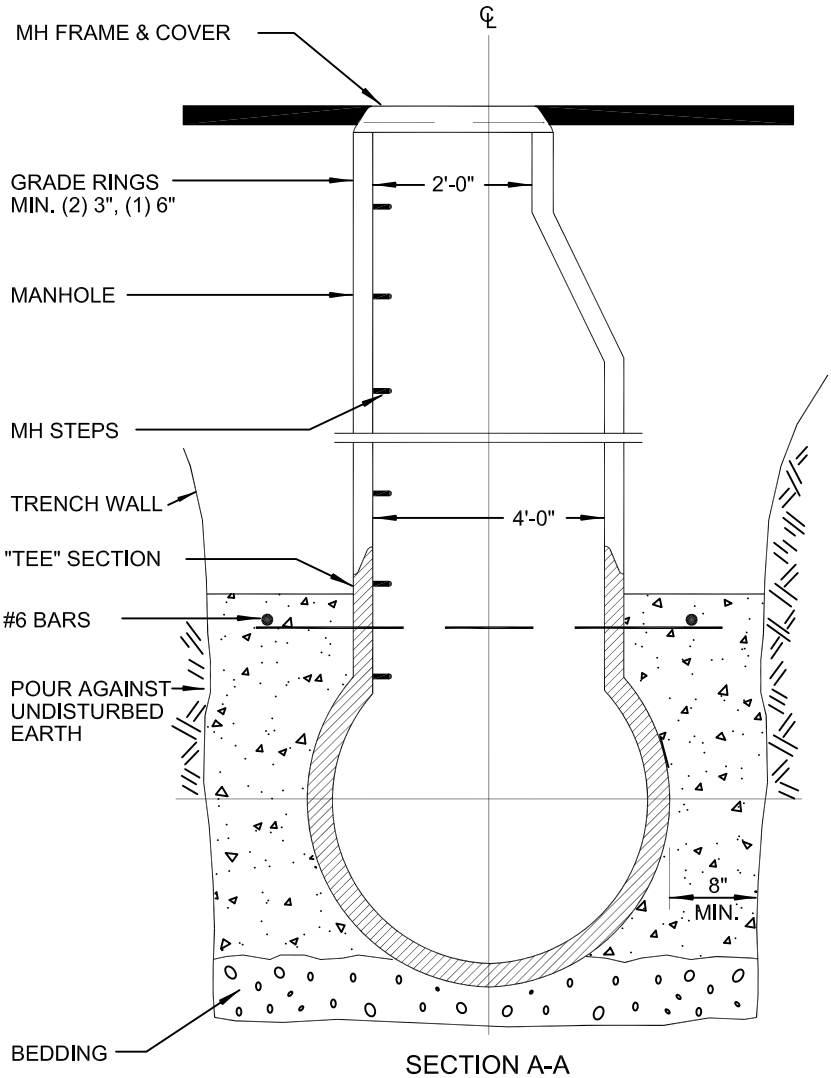
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

TYPE III MANHOLE
30" RING AND COVER

DATE 11-10-05	DWG. NO. 406A	PAGE NO. 106A

Effective 01/01/09 - 06/30/09





SECTION A-A

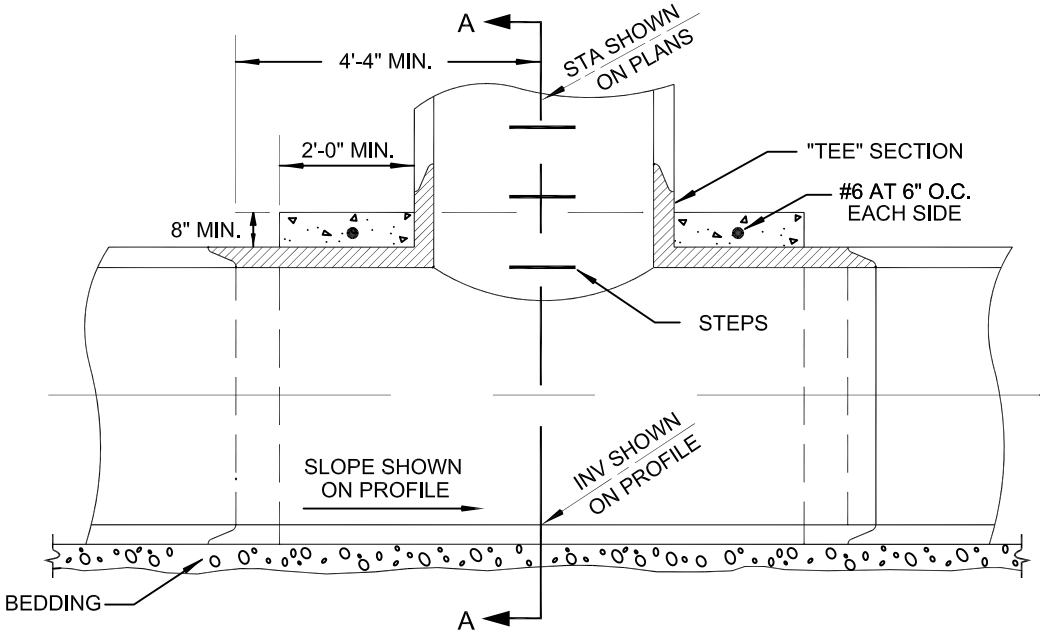
SPECIFICATION REFERENCE	
501	CONCRETE
609	CATCH BASINS, MANHOLES & INLETS

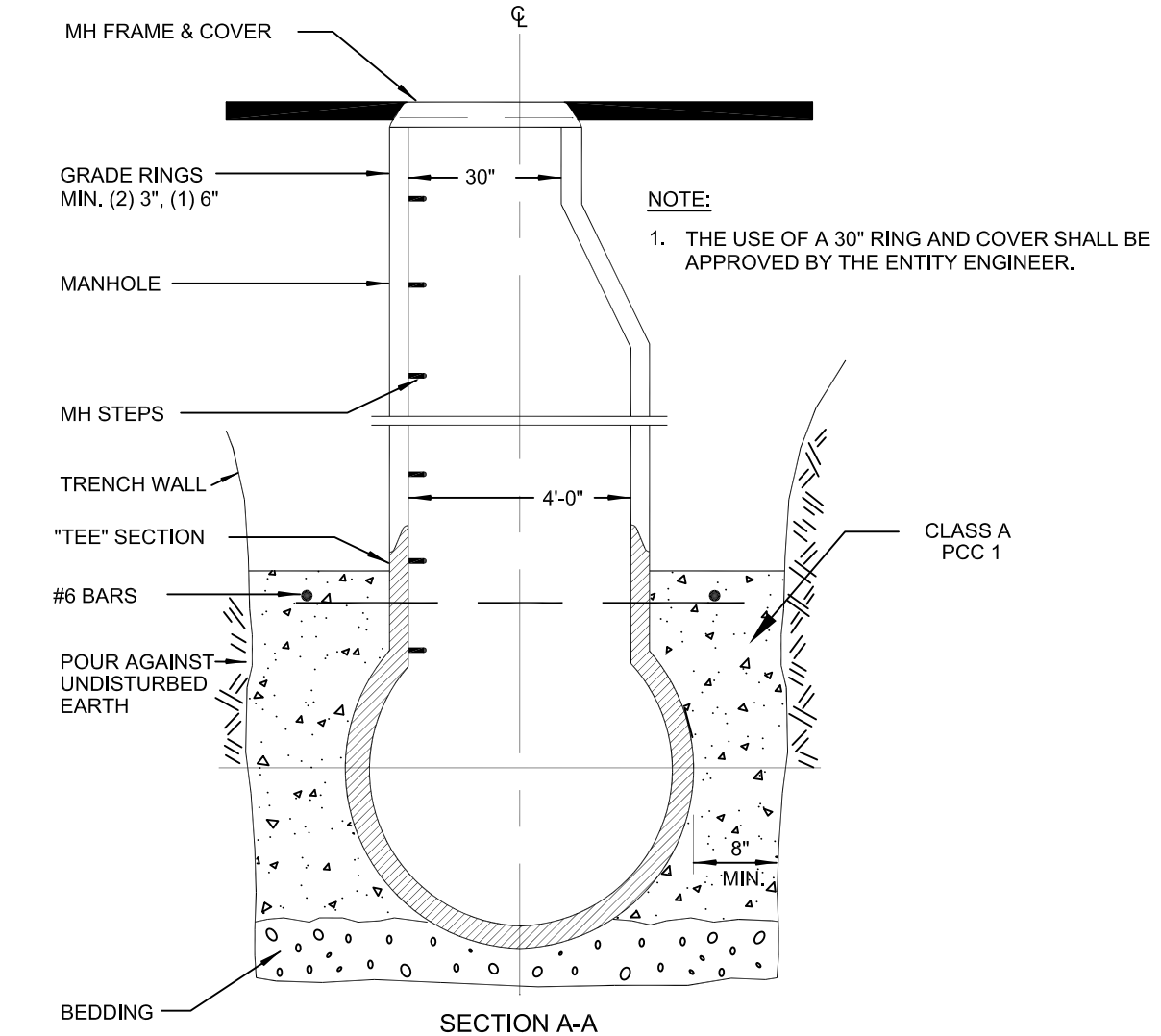
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

PRECAST MANHOLE TEES

DATE	DWG. NO. 407	PAGE NO. 107

Effective 01/01/09 - 06/30/09





NOTE:

1. THE USE OF A 30" RING AND COVER SHALL BE APPROVED BY THE ENTITY ENGINEER.

SECTION A-A

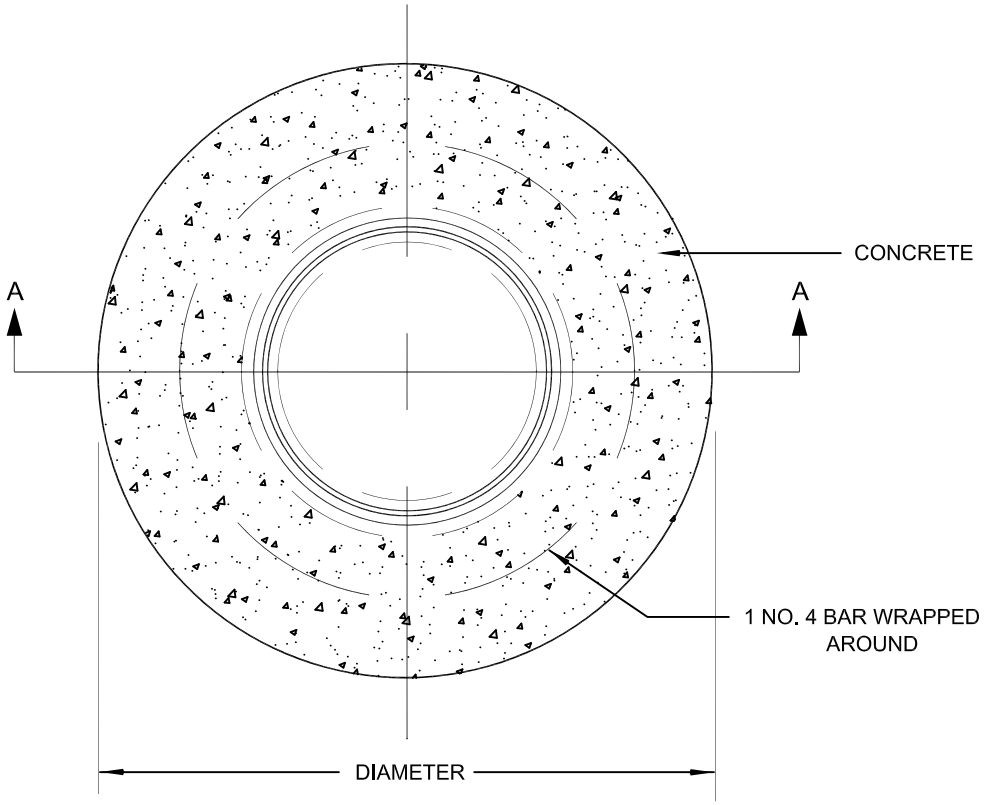
SPECIFICATION REFERENCE	
501	CONCRETE
609	CATCH BASINS, MANHOLES & INLETS

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

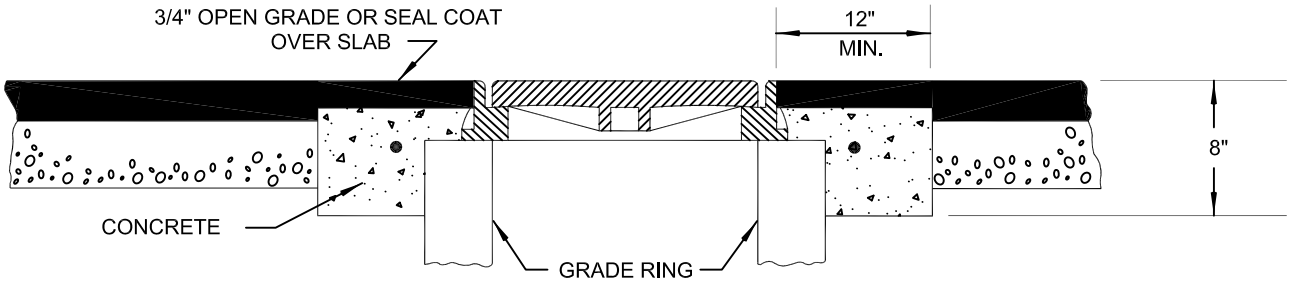
PRECAST MANHOLE TEES 30" RING AND COVER

DATE 11-10-05	DWG. NO. 407A	PAGE NO. 107A

Effective 01/01/09 - 06/30/09



PLAN



SECTION A-A

NOTES:

1. CONCRETE COLLAR TO BE CONSTRUCTED 1/8" BELOW SURFACE OF DENSE GRADE WHERE OPEN GRADE IS NOT USED.
2. CONCRETE COLLAR NOT REQUIRED IN UNINCORPORATED CLARK COUNTY RESIDENTIAL STREETS LESS THAN 80' R/W WIDTH.

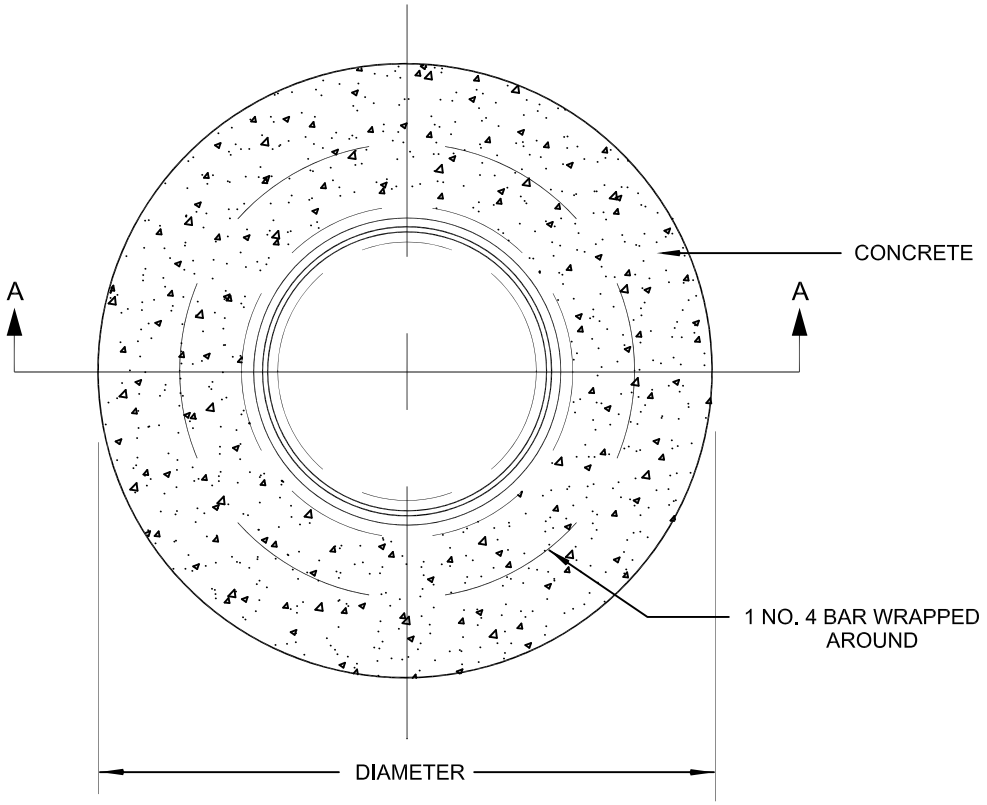
SPECIFICATION REFERENCE	
501	CONCRETE
505	REINFORCING STEEL

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

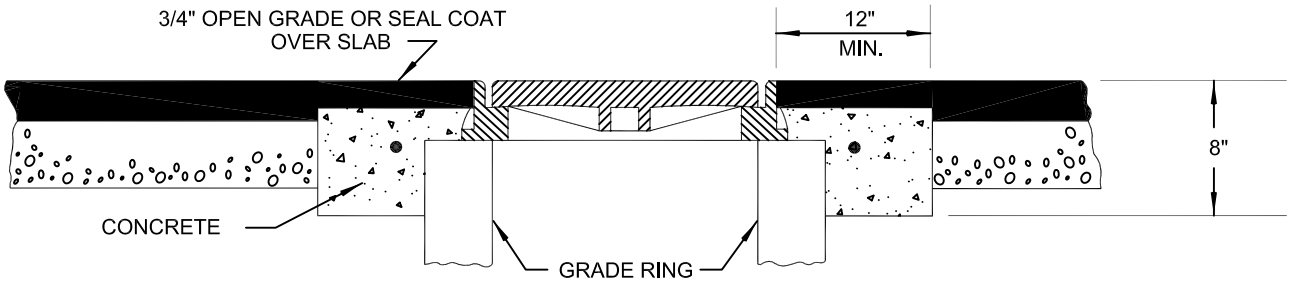
CONCRETE COLLAR AROUND MANHOLES

DATE 12-14-00	DWG. NO. 408	PAGE NO. 108

Effective 01/01/09 - 06/30/09



PLAN



SECTION A-A

NOTES:

1. CONCRETE COLLAR TO BE CONSTRUCTED 1/8" BELOW SURFACE OF DENSE GRADE WHERE OPEN GRADE IS NOT USED.
2. CONCRETE COLLAR NOT REQUIRED IN UNINCORPORATED CLARK COUNTY RESIDENTIAL STREETS LESS THAN 80' R/W WIDTH.
3. THE USE OF 30" RING AND COVER SHALL BE APPROVED BY THE ENTITY ENGINEER.

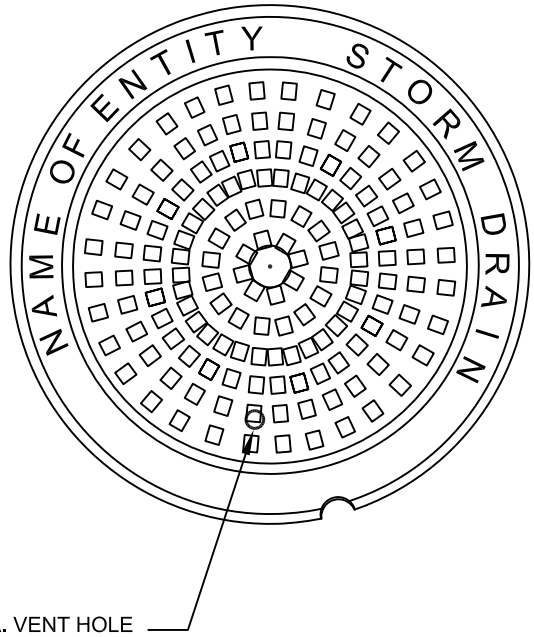
SPECIFICATION REFERENCE	
501	CONCRETE
505	REINFORCING STEEL

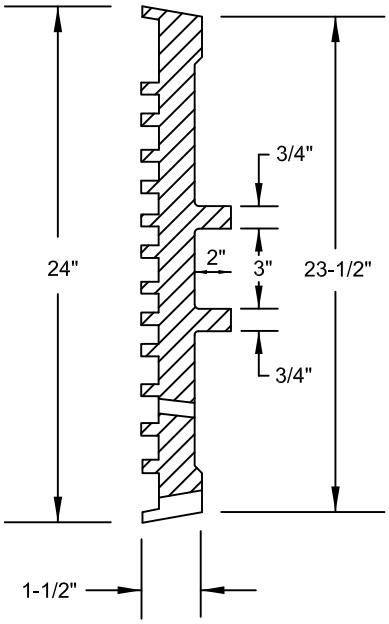
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

CONCRETE COLLAR AROUND MANHOLES 30" RING AND COVER

DATE 11/10/05	DWG. NO. 408A	PAGE NO. 108A

Effective 01/01/09 - 06/30/09





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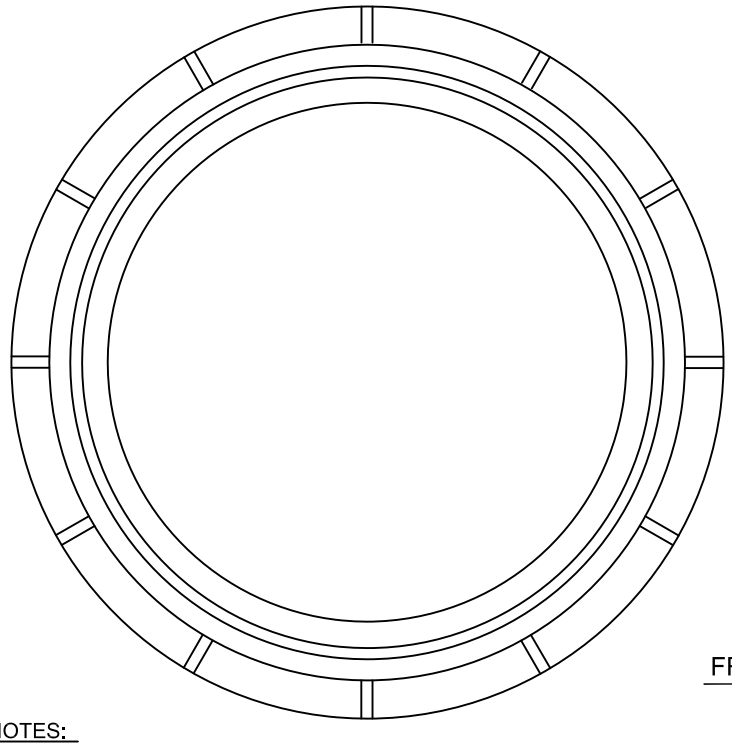

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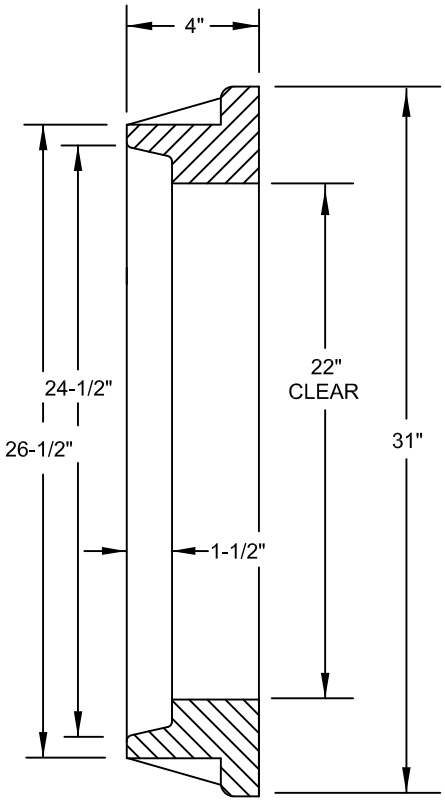


NOTES:

1. FRAME AND COVER TO BE ALHAMBRA FOUNDRY COMPANY TYPE A1310 IN ACCORDANCE WITH ASTM A-48, CLASS 30, OR APPROVED EQUAL.
2. CAST IRON SHALL HAVE MINUMUM TENSILE STRENGTH OF 30,000 P.S.I.
3. FRAME AND COVER MACHINED TO FIT.
4. WEIGHT OF FRAME AND COVER 330 LBS. MINIMUM.

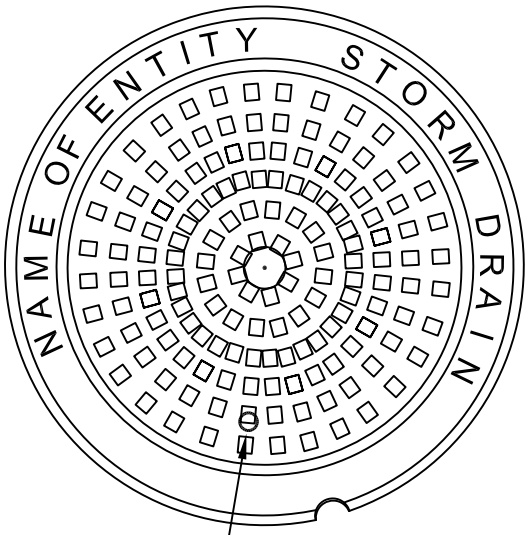
SPECIFICATION REFERENCE	
712	MISCELLANEOUS METALS

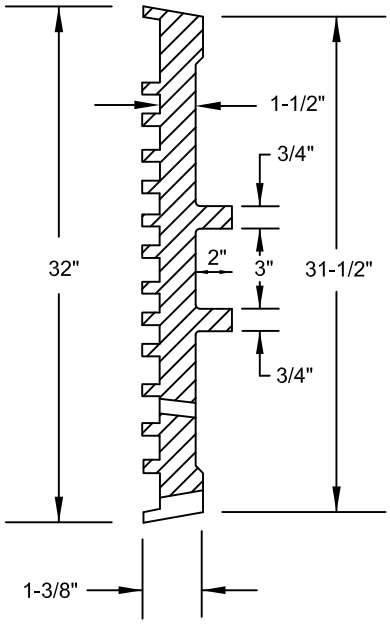
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

STANDARD MANHOLE COVER AND RING

DATE	DWG. NO. 409	PAGE NO. 109

Effective 01/01/09 - 06/30/09





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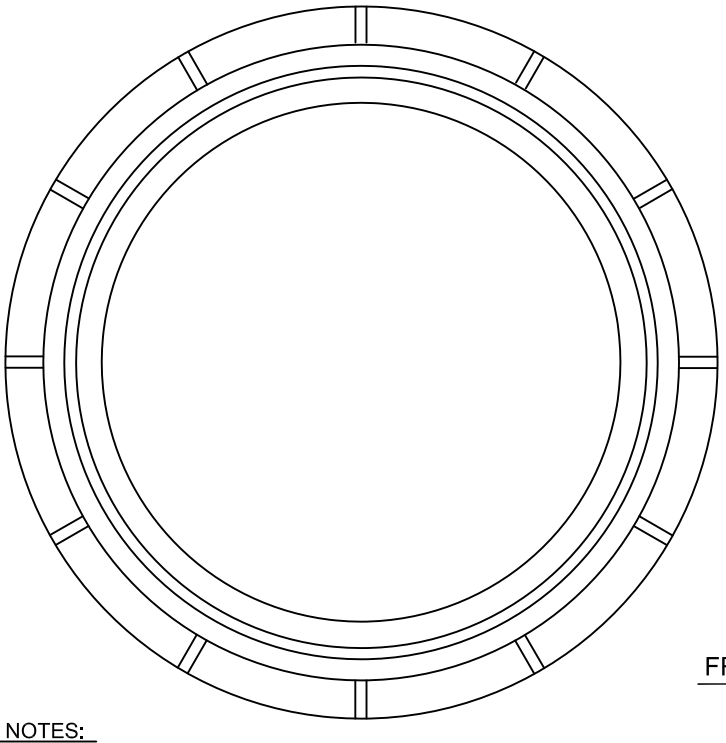
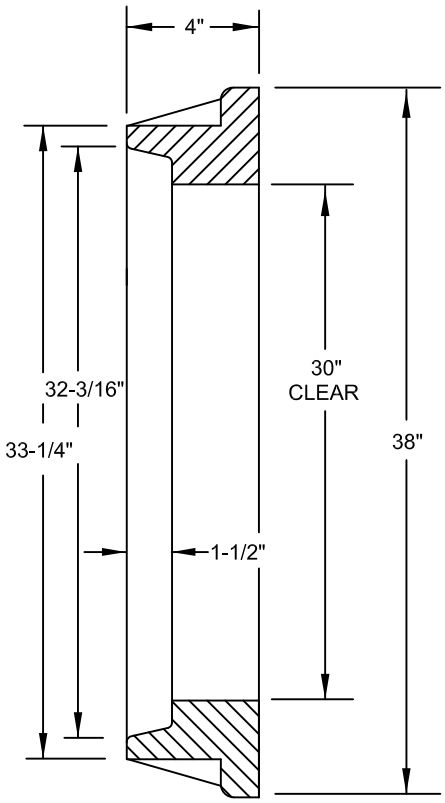




FRAME

NOTES:

1. FRAME AND COVER TO BE ALHAMBRA FOUNDRY COMPANY TYPE A1310 IN ACCORDANCE WITH ASTM A-48, CLASS 30, OR APPROVED EQUAL.
2. CAST IRON SHALL HAVE MINUMUM TENSILE STRENGTH OF 30,000 P.S.I.
3. FRAME AND COVER MACHINED TO FIT.
4. WEIGHT OF FRAME AND COVER 330 LBS. MINIMUM.
5. THE USE OF A 30" RING AND COVER SHALL BE APPROVED BY THE ENTITY ENGINEER.

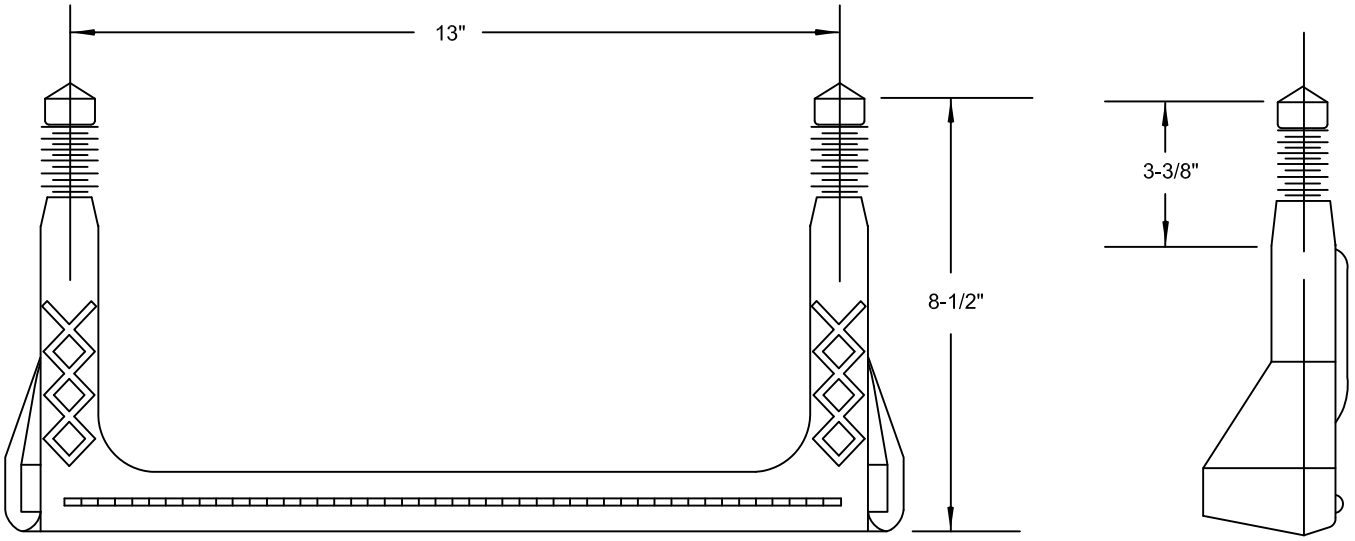
SPECIFICATION REFERENCE	
712	MISCELLANEOUS METALS

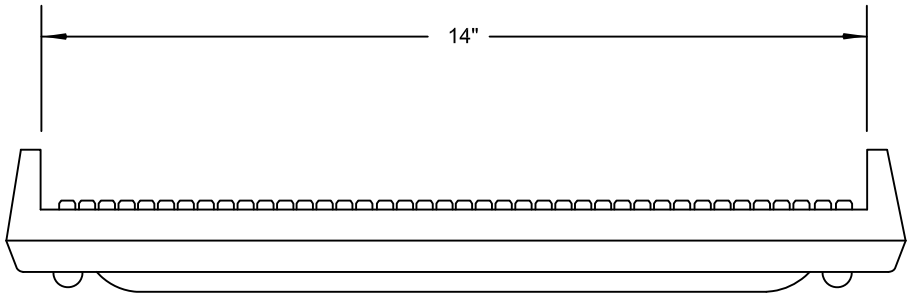
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

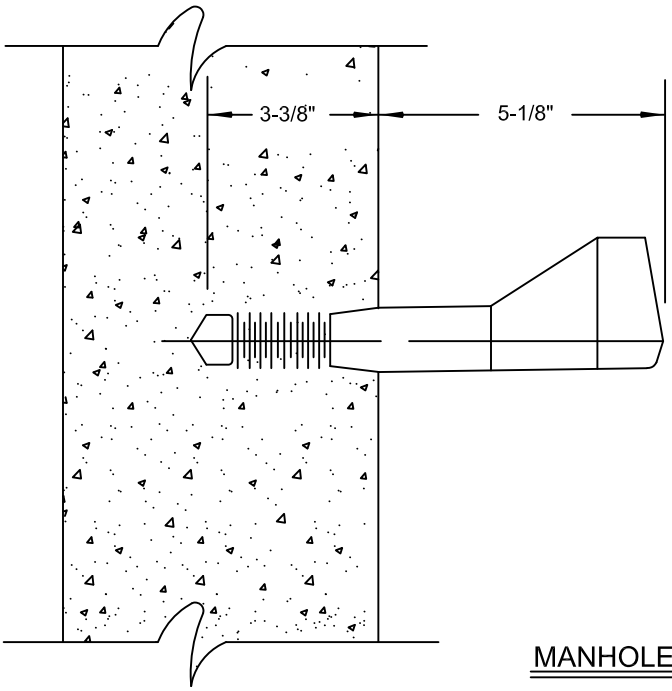
STANDARD MANHOLE
30" COVER AND RING

DATE 11/10/05	DWG. NO. 409A	PAGE NO. 109A

Effective 01/01/09 - 06/30/09







NOTES:

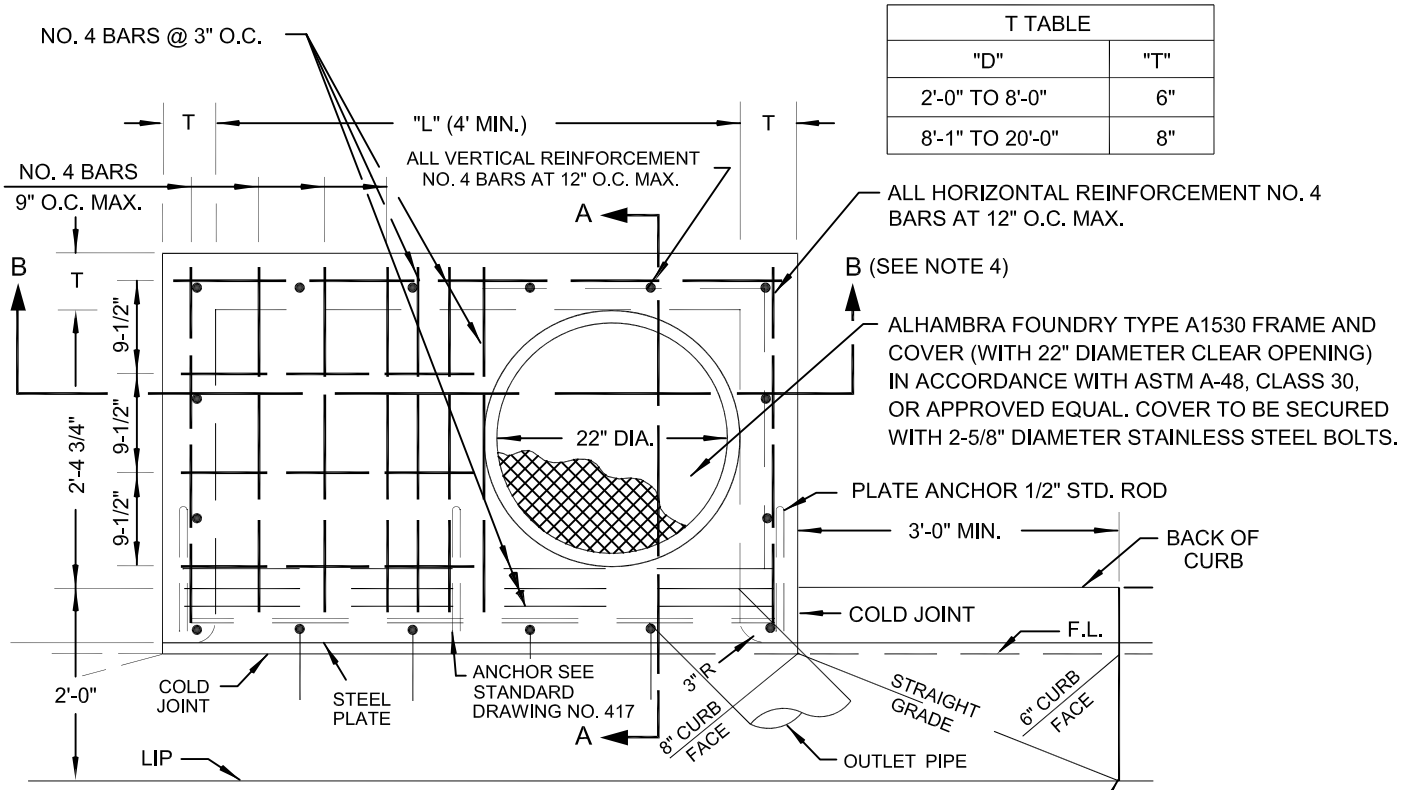
1. MANHOLE STEP SHALL CONFORM TO A.S.T.M. C-478 AND C-497.
2. ALUMINUM STEPS SHALL BE SOLID, MADE FROM MATERIAL IN CONFORMANCE WITH A.S.T.M. B221 (ALLOY 6005-TS).
3. REINFORCED PLASTIC STEPS SHALL BE POLYPROPYLENE PLASTIC, WITH NO. 3 (MIN.) DEFORMED STEEL ROD (GRADE 60/A.S.T.M. A-615).
4. STEPS SHALL BE EVENLY SPACED FROM 12" TO 16".
5. ALL STEPS MUST BE EPOXIED IN PLACE DURING THE INSTALLATION PROCESS.

MANHOLE STEPS

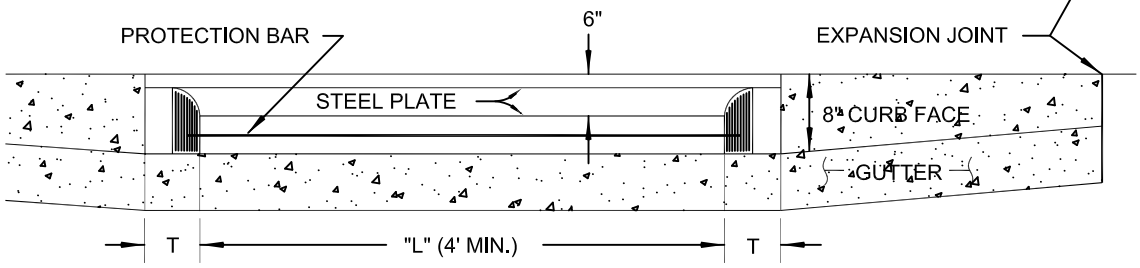
SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		STANDARD MANHOLE STEPS		
		DATE 3-11-04	DWG. NO. 410	PAGE NO. 110

Effective 01/01/09 - 06/30/09

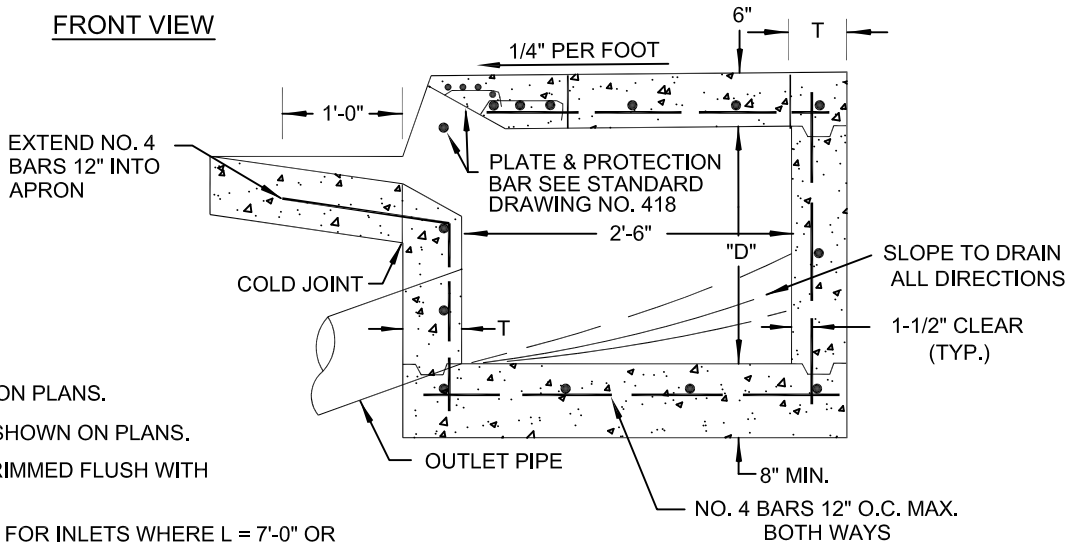
T TABLE	
"D"	"T"
2'-0" TO 8'-0"	6"
8'-1" TO 20'-0"	8"



TOP VIEW



FRONT VIEW



SECTION A-A

NOTES:

1. DEPTH "D" TO BE SHOWN ON PLANS.
2. OUTLET PIPE SIZE TO BE SHOWN ON PLANS.
3. OUTLET PIPE SHALL BE TRIMMED FLUSH WITH INSIDE FACE OF INLET.
4. SECTION B-B IS OPTIONAL FOR INLETS WHERE L = 7'-0" OR GREATER, AND D = 5'-0" OR GREATER, SEE STANDARD DRAWING NO. 415.

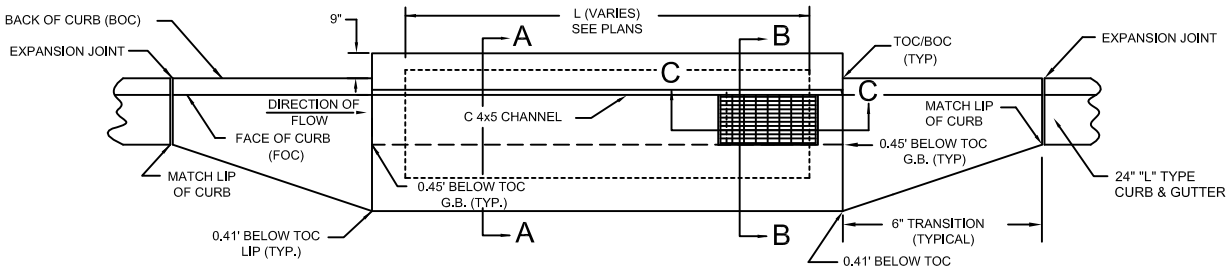
SPECIFICATION REFERENCE	
501	CONCRETE
502	CONCRETE STRUCTURES
505	REINFORCING STEEL
713	STEEL

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

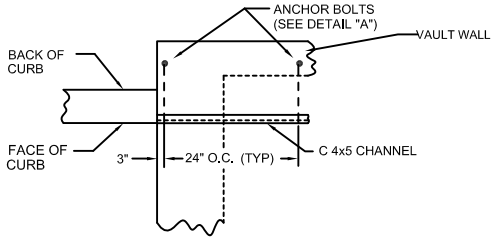
DROP INLET TYPE "A"

DATE 4-11-02	DWG. NO. 411	PAGE NO. 111

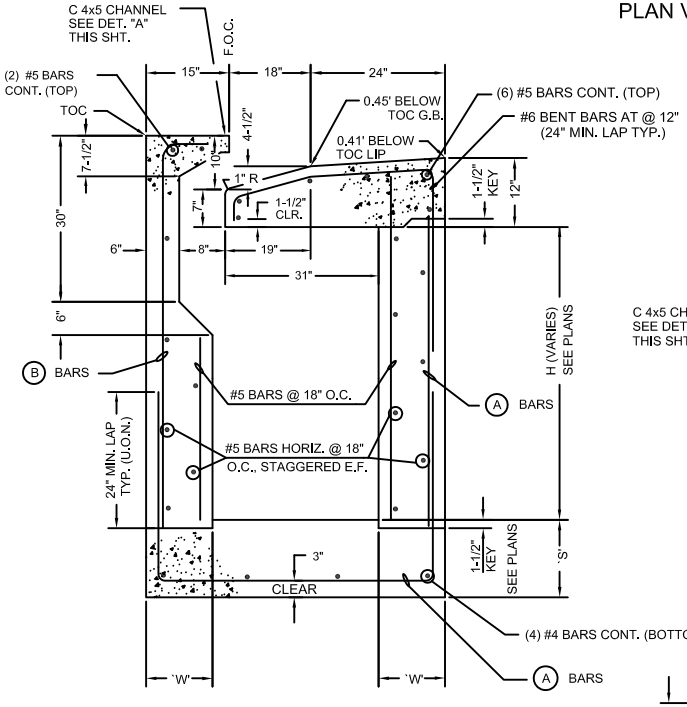
Effective 01/01/09 - 06/30/09



PLAN VIEW

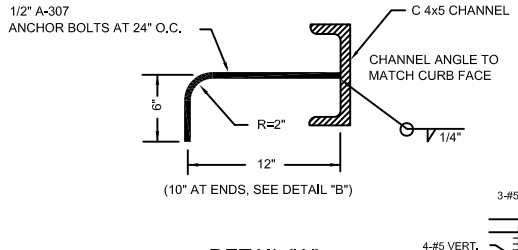


DETAIL "B"

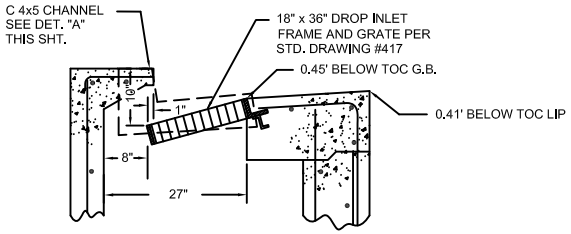


H (MAX)	SLAB	WALLS		
	DIM. `S'	DIM. `W'	(A) BARS	(B) BARS
4'-0"	8"	8"	#4 @ 10" O.C.	#5 @ 12" O.C.
6'-0"	8"	8"	#5 @ 12" O.C.	#5 @ 12" O.C.
8'-0"	8"	9"	#5 @ 12" O.C.	#5 @ 12" O.C.
10'-0"	8"	9"	#6 @ 12" O.C.	#5 @ 12" O.C.

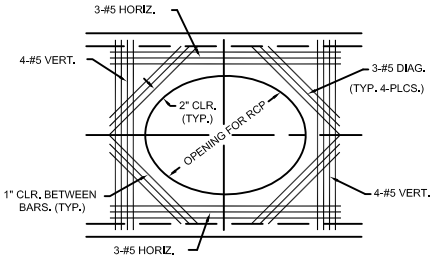
SECTION A-A



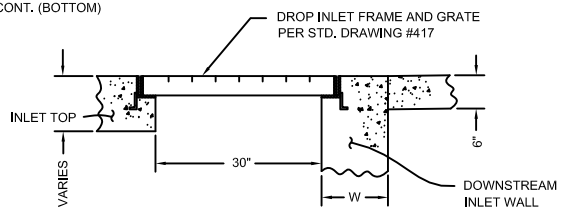
DETAIL "A"



SECTION B-B



PIPE AND DROP INLET
JUNCTION WALL DETAIL



SECTION C-C

NOTES:

1. ALL REBAR SHALL HAVE 2-1/2" COVER U.O.N.
2. ALL CONCRETE SHALL BE CLASS DA 4000 PSI.
3. SEE PLANS FOR LENGTH (L) AND DEPTH (H) OF EACH INLET.
4. SEE PLANS FOR SIZE AND LOCATION OF OUTLET PIPE.
5. ALL EXPOSED STEEL SHALL BE HOT DIPPED GALVANIZED.
6. ALL DAMAGED GALVANIZED STEEL SHALL BE PAINTED WITH A MINIMUM 3.5 MIL. COAT OF ONE OF THE FOLLOWING ZINC RICH PAINTS:
   GALVONOX TYPE I
   LPS COLD GALVANIZE
   SHERWIN-WILLIAMS "ZINC CLAD I"
7. ALL REBAR SHALL BE GRADE 60.
8. ALL STRUCTURAL STEEL SHALL BE A36.
9. ALL ANCHOR BOLTS SHALL BE A-307.
10. BEDDING FOR DROP INLET SHALL BE 6" MIN. OF TYPE II AGGREGATE BASE COMPACTED TO 95% MAXIMUM DENSITY PER ASTM D1557.

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

MODIFIED TYPE "A" DROP INLET

PAGE NO.

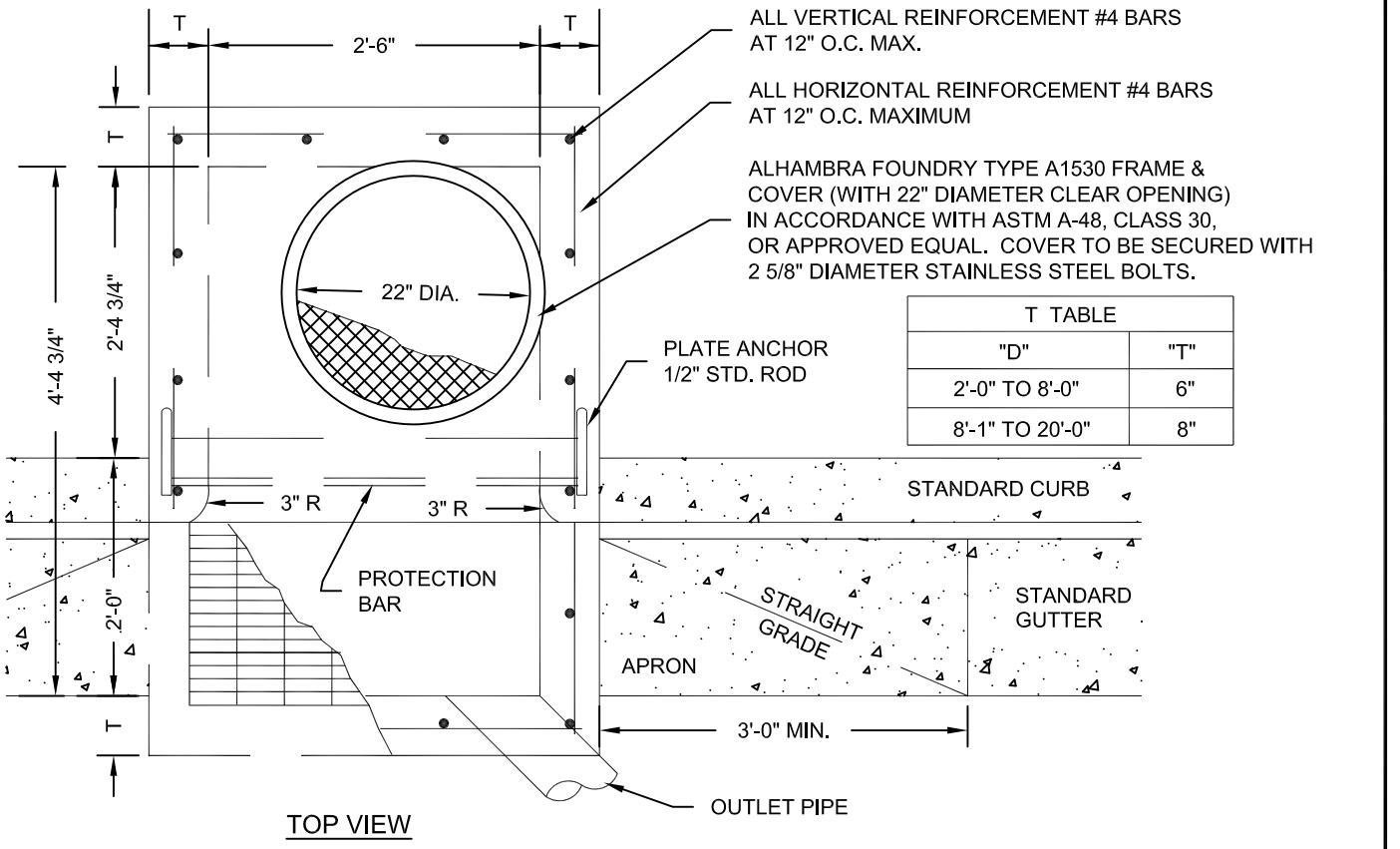
DWG. NO. 411A

DATE 9-14-06

SPECIFICATION REFERENCE

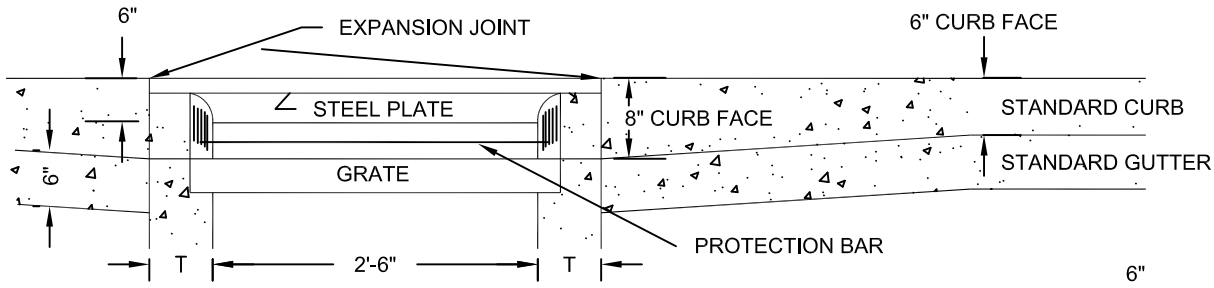
501	CONCRETE
502	CONCRETE STRUCTURES
505	REINFORCING STEEL
713	STEEL

Effective 01/01/09 - 06/30/09

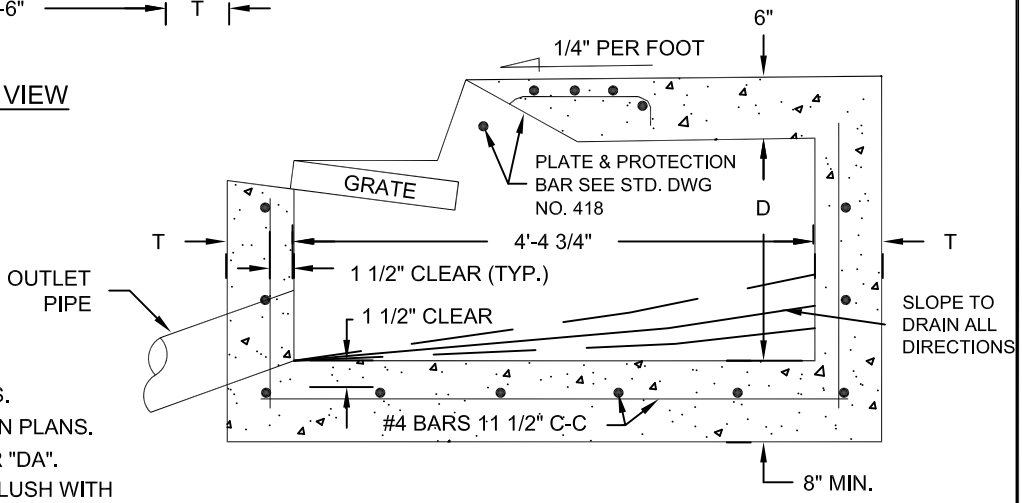


T TABLE	
"D"	"T"
2'-0" TO 8'-0"	6"
8'-1" TO 20'-0"	8"

TOP VIEW



FRONT VIEW



SIDE VIEW

NOTES:

1. DEPTH "D" TO BE SHOWN ON PLANS.
2. OUTLET PIPE SIZE TO BE SHOWN ON PLANS.
3. CONCRETE SHALL BE CLASS "D" OR "DA".
4. OUTLET PIPE SHALL BE TRIMMED FLUSH WITH INSIDE FACE OF INLET.
5. FOR GRATE DETAIL SEE STANDARD DRAWING NO. 417

SPECIFICATION REFERENCE	
501	CONCRETE
502	CONCRETE STRUCTURES
505	REINFORCING STEEL
713	STEEL

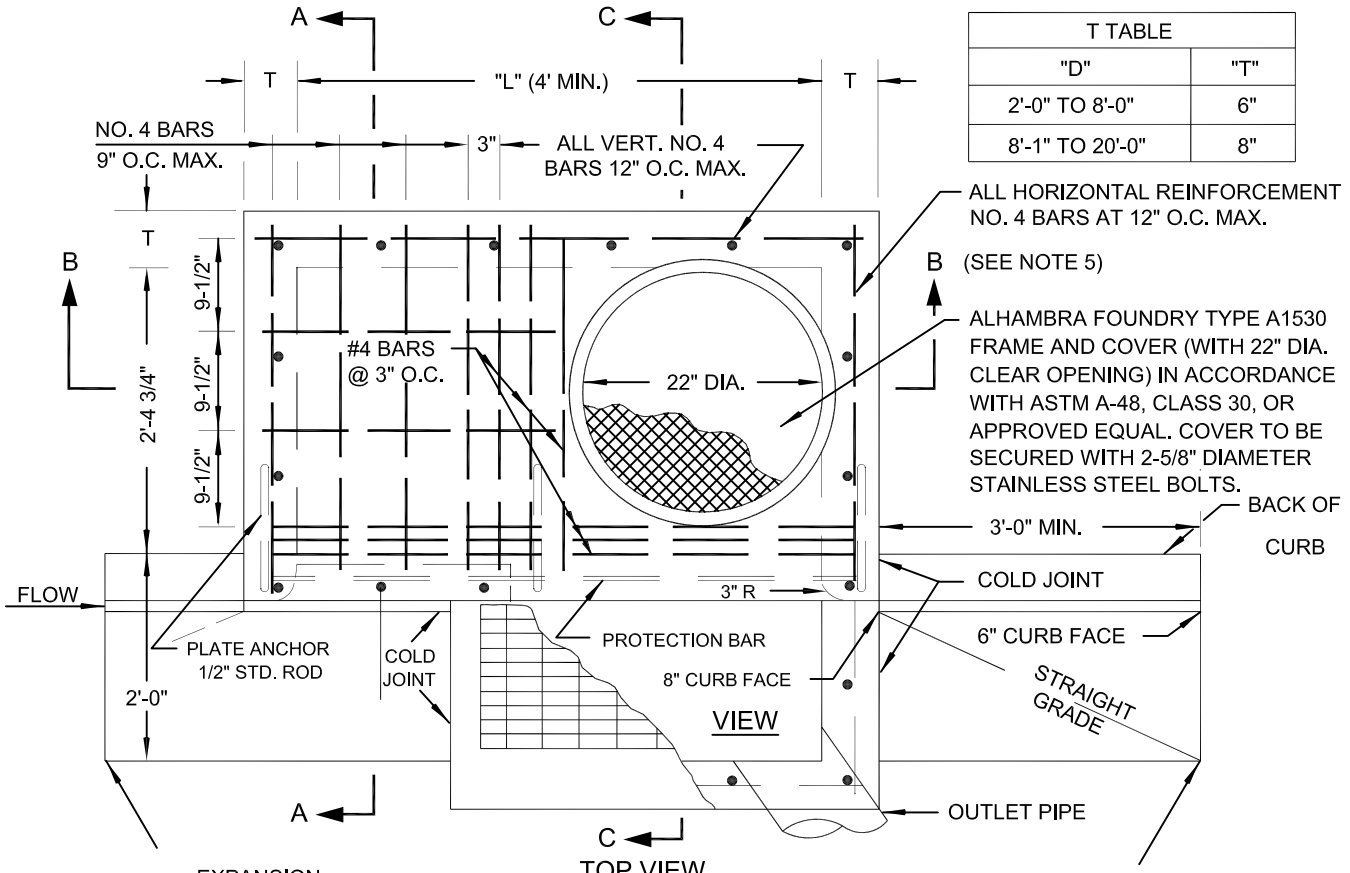
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

DROP INLET TYPE "B"

DATE 4-11-02	DWG. NO. 412	PAGE 112

Effective 01/01/09 - 06/30/09

T TABLE	
"D"	"T"
2'-0" TO 8'-0"	6"
8'-1" TO 20'-0"	8"



NOTES:

1. DEPTH "D" TO BE SHOWN ON PLANS.
2. OUTLET PIPE SIZE TO BE SHOWN ON PLANS.
3. WHEN LENGTH "L" EXCEEDS 4'-0" SUPPORT BOLTS REQUIRED, SEE STANDARD DRAWING NO. 418.
4. FOR GRATE DETAIL SEE STANDARD DRAWING NO. 417.
5. SECTION B-B IS OPTIONAL FOR INLETS WHERE L > 7'-0" AND D > 5'-0", SEE STANDARD DRAWING NO. 415.

