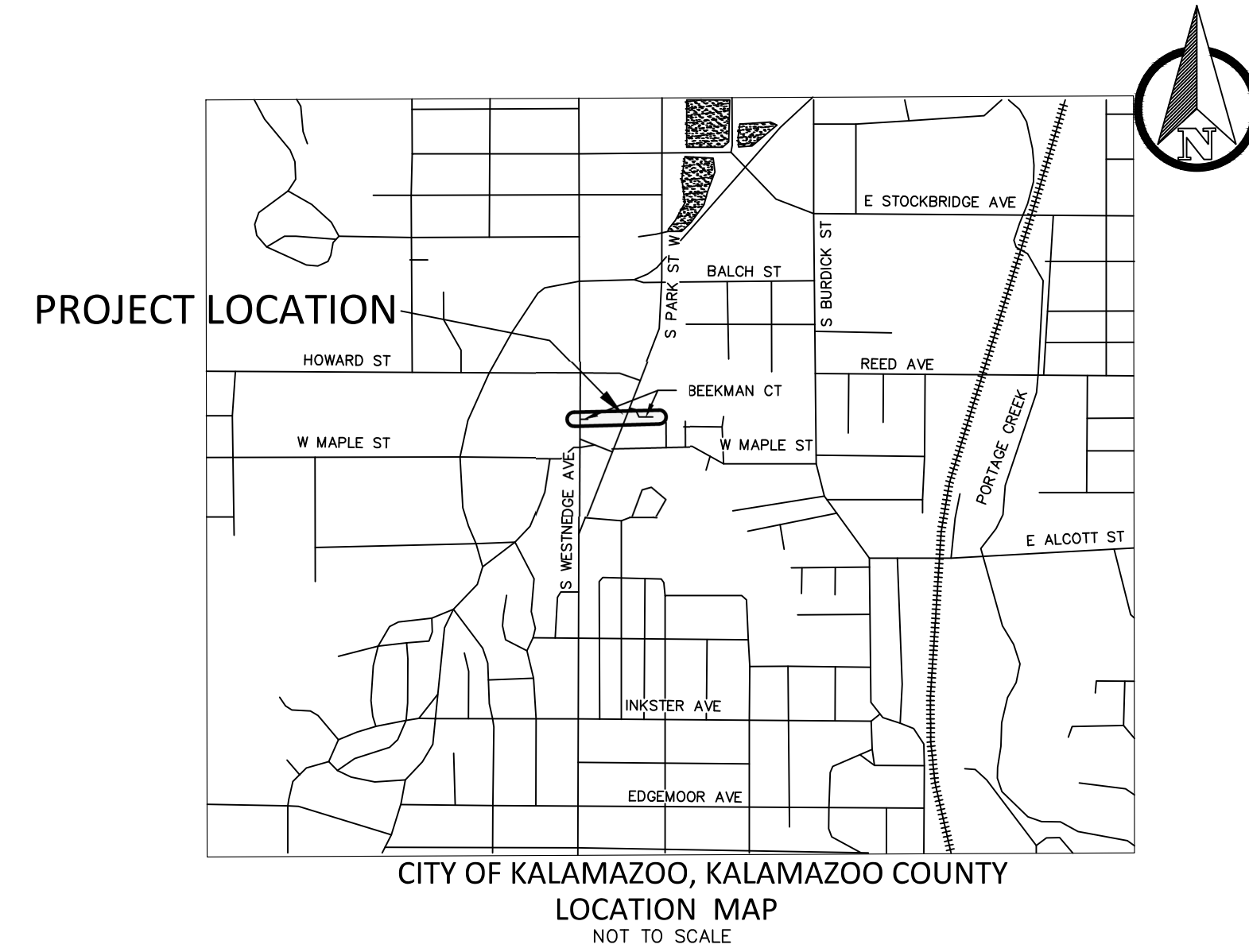
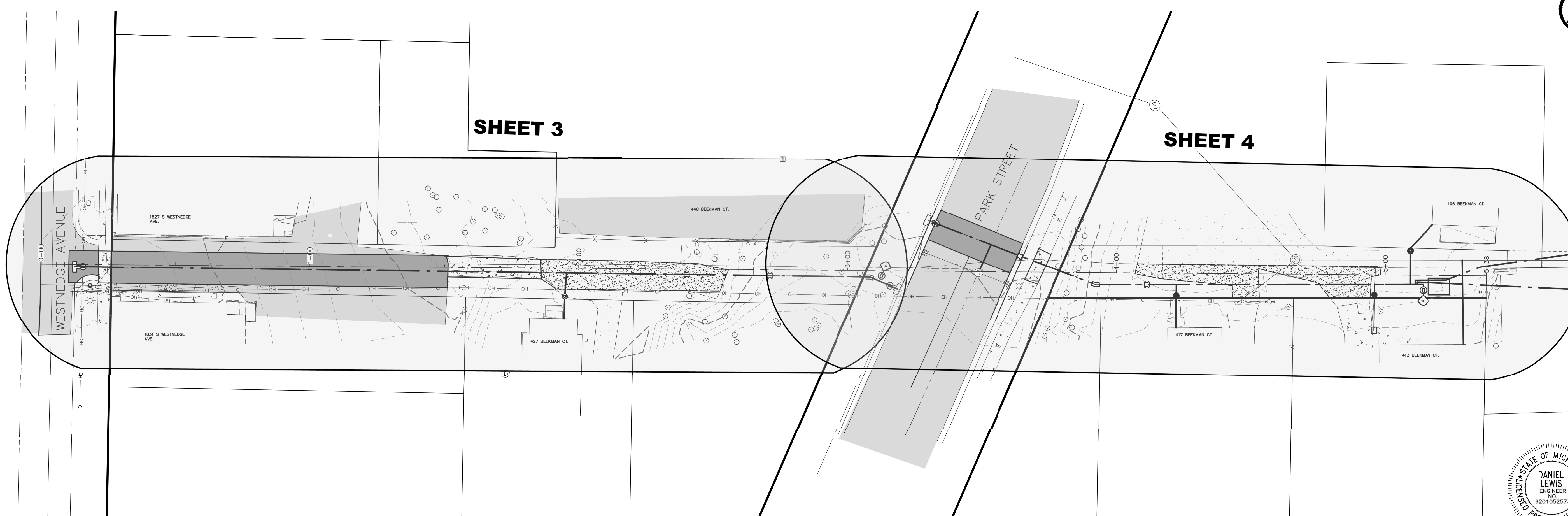


CITY OF KALAMAZOO KALAMAZOO COUNTY, MICHIGAN

BEEKMAN COURT WATERMAIN



SHEET No.	DESCRIPTION
1 OF 6	TITLE SHEET
2 OF 6	DEMO PLAN
3 OF 6	PLAN & PROFILE 1
4 OF 6	PLAN & PROFILE 2
5 OF 6	PROJECT DETAILS & SESC PLAN
6 OF 6	MAINTENANCE OF TRAFFIC PLAN



**Know what's below.
Call before you dig.**

UTILITY LOCATIONS ARE DERIVED FROM ACTUAL MEASUREMENTS OR AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT. LOCATIONS MAY VARY FROM THE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THE AREA.



OWNER
CITY OF KALAMAZOO
ANNA CRANDALL
(269) 337-8020
CRANDALLA@KALAMAZOOCITY.ORG

DESIGN ENGINEER
VK CIVIL
DAN LEWIS, P.E.
269-697-7120
DAN@VKCIVIL.COM

NO.	DATE	REVISION	BY
1	09/09/2022	25% PLAN SET	NEF
2	09/30/2022	75% PLAN SET	MDS
3	11/11/2022	95% PLAN SET	NEF
4	12/21/2022	100% PLAN SET	MDS
5	01/06/2023	100% PLAN SET WITH CITY COMMENTS	MDS

CITY OF KALAMAZOO
KALAMAZOO COUNTY, MICHIGAN

**BEEKMAN COURT WATERMAIN
TITLE SHEET**

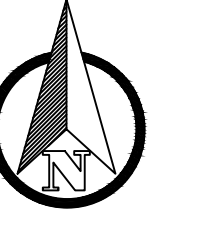
Vriesman & Korhorn

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Kalamazoo, MI (269) 697-7120
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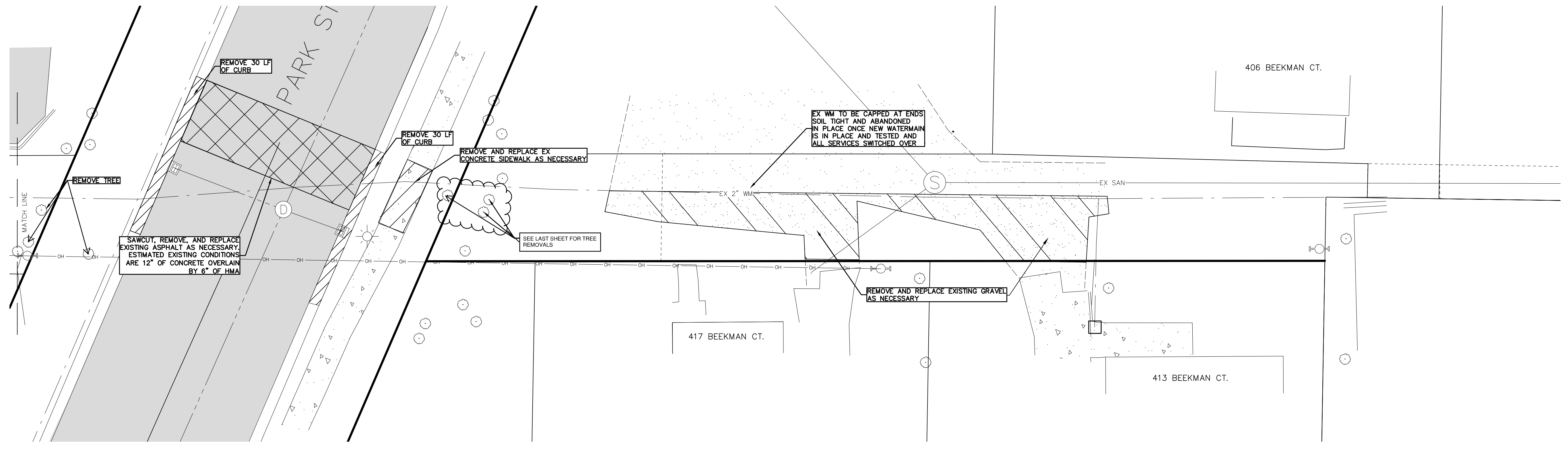
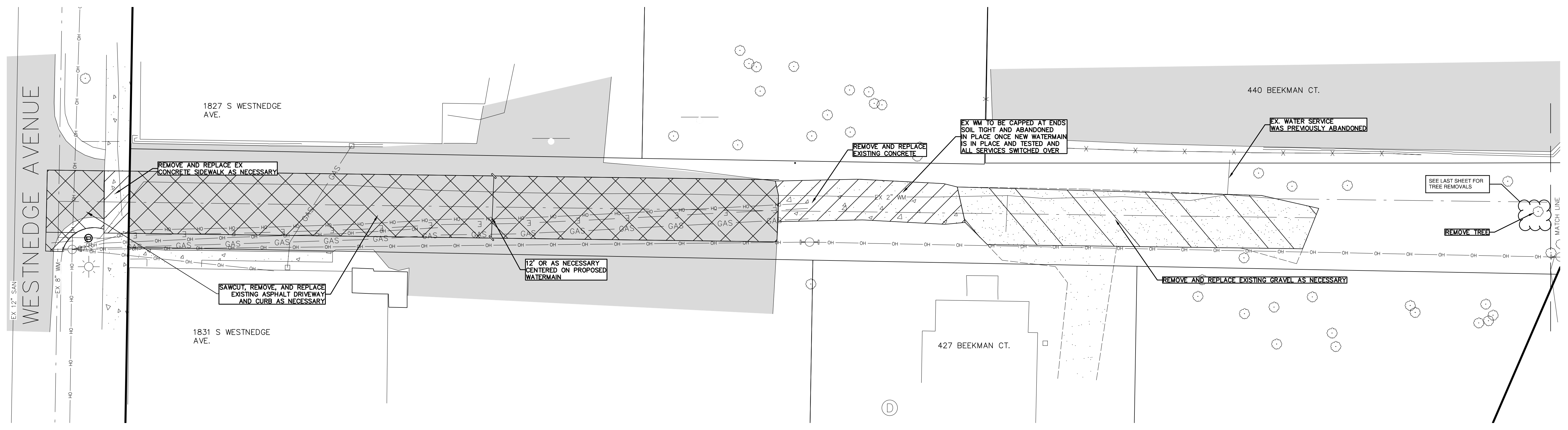
FILE NO. 1094

