

IN CO-OPERATION WITH
MICHIGAN DEPARTMENT OF TRANSPORTATION
PLANS OF PROPOSED
AIRPORT ROAD REHABILITATION

COVER SHEET
VICINITY MAP
LOG OF PROJECT
QUANTITY SHEET
NOTE SHEET
TYPICAL CROSS SECTIONS
SUPERELEVATION CROSS SECTIONS
CRITICAL STATIONING

CONTROL SECTION: STUL56000 JOB NO: 200558A
FEDERAL PROJECT NO. STP 1756(012)
FEDERAL ITEM NO. HK 1643



— SEE VICINITY MAP
AIRPORT RD —
HICKS ROAD TO
PERRINE ROAD

PROJECT NAME	AIRPORT ROAD REHABILITATION PROJECT
LOCATION	MIDLAND COUNTY
TOTAL LENGTH	1.17 MILES
WORK DESC.	HICKS RD. TO PERRINE RD. CRUSH & SHAPE

IMPROVEMENTS COVERED BY THESE PLANS SHALL BE MADE IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION 2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION, THE MDOT LOCAL AGENCY PROGRAMS GUIDELINES FOR GEOMETRICS, SECTION C RESURFACING, RESTORATION, AND REHABILITATION (3R) DATED MARCH 4, 2014, AND THE 2011 MICHIGAN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

TRAFFIC DATA AIRPORT RD.

