

FOR IOCL TRICHY
TERMINAL

ALARP/JRM/TNSO/MKUMARAN

<u>IOCL TIRCHY TERMINAL (10.7753, 78.8368) TO KAVITHA</u> <u>AGENCIES (</u>10.870215, 79.741776) TOTAL DISTANCE – 121 KM





Welcome to the Journey Risk Management Study for KAVITHA AGENCY

Total distance: 129 km; Start with: (10.7753, 78.8368), End with: (10.870215, 79.741776)

* Route Safety Analysis Report

1. Overview of the Route Map

The route from Trichy Terminal (T.N). Take SIDCO to Indian oil Storage to NH 83 in Thuvakudi, Follow NH 83 and NH 36 to Chinnammal Kallarai/Kallanai - Poombhuhar Rd/Poompuhar Rd in Kumbakonam, Follow Chinnammal Kallarai/Poompuhar Rd to NH 136B in Aduthurai, Turn right at the medical store onto Aduthurai - Tiruppandal Rd/Chinnammal Kallarai/Poompuhar Rd, Turn right at M.S.K Fish Farm onto NH 136B, Continue on Aduthurai - Porayar Rd. Drive to Main Rd in Nallathur, and Total distance from Trichy Terminal To KAVITHA AGENCY IS 121 KM.

<u>Typical Weather Conditions and Potential Weather-Related</u> Hazards

Weather Conditions: Trichy Terminal (T.N) To KAVITHA AGENCY experiences a tropical climate with heavy monsoon rains from June to September, high humidity, and moderate temperatures throughout the year ,The summers are short and sweltering; the winters are short, cool, and dry; and it is mostly clear year-round. Over the course of the year, the temperature typically varies from 60.8°F to 110°F and is rarely below 60.8°F to 110°F.

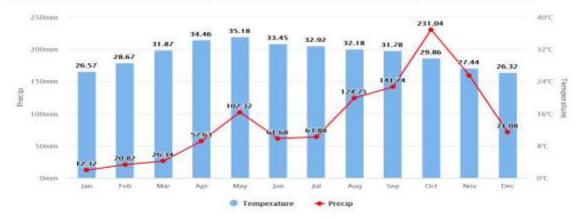
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Nov	Oct	Dec	Year
Record high °C (°F)	30.0 (21.4)	38.0 (100.4)	41.0- (105.8)	43.0 (109.4)	43.0 (109.4)	42,0 (107,6)	40.0 (104.0)	39.0 (102.2)	38.0 (100.4)	-37/8 (91-10	34.0	33.0 (91.4)	43:0 (109:4)
Average high °C (°F)	30.27 (86.49)	32.88 (91.18)	36.0 (96.8)	38.27 (100.89)	38,79 (101.82)	36,78 (98,2)	36.17 (97.11)	35.4 (95.72)	35.03 (95.05)	32.9 (91.22)	30.38 (86.68)	29.34 (84.81)	34.35 (93.83)
Daily mean °C (°F)	26.57 (79.83)	28.67 (83.61)	31.87 (89.37)	34.46 (94:03)	35.18 (95.32)	33,45 (92,21)	32.92 (91.26)	32.18 (89.92)	31.78 (89.2)	29.86 (85.75)	27.44 (81.39)	26.32 (79.38)	30.89 (87.6)
Average low °C (°F)	19.88 (67.78)	20.93 (69.67)	24.04 (75.27)	27.62 (81.72)	28.89 (84.0)	27.59 (81.66)	27.04 (80.67)	26.45 (79.61)	25.95 (78.71)	24.64 (76.35)	22.43 (72.37)	20.93 (69.67)	24.7 (76.46)
Record low °C (°F)	16.0 (60.8)	17.0 (62.6)	19.0 (66.2)	22.0 (71.6)	25.0 (77.0)	25.0 (77.0)	24.0 (75.2)	23.0 (73.4)	22.0 (71.6)	21.0 (69.8)	18,0 (64.4)	17.0 (62.6)	16.0 (60.8)
Average precipitation mm (inches)	12.32 (0.49)	20.82 (9.82)	26:34 (1:04)	57.63 (2.27)	102.32 (4.03)	61.68 (2.43)	63.88 (2.51)	124.75 (4.91)	141,74 (5.58)	231,04 (9.1)	159.62 (6.28)	71.08 (2.8)	89.44 (3.52)
Average precipitation days (≥ 1.0 mm)	3.09	3.27	5.36	7.36	16,73	12.36	13.55	18.91	19.64	22.73	17.55	(19,73)	12.52
Average relative humidity (%)	72.01	65:19	58.27	53.97	51.56	50.59	51.14	56:11	60.33	70.18	77.39	76.61	61.95
Mean monthly sunshine hours	11.19	11.34	11.34	11.63	12.65	12.68	11.83	11:24	11.05	9,11	7,68	E29	10.54

Weather-Related Hazards: Trichy Terminal (T.N) To KAVITHA AGENCY Providing a local hourly weather forecast of rain, sun, wind, humidity and temperature.

