

COMPLETE STREETS IMPLEMENTATION

HAINES SQUARE

THE MASSACHUSETTS HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES DATED 2022, AS AMENDED, THE SUPPLEMENTAL SPECIFICATION DATED MARCH 31, 2022, THE OCTOBER 2017 CONSTRUCTION STANDARD DETAILS, THE 2015 OVERHEAD SIGNAL STRUCTURE AND FOUNDATION STANDARD DRAWINGS, MASSDOT TRAFFIC MANAGEMENT PLANS AND DETAIL DRAWINGS, THE LATEST MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS WITH MASSACHUSETTS AMENDMENTS, THE 1990 STANDARD DRAWINGS FOR SIGNS AND SUPPORTS, THE 1968 STANDARD DRAWINGS FOR TRAFFIC SIGNALS AND HIGHWAY LIGHTING, AND THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, WILL GOVERN.

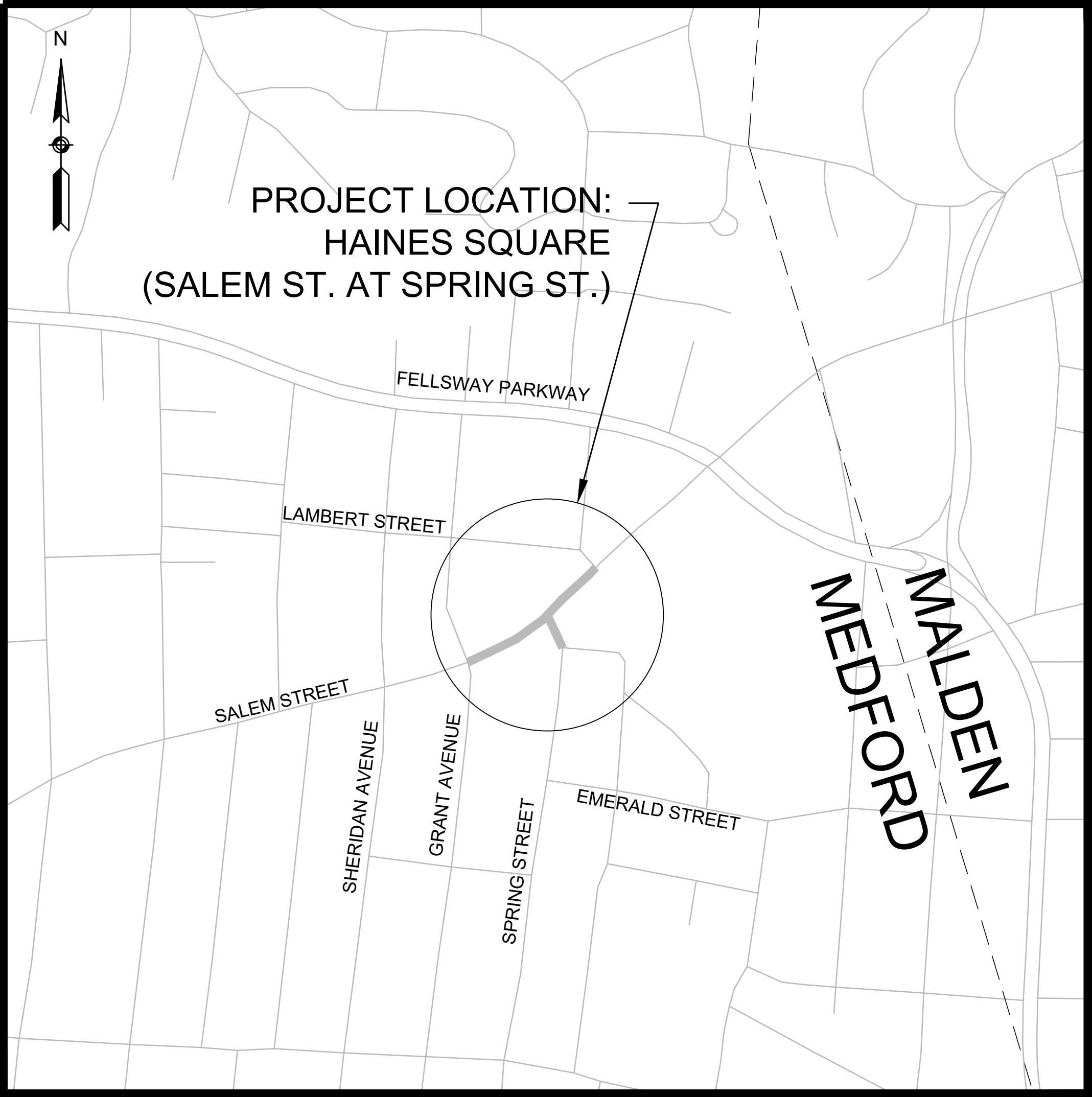
MEDFORD, MA

JUNE 2022

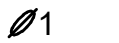
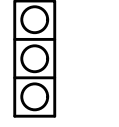
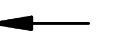
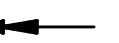
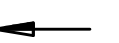
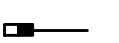
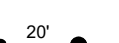
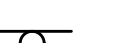
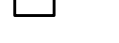
CITY OF MEDFORD
DEPARTMENT OF PUBLIC WORKS
85 GEORGE P. HASSETT DRIVE
ROOM 202
MEDFORD, MA 02155

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VICINITY MAP
1"= 300'

GENERAL SYMBOLS			TRAFFIC SYMBOLS			ABBREVIATIONS		ABBREVIATIONS (cont.)	
EXISTING	PROPOSED	DESCRIPTION	EXISTING	PROPOSED	DESCRIPTION	GENERAL		GENERAL	
 JB	 JB	JERSEY BARRIER	 1	 1	CONTROLLER PHASE ACTUATED	AADT	ANNUAL AVERAGE DAILY TRAFFIC	PROJ	PROJECT
 CB	 CB	CATCH BASIN	 1	 1	TRAFFIC SIGNAL HEAD (SIZE AS NOTED)	ABAN	ABANDON	PROP	PROPOSED
 FP	 FP	CATCH BASIN CURB INLET	 1	 1	WIRE LOOP DETECTOR (6' x 6' TYP UNLESS OTHERWISE SPECIFIED)	ADJ	ADJUST	PT	POINT OF TANGENCY
		FLAG POLE	 1	 1	VIDEO DETECTION CAMERA	APPROX.	APPROXIMATE	PVC	POINT OF VERTICAL CURVATURE
		GAS PUMP	 1	 1	MICROWAVE DETECTOR	BB		PVT	POINT OF VERTICAL TANGENCY
 MB	 MB	MAIL BOX	 1	 1	PEDESTRIAN PUSH BUTTON, SIGN (DIRECTIONAL ARROW AS SHOWN) AND SADDLE	BIT.	BITUMINOUS	PVMT	PAVEMENT
 EHH	 EHH	POST SQUARE	 1	 1	EMERGENCY PREEMPTION CONFIRMATION STROBE LIGHT	BC	BOTTOM OF CURB	PWW	PAVED WATER WAY
 GG	 GG	ELECTRIC HANDHOLE	 1	 1	VEHICULAR SIGNAL HEAD	BD.	BOUND	R	RADIUS OF CURVATURE
 O	 O	FENCE GATE POST	 1	 1	VEHICULAR SIGNAL HEAD, OPTICALLY PROGRAMMED	BL	BASELINE	R&D	REMOVE AND DISPOSE
 O	 O	GAS GATE	 1	 1	FLASHING BEACON	BLDG	BUILDING	RCP	REINFORCED CONCRETE PIPE
 BHL #		BORING HOLE	 1	 1	PEDESTRIAN SIGNAL HEAD, (TYPE AS NOTED OR AS SPECIFIED)	BM	BENCHMARK	REM	REMOVE
 ♀	 ♀	HYDRANT	 1	 1	RAILROAD SIGNAL	BO	BY OTHERS	RET	RETAIN
 *	 *	LIGHT POLE	 1	 1	SIGNAL POST AND BASE (ALPHA-NUMERIC DESIGNATION NOTED)	BOS	BOTTOM OF SLOPE	RET WALL	RETAINING WALL
 CO.BD.		COUNTY BOUND	 1	 1	MAST ARM, SHAFT AND BASE (ARM LENGTH AS NOTED)	CB	CATCH BASIN	ROW	RIGHT OF WAY
 1		GPS POINT	 1	 1	HIGH MAST POLE OR TOWER	CBCI	CATCH BASIN WITH CURB INLET	R&R	REMOVE AND RESET
 1	 1	CABLE MANHOLE	 1	 1	SIGN AND POST	CEM	CEMENT	R&S	REMOVE AND STACK
 1	 1	DRAINAGE MANHOLE	 1	 1	SIGN AND POST (2 POSTS)	CI	CURB INLET	RT	RIGHT
 1	 1	ELECTRIC MANHOLE	 1	 1	MAST ARM WITH LUMINAIRE	CIP	CAST IRON PIPE	SB	STONE BOUND
 1	 1	GAS MANHOLE	 1	 1	OPTICAL PRE-EMPTION DETECTOR	CLF	CHAIN LINK FENCE	SHLDR	SHOULDER
 1	 1	MISC MANHOLE	 1	 1	CONTROL CABINET, GROUND MOUNTED	CL	CENTERLINE	SMH	SEWER MANHOLE
 1	 1	SEWER MANHOLE	 1	 1	CONTROL CABINET, POLE MOUNTED	CMP	CORRUGATED METAL PIPE	ST	STREET
 1	 1	TELEPHONE MANHOLE	 1	 1	FLASHING BEACON CONTROL AND METER PEDESTAL	CRW	CONCRETE RETAINING WALL	STA	STATION
 1	 1	WATER MANHOLE	 1	 1	LOAD CENTER ASSEMBLY	CSP	CORRUGATED STEEL PIPE	SSD	STOPPING SIGHT DISTANCE
 MHB	 MHB	MASSACHUSETTS HIGHWAY BOUND	 1	 1	PULL BOX 12"x12" (OR AS NOTED)	CO.	COUNTY	SHLO	STATE HIGHWAY LAYOUT LINE
 MON		MONUMENT	 1	 1	ELECTRIC HANDHOLE 12"x24" (OR AS NOTED)	CONC	CONCRETE	SMRW	STONE MASONRY RETAINING WALL
 SB		STONE BOUND	 1	 1	TRAFFIC SIGNAL CONDUIT	CONT	CONTINUOUS	SRW	STONE RETAINING WALL
 TB		TOWN OR CITY BOUND				CONST	CONSTRUCTION	SW	SIDEWALK
 Δ		TRAVERSE OR TRIANGULATION STATION				CR GR	CROWN GRADE	T	TANGENT DISTANCE OF CURVE/TRUCK %
 UFB	 UFB	UTILITY POLE W/ FIREBOX				DHV	DESIGN HOURLY VOLUME	TAN	TANGENT
 UPDL	 UPDL	UTILITY POLE WITH DOUBLE LIGHT				DI	DROP INLET	TEMP	TEMPORARY
 ULT	 ULT	UTILITY POLE W / 1 LIGHT				DIA	DIAMETER	TC	TOP OF CURB
 UPL	 UPL	UTILITY POLE				DIP	DUCTILE IRON PIPE	TOS	TOP OF SLOPE
 1		BUSH				DW	STEADY DON'T WALK	TYP	TYPICAL
 1		TREE				DWY	DRIVEWAY	UGE	UNDERGROUND ELECTRIC
 1		STUMP				ELEV (or EL.)	ELEVATION	UP	UTILITY POLE
 1		SWAMP / MARSH				EOP	EDGE OF PAVEMENT	VAR	VARIES
 WG	 WG	WATER GATE				EXIST (or EX)	EXISTING	VERT	VERTICAL
 PM	 PM	PARKING METER				F&C	FRAME AND COVER	VC	VERTICAL CURVE
 1	 1	OVERHEAD CABLE/WIRE				F&G	FRAME AND GRATE	VCC	VERTICAL CONCRETE CURB
 1	 1	CURBING				FDR	FULL DEPTH RECONSTRUCTION	WG	WATER GATE
 100 - 99	 100 - 99	CONTOURS (ON-THE-GROUND SURVEY DATA)				FLDSTN	FIELDSTONE	WIF	WROUGHT IRON FENCE
 100 - 99	 100 - 99	CONTOURS (PHOTOGRAMMETRIC DATA)				GAR	GARAGE	WIP	WROUGHT IRON PIPE
 1	 1	UNDERGROUND DRAIN PIPE (DOUBLE LINE 24 INCH AND OVER)				GD	GROUND	WM	WATER METER/WATER MAIN
 1	 1	UNDERGROUND ELECTRIC DUCT (DOUBLE LINE 24 INCH AND OVER)				GG	GAS GATE		
 1	 1	UNDERGROUND GAS MAIN (DOUBLE LINE 24 INCH AND OVER)				GI	GUTTER INLET	TRAFFIC SIGNAL	
 1	 1	UNDERGROUND SEWER MAIN (DOUBLE LINE 24 INCH AND OVER)				GD	GROUND	CAB.	CABINET
 1	 1	UNDERGROUND TELEPHONE DUCT (DOUBLE LINE 24 INCH AND OVER)				GG	GAS GATE	CCVE	CLOSED CIRCUIT VIDEO EQUIPMENT
 1	 1	UNDERGROUND WATER MAIN (DOUBLE LINE 24 INCH AND OVER)				GI	GUTTER INLET	DW	STEADY DON'T WALK
 1	 1	BALANCED STONE WALL				HMA	HOT MIX ASPHALT	FDW	FLASHING DON'T WALK
 1	 1	CHAIN LINK OR METAL FENCE				HOR	HORIZONTAL	FR	FLASHING CIRCULAR RED
 1	 1	WOOD FENCE				HYD	HYDRANT	FRL	FLASHING RED LEFT ARROW
 1	 1	HAY BALES/SILT FENCE				INV	INVERT	FRR	FLASHING RED RIGHT ARROW
 1	 1	TREE LINE				L	LENGTH OF CURVE	FY	FLASHING CIRCULAR AMBER
 1	 1	SAWCUT LINE				LP	LIGHT POLE	FYL	FLASHING AMBER LEFT ARROW
 1	 1	TOP OR BOTTOM OF SLOPE				LT	LEFT	FYR	FLASHING AMBER RIGHT ARROW
 1	 1	LIMIT OF EDGE OF PAVEMENT OR COLD PLANE AND OVERLAY				M&O	MILL AND OVERLAY	G	STEADY CIRCULAR GREEN
 1	 1	BANK OF RIVER OR STREAM				MAX	MAXIMUM	GL	STEADY GREEN LEFT ARROW
 1	 1	BORDER OF WETLAND				MB	MAILBOX	GR	STEADY GREEN RIGHT ARROW
 1	 1	100 FT WETLAND BUFFER				MH	MANHOLE	GSL	STEADY GREEN SLASH LEFT ARROW
 1	 1	200 FT RIVERFRONT BUFFER				MHB	MASSACHUSETTS HIGHWAY BOUND	GSR	STEADY GREEN SLASH RIGHT ARROW
 1	 1	STATE HIGHWAY LAYOUT				MIN	MINIMUM	GV	STEADY GREEN VERTICAL ARROW
 1	 1	TOWN OR CITY LAYOUT				NIC	NOT IN CONTRACT	OL	OVERLAP
 1	 1	COUNTY LAYOUT				NO.	NUMBER	PED	PEDESTRIAN
 1	 1	RAILROAD SIDELINE				PC	POINT OF CURVATURE	PTZ	PAN, TILE, ZOOM
 1	 1	TOWN OR CITY BOUNDARY LINE				PCC	POINT OF COMPOUND CURVATURE	R	STEADY CIRCULAR RED
 1	 1	PROPERTY LINE OR APPROXIMATE PROPERTY LINE				PCR	PEDESTRIAN CURB RAMP	RL	STEADY RED LEFT ARROW
 1	 1	EASEMENT				P.G.L.	PROFILE GRADE LINE	RR	STEADY RED RIGHT ARROW
						PI	POINT OF INTERSECTION	TR SIG	TRAFFIC SIGNAL
						PKF	PICKET FENCE	TSC	TRAFFIC SIGNAL CONDUIT
						POT	POINT ON TANGENT	W	STEADY WALK
						PRC	POINT OF REVERSE CURVATURE	Y	STEADY CIRCULAR AMBER
						PRF	POST AND RAIL FENCE	YL	STEADY AMBER LEFT ARROW



ENVIRONMENTAL

PARTNERS

An Apex Company

			Scale	AS NOTED
			Date	JUNE 2022
			Job No.	301-1901
			Designed by	JRC
			Drawn by	JRC
			Checked by	BLH
			Approved by	JDF
MARK	DATE	DESCRIPTION		

THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

COMPLETE STREETS IMPLEMENTATION

HAINES SQUARE

MEDFORD, MA

LEGEND & ABBREVIATIONS

Sheet No.

02

Drawing file: I:\Medford\301\301-1901_Medford - Haines Square\ACAD\Sheet02_Legend and Abbreviations.dwg Plot Date: Jun 01 2022-10:53am

SURVEY NOTES:

1.
- THE TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED ON AN ON-THE-GROUND SURVEY PERFORMED BY LANDTECH CONSULTANTS, INC. BETWEEN NOVEMBER 2016 AND DECEMBER 2016.
2.
- BEARINGS AND DISTANCES AND THE COORDINATES THEY ARE BASED ON SHOWN ON THIS PLAN ARE IN U.S. SURVEY FEET IN THE MA. STATE PLANE COORDINATE SYSTEM REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD83), CORS ADJUSTMENT (NA2011/GEOID 12A) AS DETERMINED BY GPS OBSERVATIONS PERFORMED IN NOVEMBER OF 2016 UTILIZING MAINE TECHNICAL SOURCE RTK GPS NETWORK.
3.
- BOUNDARY AND RIGHT-OF-WAY LINES SHOWN HEREON ARE APPROXIMATE AND ARE BASED ON A COMPILATION OF RECORD INFORMATION, OBSERVABLE EVIDENCE AND PHYSICAL OCCUPATION. A BOUNDARY SURVEY OF INDIVIDUAL PARCELS WAS NOT PERFORMED.
4.
- THE VERTICAL DATUM FOR THIS PROJECT IS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), CORS ADJUSTMENT (NA2011/GEOID 12A) AS DETERMINED BY REDUNDANT GPS OBSERVATIONS PERFORMED IN NOVEMBER OF 2016 UTILIZING THE MAINE TECHNICAL SOURCE RTK GPS NETWORK.
5.
- SUBSURFACE UTILITY INFORMATION SHOWN HEREON IS APPROXIMATE AND IS BASED ON A COMPILATION OF RECORD INFORMATION AND OBSERVABLE EVIDENCE. A SUBSURFACE INVESTIGATION WAS NOT PERFORMED.

GENERAL CONSTRUCTION NOTES:

1.
- CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE FOLLOWING: THE MASSACHUSETTS HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES DATED 2022, AS AMENDED, THE SUPPLEMENTAL SPECIFICATIONS DATED MARCH 31, 2022, THE 2017 CONSTRUCTION STANDARD DETAILS, THE 1996 CONSTRUCTION AND TRAFFIC STANDARD DETAILS (AS RELATES TO TRAFFIC STANDARD DETAILS ONLY), THE LATEST MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FOR STREETS AND HIGHWAYS WITH LATEST REVISIONS AND MASSACHUSETTS AMENDMENTS, THE 1990 STANDARD DRAWINGS FOR SIGNS AND SUPPORTS, THE 1968 STANDARD DRAWINGS FOR TRAFFIC SIGNALS AND HIGHWAY LIGHTING AND THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK.
2.
- IT IS THE INTENT OF THE DESIGN TO PROVIDE A MINIMUM CONSTRUCTED SIDEWALK WIDTH FOR A PATH OF TRAVEL PAST ALL OBSTRUCTIONS OF 3'-0" CLEARANCE FOR HANDICAP ACCESSIBILITY (IN ACCORDANCE WITH THE LATEST A.D.A. AND MASSDOT REQUIREMENTS). THE CONTRACTOR SHALL VERIFY THAT ALL POTENTIAL OBSTRUCTIONS HAVE BEEN ADDRESSED IN THE PLANS INCLUDING BUT NOT LIMITED TO FOUNDATIONS, SIGNS, MAILBOXES, UTILITY POLES, AND HYDRANTS SO THEY ARE LOCATED TO PROVIDE THIS MINIMUM PATH OF TRAVEL CLEARANCE AND A MINIMUM 18" TYPICAL CLEARANCE TO THE FACE OF CURB OR 12" MIN. CLEARANCE WHERE 18" IS NOT FEASIBLE OR PRACTICAL. NO UTILITY POLES OR OBSTRUCTIONS ARE PERMITTED WITHIN PEDESTRIAN CURB RAMPS.
3.
- THE TERM "PROPOSED" (PROP) MEANS WORK TO BE CONSTRUCTED HEREIN USING NEW MATERIALS OR WHERE APPLICABLE, REUSING EXISTING MATERIALS IDENTIFIED AS "REMOVE AND RESE" (R&R). ALL OTHER MATERIALS SHALL BE "REMOVED AND DISCARDED" (R&D) OR DISPOSED OF OFF SITE WITH THE EXCEPTION OF MATERIALS LABELED AS "REMOVED AND STACKED" (R&S) WHICH SHALL BE TRANSPORTED AND STACKED AT A LOCATION DESIGNATED BY THE CITY AND OR ENGINEER.
4.
- MAKE ALL NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN ALL NECESSARY CONSTRUCTION PERMITS, PAY ALL FEES INCLUDING POLICE DETAILS AND POST ALL BONDS, IF NECESSARY, ASSOCIATED WITH THE SAME, AND COORDINATE WITH THE OWNER AND THE ENGINEER.
5.
- THE CONTRACTOR SHALL NOT STORE ANY APPARATUS, MATERIALS, SUPPLIES, OR EQUIPMENT ON DRAINAGE STRUCTURES, PRIVATE PROPERTY OR WITHIN 100 FEET OF WETLANDS, UNLESS DIRECTED TO DO SO BY THE CONTRACT DOCUMENTS.
6.
- ALL EXISTING CONDITIONS SHOWN ARE APPROXIMATE AND ARE BASED ON THE BEST INFORMATION AVAILABLE. PRIOR TO THE START CONSTRUCTION VERIFY THAT THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS DO NOT CONFLICT WITH ANY KNOWN EXISTING OR OTHER PROPOSED IMPROVEMENTS. IF ANY CONFLICTS ARE DISCOVERED, NOTIFY THE OWNER AND THE ENGINEER PRIOR TO INSTALLING ANY PORTION OF THE SITE WORK WHICH WOULD BE AFFECTED.
7.
- THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND STRUCTURES AS INDICATED ON THE DRAWINGS ARE BASED ON RECORDS OF VARIOUS UTILITY COMPANIES, AND WHEREVER POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES IN THE FIELD PRIOR TO THE START OF CONSTRUCTION. CONTACT THE APPROPRIATE UTILITY COMPANY, ANY GOVERNING PERMITTING AUTHORITY IN THE CITY, AND "DIGSAFE" (1-888-344-7233) AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK IN PREVIOUSLY UNALTERED AREAS TO REQUEST EXACT FIELD LOCATION OF UTILITIES. THE CONTRACTOR MUST RESOLVE CONFLICTS BETWEEN THE PROPOSED UTILITIES AND FIELD-LOCATED UTILITIES AND REPORT ANY DISCREPANCIES TO THE ENGINEER IMMEDIATELY. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR DAMAGES INCURRED AS A RESULT OF UTILITIES OMITTED, INCOMPLETELY OR INACCURATELY SHOWN. THE CONTRACTOR MUST MAINTAIN ACCURATE RECORDS OF THE LOCATION AND ELEVATION OF ALL WORK INSTALLED AND EXISTING UTILITIES FOUND DURING CONSTRUCTION FOR THE PREPARATION OF THE AS-BUILT PLAN.
8.
- THE CONTRACTOR SHALL COORDINATE ALL ARRANGEMENTS FOR THE ALTERATION AND OR ADJUSTMENT OF ELECTRIC, TELEPHONE, GAS AND ANY OTHER PRIVATE UTILITY. COSTS ASSOCIATED WITH DELAYS RESULTING FROM UTILITY COMPANIES NOT COMPLETING THEIR WORK IN A TIMELY MANNER SHALL NOT BE BORNE BY THE CITY OF MEDFORD.
9.
- SHOP DRAWINGS OF ALL CASTINGS, PRECAST CONCRETE STRUCTURES, PIPE AND MANUFACTURED COMPONENTS SHALL BE SUBMITTED FOR APPROVAL PRIOR TO ORDERING.
10.
- PRIOR TO ANY CONSTRUCTION, THE CONTRACTOR SHALL PERFORM HIGH QUALITY AUDIO & VIDEO RECORDING OF THE EXISTING PRE-CONSTRUCTION CONDITION OF THE PROJECT AREA AND SUBMIT TO THE CITY FOR REVIEW AND APPROVAL. (SEE SPECIAL PROVISIONS FOR SCOPE & REQUIREMENT DETAILS, THE COST FOR THIS TASK SHALL BE CONSIDERED INCIDENTAL TO THIS PROJECT. NO PAYMENT SHALL BE REQUESTED TO THE CITY.)
11.
- HIGH QUALITY AUDIO & VIDEO RECORDING SHALL BE SUBMITTED FOR CITY REVIEW AND APPROVAL AT LEAST 2 WEEKS PRIOR TO THE COMMENCEMENT OF ANY WORK.
12.
- SHOULD AN EXISTING UTILITY BE FOUND TO BE IN CONFLICT WITH THE PROPOSED WORK, THE LOCATION, SIZE AND TYPE SHALL BE ACCURATELY DETERMINED WITHOUT DELAY, BY THE CONTRACTOR, AND THE INFORMATION FURNISHED TO THE CITY AND OR ENGINEER FOR RESOLUTION OF THE CONFLICT.
13.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING OR REMODELING ALL DRAINAGE, WATER, OR SEWER STRUCTURES TO THE FINISHED ELEVATION, WITHIN THE LIMITS OF THE PROJECT, UNLESS OTHERWISE NOTED.
14.
- THE CONTRACTOR SHALL PERFORM TEST PITS AT LOCATIONS SHOWN ON PLAN AND AS DIRECTED BY THE CITY AND OR ENGINEER.
15.
- ALL WORK TO COMPLETE THIS PROJECT AS INDICATED ON THE DRAWINGS AND IN THE SPECIFICATIONS IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
16.
- THE CONTRACTOR MUST MAINTAIN ALL EXISTING UTILITIES IN WORKING ORDER AND FREE FROM DAMAGE DURING THE ENTIRE DURATION OF THE PROJECT. REPAIR ANY DAMAGE TO EXISTING UTILITY LINES OR STRUCTURES INCURRED DURING CONSTRUCTION OPERATIONS AT NO COST TO THE OWNER. THE CONTRACTOR IS RESPONSIBLE FOR ALL COST RELATED TO THE REPAIR OF UTILITIES. EXCAVATION REQUIRED WITHIN THE PROXIMITY OF EXISTING UTILITY LINES MUST BE DONE BY HAND.
17.
- COORDINATE ALL TRENCHING WORK WITHIN ROADWAYS WITH THE PROPER LOCAL & STATE AGENCY. THE CONTRACTOR IS RESPONSIBLE FOR ALL TRENCH SAFETY INCLUDING ANY LOCAL AND/OR STATE PERMITS REQUIRED FOR THE TRENCH WORK. IF THIS WORK IS REQUIRED TO OCCUR OUTSIDE THE AGREED UPON HOURS OF OPERATION FOR THE FACILITY, THE CONTRACTOR MUST PLAN ACCORDINGLY.
18.
- INSTALL ALL UTILITY TRENCH WORK PRIOR TO INSTALLING NEW PAVEMENT AS INDICATED ON THE DRAWINGS.
19.
- IMPORT ONLY CLEAN MATERIAL. MATERIAL FROM AN EXISTING OR FORMER 21E SITE AS DEFINED BY THE MASSACHUSETTS CONTINGENCY PLAN 310 CMR 40.0000 WILL NOT BE ACCEPTED .

