

# ■ TECHNISCHER BERICHT

|               |              |
|---------------|--------------|
| Datum:        | 14.07.2022   |
| Projekt-Nr.:  | P501311      |
| Version       |              |
| Seitenanzahl: | 9            |
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Auftraggeber:

**Stadt Jena**

vertreten durch  
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Projekt:

**Ausbau der Osttangente**

**K610**  
**Käthe-Kollwitz-Straße/ Am Anger**

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**16.4.4 Fachplanung LSA -  
Genehmigungsplanung**

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## **1. Vorbemerkungen**

Im Zuge des vierstreifigen Ausbaus der Osttangente in Jena wird der Knotenpunkt Käthe-Kollwitz-Straße/ Am Anger (K 610) erneuert und die Lichtsignalanlage neu errichtet.

## **2. Verwendete Unterlagen**

Die Erarbeitung der vorliegenden Entwurfs- und Genehmigungsplanung basiert auf folgenden Grundlagen:

- Lageplan, iproplan vom 30.05.2022
- Verkehrsprognose 2030 Planfall 1 vom 23.05.2018/ 19.08.2021: Knotenstrombelastungen Kfz und Lkw
- RiLSA 2015
- Technische Anforderungen an Lichtsignalanlagen, Kommunalservice Jena, Stand 13.11.2018
- Handbuch für die Bemessung von Straßenverkehrsanlagen (HBS) 2015
- Geltende DIN-Vorschriften und Richtlinien
- Straßenverkehrsordnung / Verwaltungsvorschrift zur Straßenverkehrsordnung

## **3. Erläuterungen zum Signallageplan**

### **3.1 Allgemeines**

Der Knotenpunkt Käthe-Kollwitz-Straße/ Am Anger ist vierarmig angelegt.

Die nördliche Zufahrt Am Anger ist mit einem Linksabbiegefahrstreifen, einem Geradeausfahrstreifen und einem Rechtsabbiegefahrstreifen ausgestattet. Die Linksabbieger werden spursignalisiert. Geradeausfahrer und Rechtsabbieger werden mittels Vollscheibe signalisiert.

In der östlichen Zufahrt (GAZ) befindet sich ein Mischfahrstreifen für alle Richtungen. Die Signalisierung erfolgt mittels Vollscheibe.

Die südliche Zufahrt Am Anger ist mit einem Linksabbiegefahrstreifen, einem Geradeausfahrstreifen sowie einem Mischfahrstreifen gerade/rechts ausgestattet. Die Signalisierung der Linksabbieger erfolgt mittels Spursignalisierung, der restliche Verkehr wird mittels Vollscheibe signalisiert.

In der Zufahrt Käthe-Kollwitz-Straße ist ein Mischfahrstreifen für alle Fahrtrichtungen angelegt, welcher mittels Vollscheibe signalisiert wird.

In der Zufahrt Käthe-Kollwitz-Straße und in der südlichen Zufahrt Am Anger sind Radfahrstreifen angelegt. Beide Zufahrten sind mit aufgeweiteten Radaufstellstreifen (ARAS) ausgestattet.

Für linksabbiegende Radfahrer aus Süden gibt es ein zusätzliches Radsignal (indirektes Linksabbiegen).

In der nördlichen Zufahrt Am Anger sowie in der östlichen Zufahrt (GAZ) wird der Radverkehr auf der Fahrbahn geführt.

Über den nördlichen Knotenarm führt eine zweigeteilte Fußgängerfurt. Die anderen Knotenarme sind jeweils mit einer einfachen Fußgängerfurt ausgestattet.

Alle Furten sollen mit Signalen für Blinde und Sehbehinderte ausgerüstet werden. Es werden Vibrations- und Tonsignalgeber (Orientierungs- und Freigabeton) vorgesehen.

### **3.2 Erfassungseinrichtungen**

Die Freigabezeitbemessung erfolgt in allen Zufahrten mittels Induktionsschleifen.

Die Anforderung der Linksabbieger in der nördlichen und südlichen Zufahrt Am Anger wird über Induktionsschleifen realisiert.

In der östlichen Zufahrt (GAZ) und in der Zufahrt Käthe-Kollwitz-Straße wird die Anforderung ebenfalls über Induktionsschleifen realisiert.

Für die Anforderung der Radfahrer aus der Zufahrt Käthe-Kollwitz-Straße sowie für linksabbiegende Radfahrer aus der südlichen Zufahrt Am Anger sind Wärmebildkameras vorgesehen.

Die Fußgänger im Zuge der Hauptrichtung erhalten in jedem Umlauf zyklisch ihre Freigabe. Fußgänger über die Hauptrichtung fordern ihre Freigabe mittels Tastern an.

Alle Fußgängerfurten werden mit Tastern für Blinde/Sehbehinderte ausgestattet. Die Freigabe für Blinde/Sehbehinderte erfolgt nur auf Anforderung zeitgleich mit der Freigabe für die Sehenden.

## **4. Verkehrstechnik**

Die LSA wird als koordiniert-verkehrsabhängige Anlage betrieben. Als Rückfallebene stehen vier Festzeitprogramme zur Verfügung.

### **Signalzeitenpläne der Rückfallebene**

|       |                |                                |
|-------|----------------|--------------------------------|
| SZP 1 | FZS, TU = 70 s | (Verkehrsschwache Zeit)        |
| SZP 2 | FZS, TU = 90 s | (Spitzenverkehr stadteinwärts) |
| SZP 3 | FZS, TU = 90 s | (Spitzenverkehr stadtauswärts) |
| SZP 4 | FZS, TU = 90 s | (durchschnittlicher Verkehr)   |

### **Zwischenzeiten**

Die Zwischenzeiten wurden für die Entwurfsplanung nur überschlägig bestimmt und sind im Rahmen der Ausführungsplanung vollumfänglich neu zu berechnen.

## **5. Verkehrsablauf**

Die LSA Käthe-Kollwitz-Straße/ Am Anger wird in Dauergrünstellung für die Hauptrichtung betrieben. Die Linksabbieger der Hauptrichtung erhalten, ebenso wie die Nebenrichtungen, nur auf Anforderung ihre Freigabe.

## 5.1 Phasenfolge

- Phase 1: Freigabe des Kfz-Verkehrs Am Anger Nord und Süd gerade/rechts (K1, K4)  
Freigabe des parallelen Fußgängers/Blinde/Sehbehinderte (F2, FTV2, F5, FTV5)
- Phase 2: Freigabe des Kfz-Verkehrs Am Anger Süd gerade/rechts (K1) und links (K2)  
Freigabe des parallelen Fußgängers/Blinde/Sehbehinderte (F3, FTV3, F5, FTV5)
- Phase 3: Freigabe des Kfz-Verkehrs Käthe-Kollwitz-Straße (K3) und Zufahrt GAZ (K6)  
Freigabe des linksabbiegenden Radverkehrs aus Süden (R6)  
Freigabe des parallelen Fußgängers/Blinde/Sehbehinderte (F1, FTV1, F3, FTV3, F4, FTV4)
- Phase 4: Freigabe des Kfz-Verkehrs Zufahrt GAZ (K6)  
Freigabe der Feuerwehr Zufahrt GAZ (Feu)
- Phase 5: Freigabe des Kfz-Verkehrs Am Anger Nord gerade/rechts (K4) und links (K5)  
Freigabe des parallelen Fußgängers/Blinde/Sehbehinderte (F2, FTV2, F4, FTV4)

Die Phasen 2, 3, 4 und 5 werden nur auf Anforderung geschaltet. Bei Störung des verkehrsabhängigen Betriebes werden Ersatzprogramme in Festzeit geschaltet, die die Phasenfolge 1 – 2 – 3 – 5 – 1 abbilden.

Die Signale für Blinde/Sehbehinderte werden in allen Furten sowohl in der Festzeitsteuerung als auch in der verkehrsabhängigen Steuerung nur auf Anforderung bedient. Der Freigabebeginn der akustischen Signale erfolgt grundsätzlich gleichzeitig mit dem Freigabebeginn der optischen. Ein Zuschalten der akustischen Freigabe in ein bestehendes Grün ist nicht zulässig.

## 5.2 Koordinierung

Die sich im Ausbaubereich befindenden vier LSA K413 (Am Eisenbahndamm/ Fischergasse/ Knebelstraße), K417 (Am Anger/ Steinweg/ Am Eisenbahndamm), 427 (Am Anger/ Wiesenstraße/ Lutherplatz) und 610 (Käthe-Kollwitz-Straße/ Am Anger) werden koordiniert betrieben.

### **SZP 2 Frühspitzenstunde Tu = 90 s stadtauswärts**

- durchgehendes Koordinierungsband für den Kfz-Verkehr von Stadtrodaer Straße bis Käthe-Kollwitz-Straße mit einer Breite von ca. 14 s
- Grünvorlauf von 6 s für koordinierten Pulk an Querschnitt Steinweg, ca. 2 s an Querschnitt Wiesenstraße, ca. 24 s am Querschnitt Käthe-Kollwitz-Straße

### **stadteinwärts**

- durchgehendes Koordinierungsband für den Kfz-Verkehr von Käthe-Kollwitz-Straße bis Steinweg mit einer Breite von ca. 18 s
- An Knotenpunkt 413 ist bedingt durch die Freigabezeit von 17 s für K8 nur eine eingeschränkte Koordinierung möglich. Der Grünvorlauf für koordinierten Pulk von ca. 9 s am Querschnitt Fischergasse, Abbruch des Pulks nach 8 s Grünzeit
- Grünvorlauf für koordinierten Pulk von ca. 3 s am Querschnitt Lutherplatz K427
- Grünvorlauf für koordinierten Pulk von ca. 13 s am Querschnitt Steinweg K417

Das Koordinierungsmaß  $k$  gemäß HBS 2015 beschreibt den mittleren Anteil von Fahrzeugen im koordinierten Verkehrsstrom die ohne Halt den Knotenpunkt passieren können. Für den SZP 2 beträgt das Koordinierungsmaß 87,5 %. Dies entspricht einer guten Qualität der Koordinierung.

### **SZP 3 Nachmittagsspitzenstunde Tu = 90 s stadtauswärts**

- durchgehendes Koordinierungsband für den Kfz-Verkehr von Stadtrodaer Straße bis Käthe-Kollwitz-Straße mit einer Breite von ca. 15 s
- Grünvorlauf von 12 s für koordinierten Pulk an Querschnitt Steinweg, 3 s an Querschnitt Wiesenstraße, ca. 21 s am Querschnitt Käthe-Kollwitz-Straße

### **stadteinwärts**

- durchgehendes Koordinierungsband für den Kfz-Verkehr von Käthe-Kollwitz-Straße bis Steinweg mit einer Breite von ca. 21 s
- An Knotenpunkt 413 ist keine durchgehende Koordinierung in Richtung Stadtrodaer Straße möglich. Die Kfz aus Richtung 417 fahren auf Rot bei K8 auf.
- Grünvorlauf für koordinierten Pulk von ca. 20 s am Querschnitt Lutherplatz K427
- Grünvorlauf für koordinierten Pulk von ca. 23 s am Querschnitt Steinweg K417

Das Koordinierungsmaß  $k$  gemäß HBS 2015 beschreibt den mittleren Anteil von Fahrzeugen im koordinierten Verkehrsstrom die ohne Halt den Knotenpunkt passieren können. Für den SZP 3 beträgt das Koordinierungsmaß 87,0 %. Dies entspricht einer guten Qualität der Koordinierung.

## 6. Dimensionierungsverkehrsmengen und Verkehrsqualität

Grundlage der Leistungsfähigkeitsnachweise ist die Verkehrsbelastung, die für das Jahr 2030 prognostiziert wird (Prognose 2030 P1). Die Prognose beruht auf dem Verkehrsmodell der Stadt Jena. Durch den AG übergeben wurden die Verkehrsbelastungen in Kfz/h für die Vormittagsspitze von 07:00 Uhr bis 08:00 Uhr und die Nachmittagsspitze von 16:00 bis 17:00 Uhr. Außerdem steht für die 2 Zeitbereiche der Schwerverkehrsanteil zur Verfügung.

Für die Verkehrsbelastung der Früh- und Nachmittagsspitzenstunde für den Planfall 1 der Prognose 2030 wurde der Nachweis nach HBS 2015 geführt.

Folgende, die Verkehrsqualität bestimmende Grenzwerte der mittleren Wartezeit werden nach HBS 2015 für lichtsignalgeregelterte Knotenpunkte festgelegt:

|          |                                                                |
|----------|----------------------------------------------------------------|
| Stufe A: | mittlere Wartezeit $\leq 20$ s                                 |
| Stufe B: | mittlere Wartezeit $\leq 35$ s                                 |
| Stufe C: | mittlere Wartezeit $\leq 50$ s                                 |
| Stufe D: | mittlere Wartezeit $\leq 70$ s                                 |
| Stufe E: | mittlere Wartezeit $> 70$ s                                    |
| Stufe F: | mittlere Wartezeit – (Verkehrsstärke liegt über der Kapazität) |

Es ergibt sich folgende Verkehrsqualität im Kfz-Verkehr für das Festzeitprogramm:

Prognose 2030 P1, Frühspitze:

|                                |       |
|--------------------------------|-------|
| SZP 2 einwärts (FS), TU = 90 s | QSV C |
|--------------------------------|-------|

Prognose 2030 P1, Nachmittagsspitze:

|                                |       |
|--------------------------------|-------|
| SZP 3 auswärts (NS), TU = 90 s | QSV C |
|--------------------------------|-------|

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Dipl.-Geogr. Tina Röttschke



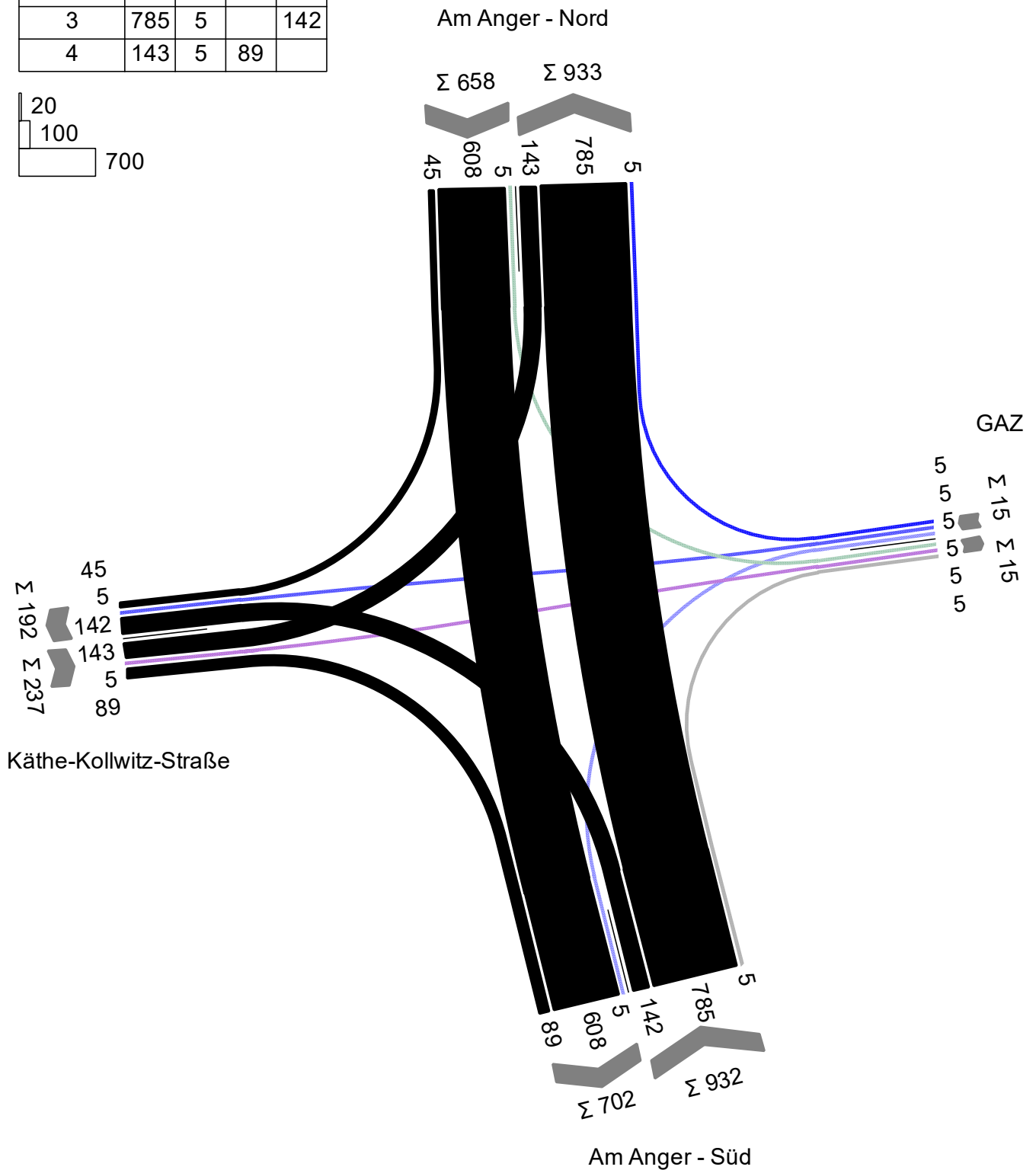
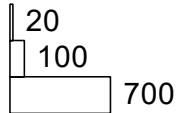




|             |                                          |             |                        |       |            |
|-------------|------------------------------------------|-------------|------------------------|-------|------------|
| Projekt     | Ausbau Osttangente Jena                  |             |                        |       |            |
| Knotenpunkt | Käthe-Kollwitz-Straße/Am Anger - K 610 - |             |                        |       |            |
| Auftragsnr. | P501311                                  | Variante    | Leistungsfähigkeitsnac | Datum | 24.05.2022 |
| Bearbeiter  | Cyriax                                   | Abzeichnung |                        | Blatt | 2.1        |

**Prognose 2030 P1, Nachmittagsspitze**

| von\nach | 1   | 2 | 3   | 4   |
|----------|-----|---|-----|-----|
| 1        |     | 5 | 608 | 45  |
| 2        | 5   |   | 5   | 5   |
| 3        | 785 | 5 |     | 142 |
| 4        | 143 | 5 | 89  |     |



|             |                                          |             |                        |       |            |
|-------------|------------------------------------------|-------------|------------------------|-------|------------|
| Projekt     | Ausbau Osttangente Jena                  |             |                        |       |            |
| Knotenpunkt | Käthe-Kollwitz-Straße/Am Anger - K 610 - |             |                        |       |            |
| Auftragsnr. | P501311                                  | Variante    | Leistungsfähigkeitsnac | Datum | 24.05.2022 |
| Bearbeiter  | Cyriax                                   | Abzeichnung |                        | Blatt | 2.2        |

# Signalgruppen

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|    | Name | Typ                | ID-Nr. | Signalisierte Ströme  | Progressiv | Teil-knoten | Symbol | tfmin | tfmax | tsmin | tsmax | Anwurf     | Abwurf  | Vmax [km/h] | Dunkel/Aus = Freigabe | Farbbild Aus Gelb-Blk | Verkehrsart | Bemerkung |
|----|------|--------------------|--------|-----------------------|------------|-------------|--------|-------|-------|-------|-------|------------|---------|-------------|-----------------------|-----------------------|-------------|-----------|
| 1  | K1   | KFZ 3-begr., 3s Ge | 1      | Arm 3 -> 1,2          | -          | TK 1        |        | 10    | -     | 1     | -     | RotGelb 1s | Gelb 3s | 50          | -                     | Dunkel                | Kfz;Rad     |           |
| 2  | K2   | KFZ 3-begr., 3s Ge | 2      | Arm 3 -> 4            | -          | TK 1        |        | 5     | -     | 1     | -     | RotGelb 1s | Gelb 3s | 50          | -                     | Dunkel                | Kfz         |           |
| 3  | K3   | KFZ 3-begr., 3s Ge | 3      | Arm 4 -> 1,2,3        | -          | TK 1        |        | 5     | -     | 1     | -     | RotGelb 1s | Gelb 3s | 50          | -                     | Dunkel                | Kfz;Rad     |           |
| 4  | K4   | KFZ 3-begr., 3s Ge | 4      | Arm 1 -> 3,4          | -          | TK 1        |        | 10    | -     | 1     | -     | RotGelb 1s | Gelb 3s | 50          | -                     | Dunkel                | Kfz;Rad     |           |
| 5  | K5   | KFZ 3-begr., 3s Ge | 5      | Arm 1 -> 2            | -          | TK 1        |        | 5     | -     | 1     | -     | RotGelb 1s | Gelb 3s | 50          | -                     | Dunkel                | Kfz;Rad     |           |
| 6  | K6   | KFZ 3-begr., 3s Ge | 6      | Arm 2 -> 1,3,4        | -          | TK 1        |        | 5     | -     | 1     | -     | RotGelb 1s | Gelb 3s | 50          | -                     | Dunkel                | Kfz;Rad     |           |
| 7  | R1   | RAD 3-begr.        | 7      | Arm 3 -> 1,2          | -          | TK 1        |        | 5     | -     | -     | -     | RotGelb 1s | Gelb 2s | -           | -                     | Dunkel                | Rad         |           |
| 8  | R3   | RAD 3-begr.        | 8      | Arm 4 -> 1,2,3        | -          | TK 1        |        | 5     | -     | -     | -     | RotGelb 1s | Gelb 2s | -           | -                     | Dunkel                | Rad         |           |
| 9  | R6   | RAD 3-begr.        | 9      | Arm 2 -> 4            | -          | TK 1        |        | 5     | -     | 1     | -     | RotGelb 1s | Gelb 2s | -           | -                     | Dunkel                | Rad         |           |
| 10 | F1   | FG 2-begr.         | 10     | Arm 3 (quer.): Furt 1 | -          | TK 1        |        | 5     | -     | 1     | -     | -          | -       | -           | -                     | Dunkel                | Fußg.       |           |
| 11 | F2   | FG 2-begr.         | 11     | Arm 4 (quer.): Furt 1 | -          | TK 1        |        | 5     | -     | 1     | -     | -          | -       | -           | -                     | Dunkel                | Fußg.       |           |
| 12 | F3   | FG 2-begr.         | 12     | Arm 1 (quer.): Furt 1 | -          | TK 1        |        | 5     | -     | 1     | -     | -          | -       | -           | -                     | Dunkel                | Fußg.       |           |
| 13 | F4   | FG 2-begr.         | 13     | Arm 1 (quer.): Furt 2 | -          | TK 1        |        | 5     | -     | 1     | -     | -          | -       | -           | -                     | Dunkel                | Fußg.       |           |
| 14 | F5   | FG 2-begr.         | 14     | Arm 2 (quer.): Furt 1 | -          | TK 1        |        | 5     | -     | 1     | -     | -          | -       | -           | -                     | Dunkel                | Fußg.       |           |
| 15 | FTV1 | Tonsignal          | 15     | Arm 3 (quer.): Furt 1 | -          | TK 1        |        | 5     | -     | 1     | -     | -          | -       | -           | -                     | Dunkel                | Fußg.       |           |
| 16 | FTV2 | Tonsignal          | 16     | Arm 4 (quer.): Furt 1 | -          | TK 1        |        | 5     | -     | 1     | -     | -          | -       | -           | -                     | Dunkel                | Fußg.       |           |
| 17 | FTV3 | Tonsignal          | 17     | Arm 1 (quer.): Furt 1 | -          | TK 1        |        | 5     | -     | 1     | -     | -          | -       | -           | -                     | Dunkel                | Fußg.       |           |
| 18 | FTV4 | Tonsignal          | 18     | Arm 1 (quer.): Furt 2 | -          | TK 1        |        | 5     | -     | 1     | -     | -          | -       | -           | -                     | Dunkel                | Fußg.       |           |
| 19 | FTV5 | Tonsignal          | 19     | Arm 2 (quer.): Furt 1 | -          | TK 1        |        | 5     | -     | 1     | -     | -          | -       | -           | -                     | Dunkel                | Fußg.       |           |
| 20 | BL1  | Blinker            | 20     | Arm 3 (quer.): Furt 1 | -          | TK 1        |        | 5     | -     | 1     | -     | -          | -       | -           | -                     | Dunkel                | Fußg.       |           |
| 21 | BL4  | Blinker            | 21     | Arm 1 (quer.): Furt 2 | -          | TK 1        |        | 5     | -     | 1     | -     | -          | -       | -           | -                     | Dunkel                | Fußg.       |           |
| 22 | WB1  | Blinker            | 22     | Arm 2 -> 1,3,4        | -          | TK 1        |        | 5     | -     | 1     | -     | -          | -       | -           | -                     | Dunkel                | Kfz         |           |
| 23 | Feu  | ÖV 1-begr. Frei    | 23     | Arm 2 -> 1,3,4        | -          | TK 1        |        | 5     | -     | -     | -     | -          | -       | -           | -                     | Dunkel                | Kfz         |           |

|             |                                          |  |  |             |                             |  |                  |
|-------------|------------------------------------------|--|--|-------------|-----------------------------|--|------------------|
| Projekt     | Ausbau Osttangente Jena                  |  |  |             |                             |  |                  |
| Knotenpunkt | Käthe-Kollwitz-Straße/Am Anger - K 610 - |  |  |             |                             |  |                  |
| Auftragsnr. | P501311                                  |  |  | Variante    | Leistungsfähigkeitsnachweis |  | Datum 24.05.2022 |
| Bearbeiter  | Cyriax                                   |  |  | Abzeichnung |                             |  | Blatt 3          |

