

D12 - PPM FY2022
 220197 PID - 103305
 Dist 12 3/17/2022

STATE OF OHIO DEPARTMENT OF TRANSPORTATION

D12-PPM-FY2022

FEDERAL PROJECT NUMBER

NON-FEDERAL

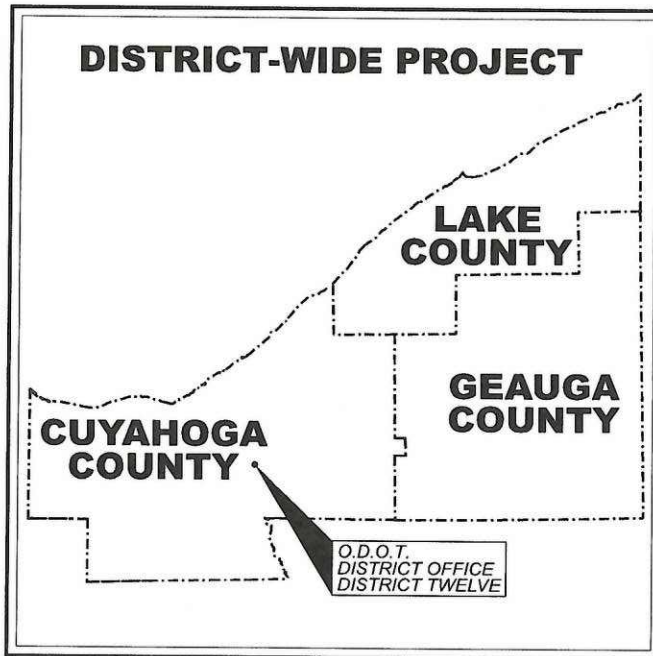
RAILROAD INVOLVEMENT

NONE

PROJECT DESCRIPTION

District Pavement Preventive Maintenance Contract For SFY 2022

WORK LOCATIONS 1 - 5
 (See Sheets 2 & 3 for Work Descriptions and Locations)



LOCATION MAP

LATITUDE: 41°24'54" LONGITUDE: 81°36'54"



SPECIFIC WORK LOCATIONS

- SPECIFIC WORK LOCATION 1 - LAKE COUNTY
 I.R.-90 (SLM 6.99 to SLM 21.43)
 LATITUDE: 41°38'09"± LONGITUDE: 81°23'06"±
- SPECIFIC WORK LOCATION 2 - GEAUGA COUNTY
 S.R.-528 (SLM 11.49 to SLM 14.52)
 LATITUDE: 41°32'05"± LONGITUDE: 81°03'06"±
- SPECIFIC WORK LOCATION 3 - LAKE COUNTY
 S.R.-615 (SLM 0.76 to SLM 1.32)
 LATITUDE: 41°37'58"± LONGITUDE: 81°20'58"±
- SPECIFIC WORK LOCATION 4 - LAKE COUNTY
 LAKE COUNTY FSMF RESURFACING
 LATITUDE: 41°43'32"± LONGITUDE: 81°16'24"±
- SPECIFIC WORK LOCATION 5 - CUYAHOGA COUNTY
 I.R.-480 (SLM 5.43 to SLM 6.24) LT. SHOULDER RESURFACING
 LATITUDE: 41°25'20"± LONGITUDE: 81°52'38"±

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MAINTENANCE PROJECT:

PROJECT EARTH DISTURBED AREA:	N/A
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	N/A
NOTICE OF INTENT EARTH DISTURBED AREA:	N/A

2019 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND CHANGES LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

DESIGN EXCEPTIONS

N/A

ADA DESIGN WAIVERS

N/A

UNDERGROUND UTILITIES

Contact Two Working Days Before You Dig



OHIO811, 8-1-1, or 1-800-362-2764
 (Non-members must be called directly)

PLAN PREPARED BY:
 O.D.O.T. DISTRICT 12
 PLANNING AND ENGINEERING
 5500 TRANSPORTATION BLVD.
 GARFIELD HEIGHTS, OH 44125

ENGINEERS SEAL:



SIGNED: *Eric M. Kallio*
 Eric M. Kallio
 DATE: 11-18-2021

STANDARD CONSTRUCTION DRAWINGS

STANDARD CONSTRUCTION DRAWINGS						SUPPLEMENTAL SPECIFICATIONS		SPECIAL PROVISIONS	
BP-2.1	7/17/15		MT-95.30	7/19/19	MT-101.90	7/21/17	TC-41.20	10/18/13	800-2021 10/15/21
BP-2.2	7/18/08		MT-95.31	7/19/19	MT-102.20	4/19/19	TC-52.20	7/20/18	
BP-3.1	01/17/20		MT-95.45	1/17/20	MT-105.10	1/17/20	TC-65.10	1/17/14	821 4/20/12
BP-9.1	01/18/19		MT-95.50	7/21/17			TC-65.11	7/21/17	832 10/19/18
			MT-97.10	4/19/19			TC-71.10	1/19/18	872 4/17/20
			MT-97.11	1/20/17			TC-72.20	7/20/18	874 4/17/20
			MT-97.12	1/20/17			TC-82.10	7/19/19	875 1/18/19
			MT-98.10	1/17/20					897 1/16/15
			MT-98.11	1/17/20					921 4/20/12
			MT-98.20	4/19/19					
			MT-98.22	1/17/20					
			MT-98.28	1/17/20					
			MT-99.20	4/19/19					

I HEREBY APPROVED THESE PLANS AND DECLARE THAT THE MAKING OF THESE IMPROVEMENTS WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

APPROVED: *[Signature]*
 DATE 11/22/21 DISTRICT DEPUTY DIRECTOR

APPROVED: *[Signature]*
 DATE 1-24-22 DIRECTOR, DEPARTMENT OF TRANSPORTATION

TITLE SHEET

DESIGN AGENCY



DESIGNER JAG

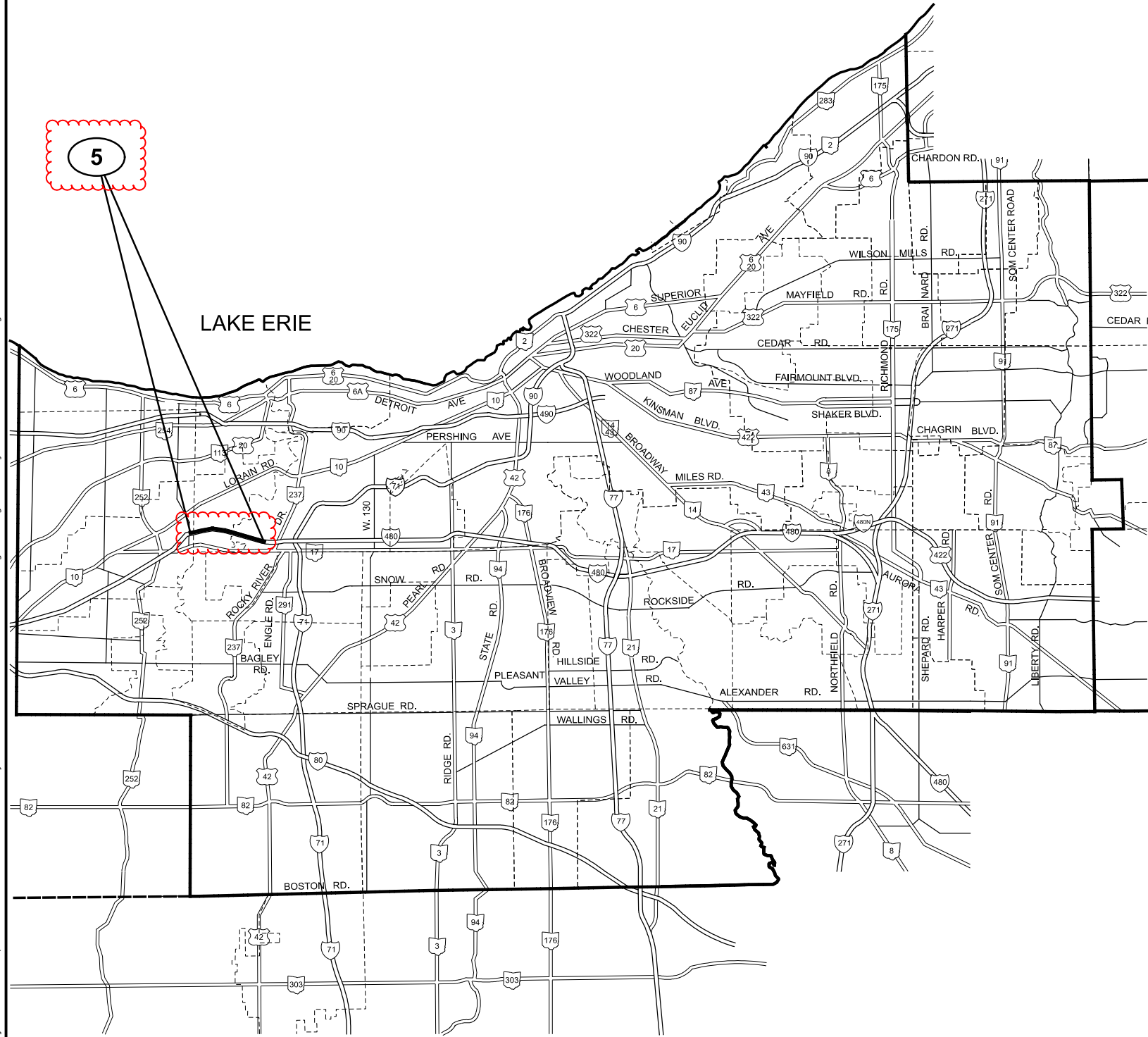
REVIEWER EMK 12/13/21

PROJECT ID 103305

SHEET TOTAL P.01 44

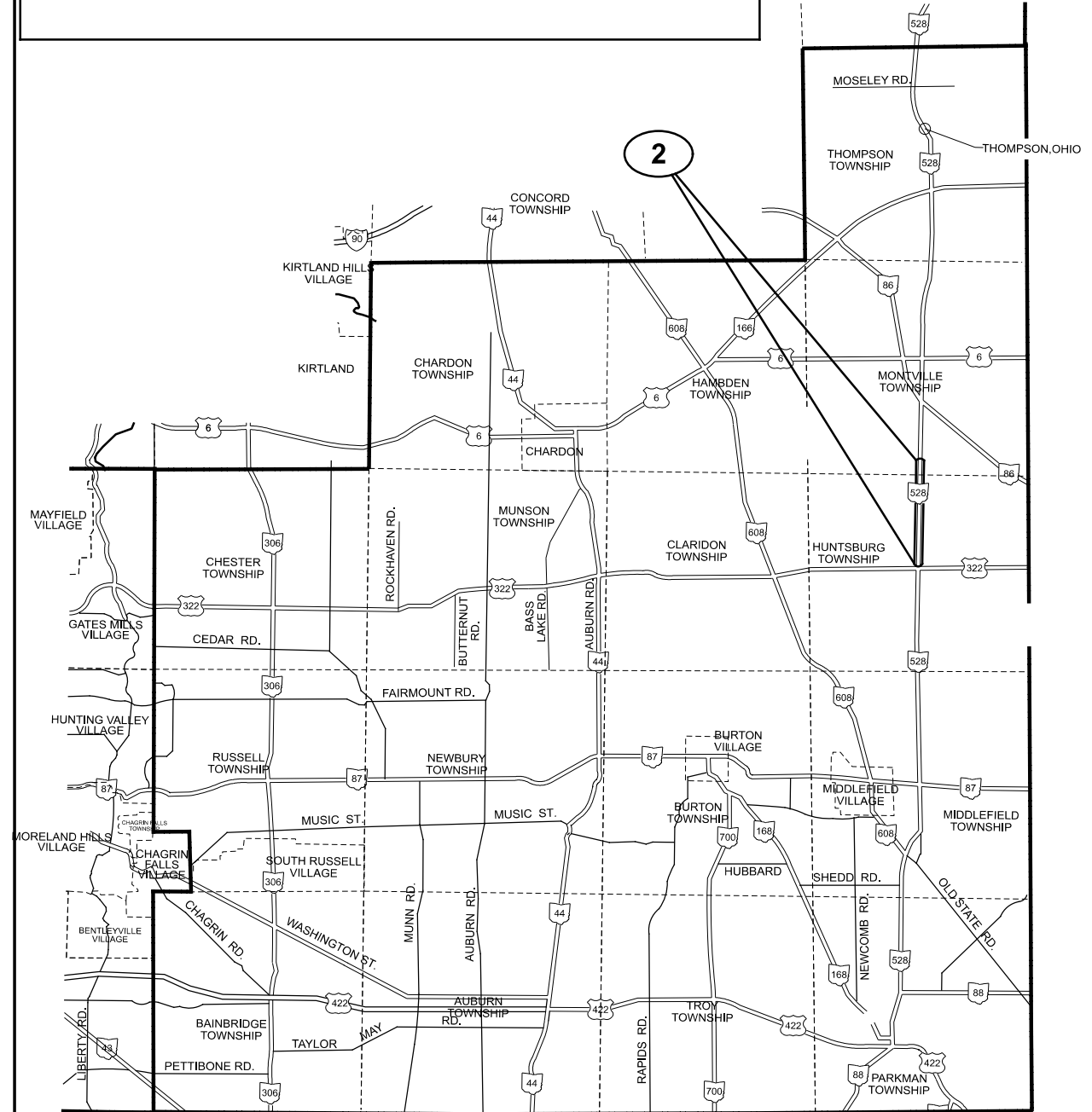
Contract Proposal available @ www.contracts.dot.state.oh.us
 2202YF-WDD-21D
 REV: ADDENDUM R1
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WORK LOCATION 5 - CUYAHOGA COUNTY
 I.R. - 480 (RESURFACING - SLM 5.43+/- to SLM 6.24+/-)
 LAT.: N 41°25'20" LONG.: W 81°52'38"
 NORTH OLMSTED, FAIRVIEW PARK

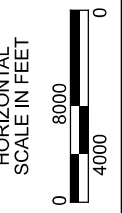


CUYAHOGA COUNTY

WORK LOCATION 2 - GEAUGA COUNTY
 S.R. - 528 (RESURFACING - SLM 11.49+/- to SLM 14.52+/-)
 LAT.: N 41°32'05" LONG.: W 81°03'06"
 HUNTSBURG TOWNSHIP - MONTVILLE TOWNSHIP



GEAUGA COUNTY



LOCATION MAP
 CUYAHOGA COUNTY / GEAUGA COUNTY

D12-PPM-FY2022

MODEL: Sheet PAPER: 11x17 (in.) DATE: 2/24/2022 TIME: 7:44:34 AM USER: jgrmovse
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DESIGN AGENCY



DESIGNER
 JAG
 REVIEWER
 EMK 12/13/21
 PROJECT ID
 103305
 SHEET TOTAL
 P.02 44

GENERAL

Project Description

This project consists of resurfacing and minor rehabilitation to locations throughout Cuyahoga, Geauga and Lake Counties in District 12.

District Pavement Preventive Maintenance contract for SFY 2022.

Work Location 1 (IR-90 – Concrete Pavement Repairs) :
Perform pavement repairs, As Directed
by the Project Engineer

Work Location 2 (SR-528 – Resurfacing) :
Plane Existing Asphalt Pavement /
Repair Pavement / Resurface /
Install Pavement Markings and Signal Detector Loops

Work Location 3 (SR-615 – Resurfacing) :
Plane Existing Asphalt Pavement /
Repair Pavement / Resurface /
Install Pavement Markings

Work Location 4 (Lake County FSMF– Resurfacing) :
Plane Existing Asphalt Pavement / Replace Curb
Repair Pavement / Resurface /
Install Pavement Markings / Replace Detector Loops

Work Location 5 (IR-480 – Resurfacing Eastbound LT. Shoulder) :
Plane Existing Asphalt Pavement /
Resurface /
Install Pavement Markings and Rumble Strips

Right Of Way

All work shall be performed within the existing Right of Way or easements.

Existing Typical Sections

Existing typical sections have been taken from the records and are believed to represent the existing pavement, but the State Of Ohio does not guarantee the accuracy of the same.

For further information in regard to the existing typical sections, the Contractor shall refer to the previous construction plans.

These plans may be reviewed at the following location:

Ohio Department Of Transportation
District 12 Office
5500 Transportation Boulevard
Garfield Heights, Ohio 44125

Work limits

The work limits shown on these plans are for physical construction only. Provide the installation and operation of all work zone traffic control and work zone traffic control devices required by these plans whether inside or outside these work limits.

Contingency Quantities

The Contractor shall not order materials or perform work for items designated by plan note to be used "As Directed By The Engineer " unless authorized by the Engineer . The actual work locations and quantities used for such items shall be incorporated into the final change order governing completion of this project.

Utilities

There are no underground utilities shown on this plan. The nature of the work required by this project will not affect any known underground utilities that exist under or adjacent to the work area.

Work Locations with utilities located within the pavement are:

Work Location 2 (SR-528 – Resurfacing) – Signal Detector Loops

Refer to notes for **Item 632 - Detector Loop, As Per Plan** for additional information.

Cooperation Among Contractors

The Contractor shall cooperate and coordinate his/her operations with the Contractors on other projects that may be in force during the life of the contract. No waiver of any provisions of 105.07 of the Construction and Material Specifications is intended.

Plan Sheet Stationing

The roadway was not surveyed prior to the preparation of these plans. Previous construction plan stationing was used to prepare plan sheets and calculate estimated pavement area quantities and pavement marking quantities.

Staging Areas

There are no specific areas given in the plans for the Contractor to use as a staging area(s). If the Contractor wants to use an area(s) for staging, regardless if it falls within the project limits or not, the Contractor is to contact District 12 Permits Section at 216-584-2195 at District 12 in order to apply for a permit per Section 107.02 of the CMS.

If a permit is granted, all conditions of the permit shall be met in addition to the requirements of 104.04 of the CMS, at no additional cost to the state. If the Project Engineer deems that all the conditions of the permit were not met, then 10% of the contract bid amount for mobilization shall be withheld until all the conditions of the permit are satisfied.

Equipment And Material Storage

In order to provide for the safety of the traveling public the Contractor's attention is directed to 614.03. In addition the following provisions shall apply:

1. Any removed items shall not be stored on the right of way for more than thirty (30) days.
2. The storage of equipment, materials, and vehicles within the highway right of way will be permitted. The number of areas and exact locations shall be approved by the Engineer .
3. All disturbed areas shall be returned to their original condition at no expense to the State.

Environmental Commitments

For this project the following environmental commitments shall be adhered to:

1. All work to be within existing right-of-way.
2. No work in streams and wetlands.
3. No tree removal.

DESIGN AGENCY



DESIGNER
JAG

REVIEWER
EMK 12/13/21

PROJECT ID
103305

SHEET	TOTAL
P.04	44

PAVEMENT

Alignment And Profile

Place the proposed pavement to follow the alignment and profile of the existing pavement. Place the proposed asphalt concrete overlay as shown on the typical sections. The intent of the plans is to maintain the existing profile while smoothing out ruts and bumps.

Planed Surfaces

The duration of time between planing the asphalt and placing the asphalt overlay shall be no longer than seven (7) days for:
(Location 2 -SR 528), (Location 3 – SR 615), (Location 4 – Lake County FSMF)

The time limit shall begin on the first day of planing and shall continue based on calendar days, minus any weather days, until completion of the asphalt concrete surface course. This is to ensure that the potential degradation of the exposed pavement due to traffic is kept to a minimum. This requirement applies to both mainline and ramps alike.

In the event that the time between exposing the existing pavement and placing the asphalt surface course exceeds 7 calendar days, liquidated damages as per 108.07 of the C&MS shall be assessed.

Asphalt Concrete Surface Course Sealing Requirements

In addition to the gutter sealing requirements specified in SCD BP-3.1 and C&MS 401.15, after completion of the surface course, the Contractor shall use a certified 702.01 PG binder to seal the following locations:

- All castings including but not limited to monuments, manholes, water valves, catch basins, curb inlets.
- Butt joints and feather joints including bridge approaches.
- Forward joint for driveway asphalt and trailing joint when butting to existing asphalt drive.
- Perimeter of all pavement repairs or other asphalt inlays when pavement repairs/inlays are not overlaid with an asphalt concrete surface course.
- All cold longitudinal joints between paved shoulders and guardrail asphalt.

The material used shall be a certified 702.01 PG binder. The width of the sealer shall be 2-3 inches.

Any additional costs associated with the work identified in this note shall be included in the appropriate asphalt concrete surface course item of work.

Item 251 – Partial Depth Pavement Repair (441), As Per Plan

Use this item to repair unsound, cold-patch, or pop-out areas of longitudinal and transverse joints As Directed By The Engineer.

Perform repairs after planing at:
(Location 2 -SR 528)
(Location 3 -SR 615)

Make standard repairs at a depth of 3” and at a minimum width of 12”. Center the repair over the existing joint.

Use Type 2 material for this item.

The estimated quantities in the Sub-Summaries have been carried to the General Summary for use As Directed By The Engineer.

Item 441 – Asphalt Concrete Surface Course, Type 1, (448), As Per Plan, PG64-22

The use of gravel for coarse virgin aggregate is prohibited.
Use a PG64-22 binder.
(Location 2 -SR 528)

The estimated quantities in the sub-summaries have been carried to the General Summary for use As Directed By The Engineer.

Item 441 – Asphalt Concrete Surface Course, Type 1, (448), As Per Plan, PG70-22M

(Location 4 – Lake County FSMF)
(Location 5 – IR-480)

The course virgin aggregate for this item shall consist of a blend of 60%min. air cooled blast furnace slag (ACBFS) or trap rock from Ontario with limestone comprising the remaining percentage.

Use a PG70-22M binder for this item.

Item 442 – Asphalt Concrete Surface Course, 12.5 MM, Type A (448), As Per Plan, PG 70-22M

(Location 1 - Lake County - I.R. 90)

The coarse aggregate for this item shall be limited to a blend of air cooled blast furnace slag (ACBFS) and limestone. The Contractor shall use a minimum of 50 percent ACBFS with limestone comprising the remaining percentage.

Payment for all labor, materials and equipment required to perform the above work shall be included in the contract price for Item 442 – Asphalt Concrete Surface Course, 12.5 MM, Type A (448), As Per Plan, PG70-22M.

Item 253 – Pavement Repair, As Per Plan “B”

(Location 3 – SR 615)

This work item is for use as directed by the Engineer for the purpose of pavement repair. All labor and material necessary to perform this work and section 250 of the CMS shall be included for payment under Item 253.

Depth of pavement repair removal shall typically be 5” measured “after the pavement has been planed”.

The estimated width of the repair shall be 5’.

The depth of repair shall be as directed by the Engineer if unsound material is encountered after the removal of the 5”.

Use replacement materials conforming to the requirements of Item 301.

The estimated quantities in the sub-summaries have been carried to the General Summary for use As Directed By The Engineer.

Item 253 – Pavement Repair, As Per Plan “C”

This work item is for use, As Directed by the Engineer, for the purpose of pavement repair. All labor and material necessary to perform this work and Section 250 of the CMS shall be included for payment under Item 253.

(Location 4 – Lake County FSMF - Perform repairs after planing)

Depth of pavement repair removal shall typically be 4”. The depth of repair shall be directed by the Engineer if unsound material is encountered after the removal of the 4”.

Use replacement materials conforming to the requirements of Item 301.

The estimated quantities in the sub-summaries have been carried to the General Summary for use As Directed By The Engineer.



MAINTENANCE OF TRAFFIC (Cont'd)

Maintaining Traffic And Sequence Of Operations – Asphalt Concrete

All asphalt concrete operations shall be conducted in a manner that will assure minimum danger and inconvenience to highway users. The procedure for the removal or placement of any existing or proposed asphalt course shall be such that no greater than 1-1/2" discontinuity in the elevation of the travelled surface shall be exposed to traffic.

Traffic shall not be permitted to cross any partial-width removal or resurfacing joint during the actual removal or paving operation except as necessary. Any partial-width longitudinal joints which must be exposed to traffic shall be ramped using Item 614 – Asphalt Concrete For Maintaining Traffic at a rate not steeper than 6:1.

Temporary transverse removal or paving joints which must be exposed to traffic shall be ramped using Item 614 – Asphalt Concrete For Maintaining Traffic at a rate not to exceed 1" in 10'.

For removal of existing overlays, a transition may be planed into the existing overlay and may be substituted for the asphalt ramps previously described, provided the transition is removed in a subsequent operation within 24 hours.

Whenever traffic is subject to partial width removals or overlays prior to full width completion, the Contractor shall provide W8-11-48 "Uneven Lanes" signs (dual sign installation). Placement shall be as directed by the Engineer and included in the lump sum payment for Item 614 – Maintaining Traffic.

Whenever any part of the traveled surface is closed, the motorists shall be warned and diverted by the Contractor through the use of a flashing arrow, in addition to those provisions set forth in the OMUTCD, the Traffic Engineering Manual and the applicable standard construction drawings.

Lane Closure/Reduction Required

Length and duration of lane closures and restrictions shall be at the approval of the Engineer. It is the intent to minimize the impact to the traveling public. Lane closures or restrictions over segments of the project in which no work is anticipated within a reasonable time frame, as determined by the Engineer, shall not be permitted. The level of utilization of maintenance of traffic devices shall be commensurate with the work in progress.

Item 614 – Asphalt Concrete For Maintaining Traffic

This item shall be used to install and remove temporary asphalt ramps at butt joints and drainage/utility castings where required. Material shall be removed prior to the placement of the next course of asphalt. The following estimated quantity has been carried to the General Summary to accomplish this item of work, As Directed By The Engineer.

Item 614 – Asphalt Concrete For Maintaining Traffic **20 Cu Yd**

Covering Of Ground-Mounted Signs – General

When required by other items or incidentally to Item 614 – Maintaining Traffic, cover existing ground-mounted signs with plywood or OSB blanks (1/2" minimum thickness) covering 80% of the sign area and all of the sign legend. The use of low quality materials, such as duct tape and black plastic is not permitted.

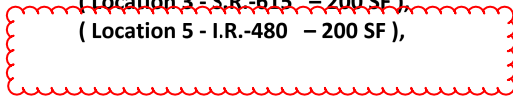
Item 630 – Signing Misc.: Additional Signs, Ground Mounted, As Directed By The Engineer

When additional signing is needed to maintain traffic, the Contractor shall furnish the sign or signs as directed by the Engineer. These signs shall be ground mounted and meet all the specifications of the plan, proposal and current year CMS.

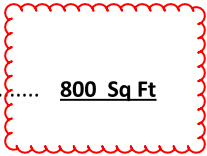
This item of work shall be used to provide signs that are beyond the requirements of the signage that is detailed in the standard construction drawings and the OMUTCD.

Payment for this item shall include, but not be limited to, the cost to furnish and erect the sign, including driving posts or other approved methods of sign support, maintaining the sign and removal of the sign. The following estimated quantity has been carried to the General Summary for use as directed by the Engineer:

- (Location 1 – LAK IR 90 - 200 SF),
- (Location 2 - S.R.-528 – 200 SF),
- (Location 3 - S.R.-615 – 200 SF),
- (Location 5 - I.R.-480 – 200 SF),



Item 630 – Signing Misc.: Additional Signs, Ground Mounted, As Directed By The Engineer **800 Sq Ft**



Continuous Access

The Contractor shall maintain safe and adequate driveways and walkways in order to provide continuous access for pedestrians, passenger vehicles, trucks, and safety equipment to all adjoining properties.

The cost for all materials, equipment, and labor necessary to provide continuous access shall be included in the lump sum price for Item 614 – Maintaining Traffic.

Work Zone Traffic Supervisor

Subject to the approval of the Engineer, the Contractor shall employ and identify, a certified worksite traffic supervisor (WTS) before starting work in the field. The WTS shall be certified from one of the following organizations:

1. American Traffic Safety Service Association (ATSSA), 1-877-642-4637, <http://www.atssa.com/trainingcertification.aspx> Certified Traffic Control Supervisor (TCS).
2. National Highway Institute, Design And Operation Of Work Zone Traffic, 1-877-558-6873. http://www.nhi.fhwa.dot.gov/training/course_search.aspx
3. The Ohio Contractors Association, Traffic Control Supervisor (OCA/TCS) Work Zone Class, only if taken after May 5, 2004, 1-800-229-1388. <http://www.ohiocontractors.org/default.aspx>
4. Ohio Laborers’ Training, Traffic Control Supervisors Class, 1-800-635-7570. <http://www.ohiolaborerstraining.com/adv.htm>

The WTS position is established for the purpose of supervising the installation of the work zone, monitoring it and correcting any deficiencies in the work zone. The WTS shall oversee all operations that affect the movement of vehicular and pedestrian traffic through the work zone.

The WTS shall be present when the Contractor or subcontractor installs a traffic restriction, lane closure, etc. In lieu of the WTS being present when a subcontractor has a work zone in place, the subcontractor may use his own personnel if that person is a certified WTS. The Contractor and subcontractor must present a copy of his WTS certificate to the Project Engineer.

A WTS must be present for any closure or traffic restriction that takes place on the project.

The WTS may be a part of the working crew and must be in charge of setting up the work zone. After the work zone is in place, the WTS may resume other duties not related to work zone traffic control. If the restrictions are short term, the WTS shall monitor the zone for compliance. Traffic control will be the WTS's main duty during implementation of the work zones. The WTS shall have the authority to have the deficiencies corrected as soon as possible.

The WTS shall provide the Project Engineer a sketch of the (TCP) traffic control plan every day there is to be a short term traffic restriction, lane closure etc. This TCP shall show how the work zones are to be implemented, approximate locations of the traffic control devices and what standard drawing or section from the Ohio Manual Of Uniform Traffic Control Devices was referenced.

A 24-hour phone number shall be made available to the project Engineer/supervisor in order to contact the WTS. The WTS shall have a pager and/or cell phone number provided to the Project Engineer.

Failure of the Contractor to comply with any of the above shall constitute cause for the Project Engineer / supervisor to deduct \$500.00 per day from money due the Contractor not as a penalty but as a liquidated damage.

Payment for the WTS shall be included under the lump sum for **Item 614 – Maintaining Traffic.**



MAINTENANCE OF TRAFFIC (Cont'd)

Item 614 – Law Enforcement Officer (With Patrol Car) For Assistance

Use of law enforcement officers (LEOs) by Contractors other than the uses specified below will not be permitted at project cost. LEOs should not be used where the OMUTCD intends that flaggers be used.

In addition to the requirements of CMS 614 and the OMUTCD, a uniformed LEO with an official patrol car (car with top-mounted emergency flashing lights and complete markings of the appropriate law enforcement agency) may be provided for the following traffic control tasks as determined and pre-approved by the Engineer. Any LEO hours which are not pre-approved for the following purposes shall not be compensable:

- During the entire advance preparation and closure sequence where complete blockage of traffic is required.
- During a traffic signal installation when impacting the normal function of the signal or the flow of traffic or when traffic needs to be directed through an energized traffic signal contrary to the signal display (e.g., directing motorists through a red light).

In addition to the requirement of CMS 614 and the OMUTCD, a uniformed LEO with an official patrol car (car with top-mounted emergency flashing lights and complete markings of the appropriate law enforcement agency) should be provided for the following traffic control tasks as approved by the Engineer.

- For lane closures: during initial set-up periods, tear down periods, substantial shifts of a closure point or when new lane closure arrangements are initiated for long-term lane closures/shifts (for the first and last day of major changes in traffic control setup).

In general, LEOs should be positioned in advance of and on the same side as the lane restriction or at the point of road closure, and to manually control traffic movements through intersections in work zones.

LEOs should not forgo their traffic control responsibilities to apprehend motorists for routine traffic violations. However, if a motorist's actions are considered to be reckless, then pursuit of the motorist is appropriate.

The LEOs work at the direction of the Contractor. The Contractor is responsible for securing the services of the LEOs with the appropriate agencies and communicating the intentions of the plans with respect to duties of the LEOs. The Engineer shall have final control over the LEOs' duties and placement, and will resolve any issues that may arise between the two parties.

The LEO shall report in to the Contractor prior to the start of the shift, in order to receive instructions regarding specific work assignments during his/her shift. The LEO is expected to stay at the project site for the entire duration of his/her shift. The LEO shall report to the Contractor at the end of his/her shift. Once the LEO has completed the duties described above and still has time remaining on his/her shift, the LEO may be asked to patrol through the work zone (with flashing lights off) or be placed at a location to deter motorists from speeding. Should it be necessary to leave the project site, the LEO shall notify the Engineer. The Contractor shall provide the LEO with a two-way communication device which shall be returned to the Contractor at the end of his/her shift.

LEOs with patrol car required by the traffic maintenance tasks above shall be paid for on a unit price (hourly) basis under Item 614 - Law Enforcement Officer With Patrol Car For Assistance. The following estimated quantity has been carried to the General Summary.

- (LOC 1 – LAK IR 90 - 200 HRS),
- (LOC 2 – SR 528 - 50 HRS),
- (LOC 3 – SR 615 - 50 HRS),
- (LOC 5 – IR 480 - 50 HRS)

Item 614 – Law Enforcement Officer
With Patrol Car For Assistance..... **350 Hours**

The hours paid shall include any minimum show-up time required by the law enforcement agency involved.

Any additional costs (administrative or otherwise) incurred by the Contractor to obtain the services of an LEO are included with the bid unit price for Item 614 – Law Enforcement Officer With Patrol Car For Assistance.

