

**Iqra National University
Department of Civil Engineering**



Name: Sharafat ali khan

I.D: 7706

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Submitted to: Engr. HAMZA MUSTAFA

TOPIC: TRANSPORTATION SYSTEM FOR REGI
MODEL TOWN , PESHAWER

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1. INTRODUCTION

1.1 Introduction

- The purpose of the project is to improve connections between transit providers and other modes of transportation, and to assist on-going and future transportation planning efforts at the local and regional scale.
- The Project is about finding a GIS based solution to the problem of public transportation within Regi Model Town (RMT) Naserbagh Road , Distric Peshawar
- Regi Model Town Peshawar (RMT) is under the supervision of Peshawar Development Authority.

1.2 Geographic Information Systems (GIS)

Geographic Information Systems (GIS) store, analyze and visualize data for geographic positions on Earth's surface. GIS is a computer-based tool that examines spatial relationships, patterns and trends. By connecting geography with data, GIS better understands data using a geographic context.

The 4 main ideas of Geographic Information Systems (GIS) are:

- **Create** geographic data.
- **Manage** it in a database.
- **Analyze** and find patterns.
- **Visualize** it on a map.

Because viewing and analyzing data on maps impacts our understanding of data, we can make better decisions using GIS. It helps us understand **what is where**. Analysis becomes simple. Answers become clear.

Every day, GIS powers millions of decisions around world. It makes a big impact in our life and you might not even realize. For example, we use GIS for:

- Pinpointing new store locations
- Reporting power outages
- Analyzing crime patterns
- Routing in car navigation
- Forecasting and predicting weather

1.3 Problem Statement

- Regi Model Town lacks efficient public transportation system because of no proper transportation system.
- Wastage of money by taxies and rakshasa.
- Wastage of time by local transports or through walking to our final destination.



1.4 Objectives

- To facilitate the people living in Regi Model Town (RMT).
 - i. Without wastage of money
 - ii. And reached on time to our destination.



2. LITERATURE REVIEW

2.1 Overview

Literature Review consists of studying literature related to similar problems and their solutions found in other locations

2.2

The New River Valley (NRV) Metropolitan Planning Organization (MPO) recently launched a project creating a regional GIS portal in support of transit planning initiatives. The purpose of the project is to improve connections between transit providers and other modes of transportation, and to assist on-going and future transportation planning efforts at the local and regional scale. The project was conducted in two phases. Phase I included meetings with stakeholders to assess regional needs and to discuss transit-planning processes, GIS technologies, and existing data sources. Several stakeholder agencies collaborated to share transit-related data, which was cataloged and edited for public consumption. Phase II made transit data available to the public.

The MPO partnered with the NRV Planning District Commission (PDC) to host the transit data on a FTP site. Using ArcGIS Online, an interactive web map was created featuring route and stop layers for the four fixed-route providers in the region. The project provided an outlet for important discussions between regional transit stakeholders and led to increased communication and collaboration between agencies. A regional transit GIS portal was created to share transit data featuring links to the FTP site, web map and additional resources regarding the MPO project. [1]

2.3

Geotechnical information acquired from site and laboratory tests are vital for a safe and economical design of building and infrastructure works especially in land development projects. This paper describes the use of GIS in processing and presenting geotechnical data into formats that are useful to engineers, planners and land development professionals. A case study in Seri Iskandar, District of Perak Tengah, and Perak, Malaysia is discussed in this paper. In this study, data stored in GIS systems are processed and presented into maps describing soil types and soil strengths (SPT values) at various depths. Thus, the data are always available and this can reduce a lot of time to retrieve them. [2]

3. METHODOLOGY

In methodology the very first step is to install the GIS software.