# Zwischenzeitenberechnung

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|   | Räumend |       | Einführend |       | Räumend   |           |          |        |          |          |           |        |           |        | Einführend |          |           |        |           | Zwischenzeit  |          |     | Info          |                 |        |           |  |
|---|---------|-------|------------|-------|-----------|-----------|----------|--------|----------|----------|-----------|--------|-----------|--------|------------|----------|-----------|--------|-----------|---------------|----------|-----|---------------|-----------------|--------|-----------|--|
|   | SGR     | Strom | Teilstrom  | SGR   | Strom     | Teilstrom | Lrsg [m] | so [m] | vo [m/s] | vr [m/s] | ar [m/s²] | tu [s] | tu+tr [s] | Se [m] | vo [m/s]   | vr [m/s] | ae [m/s²] | tr [s] | tr+tr [s] | tzuschlag [s] | tmaß [s] | Rad | Rad maßgebend | Schnittpunkt ID | Schutz | Bemerkung |  |
| 1 | K1      | 3 (G) | FS 1, Kfz  | 4 (L) | FS 1, Kfz | 6,0       | 22,5     | -      | 10,0     | -        | 3,0       | 5,9    | 27,5      | -      | 11,1       | -        | 2,5       | 3,4    | -         | -             | -        | X   | -             | 14512           | -      |           |  |
|   |         |       | FS 1, Rad  |       | FS 1, Rad | 6,0       | 22,5     | -      | 10,0     | -        | 3,0       | 5,9    | 27,5      | -      | 5,0        | -        | 5,5       | 0,4    | -         | -             | -        |     |               | 14512           | -      |           |  |
|   |         |       | FS 1, Kfz  |       | FS 2, Rad | 6,0       | 23,5     | -      | 10,0     | -        | 3,0       | 6,0    | 24,5      | -      | 5,0        | -        | 4,9       | 1,1    | -         | -             | -        |     |               | 14463           | -      |           |  |
|   |         |       | FS 1, Rad  |       | FS 1, Kfz | -         | 22,5     | -      | 4,0      | -        | 1,0       | 6,6    | 27,5      | -      | 11,1       | -        | 2,5       | 4,1    | -         | -             | -        |     |               | 14512           | -      |           |  |
|   |         |       | FS 1, Rad  |       | FS 1, Rad | -         | 22,5     | -      | 4,0      | -        | 1,0       | 6,6    | 27,5      | -      | 5,0        | -        | 5,5       | 1,1    | -         | -             | -        |     |               | 14512           | -      |           |  |
|   |         |       | FS 1, Rad  |       | FS 2, Rad | -         | 23,5     | -      | 4,0      | -        | 1,0       | 6,9    | 24,5      | -      | 5,0        | -        | 4,9       | 2,0    | -         | -             | -        |     |               | 14463           | -      |           |  |
|   |         |       | FS 2, Kfz  |       | FS 1, Kfz | 6,0       | 22,0     | -      | 10,0     | -        | 3,0       | 5,8    | 23,5      | -      | 11,1       | -        | 2,1       | 3,7    | -         | -             | -        |     |               | 14544           | -      |           |  |
|   |         |       | FS 2, Kfz  |       | FS 1, Rad | 6,0       | 23,0     | -      | 10,0     | -        | 3,0       | 5,9    | 26,0      | -      | 5,0        | -        | 5,2       | 0,7    | -         | -             | -        |     |               | 14513           | -      |           |  |
|   |         |       | FS 2, Kfz  |       | FS 2, Rad | 6,0       | 22,5     | -      | 10,0     | -        | 3,0       | 5,9    | 22,0      | -      | 5,0        | -        | 4,4       | 1,5    | -         | -             | -        |     |               | 14464           | -      |           |  |
|   |         |       | FS 5, Rad  |       | FS 1, Kfz | -         | 20,0     | -      | 4,0      | -        | 1,0       | 6,0    | 29,0      | -      | 11,1       | -        | 2,6       | 3,4    | -         | -             | -        |     |               | 21014           | -      |           |  |
|   |         |       | FS 5, Rad  |       | FS 1, Rad | -         | 20,0     | -      | 4,0      | -        | 1,0       | 6,0    | 29,0      | -      | 5,0        | -        | 5,8       | 0,2    | -         | -             | -        |     |               | 21014           | -      |           |  |
|   |         |       | FS 5, Rad  |       | FS 2, Rad | -         | 21,5     | -      | 4,0      | -        | 1,0       | 6,4    | 26,5      | -      | 5,0        | -        | 5,3       | 1,1    | -         | -             | -        |     |               | 21010           | -      |           |  |
|   |         | 3 (G) | FS 1, Kfz  | 4 (G) | FS 1, Kfz | 6,0       | 18,5     | -      | 10,0     | -        | 3,0       | 5,5    | 28,0      | -      | 11,1       | -        | 2,5       | 3,0    | -         | -             | -        | X   | -             | 12111           | -      |           |  |
|   |         |       | FS 1, Kfz  |       | FS 1, Rad | 6,0       | 18,5     | -      | 10,0     | -        | 3,0       | 5,5    | 28,0      | -      | 5,0        | -        | 5,6       | -0,1   | -         | -             | -        |     |               | 12111           | -      |           |  |
|   |         |       | FS 1, Kfz  |       | FS 2, Rad | 6,0       | 18,0     | -      | 10,0     | -        | 3,0       | 5,4    | 23,0      | -      | 5,0        | -        | 4,6       | 0,8    | -         | -             | -        |     |               | 12112           | -      |           |  |
|   |         |       | FS 1, Rad  |       | FS 1, Kfz | -         | 18,5     | -      | 4,0      | -        | 1,0       | 5,6    | 28,0      | -      | 11,1       | -        | 2,5       | 3,1    | -         | -             | -        |     |               | 12111           | -      |           |  |
|   |         |       | FS 1, Rad  |       | FS 1, Rad | -         | 18,5     | -      | 4,0      | -        | 1,0       | 5,6    | 28,0      | -      | 5,0        | -        | 5,6       | 0,0    | -         | -             | -        |     |               | 12111           | -      |           |  |
|   |         |       | FS 1, Rad  |       | FS 2, Rad | -         | 18,0     | -      | 4,0      | -        | 1,0       | 5,5    | 23,0      | -      | 5,0        | -        | 4,6       | 0,9    | -         | -             | -        |     |               | 12112           | -      |           |  |
|   |         |       | FS 2, Kfz  |       | FS 1, Kfz | 6,0       | 19,0     | -      | 10,0     | -        | 3,0       | 5,5    | 24,0      | -      | 11,1       | -        | 2,2       | 3,3    | -         | -             | -        |     |               | 13403           | -      |           |  |
|   |         |       | FS 2, Kfz  |       | FS 1, Rad | 6,0       | 19,0     | -      | 10,0     | -        | 3,0       | 5,5    | 24,0      | -      | 5,0        | -        | 4,8       | 0,7    | -         | -             | -        |     |               | 13403           | -      |           |  |
|   |         |       | FS 2, Kfz  |       | FS 2, Rad | 6,0       | 18,0     | -      | 10,0     | -        | 3,0       | 5,4    | 19,5      | -      | 5,0        | -        | 3,9       | 1,5    | -         | -             | -        |     |               | 13404           | -      |           |  |
|   |         |       | FS 5, Rad  |       | FS 1, Kfz | -         | 14,5     | -      | 4,0      | -        | 1,0       | 4,6    | 29,0      | -      | 11,1       | -        | 2,6       | 2,0    | -         | -             | -        |     |               | 20996           | -      |           |  |
|   | 3 (R)   | 4 (G) | FS 5, Rad  | 4 (G) | FS 1, Rad | -         | 14,5     | -      | 4,0      | -        | 1,0       | 4,6    | 29,0      | -      | 5,0        | -        | 5,8       | -1,2   | -         | -             | -        | X   | -             | 20996           | -      |           |  |
|   |         |       | FS 5, Rad  |       | FS 2, Rad | -         | 14,0     | -      | 4,0      | -        | 1,0       | 4,5    | 24,0      | -      | 5,0        | -        | 4,8       | -0,3   | -         | -             | -        |     |               | 20997           | -      |           |  |
|   |         |       | FS 1, Kfz  |       | FS 1, Kfz | 6,0       | 18,5     | -      | 7,0      | -        | 2,0       | 5,5    | 33,0      | -      | 11,1       | -        | 3,0       | 2,5    | -         | -             | -        |     |               | 10397           | -      |           |  |
|   |         |       | FS 1, Kfz  |       | FS 1, Rad | 6,0       | 18,5     | -      | 7,0      | -        | 2,0       | 5,5    | 33,0      | -      | 5,0        | -        | 6,6       | -1,1   | -         | -             | -        |     |               | 10397           | -      |           |  |
|   |         |       | FS 1, Kfz  |       | FS 2, Rad | 6,0       | 19,0     | -      | 7,0      | -        | 2,0       | 5,6    | 29,0      | -      | 5,0        | -        | 5,8       | -0,2   | -         | -             | -        |     |               | 10408           | -      |           |  |
|   |         |       | FS 5, Rad  |       | FS 1, Kfz | -         | 14,0     | -      | 4,0      | -        | 1,0       | 4,5    | 33,5      | -      | 11,1       | -        | 3,0       | 1,5    | -         | -             | -        |     |               | 11984           | -      |           |  |
|   |         |       | FS 5, Rad  |       | FS 1, Rad | -         | 14,0     | -      | 4,0      | -        | 1,0       | 4,5    | 33,5      | -      | 5,0        | -        | 6,7       | -2,2   | -         | -             | -        |     |               | 11984           | -      |           |  |
|   |         |       | FS 5, Rad  |       | FS 2, Rad | -         | 15,0     | -      | 4,0      | -        | 1,0       | 4,8    | 30,0      | -      | 5,0        | -        | 6,0       | -1,2   | -         | -             | -        |     |               | 11986           | -      |           |  |
|   | K1      | 3 (G) | FS 1, Kfz  | 1 (L) | FS 3, Kfz | 6,0       | 20,5     | -      | 10,0     | -        | 3,0       | 5,7    | 22,0      | -      | 11,1       | -        | 2,0       | 3,7    | -         | -             | -        | X   | -             | 12113           | -      |           |  |
|   |         |       | FS 1, Kfz  |       | FS 3, Rad | 6,0       | 20,5     | -      | 10,0     | -        | 3,0       | 5,7    | 22,0      | -      | 5,0        | -        | 4,4       | 1,3    | -         | -             | -        |     |               | 12113           | -      |           |  |
|   |         |       | FS 1, Rad  |       | FS 3, Kfz | -         | 20,5     | -      | 4,0      | -        | 1,0       | 6,1    | 22,0      | -      | 11,1       | -        | 2,0       | 4,1    | -         | -             | -        |     |               | 12113           | -      |           |  |
|   |         |       | FS 1, Rad  |       | FS 3, Rad | -         | 20,5     | -      | 4,0      | -        | 1,0       | 6,1    | 22,0      | -      | 5,0        | -        | 4,4       | 1,7    | -         | -             | -        |     |               | 12113           | -      |           |  |
|   |         |       | FS 2, Kfz  |       | FS 3, Kfz | 6,0       | 23,0     | -      | 10,0     | -        | 3,0       | 5,9    | 18,0      | -      | 11,1       | -        | 1,6       | 4,3    | -         | -             | -        |     |               | 13405           | -      |           |  |
|   |         |       | FS 2, Kfz  |       | FS 3, Rad | 6,0       | 23,0     | -      | 10,0     | -        | 3,0       | 5,9    | 18,0      | -      | 5,0        | -        | 3,6       | 2,3    | -         | -             | -        |     |               | 13405           | -      |           |  |
|   |         |       | FS 5, Rad  |       | FS 3, Kfz | -         | 16,0     | -      | 4,0      | -        | 1,0       | 5,0    | 22,5      | -      | 11,1       | -        | 2,0       | 3,0    | -         | -             | -        |     |               | 20998           | -      |           |  |
|   |         |       | FS 5, Rad  |       | FS 3, Rad | -         | 16,0     | -      | 4,0      | -        | 1,0       | 5,0    | 22,5      | -      | 5,0        | -        | 4,5       | 0,5    | -         | -             | -        |     |               | 20998           | -      |           |  |
|   |         | 3 (R) | FS 1, Kfz  | 1 (L) | FS 3, Kfz | 6,0       | 18,5     | -      | 7,0      | -        | 2,0       | 5,5    | 27,0      | -      | 11,1       | -        | 2,4       | 3,1    | -         | -             | -        | X   | -             | 10450           | -      |           |  |
|   |         |       | FS 1, Kfz  |       | FS 3, Rad | 6,0       | 18,5     | -      | 7,0      | -        | 2,0       | 5,5    | 27,0      | -      | 5,0        | -        | 5,4       | 0,1    | -         | -             | -        |     |               | 10450           | -      |           |  |
| 2 | K1      | 3 (G) | FS 5, Rad  | K5    | FS 3, Kfz | -         | 14,0     | -      | 4,0      | -        | 1,0       | 4,5    | 27,5      | -      | 11,1       | -        | 2,5       | 2,0    | -         | -             | -        | X   | -             | 11991           | -      |           |  |
|   |         |       | FS 5, Rad  |       | FS 3, Rad | -         | 14,0     | -      | 4,0      | -        | 1,0       | 4,5    | 27,5      | -      | 5,0        | -        | 5,5       | -1,0   | -         | -             | -        |     |               | 11991           | -      |           |  |
|   |         |       | FS 1, Kfz  |       | FS 1, Kfz | 6,0       | 28,0     | -      | 10,0     | -        | 3,0       | 6,4    | 10,5      | -      | 11,1       | -        | 0,9       | 5,5    | -         | -             | -        |     |               | 12117           | -      |           |  |
|   |         |       | FS 1, Kfz  |       | FS 1, Rad | 6,0       | 28,0     | -      | 10,0     | -        | 3,0       | 6,4    | 10,5      | -      | 5,0        | -        | 2,1       | 4,3    | -         | -             | -        |     |               | 12117           | -      |           |  |
|   |         |       | FS 1, Rad  |       | FS 1, Kfz | -         | 30,0     | -      | 4,0      | -        | 1,0       | 8,5    | 13,5      | -      | 11,1       | -        | 1,2       | 7,3    | -         | -             | -        |     |               | 12120           | -      |           |  |
|   |         |       | FS 1, Rad  |       | FS 1, Rad | -         | 28,0     | -      | 4,0      | -        | 1,0       | 8,0    | 10,5      | -      | 5,0        | -        | 2,1       | 5,9    | -         | -             | -        |     |               | 12117           | -      |           |  |
|   |         |       | FS 2, Kfz  |       | FS 1, Kfz | 6,0       | 32,0     | -      | 10,0     | -        | 3,0       | 6,8    | 15,0      | -      | 11,1       | -        | 1,4       | 5,4    | -         | -             | -        |     |               | 13409           | -      |           |  |
|   |         |       | FS 5, Rad  |       | FS 1, Kfz | -         | 26,0     | -      | 4,0      | -        | 1,0       | 7,5    | 13,5      | -      | 11,1       | -        | 1,2       | 6,3    | -         | -             | -        |     |               | 21005           | -      |           |  |
|   |         |       | FS 5, Rad  |       | FS 1, Rad | -         | 24,0     | -      | 4,0      | -        | 1,0       | 7,0    | 11,0      | -      | 5,0        | -        | 2,2       | 4,8    | -         | -             | -        |     |               | 21002           | -      |           |  |
|   | K1      | 3 (G) | FS 1, Kfz  | 2 (R) | FS 1, Kfz | 6,0       | 20,0     | -      | 10,0     | -        | 3,0       | 5,6    | 13,0      | -      | 11,1       | -        | 1,2       | 4,4    | -         | -             | -        | X   | X             | 12121           | -      |           |  |
|   |         |       | FS 1, Kfz  |       | FS 1, Rad | 6,0       | 20,0     | -      | 10,0     | -        | 3,0       | 5,6    | 13,0      | -      | 5,0        | -        | 2,6       | 3,0    | -         | -             | -        |     |               | 12121           | -      |           |  |
|   |         |       | FS 1, Rad  |       | FS 1, Kfz | -         | 20,0     | -      | 4,0      | -        | 1,0       | 6,0    | 13,0      | -      | 11,1       | -        | 1,2       | 4,8    | -         | -             | -        |     |               | 12121           | -      |           |  |
|   |         |       | FS 1, Rad  |       | FS 1, Rad | -         | 20,0     | -      | 4,0      | -        | 1,0       | 6,0    | 13,0      | -      | 5,0        | -        | 2,6       | 3,4    | -         | -             | -        |     |               | 12121           | -      |           |  |
|   |         |       | FS 2, Kfz  |       | FS 1, Kfz | 6,0       | 17,5     | -      | 10,0     | -        | 3,0       | 5,4    | 18,5      | -      | 11,1       | -        | 1,7       | 3,7    | -         | -             | -        |     |               | 13412           | -      |           |  |
|   |         |       | FS 2, Kfz  |       | FS 1, Rad | 6,0       | 17,5     | -      | 10,0     | -        | 3,0       | 5,4    | 18,5      | -      | 5,0        | -        | 3,7       | 1,7    | -         | -             | -        |     |               | 13412           | -      |           |  |
|   |         |       | FS 5, Rad  |       | FS 1, Kfz | -         | 16,5     | -      | 4,0      | -        | 1,0       | 5,1    | 12,0      | -      | 11,1       | -        | 1,1       | 4,0    | -         | -             | -        |     |               | 21006           |        |           |  |

