

CITY OF ANN ARBOR PROJECT MANAGEMENT

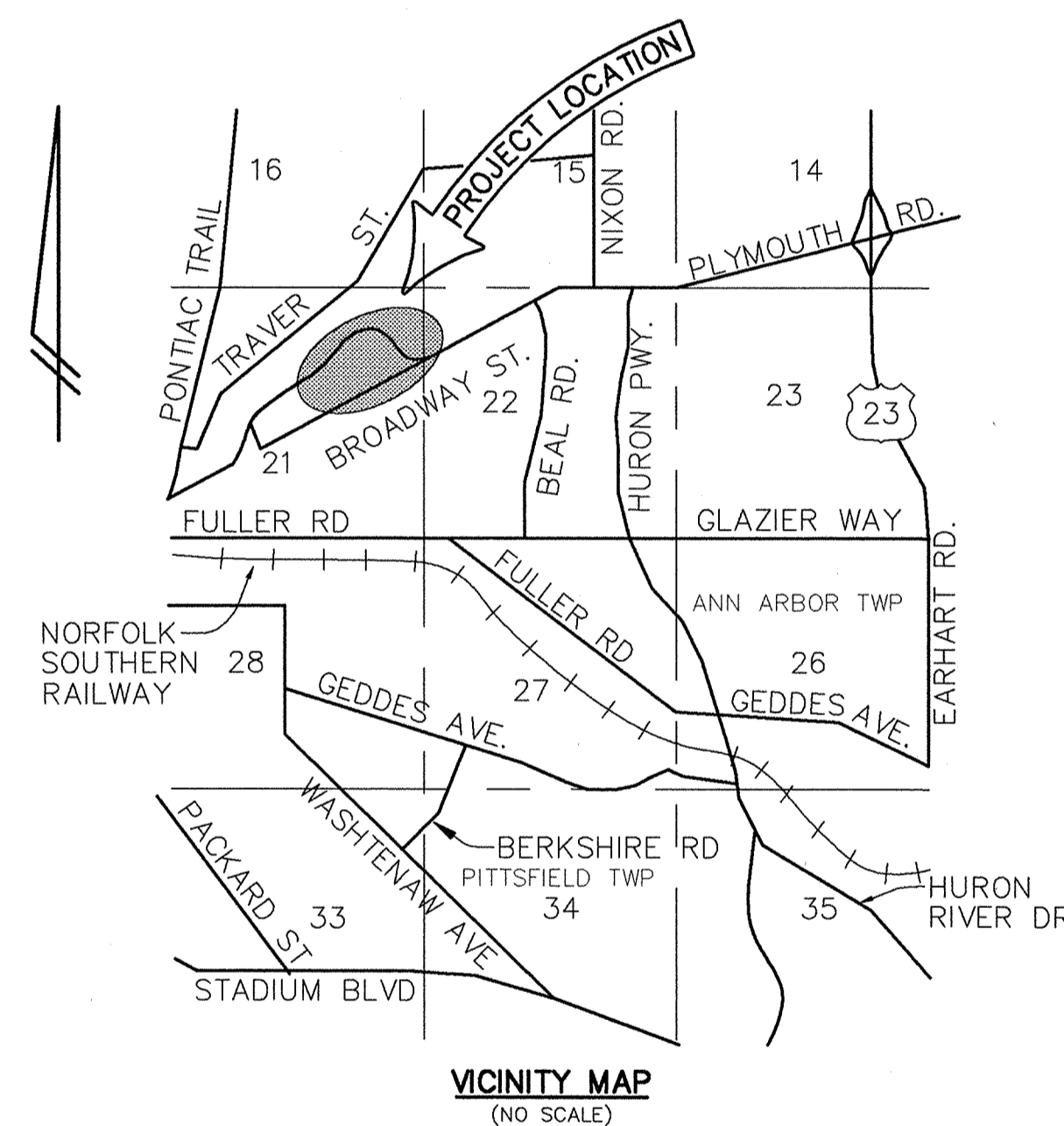
PLYMOUTH ROAD WATER MAIN REPLACEMENT

MAY, 2010

BID NO. ITB-4011 FILE NO. 2007-079

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PERMITS REQUIRED TO BE OBTAINED BY THE CONTRACTOR PRIOR TO THE BEGINNING OF CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR THESE PERMIT FEES.

PERMIT	ISSUING AUTHORITY
LANE CLOSURE PERMIT	CITY OF ANN ARBOR PROJECT MANAGEMENT UNIT
ROW PERMIT	CITY OF ANN ARBOR PLANNING AND DEVELOPMENT SERVICES UNIT
SOIL EROSION CONTROL PERMIT	CITY OF ANN ARBOR PLANNING AND DEVELOPMENT SERVICES UNIT
STORM WATER	WASHTENAW COUNTY DRAIN COMMISSION

PERMITS REQUIRED TO BE OBTAINED BY THE CITY OF ANN ARBOR PRIOR TO THE BEGINNING OF CONSTRUCTION. CITY IS RESPONSIBLE FOR THESE PERMIT FEES.

PERMIT	ISSUING AUTHORITY
MDEQ WATER MAIN CONSTRUCTION PERMIT	MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

THE FOLLOWING UTILITIES ARE LOCATED IN OR NEAR THE RIGHT-OF-WAY FOR THIS PROJECT.

PUBLIC UTILITIES		
W.R. WHEELER SERVICE CENTER FIELD SERVICES UNIT	4251 STONESCHOOL RD. ANN ARBOR, MI 48108	734-794-6350 X4-3314
PRIVATE UTILITIES		
AT&T	550 S. MAPLE ANN ARBOR, MI 48103	734-996-5331
DETROIT EDISON CO.	982 BROADWAY ANN ARBOR, MI 48105	734-332-3321
COMCAST	25626 TELEGRAPH RD. SOUTHFIELD, MI 48033	248-809-2757
MICHCON	3150 E. MICHIGAN YPSILANTI, MI 48198	734-485-8100

THE CONSTRUCTION COVERED BY THESE PLANS SHALL CONFORM TO THE CITY OF ANN ARBOR PUBLIC SERVICES DEPARTMENT STANDARD SPECIFICATIONS, WHICH ARE INCLUDED BY REFERENCE. THE OMISSION OF ANY CURRENT STANDARD DETAIL DOES NOT RELIEVE THE CONTRACTOR FROM THIS REQUIREMENT. THE WORK SHALL BE PERFORMED IN COMPLETE CONFORMANCE WITH THE CURRENT PUBLIC SERVICES STANDARD SPECIFICATIONS AND DETAILS.

3 WORKING DAYS
**BEFORE YOU DIG
CALL MISS DIG**
800-482-7171
(TOLL FREE)

FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 53, THE CONTRACTOR SHALL DIAL 1-800-482-7171 A MINIMUM OF THREE FULL WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS AND HOLIDAYS PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED. MEMBERS WILL THUS BE ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM.

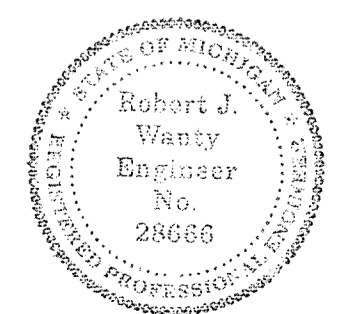
PREPARED UNDER THE SUPERVISION OF

Robert J. Wanty
ROBERT J. WANTY, P.E.

MICHIGAN No. 28666

Igor V. Kotlyar

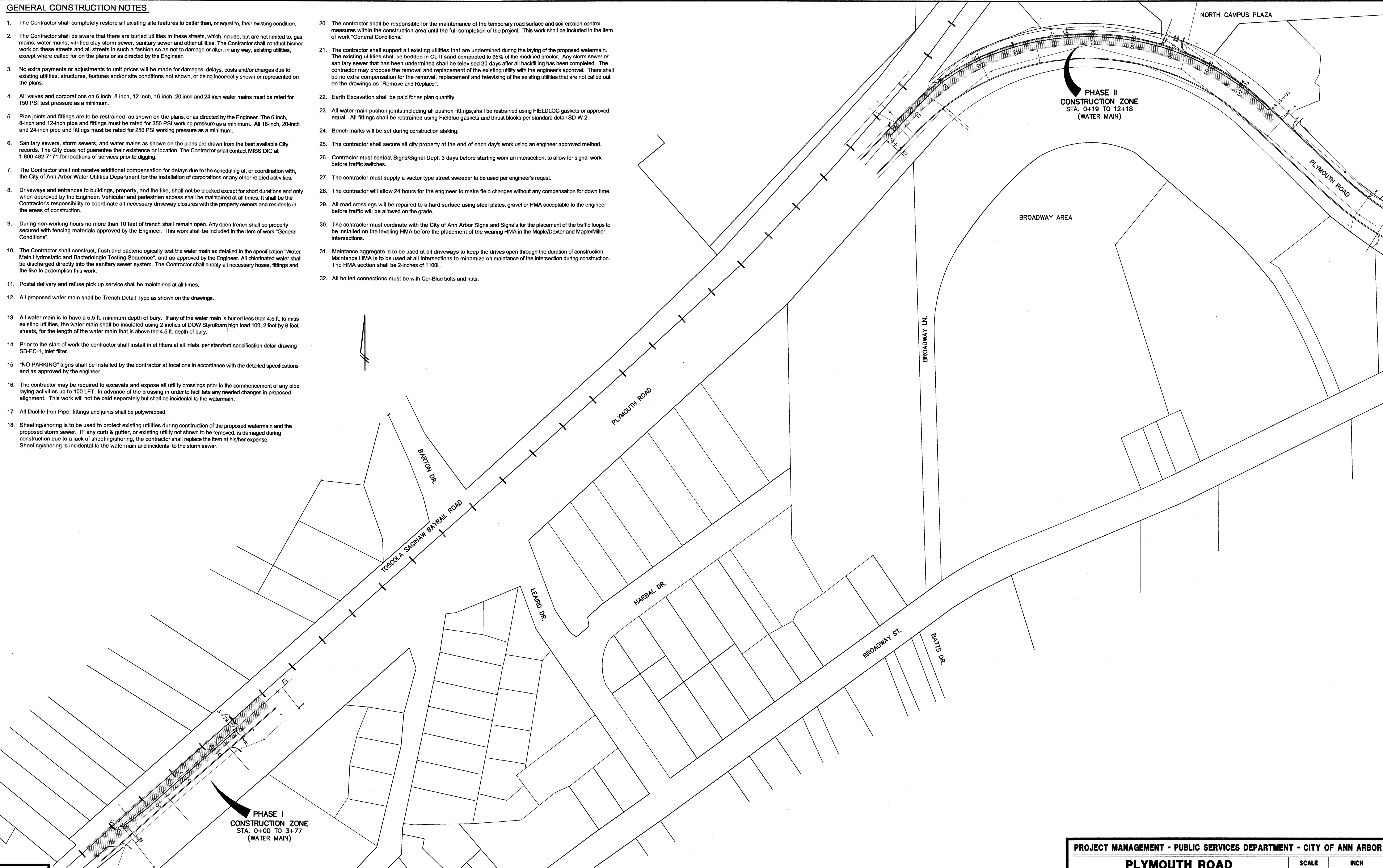
IGOR V. KOTLYAR, P.E.,
SENIOR PROJECT ENGINEER, PROJECT MANAGEMENT SERVICES UNIT



