MASSACHUSETTS DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION

QUINCY ADAMS GREEN TRANSPORTATION IMPROVEMENTS			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	1	123
PROJECT FILE NO.	606235		

TITLE SHEET & INDEX

75% DESIGN PLAN AND PROFILE OF

ADAMS GREEN TRANSPORTATION IMPROVEMENTS

IN THE CITY OF

QUINCY

NORFOLK COUNTY

FEDERAL AID PROJECT NO.

THE MASSACHUSETTS HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES DATED 1988, AS AMENDED, THE SUPPLEMENTAL SPECIFICATIONS DATED DATED JUNE 15, 2012, THE MARCH 2012 CONSTRUCTION STANDARD DETAILS, THE 1996 CONSTRUCTION AND TRAFFIC STANDARD DETAILS (AS RELATES TO TRAFFIC STANDARD DETAILS ONLY), THE 2009 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.

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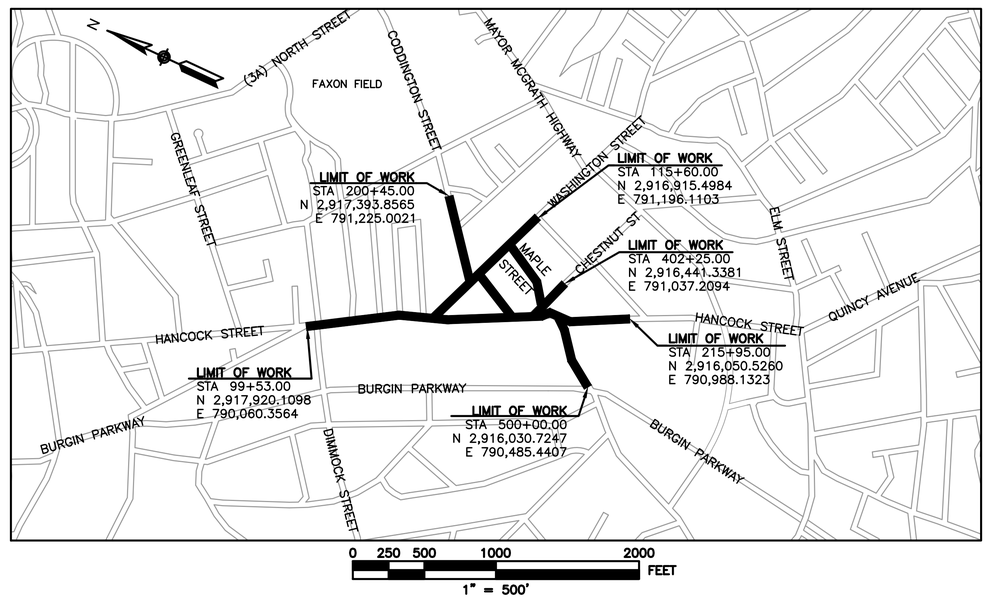

DESIGN DESIGNATION

HANCOCK STREET

DESIGN SPEED	=	30 miles/hr
ADT (CURRENT)	=	24,322
ADT (DESIGN YEAR)	=	25,566
K	=	8.3%
D	=	50.0%
T (PEAK HOUR)	=	2.7%
DHV	=	2,123
DDHV	=	1,061
FUNC CLASS	=	URBAN PRINCIPAL ARTERIAL

WASHINGTON STREET

DESIGN SPEED	=	30 miles/hr
ADT (CURRENT)	=	12,192
ADT (DESIGN YEAR)	=	14,564
K	=	8.3%
D	=	53.0%
T (PEAK HOUR)	=	3.3%
DHV	=	1,214
DDHV	=	643
FUNC CLASS	=	URBAN PRINCIPAL ARTERIAL

TEMPLE STREET

DESIGN SPEED	=	30 miles/hr
ADT (CURRENT)	=	13,196
ADT (DESIGN YEAR)	=	15,789
K	=	8.7%
D	=	51.1%
T (PEAK HOUR)	=	1.7%
DHV	=	1,376
DDHV	=	703
FUNC CLASS	=	URBAN PRINCIPAL ARTERIAL

GRANITE STREET

DESIGN SPEED	=	30 miles/hr
ADT (CURRENT)	=	17,077
ADT (DESIGN YEAR)	=	11,895
K	=	8.3%
D	=	68.3%
T (PEAK HOUR)	=	1.7%
DHV	=	984
DDHV	=	672
FUNC CLASS	=	URBAN PRINCIPAL ARTERIAL

CONVENTIONAL SIGNS

COUNTY, CITY, OR TOWN BOUNDARY.....

COUNTY, CITY, OR TOWN SIDE LINE.....

FENCE LINE.....

BASE LINE OR SURVEY LINE..... N 57°18'41" 'E 58.57' 75

RIGHT OF WAY LINE.....

CULVERT.....

PROPOSED SURFACE

EXISTING SURFACE

PRES. SURF. 1 PROP. SURF. PROP.

75

ELEVATIONS.....

UTILITY POLE.....

NOTE:

LENGTH OF PROJECT = 5,234.90 FEET= 0.99 MILES

DATE	DESCRIPTION	REV #
8/2012	75% HIGHWAY DESIGN PLANS	1
4/2012	25% HIGHWAY DESIGN PLANS	1

Howard/Stein-Hudson Associates, Inc.
38 Chauncy St., 9th Floor
Boston, MA 02111
617.482.7080

HALVORSON DESIGN PARTNERSHIP

ToolеDesignGroup

RECOMMENDED FOR APPROVAL

CHIEF ENGINEER DATE

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED:

HIGHWAY ADMINISTRATOR DATE

APPROVED

HIGHWAY ADMINISTRATOR DATE

606235(25%)HD(COVER).DWG 31-Aug-2012

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GENERAL NOTES

SURVEY

1. ALL UNDERGROUND UTILITIES AS SHOWN WERE COMPILED UTILIZING STATE FIELDBOOK, NUMBER 41198 AND 41199, SURVEY INFORMATION AND AVAILABLE RECORD INFORMATION PROVIDED BY A-PLUS CONSTRUCTION SERVICES CORPORATION ON THE PLAN ENTITLED EXISTING CONDITIONS PLAN QUINCY CENTER AREA, DATED DECEMBER 2011.

2. THE ACCURACY AND COMPLETENESS OF UNDERGROUND UTILITIES AS SHOWN ON THE PLANS ARE NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE EXACT LOCATION, SIZE, TYPE, ETC. OF ALL UNDERGROUND UTILITIES THAT MAY BE AFFECTED BY THE WORK. AT LEAST 72 HOURS BEFORE DIGGING BEGINS THE CONTRACTOR IS REQUIRED TO CALL DIG SAFE AT (888)344-7233. ALL CITY OWNED UTILITY STRUCTURES WITHIN AREAS AFFECTED BY THE WORK SHALL BE ADJUSTED TO NEW LINE AND GRADE AS DIRECTED BY THE ENGINEER. ANY UTILITY POLES AND/OR GUY POLES WITHIN AREAS AFFECTED BY THE WORK SHALL BE REMOVED AND RESET BY THE RESPECTIVE UTILITY COMPANY. ALTERATIONS TO UTILITIES NOT OWNED BY THE CITY SHALL BE MADE BY THE RESPECTIVE UTILITY OWNERS.

3. THE CONTRACTOR SHALL FIELD VERIFY CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION.

4. ALL EXISTING PROPERTY LINES HAVE BEEN ESTABLISHED FROM AVAILABLE INFORMATION AND THEIR EXACT LOCATIONS ARE NOT GUARANTEED.

5. ELEVATIONS SHOWN REFER TO NAVD 88 VERTICAL DATUM. THE COORDINATE INFORMATION INCLUDED ON THESE PLANS IS BASED UPON MASSACHUSETTS GRID SYSTEM, NAD 1983, AS DERIVED FROM GPS CONTROL COORDINATES PROVIDED BY THE MASSDOT HIGHWAY DEPARTMENT SURVEY SECTION, FIELDBOOK NUMBER 40756.

6. BENCHMARK INFORMATION:
   SEE CONSTRUCTION BASELINE TIES SHEET 12-17 FOR BENCHMARK INFORMATION AND LOCATIONS.

   TEMPORARY BENCHMARKS SET:

TBM #1 (DRILL HOLE) ELEV = 39.87	TBM #7 (DRILL HOLE) ELEV = 34.90
TBM #2 (DRILL HOLE) ELEV = 38.28	TBM #8 (DRILL HOLE) ELEV = 35.14
TBM #3 (DRILL HOLE) ELEV = 37.46	TBM #9 (DRILL HOLE) ELEV = 33.08
TBM #4 (DRILL HOLE) ELEV = 36.77	TBM #10 ELEV = 32.10
TBM #5 (DRILL HOLE) ELEV = 36.83	TBM # 11 ELEV = 30.91
TBM #6 (DRILL HOLE) ELEV = 34.48	

7. MASSDOT HIGHWAY DIVISION SHALL RE-ESTABLISH SURVEY CONTROL PRIOR TO BEGINNING WORK ON THIS CONTRACT.

UTILITIES

1. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION, AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR AND THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION OF THE CONFLICT.

2. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF ELECTRIC, TELEPHONE, AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY COMPANIES AT NO ADDITIONAL COST TO THE OWNER. IF THE CONTRACTOR ADJUSTS UTILITY COVERS IT SHALL BE DEEMED PART OF THE WORK AND THERE WILL BE NO ADDITIONAL COMPENSATION.

3. "THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE NECESSITY OF MAKING HIS OWN INVESTIGATION IN ORDER TO ASSURE THAT NO DAMAGE TO EXISTING STRUCTURES, DRAINAGE LINES, TRAFFIC SIGNAL CONDUITS, ETCETERA, WILL OCCUR.

4. THE CONTRACTOR SHALL NOTIFY MASSACHUSETTS DIG SAFE AND PROCURE A DIG SAFE NUMBER FOR EACH LOCATION PRIOR TO DISTURBING EXISTING GROUND IN ANY WAY. THE TELEPHONE NUMBER OF THE DIG SAFE CALL CENTER IS 1-888-344-7233."

5. NO EXISTING PUBLIC UTILITY STRUCTURES SHALL BE ABANDONED AND/OR DISMANTLED WITHOUT AUTHORIZATION FROM THE ENGINEER.

6. DRAINAGE ELEVATIONS ARE PROVIDED FOR DESIGN PURPOSE ONLY. THE CONTRACTOR SHALL VERIFY BY TEST PIT, 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 CONSTRUCTABILITY OF THE DRAINAGE SYSTEM SHALL ANY STRUCTURES BE ORDERED. ANY FIELD ADJUSTMENT 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.

CONSTRUCTION

1. AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DAMAGED BY THE CONTRACTOR'S OPERATIONS, INCLUDING STAGING AREAS, SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.

2. THE CONTRACTOR IS HEREBY NOTIFIED THAT ADDITIONAL WORK WITHIN THE PROJECT LIMITS MAY BE PERFORMED BY OTHERS.

3. JOINTS BETWEEN NEW HOT MIX ASPHALT, ROADWAY PAVEMENT, AND THE LOCATIONS OF SAW CUT FOR EXISTING PAVEMENT SHALL BE SEALED WITH HOT POURED RUBBERIZED ASPHALT AND BACKSANDED.

4. ALL GRADING SHALL COMPLY WITH THE RULES AND REGULATIONS OF THE MASSACHUSETTS ARCHITECTURAL ACCESS BOARD (MAAB) AND THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES (ADAAG), LATEST EDITION. IN CASE OF CONFLICT BETWEEN REGULATIONS, THE GUIDELINE PROVIDING GREATER ACCESS SHALL APPLY. WHEELCHAIR RAMP INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE MASSDOT WHEELCHAIR RAMP STANDARDS-LATEST EDITION AND THE PLANS.

5. WHERE THE NEW CONSTRUCTION IS WITHIN THE EXISTING TRAVELED WAY, THE CONTRACTOR SHALL PERFORM WORK SO THAT INTERFERENCE TO BUSINESS CONCERNS AND ABUTTERS, ON ACCOUNT OF THE CONSTRUCTION WORK, IS KEPT TO A MINIMUM. THE CONTRACTOR WILL NOT BE ALLOWED TO PARK EQUIPMENT, OR STOCKPILE MATERIAL ON THE TRAVELED WAYS OVERNIGHT OR WHEN NOT IN USE. THE CONTRACTOR SHALL MAINTAIN SAFE AND REASONABLE ACCESS TO AND FROM ABUTTING PROPERTIES AT ALL TIMES AT NO ADDITIONAL COST.

6. THE CONTRACTOR SHALL DISPOSE OF ALL WASTE MATERIAL IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS AT HIS OWN EXPENSE, OUTSIDE OF THE PROJECT LIMITS.

7. CONTRACTOR SHALL BE RESPONSIBLE FOR INVESTIGATING AND CONFIRMING THAT ALL ITEMS TO BE REUSED ARE IN SERVICEABLE CONDITION. IF IT IS DEEMED THAT ANY ITEM IS NOT ABLE TO BE REUSED, THE CONTRACTOR SHALL NOTIFY THE OWNER IN WRITING AND INCLUDE ESTIMATED COSTS TO INSTALL NEW.

TRAFFIC

1. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR TRAFFIC MANAGEMENT AND TO COMPLY WITH CONDITIONS OUTLINED WITHIN THE SPECIFICATIONS AND MASSDOT HIGHWAY DIVISION STANDARD DETAILS AND DRAWINGS FOR THE DEVELOPMENT OF TRAFFIC MANAGEMENT PLANS MANUAL.

TEMPORARY TRAFFIC CONTROL

1. THIS PLAN DEPICTS IN SCHEMATIC FORM, THE ELEMENTS OF AN APPROACH TO THE LAYOUT AND PLANNING OF THE WORK DURING THE PROGRESS OF THE CONSTRUCTION OPERATIONS.THE PREPARER OF THIS PLAN HAS NO ROLE IN THE OVERSIGHT OR OTHERWISE IN THE IMPLEMENTATION OF THIS PLAN.

2. CONTRACTOR SHALL SUBMIT TO THE RESIDENT ENGINEER TRAFFIC MANAGEMENT PLANS FOR REVIEW AND APPROVAL BY MASSDOT HIGHWAY DIVISION. CONTRACTOR SHALL COORDINATE THE CONSTRUCTION EFFORT WITH OTHER PROJECTS IN THE VICINITY IN ORDER TO MINIMIZE POTENTIAL TRAFFIC AND PARKING IMPACTS.

3. THE TEMPORARY TRAFFIC CONTROL PLANS CONTAINED HEREIN ARE GIVEN AS A GUIDE FOR TYPICAL WORK ZONE TRAFFIC CONTROL APPLICATIONS FOR THE TYPES OF WORK ANTICIPATED FOR THIS PROJECT. THEY ARE NOT INTENDED TO COVER ALL POSSIBLE CONSTRUCTION OPERATIONS WHICH THE CONTRACTOR MAY CHOOSE TO EMPLOY. WORK ZONE TRAFFIC CONTROL FOR OTHER CONSTRUCTION OPERATIONS OR OTHER TRAFFIC SITUATIONS IF APPLICABLE SHALL BE IN ACCORDANCE WITH THE CURRENT M.U.T.C.D. AND AS APPROVED OR DIRECTED BY RESIDENT ENGINEER.

4. LANE RESTRICTIONS (OTHER THAN ACTIVE WORK ZONES) MAY NOT REMAIN OVERNIGHT OR DURING NON-WORKING HOURS AND MUST BE REMOVED BY THE END OF EACH WORKING TIME RESTRICTION. AFTER EACH WORKING DAY, TRAFFIC CONTROL DEVICES THAT ARE NOT REQUIRED SHALL BE MOVED OFF THE ROADWAY OR FULL DEPTH CONSTRUCTION AREA AND PLACED SO AS NOT TO IMPEDE PEDESTRIAN AREAS, ABUTTER ACCESS OR CAUSE CONFUSION TO ROADWAY USERS. IN CERTAIN CIRCUMSTANCES, AND ONLY WITH THE APPROVAL OF MASSDOT HIGHWAY DIVISION, CAN LANE RESTRICTIONS REMAIN OVERNIGHT, REFLECTORIZED DRUMS SHALL BE FITTED WITH STEADY BURN AND/OR FLASHING WARNING LIGHTS AT THE RESIDENT ENGINEERS DIRECTION.

5. PLACE ALL CONSTRUCTION SIGNING, TRAFFIC CONTROL DEVICES AND TEMPORARY PAVEMENT MARKINGS FOR EACH PHASE PRIOR TO COMMENCEMENT OF CONSTRUCTION.

6. THESE PLANS ARE NOT INTENDED TO LIMIT THE CONTRACTORS RIGHT TO SCHEDULE THE WORK BUT TO OUTLINE ONE WAY OF PROGRESSING. THE CONTRACTOR IS EXPECTED TO USE KNOWLEDGE AND EXPERIENCE TO PERFORM THE WORK IN THE MOST EFFICIENT MANNER IN COMPLIANCE WITH THE DRAWING AND SPECIFICATIONS AND THE REQUIREMENTS OF THE INDIVIDUAL AGENCIES AND ABUTTERS.

7. CONTRACTOR SHALL SECURE WORK AREAS ACCORDING TO CURRENT CONDITIONS TO ENSURE PUBLIC SAFETY AND CONVENIENCE. THIS SHALL INCLUDE ENSURING THAT ALL EXCAVATIONS ARE PROTECTED AT ALL TIMES AND WHEN WORK SHIFT IS COMPLETED.

TEMPORARY TRAFFIC CONTROL

8. THE CONTRACTOR SHALL SUBMIT TO THE RESIDENT ENGINEER FOR REVIEW AND APPROVAL BY MASSDOT HIGHWAY DIVISION, THE DESIGNER, TEMPORARY TRAFFIC CONTROL PLANS FOR ANY WORK OUTSIDE THE WORK ZONES INDICATED IN THESE DRAWINGS, INCLUDING ALTERNATIVE PHASING OR MODIFICATION OF ANY ASPECT OF THE TEMPORARY TRAFFIC CONTROL PLANS OR CONSTRUCTION STAGING. THE CONTRACTOR SHALL BEAR RESPONSIBILITY FOR THE SUBMISSION AND REVIEW OF ALTERNATIVE PLANS, AT NO ADDITIONAL COST.

9. EXISTING CONDITIONS ARE FOR CONTRACTOR INFORMATION ONLY AND ARE EXISTING CONDITIONS AT THE TIME OF DESIGN. THE CONTRACTOR SHALL VERIFY, AS NECESSARY, ACTUAL FIELD CONDITIONS AT TIME OF CONSTRUCTION.

10. TYPICAL DAYTIME WORK HOURS ARE FROM 9:00 AM TO 3:30 PM ON WEEKDAYS, UNLESS OTHERWISE PERMITTED BY MASSDOT HIGHWAY DIVISION. WORK SHALL NOT BE PERFORMED THE DAY BEFORE, OR THE DAY AFTER, A HOLIDAY WEEKEND,UNLESS OTHERWISE PERMITTED BY MASSDOT HIGHWAY DIVISION . REFER TO TEMPORARY TRAFFIC CONTROL PLANS, SPECIFICATIONS, AND PERMITS FOR MODIFICATION TO ALLOWABLE WORK PERIODS. ALL WORK SCHEDULES, HOWEVER, SHALL BE PRE-APPROVED BY THE DEPARTMENT PRIOR TO BEGINNING WORK. WORK NECESSARY OUTSIDE OF THESE NORMAL WORK HOURS BECAUSE OF TRAFFIC CONDITIONS, AS NOTED IN THE PLANS OR SPECIFICATIONS, SHALL BE APPROVED BY MASSDOT HIGHWAY DIVISION.

11. CONTRACTOR SHALL PROVIDE DETAILS FOR TRAFFIC CONTROL AS DIRECTED BY THE MASSDOT RESIDENT ENGINEER AND IN ACCORDANCE WITH THE SPECIFICATIONS. CONTRACTOR SHALL BE GUIDED BY TEMPORARY TRAFFIC CONTROL LAYOUTS PROVIDED FOR SPECIFIC LOCATIONS, AND BY TYPICAL LAYOUTS AT ALL OTHER LOCATIONS. TYPICAL LAYOUTS SHALL CONFORM TO PART 6 OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.

12. WORK ZONES INDICATED ON THE TEMPORARY TRAFFIC CONTROL PLANS ARE INTENDED FOR THE DURATION OF THE WORK WITHIN THE ZONES ONLY AND SHALL BE RESTORED TO CONDITIONS ACCEPTABLE TO THE MASSDOT HIGHWAY DIVISION AT COMPLETION OF THE WORK INDICATED.

13. CONTRACTOR SHALL COORDINATE WITH MASSDOT HIGHWAY DIVISION CONCERNING ALL SCHEDULED SPECIAL EVENTS WITHIN THE LIMITS OF WORK.

14. THE CONTRACTOR SHALL AT ALL TIMES COORDINATE ROAD AND LANE CLOSURED, AND OTHER DISRUPTIONS IN THE PROJECT AREA, WITH MBTA BUS OPERATIONS.

CHANNELIZATION:

1. CHANNELIZATION SHALL BE ACCOMPLISHED THROUGH THE USE OF REFLECTORIZED PLASTIC DRUMS WITH LIGHTS IN ACCORDANCE WITH THE CURRENT M.U.T.C.D. ALL LANE TAPERS SHALL BE IN ACCORDANCE WITH THE CURRENT M.U.T.C.D.

2. ALL DRUMS SHALL BE PLACED AND MOVED AS NECESSARY TO MAINTAIN ADEQUATE ABUTTER ACCESS AT ALL TIMES. WORK MAY REQUIRE ADDITIONAL SIGNS, DRUMS, AND OTHER TRAFFIC CONTROL DEVICES.

3. THE MAXIMUM SPACING BETWEEN CHANNELIZATION DEVICES (DRUMS OR CONES) SHALL BE APPROXIMATELY EQUAL IN FEET TO THE POSTED SPEED LIMIT. THE MINIMUM SPACING SHALL BE 20' 0.C.

4. METAL DRUMS ARE PROHIBITED AS CHANNELIZATION DEVICES.

GRADE DIFFERENCES:

1. WHERE THERE IS A LONGITUDINAL DIFFERENCE IN ELEVATION BETWEEN EXISTING PAVEMENT AND COLD PLANED OR NEW PAVEMENT, THE CONTRACTOR SHALL PATCH A TEMPORARY HMA WEDGE WITH A 12:1 (OR FLATTER) SLOPE FOR A SMOOTH TRANSITION.

2. CROSS-SECTIONAL GRADE DIFFERENCED IN EXCESS OF 2" DURING NON-WORKING HOURS WILL REQUIRE DELINEATION BY USE OF REFLECTORIZED DRUMS, OR CONES AS DIRECTED BY MASSDOT HIGHWAY DIVISION.

3. CROSS-SECTIONAL GRADE DIFFERENCES IN EXCESS OF 4" DURING NON-WORKING HOURS SHALL BE PROTECTED BY BACKFILLING WITH A WEDGE OF EARTHWORK TO BE COMPACTED AT 4:1 SLOPE AND WILL ALSO REQUIRE DELINEATION BY USE OF DRUMS.

4. A MINIMUM SLOPE OF 4:1 MUST BE MAINTAINED AFTER WORKING HOURS DURING SUBBASE AND BASE COURSE INSTALLATION ALONG EDGE OF THE TRAVEL WAY. A MINIMUM SLOPE OF 8:1 MUST BE MAINTAINED ON ALL ABUTTER ACCESS DRIVES AND A MINIMUM SLOPE OF 12:1 MUST BE MAINTAINED ON ALL SIDEWALKS.

CONSTRUCTION SIGNING:

1. LOCATIONS OF SIGNS SHOWN ARE APPROXIMATE. EXACT LOCATION SHALL BE DETERMINED BY THE CONTRACTOR IN THE FIELD. THE CONTRACTOR SHALL ENSURE THAT SIGNS ARE PLACED IN ACCORDANCE WITH THE CURRENT M.U.T.C.D.

2. EXISTING SIGNING WHICH CONFLICTS WITH PROPOSED CONSTRUCTION TRAFFIC MANAGEMENT SIGNING SHALL BE REMOVED AND STACKED OR COVERED AND RESTORED AT THE END OF THE WORK.

3. ALL SIGNS SHALL BE COVERED OR REMOVED WHEN CONDITION IS NOT IN EFFECT.

4. THE MINIMUM MOUNTING HEIGHT OF POST-MOUNTED SIGNS, MEASURED VERTICALLY FROM THE BOTTOM OF THE SIGN TO THE TOP OF THE CURB OR SIDEWALK, OR TO THE ELEVATION OF THE NEAR EDGE OF THE TRAVELED WAY, SHALL BE 7 FEET UNLESS OTHERWISE SPECIFIED ON THE PLANS.

PAVEMENT MARKINGS:

1. UNLESS OTHERWISE NOTED, ALL PAVEMENT MARKINGS, SIGNS AND OTHER TRAFFIC EQUIPMENT REMOVED OR DAMAGED AS A RESULT OF THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED IN ACCORDANCE WITH THE REQUIREMENTS OF MASSDOT HIGHWAY DIVISION.

2. CONTRACTOR SHALL INSTALL, RENEW AND MAINTAIN ALL TRAFFIC CONTROL DEVICES INCLUDING PAVEMENT MARKINGS AS SHOWN ON THE DRAWINGS, IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND AS REQUIRED BY THE MASSDOT RESIDENT ENGINEER.

3. CONTRACTOR SHALL REMOVE ALL PAVEMENT MARKINGS WHICH CONFLICT WITH PROPOSED PAVEMENT MARKINGS. THE METHOD OF REMOVAL SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF MASSDOT HIGHWAY DIVISION.

4. ALL TEMPORARY PAVEMENT MARKINGS SHALL BE MAINTAINED THROUGHOUT THE ENTIRE SEQUENCE. ALL EXISTING MARKING WITHIN THE PROJECT LIMITS SHALL BE REMOVED AND REPLACED AS INDICATED ON THE PAVEMENT MARKING PLANS.

QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	2	123
PROJECT FILE NO.	606235		

LEGEND, ABBREVIATIONS, & GENERAL NOTES

606235(25%)HD(LEGEND).DWG 31-Aug-2012

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LEGEND

CIVIL/UTILITY/SURVEY LEGEND

EXISTING	PROPOSED	
DMH	MH	DRAIN MANHOLE
S	S	SEWER MANHOLE
T	T	TELEPHONE MANHOLE
C	C	CABLE TV MANHOLE
E	E	ELECTRIC MANHOLE
P	?	OTHER MANHOLE
CB	CBCI	DEEP SUMP CATCH BASIN
	CBOS	CATCH BASIN WITH OFFSET
		LANDSCAPE DRAIN
DI	DI	DROP INLET
GG	GG	GAS GATE
WG	WG	WATER GATE
		LIGHT POLE
		UTILITY POLE
		UTILITY POLE WITH LIGHT
Guy	GW	GUY WIRE
	HYD	HYDRANT
		SIGN
	MB	MAILBOX
		LIGHT POLE
		ELECTRIC HANDHOLE
		TRAFFIC CONTROL BOX
		TREE UNDER 12" DIAMETER
		MONUMENT
		ORNAMENTAL BOLLARD
		GRANITE CURB
	SURVEY TRAVERSE	SURVEY TRAVERSE
		TEMPORARY BENCHMARK
WATER	WATER	WATER
DRAIN	X'-X" RCP	DRAIN
SEWER	SEWER	SEWER
F	F	FIBER OPTICS
L	L	LIGHTING
E	E	ELECTRIC
T	T	TELEPHONE
C	CATV	CABLE TELEVISION
G	G	GAS

CONSTRUCTION PLAN LEGEND

#	PROPOSED WHEELCHAIR RAMP
#	PROPOSED CATCH BASIN
PDMH#X	PROPOSED DRAINAGE MANHOLE
#	PROPOSED DRIVEWAY
#	PROPOSED CATCH BASIN
C##	CURVE NUMBER
	PAVEMENT SAWCUT LINE
	LINE OF EASEMENT

TEMPORARY TRAFFIC CONTROL PLAN LEGEND

	DIRECTION OF TRAVEL / NUMBER OF TRAVEL LANES
	STACKABLE REFLECTORIZED TRAFFIC DRUM
	42" TRAFFIC CONE
	WORK AREA
	SINGLE SIGN POST
F	FLAGGER
P	POLICE DETAIL
	PEDESTRIAN FLOW
	TYPE III BARRICADE
	TAPERED PRECAST CONCRETE TRAFFIC BARRIER
	HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW
	VARIABLE MESSAGE BOARD
	72" CHAIN LINK FENCE
	TEMPORARY CONCRETE BARRIER
	TEMPORARY CONCRETE BARRIER WITH 72" CLF
	TEMPORARY IMPACT ATTENUATOR
	VEHICLE MOUNTED MOVABLE IMPACT ATTENUATOR
	PROPOSED GRANITE CURB TO BE INSTALLED
	PROPOSED NEW CURB
	PROPOSED WORKZONE

PAVEMENT MARKING LEGEND

SWEL	6" SOLID WHITE EDGE LINE
SYEL	6" SOLID YELLOW EDGE LINE
SWLL	6" SOLID WHITE LANE LINE
BWLL	6" BROKEN WHITE LANE LINE 10' MARK - 30' SKIP
DWEL	6" DOTTED WHITE EDGE LINE 2' MARK - 4' SKIP
BWEL	12" DOTTED WHITE EDGE LINE 2' MARK - 3' SKIP
SWCHL	12" SOLID WHITE CHANNELIZATION LINE
SYCHL	12" SOLID YELLOW CHANNELIZATION LINE
DYCL	2-6" YELLOW CENTER LINES, 10" O.C.
SL	WHITE STOP LINE (12" UNLESS OTHERWISE SPECIFIED)
CW	WHITE - CROSS WALK (12" LINES, 10' O.C.; 12" LONGITUDINAL LINES, 4' O.C.) (UNLESS OTHERWISE SHOWN)
SWGL	12" SOLID WHITE GORE LINE (5' O.C. @45°).
SYGL	12" SOLID YELLOW GORE LINE (5' O.C. @45°).
DDYCL	6" DOTTED YELLOW CENTER LINES, 6" GAP 2' MARK - 4' SKIP
YL	YIELD LINE
	RAISED INTERSECTION MARKING
	BIKE LANE SYMBOL
	SHARROW SYMBOL
	BIKE DETECTION SYMBOL

* CONTRACTOR SHALL MAINTAIN ALL PAVEMENT MARKINGS SHOWN BOLD ON THE TRAFFIC MANAGEMENT DRAWINGS. NEW PAVEMENT MARKINGS FOR EACH TRAFFIC MANAGEMENT PHASE ARE SHOWN WITH LABELS AND DIMENSIONS. ALL PAVEMENT MARKINGS THAT NEED TO BE MAINTAINED FOR GREATER THAN SIX MONTHS SHALL BE THERMOPLASTIC. PAVEMENT MARKINGS SHOWN ON THE EXISTING CONDITIONS PLANS ARE FOR CONTRACTOR INFORMATION ONLY.

ABBREVIATIONS

GENERAL

AADT	ANNUAL AVERAGE DAILY TRAFFIC
ABAN	ABANDON
ADJ	ADJUST
AD	ALGEBRAIC DIFFERENCE
ADT	AVERAGE DAILY TRAFFIC
APPROX.	APPROXIMATE
A.C.	ASPHALT CONCRETE
ACCM PIPE	ASPHALT COATED CORRUGATED METAL PIPE
BIT.	BITUMINOUS
BC	BOTTOM OF CURB
BD.	BOUND
℄	BASELINE
BLDG	BUILDING
BM	BENCH MARK
BO	BY OTHERS
BOS	BOTTOM OF SLOPE
BR.	BRIDGE
CB	CATCH BASIN
CBCI	CATCH BASIN WITH CURB INLET
CC	CEMENT CONCRETE
CCM	CEMENT CONCRETE MASONRY
CEM	CEMENT
CI	CURB INLET
CIP	CAST IRON PIPE
CI.	CLASS (CONCRETE, EXCAVATION, ETC.)
CIT	CHANGE IN TYPE
CLF	CHAIN LINK FENCE
℄	CENTERLINE
CMP	CORRUGATED METAL PIPE
CSP	CORRUGATED STEEL PIPE
CO.	COUNTY
CONC	CONCRETE
CONT	CONTINUOUS
CONST	CONSTRUCTION
CR GR	CROWN GRADE
DDHV	DIRECTIONAL DESIGN HOURLY VOLUME
DHV	DESIGN HOURLY VOLUME
DI	DROP INLET
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DW	STEADY DON'T WALK - PORTLAND ORANGE
DWY	DRIVEWAY
ELEV (OR EL.)	ELEVATION
EMB	EMBANKMENT
EOP	EDGE OF PAVEMENT
EXIST (OR EX)	EXISTING
EXC	EXCAVATION
F&C	FRAME AND COVER
F&G	FRAME AND GRATE
FDN.	FOUNDATION
FLDSTN	FIELDSTONE
GAR	GARAGE
GD	GROUND
GG	GAS GATE
GI	GUTTER INLET
GIP	GALVANIZED IRON PIPE
GRAN	GRANITE
GRAV	GRAVEL
GRD	GUARD
HDW	HEADWALL
HMA	HOT MIX ASPHALT
HOR	HORIZONTAL
HP	HIGH POINT
HSD	HEADLIGHT SIGHT DISTANCE
HYD	HYDRANT
INV	INVERT
JCT	JUNCTION
L	LENGTH OF CURVE
LB	LEACHING BASIN
LP	LOW POINT
LT	LEFT
MAX	MAXIMUM
MB	MAIL BOX
MH	MANHOLE
MHB	MASSACHUSETTS HIGHWAY BOUND
MIN	MINIMUM
NIC	NOT IN CONTRACT
NO.	NUMBER
O.C.	ON CENTER
PBS	POST BOTH SIDES
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
P.G.L.	PROFILE GRADE LINE
PI	POINT OF INTERSECTION
POC	POINT ON CURVE
POT	POINT ON TANGENT
PRC	POINT OF REVERSE CURVATURE
PROJ	PROJECT
PROP	PROPOSED
PSB	PLANTABLE SOIL BORROW
PT	POINT OF TANGENCY

QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	3	123
PROJECT FILE NO.	606235		

LEGEND, ABBREVIATIONS, & GENERAL NOTES

GENERAL (CONT.)

PVC	POINT OF VERTICAL CURVATURE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY
PVMT	PAVEMENT
PWW	PAVED WATER WAY
R	RADIUS OF CURVATURE
R&D	REMOVE AND DISCARD
R&T	REMOVE & TRANSPORT
RCP	REINFORCED CONCRETE PIPE
RD	ROAD
RDWY	ROADWAY
REB	REBUILT
REM	REMOVE
REMOD	REMODELED
RET	RETAIN
RET WALL	RETAINING WALL
ROW	RIGHT-OF-WAY
RR	RAILROAD
R&R	REMOVE AND RESET
R&S	REMOVE AND STACK
RT	RIGHT
S	SLOPE
SB	STONE BOUND
SHLD	SHOULDER
SMH	SEWER MANHOLE
ST	STREET
STA	STATION
SSD	STOPPING SIGHT DISTANCE
SHLO	STATE HIGHWAY LAYOUT LINE
SW	SIDEWALK
T	TANGENT DISTANCE OF CURVE/ TRUCK PERCENTAGE
TAN	TANGENT
TEMP	TEMPORARY
TC	TOP OF CURB
TOS	TOP OF SLOPE
TYP	TYPICAL
UP	UTILITY POLE
VAR	VARIES
VERT	VERTICAL
VC	VERTICAL CURVE
WCR	WHEELCHAIR RAMP
WG	WATER GATE
WIP	WROUGHT IRON PIPE
WM	WATER METER/WATER MAIN
X-SECT	CROSS SECTION

TRAFFIC SIGNAL

CAB.	CABINET
CCVE	CLOSED CIRCUIT VIDEO EQUIPMENT
DW	UPRAISED HAND SYMBOL
FDW	FLASHING UPRAISED HAND SYMBOL
FR	FLASHING CIRCULAR RED
FY	FLASHING CIRCULAR YELLOW
FRL	FLASHING RED LEFT ARROW
FRR	FLASHING RED RIGHT ARROW
G	STEADY CIRCULAR GREEN
GL	STEADY GREEN LEFT ARROW
GR	STEADY GREEN RIGHT ARROW
GSL	STEADY GREEN SLASH LEFT ARROW
GSR	STEADY GREEN SLASH RIGHT ARROW
GV	STEADY GREEN VERTICAL ARROW
OL	OVERLAP
OP	OPTICOM
PED	PEDESTRIAN
PTZ	PAN, TILT, ZOOM
R	STEADY CIRCULAR RED
RL	STEADY RED LEFT ARROW
RR	STEADY RED RIGHT ARROW
TR SIG	TRAFFIC SIGNAL
TSC	TRAFFIC SIGNAL CONDUIT
W	WALKING PERSON SYMBOL
Y	STEADY CIRCULAR YELLOW
YL	STEADY YELLOW LEFT ARROW
YR	STEADY YELLOW RIGHT ARROW

606235(25%)HD(LEGEND).DWG 31-Aug-2012

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QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	4	123
PROJECT FILE NO.	606235		

KEY PLAN & BORING PLAN

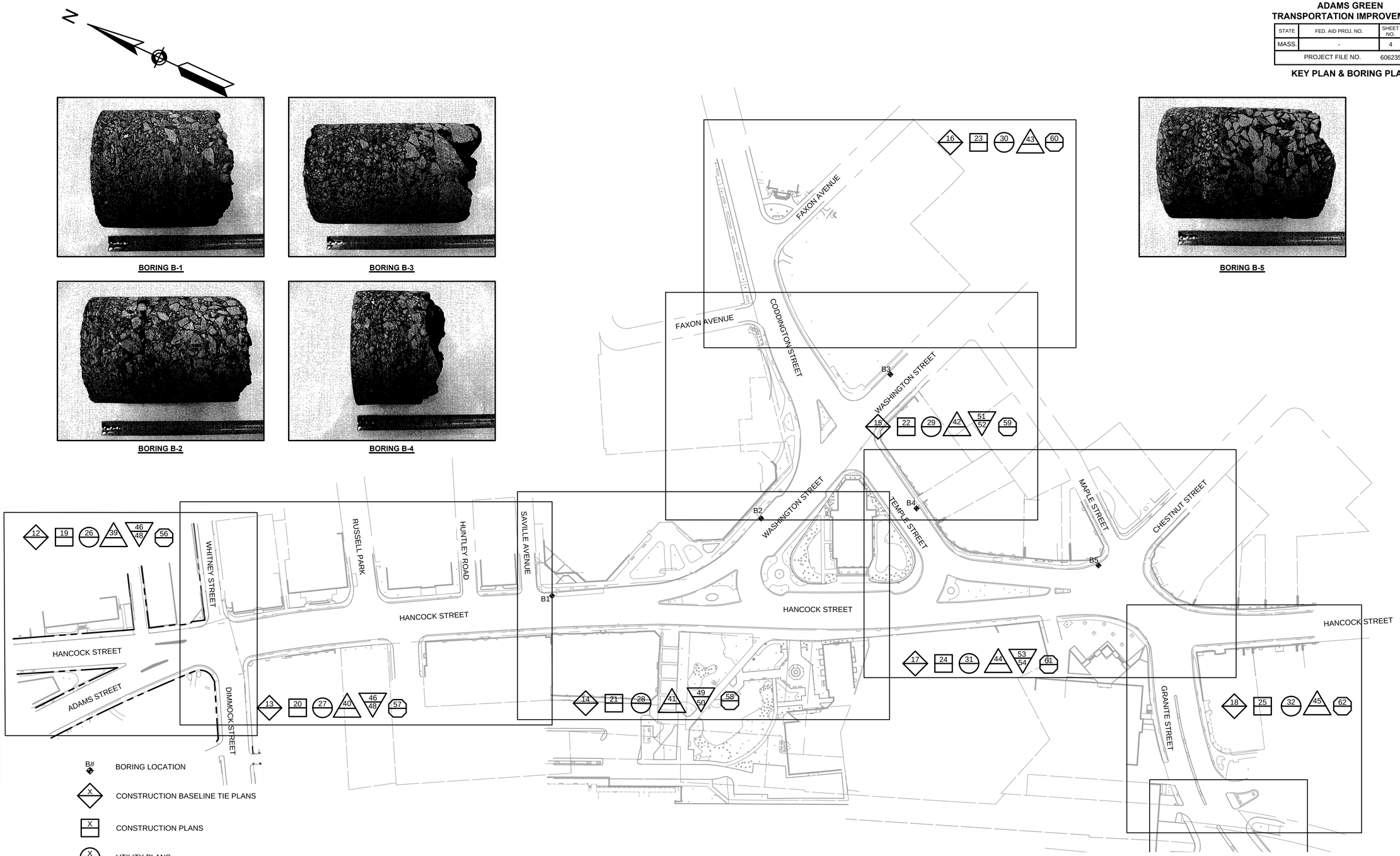
BORING B-1

BORING B-3

BORING B-5

BORING B-2

BORING B-4



606235[25%]HD(KEY PLAN).DWG 31-Aug-2012

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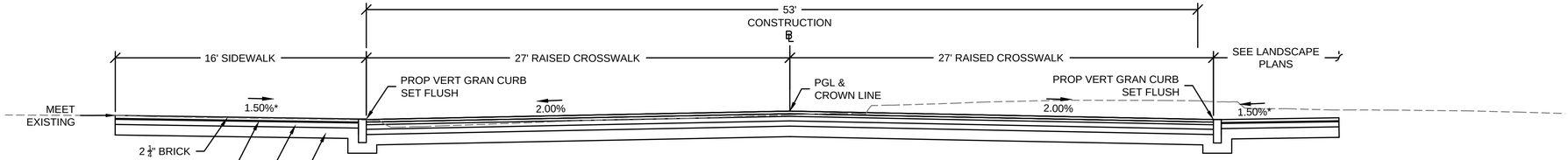
QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

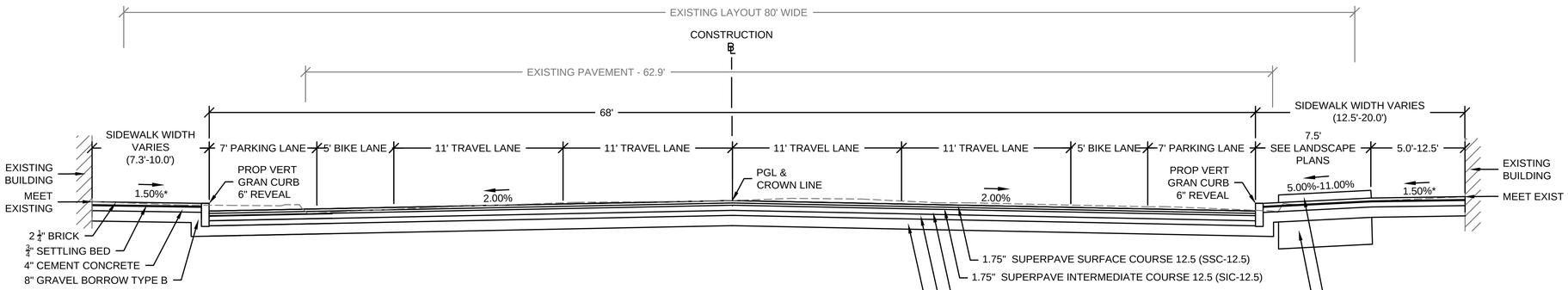
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	5	123
PROJECT FILE NO.	606235		

TYPICAL SECTIONS & PAVEMENT NOTES
HANCOCK STREET & WASHINGTON STREET



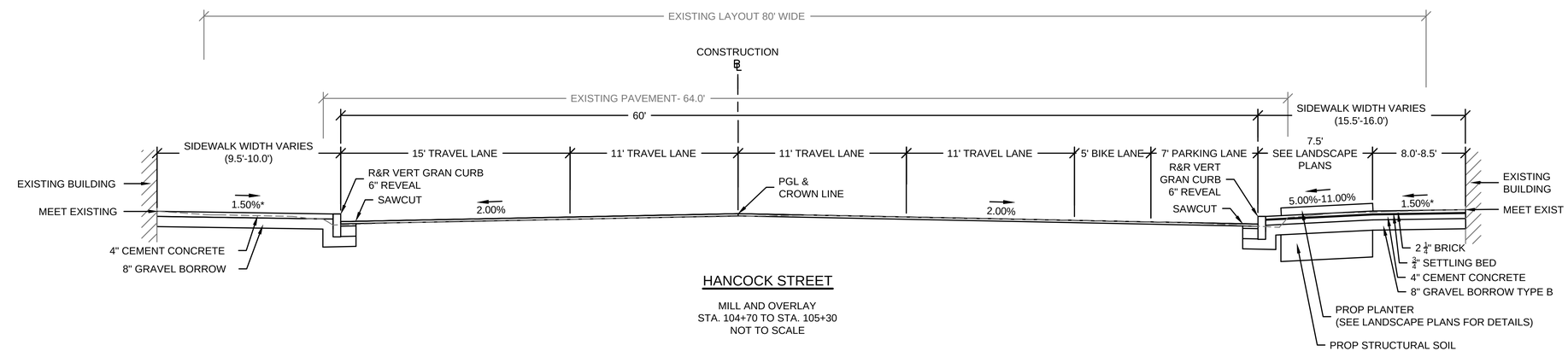
WASHINGTON STREET

FULL DEPTH CONSTRUCTION
STA. 108+30 TO STA. 108+50
NOT TO SCALE



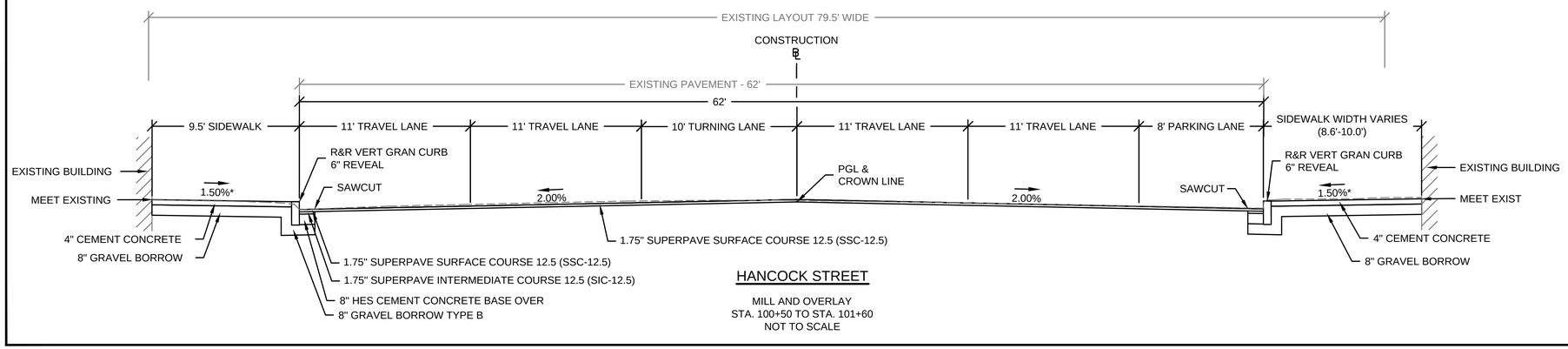
HANCOCK STREET

FULL DEPTH CONSTRUCTION
STA. 106+15 TO STA. 107+90
NOT TO SCALE



HANCOCK STREET

MILL AND OVERLAY
STA. 104+70 TO STA. 105+30
NOT TO SCALE



HANCOCK STREET

MILL AND OVERLAY
STA. 100+50 TO STA. 101+60
NOT TO SCALE

PAVEMENT NOTES:
CHESTNUT STREET, CODDINGTON STREET, GRANITE STREET, HANCOCK STREET, MAPLE STREET, TEMPLE STREET, & WASHINGTON STREET

PAVEMENT MILL AND OVERLAY:

SURFACE COURSE: 1.75" SUPERPAVE SURFACE COURSE 12.5 (SSC-12.5) (LATEX MODIFIED)

PAVEMENT MILLING: 1.75" PAVEMENT MICROMILLING

FULL DEPTH RECONSTRUCTION:

SURFACE COURSE: 1.75" SUPERPAVE SURFACE COURSE 12.5 (SSC-12.5) (LATEX MODIFIED) OVER

INTERMEDIATE COURSE: 1.75" SUPERPAVE INTERMEDIATE COURSE 12.5 (SIC-12.5) (LATEX MODIFIED) OVER

BASE COURSE: 4" SUPERPAVE BASE COURSE 37.5 (SBC-37.5) OVER

SUB-BASE: 4" DENSE GRADED CRUSHED STONE BASE COURSE OVER

8" SUITABLE EXISTING MATERIAL OR GRAVEL BORROW TYPE B

FULL DEPTH CONSTRUCTION LESS THAN 4' WIDE

SURFACE COURSE: 1.75" SUPERPAVE SURFACE COURSE 12.5 (SSC-12.5) (LATEX MODIFIED) OVER

INTERMEDIATE COURSE: 1.75" SUPERPAVE INTERMEDIATE COURSE 12.5 (SIC-12.5) (LATEX MODIFIED) OVER

BASE COURSE: 8" HES CEMENT CONCRETE BASE OVER

SUB-BASE: 8" GRAVEL BORROW TYPE B

CEMENT CONCRETE DRIVEWAYS

SURFACE COURSE: 6" CEMENT CONCRETE SURFACE COURSE OVER

SUB-BASE: 8" GRAVEL BORROW TYPE B SUB-BASE

CEMENT CONCRETE SIDEWALK AND RAMPS

SURFACE COURSE: 4" CEMENT CONCRETE SURFACE COURSE OVER

SUB-BASE: 8" GRAVEL BORROW TYPE B

HOT MIX ASPHALT DRIVEWAYS

SURFACE COURSE: 1.5" SUPERPAVE SURFACE COURSE 9.5 (SSC-9.5) (LATEX MODIFIED) OVER

INTERMEDIATE COURSE: 2" SUPERPAVE INTERMEDIATE COURSE 12.5 (SIC-12.5)(LATEX MODIFIED) OVER

SUB-BASE: 8" GRAVEL BORROW TYPE B

HOT MIX ASPHALT SIDEWALK

SURFACE COURSE: 1" SUPERPAVE SURFACE COURSE 9.5 (SSC-9.5) (LATEX MODIFIED) OVER

INTERMEDIATE COURSE: 1.5" SUPERPAVE INTERMEDIATE COURSE 12.5 (SIC-12.5) (LATEX MODIFIED) OVER

SUB-BASE: 8" GRAVEL BORROW TYPE B

BRICK SIDEWALK:

SURFACE COURSE: 2 ¼" BRICK

¾" SETTLING BED

INTERMEDIATE COURSE: 4" CEMENT CONCRETE

SUB-BASE: 8" GRAVEL BORROW TYPE B

NOTES: THE HOT MIX ASPHALT (HMA) WALKS AND DRIVES MAY BE SUPERPAVE HMA MIXTURES PAVED IN ACCORDANCE WITH SECTION 701 OF THE STANDARD SPECIFICATIONS WHICH SHALL BE THE BASIS FOR THE WORK AND PAID FOR UNDER ITEM 702. HMA WALKS AND ITEM 703. HMA DRIVES.

TACK COAT SHALL BE SPRAY APPLIED DOUBLE OVERLAP FOR UNIFORM COVERAGE AT 0.07 GAL/SY OVER MILLED SURFACE AND 0.05 GAL/SY OVER SMOOTH SURFACES (BASE AND INTERMEDIATE COURSES) PRIOR TO PAVING OVERLAY.

* = TOLERANCE FOR CONSTRUCTION ± 0.5% ON SIDEWALK SLOPES, DRIVEWAY SLOPES, AND WHEELCHAIR RAMPS.

31-Aug-2012
606235(25%)HD(TYPICAL SECTION).DWG
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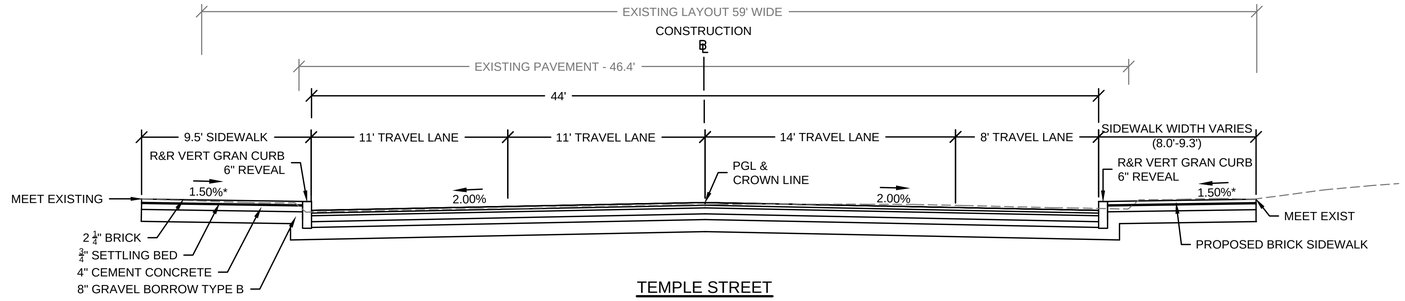
QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	6	123
PROJECT FILE NO.	606235		

TYPICAL SECTIONS & PAVEMENT NOTES
WASHINGTON STREET, CODDINGTON STREET, & TEMPLE STREET

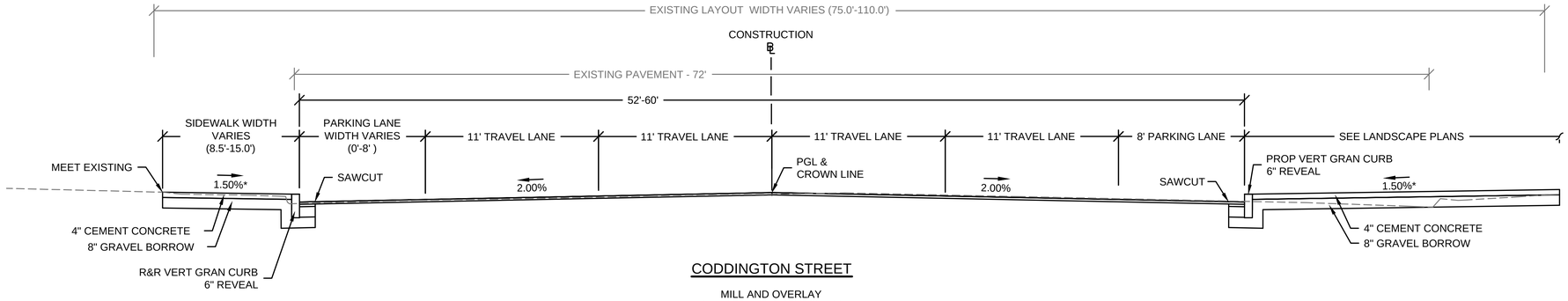
31-Aug-2012

606235(25%)HD(TYPICAL SECTION).DWG



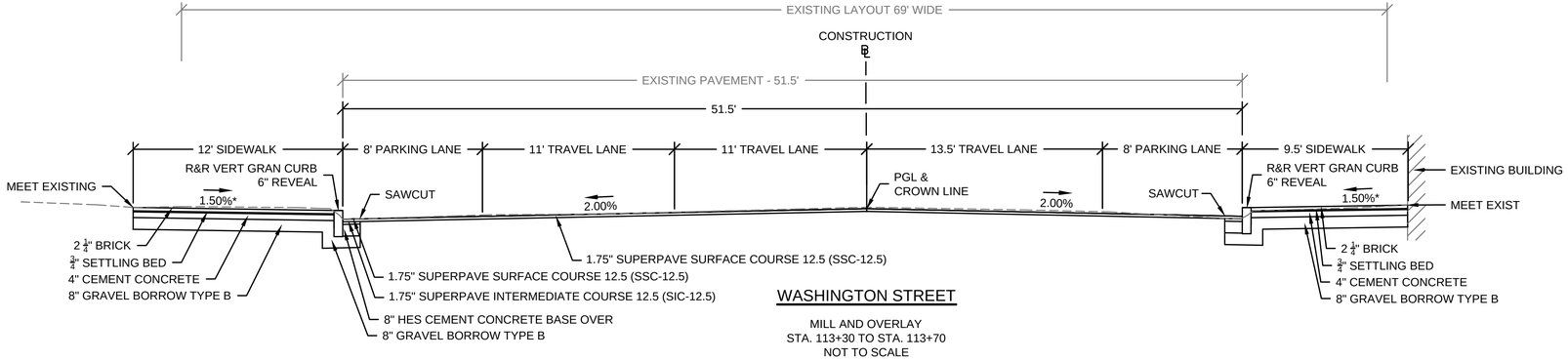
TEMPLE STREET

FULL DEPTH RECONSTRUCTION
STA. 206+50 TO STA. 207+30
NOT TO SCALE



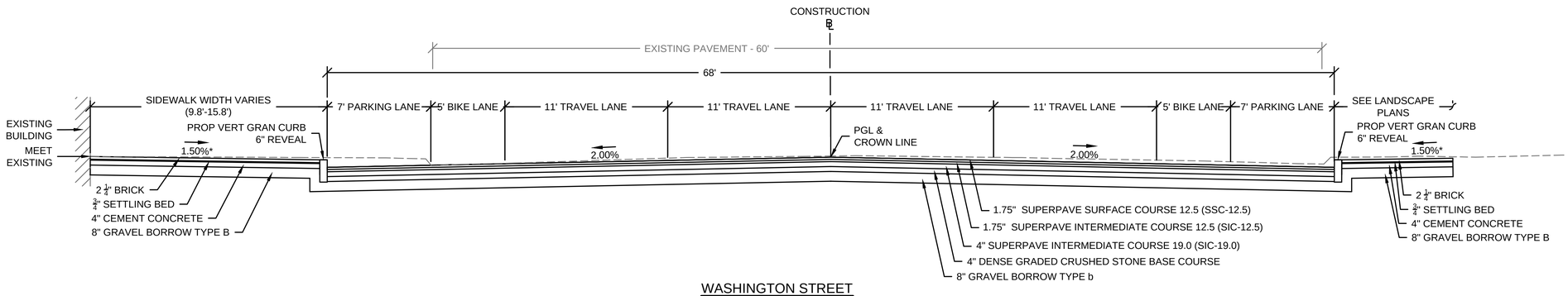
CODDINGTON STREET

MILL AND OVERLAY
STA. 203+15 TO STA. 204+20
NOT TO SCALE



WASHINGTON STREET

MILL AND OVERLAY
STA. 113+30 TO STA. 113+70
NOT TO SCALE



WASHINGTON STREET

FULL DEPTH CONSTRUCTION
STA. 108+80 TO STA. 109+60
NOT TO SCALE

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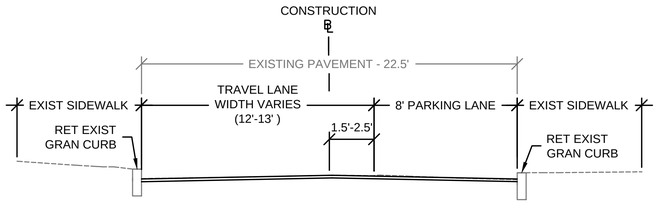
QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	7	123
PROJECT FILE NO.	606235		

TYPICAL SECTIONS & PAVEMENT NOTES
TEMPLE STREET

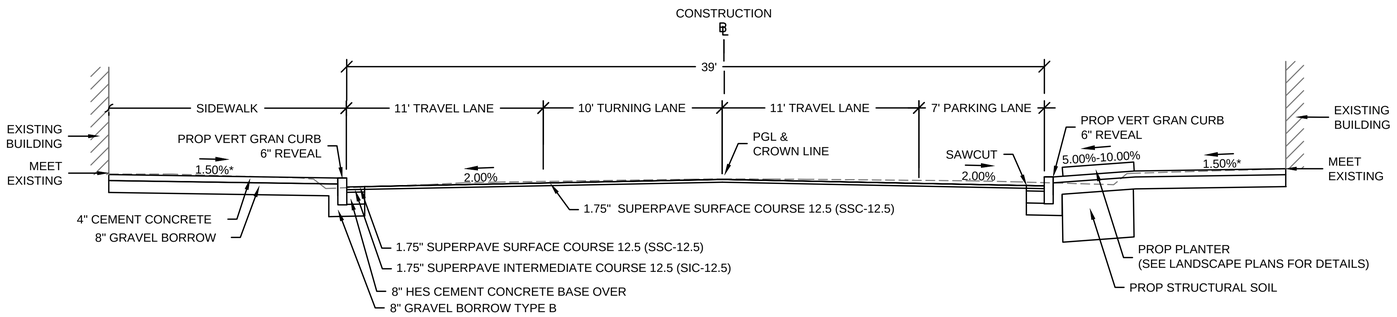
31-Aug-2012

606235(25%)HD(TYPICAL SECTION).DWG



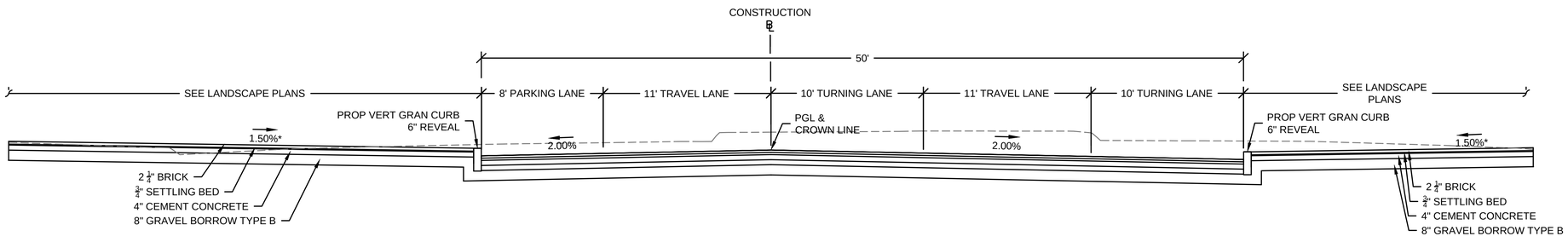
MAPLE STREET

MILL AND OVERLAY
STA. 300+60 TO STA. 304+65
NOT TO SCALE



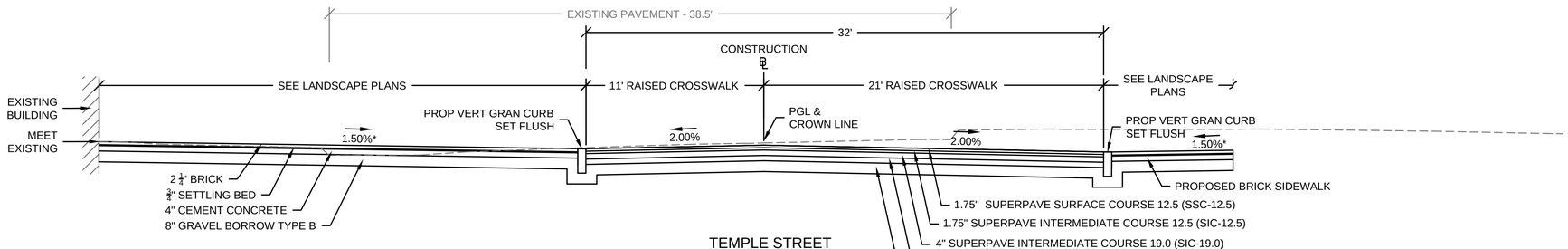
TEMPLE STREET

MILL AND OVERLAY
STA. 213+50 TO STA. 214+50
NOT TO SCALE



TEMPLE STREET

FULL DEPTH CONSTRUCTION
STA. 209+30 TO STA. 210+05
NOT TO SCALE



TEMPLE STREET

FULL DEPTH CONSTRUCTION
STA. 208+75 TO STA. 208+95
NOT TO SCALE

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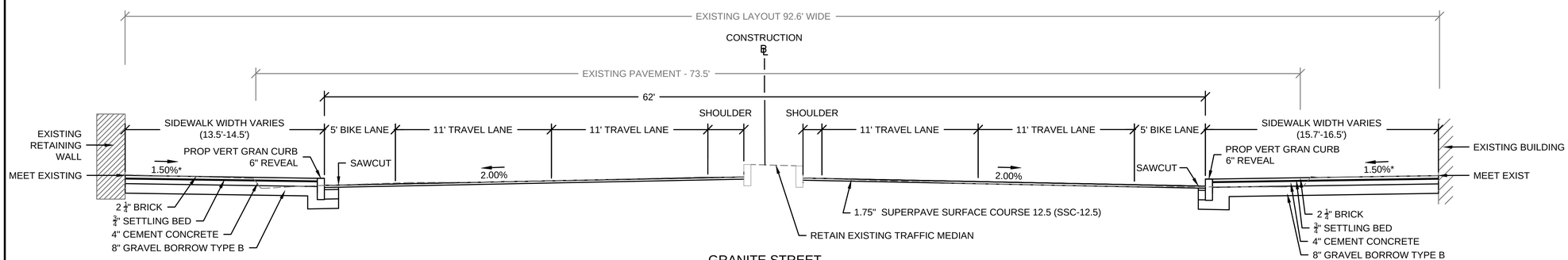
QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	8	123
PROJECT FILE NO.	606235		

TYPICAL SECTIONS & PAVEMENT NOTES
TEMPLE STREET, CHESTNUT STREET
& GRANITE STREET

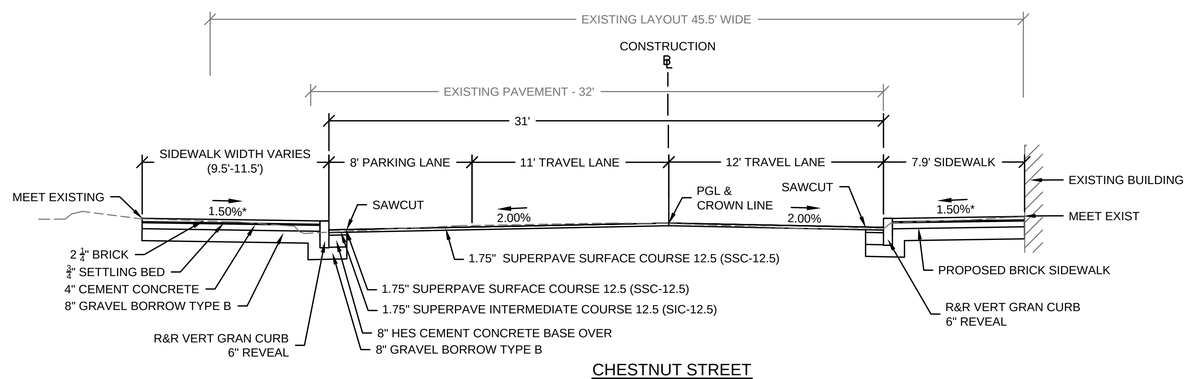
31-Aug-2012

606235(25%)HD(TYPICAL SECTION).DWG



GRANITE STREET

MILL AND OVERLAY
STA. 502+65 TO STA. 503+35
NOT TO SCALE



CHESTNUT STREET

MILL AND OVERLAY
STA. 401+55 TO STA. 402+25
NOT TO SCALE

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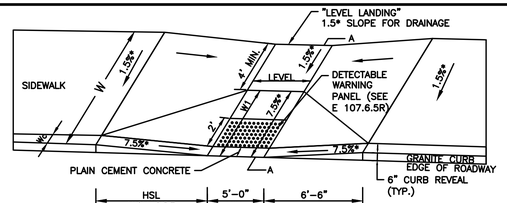
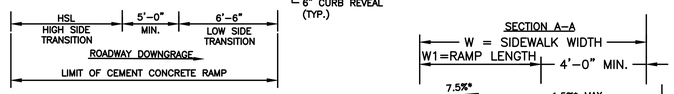