# Zwischenzeitenberechnung

LISA

|    | Räumend |       |           | Einführend |       |           | Räumend  |        |          |          |           |        |           |        |          |          | Einführend |        |           |               |           | Zwischenzeit |               |                 | Info   |           |  |  |  |
|----|---------|-------|-----------|------------|-------|-----------|----------|--------|----------|----------|-----------|--------|-----------|--------|----------|----------|------------|--------|-----------|---------------|-----------|--------------|---------------|-----------------|--------|-----------|--|--|--|
|    | SGR     | Strom | Teilstrom | SGR        | Strom | Teilstrom | Lrsg [m] | so [m] | vo [m/s] | vr [m/s] | ar [m/s²] | tu [s] | tu+tr [s] | Se [m] | vo [m/s] | vr [m/s] | ar [m/s²]  | tr [s] | tr+tr [s] | tzuschlag [s] | tmaßg [s] | Rad          | Rad maßgebend | Schnittpunkt ID | Schutz | Bemerkung |  |  |  |
| 6  | K1      | 3 (G) | FS 1, Kfz | FTV1       | 3 (Q) | FuBg.     | 6,0      | 7,5    | -        | 10,0     | -         | 3,0    | 4,4       | 0,0    | -        | 1,5      | -          | 0,0    | 4,4       | -             | 5         | X            | -             | 12126           | -      |           |  |  |  |
|    |         |       | FS 1, Rad |            |       | FuBg.     | -        | 7,5    | -        | 4,0      | -         | 1,0    | 2,9       | 0,0    | -        | 1,5      | -          | 0,0    | 2,9       | -             |           |              |               | 12126           | -      |           |  |  |  |
|    |         |       | FS 2, Kfz |            |       | FuBg.     | 6,0      | 7,5    | -        | 10,0     | -         | 3,0    | 4,4       | 0,0    | -        | 1,5      | -          | 0,0    | 4,4       | -             |           |              |               | 13417           | -      |           |  |  |  |
|    |         |       | FS 5, Rad |            |       | FuBg.     | -        | 3,5    | -        | 4,0      | -         | 1,0    | 1,9       | 0,0    | -        | 1,5      | -          | 0,0    | 1,9       | -             |           |              |               | 21021           | -      |           |  |  |  |
|    |         |       | FS 1, Kfz |            |       | FuBg.     | 6,0      | 7,5    | -        | 7,0      | -         | 2,0    | 4,0       | 0,0    | -        | 1,5      | -          | 0,0    | 4,0       | -             |           |              |               | 10165           | -      |           |  |  |  |
|    |         | 3 (R) | FS 1, Kfz |            | 3 (Q) | FuBg.     | 6,0      | 5,5    | -        | 7,0      | -         | 2,0    | 4,0       | 0,0    | -        | 1,5      | -          | 0,0    | 4,0       | -             | 5         | X            | -             | 10166           | -      |           |  |  |  |
|    |         |       | FS 5, Rad |            |       | FuBg.     | -        | 3,5    | -        | 4,0      | -         | 1,0    | 1,9       | 0,0    | -        | 1,5      | -          | 0,0    | 1,9       | -             |           |              |               | 11996           | -      |           |  |  |  |
|    |         |       | FS 1, Kfz |            |       | FuBg.     | 6,0      | 7,5    | -        | 10,0     | -         | 3,0    | 4,4       | 0,0    | -        | 1,5      | -          | 0,0    | 4,4       | -             |           |              |               | 12126           | -      |           |  |  |  |
|    |         |       | FS 1, Rad |            |       | FuBg.     | -        | 7,5    | -        | 4,0      | -         | 1,0    | 2,9       | 0,0    | -        | 1,5      | -          | 0,0    | 2,9       | -             |           |              |               | 12126           | -      |           |  |  |  |
|    |         |       | FS 2, Kfz |            |       | FuBg.     | 6,0      | 7,5    | -        | 10,0     | -         | 3,0    | 4,4       | 0,0    | -        | 1,5      | -          | 0,0    | 4,4       | -             |           |              |               | 13417           | -      |           |  |  |  |
| 7  | K1      | 3 (G) | FS 5, Rad | BL1        | 3 (Q) | FuBg.     | -        | 3,5    | -        | 4,0      | -         | 1,0    | 1,9       | 0,0    | -        | 1,5      | -          | 0,0    | 1,9       | -             | 5         | X            | -             | 21021           | -      |           |  |  |  |
|    |         |       | FS 1, Kfz |            |       | FuBg.     | 6,0      | 7,5    | -        | 7,0      | -         | 2,0    | 4,0       | 0,0    | -        | 1,5      | -          | 0,0    | 4,0       | -             |           |              |               | 10165           | -      |           |  |  |  |
|    |         |       | FS 1, Kfz |            |       | FuBg.     | 6,0      | 5,5    | -        | 7,0      | -         | 2,0    | 4,0       | 0,0    | -        | 1,5      | -          | 0,0    | 4,0       | -             |           |              |               | 10166           | -      |           |  |  |  |
|    |         |       | FS 5, Rad |            |       | FuBg.     | -        | 3,5    | -        | 4,0      | -         | 1,0    | 1,9       | 0,0    | -        | 1,5      | -          | 0,0    | 1,9       | -             |           |              |               | 11996           | -      |           |  |  |  |
|    |         |       | FS 1, Kfz |            |       | FuBg.     | 6,0      | 7,5    | -        | 7,0      | -         | 2,0    | 4,0       | 0,0    | -        | 1,5      | -          | 0,0    | 4,0       | -             |           |              |               | 10165           | -      |           |  |  |  |
|    |         | 3 (R) | FS 1, Kfz |            | 3 (Q) | FuBg.     | 6,0      | 5,5    | -        | 7,0      | -         | 2,0    | 4,0       | 0,0    | -        | 1,5      | -          | 0,0    | 4,0       | -             | 5         | X            | -             | 10166           | -      |           |  |  |  |
|    |         |       | FS 5, Rad |            |       | FuBg.     | -        | 3,5    | -        | 4,0      | -         | 1,0    | 1,9       | 0,0    | -        | 1,5      | -          | 0,0    | 1,9       | -             |           |              |               | 11996           | -      |           |  |  |  |
|    |         |       | FS 1, Kfz |            |       | FuBg.     | 6,0      | 35,5   | -        | 10,0     | -         | 3,0    | 7,2       | 0,0    | -        | 1,5      | -          | 0,0    | 7,2       | -             |           |              |               | 12122           | -      |           |  |  |  |
|    |         |       | FS 1, Rad |            |       | FuBg.     | -        | 35,5   | -        | 4,0      | -         | 1,0    | 9,9       | 0,0    | -        | 1,5      | -          | 0,0    | 9,9       | -             |           |              |               | 12122           | -      |           |  |  |  |
|    |         |       | FS 2, Kfz |            |       | FuBg.     | 6,0      | 36,5   | -        | 10,0     | -         | 3,0    | 7,3       | 0,0    | -        | 1,5      | -          | 0,0    | 7,3       | -             |           |              |               | 13414           | -      |           |  |  |  |
| 8  | K1      | 3 (G) | FS 5, Rad | F4         | 1 (Q) | FuBg.     | -        | 31,5   | -        | 4,0      | -         | 1,0    | 8,9       | 0,0    | -        | 1,5      | -          | 0,0    | 8,9       | -             | 8         | X            | -             | 21017           | -      |           |  |  |  |
|    |         |       | FS 1, Kfz |            |       | FuBg.     | 6,0      | 35,5   | -        | 10,0     | -         | 3,0    | 7,2       | 0,0    | -        | 1,5      | -          | 0,0    | 7,2       | -             |           |              |               | 12122           | -      |           |  |  |  |
|    |         |       | FS 1, Kfz |            |       | FuBg.     | 6,0      | 35,5   | -        | 10,0     | -         | 3,0    | 7,2       | 0,0    | -        | 1,5      | -          | 0,0    | 7,2       | -             |           |              |               | 12122           | -      |           |  |  |  |
|    |         |       | FS 2, Kfz |            |       | FuBg.     | 6,0      | 36,5   | -        | 10,0     | -         | 3,0    | 7,3       | 0,0    | -        | 1,5      | -          | 0,0    | 7,3       | -             |           |              |               | 13414           | -      |           |  |  |  |
|    |         |       | FS 5, Rad |            |       | FuBg.     | -        | 31,5   | -        | 4,0      | -         | 1,0    | 8,9       | 0,0    | -        | 1,5      | -          | 0,0    | 8,9       | -             |           |              |               | 21017           | -      |           |  |  |  |
|    | 9       | K1    | FS 1, Kfz | FTV4       | 1 (Q) | FuBg.     | 6,0      | 35,5   | -        | 10,0     | -         | 3,0    | 7,2       | 0,0    | -        | 1,5      | -          | 0,0    | 7,2       | -             | 8         | X            | -             | 12122           | -      |           |  |  |  |
|    |         |       | FS 1, Rad |            |       | FuBg.     | -        | 35,5   | -        | 4,0      | -         | 1,0    | 9,9       | 0,0    | -        | 1,5      | -          | 0,0    | 9,9       | -             |           |              |               | 12122           | -      |           |  |  |  |
|    |         |       | FS 2, Kfz |            |       | FuBg.     | 6,0      | 36,5   | -        | 10,0     | -         | 3,0    | 7,3       | 0,0    | -        | 1,5      | -          | 0,0    | 7,3       | -             |           |              |               | 13414           | -      |           |  |  |  |
|    |         |       | FS 5, Rad |            |       | FuBg.     | -        | 31,5   | -        | 4,0      | -         | 1,0    | 8,9       | 0,0    | -        | 1,5      | -          | 0,0    | 8,9       | -             |           |              |               | 21017           | -      |           |  |  |  |
|    |         |       | FS 1, Kfz |            |       | FuBg.     | 6,0      | 35,5   | -        | 10,0     | -         | 3,0    | 7,2       | 0,0    | -        | 1,5      | -          | 0,0    | 7,2       | -             |           |              |               | 12122           | -      |           |  |  |  |
| 10 | K1      | 3 (G) | FS 1, Rad | BL4        | 1 (Q) | FuBg.     | -        | 35,5   | -        | 4,0      | -         | 1,0    | 9,9       | 0,0    | -        | 1,5      | -          | 0,0    | 9,9       | -             | 8         | X            | -             | 12122           | -      |           |  |  |  |
|    |         |       | FS 2, Kfz |            |       | FuBg.     | 6,0      | 36,5   | -        | 10,0     | -         | 3,0    | 7,3       | 0,0    | -        | 1,5      | -          | 0,0    | 7,3       | -             |           |              |               | 13414           | -      |           |  |  |  |
|    |         |       | FS 5, Rad |            |       | FuBg.     | -        | 31,5   | -        | 4,0      | -         | 1,0    | 8,9       | 0,0    | -        | 1,5      | -          | 0,0    | 8,9       | -             |           |              |               | 21017           | -      |           |  |  |  |
|    |         |       | FS 3, Kfz |            |       | FS 1, Kfz | 6,0      | 21,0   | -        | 7,0      | -         | 2,0    | 5,9       | 17,0   | -        | 11,1     | -          | 1,5    | 4,4       | -             |           |              |               | 24456           | -      |           |  |  |  |
|    |         |       | FS 3, Kfz |            |       | FS 1, Rad | 6,0      | 20,0   | -        | 7,0      | -         | 2,0    | 5,7       | 17,5   | -        | 5,0      | -          | 3,5    | 2,2       | -             |           |              |               | 24455           | -      |           |  |  |  |
| 11 | K2      | 3 (L) | FS 3, Kfz | K3         | 4 (L) | FS 2, Rad | 6,0      | 18,5   | -        | 7,0      | -         | 2,0    | 5,5       | 14,0   | -        | 5,0      | -          | 2,8    | 2,7       | -             | 5         | -            | -             | 24454           | -      |           |  |  |  |
|    |         |       | FS 3, Kfz |            |       | FS 1, Kfz | 6,0      | 19,5   | -        | 7,0      | -         | 2,0    | 5,6       | 18,0   | -        | 11,1     | -          | 1,6    | 4,0       | -             |           |              |               | 24446           | -      |           |  |  |  |
|    |         |       | FS 3, Kfz |            |       | FS 1, Rad | 6,0      | 19,5   | -        | 7,0      | -         | 2,0    | 5,6       | 18,0   | -        | 5,0      | -          | 3,6    | 2,0       | -             |           |              |               | 24446           | -      |           |  |  |  |
|    |         |       | FS 3, Kfz |            |       | FS 2, Rad | 6,0      | 17,5   | -        | 7,0      | -         | 2,0    | 5,4       | 14,5   | -        | 5,0      | -          | 2,9    | 2,5       | -             |           |              |               | 24447           | -      |           |  |  |  |
|    |         |       | FS 3, Kfz |            |       | FS 2, Kfz | 6,0      | 22,0   | -        | 7,0      | -         | 2,0    | 6,0       | 19,5   | -        | 11,1     | -          | 1,8    | 4,2       | -             |           |              |               | 24450           | -      |           |  |  |  |
| 12 | K2      | 3 (L) | FS 3, Kfz | K4         | 1 (G) | FS 2, Rad | 6,0      | 22,0   | -        | 7,0      | -         | 2,0    | 6,0       | 19,5   | -        | 5,0      | -          | 3,9    | 2,1       | -             | 6         | -            | -             | 24450           | -      |           |  |  |  |
|    |         |       | FS 3, Kfz |            |       | FS 1, Kfz | 6,0      | 29,0   | -        | 7,0      | -         | 2,0    | 7,0       | 17,0   | -        | 11,1     | -          | 1,5    | 5,5       | -             |           |              |               | 24449           | -      |           |  |  |  |
|    |         |       | FS 3, Kfz |            |       | FS 1, Rad | 6,0      | 29,0   | -        | 7,0      | -         | 2,0    | 7,0       | 17,0   | -        | 5,0      | -          | 3,4    | 3,6       | -             |           |              |               | 24449           | -      |           |  |  |  |
|    |         |       | FS 3, Kfz |            |       | FS 1, Kfz | 6,0      | 12,0   | -        | 7,0      | -         | 2,0    | 4,6       | 25,0   | -        | 11,1     | -          | 2,3    | 2,3       | -             |           |              |               | 24453           | -      |           |  |  |  |
|    |         |       | FS 3, Kfz |            |       | FS 1, Rad | 6,0      | 12,0   | -        | 7,0      | -         | 2,0    | 4,6       | 25,0   | -        | 5,0      | -          | 5,0    | -0,4      | -             |           |              |               | 24453           | -      |           |  |  |  |
| 13 | K2      | 3 (L) | FS 3, Kfz | K6         | 2 (L) | FS 1, Kfz | 6,0      | 12,0   | -        | 7,0      | -         | 2,0    | 4,6       | 25,0   | -        | 11,1     | -          | 2,2    | 3,8       | -             | 4         | -            | -             | 24452           | -      |           |  |  |  |
|    |         |       | FS 3, Kfz |            |       | FS 1, Rad | 6,0      | 22,0   | -        | 7,0      | -         | 2,0    | 6,0       | 24,0   | -        | 11,1     | -          | 4,8    | 1,2       | -             |           |              |               | 24452           | -      |           |  |  |  |
|    |         |       | FS 3, Kfz |            |       | FS 3, Kfz | 6,0      | 22,0   | -        | 7,0      | -         | 2,0    | 6,0       | 24,0   | -        | 5,0      | -          | 4,8    | 1,2       | -             |           |              |               | 24452           | -      |           |  |  |  |
|    |         |       | FS 3, Kfz |            |       | FS 3, Kfz | 6,0      | 24,5   | -        | 7,0      | -         | 2,0    | 6,4       | 17,0   | -        | 5,0      | -          | 3,4    | 3,0       | -             |           |              |               | 24459           | -      |           |  |  |  |
|    |         |       | FS 3, Kfz |            |       | FS 3, Kfz | 6,0      | 7,0    | -        | 7,0      | -         | 2,0    | 4,0       | 0,0    | -        | 1,5      | -          | 0,0    | 4,0       | -             |           |              |               | 24462           | -      |           |  |  |  |
| 14 | K2      | 3 (L) | FS 3, Kfz | F1         | 3 (Q) | FuBg.     | 6,0      | 5,5    | -        | 7,0      | -         | 2,0    | 4,0       | 0,0    | -        | 1,5      | -          | 0,0    | 4,0       | -             | 4         | -            | -             | 24463           | -      |           |  |  |  |
|    |         |       | FS 3, Kfz |            |       | FuBg.     | 6,0      | 7,0    | -        | 7,0      | -         | 2,0    | 4,0       | 0,0    | -        | 1,5      | -          | 0,0    | 4,0       | -             |           |              |               | 24462           | -      |           |  |  |  |
|    |         |       | FS 3, Kfz |            |       | FuBg.     | 6,0      | 5,5    | -        | 7,0      | -         | 2,0    | 4,0       | 0,0    | -        | 1,5      | -          | 0,0    | 4,0       | -             |           |              |               | 24463           | -      |           |  |  |  |
|    |         |       | FS        |            |       |           |          |        |          |          |           |        |           |        |          |          |            |        |           |               |           |              |               |                 |        |           |  |  |  |