The Long-range 12 day forecast also includes detail for weather today. Live weather reports from Trichy Terminal (T.N) To KAVITHA AGENCY weather stations and weather warnings that include risk of thunder, high UV index and forecast gales.







Analysis of Traffic Patterns

Peak Hours:

Typically, Trichy Terminal (T.N) To KAVITHA AGENCY peak traffic hours are from 8:00 AM to 11:00 AM and 4:00 PM to 8:00 PM on weekdays.

Congestion-Prone Areas:

- State Institute Of Hotel Management and Catering Technology
- Valavanthankottai Toll Plaza
- SPOT ON 42969 Royal Residency
- Anand Engineering Products Ptv. Ltd. (Unit 2)
- The Urban Coffee House | coffee shop | Cafe | restaurant
- GNR Marriage Hall
- Tool Fab Engineering Industries Ltd. (Unit 2)
- Anandam Law college
- School of Law, SASTRA University
- Masjidul Aqsa vallam
- Maruti Suzuki ARENA (PLA Motors, Thanjavur, Nangikkottai Road)
- Hotel Anitha Parthiban
- Bon Secours College of Education
- Best Matriculation Higher Secondary School
- Vembukudi Toll Plaza
- Sri Saravana Balaji Marriage Mahal

Assessment of Road Quality and Infrastructure

Road Quality: Generally, the roads are well-maintained but can suffer from potholes and waterlogging on State Highway during the monsoon season.

Infrastructure: Adequate signage, street lighting, and traffic signals are present, but some areas may lack proper drainage systems, leading to waterlogging.

❖ Suggestions for Alternative Routes for Emergencies

Alternative Route 1-). Take SIDCO to Indian oil Storage to NH 83 in Thuvakudi, Follow NH 83 and NH 36 to Chinnammal Kallarai/Kallanai - Poombhuhar Rd/Poompuhar Rd in Kumbakonam, Follow Chinnammal Kallarai/Poompuhar Rd to NH 136B in Aduthurai, Turn right at the medical store onto Aduthurai - Tiruppandal Rd/Chinnammal Kallarai/Poompuhar Rd, Turn right at M.S.K Fish Farm onto NH 136B, Continue on Aduthurai - Porayar Rd. Drive to Main Rd in Nallathur.

Alternative Route 2-) Take SIDCO to Indian oil Storage to NH 83 in Thuvakudi, At Jude Digital Studios, continue onto Thuvakudi toSIDCO& Indian oil Storage, Follow NH 83 and NH 36 to Chinnammal Kallarai/Kallanai - Poombhuhar Rd/Poompuhar Rd in Kumbakonam, Keep right to stay on NH 83, At the roundabout, take the 2nd exit and stay on NH 36, Slight right at Pugazendi Car AC & Electrician Works onto NH 136B, Follow Chinnammal Kallarai/Poompuhar Rd to NH 136B in Aduthurai, Turn right at M.S.K Fish Farm onto NH 136B, Continue on Aduthurai - Porayar Rd. Drive to Main Rd in Nallathur.

Summary of Local Regulations Affecting Hazardous Material Transport

Regulations: Transport of hazardous materials is regulated by the Petroleum and Explosives Safety Organization (PESO) and the Motor Vehicles Act. Specific routes and timings may be restricted for hazardous material transport.

Permits: Ensure all necessary permits and documentation are in place.

❖ Overview of Historical Incidents

Historical Incidents: There have been occasional incidents involving heavy vehicles, particularly during the monsoon season due to waterlogging and poor visibility. No major incidents involving hazardous materials have been reported recently.

Environmental Considerations and Sensitive Areas

 Sensitive Areas: State Institute Of Hotel Management and Catering Technology, Valavanthankottai Toll Plaza, SPOT ON 42969 Royal Residency, Anand Engineering Products Ptv. Ltd. (Unit 2), The Urban Coffee House | coffee shop | Cafe | restaurant, GNR Marriage Hall, Tool Fab Engineering Industries Ltd. (Unit 2), Anandam Law college,

School of Law, SASTRA University, Masjidul Aqsa vallam, Maruti Suzuki ARENA (PLA Motors, Thanjavur, Nangikkottai Road), Hotel Anitha Parthiban, Bon Secours College of Education, Best Matriculation Higher Secondary School, Vembukudi Toll Plaza, Sri Saravana Balaji Marriage Mahal.

