

GENERAL NOTES (CONT.)

- Non-intersection crosswalks shall be centered on the lane lines and travel lanes to avoid the wheel paths of vehicles.
- Pavement markings in neutral areas, including transverse lines and chevron markings, shall be installed in accordance with the current edition of the Manual on Uniform Traffic Control Devices.
- Pavement markings of round-highway grade crossings shall be installed in accordance with the current edition of the Manual on Uniform Traffic Control Devices.

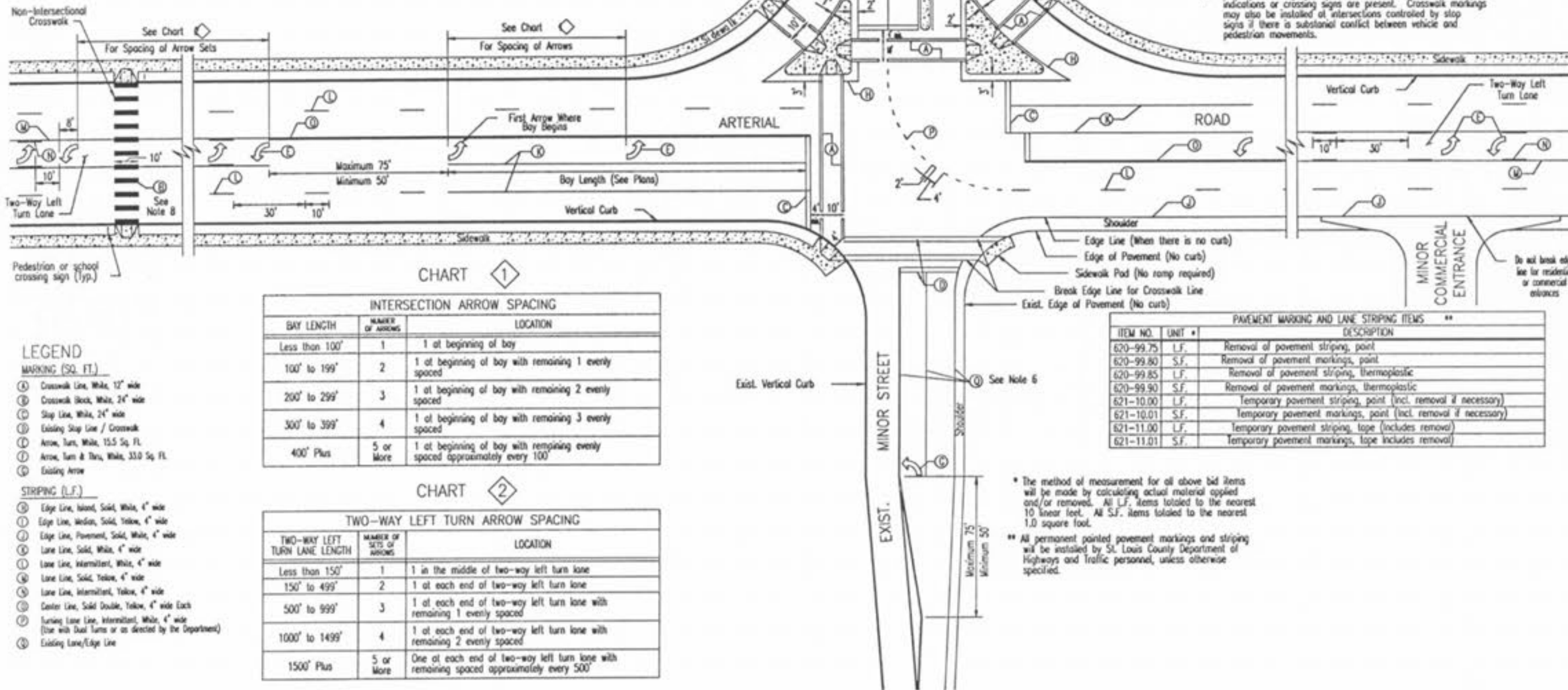


CHART 1

INTERSECTION ARROW SPACING		
BAY LENGTH	NUMBER OF ARROWS	LOCATION
Less than 100'	1	1 at beginning of bay
100' to 199'	2	1 at beginning of bay with remaining 1 evenly spaced
200' to 299'	3	1 at beginning of bay with remaining 2 evenly spaced
300' to 399'	4	1 at beginning of bay with remaining 3 evenly spaced
400' Plus	5 or more	1 at beginning of bay with remaining evenly spaced approximately every 100'