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Sheet No. 1 OF 8



SCALE: 1" = 10'



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1	09/09/2022	25% PLAN SET	NEF
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CITY OF KALAMAZOO
KALAMAZOO COUNTY, MICHIGAN

**BEEKMAN COURT WATERMAIN
DEMO PLAN**



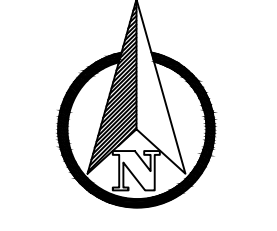
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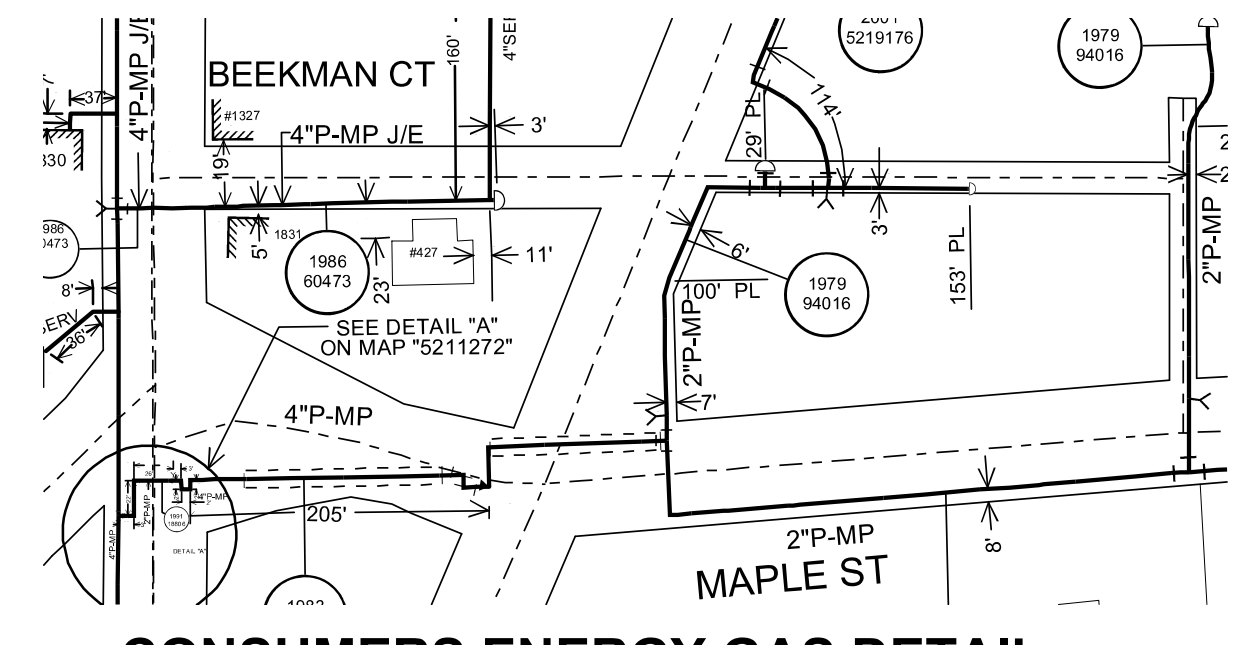
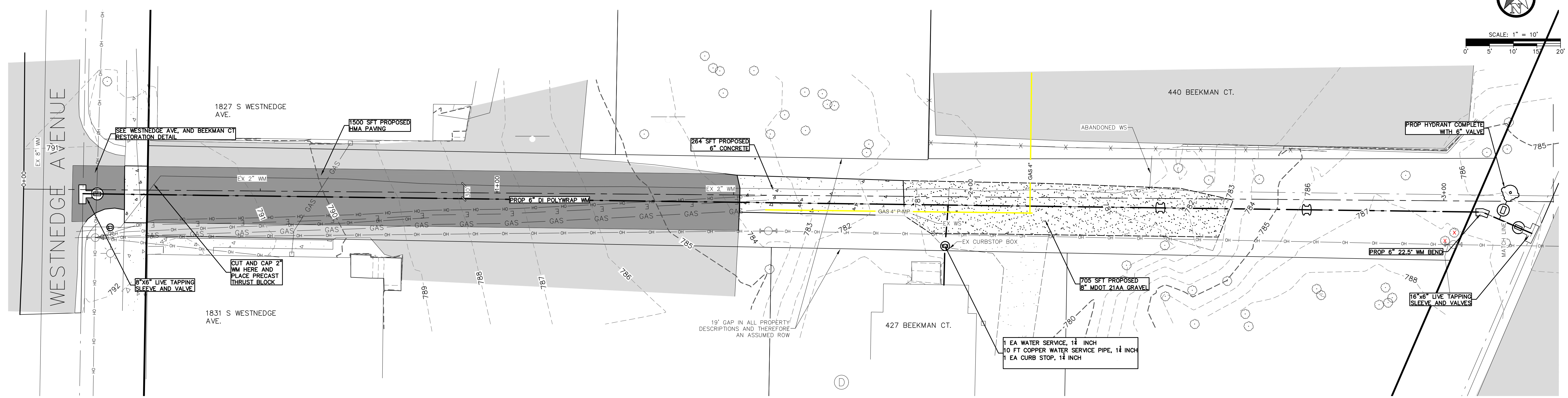
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Sheet No. 2 OF 8



SCALE: 1" = 10'



CONSUMERS ENERGY GAS DETAIL

BEEKMAN CT WATERMAIN PROFILE
 HORIZONTAL SCALE: 1" = 10'
 VERTICAL SCALE: 1" = 5'

POLYWRAPPED PIPE								
Pipe Size (Inches)	90° Bend	45° Bend	22.5° Bend	11.25° Bend	Tee*	Reducer (One Size)	Reducer (Two Sizes)	Dead End
4	62	26	13	7	60	-	-	60
6	88	37	18	9	84	44	-	84
8	117	49	24	12	111	47	80	111
10	142	59	29	14	133	45	82	133
12	170	71	34	17	158	47	84	158
16	224	93	45	23	203	87	121	203
20	278	116	56	28	247	87	155	247
24	332	138	66	33	291	87	159	291
30	411	171	82	41	351	123	191	351

* Length of restraint for branch; use the size of the branch
 Consult Engineer for scenarios not included in table.

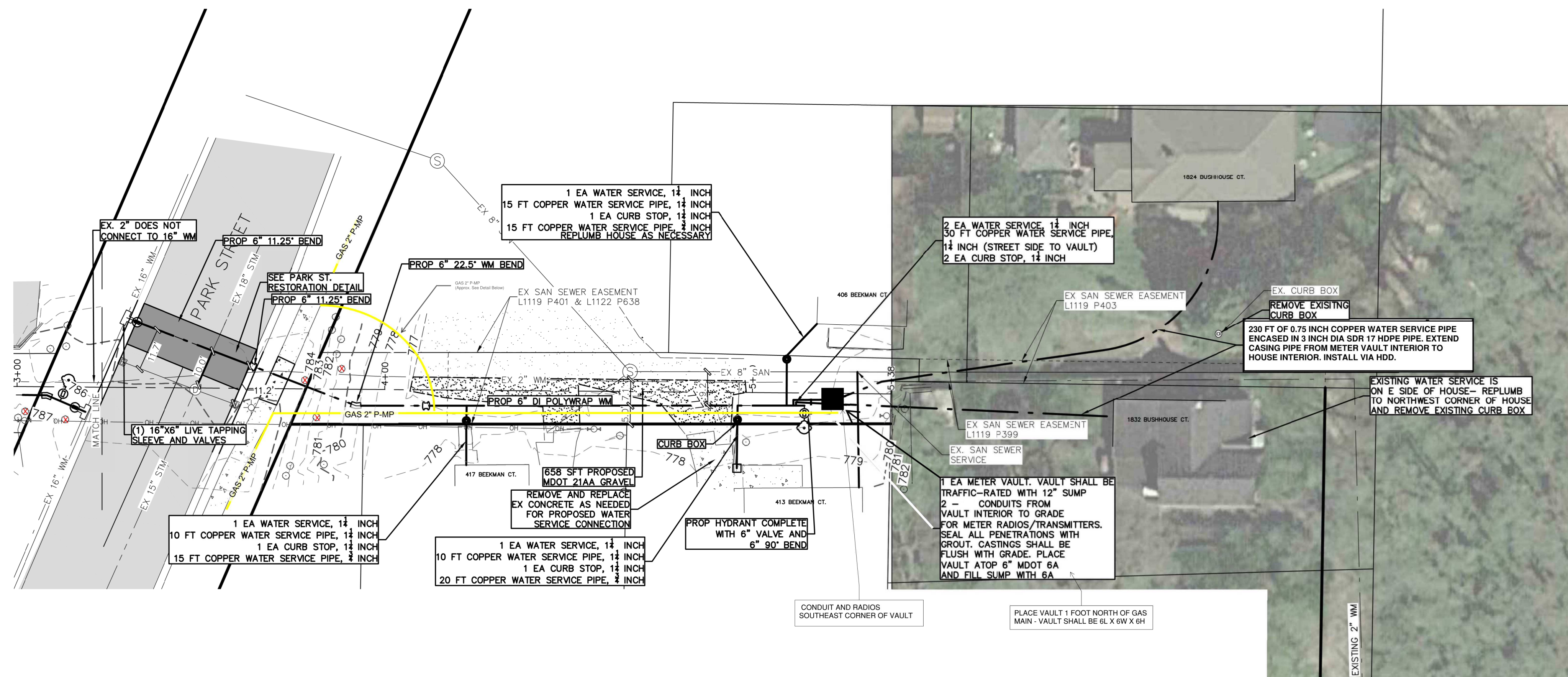
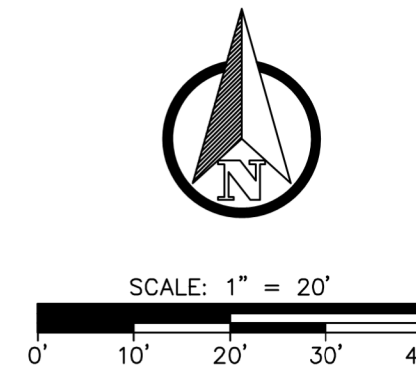
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CITY OF KALAMAZOO
 KALAMAZOO COUNTY, MICHIGAN
**BEEKMAN COURT WATERMAIN
 PLAN & PROFILE**

