

*Stadium*                    **Projekt Wykonawczy (PW)**

*Branża*                    **Drogowa (DR)**                    CPV 45111  
45233

*Zadanie*                    **Budowa Zachodniej Obwodnicy miasta Poznania w ciągu drogi krajowej nr S11 na odcinku Złotkowo – autostrada A2 i w ciągu drogi krajowej nr S5 w rejonie węzła „Głuchowo” autostrady A2  
ETAP I – S11 od węzła „Swadzim” – km 13+068,00 do węzła „Głuchowo” – km 25+693,57 oraz S5 w rejonie węzła „Głuchowo” – od km 0+000,00 do km 1+605,00 o łącznej dł. 14,23 km**

*Numer tomu*              **02/01**              *Rewizja*    **00**

*Temat opracowania*              **Trasa główna, ogrodzenie obwodnicy**

*Inwestor / Zamawiający*              Generalna Dyrekcja Dróg Krajowych i Autostrad  
Oddział w Poznaniu  
ul. Siemiradzkiego 5a  
60 - 763 Poznań

*Nr umowy*              **131/2005**                    *Nr archiwalny*                    **4/PW/I/02/01/00/2009**

| <i>Stanowisko</i>           | <i>Imię i nazwisko</i>         | <i>Numer uprawnień / Specjalność<br/>/Numer z Izby Inż. Budownictwa</i> | <i>Data</i> | <i>Podpis</i> |
|-----------------------------|--------------------------------|-------------------------------------------------------------------------|-------------|---------------|
| <b>Projektant</b>           | mgr inż. Piotr Kuczyński       | 81/86 PW<br>konstrukcyjno-budowlana<br>WKP/BD/2626/01                   | 30.04.2009  |               |
| <b>Asystent projektanta</b> | mgr inż. Maciej Kiśluk         | ---                                                                     | 30.04.2009  |               |
| <b>Sprawdzający</b>         | mgr inż.<br>Damian Lewandowski | 7131/55/P/2001<br>konstrukcyjno-budowlana<br>WKP/BD/2773/01             | 30.04.2009  |               |

*Nr egzemplarza:*

Poznań, kwiecień 2009 r.

## **ZAWARTOŚĆ OPRACOWANIA**

Projekt Wykonawczy

### **TOM 02/01**

**Trasa główna, ogrodzenie obwodnicy**

Rewizja 00

- Strona tytułowa
- Zawartość opracowania - Tom 02/01
- Aktualne wykazy norm i przepisów prawnych

➤ **OPIS TECHNICZNY**

➤ **RYSUNKI**

## **WYKAZ PRZEPISÓW PRAWNYCH**

- **Prawo o ruchu drogowym** Ustawa z dnia 20 czerwca 1997 r. ( Dz. U. Nr 98 z dnia 1997r. poz. 602), tekst jednolity (Dz. U. Nr 58/03 poz. 515), + zmiany (Dz. U. Nr 149 z dnia 28.08.03 poz. 1451)
- **Prawo budowlane** Obwieszczenie Marszałka Sejmu Rzeczypospolitej Polskiej z dnia 21 listopada 2003r. w sprawie ogłoszenia jednolitego tekstu ustawy (Dz. U. Nr 207/03 poz. 2016 z dnia 5.12.2003r.)
- Ustawa z dnia 17 maja 1989r. **Prawo geodezyjne i kartograficzne.** Tekst jednolity Dz. U. Nr 100 z 2000r. poz. 1086 ze zmianami
- Instrukcja techniczna K-1 Mapa zasadnicza 1998r.
- Ustawa z dnia 27 marca 2003r. o planowaniu i **zagospodarowaniu przestrzennym** (Dz. U. Nr 80/03) poz. 717
- Ustawa o drogach publicznych z dnia 21 marca 1985r. Dz. U. Nr 14 poz. 60, tekst ujednolicony z uwzględnieniem zmian wynikających z ustawy z dnia 14 listopada 2003r. Dz. U. Nr 200 z dnia 24.11.2003r. poz. nr 1953 + zmiany (Dz. U. Nr80 z dnia 10.05.03r. poz. 721), (Dz. U. Nr 165 z dnia 19.09.2003r. poz. 1593) (Dz. U. Nr 165 z dnia 19.09.03r. poz. 1594),
- Rozporządzenie Ministra Transportu i Gospodarki Morskiej z dnia 2 marca 1999r. **w sprawie warunków technicznych, jakim powinny odpowiadać drogi publiczne i ich usytuowanie** (Dz. U. Nr 43/1999 poz. 430),
- **Komentarz do warunków technicznych, jakim powinny odpowiadać drogi publiczne i ich usytuowanie.** Część I, część II,
- Rozporządzenie Ministra Transportu i Gospodarki Morskiej z dnia 28.02.2000r. w sprawie **numeracji i ewidencji dróg oraz obiektów mostowych** Dz. U. Nr 32/2000 poz. 393 + zmiany (Dz. U. Nr 5 z dnia 17.01.2003r. poz. 54) Rozporządzenie Ministra Infrastruktury z dnia 23.12.2002r. zmieniające rozporządzenie,
- Rozporządzenie Ministra Transportu i Gospodarki Morskiej z dnia 30 maja 2000r. w sprawie **warunków technicznych, jakim powinny odpowiadać drogowe obiekty inżynierskie i ich usytuowanie** (Dz. U. Nr 63/2000 poz. 735),
- Rozporządzenie Ministra Infrastruktury z dnia 3 lipca 2003r. w sprawie szczegółowego zakresu i **formy projektu budowlanego** (Dz. U. Nr 120/03 poz. 1133),

- Zarządzenie nr 3 Generalnego Dyrektora Dróg Publicznych z dnia 25 stycznia 2000r. w sprawie wprowadzania jednolitych stadiów i **składu dokumentacji projektowej** dla dróg i mostów – „Stadia i skład dokumentacji projektowej dla dróg i mostów w fazie przygotowania zadań”; wyd. GDDP, Warszawa 2000
- **Wytyczne stosowania drogowych barier ochronnych** – Załącznik nr 1 do zarządzenia nr 16/94 GDDP z dnia 5 października 1994r.
- Rozporządzenie Ministra Infrastruktury z dnia 3 lipca 2003 r. w sprawie **szczegółowych warunków technicznych dla znaków i sygnałów drogowych oraz urządzeń bezpieczeństwa ruchu drogowego i warunków ich umieszczenia na drogach** ( Dz. U. Nr 220 z dnia 23.12.2003 r.).
- Ustawa z dnia 27 kwietnia 2001 r. **Prawo ochrony środowiska** (Dz. U. Nr 62 poz. 627).
- Rozporządzenie Ministra Pracy i Polityki Socjalnej z dnia 26.09.1997 r. w sprawie **ogólnych przepisów bezpieczeństwa i higieny pracy** (Dz. U. Nr 129 poz. 844).
- Rozporządzenie Ministra Infrastruktury z dnia 6.02.2003 r. w sprawie **bezpieczeństwa i higieny pracy podczas wykonywania robót budowlanych** (Dz. U. Nr 47. poz.401)

## INNE

1. System oceny stanu nawierzchni SOSN. Wytyczne stosowania. GDDP 2002r. (386)
2. Wytyczne wzmacniania podłoża gruntowego w budownictwie drogowym. GDDP 2002r. (385)
3. Rozwiązania i urządzenia ułatwiające osobom niepełnosprawnym poruszanie się w obszarach zurbanizowanych, „Inwestprojekt” 1985r. (378)
4. Tymczasowe wytyczne stosowania progów zwalniających, GDDP 1994r. (202)
5. Katalog typowych nawierzchni podatnych i półsztywnych, GDDP Warszawa 1997r. (221)
6. Katalog wzmocnień i remontów nawierzchni podatnych i półsztywnych, GDDP 2001r. (235)
7. Zeszyty nr 48 i 49 IBDiM Warszawa
8. Katalog powtarzalnych elementów drogowych, CBPBDiM Warszawa 1979 i 1982r. (219)
9. Instrukcja projektowania małych rond, GDDP 1996r. (196)
10. Katalog drogowych barier ochronnych, Transprojekt Warszawa (217)
11. Wytyczne projektowania skrzyżowań drogowych, GDDP 2001r., Część I i część II (374)
12. Instrukcja zagospodarowania dróg, GDDP 1997r. (198)
13. PN-S-02205:1998 Drogi samochodowe. Roboty ziemne. Wymagania i badania.

- 14. PN-74/B-03020 Głębokość przemarzania gruntów.**  
**15. PN-S-02204:1997 Drogi samochodowe. Odwodnienie dróg.**

## **OCZYSZCZENIE I SKROP PODŁOŻA**

Zeszyt Nr 60 Serii: „Informacje i instrukcje” IBDiM Warszawa 1999 „Warunki techniczne. Drogowe kationowe emulsje asfaltowe En A-99”.

Powierzchniowe utrwalenia. Oznaczanie ilości rozkładanego lepiszcza i kruszywa. Zalecane przez GDDP do stosowania pismem GDDP-5.3a-551/5/92 z dnia 03.02.1992.

## **PODBUDOWA Z KRUSZYWA ŁAMANEGO**

|                   |                                                                                                            |
|-------------------|------------------------------------------------------------------------------------------------------------|
| PN-S-06102: 1997  | Drogi samochodowe. Podbudowy z kruszyw stabilizowanych mechanicznie.                                       |
| PN-88/B-04481     | Grunty budowlane. Badania próbek gruntu.                                                                   |
| PN-76/B-06714-12  | Kruszywa mineralne. Badania. Oznaczanie zawartości zanieczyszczeń obcych.                                  |
| PN-EN 933-1:2000  | Badania geometrycznych właściwości kruszyw. Oznaczanie składu ziarnowego. Metoda przesiewania.             |
| PN-78/B-06714.16  | Kruszywa mineralne. Badania. Oznaczanie kształtu ziaren.                                                   |
| PN-77/B-06714.17  | Kruszywa mineralne. Badania. Oznaczanie wilgotności.                                                       |
| PN-78/B-06714.19  | Kruszywa mineralne. Badania. Oznaczanie mrozoodporności metodą bezwzględną.                                |
| PN-EN 1744-1:2000 | Badania chemicznych właściwości kruszyw. Analiza chemiczna.                                                |
| PN-EN 1097-2:2000 | Badania mechanicznych i fizycznych właściwości kruszyw. Metody oznaczania odporności na rozdrabnianie.     |
| PN-B-11112:1996   | Kruszywa łamane do nawierzchni drogowych.                                                                  |
| BN-64/8931-02     | Drogi samochodowe. Oznaczanie modułu odkształcenia nawierzchni podatnych i podłoża przez obciążenie płytą. |
| BN-68/8931-04     | Drogi samochodowe. Pomiar równości nawierzchni planografem i łątą.                                         |
| BN-77/8931-12     | Oznaczani wskaźnika zagęszczenia gruntu.                                                                   |

## **PODBUDOWA Z GRUNTU STABILIZOWANEGO CEMENTEM**

|                   |                                                                                                |
|-------------------|------------------------------------------------------------------------------------------------|
| PN-EN96-1:1996    | Metody badań cementu. Oznaczanie wytrzymałości.                                                |
| PN-88/B-04481     | Grunty budowlane. Badania próbek gruntu.                                                       |
| PN-76/B-06714-12  | Kruszywa mineralne. Badania. Oznaczanie zawartości zanieczyszczeń obcych.                      |
| PN-EN 933-1:2000  | Badania geometrycznych właściwości kruszyw. Oznaczanie składu ziarnowego. Metoda przesiewania. |
| PN-EN 1744-1:2000 | Badania chemicznych właściwości kruszyw. Analiza chemiczna.                                    |

|                   |                                                                                                            |
|-------------------|------------------------------------------------------------------------------------------------------------|
| PN-80/B-06714.37  | Kruszywa mineralne. Badania. Oznaczanie rozpadu krzemianowego.                                             |
| PN-EN 1097-2:2000 | Badania mechanicznych i fizycznych właściwości kruszyw. Metody oznaczania odporności na rozdrabnianie.     |
| PN-B19701:1997    | Cement. Cement powszechnego użytku. Skład wymagania i ocena zgodności.                                     |
| PN-88/B32250      | Materiały budowlane. Woda do betonów i zapraw.                                                             |
| PN-S-96012:1997   | Drogi samochodowe. Podbudowa i ulepszone podłoże z gruntu stabilizowanego cementem.                        |
| BN-88/6731-08     | Cement. Transport i przechowywanie.                                                                        |
| BN-64/8931-01     | Drogi samochodowe. Oznaczanie wskaźnika piaskowego.                                                        |
| BN-64/8931-02     | Drogi samochodowe. Oznaczanie modułu odkształcenia nawierzchni podatnych i podłoża przez obciążenie płytą. |
| BN-68/8931-04     | Drogi samochodowe. Pomiar równości nawierzchni planografem i łąką.                                         |
| BN-70/8931-05     | Drogi samochodowe. Oznaczanie wskaźnika nośności gruntu jako podłoża nawierzchni podatnych.                |
| BN-77/8931-12     | Oznaczanie wskaźnika zagęszczenia gruntu.                                                                  |

Katalog typowych konstrukcji nawierzchni podatnych i półsztywnych, IBDiM – 1997

## **NAWIERZCHNIA Z BETONU ASFALTOWEGO**

|                 |                                                                                    |
|-----------------|------------------------------------------------------------------------------------|
| PN-B-11111:1996 | Kruszywo mineralne. Kruszywa naturalne do nawierzchni drogowych. Żwir i mieszanka. |
| PN-B-11112:1996 | Kruszywo mineralne. Kruszywo łamane do nawierzchni drogowych.                      |
| PN-B-11113:1996 | Kruszywo mineralne. Kruszywo 2a mineralne do nawierzchni drogowych. Piasek.        |
| PN-C-04024:1991 | Ropa naftowa i przetwory naftowe. Pakowanie, znakowanie i transport.               |
| PN-C-96170:1965 | Przetwory naftowe. Asfalty drogowe.                                                |
| PN-C-96173:1974 | Przetwory naftowe. Asfalty upłynnione AUN do nawierzchni drogowych.                |
| PN-S-04001:1967 | Drogi samochodowe. Mieszanki mineralno-bitumiczne.                                 |
| PN-S-96504:1961 | Drogi samochodowe. Wypełniacz kamienny do mas bitumicznych.                        |
| PN-S-96025:2000 | Drogi samochodowe i lotniskowe. Nawierzchnie asfaltowe. Wymagania.                 |
| BN-68/8931-04   | Drogi samochodowe. Pomiar równości nawierzchni planografem i łąką.                 |

Zeszyt 56 Wytyczne Badań i Kryteria Oceny Mączek Wapiennych do Mieszanek Mineralno-Asfaltowych IBDiM Warszawa 1998.

## **NAWIERZCHNIA Z KOSTKI BRUKOWEJ BETONOWEJ**

|               |                                                   |
|---------------|---------------------------------------------------|
| PN-79/B-06711 | Kruszywo mineralne. Piasek do zapraw budowlanych. |
|---------------|---------------------------------------------------|

|                       |                                                                                                                                   |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| PN-B-19701:1997       | Cement. Cement powszechnego użytku. Skład, wymagania i oceny zgodności.                                                           |
| PN-80/6775-03/00:2001 | Prefabrykaty budowlane z betonu. Elementy nawierzchni dróg, ulic, parkingów i torowisk tramwajowych. Wspólne wymagania i badania. |

## **UMOCNIENIE SKARP I ROWÓW PRZEZ HUMUSOWANIE I OBSIANIE TRAWĄ**

|                 |                                                        |
|-----------------|--------------------------------------------------------|
| PN-S-02205:1998 | Drogi samochodowe. Roboty ziemne. Wymagania i badania. |
|-----------------|--------------------------------------------------------|

## **KRAWĘŻNIKI BETONOWE**

Katalog Powtarzalnych Elementów Drogowych. Centralne Biuro Projektowo-Badawcze Dróg i Mostów w Warszawie.

|                       |                                                                                                                                   |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| PN-80/6775-03/00:2001 | Prefabrykaty budowlane z betonu. Elementy nawierzchni dróg, ulic, parkingów i torowisk tramwajowych. Wspólne wymagania i badania. |
| PN-80/6775-03/03:2001 | Prefabrykaty budowlane z betonu. Elementy nawierzchni dróg, ulic, parkingów i torowisk tramwajowych. Krawężniki i obrzeża.        |
| PN-88/B-06250         | Beton zwykły.                                                                                                                     |
| PN-B-19701:1997       | Cement. Cement powszechnego użytku. Skład, wymagania i oceny zgodności.                                                           |
| PN-79/B-06711         | Kruszywo mineralne. Piasek do zapraw budowlanych.                                                                                 |
| PN-88/B-32250         | Materiały budowlane. Woda do betonów i zapraw.                                                                                    |
| BN-64/8845-02         | Krawężniki uliczne. Warunki techniczne wstawienia i odbioru.                                                                      |

## **OBRZEŻA BETONOWE**

Katalog Powtarzalnych Elementów Drogowych. Centralne Biuro Projektowo-Badawcze Dróg i Mostów w Warszawie.

|                       |                                                                                                                                   |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| PN-80/6775-03/00:2001 | Prefabrykaty budowlane z betonu. Elementy nawierzchni dróg, ulic, parkingów i torowisk tramwajowych. Wspólne wymagania i badania. |
| PN-80/6775-03/03:2001 | Prefabrykaty budowlane z betonu. Elementy nawierzchni dróg, ulic, parkingów i torowisk tramwajowych. Krawężniki i obrzeża.        |
| PN-88/B-06250         | Beton zwykły.                                                                                                                     |
| PN-B-19701:1997       | Cement. Cement powszechnego użytku. Skład, wymagania i oceny zgodności.                                                           |
| PN-79/B-06711         | Kruszywo mineralne. Piasek do zapraw budowlanych.                                                                                 |
| PN-88/B-32250         | Materiały budowlane. Woda do betonów i zapraw.                                                                                    |
| BN-64/8845-02         | Krawężniki uliczne. Warunki techniczne wstawienia i odbioru.                                                                      |

## **OGRODZENIA DROGI EKSPRESOWEJ**

Katalog Powtarzalnych Elementów Drogowych. Centralne Biuro Projektowo-Badawcze Dróg i Mostów w Warszawie.

|                  |                                                                                    |
|------------------|------------------------------------------------------------------------------------|
| BN-83/5032-02    | Siatki metalowe. Siatki plecione ślimakowe.                                        |
| PN-67/M-80026    | Druty okrągłe ze stali niskowęglowej ogólnego przeznaczenia.                       |
| PN-92/M-80201    | Liny stalowe z drutu okrągłego. Wymagania i badania.                               |
| PN-69/M-80202    | Liny stalowe 1 x7.                                                                 |
| PN-80/H-74219    | Rury stalowe bez szwu, walcowane na gorąco, ogólnego zastosowania.                 |
| PN-89/H-84023-07 | Stal określonego zastosowania. Stal na rury.                                       |
| PN-86/H-84018    | Stal niskostopowa o podwyższonej wytrzymałości. Gatunki.                           |
| PN-93/H-84019    | Stal niskostopowa do utwardzania powierzchniowego i ulepszania cieplnego. Gatunki. |
| PN-89/H-84030.02 | Stal stopowa konstrukcyjna. Stal do nawęglania. Gatunki.                           |
| BN-70/6744-03    | Prefabrykowane elementy ogrodzeń żelbetowych.                                      |
| PN-84/H-93401    | Stal walcowana. Kątowniki równoramienne.                                           |
| PN-88/B-06250    | Beton zwykły.                                                                      |
| PN-B-19701:1997  | Cement. Cement powszechnego użytku. Skład, wymagania i ocena zgodności.            |
| PN-86/B-06712    | Kruszywa mineralne do betonu.                                                      |
| PN-88/B-32250    | Materiały budowlane. Woda do betonów i zapraw.                                     |



## **OPIS TECHNICZNY**

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**Załącznik A – Zestawienie ilości robót**

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**Załącznik D – Zestawienie punktów charakterystycznych ogrodzenia**

**Załącznik E – Przedmiary**

## **1. Przedmiot opracowania**

Przedmiotem opracowania jest projekt wykonawczy trasy głównej - etap I zachodniej obwodnicy miasta Poznania w ciągu drogi krajowej S11 na odcinku Złotkowo – autostrada A2 i w ciągu drogi krajowej nr S5 w rejonie węzła „Głuchowo” autostrady A2. Etap I obejmuje odcinek od km 13+068,00 do km 25+693,57 projektowanej drogi S11 oraz odcinek od km 0+000,00 do km 1+602,37 projektowanej drogi S5.

## **2. Cel opracowania**

- rozwiązanie drogowe trasy głównej zgodnie z projektem budowlanym tom 02/01 „Trasa główna, ogrodzenie obwodnicy” oraz obowiązującymi przepisami techniczno – budowlanymi,
- określenie niezbędnego zakresu robót drogowych.

## **3. Inwestor**

Inwestorem jest Generalna Dyrekcja Dróg Krajowych i Autostrad, Oddział w Poznaniu, ul. Siemiradzkiego 5a, 60-763 Poznań.

## **4. Jednostka projektowa**

Projekt zachodniej obwodnicy m. Poznania w ciągu drogi krajowej nr 11 odc. Złotkowo – A2 realizowany jest przez Konsorcjum składające się z dwóch biur projektowych:

### **• LIDER KONSORCJUM**

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### **• PARTNER KONSORCJUM**

**ARCADIS Sp. z o.o. , ul. Puławska 182, 02-670 Warszawa**

**ARCADIS Sp. z o.o. Biuro Wrocław**

ul. Kościuszki 29, 50-011 Wrocław

tel. (0-71) 734-05-00

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## **5. Podstawy opracowania**

- Umowa nr 131/2005/9/K/2005 z dnia 15.02.2005 r. zawarta pomiędzy Generalną Dyrekcją Dróg Krajowych i Autostrad, Oddział w Poznaniu, a Konsorcjum: Scott Wilson ul. Chłapowskiego 29, 60-965 Poznań oraz Arcadis Profil Sp. z o.o. al. Jerozolimskie 144, 02-305 Warszawa, Biuro Wrocław ul. Na Grobli 20/24, 50-421 Wrocław.

- Rozporządzenie Ministra Transportu i Gospodarki Morskiej z dnia 02 marca 1999 r. w sprawie warunków technicznych, jakim powinny odpowiadać drogi publiczne i ich usytuowanie (Dz. U. Nr 43 z dnia 14 maja 1999 r.),
- Rozporządzenie MTiGM z dnia 30 maja 2000 r. w sprawie warunków technicznych, jakim powinny odpowiadać drogowe obiekty inżynierskie i ich usytuowanie (Dz. U. Nr 63 z dnia 03 sierpnia 2000 r.),
- Rozporządzenie Ministra Infrastruktury z dnia 2 września 2004 r. w sprawie szczegółowego zakresu i formy dokumentacji projektowej, specyfikacji technicznych wykonania i odbioru robót budowlanych oraz programu funkcjonalno-użytkowego,
- Projekt budowlany – tom 02/01 Trasa główna, ogrodzenie obwodnicy,
- „Dokumentacja geologiczno-inżynierska” opracowana przez Scott Wilson Sp. z o.o; maj 2006 – kwiecień 2007.
- mapa do celów projektowych w skali 1:1000,
- warunki techniczne, uzgodnienia i ustalenia z Zamawiającym.

## **6. Parametry techniczne projektowanej drogi**

Przyjmuje się następujące parametry techniczne projektowanej obwodnicy:

|                                                       |                                  |
|-------------------------------------------------------|----------------------------------|
| Klasa drogi:                                          | S                                |
| Prędkość projektowa:                                  | 100 km/h                         |
| Prędkość miarodajna:                                  | 110 km/h                         |
| Przekrój poprzeczny drogi:                            | 2x2                              |
| Szerokość pasa ruchu:                                 | 3,50 m                           |
| Szerokość pasa awaryjnego:                            | 2,50 m                           |
| Szerokość pobocza gruntowego:                         | ≥1,25 m                          |
| Szerokość pasa dzielącego:                            | ≥5,00 m (w tym opaski 2 x 0,5 m) |
| Szerokość korony drogi:                               | ≥26,50 m                         |
| Pochylenie poprzeczne na odc. prostym:                | 2,0 %                            |
| Najmniejszy projektowany promień łuku poziomego:      | 1 000 m                          |
| Największe projektowane pochylenie niwelety:          | 3,5 %                            |
| Skrajnia pionowa:                                     | 4,70 m                           |
| Szerokość pasa drogowego w liniach rozgraniczających: | min. 60 m                        |
| Dopuszczalny nacisk osi pojazdu:                      | 115 kN/oś                        |

Projektowane rozwiązanie trasy głównej zostało przedstawione na planie sytuacyjnym na rys. nr 02-01÷02-20.

## **7. Konstrukcja nawierzchni jezdni**

Na całej długości projektowanej drogi ekspresowej zastosowano nawierzchnię drogową charakteryzującą się właściwościami zmniejszającymi poziom emisji hałasu tj. warstwę ścieralną z mieszanki grysowo-mastyksowej SMA o uziarnieniu 0/11 mm o grubości 4cm.

Na podstawie tomu 02/02 projektu budowlanego przyjęto konstrukcję nawierzchni jezdni trasy głównej:

➤ na nasypie:

|  |        |                                                                                                                             |
|--|--------|-----------------------------------------------------------------------------------------------------------------------------|
|  | 0,00 m |                                                                                                                             |
|  | 0,04   | mieszanka mineralno – asfaltowa SMA 0/11, grubość 4 cm                                                                      |
|  | 0,12   | beton asfaltowy BAWMS 0/16, grubość 8 cm                                                                                    |
|  | 0,23   | beton asfaltowy BAWMS 0/16, grubość 11 cm                                                                                   |
|  | 0,43   | kruszywo łamane stabilizowane mechanicznie, 0/31,5, grubość 20 cm                                                           |
|  | 0,63   | grunt stabilizowany cementem R = 5,0 Mpa, grubość 20 cm                                                                     |
|  | 1,13   | górna warstwa nasypu z gruntu niewysadzinowego, grubość 0,5 m<br>CBR $\geq$ 15%, k $\geq$ 8m/d, WP $\geq$ 35, kb $\geq$ 1 m |
|  |        | podłoże gruntowe – nasyp pomniejszony o 0,5 m                                                                               |

➤ w wykopie:

|  |                  |                                                                                                                                        |
|--|------------------|----------------------------------------------------------------------------------------------------------------------------------------|
|  | 0,00 m           |                                                                                                                                        |
|  | 0,04             | mieszanka mineralno – asfaltowa SMA 0/11, grubość 4 cm                                                                                 |
|  | 0,12             | beton asfaltowy BAWMS 0/16, grubość 8 cm                                                                                               |
|  | 0,23             | beton asfaltowy BAWMS 0/16, grubość 11 cm                                                                                              |
|  | 0,43             | kruszywo łamane stabilizowane mechanicznie, 0/31,5, grubość 20 cm                                                                      |
|  | 0,61             | kruszywo łamane stabilizowane mechanicznie, 0/63, grubość 18 cm                                                                        |
|  | 0,81 lub<br>0,86 | grunt stabilizowany cementem R = 5,0 Mpa, grubość 20 cm na podłożu<br>o module $\geq$ 40MPa lub 25 cm na podłożu o module $\geq$ 30MPa |
|  |                  | podłoże gruntowe                                                                                                                       |

**UWAGA!**

W nasypach o wysokości do 1,10m należy stosować przekrój jak w wykopach.

Konstrukcję nawierzchni zaprojektowano na podstawie danych ruchowych, warunków gruntowych oraz analizy wytrzymałościowej materiałów, jakie mogą być użyte do ich budowy.

Konstrukcję zaprojektowano dla obciążenia obliczeniowego 115 kN/oś. Przyjęto okres żywotności nawierzchni podatnej wynoszący 20 lat.

Zaprojektowano konstrukcję nawierzchni z mieszanek mineralno – asfaltowych dla jezdni głównych obwodnicy oraz łącznic i dróg poprzecznych na węzłach.

Do wymiarowania konstrukcji nawierzchni zastosowano metodę mechanistyczną, wykorzystującą teorię układów warstwowych. Umożliwia ona analizę konstrukcji nawierzchni, opartą o elementy mechaniki i mechaniczne właściwości materiałów drogowych i podłoża gruntowego. Cechą charakterystyczną metody mechanistycznej jest określenie trwałości zmęczeniowej konstrukcji. W metodzie mechanistycznej określa się, na podstawie doświadczeń: charakterystyki zmęczeniowe materiałów, stałe materiałowe, opisujące warstwy i podłoże w modelu, funkcje określające związki pomiędzy wynikami badań laboratoryjnych i rzeczywistą pracą nawierzchni.

## **8. Profile podłużne**

Niweletę trasy głównej zaprojektowano przy dostosowaniu do rzędnych terenu, zachowując skrajnie pod obiektami. Przyjęto minimalne pochylenie podłużne niwelety powyżej 0,30% i poniżej -0,30%.

- Największy promień łuku pionowego wklęsłego: 50 000m
- Największy promień łuku pionowego wypukłego: 50 000m
- Najmniejszy promień łuku pionowego wklęsłego: 7 000m
- Najmniejszy promień łuku pionowego wypukłego: 10 500m
- Pochylenie podłużne trasy: od -2,50% do 3,00%.

Profile podłużne trasy głównej przedstawiono na rysunkach nr 04-00÷04-16.

## **9. Zestawienie elementów trasy w planie**

Współrzędne punktów charakterystycznych osi trasy głównej (początkowy, końcowy i wierzchołków) podano na planie sytuacyjnym wraz z podstawowymi parametrami łuków poziomych.

- W ciągu drogi krajowej S11

|                                          |           |
|------------------------------------------|-----------|
| PPT                                      | 13+068.00 |
| KŁK=PKP (A=447.21m,L=200.0m)             | 13+572.44 |
| KKP=Początek prostej                     | 13+772.44 |
| Koniec prostej=PKP (A=474.34m,L=150.00m) | 14+620.01 |
| KKP=PŁK (R=1500.00m)                     | 14+770.01 |
| KŁK=PKP (A=474.34m,L=150.00m)            | 15+054.96 |
| KKP=Początek prostej                     | 15+204.96 |
| Koniec prostej=PKP (A=387.30m,L=150.0m)  | 15+913.81 |
| KKP=PŁK (R=1000.00m)                     | 16+063.81 |

|                                         |           |
|-----------------------------------------|-----------|
| KŁK=PKP (A=387.30m,L=150.0m)            | 16+363.44 |
| KKP=Początek prostej                    | 16+513.44 |
| Koniec prostej=PKP                      | 18+245.68 |
| KKP=PŁK (R=1000.00m)                    | 18+565.68 |
| KŁK=PKP (A=565.69m,L=320.00m)           | 19+216.77 |
| KKP=Początek prostej                    | 19+536.77 |
| Koniec prostej=PKP (A=824.62m,L=340.0m) | 21+104.40 |
| KKP=PŁK (R=2000.00m)                    | 21+444.40 |
| KŁK=PKP (A=824.62m,L=340.0m)            | 22+214.31 |
| KKP=Początek prostej                    | 22+554.31 |
| Koniec prostej=PKP (A=547.72m,L=300.0m) | 23+723.07 |
| KKP=PŁK (R=1000.00m)                    | 24+023.07 |
| KŁK=PKP (A=547.72m,L=300.0m)            | 24+656.98 |
| KKP=Początek prostej                    | 24+956.98 |
| Koniec prostej=KPT                      | 25+693.57 |

|     |                                  |
|-----|----------------------------------|
| PPT | (X=3707794.862; Y=5713826.077)   |
| W10 | (X=3707946.475; Y=5713691.041)   |
| W11 | (X= 3707558.170; Y= 5712023.664) |
| W12 | (X= 3706910.225; Y= 5710888.778) |
| W13 | (X= 3706721.896; Y= 5708169.376) |
| W14 | (X= 3709073.719; Y= 5706310.549) |
| W15 | (X= 3709946.003; Y= 5703898.449) |
| KPT | (X= 3709174.838; Y= 5702738.969) |

• W ciągu krajowej S5

|                                         |          |
|-----------------------------------------|----------|
| PPT=Początek prostej                    | 0+000.00 |
| Koniec prostej=PKP (A=670.82m,L=225.0m) | 0+737.41 |
| KKP=PŁK (R=2000.00m)                    | 0+962.41 |
| KŁK=PKP (A=670.82m,L=225.0m)            | 1+377.37 |
| KKP=Początek prostej                    | 1+602.37 |
| Koniec prostej=KPT                      | 1+605.00 |

|     |                                  |
|-----|----------------------------------|
| PPT | (X= 3709174.838; Y= 5702738.969) |
| W1  | (X= 3708525.347; Y= 5706310.549) |
| KPT | (X= 3708180.357; Y= 5701492.519) |

Ponadto w załączniku C zestawiono dane do wytyczenia osi trasy głównej w planie oraz głównych punktów niwelety.

## 10. Przejazdy awaryjne

W pasie dzielącym zaprojektowano 5 przejazdów awaryjnych na jezdnię przeznaczoną dla przeciwnielego kierunku ruchu, w odstępach nie przekraczających 4 km. Szczegół projektowanego przejazdu awaryjnego posiada długość 80 m, pochylenie poprzeczne i podłużne zgodne z pochyleniami jezdni trasy głównej. Konstrukcja nawierzchni na przejeździe awaryjnym jest taka sama jak nawierzchni trasy głównej.

Szczegół przejazdu awaryjnego przedstawiono na rysunku nr 03-13.

| Przejazdy awaryjne przez pas dzielący w ciągu S11 |          |                                   |               |                                  |
|---------------------------------------------------|----------|-----------------------------------|---------------|----------------------------------|
| L.p                                               | km       | Lokalizacja                       | odległość [m] | Uwagi                            |
| -                                                 | 10+000   | Rejon węzła „Kobylniki”           | 3 900         | Etap II<br>km 0+000 do km 13+068 |
| 1                                                 | 13+900   | Rejon węzła „Swadzim”             |               |                                  |
| 2                                                 | 17+900   | Rejon węzła „Zakrzewo”            | 4 000         |                                  |
| 3                                                 | 21+050   | Rejon węzła „Dąbrówka”            | 3 150         |                                  |
| 4                                                 | 23+400   | Rejon MOP „Skórzewo” i „Pałudzie” | 2 350         |                                  |
| Przejazdy awaryjne przez pas dzielący w ciągu S5  |          |                                   |               |                                  |
| 5                                                 | 0+906,43 | Rejon węzła „Głuchowo”            | 3 200         |                                  |

Lokalizację zjazdów przedstawiono na planie sytuacyjnym, rysunek nr 02-02, 02-06, 02-10, 02-12, 02-16

## 11. Wjazdy awaryjne

Na odcinku drogi ekspresowej przewiduje się budowę 4 par wjazdów awaryjnych na trasę główną dla potrzeb ratowniczych i służb utrzymania, które umożliwiają zjazd z każdej jezdni na drogę krzyżującą się z trasą główną. Rolę zjazdów awaryjnych będą pełniły łącznice węzłów. Nie przewiduje się budowy samodzielnych wjazdów awaryjnych stanowiących połączenie odcinków dróg dojazdowych z drogami publicznymi.

## 12. Odwodnienie

Odwodnienie trasy głównej obejmuje ujęcie, odprowadzenie i oczyszczenie wód deszczowych spływających z jezdni i poboczy oraz pasa dzielącego drogi ekspresowej. Projekt odwodnienia dotyczący przepustów, rowów i kanalizacji deszczowej przedstawiono w tomie 05 - Odwodnienie.

Prawie na całym odcinku trasy głównej przewiduje się jeden system odwodnienia – odwodnienie powierzchniowe i ujęcie ścieków przez projektowane rowy – zbiorniki, z wyjątkiem odcinków gdzie występuje strefa ochronna ujęcia wody – zastosowano kanalizację deszczową.

Odwodnienie pasa dzielącego projektuje się na całym odcinku w formie drenażu z odprowadzeniem do rowów.



Wiadukty przewiduje się odwieść ujmując ścieki opadowe wpustami oraz odprowadzając je rurociągami do znajdujących się w pobliżu rowów. Rurociągi z rur PVC  $\varnothing$  200 mm zakończone będą typowym wylotem betonowym wg KPED nr kat. 01.23. Dno i skarpy rowów pod wiaduktami przewiduje się umocnić płytkami chodnikowymi zgodnie z KPED nr kat. 01.36.

Do odwodnienia jezdni trasy głównej zastosowano ściek drogowy trójkątny przy krawędzi jezdni wg KPED 01.06. Wody opadowe ujmowane są za pomocą wpustów i kolektorów, następnie wyprowadzone do rowu za pomocą giętego przykanalika. Ścieki przy krawędzi jezdni przyjęto również na nasypach wyższych od 2.00 m. Szczegół pobocza ze ściekiem przedstawiono na rysunku nr 03-01. Lokalizację ścieków podano poniżej i przedstawiono na planie sytuacyjnym oraz na przekrojach podłużnych trasy głównej.

| WYKAZ ŚCIEKÓW TRÓJKĄTNYCH – S11 |            |           |                                  |                                   |                                  |                                   |
|---------------------------------|------------|-----------|----------------------------------|-----------------------------------|----------------------------------|-----------------------------------|
| LP.                             | kilometraż |           | jezdnia lewa                     |                                   | jezdnia prawa                    |                                   |
|                                 | od km      | do km     | długość na lewej krawędzi jezdni | długość na prawej krawędzi jezdni | długość na lewej krawędzi jezdni | długość na prawej krawędzi jezdni |
| 1                               | 13+068.00  | 13+805.00 |                                  | 737                               |                                  |                                   |
| 2                               | 13+627.91  | 13+959.56 |                                  |                                   |                                  | 332                               |
| 3                               | 13+701.96  | 13+791.96 | 90                               |                                   |                                  |                                   |
| 4                               | 13+851.43  | 13+917.68 | 66                               |                                   |                                  |                                   |
| 5                               | 13+966.90  | 13+971.11 | 5                                |                                   |                                  |                                   |
| 6                               | 14+045.72  | 14+068.38 |                                  |                                   |                                  | 23                                |
| 7                               | 14+059.21  | 14+092.34 | 34                               |                                   |                                  |                                   |
| 8                               | 14+117.17  | 14+201.24 |                                  |                                   |                                  | 84                                |
| 9                               | 14+139.52  | 14+207.88 | 68                               |                                   |                                  |                                   |
| 10                              | 14+262.70  | 14+268.95 |                                  |                                   |                                  | 7                                 |
| 11                              | 14+303.37  | 14+470.05 |                                  |                                   |                                  | 167                               |
| 12                              | 14+303.49  | 14+470.01 | 167                              |                                   |                                  |                                   |
| 13                              | 14+600.00  | 15+234.51 |                                  | 635                               |                                  |                                   |
| 14                              | 14+966.93  | 15+100.00 |                                  |                                   |                                  | 132                               |
| 15                              | 15+140.00  | 15+268.52 | 129                              |                                   |                                  |                                   |
| 16                              | 15+180.02  | 15+268.47 |                                  |                                   |                                  | 89                                |
| 17                              | 15+291.05  | 15+410.00 | 119                              |                                   |                                  |                                   |
| 18                              | 15+291.45  | 15+430.00 |                                  |                                   |                                  | 139                               |
| 19                              | 15+863.81  | 16+343.85 |                                  |                                   | 481                              |                                   |
| 20                              | 16+080.00  | 16+334.73 | 252                              |                                   |                                  |                                   |
| 21                              | 16+370.44  | 16+553.24 |                                  |                                   | 186                              |                                   |
| 22                              | 16+378.15  | 16+810.00 | 432                              |                                   |                                  |                                   |
| 23                              | 16+408.40  | 16+802.00 |                                  |                                   |                                  | 394                               |
| 24                              | 16+930.00  | 17+832.20 | 902                              |                                   |                                  |                                   |
| 25                              | 16+930.00  | 17+883.10 |                                  |                                   |                                  | 953                               |

Budowa Zachodniej Obwodnicy miasta Poznania w ciągu drogi krajowej nr S11 na odcinku Złotkowo – autostrada A2 i w ciągu drogi krajowej nr S5 w rejonie węzła „Głuchowo” autostrady A2  
ETAP I – S11 od węzła „Swadzim” – km 13+068,00 do węzła „Głuchowo” – km 25+693,57 oraz  
S5 w rejonie węzła „Głuchowo” – od km 0+000,00 do km 1+605,00 o łącznej dł. 14,23 km  
Projekt Wykonawczy. Tom 02/01. Trasa główna, ogrodzenie obwodnicy. Rewizja 00

| WYKAZ ŚCIEKÓW TRÓJKĄTNYCH – S11 |            |           |                                  |                                   |                                  |                                   |
|---------------------------------|------------|-----------|----------------------------------|-----------------------------------|----------------------------------|-----------------------------------|
| LP.                             | kilometraż |           | jezdnia lewa                     |                                   | jezdnia prawa                    |                                   |
|                                 | od km      | do km     | długość na lewej krawędzi jezdni | długość na prawej krawędzi jezdni | długość na lewej krawędzi jezdni | długość na prawej krawędzi jezdni |
| 26                              | 17+884.65  | 17+950.00 | 65                               |                                   |                                  |                                   |
| 27                              | 18+245.68  | 18+349.90 |                                  |                                   | 105                              |                                   |
| 28                              | 18+301.74  | 18+354.08 | 53                               |                                   |                                  |                                   |
| 29                              | 18+378.39  | 19+545.15 | 166                              |                                   |                                  |                                   |
| 30                              | 18+381.23  | 19+536.77 |                                  |                                   | 1158                             |                                   |
| 31                              | 20+130.00  | 20+360.00 |                                  |                                   |                                  | 230                               |
| 32                              | 20+130.00  | 20+390.00 | 260                              |                                   |                                  |                                   |
| 33                              | 21+104.40  | 22+554.31 |                                  | 1451                              |                                  |                                   |
| 34                              | 21+792.50  | 22+725.47 |                                  |                                   |                                  | 931                               |
| 35                              | 22+449.31  | 22+735.48 | 287                              |                                   |                                  |                                   |
| 36                              | 22+821.36  | 22+924.45 |                                  |                                   |                                  | 104                               |
| 37                              | 22+831.42  | 22+903.83 | 73                               |                                   |                                  |                                   |
| 38                              | 22+974.13  | 23+153.60 | 179                              |                                   |                                  |                                   |
| 39                              | 22+983.92  | 23+140.88 |                                  |                                   |                                  | 157                               |
| 40                              | 23+260.00  | 23+340.00 |                                  |                                   |                                  | 80                                |
| 41                              | 23+699.05  | 23+810.89 |                                  | 112                               |                                  |                                   |
| 42                              | 23+730.00  | 23+806.59 |                                  |                                   |                                  | 77                                |
| 43                              | 23+838.57  | 24+102.99 |                                  |                                   |                                  | 262                               |
| 44                              | 23+841.86  | 24+956.98 |                                  | 1117                              |                                  |                                   |
| 45                              | 25+040.00  | 25+512.09 | 473                              |                                   |                                  |                                   |
| 46                              | 25+050.00  | 25+508.14 |                                  |                                   |                                  | 459                               |
| 47                              | 25+552.59  | 25+693.57 |                                  |                                   |                                  | 141                               |
| 48                              | 25+557.75  | 25+693.57 | 137                              |                                   |                                  |                                   |
| <b>RAZEM:</b>                   |            |           | <b>3 959</b>                     | <b>4 052</b>                      | <b>1 929</b>                     | <b>4 761</b>                      |

| WYKAZ ŚCIEKÓW TRÓJKĄTNYCH – S5 |            |          |                                  |                                   |                                  |                                   |
|--------------------------------|------------|----------|----------------------------------|-----------------------------------|----------------------------------|-----------------------------------|
| LP.                            | kilometraż |          | jezdnia lewa                     |                                   | jezdnia prawa                    |                                   |
|                                | od km      | do km    | długość na lewej krawędzi jezdni | długość na prawej krawędzi jezdni | długość na lewej krawędzi jezdni | długość na prawej krawędzi jezdni |
| 1                              | 0+000.00   | 0+016.29 |                                  |                                   |                                  | 17                                |
| 2                              | 0+000.00   | 0+002.99 | 3                                |                                   |                                  |                                   |
| 3                              | 0+195.75   | 0+406.43 | 214                              |                                   |                                  |                                   |
| 4                              | 0+206.94   | 0+387.06 |                                  |                                   |                                  | 181                               |
| 5                              | 0+737.40   | 1+602.37 |                                  | 866                               |                                  |                                   |

| WYKAZ ŚCIEKÓW TRÓJKĄTNYCH – S11 |            |       |                                  |                                   |                                  |                                   |
|---------------------------------|------------|-------|----------------------------------|-----------------------------------|----------------------------------|-----------------------------------|
| LP.                             | kilometraż |       | jezdnia lewa                     |                                   | jezdnia prawa                    |                                   |
|                                 | od km      | do km | długość na lewej krawędzi jezdni | długość na prawej krawędzi jezdni | długość na lewej krawędzi jezdni | długość na prawej krawędzi jezdni |
| RAZEM:                          |            |       | 217                              | 866                               | 0                                | 198                               |
| OGÓŁEM:                         |            |       | 4 176                            | 4 918                             | 1 929                            | 4 959                             |

### 13. Niwelacja terenu

Od km 17+300.00 do km 17+880.00 należy przeprowadzić niwelację terenu. Teren należy ukształtować tak aby w danym przekroju rzędna spodu niwelacji była o 1.80m niższa od rzędnej niwelety trasy. Szerokość dna zniwelowanego terenu od skarpy drogi do przeciwskarpy wynosi 3,5m.

Przekrój normalny dla tego odcinka przedstawiono na rys. 03-01

### 14. Wzmocnienie podłoża gruntowego

Tabelaryczny wykaz rodzaju i wzmocnienia podłoża:

| Pikietaż  | Rodzaj konstrukcji | Rodzaj wzmocnienia podłoża jezdni prawej                                                                                | Grubość warstwy stabilizacji w wykopie |
|-----------|--------------------|-------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| m         |                    |                                                                                                                         | m                                      |
| 13+070.00 | wykopowa           |                                                                                                                         | 0.20                                   |
| 13+580.00 |                    |                                                                                                                         |                                        |
| 13+580.00 | nasypowa           | Brak wzmocnienia                                                                                                        |                                        |
| 14+300.00 |                    |                                                                                                                         |                                        |
| 14+300.00 | nasypowa           | Wzmocnienie geosyntetykiem                                                                                              |                                        |
| 14+400.00 |                    |                                                                                                                         |                                        |
| 14+400.00 | nasypowa           | Brak wzmocnienia                                                                                                        |                                        |
| 14+550.00 |                    |                                                                                                                         |                                        |
| 14+550.00 | wykopowa           |                                                                                                                         | 0.25                                   |
| 14+660.00 |                    |                                                                                                                         |                                        |
| 14+660.00 | wykopowa           |                                                                                                                         | 0.20                                   |
| 14+940.00 |                    |                                                                                                                         |                                        |
| 14+940.00 | nasypowa           | Brak wzmocnienia                                                                                                        |                                        |
| 15+195.00 |                    |                                                                                                                         |                                        |
| 15+195.00 | nasypowa           | Wymiana gruntów nieorganicznych do maksymalnej głębokości 1.3m. Na stropie zagęszczonej zasypki należy uzyskać E2≥40Mpa |                                        |
| 15+230.00 |                    |                                                                                                                         |                                        |
| 15+230.00 | nasypowa           | Brak wzmocnienia                                                                                                        |                                        |
| 15+560.00 |                    |                                                                                                                         |                                        |
| 15+560.00 | wykopowa           |                                                                                                                         | 0.20                                   |
| 15+930.00 |                    |                                                                                                                         |                                        |
| 15+930.00 | nasypowa           | Brak wzmocnienia                                                                                                        |                                        |
| 16+880.00 |                    |                                                                                                                         |                                        |
| 16+880.00 | wykopowa           |                                                                                                                         | 0.20                                   |

*Budowa Zachodniej Obwodnicy miasta Poznania w ciągu drogi krajowej nr S11 na odcinku Złotkowo – autostrada A2 i w ciągu drogi krajowej nr S5 w rejonie węzła „Głuchowo” autostrady A2 ETAP I – S11 od węzła „Swadzim” – km 13+068,00 do węzła „Głuchowo” – km 25+693,57 oraz S5 w rejonie węzła „Głuchowo” – od km 0+000,00 do km 1+605,00 o łącznej dł. 14,23 km Projekt Wykonawczy. Tom 02/01. Trasa główna, ogrodzenie obwodnicy. Rewizja 00*

| Pikietaż  | Rodzaj konstrukcji | Rodzaj wzmocnienia podłoża jezdni prawej                                                                                                                                                                                                      | Grubość warstwy stabilizacji w wykopie |
|-----------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| m         |                    |                                                                                                                                                                                                                                               | m                                      |
| 16+940.00 |                    |                                                                                                                                                                                                                                               |                                        |
| 16+940.00 | nasykowa           | Wyrobisko zalane wodą. Po zasypaniu gruntem niespoistym (z wyjątkiem piasku pylastego), dogęścić np. metodą wibroflotacji. Na stropie zagęszczonej zasypki należy uzyskać $E2 \geq 40\text{Mpa}$                                              |                                        |
| 17+230.00 |                    |                                                                                                                                                                                                                                               |                                        |
| 17+230.00 | wykopowa           |                                                                                                                                                                                                                                               | 0.20                                   |
| 18+200.00 |                    |                                                                                                                                                                                                                                               |                                        |
| 18+200.00 | nasykowa           | Brak wzmocnienia                                                                                                                                                                                                                              |                                        |
| 19+090.00 |                    |                                                                                                                                                                                                                                               |                                        |
| 19+090.00 | nasykowa           | Wymiana gruntów nasypanych do maksymalnej głębokości 3.0m. Jako zasypkę należy użyć grunt niespoisty (z wyjątkiem piasku pylastego), dogęścić np. metodą wibroflotacji. Na stropie zagęszczonej zasypki należy uzyskać $E2 \geq 40\text{Mpa}$ |                                        |
| 19+190.00 |                    |                                                                                                                                                                                                                                               |                                        |
| 19+190.00 | wykopowa           | Wymiana gruntów nasypanych do maksymalnej głębokości 3.0m. Jako zasypkę należy użyć grunt niespoisty (z wyjątkiem piasku pylastego), dogęścić np. metodą wibroflotacji. Na stropie zagęszczonej zasypki należy uzyskać $E2 \geq 40\text{Mpa}$ | 0.20                                   |
| 19+200.00 |                    |                                                                                                                                                                                                                                               |                                        |
| 19+200.00 | wykopowa           |                                                                                                                                                                                                                                               | 0.20                                   |
| 19+700.00 |                    |                                                                                                                                                                                                                                               |                                        |
| 19+700.00 | wykopowa           | Wyrobisko zalane wodą. Po zasypaniu gruntem niespoistym (z wyjątkiem piasku pylastego), dogęścić np. metodą wibroflotacji. Na stropie zagęszczonej zasypki należy uzyskać $E2 \geq 40\text{Mpa}$                                              |                                        |
| 19+790.00 |                    |                                                                                                                                                                                                                                               |                                        |
| 19+790.00 | wykopowa           |                                                                                                                                                                                                                                               | 0.20                                   |
| 19+900.00 |                    |                                                                                                                                                                                                                                               |                                        |
| 19+900.00 | nasykowa           | Brak wzmocnienia                                                                                                                                                                                                                              |                                        |
| 20+470.00 |                    |                                                                                                                                                                                                                                               |                                        |
| 20+470.00 | wykopowa           |                                                                                                                                                                                                                                               | 0.20                                   |
| 21+200.00 |                    |                                                                                                                                                                                                                                               |                                        |
| 21+200.00 | wykopowa           |                                                                                                                                                                                                                                               | 0.25                                   |
| 21+500.00 |                    |                                                                                                                                                                                                                                               |                                        |
| 21+500.00 | wykopowa           |                                                                                                                                                                                                                                               | 0.20                                   |
| 21+610.00 |                    |                                                                                                                                                                                                                                               |                                        |
| 21+610.00 | wykopowa           |                                                                                                                                                                                                                                               | 0.25                                   |
| 21+770.00 |                    |                                                                                                                                                                                                                                               |                                        |
| 21+770.00 | nasykowa           | Brak wzmocnienia                                                                                                                                                                                                                              |                                        |
| 23+300.00 |                    |                                                                                                                                                                                                                                               |                                        |
| 23+300.00 | nasykowa           | Wzmocnienie geosyntetykiem                                                                                                                                                                                                                    |                                        |
| 23+370.00 |                    |                                                                                                                                                                                                                                               |                                        |
| 23+370.00 | wykopowa           |                                                                                                                                                                                                                                               | 0.25                                   |
| 23+670.00 |                    |                                                                                                                                                                                                                                               |                                        |
| 23+670.00 | nasykowa           | Wzmocnienie geosyntetykiem. W rejonie rowów wymiana gruntów organicznych do maksymalnej głębokości 0.9m.                                                                                                                                      |                                        |
| 23+870.00 |                    |                                                                                                                                                                                                                                               |                                        |
| 23+870.00 | nasykowa           | Brak wzmocnienia                                                                                                                                                                                                                              |                                        |
| 24+290.00 |                    |                                                                                                                                                                                                                                               |                                        |
| 24+290.00 | wykopowa           |                                                                                                                                                                                                                                               | 0.25                                   |
| 25+030.00 |                    |                                                                                                                                                                                                                                               |                                        |
| 25+030.00 | nasykowa           | Wzmocnienie wg oddzielnego projektu                                                                                                                                                                                                           |                                        |
| 25+120.00 |                    |                                                                                                                                                                                                                                               |                                        |
| 25+120.00 | nasykowa           | Wzmocnienie geosyntetykiem                                                                                                                                                                                                                    |                                        |
| 25+250.00 |                    |                                                                                                                                                                                                                                               |                                        |

Budowa Zachodniej Obwodnicy miasta Poznania w ciągu drogi krajowej nr S11 na odcinku Złotkowo – autostrada A2 i w ciągu drogi krajowej nr S5 w rejonie węzła „Głuchowo” autostrady A2  
ETAP I – S11 od węzła „Swadzim” – km 13+068,00 do węzła „Głuchowo” – km 25+693,57 oraz  
S5 w rejonie węzła „Głuchowo” – od km 0+000,00 do km 1+605,00 o łącznej dł. 14,23 km  
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| Pikietaż               | Rodzaj konstrukcji | Rodzaj wzmocnienia podłoża jezdni prawej | Grubość warstwy stabilizacji w wykopie |
|------------------------|--------------------|------------------------------------------|----------------------------------------|
| m                      |                    |                                          | m                                      |
| 25+250,00<br>25+340,00 | nasypowa           | Brak wzmocnienia                         |                                        |
| 25+340,00<br>25+460,00 | nasypowa           | Wzmocnienie geosyntetykiem               |                                        |
| 25+460,00<br>26+170,00 | nasypowa           | Brak wzmocnienia                         |                                        |
| 26+170,00<br>26+400,00 | wykopowa           |                                          | 0.25                                   |
| 26+400,00<br>26+450,00 | wykopowa           |                                          | 0.20                                   |
| 26+450,00<br>26+630,00 | nasypowa           | Brak wzmocnienia                         |                                        |
| 26+630,00<br>27+240,00 | wykopowa           |                                          | 0.25                                   |
| 27+240,00<br>27+299,00 | nasypowa           | Wzmocnienie geosyntetykiem               |                                        |

| Pikietaż               | Rodzaj konstrukcji | Rodzaj wzmocnienia podłoża jezdni lewej                                                                                                                                                          | Grubość warstwy stabilizacji w wykopie |
|------------------------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| m                      |                    |                                                                                                                                                                                                  | m                                      |
| 13+070,00<br>13+350,00 | wykopowa           |                                                                                                                                                                                                  | 0,20                                   |
| 13+350,00<br>14+300,00 | nasypowa           | Brak wzmocnienia                                                                                                                                                                                 |                                        |
| 14+300,00<br>14+400,00 | nasypowa           | Wzmocnienie geosyntetykiem                                                                                                                                                                       |                                        |
| 14+400,00<br>14+550,00 | nasypowa           | Brak wzmocnienia                                                                                                                                                                                 |                                        |
| 14+550,00<br>14+660,00 | wykopowa           |                                                                                                                                                                                                  | 0,25                                   |
| 14+660,00<br>14+920,00 | wykopowa           |                                                                                                                                                                                                  | 0,20                                   |
| 14+920,00<br>15+195,00 | nasypowa           | Brak wzmocnienia                                                                                                                                                                                 |                                        |
| 15+195,00<br>15+230,00 | nasypowa           | Wymiana gruntów nieorganicznych do maksymalnej głębokości 1.3m. Na stropie zagęszczonej zasyпки należy uzyskać $E2 \geq 40\text{Mpa}$                                                            |                                        |
| 15+230,00<br>15+570,00 | nasypowa           | Brak wzmocnienia                                                                                                                                                                                 |                                        |
| 15+570,00<br>15+920,00 | wykopowa           |                                                                                                                                                                                                  | 0,20                                   |
| 15+920,00<br>16+880,00 | nasypowa           | Brak wzmocnienia                                                                                                                                                                                 |                                        |
| 16+880,00<br>16+930,00 | wykopowa           |                                                                                                                                                                                                  | 0,20                                   |
| 16+930,00<br>17+250,00 | nasypowa           | Wyrobisko zalane wodą. Po zasypaniu gruntem niespoistym (z wyjątkiem piasku pylastego), dogęścić np. metodą wibroflotacji. Na stropie zagęszczonej zasyпки należy uzyskać $E2 \geq 40\text{Mpa}$ |                                        |
| 17+250,00<br>18+200,00 | wykopowa           |                                                                                                                                                                                                  | 0,20                                   |

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S5 w rejonie węzła „Głuchowo” – od km 0+000,00 do km 1+605,00 o łącznej dł. 14,23 km  
Projekt Wykonawczy. Tom 02/01. Trasa główna, ogrodzenie obwodnicy. Rewizja 00*

| <b>Pikietaż</b>        | <b>Rodzaj konstrukcji</b> | <b>Rodzaj wzmocnienia podłoża jezdni lewej</b>                                                                                                                                                                                                | <b>Grubość warstwy stabilizacji w wykopie</b> |
|------------------------|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| <b>m</b>               |                           |                                                                                                                                                                                                                                               | <b>m</b>                                      |
| 18+200,00<br>19+050,00 | nasypowa                  | Brak wzmocnienia                                                                                                                                                                                                                              |                                               |
| 19+050,00<br>19+200,00 | wykopowa                  | Wymiana gruntów nasypowych do maksymalnej głębokości 3.0m. Jako zasypkę należy użyć grunt niespoisty (z wyjątkiem piasku pylastego), dogęścić np. metodą wibroflotacji. Na stropie zagęszczonej zasypki należy uzyskać $E2 \geq 40\text{Mpa}$ | 0,20                                          |
| 19+200,00<br>19+700,00 | wykopowa                  |                                                                                                                                                                                                                                               | 0,20                                          |
| 19+700,00<br>19+790,00 | wykopowa                  | Wyrobisko zalane wodą. Po zasypaniu gruntem niespoistym (z wyjątkiem piasku pylastego), dogęścić np. metodą wibroflotacji. Na stropie zagęszczonej zasypki należy uzyskać $E2 \geq 40\text{Mpa}$                                              | 0,20                                          |
| 19+790,00<br>19+900,00 | wykopowa                  |                                                                                                                                                                                                                                               | 0,20                                          |
| 19+900,00<br>20+510,00 | nasypowa                  | Brak wzmocnienia                                                                                                                                                                                                                              |                                               |
| 20+510,00<br>21+200,00 | wykopowa                  |                                                                                                                                                                                                                                               | 0,20                                          |
| 21+200,00<br>21+500,00 | wykopowa                  |                                                                                                                                                                                                                                               | 0,25                                          |
| 21+500,00<br>21+610,00 | wykopowa                  |                                                                                                                                                                                                                                               | 0,20                                          |
| 21+610,00<br>21+680,00 | wykopowa                  |                                                                                                                                                                                                                                               | 0,25                                          |
| 21+680,00<br>23+300,00 | nasypowa                  | Brak wzmocnienia                                                                                                                                                                                                                              |                                               |
| 23+300,00<br>23+350,00 | nasypowa                  | Wzmocnienie geosyntetykiem                                                                                                                                                                                                                    |                                               |
| 23+350,00<br>23+700,00 | wykopowa                  |                                                                                                                                                                                                                                               | 0,25                                          |
| 23+700,00<br>23+870,00 | nasypowa                  | Wzmocnienie geosyntetykiem. W rejonie rowów wymiana gruntów organicznych do maksymalnej głębokości 0.9m.                                                                                                                                      |                                               |
| 23+870,00<br>24+350,00 | nasypowa                  | Brak wzmocnienia                                                                                                                                                                                                                              |                                               |
| 24+350,00<br>25+030,00 | wykopowa                  |                                                                                                                                                                                                                                               | 0,25                                          |
| 25+030,00<br>25+120,00 | nasypowa                  | Wzmocnienie wg oddzielnego projektu                                                                                                                                                                                                           |                                               |
| 25+120,00<br>25+250,00 | nasypowa                  | Wzmocnienie geosyntetykiem                                                                                                                                                                                                                    |                                               |
| 25+250,00<br>25+340,00 | nasypowa                  | Brak wzmocnienia                                                                                                                                                                                                                              |                                               |
| 25+340,00<br>25+460,00 | nasypowa                  | Wzmocnienie geosyntetykiem                                                                                                                                                                                                                    |                                               |
| 25+460,00<br>26+190,00 | nasypowa                  | Brak wzmocnienia                                                                                                                                                                                                                              |                                               |
| 26+190,00<br>26+400,00 | wykopowa                  |                                                                                                                                                                                                                                               | 0,25                                          |
| 26+400,00<br>26+430,00 | wykopowa                  |                                                                                                                                                                                                                                               | 0,20                                          |
| 26+430,00<br>26+800,00 | nasypowa                  | Brak wzmocnienia                                                                                                                                                                                                                              |                                               |

| Pikietaż               | Rodzaj konstrukcji | Rodzaj wzmocnienia podłoża jezdni lewej | Grubość warstwy stabilizacji w wykopie |
|------------------------|--------------------|-----------------------------------------|----------------------------------------|
| m                      |                    |                                         | m                                      |
| 26+800,00<br>27+210,00 | wykopowa           |                                         | 0,25                                   |
| 27+210,00<br>27+299,00 | nasypowa           | Wzmocnienie geosyntetykiem              |                                        |

#### 14.1. Wzmocnienie podłoża od km 16+930 do km 17+300

Od km 16+930 do km 17+300 znajduje się wyrobisko zalane wodą. W celu odpowiedniego przygotowania podłoża należy zasypać wyrobisko gruntem niewysadzinowym (z wyjątkiem piasku pylastego) pozyskanym z dokopu a następnie dogęścić metodą wibroflotacji uzyskując na stropie zagęszczonej zasyпки  $E2 \geq 40\text{Mpa}$ . Głębokość wyrobiska wynosi około 2,5 metra. W celu umożliwienia użytkowania terenu w pasie drogowym, na stropie zagęszczonej warstwy należy uzyskać rzędną 91,00m (czyli około 1,5m powyżej stwierdzonego poziomu wód gruntowych). Przekrój normalny dla tego odcinka przedstawiono na rys. 03-01

#### 14.2. Wzmocnienie podłoża od km 19+700 do km 19+790

Od km 19+700 do km 19+790 znajduje się wyrobisko zalane wodą. W celu odpowiedniego przygotowania podłoża należy zasypać wyrobisko gruntem niewysadzinowym (z wyjątkiem piasku pylastego) pozyskanym z dokopu a następnie dogęścić metodą wibroflotacji uzyskując na stropie zagęszczonej zasyпки  $E2 \geq 40\text{Mpa}$ . Głębokość wyrobiska wynosi około 4,4 metra. W celu umożliwienia użytkowania terenu w pasie drogowym, na stropie zagęszczonej warstwy należy uzyskać rzędną 87,5m. Przekrój normalny dla tego odcinka przedstawiono na rys. 03-01

#### 15. Konstrukcja nasypów drogowych o wysokości $h > 6\text{m}$

W przypadku występowania skarp o pochyleniu 1:1,5 i wysokości  $> 6\text{m}$  zastosowano zbrojenie nasypu geosyntetykiem. Lokalizacje odcinków zbrojonych nasypów przedstawia poniższa tabela.

Tabelaryczne zestawienie wzmocnienia skarpy nasypu o wysokości powyżej 6m :

| Skarpy o pochyleniu 1:1,5 i wys. > 6 m bez półek<br>NASYP ZBROJONY |        |        |                     |                                                         |                                     |
|--------------------------------------------------------------------|--------|--------|---------------------|---------------------------------------------------------|-------------------------------------|
| Jezdnia lewa                                                       |        |        |                     |                                                         |                                     |
| L.p.                                                               | od km  | do km  | długość odcinka [m] | Średnia powierzchnia przekroju warstwy [ $\text{m}^2$ ] | Objętość materiału [ $\text{m}^3$ ] |
| 1                                                                  | 14+060 | 14+092 | 32,00               | 80,99                                                   | 2591,68                             |
| 2                                                                  | 14+303 | 14+340 | 37,00               | 46,01                                                   | 1702,37                             |

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|          |           |        |               |               |                 |
|----------|-----------|--------|---------------|---------------|-----------------|
| 3        | 16+384,80 | 16+500 | 115,20        | 51,00         | 5875,20         |
| <b>Σ</b> |           |        | <b>184,20</b> | <b>178,00</b> | <b>10169,25</b> |

| Skarpy o pochyleniu 1:1,5 i wys. > 6 m bez pól<br>NASYP ZBROJONY |        |           |                     |                                                          |                                      |
|------------------------------------------------------------------|--------|-----------|---------------------|----------------------------------------------------------|--------------------------------------|
| Jezdnia prawa                                                    |        |           |                     |                                                          |                                      |
| L.p.                                                             | od km  | do km     | długość odcinka [m] | Średnia powierzchnia przekroju warstwy [m <sup>2</sup> ] | Objętość materiału [m <sup>3</sup> ] |
| 1                                                                | 13+820 | 13+960    | 140,00              | 48,81                                                    | 6833,40                              |
| 2                                                                | 14+050 | 14+068,38 | 18,38               | 80,36                                                    | 1477,02                              |
| 3                                                                | 14+303 | 14+340    | 37,00               | 51,45                                                    | 1903,65                              |
| <b>Σ</b>                                                         |        |           | <b>195,38</b>       | <b>180,62</b>                                            | <b>10214,07</b>                      |

Projekt zbrojenia nasypów zawiera Tom 02/02/01 „Konstrukcja nasypów drogowych o wysokości h>6m”.

## 16. Urządzenia techniczne drogi

### 16.1. Bariery ochronne

W celu zabezpieczenia ruchu samochodowego zaprojektowano bariery ochronne zgodnie z załącznikiem B.

### 16.2. Osłony przeciwoślńieniowe

W celu zapewnienia uczestnikom ruchu ochrony przed światłem padającym z przeciwnego kierunku ruchu zaprojektowano osłony przeciwoślńieniowe, które zestawiono poniżej.

| wg kilometracji | Pikietaż      |           | Długości osłon przeciwoślńieniowych pasie dzielącym [m] |              |            |
|-----------------|---------------|-----------|---------------------------------------------------------|--------------|------------|
|                 |               |           | strona lewa                                             | strona prawa | środek     |
| S11             | 13+340,74     | 14+370,39 | -                                                       | 1 028        | -          |
|                 | 17+732,20     | 18+459,80 | 728                                                     | -            | -          |
|                 | 21+045,61     | 21+420,86 | -                                                       | 376          | -          |
|                 | 22+843,84     | 22+906,01 | 63                                                      | -            | -          |
|                 | 22+906,01     | 23+547,69 | -                                                       | -            | 642        |
|                 | 23+547,69     | 23+577,71 | 30                                                      | -            | -          |
|                 | <b>RAZEM:</b> |           | <b>821</b>                                              | <b>1 404</b> | <b>642</b> |
| S5              | 0+778,12      | 0+287,06  | 492                                                     | -            | -          |
| <b>OGÓŁEM:</b>  |               |           | <b>1 313</b>                                            | <b>1 404</b> | <b>642</b> |



Osłony przeciwoślńnieniowe montowane są na barierach ochronnych w pasie dzielącym.

### 16.3. Osłony energochłonne

W miejscach szczególnie niebezpiecznych zaprojektowano osłony energochłonne zgodnie z Rozporządzeniem Ministra Transportu i Gospodarki Morskiej z dnia 2 marca 1999 r. w sprawie warunków, jakim powinny odpowiadać drogi publiczne i ich usytuowanie (Dz. Ustaw Nr 43 z dnia 14 maja 1999 r., poz. 430 w § 134 ust. 1).

Wykaz osłon energochłonnych przedstawiono poniżej.

| WYKAZ OSŁON ENERGOCHŁONNYCH – S11 |           |                  |                |           |                  |
|-----------------------------------|-----------|------------------|----------------|-----------|------------------|
| strona lewa                       |           |                  | strona prawa   |           |                  |
| lp.                               | kilometr  | Uwaga            | lp.            | kilometr  | Uwaga            |
| 1                                 | 13+928,37 | Węzeł „Swadzim”  | 1              | 13+492,21 | Węzeł „Swadzim”  |
| 2                                 | 14+218,78 | Węzeł „Swadzim”  | 2              | 14+107,04 | Węzeł „Swadzim”  |
| 3                                 | 17+990,00 | Węzeł „Zakrzewo” | 3              | 17+933,78 | Węzeł „Zakrzewo” |
| 4                                 | 18+251,12 | Węzeł „Zakrzewo” | 4              | 18+204,07 | Węzeł „Zakrzewo” |
| 5                                 | 21+475,87 | Węzeł „Dąbrówka” | 5              | 21+019,13 | Węzeł „Dąbrówka” |
| 6                                 | 23+404,72 | MOP „Skórzewo”   | 6              | 22+984,67 | MOP „Pałędzie”   |
| <b>Razem:</b>                     |           | <b>6 szt.</b>    | <b>Razem:</b>  |           | <b>6 szt.</b>    |
| <b>Ogółem:</b>                    |           |                  | <b>12 szt.</b> |           |                  |

| WYKAZ OSŁON ENERGOCHŁONNYCH – S5 |          |                  |                |          |                  |
|----------------------------------|----------|------------------|----------------|----------|------------------|
| 1                                | 0+914,37 | Węzeł „Głuchowo” | 1              | 0+452,56 | Węzeł „Głuchowo” |
| <b>Ogółem (S11+S5):</b>          |          |                  | <b>14 szt.</b> |          |                  |

Osłony energochłonne zlokalizowane są na odgałęzieniach łącznic na węzłach.

### 16.4. Ogrodzenie trasy

Zaprojektowano ogrodzenie obwodnicy spełniające wymagania Rozporządzenia Ministra Transportu i Gospodarki Morskiej z dnia 2 marca 1999 r. (Dz. U. Nr 43/1999, poz. 430, § 132.1) w sprawie warunków technicznych, jakim powinny odpowiadać drogi publiczne i ich usytuowanie. Przyjęto ustawienie ogrodzenia o wysokości 2,00m po obu stronach drogi ekspresowej, wykonane z siatki o odpowiedniej konstrukcji oczek: do wysokości 0.75 m z rozstawem drutów poziomych  $\leq 0.05$  m, a drutów pionowych  $\leq 0.30$  m.

Ogrodzenie to zapewnia prawidłową obsługę komunikacyjną i bezpieczeństwo ruchu na drodze zabezpieczając pas drogowy przed wtargnięciem ludzi i zwierząt.

Bramy i furtki ustawione w linii ogrodzenia autostrady powinny być zamknięte i w uzasadnionych przypadkach otwierane przez upoważnione służby. Zamknięcia powinny być dostępne z obu stron ogrodzenia. Rozwiązania konstrukcyjne ogrodzenia powinny być zgodne z zaleceniami producenta. Na bramach należy umieścić tabliczki znamionowe fluorescencyjne z numerem bramy, w celu ułatwienia pracy służbom ratowniczym.

Ogrodzenie powinno być mocowane między słupkami również do gruntu tak, żeby odległość pomiędzy terenem a dolną krawędzią ogrodzenia nie było większe niż 5 cm. Podobnie dolna część bramy albo furtki nie może znajdować się nad terenem lub jezdnią więcej niż 5 cm. Skrzydła bram i furtek powinny być otwierane w kierunku obniżającego się terenu (drogi).

Lokalizację ogrodzenia, furtek i bram wjazdowych przedstawiono na planach sytuacyjnych tom rys.02-01÷02-20

Podstawowe wymiary wymagane dla ogrodzenia, bram i furtek podano na rysunku nr 11–01.

Bramy wjazdowe (B1 ÷ B10) i furtki (F1 ÷ F22) usytuowane w ogrodzeniu podano na planie sytuacyjnym i zestawiono w tabeli:

| WYKAZ BRAM – S11      |           |                                              |                                                                      |           |                                              |
|-----------------------|-----------|----------------------------------------------|----------------------------------------------------------------------|-----------|----------------------------------------------|
| strona zachodnia      |           |                                              | strona wschodnia                                                     |           |                                              |
| lp.                   | kilometr  | szerokość bramy                              | lp.                                                                  | kilometr  | szerokość bramy                              |
| B-1                   | 16+911.81 | 4.00 m                                       | B-5                                                                  | 13+146.66 | 4.00 m                                       |
| B-2                   | 20+228.52 | 4.00 m                                       | B-6                                                                  | 13+451.68 | 4.00 m                                       |
| B-3                   | 23+156.87 | 6.00 m                                       | B-7                                                                  | 14+905.87 | 4.00 m                                       |
| B-4                   | 23+609.41 | 4.00 m                                       | B-8                                                                  | 17+276.91 | 4.00 m                                       |
|                       |           |                                              | B-9                                                                  | 20+228.23 | 4.00 m                                       |
|                       |           |                                              | B-10                                                                 | 23+235.72 | 7.30 m                                       |
| <b>Razem:</b>         |           | szer. 4,00m – 3 szt.<br>szer. 6,00m – 1 szt. | <b>Razem:</b>                                                        |           | szer. 4,00m – 5 szt.<br>szer. 7,30m – 1 szt. |
| <b>Ogółem 10 szt.</b> |           |                                              | szer. 4,00m – 8 szt.<br>szer. 6,00m – 1 szt.<br>szer. 7,30m – 1 szt. |           |                                              |

| WYKAZ FURTEK – S11 |           |                  |                  |           |                  |
|--------------------|-----------|------------------|------------------|-----------|------------------|
| strona zachodnia   |           |                  | strona wschodnia |           |                  |
| lp.                | kilometr  | szerokość furtki | lp.              | kilometr  | szerokość furtki |
| F-1                | 13+357.55 | 1.00 m           | F-11             | 13+317.41 | 1.00 m           |
| F-2                | 14+277.86 | 1.00 m           | F-12             | 14+293.28 | 1.00 m           |
| F-3                | 16+364.49 | 1.00 m           | F-13             | 16+338.88 | 1.00 m           |
| F-4                | 19+504.44 | 1.00 m           | F-14             | 19+534,04 | 1.00 m           |
| F-5                | 20+767.99 | 1.00 m           | F-15             | 20+787.77 | 1.00 m           |

|         |           |                      |                       |        |           |                       |
|---------|-----------|----------------------|-----------------------|--------|-----------|-----------------------|
| F-6     | 22+729.24 | 1.00 m               |                       | F-16   | 21+243.55 | 1.00 m                |
| F-7     | 23+812.90 | 1.00 m               |                       | F-17   | 22+827.72 | 1.00 m                |
| F-8     | 23+833.74 | 1.00 m               |                       | F-18   | 23+633,69 | 1.00 m                |
| F-9     | 25+512.54 | 1.00 m               |                       | F-19   | 23+824.63 | 1.00 m                |
|         |           |                      |                       | F-20   | 23+837.22 | 1.00 m                |
|         |           |                      |                       | F-21   | 25+541.69 | 1.00 m                |
|         |           |                      |                       |        |           |                       |
| Razem:  |           | szer. 1.00m – 9 szt. |                       | Razem: |           | szer. 1.00m – 11 szt. |
| Ogółem: |           |                      | szer. 1.00m – 20 szt. |        |           |                       |

| WYKAZ FURTEK – S5 |          |        |                      |      |          |        |
|-------------------|----------|--------|----------------------|------|----------|--------|
| F-10              | 1+079.18 | 1.00 m |                      | F-22 | 1+001.30 | 1.00 m |
| <b>Ogółem:</b>    |          |        | szer. 1.00m – 2 szt. |      |          |        |

Budowa ogrodzenia obwodnicy obejmuje:

- ustawienie ogrodzenia wzdłuż drogi ekspresowej o łącznej długości 32 607 m, w tym:
  - 23 194 m – ze stalowej siatki węzłowej,
  - 9 413 m – ze stalowej siatki ślimakowej,
- budowę 8 szt. bram wjazdowych o szerokości 4.00 m (wjazdy na tereny zieleni, wjazdy umożliwiające dostęp do cieków wodnych itp.),
- budowę 1 szt. bramy wjazdowej o szerokości 6.00 m na MOP,
- budowę 1 szt. bramy wjazdowej o szerokości 7.30 m na MOP,
- budowę 22 szt. Furtek o szer. 1.00m,
- wyrównanie i wyprofilowanie terenu wzdłuż ogrodzenia.

Bramy i furty ustawione w linii ogrodzenia obwodnicy powinny być zamknięte i w uzasadnionych przypadkach otwierane przez upoważnione służby.

Punkty charakterystyczne ogrodzenia opisano liczbami (od 1 do 610), dla których współrzędne geodezyjne (x,y) podano w załączniku D

## 17. Technologia robót

Wszystkie roboty należy wykonać zgodnie z obowiązującymi przepisami i normami. Materiały i wyroby muszą posiadać aprobatę techniczną dopuszczającą je do stosowania w budownictwie drogowym. Roboty ziemne w pobliżu istniejących urządzeń podziemnych należy wykonywać ręcznie i ze szczególną ostrożnością. Szczegółowy opis technologii robót podano w specyfikacjach technicznych.

## 18. Zestawienie ilości robót

Zestawienie ilości robót przedstawiono w Załączniku A.

# Załącznik A – Zestawienie ilości robót

## • TABELA ROBÓT ZIEMNYCH :

| TABELA ROBÓT ZIEMNYCH S11 |                |                |                |                |                           |                 |                |
|---------------------------|----------------|----------------|----------------|----------------|---------------------------|-----------------|----------------|
| PIKIETAŻ                  | POWIERZCHNIA   |                | OBJĘTOŚCI      |                | ZUŻYCIE<br>NA<br>MIEJSCU* | NADMIAR<br>OBJ. | SUMA           |
|                           | WYKOP          | NASYP          | WYKOP          | NASYP          |                           |                 |                |
| m                         | m <sup>2</sup> | m <sup>2</sup> | m <sup>3</sup> | m <sup>3</sup> | m <sup>3</sup>            | m <sup>3</sup>  | m <sup>3</sup> |
| 13+068.00                 | 2.1            | 31.0           |                |                |                           |                 |                |
| 13+080.00                 | 1.8            | 30.5           | 23             | 369            | 23                        | 346             | 346            |
| 13+100.00                 | 1.8            | 33.0           | 36             | 635            | 36                        | 599             | 945            |
| 13+120.00                 | 2.2            | 31.6           | 40             | 646            | 40                        | 606             | 1551           |
| 13+140.00                 | 1.4            | 30.7           | 36             | 623            | 36                        | 587             | 2138           |
| 13+160.00                 | 4.2            | 24.9           | 56             | 556            | 56                        | 500             | 2638           |
| 13+180.00                 | 2.6            | 24.0           | 68             | 489            | 68                        | 421             | 3059           |
| 13+200.00                 | 2.9            | 21.3           | 55             | 453            | 55                        | 398             | 3457           |
| 13+220.00                 | 2.9            | 19.2           | 58             | 405            | 58                        | 347             | 3804           |
| 13+240.00                 | 3.4            | 20.6           | 63             | 398            | 63                        | 335             | 4139           |
| 13+260.00                 | 3.6            | 22.2           | 70             | 428            | 70                        | 358             | 4497           |
| 13+280.00                 | 4.7            | 20.8           | 83             | 430            | 83                        | 347             | 4844           |
| 13+300.00                 | 5.0            | 20.7           | 97             | 415            | 97                        | 318             | 5162           |
| 13+320.00                 | 5.0            | 20.3           | 100            | 410            | 100                       | 310             | 5472           |
| 13+340.00                 | 4.0            | 23.3           | 90             | 436            | 90                        | 346             | 5818           |
| 13+360.00                 | 2.0            | 22.7           | 60             | 460            | 60                        | 400             | 6218           |
| 13+380.00                 | 1.3            | 30.2           | 33             | 529            | 33                        | 496             | 6714           |
| 13+400.00                 | 0.1            | 48.7           | 14             | 789            | 14                        | 775             | 7489           |
| 13+420.00                 | 0.1            | 52.2           | 2              | 1009           | 2                         | 1007            | 8496           |
| 13+440.00                 | 0.3            | 42.5           | 4              | 947            | 4                         | 943             | 9439           |
| 13+460.00                 | 0.5            | 40.2           | 8              | 827            | 8                         | 819             | 10258          |
| 13+480.00                 | 1.7            | 25.5           | 22             | 657            | 22                        | 635             | 10893          |
| 13+500.00                 | 2.1            | 25.3           | 38             | 508            | 38                        | 470             | 11363          |
| 13+520.00                 | 4.8            | 25.8           | 69             | 511            | 69                        | 442             | 11805          |
| 13+540.00                 | 6.4            | 26.7           | 112            | 525            | 112                       | 413             | 12218          |
| 13+560.00                 | 7.9            | 31.2           | 143            | 579            | 143                       | 436             | 12654          |
| 13+580.00                 | 9.6            | 35.8           | 175            | 670            | 175                       | 495             | 13149          |
| 13+600.00                 | 4.3            | 47.5           | 139            | 833            | 139                       | 694             | 13843          |
| 13+620.00                 | 2.3            | 68.6           | 66             | 1161           | 66                        | 1095            | 14938          |
| 13+640.00                 | 0.8            | 115.2          | 31             | 1838           | 31                        | 1807            | 16745          |
| 13+660.00                 | 0.2            | 138.5          | 10             | 2537           | 10                        | 2527            | 19272          |
| 13+680.00                 | 0.0            | 158.5          | 2              | 2970           | 2                         | 2968            | 22240          |
| 13+700.00                 | 0.0            | 176.5          | 0              | 3350           | 0                         | 3350            | 25590          |
| 13+720.00                 | 0.0            | 191.5          | 0              | 3680           | 0                         | 3680            | 29270          |
| 13+740.00                 | 0.0            | 197.5          | 0              | 3890           | 0                         | 3890            | 33160          |
| 13+760.00                 | 0.0            | 198.7          | 0              | 3962           | 0                         | 3962            | 37122          |
| 13+780.00                 | 0.0            | 207.6          | 0              | 4063           | 0                         | 4063            | 41185          |
| 13+800.00                 | 0.0            | 162.6          | 0              | 3702           | 0                         | 3702            | 44887          |
| 13+820.00                 | 0.0            | 162.7          | 0              | 3253           | 0                         | 3253            | 48140          |
| 13+840.00                 | 0.1            | 179.8          | 1              | 3425           | 1                         | 3424            | 51564          |
| 13+860.00                 | 0.3            | 192.2          | 4              | 3720           | 4                         | 3716            | 55280          |
| 13+880.00                 | 0.8            | 194.6          | 11             | 3868           | 11                        | 3857            | 59137          |

| TABELA ROBÓT ZIEMNYCH S11 |                |                |                |                |                           |                 |                |
|---------------------------|----------------|----------------|----------------|----------------|---------------------------|-----------------|----------------|
| PIKIETAŻ                  | POWIERZCHNIA   |                | OBJĘTOŚCI      |                | ZUŻYCIE<br>NA<br>MIEJSCU* | NADMIAR<br>OBJ. | SUMA           |
|                           | WYKOP          | NASYP          | WYKOP          | NASYP          |                           |                 |                |
| m                         | m <sup>2</sup> | m <sup>2</sup> | m <sup>3</sup> | m <sup>3</sup> | m <sup>3</sup>            | m <sup>3</sup>  | m <sup>3</sup> |
| 13+900.00                 | 1.1            | 199.7          | 19             | 3943           | 19                        | 3924            | 63061          |
| 13+920.00                 | 1.6            | 209.8          | 27             | 4095           | 27                        | 4068            | 67129          |
| 13+940.00                 | 2.0            | 192.2          | 36             | 4020           | 36                        | 3984            | 71113          |
| 13+960.00                 | 0.9            | 211.8          | 29             | 4040           | 29                        | 4011            | 75124          |
| 13+973.00                 | 0.9            | 212.0          | 12             | 2755           | 12                        | 2743            | 77867          |
| OBIEKT WS 15              |                |                |                |                |                           |                 |                |
| 14+044.00                 | 0.8            | 333.0          | 0              | 0              | 0                         | 0               | 77867          |
| 14+060.00                 | 0.8            | 332.8          | 13             | 5326           | 13                        | 5313            | 83180          |
| 14+080.00                 | 0.0            | 221.2          | 8              | 5540           | 8                         | 5532            | 88712          |
| 14+100.00                 | 0.0            | 141.9          | 0              | 3631           | 0                         | 3631            | 92343          |
| 14+120.00                 | 0.0            | 169.8          | 0              | 3117           | 0                         | 3117            | 95460          |
| 14+140.00                 | 0.0            | 192.8          | 0              | 3626           | 0                         | 3626            | 99086          |
| 14+160.00                 | 0.0            | 241.9          | 0              | 4347           | 0                         | 4347            | 103433         |
| 14+180.00                 | 0.0            | 197.2          | 0              | 4391           | 0                         | 4391            | 107824         |
| 14+200.00                 | 0.0            | 202.6          | 0              | 3998           | 0                         | 3998            | 111822         |
| 14+220.00                 | 0.0            | 163.3          | 0              | 3659           | 0                         | 3659            | 115481         |
| 14+240.00                 | 0.0            | 132.4          | 0              | 2957           | 0                         | 2957            | 118438         |
| 14+260.00                 | 0.0            | 128.4          | 0              | 2608           | 0                         | 2608            | 121046         |
| 14+276.00                 | 0.0            | 130.0          | 0              | 2067           | 0                         | 2067            | 123113         |
| OBIEKT WS 16              |                |                |                |                |                           |                 |                |
| 14+295.00                 | 0.0            | 292.0          | 0              | 0              | 0                         | 0               | 123113         |
| 14+300.00                 | 0.0            | 291.5          | 0              | 1459           | 0                         | 1459            | 124572         |
| 14+320.00                 | 0.0            | 251.1          | 0              | 5426           | 0                         | 5426            | 129998         |
| 14+340.00                 | 0.0            | 223.4          | 0              | 4745           | 0                         | 4745            | 134743         |
| 14+360.00                 | 0.0            | 198.0          | 0              | 4214           | 0                         | 4214            | 138957         |
| 14+380.00                 | 0.0            | 175.1          | 0              | 3731           | 0                         | 3731            | 142688         |
| 14+400.00                 | 0.0            | 153.8          | 0              | 3289           | 0                         | 3289            | 145977         |
| 14+420.00                 | 0.0            | 131.0          | 0              | 2848           | 0                         | 2848            | 148825         |
| 14+440.00                 | 0.2            | 96.6           | 2              | 2276           | 2                         | 2274            | 151099         |
| 14+460.00                 | 2.3            | 60.2           | 25             | 1568           | 25                        | 1543            | 152642         |
| 14+480.00                 | 3.4            | 36.7           | 57             | 969            | 57                        | 912             | 153554         |
| 14+500.00                 | 3.2            | 31.2           | 66             | 679            | 66                        | 613             | 154167         |
| 14+520.00                 | 2.2            | 28.0           | 54             | 592            | 54                        | 538             | 154705         |
| 14+540.00                 | 1.7            | 24.6           | 39             | 526            | 39                        | 487             | 155192         |
| 14+560.00                 | 2.6            | 24.7           | 43             | 493            | 43                        | 450             | 155642         |
| 14+580.00                 | 4.7            | 13.0           | 73             | 377            | 73                        | 304             | 155946         |
| 14+600.00                 | 16.7           | 2.4            | 214            | 154            | 154                       | -60             | 155886         |
| 14+620.00                 | 14.7           | 2.2            | 314            | 46             | 46                        | -268            | 155618         |
| 14+640.00                 | 12.3           | 3.6            | 270            | 58             | 58                        | -212            | 155406         |
| 14+660.00                 | 7.6            | 6.8            | 199            | 104            | 104                       | -95             | 155311         |
| 14+680.00                 | 6.7            | 14.6           | 143            | 214            | 143                       | 71              | 155382         |
| 14+700.00                 | 6.6            | 16.7           | 133            | 313            | 133                       | 180             | 155562         |
| 14+720.00                 | 7.3            | 19.9           | 139            | 366            | 139                       | 227             | 155789         |
| 14+740.00                 | 8.1            | 21.8           | 154            | 417            | 154                       | 263             | 156052         |
| 14+760.00                 | 8.8            | 21.9           | 169            | 437            | 169                       | 268             | 156320         |
| 14+780.00                 | 10.3           | 19.2           | 191            | 411            | 191                       | 220             | 156540         |
| 14+800.00                 | 12.1           | 17.2           | 224            | 364            | 224                       | 140             | 156680         |

| TABELA ROBÓT ZIEMNYCH S11 |                |                |                |                |                           |                 |                |
|---------------------------|----------------|----------------|----------------|----------------|---------------------------|-----------------|----------------|
| PIKIETAŻ                  | POWIERZCHNIA   |                | OBJĘTOŚCI      |                | ZUŻYCIE<br>NA<br>MIEJSCU* | NADMIAR<br>OBJ. | SUMA           |
|                           | WYKOP          | NASYP          | WYKOP          | NASYP          |                           |                 |                |
| m                         | m <sup>2</sup> | m <sup>2</sup> | m <sup>3</sup> | m <sup>3</sup> | m <sup>3</sup>            | m <sup>3</sup>  | m <sup>3</sup> |
| 14+820.00                 | 13.8           | 16.2           | 259            | 334            | 259                       | 75              | 156755         |
| 14+840.00                 | 22.8           | 15.1           | 366            | 313            | 313                       | -53             | 156702         |
| 14+860.00                 | 17.2           | 13.4           | 400            | 285            | 285                       | -115            | 156587         |
| 14+880.00                 | 18.5           | 13.0           | 357            | 264            | 264                       | -93             | 156494         |
| 14+900.00                 | 17.6           | 15.6           | 361            | 286            | 286                       | -75             | 156419         |
| 14+920.00                 | 12.3           | 52.1           | 299            | 677            | 299                       | 378             | 156797         |
| 14+940.00                 | 6.7            | 40.7           | 190            | 928            | 190                       | 738             | 157535         |
| 14+960.00                 | 0.4            | 80.0           | 71             | 1207           | 71                        | 1136            | 158671         |
| 14+980.00                 | 0.5            | 109.3          | 9              | 1893           | 9                         | 1884            | 160555         |
| 15+000.00                 | 2.3            | 169.0          | 28             | 2783           | 28                        | 2755            | 163310         |
| 15+020.00                 | 1.1            | 106.6          | 34             | 2756           | 34                        | 2722            | 166032         |
| 15+040.00                 | 0.0            | 97.7           | 11             | 2043           | 11                        | 2032            | 168064         |
| 15+060.00                 | 0.6            | 60.9           | 6              | 1586           | 6                         | 1580            | 169644         |
| 15+080.00                 | 0.5            | 40.1           | 11             | 1010           | 11                        | 999             | 170643         |
| 15+100.00                 | 0.7            | 29.4           | 12             | 695            | 12                        | 683             | 171326         |
| 15+120.00                 | 0.8            | 24.5           | 15             | 539            | 15                        | 524             | 171850         |
| 15+140.00                 | 0.8            | 25.9           | 16             | 504            | 16                        | 488             | 172338         |
| 15+160.00                 | 0.2            | 38.3           | 10             | 642            | 10                        | 632             | 172970         |
| 15+180.00                 | 0.2            | 51.2           | 4              | 895            | 4                         | 891             | 173861         |
| 15+200.00                 | 0.2            | 67.9           | 4              | 1191           | 4                         | 1187            | 175048         |
| 15+220.00                 | 0.0            | 114.7          | 2              | 1826           | 2                         | 1824            | 176872         |
| 15+240.00                 | 0.0            | 133.6          | 0              | 2483           | 0                         | 2483            | 179355         |
| 15+260.00                 | 0.4            | 123.2          | 4              | 2568           | 4                         | 2564            | 181919         |
| 15+276.00                 | 0.4            | 125.0          | 6              | 1986           | 6                         | 1980            | 183899         |
| OBIEKT PS 16A             |                |                |                |                |                           |                 |                |
| 15+284.00                 | 1.5            | 110.0          | 0              | 0              | 0                         | 0               | 183899         |
| 15+300.00                 | 1.5            | 104.9          | 15             | 1049           | 15                        | 1034            | 184933         |
| 15+320.00                 | 0.5            | 86.2           | 20             | 1911           | 20                        | 1891            | 186824         |
| 15+340.00                 | 1.4            | 65.6           | 19             | 1518           | 19                        | 1499            | 188323         |
| 15+360.00                 | 1.5            | 55.0           | 29             | 1206           | 29                        | 1177            | 189500         |
| 15+380.00                 | 1.2            | 50.2           | 27             | 1052           | 27                        | 1025            | 190525         |
| 15+400.00                 | 1.1            | 46.0           | 23             | 962            | 23                        | 939             | 191464         |
| 15+420.00                 | 0.8            | 44.6           | 19             | 906            | 19                        | 887             | 192351         |
| 15+440.00                 | 0.6            | 42.4           | 14             | 870            | 14                        | 856             | 193207         |
| 15+460.00                 | 0.6            | 35.8           | 12             | 782            | 12                        | 770             | 193977         |
| 15+480.00                 | 0.5            | 30.4           | 11             | 662            | 11                        | 651             | 194628         |
| 15+500.00                 | 0.5            | 30.3           | 10             | 607            | 10                        | 597             | 195225         |
| 15+520.00                 | 0.7            | 26.0           | 12             | 563            | 12                        | 551             | 195776         |
| 15+540.00                 | 0.3            | 30.5           | 10             | 565            | 10                        | 555             | 196331         |
| 15+560.00                 | 0.5            | 26.4           | 8              | 569            | 8                         | 561             | 196892         |
| 15+580.00                 | 0.3            | 31.7           | 8              | 581            | 8                         | 573             | 197465         |
| 15+600.00                 | 0.3            | 49.5           | 6              | 812            | 6                         | 806             | 198271         |
| 15+620.00                 | 0.0            | 37.1           | 3              | 866            | 3                         | 863             | 199134         |
| 15+640.00                 | 0.1            | 43.4           | 1              | 805            | 1                         | 804             | 199938         |
| 15+660.00                 | 0.1            | 37.6           | 2              | 810            | 2                         | 808             | 200746         |
| 15+680.00                 | 0.4            | 26.2           | 5              | 638            | 5                         | 633             | 201379         |
| 15+700.00                 | 0.2            | 26.9           | 6              | 531            | 6                         | 525             | 201904         |

