EXHA	UST	FAN	INFORMATION - JOB#66	28267												
¥ ¥ ¥ ¥ ¥ ¥	TAG	QTY	FAN UNIT MODEL #	MANUFACTURER	CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS)	SONE
1		1	DU300H	FI DATRE	10500	0.000	740	DDP.PREMIUM	5.000	2.5700	3	230	14.3	1636 FPM	497	18.5

FAN OPTIONS

FAN UNIT NO	TAG	QTY	DESCRIPTION
		1	VAV PACKAGE W/ MANUAL CONTROL (VFD INCLUDED)
		1	VFD FACTORY MOUNTED AND WIRED IN EXHAUST FAN
1		1	VFD MOUNTING BRACKET FOR DU/DR 300 - 360
		1	EXHAUST FAN HEAT BAFFLE
		1	2 YEAR PARTS WARRANTY

CURB ASSEMBLIES

ND	ON FAN	WEIGHT	ITEM	SIZE
1		53 LBS	CURB	38.500°W X 38.500°L X 20.000°H VENTED.

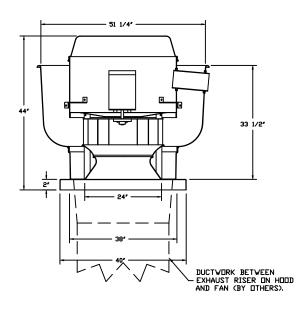
<u>FAN</u>	SOUND	DATA

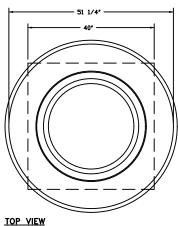
FAN	TAG	MOTOR		SOUND DATA					DCTAVE	BAND SOUN	ID DATA			
UNIT ND	IAG	MUTUR	LWA	SONES @ 5 FT	DBA @ 5 FT	DISTANCE (FT)	63 HZ	125 HZ	250 HZ	500 HZ	1 KHZ	2 KHZ	4 KHZ	8 KHZ
1		EXHAUST	81.6	18.5384017301769	70.1	5	82.2	91.6	84.9	77.4	74.1	69.3	63.6	58.6





<i>JOB</i> IFD P□ IFD754930		
LOCATION Asheville, NC	, 28806	
DATE 3/5/2024	JOB #	6628267
DWG # 1	DRAWN	BY
REV.	SCALE	3/8" = 1'-0"





FEATURES:

- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).
- NEMA 3R SAFETY DISCONNECT SWITCH.

NDRMAL TEMPERATURE TEST EXHAUST FAN MUST DPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

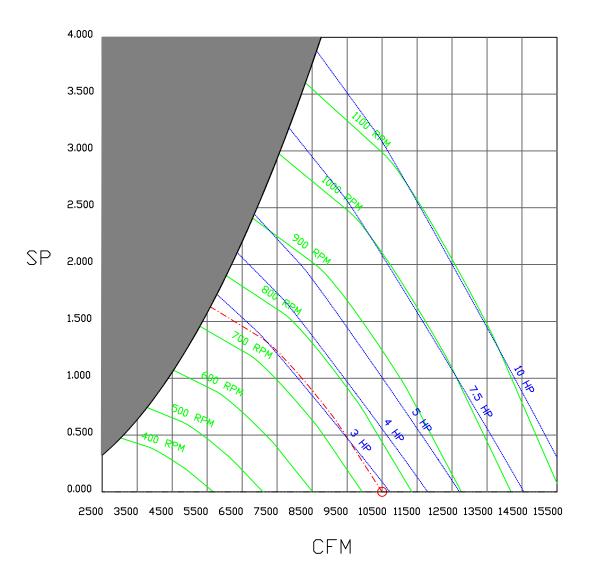
<u>OPTIONS</u>

- VAV PACKAGE W/ MANUAL
- CONTROL (VFD INCLUDED).

 VFD FACTORY MOUNTED AND WIRED IN EXHAUST FAN.
- VFD MOUNTING BRACKET FOR DU/DR 300 - 360.
- EXHAUST FAN HEAT BAFFLE.
- 2 YEAR PARTS WARRANTY.