YEAR	2017	2037
A.D.T.	2519	3743
D.H.V.	N.A.	N.A.
COMM. %	2%	3%
DESIGN SPEED	45	45
POSTED SPEED.....	45	45

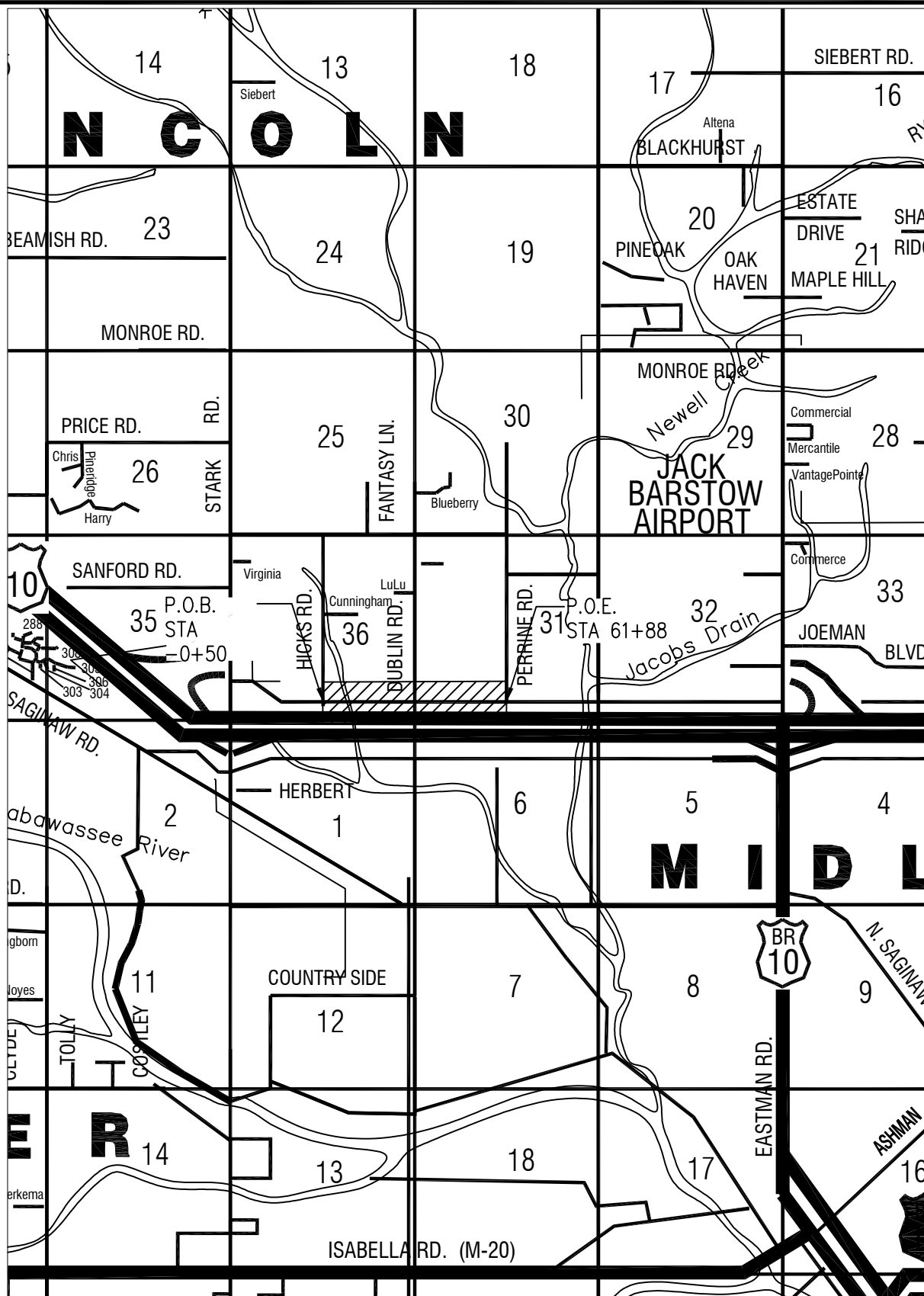


MIDLAND COUNTY ROAD COMMISSION APPROVAL

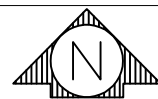
2-11-17
DATE

REG. NO.

ADDRESS



PROJECT LOCATION



NOT TO SCALE



2334 N Meridian Road
Sanford, MI 48657

Office: (989) 687-9060
Fax: (989) 687-9121
www.midlandroads.com

PREPARED FOR:
MIDLAND COUNTY ROAD COMMISSION
PROJECT NAME:
AIRPORT ROAD REHABILITATION₁₄₃

PLAN NO. 200558A
DATE: 06/14/2017
PROJECT MGR: TERRY PALMER
REVIEWER: ART BUCK
SCALE: NTS SHEET NO: 2

LOG OF PROJECT

JOB LOCATION AND DESCRIPTION

THE PROJECT INCLUDES THE FOLLOWING ROADWAY SEGMENT:

AIRPORT ROAD – HICKS ROAD TO PERRINE ROAD (LINCOLN TWP & CITY OF MIDLAND)

- PROJECT LENGTH = 1.17 MILES
- POB = STA -0+50 (50' WEST OF C/L HICKS ROAD)
- POE = STA 61+88 (PAVEMENT CHANGE 7' EAST OF C/L PERRINE ROAD)
- EXISTING ASPHALT ROADWAY WIDTH 22'
- TRENCHING, HMA BASE CRUSHING AND SHAPING, AND HMA RESURFACING

DESCRIPTION OF WORK

THE WORK INCLUDES TRENCHING ALONG BOTH SIDES OF ROADWAY, PLACING 2.5 INCHES OF 22A AGGREGATE BASE ON THE EXISTING ROADWAY SURFACE, CRUSHING AND SHAPING THE EXISTING HMA SURFACE WITH ADDED AGGREGATE, GRADING TO FILL THE TRENCHED SECTIONS, AGGREGATE SHOULDERS, AND SLOPE RESTORATION IN ACCORDANCE WITH THE TYPICAL CROSS SECTIONS. HMA PAVING SHALL BE AT THE APPLICATION RATES LISTED ON THE TYPICAL CROSS SECTIONS AND IN ACCORDANCE WITH THE PROPOSAL. THE LIMITS OF DRIVEWAY WORK ARE DESCRIBED ON THE NOTE SHEET. ALL PAVEMENT MARKINGS AND PERMANENT SIGNING WILL BE COMPLETED BY OTHERS.

THIS PROJECT INCLUDES DITCH CLEANOUT PER THE TYPICAL CROSS SECTIONS AND AS DIRECTED BY THE ENGINEER.

THROUGHOUT THE PROJECT, TRAFFIC SHALL BE MAINTAINED AS DESCRIBED IN THE SPECIAL PROVISION FOR MAINTAINING TRAFFIC CONTAINED IN THIS PROPOSAL.

ALL MEASURES REQUIRED FOR MAINTAINING TRAFFIC DURING CONSTRUCTION SHALL CONFORM WITH THE 2011 EDITION OF THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, AND THE MDOT 2012 EDITION OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION (SECTION 812) UNLESS MODIFIED BY THIS PLAN OR DIRECTED OTHERWISE BY THE ENGINEER.