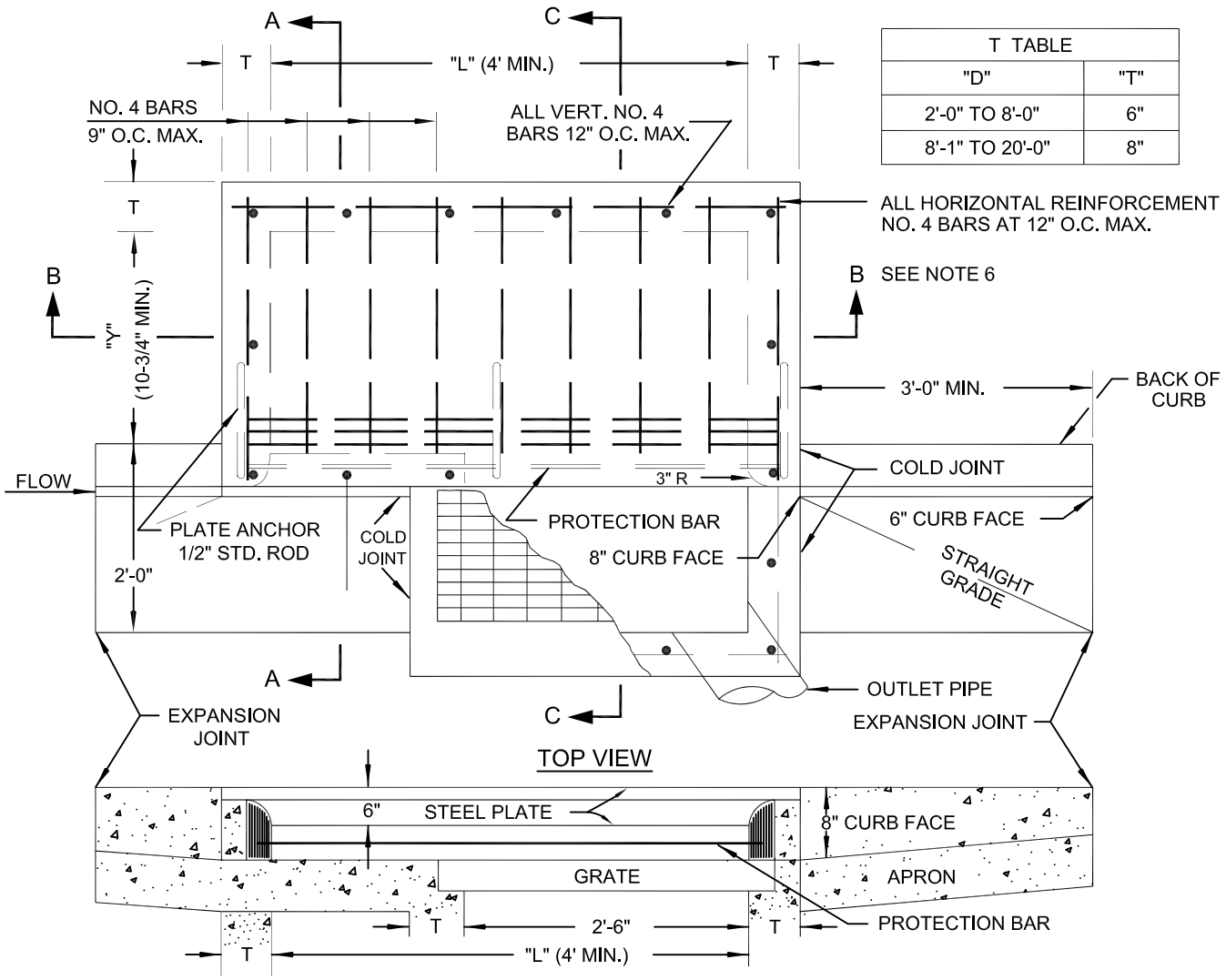
SPECIFICATION REFERENCE	
501	CONCRETE
502	CONCRETE STRUCTURES
505	REINFORCING STEEL
713	STEEL

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

DROP INLET TYPE "C"

DATE 4-11-02	DWG. NO. 413	PAGE NO. 113

Effective 01/01/09 - 06/30/09



T TABLE	
"D"	"T"
2'-0" TO 8'-0"	6"
8'-1" TO 20'-0"	8"

NOTES:

1. DROP INLET TYPE "D" TO BE USED WHEN CONFLICTING UTILITIES ARE LOCATED IN THE SIDEWALK AREA.
2. DEPTH "D" AND DISTANCE "Y" TO BE SHOWN ON PLANS.
3. OUTLET PIPE SIZE TO BE SHOWN ON PLANS.
4. WHEN LENGTH "L" EXCEEDS 4'-0" SUPPORT BOLTS REQUIRED, SEE STANDARD DRAWING NO. 418.
5. FOR GRATE DETAIL SEE STANDARD DRAWING NO. 417.
6. SECTION B-B IS OPTIONAL FOR INLETS WHERE L > 7'-0" AND D > 5'-0", SEE STANDARD DRAWING NO. 415.

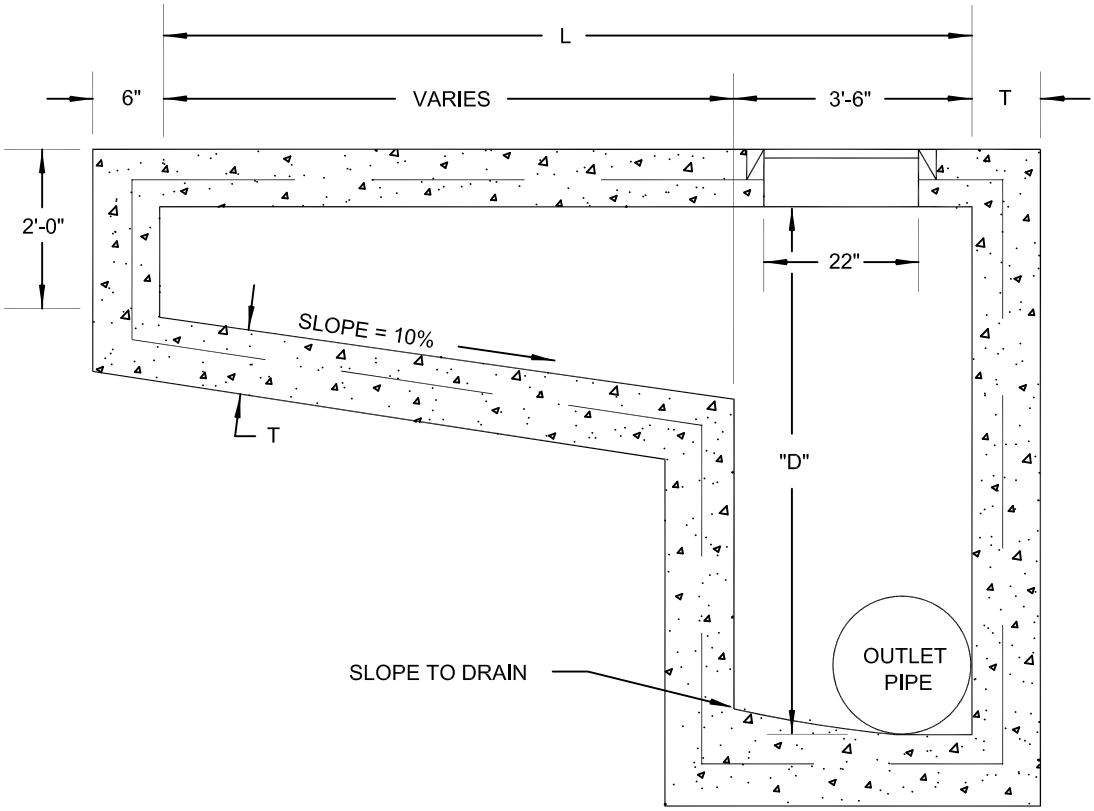
SPECIFICATION REFERENCE	
501	CONCRETE
502	CONCRETE STRUCTURES
505	REINFORCING STEEL
713	STEEL

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

DROP INLET TYPE "D"

DATE 4-11-02	DWG. NO. 414	PAGE NO. 114

Effective 01/01/09 - 06/30/09



SECTION B-B

T TABLE	
"D"	"T"
2'-0" TO 8'-0"	6"
8'-1" TO 20'-0"	8"

NOTES:

1. DEPTH "D" TO BE SHOWN ON PLANS.
2. OUTLET PIPE SIZE TO BE SHOWN ON PLANS.
3. SECTION APPEARS AS SECTION B-B FOR DROP INLET TYPE "A", STANDARD DRAWING NO. 411 AND FOR DROP INLET TYPE "C" STANDARD DRAWING NO. 413.

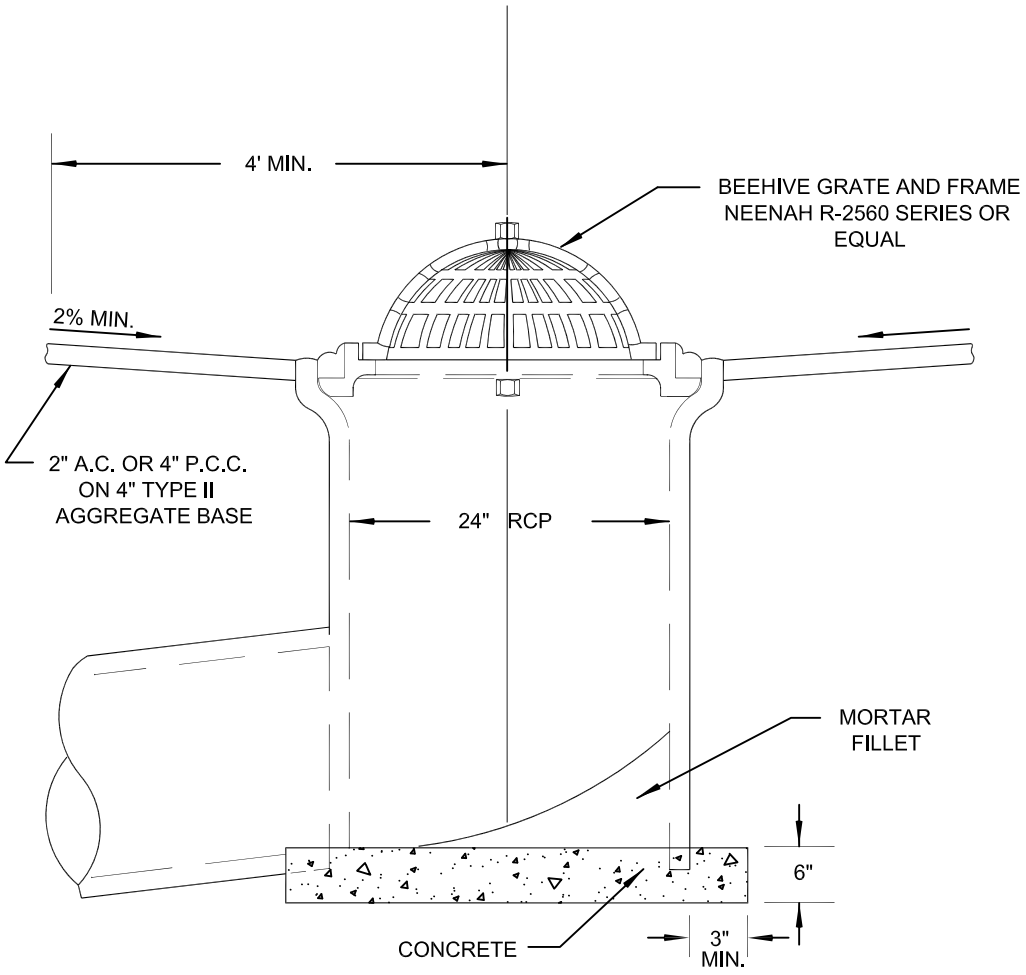
Effective 01/01/09 - 06/30/09

SPECIFICATION REFERENCE	
501	CONCRETE
502	CONCRETE STRUCTURES

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

DROP INLET TYPES "A" AND "B" SPECIAL DESIGN

DATE	DWG. NO. 415	PAGE NO. 115



NOTE:

BEEHIVE DROP INLETS SHALL BE USED AT LOCATIONS APPROVED BY THE ENGINEER.

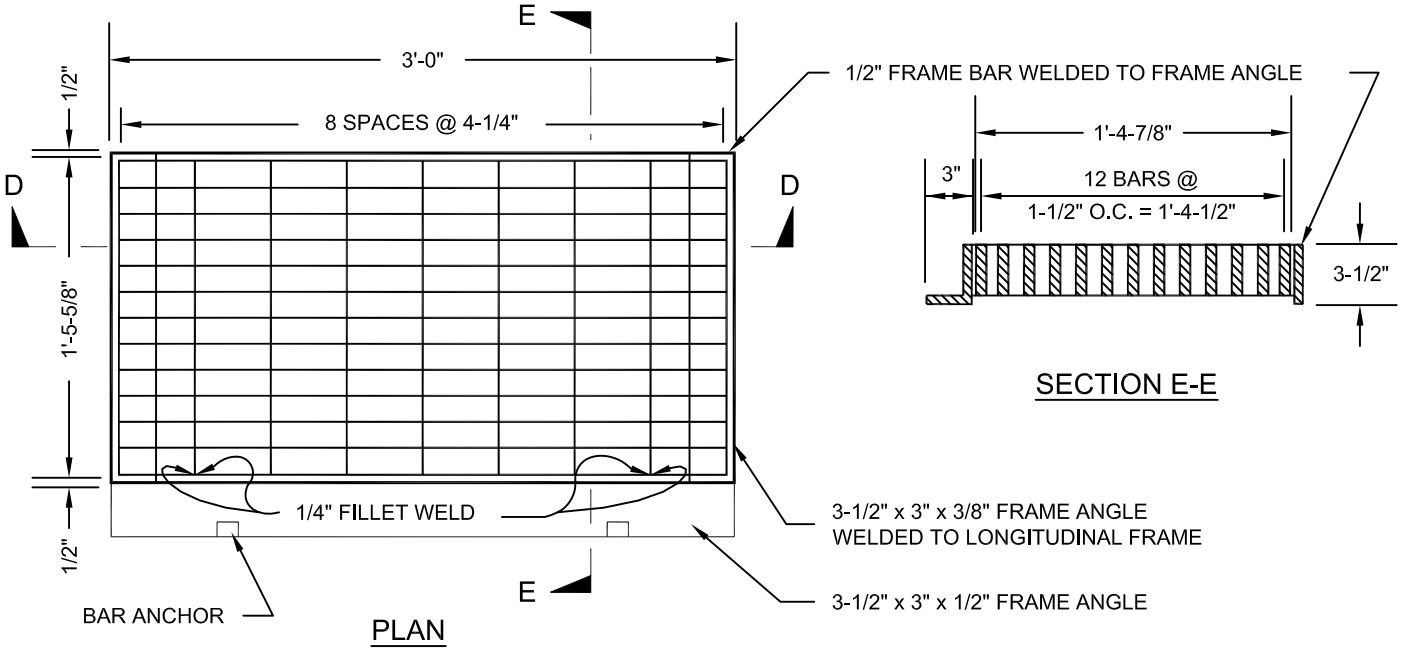
SPECIFICATION REFERENCE	
603	REINFORCED CONCRETE PIPE
712	MISCELLANEOUS METAL

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

BEEHIVE DROP INLET

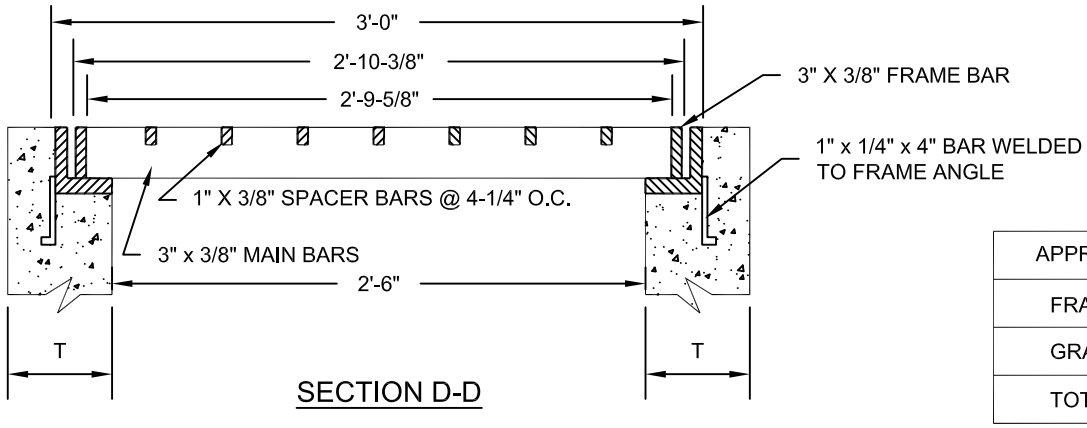
DATE 12-14-00	DWG. NO. 416	PAGE NO. 116

Effective 01/01/09 - 06/30/09



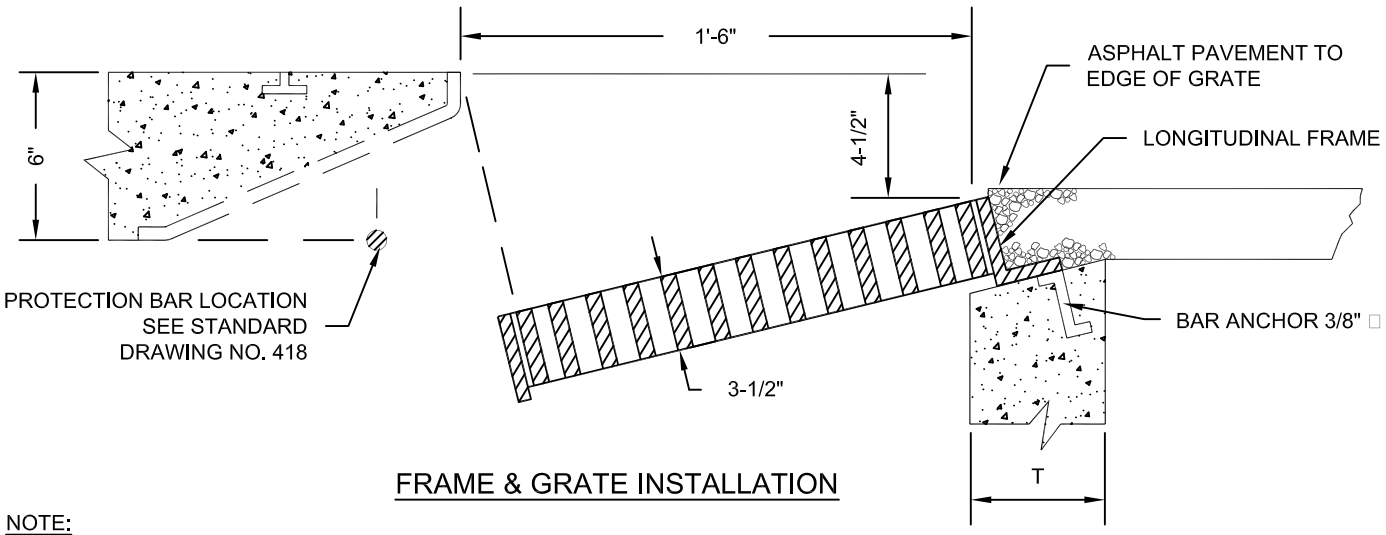
PLAN

SECTION E-E



SECTION D-D

APPROXIMATE WEIGHT	
FRAME	78 LBS.
GRATE	157 LBS.
TOTAL	235 LBS.



FRAME & GRATE INSTALLATION

NOTE:

ALL EXPOSED METAL PARTS SHALL BE GALVANIZED AND ALL GALVANIZING DAMAGED BY FABRICATION OR INSTALLATION SHALL RECEIVE TWO COATS OF ALUMINUM PAINT (GALVONOX OR EQUAL).

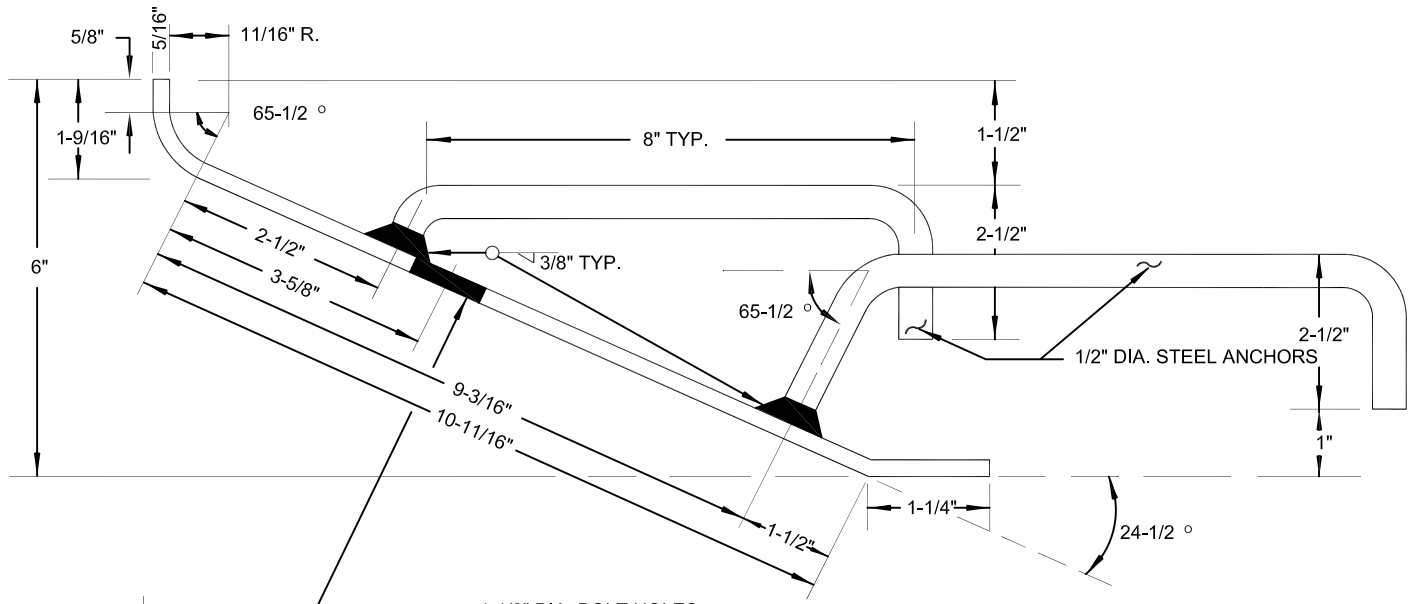
SPECIFICATION REFERENCE	
712	MISCELLANEOUS METAL
714	PAINT
715	GALVANIZING

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

DROP INLET
FRAME AND GRATE

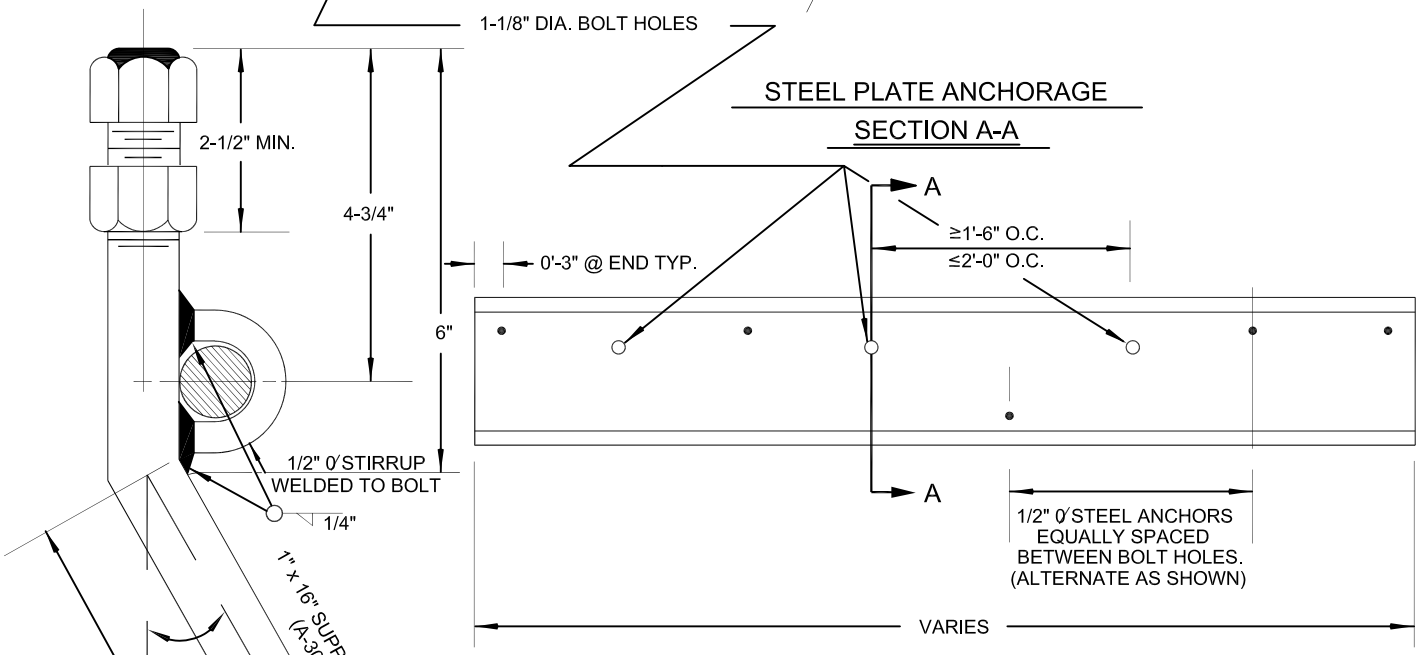
DATE 10-14-99	DWG. NO. 417	PAGE 117

Effective 01/01/09 - 06/30/09

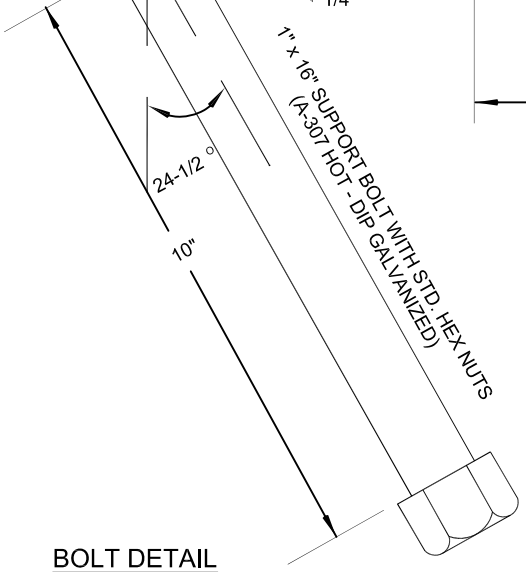


STEEL PLATE ANCHORAGE

SECTION A-A



BOLT HOLE AND BAR SPACING DETAIL



BOLT DETAIL

NOTE:

FOR STEEL PLATE AND PROTECTION BAR DETAILS, SEE STANDARD DRAWING NO. 419.

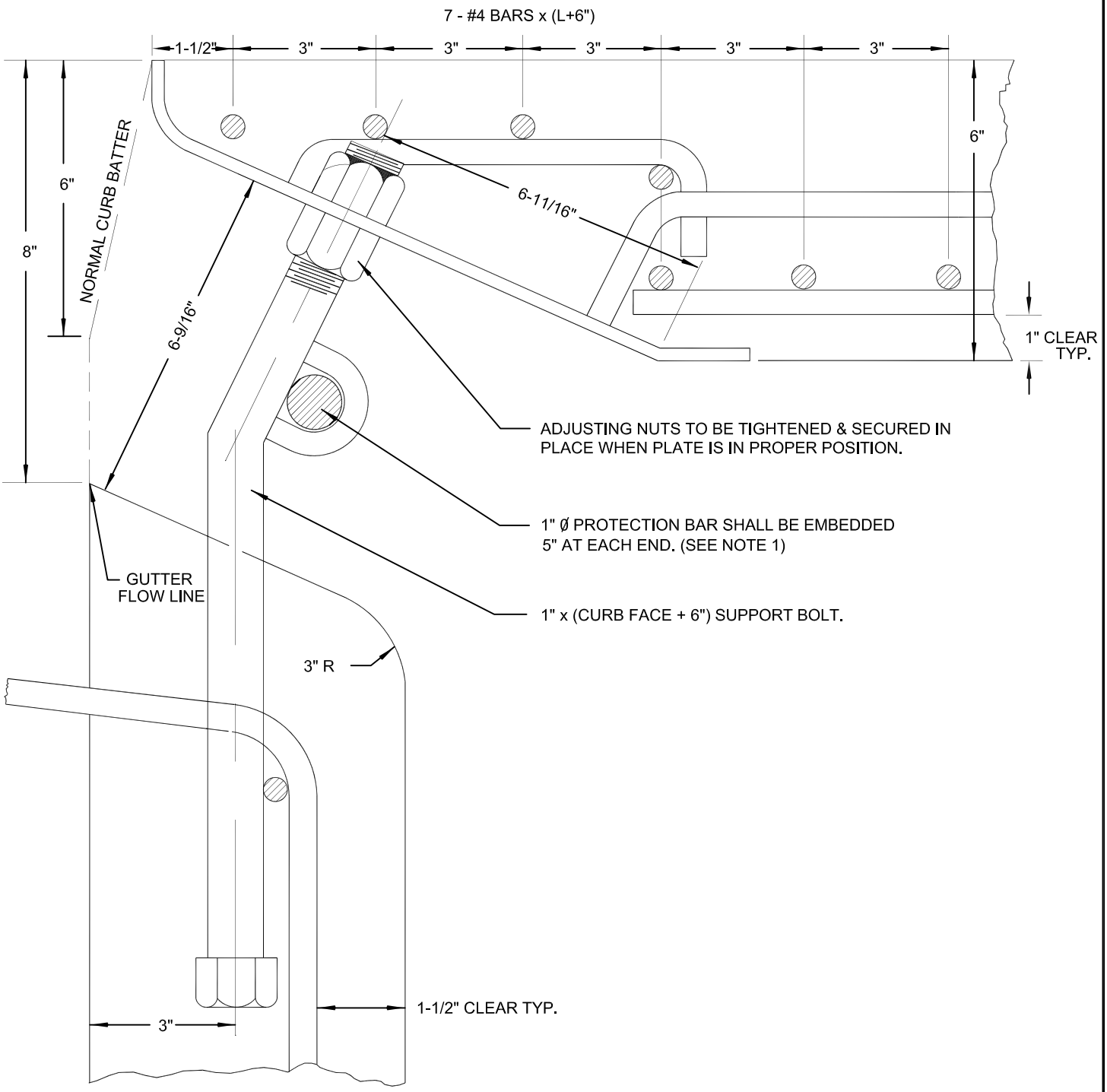
SPECIFICATION REFERENCE	
710	STRUCTURAL STEEL
713	REINFORCEMENT STEEL
715	GALVANIZING

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

DROP INLET
STEEL PLATE ANCHORAGE

DATE	DWG. NO. 418	PAGE NO. 118

Effective 01/01/09 - 06/30/09



NOTES:

1. PROTECTION BAR SHALL BE REQUIRED ON ALL INLETS AND SHALL BE PLACED PARALLEL TO THE STEEL FACE PLATE.
2. SUPPORT BOLTS SHALL BE EQUALLY SPACED AT NOT MORE THAN 2'-0" O.C. AND NOT LESS THAN 1'-6" O.C.
3. ALL EXPOSED METAL PARTS SHALL BE GALVANIZED AND GALVANIZING DAMAGED BY FABRICATION OR INSTALLATION SHALL RECEIVE TWO COATS OF ALUMINUM PAINT (GALVONOX OR EQUAL).
4. FOR STEEL PLATE ANCHORAGE, SEE STANDARD DRAWING NO. 418.
5. #4 BARS x (L+6") SHALL BE IN ADDITION TO REINFORCING STEEL PER APPLICABLE DROP INLET STANDARD PLAN.

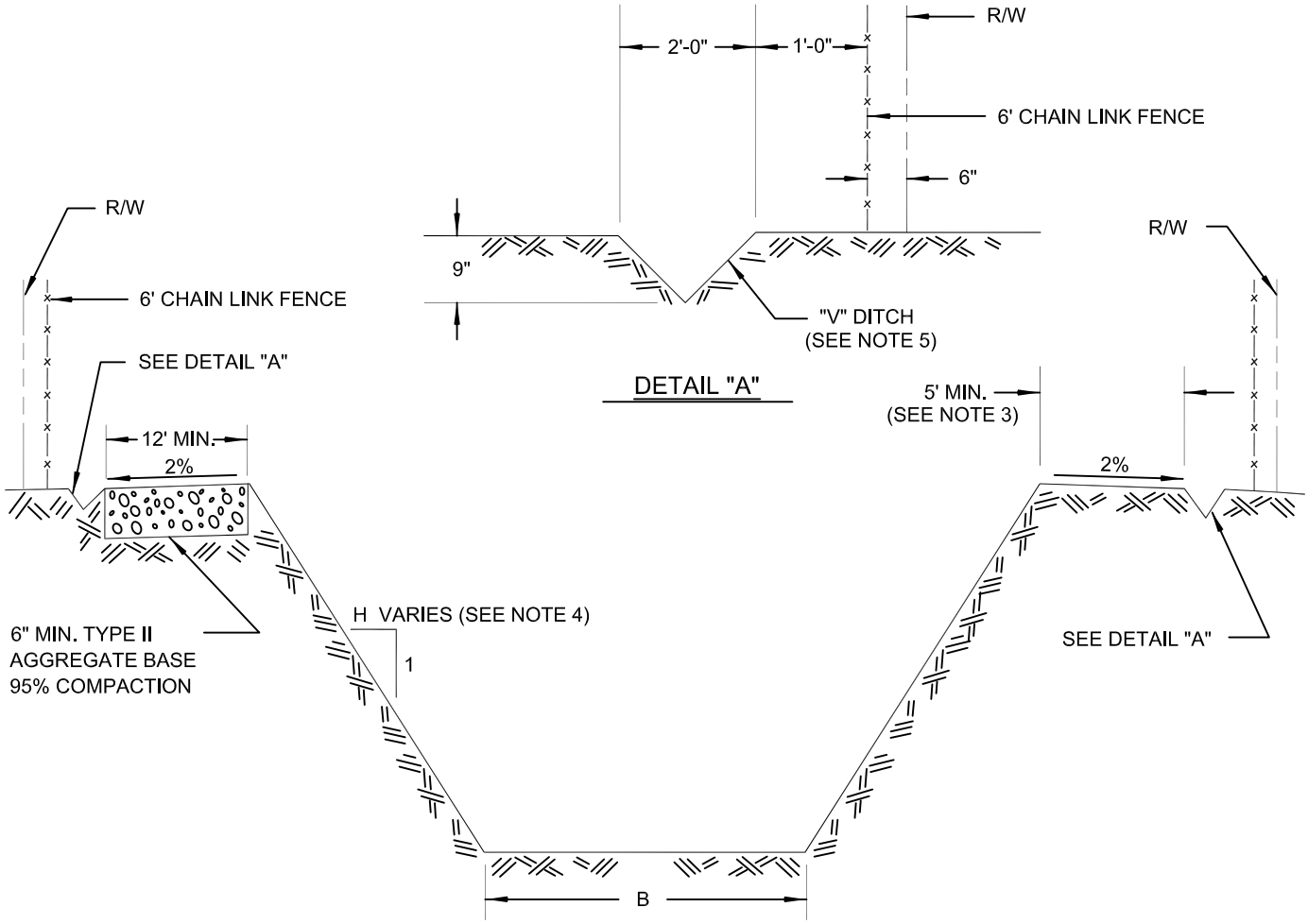
SPECIFICATION REFERENCE	
713	REINFORCEMENT PLATES
714	PAINT
715	GALVANIZING

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

DROP INLET
STEEL PLATE AND PROTECTION BAR

DATE	DWG. NO. 419	PAGE NO. 119

Effective 01/01/09 - 06/30/09

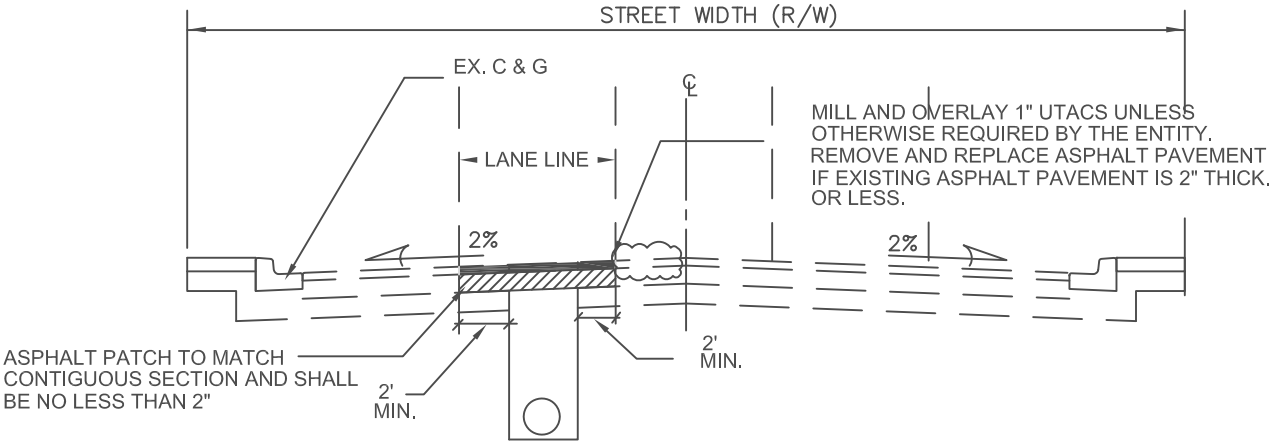


NOTES:

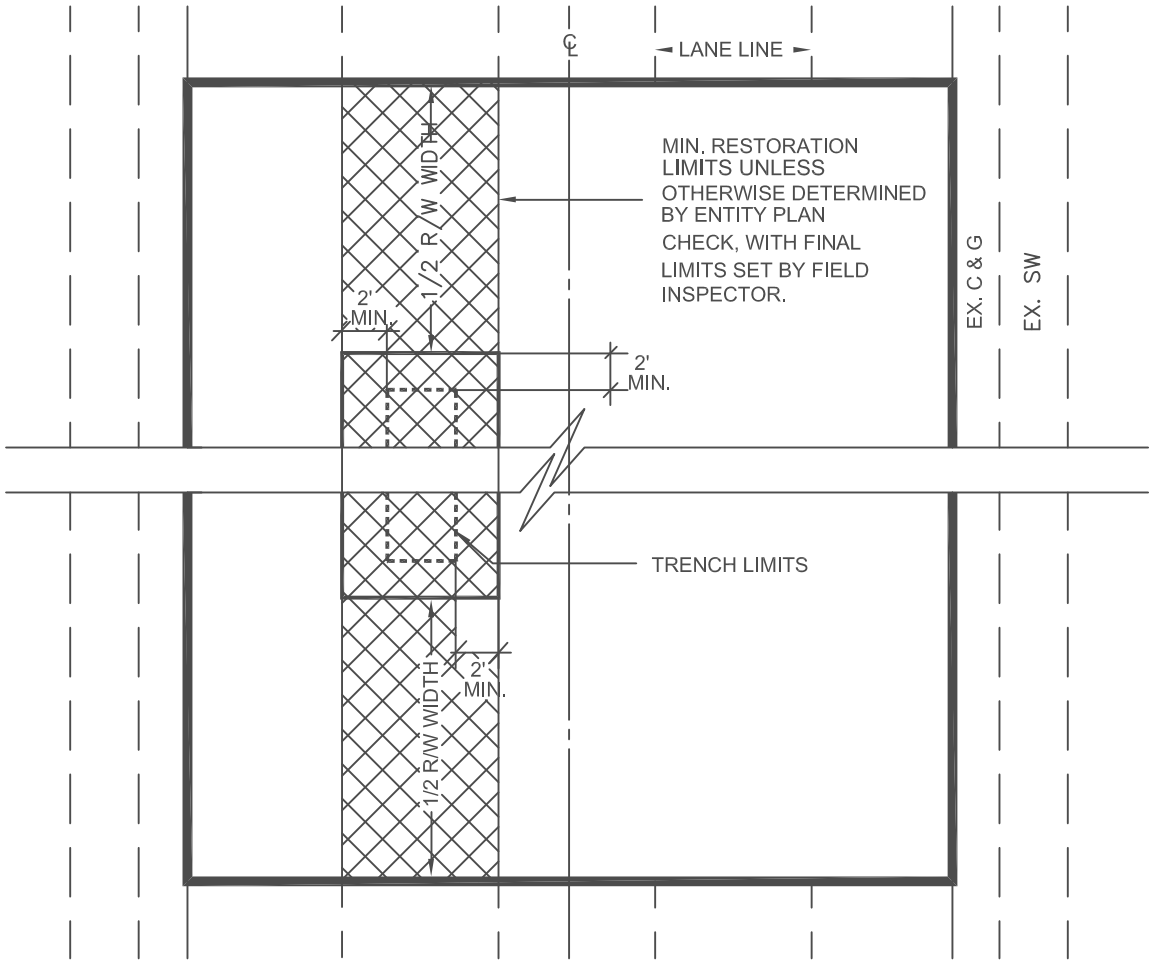
1. CONSTRUCT 14-FOOT WIDE CHAIN LINK GATE AT ALL STREET ACCESS POINTS, FOR ACCESS ONTO 12-FOOT ACCESS ROADS.
2. CONSTRUCT 3-FOOT WIDE CHAIN LINK GATE AT ALL STREET ACCESS POINTS FOR ACCESS ON THE 5-FOOT WIDTH ACCESS SIDE.
3. CONSTRUCT SECOND ACCESS ROAD (12-FOOT MINIMUM WIDTH WITH 6-INCH MIN. TYPE II AGGREGATE BASE) IF B EXCEEDS 30'.
4. FOR UNLINED CHANNELS H 2. ≥
5. "V" DITCH SHALL BE CONSTRUCTED TO PREVENT OVERLAND RUNOFF FROM ERODING SIDES OF BANK. AN ADEQUATE NUMBER OF INLETS ALONG THE "V" DITCH SHALL BE DESIGNED WITH A MINIMUM 12-INCH CMP LATERAL DISCHARGING INTO THE CHANNEL. APPROPRIATE BANK PROTECTION FOR LATERAL PIPE DISCHARGE SHALL BE PROVIDED. OTHER METHODS OF OVERLAND RUNOFF CONTROL MAY BE ACCEPTABLE IF APPROVED BY THE ENGINEER.

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		TYPICAL OPEN CHANNEL		
		DATE	DWG. NO. 420	PAGE NO. 120

Effective 01/01/09 - 06/30/09



LONGITUDINAL CUT RESTORATION



PLAN VIEW

NOTES:

SEE DWG. 500AL SHEET 2 OF 2

SPECIFICATION REFERENCE	
302	AGGREGATE BASE
401	BITUMINOUS PAVEMENT
406	PRIME COAT
407	FOG SEAL
501	CONCRETE

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

0 TO 5 YEARS PAVEMENT RESTORATION LONGITUDINAL CUT

DATE 6-12-08	DWG. NO. 500AL	SHEET 1 OF 2

Effective 01/01/09 - 06/30/09

NOTES:

1. IF THERE IS A MEDIAN, RESTORATION MAY BE LIMITED TO THE AREA BETWEEN C & G AND THE MEDIAN CURB.
2. WHEN EXISTING PAVEMENT IS 2" THICK OR LESS, PAVEMENT WITHIN THE RESTORATION AREA SHALL BE REMOVED AND REPLACED IN KIND AS REQUIRED BY THE ENTITY.
3. IF SAWCUT LINE IS WITHIN FIVE FEET OF EDGE OF EXISTING ASPHALT CONCRETE SURFACE OR EXISTING SAWCUT LINE, MILL AND OVERLAY OR REPLACE TO THAT EDGE.
4. PAVEMENT RESTORATION AREA SAWCUT LINES SHALL NOT FALL WITHIN STREET INTERSECTION.
5. IF CUT IS WITHIN A LANE , PAVEMENT RESTORATION MUST EXTEND TO THE NEXT LANE LINE.
6. THE ENTITY'S REQUIREMENTS TAKE PRECEDENCE OVER ANY MINIMUM REQUIREMENTS SHOWN HEREON.

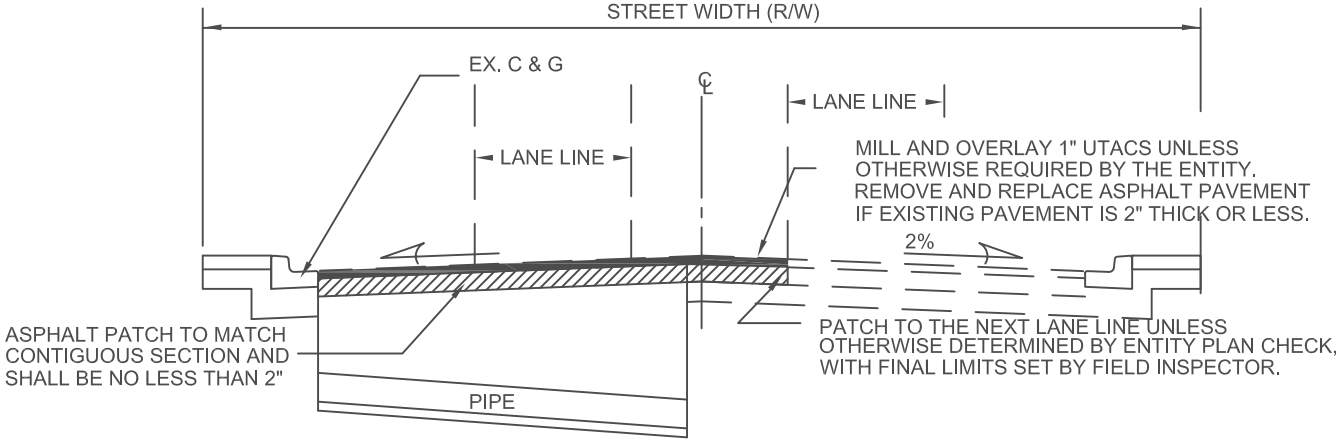
SPECIFICATION REFERENCE	
302	AGGREGATE BASE
401	BITUMINOUS PAVEMENT
406	PRIME COAT
407	FOG SEAL
501	CONCRETE

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

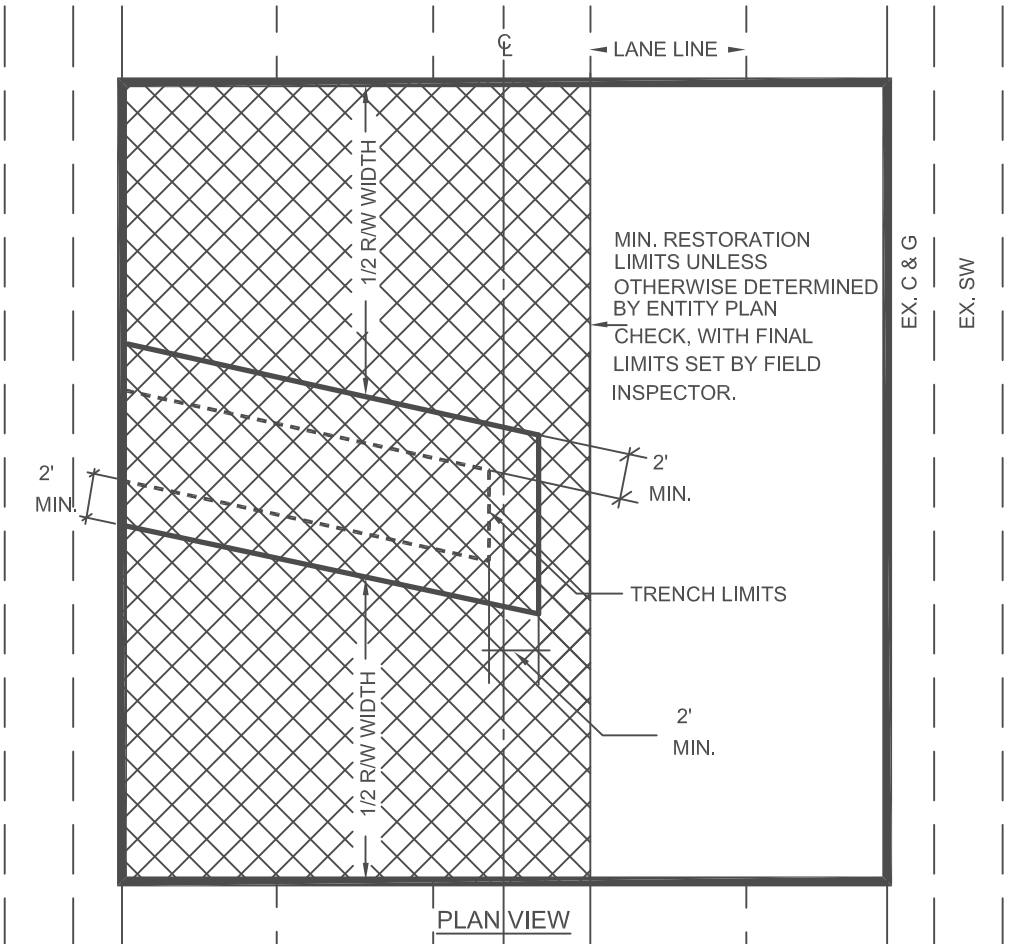
0 TO 5 YEARS
PAVEMENT RESTORATION
LONGITUDINAL CUT

DATE 6-12-08	DWG. NO. 500AL	SHEET 2 OF 2

Effective 01/01/09 - 06/30/09



TRANSVERSE CUT RESTORATION



PLAN VIEW

NOTES:

1. IF THERE IS MEDIAN, RESTORATION MAY BE LIMITED TO THE AREA BETWEEN C&G TO CURB OF MEDIAN.
2. IF SAWCUT LINE IS WITHIN FIVE FEET OF EDGE OF EXISTING ASPHALT CONCRETE SURFACE OR EXISTING SAWCUT LINE, MILL AND OVERLAY OR REPLACE TO THAT EDGE.
3. WHEN EXISTING PAVEMENT IS LESS 2" THICK OR LESS, PAVEMENT WITHIN THE RESTORATION AREA SHALL BE REMOVED AND REPLACED IN KIND AS REQUIRED BY THE ENTITY.
4. PAVEMENT RESTORATION AREA SAWCUT LINES SHALL NOT FALL WITHIN STREET INTERSECTION.
5. IF CUT IS WITHIN A LANE, PAVEMENT RESTORATION MUST EXTEND TO THE NEXT LANE LINE.
6. THE ENTITY'S REQUIREMENTS TAKE PRECEDENCE OVER ANY MINIMUM REQUIREMENTS SHOWN HEREON.

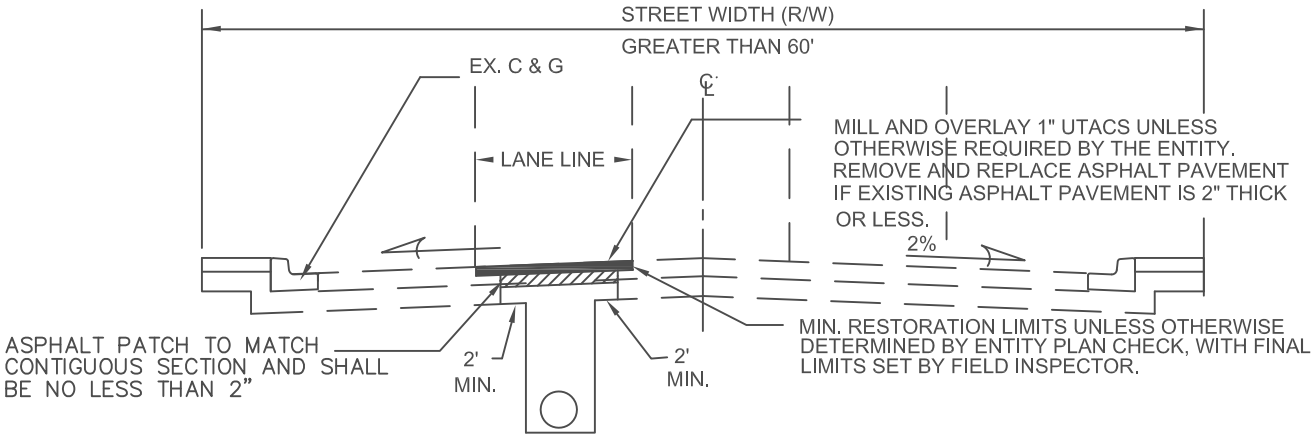
SPECIFICATION REFERENCE	
302	AGGREGATE BASE
401	BITUMINOUS PAVEMENT
406	PRIME COAT
407	FOG SEAL
501	CONCRETE

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

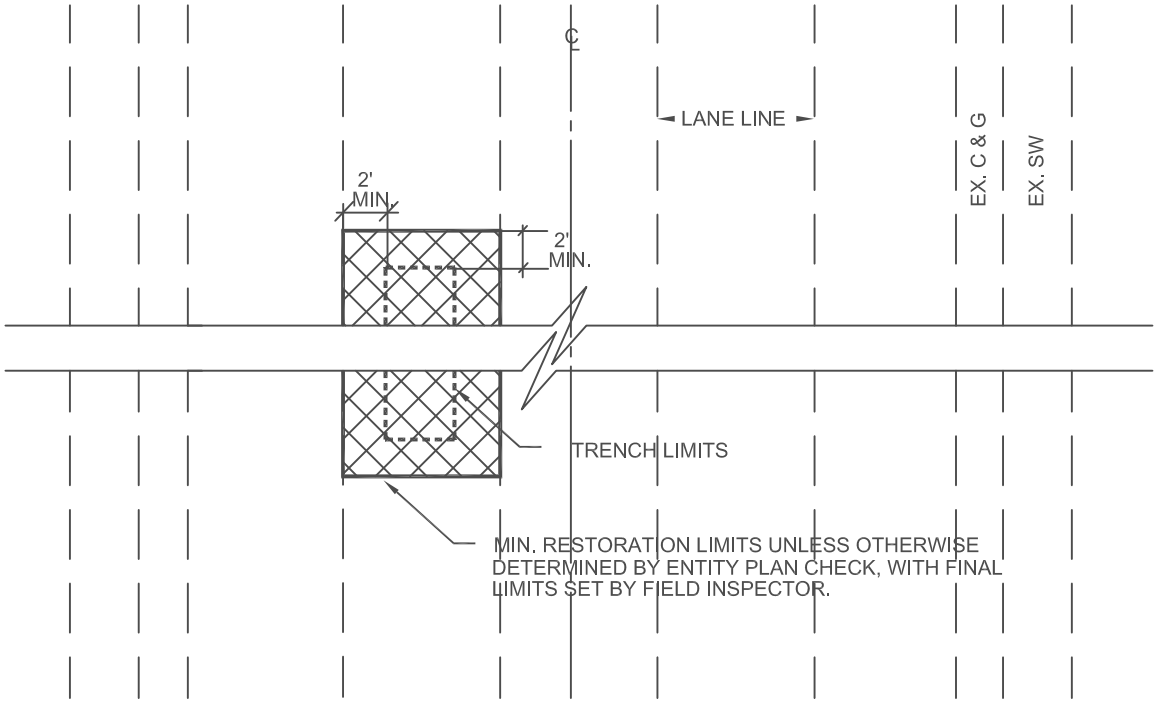
0 TO 5 YEARS
PAVEMENT RESTORATION
TRANSVERSE CUT

DATE 6-12-08 | DWG. NO. 500 AT

Effective 01/01/09 - 06/30/09



LONGITUDINAL CUT RESTORATION



PLAN VIEW

NOTES:

1. IF CUT IS WITHIN A LANE, PAVEMENT RESTORATION MUST EXTEND TO THE NEXT LANE LINE.
2. THE ENTITY'S REQUIREMENTS TAKE PRECEDENCE OVER ANY MINIMUM REQUIREMENTS SHOWN HEREON.

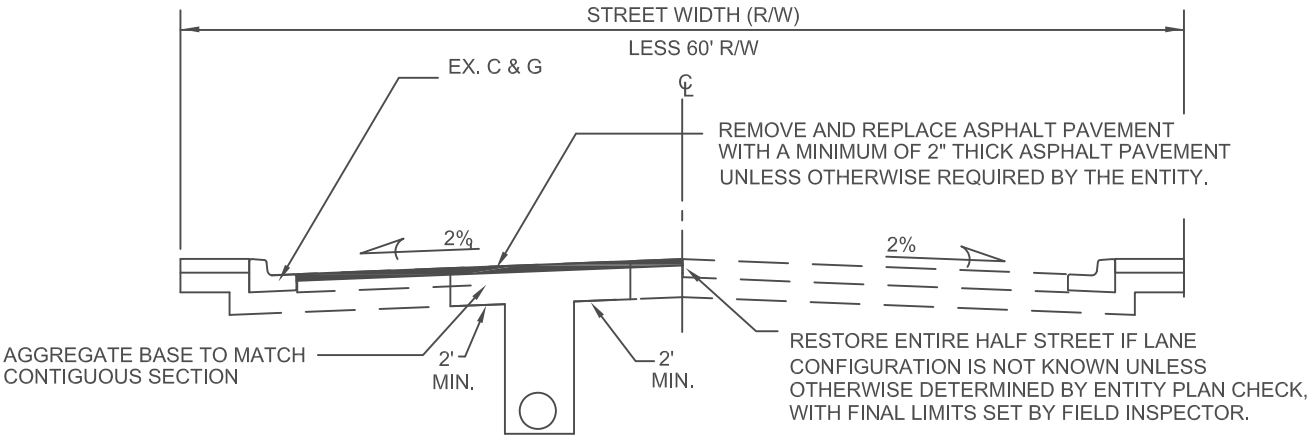
SPECIFICATION REFERENCE	
302	AGGREGATE BASE
401	BITUMINOUS PAVEMENT
406	PRIME COAT
407	FOG SEAL
501	CONCRETE

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

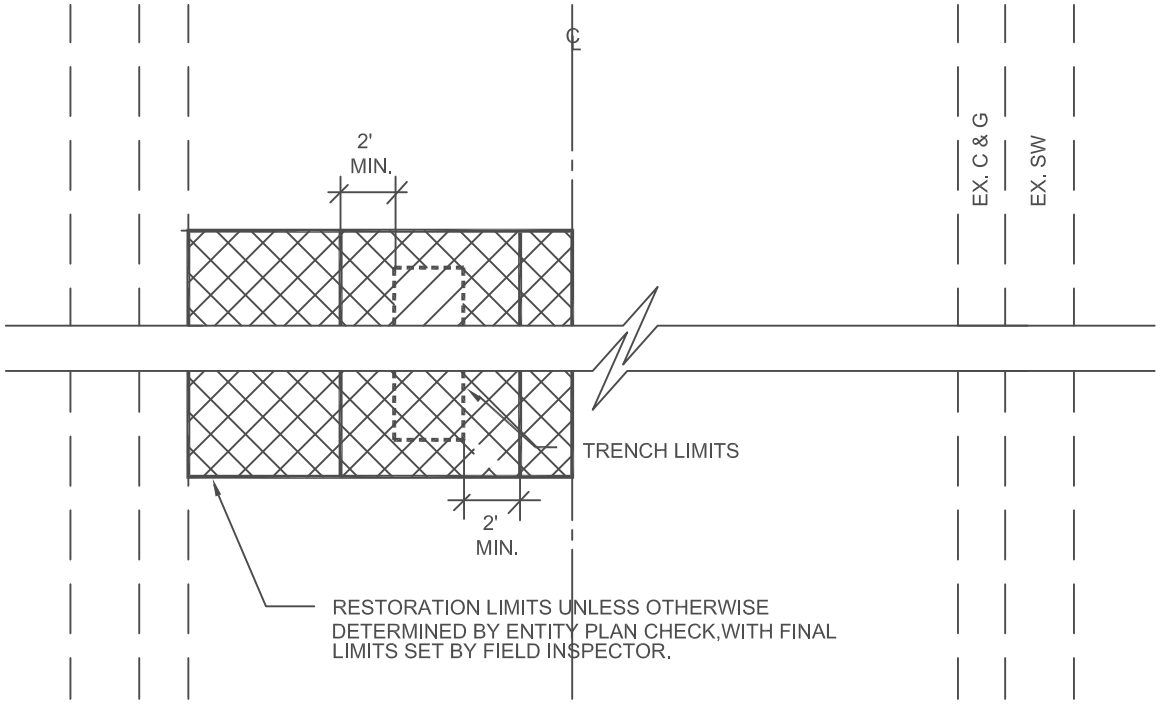
OVER 5 YEARS PAVEMENT RESTORATION - LONGITUDINAL CUT- GREATER THAN 60' R/W

DATE 6-12-08 | DWG. NO. 500BL1

Effective 01/01/09 - 06/30/09



LONGITUDINAL CUT RESTORATION



PLAN VIEW

NOTES:

1. IF CUT IS WITHIN A LANE, PAVEMENT RESTORATION MUST EXTEND TO THE NEXT LANE LINE.
2. THE ENTITY'S REQUIREMENTS TAKE PRECEDENCE OVER ANY MINIMUM REQUIREMENTS SHOWN HEREON.

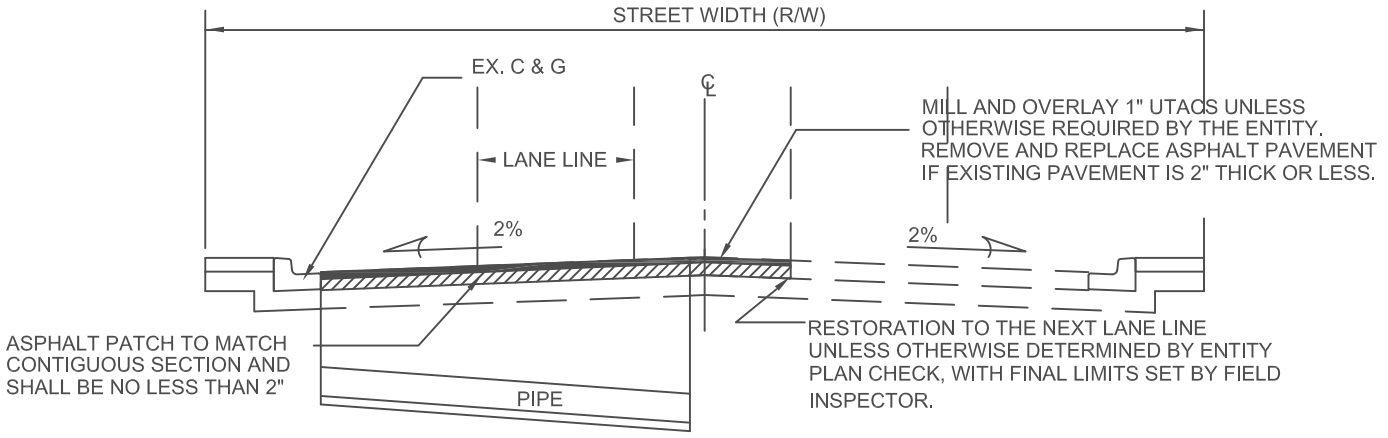
SPECIFICATION REFERENCE	
302	AGGREGATE BASE
401	BITUMINOUS PAVEMENT
406	PRIME COAT
407	FOG SEAL
501	CONCRETE

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

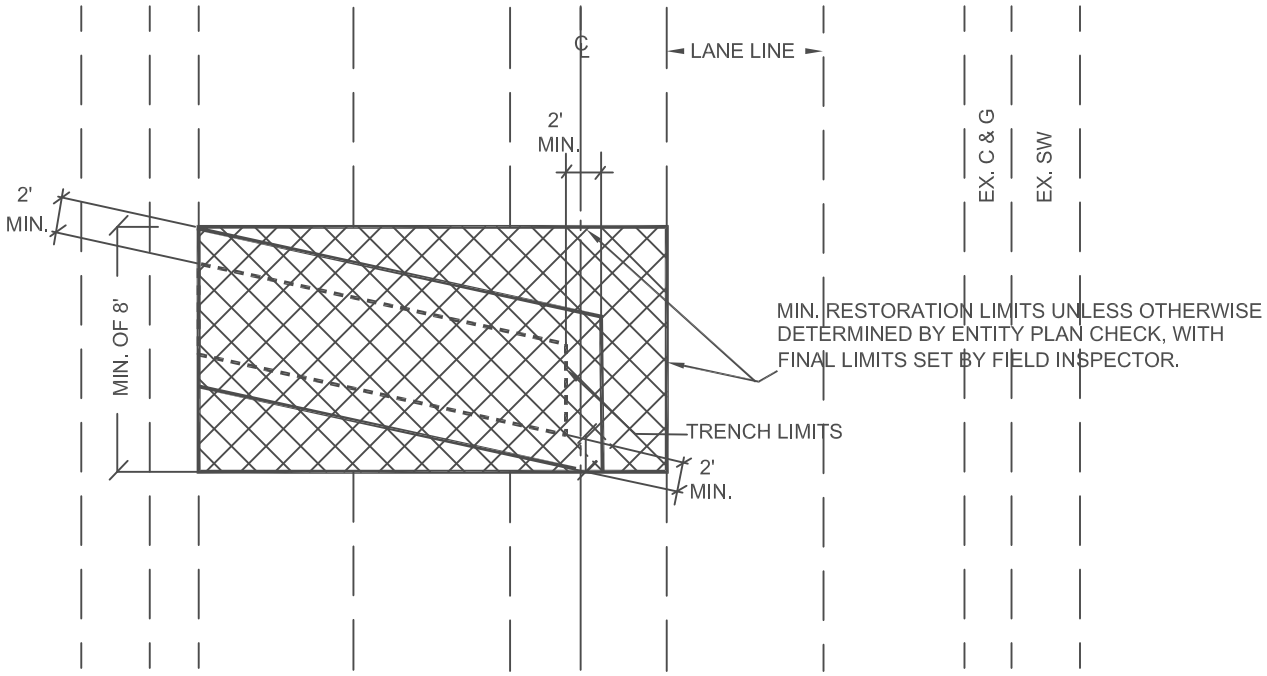
OVER 5 YEARS
PAVEMENT RESTORATION
LONGITUDINAL CUT - 60' R/W OR LESS

DATE 6-12-08 | DWG. NO. 500BL2

Effective 01/01/09 - 06/30/09



TRANSVERSE CUT RESTORATION



PLAN VIEW

NOTES:

1. IF CUT IS WITHIN A LANE, PAVEMENT RESTORATION MUST EXTEND TO THE NEXT LANE LINE.
2. THE ENTITY'S REQUIREMENTS TAKE PRECEDENCE OVER ANY MINIMUM REQUIREMENTS SHOWN HEREON.