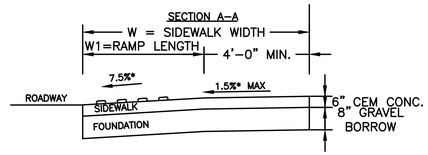


LEGEND:

HSL = HIGH SIDE TRANSITION (SEE E 107.9.0R)
W = SIDEWALK WIDTH
Wc = CURB WIDTH
W1 = PERPENDICULAR RAMP LENGTH
CC = CEMENT CONCRETE
* = TOLERANCE FOR CONSTRUCTION ±0.5%

USEABLE SIDEWALK WIDTH PER AAB = W–WC

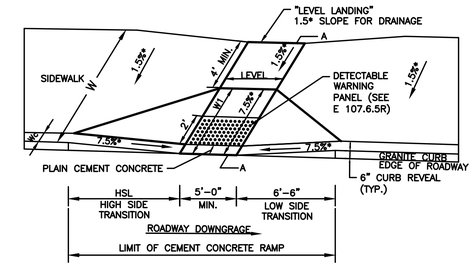
RAMP LENGTH = W1 = W – 4"–0" MIN



WHEELCHAIR RAMPS LESS THAN 12'-4" SIDEWALK (E107.2.0R)
NOT TO SCALE

WHEELCHAIR RAMPS LESS THAN 12'-4" SIDEWALK (E107.2.0R)

WCR #	ROADWAY ELEV. AT RAMP ℄	RAMP REFERENCE POINT			LENGTH OF PRIMARY RAMP	WIDTH OF SIDEWALK	WIDTH OF RAMP ENTRANCE	DEPTH OF LEVEL LANDING	TRANSITION		GUTTER SLOPE
		STREET	STATION	OFFSET					LEFT SIDE	RIGHT SIDE	
1	37.8	HANCOCK STREET	102+47.75	46.82' L	5.5'	10.0'	5.0'	4.0'	4.5'	6.5'	1.6%±
14	34.5	TEMPLE STREET	205+89.19	22.79' L	5.5'	9.9'	5.0'	4.4'	7.7'	6.5'	0.5%±
25	31.5	CODDINGTON STREET	201+76.13	34.93' L	4.3'	8.3'	5.0'	4.0'	7.7'	6.5'	0.6%±
27	33.2	TEMPLE STREET	210+89.05	31.00' R	5.5'	9.5'	5.0'	4.0'	6.5'	7.7'	0.6%±
36	30.7	GRANITE STREET	504+81.53	21.00' L	5.5'	9.5'	5.0'	4.0'	6.5'	9.0'	1.6%±
43	37.6	HANCOCK STREET	102+33.85	32.10' L	6.0'	12.0'	5.0'	4.0'	6.5'	4.5'	1.6%±

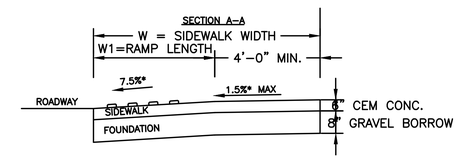


LEGEND:

HSL = HIGH SIDE TRANSITION (SEE E 107.9.0R)
W = SIDEWALK WIDTH
Wc = CURB WIDTH
W1 = PERPENDICULAR RAMP LENGTH
CC = CEMENT CONCRETE
* = TOLERANCE FOR CONSTRUCTION ±0.5%

USEABLE SIDEWALK WIDTH PER AAB = W–WC

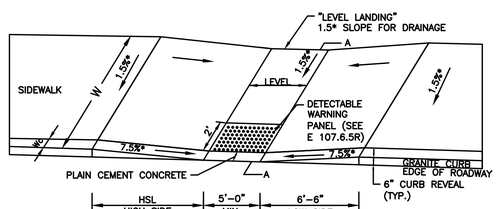
RAMP LENGTH = W1 = W – 4"–0" MIN



WHEELCHAIR RAMPS GREATER THAN 12'-4" SIDEWALK (E107.3.0R)
NOT TO SCALE

WHEELCHAIR RAMPS GREATER THAN 12'-4" SIDEWALK (E107.3.0R)

WCR #	ROADWAY ELEV. AT RAMP ℄	RAMP REFERENCE POINT			LENGTH OF PRIMARY RAMP	WIDTH OF SIDEWALK	WIDTH OF RAMP ENTRANCE	DEPTH OF LEVEL LANDING	TRANSITION		GUTTER SLOPE
		STREET	STATION	OFFSET					LEFT SIDE	RIGHT SIDE	
4	37.9	HANCOCK STREET	102+49.50	24.00' R	6.0'	16.0'	5.0'	10.0'	6.5'	7.7'	0.5%±
6	37.6	HANCOCK STREET	103+48.90	43.10' R	6.0'	12.8'	5.0'	6.8'	6.5'	7.7'	0.5%±
10	36.4	HANCOCK STREET	105+69.30	32.60' L	6.0'	22.6'	5.0'	16.6'	9.0'	6.5'	1.6%±
11	34.6	WASHINGTON STRET	111+82.11	27.01' L	6.5'	> 20.0'	5.0'	> 4.0'	6.5'	7.7'	0.5%±
13	34.5	WASHINGTON STRET	112+06.73	38.00' R	6.5'	17.5'	5.0'	11.0'	6.5'	6.5'	0.5%±
15	34.7	WASHINGTON STRET	112+96.18	15.50' R	7.6'	15.7'	5.0'	8.1'	6.5'	9.0'	1.1%±
16	34.6	WASHINGTON STRET	112+95.89	25.0' L	6.4'	29.0'	5.0'	22.6'	9.0'	6.5'	1.1%±
17	34.4	CODDINGTON STREET	204+89.93	24.56' L	6.4'	27.6'	5.0'	21.2'	6.5'	9.0'	1.2%±
18	34.2	CODDINGTON STREET	204+86.19	24.59' R	6.5'	17.5'	5.0'	11.0'	9.0'	6.5'	1.2%±
19	32.1	CODDINGTON STREET	202+99.07	22.00' L	6.5'	14.7'	5.0'	8.2'	6.5'	9.0'	1.2%±
23	31.7	CODDINGTON STREET	202+37.44	14.90' R	6.5'	15.4'	5.0'	8.9'	7.7'	6.5'	0.8%±
24	31.5	CODDINGTON STREET	202+37.44	22.00' L	7.5'	13.7'	5.0'	6.2	6.5'	7.7'	0.8%±
30	32.8	CHESTNUT STREET	400+40.73	13.51' R	6.2'	> 20.0'	5.0'	> 4.0'	6.5'	6.5'	1.7%±
31	32.6	MAPLE STREET	304+85.01	3.00' R	6.5'	19.4'	5.0'	12.9'	6.5'	9.0'	3.6%±
32	32.1	MAPLE STREET	304+86.06	10.00' L	6.5'	> 20.0'	5.0'	> 4.0'	14.0'	6.5'	3.6%±
33	31.0	HANCOCK STREET	114+49.88	17.50' L	6.5'	12.9'	5.0'	6.4'	7.7'	6.5'	0.6%±
37	27.4	GRANITE STREET	502+61.35	39.81' L	7.5'	11.8'	6.8'	4.3'	-	7.7'	0.5%±
38	27.9	GRANITE STREET	502+23.61	42.81' L	7.5'	16.6'	5.0'	9.1'	7.7'	-	0.5%±

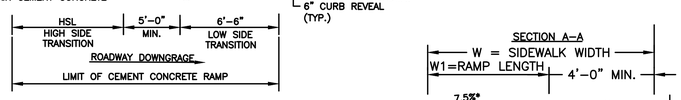


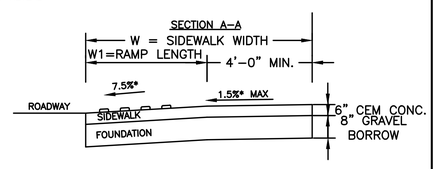
LEGEND:

HSL = HIGH SIDE TRANSITION (SEE E 107.9.0R)
W = SIDEWALK WIDTH
Wc = CURB WIDTH
W1 = PERPENDICULAR RAMP LENGTH
CC = CEMENT CONCRETE
* = TOLERANCE FOR CONSTRUCTION ±0.5%

USEABLE SIDEWALK WIDTH PER AAB = W–WC

RAMP LENGTH = W1 = W – 4"–0" MIN





WHEELCHAIR RAMPS ON NARROW SIDEWALK WITH DETECTABLE WARNING PANEL (E107.2.1R)
NOT TO SCALE

WHEELCHAIR RAMPS ON NARROW SIDEWALK WITH DETECTABLE WARNING PANEL (E107.2.1R)

WCR #	ROADWAY ELEV. AT RAMP ℄	RAMP REFERENCE POINT			LENGTH OF PRIMARY RAMP	WIDTH OF SIDEWALK	WIDTH OF RAMP ENTRANCE	DEPTH OF LEVEL LANDING	TRANSITION		GUTTER SLOPE
		STREET	STATION	OFFSET					LEFT SIDE	RIGHT SIDE	
2	37.6	HANCOCK STREET	102+88.50	48.50' L	5.0'	5.0'	5.0'	-	6.5'	7.7'	0.5%±
3	37.6	HANCOCK STREET	103+12.29	29.65' L	6.2'	6.2'	5.0'	-	7.7'	6.5'	0.5%±
12	34.8	WASHINGTON STRET	111+80.06	34.80' R	7.3'	7.3'	5.0'	-	7.7'	6.5'	0.5%±
22	31.9	CODDINGTON STREET	202+63.13	36.89' R	6.6'	6.6'	5.0'	-	-	6.5'	2.8%±
26	30.9	CODDINGTON STREET	201+34.01	37.29' L	8.5'	8.5'	5.0'	-	6.5'	14.0'	3.3%±
44	30.9	MAPLE STREET	115+14.50	27.60' L	5.2'	5.2'	5.0'	-	11.0'	11.0'	2.0%±

WHEELCHAIR RAMP NOTE:

1. DETECTABLE WARNING PANELS ARE REQUIRED ON ALL PROPOSED RAMPS AND SHALL BE INSTALLED IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REQUIREMENTS AND GUIDELINES INCLUDING E 107.6.5R (MARCH 2012 CONSTRUCTION STANDARD DETAILS).

31-Aug-2012
606235(25%)HD(CONST DET).DWG
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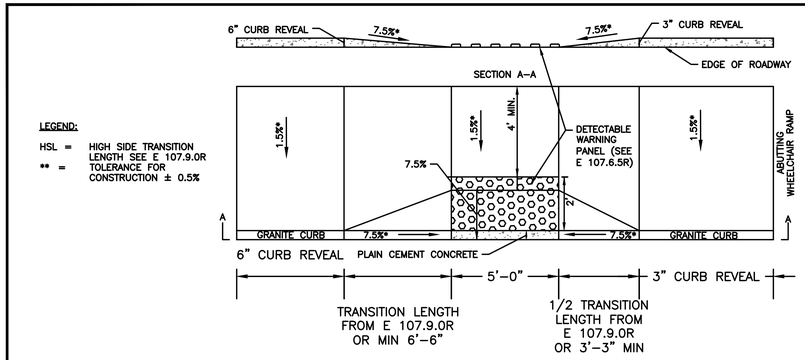
MassDOT DWF Version

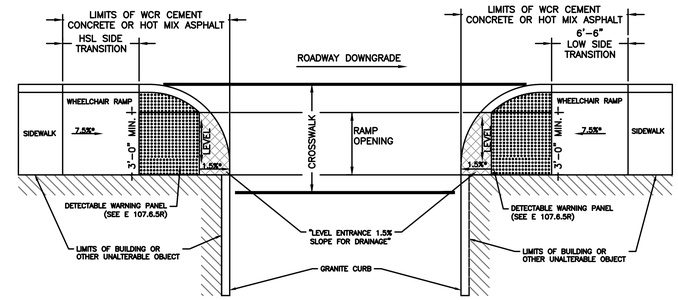


WHEELCHAIR RAMP WITH 3-INCH CURB REVEAL (E107.6.3R)

NOT TO SCALE

WHEELCHAIR RAMP WITH 3-INCH CURB REVEAL (E107.6.3R)

WCR #	ROADWAY ELEV. AT RAMP ℄	RAMP REFERENCE POINT			LENGTH OF PRIMARY RAMP	WIDTH OF SIDEWALK	WIDTH OF RAMP ENTRANCE	DEPTH OF LEVEL LANDING	TRANSITION		GUTTER SLOPE
		STREET	STATION	OFFSET					LEFT SIDE	RIGHT SIDE	
20	32.1	CODDINGTON STREET	202+99.21	22.1' L	7.0'	12.0'	5.0'	4.0'	9.0'	3.3'	1.2%±
21	31.7	CODDINGTON STREET	202.86.19	39.9' R	4.5'	9.5'	5.0'	4.0'	3.3'	11.0'	2.1%±
28	33.4	TEMPLE STREET	210+83.71	23.8' L	6.5'	32.6'	5.0'	4.0'	7.7'	3.3'	0.6%±
29	33.3	CHESTNUT STREET	400+32.94	13.70' L	6.4'	32.9'	5.0'	4.0'	4.5'	6.5'	1.7%±
34	30.8	HANCOCK STREET	114+23.23	24.95' R	6.5'	22.0'	5.0'	4.0'	11.0'	3.3'	2.5%±
35	30.1	MAPLE STREET	504+46.53	430.32 R	6.4'	17.1'	5.0'	4.0'	5.5'	6.5'	2.5%±



LEGEND:

HSL = HIGH SIDE TRANSITION (SEE E 107.9.0R)
* = TOLERANCE FOR CONSTRUCTION ±0.5%

NOTES:

DETECTABLE WARNING PANEL LOCATED NOT LESS THAN 6" OR MORE THAN 24" FROM ROADWAY EDGE (GUTTER LINE). TRUNCATED DOMES TO BE ALIGNED WITH DIRECTION OF TRAVEL.

FOR DETAILS OF TRUNCATED DOMES SEE DRAWING E 107.6.5R.

ROADWAY, GUTTER, AND FIRST 6" OF SIDEWALK TO BE ADJUSTED FOR FIELD CONDITIONS.

WHEELCHAIR RAMP FOR ONE CONTINUOUS DIRECTION OF PEDESTRIAN TRAVEL (E 107.6.0R)

NOT TO SCALE

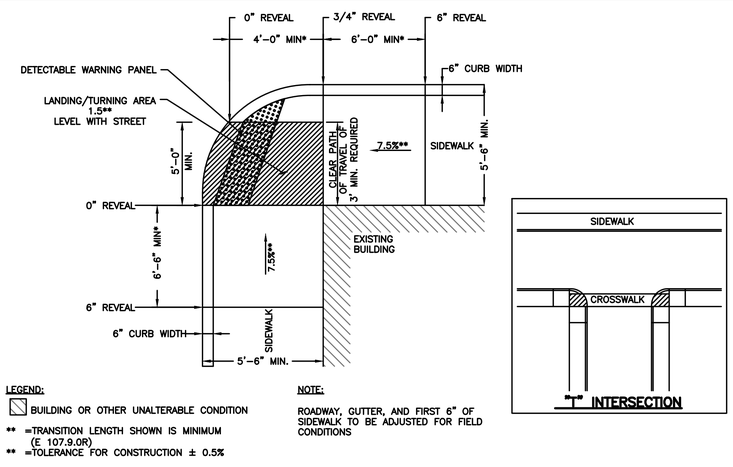
QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	10	123
PROJECT FILE NO.	606235		

CONSTRUCTION DETAILS

WHEELCHAIR RAMP FOR ONE CONTINUOUS DIRECTION OF PEDESTRIAN TRAVEL (E 107.6.0R)

WCR #	ROADWAY ELEV. AT RAMP ℄	RAMP REFERENCE POINT			LENGTH OF PRIMARY RAMP	WIDTH OF SIDEWALK	WIDTH OF RAMP ENTRANCE	DEPTH OF LEVEL LANDING	TRANSITION		GUTTER SLOPE
		STREET	STATION	OFFSET					LEFT SIDE	RIGHT SIDE	
37	27.4	GRANITE STREET	502+61.35	39.81' L	7.5'	11.8'	6.8'	4.3'	-	7.7'	0.5%±
38	27.9	GRANITE STREET	502+23.61	42.81' L	7.5'	16.6'	5.0'	9.1'	7.7'	-	0.5%±



LEGEND:

BUILDING OR OTHER UNALTERABLE CONDITION

** =TRANSITION LENGTH SHOWN IS MINIMUM (E 107.9.0R)
** =TOLERANCE FOR CONSTRUCTION ± 0.5%

NOTE:

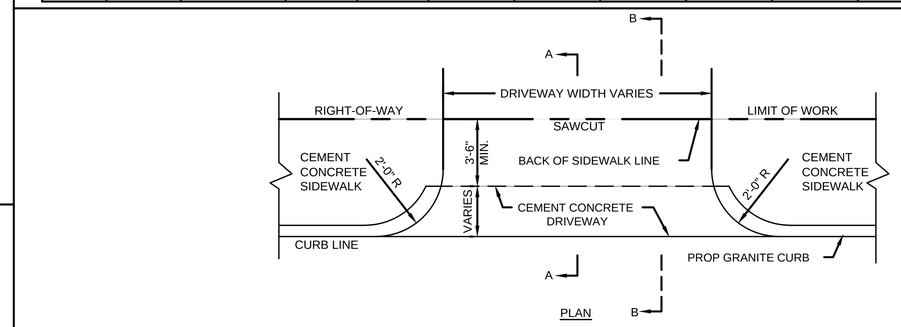
ROADWAY, GUTTER, AND FIRST 6" OF SIDEWALK TO BE ADJUSTED FOR FIELD CONDITIONS

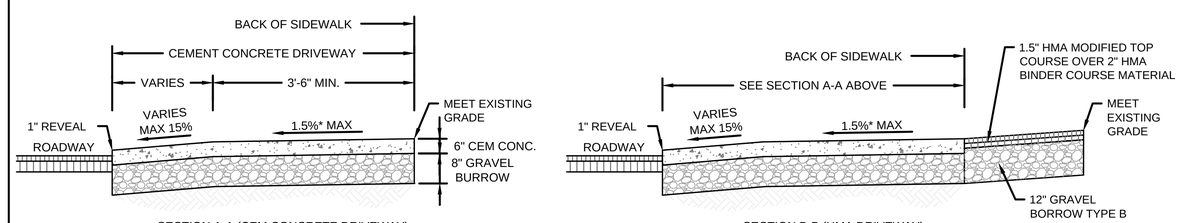
"T" INTERSECTION WHEELCHAIR RAMP (E 107.6.4R)

NOT TO SCALE

"T" INTERSECTION WHEELCHAIR RAMP (E107.6.4R)

WCR #	ROADWAY ELEV. AT RAMP ℄	RAMP REFERENCE POINT			LENGTH OF PRIMARY RAMP	WIDTH OF SIDEWALK	WIDTH OF RAMP ENTRANCE	DEPTH OF LEVEL LANDING	TRANSITION		GUTTER SLOPE
		STREET	STATION	OFFSET					LEFT SIDE	RIGHT SIDE	
5	37.6	HANCOCK STREET	102+91.50	39.50' R	5.8'	5.8'	5.0'	-	7.7'	9.0'	1.3%±/0.5%±
7	37.1	HANCOCK STREET	104+34.71	31.64' L	5.1'	5.1'	5.0'	-	7.7'	11.0'	0.5%±/2.4%±
8	36.8	HANCOCK STREET	104+64.43	30.91' L	6.2'	6.2'	5.0'	-	11.0'	6.5'	2.4%±/-0.5%±
9	36.5	HANCOCK STREET	105+40.14	32.27' L	6.8'	6.8'	5.0'	-	6.5'	11.0'	-0.5%±/2.1%±





SECTION A-A (CEM CONCRETE DRIVEWAY)

NOTE:
* CONSTRUCTION TOLERANCE ±0.5%

SECTION B-B (HMA DRIVEWAY)

NOTE:
* CONSTRUCTION TOLERANCE ±0.5%

DRIVEWAY CONSTRUCTION DETAIL (107.8.0)

NOT TO SCALE

DRIVEWAY CONSTRUCTION DETAIL (107.8.0)

DRIVEWAY #	DRIVEWAY REFERENCE POINT			ROADWAY ELEV. AT DRIVEWAY ℄	WIDTH OF OPENING
	STREET	STATION	OFFSET		
1	HANCOCK STREET	102+73.00	23.28' R	38.13	14.30'
2	TEMPLE STREET	207+10.00	22.00' L	34.27	12.40'
3	TEMPLE STREET	210+15.00	31.00' R	33.21	28.40'

WHEELCHAIR RAMP NOTE:

1. DETECTABLE WARNING PANELS ARE REQUIRED ON ALL PROPOSED RAMPS AND SHALL BE INSTALLED IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REQUIREMENTS AND GUIDELINES INCLUDING E 107.6.5R (MARCH 2012 CONSTRUCTION STANDARD DETAILS).

31-Aug-2012

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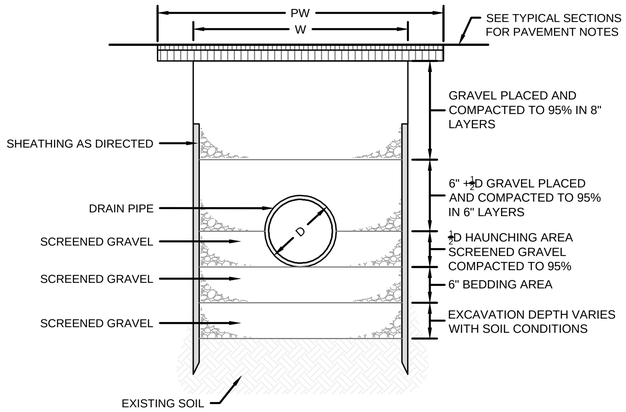
MassDOT DWF Version

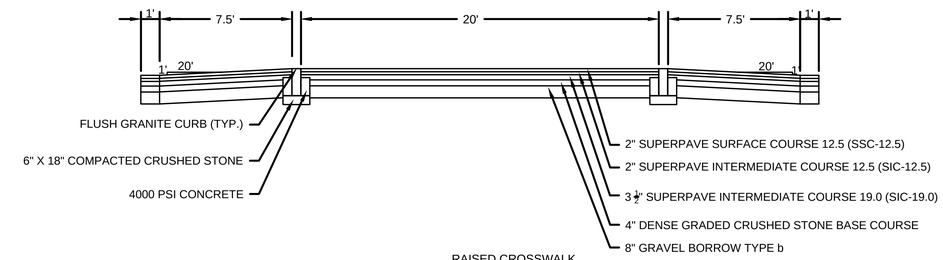


NOTES:

1. W = MAXIMUM WIDTH
2. PW = MAXIMUM PAVING WIDTH (W+1'-0")
3. D = OUTSIDE PIPE DIAMETER
4. UNSHEATHED TRENCH: W = D+2'-0" (3'-0" MIN.)
5. SHEATHED TRENCH: W = D+2'-0"+SHEATHING WIDTH
   - 4'-2" MIN. WITHOUT WALERS
   - 5'-0" MIN WITH WALERS
6. TRENCH BOX OR HYDRAULIC SHORING:
   - W = D+2'-0"+[WALL SHIELD WIDTH ≤ 8"] + 1'-0" FOR TRENCH BOX

TRENCH DETAIL FOR RCP OR DICL PIPE

NOT TO SCALE

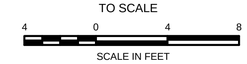


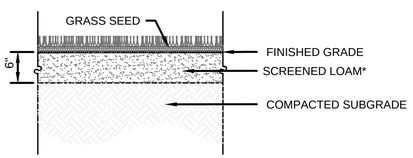
NOTE:

THE GRAVEL BORROW TYPE B SHALL BE IN CONFORMANCE WITH M201.5.

RAISED CROSSWALK

TO SCALE

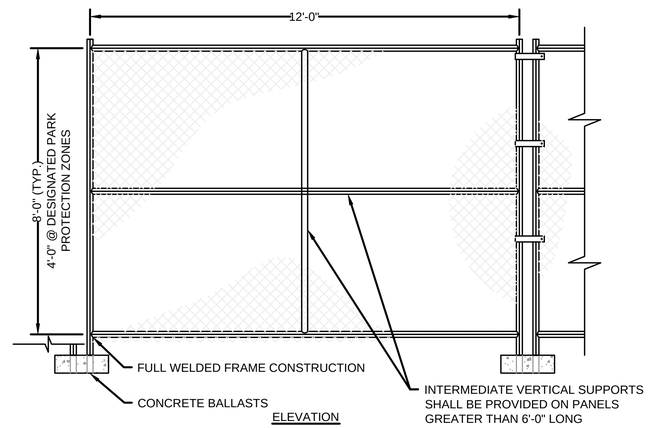




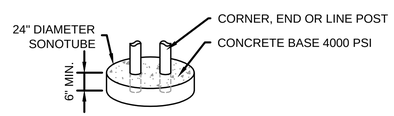
* DEPTH REFLECTS PLACEMENT AND ROLLING PRIOR TO SEEDING OF LOAM.

LOAM AND SEED DETAIL

NOT TO SCALE



ELEVATION



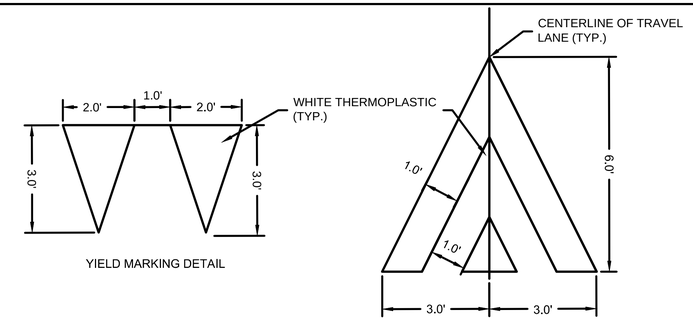
BALLAST BASE

NOTES:

1. FABRIC SHALL BE 11 GAUGE MIN. WIRE, WOVEN INTO APPROXIMATELY 2" DIAMOND MESH AND BE ZINC COATED.
2. ALL POSTS, RAILS, AND INTERMEDIATE SUPPORTS TO BE FULL WELDED CONSTRUCTION USING GALVANIZED PIPE WITH A MINIMUM 2½ IN. O.D. GATE POSTS SHALL BE MINIMUM 4 IN. O.D.
3. THE CONTRACTOR IS RESPONSIBLE FOR SURFACE RESTORATION ONCE THE FENCE IS REMOVED.
4. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF THE TEMPORARY CONSTRUCTION FENCE AT THE CONCLUSION OF THE PROJECT.
5. REFER TO SPEC SECTION 01500-2.11 FOR TEMPORARY FENCING, BARRIERS, AND PARTITIONS.
6. FENCE POSTS TO BE BOLTED TOGETHER WITH A MINIMUM OF 3 GALVANIZED PIPE CLAMPS LOCATED AT THE TOP AND AT ONE THIRD POINTS ALONG THE HEIGHT OF THE POSTS.
7. FENCE POSTS SHALL BE ANCHORED WITH THE PRECAST CONCRETE BALLAST FOOTINGS. BALLAST BASE TO BE PRE-CAST CONCRETE WITH TWO CAST GALVANIZED SLEEVES TO RECIEVE ADJOINED FENCE PANELS.
8. FENCE HEIGHT SHALL BE 4'-0" AND THE INTERMEDIATE RAILS ELIMINATED AT DESIGNATED PARK PROTECTION ZONES, SEE SHEET L010 FOR LOCATIONS.

CONSTRUCTION, TREE, & PARK PROTECTION ZONE FENCE PANEL

NOT TO SCALE

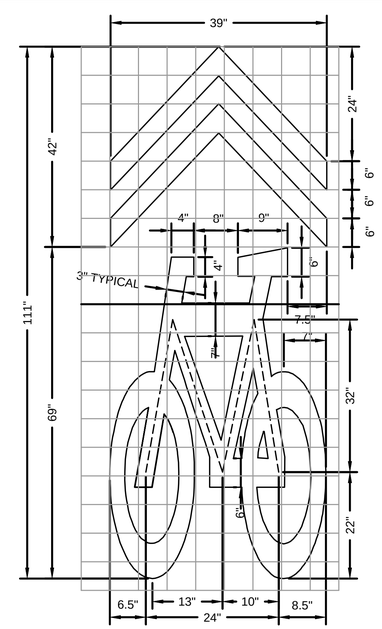


YIELD MARKING DETAIL

RAMP MARKING DETAIL

PAVEMENT MARKINGS FOR THE RAISED CROSSWALKS

NOT TO SCALE

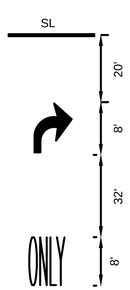


SHARED LANE SYMBOL PLACEMENT NOTES:

1. IN LOCATIONS WITH ON-STREET PARKING, SHARED LANE MARKING SYMBOLS SHALL BE PLACED SO THAT THE CENTER IS A MINIMUM OF 11 FEET FROM THE ADJACENT FACE OF CURB.
2. IN LOCATIONS WITHOUT ON-STREET PARKING, SHARE LANE MARKING SYMBOLS SHALL BE PLACED SO THAT THE CENTER IS 4 FEET FROM THE ADJACENT FACE OF CURB.
3. IF LOCATED IN A TURN LANE, SHARED LANE MARKING SYMBOLS SHALL BE CENTERED IN THE LANE.
4. DO NOT PLACE SYMBOLS ON LANE LINES.
5. SHARED LANE SYMBOLS SHALL BE PLACED A MAXIMUM OF 500 FEET APART.

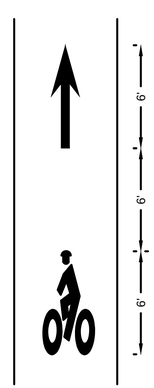
SHARED LANE SYMBOL DETAIL

NOT TO SCALE



TURN LANE PAVEMENT MARKING

NOT TO SCALE



BICYCLE LANE MARKING

NOT TO SCALE

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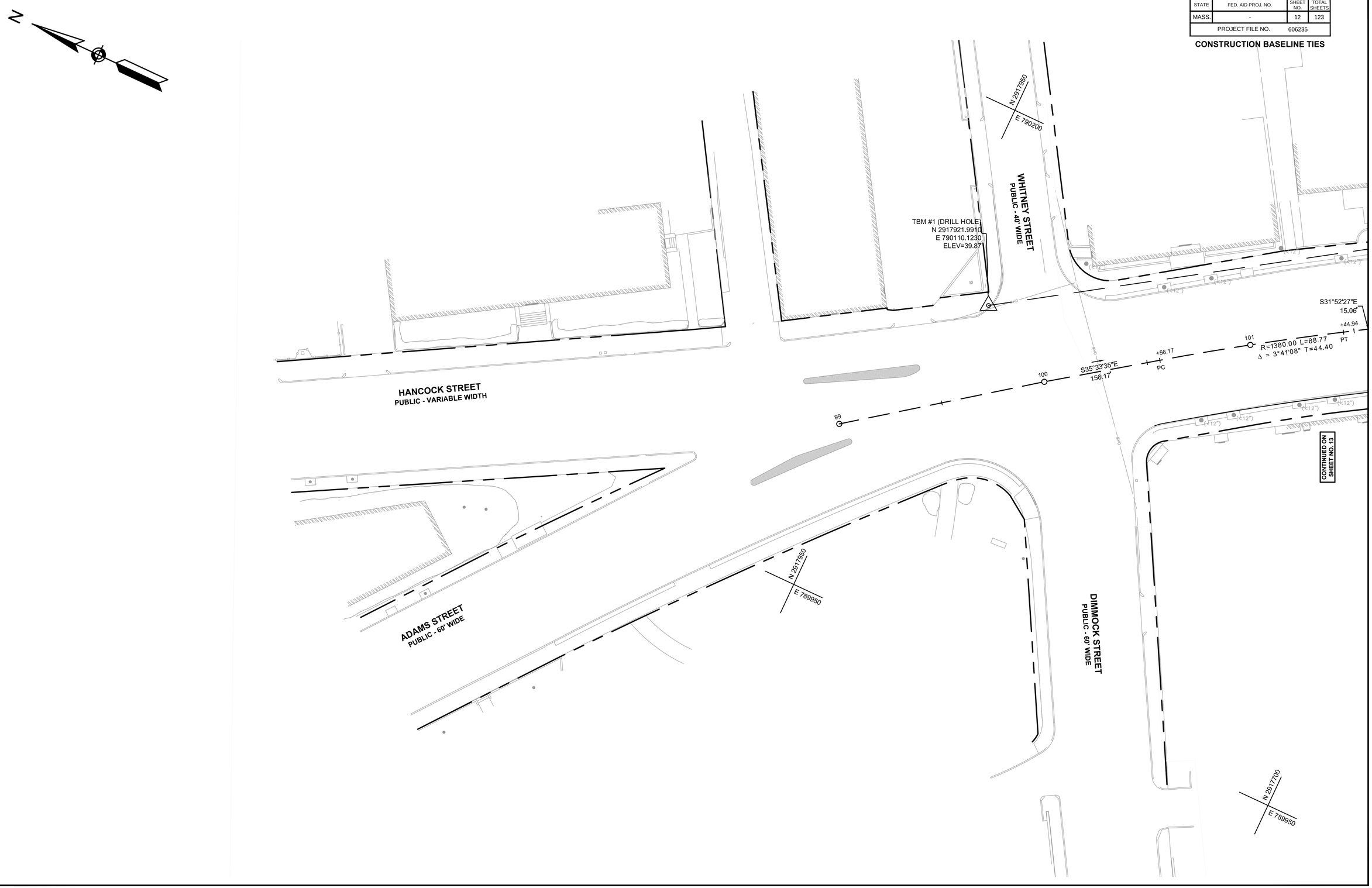
MassDOT DGN Version

QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	12	123
PROJECT FILE NO.	606235		

CONSTRUCTION BASELINE TIES



31-Aug-2012

606235(25%)HD(CONST BL TIES).DWG

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QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	13	123
PROJECT FILE NO.	606235		

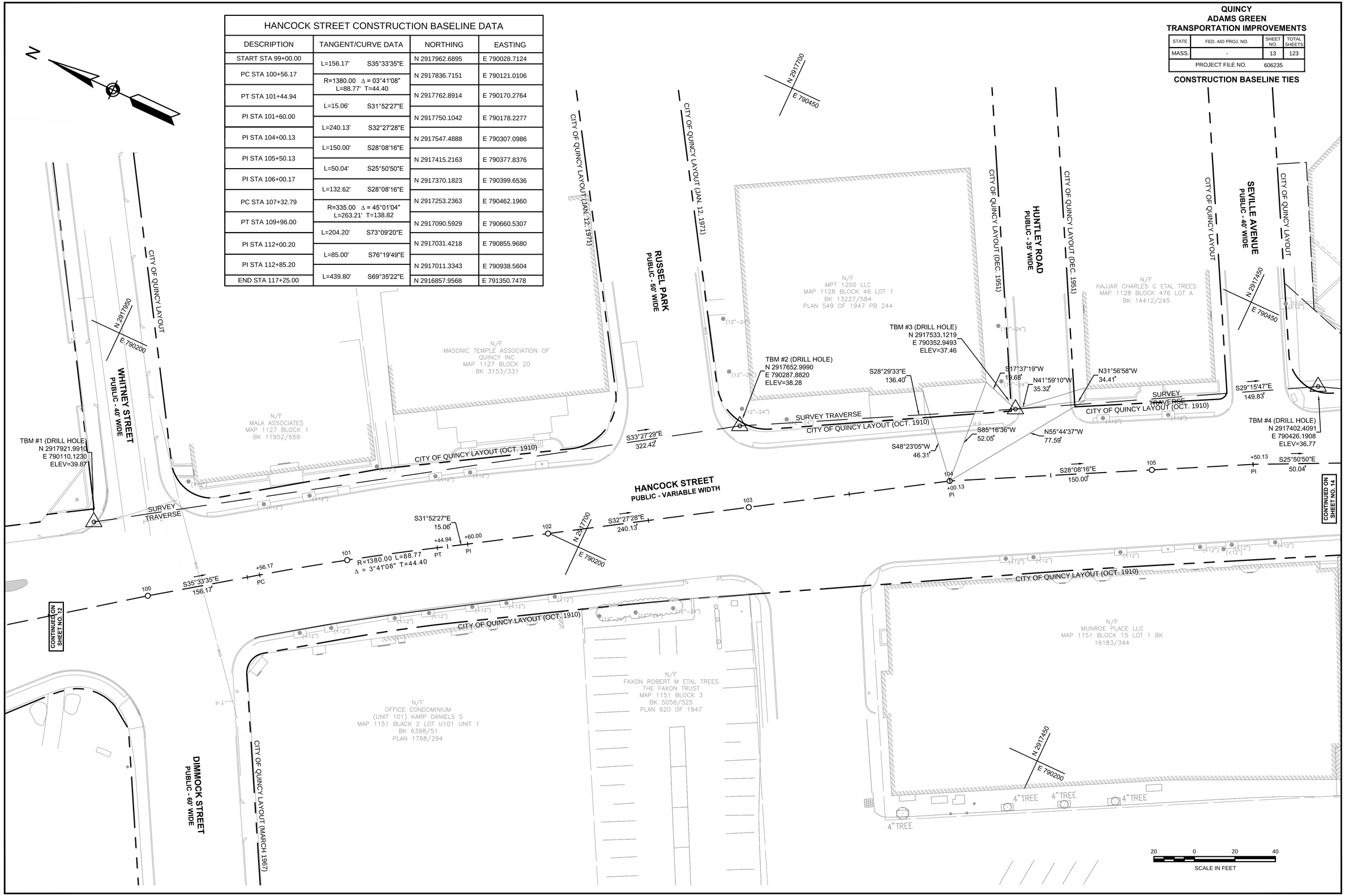
CONSTRUCTION BASELINE TIES

31-Aug-2012

606235(25%)HD(CONST BL TIES).DWG

HANCOCK STREET CONSTRUCTION BASELINE DATA

DESCRIPTION	TANGENT/CURVE DATA	NORTHING	EASTING
START STA 99+00.00	L=156.17' S35°33'35"E	N 2917962.6895	E 790028.7124
PC STA 100+56.17	R=1380.00 Δ = 03°41'08" L=88.77' T=44.40	N 2917836.7151	E 790121.0106
PT STA 101+44.94	L=15.06' S31°52'27"E	N 2917762.8914	E 790170.2764
PI STA 101+60.00	L=240.13' S32°27'28"E	N 2917750.1042	E 790178.2277
PI STA 104+00.13	L=150.00' S28°08'16"E	N 2917547.4888	E 790307.0986
PI STA 105+50.13	L=50.04' S25°50'50"E	N 2917415.2163	E 790377.8376
PI STA 106+00.17	L=132.62' S28°08'16"E	N 2917370.1823	E 790399.6536
PC STA 107+32.79	R=335.00 Δ = 45°01'04" L=263.21' T=138.82	N 2917253.2363	E 790462.1960
PT STA 109+96.00	L=204.20' S73°09'20"E	N 2917090.5929	E 790660.5307
PI STA 112+00.20	L=85.00' S76°19'49"E	N 2917031.4218	E 790855.9680
PI STA 112+85.20	L=439.80' S69°35'22"E	N 2917011.3343	E 790938.5604
END STA 117+25.00		N 2916857.9568	E 791350.7478



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QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

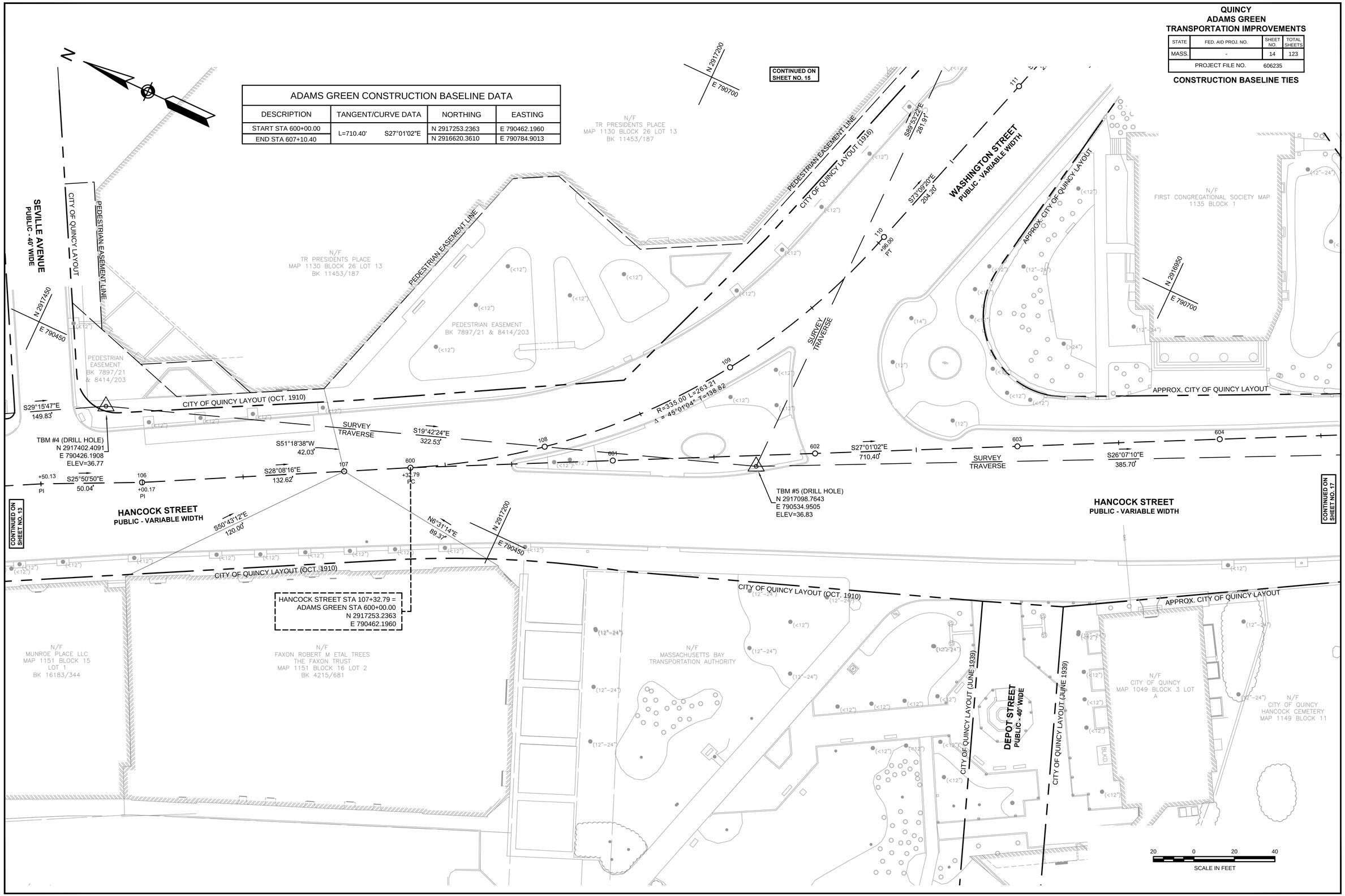
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	14	123
PROJECT FILE NO.	606235		

CONSTRUCTION BASELINE TIES

31-Aug-2012

606235(25%)HD(CONST BL TIES).DWG

ADAMS GREEN CONSTRUCTION BASELINE DATA			
DESCRIPTION	TANGENT/CURVE DATA	NORTHING	EASTING
START STA 600+00.00	L=710.40' S27°01'02"E	N 2917253.2363	E 790462.1960
END STA 607+10.40		N 2916620.3610	E 790784.9013



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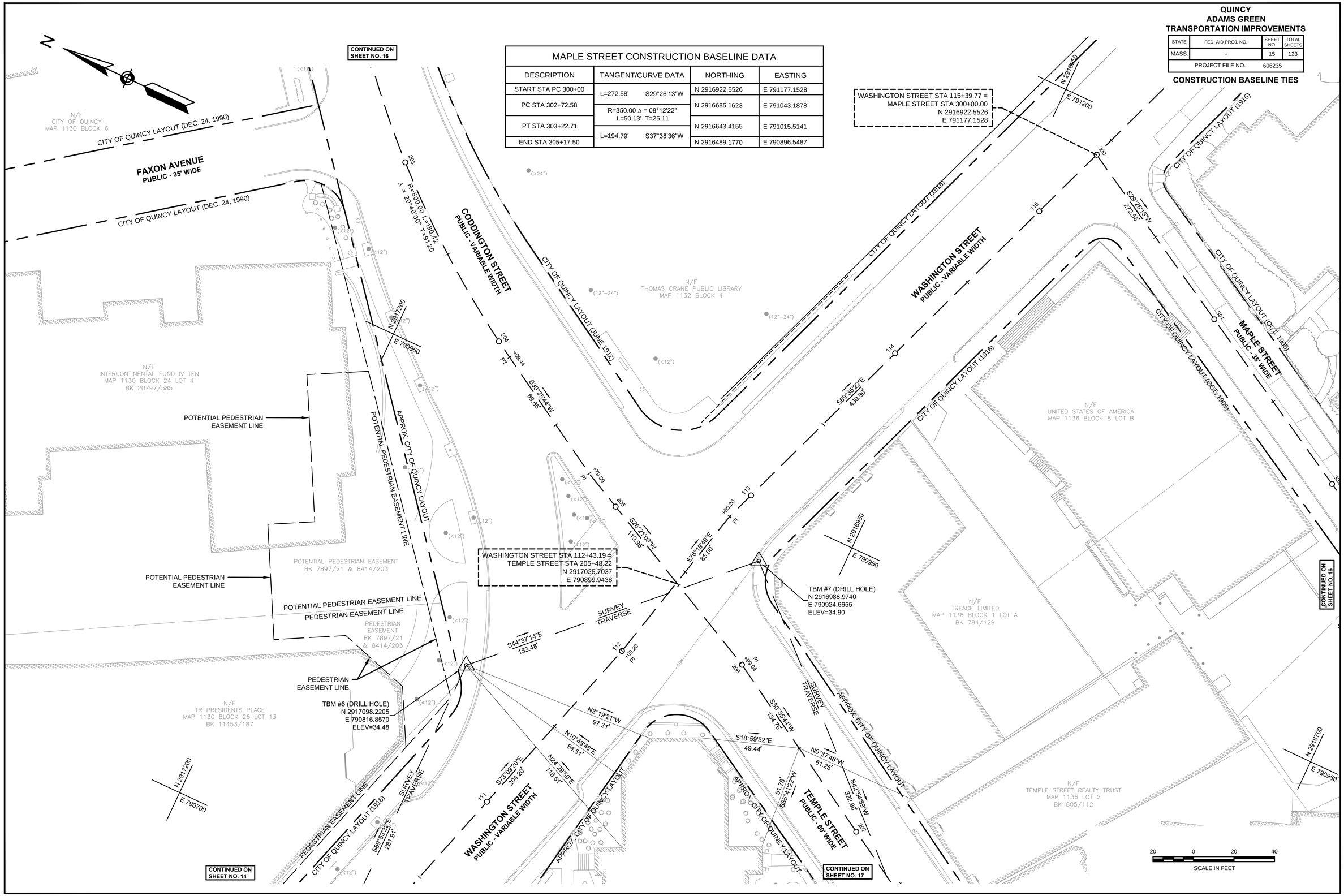
QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	15	123
PROJECT FILE NO.	606235		

CONSTRUCTION BASELINE TIES

31-Aug-2012

606235(25%)HD(CONST BL TIES).DWG



MAPLE STREET CONSTRUCTION BASELINE DATA

DESCRIPTION	TANGENT/CURVE DATA	NORTHING	EASTING
START STA PC 300+00	L=272.58' S29°26'13"W	N 2916922.5526	E 791177.1528
PC STA 302+72.58	R=350.00 Δ = 08°12'22" L=50.13' T=25.11	N 2916685.1623	E 791043.1878
PT STA 303+22.71	L=194.79' S37°38'36"W	N 2916643.4155	E 791015.5141
END STA 305+17.50		N 2916489.1770	E 790896.5487

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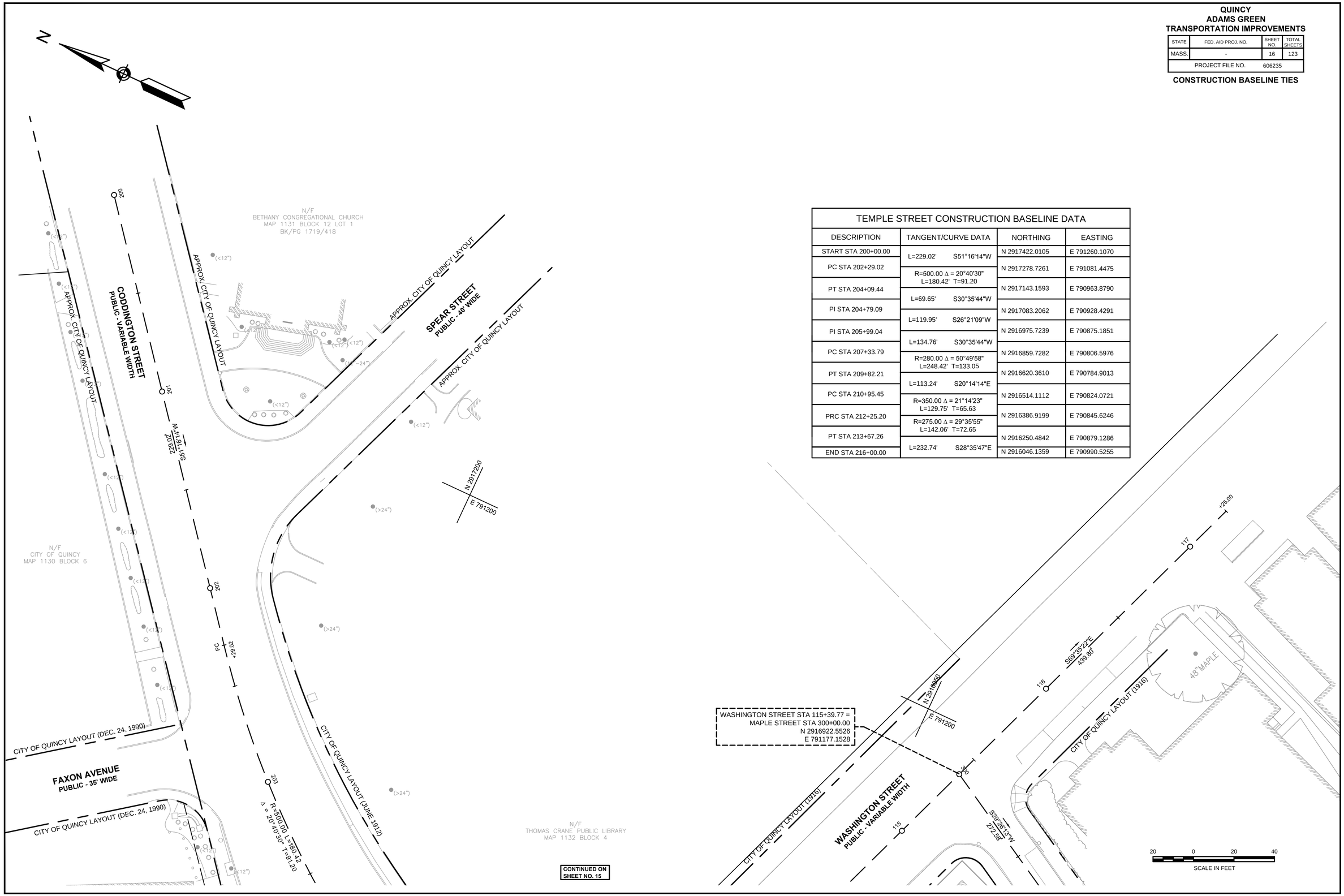
QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	16	123
PROJECT FILE NO.	606235		

CONSTRUCTION BASELINE TIES



TEMPLE STREET CONSTRUCTION BASELINE DATA

DESCRIPTION	TANGENT/CURVE DATA	NORTHING	EASTING
START STA 200+00.00		N 2917422.0105	E 791260.1070
	L=229.02' S51°16'14"W		
PC STA 202+29.02		N 2917278.7261	E 791081.4475
	R=500.00 Δ = 20°40'30" L=180.42' T=91.20		
PT STA 204+09.44		N 2917143.1593	E 790963.8790
	L=69.65' S30°35'44"W		
PI STA 204+79.09		N 2917083.2062	E 790928.4291
	L=119.95' S26°21'09"W		
PI STA 205+99.04		N 2916975.7239	E 790875.1851
	L=134.76' S30°35'44"W		
PC STA 207+33.79		N 2916859.7282	E 790806.5976
	R=280.00 Δ = 50°49'58" L=248.42' T=133.05		
PT STA 209+82.21		N 2916620.3610	E 790784.9013
	L=113.24' S20°14'14"E		
PC STA 210+95.45		N 2916514.1112	E 790824.0721
	R=350.00 Δ = 21°14'23" L=129.75' T=65.63		
PRC STA 212+25.20		N 2916386.9199	E 790845.6246
	R=275.00 Δ = 29°35'55" L=142.06' T=72.65		
PT STA 213+67.26		N 2916250.4842	E 790879.1286
	L=232.74' S28°35'47"E		
END STA 216+00.00		N 2916046.1359	E 790990.5255

606235(25%)HD(CONST BL TIES).DWG 31-Aug-2012

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QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

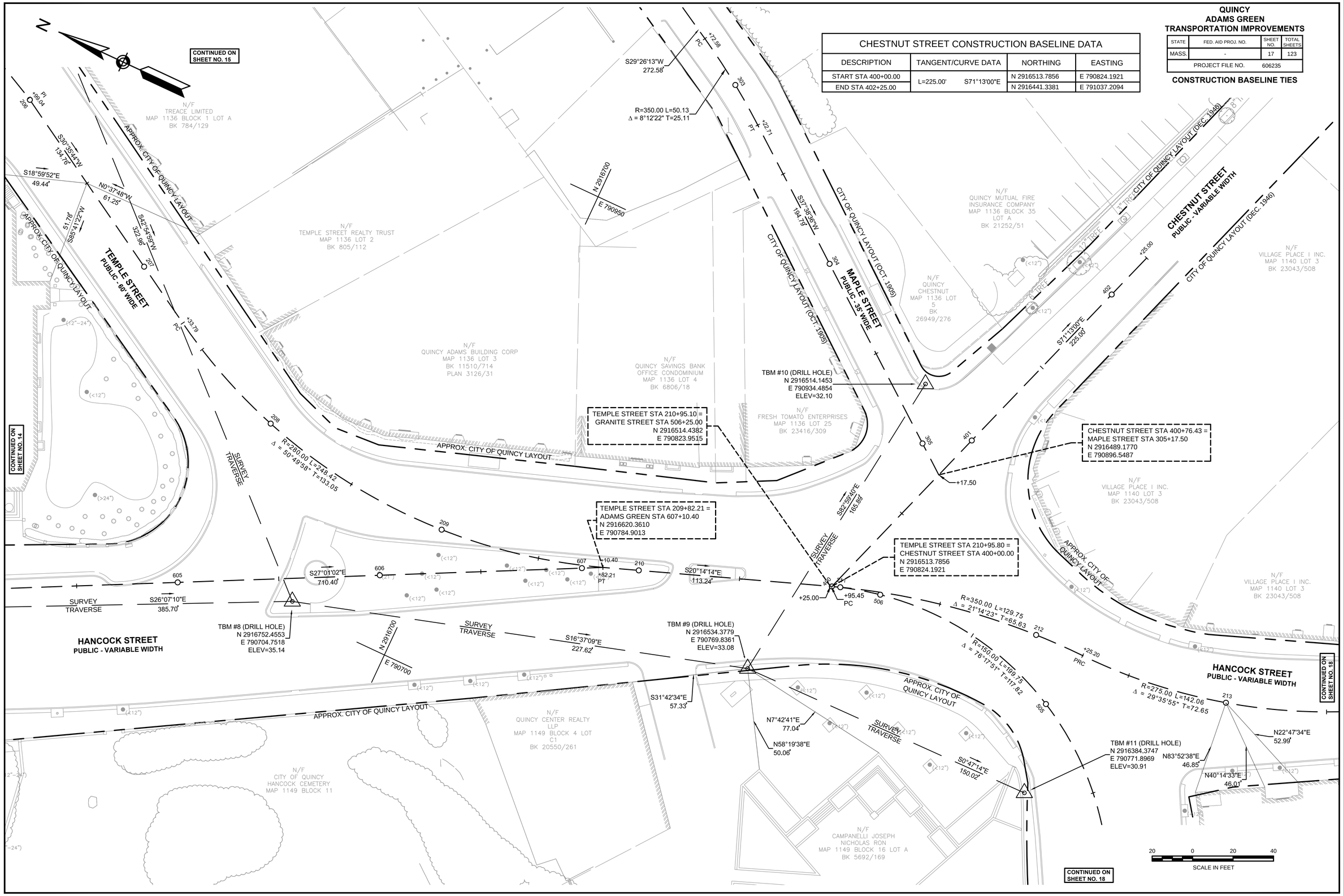
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	17	123
PROJECT FILE NO.	606235		

CONSTRUCTION BASELINE TIES

31-Aug-2012

606235(25%)HD(CONST BL TIES).DWG

CHESTNUT STREET CONSTRUCTION BASELINE DATA			
DESCRIPTION	TANGENT/CURVE DATA	NORTHING	EASTING
START STA 400+00.00	L=225.00' S71°13'00"E	N 2916513.7856	E 790824.1921
END STA 402+25.00		N 2916441.3381	E 791037.2094



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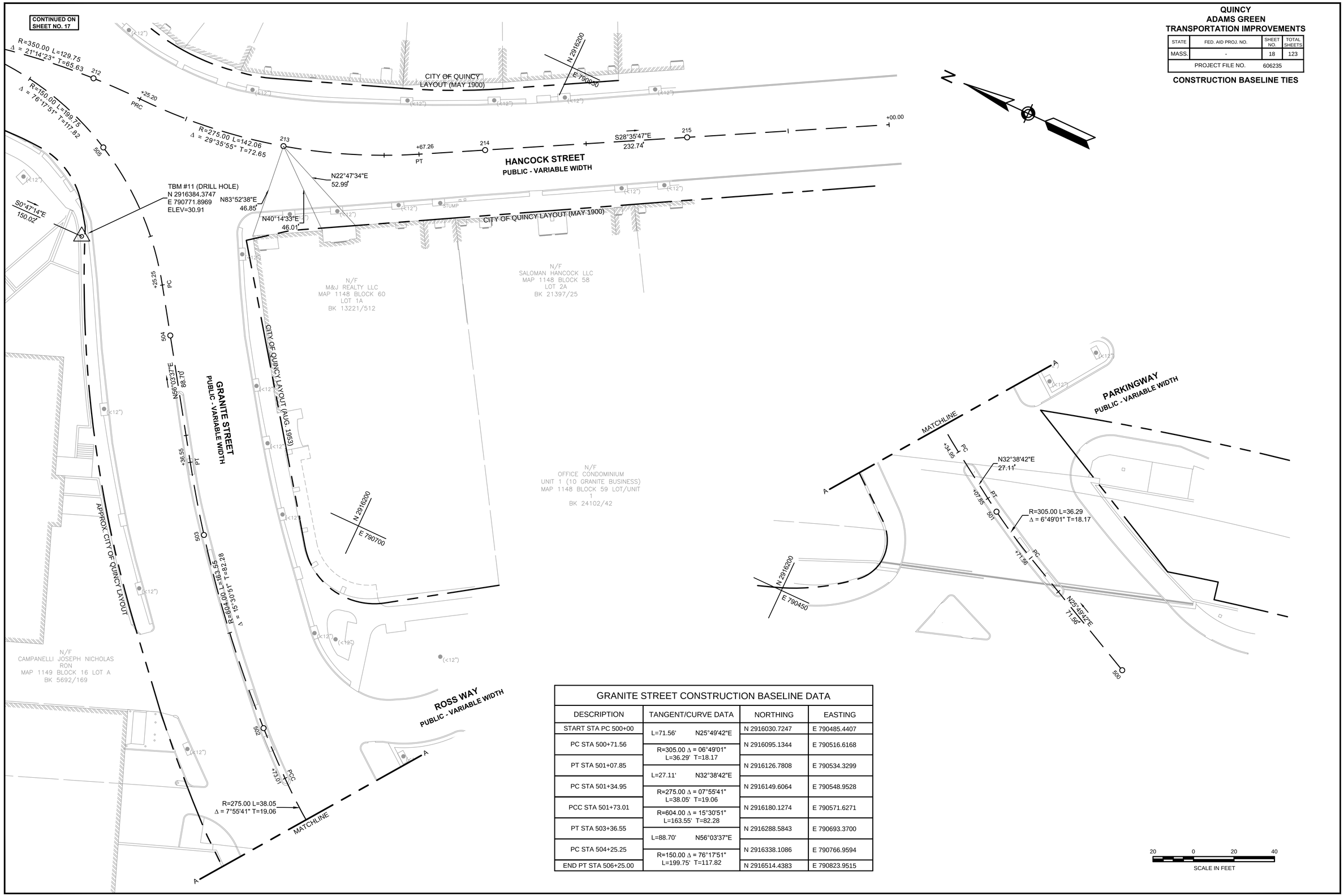
QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	18	123
PROJECT FILE NO.	606235		

CONSTRUCTION BASELINE TIES



GRANITE STREET CONSTRUCTION BASELINE DATA

DESCRIPTION	TANGENT/CURVE DATA	NORTHING	EASTING
START STA PC 500+00		N 2916030.7247	E 790485.4407
	L=71.56' N25°49'42"E		
PC STA 500+71.56		N 2916095.1344	E 790516.6168
	R=305.00 Δ = 06°49'01" L=36.29' T=18.17		
PT STA 501+07.85		N 2916126.7808	E 790534.3299
	L=27.11' N32°38'42"E		
PC STA 501+34.95		N 2916149.6064	E 790548.9528
	R=275.00 Δ = 07°55'41" L=38.05' T=19.06		
PCC STA 501+73.01		N 2916180.1274	E 790571.6271
	R=604.00 Δ = 15°30'51" L=163.55' T=82.28		
PT STA 503+36.55		N 2916288.5843	E 790693.3700
	L=88.70' N56°03'37"E		
PC STA 504+25.25		N 2916338.1086	E 790766.9594
	R=150.00 Δ = 76°17'51" L=199.75' T=117.82		
END PT STA 506+25.00		N 2916514.4383	E 790823.9515

31-Aug-2012

606235[25%]HD(CONST BL TIES).DWG

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QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	19	123
PROJECT FILE NO.	606235		

CONSTRUCTION PLANS

HIGHWAY GUARD DETAILS

NONE

TRAFFIC SIGNAL CONDUIT

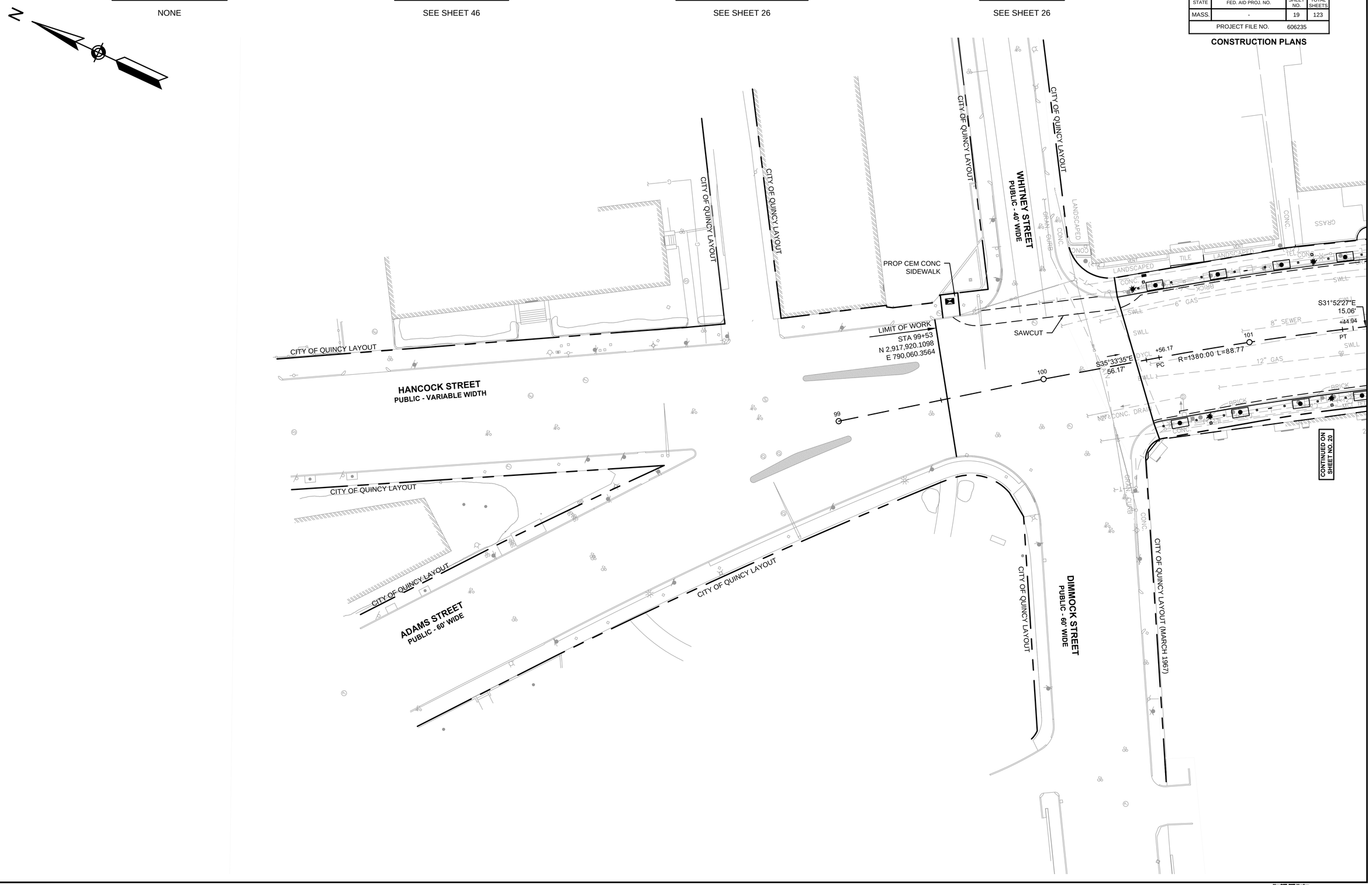
SEE SHEET 46

WATER SUPPLY ALTERATIONS

SEE SHEET 26

DRAINAGE DETAILS

SEE SHEET 26



31-Aug-2012

606235[25%]HD\CONST PLANS\.DWG

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MassDOT DWF Version

QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	20	123
PROJECT FILE NO.	606235		

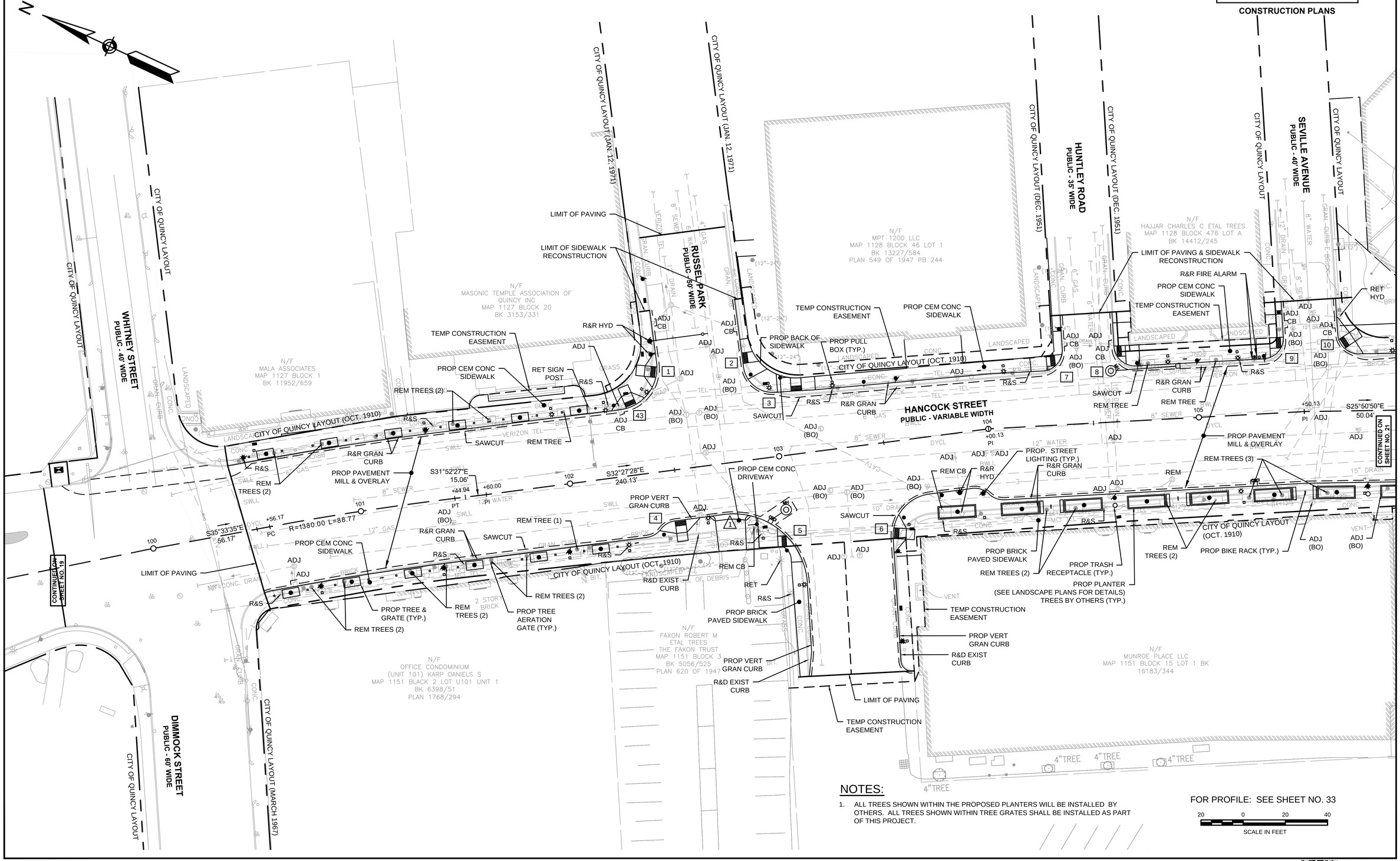
CONSTRUCTION PLANS

HIGHWAY GUARD DETAILS
NONE

TRAFFIC SIGNAL CONDUIT
SEE SHEET 47

WATER SUPPLY ALTERATIONS
SEE SHEET 27

DRAINAGE DETAILS
SEE SHEET 27



NOTES:

1. ALL TREES SHOWN WITHIN THE PROPOSED PLANTERS WILL BE INSTALLED BY OTHERS. ALL TREES SHOWN WITHIN TREE GRATES SHALL BE INSTALLED AS PART OF THIS PROJECT.