- Educational institutions: Chanakya share market training Institute, Indian Institute of Catering Technology and Hotel Management, Samiyappa Institute Of Co Operative Management, Premier Institute, S.K Institute of Arts & Education, Dr S R J Group of Educational Institutions, DEEPA INSTITUTE FOR VEDIC MATHS.
- **Hospital:** Dr Kamali's Home Clinic, Meenakshi Hospital, Rohini Hospital, Government Raja Mirasudar Hospital, Anbu Hospital.
- **Gas Station:** ESSAR petrol pump, SP Petroleum (HPCL), HP PETROL PUMP M/S. A.V.R. PETROL BUNK, IndianOil, IndianOil.
- **Environmental Impact:** Minimize noise and air pollution, especially in residential and sensitive areas.
- **Air pollution**: Volatile chemicals evaporate during the filling and discharge process, or from leaks.
- Loss of habitats: Oil and gas operations can degrade animal habitats and disrupt migratory pathways.
- Oil spills: Oil spills can be devastating for animals and humans.
- **Greenhouse gas emissions**: Oil and gas operations can emit greenhouse gases like methane.
- Analysis of Communication Coverage

Communication Coverage: Generally good throughout the route, but potential dead zones may exist densely built-up areas or underpasses.

Dead Zones: Monitor for any communication blackouts, especially in underpasses or near large buildings.

Estimated Emergency Response Times: State Institute Of Hotel
Management and Catering Technology, Valavanthankottai Toll Plaza,
SPOT ON 42969 Royal Residency, Anand Engineering Products Ptv.
Ltd. (Unit 2), The Urban Coffee House | coffee shop | Cafe | restaurant,
GNR Marriage Hall, Tool Fab Engineering Industries Ltd. (Unit 2),

Anandam Law college, School of Law, SASTRA University, Masjidul Aqsa vallam, Maruti Suzuki ARENA (PLA Motors, Thanjavur, Nangikkottai Road), Hotel Anitha Parthiban, Bon Secours College of Education, Best Matriculation Higher Secondary School, Vembukudi Toll Plaza, Sri Saravana Balaji Marriage Mahal, areas like have quicker response times (15- 20 minutes). Congested areas may experience delays (up to 30-40 minutes).

Overall Summary of Risk Assessment

- Risk Level: Moderate to High, especially during monsoon season.
- **Key Risks**: Waterlogging, traffic congestion, and potential communication dead zones.
- Mitigation Measures: Plan travel during non-peak hours, ensure proper vehicle maintenance, and have alternative routes and emergency contacts ready and control on the speed limit of the vehicle.
- Road Signage for TT/PT Driver