SHEET NO.
2007-079
SHEET NO. 01 OF 10

GENERAL CONSTRUCTION NOTES

- The Contractor shall completely restore all existing site features to better than, or equal to, their existing condition.
- The Contractor shall be aware that there are buried utilities in these streets, which include, but are not limited to, gas mains, water mains, vitrified clay storm sewer, sanitary sewer and other utilities. The Contractor shall conduct his/her work on these streets and all streets in such a fashion so as not to damage or alter, in any way, existing utilities, except where called for on the plans or as directed by the Engineer.
- No extra payments or adjustments to unit prices will be made for damages, delays, costs and/or charges due to existing utilities, structures, features and/or site conditions not shown, or being incorrectly shown or represented on the plans.
- All valves and corporations on 6 inch, 8 inch, 12 inch, 16 inch, 20 inch and 24 inch water mains must be rated for 150 PSI test pressure as a minimum.
- Pipe joints and fittings are to be restrained as shown on the plans, or as directed by the Engineer. The 6-inch, 8-inch and 12-inch pipe and fittings must be rated for 350 PSI working pressure as a minimum. All 16-inch, 20-inch and 24-inch pipe and fittings must be rated for 250 PSI working pressure as a minimum.
- Sanitary sewers, storm sewers, and water mains as shown on the plans are drawn from the best available City records. The City does not guarantee their existence or location. The Contractor shall contact MISS DIG at 1-800-482-7171 for locations of services prior to digging.
- The Contractor shall not receive additional compensation for delays due to the scheduling of, or coordination with, the City of Ann Arbor Water Utilities Department for the installation of corporations or any other related activities.
- Driveways and entrances to buildings, property, and the like, shall not be blocked except for short durations and only when approved by the Engineer. Vehicular and pedestrian access shall be maintained at all times. It shall be the Contractor's responsibility to coordinate all necessary driveway closures with the property owners and residents in the areas of construction.
- During non-working hours no more than 10 feet of trench shall remain open. Any open trench shall be properly secured with fencing materials approved by the Engineer. This work shall be included in the item of work "General Conditions".
- The Contractor shall construct, flush and bacteriologically test the water main as detailed in the specification "Water Main Hydrostatic and Bacteriologic Testing Sequence", and as approved by the Engineer. All chlorinated water shall be discharged directly into the sanitary sewer system. The Contractor shall supply all necessary hoses, fittings and the like to accomplish this work.
- Postal delivery and refuse pick up service shall be maintained at all times.
- All proposed water main shall be Trench Detail Type as shown on the drawings.
- All water main is to have a 5.5 ft. minimum depth of bury. If any of the water main is buried less than 4.5 ft. to miss existing utilities, the water main shall be insulated using 2 inches of DOW Styrofoam high load 100, 2 foot by 8 foot sheets, for the length of the water main that is above the 4.5 ft. depth of bury.
- Prior to the start of work the contractor shall install inlet filters at all inlets per standard specification detail drawing SD-EC-1, inlet filter.
- "NO PARKING" signs shall be installed by the contractor at locations in accordance with the detailed specifications and as approved by the engineer.
- The contractor may be required to excavate and expose all utility crossings prior to the commencement of any pipe laying activities up to 100 LFT. In advance of the crossing in order to facilitate any needed changes in proposed alignment. This work will not be paid separately but shall be incidental to the watermain.
- All Ductile Iron Pipe, fittings and joints shall be polywrapped.
- Sheeting/shoring is to be used to protect existing utilities during construction of the proposed watermain and the proposed storm sewer. If any curb & gutter, or existing utility not shown to be removed, is damaged during construction due to a lack of sheeting/shoring, the contractor shall replace the item at his/her expense. Sheeting/shoring is incidental to the watermain and incidental to the storm sewer.
- The contractor shall be responsible for the maintenance of the temporary road surface and soil erosion control measures within the construction area until the full completion of the project. This work shall be included in the item of work "General Conditions."
- The contractor shall support all existing utilities that are undermined during the laying of the proposed watermain. The existing utilities shall be bedded in CL II sand compacted to 95% of the modified proctor. Any storm sewer or sanitary sewer that has been undermined shall be televised 30 days after all backfilling has been completed. The contractor may propose the removal and replacement of the existing utility with the engineer's approval. There shall be no extra compensation for the removal, replacement and televising of the existing utilities that are not called out on the drawings as "Remove and Replace".
- Earth Excavation shall be paid for as plan quantity.
- All water main pushon joints, including all pushon fittings, shall be restrained using FIELDLOC gaskets or approved equal. All fittings shall be restrained using Fieldloc gaskets and thrust blocks per standard detail SD-W-2.
- Bench marks will be set during construction staking.
- The contractor shall secure all city property at the end of each day's work using an engineer approved method.
- Contractor must contact Signs/Signal Dept. 3 days before starting work an intersection, to allow for signal work before traffic switches.
- The contractor must supply a vactor type street sweeper to be used per engineer's request.
- The contractor will allow 24 hours for the engineer to make field changes without any compensation for down time.
- All road crossings will be repaired to a hard surface using steel plates, gravel or HMA acceptable to the engineer before traffic will be allowed on the grade.
- The contractor must coordinate with the City of Ann Arbor Signs and Signals for the placement of the traffic loops to be installed on the leveling HMA before the placement of the wearing HMA in the Maple/Dexter and Maple/Miller intersections.
- Maintenance aggregate is to be used at all driveways to keep the drives open through the duration of construction. Maintenance HMA is to be used at all intersections to minimize on maintenance of the intersection during construction. The HMA section shall be 2-inches of 1100L.
- All bolted connections must be with Cor-Blue bolts and nuts.



LEGEND

EXISTING FENCE	EXISTING SANITARY SEWER & MANHOLE	EXISTING TELEPHONE	EXISTING RD. @ GRADE	PROPOSED SANITARY SEWER & MANHOLE	PROPOSED CURB & GUTTER	SEE ABOVE	BOOK
- CONTOUR	- UTILITY POLE & GUY	- GAS LINE	- LEFT EDGE/RD. GRADE	- STORM SEWER & CAT. BAS.	- LANDMARK TREE & LABEL (BOLDER LINE THEN OTHERS)	- BENCH MARK	- SURVEY BOOK
- STORM SEWER & CAT. BAS.	- FIRE HYDRANT ASSEMBLY	- CABLE T.V.	- RIGHT EDGE/RD. GRADE	- WATER MAIN W/F.H. ASSEM.	- EXISTING TREE TO BE REMOVED		
- WATER MAIN & VALVE-IN-WELL	- LIGHT POLE	- ELECTRIC	- CURB & GUTTER	- CONTOUR			
- WATER MAIN & VALVE-IN-BOX	- END SECTION			- ROAD @ GRADE			

REV.	NO.	DESCRIPTION	DATE	DR.BY	CH.BY
2		CITY OF ANN ARBOR	03-17-09	JFR	SRG
1		CITY OF ANN ARBOR	10-27-08	JFR	SRG
REV		ORIGINAL ISSUE	06-16-08	JFR	SRG

PROJECT MANAGEMENT - PUBLIC SERVICES DEPARTMENT - CITY OF ANN ARBOR

PLYMOUTH ROAD WATER MAIN REPLACEMENT

OVERALL CONSTRUCTION PLAN

TEMPORARY TRAFFIC CONTROL PLAN

SCALE: HORIZ. 100', VERT. 10'

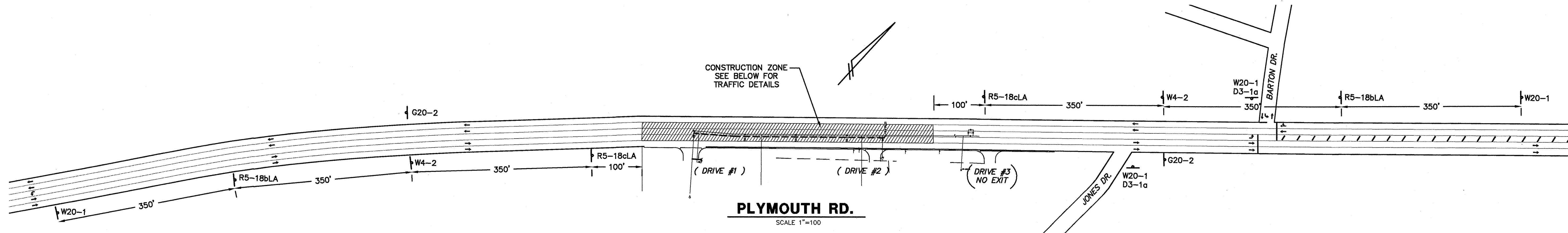
DRAWING NO. **OA-01**

FILE NO. 2007-079

SHEET NO. **02** OF **10**

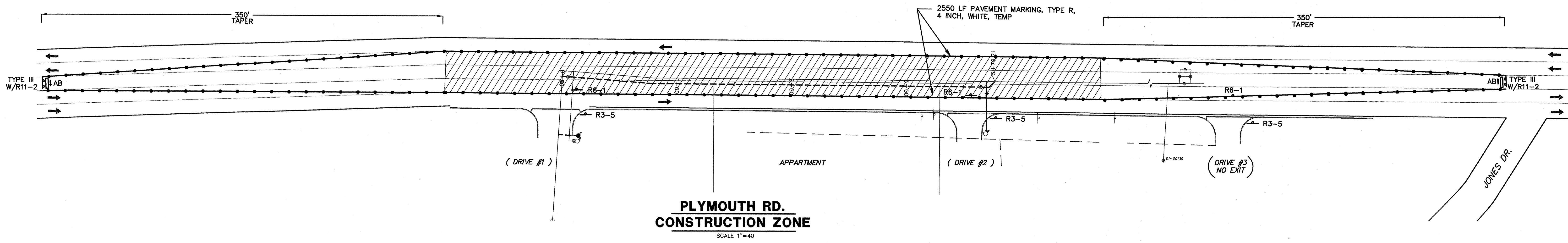
CONSULTANT: WASHTENAW ENGINEERING COMPANY

DWG FILE: 056-02-0A-01 JOB NO. 31056 FILE NO. 9809



PLYMOUTH RD.
SCALE 1"=100

PHASE I



PLYMOUTH RD. CONSTRUCTION ZONE
SCALE 1"=40

INDEX

- PLASTIC DRUM
- ⊥ TYPE III BARRICADE
- ⊥ TYPE A SIGN, TEMP
- ⊥ LIGHTED ARROW BOARD

D3-1A 8" x 24"	G20-2 36" x 18"	R3-5 30" x 30"	R5-18bLA 42" x 60"	R6-1 36" x 12"	R11-2 48" x 30"	R5-18cLA 42" x 60"	W4-2 48" x 48"
							W20-1 48" x 48"

- NOTE:**
- 1) ALL TRAFFIC CONTROL DEVICES SHALL MEET CURRENT MDOT, 2005 MMUTCD AND CITY OF ANN ARBOR STANDARDS.
 - 2) CONTRACTOR IS RESPONSIBLE FOR ALL CITY OF ANN ARBOR PERMITS AND FEES.
 - 3) CONTRACTOR IS TO MAINTAIN ALL TRAFFIC CONTROL DEVICES CONTINUOUSLY.
 - 4) ALTERNATE CLOSING OF DRIVE #1 AND DRIVE #2.
 - 5) DRIVE #3 MUST HAVE ACCESS AT ALL TIMES AND SHALL BE CONSTRUCTED PART WIDTH WITH FLAG CONTROL PERSONNEL.
 - 6) CONTRACTOR TO BAG AND COVER EXISTING SIGNS THAT CONFLICT WITH TEMPORARY TRAFFIC CONTROL ITEMS AS DIRECTED BY THE OWNER'S REPRESENTATIVE.

BENCH MARK: BM#1 - TOP OF S.E. LIGHT POLE-BASE BOLT, 150'± WEST OF ENTRANCE TO BROOKSIDE APARTMENTS. ELEV=800.17. BM#2 - MAG NAIL SOUTH SIDE UTILITY POLE 20'± S.W. OF SERVICE DRIVE. ELEV=843.93. BM#3 - MAG NAIL SOUTH SIDE UTILITY POLE. ELEV=865.61. BM#4 - CITY OF ANN ARBOR BM NO. 2023, BRASS DISC AT SOUTH SIDE OF WALK, 12.5'± EAST OF CROSSING SIGNAL ELEV=893.71.

LEGEND

EXISTING FENCE	EXISTING SANITARY SEWER & MANHOLE	EXISTING TOPOGRAPHY	EXISTING RD. & GRADE	PROPOSED SANITARY SEWER & MANHOLE	PROPOSED CURB & GUTTER	SEE ABOVE BOOK
CONTOUR	UTILITY POLE & GUY	ROAD CENTERLINE	LEFT EDGE/RD. GRADE	STORM SEWER & CAT. BAS.	LANDMARK TREE & LABEL (BOLDER LINE THEN OTHERS)	BENCH MARK
STORM SEWER & CAT. BAS.	FIRE HYDRANT ASSEMBLY	RIGHT EDGE/RD. GRADE	RIGHT EDGE/RD. GRADE	WATER MAIN W/F.H. ASSEM.	EXISTING TREE TO BE REMOVED	SURVEY BOOK
WATER MAIN & VALVE-IN-WELL	LIGHT POLE	CURB & GUTTER	CURB & GUTTER	CONTOUR		REV. NO.
WATER MAIN & VALVE-IN-BOX	END SECTION			ROAD & GRADE		DESCRIPTION

2	CITY OF ANN ARBOR	03-17-09	JFR	SRG
1	CITY OF ANN ARBOR	10-27-08	JFR	SRG
REV	ORIGINAL ISSUE	06-16-08	JFR	SRG

DR.BY	CH.BY

PROJECT MANAGEMENT - PUBLIC SERVICES DEPARTMENT - CITY OF ANN ARBOR

PLYMOUTH ROAD WATER MAIN REPLACEMENT TEMPORARY TRAFFIC CONTROL PLAN PLYMOUTH RD. (PHASE II)

SCALE: HORIZ. 40', VERT. 4'

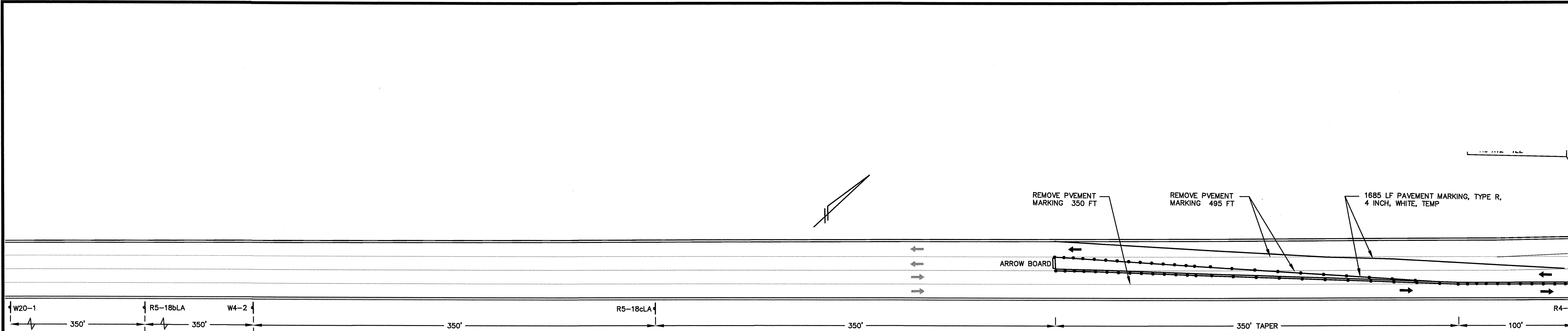
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FILE NO. 2007-079