FOR PROFILE: SEE SHEET NO. 33

20 0 20 40
SCALE IN FEET

606235(25%)HD(CONST PLANS).DWG 31-Aug-2012

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HIGHWAY GUARD DETAILS

NONE

TRAFFIC SIGNAL CONDUIT

SEE SHEET 49

WATER SUPPLY ALTERATIONS

SEE SHEET 28

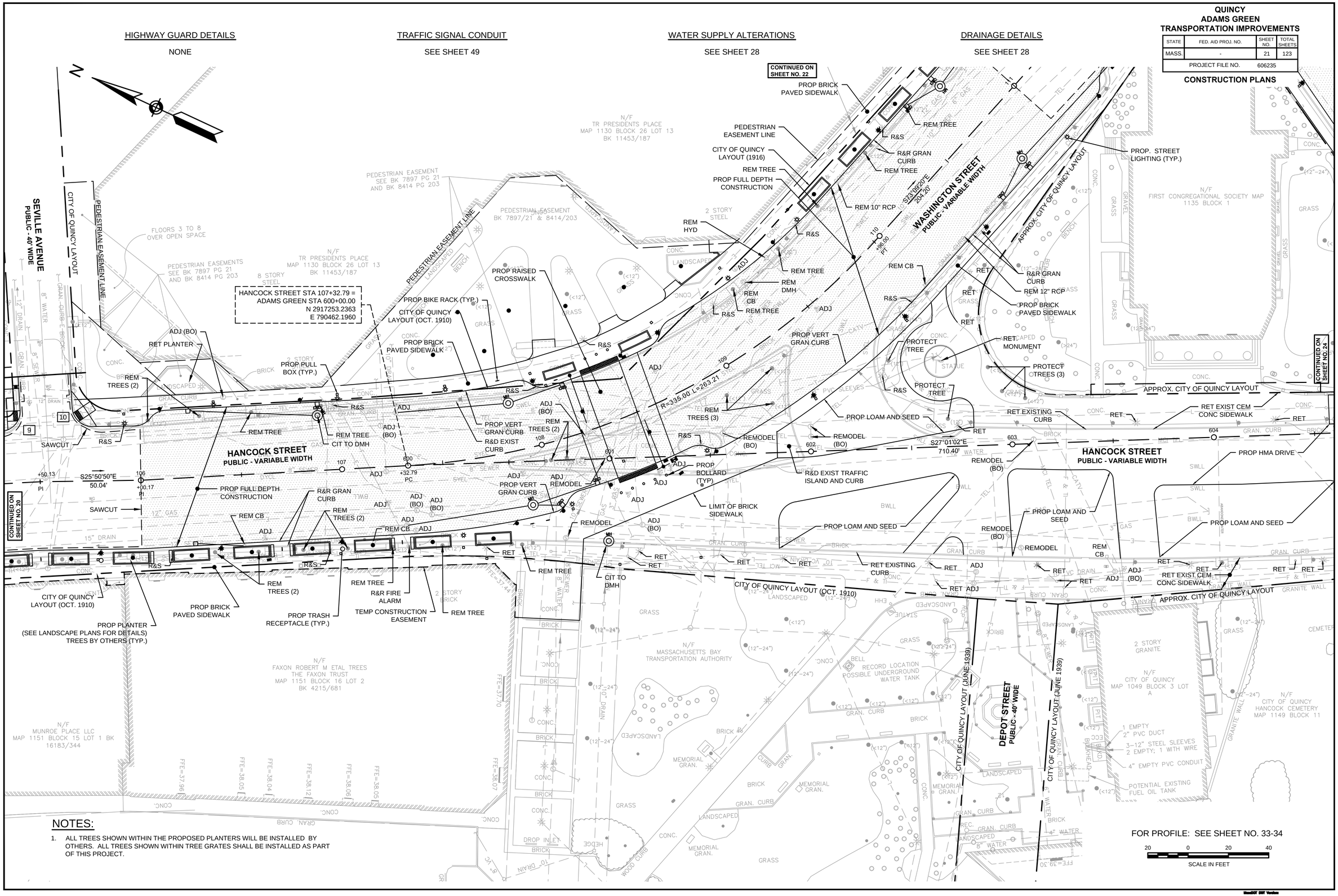
DRAINAGE DETAILS

SEE SHEET 28

QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	21	123
PROJECT FILE NO.	606235		

CONSTRUCTION PLANS



NOTES:

1. ALL TREES SHOWN WITHIN THE PROPOSED PLANTERS WILL BE INSTALLED BY OTHERS. ALL TREES SHOWN WITHIN TREE GRATES SHALL BE INSTALLED AS PART OF THIS PROJECT.

31-Aug-2012

606235[25%]HD\CONST PLAN(S).DWG

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MassDOT DWF Version

QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	22	123
PROJECT FILE NO.	606235		

CONSTRUCTION PLANS

HIGHWAY GUARD DETAILS

NONE

TRAFFIC SIGNAL CONDUIT

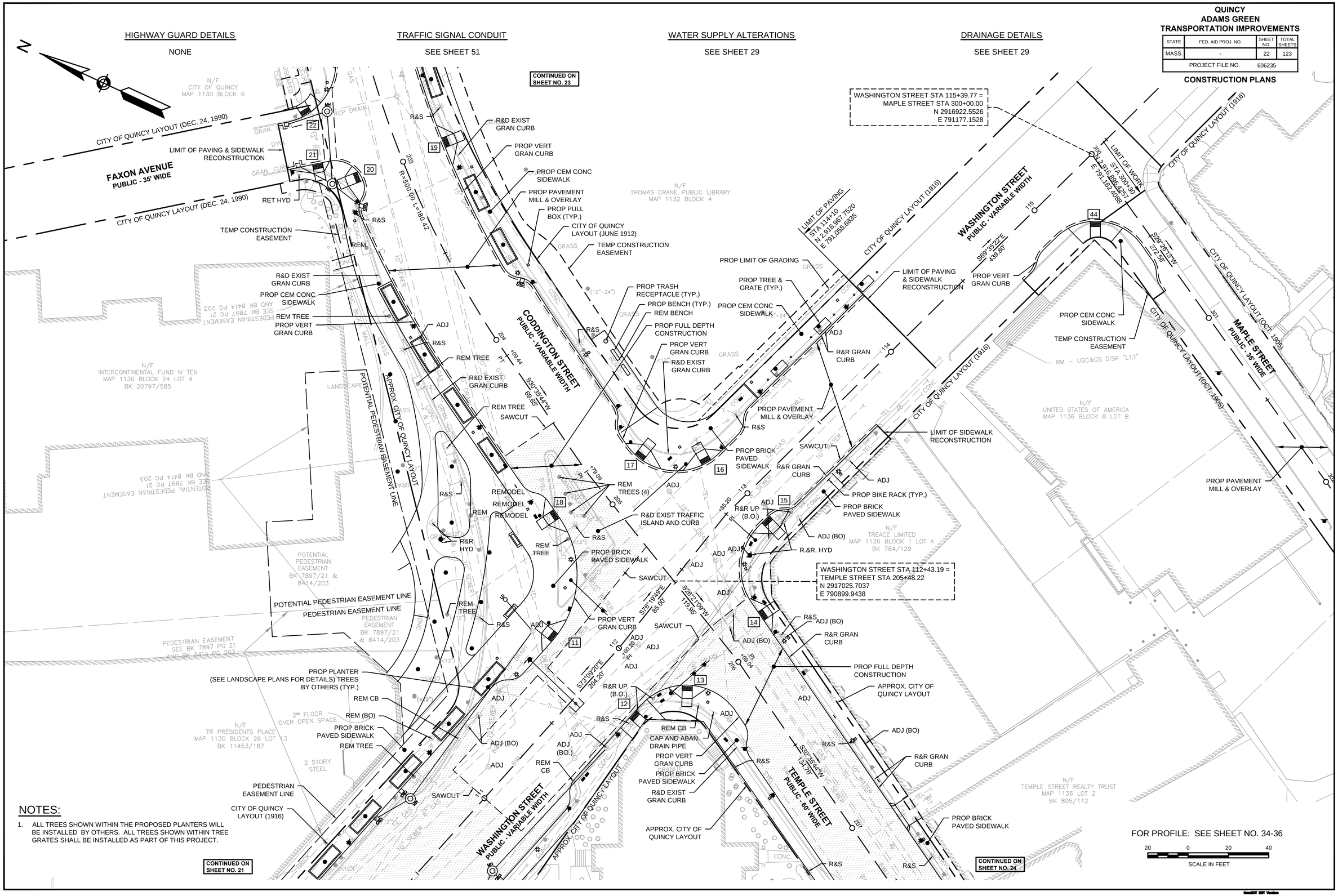
SEE SHEET 51

WATER SUPPLY ALTERATIONS

SEE SHEET 29

DRAINAGE DETAILS

SEE SHEET 29



FOR PROFILE: SEE SHEET NO. 34-36

20 0 20 40
SCALE IN FEET

NOTES:

1. ALL TREES SHOWN WITHIN THE PROPOSED PLANTERS WILL BE INSTALLED BY OTHERS. ALL TREES SHOWN WITHIN TREE GRATES SHALL BE INSTALLED AS PART OF THIS PROJECT.

31-Aug-2012

606235(25%)HD(CONST PLANS).DWG

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MassDOT DWF Version

QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	23	123
PROJECT FILE NO.	606235		

CONSTRUCTION PLANS

31-Aug-2012

606235[25%]HD\CONST PLANS\.DWG

HIGHWAY GUARD DETAILS

NONE

TRAFFIC SIGNAL CONDUIT

NONE

WATER SUPPLY ALTERATIONS

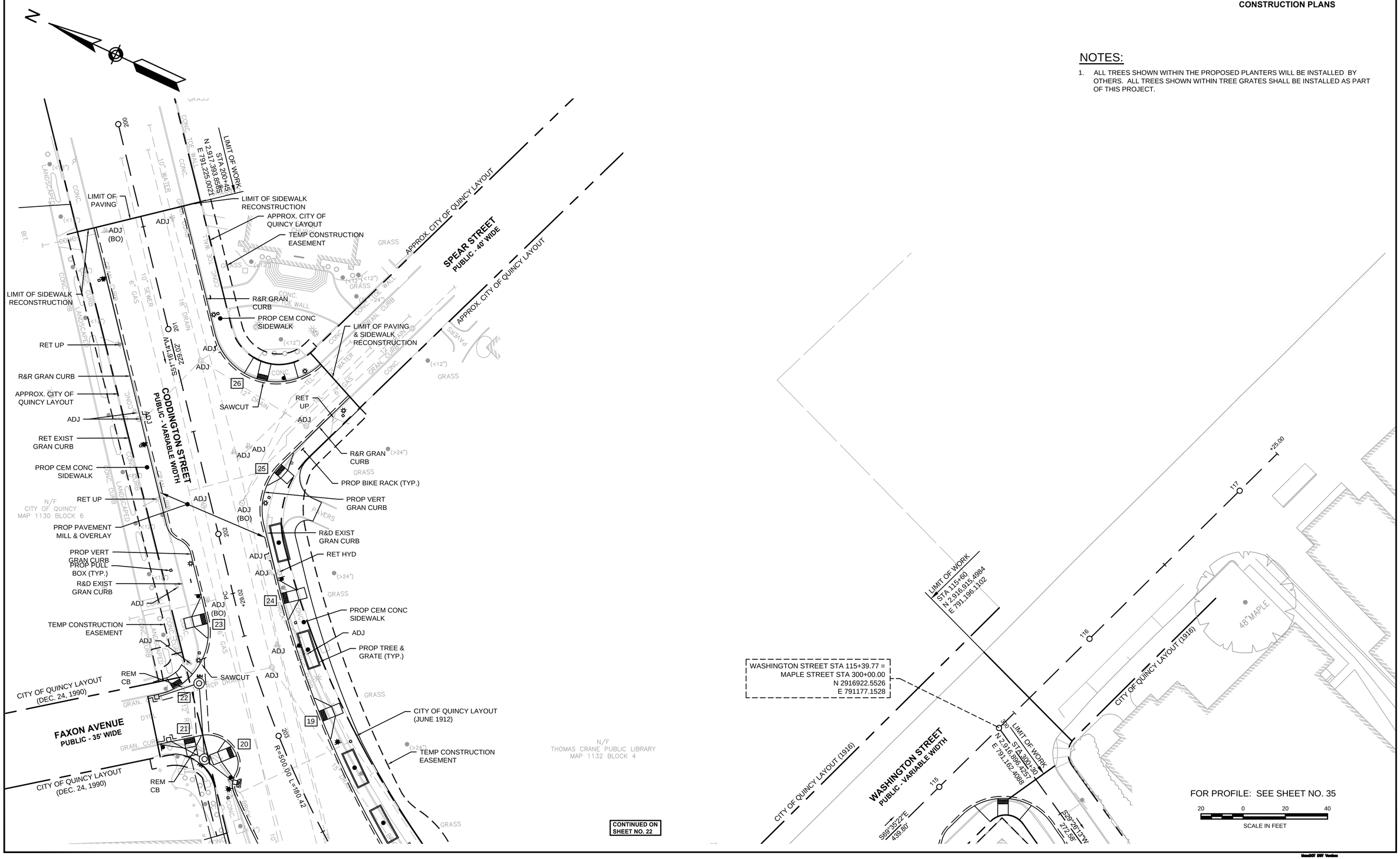
SEE SHEET 30

DRAINAGE DETAILS

SEE SHEET 30

NOTES:

1. ALL TREES SHOWN WITHIN THE PROPOSED PLANTERS WILL BE INSTALLED BY OTHERS. ALL TREES SHOWN WITHIN TREE GRATES SHALL BE INSTALLED AS PART OF THIS PROJECT.



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MassDOT DMT Vendor

QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	24	123
PROJECT FILE NO.	606235		

CONSTRUCTION PLANS

31-Aug-2012

606235(25%)HD\CONST PLANS\.DWG

HIGHWAY GUARD DETAILS

NONE

TRAFFIC SIGNAL CONDUIT

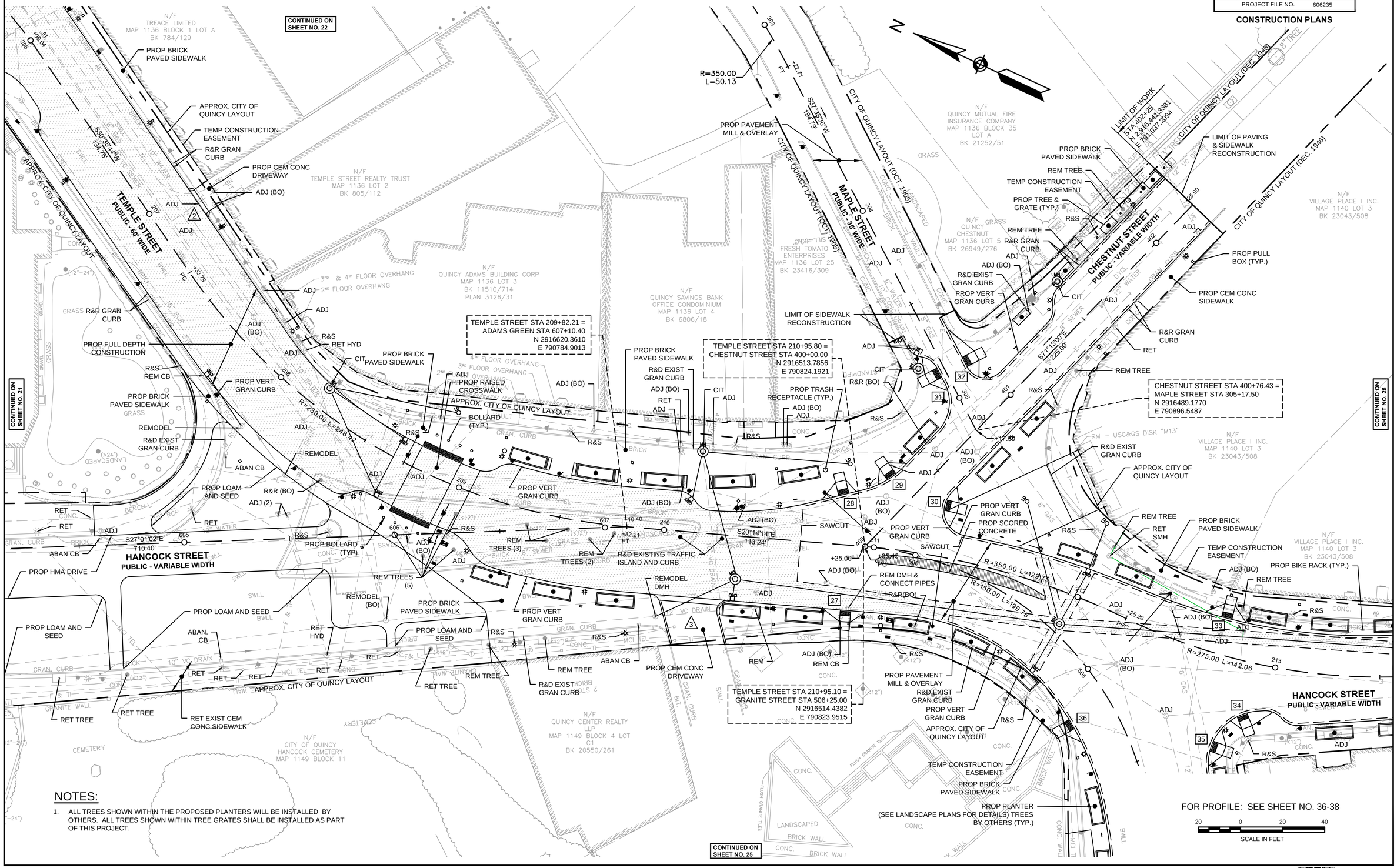
SEE SHEETS 53

WATER SUPPLY ALTERATIONS

SEE SHEET 31

DRAINAGE DETAILS

SEE SHEET 31



NOTES:

1. ALL TREES SHOWN WITHIN THE PROPOSED PLANTERS WILL BE INSTALLED BY OTHERS. ALL TREES SHOWN WITHIN TREE GRATES SHALL BE INSTALLED AS PART OF THIS PROJECT.

FOR PROFILE: SEE SHEET NO. 36-38

20 0 20 40
SCALE IN FEET

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MassDOT DGN Version

QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	25	123
PROJECT FILE NO.	606235		

CONSTRUCTION PLANS

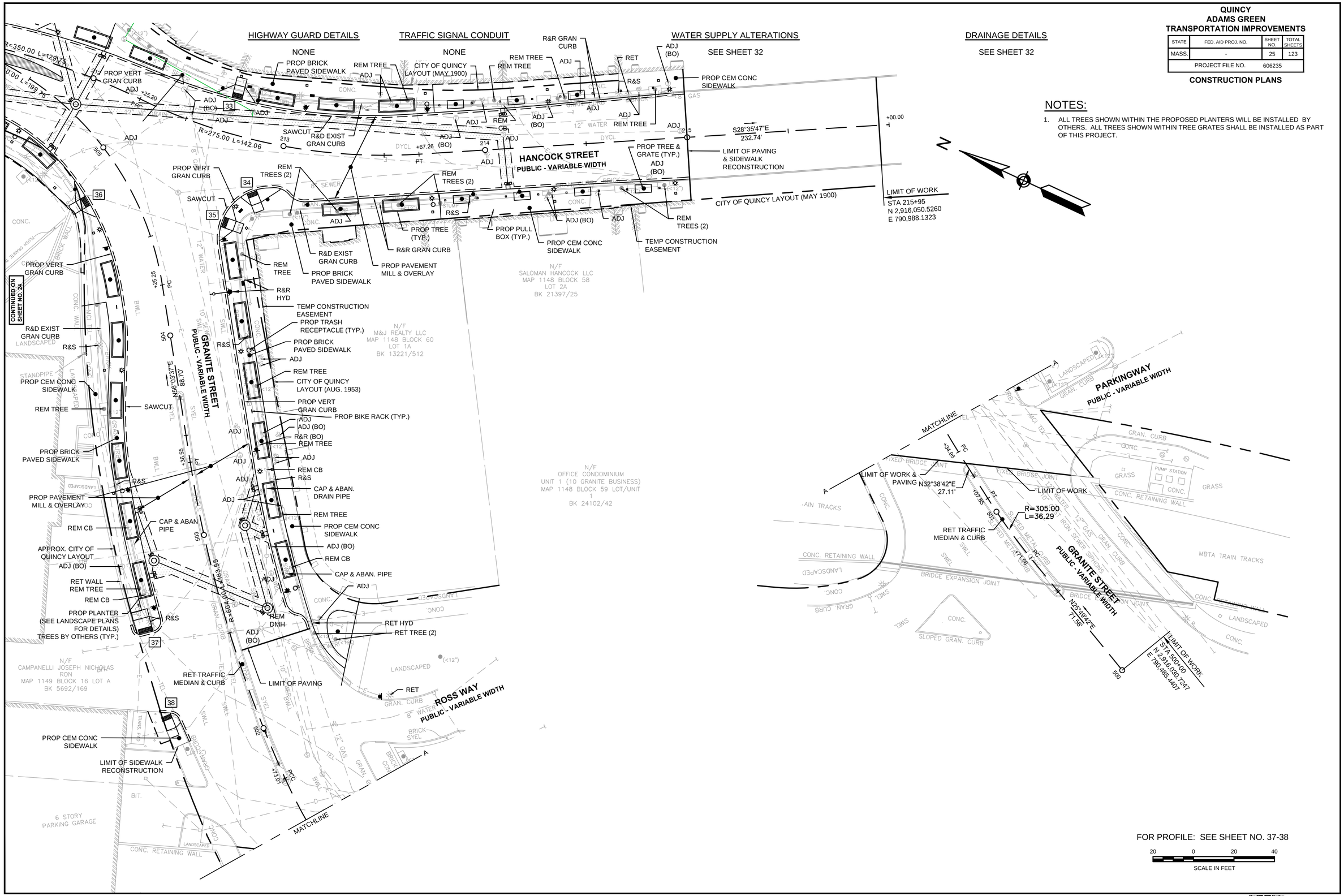
HIGHWAY GUARD DETAILS
NONE

TRAFFIC SIGNAL CONDUIT
NONE

WATER SUPPLY ALTERATIONS
SEE SHEET 32

DRAINAGE DETAILS
SEE SHEET 32

NOTES:
1. ALL TREES SHOWN WITHIN THE PROPOSED PLANTERS WILL BE INSTALLED BY OTHERS. ALL TREES SHOWN WITHIN TREE GRATES SHALL BE INSTALLED AS PART OF THIS PROJECT.



606235[25%]HD\CONST PLANS).DWG 31-Aug-2012

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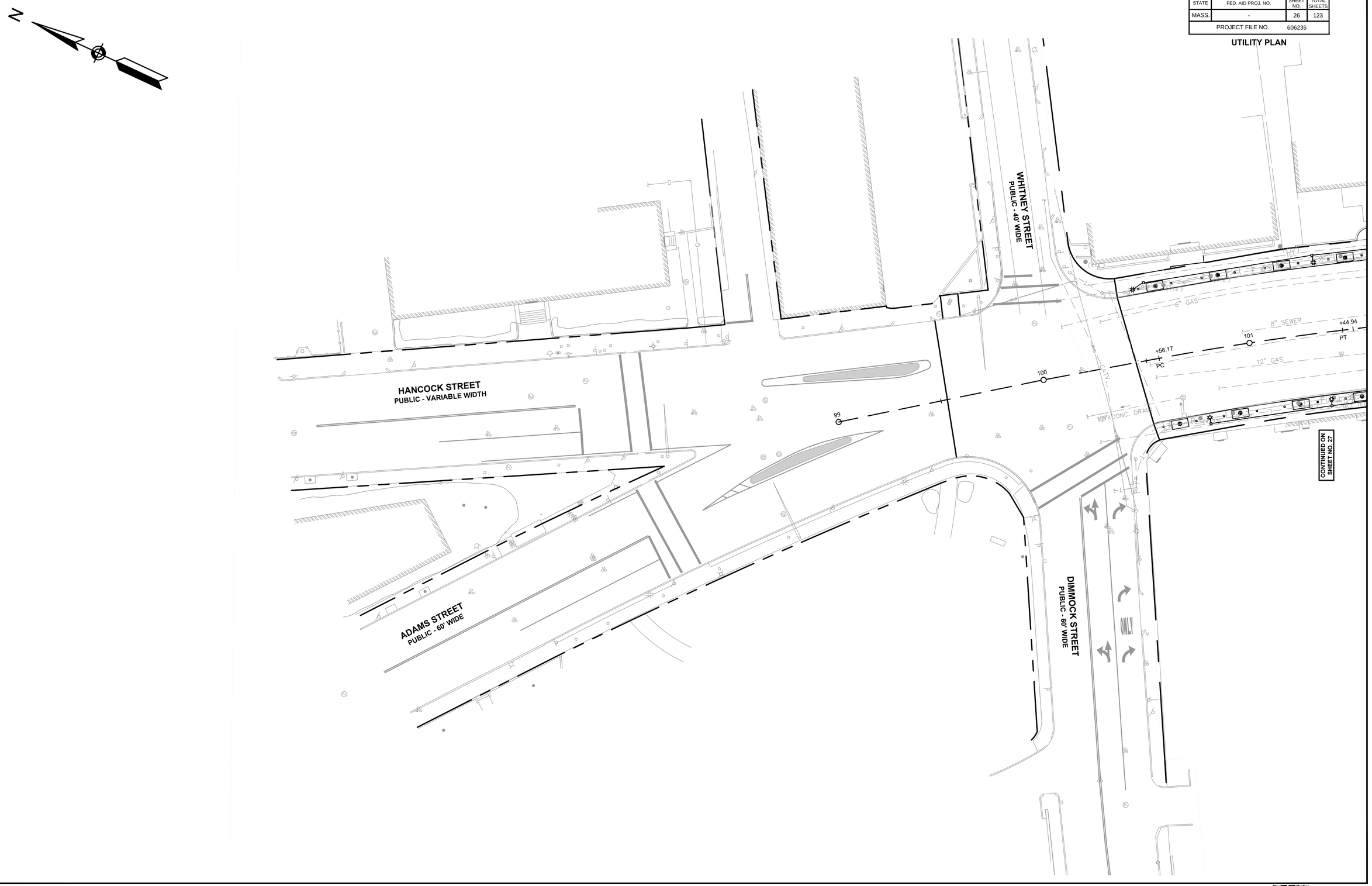
QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	26	123
PROJECT FILE NO.	606235		

UTILITY PLAN



31-Aug-2012

606235(25%)UT(UTILITY PLAN).DWG

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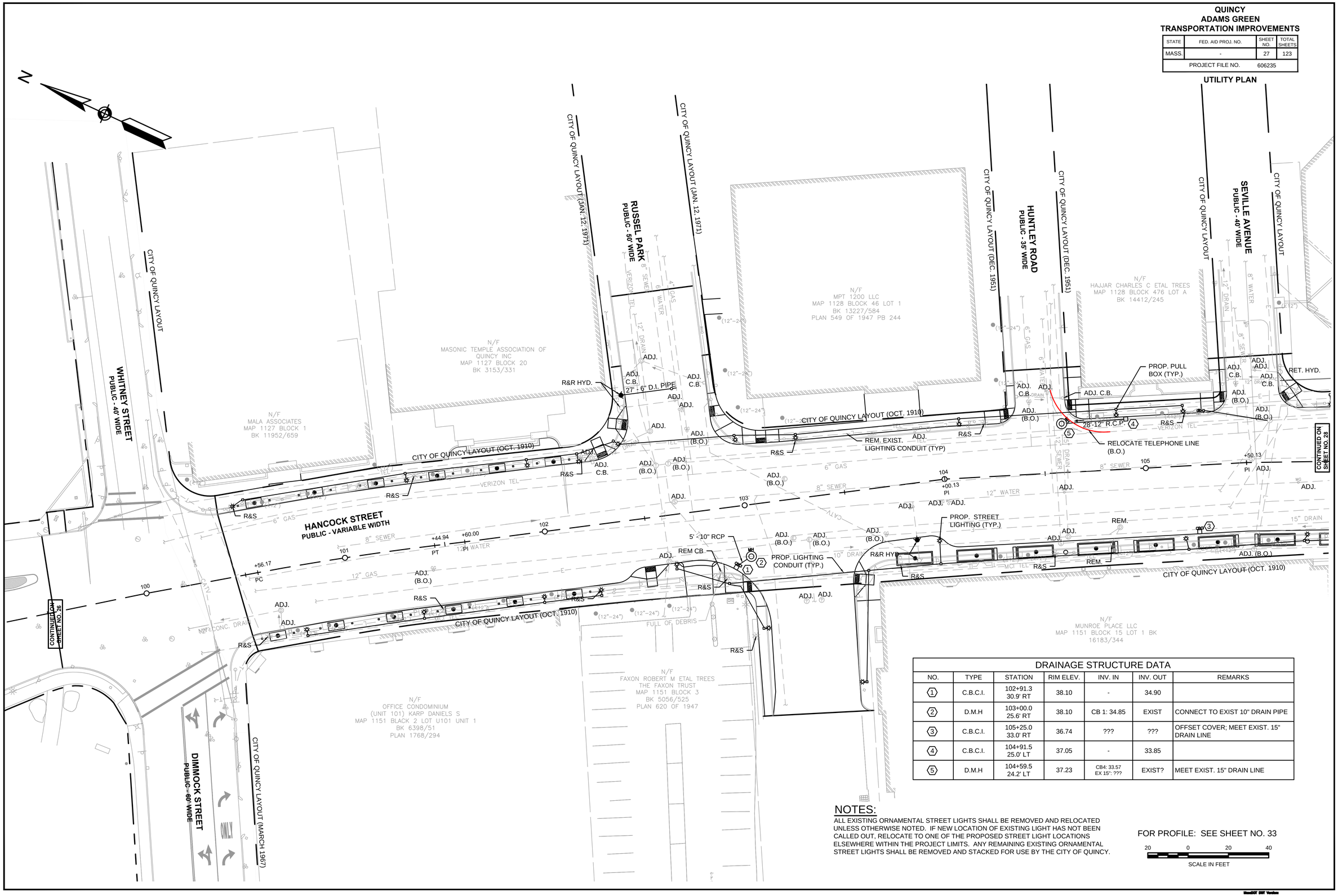
MassDOT DRT Version

QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	27	123
PROJECT FILE NO.	606235		

UTILITY PLAN



DRAINAGE STRUCTURE DATA

NO.	TYPE	STATION	RIM ELEV.	INV. IN	INV. OUT	REMARKS
1	C.B.C.I.	102+91.3 30.9' RT	38.10	-	34.90	
2	D.M.H	103+00.0 25.6' RT	38.10	CB 1: 34.85	EXIST	CONNECT TO EXIST 10" DRAIN PIPE
3	C.B.C.I.	105+25.0 33.0' RT	36.74	???	???	OFFSET COVER; MEET EXIST. 15" DRAIN LINE
4	C.B.C.I.	104+91.5 25.0' LT	37.05	-	33.85	
5	D.M.H	104+59.5 24.2' LT	37.23	CB4: 33.57 EX 15": ???	EXIST?	MEET EXIST. 15" DRAIN LINE

NOTES:

ALL EXISTING ORNAMENTAL STREET LIGHTS SHALL BE REMOVED AND RELOCATED UNLESS OTHERWISE NOTED. IF NEW LOCATION OF EXISTING LIGHT HAS NOT BEEN CALLED OUT, RELOCATE TO ONE OF THE PROPOSED STREET LIGHT LOCATIONS ELSEWHERE WITHIN THE PROJECT LIMITS. ANY REMAINING EXISTING ORNAMENTAL STREET LIGHTS SHALL BE REMOVED AND STACKED FOR USE BY THE CITY OF QUINCY.

FOR PROFILE: SEE SHEET NO. 33

20 0 20 40
SCALE IN FEET

31-Aug-2012

606235(25%)UT(UTILITY PLAN).DWG

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MassDOT DWF Version

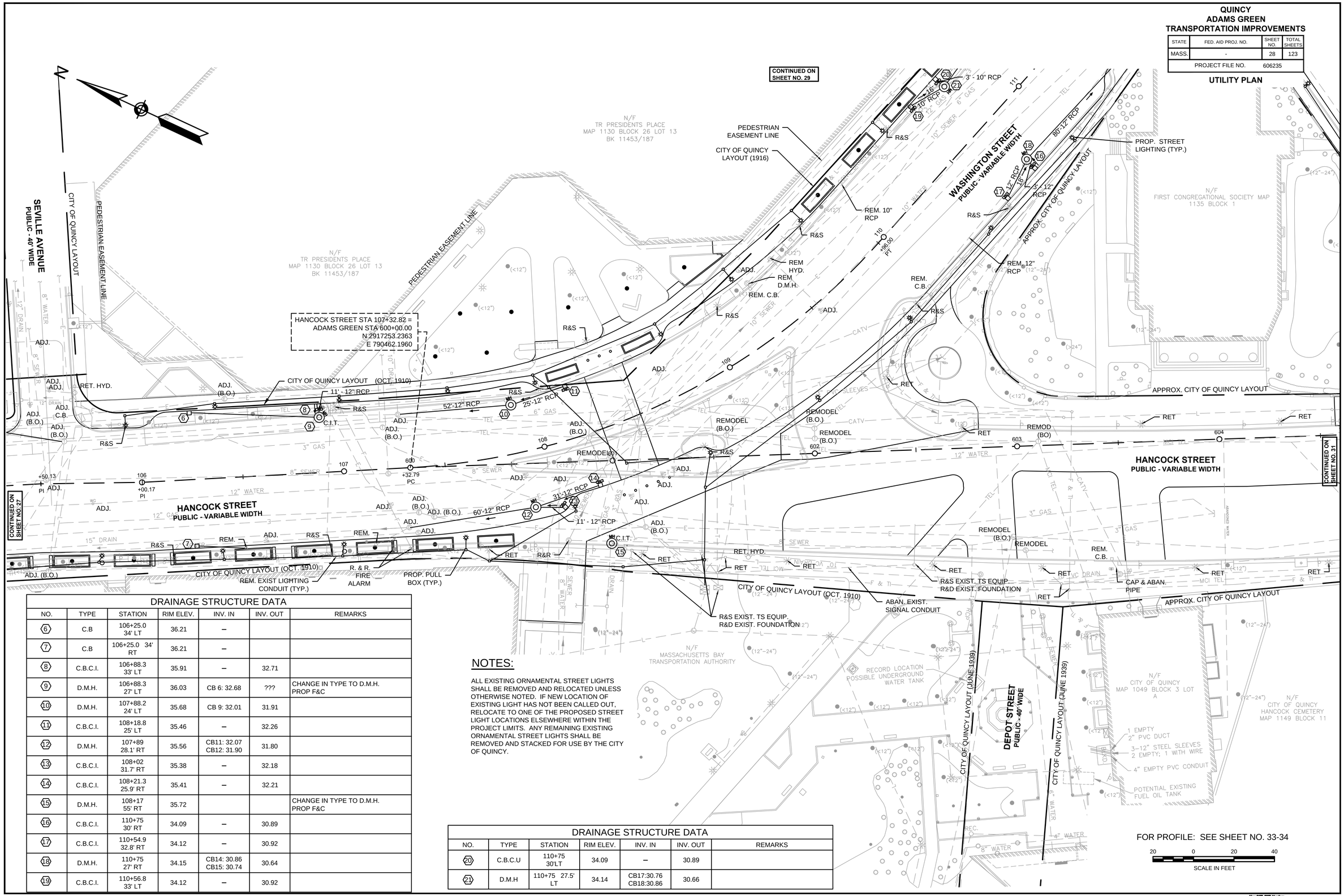
QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	28	123
PROJECT FILE NO.	606235		

UTILITY PLAN

31-Aug-2012

606235(25%)UT(UTILITY PLAN).DWG



NOTES:

ALL EXISTING ORNAMENTAL STREET LIGHTS SHALL BE REMOVED AND RELOCATED UNLESS OTHERWISE NOTED. IF NEW LOCATION OF EXISTING LIGHT HAS NOT BEEN CALLED OUT, RELOCATE TO ONE OF THE PROPOSED STREET LIGHT LOCATIONS ELSEWHERE WITHIN THE PROJECT LIMITS. ANY REMAINING EXISTING ORNAMENTAL STREET LIGHTS SHALL BE REMOVED AND STACKED FOR USE BY THE CITY OF QUINCY.

DRAINAGE STRUCTURE DATA

NO.	TYPE	STATION	RIM ELEV.	INV. IN	INV. OUT	REMARKS
6	C.B	106+25.0 34' LT	36.21	–		
7	C.B	106+25.0 34' RT	36.21	–		
8	C.B.C.I.	106+88.3 33' LT	35.91	–	32.71	
9	D.M.H.	106+88.3 27' LT	36.03	CB 6: 32.68	???	CHANGE IN TYPE TO D.M.H. PROP F&C
10	D.M.H.	107+88.2 24' LT	35.68	CB 9: 32.01	31.91	
11	C.B.C.I.	108+18.8 25' LT	35.46	–	32.26	
12	D.M.H.	107+89 28.1' RT	35.56	CB11: 32.07 CB12: 31.90	31.80	
13	C.B.C.I.	108+02 31.7' RT	35.38	–	32.18	
14	C.B.C.I.	108+21.3 25.9' RT	35.41	–	32.21	
15	D.M.H.	108+17 55' RT	35.72			CHANGE IN TYPE TO D.M.H. PROP F&C
16	C.B.C.I.	110+75 30' RT	34.09	–	30.89	
17	C.B.C.I.	110+54.9 32.8' RT	34.12	–	30.92	
18	D.M.H.	110+75 27' RT	34.15	CB14: 30.86 CB15: 30.74	30.64	
19	C.B.C.I.	110+56.8 33' LT	34.12	–	30.92	

DRAINAGE STRUCTURE DATA

NO.	TYPE	STATION	RIM ELEV.	INV. IN	INV. OUT	REMARKS
20	C.B.C.U	110+75 30'LT	34.09	–	30.89	
21	D.M.H	110+75 27.5' LT	34.14	CB17:30.76 CB18:30.86	30.66	

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MassDOT DWF Version

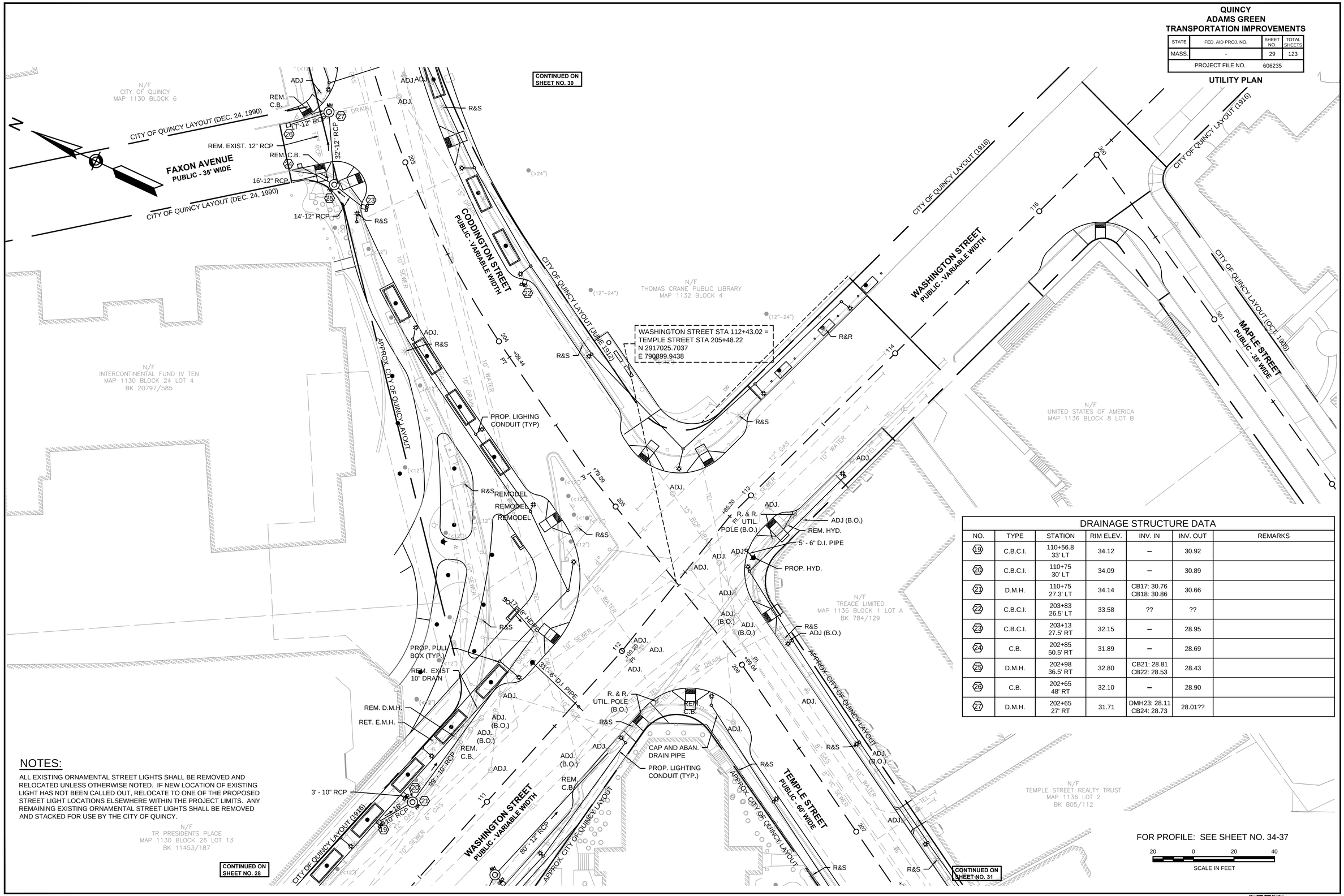
QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	29	123
PROJECT FILE NO.	606235		

UTILITY PLAN

31-Aug-2012

606235(25%)UT(UTILITY PLAN).DWG



DRAINAGE STRUCTURE DATA

NO.	TYPE	STATION	RIM ELEV.	INV. IN	INV. OUT	REMARKS
19	C.B.C.I.	110+56.8 33' LT	34.12	–	30.92	
20	C.B.C.I.	110+75 30' LT	34.09	–	30.89	
21	D.M.H.	110+75 27.3' LT	34.14	CB17: 30.76 CB18: 30.86	30.66	
22	C.B.C.I.	203+83 26.5' LT	33.58	??	??	
23	C.B.C.I.	203+13 27.5' RT	32.15	–	28.95	
24	C.B.	202+85 50.5' RT	31.89	–	28.69	
25	D.M.H.	202+98 36.5' RT	32.80	CB21: 28.81 CB22: 28.53	28.43	
26	C.B.	202+65 48' RT	32.10	–	28.90	
27	D.M.H.	202+65 27' RT	31.71	DMH23: 28.11 CB24: 28.73	28.01??	

NOTES:

ALL EXISTING ORNAMENTAL STREET LIGHTS SHALL BE REMOVED AND RELOCATED UNLESS OTHERWISE NOTED. IF NEW LOCATION OF EXISTING LIGHT HAS NOT BEEN CALLED OUT, RELOCATE TO ONE OF THE PROPOSED STREET LIGHT LOCATIONS ELSEWHERE WITHIN THE PROJECT LIMITS. ANY REMAINING EXISTING ORNAMENTAL STREET LIGHTS SHALL BE REMOVED AND STACKED FOR USE BY THE CITY OF QUINCY.

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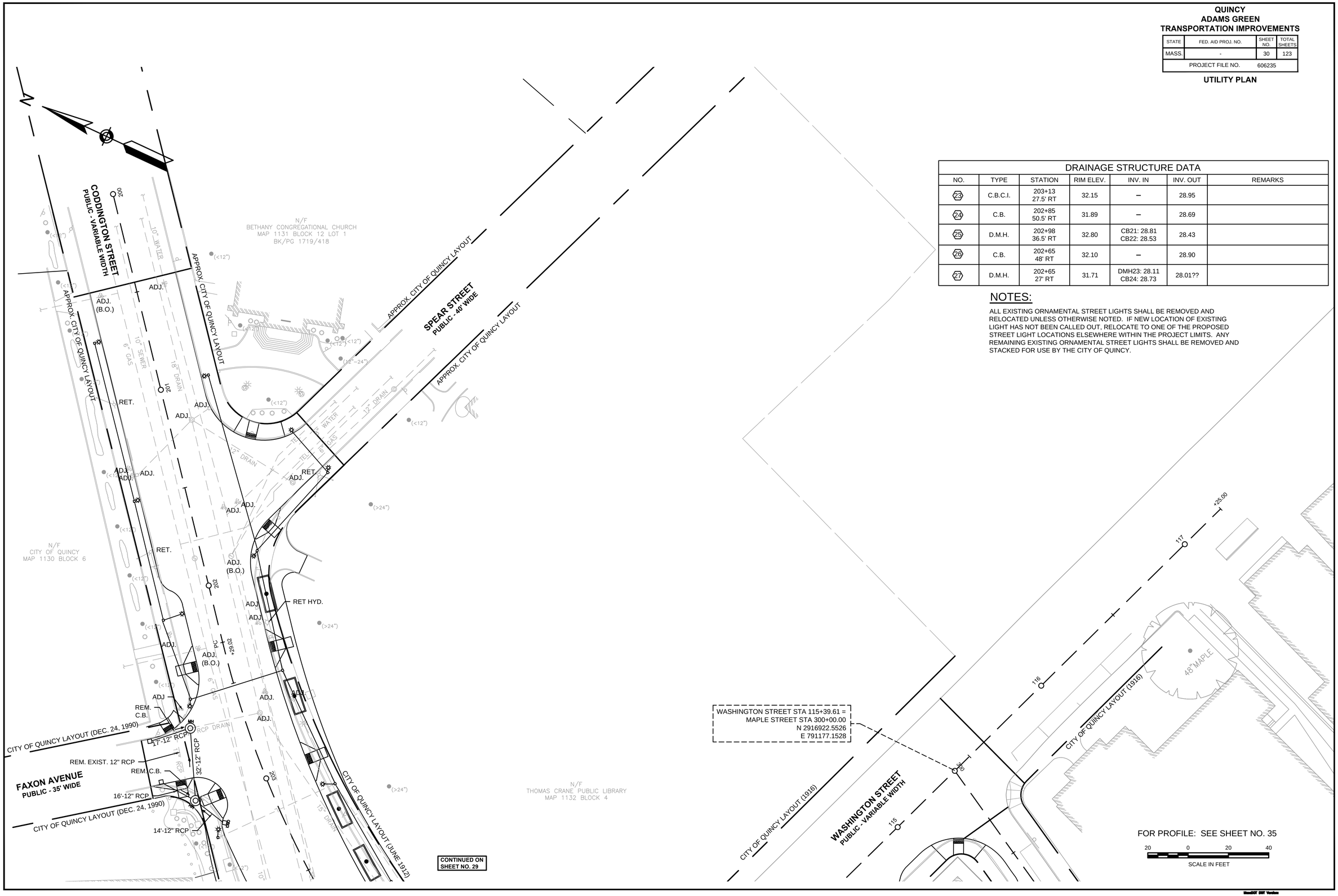
MassDOT DWF Version

QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	30	123
PROJECT FILE NO.	606235		

UTILITY PLAN



DRAINAGE STRUCTURE DATA						
NO.	TYPE	STATION	RIM ELEV.	INV. IN	INV. OUT	REMARKS
23	C.B.C.I.	203+13 27.5' RT	32.15	–	28.95	
24	C.B.	202+85 50.5' RT	31.89	–	28.69	
25	D.M.H.	202+98 36.5' RT	32.80	CB21: 28.81 CB22: 28.53	28.43	
26	C.B.	202+65 48' RT	32.10	–	28.90	
27	D.M.H.	202+65 27' RT	31.71	DMH23: 28.11 CB24: 28.73	28.01??	

NOTES:

ALL EXISTING ORNAMENTAL STREET LIGHTS SHALL BE REMOVED AND RELOCATED UNLESS OTHERWISE NOTED. IF NEW LOCATION OF EXISTING LIGHT HAS NOT BEEN CALLED OUT, RELOCATE TO ONE OF THE PROPOSED STREET LIGHT LOCATIONS ELSEWHERE WITHIN THE PROJECT LIMITS. ANY REMAINING EXISTING ORNAMENTAL STREET LIGHTS SHALL BE REMOVED AND STACKED FOR USE BY THE CITY OF QUINCY.

31-Aug-2012

606235(25%)UT(UTILITY PLAN).DWG

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MassDOT DWF Version

QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	31	123
PROJECT FILE NO.	606235		

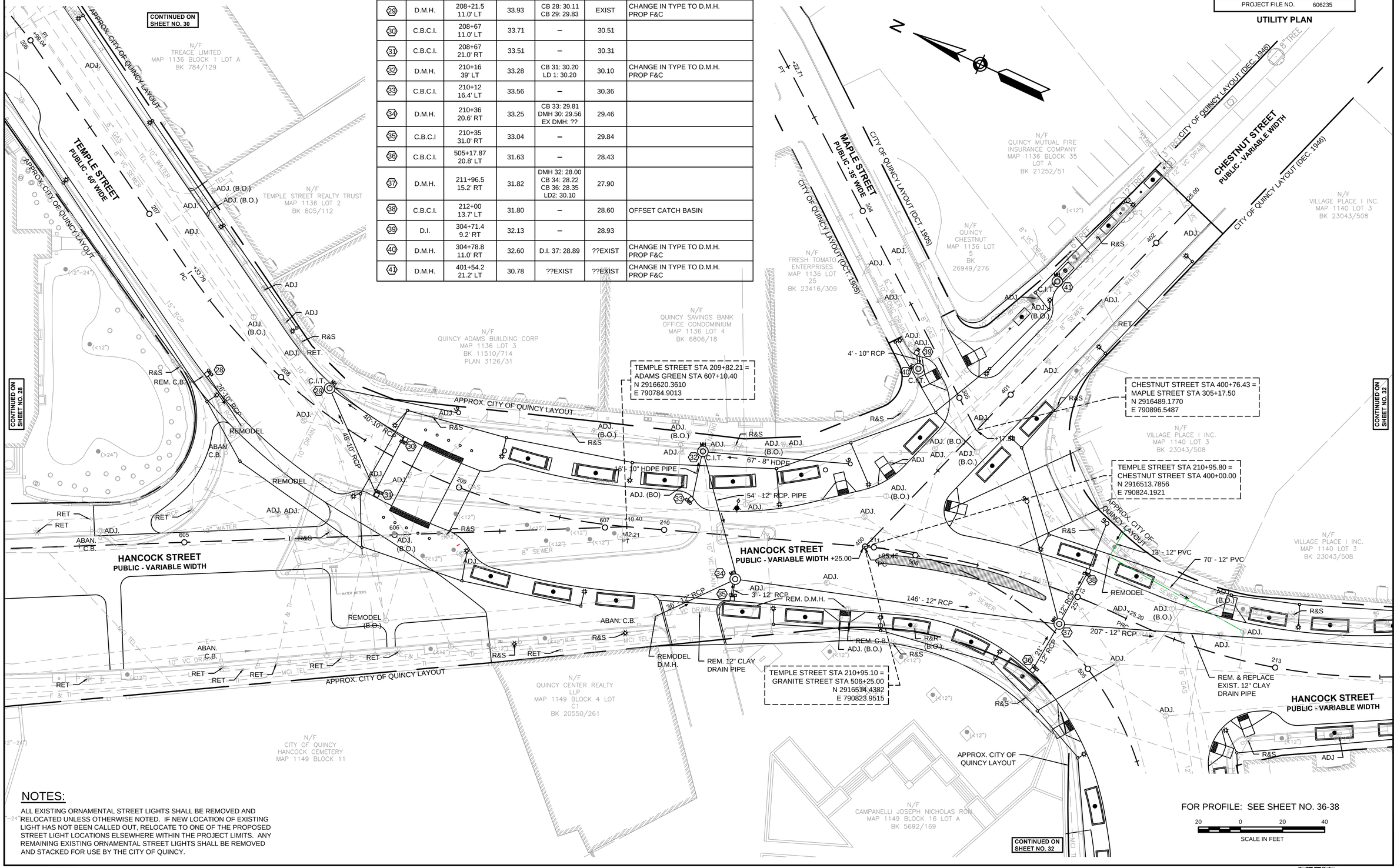
UTILITY PLAN

31-Aug-2012

606235(25%)UT(UTILITY PLAN).DWG

DRAINAGE STRUCTURE DATA

NO.	TYPE	STATION	RIM ELEV.	INV. IN	INV. OUT	REMARKS
28	C.B.C.I.	207+76.5 24.5' RT	33.89	–	30.69	
29	D.M.H.	208+21.5 11.0' LT	33.93	CB 28: 30.11 CB 29: 29.83	EXIST	CHANGE IN TYPE TO D.M.H. PROP F&C
30	C.B.C.I.	208+67 11.0' LT	33.71	–	30.51	
31	C.B.C.I.	208+67 21.0' RT	33.51	–	30.31	
32	D.M.H.	210+16 39' LT	33.28	CB 31: 30.20 LD 1: 30.20	30.10	CHANGE IN TYPE TO D.M.H. PROP F&C
33	C.B.C.I.	210+12 16.4' LT	33.56	–	30.36	
34	D.M.H.	210+36 20.6' RT	33.25	CB 33: 29.81 DMH 30: 29.56 EX DMH: ??	29.46	
35	C.B.C.I	210+35 31.0' RT	33.04	–	29.84	
36	C.B.C.I.	505+17.87 20.8' LT	31.63	–	28.43	
37	D.M.H.	211+96.5 15.2' RT	31.82	DMH 32: 28.00 CB 34: 28.22 CB 36: 28.35 LD2: 30.10	27.90	
38	C.B.C.I.	212+00 13.7' LT	31.80	–	28.60	OFFSET CATCH BASIN
39	D.I.	304+71.4 9.2' RT	32.13	–	28.93	
40	D.M.H.	304+78.8 11.0' RT	32.60	D.I. 37: 28.89	??EXIST	CHANGE IN TYPE TO D.M.H. PROP F&C
41	D.M.H.	401+54.2 21.2' LT	30.78	??EXIST	??EXIST	CHANGE IN TYPE TO D.M.H. PROP F&C



NOTES:

ALL EXISTING ORNAMENTAL STREET LIGHTS SHALL BE REMOVED AND RELOCATED UNLESS OTHERWISE NOTED. IF NEW LOCATION OF EXISTING LIGHT HAS NOT BEEN CALLED OUT, RELOCATE TO ONE OF THE PROPOSED STREET LIGHT LOCATIONS ELSEWHERE WITHIN THE PROJECT LIMITS. ANY REMAINING EXISTING ORNAMENTAL STREET LIGHTS SHALL BE REMOVED AND STACKED FOR USE BY THE CITY OF QUINCY.

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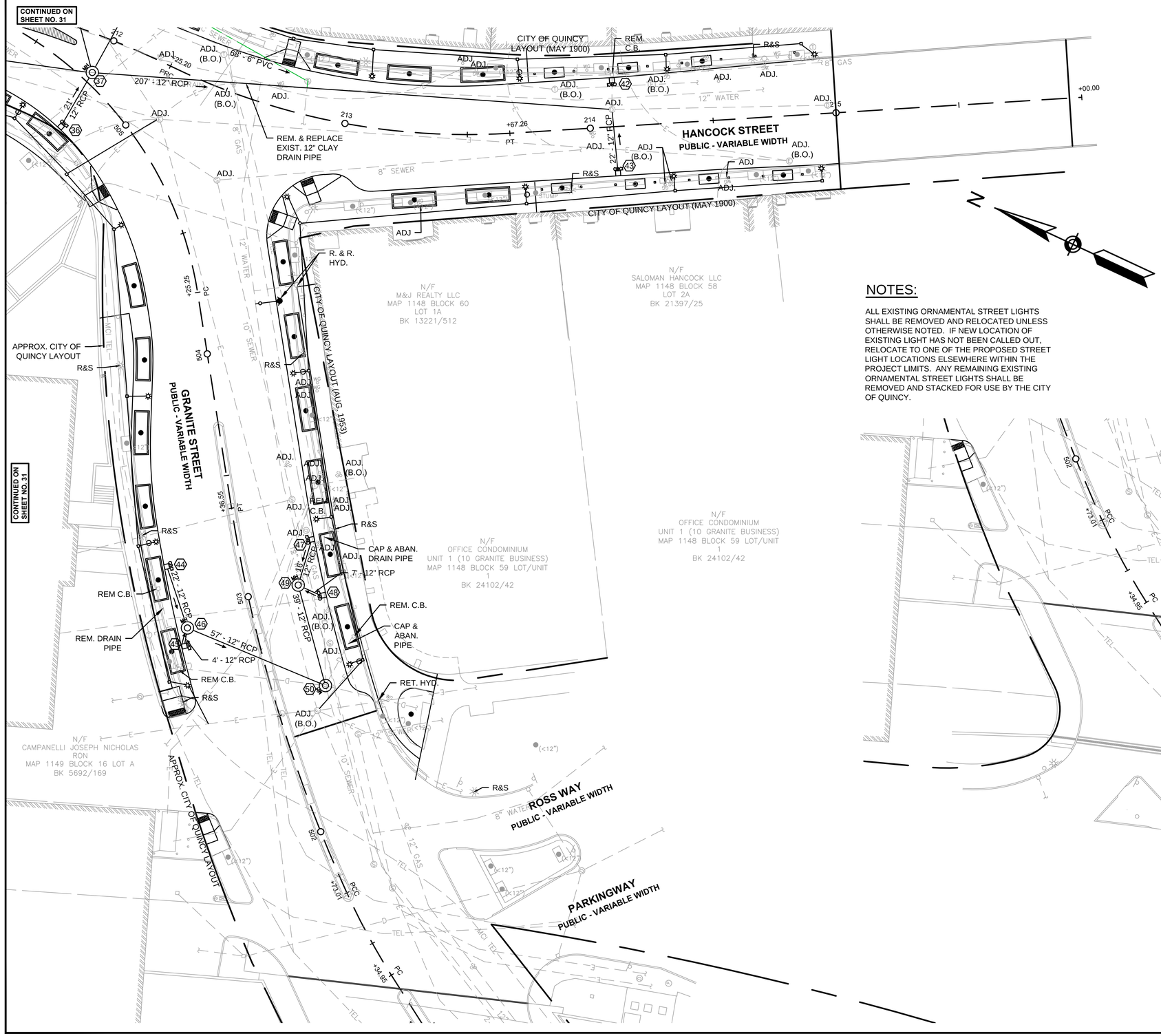
MassDOT SW Version

QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	32	123
PROJECT FILE NO.	606235		

UTILITY PLAN



NOTES:

ALL EXISTING ORNAMENTAL STREET LIGHTS SHALL BE REMOVED AND RELOCATED UNLESS OTHERWISE NOTED. IF NEW LOCATION OF EXISTING LIGHT HAS NOT BEEN CALLED OUT, RELOCATE TO ONE OF THE PROPOSED STREET LIGHT LOCATIONS ELSEWHERE WITHIN THE PROJECT LIMITS. ANY REMAINING EXISTING ORNAMENTAL STREET LIGHTS SHALL BE REMOVED AND STACKED FOR USE BY THE CITY OF QUINCY.

DRAINAGE STRUCTURE DATA

NO.	TYPE	STATION	RIM ELEV.	INV. IN	INV. OUT	REMARKS
36	C.B.C.I.	505+17.87 20.8' LT	31.63	–	28.43	
37	D.M.H.	211+96.5 15.2' RT	31.82	DMH 32: 28.00 CB 34: 28.22 CB 36: 28.35 LD2: 30.10	27.90	
42	C.B.C.I.	214+10 19.4' LT	28.63	–	25.43	
43	C.B.C.I.	214+10 19.4' RT	28.63	–	25.43	
44	C.B.C.I.	503+18.3 30' LT	27.61	–	24.41	
45	C.B.C.I.	502+86.7 30' LT	27.48	–	24.28	
46	D.M.H.	502+93 26.8' LT	27.55	CB 42: 24.19 CB 43: 24.24	24.09	
47	C.B.C.I.	503+18.3 30' RT	27.61	–	24.41	
48	C.B.C.I.	502+93 30' RT	27.48	–	24.28	
49	D.M.H.	503+00 20.85' RT	28.19	CB 45: 24.25 CB 46: 24.21	24.11	
50	D.M.H.	502+56.45 21.4' RT	27.78	DMH 44: 23.52 DMH 47: 23.72	MATCH EXIST	REPLACE EXIST. D.M.H.

FOR PROFILE: SEE SHEET NO. 36-38

20 0 20 40
SCALE IN FEET

31-Aug-2012
606235(25%)UTUTILITY PLAN).DWG

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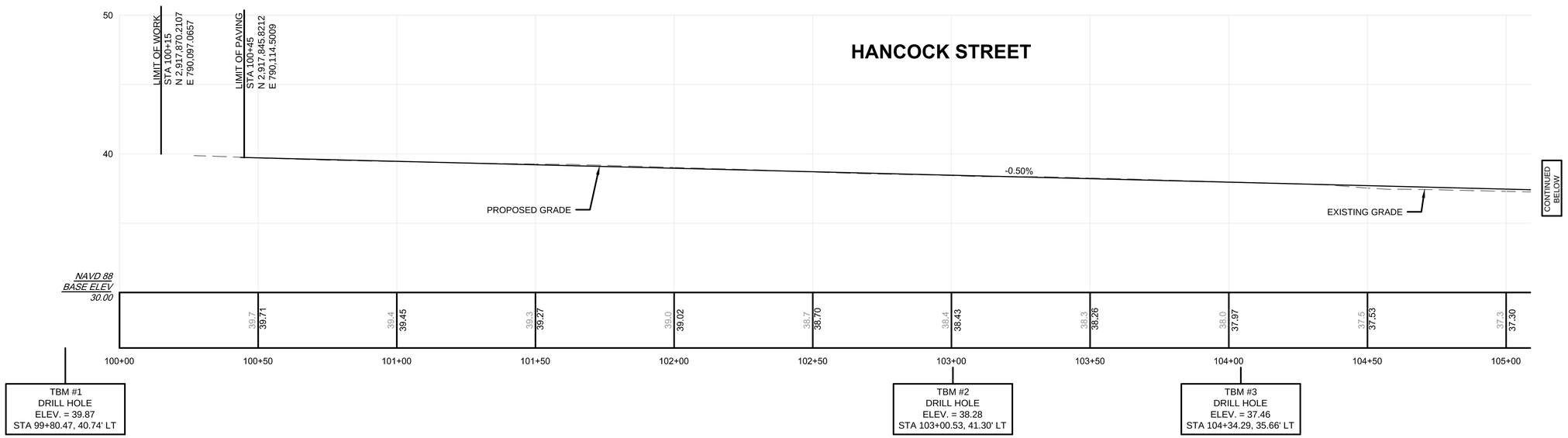
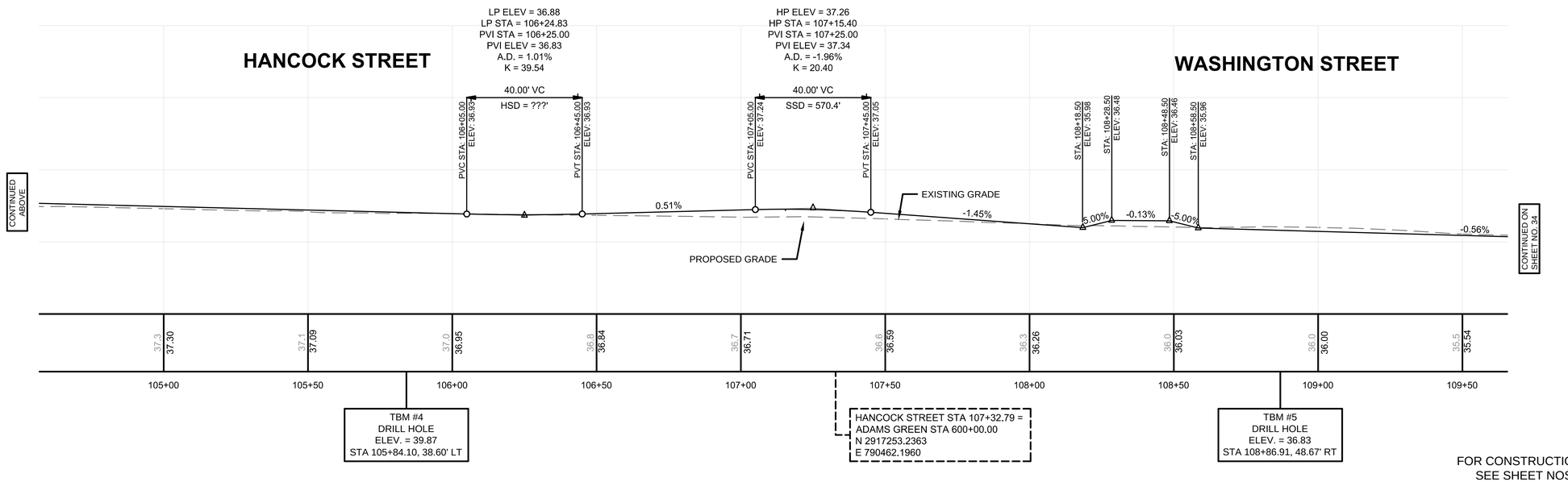
QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	33	123
PROJECT FILE NO.	606235		

PROFILES
HANCOCK STREET & WASHINGTON STREET





FOR CONSTRUCTION PLANS:
SEE SHEET NOS. 19-20

HORIZONTAL
20 0 20 40
4 0 4 8
VERTICAL
SCALE IN FEET

606235(25%)HD(PROFILE).DWG 31-Aug-2012

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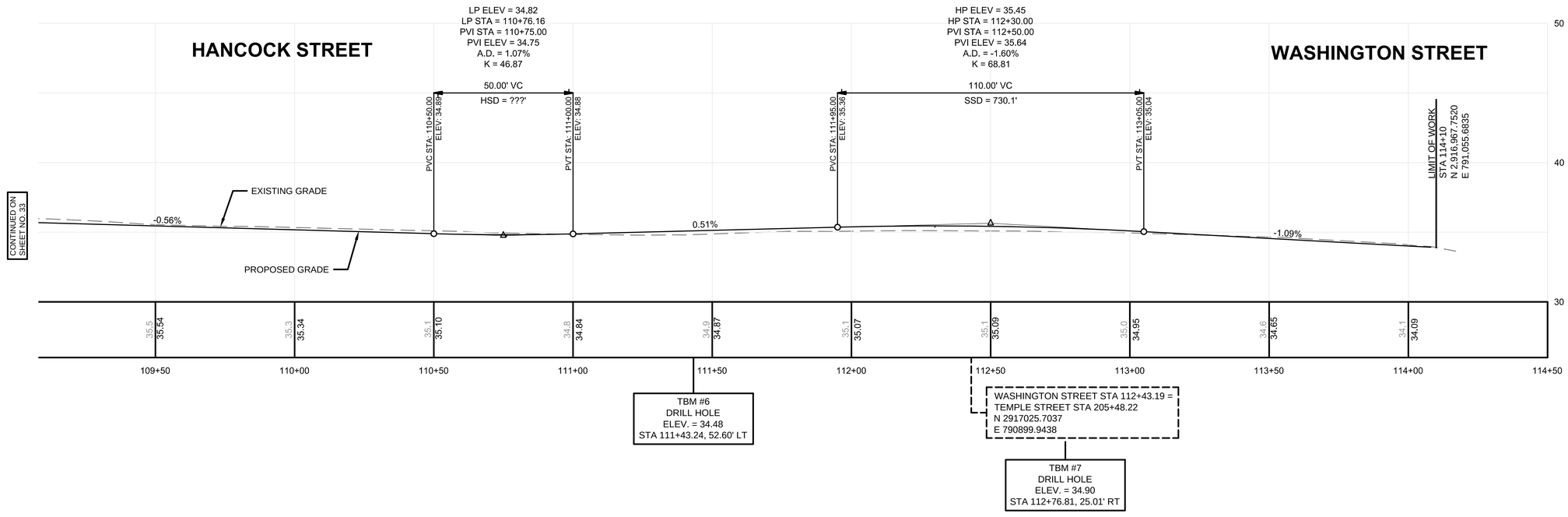
QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	34	123
PROJECT FILE NO.	606235		

PROFILES
HANCOCK STREET & WASHINGTON STREET



FOR CONSTRUCTION PLANS:
SEE SHEET NO. 21

HORIZONTAL
20 0 20 40
4 0 4 8
VERTICAL
SCALE IN FEET

606235(25%)HD(PROFILE).DWG 31-Aug-2012

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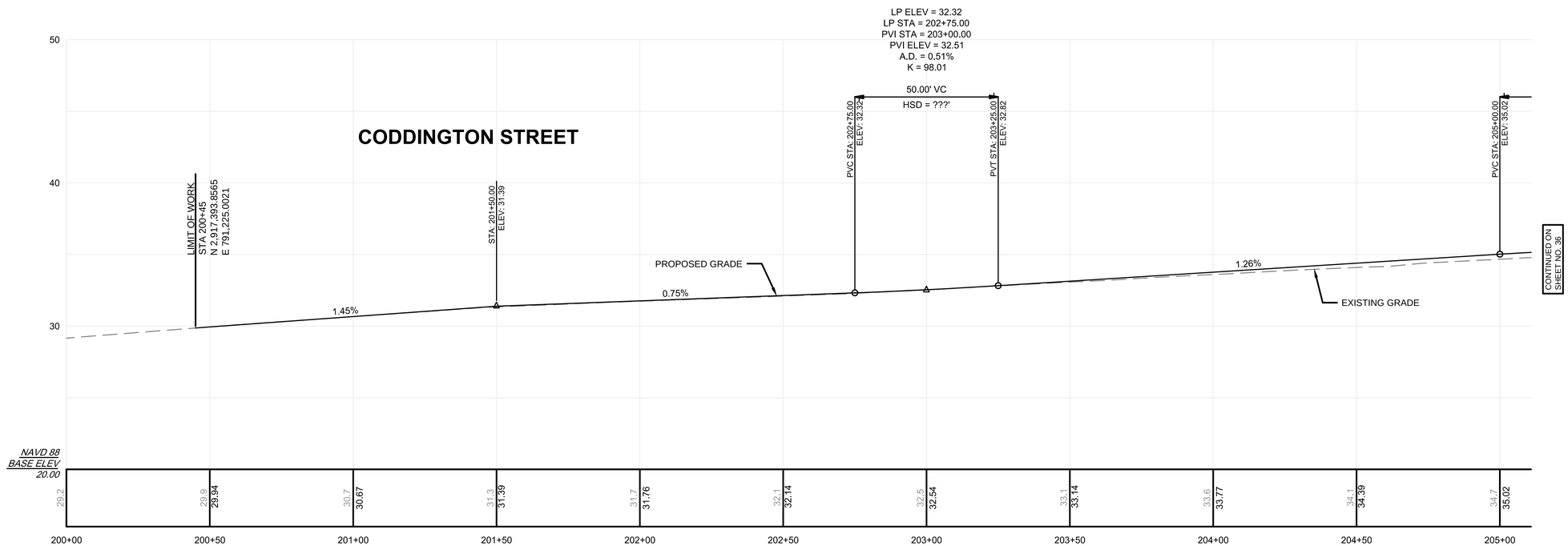
QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	35	123
PROJECT FILE NO.	606235		

PROFILES
CODDINGTON STREET, TEMPLE STREET, & HANCOCK STREET



FOR CONSTRUCTION PLANS:
SEE SHEET NO. 22

HORIZONTAL
20 0 20 40
4 0 4 8
VERTICAL
SCALE IN FEET

606235(25%)HD(PROFILE).DWG 31-Aug-2012

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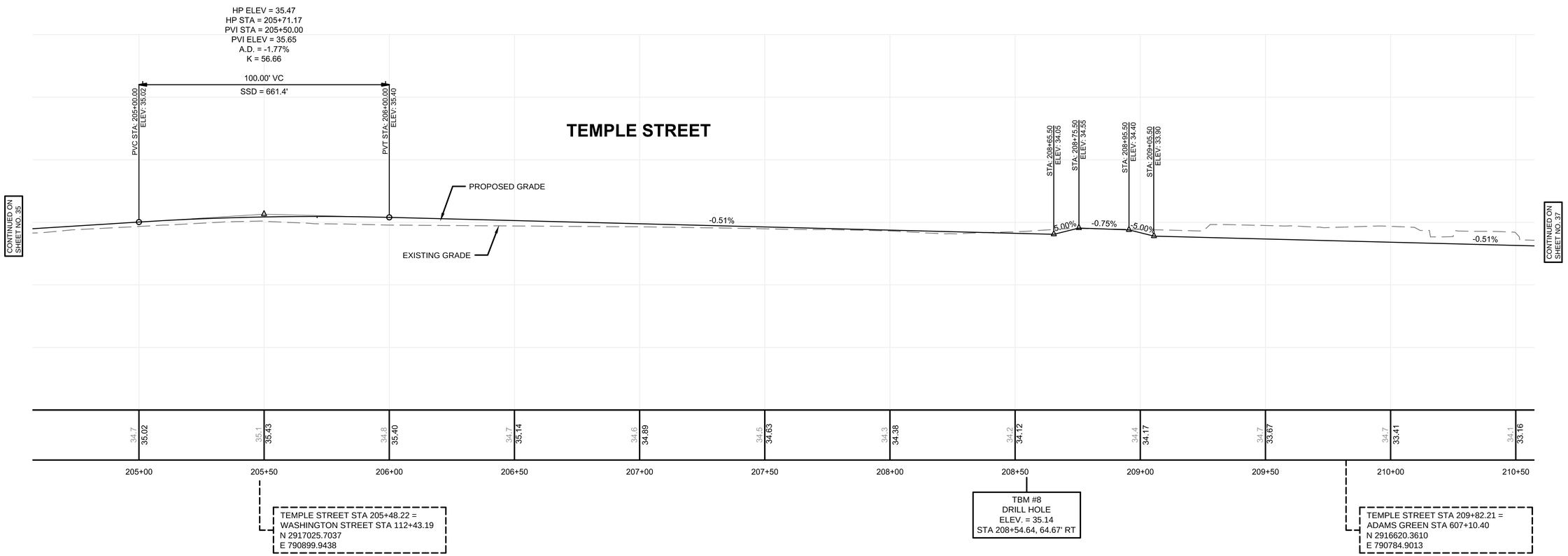
QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	36	123
PROJECT FILE NO.	606235		

PROFILES
CODDINGTON STREET, TEMPLE STREET, & HANCOCK STREET



FOR CONSTRUCTION PLANS:
SEE SHEET NOS. 21 & 23

HORIZONTAL
20 0 20 40
4 0 4 8
VERTICAL
SCALE IN FEET

606235(25%)HD(PROFILE).DWG 31-Aug-2012

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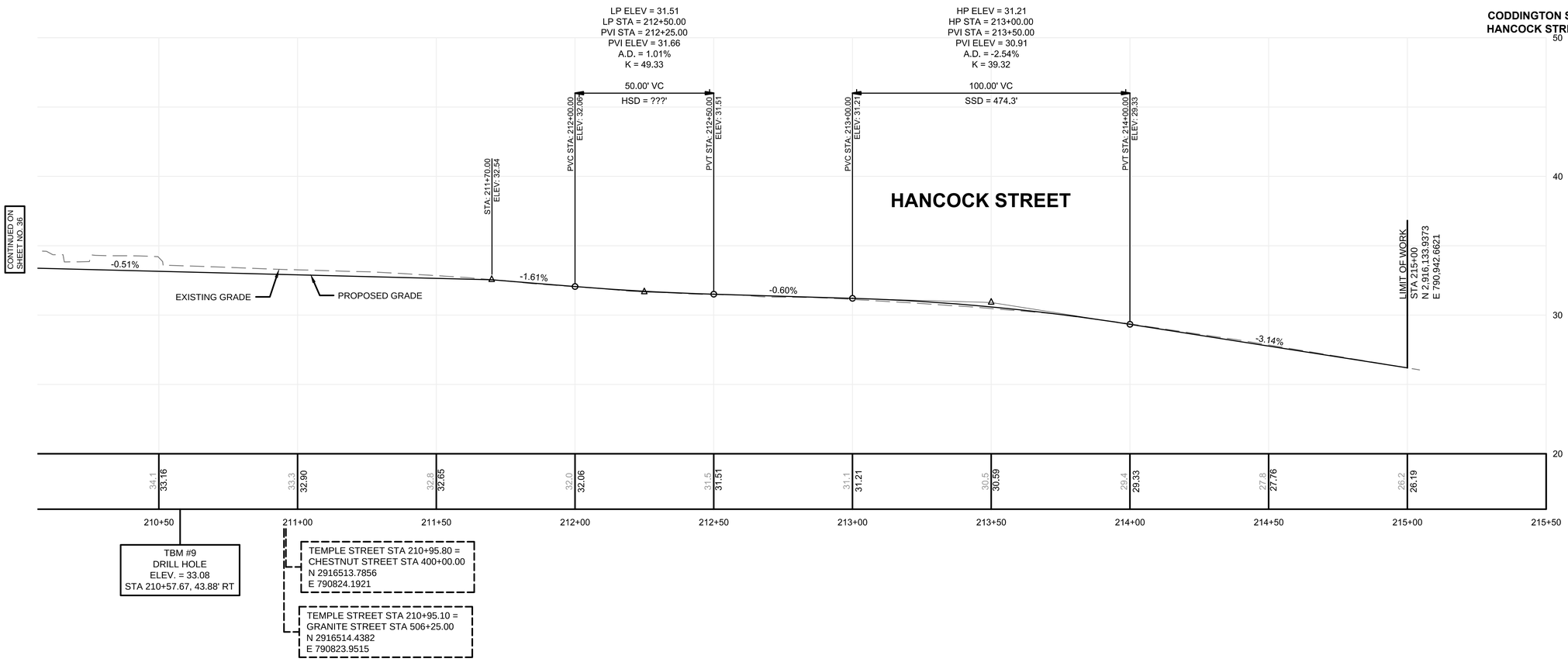
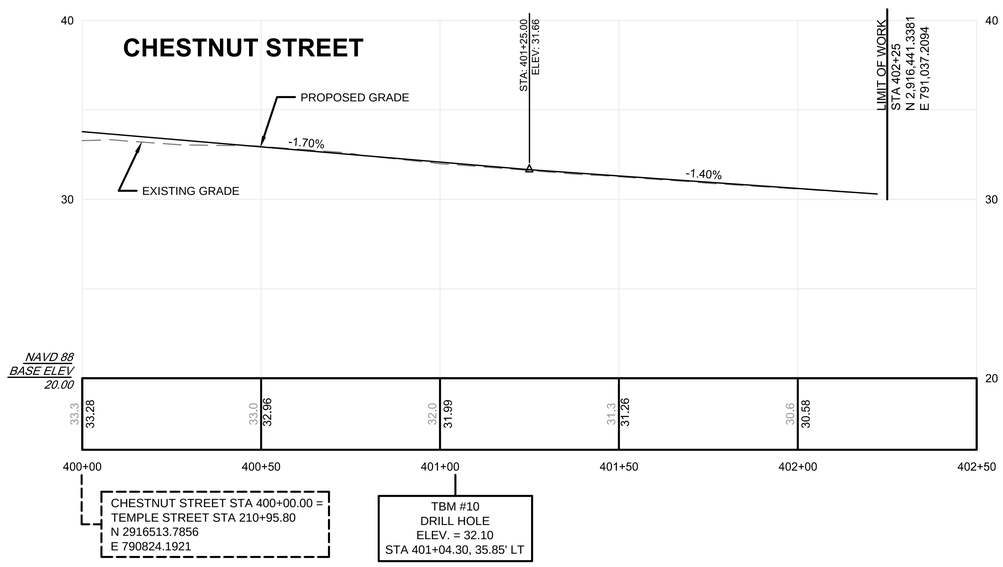
QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	37	123
PROJECT FILE NO.	606235		

PROFILES
CODDINGTON STREET, TEMPLE STREET, HANCOCK STREET & CHESTNUT STREET





FOR CONSTRUCTION PLANS:
SEE SHEET NOS. 23-24

HORIZONTAL
20 0 20 40
4 0 4 8
VERTICAL
SCALE IN FEET

606235(25%)HD(PROFILE).DWG 31-Aug-2012

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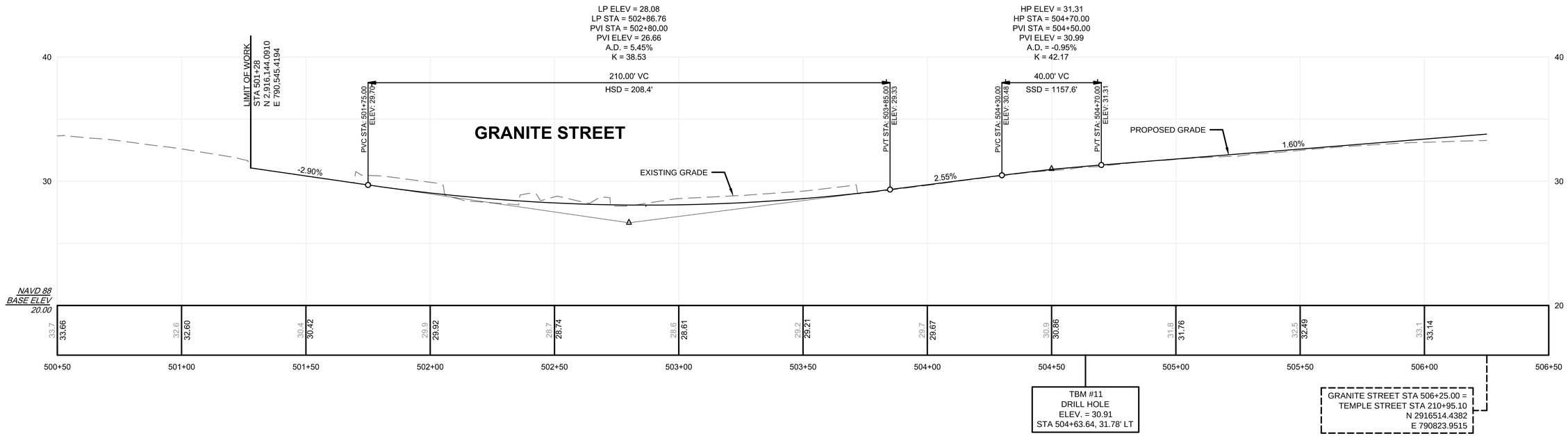
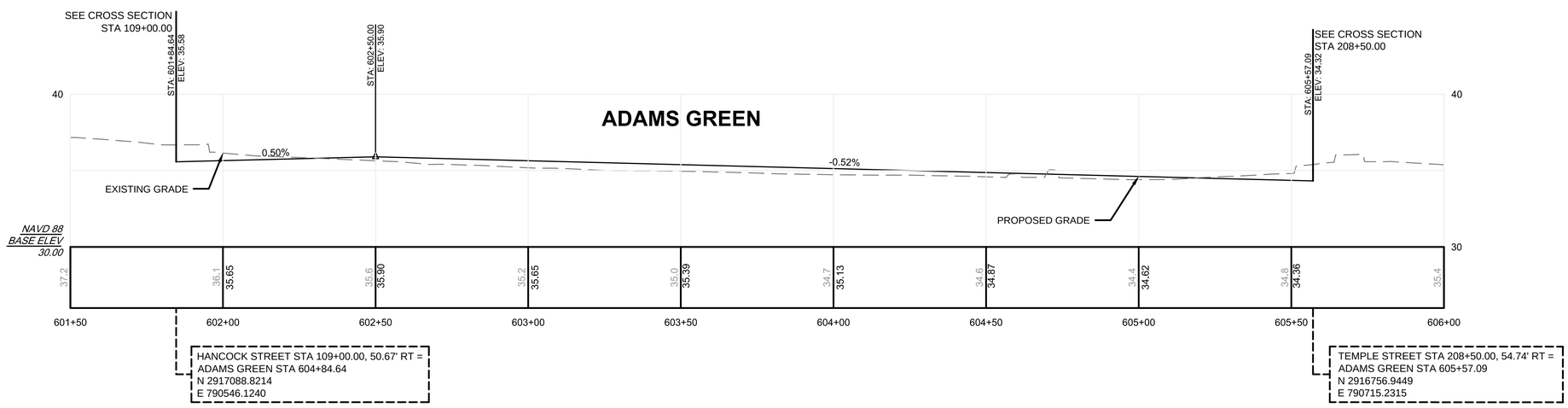
QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	38	123
PROJECT FILE NO.	606235		

PROFILES
GRANITE STREET & ADAMS GREEN





FOR CONSTRUCTION PLANS:
SEE SHEET NOS. 20-24

HORIZONTAL
20 0 20 40
4 0 4 8
VERTICAL
SCALE IN FEET

606235(25%)HD(PROFILE).DWG 31-Aug-2012

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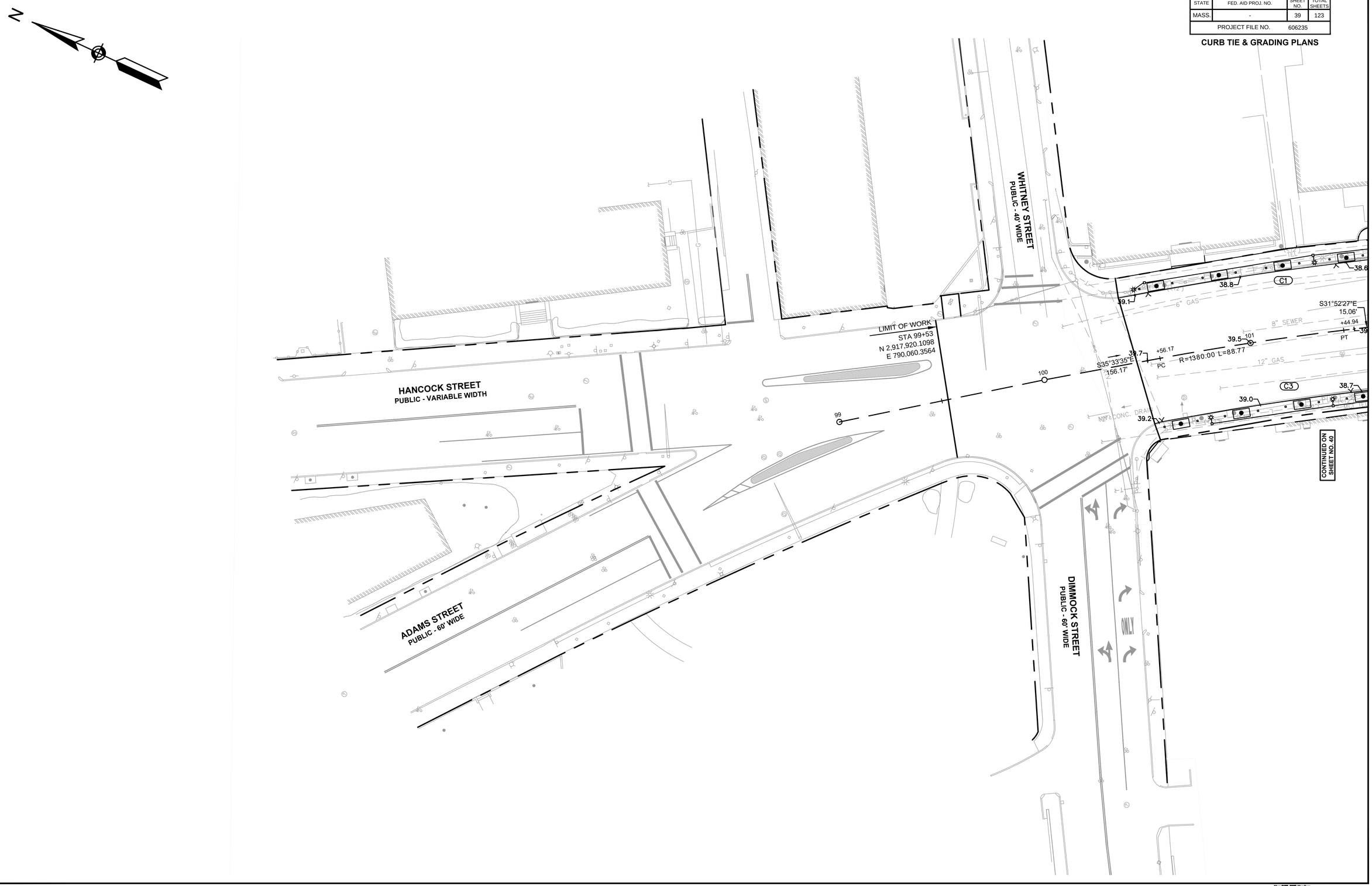
QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	39	123
PROJECT FILE NO.	606235		

CURB TIE & GRADING PLANS



31-Aug-2012

606235[25%]HD(CURB TIE & GRADING).DWG

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MassDOT DRT Version

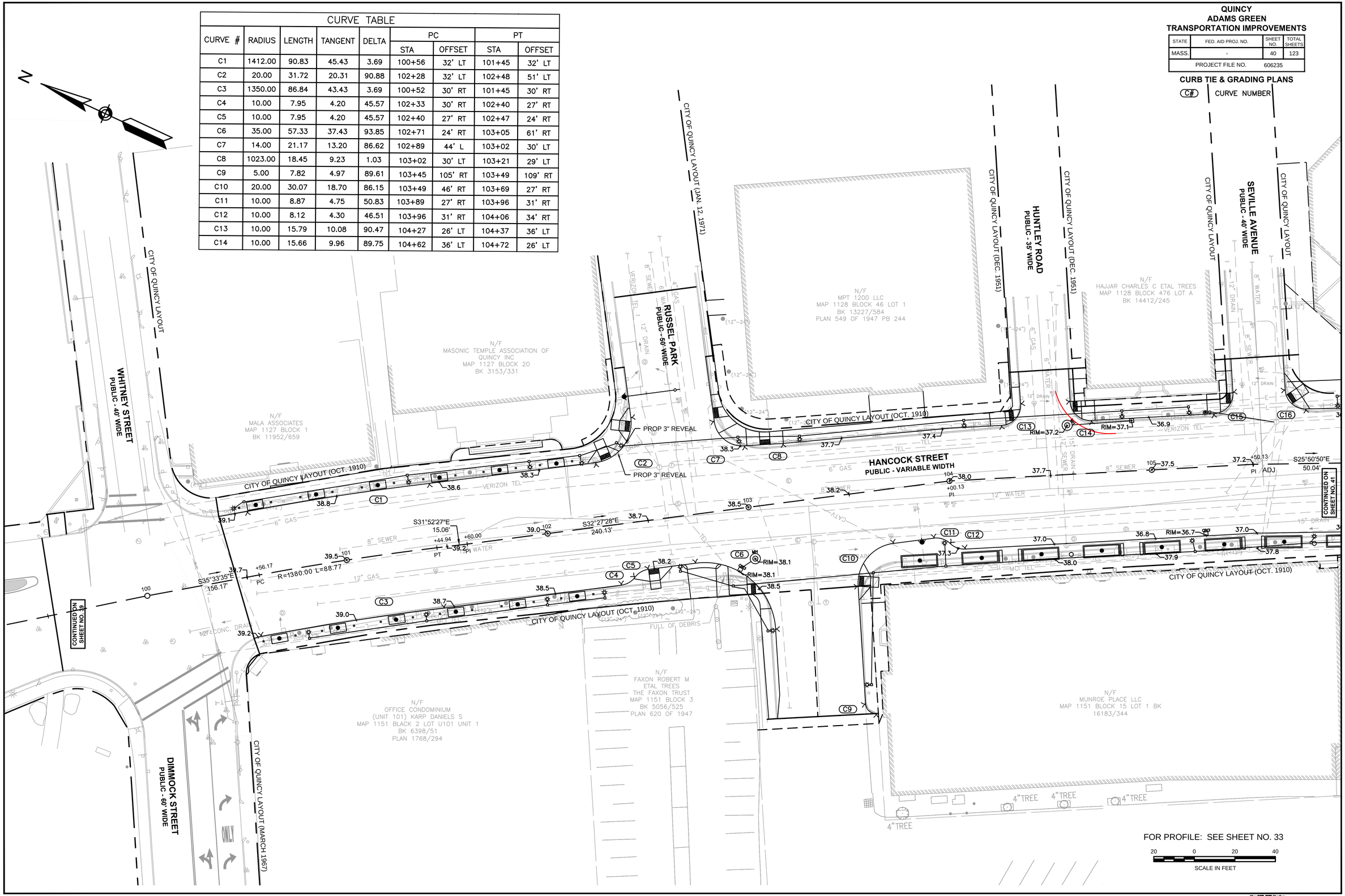
QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	40	123
PROJECT FILE NO.	606235		

CURB TIE & GRADING PLANS

C# CURVE NUMBER

CURVE TABLE								
CURVE #	RADIUS	LENGTH	TANGENT	DELTA	PC		PT	
					STA	OFFSET	STA	OFFSET
C1	1412.00	90.83	45.43	3.69	100+56	32' LT	101+45	32' LT
C2	20.00	31.72	20.31	90.88	102+28	32' LT	102+48	51' LT
C3	1350.00	86.84	43.43	3.69	100+52	30' RT	101+45	30' RT
C4	10.00	7.95	4.20	45.57	102+33	30' RT	102+40	27' RT
C5	10.00	7.95	4.20	45.57	102+40	27' RT	102+47	24' RT
C6	35.00	57.33	37.43	93.85	102+71	24' RT	103+05	61' RT
C7	14.00	21.17	13.20	86.62	102+89	44' L	103+02	30' LT
C8	1023.00	18.45	9.23	1.03	103+02	30' LT	103+21	29' LT
C9	5.00	7.82	4.97	89.61	103+45	105' RT	103+49	109' RT
C10	20.00	30.07	18.70	86.15	103+49	46' RT	103+69	27' RT
C11	10.00	8.87	4.75	50.83	103+89	27' RT	103+96	31' RT
C12	10.00	8.12	4.30	46.51	103+96	31' RT	104+06	34' RT
C13	10.00	15.79	10.08	90.47	104+27	26' LT	104+37	36' LT
C14	10.00	15.66	9.96	89.75	104+62	36' LT	104+72	26' LT



31-Aug-2012

606235(25%)HD(CURB TIE & GRADING).DWG

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QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

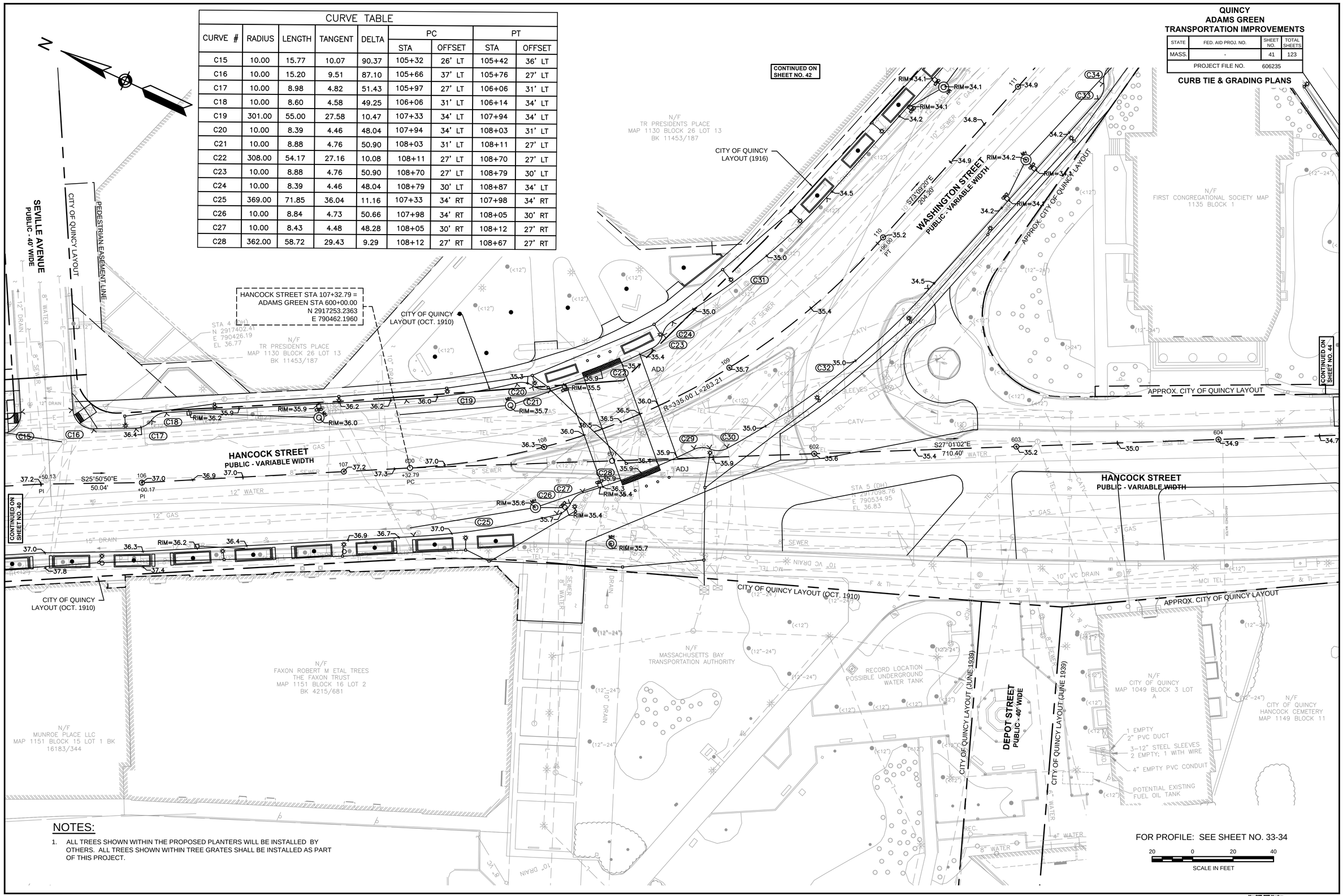
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	41	123
PROJECT FILE NO.	606235		

CURB TIE & GRADING PLANS

31-Aug-2012

606235[25%]HD(CURB TIE & GRADING).DWG

CURVE TABLE								
CURVE #	RADIUS	LENGTH	TANGENT	DELTA	PC		PT	
					STA	OFFSET	STA	OFFSET
C15	10.00	15.77	10.07	90.37	105+32	26' LT	105+42	36' LT
C16	10.00	15.20	9.51	87.10	105+66	37' LT	105+76	27' LT
C17	10.00	8.98	4.82	51.43	105+97	27' LT	106+06	31' LT
C18	10.00	8.60	4.58	49.25	106+06	31' LT	106+14	34' LT
C19	301.00	55.00	27.58	10.47	107+33	34' LT	107+94	34' LT
C20	10.00	8.39	4.46	48.04	107+94	34' LT	108+03	31' LT
C21	10.00	8.88	4.76	50.90	108+03	31' LT	108+11	27' LT
C22	308.00	54.17	27.16	10.08	108+11	27' LT	108+70	27' LT
C23	10.00	8.88	4.76	50.90	108+70	27' LT	108+79	30' LT
C24	10.00	8.39	4.46	48.04	108+79	30' LT	108+87	34' LT
C25	369.00	71.85	36.04	11.16	107+33	34' RT	107+98	34' RT
C26	10.00	8.84	4.73	50.66	107+98	34' RT	108+05	30' RT
C27	10.00	8.43	4.48	48.28	108+05	30' RT	108+12	27' RT
C28	362.00	58.72	29.43	9.29	108+12	27' RT	108+67	27' RT



NOTES:

1. ALL TREES SHOWN WITHIN THE PROPOSED PLANTERS WILL BE INSTALLED BY OTHERS. ALL TREES SHOWN WITHIN TREE GRATES SHALL BE INSTALLED AS PART OF THIS PROJECT.

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MassDOT DGN Version

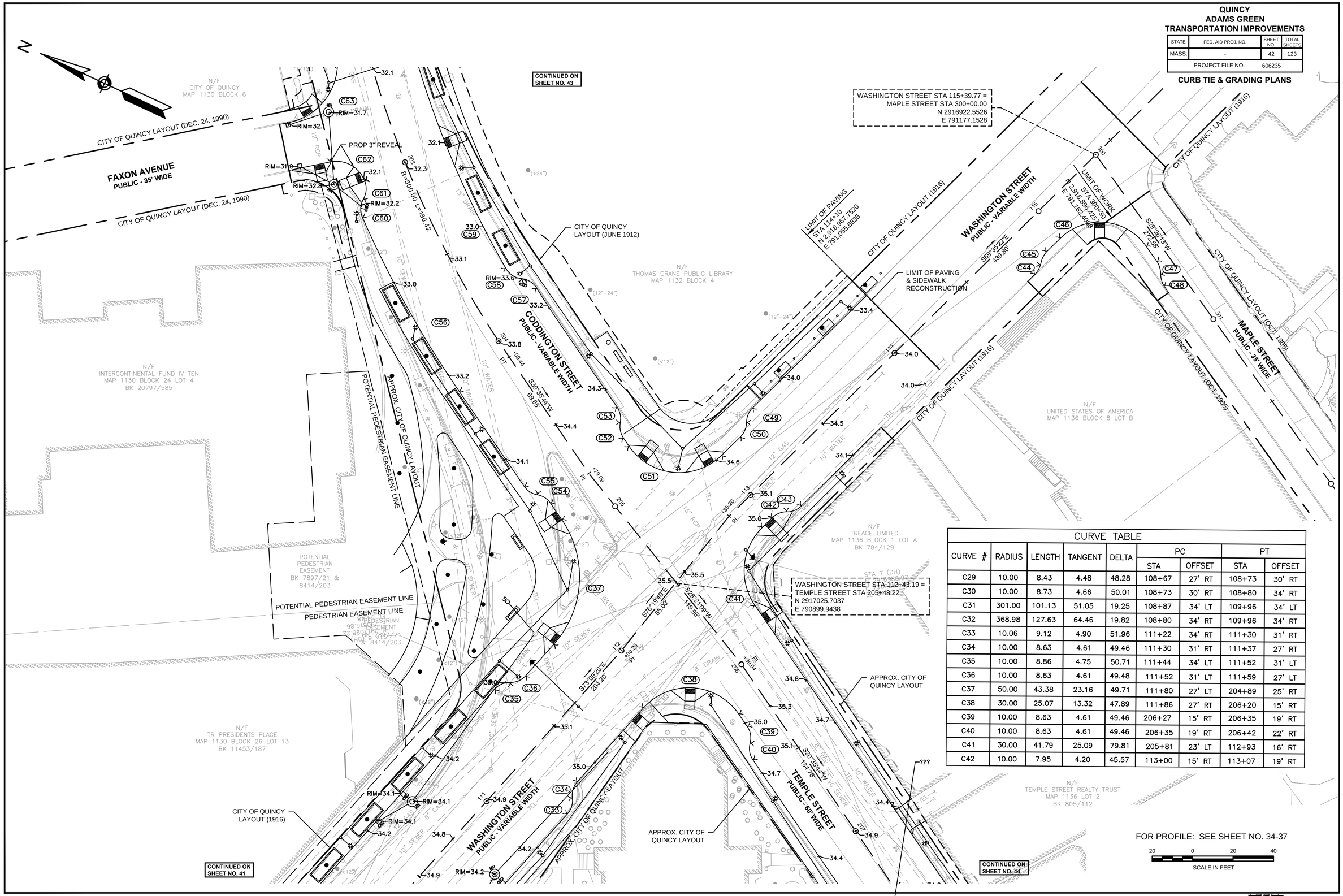
QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	42	123
PROJECT FILE NO.	606235		

CURB TIE & GRADING PLANS

31-Aug-2012

606235[25%]HD(CURB TIE & GRADING).DWG



CURVE TABLE

CURVE #	RADIUS	LENGTH	TANGENT	DELTA	PC		PT	
					STA	OFFSET	STA	OFFSET
C29	10.00	8.43	4.48	48.28	108+67	27' RT	108+73	30' RT
C30	10.00	8.73	4.66	50.01	108+73	30' RT	108+80	34' RT
C31	301.00	101.13	51.05	19.25	108+87	34' LT	109+96	34' LT
C32	368.98	127.63	64.46	19.82	108+80	34' RT	109+96	34' RT
C33	10.06	9.12	4.90	51.96	111+22	34' RT	111+30	31' RT
C34	10.00	8.63	4.61	49.46	111+30	31' RT	111+37	27' RT
C35	10.00	8.86	4.75	50.71	111+44	34' LT	111+52	31' LT
C36	10.00	8.63	4.61	49.48	111+52	31' LT	111+59	27' LT
C37	50.00	43.38	23.16	49.71	111+80	27' LT	204+89	25' RT
C38	30.00	25.07	13.32	47.89	111+86	27' RT	206+20	15' RT
C39	10.00	8.63	4.61	49.46	206+27	15' RT	206+35	19' RT
C40	10.00	8.63	4.61	49.46	206+35	19' RT	206+42	22' RT
C41	30.00	41.79	25.09	79.81	205+81	23' LT	112+93	16' RT
C42	10.00	7.95	4.20	45.57	113+00	15' RT	113+07	19' RT

MassDOT DWF Version

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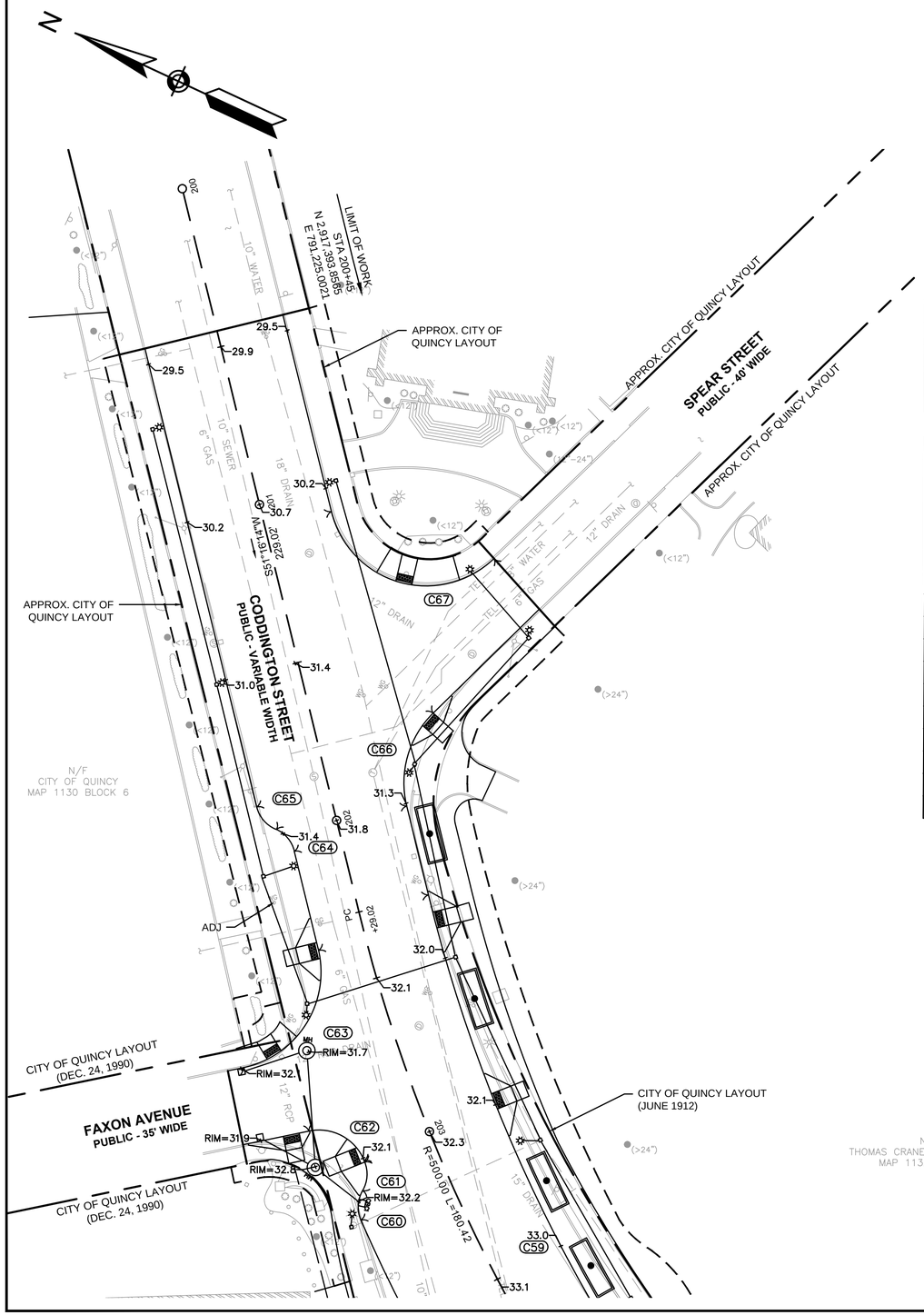
QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	43	123
PROJECT FILE NO.	606235		

CURB TIE & GRADING PLANS

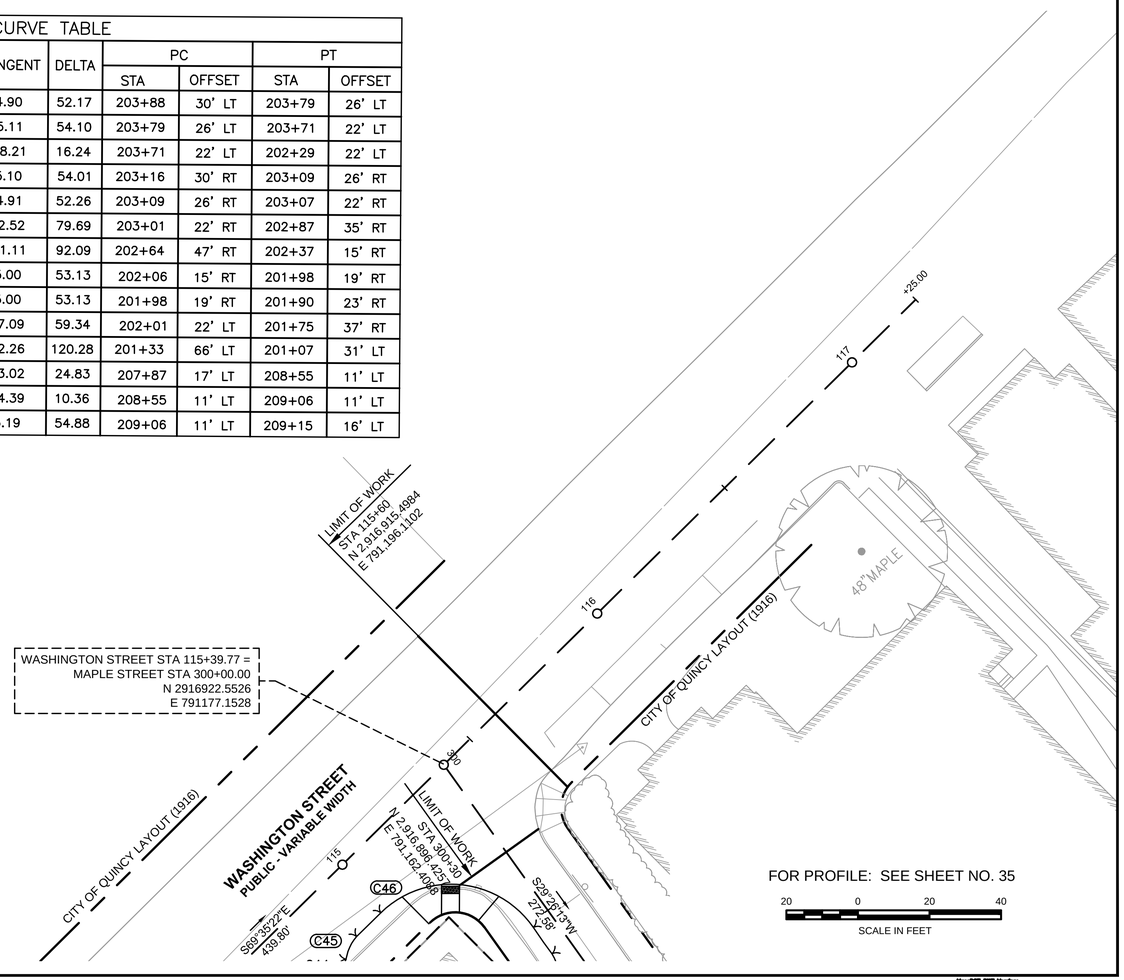


CONTINUED ON SHEET NO. 42

CURVE TABLE								
CURVE #	RADIUS	LENGTH	TANGENT	DELTA	PC		PT	
					STA	OFFSET	STA	OFFSET
C43	10.00	7.95	4.20	45.57	113+07	19' RT	113+14	22' RT
C44	12.00	6.72	3.45	32.11	114+77	21' RT	114+82	20' RT
C45	12.00	6.03	3.08	28.78	114+82	20' RT	114+89	17' RT
C46	28.00	48.75	33.22	99.75	114+98	17' RT	300+52	6' RT
C47	12.00	6.72	3.45	32.11	300+61	6' RT	300+67	8' RT
C48	12.00	6.03	3.08	28.78	300+67	8' RT	300+73	10' RT
C49	10.00	7.95	4.20	45.57	113+31	30' LT	113+24	27' LT
C50	10.00	7.95	4.20	45.57	113+24	27' LT	113+17	24' LT
C51	30.00	52.46	35.87	100.19	113+04	24' LT	204+81	24' LT
C52	10.00	7.95	4.20	45.57	204+74	24' LT	204+67	27' LT
C53	10.00	7.95	4.20	45.57	204+67	27' LT	204+60	30' LT
C54	10.00	7.95	4.20	45.57	204+79	24' RT	204+74	27' RT
C55	10.00	7.95	4.20	45.57	204+74	24' RT	204+66	30' RT
C56	530.00	98.58	49.44	10.66	204+09	30' RT	203+16	30' RT

CURVE TABLE								
CURVE #	RADIUS	LENGTH	TANGENT	DELTA	PC		PT	
					STA	OFFSET	STA	OFFSET
C57	10.00	9.11	4.90	52.17	203+88	30' LT	203+79	26' LT
C58	10.00	9.44	5.11	54.10	203+79	26' LT	203+71	22' LT
C59	478.00	135.51	68.21	16.24	203+71	22' LT	202+29	22' LT
C60	10.00	9.43	5.10	54.01	203+16	30' RT	203+09	26' RT
C61	10.00	9.12	4.91	52.26	203+09	26' RT	203+07	22' RT
C62	15.00	20.86	12.52	79.69	203+01	22' RT	202+87	35' RT
C63	30.00	48.22	31.11	92.09	202+64	47' RT	202+37	15' RT
C64	10.00	9.27	5.00	53.13	202+06	15' RT	201+98	19' RT
C65	10.00	9.27	5.00	53.13	201+98	19' RT	201+90	23' RT
C66	30.00	31.07	17.09	59.34	202+01	22' LT	201+75	37' RT
C67	30.00	62.98	52.26	120.28	201+33	66' LT	201+07	31' LT
C68	150.00	65.00	33.02	24.83	207+87	17' LT	208+55	11' LT
C69	269.00	48.65	24.39	10.36	208+55	11' LT	209+06	11' LT
C70	10.00	9.58	5.19	54.88	209+06	11' LT	209+15	16' LT

CURVE TABLE								
CURVE #	RADIUS	LENGTH	TANGENT	DELTA	PC		PT	
					STA	OFFSET	STA	OFFSET
C71	10.00	8.97	4.81	51.42	209+15	16' LT	209+23	19' LT
C72	261.00	55.48	27.85	12.18	209+23	19' LT	209+82	19' LT
C73	10.00	9.27	5.00	53.13	210+06	19' LT	210+14	16' LT
C74	10.00	9.12	4.90	52.24	210+14	15' LT	210+21	11' LT
C75	150.00	47.29	23.84	18.06	210+21	11' LT	210+68	19' LT
C76	40.00	22.82	11.73	32.68	210+93	27' LT	400+40	13' LT
C77	20.00	24.83	14.30	71.14	400+63	13' LT	304+90	3' RT
C78	10.00	9.27	5.00	53.13	304+83	3' RT	304+75	7' RT
C79	10.00	9.27	5.00	53.13	304+75	7' RT	304+67	11' RT
C80	10.00	19.00	13.98	108.86	304+88	10' LT	401+05	11' LT
C81	10.00	9.27	5.00	53.13	401+38	11' LT	401+45	15' LT
C82	10.00	9.27	5.00	53.13	401+45	15' LT	401+52	19' LT
C83	12.00	25.83	22.25	123.33	400+46	12' RT	211+41	12' LT
C84	382.00	74.10	37.17	11.11	211+41	12' LT	212+12	15' LT



31-Aug-2012

606235[25%]HD(CURB TIE & GRADING).DWG

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MassDOT DWF Version

QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

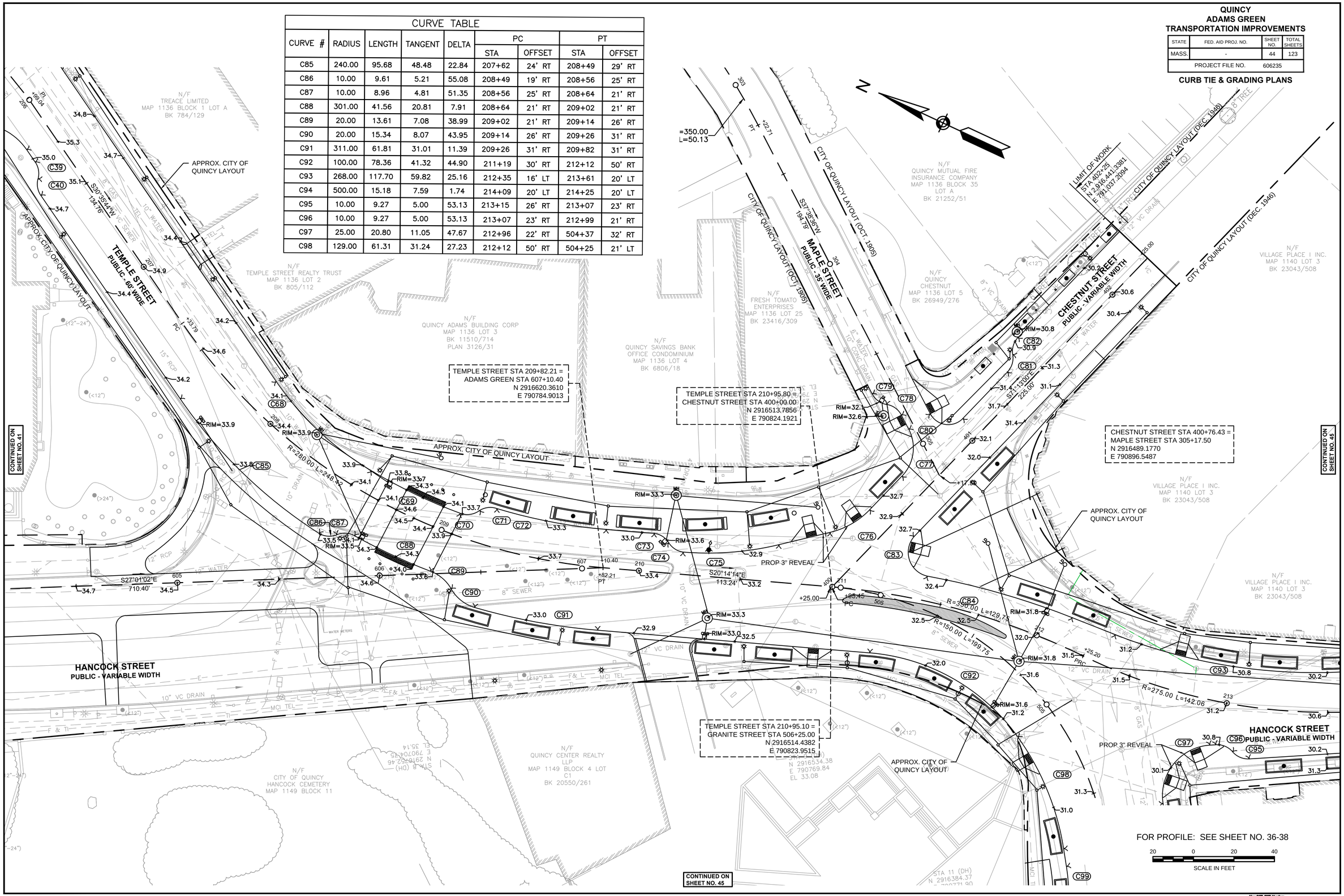
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	44	123
PROJECT FILE NO.	606235		

CURB TIE & GRADING PLANS

31-Aug-2012

606235(25%)HD(CURB TIE & GRADING).DWG

CURVE TABLE								
CURVE #	RADIUS	LENGTH	TANGENT	DELTA	PC		PT	
					STA	OFFSET	STA	OFFSET
C85	240.00	95.68	48.48	22.84	207+62	24' RT	208+49	29' RT
C86	10.00	9.61	5.21	55.08	208+49	19' RT	208+56	25' RT
C87	10.00	8.96	4.81	51.35	208+56	25' RT	208+64	21' RT
C88	301.00	41.56	20.81	7.91	208+64	21' RT	209+02	21' RT
C89	20.00	13.61	7.08	38.99	209+02	21' RT	209+14	26' RT
C90	20.00	15.34	8.07	43.95	209+14	26' RT	209+26	31' RT
C91	311.00	61.81	31.01	11.39	209+26	31' RT	209+82	31' RT
C92	100.00	78.36	41.32	44.90	211+19	30' RT	212+12	50' RT
C93	268.00	117.70	59.82	25.16	212+35	16' LT	213+61	20' LT
C94	500.00	15.18	7.59	1.74	214+09	20' LT	214+25	20' LT
C95	10.00	9.27	5.00	53.13	213+15	26' RT	213+07	23' RT
C96	10.00	9.27	5.00	53.13	213+07	23' RT	212+99	21' RT
C97	25.00	20.80	11.05	47.67	212+96	22' RT	504+37	32' RT
C98	129.00	61.31	31.24	27.23	212+12	50' RT	504+25	21' LT



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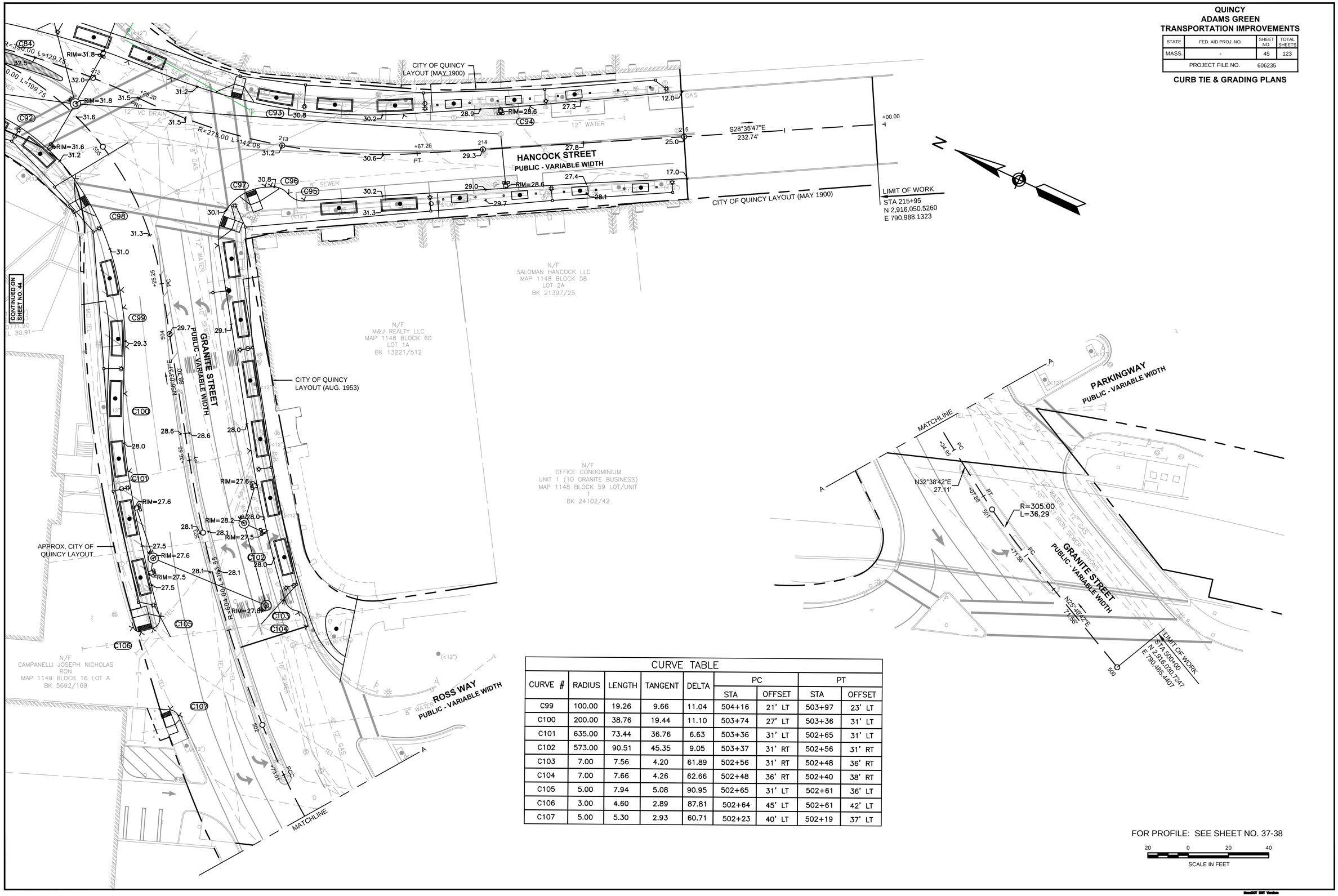
QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	45	123
PROJECT FILE NO.	606235		

CURB TIE & GRADING PLANS

31-Aug-2012

606235(25%)HD(CURB TIE & GRADING).DWG



CURVE TABLE								
CURVE #	RADIUS	LENGTH	TANGENT	DELTA	PC		PT	
					STA	OFFSET	STA	OFFSET
C99	100.00	19.26	9.66	11.04	504+16	21' LT	503+97	23' LT
C100	200.00	38.76	19.44	11.10	503+74	27' LT	503+36	31' LT
C101	635.00	73.44	36.76	6.63	503+36	31' LT	502+65	31' LT
C102	573.00	90.51	45.35	9.05	503+37	31' RT	502+56	31' RT
C103	7.00	7.56	4.20	61.89	502+56	31' RT	502+48	36' RT
C104	7.00	7.66	4.26	62.66	502+48	36' RT	502+40	38' RT
C105	5.00	7.94	5.08	90.95	502+65	31' LT	502+61	36' LT
C106	3.00	4.60	2.89	87.81	502+64	45' LT	502+61	42' LT
C107	5.00	5.30	2.93	60.71	502+23	40' LT	502+19	37' LT

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MassDOT DWF Version

QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	46	123
PROJECT FILE NO.	606235		

TRAFFIC SIGNAL LAYOUT
LOCATION 1
HANCOCK STREET AT ADAMS ST. AND DIMMOCK ST.
& HANCOCK STREET AT RUSSEL PK. AND MBTA DR.