Road Traffic Signs in India

Mandatory/Regulatory Signs

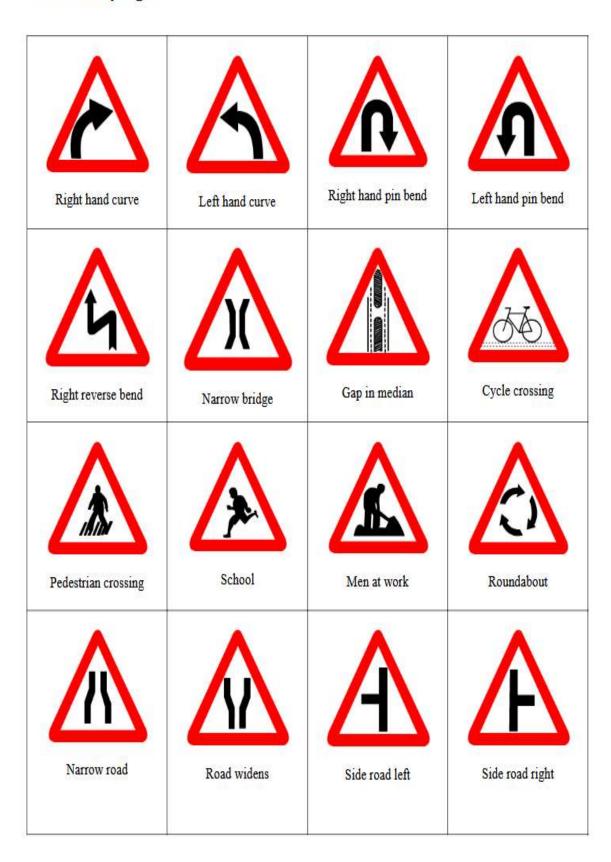




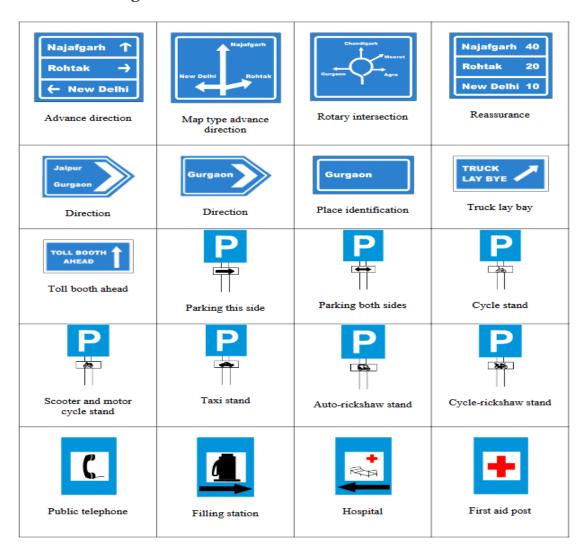


Restriction ands

Cautionary signs



Information signs



Conclusion

The route for Trichy Terminal (T.N) To KAVITHA AGENCY is generally manageable but poses several risks, particularly during the monsoon season. Proper planning, adherence to regulations, and awareness of potential hazards can significantly mitigate these risks.

• Risk Assessment - Sharp Turns

Risk Type	Risk Level	Coordination	Distance From Start	Recommendation Speed
Sharp turn	Medium	10.769517372474736, 78.83735063199906	650 KM	20km/hr TO 30 Km/Hr
Sharp turn	Medium	10.76584461192607, 78.8361700257199	1.1 KM	20km/hr TO 30 Km/Hr
Sharp turn	Medium	10.764182189802032, 78.83459588401435	1.3 KM	20km/hr TO 30 Km/Hr
Sharp turn	Medium	10.75826698538096, 78.83349398474651	2 KM	20km/hr TO 30 Km/Hr
Sharp turn	Medium	10.756372549032195, 78.83034570133539	2.4 KM	20km/hr TO 30 Km/Hr
Sharp turn	High	10.751346435623256, 78.8252297405902	3.2 KM	10km/hr TO 15 Km/Hr
Sharp turn	High	10.749451955814655, 78.83046376176118	3.8 KM	10km/hr TO 15 Km/Hr
Sharp turn	Medium	10.739326461561383, 78.83800479151158	5.3 KM	20km/hr TO 30 Km/Hr
Sharp turn	Medium	10.73642740628165, 78.85764863813984	7.4 KM	20km/hr TO 30 Km/Hr
Sharp turn	Medium	10.733604466438722, 78.87281181707364	9.1 KM	20km/hr TO 30 Km/Hr
Sharp turn	Medium	10.73080526998016, 78.90617767628218	12.8 KM	20km/hr TO 30 Km/Hr
Sharp turn	Medium	10.730477923035412, 78.90801389404626	13 KM	20km/hr TO 30 Km/Hr
Sharp turn	Medium	10.724463035027611, 78.92577296721807	15 KM	20km/hr TO 30 Km/Hr
Sharp turn	Medium	10.723788382097183, 78.92890578732897	15.4 KM	20km/hr TO 30 Km/Hr
Sharp turn	Medium	10.721500875854746, 78.93682366832411	16.3 KM	20km/hr TO 30 Km/Hr

Sharp	Medium	10.720994881360893,	16.5 KM	20km/hr TO 30
turn		78.93834716298483		Km/Hr
Sharp	High	10.71915010256302,	16.8 KM	10km/hr TO 15
turn		78.9411152027286		Km/Hr
Sharp	Medium	10.71843327121256,	17 KM	20km/hr TO 30
turn		78.94211298444303		Km/Hr
Sharp	High	10.717263145760954,	17.5 KM	10km/hr TO 15
turn		78.94670492633878		Km/Hr
Sharp	High	10.716985075928461,	18 KM	10km/hr TO 15
turn		78.95102478766644		Km/Hr
Sharp	Medium	10.71809195248243,	18. 5 KM	20km/hr TO 30
turn		78.95607806951443		Km/Hr
Sharp	High	10.725197170776585,	21 KM	10km/hr TO 15
turn		78.97692607372574		Km/Hr
Sharp	Medium	10.730780555846192,	25.3 KM	20km/hr TO 30
turn		79.01656126512937		Km/Hr
Sharp	High	10.730190246964545,	25.8 KM	10km/hr TO 15
turn		79.02046656130192		Km/Hr
Sharp	High	10.730401071697452,	26.2 KM	10km/hr TO 15
turn		79.02480101090002		Km/Hr
Sharp	Medium	10.727139512814995,	27.9 KM	20km/hr TO 30
turn		79.03926391834526		Km/Hr
Sharp	Medium	10.726633527742022,	30.7 KM	20km/hr TO 30
turn	<u> </u>	79.06514187050024		Km/Hr
Sharp	Medium	10.723049442647225,	31.4 KM	20km/hr TO 30
turn	<u> </u>	79.07037754229201		Km/Hr
Sharp	Medium	10.736837396359547,	35.6 KM	20km/hr TO 30
turn	<u> </u>	79.10561104002268		Km/Hr
Sharp	Medium	10.73612060698111,	36.2 KM	20km/hr TO 30
turn		79.11058922045575		Km/Hr
Sharp	High	10.742782466810393,	38.8 KM	10km/hr TO 15
turn	<u> </u>	79.13346309881189		Km/Hr
Sharp	Medium	10.7432462617802,	39.9 KM	20km/hr TO 30
turn	<u> </u>	79.14376278157714		Km/Hr
Sharp	Medium	10.761628831100811,	42.6 KM	20km/hr TO 30
turn		79.15891189809322		Km/Hr