UNDERGROUND UTILITY IDENTIFICATION AND LOCATION

THE CONTRACTOR SHALL CALL MISS DIG (1-800-482-7171) OR 811 A MINIMUM OF THREE WORK DAYS IN ADVANCE OF BEGINNING EXCAVATION. THE CONTRACTOR IS RESPONSIBLE TO IDENTIFY AND NOTIFY UTILITY AGENCIES WITHIN THE PROJECT AREA WHICH DO NOT PARTICIPATE IN THE MISS DIG NOTIFICATION PROGRAM.



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AIRPORT ROAD QUANTITIES (JN 200558A)

ITEM NO.	DESCRIPTION	UNITS	QUANTITY
1500001	Mobilization, Max	LSUM	1
2040035	Guardrail, Rem	Ft	50
2040045	Masonry and Con Structure, Rem	Cyd	5
2050006	Ditch Cleanout	Sta	31
2050011	Embankment, LM	Cyd	500
2080036	Erosion Control, Silt Fence	Ft	500
3020001	Aggregate Base	Ton	1718
3050002	HMA Base Crushing and Shaping	Syd	20866
3050010	Material, Surplus and Unsuitable, Rem, LM	Cyd	100
3070121	Shoulder, Cl II	Ton	860
3070200	Trenching	Sta	124
5010033	HMA, 13A	Ton	4285
5010061	HMA, Approach	Ton	120
8070015	Guardrail, Backed, Det G1	Ea	2
8070042	Guardrail Approach Terminal, Type 2B	Ea	4
8070095	Post, Mailbox	Ea	31
8120140	Lighted Arrow, Type C, Furn	Ea	2
8120141	Lighted Arrow, Type C, Oper	Ea	2
8120170	Minor Traf Devices	LSUM	1
8120231	Pavt Mrkg, Type NR, Tape, 4 Inch, Yellow, Temp	FT	500
8120250	Plastic Drum, High Intensity, Furn	Ea	150
8120251	Plastic Drum, High Intensity, Oper	Ea	150
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	600
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	600
8120370	Traf Regulator Control	LSUM	1
8130010	Riprap, Plain	Syd	90
8160100	Slope Restoration, Type A	Syd	4000
8160101	Slope Restoration, Type B	Syd	1000

* PAYMENT FOR TEMPORARY SIGNS, LIGHTED ARROWS, AND PLASTIC DRUMS ARE BASED ON THE MAXIMUM NUMBER OF UNITS REQUIRED FOR ONE TRAFFIC REGULATOR CONTROL OPERATION TO BE IN PLACE AT ONE TIME THROUGHOUT THE PROJECT.



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REVIEWER: ART BUCK
SCALE: NTS SHEET NO: 4

GENERAL PLAN NOTES

1. HMA DRIVES SHALL BE PAVED TO A DISTANCE 3 FEET FROM PROPOSED EDGE OF MAINLINE HMA. ALL COSTS SHALL BE INCLUDED IN THE PAY ITEM HMA, 13A.
2. GRAVEL AND FIELD DRIVEWAYS SHALL BE PAVED 1 FOOT WIDER THAN THE EDGE OF ROADWAY DURING MAINLINE PAVING. ALL COSTS SHALL BE INCLUDED IN THE PAY ITEM HMA, 13A.
3. ALL AGGREGATE BASES SHALL BE AGGREGATE, 22A.
4. SHOULDER, CL II SHALL BE PLACED IN ACCORDANCE WITH THE TYPICAL CROSS SECTIONS AND SHALL BE MDOT DENSE GRADED AGGREGATE 23A.
5. PERMANENT PAVEMENT MARKINGS AND SIGNING BY OTHERS.
6. SIDEWALK RAMPS AT WINTERBERRY CT. TO BE UPGRADED TO ADA COMPLIANCE. HMA APPROACH SHALL BE PLACED TO TOP OF CURB AS DIRECTED BY ENGINEER. DETECTABLE WARNING SURFACE TO BE INSTALLED BY OTHERS.
7. A MISCELLANEOUS QUANTITY OF SILT FENCE HAS BEEN INCLUDED TO BE PLACED AS DIRECTED BY THE ENGINEER.
8. WHERE THE FOLLOWING ITEMS ARE CALLED FOR IN THE PLANS, THEY ARE TO BE CONSTRUCTED ACCORDING TO THE STANDARD PLAN GIVEN BELOW, OPPOSITE EACH ITEM UNLESS OTHERWISE INDICATED.