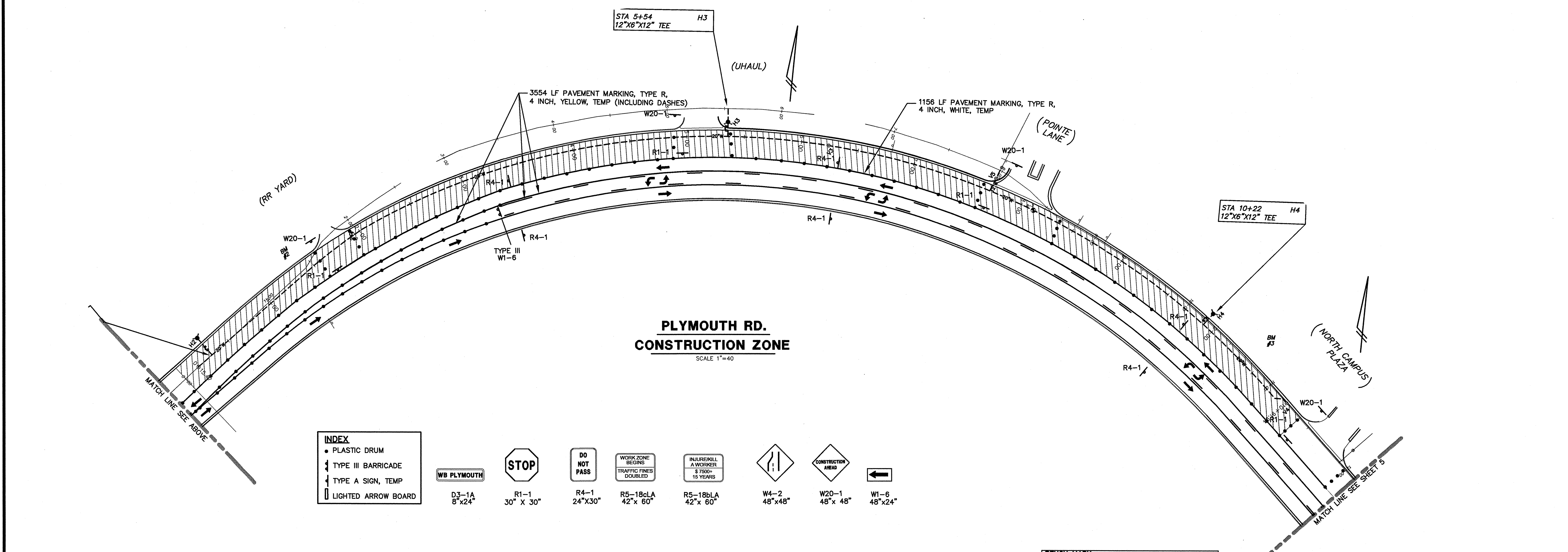
SHEET NO. 03 OF 10

CONSULTANT: WASHTENAW ENGINEERING COMPANY

DWG FILE: 056-05-TC-01 JOB NO. 31058 FILE NO. 9609



**PLYMOUTH RD.
SCALE 1"=40'
PHASE II**



**PLYMOUTH RD.
SCALE 1"=40'
CONSTRUCTION ZONE**

INDEX

- PLASTIC DRUM
- ↓ TYPE III BARRICADE
- ↓ TYPE A SIGN, TEMP
- LIGHTED ARROW BOARD

WB PLYMOUTH	R1-1 30" X 30"	R4-1 24" X 30"	R5-18cLA 42" X 60"	R5-18bLA 42" X 60"	W4-2 48" X 48"	W20-1 48" X 48"	W1-6 48" X 24"
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LEGEND

EXISTING FENCE	EXISTING SANITARY SEWER & MANHOLE	EXISTING TELEPHONE	EXISTING RD. & GRADE	PROPOSED SANITARY SEWER & MANHOLE	PROPOSED CURB & GUTTER	SEE ABOVE	BOOK
CONTOUR	UTILITY POLE & GUY	GAS LINE	LEFT EDGE/RD. GRADE	STORM SEWER & CAT. BAS.	LANDMARK TREE & LABEL	2	CITY OF ANN ARBOR
STORM SEWER & CAT. BAS.	FIRE HYDRANT ASSEMBLY	CABLE T.V.	RIGHT EDGE/RD. GRADE	WATER MAIN W/F.H. ASSEM.	(BOLDER LINE THEN OTHERS)	1	CITY OF ANN ARBOR
WATER MAIN & VALVE-IN-WELL	LIGHT POLE	ELECTRIC	CURB & GUTTER	CONTOUR	EXISTING TREE TO BE REMOVED	REV	ORIGINAL ISSUE
WATER MAIN & VALVE-IN-BOX	END SECTION			ROAD & GRADE		06-16-08	06-16-08

EXISTING TELEPHONE	EXISTING RD. & GRADE	PROPOSED SANITARY SEWER & MANHOLE	PROPOSED CURB & GUTTER
GAS LINE	LEFT EDGE/RD. GRADE	STORM SEWER & CAT. BAS.	LANDMARK TREE & LABEL
CABLE T.V.	RIGHT EDGE/RD. GRADE	WATER MAIN W/F.H. ASSEM.	(BOLDER LINE THEN OTHERS)
ELECTRIC	CURB & GUTTER	CONTOUR	EXISTING TREE TO BE REMOVED
		ROAD & GRADE	

EXISTING TELEPHONE	EXISTING RD. & GRADE	PROPOSED SANITARY SEWER & MANHOLE	PROPOSED CURB & GUTTER
GAS LINE	LEFT EDGE/RD. GRADE	STORM SEWER & CAT. BAS.	LANDMARK TREE & LABEL
CABLE T.V.	RIGHT EDGE/RD. GRADE	WATER MAIN W/F.H. ASSEM.	(BOLDER LINE THEN OTHERS)
ELECTRIC	CURB & GUTTER	CONTOUR	EXISTING TREE TO BE REMOVED
		ROAD & GRADE	

EXISTING TELEPHONE	EXISTING RD. & GRADE	PROPOSED SANITARY SEWER & MANHOLE	PROPOSED CURB & GUTTER
GAS LINE	LEFT EDGE/RD. GRADE	STORM SEWER & CAT. BAS.	LANDMARK TREE & LABEL
CABLE T.V.	RIGHT EDGE/RD. GRADE	WATER MAIN W/F.H. ASSEM.	(BOLDER LINE THEN OTHERS)
ELECTRIC	CURB & GUTTER	CONTOUR	EXISTING TREE TO BE REMOVED
		ROAD & GRADE	

EXISTING TELEPHONE	EXISTING RD. & GRADE	PROPOSED SANITARY SEWER & MANHOLE	PROPOSED CURB & GUTTER
GAS LINE	LEFT EDGE/RD. GRADE	STORM SEWER & CAT. BAS.	LANDMARK TREE & LABEL
CABLE T.V.	RIGHT EDGE/RD. GRADE	WATER MAIN W/F.H. ASSEM.	(BOLDER LINE THEN OTHERS)
ELECTRIC	CURB & GUTTER	CONTOUR	EXISTING TREE TO BE REMOVED
		ROAD & GRADE	

EXISTING TELEPHONE	EXISTING RD. & GRADE	PROPOSED SANITARY SEWER & MANHOLE	PROPOSED CURB & GUTTER
GAS LINE	LEFT EDGE/RD. GRADE	STORM SEWER & CAT. BAS.	LANDMARK TREE & LABEL
CABLE T.V.	RIGHT EDGE/RD. GRADE	WATER MAIN W/F.H. ASSEM.	(BOLDER LINE THEN OTHERS)
ELECTRIC	CURB & GUTTER	CONTOUR	EXISTING TREE TO BE REMOVED
		ROAD & GRADE	

BENCH MARK: BM#1 - TOP OF S.E. LIGHT POLE-BASE BOLT, 150'± WEST OF ENTRANCE TO BROOKSIDE APARTMENTS. ELEV=800.17. **BM#2** - MAG NAIL SOUTH SIDE UTILITY POLE 20'± S.W. OF SERVICE DRIVE. ELEV=843.93. **BM#3** - MAG NAIL SOUTH SIDE UTILITY POLE. ELEV=805.61. **BM#4** - CITY OF ANN ARBOR BM NO. 2023. BRASS DISC AT SOUTH SIDE OF WALK, 12.5'± EAST OF CROSSING SIGNAL. ELEV=893.71.

PROJECT MANAGEMENT - PUBLIC SERVICES DEPARTMENT - CITY OF ANN ARBOR

**PLYMOUTH ROAD
WATER MAIN REPLACEMENT
TEMPORARY TRAFFIC CONTROL PLAN
PLYMOUTH RD. (PHASE III)**

SCALE: HORIZ. 40' INCH, VERT. 4' INCH

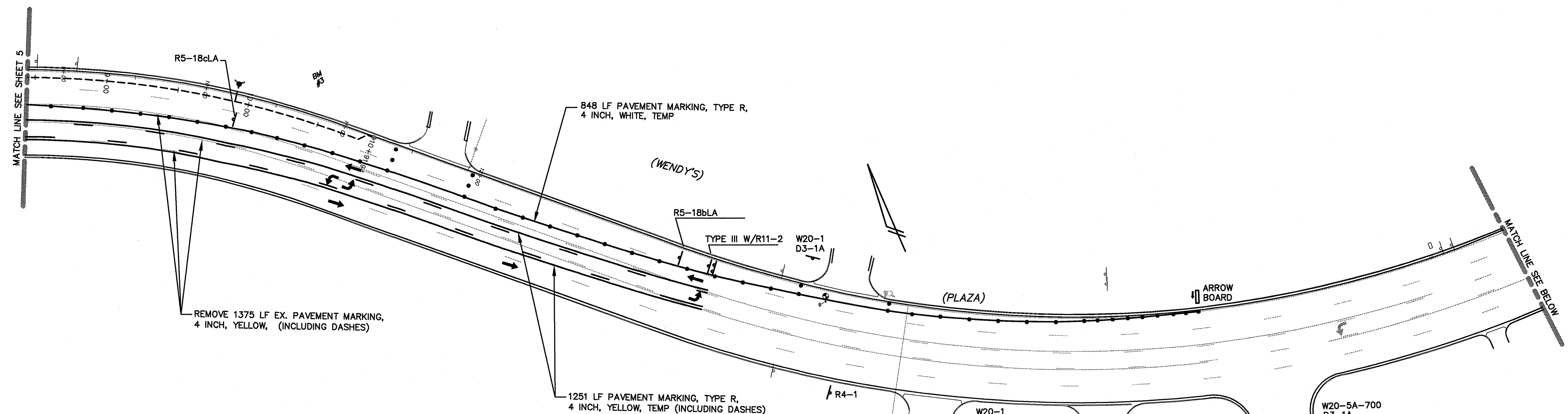
DRAWING NO. **TC-02**

FILE NO. 2007-079

SHEET NO. 04 OF 10

REV. NO.	DESCRIPTION	DATE	DR. BY	CH. BY
2	CITY OF ANN ARBOR	03-17-09	JFR	SRG
1	CITY OF ANN ARBOR	10-27-08	JFR	SRG
REV	ORIGINAL ISSUE	06-16-08	JFR	SRG