Sharp	High	10.769386276465765,	43.6 KM	10km/hr TO 15
turn		79.16457672365718		Km/Hr
Sharp	High	10.777523785773456,	44.5 KM	10km/hr TO 15
turn		79.16605658817572		Km/Hr
Sharp	Medium	10.778298856573569,	44.6 KM	20km/hr TO 30
turn		79.166124866062		Km/Hr
Sharp	High	10.780199262033587,	44.9 KM	10km/hr TO 15
turn		79.16753594256141		Km/Hr
Sharp	Medium	10.7806315094395,	45 KM	20km/hr TO 30
turn		79.1679076777507		Km/Hr
Sharp	Medium	10.79007090118994,	46.3 KM	20km/hr TO 30
turn		79.17526904315943		Km/Hr
Sharp	Medium	10.838732864147495,	52.1 KM	20km/hr TO 30
turn		79.19203106952445		Km/Hr
Sharp	Medium	10.841627556326298,	52.4KM	20km/hr TO 30
turn		79.19288590968536		Km/Hr
Sharp	High	10.864382116006672,	55 KM	10km/hr TO 15
turn		79.19247970116858		Km/Hr
Sharp	Medium	10.865459704381829,	55.1 KM	20km/hr TO 30
turn		79.19283694778355		Km/Hr
Sharp	Medium	10.86958207059273,	55.7 KM	20km/hr TO 30
turn		79.19625630830366		Km/Hr
Sharp	Medium	10.874421776457657,	57.2 KM	20km/hr TO 30
turn		79.20945572418708		Km/Hr
Sharp	Medium	10.874948023326985,	57.4 KM	20km/hr TO 30
turn		79.21073160495483		Km/Hr
Sharp	Medium	10.892892468546385,	64.2 KM	20km/hr TO 30
turn		79.2699895159846		Km/Hr
Sharp	High	10.906466254501833,	66.9 KM	10km/hr TO 15
turn		79.29083725124362		Km/Hr
Sharp	Medium	10.916839547699407,	68.4 KM	20km/hr TO 30
turn		79.29961531121639		Km/Hr
Sharp	Medium	10.92707467639872,	69.8 KM	20km/hr TO 30
turn		79.30628816788477		Km/Hr
Sharp	Medium	10.932649353273062,	70.6 KM	20km/hr TO 30
turn		79.3106134039501		Km/Hr

Sharp	Medium	10.935079628994828,	71.1 KM	20km/hr TO 30
turn		79.31465794598385		Km/Hr
Sharp	Medium	10.935881809725412,	72.6 KM	20km/hr TO 30
turn		79.32846053023889		Km/Hr
Sharp	High	10.939258924057162,	74.2 KM	10km/hr TO 15
turn		79.34295919658322		Km/Hr
Sharp	Medium	10.940185918176494,	74.5 KM	20km/hr TO 30
turn		79.34528129965602		Km/Hr
Sharp	Medium	10.941250705135284,	74.6 KM	20km/hr TO 30
turn		79.34595751650197		Km/Hr
Sharp	Medium	10.947263547752911,	75.3 KM	20km/hr TO 30
turn		79.34723339730526		Km/Hr
Sharp	Medium	10.947639346359221,	75.4 KM	20km/hr TO 30
turn		79.34734822657435		Km/Hr
Sharp	High	10.951359726957488,	75.8 KM	10km/hr TO 15
turn		79.34788409653387		Km/Hr
Sharp	High	10.954090481533097,	76.1 KM	10km/hr TO 15
turn		79.3478713377262		Km/Hr
Sharp	Medium	10.955480901997275,	76.2 KM	20km/hr TO 30
turn		79.34833065485216		Km/Hr
Sharp	Medium	10.966303410639958,	77.5 KM	20km/hr TO 30
turn		79.3521710560902		Km/Hr
Sharp	Medium	10.969722940404145,	78 KM	20km/hr TO 30
turn	<u> </u>	79.3542890182272		Km/Hr
Sharp	Medium	10.97156420928446,	78.3 KM	20km/hr TO 30
turn		79.35704492074562		Km/Hr
Sharp	Medium	10.974244675466208,	79 KM	20km/hr TO 30
turn		79.36227603209447		Km/Hr
Sharp	Medium	10.980554084386217,	80.6 KM	20km/hr TO 30
turn		79.37598180044225		Km/Hr
Sharp	High	10.98099246669875,	80.8 KM	10km/hr TO 15
turn		79.37766596305566		Km/Hr
Sharp	Medium	10.98218952078963,	82 KM	20km/hr TO 30
turn	1	79.38795972392433		Km/Hr
Sharp	High	10.982640425804044,	82.1 KM	10km/hr TO 15
turn		79.3888273228464		Km/Hr