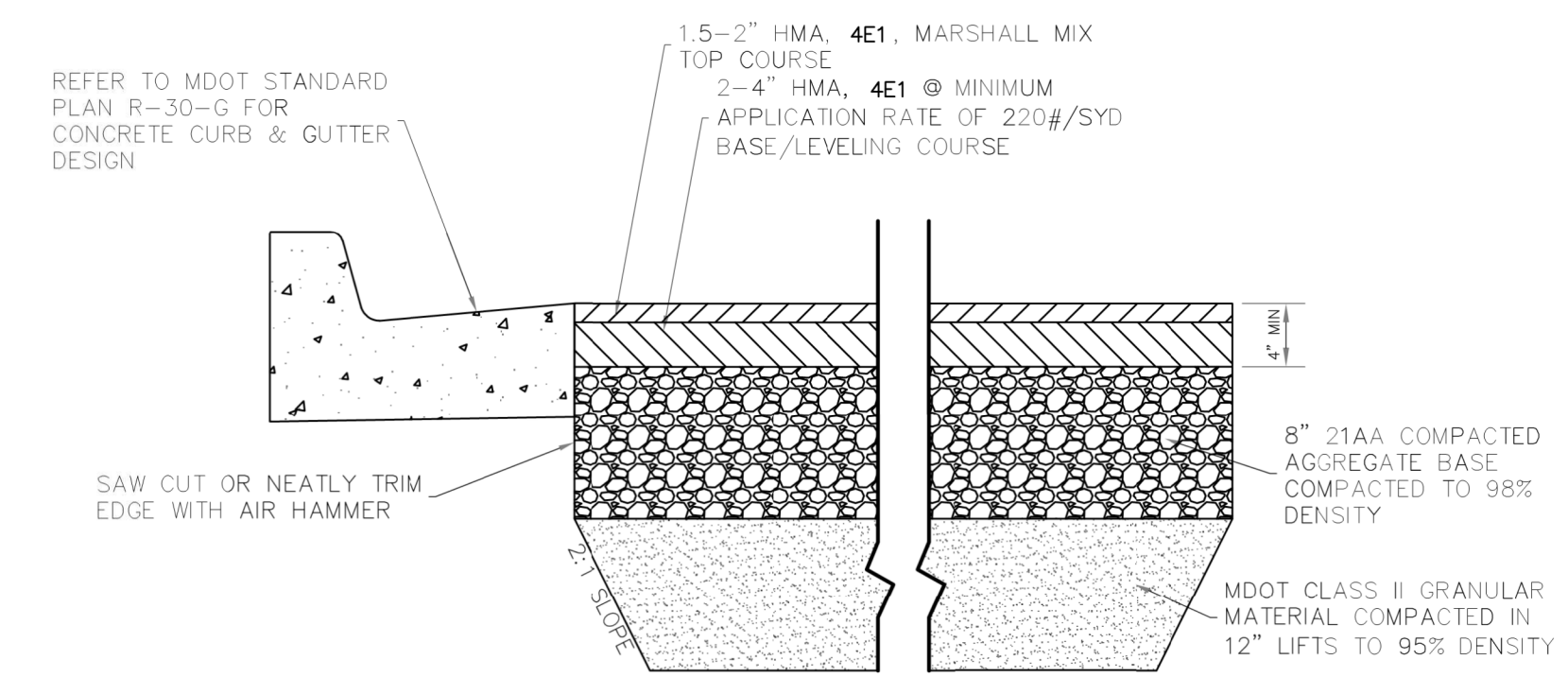


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 Sheet No. 3 OF 8

This Sheet Only:
All curb boxes shall be installed 6 inches below grade
and be covered with a valve box installed flush to grade



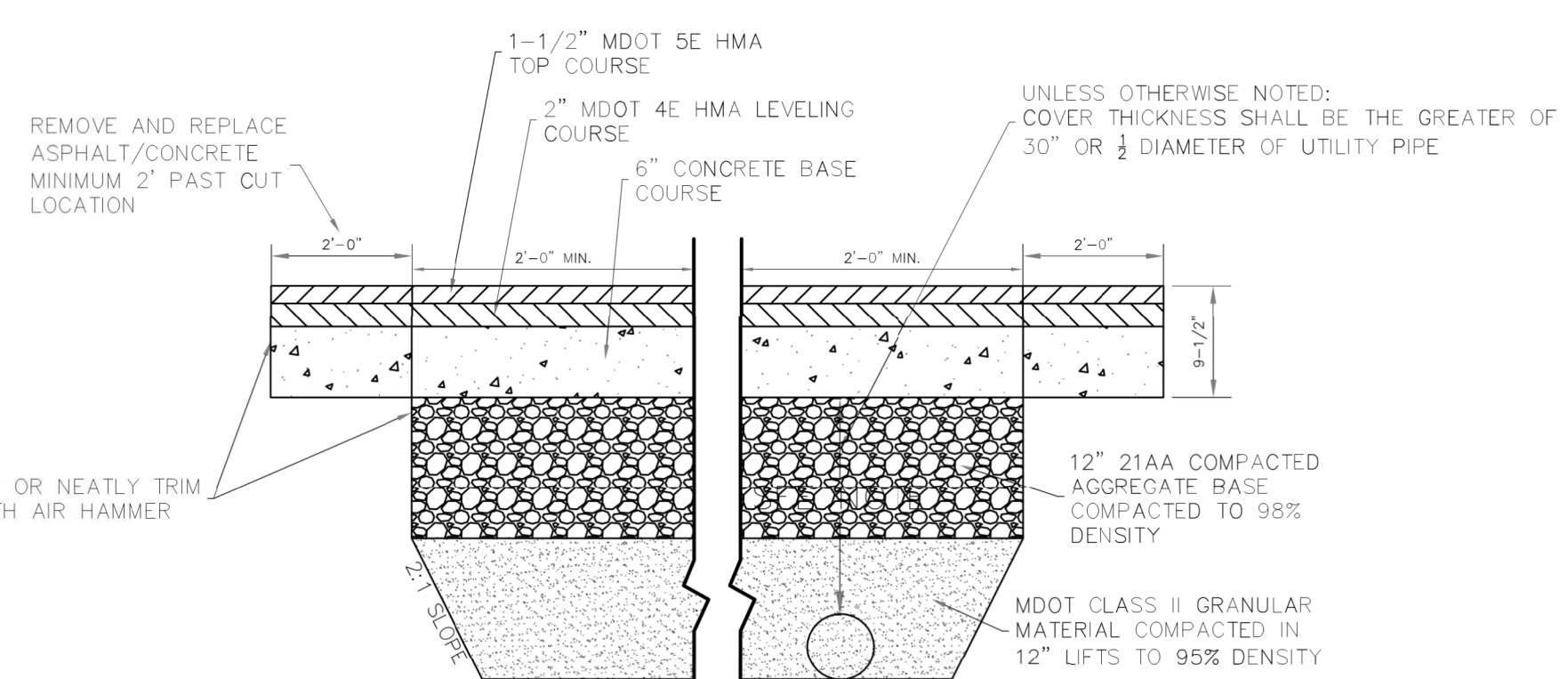
WESTNEDGE AVE. AND BEEKMAN CT.
RESTORATION DETAIL



