## OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION

**ADDENDUM NO. 2** 

PROJECT NO. 56-16-03
CASTALIA MAINTENANCE BUILDING
SITE IMPROVEMENTS
MILEPOST 106.70
ERIE COUNTY, OHIO

OPENING DATE *PREVIOUSLY EXTENDED*: 2:00 P.M. (EASTERN TIME), JUNE 2, 2016

ALL BIDS MUST BE ELECTRONICALLY SUBMITTED THROUGH BID EXPRESS

## **ATTENTION OF BIDDERS IS DIRECTED TO:**

ANSWERS TO QUESTIONS RECEIVED THROUGH 3:00PM ON MAY 26, 2016
-ANDREVISIONS TO PLAN SHEETS 2 AND 3 OF 6
-ANDMODIFICATIONS TO THE BID FORM AND ESTIMATED QUANTITIES WORKSHEET

Issued by the Ohio Turnpike and Infrastructure Commission on May 27, 2016. Issuance authorized by Anthony D. Yacobucci, Chief Engineer, and Mark R. Musson, Director of Contract Administration.

Anthony D. Yacobucci

Date

Mark R. Musson

# OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION ADDENDUM NO. 2 PROJECT NO. 56-16-03

#### QUESTIONS AND ANSWERS THROUGH 3:00 PM ON MAY 26, 2016

- Q#2 There is a discrepancy between the unit of measure for the estimated quantity of Item No. 201 on the Bid Form (870 <u>CU.</u> YD.) and on Plan Sheet 2 of 6 under the General Note for Clearing Grubbing, Excavation and Embankment (870 <u>SQ.</u> YD). Please advise which unit of measure is correct.
- A#2 The unit of measure for Bid Item 201 CLEARING & GRUBBING, AS PER PLAN is modified to a lump sum pay item. This Addendum No. 2 revises the General Note (Plan Sheet 2 of 6) to provide that clearing and grubbing is estimated to require an area of approximately 870 square yards at a depth of 6 inches, and that it is to be a lump sum pay item. Further, the Bid Item 201 CLEARING & GRUBBING, AS PER PLAN referenced in the General Summary (Plan Sheet 3 of 6) and Estimated Quantities Worksheet (Excel spreadsheet) is revised to a lump sum quantity. The Bid Schedule of Items is similarly modified to reflect the lump sum method of payment for Ref. No. 2, Item No. 201 Clearing & Grubbing, As Per Plan.
- Q#3 Has the engineer taken into account the 6" tospoil strip in the Excavation and embankment qty's for the detention Basin?
- A#3 Yes, to the extent that the approximately 150 Cu. Yds. (870 Sq. Yds. x 6 inches deep) of excavated topsoil is to be placed as topsoil over the constructed embankment for the Equalization Pond. Also, the General Notes state that an additional 5 Cu. Yds. Of topsoil will be required to bring the existing surface to final grade in the equalization pond area.
- Q#4 Where are we to put the costs for re-grading NW slope behind the Salt dome? Is there a qty of excavation for this work?
- A#4 Based upon comparing the proposed grading plan to existing elevations in the area NW of the salt dome, the estimated quantities of excavation and embankment are provided in the General Notes. Additionally, as provided in the General Notes, "THE COST FOR ANY ONSITE EXCAVATION AND INSTALLATION OF SUITABLE EMBANKMENT MATERIAL GENERATED FROM THE SITE SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT." Therefore, the cost to move excavated material to areas onsite requiring embankment should be incorporated into with the selected bidder's unit prices bid for Item 203 EXCAVATION, AS PER PLAN.

### MODIFIED CONTRACT DOCUMENTS

With this Addendum No. 2, the Commission substitutes the revised Plan Sheets 2 and 3 of 6 for the respective Plan Sheets originally included with the bid.