Sharp	Medium	10.983366882411035,	82.5 KM	20km/hr TO 30
turn		79.39262944775143		Km/Hr
Sharp	High	10.981650938874413,	82.8 KM	10km/hr TO 15
turn		79.39447947486467		Km/Hr
Sharp	Medium	10.98558381666939,	83.5 KM	20km/hr TO 30
turn		79.39865160526288		Km/Hr
Sharp	Medium	10.98891544919475,	84 KM	20km/hr TO 30
turn	.	79.40207096583704	0.4.7.1/0.4	Km/Hr
Sharp	Medium	10.991407886549627,	84.7 KM	20km/hr TO 30
turn		79.40846312864453	0.4.0.1/0.4	Km/Hr
Sharp	High	10.991996549570876,	84.9 KM	10km/hr TO 15
turn	B.4. II	79.40934348637427	05.01/14	Km/Hr
Sharp	Medium	10.994401288511858,	85.2 KM	20km/hr TO 30
turn	NA o div voo	79.41132110176441	00.4 1/14	Km/Hr
Sharp turn	Medium	10.998571961052205, 79.41860638109635	86.1 KM	20km/hr TO 30 Km/Hr
	Madium		00.0 1/14	
Sharp turn	Medium	10.999598964467538, 79.42000985011298	86.3 KM	20km/hr TO 30 Km/Hr
Sharp	Medium	11.000388001231217,	86.8 KM	20km/hr TO 30
turn	Mediaiii	79.42383749269939	OO.O KIVI	Km/Hr
Sharp	Medium	11.00311830263473,	87.7 KM	20km/hr TO 30
turn	Wicalam	79.43131415417443	O7.7 IXIVI	Km/Hr
Sharp	Medium	11.00507208079757,	88.2 KM	20km/hr TO 30
turn	.vio ai ai ii	79.43547352563432	0012 1 1111	Km/Hr
Sharp	Medium	11.006487309414123,	88.3 KM	20km/hr TO 30
turn		79.43631560694104		Km/Hr
Sharp	Medium	11.007864959118875,	88.6 KM	20km/hr TO 30
turn		79.4382804634414		Km/Hr
Sharp	Medium	11.00829077679642,	88.7 KM	20km/hr TO 30
turn		79.43949255017075		Km/Hr
Sharp	Medium	11.009455510263674,	89.2 KM	20km/hr TO 30
turn		79.44302674003897		Km/Hr
Sharp	Medium	11.011597104967523,	90.2 KM	20km/hr TO 30
turn		79.4519068706572		Km/Hr
Sharp	Medium	11.0243962523845,	92.2 KM	20km/hr TO 30
turn		79.47167026450096		Km/Hr