GENERAL NOTES CONTINUED:

20.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH AND MAINTAIN ALL CONTROL POINTS AND BENCHMARKS DURING CONSTRUCTION INCLUDING BENCHMARK LOCATIONS AND ELEVATIONS AT CRITICAL AREAS. COORDINATE WITH THE ENGINEER THE LOCATION OF ALL CONTROL POINTS AND BENCHMARKS.
21.
- SITE LAYOUT SURVEY REQUIRED FOR CONSTRUCTION MUST BE PROVIDED BY THE CONTRACTOR AND PERFORMED BY A MASSACHUSETTS' REGISTERED PROFESSIONAL LAND SURVEYOR. AS INCIDENTAL TO THIS PROJECT THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE SURVEYOR FOR ALL SITE SURVEY WORK.
22.
- MAINTAIN ALL GRADE STAKES SET BY THE SURVEYOR. GRADE STAKES ARE TO REMAIN UNTIL A FINAL INSPECTION OF THE ITEM HAS BEEN COMPLETED BY THE ENGINEER. RE-STAKING OF PREVIOUSLY SURVEYED SITE FEATURES IS THE RESPONSIBILITY (INCLUDING COST) OF THE CONTRACTOR.
23.
- PROVIDE ALL CONSTRUCTION SERVICE IN ACCORDANCE WITH APPLICABLE LAWS AND REGULATIONS REGARDING NOISE, VIBRATION, DUST, SEDIMENTATION CONTAINMENT, AND TRENCH WORK.
24.
- COLLECT SOLID WASTES AND STORE IN A SECURED DUMPSTER. THE DUMPSTER MUST MEET ALL LOCAL AND STATE SOLID WASTE MANAGEMENT REGULATIONS.
25.
- REGULARLY INSPECT THE PERIMETER OF THE PROPERTY TO CLEAN UP AND REMOVE LOOSE CONSTRUCTION DEBRIS BEFORE IT LEAVES THE SITE. PROMPTLY REMOVE ALL DEMOLITION DEBRIS FROM THE SITE TO AN APPROVED DUMP SITE.
26.
- ALL TRUCKS LEAVING THE SITE MUST BE COVERED.
27.
- DO NOT WASH ANY CONCRETE TRUCKS ONSITE. REMOVE BY HAND ANY CEMENT OR CONCRETE DEBRIS LEFT IN THE DISTURBED AREA.
28.
- BURIAL OF ANY STUMPS, SOLID DEBRIS, AND/OR STONES/BOULDERS ONSITE IS PROHIBITED.
29.
- IMMEDIATELY CONTACT AND COORDINATE WITH THE ENGINEER AND OWNER IF ANY DEVIATION OR ALTERATION OF THE WORK PROPOSED ON THESE DRAWINGS IS REQUIRED.
30.
- AT THE END OF CONSTRUCTION, REMOVE ALL CONSTRUCTION DEBRIS AND SURPLUS MATERIALS FROM THE SITE PERFORM A THOROUGH INSPECTION OF THE WORK PERIMETER. COLLECT AND REMOVE ALL MATERIALS AND BLOWN OR WATER CARRIED DEBRIS FROM THE SITE.
31.
- THE CONTRACTOR SHALL PROVIDE FOR THE SAFE AND ORDERLY PASSAGE OF VEHICULAR, BICYCLE AND PEDESTRIAN TRAFFIC IN AREAS UNDER CONSTRUCTION. ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST EDITION OF THE MUTCD (SEE NOTE 1).
32.
- ALL PROPOSED PAVEMENT MARKINGS SHALL MEET EXISTING MARKINGS AT THE LIMITS OF WORK.
33.
- DETECTABLE WARNING PANELS SHALL BE INSTALLED ON ALL PEDESTRIAN CURB RAMPS AND SHALL COMPLY WITH CONSTRUCTION STANDARD E 107.6.5. PAYMENT FOR DETECTABLE WARNING PANELS SHALL BE CONSIDERED INCIDENTAL TO THE CONSTRUCTION OF THE PEDESTRIAN CURB RAMPS OR SIDEWALKS IN WHICH THEY ARE BEING INSTALLED. THE COLOR OF DETECTABLE WARNING PANELS SHALL BE RED OR AS DIRECTED BY THE CITY.
34.
- SEE SIGNS AND PAVEMENT MARKING PLANS FOR PROPOSED SIGNS AND DISPOSITION OF THE EXISTING SIGNS WITHIN THE PROJECT LIMITS OR AS DIRECTED BY THE CITY.
35.
- DO NOT SCALE DRAWINGS UNLESS OTHERWISE NOTED. WRITTEN DIMENSIONS SHALL PREVAIL. REPORT ANY DISCREPANCIES TO THE ENGINEER IMMEDIATELY.
36.
- THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).THE CONTRACTOR SHALL RESTORE ALL PUBLIC AND PRIVATE PROPERTY TO ITS PRE-CONSTRUCTION CONDITION AT NO ADDITIONAL COST TO THE CITY.
37.
- THE CONTRACTOR SHALL RESTORE ALL PUBLIC AND PRIVATE PROPERTY TO ITS PRE-CONSTRUCTION CONDITION AT NO ADDITIONAL COST TO THE CITY.
38.
- IN THOSE INSTANCES WHERE POWER OR TELEPHONE POLE SUPPORT IS REQUIRED, THE CONTRACTOR SHALL PROVIDE A MINIMUM 48-HOUR NOTIFICATION TO THE RESPECTIVE UTILITY COMPANY. NO ADDITIONAL PAYMENT WILL BE PROVIDED FOR TEMPORARY BRACING OF UTILITIES.
39.
- ALL STRUCTURES AND PIPELINES LOCATED ADJACENT TO THE TRENCH EXCAVATION SHALL BE PROTECTED AND FIRMLY SUPPORTED BY THE CONTRACTOR UNTIL THE TRENCH IS BACKFILLED. INJURY TO ANY SUCH STRUCTURE CAUSED BY, OR RESULTING FROM, THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. ALL UTILITIES REQUIRING REPAIR, RELOCATION OR ADJUSTMENT AS A RESULT OF THE PROJECT SHALL BE COORDINATED THROUGH THE RESPECTIVE UTILITY AND THE CITY.
40.
- THE CONTRACTOR IS TO TAKE SPECIAL CARE NOT TO DAMAGE TREES, BUSHES, PLANTS, FLOWERS, STONEWALLS, FENCES, ETC. WITHIN THE CONSTRUCTION AREA UNLESS THEY ARE NOTED TO BE REMOVED. CONTRACTOR SHALL REPLACE AT NO COST TO OWNER, ALL DAMAGED ITEMS.
41.
- CONTRACTOR SHALL REMOVE AND REPLACE, OR REPAIR, ALL CURBS, SIDEWALKS, PAVEMENT AND OTHER ITEMS DAMAGED BY HIS CONSTRUCTION ACTIVITIES TO AT LEAST THEIR ORIGINAL CONDITION, AND TO THE SATISFACTION OF THE CITY AND ENGINEER.
42.
- ANY TRAFFIC SIGNAL EQUIPMENT (LIGHTS, CONDUITS, LOOP DETECTORS) DISTURBED SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AS DIRECTED BY THE CITY AT THE CONTRACTOR'S EXPENSE.
43.
- THE CONTRACTOR SHALL INSTALL AND MAINTAIN TRAFFIC CONTROL DEVICES AS NECESSARY AND IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
44.
- THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE A TELEPHONE NUMBER WHERE THE CONTRACTOR CAN BE REACHED 24 HOURS A DAY, 7 DAYS A WEEK.
45.
- THE LOCATION AND LIMITS OF ALL ON-SITE WORK AND STORAGE AREAS SHALL BE REVIEWED/COORDINATED WITH, AND ACCEPTABLE TO THE CITY. THE CONTRACTOR SHALL LIMIT ACTIVITIES TO THESE AREAS.
46.
- THE CONTRACTOR SHALL BE REQUIRED TO TEMPORARILY PAVE ALL DISTURBED TRAVEL WAYS, SIDEWALKS & DRIVEWAYS NOT UNDER CONSTRUCTION OR IF LEFT DURING NON WORKING HOURS AND AS REQUIRED BY THE CITY.
47.
- DRAINAGE ELEVATIONS ARE PROVIDED FOR DESIGN PURPOSES ONLY. THE CONTRACTOR SHALL VERIFY TEST PITS, AND THE LOCATIONS OF EXISTING UTILITIES WHICH MAY CONFLICT WITH THE PROPOSED DRAINAGE DESIGN. ANY FIELD ADJUSTMENTS REQUIRED WILL BE MADE AS APPROVED OR DIRECTED BY THE ENGINEER. ONLY AFTER THE CONTRACTOR VERIFIES ELEVATIONS FOR THE CONSTRUCTIBILITY OF THE DRAINAGE SYSTEM SHALL ANY STRUCTURES BE ORDERED. ANY FIELD ADJUSTMENTS TO LINE AND GRADE UP TO A DEPTH OF 5 FEET SHALL BE INCLUDED IN THE COST OF THE PIPE. PIPE EXCAVATION GREATER THAN 5 FEET WILL BE PAID UNDER CLASS B TRENCH EXCAVATION.
48.
- CONTRACTOR IS HEREBY MADE AWARE THAT ABANDONED/BURIED RAIL TRACKS MAY BE EXISTING WITHIN THE PROJECT LIMITS. ADDITIONAL RECORD INFORMATION SHALL BE REQUESTED BY THE CONTRACTOR TO THE CITY. REMOVAL OF ANY BURIED RAIL TRACKS AND SUBSEQUENT MATERIAL SHALL BE PAID UNDER ITEM 120.1 UNCLASSIFIED EXCAVATION.

STORMWATER FACILITY OPERATION & MAINTENANCE:

THE CONTRACTOR IS RESPONSIBLE FOR THE PROPER INSPECTION AND MAINTENANCE OF ALL STORMWATER MANAGEMENT FACILITIES AS OUTLINED BELOW UNTIL SUCH TIME THAT THE ROADWAYS AND ASSOCIATED UTILITIES ARE ACCEPTED BY THE OWNER AND THE ENGINEER.

1.
- INSPECT AND RESTORE/CLEAN ALL FACILITIES (INLETS, MANHOLES, INFILTRATION BASINS, ETC.) OF SEDIMENT AND DEBRIS PRIOR TO THE OWNER'S ACCEPTANCE.
2.
- REMOVE AND DISPOSE ALL SEDIMENT AND DEBRIS AT A PRE-APPROVED LOCATION AS APPROVED BY THE CITY.
3.
- REFER TO THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR ADDITIONAL INFORMATION PERTAINING TO STORMWATER FACILITY OPERATION AND MAINTENANCE REQUIREMENTS. MAINTAIN A WORKING COPY OF THE SWPPP ON SITE AT ALL TIMES.
4.
- INSPECT AFTER EVERY MAJOR RAINFALL EVENT FOR THE ENTIRE DURATION OF THE CONSTRUCTION PROJECT AND THE FIRST 3 MONTHS AFTER CONSTRUCTION TO ENSURE PROPER STABILIZATION AND CONSTRUCTION.
5.
- MAINTENANCE REQUIRED FOR DRAINAGE STRUCTURES (INLETS, MANHOLES & CATCHBASINS): ALL DRAINAGE STRUCTURES WILL BE INSPECTED BY THE CONTRACTOR TO MONITOR FOR PROPER OPERATION, COLLECTION OF LITTER OR TRASH, AND STRUCTURAL DETERIORATION. THE BASINS WILL BE CLEANED OF SEDIMENT (INCLUDING SUMPS) AS NECESSARY, AND REPAIRED WHEN REQUIRED.
6.
- THE CONTRACTOR SHALL DESIGNATE ON-SITE PERSONNEL RESPONSIBLE FOR THE DAILY INSPECTION AND MAINTENANCE OF ALL SEDIMENT AND EROSION CONTROLS AND IMPLEMENTATION OF ALL NECESSARY MEASURES TO CONTROL EROSION AND PREVENT SEDIMENT FROM LEAVING THE SITE.
7.
- INSTALL ALL EROSION AND SEDIMENT CONTROL (ESC) MEASURES AS INDICATED ON DRAWINGS IN CONSULTATION WITH THE ENGINEER BEFORE ANY CONSTRUCTION ACTIVITIES BEGIN. INSPECT, MAINTAIN, REPAIR AND REPLACE EROSION CONTROL MEASURES, AS NECESSARY, DURING THE ENTIRE CONSTRUCTION PERIOD OF THE PROJECT. THE SITE PERIMETER EROSION CONTROLS ARE THE DESIGNATED LIMIT OF WORK. INFORM ALL PERSONNEL WORKING ON THE PROJECT SITE THAT NO CONSTRUCTION ACTIVITY IS TO OCCUR BEYOND THE LIMIT OF WORK AT ANY TIME THROUGHOUT THE CONSTRUCTION PERIOD.
8.
- KEEP THE LIMIT OF CLEARING, GRADING AND DISTURBANCES TO A MINIMUM WITHIN THE PROPOSED AREA OF CONSTRUCTION. PHASE THE SITE WORK IN A MANNER TO MINIMIZE AREAS OF EXPOSED SOIL. IF TREES ARE TO BE CUT, CLEAR AND GRUB ONLY THOSE AREAS WHICH ARE ACTIVELY UNDER CONSTRUCTION. PROPERLY INSTALL THE SEDIMENTATION CONTROLS PRIOR TO BEGINNING ANY LAND CLEARING ACTIVITY AND/OR OTHER CONSTRUCTION RELATED WORK.
9.
- MONITOR LOCAL WEATHER REPORTS DURING CONSTRUCTION AND PRIOR TO SCHEDULING EARTHMOVING OR OTHER CONSTRUCTION ACTIVITIES WHICH LEAVE LARGE DISTURBED AREAS UNSTABILIZED. IF INCLEMENT WEATHER IS PREDICTED, USE BEST PROFESSIONAL JUDGEMENT AND GOOD CONSTRUCTION PRACTICES WHEN SCHEDULING CONSTRUCTION ACTIVITIES AND ENSURE THE NECESSARY EROSION CONTROL DEVICES ARE INSTALLED AND FUNCTIONING PROPERLY TO MINIMIZE EROSION FROM ANY IMPENDING WEATHER EVENTS.
10.
- INSPECT EROSION AND SEDIMENT CONTROL DEVICES AND STABILIZED SLOPES ON A WEEKLY BASIS AND AFTER EACH RAINFALL EVENT OF .25 INCH OR GREATER. REPAIR IDENTIFIED PROBLEMS WITHIN 24 HOURS TO ENSURE EROSION AND SEDIMENT CONTROLS ARE IN GOOD WORKING ORDER. RESET OR REPLACE MATERIALS AS REQUIRED.
11.
- SURROUND THE PERIMETER OF SOIL STOCKPILES WITH SILT SOCK, SILT FENCE, STRAWBALES, OR A COMBINATION OF SILT FENCE WITH STRAWBALE, AS DETERMINED NECESSARY.
12.
- DISTURBED AREAS AND SLOPES MUST NOT BE LEFT UNATTENDED OR EXPOSED FOR EXCESSIVE PERIODS OF TIME SUCH AS THE INACTIVE WINTER SEASON. PROVIDE APPROPRIATE STABILIZATION PRACTICES ON ALL DISTURBED AREAS AS SOON AS POSSIBLE BUT NOT MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT AREA HAS TEMPORARILY OR PERMANENTLY CEASED. REINFORCE TEMPORARY AREAS HAVING A SLOPE GREATER THAN 4:1 WITH EROSION BLANKETS OR APPROVED EQUAL UNTIL THE SITE IS PROPERLY STABILIZED. TEMPORARY SWALES MAY ALSO BE REQUIRED IF DETERMINED NECESSARY IN THE FIELD BY THE ENGINEER.
13.
- INSTALL A CATCH BASIN SILT SACK OR APPROVED EQUIVALENT IN EACH EXISTING CATCH BASIN RECEIVING RUNOFF FROM THE SITE. UPON THE INSTALLATION OF EACH CATCH BASIN, INSTALL SILT SACK OR APPROVED EQUIVALENT. INSPECT SILT SACKS, AFTER EACH SIGNIFICANT STORM EVENT AND REMOVE AND EMPTY AS NEEDED FOR THE DURATION OF THE CONSTRUCTION PERIOD.
14.
- SILT SACKS SHALL BE INSTALLED AT THE CLOSEST SET OF CATCH BASINS BEYOND THE PROJECT LIMITS DOWNSTREAM OF THE PROJECT LIMITS AND AS DIRECTED BY THE CITY AND/OR ENGINEER.
15.
- SMALL SEDIMENTATION BASINS MAY BE CONSTRUCTED ON AN AS-NEEDED BASIS DURING CONSTRUCTION TO AID IN THE CAPTURE OF SITE RUNOFF AND SEDIMENT. IT WILL BE THE RESPONSIBILITY OF THE SITE CONTRACTOR, IN CONSULTATION WITH THE ENGINEER, TO SIZE AND CREATE THESE BASINS IN APPROPRIATE LOCATIONS.
16.
- CONTAIN ALL SEDIMENT ON SITE. SWEEP ALL EXITS FROM THE SITE AS NECESSARY INCLUDING ANY SEDIMENT TRACKING. SWEEP PAVED AREAS AS NEEDED TO REMOVE SEDIMENT AND POTENTIAL POLLUTANTS ACCUMULATED DURING SITE CONSTRUCTION.
17.
- REMOVE ACCUMULATED SEDIMENT FROM ALL TEMPORARY PRACTICES AND DISPOSE OF IN A PRE-APPROVED LOCATION.
18.
- TO ENSURE ALL EROSION AND SEDIMENTATION CONTROL DEVICES ARE PROPERLY MAINTAINED AND REPAIRED IN A TIMELY AND RESPONSIBLE MANNER, PROVIDE ON SITE,OR MAKE READILY AVAILABLE, THE NECESSARY EQUIPMENT AND SITE PERSONNEL DURING CONSTRUCTION HOURS FOR THE DURATION OF THE PROJECT. IF SITE WORK IS SUSPENDED DURING THE WINTER MONTHS THE CONTRACTOR MUST CONTINUE TO PROVIDE PERSONNEL AND EQUIPMENT ON SITE OR READILY AVAILABLE .
19.
- CONTROL DUST BY WATERING OR OTHER APPROVED METHODS AS NECESSARY, OR AS DIRECTED BY THE ENGINEER.



ENVIRONMENTAL

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				Checked by	BLH
MARK	DATE	DESCRIPTION		Approved by	JDF

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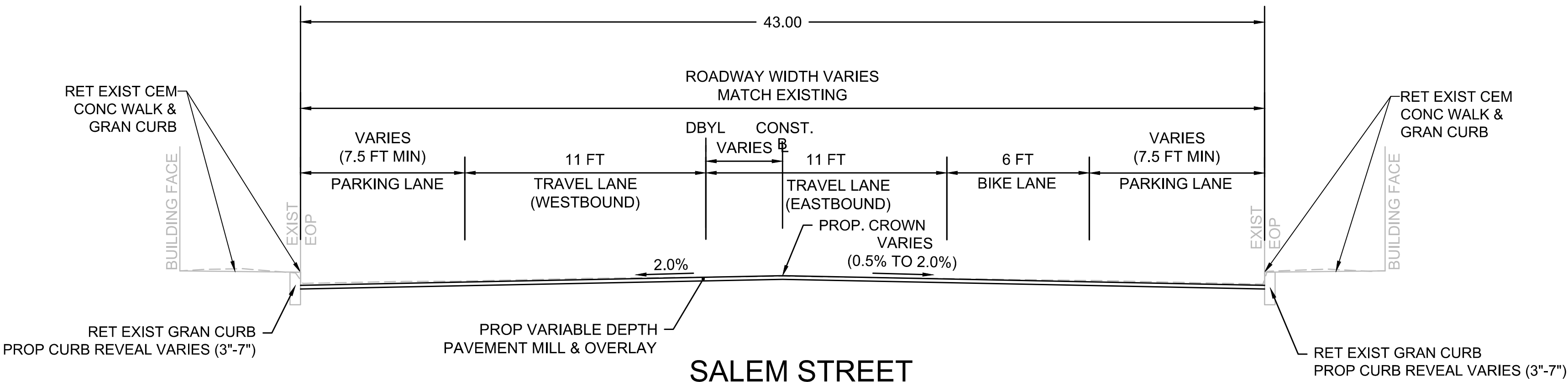
COMPLETE STREETS IMPLEMENTATION
HAINES SQUARE
MEDFORD, MA