Item 614 – Portable Changeable Message Signs, As Per Plan

The Contractor shall furnish, install, maintain and remove when no longer needed, a changeable message sign. The sign shall be of a type shown on a list of approved PCMS units available on the office of materials management web page. The list contains Class A and B units with minimum legibility distances of 800 ft. And 650 ft., respectively.

Each sign shall be trailer-mounted and equipped with a functional dimming mechanism, to dim the sign during darkness, and a tamper and vandal proof enclosure. Each sign shall be provided with appropriate training and operation instructions to enable on-site personnel to operate and troubleshoot the unit. The sign shall also be capable of being powered by an electrical service drop from a local utility company. The PCMS shall be delineated in accordance with CMS 614.03.

Placement, operation, maintenance and all activation of the signs by the Contractor shall be as directed by the Engineer. The PCMS shall be located in a highly visible position yet protected from traffic. The Contractor shall, at the direction of the Engineer, relocate the PCMS to improve visibility or accommodate changed conditions. When not in use, the PCMS shall be turned off. Additionally, when not in use for extended periods of time, the PCMS shall be turned, facing away from all traffic.

The Engineer shall be provided access to each sign unit and shall be provided with appropriate training and operation instructions to enable ODOT personnel to operate and troubleshoot the unit, and to revise sign messages, if necessary.

All messages to be displayed on the sign will be provided by the Engineer. A list of all required pre-programmed messages will be given to the Contractor at the project preconstruction conference. The sign shall have the capability to store up to 99 messages. Message memory or pre-programmed displays shall not be lost as a result of power failures to the on-board computer. The sign legend shall be capable of being changed in the field. Three-line presentation formats with up to six message phases shall be supported. PCMS format shall permit the complete message for each phase to be read at least twice.

The PCMS shall contain an accurate clock and programming logic which will allow the sign to be activated, deactivated or messages changed automatically at different times of the day for different days of the week.

The PCMS unit shall be maintained in good working order by the Contractor in accordance with the provisions of CMS 614.07. The Contractor shall, prior to activating the unit, make arrangements with an authorized service agent for the PCMS to assure prompt service in the event of failure. Any failure shall not result in the sign being out of service for more than 12 hours, including weekends. Failure to comply may result in an order to stop work and open all traffic lanes and/or in the department taking appropriate action to safely control traffic. The entire cost to control traffic accrued by the department due to the Contractor's noncompliance will be deducted from moneys due, or to become due, the Contractor on his or her contract.

The Contractor shall be responsible for 24-hour-per-day operation and maintenance of these signs on the project for the duration of the phases when the plan requires their use.

The estimated quantity provides for
(two) PCMS units at 2 SNMT (30 days) each.
(Location 1 – LAK IR 90 – 2 units, 60 days) (4 SNMT)

The estimated quantity provides for
(two) PCMS units at 1 SNMT (30 days) each.
(Location 2 – GEA SR 528 – 2 units, 60 days) (2 SNMT)

The estimated quantity provides for
(two) PCMS units at 1 SNMT (30 days) each.
(Location 3 – LAK SR 615 – 2 units, 60 days) (2 SNMT)

Payment for the above described item shall be at the contract unit price. Payment shall include all labor, materials, equipment, fuels, lubricating oils, software, hardware and incidentals to perform the above described work. The Contractor shall only be paid for PCMS units when they are in operation on the project as specified in the plans or by the Engineer.

Item 614 – Portable Changeable Message Sign,
As Per Plan **8 SNMT**

Alternate Methods

If the Contractor so elects, he may submit alternate methods for the maintenance of traffic, provided the intent of the provisions is followed and no additional inconvenience to the traveling public results there from. No alternate plan shall be placed into effect until approval has been granted, in writing, by the director.

All items proposed for use under these provisions must comply with current department standards for their use when the plan detail, standard construction drawing or other bid document governing their use is not provided as part of the bid package.

MAINTENANCE OF TRAFFIC (cont'd)

Order Of Operations

The location number given to each location of work is to differentiate the location and is not intended to direct the Contractor to perform work in any specific order. Work at each location can occur concurrently.

The work on **LOCATION 1** cannot start before August 1, 2022.

72 hours prior to work starting at each location or closure, a PCMS shall be placed as directed by the Engineer, to inform the motoring public of upcoming work or closures.

Following is a list of work to be performed and how traffic will be maintained at each location.

Work Location 1 (IR-90 – Overlay Repairs):

Refer to Sheet “**Location 1 – General Notes**” of the plans.

Work Location 2 (SR-528 – Resurfacing) :

Refer to Sheet “**Location 2 – General Notes**” of the plans.

Work Location 3 (SR-615 – Resurfacing) :

Refer to Sheet “**Location 3 – General Notes**” of the plans.

Work Location 4 (Lake County FSMF - Resurfacing) :

Refer to Sheet “**Location 4 – General Notes**” of the plans.

Work Location 5 (IR-480 - Resurfacing) :

Refer to Sheet “**Location 5 – General Notes**” of the plans

DESIGN AGENCY



DESIGNER
JAG


REVIEWER
EMK 12/13/21

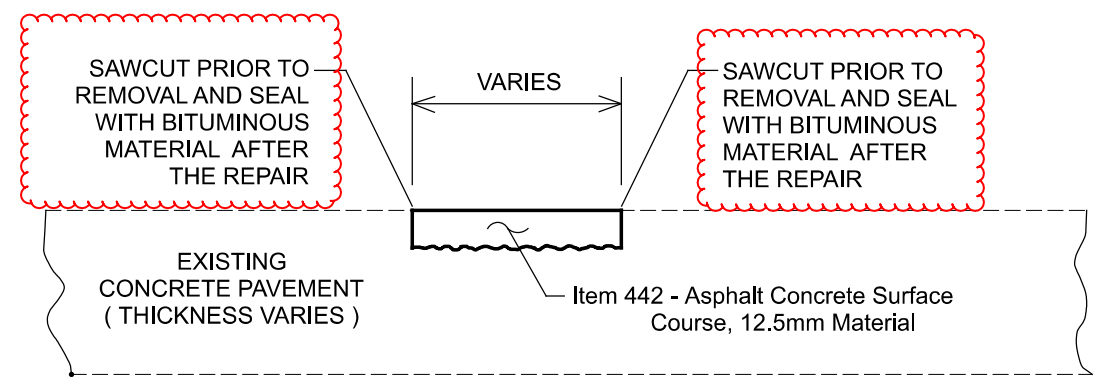
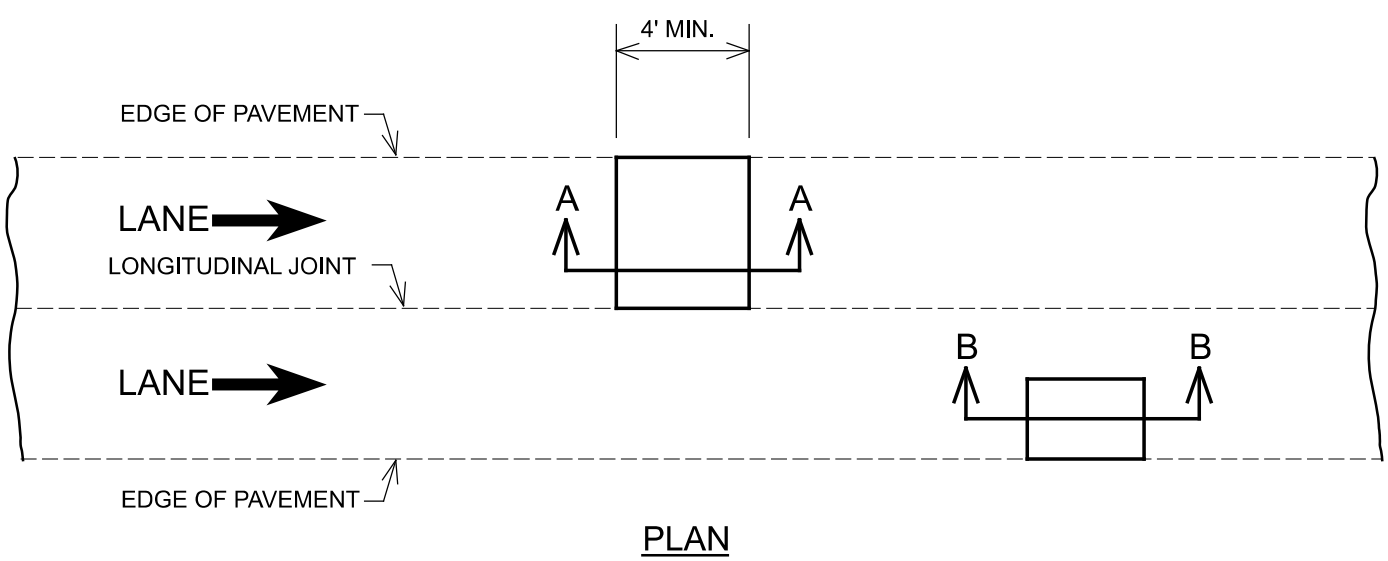
PROJECT ID
103305