| TABELA ROBÓT ZIEMNYCH S11 |                |                |                |                |                           |                 |                |
|---------------------------|----------------|----------------|----------------|----------------|---------------------------|-----------------|----------------|
| PIKIETAŻ                  | POWIERZCHNIA   |                | OBJĘTOŚCI      |                | ZUŻYCIE<br>NA<br>MIEJSCU* | NADMIAR<br>OBJ. | SUMA           |
|                           | WYKOP          | NASYP          | WYKOP          | NASYP          |                           |                 |                |
| m                         | m <sup>2</sup> | m <sup>2</sup> | m <sup>3</sup> | m <sup>3</sup> | m <sup>3</sup>            | m <sup>3</sup>  | m <sup>3</sup> |
| 15+720.00                 | 0.3            | 23.1           | 5              | 500            | 5                         | 495             | 202399         |
| 15+740.00                 | 0.4            | 20.7           | 7              | 438            | 7                         | 431             | 202830         |
| 15+760.00                 | 1.2            | 15.0           | 16             | 357            | 16                        | 341             | 203171         |
| 15+780.00                 | 1.4            | 14.1           | 26             | 291            | 26                        | 265             | 203436         |
| 15+800.00                 | 1.3            | 16.1           | 27             | 302            | 27                        | 275             | 203711         |
| 15+820.00                 | 0.8            | 21.6           | 21             | 377            | 21                        | 356             | 204067         |
| 15+840.00                 | 0.7            | 22.6           | 15             | 442            | 15                        | 427             | 204494         |
| 15+860.00                 | 0.8            | 19.9           | 15             | 425            | 15                        | 410             | 204904         |
| 15+880.00                 | 0.8            | 21.9           | 16             | 418            | 16                        | 402             | 205306         |
| 15+900.00                 | 0.9            | 25.3           | 17             | 472            | 17                        | 455             | 205761         |
| 15+920.00                 | 1.2            | 30.3           | 21             | 556            | 21                        | 535             | 206296         |
| 15+940.00                 | 1.2            | 25.1           | 24             | 554            | 24                        | 530             | 206826         |
| 15+960.00                 | 1.4            | 24.5           | 26             | 496            | 26                        | 470             | 207296         |
| 15+980.00                 | 1.4            | 28.0           | 28             | 525            | 28                        | 497             | 207793         |
| 16+000.00                 | 1.5            | 31.2           | 29             | 592            | 29                        | 563             | 208356         |
| 16+020.00                 | 1.4            | 35.1           | 29             | 663            | 29                        | 634             | 208990         |
| 16+040.00                 | 1.2            | 37.0           | 26             | 721            | 26                        | 695             | 209685         |
| 16+060.00                 | 0.9            | 42.5           | 21             | 795            | 21                        | 774             | 210459         |
| 16+080.00                 | 1.0            | 46.8           | 19             | 893            | 19                        | 874             | 211333         |
| 16+100.00                 | 0.4            | 54.9           | 14             | 1017           | 14                        | 1003            | 212336         |
| 16+120.00                 | 0.0            | 66.4           | 4              | 1213           | 4                         | 1209            | 213545         |
| 16+140.00                 | 0.0            | 75.3           | 0              | 1417           | 0                         | 1417            | 214962         |
| 16+160.00                 | 0.0            | 91.2           | 0              | 1665           | 0                         | 1665            | 216627         |
| 16+180.00                 | 0.0            | 108.9          | 0              | 2001           | 0                         | 2001            | 218628         |
| 16+200.00                 | 0.0            | 126.0          | 0              | 2349           | 0                         | 2349            | 220977         |
| 16+220.00                 | 0.0            | 147.7          | 0              | 2737           | 0                         | 2737            | 223714         |
| 16+240.00                 | 0.0            | 168.4          | 0              | 3161           | 0                         | 3161            | 226875         |
| 16+260.00                 | 0.0            | 188.4          | 0              | 3568           | 0                         | 3568            | 230443         |
| 16+280.00                 | 0.0            | 210.2          | 0              | 3986           | 0                         | 3986            | 234429         |
| 16+300.00                 | 0.0            | 225.7          | 0              | 4359           | 0                         | 4359            | 238788         |
| 16+320.00                 | 0.0            | 244.7          | 0              | 4704           | 0                         | 4704            | 243492         |
| 16+340.00                 | 0.0            | 289.0          | 0              | 5337           | 0                         | 5337            | 248829         |
| OBIEKT WS 17              |                |                |                |                |                           |                 |                |
| 16+372.00                 | 0.0            | 297.0          | 0              | 0              | 0                         | 0               | 248829         |
| 16+380.00                 | 0.0            | 296.5          | 0              | 2965           | 0                         | 2965            | 251794         |
| 16+400.00                 | 0.0            | 276.7          | 0              | 5732           | 0                         | 5732            | 257526         |
| 16+420.00                 | 0.0            | 268.8          | 0              | 5455           | 0                         | 5455            | 262981         |
| 16+440.00                 | 0.0            | 279.7          | 0              | 5485           | 0                         | 5485            | 268466         |
| 16+460.00                 | 0.0            | 268.9          | 0              | 5486           | 0                         | 5486            | 273952         |
| 16+480.00                 | 0.0            | 256.5          | 0              | 5254           | 0                         | 5254            | 279206         |
| 16+500.00                 | 0.0            | 239.3          | 0              | 4958           | 0                         | 4958            | 284164         |
| 16+520.00                 | 0.0            | 219.8          | 0              | 4591           | 0                         | 4591            | 288755         |
| 16+540.00                 | 0.0            | 183.1          | 0              | 4029           | 0                         | 4029            | 292784         |
| 16+560.00                 | 0.1            | 162.6          | 1              | 3457           | 1                         | 3456            | 296240         |
| 16+580.00                 | 0.3            | 150.2          | 4              | 3128           | 4                         | 3124            | 299364         |
| 16+600.00                 | 0.6            | 142.3          | 9              | 2925           | 9                         | 2916            | 302280         |
| 16+620.00                 | 0.4            | 139.4          | 10             | 2817           | 10                        | 2807            | 305087         |

| TABELA ROBÓT ZIEMNYCH S11 |                |                |                |                |                           |                 |                |
|---------------------------|----------------|----------------|----------------|----------------|---------------------------|-----------------|----------------|
| PIKIETAŻ                  | POWIERZCHNIA   |                | OBJĘTOŚCI      |                | ZUŻYCIE<br>NA<br>MIEJSCU* | NADMIAR<br>OBJ. | SUMA           |
|                           | WYKOP          | NASYP          | WYKOP          | NASYP          |                           |                 |                |
| m                         | m <sup>2</sup> | m <sup>2</sup> | m <sup>3</sup> | m <sup>3</sup> | m <sup>3</sup>            | m <sup>3</sup>  | m <sup>3</sup> |
| 16+640.00                 | 0.4            | 136.0          | 8              | 2754           | 8                         | 2746            | 307833         |
| 16+660.00                 | 0.7            | 131.1          | 11             | 2671           | 11                        | 2660            | 310493         |
| 16+680.00                 | 0.3            | 126.0          | 10             | 2571           | 10                        | 2561            | 313054         |
| 16+700.00                 | 0.3            | 127.5          | 6              | 2535           | 6                         | 2529            | 315583         |
| 16+720.00                 | 0.8            | 108.7          | 11             | 2362           | 11                        | 2351            | 317934         |
| 16+740.00                 | 1.0            | 97.4           | 18             | 2061           | 18                        | 2043            | 319977         |
| 16+760.00                 | 1.6            | 80.4           | 26             | 1778           | 26                        | 1752            | 321729         |
| 16+780.00                 | 1.5            | 69.9           | 31             | 1503           | 31                        | 1472            | 323201         |
| 16+800.00                 | 1.1            | 57.4           | 26             | 1273           | 26                        | 1247            | 324448         |
| 16+820.00                 | 1.1            | 24.2           | 22             | 816            | 22                        | 794             | 325242         |
| 16+840.00                 | 0.9            | 20.0           | 20             | 442            | 20                        | 422             | 325664         |
| 16+860.00                 | 1.0            | 24.2           | 19             | 442            | 19                        | 423             | 326087         |
| 16+880.00                 | 2.7            | 13.3           | 37             | 375            | 37                        | 338             | 326425         |
| 16+900.00                 | 3.1            | 10.2           | 58             | 235            | 58                        | 177             | 326602         |
| 16+920.00                 | 2.9            | 8.9            | 60             | 191            | 60                        | 131             | 326733         |
| 16+940.00                 | 0.0            | 9.0            | 29             | 179            | 29                        | 150             | 326883         |
| 16+960.00                 | 3.3            | 3.7            | 33             | 127            | 33                        | 94              | 326977         |
| 16+980.00                 | 2.3            | 4.7            | 56             | 84             | 56                        | 28              | 327005         |
| 17+000.00                 | 1.6            | 5.9            | 39             | 106            | 39                        | 67              | 327072         |
| 17+020.00                 | 0.8            | 7.3            | 24             | 132            | 24                        | 108             | 327180         |
| 17+040.00                 | 0.4            | 9.0            | 12             | 163            | 12                        | 151             | 327331         |
| 17+060.00                 | 0.1            | 10.8           | 5              | 198            | 5                         | 193             | 327524         |
| 17+080.00                 | 0.0            | 12.8           | 1              | 236            | 1                         | 235             | 327759         |
| 17+100.00                 | 0.0            | 15.0           | 0              | 278            | 0                         | 278             | 328037         |
| 17+120.00                 | 0.0            | 17.2           | 0              | 322            | 0                         | 322             | 328359         |
| 17+140.00                 | 0.0            | 19.5           | 0              | 367            | 0                         | 367             | 328726         |
| 17+160.00                 | 0.0            | 21.7           | 0              | 412            | 0                         | 412             | 329138         |
| 17+180.00                 | 0.0            | 24.0           | 0              | 457            | 0                         | 457             | 329595         |
| 17+200.00                 | 0.0            | 26.4           | 0              | 504            | 0                         | 504             | 330099         |
| 17+220.00                 | 0.0            | 28.7           | 0              | 551            | 0                         | 551             | 330650         |
| 17+240.00                 | 0.0            | 36.1           | 0              | 648            | 0                         | 648             | 331298         |
| 17+260.00                 | 0.0            | 44.6           | 0              | 807            | 0                         | 807             | 332105         |
| 17+280.00                 | 0.0            | 43.0           | 0              | 876            | 0                         | 876             | 332981         |
| 17+300.00                 | 0.0            | 43.7           | 0              | 867            | 0                         | 867             | 333848         |
| 17+320.00                 | 0.0            | 44.3           | 0              | 880            | 0                         | 880             | 334728         |
| 17+340.00                 | 0.0            | 40.0           | 0              | 843            | 0                         | 843             | 335571         |
| 17+360.00                 | 0.0            | 26.7           | 0              | 667            | 0                         | 667             | 336238         |
| 17+380.00                 | 0.0            | 26.7           | 0              | 534            | 0                         | 534             | 336772         |
| 17+400.00                 | 0.0            | 26.7           | 0              | 534            | 0                         | 534             | 337306         |
| 17+420.00                 | 0.0            | 26.6           | 0              | 533            | 0                         | 533             | 337839         |
| 17+440.00                 | 0.0            | 26.6           | 0              | 532            | 0                         | 532             | 338371         |
| 17+460.00                 | 0.0            | 26.6           | 0              | 532            | 0                         | 532             | 338903         |
| 17+480.00                 | 0.0            | 26.5           | 0              | 531            | 0                         | 531             | 339434         |
| 17+500.00                 | 0.0            | 26.6           | 0              | 531            | 0                         | 531             | 339965         |
| 17+520.00                 | 0.0            | 26.5           | 0              | 531            | 0                         | 531             | 340496         |
| 17+540.00                 | 0.0            | 26.5           | 0              | 530            | 0                         | 530             | 341026         |
| 17+560.00                 | 0.0            | 26.7           | 0              | 532            | 0                         | 532             | 341558         |



| TABELA ROBÓT ZIEMNYCH S11 |                |                |                |                |                           |                 |                |
|---------------------------|----------------|----------------|----------------|----------------|---------------------------|-----------------|----------------|
| PIKIETAŻ                  | POWIERZCHNIA   |                | OBJĘTOŚCI      |                | ZUŻYCIE<br>NA<br>MIEJSCU* | NADMIAR<br>OBJ. | SUMA           |
|                           | WYKOP          | NASYP          | WYKOP          | NASYP          |                           |                 |                |
| m                         | m <sup>2</sup> | m <sup>2</sup> | m <sup>3</sup> | m <sup>3</sup> | m <sup>3</sup>            | m <sup>3</sup>  | m <sup>3</sup> |
| 17+580.00                 | 0.0            | 26.7           | 0              | 534            | 0                         | 534             | 342092         |
| 17+600.00                 | 0.0            | 26.6           | 0              | 533            | 0                         | 533             | 342625         |
| 17+620.00                 | 0.0            | 26.7           | 0              | 533            | 0                         | 533             | 343158         |
| 17+640.00                 | 0.0            | 27.4           | 0              | 541            | 0                         | 541             | 343699         |
| 17+660.00                 | 0.0            | 29.5           | 0              | 569            | 0                         | 569             | 344268         |
| 17+680.00                 | 0.0            | 27.7           | 0              | 572            | 0                         | 572             | 344840         |
| 17+700.00                 | 0.0            | 27.7           | 0              | 554            | 0                         | 554             | 345394         |
| 17+720.00                 | 0.0            | 31.0           | 0              | 587            | 0                         | 587             | 345981         |
| 17+740.00                 | 0.0            | 31.7           | 0              | 627            | 0                         | 627             | 346608         |
| 17+760.00                 | 0.0            | 31.7           | 0              | 634            | 0                         | 634             | 347242         |
| 17+780.00                 | 0.0            | 31.7           | 0              | 634            | 0                         | 634             | 347876         |
| 17+800.00                 | 0.1            | 34.7           | 1              | 664            | 1                         | 663             | 348539         |
| 17+820.00                 | 0.2            | 31.7           | 3              | 664            | 3                         | 661             | 349200         |
| 17+840.00                 | 2.9            | 2.6            | 31             | 343            | 31                        | 312             | 349512         |
| 17+860.00                 | 2.3            | 2.0            | 52             | 46             | 46                        | -6              | 349506         |
| 17+880.00                 | 2.2            | 2.4            | 45             | 44             | 44                        | -1              | 349505         |
| 17+900.00                 | 1.2            | 1.8            | 34             | 42             | 34                        | 8               | 349513         |
| 17+920.00                 | 2.8            | 0.6            | 40             | 24             | 24                        | -16             | 349497         |
| 17+940.00                 | 8.8            | 1.6            | 116            | 22             | 22                        | -94             | 349403         |
| 17+960.00                 | 20.3           | 1.2            | 291            | 28             | 28                        | -263            | 349140         |
| 17+980.00                 | 14.0           | 1.5            | 343            | 27             | 27                        | -316            | 348824         |
| 18+000.00                 | 10.4           | 1.6            | 244            | 31             | 31                        | -213            | 348611         |
| 18+020.00                 | 10.5           | 1.5            | 209            | 31             | 31                        | -178            | 348433         |
| 18+040.00                 | 7.6            | 2.5            | 181            | 40             | 40                        | -141            | 348292         |
| 18+060.00                 | 4.9            | 1.8            | 125            | 43             | 43                        | -82             | 348210         |
| 18+080.00                 | 8.9            | 3.0            | 138            | 48             | 48                        | -90             | 348120         |
| 18+100.00                 | 6.8            | 5.6            | 157            | 86             | 86                        | -71             | 348049         |
| 18+120.00                 | 3.9            | 9.4            | 107            | 150            | 107                       | 43              | 348092         |
| 18+140.00                 | 2.8            | 9.3            | 67             | 187            | 67                        | 120             | 348212         |
| 18+160.00                 | 2.8            | 11.9           | 56             | 212            | 56                        | 156             | 348368         |
| 18+180.00                 | 2.8            | 16.0           | 56             | 279            | 56                        | 223             | 348591         |
| 18+200.00                 | 2.2            | 23.6           | 50             | 396            | 50                        | 346             | 348937         |
| 18+220.00                 | 2.0            | 25.4           | 42             | 490            | 42                        | 448             | 349385         |
| 18+240.00                 | 7.2            | 22.6           | 92             | 480            | 92                        | 388             | 349773         |
| 18+260.00                 | 2.5            | 32.8           | 97             | 554            | 97                        | 457             | 350230         |
| 18+280.00                 | 2.8            | 38.1           | 53             | 709            | 53                        | 656             | 350886         |
| 18+300.00                 | 0.0            | 36.4           | 28             | 745            | 28                        | 717             | 351603         |
| 18+320.00                 | 1.9            | 51.2           | 19             | 876            | 19                        | 857             | 352460         |
| 18+340.00                 | 3.2            | 53.7           | 51             | 1049           | 51                        | 998             | 353458         |
| 18+360.00                 | 5.9            | 84.0           | 91             | 1377           | 91                        | 1286            | 354744         |
| OBIEKT PS 18A             |                |                |                |                |                           |                 |                |
| 18+369.00                 | 0.0            | 0.0            | 0              | 0              | 0                         | 0               | 354744         |
| 18+380.00                 | 5.1            | 86.5           | 28             | 476            | 28                        | 448             | 355192         |
| 18+400.00                 | 5.5            | 77.6           | 106            | 1641           | 106                       | 1535            | 356727         |
| 18+420.00                 | 5.2            | 76.8           | 107            | 1544           | 107                       | 1437            | 358164         |
| 18+440.00                 | 9.9            | 73.7           | 151            | 1505           | 151                       | 1354            | 359518         |
| 18+460.00                 | 9.5            | 74.0           | 194            | 1477           | 194                       | 1283            | 360801         |

| TABELA ROBÓT ZIEMNYCH S11 |                |                |                |                |                           |                 |                |
|---------------------------|----------------|----------------|----------------|----------------|---------------------------|-----------------|----------------|
| PIKIETAŻ                  | POWIERZCHNIA   |                | OBJĘTOŚCI      |                | ZUŻYCIE<br>NA<br>MIEJSCU* | NADMIAR<br>OBJ. | SUMA           |
|                           | WYKOP          | NASYP          | WYKOP          | NASYP          |                           |                 |                |
| m                         | m <sup>2</sup> | m <sup>2</sup> | m <sup>3</sup> | m <sup>3</sup> | m <sup>3</sup>            | m <sup>3</sup>  | m <sup>3</sup> |
| 18+480.00                 | 8.6            | 74.0           | 181            | 1480           | 181                       | 1299            | 362100         |
| 18+500.00                 | 6.6            | 79.0           | 152            | 1530           | 152                       | 1378            | 363478         |
| 18+520.00                 | 6.0            | 78.6           | 126            | 1576           | 126                       | 1450            | 364928         |
| 18+540.00                 | 5.7            | 75.3           | 117            | 1539           | 117                       | 1422            | 366350         |
| 18+560.00                 | 7.7            | 72.2           | 134            | 1475           | 134                       | 1341            | 367691         |
| 18+580.00                 | 9.6            | 60.2           | 173            | 1324           | 173                       | 1151            | 368842         |
| 18+600.00                 | 9.6            | 54.5           | 192            | 1147           | 192                       | 955             | 369797         |
| 18+620.00                 | 8.9            | 51.9           | 185            | 1064           | 185                       | 879             | 370676         |
| 18+640.00                 | 7.8            | 51.0           | 167            | 1029           | 167                       | 862             | 371538         |
| 18+660.00                 | 7.1            | 49.9           | 149            | 1009           | 149                       | 860             | 372398         |
| 18+680.00                 | 6.7            | 47.4           | 138            | 973            | 138                       | 835             | 373233         |
| 18+700.00                 | 6.4            | 44.4           | 131            | 918            | 131                       | 787             | 374020         |
| 18+720.00                 | 7.1            | 37.5           | 135            | 819            | 135                       | 684             | 374704         |
| 18+740.00                 | 4.4            | 32.6           | 115            | 701            | 115                       | 586             | 375290         |
| 18+760.00                 | 10.4           | 26.3           | 148            | 589            | 148                       | 441             | 375731         |
| 18+780.00                 | 12.8           | 19.2           | 232            | 455            | 232                       | 223             | 375954         |
| 18+800.00                 | 11.5           | 22.1           | 243            | 413            | 243                       | 170             | 376124         |
| 18+820.00                 | 9.9            | 26.0           | 214            | 481            | 214                       | 267             | 376391         |
| 18+840.00                 | 8.5            | 27.7           | 184            | 537            | 184                       | 353             | 376744         |
| 18+860.00                 | 7.7            | 30.3           | 162            | 580            | 162                       | 418             | 377162         |
| 18+880.00                 | 4.2            | 43.1           | 119            | 734            | 119                       | 615             | 377777         |
| 18+900.00                 | 2.5            | 51.5           | 67             | 946            | 67                        | 879             | 378656         |
| 18+920.00                 | 2.5            | 49.0           | 50             | 1005           | 50                        | 955             | 379611         |
| 18+940.00                 | 3.5            | 43.1           | 60             | 921            | 60                        | 861             | 380472         |
| 18+960.00                 | 4.5            | 37.8           | 80             | 809            | 80                        | 729             | 381201         |
| 18+980.00                 | 4.4            | 36.4           | 89             | 742            | 89                        | 653             | 381854         |
| 19+000.00                 | 3.7            | 37.6           | 81             | 740            | 81                        | 659             | 382513         |
| 19+020.00                 | 3.4            | 38.0           | 71             | 756            | 71                        | 685             | 383198         |
| 19+040.00                 | 3.3            | 38.0           | 67             | 760            | 67                        | 693             | 383891         |
| 19+060.00                 | 3.3            | 41.6           | 66             | 796            | 66                        | 730             | 384621         |
| 19+080.00                 | 3.5            | 40.5           | 68             | 821            | 68                        | 753             | 385374         |
| 19+100.00                 | 8.5            | 23.3           | 120            | 638            | 120                       | 518             | 385892         |
| 19+120.00                 | 9.3            | 18.9           | 178            | 422            | 178                       | 244             | 386136         |
| 19+140.00                 | 9.9            | 16.1           | 192            | 350            | 192                       | 158             | 386294         |
| 19+160.00                 | 10.2           | 14.5           | 201            | 306            | 201                       | 105             | 386399         |
| 19+180.00                 | 10.1           | 13.3           | 203            | 278            | 203                       | 75              | 386474         |
| 19+200.00                 | 6.8            | 23.8           | 169            | 371            | 169                       | 202             | 386676         |
| 19+220.00                 | 7.1            | 23.5           | 139            | 473            | 139                       | 334             | 387010         |
| 19+240.00                 | 7.4            | 22.3           | 145            | 458            | 145                       | 313             | 387323         |
| 19+260.00                 | 7.3            | 21.4           | 147            | 437            | 147                       | 290             | 387613         |
| 19+280.00                 | 7.3            | 19.5           | 146            | 409            | 146                       | 263             | 387876         |
| 19+300.00                 | 6.9            | 20.4           | 142            | 399            | 142                       | 257             | 388133         |
| 19+320.00                 | 7.0            | 19.5           | 139            | 399            | 139                       | 260             | 388393         |
| 19+340.00                 | 6.9            | 18.0           | 139            | 375            | 139                       | 236             | 388629         |
| 19+360.00                 | 6.5            | 18.0           | 134            | 360            | 134                       | 226             | 388855         |
| 19+380.00                 | 5.8            | 19.3           | 123            | 373            | 123                       | 250             | 389105         |
| 19+400.00                 | 5.0            | 20.4           | 108            | 397            | 108                       | 289             | 389394         |

| TABELA ROBÓT ZIEMNYCH S11 |                |                |                |                |                           |                 |                |
|---------------------------|----------------|----------------|----------------|----------------|---------------------------|-----------------|----------------|
| PIKIETAŻ                  | POWIERZCHNIA   |                | OBJĘTOŚCI      |                | ZUŻYCIE<br>NA<br>MIEJSCU* | NADMIAR<br>OBJ. | SUMA           |
|                           | WYKOP          | NASYP          | WYKOP          | NASYP          |                           |                 |                |
| m                         | m <sup>2</sup> | m <sup>2</sup> | m <sup>3</sup> | m <sup>3</sup> | m <sup>3</sup>            | m <sup>3</sup>  | m <sup>3</sup> |
| 19+420.00                 | 4.8            | 20.5           | 98             | 409            | 98                        | 311             | 389705         |
| 19+440.00                 | 4.7            | 20.1           | 95             | 406            | 95                        | 311             | 390016         |
| 19+460.00                 | 4.9            | 18.2           | 96             | 383            | 96                        | 287             | 390303         |
| 19+480.00                 | 5.5            | 14.0           | 104            | 322            | 104                       | 218             | 390521         |
| 19+500.00                 | 6.6            | 10.3           | 121            | 243            | 121                       | 122             | 390643         |
| 19+520.00                 | 6.5            | 8.1            | 131            | 184            | 131                       | 53              | 390696         |
| 19+540.00                 | 6.8            | 7.3            | 133            | 154            | 133                       | 21              | 390717         |
| 19+560.00                 | 5.9            | 5.8            | 127            | 131            | 127                       | 4               | 390721         |
| 19+580.00                 | 6.3            | 6.4            | 122            | 122            | 122                       | 0               | 390721         |
| 19+600.00                 | 8.5            | 3.5            | 148            | 99             | 99                        | -49             | 390672         |
| 19+620.00                 | 16.1           | 1.7            | 246            | 52             | 52                        | -194            | 390478         |
| 19+640.00                 | 21.5           | 1.2            | 376            | 29             | 29                        | -347            | 390131         |
| 19+660.00                 | 33.4           | 0.0            | 549            | 12             | 12                        | -537            | 389594         |
| 19+680.00                 | 28.1           | 0.7            | 615            | 7              | 7                         | -608            | 388986         |
| 19+700.00                 | 5.5            | 8.7            | 336            | 94             | 94                        | -242            | 388744         |
| 19+720.00                 | 0.0            | 47.2           | 55             | 559            | 55                        | 504             | 389248         |
| 19+740.00                 | 0.0            | 48.8           | 0              | 960            | 0                         | 960             | 390208         |
| 19+760.00                 | 0.0            | 51.2           | 0              | 1000           | 0                         | 1000            | 391208         |
| 19+780.00                 | 0.0            | 53.8           | 0              | 1050           | 0                         | 1050            | 392258         |
| 19+800.00                 | 20.8           | 1.7            | 208            | 555            | 208                       | 347             | 392605         |
| 19+820.00                 | 16.2           | 3.0            | 370            | 47             | 47                        | -323            | 392282         |
| 19+840.00                 | 8.2            | 13.9           | 244            | 169            | 169                       | -75             | 392207         |
| 19+860.00                 | 7.9            | 17.6           | 161            | 315            | 161                       | 154             | 392361         |
| 19+880.00                 | 7.8            | 18.5           | 157            | 361            | 157                       | 204             | 392565         |
| 19+900.00                 | 6.1            | 26.7           | 139            | 452            | 139                       | 313             | 392878         |
| 19+920.00                 | 6.0            | 19.9           | 121            | 466            | 121                       | 345             | 393223         |
| 19+940.00                 | 5.5            | 25.2           | 115            | 451            | 115                       | 336             | 393559         |
| 19+960.00                 | 4.7            | 30.4           | 102            | 556            | 102                       | 454             | 394013         |
| 19+980.00                 | 4.8            | 32.5           | 95             | 629            | 95                        | 534             | 394547         |
| 20+000.00                 | 4.2            | 37.0           | 90             | 695            | 90                        | 605             | 395152         |
| 20+020.00                 | 3.4            | 41.8           | 76             | 788            | 76                        | 712             | 395864         |
| 20+040.00                 | 3.1            | 42.9           | 65             | 847            | 65                        | 782             | 396646         |
| 20+060.00                 | 3.8            | 41.4           | 69             | 843            | 69                        | 774             | 397420         |
| 20+080.00                 | 4.2            | 41.1           | 80             | 825            | 80                        | 745             | 398165         |
| 20+100.00                 | 3.4            | 45.4           | 76             | 865            | 76                        | 789             | 398954         |
| 20+120.00                 | 1.4            | 43.1           | 48             | 885            | 48                        | 837             | 399791         |
| 20+140.00                 | 2.2            | 44.8           | 36             | 879            | 36                        | 843             | 400634         |
| 20+160.00                 | 1.2            | 50.1           | 34             | 949            | 34                        | 915             | 401549         |
| 20+180.00                 | 0.9            | 55.3           | 21             | 1054           | 21                        | 1033            | 402582         |
| 20+200.00                 | 0.5            | 61.6           | 14             | 1169           | 14                        | 1155            | 403737         |
| 20+220.00                 | 0.2            | 67.5           | 7              | 1291           | 7                         | 1284            | 405021         |
| 20+240.00                 | 0.2            | 66.6           | 4              | 1341           | 4                         | 1337            | 406358         |
| 20+260.00                 | 0.3            | 61.9           | 5              | 1285           | 5                         | 1280            | 407638         |
| 20+280.00                 | 0.1            | 61.5           | 4              | 1234           | 4                         | 1230            | 408868         |
| 20+300.00                 | 0.2            | 57.7           | 3              | 1192           | 3                         | 1189            | 410057         |
| 20+320.00                 | 0.0            | 59.5           | 2              | 1172           | 2                         | 1170            | 411227         |
| 20+340.00                 | 0.0            | 56.4           | 0              | 1159           | 0                         | 1159            | 412386         |

| TABELA ROBÓT ZIEMNYCH S11 |                |                |                |                |                           |                 |                |
|---------------------------|----------------|----------------|----------------|----------------|---------------------------|-----------------|----------------|
| PIKIETAŻ                  | POWIERZCHNIA   |                | OBJĘTOŚCI      |                | ZUŻYCIE<br>NA<br>MIEJSCU* | NADMIAR<br>OBJ. | SUMA           |
|                           | WYKOP          | NASYP          | WYKOP          | NASYP          |                           |                 |                |
| m                         | m <sup>2</sup> | m <sup>2</sup> | m <sup>3</sup> | m <sup>3</sup> | m <sup>3</sup>            | m <sup>3</sup>  | m <sup>3</sup> |
| 20+360.00                 | 0.0            | 48.7           | 0              | 1051           | 0                         | 1051            | 413437         |
| 20+380.00                 | 0.1            | 39.1           | 1              | 878            | 1                         | 877             | 414314         |
| 20+400.00                 | 0.1            | 32.0           | 2              | 711            | 2                         | 709             | 415023         |
| 20+420.00                 | 0.7            | 26.2           | 8              | 582            | 8                         | 574             | 415597         |
| 20+440.00                 | 1.0            | 21.9           | 17             | 481            | 17                        | 464             | 416061         |
| 20+460.00                 | 1.7            | 14.5           | 27             | 364            | 27                        | 337             | 416398         |
| 20+480.00                 | 2.3            | 13.4           | 40             | 279            | 40                        | 239             | 416637         |
| 20+500.00                 | 2.4            | 11.7           | 47             | 251            | 47                        | 204             | 416841         |
| 20+520.00                 | 5.6            | 6.5            | 80             | 182            | 80                        | 102             | 416943         |
| 20+540.00                 | 9.7            | 2.3            | 153            | 88             | 88                        | -65             | 416878         |
| 20+560.00                 | 10.5           | 1.5            | 202            | 38             | 38                        | -164            | 416714         |
| 20+580.00                 | 12.4           | 1.5            | 229            | 30             | 30                        | -199            | 416515         |
| 20+600.00                 | 5.4            | 5.6            | 178            | 71             | 71                        | -107            | 416408         |
| 20+620.00                 | 3.5            | 6.2            | 89             | 118            | 89                        | 29              | 416437         |
| 20+640.00                 | 0.2            | 39.3           | 37             | 455            | 37                        | 418             | 416855         |
| 20+660.00                 | 0.0            | 43.8           | 2              | 831            | 2                         | 829             | 417684         |
| 20+680.00                 | 0.3            | 40.7           | 3              | 845            | 3                         | 842             | 418526         |
| 20+700.00                 | 0.7            | 27.0           | 10             | 677            | 10                        | 667             | 419193         |
| 20+720.00                 | 3.6            | 6.6            | 43             | 336            | 43                        | 293             | 419486         |
| 20+740.00                 | 10.8           | 1.5            | 144            | 81             | 81                        | -63             | 419423         |
| 20+760.00                 | 12.5           | 1.5            | 233            | 30             | 30                        | -203            | 419220         |
| 20+780.00                 | 22.9           | 0.6            | 354            | 21             | 21                        | -333            | 418887         |
| 20+800.00                 | 7.0            | 5.0            | 299            | 56             | 56                        | -243            | 418644         |
| 20+820.00                 | 5.3            | 19.5           | 123            | 245            | 123                       | 122             | 418766         |
| 20+840.00                 | 0.5            | 33.3           | 58             | 528            | 58                        | 470             | 419236         |
| 20+860.00                 | 1.2            | 35.7           | 17             | 690            | 17                        | 673             | 419909         |
| 20+880.00                 | 1.2            | 36.0           | 24             | 717            | 24                        | 693             | 420602         |
| 20+900.00                 | 0.7            | 15.8           | 19             | 518            | 19                        | 499             | 421101         |
| 20+920.00                 | 0.8            | 11.4           | 15             | 272            | 15                        | 257             | 421358         |
| 20+940.00                 | 1.8            | 7.0            | 26             | 184            | 26                        | 158             | 421516         |
| 20+960.00                 | 1.7            | 7.7            | 35             | 147            | 35                        | 112             | 421628         |
| 20+980.00                 | 0.6            | 6.8            | 23             | 145            | 23                        | 122             | 421750         |
| 21+000.00                 | 0.8            | 5.6            | 14             | 124            | 14                        | 110             | 421860         |
| 21+020.00                 | 1.3            | 5.0            | 21             | 106            | 21                        | 85              | 421945         |
| 21+040.00                 | 4.4            | 5.4            | 57             | 104            | 57                        | 47              | 421992         |
| 21+060.00                 | 4.4            | 5.0            | 88             | 104            | 88                        | 16              | 422008         |
| 21+080.00                 | 6.5            | 3.0            | 109            | 80             | 80                        | -29             | 421979         |
| 21+100.00                 | 3.5            | 3.9            | 100            | 69             | 69                        | -31             | 421948         |
| 21+120.00                 | 1.0            | 4.7            | 45             | 86             | 45                        | 41              | 421989         |
| 21+140.00                 | 0.8            | 7.1            | 18             | 118            | 18                        | 100             | 422089         |
| 21+160.00                 | 3.7            | 8.6            | 45             | 157            | 45                        | 112             | 422201         |
| 21+180.00                 | 5.5            | 7.9            | 92             | 165            | 92                        | 73              | 422274         |
| 21+200.00                 | 8.5            | 10.5           | 140            | 184            | 140                       | 44              | 422318         |
| 21+220.00                 | 3.3            | 7.0            | 118            | 175            | 118                       | 57              | 422375         |
| 21+240.00                 | 11.6           | 1.9            | 149            | 89             | 89                        | -60             | 422315         |
| 21+260.00                 | 7.3            | 14.1           | 189            | 160            | 160                       | -29             | 422286         |
| 21+280.00                 | 2.7            | 2.0            | 100            | 161            | 100                       | 61              | 422347         |

| TABELA ROBÓT ZIEMNYCH S11 |                |                |                |                |                           |                 |                |
|---------------------------|----------------|----------------|----------------|----------------|---------------------------|-----------------|----------------|
| PIKIETAŻ                  | POWIERZCHNIA   |                | OBJĘTOŚCI      |                | ZUŻYCIE<br>NA<br>MIEJSCU* | NADMIAR<br>OBJ. | SUMA           |
|                           | WYKOP          | NASYP          | WYKOP          | NASYP          |                           |                 |                |
| m                         | m <sup>2</sup> | m <sup>2</sup> | m <sup>3</sup> | m <sup>3</sup> | m <sup>3</sup>            | m <sup>3</sup>  | m <sup>3</sup> |
| 21+300.00                 | 6.7            | 15.9           | 94             | 179            | 94                        | 85              | 422432         |
| 21+320.00                 | 5.6            | 16.6           | 123            | 325            | 123                       | 202             | 422634         |
| 21+340.00                 | 2.8            | 12.8           | 84             | 294            | 84                        | 210             | 422844         |
| 21+360.00                 | 2.7            | 14.5           | 55             | 273            | 55                        | 218             | 423062         |
| 21+380.00                 | 2.4            | 15.8           | 51             | 303            | 51                        | 252             | 423314         |
| 21+400.00                 | 3.6            | 14.8           | 60             | 306            | 60                        | 246             | 423560         |
| 21+420.00                 | 3.5            | 11.5           | 71             | 263            | 71                        | 192             | 423752         |
| 21+440.00                 | 3.5            | 9.7            | 70             | 212            | 70                        | 142             | 423894         |
| 21+460.00                 | 1.9            | 8.8            | 54             | 185            | 54                        | 131             | 424025         |
| 21+480.00                 | 2.9            | 4.7            | 48             | 135            | 48                        | 87              | 424112         |
| 21+500.00                 | 6.2            | 1.9            | 91             | 66             | 66                        | -25             | 424087         |
| 21+520.00                 | 11.3           | 4.4            | 175            | 63             | 63                        | -112            | 423975         |
| 21+540.00                 | 13.1           | 4.6            | 244            | 90             | 90                        | -154            | 423821         |
| 21+560.00                 | 10.8           | 4.9            | 239            | 95             | 95                        | -144            | 423677         |
| 21+580.00                 | 7.8            | 9.5            | 186            | 144            | 144                       | -42             | 423635         |
| 21+600.00                 | 7.7            | 8.8            | 155            | 183            | 155                       | 28              | 423663         |
| 21+620.00                 | 5.7            | 14.1           | 134            | 229            | 134                       | 95              | 423758         |
| 21+640.00                 | 4.8            | 18.2           | 105            | 323            | 105                       | 218             | 423976         |
| 21+660.00                 | 4.3            | 23.9           | 91             | 421            | 91                        | 330             | 424306         |
| 21+680.00                 | 3.8            | 22.6           | 81             | 465            | 81                        | 384             | 424690         |
| 21+700.00                 | 3.4            | 20.8           | 72             | 434            | 72                        | 362             | 425052         |
| 21+720.00                 | 3.5            | 21.8           | 69             | 426            | 69                        | 357             | 425409         |
| 21+740.00                 | 3.5            | 23.5           | 70             | 453            | 70                        | 383             | 425792         |
| 21+760.00                 | 3.6            | 24.8           | 71             | 483            | 71                        | 412             | 426204         |
| 21+780.00                 | 2.6            | 26.3           | 62             | 511            | 62                        | 449             | 426653         |
| 21+800.00                 | 0.0            | 30.0           | 26             | 563            | 26                        | 537             | 427190         |
| 21+820.00                 | 0.0            | 35.6           | 0              | 656            | 0                         | 656             | 427846         |
| 21+840.00                 | 0.0            | 38.5           | 0              | 741            | 0                         | 741             | 428587         |
| 21+860.00                 | 0.0            | 37.2           | 0              | 757            | 0                         | 757             | 429344         |
| 21+880.00                 | 0.0            | 39.4           | 0              | 766            | 0                         | 766             | 430110         |
| 21+900.00                 | 0.0            | 49.2           | 0              | 886            | 0                         | 886             | 430996         |
| 21+920.00                 | 0.0            | 39.7           | 0              | 889            | 0                         | 889             | 431885         |
| 21+940.00                 | 0.0            | 35.6           | 0              | 753            | 0                         | 753             | 432638         |
| 21+960.00                 | 0.0            | 33.4           | 0              | 690            | 0                         | 690             | 433328         |
| 21+980.00                 | 0.0            | 29.4           | 0              | 628            | 0                         | 628             | 433956         |
| 22+000.00                 | 0.0            | 30.9           | 0              | 603            | 0                         | 603             | 434559         |
| 22+020.00                 | 0.0            | 35.0           | 0              | 659            | 0                         | 659             | 435218         |
| 22+040.00                 | 0.0            | 37.0           | 0              | 720            | 0                         | 720             | 435938         |
| 22+060.00                 | 0.0            | 41.8           | 0              | 788            | 0                         | 788             | 436726         |
| 22+080.00                 | 0.0            | 47.3           | 0              | 891            | 0                         | 891             | 437617         |
| 22+100.00                 | 0.0            | 53.0           | 0              | 1003           | 0                         | 1003            | 438620         |
| 22+120.00                 | 0.0            | 60.8           | 0              | 1138           | 0                         | 1138            | 439758         |
| 22+140.00                 | 0.0            | 64.9           | 0              | 1257           | 0                         | 1257            | 441015         |
| 22+160.00                 | 0.0            | 65.1           | 0              | 1300           | 0                         | 1300            | 442315         |
| 22+180.00                 | 0.0            | 68.4           | 0              | 1335           | 0                         | 1335            | 443650         |
| 22+200.00                 | 0.0            | 74.4           | 0              | 1428           | 0                         | 1428            | 445078         |
| 22+220.00                 | 0.0            | 79.2           | 0              | 1536           | 0                         | 1536            | 446614         |

| TABELA ROBÓT ZIEMNYCH S11 |                |                |                |                |                           |                 |                |
|---------------------------|----------------|----------------|----------------|----------------|---------------------------|-----------------|----------------|
| PIKIETAŻ                  | POWIERZCHNIA   |                | OBJĘTOŚCI      |                | ZUŻYCIE<br>NA<br>MIEJSCU* | NADMIAR<br>OBJ. | SUMA           |
|                           | WYKOP          | NASYP          | WYKOP          | NASYP          |                           |                 |                |
| m                         | m <sup>2</sup> | m <sup>2</sup> | m <sup>3</sup> | m <sup>3</sup> | m <sup>3</sup>            | m <sup>3</sup>  | m <sup>3</sup> |
| 22+240.00                 | 0.0            | 83.5           | 0              | 1627           | 0                         | 1627            | 448241         |
| 22+260.00                 | 0.0            | 88.6           | 0              | 1721           | 0                         | 1721            | 449962         |
| 22+280.00                 | 0.0            | 91.4           | 0              | 1800           | 0                         | 1800            | 451762         |
| 22+300.00                 | 0.0            | 96.3           | 0              | 1877           | 0                         | 1877            | 453639         |
| 22+320.00                 | 0.0            | 102.8          | 0              | 1991           | 0                         | 1991            | 455630         |
| 22+340.00                 | 0.0            | 113.2          | 0              | 2160           | 0                         | 2160            | 457790         |
| 22+360.00                 | 0.0            | 128.3          | 0              | 2415           | 0                         | 2415            | 460205         |
| 22+380.00                 | 0.0            | 144.8          | 0              | 2731           | 0                         | 2731            | 462936         |
| 22+400.00                 | 0.0            | 160.3          | 0              | 3051           | 0                         | 3051            | 465987         |
| 22+420.00                 | 0.0            | 174.4          | 0              | 3347           | 0                         | 3347            | 469334         |
| 22+440.00                 | 0.0            | 186.0          | 0              | 3604           | 0                         | 3604            | 472938         |
| 22+460.00                 | 0.0            | 194.8          | 0              | 3808           | 0                         | 3808            | 476746         |
| 22+480.00                 | 0.0            | 201.1          | 0              | 3959           | 0                         | 3959            | 480705         |
| 22+500.00                 | 0.0            | 207.0          | 0              | 4081           | 0                         | 4081            | 484786         |
| 22+520.00                 | 0.0            | 219.7          | 0              | 4267           | 0                         | 4267            | 489053         |
| 22+540.00                 | 0.0            | 234.6          | 0              | 4543           | 0                         | 4543            | 493596         |
| 22+560.00                 | 0.0            | 251.6          | 0              | 4862           | 0                         | 4862            | 498458         |
| 22+580.00                 | 0.0            | 270.9          | 0              | 5225           | 0                         | 5225            | 503683         |
| 22+600.00                 | 0.0            | 286.2          | 0              | 5571           | 0                         | 5571            | 509254         |
| 22+620.00                 | 0.0            | 302.0          | 0              | 5882           | 0                         | 5882            | 515136         |
| 22+640.00                 | 0.0            | 317.2          | 0              | 6192           | 0                         | 6192            | 521328         |
| 22+660.00                 | 0.0            | 334.5          | 0              | 6517           | 0                         | 6517            | 527845         |
| 22+680.00                 | 0.0            | 349.5          | 0              | 6840           | 0                         | 6840            | 534685         |
| 22+700.00                 | 0.0            | 356.2          | 0              | 7057           | 0                         | 7057            | 541742         |
| 22+720.00                 | 0.0            | 321.8          | 0              | 6780           | 0                         | 6780            | 548522         |
| 22+740.00                 | 0.0            | 292.8          | 0              | 6146           | 0                         | 6146            | 554668         |
| 22+760.00                 | 0.0            | 300.0          | 0              | 5928           | 0                         | 5928            | 560596         |
| OBIEKT WS 22              |                |                |                |                |                           |                 |                |
| 22+817.00                 | 0.0            | 385.0          | 0              | 0              | 0                         | 0               | 560596         |
| 22+820.00                 | 1.5            | 384.7          | 2              | 1155           | 2                         | 1153            | 561749         |
| 22+840.00                 | 1.3            | 337.6          | 28             | 7223           | 28                        | 7195            | 568944         |
| 22+860.00                 | 0.9            | 320.2          | 22             | 6578           | 22                        | 6556            | 575500         |
| 22+880.00                 | 0.8            | 303.9          | 17             | 6241           | 17                        | 6224            | 581724         |
| 22+900.00                 | 0.8            | 272.6          | 16             | 5765           | 16                        | 5749            | 587473         |
| 22+920.00                 | 0.2            | 180.4          | 10             | 4530           | 10                        | 4520            | 591993         |
| 22+940.00                 | 0.0            | 105.0          | 2              | 2854           | 2                         | 2852            | 594845         |
| 22+960.00                 | 0.0            | 97.7           | 0              | 2027           | 0                         | 2027            | 596872         |
| 22+980.00                 | 0.0            | 118.6          | 0              | 2163           | 0                         | 2163            | 599035         |
| 23+000.00                 | 0.0            | 112.9          | 0              | 2315           | 0                         | 2315            | 601350         |
| 23+020.00                 | 2.3            | 124.3          | 23             | 2372           | 23                        | 2349            | 603699         |
| 23+040.00                 | 2.2            | 107.0          | 45             | 2313           | 45                        | 2268            | 605967         |
| 23+060.00                 | 2.0            | 89.8           | 42             | 1968           | 42                        | 1926            | 607893         |
| 23+080.00                 | 1.9            | 74.9           | 39             | 1647           | 39                        | 1608            | 609501         |
| 23+100.00                 | 1.9            | 59.6           | 38             | 1345           | 38                        | 1307            | 610808         |
| 23+120.00                 | 1.4            | 53.7           | 33             | 1133           | 33                        | 1100            | 611908         |
| 23+140.00                 | 1.4            | 44.7           | 28             | 984            | 28                        | 956             | 612864         |
| 23+160.00                 | 1.6            | 37.2           | 30             | 819            | 30                        | 789             | 613653         |

| TABELA ROBÓT ZIEMNYCH S11 |                |                |                |                |                           |                 |                |
|---------------------------|----------------|----------------|----------------|----------------|---------------------------|-----------------|----------------|
| PIKIETAŻ                  | POWIERZCHNIA   |                | OBJĘTOŚCI      |                | ZUŻYCIE<br>NA<br>MIEJSCU* | NADMIAR<br>OBJ. | SUMA           |
|                           | WYKOP          | NASYP          | WYKOP          | NASYP          |                           |                 |                |
| m                         | m <sup>2</sup> | m <sup>2</sup> | m <sup>3</sup> | m <sup>3</sup> | m <sup>3</sup>            | m <sup>3</sup>  | m <sup>3</sup> |
| 23+180.00                 | 2.1            | 34.4           | 37             | 716            | 37                        | 679             | 614332         |
| 23+200.00                 | 1.7            | 37.9           | 38             | 723            | 38                        | 685             | 615017         |
| 23+220.00                 | 1.8            | 39.2           | 35             | 771            | 35                        | 736             | 615753         |
| 23+240.00                 | 2.0            | 40.4           | 38             | 796            | 38                        | 758             | 616511         |
| 23+260.00                 | 1.8            | 44.1           | 38             | 845            | 38                        | 807             | 617318         |
| 23+280.00                 | 1.0            | 53.9           | 28             | 980            | 28                        | 952             | 618270         |
| 23+300.00                 | 1.4            | 56.1           | 24             | 1100           | 24                        | 1076            | 619346         |
| 23+320.00                 | 2.8            | 50.1           | 42             | 1062           | 42                        | 1020            | 620366         |
| 23+340.00                 | 3.4            | 41.5           | 62             | 916            | 62                        | 854             | 621220         |
| 23+360.00                 | 3.7            | 25.0           | 71             | 665            | 71                        | 594             | 621814         |
| 23+380.00                 | 2.4            | 12.3           | 61             | 373            | 61                        | 312             | 622126         |
| 23+400.00                 | 1.3            | 3.0            | 37             | 153            | 37                        | 116             | 622242         |
| 23+420.00                 | 0.4            | 1.7            | 17             | 47             | 17                        | 30              | 622272         |
| 23+440.00                 | 0.5            | 1.4            | 9              | 31             | 9                         | 22              | 622294         |
| 23+460.00                 | 0.1            | 3.4            | 6              | 48             | 6                         | 42              | 622336         |
| 23+480.00                 | 3.2            | 4.9            | 33             | 83             | 33                        | 50              | 622386         |
| 23+500.00                 | 5.6            | 3.1            | 88             | 80             | 80                        | -8              | 622378         |
| 23+520.00                 | 5.2            | 3.8            | 108            | 69             | 69                        | -39             | 622339         |
| 23+540.00                 | 6.7            | 2.6            | 119            | 64             | 64                        | -55             | 622284         |
| 23+560.00                 | 7.3            | 1.9            | 140            | 45             | 45                        | -95             | 622189         |
| 23+580.00                 | 6.2            | 3.3            | 135            | 52             | 52                        | -83             | 622106         |
| 23+600.00                 | 5.8            | 4.3            | 120            | 76             | 76                        | -44             | 622062         |
| 23+620.00                 | 4.5            | 5.2            | 103            | 95             | 95                        | -8              | 622054         |
| 23+640.00                 | 2.0            | 15.3           | 65             | 205            | 65                        | 140             | 622194         |
| 23+660.00                 | 1.5            | 21.1           | 35             | 364            | 35                        | 329             | 622523         |
| 23+680.00                 | 1.3            | 23.0           | 28             | 441            | 28                        | 413             | 622936         |
| 23+700.00                 | 0.9            | 28.3           | 22             | 513            | 22                        | 491             | 623427         |
| 23+720.00                 | 0.3            | 39.9           | 12             | 682            | 12                        | 670             | 624097         |
| 23+740.00                 | 0.0            | 55.6           | 3              | 955            | 3                         | 952             | 625049         |
| 23+760.00                 | 0.0            | 71.4           | 0              | 1270           | 0                         | 1270            | 626319         |
| 23+780.00                 | 0.0            | 93.9           | 0              | 1653           | 0                         | 1653            | 627972         |
| 23+800.00                 | 0.0            | 105.2          | 0              | 1991           | 0                         | 1991            | 629963         |
| 23+817.00                 | 0.0            | 106.0          | 0              | 1795           | 0                         | 1795            | 631758         |
| OBIEKT MS 24              |                |                |                |                |                           |                 |                |
| 23+836.00                 | 0.0            | 0.0            | 0              | 0              | 0                         | 0               | 631758         |
| 23+840.00                 | 1.8            | 106.6          | 4              | 213            | 4                         | 209             | 631967         |
| 23+860.00                 | 1.4            | 96.7           | 32             | 2033           | 32                        | 2001            | 633968         |
| 23+880.00                 | 0.9            | 97.3           | 23             | 1940           | 23                        | 1917            | 635885         |
| 23+900.00                 | 1.4            | 98.8           | 23             | 1961           | 23                        | 1938            | 637823         |
| 23+920.00                 | 2.0            | 97.6           | 34             | 1964           | 34                        | 1930            | 639753         |
| 23+940.00                 | 2.5            | 94.1           | 45             | 1917           | 45                        | 1872            | 641625         |
| 23+960.00                 | 3.5            | 87.8           | 60             | 1819           | 60                        | 1759            | 643384         |
| 23+980.00                 | 4.2            | 80.8           | 77             | 1686           | 77                        | 1609            | 644993         |
| 24+000.00                 | 5.2            | 78.6           | 94             | 1594           | 94                        | 1500            | 646493         |
| 24+020.00                 | 5.4            | 73.4           | 106            | 1520           | 106                       | 1414            | 647907         |
| 24+040.00                 | 4.5            | 72.7           | 99             | 1461           | 99                        | 1362            | 649269         |
| 24+060.00                 | 3.5            | 74.8           | 80             | 1475           | 80                        | 1395            | 650664         |

| TABELA ROBÓT ZIEMNYCH S11 |                |                |                |                |                           |                 |                |
|---------------------------|----------------|----------------|----------------|----------------|---------------------------|-----------------|----------------|
| PIKIETAŻ                  | POWIERZCHNIA   |                | OBJĘTOŚCI      |                | ZUŻYCIE<br>NA<br>MIEJSCU* | NADMIAR<br>OBJ. | SUMA           |
|                           | WYKOP          | NASYP          | WYKOP          | NASYP          |                           |                 |                |
| m                         | m <sup>2</sup> | m <sup>2</sup> | m <sup>3</sup> | m <sup>3</sup> | m <sup>3</sup>            | m <sup>3</sup>  | m <sup>3</sup> |
| 24+080.00                 | 2.3            | 76.0           | 58             | 1508           | 58                        | 1450            | 652114         |
| 24+100.00                 | 1.7            | 75.8           | 40             | 1518           | 40                        | 1478            | 653592         |
| 24+120.00                 | 1.2            | 98.0           | 29             | 1738           | 29                        | 1709            | 655301         |
| 24+140.00                 | 0.4            | 74.9           | 16             | 1729           | 16                        | 1713            | 657014         |
| 24+160.00                 | 0.8            | 74.7           | 12             | 1496           | 12                        | 1484            | 658498         |
| 24+180.00                 | 0.6            | 69.1           | 14             | 1438           | 14                        | 1424            | 659922         |
| 24+200.00                 | 0.5            | 64.0           | 11             | 1331           | 11                        | 1320            | 661242         |
| 24+220.00                 | 0.6            | 57.9           | 11             | 1219           | 11                        | 1208            | 662450         |
| 24+240.00                 | 0.4            | 54.2           | 10             | 1121           | 10                        | 1111            | 663561         |
| 24+260.00                 | 0.2            | 51.7           | 6              | 1059           | 6                         | 1053            | 664614         |
| 24+280.00                 | 0.5            | 45.1           | 7              | 968            | 7                         | 961             | 665575         |
| 24+300.00                 | 0.7            | 37.9           | 12             | 830            | 12                        | 818             | 666393         |
| 24+320.00                 | 1.8            | 28.7           | 25             | 666            | 25                        | 641             | 667034         |
| 24+340.00                 | 2.1            | 23.2           | 39             | 519            | 39                        | 480             | 667514         |
| 24+360.00                 | 3.2            | 20.5           | 53             | 437            | 53                        | 384             | 667898         |
| 24+380.00                 | 7.1            | 9.3            | 103            | 298            | 103                       | 195             | 668093         |
| 24+400.00                 | 15.1           | 5.0            | 222            | 143            | 143                       | -79             | 668014         |
| 24+420.00                 | 23.1           | 3.9            | 382            | 89             | 89                        | -293            | 667721         |
| 24+440.00                 | 32.3           | 3.9            | 554            | 78             | 78                        | -476            | 667245         |
| 24+460.00                 | 46.5           | 3.8            | 788            | 77             | 77                        | -711            | 666534         |
| 24+480.00                 | 57.2           | 3.7            | 1037           | 75             | 75                        | -962            | 665572         |
| 24+500.00                 | 64.3           | 3.7            | 1215           | 74             | 74                        | -1141           | 664431         |
| 24+520.00                 | 70.4           | 3.6            | 1347           | 73             | 73                        | -1274           | 663157         |
| 24+540.00                 | 71.2           | 3.6            | 1416           | 72             | 72                        | -1344           | 661813         |
| 24+560.00                 | 69.5           | 3.5            | 1407           | 71             | 71                        | -1336           | 660477         |
| 24+580.00                 | 66.4           | 3.4            | 1359           | 69             | 69                        | -1290           | 659187         |
| 24+600.00                 | 62.5           | 3.3            | 1289           | 67             | 67                        | -1222           | 657965         |
| 24+620.00                 | 60.9           | 3.2            | 1234           | 65             | 65                        | -1169           | 656796         |
| 24+640.00                 | 59.4           | 3.1            | 1203           | 63             | 63                        | -1140           | 655656         |
| 24+660.00                 | 54.7           | 3.0            | 1141           | 61             | 61                        | -1080           | 654576         |
| 24+680.00                 | 60.2           | 2.9            | 1149           | 59             | 59                        | -1090           | 653486         |
| 24+700.00                 | 53.9           | 2.7            | 1141           | 56             | 56                        | -1085           | 652401         |
| 24+720.00                 | 53.7           | 2.6            | 1076           | 53             | 53                        | -1023           | 651378         |
| 24+740.00                 | 50.3           | 2.6            | 1040           | 52             | 52                        | -988            | 650390         |
| 24+760.00                 | 48.6           | 2.5            | 989            | 51             | 51                        | -938            | 649452         |
| 24+780.00                 | 40.7           | 2.5            | 893            | 50             | 50                        | -843            | 648609         |
| 24+800.00                 | 19.5           | 2.5            | 602            | 50             | 50                        | -552            | 648057         |
| 24+820.00                 | 18.9           | 2.5            | 384            | 50             | 50                        | -334            | 647723         |
| 24+840.00                 | 18.4           | 2.5            | 373            | 50             | 50                        | -323            | 647400         |
| 24+860.00                 | 25.0           | 2.6            | 434            | 51             | 51                        | -383            | 647017         |
| 24+880.00                 | 27.2           | 2.6            | 522            | 52             | 52                        | -470            | 646547         |
| 24+900.00                 | 25.8           | 2.6            | 530            | 52             | 52                        | -478            | 646069         |
| 24+920.00                 | 23.2           | 2.6            | 490            | 52             | 52                        | -438            | 645631         |
| 24+940.00                 | 21.7           | 2.6            | 449            | 52             | 52                        | -397            | 645234         |
| 24+960.00                 | 18.3           | 2.7            | 400            | 53             | 53                        | -347            | 644887         |
| 24+980.00                 | 11.7           | 2.7            | 300            | 54             | 54                        | -246            | 644641         |
| 25+000.00                 | 4.6            | 6.2            | 163            | 89             | 89                        | -74             | 644567         |



| TABELA ROBÓT ZIEMNYCH S11 |                |                |                |                |                           |                 |                |
|---------------------------|----------------|----------------|----------------|----------------|---------------------------|-----------------|----------------|
| PIKIETAŻ                  | POWIERZCHNIA   |                | OBJĘTOŚCI      |                | ZUŻYCIE<br>NA<br>MIEJSCU* | NADMIAR<br>OBJ. | SUMA           |
|                           | WYKOP          | NASYP          | WYKOP          | NASYP          |                           |                 |                |
| m                         | m <sup>2</sup> | m <sup>2</sup> | m <sup>3</sup> | m <sup>3</sup> | m <sup>3</sup>            | m <sup>3</sup>  | m <sup>3</sup> |
| 25+020.00                 | 5.3            | 9.3            | 99             | 155            | 99                        | 56              | 644623         |
| 25+040.00                 | 0.0            | 22.4           | 53             | 317            | 0                         | 264             | 644887         |
| 25+060.00                 | 2.3            | 43.5           | 23             | 659            | 0                         | 636             | 645523         |
| 25+080.00                 | 2.4            | 48.0           | 47             | 915            | 0                         | 868             | 646391         |
| 25+100.00                 | 2.1            | 61.9           | 45             | 1099           | 0                         | 1054            | 647445         |
| 25+120.00                 | 0.6            | 79.1           | 27             | 1410           | 0                         | 1383            | 648828         |
| 25+140.00                 | 0.9            | 77.0           | 15             | 1561           | 15                        | 1546            | 650374         |
| 25+160.00                 | 0.4            | 82.8           | 13             | 1598           | 13                        | 1585            | 651959         |
| 25+180.00                 | 0.4            | 83.0           | 8              | 1658           | 8                         | 1650            | 653609         |
| 25+200.00                 | 0.4            | 87.5           | 8              | 1705           | 8                         | 1697            | 655306         |
| 25+220.00                 | 0.5            | 89.8           | 9              | 1773           | 9                         | 1764            | 657070         |
| 25+240.00                 | 0.5            | 98.1           | 10             | 1879           | 10                        | 1869            | 658939         |
| 25+260.00                 | 0.7            | 112.8          | 12             | 2109           | 12                        | 2097            | 661036         |
| 25+280.00                 | 2.3            | 114.7          | 30             | 2275           | 30                        | 2245            | 663281         |
| 25+300.00                 | 2.3            | 132.8          | 46             | 2475           | 46                        | 2429            | 665710         |
| 25+320.00                 | 2.2            | 150.7          | 45             | 2835           | 45                        | 2790            | 668500         |
| 25+340.00                 | 4.6            | 174.9          | 68             | 3256           | 68                        | 3188            | 671688         |
| 25+360.00                 | 1.0            | 215.7          | 56             | 3906           | 56                        | 3850            | 675538         |
| 25+380.00                 | 1.1            | 244.5          | 21             | 4602           | 21                        | 4581            | 680119         |
| 25+400.00                 | 1.0            | 273.1          | 21             | 5176           | 21                        | 5155            | 685274         |
| 25+420.00                 | 1.1            | 289.8          | 21             | 5629           | 21                        | 5608            | 690882         |
| 25+440.00                 | 0.9            | 304.3          | 20             | 5941           | 20                        | 5921            | 696803         |
| 25+460.00                 | 0.9            | 318.6          | 18             | 6229           | 18                        | 6211            | 703014         |
| 25+480.00                 | 0.9            | 332.6          | 18             | 6512           | 18                        | 6494            | 709508         |
| 25+500.00                 | 2.0            | 335.4          | 29             | 6680           | 29                        | 6651            | 716159         |
| 25+520.00                 | 2.3            | 340.5          | 43             | 6759           | 43                        | 6716            | 722875         |
| OBIEKT WS 25              |                |                |                |                |                           |                 |                |
| 25+547.00                 | 1.0            | 350.0          | 0              | 0              | 0                         | 0               | 722875         |
| 25+560.00                 | 1.0            | 354.4          | 13             | 4579           | 13                        | 4566            | 727441         |
| 25+580.00                 | 1.0            | 338.9          | 20             | 6933           | 20                        | 6913            | 734354         |
| 25+600.00                 | 0.8            | 340.9          | 18             | 6798           | 18                        | 6780            | 741134         |
| 25+620.00                 | 0.6            | 345.1          | 14             | 6860           | 14                        | 6846            | 747980         |
| 25+640.00                 | 0.6            | 348.7          | 12             | 6938           | 12                        | 6926            | 754906         |
| 25+660.00                 | 2.3            | 325.5          | 29             | 6742           | 29                        | 6713            | 761619         |
| 25+680.00                 | 2.6            | 323.6          | 49             | 6491           | 49                        | 6442            | 768061         |
| 25+693.57                 | 2.7            | 328.0          | 36             | 4421           | 36                        | 4385            | 772446         |
| SUMA:                     |                |                | 59804          | 832250         | 28931                     | 772446          |                |

| TABELA ROBÓT ZIEMNYCH S5 |                |                |                |                |                          |                 |                |
|--------------------------|----------------|----------------|----------------|----------------|--------------------------|-----------------|----------------|
| PIKIETAŻ                 | POWIERZCHNIA   |                | OBJĘTOŚCI      |                | ZUŻYCIE<br>NA<br>MIEJSCU | NADMIAR<br>OBJ. | SUMA           |
|                          | WYKOP          | NASYP          | WYKOP          | NASYP          |                          |                 |                |
| m                        | m <sup>2</sup> | m <sup>2</sup> | m <sup>3</sup> | m <sup>3</sup> | m <sup>3</sup>           | m <sup>3</sup>  | m <sup>3</sup> |
| 0+000.00                 | 0.0            | 0.0            | 0.0            | 0.0            | 0                        | 0               | 0              |
| 0+006.43                 | 2.7            | 328.6          | 53             | 6522           | 53                       | 6469            | 6469           |
| 0+026.43                 | 0.0            | 0.0            | 27             | 3286           | 27                       | 3259            | 9728           |

| TABELA ROBÓT ZIEMNYCH S5 |                |                |                |                |                          |                 |                |
|--------------------------|----------------|----------------|----------------|----------------|--------------------------|-----------------|----------------|
| PIKIETAŻ                 | POWIERZCHNIA   |                | OBJĘTOŚCI      |                | ZUŻYCIE<br>NA<br>MIEJSCU | NADMIAR<br>OBJ. | SUMA           |
|                          | WYKOP          | NASYP          | WYKOP          | NASYP          |                          |                 |                |
| m                        | m <sup>2</sup> | m <sup>2</sup> | m <sup>3</sup> | m <sup>3</sup> | m <sup>3</sup>           | m <sup>3</sup>  | m <sup>3</sup> |
| OBIEKT WS 26             |                |                |                |                |                          |                 |                |
| 0+186.43                 | 1.8            | 275.0          | 0              | 0              | 0                        | 0               | 9728           |
| 0+206.43                 | 1.8            | 269.7          | 36             | 5447           | 36                       | 5411            | 15139          |
| 0+226.43                 | 1.8            | 244.3          | 36             | 5140           | 36                       | 5104            | 20243          |
| 0+246.43                 | 1.7            | 219.2          | 35             | 4635           | 35                       | 4600            | 24843          |
| 0+266.43                 | 1.6            | 196.1          | 33             | 4153           | 33                       | 4120            | 28963          |
| 0+286.43                 | 1.7            | 177.3          | 33             | 3734           | 33                       | 3701            | 32664          |
| 0+306.43                 | 2.2            | 153.5          | 39             | 3308           | 39                       | 3269            | 35933          |
| 0+326.43                 | 1.8            | 129.2          | 40             | 2827           | 40                       | 2787            | 38720          |
| 0+346.43                 | 2.5            | 108.9          | 43             | 2381           | 43                       | 2338            | 41058          |
| 0+366.43                 | 3.9            | 86.0           | 64             | 1949           | 64                       | 1885            | 42943          |
| 0+386.43                 | 2.7            | 65.4           | 66             | 1514           | 66                       | 1448            | 44391          |
| 0+406.43                 | 1.7            | 41.5           | 44             | 1069           | 44                       | 1025            | 45416          |
| 0+426.43                 | 1.6            | 33.5           | 33             | 750            | 33                       | 717             | 46133          |
| 0+446.43                 | 1.5            | 26.0           | 31             | 595            | 31                       | 564             | 46697          |
| 0+466.43                 | 1.5            | 15.2           | 30             | 412            | 30                       | 382             | 47079          |
| 0+486.43                 | 1.4            | 14.8           | 29             | 300            | 29                       | 271             | 47350          |
| 0+506.43                 | 1.1            | 15.8           | 25             | 306            | 25                       | 281             | 47631          |
| 0+526.43                 | 0.9            | 15.5           | 20             | 313            | 20                       | 293             | 47924          |
| 0+546.43                 | 0.8            | 16.0           | 17             | 315            | 17                       | 298             | 48222          |
| 0+566.43                 | 1.7            | 16.5           | 25             | 325            | 25                       | 300             | 48522          |
| 0+586.43                 | 1.5            | 17.5           | 32             | 340            | 32                       | 308             | 48830          |
| 0+606.43                 | 1.5            | 17.9           | 30             | 354            | 30                       | 324             | 49154          |
| 0+626.43                 | 0.8            | 16.0           | 23             | 339            | 23                       | 316             | 49470          |
| 0+646.43                 | 0.9            | 15.7           | 17             | 317            | 17                       | 300             | 49770          |
| 0+666.43                 | 0.8            | 18.3           | 17             | 340            | 17                       | 323             | 50093          |
| 0+686.43                 | 1.8            | 19.4           | 26             | 377            | 26                       | 351             | 50444          |
| 0+706.43                 | 2.3            | 16.6           | 41             | 360            | 41                       | 319             | 50763          |
| 0+726.43                 | 2.0            | 21.6           | 43             | 382            | 43                       | 339             | 51102          |
| 0+746.43                 | 1.4            | 22.0           | 34             | 436            | 34                       | 402             | 51504          |
| 0+766.43                 | 0.9            | 24.7           | 23             | 467            | 23                       | 444             | 51948          |
| 0+786.43                 | 0.8            | 29.4           | 17             | 541            | 17                       | 524             | 52472          |
| 0+806.43                 | 1.1            | 31.8           | 19             | 612            | 19                       | 593             | 53065          |
| 0+826.43                 | 1.5            | 32.0           | 26             | 638            | 26                       | 612             | 53677          |
| 0+846.43                 | 2.1            | 29.8           | 36             | 618            | 36                       | 582             | 54259          |
| 0+866.43                 | 1.6            | 27.6           | 37             | 574            | 37                       | 537             | 54796          |
| 0+886.43                 | 1.8            | 25.8           | 34             | 534            | 34                       | 500             | 55296          |
| 0+906.43                 | 1.9            | 24.8           | 37             | 506            | 37                       | 469             | 55765          |
| 0+926.43                 | 2.2            | 14.5           | 41             | 393            | 41                       | 352             | 56117          |
| 0+946.43                 | 2.5            | 21.1           | 47             | 356            | 47                       | 309             | 56426          |
| 0+966.43                 | 2.9            | 17.1           | 54             | 382            | 54                       | 328             | 56754          |
| 0+986.43                 | 3.2            | 16.5           | 61             | 336            | 61                       | 275             | 57029          |
| 1+006.43                 | 5.7            | 23.6           | 89             | 401            | 89                       | 312             | 57341          |
| 1+026.43                 | 5.3            | 24.4           | 110            | 480            | 110                      | 370             | 57711          |

| TABELA ROBÓT ZIEMNYCH S5 |                |                |                |                |                          |                 |                |
|--------------------------|----------------|----------------|----------------|----------------|--------------------------|-----------------|----------------|
| PIKIETAŻ                 | POWIERZCHNIA   |                | OBJĘTOŚCI      |                | ZUŻYCIE<br>NA<br>MIEJSCU | NADMIAR<br>OBJ. | SUMA           |
|                          | WYKOP          | NASYP          | WYKOP          | NASYP          |                          |                 |                |
| m                        | m <sup>2</sup> | m <sup>2</sup> | m <sup>3</sup> | m <sup>3</sup> | m <sup>3</sup>           | m <sup>3</sup>  | m <sup>3</sup> |
| 1+046.43                 | 4.8            | 23.2           | 101            | 476            | 101                      | 375             | 58086          |
| 1+066.43                 | 4.7            | 21.1           | 95             | 443            | 95                       | 348             | 58434          |
| 1+086.43                 | 5.1            | 15.5           | 98             | 366            | 98                       | 268             | 58702          |
| 1+106.43                 | 4.6            | 16.6           | 97             | 321            | 97                       | 224             | 58926          |
| 1+126.43                 | 4.7            | 17.8           | 93             | 344            | 93                       | 251             | 59177          |
| 1+146.43                 | 4.4            | 15.9           | 91             | 337            | 91                       | 246             | 59423          |
| 1+166.43                 | 1.9            | 15.0           | 63             | 309            | 63                       | 246             | 59669          |
| 1+186.43                 | 4.7            | 14.0           | 66             | 290            | 66                       | 224             | 59893          |
| 1+206.43                 | 6.7            | 12.0           | 114            | 260            | 114                      | 146             | 60039          |
| 1+226.43                 | 7.3            | 9.5            | 140            | 215            | 140                      | 75              | 60114          |
| 1+246.43                 | 6.6            | 9.2            | 139            | 187            | 139                      | 48              | 60162          |
| 1+266.43                 | 6.6            | 8.9            | 132            | 181            | 132                      | 49              | 60211          |
| 1+286.43                 | 11.6           | 4.3            | 182            | 132            | 132                      | -50             | 60161          |
| 1+306.43                 | 9.6            | 4.5            | 212            | 88             | 88                       | -124            | 60037          |
| 1+326.43                 | 6.3            | 7.1            | 159            | 116            | 116                      | -43             | 59994          |
| 1+346.43                 | 6.2            | 7.0            | 125            | 141            | 125                      | 16              | 60010          |
| 1+366.43                 | 5.2            | 8.4            | 114            | 154            | 114                      | 40              | 60050          |
| 1+386.43                 | 4.3            | 9.8            | 95             | 182            | 95                       | 87              | 60137          |
| 1+406.43                 | 5.4            | 8.6            | 97             | 184            | 97                       | 87              | 60224          |
| 1+426.43                 | 5.1            | 9.1            | 105            | 177            | 105                      | 72              | 60296          |
| 1+446.43                 | 5.0            | 9.8            | 101            | 189            | 101                      | 88              | 60384          |
| 1+466.43                 | 5.2            | 10.4           | 102            | 202            | 102                      | 100             | 60484          |
| 1+486.43                 | 4.7            | 12.5           | 99             | 229            | 99                       | 130             | 60614          |
| 1+506.43                 | 3.2            | 17.9           | 79             | 304            | 79                       | 225             | 60839          |
| 1+526.43                 | 2.5            | 18.3           | 57             | 362            | 57                       | 305             | 61144          |
| 1+546.43                 | 1.5            | 24.2           | 40             | 425            | 40                       | 385             | 61529          |
| 1+566.43                 | 0.4            | 27.0           | 19             | 512            | 19                       | 493             | 62022          |
| 1+586.43                 | 0.0            | 33.8           | 4              | 608            | 4                        | 604             | 62626          |
| 1+605.00                 | 0.0            | 36.4           | 0              | 652            | 0                        | 652             | 63278          |
| SUMA:                    |                |                | 4 472          | 67 750         | 4255                     | 63 278          |                |

\* Zakłada się wykorzystanie gruntów pozyskanych z wykopów do budowy nasypów

- niespoistych w całości
- spoistych, jeżeli  $I_L \leq 0.25$  - w środkowe partie nasypu

#### ROBOTY ZIEMNE DLA CAŁEGO WĘZŁA:

WYKOP: 54 276 m<sup>3</sup>

NASYP: 900 000 m<sup>3</sup>

• **TABELA ZDJĘCIA HUMUSU :**

| <b>ZDJECIE HUMUSU S11</b> |                            |                      |                                     |                      |
|---------------------------|----------------------------|----------------------|-------------------------------------|----------------------|
| <b>PIKIETAŻ</b>           | <b>GRUBOŚĆ<br/>WARSTWY</b> | <b>SZEROKOŚĆ</b>     | <b>POWIERZCHNIA<br/>W PRZĘKROJU</b> | <b>OBJĘTOŚĆ</b>      |
| <b>m</b>                  | <b>m</b>                   | <b>m<sup>2</sup></b> | <b>m<sup>2</sup></b>                | <b>m<sup>3</sup></b> |
| 13+080,00                 | 0,55                       | 45                   | 25,0                                | 0                    |
| 13+100,00                 | 0,55                       | 45                   | 25,0                                | 500                  |
| 13+120,00                 | 0,55                       | 46                   | 25,1                                | 501                  |
| 13+140,00                 | 0,55                       | 44                   | 24,4                                | 495                  |
| 13+160,00                 | 0,4                        | 44                   | 17,6                                | 420                  |
| 13+180,00                 | 0,4                        | 44                   | 17,5                                | 351                  |
| 13+200,00                 | 0,4                        | 44                   | 17,5                                | 350                  |
| 13+220,00                 | 0,4                        | 44                   | 17,5                                | 350                  |
| 13+240,00                 | 0,4                        | 44                   | 17,5                                | 350                  |
| 13+260,00                 | 0,4                        | 44                   | 17,5                                | 350                  |
| 13+280,00                 | 0,35                       | 44                   | 15,5                                | 330                  |
| 13+300,00                 | 0,35                       | 45                   | 15,9                                | 314                  |
| 13+320,00                 | 0,35                       | 45                   | 15,7                                | 316                  |
| 13+340,00                 | 0,35                       | 45                   | 15,6                                | 313                  |
| 13+360,00                 | 0,35                       | 44                   | 15,5                                | 312                  |
| 13+380,00                 | 0,35                       | 44                   | 15,4                                | 309                  |
| 13+400,00                 | 0,7                        | 44                   | 30,7                                | 461                  |
| 13+420,00                 | 0,7                        | 44                   | 30,7                                | 614                  |
| 13+440,00                 | 0,7                        | 36                   | 25,5                                | 562                  |
| 13+460,00                 | 0,7                        | 36                   | 25,5                                | 511                  |
| 13+480,00                 | 0,3                        | 37                   | 11,0                                | 365                  |
| 13+500,00                 | 0,3                        | 38                   | 11,4                                | 224                  |
| 13+520,00                 | 0,3                        | 43                   | 13,0                                | 244                  |
| 13+540,00                 | 0,3                        | 44                   | 13,3                                | 263                  |
| 13+560,00                 | 0,35                       | 46                   | 16,0                                | 293                  |
| 13+580,00                 | 0,35                       | 47                   | 16,3                                | 322                  |
| 13+600,00                 | 0,35                       | 39                   | 13,5                                | 298                  |
| 13+620,00                 | 0,35                       | 39                   | 13,6                                | 271                  |
| 13+640,00                 | 0,5                        | 48                   | 24,0                                | 376                  |
| 13+660,00                 | 0,5                        | 48                   | 24,2                                | 482                  |
| 13+680,00                 | 0,5                        | 49                   | 24,7                                | 489                  |
| 13+700,00                 | 0,5                        | 50                   | 25,2                                | 499                  |
| 13+720,00                 | 0,5                        | 51                   | 25,4                                | 505                  |
| 13+740,00                 | 0,5                        | 51                   | 25,4                                | 508                  |
| 13+760,00                 | 0,4                        | 51                   | 20,4                                | 458                  |
| 13+780,00                 | 0,4                        | 52                   | 20,6                                | 410                  |
| 13+800,00                 | 0,4                        | 38                   | 15,2                                | 358                  |
| 13+820,00                 | 0,4                        | 38                   | 15,2                                | 304                  |
| 13+840,00                 | 0,4                        | 38                   | 15,3                                | 305                  |
| 13+860,00                 | 0,4                        | 40                   | 15,9                                | 312                  |
| 13+880,00                 | 0,4                        | 41                   | 16,3                                | 322                  |
| 13+900,00                 | 0,33                       | 41                   | 13,6                                | 298                  |
| 13+920,00                 | 0,33                       | 42                   | 13,8                                | 273                  |
| 13+940,00                 | 0,33                       | 40                   | 13,3                                | 271                  |
| 13+960,00                 | 0,33                       | 44                   | 14,4                                | 277                  |

| ZDJECIE HUMUSU S11 |                    |                |                             |                |
|--------------------|--------------------|----------------|-----------------------------|----------------|
| PIKIETAŻ           | GRUBOŚĆ<br>WARSTWY | SZEROKOŚĆ      | POWIERZCHNIA<br>W PRZĘKROJU | OBJĘTOŚĆ       |
| m                  | m                  | m <sup>2</sup> | m <sup>2</sup>              | m <sup>3</sup> |
| 13+980,00          | 0,33               | 63             | 20,8                        | 352            |
| 14+000,00          | 0,33               | 37             | 12,0                        | 329            |
| 14+020,00          | 0,3                | 37             | 11,0                        | 230            |
| 14+040,00          | 0,3                | 50             | 15,1                        | 261            |
| 14+060,00          | 0,3                | 63             | 18,9                        | 340            |
| 14+080,00          | 0,35               | 41             | 14,4                        | 333            |
| 14+100,00          | 0,35               | 24             | 8,4                         | 228            |
| 14+120,00          | 0,4                | 26             | 10,4                        | 188            |
| 14+140,00          | 0,4                | 27             | 10,7                        | 211            |
| 14+160,00          | 0,4                | 40             | 16,2                        | 269            |
| 14+180,00          | 0,4                | 27             | 10,6                        | 268            |
| 14+200,00          | 0,4                | 27             | 10,9                        | 215            |
| 14+220,00          | 0,4                | 24             | 9,6                         | 205            |
| 14+240,00          | 0,4                | 24             | 9,6                         | 192            |
| 14+260,00          | 0,4                | 26             | 10,2                        | 198            |
| 14+280,00          | 0,4                | 62             | 24,7                        | 349            |
| 14+300,00          | 0,4                | 63             | 25,4                        | 501            |
| 14+320,00          | 0,4                | 58             | 23,2                        | 486            |
| 14+340,00          | 0,4                | 56             | 22,3                        | 455            |
| 14+360,00          | 0,4                | 51             | 20,5                        | 428            |
| 14+380,00          | 0,4                | 49             | 19,8                        | 402            |
| 14+400,00          | 0,4                | 48             | 19,1                        | 389            |
| 14+420,00          | 0,45               | 46             | 20,7                        | 399            |
| 14+440,00          | 0,45               | 43             | 19,2                        | 399            |
| 14+460,00          | 0,45               | 40             | 18,2                        | 374            |
| 14+480,00          | 0,45               | 40             | 18,0                        | 361            |
| 14+500,00          | 0,45               | 39             | 17,5                        | 354            |
| 14+520,00          | 0,45               | 38             | 16,9                        | 344            |
| 14+540,00          | 0,45               | 37             | 16,5                        | 335            |
| 14+560,00          | 0,45               | 37             | 16,6                        | 332            |
| 14+580,00          | 0,45               | 38             | 17,0                        | 336            |
| 14+600,00          | 0,45               | 39             | 17,6                        | 346            |
| 14+620,00          | 0,45               | 39             | 17,8                        | 354            |
| 14+640,00          | 0,35               | 39             | 13,8                        | 316            |
| 14+660,00          | 0,35               | 39             | 13,7                        | 275            |
| 14+680,00          | 0,35               | 39             | 13,8                        | 275            |
| 14+700,00          | 0,35               | 40             | 13,9                        | 276            |
| 14+720,00          | 0,35               | 40             | 14,1                        | 279            |
| 14+740,00          | 0,35               | 41             | 14,2                        | 283            |
| 14+760,00          | 0,35               | 41             | 14,4                        | 286            |
| 14+780,00          | 0,35               | 42             | 14,6                        | 290            |
| 14+800,00          | 0,35               | 42             | 14,9                        | 295            |
| 14+820,00          | 0,35               | 43             | 15,1                        | 299            |
| 14+840,00          | 0,35               | 44             | 15,3                        | 304            |
| 14+860,00          | 0,35               | 44             | 15,5                        | 308            |
| 14+880,00          | 0,35               | 45             | 15,9                        | 314            |
| 14+900,00          | 0,35               | 45             | 15,6                        | 315            |
| 14+920,00          | 0,35               | 44             | 15,3                        | 309            |

| ZDJECIE HUMUSU S11 |                    |                |                             |                |
|--------------------|--------------------|----------------|-----------------------------|----------------|
| PIKIETAŻ           | GRUBOŚĆ<br>WARSTWY | SZEROKOŚĆ      | POWIERZCHNIA<br>W PRZĘKROJU | OBJĘTOŚĆ       |
| m                  | m                  | m <sup>2</sup> | m <sup>2</sup>              | m <sup>3</sup> |
| 14+940,00          | 0,35               | 42             | 14,8                        | 300            |
| 14+960,00          | 0,8                | 40             | 32,1                        | 469            |
| 14+980,00          | 0,8                | 43             | 34,3                        | 664            |
| 15+000,00          | 0,8                | 48             | 38,5                        | 728            |
| 15+020,00          | 0,8                | 44             | 34,9                        | 734            |
| 15+040,00          | 0,8                | 40             | 31,9                        | 668            |
| 15+060,00          | 0,35               | 38             | 13,3                        | 452            |
| 15+080,00          | 0,35               | 36             | 12,6                        | 260            |
| 15+100,00          | 0,35               | 36             | 12,6                        | 252            |
| 15+120,00          | 0,35               | 36             | 12,4                        | 251            |
| 15+140,00          | 0,35               | 36             | 12,5                        | 249            |
| 15+160,00          | 0,6                | 36             | 21,6                        | 341            |
| 15+180,00          | 0,6                | 37             | 22,3                        | 439            |
| 15+200,00          | 0,6                | 38             | 23,1                        | 454            |
| 15+220,00          | 0,6                | 42             | 25,4                        | 485            |
| 15+240,00          | 0,65               | 44             | 28,9                        | 543            |
| 15+260,00          | 0,65               | 45             | 29,3                        | 582            |
| 15+280,00          | 0,65               | 50             | 32,8                        | 622            |
| 15+300,00          | 0,65               | 45             | 29,4                        | 622            |
| 15+320,00          | 0,65               | 42             | 27,4                        | 567            |
| 15+340,00          | 0,35               | 41             | 14,2                        | 416            |
| 15+360,00          | 0,35               | 39             | 13,7                        | 279            |
| 15+380,00          | 0,35               | 38             | 13,4                        | 271            |
| 15+400,00          | 0,35               | 38             | 13,2                        | 266            |
| 15+420,00          | 0,35               | 37             | 13,0                        | 262            |
| 15+440,00          | 0,35               | 37             | 12,9                        | 259            |
| 15+460,00          | 0,35               | 37             | 12,8                        | 258            |
| 15+480,00          | 0,35               | 37             | 12,8                        | 256            |
| 15+500,00          | 0,35               | 36             | 12,6                        | 254            |
| 15+520,00          | 0,35               | 35             | 12,3                        | 249            |
| 15+540,00          | 0,6                | 35             | 21,2                        | 335            |
| 15+560,00          | 0,6                | 35             | 21,3                        | 425            |
| 15+580,00          | 0,6                | 37             | 22,4                        | 437            |
| 15+600,00          | 0,6                | 35             | 21,3                        | 437            |
| 15+620,00          | 0,6                | 33             | 20,0                        | 412            |
| 15+640,00          | 0,6                | 42             | 25,4                        | 454            |
| 15+660,00          | 0,55               | 41             | 22,4                        | 478            |
| 15+680,00          | 0,55               | 40             | 22,1                        | 445            |
| 15+700,00          | 0,55               | 39             | 21,5                        | 436            |
| 15+720,00          | 0,55               | 39             | 21,5                        | 430            |
| 15+740,00          | 0,55               | 39             | 21,5                        | 431            |
| 15+760,00          | 0,4                | 39             | 15,7                        | 372            |
| 15+780,00          | 0,4                | 39             | 15,8                        | 315            |
| 15+800,00          | 0,4                | 40             | 15,9                        | 317            |
| 15+820,00          | 0,4                | 40             | 15,9                        | 319            |
| 15+840,00          | 0,4                | 40             | 15,8                        | 317            |
| 15+860,00          | 0,35               | 39             | 13,8                        | 296            |
| 15+880,00          | 0,35               | 39             | 13,8                        | 276            |

| ZDJECIE HUMUSU S11 |                    |                |                             |                |
|--------------------|--------------------|----------------|-----------------------------|----------------|
| PIKIETAŻ           | GRUBOŚĆ<br>WARSTWY | SZEROKOŚĆ      | POWIERZCHNIA<br>W PRZĘKROJU | OBJĘTOŚĆ       |
| m                  | m                  | m <sup>2</sup> | m <sup>2</sup>              | m <sup>3</sup> |
| 15+900,00          | 0,35               | 40             | 14,1                        | 279            |
| 15+920,00          | 0,35               | 42             | 14,7                        | 289            |
| 15+940,00          | 0,35               | 43             | 15,2                        | 299            |
| 15+960,00          | 0,3                | 44             | 13,3                        | 284            |
| 15+980,00          | 0,3                | 45             | 13,5                        | 268            |
| 16+000,00          | 0,3                | 46             | 13,8                        | 273            |
| 16+020,00          | 0,3                | 47             | 14,0                        | 277            |
| 16+040,00          | 0,3                | 42             | 12,6                        | 266            |
| 16+060,00          | 0,3                | 42             | 12,7                        | 254            |
| 16+080,00          | 0,3                | 43             | 12,9                        | 257            |
| 16+100,00          | 0,3                | 40             | 12,1                        | 250            |
| 16+120,00          | 0,3                | 40             | 11,9                        | 240            |
| 16+140,00          | 0,3                | 38             | 11,3                        | 232            |
| 16+160,00          | 0,4                | 39             | 15,5                        | 268            |
| 16+180,00          | 0,4                | 42             | 16,9                        | 324            |
| 16+200,00          | 0,4                | 43             | 17,4                        | 343            |
| 16+220,00          | 0,4                | 45             | 17,9                        | 353            |
| 16+240,00          | 0,4                | 48             | 19,4                        | 373            |
| 16+260,00          | 0,4                | 50             | 19,9                        | 392            |
| 16+280,00          | 0,4                | 51             | 20,5                        | 404            |
| 16+300,00          | 0,4                | 53             | 21,2                        | 417            |
| 16+320,00          | 0,4                | 55             | 21,8                        | 430            |
| 16+340,00          | 0,4                | 60             | 23,9                        | 458            |
| 16+360,00          | 0,4                | 57             | 23,0                        | 469            |
| 16+380,00          | 0,4                | 57             | 23,0                        | 459            |
| 16+400,00          | 0,4                | 55             | 21,9                        | 448            |
| 16+420,00          | 0,4                | 54             | 21,4                        | 433            |
| 16+440,00          | 0,8                | 52             | 41,8                        | 632            |
| 16+460,00          | 0,8                | 51             | 41,1                        | 829            |
| 16+480,00          | 0,8                | 50             | 40,2                        | 813            |
| 16+500,00          | 0,8                | 49             | 39,3                        | 795            |
| 16+520,00          | 0,8                | 48             | 38,3                        | 776            |
| 16+540,00          | 0,5                | 44             | 21,9                        | 603            |
| 16+560,00          | 0,5                | 44             | 21,9                        | 438            |
| 16+580,00          | 0,5                | 44             | 21,8                        | 437            |
| 16+600,00          | 0,5                | 43             | 21,7                        | 435            |
| 16+620,00          | 0,55               | 45             | 24,5                        | 462            |
| 16+640,00          | 0,55               | 44             | 24,3                        | 488            |
| 16+660,00          | 0,55               | 44             | 24,3                        | 485            |
| 16+680,00          | 0,55               | 43             | 23,9                        | 482            |
| 16+700,00          | 0,55               | 43             | 23,6                        | 475            |
| 16+720,00          | 0,55               | 43             | 23,8                        | 473            |
| 16+740,00          | 0,55               | 42             | 23,2                        | 470            |
| 16+760,00          | 0,4                | 41             | 16,4                        | 397            |
| 16+780,00          | 0,4                | 40             | 16,0                        | 324            |
| 16+800,00          | 0,4                | 39             | 15,4                        | 314            |
| 16+820,00          | 0,4                | 37             | 15,0                        | 304            |
| 16+840,00          | 0,4                | 36             | 14,5                        | 295            |

| ZDJECIE HUMUSU S11 |                    |                |                             |                |
|--------------------|--------------------|----------------|-----------------------------|----------------|
| PIKIETAŻ           | GRUBOŚĆ<br>WARSTWY | SZEROKOŚĆ      | POWIERZCHNIA<br>W PRZĘKROJU | OBJĘTOŚĆ       |
| m                  | m                  | m <sup>2</sup> | m <sup>2</sup>              | m <sup>3</sup> |
| 16+860,00          | 0,4                | 36             | 14,3                        | 288            |
| 16+880,00          | 0,4                | 35             | 14,1                        | 283            |
| 16+900,00          | 0,4                | 35             | 14,1                        | 282            |
| 16+920,00          | 0,4                | 35             | 14,1                        | 283            |
| 16+940,00          | 0,4                | 30             | 12,2                        | 263            |
| 16+960,00          | 0,2                | 33             | 6,5                         | 187            |
| 16+980,00          | 0,2                | 33             | 6,6                         | 132            |
| 17+000,00          | 0,2                | 34             | 6,7                         | 133            |
| 17+020,00          | 0,2                | 34             | 6,8                         | 135            |
| 17+040,00          | 0,2                | 34             | 6,9                         | 136            |
| 17+280,00          | 0,25               | 38             | 9,4                         | 0              |
| 17+300,00          | 0,25               | 38             | 9,4                         | 188            |
| 17+320,00          | 0,25               | 38             | 9,5                         | 189            |
| 17+340,00          | 0,25               | 38             | 9,4                         | 188            |
| 17+360,00          | 0,25               | 36             | 8,9                         | 183            |
| 17+380,00          | 0,2                | 36             | 7,1                         | 160            |
| 17+400,00          | 0,2                | 36             | 7,1                         | 142            |
| 17+420,00          | 0,2                | 36             | 7,1                         | 142            |
| 17+440,00          | 0,2                | 36             | 7,1                         | 142            |
| 17+460,00          | 0,2                | 36             | 7,1                         | 142            |
| 17+480,00          | 0,2                | 36             | 7,1                         | 142            |
| 17+500,00          | 0,3                | 36             | 10,7                        | 178            |
| 17+520,00          | 0,3                | 36             | 10,7                        | 213            |
| 17+540,00          | 0,3                | 36             | 10,7                        | 213            |
| 17+560,00          | 0,3                | 36             | 10,7                        | 213            |
| 17+580,00          | 0,3                | 36             | 10,7                        | 213            |
| 17+600,00          | 0,3                | 36             | 10,7                        | 213            |
| 17+620,00          | 0,25               | 36             | 8,9                         | 196            |
| 17+640,00          | 0,25               | 37             | 9,2                         | 181            |
| 17+660,00          | 0,25               | 38             | 9,4                         | 186            |
| 17+680,00          | 0,25               | 37             | 9,3                         | 187            |
| 17+700,00          | 0,25               | 37             | 9,3                         | 185            |
| 17+720,00          | 0,2                | 39             | 7,8                         | 170            |
| 17+740,00          | 0,2                | 40             | 7,9                         | 157            |
| 17+760,00          | 0,2                | 40             | 7,9                         | 158            |
| 17+780,00          | 0,2                | 40             | 7,9                         | 158            |
| 17+800,00          | 0,2                | 40             | 7,9                         | 158            |
| 17+820,00          | 0,2                | 40             | 7,9                         | 158            |
| 17+840,00          | 0,2                | 32             | 6,4                         | 143            |
| 17+860,00          | 0,2                | 32             | 6,4                         | 127            |
| 17+880,00          | 0,2                | 32             | 6,4                         | 127            |
| 17+900,00          | 0,2                | 26             | 5,2                         | 115            |
| 17+920,00          | 0,2                | 27             | 5,4                         | 106            |
| 17+940,00          | 0,15               | 29             | 4,3                         | 97             |
| 17+960,00          | 0,15               | 37             | 5,6                         | 99             |
| 17+980,00          | 0,15               | 32             | 4,9                         | 105            |
| 18+000,00          | 0,15               | 30             | 4,6                         | 94             |
| 18+020,00          | 0,15               | 30             | 4,5                         | 91             |