CONSULTANT: WASHTENAW ENGINEERING COMPANY
DWG FILE: 056-04-TC-02
JOB NO. 31056 FILE NO. 9609

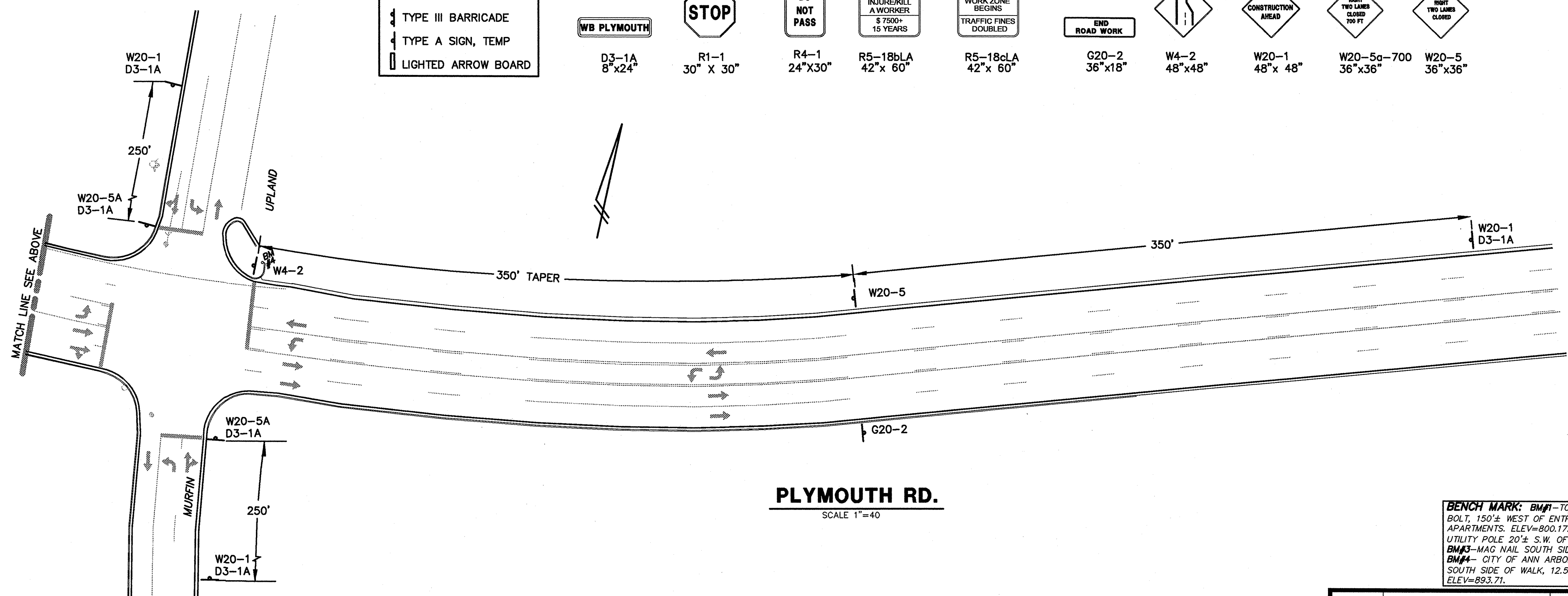


**PLYMOUTH RD.
CONSTRUCTION ZONE
SCALE 1"=40'
PHASE II**

INDEX

- PLASTIC DRUM
- ↓ TYPE III BARRICADE
- ↓ TYPE A SIGN, TEMP
- LIGHTED ARROW BOARD

D3-1A 8"x24"	R1-1 30" X 30"	R4-1 24"x30"	R5-18bLA 42"x 60"	R5-18cLA 42"x 60"	G20-2 36"x18"	W4-2 48"x48"	W20-1 48"x 48"	W20-5A-700 36"x36"	W20-5 36"x36"



**PLYMOUTH RD.
SCALE 1"=40'**

BENCH MARK: BM#1 - TOP OF S.E. LIGHT POLE-BASE BOLT, 150'± WEST OF ENTRANCE TO BROOKSIDE APARTMENTS. ELEV=800.17. **BM#2** - MAG NAIL SOUTH SIDE UTILITY POLE 20'± S.W. OF SERVICE DRIVE. ELEV=843.93. **BM#3** - MAG NAIL SOUTH SIDE UTILITY POLE. ELEV=865.61. **BM#4** - CITY OF ANN ARBOR BM NO. 2023. BRASS DISC AT SOUTH SIDE OF WALK, 12.5'± EAST OF CROSSING SIGNAL. ELEV=893.71.

LEGEND

EXISTING FENCE	EXISTING SANITARY SEWER & MANHOLE	EXISTING TELEPHONE	EXISTING RD. @ GRADE	PROPOSED SANITARY SEWER & MANHOLE	PROPOSED CURB & GUTTER	SEE ABOVE	BOOK
CONTOUR	UTILITY POLE & GUY	GAS LINE	LEFT EDGE/RD. GRADE	STORM SEWER & CAT. BAS.	LANDMARK TREE & LABEL (BOLDER LINE THEN OTHERS)	BENCH MARK	SURVEY BOOK
STORM SEWER & CAT. BAS.	FIRE HYDRANT ASSEMBLY	CABLE T.V.	RIGHT EDGE/RD. GRADE	WATER MAIN W/F.H. ASSEM.	EXISTING TREE TO BE REMOVED		
WATER MAIN & VALVE-IN-WELL	LIGHT POLE	ELECTRIC	CURB & GUTTER	CONTOUR			
WATER MAIN & VALVE-IN-BOX	END SECTION			ROAD @ GRADE			

847	924	847
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847	847	847
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847	847	847
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847	847	847
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REV. NO.	DESCRIPTION	DATE	DR. BY	CH. BY
2	CITY OF ANN ARBOR	03-17-09	JFR	SRG
1	CITY OF ANN ARBOR	10-27-08	JFR	SRG
REV	ORIGINAL ISSUE	06-16-08	JFR	SRG

PROJECT MANAGEMENT - PUBLIC SERVICES DEPARTMENT - CITY OF ANN ARBOR

**PLYMOUTH ROAD
WATER MAIN REPLACEMENT
TEMPORARY TRAFFIC CONTROL PLAN
PLYMOUTH RD. (PHASE III)**

SCALE	INCH
HORIZ. 40'	0
VERT. 4'	40'

DRAWING NO. **TC-03**

FILE NO. 2007-079

SHEET NO. 05 OF 10

CONSULTANT: WASHTENAW ENGINEERING COMPANY DWG FILE: 055-05-TC-03 JOB NO. 31056 FILE NO. 9609

WATER MAIN NOTES:

- 1) WATER MAIN DEPTH OF COVER SHALL BE MINIMUM OF 5.5 FEET.
- 2) ALL WATER MAIN SHALL BE DUCTILE IRON PIPE, CLASS 50 WITH POLYWRAP.
- 3) VALVES SHALL BE RESILIENT WEDGE GATE VALVES.
- 4) GATE WELLS SHALL BE PRECAST CONCRETE, CONCENTRIC AND WATER TIGHT.
- 5) THE CONSTRUCTION COVERED BY THESE PLANS SHALL CONFORM TO CITY OF ANN ARBOR PUBLIC SERVICES DEPARTMENT STANDARD SPECIFICATIONS WHICH ARE INCLUDED BY REFERENCED.
- 6) FIRE HYDRANTS MUST BE EJ1W 5BR-250.
- 7) CURB REPLACEMENT PER CITY OF ANN ARBOR STANDARD DETAILS, SD-R-1.
- 8) ALL ABANDONED HYDRANTS AND VALVES SHALL BE REMOVED AND DELIVERED TO FIELD SERVICES UNIT AT THE WHEELER SERVICE CENTER, 4251 STONE SCHOOL ROAD.
- 9) ALL BOLTED CONNECTIONS MUST BE WITH COR-BLUE BOLTS AND NUTS.