- NOTE:
- *SS-1H @ 0.10/GAL/SYD BETWEEN LIFTS
 - PERFORMANCE GRADE BINDER TO BE USED: PG 64-28

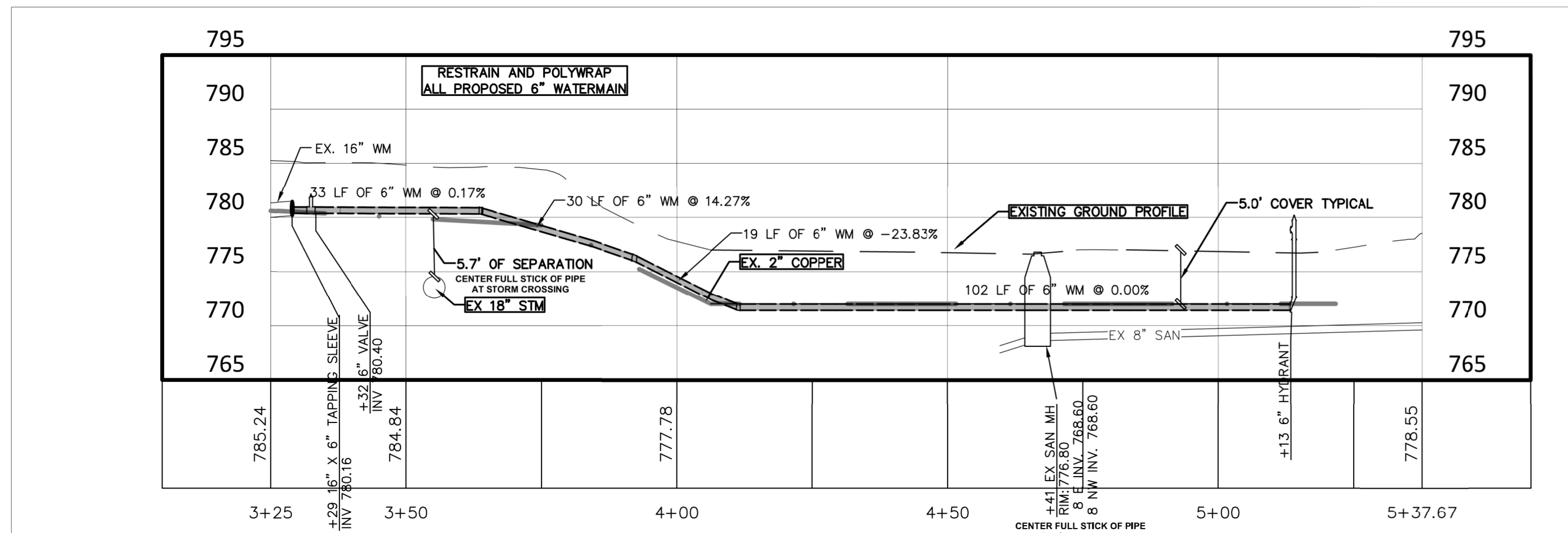
RESIDENTIAL / LOW
TRAFFIC VOLUME ROAD
ASPHALT PAVEMENT
DETAIL

MAPLE STREET AND PARK STREET RESTORATION DETAIL- ADD 1.5"
MILLING MINIMUM 5' EACH SIDE OF CUT AND MILL FULL LANE WIDTH

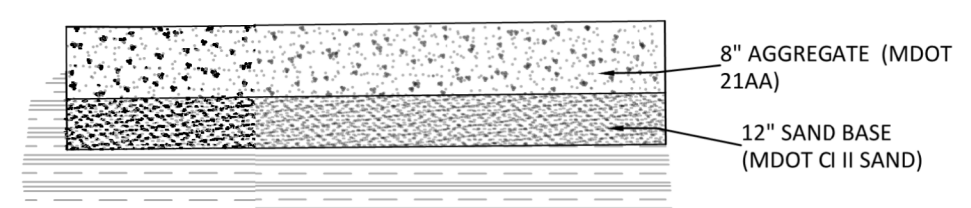


- NOTE:
- CUT SHALL BE PARALLEL OR PERPENDICULAR TO EDGE OF ROADWAY/GUTTER
 - FOR POTHOLES 12" DIAMETER AND SMALLER - ALL CONCRETE
 - FOR 1' x 1' AND LARGER HAND COMPACT LAYERS AS SHOWN AND FINISH WITH CONCRETE

ASPHALT WITH CONCRETE
BASE TRENCH DETAIL



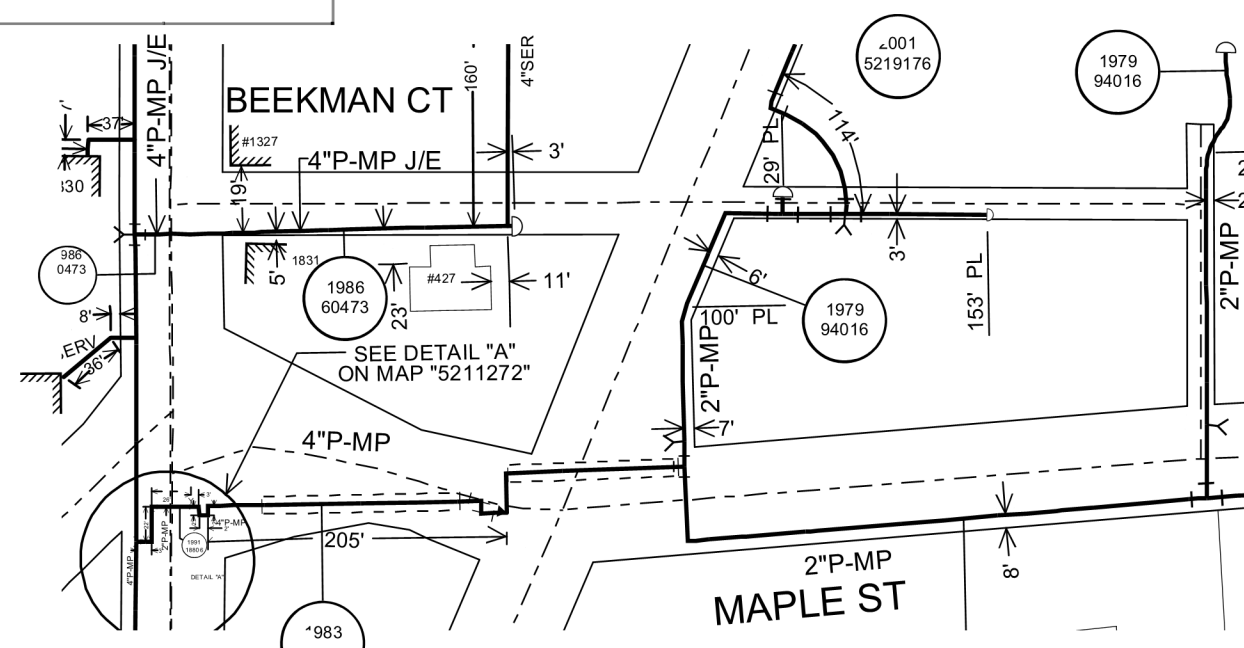
BEEKMAN CT WATERMAIN PROFILE
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 10'



BEEKMAN CT. GRAVEL CROSS
SECTION DETAIL
NOT TO SCALE

Pipe Size (Inches)	90° Bend	45° Bend	22.5° Bend	11.25° Bend	Tee*	Reducer (One Size)	Reducer (Two Sizes)	Dead End
4	62	26	13	7	60	-	-	60
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CITY OF KALAMAZOO
KALAMAZOO COUNTY, MICHIGAN
**BEEKMAN COURT WATERMAIN
PLAN & PROFILE**



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









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Sheet No. 4 OF 8

- SITE LAYOUT NOTES:**
- 1) ALL WORK SHALL BE DONE TO ALL FEDERAL, STATE, AND LOCAL LAWS, RULES, AND REGULATIONS.
 - 2) ALL WORK WITHIN ROW SHALL BE DONE IN ACCORDANCE WITH LOCAL ROADWAY JURISDICTION REQUIREMENTS.
 - 3) CONTRACTOR SHALL RESTORE ALL STREET SURFACES, DRIVEWAYS, CULVERTS, ROADSIDE DRAINAGE, AND OTHER INFRASTRUCTURE DISTURBED OR DAMAGED DUE TO CONSTRUCTION ACTIVITIES TO MATCH EXISTING CONDITIONS.
 - 4) ALL DEBRIS SHALL BE REMOVED FROM THE SITE, AND NO STOCKPILING ON SITE SHALL BE ALLOWED UNLESS APPROVED BY OWNER.
 - 5) THE CONTRACTOR SHALL LIMIT SAWCUT AND PAVEMENT REMOVAL TO ONLY THOSE AREAS WHERE REQUIRED OR AS SHOWN. ALL PAVEMENTS TO BE REMOVED SHALL BE SAWCUT AND REMOVED TO FULL DEPTH AT ALL PAVEMENT LIMITS OR EXISTING JOINTS. IF ANY DAMAGE IS INCURRED TO ANY OF THE SURROUNDING PAVEMENT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ITS REMOVAL AND REPAIR AT NO ADDITIONAL COST.
 - 6) CONTRACTOR SHALL CONTACT MISS DIG THREE WORKING DAYS BEFORE YOU DIG. CALL MISS DIG AT 1-800-452-7171 OR 811.
 - 7) ALL WORK SHALL BE DONE TO THE MICHIGAN HANDICAPPED ACCESSIBILITY CODE AND THE AMERICANS WITH DISABILITIES ACT.
 - 8) ADA PARKING SPACES SHALL BE MARKED WITH APPROVED PAVEMENT SYMBOL. MARK ADA SPACES WITH 4" BLUE PAINT AND SIGNS PER MUTCD.
 - 9) CONTRACTOR SHALL ENSURE ALL ADA RAMPS AND ACCESS MEET CURRENT ADA STANDARDS. IF IT IS DISCOVERED THAT ANY ITEMS WILL NOT MEET ADA STANDARDS IT SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION.
 - 10) ALL SIGNAGE SHALL BE PER MDT AND MUTCD STANDARDS.
 - 11) THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS, PERMIT COSTS, DEMOLITION PERMITS, TAP FEES, ASSESSMENTS, UTILITY PERMITS, ROW PERMITS, BONDS, INSURANCE, OR OTHER FEES ASSOCIATED WITH CONSTRUCTION.
 - 12) SITE CONCRETE TO HAVE A COMPRESSIVE STRENGTH OF A MINIMUM 4000 PSI AND SHALL HAVE LIMESTONE AGGREGATE AND SHALL HAVE A 4-6% AIR ENTRAINMENT WITH A BROOM FINISH.
 - 13) INSTALL EXPANSION JOINTS AT ALL LOCATIONS WHERE CONCRETE ABUTS HMA PAVEMENT.
 - 14) CONTRACTOR SHALL REVIEW THE GEOTECHNICAL AND ENVIRONMENTAL REPORTS FOR THE SITE AND INCORPORATE INTO THEIR CONSTRUCTION MEANS AND METHODS.
 - 15) THESE PLANS HAVE BEEN DEVELOPED FOR ELECTRONIC FIELD SURVEY LAYOUT. DIMENSIONS SHOWN ARE FOR GRAPHIC PRESENTATION ONLY AND SHOULD NOT BE USED FOR LAYOUT. CONTACT THE ENGINEER IF ANY DISCREPANCIES BETWEEN THE PLAN AND ELECTRONIC DATA ARE DISCOVERED.
 - 16) THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY LIGHTS, BARRICADES, FLAGMEN, ETC. AS REQUIRED TO PERFORM THE WORK. THE INSTALLATION AND OPERATION OF ALL TEMPORARY TRAFFIC CONTROL AND TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.
 - 17) THE CONTRACTOR SHALL PROTECT LOCATION OF ALL PROPERTY MARKERS AND BENCHMARKS.
 - 18) THE CONTRACTOR IS RESPONSIBLE FOR ALL SIGNS, BARRICADES, AND SAFETY FENCES TO DETER PEOPLE FROM ENTERING THE WORK AREA AND FOR MAINTAINING AND PROTECTING THE FLOW OF VEHICULAR AND PEDESTRIAN TRAFFIC AROUND THE JOB SITE. TRAFFIC CONTROLS SHALL BE COORDINATED WITH THE LOCAL POLICE DEPARTMENT AND MUNICIPALITY.
 - 19) PRIOR TO CONSTRUCTION OR GRADING A PROTECTIVE BARRIER, FENCE, POST, AND SIGNS CLEARLY INDICATING LIMITS OF DISTURBANCE SHALL BE INSTALLED INDICATING NO TREE REMOVAL OR DISTURBANCES OUTSIDE LIMITS.
 - 20) NO PARKING OF CONTRACTOR OR SUBCONTRACTORS SHALL BE ALLOWED ON PUBLIC STREETS WITHOUT PRIOR APPROVAL.
 - 21) NO BUILDING MATERIAL, EQUIPMENT, VEHICLES, OR CHEMICALS SHALL BE STORED OR PLACED OUTSIDE OF THE LIMITS OF DISTURBANCE.
 - 22) CONSTRUCTION NOISE SHALL BE KEPT TO A MINIMUM DURING NIGHTTIME HOURS AND MUST COMPLY WITH LOCAL MUNICIPAL ORDINANCES.