Additions to the Drawings are called out with a cloud and deletions are marked with a revision triangle as thus:

This Addendum No. 2 further modifications to the Bid Form and Estimated Quantities worksheet in the manner described in the reponse to Q#2.
Bidders Acknowledgment of Addendum No. 2

to Contract No. 56-16-03:		
	(Firm Name)	
	(Signature)	
	(Printed Name)	
Date:		

#### UNDERGROUND UTILITIES

THE LOCATION OF UNDERGROUND UTILITIES SHOWN ON THE PLANS HAS BEEN OBTAINED BY DILIGENT FIELD CHECKS AND SEARCHES OF AVAILABLE RECORDS. IT IS BELIEVED THAT THEY ARE ESSENTIALLY CORRECT, BUT THE ENGINEER DOES NOT GUARANTEE THEIR ACCURACY OR COMPLETENESS. THE EXACT LOCATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL DAMAGE TO EXISTING UTILITIES AS A RESULT OF THEIR OPERATIONS.

AT LEAST FORTY-EIGHT (48) HOURS, NOT INCLUDING WEEKENDS OR HOLIDAYS, PRIOR TO COMMENCING CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL CONTACT THE OHIO UTILITIES PROTECTION SERVICE (OUPS) AND THE OWNERS OF ANY UNDERGROUND UTILITY FACILITY IN THE AREA FOR APPROPRIATE MARKING. THE CONTRACTOR SHALL BE AWARE THAT WITHIN THE PROJECT LIMITS, QWEST/CENTURY LINK AND THE TURNPIKE HAVE FIBER OPTIC CABLES RUNNING ALONG THE NORTH SIDE OF THE TURNPIKE AND TO/FROM THE MAINTENANCE

AT LEAST FORTY-EIGHT (48) HOURS, NOT INCLUDING WEEKENDS OR HOLIDAYS, PRIOR TO COMMENCING ANY CONSTRUCTION OPERATIONS IN AN AREA WHICH MAY INVOLVE EXISTING UNDERGROUND LIGHTING OR COMMISSION COMMUNICATIONS FACILITIES, THE CONTRACTOR

OHIO TURNPIKE WESTERN DIVISION SUPERINTENDENT 682 PROSPECT ST BEREA OHIO 44017 PHONE: (440) 234-2081, EXTENSION 5300

ALL EXISTING FIBER OPTIC CABLES SHALL BE PROTECTED DURING CONSTRUCTION UNLESS THEY ARE MARKED "ABANDONED" OR SPECIFICALLY INDICATED TO BE REMOVED IN THIS WORK. PRIOR TO STARTING THE SITE WORK, THE CONTRACTOR SHALL NOTIFY THE OWNER OF THE FIBER OPTIC CABLE OF THEIR PROPOSED CONSTRUCTION ACTIVITIES AND COORDINATE THESE ACTIVITIES WITH THEM TO INSURE THAT THE EXISTING COMMUNICATION CABLE IS UNDISTURBED BY THE CONTRACTOR'S WORK.

#### MAINTENANCE OF TRAFFIC & SITE ACCESS

ALL TEMPORARY TRAFFIC CONTROL REQUIRED TO MAINTAIN TRAFFIC SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE PROJECT AND IS TO BE PROVIDED IN ACCORDANCE WITH ITEM SP 614. ALL MAINTENANCE OF TRAFFIC ASSOCIATED WITH THE MAINLINE TURNPIKE ROADWAY SHALL BE PROVIDED, MAINTAINED, AND REMOVED BY THE COMMISSION AND WILL INCLUDE ONE (1) FLAGPERSON AND A CRASH VEHICLE FOR THESE ZONES. ANY MAINTENANCE TRAFFIC FOR NON-MAINLINE ROADWAYS SHALL BE PROVIDED BY THE CONTRACTOR. ANY EQUIPMENT INCLUDING CONES, BARRELS, SIGNS, ETC. REQUIRED FOR MAINTENANCE OF TRAFFIC FOR NON-MAINLINE ROADWAYS TO COMPLETE THE WORK WILL BE PROVIDED BY THE COMMISSION AND ARE TO BE RETURNED IN THE SAME CONDITION AS WHEN THEY WERE RECEIVED. ANY LABOR OR INCIDENTALS NECESSARY FOR MAINTENANCE OF TRAFFIC NOT ON THF MAINI INE ROADWAY (I.E. FLAGGER FOR SURFACE ROADS) IS TO BE PROVIDED BY THE CONTRACTOR AND IS INCIDENTAL TO THE COST OF THE PROJECT