606235[25%]TR(TRAFFIC SIGNAL LAYOUT).DWG 31-Aug-2012

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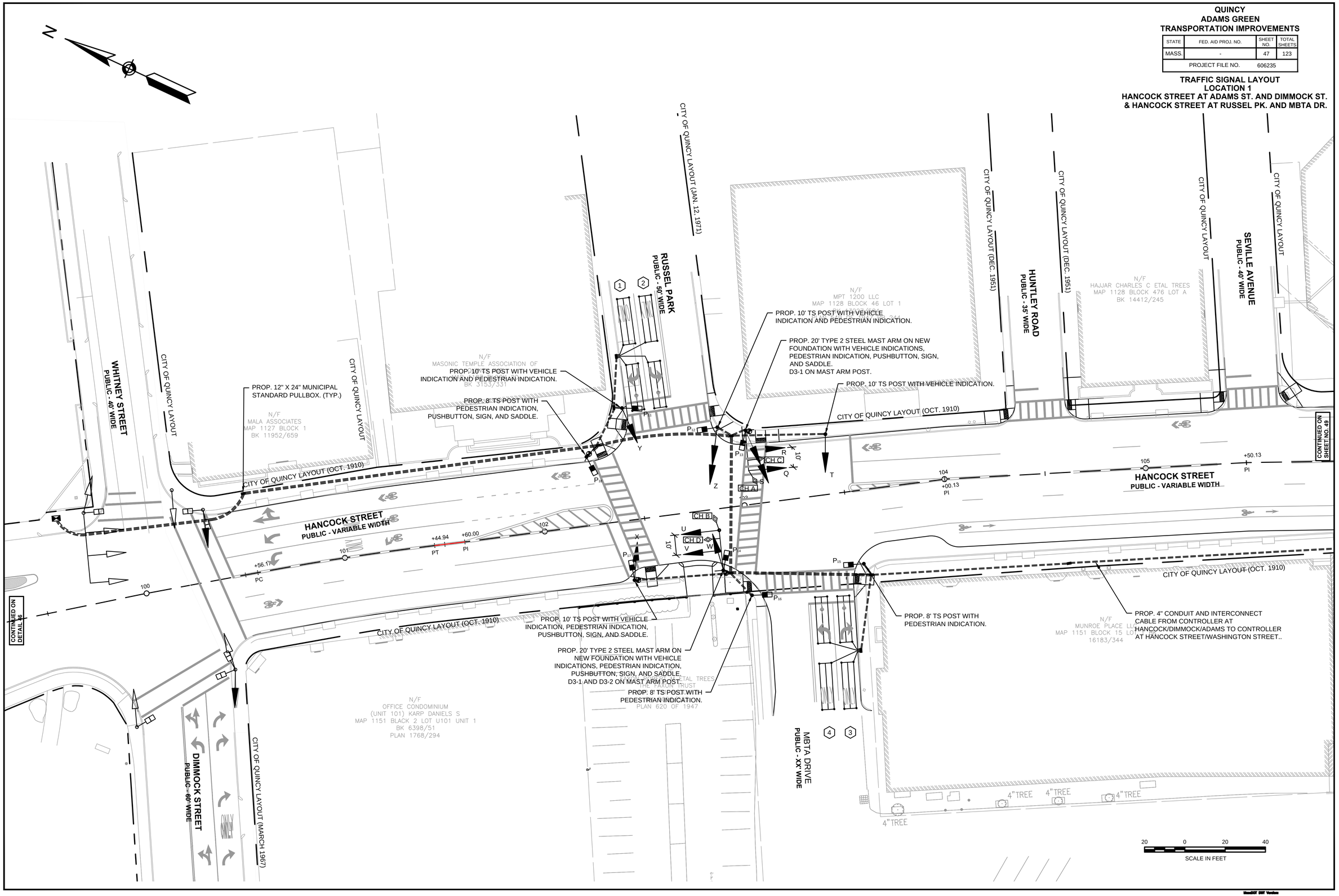
QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	47	123
PROJECT FILE NO.	606235		

TRAFFIC SIGNAL LAYOUT
LOCATION 1
HANCOCK STREET AT ADAMS ST. AND DIMMOCK ST.
& HANCOCK STREET AT RUSSEL PK. AND MBTA DR.



606235[25%]TR(TRAFFIC SIGNAL LAYOUT).DWG 31-Aug-2012

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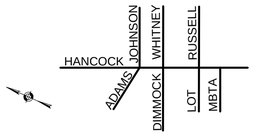
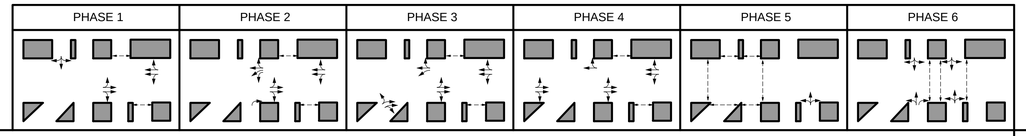
MassDOT DWF Version

QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	48	123
PROJECT FILE NO.	606235		

TRAFFIC SIGNAL DATA
LOCATION 1
HANCOCK STREET AT ADAMS ST. AND DIMMOCK ST. & HANCOCK STREET AT RUSSEL PK. AND MBTA DR.





SEQUENCE AND TIMING FOR SEMI ACTUATED CONTROL (COORDINATED)

STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	FLASH OPER.
DIMMOCK STREET	EB	E	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	FR
DIMMOCK STREET	EB RT	F,G	R	R	R	R/GR	R/YR	R	R	R	R	R	R	R	R	R	R	G	Y	R	FR
WHITNEY STREET	WB	D,H,I	R	R	R	GL	Y	R	R	R	R	R	R	R	R	R	R	G	Y	R	FR
HANCOCK STREET	NB LT	C	RL	RL	RL	GL	YL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	FRL
HANCOCK STREET	NB LT	B	RL	RL	RL	GL	YL	RL	GL	YL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	FRL
HANCOCK STREET	NB	A	R	R	R	GV/GR	YV/YR	R	GV/GR	YV/YR	R	GV/GR	YV/YR	R	R	R	R	R	R	R	FYV
HANCOCK STREET	SB	O,N	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	FY
ADAMS STREET	SEB	J,K	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	FR
JOHNSON AVENUE	SWB	L,M	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	FR
MBTA BUSWAY	EB LT	S	R	R	R	R	R	R	R	R	R	R	R	R	GL/G	YL/Y	R	G	Y	R	FR
MBTA BUSWAY	EB	T	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	G	Y	R	FR
RUSSELL PARK	WB	W,X	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	FR
PARKING LOT	EB	Y,Z	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	FR
HANCOCK STREET	NB	Q,R	G	Y	R	G	Y	R	G	Y	R	G	Y	R	R	R	R	R	R	R	FY
HANCOCK STREET	SB	U,V	G	Y	R	G	Y	R	G	Y	R	G	Y	R	R	R	R	R	R	R	FY
PEDESTRIAN	N-S	P1,P2	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W/FDW	FDW	DW	DW	DW	DW	OFF
PEDESTRIAN	E-W	P3,P4	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W/FDW	FDW	DW	W/FDW	FDW	DW	OFF
PEDESTRIAN	N-S	P5,P6	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W/FDW	FDW	DW	DW	DW	DW	OFF
PEDESTRIAN	E-W	P7,P8	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W/FDW	FDW	DW	DW	DW	DW	OFF
PEDESTRIAN	E-W	P9,P10	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W/FDW	FDW	DW	DW	DW	DW	OFF
PEDESTRIAN	N-S	P11,P12	W/FDW	FDW	DW	W/FDW	FDW	DW	W/FDW	FDW	DW	W/FDW	FDW	DW	DW	DW	DW	DW	DW	DW	OFF
PEDESTRIAN	E-W	P13,P14	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W/FDW	FDW	DW	OFF
PEDESTRIAN	N-S	P15,P16	W/FDW	FDW	DW	W/FDW	FDW	DW	W/FDW	FDW	DW	W/FDW	FDW	DW	DW	DW	DW	DW	DW	DW	OFF
PEDESTRIAN	E-W	P17,P18	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W/FDW	FDW	DW	OFF
TIMING IN SECONDS																					
MINIMUM GREEN (INITIAL)			4			8			8			8			-			8			EMERGENCY ONLY
PASSAGE TIME (VEHICLE)			2			2			2			2			-			2			
MAXIMUM 1			5			10			10			10			-			20			
MAXIMUM 2			-			-			-			-			-			-			
YELLOW CLEARANCE				3			3			3			3						3		
RED CLEARANCE					3			2			6			6			1			2	
WALK (W)															7			7			
PEDESTRIAN CLEARANCE																17		11			
RECALL			OFF			OFF			MAX			OFF			OFF			OFF			
MEMORY			NON-LOCKING			NON-LOCKING			NON-LOCKING			NON-LOCKING			NON-LOCKING			NON-LOCKING			

COORDINATION DATA			COORDINATION PHASE TIMING					
TIMING PLAN	CYCLE LENGTH	REF/OFFSET	SEC.	SEC.	SEC.	SEC.	SEC.	SEC.
TP1 M - F (6AM-9AM)	110	84	10	14	18	20	25	23
TP2 M - F (3PM-7PM)	100	18	10	11	15	16	25	23
TP3 SAT (11AM-6PM)	100	18	10	11	15	16	25	23

NOTES:
1. MASTER CONTROLLER IS LOCATED AT WASHINGTON STREET/CODDINGTON STREET/TEMPLE STREET (LOCATION 3).
2. COORDINATION POINT SHALL BE AT THE START OF YELLOW OF PHASE 3.
3. INHIBIT MAX TERMINATION SHALL BE USED DURING COORDINATION. MAX 2 NOT USED.
4. MAX 1 IN EFFECT DURING NORMAL OPERATION.
5. IF THE ASSIGNED RIGHT OF WAY FOR ANY VEHICULAR OR PEDESTRIAN MOVEMENT IS TO REMAIN IN EFFECT DURING THE NEXT CALLED PHASE, THE SIGNAL INDICATIONS FOR THAT MOVEMENT SHALL NOT CHANGE DURING THE CHANGE OR CLEARANCE INTERVALS UNLESS OTHERWISE NOTED.

MAJOR ITEMS REQUIRED

PAY ITEM	QUANTITY	ITEM
816.01	1	CONTROLLER NEMA 8 PHASE TS2-TYPE 1, CAB.& FDN.
	3	8' SIGNAL POLE, BASE, & FDN.
	4	10' SIGNAL POLE, BASE, & FDN.
	2	20 FT TYPE II, GALV. STEEL MAST ARM ASSEMBLY , BASE & FDN.
	8	3 SECTION, SIGNAL HOUSING (12" L.E.D.)
	1	3 SECTION, OPTICALLY PROGRAMMED SIGNAL HOUSING
	1	4 SECTION, OPTICALLY PROGRAMMED SIGNAL HOUSING
	2	5 SECTION, SIGNAL HOUSING (12" L.E.D.)
	1	SIGNAL HOUSING RETROFIT
	8	PEDESTRIAN HOUSING (16" L.E.D.)
	4	PEDESTRIAN PUSH BUTTON, SIGN & SADDLE
	2	DUAL CHANNEL LOOP DETECTOR AMPLIFIER
	4	LOUVERED BACKPLATES
	2	PRE-EMPTION RECEIVER-DUAL CHANNEL
	2	PRE-EMPTION PHASE SELECTOR MODULE-DUAL CHANNEL
	1	PRE-EMPTION CARD RACK
	1	PRE-EMPTION COMFIRMATION STROBE (WHITE)
	8	ROADWAY LOOP DETECTOR (6'X23')
	4	12" X 24" PULL BOX
		Plus all necessary duct, cable, labor, miscellaneous
		material and equipment to complete the installation.

LOOP DETECTOR DATA

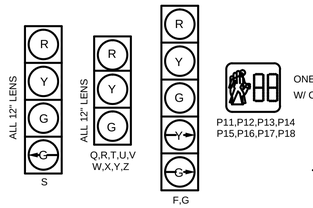
SEE PLAN SHEET-LOOP DETECTOR DETAILS FOR LOOP CONSTRUCTION. SPLICING, DETAILS & NOTES. DELAY TIME EFFECTIVE ONLY DURING CALLED Ø RED. TIME IN SEC.

DETECTOR NUMBER	AMPLIFIER NUMBER	CHANNEL NUMBER	LOOP SIZE	NUM. OF TURNS	Ø CALLED	Ø EXT.	MODE A=PULSE B=PRES.	DELAY TIME	EXT. TIME
1	1	1	2@6'X23'	2-4-2	6	6	B	-	-
2	1	2	2@6'X23'	2-4-2	6	6	B	-	-
3	2	1	2@6'X23'	2-4-2	5	5	B	-	-
4	2	2	2@6'X23'	2-4-2	5	5	B	-	-

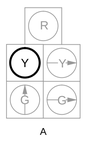
* NOTE: ADDITIONAL SURVEY IS NEEDED FOR THE EXISTING LOOP DETECTOR DATA. THIS INFORMATION WILL BE PROVIDED IN THE NEXT SUBMISSION.

SIGNAL IDENTIFICATION

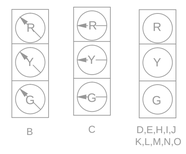
NEW INDICATIONS



RETROFIT INDICATIONS



EXISTING INDICATIONS



NOTES:
1. ALL NEW SIGNALS SHALL HAVE CUT AWAY VISORS.
2. SIGNALS Q,R,U, & V SHALL HAVE 12" LED WITH 5" LOUVERED BACK PLATES.
3. SIGNALS S & Z SHALL BE OPTICAL VEHICLE INDICATIONS.

FIRE PREEMPTION SCHEDULE

APPROACH	CHANNEL	PREEMPTION PHASE	NEXT PHASE CALLED
EASTBOUND	A	5	6
WESTBOUND	B	6	1
NORTHBOUND	C	3	4
SOUTHBOUND	D	3	4

EMERGENCY VEHICLE PREEMPTION OPERATION:

1. EMERGENCY VEHICLE PREEMPTION SHALL BE ACTUATED BY AN OPTICAL SIGNAL FROM AN OPTICAL EMITTER MOUNTED ON AN EMERGENCY VEHICLE AND RECEIVED BY AN OPTICAL DETECTOR LOCATED AT INTERSECTION. A SEPARATE RECEIVING DETECTOR IS REQUIRED FOR EACH DETECTED APPROACH.

2. PREEMPTION SIGNALS FROM MULTIPLE APPROACHES SHALL BE SERVICED ON A FIRST DETECTED FIRST SERVED BASIS.

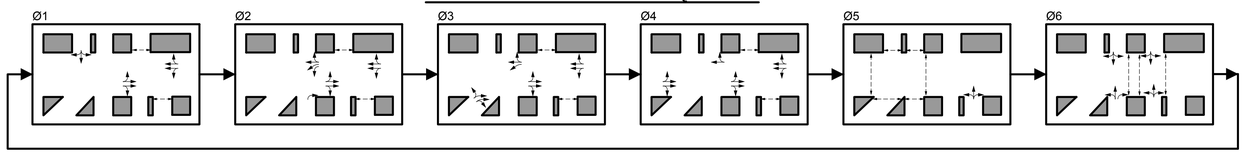
3. IN RESPONSE TO A PREEMPTION SIGNAL RECEIVED AT AN INTERSECTION BY AN OPTICAL DETECTOR, THE CONTROLLER SHALL TIME THE CLEARANCE INTERVALS OF THE ACTIVE PHASE (IF DIFFERENT THAT TO BE SERVICED) AND ADVANCE TO AND/OR HOLD IN EMERGENCY VEHICLE PREEMPTION PHASE UNTIL PREEMPTION SIGNAL CEASES. THE CONTROLLER SHALL THEN TIME CLEARANCES AND SIMILARLY SERVICE OTHER EMERGENCY VEHICLE PREEMPTION SEQUENCES IN THE ORDER RECEIVED (IF RECEIVED) OTHERWISE, RESUME NORMAL PREFERENTIAL PHASE SEQUENCE.

4. PREEMPTION MINIMUM GREENS SHALL BE EIGHT SECONDS.

5. NORMAL CLEARANCES SHALL BE PROVIDED ON PHASES THAT ARE TERMINATED BY PREEMPTION DEMAND.

6. ACTUAL TIMING FOR PREEMPTION SHALL BE DETERMINED IN THE FIELD IN COORDINATION WITH THE FIRE DEPARTMENT AND SHALL BE APPROVED BY MASSDOT PRIOR TO OPERATION.

PREFERENTIAL PHASING SEQUENCE



31-Aug-2012
606235(25%)TR(TRAFFIC SIGNAL DATA).DWG

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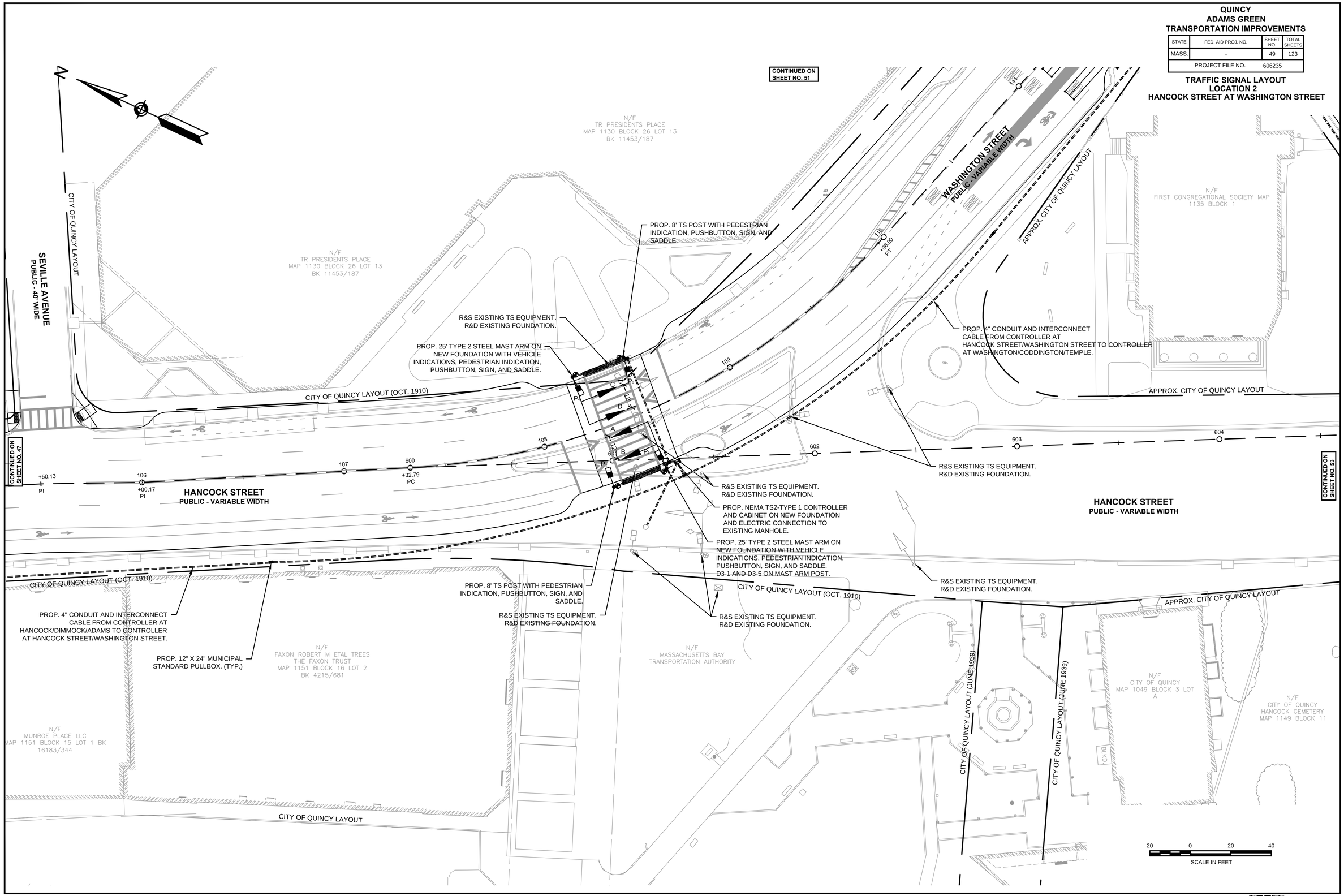
MassDOT DIST Version

QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	49	123
PROJECT FILE NO.	606235		

TRAFFIC SIGNAL LAYOUT
LOCATION 2
HANCOCK STREET AT WASHINGTON STREET



606235[25%]TR(TRAFFIC SIGNAL LAYOUT).DWG 31-Aug-2012

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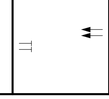
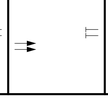
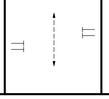
MassDOT IMT Version

QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	50	123
PROJECT FILE NO.	606235		

TRAFFIC SIGNAL DATA
LOCATION 2
HANCOCK STREET AT WASHINGTON STREET

PHASE 2	PHASE 6	PHASE 9						
								

SEQUENCE AND TIMING FOR SEMI ACTUATED HYBRID BEACON CONTROL (COORDINATED)

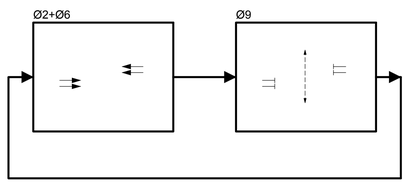
STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	FLASH OPER.
WASHINGTON STREET	NB	C,D	-	FY/Y	SR	-	-	-	SR	FR	-																			OFF
HANCOCK STREET	SB	A,B	-	-	-	-	FY/Y	SR	SR	FR	-																			OFF
PEDESTRIAN	E-W	P1,P2,P3,P4	DW	DW	DW	DW	DW	DW	W	FDW	DW																			OFF
TIMING IN SECONDS																														
MINIMUM GREEN (INITIAL)			50			50			-																					EMERGENCY ONLY
PASSAGE TIME (VEHICLE)			-			-			-																					
MAXIMUM 1			70			70			-																					
MAXIMUM 2			-			-			-																					
YELLOW CLEARANCE				3/3			3/3																							
RED CLEARANCE					1			1			1																			
WALK (W)									8																					
PEDESTRIAN CLEARANCE										15																				
RECALL			MAX			MAX			OFF																					
MEMORY			NON-LOCKING			NON-LOCKING			LOCKING																					

COORDINATION DATA			COORDINATION PHASE TIMING								
TIMING PLAN	CYCLE LENGTH	REF/OFFSET	SEC.	SEC.	SEC.	SEC.	SEC.	SEC.	SEC.	SEC.	SEC.
TP1 M - F (6AM-9AM)	110	12	86	86	24						
TP2 M - F (3PM-7PM)	100	12	76	76	24						
TP3 SAT (11AM-6PM)	100	0	76	76	24						

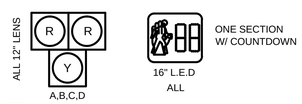
NOTES:

1. MASTER CONTROLLER IS LOCATED AT WASHINGTON STREET/CODDINGTON STREET/TEMPLE STREET (LOCATION 3).
2. COORDINATION POINT SHALL BE AT THE START OF YELLOW OF PHASE 2 & 6.
4. INHIBIT MAX TERMINATION SHALL BE USED DURING COORDINATION. MAX 2 NOT USED.
5. MAX 1 IN EFFECT DURING NORMAL OPERATION.
6. IF THE ASSIGNED RIGHT OF WAY FOR ANY VEHICULAR OR PEDESTRIAN MOVEMENT IS TO REMAIN IN EFFECT DURING THE NEXT CALLED PHASE, THE SIGNAL INDICATIONS FOR THAT MOVEMENT SHALL NOT CHANGE DURING THE CHANGE OR CLEARANCE INTERVALS UNLESS OTHERWISE NOTED.

PREFERENTIAL PHASING SEQUENCE



SIGNAL IDENTIFICATION

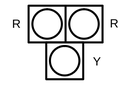
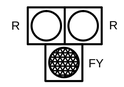
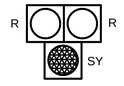
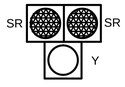
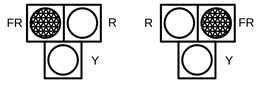
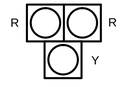


NOTES:

1. ALL SIGNALS SHALL HAVE CUT AWAY VISORS.
2. SIGNALS A,B,C & D SHALL HAVE 12" LED WITH 5" LOUVERED BACK PLATES.

	MAJOR ITEMS REQUIRED	
PAY ITEM	QUANTITY	ITEM
816.02	1	CONTROLLER NEMA 8 PHASE TS2-TYPE 1, CAB.& FDN.
	1	SERVICE CONNECTION, TYPE UNDERGROUND
	2	8' SIGNAL POLE, BASE, & FDN.
	2	25 FT TYPE II, GALV. STEEL MAST ARM ASSEMBLY , BASE & FDN.
	4	3 SECTION, SIGNAL HOUSING (12" L.E.D.)
	4	PEDESTRIAN HOUSING (16" L.E.D.)
	4	PEDESTRIAN PUSH BUTTON, SIGN & SADDLE
	2	12" X 24" PULL BOX
	4	LOUVERED BACKPLATES
		Plus all necessary duct, cable, labor, miscellaneous
		material and equipment to complete the installation.

PEDESTRIAN HYBRID BEACON & PEDESTRIAN INDICATION SEQUENCE

	1. DARK UNTIL ACTIVATED.		1. DON'T WALK.
	2. FLASHING YELLOW UPON ACTIVATION.		2. DON'T WALK
	3. STEADY YELLOW FOR VEHICLE CLEARANCE.		3. DON'T WALK.
	4. STEADY RED DURING PEDESTRIAN WALK INTERVAL.		4. WALK.
	5. ALTERNATING FLASHING RED DURING PEDESTRIAN CLEARANCE INTERVAL.		5. FLASHING DON'T WALK WITH COUNTDOWN.
	6. DARK UNTIL ACTIVATED AGAIN.		6. DON'T WALK.

31-Aug-2012

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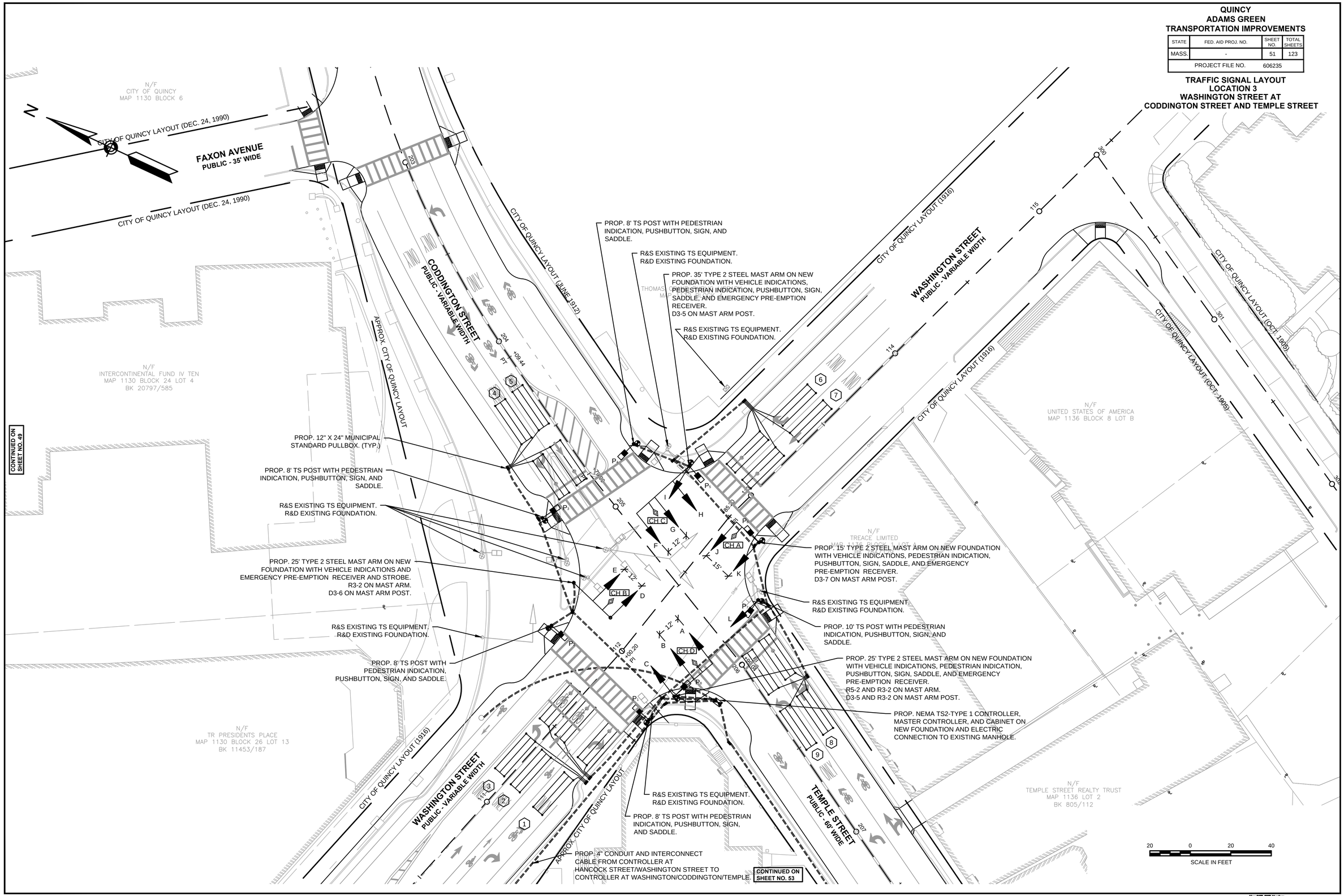
MassDOT DWF Version

QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	51	123
PROJECT FILE NO.	606235		

TRAFFIC SIGNAL LAYOUT
LOCATION 3
WASHINGTON STREET AT
CODDINGTON STREET AND TEMPLE STREET



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MassDOT DWF Version

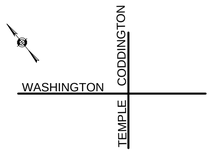
QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

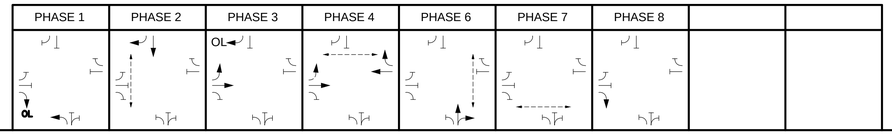
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	52	123
PROJECT FILE NO.	606235		

TRAFFIC SIGNAL DATA
LOCATION 3
WASHINGTON STREET AT
CODDINGTON STREET AND TEMPLE STREET

31-Aug-2012

606235[25%]TR(TRAFFIC SIGNAL DATA).DWG





SEQUENCE AND TIMING FOR SEMI ACTUATED CONTROL (COORDINATED)

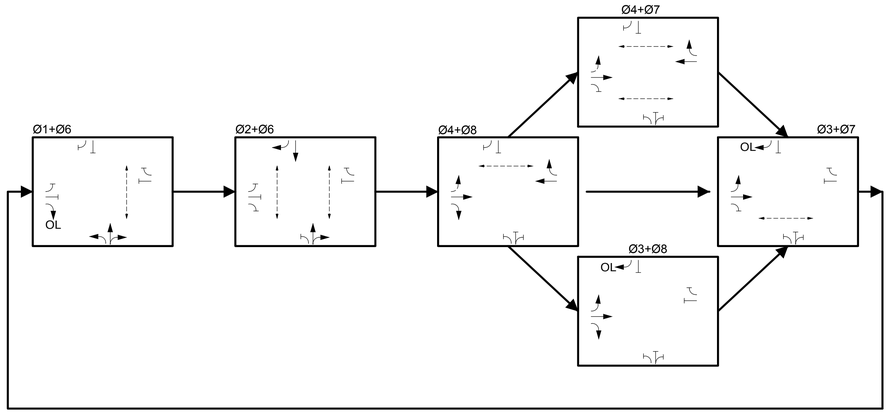
STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	FLASH OPER.
WASHINGTON STREET	EB	I,J	R	R	R	R	R	R	GL/G	YL/Y	R	G	Y	R	R	R	R	R	R	R	R	R	R							FY
WASHINGTON STREET	EB RT	K,L	GR	YR	RR	RR	RR	RR	RR	RR	RR	RR	RR	RR	RR	RR	RR	RR	RR	RR	GR	YR	RR							FRR
WASHINGTON STREET	WB	D,E	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R							FY
TEMPLE STREET	NB LT	F	GL	YL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL							FRL
TEMPLE STREET	NB	G,H	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R							FR
CODDINGTON STREET	SB	A,B	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R							FR
CODDINGTON STREET	SB RT	C	R	R	R	G	Y	R	GR	YR	R	R	R	R	R	R	R	R	R	R	R	R	R							FR
PEDESTRIAN	E-W	P3,P4	DW	DW	DW	DW	DW	DW	DW	DW	DW	W/FDW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW							OFF
PEDESTRIAN	E-W	P7,P8	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW	DW	DW	DW							OFF
PEDESTRIAN	N-S	P1,P2	DW	DW	DW	W/FDW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW							OFF
PEDESTRIAN	N-S	P5,P6	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W/FDW	DW	DW	DW	DW	DW	DW	DW	DW							OFF
TIMING IN SECONDS																														
MINIMUM GREEN (INITIAL)			8			8			4			8			8			-			8									EMERGENCY ONLY
PASSAGE TIME (VEHICLE)			-			2			2			2			-			-			2									
MAXIMUM 1			25			20			5			40			50			-			25									
MAXIMUM 2			-			-			-			-			-			-			-									
YELLOW CLEARANCE				3			3			3			3			3						3								
RED CLEARANCE					1			1			1			1			1			1			1							
WALK (W)						7						7			7			7												
PEDESTRIAN CLEARANCE						13	3					13	3		11	3			13											
RECALL			MAX			OFF			OFF			OFF			MAX			OFF			OFF									
MEMORY			NON-LOCKING			NON-LOCKING			NON-LOCKING			NON-LOCKING			NON-LOCKING			LOCKING			NON-LOCKING									

COORDINATION DATA			COORDINATION PHASE TIMING								
TIMING PLAN	CYCLE LENGTH	REF/OFFSET	SEC.	SEC.	SEC.	SEC.	SEC.	SEC.	SEC.	SEC.	SEC.
TP1 M - F (6AM-9AM)	110	0	30	24	8	48	54	22	34		
TP2 M - F (3PM-7PM)	100	0	25	24	10	41	49	22	29		
TP3 SAT (11AM-6PM)	100	0	27	24	10	39	51	22	27		

NOTES:

1. MASTER CONTROLLER IS AT THIS LOCATION.
3. COORDINATION POINT SHALL BE AT THE START OF YELLOW OF PHASE 1 & 6.
4. INHIBIT MAX TERMINATION SHALL BE USED DURING COORDINATION. MAX 2 NOT USED.
5. MAX 1 IN EFFECT DURING NORMAL OPERATION.
6. IF THE ASSIGNED RIGHT OF WAY FOR ANY VEHICULAR OR PEDESTRIAN MOVEMENT IS TO REMAIN IN EFFECT DURING THE NEXT CALLED PHASE, THE SIGNAL INDICATIONS FOR THAT MOVEMENT SHALL NOT CHANGE DURING THE CHANGE OR CLEARANCE INTERVALS UNLESS OTHERWISE NOTED.

PREFERENTIAL PHASING SEQUENCE



FIRE PREEMPTION SCHEDULE

APPROACH	CHANNEL	PREEMPTION PHASE	NEXT PHASE CALLED
EASTBOUND	A	3+8	4+8
WESTBOUND	B	4	1+6
NORTHBOUND	C	1+6	2+6
SOUTHBOUND	D	2	2+6

EMERGENCY VEHICLE PREEMPTION OPERATION:

1. EMERGENCY VEHICLE PREEMPTION SHALL BE ACTUATED BY AN OPTICAL SIGNAL FROM AN OPTICAL EMITTER MOUNTED ON AN EMERGENCY VEHICLE AND RECEIVED BY AN OPTICAL DETECTOR LOCATED AT INTERSECTION. A SEPARATE RECEIVING DETECTOR IS REQUIRED FOR EACH DETECTED APPROACH.
2. PREEMPTION SIGNALS FROM MULTIPLE APPROACHES SHALL BE SERVICED ON A FIRST DETECTED FIRST SERVED BASIS.
3. IN RESPONSE TO A PREEMPTION SIGNAL RECEIVED AT AN INTERSECTION BY AN OPTICAL DETECTOR, THE CONTROLLER SHALL TIME THE CLEARANCE INTERVALS OF THE ACTIVE PHASE (IF DIFFERENT THAT TO BE SERVICED) AND ADVANCE TO AND/OR HOLD IN EMERGENCY VEHICLE PREEMPTION PHASE UNTIL PREEMPTION SIGNAL CEASES. THE CONTROLLER SHALL THEN TIME CLEARANCES AND SIMILARLY SERVICE OTHER EMERGENCY VEHICLE PREEMPTION SEQUENCES IN THE ORDER RECEIVED (IF RECEIVED) OTHERWISE, RESUME NORMAL PREFERENTIAL PHASE SEQUENCE.
4. PREEMPTION MINIMUM GREENS SHALL BE EIGHT SECONDS.
5. NORMAL CLEARANCES SHALL BE PROVIDED ON PHASES THAT ARE TERMINATED BY PREEMPTION DEMAND.
6. ACTUAL TIMING FOR PREEMPTION SHALL BE DETERMINED IN THE FIELD IN COORDINATION WITH THE FIRE DEPARTMENT AND SHALL BE APPROVED BY MASSDOT PRIOR TO OPERATION.

MAJOR ITEMS REQUIRED

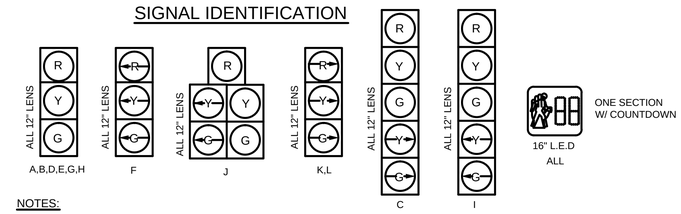
PAY ITEM	QUANTITY	ITEM
816.03	1	CONTROLLER NEMA 8 PHASE TS2-TYPE 1, CAB.& FDN.
	1	SERVICE CONNECTION, TYPE UNDERGROUND
	1	MASTER CONTROLLER
	4	8' SIGNAL POLE, BASE, & FDN.
	1	10' SIGNAL POLE, BASE, & FDN.
	1	15 FT TYPE II, GALV. STEEL MAST ARM ASSEMBLY , BASE & FDN.
	2	25 FT TYPE II, GALV. STEEL MAST ARM ASSEMBLY , BASE & FDN.
	1	35 FT TYPE II, GALV. STEEL MAST ARM ASSEMBLY , BASE & FDN.
	9	3 SECTION, SIGNAL HOUSING (12" L.E.D.)
	3	5 SECTION, SIGNAL HOUSING (12" L.E.D.)
	8	PEDESTRIAN HOUSING (16" L.E.D.)
	8	PEDESTRIAN PUSH BUTTON, SIGN & SADDLE
	5	DUAL CHANNEL LOOP DETECTOR AMPLIFIER
	18	ROADWAY LOOP DETECTOR (6'X23')
	2	PRE-EMPTION RECEIVER-DUAL CHANNEL
	2	PRE-EMPTION PHASE SELECTOR MODULE-DUAL CHANNEL
	1	PRE-EMPTION CARD RACK
	1	PRE-EMPTION COMFIRMATION STROBE (WHITE)
	11	12" X 24" PULL BOX
	8	LOUVERED BACKPLATES
		Plus all necessary duct, cable, labor, miscellaneous
		material and equipment to complete the installation.

LOOP DETECTOR DATA

SEE PLAN SHEET-LOOP DETECTOR DETAILS FOR LOOP CONSTRUCTION. SPLICING, DETAILS & NOTES. DELAY TIME EFFECTIVE ONLY DURING CALLED Ø RED. TIME IN SEC.

DETECTOR NUMBER	AMPLIFIER NUMBER	CHANNEL NUMBER	LOOP SIZE	NUM. OF TURNS	Ø CALLED	Ø EXT.	MODE A=PULSE B=PRES.	DELAY TIME	EXT. TIME
1	1	1	2@6'X23'	2-4-2	8	8	B	-	-
2	1	2	2@6'X23'	2-4-2	4	4	B	-	-
3	2	1	2@6'X23'	2-4-2	3	3	B	-	-
4	2	2	2@6'X23'	2-4-2	2	2	B	-	-
5	3	1	2@6'X23'	2-4-2	2	2	B	-	-
6	3	2	2@6'X23'	2-4-2	4	4	B	-	-
7	4	1	2@6'X23'	2-4-2	4	4	B	-	-
8	4	2	2@6'X23'	2-4-2	5	5	B	-	-
9	5	1	2@6'X23'	2-4-2	1	1	B	-	-

SIGNAL IDENTIFICATION



NOTES:

1. ALL SIGNALS SHALL HAVE CUT AWAY VISORS.
2. SIGNALS A,B,D,E,F,G,H & J SHALL HAVE 12" LED WITH 5" LOUVERED BACK PLATES.

MassDOT IMT Version

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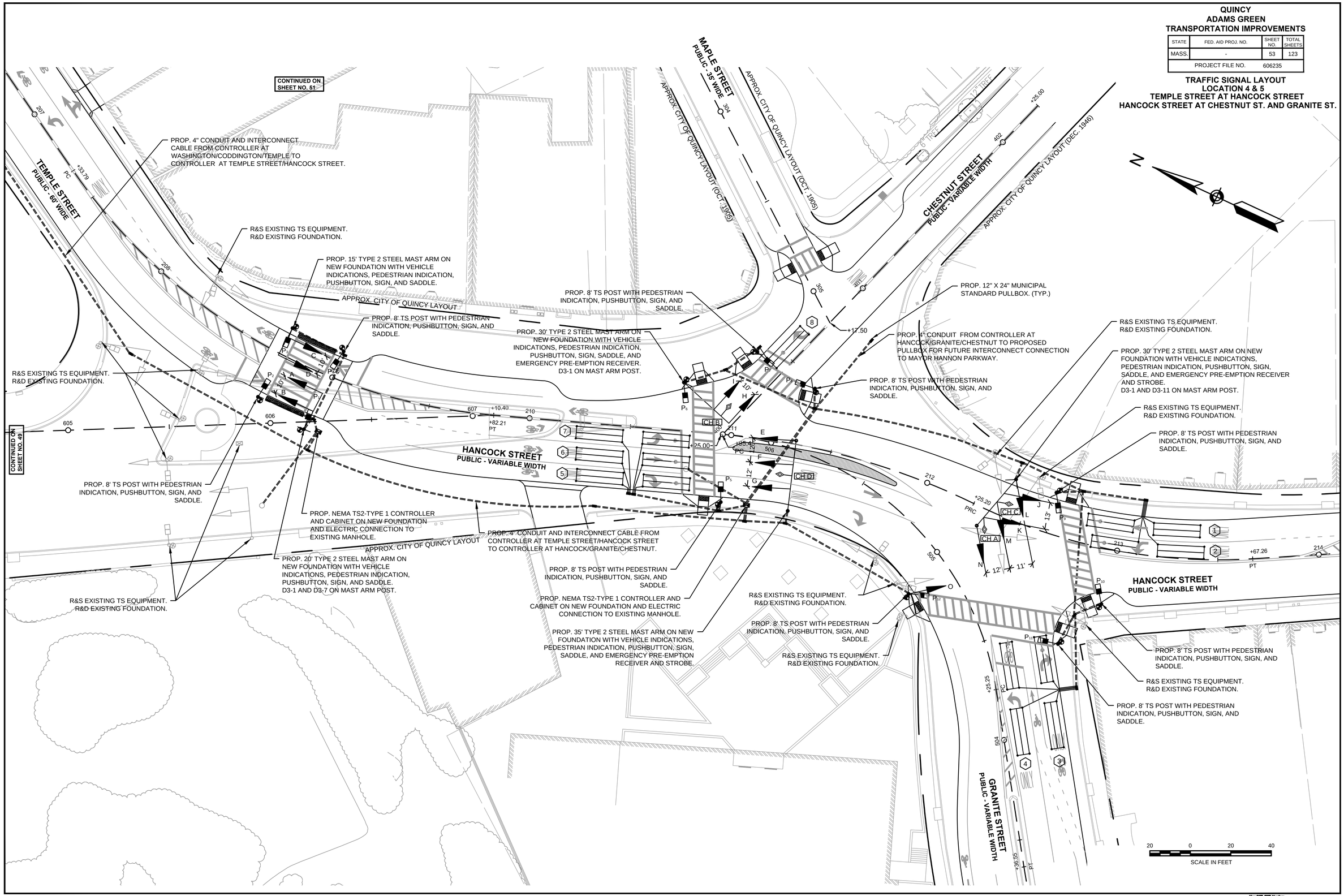
QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	53	123
PROJECT FILE NO.	606235		

TRAFFIC SIGNAL LAYOUT
LOCATION 4 & 5
TEMPLE STREET AT HANCOCK STREET
HANCOCK STREET AT CHESTNUT ST. AND GRANITE ST.



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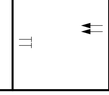
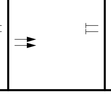
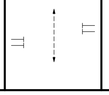
MassDOT DWF Version

QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	54	123
PROJECT FILE NO.	606235		

TRAFFIC SIGNAL DATA
LOCATION 4
TEMPLE STREET AT HANCOCK STREET

PHASE 2	PHASE 6	PHASE 9						
								

SEQUENCE AND TIMING FOR SEMI ACTUATED HYBRID BEACON CONTROL (COORDINATED)

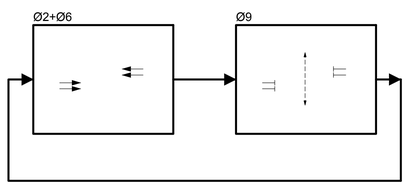
STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	FLASH OPER.
HANCOCK STREET	NB	C,D	-	FY/Y	SR	-	-	-	SR	FR	-																			OFF
TEMPLE STREET	SB	A,B	-	-	-	-	FY/Y	SR	SR	FR	-																			OFF
PEDESTRIAN	E-W	P1,P2,P3,P4	DW	DW	DW	DW	DW	DW	W	FDW	DW																			OFF
TIMING IN SECONDS																														
MINIMUM GREEN (INITIAL)			50			50			-																					EMERGENCY ONLY
PASSAGE TIME (VEHICLE)			-			-			-																					
MAXIMUM 1			70			70			-																					
MAXIMUM 2			-			-			-																					
YELLOW CLEARANCE				3/3			3/3																							
RED CLEARANCE					1			1			1																			
WALK (W)									12																					
PEDESTRIAN CLEARANCE										9																				
RECALL			MAX			MAX			OFF																					
MEMORY			NON-LOCKING			NON-LOCKING			LOCKING																					

COORDINATION DATA			COORDINATION PHASE TIMING								
TIMING PLAN	CYCLE LENGTH	REF/OFFSET	SEC.	SEC.	SEC.	SEC.	SEC.	SEC.	SEC.	SEC.	SEC.
TP1 M - F (6AM-9AM)	110	32	88	88	22						
TP2 M - F (3PM-7PM)	100	32	78	78	22						
TP3 SAT (11AM-6PM)	100	32	78	78	22						

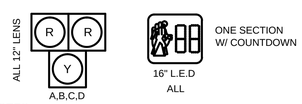
NOTES:

1. MASTER CONTROLLER IS LOCATED AT WASHINGTON STREET/CODDINGTON STREET/TEMPLE STREET (LOCATION 3).
2. COORDINATION POINT SHALL BE AT THE START OF YELLOW OF PHASE 2 & 6.
4. INHIBIT MAX TERMINATION SHALL BE USED DURING COORDINATION. MAX 2 NOT USED.
5. MAX 1 IN EFFECT DURING NORMAL OPERATION.
6. IF THE ASSIGNED RIGHT OF WAY FOR ANY VEHICULAR OR PEDESTRIAN MOVEMENT IS TO REMAIN IN EFFECT DURING THE NEXT CALLED PHASE, THE SIGNAL INDICATIONS FOR THAT MOVEMENT SHALL NOT CHANGE DURING THE CHANGE OR CLEARANCE INTERVALS UNLESS OTHERWISE NOTED.

PREFERENTIAL PHASING SEQUENCE



SIGNAL IDENTIFICATION



NOTES:

1. ALL SIGNALS SHALL HAVE CUT AWAY VISORS.
2. SIGNALS A,B,C & D SHALL HAVE 12" LED WITH 5" LOUVERED BACK PLATES.

	MAJOR ITEMS REQUIRED	
PAY ITEM	QUANTITY	ITEM
816.04	1	CONTROLLER NEMA 8 PHASE TS2-TYPE 1, CAB.& FDN.
	1	SERVICE CONNECTION, TYPE UNDERGROUND
	2	8' SIGNAL POLE, BASE, & FDN.
	1	15 FT TYPE II, GALV. STEEL MAST ARM ASSEMBLY , BASE & FDN.
	1	20 FT TYPE II, GALV. STEEL MAST ARM ASSEMBLY , BASE & FDN.
	4	1 WAY, 3 SECTION, SIGNAL HOUSING (12" L.E.D.)
	4	PEDESTRIAN HOUSING (16" L.E.D.)
	4	PEDESTRIAN PUSH BUTTON, SIGN & SADDLE
	2	12" X 24" PULL BOX
	4	LOUVERED BACKPLATES
		Plus all necessary duct, cable, labor, miscellaneous
		material and equipment to complete the installation.

PEDESTRIAN HYBRID BEACON & PEDESTRIAN INDICATION SEQUENCE

R R Y	1. DARK UNTIL ACTIVATED.		1. DON'T WALK.
R R FY	2. FLASHING YELLOW UPON ACTIVATION.		2. DON'T WALK
R R SY	3. STEADY YELLOW FOR VEHICLE CLEARANCE.		3. DON'T WALK.
SR SR Y	4. STEADY RED DURING PEDESTRIAN WALK INTERVAL.		4. WALK.
FR R Y / R FR Y	5. ALTERNATING FLASHING RED DURING PEDESTRIAN CLEARANCE INTERVAL.		5. FLASHING DON'T WALK WITH COUNTDOWN.
R R Y	6. DARK UNTIL ACTIVATED AGAIN.		6. DON'T WALK.

31-Aug-2012

606235(25%)TR(TRAFFIC SIGNAL DATA).DWG

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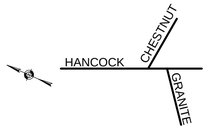
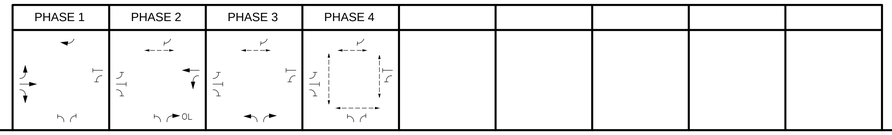
MassDOT IMT Version

QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	55	123
PROJECT FILE NO.	606235		

TRAFFIC SIGNAL DATA
LOCATION 5
HANCOCK STREET AT CHESTNUT ST. AND GRANITE ST.





SEQUENCE AND TIMING FOR SEMI ACTUATED CONTROL (COORDINATED)

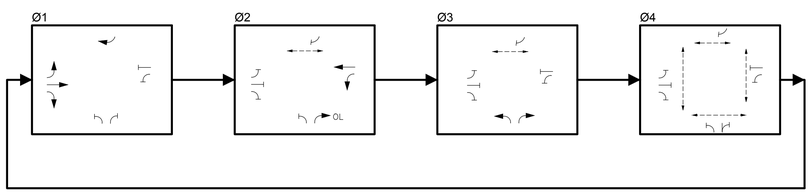
STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	FLASH OPER.
HANCOCK STREET	NB LT	K,O	R	R	R	GL/G	Y	R	R	R	R	R	R	R																FY
HANCOCK STREET	NB	J	R	R	R	G	Y	R	R	R	R	R	R	R																FY
HANCOCK STREET	SB LT	E	GL/G	Y	R	R	R	R	R	R	R	R	R	R																FR
HANCOCK STREET	SB	F	G	Y	R	R	R	R	R	R	R	R	R	R																FY
HANCOCK STREET	SB RT	G	GR	YR	RR	RR	RR	RR	RR	RR	RR	RR	RR	RR																FYR
GRANITE STREET	EB LT	M,N	RL	RL	RL	RL	RL	RL	GL	YL	RL	RL	RL	RL																FRL
GRANITE STREET	EB RT	L	RR	RR	RR	GR	YR	RR	GR	YR	RR	RR	RR	RR																FRR
CHESTNUT STREET	WB	H,I	GR	YR	RR	RR	RR	RR	RR	RR	RR	RR	RR	RR																FRR
PEDESTRIAN	E-W	P5,P6	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW																OFF
PEDESTRIAN	E-W	P9,P10	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW																OFF
PEDESTRIAN	N-S	P7,P8	DW	DW	DW	W/FDW	DW	DW	W/FDW	DW	DW	W	FDW	DW																OFF
PEDESTRIAN	N-S	P11,P12	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW																OFF
TIMING IN SECONDS																														
MINIMUM GREEN (INITIAL)			8			8			8			-																		EMERGENCY ONLY
PASSAGE TIME (VEHICLE)			2			2			2			-																		
MAXIMUM 1			25			20			25			-																		
MAXIMUM 2			-			-			-			-																		
YELLOW CLEARANCE				3			3			3																				
RED CLEARANCE					3			3			5			1																
WALK (W)						7			7			7																		
PEDESTRIAN CLEARANCE						5	3		5	3			19																	
RECALL			MAX			OFF			OFF			OFF																		
MEMORY			NON-LOCKING			NON-LOCKING			NON-LOCKING			LOCKING																		

COORDINATION DATA			COORDINATION PHASE TIMING								
TIMING PLAN	CYCLE LENGTH	REF/OFFSET	SEC.	SEC.	SEC.	SEC.	SEC.	SEC.	SEC.	SEC.	SEC.
TP1 M - F (6AM-9AM)	110	67	24	27	32	27					
TP2 M - F (3PM-7PM)	100	70	22	20	31	27					
TP3 SAT (11AM-6PM)	100	67	28	20	25	27					

NOTES:

1. MASTER CONTROLLER IS LOCATED AT WASHINGTON STREET/CODDINGTON STREET/TEMPLE STREET (LOCATION 3).
2. COORDINATION POINT SHALL BE AT THE START OF YELLOW OF PHASE 1.
3. INHIBIT MAX TERMINATION SHALL BE USED DURING COORDINATION. MAX 2 NOT USED.
4. MAX 1 IN EFFECT DURING NORMAL OPERATION.
5. IF THE ASSIGNED RIGHT OF WAY FOR ANY VEHICULAR OR PEDESTRIAN MOVEMENT IS TO REMAIN IN EFFECT DURING THE NEXT CALLED PHASE, THE SIGNAL INDICATIONS FOR THAT MOVEMENT SHALL NOT CHANGE DURING THE CHANGE OR CLEARANCE INTERVALS UNLESS OTHERWISE NOTED.

PREFERENTIAL PHASING SEQUENCE



FIRE PREEMPTION SCHEDULE

APPROACH	CHANNEL	PREEMPTION PHASE	NEXT PHASE CALLED
EASTBOUND	A	3	1
WESTBOUND	B	1	2
NORTHBOUND	C	2	3
SOUTHBOUND	D	1	2

EMERGENCY VEHICLE PREEMPTION OPERATION:

1. EMERGENCY VEHICLE PREEMPTION SHALL BE ACTUATED BY AN OPTICAL SIGNAL FROM AN OPTICAL EMITTER MOUNTED ON AN EMERGENCY VEHICLE AND RECEIVED BY AN OPTICAL DETECTOR LOCATED AT INTERSECTION. A SEPARATE RECEIVING DETECTOR IS REQUIRED FOR EACH DETECTED APPROACH.
2. PREEMPTION SIGNALS FROM MULTIPLE APPROACHES SHALL BE SERVICED ON A FIRST DETECTED FIRST SERVED BASIS.
3. IN RESPONSE TO A PREEMPTION SIGNAL RECEIVED AT AN INTERSECTION BY AN OPTICAL DETECTOR, THE CONTROLLER SHALL TIME THE CLEARANCE INTERVALS OF THE ACTIVE PHASE (IF DIFFERENT THAT TO BE SERVICED) AND ADVANCE TO AND/OR HOLD IN EMERGENCY VEHICLE PREEMPTION PHASE UNTIL PREEMPTION SIGNAL CEASES. THE CONTROLLER SHALL THEN TIME CLEARANCES AND SIMILARLY SERVICE OTHER EMERGENCY VEHICLE PREEMPTION SEQUENCES IN THE ORDER RECEIVED (IF RECEIVED) OTHERWISE, RESUME NORMAL PREFERENTIAL PHASE SEQUENCE.
4. PREEMPTION MINIMUM GREENS SHALL BE EIGHT SECONDS.
5. NORMAL CLEARANCES SHALL BE PROVIDED ON PHASES THAT ARE TERMINATED BY PREEMPTION DEMAND.
6. ACTUAL TIMING FOR PREEMPTION SHALL BE DETERMINED IN THE FIELD IN COORDINATION WITH THE FIRE DEPARTMENT AND SHALL BE APPROVED BY MASSDOT PRIOR TO OPERATION.

MAJOR ITEMS REQUIRED

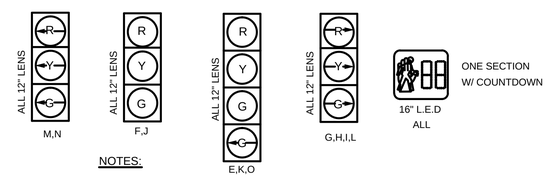
PAY ITEM	QUANTITY	ITEM
816.05	1	CONTROLLER NEMA 8 PHASE TS2-TYPE 1, CAB.& FDN.
	1	SERVICE CONNECTION, TYPE UNDERGROUND
	7	8' SIGNAL POLE, BASE, & FDN.
	1	10' SIGNAL POLE, BASE, & FDN.
	2	30 FT TYPE II, GALV. STEEL MAST ARM ASSEMBLY , BASE & FDN.
	1	35 FT TYPE II, GALV. STEEL MAST ARM ASSEMBLY , BASE & FDN.
	8	3 SECTION, SIGNAL HOUSING (12" L.E.D.)
	3	4 SECTION, SIGNAL HOUSING (12" L.E.D.)
	8	PEDESTRIAN HOUSING (16" L.E.D.)
	4	DUAL CHANNEL LOOP DETECTOR AMPLIFIER
	15	ROADWAY LOOP DETECTOR (6'X23')
	2	PRE-EMPTION RECEIVER-DUAL CHANNEL
	2	PRE-EMPTION PHASE SELECTOR MODULE-DUAL CHANNEL
	1	PRE-EMPTION CARD RACK
	2	PRE-EMPTION COMFIRMATION STROBE (WHITE)
	12	12" X 24" PULL BOX
	10	LOUVERED BACKPLATES
		Plus all necessary duct, cable, labor, miscellaneous
		material and equipment to complete the installation.

LOOP DETECTOR DATA

SEE PLAN SHEET-LOOP DETECTOR DETAILS FOR LOOP CONSTRUCTION. SPLICING, DETAILS & NOTES. DELAY TIME EFFECTIVE ONLY DURING CALLED Ø RED. TIME IN SEC.

DETECTOR NUMBER	AMPLIFIER NUMBER	CHANNEL NUMBER	LOOP SIZE	NUM. OF TURNS	Ø CALLED	Ø EXT.	MODE A=PULSE B=PRES.	DELAY TIME	EXT. TIME
1	1	1	2@6'X23'	2-4-2	2	2	B	-	-
2	1	2	2@6'X23'	2-4-2	2	2	B	-	-
3	2	1	2@6'X23'	2-4-2	3	3	B	-	-
4	2	2	2@6'X23'	2-4-2	3	3	B	-	-
5	3	1	2@6'X23'	2-4-2	1	1	B	-	-
6	3	2	2@6'X23'	2-4-2	1	1	B	-	-
7	4	1	2@6'X23'	2-4-2	1	1	B	-	-
8	4	2	1@6'X23'	2-4-2	1	1	B	-	-

SIGNAL IDENTIFICATION



NOTES:

1. ALL SIGNALS SHALL HAVE CUT AWAY VISORS.
2. SIGNALS E,F,G,H,I,J,K,M, & N SHALL HAVE 12" LED WITH 5" LOUVERED BACK PLATES.