CHART 2

TWO-WAY LEFT TURN ARROW SPACING		
TWO-WAY LEFT TURN LANE LENGTH	NUMBER OF ARROWS	LOCATION
Less than 150'	1	1 in the middle of two-way left turn lane
150' to 499'	2	1 at each end of two-way left turn lane
500' to 999'	3	1 at each end of two-way left turn lane with remaining 1 evenly spaced
1000' to 1499'	4	1 at each end of two-way left turn lane with remaining 2 evenly spaced
1500' Plus	5 or more	One of each end of two-way left turn lane with remaining spaced approximately every 500'

- LEGEND**
- MARKING (Sq. Ft.)**
- ① Crosswalk Line, White, 12" wide
 - ② Crosswalk Block, White, 24" wide
 - ③ Stop Line, White, 24" wide
 - ④ Leading Stop Line / Crosswalk
 - ⑤ Arrow, Turn, White, 12.5 Sq. Ft.
 - ⑥ Arrow, Turn & Thru, White, 33.0 Sq. Ft.
 - ⑦ Leading Arrow
- STRIPING (L.F.)**
- ① Edge Line, Wood, Solid, White, 4" wide
 - ② Edge Line, Wood, Solid, Yellow, 4" wide
 - ③ Edge Line, Pavement, Solid, White, 4" wide
 - ④ Lane Line, Solid, White, 4" wide
 - ⑤ Lane Line, Interrupted, Black, 4" wide
 - ⑥ Lane Line, Solid, Yellow, 4" wide
 - ⑦ Lane Line, Interrupted, Yellow, 4" wide
 - ⑧ Center Line, Solid Double, Yellow, 4" wide Each
 - ⑨ Lane Line, Lane, Interrupted, White, 4" wide (Use with Lane Lane or as directed by the Department)
 - ⑩ Leading Lane/Edge Line

GENERAL NOTES

- Do not scale drawing. Follow dimensions.
- Pavement markings/striping shall not be installed until a preliminary layout is approved by the Department. Final striping may deviate from these guidelines due to field conditions.
- On concrete surfaces painted line striping shall follow along longitudinal pavement joints unless otherwise shown on the plans.
- Thru arrow markings (12.5 sq. ft.) shall not be used, unless otherwise directed by the Department.
- Existing striping shall be removed as directed by the Department.
- Existing lane lines when shown shall have a lighter line weight symbol than proposed lane lines.
- Crosswalk markings shall be installed where pedestrian signal indications or crossing signs are present. Crosswalk markings may also be installed at intersections controlled by stop signs if there is a substantial conflict between vehicle and pedestrian movements.

PAVEMENT MARKING AND LINE STRIPING ITEMS

ITEM NO.	UNIT	DESCRIPTION
020-99.75	L.F.	Removal of pavement striping, point
020-99.80	S.F.	Removal of pavement striping, point
020-99.85	L.F.	Removal of pavement striping, thermoplastic
020-99.90	S.F.	Removal of pavement striping, thermoplastic
021-10.00	L.F.	Temporary pavement striping, point (incl. removal if necessary)
021-10.01	S.F.	Temporary pavement striping, point (includes removal)
021-11.00	L.F.	Temporary pavement striping, line (includes removal)
021-11.01	S.F.	Temporary pavement striping, line (includes removal)

* The method of measurement for all above bid items will be made by calculating actual material applied and/or removed. All L.F. items listed to the nearest 10 linear feet. All S.F. items listed to the nearest 1.0 square foot.