GENERAL NOTES

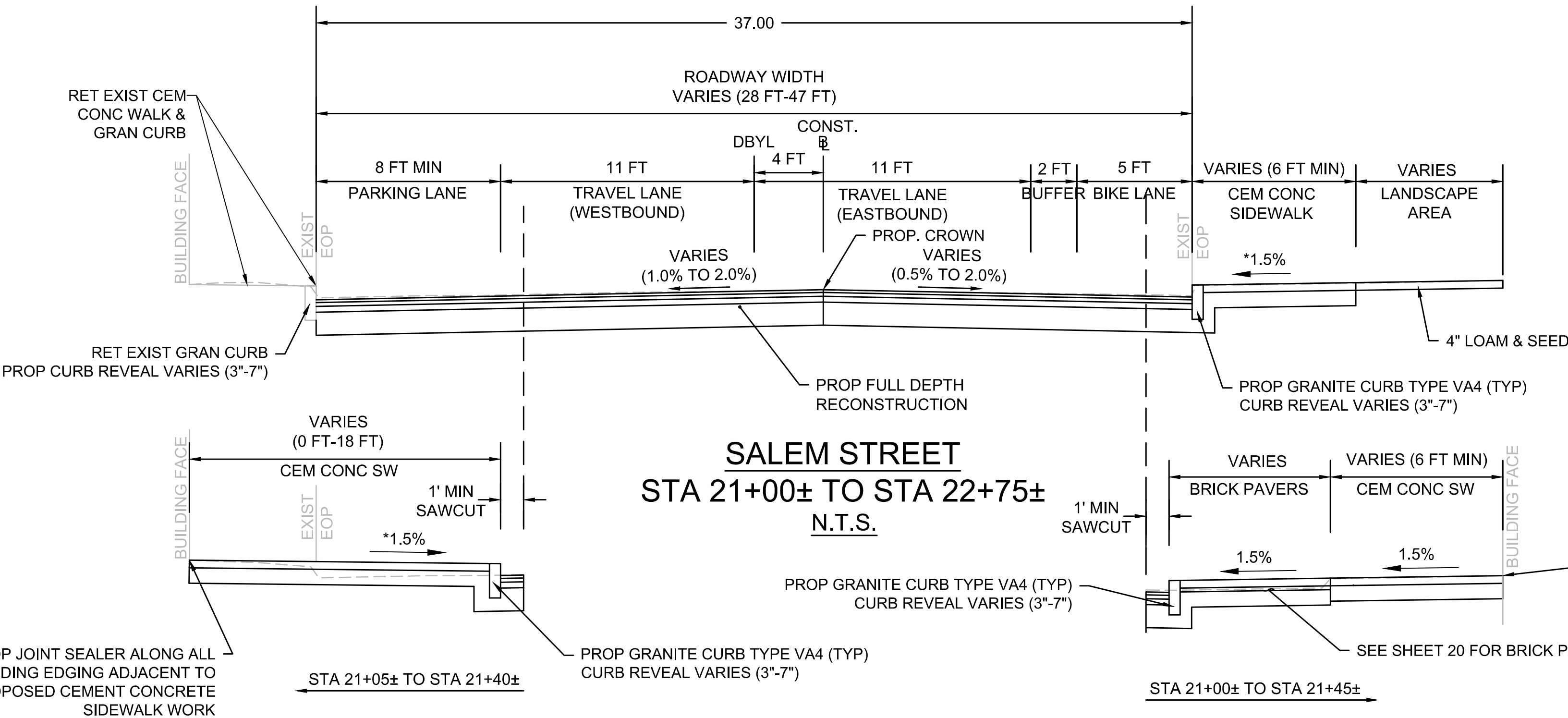
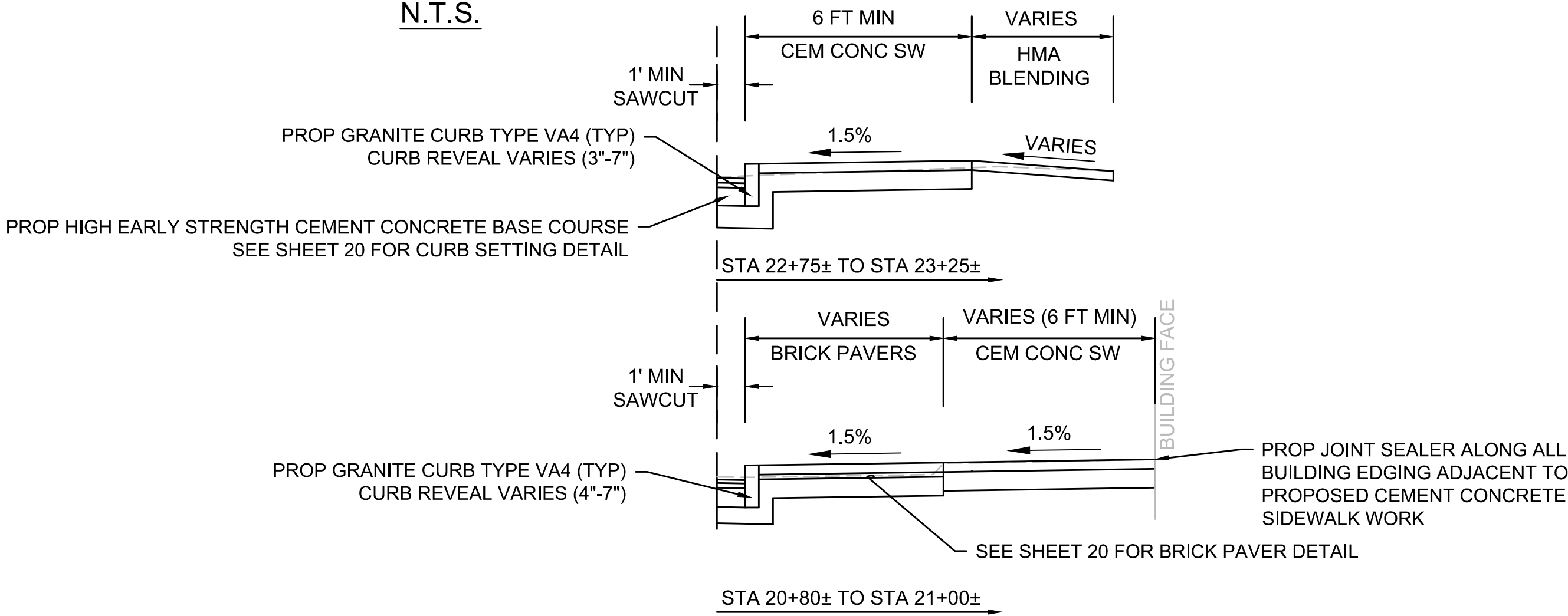
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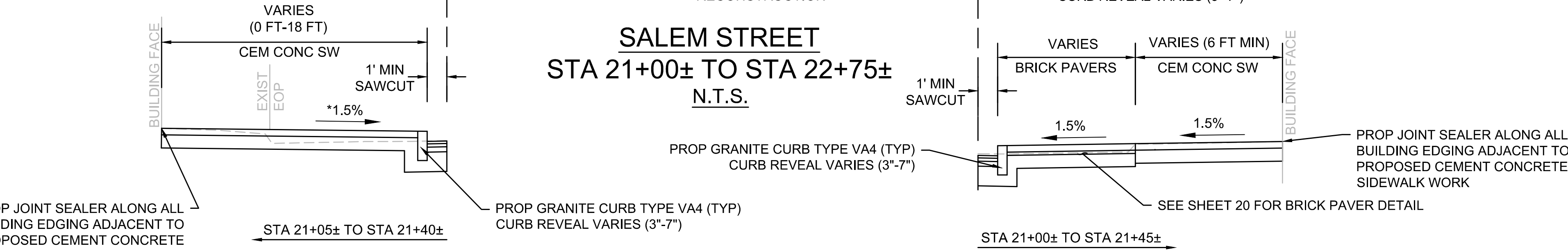
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SALEM STREET
STA 20+25± (SEE NOTE 1) TO STA 21+00±
N.T.S.



SALEM STREET
STA 21+00± TO STA 22+75±
N.T.S.



PAVEMENT NOTES

PROPOSED PAVEMENT MILLING & OVERLAY

SURFACE: 2" SUPERPAVE SURFACE COURSE 12.5 (SSC - 12.5) OVER ASPHALT EMULSION FOR TACK COAT (RS-1H) @ 0.08 GAL/SY OVER

**LEVELING: VARIABLE DEPTH AS DIRECTED OVER

MILLING: VARIABLE DEPTH PAVEMENT MILLING

PROPOSED FULL DEPTH PAVEMENT

SURFACE: 1.5" SUPERPAVE SURFACE COURSE 12.5 (SSC-12.5) OVER ASPHALT EMULSION FOR TACK COAT (RS-1H) @ 0.07 GAL/SY OVER

INTERMEDIATE: 2" SUPERPAVE INTERMEDIATE COURSE 19.0 (SIC-19.0) OVER ASPHALT EMULSION FOR TACK COAT (RS-1H) @ 0.07 GAL/SY OVER

BASE: 3" SUPERPAVE BASE COURSE - 37.5 (SBC-37.5) OVER

SUB-BASE: 4" DENSE GRADED CRUSHED STONE OVER 8" GRAVEL BORROW, TYPE b (SEE NOTE 4)

PROPOSED CEMENT CONCRETE DRIVEWAY

SURFACE: 6" CEMENT CONCRETE AIR ENTRAINED (4000 PSI, 3/4", 610 LB) (SEE NOTE 6) OVER

SUBBASE: 8" GRAVEL BORROW TYPE B (SEE NOTE 4)

PROPOSED HOT MIX ASPHALT DRIVEWAY

SURFACE: 1.5" SUPERPAVE SURFACE COURSE 9.5 (SSC 9.5) OVER ASPHALT EMULSION FOR TACK COAT (RS-1H) @ 0.07 GAL/SY OVER

INTERMEDIATE: 2.5" SUPERPAVE INTERMEDIATE COURSE 19.0 (SIC 19.0) OVER

SUBBASE: 8" GRAVEL BORROW TYPE B (SEE NOTE 4)

PROPOSED CEMENT CONCRETE SIDEWALK AND PEDESTRIAN CURB RAMP

SURFACE: 4" CEMENT CONCRETE AIR ENTRAINED (4000 PSI, 3/4", 610 LB) (SEE NOTE 6) OVER

SUBBASE: 8" GRAVEL BORROW TYPE B (SEE NOTE 4)

PROPOSED LOAM & SEED

SURFACE: 4" LOAM BORROW

SUBBASE: VARIABLE DEPTH SUITABLE EXCAVATED MATERIAL OR ORDINARY BORROW (AS DIRECTED)

NOTES:

- LIMIT OF MILL & OVERLAY SHALL EXTEND WEST TO THE SALEM STREET AND GRANT AVENUE INTERSECTION AND MATCH EXISTING CONDITIONS. EXACT LIMIT SHALL BE CONFIRMED WITH THE CITY AND/OR THE ENGINEER PRIOR TO THE COMMENCEMENT OF THE WORK.
 - PROPOSED NEW GRANITE CURB TYPE VA-4 AS DIRECTED BY THE CITY AND/OR ENGINEER.
 - ALL SAWCUTS, INCLUDING THOSE IN DRIVEWAYS, SHALL BE SEALED WITH A LIQUID ASPHALT SEALER.
 - DURING EXCAVATION, MATERIALS DEEMED BY THE CITY TO BE SUITABLE WILL BE RETAINED OR USED AS GRAVEL BORROW FOR FILL AREA. ANY SOILS DETERMINED TO BE UNSUITABLE BY THE CITY SHALL BE REMOVED AND REPLACED WITH SUITABLE SUBBASE AS IDENTIFIED ABOVE.
 - GRAVEL BORROW TYPE B SHALL ONLY BE USED WHEN NO SUITABLE EXCAVATED MATERIAL CAN BE UTILIZED AS APPROVED BY THE CITY.
 - PROVIDE S&T STEEL WELDED WIRE MESH MID-DEPTH AS APPROVED BY THE CITY FOR ALL CEMENT CONCRETE DRIVEWAYS AND PEDESTRIAN CURB RAMPS AT INTERSECTION CORNERS.
- * 0.5% CONSTRUCTION TOLERANCE
- ** LEVELING COURSE TO BE PAID FOR UNDER ITEM 450.53 SUPERPAVE LEVELING COURSE - 12.5 (SLC 12.5) AT THE DIRECTION OF THE CITY AND/OR ENGINEER



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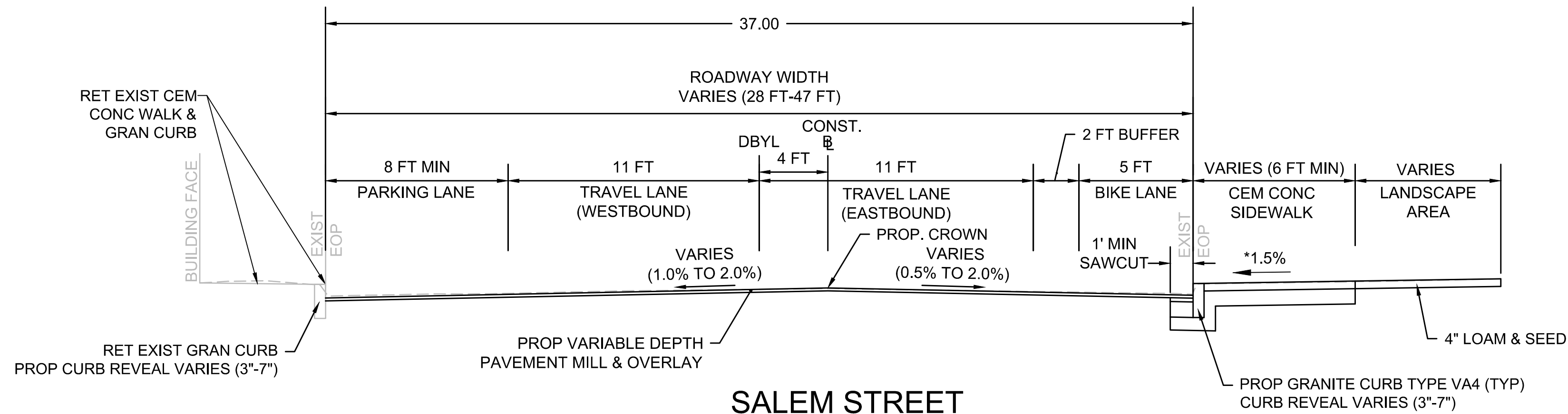
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COMPLETE STREETS IMPLEMENTATION
HAINES SQUARE
MEDFORD, MA

TYPICAL SECTION - SALEM STREET

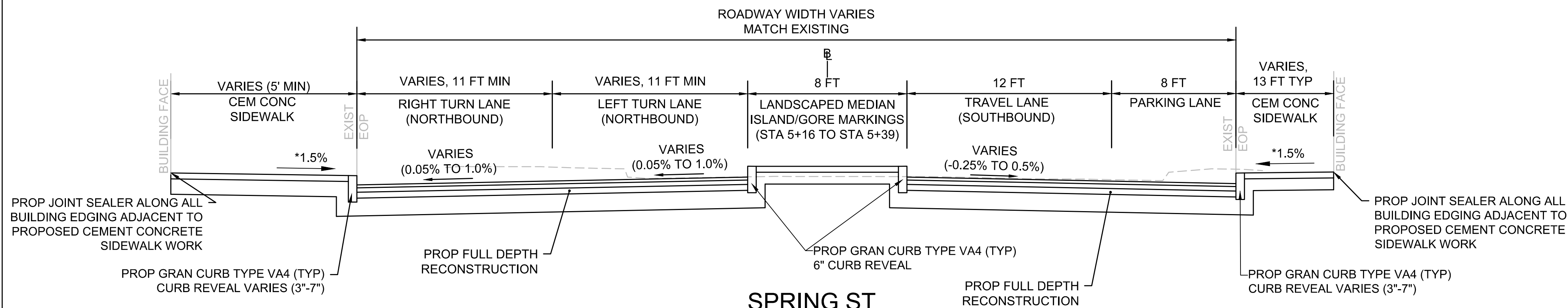
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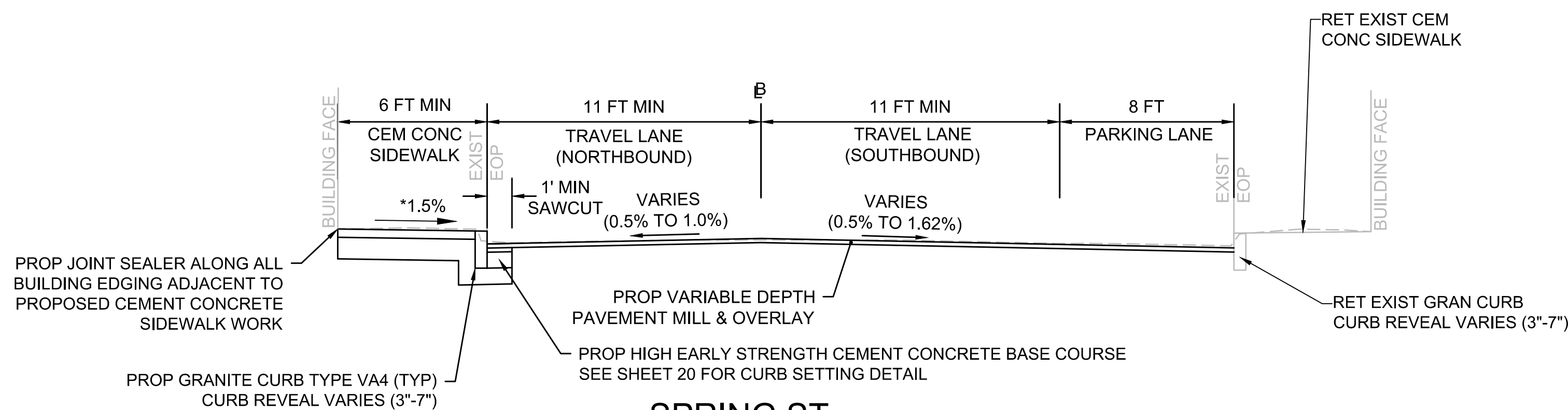


SEE SHEET 04 FOR PAVEMENT NOTES

SALEM STREET
STA 22+75± TO STA 23+89±
N.T.S.



SPRING ST
STA 5+00± TO STA 5+75±
N.T.S.



SPRING ST
STA 5+75± TO STA 6+50±
N.T.S.



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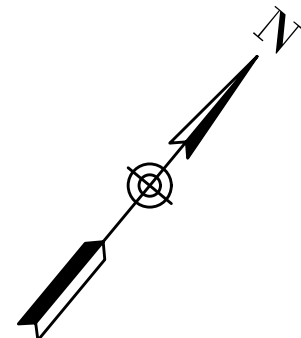
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COMPLETE STREETS IMPLEMENTATION
HAINES SQUARE
MEDFORD, MA

TYPICAL SECTION - SPRING STREET

Sheet No.

05



LAMBERT STREET CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L9	10+00.00	2979492.821	766552.305		N41°42'01"W 75.00'	10+75.00	2979548.820	766502.411

STA 23+60.96 SALEM STREET @ =
STA 10+00.00 LAMBERT STREET @
CONTROL POINT 3
N: 2979478.462'
E: 766505.467'
EL: 14.13'
MON - MAG NAIL SET
BUILDING

STA 21+69.50 SALEM STREET @ =
STA 5+00.00 SPRING STREET @

CONTROL POINT 1
N: 2979521.417'
E: 766629.721'
EL: 15.05'
MON - MAG NAIL SET

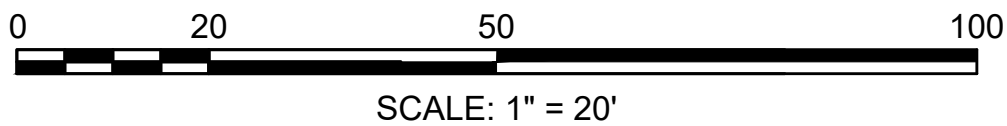
CONTROL POINT 2
N: 2979336.337'
E: 766433.121'
EL: 15.09'
MON - MAG NAIL SET

SALEM STREET CONSTRUCTION BASELINE DATA

NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L5	20+00.00	2979266.165	766272.489		N59°13'46"E 15.42'	20+15.42	2979274.054	766285.738
C5	20+15.42	2979274.054	766285.738	R = 750.00' Δ= 4°35'58" L=60.21' T=30.12'		20+75.63	2979306.898	766336.179
C6	20+75.63	2979306.898	766336.179	R = 1500.00' Δ= 1°40'56" L=44.04' T=22.02'		21+19.67	2979332.913	766371.710
C7	21+19.67	2979332.913	766371.710	R = 750.00' Δ= 5°12'22" L=68.15' T=34.10'		21+87.81	2979376.387	766424.157
L6	21+87.81	2979376.387	766424.157		N47°44'31"E 262.19'	24+50.00	2979552.701	766618.208

SPRING STREET CONSTRUCTION BASELINE DATA

NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L7	5+00.00	2979364.240	766410.456		S39°36'08"E 54.32'	5+54.32	2979322.390	766445.080
C8	5+54.32	2979322.390	766445.080	R = 100.00' Δ= 46°58'55" L=82.00' T=43.46'		6+36.31	2979245.801	766467.203
L8	6+36.31	2979245.801	766467.203		S7°22'47"W 23.69'	6+60.00	2979222.311	766464.160



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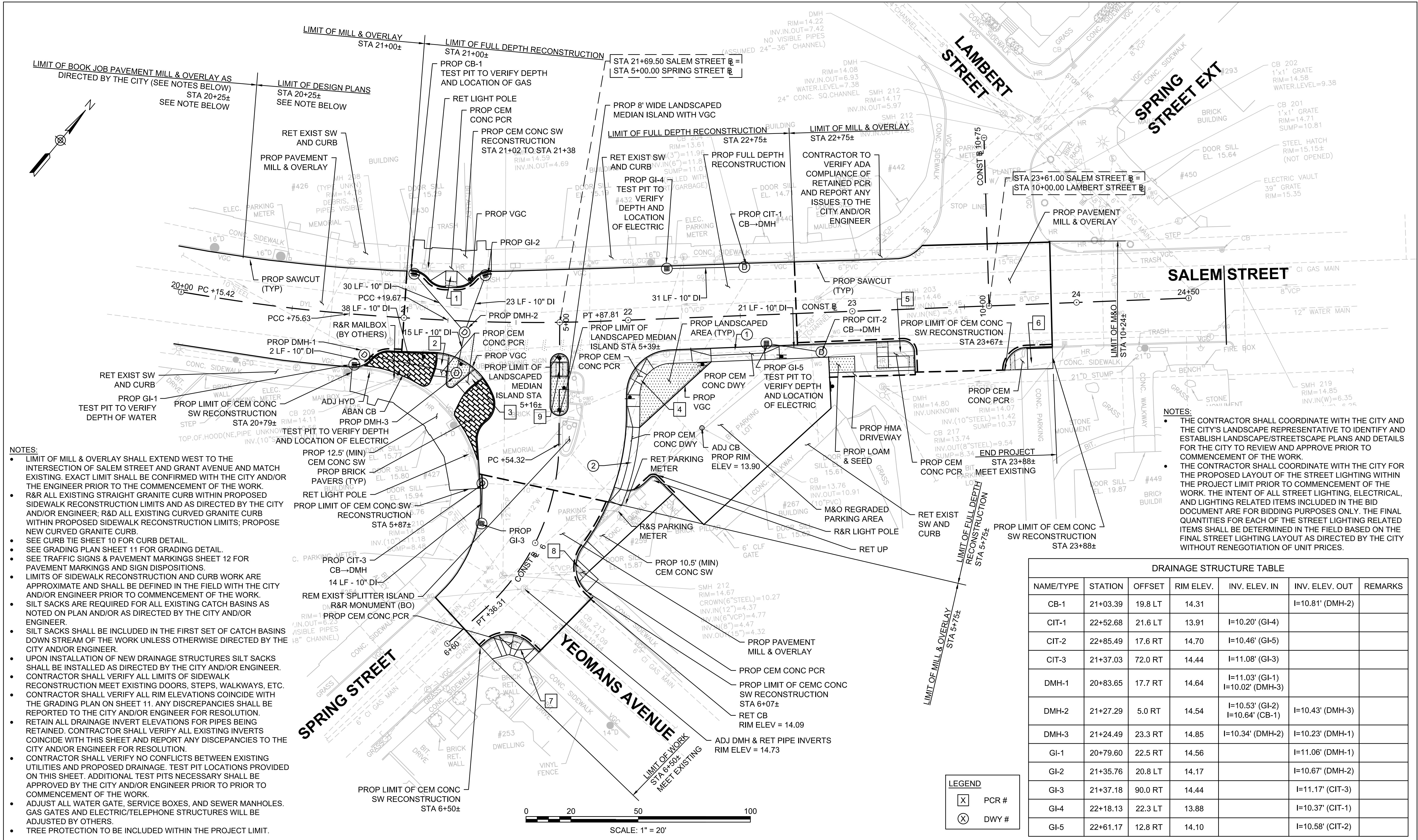
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COMPLETE STREETS IMPLEMENTATION
HAINES SQUARE
MEDFORD, MA

SURVEY CONTROL PLAN

Sheet No.

06



- NOTES:**
- LIMIT OF MILL & OVERLAY SHALL EXTEND WEST TO THE INTERSECTION OF SALEM STREET AND GRANT AVENUE AND MATCH EXISTING. EXACT LIMIT SHALL BE CONFIRMED WITH THE CITY AND/OR THE ENGINEER PRIOR TO THE COMMENCEMENT OF THE WORK.
 - R&R ALL EXISTING STRAIGHT GRANITE CURB WITHIN PROPOSED SIDEWALK RECONSTRUCTION LIMITS AND AS DIRECTED BY THE CITY AND/OR ENGINEER; R&D ALL EXISTING CURVED GRANITE CURB WITHIN PROPOSED SIDEWALK RECONSTRUCTION LIMITS; PROPOSE NEW CURVED GRANITE CURB.
 - SEE CURB TIE SHEET 10 FOR CURB DETAIL.
 - SEE GRADING PLAN SHEET 11 FOR GRADING DETAIL.
 - SEE TRAFFIC SIGNS & PAVEMENT MARKINGS SHEET 12 FOR PAVEMENT MARKINGS AND SIGN DISPOSITIONS.
 - LIMITS OF SIDEWALK RECONSTRUCTION AND CURB WORK ARE APPROXIMATE AND SHALL BE DEFINED IN THE FIELD WITH THE CITY AND/OR ENGINEER PRIOR TO COMMENCEMENT OF THE WORK.
 - SILT SACKS ARE REQUIRED FOR ALL EXISTING CATCH BASINS AS NOTED ON PLAN AND/OR AS DIRECTED BY THE CITY AND/OR ENGINEER.
 - SILT SACKS SHALL BE INCLUDED IN THE FIRST SET OF CATCH BASINS DOWN STREAM OF THE WORK UNLESS OTHERWISE DIRECTED BY THE CITY AND/OR ENGINEER.
 - UPON INSTALLATION OF NEW DRAINAGE STRUCTURES SILT SACKS SHALL BE INSTALLED AS DIRECTED BY THE CITY AND/OR ENGINEER.
 - CONTRACTOR SHALL VERIFY ALL LIMITS OF SIDEWALK RECONSTRUCTION MEET EXISTING DOORS, STEPS, WALKWAYS, ETC.
 - CONTRACTOR SHALL VERIFY ALL RIM ELEVATIONS COINCIDE WITH THE GRADING PLAN ON SHEET 11. ANY DISCREPANCIES SHALL BE REPORTED TO THE CITY AND/OR ENGINEER FOR RESOLUTION.
 - RETAIN ALL DRAINAGE INVERT ELEVATIONS FOR PIPES BEING RETAINED. CONTRACTOR SHALL VERIFY ALL EXISTING INVERTS COINCIDE WITH THIS SHEET AND REPORT ANY DISCEPANCIES TO THE CITY AND/OR ENGINEER FOR RESOLUTION.
 - CONTRACTOR SHALL VERIFY NO CONFLICTS BETWEEN EXISTING UTILITIES AND PROPOSED DRAINAGE. TEST PIT LOCATIONS PROVIDED ON THIS SHEET. ADDITIONAL TEST PITS NECESSARY SHALL BE APPROVED BY THE CITY AND/OR ENGINEER PRIOR TO PRIOR TO COMMENCEMENT OF THE WORK.
 - ADJUST ALL WATER GATE, SERVICE BOXES, AND SEWER MANHOLES. GAS GATES AND ELECTRIC/TELEPHONE STRUCTURES WILL BE ADJUSTED BY OTHERS.
 - TREE PROTECTION TO BE INCLUDED WITHIN THE PROJECT LIMIT.