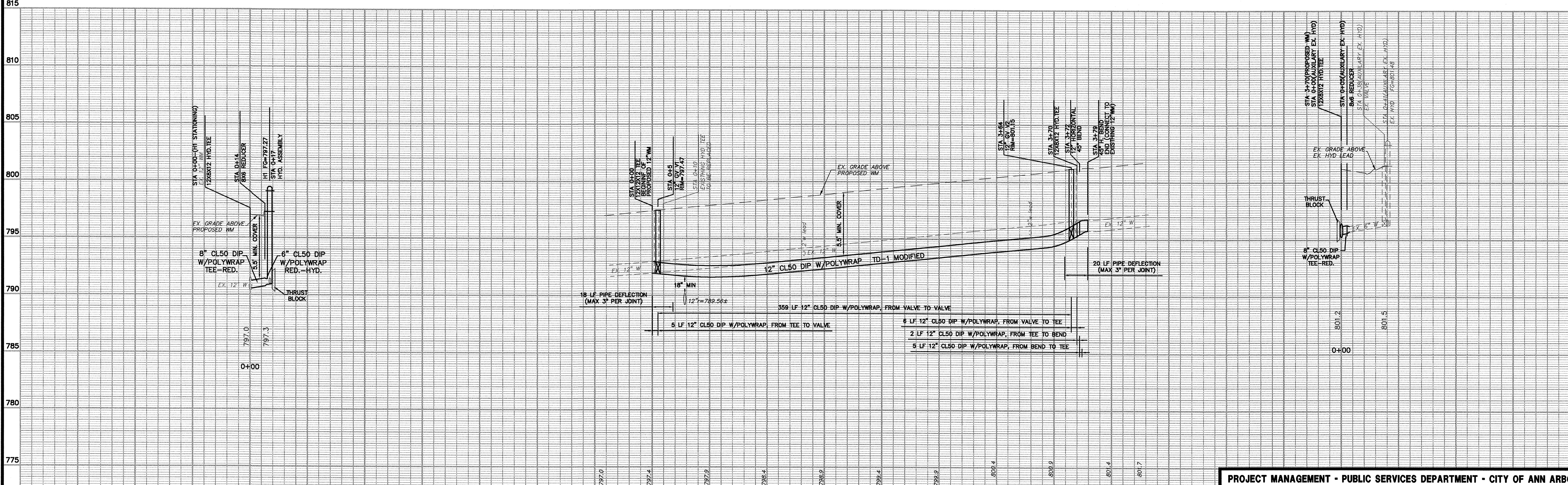
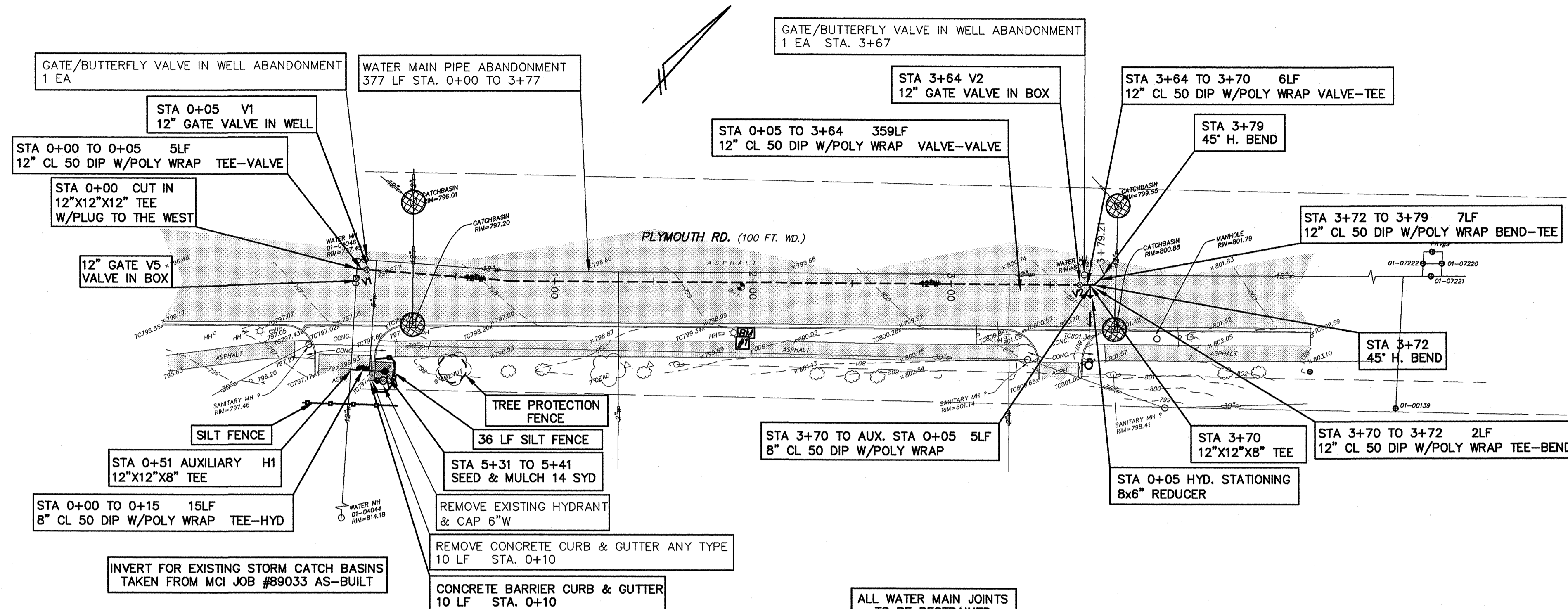
LEGEND

- SILT FENCE
- PROTECTIVE FENCE
- INLET FILTER

SILT FENCE
50 LF STA.-(0+25) TO 0+25
35 LF STA. (0+13)

PROTECTIVE FENCE
30 LF TREE AT STA. 0+52

BENCH MARK: BM#1 - TOP OF S.E. LIGHT POLE-BASE BOLT, 150'± WEST OF ENTRANCE TO BROOKSIDE APARTMENTS. ELEV=800.17. **BM#2** - MAG NAIL SOUTH SIDE UTILITY POLE 20'± S.W. OF SERVICE DRIVE. ELEV=843.93. **BM#3** - MAG NAIL SOUTH SIDE UTILITY POLE. ELEV=865.61. **BM#4** - CITY OF ANN ARBOR BM NO. 2023, BRASS DISC AT SOUTH SIDE OF WALK, 12.5'± EAST OF CROSSING SIGNAL. ELEV=893.71.



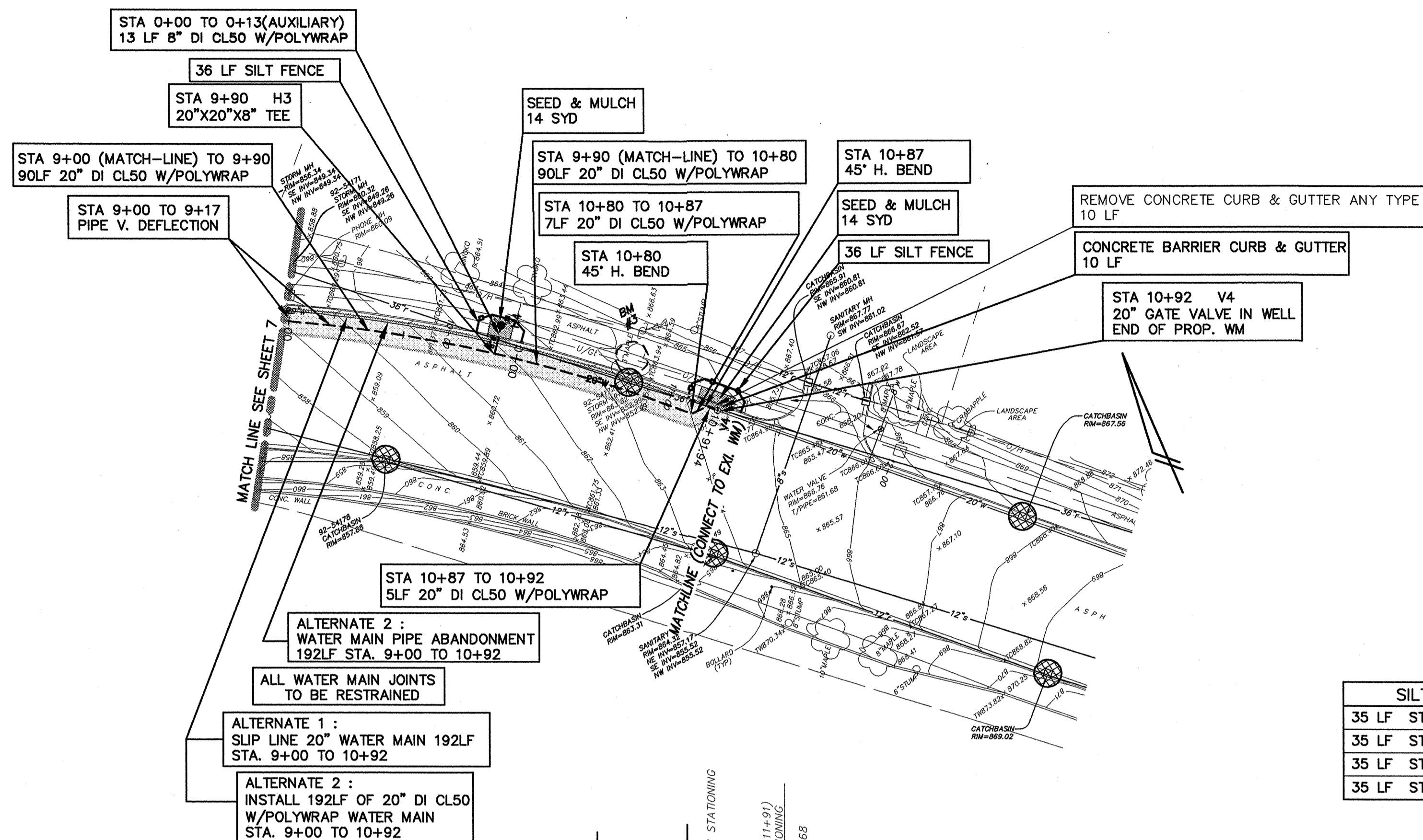
LEGEND

EXISTING FENCE		EXISTING SANITARY SEWER & MANHOLE		EXISTING TELEPHONE		EXISTING RD. & GRADE		PROPOSED SANITARY SEWER & MANHOLE		PROPOSED CURB & GUTTER		SEE ABOVE	
CONTOUR		UTILITY POLE & GUY		GAS LINE		LEFT EDGE/RD. GRADE		STORM SEWER & CAT. BAS.		LANDMARK TREE & LABEL (BOLDER LINE THEN OTHERS)		BOOK	
STORM SEWER & CAT. BAS.		FIRE HYDRANT ASSEMBLY		CABLE T.V.		RIGHT EDGE/RD. GRADE		WATER MAIN W/F.H. ASSEM.		EXISTING TREE TO BE REMOVED		REV	
WATER MAIN & VALVE-IN-WELL		LIGHT POLE		ELECTRIC		CURB & GUTTER		CONTOUR				ORIGINAL ISSUE	
WATER MAIN & VALVE-IN-BOX		END SECTION						ROAD & GRADE				DATE	

SEE ABOVE	BOOK	2	CITY OF ANN ARBOR	03-17-09	JFR	SRG
BENCH MARK	SURVEY BOOK	1	CITY OF ANN ARBOR	10-27-08	JFR	SRG
REV	DESCRIPTION	DATE	DR. BY	CH. BY		
	ORIGINAL ISSUE	06-16-08	JFR	SRG		

PROJECT MANAGEMENT	PUBLIC SERVICES DEPARTMENT	CITY OF ANN ARBOR
PLYMOUTH ROAD WATER MAIN REPLACEMENT		
WATER MAIN PLAN & PROFILE PLYMOUTH RD. (PHASE II)		
CONSULTANT: WASHTENAW ENGINEERING COMPANY	DWG FILE: 056-06-WM-01	FILE NO. 9609
JOB NO. 31056	FILE NO. 9609	