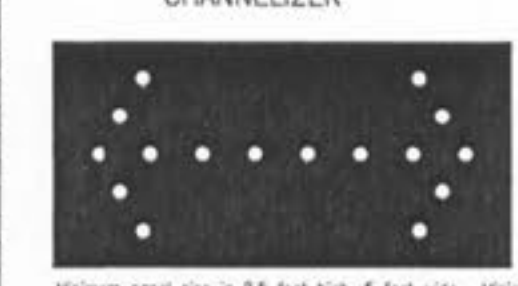
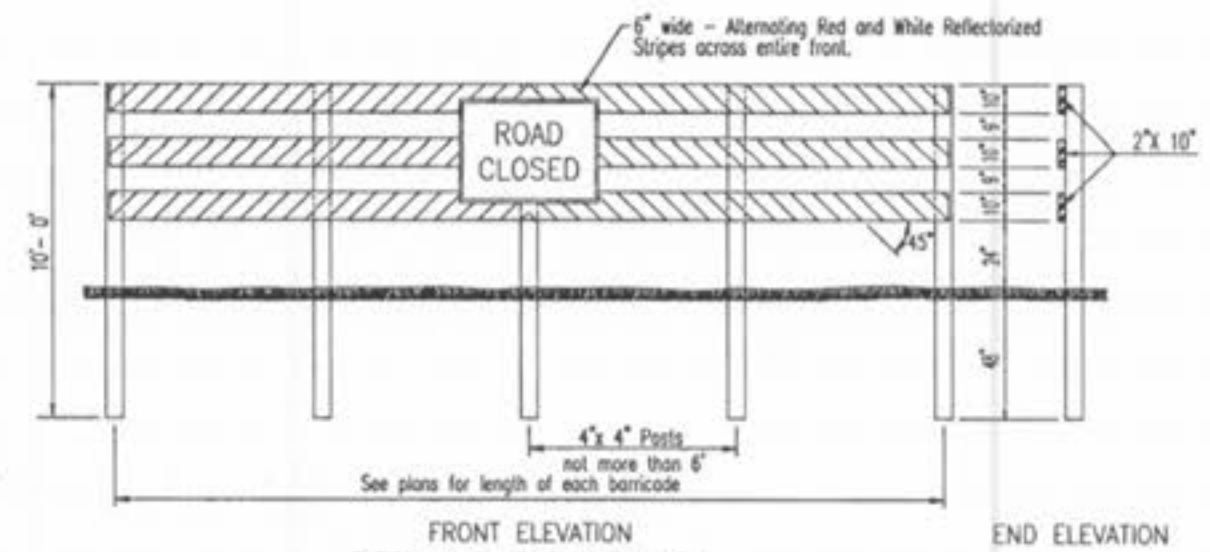
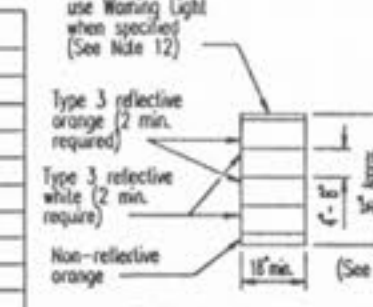
** All permanent painted pavement markings and striping will be installed by St. Louis County Department of Highways and Traffic, personnel, unless otherwise specified.