SPECIFICATION REFERENCE	
302	AGGREGATE BASE
401	BITUMINOUS PAVEMENT
406	PRIME COAT
407	FOG SEAL
501	CONCRETE

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

OVER 5 YEARS PAVEMENT RESTORATION TRANSVERSE CUT ALL R/W WIDTHS

DATE 6-12-08 | DWG. NO. 500BT

Effective 01/01/09 - 06/30/09

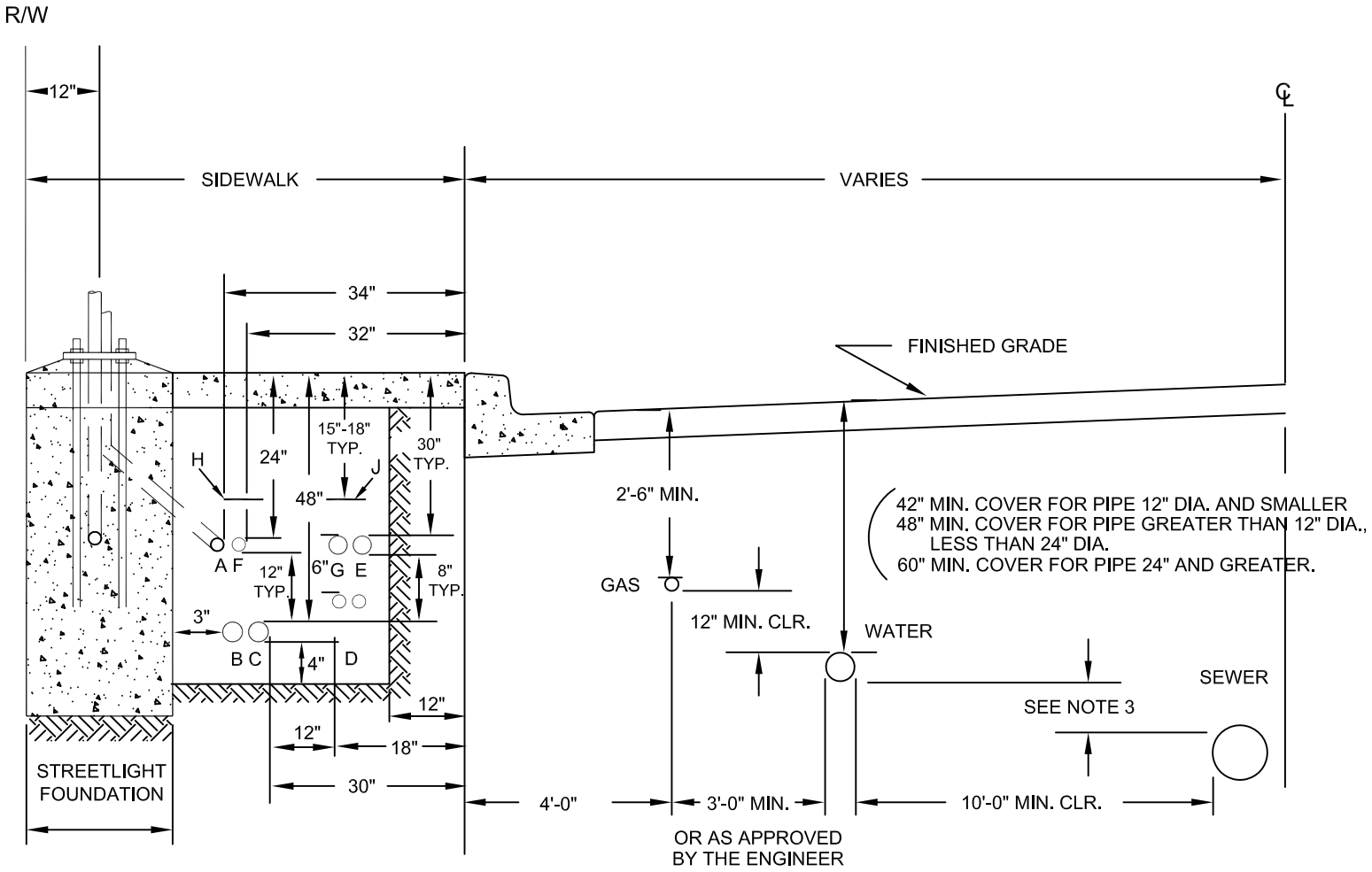
SPECIFICATION REFERENCE

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

TYPICAL UNDERGROUND UTILITY LOCATIONS IN RESIDENTIAL STREETS WITH 60 FEET OR LESS RIGHT-OF-WAY

DATE 2-9-06

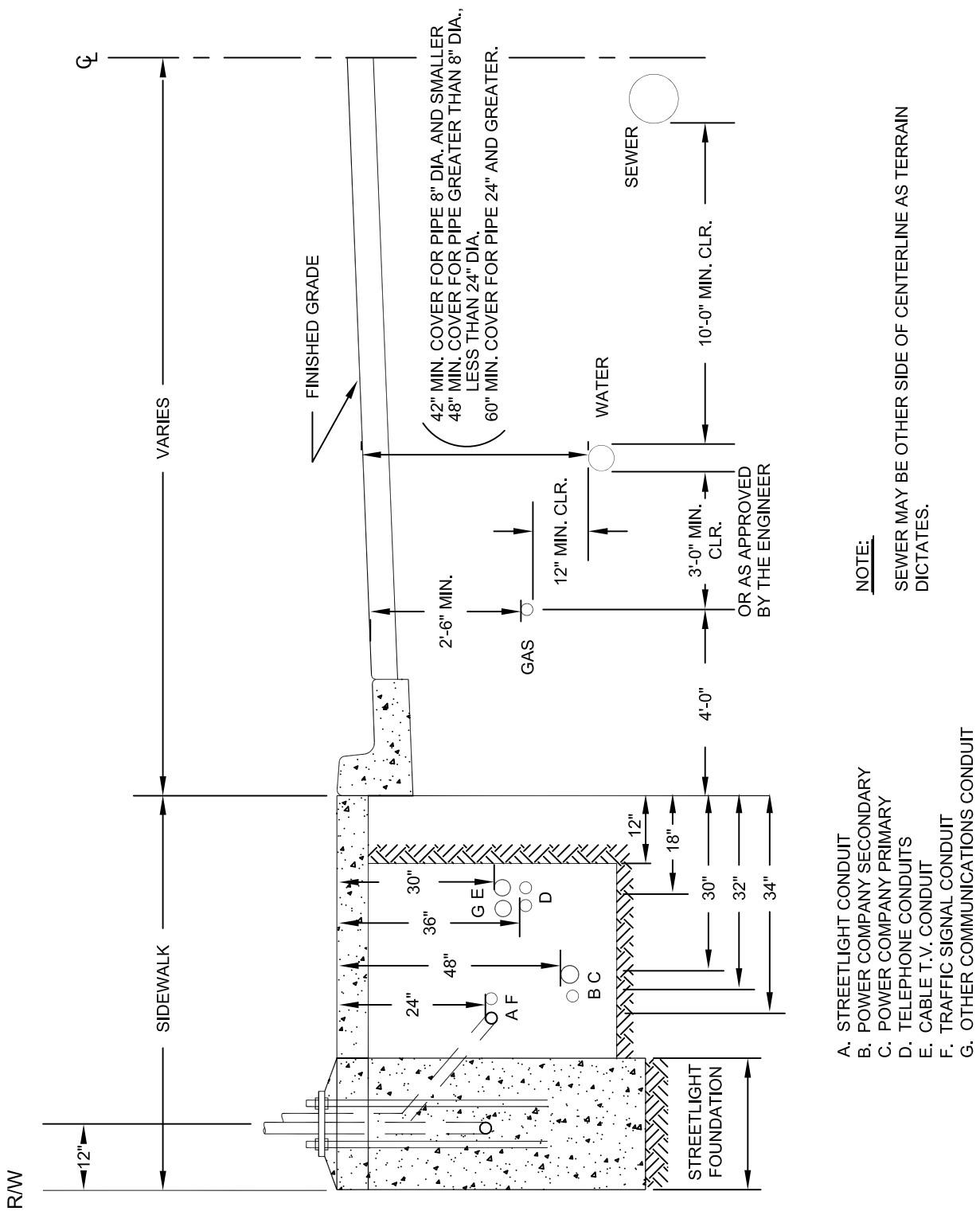
DWG. NO. 501



A. STREETLIGHT CONDUIT
B. POWER COMPANY SECONDARY
C. POWER COMPANY PRIMARY
D. TELEPHONE CONDUITS
E. CABLE T.V. CONDUIT
F. TRAFFIC SIGNAL CONDUIT
G. OTHER COMMUNICATIONS CONDUIT
H. POWER MARKING TAPE
J. TELEPHONE MARKING TAPE

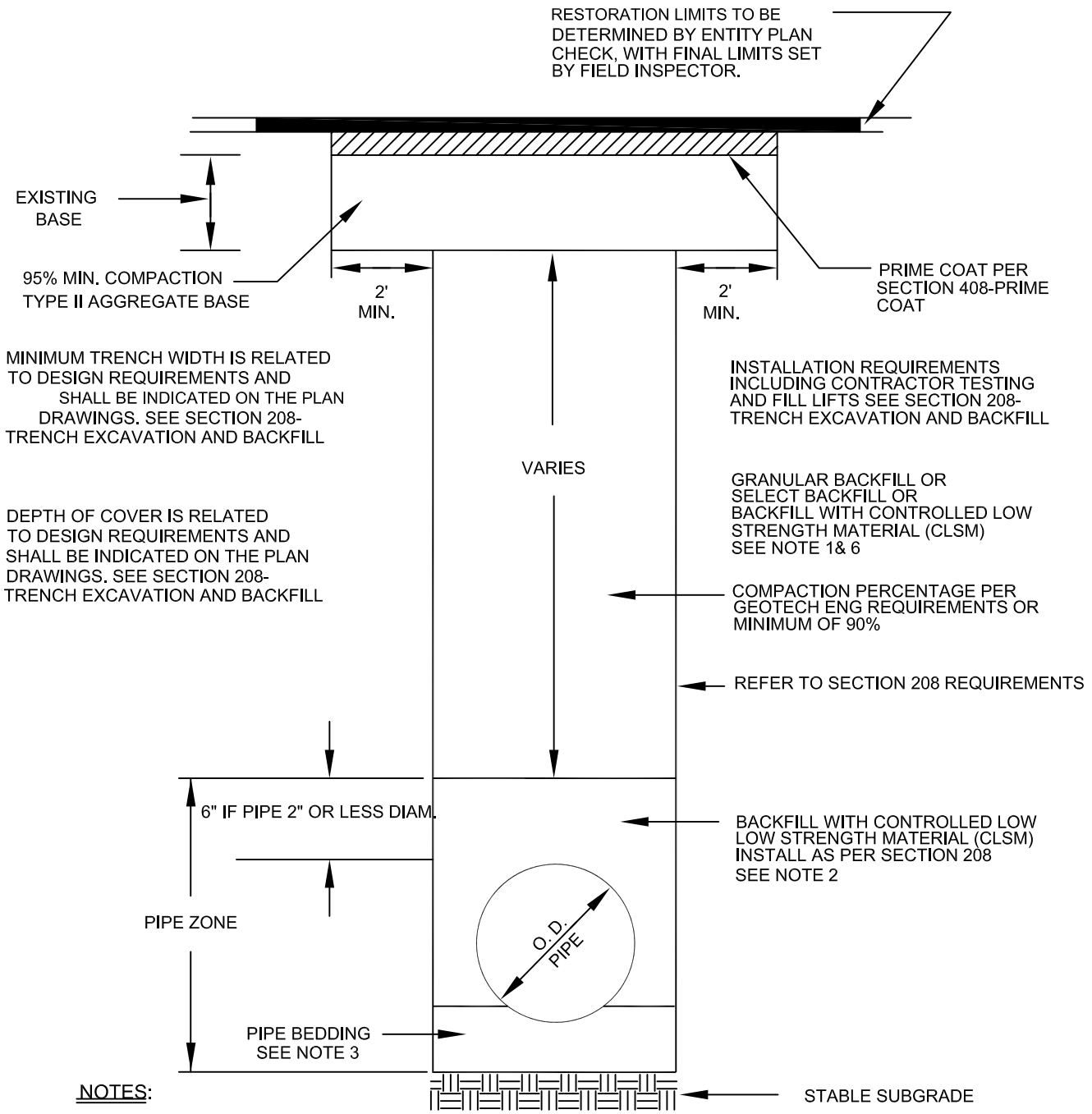
NOTES:

1. SEWER MAY BE LOCATED ON OTHER SIDE OF CENTERLINE AS TERRAIN DICTATES.
2. STREETLIGHT FOUNDATIONS SHALL BE LOCATED BEHIND SIDEWALK FOR SIDEWALK WIDTHS LESS THAN 5 FEET PER STANDARD DRAWING NO. 320.
3. SEPARATION DISTANCE SHALL CONFORM TO UTILITY STANDARDS ADOPTED BY THE GOVERNING AGENCY FOR SEWER AND WATER FACILITIES.
4. STREET CONSTRUCTION SHALL CONFORM TO THE DESIGNED PLANS.
5. UTILITY CONSTRUCTION BACKFILL SHALL CONFORM TO SECTION 208.
6. UTILITY LINES SHALL BE RE-ROUTED IF DROP INLET IS IN CONFLICT.
7. WATER TRANSMISSION MAIN SEPARATION SHALL BE REFFERRED TO WATER PURVEYOR GUIDELINES.



SPECIFICATION REFERENCE	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
	TYPICAL UNDERGROUND UTILITY LOCATIONS IN STREETS WITH GREATER THAN 60 FEET RIGHT-OF-WAY
	DATE 2-9-06 | DWG. NO. 501A

Effective 01/01/09 - 06/30/09



NOTES:

1. NO STONES OR LUMPS GREATER THAN 3" PERMITTED IN TRENCH 2' OR LESS IN WIDTH.
2. TRENCH WIDTH, BEDDING, SUBGRADE AND PIPE ZONE REQUIREMENTS FOR UTILITY INSTALLATIONS SHALL CONFORM TO THE RESPECTIVE ENTITY REQUIREMENTS.
3. CRUSHED ROCK MAY BE USED FOR PIPE BEDDING ONLY IF MATERIAL USE HAS BEEN SPECIFICALLY APPROVED BY THE GOVERNING AGENCY. SEE STANDARD DRAWING NO. 505 FOR PIPE BEDDING METHODS.
4. LAS VEGAS VALLEY WATER DISTRICT REQUIRES PIPE BEDDING AND BACKFILL WITHIN THE PIPE ZONE TO BE OF THE SAME MATERIAL.
5. A ONE INCH MAXIMUM LEVELING COURSE IS PERMITTED WHEN APPROVED BY THE ENGINEER.
6. CONTROLLED LOW STRENGTH MATERIALS (CLSM) SHALL BE USED IN THE UPPER 24" WITH RIGHT-OF-WAYS 80 FEET OR GREATER. TRENCH WIDTHS 24" OR LESS SHALL BE BACKFILLED WITH CLSM IN THE TRENCH ZONE.

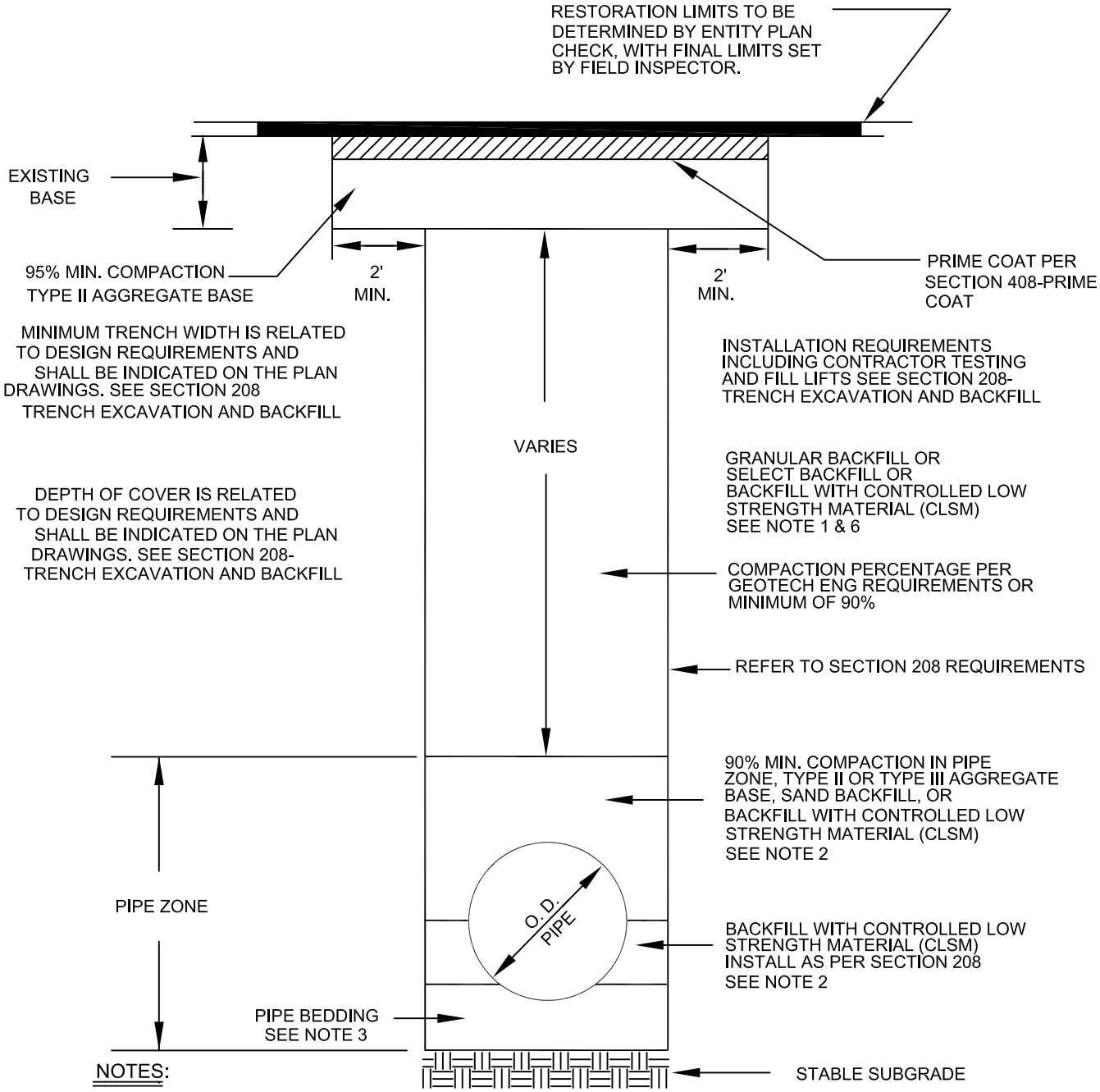
SPECIFICATION REFERENCE	
208	TRENCH EXCAVATION & BACKFILL
302	AGGREGATE BASE COURSES

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

METHOD A FOR FLEXIBLE PIPE TRENCH BACKFILL - PAVED AREAS

DATE 6-12-08 | DWG. NO. 503A

Effective 01/01/09 - 06/30/09



NOTES:

1. NO STONES OR LUMPS GREATER THAN 3" PERMITTED IN TRENCH 2' OR LESS IN WIDTH.
2. TRENCH WIDTH, BEDDING, SUBGRADE AND PIPE ZONE REQUIREMENTS FOR UTILITY INSTALLATIONS SHALL CONFORM TO THE RESPECTIVE ENTITY REQUIREMENTS.
3. CRUSHED ROCK MAY BE USED FOR PIPE BEDDING ONLY IF MATERIAL USE HAS BEEN SPECIFICALLY APPROVED BY THE GOVERNING AGENCY. SEE STANDARD DRAWING NO. 505 FOR PIPE BEDDING METHODS.
4. LAS VEGAS VALLEY WATER DISTRICT REQUIRES PIPE BEDDING AND BACKFILL WITHIN THE PIPE ZONE TO BE OF THE SAME MATERIAL.
5. A ONE INCH MAXIMUM LEVELING COURSE IS PERMITTED WHEN APPROVED BY THE ENGINEER.
6. CONTROLLED LOW STRENGTH MATERIALS (CLSM) SHALL BE USED IN THE UPPER 12" WITH RIGHT-OF-WAYS 60' FEET OR GREATER.

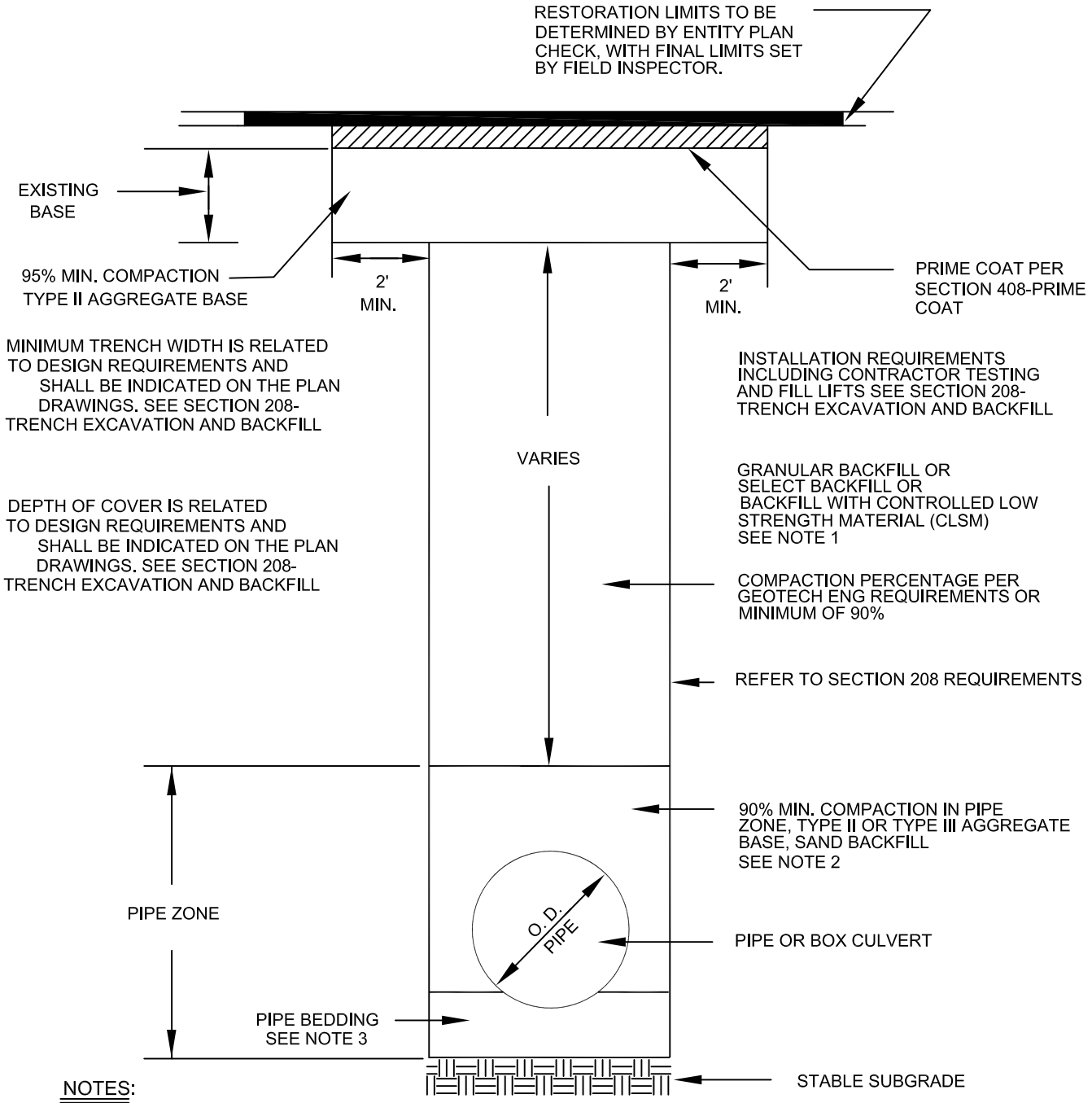
SPECIFICATION REFERENCE	
208	TRENCH EXCAVATION & BACKFILL
302	AGGREGATE BASE COURSES

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

METHOD A/B FOR RIGID PIPE TRENCH BACKFILL – PAVED AREAS

DATE 6-12-08 | DWG. NO. 503AB

Effective 01/01/09 - 06/30/09



NOTES:

1. NO STONES OR LUMPS GREATER THAN 3" PERMITTED IN TRENCH 2' OR LESS IN WIDTH.
2. TRENCH WIDTH, BEDDING, SUBGRADE AND PIPE ZONE REQUIREMENTS FOR UTILITY INSTALLATIONS SHALL CONFORM TO THE RESPECTIVE ENTITY REQUIREMENTS.
3. CRUSHED ROCK MAY BE USED FOR PIPE BEDDING ONLY IF MATERIAL USE HAS BEEN SPECIFICALLY APPROVED BY THE GOVERNING AGENCY. SEE STANDARD DRAWING NO. 505 FOR PIPE BEDDING METHODS.
4. LAS VEGAS VALLEY WATER DISTRICT REQUIRES PIPE BEDDING AND BACKFILL WITHIN THE PIPE ZONE TO BE OF THE SAME MATERIAL.
5. A ONE INCH MAXIMUM LEVELING COURSE IS PERMITTED WHEN APPROVED BY THE ENGINEER.

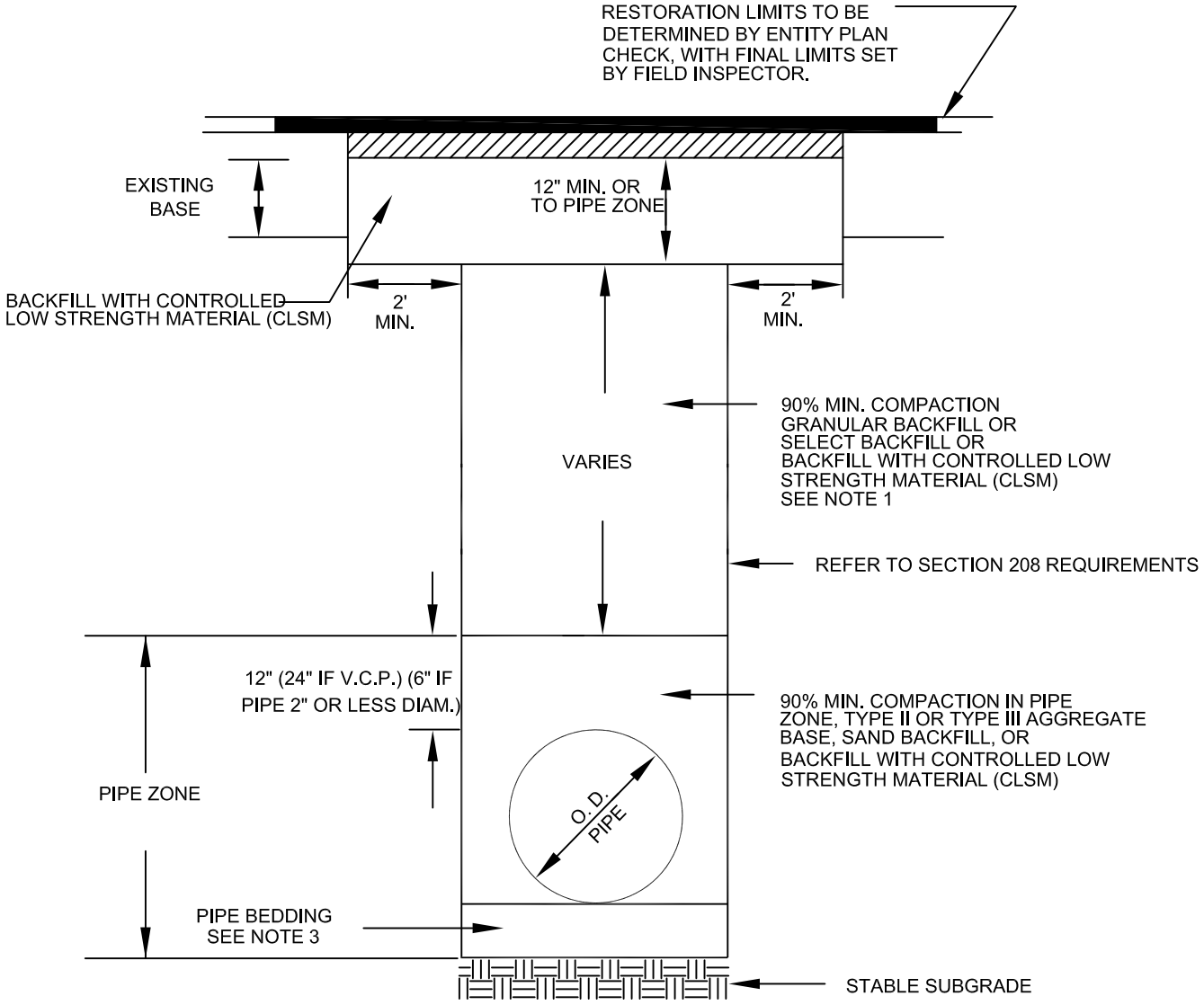
SPECIFICATION REFERENCE	
208	TRENCH EXCAVATION & BACKFILL
302	AGGREGATE BASE COURSES

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

METHOD B FOR RIGID AND FLEXIBLE PIPE TRENCH BACKFILL - PAVED AREAS

DATE 6-12-08 | DWG. NO. 503B

Effective 01/01/09 - 06/30/09



NOTES:

1. NO STONES OR LUMPS GREATER THAN 3" PERMITTED IN TRENCH 2' OR LESS IN WIDTH.
2. IF SAWCUT IS WITHIN THREE FEET OF EDGE OF EXISTING ASPHALT CONCRETE SURFACE OR OTHER PATCH, REMOVE EXISTING PAVEMENT TO THAT EDGE AND REPLACE ENTIRE SECTION.
3. CRUSHED ROCK MAY BE USED FOR PIPE BEDDING ONLY IF MATERIAL USE HAS BEEN SPECIFICALLY APPROVED BY THE GOVERNING ENTITY. SEE STANDARD DRAWING NO. 505 FOR PIPE BEDDING METHODS.
4. LAS VEGAS VALLEY WATER DISTRICT REQUIRES PIPE BEDDING AND BACKFILL WITHIN THE PIPE ZONE TO BE OF THE SAME MATERIAL.

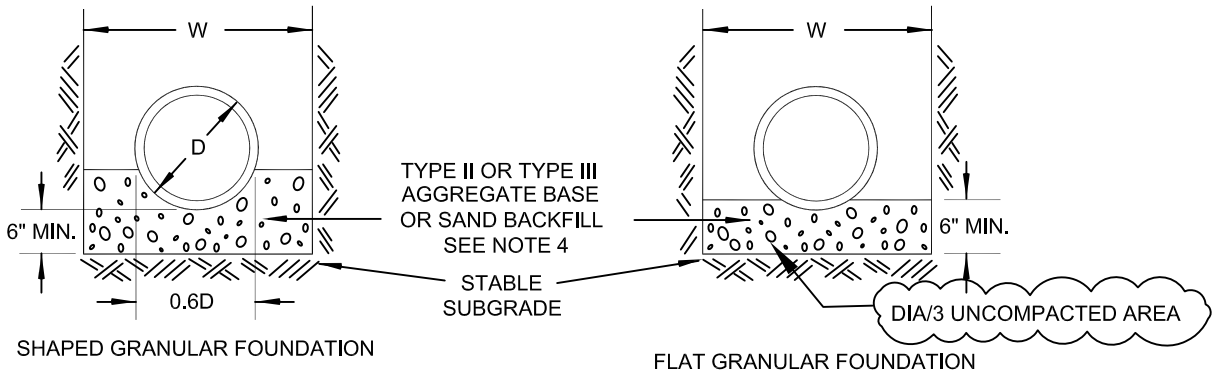
SPECIFICATION REFERENCE	
208	TRENCH EXCAVATION & BACKFILL
302	AGGREGATE BASE COURSES

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

TRENCH BACKFILL WITH CONTROLLED LOW STRENGTH MATERIAL (CLSM) ABOVE PIPE ZONE IN PAVED AREAS (STREETS GREATER THAN 60' R/W)

DATE 6-12-08 | DWG. NO. 504

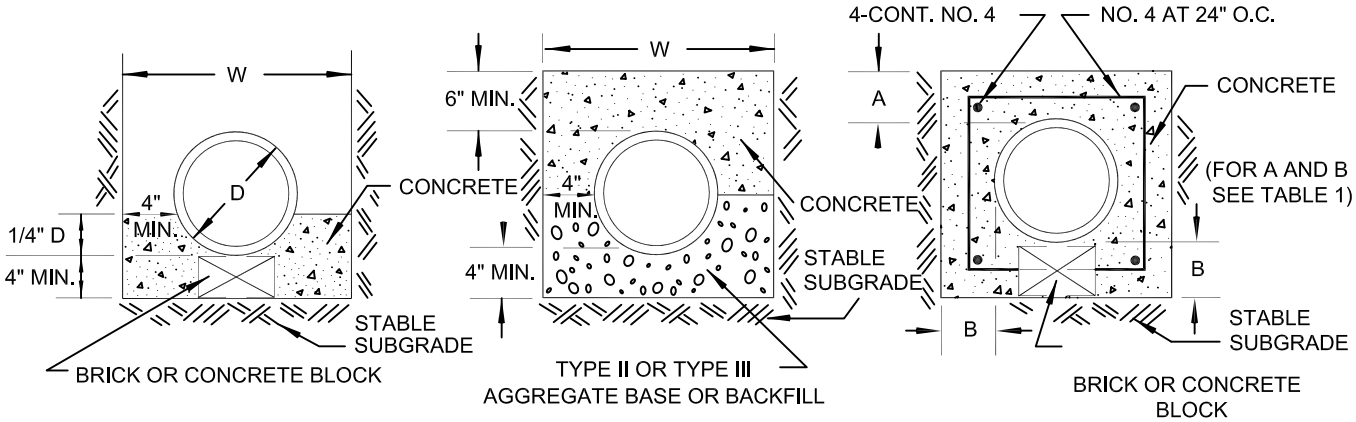
Effective 01/01/09 - 06/30/09



SHAPED GRANULAR FOUNDATION

FLAT GRANULAR FOUNDATION

NORMAL BEDDING



CONCRETE CRADLE

CONCRETE CAP

CONCRETE ENCASEMENT

CONCRETE BEDDING

TABLE 1					
PIPE SIZE	B	A	PIPE SIZE	B	A
6"	4"	4"	24"	6"	6"
8"	4"	4"	27"	7"	6"
10"	4"	4"	30"	8"	6"
12"	4"	4"	33"	8"	6"
15"	4"	4"	36"	9"	6"
18"	5"	5"	39"	9"	6"
21"	5"	5"	42"	10"	6"

D = OUTSIDE DIAMETER OF PIPE

W = OUTSIDE DIAMETER OF PIPE + 24" MAXIMUM

NOTES:

1. PIPE BEDDING TO BE COMPACTED TO AT LEAST 90% OF MAXIMUM DENSITY. SUBGRADE SHALL CONFORM TO RESPECTIVE ENTITY REQUIREMENTS.
2. INDICATED THICKNESS OF BEDDING MATERIAL TO BE CONSTRUCTED UNDER THE BARREL. SUBGRADE TO BE EXCAVATED TO PROVIDE 2" CLEARANCE UNDER THE BELL.
3. OTHER BEDDING METHODS MAY BE SPECIFIED OR APPROVED.
4. CRUSHED ROCK MAY BE USED FOR PIPE BEDDING ONLY IF MATERIAL USE HAS BEEN SPECIFICALLY APPROVED BY THE GOVERNING AGENCY.

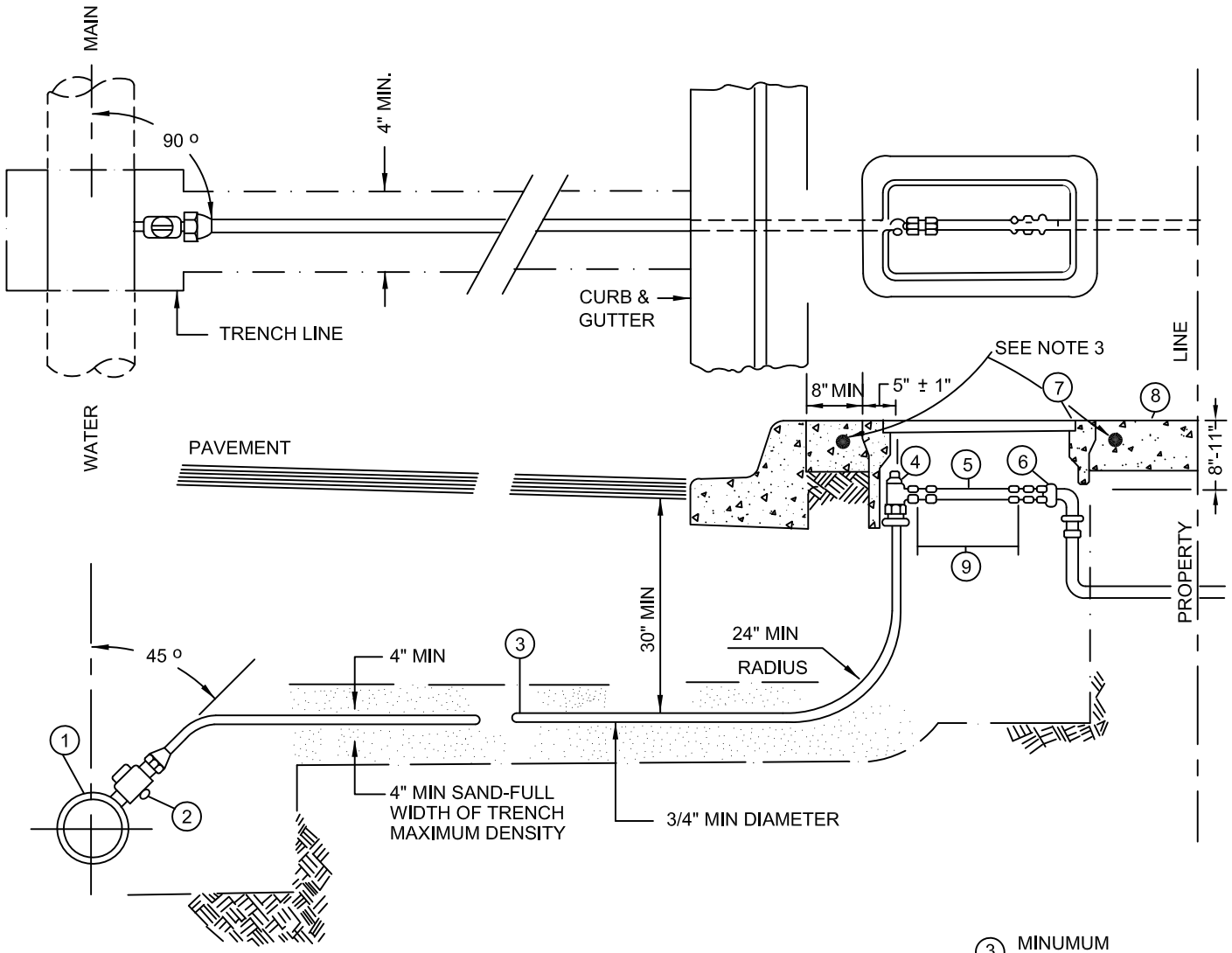
SPECIFICATION REFERENCE	
208	TRENCH EXCAVATION & BACKFILL
302	AGGREGATE BASE COURSES
501	CONCRETE
505	REINFORCEMENT STEEL

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

PIPE TRENCH BEDDING METHODS

DATE 11-9-06	DWG. NO. 505	PAGE NO. 125

Effective 01/01/09 - 06/30/09



LEGEND

1. THREADED COLLAR OR DOUBLE STRAP BRONZE SERVICE SADDLE
2. CORPORATION STOP
3. POLYETHYLENE OR COPPER SERVICE LATERAL (SEE NOTE 4)
4. ANGLE METER STOP (NOTE 1)
5. IDLER
6. 90°TAIL PIECE COUPLING
7. METER BOX
8. CONCRETE SIDEWALK

METER SIZE	(9) IDLER LENGTH	(3) MINUMUM SERVICE LATERAL SIZE
5/8"	7-1/2"	3/4"
3/4"	7-1/2"	3/4"
1"	10-3/4"	1"

NOTES:

1. 5/8", 3/4" & 1" REQUIRES BALL ANGLE METER STOP.
2. LOCATOR TAPE REQUIRED ABOVE SERVICE LINE IF OTHER THAN 90°OFF WATER MAIN (HENDERSON AND NORTH LAS VEGAS ONLY).
3. SEE DWG. NO. 336 FOR REINFORCEMENT DETAIL AROUND METER BOX.
4. WHEN COPPER SERVICE LATERALS ARE USED, FLARED COPPER FITTINGS AND CONNECTIONS ARE REQUIRED.

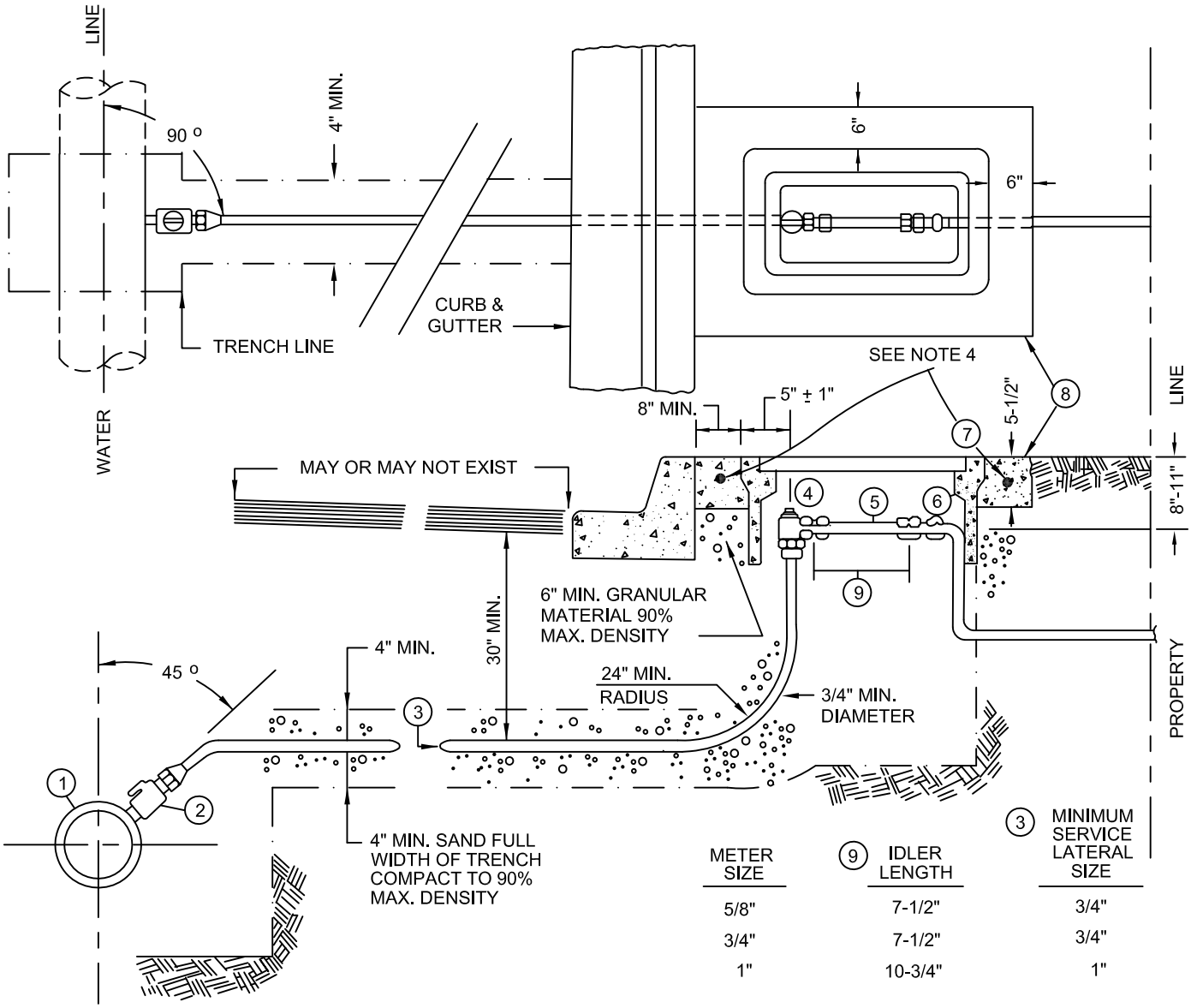
SPECIFICATION REFERENCE	

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

SERVICE INSTALLATION, 5/8", 3/4" & 1" METER SIZES-IMPROVED AREA

DATE	DWG. NO. 506	PAGE NO. 126

Effective 01/01/09 - 06/30/09



METER SIZE	⑨ IDLER LENGTH	③ MINIMUM SERVICE LATERAL SIZE
5/8"	7-1/2"	3/4"
3/4"	7-1/2"	3/4"
1"	10-3/4"	1"

LEGEND

1. THREADED COLLAR OR DOUBLE STRAP BRONZE SERVICE SADDLE
2. CORPORATION STOP
3. POLYETHYLENE OR COPPER SERVICE LATERAL (SEE NOTE 5)
4. ANGLE METER STOP (NOTE 1)
5. IDLER
6. 90 ºTAIL PIECE COUPLING
7. METER BOX
8. CONCRETE COLLAR, 2500 PSI COMPRESSIVE STRENGTH

NOTES:

1. 5/8", 3/4" & 1" REQUIRES BALL ANGLE METER STOP.
2. LOCATOR TAPE REQUIRED ABOVE SERVICE LINE IF OTHER THAN 90 ©FF WATER MAIN (HENDERSON AND NORTH LAS VEGAS ONLY).
3. TOP OF METER BOX TO BE INSTALLED AS NEAR TO FUTURE FINAL GRADE AS POSSIBLE.
4. SEE DWG. NO. 336 FOR REINFORCEMENT DETAIL AROUND METER BOX.
5. WHEN COPPER SERVICE LATERALS ARE USED, FLARED COPPER FITTINGS AND CONNECTIONS ARE REQUIRED.

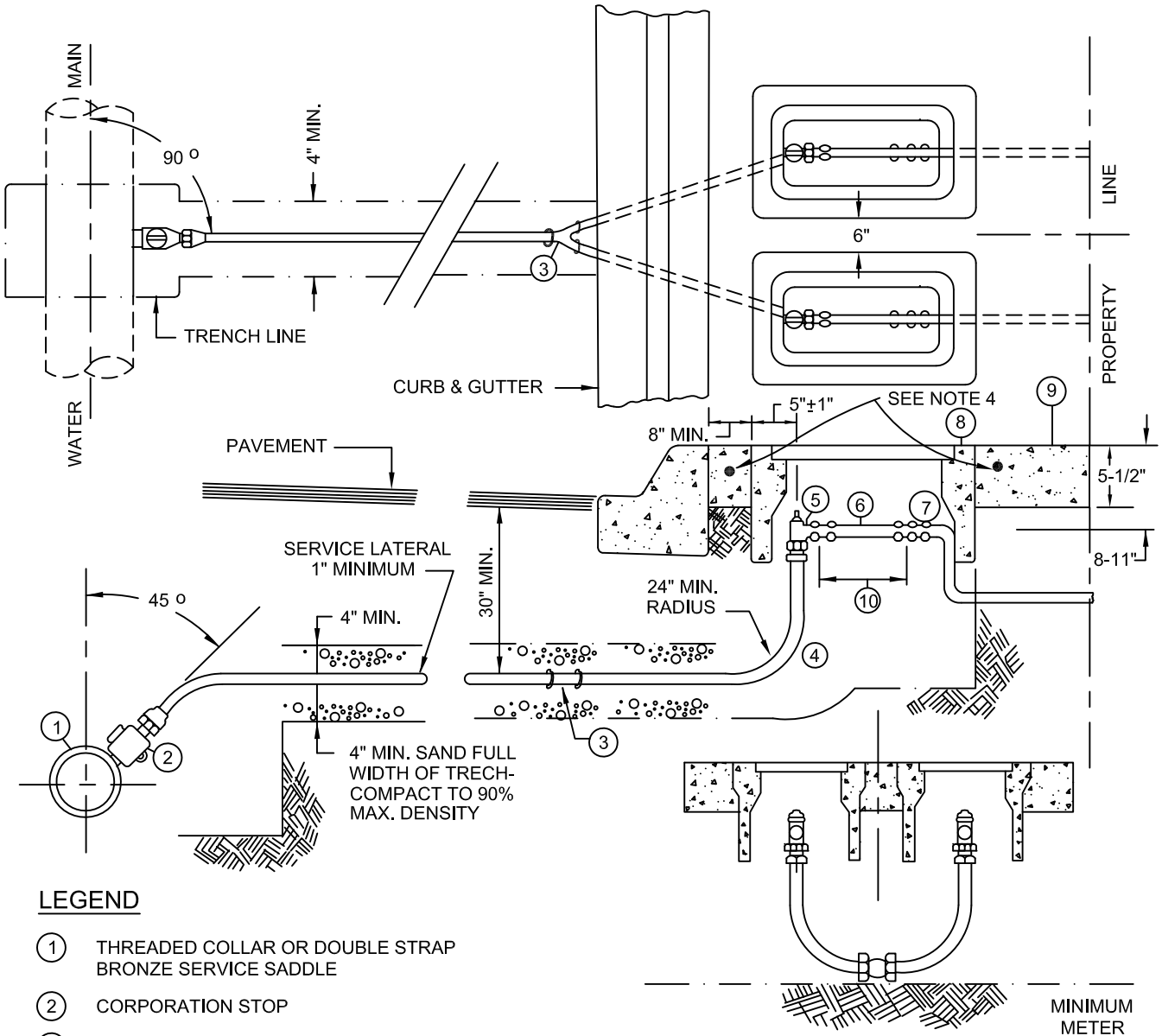
SPECIFICATION REFERENCE	

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

SERVICE INSTALLATION, 5/8", 3/4" & 1" METER SIZES-UNIMPROVED AREA

DATE	DWG. NO. 507	PAGE NO. 127

Effective 01/01/09 - 06/30/09



LEGEND

1. THREADED COLLAR OR DOUBLE STRAP BRONZE SERVICE SADDLE
2. CORPORATION STOP
3. CTS YOKE WITH IPS ADAPTER
4. POLYETHYLENE OR COPPER SERVICE LATERAL (SEE NOTE 5)
5. ANGLE METER STOP (NOTE 1)
6. IDLER
7. 90°TAIL PIECE COUPLING
8. METER BOX
9. CONCRETE SIDEWALK

METER SIZE	IDLER LENGTH	MINIMUM METER LATERAL SIZE
5/8"	7-1/2"	3/4"
3/4"	7-1/2"	3/4"
1"	10-1/2"	1"

NOTES:

1. 5/8", 3/4" & 1" REQUIRES BALL ANGLE METER STOP.
2. LOCATOR TAPE REQUIRED ABOVE SERVICE LINE IF OTHER THAN 90°OFF WATER MAIN (HENDERSON AND NORTH LAS VEGAS ONLY).
3. TOP OF METER BOX TO BE INSTALLED AS NEAR TO FUTURE FINAL GRADE AS POSSIBLE.
4. SEE DWG. 336 FOR REINFORCEMENT DETAIL AROUND METER BOX, 336.
5. WHEN COPPER SERVICE LATERALS ARE USED, FLARED COPPER FITTINGS AND CONNECTIONS ARE REQUIRED.

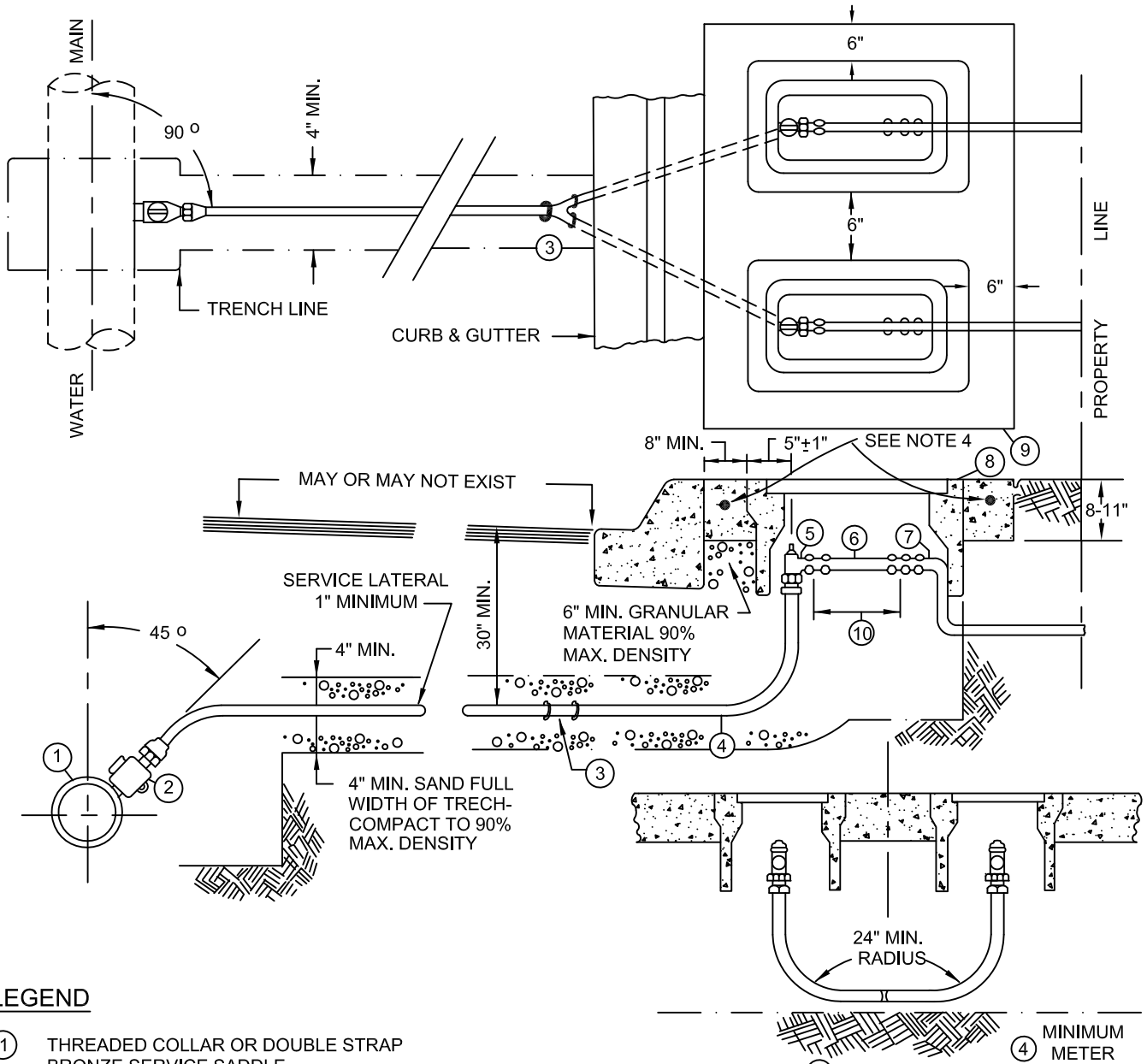
SPECIFICATION REFERENCE

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

SERVICE INSTALLATION, 5/8", 3/4" & 1" METER SIZES-IMPROVED AREA

DATE	DWG. NO. 508	PAGE NO. 128

Effective 01/01/09 - 06/30/09



LEGEND

1. THREADED COLLAR OR DOUBLE STRAP BRONZE SERVICE SADDLE
2. CORPORATION STOP
3. CTS YOKE WITH IPS ADAPTER
4. POLYETHYLENE OR COPPER SERVICE LATERAL (SEE NOTE 5)
5. ANGLE METER STOP (NOTE 1)
6. IDLER
7. 90° TAIL PIECE COUPLING
8. METER BOX
9. CONCRETE COLLAR, 2500 PSI COMPRESSIVE STRENGTH

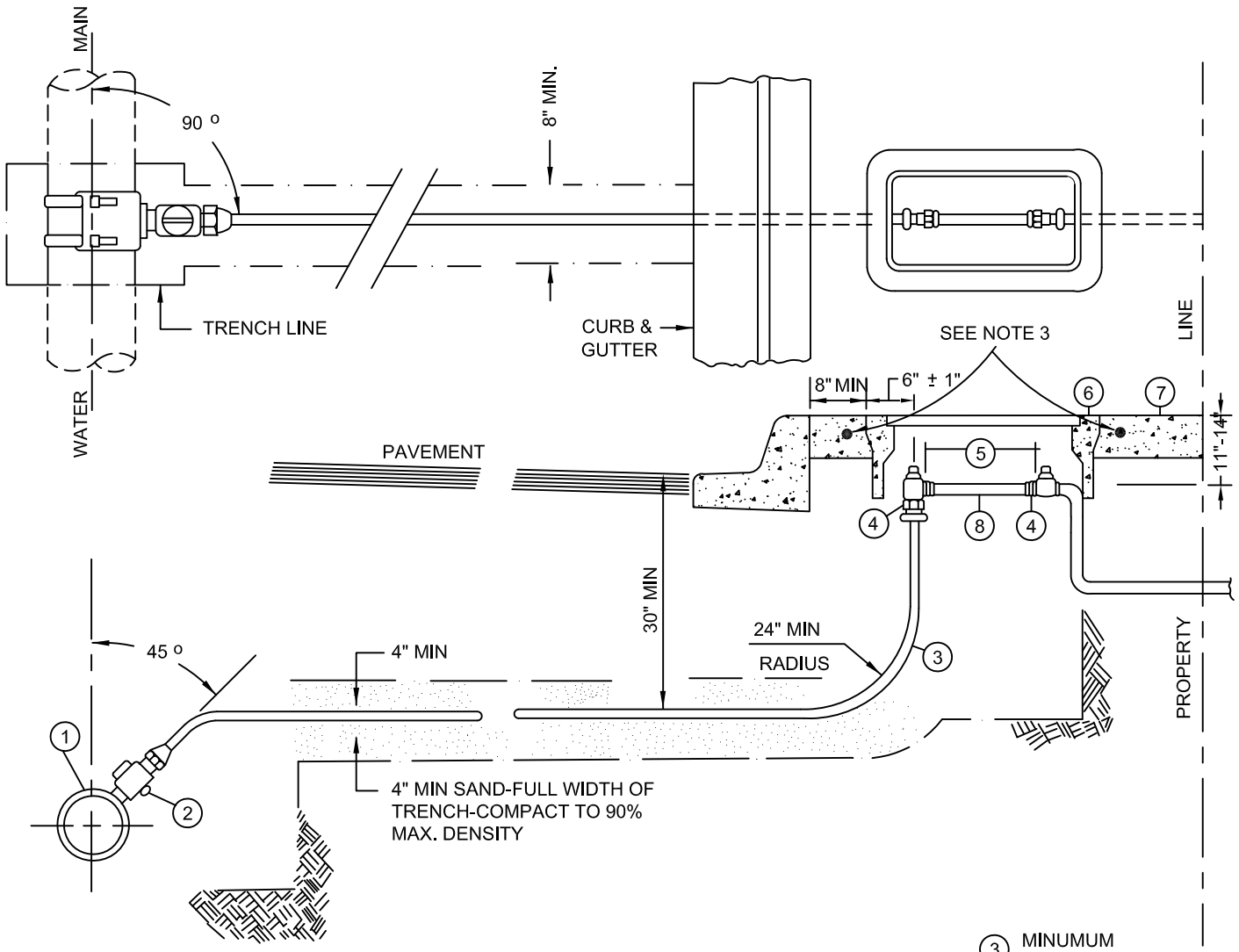
METER SIZE	10 IDLER LENGTH	4 MINIMUM METER LATERAL SIZE
5/8"	7-1/2"	3/4"
3/4"	7-1/2"	3/4"
1"	10-1/2"	1"

NOTES:

1. 5/8", 3/4" & 1" REQUIRES BALL ANGLE METER STOP.
2. LOCATOR TAPE REQUIRED ABOVE SERVICE LINE IF OTHER THAN 90° OFF WATER MAIN (HENDERSON AND NORTH LAS VEGAS ONLY).
3. TOP OF METER BOX TO BE INSTALLED AS NEAR TO FUTURE FINAL GRADE AS POSSIBLE.
4. SEE DWG. 336 FOR REINFORCEMENT DETAIL AROUND METER BOX.
5. WHEN COPPER SERVICE LATERALS ARE USED, FLARED COPPER FITTINGS AND CONNECTIONS ARE REQUIRED.

