



AGÊNCIA DE TRANSPORTE DO ESTADO DE SÃO PAULO

ANNEX 3 – Rodoanel Norte Lot

Folha 1 de 10

ANNEX 03

PERFORMANCE INDICATORS ON SERVICES PROVIDED

SPONSORED CONCESSION OF THE PUBLIC SERVICES FOR OPERATION, MAINTENANCE AND MAKING OF INVESTMENTS NECESSARY FOR EXPLOITATION OF THE ROAD SYSTEM CALLED RODOANEL NORTE LOT



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1. QUALITY AND PERFORMANCE INDEX (QPI)

1.1. QPI GENERAL CONDITIONS

For the services provided within the scope of this CONCESSION, the value of the KILOMETRIC FEE will be adjusted annually in accordance with the rules established in ANNEX 04, and may apply, for the purpose of calculating the TARIFF REVENUE DUE and the AVAILABILITY PAYMENT OWED, a factor related to the service, by the CONCESSIONAIRE, of the PERFORMANCE INDICATORS provided for in this ANNEX and APPENDIX C.

The performance of the CONCESSIONAIRE will be measured throughout the ROAD SYSTEM, according to the rules established in this ANNEX, taking into account aspects considered essential as fluidity, mobility, environment and safety of the road system, by meeting the conditions described in the AGREEMENT and its ANNEXES, that present all services to be provided with the respective standards and minimum requirements that define the so-called “Adequate Service” considered for the purposes of this CONCESSION.

The services and indicators are presented in the AGREEMENT and especially in the following ANNEXES, without prejudice to the applicable APPENDICES:

- ANNEX 04 - Tariff Structure;
- ANNEX 05 - Services Corresponding to Operational Functions;
- ANNEX 06 - Services Corresponding to Conservation Functions;
- ANNEX 07 - Services Corresponding to Extension Functions; and
- ANNEX 26 – Mechanism for Payment of AVAILABILITY PAYMENT.

The amount of TARIFF REVENUE DUE and the AVAILABILITY PAYMENT OWED shall consider the application of the QUALITY AND PERFORMANCE INDEX (“QPI”), calculated annually, composed by the arithmetic average of the PERFORMANCE COEFFICIENT OF THE SERVICES PROVIDED (“CSP”), determined according to the rules and periodicity set forth herein, which becomes an algorithm for monitoring the quality of services performed by the CONCESSIONAIRE.

The performance of the CONCESSIONAIRE will be constantly monitored, and the calculation of the coefficient of performance of services rendered (“CSP”) is performed quarterly and considered for the purposes of calculating the TARIFF REVENUE OWED and DUE AVAILABILITY PAYMENT, pursuant to the terms set forth in ANNEX 4 and ANNEX 26. CSP will correspond to the PERFORMANCE INDICATORS averaged monthly in the period equivalent to the last three months, according to the regulations and specificities set forth herein and set forth in item 1.3 of this ANNEX, as well as in APPENDIX C. But the QUALITY AND PERFORMANCE INDEX (“QPI”) will be the arithmetic average of all CSPs quarterly calculated in the period of twelve (12) months prior to the month preceding the date of readjustment of the AGREEMENT.

At each quarterly calculation of the CSP Services Performance Coefficient, a document will be generated by ARTESP expressing the results of the inspection performed during that period (“CSP Quarterly Report”). Similarly, for each QPI calculation, based on the CSP calculations, a document will be generated by ARTESP expressing the result of the QPI (“Performance Evaluation Report - QPI”).

1.2. REFLECTION OF NON-COMPLIANCE OF PERFORMANCE INDICATORS IN CALCULATING THE TOLL TARIFF VALUE

The CSP is based on the metrics and standards established in the REQUEST FOR PROPOSALS, the AGREEMENT and its APPENDICES, and which comprises the verification of the quality of the services provided by the CONCESSIONAIRE. It consists of the results of PERFORMANCE INDICATORS measured over the period considered. PERFORMANCE INDICATORS generate the Final Coefficient Note calculated in the Quarterly Report of the CSP Quarterly Reporting Report, which, in turn, will compose the QUALITY AND PERFORMANCE INDEX ("QPI"), according to the rules established in item 1.4 of this ANNEX.

For the INDICATORS indicators measured monthly, the CSP will be composed of the arithmetic average of the results (Notes) of PERFORMANCE INDICATORS that were calculated in the period equivalent to the last three (3) months.

For PERFORMANCE INDICATORS whose measurement may eventually be made over a period of one quarter, the value considered for the CSP calculation will always be the same as the last measurement taken, ie the most recent measurement available to be adopted until the new measurement.

