

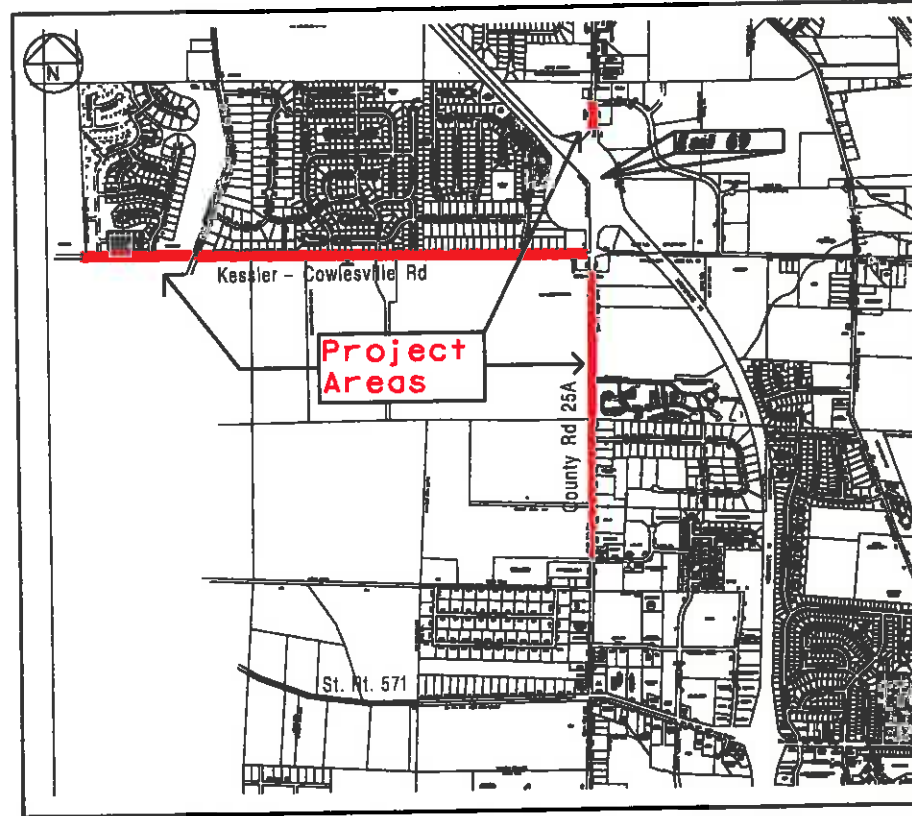
Location Map
Not to scale

City of Tipp City as LPA for MIA-CR25A & KESSLER-COWLESVILLE ROAD RESURFACING PROJECT

PID #95924

City of Tipp City
Miami County - Ohio

COPY



Vicinity Map
Not to scale

UNDERGROUND UTILITIES

CONTACT BOTH SERVICES
CALL TWO WORKING DAYS
BEFORE YOU DIG

CALL
1-800-362-2764
(TOLL FREE)

OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

OIL & GAS PRODUCERS PROTECTIVE
SERVICE CALL: 1-800-925-0996

Design Designation

Current ADT:
County Rd 25A ----- 13,298 Vehicles
Kessler-Cowlesville ----- 5,359 Vehicles

Design Speed
County Rd 25A ----- 45 MPH
Design Speed
Kessler-Cowlesville ----- 35 MPH

Design Functional Classification:
County Rd 25A : Minor Arterial
Kessler-Cowlesville : Major Collector

**STANDARD CONSTRUCTION
DRAWINGS**

Supplement	Or Latest Rev.
800	1/17/14
BP-3.1	4/20/12
BP-7.1	10/15/10
MT-97.10	7/19/13
MT-97.12	7/19/13
MT-99.20	7/19/13
MT-101.90	7/19/13
MT-105.10	7/19/13
TC-41.20	10/18/13
TC-42.20	10/18/13
TC-52.10	10/18/13
TC-52.20	1/17/14
TC-71.10	1/17/14
TC-82.10	10/18/13
TC-84.20	10/18/13

Design Exceptions

None

Project Description

This project will consist of the asphalt resurfacing of Co. Rd 25A from Donn Davis Way to Commerce Park Dr. (5190') and Kessler-Cowlesville Rd. from the Tipp City corp. limits west of Peters Rd. East to Co. RD 25A (7945'), including pavement planing, traffic sign upgrades, thermoplastic pavement markings, ADA handicap ramps, and water main & fire hydrant extension.

Maintenance

Multiple Lane Resurfacing

Project Earth Disturbing Area - N/A
Estimated Contractor Earth Disturbing Area - N/A
Notice of Intent Earth Disturbing Area - N/A

2013 Specifications

The Standard 2013 Specifications of the State of Ohio Department of Transportation, including changes and supplemental specifications listed in the plans and the proposal shall govern these improvements.

SHEET INDEX

- COVER SHEET
- GENERAL NOTES
- GENERAL NOTES
- GENERAL NOTES
- GENERAL SUMMARY KESSLER-COWLESVILLE RD. & CO. RD. 25A
- PAVEMENT DATA
- SIGN INVENTORY
- COUNTY RD. 25A STA. 152+60 TO 165+00
- COUNTY RD. 25A STA. 165+00 TO 179+00
- COUNTY RD. 25A STA. 179+00 TO 193+00
- COUNTY RD. 25A STA. 193+00 TO 198+00
- COUNTY RD. 25A STA. 218+00 TO 224+50
- KESSLER-COWLESVILLE RD. STA. 20+14.8 TO 34+00
- KESSLER-COWLESVILLE RD. STA. 34+00 TO 48+00
- KESSLER-COWLESVILLE RD. STA. 48+00 TO 62+00
- KESSLER-COWLESVILLE RD. STA. 62+00 TO 76+00
- KESSLER-COWLESVILLE RD. STA. 76+00 TO 90+00
- KESSLER-COWLESVILLE RD. STA. 90+00 TO 99+60

Approved:

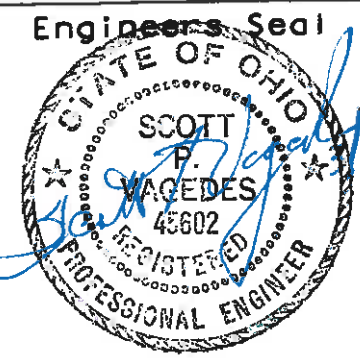

Tipp City - City Manager

3/4/14
Date


Miami County Engineer

3/6/2014
Date

NOT AS-BUILT



GENERAL NOTES

GENERAL NOTES AND DETAILS

All construction methods, materials, and specifications shall comply with the City of Tipp City Engineering Standards and Specifications or Ohio Department of Transportation Construction Standards and Specifications whichever is more restrictive as determined by the City.

UNDERGROUND UTILITIES

The locations of the underground utilities shown on the plans are as obtained from the owners of the utility as required by Section 153.64 ORC. Existing utilities are shown in their approximate location according to the best available data. The Contractor will be responsible for locating them in the field prior to construction and will be responsible for any damage done to them. Contractor to contact Ohio Utilities Protection Service (1-800-362-2764) 48 hours prior to construction. Non-members must be called directly.

UTILITY OWNERSHIP

Listed below are all known utilities located within the project construction limits together with their respective owners:

Electric, Water, Storm & Sanitary	City of Tipp City 260 S. Garber Drive Tipp City, Ohio 45371 937-667-6305	Cable: Time Warner 3691 Turner Rd. Dayton, OH 45415 937-425-8850 Contact: Tim Kuss
Gas:	Vectren 1300 Experiment Farm Rd. Troy, OH 45373 937-440-1852 Contact: Connie Perry	Electric: Dayton Power and Light Co. 1900 Dryden Road Dayton, OH 45439 937-331-4132 Contact: John Kenton
Telephone	Frontier Communications 6464 Westbrook Road Clayton, OH 45315 937-833-0468 Contact: Rick Ferris	Pioneer Rural Electric PO Box 604, 344 US St. Rt. 36 Piqua, OH 45356 1-800-762-0997

Ohio Utilities Protection Service
2 WORKING DAYS BEFORE YOU DIG
CALL TOLL FREE 800-362-2764

SUBCONTRACTOR SUPERVISION

The Contractor is required to have a Project Supervisor on site to supervise any Subcontractor for quality control purposes and to provide any necessary assistance to the Subcontractor to ensure quality work. Cost of this item shall be included in the cost of related pay items of this project.

WORK LIMITS

All work shall be within existing right-of-way and/or construction limits unless otherwise instructed by the City. The work limits shown on these plans are for physical construction only. The installation and operation of all temporary traffic control and temporary traffic control devices required by these plans shall be provided by the Contractor whether inside or outside these work limits.

SPECIAL CONDITIONS

MUD
The tracking or spillage of mud, dirt, or debris upon City streets is prohibited and any such occurrence shall be cleaned up immediately by the Contractor.

SAWCUT PAVEMENT JOINTS

Sawcut pavement joints shall be included in the payment of full depth pavement repair. More than one sawcut may be necessary to ensure a clean cut just prior to asphalt or concrete placement. Asphalt material shall be placed on the vertical face of sawcut joints prior to paving as per 401.14. After the asphalt work is completed, the transverse joints shall be sealed with liquid asphalt. The joint preparation and sealing shall be included in the payment for asphalt concrete.

SAFETY

The contractor shall be solely responsible for complying with all Federal, State, and local safety requirements. Together with exercising precautions at all times for the protection of persons (including employees) and property. It is also the sole responsibility of the Contractor to initiate, maintain, and supervise all safety requirement, precautions, and programs in connection with the work.

MODIFICATIONS

Any modifications to the specifications or changes to the work as shown on the drawings must have prior written approval by the City.

WATER MAIN

Whenever a sanitary sewer or storm sewer and waterline must cross, the sewer shall be laid at such an elevation that the crown of the sewer is at least 18" below the bottom of the water line. If it is absolutely impossible to maintain the 18" vertical separation, the sanitary sewer shall be constructed with waterline type materials which will withstand a 50 PSI pressure test. These requirements will extend for a distance of 10', measured perpendicular, on both sides of the waterline. At crossings, the water shall have a minimum vertical distance of 18" from storm and sanitary sewers. Also one full length of water main shall be located so the joints are as far from the storm or sanitary sewers as possible. Water main to be installed as per plan.

ASPHALT

All ODOT construction and material specifications shall apply to this project. All asphalt delivered shall be accompanied with a load ticket as per item 402.07. Asphalt concrete bid items are eligible for any asphalt binder price adjustment.

ITEM 614: MAINTAINING TRAFFIC, AS PER PLAN

It is the intention to perform the required work within these plans with the least inconvenience to and the maximum safety of the Contractor, local merchants, pedestrian traffic and the traveling public.

Requirements for maintaining traffic as specified in the "Ohio Manual of Uniform Traffic Control Devices for Streets and Highways" (Current edition, latest revision), pertinent provisions of the "Ohio Department of Transportation Construction and Material Specifications" (including supplemental specifications) and applicable standard construction drawings shall apply to this project in addition to the following notes.

Traffic shall be maintained at all times to the satisfaction of the City of Tipp City. The item of maintaining traffic shall be in accordance with the Ohio Manual of Uniform Traffic Control Devices (OMUTCD) and include the furnishing of lights, signs, barricades, and flaggers equipped with "Walkie-Talkie" radio gear that will insure constant communication between the flaggers at all times in order to provide unimpeded flow of traffic twenty-four (24) hours daily. All work associated with this item shall be included in the bid price per lump sum maintaining traffic. No work shall be done between 6:00 p.m. Friday and 6:00 a.m. Monday, unless otherwise authorized by the City.

✳ The Contractor shall be responsible for maintaining safe and effective vehicular traffic control 24 hours a day for the duration of this project. This will include providing, placing, maintaining, and subsequently removing all necessary traffic control devices for all proposed construction operations.

Before the work begins, the Contractor shall submit to the Engineer, the name(s) and telephone number(s) of a person or persons who can be contacted 24 hours a day by the Engineer or any other interested police agency.

This person or persons shall be responsible for repairing and/or replacing all traffic control devices needed to maintain the safety of the traveled pavement for the duration of this project. This person shall have available all materials, equipment and incidentals necessary to perform the required repairs within a reasonable period of time as per C.M.S. 614.14.

The Contractor shall also submit a construction sequencing schedule prior to work beginning for approval by the Engineer. The construction sequencing schedule shall take into consideration all aspects of the project including how local traffic to the businesses will be maintained. The construction sequence will need to be approved by the Engineer prior to any commencement of work.

Access to and from all local residential and businesses drives within the limits of the project shall be maintained at all times (24 hours a day) by using the existing pavement, temporary pavement, and the proposed pavement, unless otherwise directed by the Engineer.

Temporary access shall be provided to all driveways and alleys with a change in elevation from driveway access to temporary drive ramp not to exceed 1-1/2".