SPECIFICATION REFERENCE	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
	SERVICE INSTALLATION, DUAL 5/8", 3/4" & 1" METER SIZES-UNIMPROVED AREA		
	DATE	DWG. NO. 509	PAGE NO. 129

Effective 01/01/09 - 06/30/09



LEGEND

1. DOUBLE STRAP BRONZE SERVICE SADDLE
2. CORPORATION STOP
3. POLYETHYLENE OR COPPER SERVICE LATERAL (I.P. SIZE) (SEE NOTE 4)
4. ANGLE METER STOP , P.E. PIPE PACK JOINT (I.P. SIZE)
5. IDLER LENGTH
6. METER BOX
7. CONCRETE SIDEWALK
8. IDLER (FLANGE x FLANGE)

METER SIZE	(5) IDLER LENGTH	(3) MINUMUM SERVICE LATERAL SIZE
1-1/2"	13"	1-1/2"
2"	17"	2"

NOTES:

1. 1-1/2" & 2" REQUIRES BALL ANGLE METER STOP. (EXCEPT LVWD).
2. LOCATOR TAPE REQUIRED ABOVE SERVICE LINE IF OTHER THAN 90°OFF WATER MAIN (HENDERSON AND NORTH LAS VEGAS ONLY).
3. SEE DWG. NO. 336 FOR REINFORCEMENT DETAIL AROUND METER BOX.
4. WHEN COPPER SERVICE LATERALS ARE USED, FLARED COPPER FITTINGS AND CONNECTIONS ARE REQUIRED.

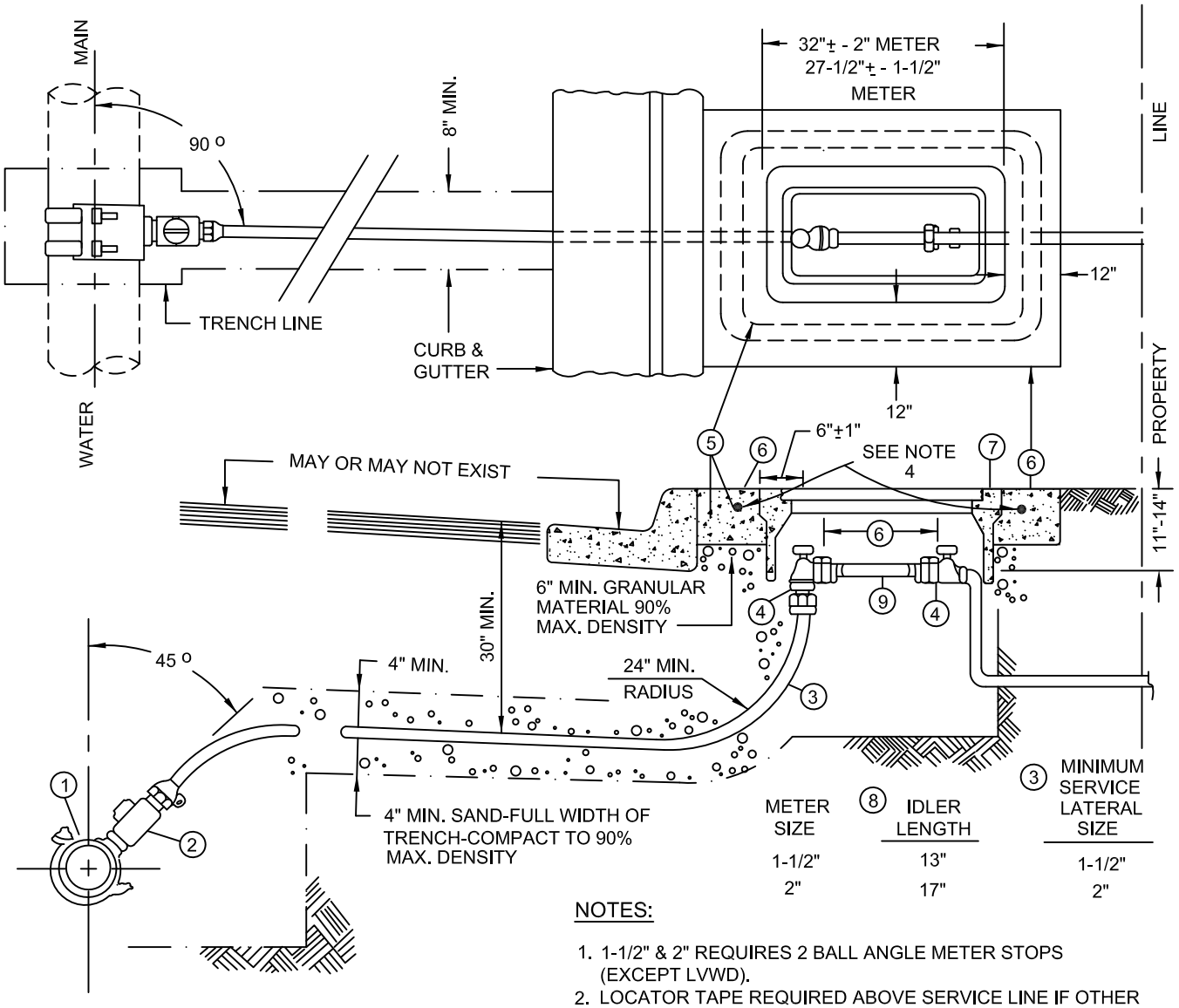
SPECIFICATION REFERENCE	

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

SERVICE INSTALLATION, 1-1/2" & 2" METER SIZES-IMPROVED AREA

DATE	DWG. NO. 510	PAGE NO. 130

Effective 01/01/09 - 06/30/09



NOTES:

1. 1-1/2" & 2" REQUIRES 2 BALL ANGLE METER STOPS (EXCEPT LVWD).
2. LOCATOR TAPE REQUIRED ABOVE SERVICE LINE IF OTHER THAN 90°OFF WATER MAIN (HENDERSON AND NORTH LAS VEGAS ONLY).
3. TOP OF METER BOX TO BE INSTALLED AS NEAR TO FUTURE FINAL GRADE AS POSSIBLE.
4. SEE DWG. NO. 336 FOR REINFORCEMENT DETAIL AROUND METER BOX.
5. WHEN COPPER SERVICE LATERALS ARE USED, FLARED COPPER FITTINGS AND CONNECTIONS ARE REQUIRED.

LEGEND

(1) DOUBLE STRAP BRONZE SERVICE SADDLE

(2) CORPORATION STOP

(3) POLYETHYLENE OR COPPER SERVICE LATERAL (I.P. SIZE) (SEE NOTE 5)

(4) ANGLE METER STOP, P.E. PIPE PACK JOINT (I.P. SIZE)

(5) NO. 4 REBAR (2 REQUIRED) 2" CONCRETE COVER

(6) CONCRETE COLLAR, 2500 PSI COMPRESSIVE STRENGTH

(7) METER BOX

(8) IDLER LENGTH

(9) IDLER (FLANGE x FLANGE)

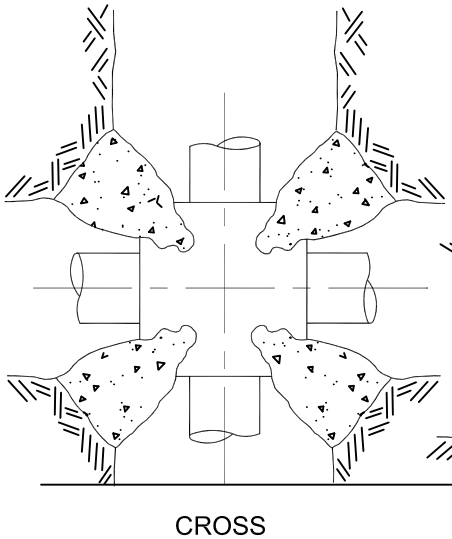
SPECIFICATION REFERENCE	

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

SERVICE INSTALLATION, 1-1/2" & 2" METER SIZES-UNIMPROVED AREA

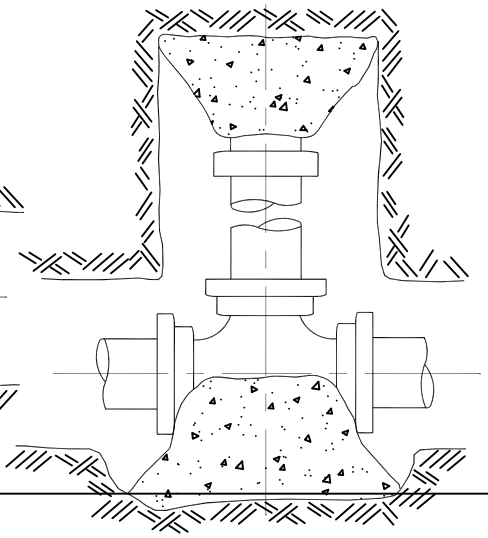
DATE	DWG. NO. 511	PAGE NO. 131

Effective 01/01/09 - 06/30/09



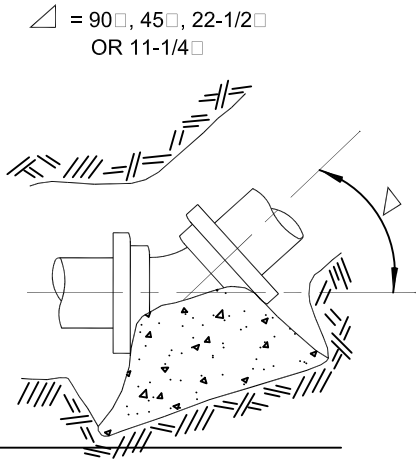
CROSS

FIG.1

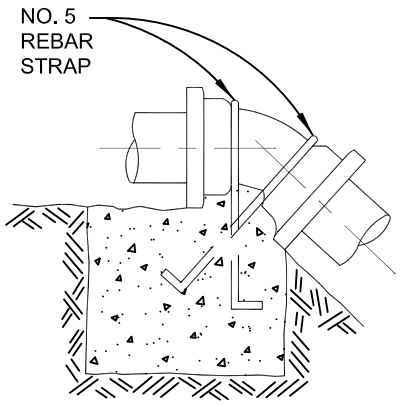


TEE OR PLUG

FIG.2



HORIZONTAL OR
VERTICAL ELBOW



ELBOW

FIG.4

NOTES:

1. ALL FITTINGS AND EXPOSED REBAR TO BE COATED WITH EC 244 AND WRAPPED WITH TWO LAYERS OF 6 MIL. POLYETHYLENE.
2. TABLE BELOW DENOTES MINIMUM BEARING AREA OR VOLUME OF THRUST BLOCK. SPECIAL DESIGN FOR EACH INSTALLATION IS REQUIRED IF ALLOWABLE SOIL BEARING CAPACITY IS LESS THAN 3000 P.S.F.
3. PLACE CONCRETE AGAINST UNDISTURBED EARTH.
4. VERTICAL SURFACES NOT BEARING AGAINST UNDISTURBED EARTH SHALL BE FORMED.

SIZE OF PIPE	MINIMUM BEARING AREA IN SQUARE FEET						CUBIC YARDS OF CONCRETE		
	FIG. 1	FIG. 2	FIG. 3				FIG. 4		
			90°	45°	22-1/2°	11-1/4°	45°	22-1/2°	11-1/4°
4"		2	2	1	1	1	1.0	.5	.5
6"	2	3	3	2	1	1	1.5	1.0	.5
8"	2	5	6	3	2	1	2.0	1.0	.5
10"	3	7	10	5	3	1	4.0	2.0	1.0
12"	3	10	14	8	4	2			
14"	4	14	20	10	5	3		SPECIAL DESIGN	
16"	4	20	24	12	7	4			
18"	5	24	30	16	10	5			
20"	5	28	40	20	12	6			

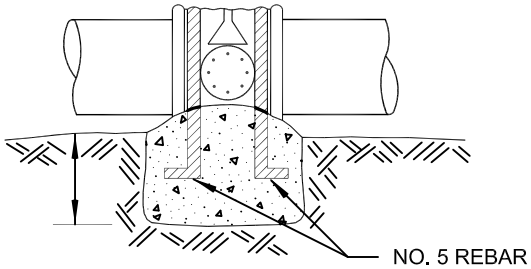
SPECIFICATION REFERENCE	

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

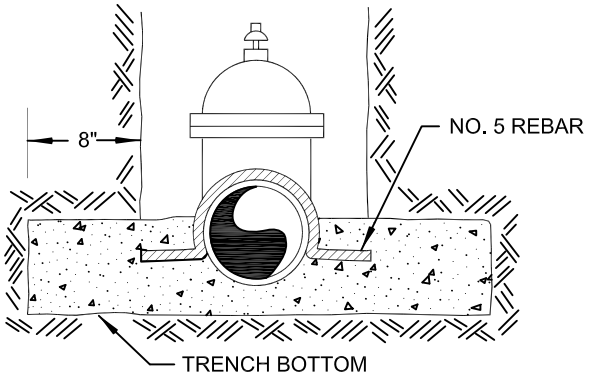
THRUST BLOCK DETAILS

DATE 12-14-00	DWG. NO. 512	PAGE NO. 132

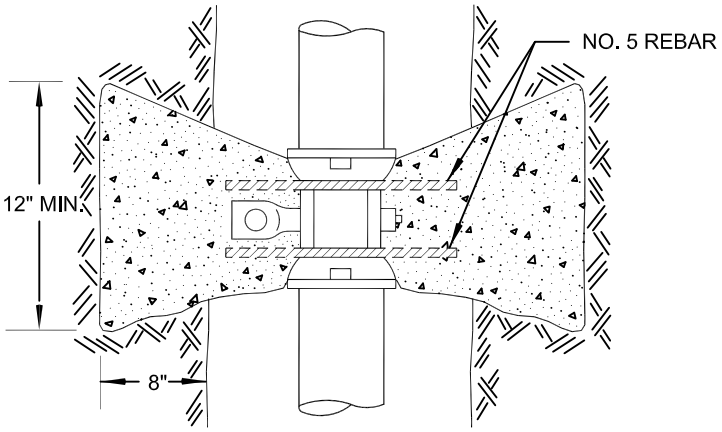
Effective 01/01/09 - 06/30/09



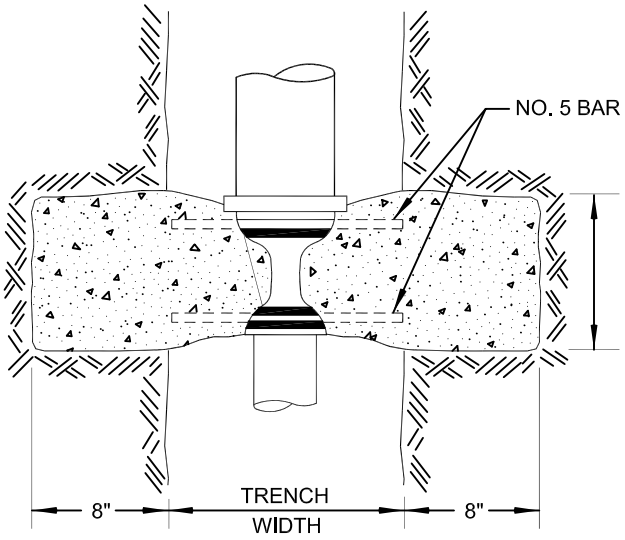
ELEVATION - B.F. VALVE



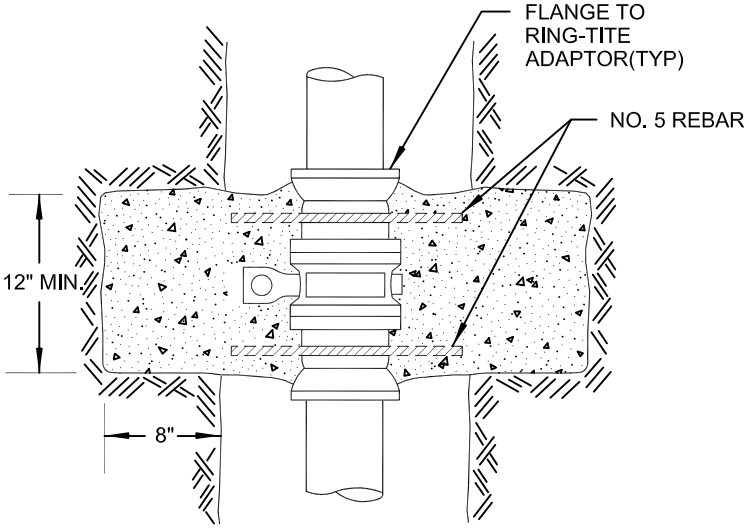
ELEVATION
REDUCER OR GATE VALVE



PLAN - RING-TITE
B.F. VALVE



PLAN
REDUCER OR
GATE VALVE



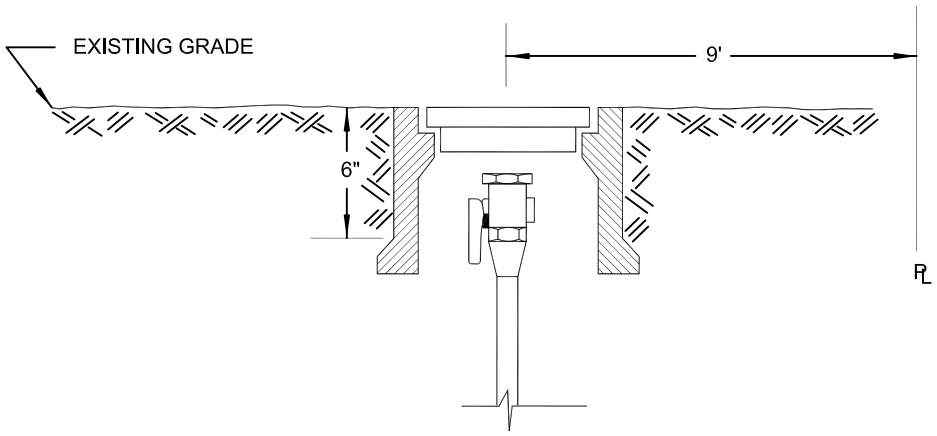
PLAN - FLANGE MT. B.F. VALVE

NOTES:

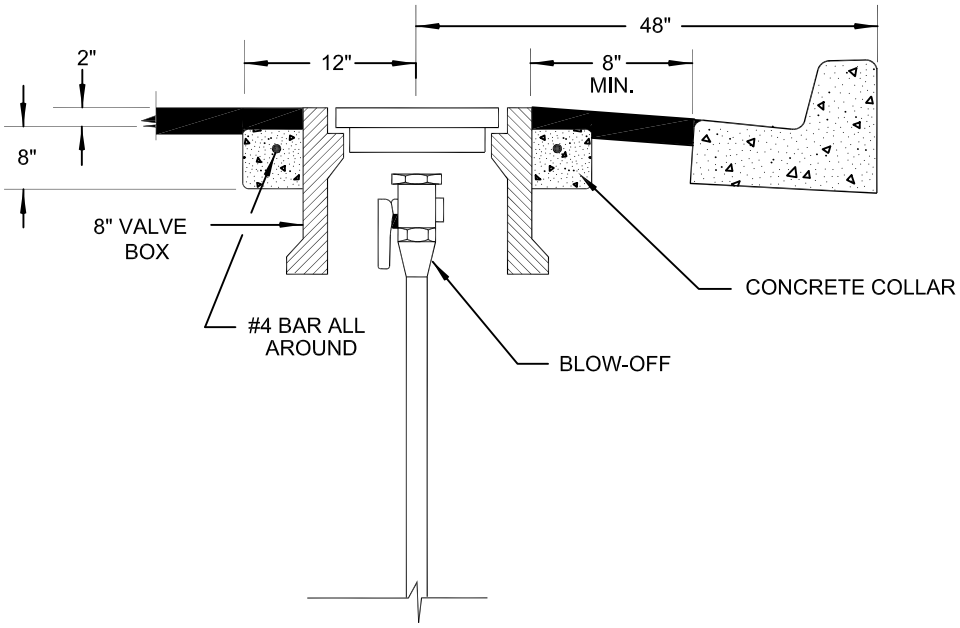
1. ALL VALVES TO BE PAINTED WITH E.C. 244 AND WRAPPED WITH TWO LAYERS OF 6 MIL POLYETHYLENE.

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		ANCHOR BLOCK DETAILS REDUCER OR VALVE		
		DATE 12-14-00	DWG. NO. 513	PAGE NO. 133

Effective 01/01/09 - 06/30/09



UNPAVED AREA



PAVED AREA

NOTE:

CONCRETE COLLAR NOT REQUIRED IN UNINCORPORATED CLARK COUNTY RESIDENTIAL STEETS LESS THAN 80' R/W.

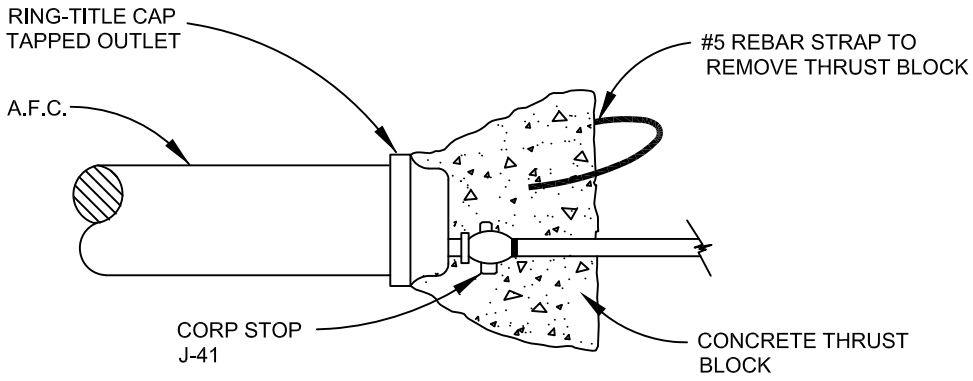
SPECIFICATION REFERENCE	
501	CONCRETE
505	REINFORCING STEEL
629	WATER DISTRIBUTION FACILITIES

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

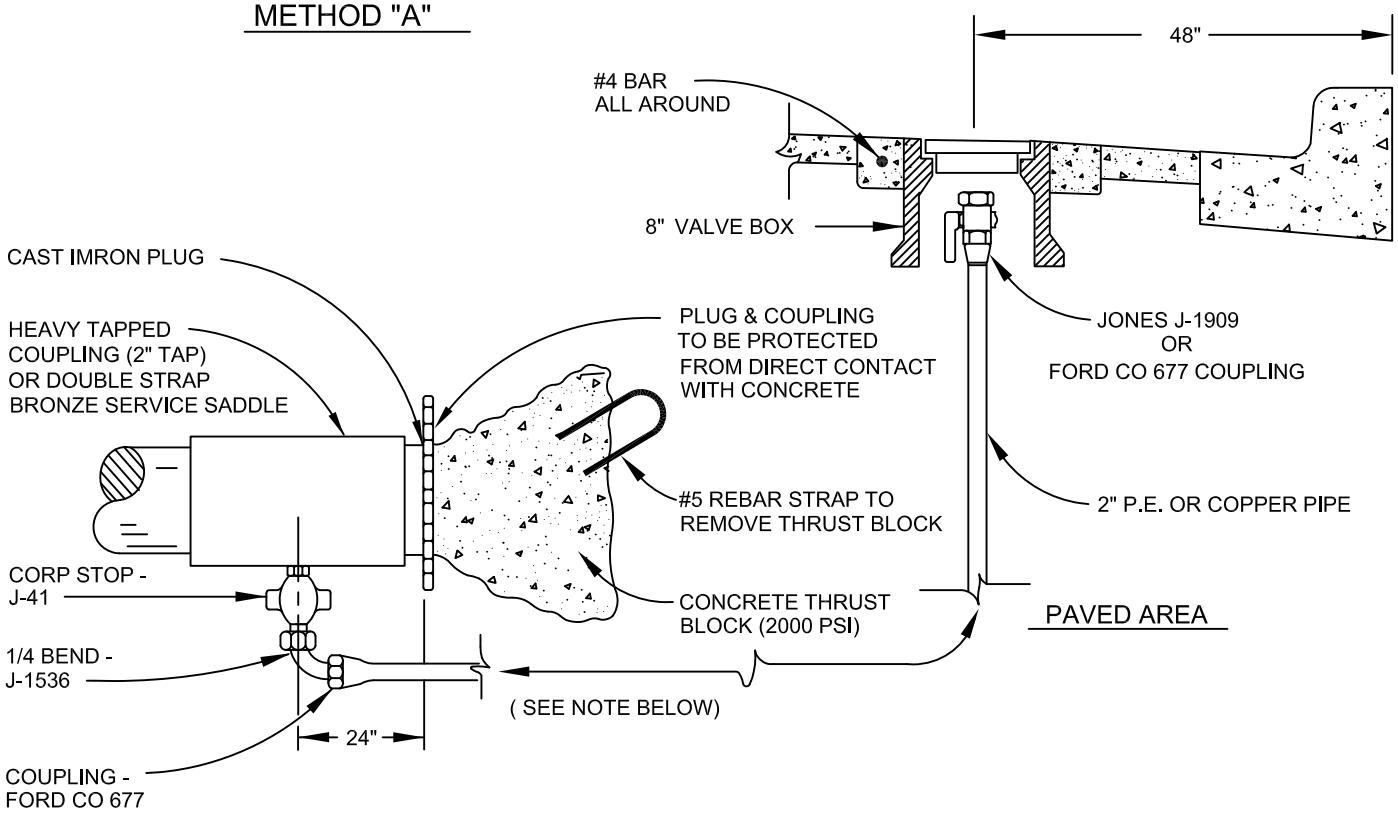
BLOW-OFF ASSEMBLY LOCATIONS

DATE 12-14-00	DWG. NO. 514	PAGE NO. 134

Effective 01/01/09 - 06/30/09



METHOD "A"



METHOD "B"

NOTES:

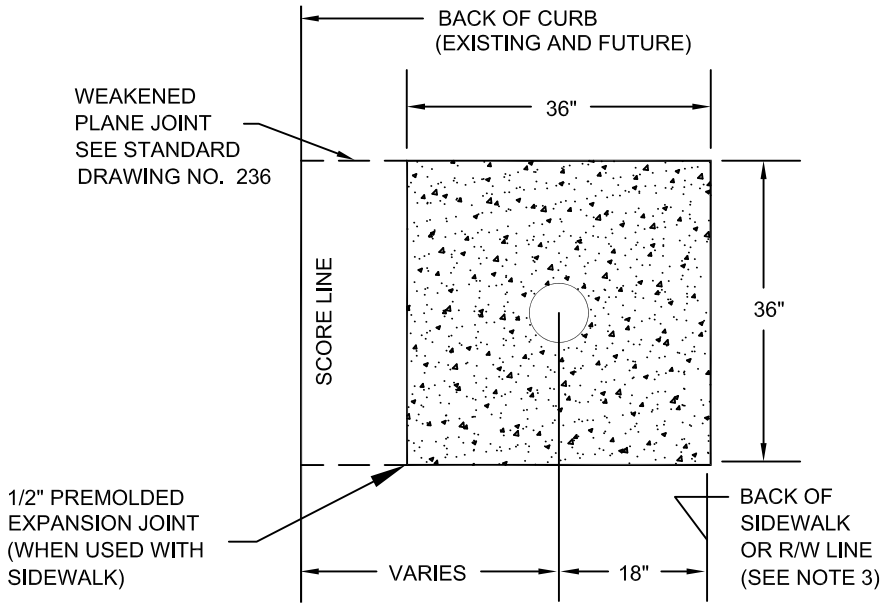
1. FOR CLARITY THE ELBOW AND P.E. PIPE ARE SHOWN ROTATED 90° ALL FITTINGS SHALL BE 2".
2. CONCRETE COLLAR NOT REQUIRED IN UNINCORPORATED CLARK COUNTY RESIDENTIAL STREETS LESS THAN 80' R/W.

SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		BLOW-OFF ASSEMBLY 4", 6", 8", & 10" MAINS		
		DATE	DWG. NO. 515	PAGE NO. 135

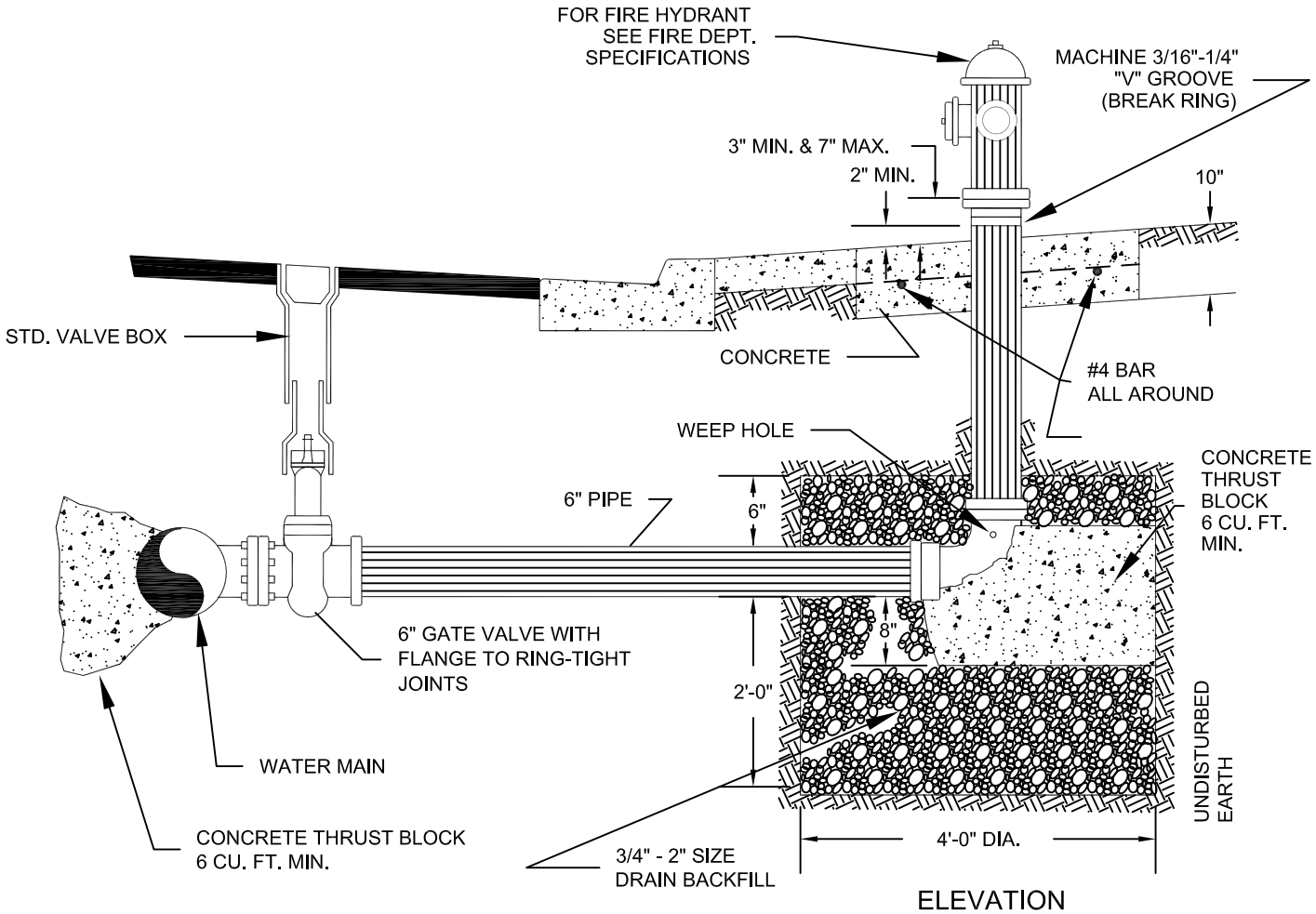
Effective 01/01/09 - 06/30/09

NOTES:

1. NO HYDRANT SHALL BE LOCATED WITHIN 6' OF ANY DRIVEWAY, POWER POLE, LIGHT STANDARD, OR ANY OTHER OBSTRUCTION.
2. IF HYDRANT IS TO BE INSTALLED IN AN EXISTING SIDEWALK, A FULL PANEL OF THE SIDEWALK SHALL BE REMOVED AND REPLACED AFTER INSTALLATION OF THE HYDRANT.
3. WHEN R/W AND FIELD CONDITIONS PERMIT, THE FIRE HYDRANT SHALL BE PLACED BEHIND THE SIDEWALK.



PLAN



ELEVATION

SPECIFICATION REFERENCE	
501	CONCRETE
629	WATER DISTRIBUTION FACILITIES
704	BASE AGGREGATES
707	JOINT MATERIAL

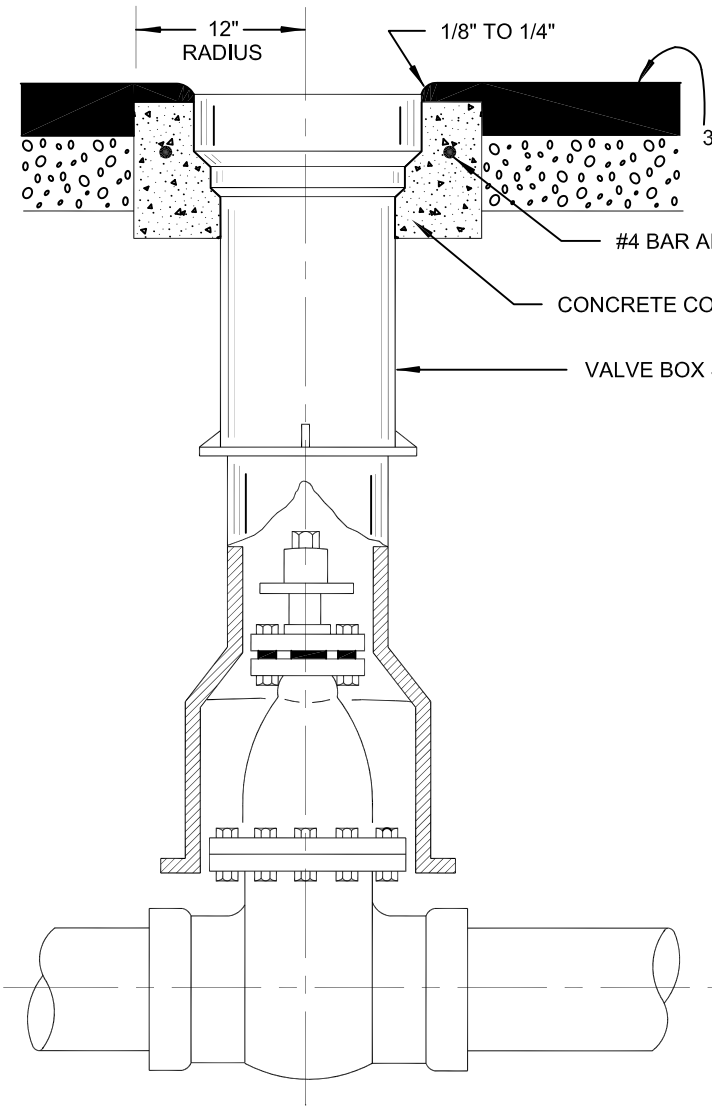
UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

FIRE HYDRANT INSTALLATION

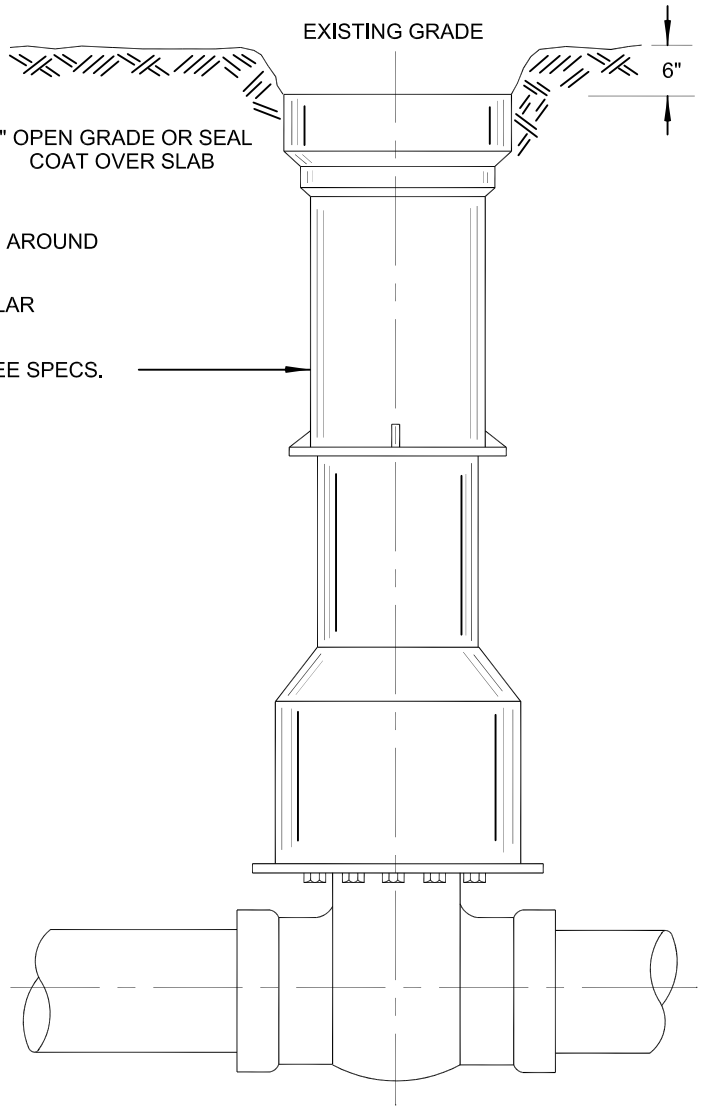
DATE 12-14-00	DWG. NO. 516	PAGE 136

Effective 01/01/09 - 06/30/09

PAVED STREET INSTALLATION

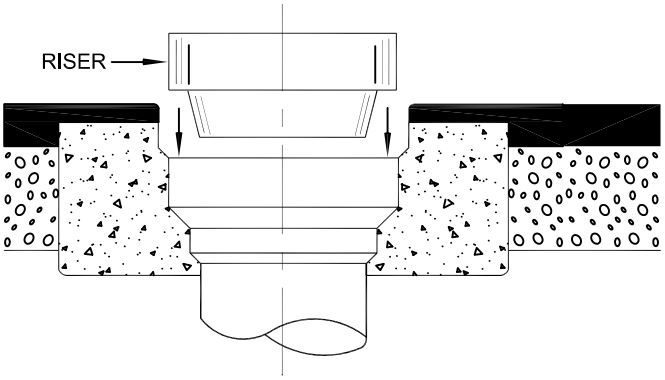


UNPAVED STREET INSTALLATION



ADJUSTMENT

RAISE TOP SECTION AND/OR INSTALL
RISERS AS NECESSARY. TYLER OR APPROVED EQUAL.



NOTE:

CONCRETE COLLAR NOT REQUIRED IN UNINCORPORATED CLARK COUNTY RESIDENTIAL STREETS LESS THAN 80' R/W.

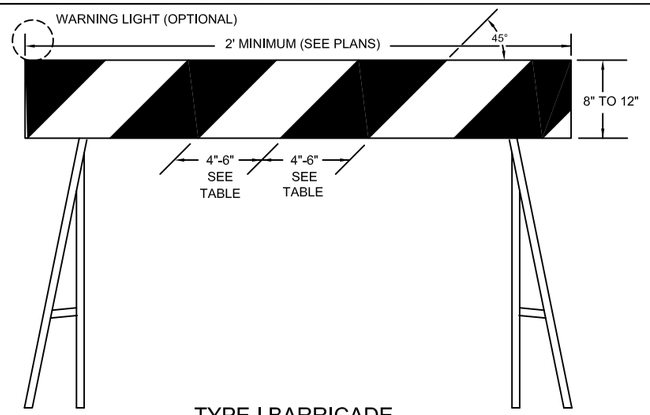
SPECIFICATION REFERENCE		UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
		VALVE BOX INSTALLATION & ADJUSTMENT		
		DATE 12-14-00	DWG. NO. 517	PAGE NO. 137

Effective 01/01/09 - 06/30/09

OUNCES OF CHLORINE COMPOUNDS REQUIRED FOR DISINFECTION OF 100 FEET OF PIPE

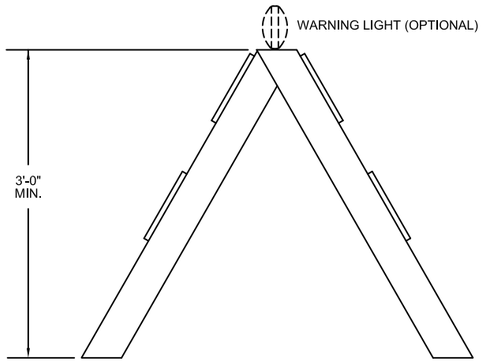
I.D of Pipe	Volume of Water Gallons per 100 Feet	Quantity Calcium Hypochlorite 70% Available Chlorine	
		25 P.P.M.	50 P.P.M.
4"	65.3	0.31 oz.	0.62 oz.
6"	146.5	0.69 oz.	1.38 oz.
8"	261.0	1.25 oz.	2.50 oz.
10"	408.0	1.95 oz.	3.90 oz.
12"	558.7	2.80 oz.	5.60 oz.
14"	800.0	3.82 oz.	7.65 oz.
16"	1047.0	5.00 oz.	10.00 oz.
18"	1300.0	6.40 oz.	12.80 oz.
20"	1635.7	7.75 oz.	15.50 oz.
24"	2234.8	11.20 oz.	22.40 oz.

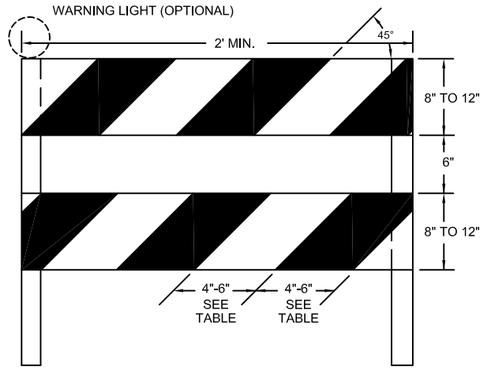
Effective 01/01/09 - 06/30/09



TYPE I BARRICADE

WARNING LIGHT (OPTIONAL)





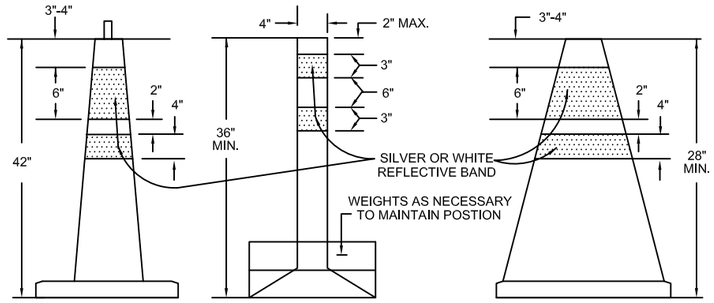
TYPE II BARRICADE

(FRAMEWORK TO BE WHITE OR ORANGE)

BARRICADE NOTES

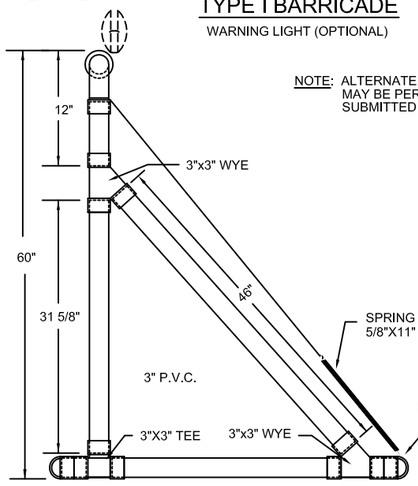
Effective 01/01/09 - 06/30/09

1. ALL REFLECTIVE SHEETING ON BARRICADES, VERTICAL PANELS & VERTICAL PANEL POST HAVING AN ORANGE COLOR SHALL BE MADE OF MATERIALS CONFORMING TO SUBSECTION 716.03.01 OF THE UNIFORM STANDARD SPECIFICATIONS.
2. BARRICADES MAY BE WEIGHTED WITH SANDBAGS, BUT SUCH SANDBAGS SHALL NOT BE PLACED SO AS TO OBSCURE ANY RETRO REFLECTIVE SURFACE, NOR SHALL THEY BE LOCATED HIGHER THAN 24" ABOVE THE PAVEMENT.
3. WARNING LIGHTS MAY BE PLACED ON ALL BARRICADES WHEN USED DURING NIGHTTIME HOURS.
4. NAME & PHONE NUMBER OF OWNER MAY BE SHOWN ON NON-REFLECTIVE SURFACE; MUST BE OF ONE COLOR, NON-REFLECTIVE, WITH MAXIMUM 1" LETTERS ON THE FACE.
5. THE SIDES OF BARRICADES FACING TRAFFFIC SHALL HAVE RETROREFLECTIVE SURFACE.



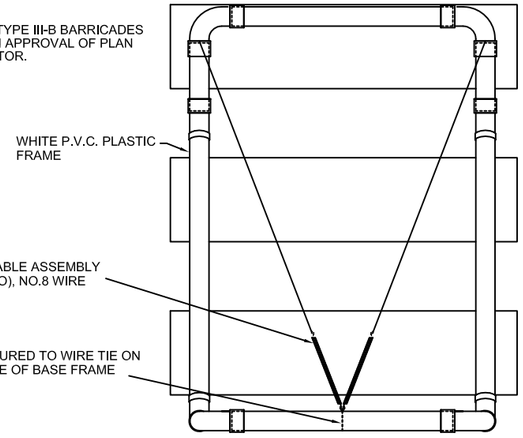
TRAFFIC CONES

1. CONES TO BE PREDOMINATELY ORANGE.
2. CONES TO BE USED DURING HOURS OF DARKNESS SHALL BE REFLECTORIZED AS SHOWN ABOVE.
3. CONES, DRUMS AND VERTICAL PANEL POST SHALL HAVE WEIGHTED BASES; HOWEVER IF THE THE CONTRACTOR WISHES IN LIEU OF WEIGHTED BASES, THE DEVICES MAY BE NAILED OR EPOXIED IN PLACE. DO NOT NAIL OR EPOXY TO FINAL PAVEMENT.

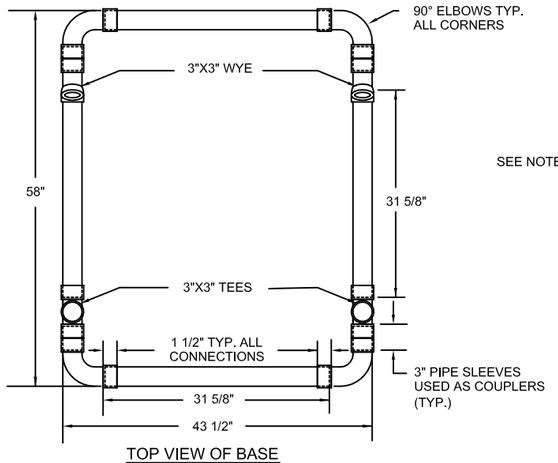


SIDE VIEW

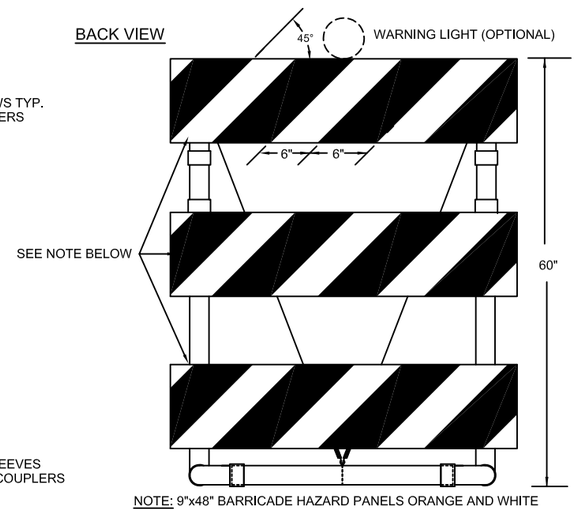
NOTE: ALTERNATE DESIGNS OF TYPE III-B BARRICADES MAY BE PERMITTED UPON APPROVAL OF PLAN SUBMITTED BY CONTRACTOR.



BACK VIEW



TOP VIEW OF BASE



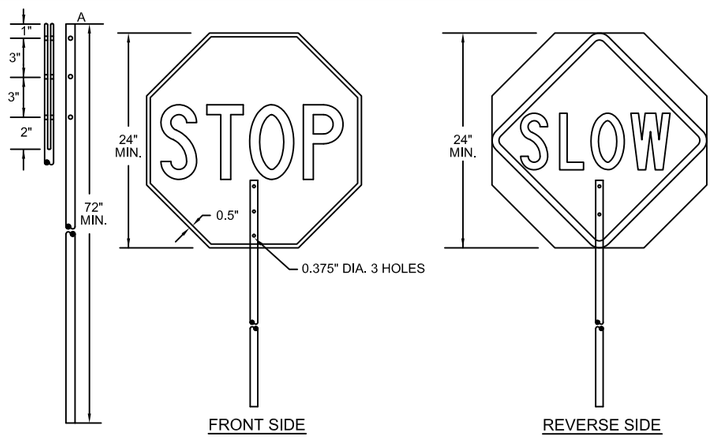
NOTE: 9"x48" BARRICADE HAZARD PANELS ORANGE AND WHITE RIGHT OR LEFT. (0.025 ANODIZED ALUMINUM OR 3/4" WOOD) PANELS ATTACHED WITH 1" NO.14 PAN HEAD METAL SCREW.

FRONT VIEW

TYPE IIIB BARRICADE

(BARRICADE TO BE WEIGHTED DOWN WITH SANDBAGS)

BARRICADE CHARACTERISTICS			
TYPE	I	II	IIIB
WIDTH OF RAIL	8" TO 12"	8" TO 12"	8" TO 12"
LENGTH OF RAIL	2' MIN.	2' MIN.	4' MIN.
WIDTH OF STRIPES	RAIL LENGTH < 3'- 4" RAIL LENGTH ≥ 3' - 6"	RAIL LENGTH < 3'- 4" RAIL LENGTH ≥ 3' - 6"	6"
HEIGHT	3' MIN.	3' MIN.	5' MIN.
NUMBER OF REFLECTORIZED RAIL FACES	2 (ONE EACH DIRECTION)	4 (TWO EACH DIRECTION)	3 IF FACING TRAFFIC IN ONE DIRECTION. 6 IF FACING TRAFFIC IN TWO DIRECTIONS

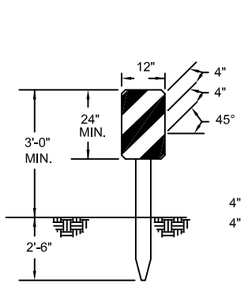


FRONT SIDE

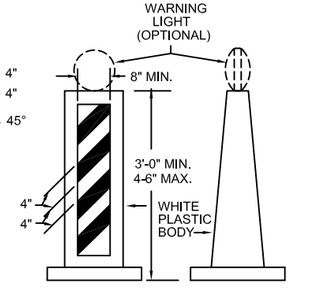
REVERSE SIDE

FLAGGER SIGN

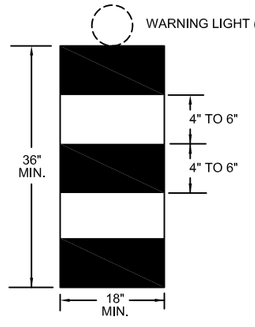
1. THE STOP FACE SHALL CONSIST OF WHITE LETTERS AND BORDER ON A RED REFLECTORIZED BACKGROUND.
2. THE SLOW FACE SHALL CONSIST OF BLACK LETTERS AND BORDER ON AN ORANGE REFLECTORIZED BACKGROUND.
3. BOTH FACES SHALL BE MADE OF MATERIALS CONFORMING TO SECTION 716.03.01 OF THE UNIFORM STANDARD SPECIFICATIONS.
4. AREAS OUTSIDE SIGN BORDERS SHALL BE BLACK.
5. THE SIGN BLANK SHALL BE OCTAGONAL.
6. THE PORTION OF THE STAFF WITHIN THE SIGN FACE SHALL MATCH THE SIGN COLORS.
7. ALL COLORS AND LETTERS SHALL MEET APPLICABLE FEDERAL STANDARDS.
8. THE STAFF SHALL CONSIST OF TWO SECTIONS JOINED BY A COUPLING LOCATED 60 IN. FROM THE BOTTOM OF THE STAFF. ALTERNATE DESIGNS MAY BE USED WHEN APPROVED BY THE TRAFFIC ENGINEER. ALL MATERIALS SHALL BE SUBSTANTIAL AND DURABLE.
9. THIS SIGN SHALL BE FURNISHED BY THE CONTRACTOR AND SHALL BE USED BY THE FLAGGER IN LIEU OF FLAGS OR OTHER SIGNALING DEVICES.
10. STOP - SIX (6) INCH SERIES C LETTERS. SLOW - SIX (6) INCH SERIES B LETTERS.
11. PADDLES SHALL CONFORM TO SECTION 6E-4 OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
12. THE PADDLE MAY BE SUPPLEMENTED BY ONE OR TWO SYMMETRICALLY POSITIONED ALTERNATELY FLASHING WHITE HIGH INTENSITY LAMPS ON EACH SIDE.



VERTICAL PANEL



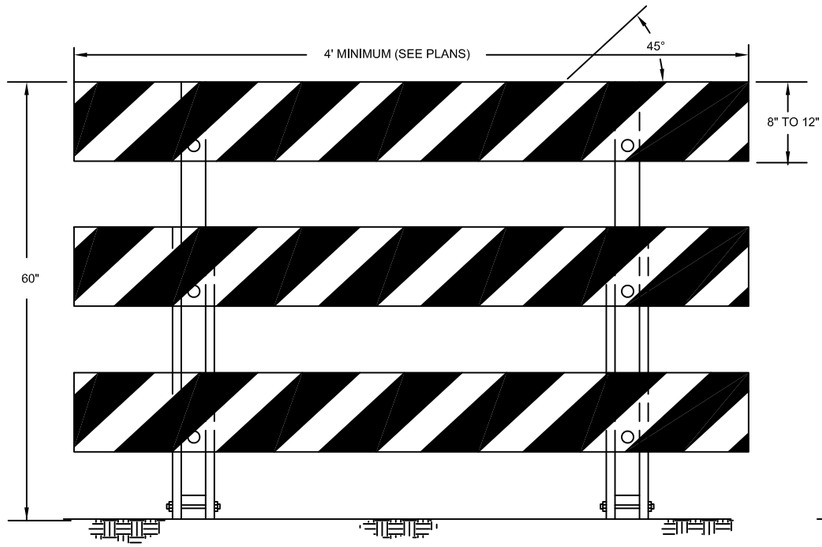
VERTICAL PANEL POST



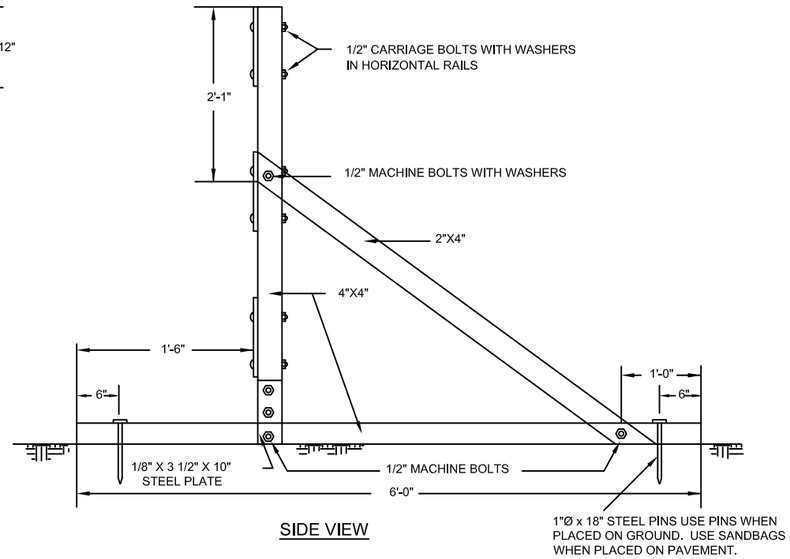
TRAFFIC DRUM

TRAFFIC CONTROL PLAN FOR HIGHWAY WORK ZONE	SPECIFICATION REFERENCE	TYPICAL APPLICATION FOR BARRICADES & FLAGGER TRAFFIC CONTROL SIGN STANDARD DESIGNS	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
			DATE 1-9-97 | DWG. NO. 601 (1 OF 2) | PAGE 140

TYPE IIIA BARRICADE
N.T.S.

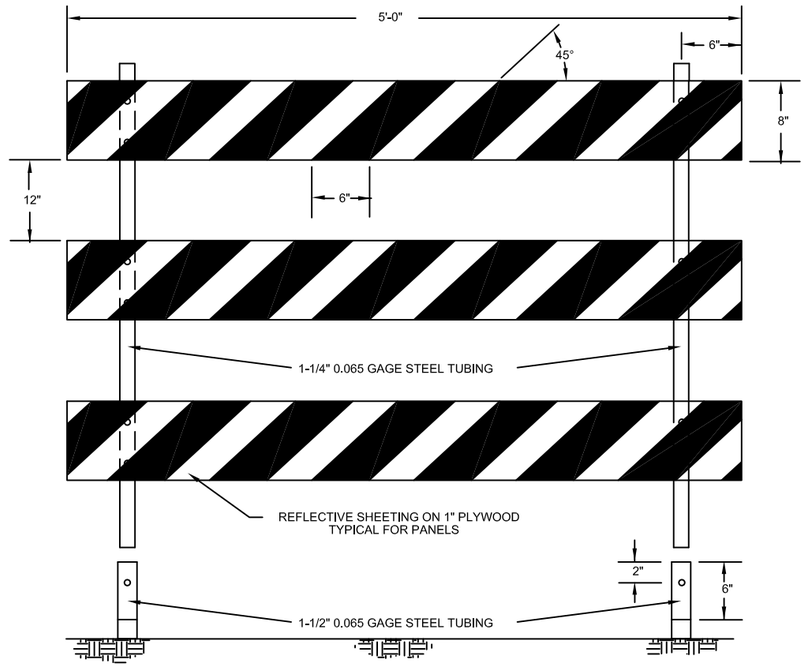


FRONT VIEW

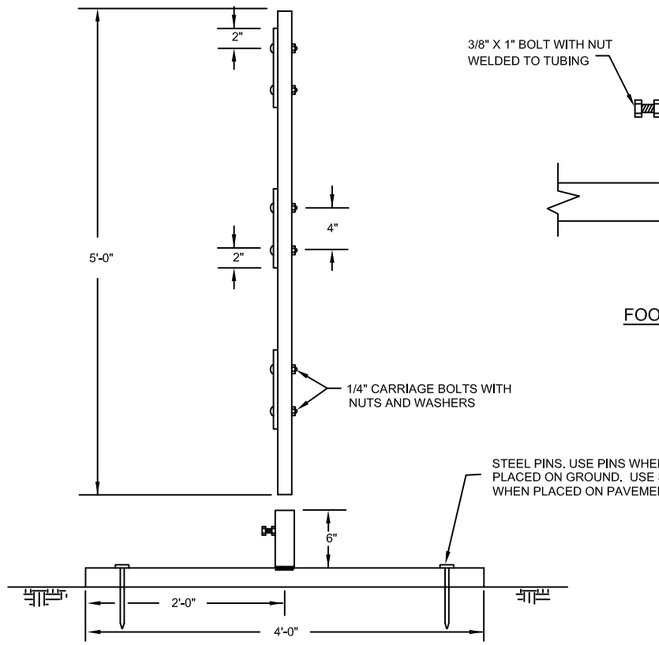


SIDE VIEW

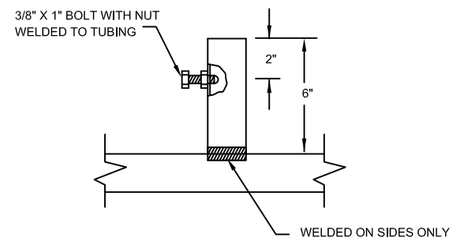
PORTABLE TYPE IIIA BARRICADE
N.T.S.



FRONT VIEW



SIDE VIEW



FOOT DETAIL

TRAFFIC CONTROL PLAN FOR HIGHWAY WORK ZONE	SPECIFICATION REFERENCE	TYPICAL APPLICATION FOR BARRICADES & FLAGGER TRAFFIC CONTROL SIGN STANDARD DESIGNS	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
			DATE 1-9-97 | DWG. NO. 601 (2 OF 2) | PAGE 140A

PORTABLE CONCRETE BARRIER RAIL SHALL BE USED TO PROTECT ANY WORK AREA IN WHICH IS ESTABLISHED A CONDITION SHOWN IN FIGURES A & B OR TABLES 1,2 & 3 (BELOW) WARRANTING A BARRIER

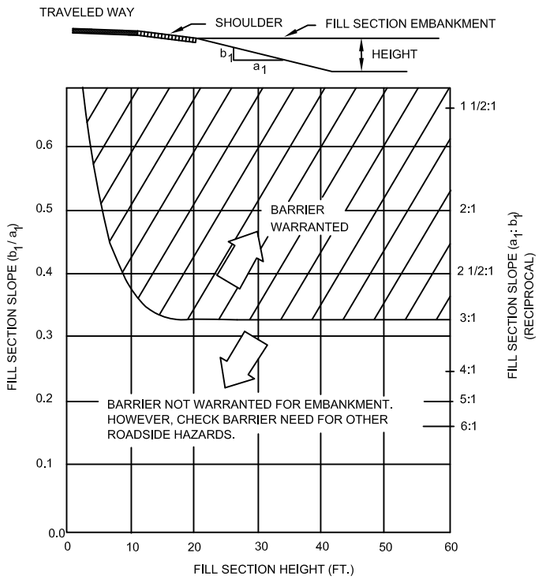


FIGURE A. WARRANTS FOR FILL SECTION EMBANKMENTS

THE TABLES AND FIGURES SHOWN ABOVE ARE TAKEN IN THEIR ENTIRETY FROM THE ROADSIDE DESIGN GUIDE, AMERICAN ASSOCIATION OF STATE HIGHWAY & TRANSPORTATION OFFICIALS (AASHTO). WASHINGTON, D.C. 1989 AND USED TO ESTIMATE CLEAR ZONE DIMENSION. REFER TO ROADSIDE DESIGN GUIDE FOR ADDITIONAL INFORMATION AND GUIDELINES WHICH SHOULD BE CONSIDERED.