| ZDJECIE HUMUSU S11 |                    |                |                             |                |
|--------------------|--------------------|----------------|-----------------------------|----------------|
| PIKIETAŻ           | GRUBOŚĆ<br>WARSTWY | SZEROKOŚĆ      | POWIERZCHNIA<br>W PRZĘKROJU | OBJĘTOŚĆ       |
| m                  | m                  | m <sup>2</sup> | m <sup>2</sup>              | m <sup>3</sup> |
| 18+040,00          | 0,25               | 31             | 7,8                         | 124            |
| 18+060,00          | 0,25               | 31             | 7,8                         | 157            |
| 18+080,00          | 0,25               | 39             | 9,7                         | 176            |
| 18+100,00          | 0,25               | 39             | 9,7                         | 195            |
| 18+120,00          | 0,3                | 39             | 11,7                        | 215            |
| 18+140,00          | 0,3                | 32             | 9,6                         | 213            |
| 18+160,00          | 0,3                | 32             | 9,6                         | 192            |
| 18+180,00          | 0,3                | 31             | 9,4                         | 190            |
| 18+200,00          | 0,3                | 31             | 9,4                         | 188            |
| 18+220,00          | 0,3                | 33             | 10,0                        | 194            |
| 18+240,00          | 0,3                | 39             | 11,6                        | 216            |
| 18+260,00          | 0,3                | 37             | 11,2                        | 229            |
| 18+280,00          | 0,3                | 38             | 11,5                        | 228            |
| 18+300,00          | 0,3                | 25             | 7,6                         | 191            |
| 18+320,00          | 0,3                | 36             | 10,8                        | 184            |
| 18+340,00          | 0,4                | 38             | 15,3                        | 261            |
| 18+360,00          | 0,4                | 51             | 20,5                        | 358            |
| 18+380,00          | 0,4                | 50             | 20,1                        | 406            |
| 18+400,00          | 0,3                | 47             | 14,0                        | 341            |
| 18+420,00          | 0,3                | 46             | 13,7                        | 277            |
| 18+440,00          | 0,3                | 51             | 15,2                        | 289            |
| 18+460,00          | 0,3                | 50             | 14,9                        | 301            |
| 18+480,00          | 0,3                | 48             | 14,5                        | 294            |
| 18+500,00          | 0,4                | 48             | 19,2                        | 337            |
| 18+520,00          | 0,4                | 48             | 19,0                        | 382            |
| 18+540,00          | 0,4                | 47             | 18,8                        | 378            |
| 18+560,00          | 0,4                | 52             | 20,9                        | 396            |
| 18+580,00          | 0,3                | 52             | 15,5                        | 363            |
| 18+600,00          | 0,3                | 51             | 15,3                        | 308            |
| 18+620,00          | 0,35               | 51             | 17,7                        | 330            |
| 18+640,00          | 0,35               | 50             | 17,4                        | 351            |
| 18+660,00          | 0,35               | 49             | 17,1                        | 345            |
| 18+680,00          | 0,35               | 48             | 16,9                        | 340            |
| 18+700,00          | 0,4                | 48             | 19,2                        | 361            |
| 18+720,00          | 0,4                | 48             | 19,0                        | 382            |
| 18+740,00          | 0,4                | 46             | 18,6                        | 376            |
| 18+760,00          | 0,4                | 53             | 21,4                        | 400            |
| 18+780,00          | 0,2                | 53             | 10,6                        | 320            |
| 18+800,00          | 0,2                | 52             | 10,5                        | 211            |
| 18+820,00          | 0,2                | 52             | 10,4                        | 208            |
| 18+840,00          | 0,2                | 51             | 10,2                        | 206            |
| 18+860,00          | 0,2                | 52             | 10,3                        | 206            |
| 18+880,00          | 0,4                | 52             | 20,7                        | 310            |
| 18+900,00          | 0,4                | 50             | 20,2                        | 409            |
| 18+920,00          | 0,4                | 50             | 20,1                        | 403            |
| 18+940,00          | 0,4                | 51             | 20,3                        | 405            |
| 18+960,00          | 0,4                | 51             | 20,5                        | 408            |
| 18+980,00          | 0,4                | 51             | 20,3                        | 408            |

| ZDJECIE HUMUSU S11 |                    |                |                             |                |
|--------------------|--------------------|----------------|-----------------------------|----------------|
| PIKIETAŻ           | GRUBOŚĆ<br>WARSTWY | SZEROKOŚĆ      | POWIERZCHNIA<br>W PRZĘKROJU | OBJĘTOŚĆ       |
| m                  | m                  | m <sup>2</sup> | m <sup>2</sup>              | m <sup>3</sup> |
| 19+000,00          | 0,4                | 50             | 20,1                        | 404            |
| 19+020,00          | 0,4                | 50             | 20,0                        | 401            |
| 19+040,00          | 0,4                | 50             | 19,9                        | 399            |
| 19+060,00          | 0,4                | 50             | 19,8                        | 398            |
| 19+080,00          | 0,4                | 50             | 19,9                        | 397            |
| 19+200,00          | 0,3                | 49             | 14,6                        | 0              |
| 19+220,00          | 0,3                | 48             | 14,5                        | 291            |
| 19+240,00          | 0,3                | 48             | 14,5                        | 290            |
| 19+260,00          | 0,3                | 48             | 14,5                        | 290            |
| 19+280,00          | 0,3                | 47             | 14,1                        | 286            |
| 19+300,00          | 0,3                | 47             | 14,2                        | 284            |
| 19+320,00          | 0,3                | 47             | 14,2                        | 284            |
| 19+340,00          | 0,3                | 47             | 14,1                        | 283            |
| 19+360,00          | 0,3                | 46             | 13,9                        | 280            |
| 19+380,00          | 0,3                | 46             | 13,8                        | 277            |
| 19+400,00          | 0,3                | 45             | 13,6                        | 274            |
| 19+420,00          | 0,3                | 46             | 13,7                        | 273            |
| 19+440,00          | 0,3                | 45             | 13,6                        | 274            |
| 19+460,00          | 0,3                | 45             | 13,5                        | 271            |
| 19+480,00          | 0,3                | 45             | 13,5                        | 270            |
| 19+500,00          | 0,3                | 44             | 13,2                        | 266            |
| 19+520,00          | 0,3                | 44             | 13,1                        | 263            |
| 19+540,00          | 0,3                | 43             | 13,0                        | 262            |
| 19+560,00          | 0,3                | 38             | 11,5                        | 246            |
| 19+580,00          | 0,3                | 40             | 11,9                        | 235            |
| 19+600,00          | 0,3                | 39             | 11,7                        | 237            |
| 19+620,00          | 0,3                | 40             | 11,9                        | 236            |
| 19+640,00          | 0,3                | 40             | 12,0                        | 239            |
| 19+840,00          | 0,3                | 43             | 12,8                        | 0              |
| 19+860,00          | 0,3                | 43             | 12,9                        | 257            |
| 19+880,00          | 0,3                | 43             | 13,0                        | 259            |
| 19+900,00          | 0,3                | 43             | 12,9                        | 260            |
| 19+920,00          | 0,3                | 44             | 13,1                        | 260            |
| 19+940,00          | 0,3                | 45             | 13,4                        | 265            |
| 19+960,00          | 0,3                | 45             | 13,4                        | 268            |
| 19+980,00          | 0,3                | 45             | 13,5                        | 268            |
| 20+000,00          | 0,3                | 45             | 13,5                        | 269            |
| 20+020,00          | 0,3                | 45             | 13,4                        | 269            |
| 20+040,00          | 0,3                | 45             | 13,4                        | 268            |
| 20+060,00          | 0,3                | 45             | 13,6                        | 269            |
| 20+080,00          | 0,3                | 46             | 13,7                        | 272            |
| 20+100,00          | 0,3                | 45             | 13,6                        | 273            |
| 20+120,00          | 0,3                | 38             | 11,5                        | 251            |
| 20+140,00          | 0,3                | 39             | 11,7                        | 232            |
| 20+160,00          | 0,3                | 38             | 11,5                        | 232            |
| 20+180,00          | 0,3                | 38             | 11,5                        | 230            |
| 20+200,00          | 0,3                | 39             | 11,7                        | 233            |
| 20+220,00          | 0,3                | 39             | 11,8                        | 235            |

| ZDJECIE HUMUSU S11 |                    |                |                             |                |
|--------------------|--------------------|----------------|-----------------------------|----------------|
| PIKIETAŻ           | GRUBOŚĆ<br>WARSTWY | SZEROKOŚĆ      | POWIERZCHNIA<br>W PRZĘKROJU | OBJĘTOŚĆ       |
| m                  | m                  | m <sup>2</sup> | m <sup>2</sup>              | m <sup>3</sup> |
| 20+240,00          | 0,3                | 39             | 11,8                        | 236            |
| 20+260,00          | 0,15               | 39             | 5,9                         | 177            |
| 20+280,00          | 0,15               | 39             | 5,9                         | 118            |
| 20+300,00          | 0,15               | 39             | 5,8                         | 117            |
| 20+320,00          | 0,3                | 38             | 11,5                        | 174            |
| 20+340,00          | 0,3                | 38             | 11,5                        | 230            |
| 20+360,00          | 0,3                | 38             | 11,3                        | 228            |
| 20+380,00          | 0,3                | 37             | 11,1                        | 224            |
| 20+400,00          | 0,25               | 36             | 9,1                         | 202            |
| 20+420,00          | 0,25               | 36             | 8,9                         | 180            |
| 20+440,00          | 0,25               | 35             | 8,7                         | 176            |
| 20+460,00          | 0,25               | 35             | 8,8                         | 176            |
| 20+480,00          | 0,25               | 35             | 8,9                         | 177            |
| 20+500,00          | 0,25               | 35             | 8,8                         | 177            |
| 20+640,00          | 0,45               | 35             | 15,8                        | 0              |
| 20+660,00          | 0,45               | 34             | 15,5                        | 313            |
| 20+680,00          | 0,45               | 35             | 15,5                        | 311            |
| 20+700,00          | 0,45               | 34             | 15,2                        | 307            |
| 20+720,00          | 0,3                | 34             | 10,3                        | 255            |
| 20+740,00          | 0,3                | 35             | 10,5                        | 208            |
| 20+760,00          | 0,3                | 35             | 10,5                        | 210            |
| 20+780,00          | 0,2                | 36             | 7,1                         | 176            |
| 20+800,00          | 0,2                | 35             | 7,0                         | 141            |
| 20+820,00          | 0,2                | 36             | 7,1                         | 141            |
| 20+840,00          | 0,4                | 35             | 14,1                        | 212            |
| 20+860,00          | 0,4                | 37             | 15,0                        | 291            |
| 20+880,00          | 0,4                | 39             | 15,4                        | 304            |
| 20+900,00          | 0,4                | 36             | 14,6                        | 300            |
| 20+920,00          | 0,4                | 35             | 13,8                        | 284            |
| 20+940,00          | 0,3                | 35             | 10,4                        | 242            |
| 20+960,00          | 0,3                | 35             | 10,4                        | 208            |
| 20+980,00          | 0,3                | 29             | 8,7                         | 191            |
| 21+000,00          | 0,3                | 29             | 8,7                         | 174            |
| 21+020,00          | 0,3                | 29             | 8,7                         | 175            |
| 21+040,00          | 0,3                | 35             | 10,5                        | 192            |
| 21+060,00          | 0,3                | 35             | 10,5                        | 210            |
| 21+080,00          | 0,3                | 35             | 10,6                        | 211            |
| 21+100,00          | 0,3                | 32             | 9,7                         | 203            |
| 21+120,00          | 0,3                | 30             | 9,1                         | 187            |
| 21+140,00          | 0,35               | 30             | 10,6                        | 197            |
| 21+160,00          | 0,35               | 37             | 13,0                        | 237            |
| 21+180,00          | 0,35               | 38             | 13,4                        | 264            |
| 21+200,00          | 0,35               | 43             | 15,2                        | 285            |
| 21+220,00          | 0,4                | 44             | 17,6                        | 328            |
| 21+240,00          | 0,4                | 44             | 17,6                        | 352            |
| 21+260,00          | 0,4                | 43             | 17,0                        | 346            |
| 21+280,00          | 0,4                | 40             | 16,1                        | 331            |
| 21+300,00          | 0,4                | 46             | 18,2                        | 343            |

| ZDJECIE HUMUSU S11 |                    |                |                             |                |
|--------------------|--------------------|----------------|-----------------------------|----------------|
| PIKIETAŻ           | GRUBOŚĆ<br>WARSTWY | SZEROKOŚĆ      | POWIERZCHNIA<br>W PRZĘKROJU | OBJĘTOŚĆ       |
| m                  | m                  | m <sup>2</sup> | m <sup>2</sup>              | m <sup>3</sup> |
| 21+320,00          | 0,4                | 45             | 17,9                        | 361            |
| 21+340,00          | 0,4                | 35             | 14,2                        | 321            |
| 21+360,00          | 0,4                | 35             | 14,1                        | 283            |
| 21+380,00          | 0,4                | 35             | 14,2                        | 283            |
| 21+400,00          | 0,4                | 40             | 16,1                        | 303            |
| 21+420,00          | 0,4                | 40             | 15,9                        | 320            |
| 21+440,00          | 0,4                | 39             | 15,8                        | 317            |
| 21+460,00          | 0,4                | 34             | 13,6                        | 293            |
| 21+480,00          | 0,4                | 33             | 13,1                        | 267            |
| 21+500,00          | 0,4                | 32             | 12,9                        | 261            |
| 21+520,00          | 0,4                | 45             | 17,9                        | 309            |
| 21+540,00          | 0,4                | 45             | 18,1                        | 361            |
| 21+560,00          | 0,5                | 46             | 22,9                        | 410            |
| 21+580,00          | 0,5                | 46             | 22,9                        | 458            |
| 21+600,00          | 0,4                | 46             | 18,3                        | 412            |
| 21+620,00          | 0,4                | 46             | 18,6                        | 368            |
| 21+640,00          | 0,4                | 46             | 18,5                        | 371            |
| 21+660,00          | 0,4                | 46             | 18,5                        | 370            |
| 21+680,00          | 0,4                | 46             | 18,6                        | 371            |
| 21+700,00          | 0,4                | 45             | 18,2                        | 367            |
| 21+720,00          | 0,4                | 46             | 18,3                        | 364            |
| 21+740,00          | 0,4                | 46             | 18,4                        | 366            |
| 21+760,00          | 0,4                | 45             | 18,1                        | 365            |
| 21+780,00          | 0,4                | 46             | 18,3                        | 365            |
| 21+800,00          | 0,4                | 36             | 14,4                        | 327            |
| 21+820,00          | 0,4                | 37             | 14,7                        | 291            |
| 21+840,00          | 0,4                | 37             | 14,9                        | 297            |
| 21+860,00          | 0,4                | 37             | 14,9                        | 298            |
| 21+880,00          | 0,4                | 38             | 15,0                        | 299            |
| 21+900,00          | 0,4                | 39             | 15,5                        | 305            |
| 21+920,00          | 0,4                | 38             | 15,0                        | 305            |
| 21+940,00          | 0,4                | 37             | 14,9                        | 299            |
| 21+960,00          | 0,4                | 37             | 14,6                        | 295            |
| 21+980,00          | 0,4                | 36             | 14,3                        | 290            |
| 22+000,00          | 0,4                | 36             | 14,5                        | 288            |
| 22+020,00          | 0,4                | 37             | 14,8                        | 293            |
| 22+040,00          | 0,4                | 35             | 13,8                        | 286            |
| 22+060,00          | 0,4                | 35             | 14,1                        | 279            |
| 22+080,00          | 0,4                | 36             | 14,3                        | 284            |
| 22+100,00          | 0,4                | 34             | 13,5                        | 278            |
| 22+120,00          | 0,4                | 34             | 13,7                        | 272            |
| 22+140,00          | 0,4                | 35             | 13,8                        | 275            |
| 22+160,00          | 0,4                | 35             | 13,8                        | 277            |
| 22+180,00          | 0,4                | 35             | 13,9                        | 278            |
| 22+200,00          | 0,4                | 35             | 14,2                        | 281            |
| 22+220,00          | 0,4                | 36             | 14,3                        | 284            |
| 22+240,00          | 0,4                | 36             | 14,4                        | 287            |
| 22+260,00          | 0,4                | 36             | 14,5                        | 289            |

| ZDJECIE HUMUSU S11 |                    |                |                             |                |
|--------------------|--------------------|----------------|-----------------------------|----------------|
| PIKIETAŻ           | GRUBOŚĆ<br>WARSTWY | SZEROKOŚĆ      | POWIERZCHNIA<br>W PRZĘKROJU | OBJĘTOŚĆ       |
| m                  | m                  | m <sup>2</sup> | m <sup>2</sup>              | m <sup>3</sup> |
| 22+280,00          | 0,4                | 37             | 14,7                        | 292            |
| 22+300,00          | 0,4                | 37             | 14,8                        | 295            |
| 22+320,00          | 0,4                | 38             | 15,1                        | 299            |
| 22+340,00          | 0,4                | 38             | 15,4                        | 304            |
| 22+360,00          | 0,4                | 40             | 15,8                        | 312            |
| 22+380,00          | 0,4                | 41             | 16,3                        | 322            |
| 22+400,00          | 0,4                | 42             | 16,8                        | 331            |
| 22+420,00          | 0,4                | 43             | 17,2                        | 340            |
| 22+440,00          | 0,4                | 44             | 17,5                        | 347            |
| 22+460,00          | 0,4                | 45             | 18,0                        | 355            |
| 22+480,00          | 0,4                | 47             | 18,8                        | 368            |
| 22+500,00          | 0,4                | 49             | 19,6                        | 384            |
| 22+520,00          | 0,4                | 50             | 20,2                        | 397            |
| 22+540,00          | 0,4                | 51             | 20,5                        | 407            |
| 22+560,00          | 0,4                | 52             | 20,9                        | 415            |
| 22+580,00          | 0,4                | 53             | 21,3                        | 422            |
| 22+600,00          | 0,3                | 55             | 16,5                        | 378            |
| 22+620,00          | 0,3                | 56             | 16,8                        | 333            |
| 22+640,00          | 0,3                | 57             | 17,1                        | 339            |
| 22+660,00          | 0,3                | 58             | 17,3                        | 344            |
| 22+680,00          | 0,3                | 59             | 17,7                        | 350            |
| 22+700,00          | 0,3                | 60             | 17,9                        | 356            |
| 22+720,00          | 0,4                | 47             | 19,0                        | 369            |
| 22+740,00          | 0,4                | 37             | 14,6                        | 336            |
| 22+760,00          | 0,4                | 37             | 14,6                        | 292            |
| 22+780,00          | 0,4                | 37             | 14,6                        | 292            |
| 22+800,00          | 0,4                | 69             | 27,5                        | 421            |
| 22+820,00          | 0,4                | 69             | 27,5                        | 549            |
| 22+840,00          | 0,4                | 65             | 26,2                        | 536            |
| 22+860,00          | 0,4                | 63             | 25,4                        | 515            |
| 22+880,00          | 0,4                | 62             | 24,7                        | 500            |
| 22+900,00          | 0,4                | 58             | 23,3                        | 480            |
| 22+920,00          | 0,4                | 40             | 15,9                        | 391            |
| 22+940,00          | 0,4                | 24             | 9,6                         | 255            |
| 22+960,00          | 0,4                | 24             | 9,6                         | 192            |
| 22+980,00          | 0,4                | 25             | 10,1                        | 197            |
| 23+000,00          | 0,4                | 27             | 11,0                        | 211            |
| 23+020,00          | 0,4                | 46             | 18,2                        | 292            |
| 23+040,00          | 0,4                | 44             | 17,7                        | 359            |
| 23+060,00          | 0,4                | 43             | 17,1                        | 347            |
| 23+080,00          | 0,4                | 41             | 16,5                        | 336            |
| 23+100,00          | 0,4                | 40             | 16,1                        | 326            |
| 23+120,00          | 0,4                | 39             | 15,6                        | 317            |
| 23+140,00          | 0,4                | 38             | 15,2                        | 308            |
| 23+160,00          | 0,4                | 38             | 15,1                        | 303            |
| 23+180,00          | 0,4                | 38             | 15,2                        | 303            |
| 23+200,00          | 0,4                | 38             | 15,1                        | 303            |
| 23+220,00          | 0,4                | 38             | 15,3                        | 304            |

| ZDJECIE HUMUSU S11 |                    |                |                             |                |
|--------------------|--------------------|----------------|-----------------------------|----------------|
| PIKIETAŻ           | GRUBOŚĆ<br>WARSTWY | SZEROKOŚĆ      | POWIERZCHNIA<br>W PRZĘKROJU | OBJĘTOŚĆ       |
| m                  | m                  | m <sup>2</sup> | m <sup>2</sup>              | m <sup>3</sup> |
| 23+240,00          | 0,4                | 39             | 15,4                        | 307            |
| 23+260,00          | 0,4                | 39             | 15,5                        | 309            |
| 23+280,00          | 0,55               | 39             | 21,4                        | 369            |
| 23+300,00          | 0,55               | 39             | 21,7                        | 431            |
| 23+320,00          | 0,55               | 41             | 22,4                        | 441            |
| 23+340,00          | 0,55               | 41             | 22,3                        | 447            |
| 23+360,00          | 0,55               | 39             | 21,3                        | 436            |
| 23+380,00          | 0,35               | 35             | 12,4                        | 337            |
| 23+400,00          | 0,35               | 27             | 9,4                         | 218            |
| 23+420,00          | 0,35               | 24             | 8,4                         | 178            |
| 23+440,00          | 0,35               | 24             | 8,4                         | 168            |
| 23+460,00          | 0,35               | 24             | 8,4                         | 168            |
| 23+480,00          | 0,35               | 36             | 12,6                        | 210            |
| 23+500,00          | 0,3                | 36             | 10,9                        | 235            |
| 23+520,00          | 0,3                | 36             | 10,9                        | 218            |
| 23+540,00          | 0,3                | 37             | 11,0                        | 220            |
| 23+560,00          | 0,3                | 37             | 11,2                        | 222            |
| 23+580,00          | 0,45               | 38             | 17,0                        | 282            |
| 23+600,00          | 0,45               | 38             | 17,2                        | 342            |
| 23+620,00          | 0,45               | 38             | 16,9                        | 341            |
| 23+640,00          | 0,45               | 37             | 16,5                        | 335            |
| 23+660,00          | 0,45               | 37             | 16,5                        | 331            |
| 23+680,00          | 0,5                | 37             | 18,4                        | 350            |
| 23+700,00          | 0,5                | 36             | 18,0                        | 364            |
| 23+720,00          | 0,5                | 37             | 18,3                        | 363            |
| 23+740,00          | 0,5                | 38             | 18,8                        | 371            |
| 23+760,00          | 0,5                | 39             | 19,7                        | 385            |
| 23+780,00          | 0,5                | 41             | 20,4                        | 401            |
| 23+800,00          | 0,5                | 43             | 21,7                        | 421            |
| 23+820,00          | 0,4                | 41             | 16,4                        | 381            |
| 23+840,00          | 0,4                | 49             | 19,8                        | 362            |
| 23+860,00          | 0,4                | 45             | 17,9                        | 377            |
| 23+880,00          | 0,4                | 44             | 17,5                        | 354            |
| 23+900,00          | 0,4                | 44             | 17,8                        | 353            |
| 23+920,00          | 0,4                | 45             | 18,0                        | 358            |
| 23+940,00          | 0,4                | 46             | 18,2                        | 363            |
| 23+960,00          | 0,4                | 46             | 18,5                        | 368            |
| 23+980,00          | 0,4                | 47             | 18,7                        | 373            |
| 24+000,00          | 0,4                | 47             | 19,0                        | 377            |
| 24+020,00          | 0,4                | 47             | 19,0                        | 379            |
| 24+040,00          | 0,4                | 47             | 18,8                        | 378            |
| 24+060,00          | 0,4                | 46             | 18,5                        | 373            |
| 24+080,00          | 0,4                | 45             | 18,2                        | 367            |
| 24+100,00          | 0,4                | 45             | 17,9                        | 361            |
| 24+120,00          | 0,4                | 44             | 17,7                        | 356            |
| 24+140,00          | 0,4                | 43             | 17,3                        | 350            |
| 24+160,00          | 0,4                | 49             | 19,4                        | 367            |
| 24+180,00          | 0,4                | 46             | 18,6                        | 380            |

| ZDJECIE HUMUSU S11 |                    |                |                             |                |
|--------------------|--------------------|----------------|-----------------------------|----------------|
| PIKIETAŻ           | GRUBOŚĆ<br>WARSTWY | SZEROKOŚĆ      | POWIERZCHNIA<br>W PRZĘKROJU | OBJĘTOŚĆ       |
| m                  | m                  | m <sup>2</sup> | m <sup>2</sup>              | m <sup>3</sup> |
| 24+200,00          | 0,4                | 46             | 18,4                        | 369            |
| 24+220,00          | 0,4                | 46             | 18,2                        | 366            |
| 24+240,00          | 0,4                | 45             | 17,9                        | 361            |
| 24+260,00          | 0,4                | 44             | 17,6                        | 355            |
| 24+280,00          | 0,4                | 43             | 17,4                        | 349            |
| 24+300,00          | 0,35               | 43             | 14,9                        | 323            |
| 24+320,00          | 0,35               | 48             | 16,7                        | 316            |
| 24+340,00          | 0,35               | 47             | 16,3                        | 330            |
| 24+360,00          | 0,35               | 46             | 16,2                        | 325            |
| 24+380,00          | 0,3                | 44             | 13,2                        | 294            |
| 24+400,00          | 0,3                | 43             | 12,9                        | 261            |
| 24+420,00          | 0,3                | 44             | 13,1                        | 260            |
| 24+440,00          | 0,3                | 45             | 13,5                        | 266            |
| 24+460,00          | 0,3                | 45             | 13,6                        | 271            |
| 24+480,00          | 0,3                | 45             | 13,5                        | 270            |
| 24+500,00          | 0,3                | 46             | 13,7                        | 271            |
| 24+520,00          | 0,3                | 46             | 13,8                        | 274            |
| 24+540,00          | 0,3                | 46             | 13,7                        | 275            |
| 24+560,00          | 0,3                | 46             | 13,7                        | 274            |
| 24+580,00          | 0,3                | 45             | 13,5                        | 272            |
| 24+600,00          | 0,3                | 45             | 13,4                        | 269            |
| 24+620,00          | 0,3                | 44             | 13,3                        | 267            |
| 24+640,00          | 0,3                | 44             | 13,2                        | 264            |
| 24+660,00          | 0,3                | 43             | 13,0                        | 262            |
| 24+800,00          | 0,4                | 42             | 16,9                        | 0              |
| 24+820,00          | 0,4                | 42             | 16,8                        | 337            |
| 24+840,00          | 0,4                | 42             | 16,9                        | 338            |
| 24+860,00          | 0,4                | 42             | 16,8                        | 337            |
| 24+880,00          | 0,4                | 42             | 16,9                        | 337            |
| 24+900,00          | 0,4                | 42             | 16,8                        | 336            |
| 24+920,00          | 0,4                | 42             | 17,0                        | 337            |
| 24+940,00          | 0,4                | 42             | 16,7                        | 337            |
| 24+960,00          | 0,4                | 41             | 16,6                        | 333            |
| 24+980,00          | 0,4                | 41             | 16,3                        | 329            |
| 25+000,00          | 0,4                | 41             | 16,3                        | 327            |
| 25+120,00          | 0,4                | 40             | 16,2                        | 0              |
| 25+140,00          | 0,4                | 40             | 16,1                        | 323            |
| 25+160,00          | 0,4                | 41             | 16,6                        | 326            |
| 25+180,00          | 0,4                | 40             | 16,2                        | 328            |
| 25+200,00          | 0,4                | 41             | 16,3                        | 325            |
| 25+220,00          | 0,4                | 41             | 16,4                        | 326            |
| 25+240,00          | 0,4                | 41             | 16,4                        | 328            |
| 25+260,00          | 0,4                | 43             | 17,0                        | 334            |
| 25+360,00          | 0,3                | 55             | 16,4                        | 0              |
| 25+380,00          | 0,3                | 57             | 17,0                        | 334            |
| 25+400,00          | 0,3                | 58             | 17,4                        | 343            |
| 25+420,00          | 0,3                | 59             | 17,7                        | 351            |
| 25+440,00          | 0,3                | 59             | 17,8                        | 355            |

| ZDJECIE HUMUSU S11 |                    |                |                             |                |
|--------------------|--------------------|----------------|-----------------------------|----------------|
| PIKIETAŻ           | GRUBOŚĆ<br>WARSTWY | SZEROKOŚĆ      | POWIERZCHNIA<br>W PRZĘKROJU | OBJĘTOŚĆ       |
| m                  | m                  | m <sup>2</sup> | m <sup>2</sup>              | m <sup>3</sup> |
| 25+460,00          | 0,3                | 61             | 18,2                        | 360            |
| 25+480,00          | 0,4                | 62             | 24,9                        | 431            |
| 25+500,00          | 0,4                | 65             | 25,9                        | 507            |
| 25+520,00          | 0,4                | 34             | 13,4                        | 393            |
| 25+540,00          | 0,4                | 67             | 26,8                        | 402            |
| 25+560,00          | 0,4                | 66             | 26,3                        | 531            |
| 25+580,00          | 0,4                | 63             | 25,2                        | 515            |
| 25+600,00          | 0,4                | 62             | 25,0                        | 502            |
| 25+620,00          | 0,4                | 62             | 24,8                        | 497            |
| 25+640,00          | 0,4                | 63             | 25,1                        | 499            |
| SUMA:              |                    |                | 9280,1                      | 183143         |

| ZDJECIE HUMUSU S5 |                    |                |                             |                |
|-------------------|--------------------|----------------|-----------------------------|----------------|
| PIKIETAŻ          | GRUBOŚĆ<br>WARSTWY | SZEROKOŚĆ      | POWIERZCHNIA<br>W PRZĘKROJU | OBJĘTOŚĆ       |
| m                 | m                  | m <sup>2</sup> | m <sup>2</sup>              | m <sup>3</sup> |
| 0+126,43          | 0,4                | 36             | 14,4                        | 0              |
| 0+146,43          | 0,4                | 36             | 14,4                        | 288            |
| 0+166,43          | 0,4                | 52             | 20,8                        | 352            |
| 0+186,43          | 0,4                | 67             | 26,7                        | 475            |
| 0+206,43          | 0,4                | 62             | 25,0                        | 517            |
| 0+226,43          | 0,3                | 60             | 18,0                        | 430            |
| 0+246,43          | 0,3                | 58             | 17,4                        | 354            |
| 0+266,43          | 0,3                | 56             | 16,8                        | 342            |
| 0+286,43          | 0,3                | 54             | 16,3                        | 331            |
| 0+306,43          | 0,3                | 53             | 16,0                        | 323            |
| 0+326,43          | 0,3                | 51             | 15,3                        | 313            |
| 0+346,43          | 0,3                | 49             | 14,6                        | 300            |
| 0+366,43          | 0,3                | 48             | 14,3                        | 289            |
| 0+386,43          | 0,3                | 44             | 13,2                        | 275            |
| 0+406,43          | 0,3                | 34             | 10,1                        | 233            |
| 0+426,43          | 0,3                | 33             | 9,9                         | 200            |
| 0+446,43          | 0,3                | 32             | 9,7                         | 197            |
| 0+466,43          | 0,3                | 25             | 7,6                         | 173            |
| 0+486,43          | 0,3                | 30             | 9,0                         | 166            |
| 0+506,43          | 0,3                | 30             | 8,9                         | 180            |
| 0+526,43          | 0,3                | 29             | 8,8                         | 178            |
| 0+546,43          | 0,3                | 31             | 9,2                         | 180            |
| 0+566,43          | 0,3                | 35             | 10,4                        | 196            |
| 0+586,43          | 0,3                | 35             | 10,4                        | 208            |
| 0+606,43          | 0,3                | 35             | 10,4                        | 208            |
| 0+626,43          | 0,3                | 29             | 8,8                         | 192            |
| 0+646,43          | 0,3                | 30             | 8,9                         | 177            |
| 0+666,43          | 0,4                | 30             | 11,9                        | 207            |
| 0+686,43          | 0,4                | 37             | 14,8                        | 266            |
| 0+706,43          | 0,4                | 37             | 14,9                        | 297            |
| 0+726,43          | 0,4                | 37             | 14,9                        | 298            |



| ZDJECIE HUMUSU S5 |                    |                |                             |                |
|-------------------|--------------------|----------------|-----------------------------|----------------|
| PIKIETAŻ          | GRUBOŚĆ<br>WARSTWY | SZEROKOŚĆ      | POWIERZCHNIA<br>W PRZĘKROJU | OBJĘTOŚĆ       |
| m                 | m                  | m <sup>2</sup> | m <sup>2</sup>              | m <sup>3</sup> |
| 0+746,43          | 0,4                | 37             | 14,8                        | 297            |
| 0+766,43          | 0,4                | 37             | 14,7                        | 295            |
| 0+786,43          | 0,4                | 37             | 14,9                        | 296            |
| 0+806,43          | 0,4                | 38             | 15,3                        | 302            |
| 0+826,43          | 0,4                | 39             | 15,8                        | 311            |
| 0+846,43          | 0,4                | 40             | 16,1                        | 319            |
| 0+866,43          | 0,4                | 35             | 13,9                        | 300            |
| 0+886,43          | 0,4                | 34             | 13,6                        | 274            |
| 0+906,43          | 0,4                | 34             | 13,4                        | 270            |
| 0+926,43          | 0,4                | 32             | 12,7                        | 262            |
| 0+946,43          | 0,4                | 32             | 12,8                        | 255            |
| 0+966,43          | 0,4                | 32             | 12,8                        | 256            |
| 0+986,43          | 0,4                | 32             | 12,9                        | 257            |
| 1+006,43          | 0,4                | 42             | 17,0                        | 298            |
| 1+026,43          | 0,4                | 42             | 16,9                        | 338            |
| 1+046,43          | 0,4                | 42             | 16,7                        | 336            |
| 1+066,43          | 0,4                | 41             | 16,6                        | 333            |
| 1+086,43          | 0,4                | 41             | 16,5                        | 331            |
| 1+106,43          | 0,4                | 41             | 16,4                        | 329            |
| 1+126,43          | 0,4                | 41             | 16,3                        | 327            |
| 1+146,43          | 0,4                | 40             | 15,9                        | 322            |
| 1+166,43          | 0,4                | 38             | 15,1                        | 310            |
| 1+186,43          | 0,4                | 41             | 16,4                        | 314            |
| 1+206,43          | 0,4                | 45             | 18,0                        | 344            |
| 1+226,43          | 0,4                | 44             | 17,7                        | 357            |
| 1+246,43          | 0,4                | 43             | 17,3                        | 350            |
| 1+266,43          | 0,4                | 45             | 17,8                        | 352            |
| 1+286,43          | 0,4                | 43             | 17,1                        | 350            |
| 1+306,43          | 0,4                | 43             | 17,2                        | 344            |
| 1+326,43          | 0,4                | 43             | 17,3                        | 345            |
| 1+346,43          | 0,4                | 43             | 17,2                        | 345            |
| 1+366,43          | 0,4                | 43             | 17,2                        | 344            |
| 1+386,43          | 0,4                | 43             | 17,2                        | 344            |
| 1+406,43          | 0,4                | 44             | 17,5                        | 347            |
| 1+426,43          | 0,4                | 44             | 17,6                        | 351            |
| 1+446,43          | 0,4                | 44             | 17,7                        | 352            |
| 1+466,43          | 0,4                | 45             | 17,8                        | 355            |
| 1+486,43          | 0,4                | 45             | 17,9                        | 357            |
| 1+506,43          | 0,4                | 44             | 17,6                        | 355            |
| 1+526,43          | 0,4                | 44             | 17,4                        | 350            |
| 1+546,43          | 0,4                | 43             | 17,1                        | 345            |
| 1+566,43          | 0,4                | 41             | 16,5                        | 335            |
| 1+586,43          | 0,4                | 40             | 16,0                        | 325            |
| SUMA:             |                    |                | 1116,4                      | 22023          |

**OBJĘTOŚĆ HUMUSU DO ZDJĘCIA DLA CAŁEGO WĘZŁA: 205 166 m<sup>3</sup>**

- **TABELA HUMUSOWANIA SKARP :**

| <b>HUMUSOWANIE SKARP S11</b> |                      |                      |
|------------------------------|----------------------|----------------------|
| <b>PIKIETAŻ</b>              | <b>POWIERZCHNIA</b>  | <b>OBJĘTOŚĆ</b>      |
| <b>m</b>                     | <b>m<sup>2</sup></b> | <b>m<sup>3</sup></b> |
| 13+068.00                    | 0                    | 0                    |
| 13+080.00                    | 285                  | 43                   |
| 13+100.00                    | 468                  | 70                   |
| 13+120.00                    | 470                  | 70                   |
| 13+140.00                    | 456                  | 68                   |
| 13+160.00                    | 436                  | 65                   |
| 13+180.00                    | 430                  | 65                   |
| 13+200.00                    | 429                  | 64                   |
| 13+220.00                    | 428                  | 64                   |
| 13+240.00                    | 428                  | 64                   |
| 13+260.00                    | 429                  | 64                   |
| 13+280.00                    | 427                  | 64                   |
| 13+300.00                    | 424                  | 64                   |
| 13+320.00                    | 423                  | 63                   |
| 13+340.00                    | 421                  | 63                   |
| 13+360.00                    | 415                  | 62                   |
| 13+380.00                    | 408                  | 61                   |
| 13+400.00                    | 403                  | 60                   |
| 13+420.00                    | 401                  | 60                   |
| 13+440.00                    | 339                  | 51                   |
| 13+460.00                    | 278                  | 42                   |
| 13+480.00                    | 280                  | 42                   |
| 13+500.00                    | 294                  | 44                   |
| 13+520.00                    | 371                  | 56                   |
| 13+540.00                    | 450                  | 67                   |
| 13+560.00                    | 478                  | 72                   |
| 13+580.00                    | 504                  | 76                   |
| 13+600.00                    | 420                  | 63                   |
| 13+620.00                    | 316                  | 47                   |
| 13+640.00                    | 394                  | 59                   |
| 13+660.00                    | 484                  | 73                   |
| 13+680.00                    | 500                  | 75                   |
| 13+700.00                    | 522                  | 78                   |
| 13+720.00                    | 540                  | 81                   |
| 13+740.00                    | 548                  | 82                   |
| 13+760.00                    | 554                  | 83                   |
| 13+780.00                    | 563                  | 84                   |
| 13+800.00                    | 430                  | 65                   |
| 13+820.00                    | 294                  | 44                   |
| 13+840.00                    | 297                  | 45                   |
| 13+860.00                    | 286                  | 43                   |
| 13+880.00                    | 283                  | 42                   |
| 13+900.00                    | 298                  | 45                   |
| 13+920.00                    | 311                  | 47                   |
| 13+940.00                    | 307                  | 46                   |

| HUMUSOWANIE SKARP S11 |                |                |
|-----------------------|----------------|----------------|
| PIKIETAŻ              | POWIERZCHNIA   | OBJĘTOŚĆ       |
| m                     | m <sup>2</sup> | m <sup>3</sup> |
| 13+960.00             | 322            | 48             |
| 13+973.00             | 227            | 34             |
| OBIEKT WS-15          |                |                |
| PIKIETAŻ              | POWIERZCHNIA   | OBJĘTOŚĆ       |
| m                     | m <sup>2</sup> | m <sup>3</sup> |
| 14+044.00             | 0              | 0              |
| 14+060.00             | 605            | 91             |
| 14+080.00             | 565            | 85             |
| 14+100.00             | 187            | 28             |
| 14+120.00             | 24             | 4              |
| 14+140.00             | 47             | 7              |
| 14+160.00             | 214            | 32             |
| 14+180.00             | 211            | 32             |
| 14+200.00             | 55             | 8              |
| 14+220.00             | 35             | 5              |
| 14+240.00             | 6              | 1              |
| 14+260.00             | 7              | 1              |
| 14+276.00             | 7              | 1              |
| OBIEKT WS-16          |                |                |
| PIKIETAŻ              | POWIERZCHNIA   | OBJĘTOŚĆ       |
| m                     | m <sup>2</sup> | m <sup>3</sup> |
| 14+295.00             | 0              | 0              |
| 14+300.00             | 168            | 25             |
| 14+320.00             | 688            | 103            |
| 14+340.00             | 676            | 101            |
| 14+360.00             | 603            | 90             |
| 14+380.00             | 536            | 80             |
| 14+400.00             | 498            | 75             |
| 14+420.00             | 459            | 69             |
| 14+440.00             | 410            | 62             |
| 14+460.00             | 379            | 57             |
| 14+480.00             | 374            | 56             |
| 14+500.00             | 358            | 54             |
| 14+520.00             | 330            | 50             |
| 14+540.00             | 305            | 46             |
| 14+560.00             | 298            | 45             |
| 14+580.00             | 309            | 46             |
| 14+600.00             | 335            | 50             |
| 14+620.00             | 355            | 53             |
| 14+640.00             | 358            | 54             |
| 14+660.00             | 357            | 54             |
| 14+680.00             | 355            | 53             |
| 14+700.00             | 360            | 54             |
| 14+720.00             | 371            | 56             |
| 14+740.00             | 384            | 58             |
| 14+760.00             | 395            | 59             |
| 14+780.00             | 407            | 61             |
| 14+800.00             | 422            | 63             |

| HUMUSOWANIE SKARP S11 |                |                |
|-----------------------|----------------|----------------|
| PIKIETAŻ              | POWIERZCHNIA   | OBJĘTOŚĆ       |
| m                     | m <sup>2</sup> | m <sup>3</sup> |
| 14+820.00             | 439            | 66             |
| 14+840.00             | 454            | 68             |
| 14+860.00             | 469            | 70             |
| 14+880.00             | 489            | 73             |
| 14+900.00             | 493            | 74             |
| 14+920.00             | 474            | 71             |
| 14+940.00             | 444            | 67             |
| 14+960.00             | 401            | 60             |
| 14+980.00             | 409            | 61             |
| 15+000.00             | 504            | 76             |
| 15+020.00             | 513            | 77             |
| 15+040.00             | 414            | 62             |
| 15+060.00             | 349            | 52             |
| 15+080.00             | 304            | 46             |
| 15+100.00             | 274            | 41             |
| 15+120.00             | 268            | 40             |
| 15+140.00             | 267            | 40             |
| 15+160.00             | 273            | 41             |
| 15+180.00             | 292            | 44             |
| 15+200.00             | 321            | 48             |
| 15+220.00             | 377            | 57             |
| 15+240.00             | 442            | 66             |
| 15+260.00             | 476            | 71             |
| 15+276.00             | 390            | 59             |
| OBIEKT PS-16A         |                |                |
| PIKIETAŻ              | POWIERZCHNIA   | OBJĘTOŚĆ       |
| m                     | m <sup>2</sup> | m <sup>3</sup> |
| 15+284.00             | 0              | 0              |
| 15+300.00             | 390            | 59             |
| 15+320.00             | 452            | 68             |
| 15+340.00             | 400            | 60             |
| 15+360.00             | 369            | 55             |
| 15+380.00             | 344            | 52             |
| 15+400.00             | 327            | 49             |
| 15+420.00             | 311            | 47             |
| 15+440.00             | 296            | 44             |
| 15+460.00             | 289            | 43             |
| 15+480.00             | 285            | 43             |
| 15+500.00             | 277            | 42             |
| 15+520.00             | 265            | 40             |
| 15+540.00             | 259            | 39             |
| 15+560.00             | 263            | 39             |
| 15+580.00             | 286            | 43             |
| 15+600.00             | 283            | 43             |
| 15+620.00             | 232            | 35             |
| 15+640.00             | 293            | 44             |
| 15+660.00             | 366            | 55             |
| 15+680.00             | 343            | 51             |

| HUMUSOWANIE SKARP S11 |                |                |
|-----------------------|----------------|----------------|
| PIKIETAŻ              | POWIERZCHNIA   | OBJĘTOŚĆ       |
| m                     | m <sup>2</sup> | m <sup>3</sup> |
| 15+700.00             | 326            | 49             |
| 15+720.00             | 315            | 47             |
| 15+740.00             | 316            | 47             |
| 15+760.00             | 317            | 48             |
| 15+780.00             | 320            | 48             |
| 15+800.00             | 326            | 49             |
| 15+820.00             | 331            | 50             |
| 15+840.00             | 327            | 49             |
| 15+860.00             | 322            | 48             |
| 15+880.00             | 321            | 48             |
| 15+900.00             | 332            | 50             |
| 15+920.00             | 360            | 54             |
| 15+940.00             | 390            | 59             |
| 15+960.00             | 414            | 62             |
| 15+980.00             | 434            | 65             |
| 16+000.00             | 452            | 68             |
| 16+020.00             | 466            | 70             |
| 16+040.00             | 432            | 65             |
| 16+060.00             | 397            | 59             |
| 16+080.00             | 407            | 61             |
| 16+100.00             | 385            | 58             |
| 16+120.00             | 347            | 52             |
| 16+140.00             | 320            | 48             |
| 16+160.00             | 316            | 47             |
| 16+180.00             | 366            | 55             |
| 16+200.00             | 418            | 63             |
| 16+220.00             | 448            | 67             |
| 16+240.00             | 503            | 75             |
| 16+260.00             | 557            | 84             |
| 16+280.00             | 591            | 89             |
| 16+300.00             | 627            | 94             |
| 16+320.00             | 662            | 99             |
| 16+340.00             | 685            | 103            |
| OBIEKT WS-17          |                |                |
| PIKIETAŻ              | POWIERZCHNIA   | OBJĘTOŚĆ       |
| m                     | m <sup>2</sup> | m <sup>3</sup> |
| 16+372.00             | 0              | 0              |
| 16+380.00             | 251            | 38             |
| 16+400.00             | 656            | 98             |
| 16+420.00             | 678            | 102            |
| 16+440.00             | 655            | 98             |
| 16+460.00             | 634            | 95             |
| 16+480.00             | 612            | 92             |
| 16+500.00             | 586            | 88             |
| 16+520.00             | 561            | 84             |
| 16+540.00             | 507            | 76             |
| 16+560.00             | 466            | 70             |
| 16+580.00             | 463            | 69             |

| HUMUSOWANIE SKARP S11 |                |                |
|-----------------------|----------------|----------------|
| PIKIETAŻ              | POWIERZCHNIA   | OBJĘTOŚĆ       |
| m                     | m <sup>2</sup> | m <sup>3</sup> |
| 16+600.00             | 458            | 69             |
| 16+620.00             | 470            | 70             |
| 16+640.00             | 478            | 72             |
| 16+660.00             | 373            | 56             |
| 16+680.00             | 365            | 55             |
| 16+700.00             | 451            | 68             |
| 16+720.00             | 447            | 67             |
| 16+740.00             | 439            | 66             |
| 16+760.00             | 414            | 62             |
| 16+780.00             | 387            | 58             |
| 16+800.00             | 356            | 53             |
| 16+820.00             | 325            | 49             |
| 16+840.00             | 298            | 45             |
| 16+860.00             | 277            | 41             |
| 16+880.00             | 263            | 39             |
| 16+900.00             | 260            | 39             |
| 16+920.00             | 261            | 39             |
| 16+940.00             | 199            | 30             |
| 16+960.00             | 158            | 24             |
| 16+980.00             | 184            | 28             |
| 17+000.00             | 192            | 29             |
| 17+020.00             | 200            | 30             |
| 17+040.00             | 207            | 31             |
| 17+060.00             | 215            | 32             |
| 17+080.00             | 225            | 34             |
| 17+100.00             | 233            | 35             |
| 17+120.00             | 241            | 36             |
| 17+140.00             | 249            | 37             |
| 17+160.00             | 257            | 39             |
| 17+180.00             | 265            | 40             |
| 17+200.00             | 273            | 41             |
| 17+220.00             | 281            | 42             |
| 17+240.00             | 289            | 43             |
| 17+260.00             | 296            | 44             |
| 17+280.00             | 290            | 43             |
| 17+300.00             | 281            | 42             |
| 17+320.00             | 283            | 42             |
| 17+340.00             | 282            | 42             |
| 17+360.00             | 258            | 39             |
| 17+380.00             | 237            | 35             |
| 17+400.00             | 236            | 35             |
| 17+420.00             | 236            | 35             |
| 17+440.00             | 236            | 35             |
| 17+460.00             | 236            | 35             |
| 17+480.00             | 236            | 35             |
| 17+500.00             | 237            | 35             |
| 17+520.00             | 237            | 36             |
| 17+540.00             | 237            | 36             |

| HUMUSOWANIE SKARP S11 |                |                |
|-----------------------|----------------|----------------|
| PIKIETAŻ              | POWIERZCHNIA   | OBJĘTOŚĆ       |
| m                     | m <sup>2</sup> | m <sup>3</sup> |
| 17+560.00             | 237            | 36             |
| 17+580.00             | 237            | 36             |
| 17+600.00             | 237            | 35             |
| 17+620.00             | 237            | 35             |
| 17+640.00             | 236            | 35             |
| 17+660.00             | 243            | 36             |
| 17+680.00             | 243            | 36             |
| 17+700.00             | 236            | 35             |
| 17+720.00             | 247            | 37             |
| 17+740.00             | 259            | 39             |
| 17+760.00             | 259            | 39             |
| 17+780.00             | 259            | 39             |
| 17+800.00             | 258            | 39             |
| 17+820.00             | 258            | 39             |
| 17+840.00             | 196            | 29             |
| 17+860.00             | 104            | 16             |
| 17+880.00             | 75             | 11             |
| 17+900.00             | 28             | 4              |
| 17+920.00             | 20             | 3              |
| 17+940.00             | 45             | 7              |
| 17+960.00             | 170            | 25             |
| 17+980.00             | 247            | 37             |
| 18+000.00             | 167            | 25             |
| 18+020.00             | 149            | 22             |
| 18+040.00             | 144            | 22             |
| 18+060.00             | 140            | 21             |
| 18+080.00             | 210            | 32             |
| 18+100.00             | 281            | 42             |
| 18+120.00             | 282            | 42             |
| 18+140.00             | 221            | 33             |
| 18+160.00             | 158            | 24             |
| 18+180.00             | 165            | 25             |
| 18+200.00             | 173            | 26             |
| 18+220.00             | 193            | 29             |
| 18+240.00             | 261            | 39             |
| 18+260.00             | 298            | 45             |
| 18+280.00             | 296            | 44             |
| 18+300.00             | 168            | 25             |
| 18+320.00             | 135            | 20             |
| 18+340.00             | 266            | 40             |
| 18+360.00             | 291            | 44             |
| OBIEKT PS-18A         |                |                |
| PIKIETAŻ              | POWIERZCHNIA   | OBJĘTOŚĆ       |
| m                     | m <sup>2</sup> | m <sup>3</sup> |
| 18+369.00             | 0              |                |
| 18+380.00             | 244            | 37             |
| 18+400.00             | 443            | 66             |
| 18+420.00             | 441            | 66             |

| HUMUSOWANIE SKARP S11 |                |                |
|-----------------------|----------------|----------------|
| PIKIETAŻ              | POWIERZCHNIA   | OBJĘTOŚĆ       |
| m                     | m <sup>2</sup> | m <sup>3</sup> |
| 18+440.00             | 492            | 74             |
| 18+460.00             | 547            | 82             |
| 18+480.00             | 538            | 81             |
| 18+500.00             | 529            | 79             |
| 18+520.00             | 518            | 78             |
| 18+540.00             | 509            | 76             |
| 18+560.00             | 560            | 84             |
| 18+580.00             | 612            | 92             |
| 18+600.00             | 603            | 90             |
| 18+620.00             | 591            | 89             |
| 18+640.00             | 576            | 86             |
| 18+660.00             | 558            | 84             |
| 18+680.00             | 543            | 81             |
| 18+700.00             | 525            | 79             |
| 18+720.00             | 517            | 78             |
| 18+740.00             | 500            | 75             |
| 18+760.00             | 551            | 83             |
| 18+780.00             | 619            | 93             |
| 18+800.00             | 607            | 91             |
| 18+820.00             | 594            | 89             |
| 18+840.00             | 581            | 87             |
| 18+860.00             | 577            | 86             |
| 18+880.00             | 579            | 87             |
| 18+900.00             | 566            | 85             |
| 18+920.00             | 551            | 83             |
| 18+940.00             | 555            | 83             |
| 18+960.00             | 564            | 85             |
| 18+980.00             | 564            | 85             |
| 19+000.00             | 555            | 83             |
| 19+020.00             | 547            | 82             |
| 19+040.00             | 546            | 82             |
| 19+060.00             | 541            | 81             |
| 19+080.00             | 534            | 80             |
| 19+100.00             | 534            | 80             |
| 19+120.00             | 534            | 80             |
| 19+140.00             | 529            | 79             |
| 19+160.00             | 520            | 78             |
| 19+180.00             | 515            | 77             |
| 19+200.00             | 513            | 77             |
| 19+220.00             | 514            | 77             |
| 19+240.00             | 513            | 77             |
| 19+260.00             | 510            | 76             |
| 19+280.00             | 498            | 75             |
| 19+300.00             | 491            | 74             |
| 19+320.00             | 491            | 74             |
| 19+340.00             | 485            | 73             |
| 19+360.00             | 477            | 72             |
| 19+380.00             | 466            | 70             |



| HUMUSOWANIE SKARP S11 |                |                |
|-----------------------|----------------|----------------|
| PIKIETAŻ              | POWIERZCHNIA   | OBJĘTOŚĆ       |
| m                     | m <sup>2</sup> | m <sup>3</sup> |
| 19+400.00             | 454            | 68             |
| 19+420.00             | 451            | 68             |
| 19+440.00             | 451            | 68             |
| 19+460.00             | 439            | 66             |
| 19+480.00             | 434            | 65             |
| 19+500.00             | 427            | 64             |
| 19+520.00             | 417            | 63             |
| 19+540.00             | 413            | 62             |
| 19+560.00             | 356            | 53             |
| 19+580.00             | 323            | 48             |
| 19+600.00             | 338            | 51             |
| 19+620.00             | 339            | 51             |
| 19+640.00             | 348            | 52             |
| 19+660.00             | 352            | 53             |
| 19+680.00             | 350            | 53             |
| 19+700.00             | 328            | 49             |
| 19+720.00             | 349            | 52             |
| 19+740.00             | 392            | 59             |
| 19+760.00             | 398            | 60             |
| 19+780.00             | 403            | 60             |
| 19+800.00             | 402            | 60             |
| 19+820.00             | 403            | 60             |
| 19+840.00             | 408            | 61             |
| 19+860.00             | 414            | 62             |
| 19+880.00             | 422            | 63             |
| 19+900.00             | 424            | 64             |
| 19+920.00             | 425            | 64             |
| 19+940.00             | 439            | 66             |
| 19+960.00             | 448            | 67             |
| 19+980.00             | 452            | 68             |
| 20+000.00             | 456            | 68             |
| 20+020.00             | 453            | 68             |
| 20+040.00             | 449            | 67             |
| 20+060.00             | 454            | 68             |
| 20+080.00             | 465            | 70             |
| 20+100.00             | 466            | 70             |
| 20+120.00             | 393            | 59             |
| 20+140.00             | 334            | 50             |
| 20+160.00             | 339            | 51             |
| 20+180.00             | 331            | 50             |
| 20+200.00             | 332            | 50             |
| 20+220.00             | 341            | 51             |
| 20+240.00             | 348            | 52             |
| 20+260.00             | 348            | 52             |
| 20+280.00             | 347            | 52             |
| 20+300.00             | 342            | 51             |
| 20+320.00             | 330            | 50             |
| 20+340.00             | 322            | 48             |

| HUMUSOWANIE SKARP S11 |                |                |
|-----------------------|----------------|----------------|
| PIKIETAŻ              | POWIERZCHNIA   | OBJĘTOŚĆ       |
| m                     | m <sup>2</sup> | m <sup>3</sup> |
| 20+360.00             | 314            | 47             |
| 20+380.00             | 297            | 45             |
| 20+400.00             | 282            | 42             |
| 20+420.00             | 269            | 40             |
| 20+440.00             | 256            | 38             |
| 20+460.00             | 256            | 38             |
| 20+480.00             | 262            | 39             |
| 20+500.00             | 263            | 39             |
| 20+520.00             | 263            | 39             |
| 20+540.00             | 269            | 40             |
| 20+560.00             | 274            | 41             |
| 20+580.00             | 271            | 41             |
| 20+600.00             | 254            | 38             |
| 20+620.00             | 234            | 35             |
| 20+640.00             | 237            | 36             |
| 20+660.00             | 241            | 36             |
| 20+680.00             | 236            | 35             |
| 20+700.00             | 231            | 35             |
| 20+720.00             | 231            | 35             |
| 20+740.00             | 248            | 37             |
| 20+760.00             | 255            | 38             |
| 20+780.00             | 262            | 39             |
| 20+800.00             | 255            | 38             |
| 20+820.00             | 239            | 36             |
| 20+840.00             | 226            | 34             |
| 20+860.00             | 244            | 37             |
| 20+880.00             | 286            | 43             |
| 20+900.00             | 284            | 43             |
| 20+920.00             | 238            | 36             |
| 20+940.00             | 209            | 31             |
| 20+960.00             | 211            | 32             |
| 20+980.00             | 164            | 25             |
| 21+000.00             | 118            | 18             |
| 21+020.00             | 90             | 14             |
| 21+040.00             | 126            | 19             |
| 21+060.00             | 190            | 29             |
| 21+080.00             | 191            | 29             |
| 21+100.00             | 172            | 26             |
| 21+120.00             | 132            | 20             |
| 21+140.00             | 114            | 17             |
| 21+160.00             | 175            | 26             |
| 21+180.00             | 246            | 37             |
| 21+200.00             | 318            | 48             |
| 21+220.00             | 388            | 58             |
| 21+240.00             | 399            | 60             |
| 21+260.00             | 381            | 57             |
| 21+280.00             | 331            | 50             |
| 21+300.00             | 355            | 53             |

| HUMUSOWANIE SKARP S11 |                |                |
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| PIKIETAŻ              | POWIERZCHNIA   | OBJĘTOŚĆ       |
| m                     | m <sup>2</sup> | m <sup>3</sup> |
| 21+320.00             | 402            | 60             |
| 21+340.00             | 304            | 46             |
| 21+360.00             | 219            | 33             |
| 21+380.00             | 231            | 35             |
| 21+400.00             | 296            | 44             |
| 21+420.00             | 354            | 53             |
| 21+440.00             | 345            | 52             |
| 21+460.00             | 270            | 41             |
| 21+480.00             | 196            | 29             |
| 21+500.00             | 185            | 28             |
| 21+520.00             | 296            | 44             |
| 21+540.00             | 416            | 62             |
| 21+560.00             | 426            | 64             |
| 21+580.00             | 430            | 65             |
| 21+600.00             | 429            | 64             |
| 21+620.00             | 435            | 65             |
| 21+640.00             | 440            | 66             |
| 21+660.00             | 438            | 66             |
| 21+680.00             | 444            | 67             |
| 21+700.00             | 448            | 67             |
| 21+720.00             | 449            | 67             |
| 21+740.00             | 456            | 68             |
| 21+760.00             | 455            | 68             |
| 21+780.00             | 453            | 68             |
| 21+800.00             | 351            | 53             |
| 21+820.00             | 256            | 38             |
| 21+840.00             | 271            | 41             |
| 21+860.00             | 274            | 41             |
| 21+880.00             | 276            | 41             |
| 21+900.00             | 299            | 45             |
| 21+920.00             | 299            | 45             |
| 21+940.00             | 276            | 41             |
| 21+960.00             | 266            | 40             |
| 21+980.00             | 252            | 38             |
| 22+000.00             | 248            | 37             |
| 22+020.00             | 260            | 39             |
| 22+040.00             | 248            | 37             |
| 22+060.00             | 235            | 35             |
| 22+080.00             | 249            | 37             |
| 22+100.00             | 238            | 36             |
| 22+120.00             | 228            | 34             |
| 22+140.00             | 239            | 36             |
| 22+160.00             | 243            | 36             |
| 22+180.00             | 247            | 37             |
| 22+200.00             | 256            | 38             |
| 22+220.00             | 265            | 40             |
| 22+240.00             | 273            | 41             |
| 22+260.00             | 282            | 42             |

| HUMUSOWANIE SKARP S11 |                |                |
|-----------------------|----------------|----------------|
| PIKIETAŻ              | POWIERZCHNIA   | OBJĘTOŚĆ       |
| m                     | m <sup>2</sup> | m <sup>3</sup> |
| 22+280.00             | 290            | 44             |
| 22+300.00             | 299            | 45             |
| 22+320.00             | 311            | 47             |
| 22+340.00             | 327            | 49             |
| 22+360.00             | 350            | 53             |
| 22+380.00             | 379            | 57             |
| 22+400.00             | 408            | 61             |
| 22+420.00             | 433            | 65             |
| 22+440.00             | 455            | 68             |
| 22+460.00             | 479            | 72             |
| 22+480.00             | 513            | 77             |
| 22+500.00             | 553            | 83             |
| 22+520.00             | 588            | 88             |
| 22+540.00             | 617            | 93             |
| 22+560.00             | 640            | 96             |
| 22+580.00             | 661            | 99             |
| 22+600.00             | 681            | 102            |
| 22+620.00             | 697            | 105            |
| 22+640.00             | 717            | 108            |
| 22+660.00             | 737            | 111            |
| 22+680.00             | 756            | 113            |
| 22+700.00             | 777            | 117            |
| 22+720.00             | 613            | 92             |
| 22+740.00             | 245            | 37             |
| 22+760.00             | 50             | 8              |
| OBIEKT WS-22          |                |                |
| PIKIETAŻ              | POWIERZCHNIA   | OBJĘTOŚĆ       |
| m                     | m <sup>2</sup> | m <sup>3</sup> |
| 22+817.00             | 0              | 0              |
| 22+820.00             | 119            | 18             |
| 22+840.00             | 837            | 126            |
| 22+860.00             | 856            | 128            |
| 22+880.00             | 816            | 122            |
| 22+900.00             | 761            | 114            |
| 22+920.00             | 527            | 79             |
| 22+940.00             | 168            | 25             |
| 22+960.00             | 6              | 1              |
| 22+980.00             | 16             | 2              |
| 23+000.00             | 46             | 7              |
| 23+020.00             | 287            | 43             |
| 23+040.00             | 490            | 74             |
| 23+060.00             | 455            | 68             |
| 23+080.00             | 422            | 63             |
| 23+100.00             | 392            | 59             |
| 23+120.00             | 363            | 54             |
| 23+140.00             | 337            | 51             |
| 23+160.00             | 322            | 48             |
| 23+180.00             | 321            | 48             |

| HUMUSOWANIE SKARP S11 |                |                |
|-----------------------|----------------|----------------|
| PIKIETAŻ              | POWIERZCHNIA   | OBJĘTOŚĆ       |
| m                     | m <sup>2</sup> | m <sup>3</sup> |
| 23+200.00             | 323            | 48             |
| 23+220.00             | 325            | 49             |
| 23+240.00             | 334            | 50             |
| 23+260.00             | 341            | 51             |
| 23+280.00             | 345            | 52             |
| 23+300.00             | 355            | 53             |
| 23+320.00             | 376            | 56             |
| 23+340.00             | 388            | 58             |
| 23+360.00             | 335            | 50             |
| 23+380.00             | 245            | 37             |
| 23+400.00             | 101            | 15             |
| 23+420.00             | -27            | -4             |
| 23+440.00             | -50            | -8             |
| 23+460.00             | -21            | -3             |
| 23+480.00             | 109            | 16             |
| 23+500.00             | 211            | 32             |
| 23+520.00             | 214            | 32             |
| 23+540.00             | 219            | 33             |
| 23+560.00             | 228            | 34             |
| 23+580.00             | 242            | 36             |
| 23+600.00             | 253            | 38             |
| 23+620.00             | 257            | 39             |
| 23+640.00             | 258            | 39             |
| 23+660.00             | 259            | 39             |
| 23+680.00             | 265            | 40             |
| 23+700.00             | 271            | 41             |
| 23+720.00             | 280            | 42             |
| 23+740.00             | 299            | 45             |
| 23+760.00             | 330            | 50             |
| 23+780.00             | 365            | 55             |
| 23+800.00             | 404            | 61             |
| 23+817.00             | 365            | 55             |
| OBIEKT MS-24          |                |                |
| PIKIETAŻ              | POWIERZCHNIA   | OBJĘTOŚĆ       |
| m                     | m <sup>2</sup> | m <sup>3</sup> |
| 23+836.00             | 0              | 0              |
| 23+840.00             | 89             | 13             |
| 23+860.00             | 458            | 69             |
| 23+880.00             | 464            | 70             |
| 23+900.00             | 463            | 69             |
| 23+920.00             | 478            | 72             |
| 23+940.00             | 490            | 74             |
| 23+960.00             | 504            | 76             |
| 23+980.00             | 519            | 78             |
| 24+000.00             | 532            | 80             |
| 24+020.00             | 538            | 81             |
| 24+040.00             | 531            | 80             |
| 24+060.00             | 516            | 77             |

| HUMUSOWANIE SKARP S11 |                |                |
|-----------------------|----------------|----------------|
| PIKIETAŻ              | POWIERZCHNIA   | OBJĘTOŚĆ       |
| m                     | m <sup>2</sup> | m <sup>3</sup> |
| 24+080.00             | 498            | 75             |
| 24+100.00             | 480            | 72             |
| 24+120.00             | 465            | 70             |
| 24+140.00             | 441            | 66             |
| 24+160.00             | 471            | 71             |
| 24+180.00             | 530            | 80             |
| 24+200.00             | 506            | 76             |
| 24+220.00             | 466            | 70             |
| 24+240.00             | 453            | 68             |
| 24+260.00             | 435            | 65             |
| 24+280.00             | 420            | 63             |
| 24+300.00             | 402            | 60             |
| 24+320.00             | 440            | 66             |
| 24+340.00             | 480            | 72             |
| 24+360.00             | 466            | 70             |
| 24+380.00             | 441            | 66             |
| 24+400.00             | 407            | 61             |
| 24+420.00             | 404            | 61             |
| 24+440.00             | 426            | 64             |
| 24+460.00             | 443            | 66             |
| 24+480.00             | 448            | 67             |
| 24+500.00             | 455            | 68             |
| 24+520.00             | 466            | 70             |
| 24+540.00             | 470            | 71             |
| 24+560.00             | 467            | 70             |
| 24+580.00             | 459            | 69             |
| 24+600.00             | 449            | 67             |
| 24+620.00             | 440            | 66             |
| 24+640.00             | 431            | 65             |
| 24+660.00             | 422            | 63             |
| 24+680.00             | 410            | 62             |
| 24+700.00             | 412            | 62             |
| 24+720.00             | 410            | 62             |
| 24+740.00             | 405            | 61             |
| 24+760.00             | 410            | 62             |
| 24+780.00             | 401            | 60             |
| 24+800.00             | 388            | 58             |
| 24+820.00             | 382            | 57             |
| 24+840.00             | 383            | 57             |
| 24+860.00             | 384            | 58             |
| 24+880.00             | 385            | 58             |
| 24+900.00             | 383            | 57             |
| 24+920.00             | 385            | 58             |
| 24+940.00             | 383            | 57             |
| 24+960.00             | 371            | 56             |
| 24+980.00             | 360            | 54             |
| 25+000.00             | 352            | 53             |
| 25+020.00             | 369            | 55             |

| HUMUSOWANIE SKARP S11 |                |                |
|-----------------------|----------------|----------------|
| PIKIETAŻ              | POWIERZCHNIA   | OBJĘTOŚĆ       |
| m                     | m <sup>2</sup> | m <sup>3</sup> |
| 25+040.00             | 319            | 48             |
| 25+060.00             | 289            | 43             |
| 25+080.00             | 335            | 50             |
| 25+100.00             | 351            | 53             |
| 25+120.00             | 371            | 56             |
| 25+140.00             | 380            | 57             |
| 25+160.00             | 391            | 59             |
| 25+180.00             | 393            | 59             |
| 25+200.00             | 384            | 58             |
| 25+220.00             | 389            | 58             |
| 25+240.00             | 394            | 59             |
| 25+260.00             | 415            | 62             |
| 25+280.00             | 450            | 68             |
| 25+300.00             | 482            | 72             |
| 25+320.00             | 515            | 77             |
| 25+340.00             | 600            | 90             |
| 25+360.00             | 687            | 103            |
| 25+380.00             | 729            | 109            |
| 25+400.00             | 767            | 115            |
| 25+420.00             | 796            | 119            |
| 25+440.00             | 816            | 122            |
| 25+460.00             | 834            | 125            |
| 25+480.00             | 863            | 129            |
| 25+500.00             | 907            | 136            |
| 25+520.00             | 942            | 141            |
| OBIEKT WS-25          |                |                |
| PIKIETAŻ              | POWIERZCHNIA   | OBJĘTOŚĆ       |
| m                     | m <sup>2</sup> | m <sup>3</sup> |
| 25+547.00             | 0              | 0              |
| 25+560.00             | 588            | 88             |
| 25+580.00             | 897            | 135            |
| 25+600.00             | 890            | 134            |
| 25+620.00             | 879            | 132            |
| 25+640.00             | 883            | 132            |
| 25+660.00             | 901            | 135            |
| 25+680.00             | 919            | 138            |
| 25+693.57             | 617            | 93             |
| <b>SUMA:</b>          | <b>236174</b>  | <b>35426</b>   |

| HUMUSOWANIE SKARP S5 |                |                |
|----------------------|----------------|----------------|
| PIKIETAŻ             | POWIERZCHNIA   | OBJĘTOŚĆ       |
| m                    | m <sup>2</sup> | m <sup>3</sup> |
| 0+000.00             | 0              | 0              |
| 0+006.43             | 283            | 42             |
| 0+026.43             | 871            | 131            |

| HUMUSOWANIE SKARP S5 |                |                |
|----------------------|----------------|----------------|
| PIKIETAŻ             | POWIERZCHNIA   | OBJĘTOŚĆ       |
| m                    | m <sup>2</sup> | m <sup>3</sup> |
| OBIEKT WS-26         |                |                |
| 0+186.43             | 0              | 0              |
| 0+206.43             | 805            | 121            |
| 0+226.43             | 803            | 120            |
| 0+246.43             | 774            | 116            |
| 0+266.43             | 718            | 108            |
| 0+286.43             | 676            | 101            |
| 0+306.43             | 642            | 96             |
| 0+326.43             | 592            | 89             |
| 0+346.43             | 530            | 80             |
| 0+366.43             | 488            | 73             |
| 0+386.43             | 436            | 65             |
| 0+406.43             | 296            | 44             |
| 0+426.43             | 188            | 28             |
| 0+446.43             | 174            | 26             |
| 0+466.43             | 97             | 15             |
| 0+486.43             | 87             | 13             |
| 0+506.43             | 141            | 21             |
| 0+526.43             | 132            | 20             |
| 0+546.43             | 136            | 20             |
| 0+566.43             | 195            | 29             |
| 0+586.43             | 246            | 37             |
| 0+606.43             | 246            | 37             |
| 0+626.43             | 187            | 28             |
| 0+646.43             | 130            | 20             |
| 0+666.43             | 133            | 20             |
| 0+686.43             | 199            | 30             |
| 0+706.43             | 269            | 40             |
| 0+726.43             | 272            | 41             |
| 0+746.43             | 267            | 40             |
| 0+766.43             | 262            | 39             |
| 0+786.43             | 263            | 39             |
| 0+806.43             | 281            | 42             |
| 0+826.43             | 308            | 46             |
| 0+846.43             | 330            | 50             |
| 0+866.43             | 244            | 37             |
| 0+886.43             | 151            | 23             |
| 0+906.43             | 155            | 23             |
| 0+926.43             | 142            | 21             |
| 0+946.43             | 129            | 19             |
| 0+966.43             | 160            | 24             |
| 0+986.43             | 190            | 29             |
| 1+006.43             | 290            | 44             |
| 1+026.43             | 387            | 58             |
| 1+046.43             | 379            | 57             |
| 1+066.43             | 372            | 56             |
| 1+086.43             | 368            | 55             |
| 1+106.43             | 361            | 54             |
| 1+126.43             | 353            | 53             |



| HUMUSOWANIE SKARP S5 |                |                |
|----------------------|----------------|----------------|
| PIKIETAŻ             | POWIERZCHNIA   | OBJĘTOŚĆ       |
| m                    | m <sup>2</sup> | m <sup>3</sup> |
| 1+146.43             | 345            | 52             |
| 1+166.43             | 320            | 48             |
| 1+186.43             | 337            | 51             |
| 1+206.43             | 410            | 62             |
| 1+226.43             | 437            | 66             |
| 1+246.43             | 419            | 63             |
| 1+266.43             | 420            | 63             |
| 1+286.43             | 415            | 62             |
| 1+306.43             | 400            | 60             |
| 1+326.43             | 401            | 60             |
| 1+346.43             | 400            | 60             |
| 1+366.43             | 395            | 59             |
| 1+386.43             | 395            | 59             |
| 1+406.43             | 406            | 61             |
| 1+426.43             | 415            | 62             |
| 1+446.43             | 419            | 63             |
| 1+466.43             | 426            | 64             |
| 1+486.43             | 431            | 65             |
| 1+506.43             | 425            | 64             |
| 1+526.43             | 413            | 62             |
| 1+546.43             | 398            | 60             |
| 1+566.43             | 374            | 56             |
| 1+586.43             | 347            | 52             |
| 1+605.00             | 307            | 46             |
| <b>SUMA:</b>         | <b>25594</b>   | <b>3839</b>    |

**HUMUSOWANIE DLA CAŁEGO WĘZŁA:**

POWIERZCHNIA: 261 767 m<sup>2</sup>

OBJĘTOŚĆ: 39 265 m<sup>3</sup>

# Załącznik B – Zestawienie barier ochronnych

## Wykaz barier skrajnych:

### 1. Strona lewa

| WG KM | STRONA LEWA                               |        |                              |             |             |
|-------|-------------------------------------------|--------|------------------------------|-------------|-------------|
|       | KILOMETRACJA                              |        | DŁUGOŚĆ BARIERY SKRAJNEJ [m] |             |             |
|       | OD KM                                     | DO KM  | typ SP-09/1                  | typ SP-09/2 | typ SP-09/4 |
| S11   | 13+068                                    | 13+220 |                              |             | 152         |
|       | 13+220                                    | 13+232 |                              | 12          |             |
|       | 13+232                                    | 13+253 | 20                           |             |             |
|       | 13+253                                    | 13+265 |                              | 12          |             |
|       | 13+265                                    | 13+438 |                              |             | 173         |
|       | 13+500                                    | 13+594 |                              |             | 94          |
|       | 13+628                                    | 13+630 | 2                            |             |             |
|       | 13+630                                    | 13+642 |                              | 12          |             |
|       | 13+642                                    | 13+737 |                              |             | 94          |
|       | 13+737                                    | 13+749 |                              | 12          |             |
|       | 13+749                                    | 13+769 | 20                           |             |             |
|       | 13+769                                    | 13+849 |                              | 80          |             |
|       | 13+849                                    | 13+951 | 102                          |             |             |
|       | <b>BARIERA WG BRANŻY MOSTOWEJ - WS15</b>  |        |                              |             |             |
|       | 14+110                                    | 14+209 |                              |             | 99          |
|       | <b>BARIERA WG BRANŻY MOSTOWEJ - WS16</b>  |        |                              |             |             |
|       | 14+310                                    | 14+390 |                              | 80          |             |
|       | 14+390                                    | 14+434 |                              |             | 44          |
|       | 14+434                                    | 14+466 |                              | 32          |             |
|       | 14+466                                    | 14+518 |                              |             | 52          |
|       | 14+878                                    | 15+249 |                              |             | 372         |
|       | 15+249                                    | 15+261 |                              | 12          |             |
|       | <b>BARIERA WG BRANŻY MOSTOWEJ - PS16A</b> |        |                              |             |             |
|       | 15+299                                    | 15+361 |                              | 62          |             |
|       | 15+361                                    | 15+644 |                              |             | 283         |
|       | 16+004                                    | 16+270 |                              |             | 266         |
|       | 16+270                                    | 16+327 |                              | 57          |             |
|       | <b>BARIERA WG BRANŻY MOSTOWEJ - WS17</b>  |        |                              |             |             |
|       | 16+387                                    | 16+560 |                              | 173         |             |
|       | 16+560                                    | 17+348 |                              |             | 788         |
|       | 17+661                                    | 17+675 |                              |             | 14          |
|       | 17+675                                    | 17+687 |                              | 12          |             |
|       | 17+687                                    | 17+833 | 146                          |             |             |

| WG KM                                     | STRONA LEWA  |        |                              |              |              |
|-------------------------------------------|--------------|--------|------------------------------|--------------|--------------|
|                                           | KILOMETRACJA |        | DŁUGOŚĆ BARIERY SKRAJNEJ [m] |              |              |
|                                           | OD KM        | DO KM  | typ SP-09/1                  | typ SP-09/2  | typ SP-09/4  |
|                                           | 17+936       | 17+960 | 24                           |              |              |
|                                           | 17+960       | 17+972 |                              | 12           |              |
|                                           | 17+972       | 18+031 |                              |              | 59           |
|                                           | 18+070       | 18+074 |                              | 3            |              |
|                                           | 18+074       | 18+162 |                              |              | 88           |
|                                           | 18+162       | 18+167 |                              | 5            |              |
|                                           | 18+208       | 18+308 |                              | 101          |              |
| <b>BARIERA WG BRANŻY MOSTOWEJ - PS18A</b> |              |        |                              |              |              |
|                                           | 18+389       | 18+446 |                              | 57           |              |
|                                           | 18+446       | 18+534 |                              |              | 88           |
|                                           | 18+534       | 18+566 |                              | 32           |              |
|                                           | 18+566       | 18+758 |                              |              | 192          |
|                                           | 20+090       | 20+674 |                              |              | 584          |
|                                           | 20+674       | 20+686 |                              | 12           |              |
|                                           | 20+686       | 20+706 | 20                           |              |              |
|                                           | 20+706       | 20+718 |                              | 12           |              |
|                                           | 20+718       | 20+745 |                              |              | 26           |
|                                           | 20+745       | 20+757 |                              | 12           |              |
|                                           | 20+757       | 20+777 | 20                           |              |              |
|                                           | 20+777       | 20+789 |                              | 12           |              |
|                                           | 20+789       | 20+975 |                              |              | 186          |
|                                           | 21+022       | 21+107 | 85                           |              |              |
|                                           | 21+147       | 21+298 |                              |              | 151          |
|                                           | 22+064       | 22+430 |                              |              | 366          |
|                                           | 22+430       | 22+719 |                              | 289          |              |
| <b>BARIERA WG BRANŻY MOSTOWEJ - WS22</b>  |              |        |                              |              |              |
|                                           | 22+828       | 22+924 |                              | 96           |              |
|                                           | 22+987       | 23+409 |                              |              | 423          |
|                                           | 23+478       | 23+673 |                              |              | 195          |
|                                           | 23+673       | 23+705 |                              | 32           |              |
|                                           | 23+705       | 23+786 |                              |              | 82           |
|                                           | 23+786       | 23+798 |                              | 12           |              |
| <b>BARIERA WG BRANŻY MOSTOWEJ - MS24</b>  |              |        |                              |              |              |
|                                           | 23+846       | 23+877 |                              | 31           |              |
|                                           | 23+877       | 24+160 |                              |              | 283          |
|                                           | 25+014       | 25+290 |                              |              | 276          |
|                                           | 25+290       | 25+499 |                              | 209          |              |
| <b>BARIERA WG BRANŻY MOSTOWEJ - WS25</b>  |              |        |                              |              |              |
|                                           | 25+564       | 25+694 |                              | 130          |              |
| <b>RAZEM:</b>                             |              |        | <b>439</b>                   | <b>1 613</b> | <b>5 430</b> |

| WG KM   | STRONA LEWA                       |       |                              |             |             |
|---------|-----------------------------------|-------|------------------------------|-------------|-------------|
|         | KILOMETRACJA                      |       | DŁUGOŚĆ BARIERY SKRAJNEJ [m] |             |             |
|         | OD KM                             | DO KM | typ SP-09/1                  | typ SP-09/2 | typ SP-09/4 |
| S5      | 0+000                             | 0+016 |                              | 16          |             |
|         | BARIERA WG BRANŻY MOSTOWEJ - WS26 |       |                              |             |             |
|         | 0+206                             | 0+219 | 13                           |             |             |
|         | 0+219                             | 0+286 |                              | 67          |             |
|         | 0+286                             | 0+387 |                              |             | 101         |
|         | 0+453                             | 0+625 |                              |             | 172         |
|         | 0+678                             | 0+787 |                              |             | 109         |
|         | 0+787                             | 0+799 |                              | 12          |             |
|         | 0+799                             | 1+179 | 380                          |             |             |
| RAZEM:  |                                   |       | 393                          | 95          | 382         |
| OGÓŁEM: |                                   |       | 832                          | 1 708       | 5 812       |

## 2. Strona prawa

| WG KM | STRONA PRAWA                       |        |                              |             |             |
|-------|------------------------------------|--------|------------------------------|-------------|-------------|
|       | KILOMETRACJA                       |        | DŁUGOŚĆ BARIERY SKRAJNEJ [m] |             |             |
|       | OD KM                              | DO KM  | typ SP-09/1                  | typ SP-09/2 | typ SP-09/4 |
| S11   | 13+068                             | 13+588 |                              |             | 520         |
|       | 13+588                             | 13+620 |                              | 32          |             |
|       | 13+620                             | 13+750 |                              |             | 130         |
|       | 13+750                             | 13+792 |                              | 42          |             |
|       | 13+844                             | 13+925 | 81                           |             |             |
|       | BARIERA WG BRANŻY MOSTOWEJ - WS15  |        |                              |             |             |
|       | 14+067                             | 14+092 | 25                           |             |             |
|       | 14+133                             | 14+216 |                              |             | 83          |
|       | BARIERA WG BRANŻY MOSTOWEJ - WS16  |        |                              |             |             |
|       | 14+315                             | 14+390 |                              | 75          |             |
|       | 14+390                             | 14+448 |                              |             | 58          |
|       | 14+448                             | 14+460 |                              | 12          |             |
|       | 14+460                             | 14+480 | 20                           |             |             |
|       | 14+480                             | 14+492 |                              | 12          |             |
|       | 14+492                             | 15+199 |                              |             | 706         |
|       | 15+199                             | 15+261 |                              | 62          |             |
|       | BARIERA WG BRANŻY MOSTOWEJ - PS16A |        |                              |             |             |
|       | 15+299                             | 15+311 |                              | 12          |             |
|       | 15+311                             | 15+652 |                              |             | 342         |
|       | 16+112                             | 16+271 |                              |             | 159         |
|       | 16+271                             | 16+327 |                              | 56          |             |
|       | BARIERA WG BRANŻY MOSTOWEJ - WS17  |        |                              |             |             |
|       | 16+386                             | 16+560 |                              | 174         |             |
|       | 16+560                             | 17+276 |                              |             | 716         |
|       | 17+695                             | 17+718 |                              | 23          |             |
|       | 17+718                             | 17+832 | 114                          |             |             |

| WG KM                                     | STRONA PRAWA |        |                              |              |              |
|-------------------------------------------|--------------|--------|------------------------------|--------------|--------------|
|                                           | KILOMETRACJA |        | DŁUGOŚĆ BARIERY SKRAJNEJ [m] |              |              |
|                                           | OD KM        | DO KM  | typ SP-09/1                  | typ SP-09/2  | typ SP-09/4  |
|                                           | 17+885       | 17+899 |                              | 14           |              |
|                                           | 17+899       | 17+964 | 65                           |              |              |
|                                           | 17+964       | 17+986 |                              | 23           |              |
|                                           | 18+027       | 18+121 |                              |              | 94           |
|                                           | 18+161       | 18+249 |                              |              | 88           |
|                                           | 18+302       | 18+342 |                              | 40           |              |
| <b>BARIERA WG BRANŻY MOSTOWEJ - PS18A</b> |              |        |                              |              |              |
|                                           | 18+389       | 18+401 |                              | 12           |              |
|                                           | 18+401       | 18+483 |                              |              | 82           |
|                                           | 18+483       | 18+495 |                              | 12           |              |
|                                           | 18+495       | 18+515 | 20                           |              |              |
|                                           | 18+515       | 18+527 |                              | 12           |              |
|                                           | 18+527       | 18+576 |                              |              | 49           |
|                                           | 19+542       | 20+678 |                              |              | 1136         |
|                                           | 20+678       | 20+690 |                              | 12           |              |
|                                           | 20+690       | 20+710 | 20                           |              |              |
|                                           | 20+710       | 20+722 |                              | 12           |              |
|                                           | 20+722       | 20+975 |                              |              | 253          |
|                                           | 20+975       | 20+987 |                              | 12           |              |
|                                           | 20+987       | 21+095 | 108                          |              |              |
|                                           | 21+095       | 21+107 |                              | 12           |              |
|                                           | 21+107       | 21+321 |                              |              | 214          |
|                                           | 21+370       | 21+473 |                              |              | 104          |
|                                           | 22+012       | 22+430 |                              |              | 418          |
|                                           | 22+430       | 22+729 |                              | 299          |              |
| <b>BARIERA WG BRANŻY MOSTOWEJ - WS22</b>  |              |        |                              |              |              |
|                                           | 22+838       | 22+904 |                              | 65           |              |
|                                           | 22+976       | 23+404 |                              |              | 428          |
|                                           | 23+464       | 23+741 |                              |              | 278          |
|                                           | 23+741       | 23+806 |                              | 65           |              |
| <b>BARIERA WG BRANŻY MOSTOWEJ - MS24</b>  |              |        |                              |              |              |
|                                           | 23+853       | 23+865 |                              | 12           |              |
|                                           | 23+865       | 24+326 |                              |              | 461          |
|                                           | 25+022       | 25+290 |                              |              | 268          |
|                                           | 25+290       | 25+502 |                              | 212          |              |
| <b>BARIERA WG BRANŻY MOSTOWEJ - WS25</b>  |              |        |                              |              |              |
|                                           | 25+567       | 25+694 |                              | 127          |              |
| <b>RAZEM:</b>                             |              |        | <b>453</b>                   | <b>1 441</b> | <b>6 587</b> |

| WG KM          | STRONA PRAWA                             |       |                              |              |              |
|----------------|------------------------------------------|-------|------------------------------|--------------|--------------|
|                | KILOMETRACJA                             |       | DŁUGOŚĆ BARIERY SKRAJNEJ [m] |              |              |
|                | OD KM                                    | DO KM | typ SP-09/1                  | typ SP-09/2  | typ SP-09/4  |
| S5             | 0+000                                    | 0+003 |                              | 3            |              |
|                | <b>BARIERA WG BRANŻY MOSTOWEJ - WS26</b> |       |                              |              |              |
|                | 0+193                                    | 0+331 |                              | 138          |              |
|                | 0+331                                    | 0+454 |                              |              | 123          |
|                | 0+526                                    | 0+789 |                              |              | 263          |
|                | 0+789                                    | 0+801 |                              | 12           |              |
|                | 0+801                                    | 0+914 | 113                          |              |              |
|                | 0+995                                    | 1+198 | 203                          |              |              |
|                | 1+198                                    | 1+222 |                              | 24           |              |
| <b>RAZEM:</b>  |                                          |       | <b>316</b>                   | <b>177</b>   | <b>386</b>   |
| <b>OGÓŁEM:</b> |                                          |       | <b>769</b>                   | <b>1 618</b> | <b>6 973</b> |

### 3. Bariery w pasie dzielącym – strona lewa

| PAS DZIELĄCY |                                           |        |              |             |             |             |           |
|--------------|-------------------------------------------|--------|--------------|-------------|-------------|-------------|-----------|
| WG KM        | KILOMETRACJA                              |        | BARIERA LEWA |             |             |             |           |
|              | OD KM                                     | DO KM  | typ SP-09/1  | typ SP-09/2 | typ SP-09/4 | typ SP-06/1 | Typ BPS-2 |
| S11          | 13+157                                    | 13+224 |              |             | 67          |             |           |
|              | 13+224                                    | 13+236 |              | 12          |             |             |           |
|              | 13+236                                    | 13+256 | 20           |             |             |             |           |
|              | 13+256                                    | 13+268 |              | 12          |             |             |           |
|              | 13+268                                    | 13+315 |              |             | 46          |             |           |
|              | 13+315                                    | 13+327 |              | 12          |             |             |           |
|              | 13+327                                    | 13+333 |              |             |             | 6           |           |
|              | 13+333                                    | 13+341 |              |             |             |             | 8         |
|              | 13+341                                    | 13+347 |              |             |             | 6           |           |
|              | 13+347                                    | 13+830 | 483          |             |             |             |           |
|              | 13+830                                    | 13+843 |              | 13          |             |             |           |
|              | 13+940                                    | 13+970 | 30           |             |             |             |           |
|              | <b>BARIERA WG BRANŻY MOSTOWEJ - WS15</b>  |        |              |             |             |             |           |
|              | 14+049                                    | 14+263 | 215          |             |             |             |           |
|              | <b>BARIERA WG BRANŻY MOSTOWEJ - WS16</b>  |        |              |             |             |             |           |
|              | 14+308                                    | 14+385 | 77           |             |             |             |           |
|              | 14+385                                    | 14+397 |              | 12          |             |             |           |
|              | 14+397                                    | 14+448 |              |             | 50          |             |           |
|              | 14+448                                    | 14+460 |              | 12          |             |             |           |
|              | 14+460                                    | 14+480 | 20           |             |             |             |           |
|              | 14+480                                    | 14+536 |              | 57          |             |             |           |
|              | <b>BARIERA WG BRANŻY MOSTOWEJ - PS16A</b> |        |              |             |             |             |           |
|              | 16+235                                    | 16+324 |              |             | 89          |             |           |
|              | 16+324                                    | 16+336 |              | 12          |             |             |           |

| PAS DZIELĄCY                       |              |        |                |                |                |                                |
|------------------------------------|--------------|--------|----------------|----------------|----------------|--------------------------------|
| WG KM                              | KILOMETRACJA |        | BARIERA LEWA   |                |                |                                |
|                                    | OD KM        | DO KM  | typ<br>SP-09/1 | typ<br>SP-09/2 | typ<br>SP-09/4 | typ<br>SP-06/1<br>Typ<br>BPS-2 |
| BARIERA WG BRANŻY MOSTOWEJ - WS17  |              |        |                |                |                |                                |
|                                    | 16+376       | 16+388 |                | 12             |                |                                |
|                                    | 16+388       | 16+478 |                |                | 89             |                                |
|                                    | 17+653       | 17+679 |                |                | 26             |                                |
|                                    | 17+679       | 17+691 |                | 12             |                |                                |
|                                    | 17+691       | 17+711 | 20             |                |                |                                |
|                                    | 17+711       | 17+745 |                | 34             |                |                                |
|                                    | 17+940       | 17+972 |                |                | 32             |                                |
|                                    | 17+972       | 17+984 |                | 12             |                |                                |
|                                    | 17+984       | 18+076 | 92             |                |                |                                |
|                                    | 18+076       | 18+082 |                |                |                | 6                              |
|                                    | 18+082       | 18+111 |                |                |                | 29                             |
|                                    | 18+111       | 18+117 | 6              |                |                |                                |
|                                    | 18+117       | 18+348 | 231            |                |                |                                |
| BARIERA WG BRANŻY MOSTOWEJ - WS18A |              |        |                |                |                |                                |
|                                    | 18+383       | 18+487 |                | 104            |                |                                |
|                                    | 19+399       | 19+494 |                |                | 95             |                                |
|                                    | 19+494       | 19+506 |                | 12             |                |                                |
|                                    | 19+506       | 19+512 |                |                | 6              |                                |
|                                    | 19+512       | 19+524 |                |                |                | 12                             |
|                                    | 19+524       | 19+530 | 6              |                |                |                                |
|                                    | 19+530       | 19+595 |                | 66             |                |                                |
|                                    | 20+256       | 20+282 |                |                | 26             |                                |
|                                    | 20+282       | 20+294 |                | 12             |                |                                |
|                                    | 20+294       | 20+314 | 20             |                |                |                                |
|                                    | 20+314       | 20+348 |                | 34             |                |                                |
|                                    | 20+630       | 20+678 |                |                | 49             |                                |
|                                    | 20+678       | 20+690 |                | 12             |                |                                |
|                                    | 20+690       | 20+765 | 75             |                |                |                                |
|                                    | 20+765       | 20+771 |                |                | 6              |                                |
|                                    | 20+771       | 20+783 |                |                |                | 12                             |
|                                    | 20+783       | 20+789 |                |                | 6              |                                |
|                                    | 20+789       | 20+973 | 184            |                |                |                                |
|                                    | 20+973       | 21+010 |                | 37             |                |                                |
|                                    | 21+090       | 21+114 |                | 24             |                |                                |
|                                    | 21+114       | 21+235 | 121            |                |                |                                |
|                                    | 21+235       | 21+241 |                |                | 6              |                                |
|                                    | 21+241       | 21+249 |                |                |                | 8                              |
|                                    | 21+249       | 21+255 |                |                | 6              |                                |
|                                    | 21+255       | 21+664 | 409            |                |                |                                |
|                                    | 21+664       | 21+676 |                | 12             |                |                                |

| PAS DZIELĄCY |                                   |        |                |                |                |                |              |
|--------------|-----------------------------------|--------|----------------|----------------|----------------|----------------|--------------|
| WG KM        | KILOMETRACJA                      |        | BARIERA LEWA   |                |                |                |              |
|              | OD KM                             | DO KM  | typ<br>SP-09/1 | typ<br>SP-09/2 | typ<br>SP-09/4 | typ<br>SP-06/1 | Typ<br>BPS-2 |
|              | 21+676                            | 21+740 |                |                | 64             |                |              |
|              | 22+651                            | 22+725 |                |                | 74             |                |              |
|              | 22+725                            | 22+737 |                | 12             |                |                |              |
|              | BARIERA WG BRANŻY MOSTOWEJ - WS22 |        |                |                |                |                |              |
|              | 22+821                            | 22+906 |                |                | 85             |                |              |
|              | 23+548                            | 23+598 |                |                | 51             |                |              |
|              | 23+598                            | 23+610 |                | 12             |                |                |              |
|              | 23+610                            | 23+616 |                |                |                | 6              |              |
|              | 23+616                            | 23+628 |                |                |                |                | 12           |
|              | 23+628                            | 23+634 |                |                |                | 6              |              |
|              | 23+634                            | 23+684 |                | 50             |                |                |              |
|              | 23+684                            | 23+795 |                |                | 111            |                |              |
|              | 23+795                            | 23+807 |                | 12             |                |                |              |
|              | BARIERA WG BRANŻY MOSTOWEJ - MS24 |        |                |                |                |                |              |
|              | 23+845                            | 23+946 |                | 101            |                |                |              |
|              | 25+454                            | 25+499 |                |                | 44             |                |              |
|              | 25+499                            | 25+511 |                | 12             |                |                |              |
|              | BARIERA WG BRANŻY MOSTOWEJ - WS25 |        |                |                |                |                |              |
| 25+556       | 25+567                            |        | 12             |                |                |                |              |
| 25+567       | 25+691                            |        |                | 123            |                |                |              |
| 25+691       | 25+694                            |        | 3              |                |                |                |              |
| RAZEM:       |                                   | 2 009  | 739            | 1 121          | 60             | 81             |              |
| PAS DZIELĄCY |                                   |        |                |                |                |                |              |
| WG KM        | KILOMETRACJA                      |        | BARIERA LEWA   |                |                |                |              |
|              | OD KM                             | DO KM  | typ<br>SP-09/1 | typ<br>SP-09/2 | typ<br>SP-09/4 | typ<br>SP-06/1 | Typ<br>BPS-2 |
| S5           | 0+000                             | 0+009  |                | 9              |                |                |              |
|              | BARIERA WG BRANŻY MOSTOWEJ - WS26 |        |                |                |                |                |              |
|              | 0+188                             | 0+714  | 526            |                |                |                |              |
|              | 0+714                             | 0+720  |                |                |                | 6              |              |
|              | 0+720                             | 0+742  |                |                |                |                | 22           |
|              | 0+742                             | 0+748  |                |                |                | 6              |              |
|              | 0+748                             | 0+780  | 32             |                |                |                |              |
|              | 0+780                             | 0+799  |                | 19             |                |                |              |
|              | 0+799                             | 0+866  |                |                | 67             |                |              |
|              | 0+946                             | 1+024  |                |                | 78             |                |              |
|              | 1+024                             | 1+036  |                | 12             |                |                |              |
|              | 1+036                             | 1+042  |                |                |                | 6              |              |
|              | 1+042                             | 1+050  |                |                |                |                | 8            |
|              | 1+050                             | 1+056  |                |                |                | 6              |              |



| PAS DZIELĄCY   |              |       |              |             |              |             |            |
|----------------|--------------|-------|--------------|-------------|--------------|-------------|------------|
| WG KM          | KILOMETRACJA |       | BARIERA LEWA |             |              |             |            |
|                | OD KM        | DO KM | typ SP-09/1  | typ SP-09/2 | typ SP-09/4  | typ SP-06/1 | Typ BPS-2  |
|                | 1+056        | 1+068 |              | 12          |              |             |            |
|                | 1+068        | 1+153 |              |             | 85           |             |            |
|                | 1+153        | 1+278 |              |             | 125          |             |            |
| <b>RAZEM:</b>  |              |       | <b>558</b>   | <b>52</b>   | <b>355</b>   | <b>24</b>   | <b>30</b>  |
| <b>OGÓŁEM:</b> |              |       | <b>2 567</b> | <b>791</b>  | <b>1 476</b> | <b>84</b>   | <b>111</b> |