10500 CFM, 0 SP @ 740 RPM AND 2.57 BHP AT 0 FEET AND 120 DEG F. * PLEASE NOTE THAT THESE CURVES WERE ADJUSTED FOR JOB SPECIFIC TEMPERATURE AND ALTITUDE.







<i>IOB</i> IFD PO IFD754930		
<i>LOCATION</i> Asheville, NC	, 28806	
DATE 3/5/2024	JOB #	6628267
DWG # 3	DRAWN	BY
REV.	SCALE	3/8" = 1'-0"

SECTION 23 34 23

POWER VENTILATORS TAG: Centrifugal Upblast

PART 1 - GENERAL

11 CHMMADY

A. Fan shall be a spun aluminum, G90 Galvanized, roof or wall-mounted, direct drive, upblast centrifugal exhaust ventilator.

- A. The manufacturer assumes no liability for the use or results of use of this document. This specification is to be reviewed by the engineer to confirm requirements of the project and building codes are net.
- B. As the manufacturer continues product development, it reserves the right to change design and specifications without notice.

1.3 QUALITY ASSURANCE

- A. ETL Listed and complies with UL705 (electrical) Standards and CSA Std C22.2, No 113.
- B. Fan shall bear the AMCA certified rating seal for air performance.
- C. Wheels shall be balanced in two planes and done in accordance with AMCA standard 204-96, Balance Quality and Vibration Levels for Fans.

- A. All units are provided with the following 2-year standard warranty from date of shipment.
- B. This warranty shall not apply if:
- The equipment is not installed by a qualified installer per the manufacturer's installation instructions shipped with the product.
- The equipment is not installed in accordance with Federal, State, and Local codes and regulations.
- The equipment is misused, neglected, or not maintained per the manufacturer's maintenance instructions.
- 4. The equipment is not operated within its published capacity.
- 5. The invoice is not paid within the terms of the sales agreement.
- C. The manufacturer shall not be liable for incidental and consequential losses and danages potentially attributable to malfunctioning equipment. Should any part of the equipment prove to be defective in naterial or worknamship within the 2-year warranty period, upon examination by the manufacturer, such part will be repaired or replaced by the manufacturer at no charge. The buyer shall pay all labor costs incurred in connection with such repair or replacement. Equipment shall not be returned without manufacturer's prior authorization. All returned equipment shall be shipped by the buyer, freight prepald to a destination deternined by the manufacturer.

PART 2 - PRODUCTS

2.1 GENERAL ASSEMBLY

- A. The fan shall be factory assembled, tested, and shipped as a
- B. The following specifications, delivering all capacities scheduled and conforming to the design indicated herein. Alternate layouts or dimensional changes will not be accepted.

2.2 CONSTRUCTION

- A. The fan wind band shall be constructed of heavy gauge aluminum or G90 Galvanized and shall be spun on an automatic lathe to provide
- B. Horizontal and vertical internal supports shall be used to fasten the wind band to the discharge apron securely. This provides rigidity for hinging and added strength to reduce shipping damage.
- C. The discharge apron shall have a rolled bead for added strength.
- D. Base corners shall be welded to provide strength and support for hinging and cleaning and prevent leakage into the building.
- E. The fan shall bear a permanently attached nameplate displaying model and serial number of unit for future identification.
- F. Nylon washers provide a tight seal. All fasteners in the fan housing shall be backed with nylon washers.
- G. The unit shall be factory tested after assembly.
- 2.3 VHFFI
- A. The fan wheel shall be centrifugal backward inclined and
- B. The wheel blades shall be aerodynamically designed to minimize turbulence, increase efficiency and reduce noise.
- C. The wheel blades shall be welded to the wheel inlet cone.
- D. If balancing weights are required, they shall be riveted to the
- E. The wheel inlet shall overlap the fan base inlet for maximum performance and efficiency.
- F. The wheel shall be firmly attached to the motor shaft with two set

- A. Fan(s) 1 Motor Type: Open Drip Proof (ODP).
- B. Motor shall be permanently lubricated and rated for continuous
- C. Furnished at the specified voltage, phase, and enclosure. Motor speed shall be variable, controlled using an integrated speed controller.
- D. Motors shall be mounted out of the airstream and furnished at the