MDOT STANDARD PLANS

THE FOLLOWING MDOT STANDARD PLANS ARE APPLICABLE TO THIS PROJECT:

R-96-E	SOIL EROSION AND SEDIMENTATION CONTROL MEASURES
R-100-H	SEEDING AND TREE PLANTING
R-105-D	GRADING CROSS SECTIONS

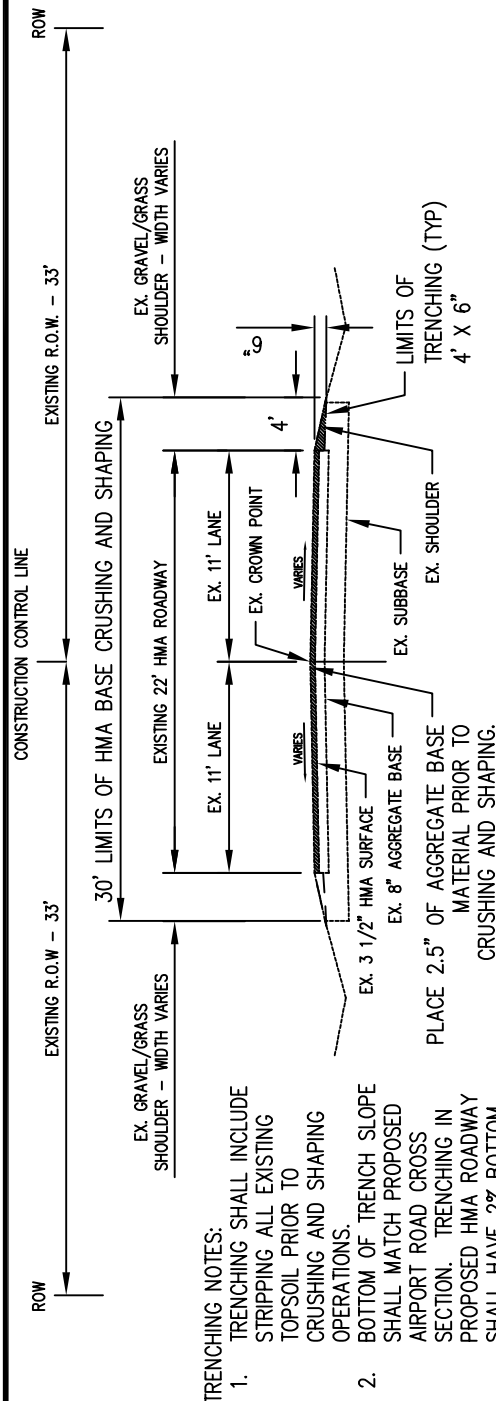
*WZD-100-A	GROUND DRIVEN SUPPORTS FOR TEMP SIGNS
*WZD-125-E	TEMPORARY TRAFFIC CONTROL DEVICES

* DENOTES SPECIAL DETAIL INCLUDED IN PROPOSAL



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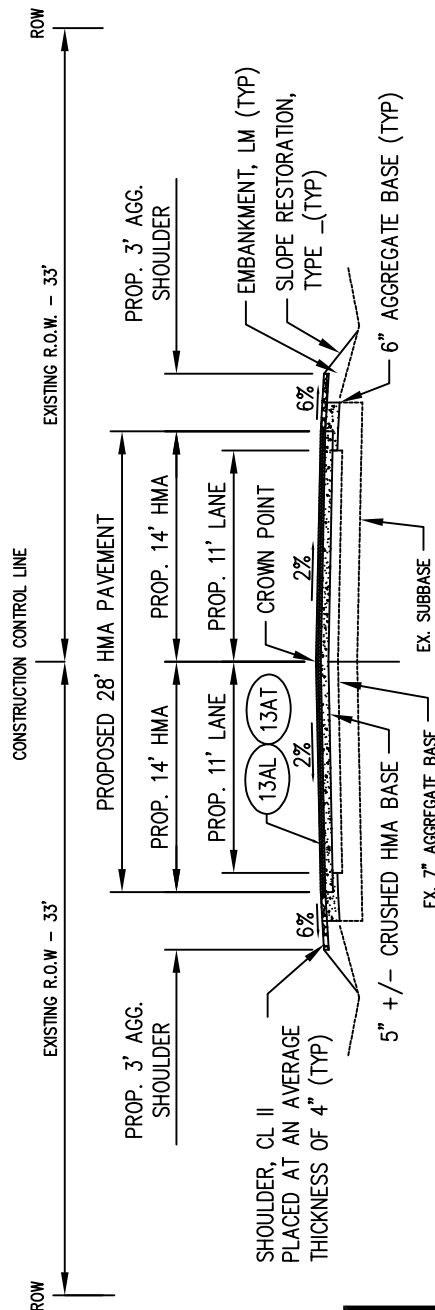
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REVIEWER:	ART BUCK
SCALE:	NTS
SHEET NO:	5