31-Aug-2012

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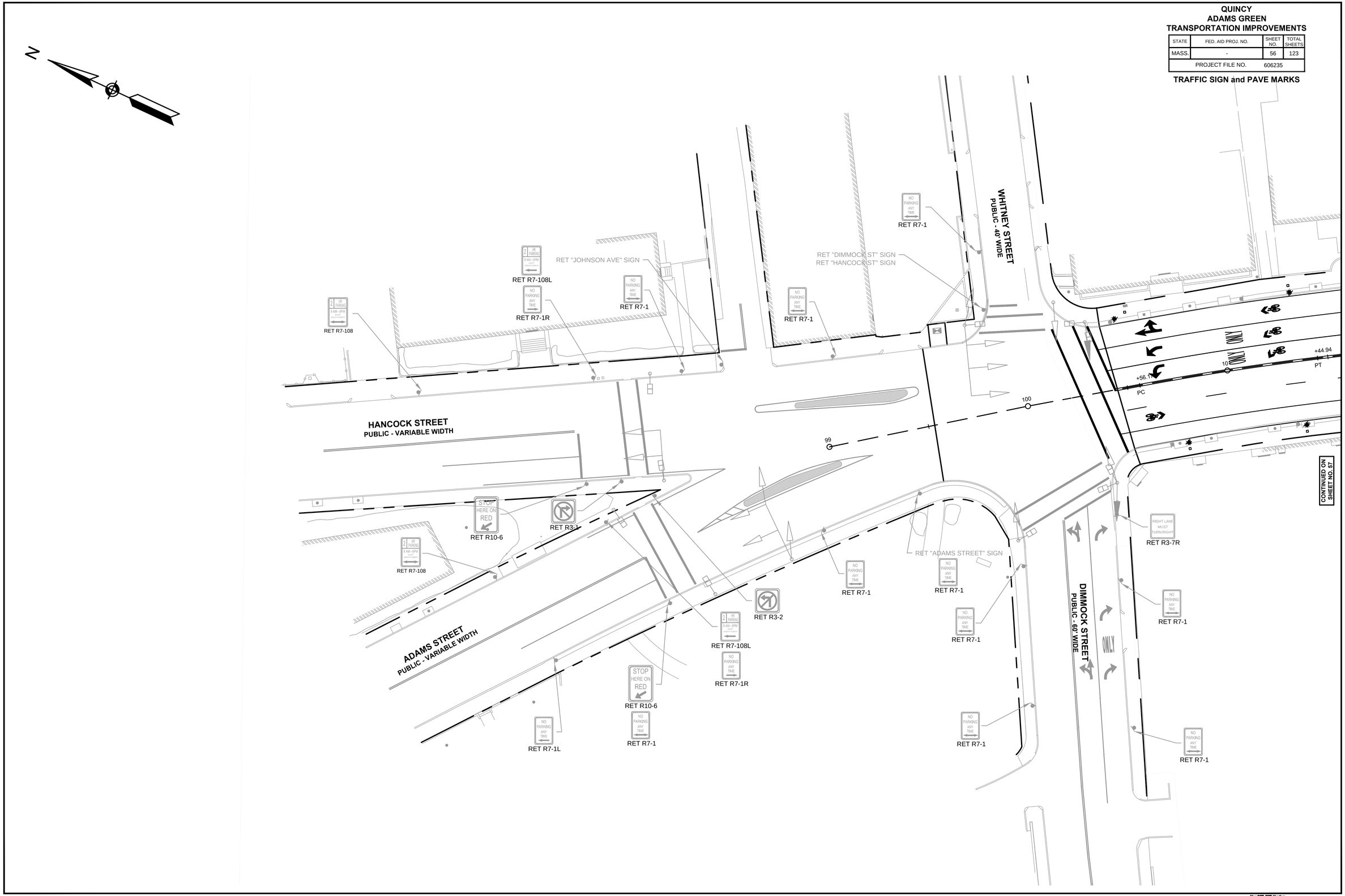
MassDOT DWF Version

QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	56	123
PROJECT FILE NO.	606235		

TRAFFIC SIGN and PAVE MARKS



31-Aug-2012

606235(25%)TR(TRAFFIC SIGN AND PAVE MARKS).DWG

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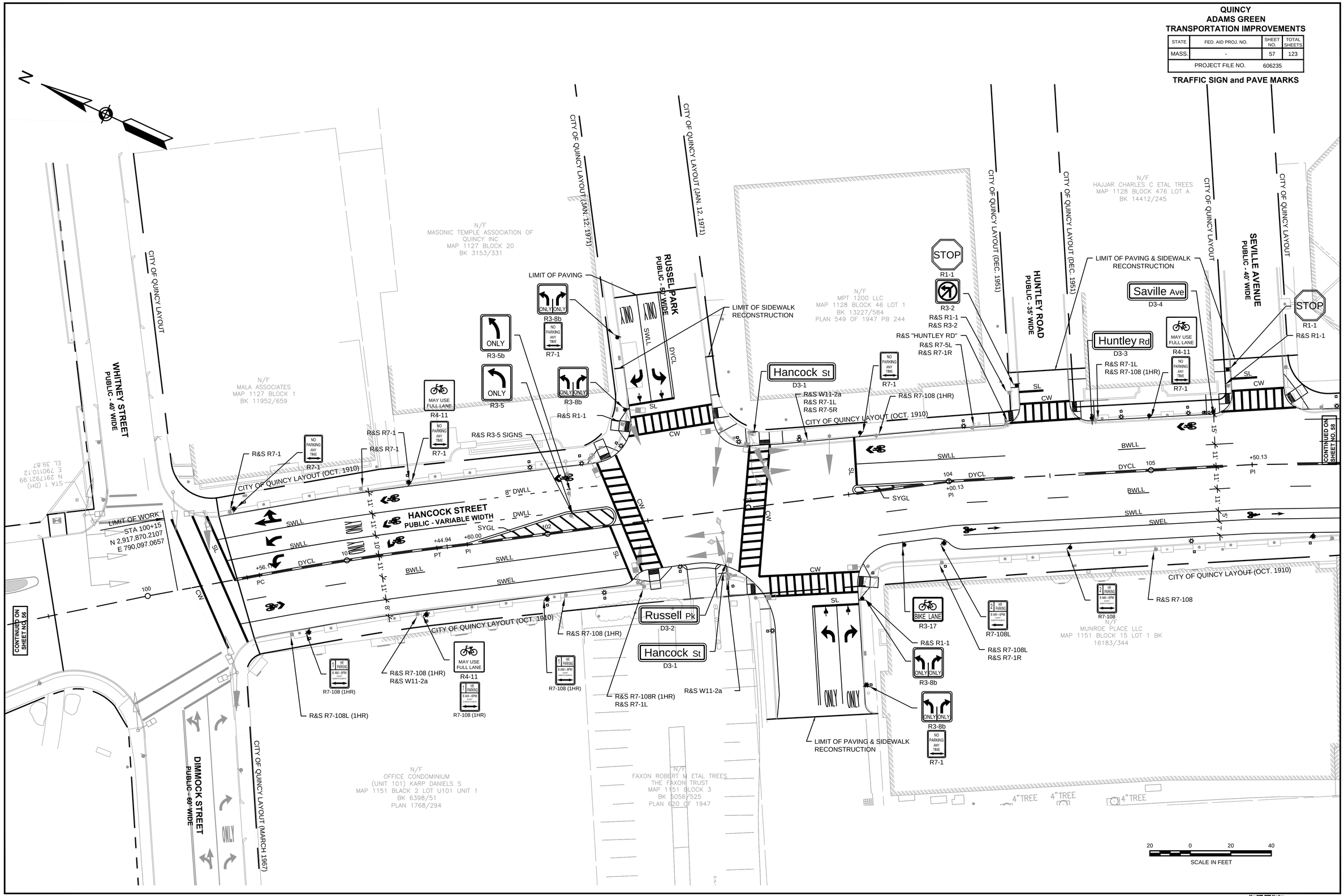
MassDOT DWF Version

QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	57	123
PROJECT FILE NO.	606235		

TRAFFIC SIGN and PAVE MARKS



31-Aug-2012

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MassDOT DWF Version

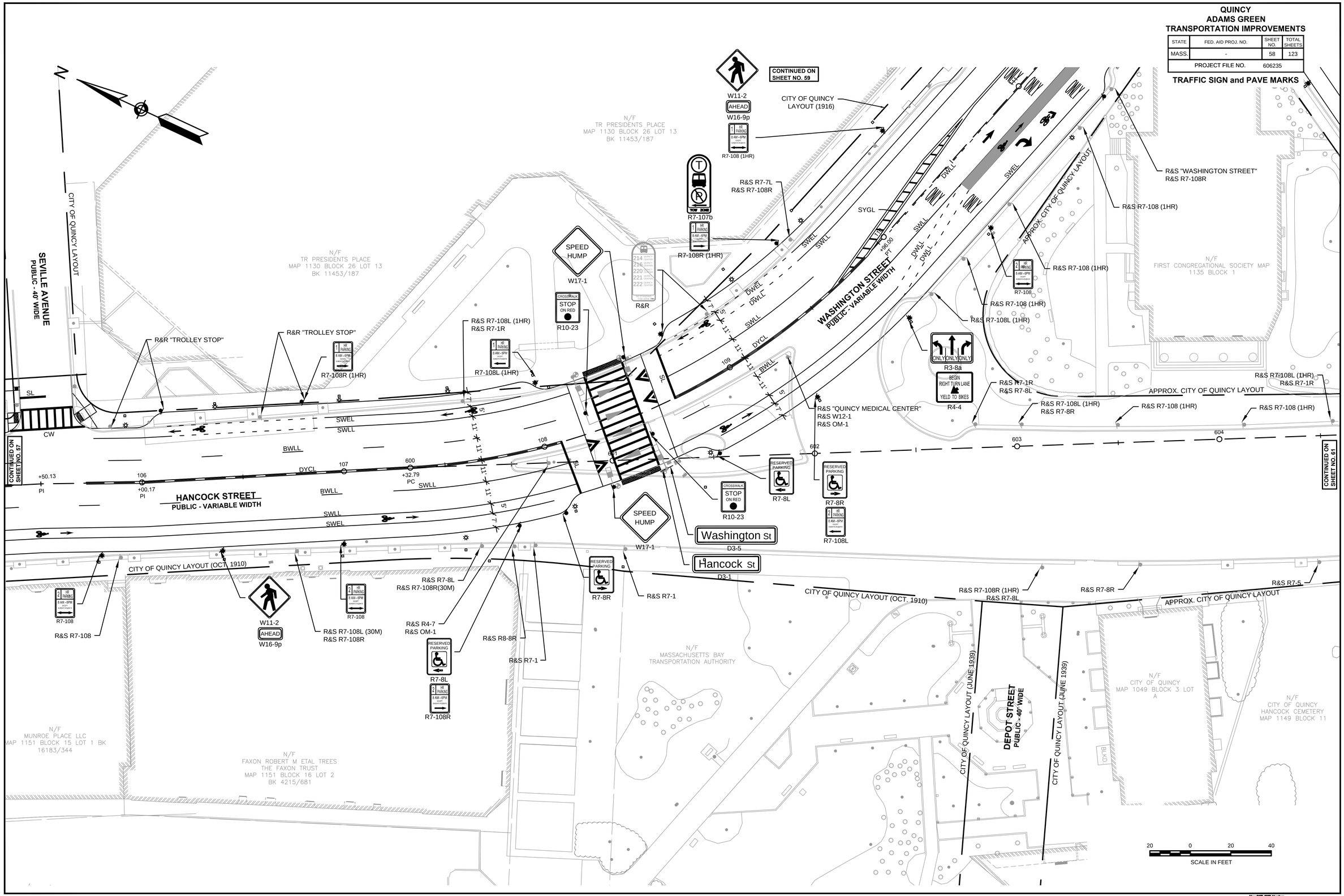
QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	58	123
PROJECT FILE NO.	606235		

TRAFFIC SIGN and PAVE MARKS

31-Aug-2012

606235[25%]TR(TRAFFIC SIGN AND PAVE MARKS).DWG



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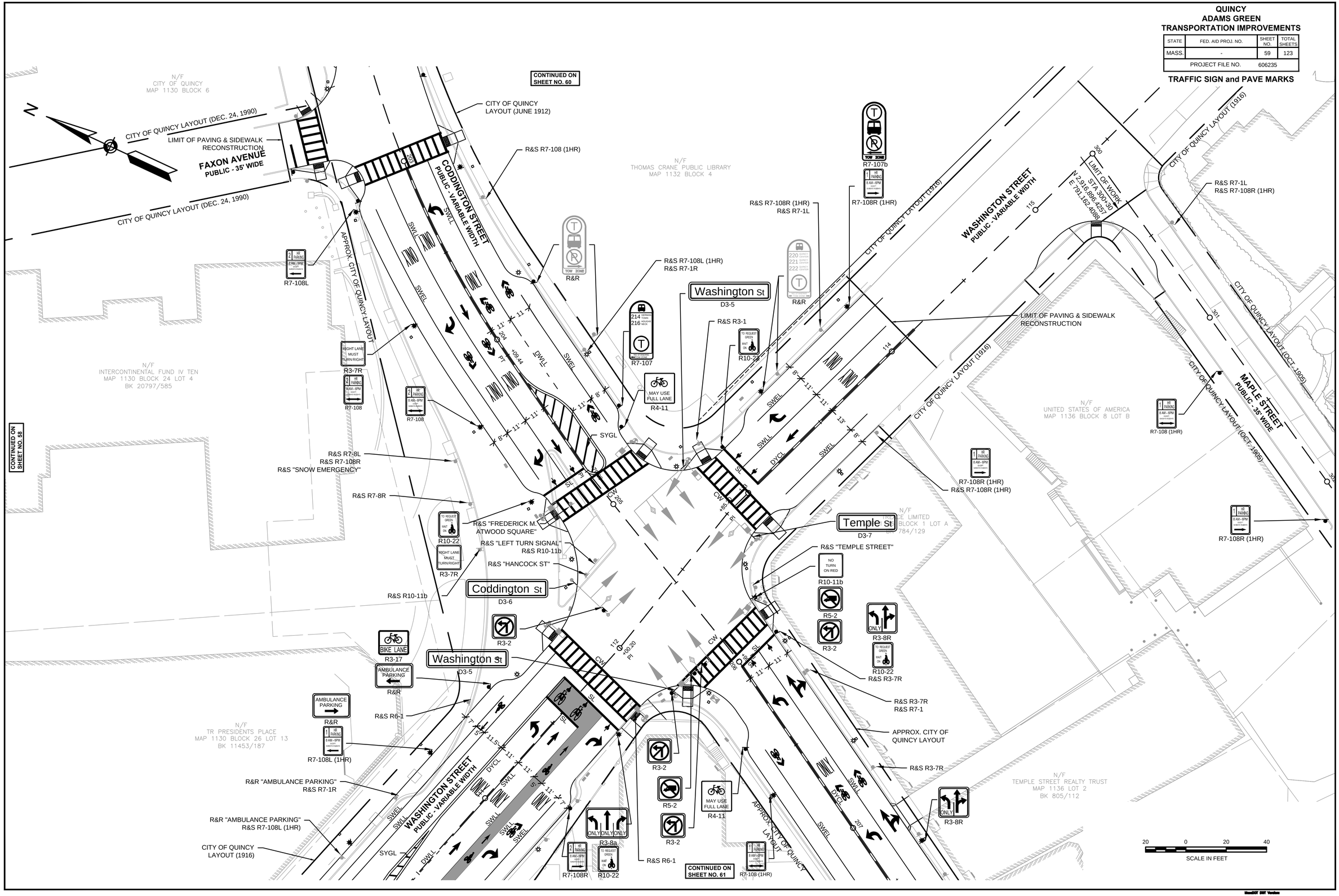
MassDOT DWF Version

QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	59	123
PROJECT FILE NO.	606235		

TRAFFIC SIGN and PAVE MARKS



606235[25%]TR(TRAFFIC SIGN AND PAVE MARKS).DWG 31-Aug-2012

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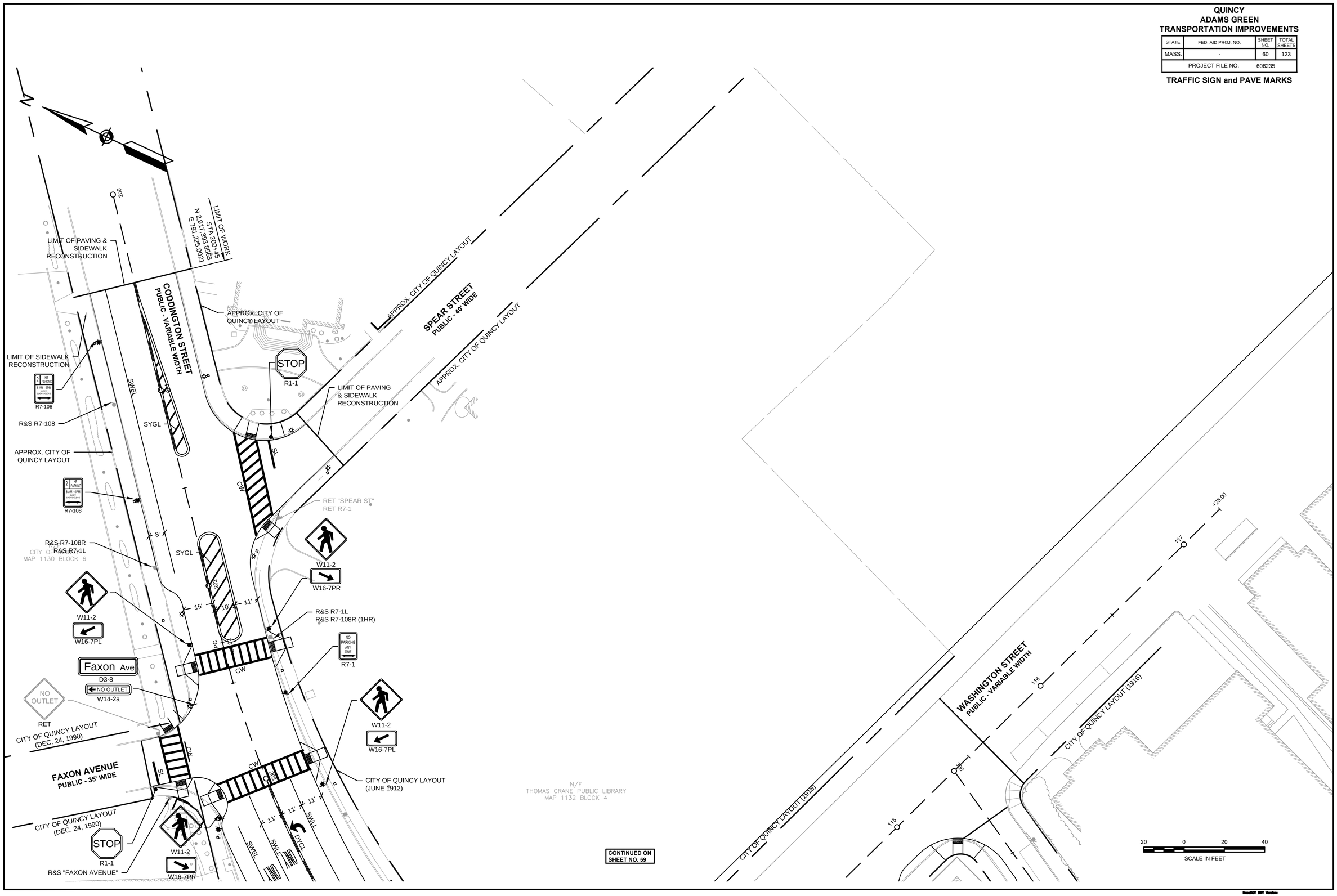
QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	60	123
PROJECT FILE NO.	606235		

TRAFFIC SIGN and PAVE MARKS

31-Aug-2012

606235(25%)TR(TRAFFIC SIGN AND PAVE MARKS).DWG



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MassDOT DWF Version

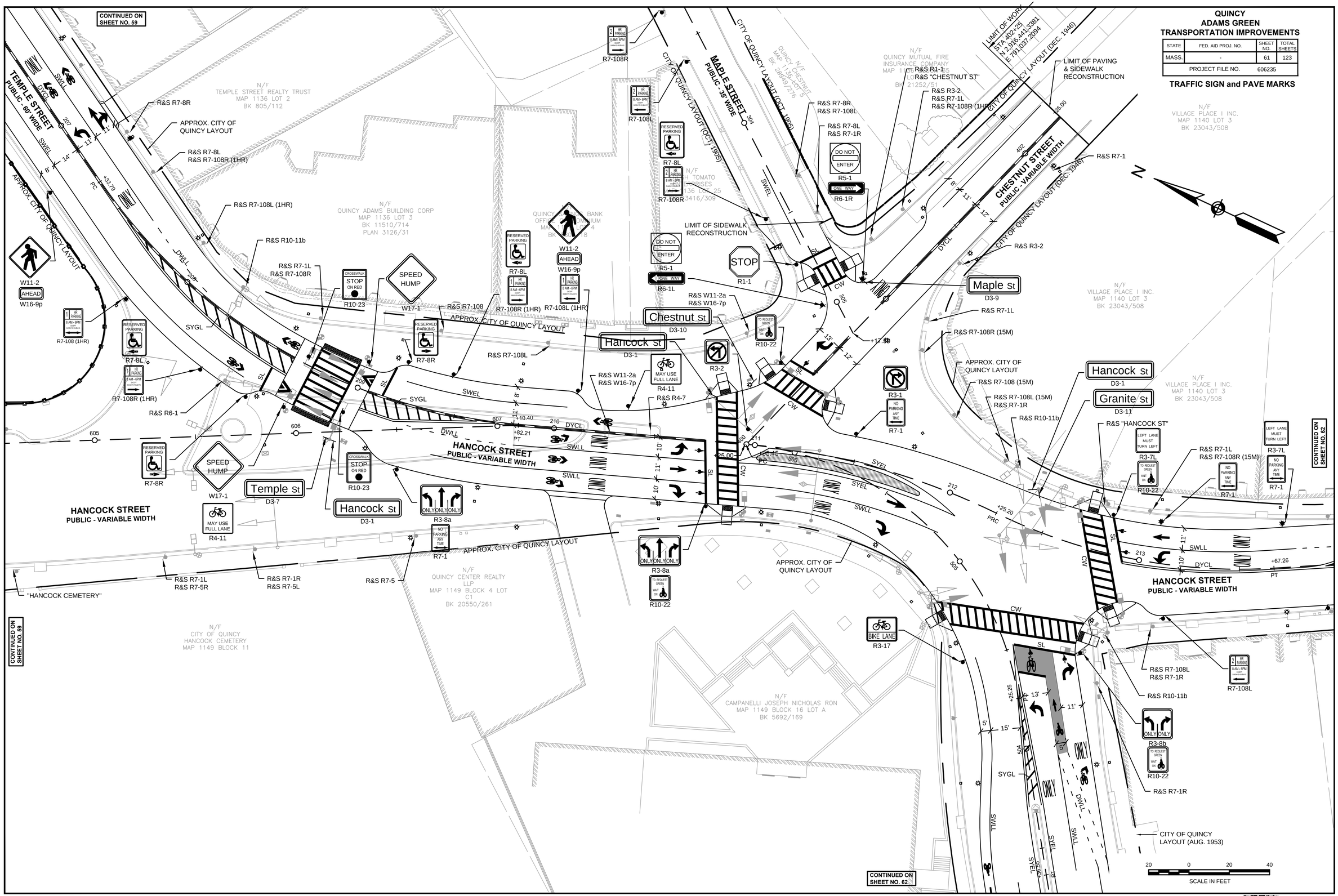
QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	61	123
PROJECT FILE NO.	606235		

TRAFFIC SIGN and PAVE MARKS

31-Aug-2012

606235[25%]TR(TRAFFIC SIGN AND PAVE MARKS).DWG



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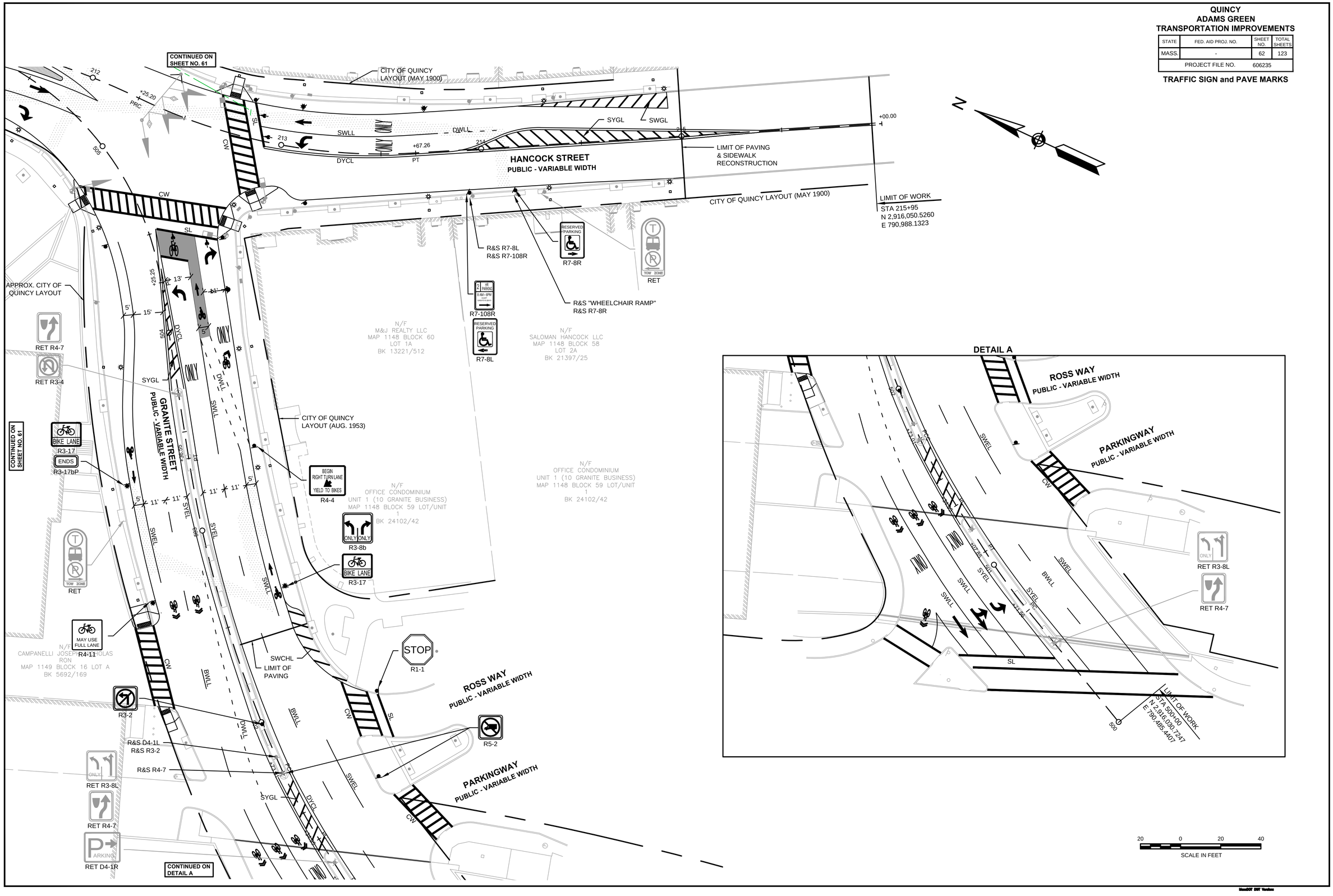
MassDOT DWF Version

QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	62	123
PROJECT FILE NO.	606235		

TRAFFIC SIGN and PAVE MARKS



606235[25%]TR(TRAFFIC SIGN AND PAVE MARKS).DWG 31-Aug-2012

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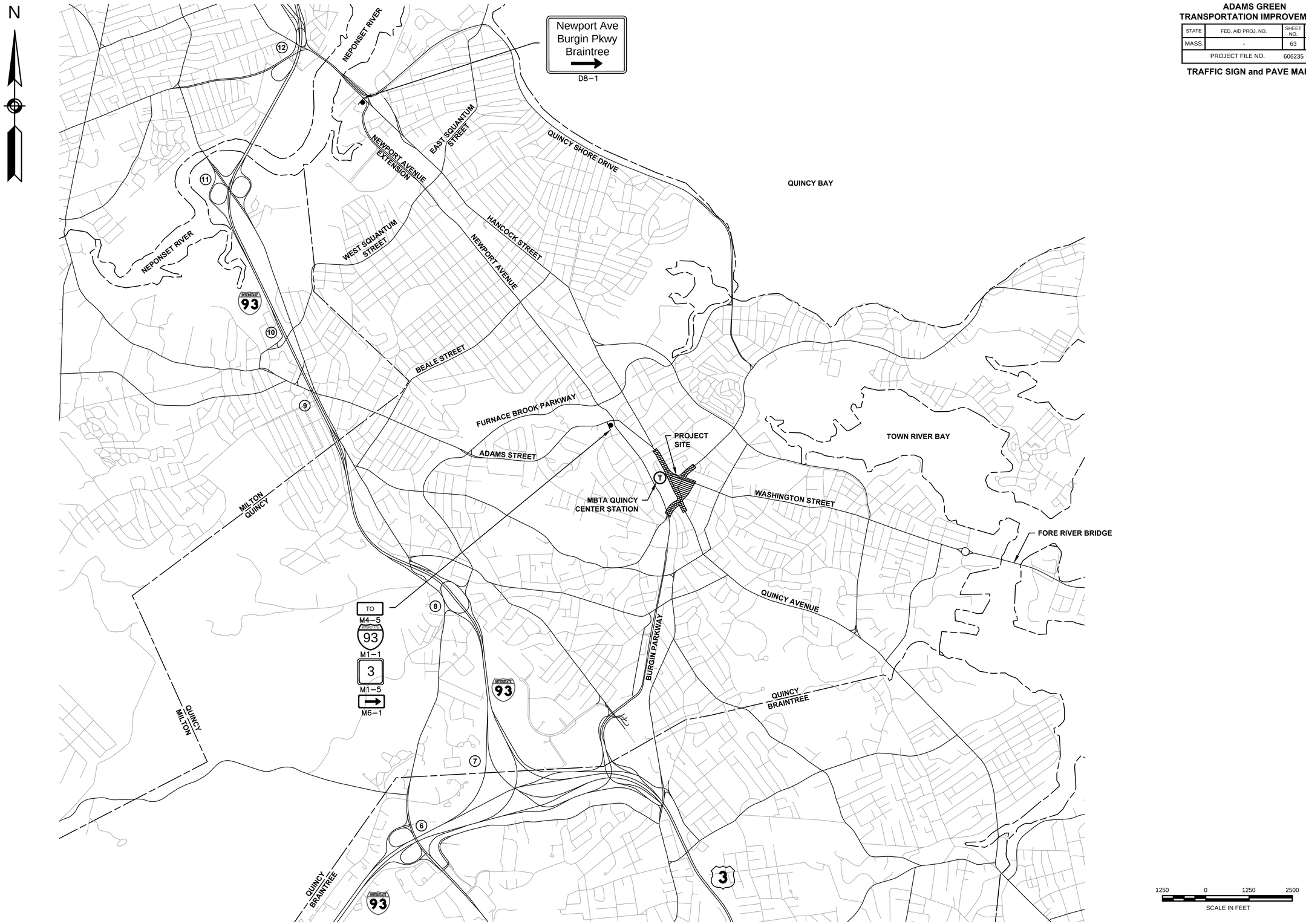
QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	63	123
PROJECT FILE NO.	606235		

TRAFFIC SIGN and PAVE MARKS



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QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	64	123
PROJECT FILE NO.	606235		

TRAFFIC SIGN SUMMARY SHEET

TRAFFIC SIGN SUMMARY

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			NUMBER OF SIGNS REQUIRED	COLOR			POST SIZE AND NUMBER REQUIRED	UNIT AREA (S.F.)	AREA IN SQUARE FEET
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.		BACK-GROUND	LEGEND	BORDER			
R1-1	30	30	STOP	1	1	1	6	1	1	1	P5 (6)	6.25	37.50
R3-1	24	24					1				P5 (1)	4.00	4.00
R3-2	24	24					7				P5 (1)	4.00	28.00
R3-5	30	36	ONLY				1				0	7.50	7.50
R3-5B	30	36	ONLY				1				0	7.50	7.50
R3-7L	30	30	LEFT LANE MUST TURN LEFT				2				P5 (1)	6.25	12.50
R3-7R	30	30	RIGHT LANE MUST TURN RIGHT				2				0	6.25	12.50
R3-8A	45	30	ONLY ONLY ONLY				4				P5 (2)	9.38	37.50
R3-8B	30	30	ONLY ONLY				6				0	6.25	37.50
R3-8R	30	30	ONLY				2				P5 (1)	6.25	12.50
R3-17	24	18	BIKE LANE				5				P5 (3)	3.00	15.00
R3-17BP	24	8	ENDS				1				0		1.3
R4-4	36	30	BEGIN RIGHT TURN LANE YIELD TO BIKES				2				P5 (1)	7.50	15.00
R4-11	30	30	MAY USE FULL LANE				8				P5 (4)	6.25	50.00
R5-1	30	30	DO NOT ENTER				2				P5 (1)	6.25	12.50
R5-2	24	24					4				P5 (2)	4.00	16.00
R6-1L	36	12	ONE WAY				1				0	3.00	3.00
R6-1R	36	12	ONE WAY				1				0	3.00	3.00
R7-1	12	18	NO PARKING ANY TIME				11				P5 (2)	1.50	16.50
R7-8L	12	18	RESERVED PARKING				6				P5 (6)	1.50	9.00
R7-8R	12	18	RESERVED PARKING				5				P5 (4)	1.50	7.50

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			NUMBER OF SIGNS REQUIRED	COLOR			POST SIZE AND NUMBER REQUIRED	UNIT AREA (S.F.)	AREA IN SQUARE FEET
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.		BACK-GROUND	LEGEND	BORDER			
R7-108	12	18	2 HR PARKING 8 AM - 6PM EXCEPT SUNDAYS HOLIDAYS	1	1	1	8	1	1	1	0	1.50	12.00
R7-108L	12	18	2 HR PARKING 8 AM - 6PM EXCEPT SUNDAYS HOLIDAYS				5				P5 (2)	1.50	7.50
R7-108R	12	18	2 HR PARKING 8 AM - 6PM EXCEPT SUNDAYS HOLIDAYS				5				P5 (1)	1.50	7.50
R7-108 (1HR)	12	18	1 HR PARKING 8 AM - 6PM EXCEPT SUNDAYS HOLIDAYS				8				P5 (1)	1.50	12.00
R7-108L (1HR)	12	18	1 HR PARKING 8 AM - 6PM EXCEPT SUNDAYS HOLIDAYS				3				P5 (2)	1.50	4.50
R7-108R (1HR)	12	18	1 HR PARKING 8 AM - 6PM EXCEPT SUNDAYS HOLIDAYS				6				0	1.50	9.00
R10-11B	36	36	NO TURN ON RED				1				0	9.00	9.00
R10-22	12	18	TO REQUEST GREEN WAIT ON				8				0	1.50	12.00
R10-23	24	30	CROSSWALK STOP ON RED				4				0	5.00	20.00
W11-2*	30	30					8				P5 (4)	6.25	50.00
W14-2A	36	8	NO OUTLET				1				0	2.00	2.00
W16-9P*	24	12	AHEAD				4				0	2.00	8.00
W16-7PL*	24	12					2				0	2.00	4.00
W16-7PR*	24	12					2				0	2.00	4.00
W17-1	30	30	SPEED HUMP				4				0	6.25	25.00
R7-107	12	30	214 216	2	2	2	1	2	2	2	P5 (1)	2.50	2.50
R7-107B	12	30	T R TOW ZONE				2				P5 (1)	2.50	5.00

1. SEE MUTCD 2009 EDITION, 1979 STD. HWY. SIGNS AND SECTION M9.30.0. TYPE III OF THE MHD STANDARD SPECIFICATION FOR TEXT DIMENSIONS AND COLOR.
2. SEE MBTA STANDARD SPECIFICATIONS FOR TEXT DIMENSIONS AND COLOR.

*THE BACKGROUND COLOR FOR THE W11-2, W16-9P, AND W16-7P SIGNS SHALL BE FLUORESCENT YELLOW-GREEN.

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TRAFFIC SIGN SUMMARY

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			NUMBER OF SIGNS REQUIRED	COLOR			POST SIZE AND NUMBER REQUIRED	UNIT AREA (S.F.)	AREA IN SQUARE FEET
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.		BACK-GROUND	LEGEND	BORDER			
M1-1	24	24	AUSTRALIA 93	1	1	1	1	1	1	1	P5 (1)	4.00	4.00
M1-5	24	24	3				1				0	4.00	4.00
M4-5	24	12	TO				1				0	2.00	2.00
M6-1	24	12	→				1				0	2.00	2.00
D3-1	42	12	Hancock St				6				MOUNT ON MAST ARM POSTS	3.50	21.00
D3-2	36	12	Russell Pk				1				MOUNT ON MAST ARM POST	3.00	3.00
D3-3	42	12	Huntley Rd				1				MOUNT ON STREET LIGHT	3.50	3.50
D3-4	42	12	Saville Ave				1				MOUNT ON STREET LIGHT	3.50	3.50
D3-5	54	12	Washington St				3				MOUNT ON MAST ARM POSTS	4.50	13.50
D3-6	54	12	Coddington St				1				MOUNT ON MAST ARM POST	4.50	4.50
D3-7	42	12	Temple St				2				MOUNT ON MAST ARM POST	3.50	7.00
D3-8	36	12	Faxon Ave				1				MOUNT ON STREET LIGHT	3.00	3.00
D3-9	36	12	Maple St				1				MOUNT ON STREET LIGHT	3.00	3.00
D3-10	42	12	Chestnut St				1				MOUNT ON STREET LIGHT	3.50	3.50
D3-11	36	12	Granite St				1				MOUNT ON MAST ARM POST	3.00	3.00
D8-1	42	48	Newport Ave Burgin Pkwy Braintree →	↓	↓	↓	1	↓	↓	↓	5" TUBULAR POST (1)	14.00	14.00

(1) SEE MUTCD 2009 EDITION, 1979 STD. HWY. SIGNS AND SECTION M9.30.0. TYPE III OF THE MHD STANDARD SPECIFICATION FOR TEXT DIMENSIONS AND COLOR.

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MASSACHUSETTS DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION

QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	66	123
PROJECT FILE NO.	606235		

MASSDOT STANDARD DRAWINGS

INDEX

SHEET NO.	DESCRIPTION
1	Title Sheet
2	Light, Medium & Short Span Load Diagrams
3	Heavy Load Diagrams
4	Details
5	Cored Pier Foundations

THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION, HIGHWAY DIVISION 1988 STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, THE ENGLISH EDITION OF SUPPLEMENTAL SPECIFICATIONS DATED JUNE 6, 2006, THE AMENDMENTS TO THE STANDARD AND SUPPLEMENTAL SPECIFICATIONS, THE 1977 CONSTRUCTION STANDARDS, THE ENGLISH EDITION OF SUPPLEMENTAL DRAWINGS DATED APRIL 2003, THE 2001 "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS" WITH LATEST REVISIONS, THE 2003 "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" WITH LATEST REVISIONS, THE 1990 "STANDARD DRAWINGS FOR SIGNS AND SUPPORTS," AND THE 2004 EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, WILL GOVERN.

MAST ARM & FOUNDATION

Details Standard Drawings

NOTES

1. For these standard drawings the Design Wind Speed for all Mast Arm Structures shall be **130 MPH**.

2. For these standard drawings the Design Wind Speed for mast arm foundations located in the following counties: Plymouth, Bristol, Barnstable, Dukes, and Nantucket counties in District 5 and Berkshire county in District 1 shall be **130 MPH**. The design wind speed for mast arm foundations for the remainder of the state shall be **110 MPH.**

3. For these standard drawings the mast arm structure design life shall be 25 years.

4. For these standard drawings the Fatigue Category no. 2 was used and truck induced gusts were excluded in the design.

5. These standard drawings do not apply for mast arm structures at intersections with an ADT greater than 40,000 vehicles and a truck percentage of greater than 10%. The responsibility for the design of mast structures and foundations will rest with the design engineer. The structure design life will be 50 years and the fatigue category shall be no. 1. The design wind speed criteria shall be as shown in Notes Nos. 1 & 2. The design will be submitted to MassDOT for review and comment.

6. For strain pole, dual mast arm designs, or mast arms longer than 45 feet, notes 1, 2, 3 and 4 will apply, if ADT (>40,000 vehicles) and truck percentage (10%) criterion is met, note 5 design criteria (50 year design life, fatigue category no. 1, wind design speed notes 1 and 2) will apply. The responsibility for the design of these structures and foundations will rest with the design engineer. The design will be submitted to MassDOT for review and comment.

NO.	REVISION	DATE

Moving Massachusetts Forward.
massDOT Highway

MASSACHUSETTS DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISON

RECOMMENDED FOR APPROVAL

Neil E. Boudreau 2/11/11
TRAFFIC ENGINEER DATE

2/17/11
BRIDGE ENGINEER DATE

Frank A. Tramontozzi 2/24/2011
CHIEF ENGINEER DATE

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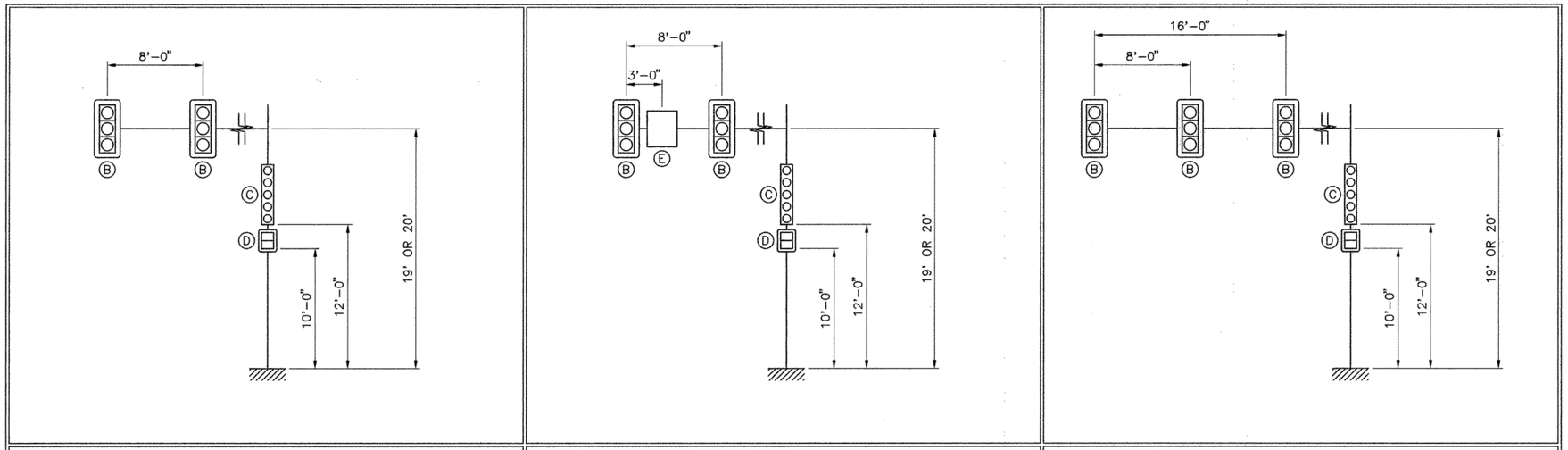
QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

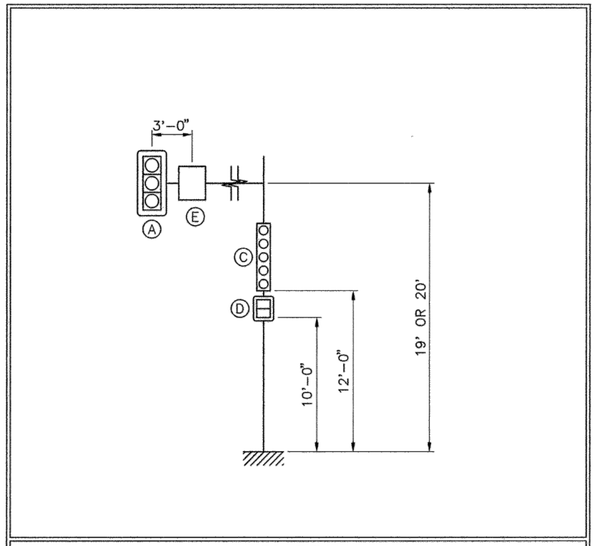
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	67	123
PROJECT FILE NO.	606235		

STANDARD DRAWINGS
TYPE II MAST ARMS



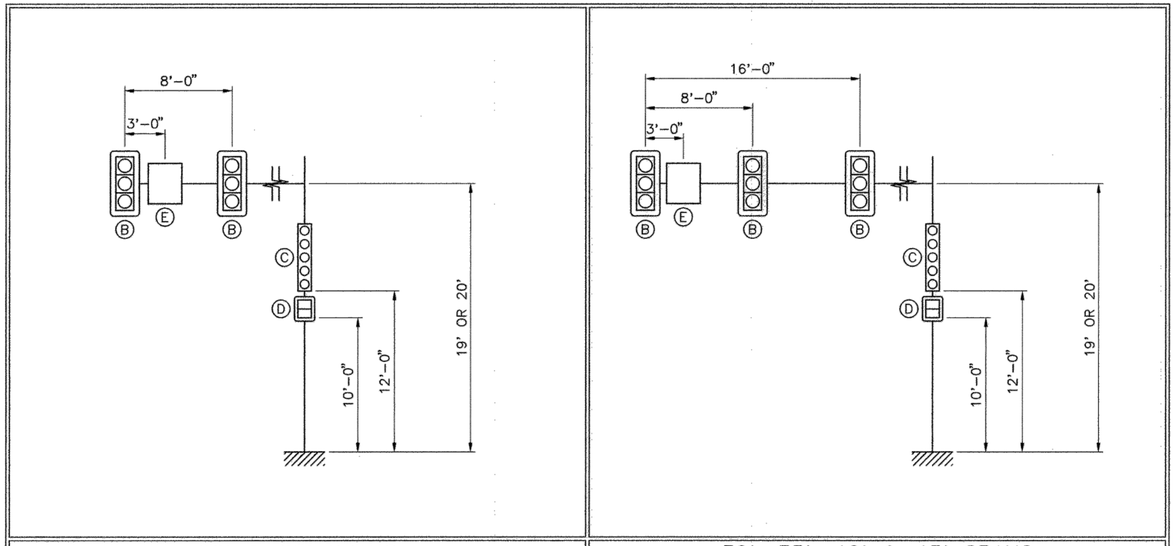
20', 25', 40' & 45' SPANS | 30' SPAN | 35' SPAN

LOAD DEFINITIONS – LIGHT LOADS



15' SPAN

SHORT SPAN LOADING



20' & 25' SPANS | 30', 35', 40' & 45' SPANS

LOAD DEFINITIONS – MEDIUM LOADS

DEVICE	DESCRIPTION	PROJ. AREA (FT^2)	WEIGHT (LBS)
A	3 SECTION, 3 WAY SIGNAL	13.50	202
B	3 SECTION, 1 WAY SIGNAL	8.67	74
C	5 SECTION, 1 WAY SIGNAL	13.33	110
D	DUAL PEDESTRIAN SIGNAL	8.00	80
E	30" X 36" REGULATORY SIGN	7.50	23

NOTE: ALL SIGNALS HAVE 5.0" BACKPLATES

MONTH_DD,_YYYY | ISSUED FOR CONSTRUCTION

massDOT Highway

STANDARD DRAWINGS

TYPE II MAST ARMS
LIGHT, MEDIUM & SHORT SPAN
LOAD DIAGRAMS

MASSACHUSETTS DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION
10 PARK PLAZA BOSTON, MASS

Frank A. Tramontozzi 2/24/2011
CHIEF ENGINEER

BRIDGE ENGINEER

Neil E. Boudreau
TRAFFIC ENGINEER

SHEET 2 OF 5 SHEETS

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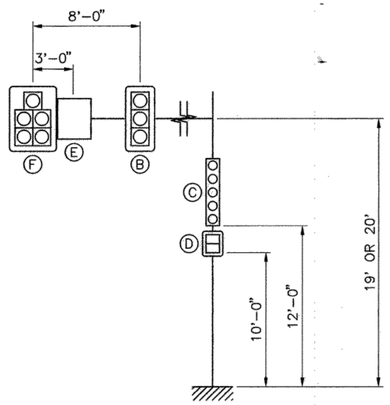
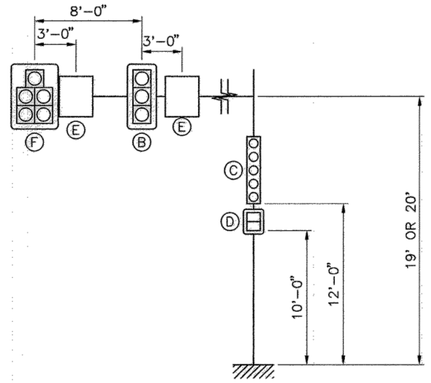
QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	68	123
PROJECT FILE NO.	606235		

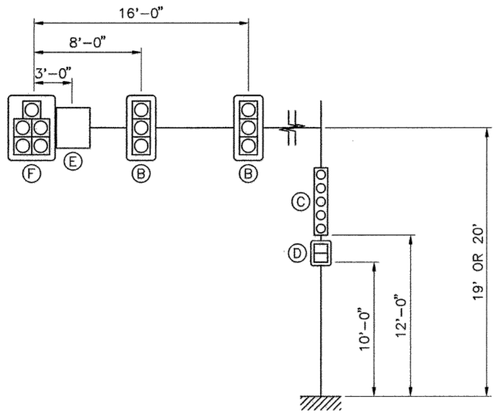
STANDARD DRAWINGS
TYPE II MAST ARMS



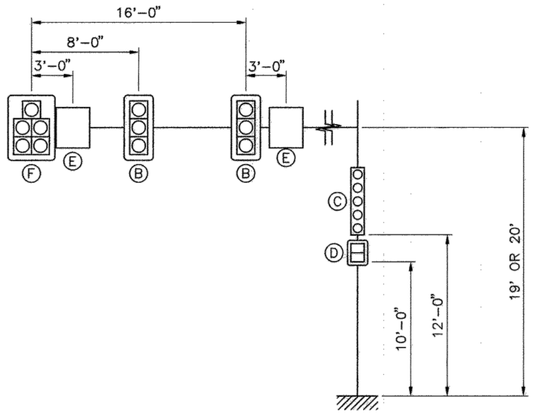
20' SPAN



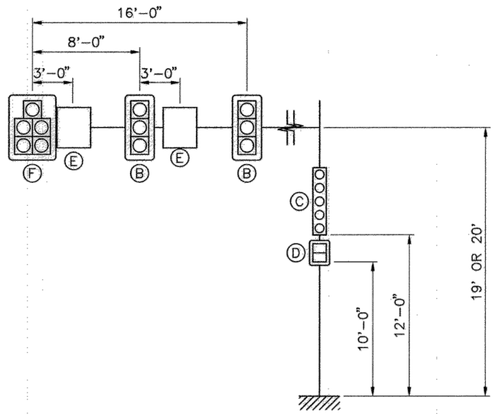
25' SPAN



30' SPAN



35' SPAN



40' & 45' SPANS

LOAD DEFINITIONS – HEAVY LOADS

DEVICE	DESCRIPTION	PROJ. AREA (FT^2)	WEIGHT (LBS)
A	3 SECTION, 3 WAY SIGNAL	18.29	202
B	3 SECTION, 1 WAY SIGNAL	8.67	74
C	5 SECTION, 1 WAY SIGNAL	13.33	110
D	DUAL PEDESTRIAN SIGNAL	8.00	80
E	30" X 36" REGULATORY SIGN	7.50	23
F	5 SECTION, 2 WAY SIGNAL	21.95	215

NOTE: ALL SIGNALS HAVE 5.0" BACKPLATES

MONTH_DD,_YYYY	ISSUED FOR CONSTRUCTION

Moving Massachusetts Forward
massDOT Highway

STANDARD DRAWINGS

TYPE II MAST ARMS
HEAVY LOAD DIAGRAMS

MASSACHUSETTS DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION
10 PARK PLAZA BOSTON, MASS

2/24/2011
CHIEF ENGINEER
BRIDGE ENGINEER
TRAFFIC ENGINEER

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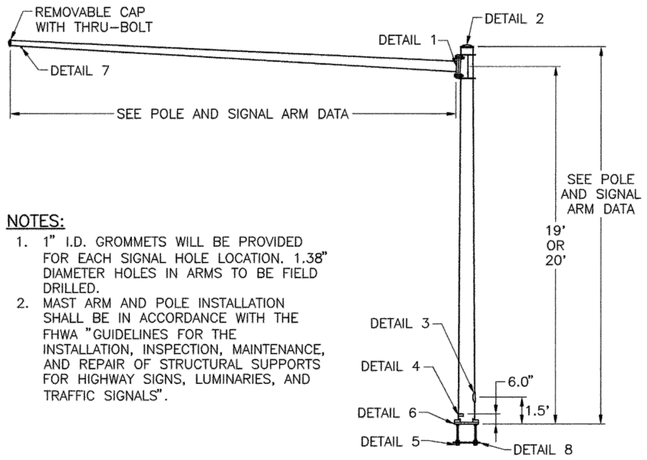
QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	69	123
PROJECT FILE NO.	606235		

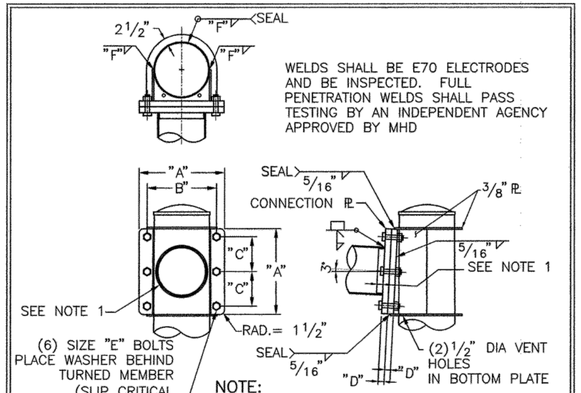
STANDARD DRAWINGS
TYPE II MAST ARMS



NOTES:

1. 1" I.D. GROMMETS WILL BE PROVIDED FOR EACH SIGNAL HOLE LOCATION. 1.38" DIAMETER HOLES IN ARMS TO BE FIELD DRILLED.
2. MAST ARM AND POLE INSTALLATION SHALL BE IN ACCORDANCE WITH THE FHWA "GUIDELINES FOR THE INSTALLATION, INSPECTION, MAINTENANCE, AND REPAIR OF STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINARIES, AND TRAFFIC SIGNALS".

MAST ARM ELEVATION

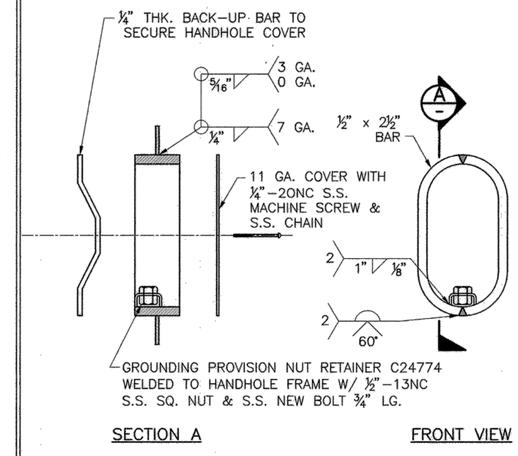


WELDS SHALL BE E70 ELECTRODES AND BE INSPECTED. FULL PENETRATION WELDS SHALL PASS TESTING BY AN INDEPENDENT AGENCY APPROVED BY MHD

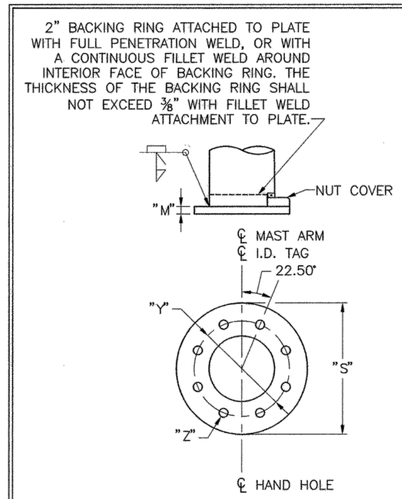
NOTE:

1. 2" BACKING RING ATTACHED TO PLATE WITH FULL PENETRATION WELD, OR WITH A CONTINUOUS FILLET WELD AROUND INTERIOR FACE OF BACKING RING. THE THICKNESS OF THE BACKING RING SHALL NOT EXCEED 3/8" WITH FILLET WELD ATTACHMENT TO PLATE.

DETAIL 1 | SIGNAL ARM ATTACHMENT



DETAIL 3 | 4"x8" HANDHOLE

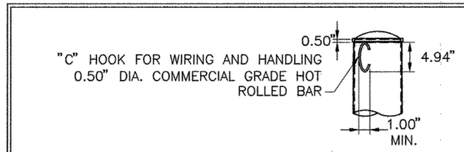


DETAIL 6 | POLE BASE

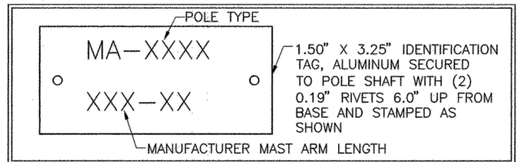
MATERIAL DATA

COMPONENT	DESIGNATION	YIELD (KSI)	COMPONENT	DESIGNATION	YIELD (KSI)
POLE TUBE	ASTM A595 GR. A	55	ARM TUBE	ASTM A595 GR. A	55
POLE BASE PLATE	AASHTO M270	50	ARM CONNECTION PLATE	AASHTO M270	50
ANCHOR BOLTS	AASHTO M314	55	ARM CONNECTING BOLTS	AASHTO M164 **	
GALVANIZING	AASHTO M111 OR M232				

** BOLTS WHICH ACCUMULATE RUST OR DIRT SHALL BE DISCARDED.



DETAIL 2 | POLE TOP



DETAIL 4 | I.D. TAG

POLE AND SIGNAL ARM DATA – LIGHT LOADS

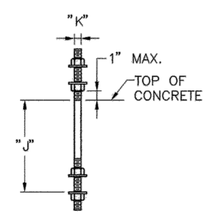
LOCATIONS	SIGNAL ARM TUBE				POLE TUBE				POLE BASE				ANCHOR BOLT		SIGNAL ARM ATTACHMENT DATA					
	SPAN (FT)	FIXED END DIA. (IN)	FREE END DIA. (IN)	WALL THK.	BASE DIA. (IN)	TOP DIA. (IN)	LENGTH (FT)	WALL THK.	PLATE CIRCLE "S" (IN)	BOLT CIRCLE "Y" (IN)	THK. "M" (IN)	HOLE "Z" (IN)	DIA. "K" (IN)	EMBED. LENGTH "J" (IN)	"A" (IN)	"B" (IN)	"C" (IN)	"D" (IN)	"E" (IN)	"F" (IN)
	15.00	9.00	6.90	7 GA.	12.00	9.06	21.00	7 GA.	29.50	24.00	1.50	1.813	1.50	36.00	19.00	15.00	7.50	1.00	1.00	0.188
	20.00	9.00	6.20	7 GA.	12.00	9.06	21.00	7 GA.	29.50	24.00	1.50	1.813	1.50	36.00	19.00	15.00	7.50	1.00	1.00	0.188
	25.00	10.00	6.50	7 GA.	13.00	10.06	21.00	7 GA.	29.50	24.00	1.50	1.813	1.50	36.00	20.00	16.00	8.00	1.00	1.00	0.188
	30.00	12.50	8.30	3 GA.	15.50	12.56	21.00	3 GA.	29.50	24.00	1.50	1.813	1.50	36.00	23.50	19.00	9.50	1.25	1.25	0.250
	35.00	13.00	8.10	3 GA.	16.00	13.06	21.00	3 GA.	29.50	24.00	1.50	1.813	1.50	36.00	24.50	20.00	10.00	1.25	1.25	0.250
	40.00	13.00	7.40	3 GA.	16.00	13.06	21.00	3 GA.	29.50	24.00	1.50	1.813	1.50	36.00	24.50	20.00	10.00	1.25	1.25	0.250
	45.00	13.50	7.20	3 GA.	16.50	13.56	21.00	3 GA.	29.50	24.00	1.50	1.813	1.50	36.00	27.50	22.00	11.00	1.50	1.50	0.313

POLE AND SIGNAL ARM DATA – MEDIUM LOADS

LOCATIONS	SIGNAL ARM TUBE				POLE TUBE				POLE BASE				ANCHOR BOLT		SIGNAL ARM ATTACHMENT DATA					
	SPAN (FT)	FIXED END DIA. (IN)	FREE END DIA. (IN)	WALL THK.	BASE DIA. (IN)	TOP DIA. (IN)	LENGTH (FT)	WALL THK.	PLATE CIRCLE "S" (IN)	BOLT CIRCLE "Y" (IN)	THK. "M" (IN)	HOLE "Z" (IN)	DIA. "K" (IN)	EMBED. LENGTH "J" (IN)	"A" (IN)	"B" (IN)	"C" (IN)	"D" (IN)	"E" (IN)	"F" (IN)
	15.00	9.00	6.90	7 GA.	12.00	9.06	21.00	7 GA.	29.50	24.00	1.50	1.813	1.50	36.00	19.00	15.00	7.50	1.00	1.00	0.188
	20.00	10.00	7.20	3 GA.	13.00	10.06	21.00	3 GA.	29.50	24.00	1.50	1.813	1.50	36.00	20.00	16.00	8.00	1.00	1.00	0.250
	25.00	11.00	7.50	3 GA.	14.00	11.06	21.00	3 GA.	29.50	24.00	1.50	1.813	1.50	36.00	23.50	19.00	9.50	1.25	1.25	0.250
	30.00	13.00	8.80	3 GA.	16.00	13.06	21.00	3 GA.	29.50	24.00	1.50	1.813	1.50	36.00	23.50	19.00	9.50	1.25	1.25	0.250
	35.00	14.00	9.10	3 GA.	17.00	14.06	21.00	3 GA.	29.50	24.00	1.50	1.813	1.50	36.00	27.50	22.00	11.00	1.50	1.50	0.250
	40.00	15.00	9.40	3 GA.	18.00	15.06	21.00	3 GA.	29.50	24.00	1.50	1.813	1.50	36.00	27.50	22.00	11.00	1.50	1.50	0.250
	45.00	16.00	9.70	0 GA.	19.00	16.06	21.00	0 GA.	29.50	24.00	1.50	1.813	1.50	36.00	29.50	24.00	12.00	1.75	1.50	0.313

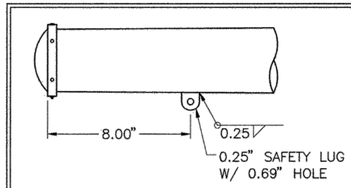
POLE AND SIGNAL ARM DATA – HEAVY LOADS

LOCATIONS	SIGNAL ARM TUBE				POLE TUBE				POLE BASE				ANCHOR BOLT		SIGNAL ARM ATTACHMENT DATA					
	SPAN (FT)	FIXED END DIA. (IN)	FREE END DIA. (IN)	WALL THK.	BASE DIA. (IN)	TOP DIA. (IN)	LENGTH (FT)	WALL THK.	PLATE CIRCLE "S" (IN)	BOLT CIRCLE "Y" (IN)	THK. "M" (IN)	HOLE "Z" (IN)	DIA. "K" (IN)	EMBED. LENGTH "J" (IN)	"A" (IN)	"B" (IN)	"C" (IN)	"D" (IN)	"E" (IN)	"F" (IN)
	15.00	9.00	6.90	7 GA.	12.00	9.06	21.00	7 GA.	29.50	24.00	1.50	1.813	1.50	36.00	19.00	15.00	7.50	1.00	1.00	0.188
	20.00	12.50	9.70	3 GA.	15.50	12.56	21.00	3 GA.	29.50	24.00	1.50	1.813	1.50	36.00	24.00	19.00	9.50	1.25	1.25	0.250
	25.00	14.00	10.50	3 GA.	17.00	14.06	21.00	3 GA.	29.50	24.00	1.50	1.813	1.50	36.00	27.50	22.00	11.00	1.50	1.50	0.250
	30.00	15.50	11.30	3 GA.	18.50	15.56	21.00	3 GA.	29.50	24.00	1.50	1.813	1.50	36.00	27.50	22.00	11.00	1.50	1.50	0.250
	35.00	16.50	11.60	0 GA.	19.50	16.56	21.00	0 GA.	34.50	28.00	1.75	2.063	1.75	36.00	29.50	24.00	12.00	1.75	1.50	0.313
	40.00	17.50	11.90	0 GA.	20.50	17.56	21.00	0 GA.	34.50	28.00	1.75	2.063	1.75	36.00	29.50	24.00	12.00	1.75	1.50	0.313
	45.00	18.50	12.20	0 GA.	21.50	18.56	21.00	0 GA.	34.50	28.00	1.75	2.063	1.75	36.00	31.50	26.00	13.00	2.00	1.50	0.313

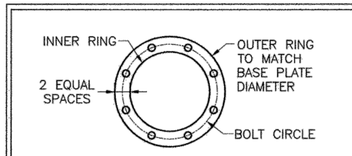


(8) ANCHOR BOLTS WITH (4) HEX NUTS, (4) FLAT WASHERS, AND (1) LOCK-WASHER PER BOLT.

DETAIL 5 | ANCHOR BOLT



DETAIL 7 | SAFETY HANGER LUG



DETAIL 8 | ANCHOR PLATE

MONTH_DD,_YYYY	ISSUED FOR CONSTRUCTION

massDOT Highway

STANDARD DRAWINGS

TYPE II MAST ARMS
DETAILS

MASSACHUSETTS DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION
10 PARK PLAZA BOSTON, MASS

Frank A. Tramontozzi 2/24/2011
CHIEF ENGINEER

BRIDGE ENGINEER | TRAFFIC ENGINEER

SHEET 4 OF 5 SHEETS

L:\1103\CURRENT\CUTSHEETS\606235\[RI\SIGNAL DETAILS].dwg, 8/31/2012 2:41:03 PM

QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	70	123
PROJECT FILE NO.	606235		

STANDARD DRAWINGS
TYPE II MAST ARMS

PIER FOUNDATIONS FOR 110 MPH WIND SPEED ZONE

LIGHT LOADING CONDITIONS

SOIL TYPE	15' & 20' MAST ARMS			25' & 30' MAST ARMS			35' & 40' MAST ARMS			45' MAST ARMS		
	DIAMETER	DEPTH	VERTICAL BARS	DIAMETER	DEPTH	VERTICAL BARS	DIAMETER	DEPTH	VERTICAL BARS	DIAMETER	DEPTH	VERTICAL BARS
DRY SAND	3'-6"	6'-0"	18-#8	3'-6"	8'-0"	18-#8	3'-6"	8'-0"	18-#8	3'-6"	9'-0"	18-#8
WET SAND	3'-6"	7'-0"	18-#8	3'-6"	9'-0"	18-#8	3'-6"	9'-0"	18-#8	3'-6"	9'-0"	18-#8
CLAY (MEDIUM STIFF)	3'-6"	11'-0"	18-#8	3'-6"	12'-0"	18-#8	3'-6"	12'-0"	18-#8	3'-6"	12'-0"	18-#8
ALLUVIAL	3'-6"	8'-0"	18-#8	3'-6"	10'-0"	18-#8	3'-6"	10'-0"	18-#8	3'-6"	11'-0"	18-#8

MEDIUM LOADING CONDITIONS

SOIL TYPE	15' & 20' MAST ARMS			25' & 30' MAST ARMS			35' & 40' MAST ARMS			45' MAST ARMS		
	DIAMETER	DEPTH	VERTICAL BARS	DIAMETER	DEPTH	VERTICAL BARS	DIAMETER	DEPTH	VERTICAL BARS	DIAMETER	DEPTH	VERTICAL BARS
DRY SAND	3'-6"	7'-0"	18-#8	3'-6"	9-0"	18-#8	4'-0"	9-0"	18-#9	4'-6"	8'-0"	18-#10
WET SAND	3'-6"	8'-0"	18-#8	3'-6"	9'-0"	18-#8	4'-0"	10'-0"	18-#9	4'-6"	9'-0"	18-#10
CLAY (MEDIUM STIFF)	3'-6"	11'-0"	18-#8	3'-6"	12'-0"	18-#8	4'-0"	13'-0"	18-#9	4'-6"	14'-0"	18-#10
ALLUVIAL	3'-6"	9'-0"	18-#8	3'-6"	10'-0"	18-#8	4'-0"	11'-0"	18-#9	4'-6"	10'-0"	18-#10

HEAVY LOADING CONDITIONS

SOIL TYPE	15' & 20' MAST ARMS			25' & 30' MAST ARMS			35' & 40' MAST ARMS			45' MAST ARMS		
	DIAMETER	DEPTH	VERTICAL BARS	DIAMETER	DEPTH	VERTICAL BARS	DIAMETER	DEPTH	VERTICAL BARS	DIAMETER	DEPTH	VERTICAL BARS
DRY SAND	3'-6"	8'-0"	18-#8	4'-0"	9'-0"	18-#9	4'-6"	10'-0"	18-#10	5'-0"	9'-0"	23-#10
WET SAND	3'-6"	8'-0"	18-#8	4'-0"	10'-0"	18-#9	4'-6"	11'-0"	18-#10	5'-0"	10'-0"	23-#10
CLAY (MEDIUM STIFF)	3'-6"	12'-0"	18-#8	4'-0"	14'-0"	18-#9	4'-6"	15'-0"	18-#10	5'-0"	16'-0"	23-#10
ALLUVIAL	3'-6"	10'-0"	18-#8	4'-0"	11'-0"	18-#9	4'-6"	12'-0"	18-#10	5'-0"	12'-0"	23-#10

PIER FOUNDATIONS FOR 130 MPH WIND SPEED ZONE

LIGHT LOADING CONDITIONS

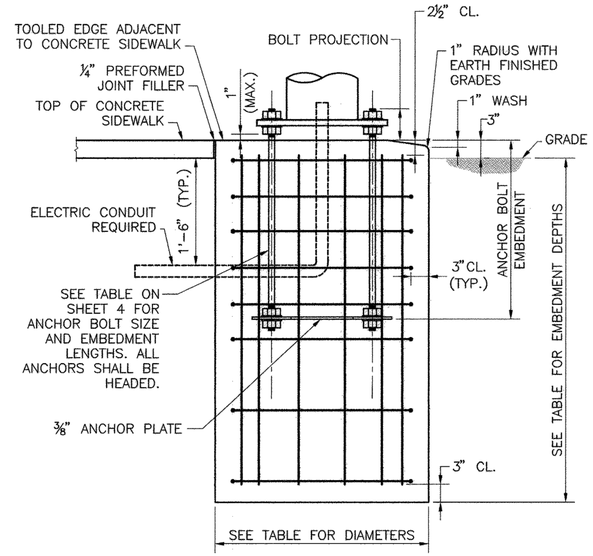
SOIL TYPE	15' & 20' MAST ARMS			25' & 30' MAST ARMS			35' & 40' MAST ARMS			45' MAST ARMS		
	DIAMETER	DEPTH	VERTICAL BARS	DIAMETER	DEPTH	VERTICAL BARS	DIAMETER	DEPTH	VERTICAL BARS	DIAMETER	DEPTH	VERTICAL BARS
DRY SAND	3'-6"	7'-0"	18-#8	3'-6"	9'-0"	18-#8	3'-6"	10'-0"	18-#8	3'-6"	10'-0"	18-#8
WET SAND	3'-6"	8'-0"	18-#8	3'-6"	10'-0"	18-#8	3'-6"	11'-0"	18-#8	3'-6"	11'-0"	18-#8
CLAY (MEDIUM STIFF)	3'-6"	12'-0"	18-#8	3'-6"	13'-0"	18-#8	3'-6"	13'-0"	18-#8	3'-6"	13'-0"	18-#8
ALLUVIAL	3'-6"	9'-0"	18-#8	3'-6"	12'-0"	18-#8	3'-6"	12'-0"	18-#8	3'-6"	13'-0"	18-#8

MEDIUM LOADING CONDITIONS

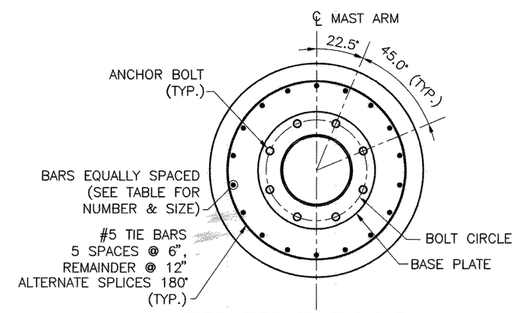
SOIL TYPE	15' & 20' MAST ARMS			25' & 30' MAST ARMS			35' & 40' MAST ARMS			45' MAST ARMS		
	DIAMETER	DEPTH	VERTICAL BARS	DIAMETER	DEPTH	VERTICAL BARS	DIAMETER	DEPTH	VERTICAL BARS	DIAMETER	DEPTH	VERTICAL BARS
DRY SAND	3'-6"	8'-0"	18-#8	3'-6"	10'-0"	18-#8	4'-0"	11'-0"	18-#9	4'-6"	10'-0"	18-#10
WET SAND	3'-6"	8'-0"	18-#8	3'-6"	11'-0"	18-#8	4'-0"	12'-0"	18-#9	4'-6"	11'-0"	18-#10
CLAY (MEDIUM STIFF)	3'-6"	12'-0"	18-#8	3'-6"	14'-0"	18-#8	4'-0"	15'-0"	18-#9	4'-6"	15'-0"	18-#10
ALLUVIAL	3'-6"	10'-0"	18-#8	3'-6"	13'-0"	18-#8	4'-0"	13'-0"	18-#9	4'-6"	12'-0"	18-#10

HEAVY LOADING CONDITIONS

SOIL TYPE	15' & 20' MAST ARMS			25' & 30' MAST ARMS			35' & 40' MAST ARMS			45' MAST ARMS		
	DIAMETER	DEPTH	VERTICAL BARS	DIAMETER	DEPTH	VERTICAL BARS	DIAMETER	DEPTH	VERTICAL BARS	DIAMETER	DEPTH	VERTICAL BARS
DRY SAND	3'-6"	9'-0"	18-#8	4'-0"	11'-0"	18-#9	4'-6"	12'-0"	18-#10	5'-0"	11'-0"	23-#10
WET SAND	3'-6"	10'-0"	18-#8	4'-0"	12'-0"	18-#9	4'-6"	13'-0"	18-#10	5'-0"	12'-0"	23-#10
CLAY (MEDIUM STIFF)	3'-6"	14'-0"	18-#8	4'-0"	15'-0"	18-#9	4'-6"	16'-0"	18-#10	5'-0"	17'-0"	23-#10
ALLUVIAL	3'-6"	11'-0"	18-#8	4'-0"	13'-0"	18-#9	4'-6"	15'-0"	18-#10	5'-0"	14'-0"	23-#10



PIER FOUNDATION DETAIL
NO SCALE



PIER FOUNDATION PLAN
NO SCALE

NOTES:

1. FOUNDATIONS SHALL BE 4000 PSI, 1½", 565 CEMENT CONCRETE.
2. REINFORCEMENT SHALL BE ASTM A615 GRADE 60.
3. ANCHOR BOLTS SHALL BE SET BY TEMPLATE.
4. PROVIDE FOR ELECTRICAL CONDUIT.
5. EXCAVATION SHALL BE BY THE AUGER METHOD TO THE NEAT LINES OF THE OUTSIDE DIMENSION OF THE FOUNDATIONS WITHOUT DISTURBING THE SOIL AROUND AND BELOW THE PROPOSED FOUNDATION BOTTOM. ALTERNATE METHODS OF EXCAVATION MAY BE SUBMITTED TO MASSHIGHWAY FOR APPROVAL IF THEY MEET THE REQUIREMENTS LISTED IN NOTES 6, 7, AND 8.
6. THE EARTH WALLS OF THE FOUNDATION SHALL BE ADEQUATELY AND SECURELY PROTECTED AT ALL TIMES AGAINST CAVE-INS, DISPLACEMENT OF THE SURROUNDING EARTH AND FOR THE EXCLUSION OF GROUND WATER. THIS MAY BE DONE BY THE USE OF STEEL CYLINDER LINERS OR CASINGS THAT ARE APPROVED BY MASSHIGHWAY. IF LINERS ARE USED THEY MAY BE RECLAIMED PROVIDED THAT THEY ARE WITHDRAWN AS THE CONCRETE IS BEING PLACED, MAINTAINING A SUFFICIENT HEAD OF CONCRETE WITHIN THE LINER TO PREVENT REDUCTION IN THE FOUNDATION DIAMETER AND TO PREVENT EXTRANEOUS MATERIAL FROM FALLING IN FROM THE SIDES AND MIXING WITH THE CONCRETE.
7. IF THE SOIL IS DISTURBED OR REMOVED BEYOND THE NEAT LINES OF THE OUTSIDE DIMENSION OF THE FOUNDATION, IT SHALL BE REPLACED WITH CONCRETE. ANY ADDITIONAL COST FOR THE CONCRETE SHALL BE PAID FOR BY THE CONTRACTOR.
8. SPECIAL CARE SHOULD BE GIVEN TO AREAS WHERE WET SOIL IS ENCOUNTERED, TO INSURE THAT THE PREAUGERED HOLE DOES NOT COLLAPSE. THIS MAY REQUIRE THE USE OF STEEL CYLINDER LINERS OR CASINGS TO HOLD THE SOIL IN PLACE UNTIL READY FOR CONCRETE PLACEMENT. THE STEEL CYLINDERS OR CASINGS SHALL BE WITHDRAWN AS THE FOUNDATION CONCRETE IS PLACED.
9. DETERMINATION OF EXISTING SOIL CONDITIONS SHALL BE MADE BY THE DESIGN ENGINEER.
10. IF LEDGE OR POOR SOIL IS ENCOUNTERED (i.e. ONE WHICH DOES NOT APPLY TO THE DESIGN TABLES SHOWN ON THIS SHEET), AN ALTERNATIVE DESIGN SHALL BE PROVIDED BY THE DESIGN ENGINEER. DECISIONS MADE IN NOTES 8 AND 9 SHALL BE SUBMITTED TO MASSHIGHWAY FOR APPROVAL. IF UTILITIES OR OTHER UNDERGROUND OBSTRUCTIONS ARE ENCOUNTERED, THE CONTRACTOR SHALL BACKFILL THE AREA TO ITS ORIGINAL CONDITION UNTIL AN ALTERNATE DESIGN HAS BEEN PROVIDED BY THE ENGINEER.