- specified voltage, phase, and enclosure.
- E. Motor mounting plate shall be constructed of heavy gauge galvanized steel.
- F. The motor compartment shall be cooled by outside air drawn through an extruded aluminum conduit tube.
- G. An integral electrical conduit running from the fan base to the motor compartment is provided for ease of installation.
- H. The conduit tube passage shall be sealed to prevent noise. Silicone rubber grommets shall isolate the conduit tube from the fan housing.
- I. The motor compartment shall be a two-piece construction. The cap has quick-release clips to provide fast and easy access to the motor comportment

2.5 OPTIONS AND ACCESSORIES

- A. Fan #1 has fan options:
 - 1. VAV Package w/ Manual Control (VFD Included).
- 2. VED factory mounted and wired in Exhaust Fan.
- 3. VFD Mounting Bracket for DU/DR 300 360.
- 4. Exhaust Fon Heat Roffle.

2.6 VFD OPTIONS

- A. Fon #1 has antions
- 1. VAV Package with Manual Control (VFD included).
- 2. VFD factory mounted and wired in exhaust fan.
- 3. VFD Mounting Bracket.

PART 3 - EXECUTION

3.1 FYAMINATION

A. Examine all areas and conditions under which package(s) are to be installed. Bo not proceed with work until unsatisfactory conditions have been corrected in a manner acceptable to Installer.

A. Install the package in accordance with manufacturer's instructions, drawings, written specifications, manufacturer's installation manual and all applicable building codes.

3.3 CONNECTIONS

A. Electrical connections conform to applicable requirements in Division 26 Sections.

3.4 SYSTEM START-UP

A. System start-up is performed by a factory-trained Service



JOB IFD PD IFD754930 LOCATION Asheville, NC, 28806 DATE 3/5/2024 JOB # 6628267 DWG # 4 DRAWN BY

SCALE 1/4" = 1'-0"

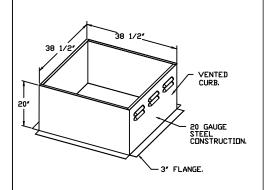
REV.

(\$) GREASE DUCT & CHIMNEY SPECIFICATIONS:

PROVIDE GREASE DUCT EQUAL TO FLOAIRE MODEL "FDW"
ROUND 20 GAUGE 430 STAINLESS STEEL DUCTWORK. MODEL "FDW"
IS LISTED TO UL-1978 AND IS INSTALLED USING "V" CLAMP LOCKING
CONNECTIONS SEALED WITH 3M FIRE BARRIER 2000 PLUS. MODEL "FDW"
DOES NOT REQUIRE WELDING PROVIDING IT HAS BEEN INSTALLED PER
THE MANUFACTURES INSTALLATION GUIDE.

PROVIDE RATED ACCESS DOORS AT EVERY CHANGE IN DIRECTION AND EVERY 12' ON CENTER. PER MANUFACTURES LISTING MODEL "FDW" HORIZONTAL RUNS LESS THAN 75 FT. CAN BE SLOPED 1/16" PER 12", HORIZONTAL RUNS MORE THAN 75 FT. CAN BE SLOPED 3/16" PER 12". DUCT SHOULD BE SLOPED AS MUCH AS POSSIBLE TO REDUCE THE CHANCE OF GREASE ACCUMULATION IN HORIZONTAL RUNS.

IF THE DUCT OR CHIMNEY IS WITHIN 18 INCHES OF COMBUSTIBLE MATERIAL, PROVIDE UL-2221 OR UL-103 HT LISTED DOUBLE WALL GREASE DUCT OR DOUBLE WALL CHIMNEY EQUAL TO FLOAIRE MODEL "FDW- 2R, 2R TYPE HT, 3R, OR 3Z" ROUND 20 GAUGE 430 STAINLESS INNER DUCT INSULATED WITH A 24 GAUGE 430 STAINLESS OUTER SHELL.