ACCESS TO THE SITE FROM/TO THE MAINLINE TURNPIKE ROADWAY, ALL BUILDING DOORS, FUEL ISLANDS, EMPLOYEE PARKING, ETC. SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT AND SHALL INCLUDE ANY WEDGING NEEDED TO MAINTAIN ACCESS. ANY INSTALLED WEDGING SHALL BE INSTALLED WITH MATERIAL SUITABLE TO WITHSTAND NORMAL TRAFFIC LOADS. WEDGE MATERIAL WILL BE SUBJECT TO APPROVAL OF THE CHIEF ENGINEER AND IS TO BE CONSIDERED INCIDENTAL TO THE COST OF THE PROJECT. IF RESTRICTIONS TO ACCESS ARE REQUIRED, THE CONTRACTOR IS TO GIVE A MINIMUM SEVENTY-TWO (72) HOURS NOTICE OF ANY SUCH RESTRICTIONS AND IS TO MAKE A REASONABLE EFFORT TO PROVIDE AN ALTERNATE MEANS OF ACCESS TO THE RESTRICTED AREA. ADDITIONALLY, AT LEAST ONE (1) DRIVE FROM/TO THE MAINLINE ROADWAY SHALL BE ACCESSIBLE AT ALL TIMES TO PROVIDE ACCESS FOR COMMISSION VEHICLES TO ENTER/EXIT THE FACILITY.

PROJECT MATERIALS, INCLUDING EXCAVATED MATERIALS, BEDDING AND BACKFILL MATERIAL, MAY BE STORED TEMPORARILY ONSITE PROVIDED THAT THE AREA IS KEPT FREE FROM EXCESS DEBRIS. ALL DRIVES FOR THE FACILITY MUST REMAIN ACCESSIBLE. UPON COMPLETION OF THE PROJECT, THE AREAS UTILIZED AS STORAGE AREAS MUST BE RETURNED TO THE ORIGINAL CONDITION, INCLUDING BUT NOT LIMITED TO, RESTORING ORIGINAL GRADING WHERE APPLICABLE.

SITE DEMOLITION NOTES
COMMISSION MAINTENANCE FORCES SHALL REMOVE ANY FENCING, GUARDRAIL, AND CONCRETE BARRIER NECESSARY TO COMPLETE THE PROJECT ACTIVITIES. THE COMMISSION SHALL BE RESPONSIBLE FOR REINSTALLATION OF REMOVED GUARDRAIL, FENCING, CONCRETE BARRIER, AND ANY PAVEMENT MARKINGS.

### CLEARING AND GRUBBING, EXCAVATION, AND EMBANKMENT

APPROXIMATELY 870 SQ. YDS. OF CLEARING AND GRUBBING OF THE EQUALIZATION BASIN AREA SHALL BE COMPLETED TO A DEPTH OF SIX (6) INCHES BELOW THE EXISTING SURFACE. THE EXCAVATED TOPSOIL MATERIAL SHALL BE STOCKPILED ONSITE AND MAY BE REUSED ONSITE WITH THE PRIOR APPROVAL OF THE CHIEF ENGINEER. ALL APPROVED TOPSOIL MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH ODOT CMS ITEM 659. ANY REMAINING TOPSOIL MATERIAL LEFT UPON COMPLETION OF THE PROJECT SHALL BE STOCKPILED, SEEDED AND MULCHED. ALL LABOR, EQUIPMENT AND MATERIALS REQUIRED TO REINSTALL THE TOPSOIL AND/OR TO STOCKPILE THE EXCESS SHALL BE CONSIDERED INCIDENTAL TO THE COST OF BID ITEM 201 CLEARING AND GRUBBING, AS PER PLAN. ALL LABOR, EQUIPMENT AND MATERIALS REQUIRED TO SEED AND MULCH THE STOCKPILE SHALL BE PAID FOR IN ACCORDANCE WITH BID ITEM 659 SEEDING AND MULCHING PRIOR TO FINAL ACCEPTANCE. ALL LABOR, MATERIALS, AND EQUIPMENT TO COMPLETE THE CLEARING AND GRUBBING BID ITEM, INCLUDING REMOVAL AND DISPOSAL, SHALL BE PAID FOR IN ACCORDANCE WITH BID ITEM 201 - CLEARING AND GRUBBING, AS PER PLAN.