MONTH_DD,_YYYY	ISSUED FOR CONSTRUCTION

Moving Massachusetts Forward.
massDOT Highway

STANDARD DRAWINGS
TYPE II MAST ARMS
CORED PIER FOUNDATIONS

MASSACHUSETTS DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION
10 PARK PLAZA BOSTON, MASS

Frank A. Tramontozzi Jr. 8/24/2011
CHIEF ENGINEER
BRIDGE ENGINEER
Neil E. Boudreau
TRAFFIC ENGINEER

SHEET 5 OF 5 SHEETS

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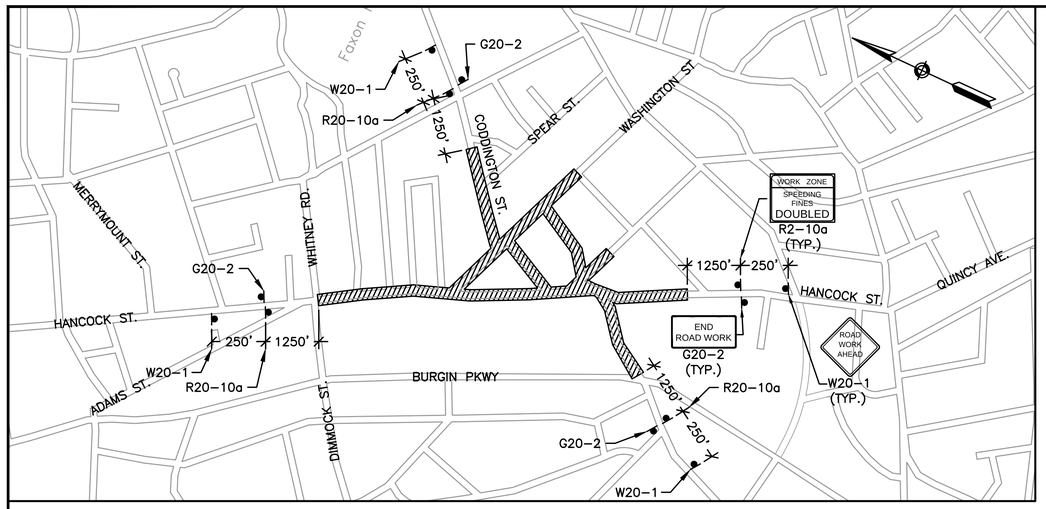


ADVANCE WARNING SIGN LOCATIONS

NOT TO SCALE

TAPER LENGTH CRITERIA FOR TEMPORARY TRAFFIC CONTROL ZONES

TYPE OF TAPER	TAPER LENGTH
MERGING TAPER	AT LEAST L
SHIFTING TAPER	AT LEAST 0.5L
SHOULDER TAPER	AT LEAST 0.33L
ONE-LANE, TWO-WAY TRAFFIC TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM
DOWNSTREAM TAPER	50 FEET MINIMUM, 100 FEET MAXIMUM

NOTE: USE TABLE 6C-4 SHOWN BELOW TO CALCULATE L
SOURCE: TABLE 6C-3 2009 MUTCD

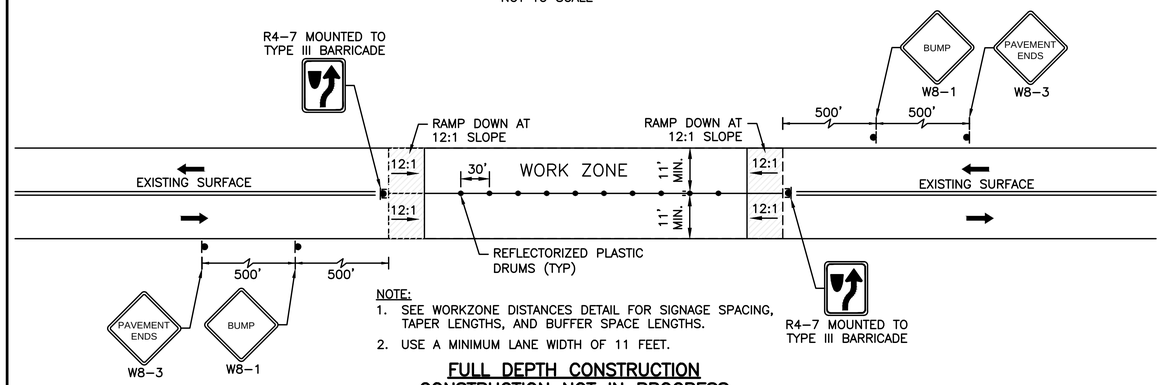
FORMULAS FOR DETERMINING TAPER LENGTHS

SPEED LIMIT (S)	TAPER LENGTH L (FT)
40 MPH OR LESS	$L = \frac{WS^2}{60}$
45 MPH OR MORE	L= WS

SOURCE: TABLE 6C-4 2009 MUTCD

WHERE: L = TAPER LENGTH IN FEET
W = WIDTH OF OFFSET IN FEET
S = POSTED SPEED LIMIT, OR OFF-PEAK 85TH-PERCENTILE SPEED PRIOR TO WORK STARTING, OR THE ANTICAPATED OPERATING SPEED IN MPH

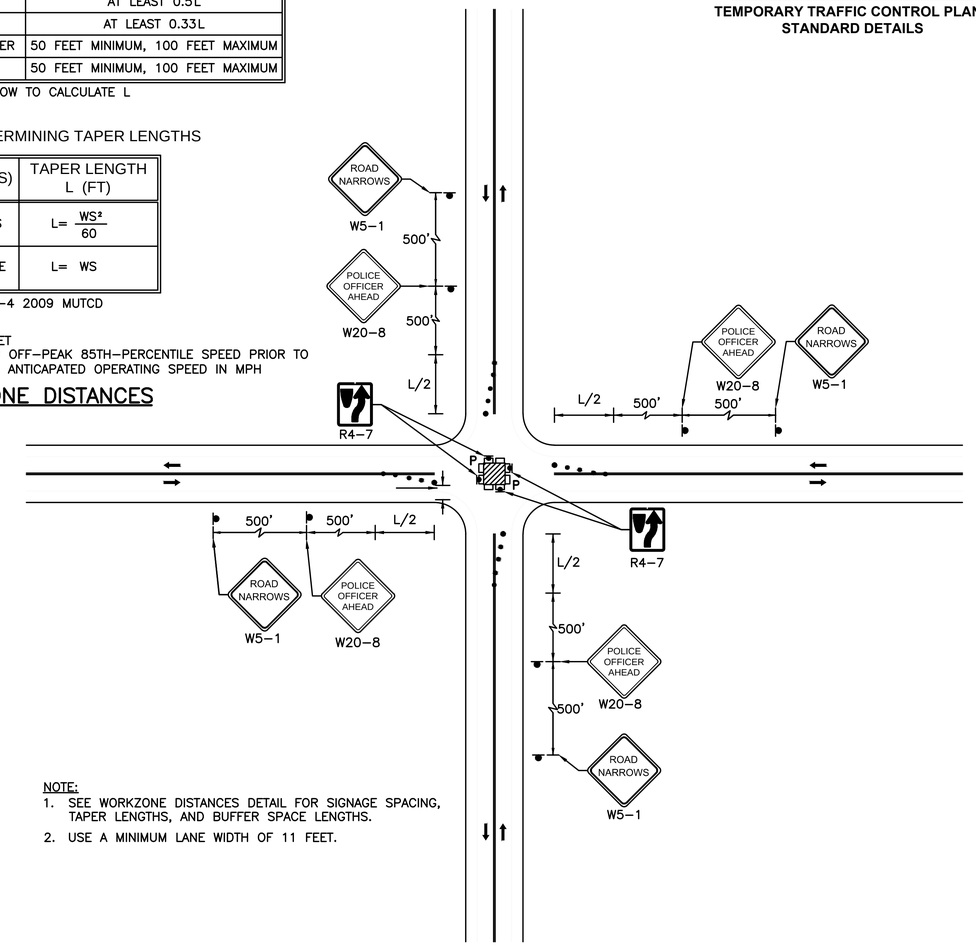
WORKZONE DISTANCES



NOTE:
1. SEE WORKZONE DISTANCES DETAIL FOR SIGNAGE SPACING, TAPER LENGTHS, AND BUFFER SPACE LENGTHS.
2. USE A MINIMUM LANE WIDTH OF 11 FEET.

FULL DEPTH CONSTRUCTION CONSTRUCTION NOT IN PROGRESS

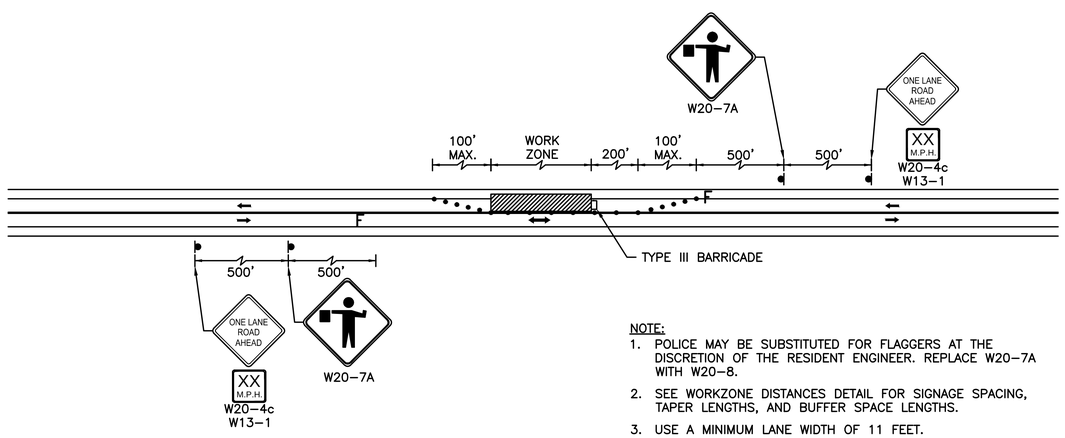
NOT TO SCALE



NOTE:
1. SEE WORKZONE DISTANCES DETAIL FOR SIGNAGE SPACING, TAPER LENGTHS, AND BUFFER SPACE LENGTHS.
2. USE A MINIMUM LANE WIDTH OF 11 FEET.

SINGLE LANE APPROACH CENTER CLOSURE (FIGURE INT-1)

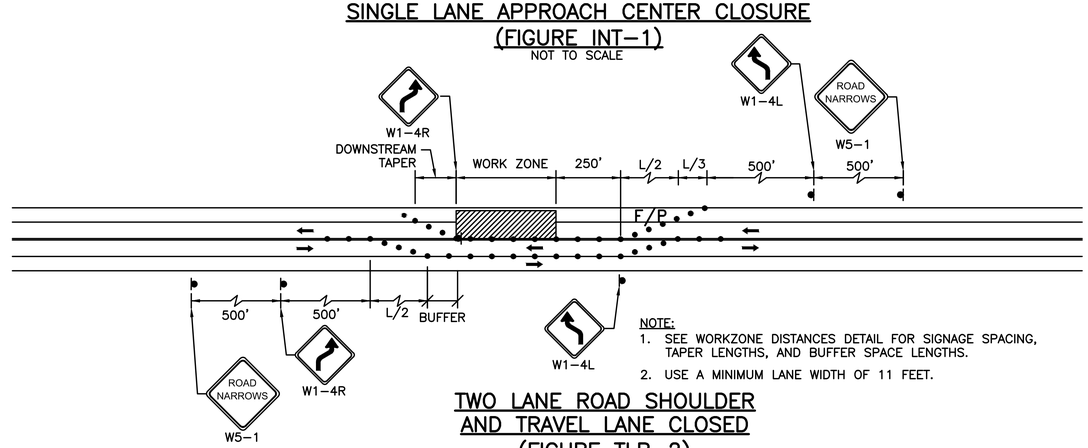
NOT TO SCALE



NOTE:
1. POLICE MAY BE SUBSTITUTED FOR FLAGGERS AT THE DISCRETION OF THE RESIDENT ENGINEER. REPLACE W20-7A WITH W20-8.
2. SEE WORKZONE DISTANCES DETAIL FOR SIGNAGE SPACING, TAPER LENGTHS, AND BUFFER SPACE LENGTHS.
3. USE A MINIMUM LANE WIDTH OF 11 FEET.

TWO LANE ROAD ONE LANE ALTERNATING TRAFFIC WITH FLAGGERS DETAIL (FIGURE TLR-5)

NOT TO SCALE



NOTE:
1. SEE WORKZONE DISTANCES DETAIL FOR SIGNAGE SPACING, TAPER LENGTHS, AND BUFFER SPACE LENGTHS.
2. USE A MINIMUM LANE WIDTH OF 11 FEET.

TWO LANE ROAD SHOULDER AND TRAVEL LANE CLOSED (FIGURE TLR-2)

NOT TO SCALE

31-Aug-2012
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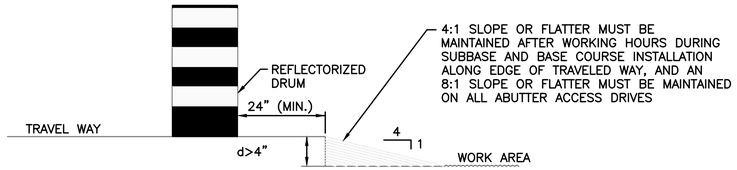
MassDOT DWF Version

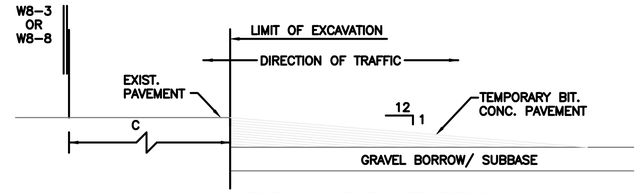
QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	72	123
PROJECT FILE NO.	606235		

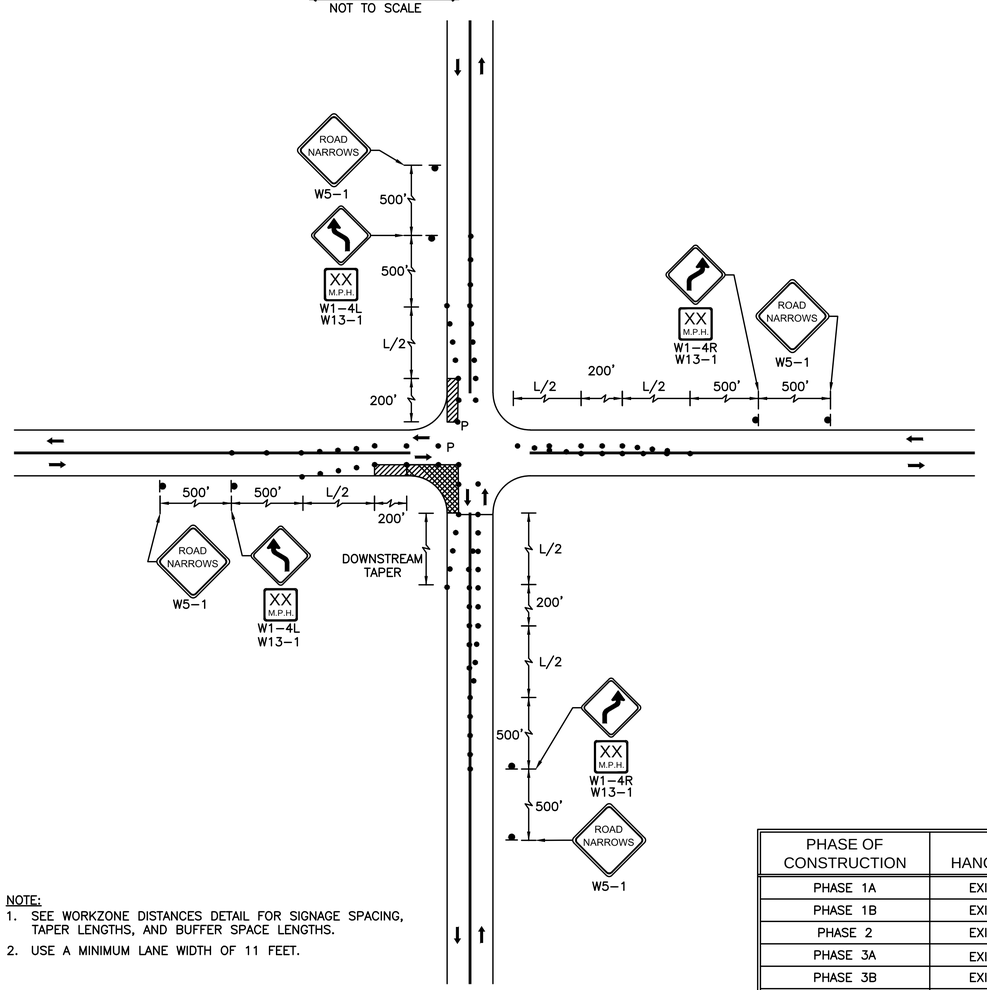
TEMPORARY TRAFFIC CONTROL PLANS
STANDARD DETAILS



LATERAL DROP-OFF DETAIL
(FIGURE GEN-6)
NOT TO SCALE

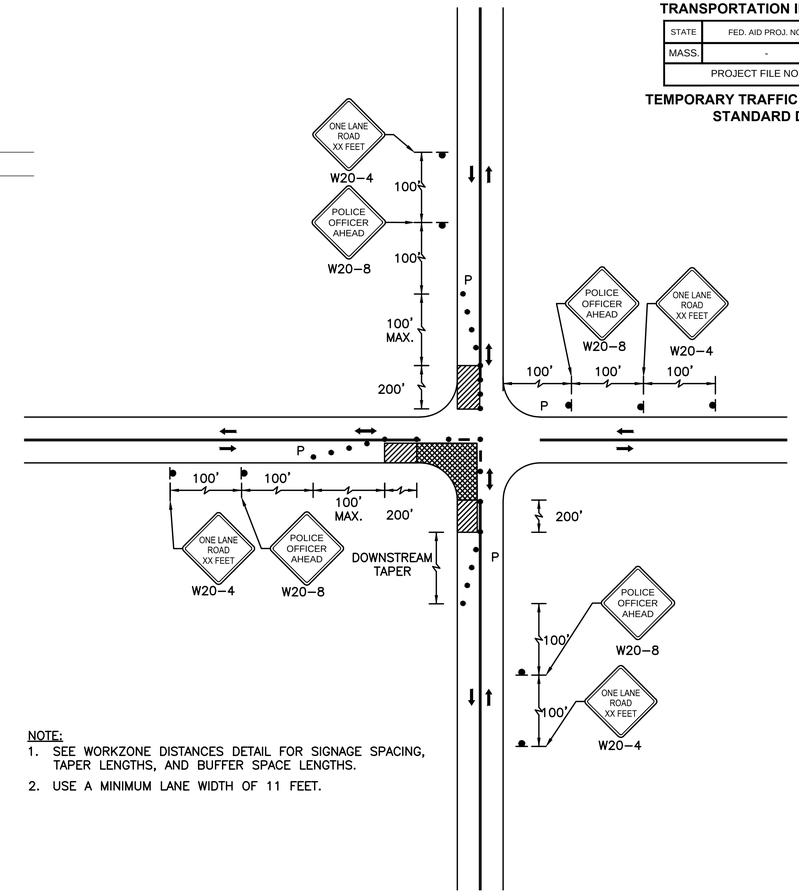


LONGITUDINAL DROP-OFF DETAIL
(FIGURE GEN-6)
NOT TO SCALE



NOTE:
1. SEE WORKZONE DISTANCES DETAIL FOR SIGNAGE SPACING, TAPER LENGTHS, AND BUFFER SPACE LENGTHS.
2. USE A MINIMUM LANE WIDTH OF 11 FEET.

TWO LANE APPROACH
ONE QUADRANT CLOSURE
NOT TO SCALE



NOTE:
1. SEE WORKZONE DISTANCES DETAIL FOR SIGNAGE SPACING, TAPER LENGTHS, AND BUFFER SPACE LENGTHS.
2. USE A MINIMUM LANE WIDTH OF 11 FEET.

SINGLE LANE APPROACH ONE QUADRANT CLOSURE
(FIGURE INT-2)
NOT TO SCALE

PHASE OF CONSTRUCTION	LOCATION 1 HANCOCK/ADAMS/DIMMOCK	LOCATION 2 HANCOCK/WASHINGTON	LOCATION 3 WASHINGTON/CODDINGTON/TEMPLE	LOCATION 4 TEMPLE/HANCOCK	LOCATION 5 HANCOCK/GRANITE/CHESTNUT
PHASE 1A	EXISTING PHASING & TIMING	EXISTING PHASING & TIMING	EXISTING PHASING & TIMING	EXISTING PHASING & TIMING	EXISTING PHASING & TIMING
PHASE 1B	EXISTING PHASING & TIMING	EXISTING PHASING & TIMING	EXISTING PHASING & TIMING	EXISTING PHASING & TIMING	EXISTING PHASING & TIMING
PHASE 2	EXISTING PHASING & TIMING	MAINTAIN PED CROSSING	PHASE 2 PHASING & TIMING	MAINTAIN PED CROSSING	EXISTING PHASING & TIMING
PHASE 3A	EXISTING PHASING & TIMING	MAINTAIN PED CROSSING	FINAL PHASING & TIMING	MAINTAIN PED CROSSING	EXISTING PHASING & TIMING
PHASE 3B	EXISTING PHASING & TIMING	MAINTAIN PED CROSSING	FINAL PHASING & TIMING	MAINTAIN PED CROSSING	EXISTING PHASING & TIMING
PHASE 4A	FINAL PHASING & TIMING	FINAL PHASING & TIMING	FINAL PHASING & TIMING	FINAL PHASING & TIMING	EXISTING PHASING & TIMING
PHASE 4B	FINAL PHASING & TIMING	FINAL PHASING & TIMING	FINAL PHASING & TIMING	FINAL PHASING & TIMING	EXISTING PHASING & TIMING
PHASE 5	FINAL PHASING & TIMING	FINAL PHASING & TIMING	FINAL PHASING & TIMING	FINAL PHASING & TIMING	FINAL PHASING & TIMING

NOTE:
1. DURING PHASES WHERE EXISTING TRAFFIC SIGNAL TIMINGS ARE TO BE USED, MAINTAIN CURRENT TIMING PLAN THAT IS PROGRAMMED INTO THE TRAFFIC SIGNAL CONTROLLERS.
2. SEE SHEET 46-55, FOR PHASES WHERE FINAL TRAFFIC SIGNAL TIMINGS ARE TO BE USED.
3. DURING PHASES 2, 3A, AND 3B, CONTRACTOR SHALL MAINTAIN A SAFE PEDESTRIAN CROSSING AT HANCOCK/WASHINGTON AND HANCOCK/TEMPLE. SAFETY MEASURES MAY INCLUDE SIGNS, FLASHERS, SIGNALIZATION, AND FLAGGERS/POLICE DETAIL.

TRAFFIC SIGNAL PHASING SEQUENCE AND TIMINGS

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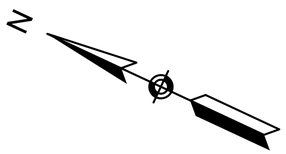
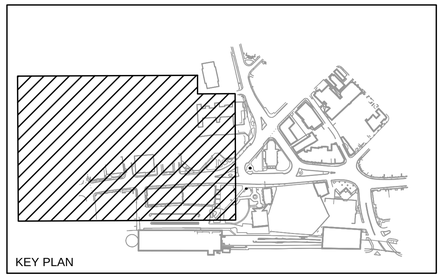
MassDOT DWF Versions

QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	73	123
PROJECT FILE NO.	606235		

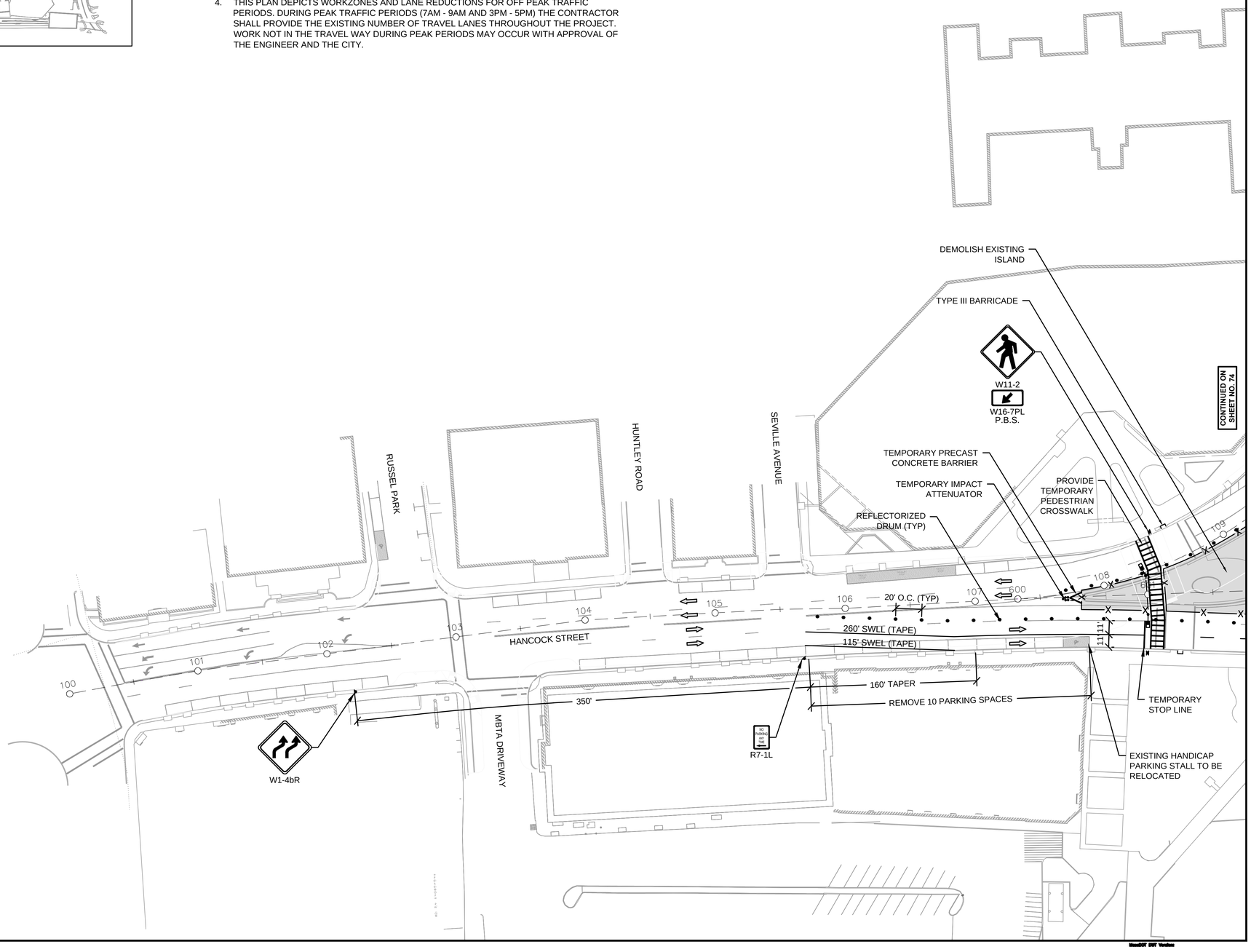
TEMPORARY TRAFFIC CONTROL PLANS
PHASE 1A





PHASE 1A - DEMOLITION OF EXISTING TRAFFIC ISLANDS

1. THE WORKZONES ARE INTENDED TO SUPPORT THE DEMOLITION OF THE TRAFFIC ISLANDS.
2. THE CONTRACTOR SHALL PROVIDE TEMPORARY PEDESTRIAN CROSSING IN THE LOCATIONS DEPICTED ON THE PLANS THROUGH THE USE OF EXISTING TRAFFIC SIGNAL EQUIPMENT AND TEMPORARY TRAFFIC SIGNAL EQUIPMENT.
3. ADDITIONAL WORK MAY BE PERFORMED DURING THIS PHASE THROUGH THE USE OF MASSDOT STANDARD TEMPORARY TRAFFIC CONTROL DETAIL WITH PRIOR APPROVAL FROM THE ENGINEER.
4. THIS PLAN DEPICTS WORKZONES AND LANE REDUCTIONS FOR OFF PEAK TRAFFIC PERIODS. DURING PEAK TRAFFIC PERIODS (7AM - 9AM AND 3PM - 5PM) THE CONTRACTOR SHALL PROVIDE THE EXISTING NUMBER OF TRAVEL LANES THROUGHOUT THE PROJECT. WORK NOT IN THE TRAVEL WAY DURING PEAK PERIODS MAY OCCUR WITH APPROVAL OF THE ENGINEER AND THE CITY.



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SCALE IN FEET

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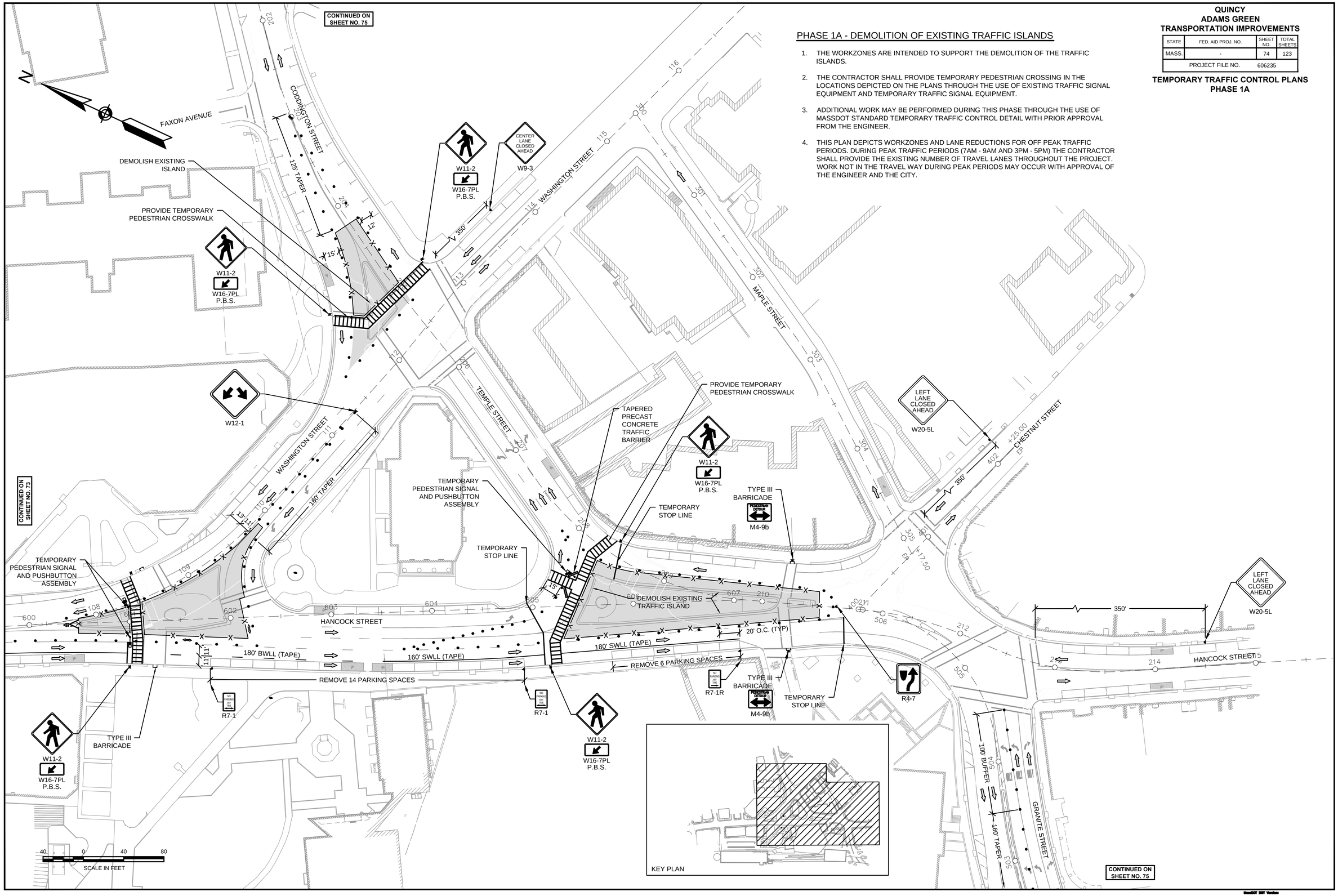
QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	74	123
PROJECT FILE NO.	606235		

TEMPORARY TRAFFIC CONTROL PLANS
PHASE 1A

PHASE 1A - DEMOLITION OF EXISTING TRAFFIC ISLANDS

1. THE WORKZONES ARE INTENDED TO SUPPORT THE DEMOLITION OF THE TRAFFIC ISLANDS.
2. THE CONTRACTOR SHALL PROVIDE TEMPORARY PEDESTRIAN CROSSING IN THE LOCATIONS DEPICTED ON THE PLANS THROUGH THE USE OF EXISTING TRAFFIC SIGNAL EQUIPMENT AND TEMPORARY TRAFFIC SIGNAL EQUIPMENT.
3. ADDITIONAL WORK MAY BE PERFORMED DURING THIS PHASE THROUGH THE USE OF MASSDOT STANDARD TEMPORARY TRAFFIC CONTROL DETAIL WITH PRIOR APPROVAL FROM THE ENGINEER.
4. THIS PLAN DEPICTS WORKZONES AND LANE REDUCTIONS FOR OFF PEAK TRAFFIC PERIODS. DURING PEAK TRAFFIC PERIODS (7AM - 9AM AND 3PM - 5PM) THE CONTRACTOR SHALL PROVIDE THE EXISTING NUMBER OF TRAVEL LANES THROUGHOUT THE PROJECT. WORK NOT IN THE TRAVEL WAY DURING PEAK PERIODS MAY OCCUR WITH APPROVAL OF THE ENGINEER AND THE CITY.



606235[25%]TR(TMP SETUP1A).DWG 31-Aug-2012

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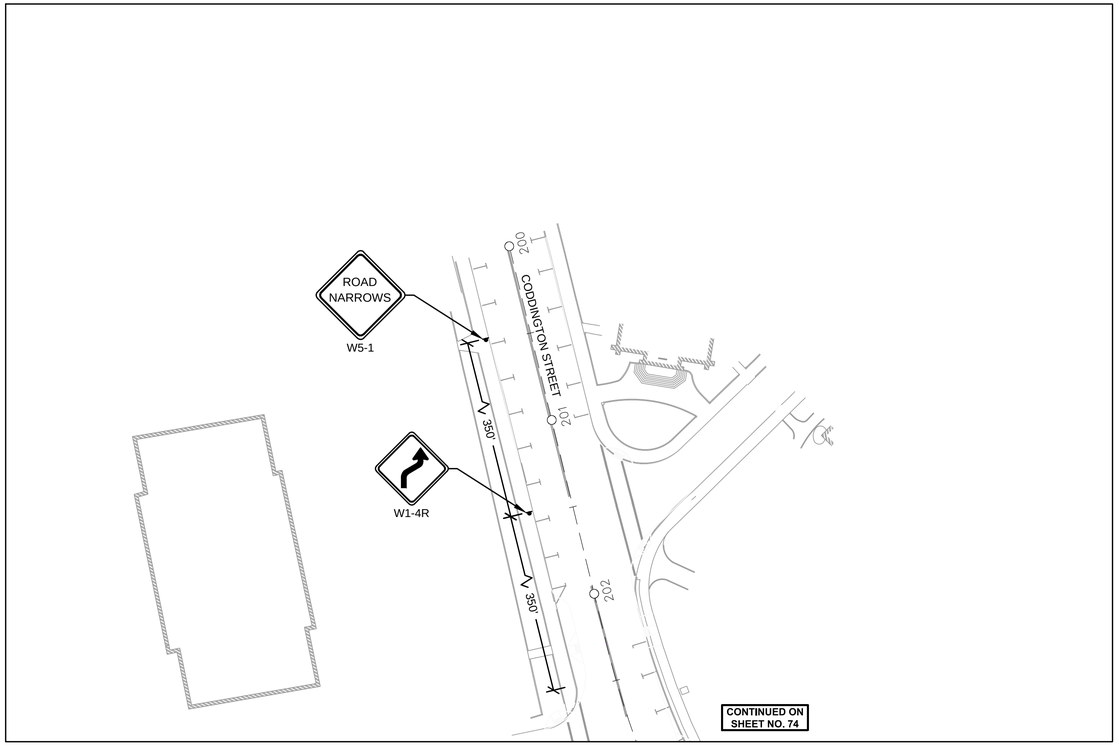
QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

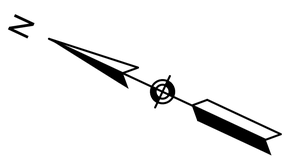
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	75	123
PROJECT FILE NO.	606235		

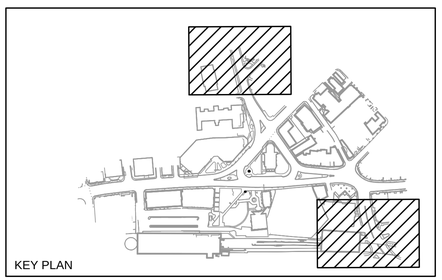
TEMPORARY TRAFFIC CONTROL PLANS
PHASE 1A

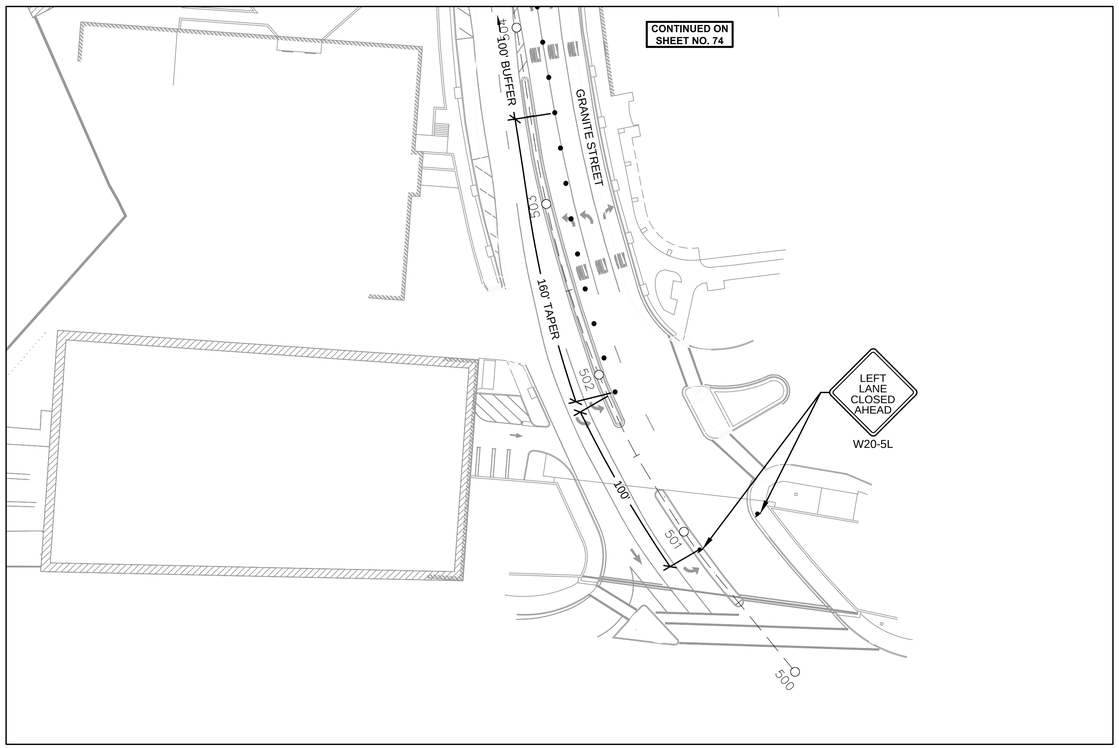
PHASE 1A - DEMOLITION OF EXISTING TRAFFIC ISLANDS

1. THE WORKZONES ARE INTENDED TO SUPPORT THE DEMOLITION OF THE TRAFFIC ISLANDS.
2. THE CONTRACTOR SHALL PROVIDE TEMPORARY PEDESTRIAN CROSSING IN THE LOCATIONS DEPICTED ON THE PLANS THROUGH THE USE OF EXISTING TRAFFIC SIGNAL EQUIPMENT AND TEMPORARY TRAFFIC SIGNAL EQUIPMENT.
3. ADDITIONAL WORK MAY BE PERFORMED DURING THIS PHASE THROUGH THE USE OF MASSDOT STANDARD TEMPORARY TRAFFIC CONTROL DETAIL WITH PRIOR APPROVAL FROM THE ENGINEER.
4. THIS PLAN DEPICTS WORKZONES AND LANE REDUCTIONS FOR OFF PEAK TRAFFIC PERIODS. DURING PEAK TRAFFIC PERIODS (7AM - 9AM AND 3PM - 5PM) THE CONTRACTOR SHALL PROVIDE THE EXISTING NUMBER OF TRAVEL LANES THROUGHOUT THE PROJECT. WORK NOT IN THE TRAVEL WAY DURING PEAK PERIODS MAY OCCUR WITH APPROVAL OF THE ENGINEER AND THE CITY.









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SCALE IN FEET

606235[25%]TR(TMP SETUP1A).DWG 31-Aug-2012

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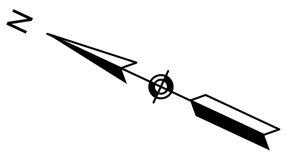
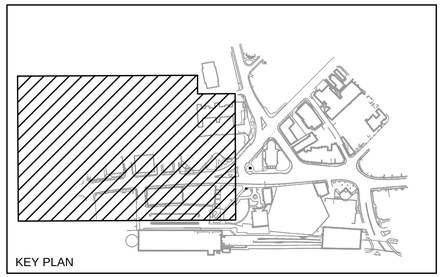
MassDOT DWT Version

QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	76	123
PROJECT FILE NO.	606235		

TEMPORARY TRAFFIC CONTROL PLANS
PHASE 1B



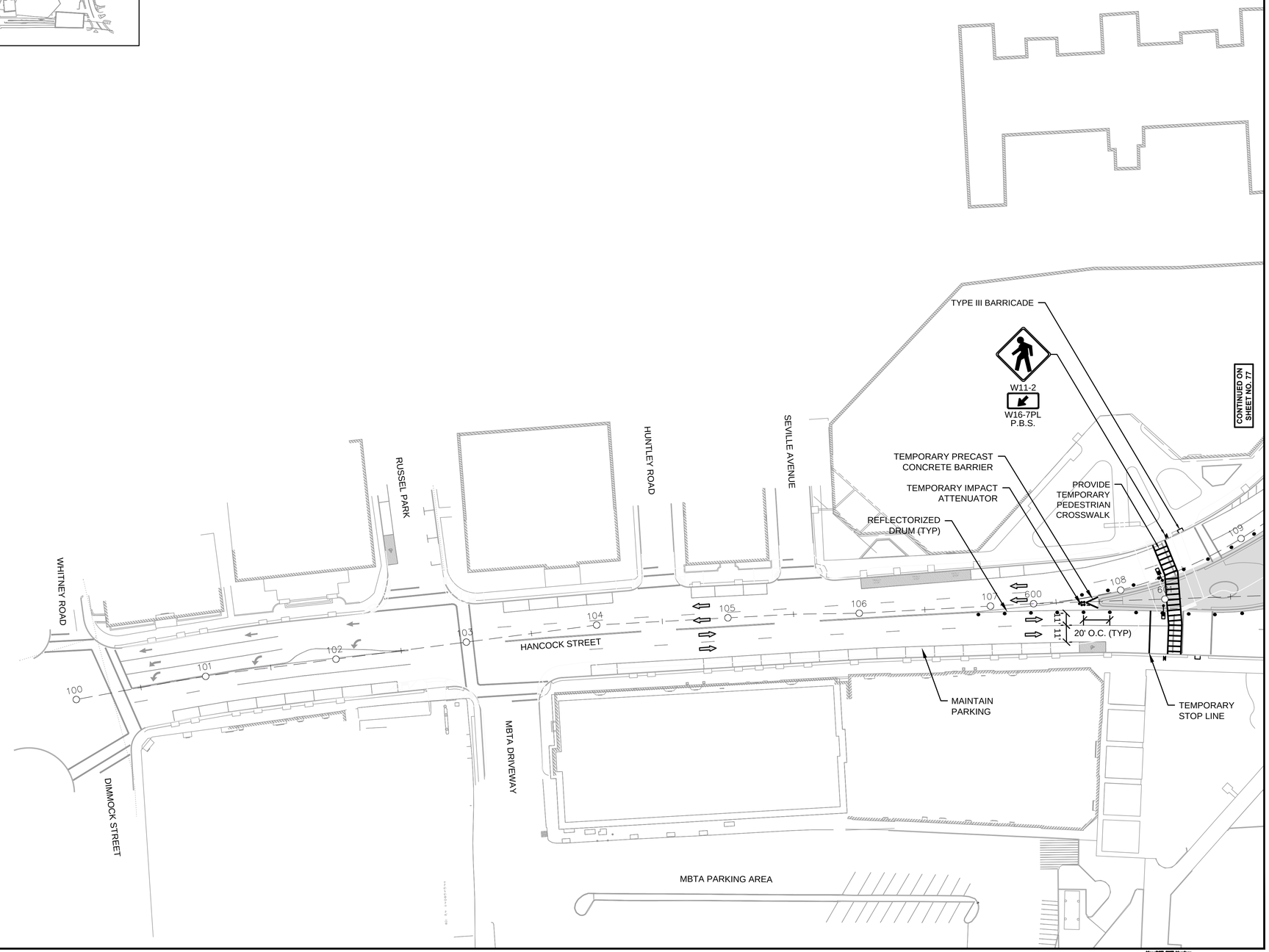


PHASE 1B - TRAFFIC CIRCULATION MODIFICATIONS

1. THIS PLAN DEPICTS CONSTRUCTION OF CURB EXTENSIONS AND TRAFFIC SIGNAL INSTALLATION TO SUPPORT CHANGES TO THE TRAFFIC CIRCULATION.

2. ADDITIONAL WORK MAY BE PERFORMED DURING THIS PHASE THROUGH THE USE OF MASSDOT STANDARD TEMPORARY TRAFFIC CONTROL DETAIL WITH PRIOR APPROVAL FROM THE ENGINEER.

3. THIS PLAN DEPICTS WORKZONES AND LANE REDUCTIONS FOR OFF PEAK TRAFFIC PERIODS. DURING PEAK TRAFFIC PERIODS (7AM - 9AM AND 3PM - 5PM) THE CONTRACTOR SHALL PROVIDE THE EXISTING NUMBER OF TRAVEL LANES THROUGHOUT THE PROJECT. WORK NOT IN THE TRAVEL WAY DURING PEAK PERIODS MAY OCCUR WITH APPROVAL OF THE ENGINEER AND THE CITY.



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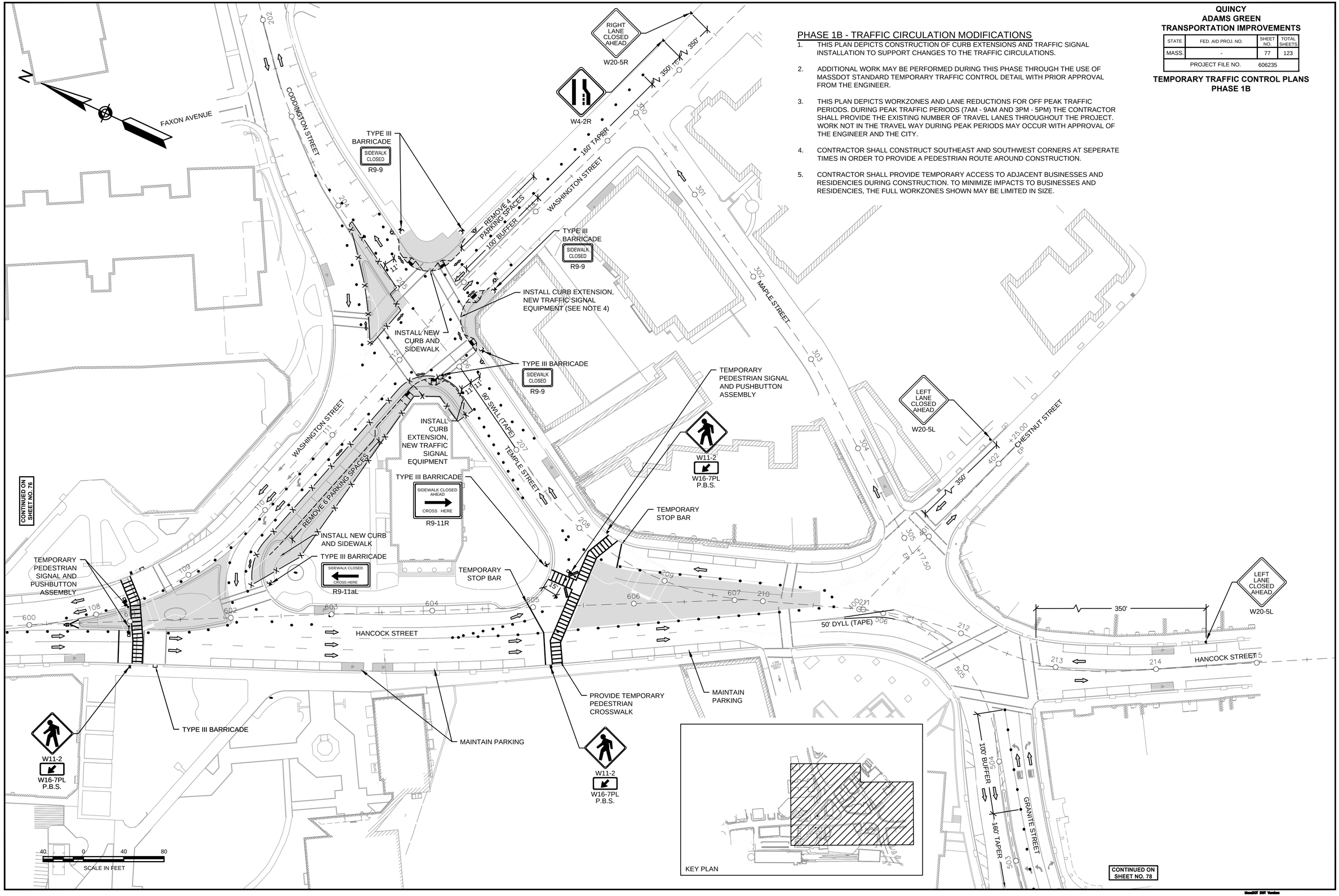
QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	77	123
PROJECT FILE NO.	606235		

TEMPORARY TRAFFIC CONTROL PLANS
PHASE 1B

PHASE 1B - TRAFFIC CIRCULATION MODIFICATIONS

1. THIS PLAN DEPICTS CONSTRUCTION OF CURB EXTENSIONS AND TRAFFIC SIGNAL INSTALLATION TO SUPPORT CHANGES TO THE TRAFFIC CIRCULATIONS.
2. ADDITIONAL WORK MAY BE PERFORMED DURING THIS PHASE THROUGH THE USE OF MASSDOT STANDARD TEMPORARY TRAFFIC CONTROL DETAIL WITH PRIOR APPROVAL FROM THE ENGINEER.
3. THIS PLAN DEPICTS WORKZONES AND LANE REDUCTIONS FOR OFF PEAK TRAFFIC PERIODS. DURING PEAK TRAFFIC PERIODS (7AM - 9AM AND 3PM - 5PM) THE CONTRACTOR SHALL PROVIDE THE EXISTING NUMBER OF TRAVEL LANES THROUGHOUT THE PROJECT. WORK NOT IN THE TRAVEL WAY DURING PEAK PERIODS MAY OCCUR WITH APPROVAL OF THE ENGINEER AND THE CITY.
4. CONTRACTOR SHALL CONSTRUCT SOUTHEAST AND SOUTHWEST CORNERS AT SEPERATE TIMES IN ORDER TO PROVIDE A PEDESTRIAN ROUTE AROUND CONSTRUCTION.
5. CONTRACTOR SHALL PROVIDE TEMPORARY ACCESS TO ADJACENT BUSINESSES AND RESIDENCIES DURING CONSTRUCTION. TO MINIMIZE IMPACTS TO BUSINESSES AND RESIDENCIES, THE FULL WORKZONES SHOWN MAY BE LIMITED IN SIZE.



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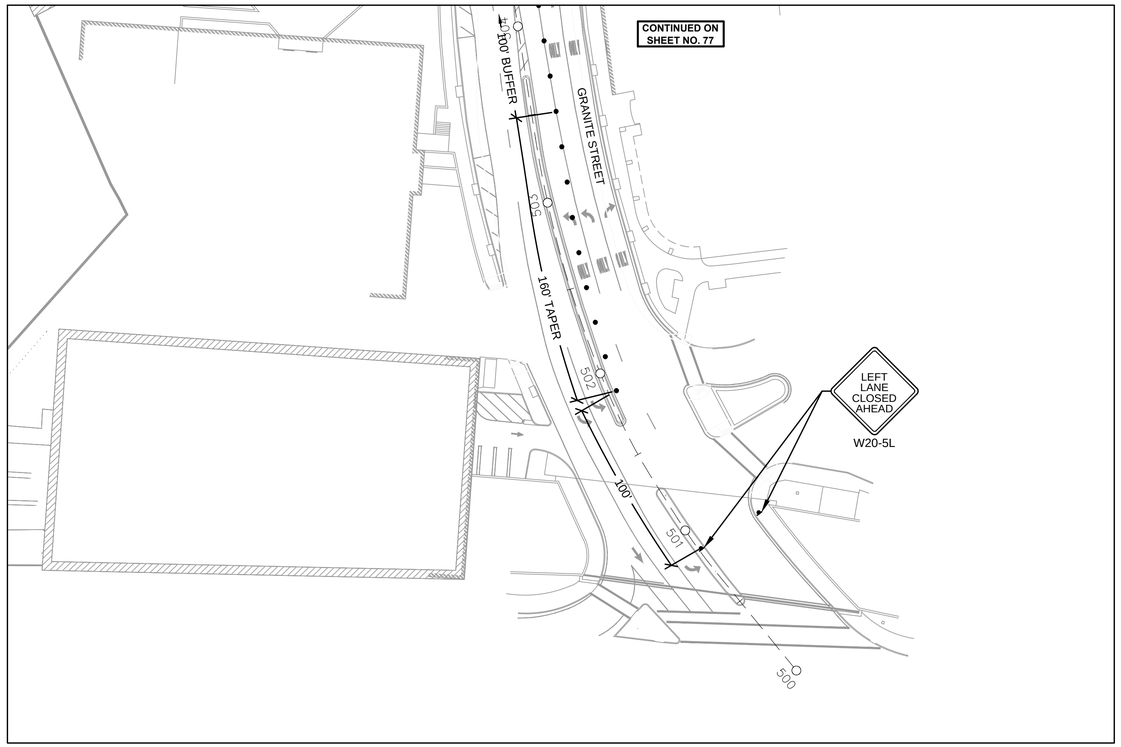
QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

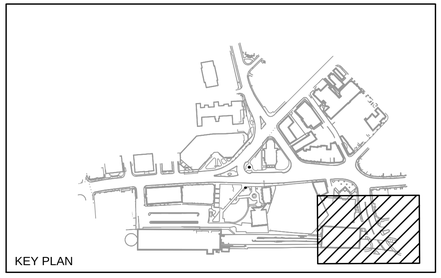
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	78	123
PROJECT FILE NO.	606235		

TEMPORARY TRAFFIC CONTROL PLANS
PHASE 1B

PHASE 1B - TRAFFIC CIRCULATION MODIFICATIONS

1. THIS PLAN DEPICTS CONSTRUCTION OF CURB EXTENSIONS AND TRAFFIC SIGNAL INSTALLATION TO SUPPORT CHANGES TO THE TRAFFIC CIRCULATIONS.
2. ADDITIONAL WORK MAY BE PERFORMED DURING THIS PHASE THROUGH THE USE OF MASSDOT STANDARD TEMPORARY TRAFFIC CONTROL DETAIL WITH PRIOR APPROVAL FROM THE ENGINEER.
3. THIS PLAN DEPICTS WORKZONES AND LANE REDUCTIONS FOR OFF PEAK TRAFFIC PERIODS. DURING PEAK TRAFFIC PERIODS (7AM - 9AM AND 3PM - 5PM) THE CONTRACTOR SHALL PROVIDE THE EXISTING NUMBER OF TRAVEL LANES THROUGHOUT THE PROJECT. WORK NOT IN THE TRAVEL WAY DURING PEAK PERIODS MAY OCCUR WITH APPROVAL OF THE ENGINEER AND THE CITY.





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SCALE IN FEET

606235(29%)TR(TMP SETUP1B).DWG 31-Aug-2012

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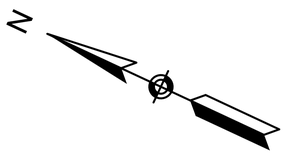
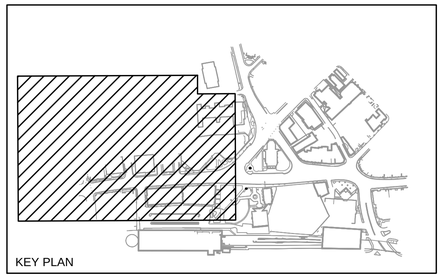
MassDOT DWT Version

QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	79	123
PROJECT FILE NO.	606235		

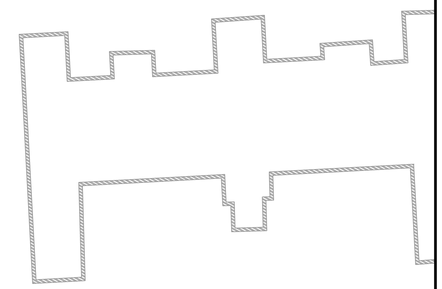
TEMPORARY TRAFFIC CONTROL PLANS
PHASE 2

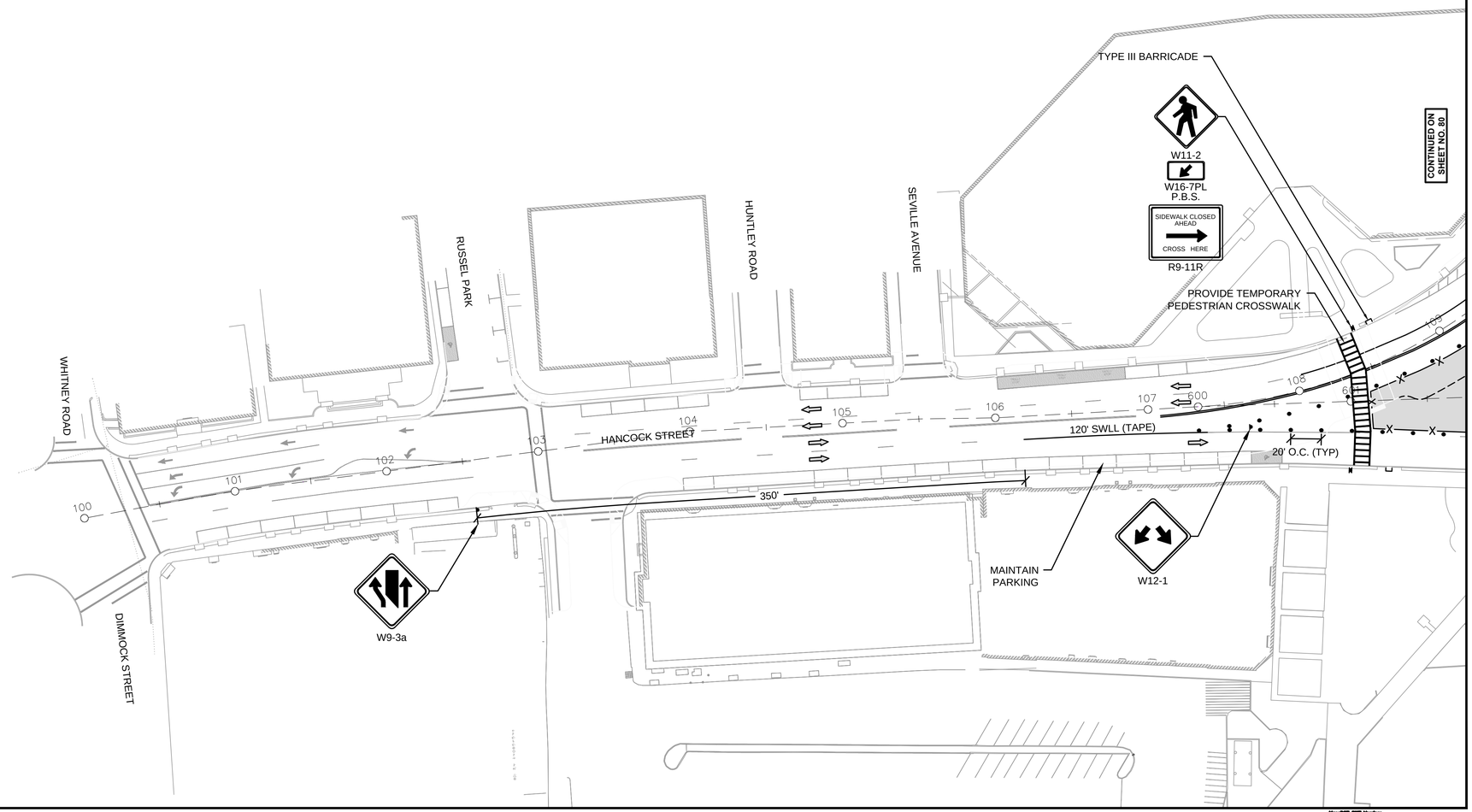




PHASE 2 - TRAFFIC CIRCULATION MODIFICATIONS

1. THIS PLAN DEPICTS CONSTRUCTION OF CURB EXTENSIONS AND TRAFFIC SIGNAL INSTALLATION TO SUPPORT CHANGES TO THE TRAFFIC CIRCULATION.
2. ADDITIONAL WORK MAY BE PERFORMED DURING THIS PHASE THROUGH THE USE OF MASSDOT STANDARD TEMPORARY TRAFFIC CONTROL DETAIL WITH PRIOR APPROVAL FROM THE ENGINEER.
3. THIS PLAN DEPICTS WORKZONES AND LANE REDUCTIONS FOR OFF PEAK TRAFFIC PERIODS. DURING PEAK TRAFFIC PERIODS (7AM - 9AM AND 3PM - 5PM) THE CONTRACTOR SHALL PROVIDE THE EXISTING NUMBER OF TRAVEL LANES THROUGHOUT THE PROJECT. WORK NOT IN THE TRAVEL WAY DURING PEAK PERIODS MAY OCCUR WITH APPROVAL OF THE ENGINEER AND THE CITY.