- UTILITY PLAN NOTES:**
- 1) CONTRACTOR SHALL CONTACT PRIVATE AND PUBLIC UTILITY COMPANIES IF ANY COORDINATION IS NEEDED BETWEEN PROPOSED WORK AND EXISTING UTILITIES.
 - 2) UTILITIES SHOWN (IF ANY) ARE APPROXIMATE LOCATIONS DERIVED FROM MEASUREMENTS OR AVAILABLE RECORDS. THIS MAP IS NOT TO BE INTERPRETED AS SHOWING EXACT LOCATIONS OR SHOWING ALL UTILITIES IN THE AREA. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF EXISTING UTILITY INFORMATION. THE CONTRACTOR SHALL FIELD VERIFY FOR ACCURACY, LOCATION, AND CONDITION.
 - 3) ALL WATERMAIN TO BE CONSTRUCTED IN ACCORDANCE WITH CITY OF KALAMAZOO STANDARD SPECIFICATIONS FOR WATER MAIN AND SERVICE INSTALLATION 2021
 - 4) ALL SANITARY SEWER TO BE CONSTRUCTED IN ACCORDANCE WITH LOCAL SANITARY SEWER UTILITY STANDARDS AND EGLE STANDARDS.
 - 5) ALL 6" UNDERDRAIN TO BE CORRUGATED PLASTIC PIPE WITH SOCK, ADS N-12 OR APPROVED EQUAL.
 - 6) ALL STORM SEWER SHALL BE SMOOTH LINED CORRUGATED PLASTIC PIPE, ADS N-12 OR EQUAL, UNLESS OTHERWISE LABELED ON THE PLANS.
 - 7) ALL EXISTING CASTINGS FOR STRUCTURES TO BE ADJUSTED OR RECONSTRUCTED TO GRADE SHALL BE FIELD VERIFIED AT THE TIME OF CONSTRUCTION AND MARKED SUITABLE FOR SALVAGE AND REUSE OR REPLACED.
 - 8) ROOF DRAINS, FOUNDATION DRAINS, AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER ARE PROHIBITED.
 - 9) CATCH BASINS WITHIN CONCRETE HEAD CURB SHALL HAVE EJ 7045 CASTINGS.
 - 10) CATCH BASINS WITHIN BIT VALLEY CURB SHALL HAVE EJ 7065 CASTINGS WITH M1 GRATE.
 - 11) CATCH BASINS WITHIN PAVED AREAS SHALL HAVE EJ 1020M1 RADIAL FLAT GRATE CASTINGS.
 - 12) STORM SEWER MANHOLES SHALL HAVE EJ 1020 CASTINGS WITH SOLID COVERS.
 - 13) STORM SEWER YARD DRAINS SHALL HAVE EJ 6508 CASTINGS.
 - 14) ROOF DRAINS SHALL BE PVC SCH-40.
 - 15) CONTRACTOR IS TO UNCOVER AND VERIFY ALL TAP LOCATIONS AND INVERTS. LOCATION AND INVERT DISCREPANCIES SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION FOR RESOLUTION PRIOR TO CONTINUING WORK.
 - 16) SANITARY AND STORM STRUCTURES SHALL BE PRECAST AND HAVE A MAXIMUM OF 2 ADJUSTING RINGS FOR FINISH GRADE ADJUSTMENT.
 - 17) THE CONTRACTOR SHALL MAINTAIN EXISTING UTILITY SERVICE TO ALL ADJOINING PROPERTIES.
 - 18) DAMAGE TO EXISTING SANITARY LATERALS SHALL BE INCIDENTAL TO PROJECT.
 - 19) SCHEDULE 6" TAPS WITH THE CITY MINIMUM FIVE BUSINESS DAYS IN ADVANCE. CITY WILL PROVIDE TAPPING SADDLES AND TAPPING VALVES AND PERFORM THE TAPS. CONTRACTOR SHALL PERFORM ALL EXCAVATION/REMOVALS, WATER MAIN CLEANUP/PREPARATION, BACKFILLING AND RESTORATION.

- GRADING PLAN NOTES:**
- 1) SOILS EXPOSED IN THE BASE OF ALL SATISFACTORY FOUNDATION EXCAVATIONS SHOULD BE PROTECTED AGAINST ANY DETRIMENTAL CHANGES IN CONDITION SUCH AS FROM DISTURBANCE, RAIN AND FREEZING. SURFACE RUN-OFF WATER SHOULD BE DRAINED AWAY FROM THE EXCAVATION AND NOT ALLOWED TO POND. IF POSSIBLE, ALL FOOTING CONCRETE SHOULD BE POURED THE SAME DAY THE EXCAVATION IS MADE. IF THIS IS NOT PRACTICAL, THE FOOTING EXCAVATIONS SHOULD BE ADEQUATELY PROTECTED.
 - 2) REMOVE ALL SUBGRADE MATERIAL THAT MAY BE SOFTENED BY RAINS, FREEZING, OR CONSTRUCTION TRAFFIC, ETC. AND REPLACE WITH COMPACTED GRANULAR FILL.
 - 3) ALL CONSTRUCTION METHODS SHALL BE DONE IN COMPLIANCE WITH MDT-EGLE. THE OWNER SHALL BE RESPONSIBLE FOR OBTAINING A "SOIL EROSION PERMIT" FROM THE COUNTY AND A "PERMIT BY RULE/NOTICE OF COVERAGE" FROM EGLE IF APPLICABLE. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL REQUIREMENTS IF THE COUNTY "SOIL EROSION PERMIT" AND FOR ALL CERTIFIED STORM WATER INSPECTION SERVICE REQUESTED BY THE "PERMIT BY RULE." EROSION CONTROL MEASURES SHOWN ON THE PLANS ARE THE MINIMUM REQUIREMENTS AND SHALL NOT RELIEVE THE CONTRACTORS RESPONSIBILITY FOR PROVIDING ALL REQUIRED EROSION CONTROL MEASURES.
 - 4) AVOID UNNECESSARY DISTURBING OR REMOVING OF EXISTING VEGETATED TOPSOIL OR EARTH COVER. THESE COVER AREAS ACT AS SEDIMENT FILTERS.
 - 5) ALL TEMPORARY SOIL EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL REMOVAL IS REQUIRED FOR FINAL CLEAN UP AND APPROVAL.
 - 6) GEOTEXTILE SILT FENCE SHALL BE INSTALLED AS REQUIRED WHEN CROSSING CREEKS OR WHEN ADJACENT TO WETLANDS OR SURFACE WATER BODIES TO PREVENT SILTATION AND ELSE WHERE AS DIRECTED BY THE ENGINEER. SEEDING AND/OR SODDING SHALL BE INSTALLED ON CREEK BANKS IMMEDIATELY AFTER CONSTRUCTION TO PREVENT EROSION.
 - 7) CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID TRACKING SOIL ONTO ADJACENT ROADWAYS. CONTRACTOR SHALL SWEEP IMMEDIATELY IF OCCURS.
 - 8) ANY DISTURBED AREA WHICH WILL BE LEFT UNWORKED 20 DAYS OR LONGER MUST BE SEED TO ESTABLISH VEGETATION FOR TEMPORARY STABILIZATION. BASINS TO BE SEED AND MULCH BLANKETS APPLIED IMMEDIATELY TO PROVIDE A STABLE BASE AND AVOID EXCESSIVE EROSION.
 - 9) ALL SOIL EROSION CONTROL MEASURES ARE TO BE IN PLACE PRIOR TO THE START OF ANY GRADING.
 - 10) ALL NON PAVED AREAS TO BE TOPSOILED (6" MIN.) & SEED.
 - 11) VARIATION IN EXISTING SOIL CONDITIONS MAY IMPACT THE EARTHWORK QUANTITIES IF UNUSABLE SOILS ARE ENCOUNTERED DURING CONSTRUCTION.
 - 12) DUST CONTROL: THE CONTRACTOR SHALL SUPPLY ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY SUCH AS CALCIUM CHLORIDE, WATER OR A MOTORIZED DUST-FREE STREET SWEEPING DEVICE TO MAINTAIN ALL ROADWAYS BEING USED FOR ACCESS TO THE CONSTRUCTION SITE AND SHALL ADHERE TO ALL ORDINANCES OF THE TOWNSHIP, COUNTY, EGLE OR ANY OTHER GOVERNMENT AGENCY.
 - 13) IF MUD, SOIL OR OTHER DEBRIS IS DEPOSITED ON ADJACENT STREETS, ROADS OR OTHER PROPERTY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF SUCH AT THE END OF EACH WORK DAY OR AS REQUIRED DURING THE WORK DAY.
 - 14) STORMWATER POLLUTION PREVENTION ITEMS SHALL BE IN PLACE PRIOR TO COMMENCING CLEARING OPERATIONS, EARTHWORK GRADING, OR ANY OTHER TYPE OF CONSTRUCTION ACTIVITY.
 - 15) CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH THE SOIL EROSIONS AND SEDIMENT CONTROL PERMIT.
 - 16) PLACE TEMPORARY EROSION CONTROL MEASURES PRIOR TO EARTH MOVING ACTIVITIES.
 - 17) MULCH BLANKETS SHALL BE PLACED, STAPLED, AND OVERLAPPED ON ALL SLOPES THAT ARE 1 ON 3 OR GREATER AFTER.
 - 18) CONTRACTOR TO INSTALL SILT SACK IN ALL CATCH BASINS ONCE THEY ARE CONSTRUCTED.
 - 19) ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED BY A CERTIFIED STORM WATER OPERATOR AND MAINTAINED BY CONTRACTOR EVERY 7 DAYS AND AFTER EVERY SIGNIFICANT RAIN EVENT IN ACCORDANCE WITH NPDES PERMIT BY RULE REQUIREMENTS IF APPLICABLE.
 - 20) EROSION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL VEGETATION IS ESTABLISHED.
 - 21) BEST MANAGEMENT PRACTICES WILL BE UTILIZED DURING AND AFTER CONSTRUCTION OF THE PROJECT. MEASURES WILL INCLUDE THE USE OF SILT FENCING, SEEDING AND MULCHING, SEDIMENT INLET FILTERS, COMPACTION AND PAVING. THE OWNER OF THE SUBJECT PARCEL SHALL HAVE THE RESPONSIBILITY TO MAINTAIN THE PERMANENT SOIL EROSION PROTECTION MEASURES.