#### 4. Bariery w pasie dzielącym – bariera środkowa

| PAS DZIELĄCY  |                                   |        |                  |                         |
|---------------|-----------------------------------|--------|------------------|-------------------------|
| WG KM         | KILOMETRACJA                      |        | BARIERA ŚRODKOWA |                         |
|               | OD KM                             | DO KM  | typ SP-07/2      | typ SP-07/2 ROZBIERALNA |
| S11           | 13+068                            | 13+157 | 89               |                         |
|               | 13+843                            | 13+860 | 17               |                         |
|               |                                   | 13+940 |                  | 80                      |
|               | <b>BARIERA WG BRANŻY MOSTOWEJ</b> |        |                  |                         |
|               | <b>BARIERA WG BRANŻY MOSTOWEJ</b> |        |                  |                         |
|               | 14+536                            | 15+260 | 724              |                         |
|               | <b>BARIERA WG BRANŻY MOSTOWEJ</b> |        |                  |                         |
|               | 15+299                            | 16+235 | 936              |                         |
|               | <b>BARIERA WG BRANŻY MOSTOWEJ</b> |        |                  |                         |
|               | 16+478                            | 17+653 | 1175             |                         |
|               | 17+745                            | 17+860 | 115              |                         |
|               |                                   | 17+940 |                  | 80                      |
|               | <b>BARIERA WG BRANŻY MOSTOWEJ</b> |        |                  |                         |
|               | 18+487                            | 19+399 | 912              |                         |
|               | 19+595                            | 20+256 | 661              |                         |
|               | 20+348                            | 20+630 | 281              |                         |
|               | 21+010                            | 21+090 |                  | 80                      |
|               | 21+740                            | 22+651 | 911              |                         |
|               | <b>BARIERA WG BRANŻY MOSTOWEJ</b> |        |                  |                         |
|               | 22+906                            | 23+360 | 454              |                         |
|               |                                   | 23+440 |                  | 80                      |
|               |                                   | 23+548 | 108              |                         |
|               | <b>BARIERA WG BRANŻY MOSTOWEJ</b> |        |                  |                         |
|               | 23+946                            | 25+454 | 1508             |                         |
|               | <b>BARIERA WG BRANŻY MOSTOWEJ</b> |        |                  |                         |
| <b>RAZEM:</b> |                                   |        | <b>7 891</b>     | <b>320</b>              |
| S5            | <b>BARIERA WG BRANŻY MOSTOWEJ</b> |        |                  |                         |
|               | 0+866                             | 0+946  |                  | 80                      |

| PAS DZIELĄCY |              |       |                  |                            |
|--------------|--------------|-------|------------------|----------------------------|
| WG KM        | KILOMETRACJA |       | BARIERA ŚRODKOWA |                            |
|              | OD KM        | DO KM | typ SP-07/2      | typ SP-07/2<br>ROZBIERALNA |
|              | 1+278        | 1+605 | 326              |                            |
| RAZEM:       |              |       | 326              | 80                         |
| OGÓŁEM:      |              |       | 8 217            | 400                        |

## 5. Bariery w pasie dzielącym – strona prawa

| PAS DZIELĄCY |                                    |        |               |             |             |             |           |
|--------------|------------------------------------|--------|---------------|-------------|-------------|-------------|-----------|
| WG KM        | KILOMETRACJA                       |        | BARIERA PRAWA |             |             |             |           |
|              | OD KM                              | DO KM  | typ SP-09/1   | typ SP-09/2 | typ SP-09/4 | typ SP-06/1 | typ BPS-2 |
| S11          | 13+157                             | 13+220 |               |             | 63          |             |           |
|              | 13+220                             | 13+232 |               | 12          |             |             |           |
|              | 13+232                             | 13+252 | 20            |             |             |             |           |
|              | 13+252                             | 13+264 |               | 12          |             |             |           |
|              | 13+264                             | 13+315 |               |             | 50          |             |           |
|              | 13+315                             | 13+327 |               | 12          |             |             |           |
|              | 13+327                             | 13+333 |               |             |             | 6           |           |
|              | 13+333                             | 13+341 |               |             |             |             | 8         |
|              | 13+341                             | 13+347 |               |             |             | 6           |           |
|              | 13+347                             | 13+826 | 479           |             |             |             |           |
|              | 13+826                             | 13+843 |               | 17          |             |             |           |
|              | 13+940                             | 13+969 | 29            |             |             |             |           |
|              | BARIERA WG BRANŻY MOSTOWEJ - WS15  |        |               |             |             |             |           |
|              | 14+048                             | 14+263 | 216           |             |             |             |           |
|              | BARIERA WG BRANŻY MOSTOWEJ - WS16  |        |               |             |             |             |           |
|              | 14+308                             | 14+381 | 73            |             |             |             |           |
|              | 14+381                             | 14+393 |               | 12          |             |             |           |
|              | 14+393                             | 14+444 |               |             | 51          |             |           |
|              | 14+444                             | 14+456 |               | 12          |             |             |           |
|              | 14+456                             | 14+476 | 20            |             |             |             |           |
|              | 14+476                             | 14+488 |               | 12          |             |             |           |
|              | 14+488                             | 14+536 |               |             | 49          |             |           |
|              | BARIERA WG BRANŻY MOSTOWEJ - PS16A |        |               |             |             |             |           |
|              | 16+235                             | 16+336 |               |             | 101         |             |           |
|              | BARIERA WG BRANŻY MOSTOWEJ - WS17  |        |               |             |             |             |           |
|              | 16+376                             | 16+388 |               | 12          |             |             |           |
|              | 16+388                             | 16+478 |               |             | 89          |             |           |
|              | 17+653                             | 17+687 |               | 34          |             |             |           |
|              | 17+687                             | 17+707 | 20            |             |             |             |           |
|              | 17+707                             | 17+719 |               | 12          |             |             |           |
|              | 17+719                             | 17+745 |               |             | 26          |             |           |
|              | 17+940                             | 17+980 |               | 40          |             |             |           |

| PAS DZIELĄCY |                                    |        |               |             |             |                                    |
|--------------|------------------------------------|--------|---------------|-------------|-------------|------------------------------------|
| WG<br>KM     | KILOMETRACJA                       |        | BARIERA PRAWA |             |             |                                    |
|              | OD KM                              | DO KM  | typ SP-09/1   | typ SP-09/2 | typ SP-09/4 | typ<br>SP-06/1<br><br>typ<br>BPS-2 |
|              | 17+980                             | 18+076 | 96            |             |             |                                    |
|              | 18+076                             | 18+082 |               |             |             | 6                                  |
|              | 18+082                             | 18+111 |               |             |             | 29                                 |
|              | 18+111                             | 18+117 |               |             |             | 6                                  |
|              | 18+117                             | 18+348 | 231           |             |             |                                    |
|              | BARIERA WG BRANŻY MOSTOWEJ - WS18A |        |               |             |             |                                    |
|              | 18+383                             | 18+487 |               | 104         |             |                                    |
|              | 19+399                             | 19+506 |               | 107         |             |                                    |
|              | 19+506                             | 19+512 |               |             |             | 6                                  |
|              | 19+512                             | 19+524 |               |             |             | 12                                 |
|              | 19+524                             | 19+530 |               |             |             | 6                                  |
|              | 19+530                             | 19+542 |               |             |             | 12                                 |
|              | 19+542                             | 19+595 |               |             | 54          |                                    |
|              | 20+256                             | 20+290 |               | 34          |             |                                    |
|              | 20+290                             | 20+310 | 20            |             |             |                                    |
|              | 20+310                             | 20+322 |               | 12          |             |                                    |
|              | 20+322                             | 20+348 |               |             | 26          |                                    |
|              | 20+630                             | 20+686 |               | 57          |             |                                    |
|              | 20+686                             | 20+765 | 79            |             |             |                                    |
|              | 20+765                             | 20+771 |               |             |             | 6                                  |
|              | 20+771                             | 20+783 |               |             |             | 12                                 |
|              | 20+783                             | 20+789 |               |             |             | 6                                  |
|              | 20+789                             | 20+969 | 180           |             |             |                                    |
|              | 20+969                             | 20+981 |               | 12          |             |                                    |
|              | 20+981                             | 21+010 |               |             | 29          |                                    |
|              | 20+090                             | 21+110 |               | 20          |             |                                    |
|              | 21+110                             | 21+235 | 125           |             |             |                                    |
|              | 21+235                             | 21+241 |               |             |             | 6                                  |
|              | 21+241                             | 21+249 |               |             |             | 8                                  |
|              | 21+249                             | 21+255 |               |             |             | 6                                  |
|              | 21+255                             | 21+660 | 405           |             |             |                                    |
|              | 21+660                             | 21+672 |               | 12          |             |                                    |
|              | 21+672                             | 21+740 |               |             | 68          |                                    |
|              | 22+651                             | 22+736 |               | 85          |             |                                    |
|              | BARIERA WG BRANŻY MOSTOWEJ - WS22  |        |               |             |             |                                    |
|              | 22+820                             | 22+832 |               | 12          |             |                                    |
|              | 22+832                             | 22+906 |               |             | 74          |                                    |
|              | 23+548                             | 23+610 |               | 63          |             |                                    |
|              | 23+610                             | 23+616 |               |             |             | 6                                  |
|              | 23+616                             | 23+628 |               |             |             | 12                                 |
|              | 23+628                             | 23+634 |               |             |             | 6                                  |
|              | 23+634                             | 23+646 |               | 12          |             |                                    |
|              | 23+646                             | 23+795 |               |             | 149         |                                    |

| PAS DZIELĄCY  |                                   |        |               |             |              |                |              |
|---------------|-----------------------------------|--------|---------------|-------------|--------------|----------------|--------------|
| WG<br>KM      | KILOMETRACJA                      |        | BARIERA PRAWA |             |              |                |              |
|               | OD KM                             | DO KM  | typ SP-09/1   | typ SP-09/2 | typ SP-09/4  | typ<br>SP-06/1 | typ<br>BPS-2 |
|               | 23+795                            | 23+807 |               | 12          |              |                |              |
|               | BARIERA WG BRANŻY MOSTOWEJ - MS24 |        |               |             |              |                |              |
|               | 23+845                            | 23+857 |               | 12          |              |                |              |
|               | 23+857                            | 23+946 |               |             | 89           |                |              |
|               | 25+454                            | 25+511 |               | 56          |              |                |              |
|               | BARIERA WG BRANŻY MOSTOWEJ - WS25 |        |               |             |              |                |              |
|               | 25+566                            | 25+567 |               | 12          |              |                |              |
|               | 25+567                            | 25+694 |               |             | 126          |                |              |
| <b>RAZEM:</b> |                                   |        | <b>1 993</b>  | <b>809</b>  | <b>1 044</b> | <b>72</b>      | <b>93</b>    |

| PAS DZIELĄCY   |                                   |       |               |             |              |                |              |
|----------------|-----------------------------------|-------|---------------|-------------|--------------|----------------|--------------|
| WG<br>KM       | KILOMETRACJA                      |       | BARIERA PRAWA |             |              |                |              |
|                | OD KM                             | DO KM | typ SP-09/1   | typ SP-09/2 | typ SP-09/4  | typ<br>SP-06/1 | typ<br>BPS-2 |
| S5             | 0+000                             | 0+009 |               |             | 9            |                |              |
|                | 0+009                             | 0+021 |               | 12          |              |                |              |
|                | BARIERA WG BRANŻY MOSTOWEJ - WS26 |       |               |             |              |                |              |
|                | 0+201                             | 0+714 | 513           |             |              |                |              |
|                | 0+714                             | 0+720 |               |             |              | 6              |              |
|                | 0+720                             | 0+742 |               |             |              |                | 22           |
|                | 0+742                             | 0+748 |               |             |              | 6              |              |
|                | 0+748                             | 0+776 | 28            |             |              |                |              |
|                | 0+776                             | 0+788 |               | 12          |              |                |              |
|                | 0+788                             | 0+866 |               |             | 78           |                |              |
|                | 0+946                             | 0+971 |               | 25          |              |                |              |
|                | 0+971                             | 1+024 |               |             | 53           |                |              |
|                | 1+024                             | 1+036 |               | 12          |              |                |              |
|                | 1+036                             | 1+042 |               |             |              | 6              |              |
|                | 1+042                             | 1+050 |               |             |              |                | 8            |
|                | 1+050                             | 1+056 |               |             |              | 6              |              |
|                | 1+056                             | 1+068 |               | 120         |              |                |              |
|                | 1+068                             | 1+278 |               |             | 210          |                |              |
| <b>RAZEM:</b>  |                                   |       | <b>541</b>    | <b>181</b>  | <b>350</b>   | <b>24</b>      | <b>30</b>    |
| <b>OGÓŁEM:</b> |                                   |       | <b>2 534</b>  | <b>990</b>  | <b>1 394</b> | <b>96</b>      | <b>123</b>   |

## 6. Ilości barier ogółem

| OGÓŁEM         |                |                |                |              |                |                               |
|----------------|----------------|----------------|----------------|--------------|----------------|-------------------------------|
| typ<br>SP-09/1 | typ<br>SP-09/2 | typ<br>SP-09/4 | typ<br>SP-06/1 | typ<br>BPS-2 | typ<br>SP-07/2 | typ<br>SP-07/2<br>rozbieralna |
| <b>6 702</b>   | <b>5 107</b>   | <b>15 655</b>  | <b>180</b>     | <b>234</b>   | <b>8 217</b>   | <b>400</b>                    |



## 2. PUNKTY GŁÓWNE TRASY W PLANIE - S11 (HTPS)

| PUNKT | -----X----- | -----Y----- | -----Z----- | --PIKIETAŻ-- | ---AZYMUT--- | -H-PROMIEN-- | --SPADEK--- | --V-PROMIEN-- | HCOD | ELEMENT |
|-------|-------------|-------------|-------------|--------------|--------------|--------------|-------------|---------------|------|---------|
| 1     | 3707794.503 | 5713826.990 | 91.142      | 13068.000    | 176.0862255  | 1000.000     | -0.00266    | 15000.00000   | PBC  | 1       |
| 2     | 3707855.945 | 5713331.676 | 93.344      | 13572.442    | 208.1999984  | 1000.000     | 0.01628     | INF           | CS00 | 1       |
| 3     | 3707817.115 | 5713135.572 | 96.601      | 13772.442    | 214.5661962  | INF          | 0.01628     | INF           | ST00 | 2       |
| 4     | 3707624.876 | 5712310.097 | 92.857      | 14620.006    | 214.5661962  | INF          | 0.00233     | 7000.00000    | TS00 | 2       |
| 5     | 3707588.428 | 5712164.610 | 93.305      | 14770.006    | 217.7492950  | 1500.000     | 0.00300     | INF           | SC00 | 3       |
| 6     | 3707484.535 | 5711899.732 | 93.328      | 15054.958    | 229.8430284  | 1500.000     | -0.00442    | INF           | CS00 | 3       |
| 7     | 3707412.352 | 5711768.261 | 92.665      | 15204.958    | 233.0261272  | INF          | -0.00442    | INF           | ST00 | 4       |
| 8     | 3707060.894 | 5711152.677 | 92.776      | 15913.808    | 233.0261272  | INF          | 0.01071     | INF           | TS00 | 4       |
| 9     | 3706989.819 | 5711020.627 | 94.382      | 16063.808    | 228.2514789  | -1000.000    | 0.01071     | INF           | SC00 | 5       |
| 10    | 3706903.328 | 5710734.922 | 97.550      | 16363.437    | 209.1764597  | -1000.000    | 0.00795     | -10500.00000  | CS00 | 5       |
| 11    | 3706889.231 | 5710585.623 | 97.671      | 16513.437    | 204.4018114  | INF          | -0.00634    | -10500.00000  | ST00 | 6       |
| 12    | 3706769.553 | 5708857.522 | 93.457      | 18245.677    | 204.4018114  | INF          | 0.00533     | INF           | TS00 | 6       |
| 13    | 3706764.496 | 5708537.926 | 93.054      | 18565.677    | 194.2158951  | -1000.000    | -0.00740    | INF           | SC00 | 7       |
| 14    | 3707023.219 | 5707952.931 | 90.231      | 19216.772    | 152.7659562  | -1000.000    | -0.00300    | INF           | CS00 | 7       |
| 15    | 3707263.066 | 5707741.647 | 89.271      | 19536.772    | 142.5800398  | INF          | -0.00300    | INF           | ST00 | 8       |
| 16    | 3708492.930 | 5706769.591 | 84.735      | 21104.400    | 142.5800398  | INF          | -0.00300    | INF           | TS00 | 8       |
| 17    | 3708753.510 | 5706551.362 | 83.715      | 21444.400    | 147.9913079  | 2000.000     | -0.00300    | INF           | SC00 | 9       |
| 18    | 3709200.878 | 5705930.607 | 85.813      | 22214.308    | 172.4982590  | 2000.000     | 0.00300     | INF           | CS00 | 9       |
| 19    | 3709325.475 | 5705614.377 | 89.490      | 22554.308    | 177.9095270  | INF          | 0.01299     | -11000.00000  | ST00 | 10      |
| 20    | 3709722.941 | 5704515.274 | 81.187      | 23723.072    | 177.9095270  | INF          | 0.00500     | INF           | TS00 | 10      |
| 21    | 3709810.651 | 5704228.695 | 82.294      | 24023.072    | 187.4588236  | 1000.000     | -0.00345    | -11000.00000  | SC00 | 11      |
| 22    | 3709736.054 | 5703609.825 | 79.508      | 24656.982    | 227.8148175  | 1000.000     | -0.00300    | INF           | CS00 | 11      |
| 23    | 3709582.759 | 5703352.297 | 78.608      | 24956.982    | 237.3641141  | INF          | -0.00300    | INF           | ST00 | 12      |
| 24    | 3709174.837 | 5702738.969 | 90.700      | 25693.576    | 237.3641141  | INF          | -0.00025    | -11200.00000  | PAT  | 12      |

PBC - Punkt początkowy na łuku

TS00 - Punkt między prostą i krzywą przejściową

ST00 - Punkt między krzywą przejściową i prostą

CS00 - Punkt między łukiem i krzywą przejściową

SC00 - Punkt między krzywą przejściową i łukiem

PAT - Punkt końcowy na prostej

V-PROMIEN - Wartość promienia w przekroju podłużnym [m]

### 3. PUNKTY WIERZCHOŁKOWE TRASY W PLANIE - S11 (HIPS)

| PUNKT | -----X----- | -----Y----- | -KĄT ZWROTU- | --PROMIEN--- | HCOD |
|-------|-------------|-------------|--------------|--------------|------|
| 1     | 3707794.503 | 5713826.990 | 0.0000000    | INF          | HIP  |
| 2     | 3707909.956 | 5713534.230 | 38.4799707   | 1000.000     | HIP  |
| 3     | 3707558.170 | 5712023.664 | 18.4599310   | 1500.000     | HIP  |
| 4     | 3706910.225 | 5710888.778 | 371.3756842  | -1000.000    | HIP  |
| 5     | 3706721.896 | 5708169.376 | 338.1782284  | -1000.000    | HIP  |
| 6     | 3709073.719 | 5706310.549 | 35.3294872   | 2000.000     | HIP  |
| 7     | 3709946.003 | 5703898.449 | 59.4545871   | 1000.000     | HIP  |
| 8     | 3709174.837 | 5702738.969 | 0.0000000    | INF          | HIP  |

### 4. ŚRODKI ŁUKÓW POZIOMYCH TRASY W PLANIE - S11 (HCEN)

| PUNKT | -----X----- | -----Y----- | --PROMIEN--- | HCOD | ELEMENT |
|-------|-------------|-------------|--------------|------|---------|
| 1     | 3706864.229 | 5713460.125 | 1000.000     | HCEN | 1       |
| 2     | 3706146.351 | 5712577.421 | 1500.000     | HCEN | 3       |
| 3     | 3707892.957 | 5710591.277 | -1000.000    | HCEN | 5       |
| 4     | 3707760.371 | 5708628.658 | -1000.000    | HCEN | 7       |
| 5     | 3707384.615 | 5705093.238 | 2000.000     | HCEN | 9       |
| 6     | 3708829.992 | 5704032.971 | 1000.000     | HCEN | 11      |

### 5. ELEMENTY TRASY W PRZEKROJU PODŁUŻNYM - S11

| ELEMENT | -----CHARAKTERYSTYKA-----                   | --DŁUGOŚĆ-- | PUNKTY STYCZNOŚCI<br>-PIKIETAŻ- -RZĘDNA- |
|---------|---------------------------------------------|-------------|------------------------------------------|
| 1       | S= 13107.9546 Z= 91.0888<br>R = 15000.000   | 84.954      | 13068.000 91.142                         |
| 2       | SPADEK= 0.003                               | 296.419     | 13152.954 91.156                         |
| 3       | R = 8000.000                                | 106.274     | 13449.373 92.046                         |
| 4       | SPADEK= 0.016                               | 349.696     | 13555.647 93.070                         |
| 5       | S= 14086.0977 Z= 100.2365<br>R = -11100.000 | 491.539     | 13905.343 98.765                         |
| 6       | SPADEK= -0.028                              | 10.858      | 14396.882 95.886                         |
| 7       | S= 14603.7296 Z= 92.8381<br>R = 7000.000    | 216.994     | 14407.740 95.582                         |
| 8       | SPADEK= 0.003                               | 243.866     | 14624.734 92.870                         |
| 9       | S= 14928.6125 Z= 93.6914<br>R = -20000.000  | 148.421     | 14868.600 93.601                         |
| 10      | SPADEK= -0.004                              | 629.344     | 15017.020 93.496                         |
| 11      | S= 15677.3074 Z= 90.6456<br>R = 7000.000    | 105.879     | 15646.365 90.714                         |
|         |                                             |             | 15752.243 91.047                         |



|    |                |            |         |           |        |
|----|----------------|------------|---------|-----------|--------|
| 12 | SPADEK=        | 0.011      | 582.264 |           |        |
|    |                |            |         | 16334.508 | 97.280 |
| 13 | S= 16446.9116  | Z= 97.8816 | 289.592 |           |        |
|    | R = -10500.000 |            |         |           |        |
|    |                |            |         | 16624.100 | 96.387 |
| 14 | SPADEK=        | -0.017     | 184.968 |           |        |
|    |                |            |         | 16809.068 | 93.265 |
| 15 | S= 16927.1934  | Z= 92.2685 | 140.468 |           |        |
|    | R = 7000.000   |            |         |           |        |
|    |                |            |         | 16949.536 | 92.304 |
| 16 | SPADEK=        | 0.003      | 552.125 |           |        |
|    |                |            |         | 17501.661 | 94.066 |
| 17 | S= 17565.4969  | Z= 94.1683 | 133.827 |           |        |
|    | R = -20000.000 |            |         |           |        |
|    |                |            |         | 17635.488 | 94.046 |
| 18 | SPADEK=        | -0.003     | 382.148 |           |        |
|    |                |            |         | 18017.636 | 92.708 |
| 19 | S= 18059.6303  | Z= 92.6350 | 106.010 |           |        |
|    | R = 12000.000  |            |         |           |        |
|    |                |            |         | 18123.645 | 92.806 |
| 20 | SPADEK=        | 0.005      | 149.016 |           |        |
|    |                |            |         | 18272.661 | 93.601 |
| 21 | S= 18379.3529  | Z= 93.8853 | 254.679 |           |        |
|    | R = -20000.000 |            |         |           |        |
|    |                |            |         | 18527.340 | 93.338 |
| 22 | SPADEK=        | -0.007     | 181.080 |           |        |
|    |                |            |         | 18708.420 | 91.998 |
| 23 | R = 25000.000  |            | 109.978 |           |        |
|    |                |            |         | 18818.398 | 91.426 |
| 24 | SPADEK=        | -0.003     | 806.599 |           |        |
|    |                |            |         | 19624.997 | 89.006 |
| 25 | S= 19700.0033  | Z= 88.8935 | 150.007 |           |        |
|    | R = 25000.000  |            |         |           |        |
|    |                |            |         | 19775.005 | 89.006 |
| 26 | SPADEK=        | 0.003      | 81.950  |           |        |
|    |                |            |         | 19856.955 | 89.252 |
| 27 | S= 20006.9573  | Z= 89.4769 | 486.085 |           |        |
|    | R = -50000.000 |            |         |           |        |
|    |                |            |         | 20343.040 | 88.347 |
| 28 | SPADEK=        | -0.007     | 263.923 |           |        |
|    |                |            |         | 20606.963 | 86.573 |
| 29 | R = 50000.000  |            | 186.075 |           |        |
|    |                |            |         | 20793.039 | 85.669 |
| 30 | SPADEK=        | -0.003     | 656.587 |           |        |
|    |                |            |         | 21449.626 | 83.699 |
| 31 | S= 21479.6273  | Z= 83.6540 | 60.005  |           |        |
|    | R = 10000.000  |            |         |           |        |
|    |                |            |         | 21509.631 | 83.699 |
| 32 | SPADEK=        | 0.003      | 764.722 |           |        |
|    |                |            |         | 22274.353 | 85.993 |
| 33 | R = 8000.000   |            | 91.025  |           |        |
|    |                |            |         | 22365.378 | 86.784 |
| 34 | SPADEK=        | 0.014      | 173.702 |           |        |
|    |                |            |         | 22539.080 | 89.282 |
| 35 | S= 22697.2436  | Z= 90.4190 | 433.149 |           |        |
|    | R = -11000.000 |            |         |           |        |
|    |                |            |         | 22972.229 | 86.982 |
| 36 | SPADEK=        | -0.025     | 85.734  |           |        |
|    |                |            |         | 23057.963 | 84.839 |
| 37 | R = 8000.000   |            | 158.701 |           |        |
|    |                |            |         | 23216.665 | 82.445 |
| 38 | SPADEK=        | -0.005     | 312.116 |           |        |
|    |                |            |         | 23528.781 | 80.835 |
| 39 | S= 23590.7134  | Z= 80.6748 | 121.918 |           |        |

|       |                          |  |         |  |           |        |
|-------|--------------------------|--|---------|--|-----------|--------|
|       | R = 12000.000            |  |         |  |           |        |
| ----- |                          |  |         |  | 23650.699 | 80.825 |
| 40    | SPADEK= 0.005            |  | 279.460 |  |           |        |
| ----- |                          |  |         |  | 23930.159 | 82.222 |
| 41    | S= 23985.1457 Z= 82.3591 |  | 115.350 |  |           |        |
|       | R = -11000.000           |  |         |  |           |        |
| ----- |                          |  |         |  | 24045.508 | 82.194 |
| 42    | SPADEK= -0.005           |  | 317.447 |  |           |        |
| ----- |                          |  |         |  | 24362.955 | 80.452 |
| 43    | R = 20000.000            |  | 49.755  |  |           |        |
| ----- |                          |  |         |  | 24412.710 | 80.240 |
| 44    | SPADEK= -0.003           |  | 560.175 |  |           |        |
| ----- |                          |  |         |  | 24972.885 | 78.560 |
| 45    | S= 24996.8829 Z= 78.5240 |  | 264.010 |  |           |        |
|       | R = 8000.000             |  |         |  |           |        |
| ----- |                          |  |         |  | 25236.895 | 82.124 |
| 46    | SPADEK= 0.030            |  | 117.836 |  |           |        |
| ----- |                          |  |         |  | 25354.731 | 85.660 |
| 47    | S= 25690.7481 Z= 90.7001 |  | 338.845 |  |           |        |
|       | R = -11200.000           |  |         |  |           |        |
| ----- |                          |  |         |  | 25693.576 | 90.700 |
| 999   |                          |  |         |  |           |        |

S - Pikietaż punktu  
 Z - Rzędna punku  
 R - Promień łuku

## 6. PUNKTY GŁÓWNE TRASY W PRZEKROJU PODŁUŻNYM - S11 (VTPS)

| PUNKT | -----X----- | -----Y----- | -----Z----- | --PIKIETAŻ-- | ---SPADEK--- | ---PROMIEN--- | --WARTOŚĆ M- | VCOD | ELEMENT |
|-------|-------------|-------------|-------------|--------------|--------------|---------------|--------------|------|---------|
| 1     | 3707794.503 | 5713826.990 | 91.142      | 13068.000    | -0.00266     | 15000.000     | 0.66667      | PBC  | 1       |
| 2     | 3707822.277 | 5713746.731 | 91.156      | 13152.954    | 0.00300      | INF           | 0.00000      | PT   | 2       |
| 3     | 3707864.212 | 5713454.389 | 92.046      | 13449.373    | 0.00300      | 8000.000      | 1.25000      | PC   | 3       |
| 4     | 3707857.962 | 5713348.349 | 93.070      | 13555.647    | 0.01628      | INF           | 0.00000      | PT   | 4       |
| 5     | 3707786.972 | 5713006.134 | 98.765      | 13905.343    | 0.01628      | -11100.000    | -0.90090     | PC   | 5       |
| 6     | 3707675.484 | 5712527.406 | 95.886      | 14396.882    | -0.02800     | INF           | 0.00000      | PT   | 6       |
| 7     | 3707673.021 | 5712516.831 | 95.582      | 14407.740    | -0.02800     | 7000.000      | 1.42857      | PC   | 7       |
| 8     | 3707623.803 | 5712305.492 | 92.870      | 14624.734    | 0.00300      | INF           | 0.00000      | PT   | 8       |
| 9     | 3707558.200 | 5712070.783 | 93.601      | 14868.600    | 0.00300      | -20000.000    | -0.50000     | PC   | 9       |
| 10    | 3707501.245 | 5711933.790 | 93.496      | 15017.020    | -0.00442     | INF           | 0.00000      | PT   | 10      |
| 11    | 3707193.496 | 5711384.931 | 90.714      | 15646.365    | -0.00442     | 7000.000      | 1.42857      | PC   | 11      |
| 12    | 3707141.000 | 5711292.983 | 91.047      | 15752.243    | 0.01071      | INF           | 0.00000      | PT   | 12      |
| 13    | 3706907.897 | 5710763.487 | 97.280      | 16334.508    | 0.01071      | -10500.000    | -0.95238     | PC   | 13      |
| 14    | 3706881.585 | 5710475.225 | 96.387      | 16624.100    | -0.01688     | INF           | 0.00000      | PT   | 14      |
| 15    | 3706868.806 | 5710290.699 | 93.265      | 16809.068    | -0.01688     | 7000.000      | 1.42857      | PC   | 15      |
| 16    | 3706859.101 | 5710150.567 | 92.304      | 16949.536    | 0.00319      | INF           | 0.00000      | PT   | 16      |
| 17    | 3706820.956 | 5709599.760 | 94.066      | 17501.661    | 0.00319      | -20000.000    | -0.50000     | PC   | 17      |
| 18    | 3706811.710 | 5709466.254 | 94.046      | 17635.488    | -0.00350     | INF           | 0.00000      | PT   | 18      |
| 19    | 3706785.308 | 5709085.019 | 92.708      | 18017.636    | -0.00350     | 12000.000     | 0.83333      | PC   | 19      |
| 20    | 3706777.984 | 5708979.263 | 92.806      | 18123.645    | 0.00533      | INF           | 0.00000      | PT   | 20      |
| 21    | 3706767.699 | 5708830.602 | 93.601      | 18272.661    | 0.00533      | -20000.000    | -0.50000     | PC   | 21      |
| 22    | 3706761.721 | 5708576.160 | 93.338      | 18527.340    | -0.00740     | INF           | 0.00000      | PT   | 22      |
| 23    | 3706787.532 | 5708397.177 | 91.998      | 18708.420    | -0.00740     | 25000.000     | 0.40000      | PC   | 23      |
| 24    | 3706818.816 | 5708291.800 | 91.426      | 18818.398    | -0.00300     | INF           | 0.00000      | PT   | 24      |
| 25    | 3707332.283 | 5707686.940 | 89.006      | 19624.997    | -0.00300     | 25000.000     | 0.40000      | PC   | 25      |
| 26    | 3707449.969 | 5707593.923 | 89.006      | 19775.005    | 0.00300      | INF           | 0.00000      | PT   | 26      |
| 27    | 3707514.262 | 5707543.108 | 89.252      | 19856.955    | 0.00300      | -50000.000    | -0.20000     | PC   | 27      |
| 28    | 3707895.614 | 5707241.696 | 88.347      | 20343.040    | -0.00672     | INF           | 0.00000      | PT   | 28      |
| 29    | 3708102.672 | 5707078.042 | 86.573      | 20606.963    | -0.00672     | 50000.000     | 0.20000      | PC   | 29      |
| 30    | 3708248.656 | 5706962.660 | 85.669      | 20793.039    | -0.00300     | INF           | 0.00000      | PT   | 30      |
| 31    | 3708757.316 | 5706547.780 | 83.699      | 21449.626    | -0.00300     | 10000.000     | 1.00000      | PC   | 31      |
| 32    | 3708800.331 | 5706505.947 | 83.699      | 21509.631    | 0.00300      | INF           | 0.00000      | PT   | 32      |
| 33    | 3709225.245 | 5705875.730 | 85.993      | 22274.353    | 0.00300      | 8000.000      | 1.25000      | PC   | 33      |
| 34    | 3709259.674 | 5705791.472 | 86.784      | 22365.378    | 0.01438      | INF           | 0.00000      | PT   | 34      |
| 35    | 3709320.295 | 5705628.697 | 89.282      | 22539.080    | 0.01438      | -11000.000    | -0.90909     | PC   | 35      |
| 36    | 3709467.599 | 5705221.364 | 86.982      | 22972.229    | -0.02500     | INF           | 0.00000      | PT   | 36      |

|    |             |             |        |           |          |            |          |     |    |
|----|-------------|-------------|--------|-----------|----------|------------|----------|-----|----|
| 37 | 3709496.755 | 5705140.740 | 84.839 | 23057.963 | -0.02500 | 8000.000   | 1.25000  | PC  | 37 |
| 38 | 3709550.725 | 5704991.498 | 82.445 | 23216.665 | -0.00516 | INF        | 0.00000  | PT  | 38 |
| 39 | 3709656.868 | 5704697.984 | 80.835 | 23528.781 | -0.00516 | 12000.000  | 0.83333  | PC  | 39 |
| 40 | 3709698.329 | 5704583.332 | 80.825 | 23650.699 | 0.00500  | INF        | 0.00000  | PT  | 40 |
| 41 | 3709788.693 | 5704318.951 | 82.222 | 23930.159 | 0.00500  | -11000.000 | -0.90909 | PC  | 41 |
| 42 | 3709814.796 | 5704206.645 | 82.194 | 24045.508 | -0.00549 | INF        | 0.00000  | PT  | 42 |
| 43 | 3709819.801 | 5703890.569 | 80.452 | 24362.955 | -0.00549 | 20000.000  | 0.50000  | PC  | 43 |
| 44 | 3709811.494 | 5703841.518 | 80.240 | 24412.710 | -0.00300 | INF        | 0.00000  | PT  | 44 |
| 45 | 3709573.952 | 5703339.055 | 78.560 | 24972.885 | -0.00300 | 8000.000   | 1.25000  | PC  | 45 |
| 46 | 3709427.745 | 5703119.226 | 82.124 | 25236.895 | 0.03000  | INF        | 0.00000  | PT  | 46 |
| 47 | 3709362.488 | 5703021.109 | 85.660 | 25354.731 | 0.03000  | -11200.000 | -0.89286 | PC  | 47 |
| 48 | 3709174.837 | 5702738.969 | 90.700 | 25693.576 | -0.00025 | -11200.000 | -0.89286 | PAC | 47 |

PBC - Punkt początkowy na łuku

PT - Punkt między łukiem i prostą

PC - Punkt między prostą i łukiem

PAC - Punkt końcowy na łuku

V-PROMIEN - Wartość promienia w przekroju podłużnym [m]

M-WAROŚĆ - Krzywizna łuku =  $10000/R$  [1/m]

## 7. PUNKTY WIERZCHOŁKOWE TRASY W PRZEKROJU PODŁUŻNYM - S11 (VIPS)

| PUNKT | -----X----- | -----Y----- | -----Z----- | --PIKIETAŻ-- | RÓŻ.SPADKÓW | ---PROMIEŃ-- | --WARTOŚĆ M- | VCOD |
|-------|-------------|-------------|-------------|--------------|-------------|--------------|--------------|------|
| 1     | 3707794.503 | 5713826.990 | 91.142      | 13068.000    | 0.00000     | 15000.000    | 0.66667      | VIP  |
| 2     | 3707809.242 | 5713787.156 | 91.029      | 13110.477    | 0.00566     | 15000.000    | 0.66667      | VIP  |
| 3     | 3707862.496 | 5713401.286 | 92.205      | 13502.510    | 0.01328     | 8000.000     | 1.25000      | VIP  |
| 4     | 3707731.228 | 5712766.770 | 102.767     | 14151.112    | -0.04428    | -11100.000   | -0.90090     | VIP  |
| 5     | 3707648.412 | 5712411.162 | 92.544      | 14516.237    | 0.03100     | 7000.000     | 1.42857      | VIP  |
| 6     | 3707531.417 | 5712001.582 | 93.824      | 14942.810    | -0.00742    | -20000.000   | -0.50000     | VIP  |
| 7     | 3707167.248 | 5711338.957 | 90.480      | 15699.304    | 0.01513     | 7000.000     | 1.42857      | VIP  |
| 8     | 3706891.633 | 5710619.672 | 98.830      | 16479.304    | -0.02758    | -10500.000   | -0.95238     | VIP  |
| 9     | 3706863.954 | 5710220.633 | 92.080      | 16879.302    | 0.02007     | 7000.000     | 1.42857      | VIP  |
| 10    | 3706816.333 | 5709533.007 | 94.280      | 17568.575    | -0.00669    | -20000.000   | -0.50000     | VIP  |
| 11    | 3706781.646 | 5709032.141 | 92.523      | 18070.640    | 0.00883     | 12000.000    | 0.83333      | VIP  |
| 12    | 3706760.802 | 5708703.457 | 94.280      | 18400.001    | -0.01273    | -20000.000   | -0.50000     | VIP  |
| 13    | 3706801.725 | 5708344.058 | 91.591      | 18763.409    | 0.00440     | 25000.000    | 0.40000      | VIP  |
| 14    | 3707391.126 | 5707640.432 | 88.781      | 19700.001    | 0.00600     | 25000.000    | 0.40000      | VIP  |
| 15    | 3707704.938 | 5707392.402 | 89.981      | 20099.997    | -0.00972    | -50000.000   | -0.20000     | VIP  |
| 16    | 3708175.664 | 5707020.351 | 85.948      | 20700.001    | 0.00372     | 50000.000    | 0.20000      | VIP  |
| 17    | 3708778.980 | 5706527.025 | 83.609      | 21479.628    | 0.00600     | 10000.000    | 1.00000      | VIP  |
| 18    | 3709242.790 | 5705833.736 | 86.130      | 22319.866    | 0.01138     | 8000.000     | 1.25000      | VIP  |
| 19    | 3709393.948 | 5705425.031 | 92.396      | 22755.655    | -0.03938    | -11000.000   | -0.90909     | VIP  |
| 20    | 3709523.740 | 5705066.119 | 82.855      | 23137.314    | 0.01984     | 8000.000     | 1.25000      | VIP  |
| 21    | 3709677.599 | 5704640.658 | 80.520      | 23589.740    | 0.01016     | 12000.000    | 0.83333      | VIP  |
| 22    | 3709803.171 | 5704263.128 | 82.510      | 23987.834    | -0.01049    | -11000.000   | -0.90909     | VIP  |
| 23    | 3709815.953 | 5703865.992 | 80.315      | 24387.833    | 0.00249     | 20000.000    | 0.50000      | VIP  |
| 24    | 3709500.848 | 5703229.141 | 78.164      | 25104.890    | 0.03300     | 8000.000     | 1.25000      | VIP  |
| 25    | 3709268.663 | 5702880.039 | 90.743      | 25524.154    | -0.03025    | -11200.000   | -0.89286     | VIP  |
| 26    | 3709174.837 | 5702738.969 | 90.700      | 25693.576    | 0.00000     | -11200.000   | -0.89286     | VIP  |

V-PROMIEŃ - Wartość promienia w przekroju podłużnym [m]  
M-WAROŚĆ - Krzywizna łuku =  $10000/R$  [1/m]

## 8. PUNKTY PŁASKIE TRASY W PRZEKROJU PODŁUŻNYM - S11 (VFPS)

| PUNKT | -----X----- | -----Y----- | -----Z----- | --PIKIETAŻ-- | ---PROMIEN--- | --WARTOŚĆ M- | VCOD ELEMENT |
|-------|-------------|-------------|-------------|--------------|---------------|--------------|--------------|
| 1     | 3707808.414 | 5713789.539 | 91.089      | 13107.955    | 15000.000     | 0.66667      | VFTR 1       |
| 2     | 3707745.974 | 5712830.091 | 100.237     | 14086.098    | -11100.000    | -0.90090     | VFPK 5       |
| 3     | 3707628.568 | 5712325.949 | 92.838      | 14603.730    | 7000.000      | 1.42857      | VFTR 7       |
| 4     | 3707536.806 | 5712014.717 | 93.691      | 14928.613    | -20000.000    | -0.50000     | VFPK 9       |
| 5     | 3707178.154 | 5711358.060 | 90.646      | 15677.307    | 7000.000      | 1.42857      | VFTR 11      |
| 6     | 3706894.153 | 5710651.966 | 97.882      | 16446.912    | -10500.000    | -0.95238     | VFPK 13      |
| 7     | 3706860.645 | 5710172.856 | 92.269      | 16927.193    | 7000.000      | 1.42857      | VFTR 15      |
| 8     | 3706816.546 | 5709536.077 | 94.168      | 17565.497    | -20000.000    | -0.50000     | VFPK 17      |
| 9     | 3706782.407 | 5709043.125 | 92.635      | 18059.630    | 12000.000     | 0.83333      | VFTR 19      |
| 10    | 3706761.559 | 5708724.091 | 93.885      | 18379.353    | -20000.000    | -0.50000     | VFPK 21      |
| 11    | 3707391.128 | 5707640.430 | 88.894      | 19700.003    | 25000.000     | 0.40000      | VFTR 25      |
| 12    | 3707631.945 | 5707450.094 | 89.477      | 20006.957    | -50000.000    | -0.20000     | VFPK 27      |
| 13    | 3708778.979 | 5706527.025 | 83.654      | 21479.627    | 10000.000     | 1.00000      | VFTR 31      |
| 14    | 3709374.083 | 5705479.960 | 90.419      | 22697.244    | -11000.000    | -0.90909     | VFPK 35      |
| 15    | 3709677.930 | 5704639.743 | 80.675      | 23590.713    | 12000.000     | 0.83333      | VFTR 39      |
| 16    | 3709802.554 | 5704265.745 | 82.359      | 23985.146    | -11000.000    | -0.90909     | VFPK 41      |
| 17    | 3709560.662 | 5703319.073 | 78.524      | 24996.883    | 8000.000      | 1.25000      | VFTR 45      |
| 18    | 3709176.404 | 5702741.324 | 90.700      | 25690.748    | -11200.000    | -0.89286     | VFPK 47      |

VFTR - Minimum łuku wklęsłego

VFPK - Maksimum łuku wypukłego

V-PROMIEN - Wartość promienia w przekroju podłużnym [m]

M-WAROŚĆ - Krzywizna łuku =  $10000/R$  [1/m]

# 9. PUNKTY ŚRODKOWE ŁUKÓW(W POŁOWIE DŁUGOŚCI ŁUKU)TRASY W PRZEKROJU PODŁUŻNYM - S11 (VMOS)

| PUNKT | -----X----- | -----Y----- | -----Z----- | --PIKIETAŻ-- | ---SPADEK--- | ---PROMIEN--- | --WARTOŚĆ M- | VCOD ELEMENT |
|-------|-------------|-------------|-------------|--------------|--------------|---------------|--------------|--------------|
| 1     | 3707809.242 | 5713787.156 | 91.089      | 13110.477    | 0.00017      | 15000.000     | 0.66667      | VMOS 1       |
| 2     | 3707862.496 | 5713401.286 | 92.381      | 13502.510    | 0.00964      | 8000.000      | 1.25000      | VMOS 3       |
| 3     | 3707731.228 | 5712766.770 | 100.046     | 14151.112    | -0.00586     | -11100.000    | -0.90090     | VMOS 5       |
| 4     | 3707648.412 | 5712411.162 | 93.385      | 14516.237    | -0.01250     | 7000.000      | 1.42857      | VMOS 7       |
| 5     | 3707531.417 | 5712001.582 | 93.686      | 14942.810    | -0.00071     | -20000.000    | -0.50000     | VMOS 9       |
| 6     | 3707167.248 | 5711338.957 | 90.680      | 15699.304    | 0.00314      | 7000.000      | 1.42857      | VMOS 11      |
| 7     | 3706891.633 | 5710619.672 | 97.832      | 16479.304    | -0.00308     | -10500.000    | -0.95238     | VMOS 13      |
| 8     | 3706863.954 | 5710220.633 | 92.432      | 16879.302    | -0.00684     | 7000.000      | 1.42857      | VMOS 15      |
| 9     | 3706816.333 | 5709533.007 | 94.168      | 17568.575    | -0.00015     | -20000.000    | -0.50000     | VMOS 17      |
| 10    | 3706781.646 | 5709032.141 | 92.640      | 18070.640    | 0.00092      | 12000.000     | 0.83333      | VMOS 19      |
| 11    | 3706760.802 | 5708703.457 | 93.875      | 18400.001    | -0.00103     | -20000.000    | -0.50000     | VMOS 21      |
| 12    | 3706801.725 | 5708344.058 | 91.651      | 18763.409    | -0.00520     | 25000.000     | 0.40000      | VMOS 23      |
| 13    | 3707391.126 | 5707640.432 | 88.894      | 19700.001    | 0.00000      | 25000.000     | 0.40000      | VMOS 25      |
| 14    | 3707704.938 | 5707392.402 | 89.390      | 20099.997    | -0.00186     | -50000.000    | -0.20000     | VMOS 27      |
| 15    | 3708175.664 | 5707020.351 | 86.035      | 20700.001    | -0.00486     | 50000.000     | 0.20000      | VMOS 29      |
| 16    | 3708778.980 | 5706527.025 | 83.654      | 21479.628    | 0.00000      | 10000.000     | 1.00000      | VMOS 31      |
| 17    | 3709242.790 | 5705833.736 | 86.259      | 22319.866    | 0.00869      | 8000.000      | 1.25000      | VMOS 33      |
| 18    | 3709393.948 | 5705425.031 | 90.264      | 22755.655    | -0.00531     | -11000.000    | -0.90909     | VMOS 35      |
| 19    | 3709523.740 | 5705066.119 | 83.249      | 23137.314    | -0.01508     | 8000.000      | 1.25000      | VMOS 37      |
| 20    | 3709677.599 | 5704640.658 | 80.675      | 23589.740    | -0.00008     | 12000.000     | 0.83333      | VMOS 39      |
| 21    | 3709803.171 | 5704263.128 | 82.359      | 23987.834    | -0.00024     | -11000.000    | -0.90909     | VMOS 41      |
| 22    | 3709815.953 | 5703865.992 | 80.330      | 24387.833    | -0.00424     | 20000.000     | 0.50000      | VMOS 43      |
| 23    | 3709500.848 | 5703229.141 | 79.253      | 25104.890    | 0.01350      | 8000.000      | 1.25000      | VMOS 45      |
| 24    | 3709268.663 | 5702880.039 | 89.461      | 25524.154    | 0.01487      | -11200.000    | -0.89286     | VMOS 47      |

V-PROMIEN - Wartość promienia w przekroju podłużnym [m]

M-WAROŚĆ - Krzywizna łuku = 10000/R [1/m]





# Współrzędne punktów trasy w planie - S11

| NR<br>PUNKTU | -PIKIETAZ- | W S P Ó Ł R Z Ę D N E<br>-----X----- | -----Y----- | ---AZYMUT---<br>-PRZEKROJU- |
|--------------|------------|--------------------------------------|-------------|-----------------------------|
| 1            | 13068.000  | 3707794.503                          | 5713826.990 | 276.086                     |
| 2            | 13070.000  | 3707795.235                          | 5713825.129 | 276.214                     |
| 3            | 13080.000  | 3707798.838                          | 5713815.801 | 276.850                     |
| 4            | 13090.000  | 3707802.348                          | 5713806.437 | 277.487                     |
| 5            | 13100.000  | 3707805.764                          | 5713797.039 | 278.123                     |
| 6            | 13107.955  | 3707808.414                          | 5713789.539 | 278.630                     |
| 7            | 13110.000  | 3707809.086                          | 5713787.607 | 278.760                     |
| 8            | 13110.477  | 3707809.242                          | 5713787.156 | 278.790                     |
| 9            | 13120.000  | 3707812.314                          | 5713778.142 | 279.397                     |
| 10           | 13130.000  | 3707815.446                          | 5713768.645 | 280.033                     |
| 11           | 13140.000  | 3707818.484                          | 5713759.118 | 280.670                     |
| 12           | 13150.000  | 3707821.426                          | 5713749.560 | 281.307                     |
| 13           | 13152.954  | 3707822.277                          | 5713746.731 | 281.495                     |
| 14           | 13160.000  | 3707824.273                          | 5713739.974 | 281.943                     |
| 15           | 13170.000  | 3707827.023                          | 5713730.360 | 282.580                     |
| 16           | 13180.000  | 3707829.677                          | 5713720.719 | 283.216                     |
| 17           | 13190.000  | 3707832.235                          | 5713711.051 | 283.853                     |
| 18           | 13200.000  | 3707834.696                          | 5713701.359 | 284.490                     |
| 19           | 13210.000  | 3707837.059                          | 5713691.642 | 285.126                     |
| 20           | 13220.000  | 3707839.326                          | 5713681.902 | 285.763                     |
| 21           | 13230.000  | 3707841.495                          | 5713672.141 | 286.399                     |
| 22           | 13240.000  | 3707843.566                          | 5713662.357 | 287.036                     |
| 23           | 13250.000  | 3707845.539                          | 5713652.554 | 287.673                     |
| 24           | 13260.000  | 3707847.415                          | 5713642.732 | 288.309                     |
| 25           | 13270.000  | 3707849.192                          | 5713632.891 | 288.946                     |
| 26           | 13280.000  | 3707850.870                          | 5713623.033 | 289.583                     |
| 27           | 13290.000  | 3707852.450                          | 5713613.158 | 290.219                     |
| 28           | 13300.000  | 3707853.931                          | 5713603.269 | 290.856                     |
| 29           | 13310.000  | 3707855.312                          | 5713593.365 | 291.492                     |
| 30           | 13320.000  | 3707856.595                          | 5713583.447 | 292.129                     |
| 31           | 13330.000  | 3707857.779                          | 5713573.518 | 292.766                     |
| 32           | 13340.000  | 3707858.863                          | 5713563.577 | 293.402                     |
| 33           | 13350.000  | 3707859.848                          | 5713553.625 | 294.039                     |
| 34           | 13360.000  | 3707860.733                          | 5713543.665 | 294.676                     |
| 35           | 13370.000  | 3707861.519                          | 5713533.695 | 295.312                     |
| 36           | 13380.000  | 3707862.204                          | 5713523.719 | 295.949                     |
| 37           | 13390.000  | 3707862.790                          | 5713513.736 | 296.585                     |
| 38           | 13400.000  | 3707863.277                          | 5713503.748 | 297.222                     |
| 39           | 13410.000  | 3707863.663                          | 5713493.756 | 297.859                     |
| 40           | 13420.000  | 3707863.949                          | 5713483.760 | 298.495                     |
| 41           | 13430.000  | 3707864.136                          | 5713473.762 | 299.132                     |
| 42           | 13440.000  | 3707864.222                          | 5713463.762 | 299.768                     |
| 43           | 13449.373  | 3707864.212                          | 5713454.389 | 300.365                     |
| 44           | 13450.000  | 3707864.208                          | 5713453.762 | 300.405                     |
| 45           | 13460.000  | 3707864.095                          | 5713443.763 | 301.042                     |
| 46           | 13470.000  | 3707863.881                          | 5713433.765 | 301.678                     |
| 47           | 13480.000  | 3707863.567                          | 5713423.770 | 302.315                     |
| 48           | 13490.000  | 3707863.154                          | 5713413.779 | 302.952                     |
| 49           | 13500.000  | 3707862.641                          | 5713403.792 | 303.588                     |
| 50           | 13502.510  | 3707862.496                          | 5713401.286 | 303.748                     |
| 51           | 13510.000  | 3707862.027                          | 5713393.811 | 304.225                     |
| 52           | 13520.000  | 3707861.314                          | 5713383.836 | 304.861                     |
| 53           | 13530.000  | 3707860.502                          | 5713373.869 | 305.498                     |
| 54           | 13540.000  | 3707859.589                          | 5713363.911 | 306.135                     |
| 55           | 13550.000  | 3707858.577                          | 5713353.962 | 306.771                     |
| 56           | 13555.647  | 3707857.962                          | 5713348.349 | 307.131                     |
| 57           | 13560.000  | 3707857.466                          | 5713344.024 | 307.408                     |
| 58           | 13570.000  | 3707856.255                          | 5713334.098 | 308.045                     |
| 59           | 13572.442  | 3707855.945                          | 5713331.676 | 308.200                     |

# Współrzędne punktów trasy w planie - S11

| NR<br>PUNKTU | -PIKIETAZ- | W S P Ó Ł R Z Ę D N E<br>-----X----- | -----Y----- | ---AZYMUT---<br>-PRZEKROJU- |
|--------------|------------|--------------------------------------|-------------|-----------------------------|
| 60           | 13580.000  | 3707854.946                          | 5713324.184 | 308.672                     |
| 61           | 13590.000  | 3707853.541                          | 5713314.283 | 309.269                     |
| 62           | 13600.000  | 3707852.046                          | 5713304.396 | 309.834                     |
| 63           | 13610.000  | 3707850.466                          | 5713294.521 | 310.367                     |
| 64           | 13620.000  | 3707848.805                          | 5713284.660 | 310.868                     |
| 65           | 13630.000  | 3707847.070                          | 5713274.812 | 311.337                     |
| 66           | 13640.000  | 3707845.264                          | 5713264.976 | 311.774                     |
| 67           | 13650.000  | 3707843.393                          | 5713255.153 | 312.180                     |
| 68           | 13660.000  | 3707841.463                          | 5713245.341 | 312.554                     |
| 69           | 13670.000  | 3707839.477                          | 5713235.540 | 312.896                     |
| 70           | 13680.000  | 3707837.440                          | 5713225.750 | 313.206                     |
| 71           | 13690.000  | 3707835.359                          | 5713215.969 | 313.484                     |
| 72           | 13700.000  | 3707833.237                          | 5713206.197 | 313.731                     |
| 73           | 13710.000  | 3707831.080                          | 5713196.432 | 313.946                     |
| 74           | 13720.000  | 3707828.893                          | 5713186.674 | 314.128                     |
| 75           | 13730.000  | 3707826.680                          | 5713176.922 | 314.280                     |
| 76           | 13740.000  | 3707824.446                          | 5713167.175 | 314.399                     |
| 77           | 13750.000  | 3707822.196                          | 5713157.431 | 314.486                     |
| 78           | 13760.000  | 3707819.936                          | 5713147.690 | 314.542                     |
| 79           | 13770.000  | 3707817.669                          | 5713137.950 | 314.565                     |
| 80           | 13772.442  | 3707817.115                          | 5713135.572 | 314.566                     |
| 81           | 13780.000  | 3707815.401                          | 5713128.211 | 314.566                     |
| 82           | 13790.000  | 3707813.133                          | 5713118.472 | 314.566                     |
| 83           | 13800.000  | 3707810.865                          | 5713108.732 | 314.566                     |
| 84           | 13810.000  | 3707808.597                          | 5713098.993 | 314.566                     |
| 85           | 13820.000  | 3707806.329                          | 5713089.253 | 314.566                     |
| 86           | 13830.000  | 3707804.060                          | 5713079.514 | 314.566                     |
| 87           | 13840.000  | 3707801.792                          | 5713069.775 | 314.566                     |
| 88           | 13850.000  | 3707799.524                          | 5713060.035 | 314.566                     |
| 89           | 13860.000  | 3707797.256                          | 5713050.296 | 314.566                     |
| 90           | 13870.000  | 3707794.988                          | 5713040.556 | 314.566                     |
| 91           | 13880.000  | 3707792.720                          | 5713030.817 | 314.566                     |
| 92           | 13890.000  | 3707790.452                          | 5713021.078 | 314.566                     |
| 93           | 13900.000  | 3707788.183                          | 5713011.338 | 314.566                     |
| 94           | 13905.343  | 3707786.972                          | 5713006.134 | 314.566                     |
| 95           | 13910.000  | 3707785.915                          | 5713001.599 | 314.566                     |
| 96           | 13920.000  | 3707783.647                          | 5712991.860 | 314.566                     |
| 97           | 13930.000  | 3707781.379                          | 5712982.120 | 314.566                     |
| 98           | 13940.000  | 3707779.111                          | 5712972.381 | 314.566                     |
| 99           | 13950.000  | 3707776.843                          | 5712962.641 | 314.566                     |
| 100          | 13960.000  | 3707774.575                          | 5712952.902 | 314.566                     |
| 101          | 13970.000  | 3707772.306                          | 5712943.163 | 314.566                     |
| 102          | 13980.000  | 3707770.038                          | 5712933.423 | 314.566                     |
| 103          | 13990.000  | 3707767.770                          | 5712923.684 | 314.566                     |
| 104          | 14000.000  | 3707765.502                          | 5712913.945 | 314.566                     |
| 105          | 14010.000  | 3707763.234                          | 5712904.205 | 314.566                     |
| 106          | 14020.000  | 3707760.966                          | 5712894.466 | 314.566                     |
| 107          | 14030.000  | 3707758.698                          | 5712884.726 | 314.566                     |
| 108          | 14040.000  | 3707756.430                          | 5712874.987 | 314.566                     |
| 109          | 14050.000  | 3707754.161                          | 5712865.248 | 314.566                     |
| 110          | 14060.000  | 3707751.893                          | 5712855.508 | 314.566                     |
| 111          | 14070.000  | 3707749.625                          | 5712845.769 | 314.566                     |
| 112          | 14080.000  | 3707747.357                          | 5712836.029 | 314.566                     |
| 113          | 14086.098  | 3707745.974                          | 5712830.091 | 314.566                     |
| 114          | 14090.000  | 3707745.089                          | 5712826.290 | 314.566                     |
| 115          | 14100.000  | 3707742.821                          | 5712816.551 | 314.566                     |
| 116          | 14110.000  | 3707740.553                          | 5712806.811 | 314.566                     |
| 117          | 14120.000  | 3707738.284                          | 5712797.072 | 314.566                     |
| 118          | 14130.000  | 3707736.016                          | 5712787.333 | 314.566                     |

# Współrzędne punktów trasy w planie - S11

| NR<br>PUNKTU | -PIKIETAZ- | W S P Ó Ł R Z Ę D N E<br>-----X----- | -----Y----- | ---AZYMUT---<br>-PRZEKROJU- |
|--------------|------------|--------------------------------------|-------------|-----------------------------|
| 119          | 14140.000  | 3707733.748                          | 5712777.593 | 314.566                     |
| 120          | 14150.000  | 3707731.480                          | 5712767.854 | 314.566                     |
| 121          | 14151.112  | 3707731.228                          | 5712766.770 | 314.566                     |
| 122          | 14160.000  | 3707729.212                          | 5712758.114 | 314.566                     |
| 123          | 14170.000  | 3707726.944                          | 5712748.375 | 314.566                     |
| 124          | 14180.000  | 3707724.676                          | 5712738.636 | 314.566                     |
| 125          | 14190.000  | 3707722.407                          | 5712728.896 | 314.566                     |
| 126          | 14200.000  | 3707720.139                          | 5712719.157 | 314.566                     |
| 127          | 14210.000  | 3707717.871                          | 5712709.418 | 314.566                     |
| 128          | 14220.000  | 3707715.603                          | 5712699.678 | 314.566                     |
| 129          | 14230.000  | 3707713.335                          | 5712689.939 | 314.566                     |
| 130          | 14240.000  | 3707711.067                          | 5712680.199 | 314.566                     |
| 131          | 14250.000  | 3707708.799                          | 5712670.460 | 314.566                     |
| 132          | 14260.000  | 3707706.530                          | 5712660.721 | 314.566                     |
| 133          | 14270.000  | 3707704.262                          | 5712650.981 | 314.566                     |
| 134          | 14280.000  | 3707701.994                          | 5712641.242 | 314.566                     |
| 135          | 14290.000  | 3707699.726                          | 5712631.502 | 314.566                     |
| 136          | 14300.000  | 3707697.458                          | 5712621.763 | 314.566                     |
| 137          | 14310.000  | 3707695.190                          | 5712612.024 | 314.566                     |
| 138          | 14320.000  | 3707692.922                          | 5712602.284 | 314.566                     |
| 139          | 14330.000  | 3707690.653                          | 5712592.545 | 314.566                     |
| 140          | 14340.000  | 3707688.385                          | 5712582.806 | 314.566                     |
| 141          | 14350.000  | 3707686.117                          | 5712573.066 | 314.566                     |
| 142          | 14360.000  | 3707683.849                          | 5712563.327 | 314.566                     |
| 143          | 14370.000  | 3707681.581                          | 5712553.587 | 314.566                     |
| 144          | 14380.000  | 3707679.313                          | 5712543.848 | 314.566                     |
| 145          | 14390.000  | 3707677.045                          | 5712534.109 | 314.566                     |
| 146          | 14396.882  | 3707675.484                          | 5712527.406 | 314.566                     |
| 147          | 14400.000  | 3707674.776                          | 5712524.369 | 314.566                     |
| 148          | 14407.740  | 3707673.021                          | 5712516.831 | 314.566                     |
| 149          | 14410.000  | 3707672.508                          | 5712514.630 | 314.566                     |
| 150          | 14420.000  | 3707670.240                          | 5712504.891 | 314.566                     |
| 151          | 14430.000  | 3707667.972                          | 5712495.151 | 314.566                     |
| 152          | 14440.000  | 3707665.704                          | 5712485.412 | 314.566                     |
| 153          | 14450.000  | 3707663.436                          | 5712475.672 | 314.566                     |
| 154          | 14460.000  | 3707661.168                          | 5712465.933 | 314.566                     |
| 155          | 14470.000  | 3707658.899                          | 5712456.194 | 314.566                     |
| 156          | 14480.000  | 3707656.631                          | 5712446.454 | 314.566                     |
| 157          | 14490.000  | 3707654.363                          | 5712436.715 | 314.566                     |
| 158          | 14500.000  | 3707652.095                          | 5712426.975 | 314.566                     |
| 159          | 14510.000  | 3707649.827                          | 5712417.236 | 314.566                     |
| 160          | 14516.237  | 3707648.412                          | 5712411.162 | 314.566                     |
| 161          | 14520.000  | 3707647.559                          | 5712407.497 | 314.566                     |
| 162          | 14530.000  | 3707645.291                          | 5712397.757 | 314.566                     |
| 163          | 14540.000  | 3707643.022                          | 5712388.018 | 314.566                     |
| 164          | 14550.000  | 3707640.754                          | 5712378.279 | 314.566                     |
| 165          | 14560.000  | 3707638.486                          | 5712368.539 | 314.566                     |
| 166          | 14570.000  | 3707636.218                          | 5712358.800 | 314.566                     |
| 167          | 14580.000  | 3707633.950                          | 5712349.060 | 314.566                     |
| 168          | 14590.000  | 3707631.682                          | 5712339.321 | 314.566                     |
| 169          | 14600.000  | 3707629.414                          | 5712329.582 | 314.566                     |
| 170          | 14603.730  | 3707628.568                          | 5712325.949 | 314.566                     |
| 171          | 14610.000  | 3707627.145                          | 5712319.842 | 314.566                     |
| 172          | 14620.000  | 3707624.877                          | 5712310.103 | 314.566                     |
| 173          | 14620.006  | 3707624.876                          | 5712310.097 | 314.566                     |
| 174          | 14624.734  | 3707623.803                          | 5712305.492 | 314.569                     |
| 175          | 14630.000  | 3707622.608                          | 5712300.364 | 314.580                     |
| 176          | 14640.000  | 3707620.335                          | 5712290.625 | 314.623                     |
| 177          | 14650.000  | 3707618.053                          | 5712280.889 | 314.693                     |

# Współrzędne punktów trasy w planie - S11

| NR<br>PUNKTU | -PIKIETAZ- | W S P Ó Ł R Z Ę D N E<br>-----X----- | -----Y----- | ---AZYMUT---<br>-PRZEKROJU- |
|--------------|------------|--------------------------------------|-------------|-----------------------------|
| 178          | 14660.000  | 3707615.759                          | 5712271.156 | 314.792                     |
| 179          | 14670.000  | 3707613.447                          | 5712261.427 | 314.920                     |
| 180          | 14680.000  | 3707611.113                          | 5712251.703 | 315.075                     |
| 181          | 14690.000  | 3707608.753                          | 5712241.986 | 315.259                     |
| 182          | 14700.000  | 3707606.363                          | 5712232.275 | 315.471                     |
| 183          | 14710.000  | 3707603.939                          | 5712222.574 | 315.712                     |
| 184          | 14720.000  | 3707601.476                          | 5712212.882 | 315.981                     |
| 185          | 14730.000  | 3707598.970                          | 5712203.201 | 316.278                     |
| 186          | 14740.000  | 3707596.416                          | 5712193.533 | 316.603                     |
| 187          | 14750.000  | 3707593.811                          | 5712183.878 | 316.957                     |
| 188          | 14760.000  | 3707591.150                          | 5712174.238 | 317.339                     |
| 189          | 14770.000  | 3707588.430                          | 5712164.616 | 317.749                     |
| 190          | 14770.006  | 3707588.428                          | 5712164.610 | 317.749                     |
| 191          | 14780.000  | 3707585.646                          | 5712155.011 | 318.173                     |
| 192          | 14790.000  | 3707582.798                          | 5712145.425 | 318.598                     |
| 193          | 14800.000  | 3707579.886                          | 5712135.858 | 319.022                     |
| 194          | 14810.000  | 3707576.910                          | 5712126.311 | 319.447                     |
| 195          | 14820.000  | 3707573.871                          | 5712116.784 | 319.871                     |
| 196          | 14830.000  | 3707570.768                          | 5712107.278 | 320.296                     |
| 197          | 14840.000  | 3707567.602                          | 5712097.792 | 320.720                     |
| 198          | 14850.000  | 3707564.373                          | 5712088.328 | 321.144                     |
| 199          | 14860.000  | 3707561.081                          | 5712078.886 | 321.569                     |
| 200          | 14868.600  | 3707558.200                          | 5712070.783 | 321.934                     |
| 201          | 14870.000  | 3707557.726                          | 5712069.465 | 321.993                     |
| 202          | 14880.000  | 3707554.308                          | 5712060.067 | 322.418                     |
| 203          | 14890.000  | 3707550.828                          | 5712050.693 | 322.842                     |
| 204          | 14900.000  | 3707547.286                          | 5712041.341 | 323.266                     |
| 205          | 14910.000  | 3707543.681                          | 5712032.014 | 323.691                     |
| 206          | 14920.000  | 3707540.013                          | 5712022.710 | 324.115                     |
| 207          | 14928.613  | 3707536.806                          | 5712014.717 | 324.481                     |
| 208          | 14930.000  | 3707536.284                          | 5712013.432 | 324.540                     |
| 209          | 14940.000  | 3707532.494                          | 5712004.178 | 324.964                     |
| 210          | 14942.810  | 3707531.417                          | 5712001.582 | 325.083                     |
| 211          | 14950.000  | 3707528.641                          | 5711994.950 | 325.388                     |
| 212          | 14960.000  | 3707524.727                          | 5711985.747 | 325.813                     |
| 213          | 14970.000  | 3707520.752                          | 5711976.572 | 326.237                     |
| 214          | 14980.000  | 3707516.716                          | 5711967.422 | 326.662                     |
| 215          | 14990.000  | 3707512.619                          | 5711958.300 | 327.086                     |
| 216          | 15000.000  | 3707508.461                          | 5711949.205 | 327.511                     |
| 217          | 15010.000  | 3707504.243                          | 5711940.139 | 327.935                     |
| 218          | 15017.020  | 3707501.245                          | 5711933.790 | 328.233                     |
| 219          | 15020.000  | 3707499.964                          | 5711931.100 | 328.359                     |
| 220          | 15030.000  | 3707495.625                          | 5711922.091 | 328.784                     |
| 221          | 15040.000  | 3707491.227                          | 5711913.110 | 329.208                     |
| 222          | 15050.000  | 3707486.768                          | 5711904.159 | 329.633                     |
| 223          | 15054.958  | 3707484.535                          | 5711899.732 | 329.843                     |
| 224          | 15060.000  | 3707482.250                          | 5711895.238 | 330.053                     |
| 225          | 15070.000  | 3707477.675                          | 5711886.346 | 330.449                     |
| 226          | 15080.000  | 3707473.046                          | 5711877.482 | 330.817                     |
| 227          | 15090.000  | 3707468.368                          | 5711868.643 | 331.157                     |
| 228          | 15100.000  | 3707463.645                          | 5711859.829 | 331.468                     |
| 229          | 15110.000  | 3707458.881                          | 5711851.037 | 331.750                     |
| 230          | 15120.000  | 3707454.080                          | 5711842.265 | 332.005                     |
| 231          | 15130.000  | 3707449.246                          | 5711833.511 | 332.231                     |
| 232          | 15140.000  | 3707444.383                          | 5711824.773 | 332.429                     |
| 233          | 15150.000  | 3707439.494                          | 5711816.049 | 332.599                     |
| 234          | 15160.000  | 3707434.585                          | 5711807.337 | 332.740                     |
| 235          | 15170.000  | 3707429.658                          | 5711798.636 | 332.853                     |
| 236          | 15180.000  | 3707424.717                          | 5711789.941 | 332.938                     |

# Współrzędne punktów trasy w planie - S11

| NR<br>PUNKTU | -PIKIETAZ- | W S P Ó Ł R Z Ę D N E<br>-----X----- | -----Y----- | ---AZYMUT---<br>-PRZEKROJU- |
|--------------|------------|--------------------------------------|-------------|-----------------------------|
| 237          | 15190.000  | 3707419.767                          | 5711781.253 | 332.994                     |
| 238          | 15200.000  | 3707414.811                          | 5711772.567 | 333.023                     |
| 239          | 15204.958  | 3707412.352                          | 5711768.261 | 333.026                     |
| 240          | 15210.000  | 3707409.852                          | 5711763.883 | 333.026                     |
| 241          | 15220.000  | 3707404.894                          | 5711755.198 | 333.026                     |
| 242          | 15230.000  | 3707399.936                          | 5711746.514 | 333.026                     |
| 243          | 15240.000  | 3707394.978                          | 5711737.830 | 333.026                     |
| 244          | 15250.000  | 3707390.020                          | 5711729.146 | 333.026                     |
| 245          | 15260.000  | 3707385.062                          | 5711720.461 | 333.026                     |
| 246          | 15270.000  | 3707380.104                          | 5711711.777 | 333.026                     |
| 247          | 15280.000  | 3707375.145                          | 5711703.093 | 333.026                     |
| 248          | 15290.000  | 3707370.187                          | 5711694.409 | 333.026                     |
| 249          | 15300.000  | 3707365.229                          | 5711685.724 | 333.026                     |
| 250          | 15310.000  | 3707360.271                          | 5711677.040 | 333.026                     |
| 251          | 15320.000  | 3707355.313                          | 5711668.356 | 333.026                     |
| 252          | 15330.000  | 3707350.355                          | 5711659.671 | 333.026                     |
| 253          | 15340.000  | 3707345.396                          | 5711650.987 | 333.026                     |
| 254          | 15350.000  | 3707340.438                          | 5711642.303 | 333.026                     |
| 255          | 15360.000  | 3707335.480                          | 5711633.619 | 333.026                     |
| 256          | 15370.000  | 3707330.522                          | 5711624.934 | 333.026                     |
| 257          | 15380.000  | 3707325.564                          | 5711616.250 | 333.026                     |
| 258          | 15390.000  | 3707320.606                          | 5711607.566 | 333.026                     |
| 259          | 15400.000  | 3707315.648                          | 5711598.881 | 333.026                     |
| 260          | 15410.000  | 3707310.689                          | 5711590.197 | 333.026                     |
| 261          | 15420.000  | 3707305.731                          | 5711581.513 | 333.026                     |
| 262          | 15430.000  | 3707300.773                          | 5711572.829 | 333.026                     |
| 263          | 15440.000  | 3707295.815                          | 5711564.144 | 333.026                     |
| 264          | 15450.000  | 3707290.857                          | 5711555.460 | 333.026                     |
| 265          | 15460.000  | 3707285.899                          | 5711546.776 | 333.026                     |
| 266          | 15470.000  | 3707280.941                          | 5711538.091 | 333.026                     |
| 267          | 15480.000  | 3707275.982                          | 5711529.407 | 333.026                     |
| 268          | 15490.000  | 3707271.024                          | 5711520.723 | 333.026                     |
| 269          | 15500.000  | 3707266.066                          | 5711512.039 | 333.026                     |
| 270          | 15510.000  | 3707261.108                          | 5711503.354 | 333.026                     |
| 271          | 15520.000  | 3707256.150                          | 5711494.670 | 333.026                     |
| 272          | 15530.000  | 3707251.192                          | 5711485.986 | 333.026                     |
| 273          | 15540.000  | 3707246.233                          | 5711477.301 | 333.026                     |
| 274          | 15550.000  | 3707241.275                          | 5711468.617 | 333.026                     |
| 275          | 15560.000  | 3707236.317                          | 5711459.933 | 333.026                     |
| 276          | 15570.000  | 3707231.359                          | 5711451.249 | 333.026                     |
| 277          | 15580.000  | 3707226.401                          | 5711442.564 | 333.026                     |
| 278          | 15590.000  | 3707221.443                          | 5711433.880 | 333.026                     |
| 279          | 15600.000  | 3707216.485                          | 5711425.196 | 333.026                     |
| 280          | 15610.000  | 3707211.526                          | 5711416.512 | 333.026                     |
| 281          | 15620.000  | 3707206.568                          | 5711407.827 | 333.026                     |
| 282          | 15630.000  | 3707201.610                          | 5711399.143 | 333.026                     |
| 283          | 15640.000  | 3707196.652                          | 5711390.459 | 333.026                     |
| 284          | 15646.365  | 3707193.496                          | 5711384.931 | 333.026                     |
| 285          | 15650.000  | 3707191.694                          | 5711381.774 | 333.026                     |
| 286          | 15660.000  | 3707186.736                          | 5711373.090 | 333.026                     |
| 287          | 15670.000  | 3707181.777                          | 5711364.406 | 333.026                     |
| 288          | 15677.307  | 3707178.154                          | 5711358.060 | 333.026                     |
| 289          | 15680.000  | 3707176.819                          | 5711355.722 | 333.026                     |
| 290          | 15690.000  | 3707171.861                          | 5711347.037 | 333.026                     |
| 291          | 15699.304  | 3707167.248                          | 5711338.957 | 333.026                     |
| 292          | 15700.000  | 3707166.903                          | 5711338.353 | 333.026                     |
| 293          | 15710.000  | 3707161.945                          | 5711329.669 | 333.026                     |
| 294          | 15720.000  | 3707156.987                          | 5711320.984 | 333.026                     |
| 295          | 15730.000  | 3707152.029                          | 5711312.300 | 333.026                     |

# Współrzędne punktów trasy w planie - S11

| NR<br>PUNKTU | -PIKIETAZ- | W S P Ó Ł R Z Ę D N E<br>-----X----- | -----Y----- | ---AZYMUT---<br>-PRZEKROJU- |
|--------------|------------|--------------------------------------|-------------|-----------------------------|
| 296          | 15740.000  | 3707147.070                          | 5711303.616 | 333.026                     |
| 297          | 15750.000  | 3707142.112                          | 5711294.932 | 333.026                     |
| 298          | 15752.243  | 3707141.000                          | 5711292.983 | 333.026                     |
| 299          | 15760.000  | 3707137.154                          | 5711286.247 | 333.026                     |
| 300          | 15770.000  | 3707132.196                          | 5711277.563 | 333.026                     |
| 301          | 15780.000  | 3707127.238                          | 5711268.879 | 333.026                     |
| 302          | 15790.000  | 3707122.280                          | 5711260.194 | 333.026                     |
| 303          | 15800.000  | 3707117.322                          | 5711251.510 | 333.026                     |
| 304          | 15810.000  | 3707112.363                          | 5711242.826 | 333.026                     |
| 305          | 15820.000  | 3707107.405                          | 5711234.142 | 333.026                     |
| 306          | 15830.000  | 3707102.447                          | 5711225.457 | 333.026                     |
| 307          | 15840.000  | 3707097.489                          | 5711216.773 | 333.026                     |
| 308          | 15850.000  | 3707092.531                          | 5711208.089 | 333.026                     |
| 309          | 15860.000  | 3707087.573                          | 5711199.404 | 333.026                     |
| 310          | 15870.000  | 3707082.614                          | 5711190.720 | 333.026                     |
| 311          | 15880.000  | 3707077.656                          | 5711182.036 | 333.026                     |
| 312          | 15890.000  | 3707072.698                          | 5711173.352 | 333.026                     |
| 313          | 15900.000  | 3707067.740                          | 5711164.667 | 333.026                     |
| 314          | 15910.000  | 3707062.782                          | 5711155.983 | 333.026                     |
| 315          | 15913.808  | 3707060.894                          | 5711152.677 | 333.026                     |
| 316          | 15920.000  | 3707057.824                          | 5711147.299 | 333.018                     |
| 317          | 15930.000  | 3707052.870                          | 5711138.612 | 332.970                     |
| 318          | 15940.000  | 3707047.925                          | 5711129.920 | 332.881                     |
| 319          | 15950.000  | 3707042.995                          | 5711121.220 | 332.748                     |
| 320          | 15960.000  | 3707038.086                          | 5711112.508 | 332.573                     |
| 321          | 15970.000  | 3707033.204                          | 5711103.780 | 332.356                     |
| 322          | 15980.000  | 3707028.355                          | 5711095.035 | 332.096                     |
| 323          | 15990.000  | 3707023.545                          | 5711086.268 | 331.794                     |
| 324          | 16000.000  | 3707018.779                          | 5711077.476 | 331.450                     |
| 325          | 16010.000  | 3707014.064                          | 5711068.658 | 331.063                     |
| 326          | 16020.000  | 3707009.405                          | 5711059.809 | 330.633                     |
| 327          | 16030.000  | 3707004.809                          | 5711050.928 | 330.161                     |
| 328          | 16040.000  | 3707000.282                          | 5711042.011 | 329.647                     |
| 329          | 16050.000  | 3706995.830                          | 5711033.057 | 329.090                     |
| 330          | 16060.000  | 3706991.460                          | 5711024.063 | 328.491                     |
| 331          | 16063.808  | 3706989.819                          | 5711020.627 | 328.251                     |
| 332          | 16070.000  | 3706987.177                          | 5711015.026 | 327.857                     |
| 333          | 16080.000  | 3706982.985                          | 5711005.947 | 327.221                     |
| 334          | 16090.000  | 3706978.884                          | 5710996.827 | 326.584                     |
| 335          | 16100.000  | 3706974.874                          | 5710987.666 | 325.947                     |
| 336          | 16110.000  | 3706970.957                          | 5710978.466 | 325.311                     |
| 337          | 16120.000  | 3706967.131                          | 5710969.226 | 324.674                     |
| 338          | 16130.000  | 3706963.398                          | 5710959.949 | 324.038                     |
| 339          | 16140.000  | 3706959.757                          | 5710950.636 | 323.401                     |
| 340          | 16150.000  | 3706956.211                          | 5710941.286 | 322.764                     |
| 341          | 16160.000  | 3706952.757                          | 5710931.901 | 322.128                     |
| 342          | 16170.000  | 3706949.398                          | 5710922.482 | 321.491                     |
| 343          | 16180.000  | 3706946.133                          | 5710913.030 | 320.854                     |
| 344          | 16190.000  | 3706942.963                          | 5710903.546 | 320.218                     |
| 345          | 16200.000  | 3706939.888                          | 5710894.031 | 319.581                     |
| 346          | 16210.000  | 3706936.908                          | 5710884.485 | 318.945                     |
| 347          | 16220.000  | 3706934.024                          | 5710874.910 | 318.308                     |
| 348          | 16230.000  | 3706931.236                          | 5710865.307 | 317.671                     |
| 349          | 16240.000  | 3706928.544                          | 5710855.676 | 317.035                     |
| 350          | 16250.000  | 3706925.948                          | 5710846.019 | 316.398                     |
| 351          | 16260.000  | 3706923.449                          | 5710836.336 | 315.761                     |
| 352          | 16270.000  | 3706921.047                          | 5710826.629 | 315.125                     |
| 353          | 16280.000  | 3706918.742                          | 5710816.898 | 314.488                     |
| 354          | 16290.000  | 3706916.534                          | 5710807.145 | 313.852                     |

# Współrzędne punktów trasy w planie - S11

| NR<br>PUNKTU | -PIKIETAZ- | W S P Ó Ł R Z Ę D N E<br>-----X----- | -----Y----- | ---AZYMUT---<br>-PRZEKROJU- |
|--------------|------------|--------------------------------------|-------------|-----------------------------|
| 355          | 16300.000  | 3706914.425                          | 5710797.370 | 313.215                     |
| 356          | 16310.000  | 3706912.413                          | 5710787.574 | 312.578                     |
| 357          | 16320.000  | 3706910.499                          | 5710777.759 | 311.942                     |
| 358          | 16330.000  | 3706908.683                          | 5710767.926 | 311.305                     |
| 359          | 16334.508  | 3706907.897                          | 5710763.487 | 311.018                     |
| 360          | 16340.000  | 3706906.966                          | 5710758.074 | 310.669                     |
| 361          | 16350.000  | 3706905.347                          | 5710748.206 | 310.032                     |
| 362          | 16360.000  | 3706903.827                          | 5710738.322 | 309.395                     |
| 363          | 16363.437  | 3706903.328                          | 5710734.922 | 309.176                     |
| 364          | 16370.000  | 3706902.406                          | 5710728.424 | 308.768                     |
| 365          | 16380.000  | 3706901.079                          | 5710718.512 | 308.180                     |
| 366          | 16390.000  | 3706899.841                          | 5710708.589 | 307.635                     |
| 367          | 16400.000  | 3706898.684                          | 5710698.656 | 307.132                     |
| 368          | 16410.000  | 3706897.603                          | 5710688.715 | 306.672                     |
| 369          | 16420.000  | 3706896.590                          | 5710678.767 | 306.254                     |
| 370          | 16430.000  | 3706895.639                          | 5710668.812 | 305.879                     |
| 371          | 16440.000  | 3706894.743                          | 5710658.852 | 305.546                     |
| 372          | 16446.912  | 3706894.153                          | 5710651.966 | 305.341                     |
| 373          | 16450.000  | 3706893.896                          | 5710648.888 | 305.256                     |
| 374          | 16460.000  | 3706893.092                          | 5710638.921 | 305.008                     |
| 375          | 16470.000  | 3706892.323                          | 5710628.950 | 304.802                     |
| 376          | 16479.304  | 3706891.633                          | 5710619.672 | 304.649                     |
| 377          | 16480.000  | 3706891.582                          | 5710618.978 | 304.639                     |
| 378          | 16490.000  | 3706890.864                          | 5710609.003 | 304.518                     |
| 379          | 16500.000  | 3706890.162                          | 5710599.028 | 304.440                     |
| 380          | 16510.000  | 3706889.468                          | 5710589.052 | 304.404                     |
| 381          | 16513.437  | 3706889.231                          | 5710585.623 | 304.402                     |
| 382          | 16520.000  | 3706888.777                          | 5710579.076 | 304.402                     |
| 383          | 16530.000  | 3706888.086                          | 5710569.100 | 304.402                     |
| 384          | 16540.000  | 3706887.396                          | 5710559.124 | 304.402                     |
| 385          | 16550.000  | 3706886.705                          | 5710549.148 | 304.402                     |
| 386          | 16560.000  | 3706886.014                          | 5710539.172 | 304.402                     |
| 387          | 16570.000  | 3706885.323                          | 5710529.196 | 304.402                     |
| 388          | 16580.000  | 3706884.632                          | 5710519.219 | 304.402                     |
| 389          | 16590.000  | 3706883.941                          | 5710509.243 | 304.402                     |
| 390          | 16600.000  | 3706883.250                          | 5710499.267 | 304.402                     |
| 391          | 16610.000  | 3706882.559                          | 5710489.291 | 304.402                     |
| 392          | 16620.000  | 3706881.868                          | 5710479.315 | 304.402                     |
| 393          | 16624.100  | 3706881.585                          | 5710475.225 | 304.402                     |
| 394          | 16630.000  | 3706881.178                          | 5710469.339 | 304.402                     |
| 395          | 16640.000  | 3706880.487                          | 5710459.363 | 304.402                     |
| 396          | 16650.000  | 3706879.796                          | 5710449.387 | 304.402                     |
| 397          | 16660.000  | 3706879.105                          | 5710439.411 | 304.402                     |
| 398          | 16670.000  | 3706878.414                          | 5710429.435 | 304.402                     |
| 399          | 16680.000  | 3706877.723                          | 5710419.458 | 304.402                     |
| 400          | 16690.000  | 3706877.032                          | 5710409.482 | 304.402                     |
| 401          | 16700.000  | 3706876.341                          | 5710399.506 | 304.402                     |
| 402          | 16710.000  | 3706875.650                          | 5710389.530 | 304.402                     |
| 403          | 16720.000  | 3706874.960                          | 5710379.554 | 304.402                     |
| 404          | 16730.000  | 3706874.269                          | 5710369.578 | 304.402                     |
| 405          | 16740.000  | 3706873.578                          | 5710359.602 | 304.402                     |
| 406          | 16750.000  | 3706872.887                          | 5710349.626 | 304.402                     |
| 407          | 16760.000  | 3706872.196                          | 5710339.650 | 304.402                     |
| 408          | 16770.000  | 3706871.505                          | 5710329.673 | 304.402                     |
| 409          | 16780.000  | 3706870.814                          | 5710319.697 | 304.402                     |
| 410          | 16790.000  | 3706870.123                          | 5710309.721 | 304.402                     |
| 411          | 16800.000  | 3706869.433                          | 5710299.745 | 304.402                     |
| 412          | 16809.068  | 3706868.806                          | 5710290.699 | 304.402                     |
| 413          | 16810.000  | 3706868.742                          | 5710289.769 | 304.402                     |

# Współrzędne punktów trasy w planie - S11

| NR<br>PUNKTU | -PIKIETAZ- | W S P Ó Ł R Z Ę D N E |             | ---AZYMUT---<br>-PRZEKROJU- |
|--------------|------------|-----------------------|-------------|-----------------------------|
|              |            | -----X-----           | -----Y----- |                             |
| 414          | 16820.000  | 3706868.051           | 5710279.793 | 304.402                     |
| 415          | 16830.000  | 3706867.360           | 5710269.817 | 304.402                     |
| 416          | 16840.000  | 3706866.669           | 5710259.841 | 304.402                     |
| 417          | 16850.000  | 3706865.978           | 5710249.865 | 304.402                     |
| 418          | 16860.000  | 3706865.287           | 5710239.889 | 304.402                     |
| 419          | 16870.000  | 3706864.596           | 5710229.912 | 304.402                     |
| 420          | 16879.302  | 3706863.954           | 5710220.633 | 304.402                     |
| 421          | 16880.000  | 3706863.905           | 5710219.936 | 304.402                     |
| 422          | 16890.000  | 3706863.215           | 5710209.960 | 304.402                     |
| 423          | 16900.000  | 3706862.524           | 5710199.984 | 304.402                     |
| 424          | 16910.000  | 3706861.833           | 5710190.008 | 304.402                     |
| 425          | 16920.000  | 3706861.142           | 5710180.032 | 304.402                     |
| 426          | 16927.193  | 3706860.645           | 5710172.856 | 304.402                     |
| 427          | 16930.000  | 3706860.451           | 5710170.056 | 304.402                     |
| 428          | 16940.000  | 3706859.760           | 5710160.080 | 304.402                     |
| 429          | 16949.536  | 3706859.101           | 5710150.567 | 304.402                     |
| 430          | 16950.000  | 3706859.069           | 5710150.104 | 304.402                     |
| 431          | 16960.000  | 3706858.378           | 5710140.127 | 304.402                     |
| 432          | 16970.000  | 3706857.687           | 5710130.151 | 304.402                     |
| 433          | 16980.000  | 3706856.997           | 5710120.175 | 304.402                     |
| 434          | 16990.000  | 3706856.306           | 5710110.199 | 304.402                     |
| 435          | 17000.000  | 3706855.615           | 5710100.223 | 304.402                     |
| 436          | 17010.000  | 3706854.924           | 5710090.247 | 304.402                     |
| 437          | 17020.000  | 3706854.233           | 5710080.271 | 304.402                     |
| 438          | 17030.000  | 3706853.542           | 5710070.295 | 304.402                     |
| 439          | 17040.000  | 3706852.851           | 5710060.319 | 304.402                     |
| 440          | 17050.000  | 3706852.160           | 5710050.343 | 304.402                     |
| 441          | 17060.000  | 3706851.470           | 5710040.366 | 304.402                     |
| 442          | 17070.000  | 3706850.779           | 5710030.390 | 304.402                     |
| 443          | 17080.000  | 3706850.088           | 5710020.414 | 304.402                     |
| 444          | 17090.000  | 3706849.397           | 5710010.438 | 304.402                     |
| 445          | 17100.000  | 3706848.706           | 5710000.462 | 304.402                     |
| 446          | 17110.000  | 3706848.015           | 5709990.486 | 304.402                     |
| 447          | 17120.000  | 3706847.324           | 5709980.510 | 304.402                     |
| 448          | 17130.000  | 3706846.633           | 5709970.534 | 304.402                     |
| 449          | 17140.000  | 3706845.942           | 5709960.558 | 304.402                     |
| 450          | 17150.000  | 3706845.252           | 5709950.581 | 304.402                     |
| 451          | 17160.000  | 3706844.561           | 5709940.605 | 304.402                     |
| 452          | 17170.000  | 3706843.870           | 5709930.629 | 304.402                     |
| 453          | 17180.000  | 3706843.179           | 5709920.653 | 304.402                     |
| 454          | 17190.000  | 3706842.488           | 5709910.677 | 304.402                     |
| 455          | 17200.000  | 3706841.797           | 5709900.701 | 304.402                     |
| 456          | 17210.000  | 3706841.106           | 5709890.725 | 304.402                     |
| 457          | 17220.000  | 3706840.415           | 5709880.749 | 304.402                     |
| 458          | 17230.000  | 3706839.725           | 5709870.773 | 304.402                     |
| 459          | 17240.000  | 3706839.034           | 5709860.797 | 304.402                     |
| 460          | 17250.000  | 3706838.343           | 5709850.820 | 304.402                     |
| 461          | 17260.000  | 3706837.652           | 5709840.844 | 304.402                     |
| 462          | 17270.000  | 3706836.961           | 5709830.868 | 304.402                     |
| 463          | 17280.000  | 3706836.270           | 5709820.892 | 304.402                     |
| 464          | 17290.000  | 3706835.579           | 5709810.916 | 304.402                     |
| 465          | 17300.000  | 3706834.888           | 5709800.940 | 304.402                     |
| 466          | 17310.000  | 3706834.197           | 5709790.964 | 304.402                     |
| 467          | 17320.000  | 3706833.507           | 5709780.988 | 304.402                     |
| 468          | 17330.000  | 3706832.816           | 5709771.012 | 304.402                     |
| 469          | 17340.000  | 3706832.125           | 5709761.035 | 304.402                     |
| 470          | 17350.000  | 3706831.434           | 5709751.059 | 304.402                     |
| 471          | 17360.000  | 3706830.743           | 5709741.083 | 304.402                     |
| 472          | 17370.000  | 3706830.052           | 5709731.107 | 304.402                     |



# Współrzędne punktów trasy w planie - S11

| NR<br>PUNKTU | -PIKIETAZ- | W S P Ó Ł R Z Ę D N E<br>-----X----- | -----Y----- | ---AZYMUT---<br>-PRZEKROJU- |
|--------------|------------|--------------------------------------|-------------|-----------------------------|
| 473          | 17380.000  | 3706829.361                          | 5709721.131 | 304.402                     |
| 474          | 17390.000  | 3706828.670                          | 5709711.155 | 304.402                     |
| 475          | 17400.000  | 3706827.979                          | 5709701.179 | 304.402                     |
| 476          | 17410.000  | 3706827.289                          | 5709691.203 | 304.402                     |
| 477          | 17420.000  | 3706826.598                          | 5709681.227 | 304.402                     |
| 478          | 17430.000  | 3706825.907                          | 5709671.250 | 304.402                     |
| 479          | 17440.000  | 3706825.216                          | 5709661.274 | 304.402                     |
| 480          | 17450.000  | 3706824.525                          | 5709651.298 | 304.402                     |
| 481          | 17460.000  | 3706823.834                          | 5709641.322 | 304.402                     |
| 482          | 17470.000  | 3706823.143                          | 5709631.346 | 304.402                     |
| 483          | 17480.000  | 3706822.452                          | 5709621.370 | 304.402                     |
| 484          | 17490.000  | 3706821.762                          | 5709611.394 | 304.402                     |
| 485          | 17500.000  | 3706821.071                          | 5709601.418 | 304.402                     |
| 486          | 17501.661  | 3706820.956                          | 5709599.760 | 304.402                     |
| 487          | 17510.000  | 3706820.380                          | 5709591.442 | 304.402                     |
| 488          | 17520.000  | 3706819.689                          | 5709581.466 | 304.402                     |
| 489          | 17530.000  | 3706818.998                          | 5709571.489 | 304.402                     |
| 490          | 17540.000  | 3706818.307                          | 5709561.513 | 304.402                     |
| 491          | 17550.000  | 3706817.616                          | 5709551.537 | 304.402                     |
| 492          | 17560.000  | 3706816.925                          | 5709541.561 | 304.402                     |
| 493          | 17565.497  | 3706816.546                          | 5709536.077 | 304.402                     |
| 494          | 17568.575  | 3706816.333                          | 5709533.007 | 304.402                     |
| 495          | 17570.000  | 3706816.234                          | 5709531.585 | 304.402                     |
| 496          | 17580.000  | 3706815.544                          | 5709521.609 | 304.402                     |
| 497          | 17590.000  | 3706814.853                          | 5709511.633 | 304.402                     |
| 498          | 17600.000  | 3706814.162                          | 5709501.657 | 304.402                     |
| 499          | 17610.000  | 3706813.471                          | 5709491.681 | 304.402                     |
| 500          | 17620.000  | 3706812.780                          | 5709481.704 | 304.402                     |
| 501          | 17630.000  | 3706812.089                          | 5709471.728 | 304.402                     |
| 502          | 17635.488  | 3706811.710                          | 5709466.254 | 304.402                     |
| 503          | 17640.000  | 3706811.398                          | 5709461.752 | 304.402                     |
| 504          | 17650.000  | 3706810.707                          | 5709451.776 | 304.402                     |
| 505          | 17660.000  | 3706810.016                          | 5709441.800 | 304.402                     |
| 506          | 17670.000  | 3706809.326                          | 5709431.824 | 304.402                     |
| 507          | 17680.000  | 3706808.635                          | 5709421.848 | 304.402                     |
| 508          | 17690.000  | 3706807.944                          | 5709411.872 | 304.402                     |
| 509          | 17700.000  | 3706807.253                          | 5709401.896 | 304.402                     |
| 510          | 17710.000  | 3706806.562                          | 5709391.920 | 304.402                     |
| 511          | 17720.000  | 3706805.871                          | 5709381.943 | 304.402                     |
| 512          | 17730.000  | 3706805.180                          | 5709371.967 | 304.402                     |
| 513          | 17740.000  | 3706804.489                          | 5709361.991 | 304.402                     |
| 514          | 17750.000  | 3706803.799                          | 5709352.015 | 304.402                     |
| 515          | 17760.000  | 3706803.108                          | 5709342.039 | 304.402                     |
| 516          | 17770.000  | 3706802.417                          | 5709332.063 | 304.402                     |
| 517          | 17780.000  | 3706801.726                          | 5709322.087 | 304.402                     |
| 518          | 17790.000  | 3706801.035                          | 5709312.111 | 304.402                     |
| 519          | 17800.000  | 3706800.344                          | 5709302.135 | 304.402                     |
| 520          | 17810.000  | 3706799.653                          | 5709292.158 | 304.402                     |
| 521          | 17820.000  | 3706798.962                          | 5709282.182 | 304.402                     |
| 522          | 17830.000  | 3706798.271                          | 5709272.206 | 304.402                     |
| 523          | 17840.000  | 3706797.581                          | 5709262.230 | 304.402                     |
| 524          | 17850.000  | 3706796.890                          | 5709252.254 | 304.402                     |
| 525          | 17860.000  | 3706796.199                          | 5709242.278 | 304.402                     |
| 526          | 17870.000  | 3706795.508                          | 5709232.302 | 304.402                     |
| 527          | 17880.000  | 3706794.817                          | 5709222.326 | 304.402                     |
| 528          | 17890.000  | 3706794.126                          | 5709212.350 | 304.402                     |
| 529          | 17900.000  | 3706793.435                          | 5709202.374 | 304.402                     |
| 530          | 17910.000  | 3706792.744                          | 5709192.397 | 304.402                     |
| 531          | 17920.000  | 3706792.053                          | 5709182.421 | 304.402                     |