Each INDICATOR and, when applicable, the corresponding Index, is directly linked to the terms and requirements described in the AGREEMENT and its ANNEXES, as described above, and the relevance of the services provided by the CONCESSIONAIRE has been considered for the determination of their weight.

The following table shows the PERFORMANCE INDICATORS and associated indices, when applicable. In the ANNEX to this ANNEX, the sheets referring to the PERFORMANCE INDICATORS are provided, showing, for example, (i) their composition and source of information, (ii) periodicity, (iii) formulas and (iv) performance ranges. assignment of the respective Notes.

The supervisory activities will be aimed at verifying compliance with the PERFORMANCE INDICATORS presented in the table below, according to the rules established in this ANNEX and ANNEX C.

The PERFORMANCE INDICATORS set forth in this ANNEX shall be complied with and measured against their attendance 24 (twenty-four) hours a day, every day of the week, including Saturdays, Sundays and holidays.

If the CONCESSIONAIRE does not provide the reports and data necessary for the measurement of a PERFORMANCE INDICATOR or Index, for reasons solely under its responsibility, as detailed in this ANNEX and corresponding ANNEX, the respective INDICATOR will be given a score of 0 (zero) in the month of calculation. If the measurement of the PERFORMANCE INDICATOR or Index is not possible due to a reason attributable to the GRANTING POWER or to ARTESP, after its verification by the CONCESSIONAIRE in its own administrative proceeding, and the measurement cannot be carried out untimely, the respective weigh, assigned in the table in item 1.1, will be redistributed proportionally to the other PERFORMANCE INDICATORS or Index.

The PERFORMANCE INDICATORS will be measured, and the Notes given in the CSP Quarterly Reporting Report will be made according to the following conditions:

I. For the PERFORMANCE INDICATORS and / or Binary Indexes:

Note 1 (one) or 0 (zero) shall be awarded, reflecting its compliance by the CONCESSIONAIRE, according to the following weighting:

(i) **"Grade 1"**:

- (a) It will only be assigned to reflect the full compliance by the CONCESSIONAIRE with a given PERFORMANCE INDICATOR or Index;

(b) May not be assigned Note 1 (one) to PERFORMANCE INDICATORS that have not been fully met by the CONCESSIONAIRE during the period considered for the measurement.

(ii) **“Grade 0”:**

(a) Note 0 (zero) will be awarded in the event of non-compliance, partial compliance or non-compliance with PERFORMANCE INDICATOR or Index, which have been verified as part of the inspection activities related to the period considered;

(b) If the assigned grade is 0 (zero), the percentage corresponding to the respective PERFORMANCE INDICATOR or Index will be 0 (zero) in the composition of the corresponding total percentage.

Note 0 (zero) reflects the full discount of the percentage related to the respective PERFORMANCE INDICATOR and, therefore, the noncompliance of the respective PERFORMANCE INDICATOR or Index.

The principles of proportionality and reasonableness have already been considered when choosing which PERFORMANCE INDICATORS or Indexes are binary, so that Notes with intermediate values between 1 (one) or 0 (zero) will not be assigned for the PERFORMANCE INDICATORS or Binary indices.

II. For PERFORMANCE INDICATORS and / or Non-binary Indexes:

A score between 0.00 (zero) and 1.00 (humum) may be awarded according to your percentage of compliance with the INDICATOR or Index requirement analyzed. Performance ranges and related notes vary by PERFORMANCE INDICATOR or Index and are detailed in the respective sheets that make up the APPENDIX of this ANNEX

For the purpose of instituting a sanctioning administrative proceeding, the non-compliance of the respective PERFORMANCE INDICATOR shall be considered as being assigned a score of 0 (zero).

1.3. PERFORMANCE INDICATORS TABLE AND CORRESPONDING FOR CALCULATING THE CSP

Theme	Weight-Theme	Indicator		Weigh of Indicator	Frequency of Indicator	Index	Weight of Index
1. Special Conservation of the Pavement	42,0%	1.1	Pavement Management System Periodic Update Compliance Indicator	10,0%	Monthly	-	-
		1.2	Pavement Comfort Indicator*	30,0%	Monthly	-	-
		1.3	Pavement Safety Conditions Indicator*	30,0%	Monthly	-	-
		1.4	Pavement Surface Conditions Indicator*	30,0%	Monthly	-	-