CONTROL MEASURE KEY

-  SELECTIVE GRADING & SHAPING, PERMANENT
-  HYDROSEEDING, PERMANENT. TYPICAL IN ALL NON-PAVED AREAS DISTURBED BY CONSTRUCTION ACTIVITIES
-  AGGREGATE COVER, TEMPORARY. TYPICAL ON ALL STREETS DISTURBED BY CONSTRUCTION ACTIVITIES
-  PAVING, PERMANENT, TYPICAL ON ALL STREETS DISTURBED BY CONSTRUCTION ACTIVITIES.
-  SEDIMENT BASIN BMP EXHIBIT 2, SEDIMENT BASIN, TEMPORARY REQUIRED FOR DE-WATERING ACTIVITIES, SEVERE SLOPES, AND LARGE DISTURBED AREAS.
-  SILTSACK, TEMPORARY, TYPICAL AT ALL CATCH BASINS WITHIN OR DISTURBED BY CONSTRUCTION ACTIVITIES
-  CULVERT SEDIMENT TRAP, TEMPORARY. TYPICAL AT ALL STORM OUTLETS AND STREAMS DISTURBED BY CONSTRUCTION ACTIVITIES
-  FILTER BMP EXHIBIT 8A, SILT FENCE, TEMPORARY. TYPICAL IN ALL AREAS, ESPECIALLY ADJACENT TO STREAMS, PONDS, ETC. AND ALONG PROJECT UNITS.
-  TREE PROTECTION, INCLUDES TUNNELING UNDER TREES, TYPICAL FOR ALL TREES ENCOUNTERED UNLESS TREE REMOVAL IS DIRECTED BY THE ENGINEER.
-  DENOTES GRAVEL ACCESS APPROACH. APPROACH SHALL BE INSTALLED TO PROVIDE STABLE ACCESS TO ROADWAYS AND MINIMIZE DUST AND TRACKING OF MATERIALS ONTO PUBLIC STREETS AND HIGHWAYS. THE APPROACH SHALL BE A MIN. OF 12" WIDE, 6" DEEP, AND CONSIST OF 2"-4" AGGREGATE.

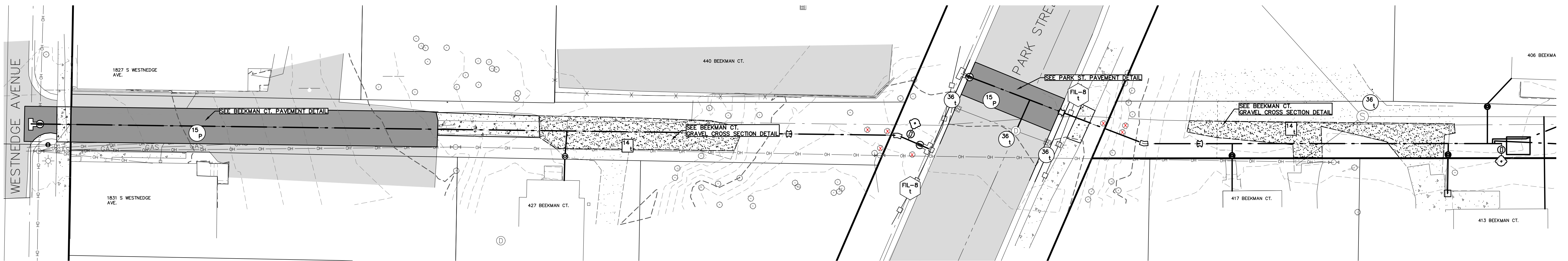
GENERAL SOIL EROSION MEASURES (APPLICABLE TO ENTIRE SITE)

-   
-   

LEGEND

-  MICHIGAN UNIFIED KEYING SYSTEM (MUKS)
-  BEST MANAGEMENT PRACTICE (BMP)
-  TEMPORARY CONTROL MEASURE (DURING CONSTRUCTION AND UNTIL PERMANENT MEASURES ARE ESTABLISHED)
-  PERMANENT CONTROL MEASURE

NOTE:
SOIL EROSION AND SEDIMENTATION CONTROL MEASURES INDICATED ARE KNOWN OR ANTICIPATED CONTROL MEASURES NEEDED DURING TYPICAL CONSTRUCTION ACTIVITIES. ADDITIONAL CONTROL MEASURES MAY BE REQUIRED DUE TO CONSTRUCTION ACTIVITY, LOCATION, SOIL TYPE, WEATHER EVENT, ETC. ALL ADDITIONAL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES WILL BE INCIDENTAL TO THE CONSTRUCTION CONTRACT.

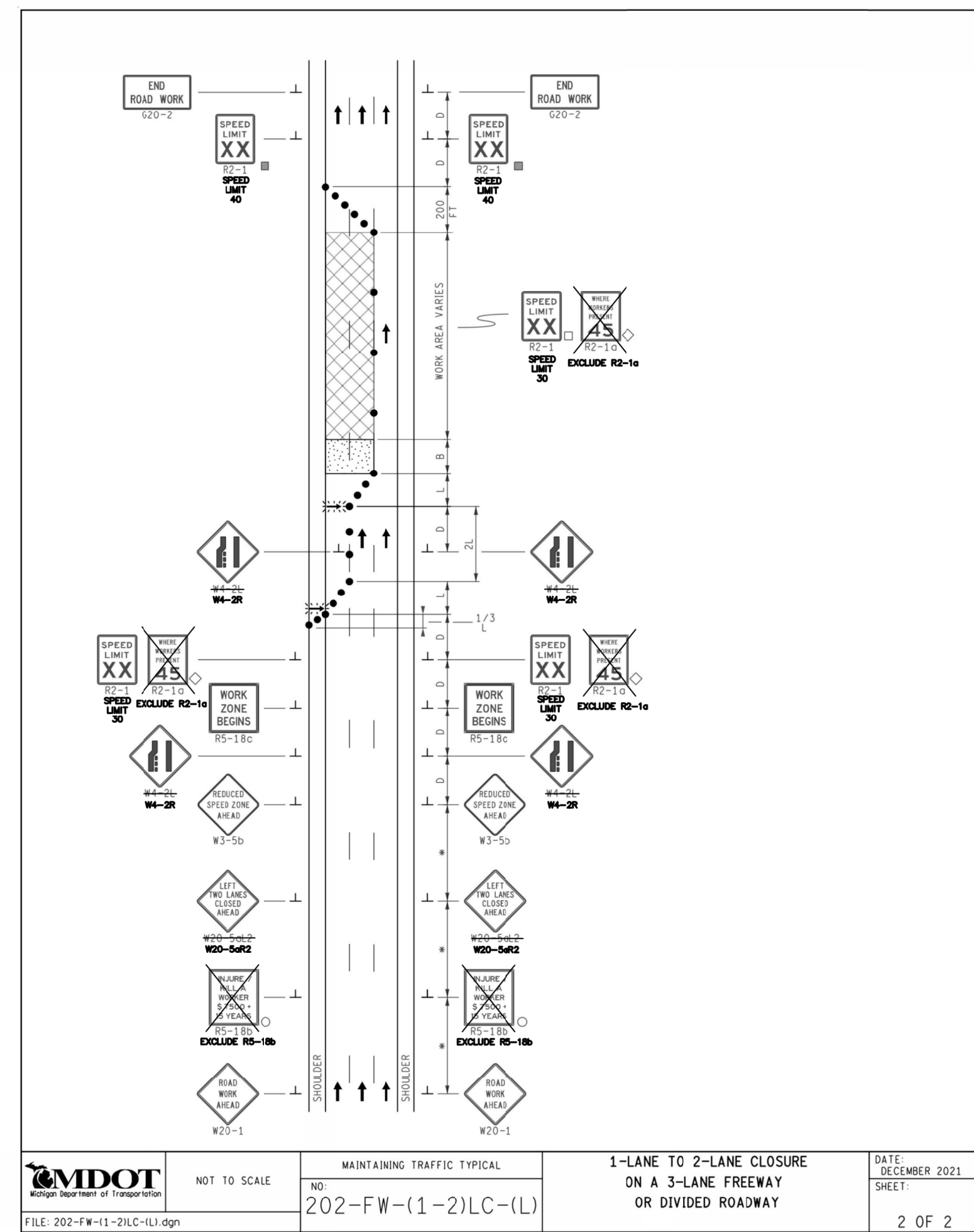


NO.	DATE	REVISION	BY
1	09/09/2022	25% PLAN SET	NEF
2	09/30/2022	75% PLAN SET	MDS
3	11/11/2022	95% PLAN SET	NEF
4	12/21/2022	100% PLAN SET	MDS
5	01/06/2023	100% PLAN SET WITH CITY COMMENTS	MDS

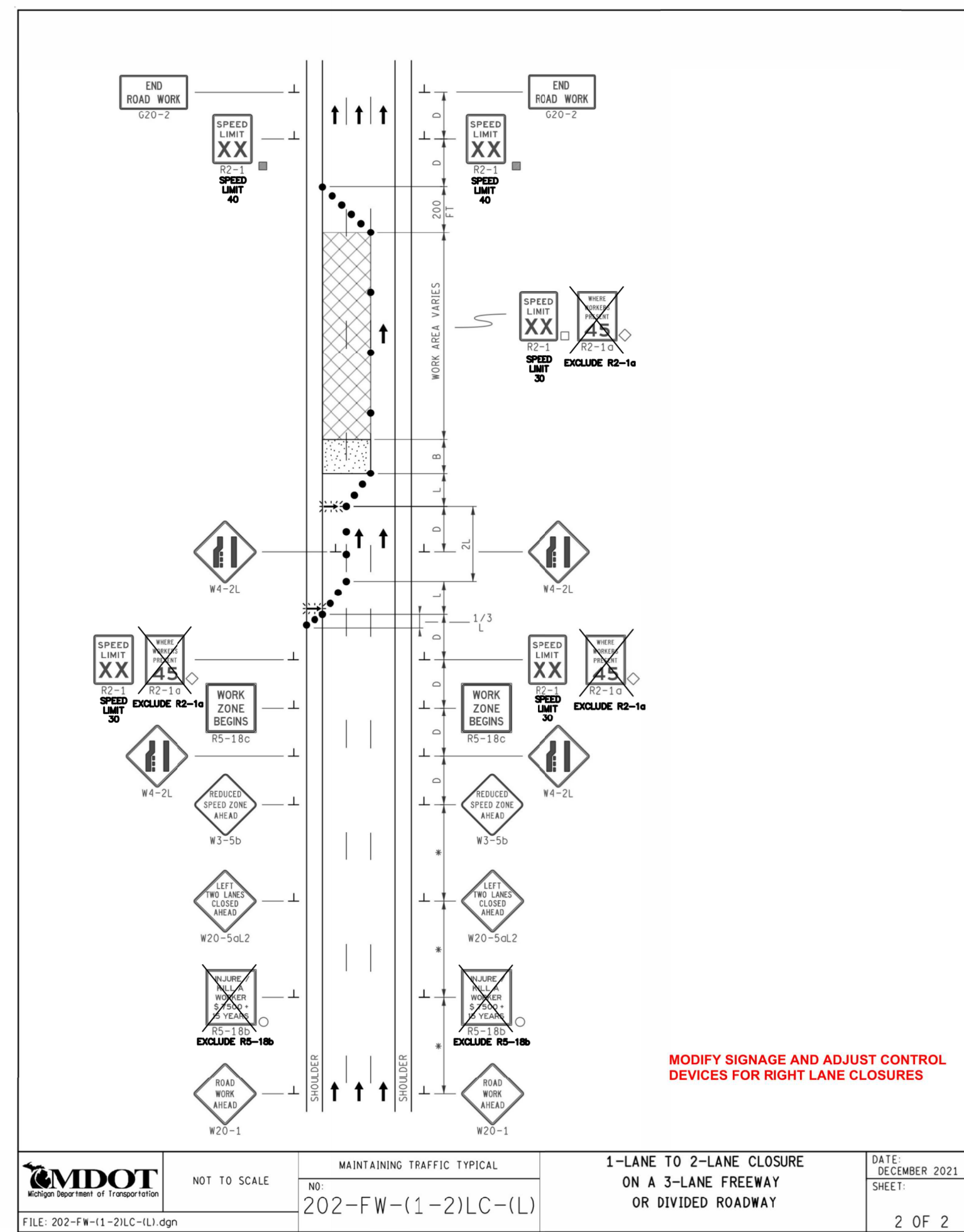
CITY OF KALAMAZOO
KALAMAZOO COUNTY, MICHIGAN
**BEEKMAN COURT WATERMAIN
PROJECT DETAILS & SESC PLAN**