EXISTING CROSS SECTION - AIRPORT ROAD

P.O.B. STA -0+50 TO STA 0+00
STA 4+88 TO P.O.E. STA 61+88

- CONSTRUCTION NOTES:
1. TRENCH EXISTING GRAVEL AND GRASS SHOULDERS IN ACCORDANCE WITH TYPICAL CROSS SECTIONS.
 2. PLACE 2.5" OF AGGREGATE BASE ON EXISTING HMA PAVEMENT.
 3. CRUSH THE EXISTING HMA PAVEMENT AND AGGREGATE BASE MATERIAL IN ACCORDANCE WITH TYPICAL CROSS SECTIONS. MIX THE ADDITIONAL AGGREGATE BASE AND CRUSHED MATERIAL TO ACHIEVE A UNIFORM CROSS SECTION.
 4. SPREAD CRUSHED BASE MATERIAL TO FILL THE TRENCHED AREAS, COMPACT AND SHAPE TO ACHIEVE THE PROPOSED CROSS SECTION.
 5. PLACE HMA IN ACCORDANCE WITH TYPICAL CROSS SECTIONS.
 6. PLACE 3' WIDE AGGREGATE SHOULDERS.



PROPOSED CROSS SECTION - AIRPORT ROAD

P.O.B. STA -0+50 TO STA 0+00
STA 4+88 TO P.O.E. STA 61+88

CRUSHING AND SHAPING NOTES:

1. CRUSH EXISTING HMA SURFACE, ADDITIONAL AGGREGATE MATERIAL, AND UNDERLYING AGGREGATE BASE IN ACCORDANCE WITH SECTION 305 OF THE 2012 MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION.
2. DEPTH OF CRUSHING AND SHAPING SHALL NOT EXCEED 2" OF THE EXISTING AGGREGATE BASE MATERIAL.

HMA APPLICATION ESTIMATE

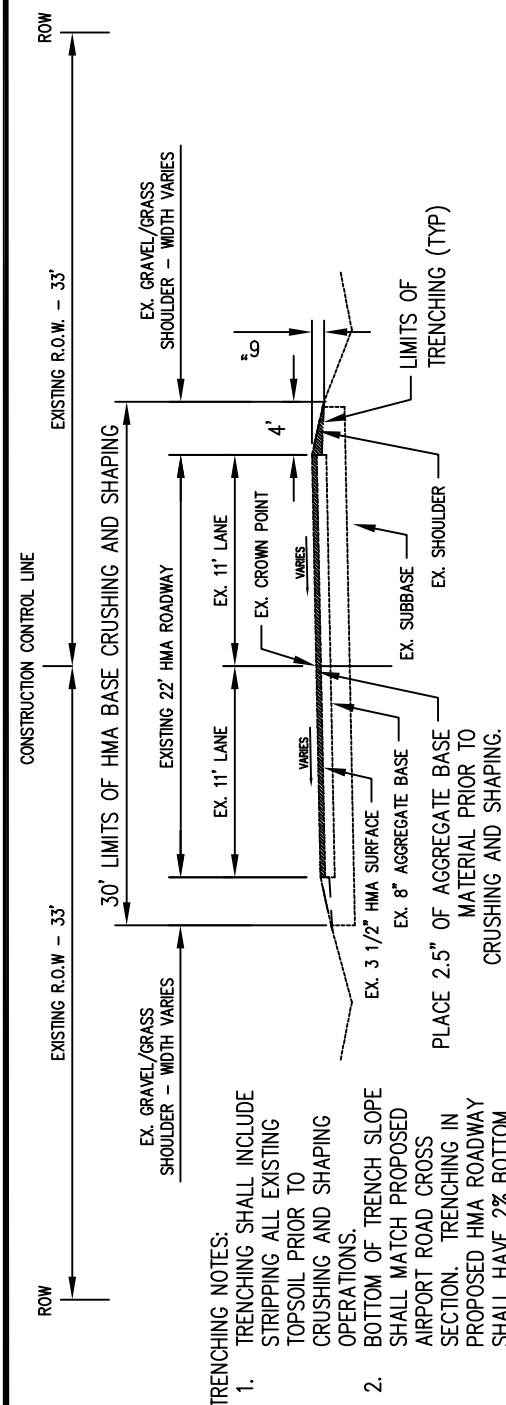
IDENT NO.	ITEM	RATE	PERFORMANCE GRADE	REMARKS
13AT	HMA 13A	220 #/STD MIN	58-28	AWI=220 TOP COURSE
13AL	HMA 13A	220 #/STD MIN	58-28	LEVELING COURSE
	HMA BOND COAT	0.05 to 0.15 GAL/SYD		FOR INFORMATION ONLY