# Zwischenzeitenberechnung

**BERNARD**  
GRUPPE

LISA

|    | Räumend |           |           | SGR  | Einführend |           |          | Räumend |          |          |           |        |           |        | Einführend |          |           |        |           |               |          | Zwischenzeit |               | Info            |        |           |  |  |
|----|---------|-----------|-----------|------|------------|-----------|----------|---------|----------|----------|-----------|--------|-----------|--------|------------|----------|-----------|--------|-----------|---------------|----------|--------------|---------------|-----------------|--------|-----------|--|--|
|    | SGR     | Strom     | Teilstrom |      | Strom      | Teilstrom | Lrsg [m] | so [m]  | vo [m/s] | vi [m/s] | ar [m/s²] | tu [s] | tu+tr [s] | Se [m] | vo [m/s]   | vi [m/s] | ar [m/s²] | tr [s] | tr+tr [s] | tzuschlag [s] | tmaß [s] | Rad          | Rad maßgebend | Schnittpunkt ID | Schutz | Bemerkung |  |  |
| 21 | K3      | 1 (G)     | FS 2, Kfz | K2   | 4 (R)      | FS 1, Kfz | 6,0      | 24,5    | -        | 10,0     | -         | 3,0    | 6,1       | 12,5   | -          | 11,1     | -         | 1,1    | 5,0       | -             | 7        | X            | X             | 2227            | X      |           |  |  |
|    |         |           | FS 2, Kfz |      |            | FS 1, Rad | 6,0      | 24,5    | -        | 10,0     | -         | 3,0    | 6,1       | 12,5   | -          | 5,0      | -         | 2,5    | 3,6       | -             |          |              |               | 2227            |        |           |  |  |
|    |         |           | FS 2, Rad |      |            | FS 1, Rad | -        | 24,5    | -        | 4,0      | -         | 1,0    | 7,1       | 11,5   | -          | 11,1     | -         | 1,0    | 6,1       | -             |          |              |               | -               |        |           |  |  |
|    |         | 4 (L)     | FS 1, Kfz |      | 3 (L)      | FS 3, Kfz | 6,0      | 18,0    | -        | 7,0      | -         | 2,0    | 5,4       | 19,5   | -          | 11,1     | -         | 1,8    | 3,6       | -             |          | X            | X             | 24455           | -      |           |  |  |
|    |         |           | FS 1, Kfz |      |            | FS 3, Kfz | 6,0      | 17,5    | -        | 7,0      | -         | 2,0    | 5,4       | 20,5   | -          | 11,1     | -         | 1,8    | 3,6       | -             |          |              |               | 24456           |        |           |  |  |
|    |         |           | FS 1, Rad |      |            | FS 3, Kfz | -        | 18,0    | -        | 4,0      | -         | 1,0    | 5,5       | 19,5   | -          | 11,1     | -         | 1,8    | 3,7       | -             |          |              |               | 24455           |        |           |  |  |
|    | 4 (G)   | FS 1, Kfz | FS 2, Rad |      | 3 (L)      | FS 3, Kfz | -        | 14,5    | -        | 4,0      | -         | 1,0    | 4,6       | 18,0   | -          | 11,1     | -         | 1,6    | 3,0       | -             |          | X            | X             | 24454           | -      |           |  |  |
|    |         |           | FS 1, Rad |      |            | FS 3, Kfz | 6,0      | 18,5    | -        | 10,0     | -         | 3,0    | 5,5       | 19,0   | -          | 11,1     | -         | 1,7    | 3,8       | -             |          |              |               | 24446           |        |           |  |  |
|    |         |           | FS 2, Rad |      |            | FS 3, Kfz | -        | 18,5    | -        | 4,0      | -         | 1,0    | 5,6       | 19,0   | -          | 11,1     | -         | 1,7    | 3,9       | -             |          |              |               | 24447           |        |           |  |  |
|    |         | FS 2, Kfz | FS 2, Rad |      | 1 (G)      | FS 2, Kfz | 6,0      | 17,0    | -        | 7,0      | -         | 2,0    | 5,3       | 20,5   | -          | 11,1     | -         | 1,8    | 3,5       | -             |          | X            | -             | 14535           | -      |           |  |  |
|    |         |           | FS 1, Kfz |      |            | FS 2, Rad | 6,0      | 17,0    | -        | 7,0      | -         | 2,0    | 5,3       | 20,5   | -          | 5,0      | -         | 4,1    | 1,2       | -             |          |              |               | 14535           |        |           |  |  |
|    |         |           | FS 1, Rad |      |            | FS 2, Kfz | -        | 17,0    | -        | 4,0      | -         | 1,0    | 5,3       | 21,0   | -          | 11,1     | -         | 1,9    | 3,4       | -             |          |              |               | 14502           |        |           |  |  |
| 22 | K3      | 4 (L)     | FS 1, Rad | K4   | 1 (G)      | FS 2, Rad | -        | 17,0    | -        | 4,0      | -         | 1,0    | 5,3       | 21,0   | -          | 5,0      | -         | 4,2    | 1,1       | -             | 4        | X            | -             | 14502           | -      |           |  |  |
|    |         |           | FS 2, Rad |      |            | FS 2, Rad | -        | 12,0    | -        | 4,0      | -         | 1,0    | 4,0       | 23,0   | -          | 11,1     | -         | 2,1    | 1,9       | -             |          |              |               | 14451           |        |           |  |  |
|    |         |           | FS 2, Rad |      |            | FS 2, Rad | -        | 12,0    | -        | 4,0      | -         | 1,0    | 4,0       | 23,0   | -          | 5,0      | -         | 4,6    | -0,6      | -             |          |              |               | 14451           |        |           |  |  |
|    |         | 4 (G)     | FS 1, Kfz |      | 1 (G)      | FS 2, Kfz | 6,0      | 17,0    | -        | 10,0     | -         | 3,0    | 5,3       | 21,0   | -          | 11,1     | -         | 1,9    | 3,4       | -             |          | X            | -             | 10440           | -      |           |  |  |
|    |         |           | FS 1, Kfz |      |            | FS 2, Rad | 6,0      | 17,0    | -        | 10,0     | -         | 3,0    | 5,3       | 21,0   | -          | 5,0      | -         | 4,2    | 1,1       | -             |          |              |               | 10440           |        |           |  |  |
|    |         |           | FS 1, Rad |      |            | FS 2, Kfz | -        | 17,0    | -        | 4,0      | -         | 1,0    | 5,3       | 21,0   | -          | 11,1     | -         | 1,9    | 3,4       | -             |          |              |               | 10440           |        |           |  |  |
|    | 4 (R)   | FS 2, Rad | FS 2, Rad |      | 1 (G)      | FS 2, Kfz | -        | 12,0    | -        | 4,0      | -         | 1,0    | 4,0       | 23,5   | -          | 11,1     | -         | 2,1    | 1,9       | -             |          | X            | -             | 10441           | -      |           |  |  |
|    |         |           | FS 1, Kfz |      |            | FS 2, Rad | -        | 12,0    | -        | 4,0      | -         | 1,0    | 4,0       | 23,5   | -          | 5,0      | -         | 4,7    | -0,7      | -             |          |              |               | 14486           |        |           |  |  |
|    |         |           | FS 2, Rad |      |            | FS 2, Kfz | 6,0      | 15,5    | -        | 7,0      | -         | 2,0    | 5,1       | 24,0   | -          | 11,1     | -         | 2,2    | 2,9       | -             |          |              |               | 14486           |        |           |  |  |
|    |         | FS 2, Rad | FS 2, Rad |      | 1 (G)      | FS 2, Kfz | -        | 10,5    | -        | 4,0      | -         | 1,0    | 3,6       | 26,5   | -          | 11,1     | -         | 2,4    | 1,2       | -             |          | X            | -             | 14430           | -      |           |  |  |
|    |         |           | FS 1, Kfz |      |            | FS 2, Rad | -        | 10,5    | -        | 4,0      | -         | 1,0    | 3,6       | 26,5   | -          | 5,0      | -         | 5,3    | -1,7      | -             |          |              |               | 14430           |        |           |  |  |
|    |         |           | FS 2, Rad |      |            | FS 2, Kfz | 6,0      | 26,0    | -        | 7,0      | -         | 2,0    | 6,6       | 15,5   | -          | 11,1     | -         | 1,4    | 5,2       | -             |          | X            | X             | 14536           | -      |           |  |  |
| 23 | K3      | 4 (L)     | FS 1, Kfz | K5   | 1 (L)      | FS 3, Kfz | 6,0      | 26,0    | -        | 7,0      | -         | 2,0    | 6,6       | 15,5   | -          | 5,0      | -         | 3,1    | 3,5       | -             | 6        | X            | X             | 14503           | -      |           |  |  |
|    |         |           | FS 1, Rad |      |            | FS 3, Rad | -        | 26,5    | -        | 4,0      | -         | 1,0    | 7,6       | 18,0   | -          | 11,1     | -         | 1,6    | 6,0       | -             |          |              |               | 14503           |        |           |  |  |
|    |         |           | FS 2, Rad |      |            | FS 3, Rad | -        | 22,5    | -        | 4,0      | -         | 1,0    | 6,6       | 18,0   | -          | 11,1     | -         | 1,6    | 5,0       | -             |          |              |               | 14452           |        |           |  |  |
|    |         | 4 (G)     | FS 1, Kfz |      | 1 (L)      | FS 3, Kfz | 6,0      | 26,0    | -        | 10,0     | -         | 3,0    | 6,2       | 19,5   | -          | 11,1     | -         | 1,8    | 4,4       | -             |          | X            | -             | 10454           | -      |           |  |  |
|    |         |           | FS 1, Kfz |      |            | FS 3, Rad | 6,0      | 26,0    | -        | 10,0     | -         | 3,0    | 6,2       | 19,5   | -          | 5,0      | -         | 3,9    | 2,3       | -             |          |              |               | 10454           |        |           |  |  |
|    |         |           | FS 1, Rad |      |            | FS 3, Kfz | -        | 26,0    | -        | 4,0      | -         | 1,0    | 7,5       | 19,5   | -          | 5,0      | -         | 3,9    | 3,6       | -             |          |              |               | 10454           |        |           |  |  |
| 24 | K3      | 4 (L)     | FS 2, Rad | F2   | 1 (L)      | FS 3, Kfz | -        | 23,5    | -        | 4,0      | -         | 1,0    | 6,9       | 21,5   | -          | 11,1     | -         | 1,9    | 5,0       | -             | 5        | X            | -             | 10457           | -      |           |  |  |
|    |         |           | FS 3, Rad |      |            | FS 3, Rad | -        | 23,5    | -        | 4,0      | -         | 1,0    | 6,9       | 21,5   | -          | 5,0      | -         | 4,3    | 2,6       | -             |          |              |               | 10457           |        |           |  |  |
|    |         |           | FS 1, Kfz |      |            | FuBg.     | 6,0      | 8,5     | -        | 7,0      | -         | 2,0    | 4,1       | 0,0    | -          | 1,5      | -         | 0,0    | 4,1       | -             |          | X            | -             | 14518           | -      |           |  |  |
|    |         | 4 (G)     | FS 1, Kfz |      | 4 (Q)      | FuBg.     | 6,0      | 8,5     | -        | 7,0      | -         | 2,0    | 4,1       | 0,0    | -          | 1,5      | -         | 0,0    | 4,1       | -             |          |              |               | 14551           |        |           |  |  |
|    |         |           | FS 1, Rad |      |            | FuBg.     | -        | 8,5     | -        | 4,0      | -         | 1,0    | 3,1       | 0,0    | -          | 1,5      | -         | 0,0    | 3,1       | -             |          |              |               | 14518           |        |           |  |  |
|    |         |           | FS 2, Rad |      |            | FuBg.     | -        | 4,0     | -        | 4,0      | -         | 1,0    | 2,0       | 0,0    | -          | 1,5      | -         | 0,0    | 2,0       | -             |          |              |               | 14469           |        |           |  |  |
|    | 4 (R)   | FS 1, Kfz | FS 1, Rad |      | 4 (Q)      | FuBg.     | 6,0      | 8,5     | -        | 10,0     | -         | 3,0    | 4,5       | 0,0    | -          | 1,5      | -         | 0,0    | 4,5       | -             | 5        | X            | -             | 10403           | -      |           |  |  |
|    |         |           | FS 2, Rad |      |            | FuBg.     | -        | 8,5     | -        | 4,0      | -         | 1,0    | 3,1       | 0,0    | -          | 1,5      | -         | 0,0    | 3,1       | -             |          |              |               | 10403           |        |           |  |  |
|    |         |           | FS 2, Rad |      |            | FuBg.     | -        | 4,0     | -        | 4,0      | -         | 1,0    | 2,0       | 0,0    | -          | 1,5      | -         | 0,0    | 2,0       | -             |          |              |               | 10415           | -      |           |  |  |
|    |         | FS 1, Kfz | FS 1, Rad |      | 4 (Q)      | FuBg.     | 6,0      | 8,5     | -        | 7,0      | -         | 2,0    | 4,1       | 0,0    | -          | 1,5      | -         | 0,0    | 4,1       | -             |          | X            | -             | 14495           |        |           |  |  |
|    |         |           | FS 2, Rad |      |            | FuBg.     | -        | 4,0     | -        | 4,0      | -         | 1,0    | 2,0       | 0,0    | -          | 1,5      | -         | 0,0    | 2,0       | -             |          |              |               | 14439           |        |           |  |  |
|    |         |           | FS 2, Rad |      |            | FuBg.     | -        | 4,0     | -        | 4,0      | -         | 1,0    | 2,0       | 0,0    | -          | 1,5      | -         | 0,0    | 2,0       | -             |          |              |               | 14439           |        |           |  |  |
| 25 | K3      | 4 (L)     | FS 1, Kfz | FTV2 | 4 (Q)      | FuBg.     | 6,0      | 8,5     | -        | 7,0      | -         | 2,0    | 4,1       | 0,0    | -          | 1,5      | -         | 0,0    | 4,1       | -             | 5        | X            | -             | 14518           | -      |           |  |  |
|    |         |           | FS 1, Kfz |      |            | FuBg.     | 6,0      | 8,5     | -        | 7,0      | -         | 2,0    | 4,1       | 0,0    | -          | 1,5      | -         | 0,0    | 4,1       | -             |          |              |               | 14551           |        |           |  |  |
|    |         |           | FS 1, Rad |      |            | FuBg.     | -        | 8,5     | -        | 4,0      | -         | 1,0    | 3,1       | 0,0    | -          | 1,5      | -         | 0,0    | 3,1       | -             |          |              |               | 14518           |        |           |  |  |
|    |         | 4 (G)     | FS 2, Rad |      | 4 (Q)      | FuBg.     | -        | 4,0     | -        | 4,0      | -         | 1,0    | 2,0       | 0,0    | -          | 1,5      | -         | 0,0    | 2,0       | -             |          | X            | -             | 14469           | -      |           |  |  |
|    |         |           | FS 1, Kfz |      |            | FuBg.     | 6,0      | 8,5     | -        | 10,0     | -         | 3,0    | 4,5       | 0,0    | -          | 1,5      | -         | 0,0    | 4,5       | -             |          |              |               | 10403           |        |           |  |  |
|    |         |           | FS 1, Rad |      |            | FuBg.     | -        | 8,5     | -        | 4,0      | -         | 1,0    |           |        |            |          |           |        |           |               |          |              |               |                 |        |           |  |  |

# Zwischenzeitenberechnung

**BERNARD**  
GRUPPE

LISA

|  | Räumend |       | SGR   | Strom | Teilstrom | SGR   | Strom | Teilstrom | Räumend  |        |          |          |           |        |           |        |          |          | Einführend |        |            |               |          | Zwischenzeit |               |                 |        |           | Info |  |  |  |  |
|--|---------|-------|-------|-------|-----------|-------|-------|-----------|----------|--------|----------|----------|-----------|--------|-----------|--------|----------|----------|------------|--------|------------|---------------|----------|--------------|---------------|-----------------|--------|-----------|------|--|--|--|--|
|  | SGR     | Strom |       |       |           |       |       |           | Lrsq [m] | so [m] | vo [m/s] | vr [m/s] | ar [m/s²] | ts [s] | tu+tr [s] | Se [m] | vo [m/s] | vr [m/s] | ae [m/s²]  | tr [s] | ts ber [s] | tzuschlag [s] | tmaß [s] | Rad          | Rad maßgebend | Schnittpunkt ID | Schutz | Bemerkung |      |  |  |  |  |
|  |         | 1 (G) |       |       | FS 2, Kfz | 4 (R) |       | FS 1, Kfz | 6,0      | 24,5   | -        | 10,0     | -         | 3,0    | 6,1       | 15,0   | -        | 11,1     | -          | 1,4    | 4,7        | -             |          | X            | X             | 14486           |        |           |      |  |  |  |  |
|  |         |       |       |       |           |       |       |           | 6,0      | 27,0   | -        | 10,0     | -         | 3,0    | 6,3       | 10,0   | -        | 5,0      | -          | 2,0    | 4,3        | -             |          |              |               | 14430           |        |           |      |  |  |  |  |
|  |         |       |       |       |           |       |       |           | -        | 24,5   | -        | 4,0      | -         | 1,0    | 7,1       | 15,0   | -        | 11,1     | -          | 1,4    | 5,7        | -             |          |              |               | 14486           |        |           |      |  |  |  |  |
|  |         |       |       |       |           |       |       |           | -        | 27,0   | -        | 4,0      | -         | 1,0    | 7,8       | 10,0   | -        | 5,0      | -          | 2,0    | 5,8        | -             |          |              |               | 14430           |        |           |      |  |  |  |  |
|  |         | 1 (G) |       |       | FS 2, Kfz | 2 (L) |       | FS 1, Kfz | 6,0      | 29,5   | -        | 10,0     | -         | 3,0    | 6,6       | 27,0   | -        | 11,1     | -          | 2,4    | 4,2        | -             |          | X            |               | 11885           |        |           |      |  |  |  |  |
|  |         |       |       |       |           |       |       |           | 6,0      | 29,5   | -        | 10,0     | -         | 3,0    | 6,6       | 27,0   | -        | 5,0      | -          | 5,4    | 1,2        | -             |          |              |               | 11885           |        |           |      |  |  |  |  |
|  |         |       |       |       |           |       |       |           | -        | 29,5   | -        | 4,0      | -         | 1,0    | 8,4       | 27,0   | -        | 11,1     | -          | 2,4    | 6,0        | -             |          |              |               | 11885           |        |           |      |  |  |  |  |
|  |         |       |       |       |           |       |       |           | -        | 29,5   | -        | 4,0      | -         | 1,0    | 8,4       | 27,0   | -        | 5,0      | -          | 5,4    | 3,0        | -             |          |              |               | 11885           |        |           |      |  |  |  |  |
|  |         | 1 (G) |       |       | FS 2, Kfz | 2 (G) |       | FS 1, Kfz | 6,0      | 17,5   | -        | 10,0     | -         | 3,0    | 5,4       | 24,0   | -        | 11,1     | -          | 2,2    | 3,2        | -             |          |              |               | 11470           |        |           |      |  |  |  |  |
|  |         |       |       |       |           |       |       |           | 6,0      | 17,5   | -        | 10,0     | -         | 3,0    | 5,4       | 24,0   | -        | 5,0      | -          | 4,8    | 0,6        | -             |          |              |               | 11470           |        |           |      |  |  |  |  |
|  |         |       |       |       |           |       |       |           | -        | 17,5   | -        | 4,0      | -         | 1,0    | 5,4       | 24,0   | -        | 11,1     | -          | 2,2    | 3,2        | -             |          |              |               | 11470           |        |           |      |  |  |  |  |
|  |         |       |       |       |           |       |       |           | -        | 17,5   | -        | 4,0      | -         | 1,0    | 5,4       | 24,0   | -        | 5,0      | -          | 4,8    | 0,6        | -             |          |              |               | 11470           |        |           |      |  |  |  |  |
|  |         | 1 (R) |       |       | FS 1, Kfz | 2 (G) |       | FS 1, Kfz | 6,0      | 16,5   | -        | 7,0      | -         | 2,0    | 5,2       | 30,5   | -        | 11,1     | -          | 2,7    | 2,5        | -             |          | X            |               | 11469           |        |           |      |  |  |  |  |
|  |         |       |       |       |           |       |       |           | 6,0      | 16,5   | -        | 7,0      | -         | 2,0    | 5,2       | 30,5   | -        | 5,0      | -          | 6,1    | -0,9       | -             |          |              |               | 11469           |        |           |      |  |  |  |  |
|  |         |       |       |       |           |       |       |           | -        | 16,5   | -        | 4,0      | -         | 1,0    | 5,1       | 30,5   | -        | 11,1     | -          | 2,7    | 2,4        | -             |          |              |               | 11469           |        |           |      |  |  |  |  |
|  |         |       |       |       |           |       |       |           | -        | 16,5   | -        | 4,0      | -         | 1,0    | 5,1       | 30,5   | -        | 5,0      | -          | 6,1    | -1,0       | -             |          |              |               | 11469           |        |           |      |  |  |  |  |
|  |         | 1 (G) |       |       | FS 2, Kfz | 2 (G) |       | FS 3, Rad | 6,0      | 16,0   | -        | 10,0     | -         | 3,0    | 5,2       | 14,5   | -        | 5,0      | -          | 2,9    | 2,3        | -             |          | X            |               | 18989           |        |           |      |  |  |  |  |
|  |         |       |       |       |           |       |       |           | -        | 16,0   | -        | 4,0      | -         | 1,0    | 5,0       | 14,5   | -        | 5,0      | -          | 2,9    | 2,1        | -             |          |              |               | 18989           |        |           |      |  |  |  |  |
|  |         |       |       |       |           |       |       |           | 6,0      | 17,5   | -        | 7,0      | -         | 2,0    | 5,4       | 21,5   | -        | 5,0      | -          | 4,3    | 1,1        | -             |          |              |               | 18988           |        |           |      |  |  |  |  |
|  |         |       |       |       |           |       |       |           | -        | 17,5   | -        | 4,0      | -         | 1,0    | 5,4       | 21,5   | -        | 5,0      | -          | 4,3    | 1,1        | -             |          |              |               | 18988           |        |           |      |  |  |  |  |
|  | 32      | K4    | 1 (G) |       | FS 2, Kfz | F1    | 3 (Q) | Fußg.     | 6,0      | 34,0   | -        | 10,0     | -         | 3,0    | 7,0       | 0,0    | -        | 1,5      | -          | 0,0    | 7,0        | -             | 7        | X            |               | 10445           |        |           |      |  |  |  |  |
|  |         |       |       |       |           |       |       |           | -        | 34,0   | -        | 4,0      | -         | 1,0    | 9,5       | 0,0    | -        | 1,5      | -          | 0,0    | 9,5        | -             |          |              |               | 10445           |        |           |      |  |  |  |  |
|  | 33      | K4    | 1 (G) |       | FS 2, Kfz | FTV1  | 3 (Q) | Fußg.     | 6,0      | 34,0   | -        | 10,0     | -         | 3,0    | 7,0       | 0,0    | -        | 1,5      | -          | 0,0    | 7,0        | -             | 7        | X            |               | 10445           |        |           |      |  |  |  |  |
|  |         |       |       |       |           |       |       |           | -        | 34,0   | -        | 4,0      | -         | 1,0    | 9,5       | 0,0    | -        | 1,5      | -          | 0,0    | 9,5        | -             |          |              |               | 10445           |        |           |      |  |  |  |  |
|  | 34      | K4    | 1 (G) |       | FS 2, Kfz | BL1   | 3 (Q) | Fußg.     | 6,0      | 34,0   | -        | 10,0     | -         | 3,0    | 7,0       | 0,0    | -        | 1,5      | -          | 0,0    | 7,0        | -             | 7        | X            |               | 10445           |        |           |      |  |  |  |  |
|  |         |       |       |       |           |       |       |           | -        | 34,0   | -        | 4,0      | -         | 1,0    | 9,5       | 0,0    | -        | 1,5      | -          | 0,0    | 9,5        | -             |          |              |               | 10445           |        |           |      |  |  |  |  |
|  |         | 1 (G) |       |       | FS 2, Kfz | F3    | 1 (Q) | Fußg.     | 6,0      | 4,0    | -        | 10,0     | -         | 3,0    | 4,0       | 0,0    | -        | 1,5      | -          | 0,0    | 4,0        | -             | 4        | X            |               | 10443           |        |           |      |  |  |  |  |
|  |         |       |       |       |           |       |       |           | 6,0      | 2,0    | -        | 10,0     | -         | 3,0    | 4,0       | 0,0    | -        | 1,5      | -          | 0,0    | 4,0        | -             |          |              |               | 10442           |        |           |      |  |  |  |  |
|  |         |       |       |       |           |       |       |           | -        | 4,0    | -        | 4,0      | -         | 1,0    | 2,0       | 0,0    | -        | 1,5      | -          | 0,0    | 2,0        | -             |          |              |               | 10443           |        |           |      |  |  |  |  |
|  |         |       |       |       |           |       |       |           | 6,0      | 3,5    | -        | 7,0      | -         | 2,0    | 4,0       | 0,0    | -        | 1,5      | -          | 0,0    | 4,0        | -             |          |              |               | 10426           |        |           |      |  |  |  |  |
|  |         | 1 (R) |       |       | FS 1, Kfz | 1 (Q) | Fußg. | 6,0       | 2,0      | -      | 7,0      | -        | 2,0       | 4,0    | 0,0       | -      | 1,5      | -        | 0,0        | 4,0    | -          | X             |          | 10427        |               |                 |        |           |      |  |  |  |  |
|  |         |       |       |       |           |       |       |           | -        | 3,5    | -        | 4,0      | -         | 1,0    | 1,9       | 0,0    | -        | 1,5      | -          | 0,0    | 1,9        |               |          | -            | 10426         |                 |        |           |      |  |  |  |  |
|  |         |       |       |       |           |       |       |           | 6,0      | 4,0    | -        | 10,0     | -         | 3,0    | 4,0       | 0,0    | -        | 1,5      | -          | 0,0    | 4,0        |               |          | -            | 10443         |                 |        |           |      |  |  |  |  |
|  |         |       |       |       |           |       |       |           | 6,0      | 2,0    | -        | 10,0     | -         | 3,0    | 4,0       | 0,0    | -        | 1,5      | -          | 0,0    | 4,0        |               |          | -            | 10442         |                 |        |           |      |  |  |  |  |
|  |         | 1 (G) |       |       | FS 2, Kfz | FTV3  | 1 (Q) | Fußg.     | 6,0      | 2,0    | -        | 10,0     | -         | 3,0    | 4,0       | 0,0    | -        | 1,5      | -          | 0,0    | 4,0        | -             | 4        | X            |               | 10443           |        |           |      |  |  |  |  |
|  |         |       |       |       |           |       |       |           | -        | 4,0    | -        | 4,0      | -         | 1,0    | 2,0       | 0,0    | -        | 1,5      | -          | 0,0    | 2,0        | -             |          |              |               | 10443           |        |           |      |  |  |  |  |
|  |         |       |       |       |           |       |       |           | 6,0      | 3,5    | -        | 7,0      | -         | 2,0    | 4,0       | 0,0    | -        | 1,5      | -          | 0,0    | 4,0        | -             |          |              |               | 10426           |        |           |      |  |  |  |  |
|  |         |       |       |       |           |       |       |           | 6,0      | 2,0    | -        | 7,0      | -         | 2,0    | 4,0       | 0,0    | -        | 1,5      | -          | 0,0    | 4,0        | -             |          |              |               | 10427           |        |           |      |  |  |  |  |
|  |         | 1 (R) |       |       | FS 1, Kfz | 1 (Q) | Fußg. | 6,0       | 2,0      | -      | 7,0      | -        | 2,0       | 4,0    | 0,0       | -      | 1,5      | -        | 0,0        | 4,0    | -          | X             |          | 10426        |               |                 |        |           |      |  |  |  |  |
|  |         |       |       |       |           |       |       |           | -        | 3,5    | -        | 4,0      | -         | 1,0    | 1,9       | 0,0    | -        | 1,5      | -          | 0,0    | 1,9        |               |          | -            | 10426         |                 |        |           |      |  |  |  |  |
|  |         |       |       |       |           |       |       |           | 6,0      | 4,0    | -        | 10,0     | -         | 3,0    | 4,0       | 0,0    | -        | 1,5      | -          | 0,0    | 4,0        |               |          | -            | 10443         |                 |        |           |      |  |  |  |  |
|  |         |       |       |       |           |       |       |           | 6,0      | 2,0    | -        | 10,0     | -         | 3,0    | 4,0       | 0,0    | -        | 1,5      | -          | 0,0    | 4,0        |               |          | -            | 10442         |                 |        |           |      |  |  |  |  |
|  |         | 1 (G) |       |       | FS 2, Kfz | FTV3  | 1 (Q) | Fußg.     | 6,0      | 4,0    | -        | 10,0     | -         | 3,0    | 4,0       | 0,0    | -        | 1,5      | -          | 0,0    | 4,0        | -             | 4        | X            |               | 10443           |        |           |      |  |  |  |  |
|  |         |       |       |       |           |       |       |           | -        | 4,0    | -        | 4,0      | -         | 1,0    | 2,0       | 0,0    | -        | 1,5      | -          | 0,0    | 2,0        | -             |          |              |               | 10443           |        |           |      |  |  |  |  |
|  |         |       |       |       |           |       |       |           | 6,0      | 3,5    | -        | 7,0      | -         | 2,0    | 4,0       | 0,0    | -        | 1,5      | -          | 0,0    | 4,0        | -             |          |              |               | 10426           |        |           |      |  |  |  |  |
|  |         |       |       |       |           |       |       |           | 6,0      | 2,0    | -        | 7,0      | -         | 2,0    | 4,0       | 0,0    | -        | 1,5      | -          | 0,0    | 4,0        | -             |          |              |               | 10427           |        |           |      |  |  |  |  |