The Contractor shall notify the Engineer 14 days prior to the start of any detour or lane restrictions. The Engineer is required to provide a 14-day notification prior to the start of detour/lane restrictions to Miami County Engineer and ODOT. This detour/lane restriction communication must state date of closure and length of closure. All local schools and emergency services which are likely to utilize the affected section of Commerce Park Drive are to be notified of the detour not less than 2 weeks prior to road closure.

The Contractor shall give the City of Tipp City, Miami County Engineers, and ODOT a minimum of 14 calendar days' notice prior to closing any road or movement to traffic.

Any damage to maintenance of traffic equipment such as signs, drums, etc., shall be the responsibility of the Contractor.

The Contractor will be required to provide, erect, maintain (in proper position, clean and legible, and in good working condition), and subsequently remove all lights, signs, cones, barricades, existing pavement markings, and any other traffic control devices necessary for the maintenance of traffic.

The Contractor shall adjust the location and/or spacing of all traffic control channeling devices as dictated by the progress of the required work to allow construction access to work areas while maintaining safe and effective traffic control during all construction operations. The original location,

placement, spacing and subsequent relocation or removal of all traffic control devices shall be subject to the Engineer's approval.

It is intended that the local traffic not be subjected to any lane closures unless active work is being performed in or immediately adjacent to the closed lane. The roadway shall not be restricted to any lane closure during periods of intermittent or irregular work, nor closed solely for the convenience of the contractor. The engineer shall make the final determination as to what constitutes active work and whether or not the lane closure is justified.

If, in the opinion of the Engineer, the lane closure is not justified, they may order all or part of the lane closure reopened to local traffic (until such time this condition is corrected).

The Contractor shall notify the Engineer of any intended changes to any existing or temporary traffic control devices and shall obtain the Engineer's approval prior to making the changes. The Contractor shall also notify the Engineer and local newspaper 14 days in advance of any intended lane closures.

The Contractor shall follow the following ODOT Standard Construction Drawings:

On both CR25A and Kessler-Cowlesville Road, only one lane maximum shall be closed down at any one time.

While the outer right curb lane on CR-25A is closed, the Contractor shall follow ODOT's SCD MT-95.31.

While the center through lane on CR-25A is closed, the Contractor shall follow ODOT's SCD MT-95.32. The contractor shall also bag the Two-Way Left Turn Lane Signs (R3-9b) during this phase.

While the two-way left turn lane on both CR-25A and Kessler-Cowlesville are closed, the Contractor shall follow ODOT's SCD MT-95.60.

Notice of the detours will be posted in the local media prior to the road closures and emergency services will also be notified. Access for local traffic will be provided at all times during the road closures.

ITEM 254: PAVEMENT PLANING, ASPHALT CONCRETE

An estimated quantity of Item 254-Pavement Planing, asphalt concrete has been carried to the general summary and included in the Plans to be used as directed by the Engineer.

The approximate depth of pavement planning varies from one and one quarter inches (1.25") at the curb to zero, 11 feet from the curb as shown on the typical sections for County Road 25A and to 7' on Kessler-Cowlesville Road. All planed cuttings shall become the property of the Contractor and shall be removed from the limits of the project.

The approximate width of pavement planning varies from seven feet (7') to eleven feet (11'), as per plan.

The Contractor shall begin placement of Item 442-Asphalt concrete surface course within 5 days after Item 254-pavement planning.

There are manhole and water valve castings within the paving area. The Contractor shall be responsible for furnishing all labor and equipment necessary to maintain traffic around the castings and shall include this cost in the unit price bid for Item 614-Maintaining traffic.

Any castings that require adjusting during construction are the responsibility of the Contractor. All labor, material and equipment necessary for the adjustments of castings shall be included in Item 638. Any new castings required shall be furnished by the Contractor.

All manholes and water valves shall be raised to 1/4" below proposed final finish pavement grade prior to the asphalt resurfacing course being placed. For concrete adjustments- the Contractor shall neatly cut out and remove the asphalt in a circular pattern, raise the manhole and/or water valve casting to 1/4" below proposed final finish pavement grade, concrete the resulting void to within approximately 1 1/2" of the proposed finished grade with minimum 4000 psi concrete. For metal ring adjustments- the adjusting ring shall be placed and asphalt cement applied around the metal ring to firmly hold it in place. The use of metal adjusting rings must be approved for use by the City Engineer or his designee prior to their installation. All traffic control and miscellaneous related work associated with adjusting manholes and water valves shall be included in the unit price bid for the respective item. Some manholes and water valves will need no adjustments, as directed by the City Engineer. These manholes and water valves will be carefully luted around and left at 1/4" below final pavement grade at no additional cost to the City.

ITEM 644: PAVEMENT MARKINGS

The Contractor shall document all existing pavement markings to be replaced in kind. The Contractor shall coordinate and collaborate the layout of all pavement markings with the City of Tipp City.

ALIGNMENT AND PROFILE

The work proposed by this project consists of pavement planning and resurfacing of the existing pavement. The alignment of the existing pavement will not be changed and the profile of the proposed surface will be similar to that of the existing pavement.



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PID # 95924

MIA-CR25A & KESSLER-COWLESVILLE RD
REPAVING PROJECT

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ITEM 442: ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (448), AS PER PLAN- CO. RD. 25A
 The material used for the resurfacing shall consist of one and one-half inches (1.5") of Item 442, Asphalt Concrete Surface Course, 12.5 MM, Type A (448), as per plan. The 442.04 binder shall be PG 76-22M for the surface course. The requirements of 448.03 density shall apply.

The Contractor shall use a material transfer vehicle for the mainline surface course. This vehicle shall be a non-contact vehicle and shall be capable of transferring and remixing the asphalt concrete from the truck to the paver. All costs associated with this equipment shall be included in Item 442, Asphalt Concrete Surface Course.

During the paving operation, the longitudinal joint shall be placed in the location of the lane line and center line markings.

ITEM 442: ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (448), AS PER PLAN -KESSLER-COWLESVILLE RD.

The material used for the resurfacing shall consist of one and one-half inches (1.5") of Item 442, Asphalt Concrete Surface Course, 12.5 MM, Type A (448), as per plan. The 442.04 binder shall be PG 70-22M for the surface course. The requirements of 448.03 density shall apply.

The contractor shall use a material transfer vehicle for the mainline surface course. This vehicle shall be a non-contact vehicle and shall be capable of transferring and remixing the asphalt concrete from the truck to the paver. All costs associated with this equipment shall be included in Item 442, Asphalt Concrete Surface Course.

During the paving operation, the longitudinal joint shall be placed in the location of the lane line and center line markings.

ITEM 632: DETECTOR LOOP AND TIE IN

During the course of this contract, it may be necessary for the Contractor to coordinate loop detector work with the City of Tipp City and other contractors involved with asphalt planning and resurfacing projects. The Contractor shall replace loop detectors removed by asphalt planning operations prior to placement of the asphalt resurfacing.

The City of Tipp City will provide to the Contractor a set of plans showing the location of the loops to be replaced. The Contractor shall coordinate all necessary work.

The Contractor shall coordinate and collaborate the layout of all loop detectors and pavement markings with the City of Tipp City.

The front edge of the powerhead loop detectors shall be located one (1) to three (3) feet behind the rear edge of the stop line.

The City of Tipp City shall be present when the contractor marks the location where the pavement is to be sawed to be assured that the proposed loop detectors are in the same place as the existing loop detectors. All loop detector installations shall be completed before Item 442-Asphalt Concrete Surface Course in place.

The City of Tipp City shall be responsible for disconnection and reconnection of the loop detectors in the system. The Contractor shall give the City of Tipp City and ODOT forty-eight (48) hours notice, before performing this work. The City of Tipp City phone is (937) 667-6305 and the Ohio Department of Transportation is (937) 497-6841.

All loops are to be powerhead design per ODOT SCD TC-82.10.

This work shall consist of making connections to existing loop detector lead-in wire, whether that wire is underground or aerial, included in this item is the poured waterproof epoxy insulated splice kit (conforming to 725.15) that must be used in making these connections.

All connections of the loop wire to the loop leads shall be soldered prior to being placed in the splice kits.

This item is needed only when a tie-in situation exists, when all new lead-in wire is specified in the plan, this item of work is not required.

Payment for this item will include all necessary labor, miscellaneous hardware and equipment required to provide for the loop detector tie-in and operation. Basis of payment will be at the contract bid price per each.

ITEM 633: ADVANCE/DILEMMA ZONE DETECTION SYSTEM AS PER PLAN

This item of work shall consist of furnishing and installing an advance/dilemma zone detection unit capable of intersection advance detection control utilizing above ground digital wave radar techniques. The unit shall be non-intrusive and shall detect vehicles from 50 feet up to 600 feet from the unit. The unit shall provide up to 8 detection zones simultaneously for intersection control. One unit shall be

provided per approach, where specified in the plans, covering multiple lanes where advance detection is required. The detection unit shall include the following list of features and capabilities:

- The unit shall provide accurate presence-detection of both stopped and moving vehicles. The unit shall be mounted in a forward-fire, looking at either approaching or departing traffic and shall only detect vehicles in one direction of travel.
- The unit shall be tested to meet NEMA TS2 Environmental standards and maintain accurate performance in the following conditions:
 - Rain up to 4 inches per hour, freezing rain, snow, wind, dust, fog, changing temperature, and changing lighting.
- The radar design for each unit shall conform to the following:
 - Operating frequency: 10.5- 10.55 GHz (X-Band)
 - Matrix of a minimum of 16 Radars
 - No manual tuning to circuitry
 - Transmits modulated signals generated digitally
 - No temperature-based compensation necessary
 - Band width stable within 1%
 - Printed circuit board antennas
 - Antenna Vertical 6 dB Beam Width (two-way pattern): 80 degrees
 - Antenna Horizontal 6 dB Beam Width (two-way pattern): 10.5 degrees
 - Antenna Two-Way Sidelobes: -40dB
 - Transmit Bandwidth: 45 MHz
 - Un-Windowed Resolution: 11 feet
 - RF Channels: 4
- The unit shall include a simple setup routine that shall automatically configure and calibrate the unit for proper operation during installation. The unit shall also be capable of being programmed and updated from a laptop computer or other portable programming device, such as a pocket PC, via a local or remote ethernet connection using vendor supplied software. The software shall support TCP/IP connectivity, unit configuration back-up and restore, and virtual sensor connections. The graphical user interface shall operate on a Windows platform.
- The unit shall have one full-Duplex RS2-232 and one half-Duplex RS-485 communication ports and shall have the ability to upgrade firmware over any communication port.
- The unit shall be mounted directly to a pole or mast arm, as recommended by the manufacturer. Cable(s) shall be provided as required and recommended by the manufacturer.
- Surge protection devices, as recommended by the manufacturer, shall be included both at the pole where the unit is located to protect the unit and in the traffic cabinet to protect the cabinet electronics.
- Power shall be provided from the traffic cabinet. The unit shall consume less than 10 watts and operate from a DC input between 9 VDC and 28 VDC. Complete and automatic recovery from a power failure shall be within 15 seconds after resumption of normal power.
- All required input cards shall be included in the traffic cabinet and shall be compatible with Caltrans, NEMA TS1 and NEMA TS2 Detector racks. The cards shall provide true presence detector calls or contact closure to the traffic controller.
- The manufacturer's representative shall be on site during installation and testing and shall provide onsite training on the setup, operation, and maintenance of the unit.
- The unit shall come with a 2-year manufacturer warranty.

The contractor shall coordinate with the City for field location of each detector. A city representative shall be present during the programming of these detectors. The contractor shall also have a bucket truck present to physically aim/move the units as necessary during the programming.

As initial settings (which may be adjusted during coordination with the City):

- Minimum Velocity Filter: 7 mph
- Time to Stop Bar: 1.8 Sec ≤ vehicle call ≤ 5 sec.

This item shall include all mounting hardware, wiring, installation and testing. The existing detector units and associated lead-in cables for the northbound and southbound loop detectors on CR25A where we are now going to be using radar detection, shall be removed as part of this line item.

Payment for Item 633 Advance/Dilemma Zone Detection System, as per plan, shall be made at the contract unit price for each unit, complete and in place including all required cabinet hardware, mounting brackets, cables, conduit, connections tested and accepted, and any other necessary hardware to establish a fully functional detection system.

ITEM SPECIAL: TACK COAT, TRACKLESS TACK COAT FOR INTERMEDIATE AND SURFACE COURSES

Description: This work consists of preparing and treating a paved surface with NTSS-1HM Trackless Tack produced by Blackidge Emulsions, Inc. and meet all requirements of construction and material specifications Item 407-Tack Coat except as noted below.

Material: Conform to the following typical physical properties: (SEE CHART BELOW)

Note: Product should not contain filler such as clay, etc. to keep from freezing. Supply certified test data to the Engineer showing the material supplied was tested for and meets the above properties.

Equipment: All requirements of 407.3 apply. See Manufacturer's representative for correct distributor settings. Thoroughly clean all equipment if cationic emulsion was previously used.

Weather Limitations: All requirement of 407.04 apply.

Preparation of Surface: All requirements of 407.05 apply.