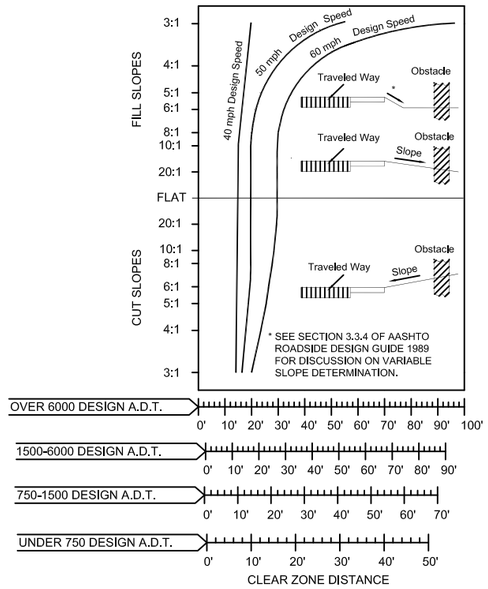


FIGURE B. CLEAR ZONE DISTANCE CURVES

(FOR SLOPES GREATER THAN 4:1 CONSULT AASHTO ROADSIDE DESIGN GUIDE 1989)

TABLE 1. CLEAR ZONE DISTANCES (IN FEET FROM EDGE OF DRIVING LANE)

DESIGN SPEED	DESIGN ADT	FILL SLOPES			CUT SLOPES		
		6:1 OR FLATTER	5:1 TO 4:1	3:1	3:1	5:1 TO 4:1	6:1 OR FLATTER
40 MPH OR LESS	UNDER 750	7-10	7-10	**	7-10	7-10	7-10
	750-1500	10-12	12-14	**	10-12	10-12	10-12
	1500-6000	12-14	14-16	**	12-14	12-14	12-14
	OVER 6000	14-16	16-18	**	14-16	14-16	14-16
45-50 MPH	UNDER 750	10-12	12-14	**	8-10	8-10	10-12
	750-1500	12-14	16-20	**	10-12	12-14	14-16
	1500-6000	16-18	20-26	**	12-14	14-16	16-18
	OVER 6000	18-20	24-28	**	14-16	18-20	20-22
55 MPH	UNDER 750	12-14	14-18	**	8-10	10-12	10-12
	750-1500	16-18	20-24	**	10-12	14-16	16-18
	1500-6000	20-22	24-30	**	14-16	16-18	20-22
	OVER 6000	22-24	26-32*	**	16-18	20-22	22-24
60 MPH	UNDER 750	16-18	20-24	**	10-12	12-14	14-16
	750-1500	20-24	26-32*	**	12-14	16-18	20-22
	1500-6000	26-30	32-40*	**	14-18	18-22	24-26
	OVER 6000	30-32*	36-44*	**	20-22	24-26	26-28
65-70 MPH	UNDER 750	18-20	20-26	**	10-12	14-16	14-16
	750-1500	24-26	28-36*	**	12-16	18-20	20-22
	1500-6000	28-32*	34-42*	**	16-20	22-24	26-28
	OVER 6000	30-34*	38-46*	**	22-24	26-30	28-30

* MAY BE LIMITED TO 30 FEET BASED SITE SPECIFIC INVESTIGATION. SEE ROADSIDE DESIGN GUIDE FOR FURTHER DISCUSSION.

** FIXED OBJECTS SHOULD NOT BE PRESENT IN THE VICINITY OF THE TOE OF THESE SLOPES. RECOVERY OF HIGH SPEED VEHICLES THAT ENCROACH BEYOND THE EDGE OF SHOULDER MAY BE EXPECTED TO OCCUR BEYOND THE TOE OF THE SLOPE. SEE ROADSIDE DESIGN GUIDE FOR FURTHER DISCUSSION.

TABLE 2. TYPICAL WARRANTS FOR NONTRAVERSABLE AND FIXED OBJECT HAZARDS

BRIDGE PIERS, ABUTMENTS AND RAILING ENDINGS	SHIELDING GENERALLY REQUIRED
BOULDERS	A JUDGEMENT DECISION BASED ON NATURE OF HAZARD AND LIKELIHOOD OF IMPACT
CULVERTS, PIPES, HEADWALLS	A JUDGEMENT DECISION BASED ON SIZE, SHAPE AND LOCATION OF HAZARD
CUT SLOPES (SMOOTH)	SHIELDING NOT GENERALLY REQUIRED
CUT SLOPES (ROUGH)	A JUDGEMENT DECISION BASED ON LIKELIHOOD OF IMPACT
DITCHES (PARALLEL)	REFER TO ROADSIDE DESIGN GUIDE SECTION 3.2.4
DITCHES (TRANSVERSE)	SHIELDING GENERALLY REQUIRED IF LIKELIHOOD OF HEAD-ON IMPACT IS HIGH
EMBANKMENT	A JUDGEMENT DECISION BASED ON FILL HEIGHT AND SLOPE (SEE FIGURE A)
RETAINING WALLS	A JUDGEMENT DECISION BASED ON RELATIVE SMOOTHNESS OF WALL AND ANTICIPATED MAXIMUM ANGLE OF IMPACT
SIGN/LUMINAIRE SUPPORTS [3]	SHIELDING GENERALLY REQUIRED FOR NON-BREAKAWAY SUPPORTS
TRAFFIC SIGNAL SUPPORTS [4]	ISOLATED TRAFFIC SIGNALS WITHIN CLEAR ZONE ON HIGH-SPEED RURAL FACILITIES MAY WARRANT SHIELDING
TREES	A JUDGEMENT DECISION BASED ON SITE SPECIFIC CIRCUMSTANCES
UTILITY POLES	SHIELDING MAY BE WARRANTED ON A CASE-BY-CASE BASIS
PERMANENT BODIES OF WATER	A JUDGEMENT DECISION BASED ON LOCATION AND DEPTH OF WATER AND LIKELIHOOD OF ENCROACHMENT

[1] SHIELDING A NON-TRAVERSABLE OR FIXED OBJECT HAZARD IS USUALLY WARRANTED ONLY WHEN THE HAZARD IS WITHIN THE CLEAR ZONE AND CANNOT PRACTICALLY OR ECONOMICALLY BE REMOVED, RELOCATED OR MADE BREAKAWAY, AND IT IS DETERMINED THAT THE BARRIER IS A LESSER HAZARD THAN THE UNSHIELDED CONDITION.

[2] MARGINAL SITUATIONS, WITH RESPECT TO PLACEMENT OR OMISSION OF A BARRIER, WILL USUALLY BE DECIDED BY ACCIDENT EXPERIENCE, EITHER AT THE SITE OR AT A COMPARABLE SITE.

[3] WHERE FEASIBLE, ALL SIGN AND LUMINAIRE SUPPORTS SHOULD BE A BREAKAWAY DESIGN REGARDLESS OF THEIR DISTANCE FROM THE ROADWAY IF THERE IS A REASONABLE LIKELIHOOD OF THEIR BEING HIT BY AN ERRANT MOTORIST.

[4] IN PRACTICE, RELATIVELY FEW TRAFFIC SIGNAL SUPPORTS, INCLUDING FLASHING LIGHT SIGNALS AND GATES USED AT RAILROAD CROSSING, ARE SHIELDED. IF SHIELDING IS DEEMED UNNECESSARY, HOWEVER, CRASH CUSHIONS ARE SOMETIMES USED IN LIEU OF A LONGITUDINAL BARRIER INSTALLATION.

TABLE 3. HORIZONTAL CURVE ADJUSTMENTS

K_{CZ} (CURVE CORRECTION FACTOR)

DEGREE OF CURVE	DESIGN SPEED						
	40	45	50	55	60	65	70
2.0	1.08	1.10	1.12	1.15	1.19	1.22	1.27
2.5	1.10	1.12	1.15	1.19	1.23	1.28	1.33
3.0	1.11	1.15	1.18	1.23	1.28	1.33	1.40
3.5	1.13	1.17	1.22	1.26	1.32	1.39	1.46
4.0	1.15	1.19	1.25	1.30	1.37	1.44	
4.5	1.17	1.22	1.28	1.34	1.41	1.49	
5.0	1.19	1.24	1.31	1.37	1.46		
6.0	1.23	1.29	1.36	1.45	1.54		
7.0	1.26	1.34	1.42	1.52			
8.0	1.30	1.38	1.48				
9.0	1.34	1.43	1.53				
10.0	1.37	1.47					
15.0	1.54						

$CZ_C = (L_C)(K_{CZ})$

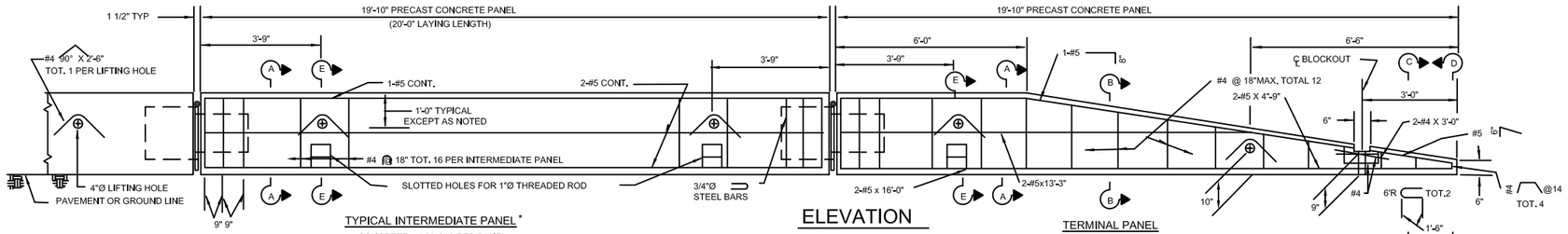
WHERE: CZ_C = CLEAR ZONE ON OUTSIDE OF CURVATURE, FT.

L_C = CLEAR ZONE DISTANCE, FT., FIGURE B.

K_{CZ} = CURVE CORRECTION FACTOR

NOTE: CLEAR ZONE CORRECTION FACTOR IS APPLIED TO OUTSIDE CURVES ONLY. CURVES FLATTER THAN 2° DO NOT REQUIRE AN ADJUSTED CLEAR ZONE.

TRAFFIC CONTROL PLAN FOR HIGHWAY WORK ZONE	SPECIFICATION REFERENCE	WARRANTING CONDITIONS FOR PORTABLE CONCRETE BARRIER RAIL	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
			DATE 1-9-97 | DWG. NO. 602 (1 OF 2) | PAGE 141



TYPICAL INTERMEDIATE PANEL *

CONCRETE: 1.93 C.Y. PER PANEL
REINFORCING: 169 LBS. PER PANEL
WEIGHT: 3.9 TONS PER PANEL

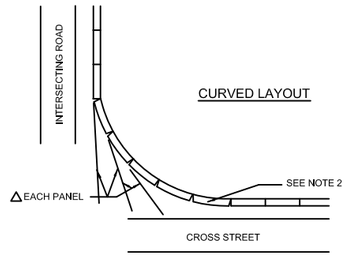
* ALTERNATE LENGTHS MAY BE USED IF APPROVED BY THE ENGINEER.

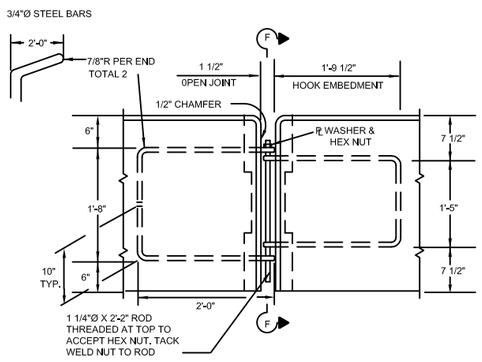
ELEVATION

TERMINAL PANEL

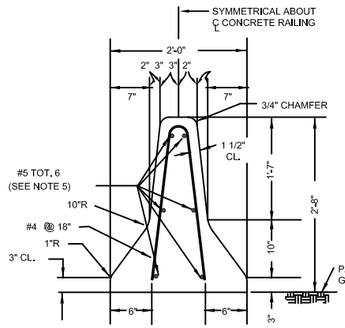
CONCRETE: 1.55 C.Y. PER PANEL
REINFORCING: 144 LBS. PER PANEL
WEIGHT: 3.1 TONS PER PANEL

NOTE:#4 @ 18" AND #4 @14" MAY BE REPLACED BY WELDED WIRE FABRIC OF EQUIVALENT CROSS-SECTIONAL AREA. FOR DETAILS NOT SHOWN IN SECTIONS B-B, C-C, & D-D, SEE SECTION A-A

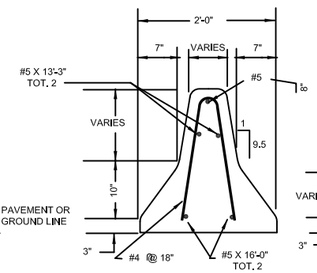




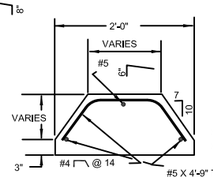
CONNECTION DETAIL



SECTION A-A



SECTION B-B



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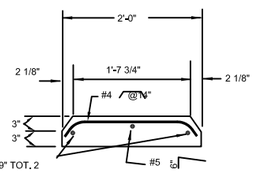

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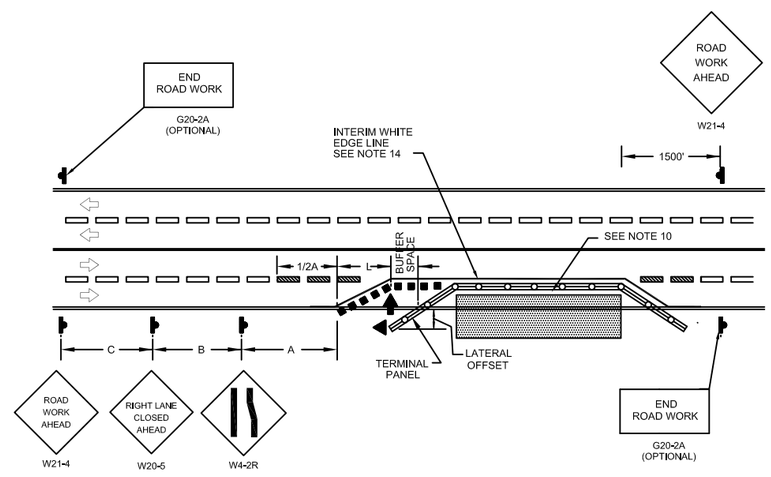
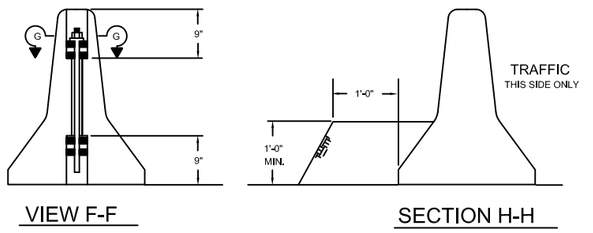
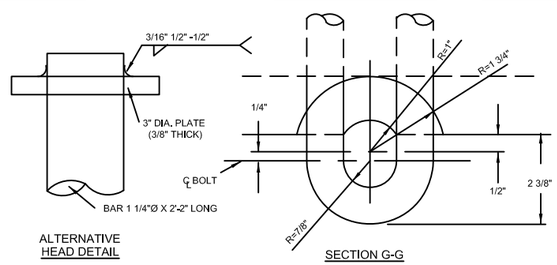






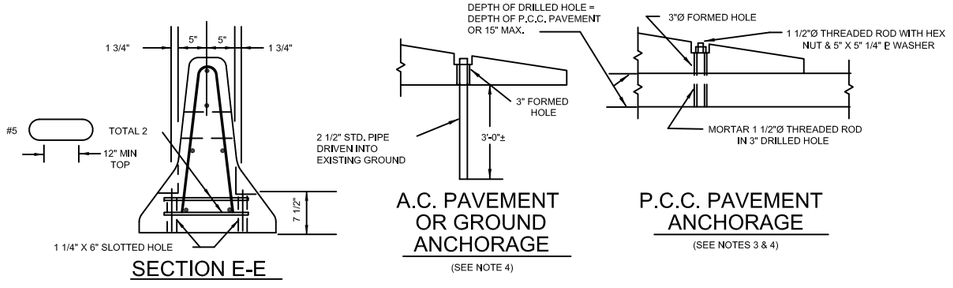
PIN CONNECTION DETAIL

TAPER LENGTHS FOR LANE CLOSURES - DISTANCE L					
SPEED MILES PER HOUR 85th PERCENTILE	TAPER LENGTH LANE WIDTH IN FEET 10	11	12	NUMBER OF CHANNELIZING DEVICES FOR TAPER	MAX. SPACING OF DEVICES ALONG TAPER IN FEET
20	70	75	80	5	20
25	105	115	125	6	25
30	150	165	180	7	30
35	205	225	245	8	35
40	270	295	320	9	40
45	450	495	540	13	45
50	500	550	600	13	50
55	550	605	660	13	55
60	600	660	720	13	60
65	650	715	780	13	65
70	700	770	840	13	70

BUFFER SPACE	
SPEED * (M.P.H.)	BUFFER SPACE (FT.)
70	585
65	485
60	415
55	335
50	280
45	220
40	170
35	120
30	85
25	55
20	35

* POSTED SPEED, OFF-PEAK 85TH PERCENTILE SPEED PRIOR TO WORK STARTING OR THE ANTICIPATED OPERATING SPEED.

PANEL ALIGNMENT		
SPEED (M.P.H.)	MAXIMUM TAPER	MINIMUM LATERAL OFFSET (FT.)
70	15:1	10.0
65	14:1	9.0
60	13:1	8.0
55	12:1	7.25
50	11:1	6.5
45	10:1	5.75
40	9:1	5.0
35	8:1	4.25
30	7:1	3.5
25	6:1	2.75
20	5:1	2.0



A.C. PAVEMENT OR GROUND ANCHORAGE
(SEE NOTE 4)

P.C.C. PAVEMENT ANCHORAGE
(SEE NOTES 3 & 4)

NOTES:

1. THE MINIMUM LENGTH OF PORTABLE BARRIER SYSTEM SHOULD BE 100 FT. IN ACCORDANCE WITH CURRENT EDITION AASHTO ROADSIDE DESIGN GUIDE.
2. WHERE BARRIERS ARE PLACED ON CURVES AND RADII THAT ARE TOO SEVERE TO MATCH UP JOINTS, BARRIERS ARE TO BE BACKED CONTINUOUSLY WITH EARTH FILL. SEE SECTION H-H.
3. BOLT UNITS TO DECK SLABS WHEN REQUIRED BY BRIDGE PLANS.
4. ATTACH UNITS TO PAVEMENT WHEN REQUIRED IN THE PLANS.
5. THE TWO #5 BARS SHALL BE EQUALLY SPACED FROM THE VERTEX OF THE STIRRUP BARS. ONE #5 BAR SHALL BE TIGHTLY WIRED TO THE STIRRUP BARS AND THE SECOND #5 BAR SHALL BE TACK WELDED TO THE STIRRUP BARS. EACH PROCESS SHALL BE CONTINUOUS FOR EACH #5 BAR.
6. THE USE OF A BARRIER SHALL BE BASED ON THE NEED DETERMINED IN SHEET 1 OF THIS DRAWING, IN CONJUNCTION WITH THE ROADSIDE DESIGN GUIDE, CURRENT EDITION, OR WHEN CALLED FOR ON THE PLANS.
7. BARRIERS SHALL BE FLARED BEYOND THE SHOULDER OR HAVE A CRASH CUSHION TO PROTECT TRAFFIC FROM THE END OF THE BARRIER. TERMINAL PANELS MAY BE USED AT ENDS ON PORTABLE BARRIER SYSTEM WHICH FACE ONCOMING TRAFFIC FOR SPEEDS LESS THAN 40 MPH.
8. ALTERNATE STRUCTURAL DETAILS MAY BE PERMITTED IF DOCUMENTED WITH DRAWINGS SUBMITTED BY THE CONTRACTOR AND APPROVED BY THE TRAFFIC ENGINEER.
9. EVERY PRECAST CONCRETE PANEL SHALL BE JOINED WITH EACH PANEL ADJACENT TO IT. THE CONNECTION DETAILS TO CONFORM WITH THOSE SHOWN ABOVE, OR CONFORMING WITH ALTERNATE DETAIL DESIGN SUBMITTED BY THE CONTRACTOR & APPROVED BY THE TRAFFIC ENGINEER. OPENINGS IN BARRIER SHOULD BE AVOIDED.
10. PROVIDE AT LEAST 3 FT. BETWEEN THE BARRIER AND THE WORK AREA.
11. IF LESS THAN 3 FT., BARRIER SHALL BE ANCHORED IN ACCORDANCE WITH CURRENT EDITION OF AASHTO ROADSIDE DESIGN GUIDE.
12. CORNERS OF BARRIERS MAY BE BEVELED TO ALLOW PLACEMENT ON CURVES AND SHOULD BE FREE FROM JAGGED EDGES TO AVOID SNAGGING OF VEHICLES.
13. WHEN TEMPORARY BARRIERS ARE INSTALLED ON BOTH SIDES OF TRAFFIC, BEGINNINGS OF BARRIERS SHOULD BE STAGGERED.
14. FOR BETTER NIGHT VISIBILITY, STEADY BURN LIGHTS MAY BE MOUNTED ALONG BARRIER.
15. AN INTERIM WHITE REFLECTORIZED EDGE LINE, 6" WIDE MINIMUM SHOULD BE INSTALLED FROM THE START OF THE TAPER TO A POINT BEYOND THE WORK AREA, REJOINING THE PERMANENT EDGE LINE. THE EDGE LINE SHALL BE REMOVEABLE, NON-FOIL TAPE.
16. THE BARRIER SHALL NOT BE PLACED ALONG MERGING TAPER. THE LANE SHALL FIRST BE CLOSED USING CHANNELIZING DEVICES AND PAVEMENT MARKINGS. THE BARRIER IS THEN PLACED ON A FLARE BEGINNING BEYOND THE DOWNSTREAM END OF THE MERGING TAPER.
17. ACCESS FOR CAT TRANSIT SERVICE, PEDESTRIANS AND BICYCLES SHALL BE MAINTAINED THROUGHOUT DURATION OF CONSTRUCTION. IF RE-ROUTING OF ACCESS IS NECESSARY, THE CONTRACTOR SHALL PROVIDE THE ENTITY'S TRAFFIC ENGINEER WITH A MAP SHOWING THE PROPOSED RE-ROUTES FOR APPROVAL. IF CONSTRUCTION OPERATIONS AFFECT CAT BUS STOPS OR FACILITIES, THE CONTRACTOR SHALL NOTIFY THE REGIONAL TRANSPORTATION COMMISSION AT 455-4481 AT LEAST 3 NORMAL WORKING DAYS PRIOR TO BEGINNING SUCH OPERATIONS.
18. WATER-FILLED BARRIER RAIL MAY BE USED ON SHORT TERM MOVING OPERATIONS WHEN APPROVED BY THE TRAFFIC ENGINEER.
19. TYPE "B" HIGH INTENSITY FLASHING WARNING LIGHTS MAY BE INSTALLED ABOVE EACH WORK ZONE CONSTRUCTION SIGN FOR USE DURING HOURS OF DARKNESS.

TABLE FOR SPACING OF ADVANCE WARNING SIGNS			
ROAD TYPE	DISTANCE BETWEEN SIGNS (FT) A	B	C
URBAN (LESS THAN 35 MPH)	200	200	200
URBAN (35 MPH OR GREATER)	350	350	350
RURAL	500	500	500
EXPRESSWAY/FREEWAY	1000	1600	2600

SYMBOLS

- TRAFFIC DIRECTION
- WORK AREA
- CHANNELIZING DEVICES
- STEADY BURN LIGHTS
- BARRIER
- ARROW PANEL
- CRASH CUSHION
- PAVEMENT MARKINGS THAT SHOULD BE REMOVED FOR LONG TERM PROJECT OF 72 CONTINUOUS HOURS OR MORE. PAINT NOT ALLOWED. MASK WITH APPROVED BLACK OUT TAPE OPTIONAL OR OBLITERATION AS APPROVED BY THE ENGINEER. TEMPORARY MARKINGS TO BE PLACED AS NEEDED.

TRAFFIC CONTROL PLAN FOR HIGHWAY WORK ZONE

SPECIFICATION REFERENCE

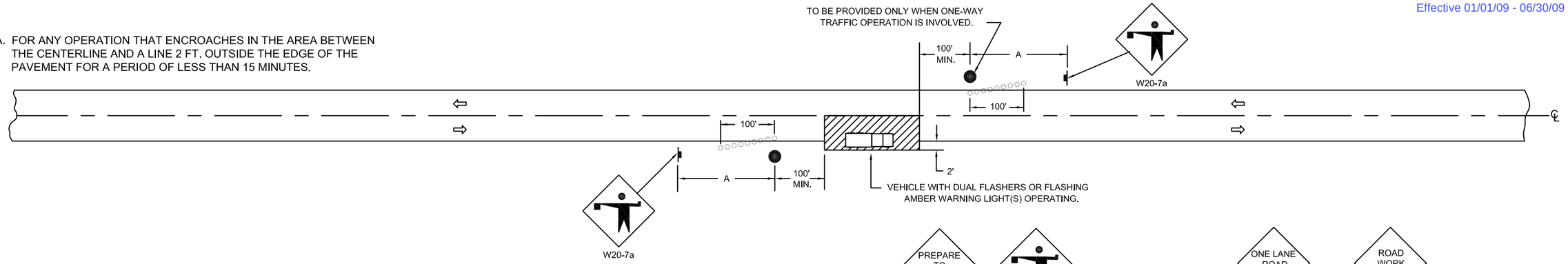
TYPICAL APPLICATION FOR

PORTABLE CONCRETE BARRIER RAIL

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

DATE 1-9-97 | DWG. NO. 602 (2 OF 2) | PAGE 141A

A. FOR ANY OPERATION THAT ENCROACHES IN THE AREA BETWEEN THE CENTERLINE AND A LINE 2 FT. OUTSIDE THE EDGE OF THE PAVEMENT FOR A PERIOD OF LESS THAN 15 MINUTES.



B. FOR ANY OPERATION THAT ENCROACHES IN THE AREA BETWEEN THE CENTERLINE AND A LINE 2 FT. OUTSIDE THE EDGE OF THE PAVEMENT FOR A PERIOD IN EXCESS OF 15 MINUTES BUT LESS THAN 60 MINUTES.

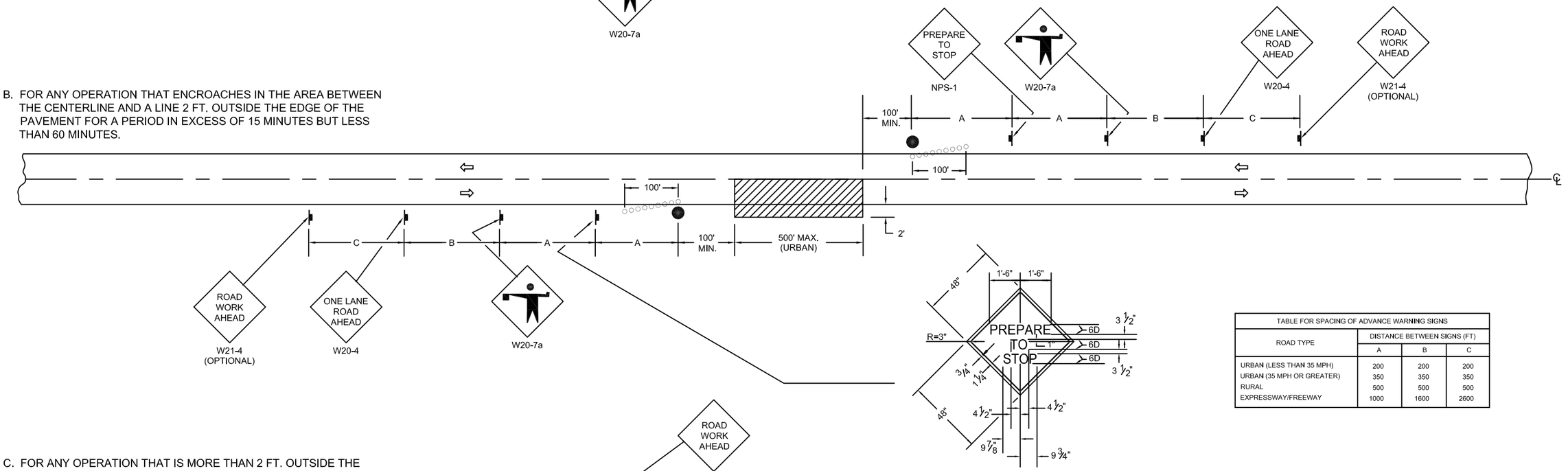
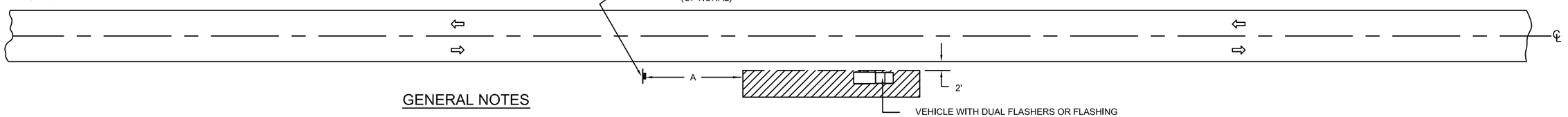


TABLE FOR SPACING OF ADVANCE WARNING SIGNS			
ROAD TYPE	DISTANCE BETWEEN SIGNS (FT)		
	A	B	C
URBAN (LESS THAN 35 MPH)	200	200	200
URBAN (35 MPH OR GREATER)	350	350	350
RURAL	500	500	500
EXPRESSWAY/FREEWAY	1000	1600	2600

C. FOR ANY OPERATION THAT IS MORE THAN 2 FT. OUTSIDE THE EDGE OF THE PAVEMENT FOR A PERIOD OF LESS THAN 60 MINUTES.



GENERAL NOTES

TYPICAL APPLICATIONS

MARKING PATCHES

FIELD SURVEY

STRING LINE

UTILITY OPERATION

CLEANING UP DEBRIS ON PAVEMENT

1. CONSTRUCTION OPERATIONS SHALL BE CONFINED TO ONE TRAFFIC LANE. ON TWO-LANE ROADS, AT LEAST 500 FT. OF BOTH TRAFFIC LANES SHALL BE AVAILABLE FOR TRAFFIC MOVEMENT AT INTERVALS NOT GREATER THAN 1,000 FT. AND A COMPLETE TRAFFIC CONTROL PLAN MUST BE APPROVED FOR ANY PROJECT EXPECTED TO EXCEED 1,000 FT. IN LENGTH.
2. THE FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES.
3. ALL SIGNS ARE TO BE REMOVED AT COMPLETION OF EACH OPERATION.
4. FOR THREE LANE ROADWAYS, THE FLAGGER SHOWN FOR TRAFFIC APPROACHING FROM THE OPPOSITE DIRECTION MAY BE DELETED, IF ONE LANE IS MAINTAINED IN EACH DIRECTION, AS DIRECTED BY THE TRAFFIC ENGINEER, THE ADVANCE WARNING SIGN FOR TRAFFIC APPROACHING FROM THE OPPOSITE DIRECTION OMITTED, AND THE "ONE LANE ROAD AHEAD" SIGN CHANGED TO "RIGHT (LEFT) LANE CLOSED AHEAD". FOR MULTILANE ROADWAYS WITH TWO LANES IN EACH DIRECTION, THE FLAGGER MAY BE DELETED IF DEEMED UNNECESSARY BY THE TRAFFIC ENGINEER.
5. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS BY THE TRAFFIC ENGINEER. THE LATERAL PLACEMENT OF THE FLAGGERS MAY BE VARIED FROM THAT SHOWN.
6. ALL VEHICLES, EQUIPMENT, WORKERS (EXCEPT FLAGGERS) AND THEIR ACTIVITIES ARE RESTRICTED AT ALL TIMES TO ONE SIDE OF THE PAVEMENT UNLESS OTHERWISE AUTHORIZED BY THE TRAFFIC ENGINEER.
7. ALL WARNING SIGNS SHALL HAVE BLACK LEGEND AND BORDER ON AN ORANGE BACKGROUND. ALL SIGNS HAVING AN ORANGE COLOR SHALL BE MADE OF MATERIALS CONFORMING TO SECTION 716.03.01 OF THE UNIFORM STANDARD SPECIFICATIONS.
8. IF WORKING AT OR NEAR A TRAFFIC SIGNAL, CONTACT LVACTS AT 229-6611 AND LOCAL ENTITY AT APPROPRIATE NUMBERS LISTED BELOW AT LEAST TWO WORKING DAYS PRIOR TO BEGINNING WORK.

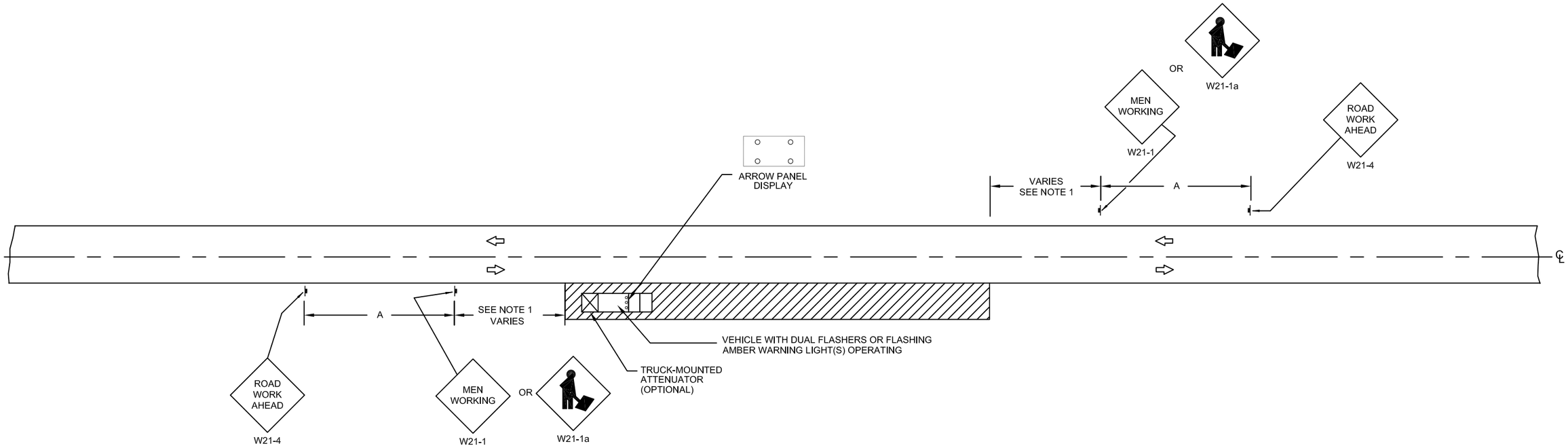
BOULDER CITY	293-9200	LAS VEGAS	229-6331
CLARK COUNTY	455-6100	MESQUITE	346-5295
HENDERSON	565-2140	NORTH LAS VEGAS	642-2462

9. IF THE WORK PLACE IS IN THE MEDIAN OF A DIVIDED HIGHWAY, AN ADVANCE WARNING SIGN SHOULD ALSO BE PLACED ON THE LEFT SIDE OF THE DIRECTIONAL ROADWAY.
10. ACCESS FOR CAT TRANSIT SERVICE, PEDESTRIANS AND BICYCLES SHALL BE MAINTAINED THROUGHOUT DURATION OF CONSTRUCTION. IF RE-ROUTING OF ACCESS IS NECESSARY, THE CONTRACTOR SHALL PROVIDE THE ENTITY'S TRAFFIC ENGINEER WITH A MAP SHOWING THE PROPOSED RE-ROUTES FOR APPROVAL. IF CONSTRUCTION OPERATIONS AFFECT CAT BUS STOPS OR FACILITIES, THE CONTRACTOR SHALL NOTIFY THE REGIONAL TRANSPORTATION COMMISSION AT 455-4481 AT LEAST 3 NORMAL WORKING DAYS PRIOR TO BEGINNING SUCH OPERATIONS.
11. FLOODLIGHTS SHOULD BE PROVIDED TO MARK FLAGGER STATIONS AT NIGHT AS NEEDED.
12. TYPE "B" HIGH INTENSITY FLASHING WARNING LIGHTS MAY BE INSTALLED ABOVE EACH WORK ZONE CONSTRUCTION FOR USE DURING HOURS OF DARKNESS.

SYMBOLS

- WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH TRAFFIC CONTROL SIGN
- TRAFFIC CONES
- TRAFFIC DIRECTION

TRAFFIC CONTROL PLAN FOR HIGHWAY WORK ZONE	SPECIFICATION REFERENCE	TYPICAL APPLICATION FOR SHORT TIME, DAY OR NIGHT OPERATIONS	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
			DATE 1-9-97 / DWG NO. 603 (1 OF 1) / PAGE 142



GENERAL NOTES

1. MINIMUM DISTANCE IS 200 FT. MAXIMUM DISTANCE TO BE DETERMINED BY THE TRAFFIC ENGINEER BUT SHOULD NOT EXCEED 1/2 THE LENGTH REQUIRED FOR ONE NORMAL WORKING DAY'S OPERATION. IN SITUATIONS WHERE MULTIPLE WORK LOCATIONS IN A LIMITED DISTANCE MAKE IT PRACTICABLE TO PLACE STATIONARY SIGNS, THE MAXIMUM SPACING FOR THE ADVANCE WARNING SIGN IS 5 MILES IN ADVANCE OF THE WORK.
2. IF THE WORK OPERATION DOES NOT EXCEED 60 MINUTES, TRAFFIC CONTROL MAY BE IN CONFORMANCE WITH STANDARD DRAWING NO. 603.
3. ALL SIGNS ARE TO BE REMOVED AT COMPLETION OF THE DAY'S OPERATION.
4. FOR DIVIDED ROADWAYS THE REQUIRED ADVANCE WARNING SIGNS SHALL BE POSTED ON BOTH THE RIGHT AND MEDIAN SIDE OF THE AFFECTED APPROACH.
5. FOR MULTILANE ROADWAYS THE ADVANCE WARNING SIGNS MAY BE REQUIRED FOR TRAFFIC APPROACHING FROM THE OPPOSITE DIRECTION.
6. WORKER SIGNS ARE TO BE REMOVED WHEN NO WORK IS BEING PERFORMED. ANY UNATTENDED OBSTACLE OR EXCAVATION IN THE WORK AREA, WHICH IN THE OPINION OF THE TRAFFIC ENGINEER CONSTITUTES A HAZARD, SHALL BE PROTECTED BY BARRICADES WITH FLASHING LIGHTS AT NIGHT AT THE POINTS OF HAZARD. STEADY BURNING LIGHTS SHALL BE USED FOR DELINEATION AND LONG LINE GUIDANCE. BARRICADES SHALL BE PLACED ACCORDING TO MAXIMUM SPACING VALUES LISTED IN THE TABLE BELOW.

TAPER LENGTHS FOR LANE CLOSURES - DISTANCE L					
SPEED	TAPER LENGTH LANE WIDTH IN FEET			NUMBER OF CHANNELIZING DEVICES FOR TAPER	MAX. SPACING OF DEVICES ALONG TAPER IN FEET
MILES PER HOUR 85th PERCENTILE	10	11	12		
20	70	75	80	5	20
25	105	115	125	6	25
30	150	165	180	7	30
35	205	225	245	8	35
40	270	295	320	9	40
45	450	495	540	13	45
50	500	550	600	13	50
55	550	605	660	13	55
60	600	660	720	13	60
65	650	715	780	13	65
70	700	770	840	13	70

7. IF THE WORK OPERATION REQUIRES ANY WORK VEHICLE TO ENTER OR LEAVE THE THROUGH TRAFFIC LANES, A FLAGGER SHALL BE PROVIDED AND THE FLAGGER SIGN SHALL BE SUBSTITUTED FOR THE WORKER SIGN. A 100 FT. CONE TAPER SHALL BE PROVIDED PRIOR TO STATION TO PROTECT THE FLAGGER. FLAGGER IS NOT REQUIRED FOR 25 MPH OR LESS RESIDENTIAL STREETS.
8. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS BY THE TRAFFIC ENGINEER.
9. ALL VEHICLES, EQUIPMENT, WORKERS AND THEIR ACTIVITIES ARE RESTRICTED AT ALL TIMES TO ONE SIDE OF THE PAVEMENT UNLESS OTHERWISE AUTHORIZED BY THE TRAFFIC ENGINEER.
10. ALL WARNING SIGNS SHALL HAVE BLACK LEGEND AND BORDER ON AN ORANGE BACKGROUND. ALL SIGNS HAVING AN ORANGE COLOR SHALL BE MADE OF MATERIALS CONFORMING TO SECTION 716.03.01 OF THE UNIFORM STANDARD SPECIFICATIONS.
11. TABLE FOR SPACING OF ADVANCE WARNING SIGNS

TABLE FOR SPACING OF ADVANCE WARNING SIGNS			
ROAD TYPE	DISTANCE BETWEEN SIGNS (FT)		
	A	B	C
URBAN (LESS THAN 35 MPH)	200	200	200
URBAN (35 MPH OR GREATER)	350	350	350
RURAL	500	500	500
EXPRESSWAY/FREEWAY	1000	1600	2600

12. IF WORKING AT OR NEAR A TRAFFIC SIGNAL, CONTACT LVACTS AT 229-6611 AND LOCAL ENTITY AT APPROPRIATE NUMBERS LISTED BELOW AT LEAST TWO WORKING DAYS PRIOR TO BEGINNING WORK.

BOULDER CITY	293-9200	MESQUITE	346-5295
CLARK COUNTY	455-6100	NORTH LAS VEGAS	642-2462
HENDERSON	565-2140		
LAS VEGAS	229-6331		

13. ACCESS FOR CAT TRANSIT SERVICE, PEDESTRIANS AND BICYCLES SHALL BE MAINTAINED THROUGHOUT DURATION OF CONSTRUCTION. IF RE-ROUTING OF ACCESS IS NECESSARY, THE CONTRACTOR SHALL PROVIDE THE ENTITY'S TRAFFIC ENGINEER WITH A MAP SHOWING THE PROPOSED RE-ROUTES FOR APPROVAL. IF CONSTRUCTION OPERATIONS AFFECT CAT BUS STOPS OR FACILITIES, THE CONTRACTOR SHALL NOTIFY THE REGIONAL TRANSPORTATION COMMISSION AT 455-4481 AT LEAST 3 NORMAL WORKING DAYS PRIOR TO BEGINNING SUCH OPERATIONS.

TYPICAL APPLICATIONS

SHOULDER WORK

MOWING

UTILITY OPERATIONS

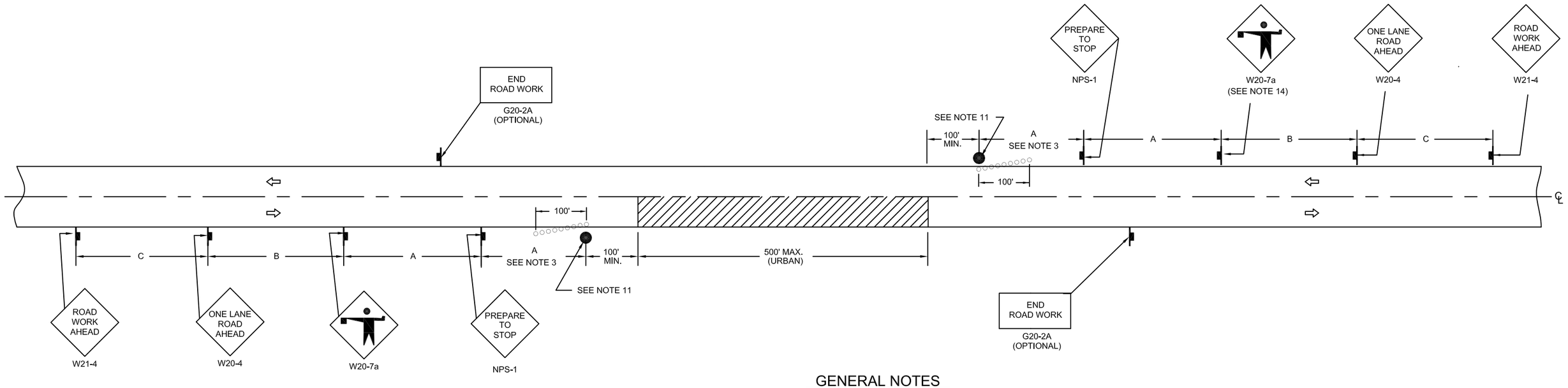
SYMBOLS

WORK AREA

SIGN ON PORTABLE OR PERMANENT SUPPORT

TRAFFIC DIRECTION

TRAFFIC CONTROL PLAN FOR HIGHWAY WORK ZONE	SPECIFICATION REFERENCE	TYPICAL APPLICATION FOR	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
		RURAL MOVING DAY OPERATIONS WHERE ACTIVITIES ENCROACH ON THE SHOULDER	DATE 1-9-97 | DWG NO. 604 (1 OF 1) | PAGE 143



SHALL BE USED WHEN PRIME COAT IS APPLIED TO PAVEMENT AND SHALL REMAIN UNTIL NO TRACKING. INSTALL A MINIMUM OF 500 FT. PRECEDING START OF PRIME.

W21-2

GENERAL NOTES

1. CONSTRUCTION OPERATIONS SHALL BE CONFINED TO ONE TRAFFIC LANE, LEAVING THE OPPOSITE LANE OPEN TO TRAFFIC. AT LEAST 500ft. OF BOTH TRAFFIC LANES SHALL BE AVAILABLE FOR TRAFFIC MOVEMENT AT INTERVALS NOT GREATER THAN 1,000 FT. A SPECIAL TRAFFIC CONTROL DETAIL MUST BE APPROVED FOR ANY PROJECT EXPECTED TO EXCEED 1,000 FT. IN LENGTH.
2. THE FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIME.
3. MAXIMUM DISTANCE TO BE DETERMINED BY THE TRAFFIC ENGINEER BUT SHOULD NOT EXCEED 1/2 THE LENGTH REQUIRED FOR ONE NORMAL WORKING DAY'S OPERATION OR 1,000 FT,. WHICHEVER IS LESS.
4. IF THE WORK OPERATION DOES NOT EXCEED 60 MINUTES, TRAFFIC CONTROL WILL BE IN CONFORMANCE WITH STANDARD DRAWING NO. 603.
5. ALL SIGNS ARE TO BE REMOVED AT COMPLETION OF THE DAY'S OPERATIONS.
6. FOR DIVIDED ROADWAYS THE REQUIRED ADVANCE WARNING SIGNS SHALL BE POSTED ON BOTH THE RIGHT AND LEFT SIDE OF THE AFFECTED APPROACH.
7. FOR MULTILANE ROADWAYS, THE FLAGGER AND THE ADVANCE WARNING SIGNS SHOWN MAY BE REQUIRED FOR TRAFFIC APPROACHING FROM THE OPPOSITE DIRECTION. "RIGHT LANE CLOSED AHEAD" SIGNS SHALL BE SUBSTITUTED FOR THE "ONE LANE ROAD AHEAD" SIGNS.
8. THIS CASE ALSO APPLIES WHEN WORK IS BEING PERFORMED IN LANES ADJACENT TO THE CENTERLINE OF AN UNDIVIDED MULTILANE HIGHWAY OR ADJACENT TO THE MEDIAN ON A DIVIDED HIGHWAY. UNDER THESE CONDITIONS, "LEFT LANE CLOSED AHEAD" SIGNS SHALL BE SUBSTITUTED FOR "RIGHT LANE CLOSED AHEAD" SIGNS.
9. THIS CASE DOES NOT APPLY WHEN WORK IS BEING PERFORMED IN THE MIDDLE LANE(S) OF A SIX OR MORE LANE HIGHWAY. SPECIAL TRAFFIC CONTROL DETAILS APPROVED BY THE TRAFFIC ENGINEER WILL BE REQUIRED.
10. "ONE LANE ROAD AHEAD" AND FLAGGER SIGNS SHALL BE REMOVED OR COVERED WHEN NO WORK IS BEING PERFORMED.
11. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS BY THE TRAFFIC ENGINEER. THE LATERAL PLACEMENT OF THE FLAGGERS MAY BE VARIED FROM THAT SHOWN. IF A CURVED SECTION OF ROADWAY IS INVOLVED FLAGGER SHOULD BE PLACED AT THE BEGINNING OF CURVE (P.C.).
12. ALL VEHICLES, EQUIPMENT, WORKERS (EXCEPT FLAGGERS) AND THEIR ACTIVITIES ARE RESTRICTED AT ALL TIMES TO ONE SIDE OF THE PAVEMENT UNLESS OTHERWISE AUTHORIZED BY THE TRAFFIC ENGINEER.
13. ALL WARNING SIGNS SHALL HAVE BLACK LEGEND AND BORDER ON AN ORANGE BACKGROUND. ALL SIGNS HAVING AN ORANGE COLOR SHALL BE MADE OF MATERIALS CONFORMING TO SECTION 716.03.01 OF THE UNIFORM STANDARD SPECIFICATIONS.
14. IN MULTILANE SITUATIONS, THE FLAGGER AND FLAGGER WARNING SIGNS ON THE SIDE OPPOSITE TO THE WORK AREA ARE REQUIRED ONLY WHEN TRAFFIC IN ANY DIRECTION IS MADE TO CROSS THE ROAD CENTER LINE.
15. TABLE FOR SPACING OF ADVANCE WARNING SIGNS

TABLE FOR SPACING OF ADVANCE WARNING SIGNS			
ROAD TYPE	DISTANCE BETWEEN SIGNS (FT)		
	A	B	C
URBAN (LESS THAN 35 MPH)	200	200	200
URBAN (35 MPH OR GREATER)	350	350	350
RURAL	500	500	500
EXPRESSWAY/FREEWAY	1000	1600	2600

16. IF WORKING AT OR NEAR A TRAFFIC SIGNAL, CONTACT LVACTS AT 229-6611 AND LOCAL ENTITY AT APPROPRIATE NUMBERS LISTED BELOW AT LEAST TWO WORKING DAYS PRIOR TO BEGINNING WORK.

BOULDER CITY	293-9200	LAS VEGAS	229-6331
CLARK COUNTY	455-6100	MESQUITE	346-5295
HENDERSON	565-2140	NORTH LAS VEGAS	642-2462

17. ACCESS FOR CAT TRANSIT SERVICE, PEDESTRIANS AND BICYCLES SHALL BE MAINTAINED THROUGHOUT DURATION OF CONSTRUCTION. IF RE-ROUTING OF ACCESS IS NECESSARY, THE CONTRACTOR SHALL PROVIDE THE ENTITY'S TRAFFIC ENGINEER WITH A MAP SHOWING THE PROPOSED RE-ROUTES FOR APPROVAL. IF CONSTRUCTION OPERATIONS AFFECT CAT BUS STOPS OR FACILITIES, THE CONTRACTOR SHALL NOTIFY THE REGIONAL TRANSPORTATION COMMISSION AT 455-4481 AT LEAST 3 NORMAL WORKING DAYS PRIOR TO BEGINNING SUCH OPERATIONS.

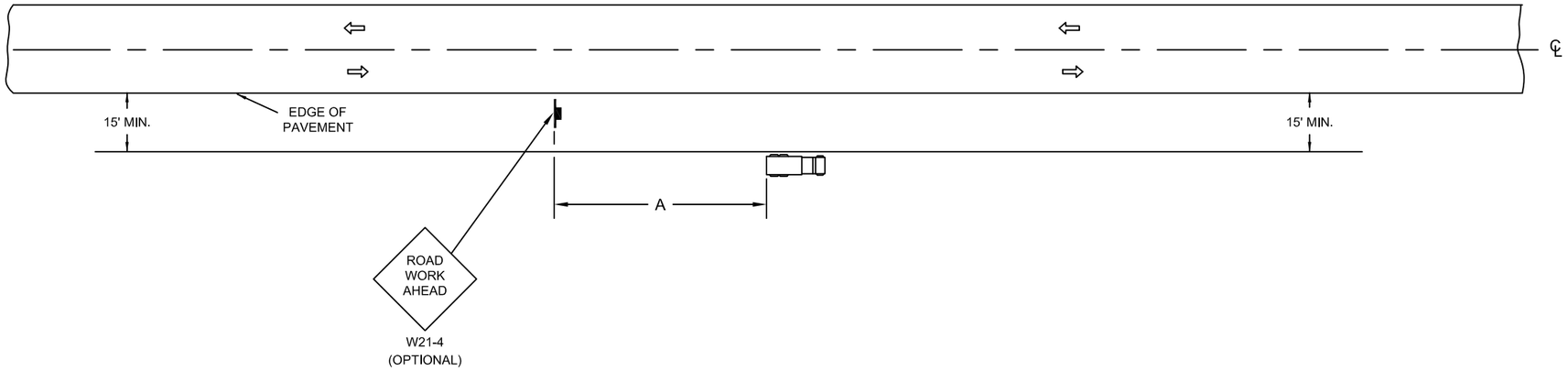
TYPICAL APPLICATIONS

BITUMINOUS RESURFACING
CRACK POURING
UTILITY OPERATIONS

SYMBOLS

- WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH TRAFFIC CONTROL SIGN
- TRAFFIC CONE
- TRAFFIC DIRECTION

TRAFFIC CONTROL PLAN FOR HIGHWAY WORK ZONE	SPECIFICATION REFERENCE	TYPICAL APPLICATION FOR RURAL MOVING DAY OPERATIONS WHERE ACTIVITIES ENCROACH ON THE PAVEMENT	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
			DATE 1-9-97 | DWG NO. 605 (1 OF 1) | PAGE 144



GENERAL NOTES

1. NO SPECIAL SIGNING IS REQUIRED.
2. IF THE WORK OPERATION REQUIRES ANY WORK VEHICLES TO CROSS THE 15 FT. CLEAR ZONE, TRAFFIC CONTROL SHALL CONFORM WITH STANDARD DRAWING NO. 607.
3. IF WORKING AT OR NEAR A TRAFFIC SIGNAL, CONTACT LVACTS AT 229-6611 AND LOCAL ENTITY AT APPROPRIATE NUMBERS LISTED BELOW AT LEAST TWO WORKING DAYS PRIOR TO BEGINNING WORK.

BOULDER CITY	293-9200	MESQUITE	346-5295
CLARK COUNTY	455-6100	NORTH LAS VEGAS	642-2462
HENDERSON	565-2140		
LAS VEGAS	229-6331		

4. TYPE "B" HIGH INTENSITY FLASHING WARNING LIGHTS MAY BE INSTALLED ABOVE EACH WORK ZONE CONSTRUCTION SIGN FOR USE DURING HOURS OF DARKNESS.

TYPICAL APPLICATIONS

- LANDSCAPING WORK
- UTILITY WORK
- FENCING CONTRACTS AND MAINTENANCE
- CLEANING CULVERTS

SYMBOLS

- SIGN ON PORTABLE OR PERMANENT SUPPORT
- TRAFFIC DIRECTION

TABLE FOR SPACING OF ADVANCE WARNING SIGNS

ROAD TYPE	DISTANCE BETWEEN SIGNS (FT)		
	A	B	C
URBAN (LESS THAN 35 MPH)	200	200	200
URBAN (35 MPH OR GREATER)	350	350	350
RURAL	500	500	500
EXPRESSWAY/FREEWAY	1000	1600	2600

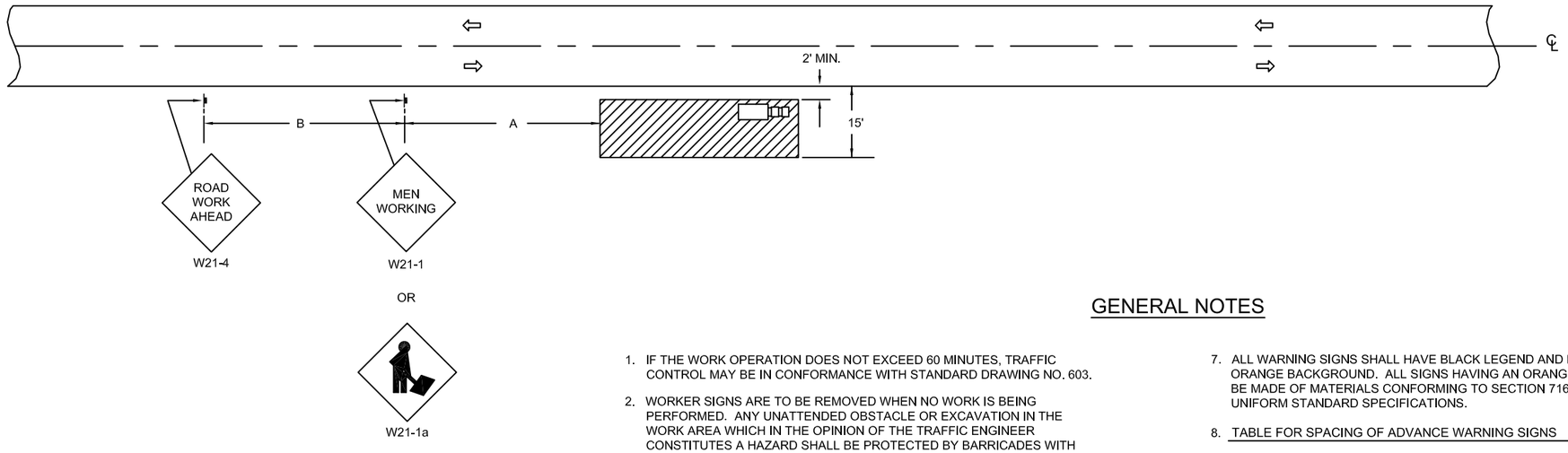
TRAFFIC CONTROL PLAN FOR HIGHWAY WORK ZONE

SPECIFICATION REFERENCE

TYPICAL APPLICATION FOR
2-LANE, 2-WAY, RURAL DAY OR NIGHT OPERATIONS WHERE ACTIVITIES ARE MORE THAN 15 FT. FROM EDGE OF PAVEMENT

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

DATE 1-9-97 | DWG NO. 606 (1 OF 1) | PAGE 145



TYPICAL APPLICATIONS

UTILITY OPERATION
CULVERT EXTENSIONS
SIDE SLOPE CHANGES
GUARD RAIL INSTALLATION AND MAINTENANCE
DELINEATOR INSTALLATION AND MAINTENANCE
LANDSCAPING OPERATIONS
CLEANING DITCHES AND DRAINAGE STRUCTURES
SIGN INSTALLATION AND MAINTENANCE
SHOULDER REPAIR

SYMBOLS

WORK AREA

SIGN ON PORTABLE OR PERMANENT SUPPORT

TRAFFIC DIRECTION

GENERAL NOTES

1. IF THE WORK OPERATION DOES NOT EXCEED 60 MINUTES, TRAFFIC CONTROL MAY BE IN CONFORMANCE WITH STANDARD DRAWING NO. 603.

2. WORKER SIGNS ARE TO BE REMOVED WHEN NO WORK IS BEING PERFORMED. ANY UNATTENDED OBSTACLE OR EXCAVATION IN THE WORK AREA WHICH IN THE OPINION OF THE TRAFFIC ENGINEER CONSTITUTES A HAZARD SHALL BE PROTECTED BY BARRICADES WITH FLASHING LIGHTS AT NIGHT AT THE POINTS OF HAZARD. STEADY BURNING LIGHTS SHALL BE USED FOR DELINEATION AND LONG LINE GUIDANCE. BARRICADES SHALL BE PLACED ACCORDING TO MAXIMUM SPACING VALUES LISTED IN THE TABLE BELOW.

TAPER LENGTHS FOR LANE CLOSURES - DISTANCE L					
SPEED	TAPER LENGTH LANE WIDTH IN FEET			NUMBER OF CHANNELIZING DEVICES FOR TAPER	MAX. SPACING OF DEVICES ALONG TAPER IN FEET
MILES PER HOUR 85th PERCENTILE	10	11	12		
20	70	75	80	5	20
25	105	115	125	6	25
30	150	165	180	7	30
35	205	225	245	8	35
40	270	295	320	9	40
45	450	495	540	13	45
50	500	550	600	13	50
55	550	605	660	13	55
60	600	660	720	13	60
65	650	715	780	13	65
70	700	770	840	13	70

3. TYPE "B" HIGH INTENSITY FLASHING WARNING LIGHTS MAY BE INSTALLED ABOVE EACH WORK ZONE CONSTRUCTION SIGN FOR USE DURING HOURS OF DARKNESS.

4. IF THE WORK OPERATION REQUIRES ANY WORK VEHICLES TO ENTER OR LEAVE THROUGH TRAFFIC LANES, A FLAGGER SHALL BE PROVIDED AND A FLAGGER SIGN SHALL BE SUBSTITUTED FOR THE WORKER SIGN. A 100 FT. CONE TAPER SHALL BE PROVIDED PRIOR TO STATION TO PROTECT THE FLAGGER. FLAGGER IS NOT REQUIRED FOR 25 MPH OR LESS RESIDENTIAL STREETS.

5. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS BY THE TRAFFIC ENGINEER.

6. ALL VEHICLES, EQUIPMENT, WORKERS AND THEIR ACTIVITIES ARE RESTRICTED AT ALL TIMES TO ONE SIDE OF THE PAVEMENT UNLESS OTHERWISE AUTHORIZED BY THE TRAFFIC ENGINEER.

7. ALL WARNING SIGNS SHALL HAVE BLACK LEGEND AND BORDER ON AN ORANGE BACKGROUND. ALL SIGNS HAVING AN ORANGE COLOR SHALL BE MADE OF MATERIALS CONFORMING TO SECTION 716.03.01 OF THE UNIFORM STANDARD SPECIFICATIONS.

8. TABLE FOR SPACING OF ADVANCE WARNING SIGNS

TABLE FOR SPACING OF ADVANCE WARNING SIGNS			
ROAD TYPE	DISTANCE BETWEEN SIGNS (FT)		
	A	B	C
URBAN (LESS THAN 35 MPH)	200	200	200
URBAN (35 MPH OR GREATER)	350	350	350
RURAL	500	500	500
EXPRESSWAY/FREEWAY	1000	1600	2600

9. IF WORKING AT OR NEAR A TRAFFIC SIGNAL, CONTACT LVACTS AT 229-6611 AND LOCAL ENTITY AT APPROPRIATE NUMBERS LISTED BELOW AT LEAST TWO WORKING DAYS PRIOR TO BEGINNING WORK.

