AIR QUALITY

This section describes the review of potential air quality impacts and possible mitigation measures related to the construction and operation of the proposed project. The discussion considers applicable air quality rules and regulations, reviews existing conditions in the project vicinity, qualitatively considers potential impacts of the alternatives, and presents potential mitigation measures. Climate change issues are considered based on estimates of greenhouse gas emissions related to the construction and operation of the proposed developed parcels and comparison potential emissions associated with each project alternative.

EXISTING CONDITIONS/AFFECTED ENVIRONMENT

Air quality is generally assessed in terms of whether concentrations of air pollutants exceed or comply with ambient air quality standards set to protect human health and welfare. Three agencies have jurisdiction over the ambient air quality in the proposed project area: the EPA, the Washington Department of Ecology (Ecology), and the Puget Sound Clean Air Agency (PSCAA). These agencies establish regulations that govern both the concentrations of pollutants in the outdoor air and contaminant emissions from air pollution sources. Selected applicable local, state and federal ambient air quality standards are displayed in **Table 1**.

To track air quality conditions, Ecology and PSCAA maintain a network of monitoring stations throughout the Puget Sound region. These stations are typically located where air quality problems may occur, and so they are usually in or near urban areas or close to specific large air pollution sources. Other stations in more remote areas indicate regional air pollution levels. Based on monitoring information collected over a period of years, the state (Ecology) and federal (EPA) agencies designate regions as being "attainment" or "nonattainment" areas for particular air pollutants. Attainment status is therefore a measure of whether air quality in an area complies with the National Ambient Air Quality Standard (NAAQS). Regions that were once designated nonattainment that have since attained the standard are considered "maintenance" areas. The project area is considered in "attainment" for all monitored air pollutants except ozone, for which the entire region is considered a maintenance area under the NAAQS. This suggests that air quality is generally good in the vicinity of Black Diamond.

Typical air pollution sources in the Black Diamond area include automobile and truck traffic traveling on local roads, retail/commercial activities, some industrial activities including limited mining and rock quarries, and residential wood-burning devices. While many types of pollutant sources are present, the single largest contributor to most "criteria" pollutant emissions is on-road mobile sources (CO emissions) and residential wood burning. [(1)] Pollutant emissions from diesel sources (e.g., most heavy-duty truck engines) include fine particles and a variety of toxic air pollutants. Non-diesel vehicle emissions are comprised primarily of carbon monoxide (CO), but also include small amounts of sulfur dioxide (SO_2), toxic air pollutants, and both hydrocarbons and nitrogen oxides, which can transform to become ground-level ozone. Residential wood burning produces a variety of air contaminants, including relatively large quantities of CO and fine particulate matter (PM_{10} and $PM_{2.5}$ – defined later).

[(1)] Criteria pollutants are designated in federal law as potential threats to human health and welfare and include substances such as carbon monoxide, sulfur dioxide, and inhalable particulate matter.

Table 1. Ambient Air Quality Standards

Pollutant	National (EPA)		Washington	Local
	Primary	Secondary	Ecology	PSCAA
Inhalable Coarse Particulate Matter (PM_{10})				
Annual Average (µg/m^3)	--	--	50	54 (c)
24-Hour Average (µg/m^3)	150 (a, b)	--	150 (a)	154 (d)
Fine Particulate Matter ($PM_{2.5}$)				
Annual Average (µg/m^3)	15 (e)	15 (e)	--	15 (c)
24-Hour Average (µg/m^3)	35 (f)	--	--	35 (g)
Carbon Monoxide (CO)				
8-Hour Average (ppm) [(a)]	9	--	9	9
1-Hour Average (ppm) [(a)]	35	--	35	35
Ozone (O_3)				
8-Hour Average (ppm) [(h)]	0.075	0.075	--	0.075
1-Hour Average (ppm)	(i)	(i)	0.12	(i)

Notes:
µg/m^3 = micrograms per cubic meter; **ppm** = parts per million; **blank cells** indicate no standard
All values not to be exceeded except as noted; all averages arithmetic except TSP annual geometric mean.
[(a)] Not to be exceeded more than once per year
[(b)] Particles <10 micrometers in size; federal annual PM_{10} standard revoked as of Sept. 21, 2006 (EPA 2006)
[(c)] The 3-year annual average of the daily concentrations must not exceed level
[(d)] The 3-year average of the 99th percentile (based on the number of samples taken) of the daily concentrations must not exceed level
[(e)] Attainment based on the 3-year average of the weighted annual mean $PM_{2.5}$ concentrations from single or multiple community-oriented monitors not exceeding level
[(f)] Attainment based on the 3-year average of the 98th percentile of 24-hour concentrations at each population-oriented monitor within an area not exceeding level
[(g)] The federal 24-hour standard for PM2.5 was revised as of Sept. 21, 2006. The current PSCAA standard of 65 ppm is based on the previous federal standard but has been superseded by the new federal limits. Although PSCAA has not yet adopted the new federal standard, it must do so soon. To avoid confusion, only the prevailing federal standard is reported to represent the maximum level that PSCAA can adopt.
[(h)] Attainment based on 3-year average of the 4th highest daily maximum 8-hour ozone concentration at each monitoring location
[(i)] Federal 1-hour ozone standard was revoked in all areas except 14 remaining nonattainment areas. The federal and the PSCAA 1-hour standard lapsed on June 15, 2005.

Source: ENVIRON International Corporation based on most recent local, state and federal rules.

Particulate Matter – PM_{10} and $PM_{2.5}$

Particulate matter air pollution is generated primarily by industrial activities and operations, fuel combustion sources like residential wood burning, motor vehicle engines and tires, as well as other, more minor sources. Federal, state, and local regulations set limits for particle concentrations in the air based on the size of the particles and the related potential threat to health. When first regulated, particle pollution was based on "total suspended particulate," which included all size fractions. As sampling technology improved and the importance of particle size and chemical composition became clearer, ambient standards were revised to focus on the size fractions thought to be most dangerous to human health.

At present, there are standards for inhalable coarse particles less than about 10 micrometers (microns) in diameter (PM_{10}) and inhalable fine particles less than about 2.5 microns in diameter $PM_{2.5}$. The latter is now thought to represent the most dangerous size fraction of airborne

particulate matter because such small particles (e.g., a typical human hair is about 100 microns in diameter) can be breathed deeply into the lungs. In addition, such particles are often associated with toxic substances, deleterious in their own right. The toxic substances can adsorb to particulate matter and then be carried into the respiratory system. Based on the most recent studies, in 2006 the EPA set new, more stringent standards for $PM_{2.5}$ (EPA 2006).

There are currently no PM_{10} or $PM_{2.5}$ monitoring stations in or near the City of Black Diamond. The closest monitors are located in the cities of Enumclaw and Kent. Black Diamond is not included in an existing PM_{10} nonattainment or maintenance area. Measured concentrations of both PM_{10} and $PM_{2.5}$ at most monitoring stations in the Puget Sound area since 1997 have complied with the applicable ambient air quality standards (PSCAA 2008, EPA 2008a). Given this fact and the lack of major sources of particulate matter in Black Diamond, it is likely that throughout most of the year, existing fine particulate concentrations are less than the limits set by the standards. [(2)] During prolonged periods of stagnant meteorological conditions, however, it is possible that emissions from vehicles, residential solid-fuel space heating, and other sources in the study area could elevate particulate matter concentrations so that concentrations reach or exceed the health based standards. But the operation of the proposed alternatives would be a relatively minor source of particulate matter, so it is not necessary to analyze these emissions to conclude that the project would not result in impacts due to particulate matter. [(3)]

Carbon Monoxide (CO)

Carbon monoxide (CO) is a by-product of incomplete combustion. It is generated by vehicular traffic and other fuel-burning activities, such as residential space heating, especially if the space heating units use solid fuels such as coal or wood. There are two short-term air quality standards for CO: a 1-hour average standard of 35 ppm and an 8-hour average standard of 9 ppm (see **Table 1**). Short-term standards are often the controlling, or most restrictive, air pollution standards.

The impacts of CO are usually localized, with the highest ambient concentrations usually occurring near congested roadways and intersections during periods of cold temperatures (autumn and winter months), light winds, and stable atmospheric conditions. Such weather conditions reduce the mechanisms that disperse and dilute pollutants.

In recent years, the Central Puget Sound region has not violated the NAAQS for CO and is considered a maintenance area for this pollutant. Black Diamond lies outside the Central Puget Sound region CO maintenance area and is considered in attainment for CO.

There are no CO monitors in Black Diamond; the nearest monitor is in downtown Seattle along a heavily traveled and congested traffic corridor unlike the existing traffic routes in Black Diamond. This station and others in the Puget Sound region have not measured a violation of the 1-hour or 8-hour CO standard in recent years. Because CO impacts typically occur close to the emissions source, it is not possible to extrapolate CO concentrations from regional data or distant monitors for this project.

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(2) A portion of the Tacoma area is expected to be designated nonattainment based on the current $PM_{2.5}$ standard in December 2010.

(3) No wood-burning devices are proposed as part of the residential development in either the Proposed Action or Alternative 1.

Ozone

Ozone is a highly reactive form of oxygen created by sunlight-activated chemical transformations of nitrogen oxides and volatile organic compounds (hydrocarbons) in the atmosphere. Ozone problems tend to be regional in nature because the atmospheric chemical reactions that produce ozone occur over a period of time, and because during the delay between emission and ozone formation, ozone precursors can be transported far from their sources. Transportation sources like automobiles and trucks are among the sources that produce ozone precursors.

In the past, due to violations of the federal ozone standards, the Puget Sound region was designated as nonattainment for ozone. In 1997, EPA determined that the Puget Sound ozone nonattainment area had attained the health-based ozone standard in effect at that time. The EPA reclassified the Puget Sound region as attainment for ozone and approved the associated air quality maintenance plan. Black Diamond is, therefore, in an ozone air quality maintenance area.

In March 2008, EPA revised the 8-hour ozone standard to set a new, more stringent limit. At this time, all jurisdictions in Washington State are projected to meet the new EPA ozone standards (EPA 2008b). Measured ozone concentrations at several regional stations have exceeded the new 8-hour ozone standard, so the area could be on the brink of again becoming nonattainment for this air pollutant. Under the current air quality plans and policies, this status has no direct implications for the project under consideration.

IMPACTS

The following several sections describe the potential impacts common to all of the project alternatives including construction-related impacts, operational impacts related to increases in traffic, and greenhouse gas emissions estimates related to climate change.

Impacts Related to Construction

Development of land parcels with any of the project "build" alternatives would include the demolition of some existing buildings and construction of residences, office, retail and commercial buildings, and creation of roads and other infrastructure improvements. Such activities could result in temporary, localized increases in particulate concentrations due to emissions from construction-related sources. For example, dust from short-term construction activities such as excavation, grading, sloping and filling would contribute to ambient concentrations of suspended particulate matter. Construction contractor(s) would be required to comply with PSCAA regulations requiring that reasonable precautions be taken to minimize fugitive dust emissions.

Demolition of existing structures would require the removal and disposal of building materials that could possibly contain asbestos. Demolition contractors would therefore be required to comply with EPA and PSCAA regulations related to the safe removal and disposal of any asbestos-containing materials.

Construction would require the use of heavy trucks, excavators, graders and a range of smaller equipment such as generators, pumps, and compressors. Emissions from existing traffic around the project area would outweigh any slight degradation of local air quality resulting from construction equipment emissions. Nonetheless, emissions from such sources, and especially

from diesel-fueled engines, are coming under increasing scrutiny because of their suspected risk to human health. Specific dose/response effects are unknown, but long-term exposure to excessive amounts of diesel emissions could represent a health risk, especially to sensitive individuals like the chronically ill, the old and the very young. Hence, although there is little or no danger of such emissions resulting in pollutant concentrations that would exceed an applicable ambient air quality standard, pollution control agencies are now urging that emissions from diesel equipment be minimized to the extent practicable in order to reduce potential health risks. By minimizing on-site diesel engine idling and locating combustion-fueled equipment as far as possible from nearby residences, diesel emissions would not likely substantially affect air quality in the project vicinity.

Although some construction phases would cause odors, particularly during paving operations using tar and asphalt, any odors related to construction would be short-term and unlikely to significantly affect the nearest residences. Construction contractor(s) would have to comply with PSCAA regulations that prohibit the emission of any air contaminant in sufficient quantities and of such characteristics and duration as is, or is likely to be, injurious to human health, plant or animal life, or property, or which unreasonably interferes with enjoyment of life and property.

Construction activities would also yield land clearing debris. Washington State is phasing out outdoor burning of land clearing debris in favor of alternative disposal methods (e.g., chipping and composting) to reduce risk to public health related to combustion emissions. For example, residential yard debris and land-clearing materials burning is now banned in all counties within PSCAA jurisdiction. So the PSCAA prohibitions on land-clearing debris and all other outdoor waste burning apply.

Construction equipment and material hauling can affect traffic flow in a project area if construction-related vehicles travel during peak periods or other heavy-traffic hours of the day and pass through congested areas. Although there is heavy traffic during the day in Black Diamond, especially on SR-169, there is little delay at intersections now or expected in the future, so project-related construction traffic would not likely substantially affect traffic through the area.

There is a potential for dust and other emissions to affect nearby on-site residences during construction of other residential and commercial facilities if on-site residences are occupied before project construction is complete. Any impacts from construction or equipment emissions would be temporary and probably minor after implementation of reasonable methods and best management practices to minimize such emissions. However, even small increases in construction-related dust or equipment emissions could represent a health risk to sensitive individuals like the chronically ill, the old, and the very young if these populations are exposed to such emissions. Communication with on-site residential and other sensitive users during construction and implementation of a construction management plan designed to control emissions and/or limit on-site residential exposure could prevent or minimize the potential for such on-site impacts.

With implementation of the controls required for the various aspects of construction activities, and with attention to minimize exposure of any nearby people to prolonged exposure to emissions from diesel equipment, construction would not be expected to significantly affect air quality.

Operational Impacts

Project-related traffic could affect operation of off-site transportation facilities and thereby increase pollutant concentrations beyond the project site. This potential is explored further below.

Potential Impacts Related to Off-Site Traffic

One air pollutant of potential concern for projects with transportation components is carbon monoxide (CO). Of the various vehicular emissions that are regulated, CO is the pollutant emitted in the largest quantity. Therefore, potential changes in emissions that could affect CO levels are the focus of this part of the air quality review. Because the project area is in attainment for CO, the federal transportation conformity rules do not apply to this review.[4] However, the project is still subject to an air quality review under SEPA requirements.

A SEPA air quality review of transportation sources (i.e., vehicles) typically considers potential air quality impacts in accordance with EPA air quality "hot-spot" modeling guidelines. Based on these guidelines, *signalized* intersections that would be affected by traffic related to a proposed project are screened for possible quantitative analysis using dispersion modeling (i.e., computerized analysis to estimate air pollutant concentrations due to sources of interest). Such screening is conducted by reviewing the predicted future signalized intersection peak-hour traffic levels of service (LOS – a measure of overall delay, from "A" - good to "F" - very congested, due to expected intersection operation). EPA guidance suggests modeling signalized intersections with an LOS that would deteriorate to "D" or worse due to a proposed project. By definition, intersections that do not warrant signalization, or signalized intersections that operate at LOS "C" or better, have little if any potential to cause air quality impacts at nearby locations.

The traffic analysis for the proposed project was reviewed to assess the potential for off-site traffic-related air quality impacts due to each project alternative. The traffic study indicated that most intersections are not currently signalized but that several would be signalized by 2025, with or without the proposed project. Of these, many would operate at LOS "D" or worse with or without the project alternatives in 2025. In addition, traffic related to the Proposed Action would decrease performance at several intersections. Based on EPA guidance, any such affected signalized intersections should be considered for "hot spot" modeling, and such a review was conducted using approved dispersion modeling tools to assess the potential for impacts near the three most project-affected intersections under the Proposed Action. This analysis is described below.

Analysis Method

The review that considered the air quality implications of project traffic consisted of a microscale CO hot-spot analysis using computer models recommended or required by EPA guidelines and/or air quality rules. This modeling used existing and predicted future traffic conditions with and without the Villages alternatives to estimate worst-case CO concentrations near project-affected intersections in the existing (2007) and full build out year (2025) of the project. The specific models and analysis methods are described below.

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(4) Transportation conformity is a program under the federal clean air act that requires special review for transportation projects and transportation components of development projects within nonattainment and maintenance areas when those projects would affect the regional transportation system.

Mobile6.2 – Emission Factor Modeling

Traffic-related air quality modeling requires vehicle emission factors for the years of interest. For this purpose, the Puget Sound Regional Council (PSRC) supplied the vehicle emission rates derived from latest U.S. EPA vehicle emissions factor model, Mobile6.2. Vehicle emission factors are calculated in grams of pollutant per vehicle mile-of-travel based on a wide array of vehicle classes, basic emission rates, driving patterns, separation of start and running emissions, and fleet composition. The emission factors developed by PSRC included the following assumptions and parameters.

- There is a vehicle Inspection and Maintenance program in King County.
- To simulate conditions when carbon monoxide violations have been found most likely to occur in northwestern Washington, outdoor minimum and maximum daily temperatures of 31.6° and 44.4°F were used (Ecology 2006).
- Idle emission rates were calculated by multiplying the emission rate for 2.5 mph by 2.5 to estimate a rate in grams per hour of idling.

CAL3QHC Dispersion Modeling

The CAL3QHC dispersion model (version 2) was used to calculate peak-hour CO concentrations near the three intersections forecast to be most affected by traffic related to the Villages (described below). CAL3QHC is designed to calculate pollutant concentrations caused by transportation sources. It considers "free-flow" and "queue" emissions based on Mobile emission factors together with intersection geometry, wind direction, and other meteorological factors.

The following assumptions and parameters were used in the CAL3QHC modeling. These factors are consistent with the Washington State CO SIP, CO Maintenance Plan, and EPA guidance for dispersion modeling:

- Critical meteorological parameters included a 1,000-meter mixing height, low wind speed (1meter/second), and a neutral atmosphere (Class D).
- The modeling evaluated 72 wind directions (in 5 degree increments) to ensure worst-case conditions were considered for each receptor location.
- A "background" 1-hour carbon monoxide concentration of 3 ppm was assumed to represent other sources in the project area.
- The modeling configuration considered road links extending up to 1,000 feet from each intersection.
- Using the procedures required for the CAL3QHC dispersion model, both free-flow and queue links were configured approaching and departing each intersection. Near-road receptors were placed along both sides of each roadway at 3, 25, 50, and 100 meters from cross streets, 3 meters from the nearest traffic lane, and 1.8 meters above the ground (typical sidewalk locations at breathing height).
- Consistent with EPA guidance, modeled 1-hour CO concentrations were converted to represent 8-hour concentrations using a 0.7 "persistence factor" (i.e., the ratio of 8-hour to 1-hour CO concentrations) to represent variability in both traffic volumes and meteorological conditions.

CAL3QHC Evaluated Intersections

The intent of an air quality analysis related to surface transportation sources is to examine the potential for impacts near the signalized intersections most likely to be adversely affected by project-related traffic. EPA suggests modeling the worst intersections that would be directly affected by a project to the degree that the level of service (LOS) would be degraded to a LOS "D" or worse due to a project. [(5)] Consistent with EPA guidance, signalized intersections that would be affected by the proposed project were screened for possible dispersion modeling by reviewing the intersection LOS analyses of p.m. peak traffic conditions. **Table 2** provides information for the study intersections affected by the project-related traffic and/or modifications. The traffic data presented below represents an unmitigated scenario. If no air quality impacts are predicted after evaluating the worst-case intersection conditions, then improved intersection performance would also likely result in no air quality impacts. Results of the CAL3QHC modeling are presented in **Table 3** and discussed following that table.

Table 2. Levels of Service at Project-Affected Intersections

	2007		2025			
	Existing		No Action		Proposed Action	
Intersection Type / Location	**LOS**	**Total Delay**	**LOS**	**Total Delay**	**LOS**	**Total Delay**
SE Covington-Sawyer Rd & 216th Ave SE	C	6	C	6.8	D	29.4
SE296th St. & 216th Ave SE	B	2.9	B	3.1	B	6.7
SE 288th St. & SR-169 [(a)]	Not Signalized	--	B	12.6	D	39.8
SE Auburn-Black Diamond Rd & Lake Sawyer Rd	Not Signalized	--	D	36.8	C	21.3
SE Auburn-Black Diamond Rd & SR-169 [(a)]	Not Signalized	--	D	32.2	D	39.9
Railroad-Lawson Connector & SR-169	Not Constructed	--	B	5.1	A	3.4
Pipeline Rd & Lake Sawyer Rd	Not Constructed	--	A	1.6	B	10.3
North Connector & SR-169 [(a)]	Not Constructed	--	D	32.6	E	55.5

[(a)] Intersection selected for analysis using air quality dispersion modeling.
No Action refers to traffic conditions assuming the Villages Master Planned Community is not constructed.
Proposed Action refers to traffic conditions expected with full development of the Villages proposed Master Planned Community.
Total Delay represents the cumulative p.m. peak-hour delay in hours at each intersection (volume * average delay).

Source: The Transpo Group 2008

[(5)] LOS is a measure of the weighted average vehicle delay during the peak traffic period at a signalized intersection. "A" is the least congested, with an average delay of less than 10 seconds per vehicle. LOS "F" represents a weighted average delay of more than 80 seconds per vehicle.

Table 3. CAL3HC Modeling results (ppm)

Intersection	Averaging Period	2007 Existing [(a)]	2025 Alternatives		
			No Action	Proposed Action	Cumulative Condition
SE 288th St. & SR-169	1-hour	--	4.7	5.3	5.8
	8-hour	--	3.3	3.7	4.1
SE Auburn-Black Diamond Rd & SR-169	1-hour	--	6.1	6.2	7.7
	8-hour	--	4.3	4.3	5.4
North Connector & SR-169	1-hour	--	5.7	6.4	7.8
	8-hour	--	4.0	4.5	5.5

Notes:
[(a)] These intersections are not signalized or do not exist in 2007 so modeling was not performed.
All CO concentrations include a background concentration of 3.0 ppm
8-hr average CO concentrations are calculated by multiplying the 1-hr average concentrations by a persistence factor of 0.7
1-hr CO standard is 35 ppm; 8-hr CO standard is 9 ppm

Source: ENVIRON International Corporation 2008

Under existing conditions, the three intersections that would be most affected by project-related traffic are either not signalized or do not exist, so no modeling was performed to consider existing conditions. Based on EPA guidance, if an intersection does not warrant signalization, then the CO concentrations near the intersection would not likely be impacted by vehicle traffic. Therefore, under existing conditions, air quality is likely to be within the limits represented by the ambient air quality standards.

With the No Action Alternative in 2025, the proposed Villages MPD would not be constructed but the parcels included in the development area could be developed in accord with the uses and densities in the Comprehensive Plan. As a result, vehicular traffic would likely increase at surrounding intersections due to both growth and allowed development. Air quality modeling reflecting the expected traffic conditions indicates maximum CO concentrations under worst case meteorological conditions would remain less than the levels allowed by the ambient air quality standards for CO at all intersections examined.

With the Proposed Action, the Villages MPD would likely be constructed up to full build out conditions. Traffic volumes are expected to increase and at most intersections, performance is expected to deteriorate. As a result, CO concentrations near the three most project affected intersections increase somewhat compared to the No Action alternative (**Table 3**). Although increases in CO concentrations are predicted, worst-case CO concentrations remain well below the ambient air quality standards. Therefore, the Proposed Action would not be expected to result in significant adverse air quality impacts.

Although the traffic data for Development Alternative (Alternative 1) were not provided, qualitative comparison to the Proposed Action is possible. Development under Alternative 1 would include fewer residential units and substantially less office/light retail space. This reduction in development would likely result in fewer vehicle trips and less traffic on nearby roads. With fewer vehicles and likely less delay at affected intersections, resulting CO concentrations would be similar to or less than those expected with the Proposed Action. Thus,

traffic associated with Alternative 1 would not be likely to result in any significant air quality impacts.

On-Site Operational Impacts

The development under the Proposed Action or the Development Alternative would provide retail and business space primarily on the North Property, while the Main Property would be primarily residential. Any potential air quality impacts to off-site locations from potential on-site activities would be limited by both applicable ambient air quality standards and air quality nuisance rules (e.g., odor). These regulations are intended to protect sensitive individuals from unhealthy pollutant concentrations in ambient (outdoor) air and from detrimental effects to use and enjoyment of property. Any regulated sources (e.g., a dry cleaner) would be subject to rules limiting pollutant emissions to minimize potentially unhealthy air quality concentrations to the nearest neighboring land uses. Any odor sources (e.g., a restaurant) would be subject to nuisance rules prohibiting effects that annoy neighbors. The potential for impacts perceived as annoying (as opposed to unhealthy) could nonetheless still exist from some sources and activities despite meeting applicable air quality rules. For example, even small amounts of fugitive dust from parking lots or odors from restaurant ventilation could be perceived as an annoyance. At most proposed mixed-use locations, the nearest existing neighbors would be either sufficiently distant from on-site sources, or else are non-residential uses that are less sensitive to potential project-related emissions. Distance from such activities and prudent building and site design could minimize effects such as these.

With the No Action alternative, the project site parcels could be developed as outlined in the City's Comprehensive Plan. However, it is unlikely that the level of development would reach the scale or density of either of the "build" alternatives by 2025. Nonetheless, potential off-site impacts are possible, but like the other alternatives, are unlikely with prudent building site and design.

In general, the proposed alternatives are unlikely to cause any project-related significant air quality implications unless any regulated sources violate air pollution control standards or efforts are not made to minimize construction activities likely to impact nearby users using best management practices.

Climate Change and Greenhouse Gases

The phenomenon of natural and human-caused effects on the atmosphere due to global warming and other changes is generally referred to as "climate change." Due to the importance of the "greenhouse effect" and related atmospheric warming to climate change, the gases that affect such warming are called greenhouse gases or GHGs. The GHGs of primary importance are carbon dioxide (CO_2), methane, ozone, and nitrous oxide. Because CO_2 is the most abundant of these gases (but not necessarily the most damaging to the atmosphere on a volume basis because of varying residence time after emission), GHGs are now often quantified in terms of CO_2 equivalents, or CO_2e.

Vehicles are a significant source of GHG emissions primarily through the burning of gasoline and diesel fuels. National estimates indicate the transportation sector (including on-road, construction, airplanes and boats) accounts for 30 percent or more of total domestic CO_2 emissions. Estimates for Washington State suggest transportation accounts for nearly half of GHG emissions because

the state relies heavily on hydropower for electricity, unlike other states that rely more heavily on fossil fuels (coal, petroleum, and natural gas) to generate electricity. The next largest contributors to total gross GHG emissions in Washington are about 20% each in fossil fuel combustion in the residential, commercial, and industrial sectors; and in electricity consumption. Solid waste contributes about 2% (Ecology 2008).

Compared to the "criteria" air pollutants like carbon monoxide and fine particulate matter, GHGs are only recently being recognized as an issue for consideration during the environmental review of proposed projects. CO_2 is not considered an air "pollutant" based on direct health-related impacts, so it is not subject to ambient standards used to gauge pollutant concentrations in the air. Instead, approaches to managing CO_2e emissions are based on controls aimed at first slowing down and then reducing overall atmospheric concentrations over time. On the local level, GHG management is typically aimed at transportation and land use planning and energy conservation of proposed developments.

In response to the issue of climate change on a global or regional scale, several states and many local jurisdictions are now taking steps to begin reducing GHG emissions. For example, the states of California, Massachusetts, and Washington have adopted GHG emission reduction goals similar to those included in the Kyoto Protocol, the widely-adopted international guideline intended to address this issue. In addition, numerous cities have adopted similar goals and have begun implementing programs to begin quantifying GHG emissions in order to eventually begin reducing them. Although recent legislation established GHG emission reduction targets in future years and set specific emission targets for some sources, there are as yet no specific emission reduction requirements or targets that apply to land use projects. Nor are there generally accepted emission level "impact" thresholds that provide effective means to assess potential localized impacts of GHG emissions.

The GHG emissions assessment for this project was performed using tools that are still in the process of being developed and refined. Procedures for calculating, analyzing, and interpreting the implications of greenhouse gas emission generation from site-specific land use proposals are in the earliest stages at the time of this writing. There is no uniform guidance at the State level (i.e., from the Washington Department of Ecology), nor from local jurisdictions other than King County. Consequently, the GHG tabulation reported below is a preliminary indication of expected project-related GHG emissions based on a modified version of King County's emission tabulation tool. [(6)]

Analysis Method

The tabulation of GHG emissions was based on the spreadsheet tool issued by King County, Washington in December 2007. ENVIRON modified this tool to reflect project-specific data where possible. In accordance with findings regarding the primary sources of GHG emissions, this tabulation focused on three areas/sources of emissions as described below.

- Building materials and processes (Embodied emissions). This portion of the calculation considered both the "upstream" (i.e., mining, harvest, manufacturing, and transport) and the "downstream" (i.e., subsequent, "in place" use and maintenance) of building materials. The default values were modified to reflect values based on materials expected to be used in the buildings' construction (instead of applying averages based on all

(6) http://www.metrokc.gov/ddes/forms/SEPA-GHG-EmissionsWorksheet-Bulletin26.xls

materials combined). Materials assumed include the average of all types of roofing, average of wood or composite exterior siding, average of all window types, and no steel or concrete interior walls or floors for residential buildings. The estimated amount of pavement for roads is also included. (There is no data for the amount of pavement for parking lots at mixed-use parcels.) The lifespan of the buildings is projected to be 62.5 years for retail/office, and 58 or 80 years for single-family and multi-family residential respectively, based on the King County spreadsheet model.

- Post-development energy usage (Energy). This element considered energy consumption such as heating and electrical usage. For this calculation, the energy values were adjusted to reflect the usage reported for the Pacific Northwest (as opposed to national averages). Also, because the residential buildings would likely be constructed to reflect a high level of Built Green or Energy Star ratings, a 25% reduction was applied after the calculations which equates to a LEED-Silver® rating.
- Transportation (Transport). This component considered GHG emissions related to vehicle travel of residences and employees. The King County default calculation was used because no other project-specific data were available.

GHG Emissions

The estimated CO_2 equivalent (CO_2e) emissions shown in **Table 4** represent the lifecycle emissions of the Proposed Action and the Development Alternative, respectively. The lifecycle emissions are the cumulative emissions over the useful life of the buildings included in the development alternatives. Based on the King County tool, the construction and operation of single family homes (including vehicle use) would generate the most GHG emissions associated with this project.

Table 4. Project-Related Lifecycle GHG Emissions

Type of Building/Use	Proposed Action		Alternative 1	
	# of Units or Thousand sq. ft.	Total Estimate ($MTCO_2e$)	# of Units or Thousand sq. ft.	Total Estimate ($MTCO_2e$)
Single-Family Home	3600	6,957,244	3300	6,377,474
Multi-Family Unit in Large Building	1200	1,632,374	700	952,218
Retail (other than Mall)	325	249,465	375	287,845
Office/Light Industrial	450	529,342	0	0
Pavement	1,044	52,200	1,044	52,200
Totals		9,420,625		7,672,737

MT = metric tons = 1.1023 short tons; a short ton = 2,000 pounds
Source: **ENVIRON International Corp.**, based on adaptation of King County calculation procedure; see attached spreadsheet calculations.

Comparison of Alternatives

Based on the results shown in **Table 4**, the Proposed Action would generate more GHG emissions than the Development Alternative due primarily to the greater number of single-family residential units and Office/Light Industrial uses associated with the Proposed Action.

Although GHG emissions associated with the No Action Alternative were not calculated, the expected emissions would likely be similar or even lower than those shown above because the development would include fewer homes and less office/light industrial parcel development than either of the Action alternatives.

Summary

There are as yet no particular means to gauge whether GHG emissions constitute an "impact" in terms of their potential effects on climate. Current guidance in this area simply indicates the need to estimate CO_2e emissions with the intent to compile data for use in later discussions of this issue. And although it would be useful to put these emissions into perspective based on comparisons with similar sorts of projects, no truly comparative data yet exist.

To put the project-related CO_2e emissions estimate in perspective with a large source of GHG emissions, consider that a new, natural gas-fired power plant (about 600 MW) generates about 2 million tons of CO_2e *annually* during each year it operates, or about 100 million tons over 50 years. This compares with a maximum of about 9.4 million tons of CO_2e over the entire life of the Proposed Action assumed for this project (up to 80 years for some buildings), or less than 10% of a clean power plant (over 50 years). Older power plants and any plant burning coal emit much more CO_2e. With this perspective, the proposed project would be a less significant contributor to overall emissions of CO_2e.

CUMULATIVE AND SECONDARY IMPACTS

The traffic analysis that provided the basis for the air quality analysis also included the traffic conditions expected with cumulative growth in the project vicinity. Cumulative growth in the Black Diamond area in 2025 is expected to cause traffic conditions at signalized intersections to deteriorate compared to the Proposed Action. Modeling results presented in **Table 3** (above) indicate that maximum-predicted CO concentrations would be slightly worse compared to the Proposed Action but would still remain well below the respective 1-hour and 8-hour standards. Consequently, cumulative traffic growth would be unlikely to significantly impact CO concentrations and no significant air quality impacts would be expected.

Similarly, the GHG emissions estimate considered the lifecycle emissions related to the proposed project, and no additional GHG emissions would be expected.

MITIGATION

Construction Impact Mitigation

Although significant air quality impacts are not anticipated for construction of the developed parcels, construction contractors would be required to comply with all relevant federal, state and local air quality laws. Possible management practices for reducing the potential for air quality impacts during construction include measures for reducing both exhaust emissions and fugitive dust. The Washington Associated General Contractors brochure *Guide to Handling Fugitive Dust from Construction Projects* and the PSCAA suggest a number of methods for controlling dust and reducing the potential exposure of people to emissions from diesel equipment. A brief list of some of the *possible* control measures that could be implemented to reduce potential air quality impacts from construction activities follows:

- Use only equipment and trucks that are maintained in optimal operational condition.
- Require all off-road equipment to have emission reduction equipment (i.e., require participation in Puget Sound Region Diesel Solutions, a program designed to reduce air pollution from diesel sources [PSCAA 2008b], by project sponsors and contractors).
- Use car-pooling or other trip-reduction strategies for construction workers.
- Use biodiesel or other lower emission fuels for vehicles and equipment.
- Implement restrictions on construction truck idling (e.g., limit idling to a maximum of 5 minutes).
- Spray exposed soil with water or other suppressant to reduce emissions of PM_{10} and deposition of particulate matter.
- Pave or use gravel on staging areas and roads that would be exposed for long periods
- Cover all trucks transporting materials, wetting materials in trucks, or providing adequate freeboard (space from the top of the material to the top of the truck bed), to reduce PM_{10} emissions and deposition during transport.
- Provide wheel washers to remove particulate matter that would otherwise be carried off site by vehicles to decrease deposition of particulate matter on area roadways.
- Cover dirt, gravel, and debris piles as needed to reduce dust and wind blown debris.
- Locate construction equipment away from sensitive receptors such as fresh air intakes to buildings, air conditioners, and sensitive populations.
- Locate construction staging zones where diesel emissions will not be noticeable to the public or near sensitive populations such as the elderly and the young.
- Stage construction to minimize overall transportation system congestion and delays to reduce regional emissions of pollutants during construction.

Operation

The air quality impact analysis indicates that the proposed project alternatives would not be anticipated to result in any significant adverse air quality impacts in the study area resulting from off-site traffic or on-site operations associated with mixed land use and development. Consequently, no operational impact mitigation measures are warranted or proposed.

Mitigation Measures for Greenhouse Gas Emissions

Although there are no specific requirements to do so, some of the elements of the proposed development would serve to reduce CO_2e emissions over the life of the project, including Built Green and LEED®-certified/Energy Star homes and available transit options. In addition, the design and development of the proposed Villages MPD would incorporate Low Impact Development (LID) methods to reduce potential impacts on water resources and promote water conservation. These measures would also potentially reduce GHG emissions due to water use and the level of necessary storm water control. Other measures that would reduce GHG emissions on the local level include any steps that would alter those aspects of the project that contribute to emissions due to construction of the development, energy use by the people who live there, or the need to drive. While the global impacts of GHG emissions cannot be solved on the local level by measures suggested in this study, reducing GHGs on the local level does contribute to the reduction goal of the Washington State Legislature to reduce GHG emissions in our state. Each of these measures is addressed further below.
Construction-related GHG emission reduction measures include features that focus on use of renewable resources, composites, and/or materials made from recyclables (e.g., farmed wood and

wood/plastic composites – from recycled plastic and wood), and de-emphasize use of non-renewal resources (e.g., old-growth or exotic lumber, virgin metals, or more than essential quantities of concrete). Because renewable and recycled materials use less resources and require a fraction of the energy necessary to produce virgin materials, associated GHG emissions are substantially lower. The applicant's proposal to minimize use of concrete and maximize use of wood and wood composites would reduce GHG emissions compared with more conventional development techniques.

End-use energy consumption in residences is a primary contributor to overall GHG emissions. Such energy use is a function of multiple factors, many of which can be positively affected during development of the facility. Site layout/design that maximizes exposure to the sun in the winter and takes advantage of natural ventilation can reduce winter heating needs and the need for summertime forced-air ventilation. Using construction techniques and materials that exceed building code requirements can reduce long-term energy use. Employing innovative heating technologies such as heat pumps, hot-water radiant floors, and ultra-high efficiency furnaces also would reduce energy consumption compared with standard space-heating systems. Similarly, technologies to provide or supplement water-heating (e.g., on-demand and/or solar-assisted heating instead of continuously heated, large tank reservoirs) also would reduce the overall energy footprint of the development. And any steps that reduce energy use would reduce any related GHG emissions. Implementing a high LEED®, Built Green, or other low-impact/high-efficiency building standard, help conserve resources and reduce GHG emissions compared with conventional development techniques.

SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

No significant unavoidable adverse air quality impacts have been identified related to the proposed project alternatives, and none would be anticipated.

REFERENCES

EPA. 2006. 40 CFR 50: National Ambient Air Quality Standards for Particulate Matter. EPA-HQ-OAR-2001-0017; FRL-RIN 2060-AI44. September 21.

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PSCAA. 2008. General information. Web Page: http://www.pscleanair.org. Accessed March 2008.

Washington Associated General Contractors (AGC). Undated. *Guide to Handling Fugitive Dust from Construction Projects*. Washington Associated General Contractors. Washington.

Washington State Department of Ecology (Ecology). 2008. *Leading the Way: A Comprehensive Approach to Reducing Greenhouse Gases in Washington State.* Washington Climate Advisory Team. February 1, 2008.

JOB: Villages RUN: 288-SR169 No Action

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TIME : 11:43: 0

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 175. CM
U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES MIXH = 1000. M AMB = 3.0 PPM

LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (FT) X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. 169 NO 288th SBA1	-113.0	977.0	-69.0	317.0	661.	176.	AG	1060.	13.1	0.0	32.0		
2. 169 NO 288th SBA2	-69.0	317.0	-4.0	5.0	319.	168.	AG	1060.	13.1	0.0	32.0		
3. 169 NO 288th SBT	-15.0	55.0	-49.3	221.2	170.	348.	AG	71.	100.0	0.0	12.0	0.91	8.6
4. 169 NO 288th SBR	-26.0	53.0	-27.7	61.4	9.	348.	AG	71.	100.0	0.0	12.0	0.06	0.4
5. 169 NO 288th NBD1	9.0	4.0	-57.0	319.0	322.	348.	AG	715.	13.1	0.0	32.0		
6. 169 NO 288th NBD2	-57.0	319.0	-101.0	978.0	660.	356.	AG	715.	13.1	0.0	32.0		
7. 169 SO 288th NBA	347.0	-938.0	15.0	5.0	1000.	341.	AG	805.	13.1	0.0	32.0		
8. 169 SO 288th NBL	14.0	-27.0	41.8	-106.2	84.	161.	AG	174.	100.0	0.0	12.0	0.89	4.3
9. 169 SO 288th NBT	25.0	-23.0	38.6	-61.7	41.	161.	AG	33.	100.0	0.0	12.0	0.43	2.1
10. 169 SO 288th SBD1	-4.0	5.0	2.0	-31.0	36.	171.	AG	1335.	13.1	0.0	32.0		
11. 169 SO 288th SBD2	2.0	-31.0	324.0	-946.0	970.	161.	AG	1335.	13.1	0.0	32.0		
12. 288th WO 169 EBA1	-664.0	805.0	-430.0	528.0	363.	140.	AG	425.	12.0	0.0	32.0		
13. 288th WO 169 EBA2	-430.0	528.0	-468.0	84.0	446.	185.	AG	425.	12.0	0.0	32.0		
14. 288th WO 169 EBA3	-468.0	84.0	-249.0	-57.0	260.	123.	AG	425.	12.0	0.0	32.0		
15. 288th WO 169 EBA4	-249.0	-57.0	-4.0	-10.0	249.	79.	AG	425.	12.0	0.0	32.0		
16. 288th WO 169 EBL	-22.0	-14.0	-53.9	-20.0	32.	259.	AG	179.	100.0	0.0	12.0	0.58	1.6
17. 288th WO 169 EBR	-20.0	-26.0	-119.2	-44.9	101.	259.	AG	144.	100.0	0.0	12.0	0.80	5.1
18. 288th WO 169 WBD1	-4.0	5.0	-246.0	-45.0	247.	258.	AG	240.	12.0	0.0	32.0		
19. 288th WO 169 WBD2	-246.0	-45.0	-456.0	90.0	250.	303.	AG	240.	12.0	0.0	32.0		
20. 288th WO 169 WBD3	-456.0	90.0	-417.0	532.0	444.	5.	AG	240.	12.0	0.0	32.0		
21. 288th WO 169 WBD4	-417.0	532.0	-655.0	813.0	368.	320.	AG	240.	12.0	0.0	32.0		

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ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. 169 NO 288th SBT	78	26	3.0	1000	1827	78.90	2	3
4. 169 NO 288th SBR	78	26	3.0	60	1553	78.90	2	3
8. 169 SO 288th NBL	78	64	3.0	180	1752	78.90	2	3
9. 169 SO 288th NBT	78	12	3.0	625	1845	78.90	2	3
16. 288th WO 169 EBL	78	66	3.0	90	1736	78.90	2	3
17. 288th WO 169 EBR	78	53	3.0	335	1630	78.90	2	3

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. Intersection Name NW	-40.0	41.0	6.0
2. Intersection Name NW	-57.0	121.0	6.0
3. Intersection Name NW	-74.0	201.0	6.0
4. Intersection Name NW	-100.0	363.0	6.0
5. Intersection Name NW	-110.0	-2.0	6.0
6. Intersection Name NW	-191.0	-17.0	6.0
7. Intersection Name NW	-346.0	37.0	6.0
8. Intersection Name NW	13.0	61.0	6.0
9. Intersection Name NE	-4.0	141.0	6.0
10. Intersection Name NE	-21.0	221.0	6.0
11. Intersection Name NE	-43.0	384.0	6.0
12. Intersection Name NE	40.0	-18.0	6.0
13. Intersection Name NE	67.0	-95.0	6.0
14. Intersection Name NE	95.0	-172.0	6.0
15. Intersection Name NE	149.0	-327.0	6.0
16. Intersection Name NE	-17.0	-41.0	6.0
17. Intersection Name SE	15.0	-117.0	6.0
18. Intersection Name SE	43.0	-194.0	6.0
19. Intersection Name SE	97.0	-349.0	6.0
20. Intersection Name SE	-97.0	-57.0	6.0
21. Intersection Name SE	-178.0	-72.0	6.0
22. Intersection Name SE	-337.0	-34.0	6.0

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MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
0.	4.0	4.0	3.9	3.7	3.3	3.1	3.0	3.5	3.5	3.6	3.7	3.4	3.1	3.1	3.1	4.7	4.7	4.6	4.3	3.9
5.	4.1	4.1	4.0	3.8	3.4	3.2	3.0	3.3	3.4	3.3	3.5	3.1	3.1	3.1	3.1	4.5	4.6	4.4	4.2	4.0
10.	4.2	4.0	4.0	3.9	3.4	3.2	3.0	3.1	3.1	3.3	3.3	3.0	3.1	3.1	3.1	4.1	4.6	4.3	4.2	4.1
15.	4.0	4.0	3.8	3.9	3.5	3.2	3.1	3.1	3.1	3.1	3.1	3.0	3.0	3.0	3.1	4.0	4.3	4.2	4.1	4.0
20.	4.0	3.8	3.8	3.8	3.3	3.3	3.2	3.1	3.1	3.1	3.1	3.0	3.0	3.0	3.0	4.0	4.4	4.1	4.1	4.0
25.	4.0	3.9	3.6	3.8	3.4	3.3	3.2	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.1	4.4	4.0	4.0	4.0
30.	4.0	3.9	3.6	3.8	3.4	3.2	3.2	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	4.4	4.0	4.0	4.0
35.	3.8	3.8	3.6	3.8	3.4	3.2	3.2	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	4.1	3.9	3.8	4.1
40.	3.8	3.7	3.6	3.7	3.4	3.2	3.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.7	4.1	3.8	3.8	4.1
45.	3.8	3.7	3.7	3.6	3.4	3.2	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.7	4.1	3.8	3.8	4.0
50.	3.8	3.7	3.7	3.6	3.3	3.2	3.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.9	4.1	3.8	3.8	4.1
55.	3.8	3.7	3.7	3.6	3.3	3.2	3.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.8	4.0	3.8	3.8	3.9
60.	3.7	3.7	3.7	3.6	3.3	3.2	3.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.9	4.0	3.8	3.8	4.0
65.	3.7	3.7	3.7	3.6	3.4	3.3	3.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.8	4.0	3.8	3.8	3.9
70.	3.6	3.7	3.7	3.6	3.3	3.3	3.2	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	4.0	3.8	3.8	3.9
75.	3.6	3.7	3.7	3.6	3.3	3.4	3.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.9	3.9	3.8	3.8	3.8
80.	3.6	3.7	3.7	3.6	3.5	3.4	3.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.9	3.9	3.8	3.8	3.6
85.	3.6	3.7	3.7	3.6	3.7	3.4	3.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.1	3.9	3.8	3.8	3.6
90.	3.6	3.7	3.7	3.6	3.7	3.6	3.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	3.8	3.8	3.8	3.5
95.	3.6	3.7	3.7	3.6	3.7	3.7	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	3.8	3.8	3.8	3.4
100.	3.6	3.7	3.7	3.6	3.8	3.7	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	3.8	3.8	3.8	3.4
105.	3.6	3.7	3.7	3.6	3.9	3.7	3.2	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.1	3.8	3.9	3.8	3.4
110.	3.7	3.7	3.7	3.6	4.1	3.7	3.4	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.1	4.0	4.0	4.0	3.4
115.	3.8	3.7	3.7	3.6	4.0	3.7	3.4	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.1	4.0	4.0	4.0	3.4
120.	3.8	3.7	3.8	3.7	4.0	3.7	3.5	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.3	4.1	4.1	4.1	3.3
125.	3.9	3.7	3.8	3.8	3.9	3.6	3.4	3.0	3.0	3.0	3.0	3.0	3.1	3.0	3.0	4.3	4.1	4.1	4.1	3.4
130.	3.9	3.8	3.9	3.8	4.0	3.6	3.4	3.0	3.0	3.0	3.0	3.1	3.1	3.1	3.1	4.4	4.2	4.2	4.2	3.4
135.	4.1	3.9	3.9	3.8	3.8	3.5	3.4	3.0	3.1	3.1	3.0	3.1	3.1	3.1	3.1	4.3	4.2	4.2	4.2	3.4
140.	4.1	4.0	4.0	3.8	3.8	3.5	3.6	3.2	3.1	3.1	3.0	3.2	3.2	3.1	3.1	4.4	4.3	4.3	4.3	3.4
145.	4.2	4.2	4.1	3.9	3.8	3.5	3.4	3.3	3.2	3.1	3.0	3.3	3.3	3.3	3.3	4.3	4.4	4.4	4.4	3.4
150.	4.5	4.3	4.0	4.1	3.8	3.4	3.4	3.4	3.3	3.4	3.0	3.5	3.5	3.4	3.4	4.3	4.4	4.5	4.4	3.3
155.	4.5	4.2	4.0	4.0	3.7	3.3	3.3	3.7	3.6	3.5	3.4	3.7	3.7	3.6	3.7	4.3	4.4	4.4	4.4	3.3
160.	4.4	4.1	4.0	4.0	3.6	3.3	3.3	3.9	3.8	3.7	3.5	4.1	4.0	3.9	3.9	4.0	4.2	4.2	4.2	3.2
165.	4.2	4.0	3.8	3.9	3.5	3.2	3.3	4.2	4.0	3.9	3.7	4.3	4.1	4.0	4.0	3.7	4.0	4.1	3.9	3.1
170.	3.9	3.5	3.7	3.7	3.4	3.2	3.3	4.3	4.3	4.2	3.7	4.3	4.2	4.2	4.2	3.5	3.7	3.8	3.7	3.0
175.	3.7	3.5	3.3	3.4	3.4	3.2	3.3	4.3	4.5	4.3	3.9	4.5	4.3	4.2	4.2	3.2	3.4	3.5	3.4	3.0
180.	3.5	3.2	3.2	3.4	3.4	3.2	3.3	4.3	4.4	4.2	3.9	4.6	4.2	4.1	4.1	3.1	3.3	3.3	3.3	3.0
185.	3.5	3.1	3.0	3.1	3.3	3.2	3.2	4.3	4.3	4.2	3.9	4.5	4.1	4.1	4.1	3.1	3.2	3.2	3.2	3.0
190.	3.5	3.2	3.0	3.0	3.3	3.2	3.2	4.2	4.2	4.2	4.0	4.4	4.0	4.0	4.0	3.0	3.1	3.1	3.1	3.0
195.	3.5	3.2	3.0	3.0	3.3	3.2	3.2	4.3	4.2	4.2	3.8	4.5	4.0	4.0	4.0	3.0	3.1	3.1	3.1	3.0
200.	3.5	3.2	3.0	3.0	3.3	3.2	3.2	4.4	4.1	4.2	4.0	4.5	4.0	4.0	4.0	3.0	3.1	3.1	3.1	3.0
205.	3.5	3.1	3.0	3.0	3.4	3.2	3.2	4.2	4.1	4.1	4.0	4.3	3.9	3.8	3.8	3.0	3.1	3.1	3.1	3.0

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WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20	REC21	REC22
210.	3.3	3.1	3.0	3.0	3.3	3.2	3.2	4.2	4.2	4.1	3.8	4.3	3.8	3.8	3.8	3.0	3.1	3.1	3.1	3.0		
215.	3.3	3.0	3.0	3.0	3.3	3.2	3.2	4.3	3.9	4.0	3.9	4.3	3.8	3.8	3.8	3.0	3.0	3.0	3.0	3.0		
220.	3.3	3.0	3.0	3.0	3.3	3.2	3.2	4.1	3.9	3.9	3.8	4.2	3.8	3.8	3.8	3.0	3.0	3.0	3.0	3.0		
225.	3.3	3.0	3.0	3.0	3.3	3.2	3.2	4.1	3.8	3.8	3.7	4.2	3.8	3.7	3.8	3.0	3.0	3.0	3.0	3.0		
230.	3.3	3.0	3.0	3.0	3.3	3.2	3.2	4.0	3.8	3.8	3.7	4.1	3.8	3.7	3.7	3.0	3.0	3.0	3.0	3.0		
235.	3.2	3.0	3.0	3.0	3.3	3.2	3.2	4.0	3.8	3.8	3.7	4.1	3.8	3.7	3.7	3.0	3.0	3.0	3.0	3.0		
240.	3.2	3.0	3.0	3.0	3.4	3.3	3.2	4.0	3.8	3.8	3.7	4.1	3.8	3.7	3.7	3.0	3.0	3.0	3.0	3.0		
245.	3.2	3.0	3.0	3.0	3.3	3.3	3.3	3.9	3.8	3.8	3.7	4.2	4.0	3.8	3.8	3.1	3.0	3.0	3.0	3.0		
250.	3.1	3.0	3.0	3.0	3.2	3.3	3.3	3.7	3.8	3.8	3.7	4.3	4.0	3.8	3.8	3.1	3.0	3.0	3.0	3.0		
255.	3.0	3.0	3.0	3.0	3.2	3.2	3.3	3.8	3.8	3.8	3.7	4.3	4.0	3.8	3.8	3.3	3.0	3.0	3.0	3.0		
260.	3.0	3.0	3.0	3.0	3.2	3.3	3.3	3.8	3.8	3.8	3.7	4.4	4.0	3.7	3.7	3.3	3.0	3.0	3.0	3.1		
265.	3.0	3.0	3.0	3.0	3.2	3.3	3.3	3.8	3.8	3.8	3.7	4.4	4.0	3.7	3.7	3.4	3.0	3.0	3.0	3.1		
270.	3.0	3.0	3.0	3.0	3.2	3.2	3.3	3.8	3.8	3.8	3.7	4.3	4.0	3.7	3.7	3.7	3.0	3.0	3.0	3.1		
275.	3.0	3.0	3.0	3.0	3.2	3.2	3.3	3.8	3.8	3.8	3.7	4.0	4.0	3.7	3.7	3.7	3.0	3.0	3.0	3.2		
280.	3.0	3.0	3.0	3.0	3.0	3.2	3.3	3.8	3.8	3.7	3.7	4.1	4.3	3.8	3.8	3.9	3.0	3.0	3.0	3.5		
285.	3.0	3.0	3.0	3.0	3.0	3.2	3.3	3.8	3.8	3.7	3.7	4.1	4.4	3.8	3.8	3.9	3.0	3.0	3.0	3.5		
290.	3.0	3.0	3.0	3.0	3.0	3.1	3.2	3.8	3.8	3.7	3.7	4.1	4.4	3.8	3.8	3.9	3.1	3.1	3.1	3.6		
295.	3.0	3.0	3.0	3.0	3.0	3.0	3.2	3.9	3.9	3.8	3.7	3.8	4.4	3.8	3.8	4.0	3.3	3.1	3.1	3.5		
300.	3.0	3.0	3.0	3.0	3.0	3.0	3.2	3.9	3.9	3.8	3.7	3.8	4.4	3.8	4.0	4.0	3.3	3.1	3.1	3.5		
305.	3.0	3.0	3.0	3.0	3.0	3.0	3.2	4.1	4.0	3.8	3.7	3.8	4.7	4.1	4.0	3.9	3.3	3.1	3.1	3.6		
310.	3.0	3.0	3.0	3.0	3.0	3.0	3.2	4.1	4.0	3.9	3.8	3.9	4.6	4.1	4.0	4.0	3.3	3.1	3.1	3.6		
315.	3.0	3.0	3.0	3.0	3.0	3.0	3.2	4.1	4.0	3.9	3.8	3.9	4.3	4.1	4.1	4.0	3.3	3.3	3.2	3.5		
320.	3.0	3.0	3.0	3.0	3.0	3.0	3.1	4.2	4.1	3.9	3.9	4.1	4.3	4.1	4.1	3.9	3.4	3.3	3.2	3.5		
325.	3.0	3.0	3.0	3.0	3.0	3.0	3.1	4.2	4.1	4.1	3.9	4.0	4.3	4.2	4.1	3.8	3.5	3.4	3.3	3.6		
330.	3.0	3.0	3.0	3.0	3.0	3.0	3.1	4.1	4.2	4.2	4.0	4.0	4.2	4.2	4.1	3.9	3.7	3.6	3.6	3.6		
335.	3.1	3.1	3.1	3.0	3.0	3.0	3.1	4.2	4.2	4.0	4.0	4.1	4.3	4.0	4.0	3.9	4.0	4.0	3.9	3.6		
340.	3.2	3.2	3.2	3.1	3.0	3.0	3.1	4.2	4.3	4.1	4.0	4.1	4.1	3.9	3.8	4.2	4.3	4.1	4.1	3.6		
345.	3.6	3.5	3.4	3.3	3.0	3.0	3.1	4.1	4.1	4.1	4.0	4.0	3.8	4.0	3.8	4.4	4.3	4.4	4.4	3.6		
350.	3.7	3.7	3.5	3.4	3.1	3.0	3.0	3.9	3.9	3.9	3.9	3.7	3.6	3.6	3.5	4.7	4.5	4.6	4.4	3.7		
355.	3.9	3.8	3.8	3.6	3.2	3.0	3.0	3.7	3.7	3.8	3.9	3.5	3.6	3.4	3.2	4.5	4.6	4.5	4.4	3.9		
360.	4.0	4.0	3.9	3.7	3.3	3.1	3.0	3.5	3.5	3.6	3.7	3.4	3.1	3.1	3.1	4.7	4.7	4.6	4.3	3.9		
MAX	4.5	4.3	4.1	4.1	4.1	3.7	3.6	4.4	4.5	4.3	4.0	4.6	4.7	4.2	4.2	4.7	4.7	4.6	4.4	4.1		
DEGR.	150	150	145	150	110	95	140	200	175	175	190	180	305	170	170	350	0	0	145	10		

JOB: Villages RUN: 288-SR169 No Action

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC21	REC22
0.	3.3	3.2
5.	3.4	3.2
10.	3.4	3.2
15.	3.5	3.3
20.	3.5	3.4
25.	3.5	3.4
30.	3.5	3.3
35.	3.5	3.3
40.	3.5	3.3
45.	3.5	3.3
50.	3.6	3.3
55.	3.6	3.3
60.	3.6	3.3
65.	3.6	3.3
70.	3.3	3.4
75.	3.5	3.4
80.	3.5	3.4
85.	3.5	3.5
90.	3.4	3.6
95.	3.3	3.3
100.	3.2	3.4
105.	3.3	3.4
110.	3.3	3.3
115.	3.3	3.3
120.	3.3	3.2
125.	3.3	3.2
130.	3.3	3.2
135.	3.3	3.2
140.	3.3	3.1
145.	3.2	3.1
150.	3.2	3.0
155.	3.1	3.0
160.	3.0	3.0
165.	3.0	3.0
170.	3.0	3.0
175.	3.0	3.0
180.	3.0	3.0
185.	3.0	3.0
190.	3.0	3.0
195.	3.0	3.0
200.	3.0	3.0
205.	3.0	3.0

JOB: Villages RUN: 288-SR169 No Action

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC21	REC22
210.	3.0	3.0
215.	3.0	3.0
220.	3.0	3.0
225.	3.0	3.0
230.	3.0	3.0
235.	3.0	3.0
240.	3.0	3.0
245.	3.0	3.0
250.	3.0	3.0
255.	3.0	3.0
260.	3.0	3.0
265.	3.0	3.0
270.	3.1	3.0
275.	3.2	3.0
280.	3.2	3.0
285.	3.2	3.0
290.	3.3	3.0
295.	3.3	3.0
300.	3.4	3.1
305.	3.5	3.1
310.	3.4	3.1
315.	3.2	3.1
320.	3.2	3.3
325.	3.2	3.3
330.	3.2	3.4
335.	3.2	3.4
340.	3.2	3.4
345.	3.2	3.3
350.	3.2	3.3
355.	3.2	3.3
360.	3.3	3.2
MAX	3.6	3.6
DEGR.	50	90

THE HIGHEST CONCENTRATION OF 4.70 PPM OCCURRED AT RECEPTOR REC16.

JOB: Villages RUN: 288-SR169 Action

DATE : 10/ 1/ 8
TIME : 11:43: 6

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 175. CM
U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES MIXH = 1000. M AMB = 3.0 PPM

LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (FT) X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. 169 NO 288th SBA1	-113.0	977.0	-69.0	317.0	661.	176.	AG	1759.	13.1	0.0	32.0		
2. 169 NO 288th SBA2	-69.0	317.0	-4.0	5.0	319.	168.	AG	1759.	13.1	0.0	32.0		
3. 169 NO 288th SBT	-69.0	317.0	-15.0	55.0	268.	168.	AG	56.	100.0	0.0	32.0		
4. 169 NO 288th SBR	-26.0	53.0	-39.0	115.6	64.	348.	AG	56.	100.0	0.0	12.0	0.35	3.2
5. 169 NO 288th NBD1	9.0	4.0	-57.0	319.0	322.	348.	AG	1198.	13.1	0.0	32.0		
6. 169 NO 288th NBD2	-57.0	319.0	-101.0	978.0	660.	356.	AG	1198.	13.1	0.0	32.0		
7. 169 SO 288th NBA	347.0	-938.0	15.0	5.0	1000.	341.	AG	1300.	13.1	0.0	32.0		
8. 169 SO 288th NBL	14.0	-27.0	39.6	-99.8	77.	161.	AG	31.	100.0	0.0	12.0	0.99	3.9
9. 169 SO 288th NBT	25.0	-23.0	58.3	-117.5	100.	161.	AG	31.	100.0	0.0	12.0	0.72	5.1
10. 169 SO 288th SBD1	-4.0	5.0	2.0	-31.0	36.	171.	AG	1569.	13.1	0.0	32.0		
11. 169 SO 288th SBD2	2.0	-31.0	324.0	-946.0	970.	161.	AG	1569.	13.1	0.0	32.0		
12. 288th WO 169 EBA1	-664.0	805.0	-430.0	528.0	363.	140.	AG	307.	12.0	0.0	32.0		
13. 288th WO 169 EBA2	-430.0	528.0	-468.0	84.0	446.	185.	AG	307.	12.0	0.0	32.0		
14. 288th WO 169 EBA3	-468.0	84.0	-249.0	-57.0	260.	123.	AG	307.	12.0	0.0	32.0		
15. 288th WO 169 EBA4	-249.0	-57.0	-4.0	-10.0	249.	79.	AG	307.	12.0	0.0	32.0		
16. 288th WO 169 EBL	-22.0	-14.0	-86.5	-26.2	66.	259.	AG	181.	100.0	0.0	12.0	0.67	3.3
17. 288th WO 169 EBR	-20.0	-26.0	-107.4	-42.6	89.	259.	AG	157.	100.0	0.0	12.0	0.54	4.5
18. 288th WO 169 WBD1	-4.0	5.0	-246.0	-45.0	247.	258.	AG	599.	12.0	0.0	32.0		
19. 288th WO 169 WBD2	-246.0	-45.0	-456.0	90.0	250.	303.	AG	599.	12.0	0.0	32.0		
20. 288th WO 169 WBD3	-456.0	90.0	-417.0	532.0	444.	5.	AG	599.	12.0	0.0	32.0		
21. 288th WO 169 WBD4	-417.0	532.0	-655.0	813.0	368.	320.	AG	599.	12.0	0.0	32.0		
22. 169 NO 288th SBT2	-113.0	977.0	-69.0	317.0	661.	176.	AG	56.	100.0	0.0	32.0		

JOB: Villages RUN: 288-SR169 Action

DATE : 10/ 1/ 8
TIME : 11:43: 6

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
4. 169 NO 288th SBR	117	31	3.0	377	1553	78.90	2	3
8. 169 SO 288th NBL	117	17	3.0	222	276	78.90	2	3
9. 169 SO 288th NBT	117	17	3.0	1078	1845	78.90	2	3
16. 288th WO 169 EBL	117	100	3.0	120	1736	78.90	2	3
17. 288th WO 169 EBR	117	87	3.0	187	1613	78.90	2	3

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. Intersection Name NW	-40.0	41.0	6.0
2. Intersection Name NW	-57.0	121.0	6.0
3. Intersection Name NW	-74.0	201.0	6.0
4. Intersection Name NW	-100.0	363.0	6.0
5. Intersection Name NW	-110.0	-2.0	6.0
6. Intersection Name NW	-191.0	-17.0	6.0
7. Intersection Name NW	-346.0	37.0	6.0
8. Intersection Name NW	13.0	61.0	6.0
9. Intersection Name NE	-4.0	141.0	6.0
10. Intersection Name NE	-21.0	221.0	6.0
11. Intersection Name NE	-43.0	384.0	6.0
12. Intersection Name NE	40.0	-18.0	6.0
13. Intersection Name NE	67.0	-95.0	6.0
14. Intersection Name NE	95.0	-172.0	6.0
15. Intersection Name NE	149.0	-327.0	6.0
16. Intersection Name NE	-17.0	-41.0	6.0
17. Intersection Name SE	15.0	-117.0	6.0
18. Intersection Name SE	43.0	-194.0	6.0
19. Intersection Name SE	97.0	-349.0	6.0
20. Intersection Name SE	-97.0	-57.0	6.0
21. Intersection Name SE	-178.0	-72.0	6.0
22. Intersection Name SE	-337.0	-34.0	6.0

JOB: Villages RUN: 288-SR169 Action

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
0.	4.9	4.8	4.7	4.4	3.5	3.2	3.0	3.8	3.9	4.1	4.1	3.5	3.6	3.3	3.2	5.2	5.0	4.9	4.9	4.4
5.	4.9	4.9	4.7	4.5	3.6	3.3	3.0	3.6	3.6	3.6	3.8	3.3	3.1	3.1	3.2	5.2	5.0	4.8	4.6	4.5
10.	4.8	4.7	5.0	4.6	3.7	3.4	3.1	3.2	3.4	3.4	3.5	3.1	3.1	3.1	3.1	5.0	4.7	4.5	4.5	4.6
15.	4.8	4.6	4.7	4.7	3.8	3.4	3.2	3.1	3.1	3.1	3.3	3.1	3.1	3.1	3.1	4.7	4.6	4.5	4.5	4.7
20.	4.6	4.5	4.4	4.6	3.8	3.4	3.2	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	4.5	4.4	4.3	4.4	4.5
25.	4.5	4.4	4.5	4.6	3.6	3.4	3.2	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	4.5	4.3	4.2	4.2	4.5
30.	4.5	4.4	4.3	4.4	3.6	3.4	3.2	3.1	3.1	3.1	3.0	3.1	3.1	3.0	3.1	4.2	4.3	4.2	4.2	4.7
35.	4.4	4.3	4.3	4.4	3.6	3.3	3.2	3.1	3.1	3.1	3.0	3.0	3.0	3.0	3.0	4.1	4.3	4.2	4.2	4.6
40.	4.3	4.3	4.3	4.3	3.6	3.3	3.3	3.0	3.0	3.1	3.0	3.0	3.0	3.0	3.0	4.0	4.1	4.1	4.1	4.6
45.	4.3	4.3	4.3	4.3	3.6	3.3	3.3	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	4.1	4.1	4.1	4.6
50.	4.3	4.3	4.2	4.3	3.7	3.3	3.2	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	4.1	4.1	4.1	4.4
55.	4.2	4.2	4.2	4.3	3.6	3.4	3.2	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.9	4.1	4.1	4.1	4.5
60.	4.1	4.2	4.2	4.2	3.6	3.4	3.2	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.9	4.1	4.1	4.1	4.2
65.	4.1	4.2	4.2	4.2	3.6	3.4	3.2	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	4.1	4.1	4.1	4.3
70.	4.0	4.2	4.1	4.2	3.6	3.5	3.2	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	4.1	4.1	4.1	3.9
75.	4.0	4.2	4.1	4.2	3.7	3.6	3.2	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.1	4.1	4.1	4.1	3.8
80.	4.0	4.1	4.1	4.2	3.9	3.9	3.2	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	4.1	4.1	4.1	3.8
85.	3.9	4.2	4.2	4.2	3.9	4.1	3.2	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	4.1	4.1	4.1	3.6
90.	3.9	4.2	4.2	4.2	4.1	4.1	3.2	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	4.1	4.1	4.1	3.5
95.	3.9	4.2	4.2	4.2	4.3	3.9	3.3	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.1	4.1	4.1	4.1	3.4
100.	3.9	4.3	4.2	4.0	4.3	3.9	3.4	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.1	4.1	4.1	4.1	3.5
105.	4.0	4.3	4.2	4.0	4.3	3.9	3.4	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.2	4.1	4.2	4.1	3.5
110.	4.0	4.4	4.3	4.1	4.4	3.8	3.5	3.0	3.0	3.0	3.0	3.1	3.1	3.0	3.0	4.2	4.2	4.2	4.2	3.5
115.	4.1	4.4	4.3	4.2	4.4	3.8	3.5	3.0	3.0	3.0	3.0	3.1	3.1	3.1	3.1	4.2	4.2	4.2	4.2	3.5
120.	4.2	4.4	4.3	4.3	4.4	3.9	3.6	3.1	3.1	3.1	3.0	3.1	3.1	3.1	3.1	4.3	4.3	4.4	4.3	3.5
125.	4.3	4.4	4.3	4.3	4.5	3.8	3.7	3.1	3.1	3.1	3.0	3.1	3.1	3.1	3.1	4.2	4.4	4.5	4.5	3.5
130.	4.4	4.6	4.4	4.5	4.3	3.8	3.7	3.1	3.1	3.1	3.0	3.1	3.1	3.1	3.1	4.3	4.5	4.5	4.5	3.5
135.	4.6	4.7	4.4	4.5	4.4	3.8	3.7	3.2	3.1	3.1	3.0	3.2	3.2	3.1	3.2	4.5	4.6	4.6	4.6	3.5
140.	4.5	4.8	4.6	4.6	4.2	3.7	3.7	3.2	3.1	3.1	3.0	3.2	3.2	3.2	3.2	4.5	4.7	4.7	4.7	3.5
145.	4.6	4.8	4.6	4.7	4.1	3.6	3.7	3.4	3.4	3.3	3.0	3.5	3.5	3.4	3.5	4.6	4.8	4.8	4.8	3.5
150.	4.7	4.9	4.8	4.9	4.1	3.5	3.6	3.6	3.5	3.6	3.2	3.8	3.8	3.7	3.6	4.6	4.8	4.9	4.8	3.5
155.	4.8	4.7	4.6	4.8	4.0	3.5	3.4	4.0	3.8	3.8	3.5	4.1	4.1	4.0	3.9	4.4	4.8	4.8	4.7	3.3
160.	4.7	4.6	4.4	5.1	3.8	3.4	3.4	4.3	4.1	4.1	3.7	4.4	4.4	4.3	4.3	4.2	4.6	4.6	4.5	3.3
165.	4.5	4.5	4.3	4.5	3.7	3.3	3.4	4.6	4.4	4.5	4.2	4.7	4.6	4.5	4.5	3.9	4.3	4.3	4.2	3.1
170.	4.3	4.3	3.9	4.1	3.6	3.4	3.4	4.7	4.7	4.9	4.3	4.8	4.7	4.7	4.7	3.6	3.9	4.0	3.8	3.0
175.	4.0	3.7	3.5	4.0	3.4	3.3	3.4	4.7	5.1	5.0	4.6	4.9	4.7	4.7	4.7	3.4	3.6	3.6	3.6	3.0
180.	3.7	3.5	3.3	3.6	3.4	3.3	3.4	4.7	5.0	5.1	4.7	4.8	4.7	4.6	4.6	3.2	3.3	3.3	3.3	3.0
185.	3.8	3.3	3.2	3.1	3.4	3.3	3.3	4.7	5.1	5.1	4.8	4.7	4.5	4.5	4.5	3.1	3.2	3.2	3.2	3.0
190.	3.7	3.3	3.1	3.1	3.4	3.3	3.3	4.6	5.2	5.0	4.8	4.7	4.5	4.4	4.5	3.0	3.1	3.2	3.1	3.0
195.	3.7	3.3	3.1	3.0	3.3	3.3	3.3	4.9	5.3	4.9	4.8	4.6	4.4	4.4	4.4	3.0	3.1	3.1	3.1	3.0
200.	3.7	3.1	3.1	3.0	3.4	3.3	3.3	4.8	5.1	4.9	4.7	4.4	4.3	4.2	4.2	3.0	3.1	3.1	3.1	3.0
205.	3.7	3.1	3.0	3.0	3.4	3.4	3.3	4.9	5.1	4.8	4.7	4.4	4.3	4.2	4.2	3.0	3.1	3.1	3.1	3.0

JOB: Villages RUN: 288-SR169 Action

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20	REC21	REC22
210.	3.6	3.1	3.0	3.0	3.4	3.4	3.4	4.7	5.0	4.7	4.6	4.4	4.3	4.2	4.2	3.0	3.1	3.1	3.1	3.0		
215.	3.5	3.1	3.0	3.0	3.4	3.4	3.4	4.7	4.7	4.5	4.4	4.3	4.2	4.1	4.1	3.0	3.0	3.1	3.1	3.0		
220.	3.5	3.1	3.0	3.0	3.4	3.4	3.3	4.8	4.7	4.5	4.5	4.3	4.2	4.1	4.1	3.0	3.0	3.0	3.0	3.0		
225.	3.5	3.1	3.0	3.0	3.4	3.4	3.3	4.8	4.7	4.5	4.4	4.2	4.2	4.1	4.1	3.0	3.0	3.0	3.0	3.0		
230.	3.3	3.0	3.0	3.0	3.5	3.4	3.3	4.6	4.6	4.4	4.4	4.3	4.2	4.0	4.0	3.0	3.0	3.0	3.0	3.0		
235.	3.3	3.0	3.0	3.0	3.5	3.4	3.3	4.6	4.3	4.3	4.3	4.2	4.2	4.0	4.1	3.0	3.0	3.0	3.0	3.0		
240.	3.3	3.0	3.0	3.0	3.5	3.5	3.3	4.4	4.3	4.3	4.2	4.2	4.2	4.1	4.1	3.0	3.0	3.0	3.0	3.0		
245.	3.1	3.0	3.0	3.0	3.5	3.5	3.4	4.2	4.2	4.3	4.2	4.4	4.2	4.1	4.1	3.1	3.0	3.0	3.0	3.0		
250.	3.1	3.0	3.0	3.0	3.5	3.4	3.4	4.3	4.3	4.3	4.2	4.5	4.2	4.1	4.1	3.1	3.0	3.0	3.0	3.0		
255.	3.1	3.0	3.0	3.0	3.5	3.4	3.4	4.3	4.3	4.3	4.2	4.6	4.2	4.1	4.1	3.3	3.0	3.0	3.0	3.0		
260.	3.2	3.0	3.0	3.0	3.4	3.4	3.4	4.3	4.4	4.3	4.2	4.6	4.2	4.1	4.1	3.4	3.0	3.0	3.0	3.1		
265.	3.1	3.0	3.0	3.0	3.3	3.3	3.4	4.3	4.3	4.3	4.2	4.8	4.2	4.0	4.1	3.6	3.0	3.0	3.0	3.2		
270.	3.0	3.0	3.0	3.0	3.3	3.4	3.4	4.3	4.3	4.3	4.2	4.7	4.2	4.1	4.1	3.7	3.0	3.0	3.0	3.2		
275.	3.0	3.0	3.0	3.0	3.2	3.4	3.5	4.3	4.3	4.3	4.2	4.6	4.2	4.1	4.1	3.9	3.0	3.0	3.0	3.3		
280.	3.0	3.0	3.0	3.0	3.2	3.3	3.5	4.3	4.3	4.3	4.2	4.6	4.5	4.1	4.1	4.1	3.0	3.0	3.0	3.3		
285.	3.0	3.0	3.0	3.0	3.2	3.2	3.5	4.3	4.4	4.4	4.2	4.7	4.5	4.1	4.1	4.1	3.0	3.1	3.0	3.4		
290.	3.0	3.0	3.0	3.0	3.0	3.1	3.5	4.6	4.5	4.5	4.2	4.5	4.7	4.1	4.2	4.1	3.2	3.1	3.1	3.4		
295.	3.0	3.0	3.0	3.0	3.0	3.1	3.4	4.6	4.5	4.5	4.3	4.4	4.7	4.2	4.2	4.1	3.3	3.1	3.1	3.4		
300.	3.0	3.0	3.0	3.0	3.0	3.1	3.5	4.6	4.5	4.5	4.4	4.3	4.7	4.3	4.2	4.2	3.3	3.1	3.1	3.4		
305.	3.0	3.0	3.0	3.0	3.0	3.0	3.4	4.7	4.7	4.6	4.5	4.4	4.9	4.5	4.4	4.2	3.4	3.1	3.1	3.4		
310.	3.0	3.0	3.0	3.0	3.0	3.0	3.3	4.8	4.7	4.6	4.5	4.4	4.9	4.5	4.4	4.1	3.4	3.2	3.1	3.4		
315.	3.0	3.0	3.0	3.0	3.0	3.0	3.3	4.9	4.7	4.7	4.5	4.5	4.9	4.7	4.5	4.1	3.4	3.3	3.2	3.4		
320.	3.0	3.0	3.0	3.0	3.0	3.0	3.2	4.8	4.8	4.8	4.7	4.6	4.7	4.5	4.5	4.0	3.5	3.5	3.3	3.5		
325.	3.0	3.0	3.0	3.0	3.0	3.0	3.2	4.9	4.9	5.0	4.7	4.6	4.7	4.6	4.6	4.1	3.6	3.7	3.4	3.5		
330.	3.1	3.0	3.0	3.0	3.0	3.0	3.2	5.1	5.1	5.1	4.8	4.7	4.8	4.6	4.7	4.1	4.0	3.9	3.8	3.6		
335.	3.2	3.2	3.2	3.1	3.0	3.0	3.1	5.1	5.1	5.1	4.9	4.7	5.0	4.6	4.7	4.3	4.3	4.2	4.1	3.6		
340.	3.6	3.5	3.4	3.1	3.0	3.0	3.1	5.1	5.1	5.0	5.0	4.7	4.6	4.4	4.6	4.7	4.8	4.6	4.5	3.6		
345.	3.9	3.9	3.7	3.5	3.1	3.0	3.1	5.0	5.0	4.9	4.9	4.4	4.3	4.2	4.3	4.8	5.0	4.8	4.8	3.8		
350.	4.3	4.3	4.2	3.7	3.2	3.0	3.1	4.7	4.7	4.7	4.8	4.2	4.0	3.8	4.0	5.1	5.0	5.1	5.0	4.0		
355.	4.8	4.5	4.5	4.0	3.4	3.1	3.1	4.3	4.4	4.3	4.5	3.7	3.7	3.7	3.6	5.3	5.0	5.0	5.1	4.1		
360.	4.9	4.8	4.7	4.4	3.5	3.2	3.0	3.8	3.9	4.1	4.1	3.5	3.6	3.3	3.2	5.2	5.0	4.9	4.9	4.4		
MAX	4.9	4.9	5.0	5.1	4.5	4.1	3.7	5.1	5.3	5.1	5.0	4.9	5.0	4.7	4.7	5.3	5.0	5.1	5.1	4.7		
DEGR.	0	5	10	160	125	85	125	330	195	180	340	175	335	315	170	355	0	350	355	15		

JOB: Villages RUN: 288-SR169 Action

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC21	REC22
0.	3.5	3.3
5.	3.6	3.4
10.	3.7	3.5
15.	3.7	3.5
20.	3.7	3.5
25.	3.7	3.5
30.	3.6	3.5
35.	3.6	3.6
40.	3.6	3.6
45.	3.6	3.5
50.	3.8	3.5
55.	3.8	3.5
60.	3.7	3.5
65.	3.7	3.5
70.	4.0	3.6
75.	3.8	3.6
80.	3.5	3.6
85.	3.4	3.7
90.	3.3	3.6
95.	3.3	3.6
100.	3.3	3.6
105.	3.3	3.5
110.	3.3	3.4
115.	3.3	3.2
120.	3.4	3.2
125.	3.4	3.2
130.	3.4	3.2
135.	3.4	3.2
140.	3.3	3.2
145.	3.3	3.2
150.	3.2	3.0
155.	3.2	3.0
160.	3.1	3.0
165.	3.0	3.0
170.	3.0	3.0
175.	3.0	3.0
180.	3.0	3.0
185.	3.0	3.0
190.	3.0	3.0
195.	3.0	3.0
200.	3.0	3.0
205.	3.0	3.0

JOB: Villages RUN: 288-SR169 Action

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC21	REC22
210.	3.0	3.0
215.	3.0	3.0
220.	3.0	3.0
225.	3.0	3.0
230.	3.0	3.0
235.	3.0	3.0
240.	3.0	3.0
245.	3.0	3.0
250.	3.0	3.0
255.	3.0	3.0
260.	3.0	3.0
265.	3.0	3.0
270.	3.0	3.0
275.	3.2	3.0
280.	3.4	3.0
285.	3.4	3.0
290.	3.4	3.0
295.	3.5	3.0
300.	3.5	3.0
305.	3.4	3.2
310.	3.4	3.2
315.	3.4	3.2
320.	3.3	3.3
325.	3.3	3.4
330.	3.3	3.4
335.	3.3	3.4
340.	3.3	3.4
345.	3.3	3.4
350.	3.3	3.4
355.	3.4	3.3
360.	3.5	3.3
MAX	4.0	3.7
DEGR.	70	85

THE HIGHEST CONCENTRATION OF 5.30 PPM OCCURRED AT RECEPTOR REC16.

JOB: Villages RUN: 288-SR169 2025 Cumulative

DATE : 10/ 1/ 8
TIME : 11:43:10

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 175. CM
U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES MIXH = 1000. M AMB = 3.0 PPM

LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (FT) X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. 169 NO 288th SBA1	-113.0	977.0	-69.0	317.0	661.	176.	AG	1984.	13.1	0.0	32.0		
2. 169 NO 288th SBA2	-69.0	317.0	-4.0	5.0	319.	168.	AG	1984.	13.1	0.0	32.0		
3. 169 NO 288th SBT	-69.0	317.0	-15.0	55.0	268.	168.	AG	56.	100.0	0.0	32.0		
4. 169 NO 288th SBR	-26.0	53.0	-41.9	129.7	78.	348.	AG	69.	100.0	0.0	12.0	0.38	4.0
5. 169 NO 288th NBD1	9.0	4.0	-57.0	319.0	322.	348.	AG	1418.	13.1	0.0	32.0		
6. 169 NO 288th NBD2	-57.0	319.0	-101.0	978.0	660.	356.	AG	1418.	13.1	0.0	32.0		
7. 169 SO 288th NBA	347.0	-938.0	15.0	5.0	1000.	341.	AG	1745.	13.1	0.0	32.0		
8. 169 SO 288th NBL	14.0	-27.0	504.9	-1426.2	1483.	161.	AG	31.	100.0	0.0	12.0	1.44	75.3
9. 169 SO 288th NBT	25.0	-23.0	65.1	-136.8	121.	161.	AG	31.	100.0	0.0	12.0	0.87	6.1
10. 169 SO 288th SBD1	-4.0	5.0	2.0	-31.0	36.	171.	AG	2041.	13.1	0.0	32.0		
11. 169 SO 288th SBD2	2.0	-31.0	324.0	-946.0	970.	161.	AG	2041.	13.1	0.0	32.0		
12. 288th WO 169 EBA1	-664.0	805.0	-430.0	528.0	363.	140.	AG	554.	12.0	0.0	32.0		
13. 288th WO 169 EBA2	-430.0	528.0	-468.0	84.0	446.	185.	AG	554.	12.0	0.0	32.0		
14. 288th WO 169 EBA3	-468.0	84.0	-249.0	-57.0	260.	123.	AG	554.	12.0	0.0	32.0		
15. 288th WO 169 EBA4	-249.0	-57.0	-4.0	-10.0	249.	79.	AG	554.	12.0	0.0	32.0		
16. 288th WO 169 EBL	-22.0	-14.0	-86.5	-26.2	66.	259.	AG	181.	100.0	0.0	12.0	0.67	3.3
17. 288th WO 169 EBR	-251.0	-70.0	-20.0	-26.0	235.	79.	AG	121.	100.0	0.0	32.0		
18. 288th WO 169 WBD1	-4.0	5.0	-246.0	-45.0	247.	258.	AG	824.	12.0	0.0	32.0		
19. 288th WO 169 WBD2	-246.0	-45.0	-456.0	90.0	250.	303.	AG	824.	12.0	0.0	32.0		
20. 288th WO 169 WBD3	-456.0	90.0	-417.0	532.0	444.	5.	AG	824.	12.0	0.0	32.0		
21. 288th WO 169 WBD4	-417.0	532.0	-655.0	813.0	368.	320.	AG	824.	12.0	0.0	32.0		
22. 169 NO 288th SBT2	-113.0	977.0	-69.0	317.0	661.	176.	AG	56.	100.0	0.0	32.0		

JOB: Villages RUN: 288-SR169 2025 Cumulative

DATE : 10/ 1/ 8
TIME : 11:43:10

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
4. 169 NO 288th SBR	117	38	3.0	377	1553	78.90	2	3
8. 169 SO 288th NBL	117	17	3.0	447	384	78.90	2	3
9. 169 SO 288th NBT	117	17	3.0	1298	1845	78.90	2	3
16. 288th WO 169 EBL	117	100	3.0	120	1736	78.90	2	3

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. Intersection Name NW	-40.0	41.0	6.0
2. Intersection Name NW	-57.0	121.0	6.0
3. Intersection Name NW	-74.0	201.0	6.0
4. Intersection Name NW	-100.0	363.0	6.0
5. Intersection Name NW	-110.0	-2.0	6.0
6. Intersection Name NW	-191.0	-17.0	6.0
7. Intersection Name NW	-346.0	37.0	6.0
8. Intersection Name NW	13.0	61.0	6.0
9. Intersection Name NE	-4.0	141.0	6.0
10. Intersection Name NE	-21.0	221.0	6.0
11. Intersection Name NE	-43.0	384.0	6.0
12. Intersection Name NE	40.0	-18.0	6.0
13. Intersection Name NE	67.0	-95.0	6.0
14. Intersection Name NE	95.0	-172.0	6.0
15. Intersection Name NE	149.0	-327.0	6.0
16. Intersection Name NE	-17.0	-41.0	6.0
17. Intersection Name SE	15.0	-117.0	6.0
18. Intersection Name SE	43.0	-194.0	6.0
19. Intersection Name SE	97.0	-349.0	6.0
20. Intersection Name SE	-97.0	-57.0	6.0
21. Intersection Name SE	-178.0	-72.0	6.0
22. Intersection Name SE	-337.0	-34.0	6.0

JOB: Villages RUN: 288-SR169 2025 Cumulative

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
0.	5.2	5.0	4.8	4.4	3.6	3.2	3.0	4.0	3.9	4.2	4.3	3.6	3.7	3.6	3.3	5.7	5.5	5.5	5.6	4.5
5.	5.2	5.1	5.1	4.7	3.7	3.3	3.0	3.6	3.6	3.7	3.9	3.5	3.2	3.2	3.2	5.7	5.4	5.4	5.2	4.6
10.	5.1	4.9	5.1	4.9	3.7	3.4	3.2	3.2	3.4	3.4	3.6	3.1	3.1	3.1	3.1	5.3	5.1	5.2	5.0	4.8
15.	5.1	4.8	5.0	4.9	3.8	3.5	3.2	3.2	3.2	3.2	3.3	3.1	3.1	3.1	3.1	4.9	5.1	4.9	5.0	4.8
20.	4.8	4.8	4.8	4.8	3.8	3.5	3.2	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	4.9	4.8	4.9	4.9	4.8
25.	4.8	4.6	4.6	4.7	3.6	3.5	3.3	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	4.8	4.8	4.8	4.8	4.7
30.	4.8	4.5	4.5	4.6	3.6	3.5	3.3	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	4.7	4.7	4.7	4.7	4.8
35.	4.6	4.5	4.4	4.6	3.6	3.3	3.2	3.1	3.1	3.1	3.0	3.1	3.1	3.0	3.1	4.5	4.6	4.6	4.6	4.7
40.	4.4	4.4	4.4	4.5	3.7	3.3	3.3	3.1	3.1	3.1	3.0	3.0	3.0	3.0	3.0	4.4	4.5	4.5	4.5	4.7
45.	4.4	4.4	4.4	4.5	3.7	3.3	3.4	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.4	4.5	4.5	4.5	4.8
50.	4.3	4.4	4.3	4.4	3.7	3.4	3.3	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.3	4.5	4.5	4.5	4.8
55.	4.3	4.4	4.3	4.4	3.6	3.4	3.2	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.2	4.5	4.5	4.5	4.7
60.	4.3	4.4	4.3	4.3	3.6	3.4	3.2	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.2	4.5	4.5	4.5	4.5
65.	4.2	4.4	4.3	4.3	3.7	3.5	3.2	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.4	4.5	4.5	4.5	4.5
70.	4.1	4.4	4.3	4.3	3.8	3.6	3.2	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.4	4.5	4.5	4.5	4.5
75.	4.1	4.4	4.3	4.3	3.9	4.0	3.2	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.3	4.5	4.5	4.5	4.1
80.	4.1	4.4	4.3	4.3	4.1	4.1	3.2	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.3	4.5	4.5	4.5	4.1
85.	4.1	4.5	4.3	4.3	4.2	4.3	3.2	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.3	4.5	4.5	4.5	3.8
90.	4.1	4.5	4.3	4.3	4.4	4.4	3.4	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.4	4.5	4.5	4.5	3.8
95.	4.1	4.5	4.3	4.3	4.7	4.3	3.7	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.4	4.5	4.5	4.5	3.7
100.	4.1	4.5	4.3	4.2	4.7	4.6	3.7	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.4	4.5	4.5	4.5	3.7
105.	4.2	4.5	4.3	4.2	4.7	4.5	3.7	3.0	3.0	3.0	3.0	3.1	3.1	3.0	3.1	4.5	4.6	4.6	4.6	3.7
110.	4.3	4.5	4.3	4.3	4.8	4.4	3.7	3.0	3.0	3.0	3.0	3.1	3.1	3.1	3.1	4.5	4.6	4.7	4.6	3.8
115.	4.4	4.6	4.4	4.4	4.8	4.3	3.9	3.1	3.1	3.1	3.0	3.1	3.1	3.1	3.1	4.6	4.8	4.8	4.8	3.8
120.	4.5	4.7	4.5	4.5	4.8	4.4	4.1	3.1	3.1	3.1	3.0	3.1	3.1	3.1	3.1	4.7	4.9	4.9	4.9	3.7
125.	4.6	4.7	4.5	4.6	4.9	4.4	4.1	3.1	3.1	3.1	3.0	3.1	3.1	3.1	3.1	4.8	4.9	5.0	4.9	3.7
130.	4.7	4.8	4.6	4.6	4.8	4.4	4.1	3.1	3.1	3.1	3.0	3.1	3.1	3.1	3.1	4.9	5.0	5.1	5.1	3.7
135.	4.8	5.0	4.7	4.8	4.8	4.4	4.1	3.2	3.1	3.1	3.0	3.2	3.2	3.2	3.2	5.0	5.2	5.2	5.2	3.7
140.	4.9	4.9	4.8	4.7	4.7	4.3	4.1	3.2	3.2	3.1	3.0	3.3	3.3	3.3	3.3	5.0	5.3	5.4	5.3	3.7
145.	5.4	5.1	4.9	5.1	4.6	4.2	3.9	3.5	3.4	3.3	3.0	3.6	3.6	3.6	3.6	5.2	5.5	5.5	5.5	3.7
150.	5.6	5.2	5.1	5.1	4.6	4.1	3.9	3.8	3.6	3.6	3.4	4.0	4.0	3.9	3.9	5.1	5.5	5.6	5.4	3.6
155.	5.5	5.1	5.1	5.3	4.4	4.0	3.7	4.2	4.1	3.9	3.5	4.5	4.4	4.3	4.3	5.0	5.4	5.4	5.4	3.5
160.	5.1	5.0	4.9	5.1	4.1	4.0	3.6	4.7	4.5	4.4	3.9	5.0	4.9	4.8	4.8	4.6	5.1	5.2	5.0	3.3
165.	4.8	4.7	4.6	4.8	4.0	3.8	3.6	5.0	4.9	4.9	4.3	5.4	5.3	5.2	5.1	4.2	4.7	4.7	4.6	3.2
170.	4.4	4.5	4.3	4.5	3.9	3.8	3.6	5.3	5.1	5.1	4.6	5.5	5.4	5.3	5.3	3.8	4.1	4.2	4.1	3.1
175.	4.1	4.0	3.9	4.0	3.8	3.8	3.6	5.4	5.4	5.4	4.9	5.5	5.4	5.3	5.3	3.5	3.7	3.8	3.7	3.0
180.	3.9	3.7	3.5	3.7	3.8	3.8	3.6	5.2	5.4	5.5	5.0	5.4	5.4	5.3	5.3	3.2	3.4	3.4	3.4	3.0
185.	3.8	3.5	3.3	3.3	3.8	3.8	3.5	5.0	5.7	5.7	5.0	5.2	5.2	5.1	5.1	3.1	3.3	3.3	3.3	3.0
190.	3.7	3.4	3.2	3.1	3.8	3.8	3.5	5.1	5.5	5.6	5.0	5.2	5.2	5.0	5.0	3.1	3.2	3.2	3.2	3.0
195.	3.7	3.4	3.2	3.0	3.8	3.8	3.5	5.4	5.7	5.4	5.1	5.0	5.0	4.9	4.9	3.0	3.1	3.1	3.1	3.0
200.	3.7	3.3	3.2	3.0	3.9	3.8	3.5	5.2	5.5	5.2	5.0	4.9	4.9	4.8	4.8	3.0	3.1	3.1	3.1	3.0
205.	3.7	3.3	3.2	3.0	3.9	3.9	3.5	5.2	5.4	5.2	4.9	4.8	4.8	4.7	4.7	3.0	3.1	3.1	3.1	3.0

JOB: Villages RUN: 288-SR169 2025 Cumulative

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20	REC21	REC22
210.	3.7	3.3	3.2	3.0	3.9	3.9	3.5	5.1	5.2	5.1	4.7	4.8	4.8	4.7	4.7	3.0	3.1	3.1	3.1	3.0		
215.	3.6	3.3	3.0	3.0	3.9	3.9	3.5	5.1	5.1	5.0	4.7	4.6	4.6	4.5	4.5	3.0	3.1	3.1	3.1	3.0		
220.	3.6	3.3	3.0	3.0	3.9	3.8	3.5	5.1	5.1	4.7	4.7	4.6	4.6	4.5	4.5	3.1	3.0	3.1	3.1	3.0		
225.	3.7	3.2	3.0	3.0	4.0	3.8	3.5	5.0	5.1	4.7	4.7	4.6	4.6	4.5	4.5	3.1	3.0	3.0	3.0	3.1		
230.	3.6	3.2	3.1	3.0	4.0	3.8	3.5	4.9	4.8	4.5	4.6	4.5	4.5	4.4	4.4	3.1	3.0	3.0	3.0	3.1		
235.	3.5	3.0	3.1	3.0	4.0	3.8	3.5	4.9	4.7	4.5	4.5	4.5	4.5	4.4	4.4	3.1	3.0	3.0	3.0	3.1		
240.	3.5	3.1	3.1	3.0	3.9	3.8	3.5	4.8	4.6	4.5	4.4	4.6	4.6	4.4	4.5	3.2	3.0	3.0	3.0	3.1		
245.	3.4	3.1	3.0	3.1	3.9	3.8	3.6	4.7	4.6	4.5	4.4	4.9	4.6	4.5	4.5	3.3	3.0	3.0	3.0	3.2		
250.	3.4	3.1	3.0	3.1	3.9	3.6	3.6	4.7	4.7	4.5	4.4	4.9	4.6	4.5	4.5	3.5	3.0	3.0	3.0	3.3		
255.	3.3	3.1	3.0	3.1	3.9	3.6	3.6	4.7	4.6	4.5	4.4	5.2	4.6	4.5	4.5	3.7	3.0	3.0	3.0	3.5		
260.	3.2	3.1	3.0	3.1	3.8	3.5	3.6	4.8	4.6	4.5	4.5	5.3	4.6	4.5	4.5	3.8	3.0	3.0	3.0	3.7		
265.	3.1	3.0	3.0	3.1	3.6	3.5	3.6	4.6	4.5	4.5	4.4	5.2	4.6	4.4	4.4	4.1	3.0	3.0	3.0	3.8		
270.	3.1	3.0	3.0	3.1	3.4	3.4	3.7	4.6	4.5	4.5	4.4	5.4	4.6	4.4	4.4	4.3	3.0	3.0	3.0	4.1		
275.	3.1	3.0	3.1	3.1	3.4	3.4	3.7	4.5	4.5	4.5	4.4	5.3	4.9	4.4	4.5	4.4	3.1	3.0	3.0	4.2		
280.	3.0	3.0	3.1	3.1	3.3	3.4	3.7	4.5	4.5	4.5	4.4	5.2	5.0	4.5	4.5	4.4	3.1	3.1	3.0	4.2		
285.	3.0	3.0	3.1	3.0	3.2	3.4	3.7	4.5	4.5	4.5	4.4	5.0	5.1	4.6	4.5	4.5	3.5	3.1	3.1	4.2		
290.	3.0	3.0	3.1	3.0	3.2	3.3	3.7	4.8	4.7	4.7	4.4	5.0	5.2	4.7	4.6	4.5	3.6	3.2	3.1	4.2		
295.	3.0	3.0	3.1	3.0	3.1	3.2	3.7	4.8	4.7	4.7	4.5	5.0	5.2	4.9	4.7	4.3	3.6	3.2	3.1	4.1		
300.	3.0	3.0	3.0	3.1	3.0	3.1	3.7	4.8	4.7	4.7	4.6	4.6	5.3	5.1	4.8	4.3	3.5	3.4	3.1	4.0		
305.	3.0	3.0	3.0	3.1	3.1	3.2	3.7	4.9	4.8	4.8	4.6	4.8	5.3	5.1	4.9	4.2	3.6	3.3	3.1	3.9		
310.	3.0	3.0	3.0	3.1	3.1	3.1	3.5	5.0	4.9	4.8	4.7	4.9	5.5	5.2	5.0	4.2	3.6	3.5	3.2	3.9		
315.	3.0	3.0	3.0	3.0	3.1	3.1	3.4	5.1	5.0	5.0	4.8	4.7	5.6	5.2	5.2	4.2	3.7	3.5	3.2	3.8		
320.	3.0	3.0	3.0	3.0	3.0	3.1	3.4	5.1	5.0	5.1	4.9	5.0	5.1	5.4	5.2	4.1	3.6	3.6	3.4	3.8		
325.	3.0	3.0	3.0	3.0	3.0	3.1	3.3	5.3	5.2	5.2	5.0	5.0	5.2	5.4	5.3	4.1	3.8	4.0	3.7	3.8		
330.	3.1	3.1	3.0	3.0	3.0	3.1	3.3	5.5	5.4	5.4	5.0	5.0	5.4	5.3	5.3	4.1	4.2	4.3	4.1	3.8		
335.	3.3	3.2	3.2	3.1	3.0	3.0	3.3	5.4	5.3	5.4	5.2	5.1	5.3	5.2	5.2	4.5	4.5	4.8	4.4	3.8		
340.	3.7	3.6	3.4	3.3	3.0	3.0	3.3	5.4	5.4	5.3	5.3	5.0	5.1	4.9	5.0	4.9	5.1	5.0	5.0	3.8		
345.	4.1	3.9	3.8	3.5	3.1	3.0	3.2	5.3	5.2	5.2	5.2	4.7	4.7	4.5	4.5	5.3	5.6	5.3	5.4	3.9		
350.	4.5	4.4	4.3	3.8	3.2	3.0	3.2	5.0	5.1	4.9	5.0	4.3	4.2	4.2	4.2	5.5	5.7	5.5	5.6	4.1		
355.	4.9	4.7	4.5	4.1	3.4	3.2	3.1	4.5	4.5	4.6	4.7	4.0	3.8	3.8	3.9	5.6	5.7	5.8	5.7	4.3		
360.	5.2	5.0	4.8	4.4	3.6	3.2	3.0	4.0	3.9	4.2	4.3	3.6	3.7	3.6	3.3	5.7	5.5	5.5	5.6	4.5		
MAX	5.6	5.2	5.1	5.3	4.9	4.6	4.1	5.5	5.7	5.7	5.3	5.5	5.6	5.4	5.3	5.7	5.7	5.8	5.7	4.8		
DEGR.	150	150	5	155	125	100	120	330	185	185	340	170	315	320	170	0	355	355	355	10		

JOB: Villages RUN: 288-SR169 2025 Cumulative

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC21	REC22
0.	4.0	3.4
5.	4.2	3.5
10.	4.3	3.6
15.	4.3	3.6
20.	4.3	3.6
25.	4.3	3.6
30.	4.2	3.6
35.	4.4	3.7
40.	4.4	3.8
45.	4.4	3.6
50.	4.5	3.6
55.	4.4	3.6
60.	4.4	3.6
65.	4.5	3.6
70.	4.5	3.7
75.	4.3	3.9
80.	4.1	4.0
85.	4.0	4.1
90.	3.7	4.1
95.	3.6	4.1
100.	3.5	3.9
105.	3.5	3.8
110.	3.5	3.8
115.	3.5	3.5
120.	3.5	3.5
125.	3.5	3.4
130.	3.5	3.3
135.	3.5	3.3
140.	3.5	3.2
145.	3.4	3.2
150.	3.3	3.1
155.	3.2	3.0
160.	3.1	3.0
165.	3.0	3.0
170.	3.0	3.0
175.	3.0	3.0
180.	3.0	3.0
185.	3.0	3.0
190.	3.0	3.0
195.	3.0	3.0
200.	3.0	3.0
205.	3.0	3.0

JOB: Villages RUN: 288-SR169 2025 Cumulative

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC21	REC22
210.	3.0	3.0
215.	3.0	3.0
220.	3.0	3.0
225.	3.1	3.0
230.	3.1	3.0
235.	3.1	3.0
240.	3.1	3.0
245.	3.2	3.0
250.	3.2	3.0
255.	3.3	3.0
260.	3.4	3.0
265.	3.5	3.0
270.	3.7	3.0
275.	3.9	3.0
280.	3.9	3.0
285.	4.1	3.0
290.	4.1	3.0
295.	4.2	3.1
300.	4.2	3.2
305.	4.2	3.2
310.	4.2	3.3
315.	4.0	3.5
320.	4.0	3.6
325.	3.9	3.6
330.	3.9	3.6
335.	3.8	3.7
340.	3.8	3.7
345.	3.8	3.7
350.	3.8	3.6
355.	4.0	3.5
360.	4.0	3.4
MAX	4.5	4.1
DEGR.	50	85

THE HIGHEST CONCENTRATION OF 5.80 PPM OCCURRED AT RECEPTOR REC18.

JOB: Villages RUN: Int 9-10 NA

DATE : 10/ 1/ 8
TIME : 11:43:37

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 175. CM
U = 1.0 M/S CLAS = 5 (E) ATIM = 60. MINUTES MIXH = 1000. M AMB = 3.0 PPM

LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (FT) X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. 169 NO new SBA	-271.0	923.0	-12.0	-1.0	960.	164.	AG	1550.	12.0	0.0	32.0		
2. 169 NO new SBL	-5.0	17.0	-11.9	42.9	27.	345.	AG	196.	100.0	0.0	12.0	0.70	1.4
3. 169 NO new SBT	-16.0	14.0	-90.6	279.9	276.	344.	AG	107.	100.0	0.0	12.0	0.93	14.0
4. 169 NO new SBR	-28.0	11.0	-28.3	12.0	1.	345.	AG	0.	100.0	0.0	12.0	0.49	0.1
5. 169 NO new NBD	12.0	1.0	-248.0	969.0	1002.	345.	AG	890.	12.0	0.0	32.0		
6. new EO 169 WBA1	78.0	996.0	156.0	159.0	841.	175.	AG	280.	12.0	0.0	32.0		
7. new EO 169 WBA2	156.0	159.0	113.0	77.0	93.	208.	AG	280.	12.0	0.0	32.0		
8. new EO 169 WBA3	113.0	77.0	-4.0	5.0	137.	238.	AG	280.	12.0	0.0	32.0		
9. new EO 169 WBL	14.0	2.0	103.6	56.7	105.	59.	AG	171.	100.0	0.0	12.0	0.75	5.3
10. new EO 169 WBTR	13.0	15.0	52.2	39.3	46.	58.	AG	187.	100.0	0.0	12.0	0.68	2.3
11. new EO 169 EBD1	-4.0	-22.0	132.0	60.0	159.	59.	AG	125.	12.0	0.0	32.0		
12. new EO 169 EBD2	132.0	60.0	180.0	155.0	106.	27.	AG	125.	12.0	0.0	32.0		
13. new EO 169 EBD3	180.0	155.0	102.0	998.0	847.	355.	AG	125.	12.0	0.0	32.0		
14. 169 SO new NBA	-167.0	-986.0	12.0	1.0	1003.	10.	AG	715.	12.0	0.0	32.0		
15. 169 SO new NBL	-9.0	-47.0	-36.2	-197.0	152.	190.	AG	165.	100.0	0.0	12.0	0.89	7.7
16. 169 SO new NBTR	4.0	-47.0	-15.0	-151.1	106.	190.	AG	76.	100.0	0.0	12.0	0.42	5.4
17. 169 SO new SBD	-12.0	-1.0	-190.0	-982.0	997.	190.	AG	1010.	12.0	0.0	32.0		
18. new EO 169 EBA	-881.0	-471.0	-4.0	-22.0	985.	63.	AG	535.	12.0	0.0	32.0		
19. new EO 169 EBL	-36.0	-19.0	-159.8	-82.3	139.	243.	AG	345.	100.0	0.0	24.0	0.91	7.1
20. new EO 169 EBTR	-38.0	-40.0	-83.6	-63.3	51.	243.	AG	185.	100.0	0.0	12.0	0.62	2.6
21. new EO 169 WBD1	-4.0	5.0	-92.0	-27.0	94.	250.	AG	1055.	12.0	0.0	32.0		
22. new EO 169 WBD2	-92.0	-27.0	-897.0	-440.0	905.	243.	AG	1055.	12.0	0.0	44.0		

JOB: Villages RUN: Int 9-10 NA

DATE : 10/ 1/ 8
TIME : 11:43:37

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
2. 169 NO new SBL	119	110	3.0	40	1719	78.90	2	3
3. 169 NO new SBT	119	60	3.0	760	1810	78.90	2	3
4. 169 NO new SBR	119	0	3.0	750	1583	78.90	2	3
9. new EO 169 WBL	119	96	3.0	200	1770	78.90	2	3
10. new EO 169 WBTR	119	105	4.0	80	1756	78.90	2	3
15. 169 SO new NBL	119	93	4.0	265	1770	78.90	2	3
16. 169 SO new NBTR	119	43	3.0	450	1782	78.90	2	3
19. new EO 169 EBL	119	97	3.0	445	1717	78.90	2	3
20. new EO 169 EBTR	119	104	3.0	90	1744	78.90	2	3

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. Intersection Name NW	-45.0	15.0	6.0
2. Intersection Name NW	-67.0	94.0	6.0
3. Intersection Name NW	-88.0	173.0	6.0
4. Intersection Name NW	-131.0	332.0	6.0
5. Intersection Name NW	-118.0	-22.0	6.0
6. Intersection Name NW	-191.0	-60.0	6.0
7. Intersection Name NW	-337.0	-135.0	6.0
8. Intersection Name NW	19.0	38.0	6.0
9. Intersection Name NE	-2.0	117.0	6.0
10. Intersection Name NE	-24.0	196.0	6.0
11. Intersection Name NE	-66.0	354.0	6.0
12. Intersection Name NE	89.0	80.0	6.0
13. Intersection Name NE	133.0	150.0	6.0
14. Intersection Name NE	125.0	314.0	6.0
15. Intersection Name NE	24.0	-24.0	6.0
16. Intersection Name NE	94.0	19.0	6.0
17. Intersection Name SE	156.0	73.0	6.0
18. Intersection Name SE	189.0	235.0	6.0
19. Intersection Name SE	10.0	-105.0	6.0
20. Intersection Name SE	-5.0	-185.0	6.0
21. Intersection Name SE	-34.0	-345.0	6.0
22. Intersection Name SE	-53.0	-65.0	6.0
23. Intersection Name SE	-57.0	-146.0	6.0
24. Intersection Name SE	-72.0	-226.0	6.0
25. Intersection Name SW	-101.0	-388.0	6.0
26. Intersection Name SW	-125.0	-102.0	6.0
27. Intersection Name SW	-198.0	-140.0	6.0
28. Intersection Name SW	-344.0	-215.0	6.0

JOB: Villages RUN: Int 9-10 NA

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
0.	4.7	4.7	4.6	4.3	3.7	3.3	3.2	3.2	3.2	3.2	3.2	3.1	3.2	3.3	4.5	3.6	3.4	3.1	4.6	5.0
5.	4.5	4.5	4.5	4.3	3.7	3.4	3.3	3.1	3.1	3.1	3.1	3.1	3.3	3.4	4.2	3.6	3.3	3.0	4.0	4.8
10.	4.4	4.4	4.4	4.2	3.7	3.4	3.3	3.1	3.1	3.1	3.1	3.1	3.3	3.3	4.2	3.7	3.2	3.0	3.9	4.1
15.	4.4	4.4	4.4	4.1	3.6	3.4	3.4	3.1	3.0	3.1	3.0	3.1	3.3	3.3	4.2	3.6	3.1	3.0	3.6	3.8
20.	4.3	4.3	4.3	4.1	3.6	3.5	3.4	3.1	3.0	3.0	3.0	3.1	3.2	3.3	4.0	3.5	3.1	3.0	3.4	3.3
25.	4.3	4.3	4.3	4.0	3.6	3.5	3.3	3.0	3.0	3.0	3.0	3.1	3.1	3.2	3.9	3.3	3.1	3.0	3.3	3.2
30.	4.2	4.2	4.3	4.0	3.7	3.5	3.3	3.0	3.0	3.0	3.0	3.2	3.1	3.2	3.8	3.3	3.0	3.0	3.2	3.2
35.	4.2	4.1	4.1	3.8	3.6	3.5	3.3	3.0	3.0	3.0	3.0	3.1	3.1	3.2	3.7	3.1	3.0	3.0	3.1	3.0
40.	4.1	4.0	4.0	3.8	3.6	3.6	3.5	3.0	3.0	3.0	3.0	3.1	3.2	3.1	3.6	3.1	3.0	3.0	3.0	3.0
45.	4.1	4.0	4.0	3.8	3.6	3.6	3.6	3.0	3.0	3.0	3.0	3.1	3.2	3.1	3.5	3.1	3.0	3.0	3.0	3.0
50.	4.1	3.9	4.0	3.8	3.8	3.7	3.7	3.1	3.0	3.0	3.0	3.1	3.2	3.1	3.3	3.1	3.0	3.0	3.0	3.0
55.	4.1	3.9	3.9	3.7	3.8	4.0	3.9	3.1	3.0	3.0	3.0	3.1	3.2	3.1	3.2	3.0	3.0	3.0	3.0	3.0
60.	4.5	3.9	3.9	3.7	4.1	4.3	4.2	3.1	3.0	3.0	3.0	3.2	3.2	3.1	3.2	3.0	3.0	3.0	3.0	3.0
65.	4.5	3.9	3.9	3.7	4.3	4.4	4.4	3.4	3.0	3.0	3.0	3.2	3.2	3.1	3.0	3.0	3.0	3.0	3.0	3.0
70.	4.7	3.9	3.9	3.8	4.5	4.9	4.6	3.5	3.0	3.0	3.0	3.2	3.1	3.1	3.0	3.0	3.0	3.0	3.0	3.0
75.	4.8	3.9	3.9	3.8	4.8	5.2	4.5	3.6	3.0	3.0	3.0	3.2	3.1	3.1	3.0	3.0	3.0	3.0	3.0	3.0
80.	4.8	3.9	3.9	3.8	4.7	5.2	4.5	3.7	3.0	3.0	3.0	3.2	3.1	3.1	3.0	3.0	3.0	3.0	3.0	3.0
85.	4.9	3.9	3.9	3.7	4.8	5.2	4.3	3.9	3.0	3.0	3.0	3.2	3.1	3.1	3.0	3.0	3.0	3.0	3.0	3.0
90.	4.7	3.9	3.9	3.7	5.0	5.4	4.3	4.0	3.0	3.0	3.0	3.2	3.1	3.1	3.0	3.0	3.0	3.0	3.0	3.0
95.	4.6	3.9	3.9	3.7	5.0	5.2	4.1	4.0	3.0	3.0	3.0	3.2	3.1	3.1	3.0	3.0	3.0	3.0	3.0	3.0
100.	4.6	4.1	4.0	3.8	5.0	5.1	4.1	4.0	3.0	3.0	3.0	3.1	3.1	3.1	3.0	3.0	3.0	3.0	3.0	3.0
105.	4.2	4.1	4.0	3.8	5.2	4.9	3.9	4.0	3.0	3.0	3.0	3.1	3.1	3.1	3.0	3.0	3.0	3.0	3.0	3.0
110.	4.1	4.2	4.1	3.8	5.3	4.8	3.9	4.0	3.0	3.0	3.0	3.1	3.1	3.1	3.0	3.0	3.0	3.0	3.0	3.0
115.	4.2	4.4	4.1	3.9	5.4	4.5	3.8	4.0	3.1	3.0	3.0	3.1	3.1	3.1	3.0	3.0	3.0	3.0	3.0	3.0
120.	4.1	4.5	4.4	4.0	5.4	4.3	3.7	4.0	3.1	3.0	3.0	3.1	3.1	3.1	3.0	3.0	3.0	3.0	3.0	3.0
125.	4.0	4.5	4.4	4.0	5.4	4.2	3.7	4.0	3.1	3.0	3.0	3.1	3.1	3.1	3.0	3.0	3.0	3.0	3.0	3.0
130.	4.2	4.5	4.4	4.2	5.1	4.1	3.7	4.0	3.1	3.0	3.0	3.1	3.1	3.1	3.0	3.0	3.0	3.0	3.0	3.0
135.	4.1	4.5	4.6	4.2	5.1	4.0	3.7	4.0	3.2	3.2	3.0	3.2	3.1	3.2	3.0	3.0	3.0	3.0	3.0	3.0
140.	4.3	4.7	4.6	4.4	4.9	3.8	3.7	4.0	3.5	3.2	3.1	3.2	3.1	3.2	3.0	3.0	3.0	3.0	3.0	3.0
145.	4.4	4.3	4.5	4.6	4.9	3.8	3.7	4.1	3.5	3.2	3.1	3.3	3.1	3.2	3.0	3.0	3.0	3.0	3.0	3.0
150.	4.5	4.3	4.7	4.7	4.8	3.8	3.7	4.1	3.4	3.3	3.2	3.3	3.1	3.2	3.0	3.0	3.0	3.0	3.0	3.0
155.	4.6	4.2	4.5	4.4	4.7	3.8	3.7	4.1	3.5	3.5	3.5	3.4	3.1	3.2	3.0	3.0	3.0	3.0	3.0	3.0
160.	4.8	4.4	4.3	4.5	4.7	3.8	3.7	4.1	3.7	3.7	3.8	3.4	3.1	3.2	3.0	3.0	3.0	3.0	3.0	3.0
165.	5.1	4.6	4.1	4.2	4.7	3.8	3.7	4.2	3.7	4.0	4.3	3.4	3.1	3.2	3.1	3.0	3.0	3.0	3.0	3.1
170.	5.3	4.5	4.3	3.8	4.8	3.8	3.6	4.3	4.2	4.4	4.7	3.4	3.1	3.2	3.1	3.0	3.0	3.0	3.1	3.1
175.	5.5	4.4	4.2	3.9	4.8	3.8	3.5	4.7	4.8	5.0	5.0	3.5	3.2	3.1	3.2	3.0	3.0	3.0	3.1	3.1
180.	5.4	4.4	3.9	3.5	4.7	3.7	3.5	5.0	5.2	5.2	5.1	3.5	3.2	3.1	3.4	3.0	3.0	3.1	3.4	3.4
185.	5.3	4.2	3.8	3.4	4.8	3.6	3.5	5.1	5.4	5.5	5.0	3.7	3.2	3.4	3.8	3.1	3.0	3.1	3.6	3.6
190.	5.3	4.1	3.6	3.2	4.6	3.6	3.6	5.5	5.4	5.3	4.8	3.7	3.5	3.3	4.2	3.2	3.0	3.3	4.0	3.9
195.	5.1	3.8	3.5	3.1	4.6	3.7	3.7	5.6	5.6	5.3	4.6	4.0	3.6	3.5	4.6	3.4	3.2	3.3	4.3	4.1
200.	4.8	3.7	3.4	3.1	4.5	3.7	3.7	5.5	5.4	4.9	4.2	4.2	3.9	3.8	4.8	3.4	3.2	3.6	4.5	4.2
205.	5.0	3.6	3.4	3.2	4.6	3.8	3.8	5.4	5.1	4.6	4.3	4.5	3.9	3.6	4.9	3.6	3.4	3.8	4.4	4.1

JOB: Villages RUN: Int 9-10 NA

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
210.	4.9	3.5	3.3	3.2	4.5	3.8	3.8	5.1	4.9	4.5	4.1	4.5	4.1	3.7	4.8	3.7	3.5	3.9	4.6	4.1
215.	4.9	3.5	3.3	3.1	4.5	3.9	3.9	5.2	4.9	4.5	4.1	4.6	4.1	3.7	4.5	3.7	3.4	3.7	4.5	3.9
220.	4.8	3.5	3.3	3.1	4.4	3.9	3.9	5.4	4.8	4.4	4.0	4.8	4.4	3.7	4.5	3.7	3.4	4.1	4.4	3.9
225.	4.9	3.4	3.3	3.1	4.4	4.1	4.1	5.6	4.7	4.4	4.0	5.1	4.2	3.8	4.3	3.7	3.6	4.0	4.4	3.8
230.	4.7	3.4	3.2	3.0	4.4	4.2	4.2	5.9	4.6	4.4	3.8	5.1	4.2	3.6	4.3	3.9	3.9	3.9	4.4	3.8
235.	4.6	3.3	3.1	3.0	4.4	4.3	4.2	6.1	4.3	4.2	3.7	5.2	4.0	3.5	4.5	4.2	4.2	3.9	4.3	3.8
240.	4.3	3.2	3.1	3.0	4.3	4.2	4.1	5.7	4.2	4.0	3.7	4.8	3.8	3.5	4.6	4.4	4.8	3.6	4.4	3.7
245.	3.9	3.1	3.0	3.0	4.0	4.0	4.0	5.5	4.1	4.0	3.8	4.5	3.8	3.4	5.1	4.7	4.9	3.6	4.4	3.7
250.	3.7	3.0	3.0	3.0	3.7	3.7	3.7	5.2	4.0	4.0	3.8	4.2	3.5	3.4	5.4	4.8	4.6	3.5	4.5	4.0
255.	3.2	3.0	3.0	3.0	3.5	3.5	3.5	4.8	4.0	4.0	3.8	3.8	3.4	3.4	5.5	5.0	4.5	3.5	4.6	4.0
260.	3.1	3.0	3.0	3.0	3.3	3.3	3.3	4.6	4.0	4.0	3.8	3.5	3.4	3.3	5.5	4.8	4.1	3.6	4.6	4.2
265.	3.0	3.0	3.0	3.0	3.2	3.2	3.2	4.3	4.0	4.0	3.8	3.5	3.4	3.3	5.3	4.8	3.8	3.6	4.7	4.2
270.	3.0	3.0	3.0	3.0	3.1	3.1	3.1	4.2	3.9	3.9	3.7	3.5	3.4	3.3	5.1	4.6	3.7	3.6	4.5	4.2
275.	3.0	3.0	3.0	3.0	3.1	3.1	3.1	4.3	3.9	3.9	3.7	3.5	3.4	3.3	4.7	4.6	3.6	3.4	4.6	4.2
280.	3.0	3.0	3.0	3.0	3.1	3.1	3.1	4.3	4.1	4.1	3.8	3.6	3.4	3.3	4.5	4.6	3.6	3.4	4.7	4.2
285.	3.0	3.0	3.0	3.0	3.1	3.1	3.1	4.2	4.1	4.1	3.9	3.6	3.4	3.3	4.4	4.6	3.6	3.4	4.9	4.2
290.	3.0	3.0	3.0	3.0	3.1	3.1	3.1	4.2	4.1	4.1	3.9	3.6	3.4	3.3	4.1	4.5	3.6	3.5	5.0	4.2
295.	3.0	3.0	3.0	3.0	3.1	3.1	3.1	4.2	4.1	4.1	3.9	3.6	3.4	3.3	4.1	4.4	3.6	3.5	5.0	4.2
300.	3.0	3.0	3.0	3.0	3.1	3.1	3.1	4.1	4.1	4.1	3.9	3.6	3.3	3.3	4.1	4.3	3.6	3.5	5.1	4.2
305.	3.0	3.0	3.0	3.0	3.0	3.1	3.1	4.2	4.2	4.2	4.0	3.6	3.3	3.3	4.2	4.3	3.6	3.5	5.1	4.4
310.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.3	4.3	4.3	4.0	3.6	3.3	3.3	4.3	4.2	3.5	3.5	5.2	4.5
315.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.5	4.4	4.4	4.2	3.6	3.4	3.3	4.6	4.1	3.5	3.5	5.0	4.5
320.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.6	4.4	4.3	4.2	3.6	3.4	3.3	4.8	4.3	3.7	3.5	5.0	4.5
325.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.7	4.6	4.5	4.4	3.5	3.4	3.2	5.3	4.4	3.6	3.4	5.1	4.7
330.	3.1	3.1	3.1	3.1	3.0	3.0	3.0	4.8	4.7	4.6	4.5	3.5	3.3	3.2	5.5	4.4	3.5	3.4	5.2	4.9
335.	3.4	3.3	3.3	3.3	3.0	3.0	3.0	4.8	4.7	4.6	4.4	3.5	3.2	3.1	5.6	4.1	3.4	3.2	5.4	5.1
340.	3.7	3.7	3.6	3.6	3.1	3.0	3.0	4.6	4.5	4.5	4.3	3.4	3.2	3.1	5.5	3.9	3.4	3.2	5.6	5.4
345.	4.1	4.0	4.0	3.9	3.2	3.0	3.0	4.4	4.1	4.2	4.0	3.2	3.1	3.1	5.5	3.7	3.3	3.2	5.7	5.7
350.	4.4	4.4	4.3	4.2	3.3	3.1	3.0	3.9	3.7	3.8	3.7	3.0	3.1	3.2	5.1	3.7	3.3	3.2	5.5	5.7
355.	4.7	4.6	4.5	4.3	3.4	3.3	3.0	3.4	3.4	3.5	3.4	3.0	3.2	3.2	4.7	3.5	3.3	3.2	5.3	5.5
360.	4.7	4.7	4.6	4.3	3.7	3.3	3.2	3.2	3.2	3.2	3.2	3.1	3.2	3.3	4.5	3.6	3.4	3.1	4.6	5.0
MAX	5.5	4.7	4.7	4.7	5.4	5.4	4.6	6.1	5.6	5.5	5.1	5.2	4.4	3.8	5.6	5.0	4.9	4.1	5.7	5.7
DEGR.	175	140	150	150	115	90	70	235	195	185	180	235	220	200	335	255	245	220	345	345

WIND ANGLE (DEGR)	* REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
210.	3.5	3.9	4.6	4.1				
215.	3.4	3.7	4.5	3.9				
220.	3.4	4.1	4.4	3.9				
225.	3.6	4.0	4.4	3.8				
230.	3.9	3.9	4.4	3.8				
235.	4.2	4.2	3.9	4.3	3.8			
240.	4.8	3.6	4.4	3.7				
245.	4.9	3.6	4.4	3.7				
250.	4.6	3.5	4.5	4.0				
255.	4.5	3.5	4.6	4.0				
260.	4.1	3.6	4.6	4.2				
265.	3.8	3.6	4.7	4.2				
270.	3.7	3.6	4.5	4.2				
275.	3.6	3.4	4.6	4.2				
280.	3.6	3.4	4.7	4.2				
285.	3.6	3.4	4.9	4.2				
290.	3.6	3.5	5.0	4.2				
295.	3.6	3.5	5.0	4.2				
300.	3.6	3.5	5.1	4.2				
305.	3.6	3.5	5.1	4.4				
310.	3.5	3.5	5.2	4.5				
315.	3.5	3.5	5.0	4.5				
320.	3.7	3.5	5.0	4.5				
325.	3.6	3.4	5.1	4.7				
330.	3.5	3.4	5.2	4.9				
335.	3.4	3.2	5.4	5.1				
340.	3.4	3.2	5.6	5.4				
345.	3.3	3.2	5.7	5.7				
350.	3.3	3.2	5.5	5.7				
355.	3.3	3.2	5.3	5.5				
360.	3.4	3.1	4.6	5.0				
MAX	4.9	4.1	5.7	5.7				
DEGR.	245	220	345	345				

JOB: Villages RUN: Int 9-10 NA

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
0.	4.8	5.9	4.7	4.4	3.8	4.9	3.8	3.6
5.	4.6	5.8	4.6	4.5	4.2	5.0	3.8	3.7
10.	4.1	5.6	4.6	4.6	4.3	5.0	3.8	3.7
15.	3.7	5.7	4.7	4.8	4.3	5.2	4.1	3.8
20.	3.2	5.5	4.8	4.7	4.3	5.1	4.2	3.8
25.	3.1	5.2	4.9	4.7	4.2	5.1	4.3	3.9
30.	3.1	5.3	4.7	4.6	4.2	5.1	4.4	3.9
35.	3.1	5.1	4.5	4.6	4.0	5.1	4.7	4.0
40.	3.0	4.8	4.4	4.4	3.9	5.4	4.9	4.2
45.	3.0	4.7	4.4	4.2	3.9	5.1	4.9	4.2
50.	3.0	4.5	4.3	3.9	3.7	5.1	4.9	4.2
55.	3.0	4.3	4.2	3.9	3.7	4.9	4.7	4.2
60.	3.0	4.0	4.2	3.8	3.7	4.3	4.4	3.9
65.	3.0	4.0	4.1	3.7	3.6	4.0	4.1	3.9
70.	3.0	4.0	4.1	3.6	3.6	3.7	3.7	3.6
75.	3.0	3.9	4.0	3.6	3.6	3.6	3.4	3.4
80.	3.0	3.9	4.0	3.6	3.6	3.7	3.5	3.4
85.	3.0	3.9	4.0	3.6	3.6	3.6	3.3	3.3
90.	3.0	3.9	4.0	3.6	3.6	3.6	3.3	3.2
95.	3.0	3.9	4.0	3.6	3.6	3.6	3.3	3.2
100.	3.0	3.9	4.0	3.6	3.6	3.6	3.3	3.2
105.	3.0	3.9	3.9	3.6	3.6	3.6	3.3	3.2
110.	3.0	3.9	3.9	3.6	3.6	3.5	3.3	3.2
115.	3.0	3.9	3.9	3.6	3.6	3.5	3.2	3.2
120.	3.0	3.9	3.9	3.6	3.6	3.5	3.2	3.2
125.	3.0	3.9	3.9	3.6	3.6	3.5	3.2	3.2
130.	3.0	4.0	3.9	3.6	3.6	3.4	3.2	3.2
135.	3.0	4.0	3.9	3.6	3.6	3.4	3.2	3.2
140.	3.0	4.0	4.0	3.7	3.7	3.4	3.2	3.2
145.	3.0	4.0	4.0	3.7	3.7	3.3	3.3	3.2
150.	3.0	4.0	4.0	3.7	3.7	3.3	3.3	3.2
155.	3.0	4.2	4.2	3.9	3.9	3.3	3.3	3.2
160.	3.0	4.1	4.1	3.9	3.9	3.3	3.3	3.2
165.	3.0	4.1	4.1	4.0	4.0	3.5	3.3	3.2
170.	3.1	4.2	4.1	4.0	4.0	3.5	3.3	3.1
175.	3.1	4.1	4.2	4.1	4.1	3.5	3.3	3.0
180.	3.4	4.0	4.2	4.2	4.2	3.3	3.2	3.0
185.	3.6	3.9	4.2	4.1	4.1	3.3	3.1	3.0
190.	3.9	3.6	3.9	3.9	3.9	3.1	3.0	3.0
195.	4.1	3.4	3.6	3.6	3.6	3.0	3.0	3.0
200.	4.2	3.2	3.4	3.4	3.3	3.0	3.0	3.0
205.	4.1	3.1	3.2	3.2	3.2	3.0	3.0	3.0

JOB: Villages RUN: Int 9-10 NA

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
210.	4.1	3.0	3.1	3.1	3.1	3.0	3.0	3.0
215.	3.9	3.0	3.0	3.0	3.0	3.0	3.0	3.0
220.	3.9	3.1	3.0	3.0	3.0	3.1	3.0	3.0
225.	3.8	3.1	3.0	3.0	3.0	3.1	3.1	3.1
230.	3.8	3.2	3.0	3.0	3.0	3.2	3.1	3.1
235.	3.7	3.4	3.0	3.0	3.0	3.4	3.3	3.3
240.	3.6	3.7	3.0	3.0	3.0	3.6	3.6	3.5
245.	3.6	4.0	3.2	3.0	3.0	3.8	3.8	3.7
250.	3.6	4.3	3.3	3.1	3.0	3.9	3.9	3.9
255.	3.6	4.6	3.3	3.2	3.0	4.0	3.9	3.9
260.	3.6	4.8	3.4	3.2	3.0	4.0	4.0	3.8
265.	3.7	4.8	3.3	3.3	3.1	3.8	3.8	3.8
270.	3.8	5.0	3.3	3.3	3.2	3.8	3.8	3.8
275.	3.8	5.1	3.3	3.3	3.2	3.8	3.7	3.7
280.	3.8	5.0	3.3	3.3	3.2	3.8	3.7	3.7
285.	3.8	5.1	3.3	3.3	3.2	3.8	3.6	3.6
290.	3.8	5.0	3.4	3.3	3.2	3.9	3.6	3.6
295.	3.8	5.0	3.4	3.2	3.2	4.0	3.5	3.5
300.	3.8	4.9	3.5	3.2	3.2	4.0	3.5	3.5
305.	3.8	4.9	3.6	3.2	3.2	4.1	3.5	3.5
310.	3.8	4.9	3.7	3.2	3.2	4.2	3.5	3.5
315.	3.8	4.8	3.7	3.2	3.2	4.2	3.5	3.5
320.	3.8	4.8	3.7	3.3	3.2	4.3	3.5	3.5
325.	3.9	4.8	3.7	3.3	3.2	4.3	3.5	3.5
330.	4.1	4.7	3.7	3.4	3.2	4.3	3.5	3.5
335.	4.1	4.9	3.7	3.4	3.2	4.3	3.5	3.5
340.	4.3	5.1	3.9	3.6	3.1	4.3	3.5	3.5
345.	4.6	5.4	4.1	3.7	3.3	4.4	3.5	3.5
350.	4.5	5.6	4.7	3.9	3.6	4.7	3.6	3.5
355.	5.0	5.9	4.6	4.4	3.7	4.8	3.7	3.5
360.	4.8	5.9	4.7	4.4	3.8	4.9	3.8	3.6
MAX	5.0	5.9	4.9	4.8	4.3	5.4	4.9	4.2
DEGR.	355	0	25	15	10	40	40	40

THE HIGHEST CONCENTRATION OF 6.10 PPM OCCURRED AT RECEPTOR REC8 .

JOB: Villages RUN: Int 9-10 Action

DATE : 10/ 1/ 8
TIME : 11:43:42

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 175. CM
U = 1.0 M/S CLAS = 5 (E) ATIM = 60. MINUTES MIXH = 1000. M AMB = 3.0 PPM

LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (FT) X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. 169 NO new SBA	-271.0	923.0	-12.0	-1.0	960.	164.	AG	1384.	12.0	0.0	32.0		
2. 169 NO new SBL	-5.0	17.0	-34.8	128.3	115.	345.	AG	178.	100.0	0.0	12.0	0.99	5.9
3. 169 NO new SBT	-16.0	14.0	-66.5	193.9	187.	344.	AG	107.	100.0	0.0	12.0	0.89	9.5
4. 169 NO new SBR	-28.0	11.0	-28.0	11.2	0.	345.	AG	0.	100.0	0.0	12.0	0.34	0.0
5. 169 NO new NBD	12.0	1.0	-248.0	969.0	1002.	345.	AG	1034.	12.0	0.0	32.0		
6. new EO 169 WBA1	78.0	996.0	156.0	159.0	841.	175.	AG	598.	12.0	0.0	32.0		
7. new EO 169 WBA2	156.0	159.0	113.0	77.0	93.	208.	AG	598.	12.0	0.0	32.0		
8. new EO 169 WBA3	113.0	77.0	-4.0	5.0	137.	238.	AG	598.	12.0	0.0	32.0		
9. new EO 169 WBL	122.0	68.0	14.0	2.0	127.	239.	AG	128.	100.0	0.0	32.0		
10. new EO 169 WBTR	13.0	15.0	78.7	55.7	77.	58.	AG	159.	100.0	0.0	12.0	0.63	3.9
11. new EO 169 EBD1	-4.0	-22.0	132.0	60.0	159.	59.	AG	437.	12.0	0.0	32.0		
12. new EO 169 EBD2	132.0	60.0	180.0	155.0	106.	27.	AG	437.	12.0	0.0	32.0		
13. new EO 169 EBD3	180.0	155.0	102.0	998.0	847.	355.	AG	437.	12.0	0.0	32.0		
14. 169 SO new NBA	-167.0	-986.0	12.0	1.0	1003.	10.	AG	607.	12.0	0.0	32.0		
15. 169 SO new NBL	-9.0	-47.0	-10.0	-52.5	6.	190.	AG	121.	100.0	0.0	12.0	0.19	0.3
16. 169 SO new NBTR	4.0	-47.0	-32.8	-248.9	205.	190.	AG	124.	100.0	0.0	12.0	0.93	10.4
17. 169 SO new SBD	-12.0	-1.0	-190.0	-982.0	997.	190.	AG	1169.	12.0	0.0	32.0		
18. new EO 169 EBA	-881.0	-471.0	-4.0	-22.0	985.	63.	AG	682.	12.0	0.0	32.0		
19. new EO 169 EBL	-36.0	-19.0	-149.3	-76.9	127.	243.	AG	333.	100.0	0.0	24.0	0.93	6.5
20. new EO 169 EBTR	-38.0	-40.0	-100.2	-71.8	70.	243.	AG	169.	100.0	0.0	12.0	0.70	3.5
21. new EO 169 WBD1	-4.0	5.0	-92.0	-27.0	94.	250.	AG	631.	12.0	0.0	32.0		
22. new EO 169 WBD2	-92.0	-27.0	-897.0	-440.0	905.	243.	AG	631.	12.0	0.0	44.0		
23. new EO 169 WBL2	168.0	157.0	122.0	68.0	100.	207.	AG	128.	100.0	0.0	32.0		
24. new EO 169 WBL3	142.0	438.0	168.0	157.0	282.	175.	AG	128.	100.0	0.0	32.0		

JOB: Villages RUN: Int 9-10 Action

DATE : 10/ 1/ 8
TIME : 11:43:42

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
2. 169 NO new SBL	89	75	3.0	171	1719	78.90	2	3
3. 169 NO new SBT	89	45	3.0	702	1810	78.90	2	3
4. 169 NO new SBR	89	0	3.0	511	1583	78.90	2	3
10. new EO 169 WBTR	89	67	3.0	211	1764	78.90	2	3
15. 169 SO new NBL	89	51	3.0	20	289	78.90	2	3
16. 169 SO new NBTR	89	52	3.0	587	1748	78.90	2	3
19. new EO 169 EBL	89	70	3.0	502	1717	78.90	2	3
20. new EO 169 EBTR	89	71	3.0	180	1773	78.90	2	3

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. Intersection Name NW	-45.0	15.0	6.0
2. Intersection Name NW	-67.0	94.0	6.0
3. Intersection Name NW	-88.0	173.0	6.0
4. Intersection Name NW	-131.0	332.0	6.0
5. Intersection Name NW	-118.0	-22.0	6.0
6. Intersection Name NW	-191.0	-60.0	6.0
7. Intersection Name NW	-337.0	-135.0	6.0
8. Intersection Name NW	19.0	38.0	6.0
9. Intersection Name NE	-2.0	117.0	6.0
10. Intersection Name NE	-24.0	196.0	6.0
11. Intersection Name NE	-66.0	354.0	6.0
12. Intersection Name NE	89.0	80.0	6.0
13. Intersection Name NE	133.0	150.0	6.0
14. Intersection Name NE	125.0	314.0	6.0
15. Intersection Name NE	24.0	-24.0	6.0
16. Intersection Name NE	94.0	19.0	6.0
17. Intersection Name SE	156.0	73.0	6.0
18. Intersection Name SE	189.0	235.0	6.0
19. Intersection Name SE	10.0	-105.0	6.0
20. Intersection Name SE	-5.0	-185.0	6.0
21. Intersection Name SE	-34.0	-345.0	6.0
22. Intersection Name SE	-53.0	-65.0	6.0
23. Intersection Name SE	-57.0	-146.0	6.0
24. Intersection Name SE	-72.0	-226.0	6.0
25. Intersection Name SW	-101.0	-388.0	6.0
26. Intersection Name SW	-125.0	-102.0	6.0
27. Intersection Name SW	-198.0	-140.0	6.0
28. Intersection Name SW	-344.0	-215.0	6.0

JOB: Villages RUN: Int 9-10 Action

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
0.	4.8	4.5	4.3	4.3	3.5	3.3	3.1	3.3	3.2	3.2	3.2	3.3	3.9	4.0	4.7	4.1	4.7	3.5	4.9	5.2
5.	4.7	4.4	4.2	4.3	3.5	3.3	3.2	3.2	3.2	3.2	3.1	3.4	4.0	4.1	4.6	4.4	4.6	3.3	4.4	5.0
10.	4.8	4.5	4.2	4.2	3.6	3.4	3.2	3.3	3.3	3.2	3.1	3.5	4.1	4.1	4.6	4.5	4.3	3.1	4.4	4.7
15.	4.8	4.4	4.1	4.0	3.7	3.3	3.2	3.4	3.3	3.3	3.2	3.5	4.1	4.1	4.6	4.4	3.9	3.1	4.1	4.2
20.	4.9	4.4	4.0	4.0	3.7	3.3	3.2	3.3	3.3	3.3	3.1	3.5	4.0	4.1	4.4	4.7	3.5	3.0	3.9	4.1
25.	4.9	4.4	4.1	4.0	3.8	3.5	3.3	3.3	3.3	3.2	3.2	3.5	4.0	4.1	4.6	4.6	3.5	3.0	4.0	3.5
30.	4.9	4.6	4.1	4.0	3.9	3.6	3.3	3.4	3.3	3.3	3.2	3.6	3.9	4.0	4.8	4.3	3.2	3.0	3.7	3.4
35.	4.8	4.5	4.1	4.0	3.9	3.7	3.3	3.3	3.3	3.3	3.2	3.7	3.9	3.9	4.6	4.0	3.1	3.0	3.4	3.0
40.	4.5	4.3	4.1	4.0	4.0	3.8	3.3	3.4	3.3	3.3	3.2	3.8	3.8	3.8	4.5	3.8	3.1	3.0	3.2	3.0
45.	4.5	4.4	4.1	3.9	4.0	3.7	3.5	3.5	3.3	3.3	3.2	3.9	3.7	3.8	4.2	3.6	3.0	3.0	3.0	3.0
50.	4.5	4.4	4.1	3.9	3.9	3.8	3.5	3.4	3.3	3.3	3.2	3.9	3.7	3.8	3.9	3.5	3.0	3.0	3.0	3.0
55.	4.7	4.5	4.2	3.9	4.0	4.0	3.7	3.9	3.3	3.3	3.1	4.0	3.8	3.8	3.6	3.4	3.0	3.0	3.0	3.0
60.	4.8	4.5	4.2	3.9	4.1	4.3	4.0	3.9	3.3	3.3	3.1	3.9	3.9	3.7	3.3	3.1	3.0	3.0	3.0	3.0
65.	5.0	4.5	4.2	3.9	4.3	4.4	4.1	4.1	3.2	3.3	3.1	3.8	3.8	3.7	3.2	3.1	3.0	3.0	3.0	3.0
70.	5.1	4.4	4.2	4.0	4.5	5.0	4.3	4.4	3.2	3.2	3.2	3.8	3.8	3.6	3.1	3.1	3.0	3.0	3.0	3.0
75.	5.3	4.5	4.2	4.0	4.5	5.0	4.2	4.5	3.3	3.2	3.2	3.8	3.8	3.7	3.1	3.0	3.0	3.0	3.0	3.0
80.	5.2	4.5	4.2	4.0	4.5	5.0	4.0	4.5	3.3	3.2	3.2	3.7	3.7	3.7	3.0	3.0	3.0	3.0	3.0	3.0
85.	5.0	4.5	4.1	4.0	4.8	5.0	4.0	4.5	3.2	3.2	3.2	3.9	3.8	3.8	3.0	3.0	3.0	3.0	3.0	3.0
90.	4.8	4.6	4.1	4.0	4.7	5.0	4.0	4.5	3.3	3.2	3.2	3.8	3.7	3.7	3.0	3.0	3.0	3.0	3.0	3.0
95.	4.5	4.6	4.1	4.0	4.7	5.0	3.9	4.4	3.3	3.2	3.2	3.8	3.6	3.7	3.0	3.0	3.0	3.0	3.0	3.0
100.	4.6	4.7	4.1	4.0	4.9	4.7	3.8	4.3	3.3	3.2	3.2	3.8	3.6	3.7	3.0	3.0	3.0	3.0	3.0	3.0
105.	4.3	4.7	4.1	4.0	5.1	4.5	3.8	4.3	3.3	3.1	3.2	3.8	3.6	3.7	3.0	3.0	3.0	3.0	3.0	3.0
110.	4.1	4.8	4.2	4.1	5.0	4.3	3.7	4.3	3.3	3.2	3.2	3.8	3.7	3.7	3.0	3.0	3.0	3.0	3.0	3.0
115.	4.2	5.0	4.4	4.0	4.9	4.2	3.7	4.3	3.3	3.2	3.2	3.8	3.8	3.8	3.0	3.0	3.0	3.0	3.0	3.0
120.	3.9	5.1	4.5	4.0	5.0	4.0	3.7	4.2	3.4	3.2	3.2	3.7	3.8	3.8	3.0	3.0	3.0	3.0	3.0	3.0
125.	4.0	4.9	4.6	3.9	4.9	4.1	3.7	4.1	3.5	3.2	3.2	3.6	3.7	3.8	3.0	3.0	3.0	3.0	3.0	3.0
130.	4.0	4.9	4.8	4.1	4.9	3.9	3.6	4.1	3.5	3.3	3.1	3.6	3.7	3.8	3.0	3.0	3.0	3.0	3.0	3.0
135.	3.9	4.8	4.9	4.0	4.8	3.9	3.6	4.1	3.5	3.2	3.2	3.6	3.7	4.0	3.0	3.0	3.0	3.0	3.0	3.0
140.	4.1	4.8	4.9	4.3	4.8	3.8	3.6	4.1	3.7	3.3	3.2	3.7	3.7	4.0	3.0	3.0	3.0	3.0	3.0	3.0
145.	4.2	4.3	4.9	4.6	4.8	3.7	3.6	4.2	3.7	3.4	3.2	3.7	3.7	4.1	3.0	3.0	3.0	3.0	3.0	3.0
150.	4.3	4.3	4.8	4.5	4.8	3.7	3.6	4.3	3.7	3.5	3.3	3.8	3.8	4.1	3.0	3.0	3.0	3.0	3.0	3.0
155.	4.4	4.2	4.5	4.4	4.9	3.7	3.6	4.2	3.8	3.6	3.5	3.7	3.8	4.0	3.0	3.0	3.0	3.0	3.0	3.0
160.	4.6	4.1	4.4	4.4	4.8	3.7	3.6	4.2	3.8	4.0	3.8	3.7	3.8	4.0	3.0	3.0	3.0	3.1	3.0	3.0
165.	4.8	4.2	4.3	4.2	4.7	3.7	3.5	4.3	4.2	4.4	4.3	3.7	3.8	4.0	3.0	3.0	3.0	3.1	3.0	3.0
170.	5.0	4.4	4.3	4.0	4.7	3.7	3.5	4.5	4.5	4.8	4.8	3.7	3.8	4.0	3.1	3.0	3.0	3.1	3.1	3.1
175.	5.2	4.3	4.1	3.7	4.7	3.7	3.4	4.7	4.8	5.0	5.1	3.8	3.8	3.7	3.2	3.0	3.0	3.3	3.1	3.1
180.	5.2	4.4	3.9	3.6	4.7	3.7	3.5	5.1	5.3	5.5	5.0	3.8	3.9	3.6	3.4	3.0	3.0	3.5	3.4	3.3
185.	5.2	4.1	3.7	3.4	4.6	3.6	3.5	5.4	5.5	5.9	4.9	4.1	4.0	3.6	3.8	3.1	3.0	3.6	3.6	3.7
190.	4.9	4.1	3.5	3.3	4.4	3.5	3.5	5.7	5.9	5.5	4.5	4.3	4.1	3.5	4.2	3.2	3.1	4.0	4.1	3.9
195.	5.1	3.8	3.5	3.2	4.4	3.5	3.5	5.7	5.7	5.2	4.6	4.5	4.2	3.8	4.5	3.3	3.2	4.4	4.4	4.3
200.	4.8	3.5	3.3	3.2	4.2	3.5	3.5	5.5	5.6	4.9	4.3	4.9	4.3	4.0	4.7	3.6	3.4	4.6	4.6	4.5
205.	4.6	3.5	3.2	3.2	4.1	3.5	3.5	5.5	5.4	4.8	4.3	5.0	4.4	3.8	4.7	3.6	3.5	4.8	4.6	4.4

JOB: Villages RUN: Int 9-10 Action

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
210.	4.8	3.4	3.2	3.2	4.1	3.6	3.6	5.4	5.3	4.5	4.1	5.0	4.2	3.7	4.4	3.7	3.5	4.9	4.5	4.4
215.	4.7	3.4	3.2	3.2	4.0	3.6	3.6	5.3	5.1	4.4	4.1	5.3	4.4	3.7	4.2	3.7	3.6	5.0	4.4	4.3
220.	4.7	3.3	3.2	3.1	4.1	3.7	3.7	5.4	4.9	4.3	4.1	5.2	4.5	3.8	4.2	3.7	3.7	4.9	4.4	4.3
225.	4.6	3.3	3.2	3.0	4.0	3.8	3.8	5.7	4.9	4.2	3.8	5.4	4.4	3.6	4.1	3.8	3.9	4.6	4.1	4.2
230.	4.4	3.3	3.2	3.0	4.0	3.9	3.9	5.7	4.8	4.2	3.8	5.4	4.4	3.6	4.1	3.7	4.1	4.5	4.1	4.1
235.	4.3	3.2	3.1	3.0	3.9	3.8	3.8	6.0	4.7	4.2	3.8	5.4	3.9	3.4	4.5	4.2	4.9	4.5	4.1	4.1
240.	4.0	3.2	3.0	3.0	3.8	3.8	3.8	5.7	4.6	4.0	3.8	5.2	3.8	3.2	4.7	4.5	4.9	4.4	4.2	4.1
245.	3.6	3.1	3.0	3.0	3.7	3.7	3.6	5.3	4.5	4.0	3.8	4.5	3.8	3.2	5.1	4.8	5.5	4.3	4.3	4.1
250.	3.4	3.0	3.0	3.0	3.5	3.5	3.5	5.0	4.4	4.0	3.8	4.2	3.6	3.3	5.4	5.1	5.3	4.0	4.4	4.2
255.	3.1	3.0	3.0	3.0	3.3	3.3	3.3	4.7	4.4	4.0	3.8	4.0	3.5	3.3	5.6	5.2	5.3	4.0	4.3	4.2
260.	3.1	3.0	3.0	3.0	3.2	3.2	3.2	4.5	4.4	3.9	3.8	3.8	3.5	3.3	5.3	4.9	4.9	4.0	4.2	4.1
265.	3.0	3.0	3.0	3.0	3.1	3.1	3.1	4.4	4.4	3.9	3.8	3.7	3.5	3.2	5.1	5.0	4.6	4.0	4.3	4.0
270.	3.0	3.0	3.0	3.0	3.1	3.1	3.1	4.4	4.3	3.9	3.8	3.7	3.4	3.3	5.0	4.9	4.7	4.0	4.2	4.0
275.	3.0	3.0	3.0	3.0	3.1	3.1	3.1	4.4	4.3	3.9	3.8	3.7	3.4	3.3	4.6	4.7	4.3	4.0	4.3	4.0
280.	3.0	3.0	3.0	3.0	3.1	3.1	3.1	4.4	4.3	3.8	3.8	3.7	3.4	3.3	4.6	4.8	4.3	4.0	4.6	4.1
285.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.4	4.2	3.8	3.8	3.6	3.3	3.3	4.4	4.8	4.3	4.0	4.6	4.0
290.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.5	4.3	3.9	3.9	3.6	3.3	3.3	4.2	4.8	4.2	4.0	4.6	4.0
295.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.5	4.2	3.9	3.9	3.6	3.4	3.3	4.2	4.9	4.3	4.1	4.7	4.0
300.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.6	4.3	4.0	3.9	3.5	3.4	3.3	4.0	4.9	4.2	4.1	4.7	4.2
305.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.7	4.4	4.1	4.1	3.6	3.4	3.3	4.3	4.9	4.2	4.1	4.9	4.4
310.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.8	4.3	4.1	4.1	3.5	3.4	3.4	4.4	4.8	4.2	4.1	4.9	4.5
315.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.8	4.3	4.2	4.2	3.5	3.4	3.4	4.8	4.9	4.2	4.2	4.9	4.6
320.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.9	4.4	4.3	4.3	3.6	3.4	3.3	5.1	4.8	4.2	4.2	4.8	4.7
325.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0	4.5	4.4	4.4	3.6	3.4	3.2	5.4	4.6	4.2	4.2	4.8	4.7
330.	3.1	3.1	3.1	3.1	3.0	3.0	3.0	5.1	4.7	4.5	4.5	3.6	3.4	3.2	5.7	4.6	4.2	4.3	5.1	4.6
335.	3.3	3.3	3.3	3.2	3.0	3.0	3.0	5.0	4.6	4.6	4.6	3.4	3.2	3.2	5.9	4.6	4.0	4.2	5.2	4.7
340.	3.6	3.5	3.5	3.5	3.1	3.0	3.0	4.8	4.5	4.5	4.4	3.4	3.3	3.1	6.2	4.3	4.2	4.2	5.4	5.2
345.	4.1	3.9	3.9	3.9	3.2	3.0	3.0	4.4	4.3	4.3	4.1	3.2	3.2	3.2	5.8	4.1	4.2	4.1	5.8	5.6
350.	4.5	4.2	4.1	4.1	3.3	3.1	3.0	3.8	3.8	3.9	3.8	3.0	3.4	3.6	5.6	4.0	4.3	3.9	5.5	5.7
355.	4.6	4.4	4.3	4.3	3.5	3.2	3.0	3.5	3.5	3.5	3.5	3.1	3.6	3.7	4.9	3.9	4.6	3.8	5.4	5.5
360.	4.8	4.5	4.3	4.3	3.5	3.3	3.1	3.3	3.2	3.2	3.2	3.3	3.9	4.0	4.7	4.1	4.7	3.5	4.9	5.2
MAX	5.3	5.1	4.9	4.6	5.1	5.0	4.3	6.0	5.9	5.9	5.1	5.4	4.5	4.1	6.2	5.2	5.5	5.0	5.8	5.7
DEGR.	75	120	135	145	105	70	70	235	190	185	175	225	220	5	340	255	245	215	345	350

WIND ANGLE (DEGR)	REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
210.								
215.								
220.								
225.								
230.								
235.								
240.								
245.								
250.								
255.								
260.								
265.								
270.								
275.								
280.								
285.								
290.								
295.								
300.								
305.								
310.								
315.								
320.								
325.								
330.								
335.								
340.								
345.								
350.								
355.								
360.								
MAX								
DEGR.								

JOB: Villages RUN: Int 9-10 Action

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
0.	4.8	5.9	4.9	4.4	3.9	4.9	3.8	3.6
5.	4.5	6.0	4.6	4.6	4.2	4.9	3.8	3.7
10.	4.2	5.9	4.8	4.9	4.3	5.0	3.8	3.7
15.	3.9	6.0	5.0	4.8	4.6	5.2	3.8	3.7
20.	3.6	5.6	5.2	4.9	4.7	5.3	4.1	3.8
25.	3.1	5.7	5.0	4.9	4.2	5.5	4.3	3.8
30.	3.1	5.6	4.8	4.4	4.3	5.6	4.5	3.8
35.	3.0	5.6	4.7	4.4	4.1	5.4	4.7	3.8
40.	3.0	5.4	4.6	4.2	3.9	5.8	4.9	4.0
45.	3.0	5.2	4.3	4.1	3.9	5.5	5.0	4.2
50.	3.0	4.7	4.0	4.1	3.8	5.5	5.1	4.3
55.	3.0	4.5	4.0	4.0	3.8	5.4	5.0	4.1
60.	3.0	4.3	3.9	3.9	3.7	4.6	4.3	3.9
65.	3.0	4.1	3.9	3.9	3.7	4.2	4.1	3.8
70.	3.0	4.0	3.9	3.9	3.7	3.7	3.8	3.7
75.	3.0	3.8	3.9	3.9	3.7	3.6	3.5	3.5
80.	3.0	3.8	3.8	3.8	3.6	3.5	3.5	3.4
85.	3.0	3.8	3.8	3.8	3.6	3.5	3.4	3.4
90.	3.0	3.8	3.8	3.8	3.6	3.4	3.4	3.3
95.	3.0	3.8	3.9	3.9	3.7	3.4	3.4	3.2
100.	3.0	3.8	3.9	3.9	3.7	3.4	3.4	3.2
105.	3.0	3.8	3.9	3.9	3.7	3.4	3.4	3.2
110.	3.0	3.8	3.9	3.8	3.7	3.4	3.4	3.2
115.	3.0	3.8	3.8	3.7	3.6	3.4	3.4	3.2
120.	3.0	3.8	3.8	3.7	3.6	3.4	3.4	3.2
125.	3.0	3.8	3.9	3.8	3.7	3.4	3.3	3.2
130.	3.0	3.8	3.9	3.8	3.7	3.4	3.3	3.2
135.	3.0	3.8	3.9	3.7	3.7	3.4	3.3	3.2
140.	3.0	3.8	3.9	3.7	3.7	3.4	3.3	3.2
145.	3.0	3.9	4.0	3.8	3.8	3.4	3.3	3.2
150.	3.0	3.9	4.0	3.8	3.8	3.5	3.3	3.2
155.	3.0	3.9	4.0	3.8	3.8	3.4	3.3	3.2
160.	3.0	4.0	4.1	3.9	3.9	3.4	3.3	3.2
165.	3.0	4.0	4.2	4.0	4.0	3.4	3.3	3.1
170.	3.1	4.1	4.3	4.2	4.2	3.4	3.3	3.1
175.	3.1	4.0	4.4	4.3	4.3	3.4	3.3	3.0
180.	3.3	4.0	4.3	4.3	4.3	3.4	3.2	3.0
185.	3.5	3.9	4.2	4.2	4.2	3.3	3.1	3.0
190.	3.8	3.6	4.1	4.0	4.0	3.1	3.0	3.0
195.	4.0	3.4	3.7	3.7	3.7	3.1	3.0	3.0
200.	4.1	3.2	3.4	3.3	3.3	3.0	3.0	3.0
205.	4.0	3.1	3.2	3.2	3.2	3.0	3.0	3.0

JOB: Villages RUN: Int 9-10 Action

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
210.	4.0	3.0	3.1	3.1	3.1	3.0	3.0	3.0
215.	3.9	3.0	3.1	3.0	3.1	3.0	3.0	3.0
220.	3.9	3.1	3.0	3.0	3.0	3.1	3.1	3.1
225.	3.8	3.1	3.0	3.0	3.0	3.1	3.1	3.1
230.	3.7	3.2	3.0	3.0	3.0	3.2	3.2	3.2
235.	3.7	3.4	3.0	3.0	3.0	3.4	3.4	3.3
240.	3.7	3.7	3.1	3.0	3.0	3.6	3.6	3.5
245.	3.7	4.0	3.2	3.0	3.0	3.8	3.8	3.8
250.	3.7	4.4	3.2	3.1	3.0	3.9	3.8	3.8
255.	3.6	4.7	3.3	3.2	3.0	3.9	3.9	3.9
260.	3.5	4.8	3.3	3.2	3.0	3.9	3.9	3.9
265.	3.6	4.9	3.3	3.2	3.1	3.8	3.8	3.8
270.	3.7	5.0	3.3	3.2	3.2	3.7	3.7	3.6
275.	3.7	5.0	3.3	3.2	3.2	3.6	3.6	3.6
280.	3.8	5.1	3.3	3.2	3.2	3.6	3.6	3.6
285.	3.7	5.1	3.3	3.2	3.2	3.6	3.6	3.6
290.	3.7	4.9	3.2	3.2	3.2	3.5	3.5	3.5
295.	3.7	4.9	3.3	3.2	3.2	3.6	3.5	3.5
300.	3.7	4.8	3.3	3.2	3.2	3.6	3.5	3.5
305.	3.8	4.7	3.4	3.2	3.2	3.7	3.5	3.5
310.	3.9	4.8	3.5	3.2	3.2	3.8	3.5	3.5
315.	3.9	4.8	3.5	3.2	3.2	3.9	3.5	3.5
320.	3.9	4.8	3.6	3.2	3.2	4.0	3.5	3.5
325.	3.9	4.7	3.7	3.3	3.2	4.1	3.5	3.5
330.	4.0	4.7	3.7	3.3	3.2	4.2	3.5	3.5
335.	4.0	4.9	3.7	3.4	3.2	4.2	3.5	3.5
340.	4.3	5.1	3.9	3.5	3.2	4.3	3.5	3.5
345.	4.5	5.3	4.1	3.7	3.4	4.4	3.5	3.5
350.	4.7	5.6	4.4	4.0	3.6	4.6	3.6	3.5
355.	5.0	5.8	4.7	4.1	3.7	4.6	3.7	3.5
360.	4.8	5.9	4.9	4.4	3.9	4.9	3.8	3.6
MAX	5.0	6.0	5.2	4.9	4.7	5.8	5.1	4.3
DEGR.	355	5	20	10	20	40	50	50

THE HIGHEST CONCENTRATION OF 6.20 PPM OCCURRED AT RECEPTOR REC15.

JOB: Villages RUN: Int 9-10 Cumulative

DATE : 10/ 1/ 8
TIME : 11:59:52

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 175. CM
U = 1.0 M/S CLAS = 5 (E) ATIM = 60. MINUTES MIXH = 1000. M AMB = 3.0 PPM

LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (FT) X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. 169 NO new SBA	-271.0	923.0	-12.0	-1.0	960.	164.	AG	2005.	12.0	0.0	32.0		
2. 169 NO new SBL	-5.0	17.0	-240.5	896.7	911.	345.	AG	187.	100.0	0.0	12.0	1.58	46.3
3. 169 NO new SBT	-16.0	14.0	-1061.3	3740.3	3870.	344.	AG	109.	100.0	0.0	12.0	1.43	196.6
4. 169 NO new SBR	-28.0	11.0	-28.1	11.5	1.	345.	AG	0.	100.0	0.0	12.0	0.44	0.0
5. 169 NO new NBD	12.0	1.0	-248.0	969.0	1002.	345.	AG	1445.	12.0	0.0	32.0		
6. new EO 169 WBA1	78.0	996.0	156.0	159.0	841.	175.	AG	767.	12.0	0.0	32.0		
7. new EO 169 WBA2	156.0	159.0	113.0	77.0	93.	208.	AG	767.	12.0	0.0	32.0		
8. new EO 169 WBA3	113.0	77.0	-4.0	5.0	137.	238.	AG	767.	12.0	0.0	32.0		
9. new EO 169 WBL	122.0	68.0	14.0	2.0	127.	239.	AG	160.	100.0	0.0	32.0		
10. new EO 169 WBTR1	113.0	77.0	13.0	15.0	118.	238.	AG	166.	100.0	0.0	32.0		
11. new EO 169 EBD1	-4.0	-22.0	132.0	60.0	159.	59.	AG	492.	12.0	0.0	32.0		
12. new EO 169 EBD2	132.0	60.0	180.0	155.0	106.	27.	AG	492.	12.0	0.0	32.0		
13. new EO 169 EBD3	180.0	155.0	102.0	998.0	847.	355.	AG	492.	12.0	0.0	32.0		
14. 169 SO new NBA	-167.0	-986.0	12.0	1.0	1003.	10.	AG	1057.	12.0	0.0	32.0		
15. 169 SO new NBL	-9.0	-47.0	-135.1	-742.1	706.	190.	AG	123.	100.0	0.0	12.0	1.44	35.9
16. 169 SO new NBTR	4.0	-47.0	-472.2	-2661.7	2658.	190.	AG	125.	100.0	0.0	12.0	1.35	135.0
17. 169 SO new SBD	-12.0	-1.0	-190.0	-982.0	997.	190.	AG	1846.	12.0	0.0	32.0		
18. new EO 169 EBA	-881.0	-471.0	-4.0	-22.0	985.	63.	AG	907.	12.0	0.0	32.0		
19. new EO 169 EBL	-36.0	-19.0	-439.9	-225.4	454.	243.	AG	339.	100.0	0.0	24.0	1.09	23.0
20. new EO 169 EBTR	-38.0	-40.0	-569.1	-311.5	596.	243.	AG	169.	100.0	0.0	12.0	1.13	30.3
21. new EO 169 WBD1	-4.0	5.0	-92.0	-27.0	94.	250.	AG	953.	12.0	0.0	32.0		
22. new EO 169 WBD2	-92.0	-27.0	-897.0	-440.0	905.	243.	AG	953.	12.0	0.0	44.0		
23. new EO 169 WBL2	168.0	157.0	122.0	68.0	100.	207.	AG	160.	100.0	0.0	32.0		
24. new EO 169 WBL3	90.0	997.0	168.0	157.0	844.	175.	AG	160.	100.0	0.0	32.0		
25. new EO 169 WBTR2	143.0	134.0	113.0	77.0	64.	208.	AG	166.	100.0	0.0	32.0		

JOB: Villages RUN: Int 9-10 Cumulative

DATE : 10/ 1/ 8
TIME : 11:59:52

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
2. 169 NO new SBL	120	106	3.0	202	1719	78.90	2	3
3. 169 NO new SBT	120	62	3.0	1139	1810	78.90	2	3
4. 169 NO new SBR	120	0	3.0	664	1583	78.90	2	3
15. 169 SO new NBL	120	70	3.0	189	351	78.90	2	3
16. 169 SO new NBTR	120	71	3.0	868	1759	78.90	2	3
19. new EO 169 EBL	120	96	3.0	590	1717	78.90	2	3
20. new EO 169 EBTR	120	96	3.0	317	1772	78.90	2	3

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. Intersection Name NW	-45.0	15.0	6.0
2. Intersection Name NW	-67.0	94.0	6.0
3. Intersection Name NW	-88.0	173.0	6.0
4. Intersection Name NW	-131.0	332.0	6.0
5. Intersection Name NW	-118.0	-22.0	6.0
6. Intersection Name NW	-191.0	-60.0	6.0
7. Intersection Name NW	-337.0	-135.0	6.0
8. Intersection Name NW	19.0	38.0	6.0
9. Intersection Name NE	-2.0	117.0	6.0
10. Intersection Name NE	-24.0	196.0	6.0
11. Intersection Name NE	-66.0	354.0	6.0
12. Intersection Name NE	89.0	80.0	6.0
13. Intersection Name NE	133.0	150.0	6.0
14. Intersection Name NE	125.0	314.0	6.0
15. Intersection Name NE	24.0	-24.0	6.0
16. Intersection Name NE	94.0	19.0	6.0
17. Intersection Name SE	156.0	73.0	6.0
18. Intersection Name SE	189.0	235.0	6.0
19. Intersection Name SE	10.0	-105.0	6.0
20. Intersection Name SE	-5.0	-185.0	6.0
21. Intersection Name SE	-34.0	-345.0	6.0
22. Intersection Name SE	-53.0	-65.0	6.0
23. Intersection Name SE	-57.0	-146.0	6.0
24. Intersection Name SE	-72.0	-226.0	6.0
25. Intersection Name SW	-101.0	-388.0	6.0
26. Intersection Name SW	-125.0	-102.0	6.0
27. Intersection Name SW	-198.0	-140.0	6.0
28. Intersection Name SW	-344.0	-215.0	6.0

JOB: Villages RUN: Int 9-10 Cumulative

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
0.	5.9	5.9	5.9	5.9	4.3	3.7	3.2	3.6	3.6	3.4	3.3	3.6	4.3	4.6	5.3	5.1	5.3	3.8	5.9	6.7
5.	5.9	5.8	5.7	5.6	4.3	3.9	3.5	3.6	3.4	3.4	3.2	3.6	4.4	4.7	5.2	5.3	5.1	3.5	5.4	5.8
10.	5.6	5.6	5.7	5.5	4.4	3.9	3.6	3.5	3.5	3.3	3.3	3.7	4.4	4.7	5.2	5.4	4.6	3.2	4.9	5.4
15.	5.7	5.6	5.5	5.4	4.3	4.0	3.6	3.6	3.5	3.5	3.3	3.7	4.3	4.5	5.0	5.5	4.1	3.1	4.4	4.7
20.	5.5	5.5	5.5	5.4	4.2	4.1	3.7	3.6	3.5	3.5	3.5	3.8	4.3	4.4	5.2	5.5	3.9	3.0	4.4	4.3
25.	5.4	5.4	5.4	5.2	4.3	4.1	3.7	3.6	3.5	3.5	3.5	3.8	4.3	4.3	5.5	5.4	3.5	3.0	4.4	4.0
30.	5.3	5.3	5.3	5.2	4.2	4.1	3.8	3.6	3.5	3.5	3.5	4.1	4.1	4.2	5.4	5.2	3.3	3.0	4.2	3.5
35.	5.3	5.3	5.3	5.2	4.3	4.1	3.8	3.6	3.4	3.5	3.4	4.2	4.1	4.2	5.2	4.7	3.1	3.0	3.9	3.3
40.	5.2	5.3	5.3	5.2	4.2	4.2	3.9	3.9	3.4	3.4	3.4	4.4	4.0	4.1	5.1	4.0	3.1	3.0	3.5	3.1
45.	5.0	5.0	5.0	5.0	4.1	4.0	3.9	3.9	3.4	3.4	3.4	4.7	4.0	4.1	4.9	3.8	3.1	3.0	3.1	3.0
50.	5.2	4.9	4.9	4.9	4.2	4.1	4.1	4.1	3.4	3.4	3.4	4.7	4.0	4.0	4.4	3.5	3.0	3.0	3.0	3.0
55.	5.3	4.9	4.9	4.8	4.7	4.4	4.3	4.6	3.4	3.4	3.4	5.0	4.0	4.0	4.1	3.4	3.0	3.0	3.0	3.0
60.	5.4	4.8	4.8	4.8	4.8	4.7	4.8	4.7	3.4	3.4	3.4	4.8	4.0	3.9	3.6	3.2	3.0	3.0	3.0	3.0
65.	5.6	4.8	4.8	4.8	5.1	4.8	5.4	5.0	3.3	3.4	3.4	5.0	4.0	3.9	3.3	3.1	3.0	3.0	3.0	3.0
70.	6.0	4.9	4.8	4.8	5.2	5.4	5.8	5.3	3.3	3.4	3.3	4.9	3.9	3.8	3.1	3.1	3.0	3.0	3.0	3.0
75.	6.0	5.0	4.8	4.8	5.0	5.6	5.7	5.2	3.4	3.4	3.3	4.9	4.0	3.8	3.1	3.1	3.0	3.0	3.0	3.0
80.	5.9	4.9	4.8	4.8	5.1	5.7	5.9	5.2	3.4	3.4	3.3	4.7	4.1	3.8	3.0	3.0	3.0	3.0	3.0	3.0
85.	5.7	5.0	4.8	4.8	5.1	5.4	6.1	5.1	3.5	3.3	3.3	4.8	3.9	3.9	3.0	3.0	3.0	3.0	3.0	3.0
90.	5.4	5.2	4.8	4.8	5.3	5.7	5.9	5.1	3.6	3.2	3.3	4.7	3.9	3.8	3.0	3.0	3.0	3.0	3.0	3.0
95.	5.2	5.2	4.8	4.8	5.1	5.6	5.8	5.0	3.6	3.2	3.3	4.8	3.8	3.8	3.0	3.0	3.0	3.0	3.0	3.0
100.	5.0	5.2	4.9	4.9	5.4	5.6	5.6	4.9	3.7	3.3	3.3	4.5	3.8	3.8	3.0	3.0	3.0	3.0	3.0	3.0
105.	4.8	5.2	5.1	5.0	5.5	5.6	5.6	4.8	3.7	3.4	3.3	4.7	3.8	3.8	3.0	3.0	3.0	3.0	3.0	3.0
110.	4.6	5.5	5.3	5.1	5.5	5.4	5.4	4.7	3.6	3.3	3.3	4.7	3.8	3.9	3.0	3.0	3.0	3.0	3.0	3.0
115.	4.6	5.5	5.3	5.1	5.3	5.3	5.3	4.6	3.6	3.4	3.2	4.5	3.9	4.0	3.0	3.0	3.0	3.0	3.0	3.0
120.	4.5	5.5	5.4	5.1	5.5	5.3	5.3	4.7	3.7	3.4	3.3	4.4	3.9	4.0	3.0	3.0	3.0	3.0	3.0	3.0
125.	4.5	5.6	5.3	5.1	5.4	5.3	5.3	4.6	3.7	3.5	3.3	4.5	3.8	4.1	3.0	3.0	3.0	3.0	3.0	3.0
130.	4.4	5.4	5.3	5.3	5.3	5.2	5.2	4.4	3.7	3.6	3.4	4.4	3.9	4.1	3.0	3.0	3.0	3.0	3.0	3.0
135.	4.6	5.4	5.5	5.4	5.2	5.2	5.2	4.4	3.7	3.6	3.3	4.4	3.9	4.2	3.0	3.0	3.0	3.0	3.0	3.0
140.	4.7	5.4	5.5	5.7	5.4	5.3	5.2	4.5	3.7	3.4	3.3	4.4	4.1	4.2	3.0	3.0	3.0	3.0	3.0	3.0
145.	4.8	5.1	5.7	5.9	5.5	5.3	5.2	4.6	3.7	3.7	3.4	4.5	4.3	4.3	3.0	3.0	3.0	3.0	3.0	3.0
150.	4.9	4.8	5.4	5.9	5.6	5.3	5.2	4.6	3.8	3.8	3.5	4.5	4.3	4.3	3.0	3.0	3.0	3.0	3.0	3.0
155.	5.1	4.8	5.1	5.8	5.7	5.4	5.2	4.5	3.9	3.9	3.9	4.5	4.5	4.4	3.0	3.0	3.0	3.0	3.0	3.0
160.	5.4	4.5	5.0	5.4	5.7	5.4	5.2	4.7	4.2	4.4	4.5	4.4	4.5	4.4	3.1	3.0	3.0	3.1	3.0	3.1
165.	5.8	5.0	4.9	5.0	5.7	5.4	5.1	4.7	4.7	4.9	5.2	4.4	4.5	4.3	3.1	3.0	3.0	3.1	3.1	3.1
170.	6.0	5.1	4.8	4.7	5.8	5.5	5.0	5.1	5.0	5.7	6.0	4.5	4.6	4.3	3.1	3.0	3.0	3.1	3.1	3.1
175.	6.3	4.9	4.7	4.5	5.8	5.4	4.9	5.5	5.7	6.4	6.7	4.6	4.7	4.0	3.4	3.0	3.0	3.4	3.3	3.3
180.	6.4	5.1	4.6	4.3	5.6	5.4	4.9	6.1	6.8	7.0	7.1	4.7	4.8	4.1	3.9	3.0	3.0	3.5	3.8	3.8
185.	6.3	5.0	4.3	4.0	5.5	5.1	4.9	6.7	7.1	7.3	7.0	5.1	5.1	4.3	4.6	3.3	3.1	3.9	4.5	4.5
190.	6.1	4.6	4.1	3.7	5.2	5.0	4.8	7.3	7.2	6.8	6.7	5.5	5.6	4.4	5.4	3.7	3.3	4.5	5.3	5.3
195.	5.7	4.4	3.8	3.5	5.1	4.9	4.9	7.6	7.0	6.6	6.0	6.0	5.7	4.4	5.9	3.9	3.6	5.1	5.9	5.8
200.	5.3	4.2	3.7	3.5	5.1	5.1	5.1	7.2	6.6	6.0	5.7	6.4	6.0	4.5	6.1	4.2	3.9	5.7	6.0	6.0
205.	5.1	4.1	3.8	3.5	5.1	5.1	5.1	6.9	6.3	6.0	5.7	6.5	5.9	4.5	6.0	4.3	3.9	6.0	5.9	6.0

JOB: Villages RUN: Int 9-10 Cumulative

WIND * CONCENTRATION
ANGLE * (PPM)

(DEGR)*	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
210. *	5.2	4.1	3.7	3.4	5.3	5.3	5.2	6.6	6.2	5.9	5.5	6.5	5.6	4.4	5.7	4.3	4.2	5.8	5.6	5.8
215. *	5.3	4.1	3.7	3.4	5.4	5.4	5.3	6.6	6.2	5.8	5.3	6.6	5.5	4.3	5.3	4.1	4.2	5.8	5.4	5.4
220. *	5.5	4.2	3.6	3.2	5.6	5.6	5.3	6.8	6.0	5.6	5.2	6.6	5.3	4.2	5.0	4.2	4.0	5.6	5.3	5.3
225. *	5.8	4.1	3.6	3.1	5.8	5.8	5.3	7.0	6.0	5.4	5.0	6.6	5.2	4.1	5.0	4.5	4.5	5.4	5.1	5.1
230. *	5.9	3.9	3.4	3.0	5.9	5.8	5.1	7.4	5.9	5.3	4.8	6.9	5.3	4.0	5.1	4.5	5.0	5.4	4.9	4.9
235. *	5.5	3.6	3.2	3.0	5.6	5.5	4.9	7.5	5.5	5.1	4.8	6.9	5.1	3.9	5.6	5.0	5.6	5.1	4.8	4.8
240. *	5.3	3.3	3.0	3.0	5.3	5.2	4.5	7.2	5.4	4.9	4.8	6.5	4.5	3.6	6.2	5.6	6.5	4.9	5.0	4.8
245. *	4.6	3.1	3.0	3.0	4.6	4.5	4.1	6.6	5.0	4.8	4.7	6.0	4.1	3.6	6.8	6.0	6.6	4.5	5.3	4.9
250. *	3.9	3.0	3.0	3.0	4.1	4.1	3.8	6.2	4.8	4.8	4.7	5.2	3.9	3.6	7.1	6.4	6.7	4.4	5.5	5.0
255. *	3.3	3.0	3.0	3.0	3.5	3.5	3.4	5.4	4.8	4.8	4.7	4.4	3.7	3.6	7.0	6.0	6.4	4.4	5.9	5.1
260. *	3.1	3.0	3.0	3.0	3.3	3.3	3.3	5.1	4.8	4.8	4.7	4.1	3.7	3.6	6.6	5.9	5.8	4.4	5.9	5.2
265. *	3.0	3.0	3.0	3.0	3.2	3.2	3.2	4.8	4.8	4.8	4.7	4.1	3.7	3.6	6.0	5.6	5.6	4.5	5.9	5.5
270. *	3.0	3.0	3.0	3.0	3.1	3.1	3.1	4.8	4.8	4.8	4.8	4.0	3.7	3.6	5.5	5.3	5.4	4.4	5.8	5.4
275. *	3.0	3.0	3.0	3.0	3.1	3.1	3.1	4.8	4.8	4.8	4.8	4.0	3.7	3.6	5.5	5.5	5.2	4.4	5.8	5.5
280. *	3.0	3.0	3.0	3.0	3.1	3.1	3.1	4.8	4.8	4.8	4.8	4.0	3.8	3.6	5.2	5.3	5.2	4.4	5.8	5.5
285. *	3.0	3.0	3.0	3.0	3.1	3.1	3.1	4.8	4.8	4.8	4.8	4.0	3.8	3.6	4.9	5.2	5.3	4.4	5.6	5.3
290. *	3.0	3.0	3.0	3.0	3.1	3.1	3.1	4.9	4.9	4.9	4.9	4.0	3.8	3.6	4.7	5.3	5.2	4.5	5.6	5.3
295. *	3.0	3.0	3.0	3.0	3.1	3.1	3.1	4.9	4.9	4.9	4.9	3.9	3.8	3.7	4.7	5.3	5.2	4.5	5.6	5.4
300. *	3.0	3.0	3.0	3.0	3.1	3.1	3.1	5.1	5.1	5.1	5.0	4.0	3.8	3.8	4.6	5.3	5.1	4.5	5.6	5.5
305. *	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.2	5.2	5.2	5.2	4.0	3.8	3.8	4.8	5.4	5.0	4.5	5.8	5.5
310. *	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.3	5.2	5.2	5.2	4.0	3.8	3.8	5.1	5.3	5.0	4.7	5.8	5.4
315. *	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.5	5.5	5.6	5.4	4.1	3.9	3.8	5.4	5.5	5.0	4.9	5.7	5.5
320. *	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.7	5.7	5.7	5.7	4.3	3.9	3.7	5.6	5.6	5.2	4.8	5.6	5.5
325. *	3.0	3.0	3.0	3.1	3.0	3.0	3.0	6.0	6.0	6.0	6.0	4.3	3.9	3.6	6.5	5.7	5.2	4.9	5.6	5.4
330. *	3.2	3.2	3.2	3.3	3.0	3.0	3.0	6.4	6.3	6.3	6.2	4.3	3.8	3.5	7.0	5.7	5.2	4.7	6.3	5.7
335. *	3.6	3.6	3.7	3.7	3.0	3.0	3.0	6.5	6.4	6.4	6.3	4.0	3.7	3.4	7.5	5.6	5.0	4.8	6.4	6.2
340. *	4.3	4.3	4.3	4.2	3.2	3.0	3.0	6.2	6.2	6.1	5.9	3.9	3.6	3.4	7.7	5.2	4.8	4.7	6.9	6.7
345. *	5.2	5.0	5.0	5.0	3.6	3.2	3.0	5.6	5.6	5.5	5.3	3.4	3.4	3.6	7.4	4.8	5.1	4.8	7.2	7.1
350. *	5.7	5.7	5.7	5.5	3.9	3.4	3.1	4.7	4.7	4.7	4.5	3.4	3.7	4.0	6.6	4.8	5.0	4.5	7.0	7.3
355. *	6.0	6.0	5.9	5.8	4.0	3.6	3.1	4.1	3.8	3.9	3.8	3.3	4.0	4.3	5.9	4.8	5.4	4.2	6.8	6.8
360. *	5.9	5.9	5.9	5.9	4.3	3.7	3.2	3.6	3.6	3.4	3.3	3.6	4.3	4.6	5.3	5.1	5.3	3.8	5.9	6.7
MAX *	6.4	6.0	5.9	5.9	5.9	5.8	6.1	7.6	7.2	7.3	7.1	6.9	6.0	4.7	7.7	6.4	6.7	6.0	7.2	7.3
DEGR. *	180	355	0	0	230	225	85	195	190	185	180	230	200	5	340	250	250	205	345	350

(DEGR)*	REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
210. *								
215. *								
220. *								
225. *								
230. *								
235. *								
240. *								
245. *								
250. *								
255. *								
260. *								
265. *								
270. *								
275. *								
280. *								
285. *								
290. *								
295. *								
300. *								
305. *								
310. *								
315. *								
320. *								
325. *								
330. *								
335. *								
340. *								
345. *								
350. *								
355. *								
360. *								
MAX *								
DEGR. *								

JOB: Villages RUN: Int 9-10 Cumulative

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
0.	6.8	6.9	5.7	5.1	4.9	6.1	5.6	5.2
5.	6.1	6.9	5.7	5.5	5.4	6.2	5.9	5.5
10.	5.3	6.8	5.7	5.6	5.7	6.3	5.9	5.6
15.	4.8	6.8	6.3	6.1	5.8	6.2	6.0	5.6
20.	4.0	6.4	6.2	6.1	6.2	6.5	6.4	6.0
25.	3.4	6.4	6.0	6.0	5.9	6.5	6.4	6.0
30.	3.1	6.5	6.1	5.8	5.6	6.5	6.2	6.2
35.	3.1	6.2	5.9	5.6	5.3	6.7	6.6	6.4
40.	3.1	6.2	5.7	5.2	5.2	6.7	6.5	6.5
45.	3.0	6.2	5.3	5.0	5.0	6.3	6.6	6.5
50.	3.0	5.9	5.0	5.0	5.0	6.5	6.4	6.5
55.	3.0	5.4	4.7	4.7	4.8	5.8	6.1	6.4
60.	3.0	5.1	4.7	4.6	4.7	5.2	5.6	5.7
65.	3.0	4.8	4.6	4.6	4.6	4.7	4.8	4.9
70.	3.0	4.6	4.6	4.6	4.6	4.2	4.1	4.4
75.	3.0	4.3	4.5	4.5	4.5	4.0	3.8	3.9
80.	3.0	4.3	4.5	4.5	4.5	3.8	3.6	3.7
85.	3.0	4.4	4.5	4.5	4.5	3.8	3.6	3.6
90.	3.0	4.3	4.5	4.5	4.5	3.8	3.6	3.5
95.	3.0	4.3	4.5	4.5	4.5	3.7	3.5	3.5
100.	3.0	4.3	4.6	4.5	4.5	3.7	3.5	3.5
105.	3.0	4.3	4.5	4.5	4.5	3.7	3.5	3.5
110.	3.0	4.3	4.5	4.5	4.5	3.7	3.5	3.5
115.	3.0	4.3	4.5	4.5	4.5	3.7	3.5	3.5
120.	3.0	4.3	4.4	4.4	4.4	3.7	3.5	3.5
125.	3.0	4.3	4.5	4.5	4.5	3.7	3.6	3.5
130.	3.0	4.4	4.6	4.6	4.6	3.7	3.6	3.5
135.	3.0	4.4	4.6	4.6	4.6	3.8	3.6	3.5
140.	3.0	4.4	4.7	4.6	4.7	3.8	3.6	3.5
145.	3.0	4.5	4.8	4.7	4.8	3.9	3.6	3.5
150.	3.0	4.6	5.0	4.9	5.0	4.0	3.7	3.5
155.	3.0	4.6	5.0	5.0	5.0	4.0	3.7	3.5
160.	3.1	4.9	5.2	5.1	5.1	4.0	3.7	3.4
165.	3.1	5.0	5.3	5.3	5.3	4.1	3.7	3.4
170.	3.1	5.0	5.6	5.6	5.6	4.1	3.8	3.2
175.	3.3	5.2	5.9	5.8	5.8	4.1	3.7	3.2
180.	3.8	5.3	6.0	5.9	5.8	3.9	3.5	3.1
185.	4.4	5.1	5.8	5.7	5.6	3.7	3.2	3.1
190.	5.1	4.6	5.3	5.2	5.1	3.4	3.2	3.0
195.	5.7	3.9	4.6	4.5	4.4	3.2	3.0	3.0
200.	5.9	3.6	3.9	3.8	3.8	3.0	3.0	3.0
205.	5.9	3.1	3.3	3.3	3.3	3.0	3.0	3.0

JOB: Villages RUN: Int 9-10 Cumulative

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
210.	5.6	3.0	3.1	3.1	3.1	3.0	3.0	3.0
215.	5.4	3.1	3.1	3.1	3.1	3.1	3.1	3.0
220.	5.3	3.1	3.1	3.0	3.1	3.1	3.1	3.1
225.	5.1	3.2	3.0	3.0	3.0	3.2	3.2	3.1
230.	4.9	3.6	3.0	3.0	3.0	3.6	3.4	3.3
235.	4.8	4.2	3.0	3.0	3.0	4.0	3.9	3.7
240.	4.8	4.9	3.1	3.0	3.0	4.8	4.6	4.1
245.	4.8	5.6	3.4	3.0	3.0	5.5	5.3	4.5
250.	4.7	6.3	3.6	3.2	3.0	6.1	5.9	5.0
255.	4.7	6.4	3.9	3.3	3.0	6.4	6.0	5.2
260.	4.7	6.4	4.2	3.5	3.0	6.2	6.1	5.5
265.	4.8	6.1	4.2	3.7	3.2	6.1	5.9	5.5
270.	4.7	5.9	4.2	3.8	3.2	5.9	5.8	5.5
275.	4.8	5.7	4.2	3.9	3.2	5.7	5.5	5.3
280.	4.9	5.4	4.1	3.8	3.3	5.4	5.4	5.3
285.	4.9	5.4	4.1	3.8	3.3	5.4	5.4	5.3
290.	5.0	5.2	4.1	3.8	3.4	5.2	5.1	5.1
295.	5.1	5.0	4.1	3.8	3.4	5.1	5.1	5.1
300.	5.1	5.0	4.1	3.8	3.5	5.1	5.1	5.0
305.	5.2	5.1	4.1	3.7	3.5	5.1	5.1	5.0
310.	5.2	5.1	4.1	3.7	3.5	5.0	5.0	5.0
315.	5.3	4.9	4.0	3.6	3.5	5.0	5.0	5.0
320.	5.3	5.0	4.0	3.6	3.5	5.0	5.0	5.0
325.	5.3	5.0	4.0	3.6	3.5	5.0	5.0	5.0
330.	5.4	4.9	3.9	3.6	3.5	5.0	5.0	5.0
335.	5.6	5.1	4.0	3.6	3.5	5.0	5.0	5.0
340.	6.0	5.6	4.6	3.8	3.6	5.2	5.0	5.0
345.	6.3	6.1	4.9	4.2	3.8	5.4	5.1	5.0
350.	6.9	6.5	5.1	4.6	4.1	5.6	5.2	5.1
355.	7.1	6.8	5.5	4.9	4.4	5.9	5.5	5.1
360.	6.8	6.9	5.7	5.1	4.9	6.1	5.6	5.2
MAX	7.1	6.9	6.3	6.1	6.2	6.7	6.6	6.5
DEGR.	355	0	15	15	20	35	35	40

THE HIGHEST CONCENTRATION OF 7.70 PPM OCCURRED AT RECEPTOR REC15.

JOB: Villages RUN: Int 18 No Action

DATE : 10/ 1/ 8
TIME : 12: 9: 3

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 175. CM
U = 1.0 M/S CLAS = 5 (E) ATIM = 60. MINUTES MIXH = 1000. M AMB = 3.0 PPM

LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (FT) X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. 169 NO NoC SBA	-358.0	965.0	-6.0	-4.0	1031.	160.	AG	1340.	13.1	0.0	32.0		
2. 169 NO NoC SBT	-14.0	20.0	-239.8	640.4	660.	340.	AG	68.	100.0	0.0	12.0	1.02	33.5
3. 169 NO NoC SBR	-26.0	15.0	-36.3	43.3	30.	340.	AG	68.	100.0	0.0	12.0	0.15	1.5
4. 169 NO NoC NBD	5.0	1.0	-347.0	969.0	1030.	340.	AG	805.	13.1	0.0	32.0		
5. 169 SO NoC NBA	348.0	-906.0	31.0	-35.0	927.	340.	AG	810.	13.1	0.0	32.0		
6. 169 SO NoC NBA2	31.0	-35.0	5.0	1.0	44.	324.	AG	810.	13.1	0.0	32.0		
7. 169 SO NoC NBL	14.0	-24.0	33.9	-78.6	58.	160.	AG	37.	100.0	0.0	12.0	0.92	3.0
8. 169 SO NoC NBT	25.0	-19.0	47.8	-81.6	67.	160.	AG	37.	100.0	0.0	12.0	0.41	3.4
9. 169 SO NoC SBD	-6.0	-4.0	326.0	-915.0	970.	160.	AG	1600.	13.1	0.0	32.0		
10. NoC WO 169 EBA	-470.0	-951.0	-31.0	-29.0	1021.	25.	AG	630.	12.0	0.0	32.0		
11. NoC WO 169 EBA2	-31.0	-29.0	-6.0	-4.0	35.	45.	AG	630.	12.0	0.0	32.0		
12. NoC WO 169 EBL	-22.0	-11.0	-97.2	-168.8	175.	205.	AG	176.	100.0	0.0	12.0	1.00	8.9
13. NoC WO 169 EBR	-17.0	-27.0	-126.0	-256.3	254.	205.	AG	151.	100.0	0.0	12.0	1.00	12.9
14. NoC WO 169 WBD	-11.0	11.0	-37.0	-13.0	35.	227.	AG	375.	12.0	0.0	32.0		
15. NoC WO 169 WBD2	-37.0	-13.0	-480.0	-946.0	1033.	205.	AG	375.	12.0	0.0	32.0		

JOB: Villages RUN: Int 18 No Action

DATE : 10/ 1/ 8
TIME : 12: 9: 3

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
2. 169 NO NoC SBT	119	38	3.0	1195	1827	78.90	2	3
3. 169 NO NoC SBR	119	38	3.0	145	1553	78.90	2	3
7. 169 SO NoC NBL	119	21	3.0	230	319	78.90	2	3
8. 169 SO NoC NBT	119	21	3.0	580	1827	78.90	2	3
12. NoC WO 169 EBL	119	99	3.0	225	1787	78.90	2	3
13. NoC WO 169 EBR	119	85	3.0	405	1671	78.90	2	3

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. Intersection Name NW	-42.0	13.0	6.0
2. Intersection Name NW	-70.0	90.0	6.0
3. Intersection Name NW	-98.0	167.0	6.0
4. Intersection Name NW	-154.0	321.0	6.0
5. Intersection Name NW	-77.0	61.0	6.0
6. Intersection Name NW	-112.0	-135.0	6.0
7. Intersection Name NW	-183.0	-283.0	6.0
8. Intersection Name NW	12.0	30.0	6.0
9. Intersection Name NE	-17.0	107.0	6.0
10. Intersection Name NE	-45.0	184.0	6.0
11. Intersection Name NE	-101.0	338.0	6.0
12. Intersection Name NE	39.0	-12.0	6.0
13. Intersection Name NE	68.0	-89.0	6.0
14. Intersection Name NE	96.0	-166.0	6.0
15. Intersection Name NE	151.0	-320.0	6.0
16. Intersection Name NE	-11.0	-53.0	6.0
17. Intersection Name SE	22.0	-128.0	6.0
18. Intersection Name SE	50.0	-205.0	6.0
19. Intersection Name SE	106.0	-359.0	6.0
20. Intersection Name SE	-46.0	-127.0	6.0
21. Intersection Name SE	-81.0	-201.0	6.0
22. Intersection Name SE	-152.0	-350.0	6.0

JOB: Villages RUN: Int 18 No Action

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
0.	4.6	4.5	4.5	4.5	4.1	3.6	3.3	3.1	3.1	3.1	3.1	3.0	3.1	3.1	3.1	5.1	4.8	4.8	4.7	5.1
5.	4.5	4.4	4.4	4.4	4.1	3.6	3.4	3.1	3.1	3.1	3.1	3.0	3.0	3.1	3.1	4.7	4.8	4.5	4.6	5.0
10.	4.3	4.2	4.2	4.2	4.0	3.7	3.5	3.0	3.1	3.1	3.1	3.0	3.0	3.0	3.1	4.3	4.6	4.4	4.4	4.9
15.	4.4	4.2	4.2	4.2	3.9	3.6	3.5	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.3	4.3	4.3	4.3	4.4
20.	4.3	4.1	4.1	4.1	3.9	3.7	3.8	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.2	4.3	4.2	4.2	4.3
25.	4.3	4.1	4.1	4.1	3.8	3.8	4.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.1	4.2	4.2	4.2	4.0
30.	4.3	4.1	4.1	4.1	3.7	4.0	4.2	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	4.1	4.1	4.1	3.6
35.	4.3	4.1	4.1	4.1	3.7	4.2	4.3	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.9	4.1	4.1	4.1	3.6
40.	4.1	3.9	3.9	3.9	3.7	4.4	4.3	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.9	4.0	4.0	4.0	3.5
45.	4.1	3.9	3.9	3.9	3.7	4.8	4.4	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.8	4.0	4.0	4.0	3.4
50.	4.1	3.9	3.9	3.9	3.7	4.7	4.3	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.9	4.0	4.0	4.0	3.4
55.	4.1	3.9	3.9	3.9	3.7	4.6	4.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.9	4.0	4.0	4.0	3.4
60.	4.1	3.9	3.9	3.9	3.7	4.6	4.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.1	3.9	4.0	4.0	3.4
65.	4.1	3.9	3.9	3.9	3.7	4.6	4.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.1	4.0	4.0	4.0	3.4
70.	4.0	3.9	3.9	3.9	3.7	4.5	3.9	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.1	4.0	4.0	4.0	3.4
75.	4.0	3.9	3.9	3.9	3.7	4.5	3.8	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.2	4.0	4.0	4.0	3.5
80.	4.0	3.8	3.9	3.9	3.7	4.4	3.7	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0	3.4
85.	3.9	3.9	3.9	3.9	3.7	4.4	3.7	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0	3.4
90.	4.0	3.9	3.9	3.9	3.7	4.4	3.7	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0	3.4
95.	4.0	3.9	3.9	3.9	3.7	4.4	3.6	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.1	4.0	4.0	4.0	3.5
100.	3.9	3.9	3.9	3.9	3.7	4.4	3.6	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.2	4.0	4.0	4.0	3.6
105.	4.0	4.1	4.1	4.1	3.7	4.4	3.6	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.2	4.1	4.1	4.1	3.6
110.	4.1	4.1	4.1	4.1	3.8	4.5	3.7	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.2	4.1	4.1	4.1	3.6
115.	4.2	4.1	4.1	4.1	3.9	4.5	3.7	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.2	4.2	4.2	4.2	3.6
120.	4.3	4.1	4.1	4.1	4.0	4.5	3.7	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.2	4.2	4.2	4.2	3.6
125.	4.4	4.1	4.2	4.2	4.1	4.4	3.6	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.2	4.3	4.3	4.3	3.6
130.	4.5	4.4	4.2	4.2	4.0	4.4	3.6	3.0	3.1	3.1	3.1	3.0	3.0	3.0	3.1	4.3	4.4	4.4	4.4	3.7
135.	4.7	4.3	4.3	4.4	4.4	4.4	3.6	3.0	3.1	3.1	3.1	3.0	3.1	3.1	3.1	4.4	4.6	4.6	4.6	3.7
140.	5.0	4.6	4.4	4.5	4.4	4.4	3.6	3.2	3.1	3.1	3.1	3.1	3.1	3.1	3.1	4.6	4.8	4.8	4.8	3.7
145.	5.0	4.6	4.7	4.6	4.4	4.4	3.5	3.4	3.3	3.4	3.3	3.3	3.2	3.2	3.2	4.7	5.0	5.0	4.9	3.7
150.	5.2	5.1	4.5	4.6	4.6	4.3	3.4	3.8	3.6	3.7	3.6	3.5	3.4	3.4	3.5	4.8	5.1	5.1	5.0	3.7
155.	5.1	4.8	4.5	4.4	4.4	4.1	3.4	4.3	4.2	4.1	4.2	3.8	3.8	3.8	3.9	4.6	5.1	5.1	4.9	3.5
160.	5.1	4.4	4.4	4.4	4.3	4.1	3.5	4.7	4.6	4.6	4.7	4.4	4.2	4.2	4.2	4.2	4.8	4.7	4.6	3.3
165.	4.7	4.2	3.9	4.0	4.0	3.9	3.5	5.1	4.9	4.9	5.2	4.7	4.5	4.5	4.6	3.8	4.3	4.2	4.1	3.1
170.	4.7	3.9	3.7	3.5	3.7	3.9	3.5	5.2	5.3	5.1	5.3	4.8	4.7	4.7	4.7	3.5	3.8	3.8	3.7	3.0
175.	4.5	3.7	3.5	3.4	3.7	3.8	3.5	4.8	5.1	5.3	5.2	4.7	4.6	4.6	4.6	3.2	3.4	3.4	3.4	3.0
180.	4.4	3.7	3.4	3.1	3.7	3.9	3.6	4.6	5.3	5.1	5.1	4.5	4.5	4.5	4.5	3.1	3.2	3.2	3.2	3.0
185.	4.4	3.7	3.4	3.1	3.7	3.9	3.7	4.6	5.3	5.0	4.9	4.4	4.3	4.3	4.3	3.0	3.1	3.1	3.1	3.0
190.	4.6	3.5	3.2	3.1	3.5	3.9	3.7	4.8	5.3	4.9	4.7	4.4	4.3	4.3	4.3	3.1	3.1	3.1	3.1	3.0
195.	4.4	3.5	3.2	3.0	3.5	3.9	3.8	5.2	5.1	4.8	4.5	4.3	4.1	4.1	4.1	3.2	3.1	3.1	3.1	3.2
200.	4.2	3.2	3.2	3.0	3.2	3.9	3.7	5.3	5.0	4.5	4.3	4.4	4.1	4.1	4.1	3.6	3.1	3.1	3.1	3.5
205.	3.9	3.2	3.0	3.0	3.2	3.6	3.6	5.5	4.7	4.4	4.2	4.5	4.0	4.0	4.0	3.9	3.2	3.1	3.1	3.7

JOB: Villages RUN: Int 18 No Action

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20	REC21	REC22
210.	3.6	3.0	3.0	3.0	3.1	3.5	3.4	5.6	4.5	4.2	4.2	4.8	4.0	3.9	4.0	4.3	3.3	3.1	3.1	3.9		
215.	3.2	3.0	3.0	3.0	3.0	3.3	3.3	5.5	4.3	4.2	4.2	4.8	4.1	4.0	4.0	4.5	3.3	3.1	3.0	4.2		
220.	3.1	3.0	3.0	3.0	3.0	3.1	3.1	5.2	4.1	4.1	4.1	4.9	4.1	4.0	3.9	4.7	3.4	3.2	3.0	4.3		
225.	3.0	3.0	3.0	3.0	3.0	3.1	3.0	4.7	4.0	4.0	4.0	5.0	4.2	4.1	3.9	4.8	3.4	3.2	3.0	4.4		
230.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.6	3.9	3.9	3.9	4.9	4.1	4.0	3.9	4.6	3.4	3.2	3.1	4.4		
235.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.2	3.9	3.9	3.9	4.9	4.2	4.0	3.9	4.5	3.5	3.2	3.1	4.3		
240.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.1	3.9	3.9	3.9	4.8	4.3	4.0	4.0	4.4	3.4	3.2	3.1	4.3		
245.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.1	4.0	4.0	4.0	4.6	4.4	4.2	4.0	4.4	3.5	3.2	3.1	4.3		
250.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.2	4.0	4.0	4.0	4.6	4.4	4.2	4.0	4.3	3.5	3.3	3.1	4.3		
255.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.1	4.0	4.0	4.0	4.5	4.5	4.1	4.0	4.2	3.5	3.3	3.1	4.2		
260.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	3.9	3.9	3.9	4.4	4.4	4.0	4.0	4.1	3.6	3.3	3.1	4.1		
265.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	3.9	3.9	3.9	4.3	4.4	4.1	3.9	4.1	3.6	3.3	3.1	4.1		
270.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	3.9	3.9	3.9	4.1	4.4	4.1	4.0	4.1	3.6	3.3	3.1	4.1		
275.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.1	4.0	4.0	4.0	4.2	4.5	4.2	4.0	4.1	3.6	3.3	3.1	4.1		
280.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.1	4.1	4.1	4.1	4.2	4.5	4.2	4.0	4.1	3.6	3.3	3.1	4.1		
285.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.3	4.2	4.2	4.2	4.1	4.5	4.2	4.2	4.1	3.6	3.3	3.1	4.1		
290.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.2	4.2	4.2	4.2	4.1	4.7	4.3	4.2	4.1	3.7	3.4	3.2	4.1		
295.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.2	4.2	4.2	4.2	3.9	4.6	4.3	4.2	4.1	3.7	3.4	3.3	4.1		
300.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.3	4.3	4.3	4.3	4.1	4.6	4.4	4.3	4.1	3.7	3.4	3.3	4.1		
305.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.4	4.4	4.4	4.4	4.1	4.8	4.4	4.4	4.1	3.7	3.5	3.3	4.1		
310.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.4	4.5	4.5	4.5	4.2	4.8	4.4	4.6	4.1	3.7	3.5	3.3	4.1		
315.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.6	4.6	4.6	4.6	4.3	4.8	4.5	4.6	4.1	3.7	3.5	3.4	4.1		
320.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.7	4.7	4.7	4.7	4.5	4.9	4.7	4.8	4.2	3.8	3.6	3.5	4.1		
325.	3.1	3.1	3.1	3.1	3.0	3.0	3.0	4.9	5.0	4.9	4.9	4.5	4.8	4.7	4.9	4.2	4.0	3.7	3.6	4.1		
330.	3.3	3.3	3.3	3.3	3.1	3.0	3.0	5.0	5.0	5.0	5.0	4.5	4.8	4.8	5.0	4.6	4.4	4.1	4.1	4.1		
335.	3.7	3.7	3.7	3.6	3.4	3.0	3.0	4.9	4.9	4.9	4.8	4.3	4.8	4.8	4.8	5.1	4.6	4.6	4.6	4.4		
340.	4.2	4.2	4.0	3.9	3.7	3.1	3.0	4.6	4.7	4.7	4.4	4.0	4.3	4.3	4.5	5.3	5.2	5.0	5.1	4.6		
345.	4.4	4.4	4.4	4.3	4.0	3.3	3.1	4.0	4.1	4.1	4.1	3.7	3.9	3.9	4.0	5.6	5.3	5.2	5.3	4.9		
350.	4.5	4.5	4.5	4.5	4.2	3.4	3.2	3.6	3.6	3.6	3.6	3.2	3.3	3.4	3.6	5.7	5.3	5.2	5.1	5.1		
355.	4.5	4.5	4.5	4.5	4.2	3.6	3.2	3.3	3.3	3.3	3.3	3.1	3.1	3.1	3.2	5.4	5.1	4.9	5.1	5.1		
360.	4.6	4.5	4.5	4.5	4.1	3.6	3.3	3.1	3.1	3.1	3.1	3.0	3.1	3.1	3.1	5.1	4.8	4.8	4.7	5.1		
MAX	5.2	5.1	4.7	4.6	4.6	4.8	4.4	5.6	5.3	5.3	5.3	5.0	4.9	4.8	5.0	5.7	5.3	5.2	5.3	5.1		
DEGR.	150	150	145	145	150	45	45	210	170	175	170	225	320	330	330	350	350	345	345	0		

JOB: Villages RUN: Int 18 No Action

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC21	REC22
0.	5.1	3.9
5.	5.1	4.1
10.	4.9	4.1
15.	4.7	4.1
20.	4.4	4.2
25.	4.1	3.9
30.	3.6	3.6
35.	3.4	3.6
40.	3.5	3.4
45.	3.4	3.3
50.	3.3	3.3
55.	3.3	3.3
60.	3.3	3.3
65.	3.3	3.3
70.	3.4	3.3
75.	3.3	3.3
80.	3.3	3.3
85.	3.3	3.3
90.	3.4	3.3
95.	3.4	3.3
100.	3.4	3.3
105.	3.4	3.3
110.	3.4	3.3
115.	3.4	3.3
120.	3.4	3.3
125.	3.4	3.3
130.	3.4	3.3
135.	3.5	3.3
140.	3.4	3.1
145.	3.4	3.1
150.	3.3	3.0
155.	3.1	3.0
160.	3.1	3.0
165.	3.0	3.0
170.	3.0	3.0
175.	3.0	3.0
180.	3.0	3.0
185.	3.0	3.0
190.	3.0	3.0
195.	3.1	3.1
200.	3.4	3.3
205.	3.5	3.3

JOB: Villages RUN: Int 18 No Action

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC21	REC22
210.	3.6	3.4
215.	3.9	3.6
220.	4.0	3.6
225.	4.0	3.6
230.	4.0	3.5
235.	3.9	3.4
240.	3.9	3.4
245.	3.9	3.4
250.	3.9	3.4
255.	3.8	3.3
260.	3.7	3.3
265.	3.7	3.3
270.	3.7	3.3
275.	3.7	3.3
280.	3.7	3.3
285.	3.7	3.3
290.	3.7	3.3
295.	3.7	3.3
300.	3.7	3.3
305.	3.7	3.3
310.	3.7	3.3
315.	3.7	3.3
320.	3.8	3.3
325.	3.8	3.3
330.	3.9	3.3
335.	4.0	3.3
340.	4.4	3.4
345.	4.6	3.5
350.	4.8	3.6
355.	5.1	3.7
360.	5.1	3.9
MAX	5.1	4.2
DEGR.	0	20

THE HIGHEST CONCENTRATION OF 5.70 PPM OCCURRED AT RECEPTOR REC16.

JOB: Villages RUN: Int 18 Action

DATE : 10/ 1/ 8
TIME : 12: 8:59

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 175. CM
U = 1.0 M/S CLAS = 5 (E) ATIM = 60. MINUTES MIXH = 1000. M AMB = 3.0 PPM

LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (FT) X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. 169 NO NoC SBA	-358.0	965.0	-6.0	-4.0	1031.	160.	AG	1450.	13.1	0.0	32.0		
2. 169 NO NoC SBT	-14.0	20.0	-542.9	1473.0	1546.	340.	AG	87.	100.0	0.0	12.0	1.12	78.6
3. 169 NO NoC SBR	-26.0	15.0	-52.4	87.7	77.	340.	AG	87.	100.0	0.0	12.0	0.38	3.9
4. 169 NO NoC NBD	5.0	1.0	-347.0	969.0	1030.	340.	AG	1300.	13.1	0.0	32.0		
5. 169 SO NoC NBA	348.0	-906.0	31.0	-35.0	927.	340.	AG	1085.	13.1	0.0	32.0		
6. 169 SO NoC NBA2	31.0	-35.0	5.0	1.0	44.	324.	AG	1085.	13.1	0.0	32.0		
7. 169 SO NoC NBL	14.0	-24.0	48.7	-119.2	101.	160.	AG	59.	100.0	0.0	12.0	1.00	5.1
8. 169 SO NoC NBT	25.0	-19.0	68.7	-139.1	128.	160.	AG	59.	100.0	0.0	12.0	0.68	6.5
9. 169 SO NoC SBD	-6.0	-4.0	326.0	-915.0	970.	160.	AG	1535.	13.1	0.0	32.0		
10. NoC WO 169 EBA	-470.0	-951.0	-31.0	-29.0	1021.	25.	AG	895.	12.0	0.0	32.0		
11. NoC WO 169 EBA2	-31.0	-29.0	-6.0	-4.0	35.	45.	AG	895.	12.0	0.0	32.0		
12. NoC WO 169 EBL	-22.0	-11.0	-364.4	-729.4	796.	205.	AG	152.	100.0	0.0	12.0	1.13	40.4
13. NoC WO 169 EBR	-17.0	-27.0	-79.6	-158.7	146.	205.	AG	131.	100.0	0.0	12.0	0.79	7.4
14. NoC WO 169 WBD	-11.0	11.0	-37.0	-13.0	35.	227.	AG	595.	12.0	0.0	32.0		
15. NoC WO 169 WBD2	-37.0	-13.0	-480.0	-946.0	1033.	205.	AG	595.	12.0	0.0	32.0		

JOB: Villages RUN: Int 18 Action

DATE : 10/ 1/ 8
TIME : 12: 8:59

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
2. 169 NO NoC SBT	100	41	3.0	1105	1827	78.90	2	3
3. 169 NO NoC SBR	100	41	3.0	345	1677	78.90	2	3
7. 169 SO NoC NBL	100	28	3.0	250	374	78.90	2	3
8. 169 SO NoC NBT	100	28	3.0	835	1827	78.90	2	3
12. NoC WO 169 EBL	100	72	3.0	465	1787	78.90	2	3
13. NoC WO 169 EBR	100	62	3.0	430	1649	78.90	2	3

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. Intersection Name NW	-42.0	13.0	6.0
2. Intersection Name NW	-70.0	90.0	6.0
3. Intersection Name NW	-98.0	167.0	6.0
4. Intersection Name NW	-154.0	321.0	6.0
5. Intersection Name NW	-77.0	61.0	6.0
6. Intersection Name NW	-112.0	-135.0	6.0
7. Intersection Name NW	-183.0	-283.0	6.0
8. Intersection Name NW	12.0	30.0	6.0
9. Intersection Name NE	-17.0	107.0	6.0
10. Intersection Name NE	-45.0	184.0	6.0
11. Intersection Name NE	-101.0	338.0	6.0
12. Intersection Name NE	39.0	-12.0	6.0
13. Intersection Name NE	68.0	-89.0	6.0
14. Intersection Name NE	96.0	-166.0	6.0
15. Intersection Name NE	151.0	-320.0	6.0
16. Intersection Name NE	-11.0	-53.0	6.0
17. Intersection Name SE	22.0	-128.0	6.0
18. Intersection Name SE	50.0	-205.0	6.0
19. Intersection Name SE	106.0	-359.0	6.0
20. Intersection Name SE	-46.0	-127.0	6.0
21. Intersection Name SE	-81.0	-201.0	6.0
22. Intersection Name SE	-152.0	-350.0	6.0

JOB: Villages RUN: Int 18 Action

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
0.	5.2	4.9	4.9	4.8	4.4	3.7	3.5	3.2	3.2	3.2	3.2	3.0	3.1	3.1	3.2	5.7	5.1	5.0	4.8	5.5
5.	5.0	4.7	4.7	4.7	4.3	3.8	3.6	3.1	3.1	3.1	3.1	3.0	3.1	3.1	3.1	5.2	4.8	4.7	4.7	5.4
10.	5.0	4.7	4.7	4.7	4.3	3.7	3.6	3.1	3.1	3.1	3.1	3.0	3.1	3.1	3.1	4.7	4.8	4.5	4.6	5.0
15.	4.7	4.4	4.4	4.4	4.1	3.8	3.9	3.1	3.1	3.1	3.1	3.0	3.0	3.1	3.1	4.5	4.7	4.5	4.4	4.8
20.	4.7	4.4	4.4	4.4	4.1	4.0	3.9	3.1	3.1	3.1	3.1	3.0	3.0	3.0	3.1	4.4	4.6	4.3	4.3	4.3
25.	4.6	4.3	4.3	4.3	4.1	4.0	4.1	3.1	3.1	3.1	3.1	3.0	3.0	3.0	3.1	4.4	4.4	4.2	4.2	4.1
30.	4.6	4.3	4.3	4.3	4.1	4.5	4.6	3.0	3.1	3.1	3.1	3.0	3.0	3.0	3.0	4.1	4.4	4.2	4.2	3.7
35.	4.5	4.2	4.2	4.2	4.2	4.5	4.7	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.1	4.4	4.2	4.2	3.6
40.	4.5	4.2	4.2	4.2	4.1	4.8	4.8	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.1	4.3	4.1	4.1	3.6
45.	4.5	4.2	4.2	4.2	4.0	4.9	4.9	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	4.3	4.1	4.1	3.7
50.	4.3	4.1	4.1	4.1	3.9	4.8	4.8	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.1	4.2	4.0	4.0	3.7
55.	4.3	4.1	4.1	4.1	3.9	4.9	4.5	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.2	4.2	4.0	4.0	3.7
60.	4.3	4.1	4.1	4.1	4.0	4.8	4.4	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.1	4.2	4.0	4.0	3.7
65.	4.3	4.1	4.1	4.1	4.0	4.7	4.4	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.1	4.2	4.0	4.0	3.7
70.	4.3	4.1	4.1	4.1	4.0	4.7	4.4	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.1	4.2	4.0	4.0	3.7
75.	4.3	4.1	4.1	4.1	4.0	4.7	4.4	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.1	4.2	4.0	4.0	3.7
80.	4.2	4.1	4.1	4.1	4.0	4.5	4.2	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.2	4.1	4.0	4.0	3.6
85.	4.1	4.2	4.1	4.1	4.0	4.4	4.2	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.1	4.1	4.0	4.0	3.6
90.	4.2	4.2	4.1	4.1	4.0	4.3	4.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.1	4.2	4.1	4.1	3.5
95.	4.2	4.3	4.2	4.2	4.1	4.4	4.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.1	4.2	4.1	4.1	3.5
100.	4.3	4.3	4.2	4.2	4.1	4.4	4.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.2	4.2	4.1	4.1	3.5
105.	4.3	4.4	4.2	4.2	4.1	4.4	4.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.2	4.3	4.2	4.2	3.6
110.	4.4	4.4	4.2	4.2	4.1	4.5	4.1	3.0	3.1	3.1	3.1	3.0	3.0	3.0	3.0	4.2	4.2	4.2	4.2	3.6
115.	4.5	4.5	4.3	4.3	4.3	4.6	4.2	3.0	3.1	3.1	3.1	3.0	3.0	3.0	3.1	4.4	4.2	4.2	4.2	3.6
120.	4.7	4.7	4.4	4.4	4.3	4.5	4.1	3.0	3.1	3.1	3.1	3.0	3.0	3.0	3.1	4.4	4.3	4.3	4.3	3.6
125.	4.8	4.7	4.4	4.4	4.3	4.4	4.1	3.0	3.1	3.1	3.1	3.0	3.1	3.1	3.1	4.5	4.4	4.4	4.4	3.7
130.	5.0	4.9	4.5	4.6	4.6	4.4	4.1	3.0	3.1	3.1	3.1	3.0	3.1	3.1	3.1	4.5	4.6	4.6	4.6	3.7
135.	4.9	5.0	4.7	4.7	4.7	4.4	4.1	3.1	3.1	3.1	3.1	3.0	3.1	3.1	3.1	4.7	4.7	4.7	4.7	3.8
140.	5.4	5.0	4.8	4.8	4.9	4.3	4.0	3.3	3.2	3.2	3.2	3.1	3.1	3.1	3.2	4.9	4.9	4.8	4.8	3.8
145.	5.5	5.4	5.0	5.0	4.9	4.4	4.0	3.6	3.4	3.5	3.4	3.3	3.3	3.3	3.3	4.8	5.1	5.1	5.0	3.8
150.	5.6	5.5	5.0	5.0	4.8	4.2	3.9	4.1	3.8	3.9	3.9	3.6	3.6	3.6	3.6	4.8	5.2	5.1	5.1	3.6
155.	5.5	5.3	4.9	4.8	4.5	4.3	4.0	4.7	4.6	4.4	4.6	4.2	4.0	4.0	4.1	4.6	5.1	5.1	4.9	3.5
160.	5.2	4.8	4.6	4.5	4.2	4.2	4.1	5.3	5.1	5.2	5.3	4.6	4.5	4.5	4.5	4.3	4.8	4.7	4.6	3.3
165.	4.9	4.4	4.2	4.0	4.1	4.1	4.1	5.5	5.5	5.6	5.7	5.0	4.8	4.8	4.7	3.9	4.2	4.2	4.2	3.1
170.	4.7	3.9	3.9	3.8	3.8	4.1	4.1	5.4	5.7	5.9	5.9	5.2	5.0	4.9	5.0	3.5	3.8	3.7	3.7	3.0
175.	4.5	3.7	3.6	3.4	3.8	4.2	4.2	5.2	5.8	6.0	5.9	5.0	5.0	4.9	4.9	3.2	3.4	3.4	3.3	3.0
180.	4.7	3.8	3.6	3.3	3.8	4.4	4.4	5.1	6.1	5.8	5.7	5.0	4.8	4.7	4.8	3.1	3.2	3.2	3.2	3.0
185.	4.6	3.8	3.5	3.3	3.9	4.5	4.5	4.9	5.9	5.9	5.4	4.8	4.7	4.5	4.5	3.0	3.1	3.1	3.1	3.0
190.	4.8	3.8	3.5	3.3	3.8	4.7	4.5	4.9	6.1	5.7	5.3	4.8	4.5	4.4	4.5	3.0	3.1	3.1	3.1	3.0
195.	4.8	3.7	3.4	3.2	3.8	4.8	4.6	5.2	5.9	5.2	5.0	4.6	4.5	4.3	4.3	3.3	3.1	3.1	3.1	3.2
200.	4.6	3.6	3.3	3.0	3.6	4.6	4.5	5.8	5.8	5.2	4.8	4.9	4.4	4.2	4.3	3.7	3.1	3.1	3.1	3.5
205.	4.3	3.3	3.1	3.0	3.3	4.3	4.2	6.3	5.5	4.9	4.6	5.0	4.6	4.2	4.2	4.2	3.4	3.1	3.1	4.0

JOB: Villages RUN: Int 18 Action

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20	REC21	REC22
210.	3.9	3.3	3.0	3.0	3.3	3.9	3.9	6.4	5.2	4.5	4.5	5.2	4.7	4.2	4.1	4.6	3.5	3.2	3.1	4.3		
215.	3.4	3.0	3.0	3.0	3.0	3.5	3.4	6.0	4.9	4.4	4.4	5.3	4.8	4.3	4.0	4.9	3.5	3.3	3.0	4.6		
220.	3.3	3.0	3.0	3.0	3.0	3.3	3.2	5.7	4.6	4.4	4.4	5.5	4.8	4.3	4.0	5.0	3.5	3.3	3.0	4.7		
225.	3.0	3.0	3.0	3.0	3.0	3.1	3.1	5.3	4.5	4.4	4.4	5.2	4.8	4.3	4.1	4.8	3.6	3.5	3.1	4.6		
230.	3.0	3.0	3.0	3.0	3.0	3.1	3.0	4.9	4.4	4.3	4.3	5.3	4.8	4.5	4.3	4.7	3.6	3.5	3.3	4.5		
235.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.6	4.4	4.3	4.3	5.3	4.8	4.4	4.3	4.6	3.5	3.5	3.3	4.5		
240.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.5	4.4	4.3	4.3	5.2	4.9	4.4	4.3	4.5	3.5	3.5	3.3	4.4		
245.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.4	4.4	4.3	4.3	5.0	4.9	4.3	4.3	4.4	3.5	3.4	3.3	4.4		
250.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.4	4.3	4.3	4.3	4.9	4.9	4.3	4.3	4.4	3.6	3.4	3.3	4.4		
255.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.4	4.3	4.3	4.3	4.5	4.9	4.3	4.3	4.4	3.6	3.3	3.3	4.4		
260.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.3	4.3	4.3	4.3	4.6	4.9	4.3	4.3	4.2	3.6	3.3	3.3	4.2		
265.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.4	4.3	4.3	4.3	4.8	4.9	4.3	4.3	4.2	3.6	3.3	3.3	4.2		
270.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.4	4.3	4.3	4.3	4.6	4.8	4.3	4.3	4.2	3.7	3.3	3.3	4.2		
275.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.6	4.4	4.4	4.4	4.4	4.8	4.4	4.3	4.2	3.7	3.3	3.3	4.2		
280.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.6	4.4	4.4	4.4	4.3	4.8	4.4	4.3	4.2	3.7	3.3	3.3	4.2		
285.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.6	4.4	4.4	4.4	4.3	4.8	4.4	4.3	4.2	3.7	3.3	3.3	4.2		
290.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.7	4.5	4.5	4.5	4.5	4.8	4.5	4.4	4.2	3.8	3.5	3.4	4.2		
295.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.7	4.6	4.6	4.6	4.4	4.8	4.6	4.5	4.2	3.8	3.5	3.4	4.2		
300.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.9	4.7	4.7	4.7	4.6	4.9	4.6	4.6	4.2	3.8	3.5	3.4	4.2		
305.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.8	4.7	4.7	4.7	4.5	5.0	4.8	4.6	4.2	3.8	3.5	3.4	4.2		
310.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.1	5.0	5.0	5.0	4.7	5.2	4.9	4.9	4.2	3.8	3.5	3.4	4.2		
315.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.2	5.1	5.1	5.1	4.8	5.4	5.1	4.9	4.1	3.8	3.5	3.4	4.2		
320.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.4	5.3	5.3	5.3	4.8	5.4	5.3	5.0	4.2	3.8	3.6	3.6	4.2		
325.	3.1	3.1	3.1	3.1	3.0	3.0	3.0	5.6	5.6	5.6	5.6	5.2	5.6	5.5	5.3	4.4	3.9	3.9	3.8	4.2		
330.	3.4	3.4	3.4	3.4	3.2	3.0	3.0	5.8	5.8	5.8	5.8	5.0	5.4	5.6	5.3	4.8	4.5	4.3	4.2	4.2		
335.	4.1	4.0	3.9	3.8	3.6	3.0	3.0	5.6	5.6	5.6	5.6	4.8	5.2	5.5	5.2	5.4	5.0	4.7	4.8	4.6		
340.	4.6	4.4	4.4	4.3	3.9	3.3	3.0	5.2	5.3	5.2	5.2	4.4	4.8	4.9	4.9	6.0	5.6	5.3	5.2	4.9		
345.	4.9	4.8	4.8	4.6	4.2	3.4	3.1	4.6	4.6	4.6	4.5	3.8	4.2	4.3	4.3	6.1	5.9	5.6	5.4	5.3		
350.	5.2	5.0	5.0	4.8	4.5	3.6	3.3	3.9	3.9	3.9	3.9	3.4	3.6	3.7	3.7	6.3	5.7	5.5	5.4	5.6		
355.	5.3	5.0	5.0	5.0	4.5	3.7	3.4	3.4	3.4	3.4	3.4	3.2	3.2	3.3	3.3	5.8	5.3	5.4	5.1	5.6		
360.	5.2	4.9	4.9	4.8	4.4	3.7	3.5	3.2	3.2	3.2	3.2	3.0	3.1	3.1	3.2	5.7	5.1	5.0	4.8	5.5		
MAX	5.6	5.5	5.0	5.0	4.9	4.9	4.9	6.4	6.1	6.0	5.9	5.5	5.6	5.6	5.3	6.3	5.9	5.6	5.4	5.6		
DEGR.	150	150	145	145	140	45	45	210	180	175	170	220	325	330	330	350	345	345	345	350		

JOB: Villages RUN: Int 18 Action

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC21	REC22
0.	4.9	4.7
5.	5.0	4.7
10.	5.0	4.8
15.	4.8	4.7
20.	4.3	4.4
25.	4.3	4.1
30.	4.0	3.8
35.	3.4	3.5
40.	3.3	3.3
45.	3.3	3.3
50.	3.3	3.3
55.	3.3	3.3
60.	3.4	3.3
65.	3.4	3.3
70.	3.4	3.3
75.	3.4	3.3
80.	3.4	3.3
85.	3.4	3.3
90.	3.4	3.3
95.	3.4	3.3
100.	3.5	3.3
105.	3.5	3.3
110.	3.5	3.3
115.	3.5	3.3
120.	3.5	3.3
125.	3.5	3.3
130.	3.5	3.3
135.	3.5	3.3
140.	3.5	3.2
145.	3.5	3.1
150.	3.3	3.0
155.	3.2	3.0
160.	3.1	3.0
165.	3.0	3.0
170.	3.0	3.0
175.	3.0	3.0
180.	3.0	3.0
185.	3.0	3.0
190.	3.0	3.0
195.	3.2	3.2
200.	3.5	3.5
205.	3.9	3.8

JOB: Villages RUN: Int 18 Action

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC21	REC22
210.	4.2	4.1
215.	4.3	4.3
220.	4.3	4.3
225.	4.3	4.3
230.	4.2	4.2
235.	4.0	4.0
240.	4.0	4.0
245.	4.0	4.0
250.	4.0	4.0
255.	3.9	3.9
260.	3.8	3.8
265.	3.8	3.8
270.	3.8	3.8
275.	3.8	3.8
280.	3.8	3.8
285.	3.8	3.8
290.	3.8	3.8
295.	3.8	3.8
300.	3.8	3.8
305.	3.8	3.8
310.	3.8	3.8
315.	3.8	3.8
320.	3.8	3.8
325.	3.8	3.8
330.	3.8	3.8
335.	3.9	3.9
340.	4.3	4.0
345.	4.6	4.2
350.	4.7	4.3
355.	4.9	4.4
360.	4.9	4.7
MAX	5.0	4.8
DEGR.	5	10

THE HIGHEST CONCENTRATION OF 6.40 PPM OCCURRED AT RECEPTOR REC8 .

JOB: Villages RUN: Int 18 Cumulative Action

DATE : 10/ 1/ 8
TIME : 12: 9: 7

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 175. CM
U = 1.0 M/S CLAS = 5 (E) ATIM = 60. MINUTES MIXH = 1000. M AMB = 3.0 PPM

LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (FT) X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. 169 NO NoC SBA	-358.0	965.0	-6.0	-4.0	1031.	160.	AG	1922.	13.1	0.0	32.0		
2. 169 NO NoC SBT	-14.0	20.0	-1949.4	5336.7	5658.	340.	AG	102.	100.0	0.0	12.0	1.59	287.4
3. 169 NO NoC SBR	-26.0	15.0	-84.6	176.2	172.	340.	AG	102.	100.0	0.0	12.0	0.68	8.7
4. 169 NO NoC NBD	5.0	1.0	-347.0	969.0	1030.	340.	AG	1746.	13.1	0.0	32.0		
5. 169 SO NoC NBA	348.0	-906.0	31.0	-35.0	927.	340.	AG	1496.	13.1	0.0	32.0		
6. 169 SO NoC NBA2	31.0	-35.0	5.0	1.0	44.	324.	AG	1496.	13.1	0.0	32.0		
7. 169 SO NoC NBL	14.0	-24.0	803.1	-2188.5	2304.	160.	AG	67.	100.0	0.0	12.0	1.75	117.0
8. 169 SO NoC NBT	25.0	-19.0	96.3	-214.8	208.	160.	AG	67.	100.0	0.0	12.0	0.86	10.6
9. 169 SO NoC SBD	-6.0	-4.0	326.0	-915.0	970.	160.	AG	2150.	13.1	0.0	32.0		
10. NoC WO 169 EBA	-470.0	-951.0	-31.0	-29.0	1021.	25.	AG	1512.	12.0	0.0	32.0		
11. NoC WO 169 EBA2	-31.0	-29.0	-6.0	-4.0	35.	45.	AG	1512.	12.0	0.0	32.0		
12. NoC WO 169 EBL	-22.0	-11.0	-1281.3	-2653.2	2927.	205.	AG	145.	100.0	0.0	12.0	1.51	148.7
13. NoC WO 169 EBR	-17.0	-27.0	-649.4	-1357.5	1473.	205.	AG	116.	100.0	0.0	12.0	1.17	74.8
14. NoC WO 169 WBD	-11.0	11.0	-37.0	-13.0	35.	227.	AG	1034.	12.0	0.0	32.0		
15. NoC WO 169 WBD2	-37.0	-13.0	-480.0	-946.0	1033.	205.	AG	1034.	12.0	0.0	32.0		

JOB: Villages RUN: Int 18 Cumulative Action

DATE : 10/ 1/ 8
TIME : 12: 9: 7

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
2. 169 NO NoC SBT	120	58	3.0	1381	1827	78.90	2	3
3. 169 NO NoC SBR	120	58	3.0	541	1682	78.90	2	3
7. 169 SO NoC NBL	120	38	3.0	493	438	78.90	2	3
8. 169 SO NoC NBT	120	38	3.0	1003	1827	78.90	2	3
12. NoC WO 169 EBL	120	82	3.0	743	1787	78.90	2	3
13. NoC WO 169 EBR	120	66	3.0	769	1612	78.90	2	3

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. Intersection Name NW	-42.0	13.0	6.0
2. Intersection Name NW	-70.0	90.0	6.0
3. Intersection Name NW	-98.0	167.0	6.0
4. Intersection Name NW	-154.0	321.0	6.0
5. Intersection Name NW	-77.0	61.0	6.0
6. Intersection Name NW	-112.0	-135.0	6.0
7. Intersection Name NW	-183.0	-283.0	6.0
8. Intersection Name NW	12.0	30.0	6.0
9. Intersection Name NE	-17.0	107.0	6.0
10. Intersection Name NE	-45.0	184.0	6.0
11. Intersection Name NE	-101.0	338.0	6.0
12. Intersection Name NE	39.0	-12.0	6.0
13. Intersection Name NE	68.0	-89.0	6.0
14. Intersection Name NE	96.0	-166.0	6.0
15. Intersection Name NE	151.0	-320.0	6.0
16. Intersection Name NE	-11.0	-53.0	6.0
17. Intersection Name SE	22.0	-128.0	6.0
18. Intersection Name SE	50.0	-205.0	6.0
19. Intersection Name SE	106.0	-359.0	6.0
20. Intersection Name SE	-46.0	-127.0	6.0
21. Intersection Name SE	-81.0	-201.0	6.0
22. Intersection Name SE	-152.0	-350.0	6.0

JOB: Villages RUN: Int 18 Cumulative Action

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
0.	5.9	5.9	5.5	5.5	5.1	4.0	3.7	3.2	3.3	3.3	3.3	3.0	3.1	3.1	3.2	6.6	5.8	5.8	5.9	6.3
5.	5.6	5.6	5.2	5.2	5.0	4.0	3.7	3.1	3.2	3.2	3.2	3.0	3.1	3.1	3.1	5.9	5.6	5.7	5.5	5.8
10.	5.4	5.4	5.0	5.0	4.8	4.1	3.8	3.1	3.1	3.1	3.1	3.0	3.1	3.1	3.1	5.6	5.3	5.5	5.3	5.7
15.	5.4	5.4	5.0	5.0	4.7	4.2	4.0	3.1	3.1	3.1	3.1	3.0	3.1	3.1	3.1	5.1	5.2	5.3	5.2	5.1
20.	5.3	5.3	4.9	4.9	4.6	4.4	4.4	3.1	3.1	3.1	3.1	3.0	3.1	3.1	3.1	5.0	5.1	5.2	5.1	4.7
25.	5.1	5.1	4.8	4.8	4.6	4.8	5.0	3.1	3.1	3.1	3.1	3.0	3.1	3.1	3.1	4.8	5.0	5.0	4.9	4.3
30.	4.9	4.9	4.6	4.6	4.5	5.3	5.2	3.1	3.1	3.1	3.1	3.0	3.1	3.1	3.1	4.7	4.9	4.9	4.8	4.2
35.	4.9	4.9	4.6	4.6	4.5	5.4	5.6	3.0	3.1	3.1	3.1	3.0	3.0	3.0	3.1	4.5	4.9	4.9	4.8	3.9
40.	4.9	4.9	4.7	4.6	4.5	5.6	6.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.4	4.7	4.7	4.6	3.9
45.	4.8	4.8	4.6	4.5	4.5	5.7	5.7	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.5	4.6	4.6	4.5	4.0
50.	4.8	4.8	4.6	4.5	4.5	5.8	5.5	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.4	4.6	4.6	4.5	3.9
55.	4.8	4.8	4.6	4.5	4.5	5.6	5.4	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.5	4.6	4.6	4.5	4.0
60.	4.8	4.7	4.6	4.4	4.5	5.5	5.3	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.5	4.6	4.6	4.5	4.0
65.	4.7	4.7	4.6	4.4	4.5	5.6	5.4	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.5	4.7	4.7	4.6	4.0
70.	4.6	4.7	4.6	4.4	4.5	5.4	5.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.6	4.7	4.7	4.6	4.0
75.	4.6	4.7	4.7	4.4	4.5	5.3	5.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.5	4.7	4.7	4.6	4.0
80.	4.7	4.7	4.7	4.4	4.5	5.3	5.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.6	4.6	4.6	4.5	4.0
85.	4.7	4.7	4.8	4.5	4.5	5.2	4.9	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.5	4.6	4.6	4.5	4.0
90.	4.6	4.8	4.8	4.5	4.5	5.1	4.8	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.5	4.6	4.6	4.5	4.0
95.	4.9	4.8	4.8	4.5	4.5	5.1	4.8	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.6	4.6	4.6	4.5	4.0
100.	4.8	4.9	4.9	4.6	4.5	5.0	4.8	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.6	4.7	4.7	4.6	4.0
105.	4.8	4.9	4.9	4.6	4.5	5.0	4.8	3.0	3.1	3.1	3.1	3.0	3.0	3.0	3.1	4.7	4.9	4.9	4.8	4.0
110.	4.9	4.9	4.9	4.6	4.5	5.1	4.9	3.0	3.1	3.1	3.1	3.0	3.1	3.1	3.1	4.7	4.9	4.8	4.8	4.0
115.	5.2	4.9	5.1	4.8	4.5	5.1	4.9	3.0	3.1	3.1	3.1	3.0	3.1	3.1	3.1	4.9	5.0	4.9	4.9	4.0
120.	5.5	5.2	5.3	4.9	4.7	5.1	5.0	3.0	3.1	3.1	3.1	3.0	3.1	3.1	3.1	4.9	5.2	5.1	5.1	4.0
125.	5.6	5.4	5.3	5.0	4.8	5.2	5.0	3.0	3.1	3.1	3.1	3.0	3.1	3.1	3.1	5.1	5.3	5.2	5.2	4.0
130.	5.8	5.4	5.4	5.0	5.2	5.2	5.0	3.1	3.1	3.1	3.1	3.0	3.1	3.1	3.1	5.2	5.4	5.3	5.3	4.1
135.	6.0	5.7	5.6	5.2	5.2	5.2	4.8	3.2	3.1	3.2	3.2	3.1	3.1	3.1	3.1	5.4	5.6	5.5	5.5	4.1
140.	6.4	6.0	5.9	5.4	5.3	5.2	4.8	3.4	3.3	3.2	3.3	3.1	3.2	3.2	3.2	5.7	5.9	5.8	5.8	4.2
145.	6.8	6.0	6.3	5.7	5.7	5.2	4.8	3.8	3.6	3.6	3.7	3.4	3.5	3.4	3.5	5.8	6.3	6.2	6.1	4.2
150.	6.5	6.3	6.2	5.8	5.5	5.2	4.8	4.5	4.5	4.2	4.3	4.0	3.9	3.9	4.0	6.0	6.4	6.4	6.2	4.0
155.	6.7	6.2	6.1	5.5	5.3	5.0	4.6	5.4	5.3	5.4	5.1	4.8	4.6	4.5	4.5	5.5	6.3	6.1	6.0	3.8
160.	6.2	5.4	5.4	5.3	5.0	4.8	4.7	6.2	6.0	6.2	6.2	5.5	5.4	5.2	5.2	5.0	5.7	5.6	5.4	3.5
165.	5.6	4.9	4.7	4.8	4.6	5.0	4.9	6.6	6.7	6.8	6.8	6.0	6.1	5.7	5.8	4.4	4.9	4.8	4.6	3.2
170.	5.4	4.4	4.0	4.1	4.3	5.0	5.0	6.5	6.9	7.2	7.2	6.2	6.2	6.1	6.0	3.7	4.1	4.1	4.1	3.1
175.	5.0	4.0	3.8	3.7	4.2	5.1	5.1	6.2	6.9	7.2	7.1	6.2	6.2	6.0	5.9	3.2	3.5	3.5	3.5	3.0
180.	5.2	4.1	3.8	3.5	4.2	5.3	5.3	5.9	6.8	7.0	6.7	5.8	5.9	5.6	5.6	3.1	3.3	3.3	3.3	3.0
185.	5.3	4.2	3.9	3.5	4.2	5.5	5.5	5.5	6.8	6.9	6.4	5.6	5.6	5.5	5.4	3.0	3.2	3.2	3.2	3.0
190.	5.7	4.2	3.9	3.6	4.4	5.8	5.8	6.0	7.2	6.9	6.1	5.3	5.4	5.3	5.1	3.3	3.1	3.1	3.1	3.3
195.	5.8	4.2	3.8	3.4	4.2	6.0	5.9	6.3	7.4	6.7	6.0	5.4	5.2	5.2	5.1	3.7	3.1	3.1	3.1	3.7
200.	5.8	4.1	3.6	3.2	4.2	5.9	5.7	6.9	7.0	6.4	5.6	5.6	5.2	5.1	4.9	4.3	3.4	3.2	3.1	4.2
205.	5.3	3.7	3.4	3.1	3.7	5.4	5.4	7.7	6.8	6.0	5.3	5.9	5.5	5.1	4.8	5.0	3.7	3.4	3.1	4.9

JOB: Villages RUN: Int 18 Cumulative Action

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) * REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20	REC21	REC22
210.	4.7	3.4	3.1	3.0	3.4	4.8	4.6	7.8	5.9	5.4	4.9	6.4	5.6	5.4	4.8	5.5	4.1	3.6	3.2	5.4		
215.	4.0	3.1	3.0	3.0	3.1	4.0	3.9	7.5	5.5	5.1	4.9	6.5	5.8	5.4	4.7	5.6	4.2	3.7	3.3	5.6		
220.	3.4	3.0	3.0	3.0	3.0	3.5	3.4	6.8	5.0	5.0	4.8	6.4	5.7	5.3	4.8	5.6	4.3	3.9	3.3	5.6		
225.	3.1	3.0	3.0	3.0	3.0	3.1	3.1	6.1	4.9	4.9	4.7	6.3	5.7	5.5	4.9	5.5	4.2	3.9	3.4	5.4		
230.	3.0	3.0	3.0	3.0	3.0	3.1	3.1	5.8	4.8	4.8	4.6	6.0	5.5	5.4	4.8	5.2	4.0	3.9	3.5	5.2		
235.	3.0	3.0	3.0	3.0	3.0	3.1	3.1	5.2	4.8	4.8	4.6	6.0	5.5	5.3	4.9	5.0	4.0	3.8	3.5	5.0		
240.	3.0	3.0	3.0	3.0	3.0	3.1	3.0	5.0	4.9	4.9	4.7	5.8	5.5	5.2	5.0	4.9	3.9	3.8	3.5	4.9		
245.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.1	4.9	4.9	4.7	5.7	5.6	5.2	5.0	4.9	3.9	3.7	3.5	4.8		
250.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.8	4.9	4.8	4.7	5.5	5.5	5.2	5.0	4.7	3.9	3.6	3.5	4.7		
255.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.8	4.9	4.8	4.7	5.3	5.5	5.2	5.0	4.6	3.9	3.6	3.5	4.6		
260.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.9	4.9	4.8	4.7	5.3	5.4	5.1	4.9	4.5	3.9	3.5	3.5	4.5		
265.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.8	4.8	4.7	4.6	5.1	5.4	5.1	4.8	4.5	3.9	3.5	3.5	4.5		
270.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.9	4.9	4.7	4.7	5.1	5.3	5.1	4.8	4.4	3.8	3.5	3.5	4.4		
275.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.9	4.9	4.7	4.7	5.1	5.3	5.2	4.9	4.4	3.8	3.5	3.4	4.4		
280.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0	5.0	4.8	4.8	5.0	5.2	5.2	4.9	4.4	3.9	3.6	3.4	4.4		
285.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.1	5.1	4.9	4.9	4.9	5.3	5.3	5.0	4.4	3.9	3.6	3.5	4.4		
290.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.1	5.1	4.9	4.9	4.9	5.4	5.5	5.2	4.4	3.9	3.6	3.5	4.4		
295.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.3	5.4	5.2	5.2	5.1	5.6	5.5	5.2	4.4	3.9	3.6	3.5	4.4		
300.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.4	5.4	5.2	5.2	4.9	5.7	5.6	5.3	4.4	3.9	3.6	3.5	4.4		
305.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.5	5.6	5.4	5.4	5.2	5.9	5.6	5.5	4.4	3.9	3.6	3.5	4.4		
310.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.7	5.7	5.5	5.5	5.2	6.0	5.9	5.5	4.4	3.9	3.6	3.5	4.4		
315.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.9	5.8	5.7	5.7	5.5	6.0	6.2	5.7	4.3	4.0	3.7	3.6	4.4		
320.	3.0	3.0	3.0	3.0	3.0	3.0	3.0	6.3	6.2	6.1	6.1	5.7	6.2	6.6	6.1	4.5	4.0	3.7	3.7	4.4		
325.	3.2	3.2	3.2	3.1	3.0	3.0	3.0	6.6	6.6	6.4	6.4	5.7	6.6	6.6	6.5	4.9	4.4	4.1	3.9	4.4		
330.	3.7	3.6	3.6	3.5	3.4	3.0	3.0	6.7	6.7	6.7	6.7	5.8	6.5	6.5	6.5	5.4	5.0	4.8	4.7	4.6		
335.	4.4	4.4	4.2	4.1	3.7	3.1	3.0	6.6	6.6	6.6	6.4	5.5	6.1	6.4	6.4	6.3	5.9	5.8	5.5	4.9		
340.	5.2	5.0	4.9	4.8	4.3	3.3	3.1	6.0	6.1	6.0	5.9	4.9	5.5	5.6	5.8	6.9	6.8	6.7	6.3	5.4		
345.	5.8	5.7	5.5	5.2	4.8	3.6	3.3	5.1	5.2	5.2	5.1	4.2	4.6	4.9	5.0	7.4	6.7	6.7	6.6	5.9		
350.	6.0	5.9	5.6	5.6	5.0	3.9	3.3	4.1	4.2	4.2	4.2	3.6	4.0	3.9	4.0	7.2	6.9	6.4	6.5	6.1		
355.	6.0	5.9	5.6	5.6	5.2	4.0	3.6	3.5	3.6	3.6	3.6	3.2	3.4	3.4	3.5	7.0	6.4	6.4	6.2	6.1		
360.	5.9	5.9	5.5	5.5	5.1	4.0	3.7	3.2	3.3	3.3	3.3	3.0	3.1	3.1	3.2	6.6	5.8	5.8	5.9	6.3		
MAX	6.8	6.3	6.3	5.8	5.7	6.0	6.0	7.8	7.4	7.2	7.2	6.5	6.6	6.6	6.5	7.4	6.9	6.7	6.6	6.3		
DEGR.	145	150	145	150	145	195	40	210	195	175	170	215	325	325	325	345	350	345	345	0		

JOB: Villages RUN: Int 18 Cumulative Action

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC21	REC22
0.	6.0	5.7
5.	5.9	5.8
10.	5.8	5.7
15.	5.5	5.7
20.	5.1	5.2
25.	4.6	4.9
30.	4.2	4.4
35.	3.7	3.6
40.	3.6	3.5
45.	3.7	3.3
50.	3.7	3.4
55.	3.7	3.4
60.	3.7	3.4
65.	3.7	3.4
70.	3.7	3.4
75.	3.7	3.4
80.	3.7	3.4
85.	3.6	3.4
90.	3.6	3.4
95.	3.6	3.4
100.	3.7	3.4
105.	3.7	3.5
110.	3.7	3.5
115.	3.7	3.5
120.	3.8	3.6
125.	3.8	3.6
130.	3.8	3.6
135.	3.9	3.4
140.	3.9	3.4
145.	3.7	3.2
150.	3.6	3.1
155.	3.4	3.0
160.	3.1	3.0
165.	3.0	3.0
170.	3.0	3.0
175.	3.0	3.0
180.	3.0	3.0
185.	3.0	3.0
190.	3.3	3.3
195.	3.6	3.6
200.	4.2	4.2
205.	4.9	4.9

JOB: Villages RUN: Int 18 Cumulative Action

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC21	REC22
210.	5.4	5.4
215.	5.6	5.6
220.	5.6	5.6
225.	5.4	5.4
230.	5.2	5.2
235.	4.9	5.0
240.	4.9	4.9
245.	4.8	4.8
250.	4.7	4.7
255.	4.6	4.6
260.	4.5	4.5
265.	4.5	4.5
270.	4.4	4.4
275.	4.4	4.4
280.	4.4	4.4
285.	4.4	4.4
290.	4.4	4.4
295.	4.4	4.4
300.	4.4	4.4
305.	4.4	4.4
310.	4.4	4.4
315.	4.4	4.4
320.	4.4	4.4
325.	4.4	4.4
330.	4.5	4.5
335.	4.7	4.5
340.	5.0	4.8
345.	5.5	5.1
350.	5.8	5.3
355.	5.9	5.4
360.	6.0	5.7
MAX	6.0	5.8
DEGR.	0	5

THE HIGHEST CONCENTRATION OF 7.80 PPM OCCURRED AT RECEPTOR REC8 .

2025 The Villages GHG Projections -Proposed MPD

Section I: Buildings

Set for residential units only			Emissions Per Unit (MTCO2e)			
Type (Residential)	# Units	Square Feet (in thousands of square feet)	Embodied	Energy	Transportation	**Lifespan Emissions (MTCO2e)**
Single-Family Home.....	3600		58	812	792	**6,957,244**
Multi-Family Unit in Large Building	1200		20	431	766	**1,632,374**
Multi-Family Unit in Small Building			32	822	766	**-**

Section II: Pavement.....

Pavement.....		1,044				**52,200**

Total Project Emissions: **8,641,818**

Adjustments Completed:

1) Using Athena Model specific GWP for residential units
2) Adjusted energy use to reflect Pacific region versus national consumption
3) Adjusted energy use to reflect LEED-Silver rating - 25% reduction
4) Pavement sq ft based on new roads for Main site/Lawson connector areas

2025 The Villages GHG Projections -Proposed MPD

Section I: Buildings

Set for Retail/Office units only			Emissions Per Unit (MTCO2e)			
Principal Activity (Commercial)	# Units	Square Feet (in thousands of square feet)	Embodied	Energy	Transportation	**Lifespan Emissions (MTCO2e)**
Retail (Other Than Mall).....		325	30	368	247	**249,465**
Office		450	30	419	588	**529,342**

Section II: Pavement.....

Pavement.....		0				**-**

Total Project Emissions: **778,807**

Adjustments Completed:

1) Using Athena Model specific GWP for residential units
2) Adjusted people per unit for project specific
3) Adjusted energy use to reflect Pacific region versus national consumption
4) no pavement emissions due to project can be calcuated at this time

2025 The Villages GHG Projections -Alternative 1

Section I: Buildings

Set for residential units only			Emissions Per Unit (MTCO2e)			
Type (Residential)	# Units	Square Feet (in thousands of square feet)	Embodied	Energy	Transportation	**Lifespan Emissions (MTCO2e)**
Single-Family Home.....	3300		58	812	792	**6,377,474**
Multi-Family Unit in Large Building	700		20	431	766	**952,218**
Multi-Family Unit in Small Building			32	822	766	**-**

Section II: Pavement.....

Pavement.....		1,044				**52,200**

Total Project Emissions: **7,381,892**

Adjustments Completed:

1) Using Athena Model specific GWP for residential units
2) Adjusted energy use to reflect Pacific region versus national consumption
3) Adjusted energy use to reflect LEED-Silver rating - 25% reduction
4) Pavement sq ft based on new roads for Main site/Lawson connector areas

2025 The Villages GHG Projections -Alternative 1

Section I: Buildings

Set for Retail/Office units only			Emissions Per Unit (MTCO2e)			
Type (Residential) or Principal Activity (Commercial)	# Units	Square Feet (in thousands of square feet)	Embodied	Energy	Transportation	**Lifespan Emissions (MTCO2e)**
Retail (Other Than Mall).....		375	30	368	247	**287,845**
Office		0	30	419	588	**-**

Section II: Pavement.....

Pavement.....		0				**-**

Total Project Emissions: **287,845**

Adjustments Completed:

1) Using Athena Model specific GWP for residential units
2) Adjusted people per unit for project specific
3) Adjusted energy use to reflect Pacific region versus national consumption
4) no pavement emissions due to project can be calcuated at this time