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## **GENERAL NOTES**

#### CLEARING AND GRUBBING, EXCAVATION, AND EMBANKMENT (CONTINUED)

CURRENT ESTIMATES OF SITE EXCAVATION AND EMBANKMENT INDICATE THAT THE SITE WILL REQUIRE APPROXIMATELY 125 CU. YD. OF EMBANKMENT AND 120 CU. YD. OF EXCAVATION IN THE THE NET RESULT IS THAT APPROXIMATELY 5 CU. EQUALIZATION BASIN AREA. EMBANKMENT MATERIAL WILL NEED TO BE HAULED TO THE SITE TO CONSTRUCT THE EQUALIZATION BASIN AREA TO THE PROPOSED ELEVATION AND IS INCLUDED IN THE TOTAL FMBANKMENT QUANTITY ALL EMBANKMENT MATERIAL SHALL BE INSTALLED AND COMPACTED IN ACCORDANCE WITH BID ITEM 203 - EMBANKMENT, AS PER PLAN. PAYMENT FOR ALL LABOR, EQUIPMENT, AND MATERIALS TO INSTALL THE EMBANKMENT MATERIALS SHALL ONLY BE MADE FOR THE QUANTITY OF ACCEPTABLE MATERIALS HAULED TO THE SITE AND WILL BE IN ACCORDANCE WITH BID ITEM 203 - EMBANKMENT, AS PER PLAN. THE COST FOR ANY ONSITE EXCAVATION AND INSTALLATION OF SUITABLE EMBANKMENT MATERIAL GENERATED FROM THE SITE SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT. THE DETERMINATION REGARDING SUITABILITY SHALL BE MADE AT THE DISCRETION OF THE CHIEF ENGINEER. QUANTITIES INDICATED IN THE GENERAL SUMMARY FOR BID ITEM 203 - EMBANKMENT, AS PER PLAN INCLUDE AN ADDITIONAL 15 CU. YD. AS A CONTINGENCY AMOUNT.

CURRENT ESTIMATES OF SITE EXCAVATION AND EMBANKMENT FOR THE PROPOSED PAVEMENT AREA WHERE THE EXISTING DRAINAGE PATTERNS ARE BEING MODIFIED, INDICATE THAT THE SITE WILL REQUIRE APPROXIMATELY <u>85 CU. YD.</u> OF EMBANKMENT AND <u>410 CU. YD.</u> OF EXCAVATION. THESE QUANTITIES ARE IN ADDITION TO THE EXCAVATION REQUIRED TO INSTALL PAVEMENT AS SPECIFIED IN THE PAVEMENT SECTIONS IN THE PAVEMENT PLAN AND ARE INCLUDED IN THE TOTAL EXCAVATION QUANTITY. THE NET RESULT IS THAT APPROXIMATELY 325 CU. YD. OF ADDITIONALLY EXCAVATED MATERIAL WILL NEED TO BE EXCAVATED AND REMOVED FROM THE SITE. ALL EXCAVATED MATERIAL IN EXCESS OF WHAT IS SUITABLE FOR REUSE ONSITE AS AGGREGATE BASE SHALL BE REMOVED AND DISPOSED IN ACCORDANCE WITH SP 105 ALL MATERIAL REUSED ONSITE SHALL BE PLACED AND COMPACTED IN ACCORDANCE WITH BID ITEM 203 - EMBANKMENT, AS PER PLAN AND SHALL BE SUBJECT TO PROOF ROLLING PRIOR TO INSTALLATION OF ANY ASPHALT CONCRETE. PAYMENT WILL ONLY BE MADE FOR LABOR. EQUIPMENT. AND MATERIALS REQUIRED FOR THE EXCAVATED MATERIALS THAT ARE TO BE REMOVED FROM THE SITE AND DISPOSED AND SHALL BE PAID FOR IN ACCORDANCE WITH BID ITEM 203 - EXCAVATION, AS PER PLAN. ALL COST REQUIRED FOR APPROVED MATERIALS TO BE REUSED ONSITE SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE PROJECT. QUANTITY BELOW REFLECTS THE ESTIMATED EXCAVATION REQUIRED FOR INSTALLING THE VARIOUS PAVEMENT SECTIONS PLUS THE ADDITIONAL EXCAVATION REQUIRED TO MODIFY THE DRAINAGE PATTERN NORTH OF THE MAINTENANCE BUILDING.