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Theme	Weight-Theme	Indicator		Weight of Indicator	Frequency of Indicator	Index	Weight of Index
2. Customer Service	8,0%	2.1	Winch Service Arrival Time Indicator	30,0%	Monthly	-	-
		2.2	Mechanical Relief Service Arrival Time Indicator	30,0%	Monthly	-	-
		2.3	APH Services Arrival Time Indicator	40,0%	Monthly	-	-
3. Environment	4,0%	3.1	Socio-Environmental Indicator: Recovery de Non Environmental Compliance	100,0%	Monthly	-	-
4. Weighing	4,0%	4.1	Weighing System Operational Indicator	100,0%	Monthly	-	-
5. Routine Conservation	14,0%	5.1	Routine Conservation Programs Compliance Indicator	100,0%	Monthly	Pavement Routine Conservation Index	45,0%
						Right of Way Routine Conservation Index	20,0%
						Drainage Routine Conservation Index	10,0%
						Routine Conservation Index of Road Containment Devices	5,0%
						Structure Routine Conservation Index	5,0%
						Routine Conservation Index of Buildings and Yards	5,0%
						Lighting Routine Conservation Index	10,0%
6. Fluidity	8,0%	6.1	Intervention Delay Time Indicator	100,0%	Monthly	Intervention Delay Time Index (by Intervention)	100%
7. Signaling	12,0%	7.1	Indicator of Integrity and Conservation of Vertical Signage	50,0%	Monthly	-	-
		7.2	Horizontal Signaling Integrity and Conservation Indicator	50,0%	Monthly	-	-

Theme	Weight-Theme	Indicator		Weigh of Indicator	Frequency of Indicator	Index	Weight of Index
8. Operating Equipment	7,0%	8.1	PMV Operability Indicator	12,5%	Monthly	-	-
		8.2	CCTV Operability Indicator	25,0%	Monthly	-	-
		8.3	User Communication System Availability Compliance Indicator	50,0%	Monthly	-	-
		8.4	SAT Operability Indicator	12,5%	Monthly	-	-

1.4. CALCULATION OF INDICATOR NOTES, CSP AND QPI

1.4.1. CALCULATION OF INDICATOR NOTES

Each Performance Indicator PERFORMANCE INDICATOR that makes up the previous table (item 1.3 of this ANNEX) has rules and specificities of calculation and assignment of Notes according to the periodicity of its measurement, without prejudice to the provisions and details in the respective sheets that compose the APPENDIX. This way, the PERFORMANCE INDICATOR Rating in each measurement period measurement (NIDp) may be directly assigned from the performance ranges and / or may be generated from the Index Notes associated with it. For both cases, the description, detailed formulas and observations for calculating the Final Score of each INDICATOR can be found in their respective form.

A theme is composed of a set of PERFORMANCE INDICATORS. Regardless of the periodicity of their measurement, all PERFORMANCE INDICATORS shall be monthly ascertained and assigned a Grade (NIDp). Therefore, each quarter an arithmetic average of the Notes obtained for the INDICATORS in the previous 3 (three) months must be performed. The INDICATOR average score must then be multiplied by its respective weight defined in the "Indicator Weight" column of the previous table (item 1.3 of this ANNEX). For each Theme, then the weighted average scores of the indicators that compose it must be added. Thus, the Theme Note (NT) will be calculated in the quarter, for each theme, according to the formula below.

$$NT_{trimester} = \sum_i \left[\left(\frac{\sum NID_p}{P} \right) \times weight_i \right]$$

In which:

- $NT_{trimester}$ = Theme Note calculated for the evaluation quarter. This Note must be calculated for all Themes evaluated;
- i = Set of Indicators that make up each Theme;
- NID_p = Note of the Performance Indicator in each p calculation period;
- P = number of calculation periods for each Indicator in the quarter. In this case, as the indicators have monthly periodicity, $P = 3$;

- weight i = corresponding weight of each Indicator, specified in the “Indicator Weight” column (item 1.3 of this ANNEX). The weight of the decimal form corresponding to the percentage (%) must be used in the formula.

1.4.2. CSP CALCULATION

The coefficient of performance of services rendered (“CSP”) may vary between 0.00 (zero) and 1.00 (humum), depending on the performance of the PERFORMANCE INDICATORS expected for the CONCESSIONAIRE for the period. The CSP is quarterly calculated based on the sum of Themes Notes, calculated for the quarter, multiplied by the weight of the respective Themes, defined in the “Theme Weight” column of the table above (item 1.3 of this ANNEX). Thus, the quarter's CSP will be calculated, according to the formula below:

$$CSP_{trimester} = \sum_T (NT_{trimestre} \times weight_t)$$

In which:

- $CSP_{trimester}$ = CSP calculated for the evaluation quarter,
- T = Theme Set,
- $NT_{trimester}$ = Subject Note that is being evaluated calculated for quarter,
- $weight_t$ = Weight corresponding to the Theme being evaluated, specified in the “Theme Weight” column (item 1.4 of this ANNEX). The weight of the decimal form corresponding to the percentage (%) must be used in the formula.