 **Vriesman & Korhorn**
www.VKcivil.com

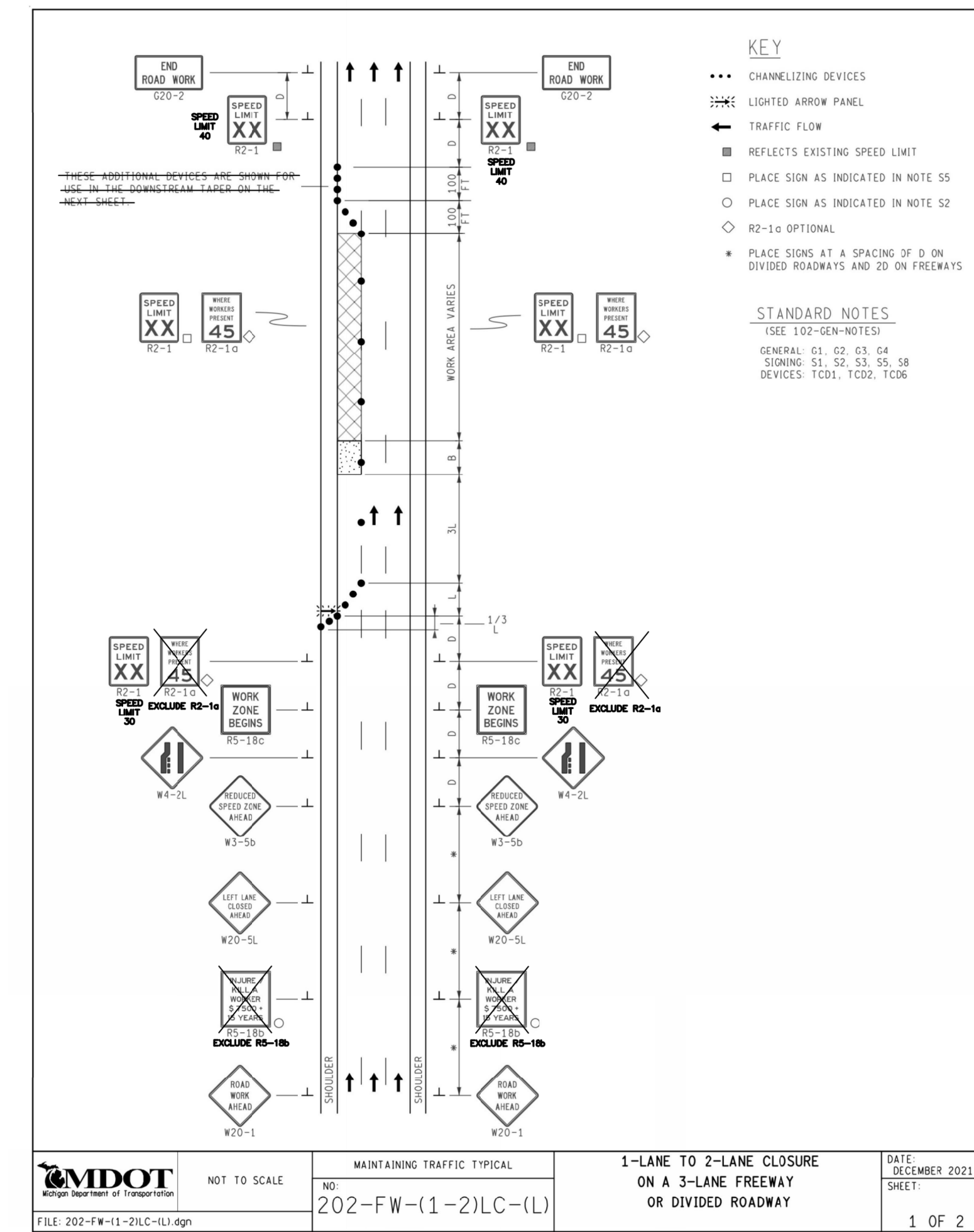
Byron Center, MI (616) 277-2185
Kalamazoo, MI (269) 697-7120
FILE NO. 1094
CHECKED DGL
Sheet No. 5 OF 8