- NOTES:**
- THE CONTRACTOR SHALL COORDINATE WITH THE CITY AND THE CITY'S LANDSCAPE REPRESENTATIVE TO IDENTIFY AND ESTABLISH LANDSCAPE/STREETSCAPE PLANS AND DETAILS FOR THE CITY TO REVIEW AND APPROVE PRIOR TO COMMENCEMENT OF THE WORK.
 - THE CONTRACTOR SHALL COORDINATE WITH THE CITY FOR THE PROPOSED LAYOUT OF THE STREET LIGHTING WITHIN THE PROJECT LIMIT PRIOR TO COMMENCEMENT OF THE WORK. THE INTENT OF ALL STREET LIGHTING, ELECTRICAL, AND LIGHTING RELATED ITEMS INCLUDED IN THE BID DOCUMENT ARE FOR BIDDING PURPOSES ONLY. THE FINAL QUANTITIES FOR EACH OF THE STREET LIGHTING RELATED ITEMS SHALL BE DETERMINED IN THE FIELD BASED ON THE FINAL STREET LIGHTING LAYOUT AS DIRECTED BY THE CITY WITHOUT RENEGOTIATION OF UNIT PRICES.

DRAINAGE STRUCTURE TABLE						
NAME/TYPE	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARKS
CB-1	21+03.39	19.8 LT	14.31		I=10.81' (DMH-2)	
CIT-1	22+52.68	21.6 LT	13.91	I=10.20' (GI-4)		
CIT-2	22+85.49	17.6 RT	14.70	I=10.46' (GI-5)		
CIT-3	21+37.03	72.0 RT	14.44	I=11.08' (GI-3)		
DMH-1	20+83.65	17.7 RT	14.64	I=11.03' (GI-1) I=10.02' (DMH-3)		
DMH-2	21+27.29	5.0 RT	14.54	I=10.53' (GI-2) I=10.64' (CB-1)	I=10.43' (DMH-3)	
DMH-3	21+24.49	23.3 RT	14.85	I=10.34' (DMH-2)	I=10.23' (DMH-1)	
GI-1	20+79.60	22.5 RT	14.56		I=11.06' (DMH-1)	
GI-2	21+35.76	20.8 LT	14.17		I=10.67' (DMH-2)	
GI-3	21+37.18	90.0 RT	14.44		I=11.17' (CIT-3)	
GI-4	22+18.13	22.3 LT	13.88		I=10.37' (CIT-1)	
GI-5	22+61.17	12.8 RT	14.10		I=10.58' (CIT-2)	



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PARTNERS

An Apex Company

MARK	DATE	DESCRIPTION

Scale	AS NOTED
Date	JUNE 2022
Job No.	301-1901
Designed by	JRC
Drawn by	JRC
Checked by	BLH
Approved by	JDF

THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

COMPLETE STREETS IMPLEMENTATION

HAINES SQUARE

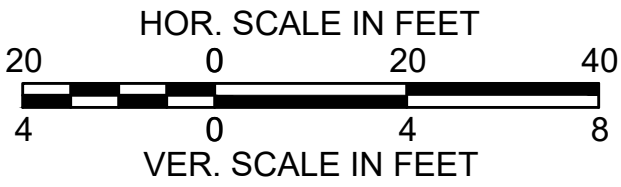
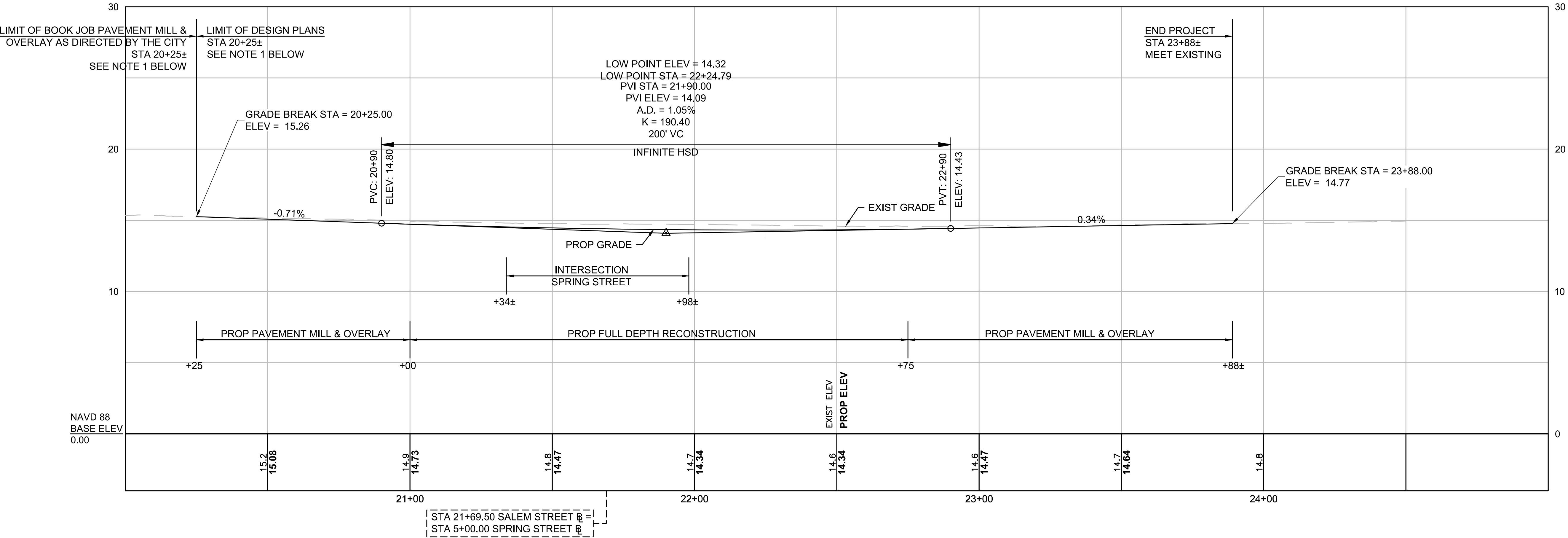
MEDFORD, MA

GENERAL PLAN

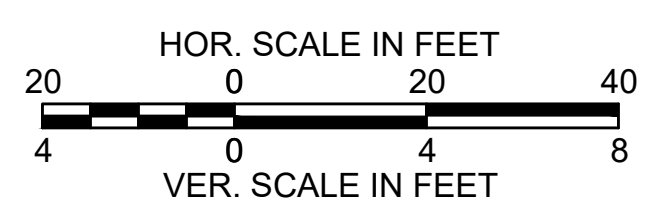
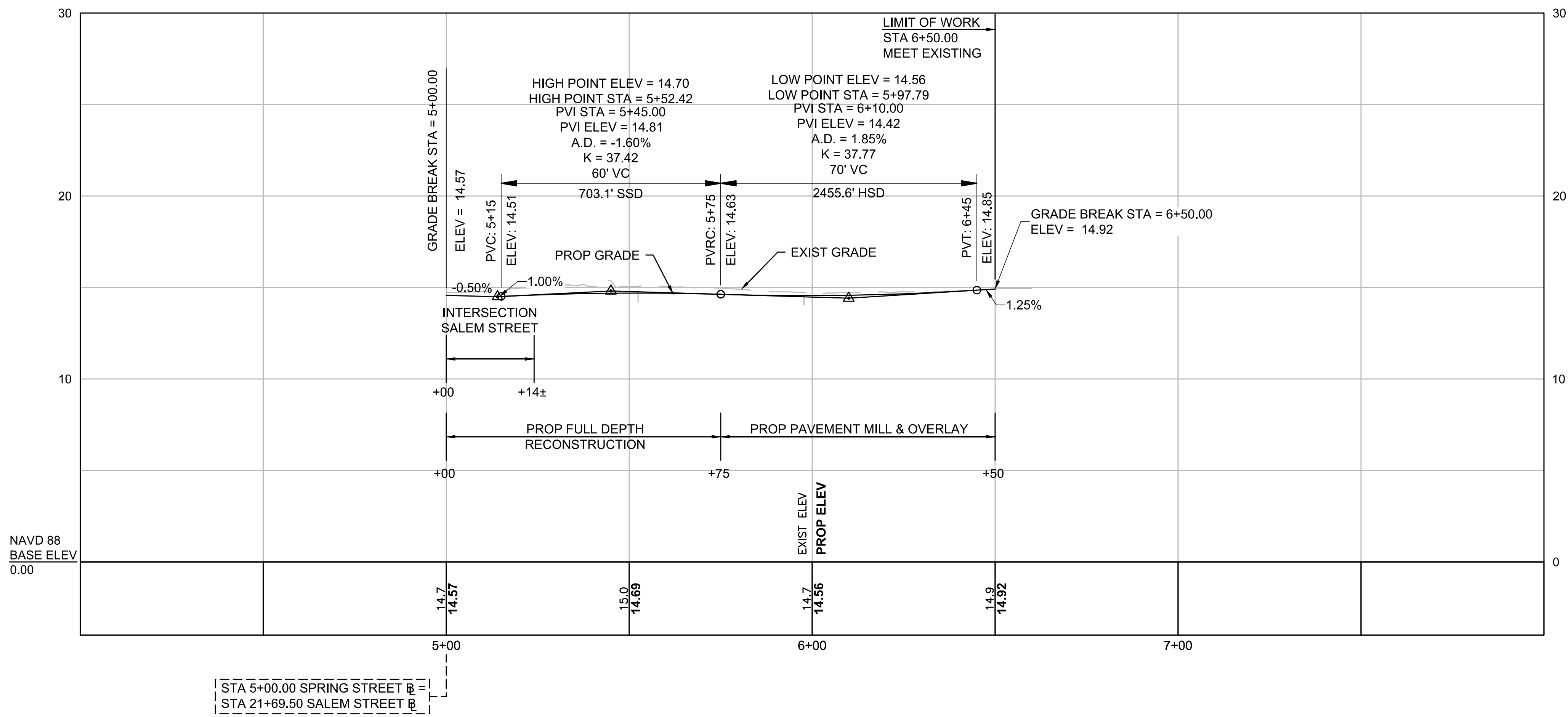
Sheet No.
07

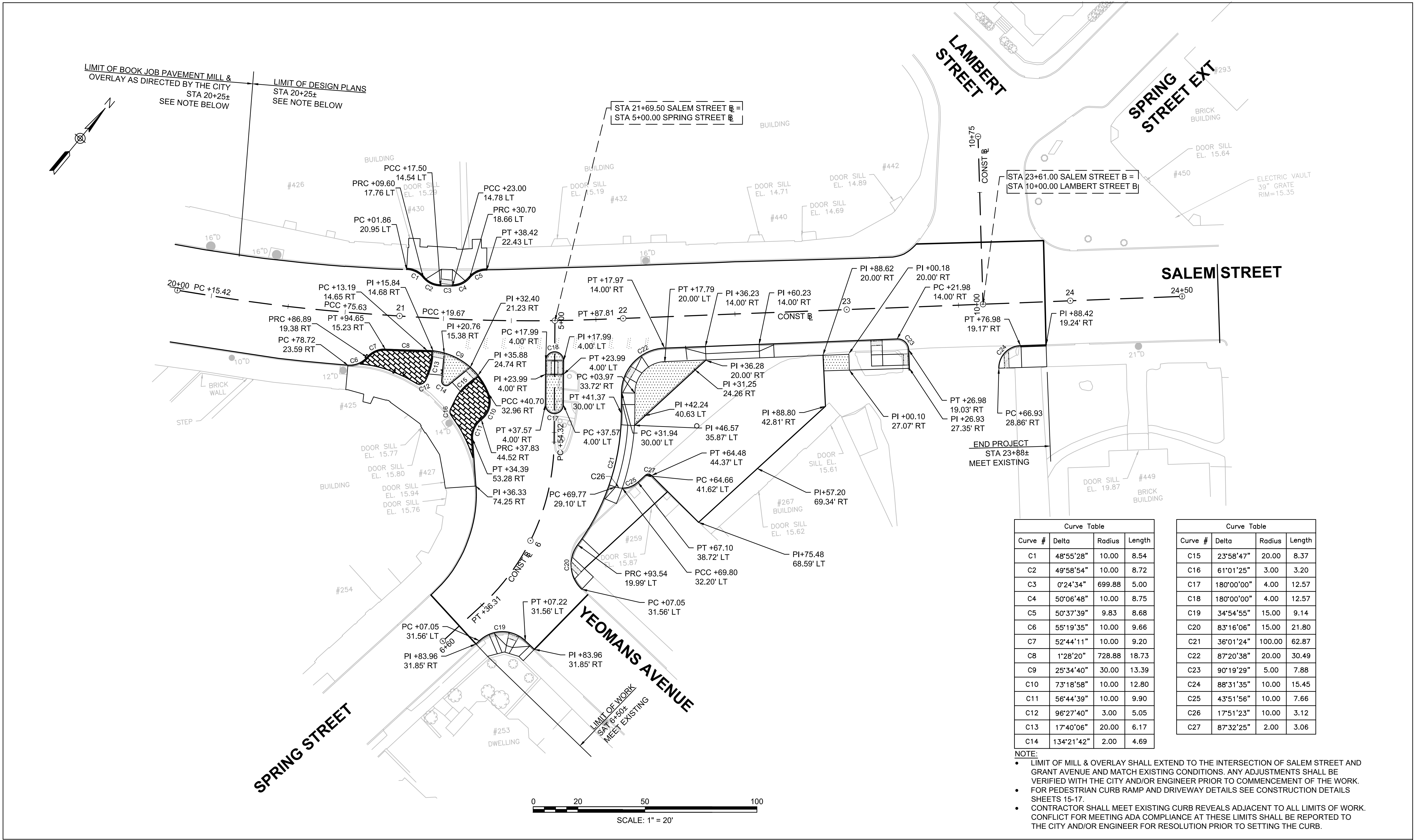
Drawing file: I:\Medford 301\301-1901 Medford - Haines Square\KCAD\Sheet06 Construction.dwg Plot Date: Jun 01 2022 1:10am

SALEM ST



SPRING STREET





Curve Table			
Curve #	Delta	Radius	Length
C1	48°55'28"	10.00	8.54
C2	49°58'54"	10.00	8.72
C3	0°24'34"	699.88	5.00
C4	50°06'48"	10.00	8.75
C5	50°37'39"	9.83	8.68
C6	55°19'35"	10.00	9.66
C7	52°44'11"	10.00	9.20
C8	1°28'20"	728.88	18.73
C9	25°34'40"	30.00	13.39
C10	73°18'58"	10.00	12.80
C11	56°44'39"	10.00	9.90
C12	96°27'40"	3.00	5.05
C13	17°40'06"	20.00	6.17
C14	134°21'42"	2.00	4.69

Curve Table			
Curve #	Delta	Radius	Length
C15	23°58'47"	20.00	8.37
C16	61°01'25"	3.00	3.20
C17	180°00'00"	4.00	12.57
C18	180°00'00"	4.00	12.57
C19	34°54'55"	15.00	9.14
C20	83°16'06"	15.00	21.80
C21	36°01'24"	100.00	62.87
C22	87°20'38"	20.00	30.49
C23	90°19'29"	5.00	7.88
C24	88°31'35"	10.00	15.45
C25	43°51'56"	10.00	7.66
C26	17°51'23"	10.00	3.12
C27	87°32'25"	2.00	3.06

- NOTE:
- LIMIT OF MILL & OVERLAY SHALL EXTEND TO THE INTERSECTION OF SALEM STREET AND GRANT AVENUE AND MATCH EXISTING CONDITIONS. ANY ADJUSTMENTS SHALL BE VERIFIED WITH THE CITY AND/OR ENGINEER PRIOR TO COMMENCEMENT OF THE WORK.
 - FOR PEDESTRIAN CURB RAMP AND DRIVEWAY DETAILS SEE CONSTRUCTION DETAILS SHEETS 15-17.
 - CONTRACTOR SHALL MEET EXISTING CURB REVEALS ADJACENT TO ALL LIMITS OF WORK. CONFLICT FOR MEETING ADA COMPLIANCE AT THESE LIMITS SHALL BE REPORTED TO THE CITY AND/OR ENGINEER FOR RESOLUTION PRIOR TO SETTING THE CURB.



ENVIRONMENTAL PARTNERS
— An Apex Company —

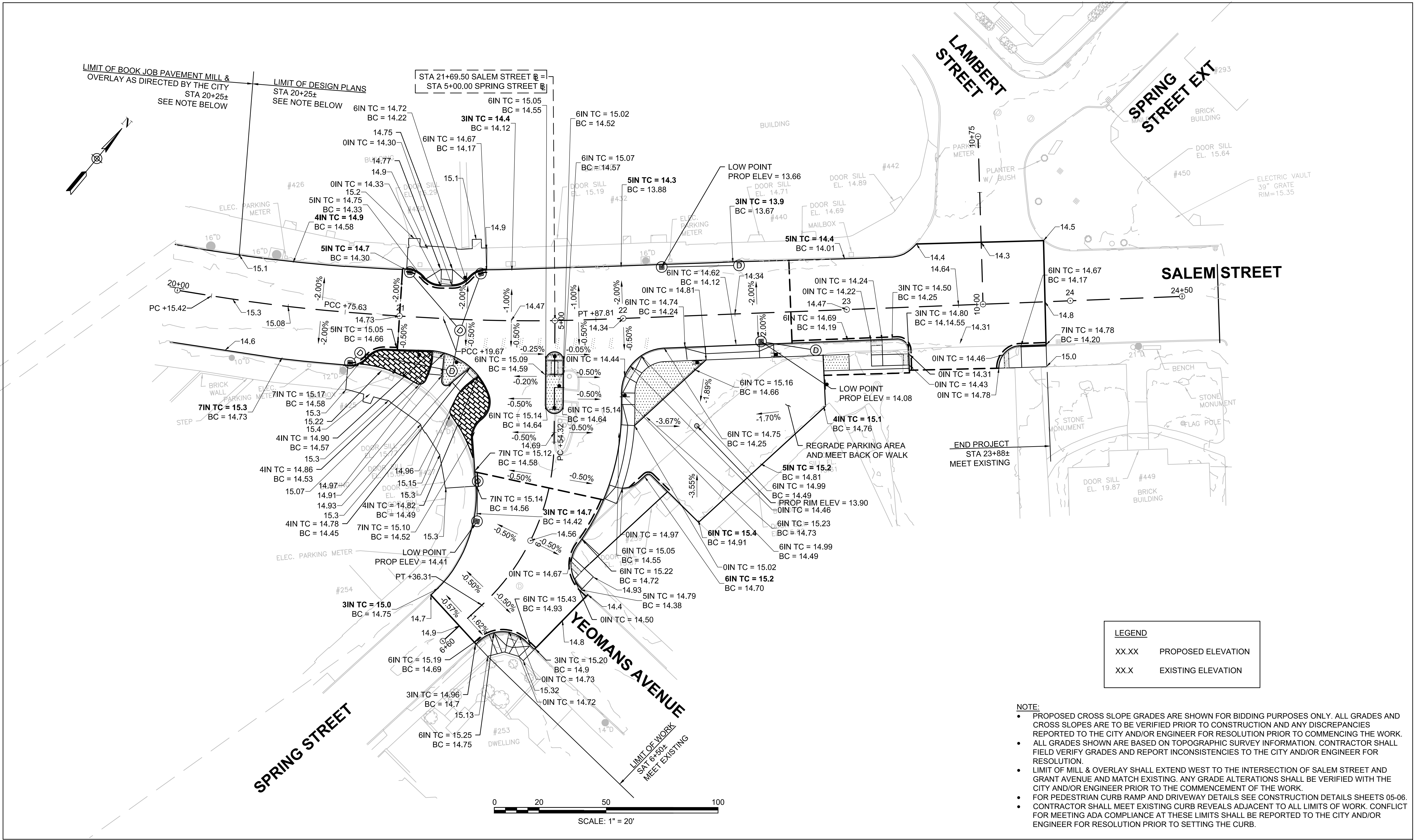
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MARK	DATE	DESCRIPTION			

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COMPLETE STREETS IMPLEMENTATION
HAINES SQUARE
MEDFORD, MA

CURB TIE PLAN

Sheet No.
10





ENVIRONMENTAL PARTNERS
— An Apex Company —

MARK	DATE	DESCRIPTION

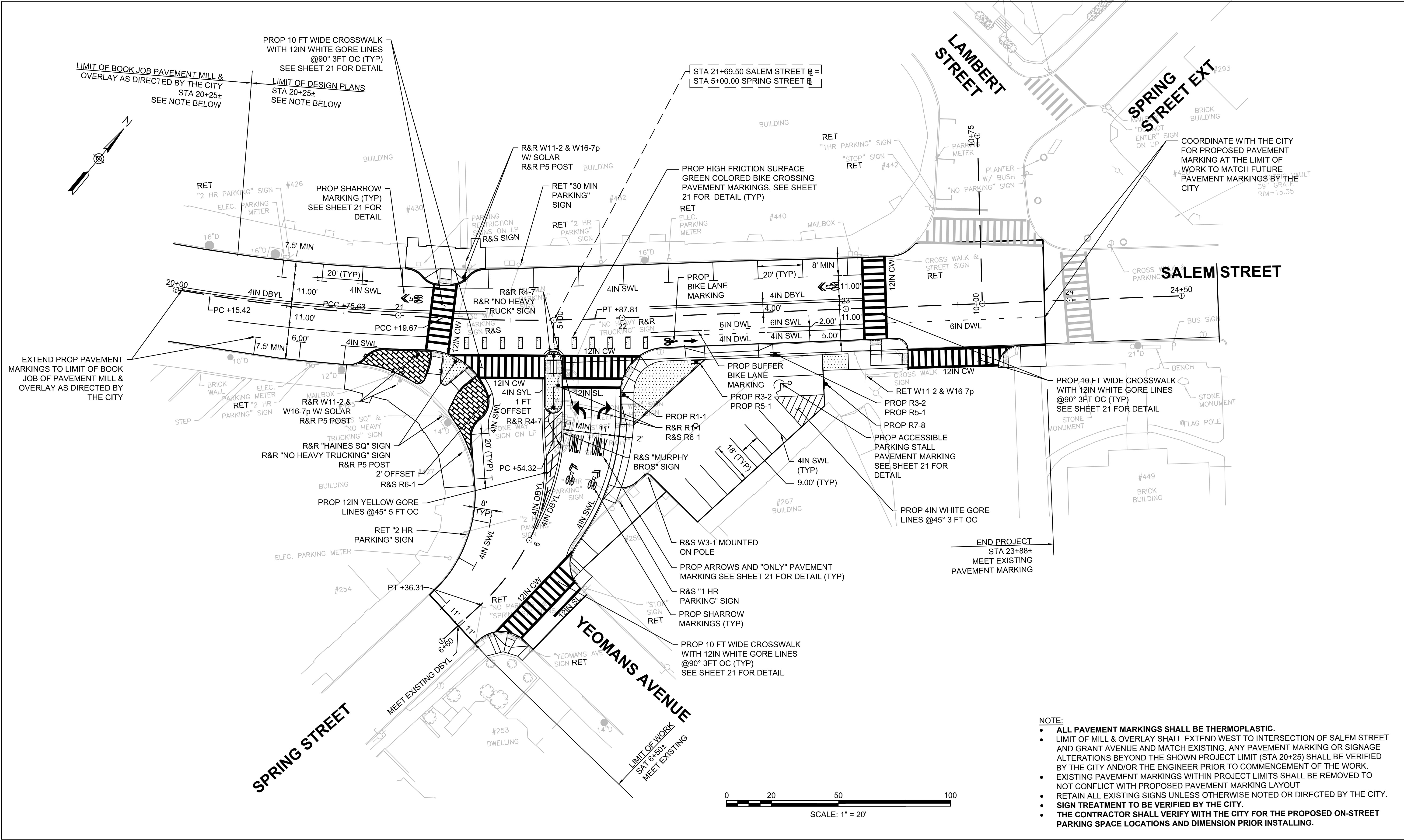
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COMPLETE STREETS IMPLEMENTATION
HAINES SQUARE
MEDFORD, MA

GRADING PLAN

Sheet No.
11



- NOTE:
- ALL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC.
 - LIMIT OF MILL & OVERLAY SHALL EXTEND WEST TO INTERSECTION OF SALEM STREET AND GRANT AVENUE AND MATCH EXISTING. ANY PAVEMENT MARKING OR SIGNAGE ALTERATIONS BEYOND THE SHOWN PROJECT LIMIT (STA 20+25) SHALL BE VERIFIED BY THE CITY AND/OR THE ENGINEER PRIOR TO COMMENCEMENT OF THE WORK.
 - EXISTING PAVEMENT MARKINGS WITHIN PROJECT LIMITS SHALL BE REMOVED TO NOT CONFLICT WITH PROPOSED PAVEMENT MARKING LAYOUT
 - RETAIN ALL EXISTING SIGNS UNLESS OTHERWISE NOTED OR DIRECTED BY THE CITY.
 - SIGN TREATMENT TO BE VERIFIED BY THE CITY.
 - THE CONTRACTOR SHALL VERIFY WITH THE CITY FOR THE PROPOSED ON-STREET PARKING SPACE LOCATIONS AND DIMENSION PRIOR INSTALLING.