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SCALE IN FEET

31-Aug-2012

606235(25%)TR(TMP SETUP2).DWG

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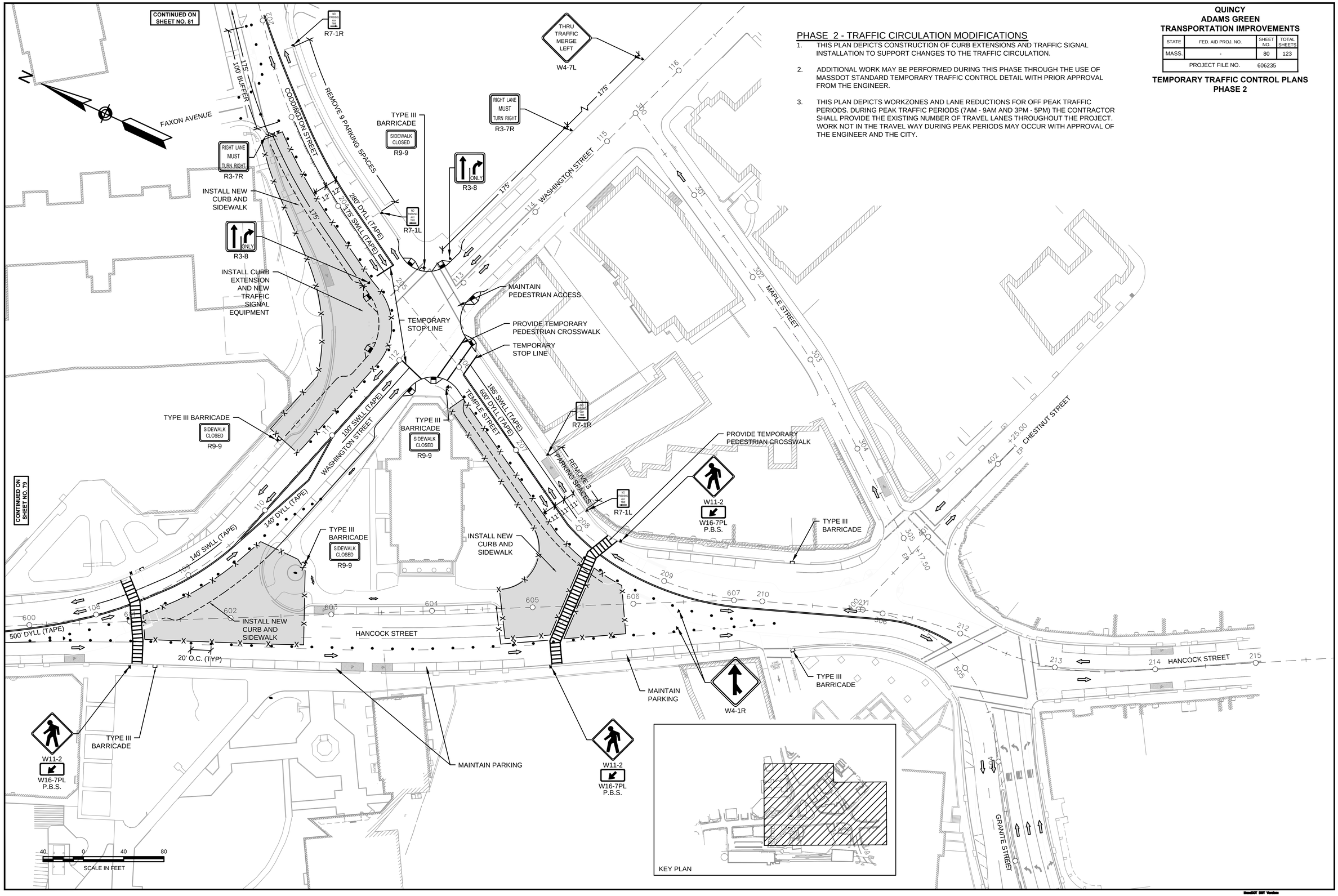
QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	80	123
PROJECT FILE NO.	606235		

TEMPORARY TRAFFIC CONTROL PLANS
PHASE 2

PHASE 2 - TRAFFIC CIRCULATION MODIFICATIONS

1. THIS PLAN DEPICTS CONSTRUCTION OF CURB EXTENSIONS AND TRAFFIC SIGNAL INSTALLATION TO SUPPORT CHANGES TO THE TRAFFIC CIRCULATION.
2. ADDITIONAL WORK MAY BE PERFORMED DURING THIS PHASE THROUGH THE USE OF MASSDOT STANDARD TEMPORARY TRAFFIC CONTROL DETAIL WITH PRIOR APPROVAL FROM THE ENGINEER.
3. THIS PLAN DEPICTS WORKZONES AND LANE REDUCTIONS FOR OFF PEAK TRAFFIC PERIODS. DURING PEAK TRAFFIC PERIODS (7AM - 9AM AND 3PM - 5PM) THE CONTRACTOR SHALL PROVIDE THE EXISTING NUMBER OF TRAVEL LANES THROUGHOUT THE PROJECT. WORK NOT IN THE TRAVEL WAY DURING PEAK PERIODS MAY OCCUR WITH APPROVAL OF THE ENGINEER AND THE CITY.



31-Aug-2012

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MassDOT DWF Version

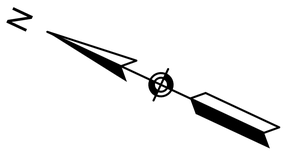
QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

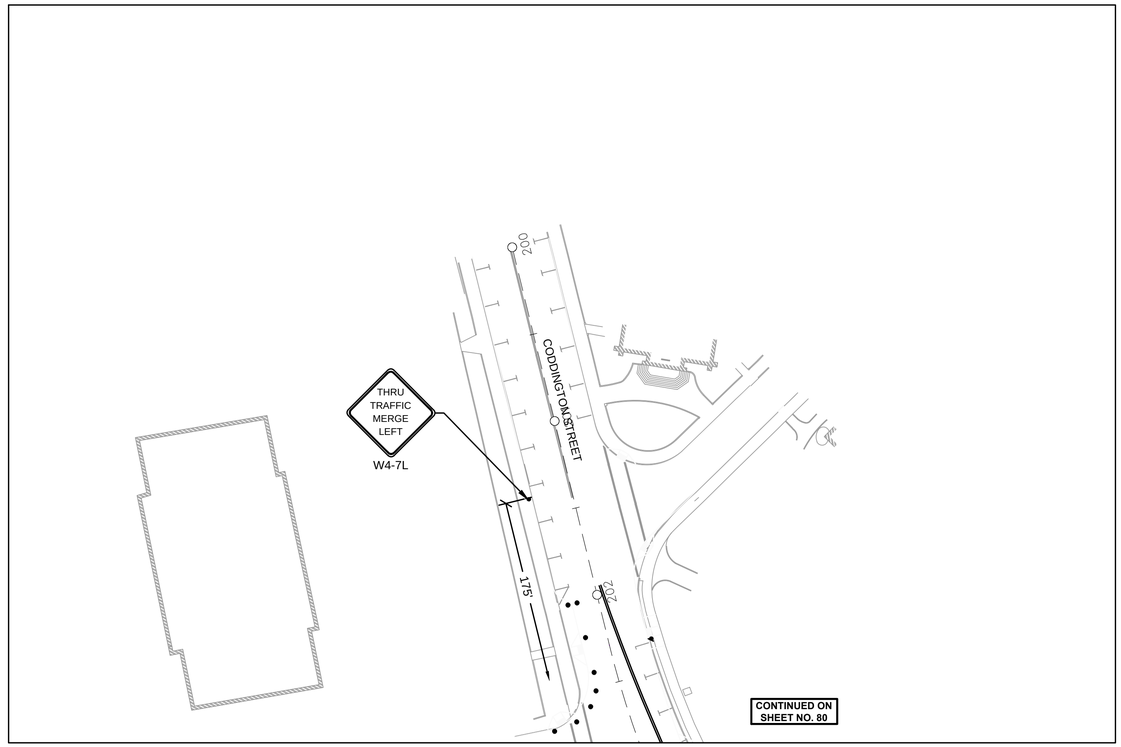
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	81	123
PROJECT FILE NO.	606235		

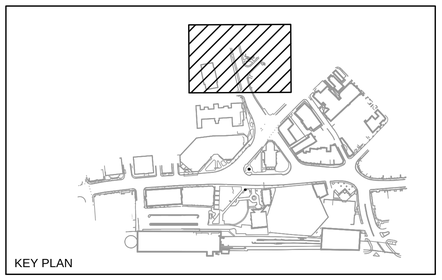
TEMPORARY TRAFFIC CONTROL PLANS
PHASE 2

31-Aug-2012

606235[25%]TR(TMP SETUP2).DWG







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SCALE IN FEET

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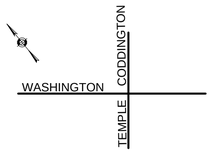
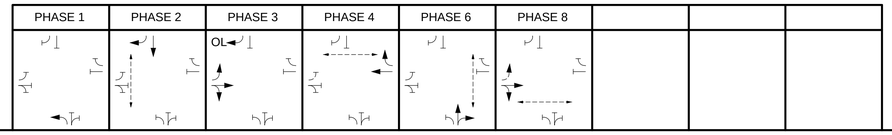
MassDOT DWF Version

QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	82	123
PROJECT FILE NO.	606235		

TEMPORARY TRAFFIC CONTROL PLANS
PHASE 2





SEQUENCE AND TIMING FOR SEMI ACTUATED CONTROL (COORDINATED)

STREET	DIRECTION	HOUSINGS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	FLASH OPER.
WASHINGTON STREET	EB LT		R	R	R	R	R	R	GL/G	YL/Y	R	R	R	R	R	R	R	G	Y	R										FY
WASHINGTON STREET	EB		R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R	G	Y	R										FY
WASHINGTON STREET	WB		R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	R										FR
TEMPLE STREET	NB LT		GL	YL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL	RL										FRL
TEMPLE STREET	NB		R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R										FR
CODDINGTON STREET	SB		R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R										FR
CODDINGTON STREET	SB RT		R	R	R	G	Y	R	GR	YR	R	R	R	R	R	R	R	R	R	R										FR
PEDESTRIAN	E-W		DW	DW	DW	DW	DW	DW	DW	DW	DW	W/FDW	DW	DW	DW	DW	DW	DW	DW	DW										OFF
PEDESTRIAN	E-W		DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W/FDW	DW	DW										OFF
PEDESTRIAN	N-S		DW	DW	DW	W/FDW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW										OFF
PEDESTRIAN	N-S		DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W/FDW	DW	DW	DW	DW	DW										OFF

TIMING IN SECONDS

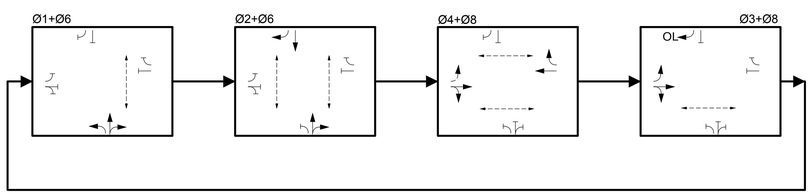
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
MINIMUM GREEN (INITIAL)	8			8			4			8			8			8												EMERGENCY ONLY
PASSAGE TIME (VEHICLE)	2			2			2			2			2			2												
MAXIMUM 1	25			20			10			40			45			50												
MAXIMUM 2	-			-			-			-			-			-												
YELLOW CLEARANCE		3			3			3			3			3			3											
RED CLEARANCE			1			1			1			1			1			1										
WALK (W)				7						7			7															
PEDESTRIAN CLEARANCE				13	3					13	3		11	3														
RECALL	OFF			OFF			OFF			OFF			OFF			OFF												
MEMORY	NON-LOCKING			NON-LOCKING			NON-LOCKING			NON-LOCKING			NON-LOCKING			NON-LOCKING												

COORDINATION DATA			COORDINATION PHASE TIMING								
TIMING PLAN	CYCLE LENGTH	REF/OFFSET	SEC.	SEC.	SEC.	SEC.	SEC.	SEC.	SEC.	SEC.	SEC.

NOTES:

1. RUN MAX 1 DURING PHASE 2 ON CONSTRUCTION.

PREFERENTIAL PHASING SEQUENCE



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31-Aug-2012

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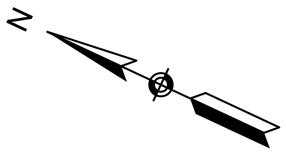
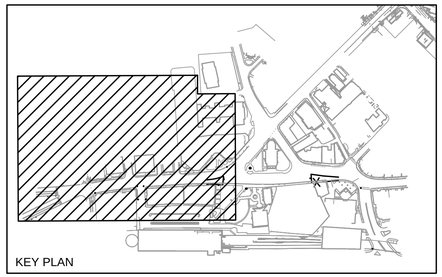
MassDOT DWF Version

QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	83	123
PROJECT FILE NO.	606235		

TEMPORARY TRAFFIC CONTROL PLANS
PHASE 3A





PHASE 3A - HANCOCK STREET SIDEWALK

1. THE WORKZONES ARE INTENDED TO SUPPORT THE CONSTRUCTION OF THE CURBS SIDEWALKS, AND STREETSCAPES ON HANCOCK STREET.
2. THE CONTRACTOR SHALL PROVIDE TEMPORARY PEDESTRIAN CROSSING IN THE LOCATIONS DEPICTED ON THE PLANS THROUGH THE USE OF EXISTING TRAFFIC SIGNAL EQUIPMENT AND TEMPORARY TRAFFIC SIGNAL EQUIPMENT.
3. ADDITIONAL WORK MAY BE PERFORMED DURING THIS PHASE THROUGH THE USE OF MASSDOT STANDARD TEMPORARY TRAFFIC CONTROL DETAIL WITH PRIOR APPROVAL FROM THE ENGINEER.
4. THIS PLAN DEPICTS WORKZONES AND LANE REDUCTIONS FOR OFF PEAK TRAFFIC PERIODS. DURING PEAK TRAFFIC PERIODS (7AM - 9AM AND 3PM - 5PM) THE CONTRACTOR SHALL PROVIDE THE EXISTING NUMBER OF TRAVEL LANES THROUGHOUT THE PROJECT. WORK NOT IN THE TRAVEL WAY DURING PEAK PERIODS MAY OCCUR WITH APPROVAL OF THE ENGINEER AND THE CITY.
5. CONTRACTOR SHALL PROVIDE TEMPORARY ACCESS TO ADJACENT BUSINESSES AND RESIDENCES DURING CONSTRUCTION. TO MINIMIZE IMPACTS TO BUSINESS AND RESIDENCES, THE FULL WORK ZONES SHOWN MAY BE LIMITED IN SIZE.

31-Aug-2012
606235(25%)TR(TMP SETUP3A).DWG

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MassDOT DWF Version

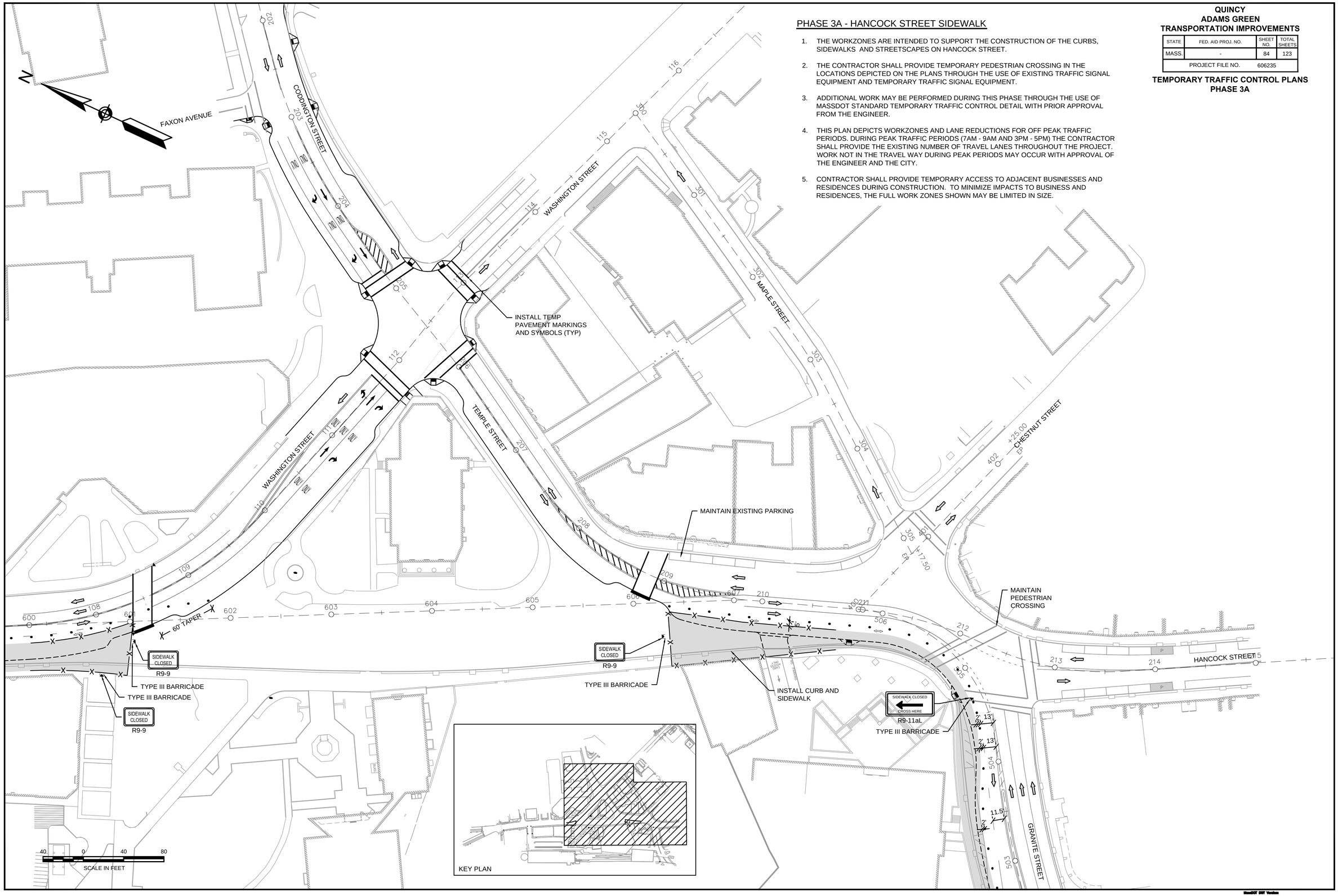
PHASE 3A - HANCOCK STREET SIDEWALK

1. THE WORKZONES ARE INTENDED TO SUPPORT THE CONSTRUCTION OF THE CURBS, SIDEWALKS AND STREETSCAPES ON HANCOCK STREET.
2. THE CONTRACTOR SHALL PROVIDE TEMPORARY PEDESTRIAN CROSSING IN THE LOCATIONS DEPICTED ON THE PLANS THROUGH THE USE OF EXISTING TRAFFIC SIGNAL EQUIPMENT AND TEMPORARY TRAFFIC SIGNAL EQUIPMENT.
3. ADDITIONAL WORK MAY BE PERFORMED DURING THIS PHASE THROUGH THE USE OF MASSDOT STANDARD TEMPORARY TRAFFIC CONTROL DETAIL WITH PRIOR APPROVAL FROM THE ENGINEER.
4. THIS PLAN DEPICTS WORKZONES AND LANE REDUCTIONS FOR OFF PEAK TRAFFIC PERIODS. DURING PEAK TRAFFIC PERIODS (7AM - 9AM AND 3PM - 5PM) THE CONTRACTOR SHALL PROVIDE THE EXISTING NUMBER OF TRAVEL LANES THROUGHOUT THE PROJECT. WORK NOT IN THE TRAVEL WAY DURING PEAK PERIODS MAY OCCUR WITH APPROVAL OF THE ENGINEER AND THE CITY.
5. CONTRACTOR SHALL PROVIDE TEMPORARY ACCESS TO ADJACENT BUSINESSES AND RESIDENCES DURING CONSTRUCTION. TO MINIMIZE IMPACTS TO BUSINESS AND RESIDENCES, THE FULL WORK ZONES SHOWN MAY BE LIMITED IN SIZE.

QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	84	123
PROJECT FILE NO.	606235		

TEMPORARY TRAFFIC CONTROL PLANS
PHASE 3A



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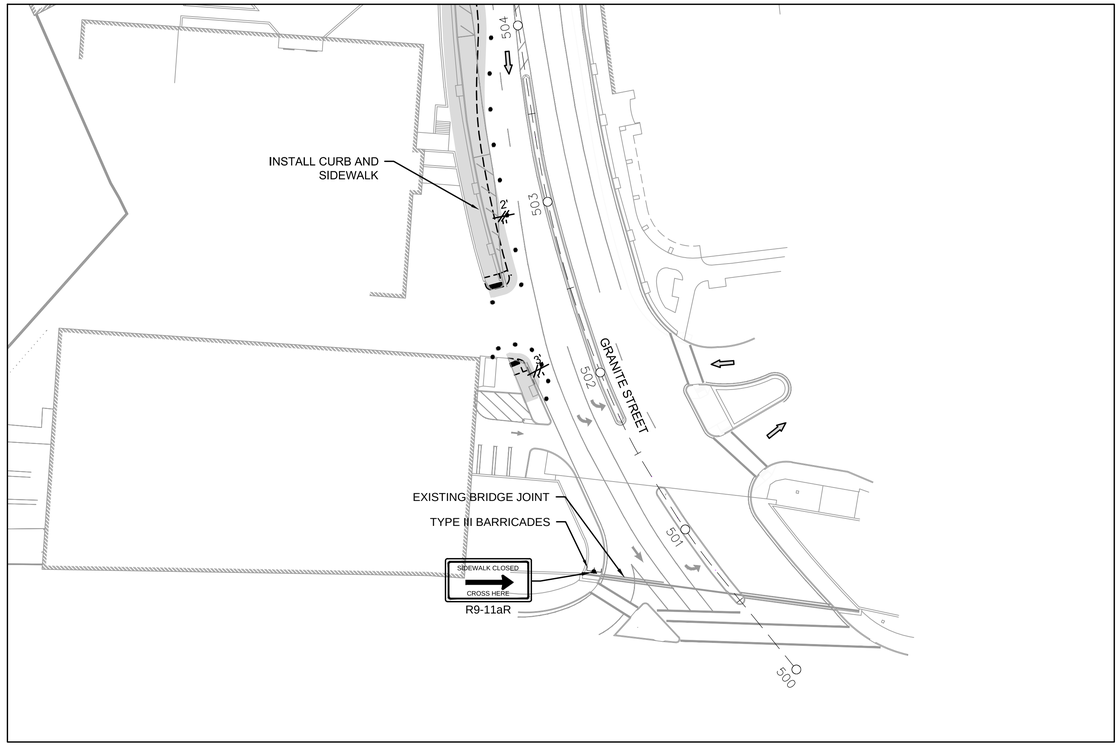
QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

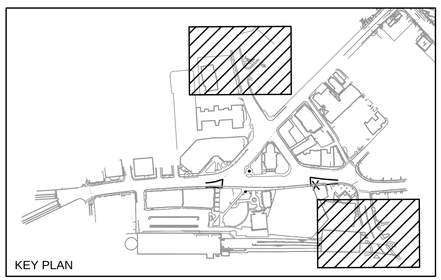
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	85	123
PROJECT FILE NO.	606235		

TEMPORARY TRAFFIC CONTROL PLANS
PHASE 3A

PHASE 3A - HANCOCK STREET SIDEWALK

1. THE WORKZONES ARE INTENDED TO SUPPORT THE CONSTRUCTION OF THE CURBS, SIDEWALKS, AND STREETSCAPES ON HANCOCK STREET.
2. THE CONTRACTOR SHALL PROVIDE TEMPORARY PEDESTRIAN CROSSING IN THE LOCATIONS DEPICTED ON THE PLANS THROUGH THE USE OF EXISTING TRAFFIC SIGNAL EQUIPMENT AND TEMPORARY TRAFFIC SIGNAL EQUIPMENT.
3. ADDITIONAL WORK MAY BE PERFORMED DURING THIS PHASE THROUGH THE USE OF MASSDOT STANDARD TEMPORARY TRAFFIC CONTROL DETAIL WITH PRIOR APPROVAL FROM THE ENGINEER.
4. THIS PLAN DEPICTS WORKZONES AND LANE REDUCTIONS FOR OFF PEAK TRAFFIC PERIODS. DURING PEAK TRAFFIC PERIODS (7AM - 9AM AND 3PM - 5PM) THE CONTRACTOR SHALL PROVIDE THE EXISTING NUMBER OF TRAVEL LANES THROUGHOUT THE PROJECT. WORK NOT IN THE TRAVEL WAY DURING PEAK PERIODS MAY OCCUR WITH APPROVAL OF THE ENGINEER AND THE CITY.





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31-Aug-2012
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MassDOT DMT Vendors

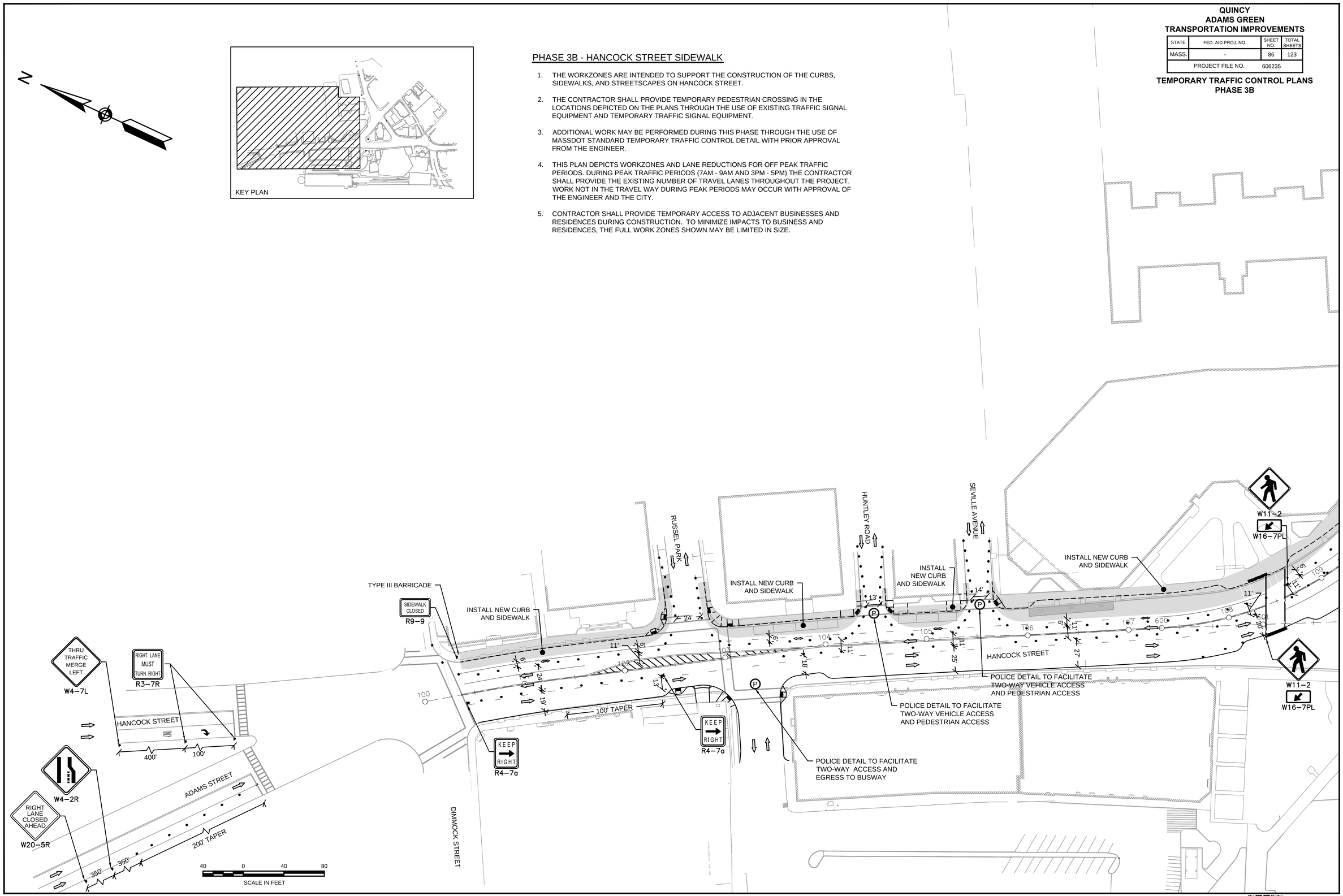
QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	86	123
PROJECT FILE NO.	606235		

TEMPORARY TRAFFIC CONTROL PLANS
PHASE 3B

PHASE 3B - HANCOCK STREET SIDEWALK

1. THE WORKZONES ARE INTENDED TO SUPPORT THE CONSTRUCTION OF THE CURBS, SIDEWALKS, AND STREETSCAPES ON HANCOCK STREET.
2. THE CONTRACTOR SHALL PROVIDE TEMPORARY PEDESTRIAN CROSSING IN THE LOCATIONS DEPICTED ON THE PLANS THROUGH THE USE OF EXISTING TRAFFIC SIGNAL EQUIPMENT AND TEMPORARY TRAFFIC SIGNAL EQUIPMENT.
3. ADDITIONAL WORK MAY BE PERFORMED DURING THIS PHASE THROUGH THE USE OF MASSDOT STANDARD TEMPORARY TRAFFIC CONTROL DETAIL WITH PRIOR APPROVAL FROM THE ENGINEER.
4. THIS PLAN DEPICTS WORKZONES AND LANE REDUCTIONS FOR OFF PEAK TRAFFIC PERIODS. DURING PEAK TRAFFIC PERIODS (7AM - 9AM AND 3PM - 5PM) THE CONTRACTOR SHALL PROVIDE THE EXISTING NUMBER OF TRAVEL LANES THROUGHOUT THE PROJECT. WORK NOT IN THE TRAVEL WAY DURING PEAK PERIODS MAY OCCUR WITH APPROVAL OF THE ENGINEER AND THE CITY.
5. CONTRACTOR SHALL PROVIDE TEMPORARY ACCESS TO ADJACENT BUSINESSES AND RESIDENCES DURING CONSTRUCTION. TO MINIMIZE IMPACTS TO BUSINESS AND RESIDENCES, THE FULL WORK ZONES SHOWN MAY BE LIMITED IN SIZE.



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MassDOT DWF Version

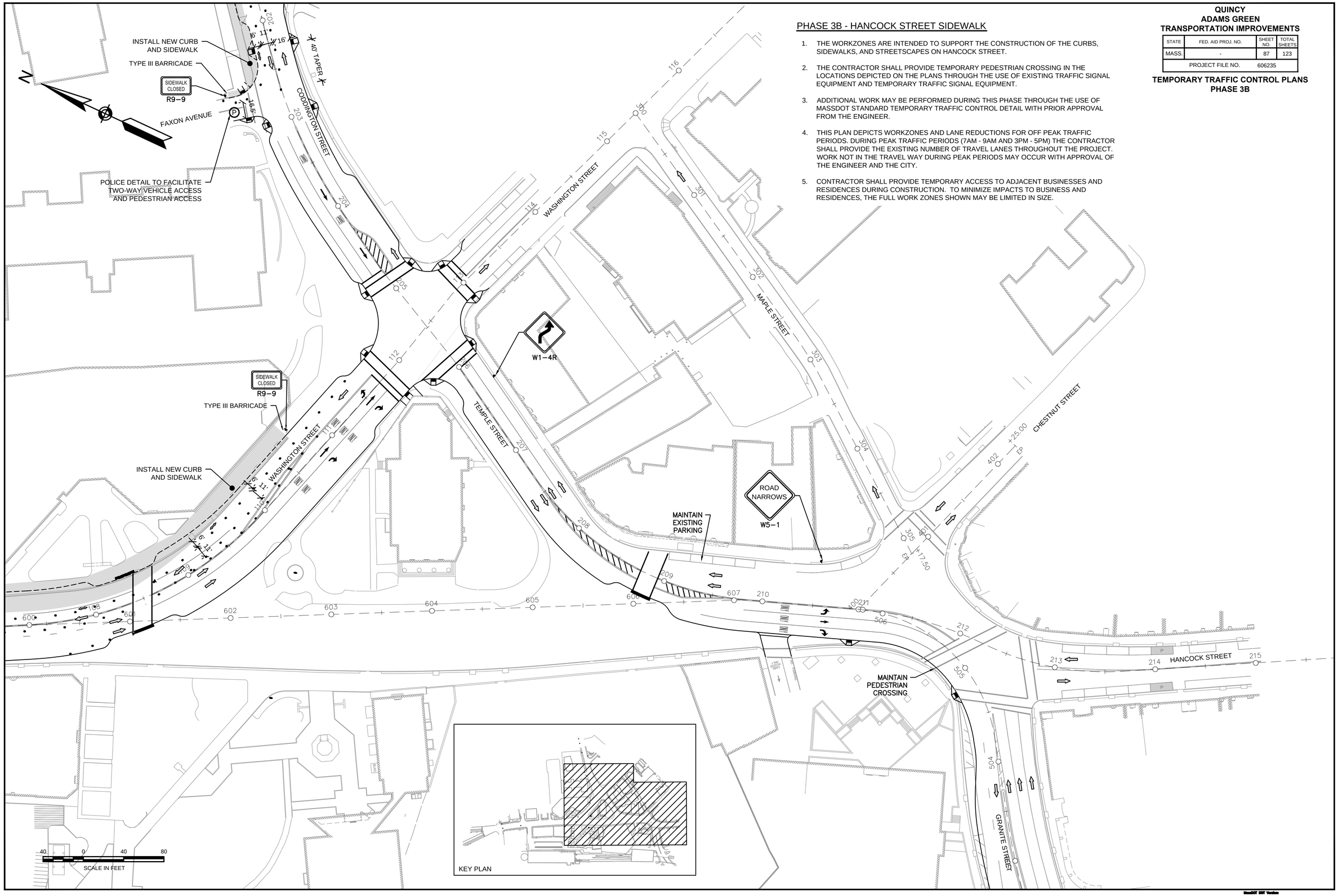
QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	87	123
PROJECT FILE NO.	606235		

TEMPORARY TRAFFIC CONTROL PLANS
PHASE 3B

PHASE 3B - HANCOCK STREET SIDEWALK

1. THE WORKZONES ARE INTENDED TO SUPPORT THE CONSTRUCTION OF THE CURBS, SIDEWALKS, AND STREETSCAPES ON HANCOCK STREET.
2. THE CONTRACTOR SHALL PROVIDE TEMPORARY PEDESTRIAN CROSSING IN THE LOCATIONS DEPICTED ON THE PLANS THROUGH THE USE OF EXISTING TRAFFIC SIGNAL EQUIPMENT AND TEMPORARY TRAFFIC SIGNAL EQUIPMENT.
3. ADDITIONAL WORK MAY BE PERFORMED DURING THIS PHASE THROUGH THE USE OF MASSDOT STANDARD TEMPORARY TRAFFIC CONTROL DETAIL WITH PRIOR APPROVAL FROM THE ENGINEER.
4. THIS PLAN DEPICTS WORKZONES AND LANE REDUCTIONS FOR OFF PEAK TRAFFIC PERIODS. DURING PEAK TRAFFIC PERIODS (7AM - 9AM AND 3PM - 5PM) THE CONTRACTOR SHALL PROVIDE THE EXISTING NUMBER OF TRAVEL LANES THROUGHOUT THE PROJECT. WORK NOT IN THE TRAVEL WAY DURING PEAK PERIODS MAY OCCUR WITH APPROVAL OF THE ENGINEER AND THE CITY.
5. CONTRACTOR SHALL PROVIDE TEMPORARY ACCESS TO ADJACENT BUSINESSES AND RESIDENCES DURING CONSTRUCTION. TO MINIMIZE IMPACTS TO BUSINESS AND RESIDENCES, THE FULL WORK ZONES SHOWN MAY BE LIMITED IN SIZE.



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MassDOT DWF Version

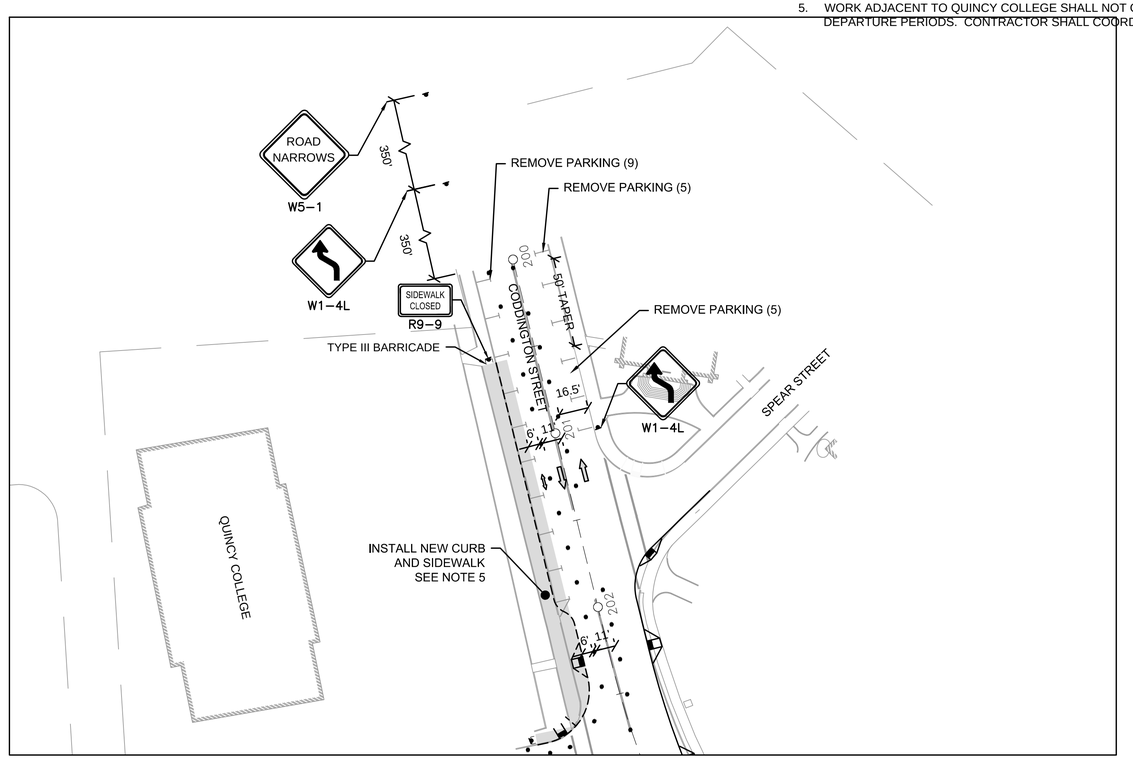
QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

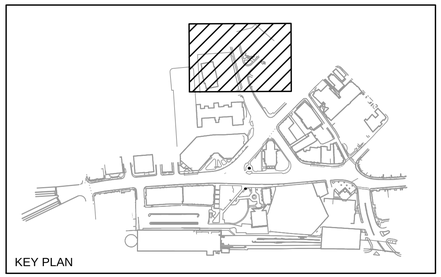
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	88	123
PROJECT FILE NO.	606235		

TEMPORARY TRAFFIC CONTROL PLANS
PHASE 3B

PHASE 3B - CODDINGTON STREET SIDEWALK

1. THE WORKZONES ARE INTENDED TO SUPPORT THE CONSTRUCTION OF THE CURBS, SIDEWALKS, AND STREETSCAPES ON CODDINGTON STREET.
2. THE CONTRACTOR SHALL PROVIDE TEMPORARY PEDESTRIAN CROSSING IN THE LOCATIONS DEPICTED ON THE PLANS THROUGH THE USE OF EXISTING TRAFFIC SIGNAL EQUIPMENT AND TEMPORARY TRAFFIC SIGNAL EQUIPMENT.
3. ADDITIONAL WORK MAY BE PERFORMED DURING THIS PHASE THROUGH THE USE OF MASSDOT STANDARD TEMPORARY TRAFFIC CONTROL DETAIL WITH PRIOR APPROVAL FROM THE ENGINEER.
4. THIS PLAN DEPICTS WORKZONES AND LANE REDUCTIONS FOR OFF PEAK TRAFFIC PERIODS. DURING PEAK TRAFFIC PERIODS (7AM - 9AM AND 3PM - 5PM) THE CONTRACTOR SHALL PROVIDE THE EXISTING NUMBER OF TRAVEL LANES THROUGHOUT THE PROJECT. WORK NOT IN THE TRAVEL WAY DURING PEAK PERIODS MAY OCCUR WITH APPROVAL OF THE ENGINEER AND THE CITY.
5. WORK ADJACENT TO QUINCY COLLEGE SHALL NOT OCCUR DURING PEAK ARRIVAL/ DEPARTURE PERIODS. CONTRACTOR SHALL COORDINATE WITH QUINCY COLLEGE.





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MassDOT DGN Version

QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	89	123
PROJECT FILE NO.	606235		

TEMPORARY TRAFFIC CONTROL PLANS
PHASE 4A

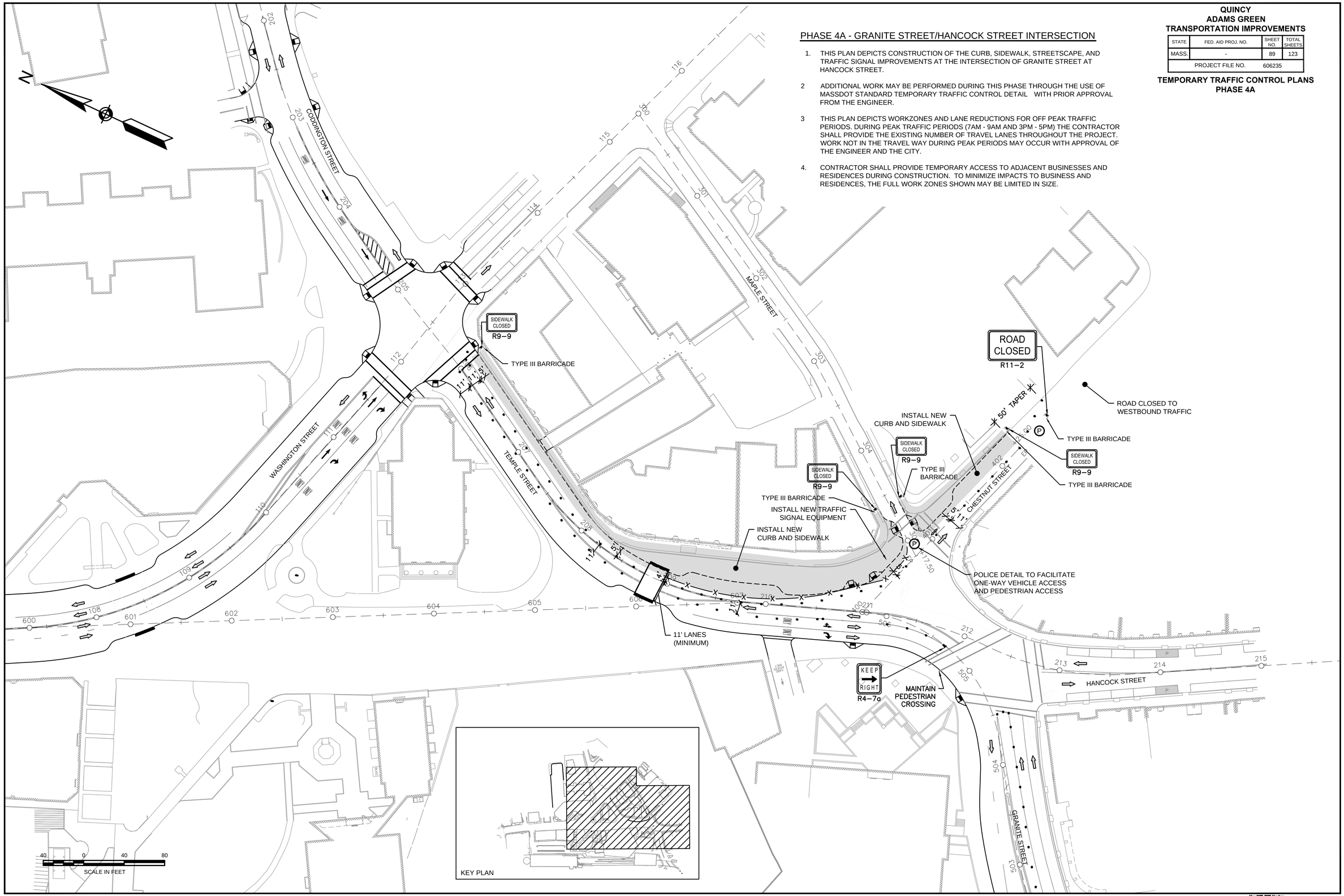
PHASE 4A - GRANITE STREET/HANCOCK STREET INTERSECTION

1. THIS PLAN DEPICTS CONSTRUCTION OF THE CURB, SIDEWALK, STREETSCAPE, AND TRAFFIC SIGNAL IMPROVEMENTS AT THE INTERSECTION OF GRANITE STREET AT HANCOCK STREET.

2 ADDITIONAL WORK MAY BE PERFORMED DURING THIS PHASE THROUGH THE USE OF MASSDOT STANDARD TEMPORARY TRAFFIC CONTROL DETAIL WITH PRIOR APPROVAL FROM THE ENGINEER.

3 THIS PLAN DEPICTS WORKZONES AND LANE REDUCTIONS FOR OFF PEAK TRAFFIC PERIODS. DURING PEAK TRAFFIC PERIODS (7AM - 9AM AND 3PM - 5PM) THE CONTRACTOR SHALL PROVIDE THE EXISTING NUMBER OF TRAVEL LANES THROUGHOUT THE PROJECT. WORK NOT IN THE TRAVEL WAY DURING PEAK PERIODS MAY OCCUR WITH APPROVAL OF THE ENGINEER AND THE CITY.

4. CONTRACTOR SHALL PROVIDE TEMPORARY ACCESS TO ADJACENT BUSINESSES AND RESIDENCES DURING CONSTRUCTION. TO MINIMIZE IMPACTS TO BUSINESS AND RESIDENCES, THE FULL WORK ZONES SHOWN MAY BE LIMITED IN SIZE.



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MassDOT DWF Version

QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	90	123
PROJECT FILE NO.	606235		

TEMPORARY TRAFFIC CONTROL PLANS
PHASE 4B

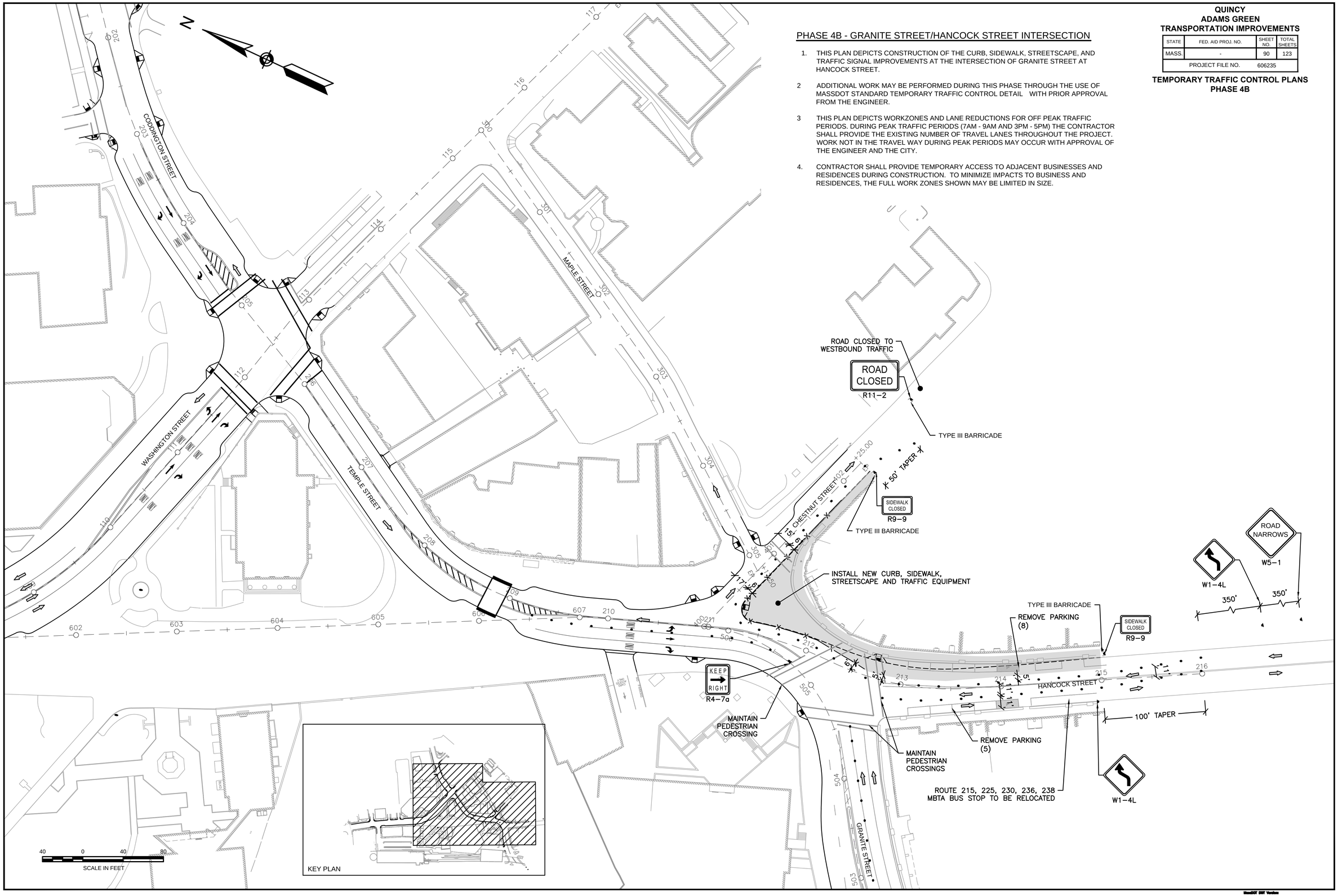
PHASE 4B - GRANITE STREET/HANCOCK STREET INTERSECTION

1. THIS PLAN DEPICTS CONSTRUCTION OF THE CURB, SIDEWALK, STREETSCAPE, AND TRAFFIC SIGNAL IMPROVEMENTS AT THE INTERSECTION OF GRANITE STREET AT HANCOCK STREET.

2 ADDITIONAL WORK MAY BE PERFORMED DURING THIS PHASE THROUGH THE USE OF MASSDOT STANDARD TEMPORARY TRAFFIC CONTROL DETAIL WITH PRIOR APPROVAL FROM THE ENGINEER.

3 THIS PLAN DEPICTS WORKZONES AND LANE REDUCTIONS FOR OFF PEAK TRAFFIC PERIODS. DURING PEAK TRAFFIC PERIODS (7AM - 9AM AND 3PM - 5PM) THE CONTRACTOR SHALL PROVIDE THE EXISTING NUMBER OF TRAVEL LANES THROUGHOUT THE PROJECT. WORK NOT IN THE TRAVEL WAY DURING PEAK PERIODS MAY OCCUR WITH APPROVAL OF THE ENGINEER AND THE CITY.

4. CONTRACTOR SHALL PROVIDE TEMPORARY ACCESS TO ADJACENT BUSINESSES AND RESIDENCES DURING CONSTRUCTION. TO MINIMIZE IMPACTS TO BUSINESS AND RESIDENCES, THE FULL WORK ZONES SHOWN MAY BE LIMITED IN SIZE.



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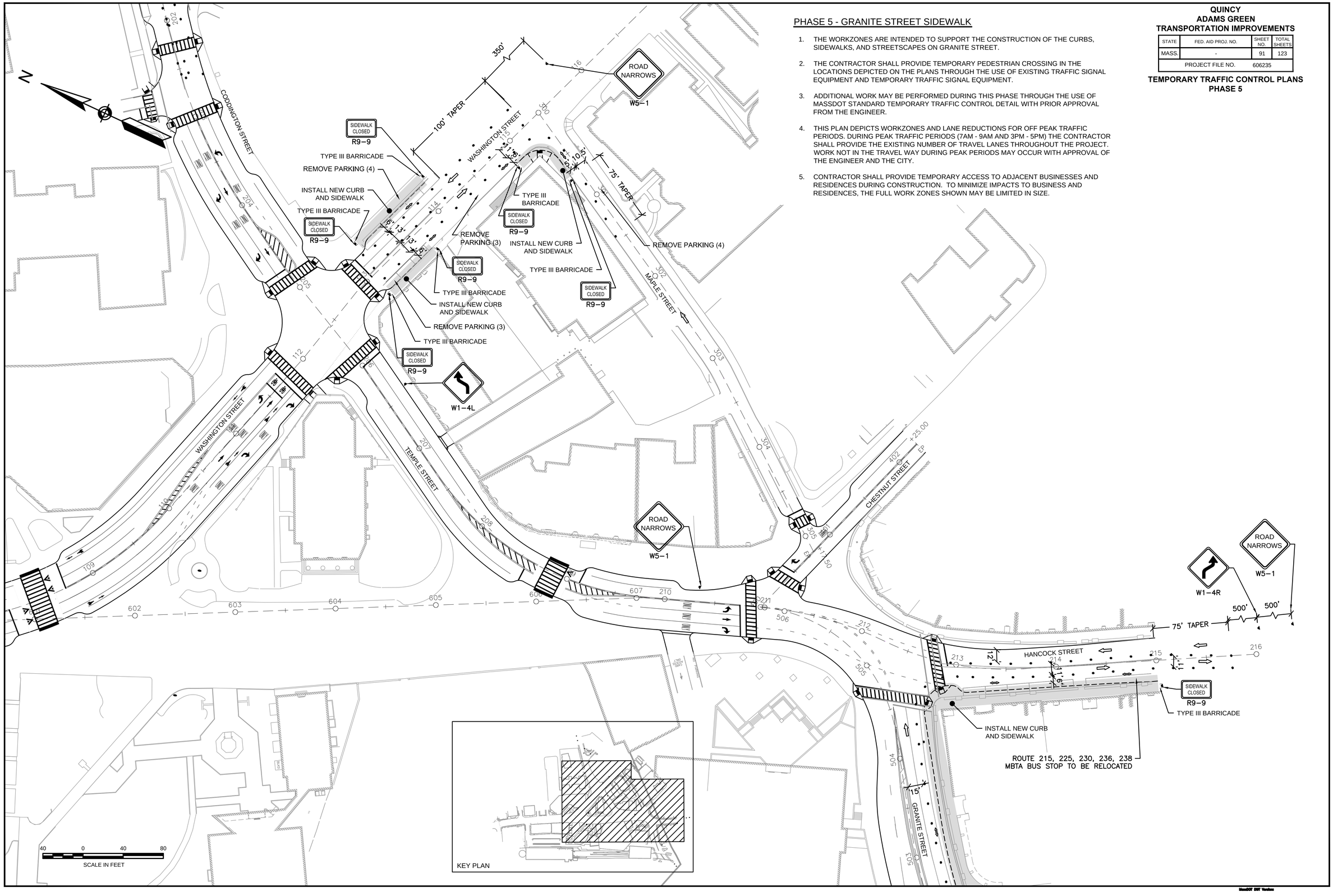

PHASE 5 - GRANITE STREET SIDEWALK

1. THE WORKZONES ARE INTENDED TO SUPPORT THE CONSTRUCTION OF THE CURBS, SIDEWALKS, AND STREETSCAPES ON GRANITE STREET.
2. THE CONTRACTOR SHALL PROVIDE TEMPORARY PEDESTRIAN CROSSING IN THE LOCATIONS DEPICTED ON THE PLANS THROUGH THE USE OF EXISTING TRAFFIC SIGNAL EQUIPMENT AND TEMPORARY TRAFFIC SIGNAL EQUIPMENT.
3. ADDITIONAL WORK MAY BE PERFORMED DURING THIS PHASE THROUGH THE USE OF MASSDOT STANDARD TEMPORARY TRAFFIC CONTROL DETAIL WITH PRIOR APPROVAL FROM THE ENGINEER.
4. THIS PLAN DEPICTS WORKZONES AND LANE REDUCTIONS FOR OFF PEAK TRAFFIC PERIODS. DURING PEAK TRAFFIC PERIODS (7AM - 9AM AND 3PM - 5PM) THE CONTRACTOR SHALL PROVIDE THE EXISTING NUMBER OF TRAVEL LANES THROUGHOUT THE PROJECT. WORK NOT IN THE TRAVEL WAY DURING PEAK PERIODS MAY OCCUR WITH APPROVAL OF THE ENGINEER AND THE CITY.
5. CONTRACTOR SHALL PROVIDE TEMPORARY ACCESS TO ADJACENT BUSINESSES AND RESIDENCES DURING CONSTRUCTION. TO MINIMIZE IMPACTS TO BUSINESS AND RESIDENCES, THE FULL WORK ZONES SHOWN MAY BE LIMITED IN SIZE.

QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	91	123
PROJECT FILE NO.	606235		

TEMPORARY TRAFFIC CONTROL PLANS
PHASE 5

31-Aug-2012

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MassDOT DWF Version

QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	92	123
PROJECT FILE NO.	606235		

TEMPORARY TRAFFIC CONTROL PLANS
PHASE 5

PHASE 5 - GRANITE STREET SIDEWALK

1. THE WORKZONES ARE INTENDED TO SUPPORT THE CONSTRUCTION OF THE CURBS, SIDEWALKS, AND STREETSCAPES ON GRANITE STREET.
2. THE CONTRACTOR SHALL PROVIDE TEMPORARY PEDESTRIAN CROSSING IN THE LOCATIONS DEPICTED ON THE PLANS THROUGH THE USE OF EXISTING TRAFFIC SIGNAL EQUIPMENT AND TEMPORARY TRAFFIC SIGNAL EQUIPMENT.
3. ADDITIONAL WORK MAY BE PERFORMED DURING THIS PHASE THROUGH THE USE OF MASSDOT STANDARD TEMPORARY TRAFFIC CONTROL DETAIL WITH PRIOR APPROVAL FROM THE ENGINEER.
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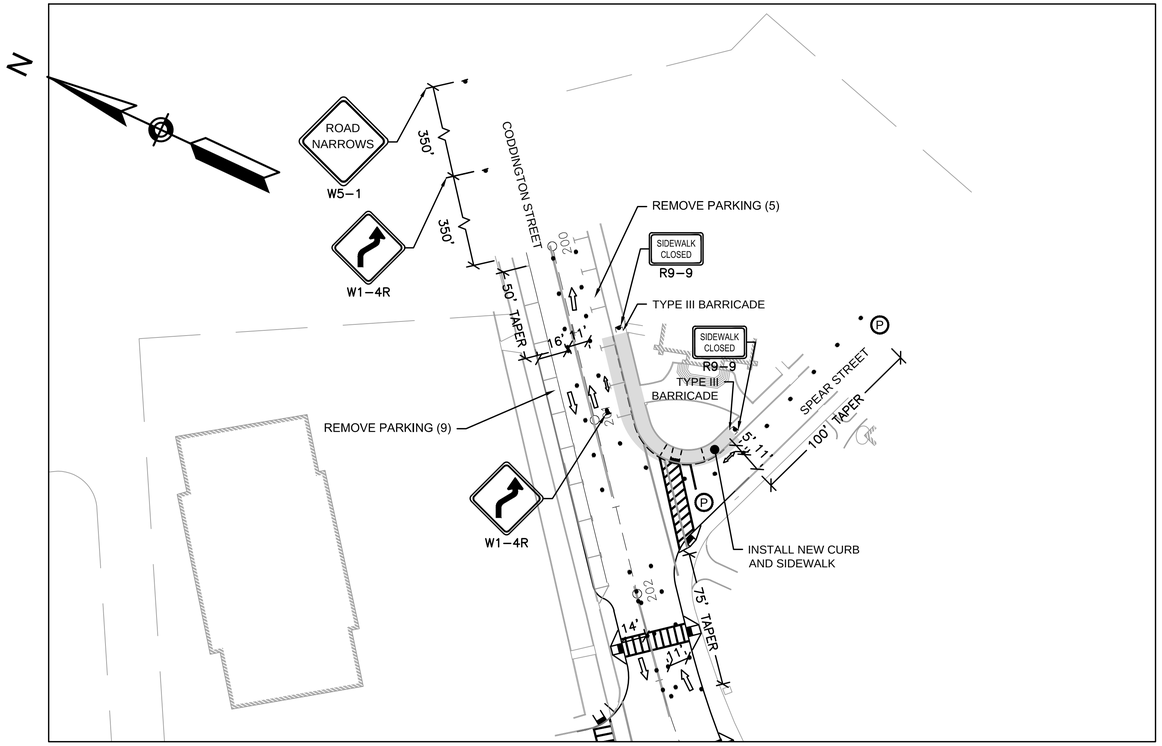
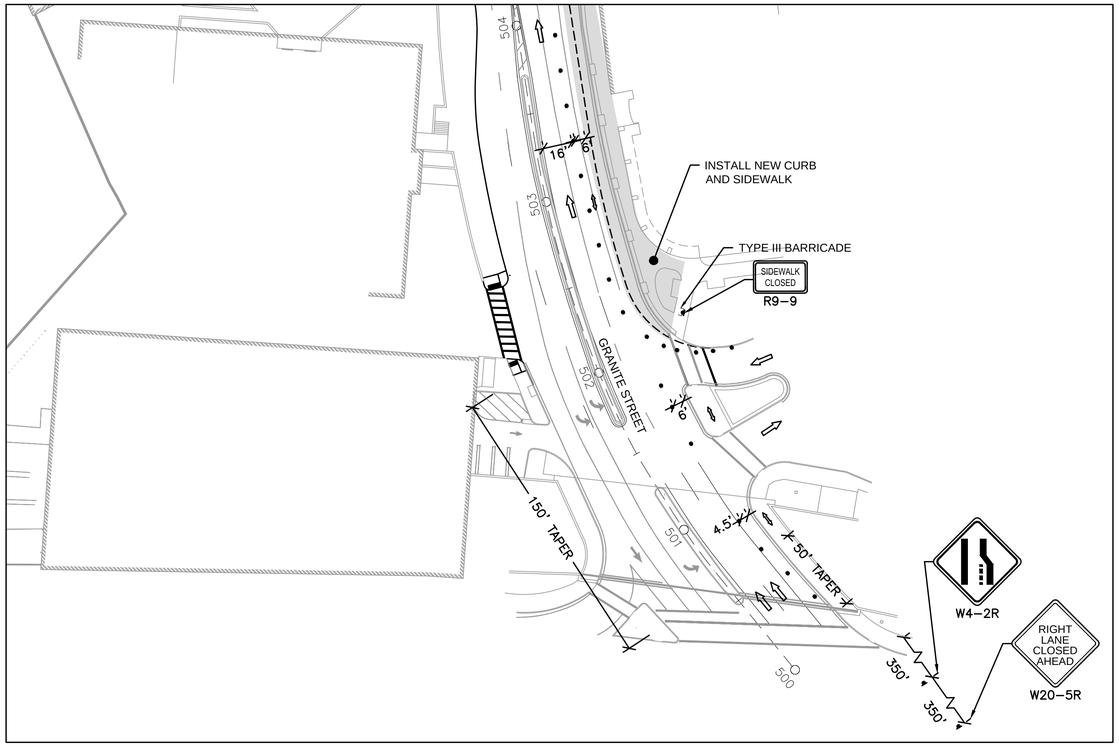
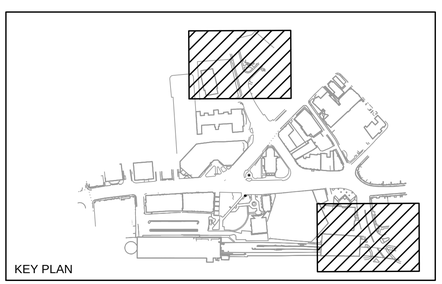
5. CONTRACTOR SHALL PROVIDE TEMPORARY ACCESS TO ADJACENT BUSINESSES AND RESIDENCES DURING CONSTRUCTION. TO MINIMIZE IMPACTS TO BUSINESS AND RESIDENCES, THE FULL WORK ZONES SHOWN MAY BE LIMITED IN SIZE.







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MassDOT DWF Version

QUINCY
ADAMS GREEN
TRANSPORTATION IMPROVEMENTS

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	-	93	123
PROJECT FILE NO.	606235		

TEMPORARY TRAFFIC CONTROL PLANS
SIGN SUMMARY

TRAFFIC SIGN SUMMARY

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			NUMBER OF SIGNS REQUIRED	COLOR			POST SIZE AND NUMBER REQUIRED	UNIT AREA (S.F.)	AREA IN SQUARE FEET
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.		BACK-GROUND	LEGEND	BORDER			
G20-2	30	18	END ROAD WORK	(1)	(1)	(1)	4	(1)	(1)	(1)		3.75	15.00
M4-9B	24	24	PEDESTRIAN DETOUR				2					4.00	8.00
R3-7R	30	30	RIGHT LANE MUST TURN RIGHT				2					6.25	12.50
R3-8	30	30	ONLY				2					6.25	12.50
R4-7	24	30					2					5.00	10.00
R7-1	12	18	NO PARKING ANY TIME				2					1.50	3.00
R7-1L	12	18	NO PARKING ANY TIME				2					1.50	3.00
R7-1R	12	18	NO PARKING ANY TIME				2					1.50	3.00
R9-11AL	24	12	SIDEWALK CLOSED CROSS HERE				1					2.00	2.00
R9-11R	24	12	SIDEWALK CLOSED AHEAD CROSS HERE				1					2.00	2.00
R9-9	24	12	SIDEWALK CLOSED				10					2.00	20.00
R11-2	48	30	ROAD CLOSED				1					10.00	10.00
W11-2	30	30					12					6.25	75.00
W12-1	30	30					1					6.25	6.25
W1-4BR	30	30					1					6.25	6.25
W1-4L	30	30					2					6.25	12.50
W1-4R	30	30					3					6.25	18.75
W16-7PL	24	12					12					2.00	24.00

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			NUMBER OF SIGNS REQUIRED	COLOR			POST SIZE AND NUMBER REQUIRED	UNIT AREA (S.F.)	AREA IN SQUARE FEET
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.		BACK-GROUND	LEGEND	BORDER			
W20-5L	30	30	LEFT LANE CLOSED AHEAD	(1)	(1)	(1)	3	(1)	(1)	(1)		6.25	18.75
W20-5R	30	30	RIGHT LANE CLOSED AHEAD				1					6.25	6.25
W4-1R	30	30					2					6.25	12.50
W4-2R	30	30					1					6.25	6.25
W4-7L	30	30	THRU TRAFFIC MERGE LEFT				2					6.25	12.50
W5-1	30	30	ROAD NARROWS				4					6.25	25.00
W9-3	30	30	CENTER LANE CLOSED AHEAD				1					6.25	6.25
W9-3A	30	30					1					6.25	6.25
W20-1	30	30	ROAD WORK AHEAD				4					6.25	25.00
R2-10A	**24**	**30**	WORK ZONE SPEEDING FINES DOUBLED				4	TOP: ORANGE BOTTOM: WHITE	BLACK	BLACK		5.00	20.00

(1) SEE MUTCD 2009 EDITION, 1979 STD. HWY. SIGNS AND SECTION M9.30.0. TYPE III OF THE MHD STANDARD SPECIFICATION FOR TEXT DIMENSIONS AND COLOR.

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