SHEET TOTAL
P.12 44

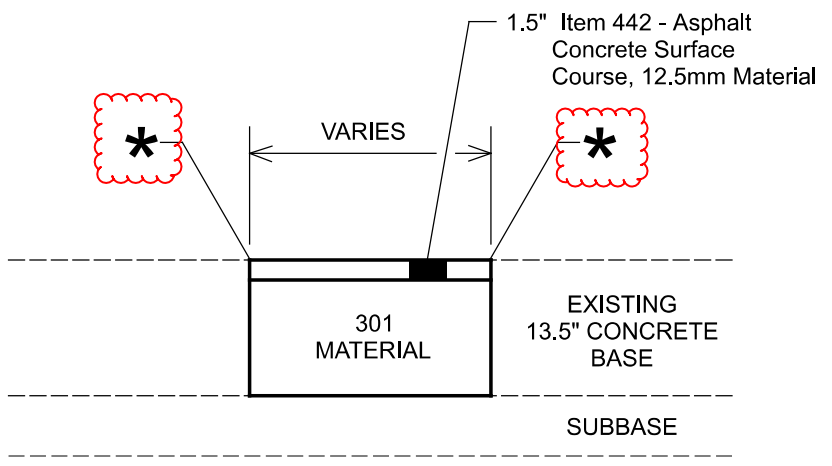
SHEET NUM.											PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
5	7	10	11	18	19	20	29	38	42	43D	01/NFP/PV							
																	ROADWAY	
									363		363		202	32000	363	FT	CURB REMOVED	
									77		77		203	10000	77	CY	EXCAVATION	
									32		32		203	20000	32	CY	EMBANKMENT	
							6.06				6.06		209	60501	6.06	MILE	LINEAR GRADING, AS PER PLAN	5
7											7		623	39501	7	EACH	MONUMENT BOX ADJUSTED TO GRADE, AS PER PLAN	5
1											1		623	39601	1	EACH	MONUMENT BOX RECONSTRUCTED TO GRADE, AS PER PLAN	5
																	EROSION CONTROL	
									249		249		659	10001	249	SY	SEEDING AND MULCHING, AS PER PLAN	41
											1,000		832	30000	1,000	EACH	EROSION CONTROL	
																	DRAINAGE	
3											3		611	98631	3	EACH	CATCH BASIN ADJUSTED TO GRADE, AS PER PLAN	5
1											1		611	98634	1	EACH	CATCH BASIN RECONSTRUCTED TO GRADE	
2,000											2,000		SPECIAL	61199820	2,000	LB	MISCELLANEOUS METAL	5
																	PAVEMENT	
							280	90			370		251	01001	370	SY	PARTIAL DEPTH PAVEMENT REPAIR (441), AS PER PLAN	6
				200							200		252	01001	200	SY	FULL DEPTH RIGID PAVEMENT REMOVAL AND FLEXIBLE REPLACEMENT, AS PER PLAN, "A"	18
				75							75		252	01001	75	SY	FULL DEPTH RIGID PAVEMENT REMOVAL AND FLEXIBLE REPLACEMENT, AS PER PLAN, "B"	18
				200							200		252	01001	200	SY	FULL DEPTH RIGID PAVEMENT REMOVAL AND FLEXIBLE REPLACEMENT, AS PER PLAN, "C"	18
				80							80		253	02001	80	CY	PAVEMENT REPAIR, AS PER PLAN, "A"	18
								160			160		253	02001	160	CY	PAVEMENT REPAIR, AS PER PLAN, "B"	6
									120		120		253	02001	120	CY	PAVEMENT REPAIR, AS PER PLAN, "C"	6
									14,789		14,789		254	01000	14,789	SY	PAVEMENT PLANING, ASPHALT CONCRETE, (1.5")	
										5,009	5,009		254	01001	5,009	SY	PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN, (1.5")	43D
					6,428						6,428		254	01011	6,428	SY	PAVEMENT PLANING, PORTLAND CEMENT CONCRETE, AS PER PLAN, (1.5")	18
									20		20		301	46000	20	CY	ASPHALT CONCRETE BASE, PG64-22, (5.5")	
									17		17		304	20000	17	CY	AGGREGATE BASE, (5")	
									514		514		407	13900	514	GAL	TACK COAT, 702.13	
							5,156	856	1,480		7,992		407	20000	7,992	GAL	NON-TRACKING TACK COAT	
											1,605		424	12000	1,605	CY	FINE GRADED POLYMER ASPHALT CONCRETE, TYPE B, (1.0")	
											16		441	50101	16	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), AS PER PLAN, PG64-22, (1.0")	6
									617	208	825		441	50101	825	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), AS PER PLAN, PG70-22M, (1.5")	6
								48	3		51		441	50400	51	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), (DRIVEWAYS), (1.0" AVG)	
					268						268		442	20001	268	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (448), AS PER PLAN, PG70-22M, (1.5")	6
										561	561		609	26000	561	FT	CURB, TYPE 6	
											198		617	10101	198	CY	COMPACTED AGGREGATE, AS PER PLAN	5
										0.81	0.81		618	40601	0.81	MILE	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE), AS PER PLAN	43D
											2.51		618	43000	2.51	MILE	RUMBLE STRIPS, CENTER LINE (ASPHALT CONCRETE)	
											2.51		874	21000	2.51	MILE	LONGITUDINAL JOINT PREPARATION	
											546	489	875	10000	1,035	LB	LONGITUDINAL JOINT ADHESIVE	
											51,572	8,559	897	01010	60,131	SY	PAVEMENT PLANING, ASPHALT CONCRETE, CLASS A, (1.0")	
																	TRAFFIC CONTROL	
						96					315		621	00100	315	EACH	RPM	
						96					299		621	54000	299	EACH	RAISED PAVEMENT MARKER REMOVED	
						0.67	6.06	1.11			7.84		646	10010	7.84	MILE	EDGE LINE, 6"	
						1.13					1.13		646	10110	1.13	MILE	LANE LINE, 6"	
							3.03	0.56			3.59		646	10200	3.59	MILE	CENTER LINE	
						134					134		646	10310	134	FT	CHANNELIZING LINE, 12"	
							99	13			112		646	10400	112	FT	STOP LINE	
											95		646	10510	95	FT	CROSSWALK LINE, 12"	
									3		3		646	10900	3	EACH	HANDICAP SYMBOL MARKING	
									2		2		646	20110	2	EACH	SCHOOL SYMBOL MARKING, 96"	
										1,155	1,155		646	20200	1,155	FT	PARKING LOT STALL MARKING	
						95					95		646	20510	95	FT	DOTTED LINE, 12"	
LS											LS		SPECIAL	69098400	LS		INVENTORY EXISTING PAVEMENT MARKINGS	7

GENERAL SUMMARY

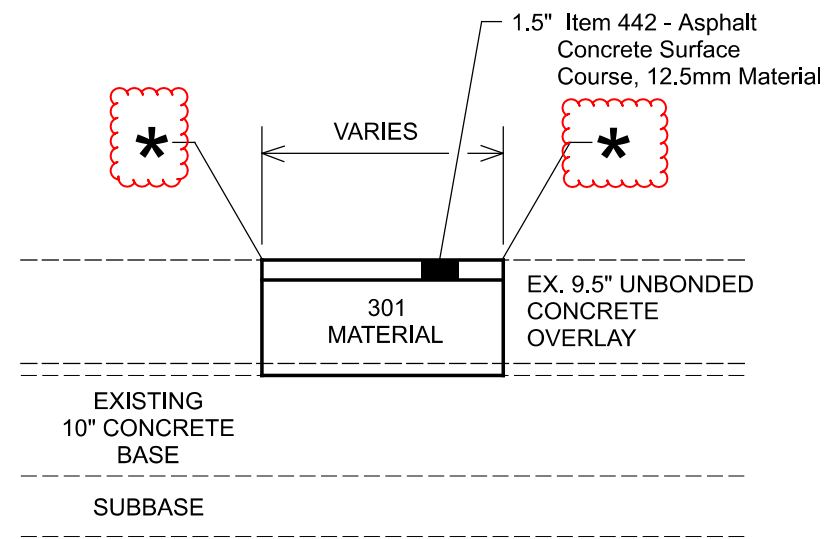
DESIGN AGENCY

 DESIGNER
JAG
 REVIEWER
 EMK 12/13/21
 PROJECT ID
 103305
 SHEET TOTAL
 P.13 44



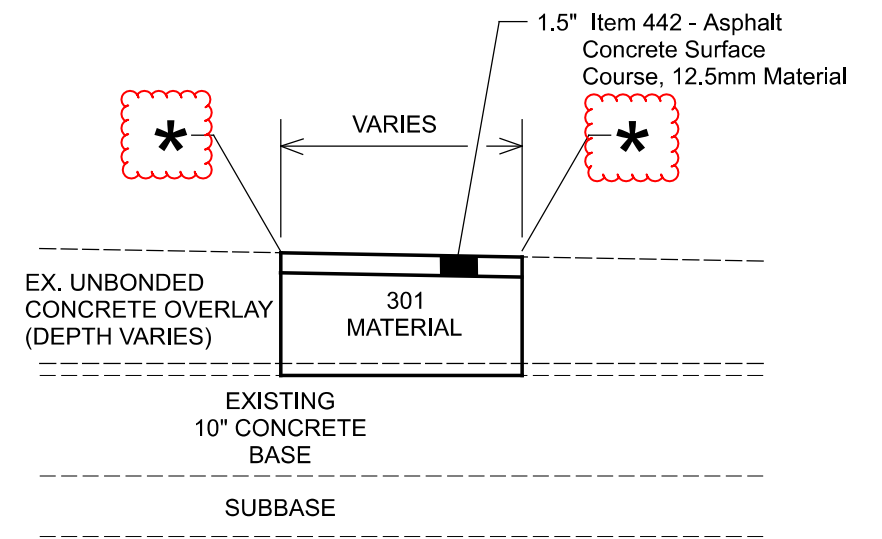
SECTION B-B
ITEM 253 - PAVEMENT REPAIR, AS PER PLAN "A"



SECTION A-A
ITEM 252 - FULL DEPTH RIGID PAVEMENT REMOVAL AND FLEXIBLE REPLACEMENT, AS PER PLAN "A"



SECTION A-A
ITEM 252 - FULL DEPTH RIGID PAVEMENT REMOVAL AND FLEXIBLE REPLACEMENT, AS PER PLAN "B"

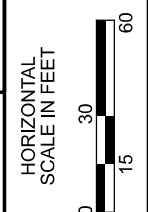
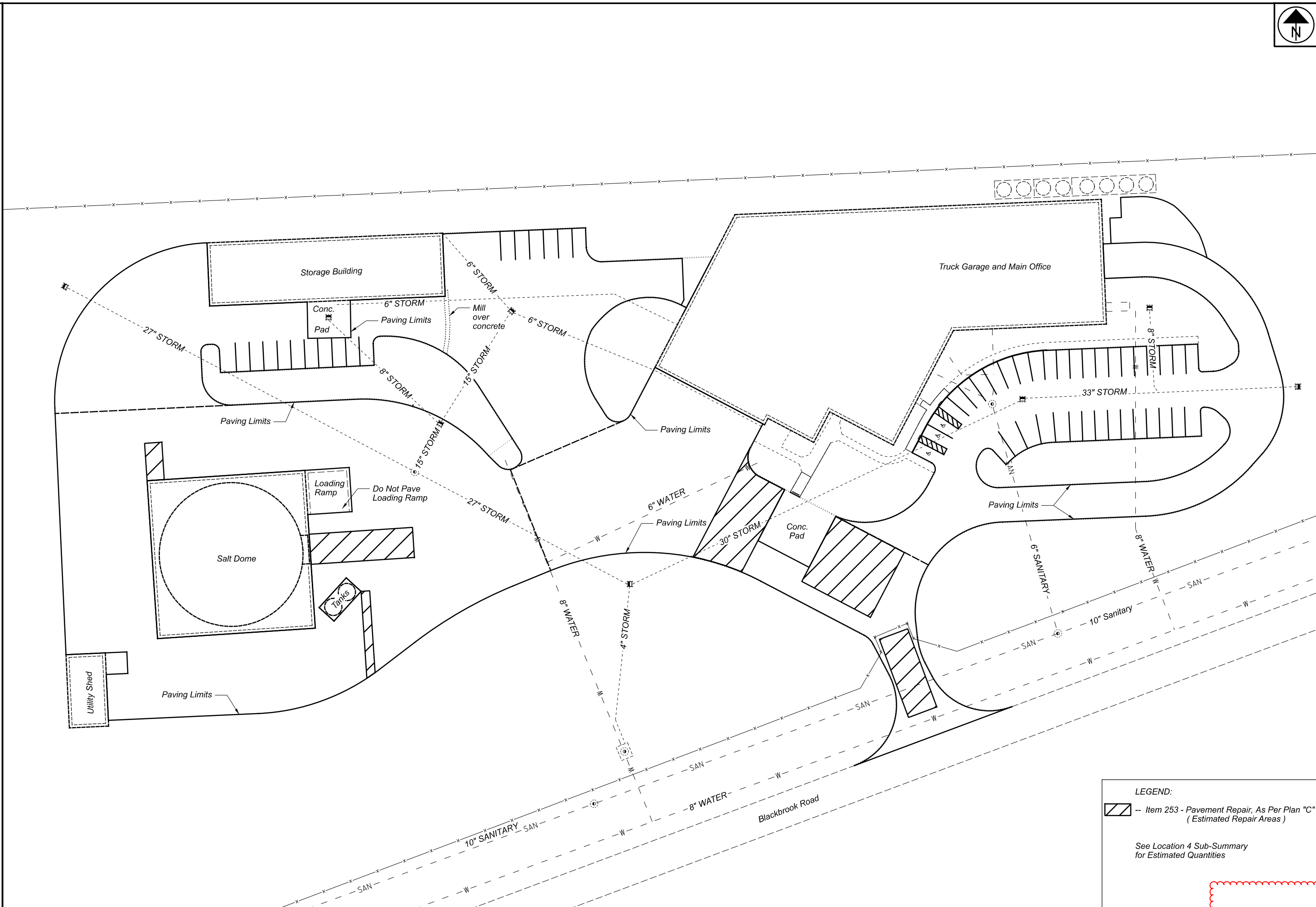