**BERNARD**  
GRUPPE

| Räumend   |           |           | Einfahrend |      |       | Räumend   |                      |        |          |          |           |        |          |        |          | Einfahrend |           |        |                       |               | Zwischenzeit           |     |               | Info            |        |           |  |  |
|-----------|-----------|-----------|------------|------|-------|-----------|----------------------|--------|----------|----------|-----------|--------|----------|--------|----------|------------|-----------|--------|-----------------------|---------------|------------------------|-----|---------------|-----------------|--------|-----------|--|--|
|           | SGR       | Strom     | Teilstrom  | SGR  | Strom | Teilstrom | Lr <sub>sg</sub> [m] | so [m] | vo [m/s] | vr [m/s] | ar [m/s²] | tu [s] | tu+b [s] | se [m] | vo [m/s] | ve [m/s]   | ae [m/s²] | te [s] | tz <sub>ber</sub> [s] | tzuschlag [s] | tna <sub>llg</sub> [s] | Rad | Rad maßgebend | Schnittpunkt ID | Schutz | Bemerkung |  |  |
| 44        | K5        | 1 (L)     | FS 3, Rad  | FTV5 | 2 (Q) | FußBg.    | -                    | 32,5   | -        | 4,0      | -         | 1,0    | 9,1      | 0,0    | -        | 1,5        | -         | 0,0    | 9,1                   | -             | 8                      | X   | -             | 10463           | -      |           |  |  |
|           |           |           | FS 3, Kfz  |      |       | FußBg.    | 6,0                  | 32,5   | -        | 7,0      | -         | 2,0    | 7,5      | 0,0    | -        | 1,5        | -         | 0,0    | 7,5                   | -             |                        |     |               | 10463           |        |           |  |  |
|           |           |           | FS 3, Rad  |      |       | FußBg.    | -                    | 32,5   | -        | 4,0      | -         | 1,0    | 9,1      | 0,0    | -        | 1,5        | -         | 0,0    | 9,1                   | -             |                        |     |               | 10463           |        |           |  |  |
| 45        | K6        | 2 (R)     | FS 1, Kfz  | K1   | 3 (G) | FS 1, Kfz | 6,0                  | 14,0   | -        | 7,0      | -         | 2,0    | 4,9      | 29,5   | -        | 11,1       | -         | 2,7    | 2,2                   | -             | 5                      | X   | -             | 12120           | -      |           |  |  |
|           |           |           | FS 1, Rad  |      |       | 6,0       | 14,0                 | -      | 7,0      | -        | 2,0       | 4,9    | 29,5     | -      | 5,0      | -          | 5,9       | -1,0   | -                     | 12120         |                        |     |               |                 |        |           |  |  |
|           |           |           | FS 1, Kfz  |      |       | 6,0       | 15,5                 | -      | 7,0      | -        | 2,0       | 5,1    | 31,5     | -      | 11,1     | -          | 2,8       | 2,3    | -                     | 13409         |                        |     |               |                 |        |           |  |  |
|           |           |           | FS 1, Kfz  |      |       | 6,0       | 11,5                 | -      | 7,0      | -        | 2,0       | 4,5    | 23,5     | -      | 5,0      | -          | 4,7       | -0,2   | -                     | 21002         |                        |     |               |                 |        |           |  |  |
|           |           |           | FS 1, Kfz  |      |       | 6,0       | 14,0                 | -      | 7,0      | -        | 2,0       | 4,9    | 25,5     | -      | 5,0      | -          | 5,1       | -0,2   | -                     | 21005         |                        |     |               |                 |        |           |  |  |
|           |           |           | FS 1, Rad  |      |       | -         | 11,0                 | -      | 4,0      | -        | 1,0       | 3,8    | 27,5     | -      | 11,1     | -          | 2,5       | 1,3    | -                     | 12117         |                        |     |               |                 |        |           |  |  |
|           |           | FS 1, Rad | -          |      | 11,0  | -         | 4,0                  | -      | 1,0      | 3,8      | 27,5      | -      | 5,0      | -      | 5,5      | -1,7       | -         | 12117  |                       |               |                        |     |               |                 |        |           |  |  |
|           |           | FS 1, Rad | -          |      | 11,5  | -         | 4,0                  | -      | 1,0      | 3,9      | 23,5      | -      | 5,0      | -      | 4,7      | -0,8       | -         | 21002  |                       |               |                        |     |               |                 |        |           |  |  |
|           |           | FS 1, Kfz | 6,0        |      | 13,5  | -         | 7,0                  | -      | 2,0      | 4,8      | 19,5      | -      | 11,1     | -      | 1,8      | 3,0        | -         | 12121  |                       |               |                        |     |               |                 |        |           |  |  |
|           |           | FS 1, Kfz | 6,0        |      | 13,5  | -         | 7,0                  | -      | 2,0      | 4,8      | 19,5      | -      | 5,0      | -      | 3,9      | 0,9        | -         | 12121  |                       |               |                        |     |               |                 |        |           |  |  |
|           |           | FS 2, Kfz | 6,0        |      | 19,0  | -         | 7,0                  | -      | 2,0      | 5,6      | 17,0      | -      | 11,1     | -      | 1,5      | 4,1        | -         | 13412  |                       |               |                        |     |               |                 |        |           |  |  |
|           |           | FS 5, Rad | 6,0        |      | 12,5  | -         | 7,0                  | -      | 2,0      | 4,6      | 16,0      | -      | 5,0      | -      | 3,2      | 1,4        | -         | 21006  |                       |               |                        |     |               |                 |        |           |  |  |
|           | FS 1, Kfz | -         | 13,5       | -    | 4,0   | -         | 1,0                  | 4,4    | 19,5     | -        | 11,1      | -      | 1,8      | 2,6    | -        | 12121      |           |        |                       |               |                        |     |               |                 |        |           |  |  |
|           | FS 1, Rad | -         | 13,5       | -    | 4,0   | -         | 1,0                  | 4,4    | 19,5     | -        | 5,0       | -      | 3,9      | 0,5    | -        | 12121      |           |        |                       |               |                        |     |               |                 |        |           |  |  |
|           | FS 1, Rad | -         | 19,0       | -    | 4,0   | -         | 1,0                  | 5,8    | 17,0     | -        | 11,1      | -      | 1,5      | 4,3    | -        | 13412      |           |        |                       |               |                        |     |               |                 |        |           |  |  |
|           | FS 5, Rad | -         | 12,5       | -    | 4,0   | -         | 1,0                  | 4,1    | 16,0     | -        | 5,0       | -      | 3,2      | 0,9    | -        | 21006      |           |        |                       |               |                        |     |               |                 |        |           |  |  |
|           | 2 (G)     | FS 1, Kfz | 6,0        | 12,5 | -     | 10,0      | -                    | 3,0    | 4,9      | 22,5     | -         | 11,1   | -        | 2,0    | 2,9      | -          | 12114     |        |                       |               |                        |     |               |                 |        |           |  |  |
|           |           | FS 1, Rad | 6,0        | 12,5 | -     | 10,0      | -                    | 3,0    | 4,9      | 22,5     | -         | 5,0    | -        | 4,5    | 0,4      | -          | 12114     |        |                       |               |                        |     |               |                 |        |           |  |  |
|           |           | FS 2, Kfz | 6,0        | 16,5 | -     | 10,0      | -                    | 3,0    | 5,3      | 23,0     | -         | 11,1   | -        | 2,1    | 3,2      | -          | 13406     |        |                       |               |                        |     |               |                 |        |           |  |  |
|           |           | FS 5, Rad | 6,0        | 12,0 | -     | 10,0      | -                    | 3,0    | 4,8      | 18,5     | -         | 5,0    | -        | 3,7    | 1,1      | -          | 20999     |        |                       |               |                        |     |               |                 |        |           |  |  |
|           |           | FS 1, Kfz | -          | 12,5 | -     | 4,0       | -                    | 1,0    | 4,1      | 22,5     | -         | 11,1   | -        | 2,0    | 2,1      | -          | 12114     |        |                       |               |                        |     |               |                 |        |           |  |  |
|           |           | FS 1, Rad | -          | 12,5 | -     | 4,0       | -                    | 1,0    | 4,1      | 22,5     | -         | 5,0    | -        | 4,5    | -0,4     | -          | 12114     |        |                       |               |                        |     |               |                 |        |           |  |  |
|           |           | FS 2, Kfz | -          | 16,5 | -     | 4,0       | -                    | 1,0    | 5,1      | 23,0     | -         | 11,1   | -        | 2,1    | 3,0      | -          | 13406     |        |                       |               |                        |     |               |                 |        |           |  |  |
|           |           | FS 5, Rad | -          | 12,0 | -     | 4,0       | -                    | 1,0    | 4,0      | 18,5     | -         | 5,0    | -        | 3,7    | 0,3      | -          | 20999     |        |                       |               |                        |     |               |                 |        |           |  |  |
| FS 3, Kfz |           | 6,0       | 25,5       | -    | 7,0   | -         | 2,0                  | 6,5    | 11,5     | -        | 11,1      | -      | 1,0      | 5,5    | -        | 24453      |           |        |                       |               |                        |     |               |                 |        |           |  |  |
| FS 1, Rad |           | -         | 25,5       | -    | 4,0   | -         | 1,0                  | 7,4    | 11,5     | -        | 11,1      | -      | 1        |        |          |            |           |        |                       |               |                        |     |               |                 |        |           |  |  |

|             |                                          |             |                        |       |            |
|-------------|------------------------------------------|-------------|------------------------|-------|------------|
| Projekt     | Ausbau Osttangente Jena                  |             |                        |       |            |
| Knotenpunkt | Käthe-Kollwitz-Straße/Am Anger - K 610 - |             |                        |       |            |
| Auftragsnr. | P501311                                  | Variante    | Leistungsfähigkeitsnac | Datum | 24.05.2022 |
| Bearbeiter  | Cyriax                                   | Abzeichnung |                        | Blatt | 4.5        |

# Zwischenzeitenberechnung

**BERNARD**  
GRUPPE

LISA

|    | Räumend |       |           | Einführend |       |           | Räumend  |        |          |          |           |        |           |        |          |          | Einführend |        |           |               |          | Zwischenzeit |               |                 | Info   |           |  |  |  |
|----|---------|-------|-----------|------------|-------|-----------|----------|--------|----------|----------|-----------|--------|-----------|--------|----------|----------|------------|--------|-----------|---------------|----------|--------------|---------------|-----------------|--------|-----------|--|--|--|
|    | SGR     | Strom | Teilstrom | SGR        | Strom | Teilstrom | Lrsg [m] | so [m] | vo [m/s] | vr [m/s] | ar [m/s²] | tu [s] | tu+tr [s] | Se [m] | vo [m/s] | vr [m/s] | ae [m/s²]  | tr [s] | tr+er [s] | tzuschlag [s] | tmaß [s] | Rad          | Rad maßgebend | Schnittpunkt ID | Schutz | Bemerkung |  |  |  |
| 53 | R6      | 2 (G) | FS 3, Rad | K1         | 3 (G) | FS 1, Kfz | -        | 2,5    | -        | 4,0      | -         | 1,0    | 1,6       | 26,0   | -        | 11,1     | -          | 2,3    | -0,7      | -             | 1        | X            | X             | 18991           | -      |           |  |  |  |
|    |         |       | FS 3, Rad |            |       | FS 1, Rad | -        | 2,5    | -        | 4,0      | -         | 1,0    | 1,6       | 26,0   | -        | 5,0      | -          | 5,2    | -3,6      | -             |          |              |               | 18991           |        |           |  |  |  |
|    |         |       | FS 3, Rad |            |       | FS 2, Kfz | -        | 6,0    | -        | 4,0      | -         | 1,0    | 2,5       | 26,5   | -        | 11,1     | -          | 2,4    | 0,1       | -             |          |              |               | 18992           |        |           |  |  |  |
|    |         |       | FS 3, Rad |            |       | FS 5, Rad | -        | 2,0    | -        | 4,0      | -         | 1,0    | 1,5       | 21,5   | -        | 5,0      | -          | 4,3    | -2,8      | -             |          |              |               | 21016           |        |           |  |  |  |
| 54 | R6      | 2 (G) | FS 3, Rad | K2         | 3 (L) | FS 3, Kfz | -        | 17,5   | -        | 4,0      | -         | 1,0    | 5,4       | 24,0   | -        | 11,1     | -          | 2,2    | 3,2       | -             | 4        | X            | X             | 24459           | -      |           |  |  |  |
| 55 | R6      | 2 (G) | FS 3, Rad | K4         | 1 (G) | FS 2, Kfz | -        | 15,0   | -        | 4,0      | -         | 1,0    | 4,8       | 15,5   | -        | 11,1     | -          | 1,4    | 3,4       | -             | 5        | X            | X             | 18989           | -      |           |  |  |  |
|    |         |       | FS 3, Rad |            |       | FS 2, Rad | -        | 15,0   | -        | 4,0      | -         | 1,0    | 4,8       | 15,5   | -        | 5,0      | -          | 3,1    | 1,7       | -             |          |              |               | 18989           |        |           |  |  |  |
|    |         |       | FS 3, Rad |            |       | FS 1, Kfz | -        | 22,0   | -        | 4,0      | -         | 1,0    | 6,5       | 17,0   | -        | 11,1     | -          | 1,5    | 5,0       | -             |          |              |               | 18988           |        |           |  |  |  |
|    |         |       | FS 3, Rad |            |       | FS 1, Rad | -        | 22,0   | -        | 4,0      | -         | 1,0    | 6,5       | 17,0   | -        | 5,0      | -          | 3,4    | 3,1       | -             |          |              |               | 18988           |        |           |  |  |  |
| 56 | R6      | 2 (G) | FS 3, Rad | K5         | 1 (L) | FS 3, Kfz | -        | 9,0    | -        | 4,0      | -         | 1,0    | 3,3       | 14,0   | -        | 11,1     | -          | 1,3    | 2,0       | -             | 2        | X            | X             | 18990           | -      |           |  |  |  |
|    |         |       | FS 3, Rad |            |       | FS 3, Rad | -        | 9,0    | -        | 4,0      | -         | 1,0    | 3,3       | 14,0   | -        | 5,0      | -          | 2,8    | 0,5       | -             |          |              |               | 18990           | -      |           |  |  |  |
| 57 | R6      | 2 (G) | FS 3, Rad | F2         | 4 (Q) | Fußg.     | -        | 24,0   | -        | 4,0      | -         | 1,0    | 7,0       | 0,0    | -        | 1,5      | -          | 0,0    | 7,0       | -             | 7        | X            | X             | 19000           | -      |           |  |  |  |
| 58 | R6      | 2 (G) | FS 3, Rad | FTV2       | 4 (Q) | Fußg.     | -        | 24,0   | -        | 4,0      | -         | 1,0    | 7,0       | 0,0    | -        | 1,5      | -          | 0,0    | 7,0       | -             | 7        | X            | X             | 19000           | -      |           |  |  |  |
| 59 | F1      | 3 (Q) | Fußg.     | K1         | 3 (G) | FS 1, Kfz | -        | 15,5   | -        | 1,2      | -         | -      | 12,9      | 5,0    | -        | 11,1     | -          | 0,5    | 12,4      | -             | 13       |              |               | 12125           | -      |           |  |  |  |
|    |         |       | Fußg.     |            |       | FS 1, Rad | -        | 15,5   | -        | 1,2      | -         | -      | 12,9      | 5,0    | -        | 5,0      | -          | 1,0    | 11,9      | -             |          |              |               | 12125           |        |           |  |  |  |
|    |         |       | Fußg.     |            |       | FS 2, Kfz | -        | 15,5   | -        | 1,2      | -         | -      | 12,9      | 5,0    | -        | 11,1     | -          | 0,5    | 12,4      | -             |          |              |               | 13416           |        |           |  |  |  |
|    |         |       | Fußg.     |            |       | FS 5, Rad | -        | 15,5   | -        | 1,2      | -         | -      | 12,9      | 0,0    | -        | 5,0      | -          | 0,0    | 12,9      | -             |          |              |               | 21020           |        |           |  |  |  |
|    |         | 3 (Q) | Fußg.     |            | 3 (R) | FS 1, Kfz | -        | 15,5   | -        | 1,2      | -         | -      | 12,9      | 5,0    | -        | 11,1     | -          | 0,5    | 12,4      | -             |          |              |               | 10166           |        |           |  |  |  |
|    |         |       | Fußg.     |            |       | FS 5, Rad | -        | 15,5   | -        | 1,2      | -         | -      | 12,9      | 0,0    | -        | 5,0      | -          | 0,0    | 12,9      | -             |          |              |               | 11997           |        |           |  |  |  |
|    |         |       | Fußg.     |            |       | FS 3, Kfz | -        | 15,5   | -        | 1,2      | -         | -      | 12,9      | 5,0    | -        | 11,1     | -          | 0,5    | 12,4      | -             |          |              |               | 24463           |        |           |  |  |  |
|    |         |       | Fußg.     |            |       | FS 2, Kfz | -        | 15,5   | -        | 1,2      | -         | -      | 12,9      | 31,5   | -        | 11,1     | -          | 2,8    | 10,1      | -             |          |              |               | 24776           |        |           |  |  |  |
| 60 | F1      | 3 (Q) | Fußg.     | K2         | 3 (L) | FS 3, Kfz | -        | 15,5   | -        | 1,2      | -         | -      | 12,9      | 5,0    | -        | 11,1     | -          | 0,5    | 12,4      | -             | 13       | -            | -             | 24776           | -      |           |  |  |  |
| 61 | F1      | 3 (Q) | Fußg.     | K4         | 1 (G) | FS 2, Rad | -        | 15,5   | -        | 1,2      | -         | -      | 12,9      | 31,5   | -        | 5,0      | -          | 6,3    | 6,6       | -             | 11       | -            | -             | 24776           | -      |           |  |  |  |
| 62 | FTV1    | 3 (Q) | Fußg.     | K1         | 3 (G) | FS 1, Kfz | -        | 15,5   | -        | 1,2      | -         | -      | 12,9      | 5,0    | -        | 11,1     | -          | 0,5    | 12,4      | -             | 13       |              |               | 12125           | -      |           |  |  |  |
|    |         |       | Fußg.     |            |       | FS 1, Rad | -        | 15,5   | -        | 1,2      | -         | -      | 12,9      | 5,0    | -        | 5,0      | -          | 1,0    | 11,9      | -             |          |              |               | 12125           |        |           |  |  |  |
|    |         |       | Fußg.     |            |       | FS 2, Kfz | -        | 15,5   | -        | 1,2      | -         | -      | 12,9      | 5,0    | -        | 11,1     | -          | 0,5    | 12,4      | -             |          |              |               | 13416           |        |           |  |  |  |
|    |         |       | Fußg.     |            |       | FS 5, Rad | -        | 15,5   | -        | 1,2      | -         | -      | 12,9      | 0,0    | -        | 5,0      | -          | 0,0    | 12,9      | -             |          |              |               | 21020           |        |           |  |  |  |
| 63 | FTV1    | 3 (Q) | Fußg.     | K2         | 3 (R) | FS 1, Kfz | -        | 15,5   | -        | 1,2      | -         | -      | 12,9      | 5,0    | -        | 11,1     | -          | 0,5    | 12,4      | -             | 13       |              |               | 10166           | -      |           |  |  |  |
|    |         |       | Fußg.     |            |       | FS 5, Rad | -        | 15,5   | -        | 1,2      | -         | -      | 12,9      | 0,0    | -        | 5,0      | -          | 0,0    | 12,9      | -             |          |              |               | 11997           |        |           |  |  |  |
|    |         |       | Fußg.     |            |       | FS 3, Kfz | -        | 15,5   | -        | 1,2      | -         | -      | 12,9      | 5,0    | -        | 11,1     | -          | 0,5    | 12,4      | -             |          |              |               | 24463           |        |           |  |  |  |
|    |         |       | Fußg.     |            |       | FS 2, Kfz | -        | 15,5   | -        | 1,2      | -         | -      | 12,9      | 31,5   | -        | 11,1     | -          | 2,8    | 10,1      | -             |          |              |               | 24776           |        |           |  |  |  |
| 64 | FTV1    | 3 (Q) | Fußg.     | K4         | 1 (G) | FS 2, Rad | -        | 15,5   | -        | 1,2      | -         | -      | 12,9      | 31,5   | -        | 5,0      | -          | 6,3    | 6,6       | -             | 11       | -            | -             | 24776           | -      |           |  |  |  |
| 65 | BL1     | 3 (Q) | Fußg.     | K1         | 3 (G) | FS 1, Kfz | -        | 15,5   | -        | 1,2      | -         | -      | 12,9      | 5,0    | -        | 11,1     | -          | 0,5    | 12,4      | -             | 13       |              |               | 12125           | -      |           |  |  |  |
|    |         |       | Fußg.     |            |       | FS 1, Rad | -        | 15,5   | -        | 1,2      | -         | -      | 12,9      | 5,0    | -        | 5,0      | -          | 1,0    | 11,9      | -             |          |              |               | 12125           |        |           |  |  |  |
|    |         |       | Fußg.     |            |       | FS 2, Kfz | -        | 15,5   | -        | 1,2      | -         | -      | 12,9      | 5,0    | -        | 11,1     | -          | 0,5    | 12,4      | -             |          |              |               | 13416           |        |           |  |  |  |
|    |         |       | Fußg.     |            |       | FS 5, Rad | -        | 15,5   | -        | 1,2      | -         | -      | 12,9      | 0,0    | -        | 5,0      | -          | 0,0    | 12,9      | -             |          |              |               | 21020           |        |           |  |  |  |
|    |         | 3 (Q) | Fußg.     |            | 3 (R) | FS 1, Kfz | -        | 15,5   | -        | 1,2      | -         | -      | 12,9      | 5,0    | -        | 11,1     | -          | 0,5    | 12,4      | -             |          |              |               | 10166           |        |           |  |  |  |
|    |         |       | Fußg.     |            |       | FS 5, Rad | -        | 15,5   | -        | 1,2      | -         | -      | 12,9      | 0,0    | -        | 5,0      | -          | 0,0    | 12,9      | -             |          |              |               | 11997           |        |           |  |  |  |
|    |         |       | Fußg.     |            |       | FS 3, Kfz | -        | 15,5   | -        | 1,2      | -         | -      | 12,9      | 5,0    | -        | 11,1     | -          | 0,5    | 12,4      | -             |          |              |               | 24463           |        |           |  |  |  |
|    |         |       | Fußg.     |            |       | FS 2, Kfz | -        | 15,5   | -        | 1,2      | -         | -      | 12,9      | 31,5   | -        | 11,1     | -          | 2,8    | 10,1      | -             |          |              |               | 24776           |        |           |  |  |  |
| 67 | BL1     | 3 (Q) | Fußg.     | K4         | 1 (G) | FS 2, Rad | -        | 15,5   | -        | 1,2      | -         | -      | 12,9      | 31,5   | -        | 5,0      | -          | 6,3    | 6,6       | -             | 11       | -            | -             | 24776           | -      |           |  |  |  |
| 68 | F2      | 4 (Q) | Fußg.     | K2         | 3 (L) | FS 3, Kfz | -        | 12,0   | -        | 1,2      | -         | -      | 10,0      | 28,5   | -        | 11,1     | -          | 2,6    | 7,4       | -             | 8        | -            | -             | 24465           | -      |           |  |  |  |
| 69 | F2      | 4 (Q) | Fußg.     | K3         | 4 (L) | FS 1, Kfz | -        | 12,0   | -        | 1,2      | -         | -      | 10,0      | 6,0    | -        | 11,1     | -          | 0,5    | 9,5       | -             | 10       |              |               | 24800           | -      |           |  |  |  |
|    |         |       | Fußg.     |            |       | FS 1, Rad | -        | 12,0   | -        | 1,2      | -         | -      | 10,0      | 6,0    | -        | 5,0      | -          | 1,2    | 8,8       | -             |          |              |               | 24802           |        |           |  |  |  |
|    |         |       | Fußg.     |            |       | FS 2, Kfz | -        | 12,0   | -        | 1,2      | -         | -      | 10,0      | 0,0    | -        | 5,0      | -          | 0,0    | 10,0      | -             |          |              |               | 24800           |        |           |  |  |  |
|    |         |       | Fußg.     |            |       | FS 2, Rad | -        | 12,0   | -        | 1,2      | -         | -      | 10,0      | 0,0    | -        | 5,0      | -          | 0,0    | 10,0      | -             |          |              |               | 24796           |        |           |  |  |  |
|    |         | 4 (Q) | Fußg.     |            | 4 (G) | FS 1, Kfz | -        | 12,0   | -        | 1,2      | -         | -      | 10,0      | 6,0    | -        | 11,1     | -          | 0,5    | 9,5       | -             |          |              |               | 24770           |        |           |  |  |  |
|    |         |       | Fußg.     |            |       | FS 1, Rad | -        | 12,0   | -        | 1,2      | -         | -      | 10,0      | 6,0    | -        | 5,0      | -          | 1,2    | 8,8       | -             |          |              |               | 24770           |        |           |  |  |  |
|    |         |       | Fußg.     |            |       | FS 2, Rad | -        | 12,0   | -        | 1,2      | -         | -      | 10,0      | 0,0    | -        | 5,0      | -          | 0,0    | 10,0      | -             |          |              |               | 10414           |        |           |  |  |  |
|    |         |       | Fußg.     |            |       | FS 1, Kfz | -        | 12,0   | -        | 1,2      | -         | -      | 10,0      | 6,0    | -        | 11,1     | -          | 0,5    | 9,5       | -             |          |              |               | 14494           |        |           |  |  |  |
|    |         | 4 (Q) | Fußg.     |            | 4 (R) | FS 2, Rad | -        | 12,0   | -        | 1,2      | -         | -      | 10,0      | 0,0    | -        | 5,0      | -          | 0,0    | 10,0      | -             |          |              |               | 14438           |        |           |  |  |  |
|    |         |       | Fußg.     |            |       | FS 1, Kfz | -        | 12,0   | -        | 1,2      | -         | -      | 10,0      | 31,0   | -        | 11,1     | -          | 2,8    | 7,2       | -             |          |              |               | 11476           |        |           |  |  |  |
|    |         |       | Fußg.     |            |       | FS 1, Rad | -        | 12,0   | -        | 1,2      | -         | -      | 10,0      | 31,0   | -        | 5,0      | -          | 6,2    | 3,8       | -             |          |              |               | 11476           |        |           |  |  |  |
|    |         |       | Fußg.     |            |       | FS 3, Rad | -        | 12,0   | -        | 1,2      | -         | -      | 10,0      | 21,5   | -        | 5,0      |            |        |           |               |          |              |               |                 |        |           |  |  |  |