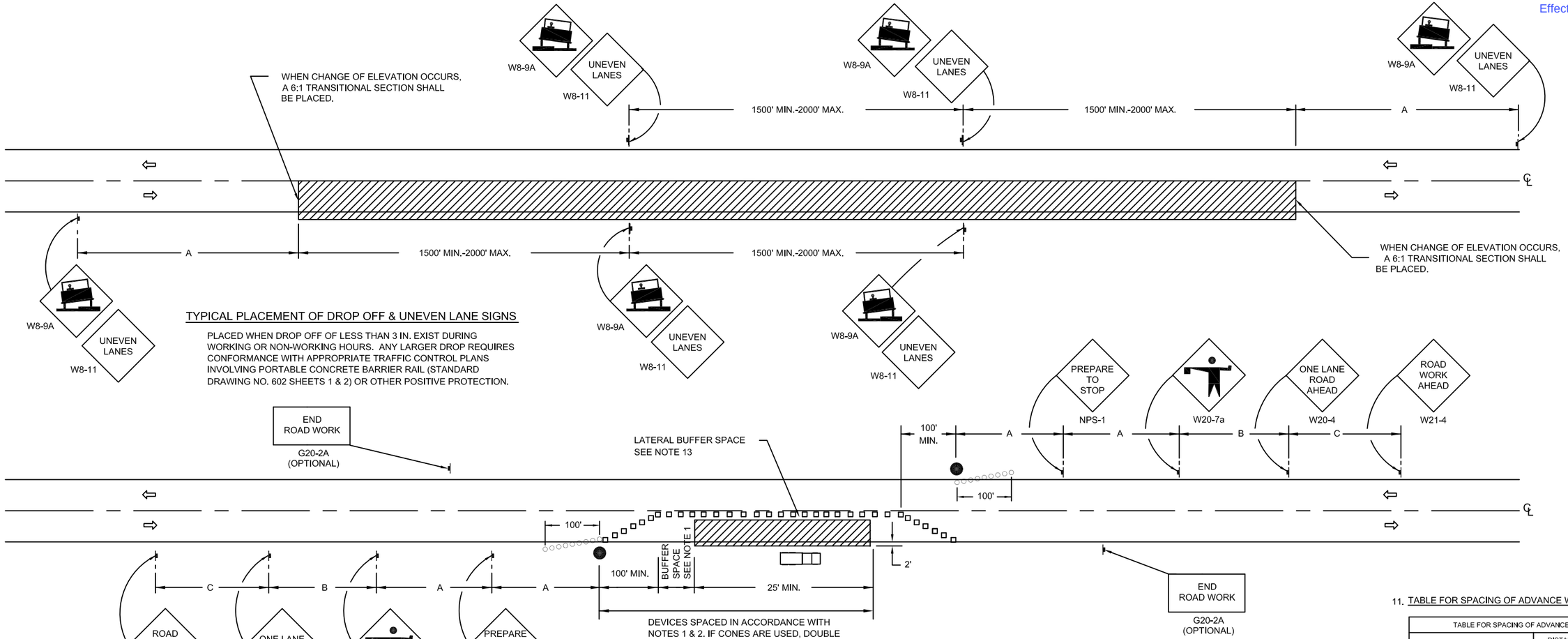
BOULDER CITY	293-9200	LAS VEGAS	229-6331
CLARK COUNTY	455-6100	MESQUITE	346-5295
HENDERSON	565-2140	NORTH LAS VEGAS	642-2462

10. FLOODLIGHTS SHOULD BE PROVIDED TO MARK FLAGGER STATIONS AT NIGHT AS NEEDED.

11. IF WORKSPACE IS IN THE MEDIAN OF A DIVIDED HIGHWAY, AN ADVANCE WARNING SIGN SHOULD ALSO BE PLACED ON THE LEFT SIDE OF THE DIRECTIONAL ROADWAY.

12. ACCESS FOR CAT TRANSIT SERVICE, PEDESTRIANS AND BICYCLES SHALL BE MAINTAINED THROUGHOUT DURATION OF CONSTRUCTION. IF RE-ROUTING OF ACCESS IS NECESSARY, THE CONTRACTOR SHALL PROVIDE THE ENTITY'S TRAFFIC ENGINEER WITH A MAP SHOWING THE PROPOSED RE-ROUTES FOR APPROVAL. IF CONSTRUCTION OPERATIONS AFFECT CAT BUS STOPS OR FACILITIES, THE CONTRACTOR SHALL NOTIFY THE REGIONAL TRANSPORTATION COMMISSION AT 455-4481 AT LEAST 3 NORMAL WORKING DAYS PRIOR TO BEGINNING SUCH OPERATIONS.

TRAFFIC CONTROL PLAN FOR HIGHWAY WORK ZONE	SPECIFICATION REFERENCE	TYPICAL APPLICATION FOR 2-LANE, 2-WAY, RURAL DAY OR NIGHT OPERATIONS WHERE ACTIVITIES WILL ENCROACH BETWEEN 15 FT. & 2 FT. OUTSIDE OF PAVEMENT EDGE	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
			DATE 1-9-97 | DWG NO. 607 (1 OF 1) | PAGE 146



TYPICAL PLACEMENT OF DROP OFF & UNEVEN LANE SIGNS

PLACED WHEN DROP OFF OF LESS THAN 3 IN. EXIST DURING WORKING OR NON-WORKING HOURS. ANY LARGER DROP REQUIRES CONFORMANCE WITH APPROPRIATE TRAFFIC CONTROL PLANS INVOLVING PORTABLE CONCRETE BARRIER RAIL (STANDARD DRAWING NO. 602 SHEETS 1 & 2) OR OTHER POSITIVE PROTECTION.

DEVICES SPACED IN ACCORDANCE WITH NOTES 1 & 2. IF CONES ARE USED, DOUBLE THE NUMBER OF DEVICES.

TYPICAL APPLICATIONS

UTILITY OPERATIONS
PAVEMENT PATCH

SYMBOLS

- WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH TRAFFIC CONTROL SIGN
- CONE, BARRICADE OR DRUM
- TRAFFIC CONE
- TRAFFIC DIRECTION

1.

BUFFER SPACE	
SPEED* (M.P.H.)	BUFFER SPACE (FT.)
70	585
65	485
60	415
55	335
50	280
45	220
40	170
35	120
30	85
25	55
20	35

* POSTED SPEED, OFF-PEAK 85TH PERCENTILE SPEED PRIOR TO WORK STARTING OR THE ANTICIPATED OPERATING SPEED.

TAPER LENGTHS FOR LANE CLOSURES - DISTANCE L					
SPEED	TAPER LENGTH LANE WIDTH IN FEET			NUMBER OF CHANNELIZING DEVICES FOR TAPER	MAX. SPACING OF DEVICES ALONG TAPER IN FEET
MILES PER HOUR 85th PERCENTILE	10	11	12		
20	70	75	80	5	20
25	105	115	125	6	25
30	150	165	180	7	30
35	205	225	245	8	35
40	270	295	320	9	40
45	450	495	540	13	45
50	500	550	600	13	50
55	550	605	660	13	55
60	600	660	720	13	60
65	650	715	780	13	65
70	700	770	840	13	70

2. ALL DEVICES ESTABLISHING A TAPER OR A TANGENT LINE SHALL BE OF ONE TYPE; DEVICES SHALL NOT BE MIXED BY TYPE.

GENERAL NOTES

3. CONSTRUCTION OPERATIONS SHALL BE CONFINED TO ONE TRAFFIC LANE, LEAVING THE OPPOSITE LANE OPEN TO TRAFFIC. AT LEAST 500 FT. OF BOTH TRAFFIC LANES SHALL BE AVAILABLE FOR TRAFFIC MOVEMENT AT INTERVALS NOT GREATER THAN 1000 FT.
4. IF THE WORK OPERATION DOES NOT EXCEED 60 MINUTES, TRAFFIC CONTROL MAY BE IN CONFORMANCE WITH STANDARD DRAWING NO. 603.
5. THE FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES.
6. WHEN NO WORK IS BEING PERFORMED, THE FLAGGERS WILL NOT BE REQUIRED. IF THE FLAGGERS ARE NOT PRESENT, THE FLAGGER SIGNS SHALL BE REMOVED OR COVERED.
7. ALL SIGNS, CONES, BARRICADES, AND DRUMS SHALL BE REMOVED AT COMPLETION OF OPERATIONS DURING DAYLIGHT AND THE WORK AREA OPEN TO TRAFFIC.
8. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS BY THE TRAFFIC ENGINEER. THE LATERAL PLACEMENT OF THE FLAGGER MAY BE VARIED FROM SHOWN.
9. ALL VEHICLES, EQUIPMENT, WORKERS (EXCEPT FLAGGERS), AND THEIR ACTIVITIES ARE RESTRICTED AT ALL TIMES TO ONE SIDE OF THE PAVEMENT UNLESS OTHERWISE AUTHORIZED BY THE TRAFFIC ENGINEER.
10. ALL WARNING SIGNS SHALL HAVE BLACK LEGEND AND BORDER ON AN ORANGE BACKGROUND. ALL SIGNS HAVING AN ORANGE COLOR SHALL BE MADE OF MATERIALS CONFORMING TO SECTION 716.03.01 OF THE UNIFORM STANDARD SPECIFICATIONS.
11. TABLE FOR SPACING OF ADVANCE WARNING SIGNS

TABLE FOR SPACING OF ADVANCE WARNING SIGNS			
ROAD TYPE	DISTANCE BETWEEN SIGNS (FT)		
	A	B	C
URBAN (LESS THAN 35 MPH)	200	200	200
URBAN (35 MPH OR GREATER)	350	350	350
RURAL	500	500	500
EXPRESSWAY/FREEWAY	1000	1600	2600

12. IF WORKING AT OR NEAR A TRAFFIC SIGNAL, CONTACT LVACTS AT 229-6611 AND LOCAL ENTITY AT APPROPRIATE NUMBERS LISTED BELOW AT LEAST TWO WORKING DAYS PRIOR TO BEGINNING WORK.

BOULDER CITY	293-9200
CLARK COUNTY	455-6100
HENDERSON	565-2140
LAS VEGAS	229-6331
MESQUITE	346-5295
NORTH LAS VEGAS	642-2462

13. A LATERAL BUFFER SPACE MAY BE REQUIRED TO SEPARATE WORK SPACE FROM TRAFFIC SPACE. THE WIDTH SHALL BE DETERMINED BY THE TRAFFIC ENGINEER.
14. ACCESS FOR CAT TRANSIT SERVICE, PEDESTRIANS AND BICYCLES SHALL BE MAINTAINED THROUGHOUT DURATION OF CONSTRUCTION. IF RE-ROUTING OF ACCESS IS NECESSARY, THE CONTRACTOR SHALL PROVIDE THE ENTITY'S TRAFFIC ENGINEER WITH A MAP SHOWING THE PROPOSED RE-ROUTES FOR APPROVAL. IF CONSTRUCTION OPERATIONS AFFECT CAT BUS STOPS OR FACILITIES, THE CONTRACTOR SHALL NOTIFY THE REGIONAL TRANSPORTATION COMMISSION AT 455-4481 AT LEAST 3 NORMAL WORKING DAYS PRIOR TO BEGINNING SUCH OPERATIONS.

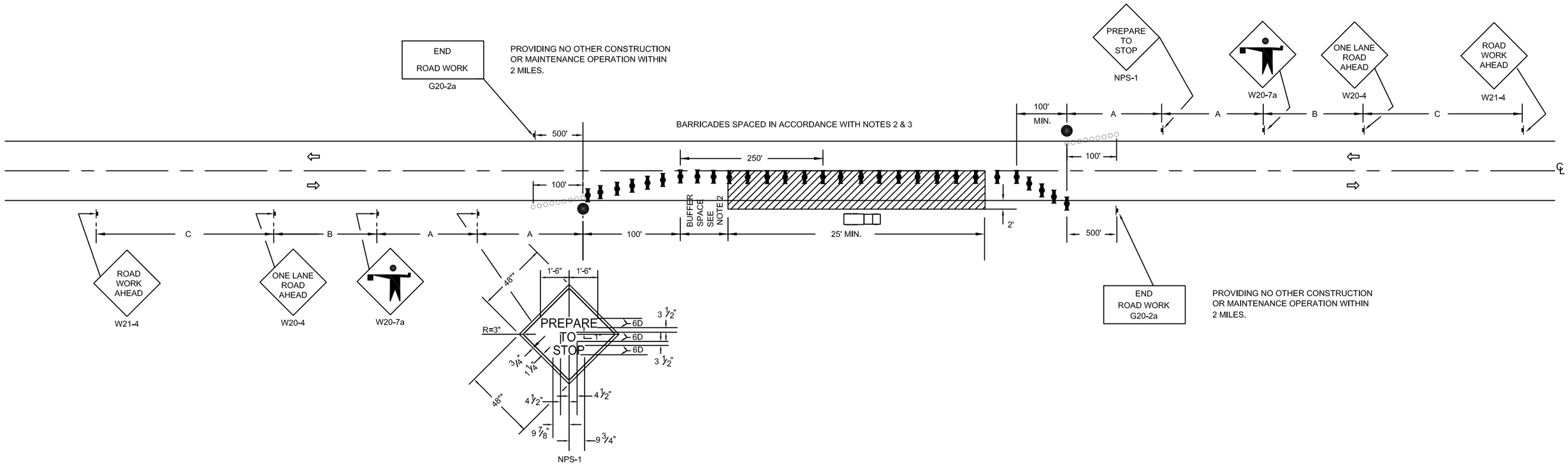
TRAFFIC CONTROL PLAN FOR HIGHWAY WORK ZONE

SPECIFICATION REFERENCE

TYPICAL APPLICATION FOR

2-LANE, 2-WAY, RURAL DAY OPERATIONS WHERE ACTIVITIES WILL ENCROACH BETWEEN CENTERLINE AND 2 FT. OUTSIDE OF PAVEMENT EDGE

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA



* 36"X36" SIZE CAN BE USED IF APPROVED BY THE LOCAL AGENCY

TYPICAL APPLICATIONS

ISOLATED PATCH

INSTALLATION OF DRAINAGE STRUCTURE

UTILITY OPERATIONS

SYMBOLS

- WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH TRAFFIC CONTROL SIGN
- TRAFFIC CONE
- TRAFFIC DIRECTION
- BARRICADE OR DRUM WITH STEADY BURNING LIGHT

1. CONSTRUCTION OPERATIONS SHALL BE CONFINED TO ONE TRAFFIC LANE, LEAVING THE OPPOSITE LANE OPEN TO TRAFFIC.
2.

BUFFER SPACE	
SPEED * (M,P,H,)	BUFFER SPACE (FT.)
70	585
65	485
60	415
55	335
50	280
45	220
40	170
35	120
30	85
25	55
20	35

* POSTED SPEED, OFF-PEAK 85TH PERCENTILE SPEED PRIOR TO WORK STARTING OR THE ANTICIPATED OPERATING SPEED.

TAPER LENGTHS FOR LANE CLOSURES - DISTANCE L					
SPEED MILES PER HOUR 85th PERCENTILE	TAPER LENGTH LANE WIDTH IN FEET 10	11	12	NUMBER OF CHANNELIZING DEVICES FOR TAPER	MAX. SPACING OF DEVICES ALONG TAPER IN FEET
20	70	75	80	5	20
25	105	115	125	6	25
30	150	165	180	7	30
35	205	225	245	8	35
40	270	295	320	9	40
45	450	495	540	13	45
50	500	550	600	13	50
55	550	605	660	13	55
60	600	660	720	13	60
65	650	715	780	13	65
70	700	770	840	13	70

GENERAL NOTES

3. ALL DEVICES ESTABLISHING A TAPER OR TANGENT LINE SHALL BE OF ONE TYPE; DEVICES SHALL NOT BE MIXED BY TYPE.
4. THE FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES.
5. FLAGGERS SHALL BE REQUIRED AT ALL ENTRY POINTS INTO THE WORK AREA.
6. ALL SIGNS SHALL BE GROUND-MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS AND AS REQUIRED BY SECTION 625 OF THE UNIFORM STANDARD SPECIFICATIONS.
7. TYPE "B" HIGH INTENSITY FLASHING WARNING LIGHTS MAY BE INSTALLED ABOVE EACH WORK ZONE CONSTRUCTION SIGN FOR USE DURING HOURS OF DARKNESS.
8. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS BY THE TRAFFIC ENGINEER. THE LATERAL PLACEMENT OF THE FLAGGERS MAY BE VARIED FROM THAT SHOWN.
9. ALL VEHICLES, EQUIPMENT, WORKERS (EXCEPT FLAGGERS) AND THEIR ACTIVITIES ARE RESTRICTED AT ALL TIMES TO ONE SIDE OF THE PAVEMENT UNLESS OTHERWISE AUTHORIZED BY THE TRAFFIC ENGINEER.
10. ALL BARRICADE LIGHTS SHALL BE BIDIRECTIONAL, EXCEPT LIGHTS ON TAPER BARRICADES, WHICH SHALL BE MONODIRECTIONAL.
11. ALL WARNING SIGNS SHALL HAVE BLACK LEGEND AN BORDER ON AN ORANGE BACKGROUND. ALL SIGNS HAVING AN ORANGE COLOR SHALL BE MADE OF MATERIALS CONFORMING TO SECTION 716.03.01 OF THE UNIFORM STANDARD SPECIFICATIONS.
12. TABLE FOR SPACING OF ADVANCE WARNING SIGNS

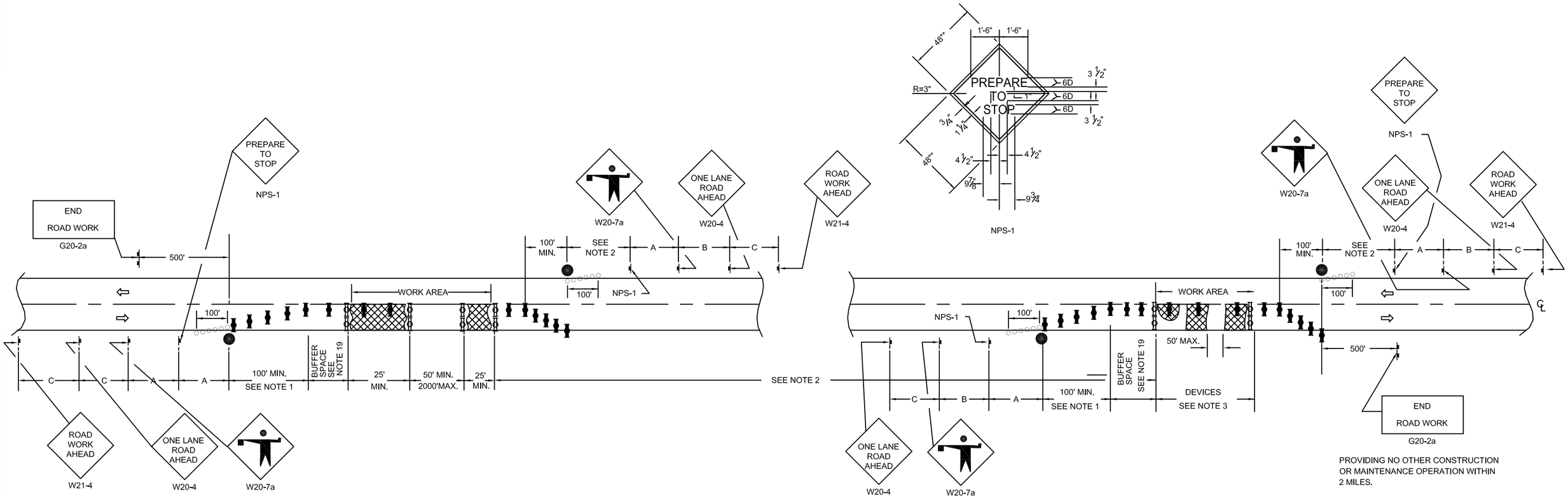
TABLE FOR SPACING OF ADVANCE WARNING SIGNS			
ROAD TYPE	A	B	C
URBAN (LESS THAN 35 MPH)	200	200	200
URBAN (35 MPH OR GREATER)	350	350	350
RURAL	500	500	500
EXPRESSWAY/FREEWAY	1000	1600	2600

13. IF WORKING AT OR NEAR A TRAFFIC SIGNAL, CONTACT LVACTS AT 229-6611 AND LOCAL ENTITY AT APPROPRIATE NUMBERS LISTED BELOW AT LEAST TWO WORKING DAYS PRIOR TO BEGINNING WORK.

BOULDER CITY	293-9200	MESQUITE	346-5295
CLARK COUNTY	455-6100	NORTH LAS VEGAS	642-2462
HENDERSON	565-2140		
LAS VEGAS	229-6331		

14. FLOODLIGHTS SHOULD BE PROVIDED TO MARK FLAGGER STATIONS AT NIGHT AS NEEDED.
15. A LATERAL BUFFER SPACE MAY BE REQUIRED TO SEPARATE WORK SPACE FROM TRAFFIC SPACE. THE WIDTH SHALL BE DETERMINED BY THE TRAFFIC ENGINEER.
16. ACCESS FOR CAT TRANSIT SERVICE, PEDESTRIANS AND BICYCLES SHALL BE MAINTAINED THROUGHOUT DURATION OF CONSTRUCTION. IF RE-ROUTING OF ACCESS IS NECESSARY, THE CONTRACTOR SHALL PROVIDE THE ENTITY'S TRAFFIC ENGINEER WITH A MAP SHOWING THE PROPOSED RE-ROUTES FOR APPROVAL. IF CONSTRUCTION OPERATIONS AFFECT CAT BUS STOPS OR FACILITIES, THE CONTRACTOR SHALL NOTIFY THE REGIONAL TRANSPORTATION COMMISSION AT 455-4481 AT LEAST 3 NORMAL WORKING DAYS PRIOR TO BEGINNING SUCH OPERATIONS.

TRAFFIC CONTROL PLAN FOR HIGHWAY WORK ZONE	SPECIFICATION REFERENCE	TYPICAL APPLICATION FOR	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
		2-LANE, 2-WAY, RURAL NIGHT OPERATIONS WHERE ACTIVITIES WILL ENCROACH BETWEEN CENTERLINE & 2 FT. OUTSIDE OF PAVEMENT EDGE	DATE 1-9-97 | DWG NO. 609 (1 OF 1) | PAGE 148



GENERAL NOTES

TYPICAL APPLICATIONS

CABLE LAYING

OVERHEAD STRINGING OF CABLE

PATCHING

SYMBOLS

PATCH

SIGN ON PORTABLE OR PERMANENT SUPPORT

FLAGGER WITH TRAFFIC CONTROL SIGN

BARRICADE OR DRUM WITH OPTIONAL FLASHING LIGHT

BARRICADE OR DRUM WITH STEADY BURNING LIGHT

TRAFFIC CONES

TRAFFIC DIRECTION

1. ALL DEVICES ESTABLISHING A TAPER OR TANGENT LINE SHALL BE OF ONE TYPE; DEVICES SHALL NOT BE MIXED BY TYPE.
2. WHEN THE DISTANCE BETWEEN SUCCESSIVE PATCHES IS LESS THAN 2,000 FT., THE ENTIRE OPERATION MAY BE CONSIDERED AS ONE WORK AREA FOR SIGNING PURPOSES. WHEN SINGLE-SIGNING SET-UP IS USED FOR WORK SITES UP TO 2,000 FT. APART, LANE CLOSURE SHOULD BE CONTINUED THROUGH ENTIRE WORK. WHEN THE DISTANCE BETWEEN SUCCESSIVE PATCHES EXCEEDS 2,000 FT., ADDITIONAL WARNING SIGNS AND TAPER SHALL BE PLACED AS REQUIRED FOR DISTANCES LESS THAN 2,000 FT. AT THE DISCRETION OF THE TRAFFIC ENGINEER.
3. WHERE SUCCESSIVE PATCHES ARE MORE THAN 50 FT. BUT LESS THAN 2,000 FT. APART, BARRICADES WITH FLASHING LIGHTS SHALL BE PLACED ON THE PAVEMENT BEYOND AND IN ADVANCE OF THE WORK AREAS. ALL BARRICADES WILL HAVE THE REFLECTIVE SURFACE FACING TRAFFIC AT NIGHT.
4. THE FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIME AND SHALL BE POSITIONED TO PROTECT THE WORKERS. THE FIRST FLAGGER SHALL BE A MINIMUM OF 200 FT. AND A MAXIMUM DISTANCE OF 1/2 DAY'S NORMAL OPERATION BEYOND THE FLAGGER SIGN AND A MINIMUM OF 100 FT. IN ADVANCE OF THE WORK PARTY.
5. FLAGGERS SHALL BE REQUIRED AT ALL ENTRY POINTS INTO THE WORK AREA.
6. WHEN NO WORK IS BEING PERFORMED, THE FLAGGERS WILL NOT BE REQUIRED. IF THE FLAGGERS ARE NOT PRESENT, THE FLAGGER SIGNS SHALL BE REMOVED OR COVERED, AND ALL BARRICADES OR CONES SHALL BE REMOVED.
7. LIGHTS WILL NOT BE REQUIRED ON BARRICADES FOR DAY OPERATIONS.
8. WHEN THE DISTANCE BETWEEN PATCHES IS LESS THAN 500 FT., THE BARRICADE ADJACENT TO THE EDGE OF PAVEMENT ON THE FAR SIDE OF THE PATCH MAY BE OMITTED.
9. ALL SIGNS SHALL BE GROUND-MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS AND AS REQUIRED BY SECTION 625 OF THE UNIFORM STANDARD SPECIFICATIONS.
10. TYPE "B" HIGH INTENSITY FLASHING LIGHTS MAY BE INSTALLED ABOVE EACH WORK ZONE CONSTRUCTION SIGN FOR USE DURING HOURS OF DARKNESS.
11. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS BY THE TRAFFIC ENGINEER. THE LATERAL PLACEMENT OF THE FLAGGERS MAY BE VARIED FROM THAT SHOWN.
12. ALL VEHICLES, EQUIPMENT, WORKERS (EXCEPT FLAGGERS) AND THEIR ACTIVITIES ARE RESTRICTED AT ALL TIMES TO ONE SIDE OF THE PAVEMENT UNLESS OTHERWISE AUTHORIZED BY THE TRAFFIC ENGINEER.
13. ALL BARRICADE LIGHTS SHALL BE BIDIRECTIONAL, EXCEPT LIGHTS ON TAPER BARRICADES, WHICH SHALL BE MONODIRECTIONAL.
14. ALL WARNING SIGNS SHALL HAVE BLACK LEGEND AND BORDER ON AN ORANGE BACKGROUND. ALL SIGNS HAVING AN ORANGE COLOR SHALL BE MADE OF MATERIALS CONFORMING TO SECTION 716.03.01 OF THE UNIFORM STANDARD SPECIFICATIONS.
15. CONSTRUCTION OPERATIONS SHALL BE CONFINED TO ONE TRAFFIC LANE, LEAVING THE OPPOSITE LANE OPEN TO TRAFFIC. AT LEAST 500 FT. OF BOTH TRAFFIC LANES SHALL BE AVAILABLE FOR TRAFFIC MOVEMENT AT INTERVALS NOT GREATER THAN 1000 FT. TWO FLAGGERS SHALL BE REQUIRED FOR EACH SEPARATE CONSTRUCTION OPERATION. ALL WORK AREAS SHALL BE PROTECTED DURING PERIODS WHEN WORKERS ARE PRESENT BY CONES OR BARRICADES ALONG THE CENTER LINE.
16. DURING DAYTIME OPERATIONS, CONES MAY BE SUBSTITUTED FOR BARRICADES AT HALF THE BARRICADE SPACING.
17. TABLE FOR SPACING OF ADVANCE WARNING SIGNS

TABLE FOR SPACING OF ADVANCE WARNING SIGNS			
ROAD TYPE	DISTANCE BETWEEN SIGNS (FT)		
	A	B	C
URBAN (LESS THAN 35 MPH)	200	200	200
URBAN (35 MPH OR GREATER)	350	350	350
RURAL	500	500	500
EXPRESSWAY/FREEWAY	1000	1600	2600

18. IF WORKING AT OR NEAR A TRAFFIC SIGNAL, CONTACT LVACTS AT 229-6611 AND LOCAL ENTITY AT APPROPRIATE NUMBERS LISTED BELOW AT LEAST 2 WORKING DAYS PRIOR TO BEGINNING WORK.

BOULDER CITY	293-9200
CLARK COUNTY	455-6100
HENDERSON	565-2140
LAS VEGAS	229-6331
MESQUITE	346-5295
NORTH LAS VEGAS	642-2462

19.

BUFFER SPACE	
SPEED * (M.P.H.)	BUFFER SPACE (FT.)
70	585
65	485
60	415
55	335
50	280
45	220
40	170
35	120
30	85
25	55
20	35

* POSTED SPEED, OFF-PEAK 85TH PERCENTILE SPEED PRIOR TO WORK STARTING OR THE ANTICIPATED OPERATING SPEED.

20. A LATERAL BUFFER SPACE MAY BE REQUIRED TO SEPARATE WORK SPACE FROM TRAFFIC SPACE. THE WIDTH SHALL BE DETERMINED BY THE TRAFFIC ENGINEER.
21. FLOODLIGHTS SHOULD BE PROVIDED TO MARK FLAGGER STATIONS AT NIGHT AS NEEDED.
22. ACCESS FOR CAT TRANSIT SERVICE, PEDESTRIANS AND BICYCLES SHALL BE MAINTAINED THROUGHOUT DURATION OF CONSTRUCTION. IF RE-ROUTING OF IF RE-ROUTING NECESSARY, THE CONTRACTOR SHALL PROVIDE THE ENTITY'S TRAFFIC ENGINEER WITH A MAP SHOWING THE PROPOSED RE-ROUTES FOR APPROVAL. IF CONSTRUCTION OPERATIONS AFFECT CAT BUS STOPS OR FACILITIES, THE CONTRACTOR SHALL NOTIFY THE REGIONAL TRANSPORTATION COMMISSION AT 455-4481 AT LEAST 3 NORMAL WORKING DAYS PRIOR TO BEGINNING SUCH OPERATIONS.

TAPER LENGTHS FOR LANE CLOSURES - DISTANCE L					
SPEED	TAPER LENGTH LANE WIDTH IN FEET			NUMBER OF CHANNELIZING DEVICES FOR TAPER	MAX. SPACING OF DEVICES ALONG TAPER IN FEET
MILES PER HOUR 85th PERCENTILE	10	11	12		
20	70	75	80	5	20
25	105	115	125	6	25
30	150	165	180	7	30
35	205	225	245	8	35
40	270	295	320	9	40
45	450	495	540	13	45
50	500	550	600	13	50
55	550	605	660	13	55
60	600	660	720	13	60
65	650	715	780	13	65
70	700	770	840	13	70

TRAFFIC CONTROL PLAN FOR HIGHWAY WORK ZONE	SPECIFICATION REFERENCE	TYPICAL APPLICATION FOR	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
		2-LANE, 2-WAY, RURAL DAY OR NIGHT OPERATIONS WHERE ACTIVITIES WILL ENCROACH BETWEEN CENTERLINE & 2 FT. OUTSIDE OF PAVEMENT EDGE	DATE 1-9-97 | DWG NO. 610 (1 OF 1) | PAGE 149

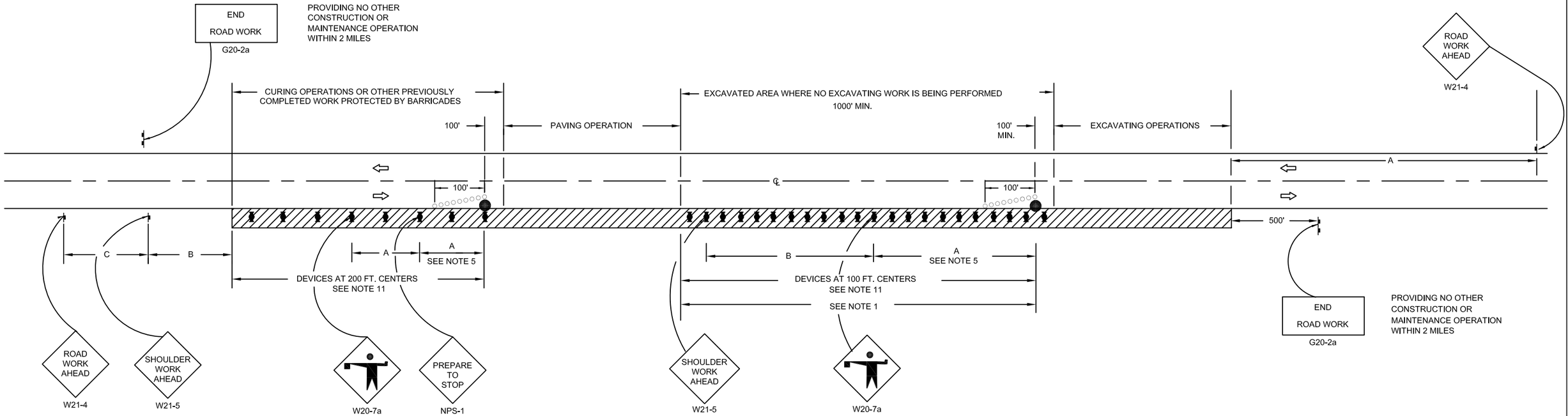


TABLE FOR SPACING OF ADVANCE WARNING SIGNS

TABLE FOR SPACING OF ADVANCE WARNING SIGNS			
ROAD TYPE	DISTANCE BETWEEN SIGNS (FT)		
	A	B	C
URBAN (LESS THAN 35 MPH)	200	200	200
URBAN (35 MPH OR GREATER)	350	350	350
RURAL	500	500	500
EXPRESSWAY/FREEWAY	1000	1600	2600

1. WHERE THE DISTANCE BETWEEN PAVING AND EXCAVATING OPERATIONS IS LESS THAN 2,000 FT. THE ENTIRE OPERATION MAY BE CONSIDERED AS ONE WORK AREA FOR SIGNING PURPOSES. WHEN THE DISTANCE BETWEEN OPERATIONS EXCEEDS 2,000 FT. ADDITIONAL WARNING SIGNS SHALL BE PLACED AS SHOWN. UNDER RESTRICTED SIGHT DISTANCE CONDITIONS, SUCH ADDITIONAL DEVICES MAY ALSO BE REQUIRED FOR DISTANCES LESS THAN 2,000 FT. AT THE DISCRETION OF THE TRAFFIC ENGINEER.
2. ONE FLAGGER SHALL BE REQUIRED FOR EACH SEPARATE CONSTRUCTION OPERATION. FOR RESIDENTIAL STREETS 25 MPH OR LESS, FLAGGERS MAY BE REQUIRED AS DIRECTED BY THE TRAFFIC ENGINEER.
3. THE FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES.
4. NO PAVING OR EXCAVATING OPERATIONS SHALL BE PERFORMED AT NIGHT UNLESS AUTHORIZED BY THE TRAFFIC ENGINEER.
5. MAXIMUM DISTANCE TO BE DETERMINED BY THE TRAFFIC ENGINEER BUT IN NO CASE TO EXCEED THE LENGTH OF 1/2 DAY'S NORMAL OPERATION.
6. ALL SIGNS SHALL BE GROUND-MOUNTED IF THE WORKING TIME EXCEEDS FOUR DAYS AND AS REQUIRED BY SECTION 625 OF THE UNIFORM STANDARD SPECIFICATIONS.

GENERAL NOTES

7. TYPE "B" HIGH INTENSITY FLASHING WARNING LIGHTS MAY BE INSTALLED ABOVE EACH WORK ZONE CONSTRUCTION SIGN FOR USE DURING HOURS OF DARKNESS.
8. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS BY THE TRAFFIC ENGINEER. THE LATERAL PLACEMENT OF THE FLAGGER MAY BE VARIED FROM THAT SHOWN.
9. ALL VEHICLES, EQUIPMENT, WORKERS, FLAGGERS AND THEIR ACTIVITIES ARE RESTRICTED AT ALL TIMES TO ONE SIDE OF THE ROADWAY UNLESS OTHERWISE AUTHORIZED BY THE TRAFFIC ENGINEER.
10. ALL WARNING SIGNS SHALL HAVE BLACK LEGEND AND BORDER ON AN ORANGE BACKGROUND. ALL SIGNS HAVING AN ORANGE COLOR SHALL BE MADE OF MATERIALS CONFORMING TO SECTION 716.03.01 OF THE UNIFORM STANDARD SPECIFICATIONS.
11. ALL DEVICES ESTABLISHING A TAPER OR TANGENT LINE SHALL BE OF ONE TYPE; DEVICES SHALL NOT BE MIXED BY TYPE.
12. IF WORKING AT OR NEAR A TRAFFIC SIGNAL, CONTACT LVACTS AT 229-6611 AND LOCAL ENTITY AT APPROPRIATE NUMBERS LISTED BELOW AT LEAST TWO WORKING DAYS PRIOR TO BEGINNING WORK.

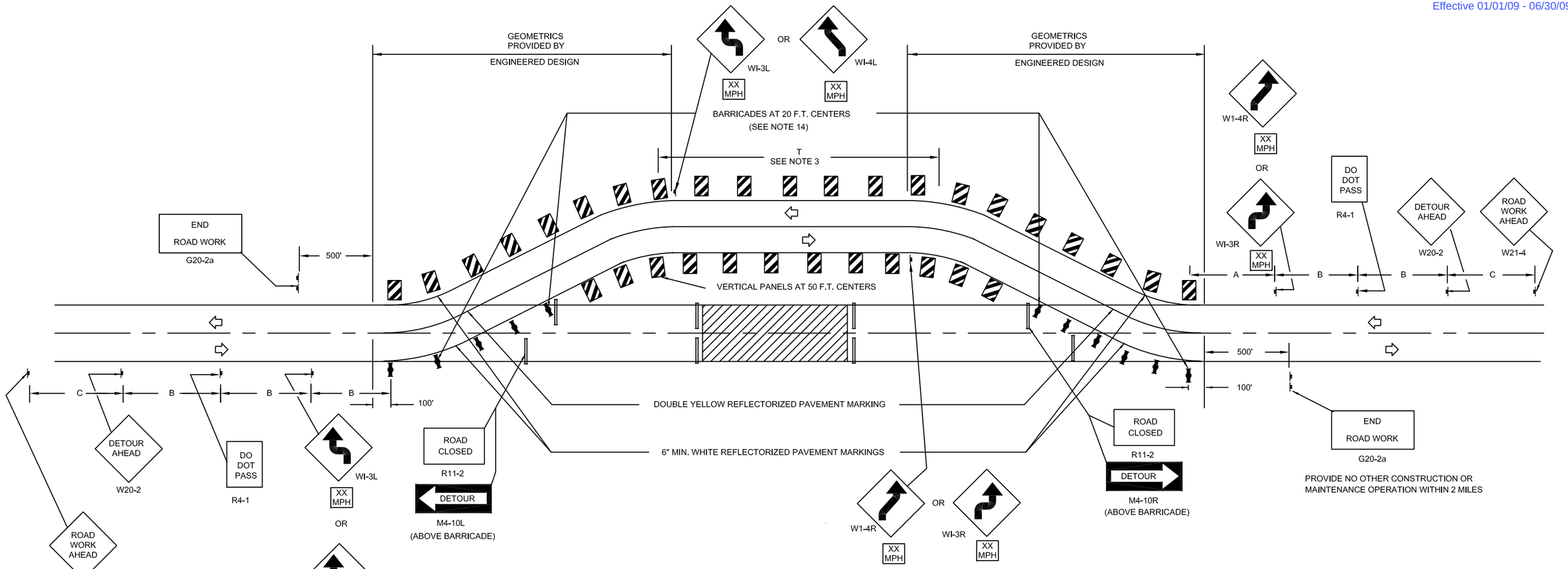
BOULDER CITY	293-9200	LAS VEGAS	229-6331
CLARK COUNTY	455-6100	MESQUITE	346-5295
HENDERSON	565-2140	NORTH LAS VEGAS	642-2462

SYMBOLS

- WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH TRAFFIC CONTROL SIGN
- BARRICADE OR DRUM WITH STEADY BURNING LIGHT
- TRAFFIC CONE
- TRAFFIC DIRECTION

13. FLOODLIGHTS SHOULD BE PROVIDED TO MARK FLAGGER STATIONS AT NIGHT AS NEEDED.
14. ACCESS FOR CAT TRANSIT SERVICE, PEDESTRIANS AND BICYCLES SHALL BE MAINTAINED THROUGHOUT DURATION OF CONSTRUCTION. IF RE-ROUTING OF ACCESS IS NECESSARY, THE CONTRACTOR SHALL PROVIDE THE ENTITY'S TRAFFIC ENGINEER WITH A MAP SHOWING THE PROPOSED RE-ROUTES FOR APPROVAL. IF CONSTRUCTION OPERATIONS AFFECT CAT BUS STOPS OR FACILITIES, THE CONTRACTOR SHALL NOTIFY THE REGIONAL TRANSPORTATION COMMISSION AT 455-4481 AT LEAST 3 NORMAL WORKING DAYS PRIOR TO BEGINNING SUCH OPERATIONS.

TRAFFIC CONTROL PLAN FOR HIGHWAY WORK ZONE	SPECIFICATION REFERENCE	TYPICAL APPLICATION FOR	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
		2-LANE, 2-WAY, RURAL OR SUBURBAN, DAY OR NIGHT PAVEMENT WIDENING	DATE 1-9-97 | DWG NO. 611 (1 OF 1) | PAGE 150



TYPICAL APPLICATIONS

BRIDGE CONSTRUCTION

CULVERT CONSTRUCTION

SYMBOLS

- WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- BARRICADE OR DRUM WITH STEADY BURNING LIGHT
- VERTICAL PANEL (SEE STANDARD DRAWING NO. 601 SHEET 1)
- TYPE III BARRICADE
- TRAFFIC DIRECTION

GENERAL NOTES

1. ALL TEMPORARY BYPASSES SHALL BE PAVED WHEN DURATION EXCEEDS TIME LIMITS ESTABLISHED BY THE ENTITY. GRADED & COMPACTED GRAVEL ACCEPTABLE FOR DURATIONS ESTABLISHED BY THE ENTITY. SEE SHEET 2 OF THIS DRAWING FOR UNPAVED TEMPORARY BYPASS.
2. ON PAVED BYPASSES, REFLECTIVE EDGE LINES AND A CENTER LINE REFLECTORIZED, REMOVABLE, NON-FOIL PAVEMENT MARKING TAPE SHALL BE USED FOR MARKING THE EDGE LINES AND CENTER LINE ON EXISTING PAVEMENT. (REFLECTORIZED PAVEMENT MARKING PAINT MAY BE USED FOR MARKINGS ON THE PAVED BYPASSES.) RAISED REFLECTIVE PAVEMENT MARKERS CONFORMING TO CLARK COUNTY STANDARDS MAY BE USED IN LIEU OF TAPE OR PAINT WHERE THE PAVEMENT MARKING IS TO BE PLACED ADJACENT TO BARRICADES OR VERTICAL PANELS. ALL EXISTING PAVEMENT MARKING WHICH CONFLICT WITH THE REVISED TRAFFIC PATTERN SHALL BE REMOVED. IF STRIPING IS TO BE PLACED ON FINAL PAVEMENT ONLY REMOVABLE, NON-FOIL TAPE SHALL BE USED. EDGE LINE MARKINGS SHALL BE A MINIMUM OF 6 IN. WIDE.
3. WHEN (T) IS GREATER THAN 800 FEET, 4 FOOT LENGTHS OF SINGLE YELLOW REFLECTORIZED, REMOVABLE, NON-FOIL PAVEMENT MARKING TAPE AT 40 FOOT CENTERS MAY BE USED WITHIN THE TANGENT SECTION (ONLY IF PASSING ZONES CAN BE SAFELY ALLOWED IN ACCORDANCE WITH MUTCD SECTS. 3B-3 THRU. 3B-5).
4. A CURVE SIGN WILL BE REQUIRED AT EXIT END OF THE BYPASS IF (T) IS EQUAL TO OR GREATER THAN 1,000 FEET.
5. THE ADVISORY SAFE SPEED TO BE SHOWN BELOW THE REVERSE CURVE (TURN) SIGNS SHALL BE DETERMINED AT THE SITE AND APPROVED BY THE TRAFFIC ENGINEER.
6. STEADY BURNING LIGHTS WILL NOT BE REQUIRED ON BARRICADES FOR DAY OPERATIONS.
7. CONES MAY BE SUBSTITUTED FOR BARRICADES AT HALF THE SPACING DURING DAY OPERATIONS.
8. ALL SIGNS SHALL BE GROUND-MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS AND AS REQUIRED BY SECTION 625 OF THE UNIFORM STANDARD SPECIFICATIONS.
9. TYPE "B" HIGH INTENSITY FLASHING WARNING LIGHTS MAY BE INSTALLED ABOVE EACH WORK ZONE CONSTRUCTION SIGN FOR USE DURING HOURS OF DARKNESS.
10. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS BY THE TRAFFIC ENGINEER.
11. ALL BARRICADE LIGHTS SHALL BE BIDIRECTIONAL.
12. ALL WARNING SIGNS SHALL HAVE BLACK LEGEND AND BORDER ON AN ORANGE BACKGROUND. ALL SIGNS HAVING AN ORANGE COLOR SHALL BE MADE OF MATERIALS CONFORMING TO SECTION 716.03.01 OF THE UNIFORM STANDARD SPECIFICATIONS.
13. TABLE FOR SPACING OF ADVANCE WARNING SIGNS

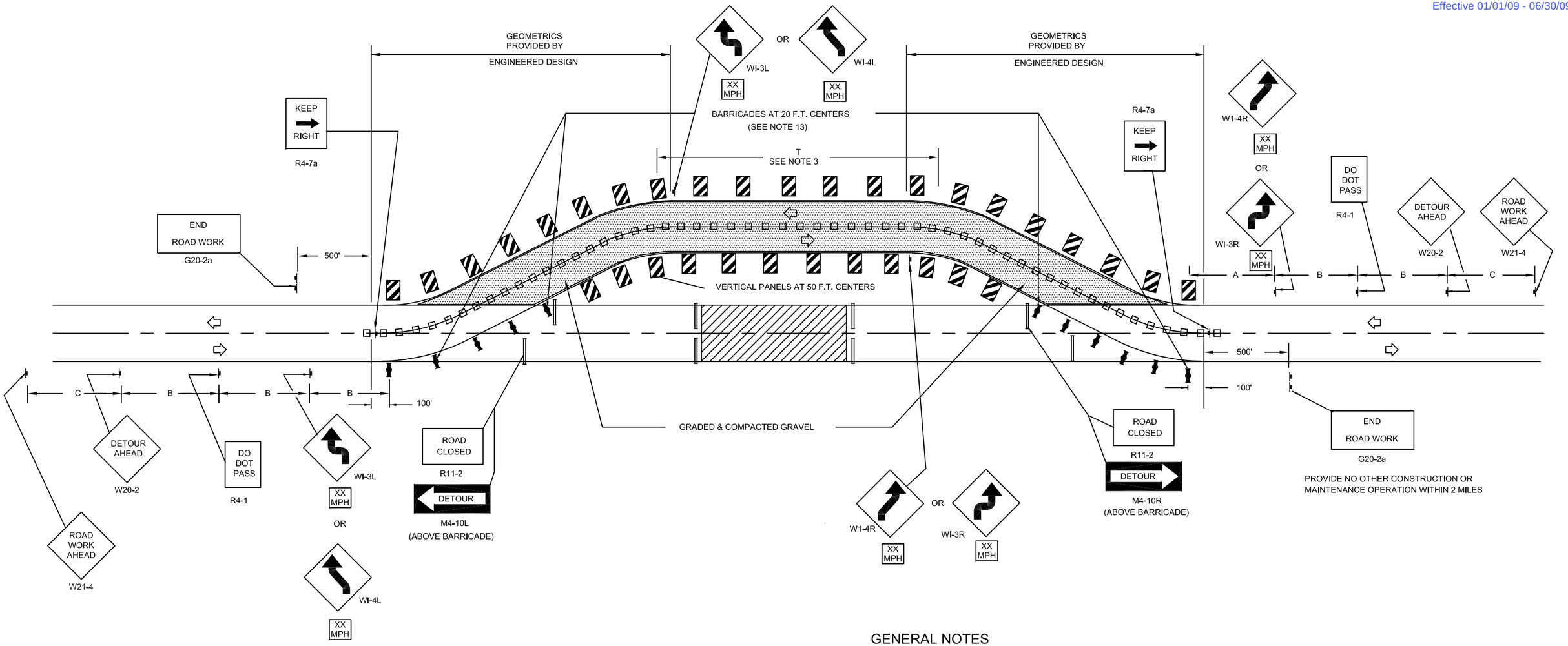
TABLE FOR SPACING OF ADVANCE WARNING SIGNS			
ROAD TYPE	DISTANCE BETWEEN SIGNS (FT)		
	A	B	C
URBAN (LESS THAN 35 MPH)	200	200	200
URBAN (35 MPH OR GREATER)	350	350	350
RURAL	500	500	500
EXPRESSWAY/FREEWAY	1000	1600	2600

14. ALL DEVICES INDICATED SHALL BE OF ONE TYPE; DEVICES SHALL NOT BE MIXED.
15. IF WORKING AT OR NEAR A TRAFFIC SIGNAL, CONTACT LVACTS AT 229-6611 AND LOCAL ENTITY AT APPROPRIATE NUMBERS LISTED BELOW AT LEAST TWO WORKING DAYS PRIOR TO BEGINNING WORK.

BOULDER CITY	293-9200	MESQUITE	346-5295
CLARK COUNTY	455-6100	NORTH LAS VEGAS	642-2462
HENDERSON	565-2140		
LAS VEGAS	229-6331		

16. WHERE THE TEMPORARY PAVEMENT AND OLD PAVEMENT ARE DIFFERENT COLORS, THE TEMPORARY PAVEMENT SHOULD START ON THE TANGENT OF THE EXISTING PAVEMENT AND END ON THE TANGENT OF THE EXISTING PAVEMENT.
17. ACCESS FOR CAT TRANSIT SERVICE, PEDESTRIANS AND BICYCLES SHALL BE MAINTAINED THROUGHOUT DURATION OF CONSTRUCTION. IF RE-ROUTING OF ACCESS IS NECESSARY, THE CONTRACTOR SHALL PROVIDE THE ENTITY'S TRAFFIC ENGINEER WITH A MAP SHOWING THE PROPOSED RE-ROUTES FOR APPROVAL. IF CONSTRUCTION OPERATIONS AFFECT CAT BUS STOPS OR FACILITIES, THE CONTRACTOR SHALL NOTIFY THE REGIONAL TRANSPORTATION COMMISSION AT 455-4481 AT LEAST 3 NORMAL WORKING DAYS PRIOR TO BEGINNING SUCH OPERATIONS.
18. IF THE DETOUR IS SHORT AND HAS SHARP CURVES (30 MPH OR LESS), REVERSE TURN (W1-3) SIGN SHOULD BE USED.
19. PAVEMENT MARKINGS THAT ARE NO LONGER APPLICABLE SHALL BE MASKED WITH APPROVED BLACKOUT TAPE OR OBLITERATED AS APPROVED BY THE TRAFFIC ENGINEER.

TRAFFIC CONTROL PLAN FOR HIGHWAY WORK ZONE	SPECIFICATION REFERENCE	TYPICAL APPLICATION FOR 2-LANE, 2-WAY, RURAL OR SUBURBAN, DAY OR NIGHT TEMPORARY PAVED BYPASS	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
			DATE 1-9-97 | DWG NO. 612 (1 OF 2) | PAGE 151



PROVIDE NO OTHER CONSTRUCTION OR MAINTENANCE OPERATION WITHIN 2 MILES

TYPICAL APPLICATIONS

BRIDGE CONSTRUCTION
CULVERT CONSTRUCTION

SYMBOLS

- WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- BARRICADE OR DRUM WITH STEADY BURNING LIGHT
- VERTICAL PANEL (SEE STANDARD DRAWING NO. 601 SHEET 1)
- TYPE III BARRICADE
- TRAFFIC DIRECTION
- TRAFFIC CONE OR VERTICAL PANEL (SEE NOTE 2)

1. TEMPORARY UNPAVED BYPASSES SHALL BE GRADED AND COMPACTED GRAVEL AND ARE ACCEPTABLE FOR TIME LIMITS ESTABLISHED BY THE ENTITY.
2. REFLECTORIZED 28 IN. MIN. TRAFFIC CONES OR VERTICAL PANELS SHALL BE USED FOR CENTERLINE DELINEATION FOR SHORT-TERM PROJECTS. FOR LONG TERM PROJECTS OF 72 CONTINUOUS HOURS OR MORE AND PROJECTS PERFORMED AT NIGHT, VERTICAL PANELS SHALL BE USED. SEE STANDARD DRAWING 601 SHEET 1 FOR DETAILS OF CONES AND PANELS.
3. A CURVE SIGN WILL BE REQUIRED AT EXIT END OF THE BYPASS IF (T) IS EQUAL TO OR GREATER THAN 1,000 FEET.
4. THE ADVISORY SAFE SPEED TO BE SHOWN BELOW THE REVERSE CURVE (TURN) SIGNS SHALL BE DETERMINED AT THE SITE AND APPROVED BY THE TRAFFIC ENGINEER.
5. STEADY BURNING LIGHTS WILL NOT BE REQUIRED ON BARRICADES FOR DAY OPERATIONS.
6. CONES MAY BE SUBSTITUTED FOR BARRICADES AT HALF THE SPACING DURING DAY OPERATIONS.
7. ALL SIGNS SHALL BE GROUND-MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS AND AS REQUIRED BY SECTION 625 OF THE UNIFORM STANDARD SPECIFICATIONS.

GENERAL NOTES

8. TYPE "B" HIGH INTENSITY FLASHING WARNING LIGHTS MAY BE INSTALLED ABOVE EACH WORK ZONE CONSTRUCTION SIGN FOR USE DURING HOURS OF DARKNESS.
9. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS BY THE TRAFFIC ENGINEER.
10. ALL BARRICADE LIGHTS SHALL BE BIDIRECTIONAL.
11. ALL WARNING SIGNS SHALL HAVE BLACK LEGEND AND BORDER ON AN ORANGE BACKGROUND. ALL SIGNS HAVING AN ORANGE COLOR SHALL BE MADE OF MATERIALS CONFORMING TO SECTION 716.03.01 OF THE UNIFORM STANDARD SPECIFICATIONS.
12. TABLE FOR SPACING OF ADVANCE WARNING SIGNS

TABLE FOR SPACING OF ADVANCE WARNING SIGNS			
ROAD TYPE	DISTANCE BETWEEN SIGNS (FT)		
	A	B	C
URBAN (LESS THAN 35 MPH)	200	200	200
URBAN (35 MPH OR GREATER)	350	350	350
RURAL	500	500	500
EXPRESSWAY/FREEWAY	1000	1600	2600

13. ALL DEVICES INDICATED SHALL BE OF ONE TYPE; DEVICES SHALL NOT BE MIXED.
14. IF WORKING AT OR NEAR A TRAFFIC SIGNAL, CONTACT LVACTS AT 229-6611 AND LOCAL ENTITY AT APPROPRIATE NUMBERS LISTED BELOW AT LEAST TWO WORKING DAYS PRIOR TO BEGINNING WORK.

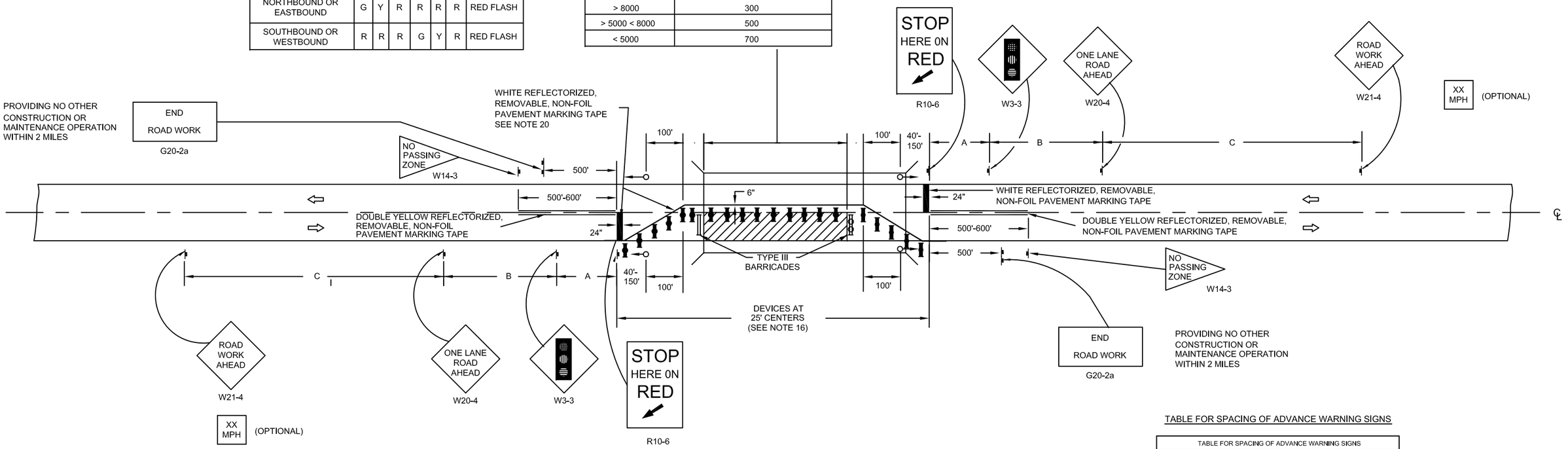
BOULDER CITY	293-9200	MESQUITE	346-5295
CLARK COUNTY	455-6100	NORTH LAS VEGAS	642-2462
HENDERSON	565-2140		
LAS VEGAS	229-6331		

15. ACCESS FOR CAT TRANSIT SERVICE, PEDESTRIANS AND BICYCLES SHALL BE MAINTAINED THROUGHOUT DURATION OF CONSTRUCTION. IF RE-ROUTING OF ACCESS IS NECESSARY, THE CONTRACTOR SHALL PROVIDE THE ENTITY'S TRAFFIC ENGINEER WITH A MAP SHOWING THE PROPOSED RE-ROUTES FOR APPROVAL. IF CONSTRUCTION OPERATIONS AFFECT CAT BUS STOPS OR FACILITIES, THE CONTRACTOR SHALL NOTIFY THE REGIONAL TRANSPORTATION COMMISSION AT 455-4481 AT LEAST 3 NORMAL WORKING DAYS PRIOR TO BEGINNING SUCH OPERATIONS.
16. IF THE DETOUR IS SHORT AND HAS SHARP CURVES (30 MPH OR LESS), REVERSE TURN (W1-3) SIGN SHOULD BE USED.
17. PAVEMENT MARKINGS THAT ARE NO LONGER APPLICABLE SHALL BE MASKED WITH APPROVED BLACKOUT TAPE OR OBLITERATED AS APPROVED BY THE TRAFFIC ENGINEER.

TRAFFIC CONTROL PLAN FOR HIGHWAY WORK ZONE	SPECIFICATION REFERENCE	TYPICAL APPLICATION FOR 2-LANE, 2-WAY, RURAL OR SUBURBAN, DAY OR NIGHT TEMPORARY UNPAVED BYPASS	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
			DATE 1-9-97 | DWG NO. 612 (2 OF 2) | PAGE 151A

SEQUENCE OF OPERATIONS							
PHASE	A			B			CONFLICT
INTERVAL	1	2	3	4	5	6	
NORTHBOUND OR EASTBOUND	G	Y	R	R	R	R	RED FLASH
SOUTHBOUND OR WESTBOUND	R	R	R	G	Y	R	RED FLASH

IF A.D.T. IS	MAXIMUM DISTANCE (FT.)
> 8000	300
> 5000 < 8000	500
< 5000	700



TYPICAL APPLICATIONS

BRIDGE DECK REPAIR

ONE-HALF ROAD CONSTRUCTION

SYMBOLS

- WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- BARRICADE OR DRUM WITH FLASHING LIGHT
- BARRICADE OR DRUM WITH STEADY BURNING LIGHT
- BARRICADE OR DRUM
- TRAFFIC SIGNAL
- TRAFFIC DIRECTION

GENERAL NOTES

1. THE TRAFFIC ENGINEER MUST BE NOTIFIED AT LEAST 72 HOURS PRIOR TO PLACING THE TEMPORARY SIGNALS IN OPERATION SO THAT ARRANGEMENTS CAN BE MADE TO INSPECT THE INSTALLATION AND SET THE TIMING OF THE SIGNALS.
2. AT ANY TIME THAT THE SIGNALS ARE NOT OPERATING THE SIGNAL HEAD SHALL BE HOODED AND THE SIGNAL AHEAD SIGN COVERED OR REMOVED.
3. THE LEFT SIGNAL HEAD SHALL NORMALLY BE MOUNTED AT A HEIGHT OF 10 FEET ABOVE THE ROAD SURFACE MEASURED TO THE BOTTOM OF THE SIGNAL HEAD. THE RIGHT HEAD SHALL NORMALLY BE MOUNTED AT A HEIGHT OF 14 FEET ABOVE THE ROAD SURFACE. BAFFLE OR BACK PLATES WILL BE REQUIRED ON ALL SIGNALS. A MAST ARM SIGNAL SHOULD BE USED ON THE RIGHT SIDE WHEN EVER POSSIBLE.
4. ALL LENSES SHALL BE 12 INCH NOMINAL DIAMETER. THE RIGHT SIGNAL HEAD SHALL BE AIMED SO THE CENTERS OF THE LIGHT BEAMS OF THE INDICATIONS ARE DIRECTED TOWARD A POINT IN THE CENTER OF THE APPROACH LANE 500 FEET IN ADVANCE OF THE SIGNAL. THE LEFT INDICATION SHALL BE AIMED AT A POINT IN THE CENTER OF THE APPROACH LANE 100 FEET IN ADVANCE OF THE STOP LINE.
5. EACH SIGNAL SHALL BE WIRED TO ALLOW FOR FLASH RED.
6. IF FLAGGERS ARE USED INSTEAD OF TRAFFIC SIGNALS, THE TRAFFIC CONTROL DEVICES SHALL CONFORM TO STANDARD DRAWING NO. 601. A 100 FT. CONE TAPER SHALL BE PROVIDED PRIOR TO FLAGGER STATION TO PROTECT THE FLAGGER. FLOODLIGHTS SHOULD BE PROVIDED TO MARK FLAGGER STATIONS AT NIGHT AS NEEDED.
7. DURING DAYTIME OPERATIONS CONES MAY BE SUBSTITUTED FOR BARRICADES WITH STEADY BURNING LIGHTS AT HALF THE BARRICADE SPACING.
8. STEADY BURNING LIGHTS WILL NOT BE REQUIRED FOR DAY
9. BIDIRECTIONAL LIGHTS SHALL BE USED AT NIGHT ALONG THE CENTER LINE WHETHER THE WORK AREA IS SEPARATED FROM THE TRAVELLED LANE USING BARRICADES OR BY USING OTHER DEVICES. MONODIRECTIONAL LIGHTS SHALL BE USED AT NIGHT ON ALL OTHER BARRICADES.
10. ALL SIGNS SHALL BE GROUND-MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS AND AS REQUIRED BY SECTION 625 OF THE UNIFORM STANDARD SPECIFICATIONS.
11. TYPE "B" HIGH INTENSITY FLASHING WARNING LIGHTS MAY BE INSTALLED ABOVE EACH WORK ZONE CONSTRUCTION SIGN FOR USE DURING HOURS OF DARKNESS.
12. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS BY THE TRAFFIC ENGINEER.
13. ALL VEHICLES, EQUIPMENT, WORKERS AND THEIR ACTIVITIES ARE RESTRICTED AT ALL TIMES TO ONE SIDE OF THE PAVEMENT UNLESS OTHERWISE AUTHORIZED BY THE TRAFFIC ENGINEER.
14. ALL WARNING SIGNS SHALL HAVE BLACK LEGEND AND BORDER ON AN ORANGE BACKGROUND. ALL SIGNS HAVING AN ORANGE COLOR SHALL BE MADE OF MATERIALS CONFORMING TO SECTION 716.03.01 OF THE UNIFORM STANDARD SPECIFICATIONS.
15. IF WORKING AT OR NEAR A TRAFFIC SIGNAL, CONTACT LVACTS AT 229-6611 AND LOCAL ENTITY AT APPROPRIATE NUMBERS LISTED BELOW AT LEAST TWO WORKING DAYS PRIOR TO BEGINNING WORK.