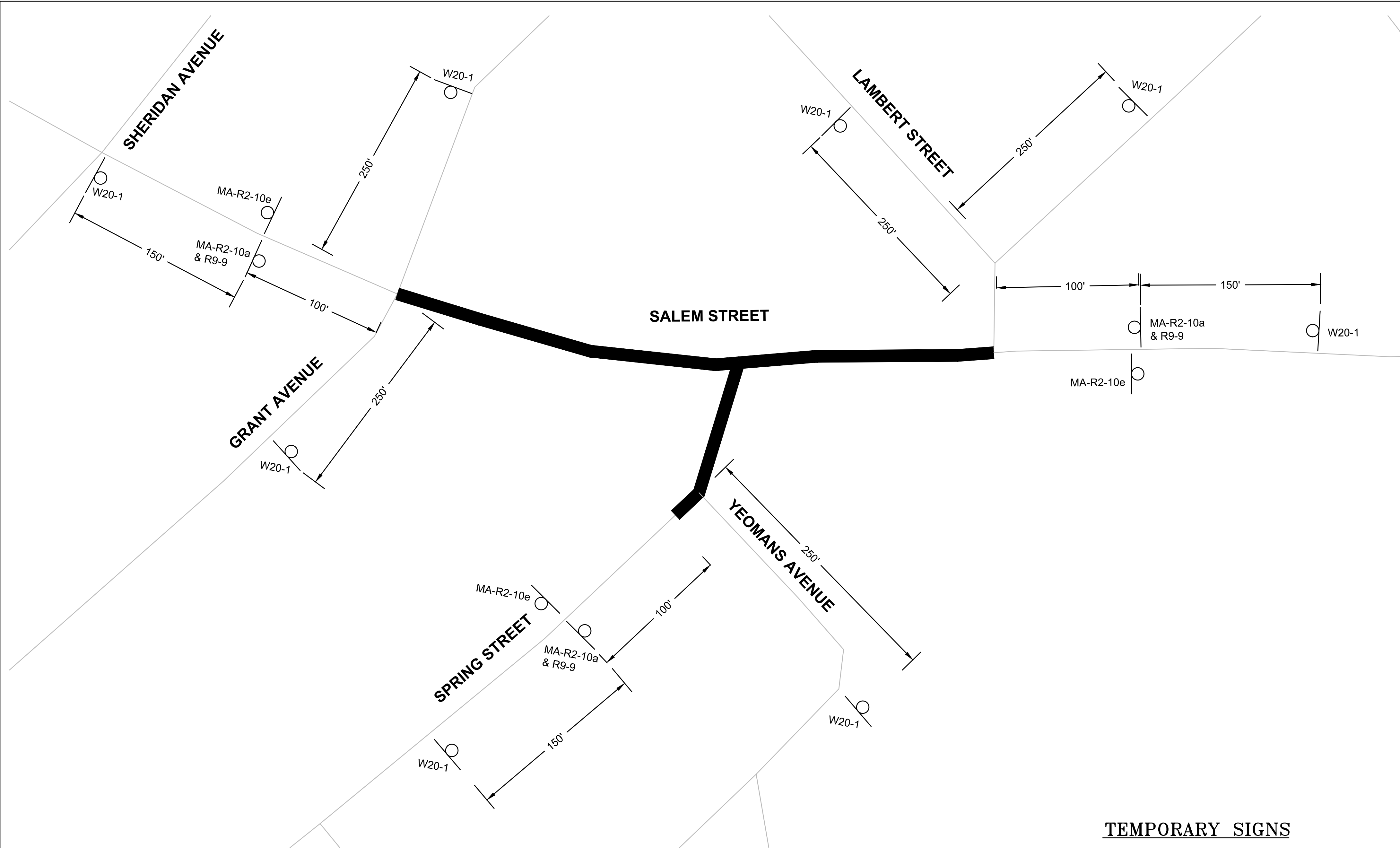


ENVIRONMENTAL PARTNERS
— An Apex Company —

				Scale	AS NOTED	THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING	COMPLETE STREETS IMPLEMENTATION HAINES SQUARE MEDFORD, MA	SIGNAGE AND PAVEMENT MARKING PLAN	Sheet No.
				Date	JUNE 2022				12
				Job No.	301-1901				
				Designed by	JRC				
				Drawn by	JRC				
MARK	DATE	DESCRIPTION		Checked by	BLH				
				Approved by	JDF				

TRAFFIC SIGN SUMMARY

IDENTIFI- CATION NUMBER	SIZE OF SIGN (INCHES)		TEXT	TEXT DIMENSIONS (INCHES)		NUMBER OF SIGNS REQUIRED	COLOR			POST SIZE AND NUMBER REQUIRED	UNIT AREA IN SQUARE FEET	AREA IN SQUARE FEET
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING		BACK- GROUND	LEGEND	BORDER			
MA-D3-1 (PBS)	45	12		6D / 4D	3.00 3.00	1	GREEN	WHITE	WHITE	MOUNT WITH R1-1	EACH (PAY UNDER ITEM 874.)	
R1-1	30	30		MUTCD STANDARD		1	RED	WHITE	WHITE	P5 (1)	6.25	6.25
R3-2	30	30				2	WHITE	WHITE	WHITE	P5 (1)	6.25	12.50
R5-1	30	30				2	WHITE	WHITE	WHITE	P5 (1)	6.25	12.50
R7-8	12	18				1	WHITE	WHITE	WHITE	P5 (1)	1.50	1.50
R1-1 R&R	N/A	N/A		N/A		1	N/A			R&R POST (1)	N/A	N/A
R4-7 R&R	N/A	N/A		N/A		2	N/A			P5 (1) R&R POST (1)	N/A	N/A
W11-2 R&R	N/A	N/A		N/A		2	N/A			R&R POST W/ SOLAR (2)	N/A	N/A
W16-7p R&R	N/A	N/A		N/A		2	N/A			MOUNT WITH W11-2 (2)	N/A	N/A
"HAINES SQ"	N/A	N/A		N/A		1	N/A			R&R POST (1)	N/A	N/A



ADVANCED WARNING PLAN
1"=50'

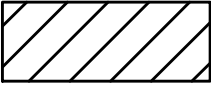
GENERAL NOTES

- ALL CONSTRUCTION SIGNING, DRUMS, BARRICADES AND OTHER DEVICES SHALL CONFORM WITH PART 6 OF THE LATEST EDITION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.)
- TEMPORARY CONSTRUCTION SIGNING AND ALL OTHER TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF ANY WORK.
- ALL CHANNELIZING DEVICES SHALL BE SET @ 25' O.C. MAX. UNLESS OTHERWISE NOTED OR ADJUSTED BY THE CITY AND/OR RESIDENT ENGINEER.
- ALL DRUMS SHALL BE APPROPRIATELY PLACED AND MOVED AS NECESSARY TO MAINTAIN ADEQUATE ABUTTER ACCESS AT ALL TIMES. WORK MAY REQUIRE ADDITIONAL SIGNS, DRUMS AND OTHER TRAFFIC CONTROL DEVICES, GRADING AND TEMPORARY PAVEMENT FOR PASSAGE OF PEDESTRIAN, VEHICULAR AND EMERGENCY TRAFFIC THROUGH THE WORK AREAS, BOTH DURING AND AFTER WORK HOURS, TO MAINTAIN SUCH ACCESS.
- ALL DISTANCE MAY BE ADJUSTED TO FIT FIELD CONDITIONS, AS DIRECTED BY THE CITY. HOWEVER MINIMUM DISTANCES, WHERE INDICATED SHALL BE MAINTAINED.
- THE CONTRACTOR SHALL NOTIFY EACH ABUTTER AT LEAST 48 HOURS IN ADVANCE OF THE START OF ANY WORK THAT WILL REQUIRE THE TEMPORARY CLOSURE OF ACCESS, SUCH AS EXISTING PAVEMENT EXCAVATION, TEMPORARY DRIVEWAY PAVEMENT PLACEMENT AND SIMILAR OPERATIONS.
- THE CONTRACTOR SHALL NOTIFY THE CITY OF MEDFORD POLICE, FIRE, AND DEPARTMENT OF PUBLIC WORKS AT LEAST 48 HOURS IN ADVANCE OF LANE CLOSURES.
- A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES ALONG SALEM STREET AND SPRING STREET DURING CONSTRUCTION.
- GRADE SEPARATIONS IN EXCESS OF 2 INCHES DURING NON-WORKING HOURS WILL REQUIRE DELINEATION BY USE OF DRUMS.
- EXCAVATION EDGES IN EXCESS OF 4 INCHES DEEP SHALL BE PROTECTED DURING NON-WORKING HOURS BY BACKFILLING WITH A WEDGE OF GRAVEL, TEMP HMA OR SOIL COMPACTED TO A 4:1 SLOPE, AS DIRECTED.
- REMOVE EXISTING PAVEMENT MARKINGS AND PROVIDE TEMPORARY PAVEMENT MARKINGS AS APPLICABLE TO EACH PHASE OF THE CONSTRUCTION AS DIRECTED BY THE CITY.
11' MINIMUM TRAVEL LANE WIDTHS SHALL BE PROVIDED DURING CONSTRUCTION.
- NONESSENTIAL TEMPORARY CONSTRUCTION TRAFFIC CONTROL DEVICES SHALL BE COVERED OR REMOVED DURING NON-WORKING HOURS.
- ADVISORY SPEED PLATES (W13-1) SHALL BE USED IF APPROPRIATE AND AS DIRECTED BY THE CITY AND/OR RESIDENT ENGINEER.
- SUPPORTS FOR ALL TRAFFIC MANAGEMENT SIGNS SHALL BE 4" X 4" PRESSURE TREATED WOOD POSTS.
- ALL SIGNS SHALL BE MOUNTED ON THEIR OWN STANDARD SIGN SUPPORT.
- ANY LANE CLOSURE WORK MUST BE PERFORMED BETWEEN THE HOURS OF 9:00 AM - 3:30 PM ONLY, EXCEPTION FOR A SHORT PERIOD OF TIME AS APPROVED BY THE CITY. WORKING BEYOND THESE HOURS OR OVER THE WEEKEND MUST BE APPROVED BY THE CITY.
- ALL TEMPORARY TRAFFIC CONTROL WORK FOR SIDEWALK CLOSURE AND PEDESTRIAN DETOUR SHALL CONFORM TO THE LATEST EDITION OF THE MASSDOT STANDARD DETAILS AND DRAWINGS FOR THE DEVELOPMENT OF TEMPORARY TRAFFIC CONTROL PLANS FIGURE PED-1 TO FIGURE PED-7.
- AT THE END OF EACH CONSTRUCTION DAY, NO TRAFFIC CONTROL DEVICES SHALL REMAIN IN THE ROADWAY; ROADWAYS WILL BE PATCHED AND OPEN TO TRAVEL. AT THE END OF EACH WORK WEEK, EXCAVATIONS WILL BE BACKFILLED, COMPACTED AND PAVED AND TEMPORARY PAVEMENT MARKINGS PROVIDED WHERE APPROPRIATE.

TEMPORARY SIGNS

SIGN DESIGNATION	LEGEND	WIDTH	HEIGHT
MA-R2-10a	WORK ZONE SPEEDING FINES DOUBLED	48"	36"
MA-R2-10e	END ROAD WORK DOUBLE FINES END	36"	48"
R9-9	SIDEWALK CLOSED	30"	18"
W20-1	ROAD WORK AHEAD	36"	36"

LEGEND

-  CHANNELIZING DEVICE
-  PROPOSED TRAFFIC FLOW
-  WORK ZONE
-  TYPE III BARRICADE
-  POLICE DETAIL
-  FLAGGER



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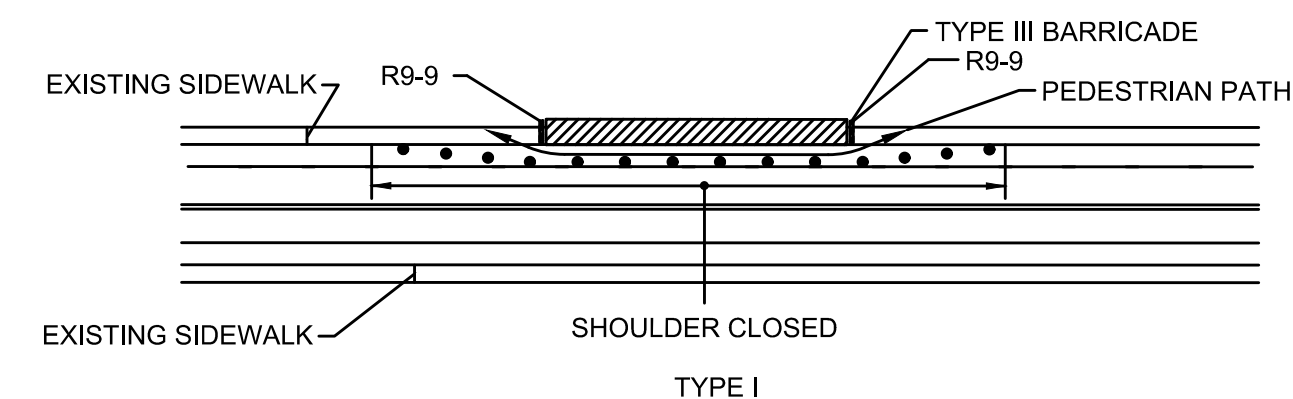
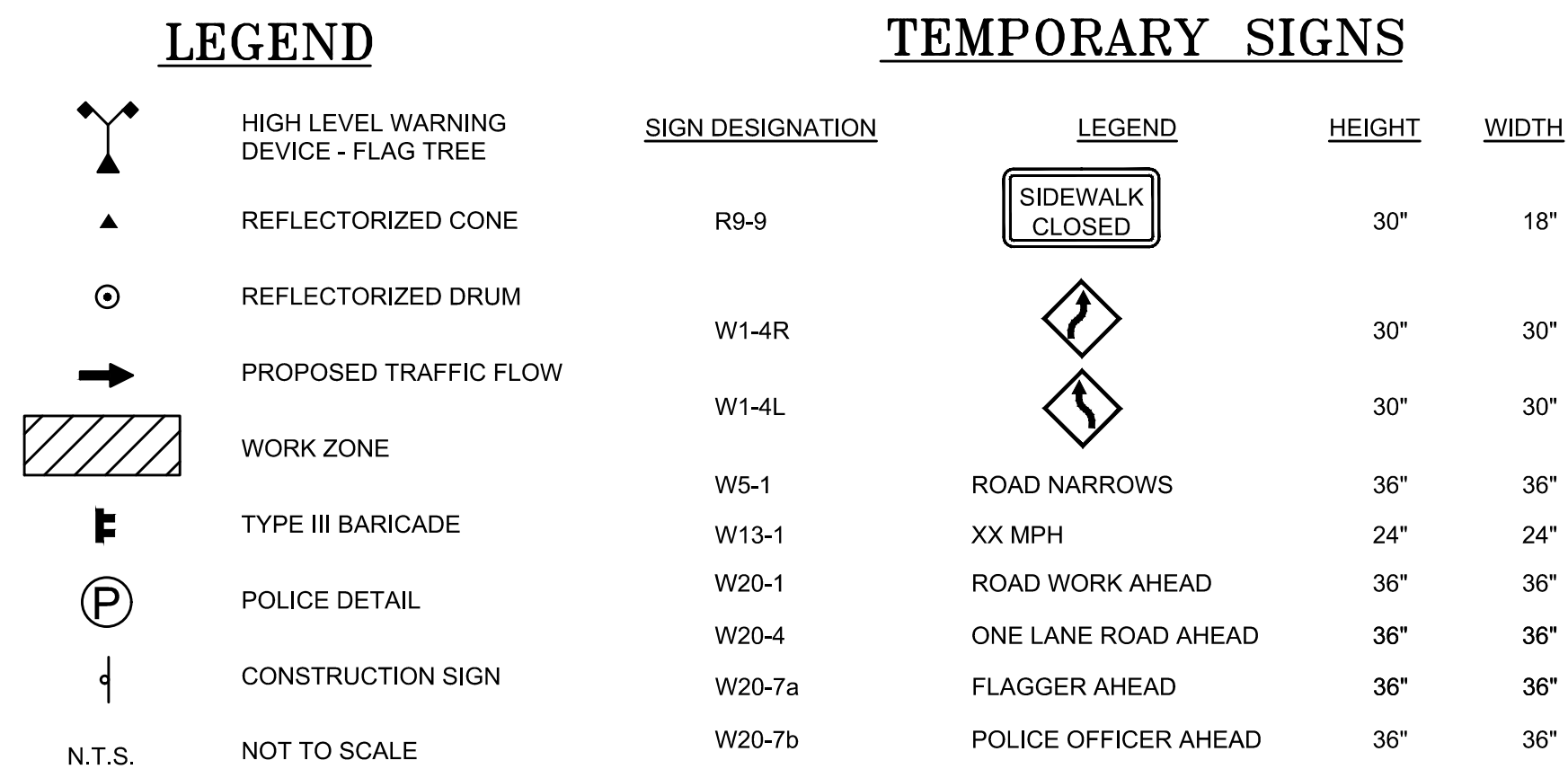
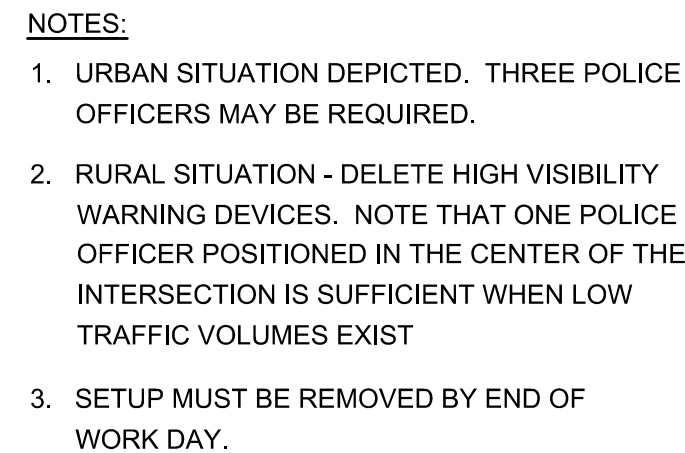
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COMPLETE STREETS IMPLEMENTATION
HAINES SQUARE
MEDFORD, MA

TRAFFIC MANAGEMENT PLAN - 01

Sheet No.

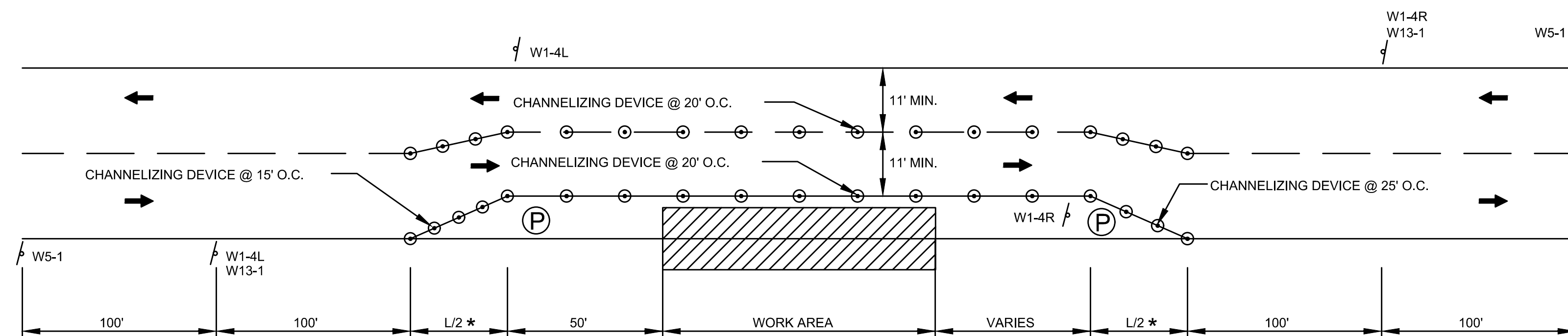
14



N.T.S.

N.T.S.

* $L = \frac{WS^2}{60}$ L=TAPER LENGTH
W=WIDTH OF ROADWAY TO BE SHIFTED OR REDIRECTED
S=POSTED SPEED LIMIT



N.T.S.

NOTE:
WORK THAT WILL DISRUPT EXISTING TRAFFIC PATTERNS WITHIN THE EXISTING ROADWAYS (LANE REDUCTION, ETC.) SHALL ONLY BE DONE DURING OFF PEAK HOURS. NUMBERS AND LOCATION OF POLICE DETAILS FOR WORK ZONE AND/OR DETOUR MANAGEMENT IF REQUIRED SHALL BE DETERMINED BY THE CITY ON A CASE BY CASE BASIS. AS WORK PROGRESSES.



ENVIRONMENTAL
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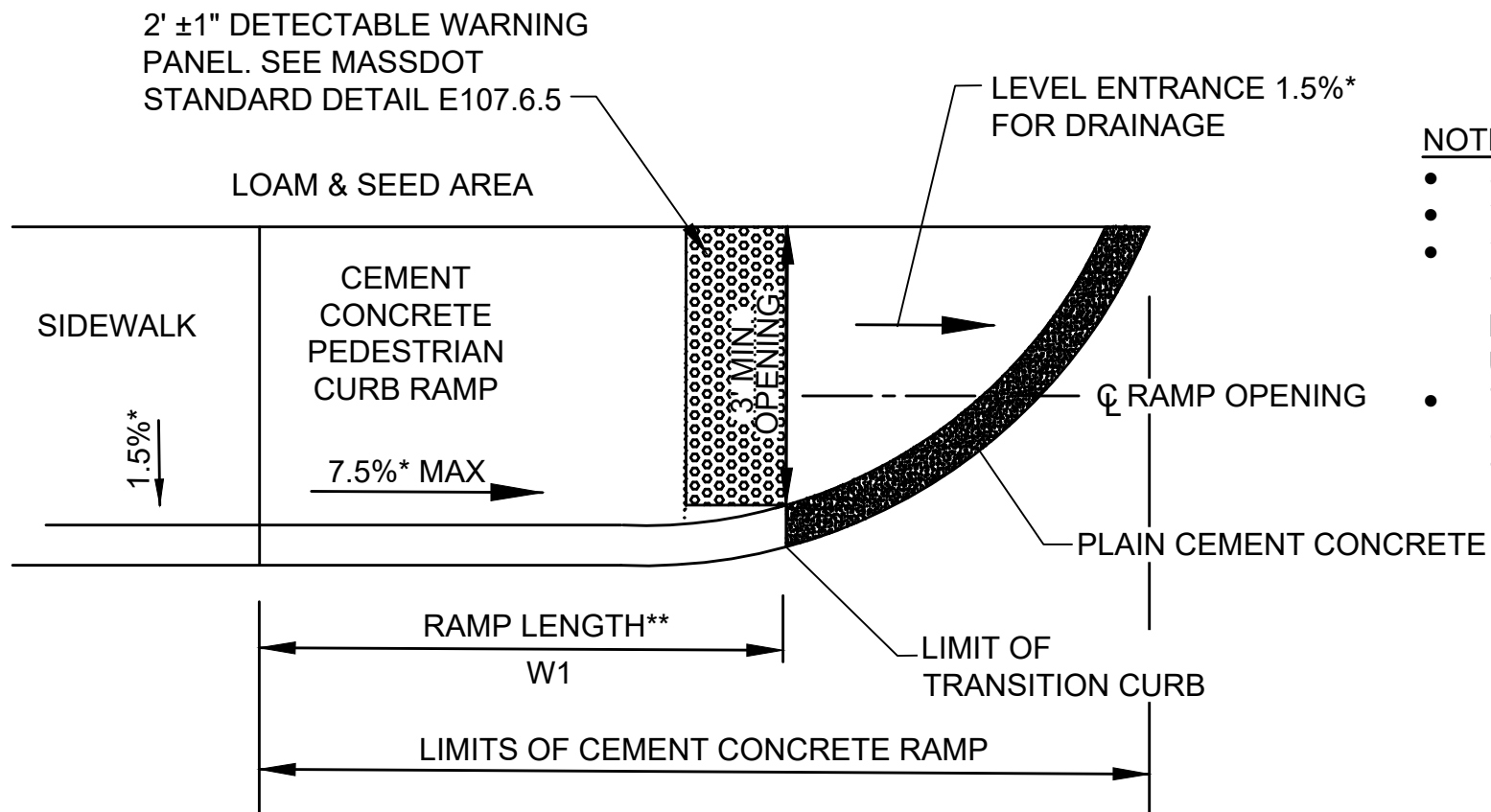
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COMPLETE STREETS IMPLEMENTATION
HAINES SQUARE
MEDFORD, MA

TRAFFIC MANAGEMENT PLAN - 02

Sheet No.