SECTION A-A
ITEM 252 - FULL DEPTH RIGID PAVEMENT REMOVAL AND FLEXIBLE REPLACEMENT, AS PER PLAN "C"

*** - SAWCUT FULL DEPTH PRIOR TO REMOVAL AND SEAL WITH BITUMINOUS MATERIAL AFTER THE REPAIR.**



DESIGNER	JAG
REVIEWER	EMK 12/13/21
PROJECT ID	0
SHEET	TOTAL
P.26	44



LOCATION 4 - PLAN SHEET
LAKE COUNTY - PAINESVILLE FULL SERVICE MAINTENANCE FACILITY
ESTIMATED PAVEMENT REPAIR AREAS

DESIGN AGENCY



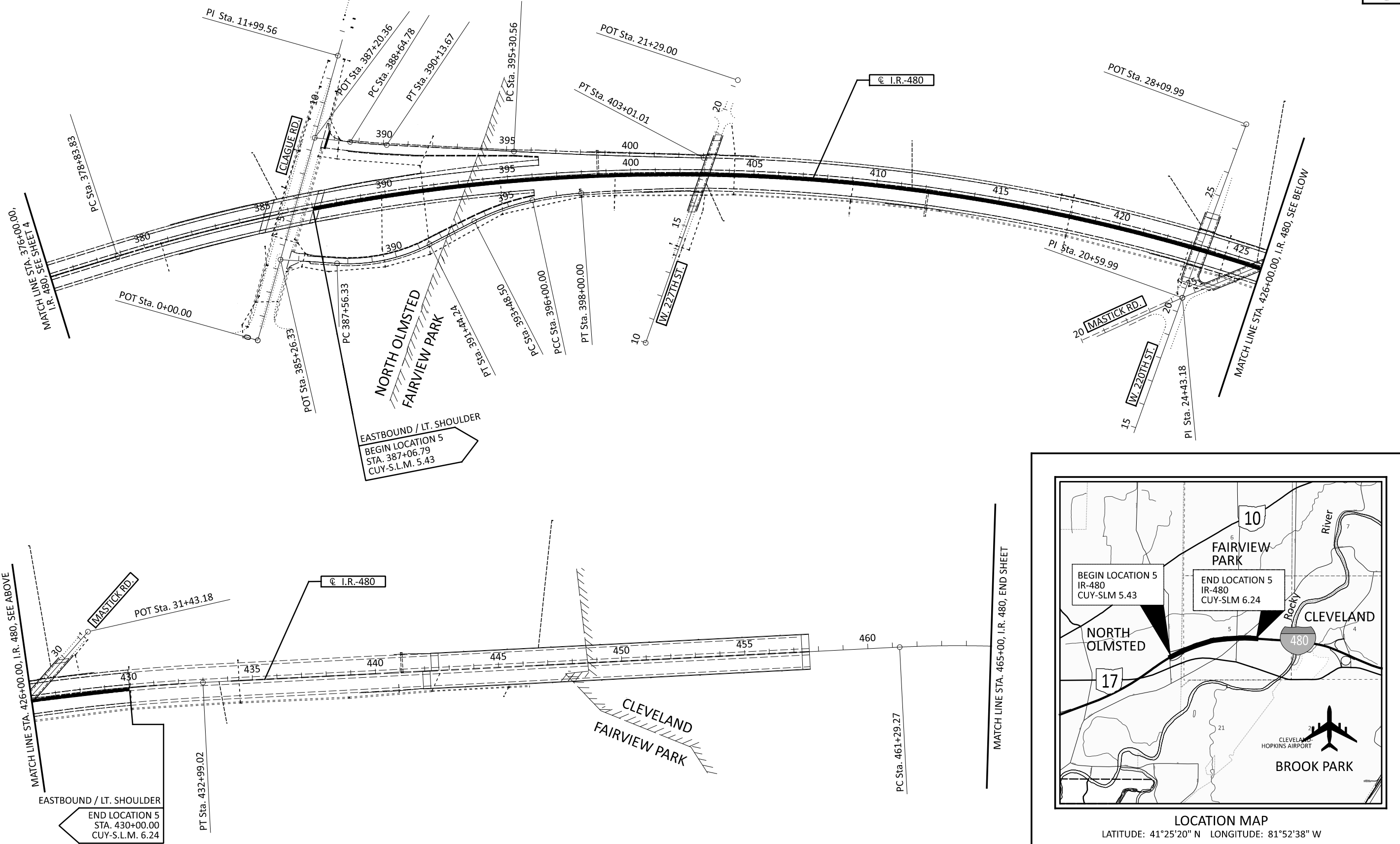
DESIGNER
JAG

REVIEWER
EMK 12/13/21

PROJECT ID
103305

SHEET	TOTAL
P.43A	44

LEGEND:
 -- Item 253 - Pavement Repair, As Per Plan "C" (Estimated Repair Areas)
 See Location 4 Sub-Summary for Estimated Quantities



LOCATION MAP
 LATITUDE: 41°25'20" N LONGITUDE: 81°52'38" W
 SCALE IN MILES: 0, .5, 1, 2
 PORTION TO BE IMPROVED: [Dashed line indicating project extent]

LOCATION 5 I.R.-480 CUYAHOGA COUNTY

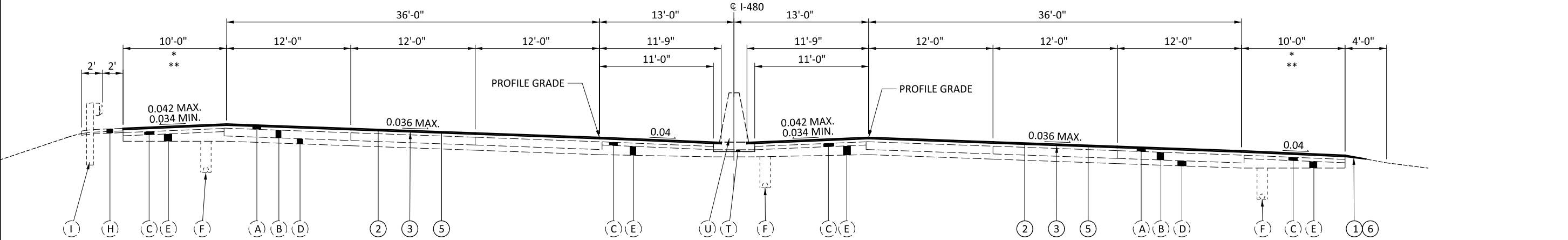


LOCATION 5 - I.R.-480 - CUYAHOGA COUNTY
LOCATION MAP / SCHEMATIC PLAN

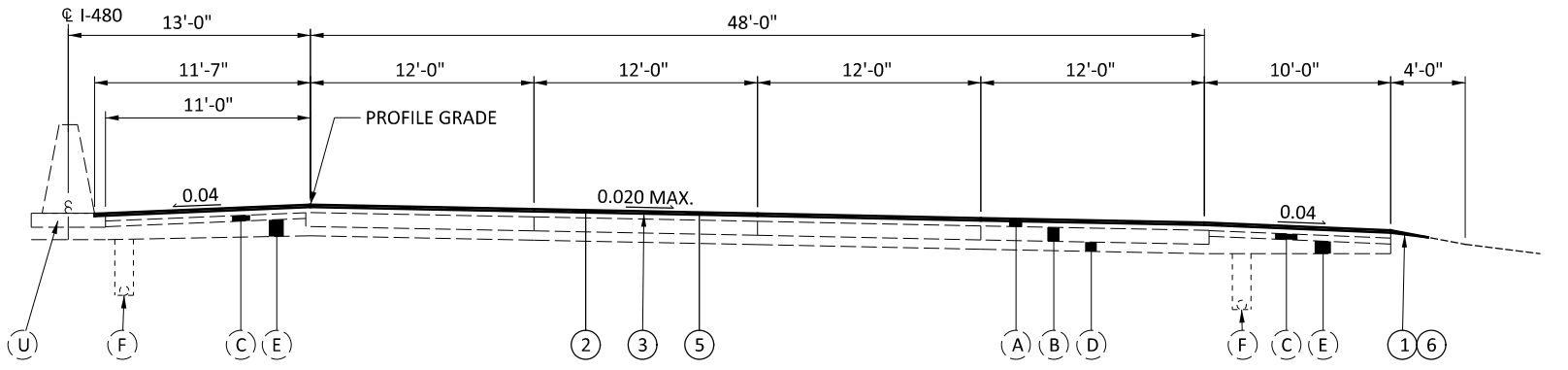
DESIGN AGENCY	
DESIGNER	JAG
REVIEWER	EMK 12/13/21
PROJECT ID	103305
SHEET TOTAL	P.43B 44

D12-RPM-FY2022

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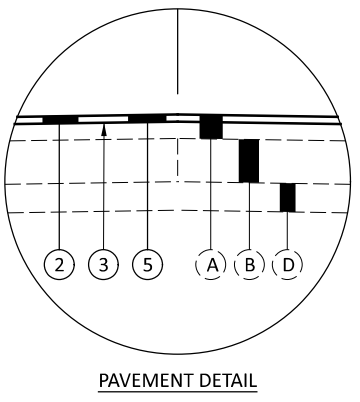
EXISTING - BASED ON RECORD PLANS:
 2020 RESURFACING - PID 77526 - (CUY-480-00.00)
 SUPERELEVATED SECTION - 6 LANES
 STA. 387+31.79 TO STA. 403+20.00 EASTBOUND



EXISTING - BASED ON RECORD PLANS:
 2020 RESURFACING - PID 77526 - (CUY-480-00.00)
 SUPERELEVATED SECTION - 8 LANES
 STA. 403+20.00 TO STA. 430+00.00 EASTBOUND

**EXISTING - BASED ON RECORD PLANS:
 2020 RESURFACING
 PID 77526 - (CUY-480-00.00)
 RECORD PLANS - ITEMS NOT RE-NUMBERED (FOR REFERENCE ONLY)**