BOULDER CITY	293-9200	LAS VEGAS	229-6331
CLARK COUNTY	455-6100	MESQUITE	346-5295
HENDERSON	565-2140	NORTH LAS VEGAS	642-2462

TABLE FOR SPACING OF ADVANCE WARNING SIGNS

TABLE FOR SPACING OF ADVANCE WARNING SIGNS			
ROAD TYPE	DISTANCE BETWEEN SIGNS (FT)		
	A	B	C
URBAN (LESS THAN 35 MPH)	200	200	200
URBAN (35 MPH OR GREATER)	350	350	350
RURAL	500	500	500
EXPRESSWAY/FREEWAY	1000	1600	2600

16. ALL DEVICES ESTABLISHING A TAPER OR TANGENT LINE SHALL BE OF ONE TYPE; DEVICES SHALL NOT BE MIXED BY TYPE.
17. ADEQUATE AREA ILLUMINATION TO CLEARLY IDENTIFY BOTH ENDS OF THE WORK SPACE AT NIGHT FOR LONG-TERM OPERATIONS OF 72 CONTINUOUS HOURS OR MORE SHOULD BE PROVIDED.
18. A LATERAL BUFFER SPACE MAY BE REQUIRED TO SEPARATE WORK SPACE FROM TRAFFIC SPACE. THE WIDTH SHALL BE DETERMINED BY THE TRAFFIC ENGINEER.
19. ACCESS FOR CAT TRANSIT SERVICE, PEDESTRIANS AND BICYCLES SHALL BE MAINTAINED THROUGHOUT DURATION OF CONSTRUCTION. IF RE-ROUTING OF ACCESS IS NECESSARY, THE CONTRACTOR SHALL PROVIDE THE ENTITY'S TRAFFIC ENGINEER WITH A MAP SHOWING THE PROPOSED RE-ROUTES FOR APPROVAL. IF CONSTRUCTION OPERATIONS AFFECT CAT BUS STOPS OR FACILITIES, THE CONTRACTOR SHALL NOTIFY THE REGIONAL TRANSPORTATION COMMISSION AT 455-4481 AT LEAST 3 NORMAL WORKING DAYS PRIOR TO BEGINNING SUCH OPERATIONS.
20. EDGE LINE SHALL BE A MINIMUM OF 6 IN. WIDE AND SHOULD BE INSTALLED FROM THE START OF THE TAPER TO A POINT BEYOND THE WORK AREA REJOINING THE PERMANENT EDGE LINE.
21. FOR LONG TERM PROJECTS OF 72 CONTINUOUS HOURS OR MORE, CONFLICTING PAVEMENT MARKINGS BETWEEN ACTIVITY AREA AND STOP LINE SHALL BE REMOVED.

TRAFFIC CONTROL PLAN FOR HIGHWAY WORK ZONE	SPECIFICATION REFERENCE	TYPICAL APPLICATION FOR	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
		2-LANE, 2-WAY, RURAL DAY OR NIGHT OPERATIONS WITH ONE LANE CLOSED	DATE 1-9-97 / DWG NO. 613 (1 OF 1) / PAGE 152

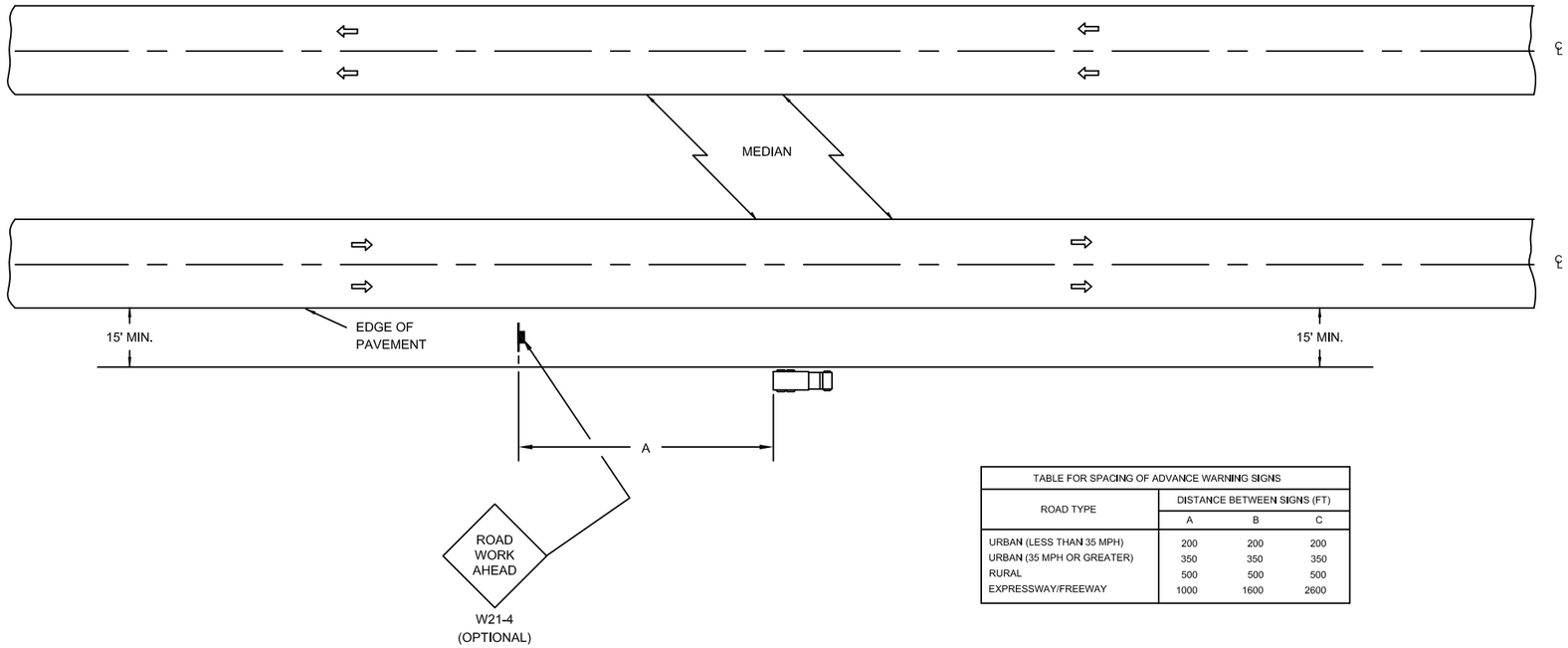


TABLE FOR SPACING OF ADVANCE WARNING SIGNS			
ROAD TYPE	DISTANCE BETWEEN SIGNS (FT)		
	A	B	C
URBAN (LESS THAN 35 MPH)	200	200	200
URBAN (35 MPH OR GREATER)	350	350	350
RURAL	500	500	500
EXPRESSWAY/FREEWAY	1000	1600	2600

TYPICAL APPLICATIONS

LANDSCAPING WORK

UTILITY WORK

FENCING CONTRACTS AND MAINTENANCE

CLEANING CULVERTS

GENERAL NOTES

1. NO SPECIAL SIGNING IS REQUIRED.
2. IF THE WORK OPERATION REQUIRES TWO OR MORE WORK VEHICLES CROSS THE 15 FT. CLEAR ZONE IN ANY ONE HOUR TRAFFIC CONTROL WILL BE IN CONFORMANCE WITH STANDARD DRAWING NO. 615.
3. THIS CASE ALSO APPLIES TO WORK PERFORMED IN THE MEDIAN MORE THAN 15 FT. FROM EITHER PAVEMENT.
4. IF WORKING AT OR NEAR A TRAFFIC SIGNAL, CONTACT LVACTS AT 229-6611 AND LOCAL ENTITY AT APPROPRIATE NUMBERS LISTED BELOW AT LEAST TWO WORKING DAYS PRIOR TO BEGINNING WORK.

BOULDER CITY	293-9200	MESQUITE	346-5295
CLARK COUNTY	455-6100	NORTH LAS VEGAS	642-2462
HENDERSON	565-2140		
LAS VEGAS	229-6331		

5. TYPE "B" HIGH INTENSITY FLASHING WARNING LIGHTS MAY BE INSTALLED ABOVE EACH WORK ZONE CONSTRUCTION SIGN FOR USE DURING HOURS OF DARKNESS.

SYMBOLS

SIGN ON PORTABLE OR PERMANENT SUPPORT

TRAFFIC DIRECTION

TRAFFIC CONTROL PLAN FOR HIGHWAY WORK ZONE	SPECIFICATION REFERENCE	TYPICAL APPLICATION FOR MULTILANE, DIVIDED OR UNDIVIDED, RURAL OR SUBURBAN, DAY OR NIGHT OPERATIONS WHERE ACTIVITIES ARE MORE THAN 15 FT FROM EDGE OF PAVEMENT	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA		
			DATE 1-9-97	DWG NO. 614 (1 OF 1)	PAGE 153

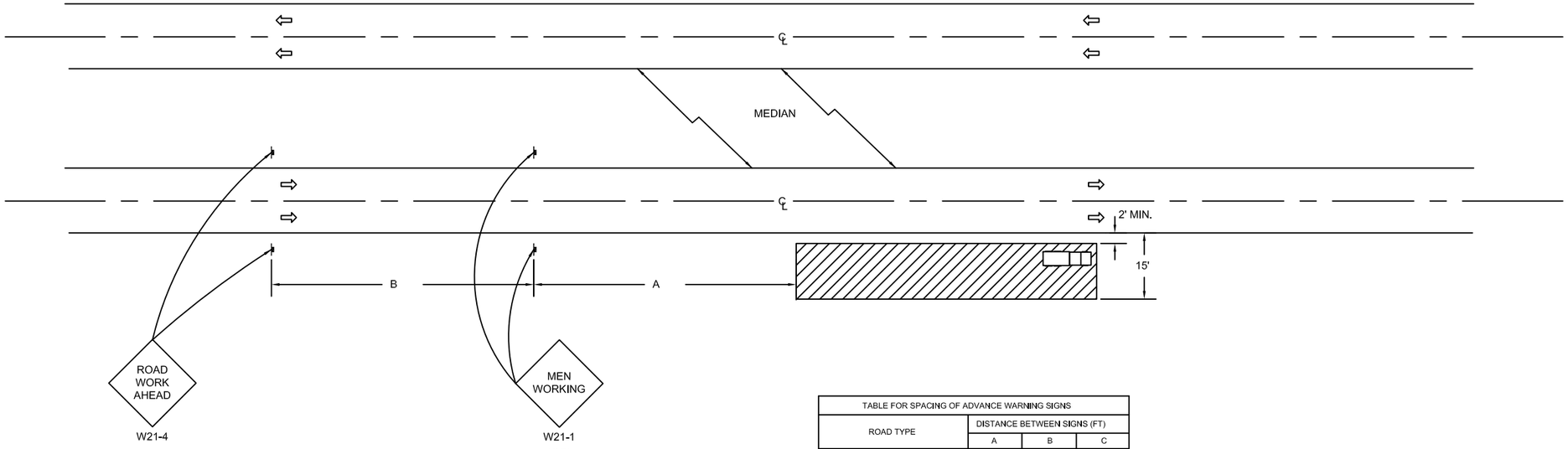


TABLE FOR SPACING OF ADVANCE WARNING SIGNS			
ROAD TYPE	DISTANCE BETWEEN SIGNS (FT)		
	A	B	C
URBAN (LESS THAN 35 MPH)	200	200	200
URBAN (35 MPH OR GREATER)	350	350	350
RURAL	500	500	500
EXPRESSWAY/FREEWAY	1000	1600	2600

SYMBOLS

WORK AREA

SIGN ON PORTABLE OR PERMANENT SUPPORT

SIGN ON PORTABLE OR PERMANENT SUPPORT

TYPICAL APPLICATIONS

UTILITY OPERATIONS
CULVERT EXTENSIONS
SIDE SLOPE CHANGES
GUARD RAIL INSTALLATION AND MAINTENANCE
DELINEATOR INSTALLATION AND MAINTENANCE
LANDSCAPING OPERATIONS
CLEANING DITCHES AND DRAINAGE STRUCTURES
SIGN INSTALLATION AND MAINTENANCE
SHOULDER REPAIR

1. WORKER SIGNS ARE TO BE REMOVED WHEN NO WORK IS BEING PERFORMED. ANY UNATTENDED OBSTACLE OR EXCAVATION IN THE WORK AREA WHICH IN THE OPINION OF THE TRAFFIC ENGINEER CONSTITUTES A HAZARD SHALL BE PROTECTED BY BARRICADES WITH FLASHING LIGHTS AT NIGHT AT THE POINTS OF HAZARD. STEADY BURNING LIGHTS SHALL BE USED FOR DELINEATION AND LONG LINE GUIDANCE. BARRICADE SHALL BE PLACED ACCORDING TO MAXIMUM SPACING VALUES LISTED IN THE TABLE BELOW.

TAPER LENGTHS FOR LANE CLOSURES - DISTANCE L					
SPEED	TAPER LENGTH LANE WIDTH IN FEET			NUMBER OF CHANNELIZING DEVICES FOR TAPER	MAX. SPACING OF DEVICES ALONG TAPER IN FEET
MILES PER HOUR 85th PERCENTILE	10	11	12		
20	70	75	80	5	20
25	105	115	125	6	25
30	150	165	180	7	30
35	205	225	245	8	35
40	270	295	320	9	40
45	450	495	540	13	45
50	500	550	600	13	50
55	550	605	660	13	55
60	600	660	720	13	60
65	650	715	780	13	65
70	700	770	840	13	70

GENERAL NOTES

2. IF THE WORK OPERATION REQUIRES THAT FOUR OR MORE WORK VEHICLES ENTER THROUGH TRAFFIC LANES IN A ONE HOUR PERIOD, A FLAGGER SHALL BE SUBSTITUTED FOR THE WORKER SIGN. A 100 FT. CONE TAPER SHALL BE PROVIDED PRIOR TO FLAGGER STATION TO PROTECT THE FLAGGER. FLOODLIGHTS SHOULD BE PROVIDED TO MARK FLAGGER STATIONS AT NIGHT AS NEEDED.

3. THIS CASE ALSO APPLIES WHEN WORK IS BEING PERFORMED ON A MULTILANE UNDIVIDED HIGHWAY. UNDER THESE CONDITIONS THE SIGNS NORMALLY MOUNTED IN THE MEDIAN SHALL BE OMITTED.

4. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS

5. ALL VEHICLES, EQUIPMENT, WORKERS AND THEIR ACTIVITIES ARE RESTRICTED AT ALL TIMES TO ONE SIDE OF THE PAVEMENT UNLESS OTHERWISE AUTHORIZED BY THE TRAFFIC ENGINEER.

8. REQUIRED PROTECTION FOR OPEN EXCAVATIONS DURING NON-WORKING HOURS: OPEN TRENCHES SHALL BE COMPLETELY FENCED (ALL FENCES TO BE SIX(6) FOOT HIGH, NON-CLIMBABLE FENCE), BACKFILLED OR PLATED IN ANY AREA OF THE CITY OF LAS VEGAS THAT ARE WITHIN 300 FT. OF ANY BUILDING OR ROADWAY, AFTER WORKING HOURS.
BEYOND 300', TRENCH MAY BE PROTECTED BY A THREE (3) FOOT MOUND OF EARTH COMPLETELY AROUND THE TRENCH AND TYPE II BARRICADES WITH FLASHERS SPOTTED AROUND THE TOP AFTER WORKING HOURS.

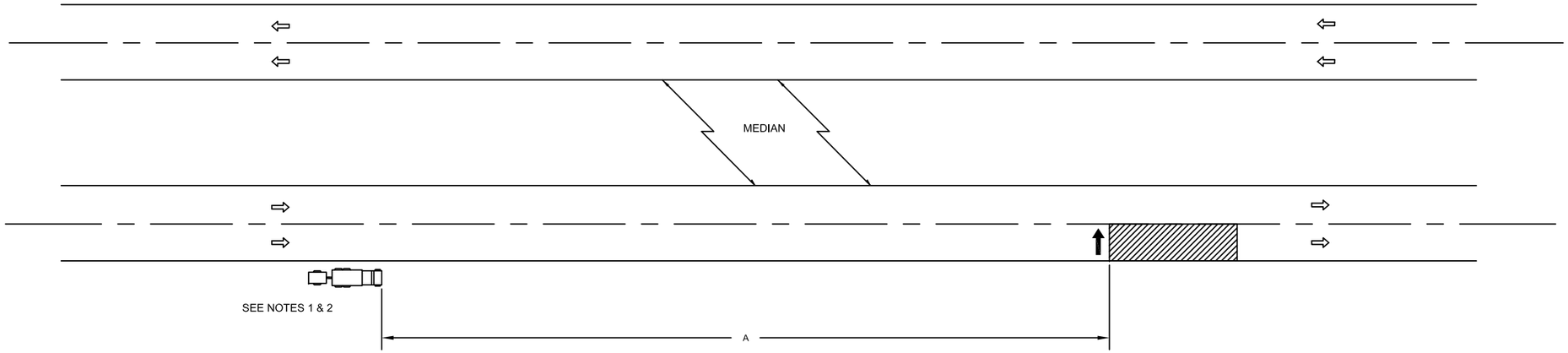
9. IF WORKING AT OR NEAR A TRAFFIC SIGNAL, CONTACT LVACTS AT 229-6611 AND LOCAL ENTITY AT APPROPRIATE NUMBERS LISTED BELOW AT LEAST TWO WORKING DAYS PRIOR TO BEGINNING WORK.

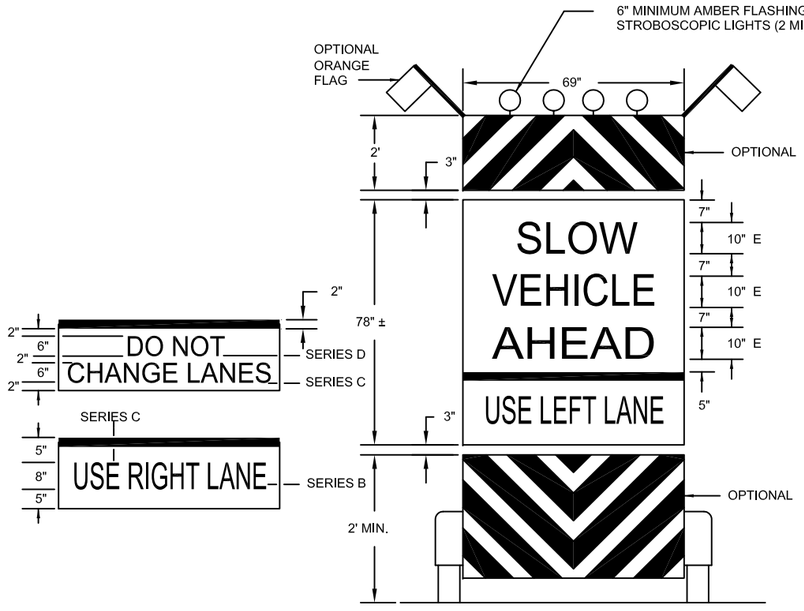
BOULDER CITY	293-9200	MESQUITE	346-5295
CLARK COUNTY	455-6100	NORTH LAS VEGAS	642-2462
HENDERSON	565-2140		
LAS VEGAS	229-6331		

10. IF THE WORK SPACE IS IN THE MEDIAN OF A DIVIDED HIGHWAY, AN ADVANCE WARNING SIGN SHOULD ALSO BE PLACED ON THE LEFT SIDE OF THE DIRECTIONAL ROADWAY.

11. ACCESS FOR CAT TRANSIT SERVICE, PEDESTRIANS AND

TRAFFIC CONTROL PLAN FOR HIGHWAY WORK ZONE	SPECIFICATION REFERENCE	TYPICAL APPLICATION FOR	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
		MULTILANE, DIVIDED OR UNDIVIDED, RURAL OR SUBURBAN, DAY OR NIGHT OPERATIONS WHERE ACTIVITIES WILL ENCROACH BETWEEN 15 FT. & 2 FT. OUTSIDE PAVEMENT EDGE	DATE 1-9-97 | DWG NO. 615 (1 OF 1) | PAGE 154





GENERAL NOTES

HIGHWAY, THE PROTECTION VEHICLE SHALL FOLLOW ON THE LEFT SHOULDER AND THE BOTTOM LINE SHALL READ "USE RIGHT LANE".

2. IF WORK IS BEING PERFORMED ON THE CENTER LANE OF THE ROADWAY, TRAFFIC SHALL BE DIVERTED TO EITHER LEFT OR RIGHT LANE. AT NO TIME IS TRAFFIC PERMITTED TO PASS ON BOTH SIDES OF MOVING OPERATION. CENTER LANE OPERATIONS SHALL NOT BE PERFORMED DURING PEAK TRAVEL TIMES.
3. THE LIGHTS ON THE TRAILER SHALL FLASH IN PAIRS ALTERNATING BETWEEN THE TWO OUTSIDE LIGHTS AND THE TWO INSIDE LIGHTS OR SEQUENTIAL FLASHING.
4. ALL STRIPING SHALL HAVE ALTERNATING WHITE AND ORANGE STRIPES AT 45° FROM THE VERTICAL. ALL STRIPES SHALL BE 6" IN WIDTH.
5. THE SIGN PANELS SHALL HAVE THE MINIMUM DIMENSIONS SHOWN AND HAVE BLACK LEGEND ON AN ORANGE REFLECTORIZED BACKGROUND CONFORMING TO SECTION 716.03.01 OF THE UNIFORM STANDARD SPECIFICATIONS.
6. PAVEMENT STRIPING AND CONE PICKUP WILL BE CONSIDERED AS TWO SEPARATE OPERATIONS.
7. WHERE WORK OPERATIONS ARE MORE THAN 2 FT. FROM THE EDGE OF THE PAVEMENT, PROTECTION VEHICLES MAY BE OMITTED.
8. THIS CASE DOES NOT APPLY WHEN WORK IS BEING PERFORMED IN THE MIDDLE LANE(S) OF A SIX OR MORE LANE HIGHWAY. SPECIAL PLANS APPROVED BY THE TRAFFIC ENGINEER ARE REQUIRED.
9. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED SLIGHTLY TO FIT FIELD CONDITIONS BY THE TRAFFIC ENGINEER.
10. ALL VEHICLES, EQUIPMENT, WORKERS AND THEIR ACTIVITIES ARE RESTRICTED AT ALL TIMES TO ONE SIDE OF THE PAVEMENT UNLESS OTHERWISE AUTHORIZED BY THE TRAFFIC ENGINEER.
11. ALL WARNING SIGNS HAVE BLACK LEGEND AND BORDER ON AN ORANGE BACKGROUND. ALL SIGNS HAVING AN ORANGE COLOR SHALL BE MADE OF MATERIALS CONFORMING TO SECTION 716.03.01 OF THE UNIFORM STANDARD SPECIFICATIONS.
12. TABLE FOR SPACING OF FOLLOWING VEHICLE

TABLE FOR SPACING OF ADVANCE WARNING SIGNS			
ROAD TYPE	DISTANCE BETWEEN SIGNS (FT)		
	A	B	C
URBAN (LESS THAN 35 MPH)	200	200	200
URBAN (35 MPH OR GREATER)	350	350	350
RURAL	500	500	500
EXPRESSWAY/FREEWAY	1000	1600	2600

13. IF WORKING AT OR NEAR A TRAFFIC SIGNAL, CONTACT LVACTS AT 229-6611 AND LOCAL ENTITY AT APPROPRIATE NUMBERS LISTED BELOW AT LEAST TWO WORKING DAYS PRIOR TO BEGINNING WORK.

BOULDER CITY	293-9200
CLARK COUNTY	455-6100
HENDERSON	565-2140
LAS VEGAS	229-6331
MESQUITE	346-5295
NORTH LAS VEGAS	642-2462

14. ACCESS FOR CAT TRANSIT SERVICE, PEDESTRIANS AND BICYCLES SHALL BE MAINTAINED THROUGHOUT DURATION OF CONSTRUCTION. IF RE-ROUTING OF ACCESS IS NECESSARY, THE CONTRACTOR SHALL PROVIDE THE ENTITY'S TRAFFIC ENGINEER WITH A MAP SHOWING THE PROPOSED RE-ROUTES FOR APPROVAL. IF CONSTRUCTION OPERATIONS AFFECT CAT BUS STOPS OR FACILITIES, THE CONTRACTOR SHALL NOTIFY THE REGIONAL TRANSPORTATION COMMISSION AT 455-4481 AT LEAST 3 NORMAL WORKING DAYS PRIOR TO BEGINNING SUCH OPERATIONS.

SYMBOLS

WORK AREA

VEHICLE MOUNTED ARROW PANEL

TRAFFIC DIRECTION

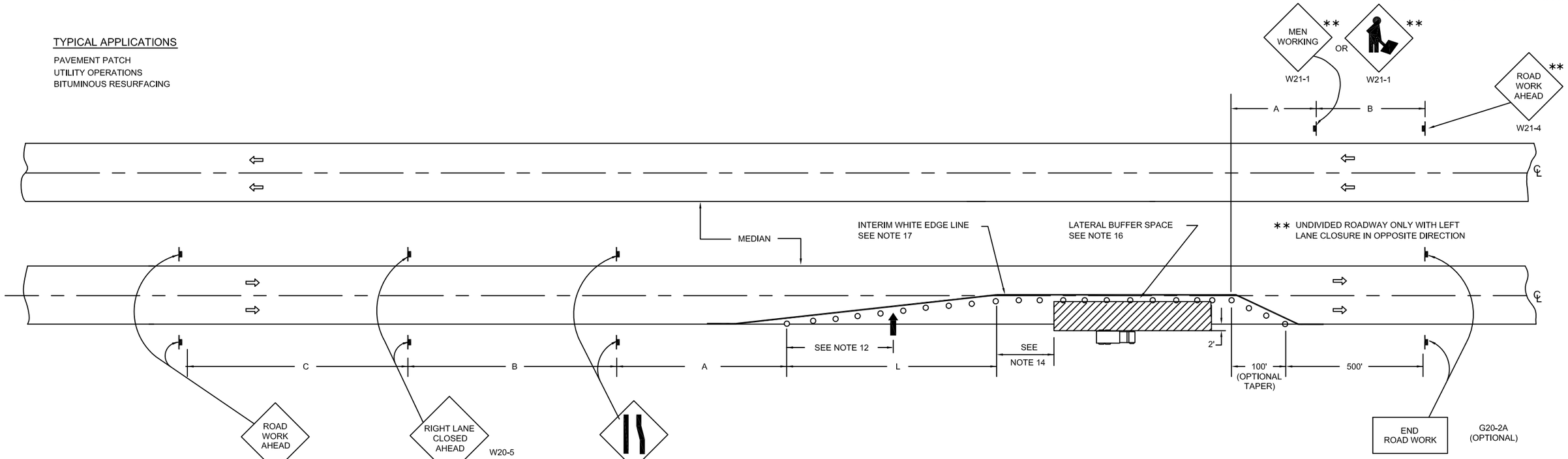
TYPICAL APPLICATIONS

PAVEMENT STRIPING
WEED SPRAYING
ROADOMETER MEASUREMENTS

TRAFFIC CONTROL PLAN FOR HIGHWAY WORK ZONE	SPECIFICATION REFERENCE	TYPICAL APPLICATION FOR MULTILANE, DIVIDED, RURAL OR SUBURBAN, DAY OPERATIONS WHERE OPERATION MOVES BETWEEN 1 AND 15 MPH	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
			DATE 1-9-97 | DWG NO. 616 (1 OF 1) | PAGE 155

TYPICAL APPLICATIONS

PAVEMENT PATCH
UTILITY OPERATIONS
BITUMINOUS RESURFACING



ADVISORY SPEED (XX) TO BE NOTED ON APPROVED BARRICADE PLAN

SYMBOLS

- ARROW BOARD
- WORK AREA
- CONE, DRUM OR BARRICADE
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- TRAFFIC DIRECTION

1. THE "L" DISTANCE EQUALS:

FORMULAS FOR TAPER LENGTH

SPEED	FORMULA
40 M.P.H. OR UNDER	$L = WS^2/60$
40 M.P.H. OR OVER	$L = WS$

WHERE:
L = TAPER LENGTH
W = WIDTH OF LANE OR OFFSET
S = POSTED SPEED, OR OFF-PEAK 85TH PERCENTILE PRIOR TO WORK STARTING OR ANTICIPATED OPERATING SPEED

TAPER LENGTHS FOR LANE CLOSURES - DISTANCE L

SPEED MILES PER HOUR 85th PERCENTILE	TAPER LENGTH LANE WIDTH IN FEET 10	11	12	NUMBER OF CHANNELIZING DEVICES FOR TAPER	MAX. SPACING OF DEVICES ALONG TAPER IN FEET
20	70	75	80	5	20
25	105	115	125	6	25
30	150	165	180	7	30
35	205	225	245	8	35
40	270	295	320	9	40
45	450	495	540	13	45
50	500	550	600	13	50
55	550	605	660	13	55
60	600	660	720	13	60
65	650	715	780	13	65
70	700	770	840	13	70

GENERAL NOTES

2. WHEN EQUIPMENT ENTERS OR EXITS THE WORK AREA DIRECTLY FROM THE ADJOINING LANE CARRYING TRAFFIC, A FLAGGER WILL BE REQUIRED. IF THE FLAGGER IS PRESENT, THE FLAGGER SIGN SHALL BE PLACED AT DISTANCE "A" PRIOR TO THE FLAGGER AND "PREPARE TO STOP" SIGN (NPS-1) SHALL BE PLACED AT DISTANCE "A" PRIOR TO FLAGGER SIGN. FLAGGERS SHALL NOT BE REQUIRED FOR SPEEDS OF 25 MPH OR LESS. A 100 FT. CONE TAPER SHALL BE PROVIDED PRIOR TO FLAGGER STATION TO PROTECT THE FLAGGER. FLOODLIGHTS SHOULD BE PROVIDED TO MARK FLAGGER STATIONS AT NIGHT AS NEEDED.

3. THIS CASE ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE LEFT LANE. UNDER THESE CONDITIONS, LEFT LANE CLOSED SIGNS SHALL BE SUBSTITUTED FOR RIGHT LANE CLOSED SIGNS. ON INDIVIDUAL HIGHWAYS, SIGNS SHALL BE ADDED IN THE OPPOSITE DIRECTION AS SHOWN AND CONES SHALL BE PLACED ALONG THE CENTERLINE THROUGHOUT THE TAPER AND WORK AREA.

4. ALL SIGNS, CONES, BARRICADES AND DRUMS ARE TO BE REMOVED AT COMPLETION OF THE DAY'S OPERATIONS AND THE WORK AREA OPENED TO TRAFFIC.

5. THIS CASE DOES NOT APPLY WHEN WORK IS BEING PERFORMED IN THE MIDDLE LANE(S) OF A SIX OR MORE LANE HIGHWAY. SPECIAL PLANS APPROVED BY THE TRAFFIC ENGINEER WILL BE REQUIRED.

6. CONES SHALL BE A MINIMUM OF 28 IN. IN HEIGHT.

7. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS BY THE TRAFFIC ENGINEER. THE LATERAL PLACEMENT OF THE FLAGGERS, IF NECESSARY, MAY BE VARIED.

8. ALL VEHICLES, EQUIPMENT, WORKERS (EXCEPT FLAGGERS) AND THEIR ACTIVITIES ARE RESTRICTED AT ALL TIMES TO ONE SIDE OF THE PAVEMENT UNLESS OTHERWISE AUTHORIZED BY THE TRAFFIC ENGINEER.

9. ALL WARNING SIGNS SHALL HAVE BLACK LEGEND AND BORDER ON AN ORANGE BACKGROUND. ALL SIGNS HAVING AN ORANGE COLOR SHALL BE MADE OF MATERIALS CONFORMING TO SECTION 716.03.01 OF THE UNIFORM STANDARD SPECIFICATIONS.

10. ALL DEVICES ESTABLISHING A TAPER OR TANGENT LINE SHALL BE OF ONE TYPE; DEVICES SHALL NOT BE MIXED BY TYPE.

11. TABLE FOR SPACING OF ADVANCE WARNING SIGNS

TABLE FOR SPACING OF ADVANCE WARNING SIGNS

ROAD TYPE	DISTANCE BETWEEN SIGNS (FT) A	B	C
URBAN (LESS THAN 35 MPH)	200	200	200
URBAN (35 MPH OR GREATER)	350	350	350
RURAL	500	500	500
EXPRESSWAY/FREEWAY	1000	1600	2600

12. ARROWBOARD PANELS SHALL BE USED ON HIGH SPEED ROADWAYS WITH SPEED LIMITS OVER 35 MPH OR AS DIRECTED BY THE TRAFFIC ENGINEER. ARROWBOARD SHOULD BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE, AS SOON AS THERE IS ADEQUATE SPACE.

13. IF WORKING AT OR NEAR A TRAFFIC SIGNAL, CONTACT LVACTS AT 229-6611 AND LOCAL ENTITY AT APPROPRIATE NUMBERS LISTED BELOW AT LEAST TWO WORKING DAYS PRIOR TO BEGINNING WORK.

BOULDER CITY	293-9200	LAS VEGAS	229-6331
CLARK COUNTY	455-6100	MESQUITE	346-5295
HENDERSON	565-2140	NORTH LAS VEGAS	642-2462

14. BUFFER SPACE SHALL BE:

BUFFER SPACE	
SPEED* (M.P.H.)	BUFFER SPACE (FT.)
70	585
65	485
60	415
55	335
50	280
45	220
40	170
35	120
30	85
25	55
20	35

* POSTED SPEED, OFF-PEAK 85TH PERCENTILE SPEED PRIOR TO WORK STARTING OR THE ANTICIPATED OPERATING SPEED.

15. WHEN A SIDE ROAD INTERSECTS THE HIGHWAY WITHIN THE TEMPORARY TRAFFIC CONTROL ZONE, ADDITIONAL TRAFFIC CONTROL DEVICES SHALL BE ERECTED, AS NEEDED.

16. A LATERAL BUFFER SPACE MAY BE REQUIRED TO SEPARATE WORK SPACE FROM TRAFFIC SPACE. THE WIDTH SHALL BE DETERMINED BY THE TRAFFIC ENGINEER.

17. FOR LONG TERM PROJECTS OF 72 CONTINUOUS HOURS OR MORE, A 6 IN. WIDE INTERIM WHITE EDGE LINE SHOULD BE INSTALLED FROM THE START OF THE TAPER TO A POINT BEYOND THE WORK AREA, REJOINING THE PERMANENT EDGE LINE. INTERIM EDGE LINE SHALL BE REMOVABLE, NON-FOIL PAVEMENT MARKING TAPE. FOR LEFT LANE CLOSURE, THE EDGE LINE SHALL BE YELLOW. PAVEMENT MARKINGS THAT ARE NO LONGER APPLICABLE SHALL BE MASKED WITH APPROVED BLACKOUT TAPE OR OBLITERATED AS APPROVED BY THE TRAFFIC ENGINEER FROM THE END OF THE ENTRANCE TAPER TO A POINT LOCATED 1/2A FROM THE TAPER BEGINNING.

18. ACCESS FOR CAT TRANSIT SERVICE, PEDESTRIANS AND BICYCLES SHALL BE MAINTAINED THROUGHOUT DURATION OF CONSTRUCTION. IF RE-ROUTING OF ACCESS IS NECESSARY, THE CONTRACTOR SHALL PROVIDE THE ENTITY'S TRAFFIC ENGINEER WITH A MAP SHOWING THE PROPOSED RE-ROUTES FOR APPROVAL. IF CONSTRUCTION OPERATIONS AFFECT CAT BUS STOPS OR FACILITIES, THE CONTRACTOR SHALL NOTIFY THE REGIONAL TRANSPORTATION COMMISSION AT 455-4481 AT LEAST 3 NORMAL WORKING DAYS PRIOR TO BEGINNING SUCH OPERATIONS.

TRAFFIC CONTROL PLAN FOR HIGHWAY WORK ZONE

SPECIFICATION REFERENCE

TYPICAL APPLICATION FOR

MULTILANE, DIVIDED OR UNDIVIDED, RURAL OR SUBURBAN, DAY OPERATIONS WHERE ACTIVITIES WILL ENCROACH ON LANE ABUTTING SHOULDER OR ON THE SHOULDER WITHIN 2 FT. OUTSIDE THE PAVEMENT EDGE

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

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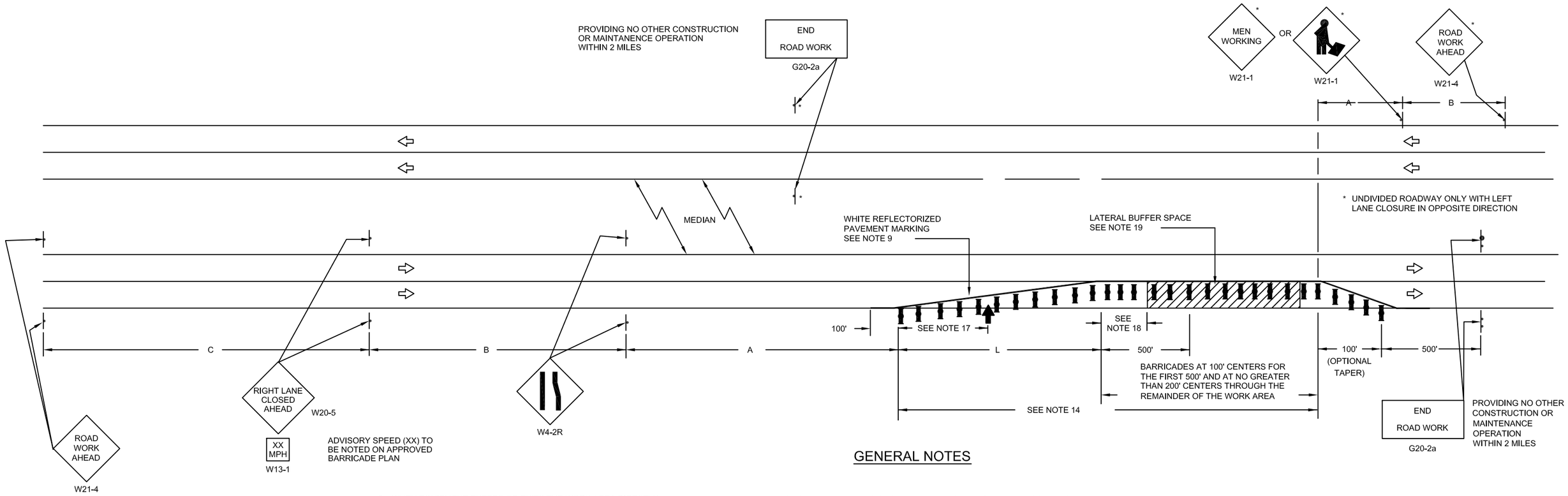

SYMBOLS

- WORK AREA
- ARROW BOARD (IN LINE OF LANE)
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- TRAFFIC DIRECTION
- BARRICADE OR DRUM WITH STEADY BURNING LIGHT

1. FORMULAS FOR TAPER LENGTH

SPEED	FORMULA
40 M.P.H. OR UNDER	$L = WS^2/60$
40 M.P.H. OR OVER	$L = WS$

WHERE:
L = TAPER LENGTH
W = WIDTH OF LANE OR OFFSET
S = POSTED SPEED, OR OFF-PEAK 85TH PERCENTILE SPEED PRIOR TO WORK STARTING OR ANTICIPATED OPERATING SPEED

TAPER LENGTHS FOR LANE CLOSURES - DISTANCE L

SPEED MILES PER HOUR 85th PERCENTILE	TAPER LENGTH LANE WIDTH IN FEET 10	11	12	NUMBER OF CHANNELIZING DEVICES FOR TAPER	MAX. SPACING OF DEVICES ALONG TAPER IN FEET
20	70	75	80	5	20
25	105	115	125	6	25
30	150	165	180	7	30
35	205	225	245	8	35
40	270	295	320	9	40
45	450	495	540	13	45
50	500	550	600	13	50
55	550	605	660	13	55
60	600	660	720	13	60
65	650	715	780	13	65
70	700	770	840	13	70

GENERAL NOTES

2. WHEN EQUIPMENT ENTERS OR EXITS THE WORK AREA DIRECTLY FROM THE ADJOINING LANE CARRYING TRAFFIC, A FLAGGER WILL BE REQUIRED. IF THE FLAGGER IS PRESENT, THE FLAGGER SIGN SHALL BE PLACED AT DISTANCE "A" PRIOR TO THE FLAGGER AND "PREPARE TO STOP" SIGN (NPS-1) SHALL BE PLACED AT DISTANCE "A" PRIOR TO THE FLAGGER SIGN. FLOODLIGHTS SHOULD BE PROVIDED TO MARK FLAGGER STATIONS AT NIGHT AS NEEDED. A 100 FT. CONE TAPER SHALL BE PROVIDED PRIOR TO STATION TO PROTECT THE FLAGGER. FLAGGERS SHALL NOT BE REQUIRED FOR SPEEDS OF 25 MPH OR LESS.
3. THIS CASE ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE LEFT LANE. UNDER THESE CONDITIONS, LEFT LANE CLOSED SIGNS SHALL BE SUBSTITUTED FOR RIGHT LANE CLOSED SIGNS. ON UNDIVIDED HIGHWAYS, SIGNS SHALL BE ADDED IN OPPOSITE DIRECTION AS SHOWN.
4. THIS CASE DOES NOT APPLY WHEN WORK IS BEING PERFORMED IN THE MIDDLE LANE(S) OF A SIX OR MORE LANE HIGHWAY. SPECIAL PLANS APPROVED BY THE TRAFFIC ENGINEER WILL BE REQUIRED.
5. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS CONES SHALL BE A MINIMUM OF 28" IN HEIGHT.
6. STEADY BURNING LIGHTS SHALL NOT BE REQUIRED ON BARRICADES FOR DAY OPERATIONS.
7. ALL SIGNS SHALL BE GROUND-MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS AND AS REQUIRED BY SECTION 625 OF THE UNIFORM STANDARD SPECIFICATIONS.
8. TYPE "B" HIGH INTENSITY FLASHING WARNING LIGHTS MAY BE INSTALLED ABOVE EACH WORK ZONE CONSTRUCTION SIGN FOR USE DURING HOURS OF DARKNESS.
9. FOR LONG TERM PROJECTS OF 72 CONTINUOUS HOURS OR MORE, A 6 IN. WIDE INTERIM WHITE EDGE LINE SHOULD BE INSTALLED FROM THE START OF THE TAPER TO A POINT BEYOND THE WORK AREA, REJOINING THE PERMANENT EDGE LINE. INTERIM EDGE LINE SHALL BE REMOVABLE, NON-FOIL PAVEMENT MARKING TAPE. FOR LEFT LANE CLOSURE, THE EDGE LINE SHALL BE YELLOW. PAVEMENT MARKINGS THAT ARE NO LONGER APPLICABLE SHALL BE MASKED WITH APPROVED BLACKOUT TAPE OR OBLITERATED AS APPROVED BY THE TRAFFIC ENGINEER FROM THE END OF THE ENTRANCE TAPER TO A POINT LOCATED 1/2A FROM THE TAPER BEGINNING.
10. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS BY THE TRAFFIC ENGINEER. THE LATERAL PLACEMENT OF THE FLAGGER, IF NECESSARY, MAY BE VARIED.
11. ALL VEHICLES, EQUIPMENT, WORKERS AND THEIR ACTIVITIES ARE RESTRICTED AT ALL TIMES TO ONE SIDE OF THE PAVEMENT UNLESS OTHERWISE AUTHORIZED BY THE TRAFFIC ENGINEER.
12. ALL BARRICADE LIGHTS SHALL BE MONODIRECTONAL IF THE ROADWAY IS UNDIVIDED.
13. ALL WARNING SIGNS SHALL HAVE BLACK LEGEND AND BORDER ON AN ORANGE BACKGROUND. ALL SIGNS HAVING AN ORANGE COLOR SHALL BE MADE OF MATERIALS CONFORMING TO SECTION 716.03.01 OF THE UNIFORM STANDARD SPECIFICATIONS.
14. ALL DEVICES ESTABLISHING A TAPER OR TANGENT LINE SHALL BE OF ONE TYPE; DEVICES SHALL NOT BE MIXED BY TYPE.
15. TABLE FOR SPACING OF ADVANCE WARNING SIGNS

TABLE FOR SPACING OF ADVANCE WARNING SIGNS

ROAD TYPE	DISTANCE BETWEEN SIGNS (FT) A	B	C
URBAN (LESS THAN 35 MPH)	200	200	200
URBAN (35 MPH OR GREATER)	350	350	350
RURAL	500	500	500
EXPRESSWAY/FREEWAY	1000	1600	2600

16. IF WORKING AT OR NEAR A TRAFFIC SIGNAL, CONTACT LVACTS AT 229-6611 AND LOCAL ENTITY AT APPROPRIATE NUMBERS LISTED BELOW AT LEAST TWO WORKING DAYS PRIOR TO BEGINNING WORK.

BOULDER CITY	293-9200	MESQUITE	346-5295
CLARK COUNTY	455-6100	NORTH LAS VEGAS	642-2462
HENDERSON	565-2140		
LAS VEGAS	229-6331		

17. ARROWBOARD PANELS SHALL BE USED ON HIGH SPEED ROADWAYS WITH SPEED LIMITS OVER 35 MPH OR AS DIRECTED BY THE TRAFFIC ENGINEER. ARROWBOARD SHOULD BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE, AS SOON AS THERE IS ADEQUATE SPACE.
18. BUFFER SPACE SHALL BE:

BUFFER SPACE

SPEED* (M.P.H.)	BUFFER SPACE (FT.)
70	585
65	485
60	415
55	335
50	280
45	220
40	170
35	120
30	85
25	55
20	35

* POSTED SPEED, OFF-PEAK 85TH PERCENTILE SPEED PRIOR TO WORK STARTING OR THE ANTICIPATED OPERATING SPEED.

19. A LATERAL BUFFER SPACE MAY BE REQUIRED TO SEPARATE WORK SPACE FROM TRAFFIC SPACE. THE WIDTH SHALL BE DETERMINED BY THE TRAFFIC ENGINEER.
20. WHEN A SIDE ROAD INTERSECTS THE HIGHWAY WITHIN THE TEMPORARY TRAFFIC CONTROL ZONE, ADDITIONAL TRAFFIC CONTROL DEVICES SHALL BE ERECTED, AS NEEDED.
21. ACCESS FOR CAT TRANSIT SERVICE, PEDESTRIANS AND BICYCLES SHALL BE MAINTAINED THROUGHOUT DURATION OF CONSTRUCTION. IF RE-ROUTING OF ACCESS IS NECESSARY, THE CONTRACTOR SHALL PROVIDE THE ENTITY'S TRAFFIC ENGINEER WITH A MAP SHOWING THE PROPOSED RE-ROUTES FOR APPROVAL. IF CONSTRUCTION OPERATIONS AFFECT CAT BUS STOPS OR FACILITIES, THE CONTRACTOR SHALL NOTIFY THE REGIONAL TRANSPORTATION COMMISSION AT 455-4481 AT LEAST 3 NORMAL WORKING DAYS PRIOR TO BEGINNING SUCH OPERATIONS.

TRAFFIC CONTROL PLAN FOR HIGHWAY WORK ZONE

SPECIFICATION REFERENCE

TYPICAL APPLICATION FOR

MULTILANE, DIVIDED OR UNDIVIDED, RURAL OR SUBURBAN, DAY AND NIGHT OPERATIONS WHERE ACTIVIES WILL ENCROACH ON LANE ABUTTING SHOULDER OR ON THE SHOULDER WITHIN 2 FT. OUTSIDE OF PAVEMENT EDGE

UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA

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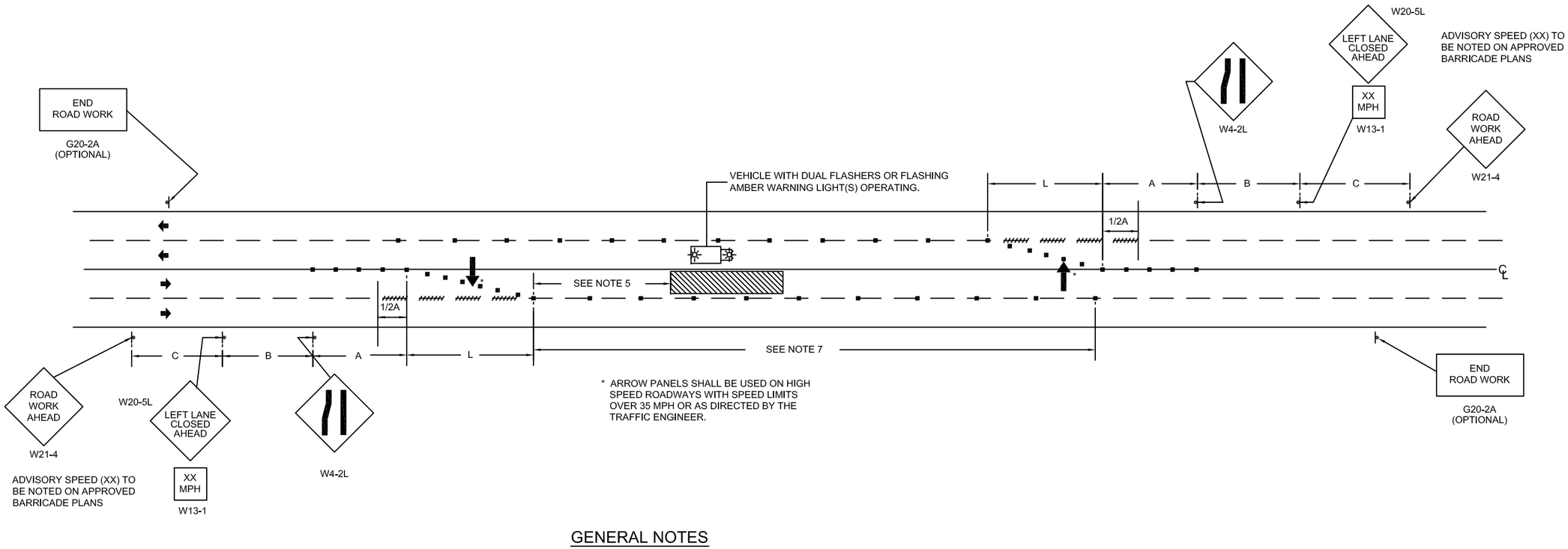


GENERAL NOTES

1. TAPER FORMULA: $L = S \times W$ FOR SPEEDS OF 45 MPH OR MORE

   $L = \frac{WS^2}{60}$ FOR SPEEDS OF 40 MPH OR LESS

   WHERE: L = MINIMUM LENGTH OF TAPER
   S = POSTED SPEED, 85TH PERCENTILE SPEED PRIOR TO WORK STARTING OR ANTICIPATED OPERATING SPEED
   W = WIDTH OF OFFSET

TAPER LENGTHS FOR LANE CLOSURES - DISTANCE L					
SPEED	TAPER LENGTH LANE WIDTH IN FEET			NUMBER OF CHANNELIZING DEVICES FOR TAPER	MAX. SPACING OF DEVICES ALONG TAPER IN FEET
MILES PER HOUR 85th PERCENTILE	10	11	12		
20	70	75	80	5	20
25	105	115	125	6	25
30	150	165	180	7	30
35	205	225	245	8	35
40	270	295	320	9	40
45	450	495	540	13	45
50	500	550	600	13	50
55	550	605	660	13	55
60	600	660	720	13	60
65	650	715	780	13	65
70	700	770	840	13	70

2. THE MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES IN A TAPER SHALL BE AS SPECIFIED IN TABLE IN NOTE 1.
3. TYPE "B" HIGH INTENSITY FLASHING WARNING LIGHTS MAY BE INSTALLED ABOVE EACH WORK ZONE CONSTRUCTION SIGN FOR USE DURING HOURS OF DARKNESS.
4. ALL WARNING SIGNS SHALL HAVE BLACK LEGEND AND BORDER ON AN ORANGE BACKGROUND. ALL SIGNS HAVING AN ORANGE COLOR SHALL BE MADE OF MATERIALS CONFORMING TO SECTION 716.03.01 OF THE UNIFORM STANDARD SPECIFICATIONS.
5. A BUFFER SPACE SHOULD BE REQUIRED AS FOLLOWS:

BUFFER SPACE	
SPEED* (M.P.H.)	BUFFER SPACE (FT.)
70	585
65	485
60	415
55	335
50	280
45	220
40	170
35	120
30	85
25	55
20	35

* POSTED SPEED, OFF-PEAK 85TH PERCENTILE SPEED PRIOR TO WORK STARTING OR THE ANTICIPATED OPERATING SPEED.

6. TABLE FOR SPACING OF ADVANCE WARNING SIGNS

TABLE FOR SPACING OF ADVANCE WARNING SIGNS			
ROAD TYPE	DISTANCE BETWEEN SIGNS (FT)		
	A	B	C
URBAN (LESS THAN 35 MPH)	200	200	200
URBAN (35 MPH OR GREATER)	350	350	350
RURAL	500	500	500
EXPRESSWAY/FREEWAY	1000	1600	2600

7. ALL DEVICES ESTABLISHING A TAPER OR TANGENT LINE SHALL BE OF ONE TYPE; DEVICES SHALL NOT BE MIXED BY TYPE.
8. IF WORKING AT OR NEAR A TRAFFIC SIGNAL, CONTACT LVACTS AT 229-6611 AND LOCAL ENTITY AT APPROPRIATE NUMBERS LISTED BELOW AT LEAST TWO WORKING DAYS PRIOR TO BEGINNING WORK.

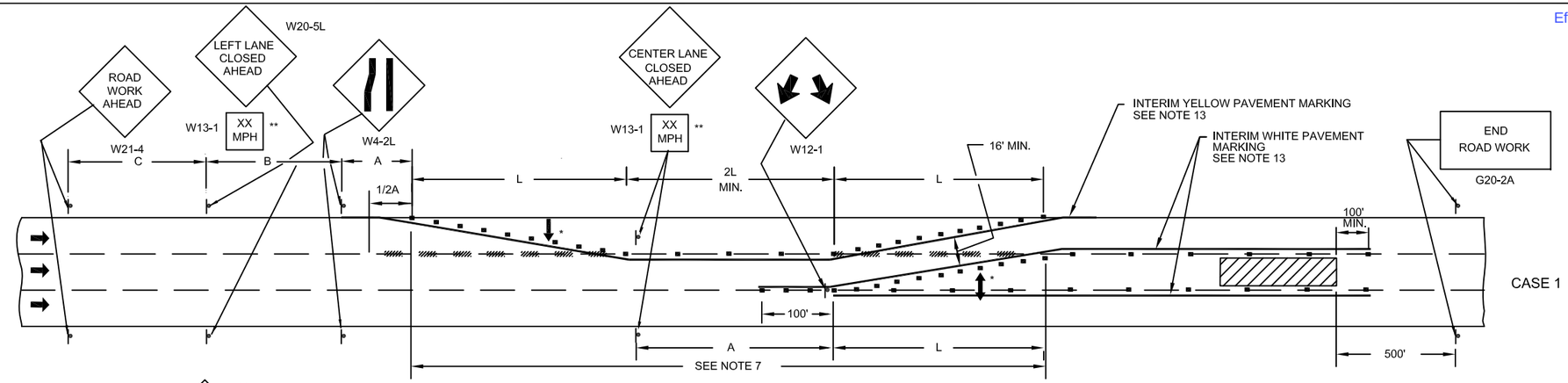
BOULDER CITY	293-9200	MESQUITE	346-5295
CLARK COUNTY	455-6100	NORTH LAS VEGAS	642-2462
HENDERSON	565-2140		
LAS VEGAS	229-6331		

9. ACCESS FOR CAT TRANSIT SERVICE, PEDESTRIANS AND BICYCLES SHALL BE MAINTAINED THROUGHOUT DURATION OF CONSTRUCTION. IF RE-ROUTING OF ACCESS IS NECESSARY, THE CONTRACTOR SHALL PROVIDE THE ENTITY'S TRAFFIC ENGINEER WITH A MAP SHOWING THE PROPOSED RE-ROUTES FOR APPROVAL. IF CONSTRUCTION OPERATIONS AFFECT CAT BUS STOPS OR FACILITIES, THE CONTRACTOR SHALL NOTIFY THE REGIONAL TRANSPORTATION COMMISSION AT 455-4481 AT LEAST 3 NORMAL WORKING DAYS PRIOR TO BEGINNING SUCH OPERATIONS.
10. DURING HOURS OF DARKNESS, STEADY BURNING WARNING LIGHTS SHALL BE USED ON ALL CHANNELIZING DEVICES.

SYMBOLS

- ARROW PANEL
- FLASHING VEHICLE LIGHT
- PAVEMENT MARKINGS THAT SHOULD BE REMOVED FOR A LONG TERM PROJECT OF 72 CONTINUOUS HOURS OR MORE. PAINT NOT ALLOWED. MASK WITH APPROVED BLACK OUT TAPE OPTIONAL OR OBLITERATED AS APPROVED BY THE TRAFFIC ENGINEER.
  TEMPORARY MARKINGS TO BE PLACED AS NEEDED.
- BARRICADE, DRUM, VERTICAL PANEL OR CONE.
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- TRAFFIC DIRECTION
- WORK AREA

TRAFFIC CONTROL PLAN FOR HIGHWAY WORK ZONE	SPECIFICATION REFERENCE	TYPICAL APPLICATION FOR	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
		MULTILANE, UNDIVIDED, RURAL OR SUBURBAN, DAY/NIGHT OPERATIONS WITH A WORK AREA IN THE LEFT LANE, ALLOWING WORK ACCESS FROM ADJACENT LANE	DATE 1-9-97 | DWG NO. 619 (1 OF 1) | PAGE 158



* ARROW PANELS SHALL BE USED ON HIGH SPEED ROADWAYS WITH SPEED LIMITS OVER 35 MPH OR AS DIRECTED BY THE TRAFFIC ENGINEER.

** ADVISORY SPEED (XX) TO BE NOTED ON APPROVED BARRICADE PLANS

SYMBOLS

- WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- ARROW BOARD
- BARRICADE DRUM, VERTICAL PANEL OR CONE
- PAVEMENT MARKINGS THAT SHOULD BE REMOVED FOR A LONG TERM PROJECT OF 72 CONTINUOUS HOURS OR MORE. PAINT NOT ALLOWED. MASK WITH APPROVED BLACK OUT TAPE OPTIONAL OR OBLITERATED AS APPROVED BY THE TRAFFIC ENGINEER.
  TEMPORARY MARKINGS TO BE PLACED AS NEEDED.
- TRAFFIC DIRECTION

GENERAL NOTES

1. TAPER FORMULA: $L = S \times W$ FOR SPEEDS OF 45 MPH OR MORE
   $L = \frac{WS^2}{60}$ FOR SPEEDS OF 40 MPH OR LESS

   WHERE: L = MINIMUM LENGTH OF TAPER
   S = POSTED SPEED, 85TH PERCENTILE SPEED PRIOR TO WORK STARTING OR ANTICIPATED OPERATING SPEED
   W = WIDTH OF OFFSET

TAPER LENGTHS FOR LANE CLOSURES - DISTANCE L					
SPEED	TAPER LENGTH LANE WIDTH IN FEET			NUMBER OF CHANNELIZING DEVICES FOR TAPER	MAX. SPACING OF DEVICES ALONG TAPER IN FEET
MILES PER HOUR 85th PERCENTILE	10	11	12		
20	70	75	80	5	20
25	105	115	125	6	25
30	150	165	180	7	30
35	205	225	245	8	35
40	270	295	320	9	40
45	450	495	540	13	45
50	500	550	600	13	50
55	550	605	660	13	55
60	600	660	720	13	60
65	650	715	780	13	65
70	700	770	840	13	70

2. THE MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES IN A TAPER SHALL BE AS SPECIFIED IN THE TABLE IN NOTE 1.

3. TYPE "B" HIGH INTENSITY FLASHING WARNING LIGHTS MAY BE INSTALLED ABOVE EACH WORK ZONE CONSTRUCTION SIGN FOR USE DURING HOURS OF DARKNESS.

4. ALL WARNING SIGNS SHALL HAVE BLACK LEGEND AND BORDER ON AN ORANGE BACKGROUND. ALL SIGNS HAVING AN ORANGE COLOR SHALL BE MADE OF MATERIALS CONFORMING TO SECTION 716.03.01 OF THE UNIFORM STANDARD SPECIFICATIONS.

5. A BUFFER SPACE SHOULD BE REQUIRED AS FOLLOWS:

BUFFER SPACE	
SPEED * (M,P,H,)	BUFFER SPACE (FT,)
70	585
65	485
60	415
55	335
50	280
45	220
40	170
35	120
30	85
25	55
20	35

* POSTED SPEED, OFF-PEAK 85TH PERCENTILE SPEED PRIOR TO WORK STARTING OR THE ANTICIPATED OPERATING SPEED.

6. DURING HOURS OF DARKNESS, STEADY BURNING WARNING LIGHTS SHALL BE REQUIRED ON ALL CHANNELIZING DEVICES.

7. ALL DEVICES ESTABLISHING A TAPER OR TANGENT LINE SHALL BE OF ONE TYPE; DEVICES SHALL NOT BE MIXED BY TYPE.

8. TABLE FOR SPACING OF ADVANCE WARNING SIGNS

TABLE FOR SPACING OF ADVANCE WARNING SIGNS			
ROAD TYPE	DISTANCE BETWEEN SIGNS (FT)		
	A	B	C
URBAN (LESS THAN 35 MPH)	200	200	200
URBAN (35 MPH OR GREATER)	350	350	350
RURAL	500	500	500
EXPRESSWAY/FREEWAY	1000	1600	2600

9. IF WORKING AT OR NEAR A TRAFFIC SIGNAL, CONTACT LVACTS AT 229-6611 AND LOCAL ENTITY AT APPROPRIATE NUMBERS LISTED BELOW AT LEAST TWO WORKING DAYS PRIOR TO BEGINNING WORK.