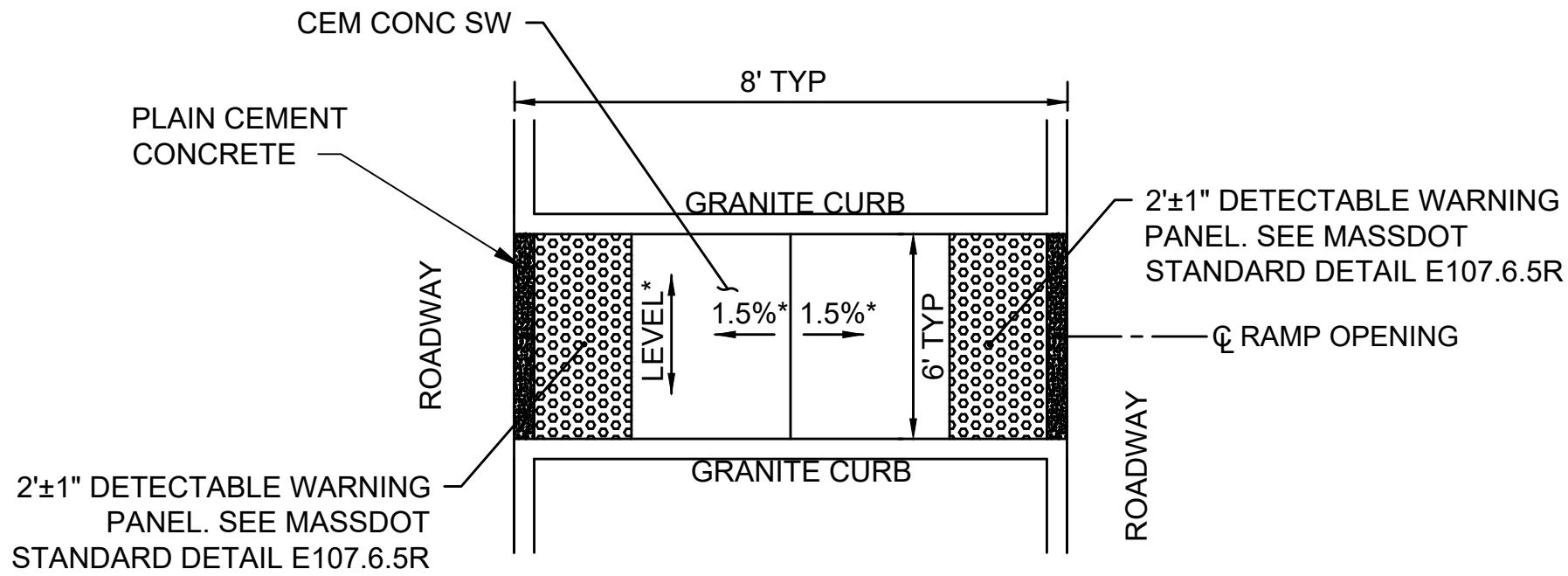
15



- NOTES:
- SEE CONSTRUCTION STANDARD E107.6.0
 - * CONSTRUCTION TOLERANCE ±0.5%
 - ** TRANSITION CURB LENGTH (FOR HIGH SIDE TRANSITION LENGTH, SEE MASSDOT STANDARD DETAIL E107.9.0. FOR LOW SIDE TRANSITION LENGTH = 6'6" UNLESS OTHERWISE DEPICTED ON PLAN.
 - TRANSITION LENGTHS TO BE SET IN THE FIELD BASED ON ACTUAL FIELD CONDITIONS AT THE DIRECTION OF THE CITY AND OR ENGINEER

CONTINUOUS DIRECTION PEDESTRIAN CURB RAMP DETAIL

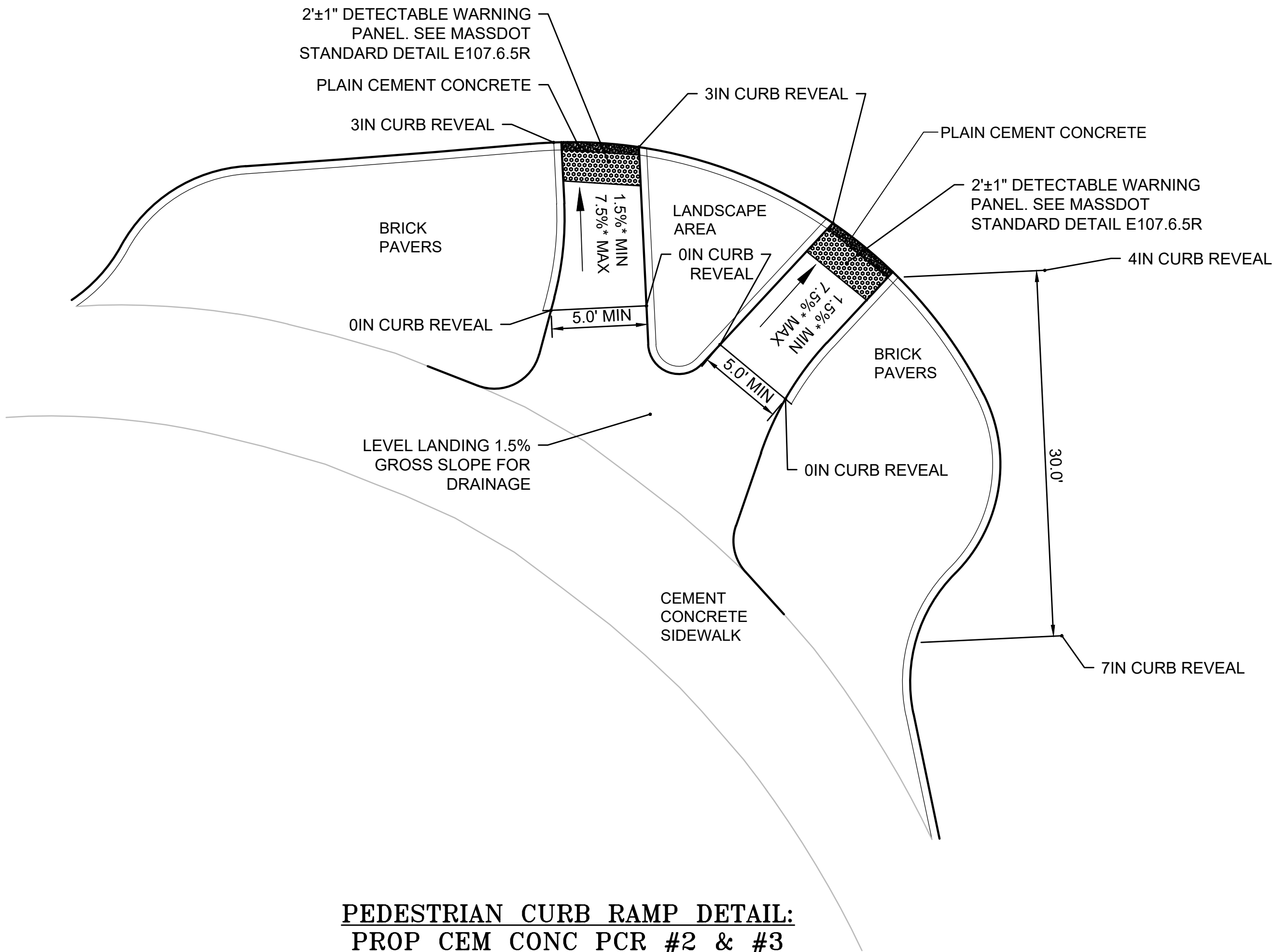
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PEDESTRIAN CURB RAMP AT MEDIAN ISLANDS

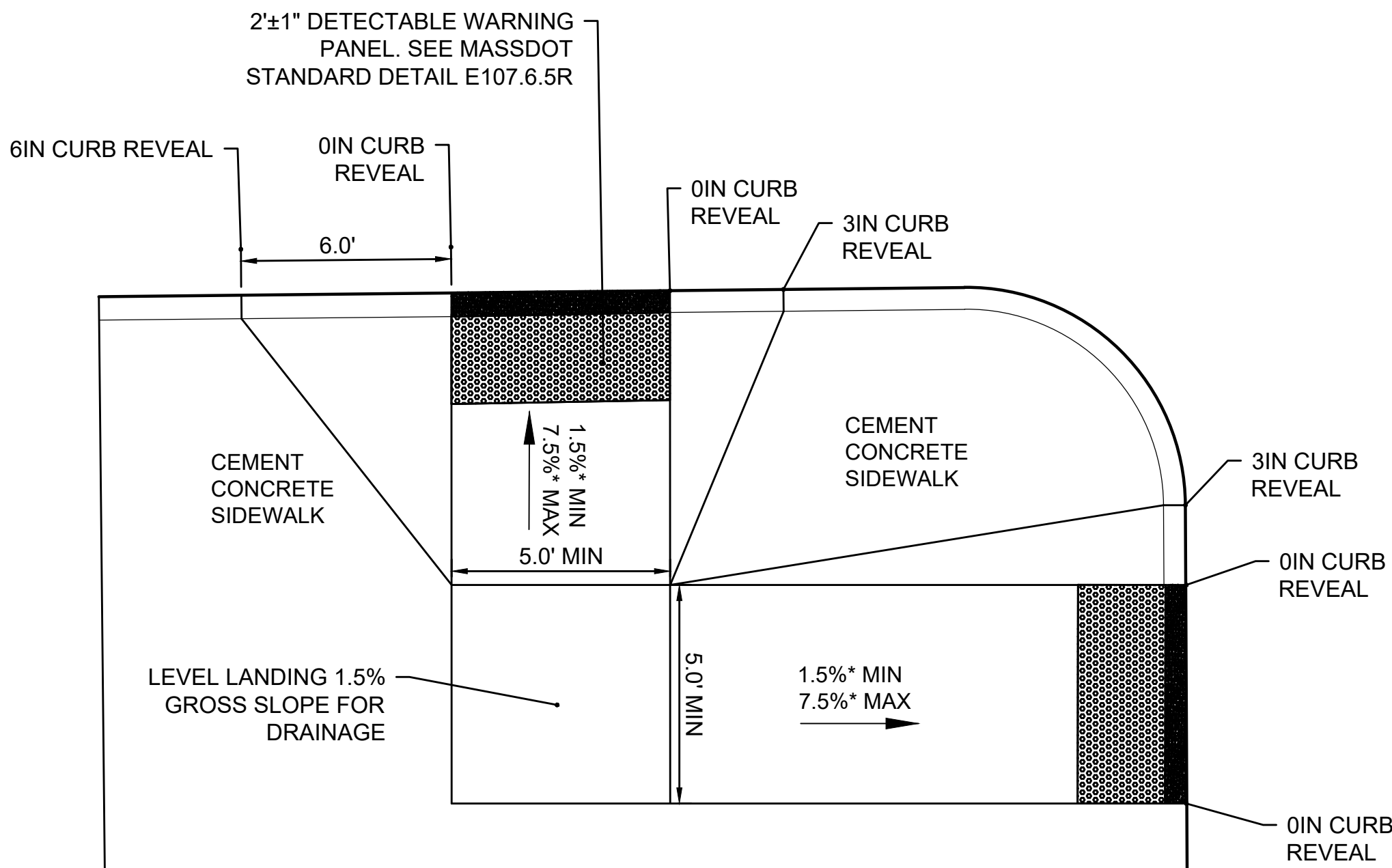
N.T.S.

PCR #	ALIGNMENT	RAMP REFERENCE POINT		LENGTH OF PRIMARY RAMP (W ₁)	DEPTH OF LEVEL LANDING (MIN 4.00')	WIDTH OF SIDEWALK (W)	WIDTH OF RAMP (MIN 5.00')	ROADWAY GUTTER SLOPE (%)	TRANSITION LENGTH	
		STATION	OFFSET						LEFT	RIGHT
6	SALEM STREET	23+60	16.50' RT	12.00'	4.00'	9.80'	5.00'	0.20%	7.67'	-



PEDESTRIAN CURB RAMP DETAIL:
PROP CEM CONC PCR #2 & #3

N.T.S.



HMA PARKING LOT

PEDESTRIAN CURB RAMP DETAIL:
PROP CEM CONC PCR #5

N.T.S.



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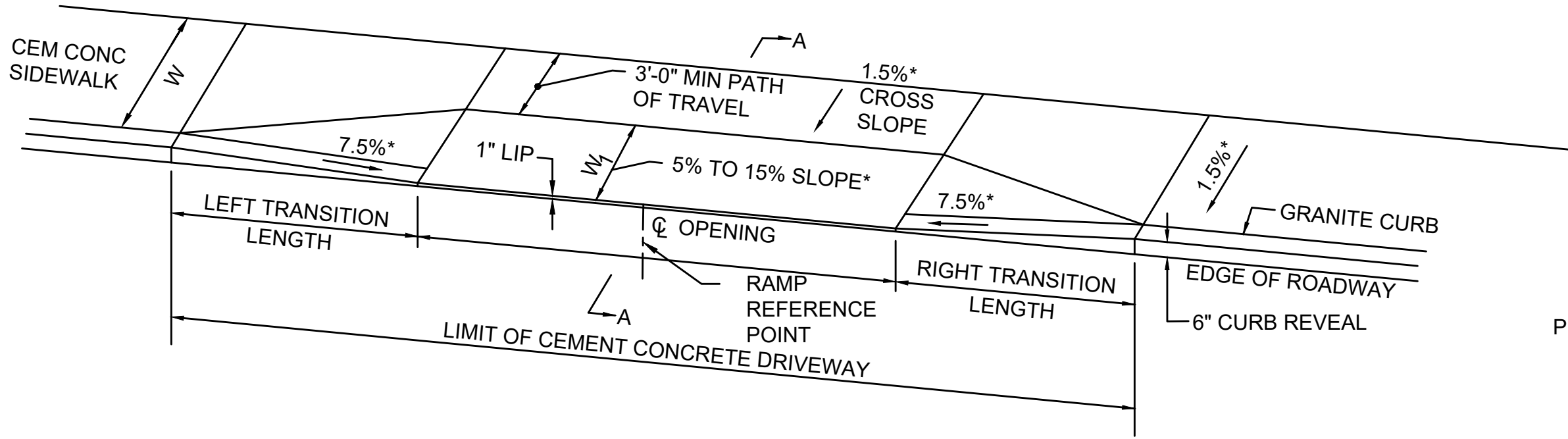
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HAINES SQUARE
MEDFORD, MA

PEDESTRIAN CURB RAMP DETAILS - 02

Sheet No.

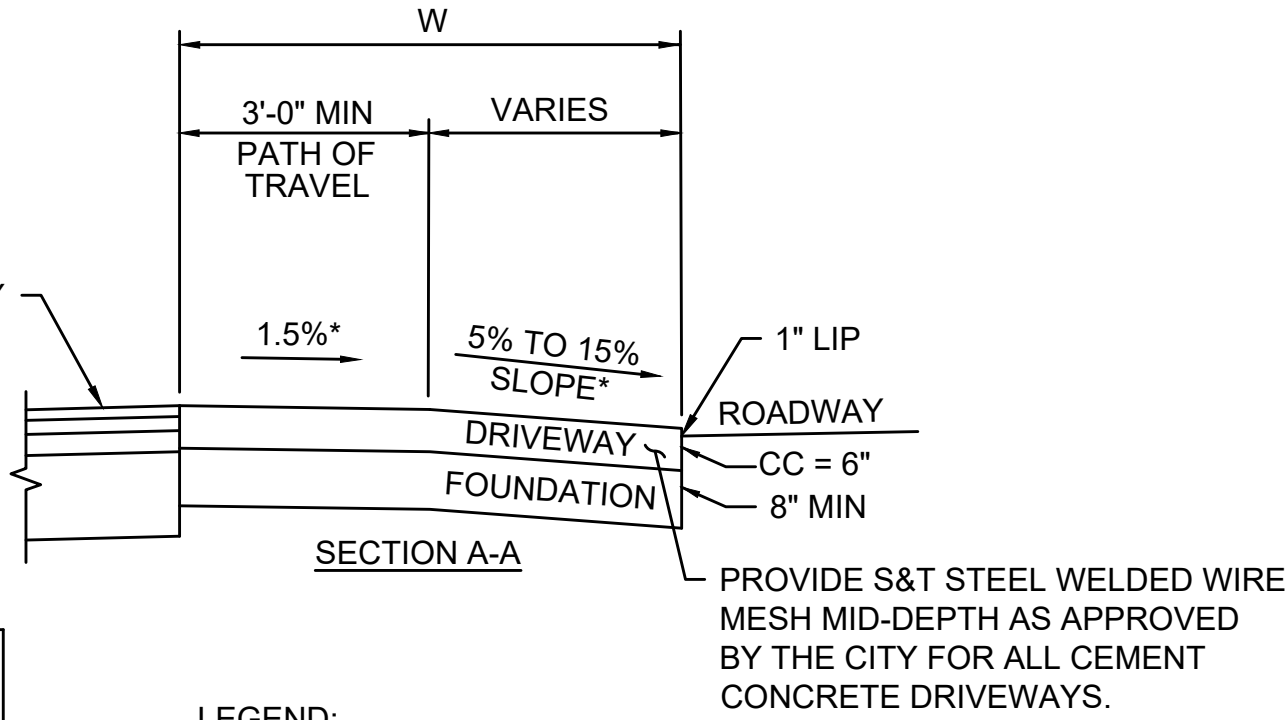
17



SIDEWALK THROUGH DRIVEWAYS WITHOUT CURB RETURNS

N.T.S.

DWY#	ALIGNMENT	DWY REFERENCE POINT		LENGTH OF PRIMARY RAMP (W _r)	PATH OF TRAVEL (MIN 3.00')	SIDEWALK WIDTH (W)	WIDTH OF DRIVEWAY RAMP (A)	ROADWAY GUTTER SLOPE (%)	TRANSITION LENGTH	
		STATION	OFFSET						LEFT	RIGHT
1	SALEM STREET	22+50	14.00' RT	3.00'	3.00'	6.00'	25.00'	0.40%	6.50'	7.67'
2	SPRING STREET	5+55	20.00' LT	3.00'	3.00'	6.00'	30.00'	0.30%	7.67'	6.50'



LEGEND:

HSL HIGH SIDE FRONT TRANSITION LENGTH (SEE E 107.9.0)

W SIDEWALK WIDTH

CC CEMENT CONCRETE

HMA HOT MIX ASPHALT

* TOLERANCE FOR CONSTRUCTION ±0.5%

NOTES:

- SEE CONSTRUCTION STANDARD E107.7.0
- * CONSTRUCTION TOLERANCE ±0.5%
- ** TRANSITION CURB LENGTH (FOR HIGH SIDE TRANSITION LENGTH, SEE MASSDOT STANDARD DETAIL E107.9.0. FOR LOW SIDE TRANSITION LENGTH = 6'6" UNLESS OTHERWISE DEPICTED ON PLAN.
- FINAL TRANSITION LENGTHS TO BE SET IN THE FIELD BASED ON ACTUAL FIELD CONDITIONS AT THE DIRECTION OF THE CITY AND OR ENGINEER



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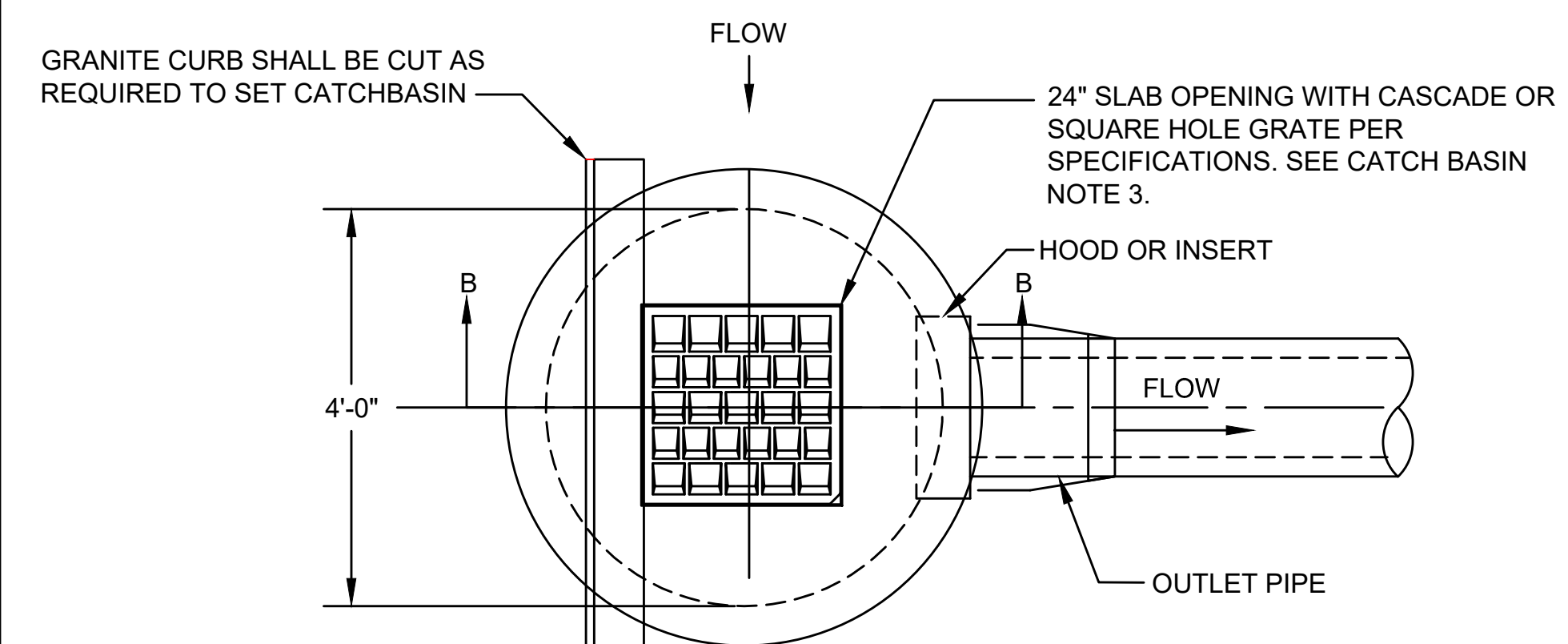
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COMPLETE STREETS IMPLEMENTATION
HAINES SQUARE
MEDFORD, MA

DRIVEWAY DETAILS

Sheet No.