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	BID ITEM	ITEM DESCRIPTION	QUANTITY	•
>	201	CLEARING AND GRUBBING, AS PER PLAN	LUMP <del>870 SQ. YD.</del>	4
	203	EMBANKMENT, AS PER PLAN	20 CU. YD.	
7	203	EXCAVATION, AS PER PLAN	3,420 CU. YD.	•
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CONTINGENCY QUANTITIES BASED UPON CURRENT CONDITIONS AND SUB-SURFACE INVESTIGATIONS IT IS ANTICIPATED THAT UNDERCUTTING OF AN ESTIMATED ONE HUNDRED (100) SQUARE YARDS MAY BE NEEDED TO PROVIDE A SUITABLE FINAL PRODUCT. IN THE EVENT THAT ANY QUESTIONABLE AREAS. APPEAR TO BE LACKING THE REQUIRED THICKNESSES SPECIFIED, APPEARS UNSUITABLE, OR PER THE CHIEF ENGINEER'S DIRECTION, CONTINGENCY QUANTITIES ARE INCLUDED IN THE BID FOR THE FOLLOWING ITEMS.

BID ITEM	ITEM DESCRIPTION	QUANTITY
203	EXCAVATION, AS PER PLAN	67 CU. YD.
SP 304	AGGREGATE BASE (CONTINGENCY)	33 CU. YD.
601	DUMP ROCK FILL, AS PER PLAN (CONTINGENCY)	33 CU. YD.
SPECIAL	GEOGRID, AS PER PLAN, TENSAR TRIAX 160 (CONTINGENCY)	100 SQ. YD.

#### ITEM 601 - DUMP ROCK FILL. AS PER PLAN

DUMP ROCK FILL SHALL BE INSTALLED ACCORDING TO THE DETAIL PROVIDED ON THIS PAGE AND SHALL CONSIST OF MATERIAL CONFORMING TO ODOT CMS ITEM 703.19 FOR AGGREGATE SIZES No. 1 AND No. 2. ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS TO INSTALL THE DUMP ROCK FILL FOR THE UNDERCUTS SHALL BE PAID FOR IN ACCORDANCE WITH ITEM 601 -DUMP ROCK FILL, AS PER PLAN.

) ITEM	ITEM DESCRIPTION	<u>QUANTITY</u>
601	DUMP ROCK FILL, AS PER PLAN (CONTINGENCY)	REFER TO
		CONTINGENCY ITEM

#### ITEM 604 - CATCH BASIN, AS PER PLAN

INSTALLED CATCH BASINS SHALL BE ODOT STD 2-3, EXCEPT THE GRATE SHALL BE A HEAVY DUTY CASTING AND THE STRUCTURE SHALL BE BACKFILLED WITH LOW STRENGTH MORTAR UP TO THE TOP OF THE PRECAST BASE. ALL MATERIALS USED TO BACKFILL THE STRUCTURE SHALL BE IN ACCORDANCE WITH ODOT ITEM 613 - LOW STRENGTH MORTAR BACKFILL, TYPE 2. ALL LABOR, MATERIALS, AND EQUIPMENT TO INSTALL THE PROPOSED CATCH BASIN SHALL BE PAID FOR IN ACCORDANCE WITH BID ITEM 604 - CATCH BASIN, AS PER PLAN.