SCALE	INCH
HORIZ. 40'	0
VERT. 4'	40'
DRAWING NO.	WM-01
FILE NO.	2007-079
SHEET NO.	06 OF 10



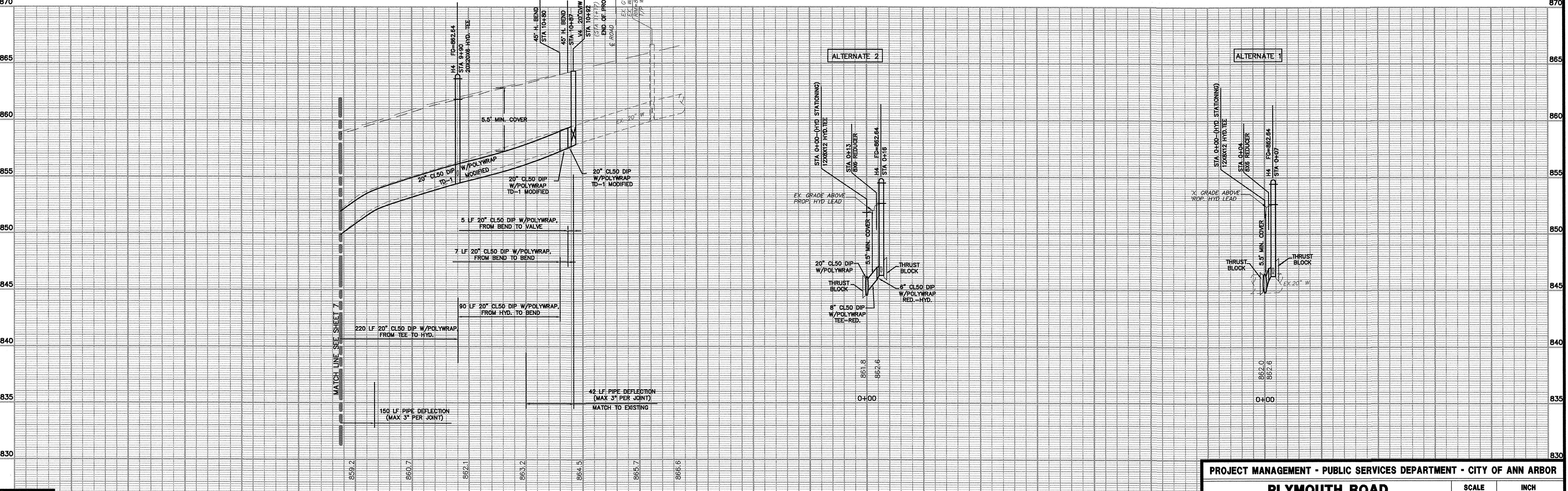
- WATER MAIN NOTES:**
- 1) WATER MAIN DEPTH OF COVER SHALL BE MINIMUM OF 5.5 FEET.
 - 2) ALL WATER MAIN SHALL BE DUCTILE IRON PIPE, CLASS 50 WITH POLYWRAP.
 - 3) VALVES SHALL BE RESILIENT WEDGE GATE VALVES.
 - 4) GATE WELLS SHALL BE PRECAST CONCRETE, CONCENTRIC AND WATER TIGHT.
 - 5) THE CONSTRUCTION COVERED BY THESE PLANS SHALL CONFORM TO CITY OF ANN ARBOR PUBLIC SERVICES DEPARTMENT STANDARD SPECIFICATIONS WHICH ARE INCLUDED BY REFERENCED.
 - 6) FIRE HYDRANTS MUST BE EJ1W 5BR-250.
 - 7) CURB REPLACEMENT PER CITY OF ANN ARBOR STANDARD DETAILS, SD-R-1.
 - 8) ALL ABANDONED HYDRANTS AND VALVES SHALL BE REMOVED AND DELIVERED TO FIELD SERVICES UNIT AT THE WHEELER SERVICE CENTER, 4251 STONE SCHOOL ROAD.

LEGEND

	SILT FENCE
	PROTECTIVE FENCE
	INLET FILTER

SILT FENCE		PROTECTIVE FENCE	
35 LF	STA.0+22 TO 0+42	45 LF	TREE AT STA. 4+44
35 LF	STA.5+26 TO 5+46	45 LF	TREE AT STA. 10+48
35 LF	STA.9+81 TO 10+00		
35 LF	STA.10+76 TO 11+02		

BENCH MARK: BM#1 - TOP OF S.E. LIGHT POLE-BASE BOLT, 150'± WEST OF ENTRANCE TO BROOKSIDE APARTMENTS. ELEV=800.17. BM#2 - MAG NAIL SOUTH SIDE UTILITY POLE 20'± S.W. OF SERVICE DRIVE. ELEV=843.93. BM#3 - MAG NAIL SOUTH SIDE UTILITY POLE. ELEV=865.61. BM#4 - CITY OF ANN ARBOR BM NO. 2023, BRASS DISC AT SOUTH SIDE OF WALK, 12.5'± EAST OF CROSSING SIGNAL. ELEV=893.71.



LEGEND

EXISTING FENCE		EXISTING SANITARY SEWER & MANHOLE		EXISTING TELEPHONE		EXISTING RD. & GRADE		PROPOSED SANITARY SEWER & MANHOLE		PROPOSED CURB & GUTTER		SEE ABOVE	
CONTOUR		UTILITY POLE & GUY		GAS LINE		LEFT EDGE/RD. GRADE		STORM SEWER & CAT. BAS.		LANDMARK TREE & LABEL (BOLDER LINE THEN OTHERS)		BOOK	
STORM SEWER & CAT. BAS.		FIRE HYDRANT ASSEMBLY		CABLE T.V.		RIGHT EDGE/RD. GRADE		WATER MAIN W/F.H. ASSEM.		EXISTING TREE TO BE REMOVED		REV	
WATER MAIN & VALVE-IN-WELL		LIGHT POLE		ELECTRIC		CURB & GUTTER		CONTOUR				DESCRIPTION	
WATER MAIN & VALVE-IN-BOX		END SECTION						ROAD & GRADE				DATE	

2	CITY OF ANN ARBOR	03-17-09	JFR	SRG
1	CITY OF ANN ARBOR	10-27-08	JFR	SRG
REV	ORIGINAL ISSUE	06-16-08	JFR	SRG
REV. NO.	DESCRIPTION	DATE	DR.BY	CH.BY

2	CITY OF ANN ARBOR	03-17-09	JFR	SRG
1	CITY OF ANN ARBOR	10-27-08	JFR	SRG
REV	ORIGINAL ISSUE	06-16-08	JFR	SRG
REV. NO.	DESCRIPTION	DATE	DR.BY	CH.BY

PROJECT MANAGEMENT - PUBLIC SERVICES DEPARTMENT - CITY OF ANN ARBOR

PLYMOUTH ROAD WATER MAIN REPLACEMENT

WATER MAIN PLAN & PROFILE PLYMOUTH RD.

SCALE: HORIZ. 40' VERT. 4'