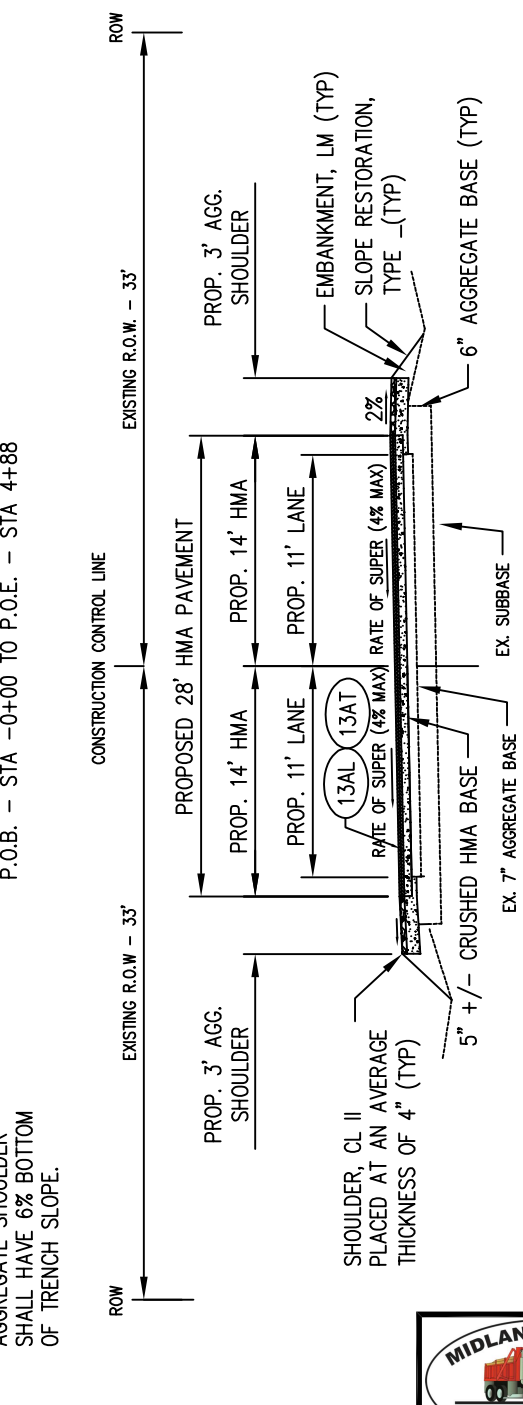
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EXISTING SUPERELEVATED CROSS SECTION - AIRPORT ROAD
P.O.B. - STA -0+00 TO P.O.E. - STA 4+88



PROPOSED SUPERELEVATED CROSS SECTION - AIRPORT ROAD
P.O.B. - STA -0+00 TO P.O.E. - STA 4+88

- CONSTRUCTION NOTES:**
1. TRENCH EXISTING GRAVEL AND GRASS SHOULDERS IN ACCORDANCE WITH TYPICAL CROSS SECTIONS.
 2. PLACE 2.5" OF AGGREGATE BASE ON EXISTING HMA PAVEMENT.
 3. CRUSH THE EXISTING HMA PAVEMENT AND AGGREGATE BASE MATERIAL IN ACCORDANCE WITH TYPICAL CROSS SECTIONS. MIX THE ADDITIONAL AGGREGATE BASE AND CRUSHED MATERIAL TO ACHIEVE A UNIFORM CROSS SECTION.
 4. SPREAD CRUSHED BASE MATERIAL TO FILL THE TRENCHED AREAS, COMPACT AND SHAPE TO ACHIEVE THE PROPOSED CROSS SECTION.
 5. PLACE HMA IN ACCORDANCE WITH TYPICAL CROSS SECTIONS.
 6. PLACE 3" WIDE AGGREGATE SHOULDERS.