BID ITEM	ITEM DESCRIPTION	QUANTITY
604	CATCH BASIN, AS PER PLAN	3 FACH

#### ITEM 604 - PRECAST REINFORCED CONCRETE OUTLET

THE INSTALLED PRECAST REINFORCED CONCRETE OUTLET FOR THE 18" CONDUIT FROM THE EQUALIZATION BASIN SHALL BE IN ACCORDANCE WITH ODOT STANDARD DRAWING HW-2.1, HALF-HEIGHT HEADWALLS FOR CORRUGATED METAL PIPE AND PLASTIC PIPE. THE INSTALLED PRECAST REINFORCED CONCRETE OUTLET FOR THE 6" CONDUIT OUTLET FOR THE STORM SEWER SHALL BE IN ACCORDANCE WITH ODOT STANDARD DRAWING DM-1.1, OUTLETS, DRAINS AND SEWERS. ALL LABOR, MATERIALS, AND EQUIPMENT TO INSTALL THE PROPOSED PRECAST REINFORCED CONCRETE OUTLET SHALL BE PAID FOR IN ACCORDANCE WITH BID ITEM 604 PRECAST REINFORCED CONCRETE OUTLET, AS PER PLAN (6" CONDUIT) AND (18" CONDUIT).

BID ITEM	ITEM DESCRIPTION	QUANTITY
604	PRECAST REINFORCED CONCRETE OUTLET, AS PER PLAN (6" CONDUIT)	1 EACH
604	PRECAST REINFORCED CONCRETE OUTLET, AS PER PLAN (18" CONDUIT)	1 EACH

#### ITEM 605 - 4" UNCLASSIFIED PIPE UNDERDRAINS, AS PER PLAN

UNDERDRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ODOT CMS ITEM 605 - 4" UNCLASSIFIED PIPE UNDERDRAINS AND AS PROVIDED IN THE DETAILS SHOWN ON SHEET 6 OF 6. ALL LABOR, MATERIALS, AND EQUIPMENT REQUIRED TO INSTALL THE UNDERDRAIN SHALL BE PAID FOR IN ACCORDANCE WITH BID ITEM 605 - 4" UNCLASSIFIED PIPE UNDERDRAINS, AS PER PI AN

BID ITEM	ITEM DESCRIPTION	QUANTITY
605	4" UNCLASSIFIED PIPE UNDERDRAINS, AS PER PLAN	765 FOOT

#### ITEM 623 - CONSTRUCTION LAYOUT STAKES

CONSTRUCTION LAYOUT SHALL PROVIDE FOR ANY SURVEYING TO LAYOUT STRUCTURE LOCATIONS, GRADE CHECKS, AND/OR LIMITS OF WORK. ALL LABOR, MATERIALS, AND EQUIPMENT TO COMPLETE CONSTRUCTION LAYOUT SHALL BE PAID FOR IN ACCORDANCE WITH BID ITEM 623 - CONSTRUCTION LAYOUT STAKES.

BID ITEM	ITEM DESCRIPTION	QUANTITY
623	CONSTRUCTION LAYOUT STAKES	1 I UMP

## ITEM SPECIAL - GEOGRID, AS PER PLAN, TENSAR TRIAX 160 (CONTINGENCY)

GEOGRID SHALL BE INSTALLED PER THE DETAIL DEPICTED ON SHEET 3 OF 6. THE GEOGRID SHALL BE PLACED IN BETWEEN THE INSTALLED AGGREGATE AND ASPHALT MATERIALS. THE GEOGRID SHALL BE "TENSAR TRIAX 160" OR AN APPROVED EQUAL. ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS TO INSTALL THE GEOGRID FOR THE UNDERCUTS SHALL BE PAID FOR IN ACCORDANCE WITH ITEM SPECIAL - GEOGRID.

BID ITEM	ITEM DESCRIPTION	<u>QUANTITY</u>
SPECIAL	GEOGRID, AS PER PLAN, TENSAR TRIAX 160 (CONTINGENCY)	REFER TO
		CONTINGENCY ITEMS

#### SPECIAL - TRACKLESS TACK

THIS WORK CONSISTS OF PREPARING AND TREATING A PAVED SURFACE WITH NTSS-1HM TRACKLESS TACK PRODUCED BY BLACKLIDGE EMULSIONS, INC., AE-NT NO TRACK TACK PRODUCED BY K-TECH SPECIALTY COATINGS, INC., OR APPROVED EQUAL BY THE CHIEF ENGINEER. THE PRODUCT SHALL MEET ALL REQUIREMENTS OF CONSTRUCTION AND MATERIAL SPECIFICATIONS ITEM 407 TACK COAT EXCEPT AS NOTED BELOW.

#### MATERIAL: CONFORM TO THE FOLLOWING TYPICAL PHYSICAL PROPERTIES:

PARAMETER	TEST METHOD	MIN.	MAX.
SAYBOLT FUROL VISCOSITY, SFS @ 25C	AASHTO T59	15	100
STORAGE STABILITY, 5 DAYS, %	AASHTO T59		5
RESIDUE BY DISTILLATION, %	AASHTO T59	50	
OIL DISTILLATE, %	AASHTO T59		1
SIEVE TEST, %	AASHTO T59		0.30
TEST ON RESIDUE:			
PENETRATION, @ 25C	AASHTO T49		25
SOFTENING POINT RANGE DEG C	AASHTO T53	65	
SOLUBILITY,%	AASHTO T44	97.5	

PRODUCT SHOULD NOT CONTAIN FILLER SUCH AS CLAY ETC. KEEP FROM FREEZING SUPPLY CERTIFIED TEST DATA FROM AN INDEPENDENT LAB TO THE ENGINEER SHOWING THE MATERIAL SUPPLIED WAS TESTED FOR AND MEETS THE ABOVE PROPERTIES

EQUIPMENT: ALL REQUIREMENTS OF 407.03 APPLY. SEE MANUFACTURER'S REPRESENTATIVE FOR CORRECT DISTRIBUTOR SETTINGS. THOROUGHLY CLEAN ALL EQUIPMENT IF CATIONIC EMULSION WAS PREVIOUSLY USED

#### WEATHER LIMITATIONS: ALL REQUIREMENTS 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. IF PRODUCT IS STORED FOR AN EXTENDED PERIOD OF TIME, PRIOR TO APPLICATION, AGITATE OR GENTLY CIRCULATE THE MATERIAL ALL NOZZIES AND SPRAY PATTERNS SHALL BE IDENTICAL TO ONE ANOTHER ALONG THE DISTRIBUTOR SPRAY BAR. THE ANGLE OF THE NOZZLE SHOULD BE A 15 TO 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 0.075 GALLONS PER SQUARE YARD TO ALL MILLED SURFACES AND AT A RATE OF 0.06 GALLONS PER SQUARE YARD TO ALL SMOOTH PAVED SURFACES AND BETWEEN COURSES OF ASPHALT. RECOMMENDED APPLICATION TEMPERATURE IS 160F TO 180F. DO NOT EXCEED 180F. DILUTION IS NOT ALLOWED.

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 +10% OF THE SPECIFIED RATE

#### METHOD OF MEASUREMENT: ALL REQUIREMENTS OF 407.07 APPLY.

BASIS OF PAYMENT: ALL REQUIREMENTS OF 407.08 APPLY

BENCHMARKS FOR THE PROJECT ARE LOCATED AT THE FOLLOWING CONTROL POINT LOCATIONS AND AT THE INDICATED ELEVATIONS

WEST (BM1)	EAST (BM2)
"X" CUT	"X" CUT
NORTH END OF RAISED CONCRETE	SOUTHWEST CORNER OF GATE BOX FOR
SLAND FOR FUEL DISPENSER	GATE FROM EMPLOYEE PARKING AREA
ELEVATION: 706.88'	ELEVATION: 707.36'

