INTRODUCTION:
Road transport is one of the most common modes of transport. Roads in the form of trackways, human pathways etc. were used even for the pre-historic times. Since then many experiments were going on to make the riding safe and comfortable. Thus road construction became an inseparable part of many civilizations and empires. The lack of a traffic signal is often cited as a contributing factor by drivers who are involved in accidents at intersections. As such, increasing the conspicuity of traffic signals should lead to improved safety performance. Materials that are bound together with bitumen are called bituminous materials. The use of bituminous materials was initially limited to road construction. Now the applications have spread over the area of roof construction, for industrial purposes, carpet tiles, paints and as a special coating for waterproofing.

DEVELOPMENT OF ROAD:
a) Nagpur Plan (1943-1961): Classification of roads into national highways, state highways, district roads and village roads and outlining the norms required for these categories. Target of 16 Km per 100 sq Km was set for 1961.
b) Bombay Plan (1961-81): It accepted that any village should not be more than one and half miles away from any road in developing agricultural areas, three miles from any road in semi-developed and five miles from any road in the underdeveloped and uncultivable area. Road density target of 32 km of road per 100 sq km was set for 1981.
c) Lucknow Plan (1981-2001): Requirements for non-mechanised traffic should be considered, for example bicycles, cycle-rickshaws and bullock carts should be given weightage and provision must be made for them while designing roads. Overall target of 27 lakh km of road network was set. Road density target of 82 km of road per 100 sq km was set for 2001.
d) Road Development Plan Vision (2001-2021): Construction of village roads must be given a boost and maintenance of existing road assets. Road safety, energy efficiency and social and environmental implications of road have been given special attention. To develop rural road network emphasize was laid on proper district level master plans. So the target for main roads was specified, but that of rural roads was not specified.

MATERIALS AND METHODS:
Construction of highway first we have to check the soil strength and test the material properties. Here we collected the material from our location the testing was done in our laboratory. The type of test, procedure and results were given below.

4. a) The Soil Strength was calculated by
1. California Bearing Ratio Test: The CBR is a measure of resistance of a material to penetration of standard plunger under controlled density and moisture conditions. The loads, for 2.5mm and 5mm are recorded. This load is expressed as a percentage of standard load value at a respective deformation level to obtain C.B.R. value.

<table>
<thead>
<tr>
<th>Penetration, mm</th>
<th>Standard Load</th>
<th>Unit Standard Load, kg/cm2</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.5</td>
<td>1370</td>
<td>70</td>
</tr>
<tr>
<td>5.0</td>
<td>2055</td>
<td>105</td>
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</tbody>
</table>
The elongation index of a given sample of aggregate is 0.312%.

The aggregate Crushing value is 7.823%, the measured value is less than 30% so the sample having good resistance. The flakiness index and elongation index of the given sample having shape.

The aggregate Impact Value is 7.542% , it is less than standard value so the sample having less water absorption percentage. The Los Angeles abrasion test is 0.6% so the sample having less water absorption.

The Aggregate Impact Value is 7.542% . It is released for surface course layer construction. Specific Gravity of coarse aggregate is defined by ISI as the ratio of the mass of a given volume of the bituminous material to the mass of an equal volume of water, the temperature of both being specified at 27ºC±0.1ºC.

The specific gravity is defined by ISI as the ratio of the mass of a given volume of the bituminous material to the mass of an equal volume of water, the temperature of both being specified at 27ºC±0.1ºC.

The specific gravity of bitumen binder is calculated by the following test:

(i). Penetration Test: The degree of fluidity of the application temperature greatly influences the ability of bituminous material to spread, penetrate into void and also coat the aggregates and hence affects the strength characteristics of the resulting paving mixes.

The softening point of bitumen sample is 67ºC.

(ii). Flash and Fire Point Tests:

Flash Point: The flash point of a material is the lowest temperature at which the vapor of a substance momentarily takes on the form of a flash under specified conditions of test.

Fire Point: The fire point is the lowest temperature at which the material gets ignited and burns under specified conditions of test.

The time in seconds for 50ml of the test sample to flow through the orifice = 989 sec.

The ductility is expressed as the distance in centimeters to which a standard briquette of bitumen can be stretched before the thread breaks.

The ductility value of the given bitumen sample is 61cm.

(vi). Specific Gravity of Bitumen:

The specific gravity of bitumen is defined by ISI as the ratio of the mass of a given volume of the bituminous material to the mass of an equal volume of water, the temperature of both being specified at 27ºC±0.1ºC.

The specific gravity of giving bituminous binder is 0.97.

RESULTS AND DISCUSSION:

The soil strength according to California Bearing Ratio Test is 1.302.

The aggregate Crushing Strength Test:

The aggregate crushing value is 7.823%, the measured value is less than 30% so it is good for surface course layer construction. Specific Gravity of coarse aggregate is defined by ISI as the ratio of the mass of a given volume of the bituminous material to the mass of an equal volume of water, the temperature of both being specified at 27ºC±0.1ºC.

The aggregate Crushing Value is 7.823%.

The aggregate Impact Value is 7.542%.

The specific gravity of giving bituminous binder is 0.97.

The aggregate Impact Value is 7.542%.
of roads. The road safety, effectiveness associated with improved quality of highway construction. The quality of highway is mainly depending on the material. Testing of the components of highway indicates the testing of coarse aggregate, bitumen, soil. According to the results of various test it shows all materials having good properties. The collected materials can be used for highway construction. The soil is also having good strength.

REFERENCES: