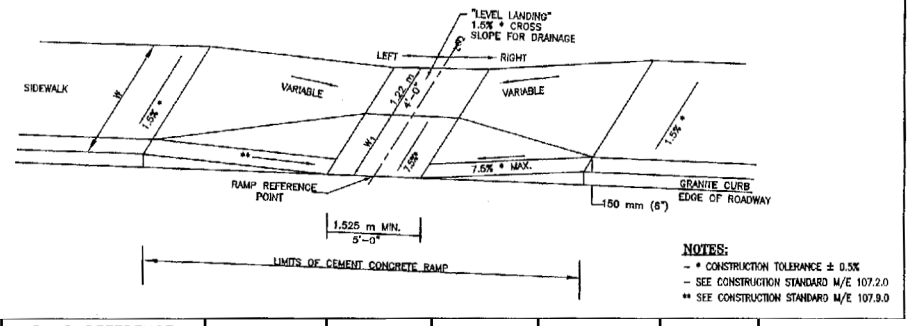
CURB CUT RAMP DETAIL SHEET

STYLE "A" – PARALLEL PERPENDICULAR

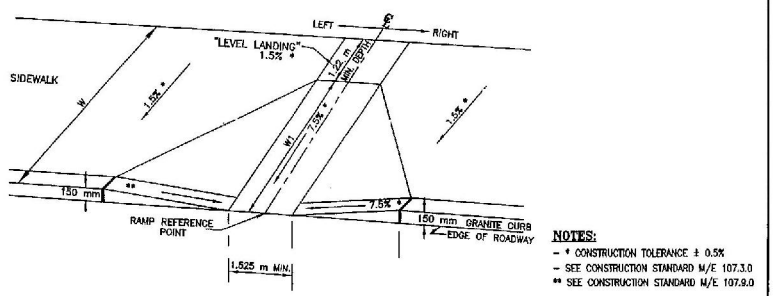


NOTES:
- * CONSTRUCTION TOLERANCE ± 0.5%
- SEE CONSTRUCTION STANDARD M/E 107.2.0
** SEE CONSTRUCTION STANDARD M/E 107.9.0

CCR #	RAMP REFERENCE POINT		LENGTH OF PRIMARY RAMP (W1)	WIDTH OF SIDEWALK	WIDTH OF RAMP	DEPTH OF LEVEL LANDING	ROADWAY GUTTER SLOPE	TRANSITION LENGTH	
	STATION	OFFSET			Min.1.525 m (5' – 0")	Min.1.22 m (4' – 0")		LEFT SIDE	RIGHT SIDE
#⑥	3+21.63	48.35 L	2.5'	6.5'	5.0'	4.0'	1%	6'–6"	6'–6"
#⑦	2+29.24	20.43 L	2.5'	6.5'	5.0'	4.0'	0%	6'–6"	6'–6"
#⑧	1+89.15	18.47 L	2.5'	6.5'	5.0'	4.0'	1%	6'–6"	6'–6"

CURB CUT RAMP DETAIL SHEET

STYLE "C" – PERPENDICULAR RAMP FOR WIDE SIDEWALKS

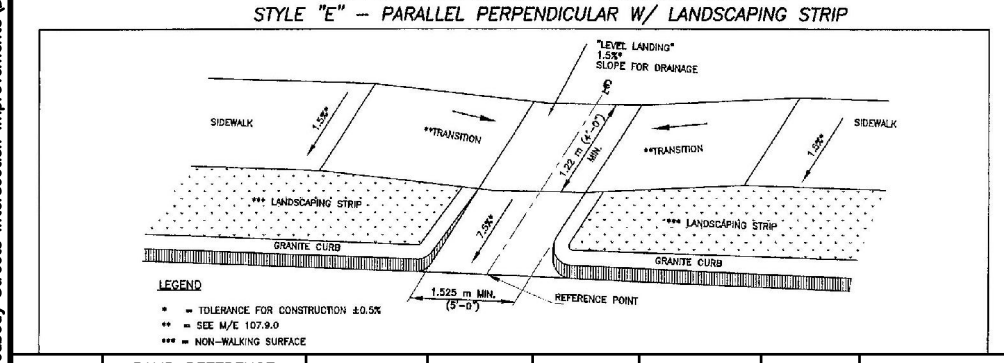


NOTES:
- * CONSTRUCTION TOLERANCE ± 0.5%
- SEE CONSTRUCTION STANDARD M/E 107.3.0
** SEE CONSTRUCTION STANDARD M/E 107.9.0

CCR #	RAMP REFERENCE POINT		WIDTH OF SIDEWALK	LENGTH OF PRIMARY RAMP (W1)	DEPTH OF LEVEL LANDING	WIDTH OF RAMP	ROADWAY GUTTER SLOPE	TRANSITION LENGTH	
	STATION	OFFSET			Min.1.22 m (4' – 0")	Min.1.525 m (5' – 0")		LEFT SIDE	RIGHT SIDE
#①	3+30.96	22.38 R	12.78'	4.0'	4.0'	5.0'	0%	6'–6"	6'–6"
#⑤	11+57.92	21.26 L	11.54'	7.54'	4.0'	5.0'	0.9%	6'–6"	7'–8"

WHEELCHAIR RAMP DETAIL SHEET

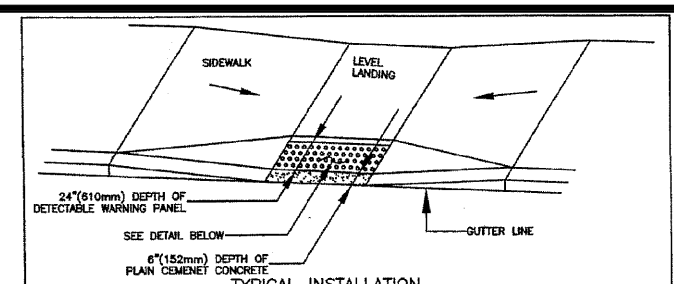
STYLE "E" – PARALLEL PERPENDICULAR W/ LANDSCAPING STRIP



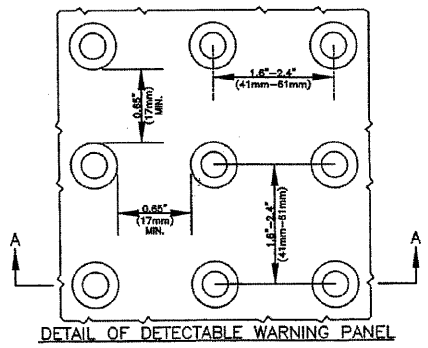
CCR #	RAMP REFERENCE POINT		LENGTH OF PRIMARY RAMP (W1)	WIDTH OF SIDEWALK	WIDTH OF RAMP	DEPTH OF LEVEL LANDING	ROADWAY GUTTER SLOPE	TRANSITION LENGTH	
	STATION	OFFSET			Min.1.525 m (5' – 0")	Min.1.22 m (4' – 0")		LEFT SIDE	RIGHT SIDE
#②	10+25.03	28.90 L	4.93'	5.89'	5.0'	8.28'	2.6%	6'–6"	11'–0"
#③	10+20.44	22.10 R	4.84'	5.91'	5.0'	5.91'	2.6%	6'–6"	11'–0"
#④	11+58.23	21.44 R	5.28'	5.92'	5.0'	5.92'	0.98%	6'–6"	6'–6"

WHEEL CHAIR RAMP NOTES:

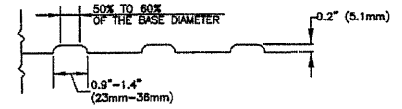
1. TO CONSTRUCT CURB CUT RAMPS AND DRIVEWAYS, THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE DECEMBER 2001 M/E CONSTRUCTION DRAWING SUPPLEMENT, DRAWING NUMBERS M/E 107.2.0, 107.3.0, 107.9.0. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BUILD IN ACCORDANCE WITH 521 CMR, THE RULES AND REGULATIONS OF THE AAB. THE ELEVATIONS ARE TO BE SET IN THE FIELD, AND IF CONFORMANCE CANNOT BE MET, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE CITY ENGINEER.
2. ROADWAY SIDEWALK CROSS SLOPES, FOR BRICK, CEMENT CONCRETE, AND BITUMINOUS CONCRETE, AS INDICATED IN THE STANDARD SPECIFICATIONS, WILL BE 1.5%. A CONSTRUCTION TOLERANCE OF ±0.5% IS ACCEPTABLE ON ROADWAY SIDEWALKS. IN ACCORDANCE WITH 521 CMR THE RULES AND REGULATIONS OF THE ARCHITECTURAL ACCESS BOARD (AAB), THE SIDEWALK CROSS SLOPE CANNOT EXCEED 2.0%.
3. AN UNOBSTRUCTED PATH OF TRAVEL WITH A MINIMUM WIDTH OF 1.00 m (3'–3") SHALL BE MAINTAINED PAST ALL OBSTRUCTIONS (UTILITY POLES, SIGNS, SIGNAL FOUNDATIONS AND MASTS, MAILBOXES, ALONG DRIVE OPENINGS, ETC.).
4. THE WHEEL CHAIR RAMP SLOPES AND SIDE SLOPES (TRANSITIONS) WILL BE 7.5% WITH A CONSTRUCTION TOLERANCE OF ±0.5%. HOWEVER, THESE SLOPES MAY BE FLATTER WHEN WARRANTED BY SURROUNDING CONDITIONS.
5. WHERE THE ROAD PROFILE EXCEEDS 4.0%, THE HIGH SIDE TRANSITION LENGTH UNDER ANY CONDITIONS NEED NOT EXCEED 4.57 m (15 FEET).
6. IN NO CASE WHERE A STOP LINE IS WARRANTED, SHALL A RAMP BE PLACED ON THE TRAFFIC APPROACH SIDE OF THAT STOP LINE.
7. FIXED OBJECTS (I.E. UTILITY POLES, HYDRANTS, SIGNS, SIGNAL FOUNDATIONS, ETC.) MUST NOT ENCROACH ON ANY PART OF THE WHEELCHAIR RAMP INCLUDING THE TRANSITION SLOPES.
8. AT NO TIME IS ANY PART OF THE WHEELCHAIR RAMP, EXCLUDING CURB TRANSITIONS, TO BE LOCATED OUTSIDE THE CROSSWALK. THE WHEELCHAIR RAMP ENTRANCE IS TO BE CENTERED IN THE CROSSWALK WHENEVER POSSIBLE.
9. CATCH BASINS WHICH ARE TO BE LOCATED WITHIN THE VICINITY OF A WHEELCHAIR SHALL BE LOCATED UPGRADE OF THE RAMP ENTRANCE.
10. THE ENTRANCE OF A WHEELCHAIR RAMP SHALL BE FLUSH WITH THE ROADWAY.
11. TESTING SURFACE: WHEN TESTING WITH A STRAIGHTEDGE PLACED PARALLEL TO THE LINE OF THE SLOPE THERE SHALL BE NO DEVIATION FROM A TRUE SURFACE IN EXCESS OF 6 mm (¼").
12. ALL WHEELCHAIR RAMPS SHALL INCLUDE DETECTABLE WARNING PANELS. TO CONSTRUCT THESE PANELS, THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE DECEMBER 2004 M/E CONSTRUCTION DRAWING SUPPLEMENT, DRAWING NUMBERS M/E 107.6.5R.
13. REFER TO DRAWING NO. 6 LANDSCAPE DEVELOPMENT PLAN FOR THE WHEELCHAIR RAMP MATERIAL.



TYPICAL INSTALLATION



DETAIL OF DETECTABLE WARNING PANEL



SECTION A–A

NOTE:

PANELS MAY BE CONCRETE PRECAST OR CAST IN PLACE OR OTHER SUITABLE MATERIAL PERMANENTLY APPLIED TO THE RAMP. DETECTABLE WARNING SURFACES SHALL CONTRAST VISUALLY WITH ADJACENT WALKING SURFACES EITHER LIGHT–ON–DARK, OR DARK–ON–LIGHT

MASS HIGHWAY CONSTRUCTION STANDARDS

DETECTABLE WARNING PANEL FOR WHEELCHAIR RAMPS

DATE OF ISSUE: December 2004

DRAWING NUMBER: M/E107.6.5R

M:\Projects\SALEM\20428–Congress, Ward, Peabody Streets Intersection Improvements\DWG\100%\Sheets 2–5.dwg

No.	DATE	REVISION

DRAWN JRM
DESIGNED JRM
CHECKED JJG
APPROVED LLR

SCALE: 1"=10'

DATE: 7/21/08

C&C CONSULTING ENGINEERS, LLC
214 LINCOLN STREET
BOSTON, MASSACHUSETTS

CITY OF SALEM
CONGRESS, WARD, PEABODY STREETS
INTERSECTION IMPROVEMENTS

WHEELCHAIR RAMP DETAILS

DRAWING No. 5

20428