Application of Asphalt Material: Uniformly apply the asphalt material with a distributor per the requirements of 407.06 except as noted.

Dilution is not allowed.

If product is stored for an extended period of time, prior to application, agitate or gently circulate the material.

All nozzles and spray patterns shall be identical to one another along the distributor spray bar. The angle of the nozzle should be a 15-30 degree angle to the spray bar axis to maximize overlap or as recommended by the nozzle manufacturer. Contact the manufacturer's representative for required spray nozzle size and distributor and nozzle settings.

Apply at a rate of 0.04 to 0.08 gallons per square yard. Recommended application temperature is 160°F to 180°F. Do not exceed 180°F.

The Engineer and manufacturer's representative will approve rate of application, temperature, distributor settings, and areas to be treated before application of the tack coat. The Engineer will determine the actual application in gallons per square yard by a check on the project.

The application is considered satisfactory when the material is applied uniformly with no visible evidence of streaking or ridging and the application rate is 100% of the specified rate.

Method of measurement: All requirement of 407.07 apply.

Basis of Payment: The department will not pay for non-uniformly applied materials as defined in 407.06.

The Department will pay for accepted quantities at the contract prices as follows:

Item	Unit	Description
Special	Gallon (Liter)	Tack Coat, Trackless Tack
Special	Gallon (Liter)	Tack Coat, Trackless Tack for Intermediate Course

PARAMETER	TEST METHOD	MIN.	MAX.
SAYBOLT FUPOL VISCOSITY, cP @ 25°C	ASTM D88	18	100
STORAGE STABILITY, 24 HOURS, %	ASTM D44	-	1
STORAGE STABILITY, 5 DAYS, %	ASTM D44	-	8
RESIDUE BY DISTILLATION, %	ASTM D44	99	-
OIL DISTILLATE, %	ASTM D234	-	1
SIEVE TEST, %	ASTM D43	-	0.3
TEST ON RESIDUE			
PENETRATION, @ 25°C	ASTM D5	-	20
SOFTENING POINT RANGE °C	ASTM D53	85	-
SCUMBLITY, %	ASTM D442	97.5	-
ORIGINAL BINDER DSR @ 62°C 0.1Hz, 10RAD/SEC	AASHTO T111	1	-



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 REPAVING PROJECT

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ITEM 253: PAVEMENT REPAIR, AS PER PLAN

Pavement repair shall be in accordance with Item 253- Pavement Repair- with the following additions. The areas of Item 253, Pavement Repair, as per plan are located as follows:

The Engineer shall designate the locations and limits of the areas to be repaired. The repair areas shall be roughly rectangular in shape and sawed to a neat line. The pavement shall be removed within the designated areas by methods which will not damage the adjacent pavement. The depth of removal, as directed by the Engineer, shall be sufficient to remove all deteriorated pavement to a depth per the pavement repair details shown on the plan.

The estimated pavement repair areas are shown per plan. The entire area and all vertical faces of the repair area shall be tacked prior to placing the asphalt concrete base, as per plan.

The asphalt shall be placed and compacted to finish flush with the milled pavement surface and to accommodate the proposed overlay. Compaction shall be achieved by mechanical methods to the satisfaction of the Engineer.

Payment shall include all labor, sawing equipment and materials necessary to complete the pavement repair. An estimated quantity is provided in the General Summary to be used as directed by the Engineer. Payment will be made at the unit price bid per square yard of Item 253-Pavement Repair, as per plan.



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REPAVING PROJECT

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COUNTY ROAD 25A GENERAL SUMMARY

REF. NO.	ITEM NO.	GRAND TOTAL	UNIT	DESCRIPTION
1	202	0	S.F.	Walk Removed
2	253	20	S.Y.	Pavement Repair, as per plan
3	254	11,838	S.Y.	Pavement Planing, Asphalt Concrete, as per plan
4	304	0	C.Y.	Aggregate Base for Berm
5	442	270	C.Y.	Asphalt Concrete Intermediate Course, 9.5mm, Type B (448), as per plan, PG 64-28
6	442	1,358	C.Y.	Asphalt Concrete Surface Course, 12.5mm, Type A (448), as per plan, PG 76-22M
7	442	68	C.Y.	Asphalt Concrete Surface Course, 12.5mm, Type A (448), 5% Contingency, PG 76-22M
8	608	0	S.F.	Curb Ramps, as per plan
9	611	2	EACH	Manhole Adjusted to Grade with Concrete
10	611	7	EACH	Manhole Adjusted to Grade with Metal Ring
11	614	1	Lump Sum	Maintaining Traffic, as per plan
12	623	0	EACH	Monument Box adjusted to Grade with Concrete
13	624	1	Lump Sum	Mobilization
14	630	180	S.F.	Sign, Flat Sheet
15	630	405	FEET	Sign Support Assembly, Square Post per 730.016
16	630	29	EACH	Removal of Ground Mounted Sign & Disposal
17	630	29	EACH	Removal of Ground Mounted Post Support & Disposal
18	632	0	EACH	Detector Loop and Tie In, as per plan
19	633	4	EACH	Advance/Dilemma Zone Detection System, as per plan
20	638	55	FEET	10" Ductile Iron Water Main, Class 53, as per plan
21	638	1	EACH	12" x 10" Tapping Sleeve, Valve, & Valve Box
22	638	1	EACH	Fire Hydrant Assembly, as per plan
23	638	3	EACH	Water Valve Box Adjusted to Grade with Concrete
24	638	4	EACH	Water Valve Box Adjusted to Grade with Metal Ring
25	644	0.29	MILES	Edge Line, 4" Solid White, as per plan
26	644	0.87	MILES	Center Line, 4" Solid Double Yellow, as per plan
27	644	0.48	MILES	Center Line, 4" Solid/Skip Yellow, as per plan
28	644	0	MILES	Center Line, 4" Skip Yellow, as per plan
29	644	688	FEET	Transverse/Diagonal Line, 12" Solid Yellow, as per plan
30	644	203	FEET	STOP Line, 24" Solid White, as per plan
31	644	535	FEET	Channelizing Line, 8" Solid White, as per plan
32	644	17	EACH	Lane Arrow, Solid White, as per plan
33	SPEC	3800	GAL.	Tack Coat, Trackless Tack Coat for Intermediate & Surface Courses, as per plan
CALCULATED BY		GENERAL SUMMARY		
CHECKED BY				
		PID 95924		

KESSLER - COWLESVILLE GENERAL SUMMARY

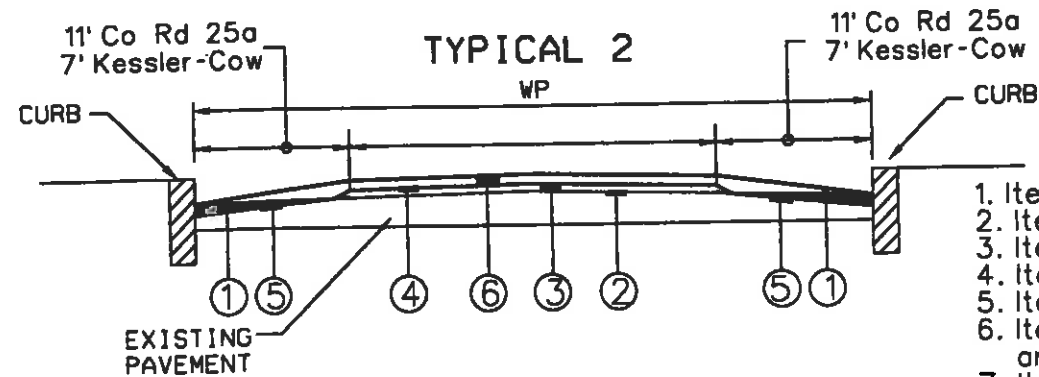
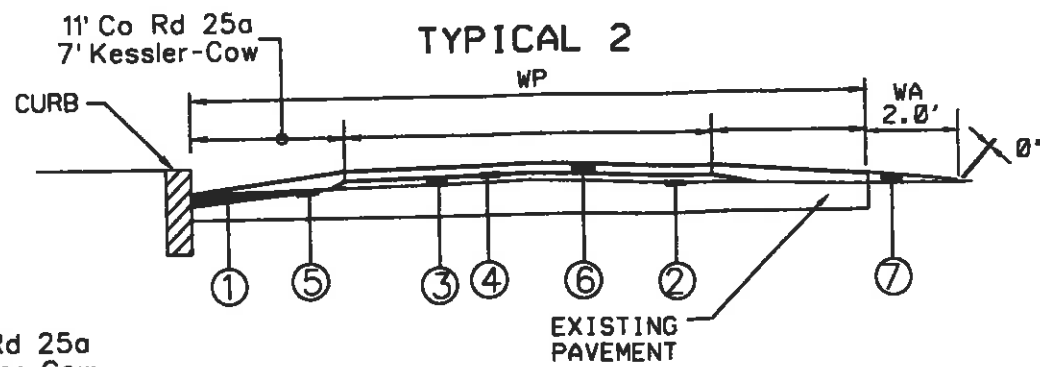
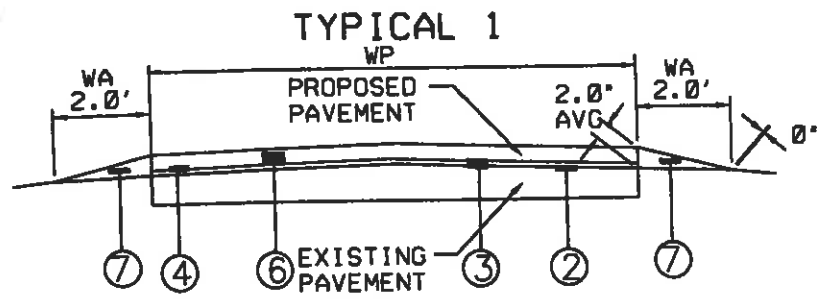
REF. NO.	ITEM NO.	GRAND TOTAL	UNIT	DESCRIPTION
1	202	854	SF	Walk Removed
2	253	150	S.Y.	Pavement Repair, as per plan
3	254	7306	S.Y.	Pavement Planing, Asphalt Concrete, as per plan
4	304	83	C.Y.	Aggregate Base for berm
5	442	251	C.Y.	Asphalt Concrete Intermediate Course, 9.5mm, Type B (448), as per plan, PG 64-28
6	442	1,058	C.Y.	Asphalt Concrete Surface Course, 12.5mm, Type A (448), as per plan, PG 70-22M
7	442	53	C.Y.	Asphalt Concrete Surface Course, 12.5mm, Type A (448), 5% Contingency, PG 70-22M
8	608	854	SF	Curb Ramps, as per plan (including detectable warning)
9	611	6	EACH	Manhole Adjusted to Grade with Concrete
10	611	10	EACH	Manhole Adjusted to Grade with Metal Ring
11	614	1	Lump Sum	Maintaining Traffic, as per plan
12	623	1	EACH	Monument Box Adjusted to Grade with Concrete
13	624	1	Lump Sum	Mobilization
14	630	290	S.F.	Sign, Flat Sheet
15	630	810	FEET	Sign Support Assembly, Square Post per 730.016
16	630	58	EACH	Removal of Ground Mounted Sign & Disposal
17	630	58	EACH	Removal of Ground Mounted Post Support & Disposal
18	632	2	EACH	Detector Loop and Tie In, as per plan
19	633	0	EACH	Advance/Dilemma Zone Detection System, as per plan
20	638	0	FEET	10" Ductile Iron Water Main, Class 53, as per plan
21	638	0	EACH	12" x 10" Tapping Sleeve, Valve, & Valve Box
22	638	0	EACH	Fire Hydrant Assembly, as per plan
23	638	1	EACH	Water Valve Box Adjusted to Grade with Concrete
24	638	3	EACH	Water Valve Box Adjusted to Grade with Metal Ring
25	644	1.34	MILES	Edge Line, 4" Solid White, as per plan
26	644	0.72	MILES	Center Line, 4" Solid Double Yellow, as per plan
27	644	1.00	MILES	Center Line, 4" Solid/Skip Yellow, as per plan
28	644	0.20	MILES	Center Line, 4" Skip Yellow, as per plan
29	644	120	FEET	Transverse/Diagonal Line, 12" Solid Yellow, as per plan
30	644	32	FEET	STOP Line, 24" Solid White, as per plan
31	644	512	FEET	Channelizing Line, 8" Solid White, as per plan
32	644	20	EACH	Lane Arrow, Solid White, as per plan
33	SPEC	2935	GAL.	Tack Coat, Trackless Tack Coat for Intermediate & Surface Courses, as per plan

CALCULATED BY	PID 95924	GENERAL SUMMARY
CHECKED BY		

Prepared By: LPA
 City of Tipp City
 260 S Garber Dr - Tipp City, Ohio 45371
 (937) 687-8305

PID # 95924

MIA-CR25A & KESSLER-COWLESVILLE RD
 REPAVING PROJECT



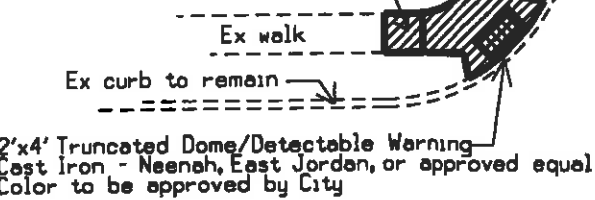
1. Item 254 - Pavement Planing (0" - 1.25")
2. Item Special - Tack Coat, Trackless Tack (0.075 Gal/SY)
3. Item 442 - Asph Conc Intermediate Course, 9.5mm, Type B (448) avg 0.5"
4. Item Special - Tack Coat, Trackless Tack (0.04 Gal/SY)
5. Item Special - Tack Coat, Trackless Tack (0.115 Gal/SY) Planed Surfaces
6. Item 442 - Asph Conc Surface Course, 12.5mm, Type A (448) 1.5"
areas of conc curb to be finished 0.25" above gutter plate
7. Item 304 - Compacted Aggregate, avg 2.0" Thick

All Conc shall meet ITEM 452 0001 specifications.