# Współrzędne punktów trasy w planie - S11

| NR<br>PUNKTU | -PIKIETAZ- | W S P Ó Ł R Z Ę D N E<br>-----X----- | -----Y----- | ---AZYMUT---<br>-PRZEKROJU- |
|--------------|------------|--------------------------------------|-------------|-----------------------------|
| 532          | 17930.000  | 3706791.363                          | 5709172.445 | 304.402                     |
| 533          | 17940.000  | 3706790.672                          | 5709162.469 | 304.402                     |
| 534          | 17950.000  | 3706789.981                          | 5709152.493 | 304.402                     |
| 535          | 17960.000  | 3706789.290                          | 5709142.517 | 304.402                     |
| 536          | 17970.000  | 3706788.599                          | 5709132.541 | 304.402                     |
| 537          | 17980.000  | 3706787.908                          | 5709122.565 | 304.402                     |
| 538          | 17990.000  | 3706787.217                          | 5709112.589 | 304.402                     |
| 539          | 18000.000  | 3706786.526                          | 5709102.612 | 304.402                     |
| 540          | 18010.000  | 3706785.836                          | 5709092.636 | 304.402                     |
| 541          | 18017.636  | 3706785.308                          | 5709085.019 | 304.402                     |
| 542          | 18020.000  | 3706785.145                          | 5709082.660 | 304.402                     |
| 543          | 18030.000  | 3706784.454                          | 5709072.684 | 304.402                     |
| 544          | 18040.000  | 3706783.763                          | 5709062.708 | 304.402                     |
| 545          | 18050.000  | 3706783.072                          | 5709052.732 | 304.402                     |
| 546          | 18059.630  | 3706782.407                          | 5709043.125 | 304.402                     |
| 547          | 18060.000  | 3706782.381                          | 5709042.756 | 304.402                     |
| 548          | 18070.000  | 3706781.690                          | 5709032.780 | 304.402                     |
| 549          | 18070.640  | 3706781.646                          | 5709032.141 | 304.402                     |
| 550          | 18080.000  | 3706780.999                          | 5709022.804 | 304.402                     |
| 551          | 18090.000  | 3706780.308                          | 5709012.828 | 304.402                     |
| 552          | 18100.000  | 3706779.618                          | 5709002.851 | 304.402                     |
| 553          | 18110.000  | 3706778.927                          | 5708992.875 | 304.402                     |
| 554          | 18120.000  | 3706778.236                          | 5708982.899 | 304.402                     |
| 555          | 18123.645  | 3706777.984                          | 5708979.263 | 304.402                     |
| 556          | 18130.000  | 3706777.545                          | 5708972.923 | 304.402                     |
| 557          | 18140.000  | 3706776.854                          | 5708962.947 | 304.402                     |
| 558          | 18150.000  | 3706776.163                          | 5708952.971 | 304.402                     |
| 559          | 18160.000  | 3706775.472                          | 5708942.995 | 304.402                     |
| 560          | 18170.000  | 3706774.781                          | 5708933.019 | 304.402                     |
| 561          | 18180.000  | 3706774.091                          | 5708923.043 | 304.402                     |
| 562          | 18190.000  | 3706773.400                          | 5708913.066 | 304.402                     |
| 563          | 18200.000  | 3706772.709                          | 5708903.090 | 304.402                     |
| 564          | 18210.000  | 3706772.018                          | 5708893.114 | 304.402                     |
| 565          | 18220.000  | 3706771.327                          | 5708883.138 | 304.402                     |
| 566          | 18230.000  | 3706770.636                          | 5708873.162 | 304.402                     |
| 567          | 18240.000  | 3706769.945                          | 5708863.186 | 304.402                     |
| 568          | 18245.677  | 3706769.553                          | 5708857.522 | 304.402                     |
| 569          | 18250.000  | 3706769.254                          | 5708853.210 | 304.400                     |
| 570          | 18260.000  | 3706768.565                          | 5708843.234 | 304.381                     |
| 571          | 18270.000  | 3706767.880                          | 5708833.257 | 304.343                     |
| 572          | 18272.661  | 3706767.699                          | 5708830.602 | 304.329                     |
| 573          | 18280.000  | 3706767.203                          | 5708823.280 | 304.285                     |
| 574          | 18290.000  | 3706766.536                          | 5708813.302 | 304.206                     |
| 575          | 18300.000  | 3706765.883                          | 5708803.324 | 304.108                     |
| 576          | 18310.000  | 3706765.247                          | 5708793.344 | 303.990                     |
| 577          | 18320.000  | 3706764.631                          | 5708783.363 | 303.852                     |
| 578          | 18330.000  | 3706764.039                          | 5708773.380 | 303.695                     |
| 579          | 18340.000  | 3706763.473                          | 5708763.397 | 303.517                     |
| 580          | 18350.000  | 3706762.936                          | 5708753.411 | 303.319                     |
| 581          | 18360.000  | 3706762.431                          | 5708743.424 | 303.102                     |
| 582          | 18370.000  | 3706761.963                          | 5708733.435 | 302.864                     |
| 583          | 18379.353  | 3706761.559                          | 5708724.091 | 302.624                     |
| 584          | 18380.000  | 3706761.533                          | 5708723.444 | 302.607                     |
| 585          | 18390.000  | 3706761.145                          | 5708713.451 | 302.330                     |
| 586          | 18400.000  | 3706760.802                          | 5708703.457 | 302.033                     |
| 587          | 18410.000  | 3706760.507                          | 5708693.462 | 301.716                     |
| 588          | 18420.000  | 3706760.264                          | 5708683.465 | 301.379                     |
| 589          | 18430.000  | 3706760.075                          | 5708673.466 | 301.022                     |
| 590          | 18440.000  | 3706759.944                          | 5708663.467 | 300.646                     |

# Współrzędne punktów trasy w planie - S11

| NR<br>PUNKTU | -PIKIETAZ- | W S P Ó Ł R Z Ę D N E<br>-----X----- | -----Y----- | ---AZYMUT---<br>-PRZEKROJU- |
|--------------|------------|--------------------------------------|-------------|-----------------------------|
| 591          | 18450.000  | 3706759.873                          | 5708653.468 | 300.249                     |
| 592          | 18460.000  | 3706759.867                          | 5708643.468 | 299.833                     |
| 593          | 18470.000  | 3706759.927                          | 5708633.468 | 299.396                     |
| 594          | 18480.000  | 3706760.057                          | 5708623.469 | 298.940                     |
| 595          | 18490.000  | 3706760.261                          | 5708613.471 | 298.464                     |
| 596          | 18500.000  | 3706760.541                          | 5708603.475 | 297.968                     |
| 597          | 18510.000  | 3706760.900                          | 5708593.481 | 297.452                     |
| 598          | 18520.000  | 3706761.342                          | 5708583.491 | 296.916                     |
| 599          | 18527.340  | 3706761.721                          | 5708576.160 | 296.510                     |
| 600          | 18530.000  | 3706761.870                          | 5708573.505 | 296.361                     |
| 601          | 18540.000  | 3706762.486                          | 5708563.524 | 295.785                     |
| 602          | 18550.000  | 3706763.194                          | 5708553.549 | 295.190                     |
| 603          | 18560.000  | 3706763.997                          | 5708543.581 | 294.574                     |
| 604          | 18565.677  | 3706764.496                          | 5708537.926 | 294.216                     |
| 605          | 18570.000  | 3706764.897                          | 5708533.622 | 293.941                     |
| 606          | 18580.000  | 3706765.898                          | 5708523.672 | 293.304                     |
| 607          | 18590.000  | 3706766.997                          | 5708513.733 | 292.667                     |
| 608          | 18600.000  | 3706768.196                          | 5708503.805 | 292.031                     |
| 609          | 18610.000  | 3706769.494                          | 5708493.890 | 291.394                     |
| 610          | 18620.000  | 3706770.891                          | 5708483.988 | 290.758                     |
| 611          | 18630.000  | 3706772.388                          | 5708474.101 | 290.121                     |
| 612          | 18640.000  | 3706773.982                          | 5708464.229 | 289.484                     |
| 613          | 18650.000  | 3706775.676                          | 5708454.373 | 288.848                     |
| 614          | 18660.000  | 3706777.468                          | 5708444.535 | 288.211                     |
| 615          | 18670.000  | 3706779.358                          | 5708434.715 | 287.575                     |
| 616          | 18680.000  | 3706781.347                          | 5708424.915 | 286.938                     |
| 617          | 18690.000  | 3706783.433                          | 5708415.135 | 286.301                     |
| 618          | 18700.000  | 3706785.617                          | 5708405.377 | 285.665                     |
| 619          | 18708.420  | 3706787.532                          | 5708397.177 | 285.129                     |
| 620          | 18710.000  | 3706787.899                          | 5708395.640 | 285.028                     |
| 621          | 18720.000  | 3706790.278                          | 5708385.928 | 284.391                     |
| 622          | 18730.000  | 3706792.753                          | 5708376.239 | 283.755                     |
| 623          | 18740.000  | 3706795.326                          | 5708366.576 | 283.118                     |
| 624          | 18750.000  | 3706797.995                          | 5708356.938 | 282.482                     |
| 625          | 18760.000  | 3706800.760                          | 5708347.328 | 281.845                     |
| 626          | 18763.409  | 3706801.725                          | 5708344.058 | 281.628                     |
| 627          | 18770.000  | 3706803.621                          | 5708337.746 | 281.208                     |
| 628          | 18780.000  | 3706806.578                          | 5708328.194 | 280.572                     |
| 629          | 18790.000  | 3706809.631                          | 5708318.671 | 279.935                     |
| 630          | 18800.000  | 3706812.778                          | 5708309.179 | 279.298                     |
| 631          | 18810.000  | 3706816.020                          | 5708299.719 | 278.662                     |
| 632          | 18818.398  | 3706818.816                          | 5708291.800 | 278.127                     |
| 633          | 18820.000  | 3706819.357                          | 5708290.292 | 278.025                     |
| 634          | 18830.000  | 3706822.787                          | 5708280.899 | 277.389                     |
| 635          | 18840.000  | 3706826.312                          | 5708271.541 | 276.752                     |
| 636          | 18850.000  | 3706829.929                          | 5708262.218 | 276.115                     |
| 637          | 18860.000  | 3706833.640                          | 5708252.933 | 275.479                     |
| 638          | 18870.000  | 3706837.444                          | 5708243.684 | 274.842                     |
| 639          | 18880.000  | 3706841.340                          | 5708234.474 | 274.205                     |
| 640          | 18890.000  | 3706845.327                          | 5708225.304 | 273.569                     |
| 641          | 18900.000  | 3706849.407                          | 5708216.174 | 272.932                     |
| 642          | 18910.000  | 3706853.577                          | 5708207.085 | 272.296                     |
| 643          | 18920.000  | 3706857.838                          | 5708198.038 | 271.659                     |
| 644          | 18930.000  | 3706862.189                          | 5708189.034 | 271.022                     |
| 645          | 18940.000  | 3706866.630                          | 5708180.075 | 270.386                     |
| 646          | 18950.000  | 3706871.161                          | 5708171.160 | 269.749                     |
| 647          | 18960.000  | 3706875.780                          | 5708162.291 | 269.113                     |
| 648          | 18970.000  | 3706880.488                          | 5708153.468 | 268.476                     |
| 649          | 18980.000  | 3706885.284                          | 5708144.693 | 267.839                     |

# Współrzędne punktów trasy w planie - S11

| NR<br>PUNKTU | -PIKIETAZ- | W S P Ó Ł R Z Ę D N E |             | ---AZYMUT---<br>-PRZEKROJU- |
|--------------|------------|-----------------------|-------------|-----------------------------|
|              |            | -----X-----           | -----Y----- |                             |
| 650          | 18990.000  | 3706890.167           | 5708135.967 | 267.203                     |
| 651          | 19000.000  | 3706895.137           | 5708127.290 | 266.566                     |
| 652          | 19010.000  | 3706900.194           | 5708118.663 | 265.929                     |
| 653          | 19020.000  | 3706905.337           | 5708110.086 | 265.293                     |
| 654          | 19030.000  | 3706910.565           | 5708101.562 | 264.656                     |
| 655          | 19040.000  | 3706915.879           | 5708093.091 | 264.020                     |
| 656          | 19050.000  | 3706921.276           | 5708084.673 | 263.383                     |
| 657          | 19060.000  | 3706926.758           | 5708076.309 | 262.746                     |
| 658          | 19070.000  | 3706932.323           | 5708068.001 | 262.110                     |
| 659          | 19080.000  | 3706937.971           | 5708059.748 | 261.473                     |
| 660          | 19090.000  | 3706943.701           | 5708051.553 | 260.836                     |
| 661          | 19100.000  | 3706949.513           | 5708043.415 | 260.200                     |
| 662          | 19110.000  | 3706955.406           | 5708035.336 | 259.563                     |
| 663          | 19120.000  | 3706961.379           | 5708027.316 | 258.927                     |
| 664          | 19130.000  | 3706967.433           | 5708019.356 | 258.290                     |
| 665          | 19140.000  | 3706973.565           | 5708011.458 | 257.653                     |
| 666          | 19150.000  | 3706979.776           | 5708003.620 | 257.017                     |
| 667          | 19160.000  | 3706986.066           | 5707995.846 | 256.380                     |
| 668          | 19170.000  | 3706992.432           | 5707988.135 | 255.744                     |
| 669          | 19180.000  | 3706998.876           | 5707980.487 | 255.107                     |
| 670          | 19190.000  | 3707005.396           | 5707972.905 | 254.470                     |
| 671          | 19200.000  | 3707011.991           | 5707965.388 | 253.834                     |
| 672          | 19210.000  | 3707018.661           | 5707957.938 | 253.197                     |
| 673          | 19216.772  | 3707023.219           | 5707952.931 | 252.766                     |
| 674          | 19220.000  | 3707025.405           | 5707950.554 | 252.561                     |
| 675          | 19230.000  | 3707032.222           | 5707943.238 | 251.941                     |
| 676          | 19240.000  | 3707039.108           | 5707935.987 | 251.341                     |
| 677          | 19250.000  | 3707046.062           | 5707928.800 | 250.760                     |
| 678          | 19260.000  | 3707053.080           | 5707921.676 | 250.200                     |
| 679          | 19270.000  | 3707060.159           | 5707914.613 | 249.659                     |
| 680          | 19280.000  | 3707067.296           | 5707907.610 | 249.138                     |
| 681          | 19290.000  | 3707074.490           | 5707900.663 | 248.637                     |
| 682          | 19300.000  | 3707081.737           | 5707893.773 | 248.157                     |
| 683          | 19310.000  | 3707089.035           | 5707886.936 | 247.695                     |
| 684          | 19320.000  | 3707096.381           | 5707880.151 | 247.254                     |
| 685          | 19330.000  | 3707103.773           | 5707873.416 | 246.833                     |
| 686          | 19340.000  | 3707111.208           | 5707866.729 | 246.431                     |
| 687          | 19350.000  | 3707118.684           | 5707860.088 | 246.050                     |
| 688          | 19360.000  | 3707126.199           | 5707853.490 | 245.688                     |
| 689          | 19370.000  | 3707133.750           | 5707846.934 | 245.347                     |
| 690          | 19380.000  | 3707141.336           | 5707840.418 | 245.025                     |
| 691          | 19390.000  | 3707148.953           | 5707833.939 | 244.723                     |
| 692          | 19400.000  | 3707156.599           | 5707827.495 | 244.441                     |
| 693          | 19410.000  | 3707164.273           | 5707821.083 | 244.179                     |
| 694          | 19420.000  | 3707171.973           | 5707814.702 | 243.936                     |
| 695          | 19430.000  | 3707179.696           | 5707808.349 | 243.714                     |
| 696          | 19440.000  | 3707187.440           | 5707802.022 | 243.512                     |
| 697          | 19450.000  | 3707195.203           | 5707795.719 | 243.329                     |
| 698          | 19460.000  | 3707202.983           | 5707789.436 | 243.166                     |
| 699          | 19470.000  | 3707210.778           | 5707783.172 | 243.024                     |
| 700          | 19480.000  | 3707218.586           | 5707776.925 | 242.901                     |
| 701          | 19490.000  | 3707226.405           | 5707770.691 | 242.798                     |
| 702          | 19500.000  | 3707234.234           | 5707764.469 | 242.715                     |
| 703          | 19510.000  | 3707242.069           | 5707758.255 | 242.651                     |
| 704          | 19520.000  | 3707249.910           | 5707752.049 | 242.608                     |
| 705          | 19530.000  | 3707257.754           | 5707745.846 | 242.585                     |
| 706          | 19536.772  | 3707263.066           | 5707741.647 | 242.580                     |
| 707          | 19540.000  | 3707265.599           | 5707739.645 | 242.580                     |
| 708          | 19550.000  | 3707273.445           | 5707733.444 | 242.580                     |

# Współrzędne punktów trasy w planie - S11

| NR<br>PUNKTU | -PIKIETAZ- | W S P Ó Ł R Z Ę D N E<br>-----X----- | -----Y----- | ---AZYMUT---<br>-PRZEKROJU- |
|--------------|------------|--------------------------------------|-------------|-----------------------------|
| 709          | 19560.000  | 3707281.290                          | 5707727.244 | 242.580                     |
| 710          | 19570.000  | 3707289.135                          | 5707721.043 | 242.580                     |
| 711          | 19580.000  | 3707296.981                          | 5707714.842 | 242.580                     |
| 712          | 19590.000  | 3707304.826                          | 5707708.641 | 242.580                     |
| 713          | 19600.000  | 3707312.671                          | 5707702.440 | 242.580                     |
| 714          | 19610.000  | 3707320.517                          | 5707696.239 | 242.580                     |
| 715          | 19620.000  | 3707328.362                          | 5707690.039 | 242.580                     |
| 716          | 19624.997  | 3707332.283                          | 5707686.940 | 242.580                     |
| 717          | 19630.000  | 3707336.208                          | 5707683.838 | 242.580                     |
| 718          | 19640.000  | 3707344.053                          | 5707677.637 | 242.580                     |
| 719          | 19650.000  | 3707351.898                          | 5707671.436 | 242.580                     |
| 720          | 19660.000  | 3707359.744                          | 5707665.235 | 242.580                     |
| 721          | 19670.000  | 3707367.589                          | 5707659.035 | 242.580                     |
| 722          | 19680.000  | 3707375.435                          | 5707652.834 | 242.580                     |
| 723          | 19690.000  | 3707383.280                          | 5707646.633 | 242.580                     |
| 724          | 19700.000  | 3707391.125                          | 5707640.432 | 242.580                     |
| 725          | 19700.003  | 3707391.128                          | 5707640.430 | 242.580                     |
| 726          | 19710.000  | 3707398.971                          | 5707634.231 | 242.580                     |
| 727          | 19720.000  | 3707406.816                          | 5707628.031 | 242.580                     |
| 728          | 19730.000  | 3707414.661                          | 5707621.830 | 242.580                     |
| 729          | 19740.000  | 3707422.507                          | 5707615.629 | 242.580                     |
| 730          | 19750.000  | 3707430.352                          | 5707609.428 | 242.580                     |
| 731          | 19760.000  | 3707438.198                          | 5707603.227 | 242.580                     |
| 732          | 19770.000  | 3707446.043                          | 5707597.027 | 242.580                     |
| 733          | 19775.005  | 3707449.969                          | 5707593.923 | 242.580                     |
| 734          | 19780.000  | 3707453.888                          | 5707590.826 | 242.580                     |
| 735          | 19790.000  | 3707461.734                          | 5707584.625 | 242.580                     |
| 736          | 19800.000  | 3707469.579                          | 5707578.424 | 242.580                     |
| 737          | 19810.000  | 3707477.424                          | 5707572.223 | 242.580                     |
| 738          | 19820.000  | 3707485.270                          | 5707566.023 | 242.580                     |
| 739          | 19830.000  | 3707493.115                          | 5707559.822 | 242.580                     |
| 740          | 19840.000  | 3707500.961                          | 5707553.621 | 242.580                     |
| 741          | 19850.000  | 3707508.806                          | 5707547.420 | 242.580                     |
| 742          | 19856.955  | 3707514.262                          | 5707543.108 | 242.580                     |
| 743          | 19860.000  | 3707516.651                          | 5707541.219 | 242.580                     |
| 744          | 19870.000  | 3707524.497                          | 5707535.018 | 242.580                     |
| 745          | 19880.000  | 3707532.342                          | 5707528.818 | 242.580                     |
| 746          | 19890.000  | 3707540.187                          | 5707522.617 | 242.580                     |
| 747          | 19900.000  | 3707548.033                          | 5707516.416 | 242.580                     |
| 748          | 19910.000  | 3707555.878                          | 5707510.215 | 242.580                     |
| 749          | 19920.000  | 3707563.724                          | 5707504.014 | 242.580                     |
| 750          | 19930.000  | 3707571.569                          | 5707497.814 | 242.580                     |
| 751          | 19940.000  | 3707579.414                          | 5707491.613 | 242.580                     |
| 752          | 19950.000  | 3707587.260                          | 5707485.412 | 242.580                     |
| 753          | 19960.000  | 3707595.105                          | 5707479.211 | 242.580                     |
| 754          | 19970.000  | 3707602.951                          | 5707473.010 | 242.580                     |
| 755          | 19980.000  | 3707610.796                          | 5707466.810 | 242.580                     |
| 756          | 19990.000  | 3707618.641                          | 5707460.609 | 242.580                     |
| 757          | 20000.000  | 3707626.487                          | 5707454.408 | 242.580                     |
| 758          | 20006.957  | 3707631.945                          | 5707450.094 | 242.580                     |
| 759          | 20010.000  | 3707634.332                          | 5707448.207 | 242.580                     |
| 760          | 20020.000  | 3707642.177                          | 5707442.006 | 242.580                     |
| 761          | 20030.000  | 3707650.023                          | 5707435.806 | 242.580                     |
| 762          | 20040.000  | 3707657.868                          | 5707429.605 | 242.580                     |
| 763          | 20050.000  | 3707665.714                          | 5707423.404 | 242.580                     |
| 764          | 20060.000  | 3707673.559                          | 5707417.203 | 242.580                     |
| 765          | 20070.000  | 3707681.404                          | 5707411.002 | 242.580                     |
| 766          | 20080.000  | 3707689.250                          | 5707404.801 | 242.580                     |
| 767          | 20090.000  | 3707697.095                          | 5707398.601 | 242.580                     |

# Współrzędne punktów trasy w planie - S11

| NR<br>PUNKTU | -PIKIETAZ- | W S P Ó Ł R Z Ę D N E |             | ---AZYMUT--<br>-PRZEKROJU- |
|--------------|------------|-----------------------|-------------|----------------------------|
|              |            | -----X-----           | -----Y----- |                            |
| 768          | 20099.997  | 3707704.938           | 5707392.402 | 242.580                    |
| 769          | 20100.000  | 3707704.940           | 5707392.400 | 242.580                    |
| 770          | 20110.000  | 3707712.786           | 5707386.199 | 242.580                    |
| 771          | 20120.000  | 3707720.631           | 5707379.998 | 242.580                    |
| 772          | 20130.000  | 3707728.477           | 5707373.797 | 242.580                    |
| 773          | 20140.000  | 3707736.322           | 5707367.597 | 242.580                    |
| 774          | 20150.000  | 3707744.167           | 5707361.396 | 242.580                    |
| 775          | 20160.000  | 3707752.013           | 5707355.195 | 242.580                    |
| 776          | 20170.000  | 3707759.858           | 5707348.994 | 242.580                    |
| 777          | 20180.000  | 3707767.703           | 5707342.793 | 242.580                    |
| 778          | 20190.000  | 3707775.549           | 5707336.593 | 242.580                    |
| 779          | 20200.000  | 3707783.394           | 5707330.392 | 242.580                    |
| 780          | 20210.000  | 3707791.240           | 5707324.191 | 242.580                    |
| 781          | 20220.000  | 3707799.085           | 5707317.990 | 242.580                    |
| 782          | 20230.000  | 3707806.930           | 5707311.789 | 242.580                    |
| 783          | 20240.000  | 3707814.776           | 5707305.589 | 242.580                    |
| 784          | 20250.000  | 3707822.621           | 5707299.388 | 242.580                    |
| 785          | 20260.000  | 3707830.467           | 5707293.187 | 242.580                    |
| 786          | 20270.000  | 3707838.312           | 5707286.986 | 242.580                    |
| 787          | 20280.000  | 3707846.157           | 5707280.785 | 242.580                    |
| 788          | 20290.000  | 3707854.003           | 5707274.585 | 242.580                    |
| 789          | 20300.000  | 3707861.848           | 5707268.384 | 242.580                    |
| 790          | 20310.000  | 3707869.693           | 5707262.183 | 242.580                    |
| 791          | 20320.000  | 3707877.539           | 5707255.982 | 242.580                    |
| 792          | 20330.000  | 3707885.384           | 5707249.781 | 242.580                    |
| 793          | 20340.000  | 3707893.230           | 5707243.580 | 242.580                    |
| 794          | 20343.040  | 3707895.614           | 5707241.696 | 242.580                    |
| 795          | 20350.000  | 3707901.075           | 5707237.380 | 242.580                    |
| 796          | 20360.000  | 3707908.920           | 5707231.179 | 242.580                    |
| 797          | 20370.000  | 3707916.766           | 5707224.978 | 242.580                    |
| 798          | 20380.000  | 3707924.611           | 5707218.777 | 242.580                    |
| 799          | 20390.000  | 3707932.456           | 5707212.576 | 242.580                    |
| 800          | 20400.000  | 3707940.302           | 5707206.376 | 242.580                    |
| 801          | 20410.000  | 3707948.147           | 5707200.175 | 242.580                    |
| 802          | 20420.000  | 3707955.993           | 5707193.974 | 242.580                    |
| 803          | 20430.000  | 3707963.838           | 5707187.773 | 242.580                    |
| 804          | 20440.000  | 3707971.683           | 5707181.572 | 242.580                    |
| 805          | 20450.000  | 3707979.529           | 5707175.372 | 242.580                    |
| 806          | 20460.000  | 3707987.374           | 5707169.171 | 242.580                    |
| 807          | 20470.000  | 3707995.219           | 5707162.970 | 242.580                    |
| 808          | 20480.000  | 3708003.065           | 5707156.769 | 242.580                    |
| 809          | 20490.000  | 3708010.910           | 5707150.568 | 242.580                    |
| 810          | 20500.000  | 3708018.756           | 5707144.368 | 242.580                    |
| 811          | 20510.000  | 3708026.601           | 5707138.167 | 242.580                    |
| 812          | 20520.000  | 3708034.446           | 5707131.966 | 242.580                    |
| 813          | 20530.000  | 3708042.292           | 5707125.765 | 242.580                    |
| 814          | 20540.000  | 3708050.137           | 5707119.564 | 242.580                    |
| 815          | 20550.000  | 3708057.983           | 5707113.364 | 242.580                    |
| 816          | 20560.000  | 3708065.828           | 5707107.163 | 242.580                    |
| 817          | 20570.000  | 3708073.673           | 5707100.962 | 242.580                    |
| 818          | 20580.000  | 3708081.519           | 5707094.761 | 242.580                    |
| 819          | 20590.000  | 3708089.364           | 5707088.560 | 242.580                    |
| 820          | 20600.000  | 3708097.209           | 5707082.359 | 242.580                    |
| 821          | 20606.963  | 3708102.672           | 5707078.042 | 242.580                    |
| 822          | 20610.000  | 3708105.055           | 5707076.159 | 242.580                    |
| 823          | 20620.000  | 3708112.900           | 5707069.958 | 242.580                    |
| 824          | 20630.000  | 3708120.746           | 5707063.757 | 242.580                    |
| 825          | 20640.000  | 3708128.591           | 5707057.556 | 242.580                    |
| 826          | 20650.000  | 3708136.436           | 5707051.355 | 242.580                    |

# Współrzędne punktów trasy w planie - S11

| NR<br>PUNKTU | -PIKIETAZ- | W S P Ó Ł R Z Ę D N E<br>-----X----- | -----Y----- | ---AZYMUT---<br>-PRZEKROJU- |
|--------------|------------|--------------------------------------|-------------|-----------------------------|
| 827          | 20660.000  | 3708144.282                          | 5707045.155 | 242.580                     |
| 828          | 20670.000  | 3708152.127                          | 5707038.954 | 242.580                     |
| 829          | 20680.000  | 3708159.972                          | 5707032.753 | 242.580                     |
| 830          | 20690.000  | 3708167.818                          | 5707026.552 | 242.580                     |
| 831          | 20700.000  | 3708175.663                          | 5707020.351 | 242.580                     |
| 832          | 20710.000  | 3708183.509                          | 5707014.151 | 242.580                     |
| 833          | 20720.000  | 3708191.354                          | 5707007.950 | 242.580                     |
| 834          | 20730.000  | 3708199.199                          | 5707001.749 | 242.580                     |
| 835          | 20740.000  | 3708207.045                          | 5706995.548 | 242.580                     |
| 836          | 20750.000  | 3708214.890                          | 5706989.347 | 242.580                     |
| 837          | 20760.000  | 3708222.736                          | 5706983.147 | 242.580                     |
| 838          | 20770.000  | 3708230.581                          | 5706976.946 | 242.580                     |
| 839          | 20780.000  | 3708238.426                          | 5706970.745 | 242.580                     |
| 840          | 20790.000  | 3708246.272                          | 5706964.544 | 242.580                     |
| 841          | 20793.039  | 3708248.656                          | 5706962.660 | 242.580                     |
| 842          | 20800.000  | 3708254.117                          | 5706958.343 | 242.580                     |
| 843          | 20810.000  | 3708261.962                          | 5706952.143 | 242.580                     |
| 844          | 20820.000  | 3708269.808                          | 5706945.942 | 242.580                     |
| 845          | 20830.000  | 3708277.653                          | 5706939.741 | 242.580                     |
| 846          | 20840.000  | 3708285.499                          | 5706933.540 | 242.580                     |
| 847          | 20850.000  | 3708293.344                          | 5706927.339 | 242.580                     |
| 848          | 20860.000  | 3708301.189                          | 5706921.138 | 242.580                     |
| 849          | 20870.000  | 3708309.035                          | 5706914.938 | 242.580                     |
| 850          | 20880.000  | 3708316.880                          | 5706908.737 | 242.580                     |
| 851          | 20890.000  | 3708324.725                          | 5706902.536 | 242.580                     |
| 852          | 20900.000  | 3708332.571                          | 5706896.335 | 242.580                     |
| 853          | 20910.000  | 3708340.416                          | 5706890.134 | 242.580                     |
| 854          | 20920.000  | 3708348.262                          | 5706883.934 | 242.580                     |
| 855          | 20930.000  | 3708356.107                          | 5706877.733 | 242.580                     |
| 856          | 20940.000  | 3708363.952                          | 5706871.532 | 242.580                     |
| 857          | 20950.000  | 3708371.798                          | 5706865.331 | 242.580                     |
| 858          | 20960.000  | 3708379.643                          | 5706859.130 | 242.580                     |
| 859          | 20970.000  | 3708387.488                          | 5706852.930 | 242.580                     |
| 860          | 20980.000  | 3708395.334                          | 5706846.729 | 242.580                     |
| 861          | 20990.000  | 3708403.179                          | 5706840.528 | 242.580                     |
| 862          | 21000.000  | 3708411.025                          | 5706834.327 | 242.580                     |
| 863          | 21010.000  | 3708418.870                          | 5706828.126 | 242.580                     |
| 864          | 21020.000  | 3708426.715                          | 5706821.926 | 242.580                     |
| 865          | 21030.000  | 3708434.561                          | 5706815.725 | 242.580                     |
| 866          | 21040.000  | 3708442.406                          | 5706809.524 | 242.580                     |
| 867          | 21050.000  | 3708450.252                          | 5706803.323 | 242.580                     |
| 868          | 21060.000  | 3708458.097                          | 5706797.122 | 242.580                     |
| 869          | 21070.000  | 3708465.942                          | 5706790.921 | 242.580                     |
| 870          | 21080.000  | 3708473.788                          | 5706784.721 | 242.580                     |
| 871          | 21090.000  | 3708481.633                          | 5706778.520 | 242.580                     |
| 872          | 21100.000  | 3708489.478                          | 5706772.319 | 242.580                     |
| 873          | 21104.400  | 3708492.930                          | 5706769.591 | 242.580                     |
| 874          | 21110.000  | 3708497.324                          | 5706766.118 | 242.582                     |
| 875          | 21120.000  | 3708505.169                          | 5706759.917 | 242.591                     |
| 876          | 21130.000  | 3708513.012                          | 5706753.713 | 242.611                     |
| 877          | 21140.000  | 3708520.853                          | 5706747.507 | 242.639                     |
| 878          | 21150.000  | 3708528.691                          | 5706741.297 | 242.677                     |
| 879          | 21160.000  | 3708536.525                          | 5706735.081 | 242.725                     |
| 880          | 21170.000  | 3708544.353                          | 5706728.859 | 242.781                     |
| 881          | 21180.000  | 3708552.176                          | 5706722.630 | 242.848                     |
| 882          | 21190.000  | 3708559.991                          | 5706716.391 | 242.923                     |
| 883          | 21200.000  | 3708567.799                          | 5706710.143 | 243.008                     |
| 884          | 21210.000  | 3708575.598                          | 5706703.884 | 243.102                     |
| 885          | 21220.000  | 3708583.387                          | 5706697.613 | 243.206                     |

# Współrzędne punktów trasy w planie - S11

| NR<br>PUNKTU | -PIKIETAZ- | W S P Ó Ł R Z Ę D N E |             | ---AZYMUT--<br>-PRZEKROJU- |
|--------------|------------|-----------------------|-------------|----------------------------|
|              |            | -----X-----           | -----Y----- |                            |
| 886          | 21230.000  | 3708591.166           | 5706691.329 | 243.318                    |
| 887          | 21240.000  | 3708598.933           | 5706685.030 | 243.441                    |
| 888          | 21250.000  | 3708606.687           | 5706678.716 | 243.572                    |
| 889          | 21260.000  | 3708614.428           | 5706672.385 | 243.713                    |
| 890          | 21270.000  | 3708622.154           | 5706666.036 | 243.864                    |
| 891          | 21280.000  | 3708629.865           | 5706659.669 | 244.023                    |
| 892          | 21290.000  | 3708637.560           | 5706653.282 | 244.193                    |
| 893          | 21300.000  | 3708645.237           | 5706646.874 | 244.371                    |
| 894          | 21310.000  | 3708652.895           | 5706640.443 | 244.559                    |
| 895          | 21320.000  | 3708660.534           | 5706633.990 | 244.756                    |
| 896          | 21330.000  | 3708668.152           | 5706627.512 | 244.962                    |
| 897          | 21340.000  | 3708675.749           | 5706621.010 | 245.178                    |
| 898          | 21350.000  | 3708683.324           | 5706614.481 | 245.404                    |
| 899          | 21360.000  | 3708690.875           | 5706607.924 | 245.638                    |
| 900          | 21370.000  | 3708698.401           | 5706601.339 | 245.882                    |
| 901          | 21380.000  | 3708705.901           | 5706594.725 | 246.136                    |
| 902          | 21390.000  | 3708713.374           | 5706588.081 | 246.398                    |
| 903          | 21400.000  | 3708720.820           | 5706581.405 | 246.670                    |
| 904          | 21410.000  | 3708728.236           | 5706574.697 | 246.952                    |
| 905          | 21420.000  | 3708735.622           | 5706567.956 | 247.243                    |
| 906          | 21430.000  | 3708742.977           | 5706561.180 | 247.543                    |
| 907          | 21440.000  | 3708750.299           | 5706554.370 | 247.852                    |
| 908          | 21444.400  | 3708753.510           | 5706551.362 | 247.991                    |
| 909          | 21449.626  | 3708757.316           | 5706547.780 | 248.158                    |
| 910          | 21450.000  | 3708757.588           | 5706547.523 | 248.170                    |
| 911          | 21460.000  | 3708764.842           | 5706540.640 | 248.488                    |
| 912          | 21470.000  | 3708772.062           | 5706533.721 | 248.806                    |
| 913          | 21479.627  | 3708778.979           | 5706527.025 | 249.113                    |
| 914          | 21480.000  | 3708779.247           | 5706526.766 | 249.125                    |
| 915          | 21490.000  | 3708786.397           | 5706519.775 | 249.443                    |
| 916          | 21500.000  | 3708793.512           | 5706512.748 | 249.761                    |
| 917          | 21509.631  | 3708800.331           | 5706505.947 | 250.068                    |
| 918          | 21510.000  | 3708800.592           | 5706505.686 | 250.079                    |
| 919          | 21520.000  | 3708807.636           | 5706498.588 | 250.398                    |
| 920          | 21530.000  | 3708814.645           | 5706491.456 | 250.716                    |
| 921          | 21540.000  | 3708821.618           | 5706484.288 | 251.034                    |
| 922          | 21550.000  | 3708828.556           | 5706477.086 | 251.353                    |
| 923          | 21560.000  | 3708835.457           | 5706469.849 | 251.671                    |
| 924          | 21570.000  | 3708842.322           | 5706462.577 | 251.989                    |
| 925          | 21580.000  | 3708849.150           | 5706455.272 | 252.308                    |
| 926          | 21590.000  | 3708855.942           | 5706447.932 | 252.626                    |
| 927          | 21600.000  | 3708862.697           | 5706440.558 | 252.944                    |
| 928          | 21610.000  | 3708869.415           | 5706433.151 | 253.263                    |
| 929          | 21620.000  | 3708876.096           | 5706425.710 | 253.581                    |
| 930          | 21630.000  | 3708882.740           | 5706418.236 | 253.899                    |
| 931          | 21640.000  | 3708889.346           | 5706410.729 | 254.217                    |
| 932          | 21650.000  | 3708895.915           | 5706403.189 | 254.536                    |
| 933          | 21660.000  | 3708902.446           | 5706395.616 | 254.854                    |
| 934          | 21670.000  | 3708908.938           | 5706388.011 | 255.172                    |
| 935          | 21680.000  | 3708915.393           | 5706380.373 | 255.491                    |
| 936          | 21690.000  | 3708921.810           | 5706372.703 | 255.809                    |
| 937          | 21700.000  | 3708928.188           | 5706365.001 | 256.127                    |
| 938          | 21710.000  | 3708934.527           | 5706357.267 | 256.446                    |
| 939          | 21720.000  | 3708940.828           | 5706349.502 | 256.764                    |
| 940          | 21730.000  | 3708947.090           | 5706341.705 | 257.082                    |
| 941          | 21740.000  | 3708953.313           | 5706333.877 | 257.401                    |
| 942          | 21750.000  | 3708959.496           | 5706326.019 | 257.719                    |
| 943          | 21760.000  | 3708965.640           | 5706318.129 | 258.037                    |
| 944          | 21770.000  | 3708971.745           | 5706310.208 | 258.355                    |



# Współrzędne punktów trasy w planie - S11

| NR<br>PUNKTU | -PIKIETAZ- | W S P Ó Ł R Z Ę D N E<br>-----X----- | -----Y----- | ---AZYMUT---<br>-PRZEKROJU- |
|--------------|------------|--------------------------------------|-------------|-----------------------------|
| 945          | 21780.000  | 3708977.810                          | 5706302.257 | 258.674                     |
| 946          | 21790.000  | 3708983.835                          | 5706294.276 | 258.992                     |
| 947          | 21800.000  | 3708989.820                          | 5706286.265 | 259.310                     |
| 948          | 21810.000  | 3708995.766                          | 5706278.224 | 259.629                     |
| 949          | 21820.000  | 3709001.670                          | 5706270.154 | 259.947                     |
| 950          | 21830.000  | 3709007.535                          | 5706262.054 | 260.265                     |
| 951          | 21840.000  | 3709013.358                          | 5706253.925 | 260.584                     |
| 952          | 21850.000  | 3709019.141                          | 5706245.767 | 260.902                     |
| 953          | 21860.000  | 3709024.884                          | 5706237.580 | 261.220                     |
| 954          | 21870.000  | 3709030.585                          | 5706229.364 | 261.539                     |
| 955          | 21880.000  | 3709036.245                          | 5706221.120 | 261.857                     |
| 956          | 21890.000  | 3709041.864                          | 5706212.848 | 262.175                     |
| 957          | 21900.000  | 3709047.441                          | 5706204.548 | 262.494                     |
| 958          | 21910.000  | 3709052.977                          | 5706196.220 | 262.812                     |
| 959          | 21920.000  | 3709058.471                          | 5706187.864 | 263.130                     |
| 960          | 21930.000  | 3709063.923                          | 5706179.481 | 263.448                     |
| 961          | 21940.000  | 3709069.333                          | 5706171.071 | 263.767                     |
| 962          | 21950.000  | 3709074.701                          | 5706162.634 | 264.085                     |
| 963          | 21960.000  | 3709080.027                          | 5706154.170 | 264.403                     |
| 964          | 21970.000  | 3709085.310                          | 5706145.680 | 264.722                     |
| 965          | 21980.000  | 3709090.551                          | 5706137.163 | 265.040                     |
| 966          | 21990.000  | 3709095.750                          | 5706128.621 | 265.358                     |
| 967          | 22000.000  | 3709100.905                          | 5706120.052 | 265.677                     |
| 968          | 22010.000  | 3709106.018                          | 5706111.458 | 265.995                     |
| 969          | 22020.000  | 3709111.087                          | 5706102.838 | 266.313                     |
| 970          | 22030.000  | 3709116.114                          | 5706094.193 | 266.632                     |
| 971          | 22040.000  | 3709121.097                          | 5706085.523 | 266.950                     |
| 972          | 22050.000  | 3709126.037                          | 5706076.828 | 267.268                     |
| 973          | 22060.000  | 3709130.933                          | 5706068.109 | 267.586                     |
| 974          | 22070.000  | 3709135.785                          | 5706059.365 | 267.905                     |
| 975          | 22080.000  | 3709140.594                          | 5706050.597 | 268.223                     |
| 976          | 22090.000  | 3709145.359                          | 5706041.806 | 268.541                     |
| 977          | 22100.000  | 3709150.080                          | 5706032.990 | 268.860                     |
| 978          | 22110.000  | 3709154.756                          | 5706024.151 | 269.178                     |
| 979          | 22120.000  | 3709159.389                          | 5706015.289 | 269.496                     |
| 980          | 22130.000  | 3709163.977                          | 5706006.403 | 269.815                     |
| 981          | 22140.000  | 3709168.520                          | 5705997.495 | 270.133                     |
| 982          | 22150.000  | 3709173.019                          | 5705988.564 | 270.451                     |
| 983          | 22160.000  | 3709177.473                          | 5705979.611 | 270.770                     |
| 984          | 22170.000  | 3709181.883                          | 5705970.636 | 271.088                     |
| 985          | 22180.000  | 3709186.247                          | 5705961.639 | 271.406                     |
| 986          | 22190.000  | 3709190.567                          | 5705952.620 | 271.725                     |
| 987          | 22200.000  | 3709194.841                          | 5705943.579 | 272.043                     |
| 988          | 22210.000  | 3709199.070                          | 5705934.517 | 272.361                     |
| 989          | 22214.308  | 3709200.878                          | 5705930.607 | 272.498                     |
| 990          | 22220.000  | 3709203.254                          | 5705925.435 | 272.678                     |
| 991          | 22230.000  | 3709207.393                          | 5705916.331 | 272.986                     |
| 992          | 22240.000  | 3709211.489                          | 5705907.209 | 273.285                     |
| 993          | 22250.000  | 3709215.542                          | 5705898.067 | 273.575                     |
| 994          | 22260.000  | 3709219.554                          | 5705888.907 | 273.855                     |
| 995          | 22270.000  | 3709223.527                          | 5705879.730 | 274.126                     |
| 996          | 22274.353  | 3709225.245                          | 5705875.730 | 274.241                     |
| 997          | 22280.000  | 3709227.462                          | 5705870.537 | 274.387                     |
| 998          | 22290.000  | 3709231.359                          | 5705861.327 | 274.639                     |
| 999          | 22300.000  | 3709235.220                          | 5705852.103 | 274.882                     |
| 1000         | 22310.000  | 3709239.047                          | 5705842.864 | 275.116                     |
| 1001         | 22319.866  | 3709242.790                          | 5705833.736 | 275.337                     |
| 1002         | 22320.000  | 3709242.841                          | 5705833.612 | 275.340                     |
| 1003         | 22330.000  | 3709246.603                          | 5705824.346 | 275.554                     |

# Współrzędne punktów trasy w planie - S11

| NR<br>PUNKTU | -PIKIETAZ- | W S P Ó Ł R Z Ę D N E<br>-----X----- | -----Y----- | ---AZYMUT---<br>-PRZEKROJU- |
|--------------|------------|--------------------------------------|-------------|-----------------------------|
| 1004         | 22340.000  | 3709250.334                          | 5705815.068 | 275.760                     |
| 1005         | 22350.000  | 3709254.036                          | 5705805.779 | 275.956                     |
| 1006         | 22360.000  | 3709257.710                          | 5705796.478 | 276.142                     |
| 1007         | 22365.378  | 3709259.674                          | 5705791.472 | 276.239                     |
| 1008         | 22370.000  | 3709261.357                          | 5705787.167 | 276.319                     |
| 1009         | 22380.000  | 3709264.979                          | 5705777.846 | 276.487                     |
| 1010         | 22390.000  | 3709268.577                          | 5705768.516 | 276.646                     |
| 1011         | 22400.000  | 3709272.153                          | 5705759.177 | 276.795                     |
| 1012         | 22410.000  | 3709275.708                          | 5705749.830 | 276.935                     |
| 1013         | 22420.000  | 3709279.242                          | 5705740.476 | 277.065                     |
| 1014         | 22430.000  | 3709282.758                          | 5705731.114 | 277.186                     |
| 1015         | 22440.000  | 3709286.257                          | 5705721.746 | 277.298                     |
| 1016         | 22450.000  | 3709289.741                          | 5705712.373 | 277.400                     |
| 1017         | 22460.000  | 3709293.210                          | 5705702.994 | 277.493                     |
| 1018         | 22470.000  | 3709296.666                          | 5705693.610 | 277.577                     |
| 1019         | 22480.000  | 3709300.110                          | 5705684.222 | 277.651                     |
| 1020         | 22490.000  | 3709303.544                          | 5705674.830 | 277.716                     |
| 1021         | 22500.000  | 3709306.969                          | 5705665.435 | 277.771                     |
| 1022         | 22510.000  | 3709310.386                          | 5705656.037 | 277.818                     |
| 1023         | 22520.000  | 3709313.798                          | 5705646.637 | 277.854                     |
| 1024         | 22530.000  | 3709317.205                          | 5705637.235 | 277.882                     |
| 1025         | 22539.080  | 3709320.295                          | 5705628.697 | 277.899                     |
| 1026         | 22540.000  | 3709320.608                          | 5705627.832 | 277.900                     |
| 1027         | 22550.000  | 3709324.010                          | 5705618.428 | 277.909                     |
| 1028         | 22554.308  | 3709325.475                          | 5705614.377 | 277.910                     |
| 1029         | 22560.000  | 3709327.410                          | 5705609.024 | 277.910                     |
| 1030         | 22570.000  | 3709330.811                          | 5705599.620 | 277.910                     |
| 1031         | 22580.000  | 3709334.212                          | 5705590.216 | 277.910                     |
| 1032         | 22590.000  | 3709337.613                          | 5705580.812 | 277.910                     |
| 1033         | 22600.000  | 3709341.013                          | 5705571.408 | 277.910                     |
| 1034         | 22610.000  | 3709344.414                          | 5705562.004 | 277.910                     |
| 1035         | 22620.000  | 3709347.815                          | 5705552.600 | 277.910                     |
| 1036         | 22630.000  | 3709351.216                          | 5705543.196 | 277.910                     |
| 1037         | 22640.000  | 3709354.616                          | 5705533.792 | 277.910                     |
| 1038         | 22650.000  | 3709358.017                          | 5705524.388 | 277.910                     |
| 1039         | 22660.000  | 3709361.418                          | 5705514.984 | 277.910                     |
| 1040         | 22670.000  | 3709364.818                          | 5705505.580 | 277.910                     |
| 1041         | 22680.000  | 3709368.219                          | 5705496.176 | 277.910                     |
| 1042         | 22690.000  | 3709371.620                          | 5705486.772 | 277.910                     |
| 1043         | 22697.244  | 3709374.083                          | 5705479.960 | 277.910                     |
| 1044         | 22700.000  | 3709375.021                          | 5705477.368 | 277.910                     |
| 1045         | 22710.000  | 3709378.421                          | 5705467.964 | 277.910                     |
| 1046         | 22720.000  | 3709381.822                          | 5705458.560 | 277.910                     |
| 1047         | 22730.000  | 3709385.223                          | 5705449.156 | 277.910                     |
| 1048         | 22740.000  | 3709388.624                          | 5705439.752 | 277.910                     |
| 1049         | 22750.000  | 3709392.024                          | 5705430.348 | 277.910                     |
| 1050         | 22755.655  | 3709393.948                          | 5705425.031 | 277.910                     |
| 1051         | 22760.000  | 3709395.425                          | 5705420.944 | 277.910                     |
| 1052         | 22770.000  | 3709398.826                          | 5705411.541 | 277.910                     |
| 1053         | 22780.000  | 3709402.227                          | 5705402.137 | 277.910                     |
| 1054         | 22790.000  | 3709405.627                          | 5705392.733 | 277.910                     |
| 1055         | 22800.000  | 3709409.028                          | 5705383.329 | 277.910                     |
| 1056         | 22810.000  | 3709412.429                          | 5705373.925 | 277.910                     |
| 1057         | 22820.000  | 3709415.830                          | 5705364.521 | 277.910                     |
| 1058         | 22830.000  | 3709419.230                          | 5705355.117 | 277.910                     |
| 1059         | 22840.000  | 3709422.631                          | 5705345.713 | 277.910                     |
| 1060         | 22850.000  | 3709426.032                          | 5705336.309 | 277.910                     |
| 1061         | 22860.000  | 3709429.433                          | 5705326.905 | 277.910                     |
| 1062         | 22870.000  | 3709432.833                          | 5705317.501 | 277.910                     |

# Współrzędne punktów trasy w planie - S11

| NR<br>PUNKTU | -PIKIETAZ- | W S P Ó Ł R Z Ę D N E<br>-----X----- | -----Y----- | ---AZYMUT---<br>-PRZEKROJU- |
|--------------|------------|--------------------------------------|-------------|-----------------------------|
| 1063         | 22880.000  | 3709436.234                          | 5705308.097 | 277.910                     |
| 1064         | 22890.000  | 3709439.635                          | 5705298.693 | 277.910                     |
| 1065         | 22900.000  | 3709443.036                          | 5705289.289 | 277.910                     |
| 1066         | 22910.000  | 3709446.436                          | 5705279.885 | 277.910                     |
| 1067         | 22920.000  | 3709449.837                          | 5705270.481 | 277.910                     |
| 1068         | 22930.000  | 3709453.238                          | 5705261.077 | 277.910                     |
| 1069         | 22940.000  | 3709456.639                          | 5705251.673 | 277.910                     |
| 1070         | 22950.000  | 3709460.039                          | 5705242.269 | 277.910                     |
| 1071         | 22960.000  | 3709463.440                          | 5705232.865 | 277.910                     |
| 1072         | 22970.000  | 3709466.841                          | 5705223.461 | 277.910                     |
| 1073         | 22972.229  | 3709467.599                          | 5705221.364 | 277.910                     |
| 1074         | 22980.000  | 3709470.242                          | 5705214.057 | 277.910                     |
| 1075         | 22990.000  | 3709473.642                          | 5705204.653 | 277.910                     |
| 1076         | 23000.000  | 3709477.043                          | 5705195.249 | 277.910                     |
| 1077         | 23010.000  | 3709480.444                          | 5705185.845 | 277.910                     |
| 1078         | 23020.000  | 3709483.845                          | 5705176.441 | 277.910                     |
| 1079         | 23030.000  | 3709487.245                          | 5705167.037 | 277.910                     |
| 1080         | 23040.000  | 3709490.646                          | 5705157.633 | 277.910                     |
| 1081         | 23050.000  | 3709494.047                          | 5705148.229 | 277.910                     |
| 1082         | 23057.963  | 3709496.755                          | 5705140.740 | 277.910                     |
| 1083         | 23060.000  | 3709497.448                          | 5705138.825 | 277.910                     |
| 1084         | 23070.000  | 3709500.848                          | 5705129.421 | 277.910                     |
| 1085         | 23080.000  | 3709504.249                          | 5705120.017 | 277.910                     |
| 1086         | 23090.000  | 3709507.650                          | 5705110.613 | 277.910                     |
| 1087         | 23100.000  | 3709511.051                          | 5705101.209 | 277.910                     |
| 1088         | 23110.000  | 3709514.451                          | 5705091.805 | 277.910                     |
| 1089         | 23120.000  | 3709517.852                          | 5705082.401 | 277.910                     |
| 1090         | 23130.000  | 3709521.253                          | 5705072.997 | 277.910                     |
| 1091         | 23137.314  | 3709523.740                          | 5705066.119 | 277.910                     |
| 1092         | 23140.000  | 3709524.654                          | 5705063.593 | 277.910                     |
| 1093         | 23150.000  | 3709528.054                          | 5705054.189 | 277.910                     |
| 1094         | 23160.000  | 3709531.455                          | 5705044.785 | 277.910                     |
| 1095         | 23170.000  | 3709534.856                          | 5705035.381 | 277.910                     |
| 1096         | 23180.000  | 3709538.257                          | 5705025.977 | 277.910                     |
| 1097         | 23190.000  | 3709541.657                          | 5705016.573 | 277.910                     |
| 1098         | 23200.000  | 3709545.058                          | 5705007.169 | 277.910                     |
| 1099         | 23210.000  | 3709548.459                          | 5704997.765 | 277.910                     |
| 1100         | 23216.665  | 3709550.725                          | 5704991.498 | 277.910                     |
| 1101         | 23220.000  | 3709551.860                          | 5704988.361 | 277.910                     |
| 1102         | 23230.000  | 3709555.260                          | 5704978.957 | 277.910                     |
| 1103         | 23240.000  | 3709558.661                          | 5704969.553 | 277.910                     |
| 1104         | 23250.000  | 3709562.062                          | 5704960.149 | 277.910                     |
| 1105         | 23260.000  | 3709565.463                          | 5704950.745 | 277.910                     |
| 1106         | 23270.000  | 3709568.863                          | 5704941.341 | 277.910                     |
| 1107         | 23280.000  | 3709572.264                          | 5704931.937 | 277.910                     |
| 1108         | 23290.000  | 3709575.665                          | 5704922.533 | 277.910                     |
| 1109         | 23300.000  | 3709579.066                          | 5704913.129 | 277.910                     |
| 1110         | 23310.000  | 3709582.466                          | 5704903.725 | 277.910                     |
| 1111         | 23320.000  | 3709585.867                          | 5704894.321 | 277.910                     |
| 1112         | 23330.000  | 3709589.268                          | 5704884.917 | 277.910                     |
| 1113         | 23340.000  | 3709592.669                          | 5704875.513 | 277.910                     |
| 1114         | 23350.000  | 3709596.069                          | 5704866.109 | 277.910                     |
| 1115         | 23360.000  | 3709599.470                          | 5704856.705 | 277.910                     |
| 1116         | 23370.000  | 3709602.871                          | 5704847.301 | 277.910                     |
| 1117         | 23380.000  | 3709606.272                          | 5704837.897 | 277.910                     |
| 1118         | 23390.000  | 3709609.672                          | 5704828.493 | 277.910                     |
| 1119         | 23400.000  | 3709613.073                          | 5704819.089 | 277.910                     |
| 1120         | 23410.000  | 3709616.474                          | 5704809.686 | 277.910                     |
| 1121         | 23420.000  | 3709619.875                          | 5704800.282 | 277.910                     |

# Współrzędne punktów trasy w planie - S11

| NR<br>PUNKTU | -PIKIETAZ- | W S P Ó Ł R Z Ę D N E<br>-----X----- | -----Y----- | ---AZYMUT---<br>-PRZEKROJU- |
|--------------|------------|--------------------------------------|-------------|-----------------------------|
| 1122         | 23430.000  | 3709623.275                          | 5704790.878 | 277.910                     |
| 1123         | 23440.000  | 3709626.676                          | 5704781.474 | 277.910                     |
| 1124         | 23450.000  | 3709630.077                          | 5704772.070 | 277.910                     |
| 1125         | 23460.000  | 3709633.478                          | 5704762.666 | 277.910                     |
| 1126         | 23470.000  | 3709636.878                          | 5704753.262 | 277.910                     |
| 1127         | 23480.000  | 3709640.279                          | 5704743.858 | 277.910                     |
| 1128         | 23490.000  | 3709643.680                          | 5704734.454 | 277.910                     |
| 1129         | 23500.000  | 3709647.081                          | 5704725.050 | 277.910                     |
| 1130         | 23510.000  | 3709650.481                          | 5704715.646 | 277.910                     |
| 1131         | 23520.000  | 3709653.882                          | 5704706.242 | 277.910                     |
| 1132         | 23528.781  | 3709656.868                          | 5704697.984 | 277.910                     |
| 1133         | 23530.000  | 3709657.283                          | 5704696.838 | 277.910                     |
| 1134         | 23540.000  | 3709660.683                          | 5704687.434 | 277.910                     |
| 1135         | 23550.000  | 3709664.084                          | 5704678.030 | 277.910                     |
| 1136         | 23560.000  | 3709667.485                          | 5704668.626 | 277.910                     |
| 1137         | 23570.000  | 3709670.886                          | 5704659.222 | 277.910                     |
| 1138         | 23580.000  | 3709674.286                          | 5704649.818 | 277.910                     |
| 1139         | 23589.740  | 3709677.599                          | 5704640.658 | 277.910                     |
| 1140         | 23590.000  | 3709677.687                          | 5704640.414 | 277.910                     |
| 1141         | 23590.713  | 3709677.930                          | 5704639.743 | 277.910                     |
| 1142         | 23600.000  | 3709681.088                          | 5704631.010 | 277.910                     |
| 1143         | 23610.000  | 3709684.489                          | 5704621.606 | 277.910                     |
| 1144         | 23620.000  | 3709687.889                          | 5704612.202 | 277.910                     |
| 1145         | 23630.000  | 3709691.290                          | 5704602.798 | 277.910                     |
| 1146         | 23640.000  | 3709694.691                          | 5704593.394 | 277.910                     |
| 1147         | 23650.000  | 3709698.092                          | 5704583.990 | 277.910                     |
| 1148         | 23650.699  | 3709698.329                          | 5704583.332 | 277.910                     |
| 1149         | 23660.000  | 3709701.492                          | 5704574.586 | 277.910                     |
| 1150         | 23670.000  | 3709704.893                          | 5704565.182 | 277.910                     |
| 1151         | 23680.000  | 3709708.294                          | 5704555.778 | 277.910                     |
| 1152         | 23690.000  | 3709711.695                          | 5704546.374 | 277.910                     |
| 1153         | 23700.000  | 3709715.095                          | 5704536.970 | 277.910                     |
| 1154         | 23710.000  | 3709718.496                          | 5704527.566 | 277.910                     |
| 1155         | 23720.000  | 3709721.897                          | 5704518.162 | 277.910                     |
| 1156         | 23723.072  | 3709722.941                          | 5704515.274 | 277.910                     |
| 1157         | 23730.000  | 3709725.298                          | 5704508.758 | 277.915                     |
| 1158         | 23740.000  | 3709728.696                          | 5704499.353 | 277.940                     |
| 1159         | 23750.000  | 3709732.089                          | 5704489.946 | 277.986                     |
| 1160         | 23760.000  | 3709735.474                          | 5704480.537 | 278.054                     |
| 1161         | 23770.000  | 3709738.847                          | 5704471.123 | 278.143                     |
| 1162         | 23780.000  | 3709742.205                          | 5704461.703 | 278.253                     |
| 1163         | 23790.000  | 3709745.545                          | 5704452.278 | 278.385                     |
| 1164         | 23800.000  | 3709748.865                          | 5704442.845 | 278.537                     |
| 1165         | 23810.000  | 3709752.160                          | 5704433.403 | 278.711                     |
| 1166         | 23820.000  | 3709755.428                          | 5704423.952 | 278.906                     |
| 1167         | 23830.000  | 3709758.665                          | 5704414.491 | 279.123                     |
| 1168         | 23840.000  | 3709761.869                          | 5704405.018 | 279.360                     |
| 1169         | 23850.000  | 3709765.035                          | 5704395.532 | 279.619                     |
| 1170         | 23860.000  | 3709768.162                          | 5704386.034 | 279.899                     |
| 1171         | 23870.000  | 3709771.245                          | 5704376.521 | 280.200                     |
| 1172         | 23880.000  | 3709774.281                          | 5704366.993 | 280.522                     |
| 1173         | 23890.000  | 3709777.268                          | 5704357.449 | 280.866                     |
| 1174         | 23900.000  | 3709780.201                          | 5704347.889 | 281.231                     |
| 1175         | 23910.000  | 3709783.078                          | 5704338.312 | 281.617                     |
| 1176         | 23920.000  | 3709785.895                          | 5704328.717 | 282.024                     |
| 1177         | 23930.000  | 3709788.649                          | 5704319.104 | 282.453                     |
| 1178         | 23930.159  | 3709788.693                          | 5704318.951 | 282.460                     |
| 1179         | 23940.000  | 3709791.337                          | 5704309.472 | 282.903                     |
| 1180         | 23950.000  | 3709793.955                          | 5704299.821 | 283.373                     |

# Współrzędne punktów trasy w planie - S11

| NR<br>PUNKTU | -PIKIETAZ- | W S P Ó Ł R Z Ę D N E<br>-----X----- | -----Y----- | ---AZYMUT---<br>-PRZEKROJU- |
|--------------|------------|--------------------------------------|-------------|-----------------------------|
| 1181         | 23960.000  | 3709796.500                          | 5704290.150 | 283.866                     |
| 1182         | 23970.000  | 3709798.969                          | 5704280.460 | 284.379                     |
| 1183         | 23980.000  | 3709801.357                          | 5704270.749 | 284.914                     |
| 1184         | 23985.146  | 3709802.554                          | 5704265.745 | 285.197                     |
| 1185         | 23987.834  | 3709803.171                          | 5704263.128 | 285.347                     |
| 1186         | 23990.000  | 3709803.663                          | 5704261.019 | 285.469                     |
| 1187         | 24000.000  | 3709805.882                          | 5704251.268 | 286.047                     |
| 1188         | 24010.000  | 3709808.010                          | 5704241.497 | 286.645                     |
| 1189         | 24020.000  | 3709810.045                          | 5704231.706 | 287.264                     |
| 1190         | 24023.072  | 3709810.651                          | 5704228.695 | 287.459                     |
| 1191         | 24030.000  | 3709811.984                          | 5704221.896 | 287.900                     |
| 1192         | 24040.000  | 3709813.824                          | 5704212.067 | 288.537                     |
| 1193         | 24045.508  | 3709814.796                          | 5704206.645 | 288.887                     |
| 1194         | 24050.000  | 3709815.566                          | 5704202.220 | 289.173                     |
| 1195         | 24060.000  | 3709817.209                          | 5704192.356 | 289.810                     |
| 1196         | 24070.000  | 3709818.753                          | 5704182.476 | 290.446                     |
| 1197         | 24080.000  | 3709820.199                          | 5704172.581 | 291.083                     |
| 1198         | 24090.000  | 3709821.545                          | 5704162.672 | 291.720                     |
| 1199         | 24100.000  | 3709822.793                          | 5704152.750 | 292.356                     |
| 1200         | 24110.000  | 3709823.941                          | 5704142.816 | 292.993                     |
| 1201         | 24120.000  | 3709824.990                          | 5704132.871 | 293.629                     |
| 1202         | 24130.000  | 3709825.939                          | 5704122.917 | 294.266                     |
| 1203         | 24140.000  | 3709826.789                          | 5704112.953 | 294.903                     |
| 1204         | 24150.000  | 3709827.539                          | 5704102.981 | 295.539                     |
| 1205         | 24160.000  | 3709828.189                          | 5704093.002 | 296.176                     |
| 1206         | 24170.000  | 3709828.739                          | 5704083.017 | 296.813                     |
| 1207         | 24180.000  | 3709829.190                          | 5704073.028 | 297.449                     |
| 1208         | 24190.000  | 3709829.540                          | 5704063.034 | 298.086                     |
| 1209         | 24200.000  | 3709829.791                          | 5704053.037 | 298.722                     |
| 1210         | 24210.000  | 3709829.942                          | 5704043.038 | 299.359                     |
| 1211         | 24220.000  | 3709829.992                          | 5704033.038 | 299.996                     |
| 1212         | 24230.000  | 3709829.943                          | 5704023.039 | 300.632                     |
| 1213         | 24240.000  | 3709829.794                          | 5704013.040 | 301.269                     |
| 1214         | 24250.000  | 3709829.544                          | 5704003.043 | 301.906                     |
| 1215         | 24260.000  | 3709829.195                          | 5703993.049 | 302.542                     |
| 1216         | 24270.000  | 3709828.746                          | 5703983.059 | 303.179                     |
| 1217         | 24280.000  | 3709828.197                          | 5703973.074 | 303.815                     |
| 1218         | 24290.000  | 3709827.548                          | 5703963.095 | 304.452                     |
| 1219         | 24300.000  | 3709826.799                          | 5703953.123 | 305.089                     |
| 1220         | 24310.000  | 3709825.951                          | 5703943.160 | 305.725                     |
| 1221         | 24320.000  | 3709825.003                          | 5703933.205 | 306.362                     |
| 1222         | 24330.000  | 3709823.956                          | 5703923.260 | 306.998                     |
| 1223         | 24340.000  | 3709822.809                          | 5703913.326 | 307.635                     |
| 1224         | 24350.000  | 3709821.563                          | 5703903.404 | 308.272                     |
| 1225         | 24360.000  | 3709820.218                          | 5703893.495 | 308.908                     |
| 1226         | 24362.955  | 3709819.801                          | 5703890.569 | 309.096                     |
| 1227         | 24370.000  | 3709818.774                          | 5703883.600 | 309.545                     |
| 1228         | 24380.000  | 3709817.230                          | 5703873.719 | 310.182                     |
| 1229         | 24387.833  | 3709815.953                          | 5703865.992 | 310.680                     |
| 1230         | 24390.000  | 3709815.589                          | 5703863.855 | 310.818                     |
| 1231         | 24400.000  | 3709813.848                          | 5703854.008 | 311.455                     |
| 1232         | 24410.000  | 3709812.009                          | 5703844.178 | 312.091                     |
| 1233         | 24412.710  | 3709811.494                          | 5703841.518 | 312.264                     |
| 1234         | 24420.000  | 3709810.072                          | 5703834.368 | 312.728                     |
| 1235         | 24430.000  | 3709808.037                          | 5703824.577 | 313.365                     |
| 1236         | 24440.000  | 3709805.905                          | 5703814.807 | 314.001                     |
| 1237         | 24450.000  | 3709803.674                          | 5703805.059 | 314.638                     |
| 1238         | 24460.000  | 3709801.346                          | 5703795.334 | 315.275                     |
| 1239         | 24470.000  | 3709798.922                          | 5703785.632 | 315.911                     |

# Współrzędne punktów trasy w planie - S11

| NR<br>PUNKTU | -PIKIETAZ- | W S P Ó Ł R Z Ę D N E<br>-----X----- | -----Y----- | ---AZYMUT---<br>-PRZEKROJU- |
|--------------|------------|--------------------------------------|-------------|-----------------------------|
| 1240         | 24480.000  | 3709796.400                          | 5703775.956 | 316.548                     |
| 1241         | 24490.000  | 3709793.781                          | 5703766.305 | 317.184                     |
| 1242         | 24500.000  | 3709791.067                          | 5703756.680 | 317.821                     |
| 1243         | 24510.000  | 3709788.256                          | 5703747.083 | 318.458                     |
| 1244         | 24520.000  | 3709785.349                          | 5703737.515 | 319.094                     |
| 1245         | 24530.000  | 3709782.347                          | 5703727.977 | 319.731                     |
| 1246         | 24540.000  | 3709779.249                          | 5703718.468 | 320.368                     |
| 1247         | 24550.000  | 3709776.057                          | 5703708.992 | 321.004                     |
| 1248         | 24560.000  | 3709772.770                          | 5703699.547 | 321.641                     |
| 1249         | 24570.000  | 3709769.388                          | 5703690.136 | 322.277                     |
| 1250         | 24580.000  | 3709765.913                          | 5703680.760 | 322.914                     |
| 1251         | 24590.000  | 3709762.344                          | 5703671.418 | 323.551                     |
| 1252         | 24600.000  | 3709758.682                          | 5703662.113 | 324.187                     |
| 1253         | 24610.000  | 3709754.927                          | 5703652.845 | 324.824                     |
| 1254         | 24620.000  | 3709751.080                          | 5703643.615 | 325.460                     |
| 1255         | 24630.000  | 3709747.140                          | 5703634.423 | 326.097                     |
| 1256         | 24640.000  | 3709743.109                          | 5703625.272 | 326.734                     |
| 1257         | 24650.000  | 3709738.986                          | 5703616.161 | 327.370                     |
| 1258         | 24656.982  | 3709736.054                          | 5703609.825 | 327.815                     |
| 1259         | 24660.000  | 3709734.773                          | 5703607.092 | 328.006                     |
| 1260         | 24670.000  | 3709730.470                          | 5703598.066 | 328.626                     |
| 1261         | 24680.000  | 3709726.081                          | 5703589.080 | 329.224                     |
| 1262         | 24690.000  | 3709721.609                          | 5703580.136 | 329.801                     |
| 1263         | 24700.000  | 3709717.058                          | 5703571.232 | 330.357                     |
| 1264         | 24710.000  | 3709712.431                          | 5703562.367 | 330.892                     |
| 1265         | 24720.000  | 3709707.731                          | 5703553.540 | 331.405                     |
| 1266         | 24730.000  | 3709702.961                          | 5703544.751 | 331.898                     |
| 1267         | 24740.000  | 3709698.125                          | 5703535.998 | 332.369                     |
| 1268         | 24750.000  | 3709693.226                          | 5703527.281 | 332.818                     |
| 1269         | 24760.000  | 3709688.266                          | 5703518.597 | 333.247                     |
| 1270         | 24770.000  | 3709683.250                          | 5703509.946 | 333.655                     |
| 1271         | 24780.000  | 3709678.180                          | 5703501.327 | 334.041                     |
| 1272         | 24790.000  | 3709673.059                          | 5703492.737 | 334.406                     |
| 1273         | 24800.000  | 3709667.891                          | 5703484.177 | 334.749                     |
| 1274         | 24810.000  | 3709662.677                          | 5703475.643 | 335.072                     |
| 1275         | 24820.000  | 3709657.423                          | 5703467.135 | 335.373                     |
| 1276         | 24830.000  | 3709652.129                          | 5703458.651 | 335.653                     |
| 1277         | 24840.000  | 3709646.799                          | 5703450.190 | 335.912                     |
| 1278         | 24850.000  | 3709641.436                          | 5703441.749 | 336.150                     |
| 1279         | 24860.000  | 3709636.044                          | 5703433.328 | 336.366                     |
| 1280         | 24870.000  | 3709630.624                          | 5703424.924 | 336.561                     |
| 1281         | 24880.000  | 3709625.180                          | 5703416.536 | 336.735                     |
| 1282         | 24890.000  | 3709619.714                          | 5703408.162 | 336.888                     |
| 1283         | 24900.000  | 3709614.230                          | 5703399.800 | 337.020                     |
| 1284         | 24910.000  | 3709608.729                          | 5703391.448 | 337.130                     |
| 1285         | 24920.000  | 3709603.216                          | 5703383.106 | 337.219                     |
| 1286         | 24930.000  | 3709597.692                          | 5703374.770 | 337.287                     |
| 1287         | 24940.000  | 3709592.161                          | 5703366.438 | 337.334                     |
| 1288         | 24950.000  | 3709586.625                          | 5703358.111 | 337.359                     |
| 1289         | 24956.982  | 3709582.759                          | 5703352.297 | 337.364                     |
| 1290         | 24960.000  | 3709581.088                          | 5703349.784 | 337.364                     |
| 1291         | 24970.000  | 3709575.550                          | 5703341.457 | 337.364                     |
| 1292         | 24972.885  | 3709573.952                          | 5703339.055 | 337.364                     |
| 1293         | 24980.000  | 3709570.012                          | 5703333.131 | 337.364                     |
| 1294         | 24990.000  | 3709564.474                          | 5703324.804 | 337.364                     |
| 1295         | 24996.883  | 3709560.662                          | 5703319.073 | 337.364                     |
| 1296         | 25000.000  | 3709558.936                          | 5703316.478 | 337.364                     |
| 1297         | 25010.000  | 3709553.398                          | 5703308.151 | 337.364                     |
| 1298         | 25020.000  | 3709547.860                          | 5703299.825 | 337.364                     |

# Współrzędne punktów trasy w planie - S11

| NR<br>PUNKTU | -PIKIETAZ- | W S P Ó Ł R Z Ę D N E<br>-----X----- | -----Y----- | ---AZYMUT---<br>-PRZEKROJU- |
|--------------|------------|--------------------------------------|-------------|-----------------------------|
| 1299         | 25030.000  | 3709542.322                          | 5703291.498 | 337.364                     |
| 1300         | 25040.000  | 3709536.784                          | 5703283.172 | 337.364                     |
| 1301         | 25050.000  | 3709531.246                          | 5703274.845 | 337.364                     |
| 1302         | 25060.000  | 3709525.708                          | 5703266.519 | 337.364                     |
| 1303         | 25070.000  | 3709520.170                          | 5703258.192 | 337.364                     |
| 1304         | 25080.000  | 3709514.632                          | 5703249.865 | 337.364                     |
| 1305         | 25090.000  | 3709509.094                          | 5703241.539 | 337.364                     |
| 1306         | 25100.000  | 3709503.556                          | 5703233.212 | 337.364                     |
| 1307         | 25104.890  | 3709500.848                          | 5703229.141 | 337.364                     |
| 1308         | 25110.000  | 3709498.019                          | 5703224.886 | 337.364                     |
| 1309         | 25120.000  | 3709492.481                          | 5703216.559 | 337.364                     |
| 1310         | 25130.000  | 3709486.943                          | 5703208.233 | 337.364                     |
| 1311         | 25140.000  | 3709481.405                          | 5703199.906 | 337.364                     |
| 1312         | 25150.000  | 3709475.867                          | 5703191.580 | 337.364                     |
| 1313         | 25160.000  | 3709470.329                          | 5703183.253 | 337.364                     |
| 1314         | 25170.000  | 3709464.791                          | 5703174.927 | 337.364                     |
| 1315         | 25180.000  | 3709459.253                          | 5703166.600 | 337.364                     |
| 1316         | 25190.000  | 3709453.715                          | 5703158.274 | 337.364                     |
| 1317         | 25200.000  | 3709448.177                          | 5703149.947 | 337.364                     |
| 1318         | 25210.000  | 3709442.639                          | 5703141.621 | 337.364                     |
| 1319         | 25220.000  | 3709437.101                          | 5703133.294 | 337.364                     |
| 1320         | 25230.000  | 3709431.563                          | 5703124.967 | 337.364                     |
| 1321         | 25236.895  | 3709427.745                          | 5703119.226 | 337.364                     |
| 1322         | 25240.000  | 3709426.025                          | 5703116.641 | 337.364                     |
| 1323         | 25250.000  | 3709420.487                          | 5703108.314 | 337.364                     |
| 1324         | 25260.000  | 3709414.949                          | 5703099.988 | 337.364                     |
| 1325         | 25270.000  | 3709409.411                          | 5703091.661 | 337.364                     |
| 1326         | 25280.000  | 3709403.874                          | 5703083.335 | 337.364                     |
| 1327         | 25290.000  | 3709398.336                          | 5703075.008 | 337.364                     |
| 1328         | 25300.000  | 3709392.798                          | 5703066.682 | 337.364                     |
| 1329         | 25310.000  | 3709387.260                          | 5703058.355 | 337.364                     |
| 1330         | 25320.000  | 3709381.722                          | 5703050.029 | 337.364                     |
| 1331         | 25330.000  | 3709376.184                          | 5703041.702 | 337.364                     |
| 1332         | 25340.000  | 3709370.646                          | 5703033.376 | 337.364                     |
| 1333         | 25350.000  | 3709365.108                          | 5703025.049 | 337.364                     |
| 1334         | 25354.731  | 3709362.488                          | 5703021.109 | 337.364                     |
| 1335         | 25360.000  | 3709359.570                          | 5703016.722 | 337.364                     |
| 1336         | 25370.000  | 3709354.032                          | 5703008.396 | 337.364                     |
| 1337         | 25380.000  | 3709348.494                          | 5703000.069 | 337.364                     |
| 1338         | 25390.000  | 3709342.956                          | 5702991.743 | 337.364                     |
| 1339         | 25400.000  | 3709337.418                          | 5702983.416 | 337.364                     |
| 1340         | 25410.000  | 3709331.880                          | 5702975.090 | 337.364                     |
| 1341         | 25420.000  | 3709326.342                          | 5702966.763 | 337.364                     |
| 1342         | 25430.000  | 3709320.804                          | 5702958.437 | 337.364                     |
| 1343         | 25440.000  | 3709315.266                          | 5702950.110 | 337.364                     |
| 1344         | 25450.000  | 3709309.728                          | 5702941.784 | 337.364                     |
| 1345         | 25460.000  | 3709304.191                          | 5702933.457 | 337.364                     |
| 1346         | 25470.000  | 3709298.653                          | 5702925.131 | 337.364                     |
| 1347         | 25480.000  | 3709293.115                          | 5702916.804 | 337.364                     |
| 1348         | 25490.000  | 3709287.577                          | 5702908.478 | 337.364                     |
| 1349         | 25500.000  | 3709282.039                          | 5702900.151 | 337.364                     |
| 1350         | 25510.000  | 3709276.501                          | 5702891.824 | 337.364                     |
| 1351         | 25520.000  | 3709270.963                          | 5702883.498 | 337.364                     |
| 1352         | 25524.154  | 3709268.663                          | 5702880.039 | 337.364                     |
| 1353         | 25530.000  | 3709265.425                          | 5702875.171 | 337.364                     |
| 1354         | 25540.000  | 3709259.887                          | 5702866.845 | 337.364                     |
| 1355         | 25550.000  | 3709254.349                          | 5702858.518 | 337.364                     |
| 1356         | 25560.000  | 3709248.811                          | 5702850.192 | 337.364                     |
| 1357         | 25570.000  | 3709243.273                          | 5702841.865 | 337.364                     |

# Współrzędne punktów trasy w planie - S11

| NR<br>PUNKTU | -PIKIETAZ- | W S P Ó Ł R Z Ę D N E |             | ---AZYMUT--<br>-PRZEKROJU- |
|--------------|------------|-----------------------|-------------|----------------------------|
|              |            | -----X-----           | -----Y----- |                            |
| 1358         | 25580.000  | 3709237.735           | 5702833.539 | 337.364                    |
| 1359         | 25590.000  | 3709232.197           | 5702825.212 | 337.364                    |
| 1360         | 25600.000  | 3709226.659           | 5702816.886 | 337.364                    |
| 1361         | 25610.000  | 3709221.121           | 5702808.559 | 337.364                    |
| 1362         | 25620.000  | 3709215.583           | 5702800.233 | 337.364                    |
| 1363         | 25630.000  | 3709210.046           | 5702791.906 | 337.364                    |
| 1364         | 25640.000  | 3709204.508           | 5702783.579 | 337.364                    |
| 1365         | 25650.000  | 3709198.970           | 5702775.253 | 337.364                    |
| 1366         | 25660.000  | 3709193.432           | 5702766.926 | 337.364                    |
| 1367         | 25670.000  | 3709187.894           | 5702758.600 | 337.364                    |
| 1368         | 25680.000  | 3709182.356           | 5702750.273 | 337.364                    |
| 1369         | 25690.000  | 3709176.818           | 5702741.947 | 337.364                    |
| 1370         | 25690.748  | 3709176.404           | 5702741.324 | 337.364                    |
| 1371         | 25693.576  | 3709174.837           | 5702738.969 | 337.364                    |



# Wysokości punktów trasy w przekroju podłużnym - S11

| -TYP- | ---NR-- | -PIKIETAŻ-- | ---RZĘDNA-- | -----X----- | -----Y----- |
|-------|---------|-------------|-------------|-------------|-------------|
| PC    | 1       | 13068.0000  | 91.1420     | 3707794.503 | 5713826.990 |
| PC    | 2       | 13070.0000  | 91.1369     | 3707795.235 | 5713825.129 |
| PC    | 3       | 13080.0000  | 91.1149     | 3707798.838 | 5713815.801 |
| PC    | 4       | 13090.0000  | 91.0996     | 3707802.348 | 5713806.437 |
| PC    | 5       | 13100.0000  | 91.0909     | 3707805.764 | 5713797.039 |
| PC    | 6       | 13107.9546  | 91.0888     | 3707808.414 | 5713789.539 |
| PC    | 7       | 13110.0000  | 91.0890     | 3707809.086 | 5713787.607 |
| PC    | 8       | 13110.4772  | 91.0890     | 3707809.242 | 5713787.156 |
| PC    | 9       | 13120.0000  | 91.0937     | 3707812.314 | 5713778.142 |
| PC    | 10      | 13130.0000  | 91.1050     | 3707815.446 | 5713768.645 |
| PC    | 11      | 13140.0000  | 91.1231     | 3707818.484 | 5713759.118 |
| PC    | 12      | 13150.0000  | 91.1478     | 3707821.426 | 5713749.560 |
| PT    | OE      | 13152.9544  | 91.1563     |             |             |
| PT    | 13      | 13152.9544  | 91.1563     | 3707822.277 | 5713746.731 |
| PT    | 14      | 13160.0000  | 91.1775     | 3707824.273 | 5713739.974 |
| PT    | 15      | 13170.0000  | 91.2075     | 3707827.023 | 5713730.360 |
| PT    | 16      | 13180.0000  | 91.2375     | 3707829.677 | 5713720.719 |
| PT    | 17      | 13190.0000  | 91.2675     | 3707832.235 | 5713711.051 |
| PT    | 18      | 13200.0000  | 91.2975     | 3707834.696 | 5713701.359 |
| PT    | 19      | 13210.0000  | 91.3275     | 3707837.059 | 5713691.642 |
| PT    | 20      | 13220.0000  | 91.3575     | 3707839.326 | 5713681.902 |
| PT    | 21      | 13230.0000  | 91.3875     | 3707841.495 | 5713672.141 |
| PT    | 22      | 13240.0000  | 91.4175     | 3707843.566 | 5713662.357 |
| PT    | 23      | 13250.0000  | 91.4475     | 3707845.539 | 5713652.554 |
| PT    | 24      | 13260.0000  | 91.4775     | 3707847.415 | 5713642.732 |
| PT    | 25      | 13270.0000  | 91.5075     | 3707849.192 | 5713632.891 |
| PT    | 26      | 13280.0000  | 91.5375     | 3707850.870 | 5713623.033 |
| PT    | 27      | 13290.0000  | 91.5675     | 3707852.450 | 5713613.158 |
| PT    | 28      | 13300.0000  | 91.5975     | 3707853.931 | 5713603.269 |
| PT    | 29      | 13310.0000  | 91.6275     | 3707855.312 | 5713593.365 |
| PT    | 30      | 13320.0000  | 91.6575     | 3707856.595 | 5713583.447 |
| PT    | 31      | 13330.0000  | 91.6875     | 3707857.779 | 5713573.518 |
| PT    | 32      | 13340.0000  | 91.7175     | 3707858.863 | 5713563.577 |
| PT    | 33      | 13350.0000  | 91.7475     | 3707859.848 | 5713553.625 |
| PT    | 34      | 13360.0000  | 91.7775     | 3707860.733 | 5713543.665 |
| PT    | 35      | 13370.0000  | 91.8075     | 3707861.519 | 5713533.695 |
| PT    | 36      | 13380.0000  | 91.8375     | 3707862.204 | 5713523.719 |
| PT    | 37      | 13390.0000  | 91.8675     | 3707862.790 | 5713513.736 |
| PT    | 38      | 13400.0000  | 91.8975     | 3707863.277 | 5713503.748 |
| PT    | 39      | 13410.0000  | 91.9275     | 3707863.663 | 5713493.756 |
| PT    | 40      | 13420.0000  | 91.9575     | 3707863.949 | 5713483.760 |
| PT    | 41      | 13430.0000  | 91.9875     | 3707864.136 | 5713473.762 |
| PT    | 42      | 13440.0000  | 92.0175     | 3707864.222 | 5713463.762 |
| PC    | OE      | 13449.3732  | 92.0456     |             |             |
| PC    | 43      | 13449.3732  | 92.0456     | 3707864.212 | 5713454.389 |
| PC    | 44      | 13450.0000  | 92.0475     | 3707864.208 | 5713453.762 |
| PC    | 45      | 13460.0000  | 92.0845     | 3707864.095 | 5713443.763 |
| PC    | 46      | 13470.0000  | 92.1341     | 3707863.881 | 5713433.765 |
| PC    | 47      | 13480.0000  | 92.1961     | 3707863.567 | 5713423.770 |
| PC    | 48      | 13490.0000  | 92.2706     | 3707863.154 | 5713413.779 |
| PC    | 49      | 13500.0000  | 92.3577     | 3707862.641 | 5713403.792 |
| PC    | 50      | 13502.5100  | 92.3815     | 3707862.496 | 5713401.286 |
| PC    | 51      | 13510.0000  | 92.4572     | 3707862.027 | 5713393.811 |
| PC    | 52      | 13520.0000  | 92.5692     | 3707861.314 | 5713383.836 |
| PC    | 53      | 13530.0000  | 92.6938     | 3707860.502 | 5713373.869 |
| PC    | 54      | 13540.0000  | 92.8308     | 3707859.589 | 5713363.911 |
| PC    | 55      | 13550.0000  | 92.9803     | 3707858.577 | 5713353.962 |
| PT    | OE      | 13555.6468  | 93.0703     |             |             |

PC - Punkt na łuku pionowym

PT - Punkt na stycznej łuku pionowego

OE - Punkt styczności

# Wysokości punktów trasy w przekroju podłużnym - S11

| -TYP- | ---NR-- | -PIKIETAŻ-- | ---RZĘDNA-- | -----X----- | -----Y----- |
|-------|---------|-------------|-------------|-------------|-------------|
| PT    | 56      | 13555.6468  | 93.0703     | 3707857.962 | 5713348.349 |
| PT    | 57      | 13560.0000  | 93.1412     | 3707857.466 | 5713344.024 |
| PT    | 58      | 13570.0000  | 93.3040     | 3707856.255 | 5713334.098 |
| PT    | 59      | 13572.4420  | 93.3438     | 3707855.945 | 5713331.676 |
| PT    | 60      | 13580.0000  | 93.4669     | 3707854.946 | 5713324.184 |
| PT    | 61      | 13590.0000  | 93.6297     | 3707853.541 | 5713314.283 |
| PT    | 62      | 13600.0000  | 93.7925     | 3707852.046 | 5713304.396 |
| PT    | 63      | 13610.0000  | 93.9554     | 3707850.466 | 5713294.521 |
| PT    | 64      | 13620.0000  | 94.1182     | 3707848.805 | 5713284.660 |
| PT    | 65      | 13630.0000  | 94.2811     | 3707847.070 | 5713274.812 |
| PT    | 66      | 13640.0000  | 94.4439     | 3707845.264 | 5713264.976 |
| PT    | 67      | 13650.0000  | 94.6068     | 3707843.393 | 5713255.153 |
| PT    | 68      | 13660.0000  | 94.7696     | 3707841.463 | 5713245.341 |
| PT    | 69      | 13670.0000  | 94.9324     | 3707839.477 | 5713235.540 |
| PT    | 70      | 13680.0000  | 95.0953     | 3707837.440 | 5713225.750 |
| PT    | 71      | 13690.0000  | 95.2581     | 3707835.359 | 5713215.969 |
| PT    | 72      | 13700.0000  | 95.4210     | 3707833.237 | 5713206.197 |
| PT    | 73      | 13710.0000  | 95.5838     | 3707831.080 | 5713196.432 |
| PT    | 74      | 13720.0000  | 95.7466     | 3707828.893 | 5713186.674 |
| PT    | 75      | 13730.0000  | 95.9095     | 3707826.680 | 5713176.922 |
| PT    | 76      | 13740.0000  | 96.0723     | 3707824.446 | 5713167.175 |
| PT    | 77      | 13750.0000  | 96.2352     | 3707822.196 | 5713157.431 |
| PT    | 78      | 13760.0000  | 96.3980     | 3707819.936 | 5713147.690 |
| PT    | 79      | 13770.0000  | 96.5609     | 3707817.669 | 5713137.950 |
| PT    | 80      | 13772.4420  | 96.6006     | 3707817.115 | 5713135.572 |
| PT    | 81      | 13780.0000  | 96.7237     | 3707815.401 | 5713128.211 |
| PT    | 82      | 13790.0000  | 96.8865     | 3707813.133 | 5713118.472 |
| PT    | 83      | 13800.0000  | 97.0494     | 3707810.865 | 5713108.732 |
| PT    | 84      | 13810.0000  | 97.2122     | 3707808.597 | 5713098.993 |
| PT    | 85      | 13820.0000  | 97.3751     | 3707806.329 | 5713089.253 |
| PT    | 86      | 13830.0000  | 97.5379     | 3707804.060 | 5713079.514 |
| PT    | 87      | 13840.0000  | 97.7008     | 3707801.792 | 5713069.775 |
| PT    | 88      | 13850.0000  | 97.8636     | 3707799.524 | 5713060.035 |
| PT    | 89      | 13860.0000  | 98.0264     | 3707797.256 | 5713050.296 |
| PT    | 90      | 13870.0000  | 98.1893     | 3707794.988 | 5713040.556 |
| PT    | 91      | 13880.0000  | 98.3521     | 3707792.720 | 5713030.817 |
| PT    | 92      | 13890.0000  | 98.5150     | 3707790.452 | 5713021.078 |
| PT    | 93      | 13900.0000  | 98.6778     | 3707788.183 | 5713011.338 |
| PC    | OE      | 13905.3432  | 98.7648     |             |             |
| PC    | 94      | 13905.3432  | 98.7648     | 3707786.972 | 5713006.134 |
| PC    | 95      | 13910.0000  | 98.8397     | 3707785.915 | 5713001.599 |
| PC    | 96      | 13920.0000  | 98.9938     | 3707783.647 | 5712991.860 |
| PC    | 97      | 13930.0000  | 99.1389     | 3707781.379 | 5712982.120 |
| PC    | 98      | 13940.0000  | 99.2751     | 3707779.111 | 5712972.381 |
| PC    | 99      | 13950.0000  | 99.4022     | 3707776.843 | 5712962.641 |
| PC    | 100     | 13960.0000  | 99.5203     | 3707774.575 | 5712952.902 |
| PC    | 101     | 13970.0000  | 99.6294     | 3707772.306 | 5712943.163 |
| PC    | 102     | 13980.0000  | 99.7295     | 3707770.038 | 5712933.423 |
| PC    | 103     | 13990.0000  | 99.8206     | 3707767.770 | 5712923.684 |
| PC    | 104     | 14000.0000  | 99.9026     | 3707765.502 | 5712913.945 |
| PC    | 105     | 14010.0000  | 99.9757     | 3707763.234 | 5712904.205 |
| PC    | 106     | 14020.0000  | 100.0397    | 3707760.966 | 5712894.466 |
| PC    | 107     | 14030.0000  | 100.0948    | 3707758.698 | 5712884.726 |
| PC    | 108     | 14040.0000  | 100.1408    | 3707756.430 | 5712874.987 |
| PC    | 109     | 14050.0000  | 100.1778    | 3707754.161 | 5712865.248 |
| PC    | 110     | 14060.0000  | 100.2059    | 3707751.893 | 5712855.508 |
| PC    | 111     | 14070.0000  | 100.2249    | 3707749.625 | 5712845.769 |
| PC    | 112     | 14080.0000  | 100.2349    | 3707747.357 | 5712836.029 |