DRAWING NO. **WM-03**

FILE NO. 2007-079

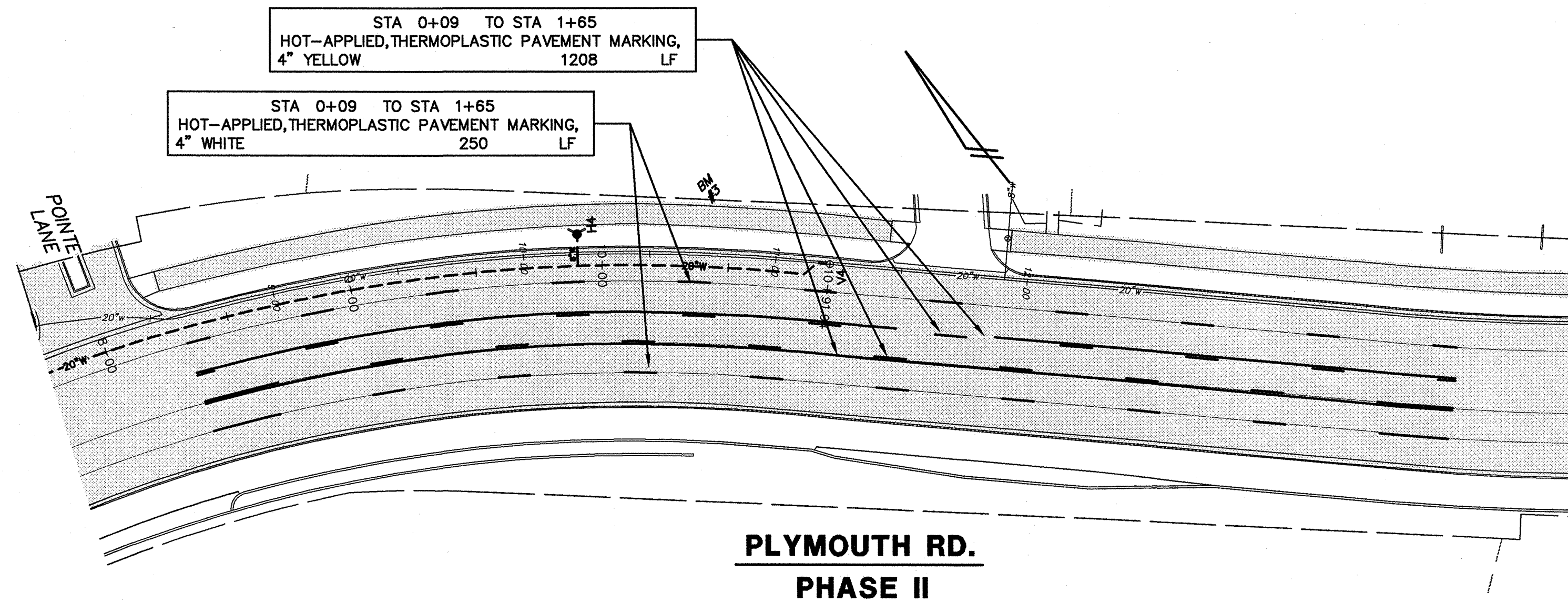
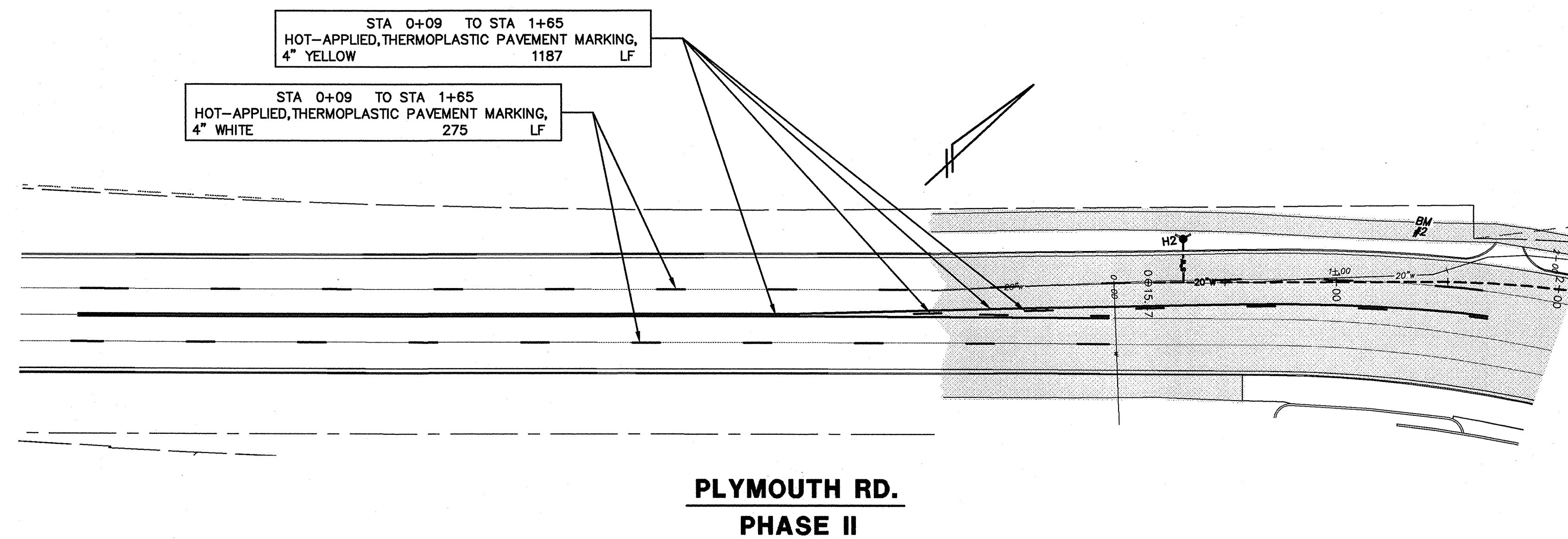
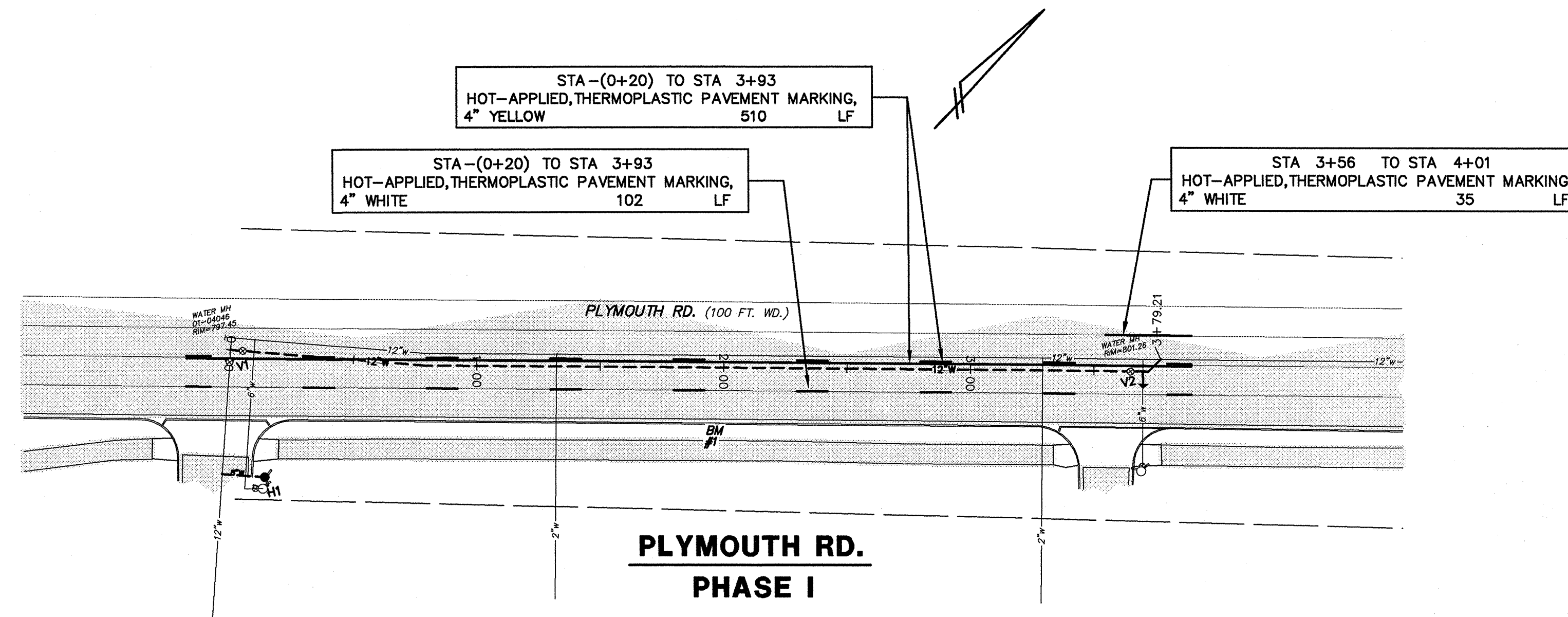
SHEET NO. 08 OF 10

CONSULTANT: WASHTENAW ENGINEERING COMPANY

DWG FILE: 056-08-WM-03

JOB NO. 31056

FILE NO. 9809



BENCHMARK: BM#1 - TOP OF S.E. LIGHT POLE-BASE BOLT, 150'± WEST OF ENTRANCE TO BROOKSIDE APARTMENTS. ELEV=800.17. BM#2 - MAG NAIL SOUTH SIDE UTILITY POLE 20'± S.W. OF SERVICE DRIVE. ELEV=843.93. BM#3 - MAG NAIL SOUTH SIDE UTILITY POLE. ELEV=865.61. BM#4 - CITY OF ANN ARBOR BM NO. 2023. BRASS DISC AT SOUTH SIDE OF WALK, 12.5'± EAST OF CROSSING SIGNAL. ELEV=893.71.

LEGEND

EXISTING FENCE	--- --- ---	EXISTING SANITARY SEWER & MANHOLE	—○—	EXISTING TELEPHONE	—i—
CONTOUR	---	UTILITY POLE & GUY	—○—	GAS LINE	—g—
STORM SEWER & CAT. BAS.	—S—	FIRE HYDRANT ASSEMBLY	—○—	CABLE T.V.	—t—
WATER MAIN & VALVE-IN-WELL	—W—	LIGHT POLE	—○—	ELECTRIC	—e—
WATER MAIN & VALVE-IN-BOX	—W—	END SECTION	—○—		

EXISTING RD. & GRADE	—	PROPOSED SANITARY SEWER & MANHOLE	—S—	PROPOSED CURB & GUTTER	—C—
LEFT EDGE/RD. GRADE	—	STORM SEWER & CAT. BAS.	—S—	LANDMARK TREE & LABEL (BOLDER LINE THEN OTHERS)	—T—
RIGHT EDGE/RD. GRADE	—	WATER MAIN W/F.H. ASSEM.	—W—	EXISTING TREE TO BE REMOVED	—X—
CURB & GUTTER	—	CONTOUR	—		
		ROAD & GRADE	—		

SEE ABOVE	BOOK	2	CITY OF ANN ARBOR	03-17-09	JFR	SRG
BENCH MARK	SURVEY BOOK	1	CITY OF ANN ARBOR	10-27-08	JFR	SRG
		REV	ORIGINAL ISSUE	06-16-08	JFR	SRG

REV. NO.	DESCRIPTION	DATE	DR. BY	CH. BY
2	CITY OF ANN ARBOR	03-17-09	JFR	SRG
1	CITY OF ANN ARBOR	10-27-08	JFR	SRG
REV	ORIGINAL ISSUE	06-16-08	JFR	SRG

PROJECT MANAGEMENT - PUBLIC SERVICES DEPARTMENT - CITY OF ANN ARBOR

**PLYMOUTH ROAD
WATER MAIN REPLACEMENT
PAVEMENT MARKING PLANS
PLYMOUTH RD.**

SCALE	INCH
HORIZ. 40'	0 40'
VERT. 4'	0 4'
DRAWING NO.	PM-01
FILE NO.	2007-079
SHEET NO.	09 OF 10

CONSULTANT, WASHTEMAW ENGINEERING COMPANY DWG. FILE: 056-09-PM-01 JOB NO. 31056 FILE NO. 9609