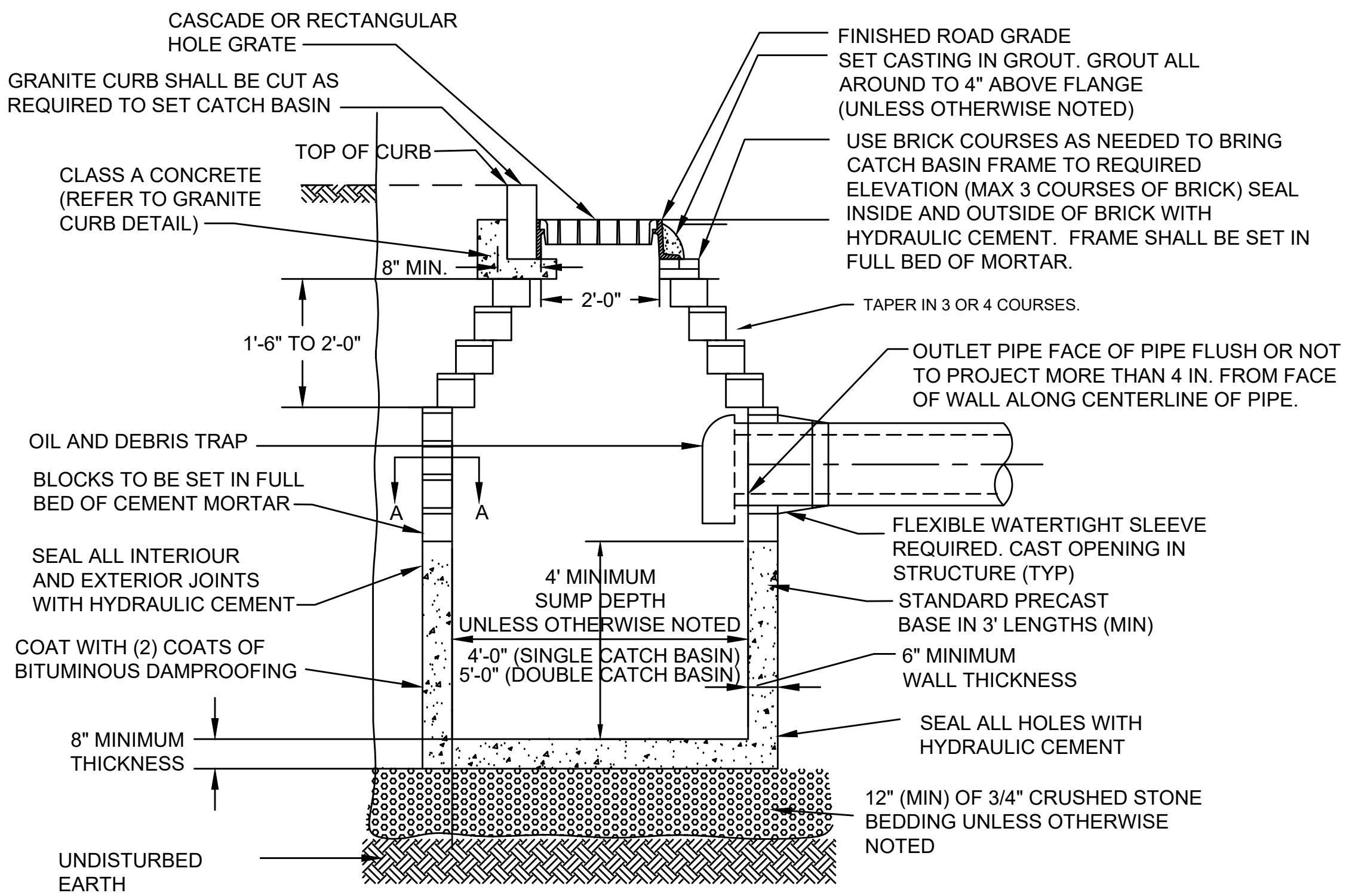
18



SINGLE CATCH BASIN PLAN VIEW

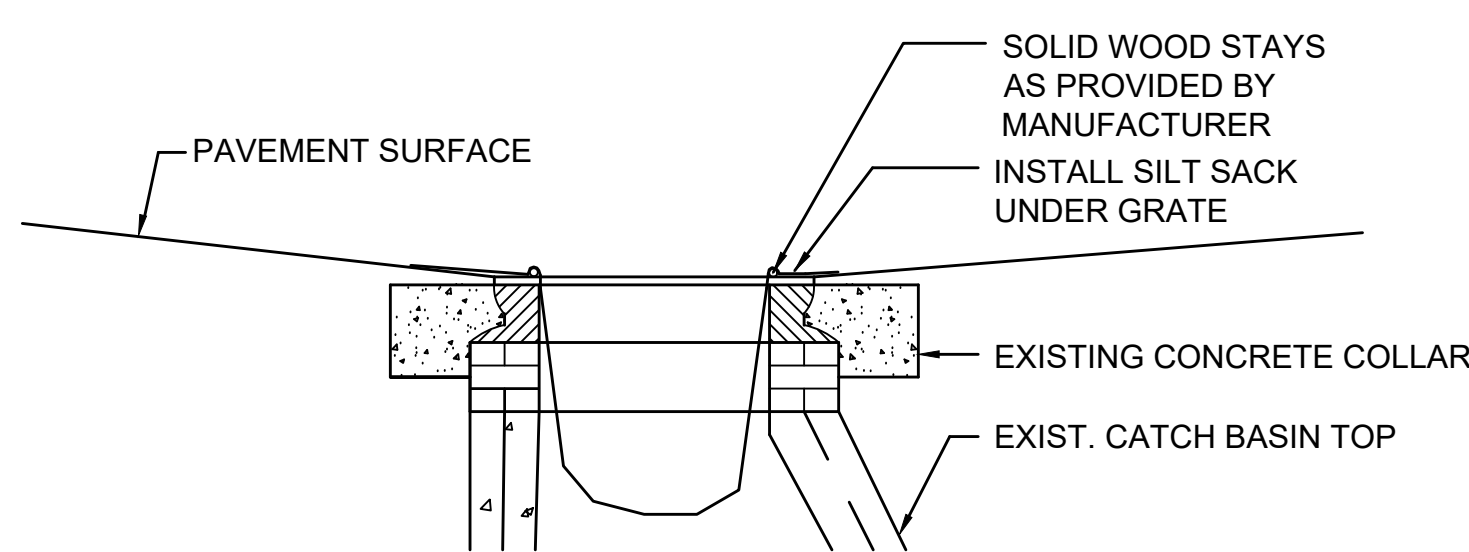
NOTES:

- 1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
- 2. REINFORCED STEEL TO CONFORM TO LATEST ASTM A185 SPEC.
- 3. H-20 LOADING PER AASHTO HS-20-44; ASTM C478 SPEC. FOR "PRECAST REINFORCED CONCRETE MANHOLE SECTIONS".
- 4. FRAME SHALL BE 3 FLANGE WHERE GRANITE GUTTER INLET IS CALLED OUT ON THE PLAN AND PROFILE SHEETS. OTHERWISE, 4 FLANGE FRAME SHALL BE USED.
- 5. GRATE SHALL BE SQUARE HOLE GRATE UNLESS OTHERWISE SPECIFIED ON THE PLAN AND PROFILE SHEETS.



PRECAST/BLOCK CATCH BASIN SECTION VIEW

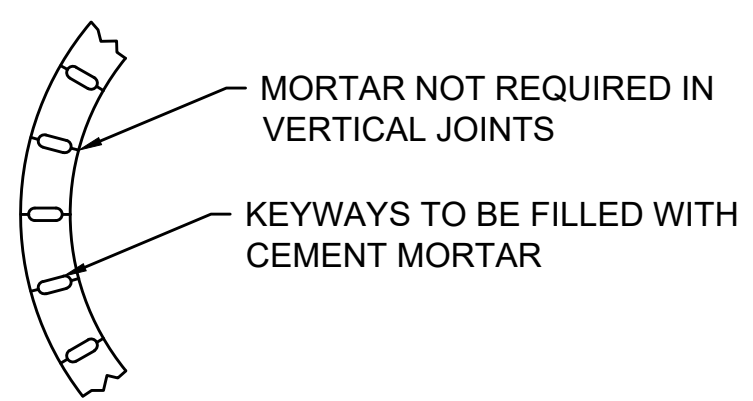
N.T.S.



- NOTES:
- 1. REMOVE ACCUMULATED SEDIMENTS AS REQUIRED TO MAINTAIN DRAINAGE.
 - 2. INSPECT FABRIC EVERY WEEK DURING CONSTRUCTION.

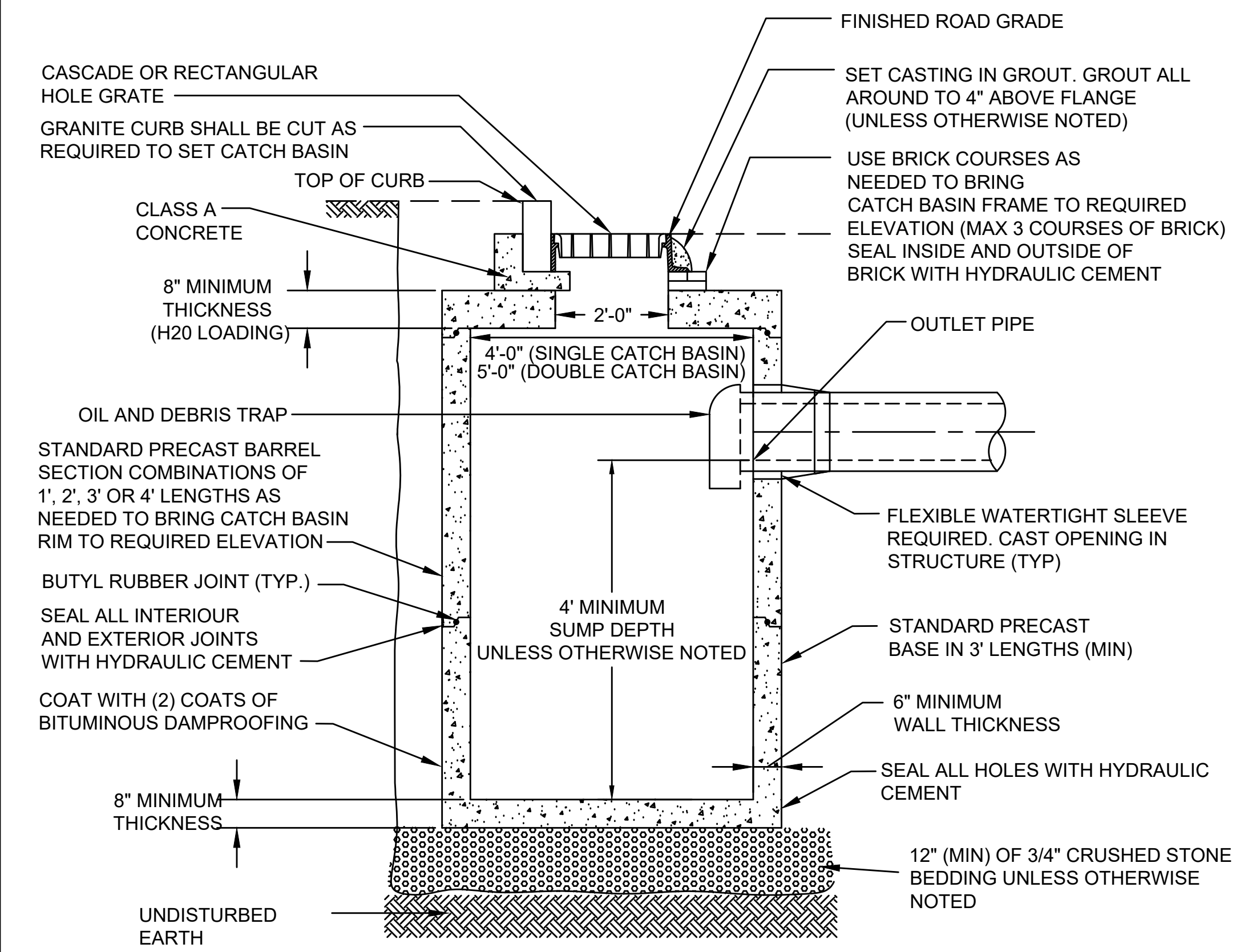
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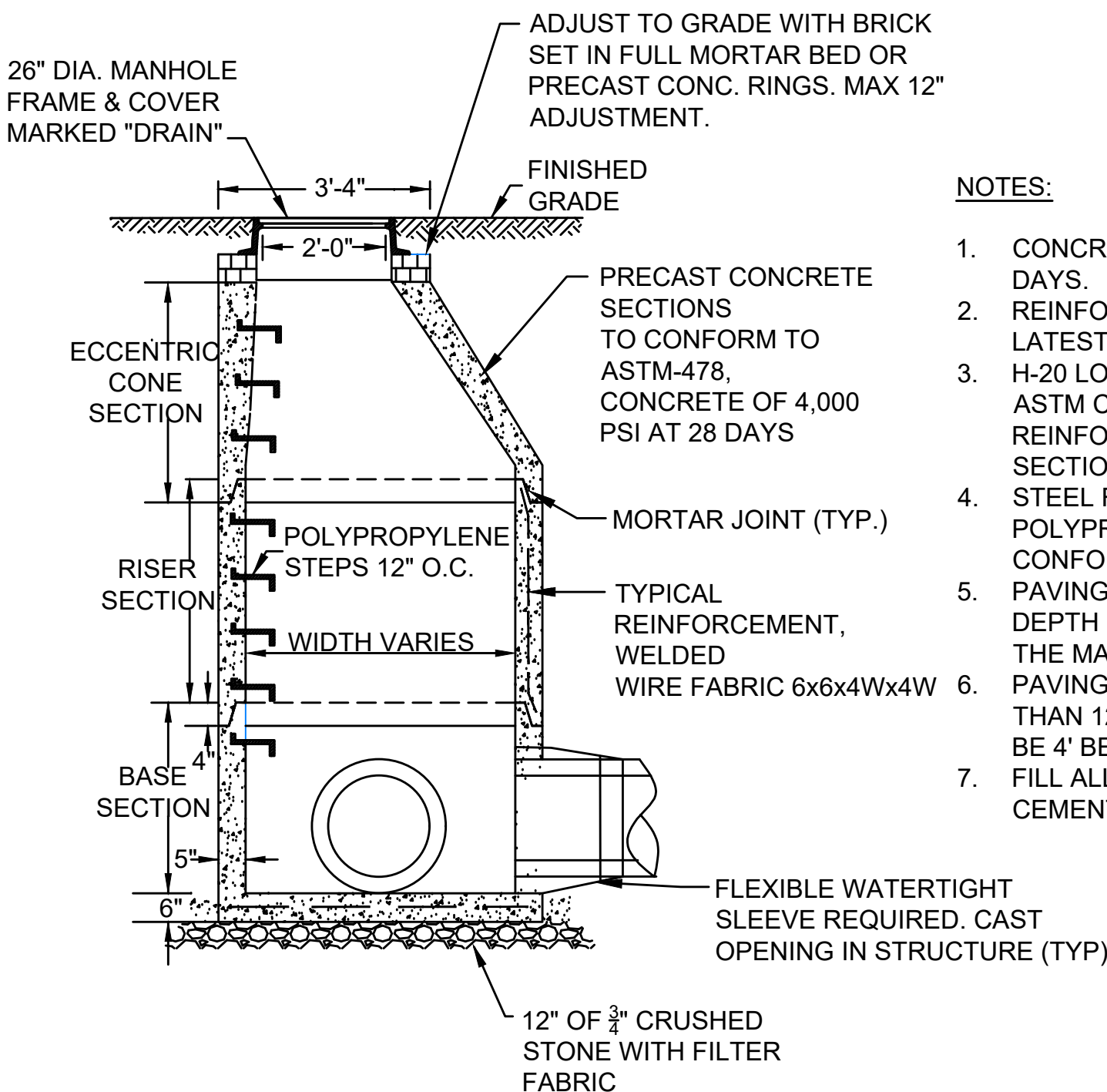
BLOCK CATCH BASIN WALL CROSS SECTION (A-A)

N.T.S.



PRECAST CONCRETE DEEP SUMP SINGLE CATCH BASIN

N.T.S.

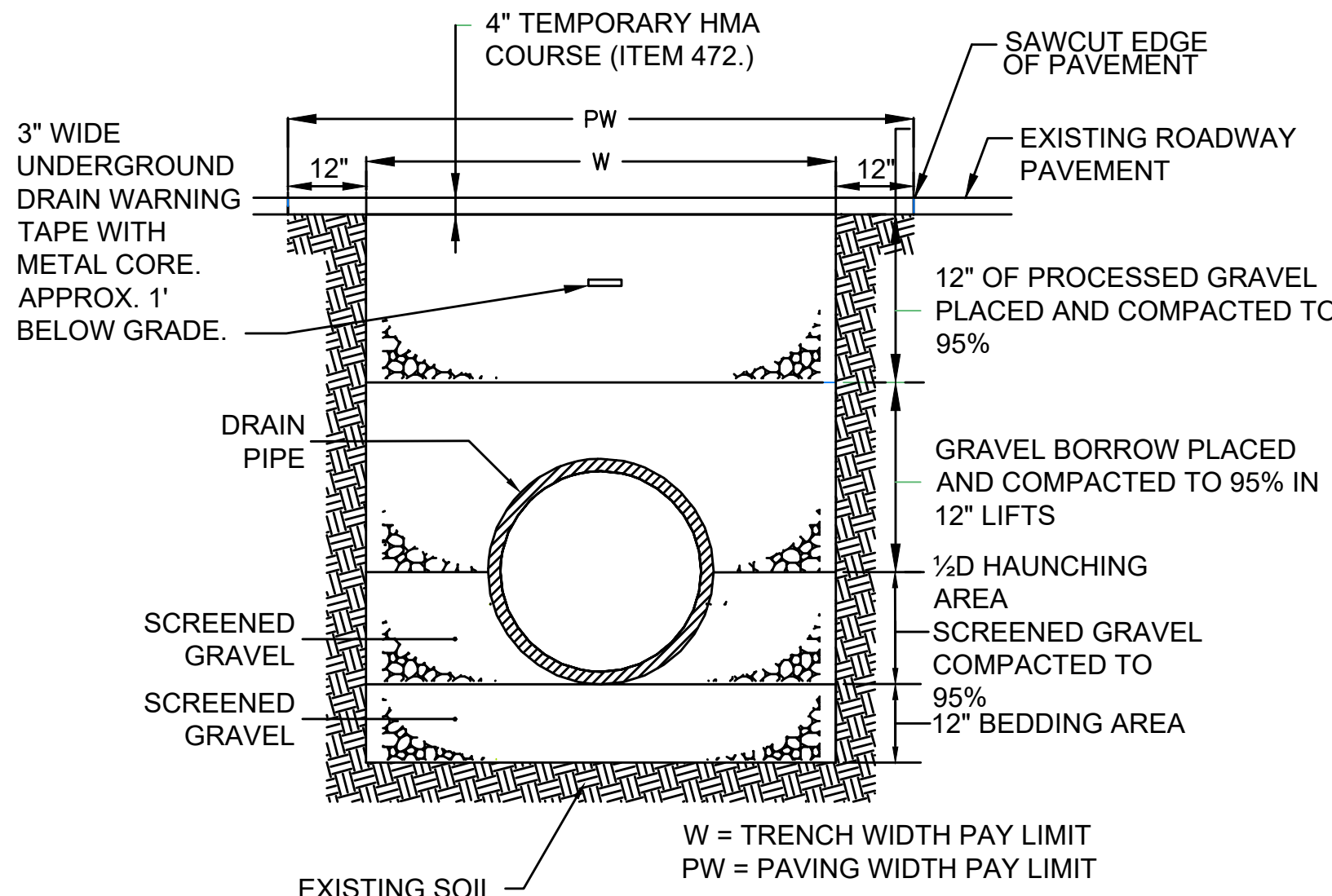


PRECAST CONCRETE DRAIN MANHOLE

N.T.S.

NOTES:

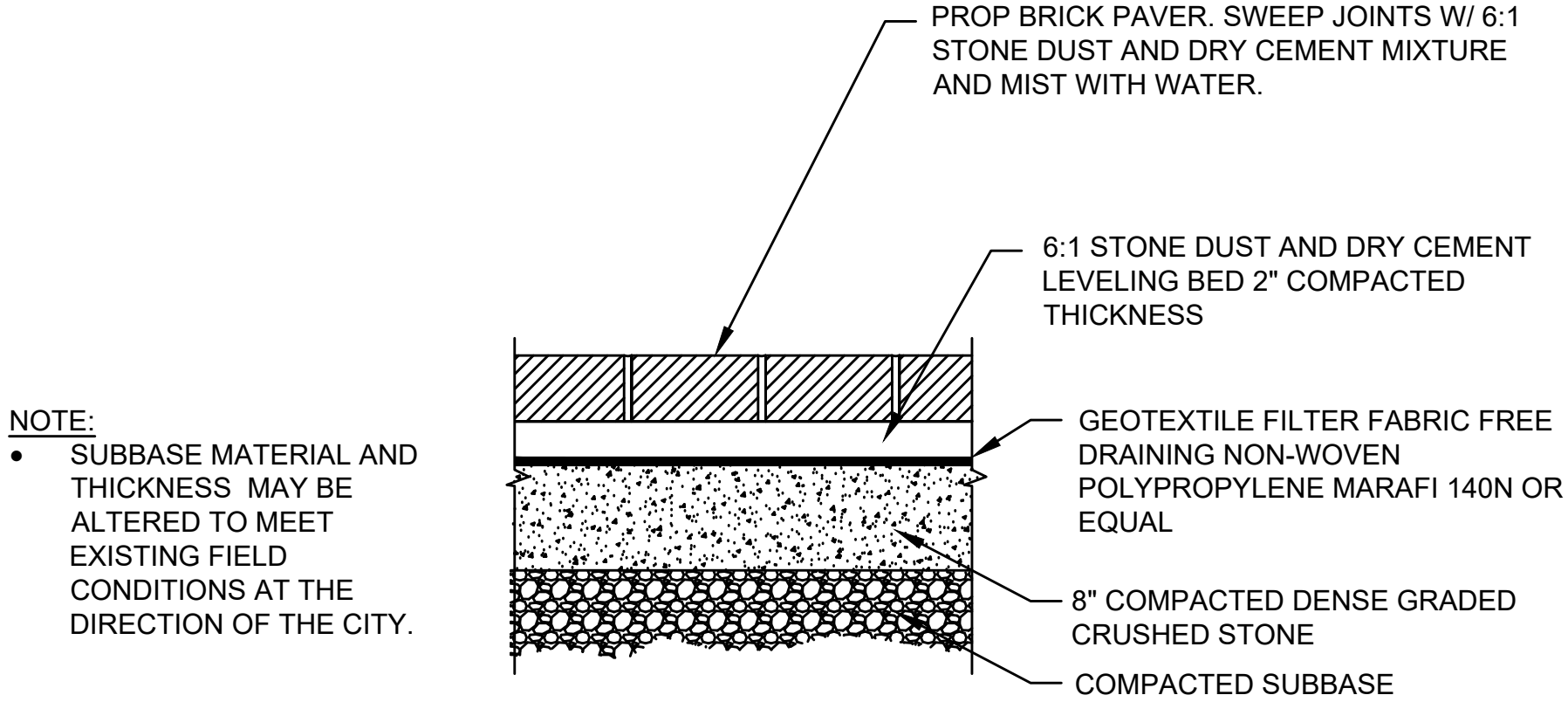
- 1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
- 2. REINFORCED STEEL TO CONFORM TO LATEST ASTM A185 SPEC.
- 3. H-20 LOADING PER AASHTO HS-20-44; ASTM C478 SPEC. FOR "PRECAST REINFORCED CONCRETE MANHOLE SECTIONS".
- 4. STEEL REINFORCED COPOLYMER POLYPROPYLENE PLASTIC STEP TO CONFORM TO LATEST ASTM C478 SPEC.
- 5. PAVING LIMIT FOR MANHOLES 0-12' IN DEPTH SHALL BE 3' BEYOND THE ID OF THE MANHOLE.
- 6. PAVING LIMIT FOR MANHOLES GREATER THAN 12' AND UP TO 18' IN DEPTH SHALL BE 4' BEYOND THE ID OF THE MANHOLE.
- 7. FILL ALL LIFTING HOLES WITH HYDRAULIC CEMENT (NON-SHRINK) MORTAR.



DRAIN PIPE TRENCH DETAIL

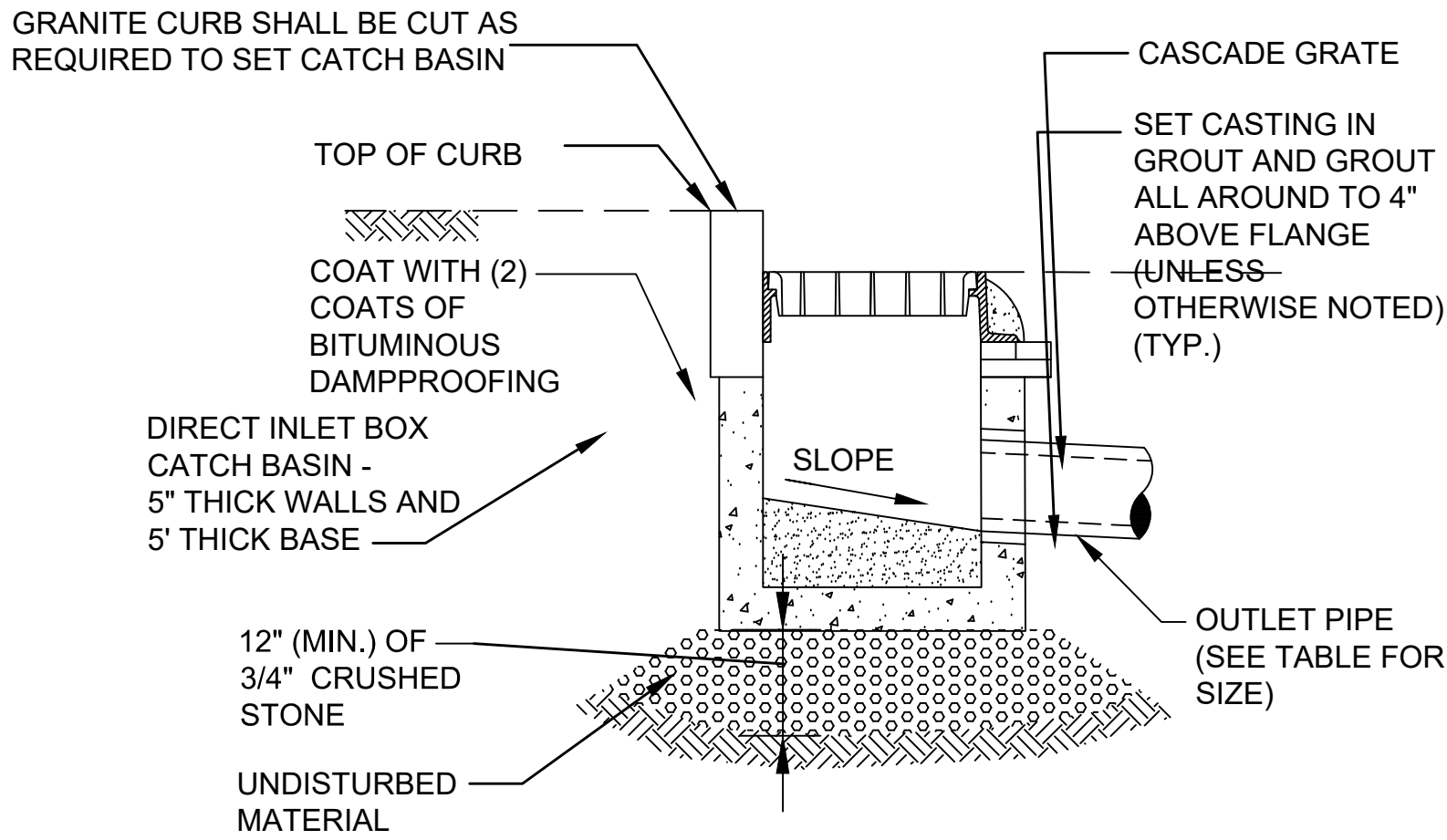
N.T.S.