Sharp	Medium	11.025423165698344,	92.9 KM	20km/hr TO 30
turn		79.47270372792285		Km/Hr
	High	11.026951005699203,	93.4 KM	10km/hr TO 15
		79.4765186114184		Km/Hr
Sharp	Medium	11.024070644939572,	93.8 KM	20km/hr TO 30
turn		79.4784324327326		Km/Hr
Sharp	Medium	11.023557186369509,	93.9 KM	20km/hr TO 30
turn		79.47919796119325		Km/Hr
Sharp	Medium	11.02231736807814,	94 KM	20km/hr TO 30
turn		79.47914692596254		Km/Hr
Sharp	Medium	11.019424438352559,	94.4 KM	20km/hr TO 30
turn		79.48134144096412		Km/Hr
	High	11.018159555404297,	94.6 KM	10km/hr TO 15
	<u> </u>	79.4812904057334		Km/Hr
Sharp	Medium	11.01849769296255,	94.7 KM	20km/hr TO 30
turn	<u> </u>	79.48245145723206		Km/Hr
Sharp	Medium	11.021536838841904,	96 KM	20km/hr TO 30
turn	.	79.49363026592134	00.01414	Km/Hr
Sharp	Medium	11.022601332462624,	96.9 KM	20km/hr TO 30
turn	N.A. 1:	79.50214039095387	07.1684	Km/Hr
Sharp	Medium	11.022263199620792,	97 KM	20km/hr TO 30
turn	NA - diam-	79.50313557795272	00.4.1/14	Km/Hr
Sharp	Medium	11.024905634862868,	98.1 KM	20km/hr TO 30
turn	NA a alicensa	79.5124239902946	00.41/14	Km/Hr
Sharp	Medium	11.025757220292181, 79.51474609329189	98.4 KM	20km/hr TO 30
turn	Madium		00 1/1/4	Km/Hr
Sharp turn	Medium	11.025293857941637, 79.52009203404697	99 KM	20km/hr TO 30 Km/Hr
Sharp	Medium	11.025869929947271,	99.2 KM	20km/hr TO 30
turn	Medium	79.5218782671218	99.2 KIVI	Km/Hr
	Medium		99.3 KM	20km/hr TO 30
Sharp turn	IVIEUIUIII	11.02555684747551, 79.52288621292833	33.3 KIVI	Km/Hr
Sharp	Medium	11.026007686148084,	100 KM	20km/hr TO 30
turn	IVICUIUIII	79.52924009952889	TOO KIVI	Km/Hr
	Medium	11.026521140439577,	101 KM	20km/hr TO 30
Sharp turn	IVICUIUIII	79.53459879875342	IOI KIVI	Km/Hr
tuiii		19.00409019010042		1311/111

OI	N 4 = =10=	44.00004077540404	400 1/14	001 /I TO 00
Sharp	Medium	11.02364077546131,	103 KM	20km/hr TO 30
turn		79.55107042026404		Km/Hr
Sharp	Medium	11.023665822228958,	103.2 KM	20km/hr TO 30
turn		79.55773051811775		Km/Hr
Sharp	Medium	11.02069776472642,	104 KM	20km/hr TO 30
turn		79.56564097913142		Km/Hr
Sharp	Medium	11.021165623597517,	105 KM	20km/hr TO 30
turn		79.57158964331383		Km/Hr
Sharp	Medium	11.023895732321973,	106 KM	20km/hr TO 30
turn		79.57643799045891		Km/Hr
Sharp	Medium	11.023169375601144,	106 KM	20km/hr TO 30
turn		79.57812215307234		Km/Hr
Sharp	Medium	11.022843766835152,	107 KM	20km/hr TO 30
turn		79.5873212537595		Km/Hr
Sharp	Medium	11.024046012856676,	108 KM	20km/hr TO 30
turn		79.59391755760291		Km/Hr
Sharp	Medium	10.857850931900506,	109 KM	20km/hr TO 30
turn		79.64189750664731		Km/Hr
Sharp	Medium	10.857567401314665,	110 KM	20km/hr TO 30
turn		79.6514245692304		Km/Hr
Sharp	Medium	10.856716807942467,	112 KM	20km/hr TO 30
turn		79.67365438192427		Km/Hr
	High	10.862670910674172,	114 KM	10km/hr TO 15
		79.6834033137393		Km/Hr
Sharp	Medium	10.870455565038672,	117 KM	20km/hr TO 30
turn		79.70936951365567		Km/Hr
Sharp	Medium	10.865497473138912,	119 KM	20km/hr TO 30
turn		79.71995764014018		Km/Hr
Sharp	Medium	10.864395663753669,	120 KM	20km/hr TO 30
turn		79.72774096490693		Km/Hr
Sharp	High	10.869904670006743,	121 KM	10km/hr TO 15
turn		79.73622549010312		Km/Hr

• Risk Assessment - Elevation Changes

Risk Type	Specific Risk	Risk Level	Coordination	Elevation Change	Gradien t	Recomme ndation Speed
Elevatio n Change	Descen t	Low	10.7753, 78.8368	-3.02m	-2.96 %	40 km/hr to 50 km/hr
Elevatio n Change	Descen t	Low	10.993921 , 78.326323	-9.28m	-6.28%	40 km/hr to 50 km/hr

<u>IOCL TIRCHY TERMINAL (10.7753, 78.8368) TO KAVITHA</u> <u>AGENCIES (</u>10.870215 , 79.741776) TOTAL DISTANCE – 121 KM