HMA APPLICATION ESTIMATE

IDENT NO.	ITEM	RATE	PERFORMANCE GRADE	REMARKS
13AT	HMA 13A	220 #/SYD MIN	58-28	AW=220 TOP COURSE
13AL	HMA 13A	220 #/SYD MIN	58-28	LEVELING COURSE
	HMA BOND COAT	0.05 to 0.15 GAL/SYD		FOR INFORMATION ONLY

- CRUSHING AND SHAPING NOTES:**
1. CRUSH EXISTING HMA SURFACE, ADDITIONAL AGGREGATE MATERIAL, AND UNDERLYING AGGREGATE BASE IN ACCORDANCE WITH SECTION 305 OF THE 2012 MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION.
 2. DEPTH OF CRUSHING AND SHAPING SHALL NOT EXCEED 2" OF THE EXISTING AGGREGATE BASE MATERIAL.

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CRITICAL STATIONING				
AIRPORT RD - HICKS ROAD TO PERRINE ROAD				
STATION		SIDE	DESCRIPTION	SUPPLEMENTAL DESCRIPTION
STA.	-0+50	CL	POB	
STA.	0+00	L	C/L Hicks Road	
STA.	2+80	L	Woods Drive	Grass
STA.	6+75	L	Field Drive	Grass
STA.	7+63	L	Driveway	HMA
STA.	8+62	L	Driveway	HMA
STA.	10+15	L	Driveway	HMA, Concrete Headwalls
STA.	11+30	L	Driveway/Parking Lot	HMA, 10+80 - 11+80
STA.	13+19	L	Field Drive	Grass
STA.	14+95	L	Driveway	HMA
STA.	16+21	L	Driveway	HMA
STA.	18+45	L	Driveway	HMA
STA.	21+03	L	Driveway	Gravel
STA.	21+67	L	Driveway/Parking Lot	HMA, 21+40 - 21+95
STA.	21+20	L	Guardrail	
STA.	21+20	CL	Box Culvert	
STA.	23+05	L	Catch basin	
STA.	24+64	L	Catch basin	
STA.	25+17	L	Driveway	HMA
STA.	27+02	L	Catch basin	
STA.	27+29	L	C/L Dublin Road	
STA.	28+08	L	Driveway	Gravel
STA.	29+36	L	Driveway	Gravel
STA.	32+18	L	Driveway	HMA
STA.	34+53	L	C/L Winter Berry Ct.	
STA.	34+53	R	Pump Station	
STA.	40+28	L	Driveway	HMA
STA.	41+05	L	Driveway	Gravel
STA.	42+67	L	Driveway	Gravel
STA.	43+14	L	Driveway	Gravel
STA.	45+19	L	Hydrant	Grass
STA.	45+94	L	Driveway	Gravel
STA.	47+69	L	Driveway	Gravel
STA.	48+73	L	Driveway	HMA
STA.	49+34	L	Driveway	HMA
STA.	50+65	L	Driveway	HMA
STA.	51+20	L	Hydrant	Grass
STA.	51+83	L	Driveway	Gravel
STA.	52+81	L	Driveway	Gravel
STA.	53+37	L	Driveway	Gravel
STA.	54+78	L	Driveway	Gravel
STA.	55+34	L	Driveway	Gravel
STA.	56+82	L	Hydrant	Grass
STA.	57+35	L	Driveway	Gravel
STA.	58+56	L	Driveway	Gravel
STA.	60+02	L	Driveway	Gravel
STA.	60+95	CL	4'x6' Conc Pipe	
STA.	61+81	L	C/L Perrine Road	
STA.	61+88	CL	POE	



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REVIEWER: ART BUCK
SCALE: NTS SHEET NO: 8