# Zwischenzeitenberechnung

**BERNARD**  
GRUPPE

LISA

| Räumend |      |       | Einführend |     |       | Räumend   |                      |        |          |          |           |        |           |        |          | Einführend |           |        |           |               | Zwischenzeit |     |               | Info            |        |           |  |  |
|---------|------|-------|------------|-----|-------|-----------|----------------------|--------|----------|----------|-----------|--------|-----------|--------|----------|------------|-----------|--------|-----------|---------------|--------------|-----|---------------|-----------------|--------|-----------|--|--|
|         | SGR  | Strom | Teilstrom  | SGR | Strom | Teilstrom | L <sub>rsq</sub> [m] | so [m] | vo [m/s] | vr [m/s] | ar [m/s²] | tu [s] | tu+tr [s] | Se [m] | vo [m/s] | vr [m/s]   | ae [m/s²] | te [s] | te+tr [s] | tzuschlag [s] | tmaßg. [s]   | Rad | Rad maßgebend | Schnittpunkt ID | Schutz | Bemerkung |  |  |
| 79      | FTV3 | 1 (Q) | Fußg.      | K5  | 1 (R) | FS 1, Kfz | -                    | 10,0   | -        | 1,2      | -         | -      | 8,3       | 0,0    | -        | 11,1       | -         | 0,0    | 8,3       | -             | 9            | -   | -             | 10427           | -      |           |  |  |
|         |      |       | Fußg.      |     |       | FS 1, Rad | -                    | 10,0   | -        | 1,2      | -         | -      | 8,3       | 0,0    | -        | 5,0        | -         | 0,0    | 8,3       | -             |              |     |               | 10427           | -      |           |  |  |
|         |      |       | Fußg.      |     |       | FS 3, Kfz | -                    | 10,0   | -        | 1,2      | -         | -      | 8,3       | 0,0    | -        | 11,1       | -         | 0,0    | 8,3       | -             |              |     |               | 10460           | -      |           |  |  |
|         |      |       | Fußg.      |     |       | FS 3, Kfz | -                    | 10,0   | -        | 1,2      | -         | -      | 8,3       | 0,0    | -        | 11,1       | -         | 0,0    | 8,3       | -             |              |     |               | 10461           | -      |           |  |  |
| 80      | F4   | 1 (Q) | Fußg.      | K1  | 3 (G) | FS 3, Rad | -                    | 10,0   | -        | 1,2      | -         | -      | 8,3       | 0,0    | -        | 5,0        | -         | 0,0    | 8,3       | -             | 3            | -   | -             | 10461           | -      |           |  |  |
|         |      |       | Fußg.      |     |       | FS 1, Kfz | -                    | 6,5    | -        | 1,2      | -         | -      | 5,4       | 33,0   | -        | 11,1       | -         | 3,0    | 2,4       | -             |              |     |               | 24789           | -      |           |  |  |
|         |      |       | Fußg.      |     |       | FS 1, Rad | -                    | 6,5    | -        | 1,2      | -         | -      | 5,4       | 33,0   | -        | 5,0        | -         | 6,6    | -1,2      | -             |              |     |               | 24789           | -      |           |  |  |
|         |      |       | Fußg.      |     |       | FS 2, Kfz | -                    | 6,5    | -        | 1,2      | -         | -      | 5,4       | 34,0   | -        | 11,1       | -         | 3,1    | 2,3       | -             |              |     |               | 13413           | -      |           |  |  |
| 81      | FTV4 | 1 (Q) | Fußg.      | K1  | 3 (G) | FS 5, Rad | -                    | 6,5    | -        | 1,2      | -         | -      | 5,4       | 29,0   | -        | 5,0        | -         | 5,8    | -0,4      | -             | 3            | -   | -             | 24804           | -      |           |  |  |
|         |      |       | Fußg.      |     |       | FS 1, Kfz | -                    | 6,5    | -        | 1,2      | -         | -      | 5,4       | 33,0   | -        | 11,1       | -         | 3,0    | 2,4       | -             |              |     |               | 24789           | -      |           |  |  |
|         |      |       | Fußg.      |     |       | FS 1, Rad | -                    | 6,5    | -        | 1,2      | -         | -      | 5,4       | 33,0   | -        | 5,0        | -         | 6,6    | -1,2      | -             |              |     |               | 24789           | -      |           |  |  |
|         |      |       | Fußg.      |     |       | FS 2, Kfz | -                    | 6,5    | -        | 1,2      | -         | -      | 5,4       | 34,0   | -        | 11,1       | -         | 3,1    | 2,3       | -             |              |     |               | 13413           | -      |           |  |  |
| 82      | BL4  | 1 (Q) | Fußg.      | K1  | 3 (G) | FS 5, Rad | -                    | 6,5    | -        | 1,2      | -         | -      | 5,4       | 29,0   | -        | 5,0        | -         | 5,8    | -0,4      | -             | 3            | -   | -             | 24804           | -      |           |  |  |
|         |      |       | Fußg.      |     |       | FS 1, Kfz | -                    | 6,5    | -        | 1,2      | -         | -      | 5,4       | 33,0   | -        | 11,1       | -         | 3,0    | 2,4       | -             |              |     |               | 24789           | -      |           |  |  |
|         |      |       | Fußg.      |     |       | FS 1, Rad | -                    | 6,5    | -        | 1,2      | -         | -      | 5,4       | 33,0   | -        | 5,0        | -         | 6,6    | -1,2      | -             |              |     |               | 24789           | -      |           |  |  |
|         |      |       | Fußg.      |     |       | FS 2, Kfz | -                    | 6,5    | -        | 1,2      | -         | -      | 5,4       | 34,0   | -        | 11,1       | -         | 3,1    | 2,3       | -             |              |     |               | 13413           | -      |           |  |  |
| 83      | F5   | 2 (Q) | Fußg.      | K3  | 4 (G) | FS 5, Rad | -                    | 6,5    | -        | 1,2      | -         | -      | 5,4       | 29,0   | -        | 5,0        | -         | 5,8    | -0,4      | -             | 5            | -   | -             | 24804           | -      |           |  |  |
|         |      |       | Fußg.      |     |       | FS 1, Kfz | -                    | 9,5    | -        | 1,2      | -         | -      | 7,9       | 36,0   | -        | 11,1       | -         | 3,2    | 4,7       | -             |              |     |               | 10400           | -      |           |  |  |
|         |      |       | Fußg.      |     |       | FS 1, Rad | -                    | 9,5    | -        | 1,2      | -         | -      | 7,9       | 36,0   | -        | 5,0        | -         | 7,2    | 0,7       | -             |              |     |               | 10400           | -      |           |  |  |
|         |      |       | Fußg.      |     |       | FS 2, Rad | -                    | 9,5    | -        | 1,2      | -         | -      | 7,9       | 31,0   | -        | 5,0        | -         | 6,2    | 1,7       | -             |              |     |               | 10411           | -      |           |  |  |
| 84      | F5   | 2 (Q) | Fußg.      | K5  | 1 (L) | FS 3, Kfz | -                    | 9,5    | -        | 1,2      | -         | -      | 7,9       | 29,5   | -        | 11,1       | -         | 2,7    | 5,2       | -             | 6            | -   | -             | 24778           | -      |           |  |  |
|         |      |       | Fußg.      |     |       | FS 3, Rad | -                    | 9,5    | -        | 1,2      | -         | -      | 7,9       | 29,5   | -        | 5,0        | -         | 5,9    | 2,0       | -             |              |     |               | 24778           | -      |           |  |  |
|         |      |       | Fußg.      |     |       | FS 1, Kfz | -                    | 9,5    | -        | 1,2      | -         | -      | 7,9       | 0,0    | -        | 11,1       | -         | 0,0    | 7,9       | -             |              |     |               | 11601           | -      |           |  |  |
|         |      |       | Fußg.      |     |       | FS 1, Kfz | -                    | 9,5    | -        | 1,2      | -         | -      | 7,9       | 0,0    | -        | 11,1       | -         | 0,0    | 7,9       | -             |              |     |               | 11600           | -      |           |  |  |
| 85      | F5   | 2 (Q) | Fußg.      | K6  | 2 (R) | FS 1, Kfz | -                    | 9,5    | -        | 1,2      | -         | -      | 7,9       | 0,0    | -        | 11,1       | -         | 0,0    | 7,9       | -             | 8            | -   | -             | 11672           | -      |           |  |  |
|         |      |       | Fußg.      |     |       | FS 1, Kfz | -                    | 9,5    | -        | 1,2      | -         | -      | 7,9       | 0,0    | -        | 11,1       | -         | 0,0    | 7,9       | -             |              |     |               | 11673           | -      |           |  |  |
|         |      |       | Fußg.      |     |       | FS 1, Rad | -                    | 9,5    | -        | 1,2      | -         | -      | 7,9       | 0,0    | -        | 5,0        | -         | 0,0    | 7,9       | -             |              |     |               | 11600           | -      |           |  |  |
|         |      |       | Fußg.      |     |       | FS 1, Kfz | -                    | 9,5    | -        | 1,2      | -         | -      | 7,9       | 0,0    | -        | 11,1       | -         | 0,0    | 7,9       | -             |              |     |               | 11889           | -      |           |  |  |
|         |      |       | Fußg.      |     |       | FS 1, Kfz | -                    | 9,5    | -        | 1,2      | -         | -      | 7,9       | 0,0    | -        | 11,1       | -         | 0,0    | 7,9       | -             |              |     |               | 11890           | -      |           |  |  |
|         |      |       | Fußg.      |     |       | FS 1, Rad | -                    | 9,5    | -        | 1,2      | -         | -      | 7,9       | 0,0    | -        | 5,0        | -         | 0,0    | 7,9       | -             |              |     |               | 11890           | -      |           |  |  |
|         |      | 2 (Q) | Fußg.      | K6  | 2 (L) | FS 1, Kfz | -                    | 9,5    | -        | 1,2      | -         | -      | 7,9       | 0,0    | -        | 11,1       | -         | 0,0    | 7,9       | -             |              | -   | -             | 11472           | -      |           |  |  |
|         |      |       | Fußg.      |     |       | FS 1, Kfz | -                    | 9,5    | -        | 1,2      | -         | -      | 7,9       | 0,0    | -        | 11,1       | -         | 0,0    | 7,9       | -             |              |     |               | 11473           | -      |           |  |  |
|         |      |       | Fußg.      |     |       | FS 1, Rad | -                    | 9,5    | -        | 1,2      | -         | -      | 7,9       | 0,0    | -        | 5,0        | -         | 0,0    | 7,9       | -             |              |     |               | 11473           | -      |           |  |  |
|         |      |       | Fußg.      |     |       | FS 1, Kfz | -                    | 9,5    | -        | 1,2      | -         | -      | 7,9       | 0,0    | -        | 11,1       | -         | 3,2    | 4,7       | -             |              |     |               | 10400           | -      |           |  |  |
|         |      |       | Fußg.      |     |       | FS 1, Rad | -                    | 9,5    | -        | 1,2      | -         | -      | 7,9       | 36,0   | -        | 11,1       | -         | 7,2    | 0,7       | -             |              |     |               | 10400           | -      |           |  |  |
|         |      |       | Fußg.      |     |       | FS 2, Rad | -                    | 9,5    | -        | 1,2      | -         | -      | 7,9       | 31,0   | -        | 5,0        | -         | 6,2    | 1,7       | -             |              |     |               | 10411           | -      |           |  |  |
| 86      | FTV5 | 2 (Q) | Fußg.      | K3  | 4 (G) | FS 3, Kfz | -                    | 9,5    | -        | 1,2      | -         | -      | 7,9       | 29,5   | -        | 11,1       | -         | 2,7    | 5,2       | -             | 5            | -   | -             | 24778           | -      |           |  |  |
|         |      |       | Fußg.      |     |       | FS 3, Rad | -                    | 9,5    | -        | 1,2      | -         | -      | 7,9       | 29,5   | -        | 5,0        | -         | 5,9    | 2,0       | -             |              |     |               | 24778           | -      |           |  |  |
|         |      |       | Fußg.      |     |       | FS 1, Kfz | -                    | 9,5    | -        | 1,2      | -         | -      | 7,9       | 0,0    | -        | 11,1       | -         | 0,0    | 7,9       | -             |              |     |               | 11601           | -      |           |  |  |
|         |      |       | Fußg.      |     |       | FS 1, Kfz | -                    | 9,5    | -        | 1,2      | -         | -      | 7,9       | 0,0    | -        | 11,1       | -         | 0,0    | 7,9       | -             |              |     |               | 11600           | -      |           |  |  |
| 88      | FTV5 | 2 (Q) | Fußg.      | K6  | 2 (R) | FS 1, Kfz | -                    | 9,5    | -        | 1,2      | -         | -      | 7,9       | 0,0    | -        | 11,1       | -         | 0,0    | 7,9       | -             | 8            | -   | -             | 11672           | -      |           |  |  |
|         |      |       | Fußg.      |     |       | FS 1, Kfz | -                    | 9,5    | -        | 1,2      | -         | -      | 7,9       | 0,0    | -        | 11,1       | -         | 0,0    | 7,9       | -             |              |     |               | 11673           | -      |           |  |  |
|         |      |       | Fußg.      |     |       | FS 1, Rad | -                    | 9,5    | -        | 1,2      | -         | -      | 7,9       | 0,0    | -        | 5,0        | -         | 0,0    | 7,9       | -             |              |     |               | 11600           | -      |           |  |  |
|         |      |       | Fußg.      |     |       | FS 1, Kfz | -                    | 9,5    | -        | 1,2      | -         | -      | 7,9       | 0,0    | -        | 11,1       | -         | 0,0    | 7,9       | -             |              |     |               | 11889           | -      |           |  |  |
|         |      |       | Fußg.      |     |       | FS 1, Kfz | -                    | 9,5    | -        | 1,2      | -         | -      | 7,9       | 0,0    | -        | 11,1       | -         | 0,0    | 7,9       | -             |              |     |               | 11890           | -      |           |  |  |
|         |      |       | Fußg.      |     |       | FS 1, Rad | -                    | 9,5    | -        | 1,2      | -         | -      | 7,9       | 0,0    | -        | 5,0        | -         | 0,0    | 7,9       | -             |              |     |               | 11890           | -      |           |  |  |
|         |      | 2 (Q) | Fußg.      | K6  | 2 (L) | FS 1, Kfz | -                    | 9,5    | -        | 1,2      | -         | -      | 7,9       | 0,0    | -        | 11,1       | -         | 0,0    | 7,9       | -             |              | -   | -             | 11472           | -      |           |  |  |
|         |      |       | Fußg.      |     |       | FS 1, Kfz | -                    | 9,5    | -        | 1,2      | -         | -      | 7,9       | 0,0    | -        | 11,1       | -         | 0,0    | 7,9       | -             |              |     |               | 11473           | -      |           |  |  |
|         |      |       | Fußg.      |     |       | FS 1, Rad | -                    | 9,5    | -        | 1,2      | -         | -      | 7,9       | 0,0    | -        | 5,0        | -         | 0,0    | 7,9       | -             |              |     |               | 11473           | -      |           |  |  |
|         |      |       | Fußg.      |     |       | FS 1, Kfz | -                    | 9,5    | -        | 1,2      | -         | -      | 7,9       | 0,0    | -        | 11,1       | -         | 3,2    | 4,7       | -             |              |     |               | 10400           | -      |           |  |  |
|         |      |       | Fußg.      |     |       | FS 1, Rad | -                    | 9,5    | -        | 1,2      | -         | -      | 7,9       | 36,0   | -        | 11,1       | -         | 7,2    | 0,7       | -             |              |     |               | 10400           | -      |           |  |  |
|         |      |       | Fußg.      |     |       | FS 2, Rad | -                    | 9,5    | -        | 1,2      | -         | -      | 7,9       | 31,0   | -        | 5,0        | -         | 6,2    | 1,7       | -             |              |     |               | 10411           | -      |           |  |  |

Richtlinie: RiLSA2015

|             |                                          |             |                        |       |            |
|-------------|------------------------------------------|-------------|------------------------|-------|------------|
| Projekt     | Ausbau Osttangente Jena                  |             |                        |       |            |
| Knotenpunkt | Käthe-Kollwitz-Straße/Am Anger - K 610 - |             |                        |       |            |
| Auftragsnr. | P501311                                  | Variante    | Leistungsfähigkeitsnac | Datum | 24.05.2022 |
| Bearbeiter  | Cyriax                                   | Abzeichnung |                        | Blatt | 4.7        |