Concrete shall be 4" min Thickness non-reinforced, with a min 3" thickness of 304 Agg. base compacted

Remove and replace curb ramp to meet ADA Grade and Slope Requirements

Remove 1 panel ex walk (typ)



2'x4' Truncated Dome/Detectable Warning Cast Iron - Neenah, East Jordan, or approved equal Color to be approved by City

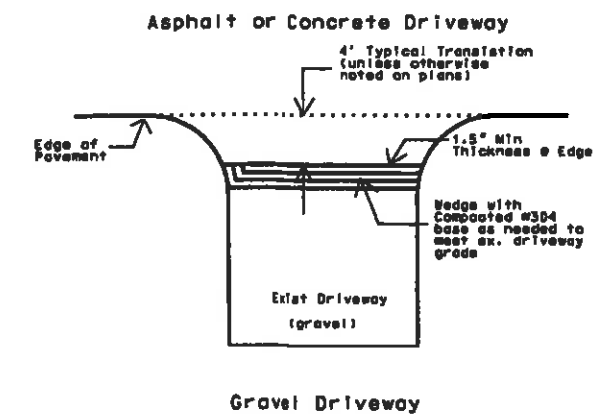
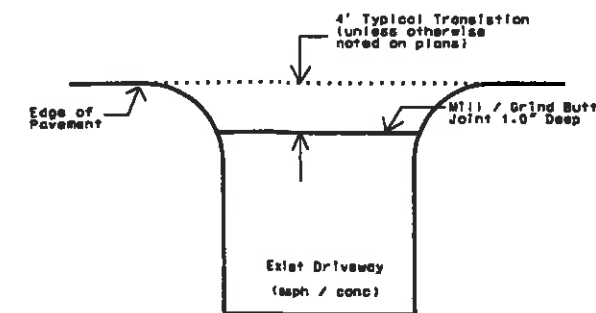
* Payment per ITEM 608 Curb Ramp shall include truncated domes and all labor, materials required to complete this work.

TYPICAL - CONCRETE ADA TYPE C2 - CURB RAMP REPLACEMENT
no scale

PAVEMENT DATA

LIMITS	STATION TO STATION	LENGTH		WP PAVEMENT WIDTH AVG. FEET	TYPICAL	PAVEMENT AREA SQ. YD.	PROPOSED PAVEMENT										304		
							SURFACE OVERLAY	ASPHALT CONCRETE				254 PVM'T PLANING AVG 0"-1.25" SQ. YD.	PLANED AREAS SPECIAL TACK TRACKLESS TACK @.115 GAL./SQ. YARD GALLONS	INTERMEDIATE SPECIAL TACK TRACKLESS TACK @.075 GAL./SQ. YARD GALLONS	COMPACTED AGGREGATE				
								SPECIAL TACK TRACKLESS TACK @.04 GAL./SQ. YARD GALLONS	442 INTERM	442 SURFACE	THICK INCH				CUBIC YARD	THICK INCH	CUBIC YARD	THICK INCH AVG.	CUBIC YARD
CR 25A Commerce to Kessler-Cow.	152+60 to 176+00	0.44	2340	59.0	2	15,340	384.8	0.5	132.2	1.5	639.2	5822.8	667.3	721.5	0	0			
	176+00 to 185+50	0.18	950	44.1	2	4,655	93.3	0.5	32.4	1.5	194.0	2322.2	267.1	175.0	0	0			
	185+50 to 190+80	0.10	530	56.0	2	3,298	80.1	0.5	27.8	1.5	137.4	1295.6	149.0	150.2	0	0			
	190+80 to 198+00	0.14	720	44.1	2	3,528	70.7	0.5	24.6	1.5	147.0	1760.0	208.0	132.6	0	0			
CR 25A Ramp - DDW	218+00 to 224+50	0.12	650	80.0	2	5,778	167.6	0.5	52.9	1.5	240.7	637.8	219.8	314.2	0	0			
SUBTOTAL COUNTY RD. 25A		0.98	5190			32,599.0	796.0		270.0		1358.0	11,838	1511.0	1493.0	0	0			
Kessler-Cowl. Corp Limits to Peters	20+15 to 24+18	0.08	403	19.8	1	887	35.5	0.5	12.0	1.5	36.9	22.0	2.5	66.5	2	10.0			
	24+18 to 37+60	0.25	1342	28.2	3	4,205	126.4	0.5	43.9	1.5	175.2	1,067.3	122.7	237.1	2	16.5			
Kessler-Cowl. Peters to Co. Rd 25A	38+20 to 53+63	0.29	1543	22.5	1	3,858	154.3	0.5	53.0	1.5	160.7	89.7	2.9	289.3	2	37.9			
	53+63 to 59+00	0.10	537	26.5	3	1,581	46.5	0.5	16.2	1.5	65.9	417.7	48.0	87.3	2	6.6			
	59+00 to 66+00	0.13	700	26.0	3	2,022	59.1	0.5	20.5	1.5	84.3	544.4	62.6	110.8	2	8.6			
	66+00 to 69+00	0.06	300	30.0	3	1,000	30.7	0.5	7.4	1.5	41.7	233.3	26.8	57.5	2	3.7			
	69+00 to 70+00	0.02	100	35.3	2	392	9.5	0.5	4.4	1.5	16.3	155.6	17.9	17.8	2	0			
	70+00 to 72+00	0.04	200	44.5	2	989	27.1	0.5	9.4	1.5	41.2	351.1	35.8	50.8	2	0			
	72+00 to 73+00	0.02	100	39.0	2	433	11.1	0.5	3.9	1.5	18.1	155.6	22.5	20.8	2	0			
	73+00 to 99+60	0.05	2260	33.9	2	8,513	235.3	0.5	80.3	1.5	417.5	4,268.9	478.4	441.1	2	0			
SUBTOTAL KESSLER - COWLESVILLE		1.42	7485			23,800.0	735.5		251.0		1058.0	7,306.0	820.2	1379.0	83.4	0			
TOTAL PROJECT		2.40	12,675			56,479.0	1531.0		521.0		2416.0	19,144.0	2331.2	2872.0	83.4	0			

DRIVEWAY DETAILS



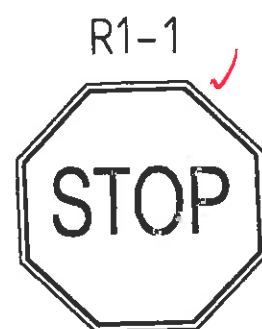
PAVEMENT DATA

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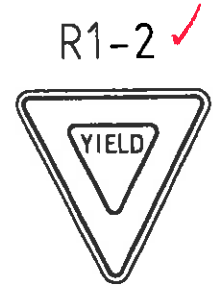
City of Tipp City
280 S Garber Dr - Tipp City, Ohio 45371
(937) 687-6305

PID # 95924

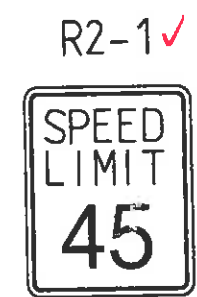
MIA-CO. RD 25A & KESSLER - COWLESVILLE RD
REPAVING PROJECT



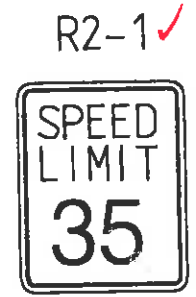
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36 X 36	3



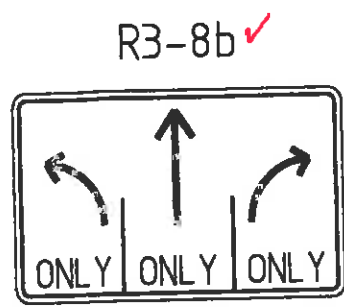
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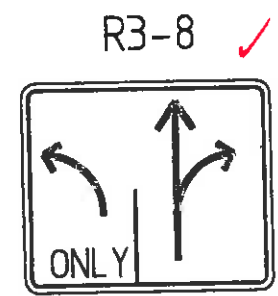
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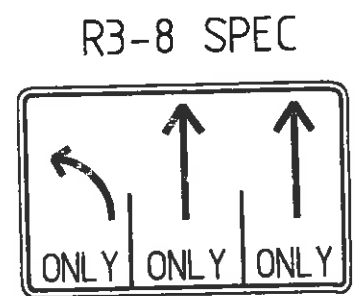
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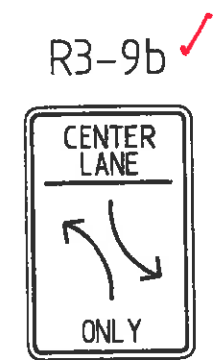
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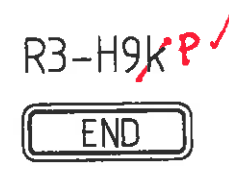
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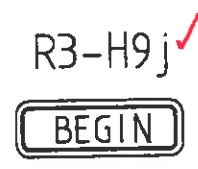
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SIZE	QTY
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SIZE	QTY
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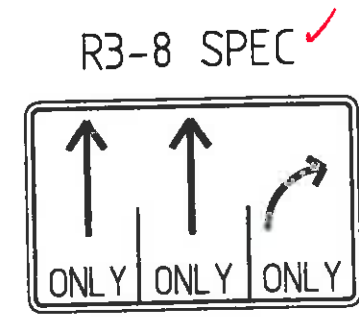
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SIZE	QTY
12 X 18	24



SIZE	QTY
30 X 24	2



SIZE	QTY
48 X 30	1



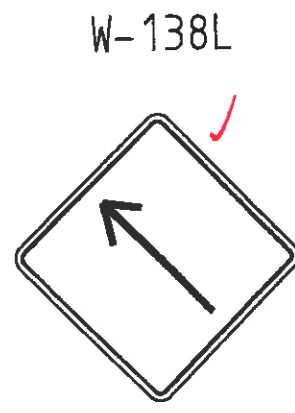
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12 X 36	2



SIZE	QTY
12 X 36	11



SIZE	QTY
36 X 36	2



SIZE	QTY
36 X 36	6



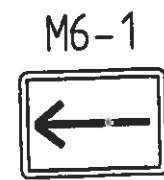
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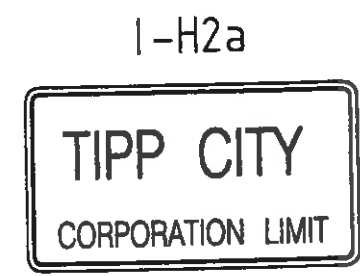
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SIZE	QTY
21 X 15	1



SIZE	QTY
21 X 15	1



SIZE	QTY
40 X 20	3



SIZE	QTY
24 X 18	3



SIZE	QTY
24 X 18	3

NOTE: LOCATIONS SHOWN ON PLANS, IN GENERAL REMOVE AND REPLACE EXISTING SIGNS IN KIND GRAPHIC REPRESENTATION ONLY - ALL SIGNS SHALL CONFORM TO THE M.U.T.C.D. LATEST EDITION