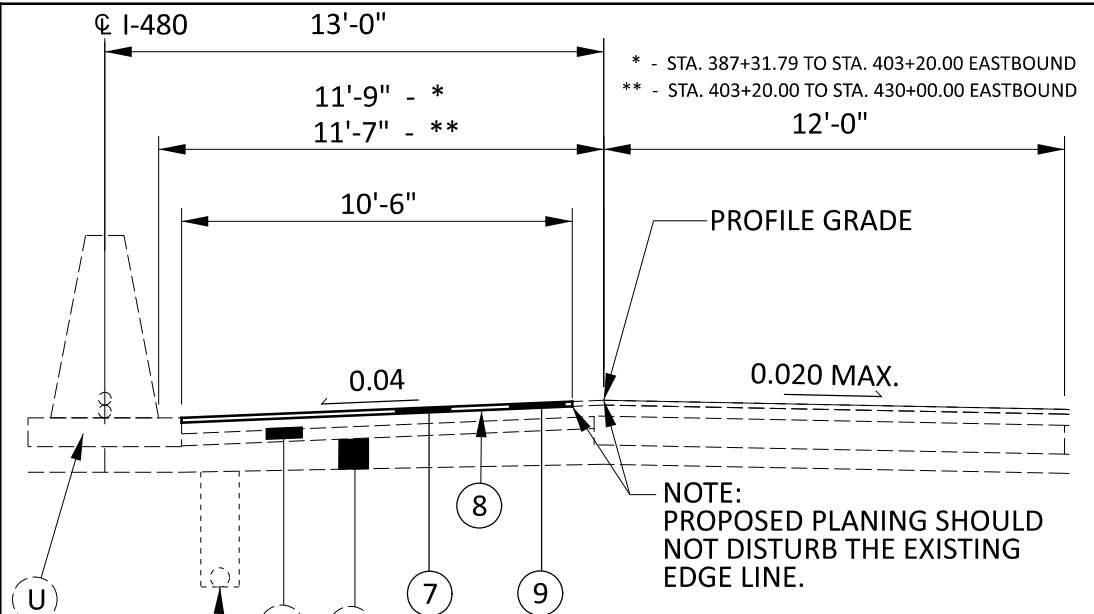
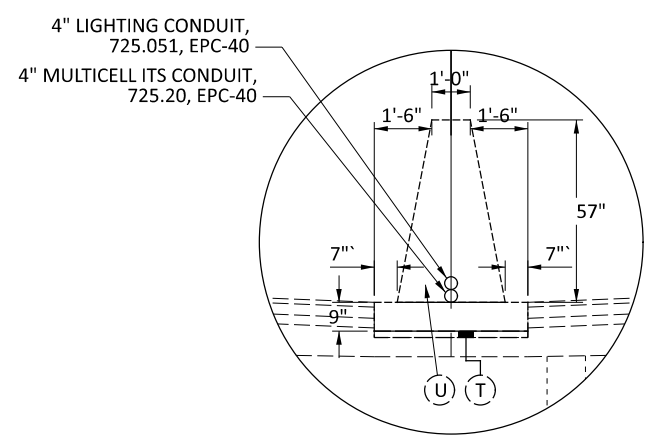
EXISTING LEGEND	RESURFACING - PID 77526 - PROPOSED LEGEND
(A) 5" ASPHALT CONCRETE	(1) ITEM 209 - LINEAR GRADING, AS PER PLAN
(B) 9" PORTLAND CEMENT CONCRETE BASE	(2) ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN, 1.5"
(C) ASPHALT CONCRETE BASE (VARIES 2¼"-6½")	(3) ITEM 407 - NON-TRACKING TACK COAT
(D) 6" SUBBASE	(4) ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A, (446), AS PER PLAN, PG76-22M, 1.5"
(E) SUBBASE (VARIES 6"-15")	(5) ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A, (447), AS PER PLAN, PG76-22M, 1.5"
(F) 6" UNDERDRAIN (30" SHALLOW - 50" DEEP)	(6) ITEM 617 - COMPACTED AGGREGATE, AS PER PLAN
(G) CONCRETE BARRIER, TYPE B50 OR TYPE B1	
(H) ASPHALT CONCRETE UNDER GUARDRAIL	
(I) GUARDRAIL, TYPE 5	
(J) 1½" ASPHALT CONCRETE	
(K) APPROACH SLAB, 15"	
(L) 10" REINFORCED CONCRETE PAVEMENT	
(M) 9" AGGREGATE BASE	
(N) 3" COMPACTED AGGREGATE	
(O) 10" CONCRETE BASE	
(P) CONCRETE MEDIAN	
(Q) CONCRETE CURB	
(R) 9" REINFORCED CONCRETE PAVEMENT	
(S) 3½" ASPHALT CONCRETE	



**EXISTING - BASED ON RECORD PLANS:
 2019 MEDIAN BARRIER REPLACEMENT
 PID 104800 - (CUY-480-03.98 BARRIER)
 RECORD PLANS - (FOR REFERENCE ONLY)**

BARRIER REPLACEMENT - PID 104800 - EXISTING LEGEND

(T) ITEM 304 - 2" AGGREGATE BASE
(U) ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE B1



**WORK LOCATION 5 - I.R.-480
 PROPOSED PAVEMENT DETAIL 1**

WORK LOCATION 5 - I.R.-480
 PROPOSED WORK LEGEND - ONLY ITEMS 7, 8 & 9

(7) ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN, (1.5")
(8) ITEM 407 - NON-TRACKING TACK COAT
(9) ITEM 441 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), AS PER PLAN, PG70-22M, (1.5")

* - STA. 387+31.79 TO STA. 403+20.00 EASTBOUND
 ** - STA. 403+20.00 TO STA. 430+00.00 EASTBOUND

LOCATION 5 - I.R.-480 - TYPICAL SECTIONS / PAVEMENT DETAILS

DESIGN AGENCY	
DESIGNER	JAG
REVIEWER	EMK
PROJECT ID	12/13/21
	103305
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P.43C	44

LOCATION 5 – ADDITIONAL NOTES
(IN ADDITION TO PROJECT GENERAL NOTES)

Project Location 5 Location

These notes apply to the Project Location 5 location involving the planing and paving of the left shoulder of I.R.480, Eastbound.

Major Work Items – Location 5 (IR-480)

The following major work items will require traffic maintenance which will be incorporated into the Contractor’s sequence of operations:

1. Planing of asphalt concrete, 1.5”, As Directed by the Engineer.
2. Placing of asphalt concrete, 1.5”
3. Placing rumble strips.

Traffic shall not be permitted to travel on planed surface.

The pavement planing and placement of asphalt concrete surface course should be completed in the same operation.

Project – Location 5 - Schedule of Through Lanes to be Maintained

All lane closures may only be implemented at the times permitted by the “District 12 Permitted Lane Closure Times” list, which is located on the ODOT website:

www.dot.state.oh.us/dist12/workzone/laneclo.htm

The latest revision, at 14 days prior to the bid date, shall be in effect for this project.

No lane or shoulder closures shall be in place when no work is being performed, unless directed by the Engineer.
Shoulder closures shall only be allowed at the times specified for lane closures, unless directed by the Engineer.

Item 254 – Pavement Planing, Asphalt Concrete, As Per Plan, (1.5”)

This item shall be used to plane the existing shoulder as detailed on the Typical Sections for Location 5.

The depth of planing adjacent to the existing edge line shall be 1.5” and may vary across the shoulder to achieve the 0.04 proposed shoulder cross slope, or as directed by the Engineer.

Item 618 – Rumble Strips, Shoulder (Asphalt Concrete), As Per Plan

For all freeways, the lateral position of edge line rumble strips shown in SCD BP-9.1 is revised as follows:

1. Median and Outside Shoulder Offset for shoulders less than 6’:
Dimension A and B are equal to 6”
2. Median and Outside Shoulder Offset for shoulders 6’ to 12’:
Dimension A and B are equal to half the shoulder width minus 12”.
3. Median and Outside Shoulder Offset for shoulders greater than 12’:
Dimension A and B are equal to 5’.

The estimated quantity shown in the Location 5 Sub-Summary shall be used to construct Item 618 – Rumble Strips, Shoulder (Asphalt Concrete), As Per Plan as per Standard Drawing BP-9.1 except as noted above.

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PLAN SPLIT NO.	LOCATION 5 - I.R.-480 STATION TO STATION	DIRECTION	LENGTH	BEGIN WIDTH	ENDING WIDTH	AVERAGE WIDTH	AREA	CADD AREAS			254	407	441				618
											PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN, (1.5")	NON-TRACKING TACK COAT	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), AS PER PLAN, PG70-22M, (1.5")				RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE), AS PER PLAN
			FT.	FT.	FT.	FT.	SQ. YD.	SQ. YD.			SY	GAL	CY				MILE
	LOCATION 5 - I.R.-480																
	CUY-S.L.M. 5.43 - 387+06.79																
	BRIDGE CUY-480-0540 (IR480 OVER CLAGUE RD.)																
1	387+06.79		18.49	10.5	10.5	10.5	22			22	2	1					18.49
1	387+25.28		877.95	10.5	10.5	10.5	1024			1024	102	43					877.95
1	396+03.23		192.27	10.5	10.5	10.5	224			224	22	9					192.27
1	397+95.50		501	10.5	10.5	10.5	585			585	59	24					501
1	402+96.50		2703.5	10.5	10.5	10.5	3154			3154	315	131					2703.5
	CUY-S.L.M. 6.24 - 430+00																
SUBTOTALS											5009	500	208				4293.21
TOTALS CARRIED TO GENERAL SUMMARY											5009	500	208				0.81 MI

LOCATION 5 - I.R.-480 - CUYAHOGA COUNTY
GENERAL NOTES - SUB-SUMMARY

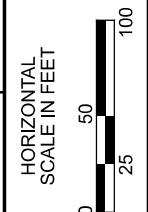
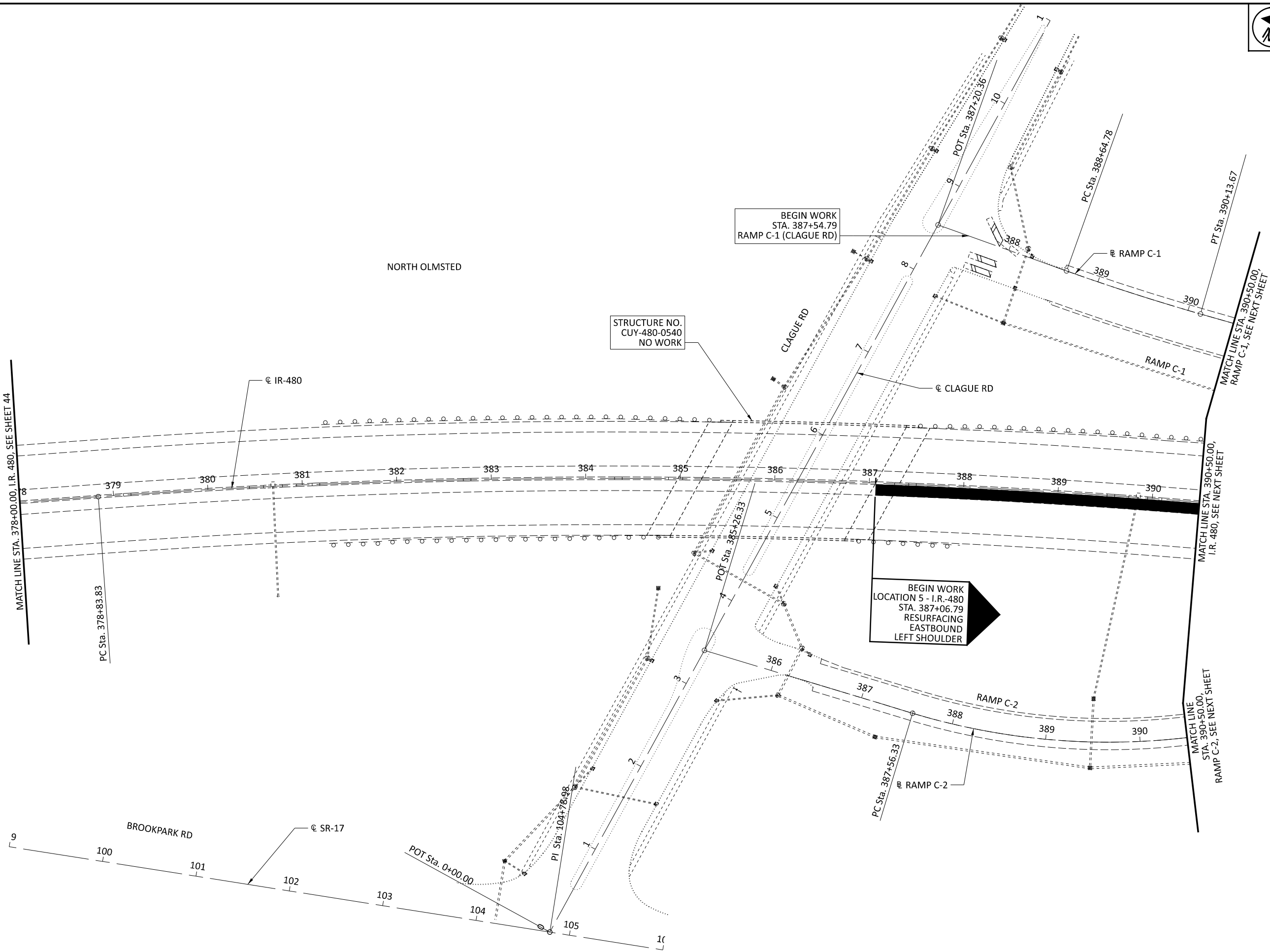
DESIGN AGENCY