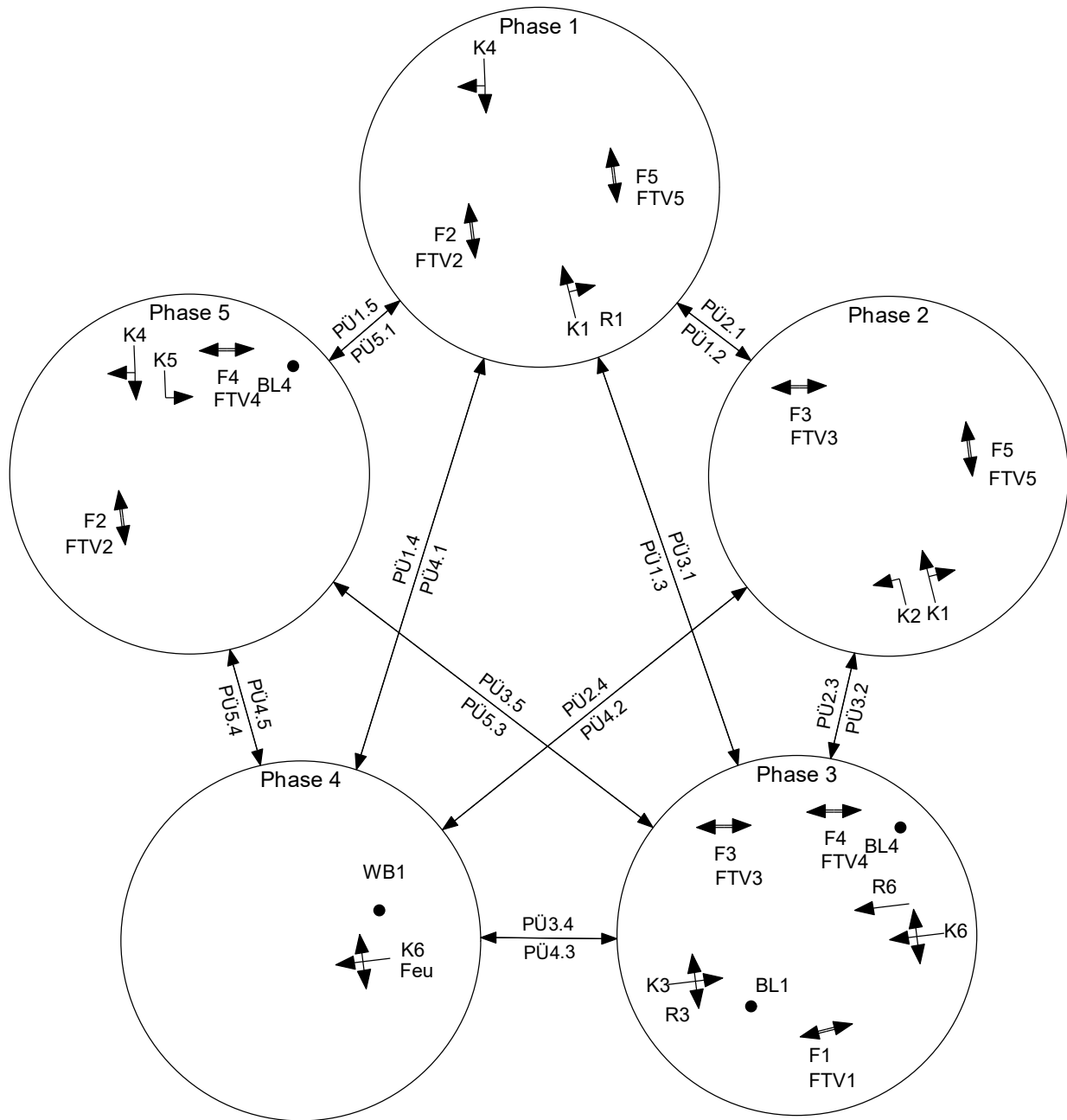
# Zwischenzeitenmatrix ZZM

**BERNARD**  
GRUPPE

LISA

|         |      | EINFAHREND |    |    |    |    |    |    |    |    |    |    |    |    |    |      |      |      |      |      |     |     |     |     |   |
|---------|------|------------|----|----|----|----|----|----|----|----|----|----|----|----|----|------|------|------|------|------|-----|-----|-----|-----|---|
|         |      | K1         | K2 | K3 | K4 | K5 | K6 | R1 | R3 | R6 | F1 | F2 | F3 | F4 | F5 | FTV1 | FTV2 | FTV3 | FTV4 | FTV5 | BL1 | BL4 | WB1 | Feu |   |
| RÄUMEND | K1   |            |    | -  | 4  | -  | 5  | 8  | -  | 4  | 6  | 5  | -  | -  | 8  | -    | 5    | -    | -    | 8    | -   | 5   | 8   | -   | X |
|         | K2   |            | -  |    | 5  | 6  | -  | 4  | -  | 5  | 3  | 4  | 8  | -  | -  | -    | 4    | 8    | -    | -    | -   | 4   | -   | -   | X |
|         | K3   |            | 8  | 7  |    | 4  | 6  | -  | 8  | -  | -  | -  | 5  | -  | -  | 8    | -    | 5    | -    | -    | 8   | -   | -   | -   | X |
|         | K4   |            | -  | 5  | 6  |    | -  | 5  | -  | 6  | 3  | 7  | -  | 4  | -  | -    | 7    | -    | 4    | -    | -   | 7   | -   | -   | X |
|         | K5   |            | 7  | -  | 4  | -  |    | 6  | 7  | 4  | 4  | -  | -  | 4  | -  | 8    | -    | -    | 4    | -    | 8   | -   | -   | -   | X |
|         | K6   |            | 5  | 7  | -  | 8  | 4  |    | 5  | -  | -  | -  | 7  | -  | -  | 4    | -    | 7    | -    | -    | 4   | -   | -   | -   | - |
|         | R1   |            | -  | -  | 4  | -  | 5  | 8  |    | 4  | 6  | 5  | -  | -  | 8  | -    | 5    | -    | -    | 8    | -   | -   | -   | -   | X |
|         | R3   |            | 8  | 7  | -  | 4  | 6  | -  | 8  |    | -  | -  | 5  | -  | -  | 8    | -    | 5    | -    | -    | 8   | -   | -   | -   | X |
|         | R6   |            | 1  | 4  | -  | 5  | 2  | -  | 1  | -  |    | -  | 7  | -  | -  | -    | -    | 7    | -    | -    | -   | -   | -   | -   | X |
|         | F1   |            | 13 | 13 | -  | 11 | -  | -  | 13 | -  | -  |    | -  | -  | -  | -    | -    | -    | -    | -    | -   | -   | -   | -   | X |
|         | F2   |            | -  | 8  | 10 | -  | -  | 8  | -  | 10 | 6  | -  |    | -  | -  | -    | -    | -    | -    | -    | -   | -   | -   | -   | X |
|         | F3   |            | -  | -  | -  | 9  | 9  | -  | -  | -  | -  | -  | -  |    | -  | -    | -    | -    | -    | -    | -   | -   | -   | -   | X |
|         | F4   |            | 3  | -  | -  | -  | -  | 3  | -  | -  | -  | -  | -  | -  |    | -    | -    | -    | -    | -    | -   | -   | -   | -   | X |
|         | F5   |            | -  | -  | 5  | -  | 6  | 8  | -  | 5  | -  | -  | -  | -  | -  |      | -    | -    | -    | -    | -   | -   | -   | -   | X |
|         | FTV1 |            | 13 | 13 | -  | 11 | -  | -  | 13 | -  | -  | -  | -  | -  | -  | -    |      | -    | -    | -    | -   | -   | -   | -   | X |
|         | FTV2 |            | -  | 8  | 10 | -  | -  | 8  | -  | 10 | 6  | -  | -  | -  | -  | -    | -    |      | -    | -    | -   | -   | -   | -   | X |
|         | FTV3 |            | -  | -  | -  | 9  | 9  | -  | -  | -  | -  | -  | -  | -  | -  | -    | -    | -    |      | -    | -   | -   | -   | -   | X |
|         | FTV4 |            | 3  | -  | -  | -  | -  | 3  | -  | -  | -  | -  | -  | -  | -  | -    | -    | -    | -    |      | -   | -   | -   | -   | X |
|         | FTV5 |            | -  | -  | 5  | -  | 6  | 8  | -  | 5  | -  | -  | -  | -  | -  | -    | -    | -    | -    | -    |     | -   | -   | -   | X |
|         | BL1  | •          | 13 | 13 | -  | 11 | -  | -  | -  | -  | -  | -  | -  | -  | -  | -    | -    | -    | -    | -    | -   |     | -   | -   | - |
|         | BL4  | •          | 3  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -    | -    | -    | -    | -    | -   | -   |     | -   | - |
|         | WB1  | •          | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -    | -    | -    | -    | -    | -   | -   | -   |     | - |
|         | Feu  |            | X  | X  | X  | X  | X  | -  | X  | X  | X  | X  | X  | X  | X  | X    | X    | X    | X    | X    | X   | -   | -   | -   |   |

|             |                                          |             |                        |       |            |
|-------------|------------------------------------------|-------------|------------------------|-------|------------|
| Projekt     | Ausbau Osttangente Jena                  |             |                        |       |            |
| Knotenpunkt | Käthe-Kollwitz-Straße/Am Anger - K 610 - |             |                        |       |            |
| Auftragsnr. | P501311                                  | Variante    | Leistungsfähigkeitsnac | Datum | 24.05.2022 |
| Bearbeiter  | Cyriax                                   | Abzeichnung |                        | Blatt | 5          |

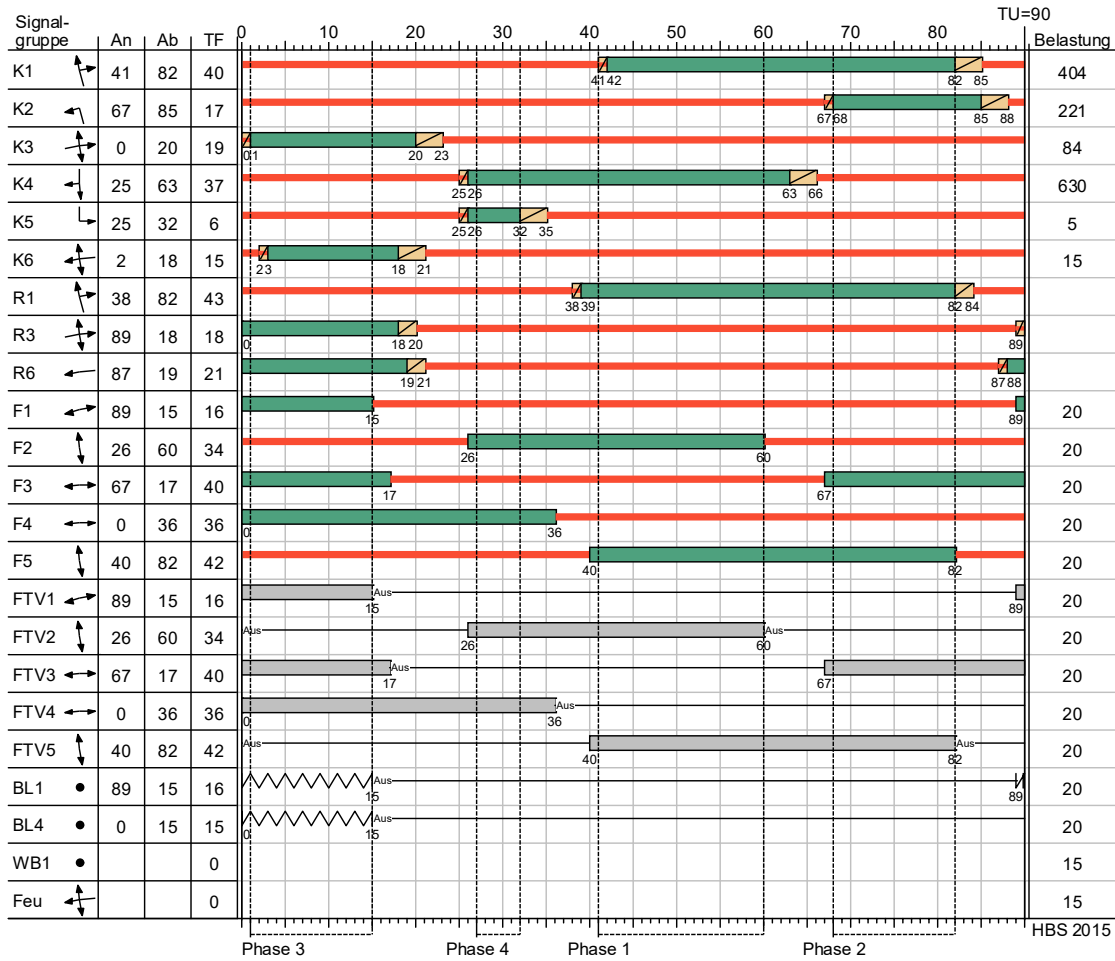


|             |                                          |             |                        |       |            |
|-------------|------------------------------------------|-------------|------------------------|-------|------------|
| Projekt     | Ausbau Osttangente Jena                  |             |                        |       |            |
| Knotenpunkt | Käthe-Kollwitz-Straße/Am Anger - K 610 - |             |                        |       |            |
| Auftragsnr. | P501311                                  | Variante    | Leistungsfähigkeitsnac | Datum | 24.05.2022 |
| Bearbeiter  | Cyriax                                   | Abzeichnung |                        | Blatt | 6          |

# Signalzeitenplan SZP 2 einwärts (FS)

LISA

## SZP 2 einwärts (FS)



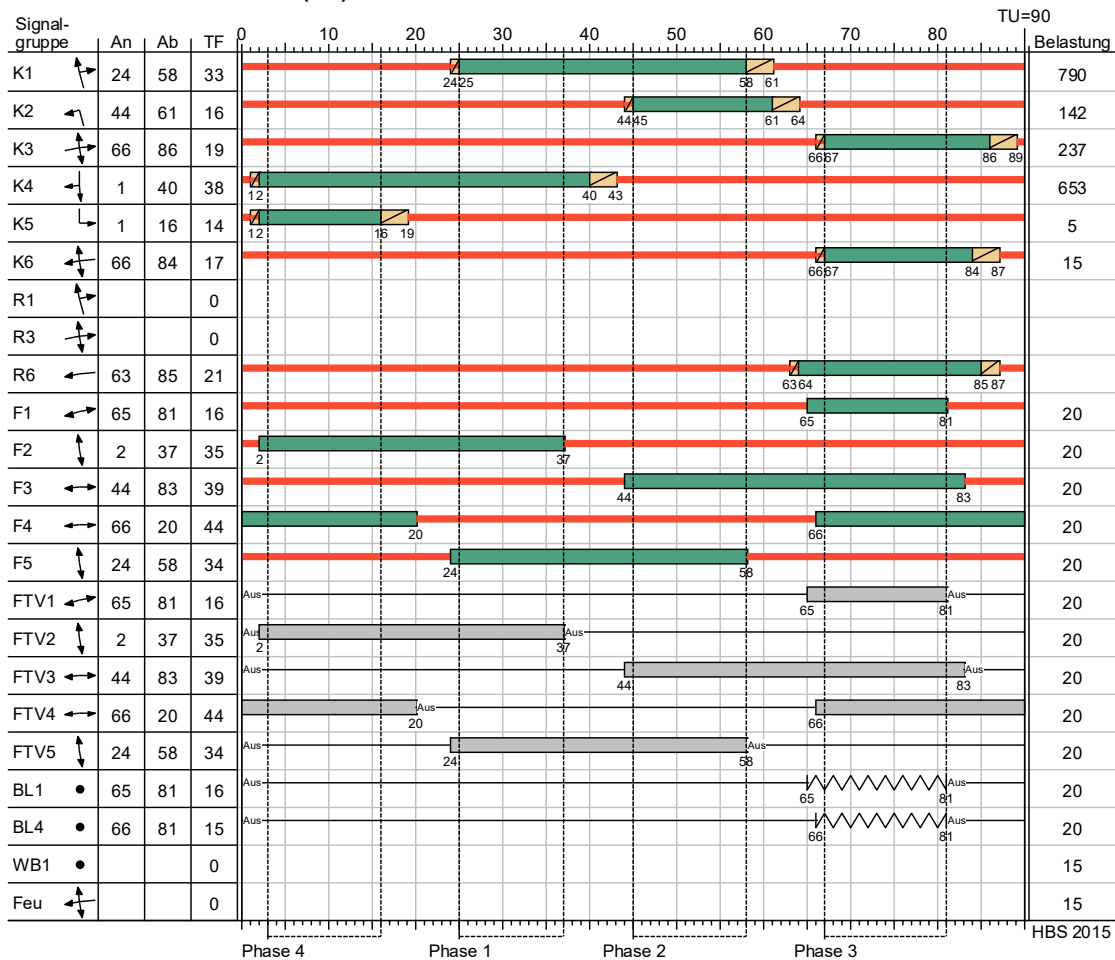
|             |                                          |             |                        |       |            |
|-------------|------------------------------------------|-------------|------------------------|-------|------------|
| Projekt     | Ausbau Osttangente Jena                  |             |                        |       |            |
| Knotenpunkt | Käthe-Kollwitz-Straße/Am Anger - K 610 - |             |                        |       |            |
| Auftragsnr. | P501311                                  | Variante    | Leistungsfähigkeitsnac | Datum | 24.05.2022 |
| Bearbeiter  | Cyriax                                   | Abzeichnung |                        | Blatt | 7.1        |



# Signalzeitenplan SZP 3 auswärts (NS)

LISA

## SZP 3 auswärts (NS)



|             |                                          |             |                        |       |            |
|-------------|------------------------------------------|-------------|------------------------|-------|------------|
| Projekt     | Ausbau Osttangente Jena                  |             |                        |       |            |
| Knotenpunkt | Käthe-Kollwitz-Straße/Am Anger - K 610 - |             |                        |       |            |
| Auftragsnr. | P501311                                  | Variante    | Leistungsfähigkeitsnac | Datum | 24.05.2022 |
| Bearbeiter  | Cyriax                                   | Abzeichnung |                        | Blatt | 7.2        |

## MIV - SZP 2 einwärts (FS) (TU=90) - Prognose 2030 P1, Frühschpitze

| Zuf                     | Fstr.Nr. | Symbol | SGR          | t <sub>f</sub><br>[s]                             | t <sub>a</sub><br>[s] | t <sub>s</sub><br>[s] | f <sub>a</sub><br>[-] | q<br>[Kfz/h] | m<br>[Kfz/U] | t <sub>s</sub><br>[s/Kfz] | q <sub>s</sub><br>[Kfz/h] | C<br>[Kfz/h] | n <sub>C</sub><br>[Kfz/U] | N <sub>GE</sub><br>[Kfz] | N <sub>MS</sub><br>[Kfz] | N <sub>MS,95</sub><br>[Kfz] | L <sub>x</sub><br>[m] | LK<br>[m] | N <sub>MS,95&gt;n<sub>K</sub></sub><br>[-] | x     | t <sub>w</sub><br>[s] | QSV<br>[-] | Bemerkung |
|-------------------------|----------|--------|--------------|---------------------------------------------------|-----------------------|-----------------------|-----------------------|--------------|--------------|---------------------------|---------------------------|--------------|---------------------------|--------------------------|--------------------------|-----------------------------|-----------------------|-----------|--------------------------------------------|-------|-----------------------|------------|-----------|
| 1                       | 1        |        | K4           | 37                                                | 38                    | 53                    | 0,422                 | 44           | 1,100        | 1,800                     | 2000                      | 800          | 20                        | 0,032                    | 0,707                    | 2,129                       | 12,774                |           | -                                          | 0,055 | 16,708                | A          |           |
|                         | 2        |        | K4           | 37                                                | 38                    | 53                    | 0,422                 | 586          | 14,650       | 1,868                     | 1927                      | 813          | 20                        | 1,847                    | 14,018                   | 20,350                      | 126,740               |           | -                                          | 0,721 | 29,787                | B          |           |
|                         | 3        |        | K5           | 6                                                 | 7                     | 84                    | 0,078                 | 5            | 0,125        | 1,800                     | 2000                      | 156          | 4                         | 0,018                    | 0,134                    | 0,753                       | 4,518                 | 25,000    | -                                          | 0,032 | 38,765                | C          |           |
| 2                       | 4        |        | K6, WB1, Feu | 15                                                | 16                    | 75                    | 0,178                 | 9            | 0,225        | 1,800                     | 2000                      | 339          | 8                         | 0,015                    | 0,203                    | 0,965                       | 5,790                 |           | -                                          | 0,027 | 31,377                | B          |           |
|                         | 1        |        | K6, WB1, Feu | 15                                                | 16                    | 75                    | 0,178                 | 6            | 0,150        | 1,800                     | 2000                      | 339          | 8                         | 0,010                    | 0,135                    | 0,756                       | 4,536                 |           | -                                          | 0,018 | 31,276                | B          |           |
| 3                       | 3        |        | K2           | 17                                                | 18                    | 73                    | 0,200                 | 221          | 5,525        | 1,825                     | 1973                      | 395          | 10                        | 0,784                    | 5,760                    | 9,819                       | 59,739                |           | -                                          | 0,559 | 39,570                | C          |           |
|                         | 2        |        | K1           | 40                                                | 41                    | 50                    | 0,456                 | 201          | 5,025        | 1,962                     | 1835                      | 839          | 21                        | 0,179                    | 3,249                    | 6,297                       | 41,182                |           | -                                          | 0,240 | 15,722                | A          |           |
|                         | 1        |        | K1           | 40                                                | 41                    | 50                    | 0,456                 | 203          | 5,075        | 1,945                     | 1851                      | 841          | 21                        | 0,180                    | 3,282                    | 6,346                       | 41,236                |           | -                                          | 0,241 | 15,732                | A          |           |
| 4                       | 1        |        | K3           | 19                                                | 20                    | 71                    | 0,222                 | 84           | 2,100        | 1,928                     | 1867                      | 364          | 9                         | 0,170                    | 1,940                    | 4,296                       | 28,147                |           | -                                          | 0,231 | 32,218                | B          |           |
| Knotenpunktssummen:     |          |        |              |                                                   |                       |                       |                       | 1359         |              |                           |                           | 4886         |                           |                          |                          |                             |                       |           |                                            |       |                       |            |           |
| Gewichtete Mittelwerte: |          |        |              |                                                   |                       |                       |                       |              |              |                           |                           |              |                           |                          |                          |                             |                       |           |                                            | 0,491 | 26,985                |            |           |
|                         |          |        |              | TU = 90 s T = 3600 s Instanzenaritätsfaktor = 1,1 |                       |                       |                       |              |              |                           |                           |              |                           |                          |                          |                             |                       |           |                                            |       |                       |            |           |