PC - Punkt na łuku pionowym

PT - Punkt na stycznej łuku pionowego

OE - Punkt styczności

# Wysokości punktów trasy w przekroju podłużnym - S11

| -TYP- | ---NR-- | -PIKIETAŻ-- | ---RZĘDNA-- | -----X----- | -----Y----- |
|-------|---------|-------------|-------------|-------------|-------------|
| PC    | 113     | 14086.0977  | 100.2365    | 3707745.974 | 5712830.091 |
| PC    | 114     | 14090.0000  | 100.2358    | 3707745.089 | 5712826.290 |
| PC    | 115     | 14100.0000  | 100.2278    | 3707742.821 | 5712816.551 |
| PC    | 116     | 14110.0000  | 100.2108    | 3707740.553 | 5712806.811 |
| PC    | 117     | 14120.0000  | 100.1848    | 3707738.284 | 5712797.072 |
| PC    | 118     | 14130.0000  | 100.1497    | 3707736.016 | 5712787.333 |
| PC    | 119     | 14140.0000  | 100.1057    | 3707733.748 | 5712777.593 |
| PC    | 120     | 14150.0000  | 100.0526    | 3707731.480 | 5712767.854 |
| PC    | 121     | 14151.1125  | 100.0461    | 3707731.228 | 5712766.770 |
| PC    | 122     | 14160.0000  | 99.9905     | 3707729.212 | 5712758.114 |
| PC    | 123     | 14170.0000  | 99.9194     | 3707726.944 | 5712748.375 |
| PC    | 124     | 14180.0000  | 99.8393     | 3707724.676 | 5712738.636 |
| PC    | 125     | 14190.0000  | 99.7502     | 3707722.407 | 5712728.896 |
| PC    | 126     | 14200.0000  | 99.6521     | 3707720.139 | 5712719.157 |
| PC    | 127     | 14210.0000  | 99.5450     | 3707717.871 | 5712709.418 |
| PC    | 128     | 14220.0000  | 99.4289     | 3707715.603 | 5712699.678 |
| PC    | 129     | 14230.0000  | 99.3037     | 3707713.335 | 5712689.939 |
| PC    | 130     | 14240.0000  | 99.1696     | 3707711.067 | 5712680.199 |
| PC    | 131     | 14250.0000  | 99.0264     | 3707708.799 | 5712670.460 |
| PC    | 132     | 14260.0000  | 98.8743     | 3707706.530 | 5712660.721 |
| PC    | 133     | 14270.0000  | 98.7131     | 3707704.262 | 5712650.981 |
| PC    | 134     | 14280.0000  | 98.5429     | 3707701.994 | 5712641.242 |
| PC    | 135     | 14290.0000  | 98.3637     | 3707699.726 | 5712631.502 |
| PC    | 136     | 14300.0000  | 98.1755     | 3707697.458 | 5712621.763 |
| PC    | 137     | 14310.0000  | 97.9783     | 3707695.190 | 5712612.024 |
| PC    | 138     | 14320.0000  | 97.7721     | 3707692.922 | 5712602.284 |
| PC    | 139     | 14330.0000  | 97.5569     | 3707690.653 | 5712592.545 |
| PC    | 140     | 14340.0000  | 97.3326     | 3707688.385 | 5712582.806 |
| PC    | 141     | 14350.0000  | 97.0994     | 3707686.117 | 5712573.066 |
| PC    | 142     | 14360.0000  | 96.8571     | 3707683.849 | 5712563.327 |
| PC    | 143     | 14370.0000  | 96.6059     | 3707681.581 | 5712553.587 |
| PC    | 144     | 14380.0000  | 96.3456     | 3707679.313 | 5712543.848 |
| PC    | 145     | 14390.0000  | 96.0763     | 3707677.045 | 5712534.109 |
| PT    | OE      | 14396.8818  | 95.8858     |             |             |
| PT    | 146     | 14396.8818  | 95.8858     | 3707675.484 | 5712527.406 |
| PT    | 147     | 14400.0000  | 95.7985     | 3707674.776 | 5712524.369 |
| PC    | OE      | 14407.7397  | 95.5818     |             |             |
| PC    | 148     | 14407.7397  | 95.5818     | 3707673.021 | 5712516.831 |
| PC    | 149     | 14410.0000  | 95.5189     | 3707672.508 | 5712514.630 |
| PC    | 150     | 14420.0000  | 95.2492     | 3707670.240 | 5712504.891 |
| PC    | 151     | 14430.0000  | 94.9939     | 3707667.972 | 5712495.151 |
| PC    | 152     | 14440.0000  | 94.7529     | 3707665.704 | 5712485.412 |
| PC    | 153     | 14450.0000  | 94.5261     | 3707663.436 | 5712475.672 |
| PC    | 154     | 14460.0000  | 94.3136     | 3707661.168 | 5712465.933 |
| PC    | 155     | 14470.0000  | 94.1155     | 3707658.899 | 5712456.194 |
| PC    | 156     | 14480.0000  | 93.9316     | 3707656.631 | 5712446.454 |
| PC    | 157     | 14490.0000  | 93.7619     | 3707654.363 | 5712436.715 |
| PC    | 158     | 14500.0000  | 93.6066     | 3707652.095 | 5712426.975 |
| PC    | 159     | 14510.0000  | 93.4656     | 3707649.827 | 5712417.236 |
| PC    | 160     | 14516.2369  | 93.3848     | 3707648.412 | 5712411.162 |
| PC    | 161     | 14520.0000  | 93.3388     | 3707647.559 | 5712407.497 |
| PC    | 162     | 14530.0000  | 93.2263     | 3707645.291 | 5712397.757 |
| PC    | 163     | 14540.0000  | 93.1282     | 3707643.022 | 5712388.018 |
| PC    | 164     | 14550.0000  | 93.0443     | 3707640.754 | 5712378.279 |
| PC    | 165     | 14560.0000  | 92.9746     | 3707638.486 | 5712368.539 |
| PC    | 166     | 14570.0000  | 92.9193     | 3707636.218 | 5712358.800 |
| PC    | 167     | 14580.0000  | 92.8783     | 3707633.950 | 5712349.060 |
| PC    | 168     | 14590.0000  | 92.8515     | 3707631.682 | 5712339.321 |

PC - Punkt na łuku pionowym

PT - Punkt na stycznej łuku pionowego

OE - Punkt styczności

# Wysokości punktów trasy w przekroju podłużnym - S11

| -TYP- | ---NR-- | -PIKIETAŻ-- | ---RZĘDNA-- | -----X----- | -----Y----- |
|-------|---------|-------------|-------------|-------------|-------------|
| PC    | 169     | 14600.0000  | 92.8390     | 3707629.414 | 5712329.582 |
| PC    | 170     | 14603.7296  | 92.8381     | 3707628.568 | 5712325.949 |
| PC    | 171     | 14610.0000  | 92.8409     | 3707627.145 | 5712319.842 |
| PC    | 172     | 14620.0000  | 92.8570     | 3707624.877 | 5712310.103 |
| PC    | 173     | 14620.0060  | 92.8570     | 3707624.876 | 5712310.097 |
| PT    | OE      | 14624.7341  | 92.8696     |             |             |
| PT    | 174     | 14624.7341  | 92.8696     | 3707623.803 | 5712305.492 |
| PT    | 175     | 14630.0000  | 92.8854     | 3707622.608 | 5712300.364 |
| PT    | 176     | 14640.0000  | 92.9154     | 3707620.335 | 5712290.625 |
| PT    | 177     | 14650.0000  | 92.9454     | 3707618.053 | 5712280.889 |
| PT    | 178     | 14660.0000  | 92.9754     | 3707615.759 | 5712271.156 |
| PT    | 179     | 14670.0000  | 93.0054     | 3707613.447 | 5712261.427 |
| PT    | 180     | 14680.0000  | 93.0354     | 3707611.113 | 5712251.703 |
| PT    | 181     | 14690.0000  | 93.0654     | 3707608.753 | 5712241.986 |
| PT    | 182     | 14700.0000  | 93.0954     | 3707606.363 | 5712232.275 |
| PT    | 183     | 14710.0000  | 93.1254     | 3707603.939 | 5712222.574 |
| PT    | 184     | 14720.0000  | 93.1554     | 3707601.476 | 5712212.882 |
| PT    | 185     | 14730.0000  | 93.1854     | 3707598.970 | 5712203.201 |
| PT    | 186     | 14740.0000  | 93.2154     | 3707596.416 | 5712193.533 |
| PT    | 187     | 14750.0000  | 93.2454     | 3707593.811 | 5712183.878 |
| PT    | 188     | 14760.0000  | 93.2755     | 3707591.150 | 5712174.238 |
| PT    | 189     | 14770.0000  | 93.3055     | 3707588.430 | 5712164.616 |
| PT    | 190     | 14770.0060  | 93.3055     | 3707588.428 | 5712164.610 |
| PT    | 191     | 14780.0000  | 93.3355     | 3707585.646 | 5712155.011 |
| PT    | 192     | 14790.0000  | 93.3655     | 3707582.798 | 5712145.425 |
| PT    | 193     | 14800.0000  | 93.3955     | 3707579.886 | 5712135.858 |
| PT    | 194     | 14810.0000  | 93.4255     | 3707576.910 | 5712126.311 |
| PT    | 195     | 14820.0000  | 93.4555     | 3707573.871 | 5712116.784 |
| PT    | 196     | 14830.0000  | 93.4855     | 3707570.768 | 5712107.278 |
| PT    | 197     | 14840.0000  | 93.5155     | 3707567.602 | 5712097.792 |
| PT    | 198     | 14850.0000  | 93.5455     | 3707564.373 | 5712088.328 |
| PT    | 199     | 14860.0000  | 93.5755     | 3707561.081 | 5712078.886 |
| PC    | OE      | 14868.5999  | 93.6013     |             |             |
| PC    | 200     | 14868.5999  | 93.6013     | 3707558.200 | 5712070.783 |
| PC    | 201     | 14870.0000  | 93.6055     | 3707557.726 | 5712069.465 |
| PC    | 202     | 14880.0000  | 93.6323     | 3707554.308 | 5712060.067 |
| PC    | 203     | 14890.0000  | 93.6541     | 3707550.828 | 5712050.693 |
| PC    | 204     | 14900.0000  | 93.6709     | 3707547.286 | 5712041.341 |
| PC    | 205     | 14910.0000  | 93.6827     | 3707543.681 | 5712032.014 |
| PC    | 206     | 14920.0000  | 93.6895     | 3707540.013 | 5712022.710 |
| PC    | 207     | 14928.6125  | 93.6914     | 3707536.806 | 5712014.717 |
| PC    | 208     | 14930.0000  | 93.6913     | 3707536.284 | 5712013.432 |
| PC    | 209     | 14940.0000  | 93.6881     | 3707532.494 | 5712004.178 |
| PC    | 210     | 14942.8102  | 93.6863     | 3707531.417 | 5712001.582 |
| PC    | 211     | 14950.0000  | 93.6799     | 3707528.641 | 5711994.950 |
| PC    | 212     | 14960.0000  | 93.6667     | 3707524.727 | 5711985.747 |
| PC    | 213     | 14970.0000  | 93.6485     | 3707520.752 | 5711976.572 |
| PC    | 214     | 14980.0000  | 93.6253     | 3707516.716 | 5711967.422 |
| PC    | 215     | 14990.0000  | 93.5971     | 3707512.619 | 5711958.300 |
| PC    | 216     | 15000.0000  | 93.5640     | 3707508.461 | 5711949.205 |
| PC    | 217     | 15010.0000  | 93.5258     | 3707504.243 | 5711940.139 |
| PT    | OE      | 15017.0204  | 93.4960     |             |             |
| PT    | 218     | 15017.0204  | 93.4960     | 3707501.245 | 5711933.790 |
| PT    | 219     | 15020.0000  | 93.4828     | 3707499.964 | 5711931.100 |
| PT    | 220     | 15030.0000  | 93.4386     | 3707495.625 | 5711922.091 |
| PT    | 221     | 15040.0000  | 93.3944     | 3707491.227 | 5711913.110 |
| PT    | 222     | 15050.0000  | 93.3502     | 3707486.768 | 5711904.159 |
| PT    | 223     | 15054.9579  | 93.3283     | 3707484.535 | 5711899.732 |

PC - Punkt na łuku pionowym

PT - Punkt na stycznej łuku pionowego

OE - Punkt styczności

# Wysokości punktów trasy w przekroju podłużnym - S11

| -TYP- | ---NR-- | -PIKIETAŻ-- | ---RZĘDNA-- | -----X----- | -----Y----- |
|-------|---------|-------------|-------------|-------------|-------------|
| PT    | 224     | 15060.0000  | 93.3060     | 3707482.250 | 5711895.238 |
| PT    | 225     | 15070.0000  | 93.2618     | 3707477.675 | 5711886.346 |
| PT    | 226     | 15080.0000  | 93.2176     | 3707473.046 | 5711877.482 |
| PT    | 227     | 15090.0000  | 93.1734     | 3707468.368 | 5711868.643 |
| PT    | 228     | 15100.0000  | 93.1292     | 3707463.645 | 5711859.829 |
| PT    | 229     | 15110.0000  | 93.0850     | 3707458.881 | 5711851.037 |
| PT    | 230     | 15120.0000  | 93.0407     | 3707454.080 | 5711842.265 |
| PT    | 231     | 15130.0000  | 92.9965     | 3707449.246 | 5711833.511 |
| PT    | 232     | 15140.0000  | 92.9523     | 3707444.383 | 5711824.773 |
| PT    | 233     | 15150.0000  | 92.9081     | 3707439.494 | 5711816.049 |
| PT    | 234     | 15160.0000  | 92.8639     | 3707434.585 | 5711807.337 |
| PT    | 235     | 15170.0000  | 92.8197     | 3707429.658 | 5711798.636 |
| PT    | 236     | 15180.0000  | 92.7755     | 3707424.717 | 5711789.941 |
| PT    | 237     | 15190.0000  | 92.7313     | 3707419.767 | 5711781.253 |
| PT    | 238     | 15200.0000  | 92.6871     | 3707414.811 | 5711772.567 |
| PT    | 239     | 15204.9579  | 92.6652     | 3707412.352 | 5711768.261 |
| PT    | 240     | 15210.0000  | 92.6429     | 3707409.852 | 5711763.883 |
| PT    | 241     | 15220.0000  | 92.5987     | 3707404.894 | 5711755.198 |
| PT    | 242     | 15230.0000  | 92.5545     | 3707399.936 | 5711746.514 |
| PT    | 243     | 15240.0000  | 92.5103     | 3707394.978 | 5711737.830 |
| PT    | 244     | 15250.0000  | 92.4661     | 3707390.020 | 5711729.146 |
| PT    | 245     | 15260.0000  | 92.4219     | 3707385.062 | 5711720.461 |
| PT    | 246     | 15270.0000  | 92.3777     | 3707380.104 | 5711711.777 |
| PT    | 247     | 15280.0000  | 92.3335     | 3707375.145 | 5711703.093 |
| PT    | 248     | 15290.0000  | 92.2893     | 3707370.187 | 5711694.409 |
| PT    | 249     | 15300.0000  | 92.2451     | 3707365.229 | 5711685.724 |
| PT    | 250     | 15310.0000  | 92.2009     | 3707360.271 | 5711677.040 |
| PT    | 251     | 15320.0000  | 92.1567     | 3707355.313 | 5711668.356 |
| PT    | 252     | 15330.0000  | 92.1125     | 3707350.355 | 5711659.671 |
| PT    | 253     | 15340.0000  | 92.0683     | 3707345.396 | 5711650.987 |
| PT    | 254     | 15350.0000  | 92.0241     | 3707340.438 | 5711642.303 |
| PT    | 255     | 15360.0000  | 91.9799     | 3707335.480 | 5711633.619 |
| PT    | 256     | 15370.0000  | 91.9357     | 3707330.522 | 5711624.934 |
| PT    | 257     | 15380.0000  | 91.8914     | 3707325.564 | 5711616.250 |
| PT    | 258     | 15390.0000  | 91.8472     | 3707320.606 | 5711607.566 |
| PT    | 259     | 15400.0000  | 91.8030     | 3707315.648 | 5711598.881 |
| PT    | 260     | 15410.0000  | 91.7588     | 3707310.689 | 5711590.197 |
| PT    | 261     | 15420.0000  | 91.7146     | 3707305.731 | 5711581.513 |
| PT    | 262     | 15430.0000  | 91.6704     | 3707300.773 | 5711572.829 |
| PT    | 263     | 15440.0000  | 91.6262     | 3707295.815 | 5711564.144 |
| PT    | 264     | 15450.0000  | 91.5820     | 3707290.857 | 5711555.460 |
| PT    | 265     | 15460.0000  | 91.5378     | 3707285.899 | 5711546.776 |
| PT    | 266     | 15470.0000  | 91.4936     | 3707280.941 | 5711538.091 |
| PT    | 267     | 15480.0000  | 91.4494     | 3707275.982 | 5711529.407 |
| PT    | 268     | 15490.0000  | 91.4052     | 3707271.024 | 5711520.723 |
| PT    | 269     | 15500.0000  | 91.3610     | 3707266.066 | 5711512.039 |
| PT    | 270     | 15510.0000  | 91.3168     | 3707261.108 | 5711503.354 |
| PT    | 271     | 15520.0000  | 91.2726     | 3707256.150 | 5711494.670 |
| PT    | 272     | 15530.0000  | 91.2284     | 3707251.192 | 5711485.986 |
| PT    | 273     | 15540.0000  | 91.1842     | 3707246.233 | 5711477.301 |
| PT    | 274     | 15550.0000  | 91.1400     | 3707241.275 | 5711468.617 |
| PT    | 275     | 15560.0000  | 91.0958     | 3707236.317 | 5711459.933 |
| PT    | 276     | 15570.0000  | 91.0516     | 3707231.359 | 5711451.249 |
| PT    | 277     | 15580.0000  | 91.0074     | 3707226.401 | 5711442.564 |
| PT    | 278     | 15590.0000  | 90.9632     | 3707221.443 | 5711433.880 |
| PT    | 279     | 15600.0000  | 90.9190     | 3707216.485 | 5711425.196 |
| PT    | 280     | 15610.0000  | 90.8748     | 3707211.526 | 5711416.512 |
| PT    | 281     | 15620.0000  | 90.8306     | 3707206.568 | 5711407.827 |

PC - Punkt na łuku pionowym

PT - Punkt na stycznej łuku pionowego

OE - Punkt styczności

# Wysokości punktów trasy w przekroju podłużnym - S11

| -TYP- | ---NR-- | -PIKIETAŻ-- | ---RZĘDNA-- | -----X----- | -----Y----- |
|-------|---------|-------------|-------------|-------------|-------------|
| PT    | 282     | 15630.0000  | 90.7863     | 3707201.610 | 5711399.143 |
| PT    | 283     | 15640.0000  | 90.7421     | 3707196.652 | 5711390.459 |
| PC    | OE      | 15646.3646  | 90.7140     |             |             |
| PC    | 284     | 15646.3646  | 90.7140     | 3707193.496 | 5711384.931 |
| PC    | 285     | 15650.0000  | 90.6989     | 3707191.694 | 5711381.774 |
| PC    | 286     | 15660.0000  | 90.6670     | 3707186.736 | 5711373.090 |
| PC    | 287     | 15670.0000  | 90.6494     | 3707181.777 | 5711364.406 |
| PC    | 288     | 15677.3074  | 90.6456     | 3707178.154 | 5711358.060 |
| PC    | 289     | 15680.0000  | 90.6461     | 3707176.819 | 5711355.722 |
| PC    | 290     | 15690.0000  | 90.6571     | 3707171.861 | 5711347.037 |
| PC    | 291     | 15699.3040  | 90.6802     | 3707167.248 | 5711338.957 |
| PC    | 292     | 15700.0000  | 90.6824     | 3707166.903 | 5711338.353 |
| PC    | 293     | 15710.0000  | 90.7220     | 3707161.945 | 5711329.669 |
| PC    | 294     | 15720.0000  | 90.7758     | 3707156.987 | 5711320.984 |
| PC    | 295     | 15730.0000  | 90.8439     | 3707152.029 | 5711312.300 |
| PC    | 296     | 15740.0000  | 90.9264     | 3707147.070 | 5711303.616 |
| PC    | 297     | 15750.0000  | 91.0231     | 3707142.112 | 5711294.932 |
| PT    | OE      | 15752.2433  | 91.0467     |             |             |
| PT    | 298     | 15752.2433  | 91.0467     | 3707141.000 | 5711292.983 |
| PT    | 299     | 15760.0000  | 91.1298     | 3707137.154 | 5711286.247 |
| PT    | 300     | 15770.0000  | 91.2368     | 3707132.196 | 5711277.563 |
| PT    | 301     | 15780.0000  | 91.3439     | 3707127.238 | 5711268.879 |
| PT    | 302     | 15790.0000  | 91.4509     | 3707122.280 | 5711260.194 |
| PT    | 303     | 15800.0000  | 91.5580     | 3707117.322 | 5711251.510 |
| PT    | 304     | 15810.0000  | 91.6650     | 3707112.363 | 5711242.826 |
| PT    | 305     | 15820.0000  | 91.7721     | 3707107.405 | 5711234.142 |
| PT    | 306     | 15830.0000  | 91.8791     | 3707102.447 | 5711225.457 |
| PT    | 307     | 15840.0000  | 91.9862     | 3707097.489 | 5711216.773 |
| PT    | 308     | 15850.0000  | 92.0932     | 3707092.531 | 5711208.089 |
| PT    | 309     | 15860.0000  | 92.2003     | 3707087.573 | 5711199.404 |
| PT    | 310     | 15870.0000  | 92.3073     | 3707082.614 | 5711190.720 |
| PT    | 311     | 15880.0000  | 92.4144     | 3707077.656 | 5711182.036 |
| PT    | 312     | 15890.0000  | 92.5214     | 3707072.698 | 5711173.352 |
| PT    | 313     | 15900.0000  | 92.6285     | 3707067.740 | 5711164.667 |
| PT    | 314     | 15910.0000  | 92.7355     | 3707062.782 | 5711155.983 |
| PT    | 315     | 15913.8075  | 92.7763     | 3707060.894 | 5711152.677 |
| PT    | 316     | 15920.0000  | 92.8426     | 3707057.824 | 5711147.299 |
| PT    | 317     | 15930.0000  | 92.9496     | 3707052.870 | 5711138.612 |
| PT    | 318     | 15940.0000  | 93.0567     | 3707047.925 | 5711129.920 |
| PT    | 319     | 15950.0000  | 93.1637     | 3707042.995 | 5711121.220 |
| PT    | 320     | 15960.0000  | 93.2708     | 3707038.086 | 5711112.508 |
| PT    | 321     | 15970.0000  | 93.3778     | 3707033.204 | 5711103.780 |
| PT    | 322     | 15980.0000  | 93.4849     | 3707028.355 | 5711095.035 |
| PT    | 323     | 15990.0000  | 93.5919     | 3707023.545 | 5711086.268 |
| PT    | 324     | 16000.0000  | 93.6990     | 3707018.779 | 5711077.476 |
| PT    | 325     | 16010.0000  | 93.8060     | 3707014.064 | 5711068.658 |
| PT    | 326     | 16020.0000  | 93.9131     | 3707009.405 | 5711059.809 |
| PT    | 327     | 16030.0000  | 94.0201     | 3707004.809 | 5711050.928 |
| PT    | 328     | 16040.0000  | 94.1272     | 3707000.282 | 5711042.011 |
| PT    | 329     | 16050.0000  | 94.2342     | 3706995.830 | 5711033.057 |
| PT    | 330     | 16060.0000  | 94.3413     | 3706991.460 | 5711024.063 |
| PT    | 331     | 16063.8075  | 94.3821     | 3706989.819 | 5711020.627 |
| PT    | 332     | 16070.0000  | 94.4483     | 3706987.177 | 5711015.026 |
| PT    | 333     | 16080.0000  | 94.5554     | 3706982.985 | 5711005.947 |
| PT    | 334     | 16090.0000  | 94.6625     | 3706978.884 | 5710996.827 |
| PT    | 335     | 16100.0000  | 94.7695     | 3706974.874 | 5710987.666 |
| PT    | 336     | 16110.0000  | 94.8766     | 3706970.957 | 5710978.466 |
| PT    | 337     | 16120.0000  | 94.9836     | 3706967.131 | 5710969.226 |

PC - Punkt na łuku pionowym

PT - Punkt na stycznej łuku pionowego

OE - Punkt styczności

# Wysokości punktów trasy w przekroju podłużnym - S11

| -TYP- | ---NR-- | -PIKIETAŻ-- | ---RZĘDNA-- | -----X----- | -----Y----- |
|-------|---------|-------------|-------------|-------------|-------------|
| PT    | 338     | 16130.0000  | 95.0907     | 3706963.398 | 5710959.949 |
| PT    | 339     | 16140.0000  | 95.1977     | 3706959.757 | 5710950.636 |
| PT    | 340     | 16150.0000  | 95.3048     | 3706956.211 | 5710941.286 |
| PT    | 341     | 16160.0000  | 95.4118     | 3706952.757 | 5710931.901 |
| PT    | 342     | 16170.0000  | 95.5189     | 3706949.398 | 5710922.482 |
| PT    | 343     | 16180.0000  | 95.6259     | 3706946.133 | 5710913.030 |
| PT    | 344     | 16190.0000  | 95.7330     | 3706942.963 | 5710903.546 |
| PT    | 345     | 16200.0000  | 95.8400     | 3706939.888 | 5710894.031 |
| PT    | 346     | 16210.0000  | 95.9471     | 3706936.908 | 5710884.485 |
| PT    | 347     | 16220.0000  | 96.0541     | 3706934.024 | 5710874.910 |
| PT    | 348     | 16230.0000  | 96.1612     | 3706931.236 | 5710865.307 |
| PT    | 349     | 16240.0000  | 96.2682     | 3706928.544 | 5710855.676 |
| PT    | 350     | 16250.0000  | 96.3753     | 3706925.948 | 5710846.019 |
| PT    | 351     | 16260.0000  | 96.4823     | 3706923.449 | 5710836.336 |
| PT    | 352     | 16270.0000  | 96.5894     | 3706921.047 | 5710826.629 |
| PT    | 353     | 16280.0000  | 96.6964     | 3706918.742 | 5710816.898 |
| PT    | 354     | 16290.0000  | 96.8035     | 3706916.534 | 5710807.145 |
| PT    | 355     | 16300.0000  | 96.9105     | 3706914.425 | 5710797.370 |
| PT    | 356     | 16310.0000  | 97.0176     | 3706912.413 | 5710787.574 |
| PT    | 357     | 16320.0000  | 97.1246     | 3706910.499 | 5710777.759 |
| PT    | 358     | 16330.0000  | 97.2317     | 3706908.683 | 5710767.926 |
| PC    | OE      | 16334.5077  | 97.2799     |             |             |
| PC    | 359     | 16334.5077  | 97.2799     | 3706907.897 | 5710763.487 |
| PC    | 360     | 16340.0000  | 97.3373     | 3706906.966 | 5710758.074 |
| PC    | 361     | 16350.0000  | 97.4344     | 3706905.347 | 5710748.206 |
| PC    | 362     | 16360.0000  | 97.5219     | 3706903.827 | 5710738.322 |
| PC    | 363     | 16363.4372  | 97.5498     | 3706903.328 | 5710734.922 |
| PC    | 364     | 16370.0000  | 97.5999     | 3706902.406 | 5710728.424 |
| PC    | 365     | 16380.0000  | 97.6684     | 3706901.079 | 5710718.512 |
| PC    | 366     | 16390.0000  | 97.7274     | 3706899.841 | 5710708.589 |
| PC    | 367     | 16400.0000  | 97.7768     | 3706898.684 | 5710698.656 |
| PC    | 368     | 16410.0000  | 97.8167     | 3706897.603 | 5710688.715 |
| PC    | 369     | 16420.0000  | 97.8471     | 3706896.590 | 5710678.767 |
| PC    | 370     | 16430.0000  | 97.8680     | 3706895.639 | 5710668.812 |
| PC    | 371     | 16440.0000  | 97.8793     | 3706894.743 | 5710658.852 |
| PC    | 372     | 16446.9116  | 97.8816     | 3706894.153 | 5710651.966 |
| PC    | 373     | 16450.0000  | 97.8811     | 3706893.896 | 5710648.888 |
| PC    | 374     | 16460.0000  | 97.8734     | 3706893.092 | 5710638.921 |
| PC    | 375     | 16470.0000  | 97.8562     | 3706892.323 | 5710628.950 |
| PC    | 376     | 16479.3039  | 97.8316     | 3706891.633 | 5710619.672 |
| PC    | 377     | 16480.0000  | 97.8295     | 3706891.582 | 5710618.978 |
| PC    | 378     | 16490.0000  | 97.7932     | 3706890.864 | 5710609.003 |
| PC    | 379     | 16500.0000  | 97.7474     | 3706890.162 | 5710599.028 |
| PC    | 380     | 16510.0000  | 97.6921     | 3706889.468 | 5710589.052 |
| PC    | 381     | 16513.4372  | 97.6708     | 3706889.231 | 5710585.623 |
| PC    | 382     | 16520.0000  | 97.6272     | 3706888.777 | 5710579.076 |
| PC    | 383     | 16530.0000  | 97.5528     | 3706888.086 | 5710569.100 |
| PC    | 384     | 16540.0000  | 97.4689     | 3706887.396 | 5710559.124 |
| PC    | 385     | 16550.0000  | 97.3755     | 3706886.705 | 5710549.148 |
| PC    | 386     | 16560.0000  | 97.2726     | 3706886.014 | 5710539.172 |
| PC    | 387     | 16570.0000  | 97.1601     | 3706885.323 | 5710529.196 |
| PC    | 388     | 16580.0000  | 97.0381     | 3706884.632 | 5710519.219 |
| PC    | 389     | 16590.0000  | 96.9066     | 3706883.941 | 5710509.243 |
| PC    | 390     | 16600.0000  | 96.7656     | 3706883.250 | 5710499.267 |
| PC    | 391     | 16610.0000  | 96.6150     | 3706882.559 | 5710489.291 |
| PC    | 392     | 16620.0000  | 96.4549     | 3706881.868 | 5710479.315 |
| PT    | OE      | 16624.1000  | 96.3866     |             |             |
| PT    | 393     | 16624.1000  | 96.3866     | 3706881.585 | 5710475.225 |

PC - Punkt na łuku pionowym

PT - Punkt na stycznej łuku pionowego

OE - Punkt styczności

# Wysokości punktów trasy w przekroju podłużnym - S11

| -TYP- | ---NR-- | -PIKIETAŻ-- | ---RZĘDNA-- | -----X----- | -----Y----- |
|-------|---------|-------------|-------------|-------------|-------------|
| PT    | 394     | 16630.0000  | 96.2870     | 3706881.178 | 5710469.339 |
| PT    | 395     | 16640.0000  | 96.1182     | 3706880.487 | 5710459.363 |
| PT    | 396     | 16650.0000  | 95.9495     | 3706879.796 | 5710449.387 |
| PT    | 397     | 16660.0000  | 95.7807     | 3706879.105 | 5710439.411 |
| PT    | 398     | 16670.0000  | 95.6120     | 3706878.414 | 5710429.435 |
| PT    | 399     | 16680.0000  | 95.4432     | 3706877.723 | 5710419.458 |
| PT    | 400     | 16690.0000  | 95.2745     | 3706877.032 | 5710409.482 |
| PT    | 401     | 16700.0000  | 95.1057     | 3706876.341 | 5710399.506 |
| PT    | 402     | 16710.0000  | 94.9370     | 3706875.650 | 5710389.530 |
| PT    | 403     | 16720.0000  | 94.7682     | 3706874.960 | 5710379.554 |
| PT    | 404     | 16730.0000  | 94.5995     | 3706874.269 | 5710369.578 |
| PT    | 405     | 16740.0000  | 94.4307     | 3706873.578 | 5710359.602 |
| PT    | 406     | 16750.0000  | 94.2620     | 3706872.887 | 5710349.626 |
| PT    | 407     | 16760.0000  | 94.0932     | 3706872.196 | 5710339.650 |
| PT    | 408     | 16770.0000  | 93.9245     | 3706871.505 | 5710329.673 |
| PT    | 409     | 16780.0000  | 93.7557     | 3706870.814 | 5710319.697 |
| PT    | 410     | 16790.0000  | 93.5870     | 3706870.123 | 5710309.721 |
| PT    | 411     | 16800.0000  | 93.4182     | 3706869.433 | 5710299.745 |
| PC    | OE      | 16809.0678  | 93.2652     |             |             |
| PC    | 412     | 16809.0678  | 93.2652     | 3706868.806 | 5710290.699 |
| PC    | 413     | 16810.0000  | 93.2495     | 3706868.742 | 5710289.769 |
| PC    | 414     | 16820.0000  | 93.0893     | 3706868.051 | 5710279.793 |
| PC    | 415     | 16830.0000  | 92.9433     | 3706867.360 | 5710269.817 |
| PC    | 416     | 16840.0000  | 92.8116     | 3706866.669 | 5710259.841 |
| PC    | 417     | 16850.0000  | 92.6941     | 3706865.978 | 5710249.865 |
| PC    | 418     | 16860.0000  | 92.5910     | 3706865.287 | 5710239.889 |
| PC    | 419     | 16870.0000  | 92.5022     | 3706864.596 | 5710229.912 |
| PC    | 420     | 16879.3018  | 92.4323     | 3706863.954 | 5710220.633 |
| PC    | 421     | 16880.0000  | 92.4276     | 3706863.905 | 5710219.936 |
| PC    | 422     | 16890.0000  | 92.3673     | 3706863.215 | 5710209.960 |
| PC    | 423     | 16900.0000  | 92.3213     | 3706862.524 | 5710199.984 |
| PC    | 424     | 16910.0000  | 92.2896     | 3706861.833 | 5710190.008 |
| PC    | 425     | 16920.0000  | 92.2722     | 3706861.142 | 5710180.032 |
| PC    | 426     | 16927.1934  | 92.2685     | 3706860.645 | 5710172.856 |
| PC    | 427     | 16930.0000  | 92.2691     | 3706860.451 | 5710170.056 |
| PC    | 428     | 16940.0000  | 92.2802     | 3706859.760 | 5710160.080 |
| PT    | OE      | 16949.5358  | 92.3042     |             |             |
| PT    | 429     | 16949.5358  | 92.3042     | 3706859.101 | 5710150.567 |
| PT    | 430     | 16950.0000  | 92.3057     | 3706859.069 | 5710150.104 |
| PT    | 431     | 16960.0000  | 92.3376     | 3706858.378 | 5710140.127 |
| PT    | 432     | 16970.0000  | 92.3695     | 3706857.687 | 5710130.151 |
| PT    | 433     | 16980.0000  | 92.4014     | 3706856.997 | 5710120.175 |
| PT    | 434     | 16990.0000  | 92.4333     | 3706856.306 | 5710110.199 |
| PT    | 435     | 17000.0000  | 92.4652     | 3706855.615 | 5710100.223 |
| PT    | 436     | 17010.0000  | 92.4972     | 3706854.924 | 5710090.247 |
| PT    | 437     | 17020.0000  | 92.5291     | 3706854.233 | 5710080.271 |
| PT    | 438     | 17030.0000  | 92.5610     | 3706853.542 | 5710070.295 |
| PT    | 439     | 17040.0000  | 92.5929     | 3706852.851 | 5710060.319 |
| PT    | 440     | 17050.0000  | 92.6248     | 3706852.160 | 5710050.343 |
| PT    | 441     | 17060.0000  | 92.6567     | 3706851.470 | 5710040.366 |
| PT    | 442     | 17070.0000  | 92.6887     | 3706850.779 | 5710030.390 |
| PT    | 443     | 17080.0000  | 92.7206     | 3706850.088 | 5710020.414 |
| PT    | 444     | 17090.0000  | 92.7525     | 3706849.397 | 5710010.438 |
| PT    | 445     | 17100.0000  | 92.7844     | 3706848.706 | 5710000.462 |
| PT    | 446     | 17110.0000  | 92.8163     | 3706848.015 | 5709990.486 |
| PT    | 447     | 17120.0000  | 92.8483     | 3706847.324 | 5709980.510 |
| PT    | 448     | 17130.0000  | 92.8802     | 3706846.633 | 5709970.534 |
| PT    | 449     | 17140.0000  | 92.9121     | 3706845.942 | 5709960.558 |

PC - Punkt na łuku pionowym

PT - Punkt na stycznej łuku pionowego

OE - Punkt styczności



# Wysokości punktów trasy w przekroju podłużnym - S11

| -TYP- | ---NR-- | -PIKIETAŻ-- | ---RZĘDNA-- | -----X----- | -----Y----- |
|-------|---------|-------------|-------------|-------------|-------------|
| PT    | 450     | 17150.0000  | 92.9440     | 3706845.252 | 5709950.581 |
| PT    | 451     | 17160.0000  | 92.9759     | 3706844.561 | 5709940.605 |
| PT    | 452     | 17170.0000  | 93.0078     | 3706843.870 | 5709930.629 |
| PT    | 453     | 17180.0000  | 93.0398     | 3706843.179 | 5709920.653 |
| PT    | 454     | 17190.0000  | 93.0717     | 3706842.488 | 5709910.677 |
| PT    | 455     | 17200.0000  | 93.1036     | 3706841.797 | 5709900.701 |
| PT    | 456     | 17210.0000  | 93.1355     | 3706841.106 | 5709890.725 |
| PT    | 457     | 17220.0000  | 93.1674     | 3706840.415 | 5709880.749 |
| PT    | 458     | 17230.0000  | 93.1993     | 3706839.725 | 5709870.773 |
| PT    | 459     | 17240.0000  | 93.2313     | 3706839.034 | 5709860.797 |
| PT    | 460     | 17250.0000  | 93.2632     | 3706838.343 | 5709850.820 |
| PT    | 461     | 17260.0000  | 93.2951     | 3706837.652 | 5709840.844 |
| PT    | 462     | 17270.0000  | 93.3270     | 3706836.961 | 5709830.868 |
| PT    | 463     | 17280.0000  | 93.3589     | 3706836.270 | 5709820.892 |
| PT    | 464     | 17290.0000  | 93.3909     | 3706835.579 | 5709810.916 |
| PT    | 465     | 17300.0000  | 93.4228     | 3706834.888 | 5709800.940 |
| PT    | 466     | 17310.0000  | 93.4547     | 3706834.197 | 5709790.964 |
| PT    | 467     | 17320.0000  | 93.4866     | 3706833.507 | 5709780.988 |
| PT    | 468     | 17330.0000  | 93.5185     | 3706832.816 | 5709771.012 |
| PT    | 469     | 17340.0000  | 93.5504     | 3706832.125 | 5709761.035 |
| PT    | 470     | 17350.0000  | 93.5824     | 3706831.434 | 5709751.059 |
| PT    | 471     | 17360.0000  | 93.6143     | 3706830.743 | 5709741.083 |
| PT    | 472     | 17370.0000  | 93.6462     | 3706830.052 | 5709731.107 |
| PT    | 473     | 17380.0000  | 93.6781     | 3706829.361 | 5709721.131 |
| PT    | 474     | 17390.0000  | 93.7100     | 3706828.670 | 5709711.155 |
| PT    | 475     | 17400.0000  | 93.7420     | 3706827.979 | 5709701.179 |
| PT    | 476     | 17410.0000  | 93.7739     | 3706827.289 | 5709691.203 |
| PT    | 477     | 17420.0000  | 93.8058     | 3706826.598 | 5709681.227 |
| PT    | 478     | 17430.0000  | 93.8377     | 3706825.907 | 5709671.250 |
| PT    | 479     | 17440.0000  | 93.8696     | 3706825.216 | 5709661.274 |
| PT    | 480     | 17450.0000  | 93.9015     | 3706824.525 | 5709651.298 |
| PT    | 481     | 17460.0000  | 93.9335     | 3706823.834 | 5709641.322 |
| PT    | 482     | 17470.0000  | 93.9654     | 3706823.143 | 5709631.346 |
| PT    | 483     | 17480.0000  | 93.9973     | 3706822.452 | 5709621.370 |
| PT    | 484     | 17490.0000  | 94.0292     | 3706821.762 | 5709611.394 |
| PT    | 485     | 17500.0000  | 94.0611     | 3706821.071 | 5709601.418 |
| PC    | OE      | 17501.6613  | 94.0664     |             |             |
| PC    | 486     | 17501.6613  | 94.0664     | 3706820.956 | 5709599.760 |
| PC    | 487     | 17510.0000  | 94.0913     | 3706820.380 | 5709591.442 |
| PC    | 488     | 17520.0000  | 94.1166     | 3706819.689 | 5709581.466 |
| PC    | 489     | 17530.0000  | 94.1368     | 3706818.998 | 5709571.489 |
| PC    | 490     | 17540.0000  | 94.1521     | 3706818.307 | 5709561.513 |
| PC    | 491     | 17550.0000  | 94.1623     | 3706817.616 | 5709551.537 |
| PC    | 492     | 17560.0000  | 94.1676     | 3706816.925 | 5709541.561 |
| PC    | 493     | 17565.4969  | 94.1683     | 3706816.546 | 5709536.077 |
| PC    | 494     | 17568.5746  | 94.1681     | 3706816.333 | 5709533.007 |
| PC    | 495     | 17570.0000  | 94.1678     | 3706816.234 | 5709531.585 |
| PC    | 496     | 17580.0000  | 94.1630     | 3706815.544 | 5709521.609 |
| PC    | 497     | 17590.0000  | 94.1533     | 3706814.853 | 5709511.633 |
| PC    | 498     | 17600.0000  | 94.1385     | 3706814.162 | 5709501.657 |
| PC    | 499     | 17610.0000  | 94.1188     | 3706813.471 | 5709491.681 |
| PC    | 500     | 17620.0000  | 94.0940     | 3706812.780 | 5709481.704 |
| PC    | 501     | 17630.0000  | 94.0643     | 3706812.089 | 5709471.728 |
| PT    | OE      | 17635.4879  | 94.0458     |             |             |
| PT    | 502     | 17635.4879  | 94.0458     | 3706811.710 | 5709466.254 |
| PT    | 503     | 17640.0000  | 94.0300     | 3706811.398 | 5709461.752 |
| PT    | 504     | 17650.0000  | 93.9951     | 3706810.707 | 5709451.776 |
| PT    | 505     | 17660.0000  | 93.9601     | 3706810.016 | 5709441.800 |

PC - Punkt na łuku pionowym

PT - Punkt na stycznej łuku pionowego

OE - Punkt styczności

# Wysokości punktów trasy w przekroju podłużnym - S11

| -TYP- | ---NR-- | -PIKIETAŻ-- | ---RZĘDNA-- | -----X----- | -----Y----- |
|-------|---------|-------------|-------------|-------------|-------------|
| PT    | 506     | 17670.0000  | 93.9251     | 3706809.326 | 5709431.824 |
| PT    | 507     | 17680.0000  | 93.8901     | 3706808.635 | 5709421.848 |
| PT    | 508     | 17690.0000  | 93.8551     | 3706807.944 | 5709411.872 |
| PT    | 509     | 17700.0000  | 93.8201     | 3706807.253 | 5709401.896 |
| PT    | 510     | 17710.0000  | 93.7851     | 3706806.562 | 5709391.920 |
| PT    | 511     | 17720.0000  | 93.7501     | 3706805.871 | 5709381.943 |
| PT    | 512     | 17730.0000  | 93.7151     | 3706805.180 | 5709371.967 |
| PT    | 513     | 17740.0000  | 93.6801     | 3706804.489 | 5709361.991 |
| PT    | 514     | 17750.0000  | 93.6451     | 3706803.799 | 5709352.015 |
| PT    | 515     | 17760.0000  | 93.6101     | 3706803.108 | 5709342.039 |
| PT    | 516     | 17770.0000  | 93.5751     | 3706802.417 | 5709332.063 |
| PT    | 517     | 17780.0000  | 93.5401     | 3706801.726 | 5709322.087 |
| PT    | 518     | 17790.0000  | 93.5051     | 3706801.035 | 5709312.111 |
| PT    | 519     | 17800.0000  | 93.4701     | 3706800.344 | 5709302.135 |
| PT    | 520     | 17810.0000  | 93.4351     | 3706799.653 | 5709292.158 |
| PT    | 521     | 17820.0000  | 93.4001     | 3706798.962 | 5709282.182 |
| PT    | 522     | 17830.0000  | 93.3651     | 3706798.271 | 5709272.206 |
| PT    | 523     | 17840.0000  | 93.3301     | 3706797.581 | 5709262.230 |
| PT    | 524     | 17850.0000  | 93.2951     | 3706796.890 | 5709252.254 |
| PT    | 525     | 17860.0000  | 93.2601     | 3706796.199 | 5709242.278 |
| PT    | 526     | 17870.0000  | 93.2252     | 3706795.508 | 5709232.302 |
| PT    | 527     | 17880.0000  | 93.1902     | 3706794.817 | 5709222.326 |
| PT    | 528     | 17890.0000  | 93.1552     | 3706794.126 | 5709212.350 |
| PT    | 529     | 17900.0000  | 93.1202     | 3706793.435 | 5709202.374 |
| PT    | 530     | 17910.0000  | 93.0852     | 3706792.744 | 5709192.397 |
| PT    | 531     | 17920.0000  | 93.0502     | 3706792.053 | 5709182.421 |
| PT    | 532     | 17930.0000  | 93.0152     | 3706791.363 | 5709172.445 |
| PT    | 533     | 17940.0000  | 92.9802     | 3706790.672 | 5709162.469 |
| PT    | 534     | 17950.0000  | 92.9452     | 3706789.981 | 5709152.493 |
| PT    | 535     | 17960.0000  | 92.9102     | 3706789.290 | 5709142.517 |
| PT    | 536     | 17970.0000  | 92.8752     | 3706788.599 | 5709132.541 |
| PT    | 537     | 17980.0000  | 92.8402     | 3706787.908 | 5709122.565 |
| PT    | 538     | 17990.0000  | 92.8052     | 3706787.217 | 5709112.589 |
| PT    | 539     | 18000.0000  | 92.7702     | 3706786.526 | 5709102.612 |
| PT    | 540     | 18010.0000  | 92.7352     | 3706785.836 | 5709092.636 |
| PC    | OE      | 18017.6357  | 92.7085     |             |             |
| PC    | 541     | 18017.6357  | 92.7085     | 3706785.308 | 5709085.019 |
| PC    | 542     | 18020.0000  | 92.7005     | 3706785.145 | 5709082.660 |
| PC    | 543     | 18030.0000  | 92.6716     | 3706784.454 | 5709072.684 |
| PC    | 544     | 18040.0000  | 92.6511     | 3706783.763 | 5709062.708 |
| PC    | 545     | 18050.0000  | 92.6389     | 3706783.072 | 5709052.732 |
| PC    | 546     | 18059.6303  | 92.6350     | 3706782.407 | 5709043.125 |
| PC    | 547     | 18060.0000  | 92.6350     | 3706782.381 | 5709042.756 |
| PC    | 548     | 18070.0000  | 92.6395     | 3706781.690 | 5709032.780 |
| PC    | 549     | 18070.6405  | 92.6401     | 3706781.646 | 5709032.141 |
| PC    | 550     | 18080.0000  | 92.6523     | 3706780.999 | 5709022.804 |
| PC    | 551     | 18090.0000  | 92.6734     | 3706780.308 | 5709012.828 |
| PC    | 552     | 18100.0000  | 92.7029     | 3706779.618 | 5709002.851 |
| PC    | 553     | 18110.0000  | 92.7407     | 3706778.927 | 5708992.875 |
| PC    | 554     | 18120.0000  | 92.7869     | 3706778.236 | 5708982.899 |
| PT    | OE      | 18123.6453  | 92.8058     |             |             |
| PT    | 555     | 18123.6453  | 92.8058     | 3706777.984 | 5708979.263 |
| PT    | 556     | 18130.0000  | 92.8397     | 3706777.545 | 5708972.923 |
| PT    | 557     | 18140.0000  | 92.8930     | 3706776.854 | 5708962.947 |
| PT    | 558     | 18150.0000  | 92.9463     | 3706776.163 | 5708952.971 |
| PT    | 559     | 18160.0000  | 92.9997     | 3706775.472 | 5708942.995 |
| PT    | 560     | 18170.0000  | 93.0530     | 3706774.781 | 5708933.019 |
| PT    | 561     | 18180.0000  | 93.1064     | 3706774.091 | 5708923.043 |

PC - Punkt na łuku pionowym

PT - Punkt na stycznej łuku pionowego

OE - Punkt styczności

# Wysokości punktów trasy w przekroju podłużnym - S11

| -TYP- | ---NR-- | -PIKIETAŻ-- | ---RZĘDNA-- | -----X----- | -----Y----- |
|-------|---------|-------------|-------------|-------------|-------------|
| PT    | 562     | 18190.0000  | 93.1597     | 3706773.400 | 5708913.066 |
| PT    | 563     | 18200.0000  | 93.2131     | 3706772.709 | 5708903.090 |
| PT    | 564     | 18210.0000  | 93.2664     | 3706772.018 | 5708893.114 |
| PT    | 565     | 18220.0000  | 93.3198     | 3706771.327 | 5708883.138 |
| PT    | 566     | 18230.0000  | 93.3731     | 3706770.636 | 5708873.162 |
| PT    | 567     | 18240.0000  | 93.4265     | 3706769.945 | 5708863.186 |
| PT    | 568     | 18245.6774  | 93.4567     | 3706769.553 | 5708857.522 |
| PT    | 569     | 18250.0000  | 93.4798     | 3706769.254 | 5708853.210 |
| PT    | 570     | 18260.0000  | 93.5332     | 3706768.565 | 5708843.234 |
| PT    | 571     | 18270.0000  | 93.5865     | 3706767.880 | 5708833.257 |
| PC    | OE      | 18272.6613  | 93.6007     |             |             |
| PC    | 572     | 18272.6613  | 93.6007     | 3706767.699 | 5708830.602 |
| PC    | 573     | 18280.0000  | 93.6385     | 3706767.203 | 5708823.280 |
| PC    | 574     | 18290.0000  | 93.6857     | 3706766.536 | 5708813.302 |
| PC    | 575     | 18300.0000  | 93.7279     | 3706765.883 | 5708803.324 |
| PC    | 576     | 18310.0000  | 93.7650     | 3706765.247 | 5708793.344 |
| PC    | 577     | 18320.0000  | 93.7972     | 3706764.631 | 5708783.363 |
| PC    | 578     | 18330.0000  | 93.8244     | 3706764.039 | 5708773.380 |
| PC    | 579     | 18340.0000  | 93.8466     | 3706763.473 | 5708763.397 |
| PC    | 580     | 18350.0000  | 93.8637     | 3706762.936 | 5708753.411 |
| PC    | 581     | 18360.0000  | 93.8759     | 3706762.431 | 5708743.424 |
| PC    | 582     | 18370.0000  | 93.8831     | 3706761.963 | 5708733.435 |
| PC    | 583     | 18379.3529  | 93.8853     | 3706761.559 | 5708724.091 |
| PC    | 584     | 18380.0000  | 93.8853     | 3706761.533 | 5708723.444 |
| PC    | 585     | 18390.0000  | 93.8824     | 3706761.145 | 5708713.451 |
| PC    | 586     | 18400.0000  | 93.8746     | 3706760.802 | 5708703.457 |
| PC    | 587     | 18410.0000  | 93.8618     | 3706760.507 | 5708693.462 |
| PC    | 588     | 18420.0000  | 93.8440     | 3706760.264 | 5708683.465 |
| PC    | 589     | 18430.0000  | 93.8211     | 3706760.075 | 5708673.466 |
| PC    | 590     | 18440.0000  | 93.7933     | 3706759.944 | 5708663.467 |
| PC    | 591     | 18450.0000  | 93.7605     | 3706759.873 | 5708653.468 |
| PC    | 592     | 18460.0000  | 93.7227     | 3706759.867 | 5708643.468 |
| PC    | 593     | 18470.0000  | 93.6798     | 3706759.927 | 5708633.468 |
| PC    | 594     | 18480.0000  | 93.6320     | 3706760.057 | 5708623.469 |
| PC    | 595     | 18490.0000  | 93.5792     | 3706760.261 | 5708613.471 |
| PC    | 596     | 18500.0000  | 93.5214     | 3706760.541 | 5708603.475 |
| PC    | 597     | 18510.0000  | 93.4586     | 3706760.900 | 5708593.481 |
| PC    | 598     | 18520.0000  | 93.3907     | 3706761.342 | 5708583.491 |
| PT    | OE      | 18527.3404  | 93.3378     |             |             |
| PT    | 599     | 18527.3404  | 93.3378     | 3706761.721 | 5708576.160 |
| PT    | 600     | 18530.0000  | 93.3181     | 3706761.870 | 5708573.505 |
| PT    | 601     | 18540.0000  | 93.2441     | 3706762.486 | 5708563.524 |
| PT    | 602     | 18550.0000  | 93.1701     | 3706763.194 | 5708553.549 |
| PT    | 603     | 18560.0000  | 93.0961     | 3706763.997 | 5708543.581 |
| PT    | 604     | 18565.6774  | 93.0541     | 3706764.496 | 5708537.926 |
| PT    | 605     | 18570.0000  | 93.0221     | 3706764.897 | 5708533.622 |
| PT    | 606     | 18580.0000  | 92.9481     | 3706765.898 | 5708523.672 |
| PT    | 607     | 18590.0000  | 92.8741     | 3706766.997 | 5708513.733 |
| PT    | 608     | 18600.0000  | 92.8001     | 3706768.196 | 5708503.805 |
| PT    | 609     | 18610.0000  | 92.7261     | 3706769.494 | 5708493.890 |
| PT    | 610     | 18620.0000  | 92.6521     | 3706770.891 | 5708483.988 |
| PT    | 611     | 18630.0000  | 92.5781     | 3706772.388 | 5708474.101 |
| PT    | 612     | 18640.0000  | 92.5042     | 3706773.982 | 5708464.229 |
| PT    | 613     | 18650.0000  | 92.4302     | 3706775.676 | 5708454.373 |
| PT    | 614     | 18660.0000  | 92.3562     | 3706777.468 | 5708444.535 |
| PT    | 615     | 18670.0000  | 92.2822     | 3706779.358 | 5708434.715 |
| PT    | 616     | 18680.0000  | 92.2082     | 3706781.347 | 5708424.915 |
| PT    | 617     | 18690.0000  | 92.1342     | 3706783.433 | 5708415.135 |

PC - Punkt na łuku pionowym

PT - Punkt na stycznej łuku pionowego

OE - Punkt styczności

# Wysokości punktów trasy w przekroju podłużnym - S11

| -TYP- | ---NR-- | -PIKIETAŻ-- | ---RZĘDNA-- | -----X----- | -----Y----- |
|-------|---------|-------------|-------------|-------------|-------------|
| PT    | 618     | 18700.0000  | 92.0602     | 3706785.617 | 5708405.377 |
| PC    | OE      | 18708.4201  | 91.9979     |             |             |
| PC    | 619     | 18708.4201  | 91.9979     | 3706787.532 | 5708397.177 |
| PC    | 620     | 18710.0000  | 91.9862     | 3706787.899 | 5708395.640 |
| PC    | 621     | 18720.0000  | 91.9149     | 3706790.278 | 5708385.928 |
| PC    | 622     | 18730.0000  | 91.8475     | 3706792.753 | 5708376.239 |
| PC    | 623     | 18740.0000  | 91.7842     | 3706795.326 | 5708366.576 |
| PC    | 624     | 18750.0000  | 91.7248     | 3706797.995 | 5708356.938 |
| PC    | 625     | 18760.0000  | 91.6694     | 3706800.760 | 5708347.328 |
| PC    | 626     | 18763.4092  | 91.6515     | 3706801.725 | 5708344.058 |
| PC    | 627     | 18770.0000  | 91.6181     | 3706803.621 | 5708337.746 |
| PC    | 628     | 18780.0000  | 91.5707     | 3706806.578 | 5708328.194 |
| PC    | 629     | 18790.0000  | 91.5274     | 3706809.631 | 5708318.671 |
| PC    | 630     | 18800.0000  | 91.4880     | 3706812.778 | 5708309.179 |
| PC    | 631     | 18810.0000  | 91.4526     | 3706816.020 | 5708299.719 |
| PT    | OE      | 18818.3984  | 91.4260     |             |             |
| PT    | 632     | 18818.3984  | 91.4260     | 3706818.816 | 5708291.800 |
| PT    | 633     | 18820.0000  | 91.4212     | 3706819.357 | 5708290.292 |
| PT    | 634     | 18830.0000  | 91.3912     | 3706822.787 | 5708280.899 |
| PT    | 635     | 18840.0000  | 91.3612     | 3706826.312 | 5708271.541 |
| PT    | 636     | 18850.0000  | 91.3312     | 3706829.929 | 5708262.218 |
| PT    | 637     | 18860.0000  | 91.3012     | 3706833.640 | 5708252.933 |
| PT    | 638     | 18870.0000  | 91.2712     | 3706837.444 | 5708243.684 |
| PT    | 639     | 18880.0000  | 91.2412     | 3706841.340 | 5708234.474 |
| PT    | 640     | 18890.0000  | 91.2112     | 3706845.327 | 5708225.304 |
| PT    | 641     | 18900.0000  | 91.1812     | 3706849.407 | 5708216.174 |
| PT    | 642     | 18910.0000  | 91.1512     | 3706853.577 | 5708207.085 |
| PT    | 643     | 18920.0000  | 91.1212     | 3706857.838 | 5708198.038 |
| PT    | 644     | 18930.0000  | 91.0912     | 3706862.189 | 5708189.034 |
| PT    | 645     | 18940.0000  | 91.0612     | 3706866.630 | 5708180.075 |
| PT    | 646     | 18950.0000  | 91.0312     | 3706871.161 | 5708171.160 |
| PT    | 647     | 18960.0000  | 91.0012     | 3706875.780 | 5708162.291 |
| PT    | 648     | 18970.0000  | 90.9712     | 3706880.488 | 5708153.468 |
| PT    | 649     | 18980.0000  | 90.9412     | 3706885.284 | 5708144.693 |
| PT    | 650     | 18990.0000  | 90.9112     | 3706890.167 | 5708135.967 |
| PT    | 651     | 19000.0000  | 90.8812     | 3706895.137 | 5708127.290 |
| PT    | 652     | 19010.0000  | 90.8512     | 3706900.194 | 5708118.663 |
| PT    | 653     | 19020.0000  | 90.8212     | 3706905.337 | 5708110.086 |
| PT    | 654     | 19030.0000  | 90.7912     | 3706910.565 | 5708101.562 |
| PT    | 655     | 19040.0000  | 90.7612     | 3706915.879 | 5708093.091 |
| PT    | 656     | 19050.0000  | 90.7312     | 3706921.276 | 5708084.673 |
| PT    | 657     | 19060.0000  | 90.7012     | 3706926.758 | 5708076.309 |
| PT    | 658     | 19070.0000  | 90.6712     | 3706932.323 | 5708068.001 |
| PT    | 659     | 19080.0000  | 90.6412     | 3706937.971 | 5708059.748 |
| PT    | 660     | 19090.0000  | 90.6112     | 3706943.701 | 5708051.553 |
| PT    | 661     | 19100.0000  | 90.5811     | 3706949.513 | 5708043.415 |
| PT    | 662     | 19110.0000  | 90.5511     | 3706955.406 | 5708035.336 |
| PT    | 663     | 19120.0000  | 90.5211     | 3706961.379 | 5708027.316 |
| PT    | 664     | 19130.0000  | 90.4911     | 3706967.433 | 5708019.356 |
| PT    | 665     | 19140.0000  | 90.4611     | 3706973.565 | 5708011.458 |
| PT    | 666     | 19150.0000  | 90.4311     | 3706979.776 | 5708003.620 |
| PT    | 667     | 19160.0000  | 90.4011     | 3706986.066 | 5707995.846 |
| PT    | 668     | 19170.0000  | 90.3711     | 3706992.432 | 5707988.135 |
| PT    | 669     | 19180.0000  | 90.3411     | 3706998.876 | 5707980.487 |
| PT    | 670     | 19190.0000  | 90.3111     | 3707005.396 | 5707972.905 |
| PT    | 671     | 19200.0000  | 90.2811     | 3707011.991 | 5707965.388 |
| PT    | 672     | 19210.0000  | 90.2511     | 3707018.661 | 5707957.938 |
| PT    | 673     | 19216.7715  | 90.2308     | 3707023.219 | 5707952.931 |

PC - Punkt na łuku pionowym

PT - Punkt na stycznej łuku pionowego

OE - Punkt styczności

# Wysokości punktów trasy w przekroju podłużnym - S11

| -TYP- | ---NR-- | -PIKIETAŻ-- | ---RZĘDNA-- | -----X----- | -----Y----- |
|-------|---------|-------------|-------------|-------------|-------------|
| PT    | 674     | 19220.0000  | 90.2211     | 3707025.405 | 5707950.554 |
| PT    | 675     | 19230.0000  | 90.1911     | 3707032.222 | 5707943.238 |
| PT    | 676     | 19240.0000  | 90.1611     | 3707039.108 | 5707935.987 |
| PT    | 677     | 19250.0000  | 90.1311     | 3707046.062 | 5707928.800 |
| PT    | 678     | 19260.0000  | 90.1011     | 3707053.080 | 5707921.676 |
| PT    | 679     | 19270.0000  | 90.0711     | 3707060.159 | 5707914.613 |
| PT    | 680     | 19280.0000  | 90.0411     | 3707067.296 | 5707907.610 |
| PT    | 681     | 19290.0000  | 90.0111     | 3707074.490 | 5707900.663 |
| PT    | 682     | 19300.0000  | 89.9811     | 3707081.737 | 5707893.773 |
| PT    | 683     | 19310.0000  | 89.9511     | 3707089.035 | 5707886.936 |
| PT    | 684     | 19320.0000  | 89.9211     | 3707096.381 | 5707880.151 |
| PT    | 685     | 19330.0000  | 89.8911     | 3707103.773 | 5707873.416 |
| PT    | 686     | 19340.0000  | 89.8611     | 3707111.208 | 5707866.729 |
| PT    | 687     | 19350.0000  | 89.8311     | 3707118.684 | 5707860.088 |
| PT    | 688     | 19360.0000  | 89.8011     | 3707126.199 | 5707853.490 |
| PT    | 689     | 19370.0000  | 89.7711     | 3707133.750 | 5707846.934 |
| PT    | 690     | 19380.0000  | 89.7411     | 3707141.336 | 5707840.418 |
| PT    | 691     | 19390.0000  | 89.7111     | 3707148.953 | 5707833.939 |
| PT    | 692     | 19400.0000  | 89.6811     | 3707156.599 | 5707827.495 |
| PT    | 693     | 19410.0000  | 89.6511     | 3707164.273 | 5707821.083 |
| PT    | 694     | 19420.0000  | 89.6211     | 3707171.973 | 5707814.702 |
| PT    | 695     | 19430.0000  | 89.5911     | 3707179.696 | 5707808.349 |
| PT    | 696     | 19440.0000  | 89.5611     | 3707187.440 | 5707802.022 |
| PT    | 697     | 19450.0000  | 89.5311     | 3707195.203 | 5707795.719 |
| PT    | 698     | 19460.0000  | 89.5011     | 3707202.983 | 5707789.436 |
| PT    | 699     | 19470.0000  | 89.4711     | 3707210.778 | 5707783.172 |
| PT    | 700     | 19480.0000  | 89.4411     | 3707218.586 | 5707776.925 |
| PT    | 701     | 19490.0000  | 89.4111     | 3707226.405 | 5707770.691 |
| PT    | 702     | 19500.0000  | 89.3811     | 3707234.234 | 5707764.469 |
| PT    | 703     | 19510.0000  | 89.3510     | 3707242.069 | 5707758.255 |
| PT    | 704     | 19520.0000  | 89.3210     | 3707249.910 | 5707752.049 |
| PT    | 705     | 19530.0000  | 89.2910     | 3707257.754 | 5707745.846 |
| PT    | 706     | 19536.7715  | 89.2707     | 3707263.066 | 5707741.647 |
| PT    | 707     | 19540.0000  | 89.2610     | 3707265.599 | 5707739.645 |
| PT    | 708     | 19550.0000  | 89.2310     | 3707273.445 | 5707733.444 |
| PT    | 709     | 19560.0000  | 89.2010     | 3707281.290 | 5707727.244 |
| PT    | 710     | 19570.0000  | 89.1710     | 3707289.135 | 5707721.043 |
| PT    | 711     | 19580.0000  | 89.1410     | 3707296.981 | 5707714.842 |
| PT    | 712     | 19590.0000  | 89.1110     | 3707304.826 | 5707708.641 |
| PT    | 713     | 19600.0000  | 89.0810     | 3707312.671 | 5707702.440 |
| PT    | 714     | 19610.0000  | 89.0510     | 3707320.517 | 5707696.239 |
| PT    | 715     | 19620.0000  | 89.0210     | 3707328.362 | 5707690.039 |
| PC    | OE      | 19624.9973  | 89.0060     |             |             |
| PC    | 716     | 19624.9973  | 89.0060     | 3707332.283 | 5707686.940 |
| PC    | 717     | 19630.0000  | 88.9915     | 3707336.208 | 5707683.838 |
| PC    | 718     | 19640.0000  | 88.9655     | 3707344.053 | 5707677.637 |
| PC    | 719     | 19650.0000  | 88.9435     | 3707351.898 | 5707671.436 |
| PC    | 720     | 19660.0000  | 88.9255     | 3707359.744 | 5707665.235 |
| PC    | 721     | 19670.0000  | 88.9115     | 3707367.589 | 5707659.035 |
| PC    | 722     | 19680.0000  | 88.9015     | 3707375.435 | 5707652.834 |
| PC    | 723     | 19690.0000  | 88.8955     | 3707383.280 | 5707646.633 |
| PC    | 724     | 19700.0000  | 88.8935     | 3707391.125 | 5707640.432 |
| PC    | 725     | 19700.0033  | 88.8935     | 3707391.128 | 5707640.430 |
| PC    | 726     | 19710.0000  | 88.8955     | 3707398.971 | 5707634.231 |
| PC    | 727     | 19720.0000  | 88.9015     | 3707406.816 | 5707628.031 |
| PC    | 728     | 19730.0000  | 88.9115     | 3707414.661 | 5707621.830 |
| PC    | 729     | 19740.0000  | 88.9255     | 3707422.507 | 5707615.629 |
| PC    | 730     | 19750.0000  | 88.9435     | 3707430.352 | 5707609.428 |

PC - Punkt na łuku pionowym

PT - Punkt na stycznej łuku pionowego

OE - Punkt styczności

# Wysokości punktów trasy w przekroju podłużnym - S11

| -TYP- | ---NR-- | -PIKIETAŻ-- | ---RZĘDNA-- | -----X----- | -----Y----- |
|-------|---------|-------------|-------------|-------------|-------------|
| PC    | 731     | 19760.0000  | 88.9655     | 3707438.198 | 5707603.227 |
| PC    | 732     | 19770.0000  | 88.9915     | 3707446.043 | 5707597.027 |
| PT    | OE      | 19775.0046  | 89.0060     |             |             |
| PT    | 733     | 19775.0046  | 89.0060     | 3707449.969 | 5707593.923 |
| PT    | 734     | 19780.0000  | 89.0210     | 3707453.888 | 5707590.826 |
| PT    | 735     | 19790.0000  | 89.0510     | 3707461.734 | 5707584.625 |
| PT    | 736     | 19800.0000  | 89.0810     | 3707469.579 | 5707578.424 |
| PT    | 737     | 19810.0000  | 89.1110     | 3707477.424 | 5707572.223 |
| PT    | 738     | 19820.0000  | 89.1410     | 3707485.270 | 5707566.023 |
| PT    | 739     | 19830.0000  | 89.1710     | 3707493.115 | 5707559.822 |
| PT    | 740     | 19840.0000  | 89.2010     | 3707500.961 | 5707553.621 |
| PT    | 741     | 19850.0000  | 89.2310     | 3707508.806 | 5707547.420 |
| PC    | OE      | 19856.9547  | 89.2519     |             |             |
| PC    | 742     | 19856.9547  | 89.2519     | 3707514.262 | 5707543.108 |
| PC    | 743     | 19860.0000  | 89.2609     | 3707516.651 | 5707541.219 |
| PC    | 744     | 19870.0000  | 89.2893     | 3707524.497 | 5707535.018 |
| PC    | 745     | 19880.0000  | 89.3157     | 3707532.342 | 5707528.818 |
| PC    | 746     | 19890.0000  | 89.3401     | 3707540.187 | 5707522.617 |
| PC    | 747     | 19900.0000  | 89.3625     | 3707548.033 | 5707516.416 |
| PC    | 748     | 19910.0000  | 89.3829     | 3707555.878 | 5707510.215 |
| PC    | 749     | 19920.0000  | 89.4013     | 3707563.724 | 5707504.014 |
| PC    | 750     | 19930.0000  | 89.4177     | 3707571.569 | 5707497.814 |
| PC    | 751     | 19940.0000  | 89.4320     | 3707579.414 | 5707491.613 |
| PC    | 752     | 19950.0000  | 89.4444     | 3707587.260 | 5707485.412 |
| PC    | 753     | 19960.0000  | 89.4548     | 3707595.105 | 5707479.211 |
| PC    | 754     | 19970.0000  | 89.4632     | 3707602.951 | 5707473.010 |
| PC    | 755     | 19980.0000  | 89.4696     | 3707610.796 | 5707466.810 |
| PC    | 756     | 19990.0000  | 89.4740     | 3707618.641 | 5707460.609 |
| PC    | 757     | 20000.0000  | 89.4764     | 3707626.487 | 5707454.408 |
| PC    | 758     | 20006.9573  | 89.4769     | 3707631.945 | 5707450.094 |
| PC    | 759     | 20010.0000  | 89.4768     | 3707634.332 | 5707448.207 |
| PC    | 760     | 20020.0000  | 89.4752     | 3707642.177 | 5707442.006 |
| PC    | 761     | 20030.0000  | 89.4716     | 3707650.023 | 5707435.806 |
| PC    | 762     | 20040.0000  | 89.4660     | 3707657.868 | 5707429.605 |
| PC    | 763     | 20050.0000  | 89.4584     | 3707665.714 | 5707423.404 |
| PC    | 764     | 20060.0000  | 89.4487     | 3707673.559 | 5707417.203 |
| PC    | 765     | 20070.0000  | 89.4371     | 3707681.404 | 5707411.002 |
| PC    | 766     | 20080.0000  | 89.4235     | 3707689.250 | 5707404.801 |
| PC    | 767     | 20090.0000  | 89.4079     | 3707697.095 | 5707398.601 |
| PC    | 768     | 20099.9973  | 89.3903     | 3707704.938 | 5707392.402 |
| PC    | 769     | 20100.0000  | 89.3903     | 3707704.940 | 5707392.400 |
| PC    | 770     | 20110.0000  | 89.3707     | 3707712.786 | 5707386.199 |
| PC    | 771     | 20120.0000  | 89.3491     | 3707720.631 | 5707379.998 |
| PC    | 772     | 20130.0000  | 89.3255     | 3707728.477 | 5707373.797 |
| PC    | 773     | 20140.0000  | 89.2999     | 3707736.322 | 5707367.597 |
| PC    | 774     | 20150.0000  | 89.2723     | 3707744.167 | 5707361.396 |
| PC    | 775     | 20160.0000  | 89.2427     | 3707752.013 | 5707355.195 |
| PC    | 776     | 20170.0000  | 89.2110     | 3707759.858 | 5707348.994 |
| PC    | 777     | 20180.0000  | 89.1774     | 3707767.703 | 5707342.793 |
| PC    | 778     | 20190.0000  | 89.1418     | 3707775.549 | 5707336.593 |
| PC    | 779     | 20200.0000  | 89.1042     | 3707783.394 | 5707330.392 |
| PC    | 780     | 20210.0000  | 89.0646     | 3707791.240 | 5707324.191 |
| PC    | 781     | 20220.0000  | 89.0230     | 3707799.085 | 5707317.990 |
| PC    | 782     | 20230.0000  | 88.9794     | 3707806.930 | 5707311.789 |
| PC    | 783     | 20240.0000  | 88.9338     | 3707814.776 | 5707305.589 |
| PC    | 784     | 20250.0000  | 88.8862     | 3707822.621 | 5707299.388 |
| PC    | 785     | 20260.0000  | 88.8366     | 3707830.467 | 5707293.187 |
| PC    | 786     | 20270.0000  | 88.7850     | 3707838.312 | 5707286.986 |

PC - Punkt na łuku pionowym

PT - Punkt na stycznej łuku pionowego

OE - Punkt styczności

# Wysokości punktów trasy w przekroju podłużnym - S11

| -TYP- | ---NR-- | -PIKIETAŻ-- | ---RZĘDNA-- | -----X----- | -----Y----- |
|-------|---------|-------------|-------------|-------------|-------------|
| PC    | 787     | 20280.0000  | 88.7314     | 3707846.157 | 5707280.785 |
| PC    | 788     | 20290.0000  | 88.6757     | 3707854.003 | 5707274.585 |
| PC    | 789     | 20300.0000  | 88.6181     | 3707861.848 | 5707268.384 |
| PC    | 790     | 20310.0000  | 88.5585     | 3707869.693 | 5707262.183 |
| PC    | 791     | 20320.0000  | 88.4969     | 3707877.539 | 5707255.982 |
| PC    | 792     | 20330.0000  | 88.4333     | 3707885.384 | 5707249.781 |
| PC    | 793     | 20340.0000  | 88.3677     | 3707893.230 | 5707243.580 |
| PT    | OE      | 20343.0398  | 88.3474     |             |             |
| PT    | 794     | 20343.0398  | 88.3474     | 3707895.614 | 5707241.696 |
| PT    | 795     | 20350.0000  | 88.3006     | 3707901.075 | 5707237.380 |
| PT    | 796     | 20360.0000  | 88.2334     | 3707908.920 | 5707231.179 |
| PT    | 797     | 20370.0000  | 88.1661     | 3707916.766 | 5707224.978 |
| PT    | 798     | 20380.0000  | 88.0989     | 3707924.611 | 5707218.777 |
| PT    | 799     | 20390.0000  | 88.0317     | 3707932.456 | 5707212.576 |
| PT    | 800     | 20400.0000  | 87.9645     | 3707940.302 | 5707206.376 |
| PT    | 801     | 20410.0000  | 87.8973     | 3707948.147 | 5707200.175 |
| PT    | 802     | 20420.0000  | 87.8301     | 3707955.993 | 5707193.974 |
| PT    | 803     | 20430.0000  | 87.7628     | 3707963.838 | 5707187.773 |
| PT    | 804     | 20440.0000  | 87.6956     | 3707971.683 | 5707181.572 |
| PT    | 805     | 20450.0000  | 87.6284     | 3707979.529 | 5707175.372 |
| PT    | 806     | 20460.0000  | 87.5612     | 3707987.374 | 5707169.171 |
| PT    | 807     | 20470.0000  | 87.4940     | 3707995.219 | 5707162.970 |
| PT    | 808     | 20480.0000  | 87.4268     | 3708003.065 | 5707156.769 |
| PT    | 809     | 20490.0000  | 87.3595     | 3708010.910 | 5707150.568 |
| PT    | 810     | 20500.0000  | 87.2923     | 3708018.756 | 5707144.368 |
| PT    | 811     | 20510.0000  | 87.2251     | 3708026.601 | 5707138.167 |
| PT    | 812     | 20520.0000  | 87.1579     | 3708034.446 | 5707131.966 |
| PT    | 813     | 20530.0000  | 87.0907     | 3708042.292 | 5707125.765 |
| PT    | 814     | 20540.0000  | 87.0235     | 3708050.137 | 5707119.564 |
| PT    | 815     | 20550.0000  | 86.9562     | 3708057.983 | 5707113.364 |
| PT    | 816     | 20560.0000  | 86.8890     | 3708065.828 | 5707107.163 |
| PT    | 817     | 20570.0000  | 86.8218     | 3708073.673 | 5707100.962 |
| PT    | 818     | 20580.0000  | 86.7546     | 3708081.519 | 5707094.761 |
| PT    | 819     | 20590.0000  | 86.6874     | 3708089.364 | 5707088.560 |
| PT    | 820     | 20600.0000  | 86.6202     | 3708097.209 | 5707082.359 |
| PC    | OE      | 20606.9632  | 86.5734     |             |             |
| PC    | 821     | 20606.9632  | 86.5734     | 3708102.672 | 5707078.042 |
| PC    | 822     | 20610.0000  | 86.5530     | 3708105.055 | 5707076.159 |
| PC    | 823     | 20620.0000  | 86.4874     | 3708112.900 | 5707069.958 |
| PC    | 824     | 20630.0000  | 86.4238     | 3708120.746 | 5707063.757 |
| PC    | 825     | 20640.0000  | 86.3622     | 3708128.591 | 5707057.556 |
| PC    | 826     | 20650.0000  | 86.3026     | 3708136.436 | 5707051.355 |
| PC    | 827     | 20660.0000  | 86.2450     | 3708144.282 | 5707045.155 |
| PC    | 828     | 20670.0000  | 86.1894     | 3708152.127 | 5707038.954 |
| PC    | 829     | 20680.0000  | 86.1358     | 3708159.972 | 5707032.753 |
| PC    | 830     | 20690.0000  | 86.0842     | 3708167.818 | 5707026.552 |
| PC    | 831     | 20700.0000  | 86.0346     | 3708175.663 | 5707020.351 |
| PC    | 832     | 20710.0000  | 85.9870     | 3708183.509 | 5707014.151 |
| PC    | 833     | 20720.0000  | 85.9413     | 3708191.354 | 5707007.950 |
| PC    | 834     | 20730.0000  | 85.8977     | 3708199.199 | 5707001.749 |
| PC    | 835     | 20740.0000  | 85.8561     | 3708207.045 | 5706995.548 |
| PC    | 836     | 20750.0000  | 85.8165     | 3708214.890 | 5706989.347 |
| PC    | 837     | 20760.0000  | 85.7789     | 3708222.736 | 5706983.147 |
| PC    | 838     | 20770.0000  | 85.7433     | 3708230.581 | 5706976.946 |
| PC    | 839     | 20780.0000  | 85.7097     | 3708238.426 | 5706970.745 |
| PC    | 840     | 20790.0000  | 85.6781     | 3708246.272 | 5706964.544 |
| PT    | OE      | 20793.0386  | 85.6689     |             |             |
| PT    | 841     | 20793.0386  | 85.6689     | 3708248.656 | 5706962.660 |

PC - Punkt na łuku pionowym

PT - Punkt na stycznej łuku pionowego

OE - Punkt styczności

# Wysokości punktów trasy w przekroju podłużnym - S11

| -TYP- | ---NR-- | -PIKIETAŻ-- | ---RZĘDNA-- | -----X----- | -----Y----- |
|-------|---------|-------------|-------------|-------------|-------------|
| PT    | 842     | 20800.0000  | 85.6480     | 3708254.117 | 5706958.343 |
| PT    | 843     | 20810.0000  | 85.6180     | 3708261.962 | 5706952.143 |
| PT    | 844     | 20820.0000  | 85.5880     | 3708269.808 | 5706945.942 |
| PT    | 845     | 20830.0000  | 85.5580     | 3708277.653 | 5706939.741 |
| PT    | 846     | 20840.0000  | 85.5280     | 3708285.499 | 5706933.540 |
| PT    | 847     | 20850.0000  | 85.4980     | 3708293.344 | 5706927.339 |
| PT    | 848     | 20860.0000  | 85.4680     | 3708301.189 | 5706921.138 |
| PT    | 849     | 20870.0000  | 85.4380     | 3708309.035 | 5706914.938 |
| PT    | 850     | 20880.0000  | 85.4080     | 3708316.880 | 5706908.737 |
| PT    | 851     | 20890.0000  | 85.3780     | 3708324.725 | 5706902.536 |
| PT    | 852     | 20900.0000  | 85.3480     | 3708332.571 | 5706896.335 |
| PT    | 853     | 20910.0000  | 85.3180     | 3708340.416 | 5706890.134 |
| PT    | 854     | 20920.0000  | 85.2880     | 3708348.262 | 5706883.934 |
| PT    | 855     | 20930.0000  | 85.2580     | 3708356.107 | 5706877.733 |
| PT    | 856     | 20940.0000  | 85.2280     | 3708363.952 | 5706871.532 |
| PT    | 857     | 20950.0000  | 85.1980     | 3708371.798 | 5706865.331 |
| PT    | 858     | 20960.0000  | 85.1680     | 3708379.643 | 5706859.130 |
| PT    | 859     | 20970.0000  | 85.1380     | 3708387.488 | 5706852.930 |
| PT    | 860     | 20980.0000  | 85.1080     | 3708395.334 | 5706846.729 |
| PT    | 861     | 20990.0000  | 85.0780     | 3708403.179 | 5706840.528 |
| PT    | 862     | 21000.0000  | 85.0480     | 3708411.025 | 5706834.327 |
| PT    | 863     | 21010.0000  | 85.0180     | 3708418.870 | 5706828.126 |
| PT    | 864     | 21020.0000  | 84.9880     | 3708426.715 | 5706821.926 |
| PT    | 865     | 21030.0000  | 84.9580     | 3708434.561 | 5706815.725 |
| PT    | 866     | 21040.0000  | 84.9279     | 3708442.406 | 5706809.524 |
| PT    | 867     | 21050.0000  | 84.8979     | 3708450.252 | 5706803.323 |
| PT    | 868     | 21060.0000  | 84.8679     | 3708458.097 | 5706797.122 |
| PT    | 869     | 21070.0000  | 84.8379     | 3708465.942 | 5706790.921 |
| PT    | 870     | 21080.0000  | 84.8079     | 3708473.788 | 5706784.721 |
| PT    | 871     | 21090.0000  | 84.7779     | 3708481.633 | 5706778.520 |
| PT    | 872     | 21100.0000  | 84.7479     | 3708489.478 | 5706772.319 |
| PT    | 873     | 21104.3996  | 84.7347     | 3708492.930 | 5706769.591 |
| PT    | 874     | 21110.0000  | 84.7179     | 3708497.324 | 5706766.118 |
| PT    | 875     | 21120.0000  | 84.6879     | 3708505.169 | 5706759.917 |
| PT    | 876     | 21130.0000  | 84.6579     | 3708513.012 | 5706753.713 |
| PT    | 877     | 21140.0000  | 84.6279     | 3708520.853 | 5706747.507 |
| PT    | 878     | 21150.0000  | 84.5979     | 3708528.691 | 5706741.297 |
| PT    | 879     | 21160.0000  | 84.5679     | 3708536.525 | 5706735.081 |
| PT    | 880     | 21170.0000  | 84.5379     | 3708544.353 | 5706728.859 |
| PT    | 881     | 21180.0000  | 84.5079     | 3708552.176 | 5706722.630 |
| PT    | 882     | 21190.0000  | 84.4779     | 3708559.991 | 5706716.391 |
| PT    | 883     | 21200.0000  | 84.4479     | 3708567.799 | 5706710.143 |
| PT    | 884     | 21210.0000  | 84.4179     | 3708575.598 | 5706703.884 |
| PT    | 885     | 21220.0000  | 84.3879     | 3708583.387 | 5706697.613 |
| PT    | 886     | 21230.0000  | 84.3579     | 3708591.166 | 5706691.329 |
| PT    | 887     | 21240.0000  | 84.3279     | 3708598.933 | 5706685.030 |
| PT    | 888     | 21250.0000  | 84.2979     | 3708606.687 | 5706678.716 |
| PT    | 889     | 21260.0000  | 84.2679     | 3708614.428 | 5706672.385 |
| PT    | 890     | 21270.0000  | 84.2379     | 3708622.154 | 5706666.036 |
| PT    | 891     | 21280.0000  | 84.2079     | 3708629.865 | 5706659.669 |
| PT    | 892     | 21290.0000  | 84.1779     | 3708637.560 | 5706653.282 |
| PT    | 893     | 21300.0000  | 84.1479     | 3708645.237 | 5706646.874 |
| PT    | 894     | 21310.0000  | 84.1179     | 3708652.895 | 5706640.443 |
| PT    | 895     | 21320.0000  | 84.0879     | 3708660.534 | 5706633.990 |
| PT    | 896     | 21330.0000  | 84.0579     | 3708668.152 | 5706627.512 |
| PT    | 897     | 21340.0000  | 84.0279     | 3708675.749 | 5706621.010 |
| PT    | 898     | 21350.0000  | 83.9979     | 3708683.324 | 5706614.481 |
| PT    | 899     | 21360.0000  | 83.9679     | 3708690.875 | 5706607.924 |

PC - Punkt na łuku pionowym

PT - Punkt na stycznej łuku pionowego

OE - Punkt styczności



# Wysokości punktów trasy w przekroju podłużnym - S11

| -TYP- | ---NR-- | -PIKIETAŻ-- | ---RZĘDNA-- | -----X----- | -----Y----- |
|-------|---------|-------------|-------------|-------------|-------------|
| PT    | 900     | 21370.0000  | 83.9379     | 3708698.401 | 5706601.339 |
| PT    | 901     | 21380.0000  | 83.9079     | 3708705.901 | 5706594.725 |
| PT    | 902     | 21390.0000  | 83.8779     | 3708713.374 | 5706588.081 |
| PT    | 903     | 21400.0000  | 83.8479     | 3708720.820 | 5706581.405 |
| PT    | 904     | 21410.0000  | 83.8179     | 3708728.236 | 5706574.697 |
| PT    | 905     | 21420.0000  | 83.7879     | 3708735.622 | 5706567.956 |
| PT    | 906     | 21430.0000  | 83.7579     | 3708742.977 | 5706561.180 |
| PT    | 907     | 21440.0000  | 83.7279     | 3708750.299 | 5706554.370 |
| PT    | 908     | 21444.3996  | 83.7147     | 3708753.510 | 5706551.362 |
| PC    | OE      | 21449.6259  | 83.6990     |             |             |
| PC    | 909     | 21449.6259  | 83.6990     | 3708757.316 | 5706547.780 |
| PC    | 910     | 21450.0000  | 83.6979     | 3708757.588 | 5706547.523 |
| PC    | 911     | 21460.0000  | 83.6733     | 3708764.842 | 5706540.640 |
| PC    | 912     | 21470.0000  | 83.6586     | 3708772.062 | 5706533.721 |
| PC    | 913     | 21479.6273  | 83.6540     | 3708778.979 | 5706527.025 |
| PC    | 914     | 21480.0000  | 83.6540     | 3708779.247 | 5706526.766 |
| PC    | 915     | 21490.0000  | 83.6594     | 3708786.397 | 5706519.775 |
| PC    | 916     | 21500.0000  | 83.6748     | 3708793.512 | 5706512.748 |
| PT    | OE      | 21509.6308  | 83.6990     |             |             |
| PT    | 917     | 21509.6308  | 83.6990     | 3708800.331 | 5706505.947 |
| PT    | 918     | 21510.0000  | 83.7001     | 3708800.592 | 5706505.686 |
| PT    | 919     | 21520.0000  | 83.7301     | 3708807.636 | 5706498.588 |
| PT    | 920     | 21530.0000  | 83.7601     | 3708814.645 | 5706491.456 |
| PT    | 921     | 21540.0000  | 83.7901     | 3708821.618 | 5706484.288 |
| PT    | 922     | 21550.0000  | 83.8201     | 3708828.556 | 5706477.086 |
| PT    | 923     | 21560.0000  | 83.8501     | 3708835.457 | 5706469.849 |
| PT    | 924     | 21570.0000  | 83.8801     | 3708842.322 | 5706462.577 |
| PT    | 925     | 21580.0000  | 83.9102     | 3708849.150 | 5706455.272 |
| PT    | 926     | 21590.0000  | 83.9402     | 3708855.942 | 5706447.932 |
| PT    | 927     | 21600.0000  | 83.9702     | 3708862.697 | 5706440.558 |
| PT    | 928     | 21610.0000  | 84.0002     | 3708869.415 | 5706433.151 |
| PT    | 929     | 21620.0000  | 84.0302     | 3708876.096 | 5706425.710 |
| PT    | 930     | 21630.0000  | 84.0602     | 3708882.740 | 5706418.236 |
| PT    | 931     | 21640.0000  | 84.0902     | 3708889.346 | 5706410.729 |
| PT    | 932     | 21650.0000  | 84.1202     | 3708895.915 | 5706403.189 |
| PT    | 933     | 21660.0000  | 84.1502     | 3708902.446 | 5706395.616 |
| PT    | 934     | 21670.0000  | 84.1802     | 3708908.938 | 5706388.011 |
| PT    | 935     | 21680.0000  | 84.2102     | 3708915.393 | 5706380.373 |
| PT    | 936     | 21690.0000  | 84.2402     | 3708921.810 | 5706372.703 |
| PT    | 937     | 21700.0000  | 84.2702     | 3708928.188 | 5706365.001 |
| PT    | 938     | 21710.0000  | 84.3002     | 3708934.527 | 5706357.267 |
| PT    | 939     | 21720.0000  | 84.3302     | 3708940.828 | 5706349.502 |
| PT    | 940     | 21730.0000  | 84.3602     | 3708947.090 | 5706341.705 |
| PT    | 941     | 21740.0000  | 84.3902     | 3708953.313 | 5706333.877 |
| PT    | 942     | 21750.0000  | 84.4202     | 3708959.496 | 5706326.019 |
| PT    | 943     | 21760.0000  | 84.4502     | 3708965.640 | 5706318.129 |
| PT    | 944     | 21770.0000  | 84.4802     | 3708971.745 | 5706310.208 |
| PT    | 945     | 21780.0000  | 84.5102     | 3708977.810 | 5706302.257 |
| PT    | 946     | 21790.0000  | 84.5402     | 3708983.835 | 5706294.276 |
| PT    | 947     | 21800.0000  | 84.5702     | 3708989.820 | 5706286.265 |
| PT    | 948     | 21810.0000  | 84.6002     | 3708995.766 | 5706278.224 |
| PT    | 949     | 21820.0000  | 84.6302     | 3709001.670 | 5706270.154 |
| PT    | 950     | 21830.0000  | 84.6602     | 3709007.535 | 5706262.054 |
| PT    | 951     | 21840.0000  | 84.6902     | 3709013.358 | 5706253.925 |
| PT    | 952     | 21850.0000  | 84.7202     | 3709019.141 | 5706245.767 |
| PT    | 953     | 21860.0000  | 84.7502     | 3709024.884 | 5706237.580 |
| PT    | 954     | 21870.0000  | 84.7803     | 3709030.585 | 5706229.364 |
| PT    | 955     | 21880.0000  | 84.8103     | 3709036.245 | 5706221.120 |

PC - Punkt na łuku pionowym

PT - Punkt na stycznej łuku pionowego

OE - Punkt styczności

# Wysokości punktów trasy w przekroju podłużnym - S11

| -TYP- | ---NR-- | -PIKIETAŻ-- | ---RZĘDNA-- | -----X----- | -----Y----- |
|-------|---------|-------------|-------------|-------------|-------------|
| PT    | 956     | 21890.0000  | 84.8403     | 3709041.864 | 5706212.848 |
| PT    | 957     | 21900.0000  | 84.8703     | 3709047.441 | 5706204.548 |
| PT    | 958     | 21910.0000  | 84.9003     | 3709052.977 | 5706196.220 |
| PT    | 959     | 21920.0000  | 84.9303     | 3709058.471 | 5706187.864 |
| PT    | 960     | 21930.0000  | 84.9603     | 3709063.923 | 5706179.481 |
| PT    | 961     | 21940.0000  | 84.9903     | 3709069.333 | 5706171.071 |
| PT    | 962     | 21950.0000  | 85.0203     | 3709074.701 | 5706162.634 |
| PT    | 963     | 21960.0000  | 85.0503     | 3709080.027 | 5706154.170 |
| PT    | 964     | 21970.0000  | 85.0803     | 3709085.310 | 5706145.680 |
| PT    | 965     | 21980.0000  | 85.1103     | 3709090.551 | 5706137.163 |
| PT    | 966     | 21990.0000  | 85.1403     | 3709095.750 | 5706128.621 |
| PT    | 967     | 22000.0000  | 85.1703     | 3709100.905 | 5706120.052 |
| PT    | 968     | 22010.0000  | 85.2003     | 3709106.018 | 5706111.458 |
| PT    | 969     | 22020.0000  | 85.2303     | 3709111.087 | 5706102.838 |
| PT    | 970     | 22030.0000  | 85.2603     | 3709116.114 | 5706094.193 |
| PT    | 971     | 22040.0000  | 85.2903     | 3709121.097 | 5706085.523 |
| PT    | 972     | 22050.0000  | 85.3203     | 3709126.037 | 5706076.828 |
| PT    | 973     | 22060.0000  | 85.3503     | 3709130.933 | 5706068.109 |
| PT    | 974     | 22070.0000  | 85.3803     | 3709135.785 | 5706059.365 |
| PT    | 975     | 22080.0000  | 85.4103     | 3709140.594 | 5706050.597 |
| PT    | 976     | 22090.0000  | 85.4403     | 3709145.359 | 5706041.806 |
| PT    | 977     | 22100.0000  | 85.4703     | 3709150.080 | 5706032.990 |
| PT    | 978     | 22110.0000  | 85.5003     | 3709154.756 | 5706024.151 |
| PT    | 979     | 22120.0000  | 85.5303     | 3709159.389 | 5706015.289 |
| PT    | 980     | 22130.0000  | 85.5603     | 3709163.977 | 5706006.403 |
| PT    | 981     | 22140.0000  | 85.5903     | 3709168.520 | 5705997.495 |
| PT    | 982     | 22150.0000  | 85.6203     | 3709173.019 | 5705988.564 |
| PT    | 983     | 22160.0000  | 85.6504     | 3709177.473 | 5705979.611 |
| PT    | 984     | 22170.0000  | 85.6804     | 3709181.883 | 5705970.636 |
| PT    | 985     | 22180.0000  | 85.7104     | 3709186.247 | 5705961.639 |
| PT    | 986     | 22190.0000  | 85.7404     | 3709190.567 | 5705952.620 |
| PT    | 987     | 22200.0000  | 85.7704     | 3709194.841 | 5705943.579 |
| PT    | 988     | 22210.0000  | 85.8004     | 3709199.070 | 5705934.517 |
| PT    | 989     | 22214.3082  | 85.8133     | 3709200.878 | 5705930.607 |
| PT    | 990     | 22220.0000  | 85.8304     | 3709203.254 | 5705925.435 |
| PT    | 991     | 22230.0000  | 85.8604     | 3709207.393 | 5705916.331 |
| PT    | 992     | 22240.0000  | 85.8904     | 3709211.489 | 5705907.209 |
| PT    | 993     | 22250.0000  | 85.9204     | 3709215.542 | 5705898.067 |
| PT    | 994     | 22260.0000  | 85.9504     | 3709219.554 | 5705888.907 |
| PT    | 995     | 22270.0000  | 85.9804     | 3709223.527 | 5705879.730 |
| PC    | OE      | 22274.3532  | 85.9934     |             |             |
| PC    | 996     | 22274.3532  | 85.9934     | 3709225.245 | 5705875.730 |
| PC    | 997     | 22280.0000  | 86.0124     | 3709227.462 | 5705870.537 |
| PC    | 998     | 22290.0000  | 86.0557     | 3709231.359 | 5705861.327 |
| PC    | 999     | 22300.0000  | 86.1115     | 3709235.220 | 5705852.103 |
| PC    | 1000    | 22310.0000  | 86.1798     | 3709239.047 | 5705842.864 |
| PC    | 1001    | 22319.8657  | 86.2595     | 3709242.790 | 5705833.736 |
| PC    | 1002    | 22320.0000  | 86.2606     | 3709242.841 | 5705833.612 |
| PC    | 1003    | 22330.0000  | 86.3539     | 3709246.603 | 5705824.346 |
| PC    | 1004    | 22340.0000  | 86.4598     | 3709250.334 | 5705815.068 |
| PC    | 1005    | 22350.0000  | 86.5781     | 3709254.036 | 5705805.779 |
| PC    | 1006    | 22360.0000  | 86.7089     | 3709257.710 | 5705796.478 |
| PT    | OE      | 22365.3783  | 86.7844     |             |             |
| PT    | 1007    | 22365.3783  | 86.7844     | 3709259.674 | 5705791.472 |
| PT    | 1008    | 22370.0000  | 86.8509     | 3709261.357 | 5705787.167 |
| PT    | 1009    | 22380.0000  | 86.9946     | 3709264.979 | 5705777.846 |
| PT    | 1010    | 22390.0000  | 87.1384     | 3709268.577 | 5705768.516 |
| PT    | 1011    | 22400.0000  | 87.2822     | 3709272.153 | 5705759.177 |