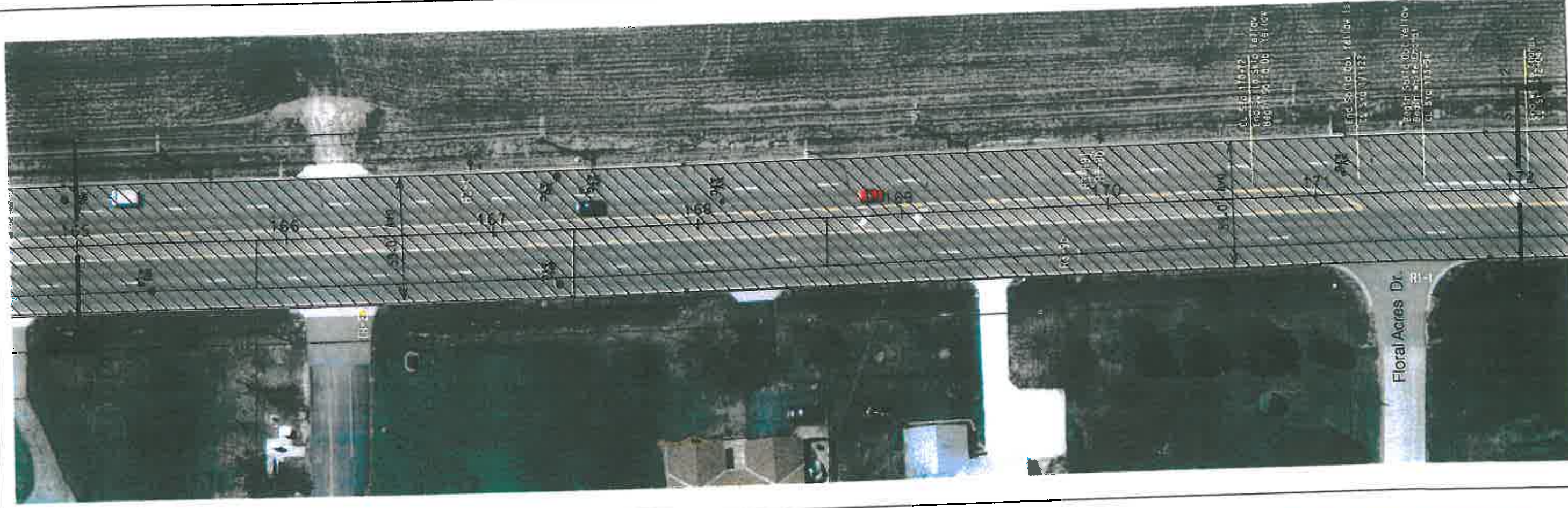
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(937) 867-5805

PID # 95924

MIA-CRESA & KESSLER-COWLESVILLE RD
REPAVING PROJECT

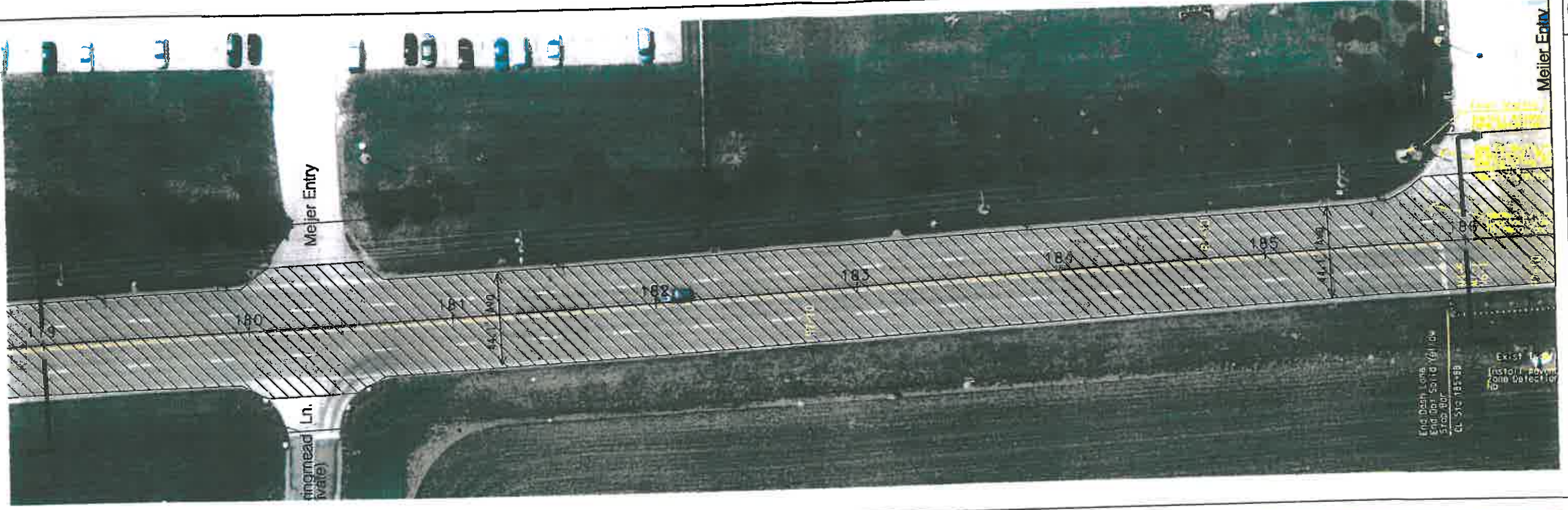
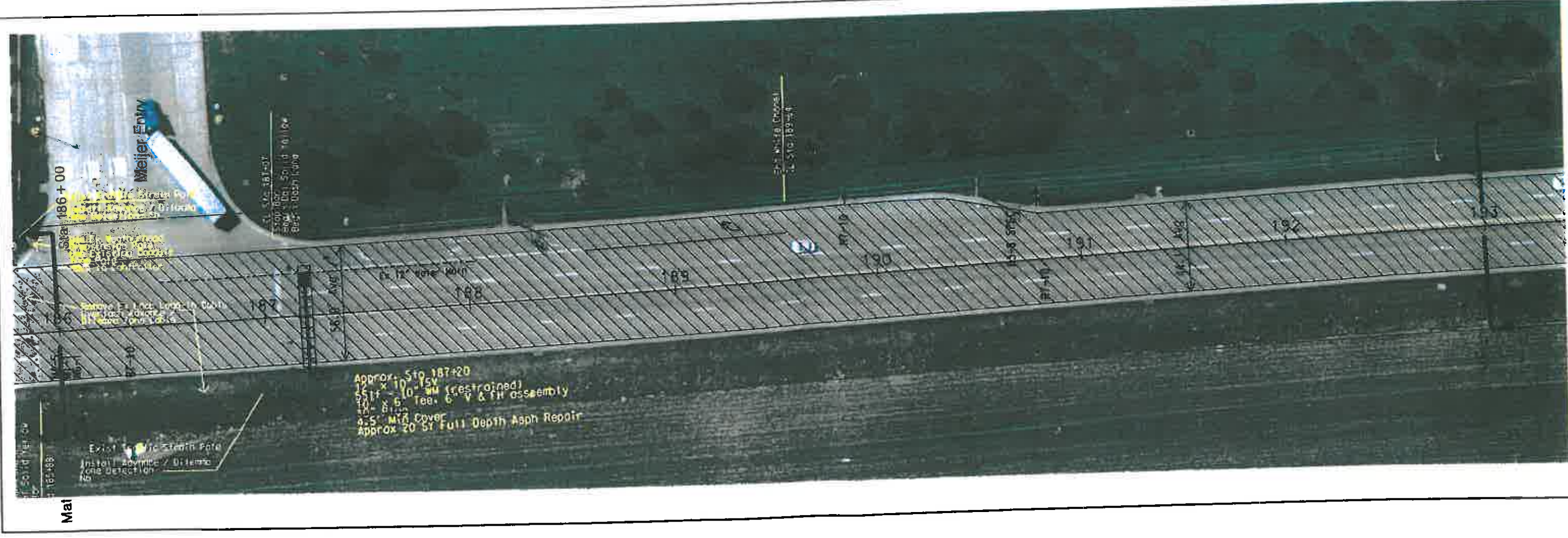




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MIA-CO. RD 25A & KESSLER - COWLESVILLE RD
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PID # 95924



Mat

Meijer Entry

Meijer Entry

Meijer Entry Ln.

EXIST 1\"/>

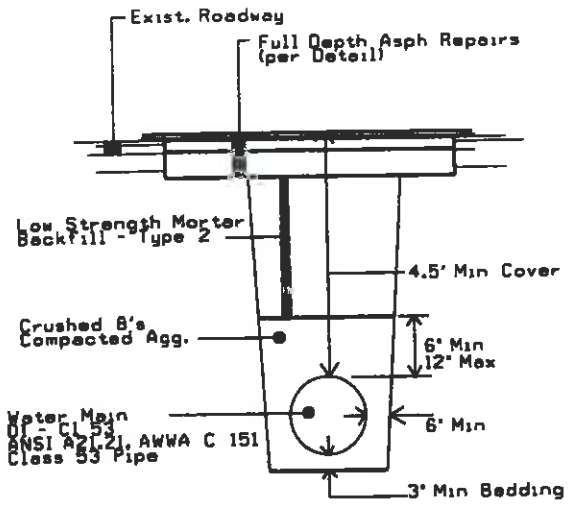
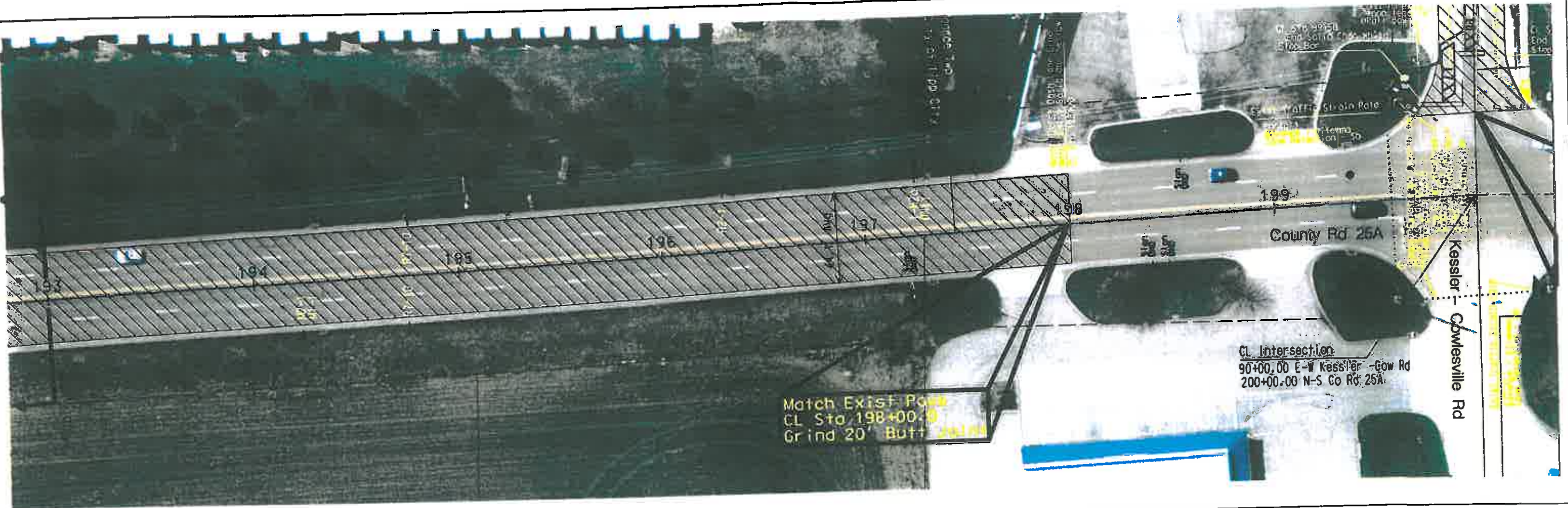
EXIST 1\"/>



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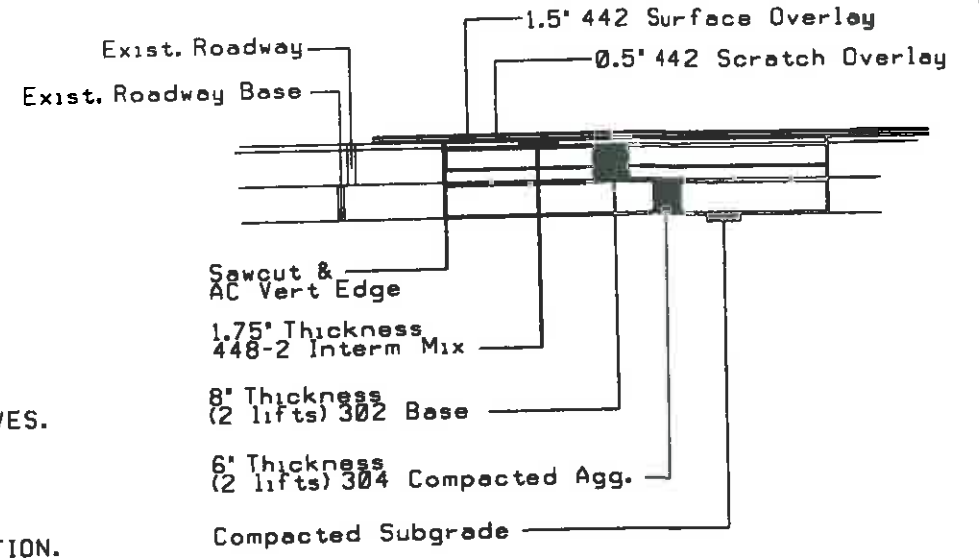
PID # 95924