## Fußgängerverkehr - SZP 2 einwärts (FS) (TU=90)

| Zuf | Querung        | SGR    | Typ           | Progressiv | t <sub>s1</sub><br>[s] | t <sub>w1, Insel</sub><br>[s] | t <sub>s2</sub><br>[s] | t <sub>w2, Insel</sub><br>[s] | t <sub>w max</sub><br>[s] | QSV | Bemerkung |
|-----|----------------|--------|---------------|------------|------------------------|-------------------------------|------------------------|-------------------------------|---------------------------|-----|-----------|
| 1   | Furt 1, Furt 2 | F3, F4 | Geteilte Furt | -          | 50                     | 14,096                        | 54                     | 0,000                         | 64,096                    | D   |           |
| 2   | Furt 1         | F5     | Einzelne Furt | -          | 48                     |                               |                        |                               | 48,000                    | C   |           |
| 3   | Furt 1         | F1     | Einzelne Furt | -          | 74                     |                               |                        |                               | 74,000                    | E   |           |
| 4   | Furt 1         | F2     | Einzelne Furt | -          | 56                     |                               |                        |                               | 56,000                    | D   |           |

|                                     |                                                                                           |         |
|-------------------------------------|-------------------------------------------------------------------------------------------|---------|
| Zuf                                 | Zufahrt                                                                                   | [-]     |
| Fstr.Nr.                            | Fahrstreifen-Nummer                                                                       | [-]     |
| Symbol                              | Fahrstreifen-Symbol                                                                       | [-]     |
| SGR                                 | Signalgruppe                                                                              | [-]     |
| t <sub>f</sub>                      | Freigabezeit                                                                              | [s]     |
| t <sub>a</sub>                      | Abflusszeit                                                                               | [s]     |
| t <sub>s</sub>                      | Sperrzeit                                                                                 | [s]     |
| f <sub>a</sub>                      | Abflusszeitanteil                                                                         | [-]     |
| q                                   | Belastung                                                                                 | [Kfz/h] |
| m                                   | Mittlere Anzahl eintreffender Kfz pro Umlauf                                              | [Kfz/U] |
| t <sub>s</sub>                      | Mittlerer Zeitbedarfswert                                                                 | [s/Kfz] |
| q <sub>s</sub>                      | Sättigungsverkehrsstärke                                                                  | [Kfz/h] |
| C                                   | Kapazität des Fahrstreifens                                                               | [Kfz/h] |
| n <sub>C</sub>                      | Abflusskapazität pro Umlauf                                                               | [Kfz/U] |
| N <sub>GE</sub>                     | Mittlere Rückstaulänge bei Freigabeende                                                   | [Kfz]   |
| N <sub>MS</sub>                     | Mittlere Rückstaulänge bei Maximalstau                                                    | [Kfz]   |
| N <sub>MS,95</sub>                  | Rückstau bei Maximalstau, der mit einer stat. Sicherheit von 95% nicht überschritten wird | [Kfz]   |
| L <sub>x</sub>                      | Erforderliche Stauraumlänge                                                               | [m]     |
| LK                                  | Länge des kurzen Aufstellstreifens                                                        | [m]     |
| N <sub>MS,95&gt;n<sub>K</sub></sub> | Kurzer Aufstellstreifen vorhanden                                                         | [-]     |
| x                                   | Auslastungsgrad                                                                           | [-]     |
| t <sub>w</sub>                      | Mittlere Wartezeit                                                                        | [s]     |
| QSV                                 | Qualitätsstufe des Verkehrsablaufs                                                        | [-]     |
| Progressiv                          | Progressiv                                                                                | [-]     |
| t <sub>s1</sub>                     | Sperrzeit 1                                                                               | [s]     |
| t <sub>w1, Insel</sub>              | Wartezeit auf der Verkehrsinsel 1                                                         | [s]     |
| t <sub>s2</sub>                     | Sperrzeit 2                                                                               | [s]     |
| t <sub>w2, Insel</sub>              | Wartezeit auf der Verkehrsinsel 2                                                         | [s]     |
| t <sub>w max</sub>                  | Max. Wartezeit                                                                            | [s]     |

|             |                                          |             |                        |       |            |
|-------------|------------------------------------------|-------------|------------------------|-------|------------|
| Projekt     | Ausbau Osttangente Jena                  |             |                        |       |            |
| Knotenpunkt | Käthe-Kollwitz-Straße/Am Anger - K 610 - |             |                        |       |            |
| Auftragsnr. | P501311                                  | Variante    | Leistungsfähigkeitsnac | Datum | 24.05.2022 |
| Bearbeiter  | Cyriax                                   | Abzeichnung |                        | Blatt | 8.1        |

LISA

**MIV - SZP 3 auswärts (NS) (TU=90) - Prognose 2030 P1, Nachmittagsspitze**

| Zuf                     | Fstr.Nr. | Symbol | SGR          | t <sub>f</sub><br>[s]                             | t <sub>A</sub><br>[s] | t <sub>S</sub><br>[s] | f <sub>A</sub><br>[-] | q<br>[Kfz/h] | m<br>[Kfz/U] | t <sub>S</sub><br>[s/Kfz] | q <sub>S</sub><br>[Kfz/h] | C<br>[Kfz/h] | n <sub>C</sub><br>[Kfz/U] | N <sub>GE</sub><br>[Kfz] | N <sub>MS</sub><br>[Kfz] | N <sub>MS,95</sub><br>[Kfz] | L <sub>x</sub><br>[m] | LK<br>[m] | N <sub>MS,95&gt;n<sub>K</sub></sub><br>[-] | x     | t <sub>w</sub><br>[s] | QSV<br>[-] | Bemerkung |
|-------------------------|----------|--------|--------------|---------------------------------------------------|-----------------------|-----------------------|-----------------------|--------------|--------------|---------------------------|---------------------------|--------------|---------------------------|--------------------------|--------------------------|-----------------------------|-----------------------|-----------|--------------------------------------------|-------|-----------------------|------------|-----------|
| 1                       | 1        |        | K4           | 38                                                | 39                    | 52                    | 0,433                 | 45           | 1,125        | 1,859                     | 1937                      | 796          | 20                        | 0,033                    | 0,712                    | 2,139                       | 13,258                |           | -                                          | 0,057 | 16,135                | A          |           |
|                         | 2        |        | K4           | 38                                                | 39                    | 52                    | 0,433                 | 608          | 15,200       | 1,858                     | 1938                      | 839          | 21                        | 1,896                    | 14,458                   | 20,889                      | 129,345               |           | -                                          | 0,725 | 29,222                | B          |           |
|                         | 3        |        | K5           | 14                                                | 15                    | 76                    | 0,167                 | 5            | 0,125        | 1,800                     | 2000                      | 334          | 8                         | 0,008                    | 0,112                    | 0,678                       | 4,068                 | 25,000    | -                                          | 0,015 | 31,389                | B          |           |
| 2                       | 4        |        | K6, WB1, Feu | 17                                                | 18                    | 73                    | 0,200                 | 9            | 0,225        | 1,800                     | 2000                      | 346          | 9                         | 0,015                    | 0,202                    | 0,962                       | 5,772                 |           | -                                          | 0,026 | 31,072                | B          |           |
|                         | 1        |        | K6, WB1, Feu | 17                                                | 18                    | 73                    | 0,200                 | 6            | 0,150        | 1,800                     | 2000                      | 346          | 9                         | 0,010                    | 0,134                    | 0,753                       | 4,518                 |           | -                                          | 0,017 | 30,972                | B          |           |
| 3                       | 3        |        | K2           | 16                                                | 17                    | 74                    | 0,189                 | 142          | 3,550        | 1,838                     | 1959                      | 370          | 9                         | 0,364                    | 3,468                    | 6,618                       | 40,542                |           | -                                          | 0,384 | 35,456                | C          |           |
|                         | 2        |        | K1           | 33                                                | 34                    | 57                    | 0,378                 | 395          | 9,875        | 1,868                     | 1927                      | 730          | 18                        | 0,729                    | 8,450                    | 13,366                      | 83,243                |           | -                                          | 0,541 | 25,480                | B          |           |
|                         | 1        |        | K1           | 33                                                | 34                    | 57                    | 0,378                 | 395          | 9,875        | 1,862                     | 1933                      | 730          | 18                        | 0,729                    | 8,450                    | 13,366                      | 83,003                |           | -                                          | 0,541 | 25,480                | B          |           |
| 4                       | 1        |        | K3           | 19                                                | 20                    | 71                    | 0,222                 | 237          | 5,925        | 1,845                     | 1951                      | 386          | 10                        | 1,012                    | 6,421                    | 10,707                      | 66,234                |           | -                                          | 0,614 | 42,388                | C          |           |
| Knotenpunktssummen:     |          |        |              |                                                   |                       |                       |                       | 1842         |              |                           |                           | 4877         |                           |                          |                          |                             |                       |           |                                            |       |                       |            |           |
| Gewichtete Mittelwerte: |          |        |              |                                                   |                       |                       |                       |              |              |                           |                           |              |                           |                          |                          |                             |                       |           |                                            | 0,582 | 29,492                |            |           |
|                         |          |        |              | TU = 90 s T = 3600 s Instanzenaritätsfaktor = 1,1 |                       |                       |                       |              |              |                           |                           |              |                           |                          |                          |                             |                       |           |                                            |       |                       |            |           |

**Fußgängerverkehr - SZP 3 auswärts (NS) (TU=90)**

| Zuf | Querung        | SGR    | Typ           | Progressiv | t <sub>S 1</sub><br>[s] | t <sub>w 1, Insel</sub><br>[s] | t <sub>S 2</sub><br>[s] | t <sub>w 2, Insel</sub><br>[s] | t <sub>w max</sub><br>[s] | QSV | Bemerkung |
|-----|----------------|--------|---------------|------------|-------------------------|--------------------------------|-------------------------|--------------------------------|---------------------------|-----|-----------|
| 1   | Furt 1, Furt 2 | F3, F4 | Geteilte Furt | -          | 51                      | 13,096                         | 46                      | 0,000                          | 64,096                    | D   |           |
| 2   | Furt 1         | F5     | Einzelne Furt | -          | 56                      |                                |                         |                                | 56,000                    | D   |           |
| 3   | Furt 1         | F1     | Einzelne Furt | -          | 74                      |                                |                         |                                | 74,000                    | E   |           |
| 4   | Furt 1         | F2     | Einzelne Furt | -          | 55                      |                                |                         |                                | 55,000                    | C   |           |

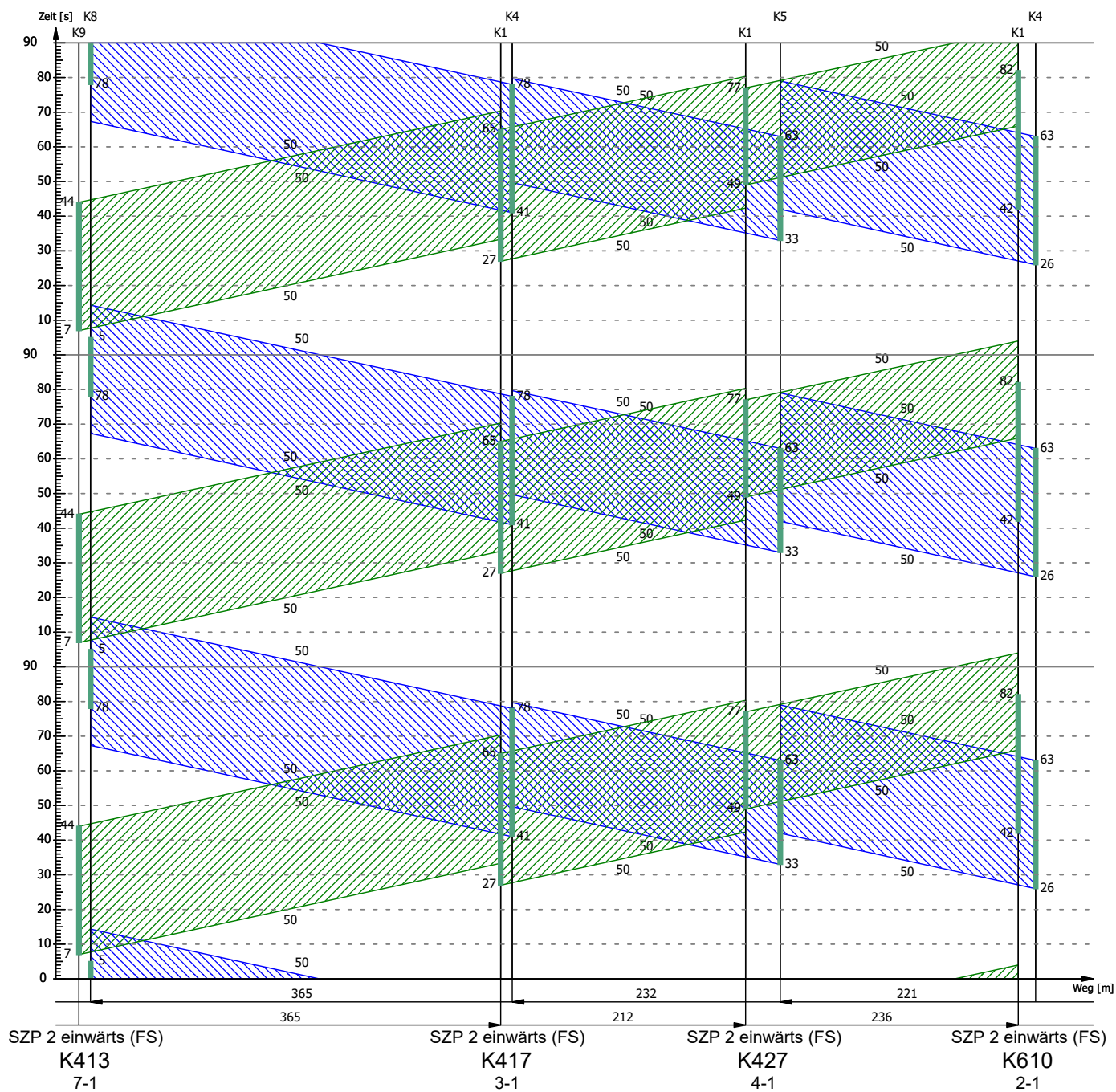
|                                     |                                                                                           |         |
|-------------------------------------|-------------------------------------------------------------------------------------------|---------|
| Zuf                                 | Zufahrt                                                                                   | [-]     |
| Fstr.Nr.                            | Fahrstreifen-Nummer                                                                       | [-]     |
| Symbol                              | Fahrstreifen-Symbol                                                                       | [-]     |
| SGR                                 | Signalgruppe                                                                              | [-]     |
| t <sub>f</sub>                      | Freigabezeit                                                                              | [s]     |
| t <sub>A</sub>                      | Abflusszeit                                                                               | [s]     |
| t <sub>S</sub>                      | Sperrzeit                                                                                 | [s]     |
| f <sub>A</sub>                      | Abflusszeitanteil                                                                         | [-]     |
| q                                   | Belastung                                                                                 | [Kfz/h] |
| m                                   | Mittlere Anzahl eintreffender Kfz pro Umlauf                                              | [Kfz/U] |
| t <sub>S</sub>                      | Mittlerer Zeitbedarfswert                                                                 | [s/Kfz] |
| q <sub>S</sub>                      | Sättigungsverkehrsstärke                                                                  | [Kfz/h] |
| C                                   | Kapazität des Fahrstreifens                                                               | [Kfz/h] |
| n <sub>C</sub>                      | Abflusskapazität pro Umlauf                                                               | [Kfz/U] |
| N <sub>GE</sub>                     | Mittlere Rückstaulänge bei Freigabeende                                                   | [Kfz]   |
| N <sub>MS</sub>                     | Mittlere Rückstaulänge bei Maximalstau                                                    | [Kfz]   |
| N <sub>MS,95</sub>                  | Rückstau bei Maximalstau, der mit einer stat. Sicherheit von 95% nicht überschritten wird | [Kfz]   |
| L <sub>x</sub>                      | Erforderliche Stauraumlänge                                                               | [m]     |
| LK                                  | Länge des kurzen Aufstellstreifens                                                        | [m]     |
| N <sub>MS,95&gt;n<sub>K</sub></sub> | Kurzer Aufstellstreifen vorhanden                                                         | [-]     |
| x                                   | Auslastungsgrad                                                                           | [-]     |
| t <sub>w</sub>                      | Mittlere Wartezeit                                                                        | [s]     |
| QSV                                 | Qualitätsstufe des Verkehrsablaufs                                                        | [-]     |
| Progressiv                          | Progressiv                                                                                | [-]     |
| t <sub>S 1</sub>                    | Sperrzeit 1                                                                               | [s]     |
| t <sub>w 1, Insel</sub>             | Wartezeit auf der Verkehrsinsel 1                                                         | [s]     |
| t <sub>S 2</sub>                    | Sperrzeit 2                                                                               | [s]     |
| t <sub>w 2, Insel</sub>             | Wartezeit auf der Verkehrsinsel 2                                                         | [s]     |
| t <sub>w max</sub>                  | Max. Wartezeit                                                                            | [s]     |

|             |                                          |             |                        |       |            |
|-------------|------------------------------------------|-------------|------------------------|-------|------------|
| Projekt     | Ausbau Osttangente Jena                  |             |                        |       |            |
| Knotenpunkt | Käthe-Kollwitz-Straße/Am Anger - K 610 - |             |                        |       |            |
| Auftragsnr. | P501311                                  | Variante    | Leistungsfähigkeitsnac | Datum | 24.05.2022 |
| Bearbeiter  | Cyriax                                   | Abzeichnung |                        | Blatt | 8.2        |

# Zeit-Weg-Diagramm SZP2

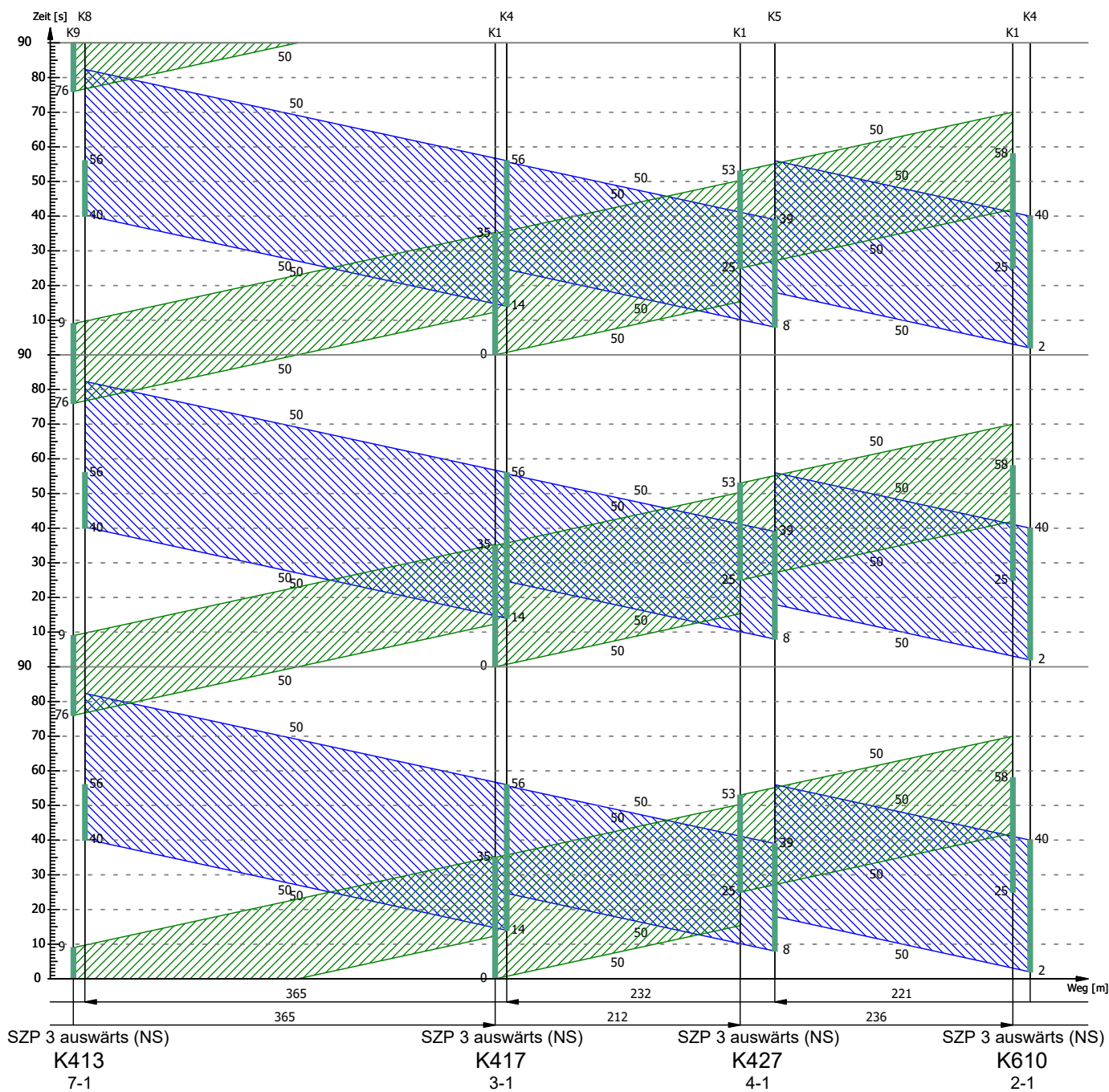
**BERNARD**  
GRUPPE

LISA



|               |                                |        |             |       |            |       |     |
|---------------|--------------------------------|--------|-------------|-------|------------|-------|-----|
| Koordinierung | Osttangente - Osttangente Jena |        |             |       |            |       |     |
| Variante      | 1-1                            |        |             |       |            |       |     |
| Bearbeiter    | Cyriax                         | Status | Bearbeitung | Datum | 15.07.2022 | Blatt | 9.1 |

LISA



|               |                                |        |             |       |            |       |     |
|---------------|--------------------------------|--------|-------------|-------|------------|-------|-----|
| Koordinierung | Osttangente - Osttangente Jena |        |             |       |            |       |     |
| Variante      | 1-1                            |        |             |       |            |       |     |
| Bearbeiter    | Cyriax                         | Status | Bearbeitung | Datum | 15.07.2022 | Blatt | 9.2 |