PC - Punkt na łuku pionowym

PT - Punkt na stycznej łuku pionowego

OE - Punkt styczności

# Wysokości punktów trasy w przekroju podłużnym - S11

| -TYP- | ---NR-- | -PIKIETAŻ-- | ---RZĘDNA-- | -----X----- | -----Y----- |
|-------|---------|-------------|-------------|-------------|-------------|
| PT    | 1012    | 22410.0000  | 87.4260     | 3709275.708 | 5705749.830 |
| PT    | 1013    | 22420.0000  | 87.5698     | 3709279.242 | 5705740.476 |
| PT    | 1014    | 22430.0000  | 87.7136     | 3709282.758 | 5705731.114 |
| PT    | 1015    | 22440.0000  | 87.8574     | 3709286.257 | 5705721.746 |
| PT    | 1016    | 22450.0000  | 88.0011     | 3709289.741 | 5705712.373 |
| PT    | 1017    | 22460.0000  | 88.1449     | 3709293.210 | 5705702.994 |
| PT    | 1018    | 22470.0000  | 88.2887     | 3709296.666 | 5705693.610 |
| PT    | 1019    | 22480.0000  | 88.4325     | 3709300.110 | 5705684.222 |
| PT    | 1020    | 22490.0000  | 88.5763     | 3709303.544 | 5705674.830 |
| PT    | 1021    | 22500.0000  | 88.7201     | 3709306.969 | 5705665.435 |
| PT    | 1022    | 22510.0000  | 88.8638     | 3709310.386 | 5705656.037 |
| PT    | 1023    | 22520.0000  | 89.0076     | 3709313.798 | 5705646.637 |
| PT    | 1024    | 22530.0000  | 89.1514     | 3709317.205 | 5705637.235 |
| PC    | OE      | 22539.0804  | 89.2820     |             |             |
| PC    | 1025    | 22539.0804  | 89.2820     | 3709320.295 | 5705628.697 |
| PC    | 1026    | 22540.0000  | 89.2952     | 3709320.608 | 5705627.832 |
| PC    | 1027    | 22550.0000  | 89.4336     | 3709324.010 | 5705618.428 |
| PC    | 1028    | 22554.3082  | 89.4904     | 3709325.475 | 5705614.377 |
| PC    | 1029    | 22560.0000  | 89.5629     | 3709327.410 | 5705609.024 |
| PC    | 1030    | 22570.0000  | 89.6831     | 3709330.811 | 5705599.620 |
| PC    | 1031    | 22580.0000  | 89.7942     | 3709334.212 | 5705590.216 |
| PC    | 1032    | 22590.0000  | 89.8963     | 3709337.613 | 5705580.812 |
| PC    | 1033    | 22600.0000  | 89.9892     | 3709341.013 | 5705571.408 |
| PC    | 1034    | 22610.0000  | 90.0731     | 3709344.414 | 5705562.004 |
| PC    | 1035    | 22620.0000  | 90.1478     | 3709347.815 | 5705552.600 |
| PC    | 1036    | 22630.0000  | 90.2135     | 3709351.216 | 5705543.196 |
| PC    | 1037    | 22640.0000  | 90.2701     | 3709354.616 | 5705533.792 |
| PC    | 1038    | 22650.0000  | 90.3176     | 3709358.017 | 5705524.388 |
| PC    | 1039    | 22660.0000  | 90.3560     | 3709361.418 | 5705514.984 |
| PC    | 1040    | 22670.0000  | 90.3853     | 3709364.818 | 5705505.580 |
| PC    | 1041    | 22680.0000  | 90.4055     | 3709368.219 | 5705496.176 |
| PC    | 1042    | 22690.0000  | 90.4167     | 3709371.620 | 5705486.772 |
| PC    | 1043    | 22697.2436  | 90.4190     | 3709374.083 | 5705479.960 |
| PC    | 1044    | 22700.0000  | 90.4187     | 3709375.021 | 5705477.368 |
| PC    | 1045    | 22710.0000  | 90.4117     | 3709378.421 | 5705467.964 |
| PC    | 1046    | 22720.0000  | 90.3955     | 3709381.822 | 5705458.560 |
| PC    | 1047    | 22730.0000  | 90.3703     | 3709385.223 | 5705449.156 |
| PC    | 1048    | 22740.0000  | 90.3360     | 3709388.624 | 5705439.752 |
| PC    | 1049    | 22750.0000  | 90.2925     | 3709392.024 | 5705430.348 |
| PC    | 1050    | 22755.6549  | 90.2640     | 3709393.948 | 5705425.031 |
| PC    | 1051    | 22760.0000  | 90.2400     | 3709395.425 | 5705420.944 |
| PC    | 1052    | 22770.0000  | 90.1784     | 3709398.826 | 5705411.541 |
| PC    | 1053    | 22780.0000  | 90.1077     | 3709402.227 | 5705402.137 |
| PC    | 1054    | 22790.0000  | 90.0280     | 3709405.627 | 5705392.733 |
| PC    | 1055    | 22800.0000  | 89.9391     | 3709409.028 | 5705383.329 |
| PC    | 1056    | 22810.0000  | 89.8411     | 3709412.429 | 5705373.925 |
| PC    | 1057    | 22820.0000  | 89.7341     | 3709415.830 | 5705364.521 |
| PC    | 1058    | 22830.0000  | 89.6179     | 3709419.230 | 5705355.117 |
| PC    | 1059    | 22840.0000  | 89.4927     | 3709422.631 | 5705345.713 |
| PC    | 1060    | 22850.0000  | 89.3584     | 3709426.032 | 5705336.309 |
| PC    | 1061    | 22860.0000  | 89.2150     | 3709429.433 | 5705326.905 |
| PC    | 1062    | 22870.0000  | 89.0625     | 3709432.833 | 5705317.501 |
| PC    | 1063    | 22880.0000  | 88.9009     | 3709436.234 | 5705308.097 |
| PC    | 1064    | 22890.0000  | 88.7302     | 3709439.635 | 5705298.693 |
| PC    | 1065    | 22900.0000  | 88.5504     | 3709443.036 | 5705289.289 |
| PC    | 1066    | 22910.0000  | 88.3615     | 3709446.436 | 5705279.885 |
| PC    | 1067    | 22920.0000  | 88.1636     | 3709449.837 | 5705270.481 |
| PC    | 1068    | 22930.0000  | 87.9565     | 3709453.238 | 5705261.077 |

PC - Punkt na łuku pionowym

PT - Punkt na stycznej łuku pionowego

OE - Punkt styczności

# Wysokości punktów trasy w przekroju podłużnym - S11

| -TYP- | ---NR-- | -PIKIETAŻ-- | ---RZĘDNA-- | -----X----- | -----Y----- |
|-------|---------|-------------|-------------|-------------|-------------|
| PC    | 1069    | 22940.0000  | 87.7404     | 3709456.639 | 5705251.673 |
| PC    | 1070    | 22950.0000  | 87.5152     | 3709460.039 | 5705242.269 |
| PC    | 1071    | 22960.0000  | 87.2808     | 3709463.440 | 5705232.865 |
| PC    | 1072    | 22970.0000  | 87.0374     | 3709466.841 | 5705223.461 |
| PT    | OE      | 22972.2294  | 86.9819     |             |             |
| PT    | 1073    | 22972.2294  | 86.9819     | 3709467.599 | 5705221.364 |
| PT    | 1074    | 22980.0000  | 86.7877     | 3709470.242 | 5705214.057 |
| PT    | 1075    | 22990.0000  | 86.5377     | 3709473.642 | 5705204.653 |
| PT    | 1076    | 23000.0000  | 86.2877     | 3709477.043 | 5705195.249 |
| PT    | 1077    | 23010.0000  | 86.0377     | 3709480.444 | 5705185.845 |
| PT    | 1078    | 23020.0000  | 85.7877     | 3709483.845 | 5705176.441 |
| PT    | 1079    | 23030.0000  | 85.5377     | 3709487.245 | 5705167.037 |
| PT    | 1080    | 23040.0000  | 85.2877     | 3709490.646 | 5705157.633 |
| PT    | 1081    | 23050.0000  | 85.0377     | 3709494.047 | 5705148.229 |
| PC    | OE      | 23057.9634  | 84.8387     |             |             |
| PC    | 1082    | 23057.9634  | 84.8387     | 3709496.755 | 5705140.740 |
| PC    | 1083    | 23060.0000  | 84.7880     | 3709497.448 | 5705138.825 |
| PC    | 1084    | 23070.0000  | 84.5468     | 3709500.848 | 5705129.421 |
| PC    | 1085    | 23080.0000  | 84.3181     | 3709504.249 | 5705120.017 |
| PC    | 1086    | 23090.0000  | 84.1019     | 3709507.650 | 5705110.613 |
| PC    | 1087    | 23100.0000  | 83.8982     | 3709511.051 | 5705101.209 |
| PC    | 1088    | 23110.0000  | 83.7071     | 3709514.451 | 5705091.805 |
| PC    | 1089    | 23120.0000  | 83.5284     | 3709517.852 | 5705082.401 |
| PC    | 1090    | 23130.0000  | 83.3622     | 3709521.253 | 5705072.997 |
| PC    | 1091    | 23137.3140  | 83.2485     | 3709523.740 | 5705066.119 |
| PC    | 1092    | 23140.0000  | 83.2085     | 3709524.654 | 5705063.593 |
| PC    | 1093    | 23150.0000  | 83.0673     | 3709528.054 | 5705054.189 |
| PC    | 1094    | 23160.0000  | 82.9386     | 3709531.455 | 5705044.785 |
| PC    | 1095    | 23170.0000  | 82.8224     | 3709534.856 | 5705035.381 |
| PC    | 1096    | 23180.0000  | 82.7187     | 3709538.257 | 5705025.977 |
| PC    | 1097    | 23190.0000  | 82.6275     | 3709541.657 | 5705016.573 |
| PC    | 1098    | 23200.0000  | 82.5488     | 3709545.058 | 5705007.169 |
| PC    | 1099    | 23210.0000  | 82.4826     | 3709548.459 | 5704997.765 |
| PT    | OE      | 23216.6645  | 82.4455     |             |             |
| PT    | 1100    | 23216.6645  | 82.4455     | 3709550.725 | 5704991.498 |
| PT    | 1101    | 23220.0000  | 82.4283     | 3709551.860 | 5704988.361 |
| PT    | 1102    | 23230.0000  | 82.3766     | 3709555.260 | 5704978.957 |
| PT    | 1103    | 23240.0000  | 82.3250     | 3709558.661 | 5704969.553 |
| PT    | 1104    | 23250.0000  | 82.2734     | 3709562.062 | 5704960.149 |
| PT    | 1105    | 23260.0000  | 82.2218     | 3709565.463 | 5704950.745 |
| PT    | 1106    | 23270.0000  | 82.1702     | 3709568.863 | 5704941.341 |
| PT    | 1107    | 23280.0000  | 82.1186     | 3709572.264 | 5704931.937 |
| PT    | 1108    | 23290.0000  | 82.0670     | 3709575.665 | 5704922.533 |
| PT    | 1109    | 23300.0000  | 82.0154     | 3709579.066 | 5704913.129 |
| PT    | 1110    | 23310.0000  | 81.9638     | 3709582.466 | 5704903.725 |
| PT    | 1111    | 23320.0000  | 81.9122     | 3709585.867 | 5704894.321 |
| PT    | 1112    | 23330.0000  | 81.8605     | 3709589.268 | 5704884.917 |
| PT    | 1113    | 23340.0000  | 81.8089     | 3709592.669 | 5704875.513 |
| PT    | 1114    | 23350.0000  | 81.7573     | 3709596.069 | 5704866.109 |
| PT    | 1115    | 23360.0000  | 81.7057     | 3709599.470 | 5704856.705 |
| PT    | 1116    | 23370.0000  | 81.6541     | 3709602.871 | 5704847.301 |
| PT    | 1117    | 23380.0000  | 81.6025     | 3709606.272 | 5704837.897 |
| PT    | 1118    | 23390.0000  | 81.5509     | 3709609.672 | 5704828.493 |
| PT    | 1119    | 23400.0000  | 81.4993     | 3709613.073 | 5704819.089 |
| PT    | 1120    | 23410.0000  | 81.4477     | 3709616.474 | 5704809.686 |
| PT    | 1121    | 23420.0000  | 81.3960     | 3709619.875 | 5704800.282 |
| PT    | 1122    | 23430.0000  | 81.3444     | 3709623.275 | 5704790.878 |
| PT    | 1123    | 23440.0000  | 81.2928     | 3709626.676 | 5704781.474 |

PC - Punkt na łuku pionowym

PT - Punkt na stycznej łuku pionowego

OE - Punkt styczności

# Wysokości punktów trasy w przekroju podłużnym - S11

| -TYP- | ---NR-- | -PIKIETAŻ-- | ---RZĘDNA-- | -----X----- | -----Y----- |
|-------|---------|-------------|-------------|-------------|-------------|
| PT    | 1124    | 23450.0000  | 81.2412     | 3709630.077 | 5704772.070 |
| PT    | 1125    | 23460.0000  | 81.1896     | 3709633.478 | 5704762.666 |
| PT    | 1126    | 23470.0000  | 81.1380     | 3709636.878 | 5704753.262 |
| PT    | 1127    | 23480.0000  | 81.0864     | 3709640.279 | 5704743.858 |
| PT    | 1128    | 23490.0000  | 81.0348     | 3709643.680 | 5704734.454 |
| PT    | 1129    | 23500.0000  | 80.9832     | 3709647.081 | 5704725.050 |
| PT    | 1130    | 23510.0000  | 80.9315     | 3709650.481 | 5704715.646 |
| PT    | 1131    | 23520.0000  | 80.8799     | 3709653.882 | 5704706.242 |
| PC    | OE      | 23528.7807  | 80.8346     |             |             |
| PC    | 1132    | 23528.7807  | 80.8346     | 3709656.868 | 5704697.984 |
| PC    | 1133    | 23530.0000  | 80.8284     | 3709657.283 | 5704696.838 |
| PC    | 1134    | 23540.0000  | 80.7820     | 3709660.683 | 5704687.434 |
| PC    | 1135    | 23550.0000  | 80.7439     | 3709664.084 | 5704678.030 |
| PC    | 1136    | 23560.0000  | 80.7141     | 3709667.485 | 5704668.626 |
| PC    | 1137    | 23570.0000  | 80.6927     | 3709670.886 | 5704659.222 |
| PC    | 1138    | 23580.0000  | 80.6796     | 3709674.286 | 5704649.818 |
| PC    | 1139    | 23589.7399  | 80.6748     | 3709677.599 | 5704640.658 |
| PC    | 1140    | 23590.0000  | 80.6748     | 3709677.687 | 5704640.414 |
| PC    | 1141    | 23590.7134  | 80.6748     | 3709677.930 | 5704639.743 |
| PC    | 1142    | 23600.0000  | 80.6784     | 3709681.088 | 5704631.010 |
| PC    | 1143    | 23610.0000  | 80.6903     | 3709684.489 | 5704621.606 |
| PC    | 1144    | 23620.0000  | 80.7105     | 3709687.889 | 5704612.202 |
| PC    | 1145    | 23630.0000  | 80.7391     | 3709691.290 | 5704602.798 |
| PC    | 1146    | 23640.0000  | 80.7760     | 3709694.691 | 5704593.394 |
| PC    | 1147    | 23650.0000  | 80.8213     | 3709698.092 | 5704583.990 |
| PT    | OE      | 23650.6991  | 80.8247     |             |             |
| PT    | 1148    | 23650.6991  | 80.8247     | 3709698.329 | 5704583.332 |
| PT    | 1149    | 23660.0000  | 80.8712     | 3709701.492 | 5704574.586 |
| PT    | 1150    | 23670.0000  | 80.9212     | 3709704.893 | 5704565.182 |
| PT    | 1151    | 23680.0000  | 80.9712     | 3709708.294 | 5704555.778 |
| PT    | 1152    | 23690.0000  | 81.0212     | 3709711.695 | 5704546.374 |
| PT    | 1153    | 23700.0000  | 81.0712     | 3709715.095 | 5704536.970 |
| PT    | 1154    | 23710.0000  | 81.1212     | 3709718.496 | 5704527.566 |
| PT    | 1155    | 23720.0000  | 81.1712     | 3709721.897 | 5704518.162 |
| PT    | 1156    | 23723.0715  | 81.1865     | 3709722.941 | 5704515.274 |
| PT    | 1157    | 23730.0000  | 81.2211     | 3709725.298 | 5704508.758 |
| PT    | 1158    | 23740.0000  | 81.2711     | 3709728.696 | 5704499.353 |
| PT    | 1159    | 23750.0000  | 81.3211     | 3709732.089 | 5704489.946 |
| PT    | 1160    | 23760.0000  | 81.3711     | 3709735.474 | 5704480.537 |
| PT    | 1161    | 23770.0000  | 81.4211     | 3709738.847 | 5704471.123 |
| PT    | 1162    | 23780.0000  | 81.4711     | 3709742.205 | 5704461.703 |
| PT    | 1163    | 23790.0000  | 81.5211     | 3709745.545 | 5704452.278 |
| PT    | 1164    | 23800.0000  | 81.5711     | 3709748.865 | 5704442.845 |
| PT    | 1165    | 23810.0000  | 81.6210     | 3709752.160 | 5704433.403 |
| PT    | 1166    | 23820.0000  | 81.6710     | 3709755.428 | 5704423.952 |
| PT    | 1167    | 23830.0000  | 81.7210     | 3709758.665 | 5704414.491 |
| PT    | 1168    | 23840.0000  | 81.7710     | 3709761.869 | 5704405.018 |
| PT    | 1169    | 23850.0000  | 81.8210     | 3709765.035 | 5704395.532 |
| PT    | 1170    | 23860.0000  | 81.8710     | 3709768.162 | 5704386.034 |
| PT    | 1171    | 23870.0000  | 81.9210     | 3709771.245 | 5704376.521 |
| PT    | 1172    | 23880.0000  | 81.9710     | 3709774.281 | 5704366.993 |
| PT    | 1173    | 23890.0000  | 82.0209     | 3709777.268 | 5704357.449 |
| PT    | 1174    | 23900.0000  | 82.0709     | 3709780.201 | 5704347.889 |
| PT    | 1175    | 23910.0000  | 82.1209     | 3709783.078 | 5704338.312 |
| PT    | 1176    | 23920.0000  | 82.1709     | 3709785.895 | 5704328.717 |
| PT    | 1177    | 23930.0000  | 82.2209     | 3709788.649 | 5704319.104 |
| PC    | OE      | 23930.1588  | 82.2217     |             |             |
| PC    | 1178    | 23930.1588  | 82.2217     | 3709788.693 | 5704318.951 |

PC - Punkt na łuku pionowym

PT - Punkt na stycznej łuku pionowego

OE - Punkt styczności

# Wysokości punktów trasy w przekroju podłużnym - S11

| -TYP- | ---NR-- | -PIKIETAŻ-- | ---RZĘDNA-- | -----X----- | -----Y----- |
|-------|---------|-------------|-------------|-------------|-------------|
| PC    | 1179    | 23940.0000  | 82.2665     | 3709791.337 | 5704309.472 |
| PC    | 1180    | 23950.0000  | 82.3030     | 3709793.955 | 5704299.821 |
| PC    | 1181    | 23960.0000  | 82.3304     | 3709796.500 | 5704290.150 |
| PC    | 1182    | 23970.0000  | 82.3487     | 3709798.969 | 5704280.460 |
| PC    | 1183    | 23980.0000  | 82.3579     | 3709801.357 | 5704270.749 |
| PC    | 1184    | 23985.1457  | 82.3591     | 3709802.554 | 5704265.745 |
| PC    | 1185    | 23987.8336  | 82.3588     | 3709803.171 | 5704263.128 |
| PC    | 1186    | 23990.0000  | 82.3581     | 3709803.663 | 5704261.019 |
| PC    | 1187    | 24000.0000  | 82.3491     | 3709805.882 | 5704251.268 |
| PC    | 1188    | 24010.0000  | 82.3310     | 3709808.010 | 5704241.497 |
| PC    | 1189    | 24020.0000  | 82.3039     | 3709810.045 | 5704231.706 |
| PC    | 1190    | 24023.0715  | 82.2937     | 3709810.651 | 5704228.695 |
| PC    | 1191    | 24030.0000  | 82.2677     | 3709811.984 | 5704221.896 |
| PC    | 1192    | 24040.0000  | 82.2224     | 3709813.824 | 5704212.067 |
| PT    | OE      | 24045.5084  | 82.1935     |             |             |
| PT    | 1193    | 24045.5084  | 82.1935     | 3709814.796 | 5704206.645 |
| PT    | 1194    | 24050.0000  | 82.1689     | 3709815.566 | 5704202.220 |
| PT    | 1195    | 24060.0000  | 82.1140     | 3709817.209 | 5704192.356 |
| PT    | 1196    | 24070.0000  | 82.0591     | 3709818.753 | 5704182.476 |
| PT    | 1197    | 24080.0000  | 82.0042     | 3709820.199 | 5704172.581 |
| PT    | 1198    | 24090.0000  | 81.9494     | 3709821.545 | 5704162.672 |
| PT    | 1199    | 24100.0000  | 81.8945     | 3709822.793 | 5704152.750 |
| PT    | 1200    | 24110.0000  | 81.8396     | 3709823.941 | 5704142.816 |
| PT    | 1201    | 24120.0000  | 81.7847     | 3709824.990 | 5704132.871 |
| PT    | 1202    | 24130.0000  | 81.7299     | 3709825.939 | 5704122.917 |
| PT    | 1203    | 24140.0000  | 81.6750     | 3709826.789 | 5704112.953 |
| PT    | 1204    | 24150.0000  | 81.6201     | 3709827.539 | 5704102.981 |
| PT    | 1205    | 24160.0000  | 81.5652     | 3709828.189 | 5704093.002 |
| PT    | 1206    | 24170.0000  | 81.5104     | 3709828.739 | 5704083.017 |
| PT    | 1207    | 24180.0000  | 81.4555     | 3709829.190 | 5704073.028 |
| PT    | 1208    | 24190.0000  | 81.4006     | 3709829.540 | 5704063.034 |
| PT    | 1209    | 24200.0000  | 81.3457     | 3709829.791 | 5704053.037 |
| PT    | 1210    | 24210.0000  | 81.2909     | 3709829.942 | 5704043.038 |
| PT    | 1211    | 24220.0000  | 81.2360     | 3709829.992 | 5704033.038 |
| PT    | 1212    | 24230.0000  | 81.1811     | 3709829.943 | 5704023.039 |
| PT    | 1213    | 24240.0000  | 81.1262     | 3709829.794 | 5704013.040 |
| PT    | 1214    | 24250.0000  | 81.0714     | 3709829.544 | 5704003.043 |
| PT    | 1215    | 24260.0000  | 81.0165     | 3709829.195 | 5703993.049 |
| PT    | 1216    | 24270.0000  | 80.9616     | 3709828.746 | 5703983.059 |
| PT    | 1217    | 24280.0000  | 80.9067     | 3709828.197 | 5703973.074 |
| PT    | 1218    | 24290.0000  | 80.8519     | 3709827.548 | 5703963.095 |
| PT    | 1219    | 24300.0000  | 80.7970     | 3709826.799 | 5703953.123 |
| PT    | 1220    | 24310.0000  | 80.7421     | 3709825.951 | 5703943.160 |
| PT    | 1221    | 24320.0000  | 80.6872     | 3709825.003 | 5703933.205 |
| PT    | 1222    | 24330.0000  | 80.6324     | 3709823.956 | 5703923.260 |
| PT    | 1223    | 24340.0000  | 80.5775     | 3709822.809 | 5703913.326 |
| PT    | 1224    | 24350.0000  | 80.5226     | 3709821.563 | 5703903.404 |
| PT    | 1225    | 24360.0000  | 80.4677     | 3709820.218 | 5703893.495 |
| PC    | OE      | 24362.9550  | 80.4515     |             |             |
| PC    | 1226    | 24362.9550  | 80.4515     | 3709819.801 | 5703890.569 |
| PC    | 1227    | 24370.0000  | 80.4141     | 3709818.774 | 5703883.600 |
| PC    | 1228    | 24380.0000  | 80.3652     | 3709817.230 | 5703873.719 |
| PC    | 1229    | 24387.8325  | 80.3305     | 3709815.953 | 5703865.992 |
| PC    | 1230    | 24390.0000  | 80.3214     | 3709815.589 | 5703863.855 |
| PC    | 1231    | 24400.0000  | 80.2825     | 3709813.848 | 5703854.008 |
| PC    | 1232    | 24410.0000  | 80.2487     | 3709812.009 | 5703844.178 |
| PT    | OE      | 24412.7101  | 80.2404     |             |             |
| PT    | 1233    | 24412.7101  | 80.2404     | 3709811.494 | 5703841.518 |

PC - Punkt na łuku pionowym

PT - Punkt na stycznej łuku pionowego

OE - Punkt styczności

# Wysokości punktów trasy w przekroju podłużnym - S11

| -TYP- | ---NR-- | -PIKIETAŻ-- | ---RZĘDNA-- | -----X----- | -----Y----- |
|-------|---------|-------------|-------------|-------------|-------------|
| PT    | 1234    | 24420.0000  | 80.2185     | 3709810.072 | 5703834.368 |
| PT    | 1235    | 24430.0000  | 80.1885     | 3709808.037 | 5703824.577 |
| PT    | 1236    | 24440.0000  | 80.1585     | 3709805.905 | 5703814.807 |
| PT    | 1237    | 24450.0000  | 80.1285     | 3709803.674 | 5703805.059 |
| PT    | 1238    | 24460.0000  | 80.0985     | 3709801.346 | 5703795.334 |
| PT    | 1239    | 24470.0000  | 80.0685     | 3709798.922 | 5703785.632 |
| PT    | 1240    | 24480.0000  | 80.0385     | 3709796.400 | 5703775.956 |
| PT    | 1241    | 24490.0000  | 80.0085     | 3709793.781 | 5703766.305 |
| PT    | 1242    | 24500.0000  | 79.9785     | 3709791.067 | 5703756.680 |
| PT    | 1243    | 24510.0000  | 79.9485     | 3709788.256 | 5703747.083 |
| PT    | 1244    | 24520.0000  | 79.9185     | 3709785.349 | 5703737.515 |
| PT    | 1245    | 24530.0000  | 79.8885     | 3709782.347 | 5703727.977 |
| PT    | 1246    | 24540.0000  | 79.8585     | 3709779.249 | 5703718.468 |
| PT    | 1247    | 24550.0000  | 79.8285     | 3709776.057 | 5703708.992 |
| PT    | 1248    | 24560.0000  | 79.7985     | 3709772.770 | 5703699.547 |
| PT    | 1249    | 24570.0000  | 79.7685     | 3709769.388 | 5703690.136 |
| PT    | 1250    | 24580.0000  | 79.7385     | 3709765.913 | 5703680.760 |
| PT    | 1251    | 24590.0000  | 79.7085     | 3709762.344 | 5703671.418 |
| PT    | 1252    | 24600.0000  | 79.6785     | 3709758.682 | 5703662.113 |
| PT    | 1253    | 24610.0000  | 79.6485     | 3709754.927 | 5703652.845 |
| PT    | 1254    | 24620.0000  | 79.6186     | 3709751.080 | 5703643.615 |
| PT    | 1255    | 24630.0000  | 79.5886     | 3709747.140 | 5703634.423 |
| PT    | 1256    | 24640.0000  | 79.5586     | 3709743.109 | 5703625.272 |
| PT    | 1257    | 24650.0000  | 79.5286     | 3709738.986 | 5703616.161 |
| PT    | 1258    | 24656.9820  | 79.5076     | 3709736.054 | 5703609.825 |
| PT    | 1259    | 24660.0000  | 79.4986     | 3709734.773 | 5703607.092 |
| PT    | 1260    | 24670.0000  | 79.4686     | 3709730.470 | 5703598.066 |
| PT    | 1261    | 24680.0000  | 79.4386     | 3709726.081 | 5703589.080 |
| PT    | 1262    | 24690.0000  | 79.4086     | 3709721.609 | 5703580.136 |
| PT    | 1263    | 24700.0000  | 79.3786     | 3709717.058 | 5703571.232 |
| PT    | 1264    | 24710.0000  | 79.3486     | 3709712.431 | 5703562.367 |
| PT    | 1265    | 24720.0000  | 79.3186     | 3709707.731 | 5703553.540 |
| PT    | 1266    | 24730.0000  | 79.2886     | 3709702.961 | 5703544.751 |
| PT    | 1267    | 24740.0000  | 79.2586     | 3709698.125 | 5703535.998 |
| PT    | 1268    | 24750.0000  | 79.2286     | 3709693.226 | 5703527.281 |
| PT    | 1269    | 24760.0000  | 79.1986     | 3709688.266 | 5703518.597 |
| PT    | 1270    | 24770.0000  | 79.1686     | 3709683.250 | 5703509.946 |
| PT    | 1271    | 24780.0000  | 79.1386     | 3709678.180 | 5703501.327 |
| PT    | 1272    | 24790.0000  | 79.1086     | 3709673.059 | 5703492.737 |
| PT    | 1273    | 24800.0000  | 79.0786     | 3709667.891 | 5703484.177 |
| PT    | 1274    | 24810.0000  | 79.0486     | 3709662.677 | 5703475.643 |
| PT    | 1275    | 24820.0000  | 79.0186     | 3709657.423 | 5703467.135 |
| PT    | 1276    | 24830.0000  | 78.9886     | 3709652.129 | 5703458.651 |
| PT    | 1277    | 24840.0000  | 78.9586     | 3709646.799 | 5703450.190 |
| PT    | 1278    | 24850.0000  | 78.9286     | 3709641.436 | 5703441.749 |
| PT    | 1279    | 24860.0000  | 78.8986     | 3709636.044 | 5703433.328 |
| PT    | 1280    | 24870.0000  | 78.8686     | 3709630.624 | 5703424.924 |
| PT    | 1281    | 24880.0000  | 78.8386     | 3709625.180 | 5703416.536 |
| PT    | 1282    | 24890.0000  | 78.8086     | 3709619.714 | 5703408.162 |
| PT    | 1283    | 24900.0000  | 78.7786     | 3709614.230 | 5703399.800 |
| PT    | 1284    | 24910.0000  | 78.7486     | 3709608.729 | 5703391.448 |
| PT    | 1285    | 24920.0000  | 78.7186     | 3709603.216 | 5703383.106 |
| PT    | 1286    | 24930.0000  | 78.6886     | 3709597.692 | 5703374.770 |
| PT    | 1287    | 24940.0000  | 78.6586     | 3709592.161 | 5703366.438 |
| PT    | 1288    | 24950.0000  | 78.6286     | 3709586.625 | 5703358.111 |
| PT    | 1289    | 24956.9820  | 78.6077     | 3709582.759 | 5703352.297 |
| PT    | 1290    | 24960.0000  | 78.5986     | 3709581.088 | 5703349.784 |
| PT    | 1291    | 24970.0000  | 78.5686     | 3709575.550 | 5703341.457 |

PC - Punkt na łuku pionowym

PT - Punkt na stycznej łuku pionowego

OE - Punkt styczności

# Wysokości punktów trasy w przekroju podłużnym - S11

| -TYP- | ---NR-- | -PIKIETAŻ-- | ---RZĘDNA-- | -----X----- | -----Y----- |
|-------|---------|-------------|-------------|-------------|-------------|
| PC    | OE      | 24972.8848  | 78.5600     |             |             |
| PC    | 1292    | 24972.8848  | 78.5600     | 3709573.952 | 5703339.055 |
| PC    | 1293    | 24980.0000  | 78.5418     | 3709570.012 | 5703333.131 |
| PC    | 1294    | 24990.0000  | 78.5269     | 3709564.474 | 5703324.804 |
| PC    | 1295    | 24996.8829  | 78.5240     | 3709560.662 | 5703319.073 |
| PC    | 1296    | 25000.0000  | 78.5246     | 3709558.936 | 5703316.478 |
| PC    | 1297    | 25010.0000  | 78.5347     | 3709553.398 | 5703308.151 |
| PC    | 1298    | 25020.0000  | 78.5574     | 3709547.860 | 5703299.825 |
| PC    | 1299    | 25030.0000  | 78.5925     | 3709542.322 | 5703291.498 |
| PC    | 1300    | 25040.0000  | 78.6402     | 3709536.784 | 5703283.172 |
| PC    | 1301    | 25050.0000  | 78.7003     | 3709531.246 | 5703274.845 |
| PC    | 1302    | 25060.0000  | 78.7730     | 3709525.708 | 5703266.519 |
| PC    | 1303    | 25070.0000  | 78.8581     | 3709520.170 | 5703258.192 |
| PC    | 1304    | 25080.0000  | 78.9558     | 3709514.632 | 5703249.865 |
| PC    | 1305    | 25090.0000  | 79.0659     | 3709509.094 | 5703241.539 |
| PC    | 1306    | 25100.0000  | 79.1886     | 3709503.556 | 5703233.212 |
| PC    | 1307    | 25104.8899  | 79.2531     | 3709500.848 | 5703229.141 |
| PC    | 1308    | 25110.0000  | 79.3237     | 3709498.019 | 5703224.886 |
| PC    | 1309    | 25120.0000  | 79.4713     | 3709492.481 | 5703216.559 |
| PC    | 1310    | 25130.0000  | 79.6315     | 3709486.943 | 5703208.233 |
| PC    | 1311    | 25140.0000  | 79.8041     | 3709481.405 | 5703199.906 |
| PC    | 1312    | 25150.0000  | 79.9893     | 3709475.867 | 5703191.580 |
| PC    | 1313    | 25160.0000  | 80.1869     | 3709470.329 | 5703183.253 |
| PC    | 1314    | 25170.0000  | 80.3971     | 3709464.791 | 5703174.927 |
| PC    | 1315    | 25180.0000  | 80.6197     | 3709459.253 | 5703166.600 |
| PC    | 1316    | 25190.0000  | 80.8549     | 3709453.715 | 5703158.274 |
| PC    | 1317    | 25200.0000  | 81.1025     | 3709448.177 | 5703149.947 |
| PC    | 1318    | 25210.0000  | 81.3627     | 3709442.639 | 5703141.621 |
| PC    | 1319    | 25220.0000  | 81.6353     | 3709437.101 | 5703133.294 |
| PC    | 1320    | 25230.0000  | 81.9205     | 3709431.563 | 5703124.967 |
| PT    | OE      | 25236.8949  | 82.1243     |             |             |
| PT    | 1321    | 25236.8949  | 82.1243     | 3709427.745 | 5703119.226 |
| PT    | 1322    | 25240.0000  | 82.2175     | 3709426.025 | 5703116.641 |
| PT    | 1323    | 25250.0000  | 82.5175     | 3709420.487 | 5703108.314 |
| PT    | 1324    | 25260.0000  | 82.8175     | 3709414.949 | 5703099.988 |
| PT    | 1325    | 25270.0000  | 83.1175     | 3709409.411 | 5703091.661 |
| PT    | 1326    | 25280.0000  | 83.4176     | 3709403.874 | 5703083.335 |
| PT    | 1327    | 25290.0000  | 83.7176     | 3709398.336 | 5703075.008 |
| PT    | 1328    | 25300.0000  | 84.0176     | 3709392.798 | 5703066.682 |
| PT    | 1329    | 25310.0000  | 84.3176     | 3709387.260 | 5703058.355 |
| PT    | 1330    | 25320.0000  | 84.6176     | 3709381.722 | 5703050.029 |
| PT    | 1331    | 25330.0000  | 84.9176     | 3709376.184 | 5703041.702 |
| PT    | 1332    | 25340.0000  | 85.2177     | 3709370.646 | 5703033.376 |
| PT    | 1333    | 25350.0000  | 85.5177     | 3709365.108 | 5703025.049 |
| PC    | OE      | 25354.7313  | 85.6596     |             |             |
| PC    | 1334    | 25354.7313  | 85.6596     | 3709362.488 | 5703021.109 |
| PC    | 1335    | 25360.0000  | 85.8164     | 3709359.570 | 5703016.722 |
| PC    | 1336    | 25370.0000  | 86.1073     | 3709354.032 | 5703008.396 |
| PC    | 1337    | 25380.0000  | 86.3892     | 3709348.494 | 5703000.069 |
| PC    | 1338    | 25390.0000  | 86.6622     | 3709342.956 | 5702991.743 |
| PC    | 1339    | 25400.0000  | 86.9263     | 3709337.418 | 5702983.416 |
| PC    | 1340    | 25410.0000  | 87.1814     | 3709331.880 | 5702975.090 |
| PC    | 1341    | 25420.0000  | 87.4276     | 3709326.342 | 5702966.763 |
| PC    | 1342    | 25430.0000  | 87.6649     | 3709320.804 | 5702958.437 |
| PC    | 1343    | 25440.0000  | 87.8932     | 3709315.266 | 5702950.110 |
| PC    | 1344    | 25450.0000  | 88.1126     | 3709309.728 | 5702941.784 |
| PC    | 1345    | 25460.0000  | 88.3231     | 3709304.191 | 5702933.457 |
| PC    | 1346    | 25470.0000  | 88.5247     | 3709298.653 | 5702925.131 |

PC - Punkt na łuku pionowym

PT - Punkt na stycznej łuku pionowego

OE - Punkt styczności



# Wysokości punktów trasy w przekroju podłużnym - S11

| -TYP- | ---NR-- | -PIKIETAŻ-- | ---RZĘDNA-- | -----X----- | -----Y----- |
|-------|---------|-------------|-------------|-------------|-------------|
| PC    | 1347    | 25480.0000  | 88.7173     | 3709293.115 | 5702916.804 |
| PC    | 1348    | 25490.0000  | 88.9010     | 3709287.577 | 5702908.478 |
| PC    | 1349    | 25500.0000  | 89.0758     | 3709282.039 | 5702900.151 |
| PC    | 1350    | 25510.0000  | 89.2416     | 3709276.501 | 5702891.824 |
| PC    | 1351    | 25520.0000  | 89.3986     | 3709270.963 | 5702883.498 |
| PC    | 1352    | 25524.1538  | 89.4611     | 3709268.663 | 5702880.039 |
| PC    | 1353    | 25530.0000  | 89.5465     | 3709265.425 | 5702875.171 |
| PC    | 1354    | 25540.0000  | 89.6856     | 3709259.887 | 5702866.845 |
| PC    | 1355    | 25550.0000  | 89.8157     | 3709254.349 | 5702858.518 |
| PC    | 1356    | 25560.0000  | 89.9369     | 3709248.811 | 5702850.192 |
| PC    | 1357    | 25570.0000  | 90.0492     | 3709243.273 | 5702841.865 |
| PC    | 1358    | 25580.0000  | 90.1526     | 3709237.735 | 5702833.539 |
| PC    | 1359    | 25590.0000  | 90.2470     | 3709232.197 | 5702825.212 |
| PC    | 1360    | 25600.0000  | 90.3325     | 3709226.659 | 5702816.886 |
| PC    | 1361    | 25610.0000  | 90.4090     | 3709221.121 | 5702808.559 |
| PC    | 1362    | 25620.0000  | 90.4767     | 3709215.583 | 5702800.233 |
| PC    | 1363    | 25630.0000  | 90.5354     | 3709210.046 | 5702791.906 |
| PC    | 1364    | 25640.0000  | 90.5851     | 3709204.508 | 5702783.579 |
| PC    | 1365    | 25650.0000  | 90.6260     | 3709198.970 | 5702775.253 |
| PC    | 1366    | 25660.0000  | 90.6579     | 3709193.432 | 5702766.926 |
| PC    | 1367    | 25670.0000  | 90.6809     | 3709187.894 | 5702758.600 |
| PC    | 1368    | 25680.0000  | 90.6950     | 3709182.356 | 5702750.273 |
| PC    | 1369    | 25690.0000  | 90.7001     | 3709176.818 | 5702741.947 |
| PC    | 1370    | 25690.7481  | 90.7001     | 3709176.404 | 5702741.324 |
| PC    | OE      | 25693.5763  | 90.6998     |             |             |
| PC    | 1371    | 25693.5763  | 90.6998     | 3709174.837 | 5702738.969 |

PC - Punkt na łuku pionowym  
PT - Punkt na stycznej łuku pionowego  
OE - Punkt styczności

## GEOMETRIA OSI TRASY GŁÓWNEJ - S5

### 1. ELEMENTY TRASY W PLANIE - S5

| ELEMENT | --CHARAKTERYSTYKA--                                      | --DŁUGOŚĆ--   | -PIKIETAŻ- | -----X-----   | -----Y-----   |
|---------|----------------------------------------------------------|---------------|------------|---------------|---------------|
|         |                                                          |               | 0.000      | 3709174.83752 | 5702738.96923 |
| 1       | AZYMUT= 237.36411                                        | 737.405       |            |               |               |
|         |                                                          |               | 737.405    | 3708766.46705 | 5702124.96655 |
| 1       | A = 670.82039                                            | 225.000       |            |               |               |
|         |                                                          |               | 962.405    | 3708638.39081 | 5701940.01455 |
| 2       | XC = 3707037.98653<br>YC = 5703139.47532<br>R = 2000.000 | 414.961       |            |               |               |
|         |                                                          |               | 1377.366   | 3708356.98386 | 5701636.06385 |
| 2       | A = 670.82039                                            | 225.000       |            |               |               |
|         |                                                          |               | 1602.366   | 3708182.43023 | 5701494.14205 |
| 3       | AZYMUT= 257.73471                                        | 2.632         |            |               |               |
|         |                                                          |               | 1604.998   | 3708180.35716 | 5701492.52013 |
|         |                                                          |               |            |               |               |
|         |                                                          | DŁUGOŚĆ TRASY | 1604.998   |               |               |

XC,YC - Współrzędne środka łuku  
R - Promień łuku  
A - Parametr krzywej przejściowej

## 2. PUNKTY GŁÓWNE TRASY W PLANIE - S5 (HTPS)

| PUNKT | -----X----- | -----Y----- | -----Z----- | --PIKIETAŻ-- | ---AZYMUT--- | --PROMIEŃ--- | --SPADEK--- | -V-PROMIEŃ-- | HCOD | ELEMENT |
|-------|-------------|-------------|-------------|--------------|--------------|--------------|-------------|--------------|------|---------|
| 1     | 3709174.838 | 5702738.969 | 90.700      | 0.000        | 237.3641141  | INF          | -0.00025    | -11200.00000 | PBT  | 1       |
| 2     | 3708766.467 | 5702124.967 | 86.525      | 737.405      | 237.3641141  | INF          | 0.00579     | INF          | TS00 | 1       |
| 3     | 3708638.391 | 5701940.015 | 87.515      | 962.405      | 240.9451004  | 2000.000     | 0.00020     | -20000.00000 | SC00 | 2       |
| 4     | 3708356.984 | 5701636.064 | 86.700      | 1377.366     | 254.1537232  | 2000.000     | 0.00272     | 20000.00000  | CS00 | 2       |
| 5     | 3708182.430 | 5701494.142 | 87.374      | 1602.366     | 257.7347095  | INF          | 0.00300     | INF          | ST00 | 3       |
| 6     | 3708180.357 | 5701492.520 | 87.382      | 1604.998     | 257.7347095  | INF          | 0.00300     | INF          | PAT  | 3       |

PBT - Punkt początkowy na prostej

TS00 - Punkt między prostą i krzywą przejściową

ST00 - Punkt między krzywą przejściową i prostą

CS00 - Punkt między łukiem i krzywą przejściową

SC00 - Punkt między krzywą przejściową i łukiem

PAT - Punkt końcowy na prostej

V-PROMIEŃ - Wartość promienia w przekroju podłużnym [m]

### 3. PUNKTY WIERZCHOŁKOWE TRASY W PLANIE - S5 (HIPS)

| PUNKT | -----X----- | -----Y----- | KĄT ZWROTU | --PROMIEN-- | HCOD |
|-------|-------------|-------------|------------|-------------|------|
| 1     | 3709174.838 | 5702738.969 | 0.0000000  | INF         | HIP  |
| 2     | 3708525.347 | 5701762.431 | 20.3705953 | 2000.000    | HIP  |
| 3     | 3708180.357 | 5701492.520 | 0.0000000  | INF         | HIP  |

### 4. ŚRODKI ŁUKÓW POZIOMYCH TRASY W PLANIE - S5 (HCEN)

| PUNKT | -----X----- | -----Y----- | --PROMIEN-- | HCOD | ELEMENT |
|-------|-------------|-------------|-------------|------|---------|
| 1     | 3707037.987 | 5703139.475 | 2000.000    | HCEN | 2       |

### 5. ELEMENTY TRASY W PRZEKROJU PODŁUŻNYM - S5

| ELEMENT-----CHARAKTERYSTYKA----- |                                          | --DŁUGOŚĆ-- | PUNKTY STYCZNOŚCI |             |
|----------------------------------|------------------------------------------|-------------|-------------------|-------------|
|                                  |                                          |             | -----S-----       | -----Z----- |
| 1                                | R = -11200.000                           | 66.961      | 0.000             | 90.700      |
| 2                                | SPADEK= -0.006                           | 85.218      | 66.961            | 90.483      |
| 3                                | R = -15000.000                           | 191.515     | 152.179           | 89.952      |
| 4                                | SPADEK= -0.019                           | 33.583      | 343.693           | 87.536      |
| 5                                | S= 529.2667 Z= 85.4539<br>R = 8000.000   | 198.295     | 377.276           | 86.898      |
| 6                                | SPADEK= 0.006                            | 275.132     | 575.572           | 85.588      |
| 7                                | S= 966.4660 Z= 87.5154<br>R = -20000.000 | 175.747     | 850.704           | 87.180      |
| 8                                | SPADEK= -0.003                           | 236.566     | 1026.450          | 87.425      |
| 9                                | S= 1323.0009 Z= 86.6260<br>R = 20000.000 | 119.987     | 1263.017          | 86.716      |
| 10                               | SPADEK= 0.003                            | 221.995     | 1383.003          | 86.716      |
|                                  |                                          |             | 1604.998          | 87.382      |

S - Pikietaż punktu  
Z - Rzędna punku  
R - Promień łuku

## 6. PUNKTY GŁÓWNE TRASY W PRZEKROJU PODŁUŻNYM - S5 (VTPS)

| PUNKT | -----X----- | -----Y----- | -----Z----- | --PIKIETAŻ-- | --SPADEK---- | --V-PROMIEN-- | --M-WAROŚĆ-- | VCOD | VNAM |
|-------|-------------|-------------|-------------|--------------|--------------|---------------|--------------|------|------|
| 1     | 3709174.838 | 5702738.969 | 90.700      | 0.000        | -0.00025     | -11200.000    | -0.89286     | PBC  | 1    |
| 2     | 3709137.755 | 5702683.214 | 90.483      | 66.961       | -0.00623     | INF           | 0.00000      | PT   | 2    |
| 3     | 3709090.562 | 5702612.257 | 89.952      | 152.179      | -0.00623     | -15000.000    | -0.66667     | PC   | 3    |
| 4     | 3708984.502 | 5702452.792 | 87.536      | 343.693      | -0.01900     | INF           | 0.00000      | PT   | 4    |
| 5     | 3708965.904 | 5702424.829 | 86.898      | 377.276      | -0.01900     | 8000.000      | 1.25000      | PC   | 5    |
| 6     | 3708856.089 | 5702259.717 | 85.588      | 575.572      | 0.00579      | INF           | 0.00000      | PT   | 6    |
| 7     | 3708703.276 | 5702030.928 | 87.180      | 850.704      | 0.00579      | -20000.000    | -0.50000     | PC   | 7    |
| 8     | 3708599.167 | 5701889.389 | 87.425      | 1026.450     | -0.00300     | INF           | 0.00000      | PT   | 8    |
| 9     | 3708440.739 | 5701713.893 | 86.716      | 1263.017     | -0.00300     | 20000.000     | 0.50000      | PC   | 9    |
| 10    | 3708352.741 | 5701632.352 | 86.716      | 1383.003     | 0.00300      | INF           | 0.00000      | PT   | B010 |
| 11    | 3708180.357 | 5701492.520 | 87.382      | 1604.998     | 0.00300      | INF           | 0.00000      | PAT  | B010 |

PBC - Punkt początkowy na łuku

PT - Punkt między łukiem i prostą

PC - Punkt między prostą i łukiem

PAC - Punkt końcowy na łuku

V-PROMIEN - Wartość promienia w przekroju podłużnym [m]

M-WAROŚĆ - Krzywizna łuku =  $10000/R$  [1/m]

## 7. PUNKTY WIERZCHOŁKOWE TRASY W PRZEKROJU PODŁUŻNYM - S5 (VIPS)

| PUNKT | -----X----- | -----Y----- | -----Z----- | --PIKIETAŻ-- | RÓŻ.SPADKÓW | --V-PROMIEN-- | --M-WAROŚĆ-- | VCOD |
|-------|-------------|-------------|-------------|--------------|-------------|---------------|--------------|------|
| 1     | 3709174.838 | 5702738.969 | 90.700      | 0.000        | 0.00000     | -11200.000    | -0.89286     | VIP  |
| 2     | 3709156.296 | 5702711.092 | 90.691      | 33.480       | -0.00598    | -11200.000    | -0.89286     | VIP  |
| 3     | 3709037.532 | 5702532.524 | 89.355      | 247.936      | -0.01277    | -15000.000    | -0.66667     | VIP  |
| 4     | 3708910.997 | 5702342.273 | 85.014      | 476.424      | 0.02479     | 8000.000      | 1.25000      | VIP  |
| 5     | 3708652.571 | 5701959.163 | 87.689      | 938.577      | -0.00879    | -20000.000    | -0.50000     | VIP  |
| 6     | 3708397.351 | 5701672.462 | 86.536      | 1323.010     | 0.00600     | 20000.000     | 0.50000      | VIP  |
| 7     | 3708180.357 | 5701492.520 | 87.382      | 1604.998     | 0.00000     | INF           | 0.00000      | VIP  |

V-PROMIEN - Wartość promienia w przekroju podłużnym [m]

M-WAROŚĆ - Krzywizna łuku =  $10000/R$  [1/m]

## 8. PUNKTY PŁASKIE TRASY W PRZĘKROJU PODŁUŻNYM - S5 (VFPS)

| PUNKT | -----X----- | -----Y----- | -----Z----- | --PIKIETAŻ-- | --V-PROMIEŃ- | --M-WAROŚĆ-- | VCOD | VNAM |
|-------|-------------|-------------|-------------|--------------|--------------|--------------|------|------|
| 1     | 3708881.733 | 5702298.273 | 85.454      | 529.267      | 8000.000     | 1.25000      | VFTR | 5    |
| 2     | 3708635.952 | 5701936.767 | 87.515      | 966.466      | -20000.000   | -0.50000     | VFPK | 7    |
| 3     | 3708397.358 | 5701672.468 | 86.626      | 1323.001     | 20000.000    | 0.50000      | VFTR | 9    |

VFTR - Minimum łuku wklęsłego

VFPK - Maksimum łuku wypukłego

V-PROMIEŃ - Wartość promienia w przekroju podłużnym [m]

M-WAROŚĆ - Krzywizna łuku =  $10000/R$  [1/m]

## 9. PUNKTY ŚRODKOWE ŁUKÓW(W POŁOWIE DŁUGOŚCI ŁUKU)TRASY W PRZĘKROJU PODŁUŻNYM - S5 (VMOS)

| PUNKT | -----X----- | -----Y----- | -----Z----- | --PIKIETAŻ-- | --SPADEK---- | --V-PROMIEŃ- | --M-WAROŚĆ-- | VCOD | VNAM |
|-------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|------|------|
| 1     | 3709156.296 | 5702711.092 | 90.641      | 33.480       | -0.00324     | -11200.000   | -0.89286     | VMOS | 1    |
| 2     | 3709037.532 | 5702532.524 | 89.049      | 247.936      | -0.01261     | -15000.000   | -0.66667     | VMOS | 3    |
| 3     | 3708910.997 | 5702342.273 | 85.628      | 476.424      | -0.00661     | 8000.000     | 1.25000      | VMOS | 5    |
| 4     | 3708652.571 | 5701959.163 | 87.496      | 938.577      | 0.00139      | -20000.000   | -0.50000     | VMOS | 7    |
| 5     | 3708397.351 | 5701672.462 | 86.626      | 1323.010     | 0.00000      | 20000.000    | 0.50000      | VMOS | 9    |

V-PROMIEŃ - Wartość promienia w przekroju podłużnym [m]

M-WAROŚĆ - Krzywizna łuku =  $10000/R$  [1/m]

# Współrzędne punktów trasy w planie - S5

| NR<br>PUNKTU | -PIKIETAZ- | W S P Ó Ł R Z Ę D N E |             | ---AZYMUT--<br>-PRZEKROJU- |
|--------------|------------|-----------------------|-------------|----------------------------|
|              |            | -----X-----           | -----Y----- |                            |
| 1            | 0.000      | 3709174.838           | 5702738.969 | 337.364                    |
| 2            | 10.000     | 3709169.300           | 5702730.643 | 337.364                    |
| 3            | 20.000     | 3709163.762           | 5702722.316 | 337.364                    |
| 4            | 30.000     | 3709158.224           | 5702713.990 | 337.364                    |
| 5            | 33.480     | 3709156.297           | 5702711.092 | 337.364                    |
| 6            | 40.000     | 3709152.686           | 5702705.663 | 337.364                    |
| 7            | 50.000     | 3709147.148           | 5702697.337 | 337.364                    |
| 8            | 60.000     | 3709141.610           | 5702689.010 | 337.364                    |
| 9            | 66.960     | 3709137.756           | 5702683.215 | 337.364                    |
| 10           | 70.000     | 3709136.072           | 5702680.683 | 337.364                    |
| 11           | 80.000     | 3709130.534           | 5702672.357 | 337.364                    |
| 12           | 90.000     | 3709124.996           | 5702664.030 | 337.364                    |
| 13           | 100.000    | 3709119.458           | 5702655.704 | 337.364                    |
| 14           | 110.000    | 3709113.920           | 5702647.377 | 337.364                    |
| 15           | 120.000    | 3709108.382           | 5702639.051 | 337.364                    |
| 16           | 130.000    | 3709102.844           | 5702630.724 | 337.364                    |
| 17           | 140.000    | 3709097.306           | 5702622.398 | 337.364                    |
| 18           | 150.000    | 3709091.768           | 5702614.071 | 337.364                    |
| 19           | 152.178    | 3709090.562           | 5702612.258 | 337.364                    |
| 20           | 160.000    | 3709086.230           | 5702605.745 | 337.364                    |
| 21           | 170.000    | 3709080.693           | 5702597.418 | 337.364                    |
| 22           | 180.000    | 3709075.155           | 5702589.092 | 337.364                    |
| 23           | 190.000    | 3709069.617           | 5702580.765 | 337.364                    |
| 24           | 200.000    | 3709064.079           | 5702572.439 | 337.364                    |
| 25           | 210.000    | 3709058.541           | 5702564.112 | 337.364                    |
| 26           | 220.000    | 3709053.003           | 5702555.785 | 337.364                    |
| 27           | 230.000    | 3709047.465           | 5702547.459 | 337.364                    |
| 28           | 240.000    | 3709041.927           | 5702539.132 | 337.364                    |
| 29           | 247.935    | 3709037.533           | 5702532.525 | 337.364                    |
| 30           | 250.000    | 3709036.389           | 5702530.806 | 337.364                    |
| 31           | 260.000    | 3709030.851           | 5702522.479 | 337.364                    |
| 32           | 270.000    | 3709025.313           | 5702514.153 | 337.364                    |
| 33           | 280.000    | 3709019.775           | 5702505.826 | 337.364                    |
| 34           | 290.000    | 3709014.237           | 5702497.500 | 337.364                    |
| 35           | 300.000    | 3709008.699           | 5702489.173 | 337.364                    |
| 36           | 310.000    | 3709003.161           | 5702480.847 | 337.364                    |
| 37           | 320.000    | 3708997.623           | 5702472.520 | 337.364                    |
| 38           | 330.000    | 3708992.085           | 5702464.194 | 337.364                    |
| 39           | 340.000    | 3708986.547           | 5702455.867 | 337.364                    |
| 40           | 343.692    | 3708984.503           | 5702452.793 | 337.364                    |
| 41           | 350.000    | 3708981.010           | 5702447.540 | 337.364                    |
| 42           | 360.000    | 3708975.472           | 5702439.214 | 337.364                    |
| 43           | 370.000    | 3708969.934           | 5702430.887 | 337.364                    |
| 44           | 377.277    | 3708965.904           | 5702424.828 | 337.364                    |
| 45           | 380.000    | 3708964.396           | 5702422.561 | 337.364                    |
| 46           | 390.000    | 3708958.858           | 5702414.234 | 337.364                    |
| 47           | 400.000    | 3708953.320           | 5702405.908 | 337.364                    |
| 48           | 410.000    | 3708947.782           | 5702397.581 | 337.364                    |
| 49           | 420.000    | 3708942.244           | 5702389.255 | 337.364                    |
| 50           | 430.000    | 3708936.706           | 5702380.928 | 337.364                    |
| 51           | 440.000    | 3708931.168           | 5702372.602 | 337.364                    |
| 52           | 450.000    | 3708925.630           | 5702364.275 | 337.364                    |

# Współrzędne punktów trasy w planie - S5

| NR<br>PUNKTU | -PIKIETAZ- | W S P Ó Ł R Z Ę D N E |             | ---AZYMUT--<br>-PRZEKROJU- |
|--------------|------------|-----------------------|-------------|----------------------------|
|              |            | -----X-----           | -----Y----- |                            |
| 53           | 460.000    | 3708920.092           | 5702355.949 | 337.364                    |
| 54           | 470.000    | 3708914.554           | 5702347.622 | 337.364                    |
| 55           | 476.424    | 3708910.996           | 5702342.273 | 337.364                    |
| 56           | 480.000    | 3708909.016           | 5702339.296 | 337.364                    |
| 57           | 490.000    | 3708903.478           | 5702330.969 | 337.364                    |
| 58           | 500.000    | 3708897.940           | 5702322.642 | 337.364                    |
| 59           | 510.000    | 3708892.402           | 5702314.316 | 337.364                    |
| 60           | 520.000    | 3708886.865           | 5702305.989 | 337.364                    |
| 61           | 529.267    | 3708881.733           | 5702298.273 | 337.364                    |
| 62           | 530.000    | 3708881.327           | 5702297.663 | 337.364                    |
| 63           | 540.000    | 3708875.789           | 5702289.336 | 337.364                    |
| 64           | 550.000    | 3708870.251           | 5702281.010 | 337.364                    |
| 65           | 560.000    | 3708864.713           | 5702272.683 | 337.364                    |
| 66           | 570.000    | 3708859.175           | 5702264.357 | 337.364                    |
| 67           | 575.572    | 3708856.089           | 5702259.717 | 337.364                    |
| 68           | 580.000    | 3708853.637           | 5702256.030 | 337.364                    |
| 69           | 590.000    | 3708848.099           | 5702247.704 | 337.364                    |
| 70           | 600.000    | 3708842.561           | 5702239.377 | 337.364                    |
| 71           | 610.000    | 3708837.023           | 5702231.051 | 337.364                    |
| 72           | 620.000    | 3708831.485           | 5702222.724 | 337.364                    |
| 73           | 630.000    | 3708825.947           | 5702214.397 | 337.364                    |
| 74           | 640.000    | 3708820.409           | 5702206.071 | 337.364                    |
| 75           | 650.000    | 3708814.871           | 5702197.744 | 337.364                    |
| 76           | 660.000    | 3708809.333           | 5702189.418 | 337.364                    |
| 77           | 670.000    | 3708803.795           | 5702181.091 | 337.364                    |
| 78           | 680.000    | 3708798.257           | 5702172.765 | 337.364                    |
| 79           | 690.000    | 3708792.720           | 5702164.438 | 337.364                    |
| 80           | 700.000    | 3708787.182           | 5702156.112 | 337.364                    |
| 81           | 710.000    | 3708781.644           | 5702147.785 | 337.364                    |
| 82           | 720.000    | 3708776.106           | 5702139.459 | 337.364                    |
| 83           | 730.000    | 3708770.568           | 5702131.132 | 337.364                    |
| 84           | 737.405    | 3708766.467           | 5702124.967 | 337.364                    |
| 85           | 740.000    | 3708765.030           | 5702122.806 | 337.365                    |
| 86           | 750.000    | 3708759.491           | 5702114.479 | 337.375                    |
| 87           | 760.000    | 3708753.950           | 5702106.155 | 337.400                    |
| 88           | 770.000    | 3708748.405           | 5702097.833 | 337.439                    |
| 89           | 780.000    | 3708742.854           | 5702089.515 | 337.492                    |
| 90           | 790.000    | 3708737.295           | 5702081.203 | 337.560                    |
| 91           | 800.000    | 3708731.727           | 5702072.897 | 337.641                    |
| 92           | 810.000    | 3708726.146           | 5702064.599 | 337.737                    |
| 93           | 820.000    | 3708720.553           | 5702056.309 | 337.847                    |
| 94           | 830.000    | 3708714.944           | 5702048.030 | 337.971                    |
| 95           | 840.000    | 3708709.318           | 5702039.763 | 338.109                    |
| 96           | 850.000    | 3708703.673           | 5702031.508 | 338.261                    |
| 97           | 850.703    | 3708703.276           | 5702030.928 | 338.272                    |
| 98           | 860.000    | 3708698.008           | 5702023.268 | 338.427                    |
| 99           | 870.000    | 3708692.320           | 5702015.043 | 338.608                    |
| 100          | 880.000    | 3708686.609           | 5702006.835 | 338.802                    |
| 101          | 890.000    | 3708680.871           | 5701998.645 | 339.011                    |
| 102          | 900.000    | 3708675.105           | 5701990.474 | 339.234                    |
| 103          | 910.000    | 3708669.310           | 5701982.325 | 339.471                    |
| 104          | 920.000    | 3708663.483           | 5701974.197 | 339.723                    |



# Współrzędne punktów trasy w planie - S5

| NR<br>PUNKTU | -PIKIETAZ- | W S P Ó Ł R Z Ę D N E |             | ---AZYMUT--<br>-PRZEKROJU- |
|--------------|------------|-----------------------|-------------|----------------------------|
|              |            | -----X-----           | -----Y----- |                            |
| 105          | 930.000    | 3708657.624           | 5701966.094 | 339.988                    |
| 106          | 938.577    | 3708652.571           | 5701959.163 | 340.227                    |
| 107          | 940.000    | 3708651.730           | 5701958.015 | 340.267                    |
| 108          | 950.000    | 3708645.800           | 5701949.963 | 340.561                    |
| 109          | 960.000    | 3708639.832           | 5701941.940 | 340.869                    |
| 110          | 962.405    | 3708638.391           | 5701940.015 | 340.945                    |
| 111          | 966.466    | 3708635.952           | 5701936.767 | 341.074                    |
| 112          | 970.000    | 3708633.824           | 5701933.945 | 341.187                    |
| 113          | 980.000    | 3708627.777           | 5701925.981 | 341.505                    |
| 114          | 990.000    | 3708621.689           | 5701918.048 | 341.823                    |
| 115          | 1000.000   | 3708615.562           | 5701910.144 | 342.142                    |
| 116          | 1010.000   | 3708609.396           | 5701902.272 | 342.460                    |
| 117          | 1020.000   | 3708603.190           | 5701894.430 | 342.778                    |
| 118          | 1026.451   | 3708599.166           | 5701889.388 | 342.984                    |
| 119          | 1030.000   | 3708596.946           | 5701886.620 | 343.097                    |
| 120          | 1040.000   | 3708590.662           | 5701878.841 | 343.415                    |
| 121          | 1050.000   | 3708584.339           | 5701871.093 | 343.733                    |
| 122          | 1060.000   | 3708577.978           | 5701863.377 | 344.052                    |
| 123          | 1070.000   | 3708571.578           | 5701855.693 | 344.370                    |
| 124          | 1080.000   | 3708565.140           | 5701848.042 | 344.688                    |
| 125          | 1090.000   | 3708558.664           | 5701840.422 | 345.007                    |
| 126          | 1100.000   | 3708552.150           | 5701832.835 | 345.325                    |
| 127          | 1110.000   | 3708545.598           | 5701825.280 | 345.643                    |
| 128          | 1120.000   | 3708539.008           | 5701817.759 | 345.962                    |
| 129          | 1130.000   | 3708532.381           | 5701810.270 | 346.280                    |
| 130          | 1140.000   | 3708525.716           | 5701802.815 | 346.598                    |
| 131          | 1150.000   | 3708519.014           | 5701795.393 | 346.916                    |
| 132          | 1160.000   | 3708512.275           | 5701788.005 | 347.235                    |
| 133          | 1170.000   | 3708505.499           | 5701780.650 | 347.553                    |
| 134          | 1180.000   | 3708498.687           | 5701773.330 | 347.871                    |
| 135          | 1190.000   | 3708491.838           | 5701766.043 | 348.190                    |
| 136          | 1200.000   | 3708484.953           | 5701758.791 | 348.508                    |
| 137          | 1210.000   | 3708478.031           | 5701751.574 | 348.826                    |
| 138          | 1220.000   | 3708471.074           | 5701744.391 | 349.145                    |
| 139          | 1230.000   | 3708464.080           | 5701737.243 | 349.463                    |
| 140          | 1240.000   | 3708457.052           | 5701730.130 | 349.781                    |
| 141          | 1250.000   | 3708449.987           | 5701723.052 | 350.100                    |
| 142          | 1260.000   | 3708442.887           | 5701716.010 | 350.418                    |
| 143          | 1263.015   | 3708440.740           | 5701713.894 | 350.514                    |
| 144          | 1270.000   | 3708435.752           | 5701709.003 | 350.736                    |
| 145          | 1280.000   | 3708428.583           | 5701702.032 | 351.054                    |
| 146          | 1290.000   | 3708421.378           | 5701695.097 | 351.373                    |
| 147          | 1300.000   | 3708414.139           | 5701688.198 | 351.691                    |
| 148          | 1310.000   | 3708406.865           | 5701681.336 | 352.009                    |
| 149          | 1320.000   | 3708399.558           | 5701674.510 | 352.328                    |
| 150          | 1323.000   | 3708397.359           | 5701672.469 | 352.423                    |
| 151          | 1323.009   | 3708397.352           | 5701672.463 | 352.423                    |
| 152          | 1330.000   | 3708392.216           | 5701667.720 | 352.646                    |
| 153          | 1340.000   | 3708384.840           | 5701660.968 | 352.964                    |
| 154          | 1350.000   | 3708377.431           | 5701654.252 | 353.283                    |
| 155          | 1360.000   | 3708369.988           | 5701647.573 | 353.601                    |
| 156          | 1370.000   | 3708362.512           | 5701640.932 | 353.919                    |

# Współrzędne punktów trasy w planie - S5

| NR<br>PUNKTU | -PIKIETAZ- | W S P Ó Ł R Z Ę D N E |             | ---AZYMUT--<br>-PRZEKROJU- |
|--------------|------------|-----------------------|-------------|----------------------------|
|              |            | -----X-----           | -----Y----- |                            |
| 157          | 1377.366   | 3708356.984           | 5701636.064 | 354.154                    |
| 158          | 1380.000   | 3708355.003           | 5701634.328 | 354.237                    |
| 159          | 1383.002   | 3708352.742           | 5701632.352 | 354.331                    |
| 160          | 1390.000   | 3708347.461           | 5701627.761 | 354.545                    |
| 161          | 1400.000   | 3708339.888           | 5701621.230 | 354.838                    |
| 162          | 1410.000   | 3708332.286           | 5701614.733 | 355.117                    |
| 163          | 1420.000   | 3708324.657           | 5701608.269 | 355.382                    |
| 164          | 1430.000   | 3708317.001           | 5701601.835 | 355.633                    |
| 165          | 1440.000   | 3708309.321           | 5701595.431 | 355.870                    |
| 166          | 1450.000   | 3708301.617           | 5701589.055 | 356.093                    |
| 167          | 1460.000   | 3708293.893           | 5701582.704 | 356.301                    |
| 168          | 1470.000   | 3708286.148           | 5701576.379 | 356.495                    |
| 169          | 1480.000   | 3708278.384           | 5701570.076 | 356.676                    |
| 170          | 1490.000   | 3708270.603           | 5701563.794 | 356.842                    |
| 171          | 1500.000   | 3708262.807           | 5701557.531 | 356.993                    |
| 172          | 1510.000   | 3708254.997           | 5701551.287 | 357.131                    |
| 173          | 1520.000   | 3708247.173           | 5701545.058 | 357.255                    |
| 174          | 1530.000   | 3708239.338           | 5701538.844 | 357.364                    |
| 175          | 1540.000   | 3708231.494           | 5701532.642 | 357.460                    |
| 176          | 1550.000   | 3708223.640           | 5701526.451 | 357.541                    |
| 177          | 1560.000   | 3708215.780           | 5701520.270 | 357.608                    |
| 178          | 1570.000   | 3708207.914           | 5701514.096 | 357.661                    |
| 179          | 1580.000   | 3708200.043           | 5701507.927 | 357.699                    |
| 180          | 1590.000   | 3708192.169           | 5701501.762 | 357.724                    |
| 181          | 1600.000   | 3708184.294           | 5701495.600 | 357.734                    |
| 182          | 1602.366   | 3708182.430           | 5701494.142 | 357.735                    |
| 183          | 1604.998   | 3708180.357           | 5701492.520 | 357.735                    |

# Wysokości punktów trasy w przekroju podłużnym - S5

| -TYP- | ---NR-- | -PIKIETAŻ-- | ---RZĘDNA-- | -----X----- | -----Y----- |
|-------|---------|-------------|-------------|-------------|-------------|
| PC    | 1       | 0.0000      | 90.6998     | 3709174.838 | 5702738.969 |
| PC    | 2       | 10.0000     | 90.6928     | 3709169.300 | 5702730.643 |
| PC    | 3       | 20.0000     | 90.6769     | 3709163.762 | 5702722.316 |
| PC    | 4       | 30.0000     | 90.6520     | 3709158.224 | 5702713.990 |
| PC    | 5       | 33.4798     | 90.6413     | 3709156.297 | 5702711.092 |
| PC    | 6       | 40.0000     | 90.6182     | 3709152.686 | 5702705.663 |
| PC    | 7       | 50.0000     | 90.5755     | 3709147.148 | 5702697.337 |
| PC    | 8       | 60.0000     | 90.5239     | 3709141.610 | 5702689.010 |
| PT    | OE      | 66.9595     | 90.4827     |             |             |
| PT    | 9       | 66.9595     | 90.4827     | 3709137.756 | 5702683.215 |
| PT    | 10      | 70.0000     | 90.4637     | 3709136.072 | 5702680.683 |
| PT    | 11      | 80.0000     | 90.4014     | 3709130.534 | 5702672.357 |
| PT    | 12      | 90.0000     | 90.3391     | 3709124.996 | 5702664.030 |
| PT    | 13      | 100.0000    | 90.2768     | 3709119.458 | 5702655.704 |
| PT    | 14      | 110.0000    | 90.2145     | 3709113.920 | 5702647.377 |
| PT    | 15      | 120.0000    | 90.1522     | 3709108.382 | 5702639.051 |
| PT    | 16      | 130.0000    | 90.0899     | 3709102.844 | 5702630.724 |
| PT    | 17      | 140.0000    | 90.0276     | 3709097.306 | 5702622.398 |
| PT    | 18      | 150.0000    | 89.9653     | 3709091.768 | 5702614.071 |
| PC    | OE      | 152.1776    | 89.9517     |             |             |
| PC    | 19      | 152.1776    | 89.9517     | 3709090.562 | 5702612.258 |
| PC    | 20      | 160.0000    | 89.9009     | 3709086.230 | 5702605.745 |
| PC    | 21      | 170.0000    | 89.8300     | 3709080.693 | 5702597.418 |
| PC    | 22      | 180.0000    | 89.7525     | 3709075.155 | 5702589.092 |
| PC    | 23      | 190.0000    | 89.6683     | 3709069.617 | 5702580.765 |
| PC    | 24      | 200.0000    | 89.5775     | 3709064.079 | 5702572.439 |
| PC    | 25      | 210.0000    | 89.4799     | 3709058.541 | 5702564.112 |
| PC    | 26      | 220.0000    | 89.3757     | 3709053.003 | 5702555.785 |
| PC    | 27      | 230.0000    | 89.2649     | 3709047.465 | 5702547.459 |
| PC    | 28      | 240.0000    | 89.1474     | 3709041.927 | 5702539.132 |
| PC    | 29      | 247.9347    | 89.0494     | 3709037.533 | 5702532.525 |
| PC    | 30      | 250.0000    | 89.0232     | 3709036.389 | 5702530.806 |
| PC    | 31      | 260.0000    | 88.8923     | 3709030.851 | 5702522.479 |
| PC    | 32      | 270.0000    | 88.7548     | 3709025.313 | 5702514.153 |
| PC    | 33      | 280.0000    | 88.6106     | 3709019.775 | 5702505.826 |
| PC    | 34      | 290.0000    | 88.4597     | 3709014.237 | 5702497.500 |
| PC    | 35      | 300.0000    | 88.3022     | 3709008.699 | 5702489.173 |
| PC    | 36      | 310.0000    | 88.1380     | 3709003.161 | 5702480.847 |
| PC    | 37      | 320.0000    | 87.9672     | 3708997.623 | 5702472.520 |
| PC    | 38      | 330.0000    | 87.7896     | 3708992.085 | 5702464.194 |
| PC    | 39      | 340.0000    | 87.6054     | 3708986.547 | 5702455.867 |
| PT    | OE      | 343.6919    | 87.5358     |             |             |
| PT    | 40      | 343.6919    | 87.5358     | 3708984.503 | 5702452.793 |
| PT    | 41      | 350.0000    | 87.4159     | 3708981.010 | 5702447.540 |
| PT    | 42      | 360.0000    | 87.2259     | 3708975.472 | 5702439.214 |
| PT    | 43      | 370.0000    | 87.0359     | 3708969.934 | 5702430.887 |
| PC    | OE      | 377.2770    | 86.8977     |             |             |
| PC    | 44      | 377.2770    | 86.8977     | 3708965.904 | 5702424.828 |
| PC    | 45      | 380.0000    | 86.8464     | 3708964.396 | 5702422.561 |
| PC    | 46      | 390.0000    | 86.6661     | 3708958.858 | 5702414.234 |
| PC    | 47      | 400.0000    | 86.4982     | 3708953.320 | 5702405.908 |
| PC    | 48      | 410.0000    | 86.3429     | 3708947.782 | 5702397.581 |
| PC    | 49      | 420.0000    | 86.2001     | 3708942.244 | 5702389.255 |
| PC    | 50      | 430.0000    | 86.0697     | 3708936.706 | 5702380.928 |
| PC    | 51      | 440.0000    | 85.9519     | 3708931.168 | 5702372.602 |
| PC    | 52      | 450.0000    | 85.8466     | 3708925.630 | 5702364.275 |
| PC    | 53      | 460.0000    | 85.7537     | 3708920.092 | 5702355.949 |

# Wysokości punktów trasy w przekroju podłużnym - S5

| -TYP- | ---NR-- | -PIKIETAŻ-- | ---RZĘDNA-- | -----X----- | -----Y----- |
|-------|---------|-------------|-------------|-------------|-------------|
| PC    | 54      | 470.0000    | 85.6734     | 3708914.554 | 5702347.622 |
| PC    | 55      | 476.4244    | 85.6284     | 3708910.996 | 5702342.273 |
| PC    | 56      | 480.0000    | 85.6056     | 3708909.016 | 5702339.296 |
| PC    | 57      | 490.0000    | 85.5502     | 3708903.478 | 5702330.969 |
| PC    | 58      | 500.0000    | 85.5074     | 3708897.940 | 5702322.642 |
| PC    | 59      | 510.0000    | 85.4771     | 3708892.402 | 5702314.316 |
| PC    | 60      | 520.0000    | 85.4592     | 3708886.865 | 5702305.989 |
| PC    | 61      | 529.2668    | 85.4539     | 3708881.733 | 5702298.273 |
| PC    | 62      | 530.0000    | 85.4539     | 3708881.327 | 5702297.663 |
| PC    | 63      | 540.0000    | 85.4611     | 3708875.789 | 5702289.336 |
| PC    | 64      | 550.0000    | 85.4807     | 3708870.251 | 5702281.010 |
| PC    | 65      | 560.0000    | 85.5129     | 3708864.713 | 5702272.683 |
| PC    | 66      | 570.0000    | 85.5576     | 3708859.175 | 5702264.357 |
| PT    | OE      | 575.5718    | 85.5879     |             |             |
| PT    | 67      | 575.5718    | 85.5879     | 3708856.089 | 5702259.717 |
| PT    | 68      | 580.0000    | 85.6135     | 3708853.637 | 5702256.030 |
| PT    | 69      | 590.0000    | 85.6714     | 3708848.099 | 5702247.704 |
| PT    | 70      | 600.0000    | 85.7293     | 3708842.561 | 5702239.377 |
| PT    | 71      | 610.0000    | 85.7872     | 3708837.023 | 5702231.051 |
| PT    | 72      | 620.0000    | 85.8450     | 3708831.485 | 5702222.724 |
| PT    | 73      | 630.0000    | 85.9029     | 3708825.947 | 5702214.397 |
| PT    | 74      | 640.0000    | 85.9608     | 3708820.409 | 5702206.071 |
| PT    | 75      | 650.0000    | 86.0187     | 3708814.871 | 5702197.744 |
| PT    | 76      | 660.0000    | 86.0766     | 3708809.333 | 5702189.418 |
| PT    | 77      | 670.0000    | 86.1344     | 3708803.795 | 5702181.091 |
| PT    | 78      | 680.0000    | 86.1923     | 3708798.257 | 5702172.765 |
| PT    | 79      | 690.0000    | 86.2502     | 3708792.720 | 5702164.438 |
| PT    | 80      | 700.0000    | 86.3081     | 3708787.182 | 5702156.112 |
| PT    | 81      | 710.0000    | 86.3660     | 3708781.644 | 5702147.785 |
| PT    | 82      | 720.0000    | 86.4239     | 3708776.106 | 5702139.459 |
| PT    | 83      | 730.0000    | 86.4817     | 3708770.568 | 5702131.132 |
| PT    | 84      | 737.4047    | 86.5246     | 3708766.467 | 5702124.967 |
| PT    | 85      | 740.0000    | 86.5396     | 3708765.030 | 5702122.806 |
| PT    | 86      | 750.0000    | 86.5975     | 3708759.491 | 5702114.479 |
| PT    | 87      | 760.0000    | 86.6554     | 3708753.950 | 5702106.155 |
| PT    | 88      | 770.0000    | 86.7133     | 3708748.405 | 5702097.833 |
| PT    | 89      | 780.0000    | 86.7711     | 3708742.854 | 5702089.515 |
| PT    | 90      | 790.0000    | 86.8290     | 3708737.295 | 5702081.203 |
| PT    | 91      | 800.0000    | 86.8869     | 3708731.727 | 5702072.897 |
| PT    | 92      | 810.0000    | 86.9448     | 3708726.146 | 5702064.599 |
| PT    | 93      | 820.0000    | 87.0027     | 3708720.553 | 5702056.309 |
| PT    | 94      | 830.0000    | 87.0605     | 3708714.944 | 5702048.030 |
| PT    | 95      | 840.0000    | 87.1184     | 3708709.318 | 5702039.763 |
| PT    | 96      | 850.0000    | 87.1763     | 3708703.673 | 5702031.508 |
| PC    | OE      | 850.7032    | 87.1804     |             |             |
| PC    | 97      | 850.7032    | 87.1804     | 3708703.276 | 5702030.928 |
| PC    | 98      | 860.0000    | 87.2320     | 3708698.008 | 5702023.268 |
| PC    | 99      | 870.0000    | 87.2828     | 3708692.320 | 5702015.043 |
| PC    | 100     | 880.0000    | 87.3285     | 3708686.609 | 5702006.835 |
| PC    | 101     | 890.0000    | 87.3692     | 3708680.871 | 5701998.645 |
| PC    | 102     | 900.0000    | 87.4050     | 3708675.105 | 5701990.474 |
| PC    | 103     | 910.0000    | 87.4357     | 3708669.310 | 5701982.325 |
| PC    | 104     | 920.0000    | 87.4614     | 3708663.483 | 5701974.197 |
| PC    | 105     | 930.0000    | 87.4822     | 3708657.624 | 5701966.094 |
| PC    | 106     | 938.5771    | 87.4960     | 3708652.571 | 5701959.163 |
| PC    | 107     | 940.0000    | 87.4979     | 3708651.730 | 5701958.015 |
| PC    | 108     | 950.0000    | 87.5086     | 3708645.800 | 5701949.963 |

# Wysokości punktów trasy w przekroju podłużnym - S5

| -TYP- | ---NR-- | -PIKIETAŻ-- | ---RZĘDNA-- | -----X----- | -----Y----- |
|-------|---------|-------------|-------------|-------------|-------------|
| PC    | 109     | 960.0000    | 87.5144     | 3708639.832 | 5701941.940 |
| PC    | 110     | 962.4047    | 87.5150     | 3708638.391 | 5701940.015 |
| PC    | 111     | 966.4660    | 87.5154     | 3708635.952 | 5701936.767 |
| PC    | 112     | 970.0000    | 87.5151     | 3708633.824 | 5701933.945 |
| PC    | 113     | 980.0000    | 87.5108     | 3708627.777 | 5701925.981 |
| PC    | 114     | 990.0000    | 87.5016     | 3708621.689 | 5701918.048 |
| PC    | 115     | 1000.0000   | 87.4873     | 3708615.562 | 5701910.144 |
| PC    | 116     | 1010.0000   | 87.4680     | 3708609.396 | 5701902.272 |
| PC    | 117     | 1020.0000   | 87.4438     | 3708603.190 | 5701894.430 |
| PT    | OE      | 1026.4509   | 87.4254     |             |             |
| PT    | 118     | 1026.4509   | 87.4254     | 3708599.166 | 5701889.388 |
| PT    | 119     | 1030.0000   | 87.4148     | 3708596.946 | 5701886.620 |
| PT    | 120     | 1040.0000   | 87.3848     | 3708590.662 | 5701878.841 |
| PT    | 121     | 1050.0000   | 87.3548     | 3708584.339 | 5701871.093 |
| PT    | 122     | 1060.0000   | 87.3248     | 3708577.978 | 5701863.377 |
| PT    | 123     | 1070.0000   | 87.2948     | 3708571.578 | 5701855.693 |
| PT    | 124     | 1080.0000   | 87.2648     | 3708565.140 | 5701848.042 |
| PT    | 125     | 1090.0000   | 87.2348     | 3708558.664 | 5701840.422 |
| PT    | 126     | 1100.0000   | 87.2049     | 3708552.150 | 5701832.835 |
| PT    | 127     | 1110.0000   | 87.1749     | 3708545.598 | 5701825.280 |
| PT    | 128     | 1120.0000   | 87.1449     | 3708539.008 | 5701817.759 |
| PT    | 129     | 1130.0000   | 87.1149     | 3708532.381 | 5701810.270 |
| PT    | 130     | 1140.0000   | 87.0849     | 3708525.716 | 5701802.815 |
| PT    | 131     | 1150.0000   | 87.0549     | 3708519.014 | 5701795.393 |
| PT    | 132     | 1160.0000   | 87.0249     | 3708512.275 | 5701788.005 |
| PT    | 133     | 1170.0000   | 86.9949     | 3708505.499 | 5701780.650 |
| PT    | 134     | 1180.0000   | 86.9649     | 3708498.687 | 5701773.330 |
| PT    | 135     | 1190.0000   | 86.9349     | 3708491.838 | 5701766.043 |
| PT    | 136     | 1200.0000   | 86.9049     | 3708484.953 | 5701758.791 |
| PT    | 137     | 1210.0000   | 86.8749     | 3708478.031 | 5701751.574 |
| PT    | 138     | 1220.0000   | 86.8449     | 3708471.074 | 5701744.391 |
| PT    | 139     | 1230.0000   | 86.8150     | 3708464.080 | 5701737.243 |
| PT    | 140     | 1240.0000   | 86.7850     | 3708457.052 | 5701730.130 |
| PT    | 141     | 1250.0000   | 86.7550     | 3708449.987 | 5701723.052 |
| PT    | 142     | 1260.0000   | 86.7250     | 3708442.887 | 5701716.010 |
| PC    | OE      | 1263.0151   | 86.7159     |             |             |
| PC    | 143     | 1263.0151   | 86.7159     | 3708440.740 | 5701713.894 |
| PC    | 144     | 1270.0000   | 86.6962     | 3708435.752 | 5701709.003 |
| PC    | 145     | 1280.0000   | 86.6722     | 3708428.583 | 5701702.032 |
| PC    | 146     | 1290.0000   | 86.6532     | 3708421.378 | 5701695.097 |
| PC    | 147     | 1300.0000   | 86.6392     | 3708414.139 | 5701688.198 |
| PC    | 148     | 1310.0000   | 86.6302     | 3708406.865 | 5701681.336 |
| PC    | 149     | 1320.0000   | 86.6262     | 3708399.558 | 5701674.510 |
| PC    | 150     | 1323.0000   | 86.6260     | 3708397.359 | 5701672.469 |
| PC    | 151     | 1323.0087   | 86.6260     | 3708397.352 | 5701672.463 |
| PC    | 152     | 1330.0000   | 86.6272     | 3708392.216 | 5701667.720 |
| PC    | 153     | 1340.0000   | 86.6332     | 3708384.840 | 5701660.968 |
| PC    | 154     | 1350.0000   | 86.6442     | 3708377.431 | 5701654.252 |
| PC    | 155     | 1360.0000   | 86.6602     | 3708369.988 | 5701647.573 |
| PC    | 156     | 1370.0000   | 86.6812     | 3708362.512 | 5701640.932 |
| PC    | 157     | 1377.3659   | 86.6999     | 3708356.984 | 5701636.064 |
| PC    | 158     | 1380.0000   | 86.7072     | 3708355.003 | 5701634.328 |
| PT    | OE      | 1383.0024   | 86.7160     |             |             |
| PT    | 159     | 1383.0024   | 86.7160     | 3708352.742 | 5701632.352 |
| PT    | 160     | 1390.0000   | 86.7370     | 3708347.461 | 5701627.761 |
| PT    | 161     | 1400.0000   | 86.7670     | 3708339.888 | 5701621.230 |
| PT    | 162     | 1410.0000   | 86.7970     | 3708332.286 | 5701614.733 |

# Wysokości punktów trasy w przekroju podłużnym - S5

| -TYP- | ---NR-- | -PIKIETAŻ-- | ---RZĘDNA-- | -----X----- | -----Y----- |
|-------|---------|-------------|-------------|-------------|-------------|
| PT    | 163     | 1420.0000   | 86.8270     | 3708324.657 | 5701608.269 |
| PT    | 164     | 1430.0000   | 86.8570     | 3708317.001 | 5701601.835 |
| PT    | 165     | 1440.0000   | 86.8870     | 3708309.321 | 5701595.431 |
| PT    | 166     | 1450.0000   | 86.9170     | 3708301.617 | 5701589.055 |
| PT    | 167     | 1460.0000   | 86.9470     | 3708293.893 | 5701582.704 |
| PT    | 168     | 1470.0000   | 86.9770     | 3708286.148 | 5701576.379 |
| PT    | 169     | 1480.0000   | 87.0070     | 3708278.384 | 5701570.076 |
| PT    | 170     | 1490.0000   | 87.0370     | 3708270.603 | 5701563.794 |
| PT    | 171     | 1500.0000   | 87.0670     | 3708262.807 | 5701557.531 |
| PT    | 172     | 1510.0000   | 87.0970     | 3708254.997 | 5701551.287 |
| PT    | 173     | 1520.0000   | 87.1270     | 3708247.173 | 5701545.058 |
| PT    | 174     | 1530.0000   | 87.1570     | 3708239.338 | 5701538.844 |
| PT    | 175     | 1540.0000   | 87.1870     | 3708231.494 | 5701532.642 |
| PT    | 176     | 1550.0000   | 87.2170     | 3708223.640 | 5701526.451 |
| PT    | 177     | 1560.0000   | 87.2470     | 3708215.780 | 5701520.270 |
| PT    | 178     | 1570.0000   | 87.2770     | 3708207.914 | 5701514.096 |
| PT    | 179     | 1580.0000   | 87.3070     | 3708200.043 | 5701507.927 |
| PT    | 180     | 1590.0000   | 87.3370     | 3708192.169 | 5701501.762 |
| PT    | 181     | 1600.0000   | 87.3670     | 3708184.294 | 5701495.600 |
| PT    | 182     | 1602.3659   | 87.3741     | 3708182.430 | 5701494.142 |
| PC    | OE      | 1604.9980   | 87.3820     |             |             |
| PC    | 183     | 1604.9980   | 87.3820     | 3708180.357 | 5701492.520 |