Notwithstanding the quarterly calculation of the Note related to each Theme and the CSP, the INDICATORS and Indexes shall be measured according to each specific rule and periodicity, established in this APPENDIX and corresponding APPENDIX. Thus, the quarterly consolidation does not exempt the CONCESSIONAIRE from performing the routine monitoring of its activities and sending the results and reports¹ broken down as follows to the following INDICATORS:

Monthly - Reports on the results of the INDICATORS, delivered by the 5th (fifth) business day of the month following the analyzed:

- Delay Time Indicator Due to Interventions;
- Winch Service Arrival Time Indicator;
- Mechanical Relief Service Arrival Time Indicator; and
- APH Services Arrival Time Indicator.

¹ The results and reports are not binding for the inspection, so that ARTESP, upon appreciating them, can oppose or reject them, with good reason.

Semiannually - Reporting on the results of PERFORMANCE INDICATORS², delivered with a maximum field collection lag of up to 45³⁴ (forty-five) days, and up to the 5th (fifth) business day of the month;

- Compliance Indicator of the Periodic Update of the Pavement Management System;
- Indicator of Pavement Comfort Conditions; and
- Pavement Surface Conditions Indicator.

Annually: Reports regarding the result of the PERFORMANCE INDICATOR⁵, delivered with a maximum field collection lag of up to 45⁶⁷ (forty-five) 45 days, and up to the 5th (fifth) business day of the month:

- Indicator of Pavement Safety Conditions.

1.4.3. QPI CALCULATION

For QPI calculation, the average of the quarterly coefficients calculated over the entire previous period considered will be used, according to the formula below:

$$QPI_{year} = \frac{\sum_{j=1}^p CSP_j}{p}$$

In which:

- QPI = Index that will be applied in the calculation of the TOLL TARIFF DUE and AVAILABILITY PAYMENT OWED pursuant to Annexes 4 and 26;
- CSP_j = CSP calculated in quarter j;
- year = Year of AGREEMENT for which QPI is being calculated;
- j = Quarter of CSP measurement, which starts in the first quarter of the year (j = 1) and goes to the last quarter of the analysis period (j = p);
- p = Number of quarters between the first and last month being considered in the QPI measurement of the contractual year under review.

² As detailed in the sheets that make up the APPENDIX C, these Indicators will have their periodicity changed from the 21st (twenty-first) year of CONCESSION. Therefore, the CONCESSIONAIRE shall forward the results and reports in accordance with the new frequency described in said APPENDIX.

³ In the penultimate month of the fourth CSP Quarterly Reporting Report, within the period of one contractual year, to enable the calculation of the QPI within the period provided for in this ANNEX, the reports on the results of the Indicators shall be delivered with a maximum delay of field collection. up to 30 (thirty) days.

⁴ In the last month of the fourth CSP Quarterly Reporting Report, within the period of one contractual year, to enable the calculation of the QPI within the period provided for in this ANNEX, the reports on the results of the Indicators shall be delivered by the 5th (fifth) business day. of the month following that analyzed.

⁵ As detailed in the sheets that make up the APPENDIX C, these Indicators will have their periodicity changed from the 21st (twenty-first) year of CONCESSION. Therefore, the CONCESSIONAIRE shall forward the results and reports in accordance with the new frequency described in said APPENDIX.

⁶ In the penultimate month of the fourth CSP Quarterly Reporting Report, within the period of one contractual year, to enable the calculation of the QPI within the period provided for in this ANNEX, the reports on the results of the Indicators shall be delivered with a maximum delay of field collection. up to 30 (thirty) days.

⁷ In the last month of the fourth CSP Quarterly Reporting Report, within the period of one contractual year, to enable the calculation of the QPI within the period provided for in this ANNEX, the reports on the results of the Indicators shall be delivered by the 5th (fifth) business day. of the month following that analyzed.

(i) Calculation Rounding Rule

All calculations presented in this ANNEX for the consolidation of NT, CSP or QPI shall be performed considering only two decimal places, and the following rounding rule shall be followed:

- If the third decimal place digit is less than 5 (five), the second decimal place digit does not change. Example: $0.642 = 0.64$.
- If the third decimal place digit is greater than or equal to five (5), the second decimal place digit increases by one. Example: $0.647 = 0.65$.

The same rule applies to cases where the calculation results in a number of more than three decimal places. The operations presented above must be applied progressively until application of the rounding rule reaches the 2nd (second) decimal place in the result.