DESIGNER
JAG

REVIEWER
EMK 12/13/21

PROJECT ID
103305

SHEET TOTAL
P.43D 44

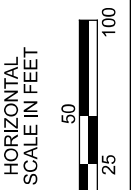
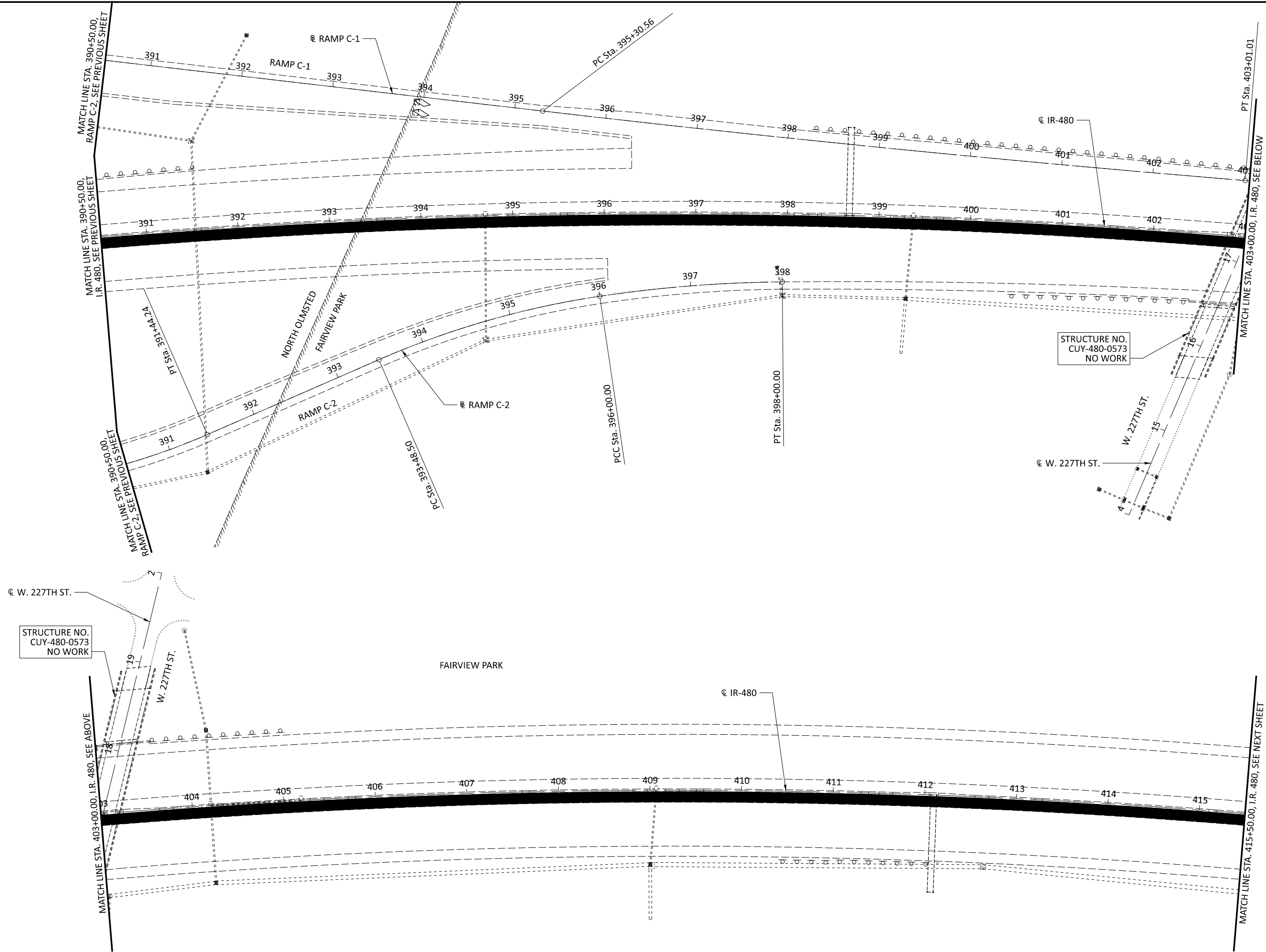


LOCATION 5 - PLAN SHEET
I.R.-480, STA. 387+06 TO STA. 390+50

DESIGN AGENCY



DESIGNER	JAG
REVIEWER	EMK 12/13/21
PROJECT ID	103305
SHEET	TOTAL
P.43E	44



LOCATION 5 - PLAN SHEET
I.R.-480, STA. 390+50 TO STA. 415+50

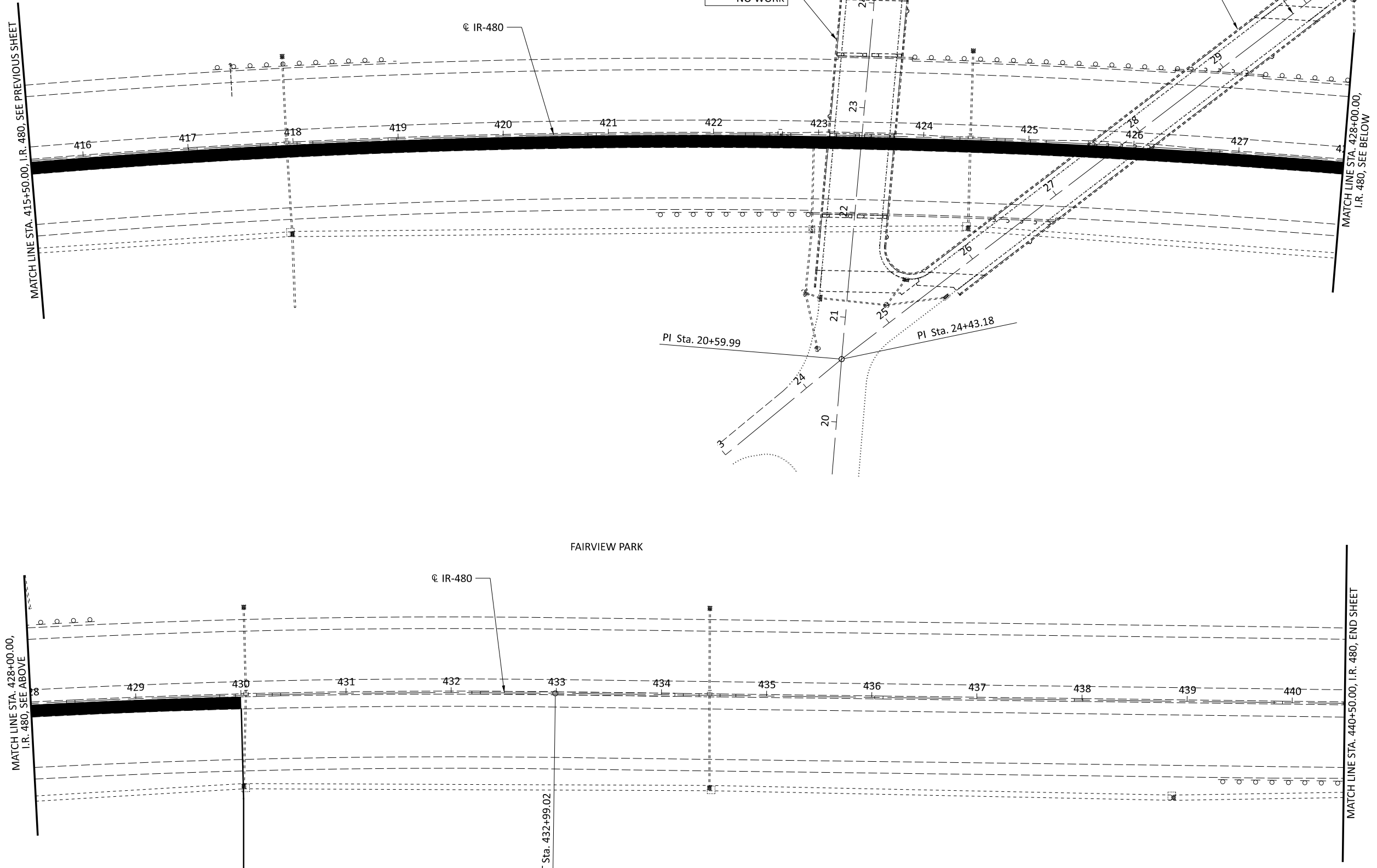
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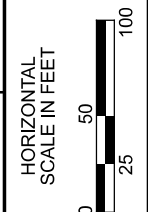
DESIGNER	JAG
REVIEWER	EMK 12/13/21
PROJECT ID	103305
SHEET	TOTAL
P.43F	44

D12-PPM-FY2022

MODEL: Sheet PAPER: I:\xii (in.) DATE: 2/24/2022 TIME: 12:52:05 PM USER: jgrmovse
pw:\ohlodot-pw\bentley.com\ohlodot-pw-02\Documents\10Active Projects\District 12\12103305\400-Engineering\Roadway\Sheets\103305_GP503.dgn



END WORK
 LOCATION 5 - I.R.-480
 STA. 430+00
 RESURFACING
 EASTBOUND
 LEFT SHOULDER



LOCATION 5 - PLAN SHEET
 I.R.-480, STA. 415+50 TO STA. 430+00

DESIGN AGENCY



DESIGNER	JAG
REVIEWER	EMK 12/13/21
PROJECT ID	103305
SHEET	TOTAL
P.44	44