GUIDELINES FOR PAVEMENT MARKING AND LANE STRIPING

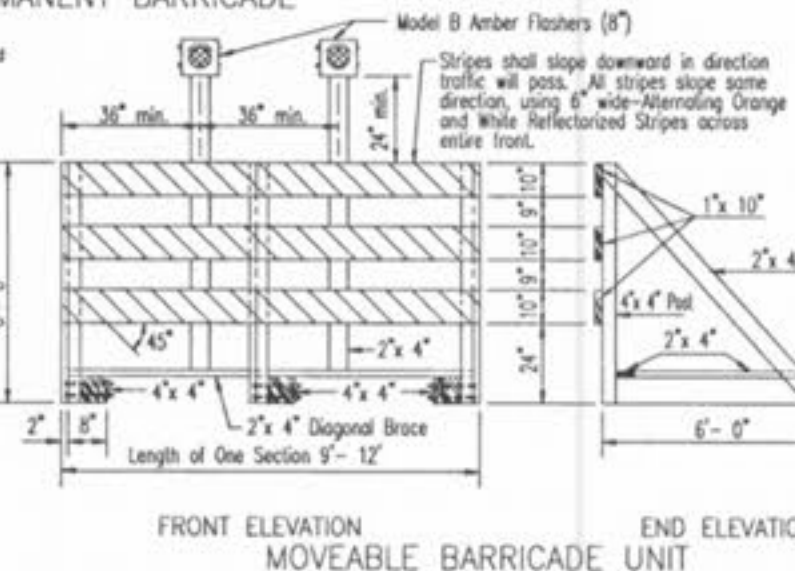
CONSTRUCTION SIGNING

SIGN NO.	SIZE	COLOR	DESCRIPTION
045T	7'x6' min.	Yellow	Yellow Deflector
045S	7'x6' min.	Silver	Silver Deflector
W4 - 9R	24" x 30"	B/O	Detour Arrow (Right)
W4 - 9L	24" x 30"	B/O	Detour Arrow (Left)
W4 - 9T	24" x 30"	B/O	Detour Arrow (Thru)
W4 - 10R	18" x 48"	B/O	Right Detour
W4 - 10L	18" x 48"	B/O	Left Detour
R11 - 2	30" x 48"	B/W	Road Closed
R11 - 3	30" x 60"	B/W	Road Closed a mile ahead (Local Traffic Only)
R4 - 7	24" x 30"	B/W	Keep Right
R4 - 8	24" x 30"	B/W	Keep Left
W1 - 1R	30" x 30"	B/O	Turn Right
W1 - 1L	30" x 30"	B/O	Turn Left
W1 - 2R	30" x 30"	B/O	Curve Right
W1 - 2L	30" x 30"	B/O	Curve Left
W1 - 4R	30" x 30"	B/O	Reverse Curve Right
W1 - 4L	30" x 30"	B/O	Reverse Curve Left
W1 - 6	24" x 48"	B/O	Left or Right Arrow
W4 - 2	30" x 30"	B/O	Right Lane Ends
W4 - 3	30" x 30"	B/O	Left Lane Ends
W4 - 4	30" x 30"	B/O	Two Way Traffic
W4 - 5	18" x 24"	B/O	Two Way Traffic (Plaque)
W20 - 1	36" x 36"	B/O	Ahead Construction (Distance) (Ahead)
W20 - 2	36" x 36"	B/O	Detour Ahead (Distance)
W20 - 3	36" x 36"	B/O	Road Closed Ahead (Distance)
W20 - 4R	36" x 36"	B/O	Right Lane Closed Ahead (Distance)
W20 - 5L	36" x 36"	B/O	Left Lane Closed Ahead (Distance)

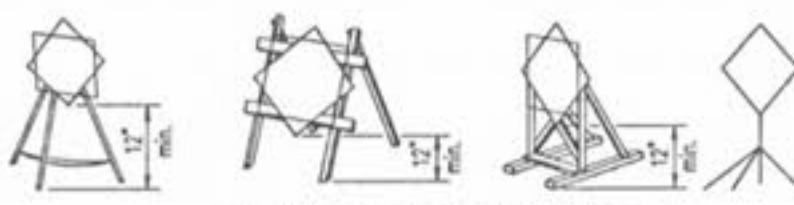
NOTES:
 Object markers shall be as shown.
 B/O indicates black letters on orange background.
 B/W indicates black letters on white background.



CONTROL PROGRAM
 Cautions: Flash 4 lamps simultaneously consisting of the 2 highest and 2 lowest lamps on the panel.
 Left or Right Arrow: Flash 5 lamps in the Advance and 5 lamps in the Horizontal Stroke simultaneously.
 Double Arrow: Flash 5 lamps in Left and Right Advance and 5 lamps in Horizontal Stroke simultaneously.