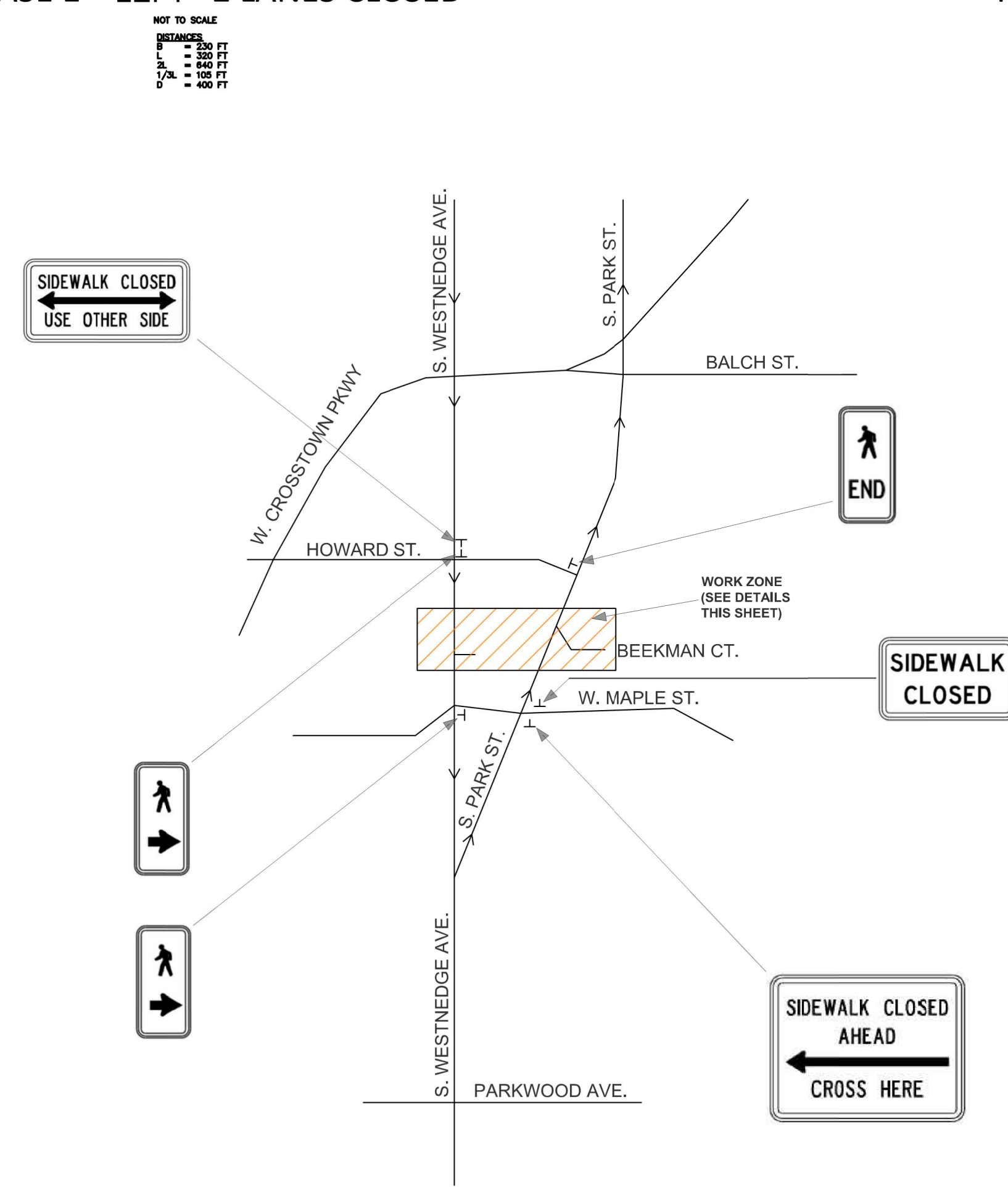
NB PARK STREET MAINTENANCE OF TRAFFIC DETAIL
PHASE 1 - LEFT 2 LANES CLOSED



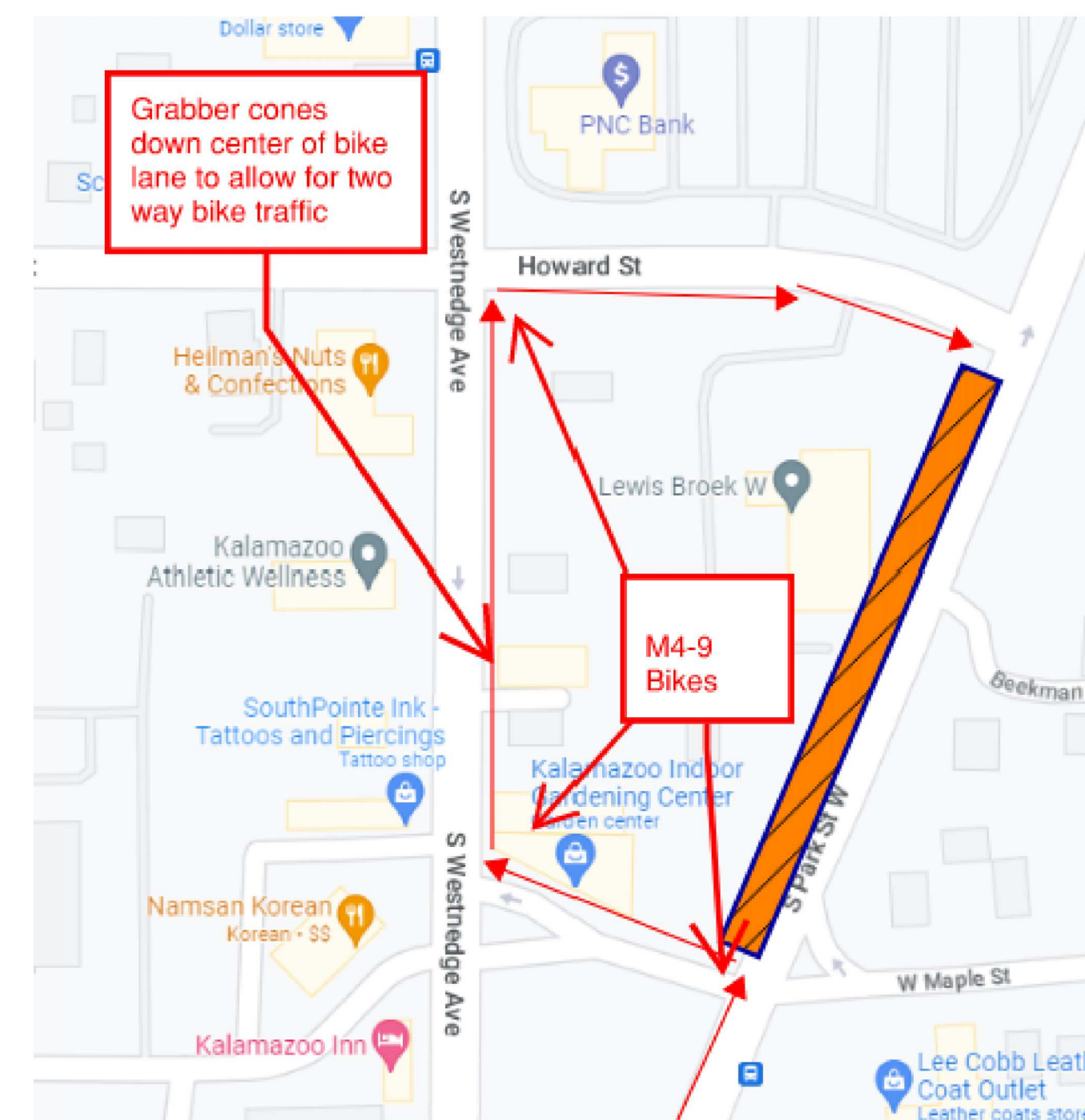
NB PARK STREET MAINTENANCE OF TRAFFIC DETAIL
PHASE 2 - RIGHT 2 LANES CLOSED



SB WESTNEDGE AVENUE MAINTENANCE OF TRAFFIC DETAIL



PEDESTRIAN DETOURS DETAIL



Bicycle Detour

Use Flaggers and Barricades for Maple Street Cut and Cap
Limit Work to East Bound Lane

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5	01/05/2023	100% PLAN SET WITH CITY COMMENTS	MDS

CITY OF KALAMAZOO
KALAMAZOO COUNTY, MICHIGAN
**BEEKMAN COURT WATERMAIN
TRAFFIC CONTROL PLAN**

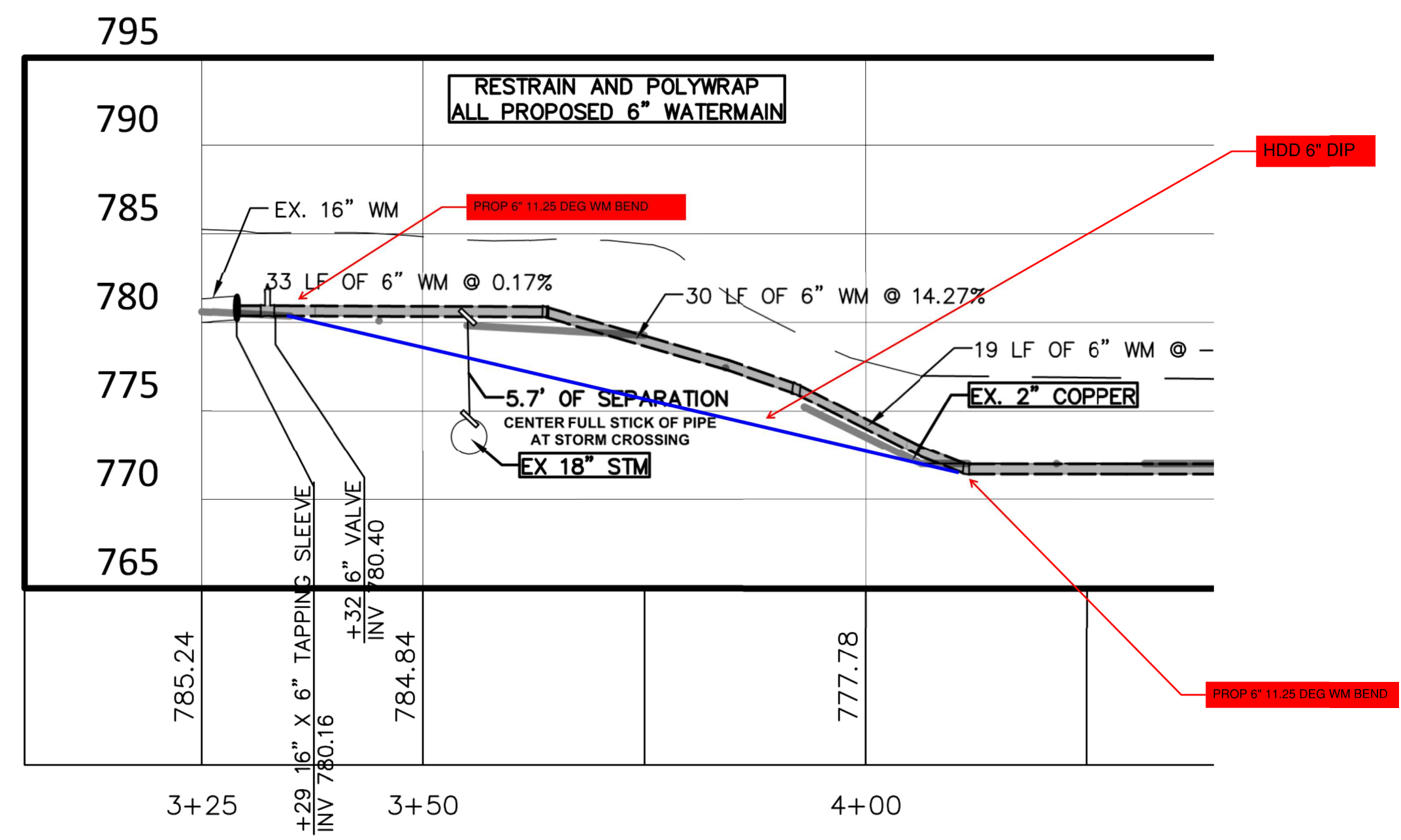
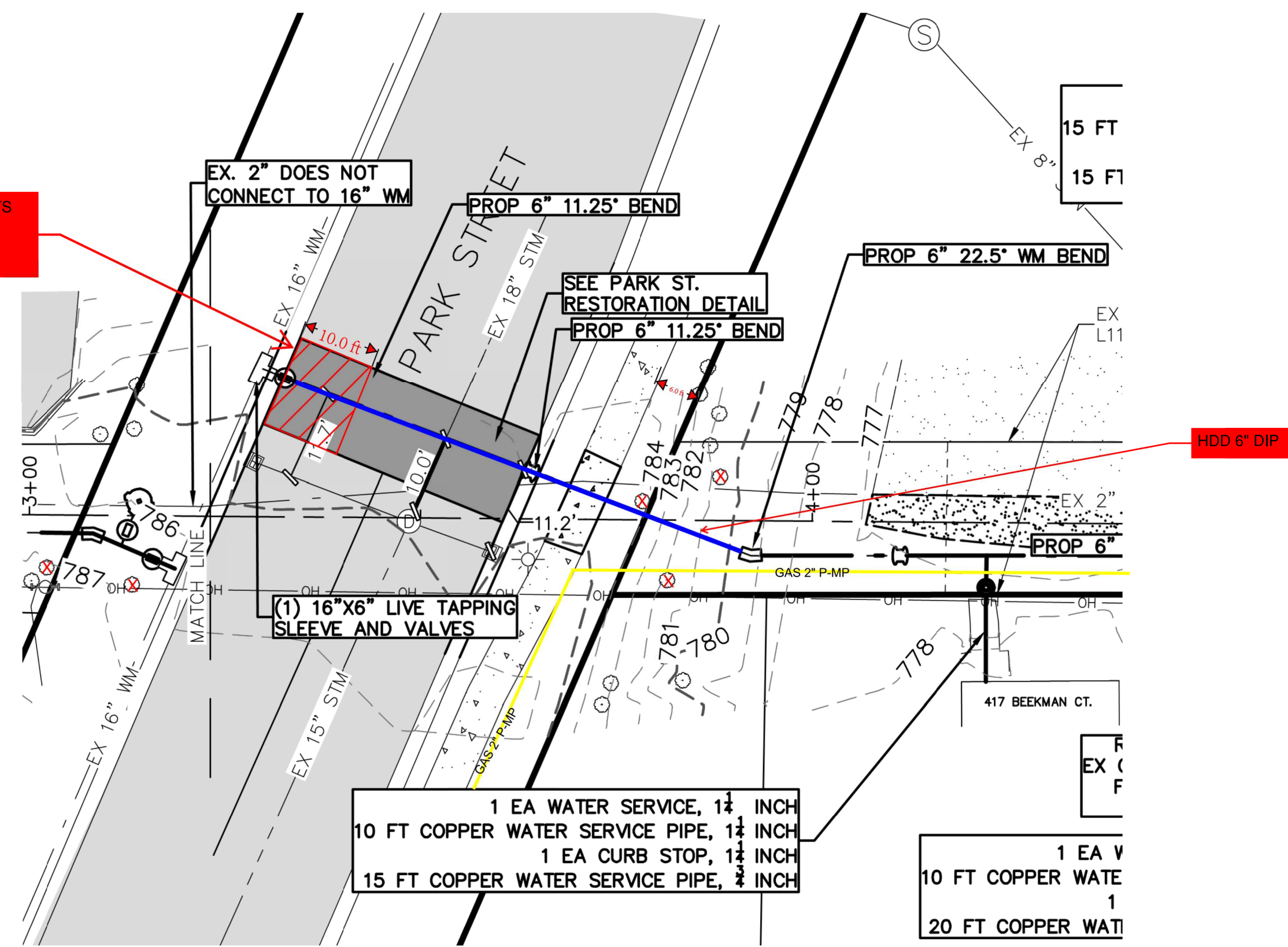


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Bid Alternate: HDD Water Main Across Park

PARK STREET REMOVAL AND RESTORATION LIMITS
PHASE 2 TRAFFIC CONTROL NOT REQUIRED



Beekman Court Water Main Replacement Proposed Tree Removals