BOULDER CITY	293-9200	MESQUITE	346-5295
CLARK COUNTY	455-6100	NORTH LAS VEGAS	642-2462
HENDERSON	565-2140		
LAS VEGAS	229-6331		

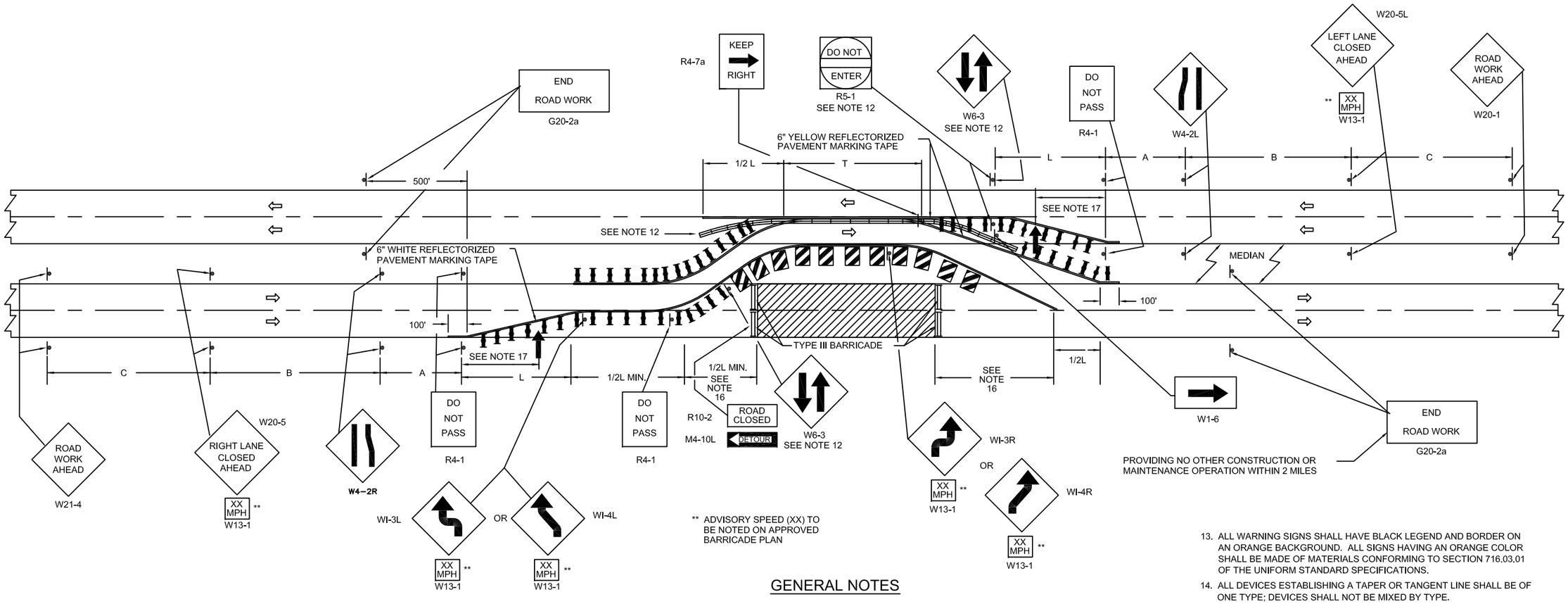
10. FOR CASE 1, A BUFFER SPACE SHOULD BE USED AT THE UPSTREAM END OF THE CLOSED INTERIOR LANE. FOR LONG-TERM OPERATIONS OF 72 CONTINUOUS HOURS OR MORE, A BARRIER SHOULD BE USED TO PROTECT THE OPERATION IN THE CLOSED INTERIOR LANE.

11. WHEN A SIDE ROAD INTERSECTS THE HIGHWAY WITHIN THE TEMPORARY TRAFFIC CONTROL ZONE, ADDITIONAL TRAFFIC CONTROL DEVICES SHALL BE ERECTED, AS NEEDED.

12. ACCESS FOR CAT TRANSIT SERVICE, PEDESTRIANS AND BICYCLES SHALL BE MAINTAINED THROUGHOUT DURATION OF CONSTRUCTION. IF RE-ROUTING OF ACCESS IS NECESSARY, THE CONTRACTOR SHALL PROVIDE THE ENTITY'S TRAFFIC ENGINEER WITH A MAP SHOWING THE PROPOSED RE-ROUTES FOR APPROVAL. IF CONSTRUCTION OPERATIONS AFFECT CAT BUS STOPS OR FACILITIES, THE CONTRACTOR SHALL NOTIFY THE REGIONAL TRANSPORTATION COMMISSION AT 455-4481 AT LEAST 3 NORMAL WORKING DAYS PRIOR TO BEGINNING SUCH OPERATIONS.

13. INTERIM PAVEMENT MARKINGS SHALL BE REFLECTORIZED, REMOVABLE, NON-FOIL TAPE AND A MINIMUM OF 6 IN. WIDE AND SHOULD BE REQUIRED FOR OPERATIONS OF 72 CONTINUOUS HOURS OR MORE.

TRAFFIC CONTROL PLAN FOR HIGHWAY WORK ZONE	SPECIFICATION REFERENCE	TYPICAL APPLICATION FOR MULTILANE, 1-WAY OR DIVIDED, RURAL OR SUBURBAN, DAY/NIGHT OPERATIONS WHERE CENTER LANE(S) ARE CLOSED	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
			DATE 1-9-97 | DWG NO. 620 (1 OF 1) | PAGE 159



** ADVISORY SPEED (XX) TO BE NOTED ON APPROVED BARRICADE PLAN

SYMBOLS

- ARROW BOARD
- WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- BARRICADE OR DRUM WITH STEADY BURNING LIGHT
- VERTICAL PANEL
- PORTABLE CONCRETE BARRIER RAIL
- TRAFFIC DIRECTION

1. THE "L" DISTANCE EQUALS:

   FORMULAS FOR TAPER LENGTH

SPEED	FORMULA
40 M.P.H. OR UNDER	$L = WS^2/60$
40 M.P.H. OR OVER	$L = WS$

   WHERE:
   L = TAPER LENGTH
   W = WIDTH OF LANE OR OFFSET
   S = POSTED SPEED, 85TH PERCENTILE SPEED PRIOR TO WORK STARTING OR ANTICIPATED OPERATING SPEED

TAPER LENGTHS FOR LANE CLOSURES - DISTANCE L

SPEED MILES PER HOUR 85th PERCENTILE	TAPER LENGTH LANE WIDTH IN FEET 10	11	12	NUMBER OF CHANNELIZING DEVICES FOR TAPER	MAX. SPACING OF DEVICES ALONG TAPER IN FEET
20	70	75	80	5	20
25	105	115	125	6	25
30	150	165	180	7	30
35	205	225	245	8	35
40	270	295	320	9	40
45	450	495	540	13	45
50	500	550	600	13	50
55	550	605	660	13	55
60	600	660	720	13	60
65	650	715	780	13	65
70	700	770	840	13	70

2. TWO WAY TRAFFIC SIGN(S) SHALL BE REPEATED EVERY ONE-QUARTER MILE IN EACH DIRECTION THROUGH THE TANGENT DISTANCE.
3. WHEN (T) IS GREATER THAN 500 FT., 4-FOOT LENGTHS OF DOUBLE YELLOW REFLECTORIZED, REMOVABLE, NON-FOIL PAVEMENT MARKING TAPE AT 40 FOOT CENTERS MAY BE USED.

GENERAL NOTES

4. A CURVE SIGN SHALL BE REQUIRED AT THE EXIT END OF THE BYPASS IF (T) IS EQUAL TO OR GREATER THAN 1,000 FEET.
5. ON PAVED CROSSOVERS, REFLECTIVE EDGE LINES AND A CENTERLINE SHALL BE USED WHEN THE CLOSURE TIME IS 72 CONTINUOUS HOURS OR MORE OR WHEN THE NORMAL POSTED SPEED OUTSIDE THE AREA OF OPERATIONS EXCEEDS 50 M.P.H. REFLECTORIZED, REMOVABLE, NON-FOIL PAVEMENT MARKING TAPE SHALL BE USED FOR MARKING THE EDGE LINES AND CENTER LINE ON THE EXISTING PAVEMENT. REFLECTORIZED PAVEMENT MARKING PAINT MAY BE USED FOR MARKINGS ON PAVED CROSSOVERS. RAISED REFLECTIVE PAVEMENT MARKERS CONFORMING TO UNIFORM STANDARD SPECS. & DRAWINGS MAY BE USED IN LIEU OF TAPE OR PAINT WHERE THE PAVEMENT MARKING IS TO BE PLACED ADJACENT TO BARRICADES OR VERTICAL PANELS. ALL EXISTING PAVEMENT MARKINGS WHICH CONFLICT WITH THE REVISED TRAFFIC PATTERN SHALL BE REMOVED. IF STRIPING IS TO BE PLACED ON FINAL PAVEMENT ONLY REMOVABLE, NON-FOIL TAPE SHALL BE USED.
6. CONES MAY BE SUBSTITUTED FOR BARRICADES AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 IN. IN HEIGHT.
7. STEADY BURNING LIGHTS WILL NOT BE REQUIRED ON BARRICADES FOR DAY OPERATIONS.
8. ALL SIGNS SHALL BE GROUND-MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS AND AS REQUIRED BY SECTION 625 OF THE UNIFORM STANDARD SPECIFICATIONS.
9. TYPE "B" HIGH INTENSITY FLASHING WARNING LIGHTS MAY BE INSTALLED ABOVE EACH WORK ZONE CONSTRUCTION SIGN FOR USE DURING HOURS OF DARKNESS.
10. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED SLIGHTLY TO FIT FIELD CONDITIONS BY THE TRAFFIC ENGINEER.
11. ALL BARRICADE LIGHTS SHALL BE MONODIRECTIONAL.
12. PORTABLE CONCRETE BARRIER RAIL SHOULD BE REQUIRED FOR LONG-TERM PROJECTS OF 72 CONTINUOUS HOURS OR MORE, SHALL CONFORM WITH STANDARD DRAWING NO. 602, AND BE USED WHEN CALLED UPON THEREIN. WHEN PORTABLE CONCRETE BARRIER RAIL IS REQUIRED, THE W6-3 & R5-1 SIGNS MAY BE OMITTED THROUGH THE TANGENT DISTANCE (T).
13. ALL WARNING SIGNS SHALL HAVE BLACK LEGEND AND BORDER ON AN ORANGE BACKGROUND. ALL SIGNS HAVING AN ORANGE COLOR SHALL BE MADE OF MATERIALS CONFORMING TO SECTION 716.03.01 OF THE UNIFORM STANDARD SPECIFICATIONS.
14. ALL DEVICES ESTABLISHING A TAPER OR TANGENT LINE SHALL BE OF ONE TYPE; DEVICES SHALL NOT BE MIXED BY TYPE.
15. TABLE FOR SPACING OF ADVANCE WARNING SIGNS

TABLE FOR SPACING OF ADVANCE WARNING SIGNS

ROAD TYPE	DISTANCE BETWEEN SIGNS (FT) A	B	C
URBAN (LESS THAN 35 MPH)	200	200	200
URBAN (35 MPH OR GREATER)	350	350	350
RURAL	500	500	500
EXPRESSWAY/FREEWAY	1000	1600	2600

16. ENGINEERED GEOMETRIC DESIGN TO BE PROVIDED BY ENGINEER.
17. ARROW BOARD SHOULD BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE, AS SOON AS THERE IS ADEQUATE SPACE.
18. IF WORKING AT OR NEAR A TRAFFIC SIGNAL, CONTACT LVACTS AT 229-6611 AND LOCAL ENTITY AT APPROPRIATE NUMBERS LISTED BELOW AT LEAST TWO WORKING DAYS PRIOR TO BEGINNING WORK.

BOULDER CITY	293-9200	LAS VEGAS	229-6331
CLARK COUNTY	455-6100	MESQUITE	346-5295
HENDERSON	565-2140	NORTH LAS VEGAS	642-2462

19. WHEN A SIDE ROAD INTERSECTS THE HIGHWAY WITHIN THE TEMPORARY TRAFFIC CONTROL ZONE, ADDITIONAL TRAFFIC CONTROL DEVICES SHALL BE ERECTED, AS NEEDED.
20. ACCESS FOR CAT TRANSIT SERVICE, PEDESTRIANS AND BICYCLES SHALL BE MAINTAINED THROUGHOUT DURATION OF CONSTRUCTION. IF RE-ROUTING OF ACCESS IS NECESSARY, THE CONTRACTOR SHALL PROVIDE THE ENTITY'S TRAFFIC ENGINEER WITH A MAP SHOWING THE PROPOSED RE-ROUTES FOR APPROVAL. IF CONSTRUCTION OPERATIONS AFFECT CAT BUS STOPS OR FACILITIES, THE CONTRACTOR SHALL NOTIFY THE REGIONAL TRANSPORTATION COMMISSION AT 455-4481 AT LEAST 3 NORMAL WORKING DAYS PRIOR TO BEGINNING SUCH OPERATIONS.

TRAFFIC CONTROL PLAN FOR HIGHWAY WORK ZONE

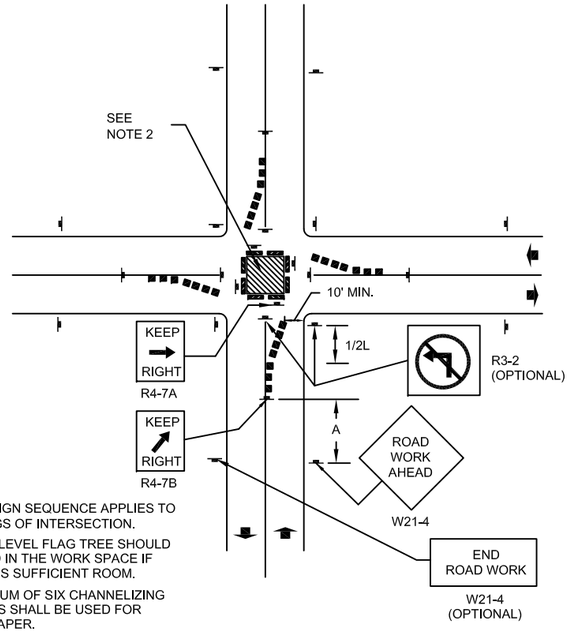
SPECIFICATION REFERENCE

TYPICAL APPLICATION FOR

MULTILANE, DIVIDED, RURAL OR SUBURBAN, DAY OR NIGHT OPERATIONS WHERE ACTIVITIES REQUIRE CLOSING 2 ADJACENT LANES & AN OPPOSING LANE IS USED FOR A TEMPORARY CROSSOVER

UNIFORM STANDARD DRAWINGS
CLARK COUNTY AREA

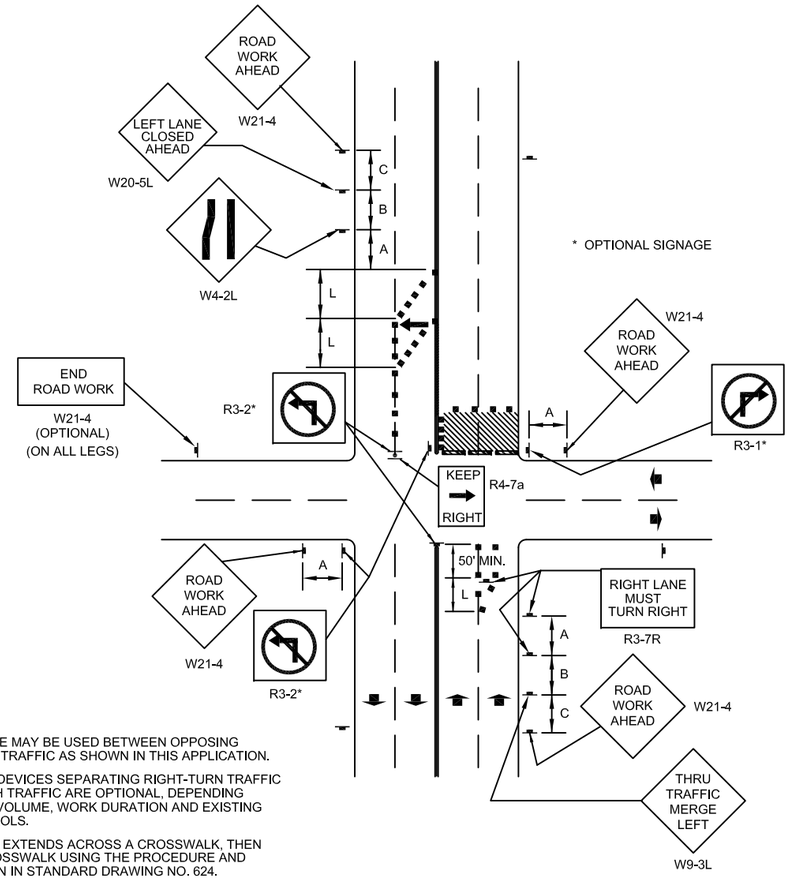
DATE 1-9-97 | DWG NO. 621 (1 OF 1) | PAGE 160



NOTE:

1. SAME SIGN SEQUENCE APPLIES TO ALL LEGS OF INTERSECTION.
2. A HIGH-LEVEL FLAG TREE SHOULD PLACED IN THE WORK SPACE IF THERE IS SUFFICIENT ROOM.
3. A MINIMUM OF SIX CHANNELIZING DEVICES SHALL BE USED FOR EACH TAPER.

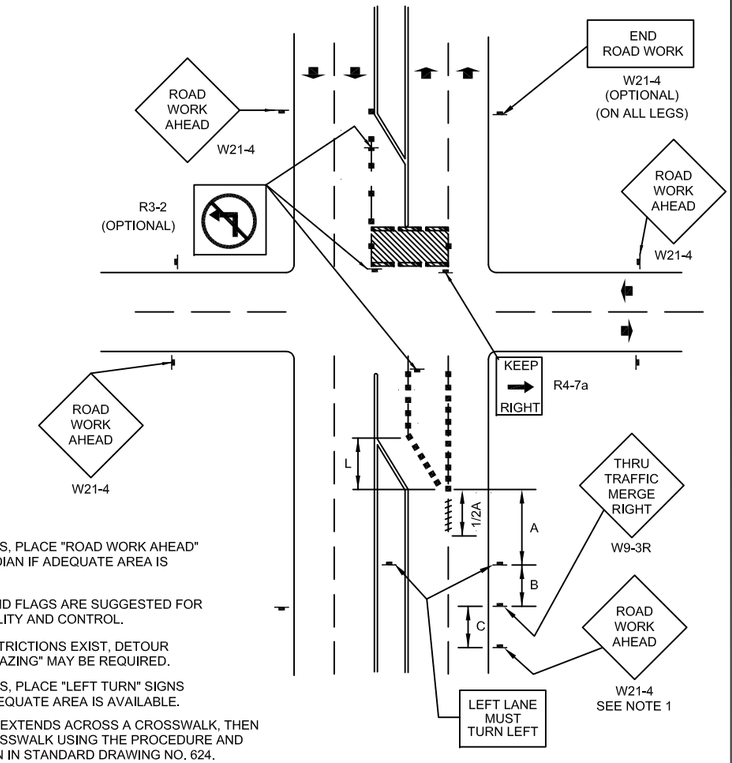
A. WORK AREA IS IN THE CENTER OF AN INTERSECTION



NOTES:

1. A BUFFER SPACE MAY BE USED BETWEEN OPPOSING DIRECTIONS OF TRAFFIC AS SHOWN IN THIS APPLICATION.
2. CHANNELIZING DEVICES SEPARATING RIGHT-TURN TRAFFIC FROM THROUGH TRAFFIC ARE OPTIONAL, DEPENDING UPON TRAFFIC VOLUME, WORK DURATION AND EXISTING TRAFFIC CONTROLS.
3. IF WORK SPACE EXTENDS ACROSS A CROSSWALK, THEN CLOSE THE CROSSWALK USING THE PROCEDURE AND DEVICES SHOWN IN STANDARD DRAWING NO. 624.

B. WORK AREA NEAR AN INTERSECTION, ALLOWING RIGHT TURNS.



NOTES:

1. IF MEDIAN EXISTS, PLACE "ROAD WORK AHEAD" SIGN IN THE MEDIAN IF ADEQUATE AREA IS AVAILABLE.
2. LARGE SIGNS AND FLAGS ARE SUGGESTED FOR MAXIMUM VISIBILITY AND CONTROL.
3. IF TURNING RESTRICTIONS EXIST, DETOUR ROUTE "TRAILBLAZING" MAY BE REQUIRED.
4. IF MEDIAN EXISTS, PLACE "LEFT TURN" SIGNS IN MEDIAN IF ADEQUATE AREA IS AVAILABLE.
5. IF WORK SPACE EXTENDS ACROSS A CROSSWALK, THEN CLOSE THE CROSSWALK USING THE PROCEDURE AND DEVICES SHOWN IN STANDARD DRAWING NO. 624.

C. WORK AREA NEAR AN INTERSECTION, PROVIDING ACCESS TO LEFT-TURN LANE.

GENERAL NOTES

1. FORMULAS FOR TAPER LENGTH

SPEED	FORMULA
40 M.P.H. OR UNDER	$L = WS^2/60$
40 M.P.H. OR OVER	$L = WS$

WHERE:
L = TAPER LENGTH
W = WIDTH OF LANE OR OFFSET
S = POSTED SPEED, 85TH PERCENTILE SPEED PRIOR TO STARTING WORK OR ANTICIPATED OPERATING SPEED

TAPER LENGTHS FOR LANE CLOSURES - DISTANCE L

SPEED MILES PER HOUR 85th PERCENTILE	TAPER LENGTH LANE WIDTH IN FEET 10	11	12	NUMBER OF CHANNELIZING DEVICES FOR TAPER	MAX. SPACING OF DEVICES ALONG TAPER IN FEET
20	70	75	80	5	20
25	105	115	125	6	25
30	150	165	180	7	30
35	205	225	245	8	35
40	270	295	320	9	40
45	450	495	540	13	45
50	500	550	600	13	50
55	550	605	660	13	55
60	600	660	720	13	60
65	650	715	780	13	65
70	700	770	840	13	70

2. ADDITIONAL ADVANCE WARNING MAY BE NECESSARY
3. PROHIBIT TURNS AS REQUIRED BY TRAFFIC CONDITIONS
4. TABLE FOR SPACING OF ADVANCE WARNING SIGNS

TABLE FOR SPACING OF ADVANCE WARNING SIGNS

ROAD TYPE	DISTANCE BETWEEN SIGNS (FT) A	B	C
URBAN (LESS THAN 35 MPH)	200	200	200
URBAN (35 MPH OR GREATER)	350	350	350
RURAL	500	500	500
EXPRESSWAY/FREEWAY	1000	1600	2600

5. ALL DEVICES ESTABLISHING A TAPER OF TANGENT LINE SHALL BE OF ONE TYPE, DEVICES SHALL NOT BE MIXED BY TYPE.
6. IF WORKING AT OR NEAR A TRAFFIC SIGNAL, CONTACT LVACTS AT 229-6611 AND LOCAL ENTITY AT APPROPRIATE NUMBERS LISTED BELOW AT LEAST TWO WORKING DAYS PRIOR TO BEGINNING WORK.

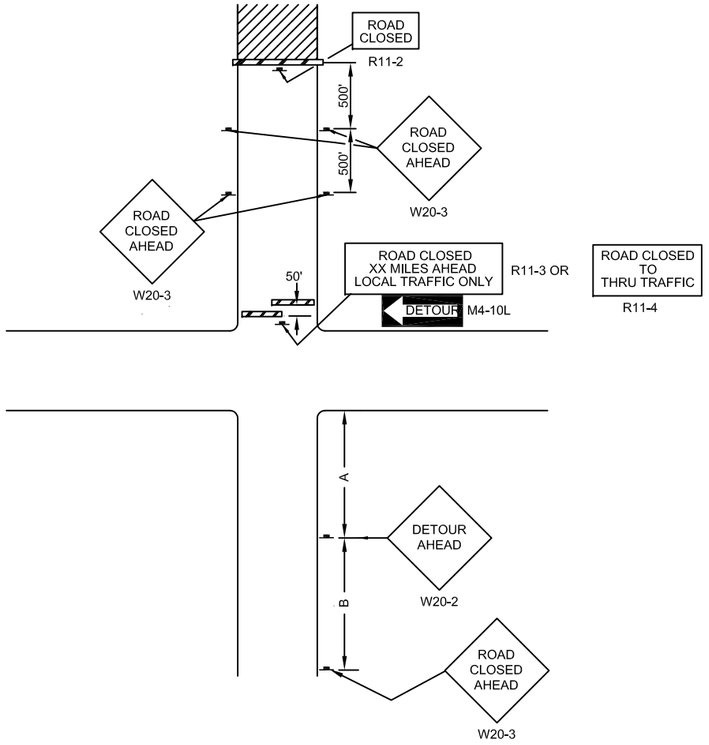
BOULDER CITY	293-9200	LAS VEGAS	229-6331
CLARK COUNTY	455-6100	MESQUITE	346-5295
HENDERSON	565-2140	NORTH LAS VEGAS	642-2462

7. FLASHING WARNING LIGHTS AND/OR FLAGS MAY BE USED TO CALL ATTENTION TO THE ADVANCE WARNING SIGNS.
8. ACCESS FOR CAT TRANSIT SERVICE, PEDESTRIANS AND BICYCLES SHALL BE MAINTAINED THROUGHOUT DURATION OF CONSTRUCTION. IF RE-ROUTING OF ACCESS IS NECESSARY, THE CONTRACTOR SHALL PROVIDE THE ENTITY'S TRAFFIC ENGINEER WITH A MAP SHOWING THE PROPOSED RE-ROUTES FOR APPROVAL. IF CONSTRUCTION OPERATIONS AFFECT CAT BUS STOPS OR FACILITIES, THE CONTRACTOR SHALL NOTIFY THE REGIONAL TRANSPORTATION COMMISSION AT 455-4481 AT LEAST 3 NORMAL WORKING DAYS PRIOR TO BEGINNING SUCH OPERATIONS.

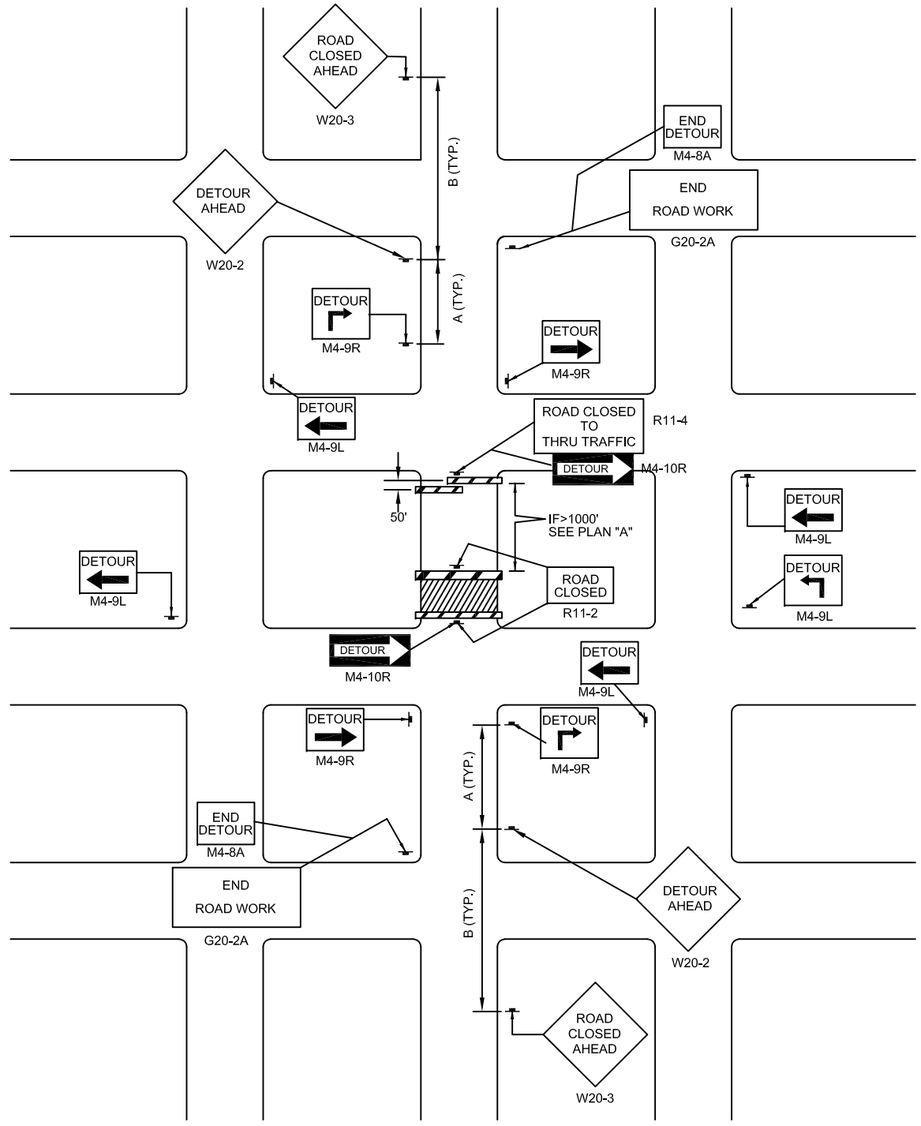
SYMBOLS

- ■ CHANNELIZING DEVICES
- PAVEMENT MARKINGS THAT SHOULD BE REMOVED FOR A LONG TERM PROJECT OF 72 CONTINUOUS HOURS OR MORE. PAINT NOT ALLOWED. MASK WITH APPROVED BLACK OUT TAPE OPTIONAL OR OBLITERATED AS APPROVED BY THE TRAFFIC ENGINEER. TEMPORARY MARKINGS TO BE PLACED AS NEEDED.
- TRAFFIC DIRECTION
- TYPE III BARRICADE
- WORK AREA

TRAFFIC CONTROL PLAN FOR HIGHWAY WORK ZONE	SPECIFICATION REFERENCE	TYPICAL APPLICATION FOR WORK AREAS WITHIN OR NEAR SUBURBAN INTERSECTIONS	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
			DATE 1-9-97 | DWG NO. 622 (1 OF 1) | PAGE 161



A. TYPICAL APPLICATION-ROADWAY CLOSED BEYOND DETOUR POINT.



B. TYPICAL APPLICATION-DETOUR SIGNING FOR ROAD CONSTRUCTION PROJECT IN A STREET GRID.

SYMBOLS

WORK AREA

TYPE III BARRICADES, PLACED END-TO-END FOR WIDTH OF ROADWAY DEPICTED.

SIGN ON PORTABLE OR PERMANENT SUPPORT

GENERAL NOTES

1. ANY ROAD CLOSURE MUST BE EXPRESSLY PERMITTED IN WRITING BY THE ADMINISTERING ENTITY'S TRAFFIC MANAGEMENT DIVISION MANAGER OR THE DIRECTOR OF ITS PUBLIC WORKS DEPARTMENT.
2. ALL WARNING SIGNS SHALL HAVE BLACK LEGEND AND BORDER ON AN ORANGE BACKGROUND. ALL SIGNS HAVING AN ORANGE COLOR SHALL BE MADE OF MATERIALS CONFORMING TO SECTION 716.03.01 OF THE UNIFORM STANDARD SPECIFICATIONS.
3. REGULATORY TRAFFIC CONTROL DEVICES TO BE MODIFIED AS NEEDED FOR THE DURATION OF THE DETOUR.
4. WARNING LIGHTS MAY BE USED TO MARK BARRICADES AT NIGHT AS NEEDED.
5. STREET NAMES MAY BE USED WHEN DESIRABLE FOR DIRECTING DETOURED TRAFFIC. LETTERS USED FOR STREET NAMES SHALL A MINIMUM OF 6" IN HEIGHT.
6. IF WORKING AT OR NEAR A TRAFFIC SIGNAL, CONTACT LVACTS AT 229-6611 AND LOCAL ENTITY AT APPROPRIATE NUMBERS LISTED BELOW AT LEAST TWO WORKING DAYS PRIOR TO BEGINNING WORK.

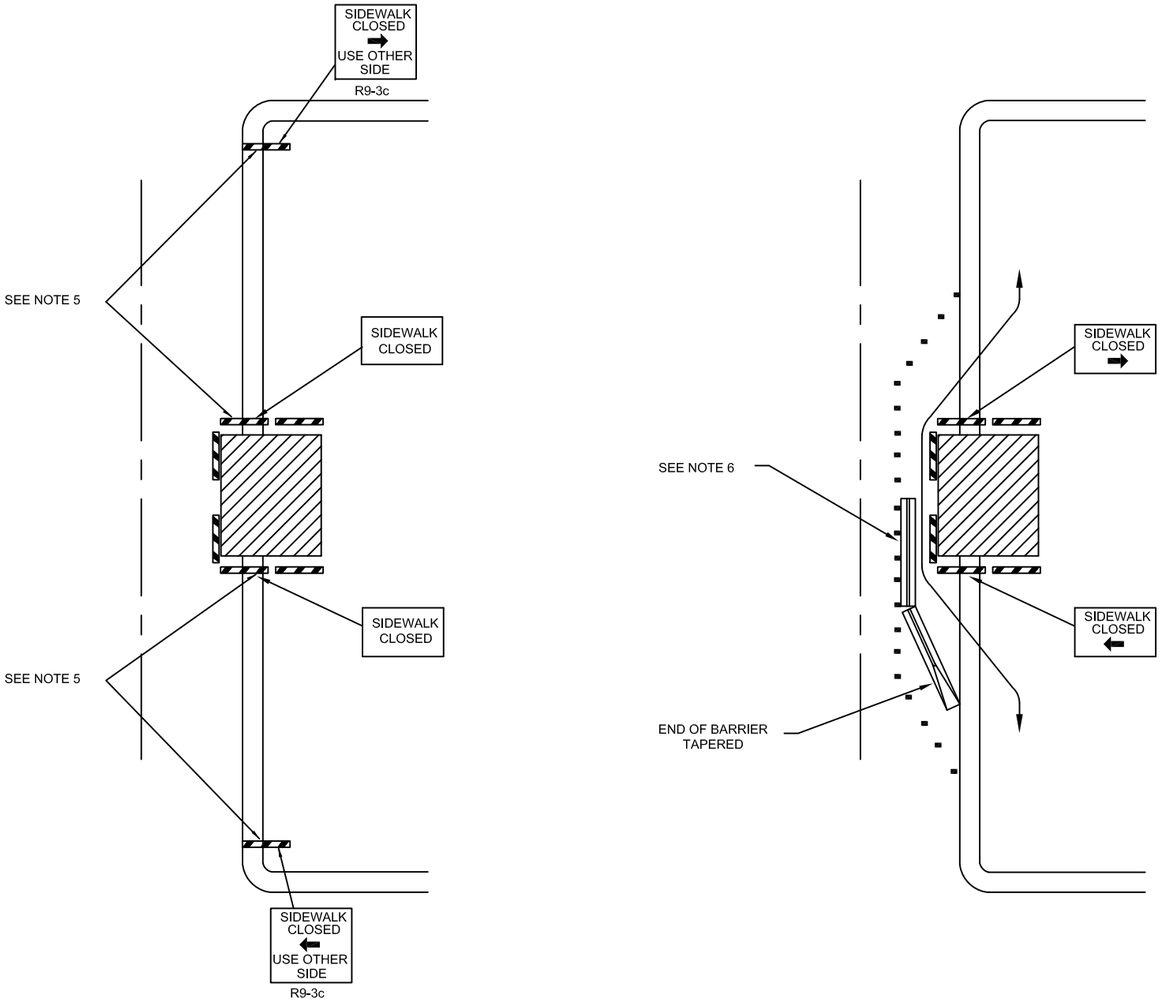
BOULDER CITY	293-9200	MESQUITE	346-5295
CLARK COUNTY	455-6100	NORTH LAS VEGAS	642-2462
HENDERSON	565-2140		
LAS VEGAS	229-6331		

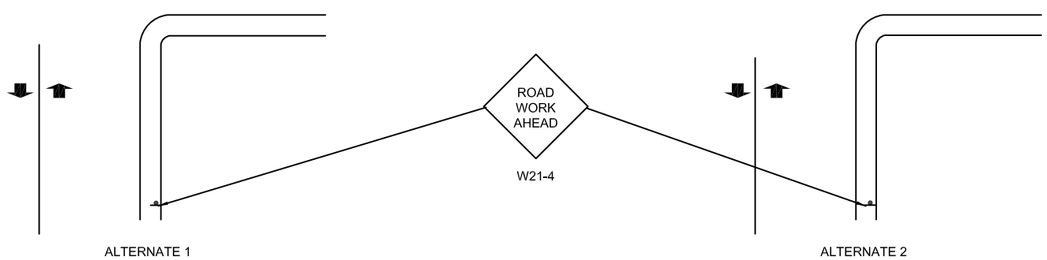
7. TYPE "B" HIGH INTENSITY FLASHING WARNING LIGHTS MAY BE INSTALLED ABOVE EACH WORK ZONE CONSTRUCTION SIGN FOR USE DURING HOURS OF DARKNESS.
8. M4-9 DETOUR SIGNS MAY BE LOCATED ON THE FAR SIDE OF THE INTERSECTIONS.
9. TABLE FOR SPACING OF ADVANCE WARNING SIGNS

TABLE FOR SPACING OF ADVANCE WARNING SIGNS			
ROAD TYPE	DISTANCE BETWEEN SIGNS (FT)		
	A	B	C
URBAN (LESS THAN 35 MPH)	200	200	200
URBAN (35 MPH OR GREATER)	350	350	350
RURAL	500	500	500
EXPRESSWAY/FREEWAY	1000	1600	2600

10. ACCESS FOR CAT TRANSIT SERVICE, PEDESTRIANS AND BICYCLES SHALL BE MAINTAINED THROUGHOUT DURATION OF CONSTRUCTION. IF RE-ROUTING OF ACCESS IS NECESSARY, THE CONTRACTOR SHALL PROVIDE THE ENTITY'S TRAFFIC ENGINEER WITH A MAP SHOWING THE PROPOSED RE-ROUTES FOR APPROVAL. IF CONSTRUCTION OPERATIONS AFFECT CAT BUS STOPS OR FACILITIES, THE CONTRACTOR SHALL NOTIFY THE REGIONAL TRANSPORTATION COMMISSION AT 455-4481 AT LEAST 3 NORMAL WORKING DAYS PRIOR TO BEGINNING SUCH OPERATIONS.

TRAFFIC CONTROL PLAN FOR HIGHWAY WORK ZONE	SPECIFICATION REFERENCE	TYPICAL APPLICATION FOR 2-LANE, 2-WAY, RURAL OR SUBURBAN, DAY OR NIGHT ROAD CLOSURE	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
			DATE 1-9-97 / DWG NO. 623 (1 OF 1) / PAGE 162





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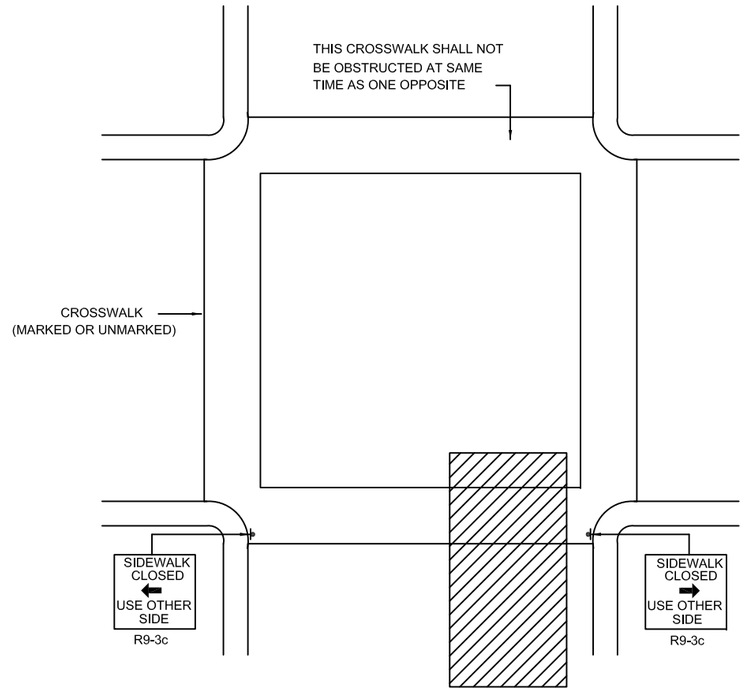


AT INTERSECTION

SYMBOLS

- CHANNELIZING DEVICES
- BARRICADES
- WORK AREA
- CONCRETE BARRIER RAIL
- TRAFFIC DIRECTION

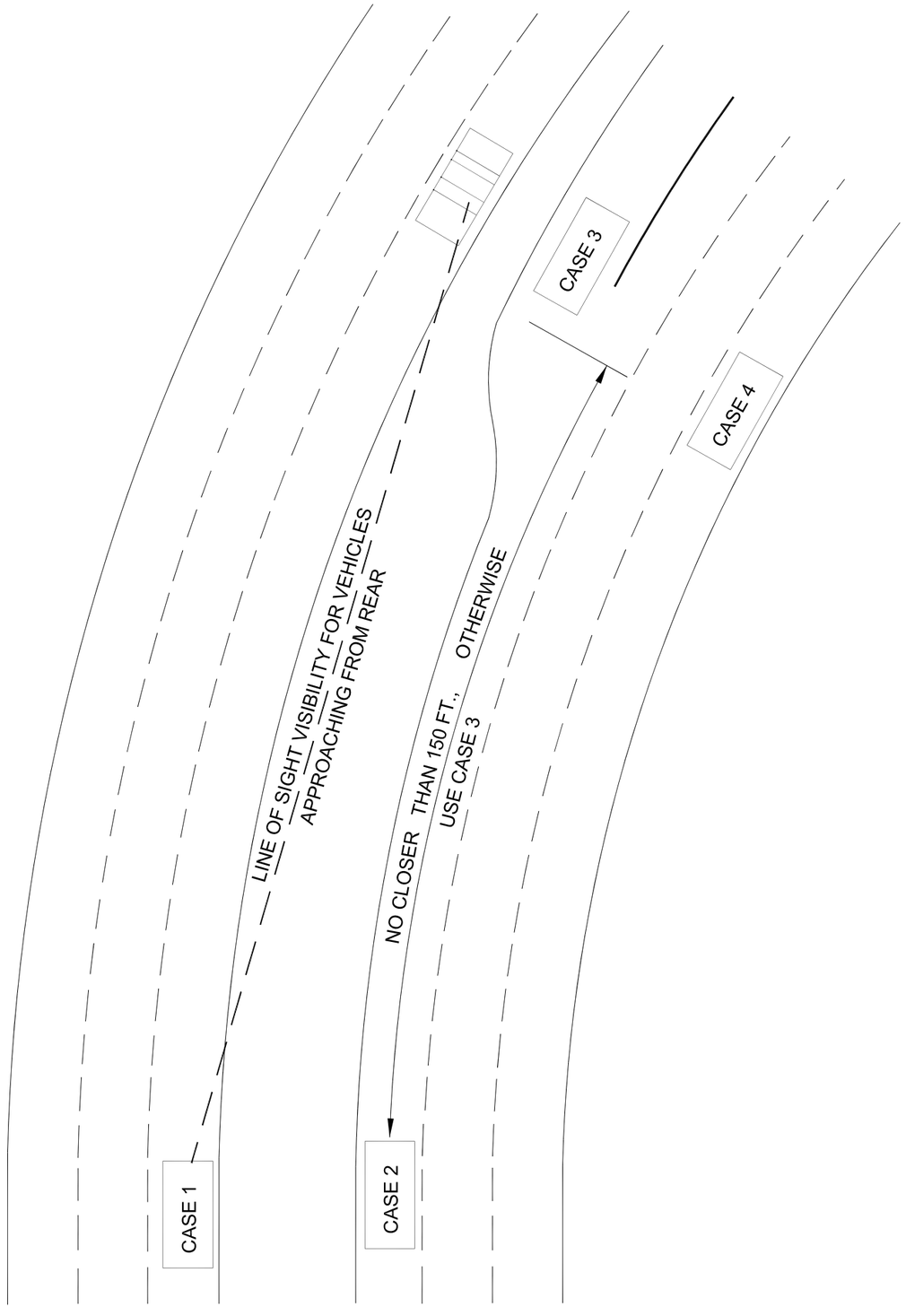
GENERAL NOTES:

1. ADDITIONAL ADVANCE WARNING MAY BE NECESSARY.
2. CONTROLS FOR PEDESTRIANS ONLY ARE SHOWN. VEHICULAR TRAFFIC CONTROLS SHALL COMPLY WITH APPROPRIATE STANDARD DRAWINGS.
3. STREET LIGHTING SHOULD BE CONSIDERED.
4. WARNING LIGHTS MAY BE USED ON BARRIER RAILS.
5. IF THERE EXIST ANY SOURCE OF PEDESTRIAN MOVEMENTS IN THIS AREA, SUCH THAT THE PEDESTRIAN APPROACHING THE WORK AREA COULD NOT SEE THE R9-3C SIGN, THEN ALTERNATES MUST BE USED TO INSURE THAT THIS IS VISIBLE.
6. CONCRETE BARRIER RAIL SHALL CONFORM TO STANDARD DRAWING NO. 602. WHEN PEDESTRIAN ROUTE IS DIVERTED TO TRAVEL LANE TO AVOID WORK AREA AND/OR HIGH SPEEDS ARE ANTICIPATED, BARRIER RAIL SHALL BE USED TO SEPARATE TEMPORARY WALKWAY FROM TRAFFIC.
7. IF WORKING AT OR NEAR A TRAFFIC SIGNAL, CONTACT LVACTS AT 229-6611 AND LOCAL ENTITY AT APPROPRIATE NUMBERS LISTED BELOW AT LEAST TWO WORKING DAYS PRIOR TO BEGINNING WORK.

BOULDER CITY	293-9200	MESQUITE	346-5295
CLARK COUNTY	455-6100	NORTH LAS VEGAS	642-2462
HENDERSON	565-2140		
LAS VEGAS	229-6331		

8. PEDESTRIANS SHOULD BE DIVERTED TO A SAFE AREA. DIVERSIONS SHALL BE AN ACCESSIBLE ROUTE AS DEFINED BY THE AMERICANS WITH DISABLITIES ACT (ADA).
9. FOR NIGHT-TIME CLOSURES, TYPE A FLASHING LIGHTS MAY BE USED ON BARRICADES SUPPORTING SIGNS AND CLOSING WALKWAYS. TYPE C STEADY-BURN LIGHTS SHALL BE USED ON CHANNELIZING DEVICES SEPARATING THE TEMPORARY WALKWAY FROM VEHICULAR TRAFFIC.
10. ACCESS FOR CAT TRANSIT SERVICE, PEDESTRIANS AND BICYCLES SHALL BE MAINTAINED THROUGHOUT DURATION OF CONSTRUCTION. IF RE-ROUTING OF ACCESS IS NECESSARY, THE CONTRACTOR SHALL PROVIDE THE ENTITY'S TRAFFIC ENGINEER WITH A MAP SHOWING THE PROPOSED RE-ROUTES FOR APPROVAL. IF CONSTRUCTION OPERATIONS AFFECT CAT BUS STOPS OR FACILITIES, THE CONTRACTOR SHALL NOTIFY THE REGIONAL TRANSPORTATION COMMISSION AT 455-4481 AT LEAST 3 NORMAL WORKING DAYS PRIOR TO BEGINNING SUCH OPERATIONS.

TRAFFIC CONTROL PLAN FOR HIGHWAY WORK ZONE	SPECIFICATION REFERENCE	TYPICAL APPLICATION FOR CONTROLLING PEDESTRIAN TRAFFIC	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
			DATE 1-9-97 | DWG NO. 624 (1 OF 1) | PAGE 163

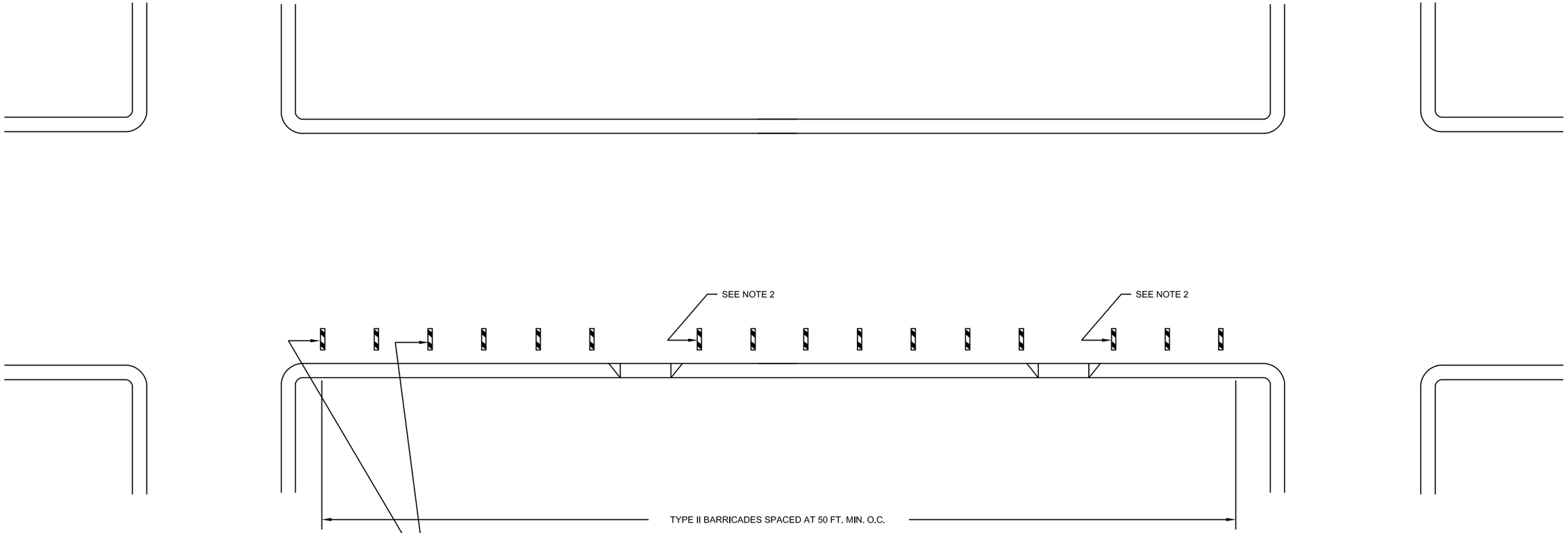


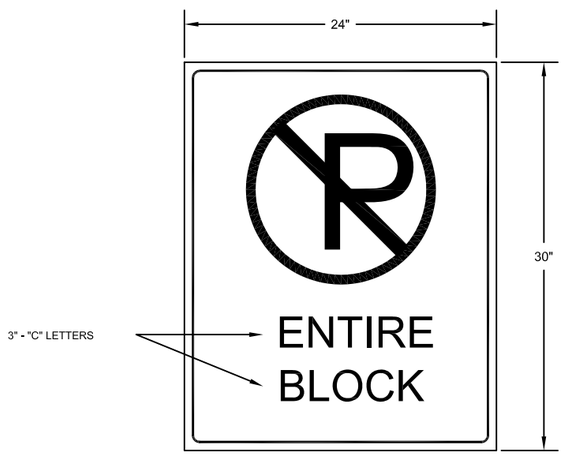
STANDARD PROCEDURE & CONDITIONS WHICH, WHEN MET, ELIMINATE THE NEED FOR INDIVIDUAL TRAFFIC CONTROL PLAN AND/OR PERMIT

DEVICE OR PARAMETER	SITUATION/CASE # 1	2	3	4
A. MINIMUM 60 IN. WIDE FLASHER BAR ATOP VEHICLE, WITH GREATER THAN 4 LIGHT ELEMENTS VISIBLE TO APPROACHING TRAFFIC	✓	✓	✓	✓
B. CONES SET OUT BEHIND VEHICLE	3, ACROSS BLOCKED LANE	3, ACROSS BLOCKED LANE	5, ACROSS BLOCKED LANE	NONE
C. TURN ON VEHICLE'S EMERGENCY HAZARD FLASHERS	✓	✓	✓	NOT REQUIRED
D. ALL PERSONNEL WEAR ORANGE VESTS OR SHIRTS WHEN OUTSIDE OF VEHICLE	ALWAYS	ALWAYS	ALWAYS	ALWAYS
E. O.K. FOR NIGHTTIME DEPLOYMENT?	NO	ONLY WHEN SPEED LIMIT ≤ 35 MPH	O.K., BUT USE REFLECTIVE VESTS	O.K., BUT USE REFLECTIVE VESTS
F. WATER-FILLED CRASH CUSHION, OR EQUIVALENT; TRUNK OR TRAILER-MOUNTED IMPACT ATTENUATORS	RECOMMENDED, BUT MANDATORY WHEN SPEED LIMIT EXCEEDS 45 MPH		NO	NO
G. NO STOPPING UNLESS STOPPED VEHICLE IS VISIBLE TO APPROACHING TRAFFIC GREATER THAN 10 SECONDS AT SPEED LIMIT	YES, APPLY THIS RULE	N/A - ON STRAIGHT-AWAY	NOT REQUIRED	DESIRED, BUT NOT REQUIRED
H. O.K. TO SET UP DURING PEAK TRAVEL HOURS: 7-9 AM, 4-6 PM	YES, BUT ONLY FOR EMERGENCY-TYPE REPAIR ACTIVITIES		O.K.	NOT RECOMMENDED

NOTE: TYPICAL APPLICATION IS FOR LANDSCAPE OR UTILITY ACTIVITIES.

TRAFFIC CONTROL PLAN FOR HIGHWAY WORK ZONE	SPECIFICATION REFERENCE	TYPICAL APPLICATION FOR SLOW MOVING OR SHORT DURATION STOPPING IN A MARKED TRAVEL LANE ON NON-LOCAL STREETS	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
			DATE 1-9-97 | DWG NO. 625 (1 OF 1) | PAGE 164





"NO PARKING" SIGN DETAIL

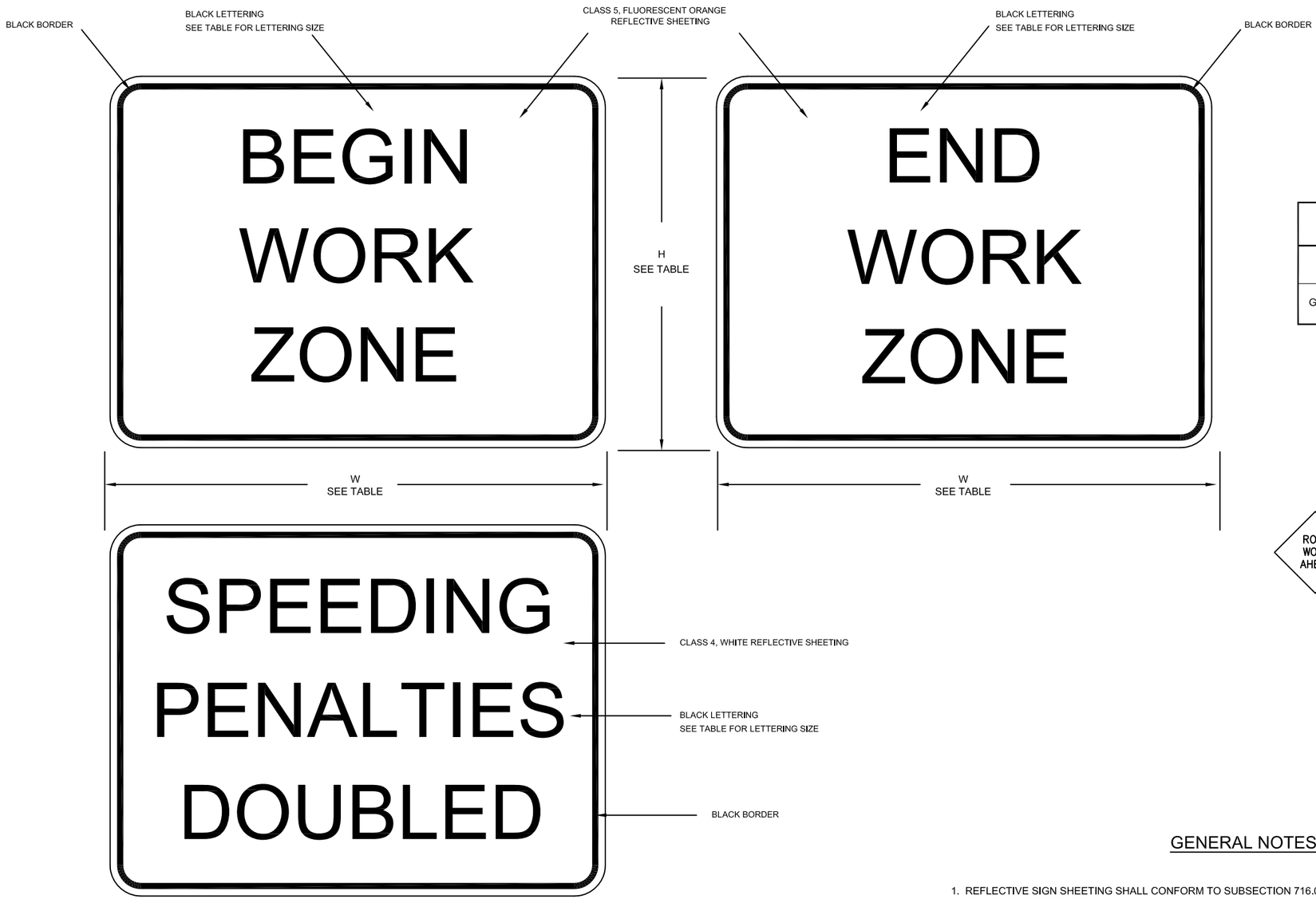
GENERAL NOTES:

1. SPECIAL "NO PARKING" SIGN SHALL BE PLACED ON FIRST BARRICADE AND ON EVERY OTHER BARRICADE THEREAFTER.
2. BARRICADES SHALL NOT BLOCK DRIVEWAYS OR ACCESSES PRIOR TO MAINTENANCE OPERATION. SPECIAL "NO PARKING" SIGN SHALL BE PLACED ON FIRST BARRICADE FOLLOWING SPACE PROVIDED FOR ACCESS.
3. BARRICADES MAY BE PLACED ON PAVEMENT OR ON SIDEWALK AT THE DISCRETION OF THE ENGINEER. "NO PARKING" SIGNS PLACED ON SIDEWALK SHALL NOT BE SET AT AN ANGLE NO GREATER THAN 30 DEGREES WITH THE LINE OF TRAFFIC FLOW TO BE VISIBLE TO APPROACHING TRAFFIC. A MINIMUM OF 36" CLEAR SPACE ON SIDEWALK SHALL BE MAINTAINED IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT WHEN BARRICADES ARE PLACED ON SIDEWALKS.
4. "NO PARKING" SIGNS AND BARRICADES SHOULD BE PLACED IN AREA OF REHABILITATION AT LEAST 72 HOURS IN ADVANCE OF WORK BEGINNING. NOTIFICATION OF PERSONS AFFECTED BY STREET WORK SHALL BE PERFORMED AS REQUIRED BY RESPECTIVE ENTITY AND NEVADA REVISED STATUTES.
5. ALL BARRICADES AND "NO PARKING" SIGNS SHALL BE REMOVED AS SOON AS IMPROVED SURFACE IS READY FOR TRAFFIC AS DETERMINED BY THE ENGINEER.

SYMBOLS:

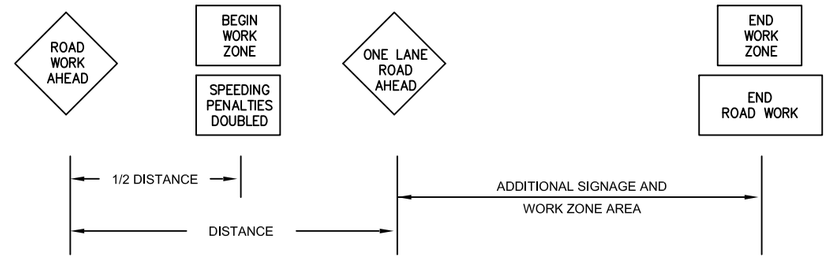
BARRICADE

TRAFFIC CONTROL PLAN FOR HIGHWAY WORK ZONE	SPECIFICATION REFERENCE	TYPICAL APPLICATION FOR PLACEMENT OF "NO PARKING" SIGNS FOR SHORT-TERM STREET REHABILITATION PROJECTS	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
			DATE 1-9-97 | DWG NO. 626 (1 OF 1) | PAGE 165



SIGN AND LETTERING SIZE TABLE

SPEED LIMIT	"H" (IN.)	"W" (IN.)	LETTERING "SPEEDING..." SIGN	LETTERING "BEGIN/END..." SIGN
35 MPH OR LESS	18	24	4 INCH SERIES "C"	4 INCH SERIES "D"
GREATER THAN 35 MPH	30	36	6 INCH SERIES "C"	6 INCH SERIES "D"



TYPICAL SIGN PLACEMENT

GENERAL NOTES:

1. REFLECTIVE SIGN SHEETING SHALL CONFORM TO SUBSECTION 716.03.01, LATEST REVISION, OF THE UNIFORM STANDARD SPECIFICATIONS.
2. SIGN LEGENDS AND BORDERS SHALL COMPLY WITH THE REQUIREMENTS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
3. SIGNS SHALL BE MOUNTED IN SAME MANNER AS OTHER CONSTRUCTION SIGNS IN THE WORK ZONE.
4. "BEGIN WORK ZONE" AND "SPEEDING PENALTIES DOUBLED" SIGNS SHALL BE MOUNTED TOGETHER ON SAME DEVICE OR POST AND SHALL BE LOCATED AFTER THE FIRST SIGN IN THE CONSTRUCTION SIGN SERIES, TYPICALLY THE "ROAD WORK AHEAD" SIGN, OR AS DIRECTED BY THE TRAFFIC ENGINEER.
5. "END WORK ZONE" SIGN SHALL BE MOUNTED AT THE END OF THE WORK ZONE WITH THE "END ROAD WORK" SIGN, IF APPLICABLE, ON THE SAME DEVICE OR POST, OR AS DIRECTED BY THE TRAFFIC ENGINEER.

TRAFFIC CONTROL PLAN FOR HIGHWAY WORK ZONE	SPECIFICATION REFERENCE	TYPICAL APPLICATION FOR STANDARD FOR "SPEEDING PENALTIES DOUBLED" SIGN FOR USE IN TEMPORARY TRAFFIC CONTROL ZONES	UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA
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