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GENERAL NOTE

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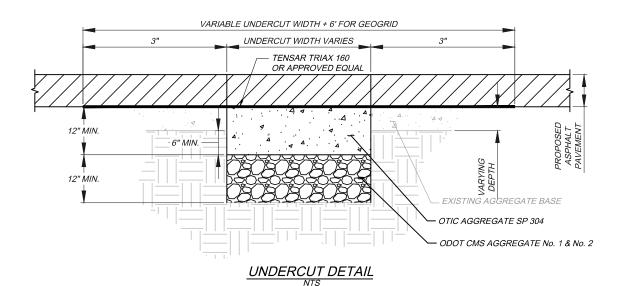
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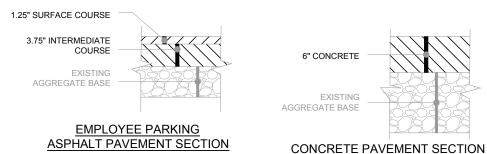
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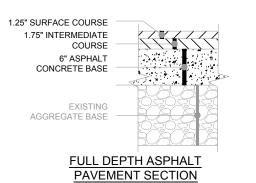
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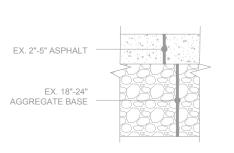
	GENERAL SUMMARY				
	REF.	ITEM	ITEM	APPROX.	
	No.	No.	DESCRIPTION	QUANTITY	UNIT
	1	IB. ART.6	PREMIUM FOR CONTRACT PERFORMANCE BOND AND PAYMENT BOND	1	LUMP
	2	201	CLEARING & GRUBBING, AS PER PLAN	<del>-870</del> 1	GU. YD. LUMP
*	3	203	EXCAVATION, AS PER PLAN	3,487	CU. YD.
*	4	203	EMBANKMENT, AS PER PLAN	20	CU. YD.
	5	204	PROOF ROLLING	2	HOUR
	6	207	PERIMETER FILTER FABRIC FENCE	200	FOOT
	7	207	INLET PROTECTION	75	FOOT
	8	208	FILTER FABRIC DITCH CHECK	20	FOOT
	9	302	ASPHALT CONCRETE BASE	1,984	CU. YD.
*	10	SP 304	AGGREGATE BASE (CONTINGENCY)	33	CU. YD.
	11	448	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2 MEDIUM	741	CU. YD.
	12	448	ASPHALT CONCRETE SURFACE COURSE, TYPE 1 MEDIUM	467	CU. YD.
	13	451	6" REINFORCED CONCRETE PAVEMENT	40	SQ. YD.
*	14	601	DUMP ROCK FILL, AS PER PLAN (CONTINGENCY)	33	CU. YD.
	15	601	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	30	CU. YD.
	16	603	6" CONDUIT, TYPE C, 707.33	31	FOOT
	17	603	12" CONDUIT, TYPE B, 707.33	195	FOOT
	18	603	18" CONDUIT, TYPE B, 707.33	155	FOOT
	19	603	18" CONDUIT, TYPE C, 707.33	16	FOOT
	20	604	CATCH BASIN, AS PER PLAN	3	EACH
	21	604	PRECAST REINFORCED CONCRETE OUTLET, AS PER PLAN (6" CONDUIT)	1	EACH
	22	604	PRECAST REINFORCED CONCRETE OUTLET, AS PER PLAN (18" CONDUIT)	1	EACH
	23	605	4" UNCLASSIFIED PIPE UNDERDRAINS, AS PER PLAN	765	FOOT
	24	623	CONSTRUCTION LAYOUT STAKES	1	LUMP
	25	624	MOBILIZATION	1	LUMP
	26	659	SEEDING AND MULCHING, AS PER PLAN	900	SQ. YD.
	27	671	EROSION CONTROL MAT, TYPE B, AS PER PLAN	660	SQ. YD.
	28	SPECIAL	TRACKLESS TACK	2,505	GALLON
*	29	SPECIAL	GEOGRID, AS PER PLAN, TENSAR TRIAX 160 (CONTINGENCY)	100	SQ. YD.

<sup>\*</sup> THE INDICATED BID ITEMS INCLUDE A CONTINGENCY QUANTITY. THE USE OF THESE QUANTITIES ARE DETAIL IN THE GENERAL NOTES ON SHEET 2 OF 2.









**EXISTING PAVEMENT DEPTH** 

NOTE
THE CONTRACTOR SHALL EXCAVATE TO THE PROPER DEPTH TO INSTALL PROPOSED PAVEMENT AND ACHIEVE POSITIVE DRAINAGE.

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PROJECT 56-16-03

4/29/2016

DATE:

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GENERAL SUMMARY & DETAILS CASTALIA MAINTENANCE BUILDING