MIA-CR25A & KESSLER-COWLESVILLE RD
 REPAVING PROJECT



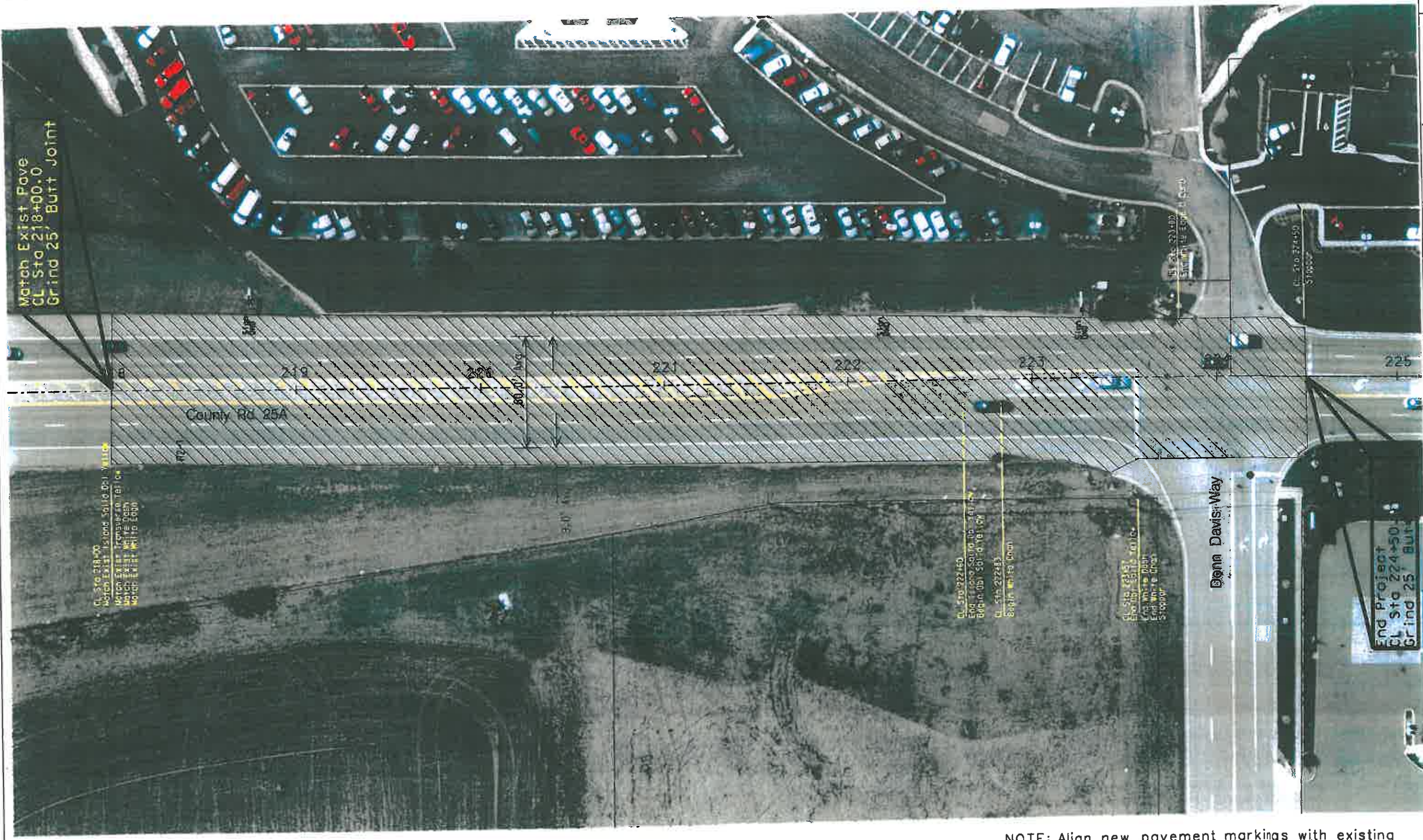
Trench Detail - Water Main
 County Road 25A
 (Approx Sta 187+28 +/-)

ITEM 638 WATER MAIN, AS PER PLAN:
 THIS ITEM OF WORK SHALL CONSIST OF THE WORK DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 638 WATER MAINS AND SERVICE BRANCHES, EXCEPT AS HEREIN MODIFIED.
 ALL MATERAILS, PROCEDURES AND TESTING USED SHALL CONFORM WITH TIPP CITY ENGINEERING STANDARDS AND SPECIFICATIONS.
 PAVEMENT RESTORATION, CURB AND GUTTER, PLAIN CONCRETE PAVEMENT AND ALL ASPHALT PAVEMENT SHALL BE INCLUDED UNDER "FULL DEPTH ASPHALT REPAIR". STRUCTURAL BEDDING AND ANY REQUIRED STRUCTURAL BACKFILL SHALL BE INCLUDED WITH THIS ITEM, AS DESCRIBED PER DETAIL AND PER PLAN.
 CONTRACTOR TO USE ONLY DOMESTIC PIPE AND FITTINGS.
 CONTRACTOR TO USE ALL STAINLESS STEEL BANDS FOR ALL TAPPING SLEEVES AND VALVES.
 PAYMENT FOR ITEM 638 WATER MAIN, AS PER PLAN, FOR ALL OPERATIONS DESCRIBED (INCLUDING TESTING AND PURITIES) SHALL BE AT THE CONTRACT UNIT PRICE AND SHALL INCLUDE ALL LABOR AND MATERAILS REQUIRED TO COMPLETE THIS ITEM OF WORK.
 HYDROSTATIC TESTING, PER TIPP CITY SPECIFICATIONS SHALL APPLY TO THIS INSTALLATION.
 ALL VALVES SHALL "OPEN" COUNTERCLOCKWISE AND BE MUELLER, OR APPROVED EQUAL. ALL VALVES SHALL BE MECHANICAL FLANGE OR PROVIDED WITH BELL FITTINGS.
 FIRE HYDRANTS SHALL BE MUELLER SUPER CENTURION, OR APPROVED EQUAL AND SHALL BE PAINTED TO TIPP CITY SPECIFICATIONS.
 ALL VALVE BOXES SHALL BE HEAVY DUTY BUFFALO TYPE 2 PIECE 5-1/4" SHAFT, WITH COVER MARKED "WATER".



Full Depth Asphalt Repair
 County Road 25A

..\\201006025a\25a 4.dgn 3/5/2014 10:27:44 AM



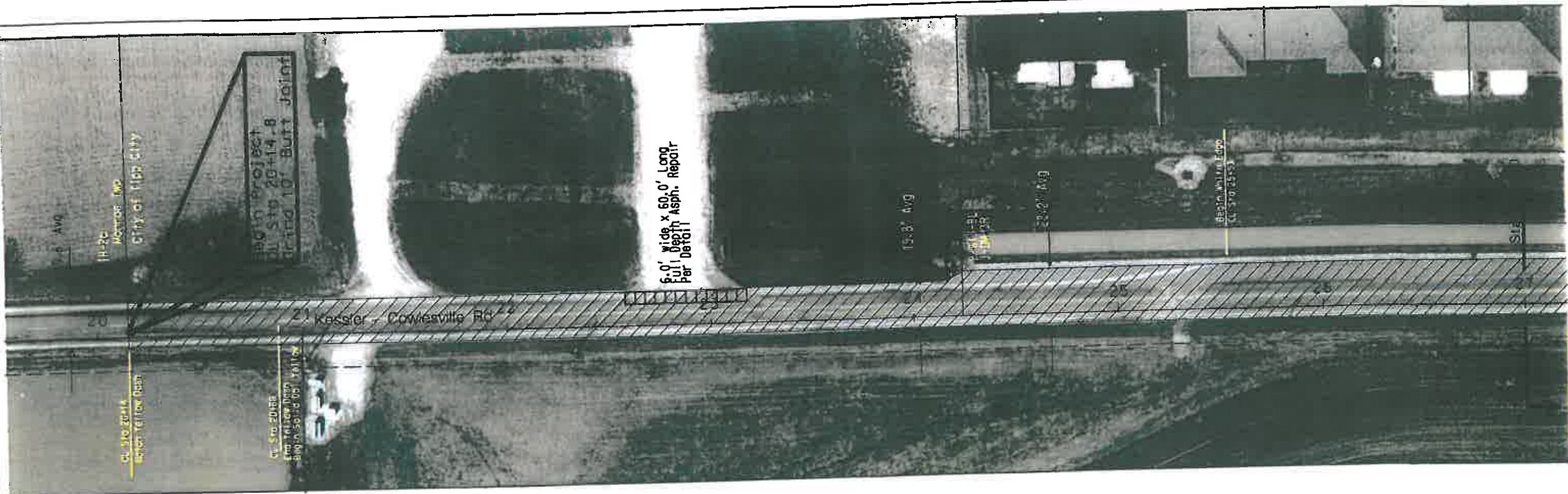
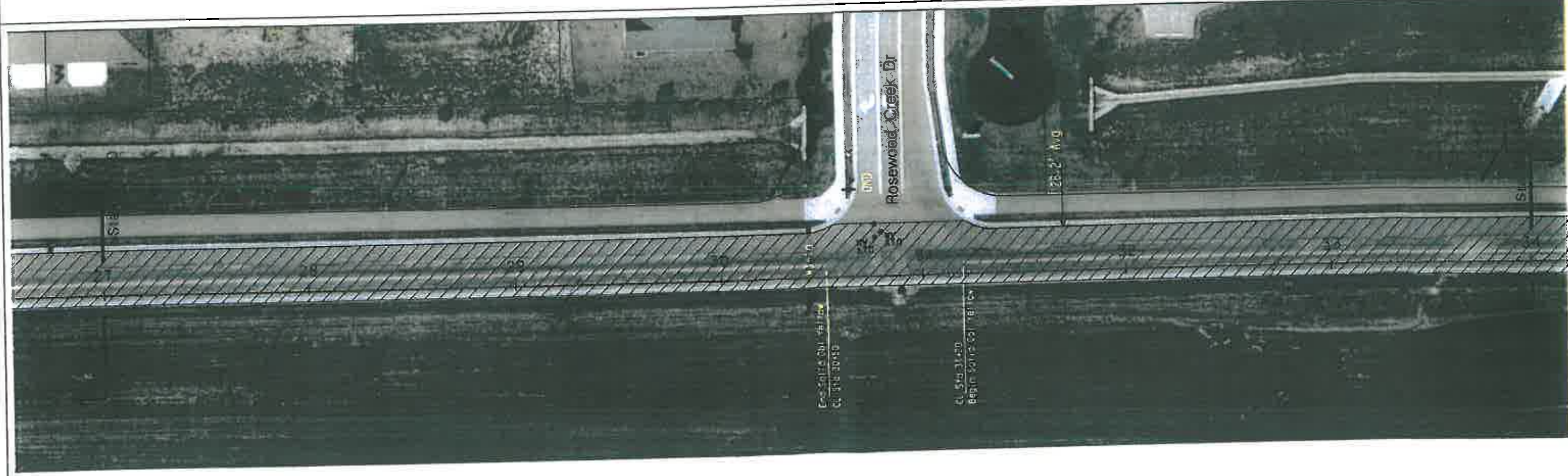
NOTE: Align new pavement markings with existing pavement markings north of Donn Davis Way