TRENCH DEPTH	W	PW
DEPTH < 5'	4'	6'
DEPTH > 5'	5'	7'

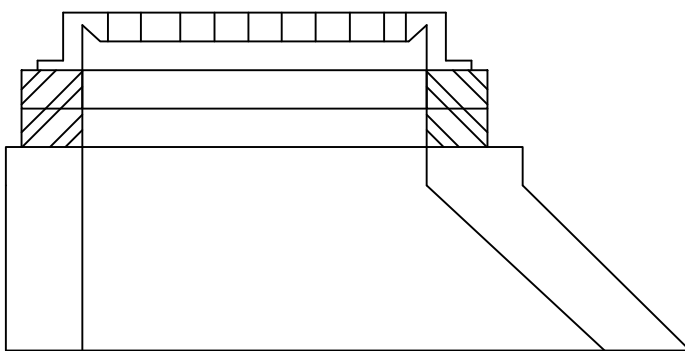


NOTE:
• SUBBASE MATERIAL AND THICKNESS MAY BE ALTERED TO MEET EXISTING FIELD CONDITIONS AT THE DIRECTION OF THE CITY.

BRICK PAVER DETAIL
N.T.S.

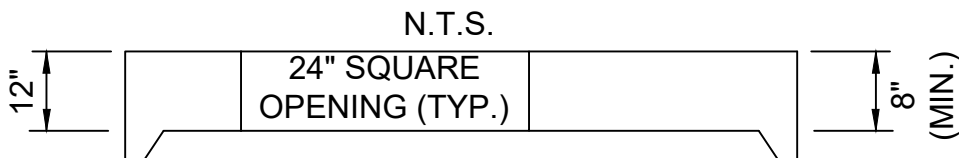


PRECAST CONCRETE GUTTER INLET
N.T.S

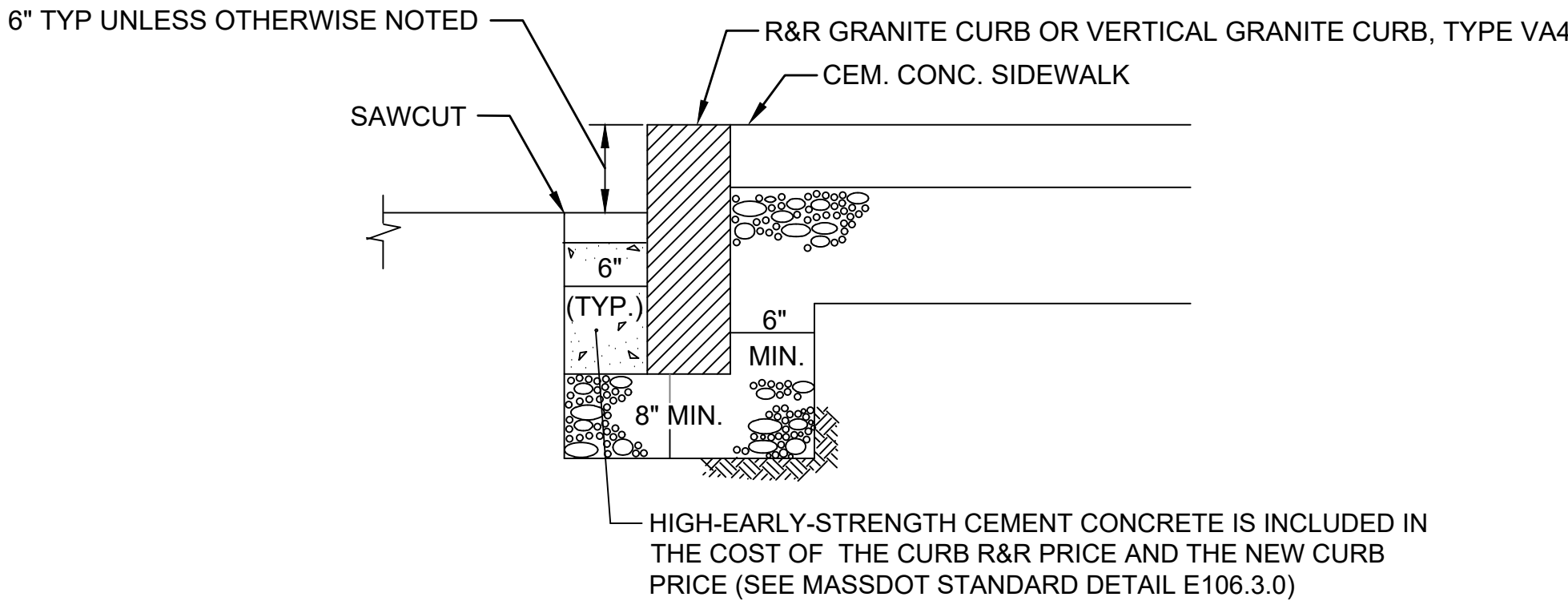


NOTES:
1. BASED ON ACTUAL, FIELD CONDITIONS; THE CONTRACTOR SHALL DETERMINE WHICH STYLE OF TOP SECTION SHOULD BE USED

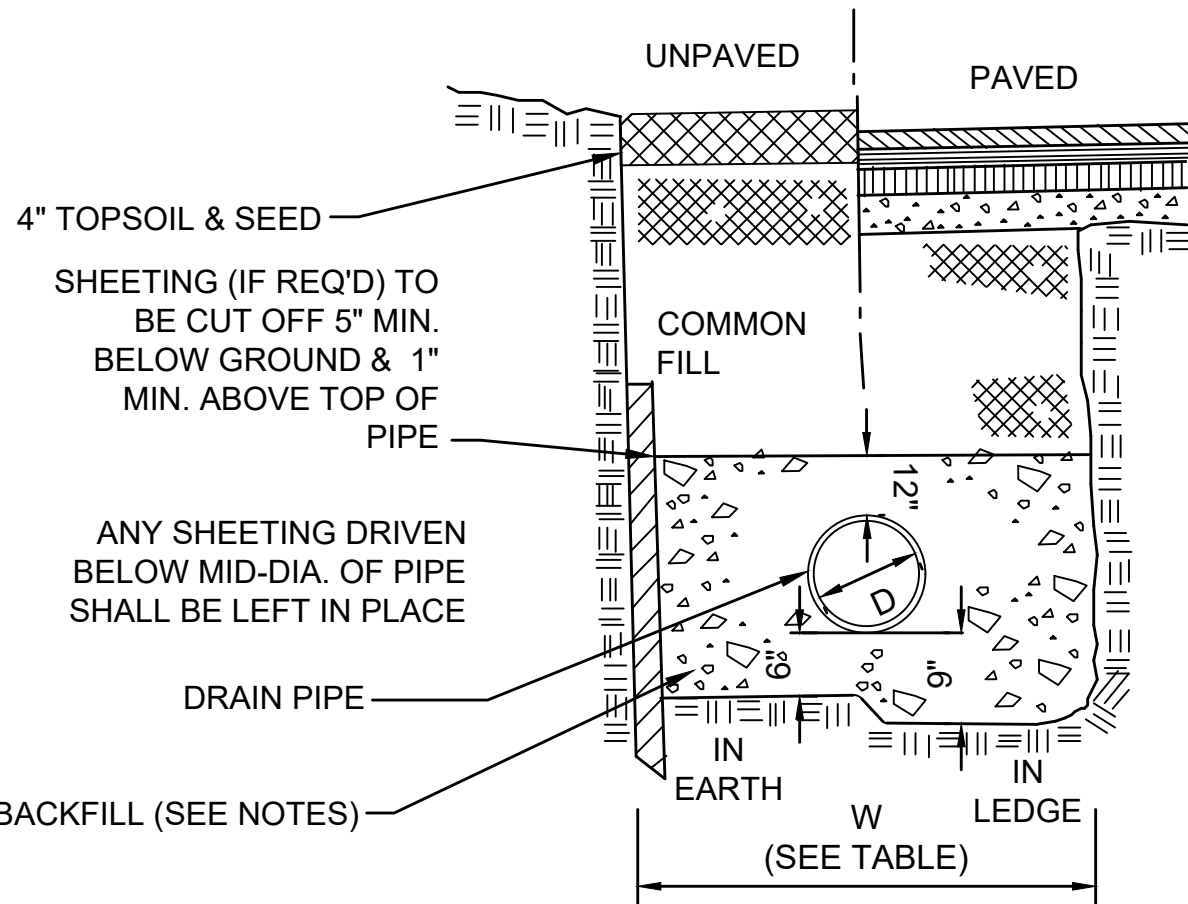
ALTERNATIVE ECCENTRIC CONE SECTION



ALTERNATIVE TOP SLAB
N.T.S.



METHOD OF SETTING GRANITE CURB IN EXISTING ROADWAY
FOR MILLING AND RESURFACING AREAS
N.T.S.



PERMANENT HMA TRENCH PATCH (SEE PAVEMENT NOTES SHEET 4)

NOTES:
1. COMMON FILL MATERIAL TO CONSIST OF GRANULAR MATERIAL CONTAINING NO STONES LARGER THAN 6" IN GREATEST DIMENSION.
2. BACKFILL WITH SELECT MATERIAL CONTAINING NO STONES LARGER THAN 3" IN GREATEST DIMENSION TO 12" OVER PIPE FOR SEWER AND DRAIN PIPES.
3. PROVIDE SCREENED GRAVEL BEDDING TO MID PIPE DIAMETER WHERE GROUNDWATER IS ENCOUNTERED AS DIRECTED BY THE ENGINEER.
4. REMOVE UNSUITABLE MATERIAL BELOW GRADE IF ENCOUNTERED, TO SUITABLE DEPTHS AS DIRECTED BY ENGINEER AND REPLACE WITH CLEAN GRANULAR FILL.
5. PAYMENT FOR HMA PERMANENT TRENCH PATCHING SHALL BE PAID FOR UNDER ITEM 451. HMA FOR PATCHING
6. PAYMENT FOR HMA TEMPORARY TRENCH PATCHING SHALL BE PAID FOR UNDER ITEM 472. HMA FOR MISCELLANEOUS WORK

TRENCH WIDTH	
D DIAMETER OF PIPE	W
TO 12"	4'
14" TO 24"	5'
30" TO 36"	6'

NOTES:
1. ALL TRENCH CONSTRUCTION TO CONFORM TO APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS.
2. COMPACT FILL AND TAMP PIPE TO 93% MAX. DENSITY UNLESS OTHERWISE SPECIFIED.

PERMANENT TRENCH PATCH
N.T.S.



ENVIRONMENTAL
PARTNERS
— An Apex Company —

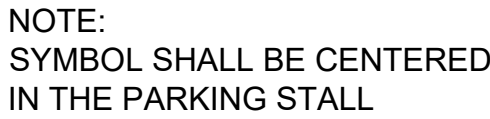
			Scale	AS NOTED
			Date	JUNE 2022
			Job No.	301-1901
			Designed by	JRC
			Drawn by	JRC
			Checked by	BLH
			Approved by	JDF
MARK	DATE	DESCRIPTION		

THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

COMPLETE STREETS IMPLEMENTATION
HAINES SQUARE
MEDFORD, MA

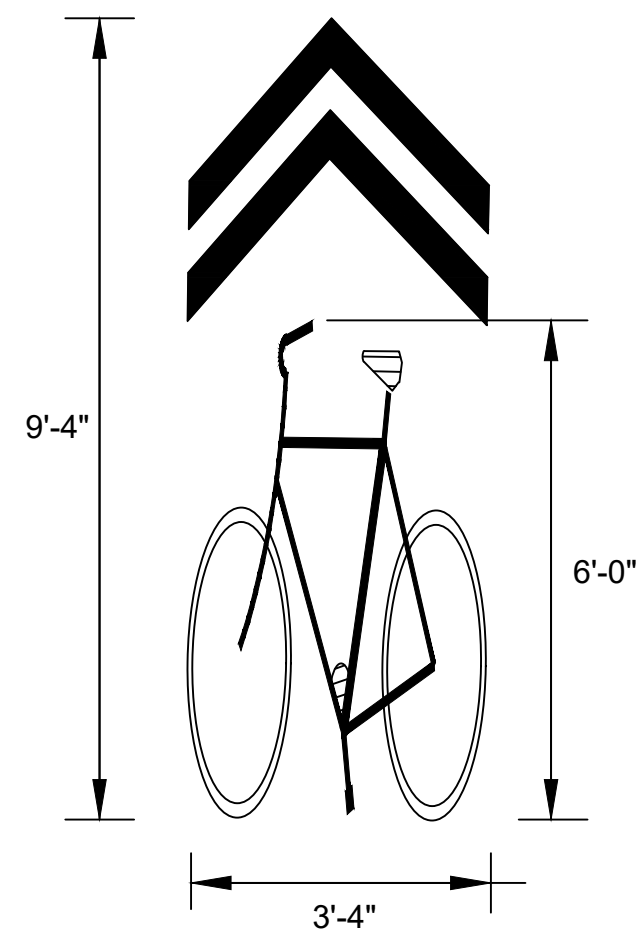
CONSTRUCTION DETAILS - 02

Sheet No.



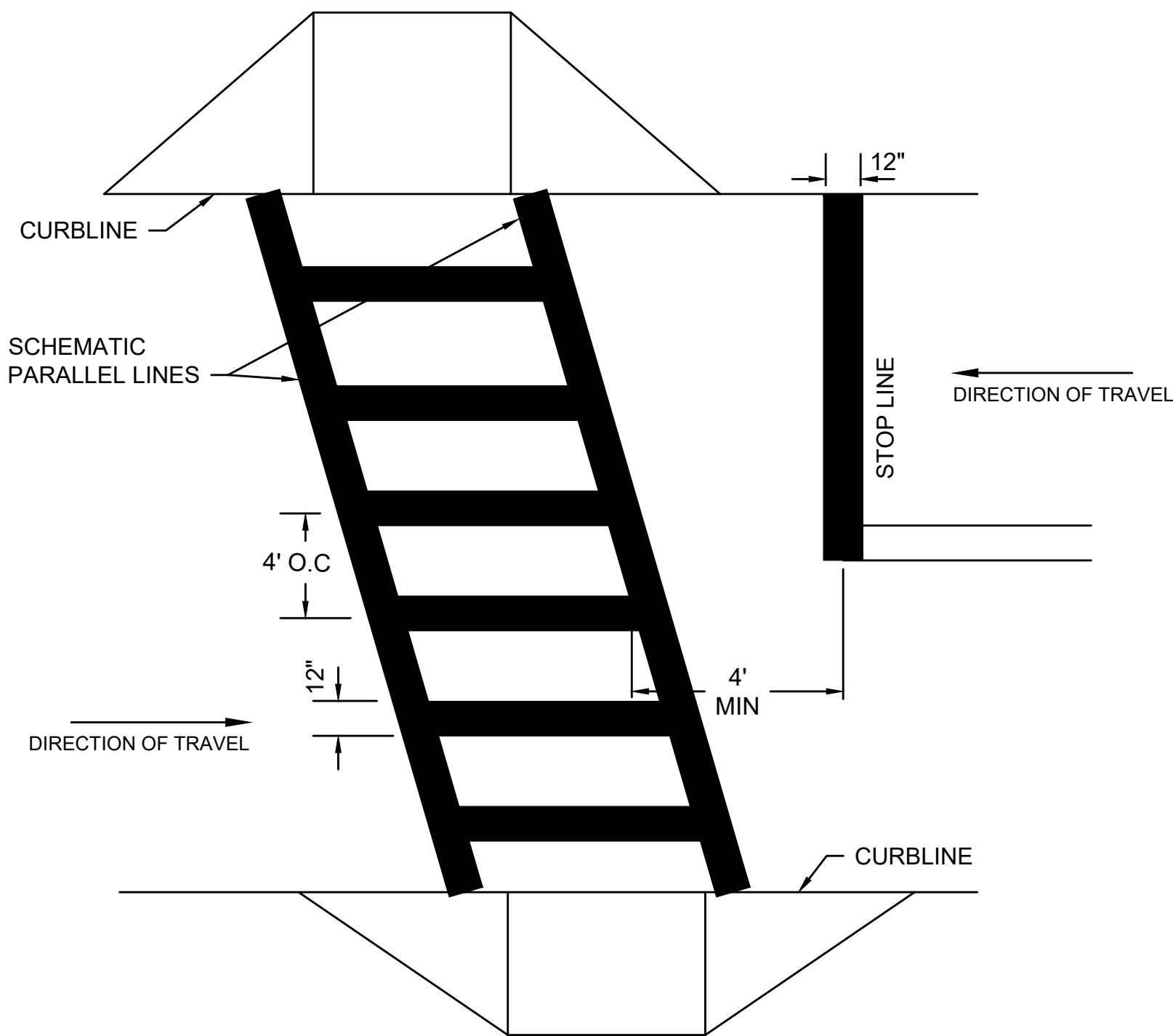
HANDICAPPED PARKING STALL SYMBOL

N.T.S.



SHARED LANE MARKINGS

N.T.S.



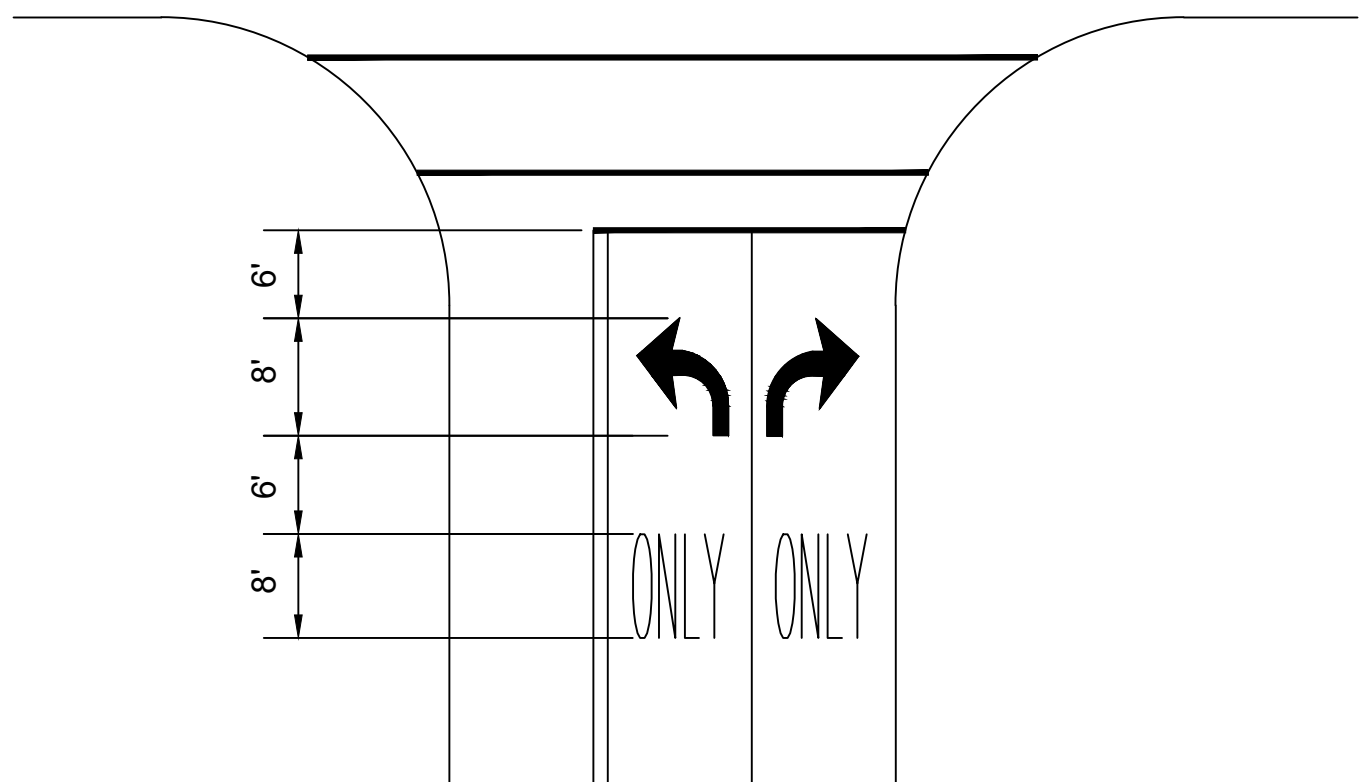
8' WIDE CROSSWALK WITH 12" WIDE LINES

N.T.S.

- NOTES:
1. ALL EXISTING CROSSWALK MARKINGS SHALL BE FULLY ERADICATED BY APPROVED METHOD PRIOR TO THE APPLICATION OF PROPOSED MARKINGS.
 2. ALL 12" LINES SHALL BE APPLIED IN ONE APPLICATION, NO COMBINATION OF LINES (TWO - 6" LINES) WILL BE ACCEPTED.
 3. LAYOUT OF CROSSWALKS SHALL BE ORIENTATED IN THE DIRECTION OF TRAVEL. LAYOUT SHALL BE APPROVED BY THE TOWN AND/OR ENGINEER PRIOR TO APPLICATION.
 4. ALL CROSSWALKS INSTALLED SHALL CONFORM TO THE RELEVANT PROVISIONS OF THE COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES DATED 2022, SECTION 860 FOR REFLECTORIZED LINE & MATERIAL M7.01.03.



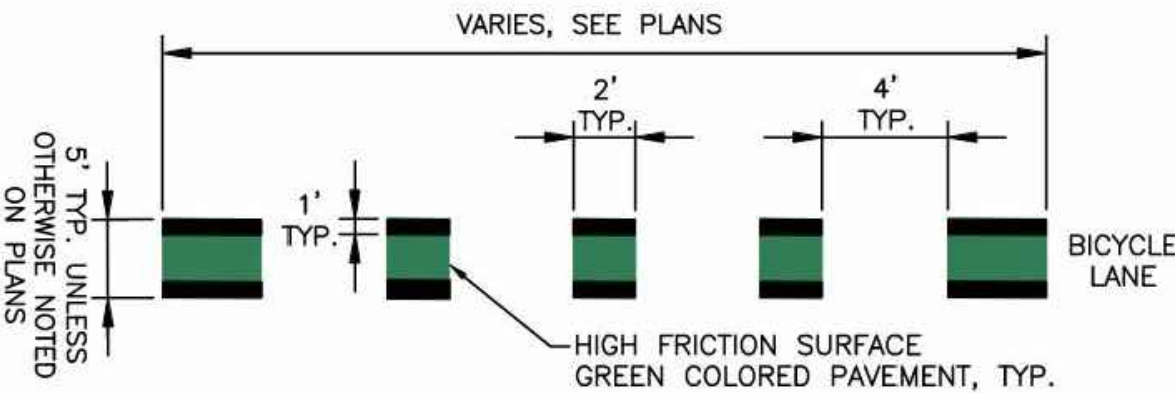
N.T.S.



TYPICAL PAVEMENT MARKING ARROW/LEGEND LAYOUT

N.T.S.

- BIKECROSS NOTES:
1. HIGH FRICTION GREEN COLORED PAVEMENT IS USED WHERE MOTOR VEHICLE TRAFFIC CAN TURN RIGHT ACROSS THE BICYCLE LANE. SEE PLANS FOR LOCATIONS.
 2. INSTALL HIGH FRICTION GREEN COLORED PAVEMENT BETWEEN 2' DOTTED WHITE LANE LINES AS SHOWN ON PLANS.
 3. INSTALL HIGH FRICTION GREEN COLORED PAVEMENT SO THAT CROSSWALK MARKINGS ARE NOT DISTURBED.
 4. TRAVEL LANE WIDTHS ARE AS SHOWN ON PLANS.



HIGH FRICTION SURFACE GREEN COLORED BIKE CROSSING PAVEMENT MARKING

N.T.S.



			Scale	AS NOTED
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			Drawn by	JRC
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MARK	DATE	DESCRIPTION	Approved by	JDF

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SCALE ON A 22" X
34" DRAWING

COMPLETE STREETS IMPLEMENTATION HAINES SQUARE MEDFORD, MA

CONSTRUCTION DETAILS - 03

Sheet No.

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