PC - Punkt na łuku

PT - Punkt na stycznej

# Załącznik D

## ZESTAWIENIE PUNKTÓW CHARAKTERYSTYCZNYCH OGRODZENIA

### Strona Zachodnia

| Odcinek nr 1 |             |             |       |
|--------------|-------------|-------------|-------|
| nr pkt       | X           | Y           | UWAGI |
| 1            | 3707767,978 | 5713815,500 |       |
| 2            | 3707777,222 | 5713794,044 |       |
| 3            | 3707800,878 | 5713722,976 |       |
| 4            | 3707812,068 | 5713679,671 |       |
| 5            | 3707818,738 | 5713648,304 |       |
| 6            | 3707815,458 | 5713604,881 |       |
| 7            | 3707818,095 | 5713582,251 |       |
| 8            | 3707828,198 | 5713571,901 |       |
| 9            | 3707830,040 | 5713556,050 |       |
| 10           | 3707824,053 | 5713543,975 | F-1   |
| 10A          | 3707824,360 | 5713543,020 |       |
| 11           | 3707833,594 | 5713514,416 |       |
| 12           | 3707835,509 | 5713476,389 |       |
| 13           | 3707748,891 | 5713294,428 |       |
| 14           | 3707767,196 | 5713230,897 |       |
| 15           | 3707771,206 | 5713216,976 |       |
| 16           | 3707773,855 | 5713198,289 |       |
| 17           | 3707773,462 | 5713177,693 |       |
| 18           | 3707772,224 | 5713165,377 |       |
| 19           | 3707757,099 | 5713114,012 |       |
| 20           | 3707698,119 | 5712990,126 |       |
| 21           | 3707684,866 | 5712986,554 |       |

| Odcinek nr 2 |             |             |       |
|--------------|-------------|-------------|-------|
| nr pkt       | X           | Y           | UWAGI |
| 22           | 3707617,237 | 5712963,201 |       |
| 23           | 3707619,460 | 5712958,232 |       |
| 24           | 3707620,880 | 5712939,912 |       |
| 25           | 3707618,387 | 5712845,627 |       |
| 26           | 3707619,722 | 5712724,686 |       |
| 27           | 3707640,565 | 5712676,420 |       |
| 28           | 3707674,731 | 5712649,788 | F-2   |
| 29           | 3707675,500 | 5712649,149 |       |
| 30           | 3707678,749 | 5712646,447 |       |
| 31           | 3707684,314 | 5712645,159 |       |

| Odcinek nr 3 |             |             |       |
|--------------|-------------|-------------|-------|
| nr pkt       | X           | Y           | UWAGI |
| 32           | 3707681,746 | 5712634,061 |       |
| 33           | 3707674,974 | 5712635,629 |       |
| 34           | 3707631,197 | 5712608,095 |       |
| 35           | 3707628,846 | 5712446,333 |       |
| 36           | 3707606,101 | 5712339,758 |       |
| 37           | 3707574,314 | 5712200,125 |       |
| 38           | 3707514,033 | 5712019,716 |       |
| 39           | 3707391,267 | 5711780,217 |       |
| 40           | 3707368,283 | 5711739,792 |       |
| 41           | 3707361,389 | 5711732,547 |       |
| 42           | 3707355,781 | 5711722,269 |       |
| 43           | 3707358,813 | 5711715,243 |       |
| 44           | 3707362,033 | 5711713,000 |       |

| Odcinek nr 4 |             |             |       |
|--------------|-------------|-------------|-------|
| nr pkt       | X           | Y           | UWAGI |
| 45           | 3707359,950 | 5711709,353 |       |
| 46           | 3707356,321 | 5711711,024 |       |
| 47           | 3707348,835 | 5711710,000 |       |
| 48           | 3707343,010 | 5711699,845 |       |
| 49           | 3707343,276 | 5711695,806 |       |
| 50           | 3707039,881 | 5711164,776 |       |
| 51           | 3706991,242 | 5711077,379 |       |
| 52           | 3706902,319 | 5710897,428 |       |
| 53           | 3706880,073 | 5710777,180 |       |
| 54           | 3706875,620 | 5710772,343 |       |
| 55           | 3706873,503 | 5710759,957 |       |
| 56           | 3706881,019 | 5710752,255 |       |
| 57           | 3706889,780 | 5710750,918 |       |

| Odcinek nr 5 |             |             |       |
|--------------|-------------|-------------|-------|
| nr pkt       | X           | Y           | UWAGI |
| 58           | 3706887,805 | 5710737,968 |       |
| 59           | 3706877,959 | 5710739,470 |       |
| 60           | 3706875,747 | 5710738,247 | F-3   |
| 61           | 3706874,872 | 5710737,764 |       |
| 62           | 3706869,418 | 5710734,749 |       |
| 63           | 3706867,656 | 5710724,435 |       |

| Odcinek nr 5 |             |             |       |
|--------------|-------------|-------------|-------|
| nr pkt       | X           | Y           | UWAGI |
| 64           | 3706859,445 | 5710490,889 |       |
| 65           | 3706851,547 | 5710375,651 |       |
| 66           | 3706844,859 | 5710368,275 |       |
| 67           | 3706840,206 | 5710301,092 |       |
| 68           | 3706843,645 | 5710263,142 |       |
| 69           | 3706841,563 | 5710233,075 |       |
| 70           | 3706832,898 | 5710195,542 |       |
| 71           | 3706823,393 | 5710197,729 |       |
| 72           | 3706823,044 | 5710192,884 | B-1   |
| 73           | 3706822,757 | 5710188,894 |       |
| 74           | 3706813,382 | 5710058,503 |       |
| 75           | 3706787,872 | 5709919,796 |       |
| 76           | 3706810,067 | 5709878,067 |       |
| 77           | 3706814,465 | 5709845,010 |       |
| 78           | 3706814,126 | 5709799,745 |       |
| 79           | 3706809,868 | 5709741,952 |       |
| 80           | 3706798,425 | 5709697,851 |       |
| 81           | 3706762,204 | 5709174,807 |       |
| 82           | 3706653,858 | 5709096,795 |       |
| 83           | 3706623,742 | 5709003,917 |       |
| 84           | 3706358,703 | 5708881,273 |       |
| 85           | 3706342,521 | 5708878,484 |       |
| 86           | 3706316,472 | 5708875,718 |       |
| 87           | 3706295,857 | 5708890,744 |       |

| Odcinek nr 6 |             |             |       |
|--------------|-------------|-------------|-------|
| nr pkt       | X           | Y           | UWAGI |
| 88           | 3706291,164 | 5708774,106 |       |
| 89           | 3706333,544 | 5708839,976 |       |
| 90           | 3706355,629 | 5708824,300 |       |
| 91           | 3706376,777 | 5708828,081 |       |
| 92           | 3706390,321 | 5708840,222 |       |
| 93           | 3706551,521 | 5708908,530 |       |
| 94           | 3706614,568 | 5708904,442 |       |
| 95           | 3706669,923 | 5708854,762 |       |
| 96           | 3706674,804 | 5708836,398 |       |
| 97           | 3706698,738 | 5708842,758 |       |
| 98           | 3706735,803 | 5708791,123 |       |
| 99           | 3706733,478 | 5708748,445 |       |
| 100          | 3706740,516 | 5708742,490 |       |
| 101          | 3706744,479 | 5708742,084 |       |

| Odcinek nr 7 |             |             |       |
|--------------|-------------|-------------|-------|
| nr pkt       | X           | Y           | UWAGI |
| 102          | 3706744,283 | 5708737,882 |       |
| 103          | 3706740,814 | 5708738,238 |       |
| 104          | 3706735,980 | 5708734,866 |       |
| 105          | 3706731,141 | 5708609,334 |       |
| 106          | 3706733,129 | 5708569,189 |       |
| 107          | 3706740,480 | 5708501,287 |       |
| 108          | 3706748,234 | 5708464,978 |       |
| 109          | 3706770,189 | 5708349,235 |       |
| 110          | 3706784,697 | 5708304,082 |       |
| 111          | 3706797,743 | 5708268,815 |       |
| 112          | 3706815,663 | 5708223,477 |       |
| 113          | 3706851,935 | 5708148,778 |       |
| 114          | 3706879,582 | 5708100,464 |       |
| 115          | 3706902,144 | 5708065,097 |       |
| 116          | 3706930,221 | 5708024,900 |       |
| 117          | 3706960,114 | 5707986,148 |       |
| 118          | 3706990,902 | 5707950,118 |       |
| 119          | 3707009,345 | 5707930,009 |       |
| 120          | 3707032,432 | 5707906,436 |       |
| 121          | 3707057,279 | 5707882,519 |       |
| 122          | 3707102,693 | 5707840,611 |       |
| 123          | 3707169,545 | 5707785,883 |       |
| 124          | 3707215,405 | 5707750,442 |       |
| 125          | 3707223,610 | 5707743,906 | F-4   |
| 126          | 3707224,390 | 5707743,280 |       |
| 127          | 3707244,813 | 5707726,717 |       |
| 128          | 3707368,260 | 5707627,527 |       |
| 129          | 3707478,000 | 5707540,716 |       |
| 130          | 3707509,139 | 5707515,593 |       |
| 131          | 3707555,923 | 5707478,103 |       |
| 132          | 3707563,170 | 5707471,134 |       |
| 133          | 3707645,865 | 5707406,575 |       |
| 134          | 3707677,568 | 5707380,684 |       |
| 135          | 3707680,732 | 5707377,898 |       |
| 136          | 3707686,226 | 5707374,005 |       |
| 137          | 3707691,764 | 5707369,968 |       |
| 138          | 3707737,598 | 5707335,572 |       |
| 139          | 3708070,707 | 5707073,328 |       |
| 140          | 3708083,213 | 5707062,561 |       |
| 141          | 3708094,393 | 5707034,557 |       |
| 142          | 3708189,215 | 5706959,608 |       |
| 143          | 3708206,640 | 5706951,468 | F-5   |
| 144          | 3708207,546 | 5706951,046 |       |
| 145          | 3708214,178 | 5706947,948 |       |
| 146          | 3708224,044 | 5706940,131 |       |



| Odcinek nr 7 |             |             |       |
|--------------|-------------|-------------|-------|
| nr pkt       | X           | Y           | UWAGI |
| 147          | 3708227,379 | 5706936,215 |       |
| 148          | 3708232,435 | 5706925,448 |       |
| 149          | 3708330,512 | 5706847,929 |       |
| 150          | 3708331,765 | 5706840,400 |       |
| 151          | 3708335,270 | 5706829,263 |       |
| 152          | 3708343,791 | 5706818,907 |       |
| 153          | 3708413,972 | 5706779,100 |       |
| 154          | 3708399,507 | 5706683,741 |       |
| 155          | 3708334,467 | 5706670,525 |       |
| 156          | 3708327,407 | 5706651,866 |       |
| 157          | 3708327,643 | 5706650,704 |       |

| Odcinek nr 8 |             |             |       |
|--------------|-------------|-------------|-------|
| nr pkt       | X           | Y           | UWAGI |
| 158          | 3707761,972 | 5707261,576 |       |
| 159          | 3707773,275 | 5707274,818 |       |
| 160          | 3707776,266 | 5707276,160 | B-2   |
| 161          | 3707779,443 | 5707278,590 |       |
| 162          | 3707788,375 | 5707277,555 |       |
| 163          | 3707881,191 | 5707205,045 |       |
| 164          | 3707878,167 | 5707198,414 |       |
| 165          | 3707858,203 | 5707203,611 |       |
| 166          | 3707821,877 | 5707210,444 |       |

| Odcinek nr 9 |             |             |       |
|--------------|-------------|-------------|-------|
| nr pkt       | X           | Y           | UWAGI |
| 167          | 3708336,148 | 5706635,718 |       |
| 168          | 3708343,582 | 5706629,130 |       |
| 169          | 3708371,056 | 5706634,997 |       |
| 170          | 3708403,409 | 5706612,522 |       |

| Odcinek nr 10 |             |             |       |
|---------------|-------------|-------------|-------|
| nr pkt        | X           | Y           | UWAGI |
| 171           | 3708418,685 | 5706611,625 |       |
| 172           | 3708421,890 | 5706611,557 |       |
| 173           | 3708458,794 | 5706615,495 |       |
| 174           | 3708584,306 | 5706637,773 |       |
| 175           | 3708619,486 | 5706628,536 |       |
| 176           | 3708772,417 | 5706492,475 |       |
| 177           | 3708805,897 | 5706455,955 |       |
| 178           | 3708824,654 | 5706441,359 |       |
| 179           | 3708855,324 | 5706401,753 |       |

| Odcinek nr 10 |             |             |       |
|---------------|-------------|-------------|-------|
| nr pkt        | X           | Y           | UWAGI |
| 180           | 3708911,775 | 5706350,102 |       |
| 181           | 3708925,038 | 5706335,003 |       |
| 182           | 3708930,367 | 5706328,343 |       |
| 183           | 3708936,264 | 5706320,399 |       |
| 184           | 3708966,601 | 5706276,622 |       |
| 185           | 3709019,340 | 5706197,564 |       |
| 186           | 3709038,181 | 5706167,942 |       |
| 187           | 3709076,360 | 5706104,305 |       |
| 188           | 3709094,566 | 5706073,105 |       |
| 189           | 3709114,112 | 5706038,130 |       |
| 190           | 3709127,382 | 5706024,845 |       |
| 191           | 3709158,049 | 5705962,325 |       |
| 192           | 3709171,609 | 5705931,999 |       |
| 193           | 3709187,828 | 5705895,204 |       |
| 194           | 3709199,436 | 5705867,599 |       |
| 195           | 3709220,802 | 5705816,981 |       |
| 196           | 3709236,340 | 5705772,315 |       |
| 196A          | 3709288,256 | 5705624,798 |       |
| 196B          | 3709342,488 | 5705461,499 |       |
| 197           | 3709348,450 | 5705436,661 | F-6   |
| 198           | 3709348,779 | 5705435,717 |       |
| 199           | 3709350,230 | 5705431,557 |       |
| 200           | 3709358,836 | 5705426,896 |       |
| 201           | 3709372,781 | 5705427,960 |       |

| Odcinek nr 11 |             |             |       |
|---------------|-------------|-------------|-------|
| nr pkt        | X           | Y           | UWAGI |
| 202           | 3709392,004 | 5705376,272 |       |
| 203           | 3709386,475 | 5705375,878 |       |
| 204           | 3709375,775 | 5705360,908 |       |
| 205           | 3709433,006 | 5705222,822 |       |
| 206           | 3709406,266 | 5705115,708 |       |
| 207           | 3709401,106 | 5705112,141 |       |
| 208           | 3709394,709 | 5705101,269 |       |
| 209           | 3709387,651 | 5705073,721 |       |
| 210           | 3709386,730 | 5705064,993 |       |
| 211           | 3709382,683 | 5705048,413 |       |
| 212           | 3709382,349 | 5705025,796 |       |
| 213           | 3709389,279 | 5705004,571 |       |
| 214           | 3709395,840 | 5705003,590 |       |
| 215           | 3709396,090 | 5705002,880 | B-3   |
| 216           | 3709398,440 | 5704996,290 |       |
| 217           | 3709398,690 | 5704995,580 |       |
| 218           | 3709396,039 | 5704987,046 |       |
| 219           | 3709421,551 | 5704913,657 |       |

| Odcinek nr 11 |             |             |       |
|---------------|-------------|-------------|-------|
| nr pkt        | X           | Y           | UWAGI |
| 220           | 3709434,056 | 5704896,420 |       |
| 221           | 3709467,288 | 5704877,541 |       |
| 222           | 3709575,813 | 5704825,160 |       |
| 223           | 3709592,358 | 5704805,725 |       |
| 224           | 3709660,368 | 5704623,186 |       |
| 225           | 3709657,371 | 5704614,099 | B-4   |
| 226           | 3709656,119 | 5704610,305 |       |
| 227           | 3709655,287 | 5704607,781 |       |
| 228           | 3709665,453 | 5704600,563 |       |
| 229           | 3709668,763 | 5704595,964 |       |

| Odcinek nr 12 |             |             |       |
|---------------|-------------|-------------|-------|
| nr pkt        | X           | Y           | UWAGI |
| 230           | 3709673,349 | 5704583,001 |       |
| 231           | 3709675,600 | 5704576,589 |       |
| 232           | 3709676,003 | 5704572,391 |       |
| 233           | 3709673,824 | 5704562,410 |       |
| 234           | 3709671,150 | 5704546,028 |       |
| 235           | 3709631,153 | 5704513,371 |       |
| 236           | 3709654,869 | 5704502,298 |       |
| 237           | 3709694,439 | 5704436,451 |       |
| 238           | 3709726,770 | 5704421,552 | F-7   |
| 239           | 3709727,681 | 5704421,139 |       |
| 240           | 3709729,908 | 5704420,107 |       |
| 241           | 3709738,784 | 5704421,109 |       |

| Odcinek nr 13 |             |             |       |
|---------------|-------------|-------------|-------|
| nr pkt        | X           | Y           | UWAGI |
| 242           | 3709742,148 | 5704411,079 |       |
| 243           | 3709738,700 | 5704410,167 |       |
| 244           | 3709736,032 | 5704403,719 | F-8   |
| 245           | 3709735,650 | 5704402,795 |       |
| 246           | 3709735,330 | 5704402,020 |       |
| 247           | 3709783,762 | 5704219,012 |       |
| 248           | 3709794,114 | 5704154,121 |       |
| 249           | 3709799,962 | 5704091,008 |       |
| 250           | 3709801,430 | 5704008,010 |       |
| 251           | 3709767,779 | 5703829,505 |       |
| 252           | 3709782,096 | 5703825,713 |       |
| 253           | 3709772,468 | 5703789,824 |       |
| 254           | 3709764,093 | 5703757,905 |       |
| 255           | 3709758,059 | 5703735,601 |       |
| 256           | 3709748,622 | 5703708,920 |       |

| Odcinek nr 13 |             |             |       |
|---------------|-------------|-------------|-------|
| nr pkt        | X           | Y           | UWAGI |
| 257           | 3709739,493 | 5703686,695 |       |
| 258           | 3709724,326 | 5703648,233 |       |
| 259           | 3709693,959 | 5703582,164 |       |
| 260           | 3709667,068 | 5703532,192 |       |
| 261           | 3709539,724 | 5703334,184 |       |
| 262           | 3709526,142 | 5703313,125 |       |
| 263           | 3709488,976 | 5703259,062 |       |
| 264           | 3709381,135 | 5703097,010 |       |
| 265           | 3709334,081 | 5703032,239 |       |
| 266           | 3709258,483 | 5702921,878 |       |
| 267           | 3709250,941 | 5702916,154 |       |
| 268           | 3709246,518 | 5702909,912 | F-9   |
| 269           | 3709245,940 | 5702909,096 |       |
| 270           | 3709244,090 | 5702906,486 |       |
| 271           | 3709244,844 | 5702895,734 |       |
| 272           | 3709254,176 | 5702887,692 |       |

| Odcinek nr 14 |             |             |       |
|---------------|-------------|-------------|-------|
| nr pkt        | X           | Y           | UWAGI |
| 273           | 3709248,593 | 5702879,297 |       |
| 274           | 3709241,088 | 5702885,729 |       |
| 275           | 3709223,454 | 5702881,139 |       |
| 276           | 3709133,611 | 5702746,058 |       |
| 277           | 3709135,718 | 5702721,990 |       |
| 278           | 3709141,614 | 5702718,023 |       |

| Odcinek nr 15 |             |             |       |
|---------------|-------------|-------------|-------|
| nr pkt        | X           | Y           | UWAGI |
| 279           | 3709054,791 | 5702592,739 |       |
| 280           | 3709036,220 | 5702590,401 |       |
| 281           | 3709009,949 | 5702590,425 |       |
| 282           | 3708989,580 | 5702512,909 |       |
| 283           | 3708905,052 | 5702388,604 |       |
| 284           | 3708861,081 | 5702364,230 |       |
| 285           | 3708810,363 | 5702351,675 |       |
| 286           | 3708734,389 | 5702341,335 |       |
| 287           | 3708700,356 | 5702323,612 |       |
| 288           | 3708670,379 | 5702300,315 |       |
| 289           | 3708642,761 | 5702257,650 |       |
| 290           | 3708632,688 | 5702226,348 |       |
| 291           | 3708628,762 | 5702202,255 |       |
| 292           | 3708631,288 | 5702172,398 |       |
| 293           | 3708638,499 | 5702152,099 |       |

| Odcinek nr 15 |             |             |       |
|---------------|-------------|-------------|-------|
| nr pkt        | X           | Y           | UWAGI |
| 294           | 3708693,013 | 5702083,179 |       |
| 295           | 3708689,303 | 5702053,461 |       |
| 296           | 3708610,315 | 5701938,692 |       |
| 297           | 3708574,126 | 5701899,699 |       |
| 298           | 3708566,195 | 5701882,909 |       |
| 299           | 3708550,441 | 5701862,694 | F-10  |
| 300           | 3708549,799 | 5701861,927 |       |
| 301           | 3708434,629 | 5701749,068 |       |
| 302           | 3708337,694 | 5701658,055 |       |
| 303           | 3708161,773 | 5701515,118 |       |

| Odcinek nr 17 |             |             |       |
|---------------|-------------|-------------|-------|
| nr pkt        | X           | Y           | UWAGI |
| 327           | 3707835,450 | 5713076,520 |       |
| 328           | 3707838,100 | 5713054,800 |       |
| 329           | 3707853,160 | 5713031,020 |       |
| 330           | 3707875,170 | 5713010,630 |       |
| 331           | 3707923,560 | 5712968,740 |       |
| 332           | 3707937,880 | 5712954,810 |       |
| 333           | 3707951,700 | 5712937,820 |       |
| 334           | 3707959,720 | 5712923,970 |       |
| 335           | 3707964,330 | 5712912,900 |       |
| 336           | 3707977,990 | 5712866,360 |       |
| 337           | 3707993,200 | 5712837,530 |       |
| 338           | 3708007,250 | 5712825,190 |       |
| 339           | 3708047,720 | 5712809,910 |       |

### Strona Wschodnia

| Odcinek nr 16 |             |             |       |
|---------------|-------------|-------------|-------|
| nr pkt        | X           | Y           | UWAGI |
| 304           | 3707820,051 | 5713835,644 |       |
| 305           | 3707836,121 | 5713830,280 |       |
| 306           | 3707850,093 | 5713823,726 |       |
| 307           | 3707866,035 | 5713777,068 |       |
| 308           | 3707858,150 | 5713766,653 | B-5   |
| 309           | 3707857,368 | 5713762,730 |       |
| 310           | 3707847,622 | 5713739,909 |       |
| 311           | 3707879,165 | 5713609,994 |       |
| 312           | 3707876,519 | 5713588,552 | F-11  |
| 313           | 3707876,394 | 5713587,560 |       |
| 314           | 3707875,287 | 5713578,703 |       |
| 315           | 3707875,788 | 5713574,396 |       |

| Odcinek nr 18 |             |             |       |
|---------------|-------------|-------------|-------|
| nr pkt        | X           | Y           | UWAGI |
| 340           | 3708023,500 | 5712770,530 |       |
| 341           | 3707990,220 | 5712774,230 |       |
| 342           | 3707950,800 | 5712767,880 |       |
| 343           | 3707900,510 | 5712749,850 |       |
| 344           | 3707772,450 | 5712647,170 |       |
| 345           | 3707749,670 | 5712638,610 |       |
| 346           | 3707725,330 | 5712635,680 |       |
| 347           | 3707719,780 | 5712636,950 |       |

| Odcinek nr 17 |             |             |       |
|---------------|-------------|-------------|-------|
| nr pkt        | X           | Y           | UWAGI |
| 316           | 3707877,062 | 5713563,428 |       |
| 317           | 3707877,976 | 5713555,557 |       |
| 318           | 3707891,810 | 5713548,150 |       |
| 319           | 3707904,550 | 5713547,580 |       |
| 320           | 3707918,050 | 5713542,080 |       |
| 321           | 3707931,210 | 5713518,940 |       |
| 322           | 3707926,680 | 5713490,930 |       |
| 322A          | 3707909,410 | 5713454,660 | B-6   |
| 322B          | 3707907,700 | 5713451,050 |       |
| 323           | 3707889,840 | 5713413,530 |       |
| 324           | 3707877,770 | 5713317,810 |       |
| 325           | 3707871,230 | 5713262,150 |       |
| 326           | 3707836,080 | 5713092,510 |       |

| Odcinek nr 19 |             |             |       |
|---------------|-------------|-------------|-------|
| nr pkt        | X           | Y           | UWAGI |
| 348           | 3707716,990 | 5712625,810 |       |
| 349           | 3707724,150 | 5712624,150 |       |
| 350           | 3707725,870 | 5712622,040 | F-12  |
| 351           | 3707726,500 | 5712621,270 |       |
| 352           | 3707731,300 | 5712615,360 |       |
| 353           | 3707719,600 | 5712583,930 |       |
| 354           | 3707616,640 | 5712175,480 |       |
| 355           | 3707593,390 | 5712102,360 |       |
| 356           | 3707578,680 | 5712056,100 |       |
| 357           | 3707572,870 | 5712038,690 |       |
| 358           | 3707543,030 | 5711952,770 |       |
| 359           | 3707533,340 | 5711940,200 |       |
| 360           | 3707522,070 | 5711909,530 |       |
| 361           | 3707491,510 | 5711850,960 |       |
| 362           | 3707464,890 | 5711802,320 |       |
| 363           | 3707402,790 | 5711695,430 |       |

| Odcinek nr 19 |             |             |       |
|---------------|-------------|-------------|-------|
| nr pkt        | X           | Y           | UWAGI |
| 364           | 3707393,920 | 5711695,200 |       |
| 365           | 3707390,340 | 5711696,830 |       |

| Odcinek nr 20 |             |             |       |
|---------------|-------------|-------------|-------|
| nr pkt        | X           | Y           | UWAGI |
| 366           | 3707576,660 | 5712014,580 |       |
| 367           | 3707567,070 | 5711984,390 |       |
| 368           | 3707566,900 | 5711969,560 |       |
| 369           | 3707559,890 | 5711948,770 |       |
| 370           | 3707591,920 | 5711953,890 |       |
| 371           | 3707592,530 | 5712017,480 |       |
| 372           | 3707587,820 | 5712019,060 | B-7   |
| 373           | 3707584,030 | 5712020,330 |       |

| Odcinek nr 21 |             |             |       |
|---------------|-------------|-------------|-------|
| nr pkt        | X           | Y           | UWAGI |
| 374           | 3707388,520 | 5711693,040 |       |
| 375           | 3707390,520 | 5711691,900 |       |
| 376           | 3707394,230 | 5711682,690 |       |
| 377           | 3707375,720 | 5711650,820 |       |
| 378           | 3707314,260 | 5711551,020 |       |
| 379           | 3707313,430 | 5711538,010 |       |
| 380           | 3707233,560 | 5711398,120 |       |
| 381           | 3707259,970 | 5711361,720 |       |
| 382           | 3707280,860 | 5711336,970 |       |
| 383           | 3707200,770 | 5711340,680 |       |
| 384           | 3707177,250 | 5711299,480 |       |
| 385           | 3707164,150 | 5711281,210 |       |
| 386           | 3707156,340 | 5711262,850 |       |
| 387           | 3707073,790 | 5711118,240 |       |
| 388           | 3707025,820 | 5711029,930 |       |
| 389           | 3706994,430 | 5710961,370 |       |
| 390           | 3706954,920 | 5710824,190 |       |
| 391           | 3706940,590 | 5710754,580 | F-13  |
| 392           | 3706940,380 | 5710753,600 |       |
| 393           | 3706939,460 | 5710749,130 |       |
| 394           | 3706931,700 | 5710744,520 |       |
| 395           | 3706923,180 | 5710745,820 |       |

| Odcinek nr 22 |             |             |       |
|---------------|-------------|-------------|-------|
| nr pkt        | X           | Y           | UWAGI |
| 396           | 3706921,260 | 5710731,850 |       |

| Odcinek nr 22 |             |             |       |
|---------------|-------------|-------------|-------|
| nr pkt        | X           | Y           | UWAGI |
| 397           | 3706928,760 | 5710730,710 |       |
| 398           | 3706935,190 | 5710724,410 |       |
| 399           | 3706905,290 | 5710407,180 |       |
| 400           | 3706904,620 | 5710399,980 |       |
| 401           | 3706923,730 | 5710370,260 |       |
| 402           | 3706963,670 | 5710292,560 |       |
| 403           | 3706922,790 | 5710258,390 |       |
| 404           | 3706913,300 | 5710176,580 |       |
| 405           | 3706932,410 | 5710172,410 |       |
| 406           | 3706920,150 | 5710103,640 |       |
| 407           | 3706896,270 | 5709974,420 |       |
| 408           | 3706893,050 | 5709927,920 |       |
| 409           | 3706886,780 | 5709837,440 |       |
| 410           | 3706864,740 | 5709823,850 | B-8   |
| 411           | 3706862,880 | 5709820,310 |       |
| 412           | 3706862,600 | 5709812,270 |       |
| 413           | 3706861,610 | 5709763,440 |       |
| 414           | 3706824,250 | 5709223,940 |       |
| 415           | 3706848,440 | 5709178,860 |       |
| 416           | 3706978,810 | 5709083,550 |       |
| 417           | 3707175,390 | 5709045,410 |       |
| 418           | 3707188,330 | 5709051,690 |       |
| 419           | 3707191,200 | 5709042,560 |       |
| 420           | 3707264,610 | 5709028,140 |       |
| 421           | 3707293,980 | 5709035,870 |       |

| Odcinek nr 23 |             |             |       |
|---------------|-------------|-------------|-------|
| nr pkt        | X           | Y           | UWAGI |
| 422           | 3707201,970 | 5708995,980 |       |
| 423           | 3707105,420 | 5709008,120 |       |
| 424           | 3707006,670 | 5709020,540 |       |
| 425           | 3706949,500 | 5708998,990 |       |
| 426           | 3706947,560 | 5708997,000 |       |
| 427           | 3706926,290 | 5708943,010 |       |
| 428           | 3706931,280 | 5708923,890 |       |
| 429           | 3706917,400 | 5708920,270 |       |
| 430           | 3706878,900 | 5708898,400 |       |
| 431           | 3706817,550 | 5708871,140 |       |
| 432           | 3706792,270 | 5708818,430 |       |
| 433           | 3706789,490 | 5708768,770 |       |
| 434           | 3706791,260 | 5708751,240 |       |
| 435           | 3706791,120 | 5708742,900 |       |
| 436           | 3706790,890 | 5708739,200 |       |
| 437           | 3706786,270 | 5708739,690 |       |
| 438           | 3706783,500 | 5708738,080 |       |

| Odcinek nr 23 |             |             |       |
|---------------|-------------|-------------|-------|
| nr pkt        | X           | Y           | UWAGI |
| 439           | 3706780,660 | 5708738,370 |       |

| Odcinek nr 24 |             |             |       |
|---------------|-------------|-------------|-------|
| nr pkt        | X           | Y           | UWAGI |
| 477           | 3708806,630 | 5706760,270 |       |
| 478           | 3708821,920 | 5706763,430 |       |
| 479           | 3708863,420 | 5706789,890 |       |

| Odcinek nr 24 |             |             |       |
|---------------|-------------|-------------|-------|
| nr pkt        | X           | Y           | UWAGI |
| 440           | 3706780,460 | 5708734,170 |       |
| 441           | 3706784,060 | 5708733,800 |       |
| 442           | 3706790,720 | 5708728,010 |       |
| 443           | 3706789,700 | 5708718,940 |       |
| 444           | 3706786,900 | 5708650,800 |       |
| 445           | 3706791,600 | 5708562,140 |       |
| 446           | 3706803,550 | 5708456,970 |       |
| 447           | 3706814,810 | 5708398,780 |       |
| 448           | 3706827,350 | 5708351,190 |       |
| 449           | 3706837,620 | 5708317,540 |       |
| 450           | 3706846,950 | 5708289,840 |       |
| 451           | 3706859,390 | 5708259,770 |       |
| 452           | 3706872,310 | 5708227,030 |       |
| 453           | 3706891,310 | 5708188,130 |       |
| 454           | 3706919,410 | 5708135,540 |       |
| 455           | 3706940,600 | 5708100,960 |       |
| 456           | 3706968,140 | 5708060,540 |       |
| 457           | 3707014,550 | 5707999,130 |       |
| 458           | 3707030,050 | 5707981,400 |       |
| 459           | 3707060,170 | 5707948,900 |       |
| 460           | 3707086,820 | 5707922,300 |       |
| 461           | 3707135,810 | 5707877,220 |       |
| 462           | 3707251,510 | 5707779,640 |       |
| 462A          | 3707272,330 | 5707761,280 | F-14  |
| 462B          | 3707275,210 | 5707761,410 |       |
| 463           | 3707332,860 | 5707717,080 |       |
| 464           | 3707482,040 | 5707599,170 |       |
| 465           | 3707831,500 | 5707322,960 |       |
| 466           | 3708006,500 | 5707183,130 |       |
| 467           | 3708096,130 | 5707114,120 |       |
| 468           | 3708259,020 | 5706984,260 | F-15  |
| 469           | 3708259,800 | 5706983,640 |       |
| 470           | 3708319,800 | 5706935,810 |       |
| 471           | 3708606,450 | 5706709,650 |       |
| 472           | 3708629,130 | 5706717,350 | F-16  |
| 473           | 3708630,080 | 5706717,670 |       |
| 474           | 3708669,360 | 5706731,010 |       |
| 475           | 3708725,270 | 5706746,050 |       |
| 476           | 3708752,170 | 5706751,260 |       |

| Odcinek nr 25 |             |             |       |
|---------------|-------------|-------------|-------|
| nr pkt        | X           | Y           | UWAGI |
| 480           | 3707834,550 | 5707348,870 | B-9   |
| 481           | 3707832,720 | 5707340,820 |       |
| 482           | 3707900,080 | 5707286,620 |       |
| 483           | 3707911,110 | 5707319,240 |       |
| 484           | 3707848,950 | 5707371,920 |       |
| 485           | 3707836,710 | 5707355,600 |       |
| 486           | 3707836,030 | 5707352,150 | B-9   |

| Odcinek nr 26 |             |             |       |
|---------------|-------------|-------------|-------|
| nr pkt        | X           | Y           | UWAGI |
| 487           | 3708867,750 | 5706801,220 |       |
| 488           | 3708867,190 | 5706807,440 |       |
| 489           | 3708937,460 | 5706813,830 |       |
| 490           | 3709046,030 | 5706806,620 |       |
| 491           | 3709088,990 | 5706810,940 |       |

| Odcinek nr 27 |             |             |       |
|---------------|-------------|-------------|-------|
| nr pkt        | X           | Y           | UWAGI |
| 492           | 3709036,150 | 5706785,680 |       |
| 493           | 3708951,030 | 5706768,140 |       |
| 494           | 3708940,820 | 5706726,600 |       |
| 495           | 3708936,000 | 5706727,790 |       |

| Odcinek nr 28 |             |             |       |
|---------------|-------------|-------------|-------|
| nr pkt        | X           | Y           | UWAGI |
| 496           | 3708920,190 | 5706725,040 |       |
| 497           | 3708901,090 | 5706666,260 |       |
| 498           | 3708887,410 | 5706644,740 |       |
| 499           | 3708803,600 | 5706598,830 |       |
| 500           | 3708796,270 | 5706553,340 |       |
| 501           | 3708856,230 | 5706486,550 |       |
| 502           | 3708864,790 | 5706474,900 |       |
| 503           | 3708868,130 | 5706471,180 |       |
| 504           | 3708881,060 | 5706458,900 |       |

| Odcinek nr 28 |             |             |       |
|---------------|-------------|-------------|-------|
| nr pkt        | X           | Y           | UWAGI |
| 505           | 3708938,180 | 5706393,430 |       |
| 506           | 3708976,080 | 5706345,240 |       |
| 507           | 3708991,600 | 5706325,130 |       |
| 508           | 3709068,690 | 5706216,980 |       |
| 509           | 3709147,820 | 5706087,780 |       |
| 510           | 3709215,029 | 5705955,467 |       |
| 511           | 3709285,948 | 5705804,584 |       |
| 512           | 3709349,470 | 5705638,964 |       |
| 513           | 3709423,710 | 5705456,576 |       |
| 514           | 3709415,249 | 5705463,674 |       |
| 515           | 3709424,170 | 5705439,760 |       |
| 516           | 3709416,040 | 5705431,410 |       |
| 517           | 3709411,590 | 5705431,070 |       |

| Odcinek nr 30 |             |             |       |
|---------------|-------------|-------------|-------|
| nr pkt        | X           | Y           | UWAGI |
| 544           | 3709715,810 | 5704613,190 |       |
| 544A          | 3709717,200 | 5704609,300 | F-18  |
| 544B          | 3709717,540 | 5704608,360 |       |
| 545           | 3709736,520 | 5704555,440 |       |
| 546           | 3709774,730 | 5704441,220 |       |
| 547           | 3709777,290 | 5704436,710 |       |
| 548           | 3709778,000 | 5704431,460 |       |
| 549           | 3709775,600 | 5704425,990 |       |
| 550           | 3709775,350 | 5704425,900 | F-19  |
| 551           | 3709774,400 | 5704425,590 |       |
| 552           | 3709772,340 | 5704424,900 |       |

| Odcinek nr 29 |             |             |       |
|---------------|-------------|-------------|-------|
| nr pkt        | X           | Y           | UWAGI |
| 518           | 3709430,400 | 5705379,050 |       |
| 519           | 3709442,420 | 5705379,910 |       |
| 520           | 3709454,320 | 5705373,040 |       |
| 521           | 3709454,810 | 5705371,470 | F-17  |
| 522           | 3709455,110 | 5705370,510 |       |
| 523           | 3709468,950 | 5705325,900 |       |
| 524           | 3709470,630 | 5705313,870 |       |
| 525           | 3709492,320 | 5705243,330 |       |
| 526           | 3709644,910 | 5705147,800 |       |
| 527           | 3709662,530 | 5705124,990 |       |
| 528           | 3709679,670 | 5705074,540 |       |
| 529           | 3709680,660 | 5705047,060 |       |
| 530           | 3709675,810 | 5705023,200 |       |
| 531           | 3709668,510 | 5705020,510 |       |
| 532           | 3709669,220 | 5705018,490 | B-10  |
| 534           | 3709671,780 | 5705011,130 |       |
| 535           | 3709672,930 | 5705005,440 |       |
| 536           | 3709655,440 | 5704915,210 |       |
| 537           | 3709638,530 | 5704821,360 |       |
| 538           | 3709666,790 | 5704741,130 |       |
| 539           | 3709676,390 | 5704714,560 |       |
| 540           | 3709700,900 | 5704651,080 |       |
| 541           | 3709701,470 | 5704643,970 |       |
| 542           | 3709704,760 | 5704634,620 |       |

| Odcinek nr 31 |             |             |       |
|---------------|-------------|-------------|-------|
| nr pkt        | X           | Y           | UWAGI |
| 553           | 3709775,690 | 5704414,870 |       |
| 554           | 3709780,400 | 5704415,400 |       |
| 555           | 3709781,940 | 5704414,760 | F-20  |
| 556           | 3709782,860 | 5704414,380 |       |
| 557           | 3709784,990 | 5704413,500 |       |
| 558           | 3709788,620 | 5704407,310 |       |
| 559           | 3709788,060 | 5704401,390 |       |
| 560           | 3709825,350 | 5704289,910 |       |
| 561           | 3709837,170 | 5704240,660 |       |
| 562           | 3709851,050 | 5704104,890 |       |
| 563           | 3709862,440 | 5704006,180 |       |
| 564           | 3709861,120 | 5703958,470 |       |
| 565           | 3709820,490 | 5703745,850 |       |
| 566           | 3709799,550 | 5703682,290 |       |
| 567           | 3709732,970 | 5703547,470 |       |
| 568           | 3709698,840 | 5703479,590 |       |
| 569           | 3709648,530 | 5703399,530 |       |
| 570           | 3709579,050 | 5703296,560 |       |
| 571           | 3709524,150 | 5703220,580 |       |
| 572           | 3709417,200 | 5703054,000 |       |
| 573           | 3709342,010 | 5702935,760 |       |
| 574           | 3709299,210 | 5702862,510 |       |
| 575           | 3709285,110 | 5702861,100 |       |
| 576           | 3709279,010 | 5702866,160 |       |

| Odcinek nr 30 |             |             |       |
|---------------|-------------|-------------|-------|
| nr pkt        | X           | Y           | UWAGI |
| 543           | 3709708,980 | 5704622,640 |       |

| Odcinek nr 32 |             |             |       |
|---------------|-------------|-------------|-------|
| nr pkt        | X           | Y           | UWAGI |
| 577           | 3709273,430 | 5702857,770 |       |
| 578           | 3709284,500 | 5702848,450 | F-21  |

| Odcinek nr 32 |             |             |       |
|---------------|-------------|-------------|-------|
| nr pkt        | X           | Y           | UWAGI |
| 579           | 3709285,270 | 5702847,810 |       |
| 580           | 3709287,710 | 5702845,750 |       |
| 581           | 3709282,660 | 5702835,210 |       |
| 582           | 3709280,520 | 5702832,590 |       |
| 583           | 3709199,320 | 5702712,140 |       |
| 584           | 3709181,970 | 5702707,110 |       |
| 585           | 3709177,150 | 5702710,320 |       |

| Odcinek nr 33 |             |             |       |
|---------------|-------------|-------------|-------|
| nr pkt        | X           | Y           | UWAGI |
| 586           | 3709093,740 | 5702582,760 |       |
| 587           | 3709098,780 | 5702590,350 |       |
| 588           | 3709277,400 | 5702590,190 |       |
| 589           | 3709306,690 | 5702570,720 |       |
| 590           | 3709279,500 | 5702429,650 |       |
| 591           | 3709218,320 | 5702371,720 |       |
| 592           | 3709126,040 | 5702327,090 |       |
| 593           | 3709116,690 | 5702278,490 |       |
| 594           | 3708994,340 | 5702175,420 |       |
| 595           | 3708996,050 | 5702174,380 |       |

| Odcinek nr 34 |             |             |       |
|---------------|-------------|-------------|-------|
| nr pkt        | X           | Y           | UWAGI |
| 596           | 3709040,560 | 5702144,220 |       |
| 597           | 3709055,060 | 5702136,690 |       |
| 598           | 3709075,050 | 5702124,820 |       |
| 599           | 3708757,490 | 5701994,160 |       |
| 600           | 3708686,870 | 5701909,820 |       |

|     |             |             |      |
|-----|-------------|-------------|------|
| 601 | 3708658,400 | 5701892,530 |      |
| 602 | 3708635,880 | 5701892,470 | F-22 |
| 603 | 3708634,880 | 5701892,470 |      |
| 604 | 3708630,030 | 5701892,450 |      |
| 605 | 3708616,320 | 5701874,640 |      |

| Odcinek nr 35 |             |             |       |
|---------------|-------------|-------------|-------|
| nr pkt        | X           | Y           | UWAGI |
| 606           | 3708608,960 | 5701865,590 |       |
| 607           | 3708592,100 | 5701832,940 |       |
| 608           | 3708472,020 | 5701702,310 |       |
| 609           | 3708380,730 | 5701616,660 |       |
| 610           | 3708198,540 | 5701469,630 |       |

#### Oznaczenia:

B-1 do B-10 – bramy

F-1 do F-22 – furtki

Podstawowe wymiary bram i furtok zamieszczono na rysunku nr 03-18 Bramy, furtki i ogrodzenie.

# Załącznik E – Przedmiary

## B-1. ROBOTY DROGOWE

S11

| Lp. | Nr Specyfikacji Technicznej | Wyszczególnienie elementów rozliczeniowych                                                                                    | Jednostka      |         |
|-----|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------|----------------|---------|
|     |                             |                                                                                                                               | Nazwa          | Ilość   |
| 1   | 2                           | 3                                                                                                                             | 4              | 5       |
|     | <b>D.01.00.00.</b>          | <b>ROBOTY PRZYGOTOWAWCZE</b>                                                                                                  | x              | x       |
| 1   | D.01.01.01                  | Odtworzenie trasy i punktów wysokościowych:<br>- roboty pomiarowe sytuacyjno-wysokościowe w terenie równinnym,                | km             | 12 626  |
| 2   | D.01.02.02                  | Zdjęcie warstwy humusu:                                                                                                       | m <sup>2</sup> | 5 506   |
| 3   |                             | - zdjęcie warstwy humusu grubości 15 cm,                                                                                      | m <sup>2</sup> | 22 709  |
| 4   |                             | - zdjęcie warstwy humusu grubości 20 cm,                                                                                      | m <sup>2</sup> | 13 656  |
| 5   |                             | - zdjęcie warstwy humusu grubości 25 cm,                                                                                      | m <sup>2</sup> | 115 920 |
| 6   |                             | - zdjęcie warstwy humusu grubości 30 cm,                                                                                      | m <sup>2</sup> | 53 052  |
| 7   |                             | - zdjęcie warstwy humusu grubości 35 cm,                                                                                      | m <sup>2</sup> | 198 859 |
| 8   |                             | - zdjęcie warstwy humusu grubości 40 cm,                                                                                      | m <sup>2</sup> | 14 607  |
| 9   |                             | - zdjęcie warstwy humusu grubości 45 cm,                                                                                      | m <sup>2</sup> | 16 545  |
| 10  |                             | - zdjęcie warstwy humusu grubości 50 cm,                                                                                      | m <sup>2</sup> | 16 790  |
| 11  |                             | - zdjęcie warstwy humusu grubości 55 cm,                                                                                      | m <sup>2</sup> | 7 325   |
| 12  |                             | - zdjęcie warstwy humusu grubości 60 cm,                                                                                      | m <sup>2</sup> | 4 550   |
| 13  |                             | - zdjęcie warstwy humusu grubości 65 cm,                                                                                      | m <sup>2</sup> | 3 288   |
| 14  |                             | - zdjęcie warstwy humusu grubości 70 cm,                                                                                      | m <sup>2</sup> | 9 390   |
| 15  |                             | - sprzymowanie humusu na Placu Budowy,                                                                                        | m <sup>3</sup> | 35 419  |
| 16  |                             | - odwiezienie humusu na składowisko Wykonawcy.                                                                                | m <sup>3</sup> | 147 497 |
|     | <b>D.02.00.00.</b>          | <b>ROBOTY ZIEMNE</b>                                                                                                          | x              | x       |
|     | D.02.01.01.                 | Wykonanie wykopów w gruntach I-V kat.:                                                                                        |                |         |
| 17  |                             | - wykonanie wykopów z transportem gruntu na składowisko Wykonawcy.                                                            | m <sup>3</sup> | 195     |
| 18  |                             | - wykonanie wykopów z przemieszczeniem poprzecznym gruntu w nasyp                                                             | m <sup>3</sup> | 28 931  |
| 19  |                             | - wykonanie wykopów z przemieszczeniem podłużnym gruntu w nasyp                                                               | m <sup>3</sup> | 30 678  |
| 20  | D.02.03.01.                 | Wykonanie nasypów:<br>- formowanie i zagęszczanie nasypu wraz z pozyskaniem i transportem gruntu z dokopu.                    | m <sup>3</sup> | 772 641 |
| 21  |                             | - formowanie i zagęszczanie nasypu z przemieszczeniem poprzecznym gruntu z wykopów                                            | m <sup>3</sup> | 28 931  |
| 22  |                             | - formowanie i zagęszczanie nasypu z przemieszczeniem podłużnym gruntu z wykopów                                              | m <sup>3</sup> | 30 678  |
| 23  |                             | - formowanie i zagęszczanie górnej warstwy nasypu z gruntu niewysadzinowego wraz z pozyskaniem i transportem gruntu z dokopu. | m <sup>3</sup> | 137 071 |
| 24  |                             | - plantowanie skarp nasypu,                                                                                                   | m <sup>2</sup> | 236 124 |



| Lp. | Nr Specyfikacji Technicznej | Wyszczególnienie elementów rozliczeniowych                                                                                                                                              | Jednostka                        |                  |
|-----|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|------------------|
|     |                             |                                                                                                                                                                                         | Nazwa                            | Ilość            |
| 1   | 2                           | 3                                                                                                                                                                                       | 4                                | 5                |
| 25  | D.02.03.01c                 | Wzmocnienie geosyntetykiem podłoża nasypu na gruncie słabonośnym                                                                                                                        | m <sup>2</sup>                   | 27 850           |
| 26  |                             | - umocnienie podłoża gruntowego geosyntetykiem                                                                                                                                          | m <sup>2</sup>                   | 1 150            |
| 27  |                             | -wymiana gruntu na niewysadzinowy z dogęszczeniem na głębokości 0.9m                                                                                                                    | m <sup>2</sup>                   | 1 330            |
| 28  |                             | -wymiana gruntu na niewysadzinowy z dogęszczeniem na głębokości 1.3m                                                                                                                    | m <sup>2</sup>                   | 5 590            |
| 29  | D.02.01.01 b                | Wzmocnienie podłoża gruntowego metodą wibroflotacji                                                                                                                                     |                                  |                  |
| 30  |                             | -zasypanie wyrobisk gruntem z dokopu z dogęszczeniem metodą wibroflotacji na powierzchni 34370 m2,<br>-ułożenie geowłókniny o wytrzymałości na rozciąganie 50/50 kN/m w obu kierunkach. | m <sup>3</sup><br>m <sup>2</sup> | 159 945<br>3 600 |
|     | <b>D.04.00.00.</b>          | <b>PODBUDOWY</b>                                                                                                                                                                        | x                                | x                |
| 31  | D.04.01.01.                 | Koryto wraz z profilowaniem i zagęszczeniem podłoża:<br>- wyprofilowanie i zagęszczenie podłoża gruntowego.                                                                             | m <sup>2</sup>                   | 373 378          |
| 32  | D.04.02.02                  | Warstwa mrozoochronna:<br>- wykonanie warstwy mrozoochronnej grubości 18 cm z kruszywa łamanego stabilizowanego mechanicznie o uziarnieniu 0/63 mm,                                     | m <sup>2</sup>                   | 33 134           |
| 33  |                             | - wykonanie warstwy mrozoochronnej grubości średniej 30cm z kruszywa łamanego stabilizowanego mechanicznie o uziarnieniu 0/63 mm,                                                       | m <sup>2</sup>                   | 103 316          |
| 34  | D.04.03.01.                 | Oczyszczenie i skropienie warstw konstrukcyjnych:                                                                                                                                       | m <sup>2</sup>                   | 286 040          |
| 35  |                             | -oczyszczenie i skropienie warstw niebitumicznych,<br>- oczyszczenie i skropienie warstw bitumicznych.                                                                                  | m <sup>2</sup>                   | 525 675          |
| 36  | D.04.04.02.                 | Podbudowa z kruszywa łamanego:<br>- wykonanie warstwy podbudowy grubości 20 cm z kruszywa łamanego o uziarnieniu 0/31,5 mm,                                                             | m <sup>2</sup>                   | 161 443          |
| 37  |                             | - wykonanie warstwy podbudowy grubości średniej 31cm z kruszywa łamanego o uziarnieniu 0/31,5 mm,                                                                                       | m <sup>2</sup>                   | 124 597          |
| 38  | D.04.05.01.                 | Podbudowa z gruntu stabilizowanego cementem:<br>- wykonanie warstwy grubości 20 cm z gruntu stabilizowanego cementem o R <sub>m</sub> 5,0 MPa,                                          | m <sup>2</sup>                   | 201 078          |
| 39  | D.04.05.01.                 | Ulepszone podłoże z gruntu stabilizowanego cementem:<br>- wykonanie warstwy grubości 20 cm z gruntu stabilizowanego cementem o R <sub>m</sub> 5,0 MPa,                                  | m <sup>2</sup>                   | 122 850          |
| 40  |                             | - wykonanie warstwy grubości 25 cm z gruntu stabilizowanego cementem o R <sub>m</sub> 5,0 MPa,                                                                                          | m <sup>2</sup>                   | 49 450           |
| 41  | D.04.11.01                  | Podbudowa z betonu asfaltowego WMS<br>- wykonanie podbudowy grubości 11 cm z betonu asfaltowego o uziarnieniu 0/16 mm.                                                                  | m <sup>2</sup>                   | 265 001          |
| 42  |                             | - zabezpieczenie krawędzi przez posmarowanie bitumem                                                                                                                                    | m                                | 21 796           |
|     | <b>D.05.00.00.</b>          | <b>NAWIERZCHNIE</b>                                                                                                                                                                     | x                                | x                |
| 43  | D.05.03.05                  | Nawierzchnia z betonu asfaltowego WMS - warstwa wiążąca<br>- ułożenie warstwy wiążącej grubości 8 cm z betonu asfaltowego o uziarnieniu 0/16 mm,                                        | m <sup>2</sup>                   | 260 192          |
| 44  |                             | - zabezpieczenie krawędzi przez posmarowanie bitumem                                                                                                                                    | m                                | 21 796           |

| Lp. | Nr Specyfikacji Technicznej | Wyszczególnienie elementów rozliczeniowych                                                                                                                                                                                                                  | Jednostka      |         |
|-----|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------|
|     |                             |                                                                                                                                                                                                                                                             | Nazwa          | Ilość   |
| 1   | 2                           | 3                                                                                                                                                                                                                                                           | 4              | 5       |
| 45  | D.05.03.13                  | Nawierzchnia z mieszanki mastyksowo-grysowej (SMA) dla ruchu KR6:<br>- ułożenie warstwy ścieralnej grubości 4 cm z mieszanki SMA o uziarnieniu 0/11 mm.                                                                                                     | m <sup>2</sup> | 256 387 |
|     | <b>D.06.00.00.</b>          | <b>ROBOTY WYKOŃCZENIOWE</b>                                                                                                                                                                                                                                 | x              | x       |
| 46  | D.06.01.01                  | Umocnienie powierzchni skarp rowów i ścieków:<br>- humusowanie skarp i terenów zielonych warstwą humusu grubości 15 cm wraz z obsianiem trawą,                                                                                                              | m <sup>2</sup> | 236 124 |
| 48  |                             | - umocnienie skarp matą przeciwoerozyjną,                                                                                                                                                                                                                   | m <sup>2</sup> | 175 323 |
| 49  |                             | - umocnienie skarp warstwą kruszywa łamanego grubości 15 cm,                                                                                                                                                                                                | m <sup>2</sup> | 3 915   |
| 50  | D.06.03.01                  | Umocnienie poboczy<br>- umocnienie poboczy warstwą kruszywa łamanego grubości 15 cm stabilizowanego mechanicznie.                                                                                                                                           | m <sup>2</sup> | 36 269  |
|     | <b>D.07.00.00.</b>          | <b>URZĄDZENIA BEZPIECZEŃSTWA RUCHU</b>                                                                                                                                                                                                                      | x              | x       |
| 51  | D.07.05.01                  | Bariera ochronne stalowe:<br>- ustawienie stalowych barier ochronnych typu SP-07/2,                                                                                                                                                                         | m              | 7 886   |
| 52  |                             | - ustawienie stalowych barier ochronnych typu SP-07/2 rozbieganych                                                                                                                                                                                          | m              | 320     |
| 53  |                             | - ustawienie stalowych barier ochronnych SP-09/1                                                                                                                                                                                                            | m              | 4 932   |
| 54  |                             | - ustawienie stalowych barier ochronnych SP-09/2                                                                                                                                                                                                            | m              | 4 516   |
| 55  |                             | - ustawienie stalowych barier ochronnych SP-09/4                                                                                                                                                                                                            | m              | 14 287  |
| 56  |                             | - ustawienie stalowych barier ochronnych SP-06/1                                                                                                                                                                                                            | m              | 146     |
| 57  |                             | - ustawienie betonowych barier ochronnych skrajnych typu BSP-02,                                                                                                                                                                                            | m              | 162     |
| 58  |                             | - ustawienie osłon przeciwodśnieżeniowych,                                                                                                                                                                                                                  | m              | 2 865   |
| 59  | D.07.06.01                  | Ogrodzenia dróg<br>- ustawienie ogrodzenia ze stalowej siatki węzłowej wysokości 2,00 m na słupkach z rur stalowych,                                                                                                                                        | m              | 19 628  |
| 60  |                             | - ustawienie ogrodzenia wysokości 2,00 m ze stalowej siatki ślimakowej, plecionej na słupkach z rur stalowych,                                                                                                                                              |                | 9 413   |
| 61  |                             | - montaż bram wjazdowych z siatki stalowej w ramach z kątownika                                                                                                                                                                                             | szt.           | 10      |
| 62  |                             | - montaż furtek z siatki stalowej w ramach z kątownika,                                                                                                                                                                                                     | szt.           | 20      |
|     | <b>D.08.00.00.</b>          | <b>ELEMENTY ULIC</b>                                                                                                                                                                                                                                        | x              | x       |
| 63  | D.08.05.01                  | Ścieki<br>- wykonanie ścieku drogowego z prefabrykowanych płyt ściekowych typu trójkątne na podsypce cementowo-piaskowej 1:4 grubości 3 cm i ławie betonowej (1875 m <sup>3</sup> ) i uszczelnienie połączeń bitumiczną masą zalewową szer. 2 cm i gr. 6 cm | m              | 14 699  |
| 64  | M.16.01.01                  | Wpusty<br>- osadzenie wpustów wraz z podłączeniem z rurą kanalizacyjną                                                                                                                                                                                      | szt.           | 580     |
|     | <b>D.03.02.01</b>           | <b>KANALIZACJA DESZCZOWA</b>                                                                                                                                                                                                                                |                |         |
| 65  |                             | - wykonanie przykanalików z rur PCV SN8 o śr. 200 mm,                                                                                                                                                                                                       | m              | 5 019   |
| 66  |                             | - wykonanie wylotów do rowów wraz z wybrukowanym dnem i skarpami rowu 1m po obu stronach wylotu                                                                                                                                                             | szt.           | 285     |

| Lp. | Nr Specyfikacji Technicznej | Wyszczególnienie elementów rozliczeniowych                                                                                                                                                     | Jednostka                        |              |
|-----|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|--------------|
|     |                             |                                                                                                                                                                                                | Nazwa                            | Ilość        |
| 1   | 2                           | 3                                                                                                                                                                                              | 4                                | 5            |
|     | <b>D.01.00.00.</b>          | <b>ROBOTY PRZYGOTOWAWCZE</b>                                                                                                                                                                   | x                                | x            |
| 1   | D.01.01.01                  | Odtworzenie trasy i punktów wysokościowych:<br>- roboty pomiarowe sytuacyjno-wysokościowe w terenie równinnym,                                                                                 | km                               | 1 605        |
| 2   | D.01.02.02                  | Zdjęcie warstwy humusu:                                                                                                                                                                        | m <sup>2</sup>                   | 5 444        |
| 3   |                             | - zdjęcie warstwy humusu grubości 30 cm,                                                                                                                                                       | m <sup>2</sup>                   | 16 579       |
| 4   |                             | - zdjęcie warstwy humusu grubości 40 cm,                                                                                                                                                       | m <sup>3</sup>                   | 3 839        |
| 5   |                             | - sprzymowanie humusu na Placu Budowy,<br>- odwiezienie humusu na składowisko Wykonawcy.                                                                                                       | m <sup>3</sup>                   | 4 426        |
|     | <b>D.02.00.00.</b>          | <b>ROBOTY ZIEMNE</b>                                                                                                                                                                           | x                                | x            |
|     | D.02.01.01.                 | Wykonanie wykopów w gruntach I-V kat.:<br>- wykonanie wykopów z przemieszczeniem poprzecznym gruntu w nasyp<br>- wykonanie wykopów z przemieszczeniem podłużnym gruntu w nasyp                 | m <sup>3</sup><br>m <sup>3</sup> | 4 255<br>217 |
| 6   | D.02.03.01.                 | Wykonanie nasypów:                                                                                                                                                                             | m <sup>3</sup>                   | 63 278       |
|     |                             | - formowanie i zagęszczanie nasypu wraz z pozyskaniem i transportem gruntu z dokopu.                                                                                                           | m <sup>3</sup>                   | 4 255        |
|     |                             | - formowanie i zagęszczanie nasypu z przemieszczeniem poprzecznym gruntu z wykopów                                                                                                             | m <sup>3</sup>                   | 217          |
|     |                             | - formowanie i zagęszczanie nasypu z przemieszczeniem podłużnym gruntu z wykopów                                                                                                               | m <sup>3</sup>                   | 11 379       |
| 7   |                             | - formowanie i zagęszczanie górnej warstwy nasypu z gruntu niewysadzinowego wraz z pozyskaniem i transportem gruntu z dokopu.                                                                  | m <sup>3</sup>                   | 25 594       |
| 8   |                             | - plantowanie skarp nasypu,                                                                                                                                                                    | m <sup>2</sup>                   |              |
| 9   | D.02.03.01c                 | Wzmocnienie geosyntetykiem podłoża nasypu na gruncie słabonośnym<br>- umocnienie podłoża gruntowego geosyntetykiem                                                                             | m <sup>2</sup>                   | 3 270        |
|     | <b>D.04.00.00.</b>          | <b>PODBUDOWY</b>                                                                                                                                                                               | x                                | x            |
| 10  | D.04.01.01.                 | Koryto wraz z profilowaniem i zagęszczeniem podłoża:<br>- wyprofilowanie i zagęszczenie podłoża gruntowego.                                                                                    | m <sup>2</sup>                   | 42 505       |
| 11  | D.04.02.02                  | Warstwa mrozochronna:<br>- wykonanie warstwy mrozochronnej grubości średniej 30cm z kruszywa łamanego stabilizowanego mechanicznie o uziarnieniu 0/63 mm,                                      | m <sup>2</sup>                   | 18 700       |
| 12  | D.04.03.01.                 | Oczyszczenie i skropienie warstw konstrukcyjnych:                                                                                                                                              | m <sup>2</sup>                   | 33 370       |
| 13  |                             | -oczyszczenie i skropienie warstw niebitumicznych,<br>- oczyszczenie i skropienie warstw bitumicznych.                                                                                         | m <sup>2</sup>                   | 62 147       |
| 14  | D.04.04.02.                 | Podbudowa z kruszywa łamanego:                                                                                                                                                                 | m <sup>2</sup>                   | 17 585       |
| 15  |                             | - wykonanie warstwy podbudowy grubości 20 cm z kruszywa łamanego o uziarnieniu 0/31,5 mm,<br>- wykonanie warstwy podbudowy grubości średniej 31cm z kruszywa łamanego o uziarnieniu 0/31,5 mm, | m <sup>2</sup>                   | 15 785       |

| Lp. | Nr Specyfikacji Technicznej | Wyszczególnienie elementów rozliczeniowych                                                                                                              | Jednostka      |        |
|-----|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------|
|     |                             |                                                                                                                                                         | Nazwa          | Ilość  |
| 1   | 2                           | 3                                                                                                                                                       | 4              | 5      |
| 16  | D.04.05.01.                 | Podbudowa z gruntu stabilizowanego cementem:<br>- wykonanie warstwy grubości 20 cm z gruntu stabilizowanego cementem o $R_m$ 5,0 MPa,                   | m <sup>2</sup> | 19 547 |
| 17  | D.04.05.01.                 | Ulepszone podłoże z gruntu stabilizowanego cementem:<br>- wykonanie warstwy grubości 20 cm z gruntu stabilizowanego cementem o $R_m$ 5,0 MPa,           | m <sup>2</sup> | 1 192  |
| 18  |                             | - wykonanie warstwy grubości 25 cm z gruntu stabilizowanego cementem o $R_m$ 5,0 MPa,                                                                   | m <sup>2</sup> | 21 766 |
| 19  | D.04.11.01                  | Podbudowa z betonu asfaltowego WMS<br>- wykonanie podbudowy grubości 11 cm z betonu asfaltowego o uziarnieniu 0/16 mm.                                  | m <sup>2</sup> | 31 869 |
| 19a |                             | - zabezpieczenie krawędzi przez posmarowanie bitumem                                                                                                    | m              | 2 406  |
|     | <b>D.05.00.00.</b>          | <b>NAWIERZCHNIE</b>                                                                                                                                     | x              | x      |
| 20  | D.05.03.05                  | Nawierzchnia z betonu asfaltowego WMS - warstwa wiążąca<br>- ułożenie warstwy wiążącej grubości 8 cm z betonu asfaltowego o uziarnieniu 0/16 mm,        | m <sup>2</sup> | 30 768 |
| 20a |                             | - zabezpieczenie krawędzi przez posmarowanie bitumem                                                                                                    | m              | 2 406  |
| 21  | D.05.03.13                  | Nawierzchnia z mieszanki mastyksowo-grysowej (SMA) dla ruchu KR6:<br>- ułożenie warstwy ścieralnej grubości 4 cm z mieszanki SMA o uziarnieniu 0/11 mm. | m <sup>2</sup> | 30 278 |
|     | <b>D.06.00.00.</b>          | <b>ROBOTY WYKOŃCZENIOWE</b>                                                                                                                             | x              | x      |
| 22  | D.06.01.01                  | Umocnienie powierzchni skarp rowów i ścieków:<br>- humusowanie skarp i terenów zielonych warstwą humusu grubości 15 cm wraz z obsianiem trawą,          | m <sup>2</sup> | 25 594 |
| 23  |                             | - umocnienie skarp matą przeciwozyjną,                                                                                                                  | m <sup>2</sup> | 25 480 |
| 24  | D.06.03.01                  | Umocnienie poboczy<br>- umocnienie poboczy warstwą kruszywa łamanego grubości 15 cm stabilizowanego mechanicznie.                                       | m <sup>2</sup> | 3 577  |
|     | <b>D.07.00.00.</b>          | <b>URZĄDZENIA BEZPIECZEŃSTWA RUCHU</b>                                                                                                                  | x              | x      |
| 25  | D.07.05.01                  | Bariery ochronne stalowe:<br>- ustawienie stalowych barier ochronnych typu SP-07/2,                                                                     | m              | 326    |
| 26  |                             | - ustawienie stalowych barier ochronnych typu SP-07/2 rozbieralnych                                                                                     | m              | 80     |
| 27  |                             | - ustawienie stalowych barier ochronnych SP-09/1                                                                                                        | m              | 1 808  |
| 28  |                             | - ustawienie stalowych barier ochronnych SP-09/2                                                                                                        | m              | 525    |
| 29  |                             | - ustawienie stalowych barier ochronnych SP-09/4                                                                                                        | m              | 1 348  |
| 30  |                             | - ustawienie stalowych barier ochronnych SP-06/1                                                                                                        | m              | 48     |
| 31  |                             | - ustawienie betonowych barier ochronnych skrajnych typu BSP-02,                                                                                        | m              | 60     |
| 32  |                             | - ustawienie osłon przeciwolśnieniowych,                                                                                                                | m              | 491    |
| 33  | D.07.06.01                  | Ogrodzenia dróg<br>- ustawienie ogrodzenia ze stalowej siatki węzłowej wysokości 2,00 m na słupkach z rur stalowych,                                    | m              | 3 564  |
| 34  |                             | - montaż furtek z siatki stalowej w ramach z kątownika,                                                                                                 | szt.           | 2      |
|     | <b>D.08.00.00.</b>          | <b>ELEMENTY ULIC</b>                                                                                                                                    | x              | x      |

| Lp. | Nr<br>Specyfikacji<br>Technicznej | Wyszczególnienie elementów rozliczeniowych                                                                                                                                                                                                               | Jednostka |       |
|-----|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------|
|     |                                   |                                                                                                                                                                                                                                                          | Nazwa     | Ilość |
| 1   | 2                                 | 3                                                                                                                                                                                                                                                        | 4         | 5     |
| 35  | D.08.05.01                        | Ścieki<br>- wykonanie ścieku drogowego z prefabrykowanych płyt<br>ściekowych typu trójkątnego na podsypce cementowo-piaskowej<br>1:4 grubości 3 cm i ławie betonowej (164 m3) i uszczelnienie<br>połączeń bitumiczną masą zalewową szer. 2 cm i gr. 6 cm | m         | 1 281 |
| 36  |                                   | - wykonanie monolitycznego ścieku drogowego z elementów<br>prefabrykowanych zabudowanych w asfalcie dla klasy obciążeń E<br>600                                                                                                                          | m         | 80    |
| 37  | M.16.01.01                        | Wpusty<br>-osadzenie wpustów wraz z podłączeniem z rurą kanalizacyjną                                                                                                                                                                                    | szt.      | 52    |
|     | <b>D.03.02.01</b>                 | <b>KANALIZACJA DESZCZOWA</b>                                                                                                                                                                                                                             |           |       |
| 38  |                                   | - wykonanie przykanalików z rur PCV SN8 o śr. 200 mm,                                                                                                                                                                                                    | m         | 908   |
| 39  |                                   | - wykonanie wylotów do rowów wraz z wybrukowanym dnem i<br>skarpami rowu 1m po obu stronach wylotu                                                                                                                                                       | szt.      | 47    |

Budowa Zachodniej Obwodnicy miasta Poznania w ciągu drogi krajowej nr S11 na odcinku Złotkowo – autostrada A2 i w ciągu drogi krajowej nr S5 w rejonie węzła „Głuchowo” autostrady A2  
ETAP I – S11 od węzła „Swadzim” – km 13+068,00 do węzła „Głuchowo” – km 25+693,57 oraz  
S5 w rejonie węzła „Głuchowo” – od km 0+000,00 do km 1+605,00 o łącznej dł. 14,23 km  
Projekt Wykonawczy. Tom 02/01. Trasa główna, ogrodzenie obwodnicy. Rewizja 00

## SPIS RYSUNKÓW

|                                           |
|-------------------------------------------|
| Projekt Wykonawczy                        |
| <b>TOM 02/01</b>                          |
| <b>Trasa główna, ogrodzenie obwodnicy</b> |
| Rewizja 00                                |

| Nr rysunku |        |    |    |       |       |    |    | Tytuł           | Data wydania | Data rewizji | Skala  | Uwagi |
|------------|--------|----|----|-------|-------|----|----|-----------------|--------------|--------------|--------|-------|
| 1.         | 2.     | 3. | 4. | 5.    | 6.    | 7. | 8. | 10.             | 11.          | 12.          | 13.    | 14.   |
| PW         | -      | DR | -  | 02/01 | 02-00 | 00 | SW | Legenda         | 30.04.2009   |              | -      |       |
| PW         | 12+600 | DR | -  | 02/01 | 02-01 | 00 | SW | Plan sytuacyjny | 30.04.2009   |              | 1:1000 |       |
| PW         | 13+500 | DR | -  | 02/01 | 02-02 | 00 | SW | Plan sytuacyjny | 30.04.2009   |              | 1:1000 |       |
| PW         | 14+400 | DR | -  | 02/01 | 02-03 | 00 | SW | Plan sytuacyjny | 30.04.2009   |              | 1:1000 |       |
| PW         | 13+500 | DR | -  | 02/01 | 02-04 | 00 | SW | Plan sytuacyjny | 30.04.2009   |              | 1:1000 |       |
| PW         | 16+200 | DR | -  | 02/01 | 02-05 | 00 | SW | Plan sytuacyjny | 30.04.2009   |              | 1:1000 |       |
| PW         | 17+100 | DR | -  | 02/01 | 02-06 | 00 | SW | Plan sytuacyjny | 30.04.2009   |              | 1:1000 |       |
| PW         | 18+000 | DR | -  | 02/01 | 02-07 | 00 | SW | Plan sytuacyjny | 30.04.2009   |              | 1:1000 |       |
| PW         | 18+900 | DR | -  | 02/01 | 02-08 | 00 | SW | Plan sytuacyjny | 30.04.2009   |              | 1:1000 |       |
| PW         | 19+800 | DR | -  | 02/01 | 02-09 | 00 | SW | Plan sytuacyjny | 30.04.2009   |              | 1:1000 |       |
| PW         | 20+700 | DR | -  | 02/01 | 02-10 | 00 | SW | Plan sytuacyjny | 30.04.2009   |              | 1:1000 |       |
| PW         | 21+600 | DR | -  | 02/01 | 02-11 | 00 | SW | Plan sytuacyjny | 30.04.2009   |              | 1:1000 |       |
| PW         | 22+500 | DR | -  | 02/01 | 02-12 | 00 | SW | Plan sytuacyjny | 30.04.2009   |              | 1:1000 |       |

*Budowa Zachodniej Obwodnicy miasta Poznania w ciągu drogi krajowej nr S11 na odcinku Złotkowo – autostrada A2 i w ciągu drogi krajowej nr S5 w rejonie węzła „Głuchowo” autostrady A2*  
*ETAP I – S11 od węzła „Swadzim” – km 13+068,00 do węzła „Głuchowo” – km 25+693,57 oraz*  
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*Projekt Wykonawczy. Tom 02/01. Trasa główna, ogrodzenie obwodnicy. Rewizja 00*

|    |        |    |   |       |       |    |    |                                                               |            |  |        |  |
|----|--------|----|---|-------|-------|----|----|---------------------------------------------------------------|------------|--|--------|--|
| PW | 23+400 | DR | - | 02/01 | 02-13 | 00 | SW | Plan sytuacyjny                                               | 30.04.2009 |  | 1:1000 |  |
| PW | 24+300 | DR | - | 02/01 | 02-14 | 00 | SW | Plan sytuacyjny                                               | 30.04.2009 |  | 1:1000 |  |
| PW | 25+200 | DR | - | 02/01 | 02-15 | 00 | SW | Plan sytuacyjny                                               | 30.04.2009 |  | 1:1000 |  |
| PW | 26+100 | DR | - | 02/01 | 02-16 | 00 | SW | Plan sytuacyjny                                               | 30.04.2009 |  | 1:1000 |  |
| PW | 13+400 | DR | - | 02/01 | 02-17 | 00 | SW | Plan sytuacyjny                                               | 30.04.2009 |  | 1:1000 |  |
| PW | 17+800 | DR | - | 02/01 | 02-18 | 00 | SW | Plan sytuacyjny                                               | 30.04.2009 |  | 1:1000 |  |
| PW | 21+000 | DR | - | 02/01 | 02-19 | 00 | SW | Plan sytuacyjny                                               | 30.04.2009 |  | 1:1000 |  |
| PW | 0+200  | DR | - | 02/01 | 02-20 | 00 | SW | Plan sytuacyjny                                               | 30.04.2009 |  | 1:1000 |  |
| PW | -      | DR | - | 02/01 | 03-01 | 00 | SW | Przekroje normalne                                            | 30.04.2009 |  | 1:100  |  |
| PW | -      | DR | - | 02/01 | 03-02 | 00 | SW | Szczegóły konstrukcyjne – pas dzielący                        | 30.04.2009 |  | 1:25   |  |
| PW | -      | DR | - | 02/01 | 03-03 | 00 | SW | Szczegóły konstrukcyjne – pas dzielący                        | 30.04.2009 |  | 1:25   |  |
| PW | -      | DR | - | 02/01 | 03-04 | 00 | SW | Szczegóły konstrukcyjne – pas dzielący                        | 30.04.2009 |  | 1:25   |  |
| PW | -      | DR | - | 02/01 | 03-05 | 00 | SW | Szczegóły konstrukcyjne – pas dzielący                        | 30.04.2009 |  | 1:25   |  |
| PW | -      | DR | - | 02/01 | 03-06 | 00 | SW | Szczegóły konstrukcyjne – pas dzielący                        | 30.04.2009 |  | 1:25   |  |
| PW | -      | DR | - | 02/01 | 03-07 | 00 | SW | Szczegóły konstrukcyjne – pas dzielący                        | 30.04.2009 |  | 1:25   |  |
| PW | -      | DR | - | 02/01 | 03-08 | 00 | SW | Szczegóły konstrukcyjne – pas dzielący                        | 30.04.2009 |  | 1:25   |  |
| PW | -      | DR | - | 02/01 | 03-09 | 00 | SW | Szczegóły konstrukcyjne – pas dzielący                        | 30.04.2009 |  | 1:25   |  |
| PW | -      | DR | - | 02/01 | 03-10 | 00 | SW | Szczegóły konstrukcyjne – pas dzielący                        | 30.04.2009 |  | 1:25   |  |
| PW | -      | DR | - | 02/01 | 03-11 | 00 | SW | Szczegóły konstrukcyjne – konstrukcja skarp                   | 30.04.2009 |  | 1:50   |  |
| PW | -      | DR | - | 02/01 | 03-12 | 00 | SW | Szczegóły konstrukcyjne – pobocze                             | 30.04.2009 |  | 1:25   |  |
| PW | -      | DR | - | 02/01 | 03-13 | 00 | SW | Szczegóły konstrukcyjne – lokalizacja ekranów akustycznych    | 30.04.2009 |  | 1:25   |  |
| PW | -      | DR | - | 02/01 | 03-14 | 00 | SW | Szczegóły konstrukcyjne – elementy odwodnienia w poboczu      | 30.04.2009 |  | 1:25   |  |
| PW | -      | DR | - | 02/01 | 03-15 | 00 | SW | Szczegóły konstrukcyjne – przejazd awaryjny w pasie dzielącym | 30.04.2009 |  | -      |  |
| PW | -      | DR | - | 02/01 | 03-16 | 00 | SW | Szczegóły konstrukcyjne – dodatkowa krawędź ukośna            | 30.04.2009 |  | -      |  |

*Budowa Zachodniej Obwodnicy miasta Poznania w ciągu drogi krajowej nr S11 na odcinku Złotkowo – autostrada A2 i w ciągu drogi krajowej nr S5 w rejonie węzła „Głuchowo” autostrady A2*  
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*Projekt Wykonawczy. Tom 02/01. Trasa główna, ogrodzenie obwodnicy. Rewizja 00*

|    |        |    |   |       |       |    |    |                                                                |            |  |            |  |
|----|--------|----|---|-------|-------|----|----|----------------------------------------------------------------|------------|--|------------|--|
| PW | -      | DR | - | 02/01 | 03-17 | 00 | SW | Lokalizacja konstrukcji bramownicowych i znaków pionowych      | 30.04.2009 |  | 1:50       |  |
| PW | -      | DR | - | 02/01 | 03-18 | 00 | SW | Bramy, furtki i ogrodzenie                                     | 30.04.2009 |  | 1:50       |  |
| PW | 12+600 | DR | - | 02/01 | 04-01 | 00 | SW | Profil podłużny                                                | 30.04.2009 |  | 1:100/1000 |  |
| PW | 13+500 | DR | - | 02/01 | 04-02 | 00 | SW | Profil podłużny                                                | 30.04.2009 |  | 1:100/1000 |  |
| PW | 14+400 | DR | - | 02/01 | 04-03 | 00 | SW | Profil podłużny                                                | 30.04.2009 |  | 1:100/1000 |  |
| PW | 13+500 | DR | - | 02/01 | 04-04 | 00 | SW | Profil podłużny                                                | 30.04.2009 |  | 1:100/1000 |  |
| PW | 16+200 | DR | - | 02/01 | 04-05 | 00 | SW | Profil podłużny                                                | 30.04.2009 |  | 1:100/1000 |  |
| PW | 17+100 | DR | - | 02/01 | 04-06 | 00 | SW | Profil podłużny                                                | 30.04.2009 |  | 1:100/1000 |  |
| PW | 18+000 | DR | - | 02/01 | 04-07 | 00 | SW | Profil podłużny                                                | 30.04.2009 |  | 1:100/1000 |  |
| PW | 18+900 | DR | - | 02/01 | 04-08 | 00 | SW | Profil podłużny                                                | 30.04.2009 |  | 1:100/1000 |  |
| PW | 19+800 | DR | - | 02/01 | 04-09 | 00 | SW | Profil podłużny                                                | 30.04.2009 |  | 1:100/1000 |  |
| PW | 20+700 | DR | - | 02/01 | 04-10 | 00 | SW | Profil podłużny                                                | 30.04.2009 |  | 1:100/1000 |  |
| PW | 21+600 | DR | - | 02/01 | 04-11 | 00 | SW | Profil podłużny                                                | 30.04.2009 |  | 1:100/1000 |  |
| PW | 22+500 | DR | - | 02/01 | 04-12 | 00 | SW | Profil podłużny                                                | 30.04.2009 |  | 1:100/1000 |  |
| PW | 23+400 | DR | - | 02/01 | 04-13 | 00 | SW | Profil podłużny                                                | 30.04.2009 |  | 1:100/1000 |  |
| PW | 24+300 | DR | - | 02/01 | 04-14 | 00 | SW | Profil podłużny                                                | 30.04.2009 |  | 1:100/1000 |  |
| PW | 25+200 | DR | - | 02/01 | 04-15 | 00 | SW | Profil podłużny                                                | 30.04.2009 |  | 1:100/1000 |  |
| PW | 26+100 | DR | - | 02/01 | 04-16 | 00 | SW | Profil podłużny                                                | 30.04.2009 |  | 1:100/1000 |  |
| PW | 13+068 | DR | - | 02/01 | 05-01 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 13+068 ÷ 13+220 | 30.04.2009 |  | 1:100      |  |
| PW | 13+240 | DR | - | 02/01 | 05-02 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 13+240 ÷ 13+400 | 30.04.2009 |  | 1:100      |  |
| PW | 13+420 | DR | - | 02/01 | 05-03 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 13+420 ÷ 13+580 | 30.04.2009 |  | 1:100      |  |
| PW | 13+600 | DR | - | 02/01 | 05-04 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 13+600 ÷ 13+780 | 30.04.2009 |  | 1:100      |  |



*Budowa Zachodniej Obwodnicy miasta Poznania w ciągu drogi krajowej nr S11 na odcinku Złotkowo – autostrada A2 i w ciągu drogi krajowej nr S5 w rejonie węzła „Głuchowo” autostrady A2*  
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*Projekt Wykonawczy. Tom 02/01. Trasa główna, ogrodzenie obwodnicy. Rewizja 00*

|    |        |    |   |       |       |    |    |                                                                |            |  |       |  |
|----|--------|----|---|-------|-------|----|----|----------------------------------------------------------------|------------|--|-------|--|
| PW | 13+800 | DR | - | 02/01 | 05-05 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 13+800 ÷ 13+940 | 30.04.2009 |  | 1:100 |  |
| PW | 14+060 | DR | - | 02/01 | 05-06 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 14+060 ÷ 14+160 | 30.04.2009 |  | 1:100 |  |
| PW | 14+080 | DR | - | 02/01 | 05-07 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 14+080 ÷ 14+300 | 30.04.2009 |  | 1:100 |  |
| PW | 14+320 | DR | - | 02/01 | 05-08 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 14+320 ÷ 14+480 | 30.04.2009 |  | 1:100 |  |
| PW | 14+500 | DR | - | 02/01 | 05-09 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 14+500 ÷ 14+660 | 30.04.2009 |  | 1:100 |  |
| PW | 14+680 | DR | - | 02/01 | 05-10 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 14+680 ÷ 14+840 | 30.04.2009 |  | 1:100 |  |
| PW | 14+860 | DR | - | 02/01 | 05-11 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 14+860 ÷ 15+000 | 30.04.2009 |  | 1:100 |  |
| PW | 15+020 | DR | - | 02/01 | 05-12 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 15+020 ÷ 15+180 | 30.04.2009 |  | 1:100 |  |
| PW | 15+200 | DR | - | 02/01 | 05-13 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 15+200 ÷ 15+380 | 30.04.2009 |  | 1:100 |  |
| PW | 15+400 | DR | - | 02/01 | 05-14 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 15+400 ÷ 15+560 | 30.04.2009 |  | 1:100 |  |
| PW | 15+580 | DR | - | 02/01 | 05-15 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 15+580 ÷ 15+740 | 30.04.2009 |  | 1:100 |  |
| PW | 15+760 | DR | - | 02/01 | 05-16 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>Km 15+760 ÷ 15+920 | 30.04.2009 |  | 1:100 |  |
| PW | 15+940 | DR | - | 02/01 | 05-17 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 15+940 ÷ 16+100 | 30.04.2009 |  | 1:100 |  |
| PW | 16+120 | DR | - | 02/01 | 05-18 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 16+120 ÷ 16+280 | 30.04.2009 |  | 1:100 |  |

*Budowa Zachodniej Obwodnicy miasta Poznania w ciągu drogi krajowej nr S11 na odcinku Złotkowo – autostrada A2 i w ciągu drogi krajowej nr S5 w rejonie węzła „Głuchowo” autostrady A2*  
*ETAP I – S11 od węzła „Swadzim” – km 13+068,00 do węzła „Głuchowo” – km 25+693,57 oraz*  
*S5 w rejonie węzła „Głuchowo” – od km 0+000,00 do km 1+605,00 o łącznej dł. 14,23 km*  
*Projekt Wykonawczy. Tom 02/01. Trasa główna, ogrodzenie obwodnicy. Rewizja 00*

|    |        |    |   |       |       |    |    |                                                                |            |  |       |  |
|----|--------|----|---|-------|-------|----|----|----------------------------------------------------------------|------------|--|-------|--|
| PW | 16+300 | DR | - | 02/01 | 05-19 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 16+300 ÷ 16+500 | 30.04.2009 |  | 1:100 |  |
| PW | 16+520 | DR | - | 02/01 | 05-20 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 16+520 ÷ 16+680 | 30.04.2009 |  | 1:100 |  |
| PW | 16+700 | DR | - | 02/01 | 05-21 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 16+700 ÷ 16+860 | 30.04.2009 |  | 1:100 |  |
| PW | 16+880 | DR | - | 02/01 | 05-22 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 16+880 ÷ 17+060 | 30.04.2009 |  | 1:100 |  |
| PW | 17+080 | DR | - | 02/01 | 05-23 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 17+080 ÷ 17+240 | 30.04.2009 |  | 1:100 |  |
| PW | 17+260 | DR | - | 02/01 | 05-24 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 17+260 ÷ 17+440 | 30.04.2009 |  | 1:100 |  |
| PW | 17+460 | DR | - | 02/01 | 05-25 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 17+460 ÷ 17+620 | 30.04.2009 |  | 1:100 |  |
| PW | 17+640 | DR | - | 02/01 | 05-26 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 17+640 ÷ 17+800 | 30.04.2009 |  | 1:100 |  |
| PW | 17+820 | DR | - | 02/01 | 05-27 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 17+820 ÷ 17+980 | 30.04.2009 |  | 1:100 |  |
| PW | 18+000 | DR | - | 02/01 | 05-28 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 18+000 ÷ 18+160 | 30.04.2009 |  | 1:100 |  |
| PW | 18+180 | DR | - | 02/01 | 05-29 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 18+180 ÷ 18+340 | 30.04.2009 |  | 1:100 |  |
| PW | 18+360 | DR | - | 02/01 | 05-30 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 18+360 ÷ 18+500 | 30.04.2009 |  | 1:100 |  |
| PW | 18+540 | DR | - | 02/01 | 05-31 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 18+540 ÷ 18+700 | 30.04.2009 |  | 1:100 |  |
| PW | 18+720 | DR | - | 02/01 | 05-32 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 18+720 ÷ 18+880 | 30.04.2009 |  | 1:100 |  |

*Budowa Zachodniej Obwodnicy miasta Poznania w ciągu drogi krajowej nr S11 na odcinku Złotkowo – autostrada A2 i w ciągu drogi krajowej nr S5 w rejonie węzła „Głuchowo” autostrady A2*  
*ETAP I – S11 od węzła „Swadzim” – km 13+068,00 do węzła „Głuchowo” – km 25+693,57 oraz*  
*S5 w rejonie węzła „Głuchowo” – od km 0+000,00 do km 1+605,00 o łącznej dł. 14,23 km*  
*Projekt Wykonawczy. Tom 02/01. Trasa główna, ogrodzenie obwodnicy. Rewizja 00*

|    |        |    |   |       |       |    |    |                                                                |            |  |       |  |
|----|--------|----|---|-------|-------|----|----|----------------------------------------------------------------|------------|--|-------|--|
| PW | 18+900 | DR | - | 02/01 | 05-33 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 18+900 ÷ 19+060 | 30.04.2009 |  | 1:100 |  |
| PW | 19+080 | DR | - | 02/01 | 05-34 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 19+080 ÷ 19+240 | 30.04.2009 |  | 1:100 |  |
| PW | 19+560 | DR | - | 02/01 | 05-35 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 19+260 ÷ 19+420 | 30.04.2009 |  | 1:100 |  |
| PW | 19+440 | DR | - | 02/01 | 05-36 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 19+440 ÷ 19+600 | 30.04.2009 |  | 1:100 |  |
| PW | 19+620 | DR | - | 02/01 | 05-37 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 19+620 ÷ 19+780 | 30.04.2009 |  | 1:100 |  |
| PW | 19+800 | DR | - | 02/01 | 05-38 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 19+800 ÷ 19+960 | 30.04.2009 |  | 1:100 |  |
| PW | 19+980 | DR | - | 02/01 | 05-39 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 19+980 ÷ 20+140 | 30.04.2009 |  | 1:100 |  |
| PW | 20+160 | DR | - | 02/01 | 05-40 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 20+160 ÷ 20+320 | 30.04.2009 |  | 1:100 |  |
| PW | 20+340 | DR | - | 02/01 | 05-41 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 20+340 ÷ 20+500 | 30.04.2009 |  | 1:100 |  |
| PW | 20+520 | DR | - | 02/01 | 05-42 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 20+520 ÷ 20+680 | 30.04.2009 |  | 1:100 |  |
| PW | 20+700 | DR | - | 02/01 | 05-43 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 20+700 ÷ 20+860 | 30.04.2009 |  | 1:100 |  |
| PW | 20+880 | DR | - | 02/01 | 05-44 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 20+880 ÷ 21+040 | 30.04.2009 |  | 1:100 |  |
| PW | 21+060 | DR | - | 02/01 | 05-45 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 21+060 ÷ 21+240 | 30.04.2009 |  | 1:100 |  |
| PW | 21+260 | DR | - | 02/01 | 05-46 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 21+260 ÷ 21+420 | 30.04.2009 |  | 1:100 |  |

*Budowa Zachodniej Obwodnicy miasta Poznania w ciągu drogi krajowej nr S11 na odcinku Złotkowo – autostrada A2 i w ciągu drogi krajowej nr S5 w rejonie węzła „Głuchowo” autostrady A2*  
*ETAP I – S11 od węzła „Swadzim” – km 13+068,00 do węzła „Głuchowo” – km 25+693,57 oraz*  
*S5 w rejonie węzła „Głuchowo” – od km 0+000,00 do km 1+605,00 o łącznej dł. 14,23 km*  
*Projekt Wykonawczy. Tom 02/01. Trasa główna, ogrodzenie obwodnicy. Rewizja 00*

|    |        |    |   |       |       |    |    |                                                                |            |  |       |  |
|----|--------|----|---|-------|-------|----|----|----------------------------------------------------------------|------------|--|-------|--|
| PW | 21+440 | DR | - | 02/01 | 05-47 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 21+440 ÷ 21+540 | 30.04.2009 |  | 1:100 |  |
| PW | 21+560 | DR | - | 02/01 | 05-48 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 21+560 ÷ 21+660 | 30.04.2009 |  | 1:100 |  |
| PW | 21+680 | DR | - | 02/01 | 05-49 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 21+680 ÷ 21+840 | 30.04.2009 |  | 1:100 |  |
| PW | 21+860 | DR | - | 02/01 | 05-50 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 21+860 ÷ 22+020 | 30.04.2009 |  | 1:100 |  |
| PW | 22+040 | DR | - | 02/01 | 05-51 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 22+040 ÷ 22+200 | 30.04.2009 |  | 1:100 |  |
| PW | 22+220 | DR | - | 02/01 | 05-52 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 22+220 ÷ 22+360 | 30.04.2009 |  | 1:100 |  |
| PW | 22+380 | DR | - | 02/01 | 05-53 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 22+380 ÷ 22+540 | 30.04.2009 |  | 1:100 |  |
| PW | 22+560 | DR | - | 02/01 | 05-54 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 22+560 ÷ 22+660 | 30.04.2009 |  | 1:100 |  |
| PW | 22+680 | DR | - | 02/01 | 05-55 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 22+680 ÷ 22+840 | 30.04.2009 |  | 1:100 |  |
| PW | 22+860 | DR | - | 02/01 | 05-56 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 22+860 ÷ 22+960 | 30.04.2009 |  | 1:100 |  |
| PW | 22+980 | DR | - | 02/01 | 05-57 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 22+980 ÷ 23+080 | 30.04.2009 |  | 1:100 |  |
| PW | 23+100 | DR | - | 02/01 | 05-58 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 23+100 ÷ 23+260 | 30.04.2009 |  | 1:100 |  |
| PW | 23+280 | DR | - | 02/01 | 05-59 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 23+280 ÷ 23+460 | 30.04.2009 |  | 1:100 |  |
| PW | 23+480 | DR | - | 02/01 | 05-60 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 23+480 ÷ 23+640 | 30.04.2009 |  | 1:100 |  |

*Budowa Zachodniej Obwodnicy miasta Poznania w ciągu drogi krajowej nr S11 na odcinku Złotkowo – autostrada A2 i w ciągu drogi krajowej nr S5 w rejonie węzła „Głuchowo” autostrady A2*  
*ETAP I – S11 od węzła „Swadzim” – km 13+068,00 do węzła „Głuchowo” – km 25+693,57 oraz*  
*S5 w rejonie węzła „Głuchowo” – od km 0+000,00 do km 1+605,00 o łącznej dł. 14,23 km*  
*Projekt Wykonawczy. Tom 02/01. Trasa główna, ogrodzenie obwodnicy. Rewizja 00*

|    |        |    |   |       |       |    |    |                                                                       |            |  |       |  |
|----|--------|----|---|-------|-------|----|----|-----------------------------------------------------------------------|------------|--|-------|--|
| PW | 23+660 | DR | - | 02/01 | 05-61 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 23+660 ÷ 23+800        | 30.04.2009 |  | 1:100 |  |
| PW | 23+840 | DR | - | 02/01 | 05-62 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 23+840 ÷ 24+000        | 30.04.2009 |  | 1:100 |  |
| PW | 24+020 | DR | - | 02/01 | 05-63 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 24+020 ÷ 24+180        | 30.04.2009 |  | 1:100 |  |
| PW | 24+200 | DR | - | 02/01 | 05-64 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 24+200 ÷ 24+360        | 30.04.2009 |  | 1:100 |  |
| PW | 24+380 | DR | - | 02/01 | 05-65 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 24+380 ÷ 24+540        | 30.04.2009 |  | 1:100 |  |
| PW | 24+560 | DR | - | 02/01 | 05-66 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 24+560 ÷ 24+720        | 30.04.2009 |  | 1:100 |  |
| PW | 24+740 | DR | - | 02/01 | 05-67 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 24+740 ÷ 24+900        | 30.04.2009 |  | 1:100 |  |
| PW | 24+920 | DR | - | 02/01 | 05-68 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 24+920 ÷ 25+080        | 30.04.2009 |  | 1:100 |  |
| PW | 25+100 | DR | - | 02/01 | 05-69 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 25+100 ÷ 25+260        | 30.04.2009 |  | 1:100 |  |
| PW | 25+280 | DR | - | 02/01 | 05-70 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 25+280 ÷ 25+380        | 30.04.2009 |  | 1:100 |  |
| PW | 25+400 | DR | - | 02/01 | 05-71 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 25+400 ÷ 25+460        | 30.04.2009 |  | 1:100 |  |
| PW | 25+480 | DR | - | 02/01 | 05-72 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 25+480 ÷ 25+580        | 30.04.2009 |  | 1:100 |  |
| PW | 25+600 | DR | - | 02/01 | 05-73 | 00 | SW | Przekroje poprzeczne trasy głównej – S11<br>km 25+600 ÷ 25+660        | 30.04.2009 |  | 1:100 |  |
| PW | 25+680 | DR | - | 02/01 | 05-74 | 00 | SW | Przekroje poprzeczne trasy głównej – S11 i S5<br>km 25+680 ÷ 0+226.43 | 30.04.2009 |  | 1:100 |  |

*Budowa Zachodniej Obwodnicy miasta Poznania w ciągu drogi krajowej nr S11 na odcinku Złotkowo – autostrada A2 i w ciągu drogi krajowej nr S5 w rejonie węzła „Głuchowo” autostrady A2*  
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*S5 w rejonie węzła „Głuchowo” – od km 0+000,00 do km 1+605,00 o łącznej dł. 14,23 km*  
*Projekt Wykonawczy. Tom 02/01. Trasa główna, ogrodzenie obwodnicy. Rewizja 00*

|    |          |    |   |       |       |    |    |                                                                   |            |  |       |  |
|----|----------|----|---|-------|-------|----|----|-------------------------------------------------------------------|------------|--|-------|--|
| PW | 0+246.43 | DR | - | 02/01 | 05-75 | 00 | SW | Przekroje poprzeczne trasy głównej – S5<br>km 0+246.43 ÷ 0+406.43 | 30.04.2009 |  | 1:100 |  |
| PW | 0+426.43 | DR | - | 02/01 | 05-76 | 00 | SW | Przekroje poprzeczne trasy głównej – S5<br>km 0+426.43 ÷ 0+646.43 | 30.04.2009 |  | 1:100 |  |
| PW | 0+666.43 | DR | - | 02/01 | 05-77 | 00 | SW | Przekroje poprzeczne trasy głównej – S5<br>km 0+666.43 ÷ 0+826.43 | 30.04.2009 |  | 1:100 |  |
| PW | 0+846.43 | DR | - | 02/01 | 05-78 | 00 | SW | Przekroje poprzeczne trasy głównej – S5<br>km 0+846.43 ÷ 1+006.43 | 30.04.2009 |  | 1:100 |  |
| PW | 1+026.43 | DR | - | 02/01 | 05-79 | 00 | SW | Przekroje poprzeczne trasy głównej – S5<br>km 1+026.43 ÷ 1+186.43 | 30.04.2009 |  | 1:100 |  |
| PW | 1+206.43 | DR | - | 02/01 | 05-80 | 00 | SW | Przekroje poprzeczne trasy głównej – S5<br>km 1+206.43 ÷ 1+366.43 | 30.04.2009 |  | 1:100 |  |
| PW | 1+386.43 | DR | - | 02/01 | 05-81 | 00 | SW | Przekroje poprzeczne trasy głównej – S5<br>km 1+386.43 ÷ 1+546.43 | 30.04.2009 |  | 1:100 |  |
| PW | 1+566.43 | DR | - | 02/01 | 05-82 | 00 | SW | Przekroje poprzeczne trasy głównej – S5<br>km 1+566.43 ÷ 1+605.00 | 30.04.2009 |  | 1:100 |  |

LEGENDA



Projektowana nawierzchnia bitumiczna



Projektowana zielen



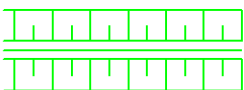
Linia rozgraniczająca teren inwestycji



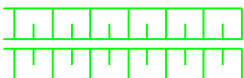
Zakres aktualizacji mapy



Skarpa



Rów opływowy



Rów trapezowy



Projektowany drenaż



Projektowany ściek drogowy "trójkątny"



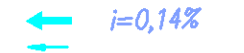
Projektowany ściek drogowy "korytkowy"



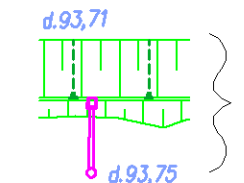
Projektowany ściek liniowy



Projektowany wpust



Kierunek spływu wody



Roboty ujęte w branży odwodnieniowej



Projektowana kanalizacja deszczowa



Projektowana krawędź jezdni



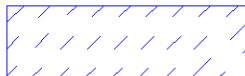
Projektowana stalowa bariera ochronna



Projektowana stalowa bariera ochronna rozbieralna



Projektowana betonowa bariera ochronna



Zasypanie wyrobiska zalanego wodą z dogęszczeniem metodą wibroflotacji



Poziom niwelacji terenu



Rzędna terenu projektowana



Projektowane osłony energochłonne



Projektowane osłony przeciwołnieniowe



Projektowane ekrany akustyczne



Ogrodzenie plecionka



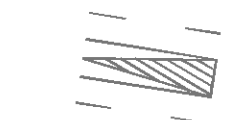
Ogrodzenie szlakowe



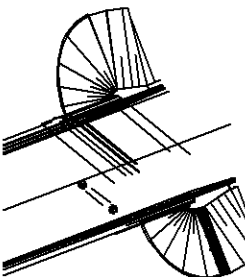
Brama



Furtka






Projektowane oznakowanie poziome



Projektowany obiekt inżynierski

|         |                 |      |                 |
|---------|-----------------|------|-----------------|
|         |                 |      |                 |
|         |                 |      |                 |
|         |                 |      |                 |
| Rewizja | Typ modyfikacji | Data | Imię i nazwisko |

|                                                                                       |                             |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                   |                                                                                       |                      |         |
|---------------------------------------------------------------------------------------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|----------------------|---------|
|   |                             | Z A M A W I A J Ą C Y:<br>Generalna Dyrekcja Dróg Krajowych i Autostrad<br>Oddział w Poznaniu<br>ul. Siemiradzkiego 5a,<br>60-763 Poznań                                                                                                                                                                                                                                     |                                                                                                                   |                                                                                       |                      |         |
| J E D N O S T K A P R O J E K T O W A:                                                |                             |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                   |                                                                                       |                      |         |
| LIDER:                                                                                |                             | KONSORCJUM FIRM                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                   | PARTNER:                                                                              |                      |         |
|  |                             | Scott Wilson Sp. z o.o.<br>ul. Chłapowskiego 29<br>60-965 Poznań                                                                                                                                                                                                                                                                                                             | ARCADIS Sp. z o.o.<br>ul. Puławska 182<br>02-670 Warszawa<br>BIURO WROCŁAW<br>ul. Kościuszki 29<br>50-011 Wrocław |  |                      |         |
| Stadium<br>Projekt Wykonawczy<br>(PW)                                                 |                             | Zadanie BUDOWA ZACHODNIEJ OBWODNICY MIASTA POZNANIA W CIĄGU DROGI KRAJOWEJ NR S11 NA ODCINKU ŻŁOTKOWO - AUTOSTRADA A2 I W CIĄGU DROGI KRAJOWEJ NR S5 W REJONIE WĘZŁA „GŁUCHOWO” AUTOSTRADY A2<br>ETAP I - S11 OD WĘZŁA „SWADZIM” - KM 13+068,00 DO WĘZŁA „GŁUCHOWO” - KM 25+693,57 ORAZ S5 W REJONIE WĘZŁA „GŁUCHOWO” - OD KM 0+000,00 DO KM 1+605,00 O ŁĄCZNEJ DŁ. 14,23 KM |                                                                                                                   |                                                                                       |                      |         |
| Nr tomu<br><b>02 / 01</b>                                                             |                             | Temat opracowania<br><br><b>TRASA GŁÓWNA, OGRODZENIE OBWODNICY</b>                                                                                                                                                                                                                                                                                                           |                                                                                                                   |                                                                                       |                      |         |
| Branża<br><br><b>Drogowa (DR)</b>                                                     |                             | Tytuł rysunku<br><br><b>LEGENDA</b>                                                                                                                                                                                                                                                                                                                                          |                                                                                                                   |                                                                                       |                      |         |
| Stanowisko                                                                            | Imię i nazwisko             | Nr upraw.                                                                                                                                                                                                                                                                                                                                                                    | Podpis                                                                                                            | Skala                                                                                 | Nr rys.              | Nr egz. |
| Projektant                                                                            | mgr inż. Piotr Kuczyński    | 81/86 PW<br>WKP/BD/2626/01                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                   | -                                                                                     | <b>02 - 00</b>       |         |
| Asystent projektanta                                                                  | mgr inż. Maria Szałkowska   | - - -                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                   | Nr umowy                                                                              | Data opracowania     |         |
| Sprawdzający                                                                          | mgr inż. Damian Lewandowski | 7131/55/P/2001<br>WKP/BD/2773/01                                                                                                                                                                                                                                                                                                                                             |                                                                                                                   | <b>131/2005</b>                                                                       | <b>30.04.2009 r.</b> |         |

|           |            |           |            |              |              |            |           |
|-----------|------------|-----------|------------|--------------|--------------|------------|-----------|
| Stadium   | Kilometraż | Branża    | Nr obiektu | Nr tomu      | Nr rysunku   | Nr rewizji | Biurowo   |
| <b>PW</b> | -          | <b>DR</b> | -          | <b>02/01</b> | <b>02-00</b> | <b>00</b>  | <b>SW</b> |