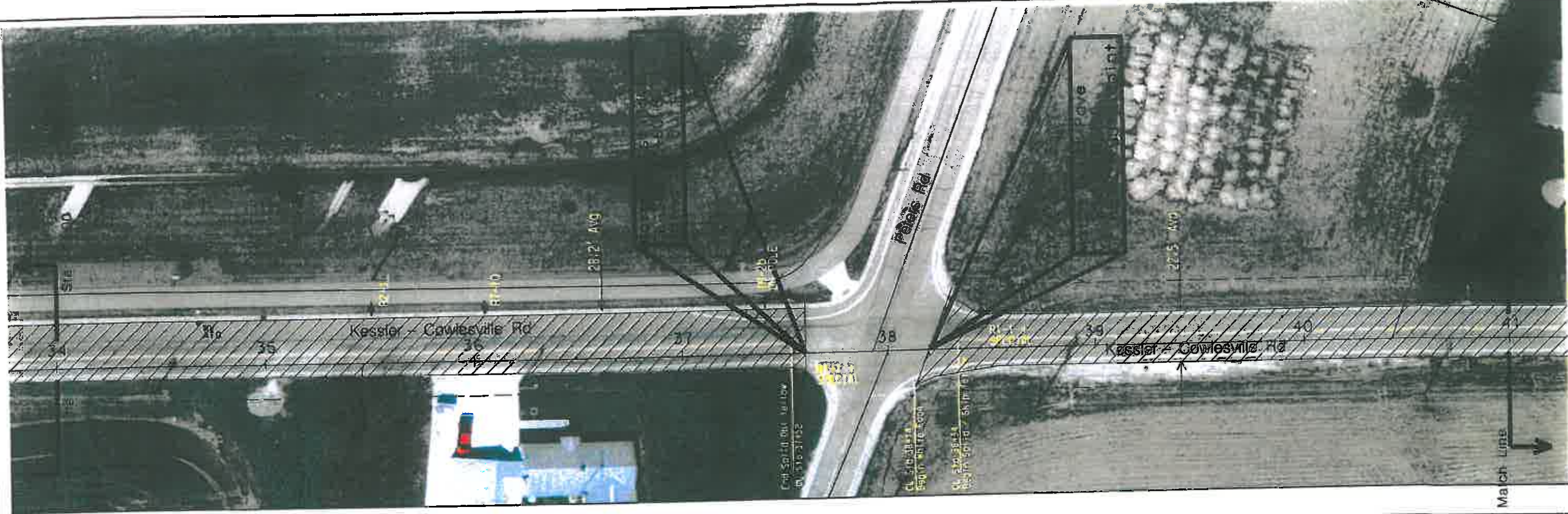
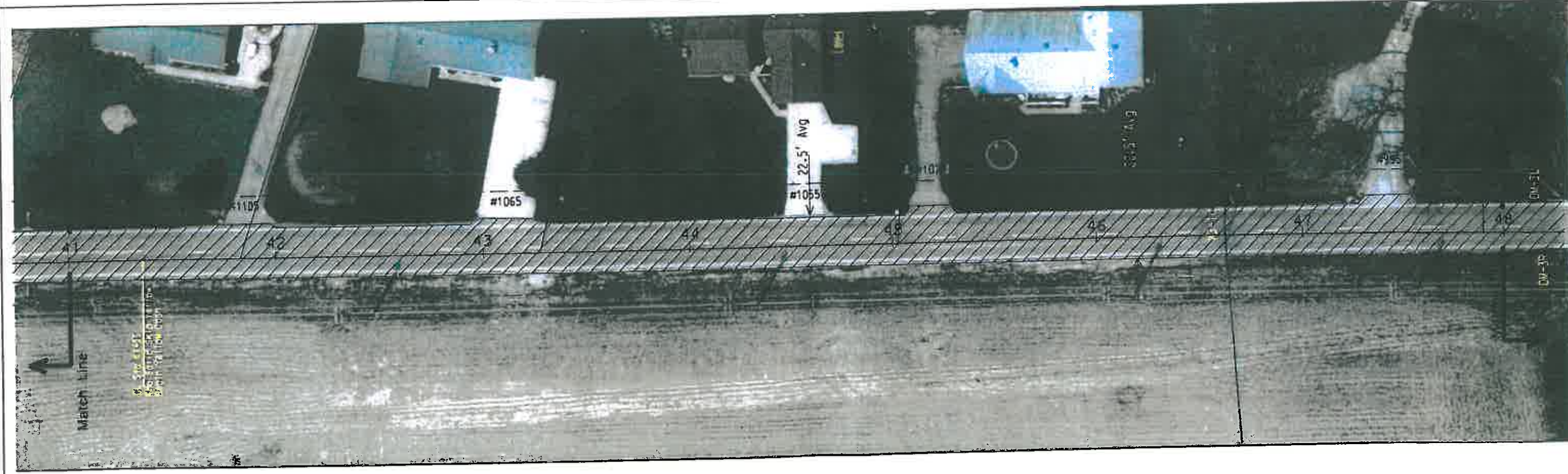


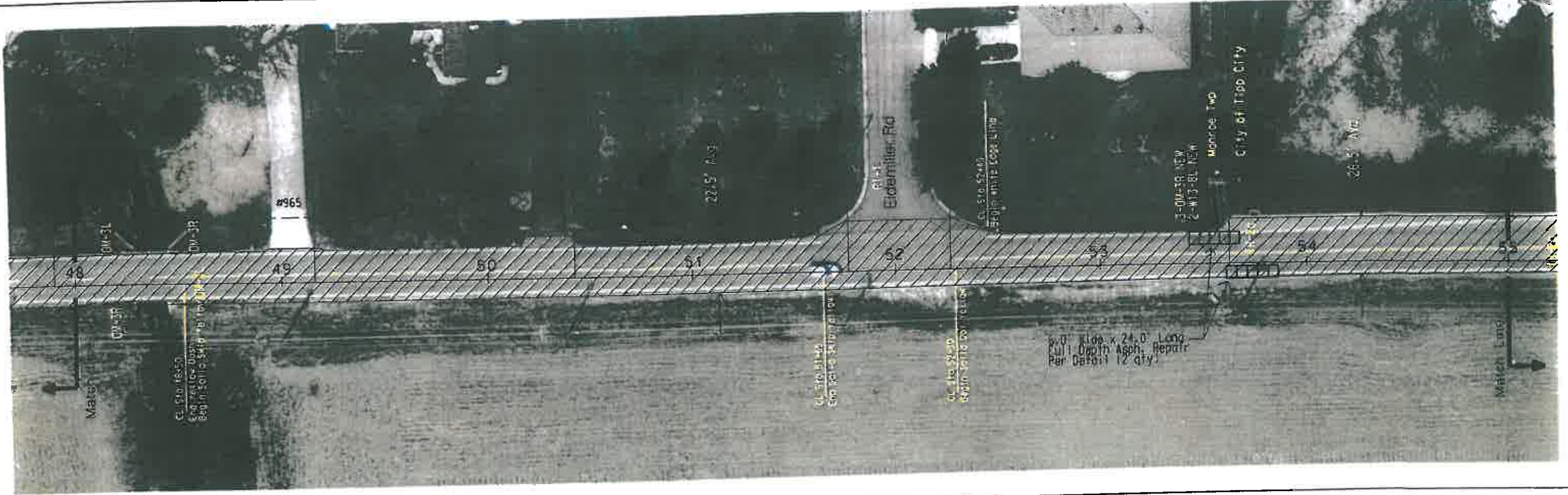
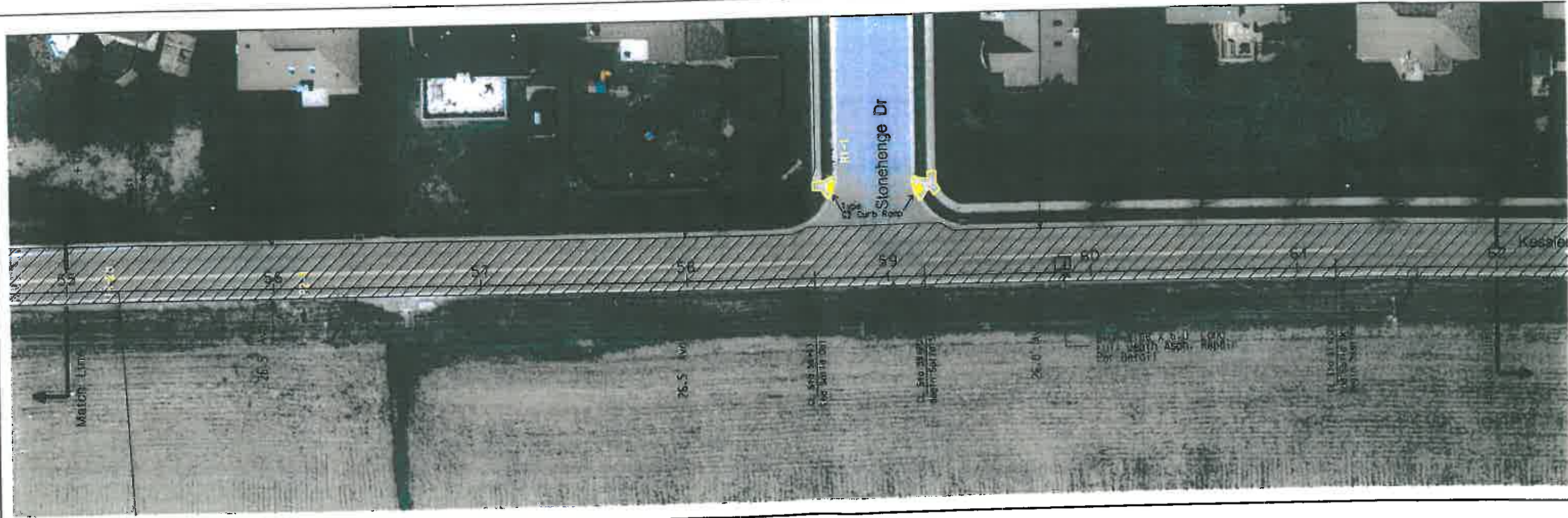
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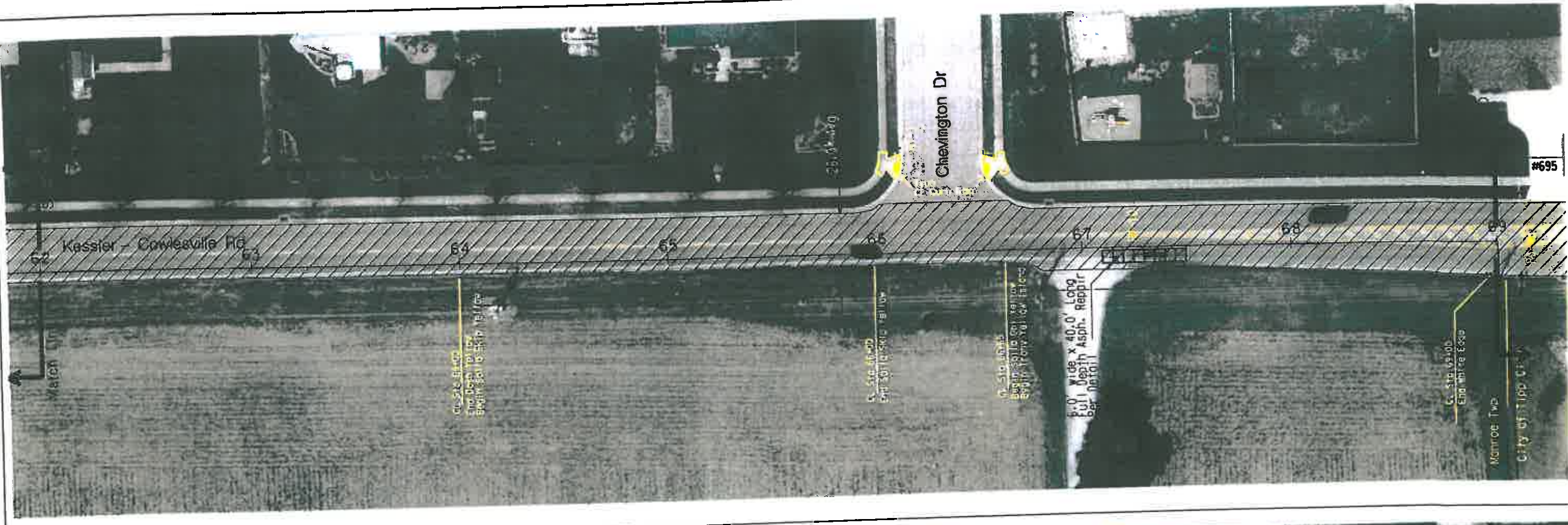
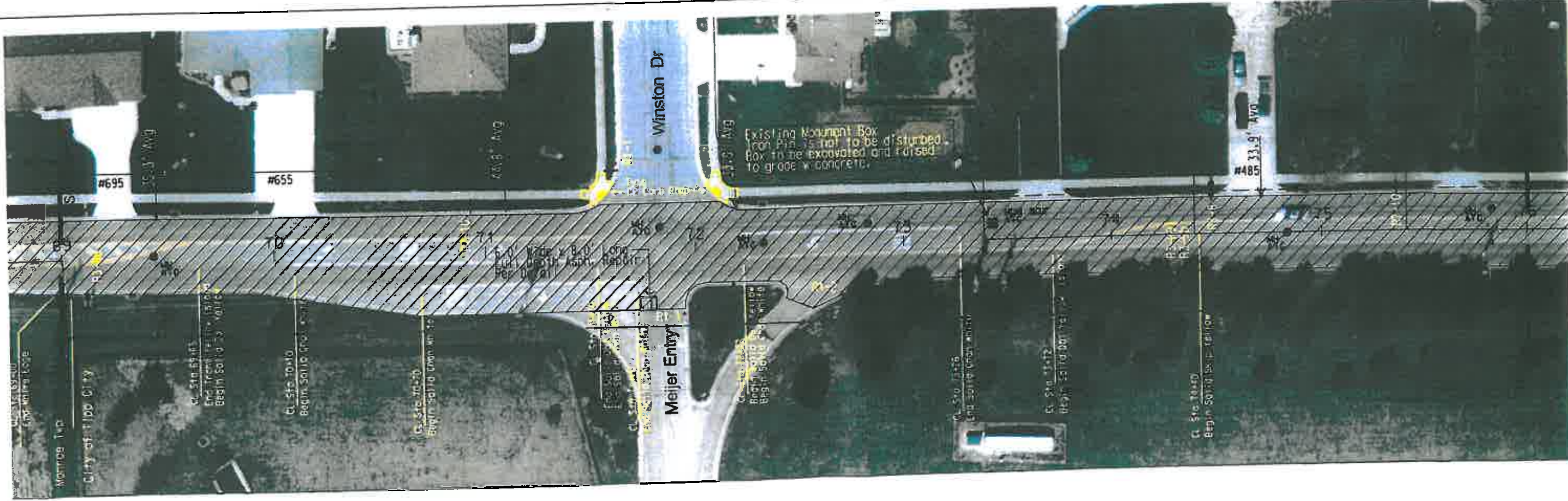
PID # 95924