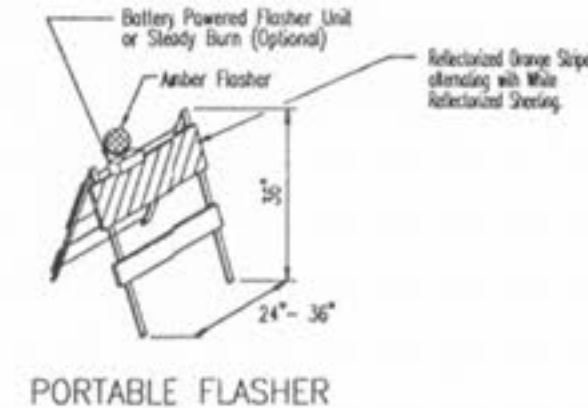


REQUIREMENTS
 FLASHING ARROW PANEL



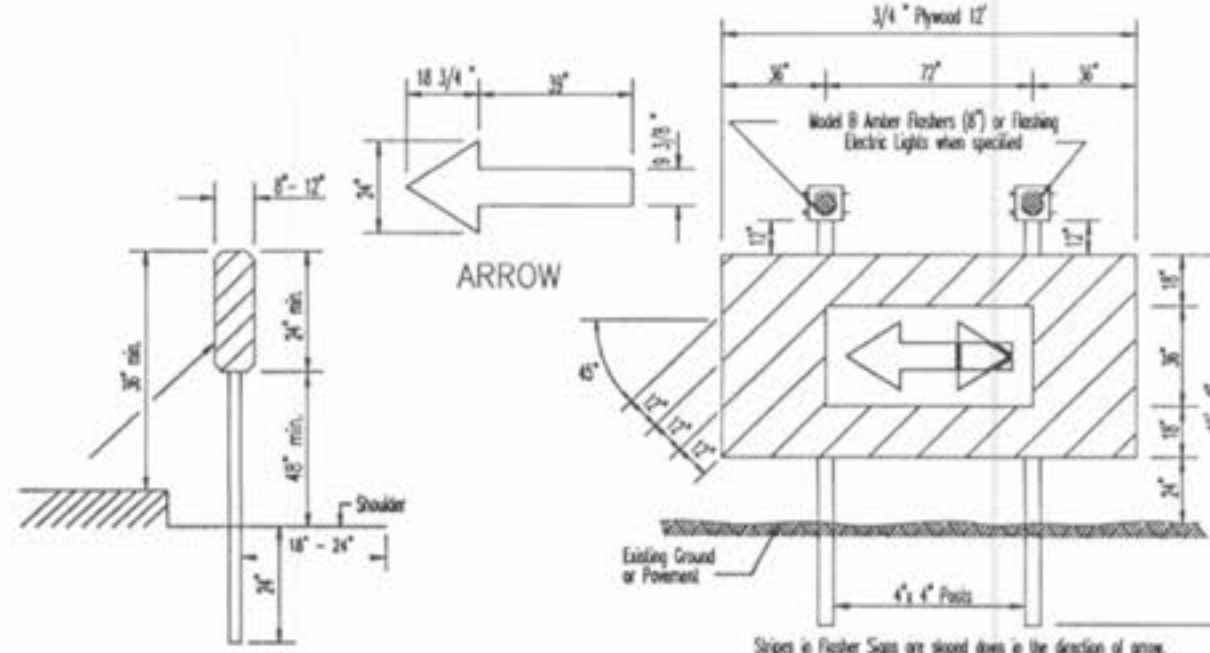
No direct payment will be made for relocation of portable mounted signs. Longitudinal spacing of signs shown in the plans are minimum and may be adjusted to meet existing conditions. Signs for overnight operation shall be post, or barricade mounted. Signs shall not be mounted in channelizers, with exception of object markers. Regulatory Signs shall have a minimum of five feet and a maximum of seven feet mounting height to bottom of signs.

Colors for Cones shall be Orange. For use during daylight hours only.



GENERAL NOTES

- Flasher signs, when provided for in the contract, shall be installed on posts as shown unless otherwise specified.
- All construction signs shall be fabricated with fluorescent orange reflective striping.
- The contractor will be responsible for all traffic control devices included in the bid.
- No direct payment will be made for cutting holes through pavement for posts, or for filling holes after removal of posts.
- Payment for Cones, ReflectORIZED Object Markers, Channelizers and Flasher Flashers will be paid for if lamp units, under item Standard Traffic Control Devices.
- Payment for Permanent Moveable or Flasher Sign Barricades will be paid per each.
- Stripes for barricade units shall be sloping downward at an angle of 45 degrees in the direction of traffic flow.
- All temporary pavement striping will be furnished by the contractor, including removal of existing striping.
- Stripes shall be alternating reflective orange, (2 minimum) and reflective white, (2 minimum) type 2 reflective striping.
- Arrow panels shall be in accordance with the Manual on Uniform Traffic Control Devices. Payment for Flashing Arrow Panels will be paid per each.
- The contractor shall be responsible for verification of underground utilities and structures shown or not shown prior to the placement of signs and permanent barricade posts.
- Channelizers with powered amber lamps may be used as long as power and it equipped with steady burn device in transition and facility lamps for double barricades.



REFLECTORIZED OBJECT MARKERS DOUBLE SIDED PANEL

STANDARD CONSTRUCTION SIGNS TRAFFIC CONTROL DEVICES

03/11/03 - REVISED PER AGENCY COMMENTS

TECHNOLOGY DRIVE / SIEDENTOP ROAD
 CONSTRUCTION DETAILS

STOCK & ASSOCIATES CONSULTING ENGINEERS, INC.
 425 NORTH NEW BALLAS ROAD
 SUITE 165
 ST. LOUIS, MO. 63141
 PH. (314) 432-8100
 FAX (314) 432-8171
 e-mail: general@stockassoc.com



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