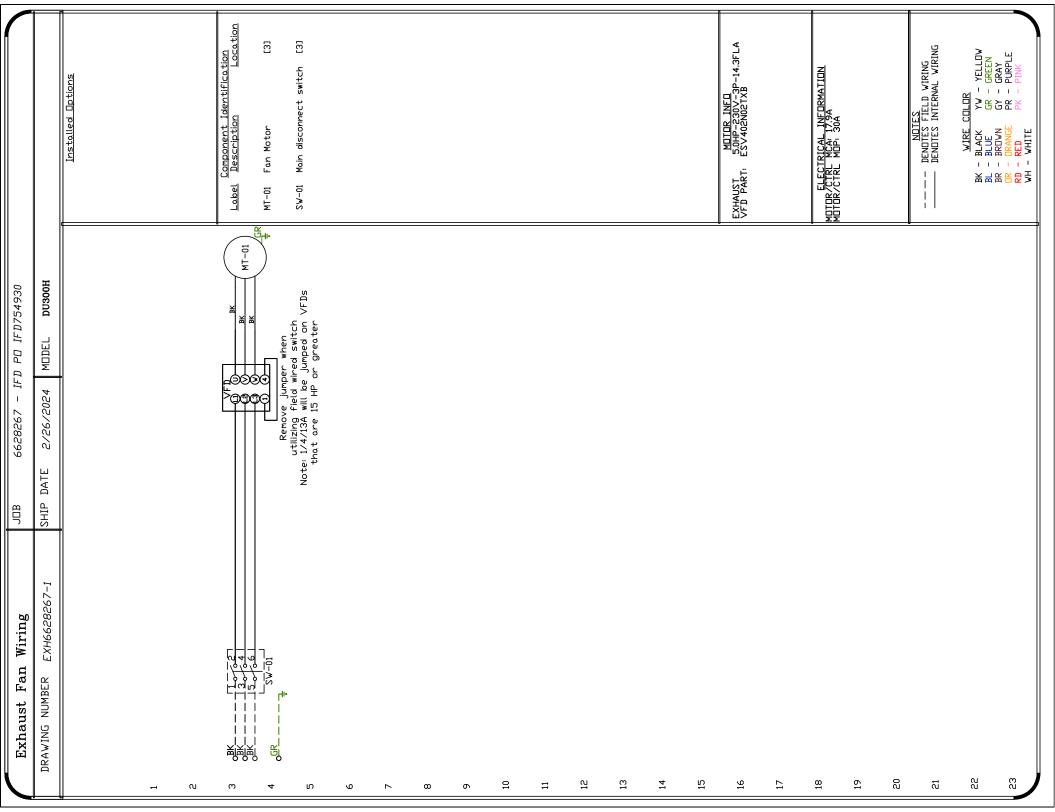
CURB #1 CRB38.5X20E

CUSTOMER APPROVAL TO MANUFACTURE: APPROVED AS NOTED APPROVED WITH NO EXCEPTION TAKEN REVISE AND RESUBMIT SIGNATURE YOUR TITLE DATE THE INNER DUCT IS FULLY VELDED TID THE TRANSITION PLATE. VENTED CURB RIDGE TERMINATION. *NOTE: UL 762 INSTALL.



FloAire

<i>JOB</i> IFD P□ IFD754930	
LOCATION Asheville, NC	2, 28806
DATE 3/5/2024	<i>JOB #</i> 6628267
DWG # 5	DRAWN BY
REV.	SCALE 3/8" = 1'-0"