And open the GIS software. Fig 1.0

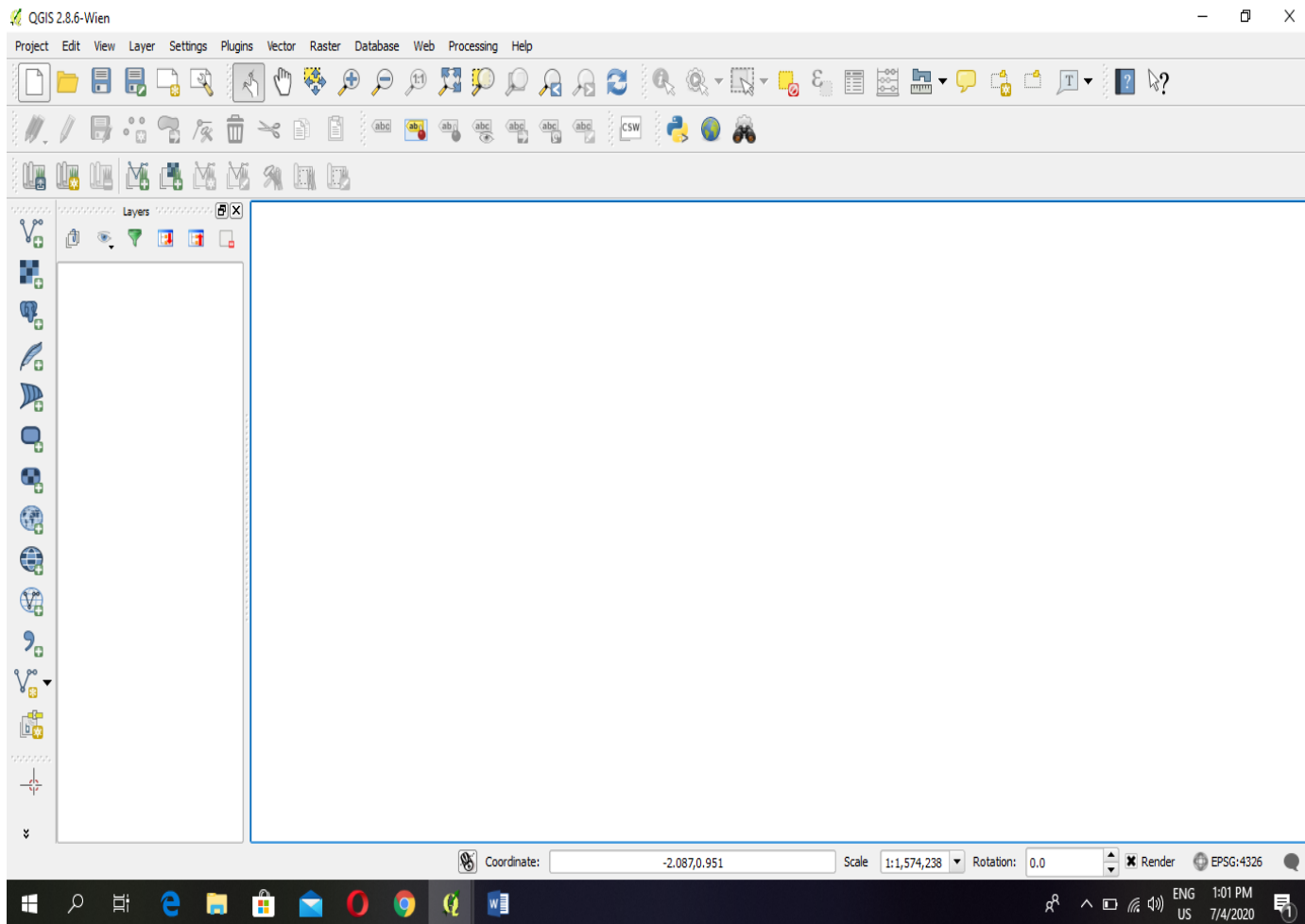


Figure 1.0 shows the window logo of QGIS software

Then go to raster and raster to georeferencer and select georeferencer then add the raster image taken from google earth map and add points with correct google earth coordinates and start georeferencing. Fig.1.1.

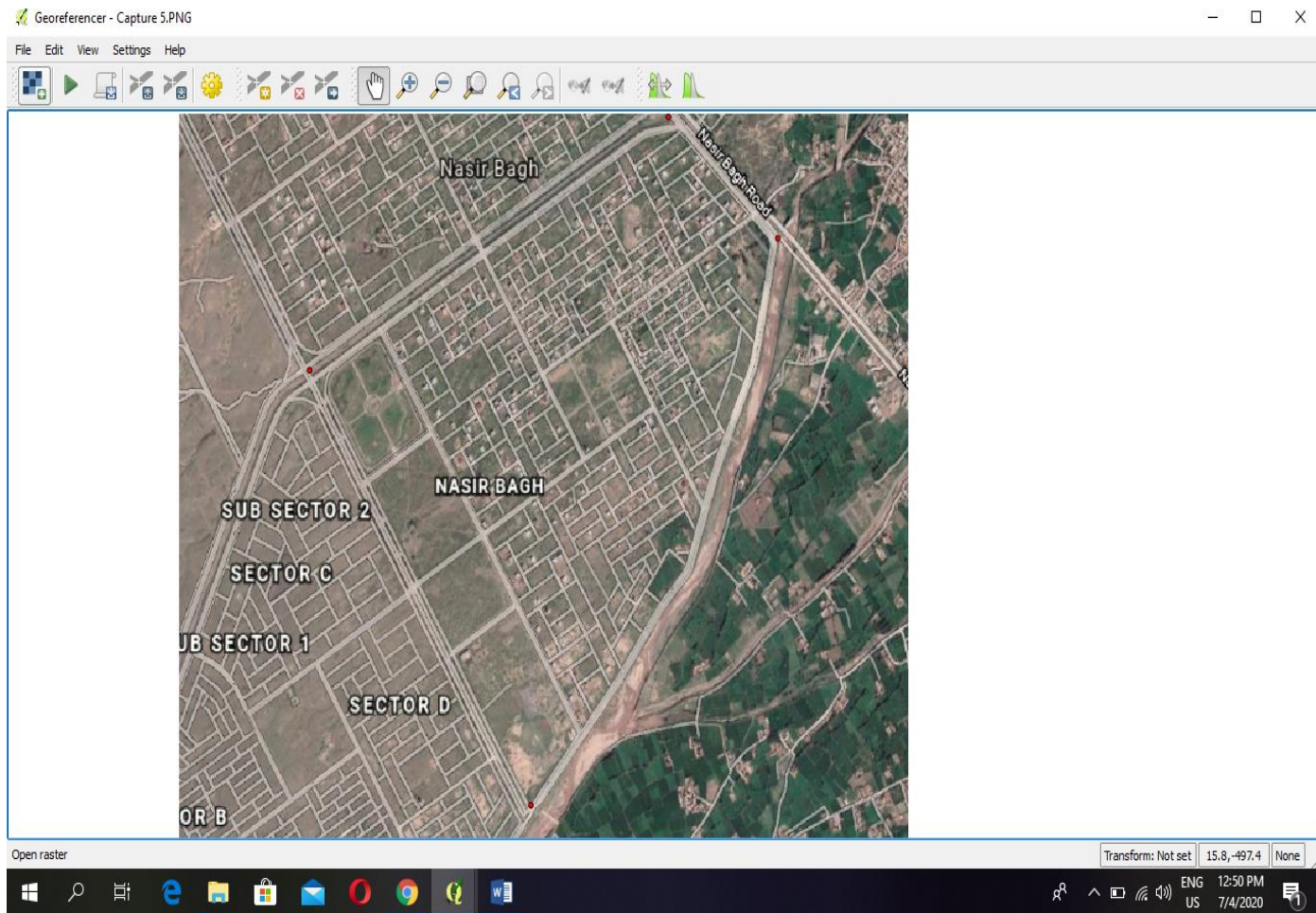


Figure 1.2 Regi Model Town Raster map taken from google earth.

After georeferencing the correct coordinates comes from google earth to GIS software then go to menu bar and select layer then create layer and then new shapefile layer select point for points, line for Roads and canals and polygon for area/zones and then press ok. Now go to digitizing and click on toggle editing then click on add feature and then draw the points for showing specific location, lines for showing specific roads , canals and streets and polygons to shows specific zones.

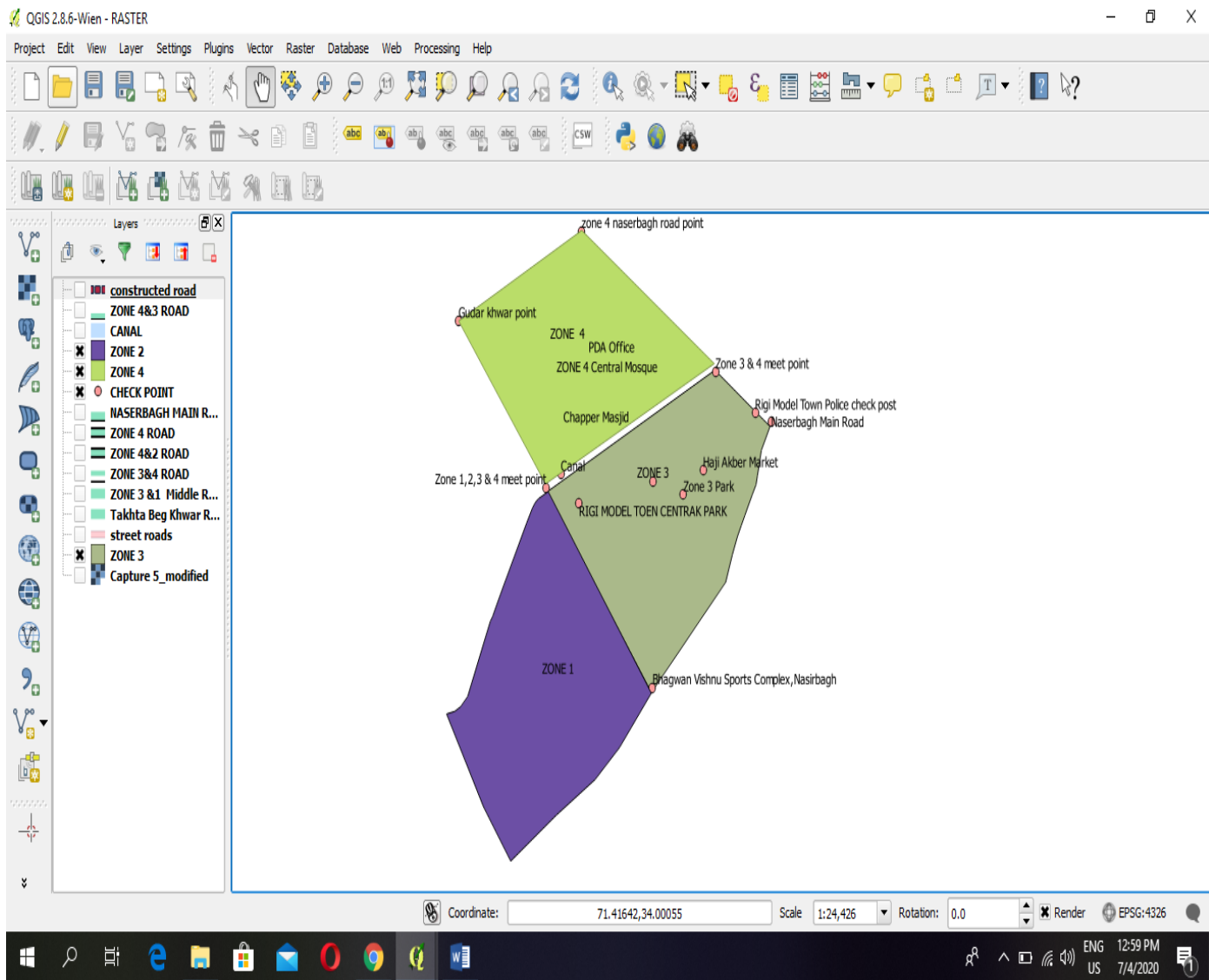


Figure 1.3 shows different zones and different points of Regi Model Town

4. RESULTS AND DISCUSSIONS



Figure 1.6 show map of Regi Model Town

In a result the regi model town have no proper transportation system so we have to done the following works:

- Selection of most optimum transit route.
- Selection of most optimum sites for stops and stations
- Recommendations related to the improvement of Public transport system of regi model town.

5. APPLICATION

GIS offers opportunities to streamline agency business processes through visualizing, sharing, analyzing, and monitoring asset data in ways that would not be possible with strictly numerical data. GIS, when applied to TAM, can simplify data sharing, improve data access, support proactive asset management, inform decision-making, facilitate public outreach, help project designs, and provide an interface for managing rolling stock. Many state DOTs are using GIS in their day-to-day work. Oregon DOT uses GIS for internal data sharing. Its FACS (Features, Attributes, Conditions Survey) - STIP (Statewide Transportation Improvement Program) tool is an internal, web-based mapping tool that gives all staff access to spatial (inventory) data and related asset condition information. In St. Johns County, Florida, GIS is used to plan preventive maintenance routes. Washington State DOT uses GIS to manage most of its snowplow truck fleet. Colorado DOT has developed an interactive tool, the Project Locator (ProLo) web application that allows the public to see STIP projects on a map

6. REFERENCES

- 1) Catherine Howey; Erik Olsen; Graham M Owen; DEVELOPMENT OF A REGIONAL GIS PORTAL WITH TRANSIT DATA.
- 2) W. N. S. Wan-Mohamada; A. N. Abdul-Ghanib, the Use of Geographic Information System (GIS) for Geotechnical Data Processing and Presentation.