10.769073692604486, 78.83720120889187



10.764113439530249, 78.83446118711721



10.758209570013967, 78.83344387884853



10.751314343624747, 78.82530656733346



10.75126610223314, 78.82518044583597



10.749591316479634, 78.83018387464983



10.739318685033433, 78.8379420178455



10.735064036857814, 78.86553394452655

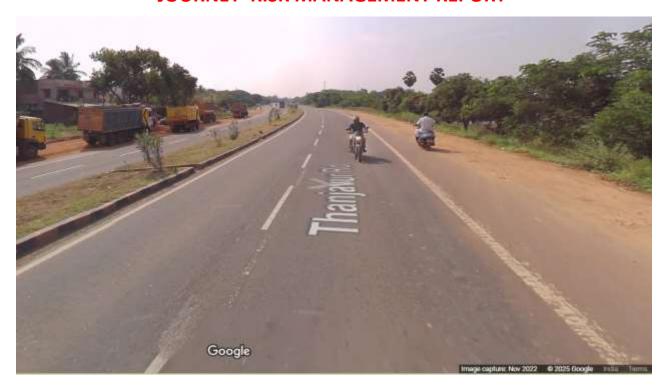
ALARP/JRM/TNSO/MKUMARAN



10.731428224715632, 78.90834087863155



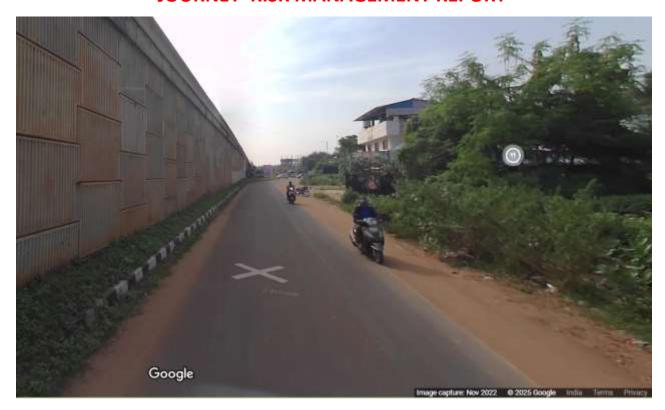
10.7204752733678, 78.94043095175968



10.730470193011778, 79.02491837645792



10.73562703051417, 79.10914681274313



10.74239869421108, 79.13924228433945



10.762835880662, 79.15885726520942



10.86508872374555, 79.19199892851083



10.983050192850786, 79.38667088419274

ALARP/JRM/TNSO/MKUMARAN

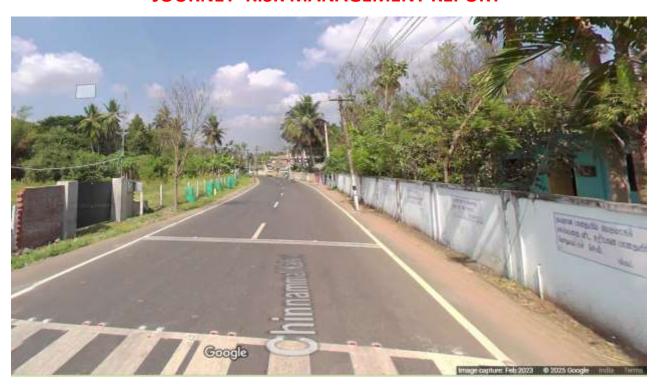


10.982396440646552, 79.39381342050322



10.991527724757828, 79.40666540897624

ALARP/JRM/TNSO/MKUMARAN



11.022490944084682, 79.47018786867453



11.020753919153844, 79.48026079789986



11.025034923081758, 79.51157592396632



11.023925682876909, 79.54964609748217

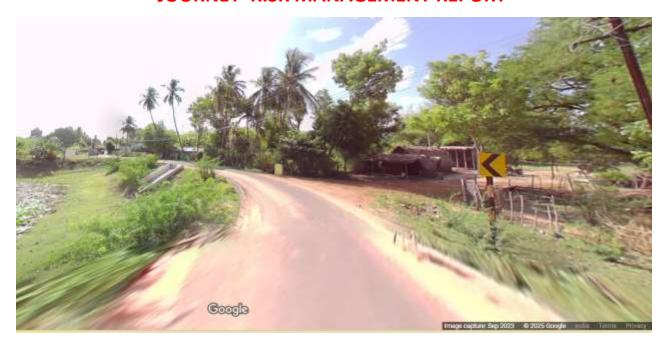
ALARP/JRM/TNSO/MKUMARAN



11.020796340114492, 79.57002911069338



11.030567315845762, 79.64618607370501



10.870128992009224, 79.7092307459983



10.865695755839251, 79.71917792959309

ALARP/JRM/TNSO/MKUMARAN



10.863268018969459, 79.7266164543722



10.870088884888238, 79.7400766365075