SAV SERIS VARABLE FREIGHT BIVG FERNING FUNCTION F	VFD Wiring DRAWING NUMBER	VFD6628267-1	JOB SHIP DATE	6628267 - IFD PD IFD754930 2/26/2024 MDDEL DU300H	
The control of the					Installed Options Manual Control
1		I I		NCTION jital Input:(Start/Stop) alog Common alog Input: 0-10 VDC	
1		Dy Others By Others If Required	-6 25 30	al DC Supply for Speed Pot: +10 Input: 4-20 mA Output	
Supply 1987			4 11	Digital Reference/Common Internal 12/DC Supply for External Devices	Component Identification
SUPPLY The control of the control			13B	Digital Input: Configurable with P121 Digital Input: Configurable with P122	
SUPPLY Condition Configurable with Pi40			14	Digital Dutput: Configurable with P142 Amalos Distrit: Configurable with P142	
SUPPLY 1			30 16 17	Relay Dutput: Configurable with P140	
SUPPLY L2 3 Phase Input on Single Phase Input L2 3 Phase Input on Single Phase Input L2 3 Phase Input on Single Phase Input V 3 Phase Input on Single Phase Input V 3 Phase Photon V 4 3 Phase Photon V 5 Phase Photon V 6 Phase Photon V 7 Phase Photon V 8 Phase Photon V 8 Phase Photon V 9 P					
1 3 Phase Input or Single Phase Input					
SUPPLY 13 (N) 3 Phose Input for Single Phose Input 10 10 10 10 10 10 10 1		<u>_</u>	PE -	Terminal	
The BRIVE SECRET HE PROTOCOLOGY SHOULD SECRET HE PROTOCOLOGY SHOULD SHOU	POWER SUPPL	\		3 Phase Input or Single Phase Input	
The BRIVE MANUEL ESCRIBES THE PROGRAMMING LEAR BRIDE PROJUCE THE PROGRAMMING COUNTY DRIVE PARAMETER **XARIABLE FREQUENCY DRIVE PARAMETER **XETINGSA*** **PROGRAM VAVAMMISE LLAF ERROUNCY DRIVE PARAMETER **XETINGSA*** **PROGRAM VAVAMMISE LLAF ERROUNCY DRIVE PARAMETER **XETINGSA*** **PROGRAM VAVAMMISE LLAF ERROUNCY DRIVE PARAMETER **PROGRAM VAVAMMISE LESSRIBES THE PROGRAMMING COUNTY PARAMETER **PROGRAM VAVAMMISE LESSRIBES THE PROGRAM VAVAMING COUNTY PARAMETER **PROGRAM VAVAMIN			-L3 (N)	3 Phase input (Neutral for 120v)	
VACIDABLE FREQUENCY DRIVE PARAMETER STITINGS* ENH PROTECTION OF THE PROPER THE BRIVE MANUAL DESCRIBES THE PROPER THE BRIVE BRIDE BRIVE BRIVE BRIDE BRIVE BRIDE BRIVE BRIVE BRIDE BRIVE BRIDE	!		<u> </u>	3 Phase AC Motor	
VARIABLE FREQUENCY DRIVE PARAMETER SETTINGS** EPH PROGRAM VAV.MANUSE LG.µF EPH IF >= 1514P) PION (Start Source) = 01 (Terminal Strip) PION (Start Source) = 01 (Terminal Strip) PION (Start Source) = 01 (Terminal Strip) PION (Start Start Source) = 01 (Terminal Strip) PION (Start Methons of 30 Auto Re-start) PION (Start Methons of 30 Auto Research) PION (Start Methons Research) PION (PLAN (Methons Research) PION (PLAN (Methons	MU I		> >	3 Phase AC Motor 3 Phase AC Motor	
EPH PRIGGRAM VAV, MANCINE LG LIP EPM IF >= 15HP) PIO (Start Source) = 01 (Terminal Strip) PIO (Start Survency (Hz) PIO (Start Manch Perquency) = 02 (Auto Re-start) PIO (Start Method) = 03 (Auto Re-start) PIO (Corrier Frequency) = 00 (4 Max D) PIO (Corrier Frequency) = 00 (4 Max D) PIO (Start Start Manch Per Polar Strip Pio (T E 20) 4 Pack D) PIO (Reference Source) = 01 (0-10 VID S) PIO (Reference Source) = 01 (0-10 VID				VARIABLE FREQUENCY DRIVE PARAMETER SETTINGS*	