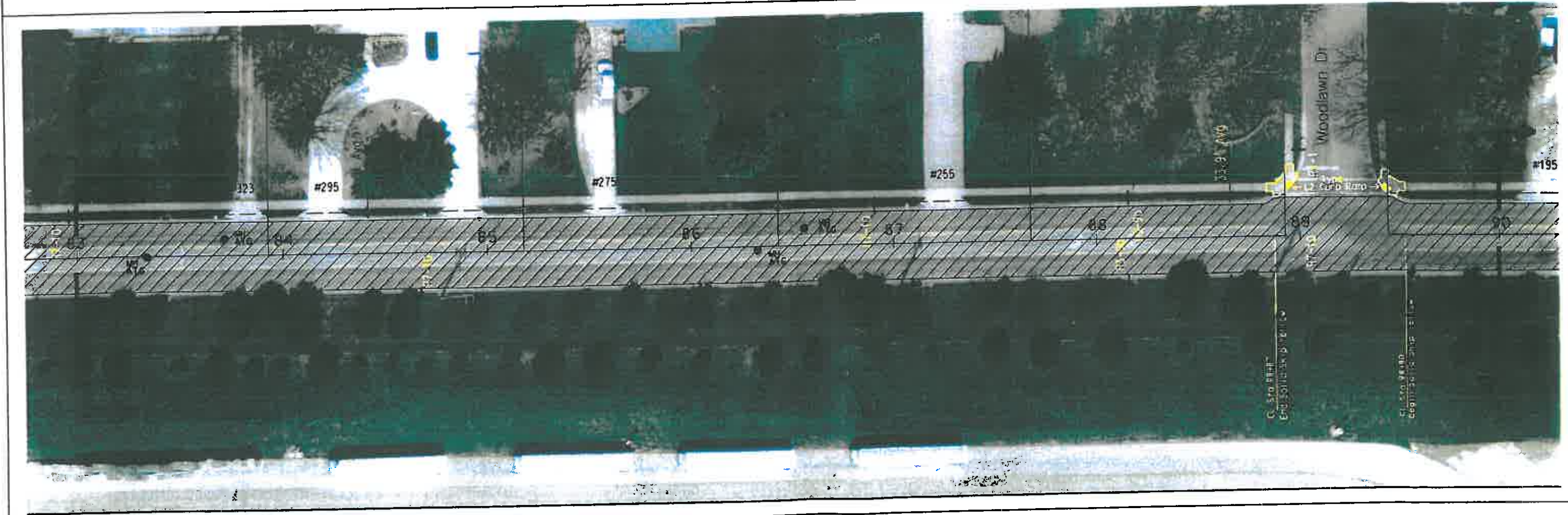
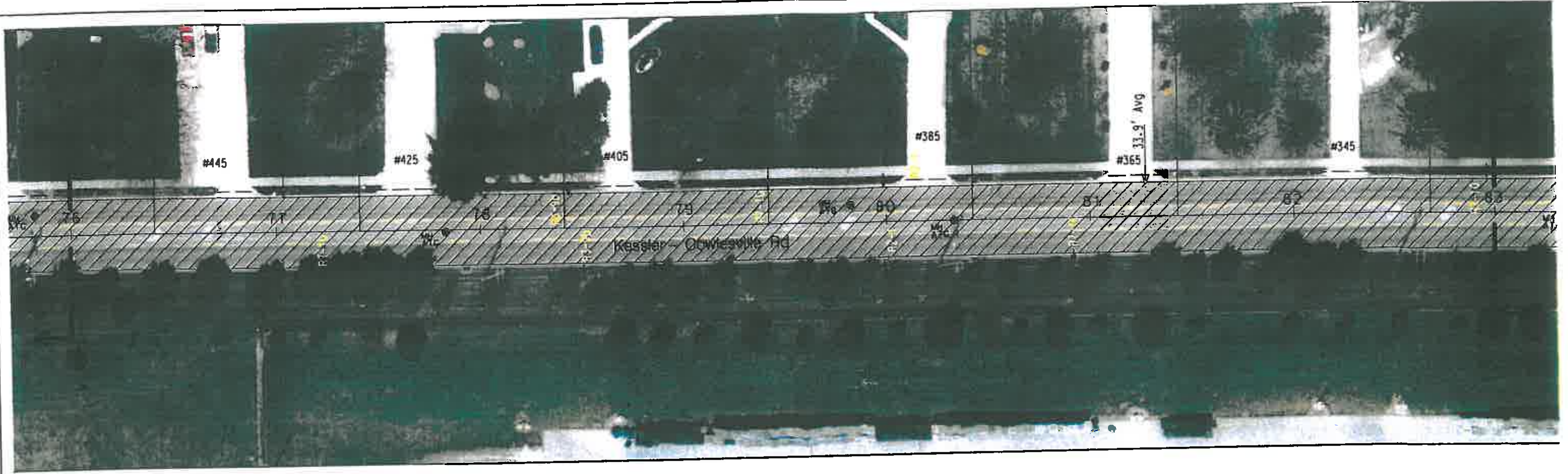
MIA-CR25A & KESSLER-COWLESVILLE RD
 REPAVING PROJECT







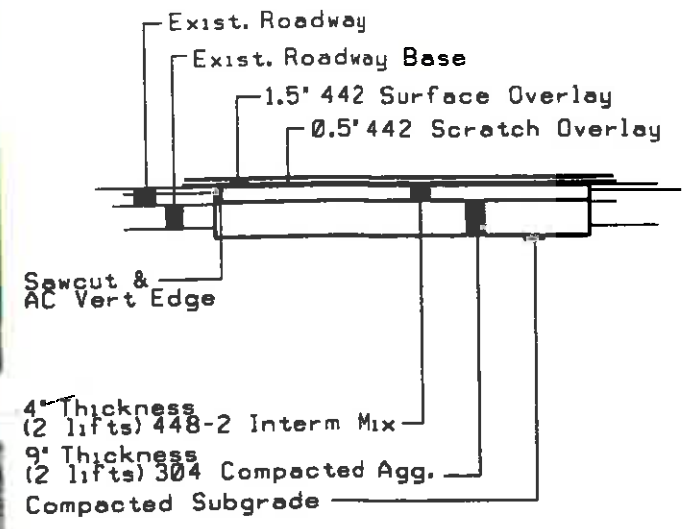
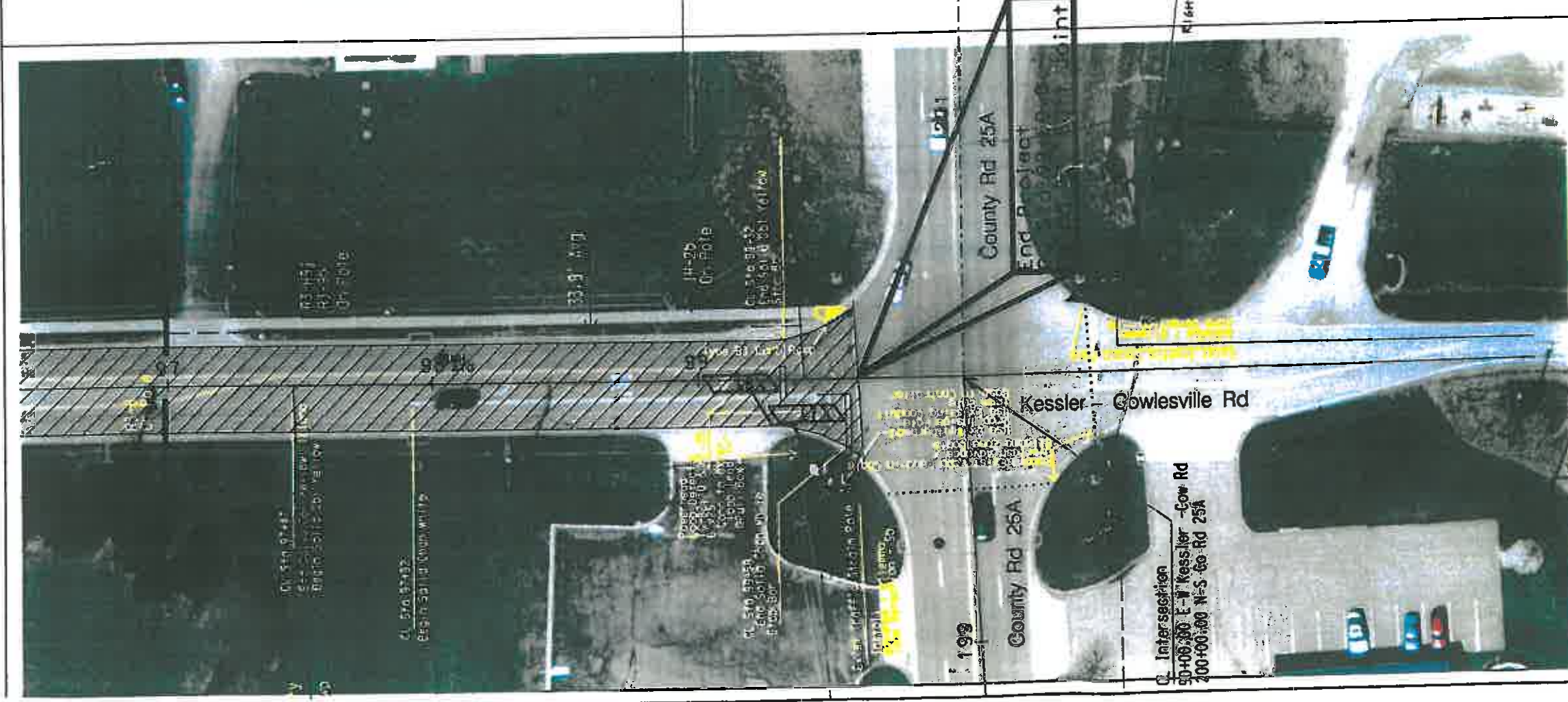
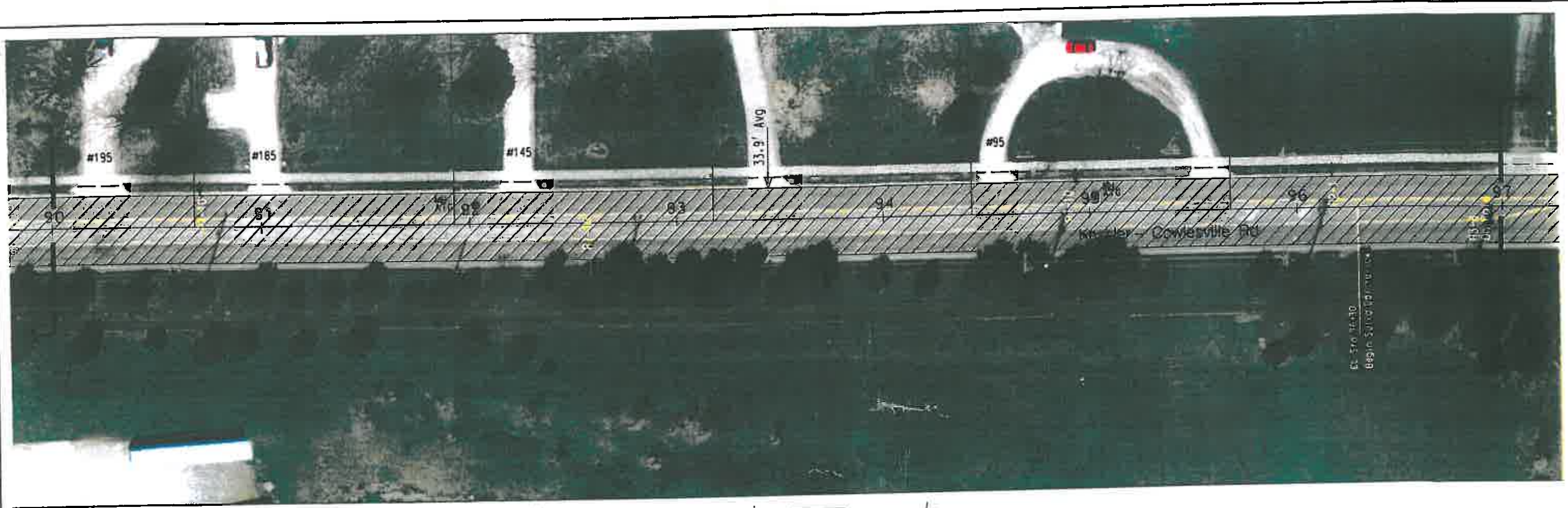




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PID # 95924

MIA-CR25A & KESSLER-COWLESVILLE RD
 REPAVING PROJECT



Full Depth Asphalt Repair
Kessler - Cowlesville Road



Prepared By ALPA
City of Tipp City
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(937) 887-9305

PID # 95924

MIA-CR25A & KESSLER-COWLESVILLE RD
REPAVING PROJECT