FUND (Start A CALLANDER) PURE a swithinton Frequency (Hz) PURE (Start A Fund Relay) = 00 (4 kHz) PURE (Grown A Fund Relay) = 00 (4 kHz) PURE (Grown A Fund Relay) = 00 (4 kHz) PURE (Grown A Fund Relay) = 00 (4 kHz) PURE (Grown A Fund Relay) = 00 (4 kHz) PURE (Grown A Fund Relay) = 00 (4 kHz) PURE (Brown End Fund Relay) PURE					
Fig. (Speed & 10 VDC Signal) = Max Frequency Fig. (Speed & 10 VDC S	All external con be 16-20 AWG sh be run in the si wiring. Ground ?	ntral wires to motor speed contro hielded multiconductor cables and r same conduit or raceway with any h Shielded Cable at the drive chasis		EPM PROGRAM, VAV_MANGUE LG, HP EPM IF >= 15HP) P100 (Start Source) = 01 (Ternhal Strip) P102 = ###Hinhum Frequency (Hz) P103 = ###Hannen Frequency (Hz) (P103 = ###Axinum Frequency (Hz) (P103 is bosed on max wheel RPM) P110 (Start Method) = 03 (Auto Re-start) P140 (Form A IMO) Reley) = 01 (Auto Re-start)	
Adjust manually on all drives PIOT OF 200 VAC) OF 01 (IF 200, 480 or 575 VAC) OF 01 (IF 200, 480 or 575 VAC) OF 01 (IF 200, 480 or 575 VAC) PIOS OF SECOND OF THE DUTUM RATING PIOS GROSS VOITAGE = Set to Motor Voltage (Preseted 200 or 10 VIC) PIOS (Gase Voitage) = Set to Multy Panue PIOS (Gase Voitage) = Set to Multy Panue PIOS (Gase Voitage) = Colculated Per Fan FOR KB PCU DNLY P300 = 0 FOR KB PCU DNLY P300 = 0 FOR KB PCU DNLY P300 = 0 FOR VBC Signal) = Min Frequency PIOS (Speed # 10 VDC Signal) = Min Frequen	PG. 11 OF THE DR INSTALLATION PRI	RIVE MANUAL DESCRIBES THE PROPER ROCEDURE		P14 (Relay Inversion) = 00 (None) P166 (Carrier Frequency) = 00 (4 kHz) P171 (Current Limit) = 150 (X of Max I)	
PIGS Gase Votor Lia x in V. Invive with processes and proc	PG. 19 OF THE DI PROCEDURE OF THE	RIVE MANUAL DESCRIBES THE PROGRA HE DRIVE	MMING	Ad just manually on all drives P107 - 00 (If 120 or 208 VAC) or 01 (If 230, 480 or 575 VAC)	
When Speed BUI Is Required the Following Parameters Must be Set; Piul (Reference Source) = 01 (d-10 VDC) Pid (Speed @ 10 VDC Signal) = Max Frequency Pid	PG. 23 OF THE D SETTINGS OF THE *NOTE: THE DEFA TO PROGRAM THE	NRIVE MANUAL DESCRIBES THE PARAMI E DRIVE NULT PASSWORD FROM THE FACTORY R DRIVE IS "225",	TER EQUIRED	PIGE — Motor FLA × 100 / Drive Lutput Rating P165 (Base Voitige) = Set to Motor Voitage (Preset#230/V) P165 FIR STANDARD DRIVE UNLY P167 (Base Frequency) = Calculated Per Fan	אסדמט זאנים
MUTUR/CTRL				FIR KB FLU UNLT: P300 = 0 When Sneed PIT Is Benilsed the Fallasina	EXHAUST 5.0HP-230V-3P-14.3FLA VFD PART: ESV402N02TXB
MM TIEST CT FE CT				wing a present in required the following Connecters Must be Set. Plus (Reference Source) = 01 (0-10) VID:) Plos (Spred @ 0 VID Signal) = Min Frequency Plos (Speed @ 10 VID Signal) = Max Frequency Plos (Speed @ 10 VID Signal) = Max Frequency	
MET T T T T T T T T T T T T T T T T T T					
				IT MAY BE REQUIRED TO FULLY POWER DOWN THE DRIVE AND TURN BACK ON IN ORDER TO INIATIATE NEW	MUTUR/CIRL INFORMATION MOTOR/CIRL MCA: 17.9A MOTOR/CIRL MOP: 30A
				PARAMEIER SETTINGS. ***Min. and Max. Frequency Settings override all other Preset speeds/Paraneters.	
					MITTES
BK - BLACK BL - BLUCK BL - BLUCK BR - BROWN BR - BROWN CR - CRANC					DENO.
- UKANU - RED - VHITI				GENERAL NOTES.	BLACK BLUE BROWI
					- CKED - RED - VHITI